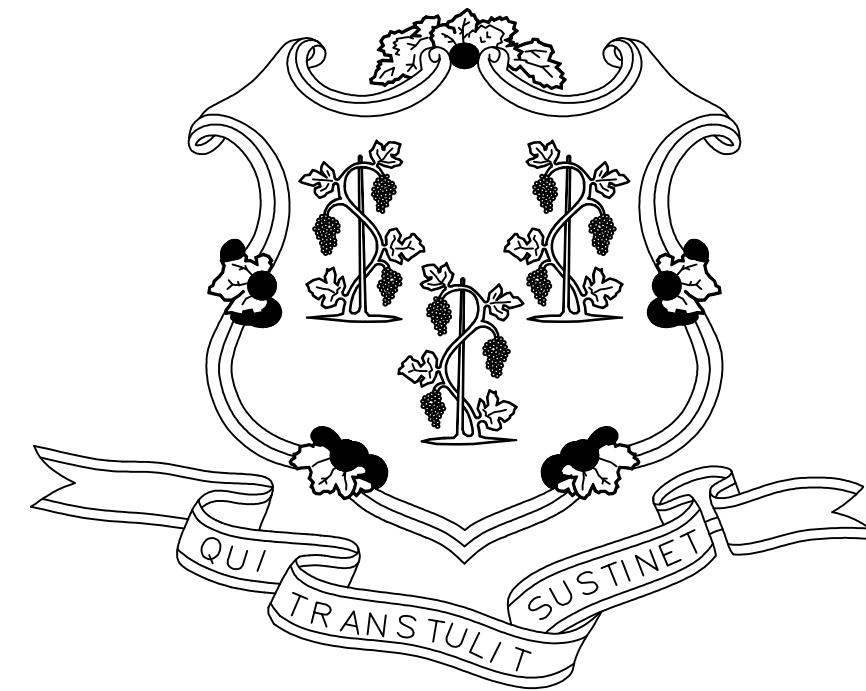


STATE OF CONNECTICUT



DEPARTMENT OF CONSTRUCTION SERVICES
JOSH GEBALLE
 COMMISSIONER

WESTERN CONNECTICUT STATE UNIVERSITY
JOHN B. CLARK
 PRESIDENT

NED LAMONT GOVERNOR

WESTERN CONNECTICUT STATE UNIVERSITY DANBURY, CT

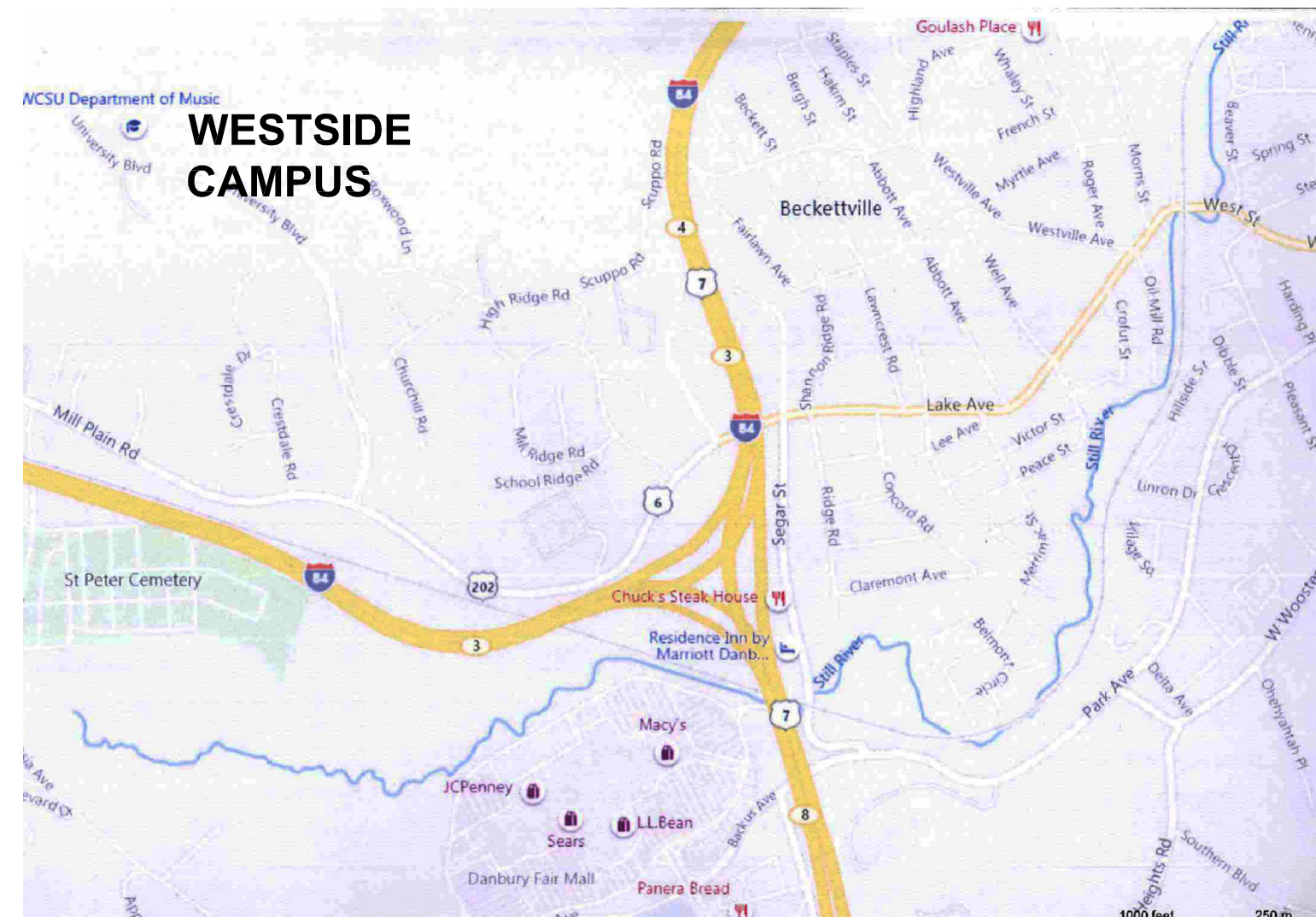
THE O'NEILL CENTER ROOF REPLACEMENT NATATORIUM

ARCHITECT:
MARTIN A. BENASSI AIA ARCHITECT LLC

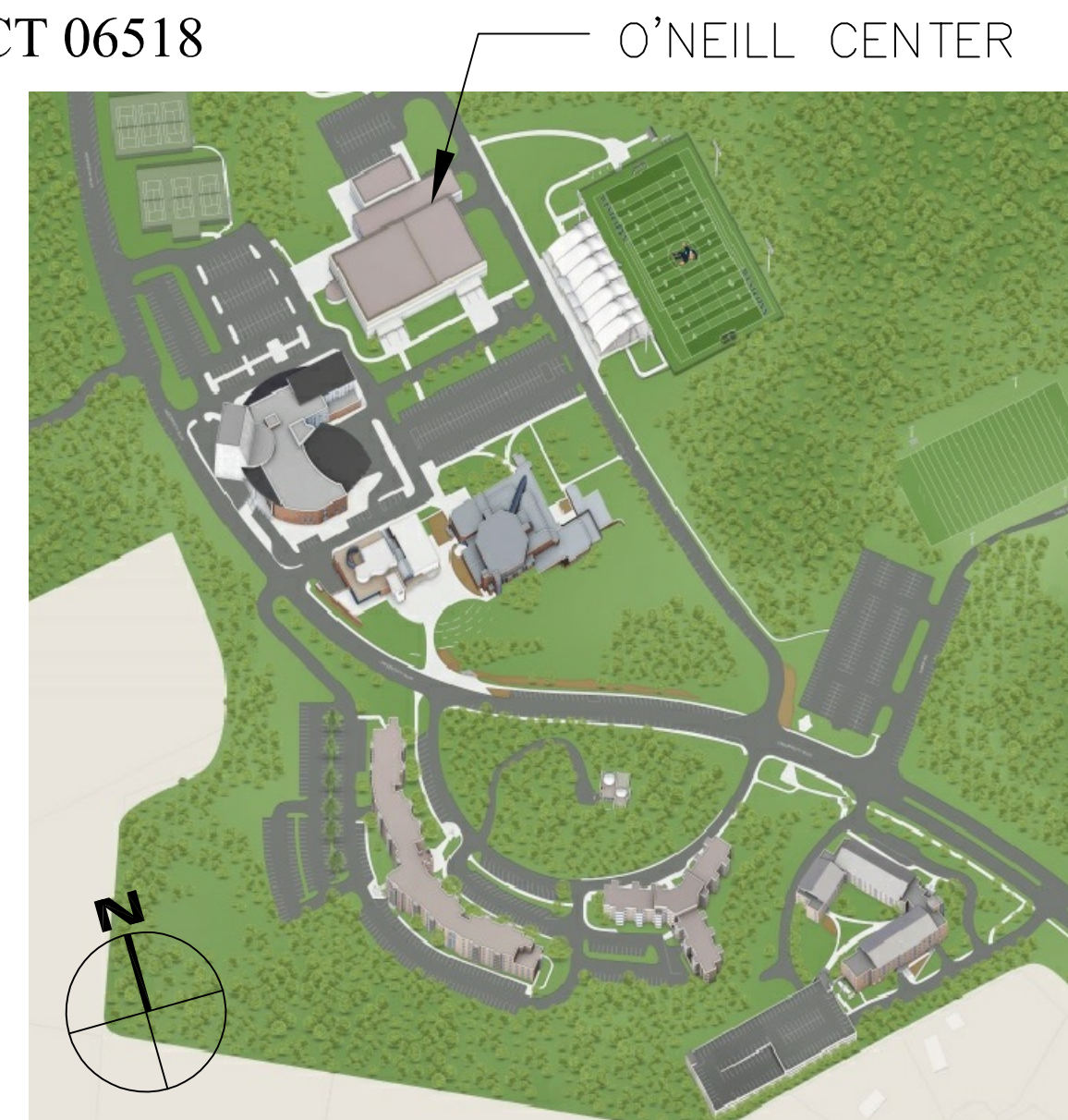
TWO BROADWAY
 HAMDEN, CT 06518

INDEX OF DRAWINGS

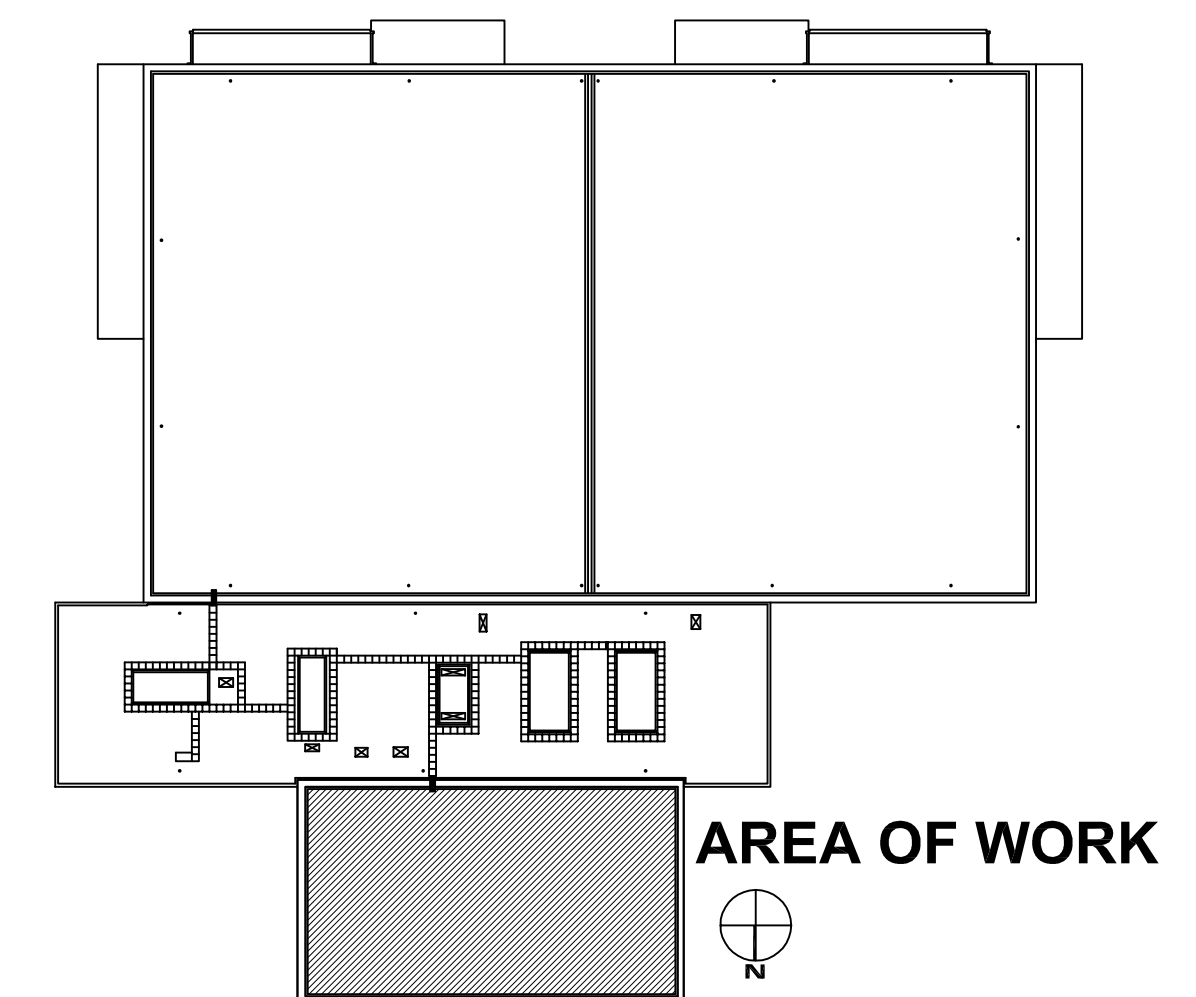
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|-----|--|
| C-1 | COVER SHEET |
| A-1 | GENERAL NOTES |
| A-2 | ROOF PLAN |
| A-3 | DETAILS |
| A-4 | SKYLIGHT DETAILS – ADD ALTERNATE NO.1 |



LOCATION MAP
 N. T. S.



WESTSIDE CAMPUS MAP
 N. T. S.



KEY PLAN
 N. T. S.



WCSU Facilities,
 Planning & Engineering
 White Hall 001
 181 White Street
 Danbury, CT 06810
 www.wcsu.edu

| Revisions | |
|-----------|---------------|
| 1 | 11/1/2019 PVC |
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The O'Neill Center
Roof Replacement Natatorium
 WESTSIDE CAMPUS
 WESTERN CONNECTICUT STATE UNIVERSITY

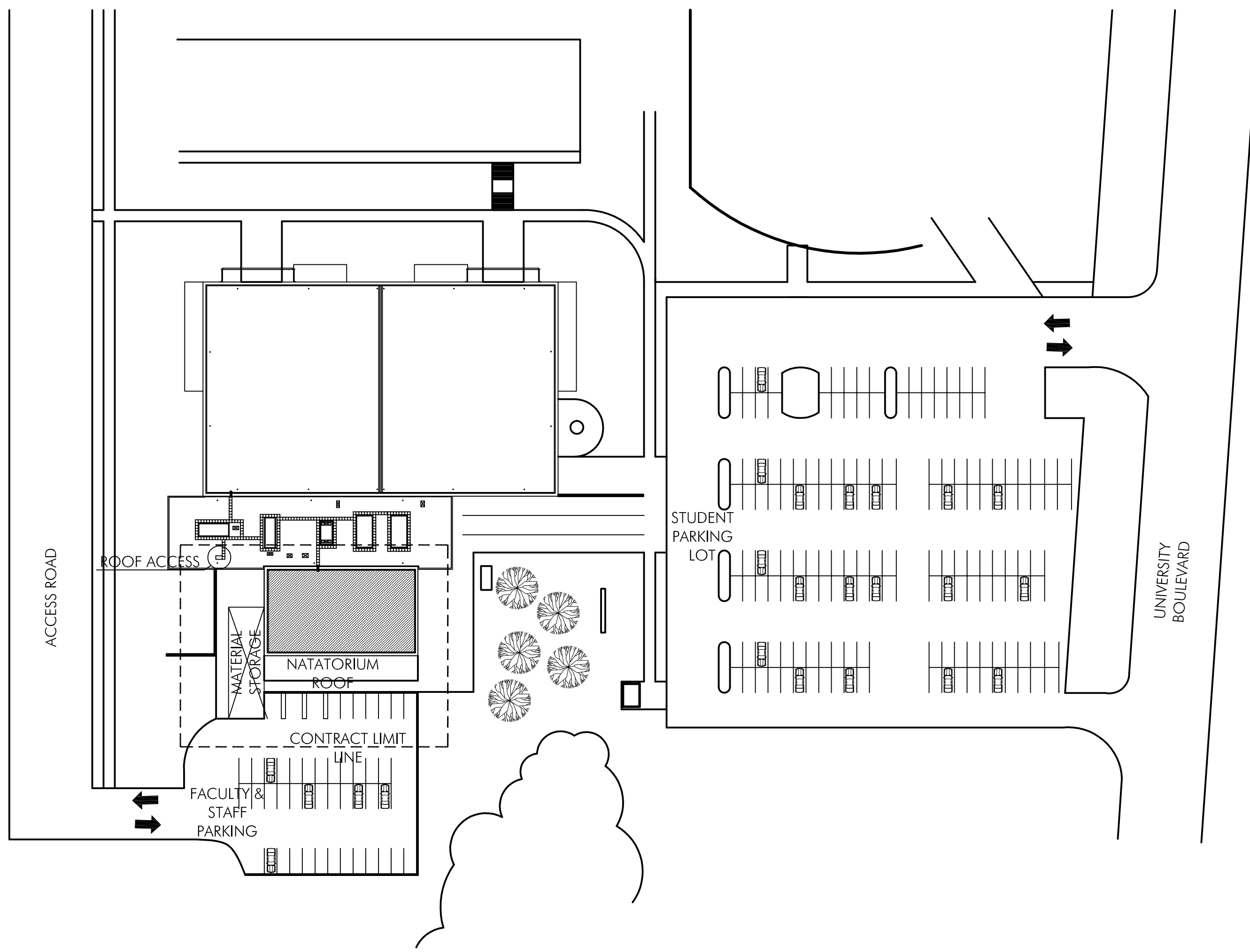
Cover Sheet

Agency
 Project No. BI-RD-311
 By: MAB
 Scale: None
 Issue Date: 10/30/2019

C-1

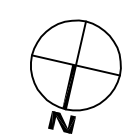


MATERIAL STORAGE AREA



1 CONSTRUCTION SITE LOGISTICS PLAN

SCALE: 1/64" = 1'-0"



HATCHING SYMBOLS

| | | | |
|--|-----------------------|--|------------------|
| | CONCRETE BLOCK | | STEEL |
| | STONE CONCRETE | | RIGID INSULATION |
| | SPRAY FOAM INSULATION | | FINISHED WOOD |

SEE ALSO LEGENDS ON SUBSEQUENT SHEETS

REFERENCES

| | | | | | |
|--|---------------|--|----------------|--|------------------|
| | DETAIL NUMBER | | SECTION NUMBER | | ELEVATION NUMBER |
| | SHEET NUMBER | | REVISIONS | | WINDOW NUMBER |

PROJECT DESCRIPTION

THE WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- REMOVE EXISTING ROOFING SYSTEM DOWN TO CONCRETE DECK - REMOVE SINGLE-PLY MEMBRANE, INSULATION BOARDS, FLASHING, CANTS. NOTE - WOOD BLOCKING TO REMAIN - VERIFY SECURE ATTACHMENT.
- INSPECT CONCRETE DECK. PATCH AND REPAIR DAMAGED DECKING - SEE UNIT PRICING.
- REPLACE CLAMPING RING AND DOME ON EXISTING ROOF DRAINS. DRAIN BOWL TO REMAIN. PROVIDE NEW FLASHING AND INSULATION AROUND BOWL AS INDICATED.
- EXISTING VENT PIPING TO REMAIN. PROVIDE NEW FLASHING AS INDICATED.
- EXISTING HOT PIPE TO REMAIN. PROVIDE NEW FLASHING AS INDICATED.
- REMOVE EXISTING AND INSTALL NEW PREFAB ALUMINUM COPING, INCLUDING ALL NEW FASTENERS, ETC.
- PROVIDE NEW FULLY ADHERED 80 MIL WHITE PVC MEMBRANE ROOFING SYSTEM OVER 1/2 INCH PROTECTION BOARD, 5/8 INCHES POLYISOCYANURATE INSULATION FULLY ADHERED TO VAPOR BARRIER ON CONCRETE DECKING.
- PROVIDE ALL ROOFING ASSEMBLIES TO MEET FM GLOBAL REQUIREMENTS AND STATE OF CT REQUIREMENT FOR 30 YEAR WARRANTY. INCLUDE 90 MIL PVC MEMBRANE AND ENHANCED FLASHINGS AS INDICATED AND REQUIRED FOR MANUFACTURERS WARRANTY.
- PROVIDE FULLY ADHERED WALKWAY PADS AS SHOWN ON DRAWINGS.
- ALL OTHER RELATED WORK AS SHOWN ON THE DRAWINGS AND/OR INDICATED IN THE SPECIFICATIONS.

GENERAL NOTES

THE FOLLOWING NOTES SHALL APPLY THROUGHOUT. EXCEPTIONS ARE SPECIFICALLY NOTED ON EACH DRAWING:

- ALL WORK IS TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF STATE AND LOCAL CODES, INDUSTRIAL LABOR CODE, HEALTH CODE, FIRE DEPARTMENT REGULATIONS, NFPA, OSHA CODES, & ALL RELATED SUPPLEMENTS/AMENDMENTS.
- DRAWINGS ARE NOT TO BE SCALED. USE DIMENSIONS ONLY. ALL DIMENSIONS AND CONDITIONS SHOWN AND ASSUMED ON THE DRAWINGS MUST BE VERIFIED AT THE SITE BY THE CONTRACTOR BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK. ANY DISCREPANCIES IN THE DRAWINGS AND SPECIFICATIONS SHALL BE REPORTED TO THE ARCHITECT. NO CHANGE IN DRAWINGS OR SPECIFICATIONS IS PERMISSIBLE WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT.
- THE ARCHITECT HAS INDICATED AND ESTIMATED CERTAIN CONDITIONS EITHER NOT SHOWN OR NOT CONSIDERED RELIABLE ON OLDER DRAWINGS FURNISHED TO THE ARCHITECT, OR NOT MEASURABLE DUE TO ABSENCE OF DRAWINGS, OR INACCESSIBLE TO VERIFY IN FIELD PRIOR TO PREPARING THE DRAWINGS.
- WORK ON THESE DRAWINGS SHALL BE CONSIDERED NEW WORK EXCEPT WHERE SPECIFICALLY NOTED AS 'EXISTING TO REMAIN'.
- DETAILS NOT SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER AND ACCEPTABLE CONSTRUCTION, INSTALLATION OR OPERATION OF ANY PART OF THE WORK AS DETERMINED BY THE ARCHITECT, SHALL BE INCLUDED IN THE WORK THE SAME AS IF HEREIN SPECIFIED OR INDICATED.
- ALL WORK SHALL BE INSTALLED SO THAT ALL PARTS REQUIRED ARE READILY ACCESSIBLE FOR INSPECTION, OPERATION, MAINTENANCE AND REPAIR.
- ANY EXISTING WORK DAMAGED BY THE WORK SHALL BE PATCHED, REPAIRED, REFINISHED, AND CORRECTED BY THE CONTRACTOR TO MATCH EXISTING FINISHES TO THE CLOSEST EXISTING CORNER.
- CONTRACTOR SHALL RELOCATE/MODIFY AND PATCH ANY EXISTING ITEMS INTERFERING WITH THE INSTALLATION OF NEW WORK WHETHER SHOWN OR NOT ON THESE DRAWINGS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING SAFETY PROGRAMS AND PRECAUTIONS IN THE SPECIFICATIONS, AND SUCH OTHER MEASURES AS MAY BE NECESSITATED TO PROVIDE REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY AND LOSS TO: (1) EMPLOYEES ON THE WORK AND OTHER PERSONS THAT MAY BE AFFECTED BY THE WORK; (2) ALL WORK, MATERIALS AND EQUIPMENT INCORPORATED IN THE WORK AND; (3) OTHER PERSONS AND PROPERTY AT THE SITE OR ADJACENT TO THE SITE.
- PROVIDE BARRICADES AROUND WORK AREAS AS REQUIRED TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THEREIN.
- PROVIDE GUARDS, RAILS, BARRICADES, FENCES, SIDEWALK SHEDS, CATCH PLATFORMS, DECKING, NIGHT LIGHTING, ETC., AS REQUIRED TO PROVIDE ADEQUATE PROTECTION.
- PROVIDE PROTECTION AT SIDEWALKS AND CURBS AROUND THE PREMISES SO THAT THEY MAY BE SAFELY USED BY THE PUBLIC, STAFF, AND / OR EMPLOYEES AT ALL TIMES AS REQUIRED BY CODE.
- CONTRACTOR SHALL KEEP WORK SITE FREE FROM DEBRIS AND ACCUMULATED REFUSE, AND SHALL HAVE SOLE RESPONSIBILITY FOR PROTECTING ALL DANGEROUS AREAS FROM ENTRY BY UNAUTHORIZED PARTIES. SITE WILL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
- REPLACE ALL LANDSCAPING INCLUDING TREES, SHRUBS OR OTHER PLANTING DISTURBED DURING THE WORK OF THE CONTRACT WITH NEW TO MATCH EXISTING. REGRADE & RESEED ANY GRASS AREAS DAMAGED AS A RESULT OF THE WORK. REPAIR ANY WALKWAYS OR PAVED AREAS DAMAGED AS A RESULT OF THE WORK.
- CONTRACTOR TO DEVELOP AN ACTIVITY PLAN AS PART OF HIS MEANS & METHODS.
- ALL FALL PROTECTION TO COMPLY WITH OSHA. CONTRACTOR RESPONSIBLE FOR AN INSTALLATION THAT MEETS OR EXCEEDS ALL REGULATORY REQUIREMENTS.
- UNDERGROUND UTILITIES, ETC. HAVE NOT BEEN LOCATED. LOCATE ALL BEFORE LOADING GROUND WITH VEHICULAR TRAFFIC, DUMPSTERS, MATERIAL STORAGE, ETC.
- DRIVEWAYS MUST BE MAINTAINED AND LEFT SERVICABLE THROUGHOUT THE ENTIRE PROJECT.
- ALL VEHICULAR & ENTRANCES / EXITS ARE TO BE UNOBSTRUCTED AND PROTECTED.
- PROPOSED CONTRACT LIMIT LINE IS FOR BIDDING PURPOSES ONLY. FINAL LOCATION OF THE DUMPSTER, CONSTRUCTION VEHICLE PARKING, LAY-DOWN AREAS, AND CONTRACT LIMIT LINE, ETC. SHALL BE CLARIFIED WITH THE AGENCY USER. SPECIFIC AREAS WITHIN THE CONTRACT LIMIT LINE MAY BE USED PER THEIR WORK OPERATIONS.

UNIT PRICE QUANTITIES

- COORDINATE WITH SPECIFICATION SECTIONS FOR UNIT PRICE ITEMS AND BIDDING INFORMATION.
- TOTAL AREA OF WORK TO BE INCLUDED IN BASE BID AMOUNTS IS AS FOLLOWS (SEE SPECIFICATIONS SECTION 01 20 00 - CONTRACT CONSIDERATIONS)
 - CONCRETE DECKING SPEC SECTION 02 41 00
 - ROUGH CARPENTRY SPEC SECTION 06 10 53

LIST OF ABBREVIATIONS

| | | | | | |
|-------|------------------|--------|--------------------|-------|-------------------------|
| @ | AT | FT | FOOT | PT | PRESSURE TREATED |
| AKA | ALSO KNOWN AS | GC | GENERAL CONTRACTOR | REIN | REINFORCED |
| BD | BOARD | HC | HANDICAPPED | REQ'D | REQUIRED |
| CF | COUNTER FLASHING | HM | HOLLOW METAL | SF | SQUARE FOOT |
| CJ | CONTROL JOINT | INSUL | INSULATION | SIM | SIMILAR |
| DIA | DIAMETER | JT | JOINT | SPF | SPRAY POLYURETHANE FOAM |
| DN | DOWN | LC | LEAD COATED | SG | SQUARE |
| DTL | DETAIL | LCC | LEAD COATED COPPER | SS | STAINLESS STEEL |
| EL | ELEVATION | MIN | MINIMUM | STL | STEEL |
| ELEC | ELECTRICAL | MTL | METAL | TYP | TYPICAL |
| ELEV | ELEVATOR | NIC | NOT IN CONTRACT | VIF | VERIFY IN FIELD |
| EJ | EXPANSION JOINT | NTS | NOT TO SCALE | WD | WOOD |
| EXIST | EXISTING | OC | ON CENTER | W/ | WITH |
| EXP | EXPANSION | OH | OVER HEAD | | |
| FIN | FINISH | PLYWD | PLYWOOD | | |
| FL | FLOOR | PREFAB | PREFABRICATED | | |

BUILDING CODE:

- 2018 CONNECTICUT STATE BUILDING CODE
- 2015 AMENDMENTS
- 2015 INTERNATIONAL BUILDING CODE
- 2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
- 2015 INTERNATIONAL EXISTING BUILDING CODE
- 2015 INTERNATIONAL PLUMBING CODE
- 2015 INTERNATIONAL MECHANICAL CODE
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE
- 2017 NFPA 70, NATIONAL ELECTRICAL CODE
- 2015 INTERNATIONAL RESIDENTIAL CODE

BUILDING INFORMATION

form 3011F

STATE BUILDING CODE

1.0 EXISTING BUILDING:

1.1 CONTINUATION OF EXISTING USE..... YES NA

1.2 CHANGE OF USE..... NA

1.3 COMPLYING W/INTERNAL EXIST. BLDG. CODE..... NA

2.0 NEW BUILDINGS OR ADDITIONS:

2.1 EXCEEDS THRESHOLD BUILDING LIMITS..... NA

3.0 USE GROUP CLASSIFICATION:

3.1..... A-3

4.0 HEIGHT AND AREA COMPUTATION - CASE 1:

4.1 BUILDING HEIGHT:

4.1.1 ACTUAL BUILDING HEIGHT..... STORY FEET

4.1.2 ACTUAL BUILDING HEIGHT..... STORY FEET

4.2 OPEN PERIMETER COMPUTATION:

BUILDING PERIMETER..... FEET

BUILDING OPEN PERIMETER..... FEET

TOTAL BLDG. OPEN PERIMETER..... FEET

PERCENT (%) OPEN PERIMETER..... %

TOTAL BLDG. OPEN PERIMETER/BLDG. PERIMETER..... %

% INCREASE FOR OPEN PERIMETER..... %

4.3 AREA CONVERSION FACTOR:

% OF ALLOWABLE TABULAR AREA..... 100%

% REDUCTION FOR HEIGHT..... NA

% INCREASE FOR OPEN PERIMETER..... NA

% INCREASE FOR FIRE SUPPRESSION..... NA

TOTAL PERCENTAGE FACTOR..... NA

CONVERSION FACTOR (% FACTOR/100).....

4.4 ACTUAL GROSS FLOOR AREA (LARGEST FLOOR)..... 6,200 SF

4.5 ACTUAL GROSS FLOOR AREA (ENTIRE BUILDING)..... N/A SF

4.6 ADJUSTED TABULAR AREA (ACTUAL GROSS FLOOR AREA/CONVERSION FACTOR)..... SF

4.7 ALLOWABLE BUILDING AREA PER FLOOR (CONVERSION FACTOR X TABULAR AREA)..... SF

4.8 MINIMUM TYPE OF CONSTRUCTION REQUIRED.....

4.9 MINIMUM TYPE OF CONSTRUCTION PROVIDED.....

4.10 TYPE OF CONSTRUCTION ASSUMED FOR REVIEW..... TYPE 2

5.0 HEIGHT AND AREA COMPUTATION - CASE 2

5.1 ACTUAL FLOOR AREA..... USE SF

5.2 ADJUSTED TABULAR AREA (ACTUAL GROSS FLOOR AREA/CONVERSION FACTOR)..... USE SF

SUM OF ADJUSTED TABULAR AREAS = + + = *

* IF GREATER THAN 1.00 A HIGHER TYPE OF CONSTRUCTION IS REQUIRED

5.3 MINIMUM TYPE OF CONSTRUCTION REQUIRED.....

5.4 TYPE OF CONSTRUCTION ASSUMED FOR REVIEW.....

6.0 CONSTRUCTION TYPE:

6.1 MINIMUM TYPE OF CONSTRUCTION REQUIRED.....

ACTUAL TYPE OF CONSTRUCTION PROVIDED.....

7.0 MEANS OF EGRESS:

7.1 TOTAL OCCUPANT LOAD (ENTIRE BUILDING).....

7.2 TOTAL OCCUPANT LOAD (LARGEST FLOOR).....

7.3 TOTAL CAPACITY OF EXITS (EXIT DISCHARGE).....

8.0 FIRE RESISTANT RATING OF STRUCTURE ELEMENTS (TABLE 602) REFER TO CONSTRUCTION DOCUMENTS FOR THE FOLLOWING:

8.1 EXTERIOR WALLS:

8.1.1 LOAD BEARING..... HR(S)

8.1.2 NON-LOAD BEARING..... HR(S)

8.2 FIRE WALLS & PARTY WALLS..... HR(S)

8.3 FIRE SEPARATION ASSEMBLIES:

8.3.1 FIRE ENCLOSURE OF EXITS..... HR(S)

8.3.2 SHAFTS..... HR(S)

8.3.3 MIXED USE SEPARATION..... HR(S)

8.3.4 OTHER SEPARATION ASSEMBLIES..... HR(S)

8.4 FIRE PARTITIONS..... HR(S)

8.5 DWELLING UNIT SEPARATIONS..... HR(S)

8.6 SMOKE BARRIERS..... HR(S)

8.7 OTHER NON BEARING PARTITIONS..... HR(S)

8.8 INTERIOR BEARING WALLS, BEARING PARTITIONS, COLUMNS, GIRDERS, TRUSSES AND FRAMING:

8.8.1 SUPPORTING MORE THAN ONE FLOOR..... HR(S)

8.8.2 SUPPORTING ONE FLOOR ONLY OR A ROOF..... HR(S)

8.8.3 STRUCTURAL MEMBERS SUPPORTING WALL..... HR(S)

8.8 FLOOR CONSTRUCTION INCLUDING BEAMS..... HR(S)

8.9 ROOF CONSTRUCTION

8.9.1 15 FT. OR LESS..... CLASS C HR(S)

8.9.2 15 FT. OR MORE..... HR(S)

8.9.3 20 FT. OR MORE..... HR(S)

* HEIGHT TO LOWEST MEMBER.

9.0 FIRE PROTECTION SYSTEM:

9.1 FIRE SUPPRESSION SYSTEM.....

9.2 ALARMS.....

9.3 AUTOMATIC FIRE DETECTION SYSTEM.....

9.4 SMOKE CONTROL SYSTEM.....

9.5 SUPERVISION.....

STATE FIRE SAFETY CODE

1.0 CLASSIFICATION OF OCCUPANCY.....

2.0 CONSTRUCTION CLASSIFICATION.....

3.0 MINIMUM CONSTRUCTION TYPE REQUIRED.....

4.0 ACTUAL CONSTRUCTION TYPE PROVIDED.....

5.0 NOTIFICATION/ALARMS.....

6.0 DETECTION.....

7.0 EXTINGUISHMENT REQUIREMENTS.....



WCSU
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Revisions

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|---|-----------|-----|
| 1 | 11/1/2019 | PVC |
|---|-----------|-----|

The O'Neill Center
Roof Replacement Natatorium
WESTSIDE CAMPUS
WESTERN CONNECTICUT STATE UNIVERSITY

GENERAL NOTES

Agency Project No. BI-RD-311
By: MAB
Scale: As Noted
Issue Date: 10/30/2019

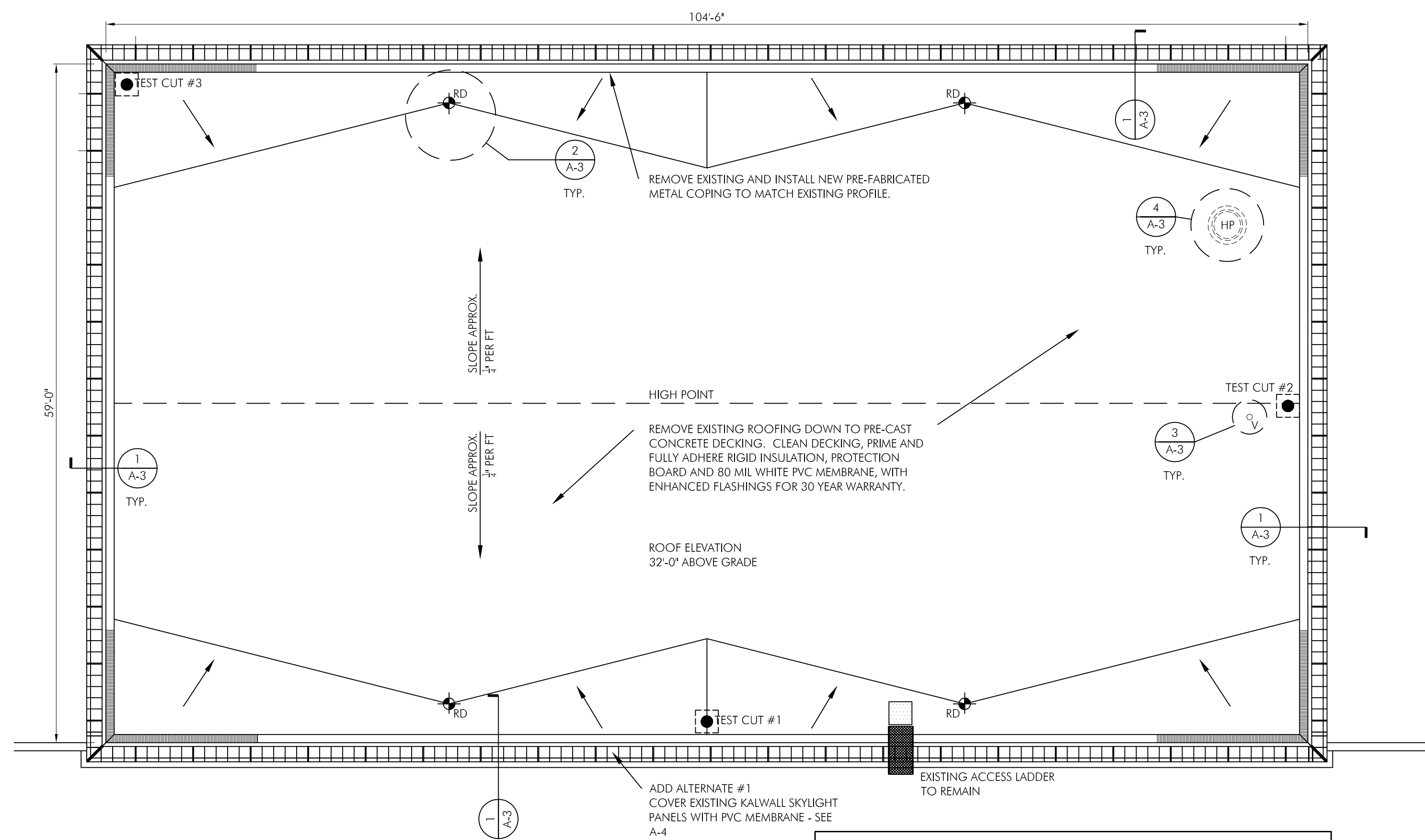
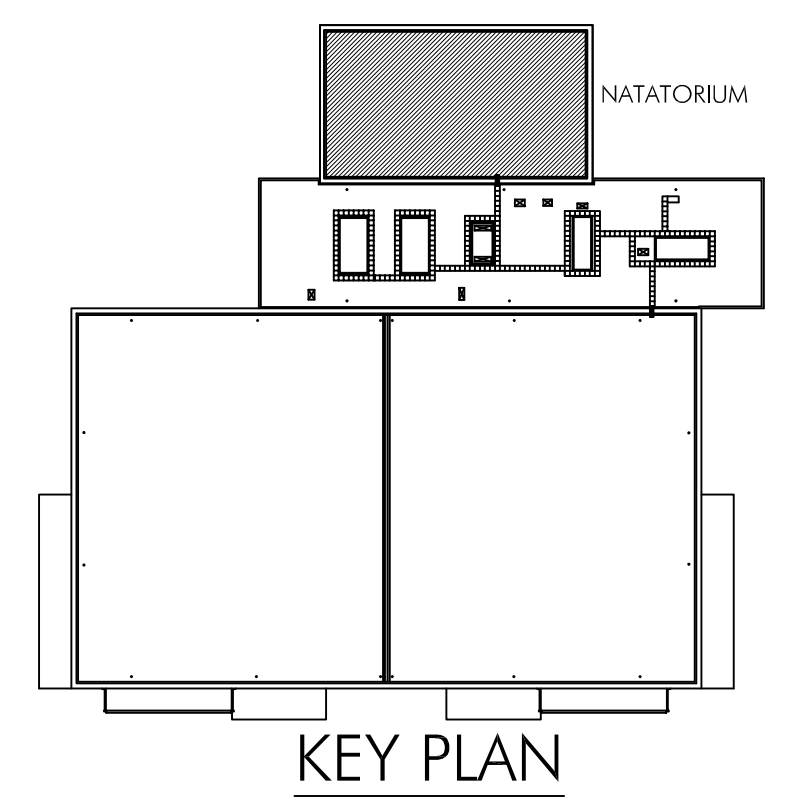
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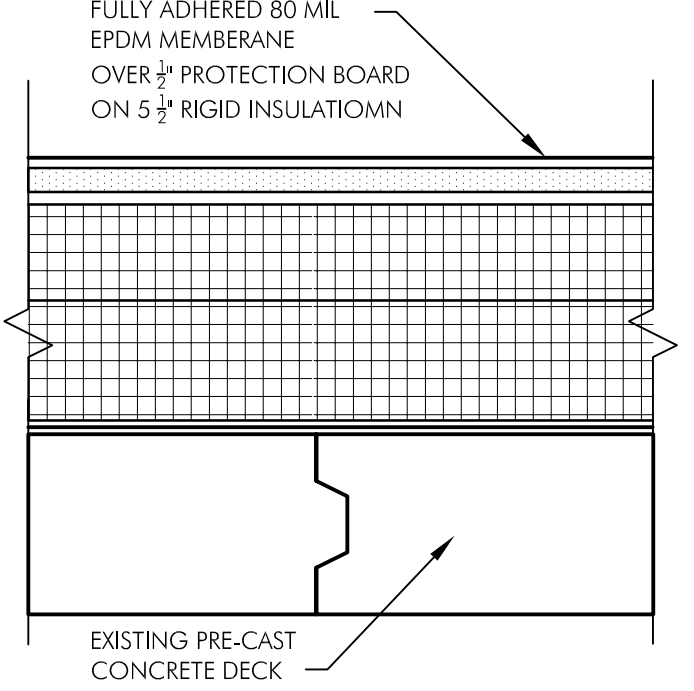
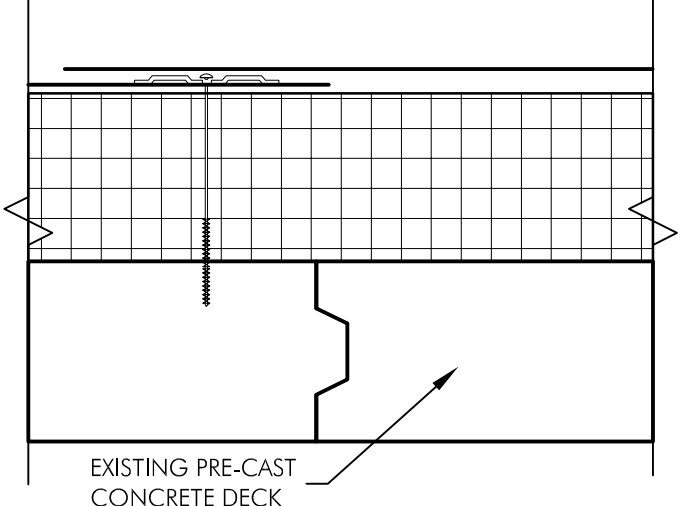
ROOF PLAN

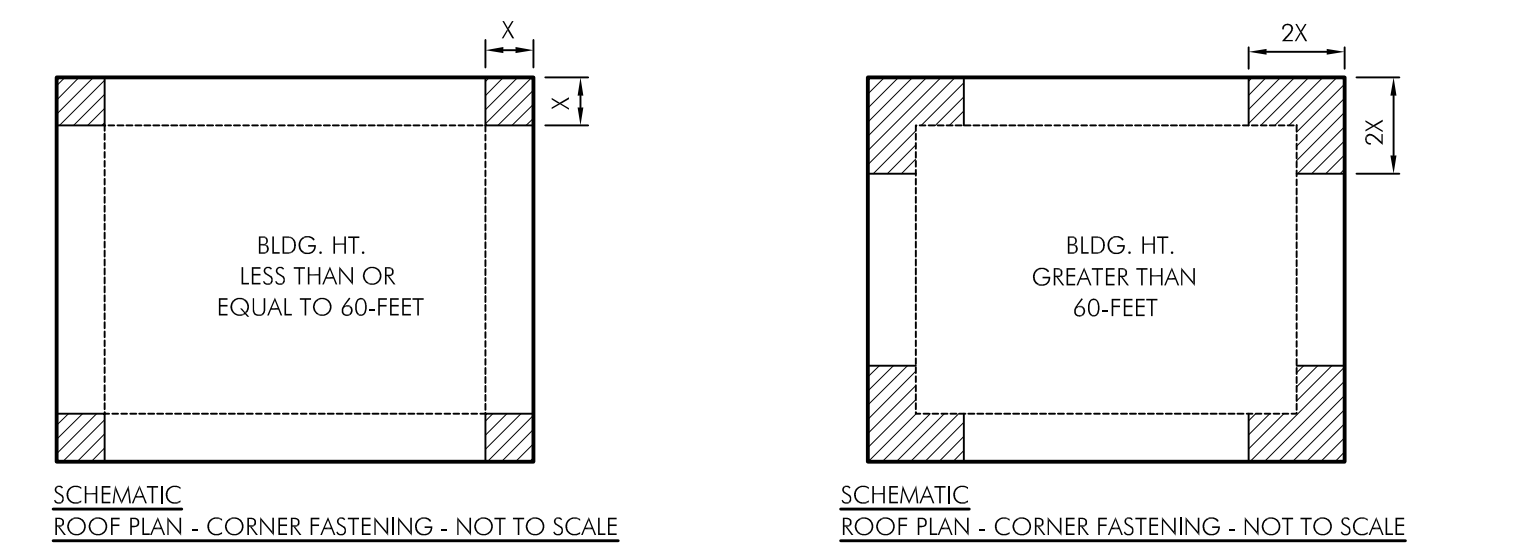
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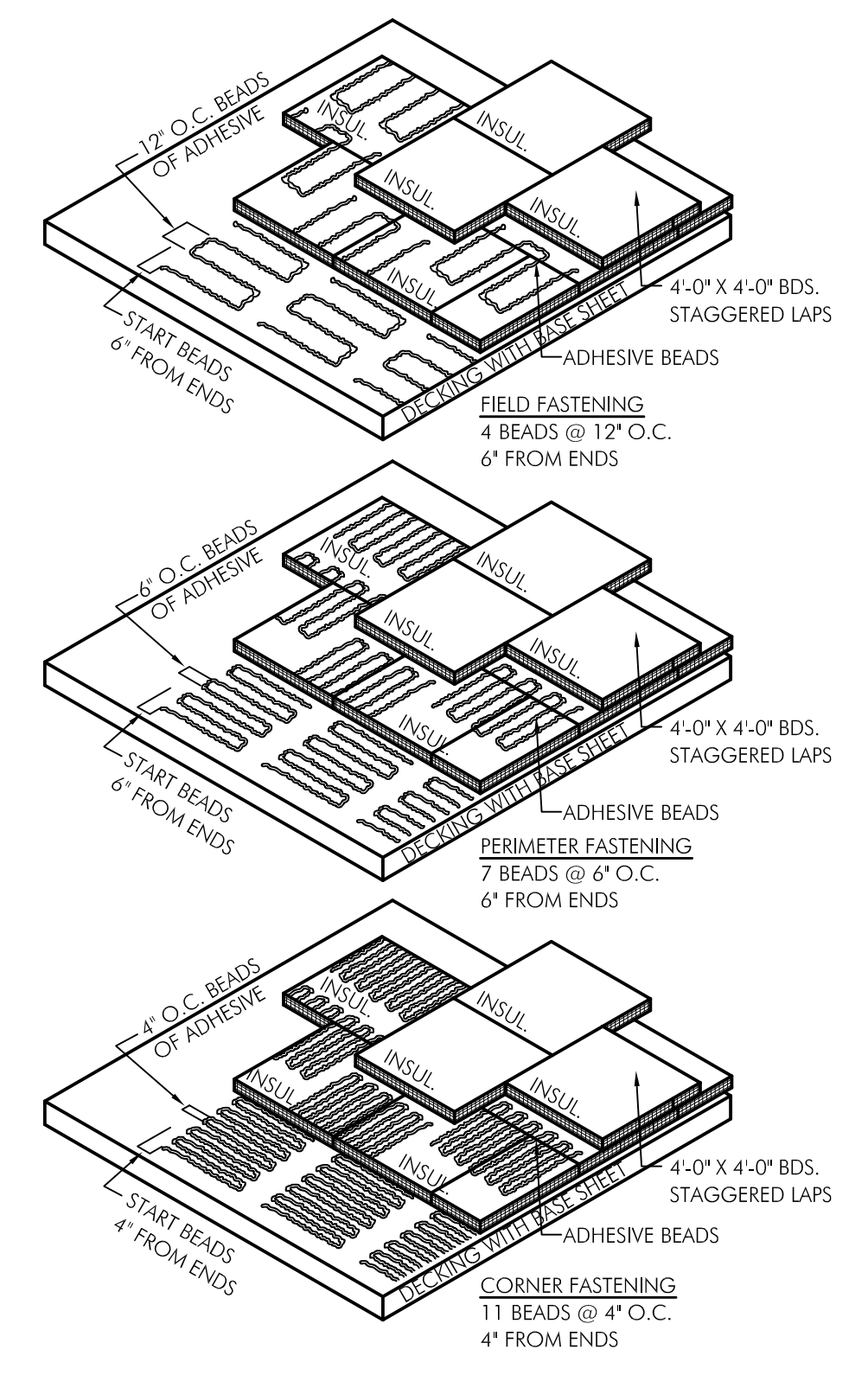
LEGEND

| | | | |
|--|----|--------------------------------------|---|
| | HP | HOT PIPE | NOTE: NONE OF THE ITEMS SHOWN ON THE LEGEND, NOR ANY OF THE CORRESPONDING IMAGES ON THE DRAWINGS ARE SHOWN TO SCALE. ALL SIZES MUST BE VERIFIED IN THE FIELD. |
| | OV | STACK VENT | |
| | | NEW 2'X2' EPDM WALKWAY PAD - ADHERED | |
| | TC | TEST CUT # - TAKEN 8/22/2019 | |
| | RD | ROOF DRAIN | |
| | | PHOTO # | |

| | | | | | | | | | | | | | | | | | | | |
|--|--|------------------|-----|---------------------|-----|--|-------|---|-------|-----------------|-----|--------------------------|--------------|-----------------|------|--------------------------|--------------|---------------|------|
| <p>NEW ROOF ASSEMBLY</p>  | <table border="0"> <tr><td>OUTSIDE AIR FILM</td><td>.17</td></tr> <tr><td>80 MIL PVC MEMBRANE</td><td>.48</td></tr> <tr><td>1/2" PROTECTION BD</td><td>.56</td></tr> <tr><td>POLYISO. INSULATION THICKNESS 5.5-INCH (FIRST LAYER 2 1/2" 15.30 SECOND LAYER 3" 18.50 STAGGERED)</td><td>33.80</td></tr> <tr><td>VAPOR BARRIER</td><td>.06</td></tr> <tr><td>CONC DECK</td><td>.48</td></tr> <tr><td>INSIDE AIR FILM</td><td>.61</td></tr> <tr><td>TOTAL "R" VALUE =</td><td>36.16</td></tr> <tr><td>"U" = 1/"R" =</td><td>.027</td></tr> </table> | OUTSIDE AIR FILM | .17 | 80 MIL PVC MEMBRANE | .48 | 1/2" PROTECTION BD | .56 | POLYISO. INSULATION THICKNESS 5.5-INCH (FIRST LAYER 2 1/2" 15.30 SECOND LAYER 3" 18.50 STAGGERED) | 33.80 | VAPOR BARRIER | .06 | CONC DECK | .48 | INSIDE AIR FILM | .61 | TOTAL "R" VALUE = | 36.16 | "U" = 1/"R" = | .027 |
| OUTSIDE AIR FILM | .17 | | | | | | | | | | | | | | | | | | |
| 80 MIL PVC MEMBRANE | .48 | | | | | | | | | | | | | | | | | | |
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| INSIDE AIR FILM | .61 | | | | | | | | | | | | | | | | | | |
| TOTAL "R" VALUE = | 36.16 | | | | | | | | | | | | | | | | | | |
| "U" = 1/"R" = | .027 | | | | | | | | | | | | | | | | | | |
| <p>EXISTING ROOF ASSEMBLY</p>  | <table border="0"> <tr><td>OUTSIDE AIR FILM</td><td>.17</td></tr> <tr><td>TPO MEMBRANE</td><td>.24</td></tr> <tr><td>3.5" RIGID EXTRUDED POLYSTYRENE INSULATION</td><td>17.50</td></tr> <tr><td>3.75 CONC. DECK</td><td>.48</td></tr> <tr><td>INSIDE AIR FILM</td><td>.61</td></tr> <tr><td>TOTAL "R" VALUE =</td><td>19.00</td></tr> <tr><td>"U" = 1/"R" =</td><td>.053</td></tr> </table> | OUTSIDE AIR FILM | .17 | TPO MEMBRANE | .24 | 3.5" RIGID EXTRUDED POLYSTYRENE INSULATION | 17.50 | 3.75 CONC. DECK | .48 | INSIDE AIR FILM | .61 | TOTAL "R" VALUE = | 19.00 | "U" = 1/"R" = | .053 | | | | |
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| TPO MEMBRANE | .24 | | | | | | | | | | | | | | | | | | |
| 3.5" RIGID EXTRUDED POLYSTYRENE INSULATION | 17.50 | | | | | | | | | | | | | | | | | | |
| 3.75 CONC. DECK | .48 | | | | | | | | | | | | | | | | | | |
| INSIDE AIR FILM | .61 | | | | | | | | | | | | | | | | | | |
| TOTAL "R" VALUE = | 19.00 | | | | | | | | | | | | | | | | | | |
| "U" = 1/"R" = | .053 | | | | | | | | | | | | | | | | | | |



- INSTALLATION NOTES:**
- ALL INSULATION/COVER BOARDS SHALL BE MIN 4'-0" X 4'-0".
 - WHEN APPLYING MULTIPLE LAYERS OF INSULATION, IT IS REQUIRED TO RUN THE BEADS PERPENDICULAR TO THE PRECEDING LAYER WHEN USING A 1-PART URETHANE ADHESIVE. IT IS OPTIONAL WHEN USING A 2-PART URETHANE ADHESIVE.
 - UPLIFT DESIGN SHALL BE IN ACCORDANCE WITH THE AMERICAN SOCIETY OF CIVIL ENGINEERS - ASCE / SEI 7-10 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
 - UPLIFT RESISTANCE SHOWN BASED ON FM GLOBAL 1-29 - ROOF DECK SECUREMENT AND ABOVE-DECK ROOF COMPONENTS REQUIREMENTS AND RECOMMENDATIONS.
 - SYSTEM COMPONENTS AND DESIGN MUST BE VERIFIED TO BE IN ACCORDANCE WITH THIS LAYOUT.
 - ASCE / SEI 7-10 DEFINES THE PERIMETER (X) (SEE SCHEMATIC ROOF PLANS ABOVE) AS THE LESSER OF 10-PERCENT OF THE LEAST HORIZONTAL DIMENSION OR .4 X THE HEIGHT, BUT NOT LESS THAN 4-PERCENT OF THE LEAST HORIZONTAL DIMENSION OR 3-FEET FOR BUILDINGS UNDER 60 FEET IN HEIGHT. ASCE / SEI 7-10 DEFINES THE PERIMETER (X) AS THE LESSER OF 10-PERCENT OF THE LEAST HORIZONTAL DIMENSION ONLY.
 - THE CORNERS MAY BE TREATED AS PERIMETERS IF THE PARAPET IS GREATER THAN OR EQUAL TO 3-FEET ACCORDING TO ASCE / SEI 7-10.



2 THERMAL RESISTANCE VALUES

3 INSULATION INSTALLATION NOTES

4 ADHESIVELY ATTACHED INSULATION

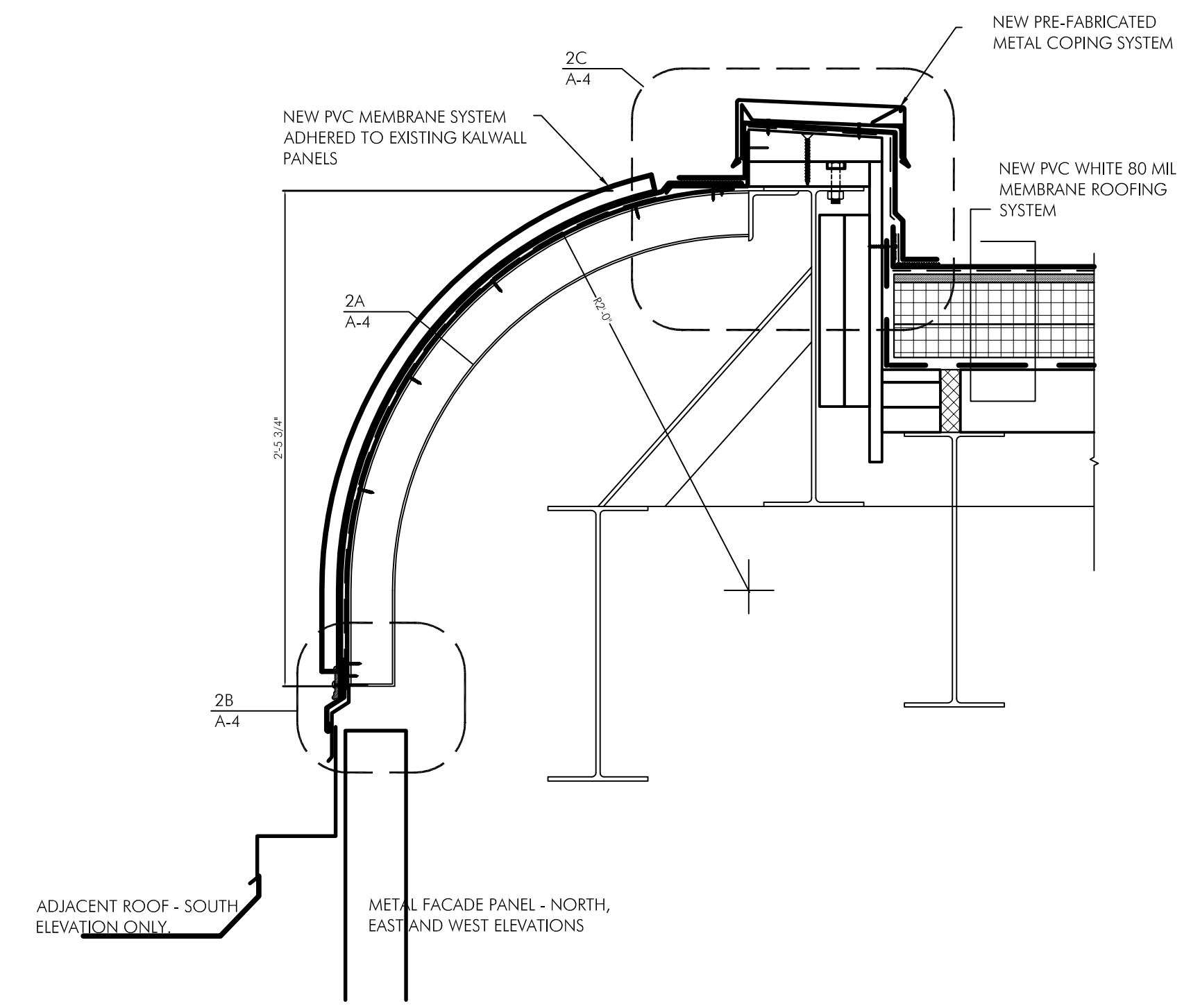
| Revisions | |
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| No. | Date |
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 WESTERN CONNECTICUT STATE UNIVERSITY

**SKYLIGHT
DETAILS**

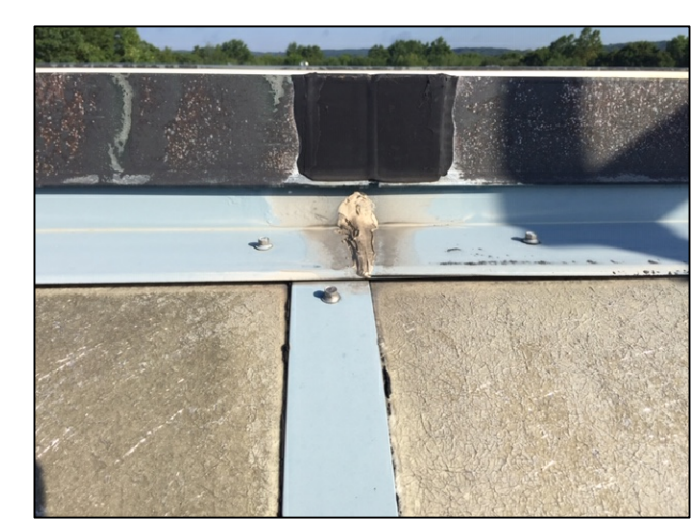
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 By: MAB
 Scale: As Noted
 Issue Date: 9/18/2019

A-4



1 SKYLIGHT DETAIL
SCALE: 1 1/2" = 1'-0"

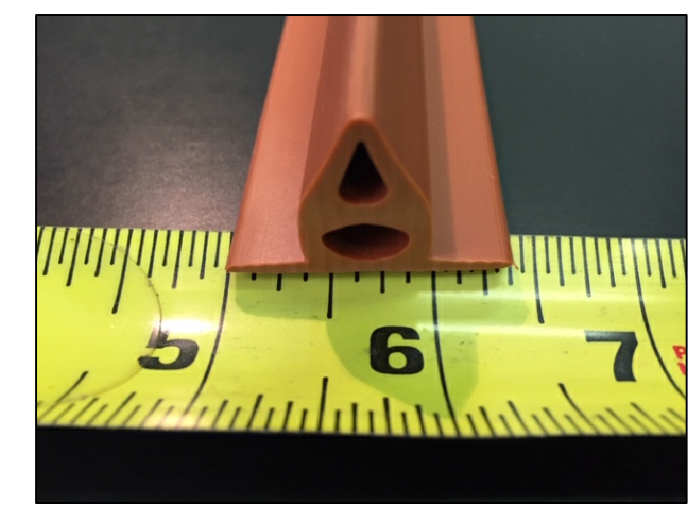
- NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR LAYOUT, ALL SHEET METAL AND FLASHING.
 2. CONTRACTOR TO PERFORM TEST AREA TO VERIFY ADHESION OF MEMBRANE TO SUBSTRATE.
 3. VERIFY ALL DETAILS AND SPECIFICATIONS WITH MEMBRANE MANUFACTURER PRIOR TO INSTALLATION. NOTIFY ARCHITECT OF ANY CHANGES.
 4. ALL DIMENSIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
 5. COORDINATE SKYLIGHT WORK WITH ROOFING WORK.



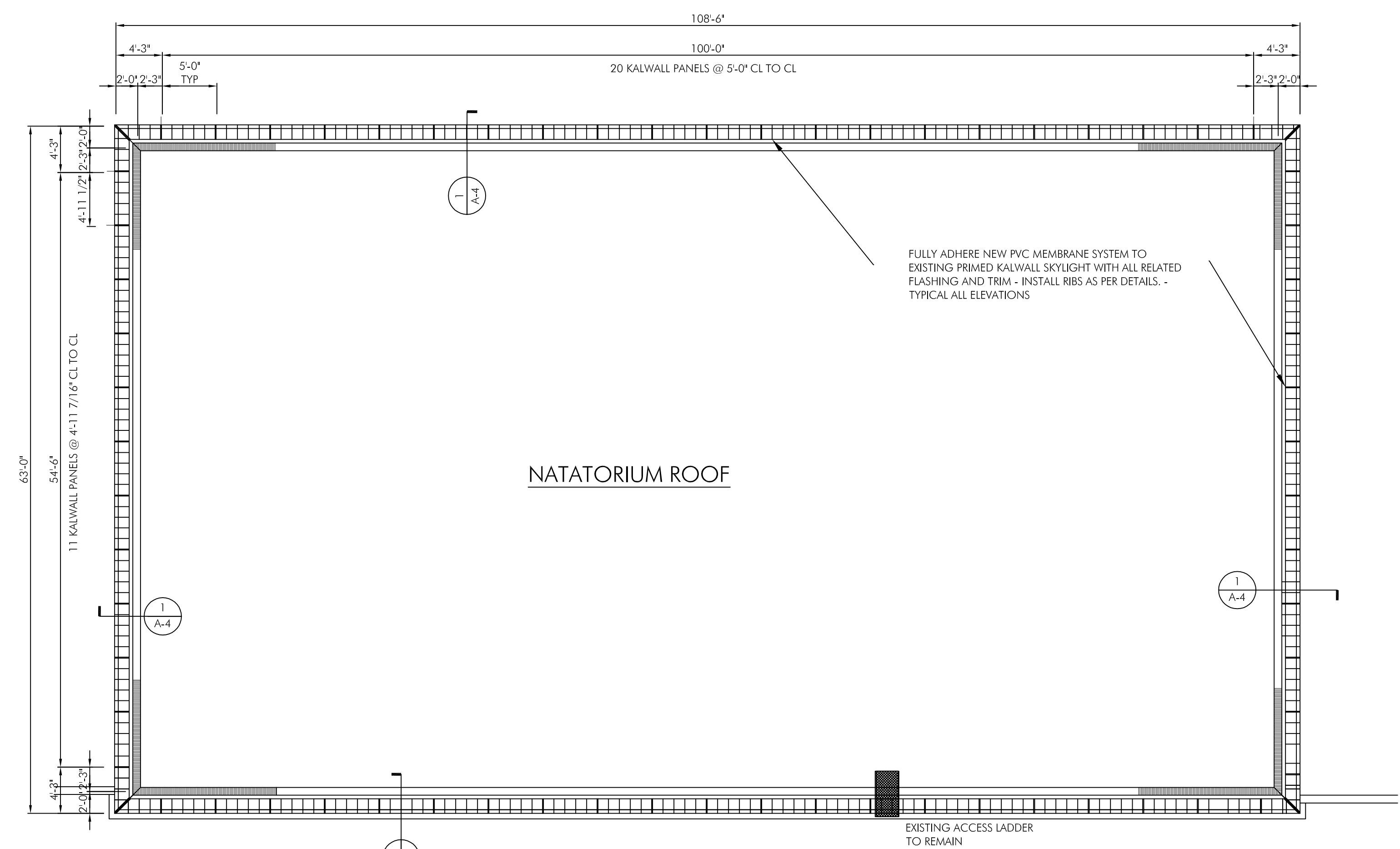
SKYLIGHT COPING



SKYLIGHT

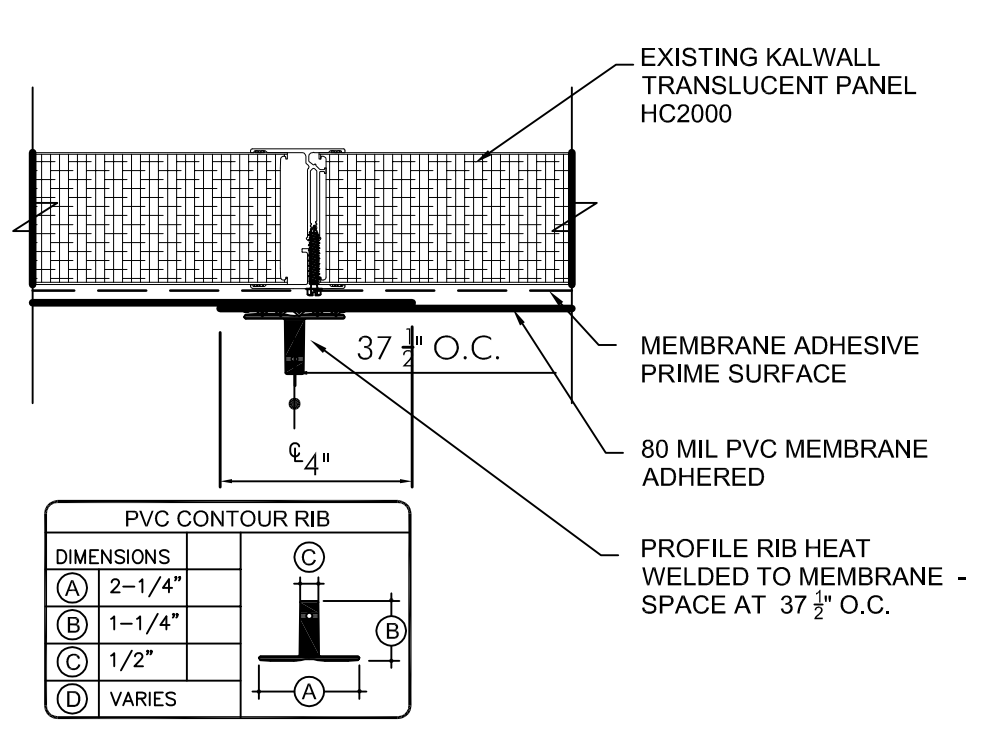


RIB PHOTO OF SARNAFIL DECO RIB PROFILE. CARLISLE SURE-FLEX PVC CONTOUR RIB - BASES OF DESIGN

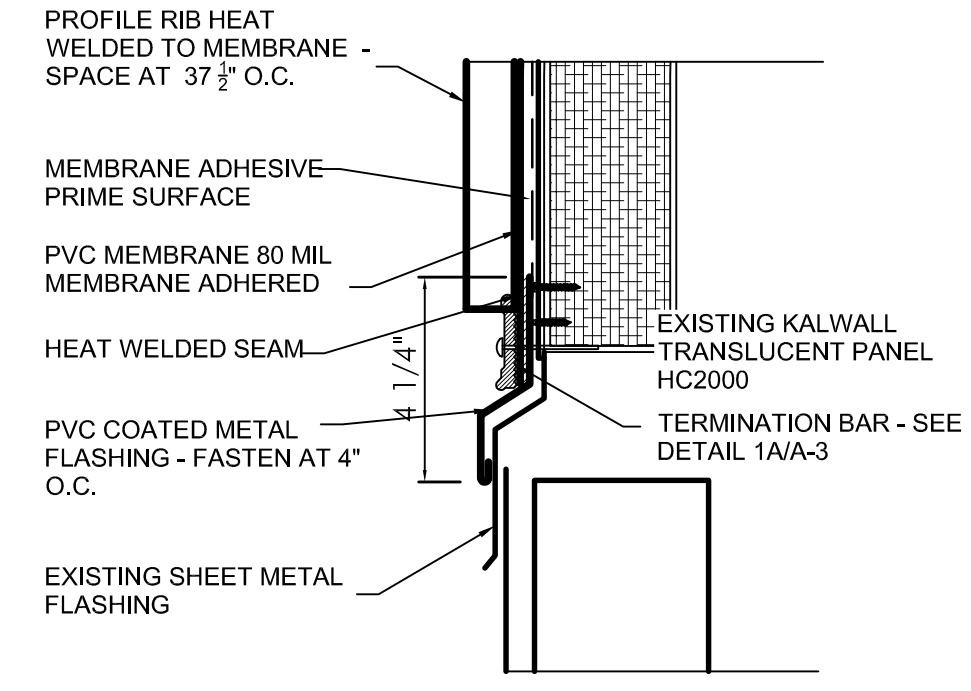


3 ROOF PLAN
SCALE: 1/8" = 1'-0"

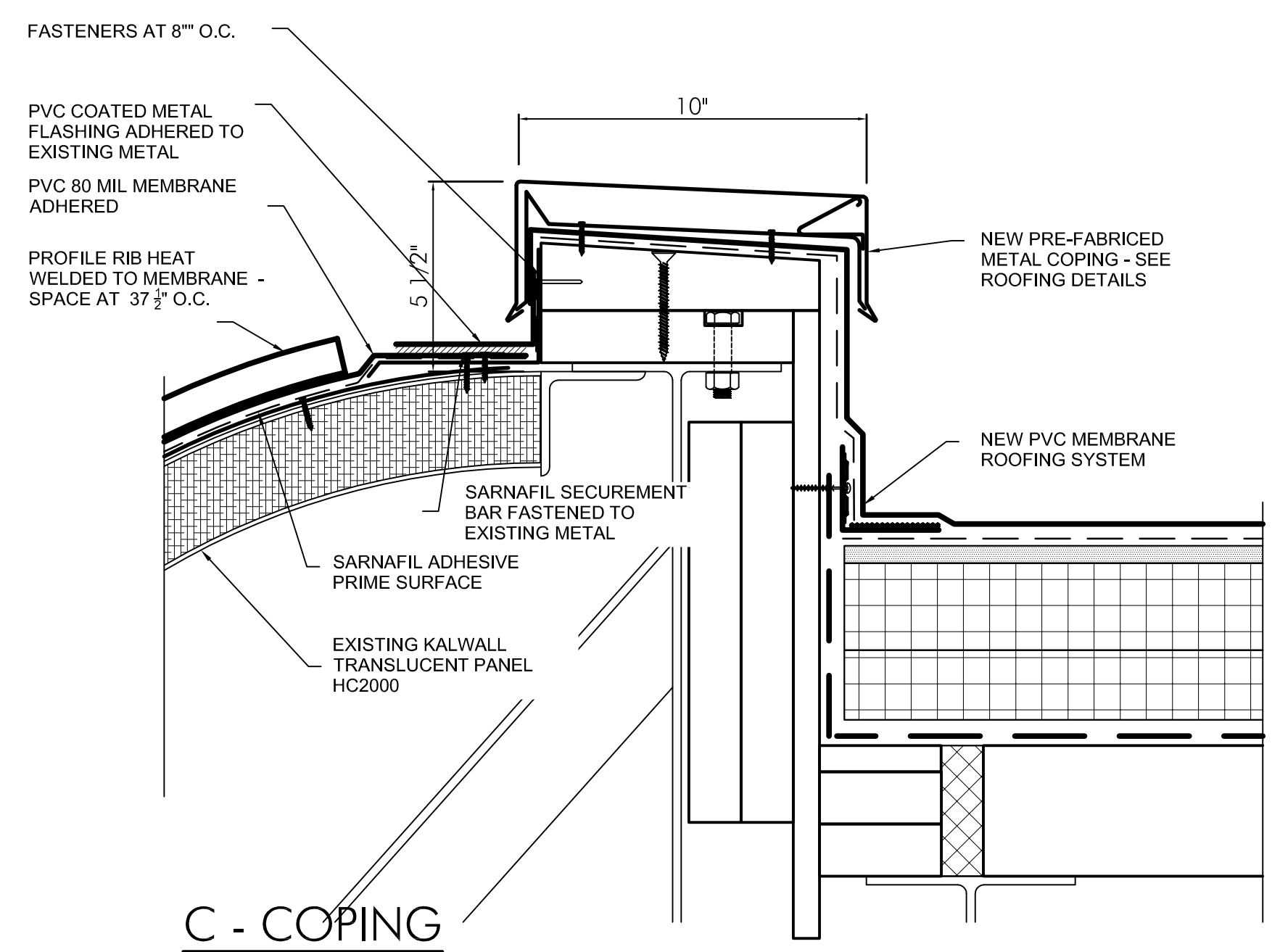
FULLY ADHERE NEW PVC MEMBRANE SYSTEM TO EXISTING PRIMED KALWALL SKYLIGHT WITH ALL RELATED FLASHING AND TRIM - INSTALL RIBS AS PER DETAILS - TYPICAL ALL ELEVATIONS



A - RIB / SEAM



B - SILL



C - COPING

2 PVC DETAILS
SCALE: 3" = 1'-0"

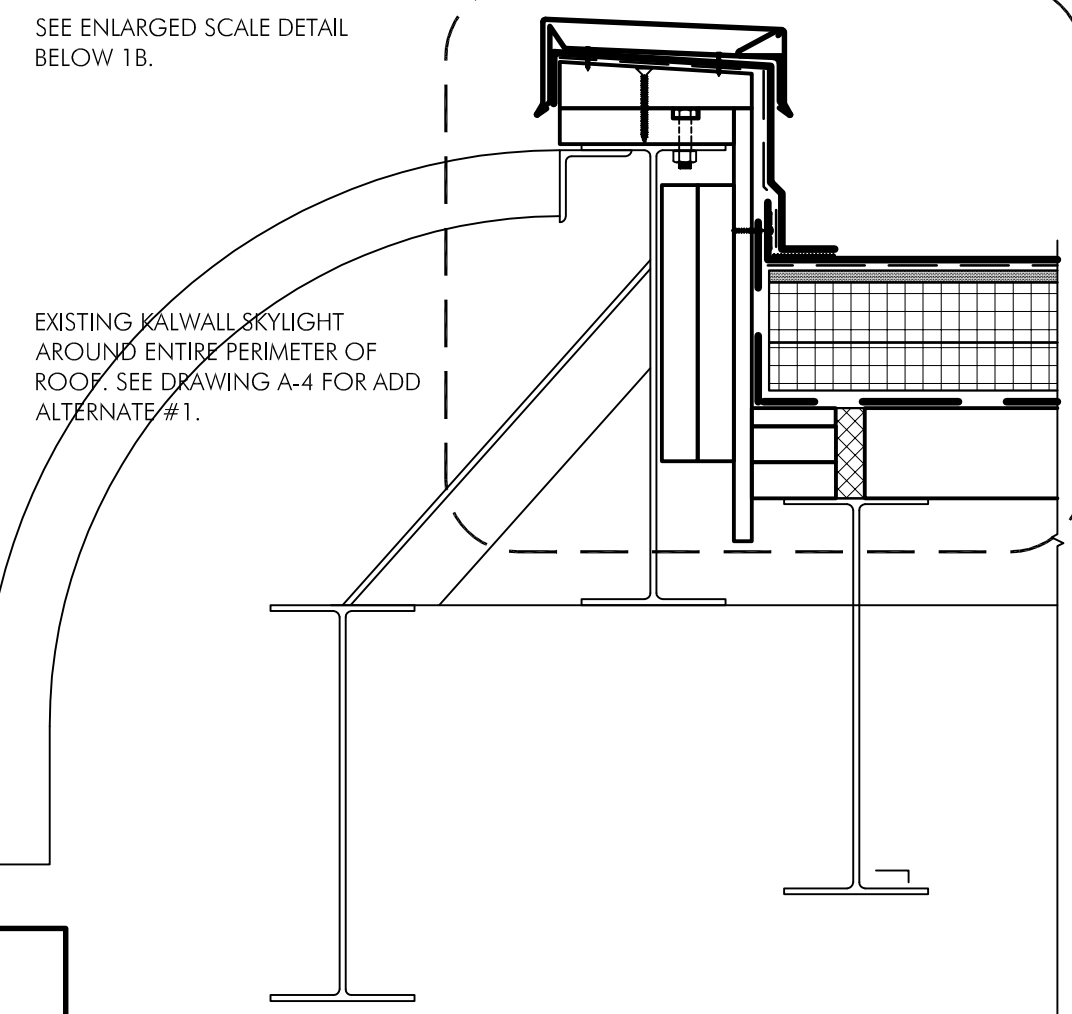
ADD ALTERNATE NO. 1

| Revisions | |
|-----------|---------------|
| 1 | 11/1/2019 PVC |
| | |
| | |
| | |

DETAILS

| | |
|--------------------|-----------|
| Agency Project No. | BI-RD-311 |
| By: | MAB |
| Scale: | As Noted |
| Issue Date: | 9/18/2019 |

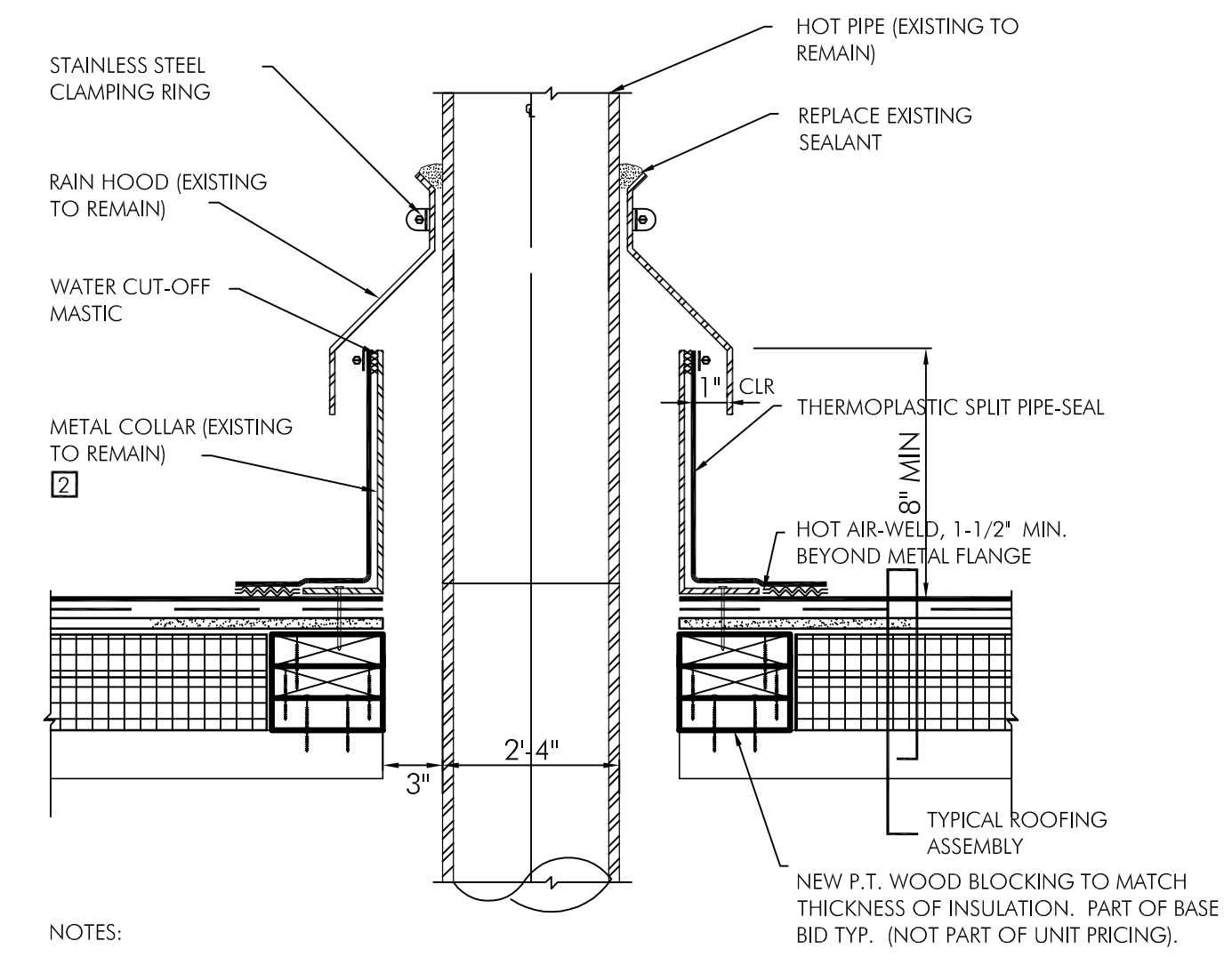
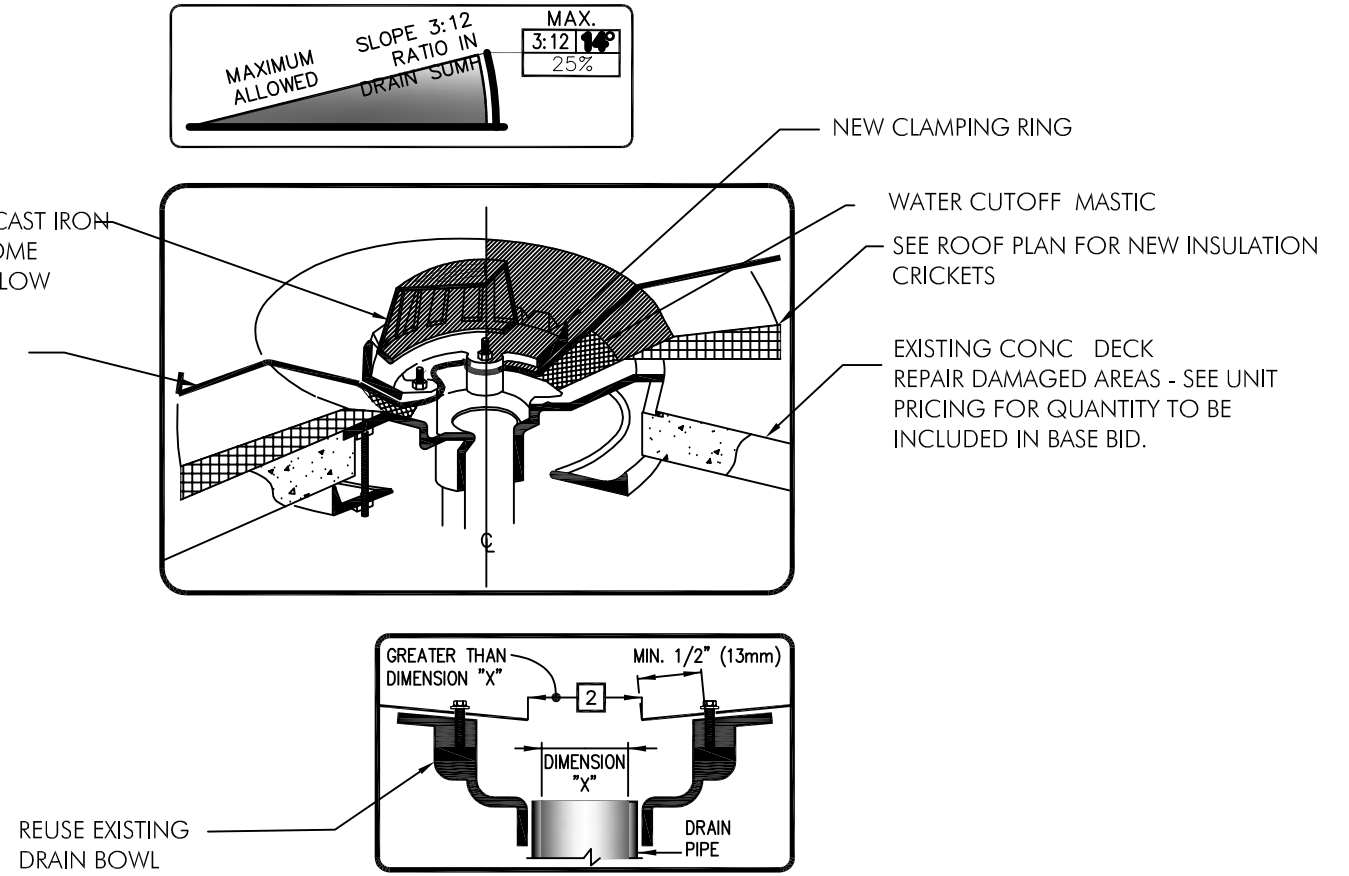
A-3



1 PARAPET EDGE DETAIL - TYPICAL
SCALE: 1 1/2" = 1'-0"

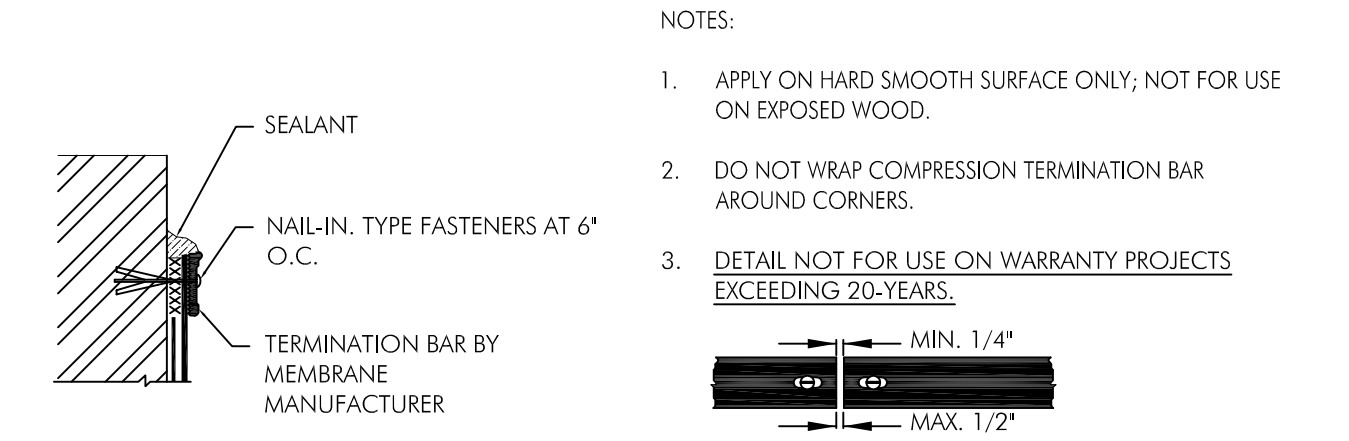
- NOTES:
1. ROOF DRAIN SIZE AND NUMBER OF DRAINS SHALL BE IN ACCORDANCE WITH THE LOCAL CODES. EXISTING DRAIN BOWLS TO REMAIN.
 2. THE HOLE IN THE MEMBRANE SHALL EXCEED THE DIAMETER OF THE DRAIN PIPE, BUT SHALL BE NO LESS THAN 1/2" (13mm) FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
 3. ALL BOLTS OR CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT-OFF MASTIC.
 4. REMOVE EXISTING LEAD, FLASHING MATERIAL & ENSURE THE DRAIN RING IS COMPLETELY CLEAN DOWN TO BARE METAL.
 5. BASIS OF DESIGN - CARLISLE PVC DETAIL NO. U-6A
 6. INSULATE DRAIN BOWL & LINE WITH BATT INSULATION.
 7. REPAIR ANY DAMAGED CAUSED BY WORK TO INTERIOR FINISHES WITH MATERIALS TO MATCH EXISTING.
 8. ALL BOLTS AND CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT-OFF MASTIC.
 9. FOR VAPOR BARRIER REQUIREMENTS, SEE SPECIFICATIONS.

2 ROOF DRAIN DETAIL - TYPICAL
SCALE: 1 1/2" = 1'-0"



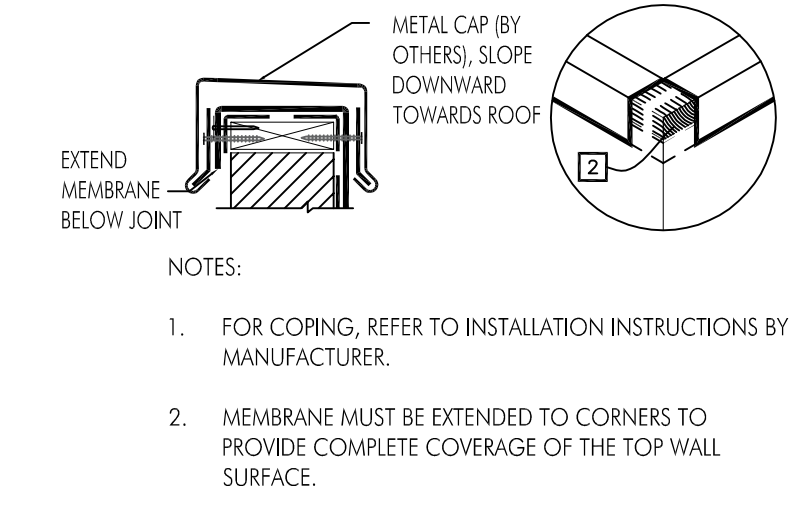
- NOTES:
1. REMOVE ALL EXISTING LEAD AND FLASHING MATERIAL BEFORE INSTALLING PIPE FLASHING.
 2. TEMPERATURE OF THE METAL COLLAR MUST NOT EXCEED 140°F (60°C) WHEN USING PVC.
 3. REGARDLESS OF THE FIELD MEMBRANE THICKNESS, THERMOPLASTIC "T-JOINT" COVERS ARE REQUIRED OVER THE SPLICE INTERSECTIONS OF THE SPLIT PIPE SEAL.
 4. BASIS OF DESIGN - CARLISLE PVC DETAIL NO. U-8F.

4 HOT PIPE FLASHING DETAIL - TYP
SCALE: 1 1/2" = 1'-0"



- NOTES:
1. APPLY ON HARD SMOOTH SURFACE ONLY; NOT FOR USE ON EXPOSED WOOD.
 2. DO NOT WRAP COMPRESSION TERMINATION BAR AROUND CORNERS.
 3. DETAIL NOT FOR USE ON WARRANTY PROJECTS EXCEEDING 20-YEARS.

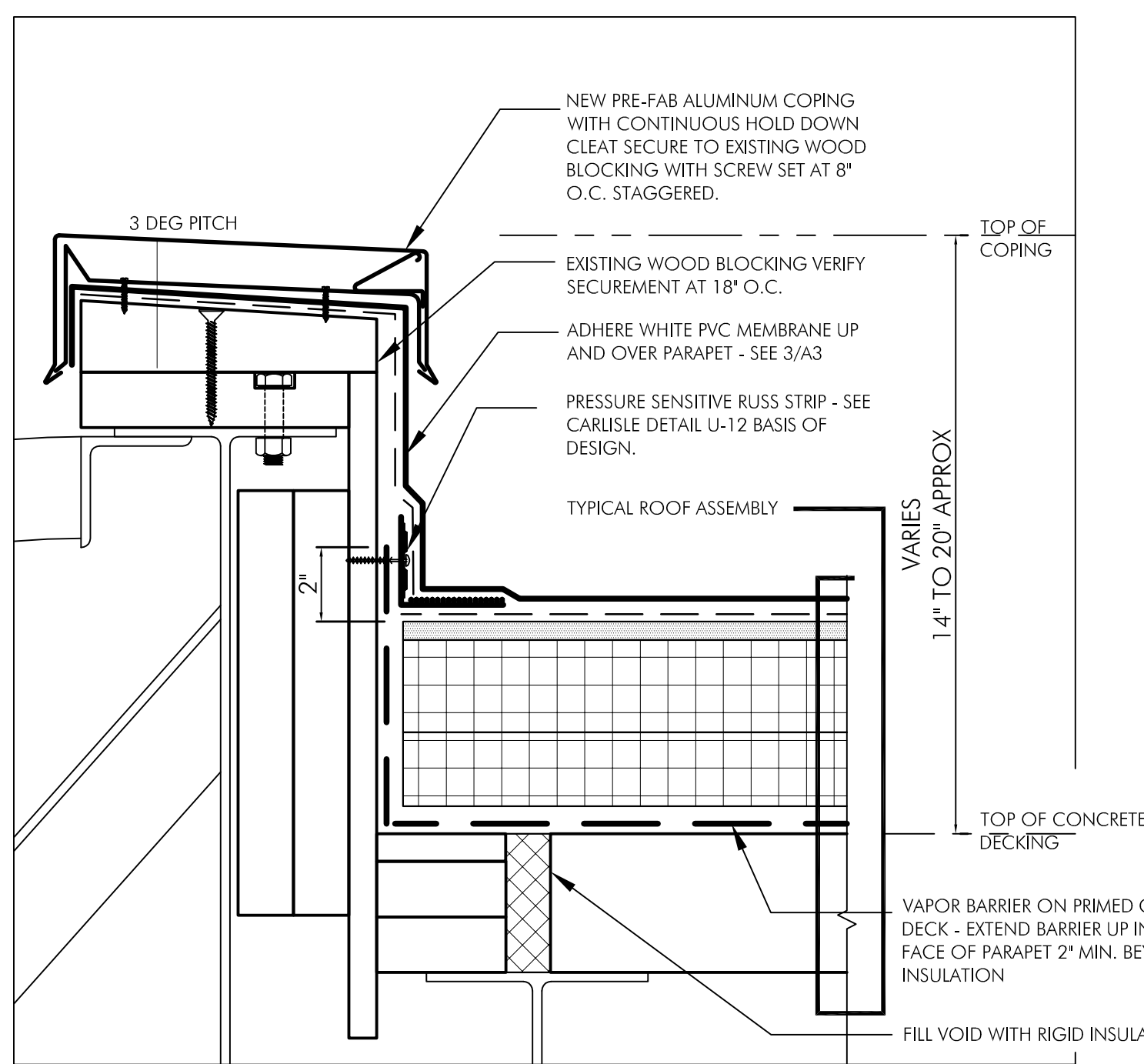
1A TERMINATION BAR DETAIL



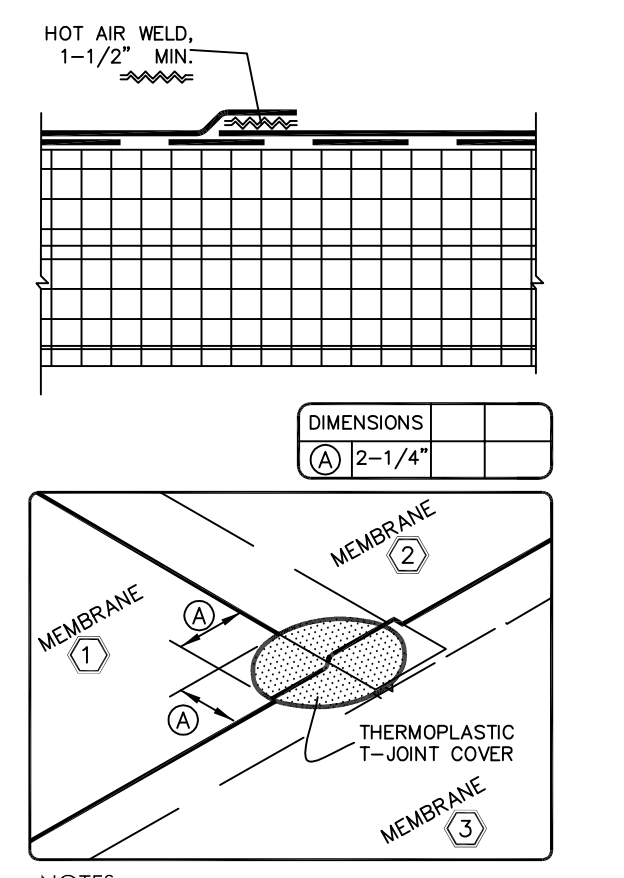
3 COPING FLASHING
SCALE: 1 1/2" = 1'-0"



ACCESS LADDER



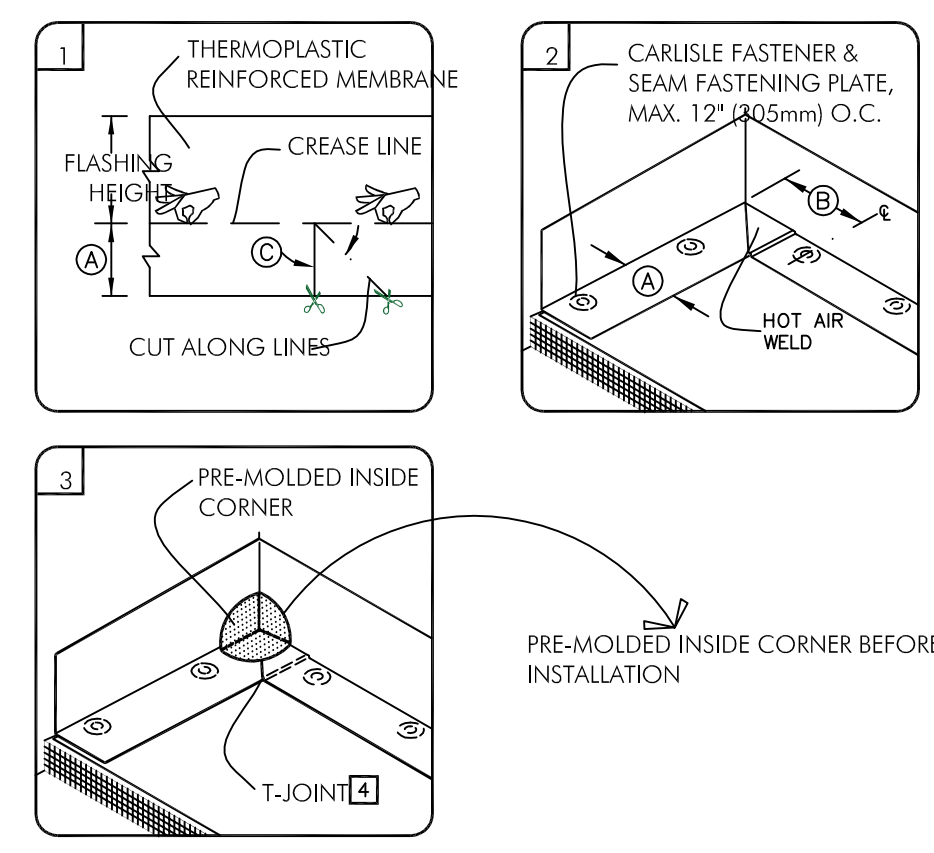
1B COPING DETAIL
SCALE: 3" = 1'-0"



PVC MEMBRANE SPLICE

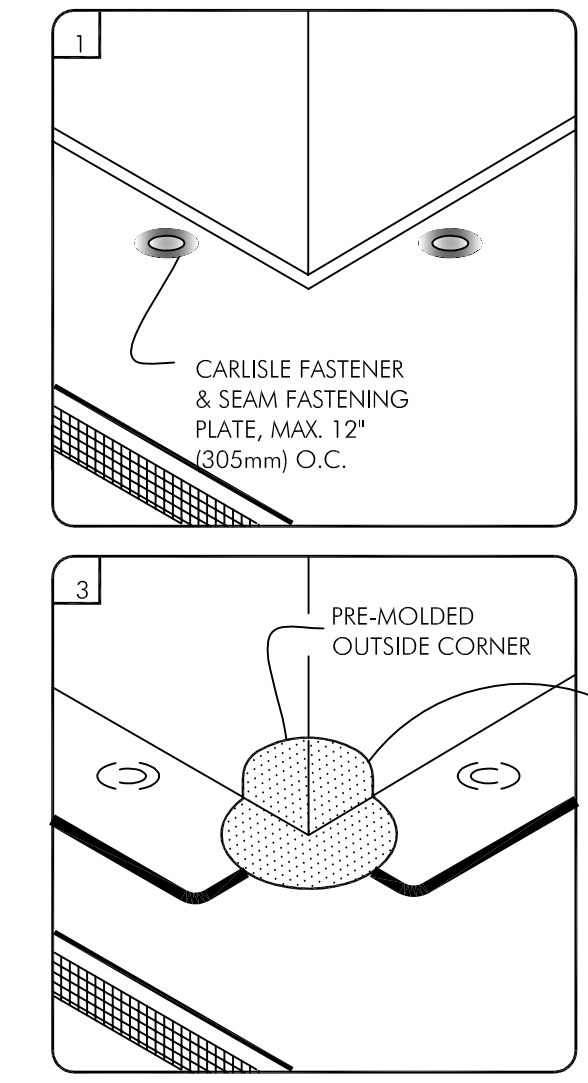
- NOTES:
1. APPLY A 4-1/2" DIAMETER "T-JOINT" COVER AT ALL FIELD SPLICE INTERSECTIONS.
 2. T-JOINT COVERS REQUIRED FOR 80 MIL THICK PVC MEMBRANE.

BASIS OF DESIGN - CARLISLE PVC DETAIL NO. XXXXXXXX



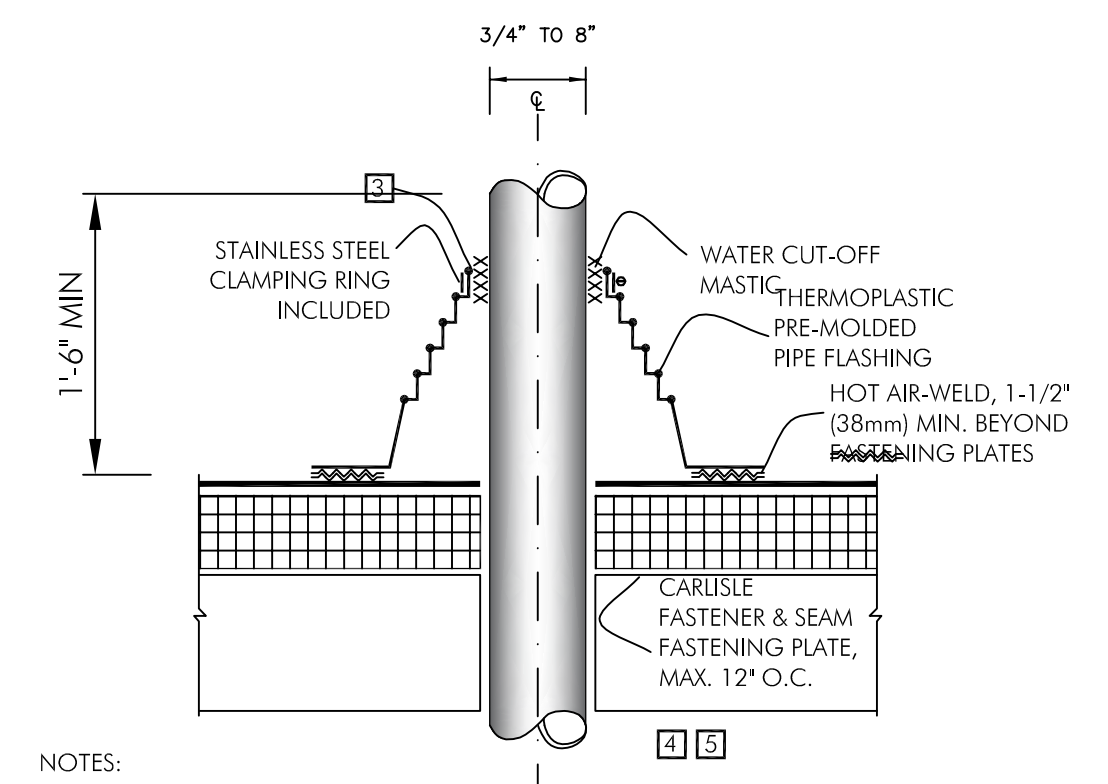
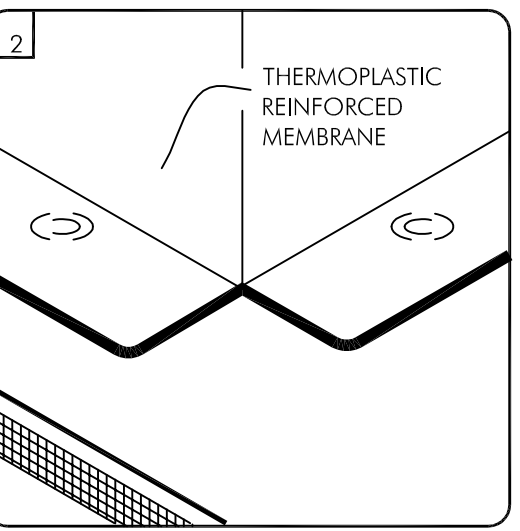
- NOTES:
1. POSITION FASTENING PLATES 6" TO 9" (152 TO 229mm) FROM THE CORNER AND 1/2" TO 1" (13 TO 25mm) FROM EDGE OF MEMBRANE.
 2. APPROXIMATELY 1/8" (3mm) BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE.
 3. REFER TO CARLISLE SPECIFICATIONS FOR ACCEPTABLE CARLISLE FASTENERS AND PLATES.
 4. WHEN USING 60 OR 80-MIL MEMBRANE, APPLY A 4-1/2" (114mm) DIAMETER "T-JOINT" COVER AT ALL FIELD SPLICE INTERSECTIONS. BASIS OF DESIGN - CARLISLE PVC DETAIL NO. U-15A

| DIMENSIONS | mm | APPROX. |
|----------------|---------|---------|
| (A) 6" | 152 | APPROX. |
| (B) 6"-9" | 152-229 | |
| (C) 45-DEGREES | APPROX. | |



- NOTES:
1. POSITION FASTENING PLATES 6" FROM THE CORNER AND 1/2" TO 1" FROM EDGE OF MEMBRANE.
 2. REFER TO CARLISLE SPECIFICATIONS FOR ACCEPTABLE CARLISLE FASTENERS AND PLATES.

BASIS OF DESIGN - CARLISLE PVC DETAIL NO. U-15D



- NOTES:
1. REMOVE ALL EXISTING LEAD AND FLASHING MATERIAL BEFORE INSTALLING PRE-MOLDED PIPE FLASHING.
 2. TEMPERATURE OF THE PIPE PENETRATION MUST NOT EXCEED 140°F WHEN USING PVC.
 3. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE, REGARDLESS OF PIPE DIAMETER.
 4. INSTALL A MINIMUM OF 4 FASTENERS AND PLATES AROUND THE PIPE, EQUALLY SPACED. IF FASTENERS AND PLATES CANNOT BE INSTALLED AS SHOWN, THEY MAY ALSO BE POSITIONED OUTSIDE THE PIPE MAXIMUM 12" O.C. AND FLASHED WITH THERMOPLASTIC REINFORCED MEMBRANE. REFER TO DETAIL U-8B.
 5. FASTENERS AND PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18" U

BASIS OF DESIGN - CARLISLE PVC DETAIL NO. U-8A

5 PVC MEMBRANE DETAILS

PRE-MOLDED INSIDE CORNER PVC FLASHING

PRE-MOLDED OUTSIDE CORNER PVC FLASHING

PRE-MOLDED PIPE SEAL

NOTE: ALL PVC DETAILS FOR NEW ROOF CONSTRUCTION TO FOLLOW MANUFACTURERS GUIDELINES FOR 80 MIL PVC AND 25-30 YEAR WARRANTY