

**FIBERGLASS ROOF SHINGLE SYSTEM**

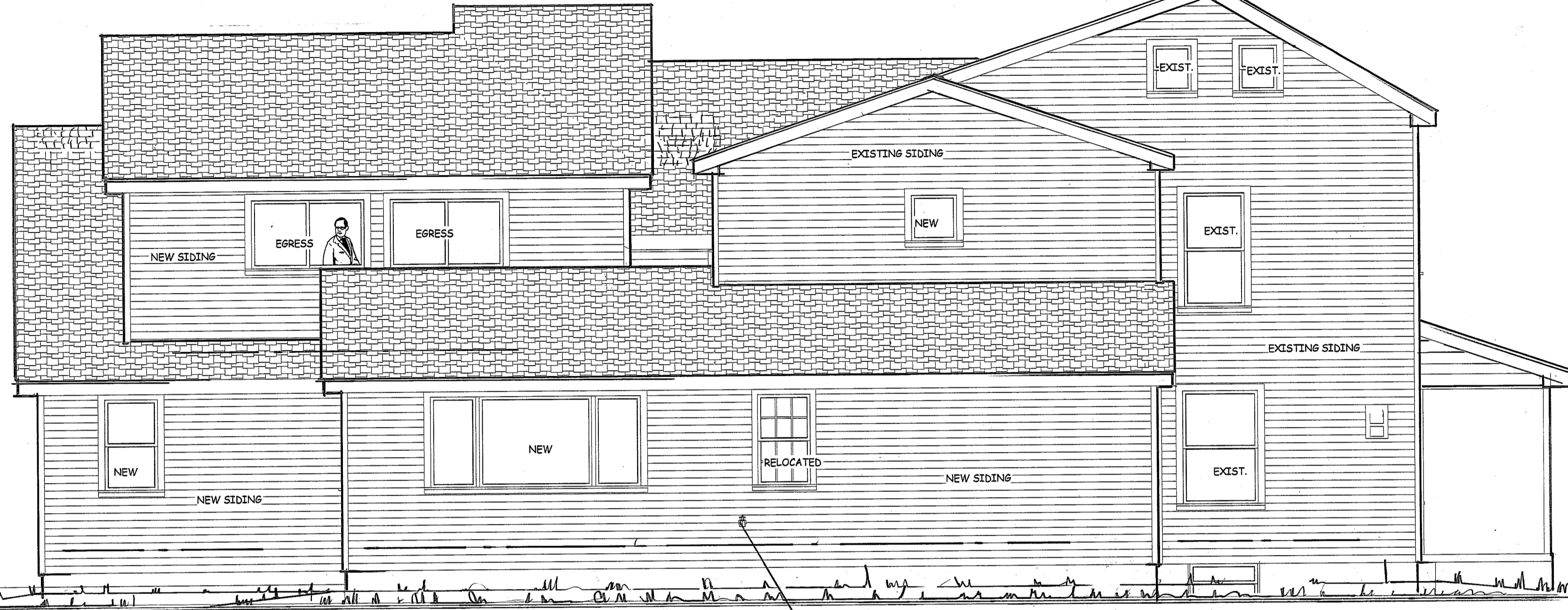
1. WIND RESISTANCE U.L. INC. LISTING CLASS "A". FIRE RATING: U.L. INC. LISTING CLASS "A". WEIGHT MIN. 200 LBS./SQUARE MIN. EXPOSURE MANUFACTURER'S RECOMMENDATIONS, HEAD CAP 2" MINIMUM. SUBMIT TECHNICAL PRODUCT DATA, INSTALLATION INSTRUCTIONS, AND RECOMMENDATIONS. PROVIDE FULL RANGE OF SAMPLES OF COLOR AND TEXTURE FOR OWNER'S SELECTION. PROVIDE SHINGLE MANUFACTURER WARRANTY ON INSTALLED WORK. PERIOD OF WARRANTY IS 30 YEARS FROM DATE OF SUBSTANTIAL COMPLETION. COLOR RECOMMENDED SHALL BE A "GREY/BLUE" WEATHERED WOOD SHAKE REPLICATION. COLOR AND MFG. SHALL BE CONFIRMED BY OWNER.
2. PROVIDE BLACK ALUMINUM METAL DRIP EDGES AT ALL, EAVE AND GABLE, ROOF EDGES.
3. FELT UNDERLAYMENT SHALL COMPLY WITH ASTM D 250. MIN. 30 LB.
4. ICE DAM PREVENTION MEMBRANE (ICE SHIELD) SHALL BE INSTALLED STARTING AT THE EAVE EDGE, AND EXTEND A MIN. 36" UP THE ROOF SLOPE, MEASURED FROM THE INTERIOR FACE OF THE WALL BELOW, SHALL BE COMPATIBLE WITH THE SHINGLE SELECTED.
5. ALL ROOFS WITH SLOPES LESS THAN 4/12 SHALL BE COVERED ENTIRELY WITH ICE AND WATER SHIELD.
6. VALLEY FLASHINGS SHALL BE EXPOSED METAL WITH MIN. 2" EXPOSURE UP EACH OPPOSING ROOF SLOPE. USE COPPER OR VERIFY OWNER'S APPROVAL FOR OTHER MATERIAL. USE ICE DAM MEMBRANE UNDER ALL VALLEYS.
7. ABUTTING ALL VERTICAL SURFACES, INSTALL METAL STEP FLASHING, IN COMPLIANCE WITH RECOMMENDATIONS OF THE NRCA STEEP ROOF MANUAL. BUILD IN FLASHING AS WORK PROGRESSES, WORKING BETWEEN SHINGLES AS THEY ARE LAID. WHEREVER STEP FLASHINGS ARE REQUIRED, PROVIDE EXPOSED COUNTER FLASHING.
8. PLUMBING VENT STACK FLASHINGS, AND SIMILAR, SHALL BE NEW NEOPRENE BOOTS, KNITTED INTO THE SHINGLES, THEN COMPLETE WITH "CAPMASTER" STACK VENT COVERS BY TAPCO OR EQUAL, COORDINATE WITH ROOFER.

**ATTIC VENTILATION**

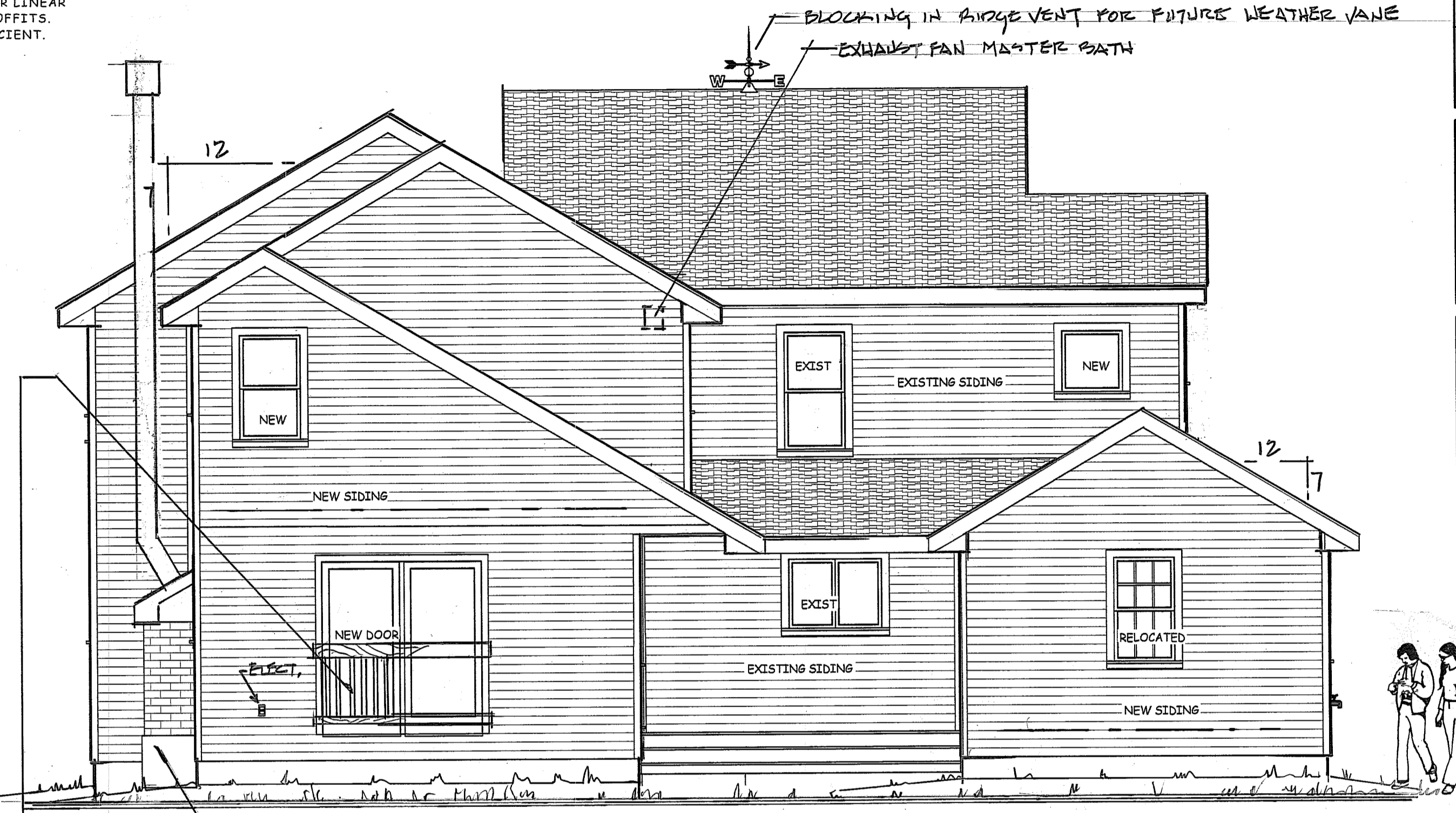
1. ATTICS REQUIRE VENTILATION TO MITIGATE THE BUILD UP OF MOISTURE ON THE UNDERSIDE OF THE ROOF SHEATHING, WHICH CAN THEN LEAD TO EARLY DETERIORATION OF THE ROOFING SUPPORT SYSTEM. THIS OCCURS WHEN THE CEILING OF THE FLOOR BELOW IS INSULATED WITH MATERIALS WHICH CANNOT TOTALLY PREVENT THE ESCAPE OF WARM MOISTURE LADEN AIR THROUGH THE INSULATION SYSTEM TO THE ATTIC.
2. THE TOTAL NET FEE VENTILATION AREA SHALL NOT BE LESS THAN 1 TO 150 OF THE HORIZONTAL AREA OF THE SPACE VENTILATED. THE OBJECTIVE IS TO REMOVE MOISTURE FROM ATTIC AREAS. THIS IS TO BE ACHIEVED BY INDUCING A FREE FLOW OF AIR WITHIN THE ATTIC, GENERALLY FROM BOTTOM TO TOP OF ATTIC VOLUME.
3. ONE-HAFT OF THE VENTILATION AREA SHALL BE PROVIDED BY CONTINUOUS RIDGE VENTS, OR ROOF VENTILATORS. CONTINUOUS RIDGE VENTS SHALL BE MANUFACTURED BY "AIR VENT INC.". THE PRODUCT SHALL BE INCLUDE AN EXTERIOR WIND BAFFLE, INSECT SCREENING, AND PROVIDE A MINIMUM FREE VENT AREA OF 18 SQ. INCHES PER LINEAR FOOT. WHERE RIDGE VENTS ARE NOT PRACTICAL, USE GRAVITY VENTILATORS, LOCATED AS HIGH AS POSSIBLE, PROVIDING MIN. OF 51 SQ. INCHES OF FREE VENT AREA PER UNIT. THESE ARE TRADITIONALLY CALLED "P-SIT" UNITS.
4. ONE-HAFT OF THE VENTILATION AREA SHALL BE PROVIDED BY SOFFIT OR EAVE VENTS. BASE BID IS CERTAINTED 3-1/3" "INVISIVENT" WITH 10 SQ. IN. NET AREA.
5. OPTION IS THE CONTINUOUS SOFFIT VENTS MANUFACTURED BY "AIR VENT INC.". THE PRODUCT SHALL BE A CONTINUOUS STRIP VENT, ALUMINUM OR VINYL, INCLUDE INSECT SCREENING, AND PROVIDE A MINIMUM FREE VENT AREA OF 9 SQ. INCHES PER LINEAR FOOT. THIS VENT STRIP SHALL BE CONTINUOUS THE ENTIRE LENGTH OF SOFFITS. NOTE: "PERFORATED" SOFFIT PANEL MATERIALS ARE GENERALLY NOT SUFFICIENT.

**MINIMUM INSULATION REQUIREMENTS:**

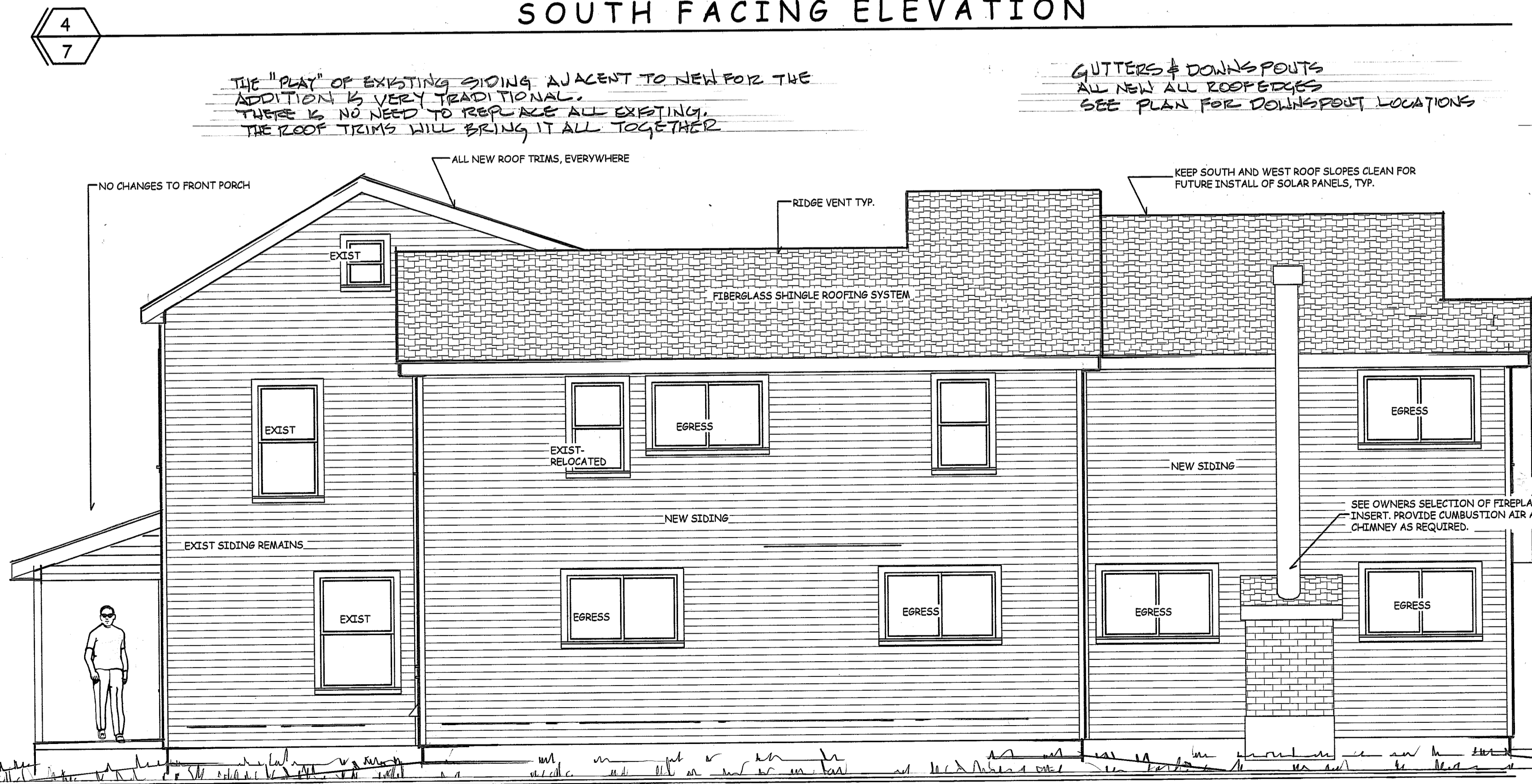
1. THE "PRESCRIPTIVE METHOD" IS VISUALLY FIELD VERIFIABLE, AND IS BASED SOLELY ON THE ACTUAL INSULATION MATERIALS INSTALLED. THE FRAMING, DRYWALL, SHEATHING, ETC. DOES NOT CONTRIBUTE.
2. IF WORTH THE SPECIALTY SERVICE EXPENSE, USING THE ALTERNATIVE "PERFORMANCE METHOD," A COMPLIANCE REPORT MAY BE SUBMITTED SHOWING THE PROPOSED DESIGN HAS ANNUAL ENERGY COST LESS THAN OR EQUAL TO THE ENERGY COSTS OF THE STANDARD REFERENCED (PRESCRIPTIVE) DESIGN. COORDINATE ACCEPTABLE REPORT METHOD WITH THE LOCAL CODE OFFICIAL.
3. EASTERN PA IS IN CLIMATE ZONE 4, CLOSE TO 5. MIN. IS SHOWN.



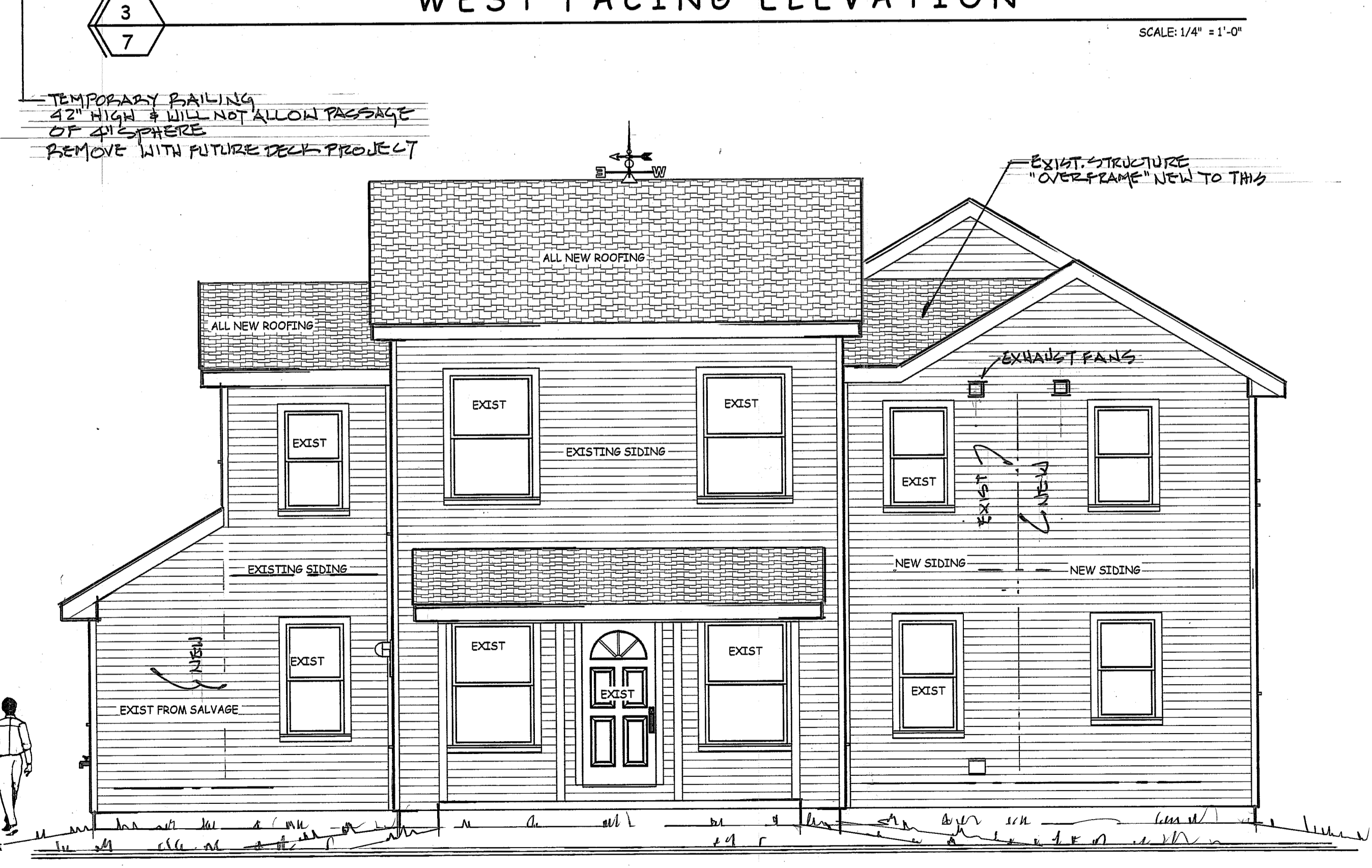
**SOUTH FACING ELEVATION**



**WEST FACING ELEVATION**



**NORTH FACING ELEVATION**



**EAST FACING ELEVATION**

REV. #	REVISION DESCRIPTION	DATE
1	INTRO TO CLIENT	MARCH 6, 2016
2	PROGRESS	06/02/2016
3	FOR PERMIT REVIEW	06/17/2016

PLANS NOT VALID FOR PERMITS UNLESS SIGNED IN RED & IMPRESSED W/ SEAL

**Eric C. Van Reed, Architect**  
**Creative Design Associates, Inc.**  
 ARCHITECTURE INTERIORS SITE & SPACE PLANNING  
 350 Callowhill Road  
 Chalfont, PA 18914  
 215-672-1155  
 www.ArchitectVision.com

**Gerald L. Leatherman**  
 General Construction  
 204 Old Bethlehem Road  
 Perkasie, PA 18944  
 PA Contractor Reg. 013988  
 267-735-7976

**208 OLD BETHLEHEM ROAD**  
 ADDITIONS & ALTERATIONS  
 Hopewell Township, Mercer Co., NJ

Sheet No. **7**  
 Comm. No. 2016-3040 of 9