GENERAL NOTES

- THIS PROJECT HAS BEEN DESIGNED USING THE 2021 INTERNATIONAL BUILDING CODE NEW JERSEY EDITION.
- 2. STRUCTURAL SPECIAL INSPECTIONS ARE A REQUIREMENT FOR THIS PROJECT. A QUALIFIED INDEPENDENT INSPECTION AGENCY SHALL BE SELECTED TO PERFORM THIS SERVICE. ALL INSPECTIONS AS REQUIRED BY CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (SEE THE FOLLOWING TABULAR REFERENCES) ARE REQUIRED AT A MINIMUM. FOR CONCRETE CONSTRUCTION SEE TABLE 1705.3, FOR SOILS SEE TABLE 1705.6, FOR WOOD CONSTRUCTION SEE 1705.5. SEE THE NOTES ON THIS DRAWING FOR ANY ADDITIONAL INSPECTIONS REQUIRED.
- ALL CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR ADHERING TO THE REQUIREMENTS AS INDICATED IN THE NOTES FOR THIS JOB. FAILURE OF THE CONTRACTOR TO READ THE STRUCTURAL NOTES DOES NOT PERMIT THE CONTRACTOR TO DEVIATE FROM THEIR REQUIREMENTS. . NO FIELD MODIFICATIONS TO ANY STRUCTURAL COMPONENTS SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE STRUCTURAL ENGINEER. THIS INCLUDES, BUT
- IS NOT LIMITED TO REVISIONS DUE TO MIS-LOCATION, MISFIT, OR ANY OTHER CONSTRUCTION ERRORS. ALL CONSTRUCTION AND DEMOLITION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES INCLUDING ALL OSHA REGULATIONS. . CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL PEOPLE WHO MAY BE ON OR NEAR THE WORK AREA, BY MAINTAINING A SAFE WORK
- AREA, SAFE WORKING CONDITIONS, AND LIMITING ACCESS TO THE WORK AREA. . CONTRACTOR IS FULLY RESPONSIBLE FOR HIS WORKERS' SAFETY, SAFETY EQUIPMENT, FIRST AID, AND EMERGENCY HANDLING PROCEDURES.
- . CONTRACTOR SHALL PERSONALLY SUPERVISE THE WORK AND SHALL BE PRESENT AT THE WORK SITE AT ALL TIMES DURING CONSTRUCTION WORK. CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL FOR THE PROPER COORDINATION AND EXPEDITING OF THE WORK.

THESE DRAWINGS SHALL NOT BE SCALED FOR PURPOSES OF CONSTRUCTION.

- 10. TYPICAL DETAILS ARE NOT NECESSARILY REFERENCED ON EVERY DRAWING SHEET AND SHALL BE USED BY THE CONTRACTOR AS REQUIRED FOR ALL CONDITIONS WHERE APPLICABLE.
- 11. IN CASE OF CONFLICT BETWEEN STRUCTURAL DRAWINGS AND OTHER DRAWINGS OF THIS PROJECT, CONTRACTOR SHALL IMMEDIATELY CONTACT ARCHITECT FOR CLARIFICATION PRIOR TO START OF WORK.
- 12. IN CASE OF CONFLICT BETWEEN STRUCTURAL DRAWINGS AND STRUCTURAL SPECIFICATIONS, CONTRACTOR SHALL IMMEDIATELY CONTACT ENGINEER FOR CLARIFICATION PRIOR TO START OF WORK.
- 13. ALL COLUMN LINE AND WALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS ARE FOR REFERENCE AND SHALL FIRST BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO THE START OF THE PROJECT
- 14. THE CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND VERIFICATION OF EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO THE LOCATION, ELEVATIONS AND DIMENSIONS OF EXISTING WALLS AND FRAMING. 15. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND TEMPORARY SHORING OF THE EXCAVATIONS AND BUILDING STRUCTURE AS
- REQUIRED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION. DESIGN OF SHEETING, SHORING, SCAFFOLDING, FORM WORK, AND OTHER MEANS AND METHODS STRUCTURES SHALL BE DESIGNED BY ENGINEERS HIRED BY THE CONTRACTOR. 16. SECTIONS SHOWN ON PLANS APPLY TO SIMILAR CONDITIONS THROUGHOUT THE BUILDING.
- 17. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL DRAWINGS FOR THE PROJECT FOR THE FOLLOWING INFORMATION. A. LOCATION OF ALL REQUIRED OPENINGS IN WALLS, FLOORS, ROOF, ETC. ALL OPENINGS MAY NOT BE INDICATED ON STRUCTURAL DRAWINGS.
- SIZE AND LOCATION OF ALL SLEEVES, INSERTS, AND DEPRESSIONS. LOCATION AND SIZE OF ALL EQUIPMENT HOUSE KEEPING PADS.
- 18. ALL COSTS OF INVESTIGATION OR REDESIGN REQUIRED TO CORRECT CONTRACTOR MIS-LOCATION OF STRUCTURAL ELEMENTS OR OTHER CONSTRUCTION
- DOCUMENT DEVIATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. 19. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL MASONRY AND STUD NON-LOAD BEARING PARTITIONS. PROVIDE SLIP CONNECTIONS THAT ALLOW FOR VERTICAL MOVEMENT OF THE BUILDING STRUCTURE AT THE HEADS OF ALL PARTITIONS. CONNECTIONS SHALL BE DESIGNED TO SUPPORT THE TOP OF WALL
- LATERALLY FOR ALL CODE REQUIRED LATERAL FORCES. PROVIDE FIRE SAFING AT THE TOP OF THE WALL AS REQUIRED BY ARCHITECTURAL DRAWINGS. 20. THE DESIGN OF NON-LOAD BEARING STUD AND CURTAIN WALLS SHALL BE PERFORMED BY ENGINEERS RETAINED BY THE CONTRACTOR. DRAWINGS AND CALCULATIONS FOR THESE WALLS SHALL BE PREPARED AND SUBMITTED FOR REVIEW. ALL SUBMITTALS SHALL BE SIGNED AND SEALED BY ENGINEERS LICENSED IN THE STATE OF THE PROJECT'S JURISDICTION. DESIGN OF WALL SYSTEM AND CONNECTIONS SHALL CONSIDER ALL VERTICAL AND LATERAL LOADS REQUIRED BY THE APPLICABLE BUILDING CODE.

FOUNDATIONS

- . SPECIAL INSPECTIONS FOR EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT. AND LOAD BEARING REQUIREMENTS SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE AND TABLE 1705.6.
- 2. BOTTOM OF ALL FOOTINGS HAVE BEEN DESIGNED TO BEAR ON SOIL CAPABLE OF SAFELY SUPPORTING 3,000 PSF.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE AUTHORITIES TO LOCATE ALL POTENTIALLY BURIED UTILITIES WITHIN THE
- PROPOSED PROJECT SITE BUILDING FOOTPRINT PRIOR TO COMMENCING EXCAVATION FOR NEW BUILDING FOUNDATIONS. 4. EXISTING FOUNDATIONS, SLABS, PAVEMENTS, UNDERGROUND UTILITIES, AND OTHER BELOW GRADE STRUCTURES SHALL BE REMOVED FROM THE PROPOSED PROJECT SITE BUILDING FOOTPRINT. REMOVE SURFACE VEGETATION, TOPSOIL, ROOT SYSTEMS, ORGANIC MATERIAL, EXISTING FILL, AND SOFT UNSUITABLE MATERIAL FROM THE BUILDING AREA.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING NEW FOUNDATION CONSTRUCTION ACTIVITIES ADJACENT TO EXISTING BUILDING FOUNDATIONS THAT ARE TO REMAIN (EVEN IF LOCATED ON AN ADJACENT PROPERTY). SINCE DRAWINGS FOR EXISTING CONSTRUCTION ARE NOT ALWAYS AVAILABLE DURING DESIGN, CERTAIN ASSUMPTIONS MAY BE MADE REGARDING EXISTING FOUNDATIONS BASED ON TYPICAL CONSTRUCTION PRACTICES. THESE ASSUMPTIONS TYPICALLY REQUIRE CONTRACTOR FIELD VERIFICATION PRIOR TO CONSTRUCTION OF THE NEW STRUCTURES. IN ANY EVENT, THE ENGINEER MUST BE NOTIFIED IMMEDIATELY IF EXISTING SITE OR FOUNDATION CONDITIONS DIFFER FROM THOSE SHOWN OR ASSUMED ON THE CONTRACT DRAWINGS. IN NO INSTANCE SHALL EXISTING BUILDING FOUNDATIONS BE UNDERMINED TO INSTALL NEW FOUNDATIONS. IF NEW BOTTOM OF FOOTING ELEVATIONS ARE LOWER THAN ADJACENT EXISTING BOTTOM OF FOOTING ELEVATIONS THE ENGINEER MUST BE NOTIFIED IMMEDIATELY TO PROVIDE ADDITIONAL DETAILS AS REQUIRED TO CONSTRUCT THE NEW FOUNDATIONS AT THE LOWER LEVEL.
- THE CONTRACTOR MUST PROVIDE SURFACE DRAINAGE AND PUMPS TO PROTECT ALL EXCAVATION FROM FLOODING OR GROUND WATER INFILTRATION. FLOODING OF ANY EXCAVATION AFTER APPROVAL OF THE SUBGRADE WILL BE CAUSE FOR COMPLETE RE-PREPARATION OF THE SUBGRADE.
- BOTTOM OF ALL FOOTINGS MUST BE INSPECTED AND APPROVED BY A REGISTERED SOILS ENGINEER BEFORE PLACING ANY CONCRETE. APPROVAL IN WRITING MUST INDICATE THE SOIL IS ADEQUATE TO SAFELY SUSTAIN A SOIL BEARING PRESSURE OF 3,000 PSF BELOW ALL FOOTINGS.
- 8. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF THREE FEET (3'-0") BELOW EXTERIOR FINISH GRADE.
- 9. STANDARD PROCEDURES FOR FROST PROTECTION OF FOUNDATIONS AND EXCAVATIONS SHALL BE EMPLOYED FOR WINTER CONSTRUCTION. BACKFILLING OF EXCAVATIONS SHALL BE DONE AS SOON AS POSSIBLE TO PROTECT FOUNDATIONS FROM FROST. 10. THE BUILDING SITE SHOULD BE EXCAVATED TO THE DEPTH AND EXTENT INDICATED IN THE SOILS REPORT. ALL SUBGRADES SHALL BE APPROVED IN WRITING BY
- THE SOILS ENGINEER PRIOR TO BACKFILLING. 1. EXPOSED CONCRETE WALLS SHALL HAVE CONTROL JOINTS AT 30 FEET MAXIMUM ON CENTERS UNLESS NOTED OTHERWISE. WALLS WITH INTEGRAL COLUMN
- PIERS OR PILASTERS SHALL HAVE A FORMED CONTROL JOINT ON ONE SIDE OF EACH PIER ON BOTH FACES OF THE WALL, JOINTS TO BE FILLED WITH AN APPROVED SEALANT.
- 12. UNLESS OTHERWISE DICTATED BY THE GEOTECHNICAL ENGINEER, ALL FILL AND BACKFILL SHALL BE COMPACTED IN 8 INCH MAXIMUM LIFTS TO NOT LESS THAN 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557. 13. HORIZONTAL REINFORCING BARS IN FOUNDATIONS AND STEM WALLS SHALL BE CONTINUOUS. PROVIDE CORNER BARS AT ALL CORNERS AND INTERSECTIONS.
- 14. FOUNDATION PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER. PENETRATIONS SHALL BE THROUGH THE FOUNDATION STEM WALL OR 6" CLEAR BELOW FOOTINGS.
- 15. ALL CMU WALL FOUNDATION WALLS SHALL BE FILLED SOLID WITH 3,000 PSI GROUT BELOW FINISHED GRADE ELEVATION UNLESS NOTED OTHERWISE ON PLANS.

WOOD TRUSS BRACING

- WOOD TRUSSES SHALL BE DESIGNED, BRACED AND ERECTED IN ACCORDANCE WITH THE LATEST APPLICABLE EDITION OF THE FOLLOWING STANDARDS: A. NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (ANSI/TPI 1-2014). B. METAL PLATE CONNECTED WOOD TRUSS HANDBOOK (LATEST EDITION) PUBLISHED BY THE WTCA.
- C. GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES BUILDING COMPONENT SAFETY INFORMATION (BCSI - LATEST EDITION).
- BRACING IN THE PLANE OF THE WEB MEMBERS: A. THE TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
- B. LATERAL BRACING SHALL BE RESTRAINED BY DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER). THIS BRACING IS TO BE CONTINUOUS.
- C. A MINIMUM OF TWO ROWS OF DIAGONAL BRACING IS REQUIRED. ONE AT EACH VERTICAL WEB MEMBER CLOSEST TO BEARING LOCATIONS. . THE BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8 TO 10 FEET NAILED TO TOP OF THE BOTTOM CHORD.
- DIAGONALS PLACED AT 45 DEGREES TO THE LATERAL BRACES SHALL BE LOCATED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.
- . TOP CHORD BRACING: A. IF PLYWOOD DECKING IS APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAPHRAGM ACTION, BRACING IS NOT REQUIRED.
- B. IF PURLINS ARE USED, DIAGONAL TOP CHORD BRACING IS REQUIRED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.
- WOOD ROOF TRUSSES ARE TO BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL ENGINEER AND SEALED CALCULATIONS ARE TO BE SUBMITTED FOR APPROVAL.
- . WOOD FLOOR AND ROOF TRUSSES SHALL BE DESIGNED ACCORDING TO THE FOLLOWING DEFLECTION CRITERIA. FLOOR TRUSS LIVE LOAD DEFLECTION =
- L/360, TOTAL LOAD DEFLECTION = L/240. ROOF TRUSS LIVE LOAD DEFLECTION = L/240, TOTAL LOAD DEFLECTION = L/180. 7. ALL GABLE END TRUSSES SHALL BE DESIGNED AND BRACED TO SUPPORT COMPONENT AND CLADDING WIND LOAD ON EXPOSED FACE OF TRUSS.

BOLTS, SCREWS, & FASTENERS

- 1. FASTENERS FOR MATERIALS SHOWN ON STRUCTURAL DRAWINGS SHALL BE IN ACCORDANCE WITH THE MATERIAL SPECIFICATION NOTES ON THE LEAD SHEET OR IF NOT INDICATED, THE NOTES IN THIS SECTION.
- . INSTALLATION OF ALL THE FASTENERS SHALL BE IN ACCORDANCE WITH THE FASTENER MANUFACTURERS WRITTEN INSTRUCTIONS. . PROVIDE CORROSION RESISTANCE ON ALL FASTENERS BASED ON APPLICATION AND MATERIAL BEING FASTENED. FOR APPLICATIONS INVOLVING PRESSURE TREATED LUMBER, OR FOR FASTENERS BEING INSTALLED IN WET AREAS, PROVIDE STAINLESS STEEL OR HOT-DIP GALVANIZED
- FASTENERS. ALL FASTENERS INSTALLED INTO SLAB ON GRADE APPLICATIONS SHALL BE HOT-DIP GALVANIZED OR ZINC PLATED. 4. DO NOT INSTALL PAF OR POST-INSTALLED DRILLED-IN FASTENERS INTO POST-TENSIONED CONCRETE SLABS WITHOUT PRIOR APPROVAL OF
- STRUCTURAL ENGINEER. DO NOT CUT CONCRETE REINFORCING TO INSTALL POST-INSTALLED DRILLED-IN FASTENERS.
- 5. ALL POWDER ACTUATED FASTENERS SHALL BE AS MANUFACTURED BY HILTI OR APPROVED EQUAL. 6. ALL PAF SHALL BE INSTALLED SO THAT THE ATTACHED MATERIAL IS CLAMPED TIGHT TO THE BASE MATERIAL. THE APPROPRIATE PAF FASTENER
- SHALL BE SELECTED BASED ON THE APPLICATION AND BASE MATERIAL. 7. ALL SCREWS FOR COLD-FORMED STEEL APPLICATIONS SHALL BE AS MANUFACTURED BY ITW BUILDEX.
- 8. ALL SELF-DRILLING SCREWS SHALL BE INSTALLED FULLY SEATED WITH THE FASTENER HEAD FLUSH WITH THE WORK SURFACE.
- 9. DO NOT OVERDRIVE SELF-TAPPING SCREWS. TORSIONAL FAILURE OF FASTENER OR STRIP OUT OF SUBSTRATE MAY RESULT.
- 10. INSTALL ALL SELF-DRILLING SCREWS TO PENETRATE BEYOND THE METAL STRUCTURE A MINIMUM OF 3 PITCHES OF THREAD. 11. ALL POST-INSTALLED EXPANSION AND SCREW ANCHORS INTO CONCRETE SHALL BE AS MANUFACTURED BY HILTI OR APPROVED EQUAL.
- 12. EMBEDMENT DEPTH FOR ALL POST-INSTALLED ANCHORAGE TO CONCRETE SHALL BE AS SHOWN ON THE STRUCTURAL SECTIONS AND DETAILS. IF EMBEDMENT DEPTH IS NOT INDICATED, PROVIDE MANUFACTURERS STANDARD EMBEDMENT.
- 13. SEE POST-INSTALLED ADHESIVE ANCHOR NOTES FOR CHEMICAL/EPOXY ADHESIVE ANCHORS INSTALLED IN CONCRETE OR HOLLOW CMU. 14. EXPANSION ANCHORS INTO CONCRETE SHALL BE HILTI KWIK BOLT TZ (UNO). EXPANSION ANCHORS INTO SOLID GROUTED CMU SHALL BE HILTI KWIK BOLT 3.

STRUCTURAL NOTES

MENSIONAL LUMBER, ENGINEERED LUMBER, SHEATHING

CONTRACTOR SHALL SUBMIT CERTIFICATION FOR ALL LUMBER USED ON PROJECT. CERTIFICATION SHALL INDICATE LUMBER COMPLIANCE WITH DESIGN PROPERTIES INDICATED IN THESE NOTES AND ON THE DRAWINGS. 2. ALL STRUCTURAL LUMBER NOTED ON PLANS SHALL BE SPF No. 1 /2 (OR APPROVED EQUAL) AND HAVE MINIMUM ALLOWABLE PROPERTIES AS FOLLOWS:

Fb = 875 PSI, Fv = 135 PSI, E = 1,400,000 PSI. ALL STRUCTURAL LUMBER TO BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S "CONSTRUCTION MANUAL".

3. ALL DIMENSIONAL LUMBER PROVIDED FOR THE PROJECT SHALL BE SURFACE DRY WITH A MAXIMUM MOISTURE CONTENT NOT EXCEEDING 19 PERCENT. GREEN LUMBER SHALL NOT BE UTILIZED FOR ANY PORTIONS OF THIS PROJECT. 4. ALL SHEAR WALLS AND EXTERIOR WALLS SHALL HAVE SOLID FULL DEPTH WOOD BLOCKING AT ALL SHEATHING PANEL EDGES

5. WOOD STUD SPACING DEPICTED ON STRUCTURAL PLANS FOR BEARING AND SHEAR WALLS IS THE MAXIMUM SPACING ALLOWED FOR SUPPORT OF THE DESIGN LOADS. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS FOR THE LOCATION AND DIMENSIONS OF ALL WOOD BEARING AND SHEAR WALLS. CONTRACTOR SHALL REVIEW UL FIRE RATING REQUIREMENTS AND SOUND STC RATINGS FOR EACH WALL AND CONFIRM THAT STUD SPACING SHOWN ON STRUCTURAL DRAWINGS CONFORMS TO MAXIMUM SPACING ALLOWED IN UL/STC ASSEMBLY SPECIFIED ON ARCHITECTURAL DRAWINGS. IF STUD SPACING SHOWN ON STRUCTURAL DRAWINGS DOES NOT MATCH STUD SPACING SHOWN IN UL/STC ASSEMBLY ON ARCHITECTURAL DRAWINGS, THE CONTRACTOR SHALL CONTACT THE ARCHITECT FOR DIRECTION PRIOR TO CONSTRUCTION OF THE THE WALL.

6. ALL WOOD FOR EXTERIOR DECKS SHALL BE PRESSURE-TREATED. 7. ALL LUMBER AND WOOD CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND CODES AS SPECIFIED BELOW:

A. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION: TIMBER CONSTRUCTION MANUAL.

B. ANSI / AF&PA: NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION 2018. C. ENGINEERED WOOD ASSOCIATION (APA): PLYWOOD DESIGN SPECIFICATION.

D. AMERICAN WOOD-PRESERVERS ASSOCIATIONS STANDARDS.

E. NATIONAL LUMBER MANUFACTURERS ASSOCIATIONS: NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS

9. DESIGN, FABRICATION AND INSTALLATION OF WOOD TRUSSES AND SHEET METAL CONNECTORS SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A. NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (ANSI/TPI 1-2014).

B. METAL PLATE CONNECTED WOOD TRUSS HANDBOOK (LATEST EDITION) PUBLISHED BY THE WTCA. C. GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES BUILDING COMPONENT SAFETY INFORMATION (BCSI - LATEST EDITION).

10. ALL WOOD CONNECTIONS ARE TO BE MADE USING PREFABRICATED CONNECTORS. TOE-NAILING WILL NOT BE PERMITTED. SUBMIT MANUFACTURER'S DATA FOR APPROVAL. FASTENERS TO BE AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL. 11. ALL WOOD CONNECTORS SHALL BE PROVIDED IN MANUFACTURERS STANDARD FINISH EXCEPT FOR APPLICATIONS INVOLVING PRESSURE TREATED OR FIRE-RETARDANT TREATED LUMBER. FOR TREATED LUMBER APPLICATION, ALL METAL CONNECTORS SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. USING SIMPSON PRODUCTS AS A BASIS, CONNECTORS FOR PRESSURE TREATED APPLICATIONS SHALL BE "ZMAX", POST HOT DIPPED GALVANIZED,

OR STAINLESS STEEL. ANY PRODUCT SUBSTITUTIONS MUST MEET THIS MINIMUM STANDARD. 12. FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE TREATED WOOD OR FIRE RETARDANT TREATED WOOD SHALL BE HOT-DIP GALVANIZED OR STAINLESS STEEL. PLAIN CARBON STEEL FASTENERS ARE ALLOWED IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR DRY ENVIRONMENT ONLY

13. SIMPSON STRONG TIE CONNECTIONS HAVE BEEN SPECIFIED TO MEET THE STRUCTURAL CALCULATIONS OF PLAN ELEMENTS. PRIOR TO SUBSTITUTING ANOTHER BRAND, CONFIRM LOAD CAPACITY BASED ON RELIABLE PUBLISHED TESTING DATA OR CALCULATIONS. THE ENGINEER SHALL EVALUATE AND GIVE WRITTEN APPROVAL FOR SUBSTITUTIONS PRIOR TO INSTALLATIONS.

14. ALL NAILS FOR PROJECT SHALL BE COMMON WIRE NAILS OR POWER DRIVEN NAILS IN CONFORMANCE WITH ICC-ES EVALUATION REPORT ESR-1539. SEE PLANS AND DETAILS FOR NAILING REQUIREMENTS. STAPLES SHALL NOT BE SUBSTITUTED FOR NAILS UNLESS APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. IF THE CONTRACTOR DESIRES TO SUBSTITUTE STAPLES FOR NAILS, A FORMAL SUBMISSION MUST BE MADE TO THE ENGINEER. THE SUBMISSION MUST CLEARLY DOCUMENT HOW THE STAPLES MEET OR EXCEED THE NAILS SPECIFIED ON THE DRAWINGS. THE STAPLES MUST BE IN COMPLIANCE WITH ALL CODE REQUIREMENTS. INCOMPLETE SUBMISSIONS WILL NOT BE REVIEWED.

15. SHEATHING NAILS IN SHEAR WALLS AND EXTERIOR WALLS SHALL BE DRIVEN WITH THE HEAD OF THE NAIL FLUSH WITH THE SURFACE OF THE SHEATHING. 16. WOOD FLOOR AND ROOF TRUSSES ARE TO BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL ENGINEER AND SEALED CALCULATIONS ARE TO BE SUBMITTED FOR APPROVAL. TRUSS FABRICATOR TO PROVIDE PREFABRICATED HANGERS AS REQUIRED. 17. PROVIDE MINIMUM CONTINUOUS SOLID BLOCKING OR CROSS-BRIDGING LINES AT 8'-0" O/C MAX SPACING FOR ALL ROOF TRUSSES. PROVIDE ADDITIONAL

X-BRIDGING AS REQUIRED BY FABRICATOR. PROVIDE A MINIMUM OF ONE LINE OF BLOCKING/CROSS-BRIDGING FOR ALL SPANS 18. PLYWOOD PANELS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE U.S. DEPARTMENT OF COMMERCE VOLUNTARY PRODUCT STANDARD PS-1 OR PS-2.

19. SHEATHING FOR SLOPED ROOFS SHALL BE 5/8 INCH THICK 40/20 SPAN RATING APA RATED SHEATHING, EXPOSURE 1. ALL JOINTS IN SHEATHING SHALL BE STAGGERED. USE PANEL CLIPS, TONGUE & GROOVE, OR LUMBER BLOCKING EDGE SUPPORTS AS RECOMMENDED BY APA FOR ROOF SHEATHING EDGES. NAILING SHALL COMPLY WITH REQUIREMENTS FOR PLYWOOD ROOF DIAPHRAGMS (SEE PLANS).

20. SHEATHING FOR FLAT ROOFS SHALL BE 3/4 INCH THICK 24" SPAN RATING APA RATED, EXPOSURE 1. ALL JOINTS IN SHEATHING SHALL BE STAGGERED. ALL EDGES IN FLOOR SHEATHING SHALL BE TONGUE AND GROOVE. NAILING REQUIREMENTS SHALL BE AS INDICATED ON PLANS. 21. SHEATHING FOR FLOORS SHALL BE 3/4 INCH THICK 24" SPAN RATING APA STURD-I-FLOOR, EXPOSURE 1. ALL JOINTS IN SHEATHING SHALL BE STAGGERED.

ALL EDGES IN FLOOR SHEATHING SHALL BE TONGUE AND GROOVE. NAILING REQUIREMENTS SHALL BE AS INDICATED ON PLANS. 22. SHEATHING FOR EXTERIOR WALLS SHALL BE 1/2 INCH THICK 32/16 SPAN RATING APA RATED SHEATHING, EXPOSURE 1. ALL JOINTS IN SHEATHING SHALL BE STAGGERED. USE BLOCKING AT ALL PANEL EDGES AND NAIL AS SHOWN ON DETAILS. 23. PLYWOOD FOR EXTERIOR DECKS SHALL BE 3/4" THICK APA RATED MARINE GRADE.

24. ALL WOOD EXPOSED TO WEATHER AND/OR IN CONTACT WITH GROUND, CONCRETE, OR CMU SHALL BE PRESSURE TREATED SOUTHERN PINE LUMBER. 25. ALL TRUSS TO TRUSS CONNECTIONS SHALL BE BY THE TRUSS MANUFACTURER.

26. THE ENGINEERED LUMBER SPECIFIED ON THE DRAWINGS IS BASED ON WEYERHAEUSER ENGINEERED WOOD PRODUCTS. NO ALTERNATIVES, MODIFICATIONS OR SUBSTITUTIONS ARE ALLOWED UNLESS THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SUBMITS IN WRITING FOR SUCH REQUESTS TO THE PROJECT ENGINEER FOR APPROVAL. ALTERNATE PRODUCTS MUST HAVE A CURRENT ICC-ES CODE EVALUATION REPORT WITH LISTED DESIGN PROPERTIES EQUIVALENT TO OR GREATER THAN SPECIFIED PRODUCTS. SUBSTANTIATING CALCULATIONS SHALL BE SUBMITTED. ALL HOLES, TAPERED CUTS AND NOTCHING SHALL BE JUSTIFIED FOR ALTERNATE. THE ENGINEER OF RECORD SHALL BE REIMBURSED FOR ANY REVIEW TIME. 27. ALL PARALLAM PSL AND MICROLAM LVL LUMBER SHALL BE AS MANUFACTURED BY WEYERHAEUSER OR APPROVED EQUIVALENT. ALL PSL LUMBER EXPOSED TO WEATHER SHALL BE TREATED FOR EXTERIOR EXPOSURE. ALL TJI FRAMING SHALL BE MANUFACTURED AND LABELED AS TRUS JOIST PRODUCTS BY WEYERHAEUSER.

28. ALL HOLES FOR PLUMBING, MECHANICAL, AND ELECTRICAL UTILITIES THROUGH TJI FRAMING SHALL BE LOCATED AND SIZED ACCORDING TO THE GUIDELINES IN THE ENGINEERED WOOD PRODUCT LITERATURE. ANY NON-CONFORMING OPENINGS/PENETRATIONS MADE THROUGH ENGINEERED FRAMING SHALL BE REPAIRED AS REQUIRED AT THE EXPENSE OF THE CONTRACTOR RESPONSIBLE FOR THE NON-CONFORMING MODIFICATIONS. 29. PROVIDE ADDITIONAL STUDS IN BEARING WALLS AT LOCATIONS OF BEAM OR GIRDER TRUSS BEARINGS. MINIMUM BUILT UP STUD DIMENSIONS SHALL MATCH NUMBER OF PLY'S IN GIRDER TRUSSES OR WIDTH OF BEAM BEARING ON WALL UNLESS SHOWN OTHERWISE ON DRAWINGS. 30. IN ALL BEARING WALLS AND SHEAR WALLS WHERE THE WALL TOP OR BOTTOM PLATES HAVE BEEN CUT OR NOTCHED TO ACCOMMODATE PLUMBING OR HVAC DUCTWORK, THE PLATES SHALL BE REPAIRED USING SIMPSON CTS218 COMPRESSION AND TENSION STRAPS. THESE STRAPS SHALL BE INSTALLED ON ALL DAMAGED PLATES ON BOTH SIDES OF THE PLATE. USE ALL SPECIFIED FASTENERS AS RECOMMENDED BY SIMPSON.

POST-INSTALLED ADHESIVE ANCHORS & REINFORCING:

1. THE ADHESIVE ANCHOR SYSTEM USED FOR POST-INSTALLED ANCHORAGE TO CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY PUBLISHED ACI 355.4. ACCEPTANCE CRITERIA FOR QUALIFICATION OF POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE AND COMMENTARY.

2. THE ADHESIVE ANCHORS SHALL BE SUPPLIED AS AN ENTIRE SYSTEM. THE SYSTEM SHALL INCLUDE, BUT IS NOT LIMITED TO, THE NEW ADHESIVE CARTRIDGE, A CLEAN MIXING NOZZLE, EXTENSION TUBE, A DISPENSING GUN, AND ALL MANUFACTURER RECOMMENDED SUPPLIES FOR PROPERLY CLEANING THE DRILLED HOLE.

3. EYEBOLTS, THREADED STUDS, INTERNAL THREADED PARTS TO BE USED IN ADHESIVE ANCHOR ASSEMBLIES SHALL CONFORM TO ASTM A36. A193 (GRADE B7), A307, B348 (BD), OR F1554. STAINLESS STEEL ANCHOR RODS SHALL BE AISI TYPE 304 OR TYPE 316. THREADS SHALL BE UNC COARSE THREADS, UNLESS NOTED OTHERWISE. COMPATIBLE NUTS AND WASHERS SHALL BE FURNISHED WITH THE ALL-THREAD ROD AND CONSIDERED PART OF THE ASSEMBLY. THE COST OF THE HARDWARE SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLED ADHESIVE ANCHOR ASSEMBLY

4. NUTS, WASHERS, AND OTHER HARDWARE USED WITH AN ALL-THREADED BAR ADHESIVE ANCHOR SYSTEM SHALL HAVE A MATERIAL OR AN ALLOY DESIGNATION THAT MATCHES THE ALL-THREAD MATERIAL / ALLOY. GALVANIZED ASSEMBLIES SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. ELECTROPLATE GALVANIZING IS NOT ACCEPTABLE. DISSIMILAR METAL ASSEMBLIES SHALL BE SEPARATED BY NYLON, EPDM, OR OTHER APPROVED NON-METALLIC WASHERS.

5. REINFORCING BARS TO BE USED IN ADHESIVE ANCHORS ASSEMBLIES SHALL CONFORM TO ASTM A615.

6. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'c) OF 2,500 PSI AT THE TIME OF ADHESIVE ANCHOR INSTALLATION. 7. CONCRETE AT TIME OF ADHESIVE ANCHOR INSTALLATION SHALL HAVE A MINIMUM AGE OF 21 DAYS.

8. CONCRETE TEMPERATURE AT THE TIME OF ADHESIVE ANCHOR INSTALLATION SHALL BE AT LEAST 50 DEGREES F. 9. EMBEDMENT DEPTH AND ANCHOR PROJECTION (STICK-OUT) FROM THE CONCRETE SURFACE SHALL BE AS SHOWN ON THE DRAWING OR DETAIL FOR THE PARTICULAR ANCHOR OR GROUP OF ANCHORS BEING INSTALLED. ABSENT ANY INFORMATION, THE MINIMUM EMBEDMENT DEPTH SHALL BE 10 TIMES THE ANCHOR DIAMETER IN INCHES AND MINIMUM STICK-OUT SHALL BE AS REQUIRED TO MAKE THE CONNECTION. 10. ADHESIVES SHALL BE STORED AND INSTALLED AT THE SERVICE TEMPERATURE RANGES RECOMMENDED BY THE MANUFACTURER. 11. ADHESIVE ANCHORS SHALL BE INSTALLED BY QUALIFIED PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER AND THE CONTRACT DOCUMENTS. POST-INSTALLED ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

12. THE INSTALLER'S QUALIFICATIONS SHALL BE SUBMITTED AND APPROVED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. 13. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT REQUIRED TO INSTALL THE ADHESIVE ANCHOR INCLUDING, BUT NOT LIMITED TO, DRILLS, SETTING TOOLS, CLEAN-OUT BRUSHES, BLOW OUT BULBS, OIL-FREE COMPRESSED AIR, SHOP VACUUMS, WRENCHES, ETC. 14. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH A ROTARY IMPACT HAMMER DRILL OR ROCK DRILL. 15. ANCHOR HOLES SHALL BE THOROUGHLY CLEANED PRIOR TO ADHESIVE INJECTION, AS REQUIRED BY THE MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS

16. ANCHORS TO BE INSTALLED IN THE ADHESIVE SHALL BE CLEAN, OIL-FREE, AND FREE OF LOOSE RUST, PAINT, OR OTHER COATINGS. 17. INSTALLED ADHESIVE ANCHORS SHALL BE SECURELY FIXED IN-PLACE TO PREVENT DISPLACEMENT WHILE THE ADHESIVE CURES. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, ANCHORS SHALL BE INSTALLED PERPENDICULAR TO THE CONCRETE SURFACE. ANCHORS DISPLACED BEFORE FULL ADHESIVE CURE SHALL BE CONSIDERED DAMAGED AND REPLACED AT THE CONTRACTOR'S EXPENSE 18. REINFORCING BARS OR ALL-THREADED BARS SHALL NOT BE BENT AFTER BEING ADHESIVELY EMBEDDED IN HARDENED, SOUND CONCRETE, UNLESS PERMITTED BY THE ENGINEER.

19. ANCHORS SHALL HAVE NO VISIBLE INDICATIONS OF DISPLACEMENT OR DAMAGE DURING OR AFTER PROOF LOAD APPLICATION. CONCRETE CRACKING IN THE VICINITY OF THE ANCHOR AFTER LOADING SHALL BE CONSIDERED A FAILURE. 20. ADHESIVE ANCHORS INTO CONCRETE SUBSTRATE APPLICATIONS SHALL USE THE HILTI HIT HY-200 SYSTEM.

CONCRETE

- BY THE ENGINEER.

- SHOP DRAWINGS TO THE OWNER'S REPRESENTATIVE.
- SIMILAR LOCATIONS.
- 10. LAP ALL BARS MINIMUM 48 DIAMETERS. LAP ALL WWF A MINIMUM OF 6 INCHES. DIMENSIONS INDICATED ON DRAWINGS.

- ON THE STRUCTURAL DRAWINGS.

REINFORCING SHALL BE COMPRISED OF # 5 BARS LOCATED WITHIN 1 1/2" OF THE OPENING DIMENSION AND EXTENDING A MINIMUM OF 30 INCHES BEYOND THE EXTENT OF THE OPENING. THE ADDITIONAL BARS SHALL BE LOCATED HORIZONTALLY, VERTICALLY, AND DIAGONALLY AT THE CORNERS OF THE OPENING. PROVIDE ONE LAYER OF ADDITIONAL REINFORCING AT 8" WALLS AND TWO LAYERS (ONE ON THE INSIDE FACE AND ONE ON THE OUTSIDE FACE) OF WALLS WITH A THICKNESS OF 10 INCHES OR GREATER. FOR WALL POCKETS WITH BEARING PLATES AND ATTACHED HEADED STUDS, PROVIDE ADDITIONAL HORIZONTAL BARS BETWEEN THE FACE OF THE CONCRETE AND THE HEADED STUDS OF THE BEARING PLATE.

19. CONCRETE CONTRACTOR SHALL PROVIDE ADDITIONAL WALL REINFORCEMENT AT WALL OPENINGS AND POCKETS FOR STEEL FRAMING. THIS 20. AT CONCRETE WALL INTERSECTIONS PROVIDE CORNER BARS EQUAL IN SIZE AND SPACING TO TYPICAL WALL REINFORCING STEEL. 21. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO ASTM A775.

- OTHER TRADES
- CONCRETE ALONG FORMWORK.
- OTHERWISE BY THE APPLICABLE BUILDING CODE.

CONCRETE MIX DESIGN AND DURABILITY REQUIREMENTS PER ACI 318 BUILDING CODE							
LOCATION	FREEZE/THAW SEVERITY	SULFATE SEVERITY	PERMEABILITY	CORROSION PROTECTION OF REINF	f 'c (psi)	AIR CONTENT	w / c RATIO (max)
FOOTINGS	F0	S0	P0	C1	4,000		0.50
SLAB-ON-GRADE CONCRETE WALLS (INTERIOR LOCATIONS)	F0	S0	P0	C0	4,000		0.50
EXTERIOR WALLS / PIERS	F1	S0	P0	C1	4,500	6 %	0.45
EXTERIOR SLABS	F3	S0	P0	C2	5,000	6 %	0.40
CONCRETE MIX DESIGN & DURABILITY NOTES:							
CONCRETE MIX SHALL BE DESIGNED BY THE CONCRETE SUPPLIER USING THE INFORMATION CONTAINED IN THIS SCHEDULE. REFER TO CHAPTER 4 OF THE ACI-318 BUILDING CODE FOR ADDITIONAL INFORMATION NOT PROVIDED OR NOTED IN THIS SCHE							

- ACI-318.
- 4,000 PSI CONCRETE: 600 LBS OF CEMENT PER CUBIC YARD 4,500 PSI CONCRETE: 650 LBS OF CEMENT PER CUBIC YARD

1. THE PROVISIONS OF ACI 318-19 HAVE BEEN UTILIZED FOR THE DESIGN OF CONCRETE ELEMENTS ON THIS PROJECT. 2. FLOOR FINISH TOLERANCES FOR THE SLAB ON GRADE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 117. FLOOR FINISH TOLERANCE SHALL BE MEASURED USING A 10 FOOT STRAIGHTEDGE ANYWHERE ON THE SLAB AND ALLOWING IT TO REST UPON TWO HIGH SPOTS WITHIN 72 HOURS AFTER SLAB PLACEMENT. THE GAP AT ANY POINT BETWEEN THE STRAIGHT EDGE AND THE FLOOR SHALL NOT EXCEED 1/4". 3. ALL CONCRETE SHALL BE NORMAL WEIGHT, READY-MIX. ALL CONCRETE MIX DESIGNS SHALL BE DESIGNED BY ENGINEERS RETAINED BY THE CONCRETE SUPPLIER ACCORDING TO THE CRITERIA CONTAINED WITHIN THESE NOTES AND AS SHOWN ON THE CONTRACT DRAWINGS. SUBMIT ALL CONCRETE MIX DESIGNS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. ALL SUBMITTED MIX DESIGNS SHALL INCLUDE

SAMPLE CYLINDER BREAK TEST RESULTS CONFIRMING COMPRESSIVE STRENGTH OF EACH MIX DESIGN. 4. ALL CONCRETE SHALL HAVE A WATER REDUCING ADMIXTURE AS REQUIRED TO INCREASE WORKABILITY. WORKABILITY SHALL NOT BE ACHIEVED THROUGH THE ADDITION OF WATER TO THE MIX. CONCRETE SLUMP PRIOR TO ADMIXTURE ADDITION SHALL BE A MAXIMUM OF 3 INCHES. PROPORTIONS OF CONCRETE ADMIXTURES SHALL BE DETERMINED BY THE CONCRETE MIX DESIGNER.

5. DO NOT USE ADMIXTURES THAT CONTAIN CHLORIDES. FLY ASH OR OTHER POZZOLANS SHALL NOT BE USED IN ANY CONCRETE UNLESS APPROVED

6. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITIONS OF THE FOLLOWING ACI PUBLICATIONS ACI 301 (SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS), ACI 302 (RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION), ACI 304 (ACI MANUAL OF CONCRETE INSPECTION), ACI 311 (RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE), ACI 315 (DETAILS AND DETAILING OF CONCRETE REINFORCEMENT), ACI 318 (BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE), ACI 347 (RECOMMENDED PRACTICE FOR CONCRETE FORMWORK), AND ACI 546 (CONCRETE REPAIR GUIDE). IN ADDITION, REFER TO THE CRSI - MANUAL OF STANDARD PRACTICE FOR DETAILS ON THE FABRICATION AND PLACEMENT OF CONCRETE REINFORCING. 7. PRIOR TO FABRICATION OR SHIPMENT OF MATERIAL, THE CONTRACTOR SHALL SUBMIT AND RECEIVE APPROVAL OF SHOP DRAWINGS. SHOP DRAWINGS SHALL INDICATE BENDING DIAGRAMS, SPLICING, LAPPING, SHAPES, DIMENSIONS AND DETAILS OF ALL BAR REINFORCING. THE APPROVAL OF SHOP DRAWINGS WILL BE FOR ARRANGEMENT ONLY AND SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR ERRORS, OMISSIONS OR THE ACCURACY OF HIS OWN DIMENSIONS. DRAWINGS AND DETAILS SHALL CONFORM WITH ACI 315. CONTRACTOR SHALL SUBMIT ALL

8. ALL REINFORCING STEEL SHALL BE MANUFACTURED FROM HIGH STRENGTH BILLET STEEL CONFORMING TO ASTM DESIGNATION A-615 GRADE 60. WWF SHALL BE COMPRISED OF CARBON STEEL PLAIN WIRES FABRICATED INTO SHEETS OR ROLLS IN ACCORDANCE WITH ASTM A1064. 9. FOOTING, SLAB, AND WALL REINFORCEMENT NOT SHOWN ON SECTIONS AND PLANS IS THE SAME AS THAT SHOWN IN SIMILAR SECTIONS AND AT

11. CONTRACTOR SHALL PROVIDE ALL BOLSTERS, CHAIRS, BAR POSITIONERS, ETC. AS REQUIRED TO SET REBAR AND SLAB WWF TO REQUIRED

12. CONTROL JOINTS FOR SLABS-ON-GRADE SHALL BE SAW CUT IN ACCORDANCE WITH THE PATTERN AS INDICATED ON THE STRUCTURAL DRAWINGS. THE SPACING OF CONTROL JOINTS SHALL BE ARRANGED SUCH THAT THE AREA OF CONCRETE SLAB BETWEEN CONTROL JOINTS DOES NOT EXCEED 225 SQUARE FEET (MAXIMUM). COORDINATE WITH THE STRUCTURAL CONTRACT DRAWINGS FOR TYPICAL CONTROL JOINT DETAILS. 13. CONSTRUCTION JOINTS IN SLABS AND GRADE BEAMS SHALL BE AT MID-SPAN AND KEY JOINTED WITH REINFORCING CONTINUOUS ACROSS JOINT. COORDINATE WITH ENGINEER FOR CONSTRUCTION JOINT LOCATIONS PRIOR TO CONSTRUCTION. CONSTRUCTION JOINTS ARE TO BE LOCATED WITH RESPECT TO PARTITIONS, FLOOR FINISHES, DEPRESSIONS, ETC. AS SHOWN ON THE ARCHITECTURAL DRAWINGS.

14. SAW CUTTING OF CONTRACTION JOINTS IS NOT REQUIRED IN ELEVATED CONCRETE FLOORS SUPPORTED ON METAL DECK. 15. CONTRACTOR SHALL MAKE ALLOWANCES FOR ADDITIONAL CONCRETE REQUIRED AT ELEVATED DECK SUPPORTED CONCRETE FLOORS DUE TO DEFLECTION OF THE STEEL DECK FROM THE DEAD WEIGHT OF CONCRETE AND CONSTRUCTION LOADING IN ACCORDANCE WITH SDI GUIDELINES. 16. PROVIDE CONTINUOUS KEYWAYS AND DOWELS IN THE TOP OF WALL FOOTINGS SUPPORTING CONCRETE WALLS. AT CONSTRUCTION JOINTS IN CONCRETE WALLS PROVIDE KEYWAYS AND CONTINUE REINFORCING THROUGH THE JOINT.

17. REFER TO ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING DETAILS AT FOUNDATIONS, WALLS, AND SLABS. 18. CONCRETE CONTRACTOR SHALL PROVIDE ADDITIONAL SLAB REINFORCEMENT AT ALL CONCRETE SLAB RE-ENTRANT CORNERS. THIS REINFORCEMENT SHALL BE COMPRISED OF A #4 BAR x 4'-0" LONG LOCATED WITHIN 2 INCHES FROM THE TOP OF THE SLAB UNLESS NOTED OTHERWISE

22. ALL CONCRETE PLACED AT TEMPERATURES BELOW 50 DEGREES F. SHALL CONFORM TO THE REQUIREMENTS OF ACI 306 "COLD WEATHER CONCRETING". ALL CONCRETE PLACED IN HOT WEATHER SHALL CONFORM TO THE REQUIREMENTS OF ACI 305 "HOT WEATHER CONCRETING". 23. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL SLEEVES, INSERTS, ANCHOR BOLTS, AND OTHER EMBEDDED ITEMS AS REQUIRED BY

24. ALL CONCRETE SHALL BE PROPERLY CONSOLIDATED THROUGH THE USE OF VIBRATORS. VIBRATORS SHALL NOT BE USED TO TRANSPORT

25. CONTRACTOR SHALL FOLLOW THE GUIDELINES IN ACI 303 - GUIDE TO CAST-IN-PLACE ARCHITECTURAL CONCRETE PRACTICE TO ACHIEVE SPECIFIED SURFACE FINISHES OF EXPOSED CONCRETE. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS ON FINISH. 26. UNLESS OTHERWISE SPECIFIED, A TESTING AGENCY SHALL BE EMPLOYED FOR EVALUATION AND QUALITY CONTROL OF CONCRETE PLACED. THE TESTING AGENCY PERFORMING ACCEPTANCE TESTING SHALL COMPLY WITH ASTM C1077. CONCRETE SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318. FREQUENCY OF CONCRETE TESTING SHALL MEET THE REQUIREMENTS OF ACI 318 AT A MINIMUM UNLESS REQUIRED

-DULE I U I AL AIR CON I EN I LISTED IN THIS SCHEDULE IS BASED ON A MAXIMUM AGGREGATE SIZE OF 3/4" AND SHALL BE ADJUSTED BY THE CONCRETE MIX DESIGNER AS REQUIRED FOR DIFFERENT AGGREGATE SIZES PER ACI-318.

4. REFER TO THE CONCRETE NOTES ON THE LEAD SHEET FOR THIS PROJECT FOR ADDITIONAL REQUIREMENTS. 5. FLY ASH OR OTHER POZZOLANS SHALL NOT BE UTILIZED IN ANY CONCRETE MIX UNLESS APPROVED BY THE ENGINEER. THE

QUANTITY OF POZZOLANS USED IN CONCRETE SUBJECT TO EXPOSURE CLASS F3 SHALL NOT EXCEED THE LIMITS SET FORTH IN

6. THE MINIMUM AMOUNT OF CEMENT TO BE USED IN THE CONCRETE MIX DESIGN IS AS OF FOLLOWS:

5,000 PSI CONCRETE: 700 LBS OF CEMENT PER CUBIC YARD

STRUCTURAL DRAWING INDEX		
DRAWING	TITLE	
S-000	STRUCTURAL LEAD SHEET (1 OF 2)	
S-001	STRUCTURAL LEAD SHEET (2 OF 2)	
S-100	FOUNDATION AND ROOF FRAMING PLAN	
S-200	TYPICAL DETAILS	
S-201	SECTIONS & DETAILS	

SSUED DRAWINGS: 03/30/21 ISSUED FOR CONSTRUCTION PERM GENERAL NOTES:

MICHAEL A. BEACH & ASSOCIATES, LLC CONSULTING STRUCTURAL ENGINEERING WIN PONDS EXECUTIVE CAMPUS, SUITE 205 200 BIRCHFIELD DRIVE



MOUNT LAUREL, NEW JERSEY 08054 PH: (856) 273-1909 FAX: (856) 273-1480 EMAIL: mail@mabeachassoc.com NJ Certificate of Authorization No. GA278484 Project No. 207.52

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PROJECT:	PROPOSED UTILITY/ WINERY	VINTAGE @ HAMILTON	HAMILTON TOWNSHIP, NEW JERSEY	CLIENT: CARARBELL	DEVELOPMENT	30 Years of Building Excellence	
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- 1. ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION AGENCY. THE SPECIAL INSPECTOR FROM THIS TESTING AGENCY SHALL OBSERVE THE WORK FOR CONFORMANCE TO THE DESIGN DRAWINGS AND SPECIFICATIONS. THE SPECIAL INSPECTOR SHALL BE TRAINED/CERTIFIED TO PERFORM THE REQUIRED SPECIAL INSPECTIONS. THE SPECIAL INSPECTOR SHALL SUBMIT WRITTEN DOCUMENTATION OF CERTIFICATIONS FOR RECORD PRIOR TO CONSTRUCTION.
- 2. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND ALL OTHER DESIGNATED INDIVIDUALS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF NOT CORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
- 3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS, SPECIFICATIONS, SOILS REPORT AND APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.
- 4. STRUCTURAL OBSERVATIONS BY THE STRUCTURAL ENGINEER SHALL NOT BE CONSIDERED A SPECIAL INSPECTION. 5. THE FOLLOWING ITEMS MARKED "X" REQUIRE SPECIAL INSPECTIONS: (REFER TO IBC 2021 CHAPTER 17 FOR ADDITIONAL INFORMATION)

	VERIFICATION AND INSPECTION	INSPECTION REQUIRED		
		CONTINUOUS	PERIODIC	
1705.3	- CONCRETE CONSTRUCTION			
1.	Inspection of reinforcement including prestressing tendons and verification of placement		Х	
2.	Inspection of reinforcing bar welding (in accordance with AWS D1.4):			
a.	Verification of weldability of reinforcing bars other than ASTM A706		Х	
b.	Inspection of single-pass fillet welds, maximum 5/16"		Х	
C.	Inspection of all other welds	Х		
3.	Inspection of anchors cast in concrete		Х	
4.	Inspection of anchors post-installed in hardened concrete members:			
a.	Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads	Х		
b.	Mechanical anchors and adhesive anchors not defined in 4.a		Х	
5.	Verification of required design mix		Х	
6.	Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	Х		
7.	Inspection of concrete and shotcrete placement for proper application techniques	Х		
8.	Verification of maintenance of specified curing temperature and techniques		Х	
9.	Inspection of prestressed concrete for:			
a.	Application of prestressing forces	Х		
b.	Grouting of bonded prestressing tendons	Х		
10.	Inspection of erection of precast concrete members		Х	
11.	Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		Х	
12.	Inspection of formwork for shape, location, and dimensions of the concrete member being formed		X	

	VERIFICATION AND INSPECTION	INSPECTION REQUIRED		
		CONTINUOUS	PERIODIC	
1705.5 -	- WOOD CONSTRUCTION			
	Special inspection for wood construction shall be in accordance with IBC Section 1705.5. At a minimum, the following inspections are required:			
1.	Verify, size, species and grade of lumber/sheathing complies with construction documents.		х	
2.	Verify nailing of diaphragm floor and roof sheathing and shear walls complies with construction documents.		х	
3.	Verify wood shear wall hold downs conform to construction documents.		Х	
4.	Verify attachment of shear wall sill plates at foundations and floors.		Х	

	VERIFICATION AND INSPECTION	INSPECTION REQUIRED		
		CONTINUOUS	PERIODIC	
1705.6 -	SOILS			
1.	Verification of materials below shallow foundations are adequate to achieve the design bearing capacity		Х	
2.	Verification that excavations are extended to proper depth and have reached proper material		Х	
3.	Perform classification and testing of compacted fill materials.		Х	
4.	Verification of use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	X		
5.	Prior to placement of compacted fill, inspection of subgrade and verify that site has been prepared properly		х	

	D LOAD DESIGN					
	OOF N 20 SQ FT WIND AREA					
	+16.0 PSF	-26.2 PSF				
	+16.0 PSF	-59.4 PSF				
	+16.0 PSF	-87.8 PSF				
LLS N 20 SQ FT WIND AREA						
	+28.1 PSF	-30.6 PSF				
	+28.1 PSF	-36.8 PSF				

THE "a" WIDTH FOR EDGE STRIPS AND END ZONES SHALL BE TAKEN AS 3'-0". NEGATIVE NUMBERS DENOTE WIND FORCE ACTING AWAY FROM THE

/ LOAD SCHEDULE			
	SYMBOL	VALUE	
	Pg	30 PSF	
	Pf	23.1 PSF	
	Ce	1.0	
	Ct	1.1	
	I	1.0	





MARK	SIZE	REINFORCING			
F20.12	2'-0"x1'-0" CONT	(2) #4 LONG WAY BOT			
F40.24	4'-0"x2'-0" CONT	(5) #5 LW T&B & #5 @ 12" o/c SW T&B			
F36	3'-6"x3'-6"x1'-8"	(4) #5 EW T&B			
F6040	6'-0"x4'-0"x2'-0"	(5) #5 LW T&B & (7) #5 SW T&B			



	PRE-ENGINEERED			
MARK	MODEL (🗙)			
1	HUC210-3	USE (18) 0.162" :		
1. (★) ALL MODEL NUMBERS REFERENCE P				



