STATE OF CONNECTICUT

DEPARTMENT OF CONSTRUCTION SERVICES
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WESTERN CONNECTICUT STATE UNIVERSITY
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WESTERN CONNECTICUT STATE UNIVERSITY

BANDSHELL & SUPPORT BUILDING ROOF REPLACEMENT at IVES CONCERT PARK WESTSIDE CAMPUS

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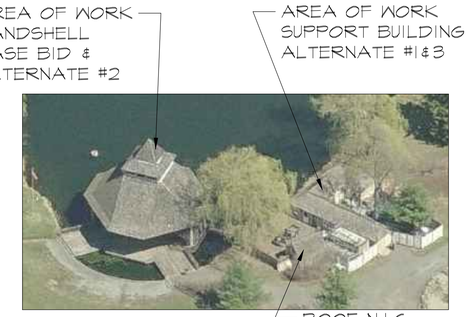


BIRDSEYE VIEW
N.T.S.

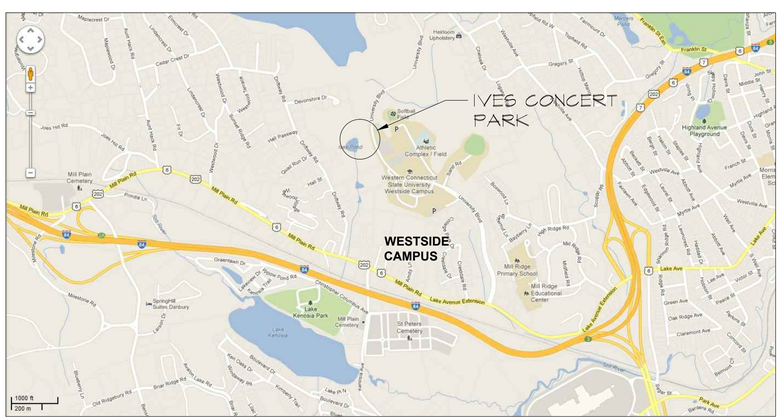
AERIAL VIEW
N.T.S.

Current codes in effect as of Dec. 31 2005

2005 Connecticut State Building Code

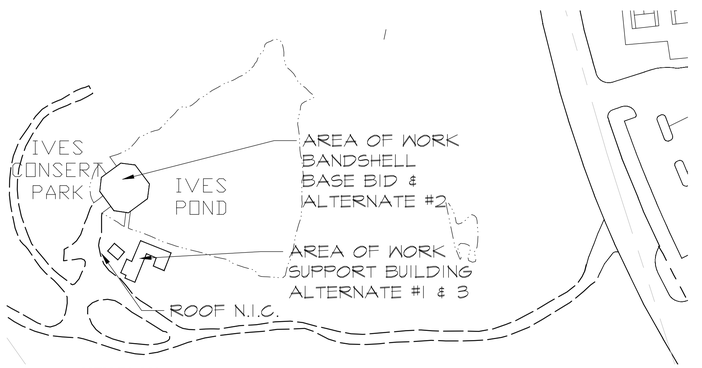
Code Referenced include the following documents:

- **2003 International Building Code**
- **2003 International Residential Code**
- **2003 International Existing Building Code**
- **2003 International Mechanical Code**
- **2003 International Plumbing Code**
- **2006 International Energy Conservation Code**
- **2005 National Electrical Code NFPA 70-2005**
- **ICC/ANSI A117.1-2003**
- **December 31, 2005 Connecticut Supplement**
- **August 1, 2009 -2009 Amendments**
- **2010 Connecticut State Fire Prevention Code with the 2012 Amendment.**
- **Any new or renovation work to existing fire alarm shall be performed in accordance with manufacturer's instructions and 2002 NFPA 72 standard.**



LOCATION MAP
N. T. S.

WESTSIDE CAMPUS MAP
N. T. S.



KEY PLAN
N.T.S.

WESTERN CONNECTICUT STATE UNIVERSITY

WCSU
Planning and Engineering
181 White Street
Danbury, CT 06810
www.wcsu.edu

Revisions

No.	Date

Bandshell & Support Building
Roof Replacement
IVES CONCERT PARK AT WESTSIDE CAMPUS

Cover Sheet

Project No. WCSU-2013-17

By: DMF

Scale: **AS NOTED**

Issue Date: **2/12/15**

C-1

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY ACQUAINTED WITH THE SITE AS IT EXISTS. THE DRAWINGS, SPECIFICATIONS & NOTES CONTAINED HEREIN ARE INTENDED TO OUTLINE AND CLARIFY THE WORK REQUIRED FOR VARIOUS PROJECTS FOR THE OWNER. HOWEVER, NOT ALL NOTES MAY PERTAIN TO THIS PARTICULAR PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT EXTENT OF THE WORK BY PERSONAL FIELD OBSERVATIONS AND FAMILIARIZATION OF THE DRAWINGS, SPECIFICATIONS & NOTES. IT SHALL BE UNDERSTOOD UPON SUBMITTING A BID THAT THE CONTRACTOR HAS VISITED THE SITE AND IS THOROUGHLY ACQUAINTED WITH THE WORK REQUIRED, AND HAS INCLUDED IN HIS BID, TO COMPLY WITH THE INTENT OF THE APPLICABLE DRAWINGS, CODES AND SPECIFICATION.

2. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS AND SHALL ADVISE THE ARCHITECT, IN WRITING OF ANY DISCREPANCIES OR CHANGES REQUIRED CONFORMING TO SITE CONDITIONS. IN CASE OF DISCREPANCIES ON THE DRAWINGS DETAILS SHALL GOVERN OVER OVERALL PLANS AND SCHEDULES.

3. ALL ITEMS SPECIFIED ARE INTENDED TO ESTABLISH QUALITY OF WORK. IF SPECIFICATION CALLS FOR ©OR EQUAL" ,THEN PRODUCTS OF OTHER MANUFACTURERS, EQUAL IN DESIGN, COLOR AND QUALITY MAY BE SUBSTITUTED. APPROVAL IS NECESSARY BY THE ARCHITECT, IN WRITING, PRIOR TO PURCHASE, AS WELL AS MEETING ESTABLISHED DESIGN AND FUNCTION CRITERIA. HOWEVER, ANY SPECIFICATION OMITTING THE "OR EQUAL" COMMENT CANNOT BE SUBSTITUTED FOR.

4. ALL DRAWINGS AND NOTES ARE COMPLEMENTARY AND WHAT IS CALLED FOR BY ANY WILL BE BINDING AS IF CALLED FOR BY ALL. EACH SUBTRADE WILL BE RESPONSIBLE FOR REVIEWING THE ENTIRE SET OF DRAWINGS AND NOTING HIS WORK AS APPLICABLE. WORK INDICATED OR INFERRED ON THE DRAWINGS WILL BE DEEMED AND INCLUDED IN SUB-CONTRACTOR'S COSTS. SAME SHALL APPLY TO GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISTRIBUTION OF ALL DRAWINGS TO ALL SUB-CONTRACTORS.

5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT AS SHOWN, UNLESS OTHERWISE NOTED BY THE ARCHITECT ALL MATERIAL SHALL BE NEW AND OF BEST QUALITY UNLESS OTHERWISE INDICATED.

6. THE CONTRACTOR SHALL INCLUDE ALL CUTTING, DRILLING, AND PATCHING REQUIRED PERMITTING THE INSTALLATION OF HIS WORK.

7. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS AND BUILDING REGULATIONS OR STANDARDS.

8. A COMPETENT PERSON SHALL BE IN DIRECT CHARGE AND SUPERVISION OF THE WORK AND WORKMEN REQUIRED TO FULFILL THE WORK CALLED FOR ON THE APPLICABLE DRAWINGS AND SPECIFICATIONS, FROM THE BEGINNING TO COMPLETION AND FINAL ACCEPTANCE OF THE PROJECT.

9. ALL WORK SHALL BE PERFORMED IN A WORKMAN LIKE MANNER BY SKILLED WORKMEN IN ACCORDANCE WITH THE BEST ACCEPTED TRADE PRACTICES, STANDARDS, AND IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

10. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT ALL CERTIFICATES AND APPROVALS FOR MATERIALS AND/OR ASSEMBLIES AS PER STATE AND LOCAL CODES APPROVALS ARE REQUIRED FOR, BUT NOT LIMITED TO COMBUSTIBLE MATERIALS SUCH AS:

A WOOD FRAMING, ETC.,

B ROOFING;

11. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT A COMPREHENSIVE PROJECT SCHEDULE. THE ILLUSTRATION IS TO INCLUDE ALL OF THE FOLLOWING:

-CHRONOLOGICAL SEQUENCE OF CALENDAR DAYS INCLUDING WEEKENDS.

-LOGICAL SEQUENCE OF ALL CONSTRUCTION TRADES BY NAME.

-PROJECT COMMENCEMENT DATE.

-ALL CONSTRUCTION PHASES INCLUDING SUBMITTAL PHASES.

-TIME PERIODS NECESSARY TO COMPLETE EACH TASK, PHASE OR TRADE.

-INTERFACE PERIODS FOR ALL INDEPENDENT VENDORS AND INSTALLERS.

-SUBSTANTIAL COMPLETION DATE.

-PUNCH LIST PERIOD.

-FINAL COMPLETION DATE. THE CONTRACTOR IS TO COORDINATE THE SCHEDULE, AND COOPERATE WITH ALL CONSTRUCTION TRADES, MATERIAL DELIVERIES, INDEPENDENT INSTALLERS AND VENDORS TO INSURE SUFFICIENT TIME WITHIN PROJECT SCHEDULE FOR A COMPLETE AND FULLY FUNCTIONING SPACE.

12. NO WORK WHICH INVOLVES ADDITIONAL COST IS TO COMMENCE WITHOUT HAVING SUBMITTED A WRITTEN ESTIMATE TO THE ARCHITECT AND HAVING RECEIVED A WRITTEN APPROVAL TO PROCEED.

13. THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND WASTE MATERIAL FROM THE JOB SITE AND SWEEP IT BROOM CLEAN ON A DAILY BASIS. UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIALS, TOOLS, ETC., FROM THE PREMISES AND THE ENTIRE AREA LEFT IN A NEAT AND CLEAN CONDITION THROUGHOUT. GENERAL CONTRACTOR IS RESPONSIBLE TO CLEAN-UP AND REMOVE FROM THE PREMISES ALL WASTE MATERIALS, RUBBISH, WRAPPINGS AND SALVAGES AS GENERATED BY THE CONSTRUCTION, DEMOLITION AND/OR THE DELIVERY AND OTHER TRADES EMPLOYED BY THE OWNER.

14. THE GENERAL CONTRACTOR SHALL ERECT ALL NECESSARY TEMPORARY SOLID AND/OR PLASTIC DROP CLOTH PARTITIONS TO PROTECT OCCUPIED AREAS WHILE DEMOLITION AND CONSTRUCTION ARE IN PROGRESS.

15. THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS, SATISFACTORY TO THE BUILDING OWNER AND THE ARCHITECT, TO PROTECT THE WORKMEN AND THE BUILDING OCCUPANTS FROM HAZARDOUS CONDITIONS OR ACCIDENTS IN CONNECTION WITH THE WORK IN PROGRESS.

16. THE CONTRACTOR SHALL MAINTAIN FREE AND UNOBSTRUCTED ACCESS FROM ALL AREAS TO THE OUTSIDE OF THE BUILDING AT ALL TIMES DURING CONSTRUCTION.

17. THE CONTRACTOR SHALL CONTROL CLEANING AND INSTALL TEMPORARY PROTECTION TO PREVENT DIRT OR DUST FROM LEAVING THE JOB SITE AND INFILTRATING AREAS NOT INVOLVED IN THE PROJECT. PROTECT ALL AREAS AS REQUIRED.

18. ANY DAMAGES TO EXISTING PARTITIONS, FLOORS, CEILINGS, FINISHED WORK, FURNITURE AND FURNISHINGS, OR ANY PART OF THE BUILDING OR EQUIPMENT CAUSED BY THE WORK OF THE CONTRACTOR OR HIS WORKMEN SHALL BE MADE GOOD AT NO ADDITIONAL EXPENSE TO THE OWNER OR THE TENANT.

19. UPON COMPLETION OF JOB, THE GENERAL CONTRACTOR SHALL SUBMIT CERTIFICATES OF INSPECTION FROM ALL THE APPLICABLE DEPARTMENTS.

20. THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF 18 MONTHES , FROM THE ACCEPTANCE OF THE PROJECT, AGAINST DEFECTIVE MATERIALS OR WORKMANSHIP.

21. A COPY OF THE LATEST SET OF ARCHITECTURAL DRAWINGS SHALL BE KEPT AT THE JOB SITE. THESE DRAWINGS ARE TO BE MOUNTED AND UPDATED BY THE CONTRACTOR DURING CONSTRUCTION. THE SET IS TO BE RETURNED TO THE ARCHITECT AT THE COMPLETION OF THE PROJECT AS "AS BUILT".

DEMOLITION NOTES:

1. ALL DEMOLITION ACTIVITIES ARE TO CONFORM TO AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL BUILDING CODES & REGULATIONS.

2. GENERAL CONTRACTOR TO NOTIFY THE UNIVERSITY AT LEAST 48 HOURS PRIOR TO START OF DEMOLITION.

3. PUBLIC AREAS SHALL BE PROTECTED AS DIRECTED BY THE PROPERTY MANAGER.

4. IN ALL OCCUPIED AREAS CONTRACTOR TO PROVIDE PROTECTION FOR ALL UNIVERSITY EQUIPMENT WHETHER TO REMAIN IN OPERATION OR STORED ON SITE.

5. IN ALL AREAS CONTRACTOR SHALL MAINTAIN ALL EXISTING POWER SERVICE. TEMPORARY LIGHT AND POWER SHALL BE PROVIDED FOR ALL TRADES IN AREAS OF CONSTRUCTION.

6. PERIMETER WALL VENTS AND A/C SLEEVES ARE TO BE COVERED WITH DUST BARRIER PRIOR TO DEMOLITION.

7. ALL CONTRACTORS SHALL CONFORM WITH REGULATIONS AND REQUIREMENTS OF THE UNIVERSITY AS TO PERMITTED HOURS AND SCHEDULING FOR DEMOLITION AND REMOVALS.

8. CONTRACTOR TO SCHEDULE DEMOLITION AND REMOVALS TO AVOID DELAYS IN THE WORK.

9. CONTRACTOR TO DEMOLISH AND REMOVE COMPLETELY ALL REQUIRED ELEMENTS OF THE EXISTING INSTALLATION AS PER PLAN SO AS TO PROPERLY PREPARE FOR THE EXECUTION AND INSTALLATION OF THE NEW WORK.

10. CONTRACTOR TO TAKE PROPER PRECAUTIONS TO PREVENT DUST AND DIRT FROM RISING DURING DEMOLITION.

11. REMOVE PROMPTLY FROM THE PREMISES ALL PRODUCTS OF DEMOLITION NOT DESIGNATED TO BE SALVAGED. NO DEBRIS SHALL BE ALLOWED TO ACCUMULATE.

12. REMOVAL FROM THE PREMISES AND THE BUILDING OF ALL DEMOLISHED ITEMS AND DEMOLITION DEBRIS OF ALL TRADES AND SUBCONTRACTORS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

13. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION AND DISMANTLING OF ANY OR ALL PANELS, TRANSFORMERS, LIGHT FIXTURES, POWER CABLING AND OTHER DEVICES AS NDICATED OR REQUIRED TO BE PREPARED BY THE E. C FOR REMOVAL FROM THE PREMISES BY THE G. C.

CONSTRUCTION NOTES

GENERAL

1. NOTES ON OTHER DRAWINGS SHALL APPLY TO THIS SECTION OF THE WORK. THE CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR, EQUIPMENT AND MATERIALS FOR THE IMPLEMENTATION OF THE INTENT OF THIS WORK.

2. ALL WORK SHALL CONFORM TO ALL APPLICABLE RULES, REGULATIONS, CODES AND ORDINANCES FOR THE STATE AND THE UNIVERSITY.

SECTION 07310 LIFETIME DESIGNER SHINGLES
(BASE BID & ALTERNATE #1)

PART I GENERAL

1.01 SECTION INCLUDES
- A ASPHALT ROOFING SHINGLES.
- B LEAK BARRIER AND ROOF DECK PROTECTION.
- C METAL FLASHING ASSOCIATED WITH SHINGLE ROOFING.
- D ATTIC VENTILATION.

1.02 RELATED SECTIONS
- A SECTION 06100 - ROUGH CARPENTRY: FRAMING, WOOD DECKING, AND ROOF SHEATHING.
- B SECTION 07620 - FLASHING AND SHEET METAL: SHEET METAL FLASHING NOT ASSOCIATED WITH SHINGLE ROOFING; GUTTERS AND DOWNSPOUTS.

1.03 REFERENCES
- A AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) - ANNUAL BOOK OF ASTM STANDARDS
  1. ASTM A 653/A 653M - STANDARD SPECIFICATION FOR STEEL SHEET, ZINC COATED (GALVANIZED) OR ZINC-IRON ALLOY-COATED (GALVANNEALED) BY THE HOT-DIP PROCESS.
  2. ASTM B 370 - STANDARD SPECIFICATION FOR COPPER SHEET AND STRIP FOR BUILDING CONSTRUCTION.
  3. ASTM D 3018 - STANDARD SPECIFICATION FOR CLASS A ASPHALT SHINGLES SURFACED WITH MINERAL GRANULES.
  4. ASTM D 3161 - STANDARD TEST METHOD FOR WIND-RESISTANCE OF ASPHALT SHINGLES (FAN-INDUCED METHOD).
  5. ASTM D 3462 STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES.
  6. ASTM D 4586 - STANDARD SPECIFICATION FOR ASPHALT ROOF CEMENT, ASBESTOS-FREE.
  7. ASTM D 7158 - STANDARD TEST METHOD FOR WIND-RESISTANCE OF SEALED ASPHALT SHINGLES (UPLIFT FORCE/UPLIFT RESISTANCE METHOD).
- B UNDERWRITERS LABORATORIES (UL) - ROOFING SYSTEMS AND MATERIALS GUIDE (TGFU R1306)
  1. UL 790 - TESTS FOR FIRE RESISTANCE OF ROOF COVERING MATERIALS.
  2. UL 997 - WIND RESISTANCE OF PREPARED ROOF COVERING MATERIALS.
- C ASPHALT ROOFING MANUFACTURERS ASSOCIATION (ARMA)
- D SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) - ARCHITECTURAL SHEET METAL MANUAL.
- E NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
- F AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE).
  1. ASCE 7 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
- G ROOFING TERMINOLOGY: REFER TO ASTM D1079 AND THE GLOSSARY OF THE NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA) ROOFING AND WATERPROOFING MANUAL FOR DEFINITIONS OF ROOFING TERMS RELATED TO THIS SECTION.

1.04 LEED CERTIFICATION (NOT REQUIRED)

1.05 SUBMITTALS
- A SUBMIT COPIES OF MANUFACTURER PRODUCT DATA SHEETS, DETAIL DRAWINGS AND SAMPLES FOR EACH TYPE OF ROOFING PRODUCT.

1.06 QUALITY ASSURANCE
- A MANUFACTURER QUALIFICATIONS: PROVIDE ALL PRIMARY ROOFING PRODUCTS, INCLUDING SHINGLES, UNDERLAYMENT, LEAK BARRIER, AND VENTILATION, BY A SINGLE MANUFACTURER.
- B INSTALLER QUALIFICATIONS: INSTALLER MUST BE APPROVED FOR INSTALLATION OF ALL ROOFING PRODUCTS TO BE INSTALLED UNDER THIS SECTION.

1.07 REGULATORY REQUIREMENTS
- A PROVIDE A ROOFING SYSTEM ACHIEVING AN UNDERWRITERS LABORATORIES (UL) CLASS A FIRE CLASSIFICATION.
- B INSTALL ALL ROOFING PRODUCTS IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL BUILDING CODES.
- C ALL WORK SHALL BE PERFORMED IN A MANNER CONSISTENT WITH CURRENT OSHA GUIDELINES.

1.08 PREINSTALLATION MEETING
- A GENERAL: A PRE-INSTALLATION MEETING IS REQUIRED.
- B TIMING: THE MEETING SHALL TAKE PLACE AT THE START OF THE ROOFING INSTALLATION, NO MORE THAN 2 WEEKS PRIOR TO THE ROOFING PROJECT.
- C ATTENDEES: MEETING TO BE CALLED FOR BY MANUFACTURER'S CERTIFIED CONTRACTOR. MEETING'S MANDATORY ATTENDEES SHALL INCLUDE THE CERTIFIED CONTRACTOR AND THE MANUFACTURER'S REPRESENTATIVE, THE OWNER'S REPRESENTATIVE, ARCHITECT OR ENGINEER'S REPRESENTATIVE, AND THE GENERAL CONTRACTOR'S REPRESENTATIVE.
- D TOPICS: CERTIFIED CONTRACTOR AND MANUFACTURER'S REPRESENTATIVE SHALL REVIEW ALL PERTINENT REQUIREMENTS FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO, SCHEDULING, WEATHER CONSIDERATIONS, PROJECT DURATION, AND REQUIREMENTS FOR THE SPECIFIED WARRANTY.

1.09 DELIVERY, STORAGE, AND HANDLING
- A STORE ALL PRODUCTS IN MANUFACTURER'S UNOPENED, LABELED PACKAGING UNTIL THEY ARE READY FOR INSTALLATION.
- B STORE PRODUCTS IN A COVERED, VENTILATED AREA, AT TEMPERATURE NOT MORE THAN 110 DEGREES F (43 DEGREES C); DO NOT STORE NEAR STEAM PIPES, RADIATORS, OR IN DIRECT SUNLIGHT.
- C STORE BUNDLES ON A FLAT SURFACE. MAXIMUM STACKING HEIGHT SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS. STORE ALL ROLLS ON END.
- D STORE AND DISPOSE OF SOLVENT-BASED MATERIALS IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

1.10 WEATHER CONDITIONS
- A PROCEED WITH WORK ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS WILL PERMIT WORK TO BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

1.11 WARRANTY PROVIDE TO THE OWNER A GAF WEATHERSTOPPER GOLDEN PLEDGE LTD WARRANTY (BASIS OF DESIGN)COVERING:
- A. MANUFACTURING DEFECTS: 100% COVERAGE FOR MATERIALS AND LABOR FOR: 40 YEARS WITH THE FIRST 20 YEARS NON- PRORATED.
- B. WORKMANSHIP ERRORS: 100% COVERAGE FOR WORKMANSHIP ERRORS FOR: - 20 YEARS
- C. ROOF SYSTEM NOT INSTALLED OVER AN EXISTING ROOF, ALL EXISTING ROOF MATERIALS MUST BE REMOVED TO THE DECK.
- D. WARRANTED AGAINST ALGAE DISCOLORATION FOR 10 YEARS
- E. FULL ROOF INSTALLATIONS (ROOFS INSTALLED ON PORTIONS OF BUILDINGS DO NOT QUALIFY) USING THE FOLLOWING MANUFACTURER'S PRODUCTS.
  1. YOU MUST USE ROOF DECK PROTECTION.
  2. YOU MUST USE ELIGIBLE LEAK BARRIER IN VALLEYS AND AROUND DORMERS, SIDEWALLS, FIREWALLS, CHIMNEYS, PLUMBING VENTS, AND SKYLIGHTS. IN THE NORTH, LEAK BARRIERS MUST BE USED AT ALL EAVES AT LEAST 24 INCH INSIDE WARM WALL.
  3. YOU MUST USE PRE-CUT STARTER STRIP PRODUCTS (ONLY THOSE WITH FACTORY APPLIED ADHESIVE) AT THE EAVES. NOTE: TO OBTAIN BONUS WIND COVERAGE, YOU MUST USE MANUFACTURER'S PRE CUT STARTER STRIP PRODUCTS (WITH FACTORY APPLIED ADHESIVE) AT THE EAVES AND RAKES AND YOU MUST INSTALL EACH SHINGLE USING 6 NAILS.
  4. YOU MUST USE ELIGIBLE VENTILATION WITH ADEQUATE INTAKE VENTILATION. EXHAUST VENTILATION PRODUCTS CAN BE SUBSTITUTED ONLY IF RIDGE VENTILATION CANNOT BE INSTALLED DUE TO A STRUCTURE'S ARCHITECTURE. IN ANY EVENT, ADEQUATE VENTILATION SHOULD MEET THE FOLLOWING REQUIREMENTS:
     - a. MINIMUM NET FREE VENTILATION AREA OF 1 SQ FT PER 150 SQ FT OF CEILING AREA IS REQUIRED. WHEN INTAKE VENTS ARE LOCATED AT THE EAVES AND EXHAUST VENTS ARE LOCATED NEAR THE ROOF'S PEAK (IN A PROPERLY BALANCED SYSTEM) FOR MAXIMUM AIR FLOW, VENTILATION MAY BE REDUCED TO 1 SQ FT PER 300 SQ FT. IF THESE STANDARDS ARE NOT MET, MANUFACTURER'S CANNOT BE RESPONSIBLE FOR DAMAGE CAUSED BY INADEQUATE VENTILATION.
  5. YOU MUST USE RIDGE CAP SHINGLES OR SHINGLES THAT CORRESPOND TO THE SHINGLE PRODUCT YOU ARE INSTALLING.
  6. YOU MUST USE ELIGIBLE MANUFACTURER'S ROOFING SHINGLES.
  7. NEW METAL FLASHINGS MUST BE INSTALLED. METAL DRIP EDGE MUST BE USED AT EAVES AND IS RECOMMENDED AT RAKE EDGES.

PART II PRODUCTS

2.01 MANUFACTURERS
- A ACCEPTABLE MANUFACTURERS:
  1. GAF, 1361 ALPS RD. WAYNE NJ 07470. TEL: 1-973-628-3000.
  2. OWENS CORNING ROOFING AND ASPHALT, LLC. ONE OWENS CORNING PKWY. TOLEDO, OH 43659. TOLL FREE: 1-800-ROOFING. EMAIL: OCBUILDINGSPEC@OWENSCORNING.COM. WEB: WWW.OWENSCORNING.COM
  3. CERTAINTEED CORPORATION P.O. BOX 860 VALLEY FORGE, PA 19482 800.233.8990
- B REQUESTS FOR SUBSTITUTIONS WILL BE CONSIDERED IN ACCORDANCE WITH PROVISIONS OF SECTION 01600.

2.02 SHINGLES
- A SUPER-HEAVYWEIGHT "PLUS", GRANULE SURFACED, SELF SEALING ASPHALT SHINGLE WITH A STRONG FIBERGLASS REINFORCED CORE AND STAINGUARD PROTECTION, WHICH PREVENTS PRONOUNCED DISCOLORATION FROM BLUE-GREEN ALGAE THROUGH FORMULATION/UNIQUE BLENDS OF GRANULES. EXTRA THICK TABS AND BOLD PROFILE PROVIDE A BOLD UNIQUE APPEARANCE WITH A 7.5 INCH EXPOSURE. UL 790 CLASS A RATED WITH UL 997 WIND RESISTANCE LABEL; ASTM D 7158, CLASS H; ASTM D 3161, TYPE 1; ASTM D 3018, TYPE 1; ASTM D 3462; AC438; CSA A123.5-98; ICC REPORT APPROVAL,
  1. CAMELOT LIFETIME DESIGNER SHINGLES, BY GAF COLOR: ANTIQUE SLATE (BASIS OF DESIGN)
  2. TRUDEFINITION DURATION SHINGLES BY OWENS CORNING COLOR:FROM MANUFACTURER'S COLORS
  3. PRESIDENTIAL SHAKE TL BY CERTAINTEED COLOR: FROM MANUFACTURER'S COLORS

2.03 HIP AND RIDGE SHINGLES
- A HIGH PROFILE SELF SEALING HIP AND RIDGE CAP SHINGLE MATCHING THE COLOR OF SELECTED ROOF SHINGLE. TIMBERTEX PREMIUM RIDGE CAP SHINGLES, BY GAF.(BASIS OF DESIGN)

2.04 STARTER STRIP
- A SELF SEALING STARTER SHINGLE DESIGNED FOR PREMIUM ROOF SHINGLES. WEATHERBLOCKER EAVE/RAKE STARTER STRIP BY GAF.(BASIS OF DESIGN)

2.05 LEAK BARRIER
- A SELF-ADHERING, SELF SEALING, BITUMINOUS LEAK BARRIER SURFACED WITH FINE, SKID-RESISTANT GRANULES. APPROVED BY UL, DADE COUNTY, ICC, STATE OF FLORIDA AND TEXAS DEPARTMENT OF INSURANCE. EACH ROLL CONTAINS APPROX. 150 SQ FT (13.9 SQ.M.), 36Δ X 50" (0.9M X 20.3M) OR 200 SQ FT (18.6 SQ.M.), 36Δ X 66.7" (0.9M X 20.3M). WEATHERWATCH LEAK BARRIER, BY GAF.(BASIS OF DESIGN)

2.06 ROOF DECK PROTECTION
- A SYNTHETIC, NON-ASPHALTIC, NON-WOVEN, ANTI-SKID BACK COATED, POLYPROPYLENE CONSTRUCTED NON BREATHABLE UNDERLAYMENT. MEETS OR EXCEEDS ASTM D226 AND D4869 APPROVED BY UL, FLORIDA BUILDING CODE, ICC AND CSA A220.1. EACH ROLL CONTAINS APPROXIMATELY 10 SQUARES (1000 GROSS SQ. FT.) OF MATERIAL AND IS 48 IN. X 250 FT. (14.6 M X 76.2 M), TIGER-PAW ROOF DECK PROTECTION BY GAF(BASIS OF DESIGN).

2.07 ROOFING CEMENT
- A ASPHALT PLASTIC ROOFING CEMENT MEETING THE REQUIREMENTS OF ASTM D 4586, TYPE I OR II.

2.08 ROOF ACCESSORIES
- A EXTERIOR ACRYLIC RUST RESISTANT AEROSOL ROOF ACCESSORY PAINT. EACH 6 OZ CAN IS AVAILABLE IN BOXES OF 6 AND IN A WIDE VARIETY OF COLORS TO COMPLIMENT THE ROOF. SHINGLE-MATCH ROOF ACCESSORY PAINT BY GAF(BASIS OF DESIGN).

2.09 ATTIC VENTILATION (ON SUPPORT BUILDING ONLY)
- A RIDGE VENTS
  1. RIGID PLASTIC RIDGE VENTILATOR DESIGNED TO ALLOW THE PASSAGE OF HOT AIR FROM ATTICS WHILE PROHIBITING SNOW INFILTRATION. FOR USE IN CONJUNCTION WITH EAVE/ SOFFIT INTAKE VENTILATION PRODUCTS. PROVIDES 18.0 SQ INCHES (11613 SQ.MM/M) NET FREE VENTILATION AREA PER LINEAL FOOT. EACH PACKAGE CONTAINS 40 LINEAL FEET (12.19M) OF VENT. COBRA SNOW COUNTRY OR COBRA SNOW COUNTRY ADVANCED± RIDGE VENT (INCLUDES 3Δ (76MM) GALVANIZED RING SHANK NAILS), BY GAF.(BASIS OF DESIGN)
- B FASCIA AND SOFFIT/UNDER EAVE VENTS
  1. PVC SOFFIT/UNDEREAVE PREMIUM INTAKE VENTILATION PROVIDING 9 SQ,IN, OF NET FREE VENTILATION AREA. EACH SECTION IS 12FT. LONG, 6IN. HIGH AND 1.25IN. THICK. COBRA FASCIA FLOW± PREMIUM INTAKE VENTILATION. (BASIS OF DESIGN)

2.10 VENTILATION ACCESSORIES

2.11 NAILS
- A STANDARD ROUND WIRE, ZINC-COATED STEEL OR ALUMINUM; 10 TO 12 GAUGE, SMOOTH, BARBED OR DEFORMED SHANK, WITH HEADS 3/8 INCH (9MM) TO 7/16 INCH (11MM) IN DIAMETER. LENGTH MUST BE SUFFICIENT TO PENETRATE INTO SOLID WOOD AT LEAST 3/4 INCH (19MM) OR THROUGH PLYWOOD OR ORIENTED STRAND BOARD BY AT LEAST 1/8 INCH (3.18MM).

2.12 METAL FLASHING
- A 16-OZ/SQ FT (0.56MM) COPPER SHEET, COMPLYING WITH ASTM B 370.

PART III EXECUTION

3.01 EXAMINATION
- A DO NOT BEGIN INSTALLATION UNTIL THE ROOF DECK HAS BEEN PROPERLY PREPARED.
- B IF ROOF DECK PREPARATION IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY THE ARCHITECT OR BUILDING OWNER OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.

3.02 PREPARATION
- A REMOVE ALL EXISTING ROOFING DOWN TO THE ROOF DECK.
- B VERIFY THAT THE DECK IS DRY, SOUND, CLEAN AND SMOOTH. IT SHALL BE FREE OF ANY DEPRESSIONS, WAVES, AND PROJECTIONS. COVER WITH SHEET METAL, ALL HOLES OVER 1 INCH (25MM) IN DIAMETER, CRACKS OVER 1/2 INCH (12MM) IN WIDTH, LOOSE KNOTS AND EXCESSIVELY RESINOUS AREAS.
- C REPLACE DAMAGED DECK WITH NEW MATERIALS.
- D CLEAN DECK SURFACES THOROUGHLY PRIOR TO INSTALLATION OF EAVES PROTECTION MEMBRANE AND UNDERLAYMENT.

3.03 INSTALLATION OF UNDERLAYMENTS
- A GENERAL:
  1. INSTALL USING METHODS RECOMMENDED BY MANUFACTURER, IN ACCORDANCE WITH LOCAL BUILDING CODES. WHEN LOCAL CODES AND APPLICATION INSTRUCTIONS ARE IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL TAKE PRECEDENCE.
- B EAVES:
  1. INSTALL EAVES EDGE METAL FLASHING TIGHT WITH FASCIA BOARDS; LAP JOINTS 2 INCHES (51MM) AND SEAL WITH PLASTIC CEMENT OR HIGH QUALITY URETHANE SEALANT; NAIL AT THE TOP OF THE FLANGE.
  2. IN THE NORTH, AND ON ALL ROOFS BETWEEN 2/12 AND 4/12 (LOW SLOPES) INSTALL LEAK BARRIER UP THE SLOPE FROM EAVES EDGE A FULL 36 INCHES (914MM) OR TO AT LEAST 24 INCHES (610 MM) BEYOND THE INTERIOR "WARM WALL". LAP ENDS 6 INCHES (152MM) AND BOND.
- C VALLEYS:
  1. INSTALL EAVES PROTECTION MEMBRANE AT LEAST 36 (914MM) INCHES WIDE AND CENTERED ON THE VALLEY. LAP ENDS 6 INCHES (152MM) AND SEAL.
  2. WHERE VALLEYS ARE INDICATED TO BE "OPEN VALLEYS", INSTALL METAL FLASHING OVER LEAK BARRIER BEFORE ROOF DECK PROTECTION IS INSTALLED; DO NOT NAIL THROUGH THE FLASHING. SECURE THE FLASHING BY NAILING AT 18 INCHES (457 MM) ON CENTER JUST BEYOND EDGE OF FLASHING SO THAT NAIL HEADS HOLD DOWN THE EDGE.
- D HIPS AND RIDGES:
  1. INSTALL LEAK BARRIER ALONG ENTIRE LENGTHS. IF RIDGE VENTS ARE TO BE INSTALLED, POSITION THE LEAK BARRIER SO THAT THE RIDGE SLOTS WILL NOT BE COVERED.
- E ROOF DECK:
  1. INSTALL ONE LAYER OF ROOF DECK PROTECTION OVER THE ENTIRE AREA NOT PROTECTED BY LEAK BARRIER AT THE EAVES OR VALLEY. INSTALL SHEETS HORIZONTALLY SO WATER SHEDS AND NAIL IN PLACE.
  2. ON ROOFS SLOPED AT MORE THAN 4:12, LAP HORIZONTAL EDGES AT LEAST 2 INCHES (51MM) AND AT LEAST 2 INCHES (51MM) OVER EAVES PROTECTION MEMBRANE.
  3. ON ROOFS SLOPED BETWEEN 2 :12 AND 4:12, LAP HORIZONTAL EDGES AT LEAST 19 INCHES (482 MM) AND AT LEAST 19 INCHES (482MM) OVER EAVES PROTECTION MEMBRANE.
  4. LAP ENDS AT LEAST 4 INCHES (102 MM). STAGGER END LAPS OF EACH LAYER AT LEAST 36 INCHES (914 MM).
  5. LAP ROOF DECK PROTECTION OVER LEAK BARRIER IN VALLEY AT LEAST 6 INCHES (152MM).
- F ROOF DECK-PROTECTION APPLICATION
  1. ROOF DECK-PROTECTION SHALL BE INSTALLED OVER A CLEAN, DRY DECK.
  2. INSTALL LEAK BARRIER AT EAVES, VALLEYS, RAKES, SKYLIGHTS, DORMERS AND OTHER VULNERABLE LEAK AREAS.
  3. LAY ROOF DECK-PROTECTION OVER DECK AND OVERLAP 3" (76MM) AT SIDE LAPS AND 6" (152MM) AT END LAPS.
  4. FOR EXPOSURE TO RAIN OR SNOW, OVERLAP 12" (305MM) AT END LAPS.
  5. FOR SIDE AND END LAPS: FASTEN ROOF DECK-PROTECTION 12" (305MM) O.C. (6" (152MM)O.C. FOR HIGH WIND AREAS).
  6. FOR MIDDLE OF THE ROLL: FASTEN ROOF DECK-PROTECTION 24" (610MM) O.C. (12" (305MM) O.C. FOR HIGH WIND AREAS).
  7. FOR EXPOSURE TO RAIL OR SNOW, COMPLETELY COVER ALL SIDE LAPS, END LAPS AND FASTENERS WITH TAPE.
  8. FOR LONG TERM EXPOSURE SEE COMPLETE ROOF DECK-PROTECTION INSTALLATION INSTRUCTIONS FOR SIDE LAP DETAIL.
  9. IF ROOF MAY BE EXPOSED TO HIGH WINDS, APPLY TAPE OVER ALL FASTENERS AT THE CENTER OF THE ROLL TO PREVENT RAIN OR SNOW FROM ENTERING AT THE FASTENERS.
  10. FOR SLOPES LESS THAT 2:12, A DOUBLE APPLICATION OF ROOF DECK-PROTECTION IS REQUIRED. SEE COMPLETE DECK-ARMOR INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.
- G PENETRATIONS:
  1. VENT PIPES: INSTALL A 24 INCH (610 MM) SQUARE PIECE OF EAVES PROTECTION MEMBRANE LAPPING OVER ROOF DECK UNDERLAYMENT; SEAL TIGHTLY TO PIPE.
  2. VERTICAL WALLS: INSTALL EAVES PROTECTION MEMBRANE EXTENDING AT LEAST 6 INCHES (152MM) UP THE WALL AND 12 INCHES (305MM) ON TO THE ROOF SURFACE. LAP THE MEMBRANE OVER THE ROOF DECK UNDERLAYMENT.
  3. CHIMNEYS: INSTALL EAVES PROTECTION MEMBRANE AROUND ENTIRE CHIMNEY EXTENDING AT LEAST 6 INCHES (152MM) UP THE WALL AND 12 INCHES (305MM) ON TO THE ROOF SURFACE. LAP THE MEMBRANE OVER THE ROOF DECK UNDERLAYMENT.
  4. RAKE EDGES: INSTALL METAL EDGE FLASHING OVER EAVES PROTECTION MEMBRANE AND ROOF DECK UNDERLAYMENT; SET TIGHT TO RAKE BOARDS; LAP JOINTS AT LEAST 2 INCHES (51MM) AND SEAL WITH PLASTIC CEMENT; SECURE WITH NAILS.

3.04 INSTALLATION OF STARTER SHINGLES
- A GENERAL:
  1. INSTALL IN ACCORDANCE WITH MANUFACTOR'S INSTRUCTIONS AND LOCAL BUILDING CODES. WHEN LOCAL CODES AND APPLICATION INSTRUCTIONS ARE IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL TAKE PRECEDENCE.
  2. REFER TO APPLICATION INSTRUCTIONS FOR THE SELECTED STARTER STRIP SHINGLES.
- B PLACEMENT AND NAILING:
  1. FOR MAXIMUM WIND RESISTANCE ALONG RAKES & EAVES, INSTALL ANY STARTER STRIP CONTAINING SEALANT OR CEMENT SHINGLES TO UNDERLAYMENT AND EACH OTHER IN A 4" (102MM) WIDTH OF ASPHALT PLASTIC ROOF CEMENT.
  2. PLACE STARTER STRIP SHINGLES 1/4" 3/4" (6 19MM) OVER EAVE AND RAKE EDGES TO PROVIDE DRIP EDGE.
  3. NAIL APPROXIMATELY 1-1/2" 3" (38 76MM) ABOVE THE BUTT EDGE OF THE SHINGLE.
  4. RAKE STARTER COURSE SHOULD OVERLAP EAVE EDGE STARTER STRIP AT LEAST 3" (76MM).

3.05 INSTALLATION OF SHINGLES
- A GENERAL:
  1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND LOCAL BUILDING CODES. WHEN LOCAL CODES AND APPLICATION INSTRUCTIONS ARE IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL TAKE PRECEDENCE.
  2. MINIMIZE BREAKAGE OF SHINGLES BY AVOIDING DROPPING BUNDLES ON EDGE, BY SEPARATING SHINGLES CAREFULLY (NOT BY "BREAKING" OVER RIDGE OR BUNDLES), AND BY TAKING EXTRA PRECAUTIONS IN TEMPERATURES BELOW 40 DEGREES F (4 DEGREES C).
  3. HANDLE CAREFULLY IN HOT WEATHER TO AVOID SCUFFING THE SURFACING, OR DAMAGING THE SHINGLE EDGES.
- B PLACEMENT AND NAILING:
  1. SECURE WITH 4, 5, OR 6 NAILS PER SHINGLE PER MANUFACTURER'S APPLICATION INSTRUCTIONS OR LOCAL CODES.
  2. PLACEMENT OF NAILS VARIES BASED ON THE TYPE OF SHINGLE SPECIFIED. CONSULT THE APPLICATION INSTRUCTIONS FOR THE SPECIFIED SHINGLE FOR DETAILS.
  3. NAILS MUST BE DRIVEN FLUSH WITH THE SHINGLE SURFACE. DO NOT OVERDRIVE OR UNDER DRIVE THE NAILS.
  4. SHINGLE OFFSET VARIES BASED ON THE TYPE OF SHINGLE SPECIFIED. CONSULT THE APPLICATION INSTRUCTIONS FOR THE SPECIFIED SHINGLE FOR DETAILS.
- C VALLEYS
  1. INSTALL VALLEYS USING THE "OPEN VALLEY" METHOD:
     - A SNAP DIVERGING CHALK LINES ON THE METAL FLASHING, STARTING AT 3 INCHES (76MM) EACH SIDE OF TOP OF VALLEY, SPREADING AT 1/8 INCH PER FOOT (9MM PER METER) TO THE EAVES.
     - B RUN SHINGLES TO CHALK LINE.
     - C TRIM LAST SHINGLE IN EACH COURSE TO MATCH THE CHALK LINE; DO NOT TRIM SHINGLES TO LESS THAN 12 INCHES (305MM) WIDE.
     - D APPLY A 2 INCH (51MM) WIDE STRIP OF PLASTIC CEMENT UNDER ENDS OF SHINGLES, SEALING THEM TO THE METAL FLASHING.
- D PENETRATIONS
  1. ALL PENETRATIONS ARE TO BE FLASHED ACCORDING TO MANUFACTURER'S, ARMA AND NRCA APPLICATION INSTRUCTIONS AND CONSTRUCTION DETAILS.

WESTERN CONNECTICUT STATE UNIVERSITY

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Revisions	
No.	Date

Bandshell & Support Building Roof Replacement

IVES CONCERT PARK AT WESTSIDE CAMPUS

General Notes

Project No. WCSU-2013-17

By: DMF

Scale: AS NOTED

Issue Date: 2/12/15

GN-1

E SKYLIGHTS AND ROOF HATCHES
1. CONSULT THE MANUFACTURER OF THE SKYLIGHT OR ROOF HATCH FOR SPECIFIC INSTALLATION RECOMMENDATIONS.
2. SKYLIGHTS AND ROOF HATCHES SHALL BE INSTALLED WITH PRE-FABRICATED METAL FLASHINGS SPECIFICALLY DESIGNED FOR THE APPLICATION OF THE UNIT.

3.06 INSTALLATION OF ATTIC VENTILATION (SUPPORT BUILDING ONLY)

A GENERAL
1. VENTILATION MUST MEET OR EXCEED CURRENT F.H.A., H.U.D. AND LOCAL CODE REQUIREMENTS.

B RIDGE / SOFFIT VENTILATION
1. INSTALL RIDGE VENT ALONG THE ENTIRE LENGTH OF RIDGES;
2. CUT CONTINUOUS VENT SLOTS THROUGH THE SHEATHING, STOPPING 6 INCHES (152MM) FROM EACH END OF THE RIDGE.
3. ON ROOFS WITHOUT RIDGE BOARD, MAKE A SLOT 1 INCH (25MM) WIDE, ON EITHER SIDE OF THE PEAK (2 INCH (51MM) OVERALL).
4. ON ROOFS WITH RIDGE BOARD, MAKE TWO SLOTS 1-3/4 INCHES (44.5MM) WIDE, ONE ON EACH SIDE OF THE PEAK (3 ½ INCH (89MM) OVERALL).
5. INSTALL RIDGE VENT MATERIAL ALONG THE FULL LENGTH OF THE RIDGE, INCLUDING UNCUT AREAS.
6. BUTT ENDS OF RIDGE VENT MATERIAL AND JOIN USING ROOFING CEMENT.
7. INSTALL EAVES VENTS IN SUFFICIENT QUANTITY TO EQUAL OR EXCEED THE RIDGE VENT AREA.

3.07 INSTALLATION OF VENTILATION ACCESSORIES

3.08 PROTECTION

A PROTECT INSTALLED PRODUCTS FROM FOOT TRAFFIC UNTIL COMPLETION OF THE PROJECT.

B ANY ROOF AREAS THAT ARE NOT COMPLETED BY THE END OF THE WORKDAY ARE TO BE PROTECTED FROM MOISTURE AND CONTAMINANTS.

END OF SECTION

07 31 34 COMPOSITE EMULATED CEDAR ROOF SHAKES (ALTERNATE #2 & 3)

1 GENERAL

1.01 SUMMARY OF WORK

A. THIS SECTION SPECIFIES COMPOSITE EMULATED CEDAR ROOF SHAKES.

1.02 RELATED REQUIREMENTS (NOT USED)

1.03 REFERENCE STANDARDS

A. ASTM INTERNATIONAL (ASTM).
1. ASTM D7349/D7349M-[2011], STANDARD TEST METHOD FOR DETERMINING THE CAPABILITY OF ROOFING AND WATERPROOFING MATERIALS TO SEAL AROUND FASTENERS.
2. ASTM E108-[2010A], STANDARD TEST METHODS FOR FIRE TESTS OF ROOF COVERINGS.
3. ASTM F1667-[2011], STANDARD SPECIFICATION FOR DRIVEN FASTENERS: NAILS, SPIKES, AND STAPLES.

B. UNDERWRITER'S LABORATORIES (UL)
1. UL 2218-[2010], STANDARD FOR IMPACT RESISTANCE OF PREPARED ROOF COVERING MATERIALS.

C. US GREEN BUILDING COUNCIL (USGBC).
1. LEED NC VERSION 2.2-[2009], LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN): GREEN BUILDING RATING SYSTEM REFERENCE PACKAGE FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS.

1.04 ADMINISTRATIVE REQUIREMENTS

A. CO-ORDINATION: CO-ORDINATE WORK OF THIS SECTION WITH WORK OF OTHER TRADES FOR PROPER TIME AND SEQUENCE TO AVOID CONSTRUCTION DELAYS.

B. PRE-INSTALLATION MEETING: CONVENE PRE-INSTALLATION MEETING AFTER AWARD OF CONTRACT AND ONE WEEK PRIOR TO COMMENCING WORK OF THIS SECTION TO VERIFY PROJECT REQUIREMENTS, SUBSTRATE CONDITIONS AND COORDINATION WITH OTHER BUILDING SUB-TRADES, AND TO REVIEW MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
1. COMPLY WITH SECTION 01°31°19°_°PROJECT MEETINGS AND CO-ORDINATE WITH OTHER SIMILAR PRE_INSTALLATION MEETINGS.
2. NOTIFY ATTENDEES 2 WEEKS PRIOR TO MEETING AND ENSURE MEETING ATTENDEES INCLUDE AS MINIMUM:

A. OWNER;

B. CONSULTANT;

C. COMPOSITE SHAKE ROOFING INSTALLER;

D. MANUFACTURER'S TECHNICAL REPRESENTATIVE.

3. ENSURE MEETING AGENDA INCLUDES REVIEW OF METHODS AND PROCEDURES RELATED TO COMPOSITE ROOF SHAKE INSTALLATION INCLUDING CO-ORDINATION WITH RELATED WORK.
4. RECORD MEETING PROCEEDINGS INCLUDING CORRECTIVE MEASURES AND OTHER ACTIONS REQUIRED TO ENSURE SUCCESSFUL COMPLETION OF WORK AND DISTRIBUTE TO EACH ATTENDEE WITHIN 1 WEEK OF MEETING.

1.05 ACTION AND INFORMATIONAL SUBMITTALS

A. MAKE SUBMITTALS IN ACCORDANCE WITH CONTRACT CONDITIONS AND SECTION 01°33°00°_°SUBMITTAL PROCEDURES.

B. PRODUCT DATA: SUBMIT PRODUCT DATA INCLUDING MANUFACTURER'S LITERATURE FOR COMPOSITE ROOF SHAKE COMPONENTS AND ACCESSORIES, INDICATING COMPLIANCE WITH SPECIFIED REQUIREMENTS AND MATERIAL CHARACTERISTICS.
1. SUBMIT LIST ON COMPOSITE ROOF SHAKE MANUFACTURER'S LETTERHEAD OF MATERIALS, COMPONENTS AND ACCESSORIES TO BE INCORPORATED INTO WORK.
2. INCLUDE PRODUCT NAMES, TYPES AND SERIES NUMBERS.
3. INCLUDE CONTACT INFORMATION FOR MANUFACTURER AND THEIR REPRESENTATIVE FOR THIS PROJECT.

C. SAMPLES:
1. SUBMIT DUPLICATE FULL SIZE SAMPLES OF COMPOSITE ROOF SHAKE USED.

D.

E. TEST REPORTS:
1. SUBMIT TEST REPORTS SHOWING COMPLIANCE WITH SPECIFIED PERFORMANCE CHARACTERISTICS AND PHYSICAL PROPERTIES.

E. FIELD REPORTS: SUBMIT MANUFACTURER'S FIELD REPORTS WITHIN 3 DAYS OF EACH MANUFACTURER REPRESENTATIVE'S SITE VISIT AND INSPECTION.

F. SUSTAINABLE DESIGN (LEED).
1. LEED SUBMITTALS: IN ACCORDANCE WITH SECTION [01°35°21° LEED REQUIREMENTS]

G. INSTALLER QUALIFICATIONS:
1. SUBMIT [VERIFICATION OF MANUFACTURER'S CERTIFICATION OF INSTALLER] [LETTER VERIFYING INSTALLER'S EXPERIENCE WITH WORK SIMILAR TO WORK OF THIS SECTION].

1.06 CLOSEOUT SUBMITTALS

A. OPERATION AND MAINTENANCE DATA: SUPPLY MAINTENANCE DATA FOR COMPOSITE ROOF SHAKE MATERIALS FOR INCORPORATION INTO MANUAL SPECIFIED IN SECTION 01°78°00°_°CLOSEOUT SUBMITTALS.

1.07 QUALITY ASSURANCE

A. SUSTAINABILITY STANDARDS CERTIFICATION (LEED).
1. LEED NC VERSION 2.2 SUBMITTALS: IN ACCORDANCE WITH SECTION 01°35°21°_°LEED REQUIREMENTS.

B. INSTALLER QUALIFICATIONS: MANUFACTURER'S CERTIFICATION FOR INSTALLATION OF COMPOSITE SHAKE ROOFING.

1.08 DELIVERY STORAGE AND HANDLING

A. DELIVERY AND REQUIREMENTS:
1. DELIVER MATERIAL IN ACCORDANCE WITH SECTION 01°61°00°_°COMMON PRODUCT REQUIREMENTS.
2. DELIVER MATERIALS AND COMPONENTS IN MANUFACTURER'S ORIGINAL PACKAGING WITH IDENTIFICATION LABELS INTACT.

B. STORAGE AND HANDLING REQUIREMENTS: STORE MATERIALS OFF GROUND AND PROTECTED FROM EXPOSURE TO HARMFUL WEATHER CONDITIONS AND AT TEMPERATURE CONDITIONS RECOMMENDED BY MANUFACTURER.
1. EXERCISE CARE TO AVOID DAMAGE DURING UNLOADING AND STORING.
2. DO NOT STACK MATERIAL OR OTHER SKIDS ON TOP OF RIDGE CAPS.

1.09 WARRANTY

A. PROJECT WARRANTY: REFER TO CONTRACT CONDITIONS FOR PROJECT WARRANTY PROVISIONS.

B. MANUFACTURER'S WARRANTY: SUBMIT, FOR OWNER'S ACCEPTANCE, MANUFACTURER'S STANDARD WARRANTY DOCUMENT EXECUTED BY AUTHORIZED COMPANY OFFICIAL. MANUFACTURER'S WARRANTY IS IN ADDITION TO AND NOT INTENDED TO LIMIT OTHER RIGHTS OWNER MAY HAVE UNDER CONTRACT CONDITIONS.

C. WARRANTY PERIOD:
1. COMMERCIAL INSTALLATIONS: [50] YEARS COMMENCING ON DATE OF PURCHASE.

2 PRODUCTS

2.01 MANUFACTURERS

A. MANUFACTURER: ENVIROSHAKE® INC., 650 RIVERVIEW DRIVE, CHATHAM, ONTARIO, N7M 5W8, CANADA, PHONE: (519) 380-9265, TOLL FREE: (866) 423-3302, FAX: (519) 380-0689, E-MAIL: INFO@ENVIROSHAKE.COM , URL: HTTP://WWW.ENVIROSHAKE.COM .

B. SENECA SHAKE TILE ROOF SYSTEM ARE TO BE PRODUCTS MANUFACTURED OR SUPPLIED BY ECOSTAR LLC 42 EDGEWOOD DRIVE HOLLAND, NY 14080 WWW.ECOSTARLLC.COM

C. DAVINCI ROOFSCAPES, LLC 1413 OSAGE AVE. KANSAS CITY, KS 66105 TOLL FREE: 800-DAVINCI PHONE: 913-599-0766 FAX: 913-599-0065 WEB SITE: WWW.DAVINCIROOFSCAPES.COM

2.02 DESCRIPTION

A. CEDAR STYLE COMPOSITE ROOFING SHAKE.

B. ACCEPTABLE MATERIAL: ENVIROSHAKE INC., ENVIROSHAKE, SENECA SHAKE & HAND SPLIT SHAKE.

2.03 DESIGN CRITERIA

A. ROOF SLOPE: 3:12 MINIMUM.

B. ENSURE ROOF DESIGN LOAD INCLUDES SHINGLE WEIGHT OF 260 LBS PER 100 SQUARE FEET MINIMUM.

C. FIRE RESISTANCE: TO ASTM E108
1. UBC STANDARD 15-2 RATING: CLASS C.

D. WATER INFILTRATION RESISTANCE: TO MIAMI-DADE PA 100.

E. IMPACT RESISTANCE: TO UL 2218, CLASS 4.

E. ACCELERATED WEATHERING: TO UBC STANDARD 26-6 AND 26-7.

G STABILITY TESTING: TO CGSB-37.58.

H. WIND UPLIFT RESISTANCE: TO MIAMI-DADE TAS-125 CLASS 90.

2.04 MATERIALS

A. COMPOSITE ROOFING SHAKE: BLEND OF POST INDUSTRIAL PLASTIC, ELASTOMERS AND CELLULOSIC FIBER MATERIALS
1. RECYCLED CONTENT: 95 %.
2. APPEARANCE: HAND SAWN TAPER-SPLIT CEDAR SHAKE STYLE 20 INCHES LONG X 12 INCHES WIDE, VARYING PROFILES, EXPOSED SURFACE STRIATED FOR FIRST 9 INCHES, FROM BUTT END AND FLAT AND SMOOTH TO TAPERED END; DARK GRAY OR SILVER GRAY IN COLOR.
3. COLOR: DARK GRAY AND/OR SILVER GRAY.

2.07 ACCESSORIES

A. RIDGE CAPS: PURPOSE MADE FROM SAME MATERIAL AS COMPOSITE ROOFING SHAKE 12 INCHES WIDE ONE PIECE SHAKE, CUSTOM FORMED TO ANGLE OF ROOF SLOPE FROM 2:12-18:12.

B. EAVES PROTECTION: TO ASTM D7349/D7349M, SELF ADHESIVE, SELF SEALING RUBBERIZED ASPHALT BONDED TO POLYETHYLENE FILM COMPOSITE SHEET MATERIAL 40 MIL MINIMUM THICKNESS.

C. DRIP EDGES: 26 GA MINIMUM THICK ALUMINUM, PURPOSE MADE AND PREFORMED.

D. FLASHING: 26 GA MINIMUM THICK PREFINISHED ALUMINUM, 24 INCHES WIDE @W9 FLASHING

E. UNDERLAYMENT: SELF-SEALING OR SYNTHETIC UNDERLAY TO ASTM E108, 48 INCHES WIDE MINIMUM.
1. ACCEPTABLE MATERIAL: GRACE CONSTRUCTION PRODUCTS, TRI-FLEX® 30, OR EQUAL

F. SHEATHING PAPER: SINGLE PLY TYPE SHEATHING PAPER.

G. ROOFING NAILS: TO ASTM F1667, 1 ½ INCH STAINLESS STEEL ROOFING NAILS.

H. ROOF VENTILATORS: IN ACCORDANCE WITH SHIMGLEVENT®II, BY AIR VENT A GIBRALTAR COMPANY OR EQUAL

I. FLASHING SEALANT: IN ACCORDANCE WITH MANUFACTURER SPECIFICATION.

J. SOFFITS AND FACIA: IN ACCORDANCE WITH MANUFACTURER SPECIFICATION.

K. WOOD SPACERS AND NAILING STRIPS: PRESSURE PRESERVATION TREATED WOOD IN ACCORDANCE WITH MANUFACTURER SPECIFICATION.

2.08 PRODUCT SUBSTITUTIONS

A. SUBSTITUTIONS: (NOT USED)

3 EXECUTION

3.01 INSTALLERS

A. USE ONLY INSTALLERS WITH 2 YEARS MINIMUM EXPERIENCE IN WORK SIMILAR TO WORK OF THIS SECTION.

3.02 EXAMINATION

A. VERIFICATION OF CONDITIONS: VERIFY THAT CONDITIONS OF SUBSTRATE PREVIOUSLY INSTALLED UNDER OTHER SECTIONS OR CONTRACTS ARE ACCEPTABLE FOR COMPOSITE ROOF SHAKE INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
1. VISUALLY INSPECT SUBSTRATE IN PRESENCE OF CONSULTANT.

A. VERIFY ROOF SLOPE.
2. INFORM CONSULTANT OF UNACCEPTABLE CONDITIONS IMMEDIATELY UPON DISCOVERY.
3. INACCEPTABLE CONDITIONS HAVE BEEN REMEDIED AND AFTER RECEIPT OF WRITTEN APPROVAL TO PROCEED FROM CONSULTANT.

3.03 PREPARATION

A. REMOVAL OF EXISTING ROOFING:
1. REMOVE EXISTING ROOFING, FLASHINGS AND UNDERLAY TO EXPOSE SHEATHING.

B. REMOVE EXISTING SHINGLE AND FLASHING NAILS AND SET NAILS WHICH BREAK OFF.
1. LEAVE SURFACES FREE FROM DIRT AND LOOSE MATERIAL.

C. PROCEED WITH WORK ONLY AFTER RECEIPT OF WRITTEN APPROVAL FROM CONSULTANT.
1. REMOVE UNSUITABLE PORTIONS OF SHEATHING BOARDS, INCLUDING AREAS AFFECTED BY FUNGAL OR INSECT ATTACK AS DIRECTED BY CONSULTANT.

D. REPLACE CUT OUT PORTIONS OF SHEATHING BOARDS OR LATH WITH BOARDS OF EQUAL SECTIONAL DIMENSIONS AND GRADE.
1. SEAT EACH END OF BOARD ON RAFTER, WITH 1 INCH MINIMUM BEARING AND SECURE WITH MECHANICAL FASTENERS.

3.04 COMPOSITE SHAKE ROOFING INSTALLATION

A. DO COMPOSITE SHAKE ROOFING IN ACCORDANCE WITH SHAKE ROOFING MANUFACTURER'S WRITTEN RECOMMENDATIONS.

B. NAIL DRIP EDGE ALONG ROOF DECK EDGES AT 16 INCH MAXIMUM ON CENTER BEFORE INSTALLATION OF EAVES PROTECTION.
1. ENSURE DRIP EDGE OVERHANGS FACIA ½ INCH MINIMUM WITH 2 INCH FLANGE EXTENDING ON TO ROOF DECK.

C. INSTALL SELF ADHESIVE EAVES PROTECTION FROM BOTTOM EDGE OF ROOF DECK TO 3 FEET MINIMUM FROM ROOF EDGE.
1. INSTALL EAVES PROTECTION OVER VALLEYS AND AT PROJECTIONS OR PENETRATIONS THROUGH ROOF.
2. LAP SEAMS 4 INCHES MINIMUM.

D INSTALL ROOF VENTILATORS AND OTHER ACCESSORIES OVER EAVES PROTECTION MATERIAL IN ACCORDANCE WITH MANUFACTURER SPECIFICATION.

E. INSTALL SHEET VALLEY FLASHINGS WHERE REQUIRED OVER EAVES PROTECTION MATERIAL, 24 INCHES WIDE MINIMUM CENTERED DOWN VALLEYS IN ACCORDANCE WITH MANUFACTURER SPECIFICATION.
1. INCLUDE STEP AND APRON FLASHINGS AT RIDGE VENT.
2. NAIL FLASHINGS IN ACCORDANCE WITH COMPOSITE SHAKE MANUFACTURER'S WRITTEN RECOMMENDATIONS.
3. APPLY BEAD OF SEALANT TO FLASHING EDGES AND JOINTS IN ACCORDANCE WITH MANUFACTURER SPECIFICATION.

F. NAIL SYNTHETIC UNDERLAY HORIZONTALLY TO ROOF SLOPE ABOVE EAVES PROTECTION.
1. OVERLAP EAVES PROTECTION 4 INCHES MINIMUM.
2. ENSURE ROOF DECK IS COMPLETELY COVERED BY SINGLE LAYER OF FELT.
3. OVERLAP BREATHABLE SYNTHETIC UNDERLAY 2 INCHES MINIMUM AT TOP EDGES AND 4 INCHES MINIMUM AT SIDE EDGES.
4. USE SYNTHETIC UNDERLAY OF WEIGHT MEETING REQUIREMENTS OF AUTHORITY HAVING JURISDICTION.
5. NAIL DRIP EDGES ALONG RAKES AFTER FELT IS LAID.
6. NAIL TOP EDGES OF BREATHABLE SYNTHETIC UNDERLAY STRIPS INTO SHEATHING AT 6 FEET ON CENTER.

G. INSTALL COMPOSITE ROOFING SHAKES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
1. USE DOUBLE STARTER COURSE AT BOTTOM EDGES, INCLUDING VERTICAL AND HIGH SLOPE ROOF SURFACES.
2. INSTALL COURSE STRAIGHT AND PLUMB.

A. EXPOSURE: 9 INCHES MAXIMUM.

B. AVOID KEYWAY ON KEYWAY PATTERN.

C. AVOID "STAIRCASE" PATTERN.

3. FASTEN EACH SHAKE WITH 4 NAILS MINIMUM REGARDLESS OF SHAKE WIDTH.
A. SPACE NAILS IN ACCORDANCE WITH SHAKE MANUFACTURER'S WRITTEN RECOMMENDATIONS.

B. DRIVE NAILS FLUSH WITH SURFACE OF SHAKE.

C. ENSURE SHAKE SURFACE IS NOT CRUSHED.

4. SHAKE SPACING: 3/8 INCH.
5. OVERLAP BETWEEN SHAKE JOINTS: 1 1/2 INCHES MINIMUM.
6. LAY EACH CONSECUTIVE ROW OF SHAKES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
7. CUT SHAKES TO FIT ACCURATELY AROUND ROOF PROJECTIONS.
A. ALLOW 1 INCH CLEARANCE AROUND ROOF PROJECTIONS, IN VALLEYS AND BESIDE FLASHINGS.
B. USE ONLY UNCUT FACTORY EDGES KEPT FLUSH ALONG RAKE AND GABLE ENDS AND WHERE ENDS ARE EXPOSED.
8. AT VALLEYS SAW SHAKES PARALLEL TO VALLEY CENTER LINE.

A. DO NOT BREAK JOINTS INTO VALLEY.

3.05 SOFFITS AND FACIA

A. INSTALL PREFINISHED ALUMINUM SOFFITS AND FACIA MATERIAL WHERE INDICATED AND IN ACCORDANCE WITH MANUFACTURER SPECIFICATION.

3.06 ROOF VENTILATORS

A. INSTALL ROOF VENTILATORS AND OTHER ROOFING ACCESSORIES IN ACCORDANCE WITH SECTION°07°72°00° °ROOF°ACCESSORIES.

3.07 FIELD QUALITY CONTROL

A. FIELD INSPECTION: COORDINATE FIELD INSPECTION IN ACCORDANCE WITH MANUFACTURER SPECIFICATION .

B. MANUFACTURER'S SERVICES.
1. COORDINATE MANUFACTURER'S SERVICES WITH MANUFACTURER SPECIFICATION.
A. HAVE MANUFACTURER REVIEW WORK INVOLVED IN HANDLING, INSTALLATION, PROTECTION, AND CLEANING OF COMPOSITE ROOF SHAKE AND COMPONENTS, AND SUBMIT WRITTEN REPORTS IN ACCEPTABLE FORMAT TO VERIFY COMPLIANCE OF WORK WITH CONTRACT CONDITIONS.
2. MANUFACTURER'S FIELD SERVICES: PROVIDE MANUFACTURER'S FIELD SERVICES CONSISTING OF PRODUCT USE RECOMMENDATIONS AND PERIODIC SITE VISITS FOR PRODUCT INSTALLATION REVIEW IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
A. REPORT ANY INCONSISTENCIES FROM MANUFACTURER'S RECOMMENDATIONS IMMEDIATELY TO CONSULTANT.
3. SCHEDULE SITE VISITS TO REVIEW WORK AT STAGES LISTED:
A. AFTER DELIVERY AND STORAGE OF COMPOSITE ROOF SHAKE AND COMPONENTS, AND WHEN PREPARATORY WORK ON WHICH WORK OF THIS SECTION DEPENDS IS COMPLETE, BUT BEFORE INSTALLATION BEGINS.

B. TWICE DURING PROGRESS OF WORK AT 25% AND 60% COMPLETE.

C. UPON COMPLETION OF WORK, AFTER CLEANING IS CARRIED OUT.

D. OBTAIN REPORTS WITHIN THREE DAYS OF REVIEW AND SUBMIT IMMEDIATELY TO CONSULTANT.

3.09 CLEANING

A. PROGRESS CLEANING: PERFORM CLEANUP AS WORK PROGRESSES MANUFACTURER SPECIFICATION .
1. LEAVE WORK AREA CLEAN END OF EACH DAY.

B. FINAL LEANING: UPON COMPLETION, REMOVE SURPLUS MATERIALS, RUBBISH, TOOLS, AND EQUIPMENT.

C. WASTE MANAGEMENT:
1. CO-ORDINATE RECYCLING OF WASTE MATERIALS .
2. COLLECT RECYCLABLE WASTE AND DISPOSE OF OR RECYCLE FIELD GENERATED CONSTRUCTION WASTE CREATED DURING CONSTRUCTION OR FINAL CLEANING RELATED TO WORK OF THIS SECTION.
3. REMOVE RECYCLING CONTAINERS AND BINS FROM SITE AND DISPOSE OF MATERIALS AT APPROPRIATE FACILITY.

3.10 PROTECTION

A. PROTECT INSTALLED PRODUCTS AND COMPONENTS FROM DAMAGE DURING CONSTRUCTION.

B. REPAIR DAMAGE TO ADJACENT MATERIALS CAUSED BY COMPOSITE ROOF SHAKE INSTALLATION.

END OF SECTION 07 31 34 COMPOSITE SHAKE ROOFING

WESTERN CONNECTICUT STATE UNIVERSITY

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Revisions

No.	Date

Bandshell & Support Building Roof Replacement

IVES CONCERT PARK AT WESTSIDE CAMPUS

General Notes Continued

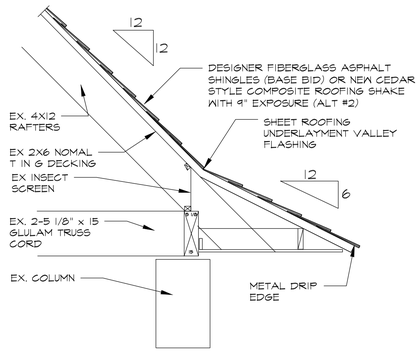
Project No. WCSU-2013-17

By: DMF

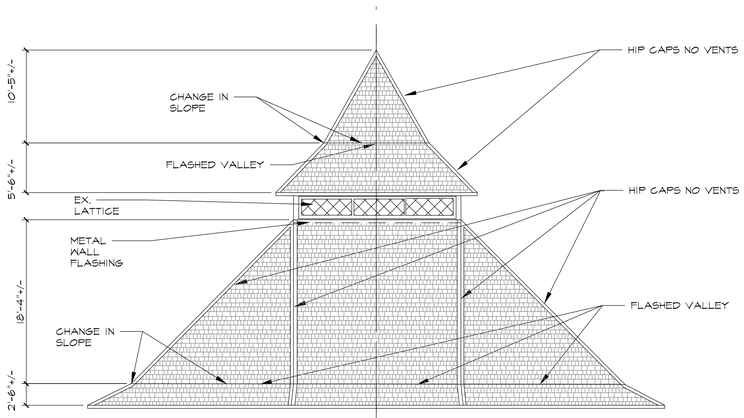
Scale: AS NOTED

Issue Date: 2/12/15

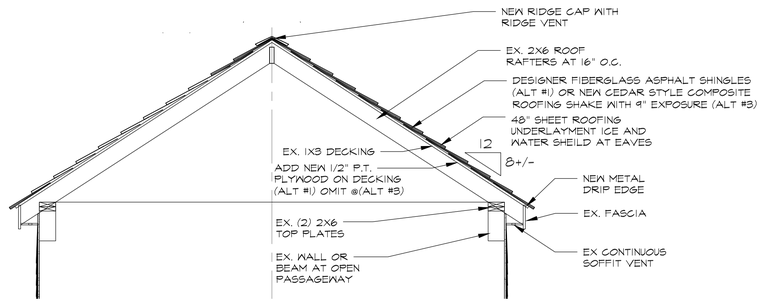
GN-2



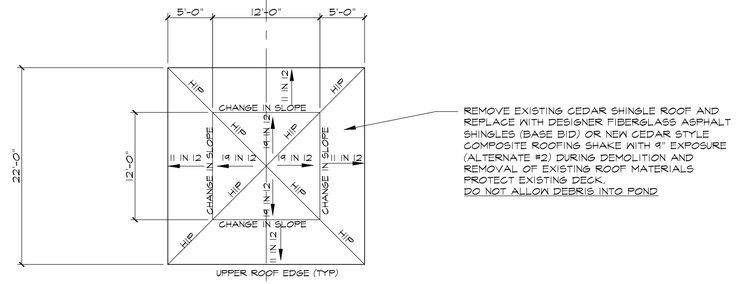
4 SECTION AT BANDSHELL ROOF (BASE BID & ALT #2)
SCALE 1/2"=1'-0"



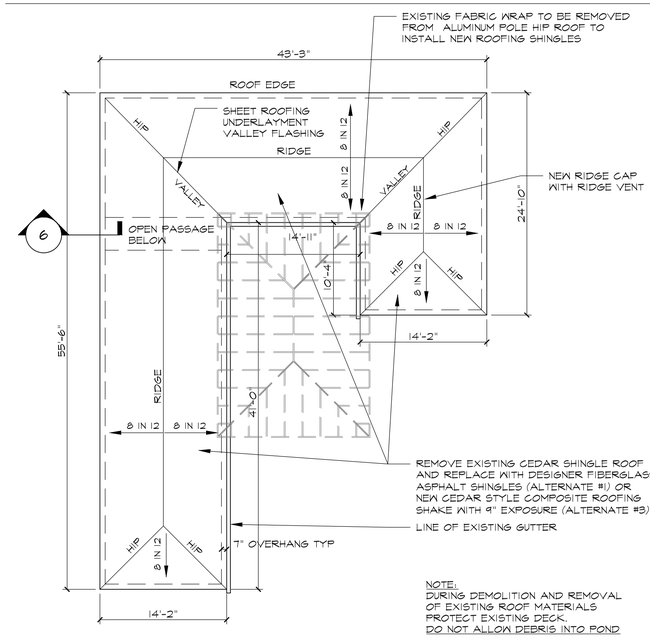
3 ROOF ELEVATION AT BANDSHELL (BASE BID & ALT #2)
SCALE 1/8"=1'-0"



6 SECTION AT SUPPORT BUILDING (ALTERNATE #1 & 3)
SCALE 1/2"=1'-0"

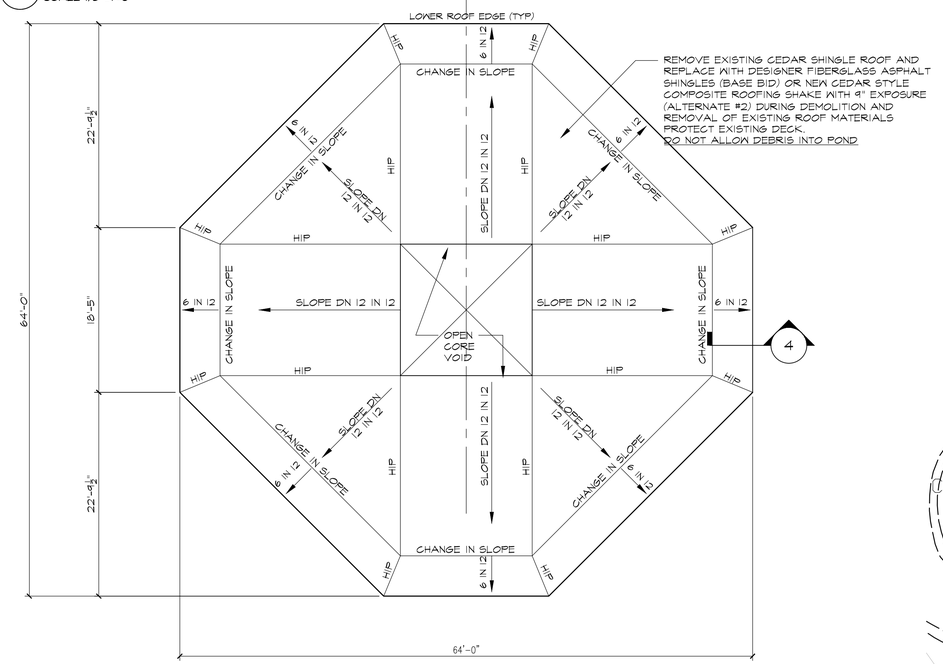


2 UPPER ROOF PLAN AT BANDSHELL (BASE BID & ALT #2)
SCALE 1/8"=1'-0"



NOTE:
DURING DEMOLITION AND REMOVAL OF EXISTING ROOF MATERIALS PROTECT EXISTING DECK.
DO NOT ALLOW DEBRIS INTO POND

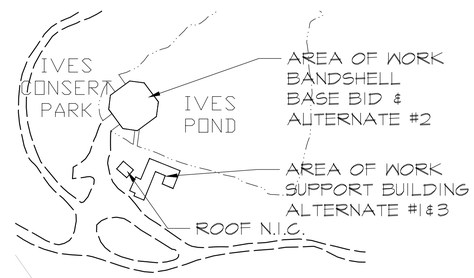
5 ROOF PLAN AT SUPPORT BUILDING (ALTERNATE #1 & 3)
SCALE 1/8"=1'-0"



1 LOWER ROOF PLAN AT BANDSHELL (BASE BID & ALT #2)
SCALE 1/8"=1'-0"

ROOFING BID

BASE BID	DESIGNER FIBERGLASS ASPHALT SHINGLES ON BANDSHELL ROOFS
ALT #1	DESIGNER FIBERGLASS ASPHALT SHINGLES ON SUPPORT BUILDING
ALT #2	NEW CEDAR STYLE COMPOSITE ROOFING SHAKE WITH 9" EXPOSURE ON BANDSHELL
ALT #3	NEW CEDAR STYLE COMPOSITE ROOFING SHAKE WITH 9" EXPOSURE ON SUPPORT BUILDING



KEY PLAN
N.T.S.

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Revisions

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IVES CONCERT PARK AT WESTSIDE CAMPUS

Roof Plans, Elevations, & Sections

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A-1