N1102.4.1.1 (R402.4.1.1) Installation. The components of the building thermal envelope as listed in Table N1102.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table N1102.4.1.1, as applicable to the method of construction. Where required by the building official, an approved third party shall inspect all components and verify compliance.

N1102.4.3 (R402.4.3) Fenestration air leakage. Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m2), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m2), when tested according to NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer.

N1102.4.5 (R402.4.5) Recessed lighting. Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E 283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

N1103.6 (R403.6) Mechanical ventilation (Mandatory). The building shall be provided with ventilation that meets the requirements of Section M1507 of this code or the International Mechanical Code, as applicable, or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

N1102.4.1.2 (R402.4.1.2) Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding five air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ASTM E 779 or ASTM E 1827 and reported at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the code official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

N1101.10.3 (R303.1.3) Fenestration product rating. U-factors of fenestration products (windows, doors and skylights) shall be determined in accordance with NFRC 100.

N1101.11.1 (R303.2.1) Protection of exposed foundation insulation. Insulation applied to the exterior of basement walls, crawlspace walls and the perimeter of slab-ongrade floors shall have a rigid, opaque and weather-resistant protective covering to prevent the degradation of the insulation's thermal performance. The protective covering shall cover the exposed exterior insulation and extend not less than 6 inches (153 mm) below grade.

N1101.10 (R303.1) Identification. Materials, systems and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this code.

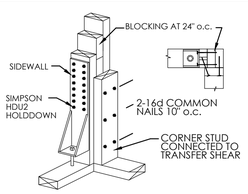
N1101.11 (R303.2) Installation. All materials, systems and equipment shall be installed in accordance with the manufacturer's instructions and this code.

N1101.10.1.1 (R303.1.1.1) Blown or sprayed roof/ceiling insulation. The thickness of blown-in or sprayed roof/ceiling insulation (fiberglass or cellulose) shall be written in inches (mm) on markers that are installed at least one for every 300 square feet (28 m2) throughout the attic space. The markers shall be affixed to the trusses or joists and marked with the minimum initial installed thickness with numbers not less than 1 inch (25 mm) in height. Each marker shall face the attic access opening. Spray polyurethane foam thickness and installed R-value shall be listed on certification provided by the insulation installer.

N1102.2.3 (R402.2.3) Eave baffle. For air-permeable insulations in vented attics, a baffle shall be installed adjacent to soffit and eave vents. Baffles shall maintain an opening equal or greater than the size of the vent. The baffle shall extend over the top of the attic insulation. The baffle shall be permitted to be any solid material.

N1102.2.4 (R402.2.4) Access hatches and doors. Access doors from conditioned spaces to unconditioned spaces such as attics and crawl spaces shall be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces. Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood-framed or equivalent baffle or retainer is required to be provided when loose-fill insulation is installed, the purpose of which is to prevent the loose-fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed R-value of the loose-fill insulation

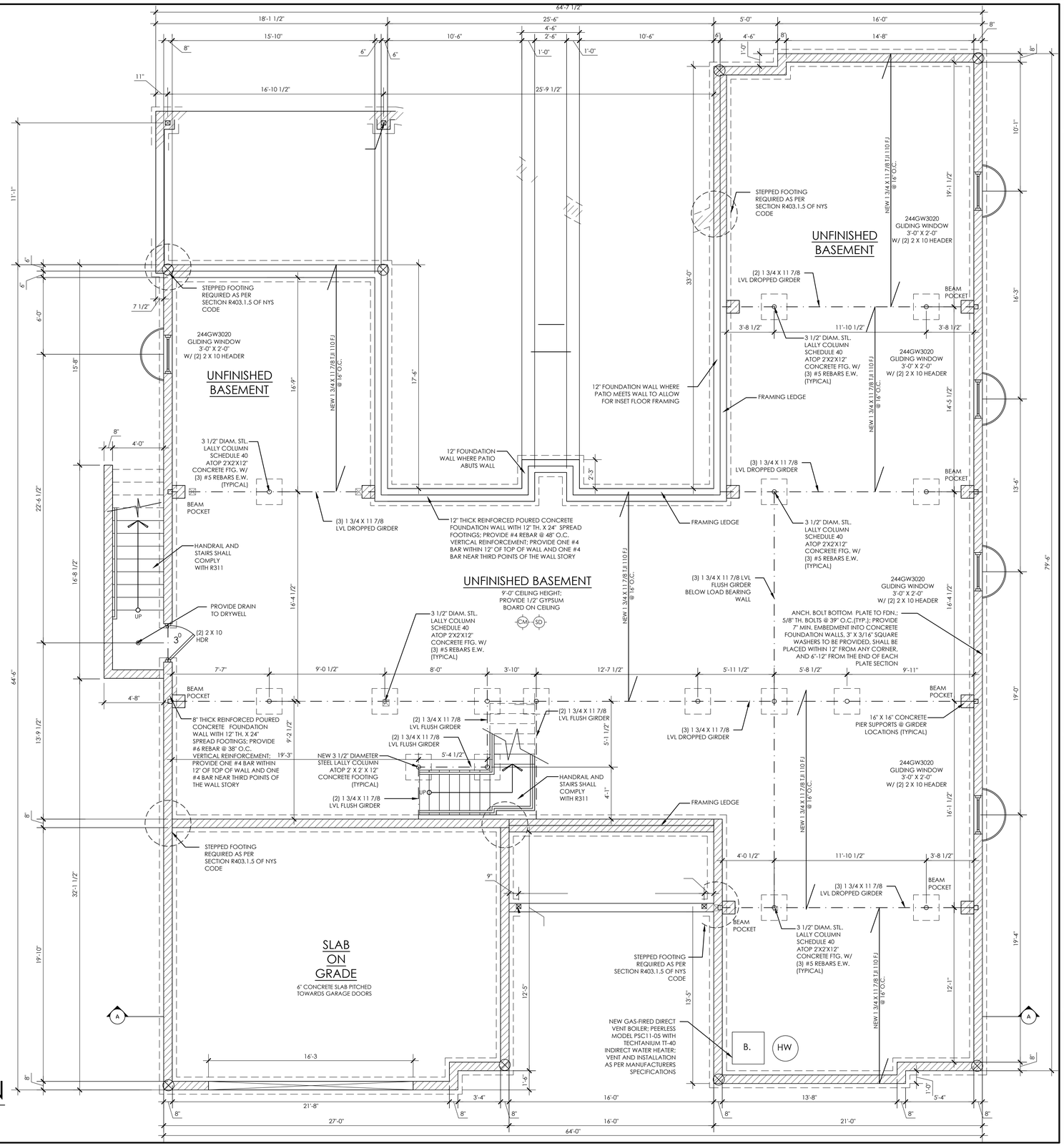
⊗ -DENOTES LOCATION OF HOLD-DOWN CONNECTION TO FOUNDATION AND/OR BETWEEN 1ST & 2ND FLOOR SYSTEMS; INSTALL SIMPSON HDU2 HOLDDOWNS IN LOCATIONS SHOWN.



SIMPSON HDU2 CORNER STUD HOLDDOWN DETAIL (TYPICAL)

CORNER HOLDDOWN DETAIL

R322.1.6 PROTECTION OF MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS. ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS; HEATING, VENTILATING, AIR CONDITIONING; PLUMBING APPLIANCES AND PLUMBING FIXTURES; DUCT SYSTEMS; AND OTHER SERVICE EQUIPMENT SHALL BE LOCATED AT OR ABOVE THE ELEVATION REQUIRED IN SECTION R322.2 OR R322.3. IF REPLACED AS PART OF A SUBSTANTIAL IMPROVEMENT, ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS; HEATING, VENTILATING, AIR CONDITIONING AND PLUMBING APPLIANCES AND PLUMBING FIXTURES; DUCT SYSTEMS; AND OTHER SERVICE EQUIPMENT SHALL MEET THE REQUIREMENTS OF THIS SECTION. SYSTEMS, FIXTURES, AND EQUIPMENT AND COMPONENTS SHALL NOT BE MOUNTED ON OR PENETRATE THROUGH WALLS INTENDED TO BREAK AWAY UNDER FLOOD LOADS.



FOUNDATION PLAN

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

REGISTERED ARCHITECT JONATHAN R. NICHOLSEN 032131 STATE OF NEW YORK

NICHOLSEN
ARCHITECTURE + DESIGN
208 BLUE POINT AVENUE, BLUE POINT,NY 11715
NICHOLSENARCHITECTURE@GMAIL.COM
631.823.0100

DATE: 05.20.25

DRAWN BY: J.N.

DRAWING TITLE:

FOUNDATION PLAN

PROJECT:

NEW CONSTRUCTION FOR:

KELLY DEVELOPMENT

LOT #10, COLONELS PATH, MANORVILLE, NEW YORK

DRAWING NUMBER:

A101

N1103.3.2.1 (R403.3.2.1) Sealed air handler. Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design air flow rate when tested in accordance with ASHRAE 193.

N1103.1.1 (R403.1.1) Programmable thermostat. The thermostat controlling the primary heating or cooling system of the dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed by the manufacturer with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C).

N1103.1.2 (R403.1.2) Heat pump supplementary heat (Mandatory). Heat pumps having supplementary electric resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

N1103.5.1 (R403.5.1) Heated water circulation and temperature maintenance systems (Mandatory). Heated water circulation systems shall be in accordance with Section R1103.5.1.1. Heat trace temperature maintenance systems shall be in accordance with Section R1103.5.1.2. Automatic controls, temperature sensors and pumps shall be accessible. Manual controls shall be readily accessible.

N1103.6.1 (R403.6.1) Whole-house mechanical ventilation system fan efficacy. Mechanical ventilation system fans shall meet the efficacy requirements of Table N1103.6.1.

N1103.2 (R403.2) Hot water boiler outdoor temperature setback. Hot water boilers that supply heat to the building through one- or two-pipe heating systems shall have an outdoor setback control that lowers the boiler water temperature based on the outdoor temperature.

N1103.5.1.1 (R403.5.1.1) Circulation systems. Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermo-syphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

N1103.5.1.2 (R403.5.1.2) Heat trace systems. Electric heat trace systems shall comply with IEEE 515.1 or UL 515. Controls for such systems shall automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy.

N1103.5.2 (R403.5.2) Demand recirculation systems. A water distribution system having one or more recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe shall be a demand recirculation water system. Pumps shall have controls that comply with both of the following:
1. The control shall start the pump upon receiving a signal from the action of a user of a fixture or appliance, sensing the presence of a user of a fixture or sensing the flow of hot or tempered water to a fixture fitting or appliance.
2. The control shall limit the temperature of the water entering the cold water piping to 104°F (40°C).

N1103.5.4 (R403.5.4) Drain water heat recovery units. Drain water heat recovery units shall comply with CSA 55.2. Drain water heat recovery units shall be tested in accordance with CSA 55.1. Potable water-side pressure loss of drain water heat recovery units shall be less than 3 psi (20.7 kPa) for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units shall be less than 2 psi (13.8 kPa) for individual units connected to three or more showers.

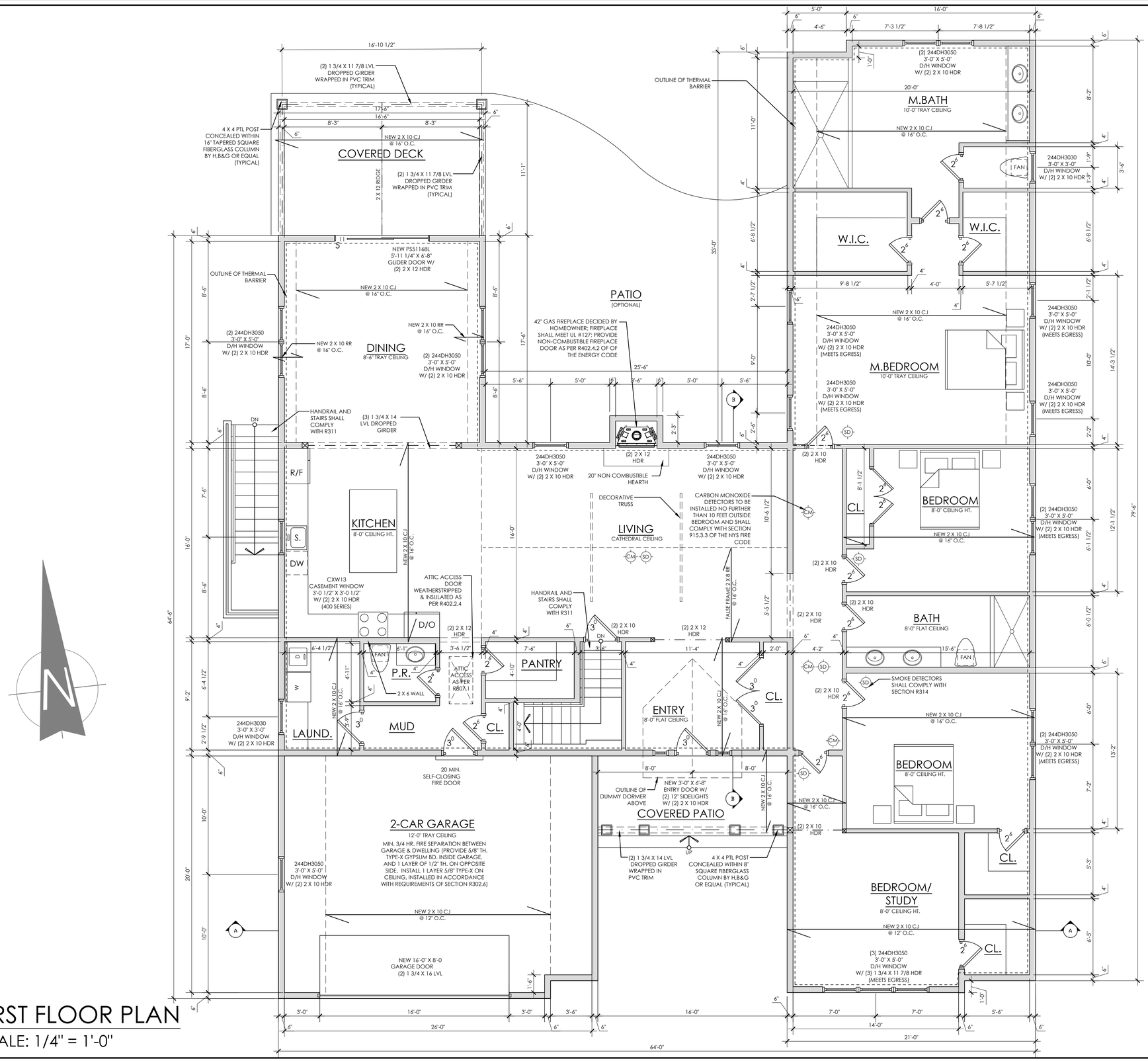
N1101.12 (R303.3) Maintenance information. Maintenance instructions shall be furnished for equipment and systems that require preventive maintenance. Required regular maintenance actions shall be clearly stated and incorporated on a readily accessible label. The label shall include the title or publication number for the operation and maintenance manual for that particular model and type of product.

N1103.9 (R403.9) Snow melt system controls (Mandatory). Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F (10°C), and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F (4.8°C).

N1103.4 (R403.4) Mechanical system piping insulation (Mandatory). Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

N1103.4.1 (R403.4.1) Protection of piping insulation. Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

N1103.5.3 (R403.5.3) Hot water pipe insulation (Prescriptive). Insulation for hot water pipe with a minimum thermal resistance (R-value) of R-3 shall be applied to the following:
1. Piping 3/4 inch (19 mm) and larger in nominal diameter.
2. Piping serving more than one dwelling unit.
3. Piping located outside the conditioned space.
4. Piping from the water heater to a distribution manifold.
5. Piping located under a floor slab.
6. Buried piping.
7. Supply and return piping in recirculation systems other than demand recirculation systems.



FIRST FLOOR PLAN

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

REGISTERED ARCHITECT
JONATHAN R. NICHOLSEN
032131
STATE OF NEW YORK

NICHOLSEN
ARCHITECTURE + DESIGN
208 BLUE POINT AVENUE, BLUE POINT,NY 11715
NICHOLSENARCHITECTURE@GMAIL.COM
631.823.0100

DATE: 05.20.25

DRAWN BY: J.N.

DRAWING TITLE:

FIRST FLOOR PLAN

PROJECT:

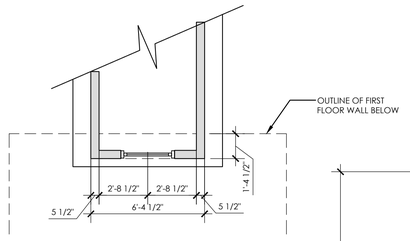
NEW CONSTRUCTION FOR:

KELLY DEVELOPMENT

LOT #10, COLONELS PATH, MANORVILLE, NEW YORK

DRAWING NUMBER:

A102



DORMER PLAN

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

ROOF SPECIFICATIONS

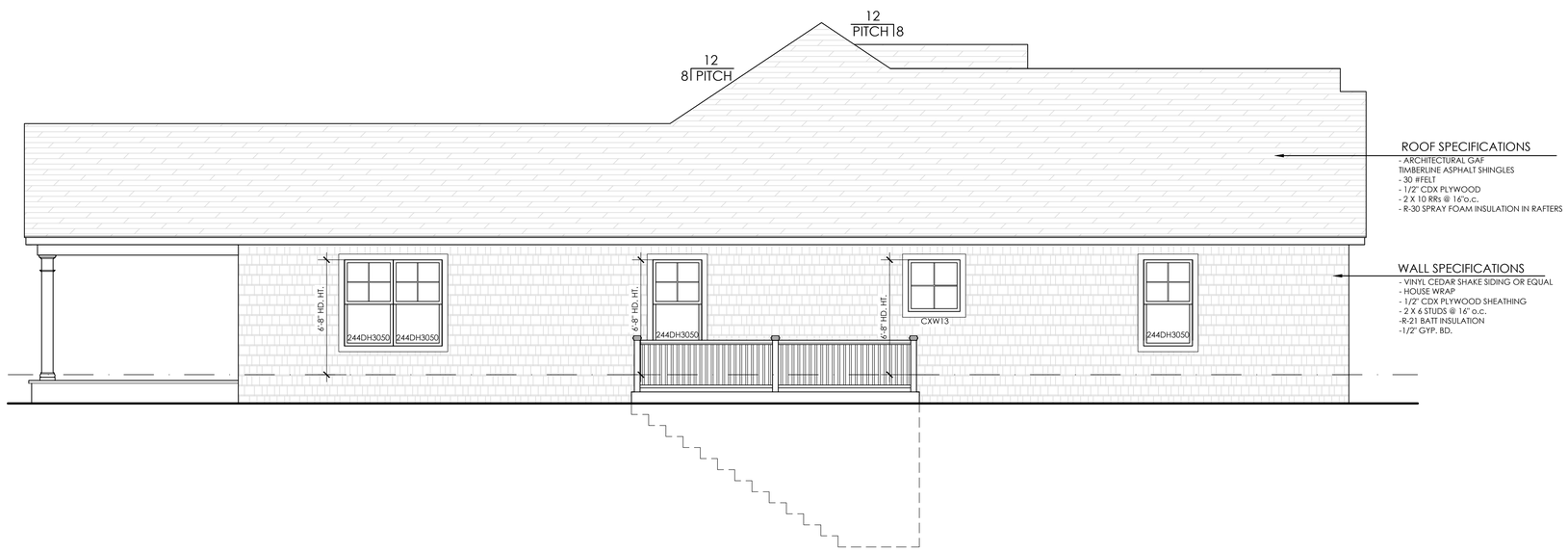
- ARCHITECTURAL GAF TIMBERLINE ASPHALT SHINGLES
- 30 #FELT
- 1/2" CDX PLYWOOD
- 2 X 10 RRs @ 16"o.c.
-R-30 SPRAY FOAM INSULATION IN RAFTERS

WALL SPECIFICATIONS

-VINYL CEDAR SHAKE SIDING OR EQUAL
- HOUSE WRAP
- 1/2" CDX PLYWOOD SHEATHING
- 2 X 6 STUDS @ 16" o.c.
-R-21 BATT INSULATION
-1/2" GYP. BD.

SOUTH ELEVATION

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



ROOF SPECIFICATIONS

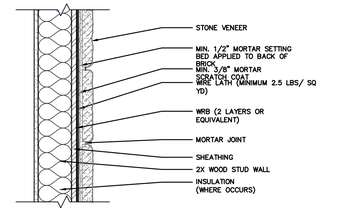
- ARCHITECTURAL GAF TIMBERLINE ASPHALT SHINGLES
- 30 #FELT
- 1/2" CDX PLYWOOD
- 2 X 10 RRs @ 16"o.c.
- R-30 SPRAY FOAM INSULATION IN RAFTERS

WALL SPECIFICATIONS

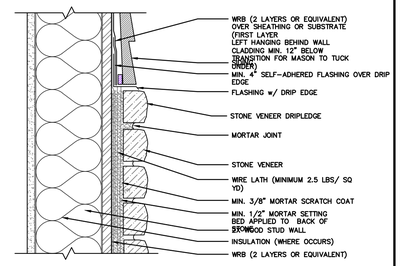
- VINYL CEDAR SHAKE SIDING OR EQUAL
- HOUSE WRAP
- 1/2" CDX PLYWOOD SHEATHING
- 2 X 6 STUDS @ 16" o.c.
-R-21 BATT INSULATION
-1/2" GYP. BD.

WEST ELEVATION

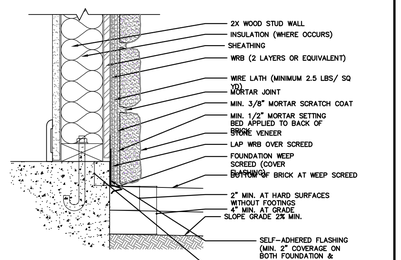
SCALE: 1/4" = 1'-0"



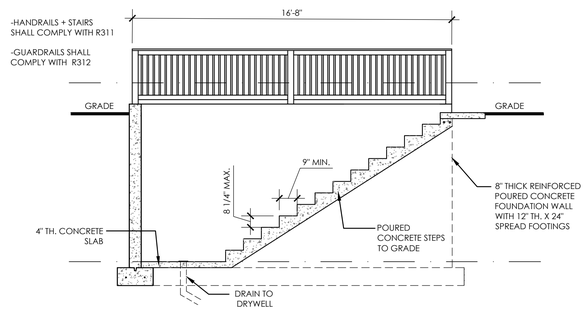
STONE VENEER AND WOOD STUD DETAIL



STONE VENEER AND SILL AT SIDING DETAIL



STONE VENEER AND WOOD STUDS AT FOUNDATION WALL BASE DETAIL



EGRESS STAIRWELL DETAIL

REGISTERED ARCHITECT
JONATHAN R. NICHOLSEN
032131
STATE OF NEW YORK

NICHOLSEN
ARCHITECTURE + DESIGN
208 BLUE POINT AVENUE, BLUE POINT,NY 11715
NICHOLSENARCHITECTURE@GMAIL.COM
631.823.0100

DATE: 05.20.25

DRAWN BY: J.N.

DRAWING TITLE:

ELEVATIONS

PROJECT:

NEW CONSTRUCTION FOR:

KELLY DEVELOPMENT

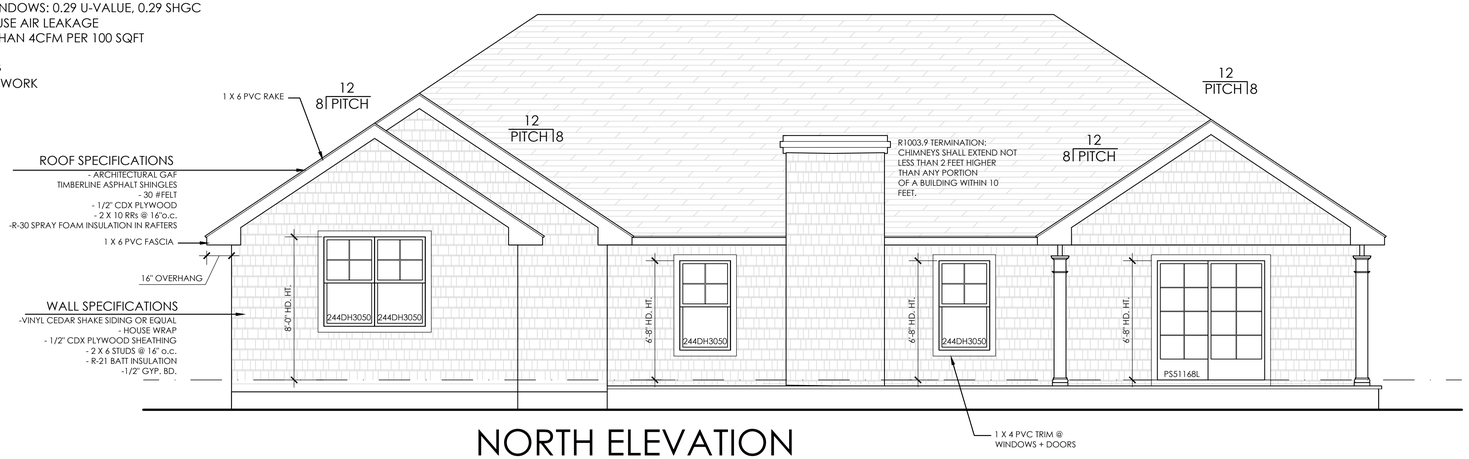
LOT #10, COLONELS PATH, MANORVILLE, NEW YORK

DRAWING NUMBER:

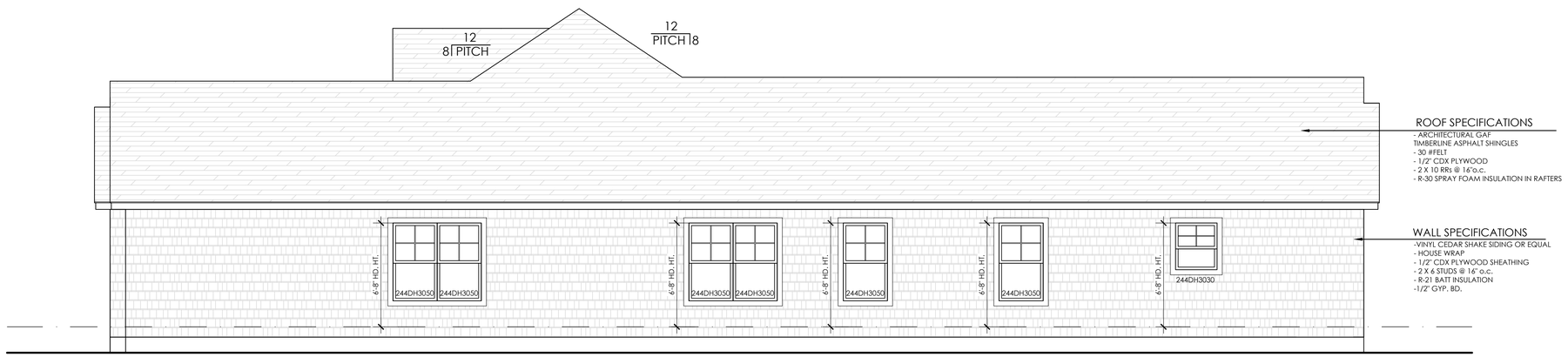
A201

INSULATION SPECIFICATIONS
- ROOF RAFTERS: R-30 SPRAY FOAM INSULATION
- EXTERIOR WALLS: R-21 FIBERGLASS BATT INSULATION
- BASEMENT RIM JOIST: FOAM AIR SEALED, R30 FIBERGLASS

OTHER SPECIFICATIONS
- ANDERSEN 200 SERIES LOW-E4 DOUBLE-HUNG WINDOWS: 0.29 U-VALUE, 0.29 SHGC
- ANDERSEN 200 SERIES LOW-E4 GLIDING DOORS: 0.29 U-VALUE, 0.29 SHGC
- ANDERSEN 400 SERIES LOW-E4 CASEMENT WINDOWS: 0.29 U-VALUE, 0.29 SHGC
- LESS THAN 2.75 AIR CHANGES PER HOUR HOUSE AIR LEAKAGE
- HVAC DUCT AIR LEAKAGE TO OUTSIDE LESS THAN 4CFM PER 100 SQFT
- ENERGY STAR APPLIANCES
- MIN 75 ENERGY EFFICIENT INTERIOR LIGHTING
- BUILDING CAVITY CANNOT BE USED AS DUCTWORK
- HOT WATER PIPES INSULATED TO R3

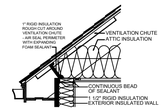


NORTH ELEVATION
SCALE: 1/4" = 1'-0"

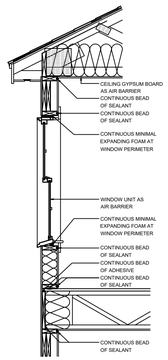


EAST ELEVATION
SCALE: 1/4" = 1'-0"

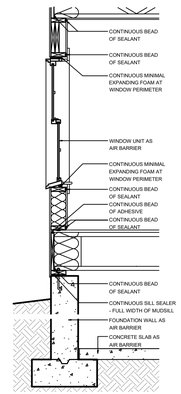
AIR SEALING DETAILS



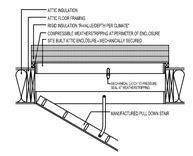
1" RIGID INSULATION AS ATTIC EAVE BAFFLE CUT AROUND MANUFACTURED VENT



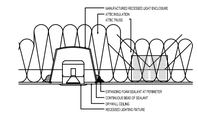
CONCEPTUAL AIR SEALING STRATEGY // UPPER WALL SECTION



CONCEPTUAL AIR SEALING STRATEGY // LOWER WALL SECTION



AIR SEALING AT ATTIC PULL DOWN ATTIC STAIR



AIR SEALING AT RECESSED LIGHTING IN ATTIC

JONATHAN R. NICHOLSEN
REGISTERED ARCHITECT
032131
STATE OF NEW YORK

NICHOLSEN
ARCHITECTURE + DESIGN
208 BLUE POINT AVENUE, BLUE POINT,NY 11715
NICHOLSENARCHITECTURE@GMAIL.COM
631.823.0100

DATE: 05.20.25

DRAWN BY: J.N.

DRAWING TITLE:
ELEVATIONS

PROJECT:
NEW CONSTRUCTION FOR:
KELLY DEVELOPMENT
LOT #10, COLONELS PATH,
MANORVILLE, NEW YORK

DRAWING NUMBER:
A202