

STRUCTURAL NOTES

GENERAL NOTES

1. THIS STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE INSTALLATION OF THE STRUCTURE HAS BEEN PROPERLY AND ADEQUATELY COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO INSURE THE SAFETY AND STABILITY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING FIELD ERECTION. THIS INCLUDES, BUT IT NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
2. CODE REQUIREMENTS: 2013 RESIDENTIAL CODE OF OHIO
 - a. ROOF LIVE LOAD = 20 PSF
 - b. ROOF SNOW LOAD = 20 PSF
 - i. GROUND SNOW LOAD = 20 PSF
 - ii. SNOW EXPOSURE FACTOR, Ce = 1.0
 - iii. SNOW LOAD IMPORTANCE FACTOR, Is = 1.0
 - c. WIND DESIGN DATA
 - i. BASIC WIND SPEED = 90 MPH
 - ii. WIND LOAD IMPORTANCE FACTOR, Iw = 1.0
 - iii. WIND EXPOSURE CATEGORY = B
 - d. FLOOR LOAD = 40 PSF
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS, INFORMATION, AND DIMENSIONS PRIOR TO FABRICATION AND CONSTRUCTION. THESE DRAWINGS WERE PREPARED FROM INFORMATION AND DOCUMENTS PROVIDED TO CARPENTER & CROSS BY THE OWNER. DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHOULD BE ANTICIPATED. ANY DISCREPANCIES AND/OR CHANGES BETWEEN THE INFORMATION CONTAINED IN THESE DRAWINGS AND THE ACTUAL VERIFIED SITE CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND CARPENTER & CROSS SO THAT ANY CHANGES AND/OR ADJUSTMENTS, IF NECESSARY, CAN BE MADE TO THE DESIGN AND DRAWINGS.
4. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
5. THE STRUCTURAL CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.
6. ANY SUPPORT SERVICES PERFORMED BY THE ENGINEER DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES, WHICH ARE FURNISHED BY THE INSPECTION/TESTING AGENCY. THESE SUPPORT SERVICES PERFORMED BY THE ENGINEER ARE SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DOCUMENTS. THEY DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
7. ALL MATERIALS AND EQUIPMENT FURNISHED WILL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT THIS PROJECT AND THE RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK AS WELL AS THE OWNER'S SAFETY GUIDELINES.

MASONRY

1. SPECIFICATIONS: MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-13), "PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE, DETROIT, MICHIGAN EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS.
2. MATERIALS:
 - a. MORTAR: ASTM C270 (USING THE UNIT STRENGTH METHOD), TYPE S, MINIMUM COMPRESSIVE STRENGTH = 1800 PSI.
 - b. CORE FILL: ASTM C476, COARSE OR FINE TYPE, PLACED PER ACI 530.1, TABLE 1.20.1, MINIMUM 28 COMPRESSIVE STRENGTH = 2,500 PSI, SLUMP "8" TO "11"
2. MISCELLANEOUS:
 - a. PROVIDE 100% SOLID BLOCKS OR SOLIDLY FILLED HOLLOW BLOCKS FOR AT LEAST 4" ALL AROUND ALL POST INSTALLED ANCHORS SUCH AS SCREW ANCHORS, EXPANSION BOLTS, AND ADHESIVE ANCHORS.
 - b. MAXIMUM HEIGHT OF GROUT LIFT = 5'-0"

STRUCTURAL LUMBER

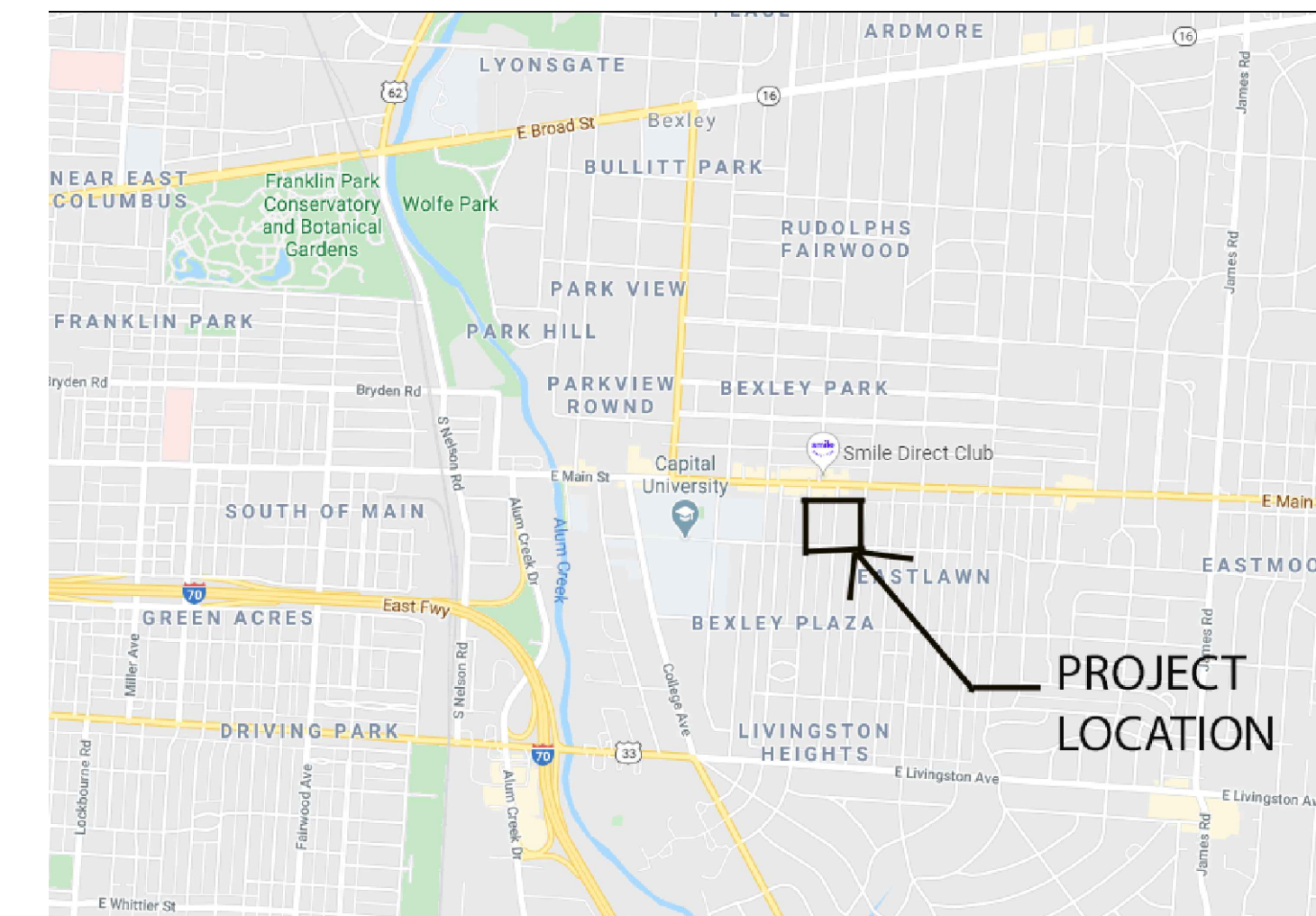
1. MATERIALS:
 - a. STRUCTURAL LUMBER: NO. 2 OR BETTER SPRUCE-PINE-FIR, ALLOWABLE STRESSES PER THE NATIONAL DESIGN SPECIFICATION SUPPLEMENT, 2005 EDITION; 19% MAX. MOISTURE CONTENT. OTHER ACCEPTABLE SPECIES INCLUDE SOUTHERN PINE, DOUGLAS FIR-LARCH, AND HEM-FIR.
 - b. OSB SHEATHING:
 1. ROOFS AND WALLS: STRUCTURAL I, EXPOSURE I, 5 PLY, WITH PANEL INDEX OF 24/0; 5/8 INCH THICK (WITH PLYWOOD CLIPS FOR ROOF SHEATHING).
 2. FLOORS: STURD-I-FLOOR, EXPOSURE I, 5 PLY, WITH PANEL INDEX OF 24 INCHES O.C.; 3/4 INCH THICK, TONGUE AND GROOVE.
2. SPECIFICATIONS: UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION SHALL BE GOVERNED BY THE LATEST EDITION OF:
 - a. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
 - b. U.S. PRODUCT STANDARD PS1
3. CONNECTIONS:
 - a. JOISTS TO SIDES OF BEAMS: 16 GA. GALVANIZED STD. JOIST HANGERS, UNLESS SHOWN OTHERWISE.
 - b. RAFTERS AND TRUSSES TO TOPS OF WALLS AND BEAMS: SIMPSON H3 HURRICANE TIES OR EQUAL, UNLESS SHOWN OTHERWISE.
 - c. SHEATHING TO FLOOR JOISTS: GLUED AND NAILED - USE 8d RING SHANK NAILS AT 6 INCHES O.C. AT PANEL EDGES AND 12 INCHES O.C. AT INTERMEDIATE SUPPORTS. USE ADHESIVES MEETING APA SPECIFICATION APG-01 AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - d. SHEATHING TO ROOF RAFTERS: NAILED - USE 10d x 2 1/2 INCH LONG RING SHANK NAILS AT 6 INCHES O.C. AT PANEL EDGES, AND 12 INCHES O.C. AT INTERMEDIATE SUPPORTS. PROVIDE SHEATHING CLIPS AT MID-SPAN OF SHEATHING BETWEEN SUPPORTS.
 - e. WALL SHEATHING TO WOOD STUDS: NAILED - USE 8d NAILS AT 6 INCHES O.C. AT PANEL EDGES AND 12 INCHES O.C. AT INTERMEDIATE SUPPORTS.
4. MISCELLANEOUS:
 - a. USE ONE LINE OF SOLID BLOCKING OR CROSS BRIDGING AT 8'-0" O.C. MAX. FOR ALL JOISTS AND RAFTERS, USE SOLID BLOCKING AT JOIST AND RAFTER BEARING.
 - b. USE SOLID BLOCKING AT MID-HEIGHT FOR ALL EXTERIOR STUD WALLS AND INTERIOR BEARING PARTITIONS.
 - c. USE DOUBLE JOIST UNDER INTERIOR PARTITIONS, UNLESS SHOWN OTHERWISE.
 - d. USE DOUBLE STUDS UNDER BEAM AND LINTEL BEARING, UNLESS SHOWN OTHERWISE.
 - e. APPLY CONTINUOUS BEAD OF ADHESIVE ON JOISTS AND GROOVE OF TONGUE AND GROOVE PANELS.
 - f. BEFORE APPLYING FINISH FLOORING, SET NAILS 1/8 INCH BUT DO NOT NAIL, AND LIGHTLY SAND ANY SURFACE ROUGHNESS, PARTICULARLY AT JOINTS AND AROUND NAILS.

LAMINATED VENEER LUMBER (LVL)

1. PRODUCT DESCRIPTION:
 - a. A STRUCTURAL COMPOSITE WOOD MEMBER MANUFACTURED USING WOOD VENEERS, WITH THE GRAIN DIRECTIONS OF ALL PLYS ORIENTED PARALLEL TO THE LENGTH OF THE MEMBER. PLYS OF WOOD ARE BONDED TOGETHER WITH EXTERIOR EXPOSURE ADHESIVES.
2. REFERENCED STANDARDS:
 - a. THE MANUFACTURER OF LVL PRODUCTS MUST COMPLY WITH THE FOLLOWING ASTM STANDARDS.
 1. ASTM D2559: SPECIFICATION FOR ADHESIVES FOR STRUCTURAL LAMINATED WOOD PRODUCTS FOR USE UNDER EXTERIOR (WET-USE) EXPOSURE CONDITIONS.
 2. ASTM D4761: STANDARD TEST METHODS FOR MECHANICAL PROPERTIES OF LUMBER AND WOOD-BASE STRUCTURAL MATERIAL.
 3. ASTM D5456: SPECIFICATION FOR EVALUATION OF STRUCTURAL COMPOSITE LUMBER PRODUCTS.
 4. ASTM D5764: STANDARD TEST METHODS FOR EVALUATION DOWEL-BEARING STRENGTH OF WOOD AND WOOD-BASED STRUCTURAL PRODUCTS.
3. DESIGN AND STRENGTH:
 - a. THE MECHANICAL PROPERTIES FOR LVL MUST MEET THE FOLLOWING MINIMUM DESIGN VALUES:
 1. BENDING STRESS (Fb) = 2600 psi
 2. SHEAR STRESS (Fv) = 285 psi
 3. COMPRESSION STRESS PARALLEL TO GRAIN (Fc1) = 2310 psi
 4. COMPRESSION STRESS PERPENDICULAR TO GRAIN (Fc2) = 750 psi
 5. MODULUS OF ELASTICITY (E) = 1.9 x 10(6) psi
 - b. MECHANICAL FASTENER VALUES FOR WITHDRAWAL AND SHEAR MUST MEET THE MINIMUM VALUES FOR DOUGLAS FIR-LARCH AS POSTED IN THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION.
4. MATERIAL AND TOLERANCES:
 - a. VENEERS: ULTRASONICALLY GRADED FOR CONSISTENCY, TO ACHIEVE THE ALLOWABLE UNIT STRESSES AS LISTED ABOVE. LAMINATION THICKNESS SHALL NOT EXCEED 0.25 INCH THICK.
 - b. ADHESIVE: WATERPROOF, CONSISTENT WITH THE ALLOWABLE STRESSES LISTED ABOVE.
 - c. LVL MEMBERS MUST BE IDENTIFIED BY A STAMP INDICATING THE PRODUCT TYPE AND GRADE, MANUFACTURER'S NAME, PLANT NUMBER, AND AN INDEPENDENT INSPECTION AGENCY'S LOGO.
5. DELIVERY, HANDLING, STORAGE AND ERECTION:
 - a. DELIVER LVL MEMBERS WITH SETTING DRAWINGS AND INSTALLATION INSTRUCTIONS, SUFFICIENTLY WELL-DETAILED FOR PROPER ERECTION.
 - b. STORE MEMBERS OFF THE GROUND ON RUNNERS, BUNDLED IN AN UPRIGHT POSITION, PROTECTED FROM THE WEATHER.
 - c. AVOID INDUCING DAMAGE TO THE LUMBER. REPLACE ALL DAMAGED PIECES.
 - d. DO NOT CUT, NOTCH, OR OTHERWISE MODIFY ANY MEMBER EXCEPT AS SHOWN ON THE STRUCTURAL DRAWINGS OR ERECTION DRAWINGS.
 - e. ENSURE THAT CONSTRUCTION LOADS DO NOT EXCEED THE DESIGN CARRYING CAPACITY OF MEMBERS.

DORMER ADDITION: 644 SOUTH CASSINGHAM ROAD BEXLEY, OHIO 43209

| DRAWING INDEX | | ISSUE DATE | REV. DATE |
|---------------|--|------------|-----------|
| A-1 | COVER SHT, CODED NOTES, GEN. NOTES, LOCATION PLAN, SITE PLAN | 03/12/2020 | |
| A-2 | EXISTING PLANS, DEMO PLANS | 03/12/2020 | |
| A-3 | EXISTING EXTERIOR ELEVATIONS | 03/12/2020 | |
| A-4 | PROPOSED EXTERIOR ELEVATIONS / SECTION | 03/12/2020 | |
| A-5 | ROOF AND ROOF FRAMING PLAN, PROPOSED FL. PLANS | 03/12/2020 | |



1 PROJECT LOCATION NOT TO SCALE

NOTES:

- PROPOSED WINDOW REPLACEMENT UNDER SEPARATE PERMIT

- PROPOSED INTERIOR RENOVATION UNDER SEPARATE PERMIT #RBLD-20-38

-PROPOSED FENCE CONSTRUCTION UNDER SEPARATE PERMIT

