

Spec. Div. 1: General Requirements

BUILDING CODE: All work under this contract shall be subject to the RESIDENTIAL CODE OF OHIO for One-, Two- and Three-Family Dwellings, latest edition, and all municipal and local laws and regulations.
CONTRACT: The Owner will enter into a working relationship with the selected General Contractor based on an agreement format proposed by using "Agreement Between Owner and Contractor for Construction Projects of Limited Scope-AIA Document A107," which shall include The General Conditions of A107 which are hereby made a part of these Specifications and The Contract Documents. The Contract Documents, including The Drawings, Specifications, and General Conditions are complimentary and what is required by one shall be as if required by all.

Generally, the Specifications take precedence over the Drawings and The General Conditions of the Contract take precedence over the Specifications. Should conflicts occur within the Contract Documents, The Contractor is assumed to have based his cost on the more expensive method of performing the Work unless The Architect has issued clarification before submittal of the Bid Proposal or The Contractor has specifically clarified the issue within his proposal.

When applying for subsequent draws, The Contractor shall submit to The Owner an Affidavit of Release of Liens (AIA-G708) for amounts previously paid to The Contractor by The Owner or a lending institution. The Release of Liens (AIA-G708) shall be presented from himself, all subcontractors, suppliers of material and equipment and all performers of Work, labor or services.

INSURANCE: Before beginning the Work, The Contractor shall provide to The Owner a Certificate of Insurance for an amount equal to the Contract Amount and shall also provide a copy of his current Worker's Compensation Certificate. He shall also provide proof of Builder's Risk and Liability Insurance. The Owner will obtain or increase existing Homeowner's Insurance to cover work incorporated into the job.

JOB SITE SECURITY/SAFETY/CONDITION: Barriers, barricades, signs or warning lights, and other safety devices shall be provided to insure safety to The Owner, workers, and the general public from hazardous conditions which may arise as a result of the work. The Contractor shall utilize all means necessary during demolition and construction to insure that all new construction and existing finished spaces are thoroughly protected from vandalism, theft, water and wind damage; and shall remedy/replace, at The Contractor's expense, any such damage that does occur.

Debris: On a daily basis The Contractor shall place all construction debris in a mobile refuse container, located where agreed with The Owner, to insure a safe, orderly and clean construction site. All debris shall be removed at completion of the project. No burying or burning of construction debris shall be permitted unless approved in advance by The Owner.

PORTABLE TOILET: The Contractor shall provide a portable toilet for use by all personnel, located where directed by The Owner, which shall be cleaned and serviced on a regular basis. The Contractor may use existing facilities only if The Owner has provided written approval prior to signing a contract. Expectations of cleaning and use shall be clearly discussed in advance.

MATERIALS PROTECTION/ STORAGE: Construction materials stored outside shall be covered and protected with weatherproof tarps. Wood and similar materials shall not be stored in contact with the ground.

WARRANTY: The Contractor shall provide to The Owner a minimum one-year guarantee on materials, equipment and workmanship to commence at the point of substantial completion for all contract work. The Contractor shall furnish The Owner with copies of all equipment guarantees and Owner's Manuals.

WORK: Before submitting his Bid Proposal, The Contractor shall visit the Project Site and familiarize himself with existing conditions and shall carefully study and compare the Contract Documents with the existing conditions and report to The Architect any errors, discrepancies, inconsistencies or omissions, and materials, products, systems, procedures, and construction methods shown or specified which are incorrect, inadequate, obsolete, or unsuitable for actual field conditions discovered, or which The Contractor would not warrant as required by The Contract Documents.

Prior to ordering materials or doing work at the site, The Contractor shall verify dimensions and conditions affecting materials to be ordered or work to be done, to insure that information shown on The Contract Documents accurately reflects actual conditions, and shall not proceed without The Architect's instructions if there are omissions, errors, discrepancies or inconsistencies.

The Contractor shall provide all labor, material, equipment, apparatuses and accessories required to complete all work shown on these drawings, or reasonably implied and necessary for the completion of the project. All materials and equipment to be installed following manufacturers' instructions and best construction methods and standards.

The Contractor shall obtain and pay for all required permits, royalties, shipping charges, fees and licenses and shall arrange for all inspections necessary for the proper execution of the Work. Approval Certificates shall be posted in a prominent, central location and per local authority's requirements.

Substitutions for items herein specified, or shown on Drawings, must be approved by The Architect. The phrase "or equal" in the Drawings or Specifications shall be interpreted as meaning equal in the opinion of the Architect, and must have his approval prior to ordering.

A copy of the Drawings and Specifications, any Addenda issued before or during construction, and all detail drawings submitted during construction, shall be kept and maintained in a suitable condition on the site for use by the Owner, Architect, General Contractor, and all tradesmen.

EXISTING CONDITIONS:

SELECTIVE DEMOLITION: Where any portion of an existing structure is to be removed, the remaining structure shall be shored, braced or underpinned as may be required prior to beginning the demolition. Temporary support shall remain in place until permanent support or construction is completed. Contractor to include removal, termination, or relocation of all existing electrical, plumbing, HVAC, phone/TV antenna or cable/stereo wiring, central vacuum, electronic pet barriers, lawn irrigation systems, or other devices as required for demolition or new construction.

PROJECT CLEANING: At the completion of the project, and during the project as may be appropriate, The Contractor shall thoroughly clean all work, including, but not limited to, the following: removal of mortar spatters or stains from all interior and exterior masonry; removal of masonry waterproofing above finish grade; removal of any spatters or stains from exterior siding, roofing, or other exterior materials; removal of all stains from all exposed concrete work, except for Crawl Space concrete; removal of stains and cleaning of counter tops, ceramic tile, plumbing fixtures and fittings, etc.; thorough cleaning of faucet screens and plumbing traps; vacuuming of all floors, followed by wet mopping of hardwood, ceramic, stone or other hard surface floors; dusting of all walls, ceilings, trim, doors, windows, cabinets, etc., including the interiors of all cabinets; removal of all window and door stickers, paint or stain overlapping on glass, and other glass spatters; polishing of all windows, mirrors or other glass. In addition, The Contractor shall be responsible for the removal, including final vacuuming, of all construction, or other, debris from joist, rafter, stud, or other cavities prior to concealing with flooring, drywall

Spec. Div. 2: Site Work and Excavation

SITE ACCESS: The Contractor shall access the site, stockpile construction materials and park construction vehicles and equipment where agreed with The Owner. Work shall be executed in a manner to minimize damage to existing drives, walks, lawns, plantings, trees, house, utilities, etc. Any such items that are damaged by construction activities shall be repaired to their original condition at The Contractor's expense.

The Contractor shall remove topsoil in areas of new excavations, if any, and stockpile where agreed with The Owner for reuse as finish grading material. The Contractor shall limit site disturbance to minimum required for access and mobility.

SOIL EROSION PROTECTION: Slopes greater than 12% and open and exposed soil areas including any stockpiles of subsoil or topsoil shall be enclosed with straw wattles, fiber rolls, straw bale dams, or other recycled materials to prevent soil from washing onto adjacent property or into drainage paths. Such barriers shall be maintained during all construction phases of work, through final grading.

TREE PROTECTION: The Contractor shall actively protect all trees onsite unless requested otherwise by The Owner or on the drawings. Before heavy equipment is employed on site, PROTECTION FENCING must be erected where required to prevent root damage by equipment travel within tree drip line. The Contractor shall obtain approval of The Owner prior to removal of any trees not directly within perimeter of new construction.

TREE/ PLANTINGS REMOVAL:

All trees to be removed will be handled directly by The Owner, including stump grinding, prior to the start of excavation work. The Owner shall remove all plantings in area of construction that are to be saved, prior to the start of excavation work.

EXCAVATION: Prior to beginning any excavation work, The Contractor shall ascertain the location of all underground utilities and services, using utility company location services if necessary, and carefully avoid damage to these items, or interruption of service, to include electric, phone, water, gas, sanitary/storm sewers, etc. The cost to repair and restore any damage to such services shall be paid for by The Contractor.

The Contract Documents have been prepared with an assumed soil bearing capacity of 2,000 psf. No sub-surface geotechnical report or soil bearing logs have been provided or reviewed prior to design of this work. The Contractor shall verify soil conditions and shall notify The Architect and The Owner of any suspected or unusual soil conditions that may affect the footing or foundation work, and shall not proceed until so directed. No new work

shall bear on unusual or questionable soil. Excavate to depths as required to provide floor levels as shown on Drawings. Provide a minimum footing depth of 3'-6" below grade. If existing footings are shallower than new adjacent footings, DO NOT disturb soil, call The Architect for further instructions BEFORE proceeding. Minimize over-digging and do not allow water to stand in excavation (pump as required). Stockpile excavated subsoil needed for back-filling and grading where agreed with the Owner and dispose of any remaining soil off-site.

FOOTING DRAINS: Install 4" dia. Schedule 35 perforated footing drains, holes oriented down, at the interior and exterior of all footings, with minimum slope of 1/16" per L.F. Exterior footing drain system shall include a minimum of (2) flush ports, or clean-out risers to grade, with threaded PVC caps, and shall be wrapped in silt filter fabric. Filter fabric shall wrap an additional 6' radius of gravel around the pipe; fabric shall not be tightly wrapped to pipe itself. Layout and install where required to permit cleaning of all footing drains. Plug ends of downspout and footing drains when work is in progress to prevent clogging, and clean out before covering.

Note: existing invert heights must be low enough to allow for proper placement and slope of new footer drains, and The Owner and The Architect must be notified immediately if the existing system is not of proper depth or is otherwise inadequate. Any alternate drainage system must be approved by The Architect, The Owner and by The Building Inspector.

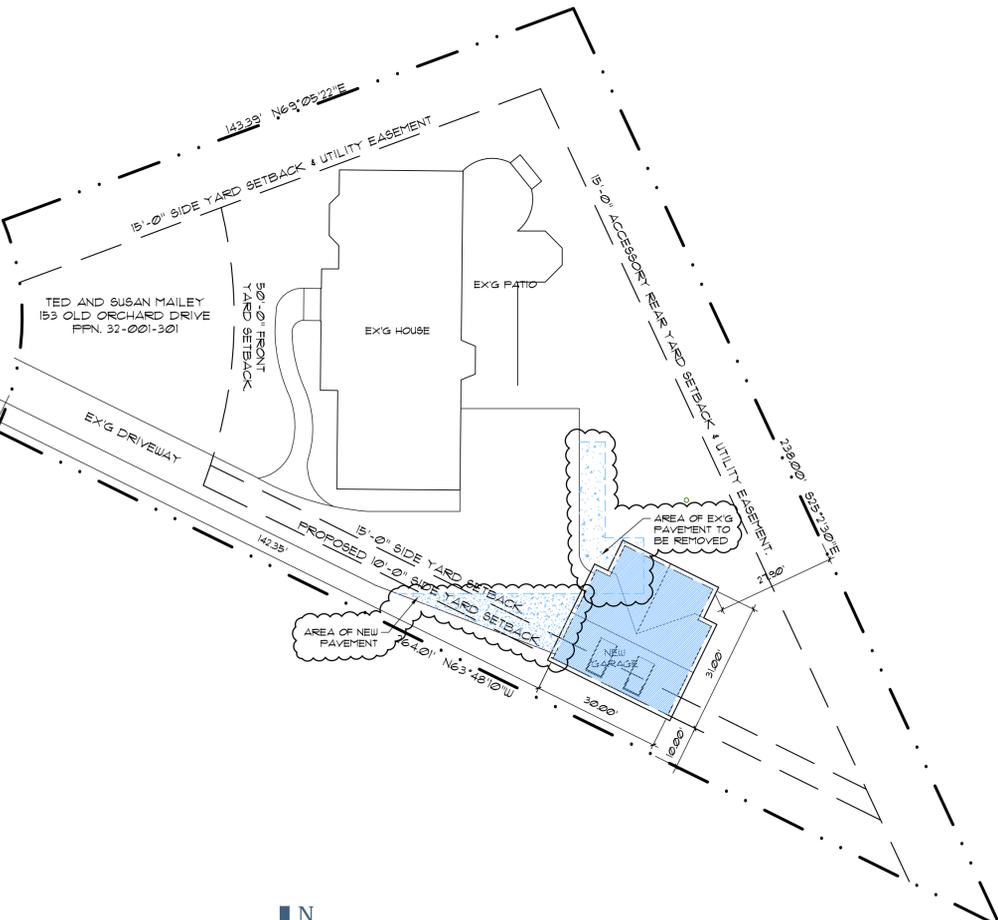
DOWNSPOUT DRAINS: The Contractor shall connect new boots to the existing downspout drainage system at the house using 4" dia. Schedule 35 solid PVC with minimum slope of 1/8" per L.F. No connection with the footing drainage system is allowed, except downstream combination to storm main exit pipe.

At the garage, install new drainage system to daylight or municipal storm system using 4" dia. Schedule 35 solid PVC with minimum slope of 1/8" per L.F. No connection with the footing drainage system is allowed, except downstream combination to storm main exit pipe. All exposed drainage pipe not concealed by final grading shall be painted to match downspouts.

BACK-FILLING: Foundations shall not be back-filled until Crawlspace or Basement floor slab and First Floor deck are in place or until walls are adequately braced to accommodate loading. Before backfilling, thoroughly clean all excavations around foundations and any retaining walls of all masonry and other construction debris. Backfill around foundation shall be washed river stone to within 6" of finished grade. Backfill top 6" with clean soil. Excavations for utilities under steps and/or terraces shall be filled with granular material.

GRADING: Prior to final grading, clean site of all construction debris. Rough grade with clean excavated subsoil in a fashion to continue natural contours and provide good drainage away from house. Provide drainage swales or yard drains connected to storm sewers for any low areas where surface water is likely to collect. The Contractor shall be responsible for insuring that finish grades are a minimum of 8" below siding/sill plate, and that all surface water drains away from house. Finish grade with stockpiled topsoil and provide additional topsoil if necessary. New grading to be reseeded.

DRIVEWAY: New drive to be staked as shown on The Drawings, reviewed with The Owner for approval of layout, and re-staked as directed by The Owner, if necessary. Concrete Drive: See Specifications Division 3 for Concrete driveway.



Site Plan

1" = 20'-0"



1 Elevation
A-1 NOT TO SCALE

Project Description

THE PROJECT SCOPE INCLUDES THE EXTERIOR RENOVATION OF AN EXISTING HOUSE.

Project Team

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Design Loads

SEISMIC DESIGN CATEGORY:	"B"
WIND SPEED (mph):	90
1. FLOOR LIVE LOADS:	
FIRST FLOOR:	40 psf
SECOND FLOOR:	30 psf
FLOOR DEAD LOADS:	10 psf
2. ROOF LIVE LOADS (SNOW):	
ROOF/CEILING DEAD LOAD:	12 psf
TOTAL ROOF LOADING:	42 psf

Index of Drawings

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- A-2 Garage Plans, Spec. Div. 3-4
- A-3 Garage Elevations Spec. Div. 5-6
- A-4 Garage Sections, Details
- A-5 Garage MEP, Spec. Div. 10-11, 22-23, 25

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 Expiration Date 12/31/2017

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A New Garage for

The Mailey Residence

153 Old Orchard, Hudson, Ohio

Title Sheet, Elevation, Specs DIV 1-2

Job number	1657
Drawn by	RJC
Date drawn	
Issued for	
04.12.17 BZA Submittal	
04.21.17 Bid Set	
05.15.17 ARB Submittal	
05.24.17 Revised Submittal	

Drawing number

A-1

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Spec. Div. 5: Metals

STRUCTURAL STEEL: Structural steel shall be detailed, fabricated, and erected in accordance with the latest AISC Specification for Structural Steel Buildings, Allowable Stress Design, and Code of Standard Practice. Fitch Plates: Steel fitch plates shall be ASTM A-36 steel (Fy = 36 KSI). Fitch plates shall be connected to wood members with 1/2" dia. flush mounted through bolts. Minimum edge and end distance to be 2". See plans for size of plates and spacing of bolts.

Lintels for masonry openings shall conform to the following schedule unless otherwise noted on the Drawings.

Clear span	Lintel
up to 4'-0"	L 3x3 x 3/8 x 1/4"
4'-1" to 6'-0"	L 4 x 3 1/2 x 5/8 x 1/4 LLLV
6'-1" to 8'-0"	L 5 x 3 1/2 x 5/8 x 1/4 LLLV
8'-1" to 9'-0"	L 6 x 3 1/2 x 5/8 x 1/4 LLLV

All lintels shall have 1" of bearing for each foot of span with a minimum of 6" at each end. All lintels at exterior walls shall be hot-dipped galvanized.

Beams: shall be ASTM A-992 steel (Fy = 50 ksi), sizes as shown on drawings, in continuous lengths between bearing points. Steel beams bearing on masonry walls shall bear on steel bearing plates (sizes shown on plans) and masonry grouted solid 16" wide by 8" deep.

Columns: Steel columns shall be ASTM A-53 steel (Fy=35 ksi), sizes as noted on *The Drawings*. Columns shall be continuous from footing to beam, with 1/2" top and bottom bearing plates (unless otherwise noted) welded to columns. Light gauge steel posts to be H.U.D. and B.O.C.A. approved, size as shown on *The Drawings*, as manufactured by Tel-O-Post, Tapco Mono Post, or equal, and shall be installed with adjustment nut at bottom. Basement columns and posts shall be installed and adjusted prior to casting concrete floors. Beams shall be bolted to cap plates w/ (4) 3/4" dia. bolts. Column base plates shall be connected to footing with a minimum of (2) 3/4" anchor bolts.

Shop Painting: Structural steel to be finished with two shop coats of rust inhibitive paint.

Connectors: Connectors and Accessories to be included as required for complete structural support. All shop connections to be made with ASTM A307 bolts or welded using E70 electrodes and shall conform to the specification set forth in the AWS Structural Welding Code. All field connections to be ASTM A307 bolts, unless noted otherwise. Anchor bolts, nuts, washers, straps, framing anchors, hangers, masonry ties, and other accessories to be hot-dipped galvanized.

Spec. Div. 6: Wood and Plastics

A. ROUGH FRAMING: GENERAL

All structural framing shall be detailed, fabricated, and erected in accordance with the "National Design Specification" by the National Forest Products Association (N.F.P.A.), latest edition. Nail or spike members in accordance with the Residential Code of Ohio, latest edition, Chapter 5-9. All nails exposed to weather to be hot-dipped galvanized at minimum. Framing lumber shall be seasoned to a moisture content of 19% or less (S-DRY). Brace all walls, rafters, floor and roof joists as required to prevent shifting, racking or other movement both during construction and after completion of the work. Cut framing square on bearings, closely fitted, accurately set to required lines and levels and plumb. Do not use shims for leveling on wood or metal bearings. LVL (Laminated Veneer Lumber) & Pre-Engineered Joists (PEJs): where indicated, shall be stored, installed, braced, and blocked per the manufacturer's directions. Notching, drilling or other cutouts shall be in accordance with manufacturer's published instructions. LVL beams over two members wide shall be assembled with 1/2" dia. flush-mounted through bolts 2 per row at 24" o.c. with (2) bolts at each end, all located 2" from edges and ends.

Framing: All structural framing members shall be single lengths between points of support.

- Floor and ceiling joists shall have solid bridging at minimum 8'-0" intervals or at mid-spans, with minimum 2" bearing at ends. Floor joists to be doubled under partitions parallel to joist direction. Solid blocking required under partitions perpendicular to joist direction. Solid blocking required at 32" o.c. to tie first joist back to parallel foundation walls, where foundation walls run parallel to joist direction.
- Sill plates and wall plates on concrete block or slabs shall be pressure-treated wood and bear over 1/2" compressible sill sealer as manufactured by Dow, Celotex, or Amoco. Sill plates shall be anchored with 1/2" anchor bolts @ 6'-0" o.c. (max.) and 1'-0" from corners and openings.
- Exterior stud framing to be spaced 16" o.c., doubled at openings, framed for solid backing at corners and angles for drywall. Inner trimmer /jack studs at window/door, etc., openings shall be cut to support the header over the opening and shall extend in one piece from header to bearing. Jack studs shall be doubled at openings exceeding 8'-0". Walls taller than 9'-0" shall receive solid, horizontal blocking at mid-height.
- Wall opening headers shall be minimum (2) 2x8s with plywood spacers for spans less than 3'-6" and (2) 2x10s with 1/2" plywood for spans equal to or greater than 3'-6" unless indicated otherwise on Drawings.
- Dormers: provide double rafters and headers at all dormers and skylights, unless noted otherwise. Connect doubled headers to rafters with galvanized hangers.
- Hearth and other floor openings: Provide doubled joists as minimum at perimeter of hearths and all floor openings. Headered members to be hangered to doubled joists where interrupted.

ROUGH LUMBER: Unless otherwise noted on the Drawings, material shall be selected and warranted by The Contractor to satisfy the following minimum design stresses for sawn lumber and laminated veneer lumber:

Framing Member	Fb (psi)	Fv (psi)	Fc (psi)	E (psi)
Beams and Headers	1000	130	1000	1,400,000
Floor Joists	1000	130	1000	1,400,000
Rafters & Clg Jst's	1000	130	1000	1,400,000
Studs & Misc. Fram'g	875	110	1000	1,400,000
MicroIam (LVL)	2600	285	2510	1,900,000

2x Rough Framing: shall be S4S #2 Southern pine, Hem-Fir, Spruce Pine Fir or better.

Sill plates, all framing against masonry or concrete, and framing exposed to weather: shall be pressure-treated lumber.

EXTERIOR WALL STUD FRAMING: to be 2x6, unless noted otherwise on drawings for walls up to 9'-5" tall and 2x6 for walls over 9'-5". Gable walls with uninterrupted vertical studs over 14'-0" in height to be 2x8.

INTERIOR WALL STUD FRAMING: to be 2x4, unless noted otherwise on drawings for walls up to 9'-5" tall, and 2x6 for walls over 9'-5". Gable walls with uninterrupted vertical studs over 14'-0" in height to be 2x8.

FLOOR SHEATHING: 5/8" U.V.Y. I, APA rated exterior grade tongue-and-groove plywood, and span rated for the specified joist spacing. All joints parallel to joists to be fully supported by floor joists below. All plywood floor sheathing shall be installed with construction adhesive such as PL400 or equal, and nailed to framing. Prior to installation of finish flooring over new or existing floor sheathing, thoroughly inspect all sub-flooring for squeaks and, where located, install screws as required to stop such squeaking.

Openings in existing sheathing and underlayment, such as at abandoned HVAC floor diffusers, shall be filled with new plywood of the same thickness and shall be adequately blocked from beneath, nailed, and glued so no squeaking or discernible movement is apparent after installation of finish flooring or carpeting.

ROOF AND WALL SHEATHING: INSTALLATION: Install panels over two or more spans with the long dimension perpendicular to the floor framing. Space 4" panel ends a minimum of 1/8" at time of installation. End joints of adjacent panel runs should be staggered. Square edge panels should be installed with a minimum spacing of 1/8" on all panel edges at time of installation. Use 1/4" bead of polyurethane or solvent-based adhesives, which conforms to industry standards AFG-01 and follow manufacturers' recommendations. Joist to be clean and dry and apply only enough adhesive to lay one or two panels at a time. Fasteners should penetrate framing members at least 1". Apply fasteners 3/8" from panel edges. Space fasteners 6" o.c. on supported edges (4" ends) and 12" o.c. at intermediate support locations. Use 10d ring shank nails or screw shank nails. Cutouts for plumbing and electrical components should be oversized by at least 1/4" to avoid a forced fit. All joints parallel to joists to be fully supported by floor joists below. Sheathing unsupported more than 20" in either direction shall be reinforced or supported with edge blocking or "H" clips.

NOTE: Allow for crown or moldings at fascia and rake, where detailed on drawings. Roof sheathing MUST overhang to accept details as drawn: insufficient overhang will be rejected and rebuilt.

MATERIAL: 3/4" for walls, 5/8" for roofs. APA-rated exterior plywood, span rated for the rafter or truss spacing shown. Sheathing for vertical batten or vertical siding is to be exterior plywood, 5/8" nominal thickness.

CONNECTORS: Where shown on *The Drawings* or required herein metal connections shall be provided, designed for specific loading requirements, fabricated from galvanized sheet metal or painted steel plate, as manufactured by Simpson Strong-Tie or equal.

PRESERVATIVE PRESSURE TREATED WOOD shall meet the following AWPA standards for ACO Preservative retention rates:

Above ground (decking & joists, etc.)	0.25 lb./cu.ft.
Ground contact (posts)	0.40 lb./cu.ft.
Permanent Foundations (poles)	0.60 lb./cu.ft.

EXTERIOR TRIM: Boral Exterior Casings and Trim: Exterior window and door casings, corner trim, frieze board, panel frames and belts shall be 5/4 x (width shown on drawings) synthetic poly-ash trim. Boral TruExterior or equal as approved by Architect. Jambs to butt into head casing. Add solid cellular pvc drip cap over all head casing, except where window head butts tight under frieze board or soffit. Sub-sills at all exterior windows to be 2x material, sloped to wash, with 2" projection. All crowns, panel molds, and other profiled trim shown on drawings shall be synthetic poly-ash trim, unless noted otherwise. Install as detailed with end joints set

tight and caulked. Use stainless steel casing nails for exterior trim (or hot-dipped galvanized casing nails if approved by *The Architect*) with min. 1 1/2" penetration into framing lumber.

EXTERIOR SIDING: Boral clapboard siding: Cement-fiber siding shall be pre-primed, smooth surface, exposure as indicated on drawings. Use stainless steel or hot-dipped galvanized nails (0.09" shank x 0.221" HD x 2" long) or 11ga. roofing nail (0.121" shank x 0.371" HD x 1.25" long) fastened into wood framing. Install joint flashing behind all butt joints and Blind nail 3'8" from side edge and 1" above coursing level. 1 1/4" minimum overlap to be used.

SOFFITS: to be 3/8" smooth fir plywood, with continuous prefinished aluminum soffit vents, to be painted to match trim color.

SHUTTERS: Exterior window shutters shall be "Endurian" molded polystyrene louvered type, standard color as selected by *The Owner*. Shutter width to be 1/2 total nominal window width, typical. Shutter length shall be as close as possible to window frame height, without exceeding this dimension.

INTERIOR TRIM, GENERAL: All wood interior trim material, including flooring, shall be delivered and acclimate in an interior, weather-tight, heated and conditioned environment for minimum one week. Upon delivery, flooring shall be broken into small lots and stored in the rooms where it is to be installed.

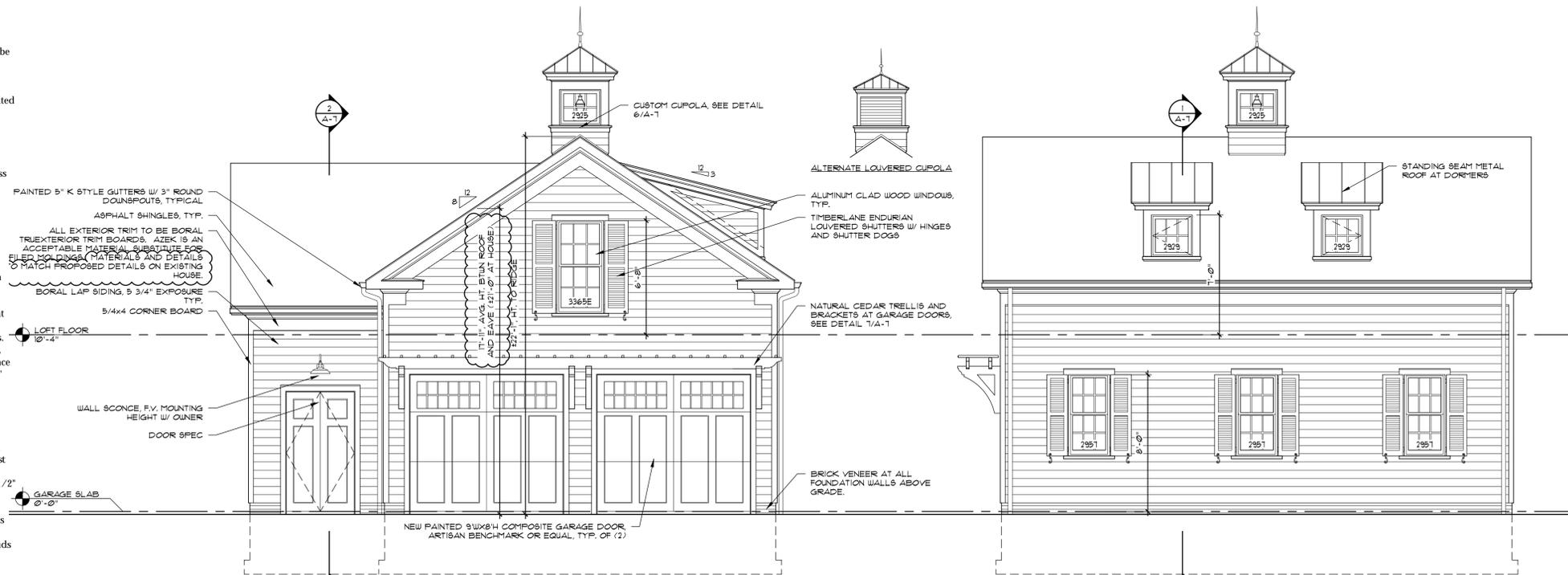
All trim shall be carefully matched, mitered, coped, etc., finish nailed tight to surfaces, and sanded, ready for painting or staining. All horizontal trim shall be installed in continuous lengths wherever possible, or mitered when not, and coped at inside corners. Jambs at Door and Cased Openings shall be tightly shimmed in a minimum of three locations on each side including at hinges and locksets.

Wherever trim terminates and is not fully stopped by cabinets, casings, plinths, etc., repeat profile of trim at end by miter-returning, coping or molding as needed. Window casing to include molded stool, miter-return at ends, and apron of casing material, inverted and miter-return at ends. Doorways at end of Halls shall be centered in Hall, unless shown otherwise, and all doorways roughed-in and jambs hung so that full casing may be installed. When casings are within 1' of corner walls, fill gap between casing and wall with S4S wood trim 1/8" thinner than casing. Closet doors shall be fully jambed and cased on both sides (Reach-in closets may have secondary casing type for interior, as approved by *The Architect*) Casing at bi-fold or bypassing doors shall be

installed to conceal track and hardware above doors. Shoe mould shall be installed at all new hardwood, ceramic tile, vinyl, or other hard surface flooring. Window casing to include molded stool, miter-return at ends, and apron of casing material, inverted and miter-return at ends.

INTERIOR TRIM: All new woodwork shall be clear poplar, thoroughly seasoned and kiln dried, molded or S4S, no finger joints.

UNDERLAYMENT: at Ceramic Tile: Where ceramic tile is to be installed over thin-set mortar or epoxy underlayment shall be 1/2" USG Dur-Rock waterproof cement-board. **ATTIC SCUTTLE** where indicated shall be 3/4" birch plywood hinged to 1 x 6 CWP cased jamb, weather-stripped, and insulated to a level equivalent to surrounding areas.

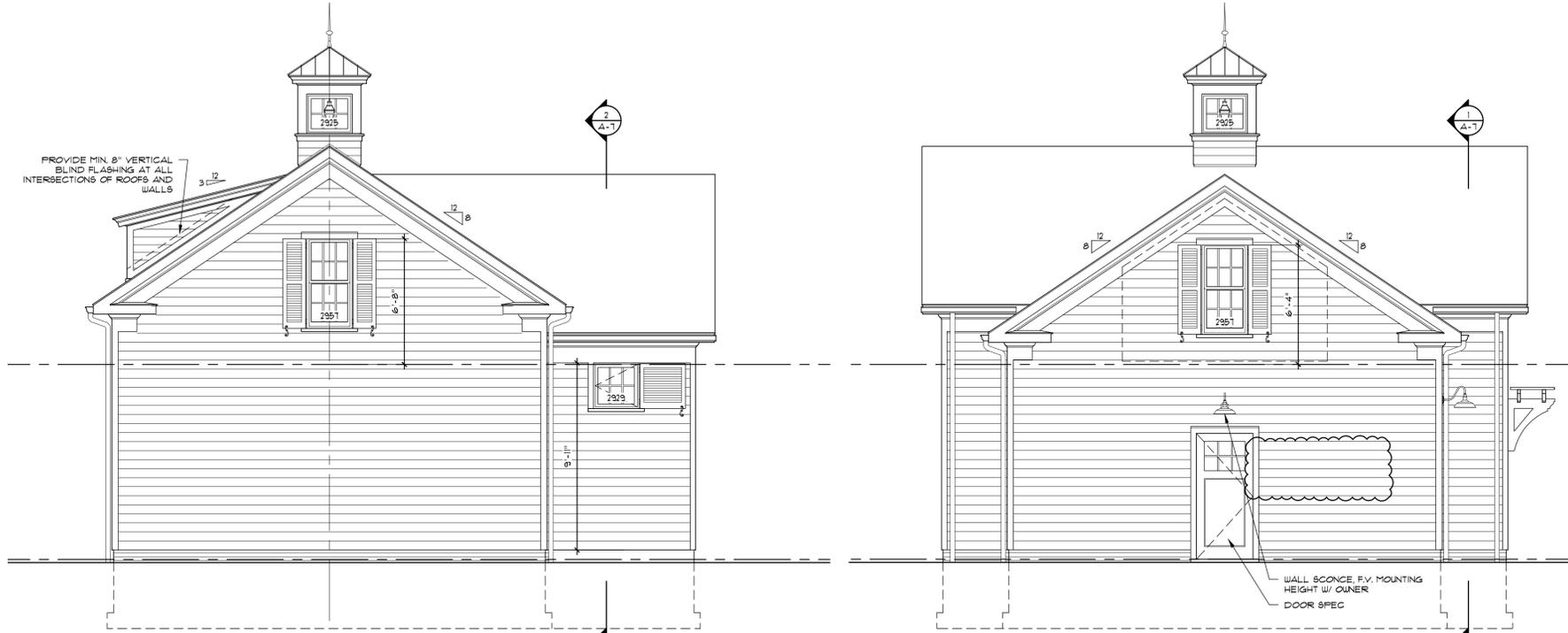


4 West Elevation

1/4" = 1'-0"

3 South Elevation

1/4" = 1'-0"



2 East Elevation

1/4" = 1'-0"

1 North Elevation

1/4" = 1'-0"

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Garage Elevations, Specs DIV 5-6

A New Garage
The Mailey Residence
153 Old Orchard, Hudson, Ohio

Job number	1657
Drawn by	RJC
Date drawn	

- Issued for
- 04.12.17 BZA Submittal
 - 04.21.17 Bid Set
 - 05.15.17 ARB Submittal
 - 05.24.17 Revised Submittal

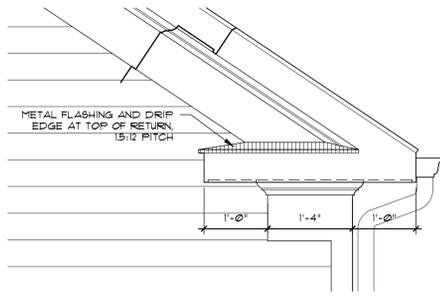
Drawing number

A-3

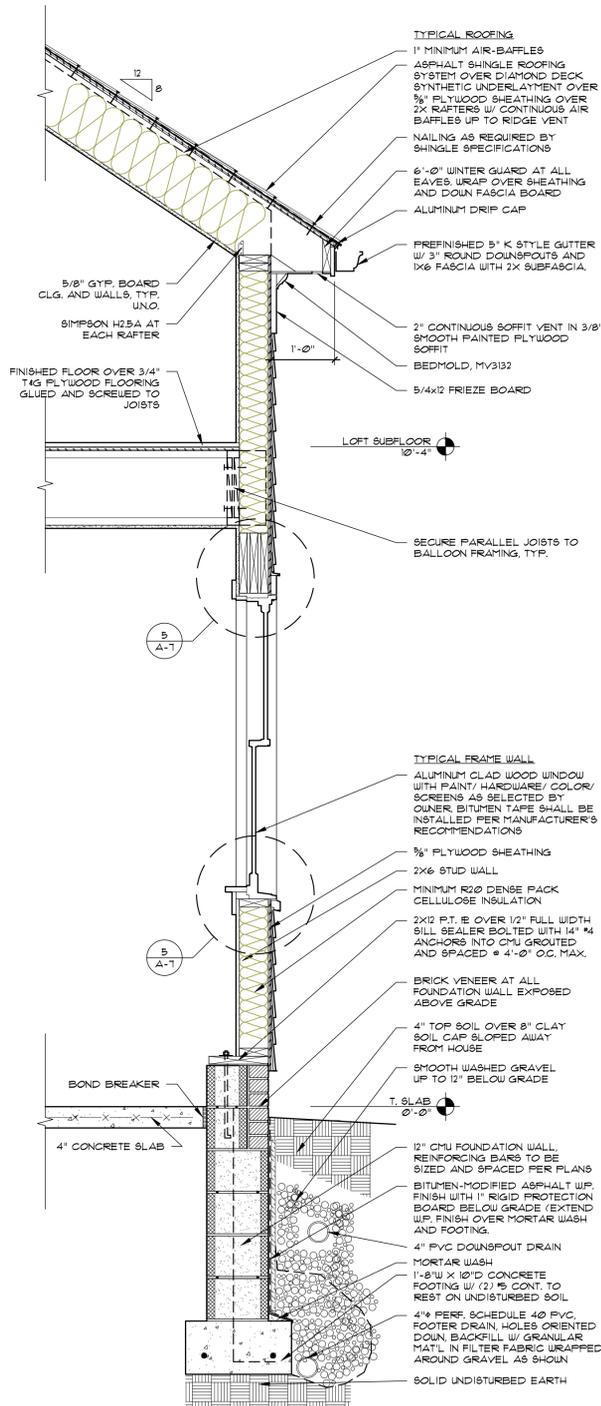
George A. Clemens, License No. 13102
Expiration Date 12/31/2017

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CLEMENS PANTUSO ARCHITECTURE

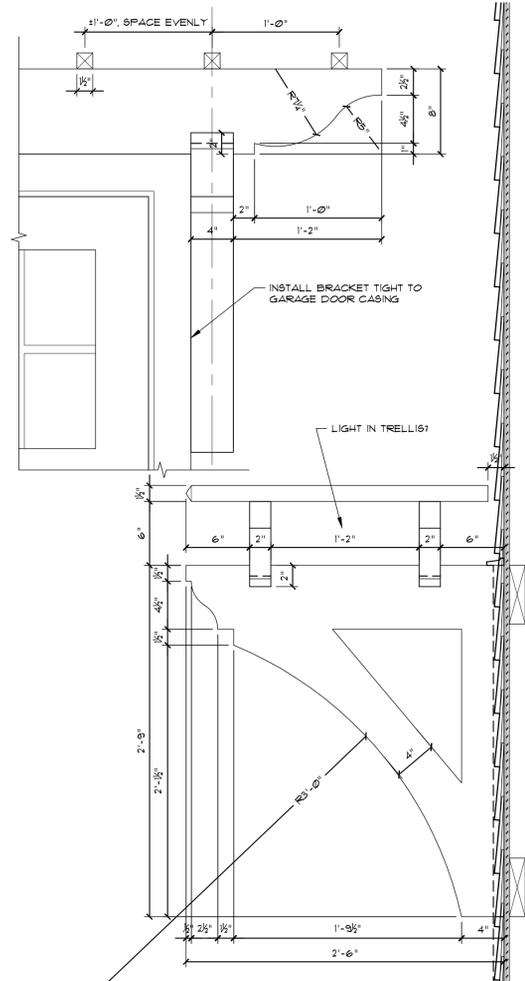
General: Clemens Architecture Inc. 2017 ©



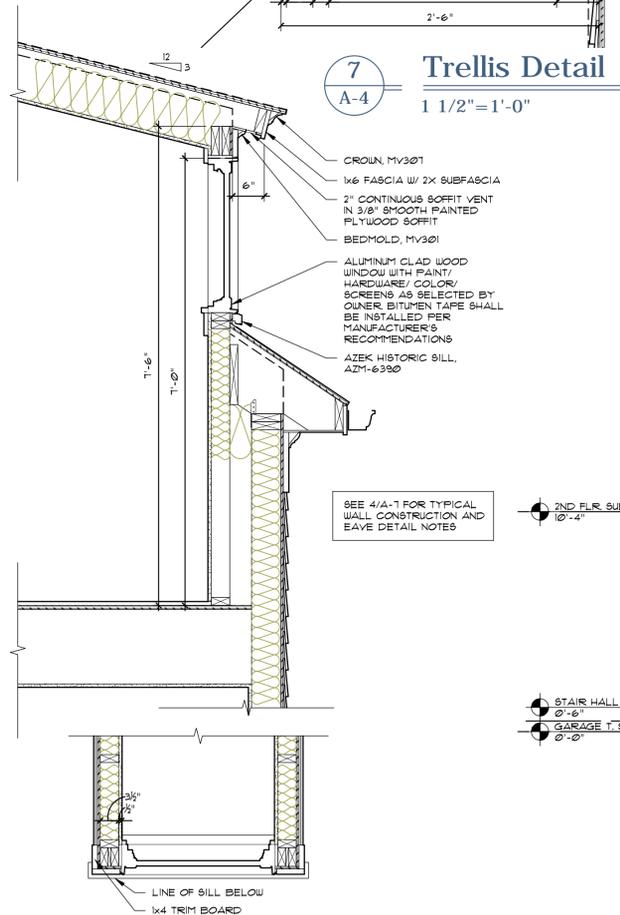
8
A-4
Typical Eave Return
3/4" = 1'-0"



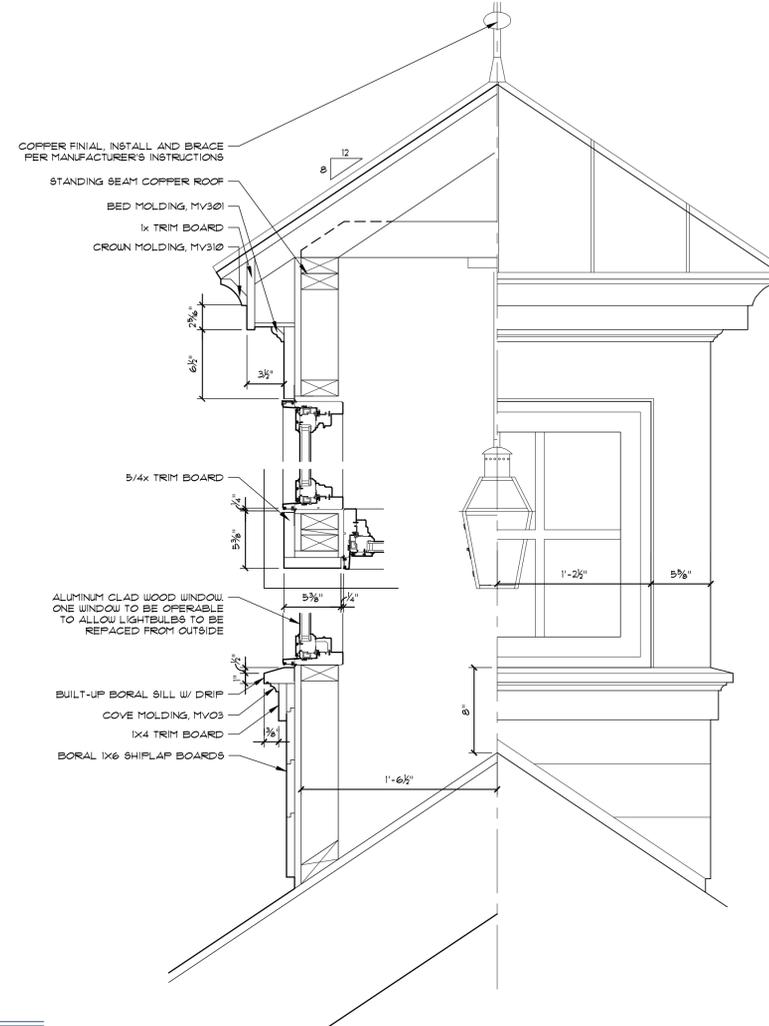
4
A-4
Typical Wall Section
3/4" = 1'-0"



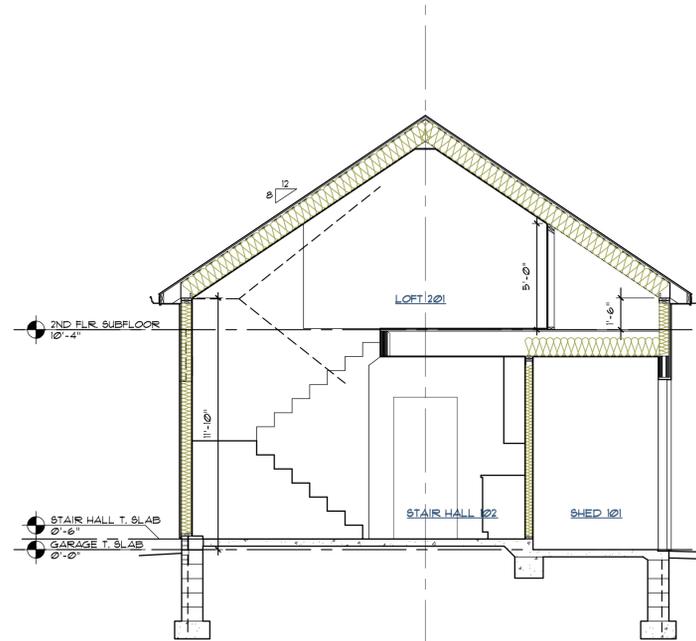
7
A-4
Trellis Detail
1 1/2" = 1'-0"



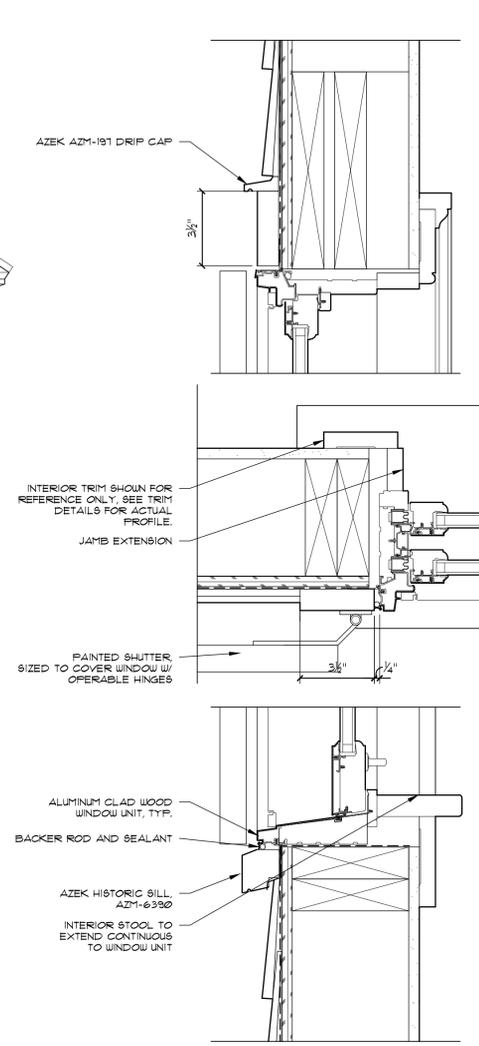
3
A-4
Dormer Detail
3/4" = 1'-0"



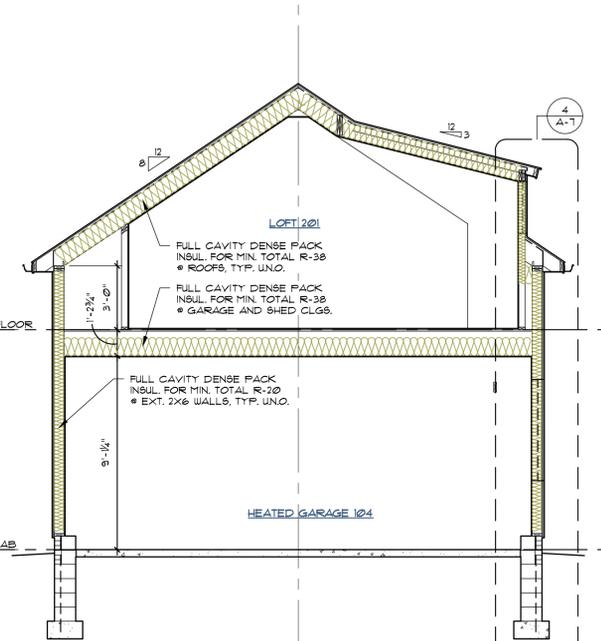
6
A-4
Cupola Detail
1 1/2" = 1'-0"



2
A-4
Building Section
1/4" = 1'-0"



5
A-4
Window Details
3" = 1'-0"



1
A-4
Building Section
1/4" = 1'-0"

George A. Clemens, License No. 13102
Expiration Date 12/31/2017

CLEMENS PANTUSO

architecture

A New Garage
The Mailey Residence
153 Old Orchard, Hudson, Ohio

Garage Section, Details

Job number	1657
Drawn by	RJC
Date drawn	

Issued for
04.12.17 BZA Submittal
04.21.17 Bid Set
05.15.17 ARB Submittal
05.24.17 Revised Submittal

Drawing number

A-4

45 E. Washington St., Chevrin Falls, OH 44022
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Spec. Div. 10: Specialties

CUSTOM-BUILT CABINETS: Cabinetry and Casework to be built with solid wood doors, drawers, and face-frames. Box and shelving construction to be veneer plywood, 1/2" thickness minimum for sides and backs, 3/4" min. thickness for shelving. Interior melamine finish for cabinet interiors at *The Owner's* option only. All construction to comply with Architectural Wood Institute Custom Grade Standards.
CABINET HARDWARE: Drawer glides to be full-extension, self-closing, soft close, under-mounted Blum Motion. Door hinges shall be fully concealed European-style with soft close and shall include all required latches and stops. Adjustable shelving to use drilled holes with chrome pin shelf supports. Glass shelves, if indicated, to be thickness as recommended for span by glass supplier; tempered with polished edges all sides. Door glass, where required, shall be tempered and cushioned against wood door frame to avoid rattling. Cabinet pulls/knobs shall be furnished under Allowance and set by *Contractor*.

All cabinetry and casework installation shall be by *The Contractor*. Install all cabinets level and plumb, securely fastened to walls and to each other, and scribed to walls.

COUNTERTOPS: Provide counter and vanity material as shown on drawings. Colors and material types shall be approved by *The Owner*. For stone countertops, installation shall follow recommendations of the Granite and Marble Association. Reinforce base cabinets as required to support stone or concrete countertops, and notify/coordinate with *The Architect* if additional brackets or support is required for tops. Stone tops as selected by *The Owner* under Allowance shall be installed by marble supplier/ fabricator whose work shall include installation of any under-counter sinks or lavatories.

CLOSET HARDWARE: Closet rods to be polished stainless steel clad iron pipe, Knappe & Vogt #770-1, set on KV #734 CHR closed flange and KV #735 CHR open flange.

MIRRORS: Mirrors to be 1/4" glass, with polished edges.

TOILET AND BATH ACCESSORIES: Toilet and Bath Accessories shall be selected by *The Owner* under Allowance and installed by *The Contractor*, and shall include towel bars/rings, robe hooks, toilet paper holders, toothbrush holders, etc. 2x blocking shall be provided behind all wall-mounted accessories.

BATH AND SHOWER ENCLOSURES: Tempered glass tub and shower enclosures and doors shall be selected by *The Owner* under Allowance and installed by *The Contractor*, material and labor to be covered by Allowance.

Spec. Div. 11: Equipment

APPLIANCES AND EQUIPMENT: All appliances as shown on drawings to be installed by *The Contractor*, and contract price must include all electric circuitry, gas supply piping, or other required infrastructure to support appliances and equipment as shown on drawings. All fuel fired appliances to comply with venting per RCO Section 2427.6 as applicable. All clothes dryers to be constructed of smooth metal duct, minimum 4" nominal in diameter and comply with installation requirements per RCO Section 1502.

SECURITY: Security to be handled directly by *The Owner* under separate contract. *The Owner* is responsible for coordinating the Security system work as directed by *The Contractor*

CENTRAL VACUUM SYSTEM: To be provided by *The Contractor* under allowance.

Spec Div. 22: Plumbing

GENERAL: All plumbing work shall meet or exceed requirements of the latest edition of the National Plumbing Code and all other applicable codes and ordinances. Water supply lines shall not be installed in exterior walls less than 6" (nom.) thick. Lines in 6" walls shall have a minimum of R-12 insulation behind them. Water supply branches to plumbing fixtures to be 3/4" diameter, to include enlargement of existing supply branches as required. New Hot Water supply shall be a looped system with legs to individual faucets kept to as short as possible. Include removal, termination or relocation of existing plumbing work as required for demolition, new construction, as shown in *The Drawings* or as required to meet applicable codes. Any wall device mounting boards shall be fabricated from 3/4" MDO sheet material, primed and finish painted beige prior to the installation of any devices. Seal all fixtures and fittings to abutting surfaces, with all fixture traps, wastes, supplies, valves, etc., exposed in vanities or elsewhere to be polished chrome finish, such incidental materials to be supplied by *Contractor*. Provide and install gas piping and valves for all gas fired appliances and devices. If applicable, provide and install water piping and valve for refrigerator, ice maker, and hook-ups to same, all per manufacturers' specifications. Provide all required natural-gas piping for supply of indicated gas-fired equipment and appliances.

SUPPLY PIPING: Water pipes to be Type L copper, sized and arranged to provide even pressure and temperature to all fixtures, with 18" air chambers and shut off valves for hot and cold supply lines at each fixture. No ferrous metal to be in contact with copper lines. Hot & cold water lines in un-heated spaces shall be wrapped with 3/4" thick, closed-cell, foam insulation.

Cross-Linked Polyethylene (PEX) Water Supply Piping is an approved alternate. Provide supply manifold(s) with dedicated runs less than 25 feet to each fixture to allow for shut-off to individual fixtures.

HOSE BIBBS: to be all copper, frost free, anti-siphon type. Provide two hose-bibbs, minimum, as part of Work.

SANITARY/WASTE PIPING: Soil, waste and vent lines to be PVC, vents penetrating rear roofs. All soil and waste piping in ceilings and walls of finished living spaces to be situated to avoid contact with framing and drywall, areas where piping and framing are in close proximity shall be filled with expandable foam. Floor joist or stud spaces at soil or waste lines shall be insulated with dense pack cellulose acoustical insulation.

HOT WATER HEATER: Provide sealed-combustion, 98% efficient natural gas on-demand hot water tankless heaters by Rinnai, Navien, 'eternal' or approved equal, Energy Star rated. Heaters or central heater to be located as recommended by mechanical consultant and approved by *The Architect*.

PLUMBING FIXTURES: Plumbing fixtures shall be selected by *The Owner* under allowance. Fixtures shall be purchased, delivered, stored, and installed by *The Contractor*. *The Contractor* shall protect new plumbing fixtures, including fiberglass shower or bath units if applicable, from damage or staining during construction. Acrylic shower or tub base units to be solidly set into mortar base.

Spec Div. 23: HVAC/C

GENERAL: HVAC/FWA SYSTEM: Provide and install material and equipment necessary to heat and cool new house evenly (+/- 2 degrees F. between rooms) to 72 degrees F. at 0 degrees F. outside and 90 degrees F. outside. Ductwork shall be installed in full accord with ASHRAE and National Warm Air Standards and recommendations. All diffusers, grills, louvers, dampers and other required accessories required for a complete installation shall be included. Provide flexible connections at air units, turning vanes at elbows and balancing dampers in all branches and runouts. Use transition type fittings and adapters. Support or suspend ductwork from structure and keep as close to joists, partitions and columns as feasible. All rooms over 80 sq.ft., except for bathrooms, shall have ducted return air. Bedroom suites shall have a minimum of one return air. Crawl spaces to be conditioned per RCO Section 408, unless noted otherwise. All new ductwork, and ductwork affected by construction, shall be kept free of debris during construction and vacuumed at completion of the work. All new ductwork shall be completely SYSTEM BALANCING: Upon completion of the HVAC/C system *The Contractor* shall place the system in operation and adjust and Balance the system in such a way to provide as close as possible continuous air circulation, as described in the current edition of the National Warm Air Heating and Air Conditioning Manual. If required, *The Contractor* shall re-balance the system during the heating season and shall provide service exclusive of normal maintenance for one year after start-up, without additional charge to *The Owner*. All dampers shall be clearly and neatly marked as to their function, and *The Owner* shall be instructed in the method of operation and care of the system. Manufacturer's instructions for maintenance and operation of equipment shall be attached to all equipment.

WARRANTY: This *Contractor* guarantees by his acceptance of the contract that all work installed will be free from any and all defects in workmanship, equipment, materials, and that all apparatus will develop characteristics specified. If any such defects appear within one year from the date of final completion and acceptance of the Work, *The Contractor* shall, without cost to *The Owner*, remedy such defects within a reasonable time to be specified in notice from *The Owner*. In default thereof, *The Owner* may have work done and charge the cost to *The Contractor*. The one (1) year guarantee period on workmanship and equipment operation shall start from the date of Final Payment by *The Owner*.

HVA/C EQUIPMENT: HVAC/C heating and cooling equipment shall be Trane, Carrier, Lennox, or approved equal, gas-fired, ductless mini split system with wall mounted cassettes, and electric air conditioning with Puron coolant and condensing unit with a minimum 14 SEER rating, to include a

programmable thermostat. *The Contractor* shall submit with his proposal a written recommendation for equipment, make and sizing; ductwork layout and sizing; and diffuser locations and type. The cost of new HVA/C work shall be included in the *Contractor's* Base Bid and a cost break-out for the HVA/C work shall accompany the Bid Proposal form.

MECHANICAL PADS: Provide 2" thick, 50% recycled content minimum, UV protected pad for air conditioning condensing units. Pads shall be sized appropriately for the mechanical equipment installed, i.e. no more than 8" wider than the unit on any side. Location(s) shall be determined and the HVA/C Contractor and approved by *The Owner*.

BATHROOM VENTILATION: Provide all bathrooms with mechanical exhaust vent per applicable governing codes. Use Fantech Premium Series bath fans OR Panasonic Whisper-Green fan series, sized in accordance with code but in no case less than 110 CFM per fan, providing minimum 8 ACH. Employ variable speed control system to set continuous, lower level venting at 0-70 CFM and pre-set timer for on-demand 60 min. high setting exhaust. Second-floor bathrooms to have in-line, combined bath exhaust unit if practicable. Owner to approve first-floor bath fan noise level (higher noise level desired).

Spec Div. 26: Electrical

GENERAL: ALL ELECTRICAL WORK TO COMPLY WITH THE 2014 NEC.
ELECTRICAL: Provide and install all electrical materials shown or inferred in *The Drawings*, including hook-ups of all new appliances, mechanical equipment or other electrical devices shown. Disconnect, terminate, rewire or relocate all existing electrical devices as required for new construction and as noted on Electrical and Demolition Plans or as required to meet all applicable codes.
The Contractor shall calculate electrical load requirements for all existing and new work, feed new circuits from existing subpanel(s), or provide and install new Square D, or approved equal, circuit breaker type main/sub distribution panel, sized to accommodate new and existing electrical load requirements and an additional 25% capacity for future electric work, if required. The Base Bid shall include all labor and material costs associated with relocating the existing meter and service entrance and with upgrading the electrical service into the house, if required to accommodate electric requirements specified herein. Any wall device mounting boards, for electrical distribution panels or other devices, shall be fabricated from 3/4" MDO sheet material, primed and finish painted beige prior to the installation of any devices.

WIRING: Wiring layout, circuiting, materials and installation shall conform to the requirements of latest edition of the National Electric Code. Electrical contractor must use 12 gauge wiring at a minimum. 14 gauge wire is not acceptable unless contractor acquires written approval from *The Owner*.
CIRCUIT PROTECTION: AFCI PROTECTION: All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling living spaces shall be protected.
GFCI PROTECTION: Include in Bid the installation of GFCI protected outlets where shown on *The Drawings* and in all other locations per applicable codes.
OUTLETS: In all areas dwelling areas, all non-locking-type, 125-volt, 15- and 20-ampere outlet receptacles shall be tamper-resistant.
ELECTRICAL WALKTHROUGH: Before wiring, all outlet work boxes shall be tacked in place where shown on *The Drawings*, and exterior lantern or outlet locations marked on sheathing, reviewed with *The Architect* and *The Owner*, and relocated as directed.

Decorative Lighting: (interior and exterior) and surface lighting fixtures and paddle fans shown on Electrical Plans shall be selected by *The Owner* under Allowance. The Base Bid shall include all material & labor costs for recessed light housings and trim (as shown on drawings), undercabinet or within-cabinet lighting, flood lights, closet utility lighting, recessed fluorescent lighting and porcelain lamp holders. Exterior wall lanterns shall be mounted on 1 1/2" thick shaped Azek blocks with routed edges, painted to match adjacent surface.

Recessed Lighting: All recessed light housings in insulated areas to be IC type; size and specification as indicated on Lighting Fixture Schedule.
Switches: All switches to be silent type; all switch and duplex receptacle devices and outlet cover colors to be industry standard white or ivory, as selected by *The Owner*. Outlet covers to be plastic. Other colors or cover materials to be provided to *The Owner* for an additional charge. Dimmer switches, assumed for all surface mounted and recessed lights to be Lutron "Diva" or "Toggler", whichever is consistent with switch style selected by *The Owner*. In general, it shall be assumed that all wall and ceiling surface mounted light fixtures, flood lights and lanterns, incandescent under-cabinet lighting, cabinet display lighting, and recessed lighting shall be dimmed, whether shown on *The Drawings* or not.

Floodlights: Double floodlights shall be minimum 70 watt LED type with white finish and shall be included in the Base Bid.

Smoke Detectors: to be provided per Residential Code of Ohio, R314: The residence shall be wired for photoelectric and ionization smoke detectors per requirements for a new residence. All smoke detectors to be interconnected and hardwired. Carbon-monoxide detectors to be installed in locations per applicable codes and manufacturer's recommendations.

Television: Television outlet locations shown on *The Drawings* shall be wired with RJ-6 shielded coaxial television antenna/cable lead-in, and be "home-run" to cable or antenna entrance into home.
Phone/Data: Install voice, Ethernet and telephone outlets and wiring where shown on *The Drawings* and as confirmed with *The Owner*. All such wiring shall be CAT 5-e.

Electrical Symbol Legend

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
\$	SWITCH - SINGLE POLE	Ⓛ	DUPLEX RECEPTACLE - WEATHER PROOF @ 24" A.F.F.
\$3	SWITCH - THREE WAY	Ⓛd	DUPLEX RECEPTACLE - DEDICATED
\$4	SWITCH - FOUR WAY	Ⓛo	AUTOMATIC OVERHEAD GARAGE DOOR OPENER
\$d	SWITCH WITH DIMMER	HV	TELEVISION OUTLET (COAXIAL) @ 18" A.F.F.
Ⓛ	SWITCH - PUSH BUTTON DOOR SWITCH	Ⓛ	SMOKE DETECTOR
Ⓛ18	DUPLEX RECEPTACLE - @ 18" A.F.F., 110V	Ⓛ	CIRCUIT BREAKER PANEL BOARD
Ⓛ20	DUPLEX RECEPTACLE - @ 18" A.F.F., 220V	Ⓛs	CIRCUIT BREAKER SUB-PANEL BOARD
ⓁGFCI	DUPLEX RECEPTACLE - G.F.C.I. TYPE	E	INDICATES EXISTING
Ⓛ	QUADRUPLX RECEPTACLE -VERIFY HEIGHT, 110V		
Ⓛ	DUPLEX RECEPTACLE - @ 7" ABOVE COUNTER TOP		

NOTE: SEE SPECIFICATION SECTION 16, ELECTRICAL CONTRACTOR SHALL MEET ALL CODES

Lighting Fixture Schedule

SYMBOL	DESCRIPTION	TYPE	LAMPING
Ⓛ4R	4" RECESSED	HALO H995 HOUSING OR EQ. W/LED LAMPING; HALO RL460WH927PK W/ADAPTER (NTEGRATED TRIM)	HALO RL460WH927PK
Ⓛ4S	4" SURFACE MOUNT	HALO SLD4 SURFACE LED DOWNLIGHT SLD405827WH	
Ⓛ6S	6" SURFACE MOUNT	HALO SLD6 SURFACE LED DOWNLIGHT SLD612827WH	
ⓁAUR	4" WET RECESSED	HALO H457 HOUSING OR EQ. W/LED; HALO EL406927 W/ TL422PS (WHITE RING/BAFFLE)	
ⓁUR/EX	EXHAUST FAN	COMBINATION FAN/LIGHT FIXTURE: 6" BROAN RECESSED FAN LIGHT MODEL 744 (WHITE RING/BAFFLE)	
ⓁUC	UNDER CABINET	ELEMENTAL LED STRIP LGT: 150 LUMENS/FT 2700K @45" W/ ALUM. CHANNEL/DIFFUSER, DIMMABLE	
ⓁSC	WALL MOUNTED	SURFACE-MOUNTED SCONCE BY OWNER (RUSTPROOF AT EXT. AND PORCH)	
ⓁCLG	CEILING MOUNTED	SURFACE-MOUNTED CLG. FIXTURE BY OWNER (RUSTPROOF AT EXT. AND PORCH)	
ⓁP	PENDANT	PENDANT FIXTURE BY OWNER (RUSTPROOF AT EXT. AND PORCH)	20W G4 12V

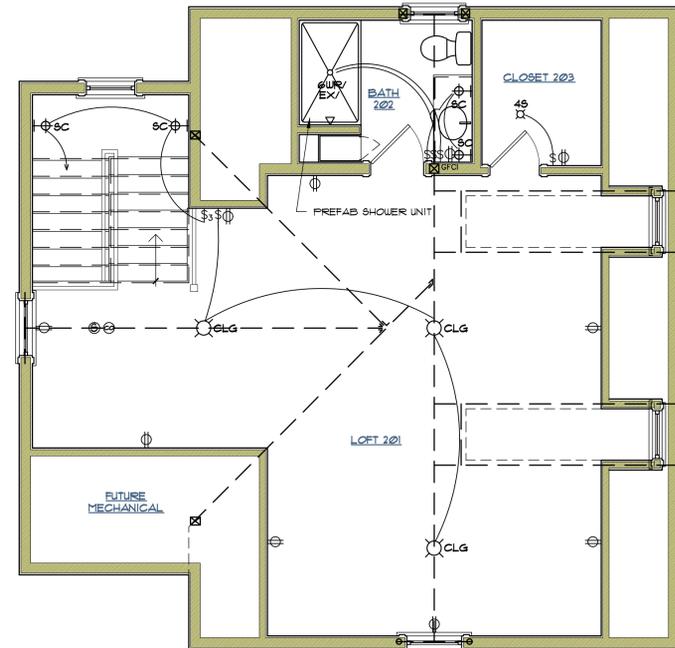
NOTE: USE I.C. AND/OR REMODEL CANS AS REQ'D FOR ALL RECESSED FIXTURES.

Note:

- 1.) ALL SWITCH, OUTLET & LIGHTING LOCATIONS ARE APPROXIMATE, CONTRACTOR TO VERIFY LOCATIONS W/ OWNER & ARCHITECT DURING ELECTRICAL WALKTHROUGH.
- 2.) CONTRACTOR RESPONSIBLE FOR ALL COORDINATION OF APPLIANCES & WIRING, AS REQUIRED
- 3.) COORDINATE DIMMER LOCATIONS W/OWNER PRIOR TO INSTALLATION
- 4.) CONTRACTOR TO CONFIRM SMOKE DETECTORS EXIST PER CODE AND ARE IN GOOD WORKING ORDER

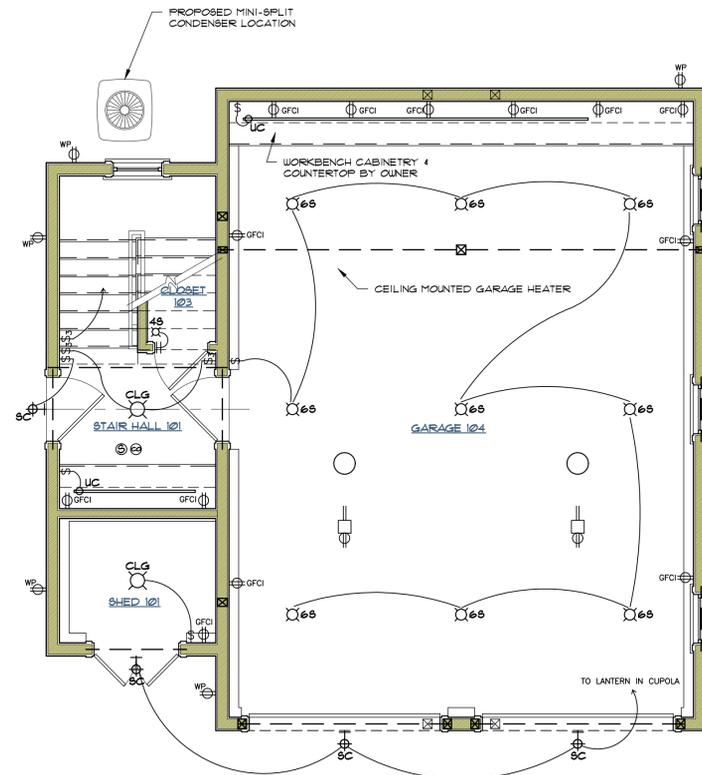
Note:

- ALL 120-V BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAM. RMS., LIVING RMS., PARLORS, DENS, BEDROOMS, SUNROOMS, REC. RMS., CLOSETS, HALLWAYS, OR SIM. AREAS TO BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTOR PER NEC 210.12 (b)



Second Floor MEP Plan

1/4" = 1'-0"



First Floor MEP Plan

1/4" = 1'-0"

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