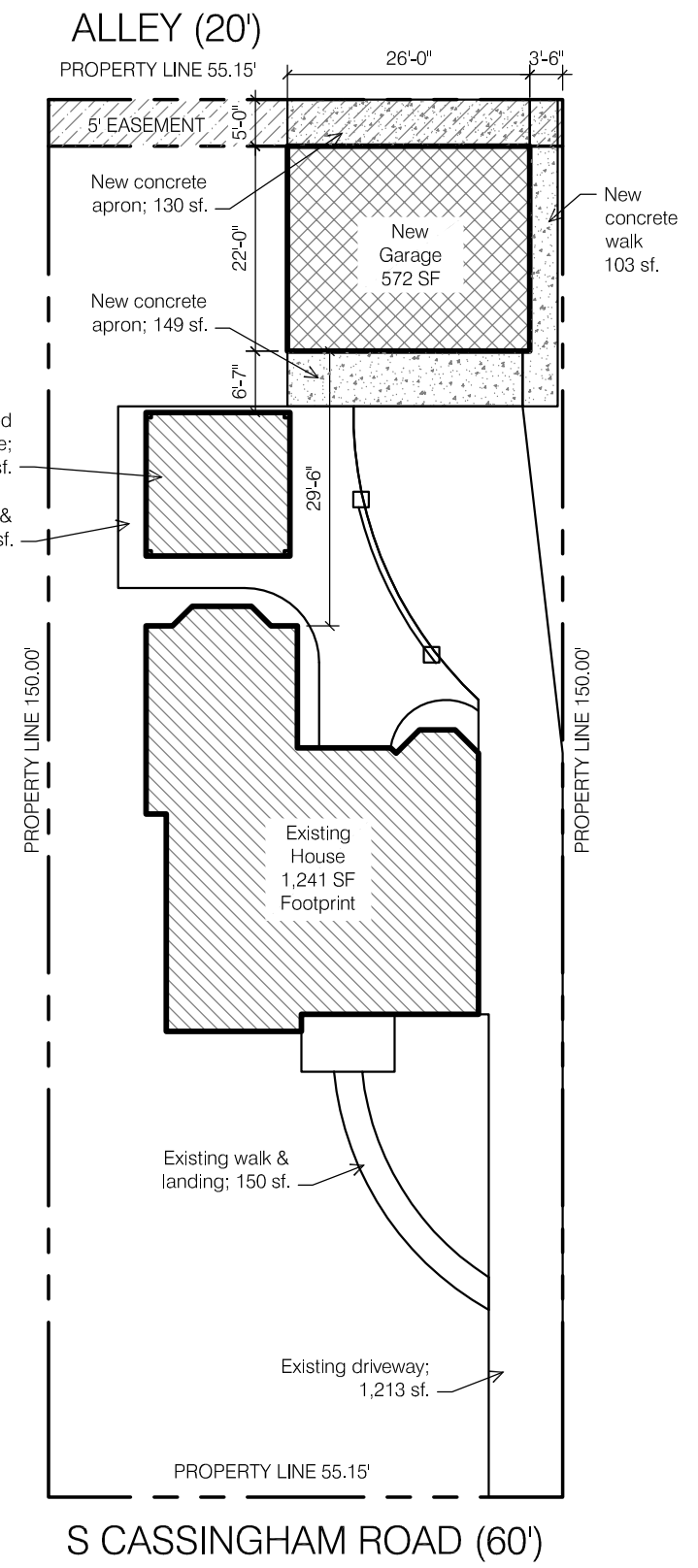
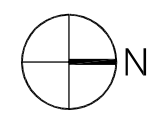


1 SITE PLAN - DEMO
SCALE: 1" = 20'-0"



2 SITE PLAN - NEW WORK
SCALE: 1" = 20'-0"



GENERAL INFORMATION

Address: 249 S Cassingham Road, Bexley, Ohio 43209
 Parcel: 020-003604-00
 Scope of Project: The project consists of the construction of a new 2-car detached garage with second floor space.
 Footprint New Detached Garage: 572 sf
 Second Floor Storage Area: 400 sf

Zoning: Bexley R-6

Lot Area & Lot Width	Actual	Zoning Req't
Lot Area:	8,272 sf	6,000 sf

Building Lot Coverage		
Existing House	1,241 sf	2,895 sf (35%)
Existing Patio Structure	238 sf	
New Detached Garage	572 sf	
Total Building Coverage	2,051 sf (25%)	Meets Zoning

Total Lot Coverage		
Total Building Coverage	2,051 sf	4,963 sf (60%)
Driveway	1,213 sf	
Rear Patio	488 sf	
New driveway apron	149 sf	
New alley apron	130 sf	
New side walk	103 sf	
Front Walk	150 sf	
Total Lot Coverage	4,284 sf (52%)	Meets Zoning

Detached Garage		
Garage SF:	572 sf	624 sf max
Garage 2nd Floor SF:	400 sf	286 sf (50% of 624sf) (variance)
Garage Height:	22'-5"	15'-0" (variance)
Garage Max Eave Height:	10'-0"	10'-0"
Garage Width:	26'	33' (60% of 55')
Garage Rear Setback:	5'-0"	3'-0"
Garage Side Setback:	3'-6"	3'-0"

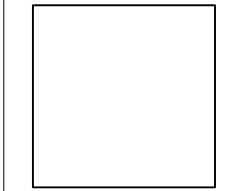
SHEET INDEX

A1.0	Site Plan & General Info	A3.1	Garage Exterior Elevations
A2.1	Garage Plans	A4.1	Garage Overall Sections
A2.2	Garage Foundation Plan	A4.2	Garage Wall Sections
A2.3	Garage Roof Plans	A5.1	Fire Ratings
A2.4	Garage Electric Plans	A5.2	Fire Ratings

DESIGN CRITERIA

Design Criteria:
 Wind Speed = 115 mph
 Seismic Category = A
 Weathering = Severe
 Frost Line Depth = 36"
 Termite = Moderate to Heavy
 Ice Barrier Underlayment = Yes, Required.
 Floor Live Load = 40 psf
 Snow Load Roof = 20 psf
 Foundation Concrete Compressive Strength = 2,500
 Slab Concrete Compressive Strength = 3,000; air-entrained 5%-7%

Architect:
 Brenda Parker
 The Columbus Architectural Studio
 614-586-5514
 brenda.parker@cbusarch.com



NEW DETACHED GARAGE
 249 S CASSINGHAM ROAD
 BEXLEY, OHIO 43209

Zoning Set

SCALE:
 As Noted

PROJECT NO.:


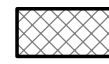


DATE:
 August 3, 2024

SHEET NO.:

A1.0

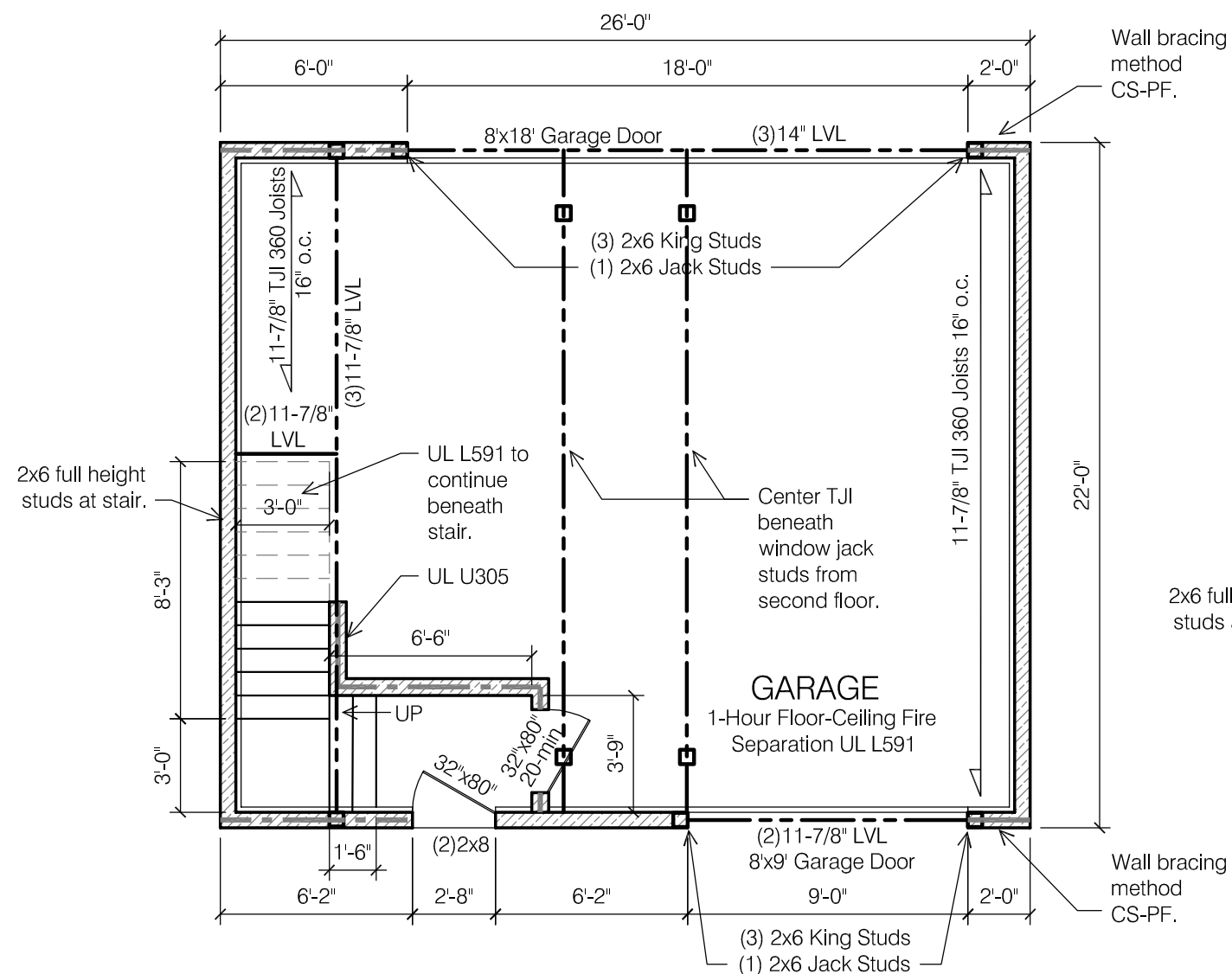
SITE PLAN & GENERAL INFO

WALL LEGEND:

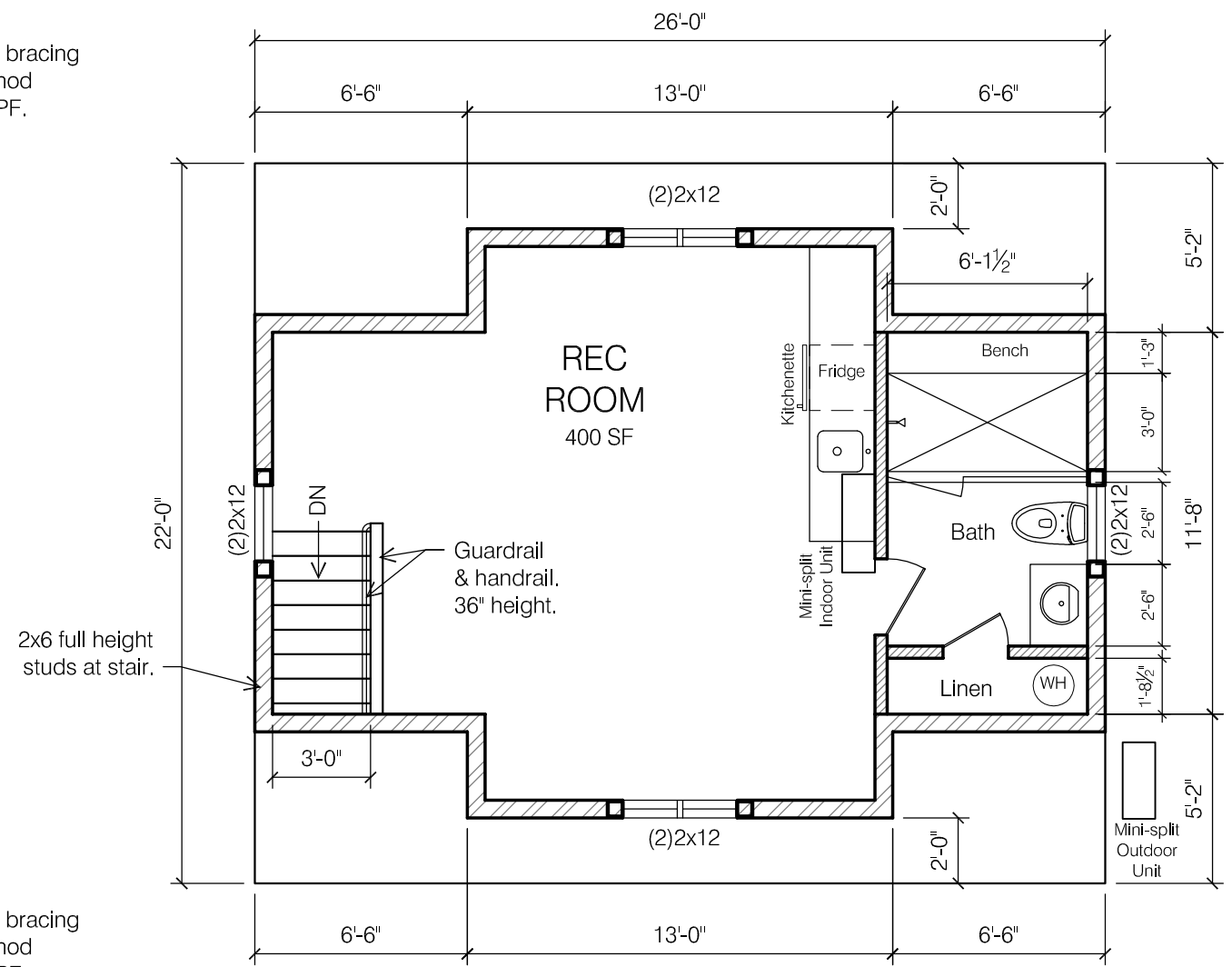
-  Demo existing wall or component as noted.
-  8" CMU foundation wall.
-  Second Floor Exterior walls: 2x6 wood stud @ 16" o.c.; fill cavity with R19 insulation; 1/2" gypsum wallboard at interior; 1/2" cement board at shower walls.
-  First Floor Exterior walls: 2x6 wood studs @ 16" o.c. (treated sill plate); fill cavity with R19 insulation; 5/8" Type X gypsum wallboard at interior.

GENERAL NOTES:

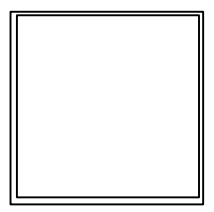
1. See Sheet for Fireblocking requirements.
2. All structural framing members are to be fastened per RCO Table 602.3.
3. Where floor joists are spliced over beams & bearing walls, install solid blocking per RCO 502.7
4. All stairs to comply with RCO 311.7.4. Maximum riser height is 8-1/4", minimum tread depth is 9", all risers to be uniform in height.
5. All handrails to comply with RCO 311.7.7. Height is to be 34"-36" above stair nosing. Handrails shall be continuous from top riser to lowest riser. Handrails shall return to the wall or newel post. Handrails shall be Type 1 (1-1/4"-1-1/2" circular) or Type 2 (Graspable finger recess).
6. Guardrails are required along walking surfaces 30" above the floor or grade. Guards shall be 36" height. Guards shall be configured to not allow passage of a sphere 4" in diameter. Triangular areas at bottom of rails can be 6" sphere.



1 GARAGE FLOOR PLAN
SCALE: 3/16" = 1'-0"



2 SECOND FLOOR PLAN
SCALE: 3/16" = 1'-0"



NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:
As Noted

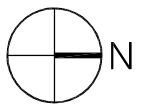
PROJECT NO.:

DATE:

August 3, 2024


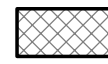

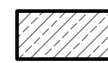
SHEET NO.

A2.1



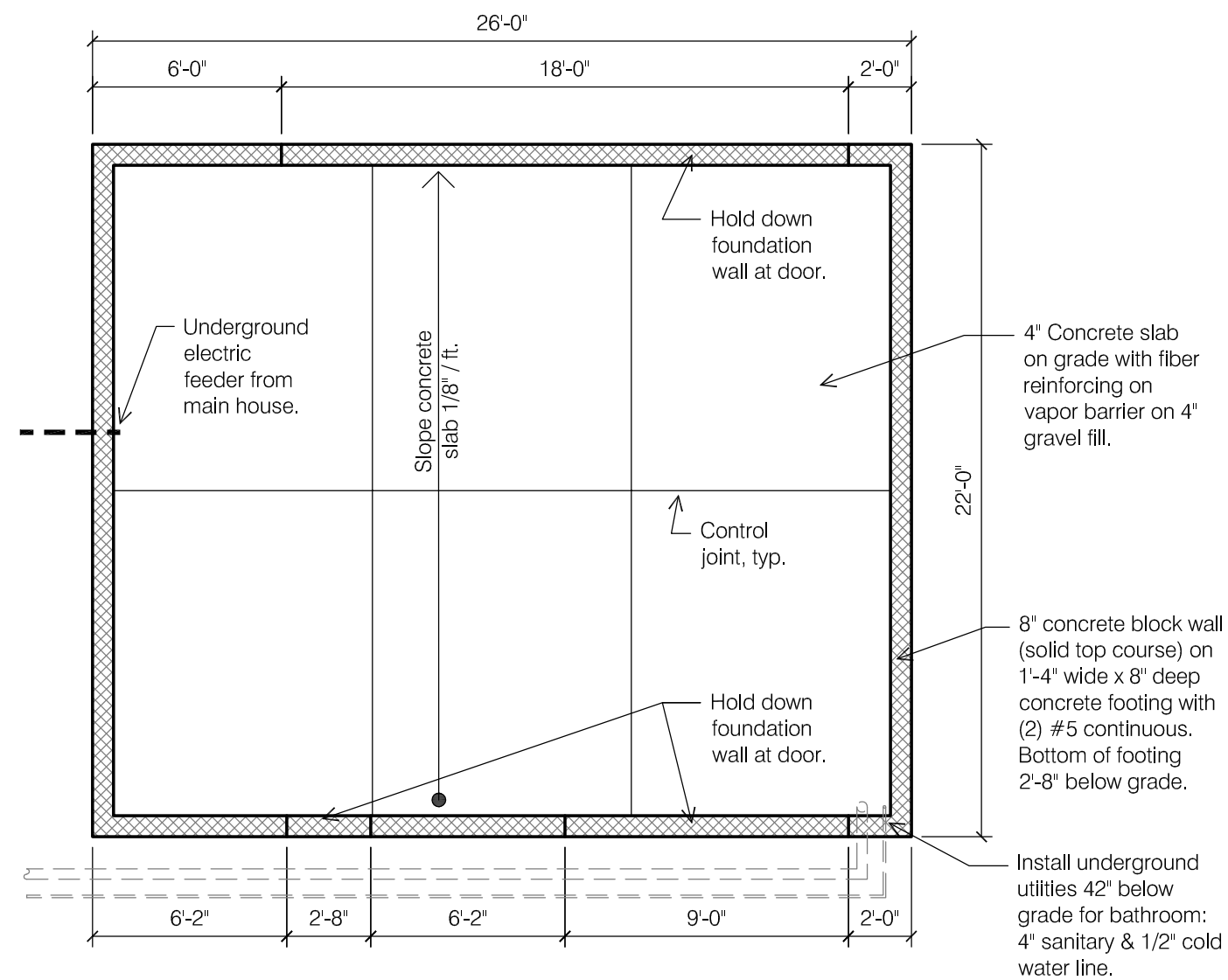
GARAGE PLANS

WALL LEGEND:

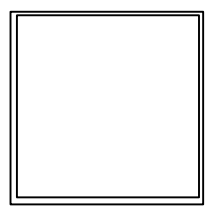
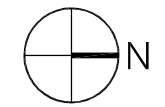
-  Demo existing wall or component as noted.
-  8" CMU foundation wall.
-  Second Floor Exterior walls: 2x6 wood stud @ 16" o.c.; fill cavity with R19 insulation; 1/2" gypsum wallboard at interior; 1/2" cement board at shower walls.
-  First Floor Exterior walls: 2x6 wood studs @ 16" o.c. (treated sill plate); fill cavity with R19 insulation; 5/8" Type X gypsum wallboard at interior.

GENERAL NOTES:

1. See Sheet for Fireblocking requirements.
2. All structural framing members are to be fastened per RCO Table 602.3.
3. Where floor joists are spliced over beams & bearing walls, install solid blocking per RCO 502.7
4. All stairs to comply with RCO 311.7.4. Maximum riser height is 8-1/4", minimum tread depth is 9", all risers to be uniform in height.
5. All handrails to comply with RCO 311.7.7. Height is to be 34"-36" above stair nosing. Handrails shall be continuous from top riser to lowest riser. Handrails shall return to the wall or newel post. Handrails shall be Type 1 (1-1/4"-1-1/2" circular) or Type 2 (Graspable finger recess).
6. Guardrails are required along walking surfaces 30" above the floor or grade. Guards shall be 36" height. Guards shall be configured to not allow passage of a sphere 4" in diameter. Triangular areas at bottom of rails can be 6" sphere.



1 GARAGE FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:
As Noted

PROJECT NO.:

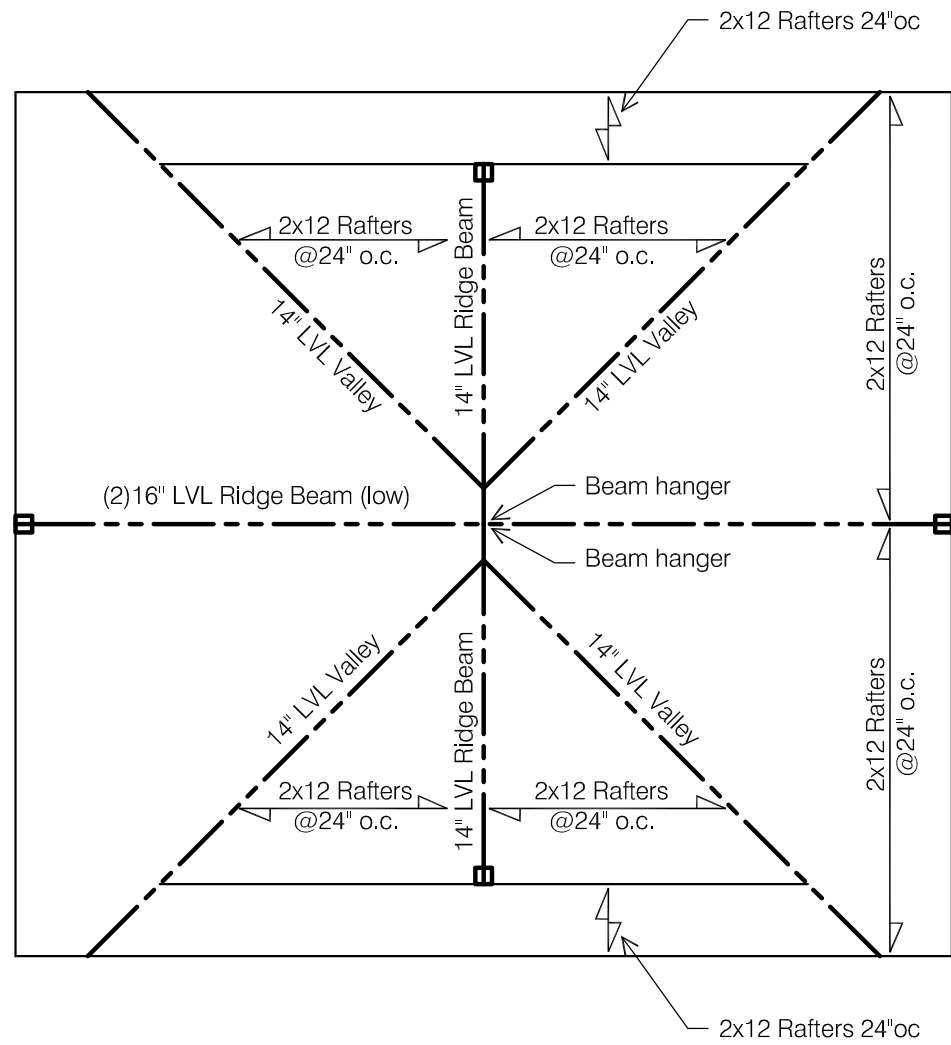
DATE:

August 3, 2024

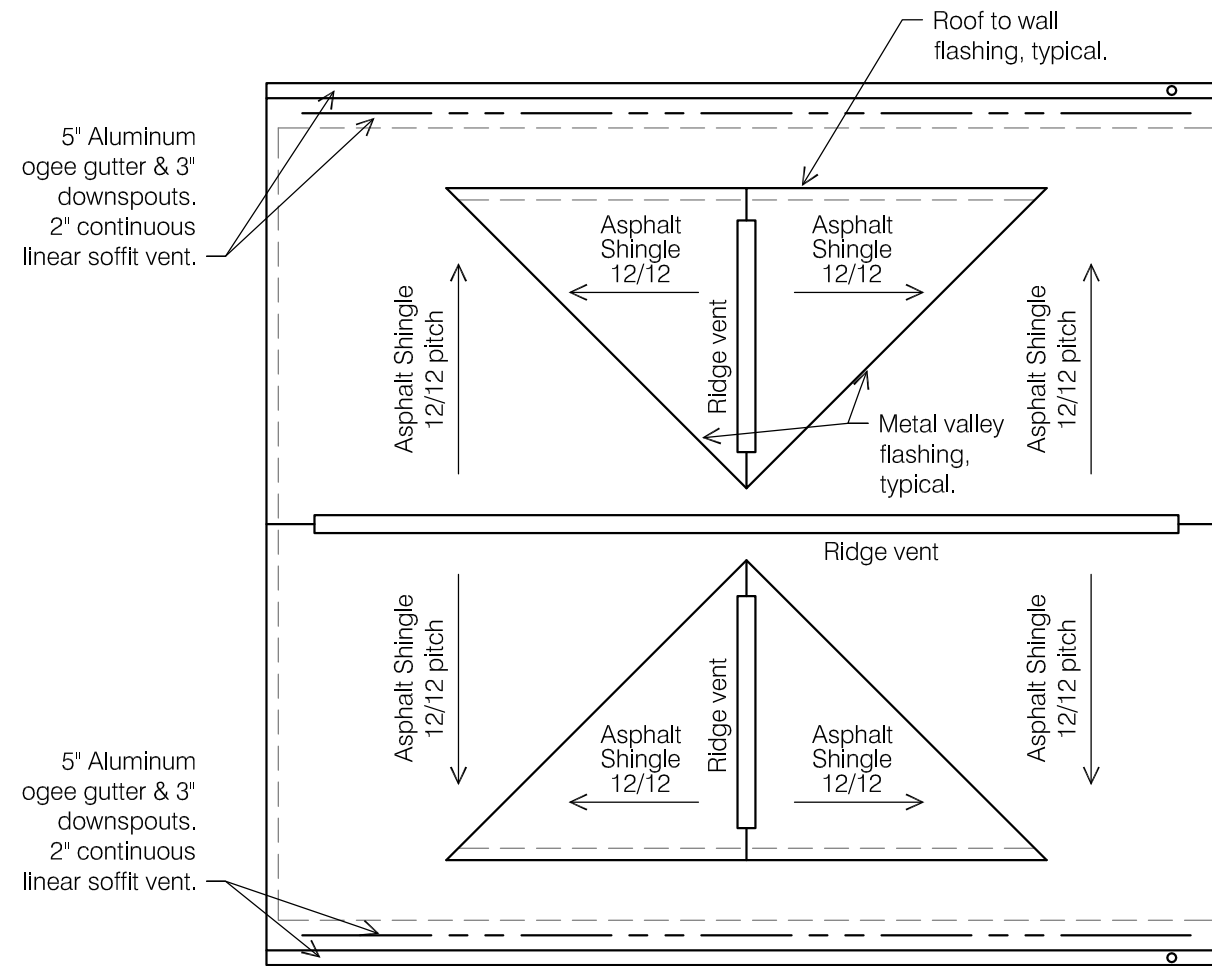
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A2.2

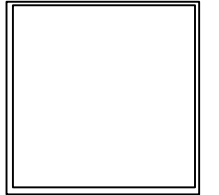
GARAGE FOUNDATION PLAN



1 GARAGE ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"



2 GARAGE ROOF PLAN
SCALE: 3/16" = 1'-0"



NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:
As Noted

PROJECT NO.:

DATE:
August 3, 2024

SHEET NO.

A2.3





1 GARAGE EAST ELEVATION
SCALE: 1/8" = 1'-0"



2 GARAGE SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

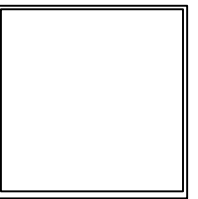


3 GARAGE WEST ELEVATION
SCALE: 1/8" = 1'-0"



4 GARAGE NORTH ELEVATION
SCALE: 1/8" = 1'-0"

WINDOW & DOOR SCHEDULE			
249 S Cassingham Road			
New Construction Windows to be Marvin Essential (fiberglass). New Construction Door to be fiberglass. Glass: LoE-272 with Argon. Exterior Color: TBD. Interior Color: TBD.			
#	NOMENCLATURE	OPERATION	NOTES
01	Single (Frame Size 3'-6" x 3'-8")	French Casement	(2) locations Meet egress 5.7 sf
02	Single (Frame Size 1'-8" x 3'-8")	Casement	(2) locations Tempered, labeled glass
11	Swing Door (2'-8" x 6'-8")	Swing Door	1/2-Light Tempered, labeled glass
EXTERIOR MATERIAL NOTES			
SIDING: HardiLap siding, smooth, 7" exposure. Trim to consist of: Corner Trim: Hardie 5-1/2". Casings: Hardie 3-1/2".			
SIDING AT DORMER: HardiPanel siding, stucco texture. 3-1/2" Hardie trim.			
GUTTERS: 5" aluminum ogee gutter & 3" downspouts on 1x6 aluminum-wrapped wood fascia.			
SOFFIT: Hardie Soffit, smooth, 2" continuous linear soffit vent.			
ROOFING: Asphalt shingle to match existing house.			
FOUNDATION: Concrete masonry unit foundation wall (buff-colored split face above grade).			
GARAGE DOOR: Clopay Coachman Series 1, Design 11, Windows REC14, No Hardware. See plans for sizes.			
OVERHANG: Custom overhang with standing seam metal roofing, Hardie Soffit at ceiling. All components to be smooth finish.			



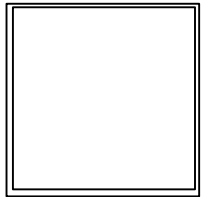
NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:
As Noted
PROJECT NO.:

DATE:
August 3, 2024
SHEET NO.

GARAGE ELEVATIONS



NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:
As Noted

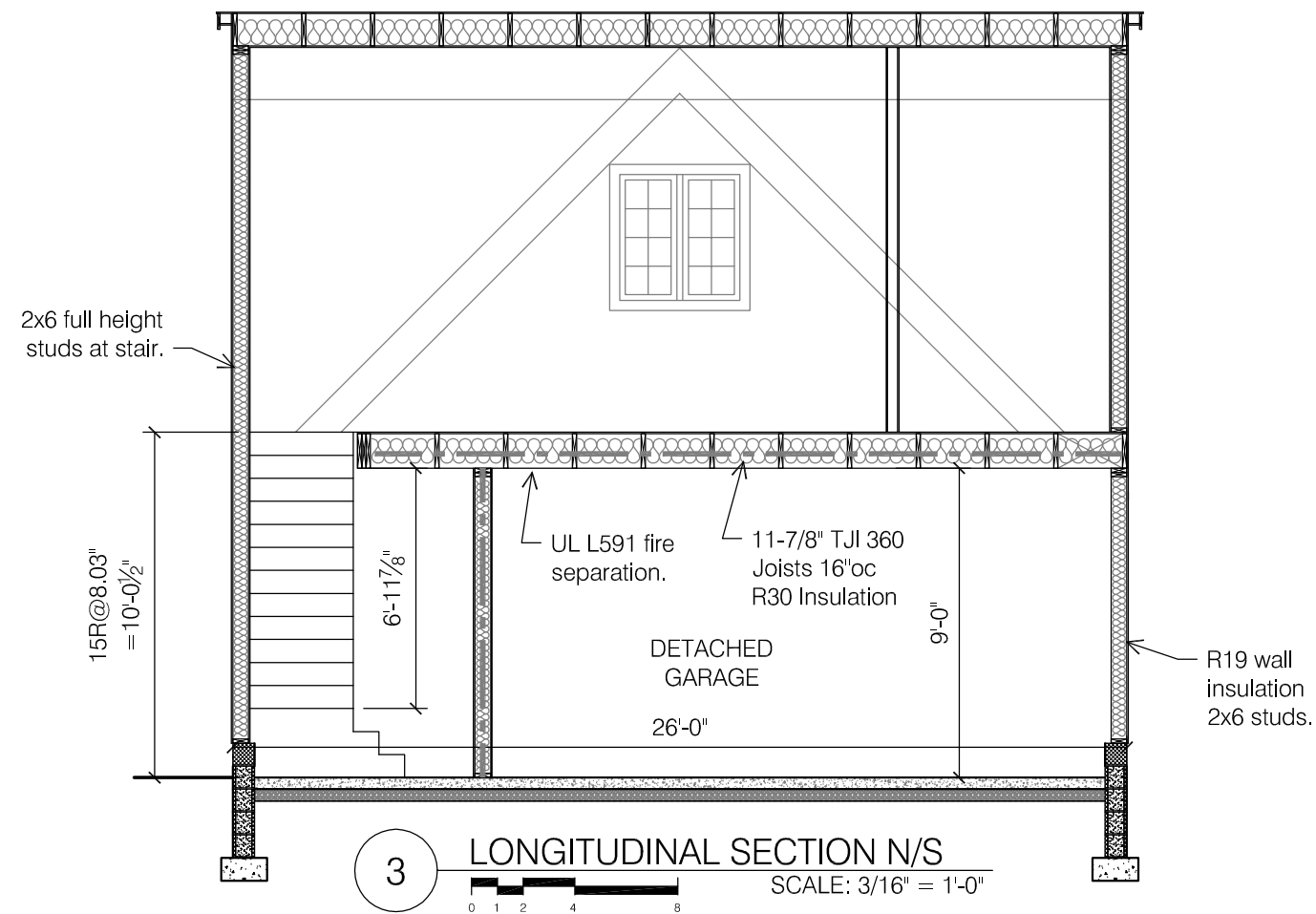
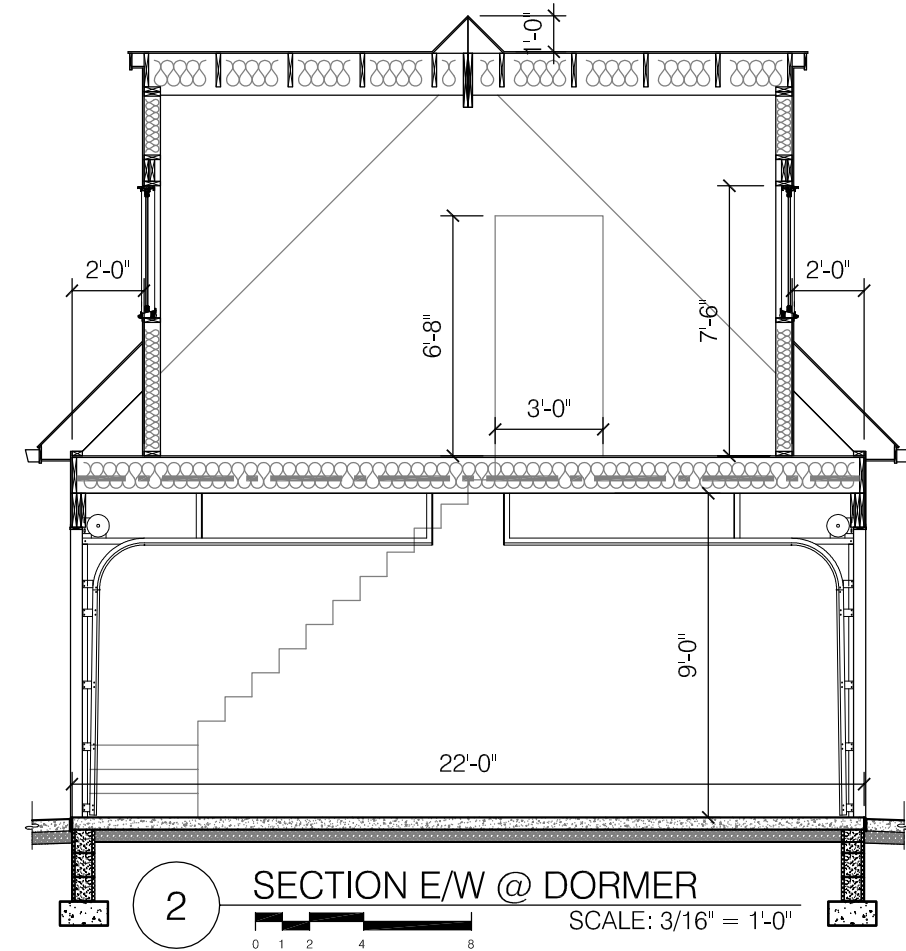
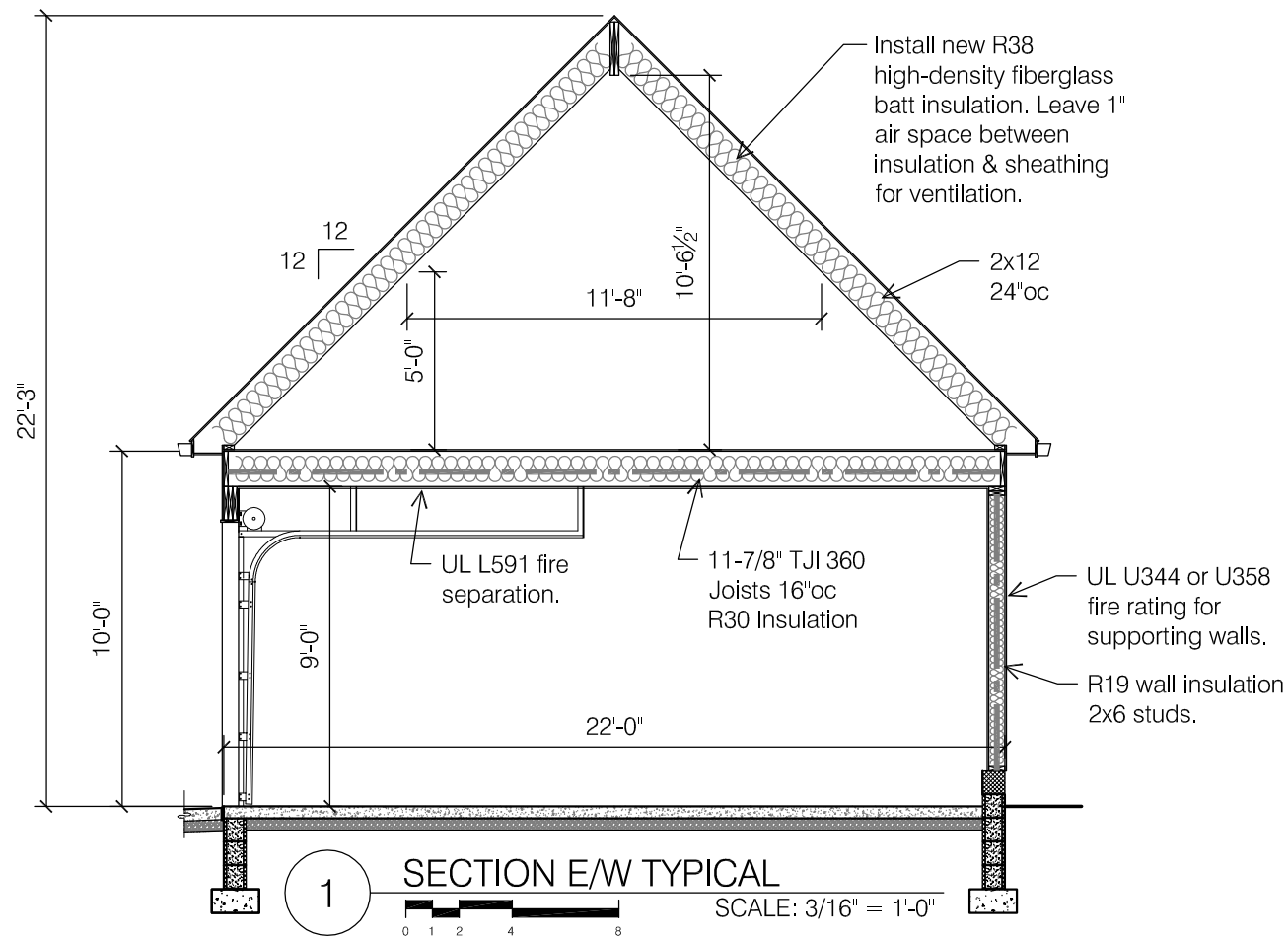
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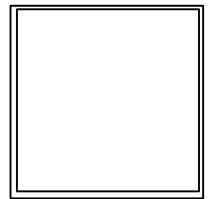
DATE:
August 3, 2024

SHEET NO.

A4.1

GARAGE OVERALL SECTIONS





NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:
As Noted

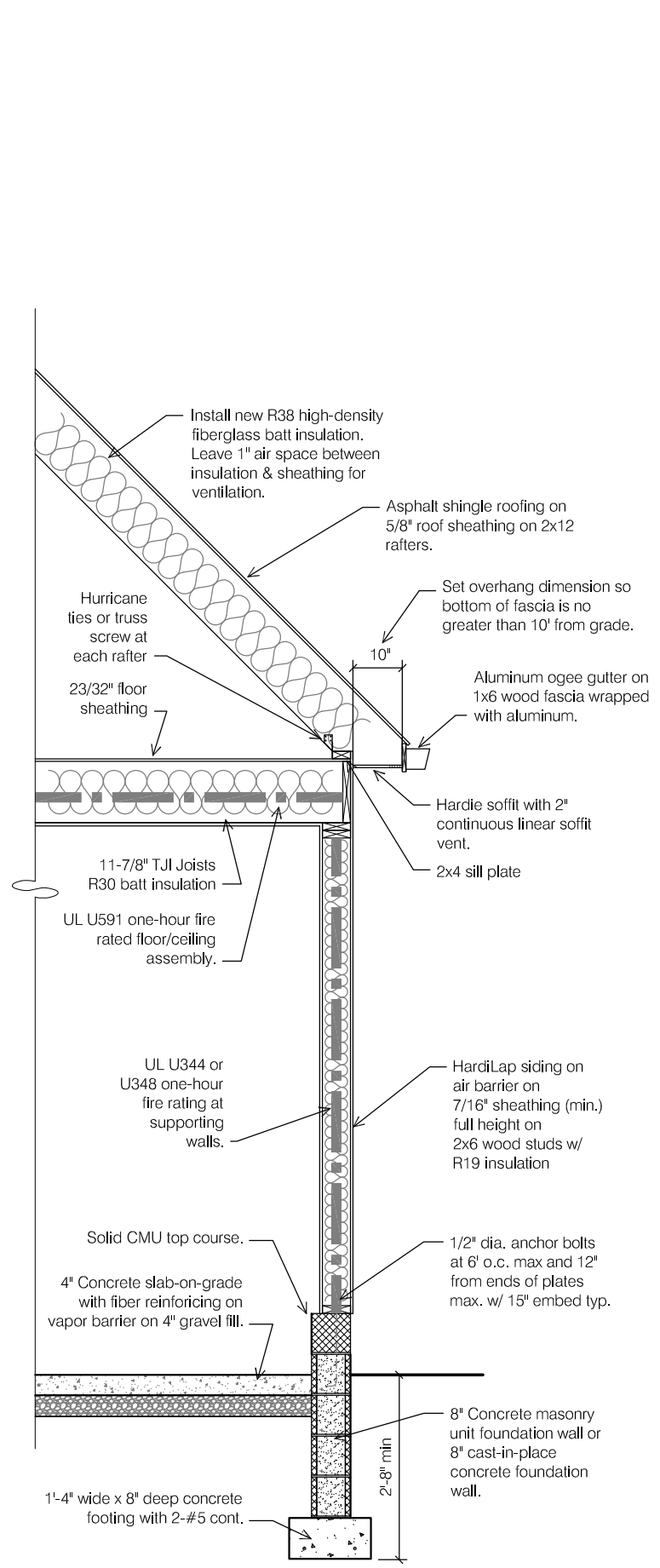
PROJECT NO.:

DATE:
August 3, 2024

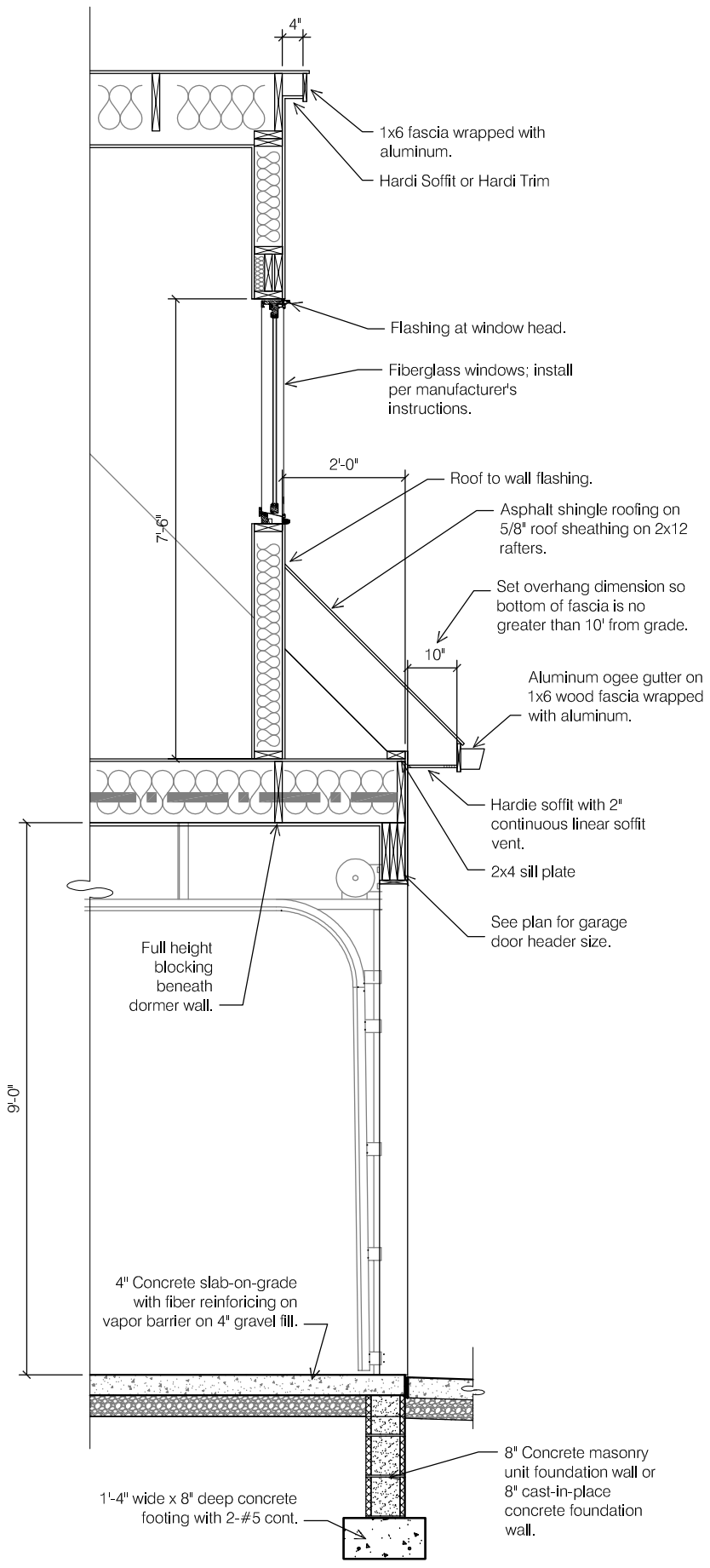
SHEET NO.

A4.2

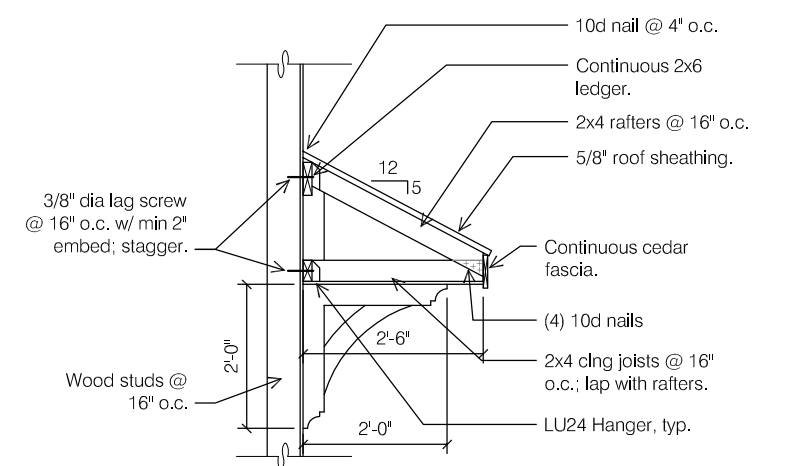
GARAGE WALL SECTIONS



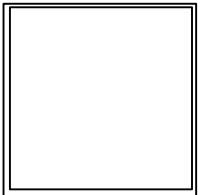
1 WALL SECTION AT EAVE
SCALE: 3/8" = 1'-0"



2 WALL SECTION AT DORMER
SCALE: 3/8" = 1'-0"



3 OVERHANG DETAIL
SCALE: 3/8" = 1'-0"



NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:
As Noted

PROJECT NO.:

DATE:
August 3, 2024

SHEET NO.

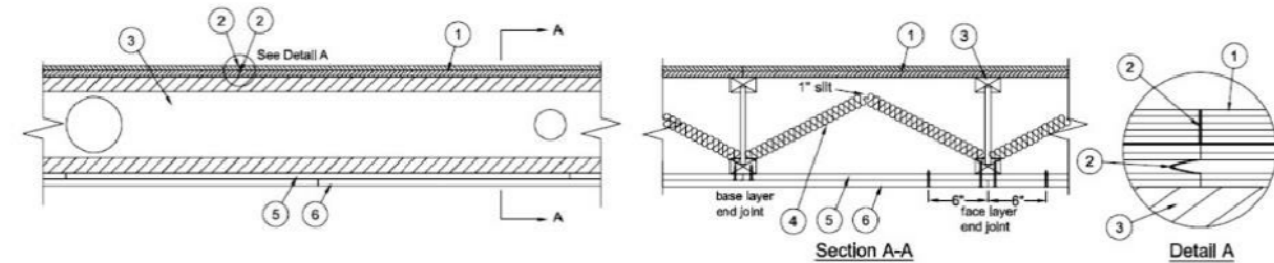
A5.1

FIRE RATINGS

Unrestrained Assembly Rating — 1 Hr
Finish Rating — See Items 5 and 5A

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide [BXUV](#) or [BXUV7](#)

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Building Units* — Subflooring — Nom. 1-1/8 in. thick T & G laminated composite plywood subfloor structural panels. Subfloor panels to be perpendicular to the joists (Item 3) with end joints staggered 4 ft. T & G side of panel to be in contact with the joists. End joints centered over top chord of joists. Subfloor panels secured to joists with construction adhesive and #8 by 2 in. long deck construction screws or 2 in. long nails spaced 12 in. OC in the field and 6 in. OC at the end joints. Adhesive applied as 3/8 in. diam bead to top chord of joists.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietWood 631.

2. Fill Void or Cavity Material* — Sealant — (Optional) — 3/8 in. diam bead applied between tongue-and-groove joints of subflooring (Item 1) and 3/8 in. diam bead applied above the tongue-and-groove joints of subflooring (Item 1).

3M COMPANY 3M FIRE PROTECTION PRODUCTS — Types FireDam 150+, CP 25WB+, IC 15WB+

3. Structural Wood Members — Joists — Min 9-1/2 in. deep "I" shaped wood joists spaced at a max of 24 in. OC. Joists shall conform to ICC-ES ESR-1153 Report. Joist top and bottom chords minimum 1-1/4 in. deep by 1-3/4 in. wide and constructed of either Microllam laminated veneer lumber (LVL) or TimberStrand laminated strand lumber (LSL). Webs constructed of minimum 3/8 in. thick Performance Plus OSB, PS2, Exposure 1. Installation shall be in accordance with manufacturers published literature.

4. Batts and Blankets* — Mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. Nom 1-1/2 in. thick, 24 or 25 in. wide, min density of 2.0 pcf. A 1 in. deep slit shall be cut down the length of each blanket prior to being friction-fitted and tented between joists, with the blanket sides resting on top of the joist bottom flanges or resilient channels, as shown in the above illustration.

5. Wall and Partition Facings and Accessories* — Direct Attach System — Nominal 5/8 in. thick, 4 ft wide laminated composite panels, installed as base layer with long dimensions perpendicular to joists, and end joints of panels centered at the joists. Secured directly to bottom chord of the joists with 1-5/8 in. long Type S bugle-head screws spaced 12 in. OC in the field and at the butted end joints. Screws located 3/4 in. from side edges and 5/8 in. from end joints. Butted end joints in adjacent lengths staggered 48 in. Calcium silicate layer of panel to be in contact with the joists. Finish rating is 38 minutes when composite panel (Item 5) and gypsum board (Item 6) are directly attached to joists.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock 525, QuietRock 528

6. Gypsum Board* — Direct Attach System — Nominal 5/8 in. thick, 4 ft wide gypsum board panels, installed as face layer with long dimensions perpendicular to joists, and end joints of panels centered at the joists. Secured through the base layer (Item 5) to the joists with 2-1/4 in. Type S bugle head screws spaced 8 in. OC in the field and at the butted end joints. Screws located 5/8 in. from side edges and 1/2 in. from end joints. Butted end joints of face layer staggered 48 in. in adjacent rows and offset 24 in. from the butted end joints of the base layer (Item 5). Side joints of face layer to be offset min 24 in. from side joints of base layer. In addition to the screws into the joists, face layer of gypsum board secured to the base layer panels (Item 5) with 1-5/8 in. long coarse thread screws spaced 8 in. OC and located 6 in. from both sides of the face layer end joints. Screws located 4 in. from the side edges. Outer layer shall be finished as described in Item 7. When Alternate Structural Wood Members, Item 3A, are used, joist spacing is reduced from 32 in. OC to 24 in. OC.

1 Hour FIRE	Design #	GA File #	STC - 35	
	UL U305	WP 3605	Sound Test #	NGC - 2403

5/8" (15.9 mm) Fire-Shield Gypsum Board or 5/8" XP Fire-Shield Gypsum Board applied horizontally or vertically to each side of 2x4 wood studs 16" o.c. with 6d coated nails, 1-7/8" long, 0.0915" shank, 1/4" heads, 7" o.c. at edges. Joints of square edge, bevel edge or predecorated gypsum board may be left exposed. Joints staggered 16" on opposite sides.

[Link to .PDF file](#)
[Link to .DWG file](#)
[Link to .DWG/Text file](#)

A UL U305 - DWELLING SEPARATION ONE-HOUR WALL
NOT TO SCALE

B UL L591 TJI FLOOR-CEILING ASSEMBLY ONE-HOUR
NOT TO SCALE

Design No. U344

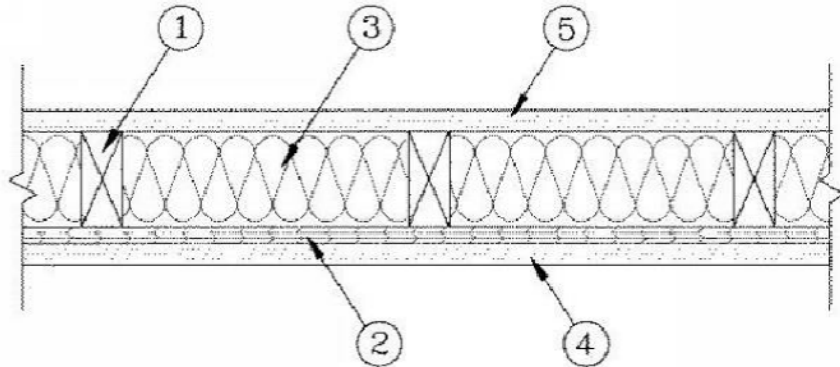
March 11, 2020

Bearing Wall Rating — 1 Hr.

Finish Rating — 26 Min.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Wood Studs** — Nom 2 by 4 in. spaced 24 in. OC, laterally braced, and effectively fire stopped at top and bottom.

2. **Wood Structural Panel Sheathing** — Nom 15/32 in. thick, 4 ft wide APA Rated Sheathing 32/16. Exposure 1, plywood or oriented strand board (OSB) per PS1, PS2 or APA Standard PRP-108. Installed with long dimension of sheet (strength axis) or face gran of plywood, parallel with studs. Vertical joints centered on studs and staggered one stud space from wallboard joints. Horizontal joints backed with nom 2 by 4 in. wood backing. Attached to studs on exterior side of wall with 6d cement coated steel box nails spaced 12 in. OC along interior studs and 6 in. OC at perimeter of panels.

3. **Batts and Blankets*** — 3-1/2 in. thick foil-faced glass fiber batts. Supplied in rolls 23 in. wide. Density to be nom 0.70 pcf. Friction-fitted to completely fill the stud cavity.

See **Batts and Blankets*** (BZJZ) category for names of Classified Companies.

3A. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only.

4. **Gypsum Board*** — 5/8 in. thick, 4 ft wide, applied horizontally or vertically. Attached to studs through plywood sheathing with 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam head nails spaced 7 in. OC along studs and at perimeter of panels. When used in widths other than 48 in., wallboard is to be installed horizontally. Joints exposed or covered with tape and compound.

When Item 6, **Steel Framing Members***, is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

5. **Gypsum Board*** — 5/8 in. thick, 4 ft wide applied horizontally or vertically. Attached to studs or blocking at 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam heads. When used in widths other than 48 in., wallboard to be installed horizontally. Joints exposed or covered with tape and compound.

When Item 6-6D, **Steel Framing Members***, is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

Design No. U348

March 01, 2017

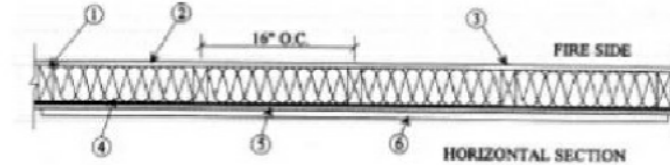
Bearing Wall Rating — 1 Hr

(EXPOSED TO FIRE ON INTERIOR FACE ONLY)

For Wood Studs, Finish Rating — 23 min

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Wood Studs** — Nom 2 by 4 in., spaced 16 in. OC in with two 2 by 4 top and one 2 by 4 bottom plates. As an option, nom 2 by 6 in., spaced 24 in. OC with two 2 by 6 top and one 2 by 6 bottom plates may be used in lieu of 2 by 4 studs and plates. Studs effectively fire stopped.

2. **Gypsum Board*** — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. Nom. 5/8 in. thick, 4 ft. wide, applied vertically, and nailed to studs and bearing plates 7 in. OC. with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam. and 1/4 in. diam. head. When steel framing is substituted for wood framing, 1 in. long Type S steel screws are used in lieu of nails.

3. **Joints and Nailheads** — Wallboard joints covered with tape and joint compound. Nail heads covered with joint compound.

4. **Batts and Blankets*** — Faced or unfaced mineral fiber insulation, 3-1/2 in. thick, nom 3.0 pcf, pressure fit in the wall cavity between stud, plates, and cross bracing.

See **Batts and Blankets*** (BZJZ) category for names of Classified manufacturers.

4A. **Batts and Blankets*** — As an Alternate to Item 4 when wood studs are used. - As an Alternate to Item 4 when steel studs are used, but Optional Items 6D, 6E, or 6F are required. Faced or unfaced glass fiber batts, 3-1/2 in. thick, having a min density of 0.9 pcf (min R-13 thermal insulation rating), pressure fit in the wall cavity between stud, plates, and cross bracing.

See **Batts and Blankets*** (BZJZ) category for names of Classified manufacturers.

5. **Building Units*** — Building units placed with the laminate face against, and nailed to, the wood framing with 1-7/8 in. long, 6d nails, spaced 6 in. OC. on the perimeter and 12 in. OC. in the field. When steel framing is substituted for wood framing, Type S steel screws are used in lieu of nails with a minimum penetration length through the steel stud of 3/8 in.

BARRIER TECHNOLOGY CORP — Type Blazeguard 1-Side

LOUISIANA-PACIFIC CORP — Type LP FlameBlock 1-Side

6. **Exterior Facings** — Installed in accordance with the manufacturer's Installation Instructions.

6A. **Vinyl Siding*** — (Optional) - UL Classified exterior plastic siding (molded plastic), fastened to the building units with nails or screws, at the locations specified by the manufacturer.

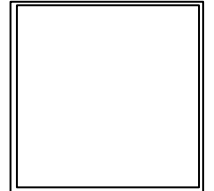
6B. **Particle Board Siding*** — (Optional) - Oriented strand board, wafer board, or hard board exterior building sidings including patterned panels.

6C. **T-1-11 Plywood** — (Optional) - American Plywood Association rated siding series 303 including textures, bough sawn, MDO, brushed, channel grooved, and lap siding.

6D. **Cementitious Stucco** — (Optional unless Item 1A, Steel Studs, are used in conjunction with Item 4A, Batts and Blankets) - Portland cement or synthetic stucco systems with self-furring metal lath or adhesive base coat. Thickness from 3/8 in. to 3/4 in. depending on system. When used with Steel Studs (Item 1A) and Batts and Blankets (Item 4A), minimum thickness is increased to 1/2 in.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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NEW DETACHED GARAGE
249 S CASSINGHAM ROAD
BEXLEY, OHIO 43209

Zoning Set

SCALE:

As Noted

PROJECT NO.:

DATE:

August 3, 2024

SHEET NO.

FIRE RATINGS

A5.2

B

UL U344 ONE-HOUR SUPPORTING WALL

NOT TO SCALE

EXTERIOR SUPPORTING WALL - OPTION 1

C

UL U348 ONE-HOUR SUPPORTING WALL

NOT TO SCALE

EXTERIOR SUPPORTING WALL - OPTION 2







