

# ROOF REPLACEMENT JOHN ADAMS ELEMENTARY SCHOOL

5651 RAYBURN AVENUE  
ALEXANDRIA, VIRGINIA 22331

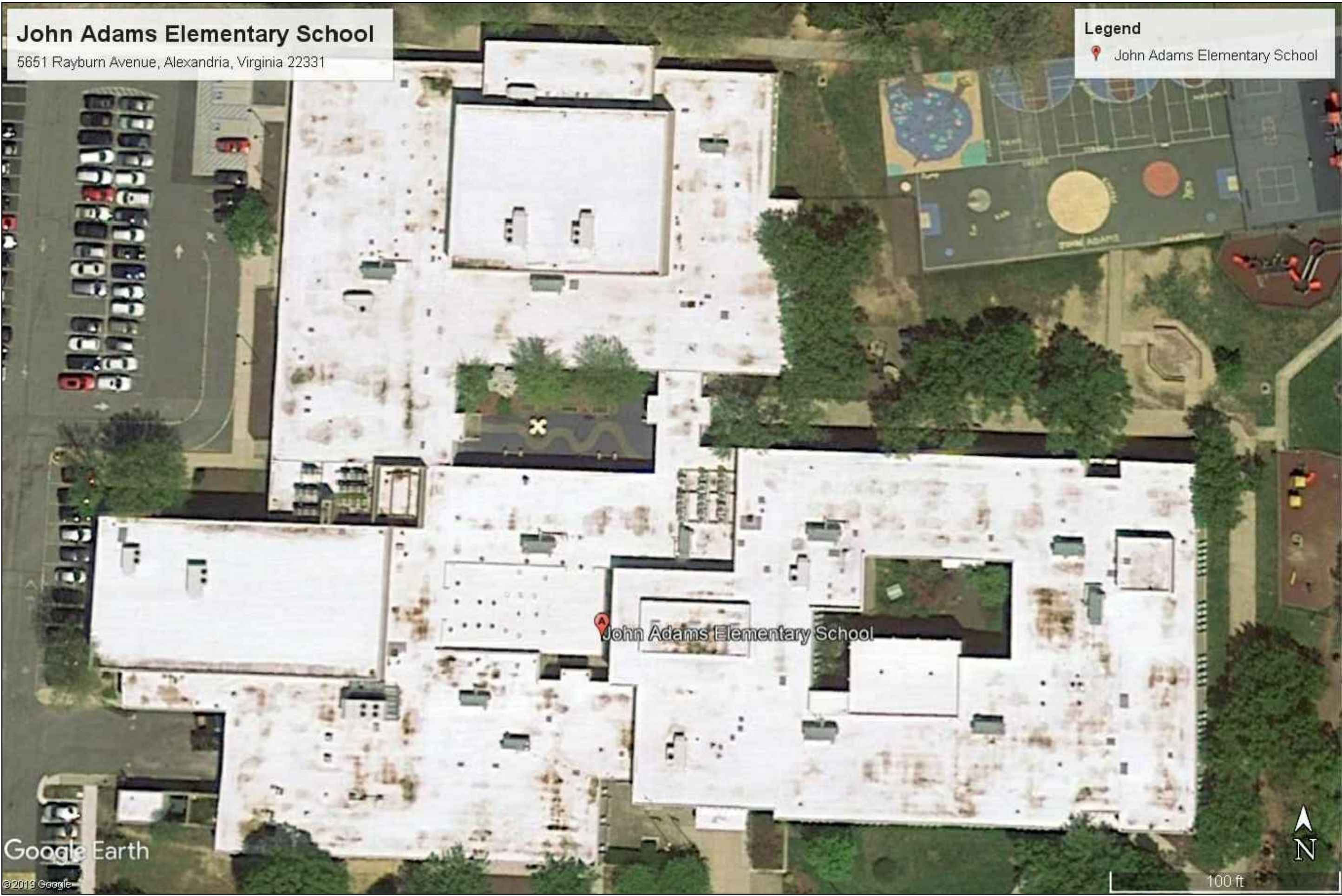
PREPARED FOR:  
**ALEXANDRIA CITY PUBLIC SCHOOLS**  
1340 BRADDOCK PLACE, SUITE 620  
ALEXANDRIA, VIRGINIA 22314  
PH: (703) 619-8181 F: (703) 619-8090

DOCUMENTS PREPARED BY:  
**RESTORATION ENGINEERING, INC.**  
10503 WEST DRIVE, SUITE A  
FAIRFAX, VIRGINIA 22030  
PH: (703) 272-7787 F: (703) 272-7796

## BID SET



REGIONAL MAP



SATELLITE IMAGE

### GENERAL NOTES:

- THE REPAIRS DETAILED IN THESE CONSTRUCTION DRAWINGS WERE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2015 INTERNATIONAL BUILDING CODE, THE 2015 INTERNATIONAL PLUMBING CODE, AND THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE.
- THE "WORK" INCLUDES REMOVAL OF THE EXISTING LOW SLOPE ROOFING SYSTEMS AND ASSOCIATED FLASHINGS ON SPECIFIED ROOF SECTIONS. THE "WORK" ALSO INCLUDES MISCELLANEOUS REPAIRS TO BRICK FACADE.
- THE "WORK" DOES NOT INVOLVE MODIFICATION TO, OR INSTALLATION OF ADDITIONAL ELECTRICAL AND/OR MECHANICAL APPURTENANCES OTHER THAN RELOCATION OF EXISTING ELECTRICAL/REFRIGERATION LINES SERVICING VARIOUS SMALL HEAT PUMPS.
- PLUMBING WORK INCLUDES REPLACEMENT OF EXISTING ROOF DRAINS AND INSTALLATION OF NEW DRAINS, RELOCATION OF NUMEROUS DRAIN OPENINGS TO FACILITATE DRAINAGE, INSTALLATION OF NEW DRAIN LINES AND TIE INS TO EXISTING DRAIN LINES AND, ELIMINATION OF EXISTING DRAINS AND CAPPING OF ABANDONED DRAIN LINES AT ISOLATED LOCATIONS.
- CONTRACTOR TO ACQUIRE ALL NECESSARY PERMITS IN ACCORDANCE WITH LOCAL JUDICIAL AUTHORITIES PRIOR TO COMMENCEMENT OF "WORK".
- CONTRACTOR TO COORDINATE THE NECESSARY INSPECTIONS AS REQUIRED BY LOCAL JUDICIAL AUTHORITIES.

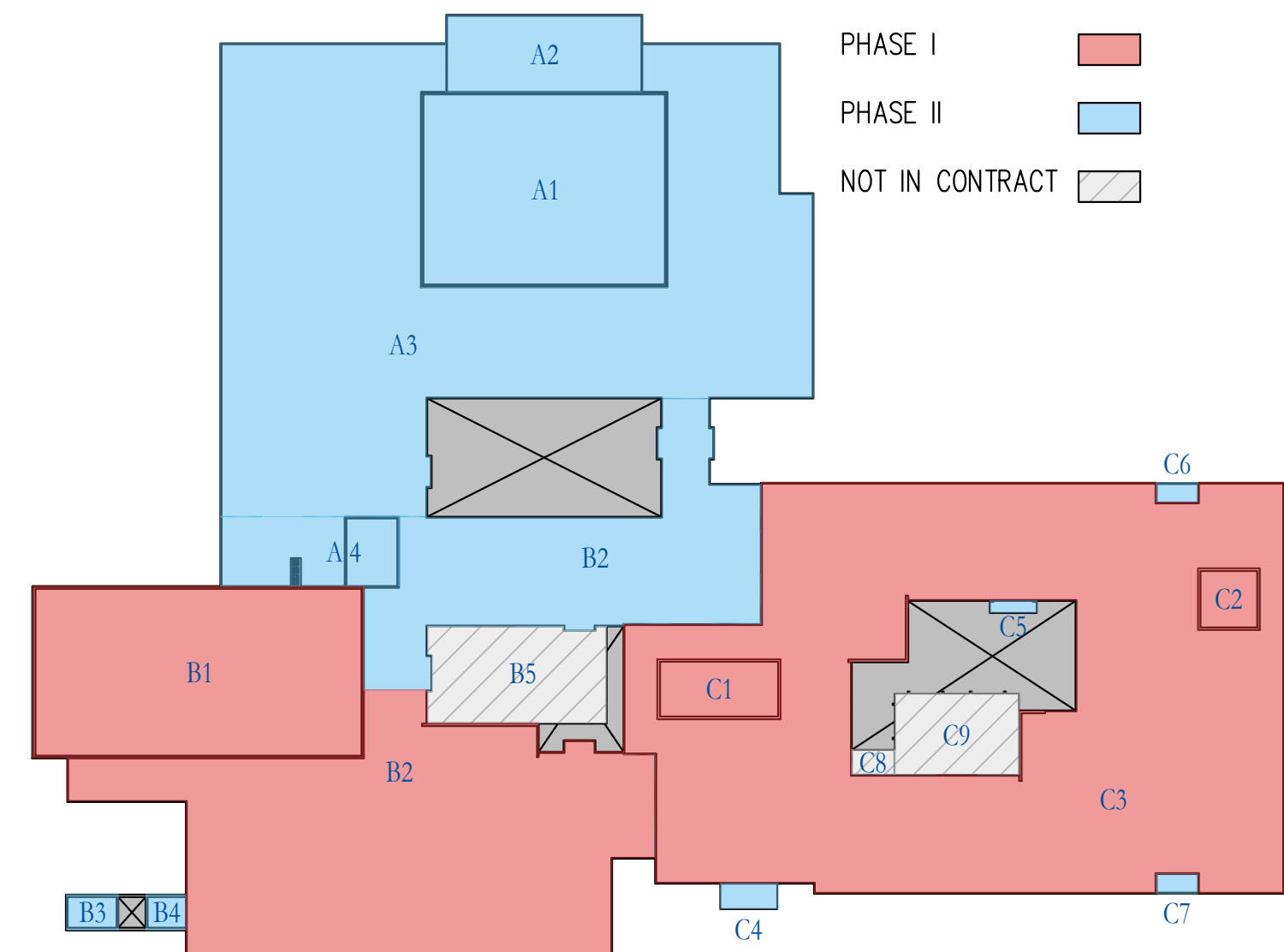
### CODE INFORMATION:

- BUILDING USE GROUP: E (IBC 2015, SECTION 305.1)
- CONSTRUCTION TYPE: TYPE 2A (IBC 2015, TABLE )
- FIRE CLASSIFICATION: CLASS \_ (IBC 2015, TABLE )
- THERMAL ROOF ENVELOPE REQUIREMENTS: R-30ci (IECC 2015, TABLE C402.1.3)
- FIRE SUPPRESSION SYSTEM: YES
- SQUARE FOOTING OF ROOFING BEING REPLACED: 103,150 SF

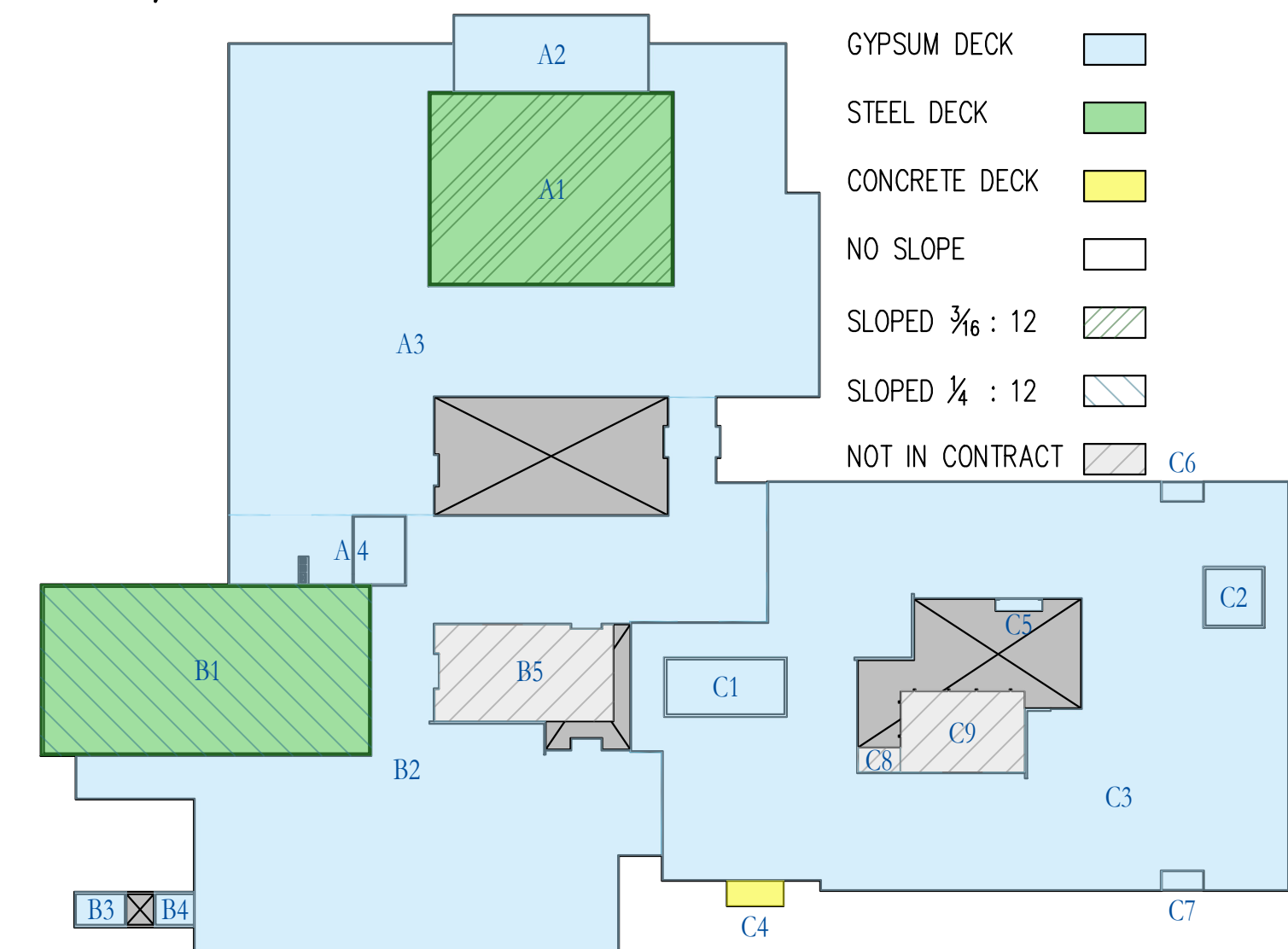
### PHASING NOTES:

- THE "WORK" SHALL BE PHASED OVER TWO CONSTRUCTION PERIODS:
  - PHASE I - SUMMER 2020
  - PHASE II - SUMMER 2021
- THE CONTRACTOR MUST COMPLETE ALL ASPECTS OF THE WORK, INCLUDING ADDRESSING ALL PUNCH LIST ITEMS FOR SPECIFIC ROOF AREAS TO BE CONSIDERED "COMPLETE".
- THE CONTRACTOR MUST COMPLETE ALL PHASE I WORK STARTED, WITHIN A SPECIFIC SECTION OF ROOFING, DURING PHASE I.
- THE CONTRACTOR'S SCHEDULE OF VALUES SHALL BE SUBDIVIDED BY ROOF AREAS IN ORDER TO FACILITATE REVIEW OF THE CONTRACTOR'S PAYMENT APPLICATIONS.
- THE CONTRACTOR WILL BE GRANTED PARTIAL RELEASE OF RETAINAGE FOR ALL WORK AREAS COMPLETED DURING PHASE I PROVIDED THAT ALL PUNCH LIST ITEMS HAVE BEEN ADDRESSED.
- PROVIDE WARRANTIES FOR EACH COMPLETED PHASE OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL ROOFING SYSTEMS (NEW AND OLD) FOR THE NON CONSTRUCTION PERIOD BETWEEN PHASES I AND II.

### PHASING KEY:



### DECKING/SLOPE KEY:



### SHEET INDEX:

SHEET #	SHEET	DESCRIPTION
1 OF 14	C-1.0	COVER SHEET
2 OF 14	A-1.0	DEMOLITION PLAN
3 OF 14	A-1.1	PARTIAL ROOF PLAN
4 OF 14	A-1.2	PARTIAL ROOF PLAN
5 OF 14	A-1.3	PARTIAL ROOF PLAN
6 OF 14	A-1.4	ROOF DETAILS
7 OF 14	A-2.1	ROOF DETAILS
8 OF 14	A-2.2	ROOF DETAILS
9 OF 14	A-2.3	ROOF DETAILS
10 OF 14	A-2.4	ROOF DETAILS
11 OF 14	A-2.5	ROOF DETAILS
12 OF 14	A-2.6	ROOF DETAILS
13 OF 14	A-2.7	ROOF DETAILS
14 OF 14	A-2.8	ISOMETRIC DETAILS

ROOF REPLACEMENT  
JOHN ADAMS ELEMENTARY SCHOOL  
ALEXANDRIA CITY PUBLIC SCHOOLS  
5651 RAYBURN AVENUE  
ALEXANDRIA, VIRGINIA 22331

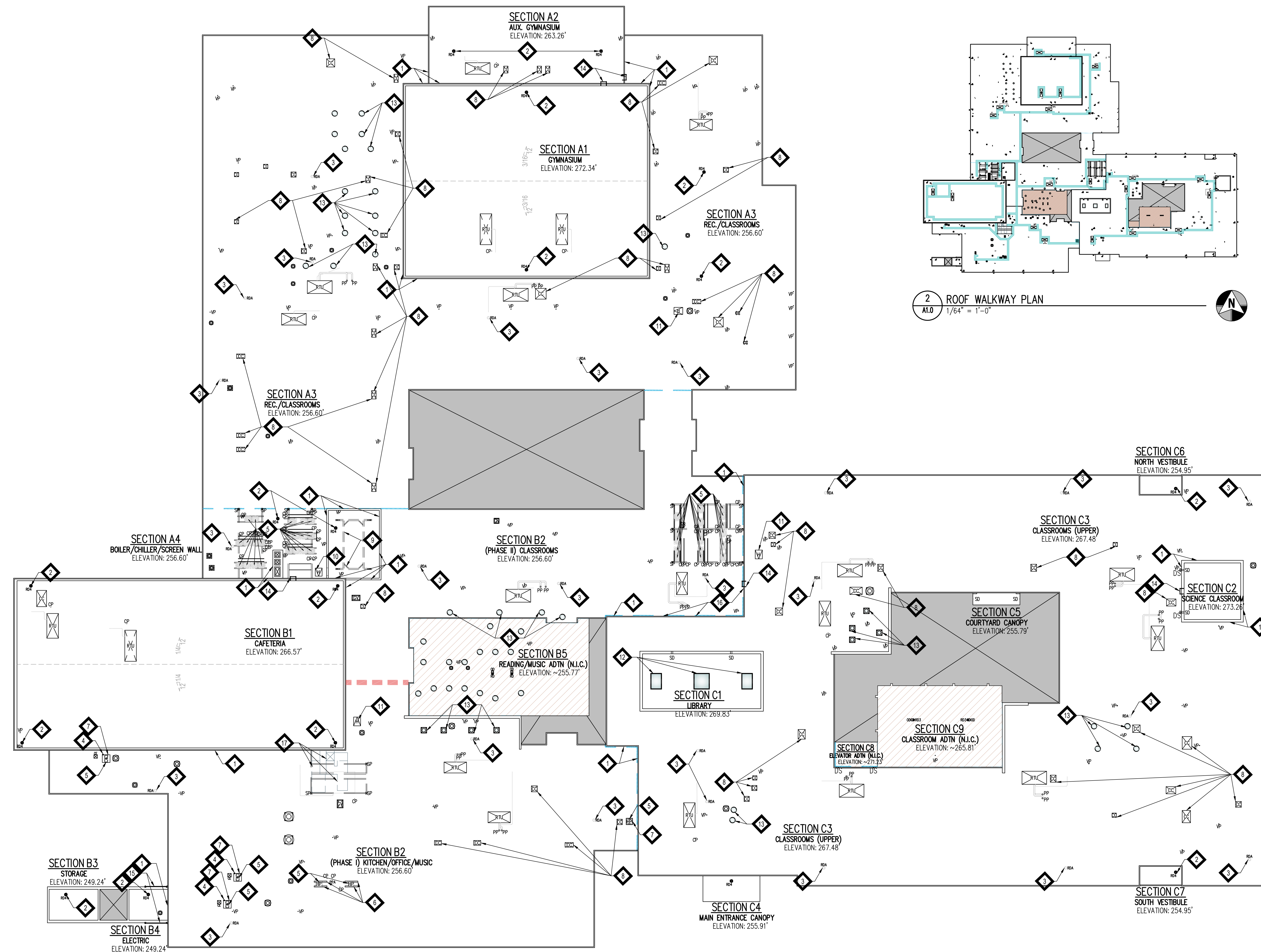
**RESTORATION ENGINEERING, INC.**  
10503 West Drive, Suite A  
Fairfax, VA 22030

**COVER SHEET**  
03/11/2020  
REP GBG  
908.024

**BID SET**  
NO SCALE  
C - 1.0

1 OF 14





2 ROOF WALKWAY PLAN  
1/64" = 1'-0"

# GENERAL CONSTRUCTION NOTES – DEMOLITION:

- CONTRACTOR TO PERFORM DEMOLITION IN ACCORDANCE WITH CONTRACT DOCUMENTS AND, SPECIFICALLY, SPECIFICATIONS SECTION 024119 "SELECTIVE STRUCTURE DEMOLITION" & 070150.19 "PREPARATION FOR REROOFING"
- CONTRACTOR TO REMOVE ENTIRETY OF EXISTING SINGLE-PLY ROOFING MEMBRANE AND ASSOCIATED FLASHINGS, INSULATION, INSULATION FASTENERS, METAL FLASHING, BUR, MISCELLANEOUS WOOD BLOCKING/PLYWOOD AND OTHER ROOFING ACCESSORIES DOWN TO THE SURFACE OF THE EXISTING GYPSUM, METAL, AND CONCRETE ROOF DECKS. DO NOT REMOVE AND DISCARD EXISTING SOUND WOOD BLOCKING/PLYWOOD AT PARAPETS!
- CONTRACTOR TO REMOVE EXISTING BRICK MASONRY VENEER, AT VARIOUS LOCATIONS, AS REQUIRED TO FACILITATE INSTALLATION OF NEW THROUGH-WALL FLASHING
- CONTRACTOR TO COORDINATE WITH ALEXANDRIA CITY PUBLIC SCHOOLS (ACPS) ON-SITE REPRESENTATIVE FOR TEMPORARY REMOVAL/DISCONNECT OF MECHANICAL EQUIPMENT, DUCT WORK, PIPING AND WIRING, AND REINSTALLATION AFTER ROOFING OPERATIONS.
- PRIOR TO START OF DEMOLITION, CONTRACTOR TO TEST EXISTING STORM DRAIN LINES, TO VERIFY PROPER OPERATION.
- CONTRACTOR TO PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION TO PROTECT GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK.
- PRIOR TO DISCONNECTION ELECTRICAL LINES, CONDUITS, ROOF TOP MECHANICAL UNITS, OR DUCTWORK, RETAIN A MECHANICAL SUB-CONTRACTOR TO TEST THE LINES, UNITS, AND DUCTS IN THE PRESENCE OF THE ACPS ON-SITE REPRESENTATIVE TO DETERMINE THE CURRENT OPERATING CONDITION. PROVIDE A WRITTEN PRE-CONSTRUCTION CONDITION REPORT CO-SIGNED BY THE ACPS'S SITE REPRESENTATIVE, THE CONTRACTOR'S REPRESENTATIVE, AND THE SUBCONTRACTOR'S REPRESENTATIVE STATING THE OPERATING AND PHYSICAL CONDITIONS OF ALL ELECTRICAL LINES, CONDUITS, MECHANICAL EQUIPMENT, AND DUCT WORK PRIOR TO STARTING ANY WORK, INCLUDING DISCONNECTING ANY LINES. CONSULT WITH THE PRINCIPAL REGARDING CIRCUIT SHUTDOWN AND SCHEDULING. AFTER TESTING AND SCHEDULING, THE MECHANICAL SUBCONTRACTOR SHOULD DISCONNECT, REMOVE, REROUTE, EXTEND, AND RECONNECT OR REPLACE THE LINES AND DUCT WORK TO THE UNITS ON THE AREAS TO BE REROOFED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT BUILDING CODES. OPERATING UNITS THAT FAIL TO FUNCTION IN ACCORDANCE WITH THE PRE-CONSTRUCTION CONDITION REPORT AFTER RE-INSTALLATION WILL BE REPAIRED OR REPLACE BY THE CONTRACTOR AT NO COST TO THE ALEXANDRIA CITY PUBLIC SCHOOLS.

## DEMOLITION PLAN – KEYED NOTES:

- REMOVE AND SALVAGE (75% MIN.) EXISTING BRICK MASONRY AS REQUIRED TO INSTALL NEW THROUGH-WALL FLASHINGS
- REMOVE AND DISCARD EXISTING DRAIN BOWL, STRAINER, ETC. AND ASSOCIATED FLASHINGS AT EXISTING DRAIN LOCATION; PREP DRAINLINE FOR REUSE
- EXISTING ROOF DRAIN LOCATION TO BE ABANDONED; REMOVE DRAIN CAP DRAIN LINE BELOW DECK AND PATCH DECKING
- REMOVE AND DISCARD EXISTING CHANNEL MAST; DISCONNECT AND TEMPORARILY REMOVE EXISTING SHUT OFF SWITCH HOUSING AS REQUIRED TO REROUTE CONDUITS AND ATTACH TO NEW SUPPORT/BASE PLATE (SEE NEW WORK); COORDINATE WORK WITH ON-SITE PERSONNEL TO LIMIT DISRUPTION OF SERVICE
- TEST FUNCTION OF UNIT, THEN DISCONNECT AND TEMPORARILY REMOVE EXISTING HEAT PUMP WIRING/REFRIGERATION LINES AS REQUIRED TO REROUTE LINES THROUGH EXISTING OR NEW ENCLOSURES (SEE NEW WORK); COORDINATE WORK WITH ON-SITE PERSONNEL TO LIMIT DISRUPTION OF SERVICE; PLEASE NOTE THAT CONTRACTOR/SUBCONTRACTOR WILL ONLY BE ALLOWED TO TAKE ONE (1) UNIT OUT OF SERVICE AT A TIME. REINSTALL UNIT.
- REMOVE AND DISCARD EXISTING WOOD SLEEPERS
- REMOVE AND DISCARD PLASTIC EQUIPMENT PADS AT EXISTING HEAT PUMP LOCATIONS
- EXISTING CAPPED CURB; REMOVE AND PATCH DECKING
- EXISTING DUNNAGE TO BE ABANDONED; REMOVE AND PATCH DECK
- EXISTING ROOF HATCH TO BE ABANDONED; REMOVE AND PATCH DECK
- REMOVE AND DISCARD EXISTING ROOF HATCH ASSEMBLY; INSTALL TEMPORARY PROTECTION IN ACCORDANCE WITH ALL APPLICABLE FALL PROTECTION GUIDELINES UNTIL REPLACEMENT ROOF HATCHES ARE INSTALLED
- REMOVE AND DISCARD EXISTING SKYLIGHT ASSEMBLY; INSTALL TEMPORARY PROTECTION IN ACCORDANCE WITH ALL APPLICABLE FALL PROTECTION GUIDELINES UNTIL REPLACEMENT SKYLIGHTS ARE INSTALLED
- REMOVE AND DISCARD EXISTING DAYLIGHT ASSEMBLY; INSTALL TEMPORARY PROTECTION IN ACCORDANCE WITH ALL APPLICABLE FALL PROTECTION GUIDELINES UNTIL REPLACEMENT DAYLIGHTS ARE INSTALLED
- REMOVE AND DISCARD EXISTING LADDER; INFILL MASONRY
- REMOVE AND DISCARD EXISTING FENCING; INFILL MASONRY
- REMOVE AND DISCARD EXISTING LOUVER VENT; INFILL MASONRY
- EXISTING FEED AND RETURN AIR DUCTWORK BELOW DUNNAGE TO BE REMOVED (BY OTHERS) TO FACILITATE INSTALLATION OF NEW ROOFING, BASE FLASHING AND THROUGH-WALL FLASHING ALONG RISING WALL. CONTRACTOR TO COORDINATE WORK WITH MECHANICAL CONTRACTOR WHO WILL BE PERFORMING KITCHEN/MECHANICAL RENOVATION WORK CONCURRENT WITH ROOF REPLACEMENT WORK. FOLLOWING COMPLETION OF ROOFING/FLASHING INSTALLATION, MECHANICAL CONTRACTOR WILL REINSTALL ASSOCIATED DUCTWORK (SEE NEW WORK)

1 DEMOLITION ROOF PLAN  
1/16" = 1'-0"

#	DATE	SUBMISSIONS/REVISIONS		
		80% SUBMISSION SET	95% SUBMISSION SET	BID SET
01	02/11/2020			
02	02/28/2020			
03	03/11/2020			

ROOF REPLACEMENT

JOHN ADAMS ELEMENTARY SCHOOL

ALEXANDRIA CITY PUBLIC SCHOOLS

5651 RAYBURN AVENUE

ALEXANDRIA, VIRGINIA 22331

RESTORATION ENGINEERING, INC.

10702 NEW GLEN DRIVE, SUITE 4

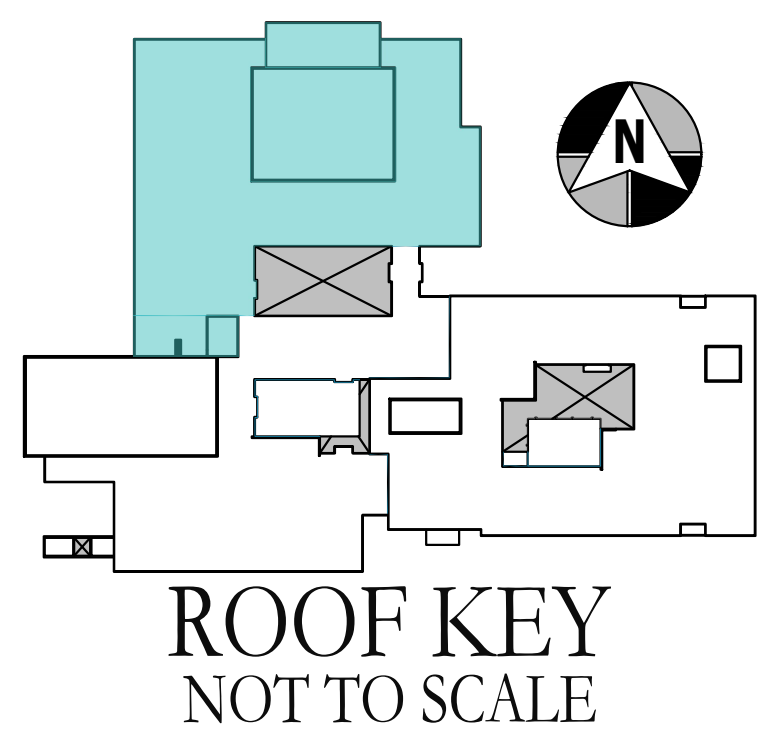
FALLS CHURCH, VA 22033

03/11/2020	DEMOS & WALKWAY PLAN	BID SET
REP	GBG	AS NOTED
908.024		

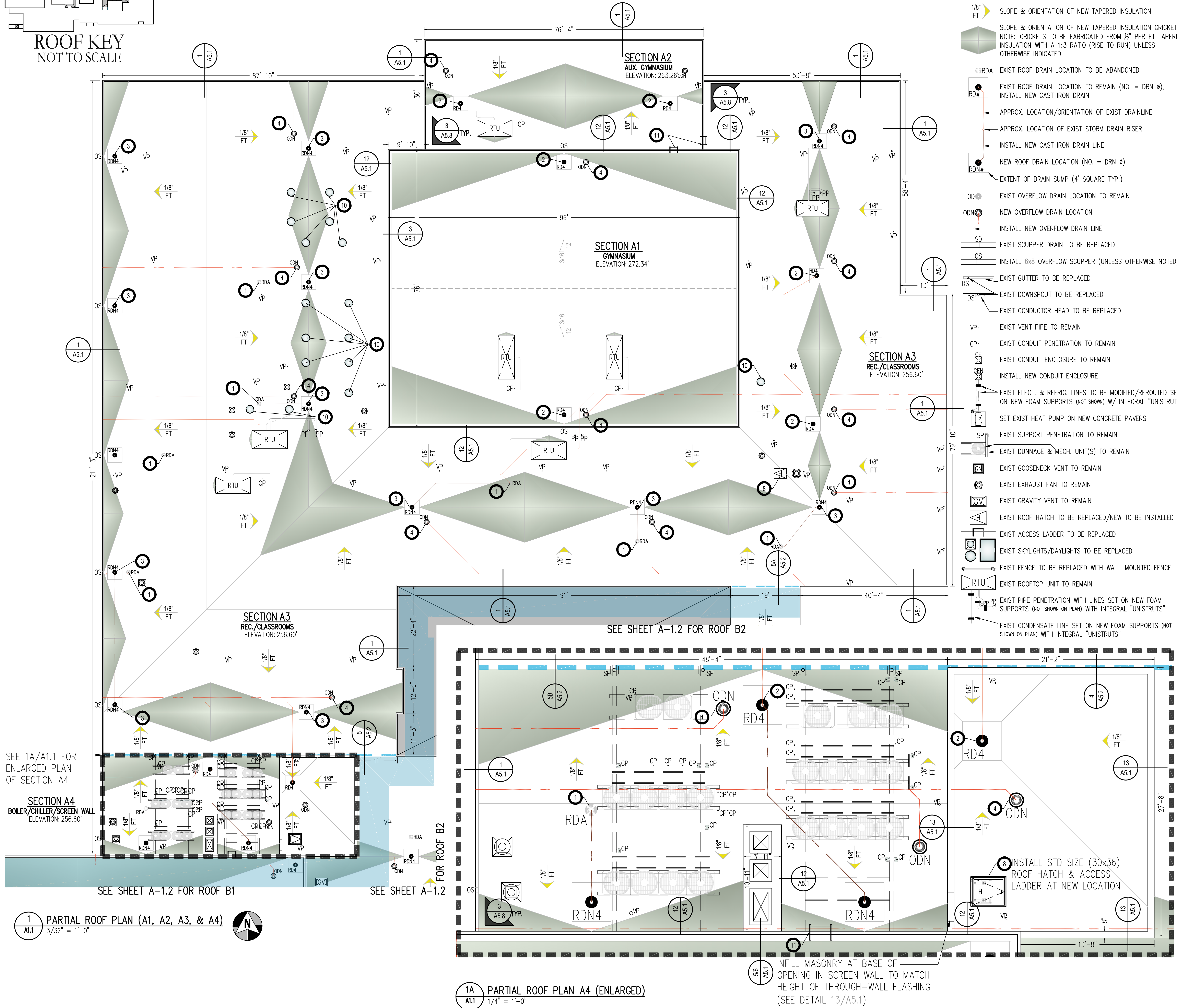
A - 1.0

2 OF 14





ROOF KEY  
NOT TO SCALE



- LEGEND:**
- EDGE OF ROOF/PARAPET
  - EXISTING EXPANSION JOINT
  - DECK SLOPE/ORIENTATION BOUNDARY
  - APPROX. SLOPE OF EXISTING ROOF DECK
  - SLOPE & ORIENTATION OF NEW TAPERED INSULATION
  - SLOPE & ORIENTATION OF NEW TAPERED INSULATION CRICKETS; NOTE: CRICKETS TO BE FABRICATED FROM 1/2\"/>
  - EXIST ROOF DRAIN LOCATION TO BE ABANDONED
  - EXIST ROOF DRAIN LOCATION TO REMAIN (NO. = DRN #), INSTALL NEW CAST IRON DRAIN
  - APPROX. LOCATION/ORIENTATION OF EXIST DRAINLINE
  - APPROX. LOCATION OF EXIST STORM DRAIN RISER
  - INSTALL NEW CAST IRON DRAIN LINE
  - NEW ROOF DRAIN LOCATION (NO. = DRN #)
  - EXTENT OF DRAIN SUMP (4' SQUARE TYP.)
  - EXIST OVERFLOW DRAIN LOCATION TO REMAIN
  - NEW OVERFLOW DRAIN LOCATION
  - INSTALL NEW OVERFLOW DRAIN LINE
  - EXIST SCUPPER DRAIN TO BE REPLACED
  - INSTALL 6x8 OVERFLOW SCUPPER (UNLESS OTHERWISE NOTED)
  - EXIST GUTTER TO BE REPLACED
  - EXIST DOWNSPOUT TO BE REPLACED
  - EXIST CONDUCTOR HEAD TO BE REPLACED
  - EXIST VENT PIPE TO REMAIN
  - EXIST CONDUIT PENETRATION TO REMAIN
  - EXIST CONDUIT ENCLOSURE TO REMAIN
  - INSTALL NEW CONDUIT ENCLOSURE
  - EXIST ELECT. & REFRIG. LINES TO BE MODIFIED/ROUTED SET ON NEW FOAM SUPPORTS (NOT SHOWN) W/ INTEGRAL "UNISTRUTS"
  - SET EXIST HEAT PUMP ON NEW CONCRETE PAVERS
  - EXIST SUPPORT PENETRATION TO REMAIN
  - EXIST DUNNAGE & MECH. UNIT(S) TO REMAIN
  - EXIST GOOSENECK VENT TO REMAIN
  - EXIST EXHAUST FAN TO REMAIN
  - EXIST GRAVITY VENT TO REMAIN
  - EXIST ROOF HATCH TO BE REPLACED/NEW TO BE INSTALLED
  - EXIST ACCESS LADDER TO BE REPLACED
  - EXIST SKYLIGHTS/DAYLIGHTS TO BE REPLACED
  - EXIST FENCE TO BE REPLACED WITH WALL-MOUNTED FENCE
  - EXIST ROOFTOP UNIT TO REMAIN
  - EXIST PIPE PENETRATION WITH LINES SET ON NEW FOAM SUPPORTS (NOT SHOWN ON PLAN) WITH INTEGRAL "UNISTRUTS"
  - EXIST CONDENSATE LINE SET ON NEW FOAM SUPPORTS (NOT SHOWN ON PLAN) WITH INTEGRAL "UNISTRUTS"
  - INSTALL STD SIZE (30x36) ROOF HATCH & ACCESS LADDER AT NEW LOCATION
  - INFILL MASONRY AT BASE OF OPENING IN SCREEN WALL TO MATCH HEIGHT OF THROUGH-WALL FLASHING (SEE DETAIL 13/A5.1)

- GENERAL CONSTRUCTION NOTES -- NEW WORK:**
- BASE BID:**
    - AT ROOF SECTIONS WITH STEEL ROOF DECKS (A1 & B1) INSTALL NEW 3"-THICK BASE LAYER OF POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING STEEL ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL 2"-THICK LAYER OF POLYISOCYANURATE INSULATION (AND TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
    - AT ROOF SECTIONS WITH GYPSUM ROOF DECKS (A2, A3, A4, B2, B3, B4, C1, C2, & C3) INSTALL NEW 3"-THICK BASE LAYER OF POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING GYPSUM ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
    - AT CANOPIES (C4, C5, C6, & C7) INSTALL NEW TAPERED POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING GYPSUM ROOF DECK OR SET IN ADHESIVE TO EXISTING CONCRETE ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
    - AT PERIMETER OF ROOF SECTIONS, INSTALL NEW AND/OR SALVAGE BLOCKING AND PLYWOOD AS SHOWN ON DRAWINGS; INSTALL NEW PVC BASE FLASHINGS IAW MFCT.'S INSTRUCTIONS AND AS SHOWN ON DRAWINGS. FABRICATE AND INSTALL NEW PREFINISHED ALUMINUM FLASHINGS AS SHOWN ON DRAWINGS
    - REMOVE AND RESET EXISTING BRICK MASONRY AT THROUGH-WALL JOINTS AS REQUIRED TO INSTALL NEW THROUGH-WALL FLASHINGS
    - INSTALL NEW MULTIPLE CONDUIT ENCLOSURE HOUSING AT LOCATION(S) INDICATED AND ENGAGE LICENSED MECHANICAL/ELECTRICAL CONTRACTOR(S) TO REROUTE EXISTING ELECTRICAL/REFRIGERANT LINES THROUGH NEW HOUSINGS AS SHOWN ON PLAN
    - INSTALL PVC WALKWAY PADS AS SHOWN ON PLAN 2/A1.0
    - INSTALL NEW ROOF DRAINS, OVERFLOW ROOF DRAINS, AND ASSOCIATED DRAIN LINES AS SHOWN ON DRAWINGS (SEE KEYED NOTES)
    - INSTALL NEW OVERFLOW SCUPPERS
    - REPLACE EXISTING & INSTALL NEW ROOF HATCHES
    - REPLACE EXISTING SKYLIGHTS AND DAYLIGHTS
    - REPLACE EXISTING LADDERS
    - REPLACE EXISTING FENCE
    - MODIFY/REPLACE EXISTING DUCT WORK
    - IN CONJUNCTION WITH ROOF REPLACEMENT WORK, CONTRACTOR TO PERFORM REPAIRS TO EXISTING BRICK MASONRY FACADE (AT ROOF AREAS) INCLUDING:
      - ISOLATED REPOINTING OF MORTAR JOINTS IN BRICK MASONRY VENEER
      - REPLACEMENT OF EXISTING SEALANT AT CONTROL JOINTS IN BRICK MASONRY FACADE

- NEW WORK PLAN -- KEYED ROOFING NOTES:**
- EXISTING ROOF DRAIN LOCATION TO BE ABANDONED; SEE DEMO PLAN
  - REPLACE EXISTING DRAIN BODY WITH NEW CAST IRON DRAIN BOWL AND CONNECT TO EXISTING DRAIN LINE IAW APPLICABLE PLUMBING CODE REQUIREMENTS; WATER TEST DRAIN AND DRAIN LINE; INSULATE DRAIN BOWL AND LINE
  - INSTALL NEW DRAIN BODY WITH NEW CAST IRON DRAIN BOWL AND INSTALL NEW CAST IRON PIPING AS REQUIRED TO CONNECT TO EXISTING DRAIN LINE IAW APPLICABLE PLUMBING CODE REQUIREMENTS (NOTE THAT CONFIGURATION OF NEW DRAIN LINE IS SCHEMATIC ONLY AND ROOFER/PLUMBER MUST INVESTIGATE EXISTING CONDITIONS TO DETERMINE OPTIMUM LAYOUT FOR NEW DRAIN LINES); WATER TEST DRAIN AND DRAIN LINE; INSULATE DRAIN BOWL AND LINE
  - INSTALL NEW OVERFLOW CAST IRON DRAIN BOWL AND OVERFLOW DRAIN LINE AND EXTEND THROUGH EXTERIOR WALL AND TERMINATE WITH BRONZE LAMB'S TONGUE AS SHOWN ON DETAILS 5/A5.3 AND 6/A5.3 (NOTE THAT CONFIGURATION/LOCATION OF NEW OVERFLOW DRAIN AND ASSOCIATED DRAINS ARE SCHEMATIC ONLY AND ROOFER/PLUMBER MUST INVESTIGATE EXISTING CONDITIONS TO DETERMINE OPTIMUM LAYOUT FOR NEW OVERFLOW DRAIN LINES); INSULATE OVERFLOW DRAIN BOWL AND DRAIN LINE
  - INSTALL NEW, PRE-MANUFACTURED, MULTIPLE CONDUIT ENCLOSURE, WITH INSULATED HOUSING AND INTEGRAL REMOVABLE HOODS AND INSULATED CONNECTIONS; INSTALL AS SHOWN ON DETAIL 5/A5.4 AND IAW MFCT.'S INSTRUCTIONS; NOTE THAT EXACT LOCATION OF CONDUIT ENCLOSURE MAY VARY DEPENDING UPON OPTIMUM LOCATION WITHIN THE CEILING SPACE
  - ENGAGE QUALIFIED MECHANICAL/ELECTRICAL SUBCONTRACTOR(S) TO REROUTE EXISTING ELECTRICAL AND REFRIGERANT LINES THROUGH EXISTING OR NEW CONDUIT ENCLOSURE(S) AND THROUGH SIDE WALL OF NEW INSULATED ENCLOSURE HOUSING IAW MFCT.'S INSTRUCTIONS USING APPROVED FITTINGS; TEST EQUIPMENT TO VERIFY PROPER OPERATION, INSULATE ALL REFRIGERANT LINES IAW APPLICABLE CODE REQUIREMENTS
  - INSTALL NEW UNISTRUT SUPPORT/BASE PLATE TO NEW 24"x24"x2" THICK CONCRETE PAVES AT LOCATION INDICATED AND ATTACH EXISTING/NEW SHUT OFF SWITCH HOUSING IAW DETAIL 6/A5.4; ROUTE NEW ELECTRICAL CONDUIT TO SHUT OFF SWITCH IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES; SET PAVES ON PVC PROTECTIVE WALKPAD
  - INSTALL NEW ROOF HATCH MATCHING SIZE OF ORIGINAL ROOF HATCH AT EXISTING HATCH LOCATION
  - INSTALL NEW SKYLIGHT ASSEMBLY IAW MFCT.'S INSTRUCTIONS (SEE DETAIL 3/A5.6)
  - INSTALL NEW DAYLIGHT ASSEMBLY IAW MFCT.'S INSTRUCTIONS (SEE DETAILS 1/A5.7 AND 2/A5.7)
  - FABRICATE AND INSTALL NEW LADDER IAW DETAIL 1/A5.6
  - FABRICATE AND INSTALL NEW FENCE IAW DETAIL 2/A5.6
  - MECHANICAL CONTRACTOR TO REINSTALL ASSOCIATED DUCTWORK FOLLOWING COMPLETION OF ROOFING/FLASHING INSTALLATION; CONTRACTOR TO COORDINATE WORK WITH MECHANICAL CONTRACTOR WHO WILL BE PERFORMING KITCHEN/MECHANICAL RENOVATION WORK CONCURRENT WITH ROOF REPLACEMENT WORK

#		DATE		SUBMISSIONS/REVISIONS	
01	02/11/2020	80% SUBMISSION SET			
02	02/28/2020	95% SUBMISSION SET			
03	03/11/2020	BID SET			

**ROOF REPLACEMENT**  
**JOHN ADAMS ELEMENTARY SCHOOLS**  
ALEXANDRIA CITY PUBLIC SCHOOLS  
5651 RAYBURN AVENUE  
ALEXANDRIA, VIRGINIA 22331

**RESTORATION ENGINEERING, INC.**  
10700 NEW GLEN DRIVE, SUITE 4  
FALLS CHURCH, VA 22040

**PARTIAL ROOF PLAN**  
03/11/2020  
REP: GBG  
908.024  
AS NOTED

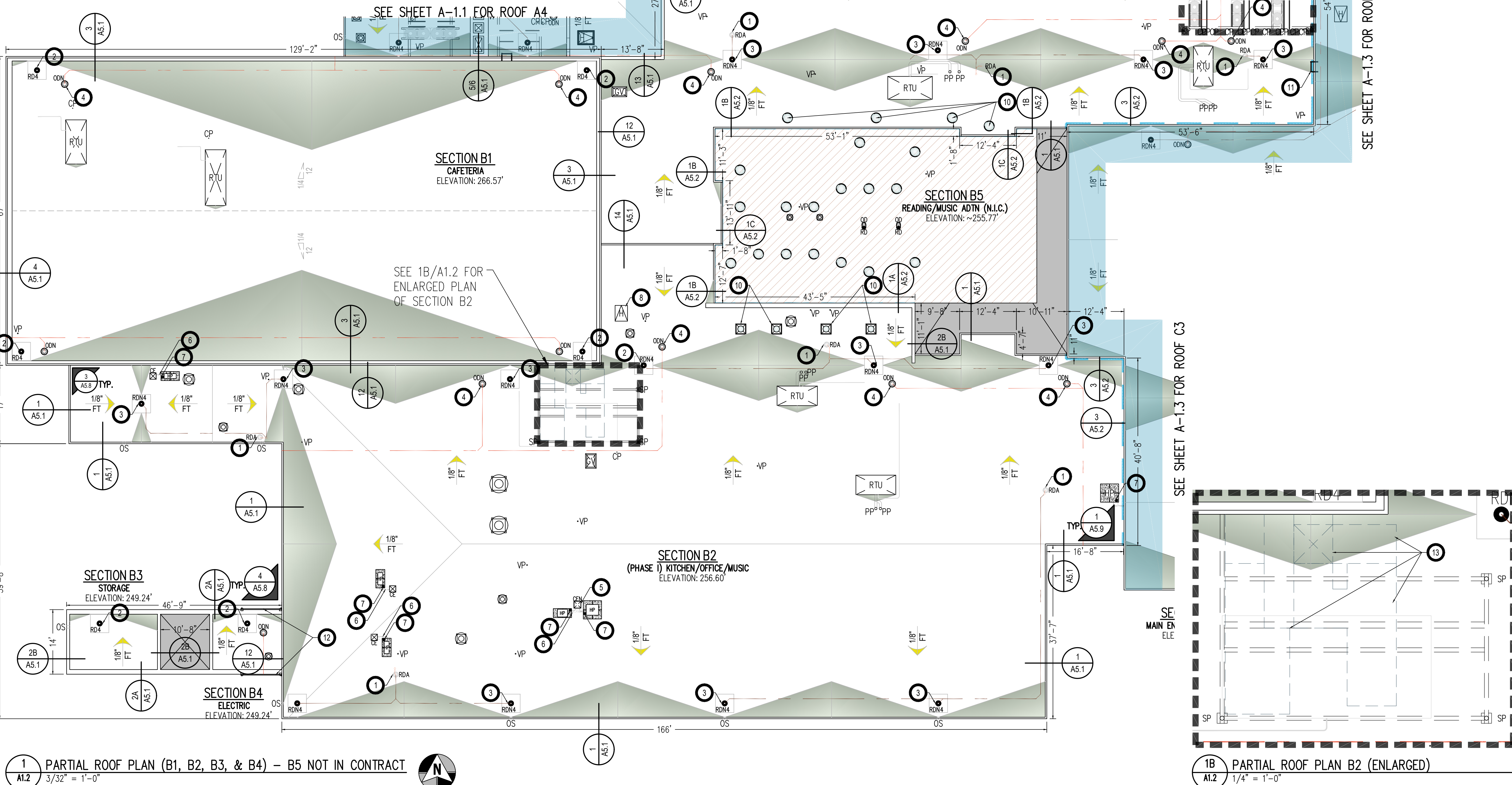
**A - 1.1**

3 OF 14



# LEGEND:

- EDGE OF ROOF/PARAPET
- EXISTING EXPANSION JOINT
- DECK SLOPE/ORIENTATION BOUNDARY
- APPROX. SLOPE OF EXISTING ROOF DECK
- SLOPE & ORIENTATION OF NEW TAPERED INSULATION
- SLOPE & ORIENTATION OF NEW TAPERED INSULATION CRICKETS; NOTE: CRICKETS TO BE FABRICATED FROM 1/2" PER FT TAPERED INSULATION WITH A 1:3 RATIO (RISE TO RUN) UNLESS OTHERWISE INDICATED
- EXIST ROOF DRAIN LOCATION TO BE ABANDONED
- EXIST ROOF DRAIN LOCATION TO REMAIN (NO. = DRN #), INSTALL NEW CAST IRON DRAIN
- APPROX. LOCATION/ORIENTATION OF EXIST DRAINLINE
- APPROX. LOCATION OF EXIST STORM DRAIN RISER
- INSTALL NEW CAST IRON DRAIN LINE
- NEW ROOF DRAIN LOCATION (NO. = DRN #)
- EXTENT OF DRAIN SUMP (4' SQUARE TYP.)
- EXIST OVERFLOW DRAIN LOCATION TO REMAIN
- NEW OVERFLOW DRAIN LOCATION
- INSTALL NEW OVERFLOW DRAIN LINE
- EXIST SCUPPER DRAIN TO BE REPLACED
- INSTALL 6x8 OVERFLOW SCUPPER (UNLESS OTHERWISE NOTED)
- EXIST GUTTER TO BE REPLACED
- EXIST DOWNSPOUT TO BE REPLACED
- EXIST CONDUCTOR HEAD TO BE REPLACED
- EXIST VENT PIPE TO REMAIN
- EXIST CONDUIT PENETRATION TO REMAIN
- EXIST CONDUIT ENCLOSURE TO REMAIN
- INSTALL NEW CONDUIT ENCLOSURE
- EXIST ELEC. & REFRIG. LINES TO BE MODIFIED/REROUTED SET ON NEW FOAM SUPPORTS (NOT SHOWN) W/ INTEGRAL "UNISTRUTS"
- SET EXIST HEAT PUMP ON NEW CONCRETE PAVERS
- EXIST SUPPORT PENETRATION TO REMAIN
- EXIST DUNNAGE & MECH. UNIT(S) TO REMAIN
- EXIST GOOSENECK VENT TO REMAIN
- EXIST EXHAUST FAN TO REMAIN
- EXIST GRAVITY VENT TO REMAIN
- EXIST ROOF HATCH TO BE REPLACED/NEW TO BE INSTALLED
- EXIST ACCESS LADDER TO BE REPLACED
- EXIST SKYLIGHTS/DAYLIGHTS TO BE REPLACED
- EXIST FENCE TO BE REPLACED WITH WALL-MOUNTED FENCE
- EXIST ROOFTOP UNIT TO REMAIN
- EXIST PIPE PENETRATION WITH LINES SET ON NEW FOAM SUPPORTS (NOT SHOWN ON PLAN) WITH INTEGRAL "UNISTRUTS"
- EXIST CONDENSATE LINE SET ON NEW FOAM SUPPORTS (NOT SHOWN ON PLAN) WITH INTEGRAL "UNISTRUTS"



# GENERAL CONSTRUCTION NOTES -- NEW WORK:

- BASE BID:
  - AT ROOF SECTIONS WITH STEEL ROOF DECKS (A1 & B1) INSTALL NEW 3"-THICK BASE LAYER OF POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING STEEL ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL 2"-THICK LAYER OF POLYISOCYANURATE INSULATION (AND TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
  - AT ROOF SECTIONS WITH GYPSUM ROOF DECKS (A2, A3, A4, B2, B3, B4, C1, C2, & C3) INSTALL NEW 3"-THICK BASE LAYER OF POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING GYPSUM ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
  - AT CANOPIES (C4, C5, C6, & C7) INSTALL NEW TAPERED POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING GYPSUM ROOF DECK OR SET IN ADHESIVE TO EXISTING CONCRETE ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
  - AT PERIMETER OF ROOF SECTIONS, INSTALL NEW AND OR SALVAGE BLOCKING AND PLYWOOD AS SHOWN ON DRAWINGS; INSTALL NEW PVC BASE FLASHINGS IAW MFCT.'S INSTRUCTIONS AND AS SHOWN ON DRAWINGS. FABRICATE AND INSTALL NEW NEW PREFINISHED ALUMINUM FLASHINGS AS SHOWN ON DRAWINGS
  - REMOVE AND RESET EXISTING BRICK MASONRY AT THROUGH-WALL JOINTS AS REQUIRED TO INSTALL NEW THROUGH-WALL FLASHINGS
  - INSTALL NEW MULTIPLE CONDUIT ENCLOSURE HOUSING AT LOCATION(S) INDICATED AND ENGAGE LICENSED MECHANICAL/ELECTRICAL CONTRACTOR(S) TO REROUTE EXISTING ELECTRICAL/REFRIGERANT LINES THROUGH NEW HOUSINGS AS SHOWN ON PLAN
  - INSTALL PVC WALKWAY PADS AS SHOWN ON PLAN 2/A1.0
  - INSTALL NEW ROOF DRAINS, OVERFLOW ROOF DRAINS, AND ASSOCIATED DRAIN LINES AS SHOWN ON DRAWINGS (SEE KEYED NOTES)
  - INSTALL NEW OVERFLOW SCUPPERS
  - REPLACE EXISTING & INSTALL NEW ROOF HATCHES
  - REPLACE EXISTING SKYLIGHTS AND DAYLIGHTS
  - REPLACE EXISTING LADDERS
  - REPLACE EXISTING FENCE
  - MODIFY/REPLACE EXISTING DUCT WORK
  - IN CONJUNCTION WITH ROOF REPLACEMENT WORK, CONTRACTOR TO PERFORM REPAIRS TO EXISTING BRICK MASONRY FACADE (AT ROOF AREAS) INCLUDING:
    - ISOLATED REPOINTING OF MORTAR JOINTS IN BRICK MASONRY VENEER
    - REPLACEMENT OF EXISTING SEALANT AT CONTROL JOINTS IN BRICK MASONRY FACADE

# NEW WORK PLAN -- KEYED ROOFING NOTES:

- EXISTING ROOF DRAIN LOCATION TO BE ABANDONED; SEE DEMO PLAN
- REPLACE EXISTING DRAIN BODY WITH NEW CAST IRON DRAIN BOWL AND CONNECT TO EXISTING DRAIN LINE IAW APPLICABLE PLUMBING CODE REQUIREMENTS; WATER TEST DRAIN AND DRAIN LINE; INSULATE DRAIN BOWL AND LINE
- INSTALL NEW DRAIN BODY WITH NEW CAST IRON DRAIN BOWL AND INSTALL NEW CAST IRON PIPING AS REQUIRED TO CONNECT TO EXISTING DRAIN LINE IAW APPLICABLE PLUMBING CODE REQUIREMENTS (NOTE THAT CONFIGURATION OF NEW DRAIN LINE IS SCHEMATIC ONLY AND ROOFER/PLUMBER MUST INVESTIGATE EXISTING CONDITIONS TO DETERMINE OPTIMUM LAYOUT FOR NEW DRAIN LINES); WATER TEST DRAIN AND DRAIN LINE; INSULATE DRAIN BOWL AND LINE
- INSTALL NEW OVERFLOW CAST IRON DRAIN BOWL AND OVERFLOW DRAIN LINE AND EXTEND THROUGH EXTERIOR WALL AND TERMINATE WITH BRONZE LAMB'S TONGUE AS SHOWN ON DETAILS 5/A5.3 AND 6/A5.3 (NOTE THAT CONFIGURATION/LOCATION OF NEW OVERFLOW DRAIN AND ASSOCIATED DRAINS ARE SCHEMATIC ONLY AND ROOFER/PLUMBER MUST INVESTIGATE EXISTING CONDITIONS TO DETERMINE OPTIMUM LAYOUT FOR NEW OVERFLOW DRAIN LINES); INSULATE OVERFLOW DRAIN BOWL AND DRAIN LINE
- INSTALL NEW, PRE-MANUFACTURED, MULTIPLE CONDUIT ENCLOSURE, WITH INSULATED HOUSING AND INTEGRAL REMOVABLE HOODS AND INSULATED CONNECTIONS; INSTALL AS SHOWN ON DETAIL 5/A5.4 AND IAW MFCT.'S INSTRUCTIONS; NOTE THAT EXACT LOCATION OF CONDUIT ENCLOSURE MAY VARY DEPENDING UPON OPTIMUM LOCATION WITHIN THE CEILING SPACE
- ENGAGE QUALIFIED MECHANICAL/ELECTRICAL SUBCONTRACTOR(S) TO REROUTE EXISTING ELECTRICAL AND REFRIGERANT LINES THROUGH EXISTING OR NEW CONDUIT ENCLOSURE(S) AND THROUGH SIDE WALL OF NEW INSULATED ENCLOSURE HOUSING IAW MFCT.'S INSTRUCTIONS USING APPROVED FITTINGS; TEST EQUIPMENT TO VERIFY PROPER OPERATION, INSULATE ALL REFRIGERANT LINES IAW APPLICABLE CODE REQUIREMENTS
- INSTALL NEW UNISTRUT SUPPORT/BASE PLATE TO NEW 24"x24"x2" THICK CONCRETE PAVES AT LOCATION INDICATED AND ATTACH EXISTING/NEW SHUT OFF SWITCH HOUSING IAW DETAIL 6/A5.4; ROUTE NEW ELECTRICAL CONDUIT TO SHUT OFF SWITCH IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES; SET PAVES ON PVC PROTECTIVE WALKPAD
- INSTALL NEW ROOF HATCH MATCHING SIZE OF ORIGINAL ROOF HATCH AT EXISTING HATCH LOCATION
- INSTALL NEW SKYLIGHT ASSEMBLY IAW MFCT.'S INSTRUCTIONS (SEE DETAIL 3/A5.6)
- INSTALL NEW DAYLIGHT ASSEMBLY IAW MFCT.'S INSTRUCTIONS (SEE DETAILS 1/A5.7 AND 2/A5.7)
- FABRICATE AND INSTALL NEW LADDER IAW DETAIL 1/A5.6
- FABRICATE AND INSTALL NEW FENCE IAW DETAIL 2/A5.6
- MECHANICAL CONTRACTOR TO REINSTALL ASSOCIATED DUCTWORK FOLLOWING COMPLETION OF ROOFING/FLASHING INSTALLATION; CONTRACTOR TO COORDINATE WORK WITH MECHANICAL CONTRACTOR WHO WILL BE PERFORMING KITCHEN/MECHANICAL RENOVATION WORK CONCURRENT WITH ROOF REPLACEMENT WORK

#	DATE	SUBMISSIONS/REVISIONS
01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET

<b>ROOF REPLACEMENT</b> <b>JOHN ADAMS ELEMENTARY SCHOOLS</b> ALEXANDRIA CITY PUBLIC SCHOOLS 5651 RAYBURN AVENUE ALEXANDRIA, VIRGINIA 22331	<b>RESTORATION ENGINEERING, INC.</b> 10700 NEW GLEN DRIVE, SUITE 4 FARMERSVILLE, VA 22029 (703) 291-1111 FAX: (703) 291-1112 WWW.RENGR.COM
--	---

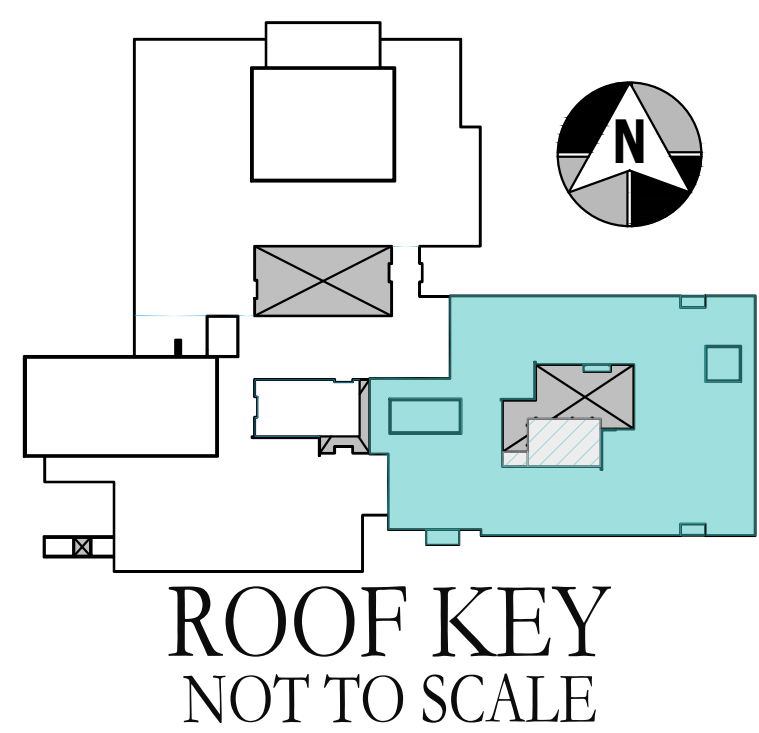
  

<b>PARTIAL ROOF PLAN</b> 03/11/2020 REP: GBG 908.024	BID SET AS NOTED 908.024
---	--------------------------------

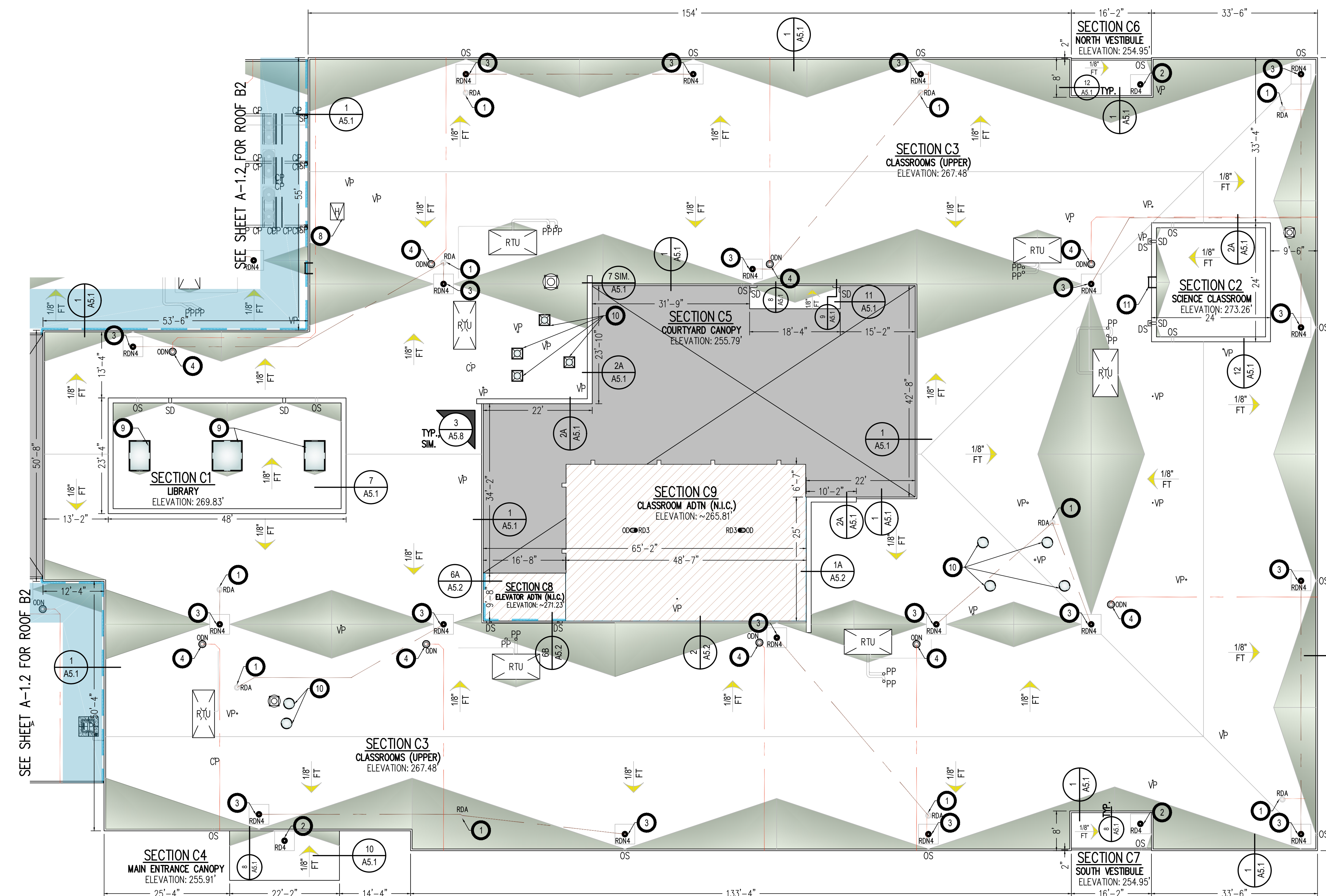
  

# A-1.2





ROOF KEY  
NOT TO SCALE



1 PARTIAL ROOF PLAN (C1, C2, C3, C4, C5, C6, & C7) - C8 & C9 NOT IN CONTRACT  
3/32" = 1'-0"


- LEGEND:**
- EDGE OF ROOF/PARAPET
  - EXISTING EXPANSION JOINT
  - DECK SLOPE/ORIENTATION BOUNDARY
  - APPROX. SLOPE OF EXISTING ROOF DECK
  - SLOPE & ORIENTATION OF NEW TAPERED INSULATION
  - SLOPE & ORIENTATION OF NEW TAPERED INSULATION CRICKETS;  
NOTE: CRICKETS TO BE FABRICATED FROM 1/2" PER FT TAPERED INSULATION WITH A 1:3 RATIO (RISE TO RUN) UNLESS OTHERWISE INDICATED
  - EXIST ROOF DRAIN LOCATION TO BE ABANDONED
  - EXIST ROOF DRAIN LOCATION TO REMAIN (NO. = DRN #),  
INSTALL NEW CAST IRON DRAIN
  - APPROX. LOCATION/ORIENTATION OF EXIST DRAINLINE
  - APPROX. LOCATION OF EXIST STORM DRAIN RISER
  - INSTALL NEW CAST IRON DRAIN LINE
  - NEW ROOF DRAIN LOCATION (NO. = DRN #)
  - EXTENT OF DRAIN SUMP (4' SQUARE TYP.)
  - EXIST OVERFLOW DRAIN LOCATION TO REMAIN
  - NEW OVERFLOW DRAIN LOCATION
  - INSTALL NEW OVERFLOW DRAIN LINE
  - EXIST SCUPPER DRAIN TO BE REPLACED
  - INSTALL 6x8 OVERFLOW SCUPPER (UNLESS OTHERWISE NOTED)
  - EXIST GUTTER TO BE REPLACED
  - EXIST DOWNSPOUT TO BE REPLACED
  - EXIST CONDUCTOR HEAD TO BE REPLACED
  - EXIST VENT PIPE TO REMAIN
  - EXIST CONDUIT PENETRATION TO REMAIN
  - EXIST CONDUIT ENCLOSURE TO REMAIN
  - INSTALL NEW CONDUIT ENCLOSURE
  - EXIST ELECT. & REFRIG. LINES TO BE MODIFIED/REROUTED SET ON NEW FOAM SUPPORTS (NOT SHOWN) W/ INTEGRAL "UNISTRUTS"
  - SET EXIST HEAT PUMP ON NEW CONCRETE PAVERS
  - EXIST SUPPORT PENETRATION TO REMAIN
  - EXIST DUNNAGE & MECH. UNIT(S) TO REMAIN
  - EXIST GOOSENECK VENT TO REMAIN
  - EXIST EXHAUST FAN TO REMAIN
  - EXIST GRAVITY VENT TO REMAIN
  - EXIST ROOF HATCH TO BE REPLACED/NEW TO BE INSTALLED
  - EXIST ACCESS LADDER TO BE REPLACED
  - EXIST SKYLIGHTS/DAYLIGHTS TO BE REPLACED
  - EXIST FENCE TO BE REPLACED WITH WALL-MOUNTED FENCE
  - EXIST ROOFTOP UNIT TO REMAIN
  - EXIST PIPE PENETRATION WITH LINES SET ON NEW FOAM SUPPORTS (NOT SHOWN ON PLAN) WITH INTEGRAL "UNISTRUTS"
  - EXIST CONDENSATE LINE SET ON NEW FOAM SUPPORTS (NOT SHOWN ON PLAN) WITH INTEGRAL "UNISTRUTS"

**GENERAL CONSTRUCTION NOTES -- NEW WORK:**

1. **BASE BID:**
  - 1.1. AT ROOF SECTIONS WITH STEEL ROOF DECKS (A1 & B1) INSTALL NEW 3"-THICK BASE LAYER OF POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING STEEL ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL 2"-THICK LAYER OF POLYISOCYANURATE INSULATION (AND TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
  - 1.2. AT ROOF SECTIONS WITH GYPSUM ROOF DECKS (A2, A3, A4, B2, B3, B4, C1, C2, & C3) INSTALL NEW 3"-THICK BASE LAYER OF POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING GYPSUM ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
  - 1.3. AT CANOPIES (C4, C5, C6, & C7) INSTALL NEW TAPERED POLYISOCYANURATE INSULATION AND MECHANICALLY FASTEN TO EXISTING GYPSUM ROOF DECK OR SET IN ADHESIVE TO EXISTING CONCRETE ROOF DECK IN ACCORDANCE WITH APPROVED SHOP DRAWINGS; INSTALL ADDITIONAL TAPERED POLYISO INSULATION CRICKETS IN LOCATIONS INDICATED) SET IN MFCT.'S RECOMMENDED POLYURETHANE ADHESIVE; INSTALL MFCT.'S APPROVED COVERBOARD IN APPROVED SPRAY ADHESIVE; INSTALL REINFORCED, FULLY-ADHERED, 60-MIL PVC ROOFING MEMBRANE IAW MFCT.'S INSTRUCTIONS USING MFCT.'S APPROVED ADHESIVE.
  - 1.4. AT PERIMETER OF ROOF SECTIONS, INSTALL NEW AND/OR SALVAGE BLOCKING AND PLYWOOD AS SHOWN ON DRAWINGS; INSTALL NEW PVC BASE FLASHINGS IAW MFCT.'S INSTRUCTIONS AND AS SHOWN ON DRAWINGS. FABRICATE AND INSTALL NEW NEW PREFINISHED ALUMINUM FLASHINGS AS SHOWN ON DRAWINGS
  - 1.5. REMOVE AND RESET EXISTING BRICK MASONRY AT THROUGH-WALL JOINTS AS REQUIRED TO INSTALL NEW THROUGH-WALL FLASHINGS
  - 1.6. INSTALL NEW MULTIPLE CONDUIT ENCLOSURE HOUSING AT LOCATION(S) INDICATED AND ENGAGE LICENSED MECHANICAL/ELECTRICAL CONTRACTOR(S) TO REROUTE EXISTING ELECTRICAL/REFRIGERANT LINES THROUGH NEW HOUSINGS AS SHOWN ON PLAN
  - 1.7. INSTALL PVC WALKWAY PADS AS SHOWN ON PLAN 2/A1.0
  - 1.8. INSTALL NEW ROOF DRAINS, OVERFLOW ROOF DRAINS, AND ASSOCIATED DRAIN LINES AS SHOWN ON DRAWINGS (SEE KEYED NOTES)
  - 1.9. INSTALL NEW OVERFLOW SCUPPERS
  - 1.10. REPLACE EXISTING & INSTALL NEW ROOF HATCHES
  - 1.11. REPLACE EXISTING SKYLIGHTS AND DAYLIGHTS
  - 1.12. REPLACE EXISTING LADDERS
  - 1.13. REPLACE EXISTING FENCE
  - 1.14. MODIFY/REPLACE EXISTING DUCT WORK
  - 1.15. IN CONJUNCTION WITH ROOF REPLACEMENT WORK, CONTRACTOR TO PERFORM REPAIRS TO EXISTING BRICK MASONRY FACADE (AT ROOF AREAS) INCLUDING:
    - 1.15.1. ISOLATED REPOINTING OF MORTAR JOINTS IN BRICK MASONRY VENEER
    - 1.15.2. REPLACEMENT OF EXISTING SEALANT AT CONTROL JOINTS IN BRICK MASONRY FACADE

**NEW WORK PLAN -- KEYED ROOFING NOTES:**

1. EXISTING ROOF DRAIN LOCATION TO BE ABANDONED; SEE DEMO PLAN
2. REPLACE EXISTING DRAIN BODY WITH NEW CAST IRON DRAIN BOWL AND CONNECT TO EXISTING DRAIN LINE IAW APPLICABLE PLUMBING CODE REQUIREMENTS; WATER TEST DRAIN AND DRAIN LINE; INSULATE DRAIN BOWL AND LINE
3. INSTALL NEW DRAIN BODY WITH NEW CAST IRON DRAIN BOWL AND INSTALL NEW CAST IRON PIPING AS REQUIRED TO CONNECT TO EXISTING DRAIN LINE IAW APPLICABLE PLUMBING CODE REQUIREMENTS (NOTE THAT CONFIGURATION OF NEW DRAIN LINE IS SCHEMATIC ONLY AND ROOFER/PLUMBER MUST INVESTIGATE EXISTING CONDITIONS TO DETERMINE OPTIMUM LAYOUT FOR NEW DRAIN LINES); WATER TEST DRAIN AND DRAIN LINE; INSULATE DRAIN BOWL AND DRAIN LINE
4. INSTALL NEW OVERFLOW CAST IRON DRAIN BOWL AND OVERFLOW DRAIN LINE AND EXTEND THROUGH EXTERIOR WALL AND TERMINATE WITH BRONZE LAMB'S TONGUE AS SHOWN ON DETAILS 5/A5.3 AND 6/A5.3 (NOTE THAT CONFIGURATION/LOCATION OF NEW OVERFLOW DRAIN AND ASSOCIATED DRAINS ARE SCHEMATIC ONLY AND ROOFER/PLUMBER MUST INVESTIGATE EXISTING CONDITIONS TO DETERMINE OPTIMUM LAYOUT FOR NEW OVERFLOW DRAIN LINES); INSULATE OVERFLOW DRAIN BOWL AND DRAIN LINE
5. INSTALL NEW, PRE-MANUFACTURED, MULTIPLE CONDUIT ENCLOSURE, WITH INSULATED HOUSING AND INTEGRAL REMOVABLE HOODS AND INSULATED CONNECTIONS; INSTALL AS SHOWN ON DETAIL 5/A5.4 AND IAW MFCT.'S INSTRUCTIONS; NOTE THAT EXACT LOCATION OF CONDUIT ENCLOSURE MAY VARY DEPENDING UPON OPTIMUM LOCATION WITHIN THE CEILING SPACE
6. ENGAGE QUALIFIED MECHANICAL/ELECTRICAL SUBCONTRACTOR(S) TO REROUTE EXISTING ELECTRICAL AND REFRIGERANT LINES THROUGH EXISTING OR NEW CONDUIT ENCLOSURE(S) AND THROUGH SIDE WALL OF NEW INSULATED ENCLOSURE HOUSING IAW MFCT.'S INSTRUCTIONS USING APPROVED FITTINGS; TEST EQUIPMENT TO VERIFY PROPER OPERATION, INSULATE ALL REFRIGERANT LINES IAW APPLICABLE CODE REQUIREMENTS
7. INSTALL NEW UNISTRUT SUPPORT/BASE PLATE TO NEW 24"x24"x2" THICK CONCRETE PAVES AT LOCATION INDICATED AND ATTACH EXISTING/NEW SHUT OFF SWITCH HOUSING IAW DETAIL 6/A5.4; ROUTE NEW ELECTRICAL CONDUIT TO SHUT OFF SWITCH IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES; SET PAVES ON PVC PROTECTIVE WALKPAD
8. INSTALL NEW ROOF HATCH MATCHING SIZE OF ORIGINAL ROOF HATCH AT EXISTING HATCH LOCATION
9. INSTALL NEW SKYLIGHT ASSEMBLY IAW MFCT.'S INSTRUCTIONS (SEE DETAIL 3/A5.6)
10. INSTALL NEW DAYLIGHT ASSEMBLY IAW MFCT.'S INSTRUCTIONS (SEE DETAILS 1/A5.7 AND 2/A5.7)
11. FABRICATE AND INSTALL NEW LADDER IAW DETAIL 1/A5.6
12. FABRICATE AND INSTALL NEW FENCE IAW DETAIL 2/A5.6
13. MECHANICAL CONTRACTOR TO REINSTALL ASSOCIATED DUCTWORK FOLLOWING COMPLETION OF ROOFING/FLASHING INSTALLATION; CONTRACTOR TO COORDINATE WORK WITH MECHANICAL CONTRACTOR WHO WILL BE PERFORMING KITCHEN/MECHANICAL RENOVATION WORK CONCURRENT WITH ROOF REPLACEMENT WORK

 RESTORATION ENGINEERING, INC. 1205 WEST OAK STREET FARMERSVILLE, VA 22029		ROOF REPLACEMENT		JOHN ADAMS ELEMENTARY SCHOOL		ALEXANDRIA CITY PUBLIC SCHOOLS		5651 RAYBURN AVENUE		ALEXANDRIA, VIRGINIA 22331	
		SUBMISSIONS/REVISIONS		#	DATE						
		01		02/11/2020	90% SUBMISSION SET						
		02		02/28/2020	95% SUBMISSION SET						
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								
03		03/11/2020	BID SET								

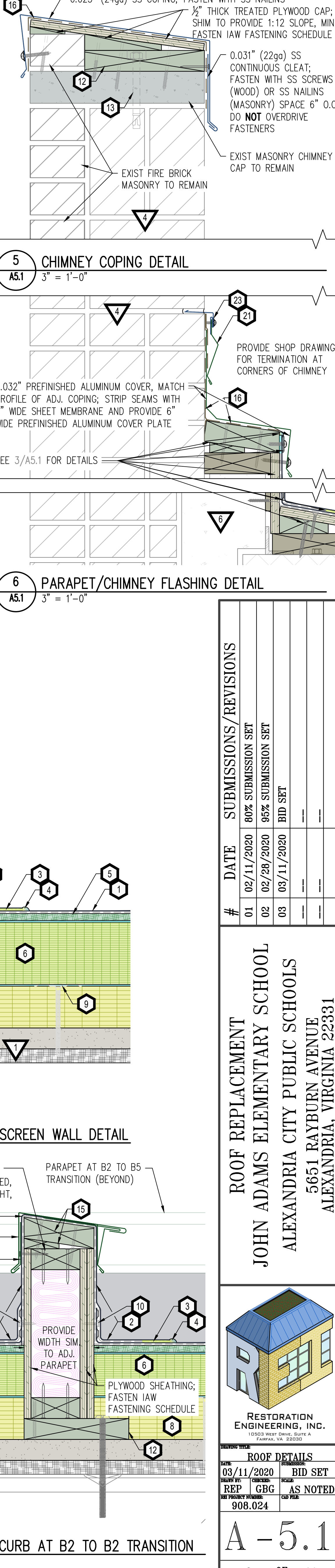
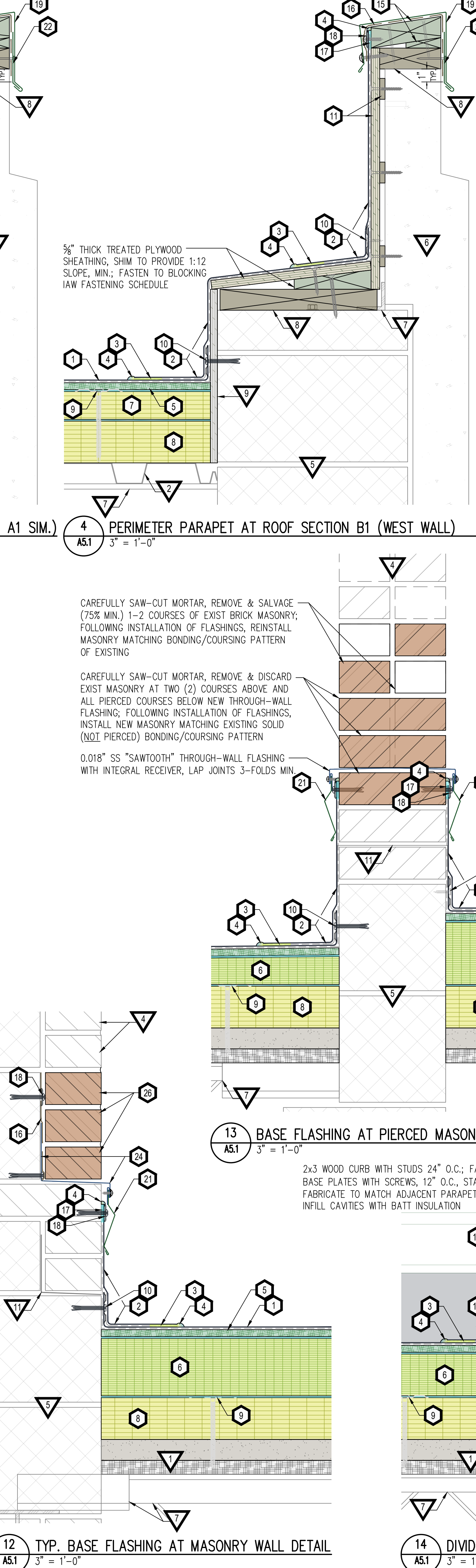
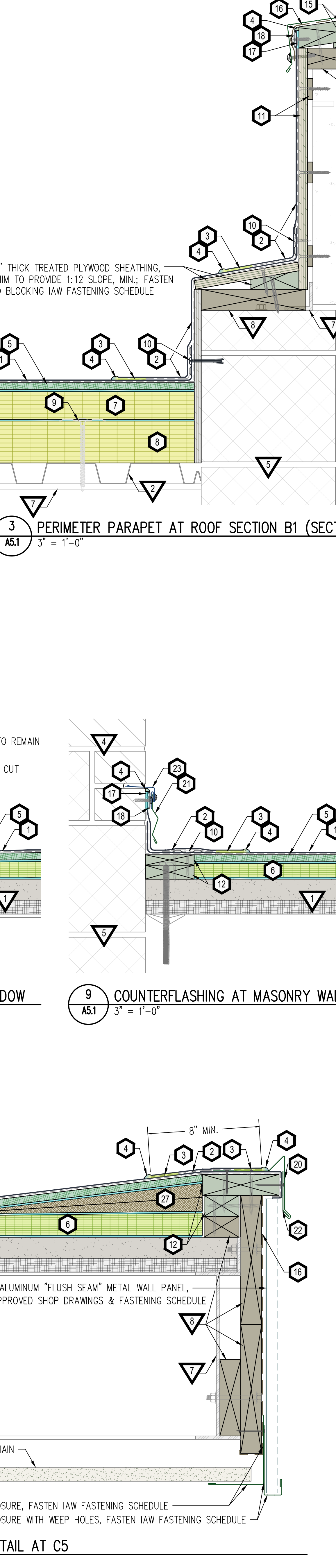
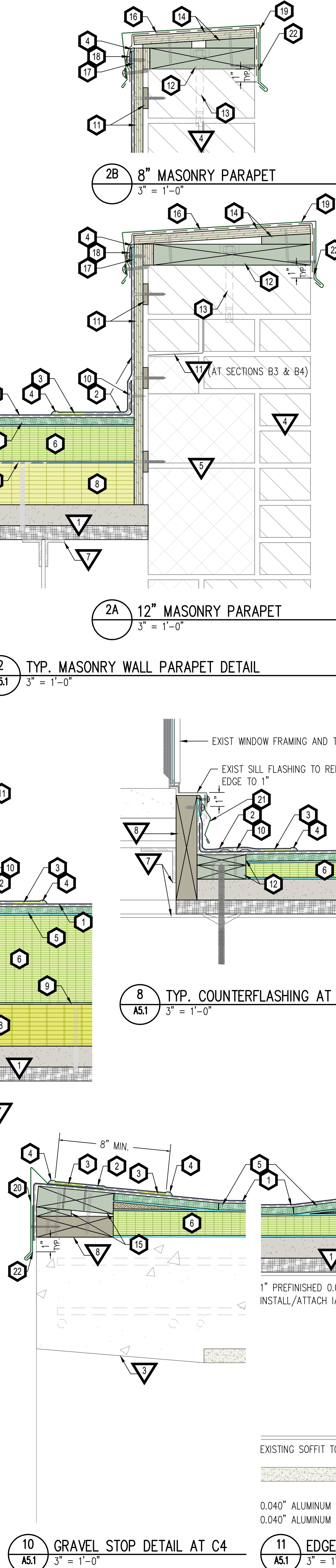
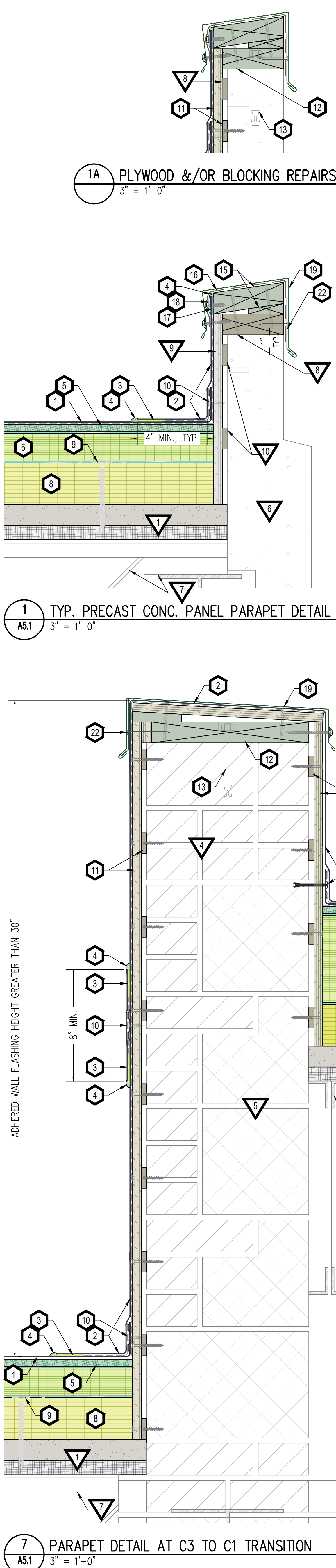


ROOF DETAILS -- KEYED NOTES:

- 1 60 MIL FIBERGLASS REINFORCED POLYVINYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2 MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3 HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4 LAP SEALANT
- 5 MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6 TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7 2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8 3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9 PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10 SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11 5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/8" Ø, 24" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12 TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13 SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14 5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15 2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16 SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION
- 17 WATER CUT OFF MASTIC
- 18 ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)
- 19 0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20 0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21 0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22 0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23 0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/ LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24 0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE; FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25 0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26 CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING
- 27 TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

- 1 EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2 EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3 EXIST CONCRETE DECK/SLAB TO REMAIN
- 4 EXIST BRICK MASONRY TO REMAIN
- 5 EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6 EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7 EXIST STEEL FRAMING TO REMAIN
- 8 EXIST WOOD BLOCKING TO REMAIN
- 9 EXIST PLYWOOD TO REMAIN
- 10 EXIST WOOD SHIM TO REMAIN
- 11 EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12 EXIST SINGLE-PLY MEMBRANE TO REMAIN



#	DATE	SUBMISSIONS/REVISIONS
01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET

ROOF REPLACEMENT	JOHN ADAMS ELEMENTARY SCHOOLS	ALEXANDRIA CITY PUBLIC SCHOOLS	5651 RAYBURN AVENUE	ALEXANDRIA, VIRGINIA 22331
------------------	-------------------------------	--------------------------------	---------------------	----------------------------

RESTORATION ENGINEERING, INC.	10700 NEW GLEN DRIVE, SUITE 4	FALLS CHURCH, VA 22034
-------------------------------	-------------------------------	------------------------

ROOF DETAILS	BID SET
03/11/2020	02/28/2020
REP	GBG
908.024	AS NOTED

A-5.1

6 OF 14



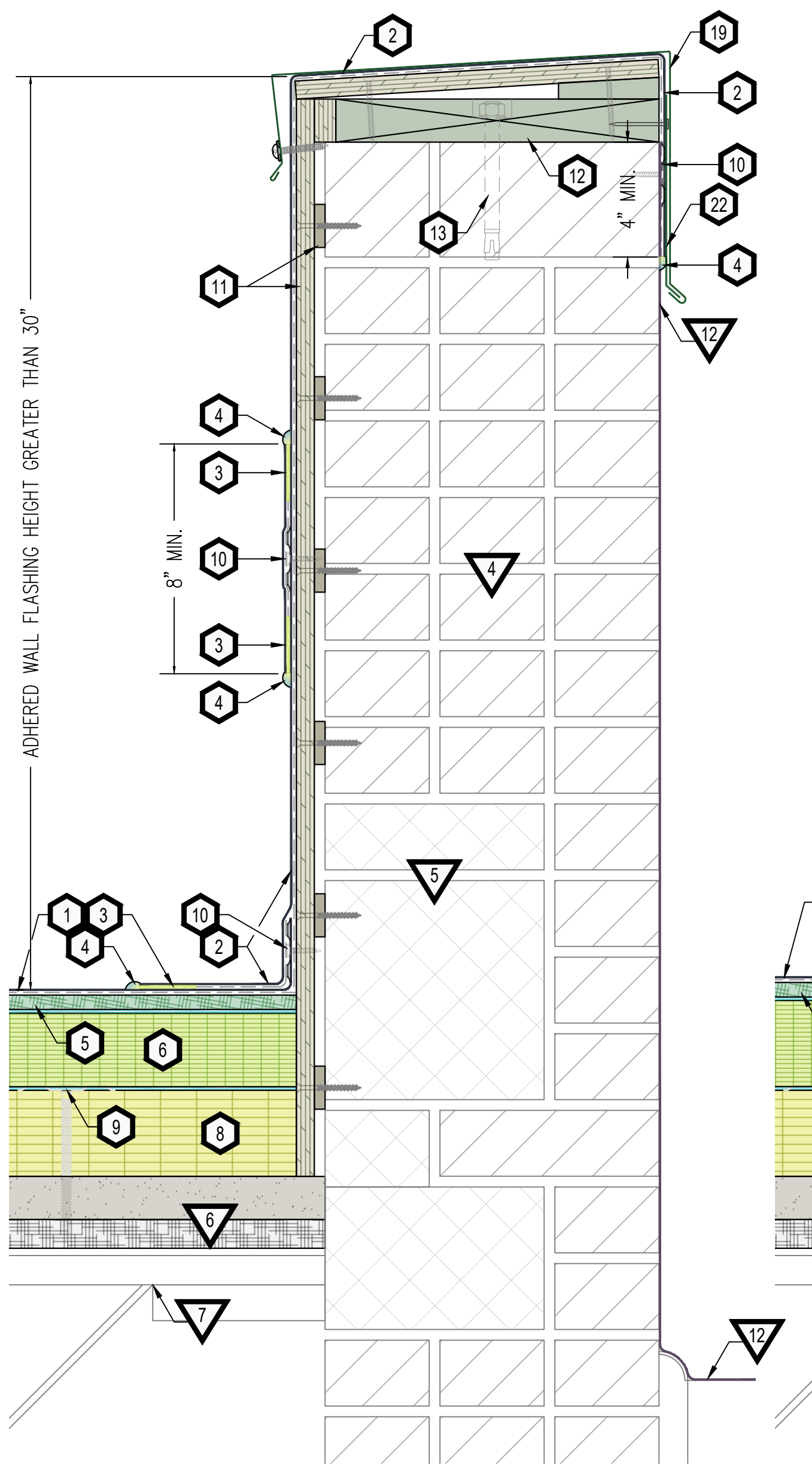
ROOF DETAILS -- KEYED NOTES:

- 1 60 MIL FIBERGLASS REINFORCED POLYVINYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2 MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3 HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4 LAP SEALANT
- 5 MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6 TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7 2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8 3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9 PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10 SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11 5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/8" Ø, 24" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12 TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13 SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14 5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15 2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16 SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION
- 17 WATER CUT OFF MASTIC
- 18 ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)

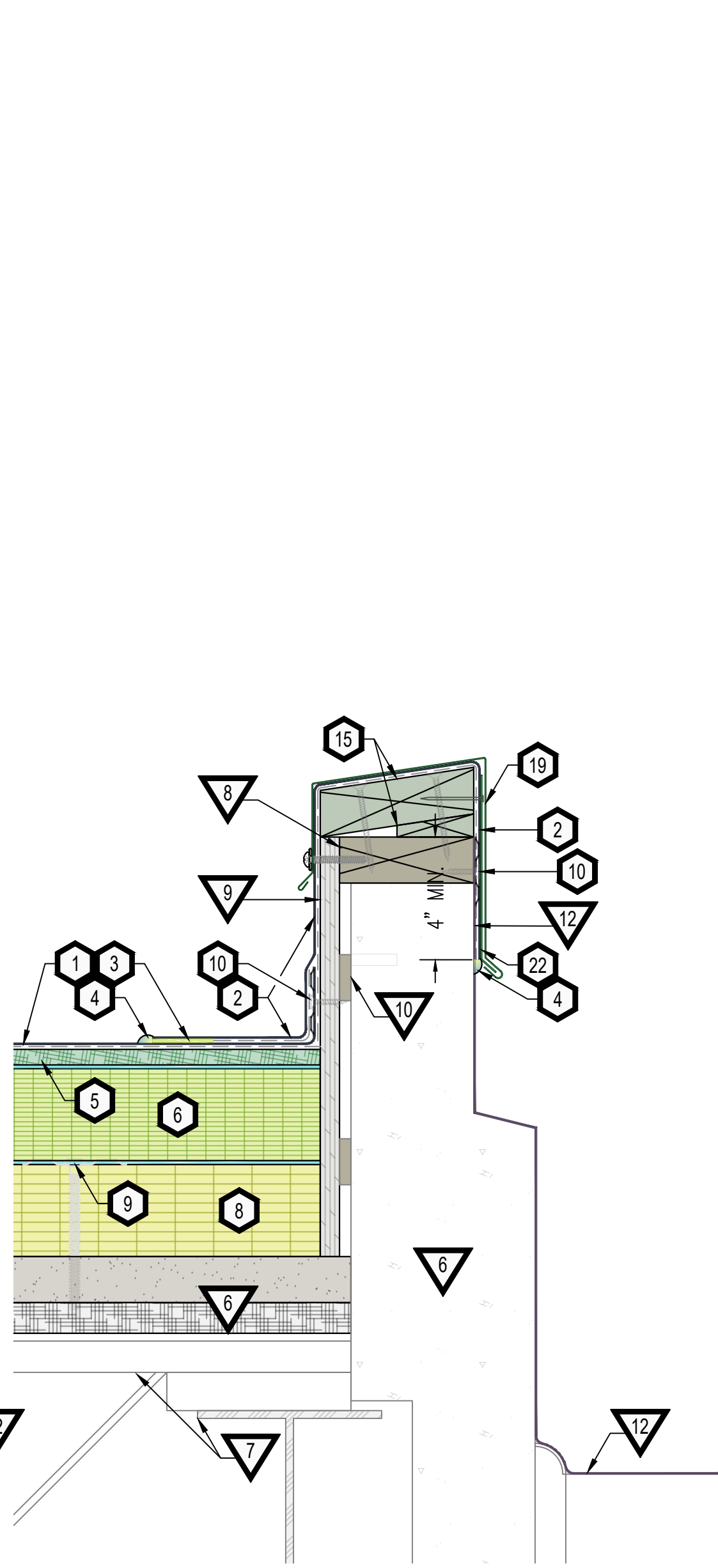
- 19 0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20 0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21 0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22 0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23 0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/ LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24 0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE, FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25 0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26 CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING OF EXISTING
- 27 TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

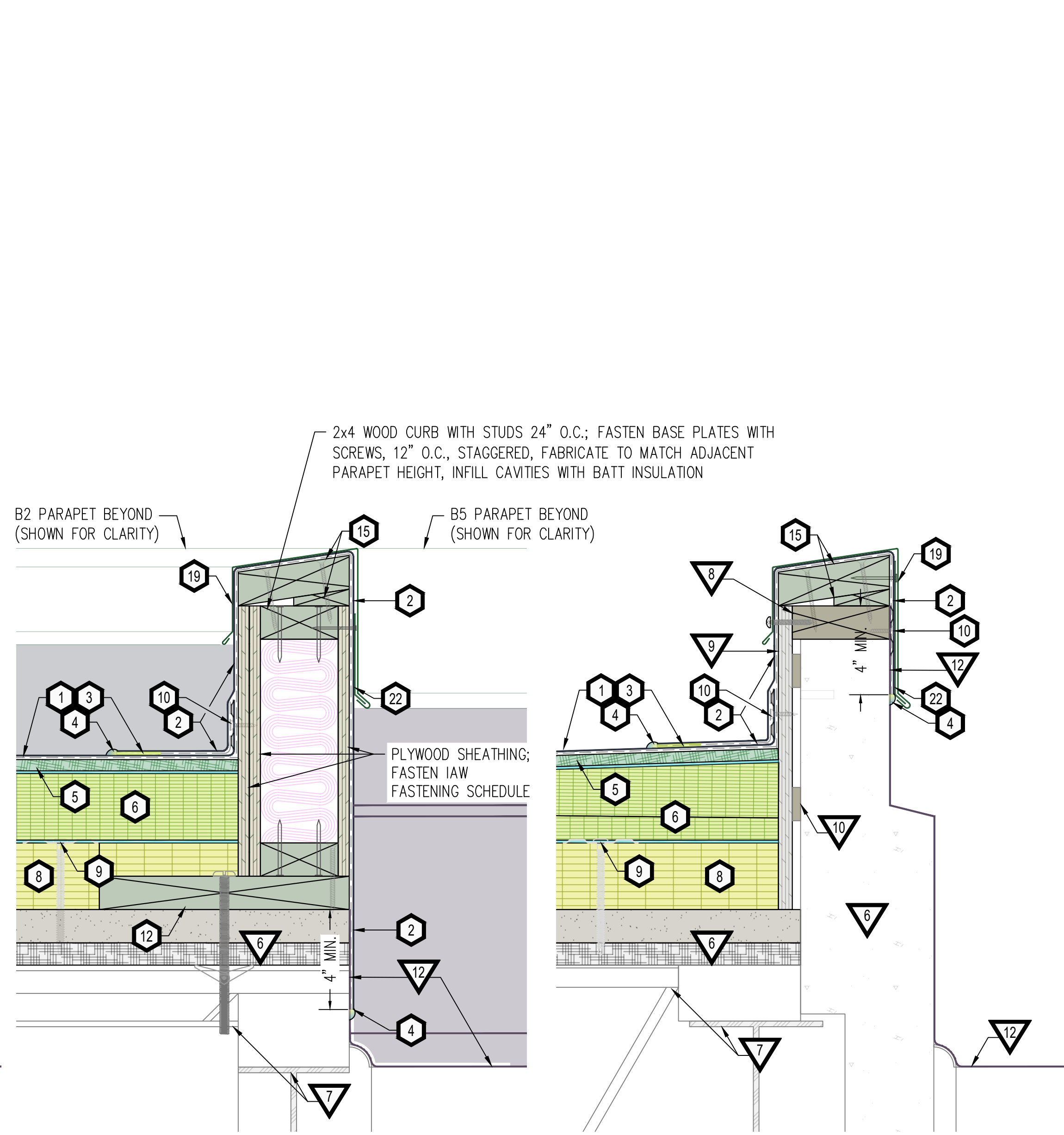
- 1 EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2 EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3 EXIST CONCRETE DECK/SLAB TO REMAIN
- 4 EXIST BRICK MASONRY TO REMAIN
- 5 EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6 EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7 EXIST STEEL FRAMING TO REMAIN
- 8 EXIST WOOD BLOCKING TO REMAIN
- 9 EXIST PLYWOOD TO REMAIN
- 10 EXIST WOOD SHIM TO REMAIN
- 11 EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12 EXIST SINGLE-PLY MEMBRANE TO REMAIN



1A TRANSITION AT MASONRY WALL PARAPET

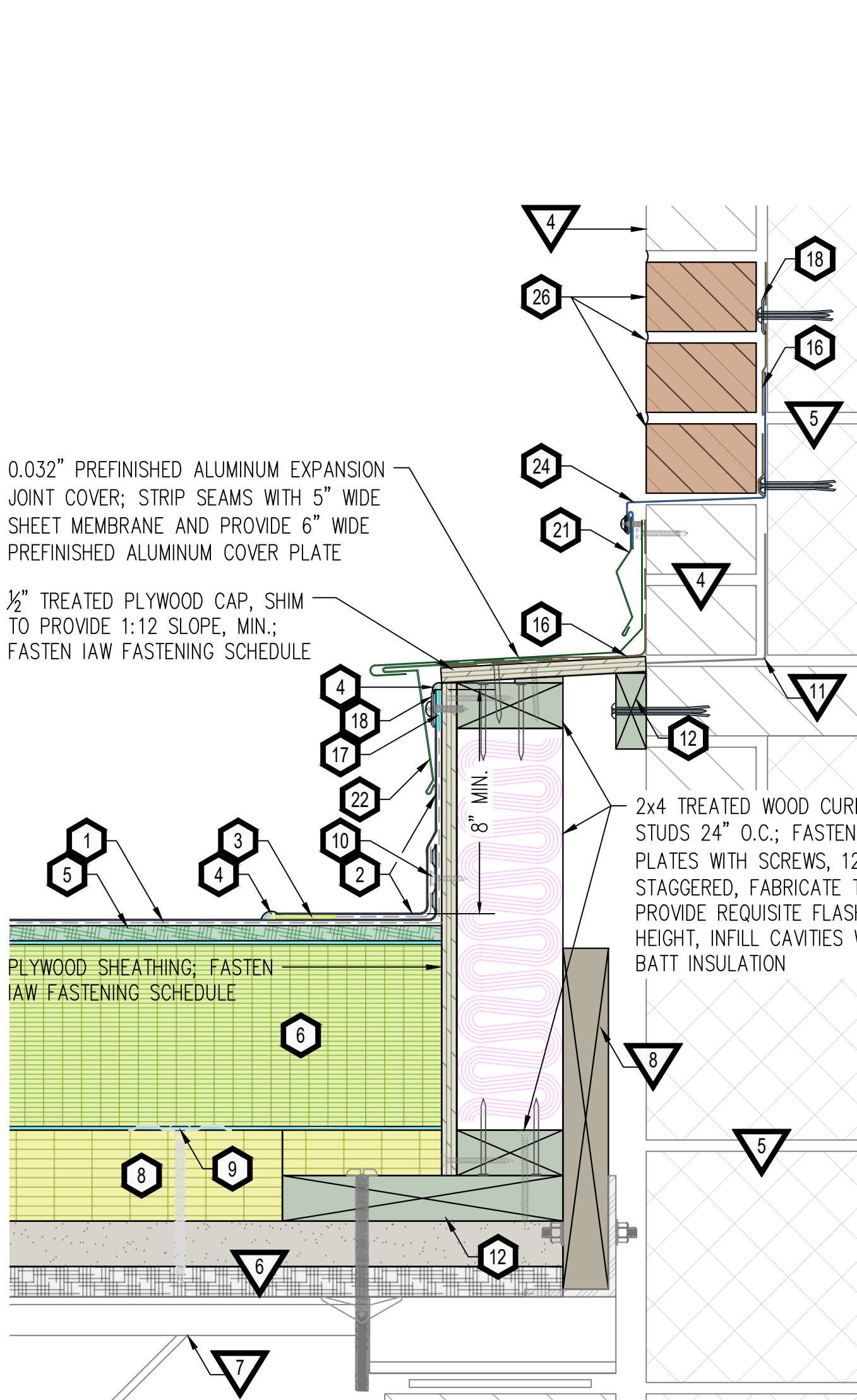


1B TRANSITION AT PRECAST CONCRETE PARAPET

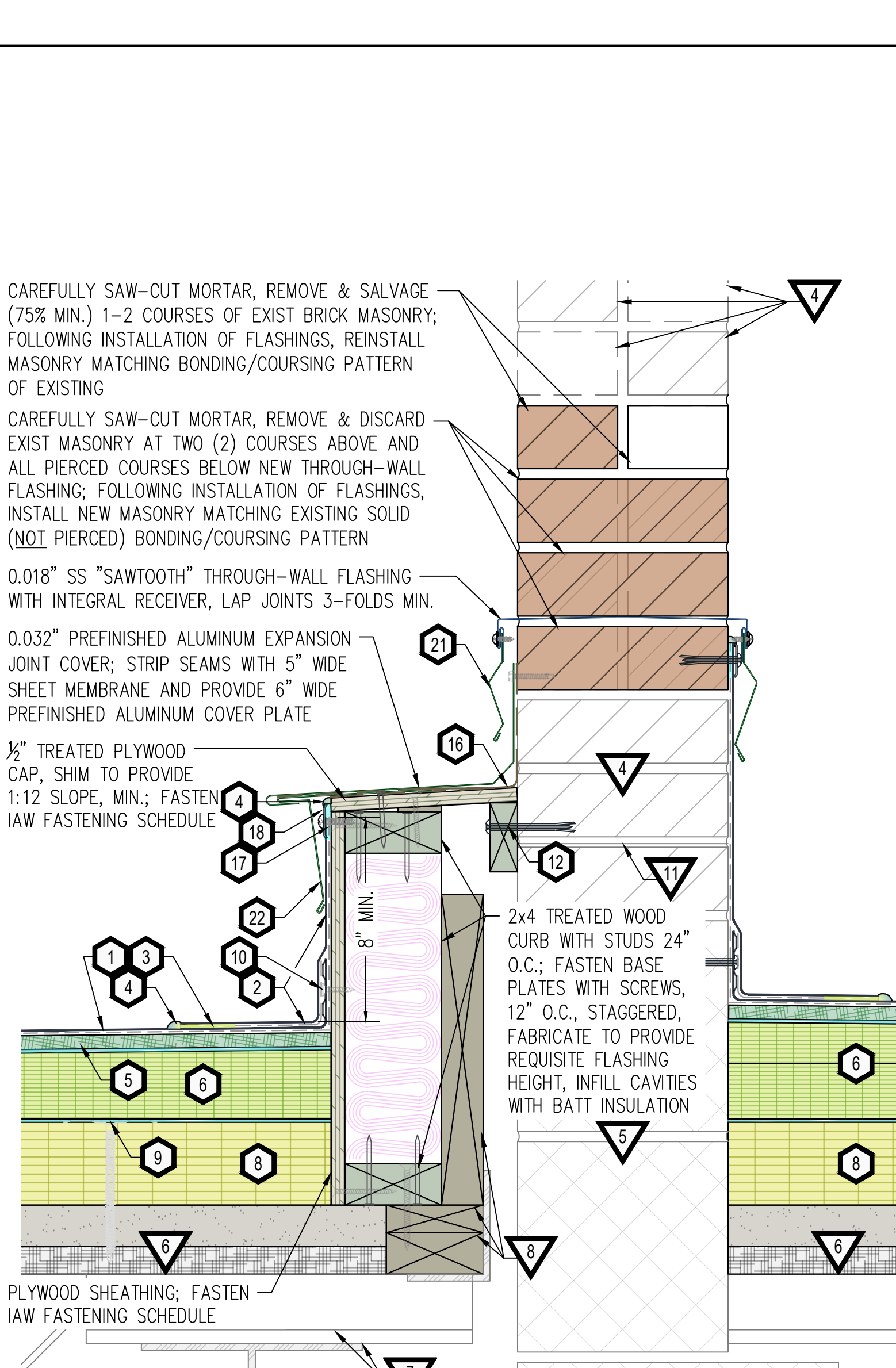


1C TRANSITION AT NEW CURB

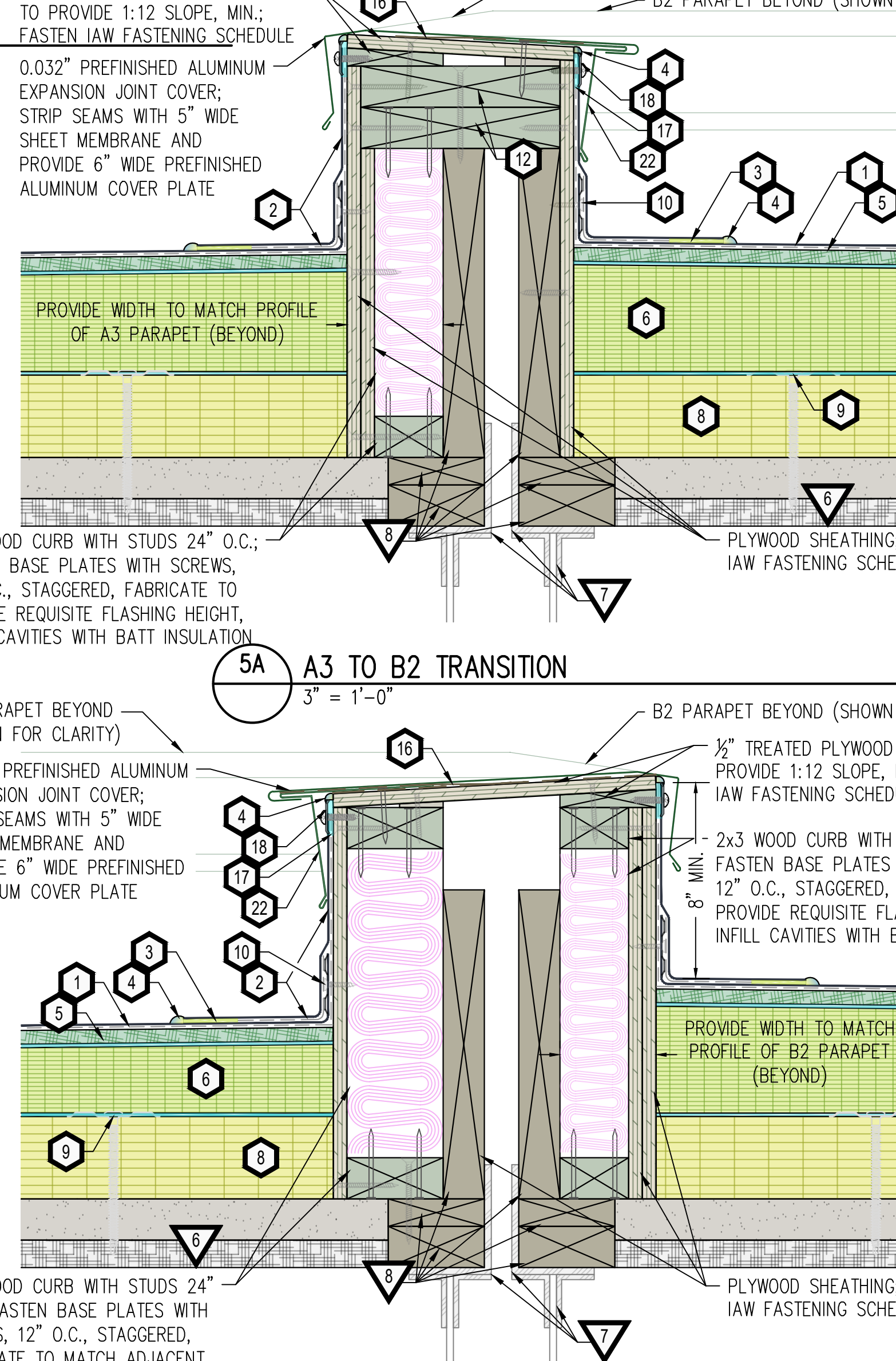
1 TIE-IN DETAILS AT B2 TO B5 TRANSITION  
3\"/>



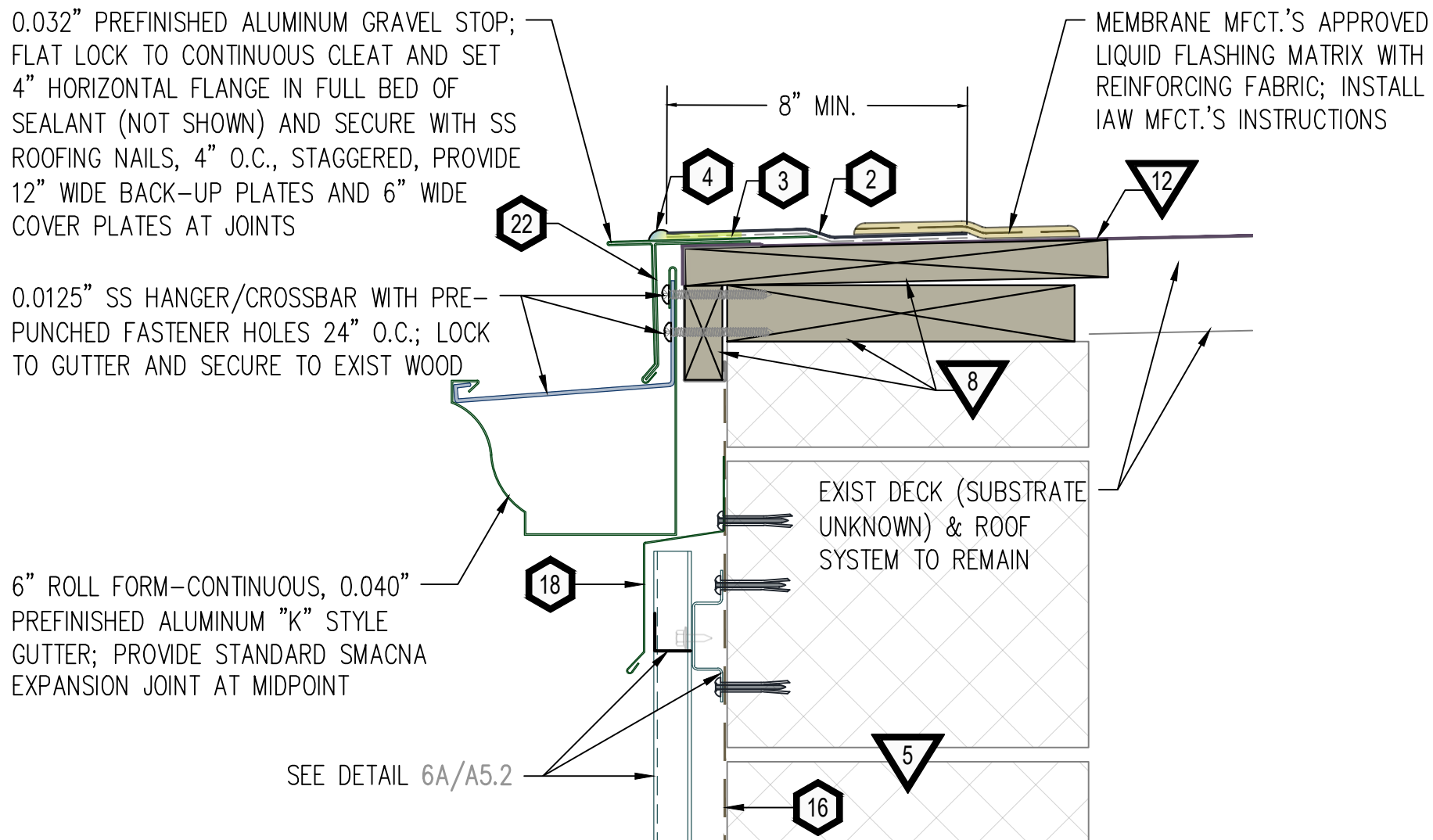
3 TYPICAL EXPANSION JOINT AT MASONRY WALL DETAIL  
3\"/>



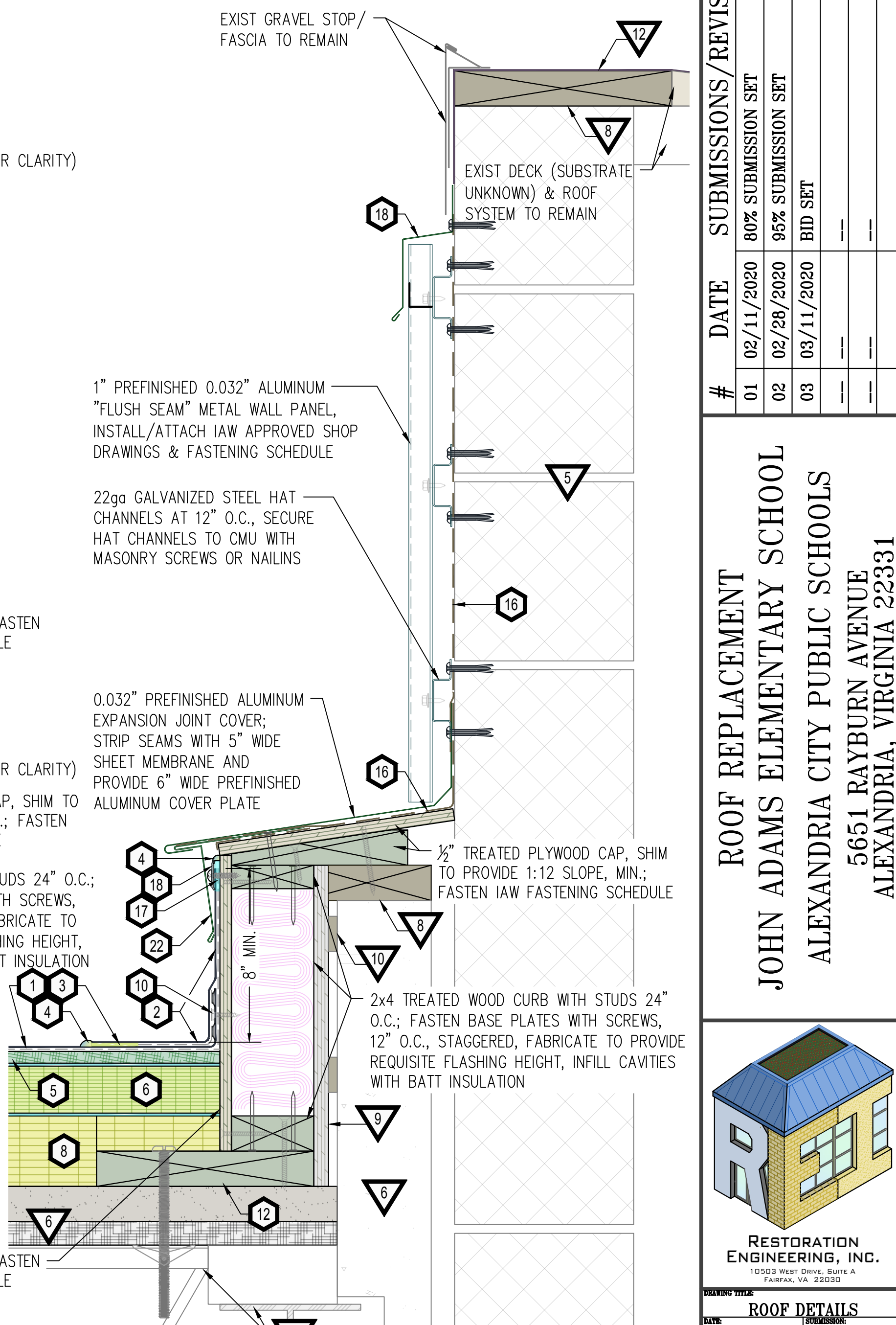
4 EXPANSION JOINT AT PIERCED MASONRY SCREEN WALL DETAIL  
3\"/>



5 TYPICAL EXPANSION JOINT CURB DETAIL  
3\"/>



6B GUTTER & TIE-IN  
3\"/>



6A EXPANSION JOINT CURB & TIE-IN  
3\"/>

#	DATE	SUBMISSIONS/REVISIONS
01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET

ROOF REPLACEMENT	JOHN ADAMS ELEMENTARY SCHOOLS
	ALEXANDRIA CITY PUBLIC SCHOOLS
	5651 RAYBURN AVENUE
	ALEXANDRIA, VIRGINIA 22331

RESTORATION ENGINEERING, INC.	ROOF DETAILS
10700 NEW GLEN DRIVE, SUITE 4	03/11/2020
FARMERSVILLE, VA 22030	REP GBG
	AS NOTED
	908.024

A-5.2
-------

7 OF 14

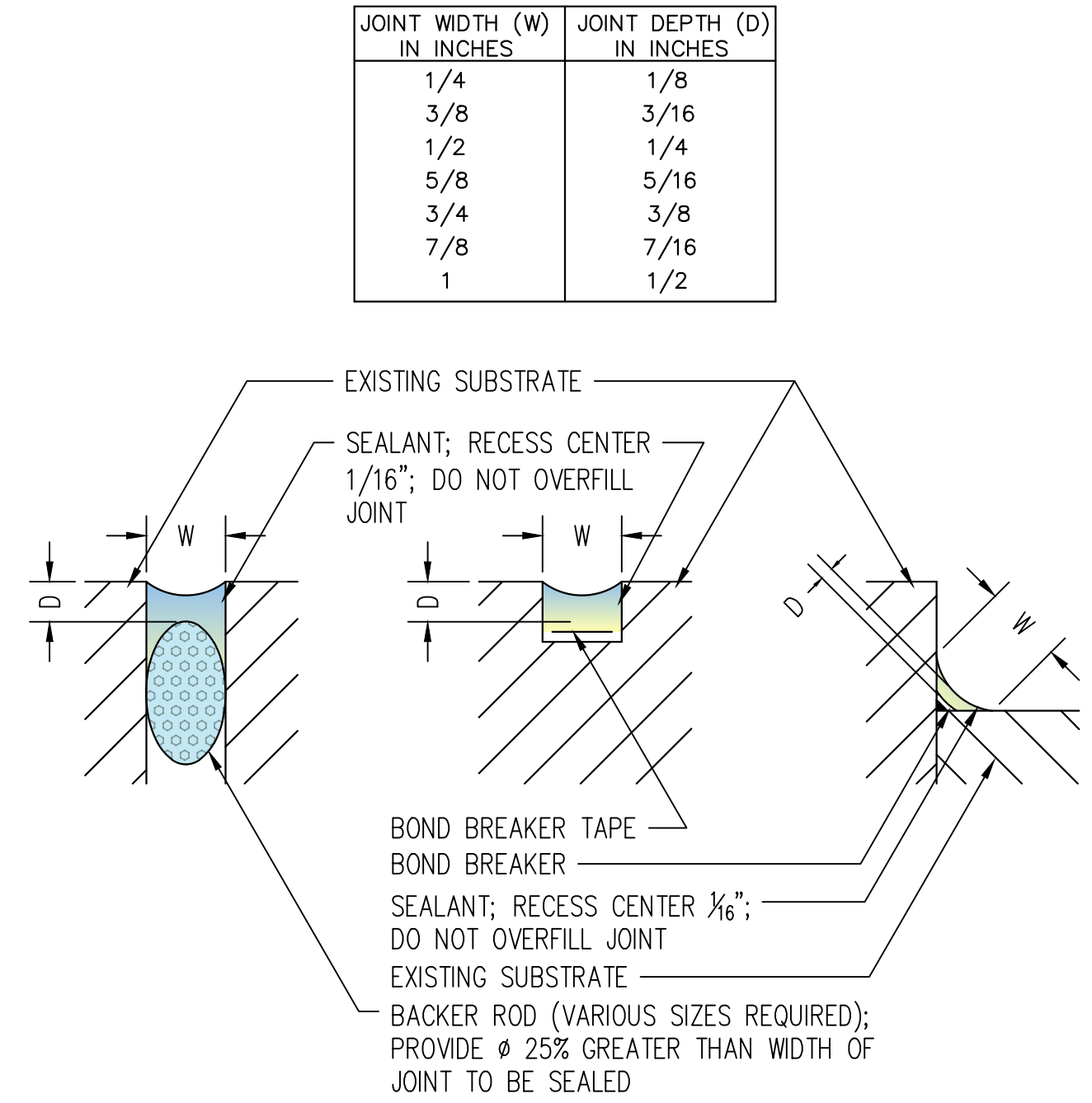


ROOF DETAILS – KEYED NOTES:

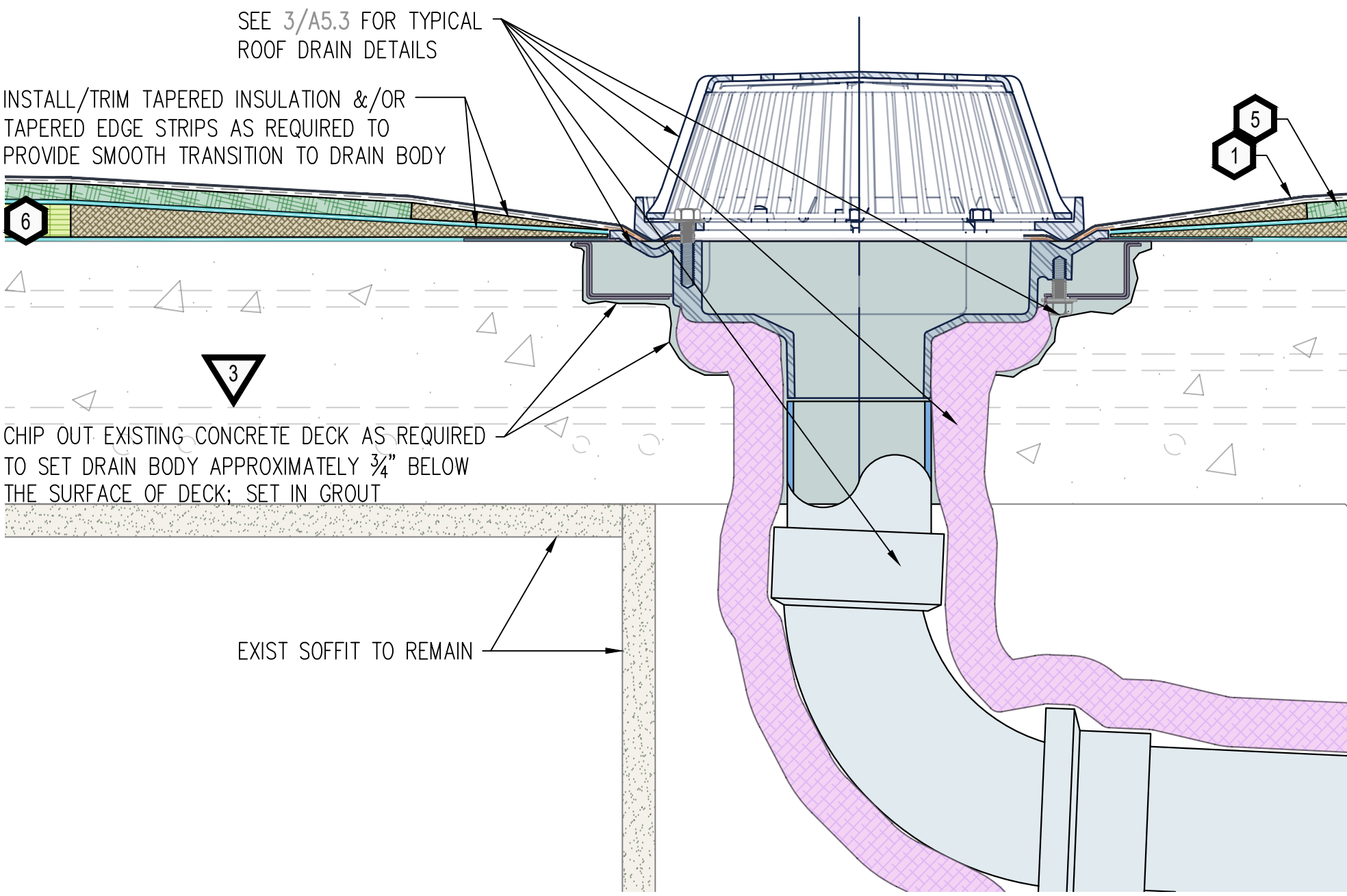
- 1 60 MIL FIBERGLASS REINFORCED POLYVINYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2 MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3 HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4 LAP SEALANT
- 5 MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6 TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7 2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8 3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9 PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10 SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11 5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/8" Ø, 24" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12 TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13 SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14 5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15 2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16 SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION
- 17 WATER CUT OFF MASTIC
- 18 ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)
- 19 0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20 0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21 0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22 0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23 0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24 0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE; FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25 0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26 CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING
- 27 TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

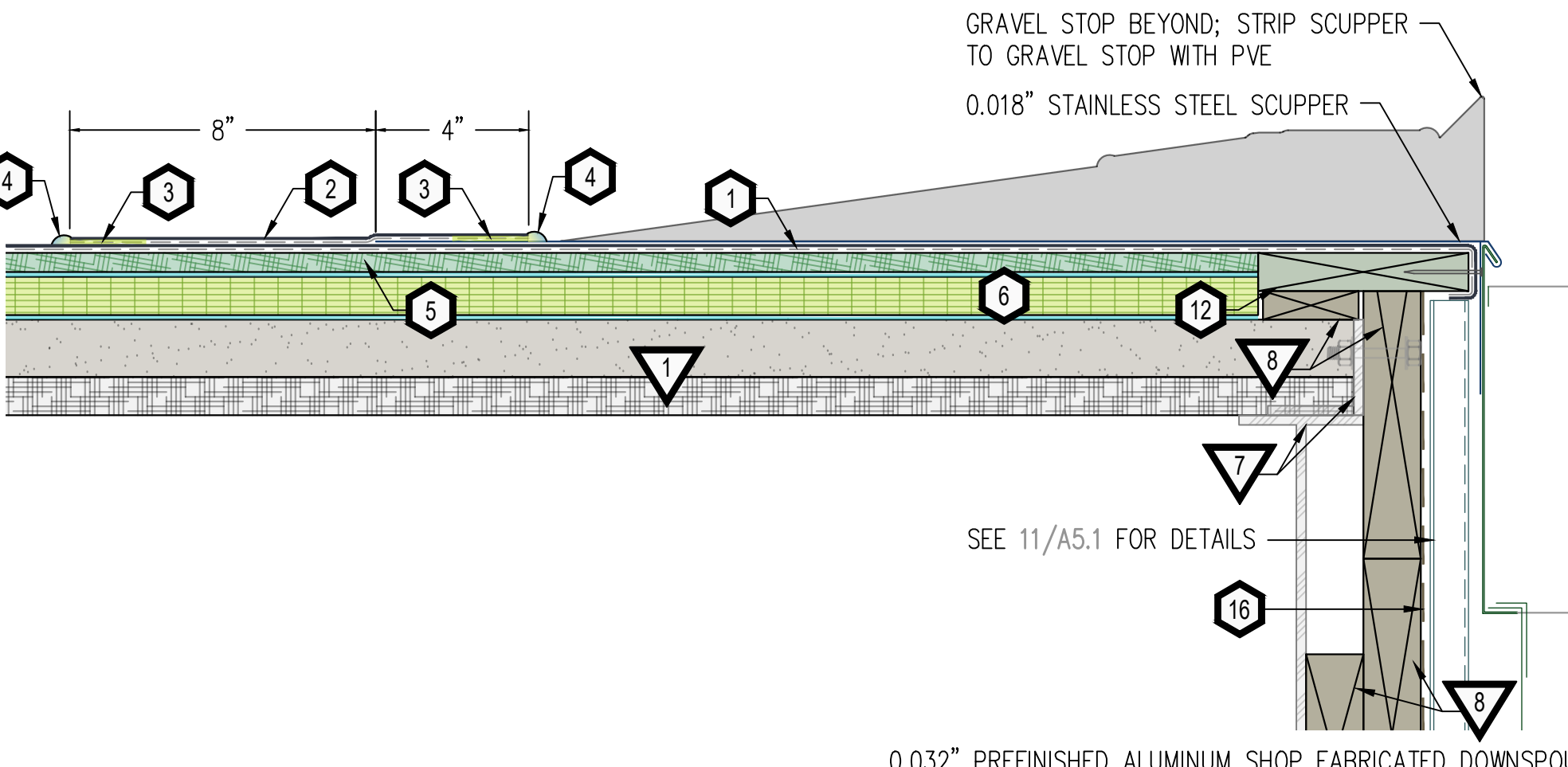
- 1 EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2 EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3 EXIST CONCRETE DECK/SLAB TO REMAIN
- 4 EXIST BRICK MASONRY TO REMAIN
- 5 EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6 EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7 EXIST STEEL FRAMING TO REMAIN
- 8 EXIST WOOD BLOCKING TO REMAIN
- 9 EXIST PLYWOOD TO REMAIN
- 10 EXIST WOOD SHIM TO REMAIN
- 11 EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12 EXIST SINGLE-PLY MEMBRANE TO REMAIN



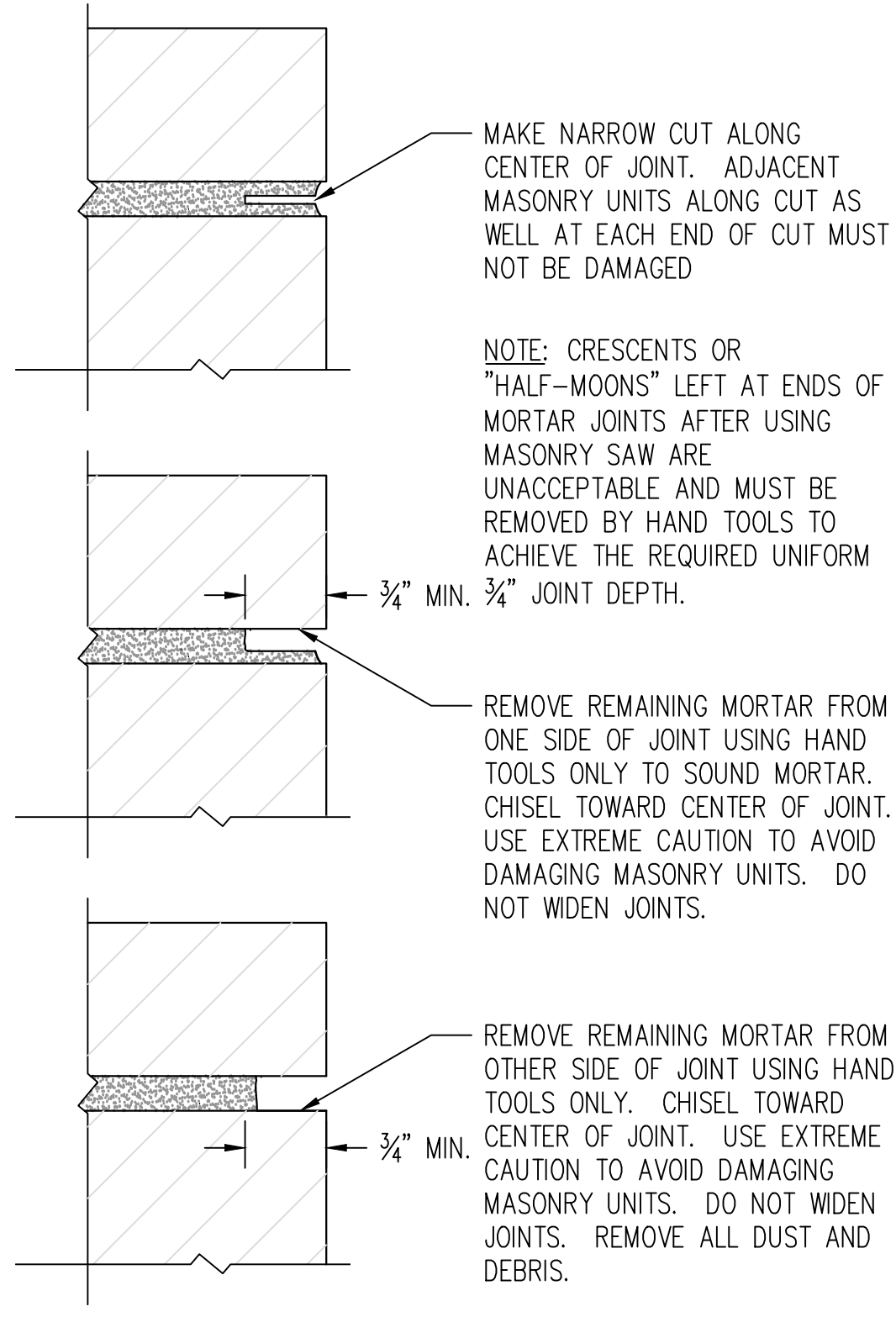
1  
A5.3  
SEALANT INSTALLATION GUIDELINES  
NO SCALE



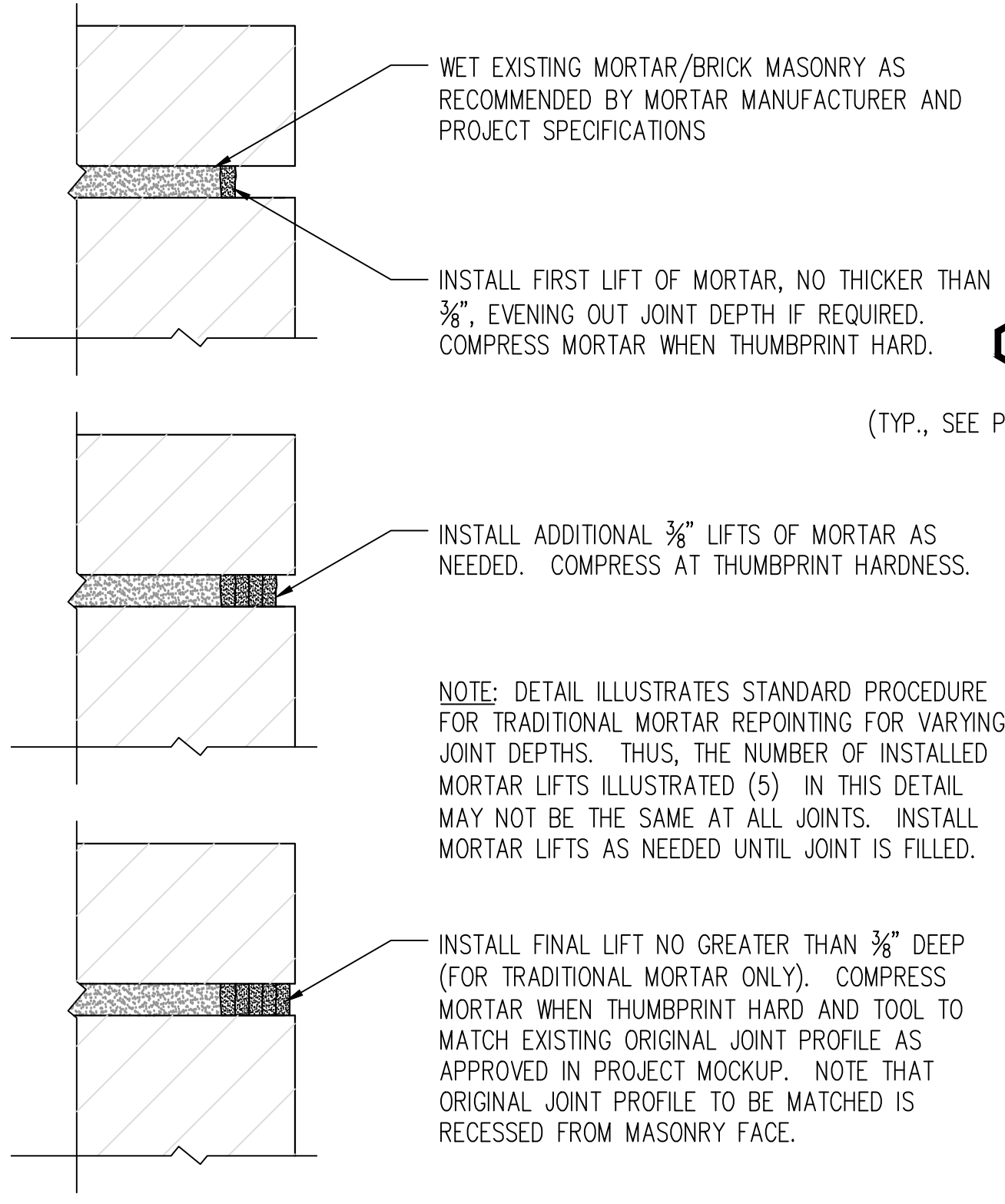
4  
A5.3  
ROOF DRAIN DETAIL AT MAIN ENTRANCE CANOPY (SECTION C4)  
3" = 1'-0"



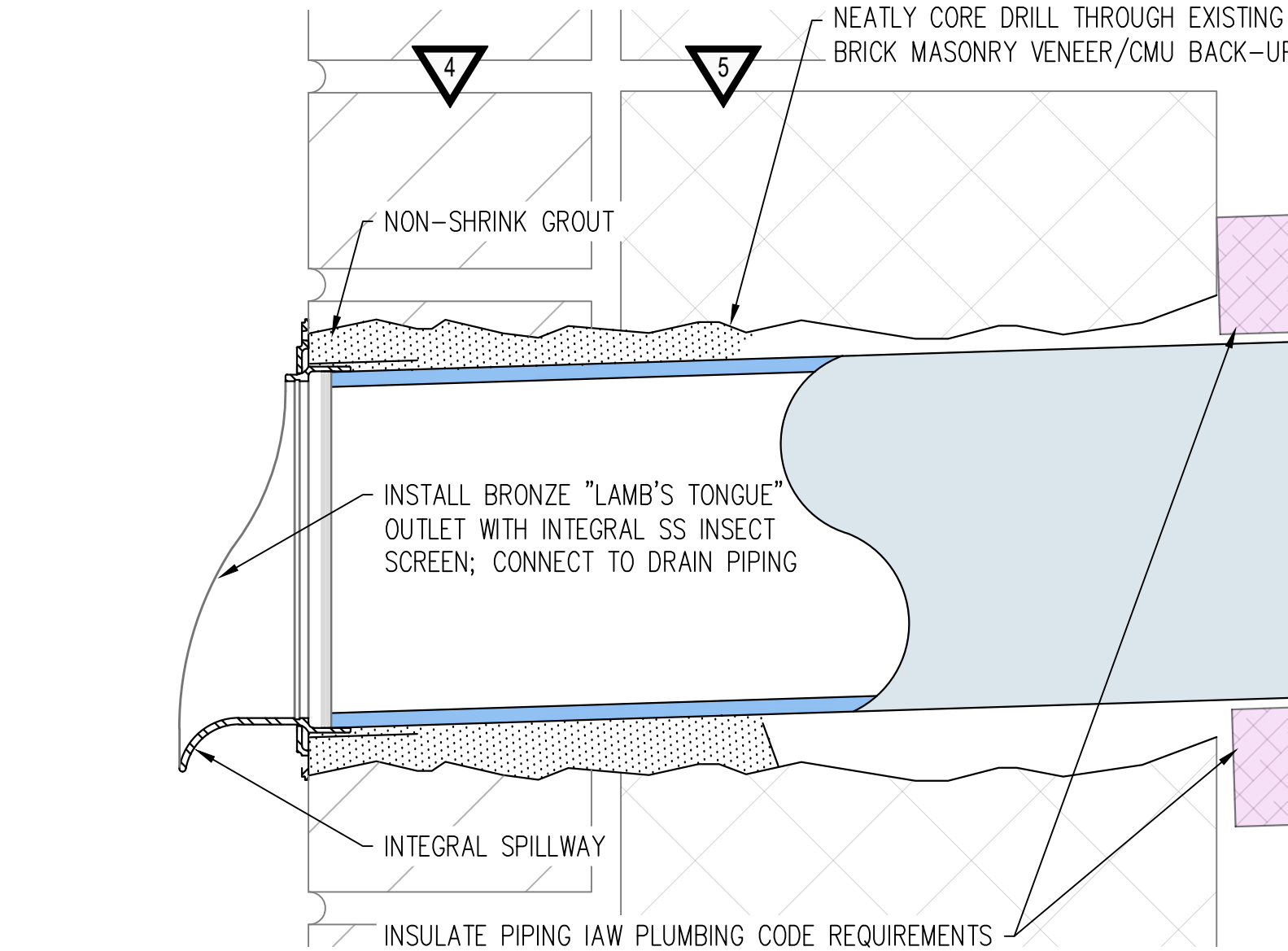
7  
A5.3  
PRIMARY SCUPPER DETAIL AT COURTYARD CANOPY (SECTION C5)  
3" = 1'-0"



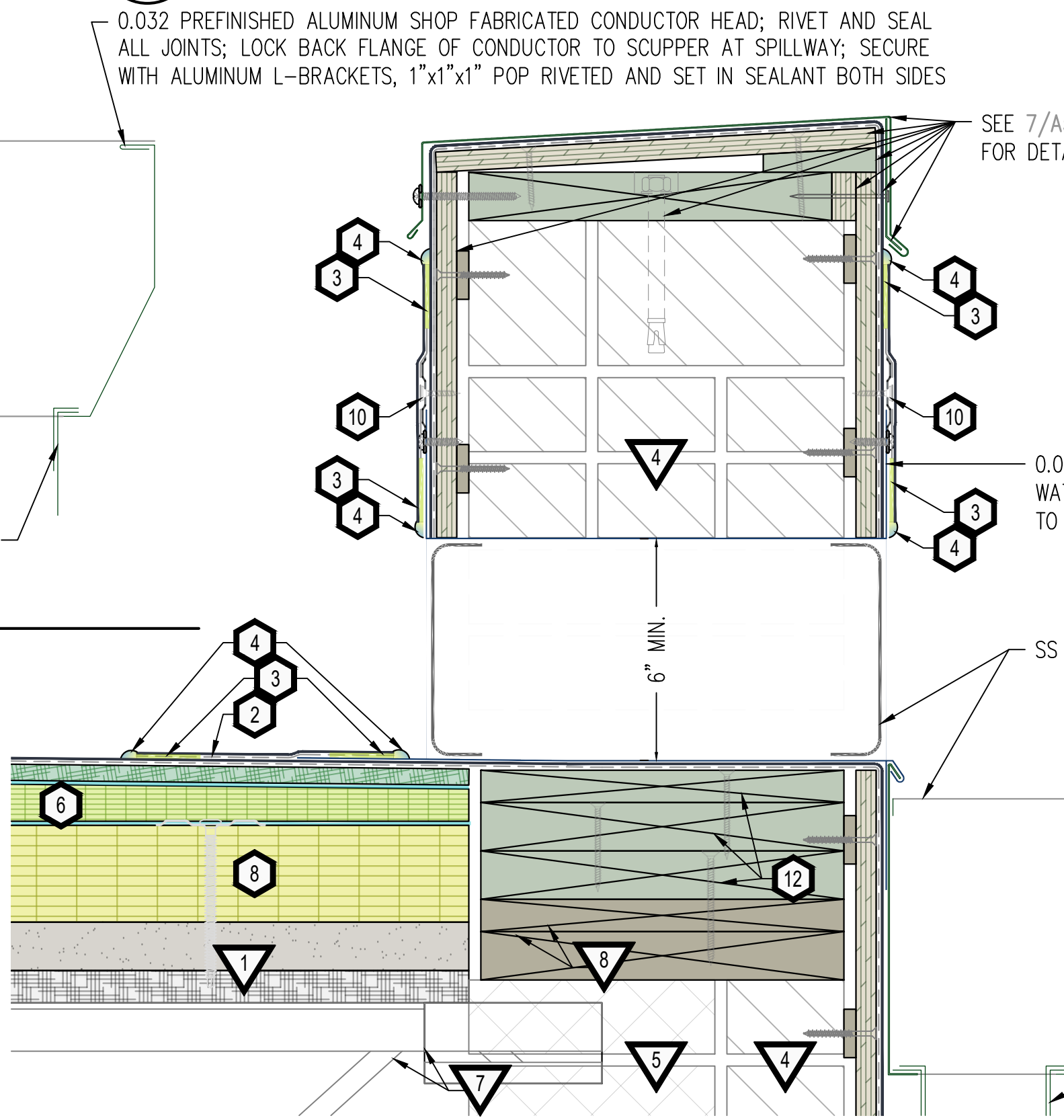
2A  
A5.3  
MASONRY REPOINTING (MORTAR REMOVAL)  
3" = 1'-0"



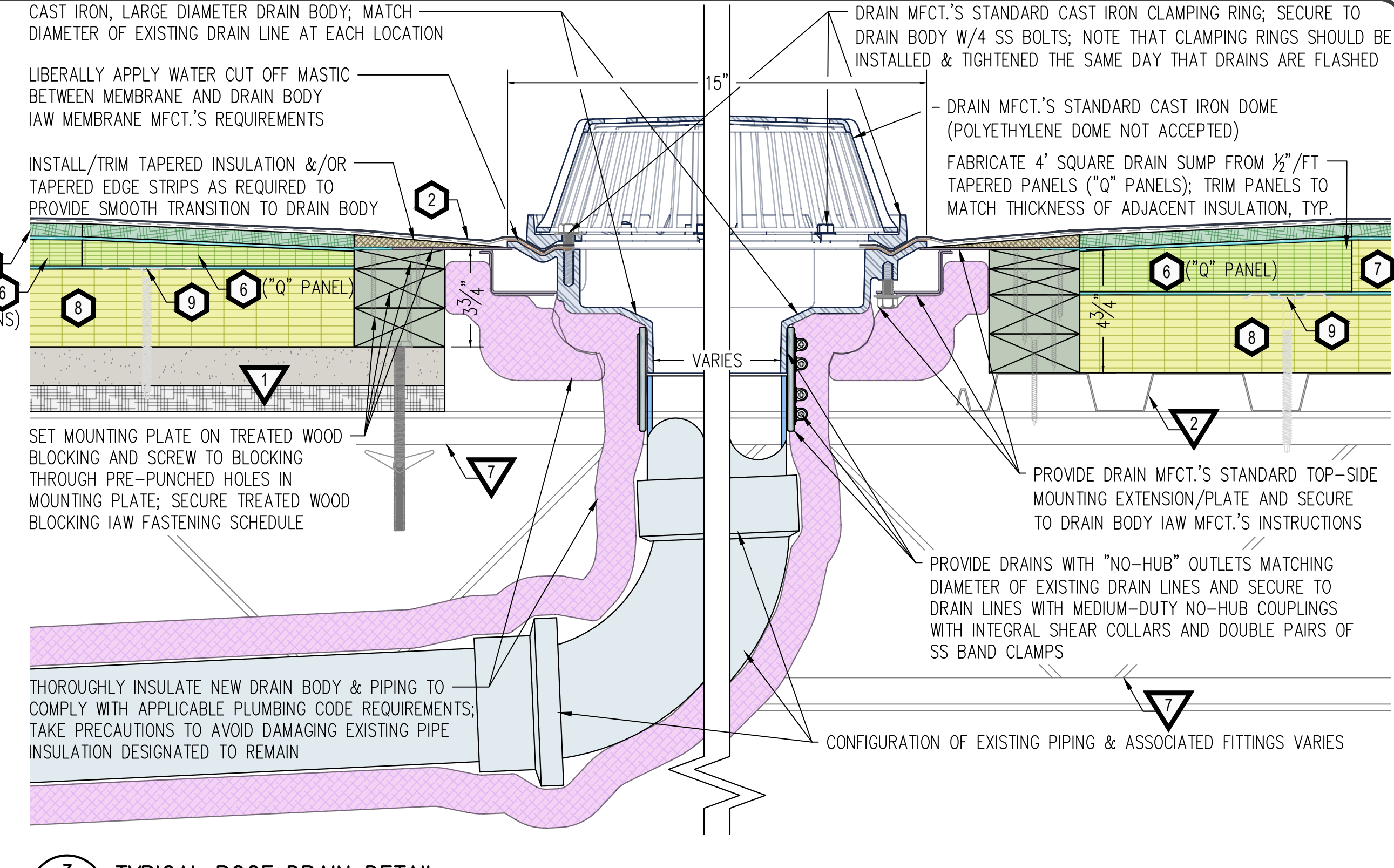
2B  
A5.3  
MASONRY REPOINTING (TRADITIONAL MORTAR INSTALL)  
3" = 1'-0"



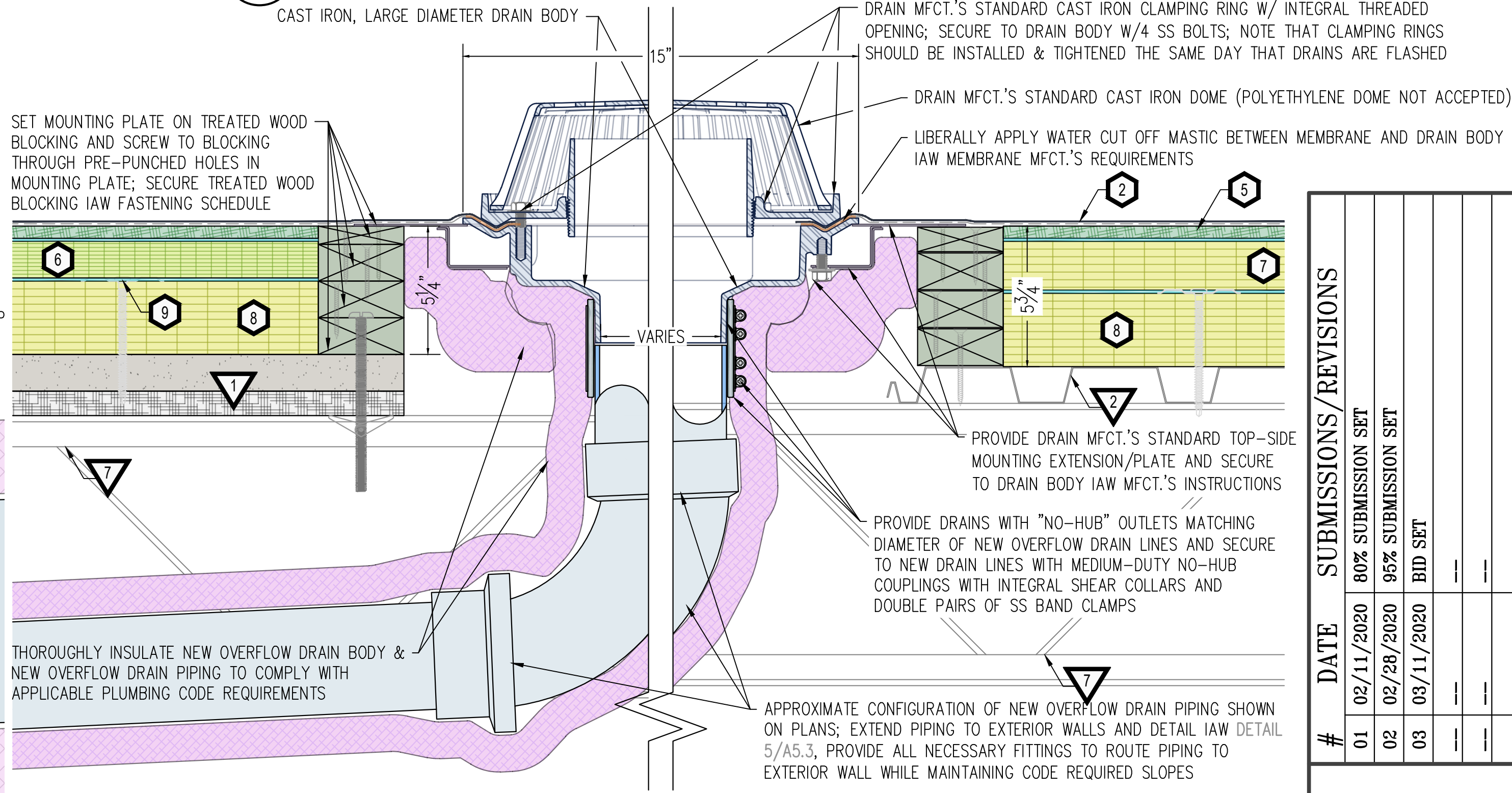
5  
A5.3  
TYPICAL OVERFLOW DRAINLINE OUTLET DETAIL  
HALF SIZE



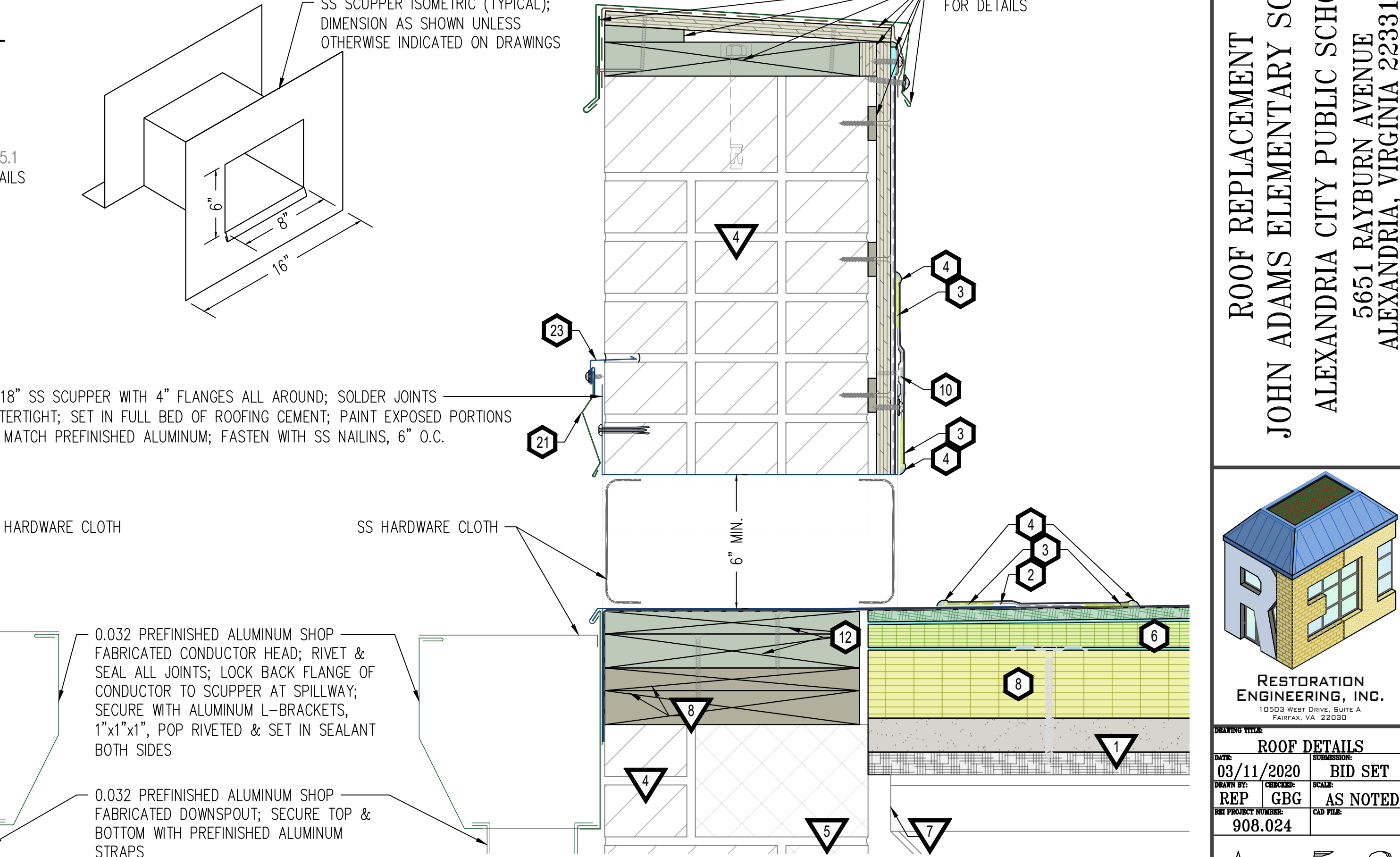
8  
A5.3  
PRIMARY SCUPPER DETAIL AT ROOF SECTION C1  
3" = 1'-0"



3  
A5.3  
TYPICAL ROOF DRAIN DETAIL  
3" = 1'-0"



6  
A5.3  
TYPICAL OVERFLOW ROOF DRAIN DETAIL  
3" = 1'-0"



9  
A5.3  
PRIMARY SCUPPER DETAIL AT ROOF SECTION C2  
3" = 1'-0"

#	DATE	SUBMISSIONS/REVISIONS
01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET

ROOF REPLACEMENT  
 JOHN ADAMS ELEMENTARY SCHOOLS  
 ALEXANDRIA CITY PUBLIC SCHOOLS  
 5651 RAYBURN AVENUE  
 ALEXANDRIA, VIRGINIA 22331

RESTORATION ENGINEERING, INC.  
 10700 NEW YORK AVENUE, SUITE 4  
 FARMAS, VA 22030

DATE	BY	REVISION
03/11/2020	GBG	BID SET
03/11/2020	GBG	AS NOTED

908.024

A-5.3

8 OF 14



ROOF DETAILS -- KEYED NOTES:

- 1

60 MIL FIBERGLASS REINFORCED POLYVINYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2

MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3

HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4

LAP SEALANT
- 5

MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6

TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7

2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8

3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9

PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10

SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11

5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/16" Ø, 2 1/4" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12

TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13

SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14

5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15

2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16

SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION
- 17

WATER CUT OFF MASTIC
- 18

ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)
- 19

0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20

0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21

0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22

0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23

0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24

0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE; FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25

0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26

CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING
- 27

TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

- 1

EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2

EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3

EXIST CONCRETE DECK/SLAB TO REMAIN
- 4

EXIST BRICK MASONRY TO REMAIN
- 5

EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6

EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7

EXIST STEEL FRAMING TO REMAIN
- 8

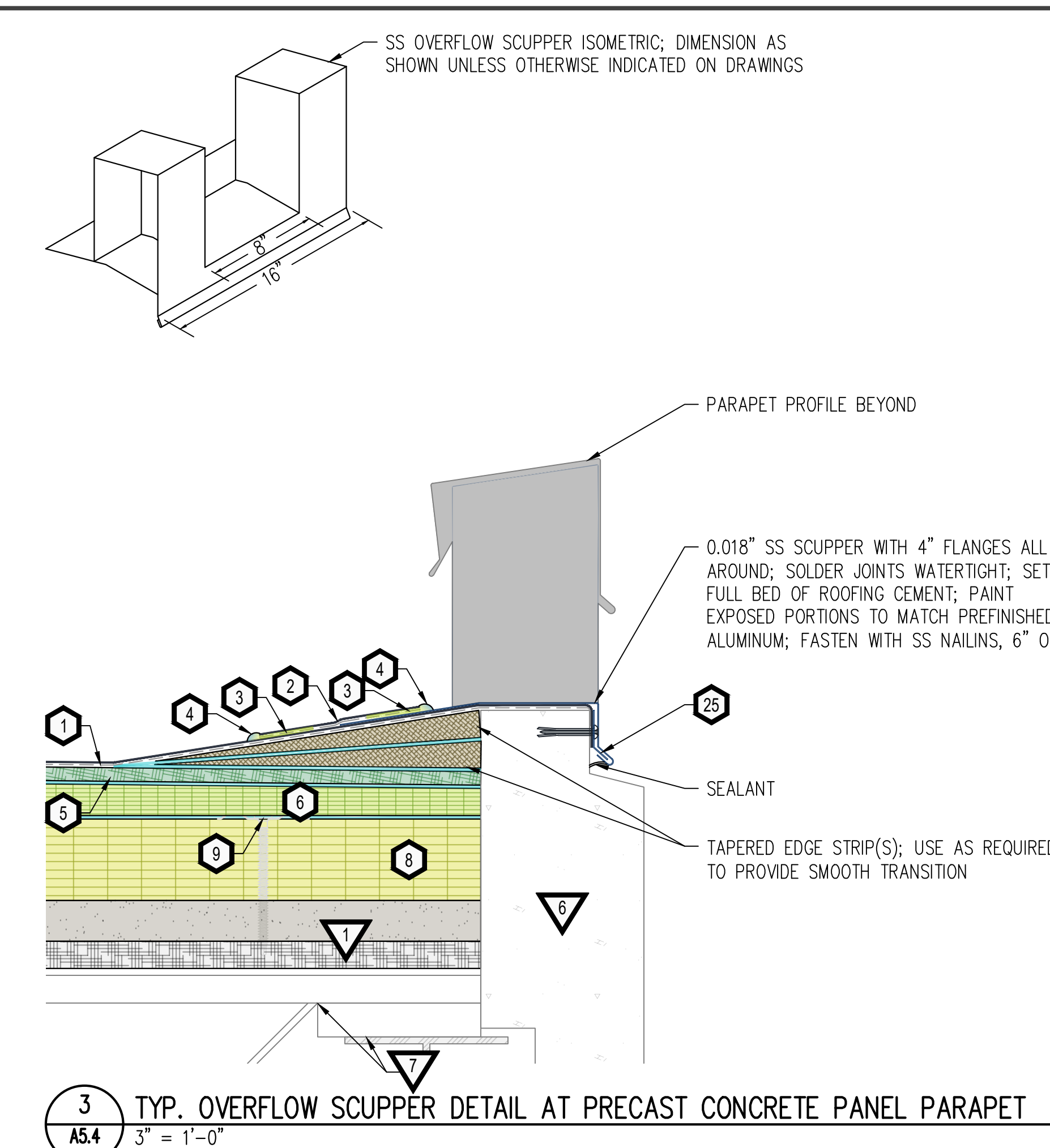
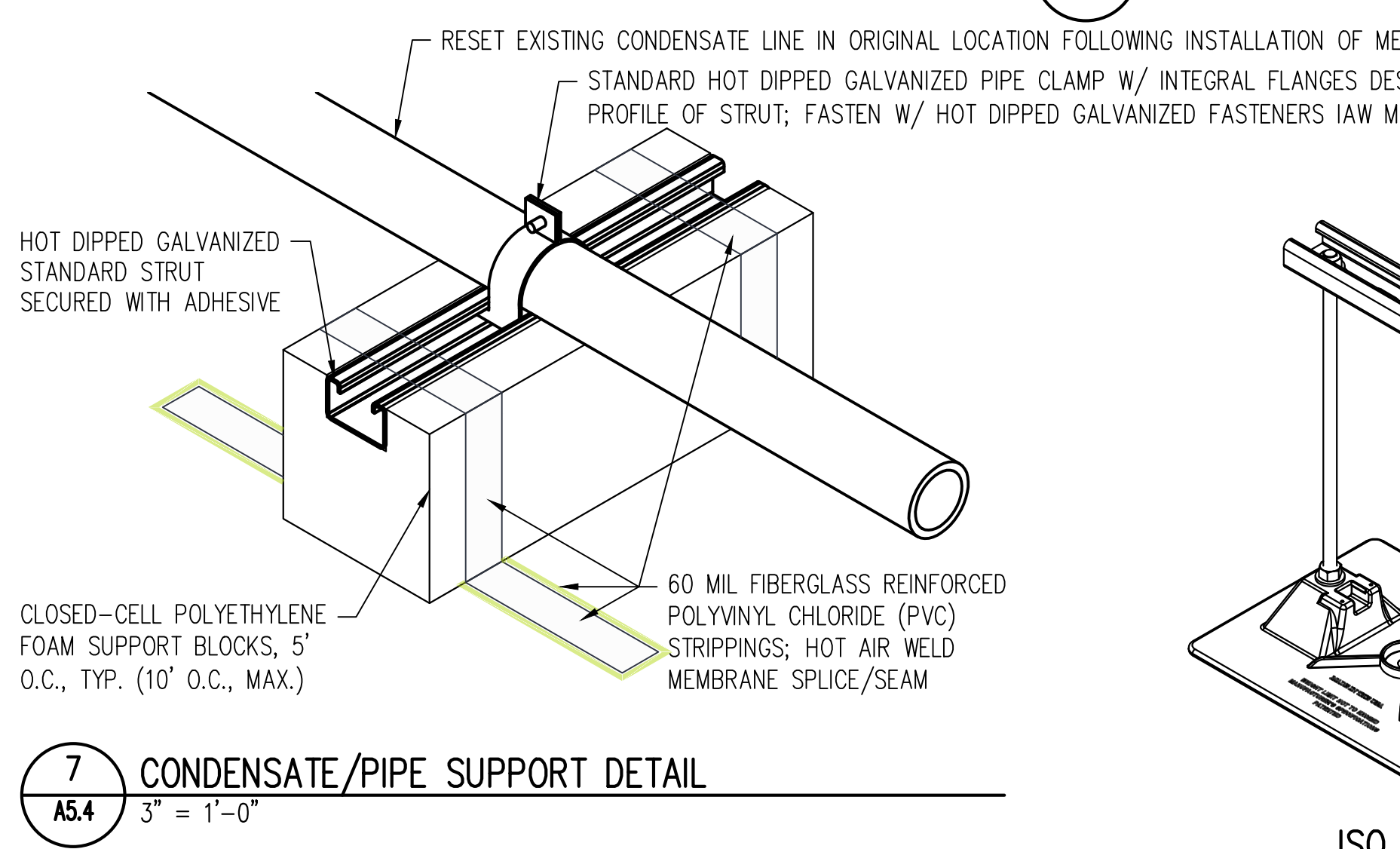
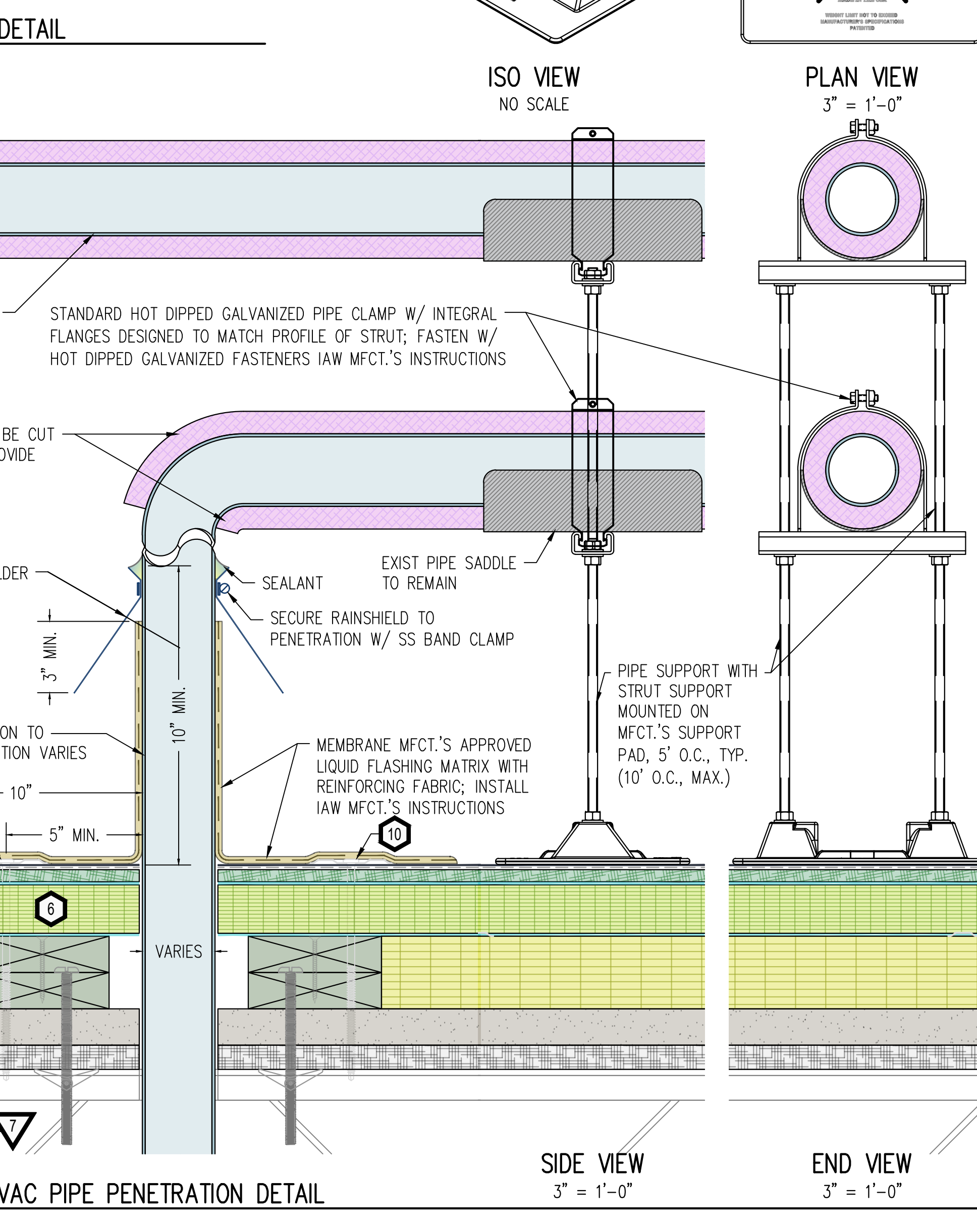
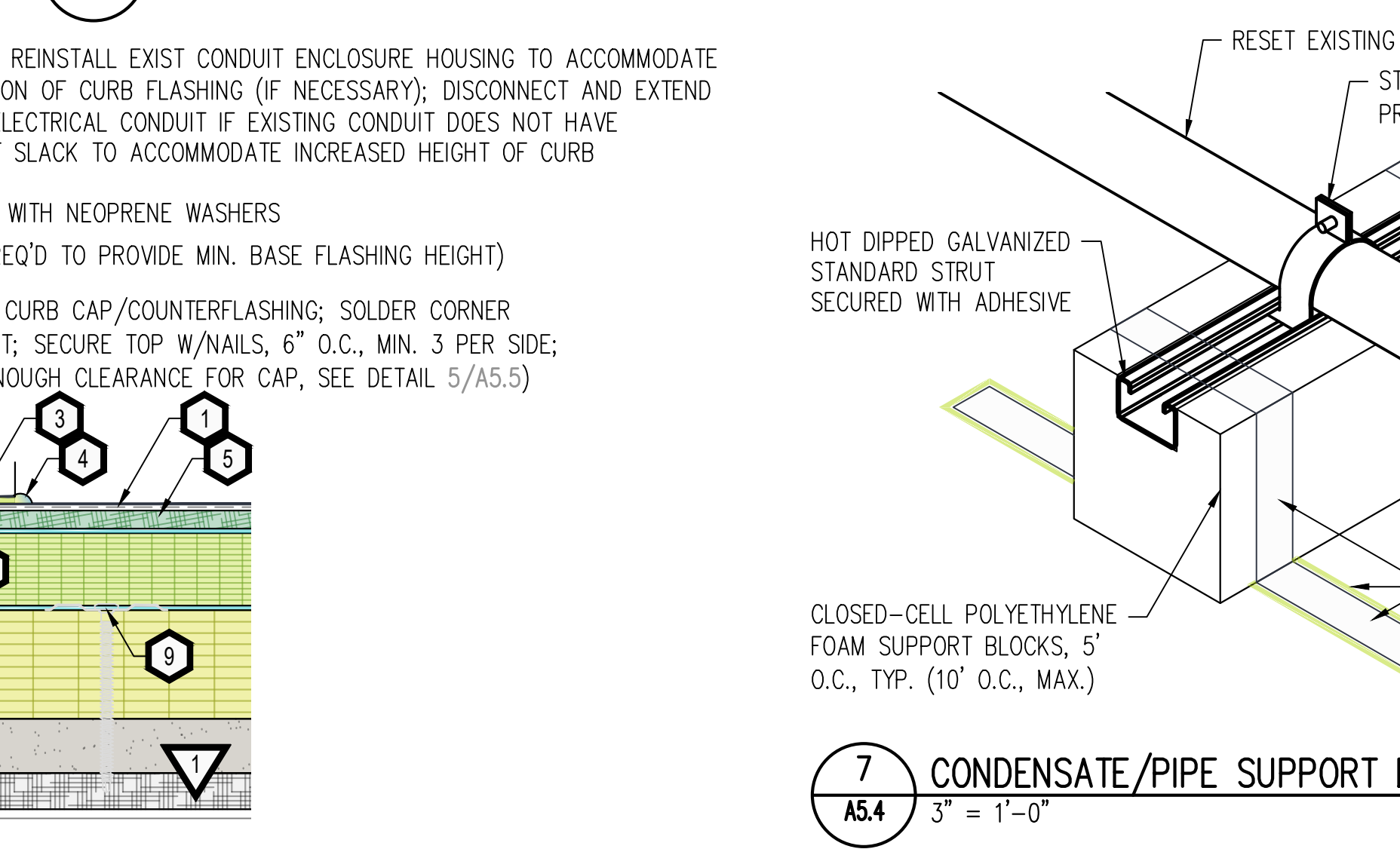
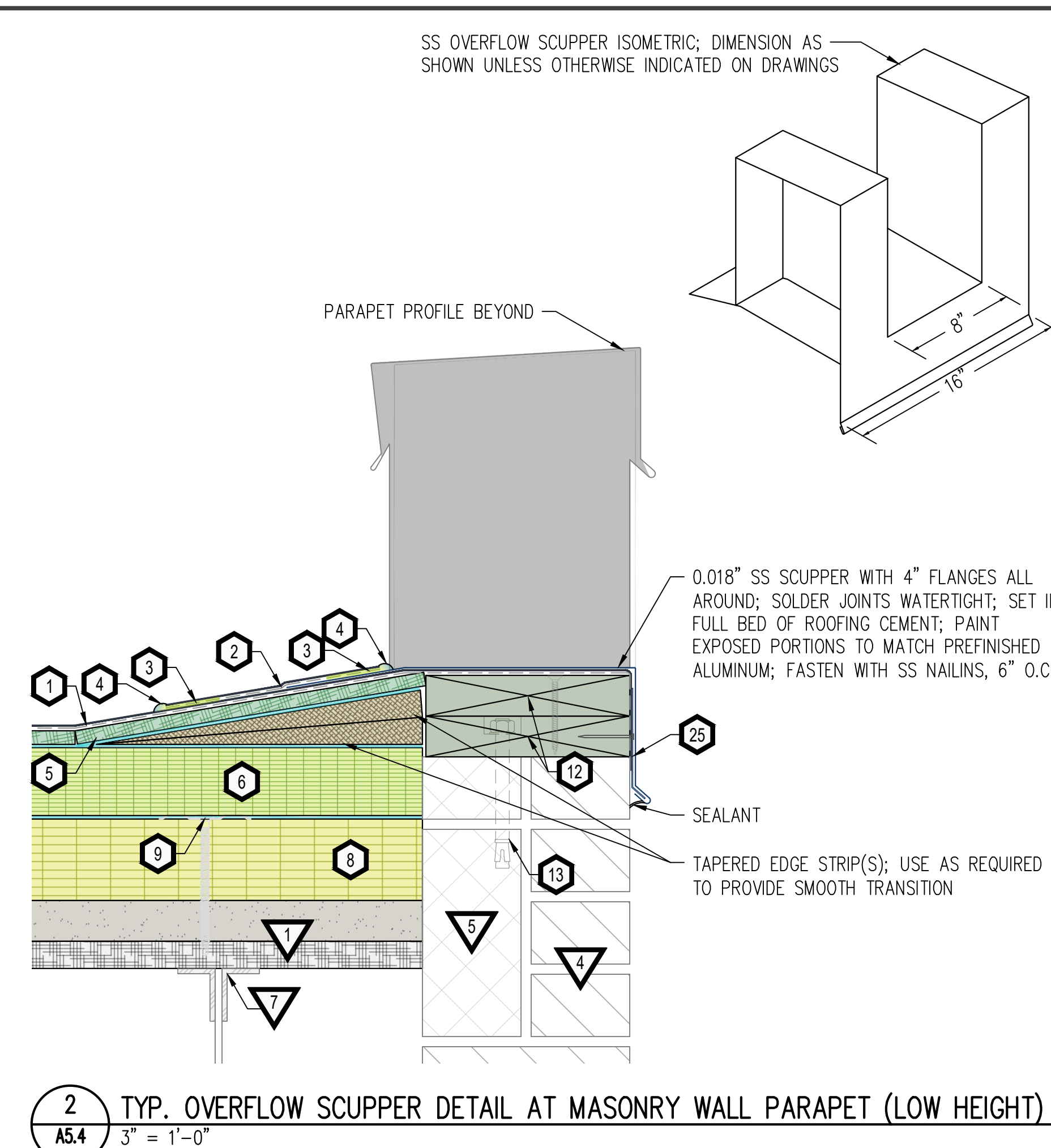
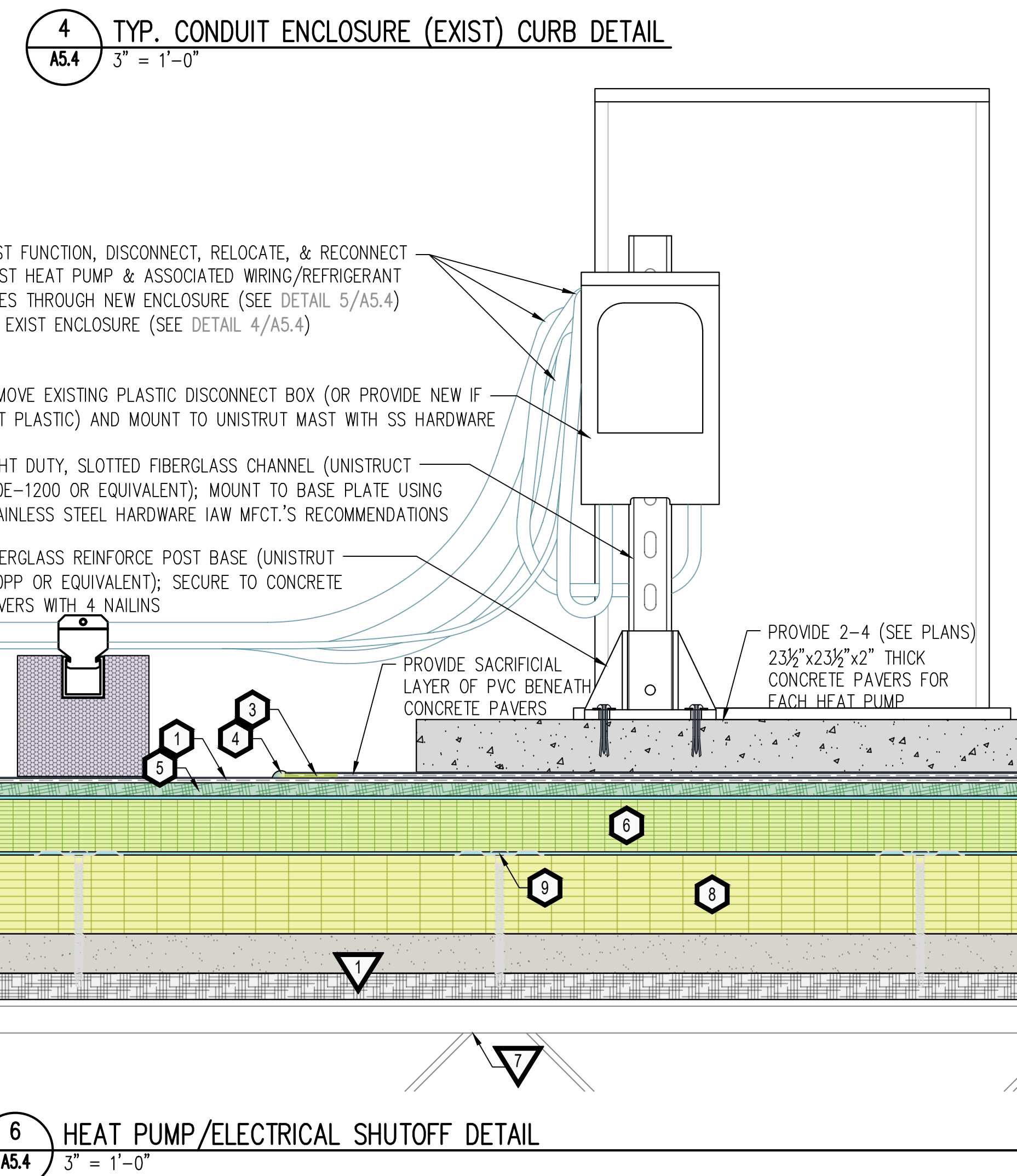
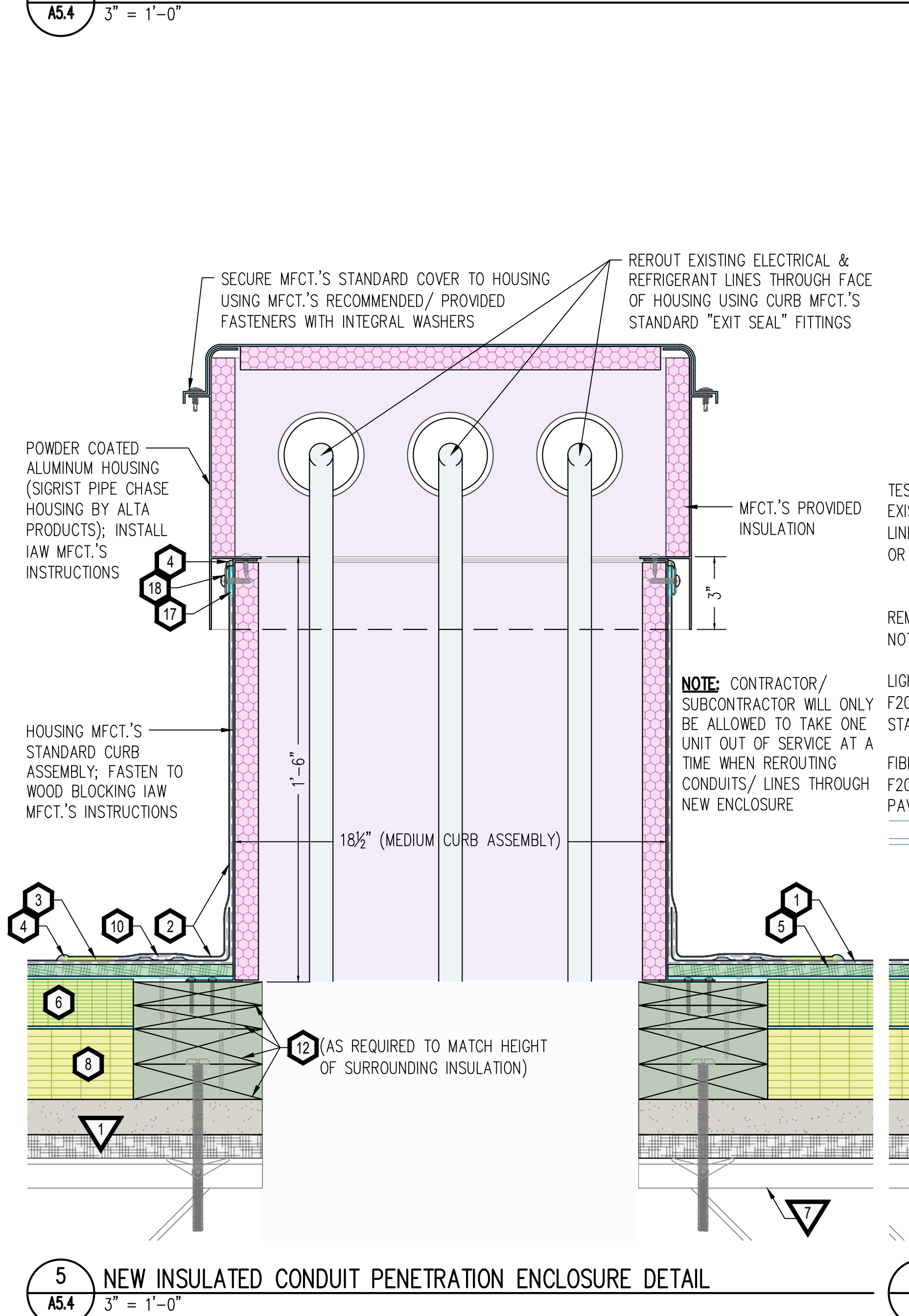
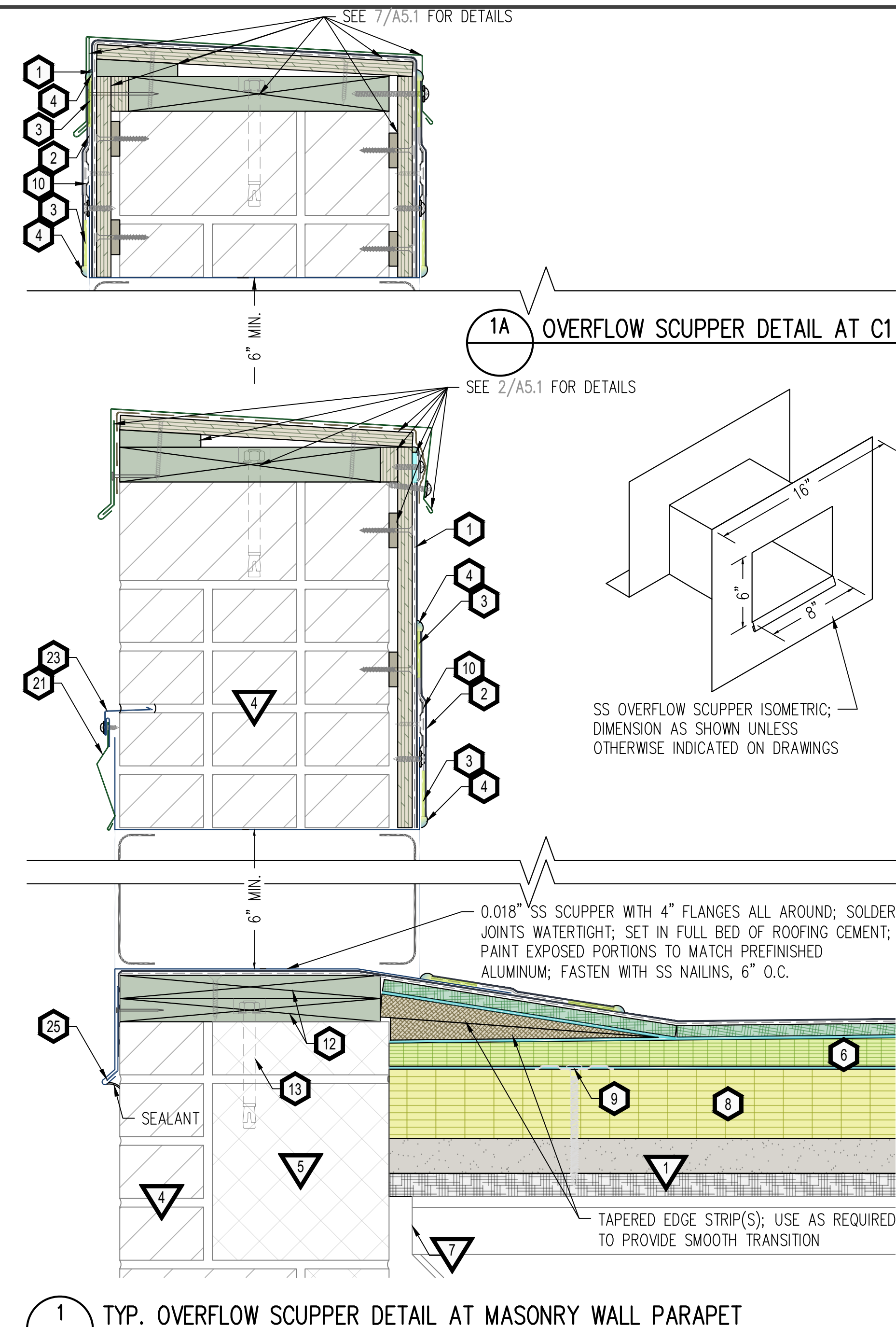
EXIST WOOD BLOCKING TO REMAIN
- 9

EXIST PLYWOOD TO REMAIN
- 10

EXIST WOOD SHIM TO REMAIN
- 11

EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12

EXIST SINGLE-PLY MEMBRANE TO REMAIN



#	DATE	SUBMISSIONS/REVISIONS
01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET

ROOF REPLACEMENT

JOHN ADAMS ELEMENTARY SCHOOLS

ALEXANDRIA CITY PUBLIC SCHOOLS

5651 RAYBURN AVENUE

ALEXANDRIA, VIRGINIA 22331

RESTORATION ENGINEERING, INC.

10700 NEW YORK AVENUE, SUITE 4

FALLS CHURCH, VA 22040

ROOF DETAILS

03/11/2020

BID SET

REP

GBG

AS NOTED

908.024

A-5.4

9

OF

14



ROOF DETAILS – KEYED NOTES:

- 1

60 MIL FIBERGLASS REINFORCED POLYVINYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2

MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3

HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4

LAP SEALANT
- 5

MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6

TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7

2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8

3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9

PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10

SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11

5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/8" Ø, 2 1/4" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12

TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13

SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14

5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15

2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16

SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION
- 17

WATER CUT OFF MASTIC
- 18

ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)
- 19

0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20

0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21

0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22

0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23

0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24

0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE; FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25

0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26

CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING
- 27

TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

- 1

EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2

EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3

EXIST CONCRETE DECK/SLAB TO REMAIN
- 4

EXIST BRICK MASONRY TO REMAIN
- 5

EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6

EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7

EXIST STEEL FRAMING TO REMAIN
- 8

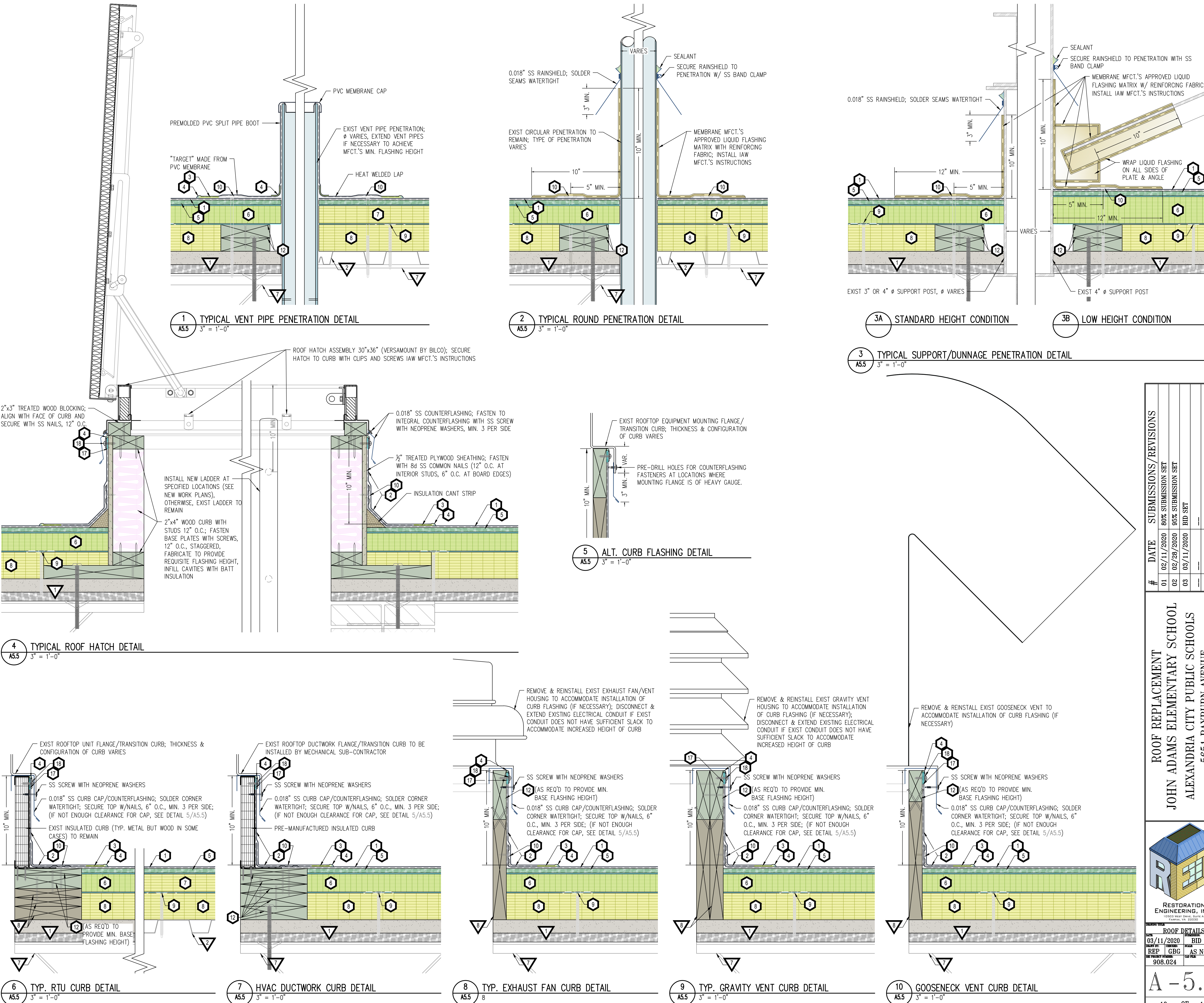
EXIST WOOD BLOCKING TO REMAIN
- 9



EXIST PLYWOOD TO REMAIN
- 10

EXIST WOOD SHIM TO REMAIN
- 11

EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12

EXIST SINGLE-PLY MEMBRANE TO REMAIN



		<b>ROOF REPLACEMENT</b> <b>JOHN ADAMS ELEMENTARY SCHOOL</b> <b>ALEXANDRIA CITY PUBLIC SCHOOLS</b> <b>5651 RAYBURN AVENUE</b> <b>ALEXANDRIA, VIRGINIA 22331</b>		<table><thead><tr><th>#</th><th>DATE</th><th>SUBMISSIONS/REVISIONS</th></tr></thead><tbody><tr><td>01</td><td>02/11/2020</td><td>80% SUBMISSION SET</td></tr><tr><td>02</td><td>02/28/2020</td><td>95% SUBMISSION SET</td></tr><tr><td>03</td><td>03/11/2020</td><td>BID SET</td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></tbody></table>		#	DATE	SUBMISSIONS/REVISIONS	01	02/11/2020	80% SUBMISSION SET	02	02/28/2020	95% SUBMISSION SET	03	03/11/2020	BID SET															
#	DATE	SUBMISSIONS/REVISIONS																														
01	02/11/2020	80% SUBMISSION SET																														
02	02/28/2020	95% SUBMISSION SET																														
03	03/11/2020	BID SET																														
		<b>RESTORATION ENGINEERING, INC.</b> 10702 NEW GLEN DRIVE, SUITE 4 FARMERSVILLE, VA 22029																														
<b>ROOF DETAILS</b>																																
03/11/2020		BID SET																														
REP		GBG		AS NOTED																												
908.024																																
<b>A-5.5</b>																																
10		OF		14																												



ROOF DETAILS -- KEYED NOTES:

- 1 60 MIL FIBERGLASS REINFORCED POLYVINYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2 MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3 HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4 LAP SEALANT
- 5 MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6 TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7 2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8 3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9 PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10 SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11 5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/4" Ø, 24" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12 TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13 SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14 5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15 2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16 SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION

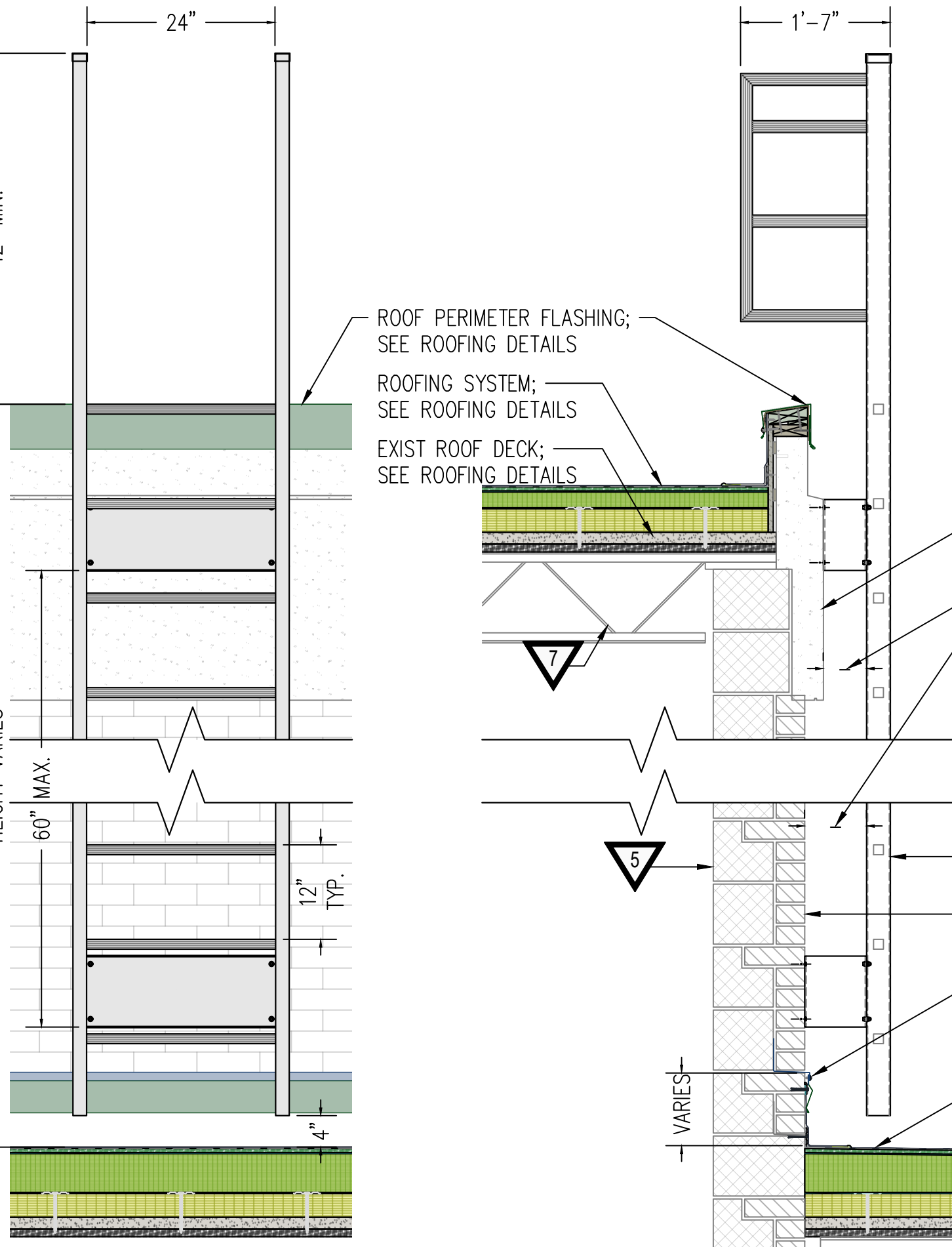
- 17 WATER CUT OFF MASTIC
- 18 ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)
- 19 0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20 0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21 0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22 0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23 0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24 0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE; FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25 0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26 CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING

- 27 TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

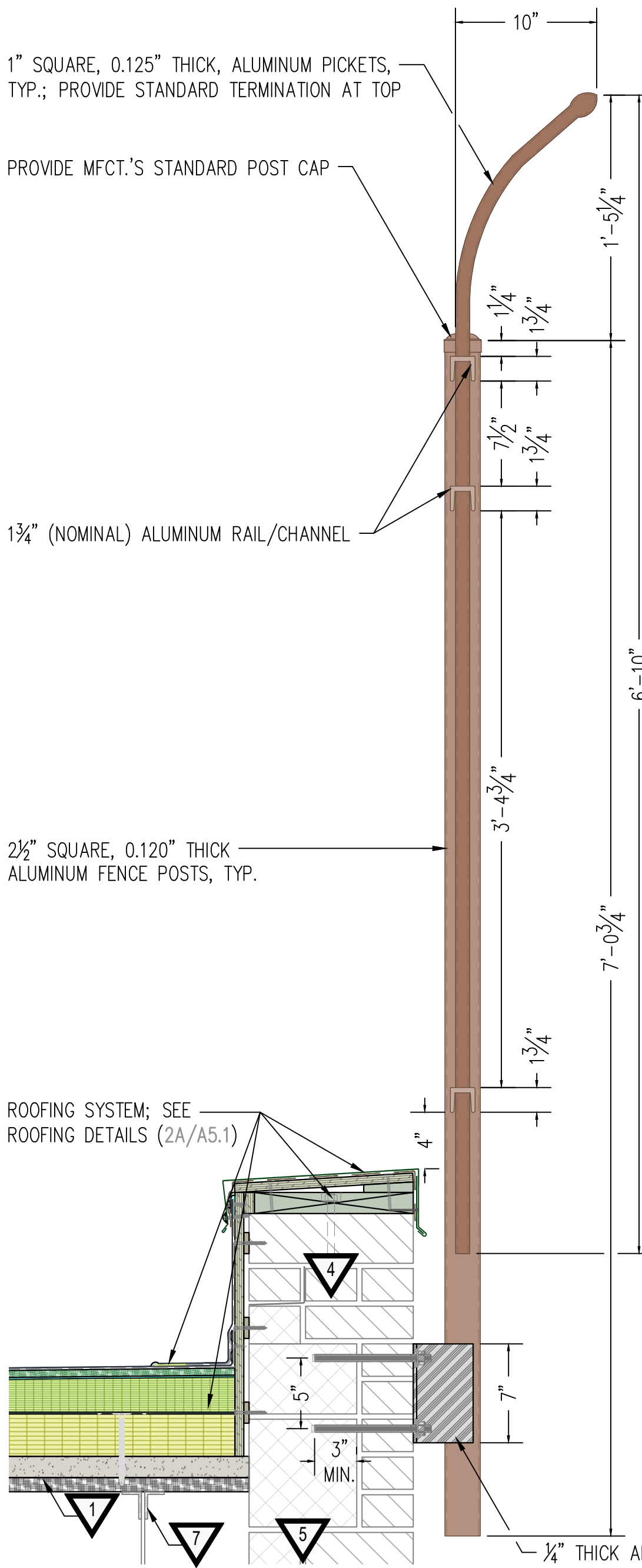
- 1 EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2 EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3 EXIST CONCRETE DECK/SLAB TO REMAIN
- 4 EXIST BRICK MASONRY TO REMAIN
- 5 EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6 EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7 EXIST STEEL FRAMING TO REMAIN
- 8 EXIST WOOD BLOCKING TO REMAIN
- 9 EXIST PLYWOOD TO REMAIN
- 10 EXIST WOOD SHIM TO REMAIN
- 11 EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12 EXIST SINGLE-PLY MEMBRANE TO REMAIN

NOTE: LADDER HEIGHT VARIES AT EACH LOCATION. FIELD MEASURE AT EACH LADDER LOCATION TO DETERMINE REQUIRED DIMENSIONS

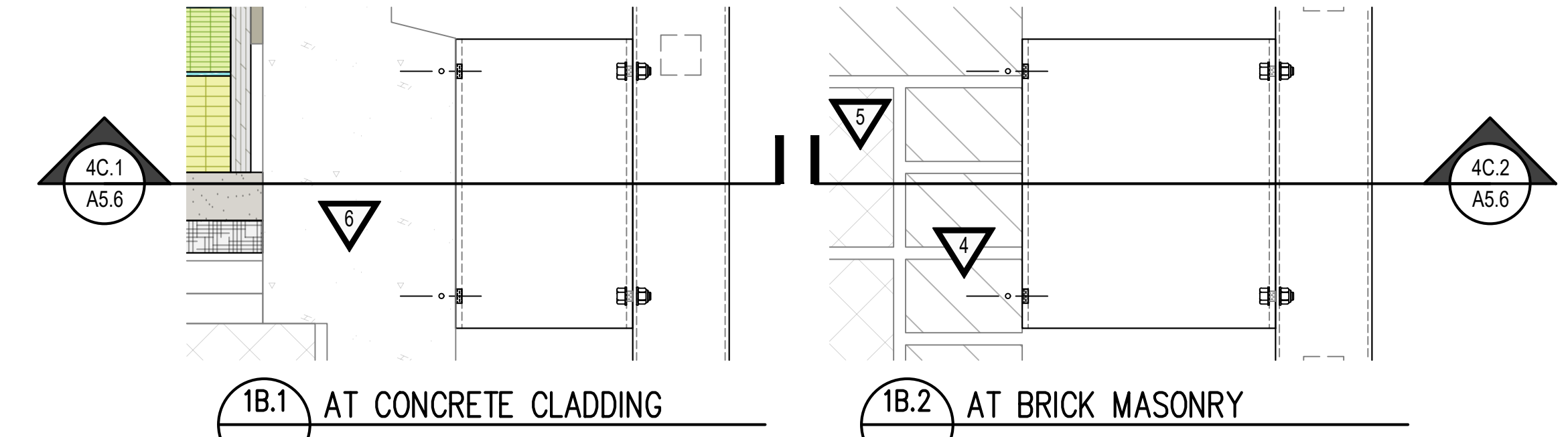


1A TYPICAL LADDER DETAIL  
3/4" = 1'-0"

1 TYPICAL LADDER DETAIL  
A5.6



2 WALL-MOUNTED FENCE DETAIL AT ROOF SECTION B4  
3" = 1'-0"



1B RAILING ANCHORAGE DETAIL  
3" = 1'-0"

6 OR 4 (VARIES PER SECTION; SEE ROOF DETAILS)

7" MIN. CLEARANCE BETWEEN CENTER OF RUNG AND CLOSEST OBSTRUCTION

ALUMINUM LADDER ASSEMBLY

COUNTERFLASHING/BASEFLASHING; SEE ROOFING DETAILS

ROOFING SYSTEM; SEE ROOFING DETAILS

VARIES

1B.1 AT CONCRETE CLADDING

1B.2 AT BRICK MASONRY

1C.1 AT CONCRETE CLADDING

1C.2 AT BRICK MASONRY

1C PARTIAL PLAN AT RAILING ANCHORAGE DETAIL  
3" = 1'-0"

8" O.C., NOMINAL (UNLESS OTHERWISE NOTED ON PLANS)

1" SQUARE, 0.125" THICK, ALUMINUM PICKETS, TYP.; PROVIDE STANDARD TERMINATION AT TOP

4 3/4" TYP. PICKET SPACING

1 1/2" (NOMINAL) ALUMINUM RAIL/CHANNEL

PROVIDE MANUFACTURER'S STANDARD POST CAP

2 1/2" SQUARE, 0.120" THICK ALUMINUM FENCE POSTS, TYP.

WELD 1/4" ALUMINUM MOUNTING BRACKET TO POST AND SECURE MOUNTING TO BRICK MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY

1/4" THICK ALUMINUM MOUNTING BRACKET; WELD TO POST AND SECURE TO FACE OF MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY

1/4" THICK ALUMINUM MOUNTING BRACKET; WELD TO POST AND SECURE TO FACE OF MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY

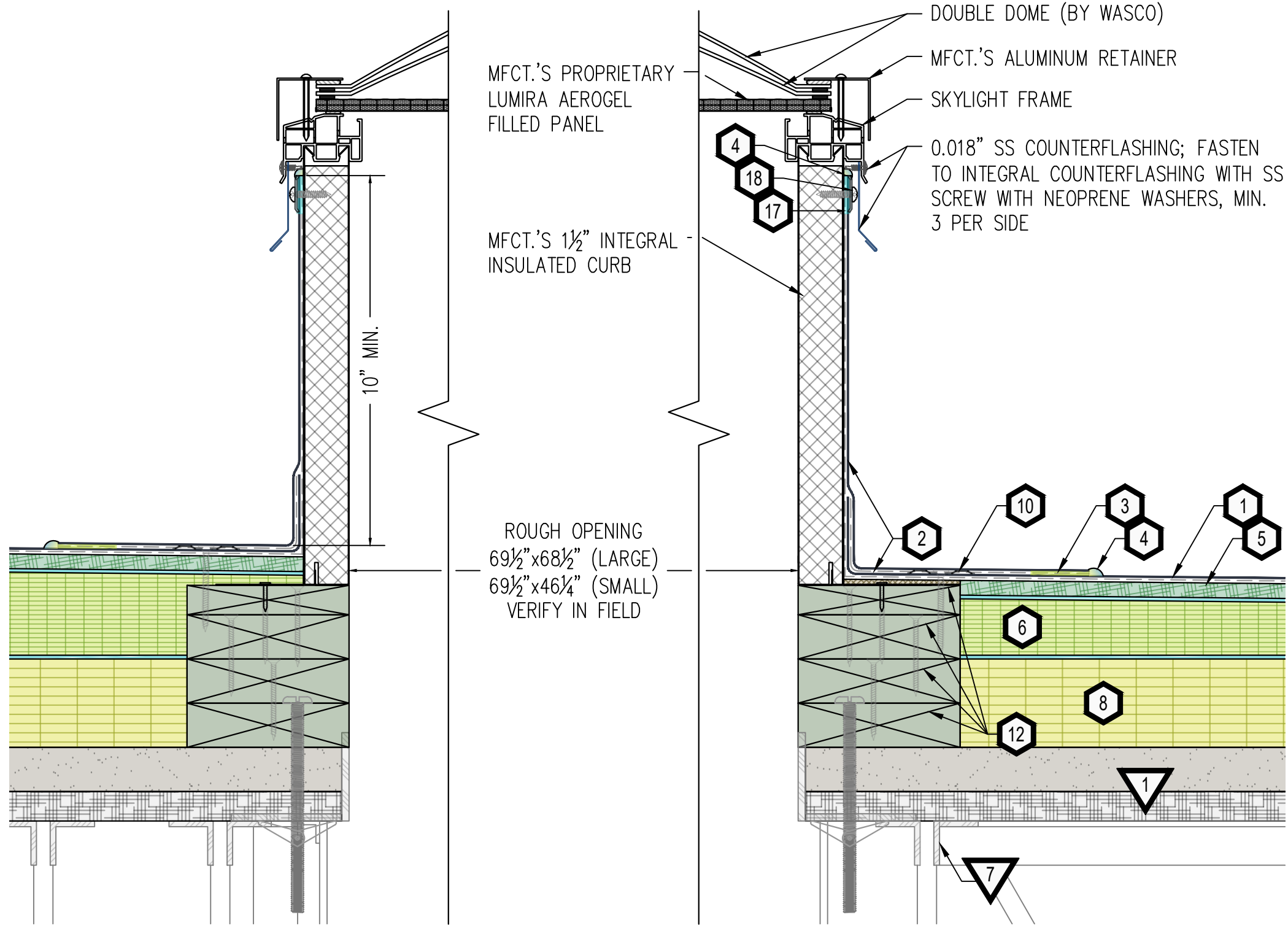
1/4" THICK ALUMINUM MOUNTING BRACKET; WELD TO POST AND SECURE TO FACE OF MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY

1/4" THICK ALUMINUM MOUNTING BRACKET; WELD TO POST AND SECURE TO FACE OF MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY

1/4" THICK ALUMINUM MOUNTING BRACKET; WELD TO POST AND SECURE TO FACE OF MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY

1/4" THICK ALUMINUM MOUNTING BRACKET; WELD TO POST AND SECURE TO FACE OF MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY

1/4" THICK ALUMINUM MOUNTING BRACKET; WELD TO POST AND SECURE TO FACE OF MASONRY WALL WITH (4) 3/8" Ø SS ALLTHREAD SET IN APPROVED EPOXY



3 TYPICAL SKYLIGHT DETAIL  
3" = 1'-0"

#	DATE	SUBMISSIONS/REVISIONS		
		01	02	03
		02/11/2020	02/28/2020	03/11/2020
		80% SUBMISSION SET	95% SUBMISSION SET	BID SET
ROOF REPLACEMENT				
JOHN ADAMS ELEMENTARY SCHOOLS				
ALEXANDRIA CITY PUBLIC SCHOOLS				
5651 RAYBURN AVENUE				
ALEXANDRIA, VIRGINIA 22331				
RESTORATION ENGINEERING, INC.				
10700 NEW YORK AVENUE, SUITE 4				
FALLS CHURCH, VA 22030				
ROOF DETAILS				
03/11/2020				
BID SET				
REP GBG AS NOTED				
908.024				
A-5.6				
11 OF 14				

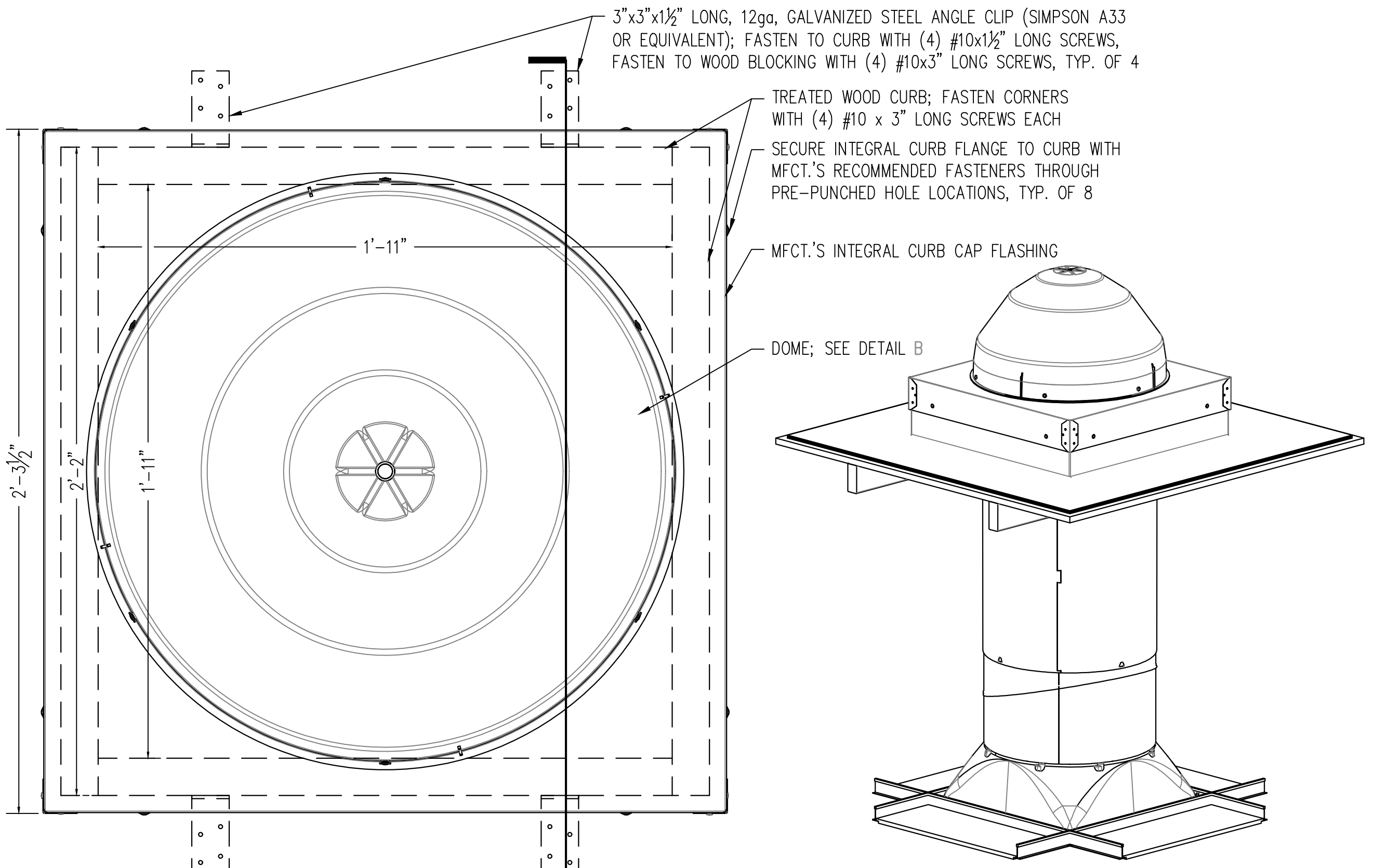


ROOF DETAILS -- KEYED NOTES:

- 1 60 MIL FIBERGLASS REINFORCED POLYVINYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2 MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3 HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4 LAP SEALANT
- 5 MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6 TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7 2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8 3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9 PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10 SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11 5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/8" Ø, 2 1/2" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12 TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13 SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14 5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15 2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16 SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION
- 17 WATER CUT OFF MASTIC
- 18 ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)
- 19 0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20 0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21 0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22 0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23 0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24 0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE, FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25 0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26 CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING
- 27 TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

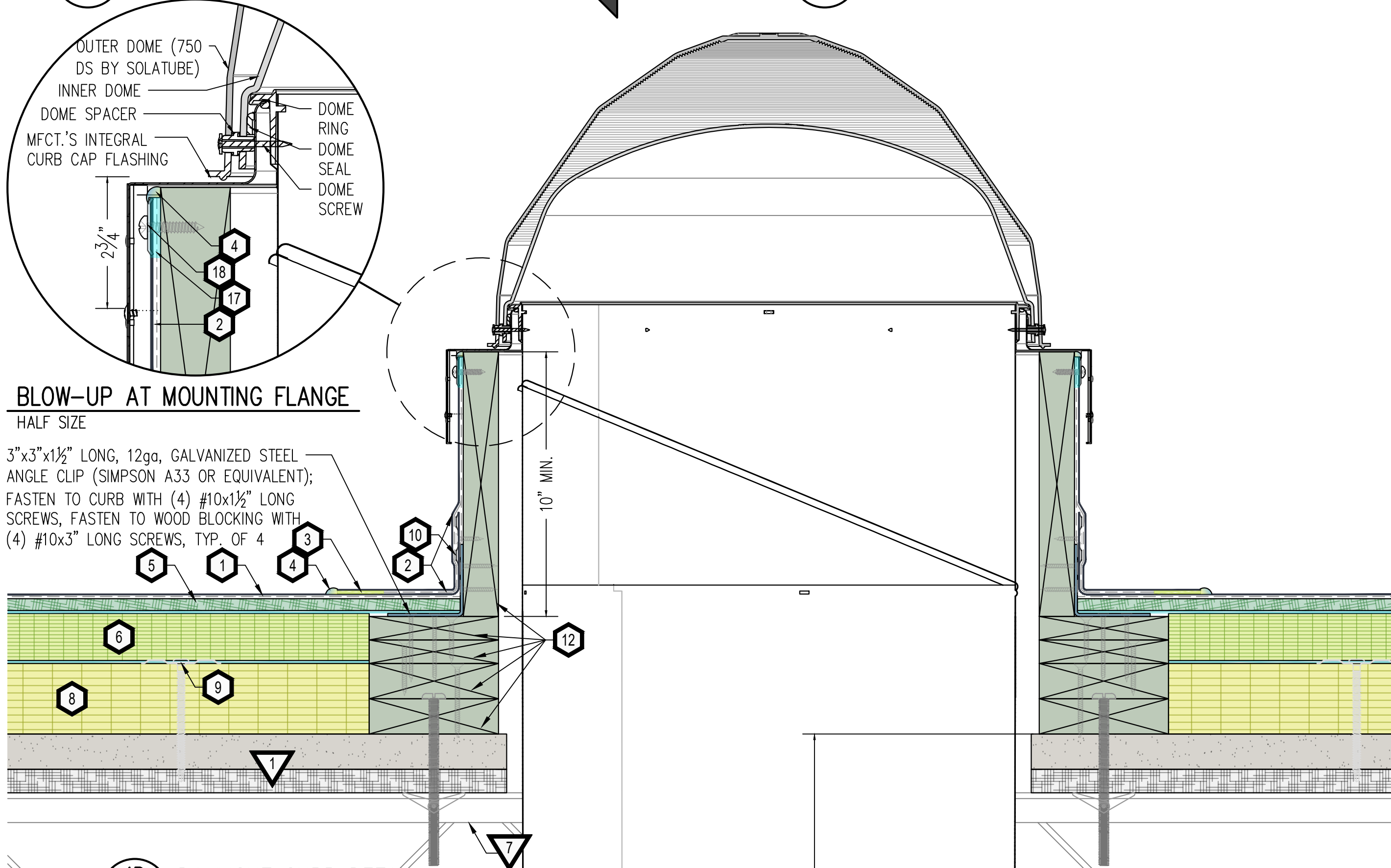
EXISTING CONSTRUCTION:

- 1 EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2 EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3 EXIST CONCRETE DECK/SLAB TO REMAIN
- 4 EXIST BRICK MASONRY TO REMAIN
- 5 EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6 EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7 EXIST STEEL FRAMING TO REMAIN
- 8 EXIST WOOD BLOCKING TO REMAIN
- 9 EXIST PLYWOOD TO REMAIN
- 10 EXIST WOOD SHIM TO REMAIN
- 11 EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12 EXIST SINGLE-PLY MEMBRANE TO REMAIN

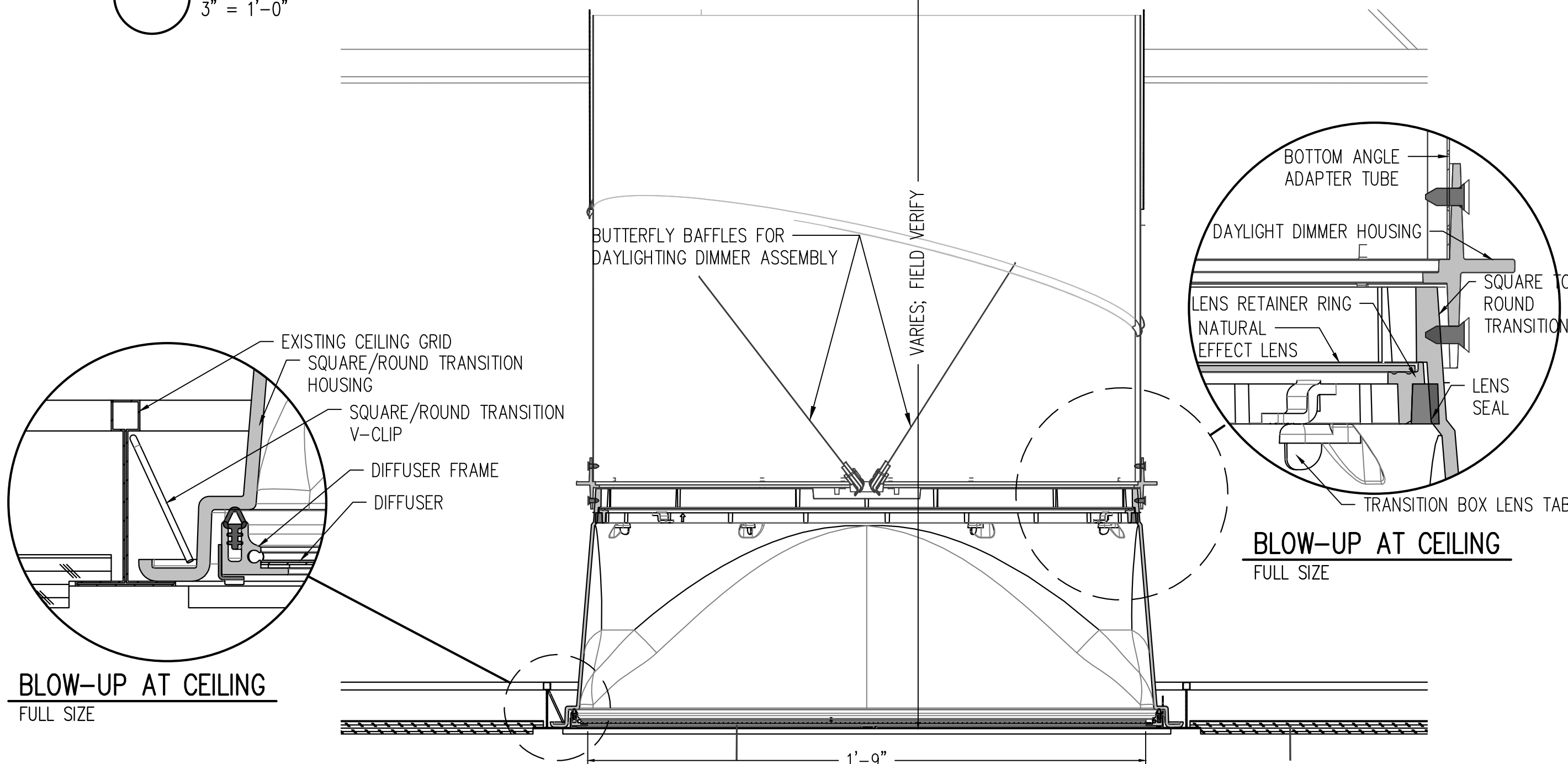


1A PLAN VIEW - DOME AND CURB FRAMING  
3" = 1'-0"

1D ISOMETRIC DETAIL  
NO SCALE

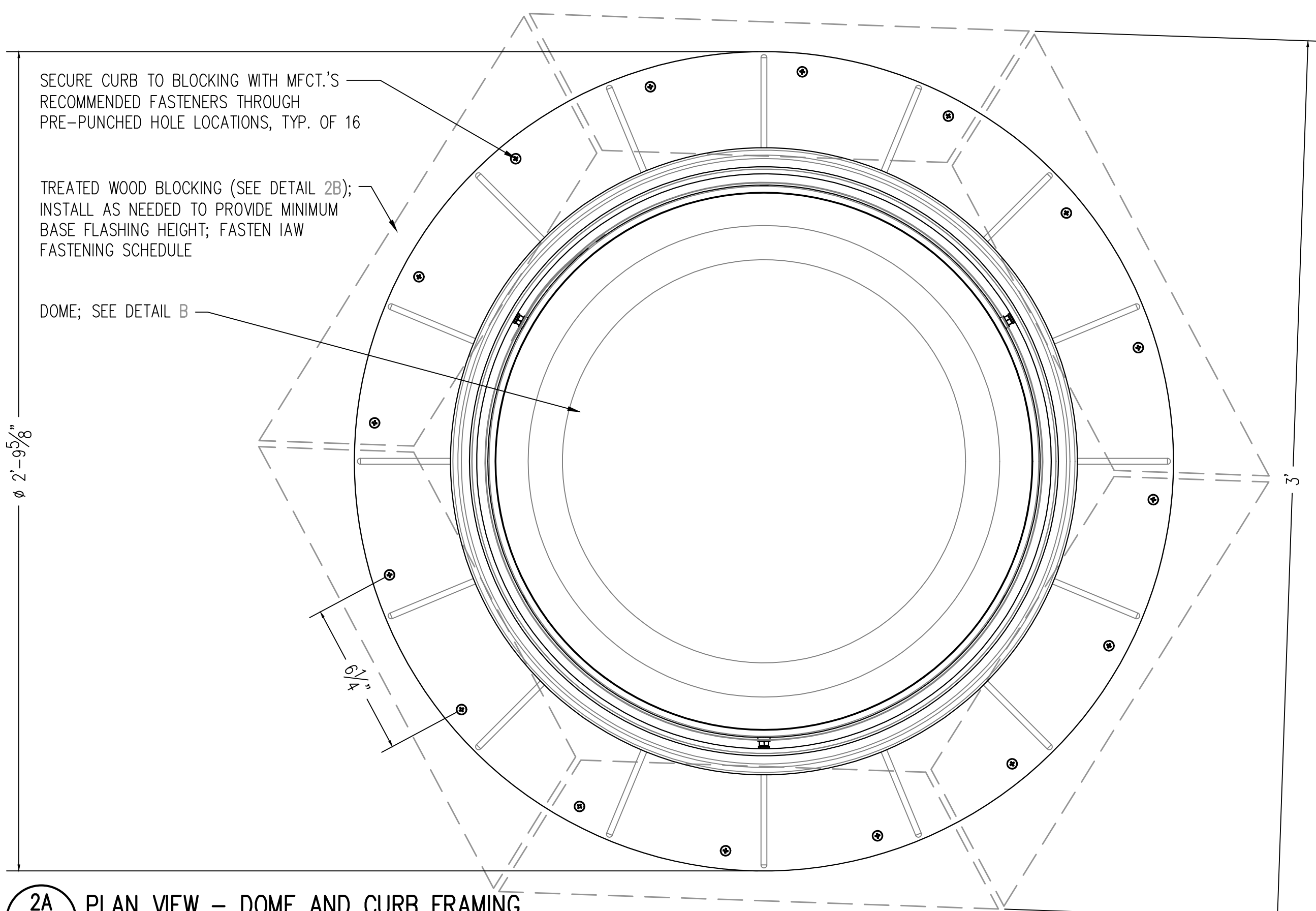


1B DAYLIGHT CURB DETAIL  
3" = 1'-0"

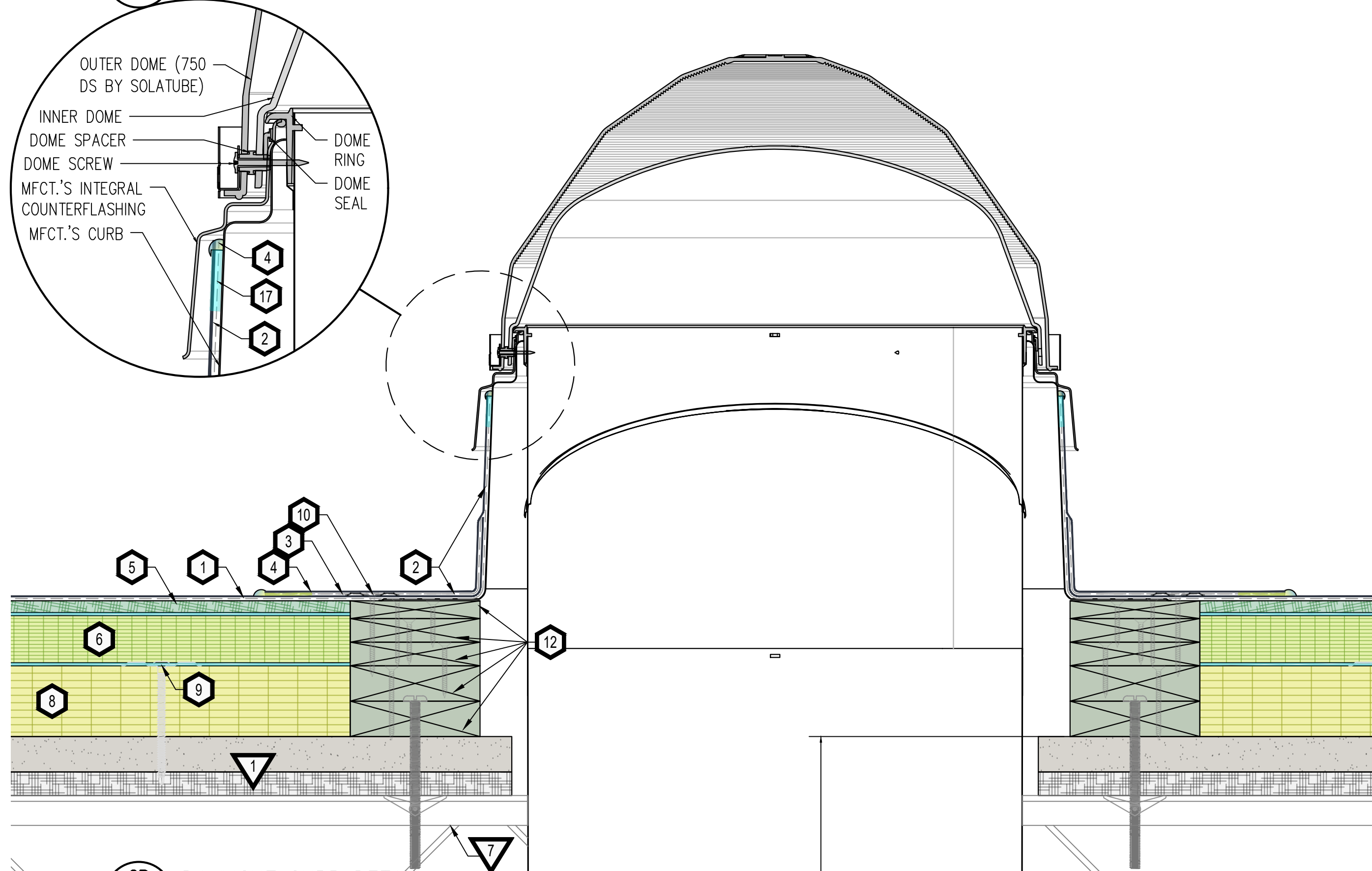


1C DAYLIGHT LIGHTWELL/DIFFUSER SECTION  
3" = 1'-0"

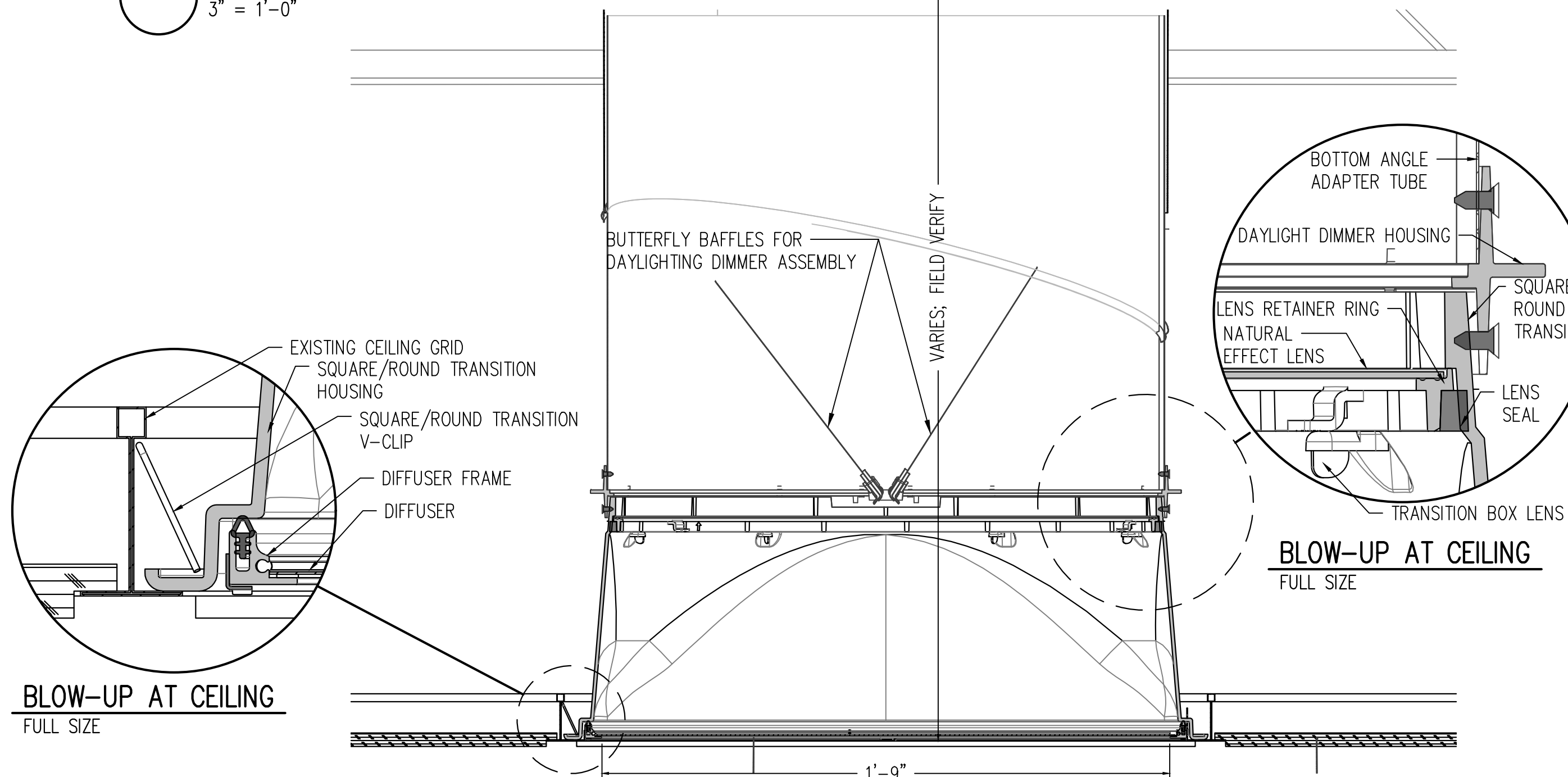
1 TYPICAL DAYLIGHT DETAIL (SQUARE CURB)  
VARIES



2A PLAN VIEW - DOME AND CURB FRAMING  
3" = 1'-0"



2B DAYLIGHT CURB DETAIL  
3" = 1'-0"



2C DAYLIGHT LIGHTWELL/DIFFUSER SECTION  
3" = 1'-0"

2 TYPICAL DAYLIGHT DETAIL (ROUND/SELF-FLASHING CURB)  
VARIES

#	DATE	SUBMISSIONS/REVISIONS
01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET

ROOF REPLACEMENT  
JOHN ADAMS ELEMENTARY SCHOOLS  
ALEXANDRIA CITY PUBLIC SCHOOLS  
5651 RAYBURN AVENUE  
ALEXANDRIA, VIRGINIA 22331

RESTORATION  
ENGINEERING, INC.  
10700 NEW MARKET DRIVE, SUITE 4  
FARMAS, VA 22030

ROOF DETAILS  
03/11/2020  
REP GBG AS NOTED  
908.024

A-5.7

12 OF 14

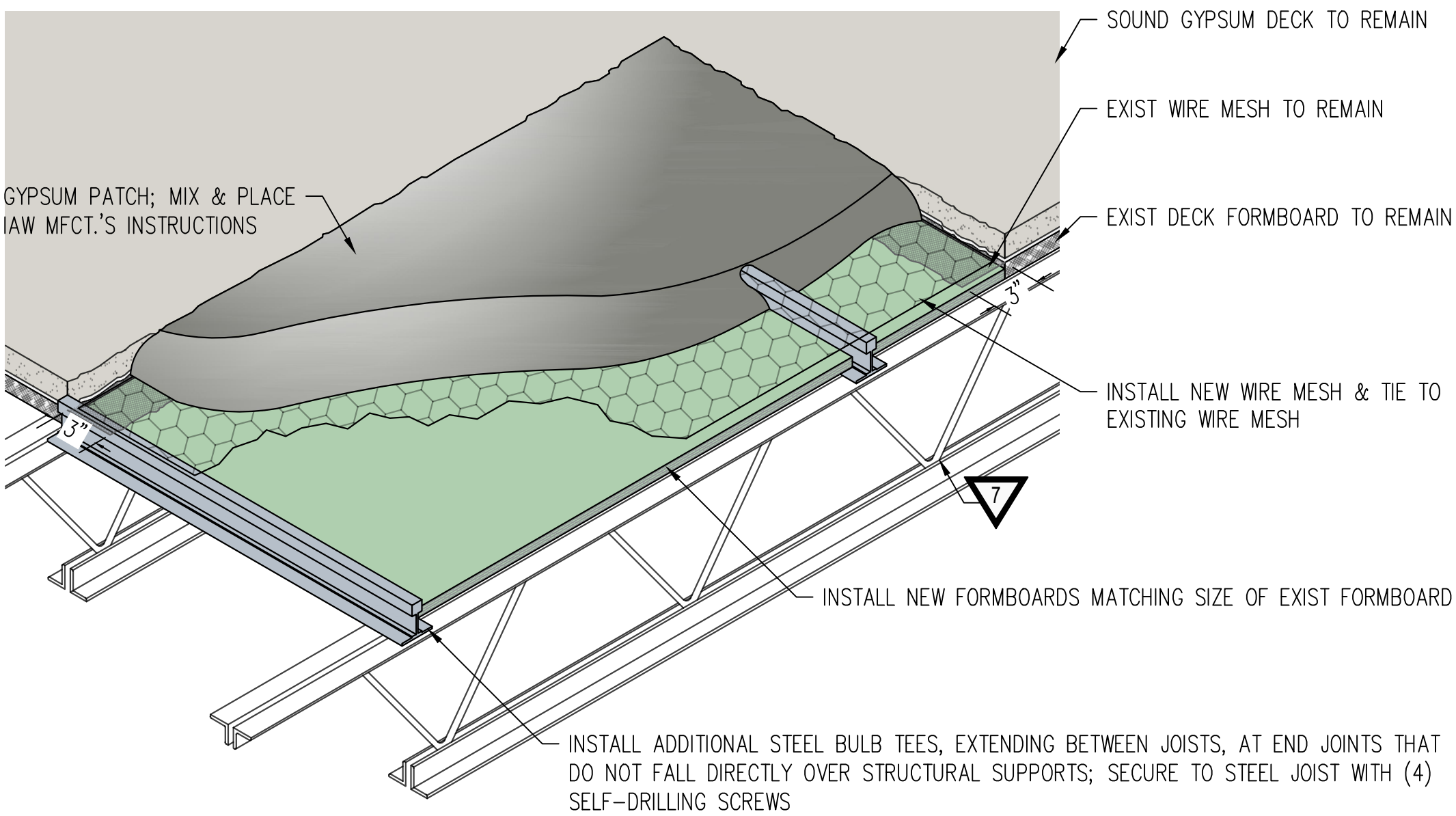


ROOF DETAILS – KEYED NOTES:

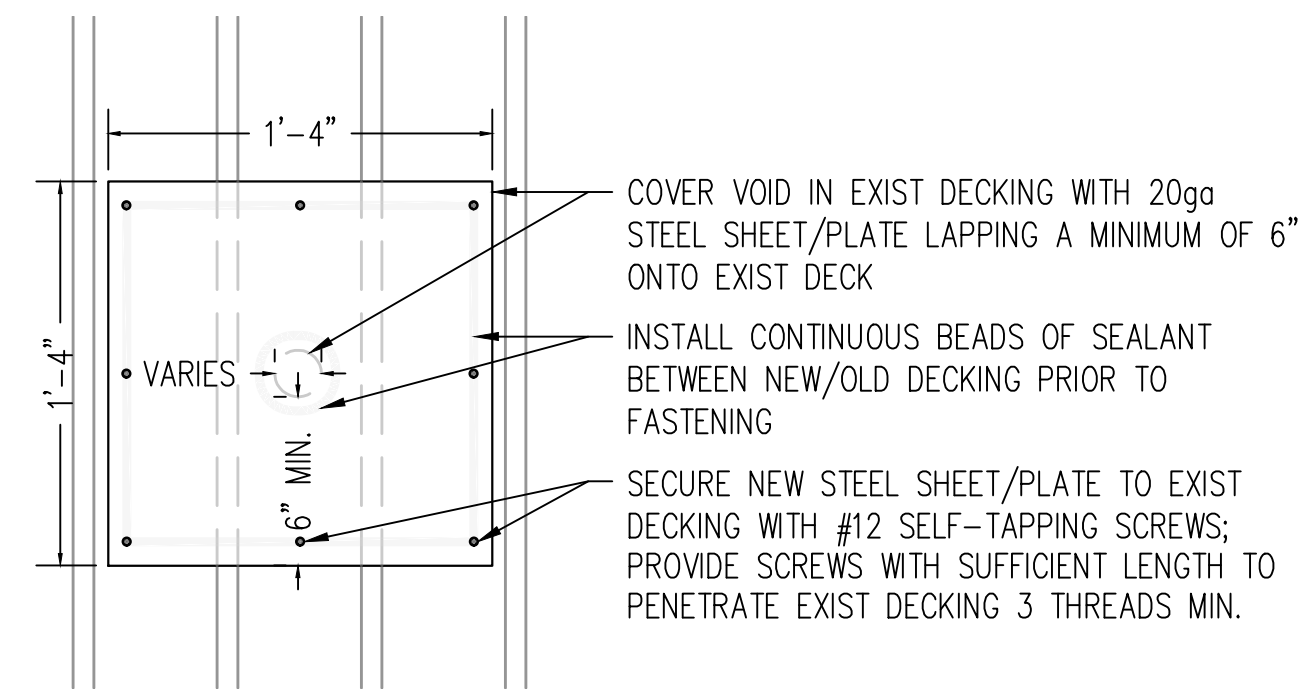
- 1
- 60 MIL FIBERGLASS REINFORCED POLYNYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2
- MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3
- HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4
- LAP SEALANT
- 5
- MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6
- TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7
- 2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8
- 3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9
- PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10
- SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11
- 5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/8" Ø, 2 1/4" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12
- TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13
- SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14
- 5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15
- 2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16
- SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICATION
- 17
- WATER CUT OFF MASTIC
- 18
- ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)
- 19
- 0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20
- 0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21
- 0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22
- 0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23
- 0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24
- 0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE; FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25
- 0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26
- CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING
- 27
- TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

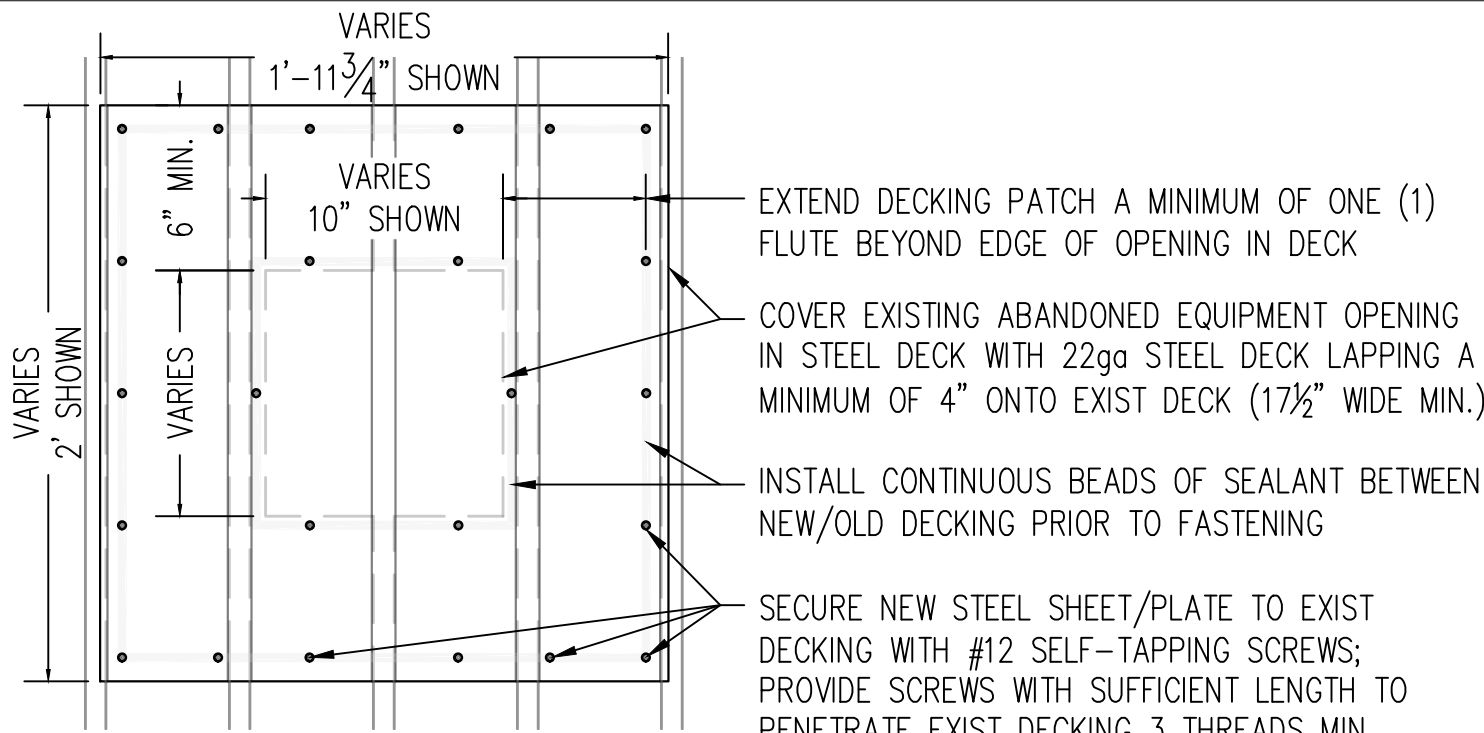
- 1
- EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2
- EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3
- EXIST CONCRETE DECK/SLAB TO REMAIN
- 4
- EXIST BRICK MASONRY TO REMAIN
- 5
- EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6
- EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7
- EXIST STEEL FRAMING TO REMAIN
- 8
- EXIST WOOD BLOCKING TO REMAIN
- 9
- EXIST PLYWOOD TO REMAIN
- 10
- EXIST WOOD SHIM TO REMAIN
- 11
- EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12
- EXIST SINGLE-PLY MEMBRANE TO REMAIN



1A GYPSUM DECK REPAIR DETAIL  
NO SCALE

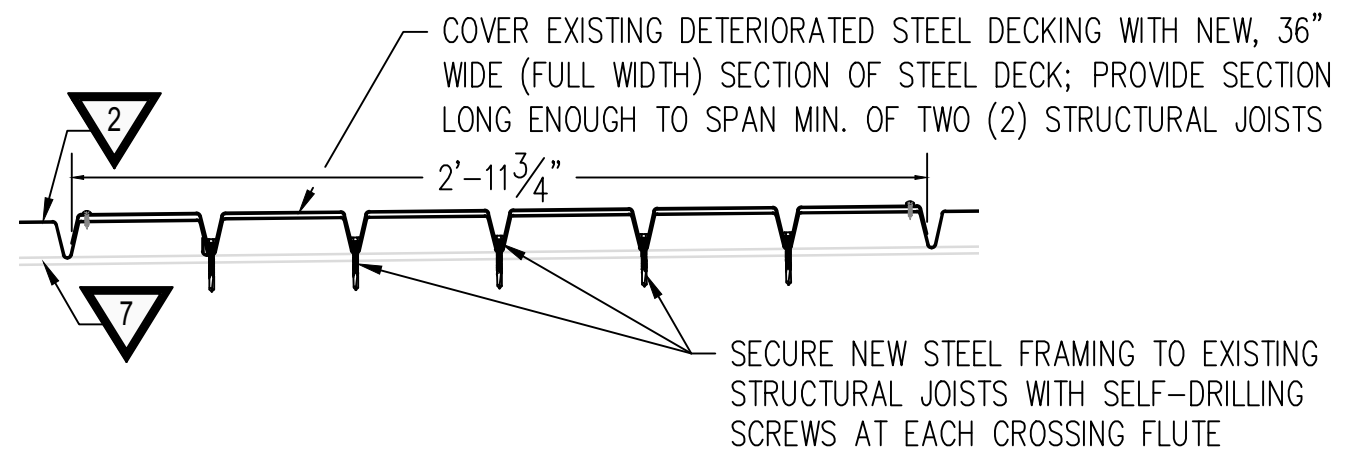


1B.1 METAL DECK PATCH AT VOID  
3" = 1'-0"



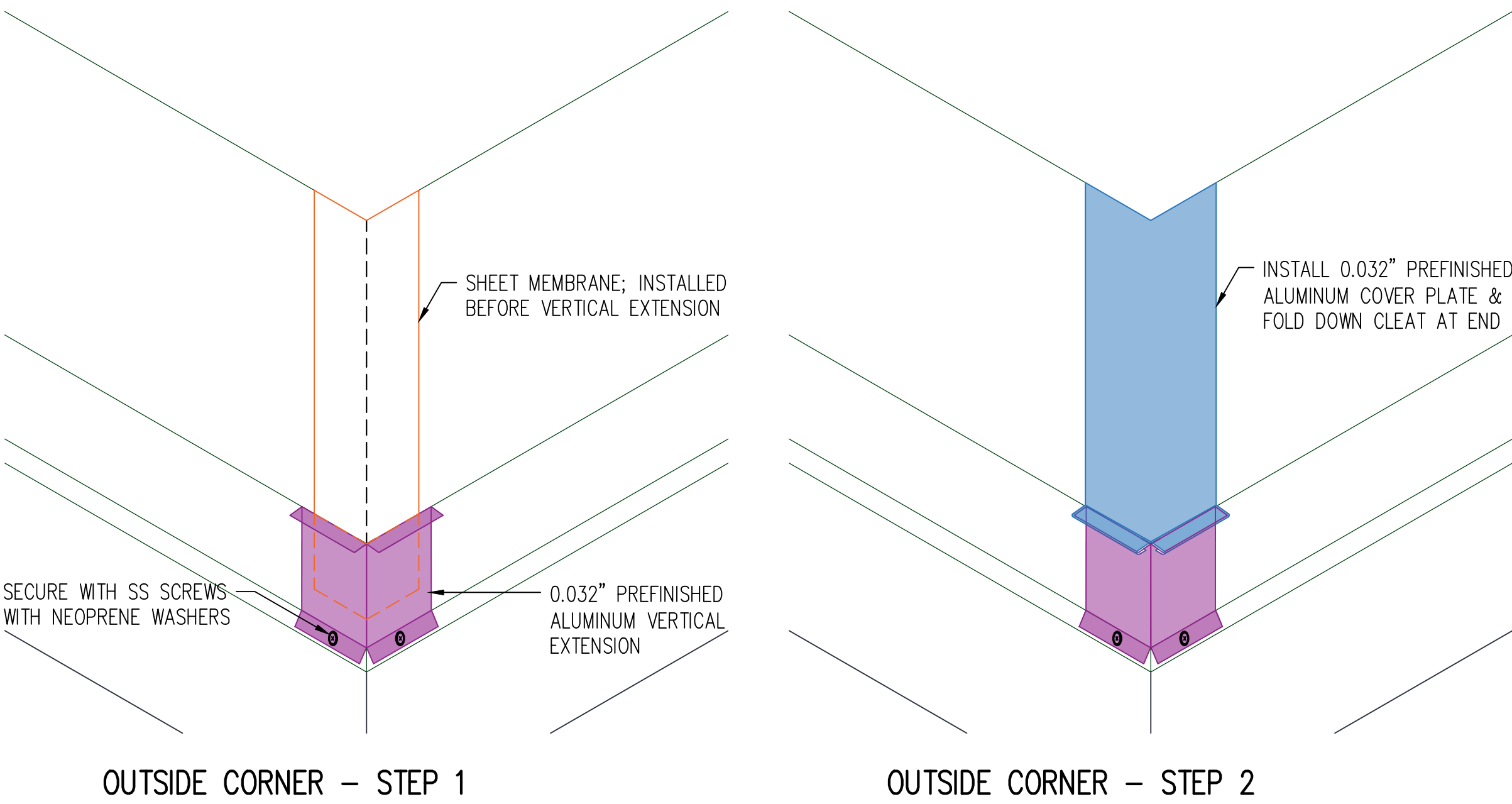
1B.2 METAL DECK PATCH AT ABAND. EQUIP. PENETRATIONS  
3" = 1'-0"

NOTE: THIS DETAIL IS PROVIDED TO REINFORCE AREAS OF THE EXISTING STEEL DECKING THAT EXHIBIT DETERIORATION OR REQUIRE REINFORCEMENT AS DETERMINED BY THE ENGINEER; AN ALLOWANCE FOR THIS TYPE OF REPAIR IS INCLUDED IN THE BASE BID AND WILL BE REIMBURSED ON A UNIT PRICE BASIS, IAW THE UNIT PRICE SCHEDULE

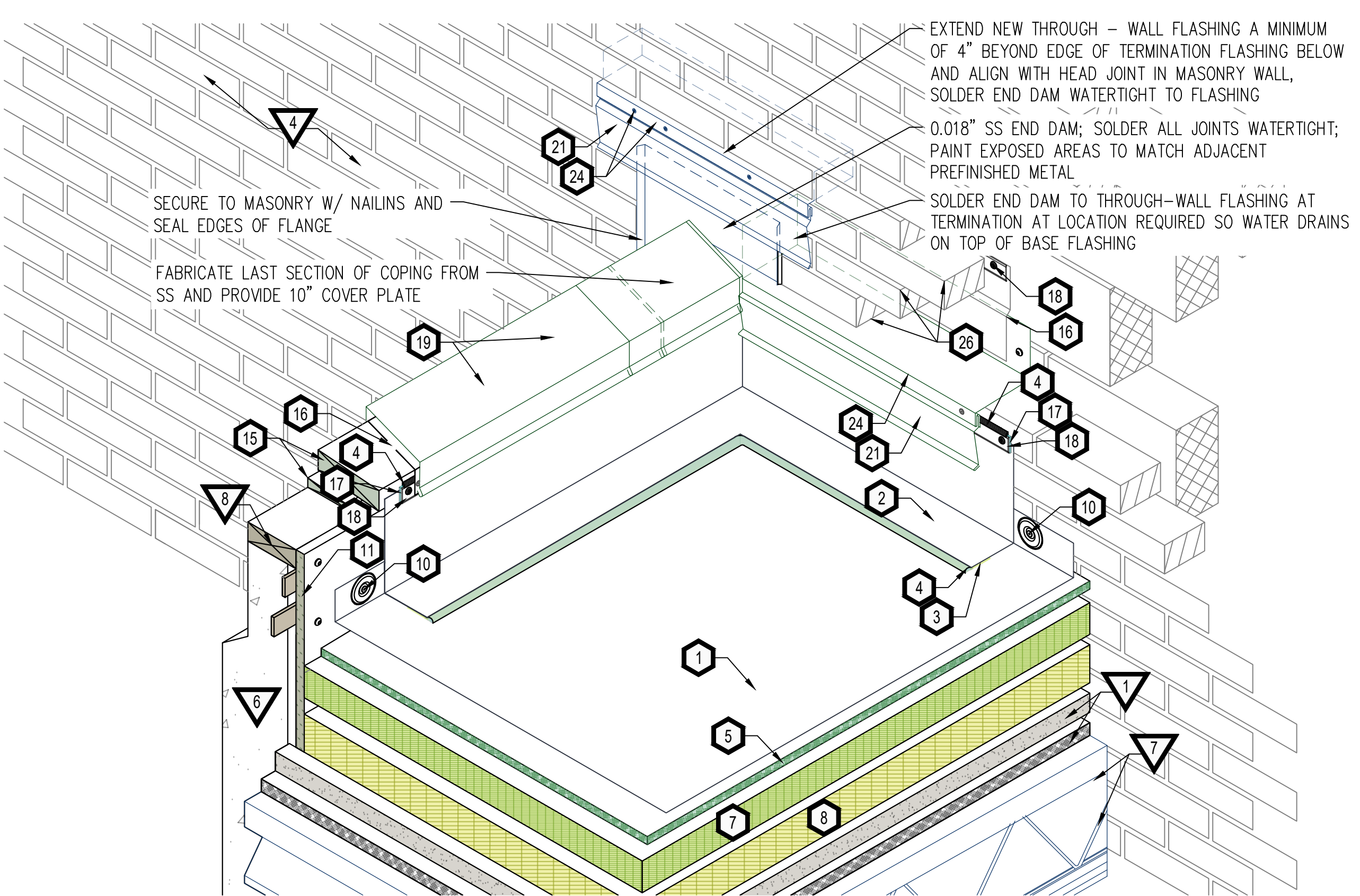
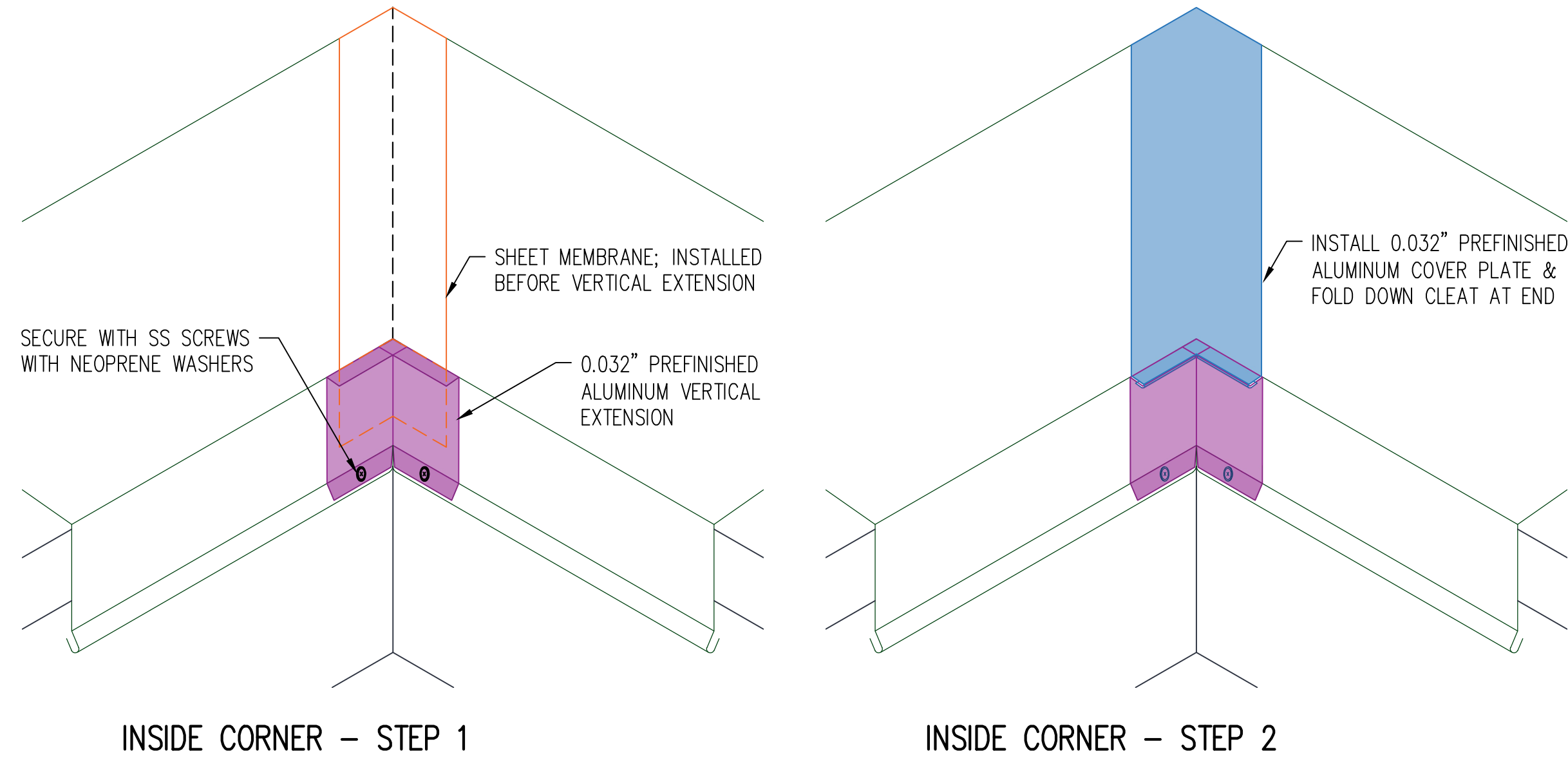


1B.3 METAL DECK REINFORCING DETAIL  
3" = 1'-0"

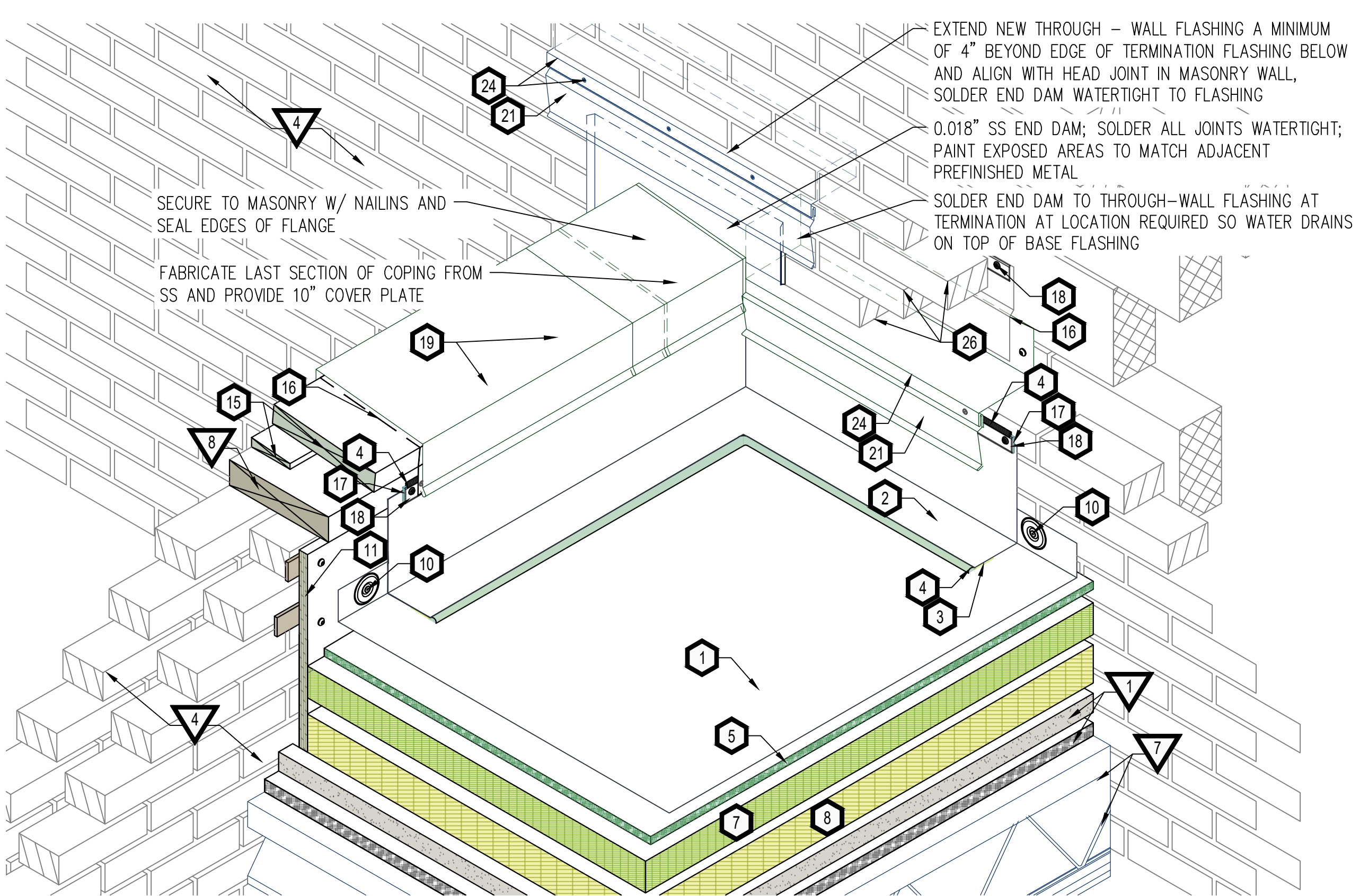
1 TYPICAL DECK REPAIR DETAILS  
AS NOTED



2 COPING CORNER JOINT DETAIL  
NO SCALE



3 COPING TERMINATION AT MASONRY WALL (PRECAST CONCRETE PANEL PARAPET)  
NOT TO SCALE



4 COPING TERMINATION AT MASONRY WALL (MASONRY PARAPET)  
NOT TO SCALE

#	DATE	SUBMISSIONS/REVISIONS
01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET
04		
05		
06		
07		
08		
09		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

ROOF REPLACEMENT  
JOHN ADAMS ELEMENTARY SCHOOL  
ALEXANDRIA CITY PUBLIC SCHOOLS  
5651 RAYBURN AVENUE  
ALEXANDRIA, VIRGINIA 22331

RESTORATION  
ENGINEERING, INC.  
10700 NEW GLEN DRIVE, SUITE 4  
FARMERSVILLE, VA 22030

ISOMETRIC DETAILS  
03/11/2020  
REP GBG AS NOTED  
908.024

A-5.8

13 OF 14



ROOF DETAILS -- KEYED NOTES:

- 1

60 MIL FIBERGLASS REINFORCED POLYNYL CHLORIDE (PVC) ROOFING MEMBRANE SET IN BONDING ADHESIVE
- 2

MFCT.'S REC. FLASHING MEMBRANE SET IN BONDING ADHESIVE
- 3

HOT AIR WELD MEMBRANE SPLICE/SEAM
- 4

LAP SEALANT
- 5

MFCT.'S REC. COVERBOARD; ADHERE TO SUBSTRATE USING MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 6

TAPERED POLYISO. INSULATION; SLOPES & CONFIGURATIONS VARY (SEE ROOF PLAN); SET IN MFCT.'S REC. POLYURETHANE SPRAY ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN
- 7

2" THICK POLYISO. INSULATION; SET IN MFCT.'S REC. POLYURETHANE ADHESIVE INSTALLED IAW MFCT.'S APPROVED COVERAGE/PATTERN; INSTALL IAW APPROVED SHOP DWGS
- 8

3" THICK BASE LAYER POLYISO. INSULATION; FASTEN TO EXIST DECK IAW APPROVED SHOP DWGS
- 9

PROVIDE ROOFING MFCT.'S APPROVED FASTENER AND FASTENING PLATE AND INSTALL IAW APPROVED SHOP DWGS INCLUDING PROVISIONS FOR ADDITIONAL FASTENERS AT "PERIMETER" & "CORNER" AREAS
- 10

SECURE MEMBRANE TO WALL FRAMING AT VERTICAL SUBSTRATE OR DECK ON HORIZONTAL AS INDICATED ON DWGS USING MFCT.'S REQ'D SECUREMENT METHOD & W/ MFCT.'S REC. FASTENERS/PLATES
- 11

5/8" THICK TREATED PLYWOOD SHEATHING, FASTEN TO MASONRY WITH 3/16" Ø, 2 1/4" LONG MASONRY SCREWS SPACED 16" O.C., SHIM AS REQUIRED TO INSTALL PLUMB TO WALL
- 12

TREATED WOOD BLOCKING/NAILER; PROVIDE SIZES SHOWN ON DWGS; RIP TO FIT; SECURE IAW FASTENING SCHEDULE
- 13

SECURE WITH 1/2" Ø ANCHOR BOLTS SPACED 48" O.C. (24" O.C. WITHIN 10'-00" OF CORNERS)
- 14

5/8" THICK TREATED PLYWOOD CAP; SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE
- 15

2x6 TREATED WOOD NAILER, RIP TO FIT, SHIM TO PROVIDE 1:12 SLOPE, MIN.; FASTEN IAW FASTENING SCHEDULE UNLESS OTHERWISE NOTED
- 16

SELF-ADHERING SHEET MEMBRANE UNDERLAYMENT/FLASHING; PRIME SUBSTRATES PRIOR TO APPLICAITON
- 17

WATER CUT OFF MASTIC
- 18

ALUMINUM TERMINATION BAR; FASTEN 6" O.C. WITH SCREWS/NAILS (WOOD) OR NAILINS (MASONRY)

- 19

0.032" PREF. ALUMINUM COPING; FASTEN INSIDE FACE W/ SS SCREWS W/ NEOPRENE WASHERS, 24" O.C.; STRIP JOINTS W/ 5" RASM & INSTALL 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 20

0.032" PREF. ALUMINUM GRAVEL STOP; FASTEN WITH SS NAILS, 3" O.C., STAGGERED; SET FLANGE IN FULL BED OF SEALANT; PROVIDE 12" WIDE BACK-UP PLATES & 6" WIDE COVER PLATES AT JOINTS
- 21

0.032" PREF. ALUMINUM COUNTERFLASHING; FASTEN 16" O.C. WITH SS SCREWS WITH NEOPRENE WASHERS
- 22

0.040" ALUMINUM CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 23

0.018" SS COUNTERFLASHING/RECEIVER; SET IN 1 1/2" DEEP SAW-CUT REGLET IN MASONRY, SECURE W/LEAD WEDGES 16" O.C. & REPOINT W/ MORTAR (DO NOT INSTALL SEALANT!!)
- 24

0.018" SS THROUGH-WALL FLASHING/RECEIVER; FASTEN WITH SS NAILINS, 24" O.C., STRIP JOINTS W/ 5" WIDE SHEET MEMBRANE AND INSTALL 6" WIDE COVER PLATE; FABRICATE HORIZONTAL FLANGE WITH SLOPE TOWARDS THE EXTERIOR, SET IN MORTAR; PROVIDE END DAMS
- 25

0.024" SS CONTINUOUS CLEAT; FASTEN WITH SS SCREWS (WOOD) OR SS NAILINS (MASONRY) SPACED 6" O.C.; DO NOT OVERDRIVE FASTENERS
- 26

CAREFULLY SAW-CUT MORTAR, REMOVE & SALVAGE (75% MIN.) 3-4 COURSES OF EXIST BRICK MASONRY; FOLLOWING INSTALLATION OF FLASHINGS, REINSTALL MASONRY MATCHING BONDING/COURSING PATTERN OF EXISTING
- 27

TAPERED EDGE STRIP; USE AS REQUIRED TO PROVIDE SMOOTH TRANSITION

EXISTING CONSTRUCTION:

- 1

EXIST GYPSUM DECKING TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 2

EXIST 1 1/2" STEEL DECK TO REMAIN (SEE ROOF PLAN FOR SLOPES)
- 3

EXIST CONCRETE DECK/SLAB TO REMAIN
- 4

EXIST BRICK MASONRY TO REMAIN
- 5

EXIST CONCRETE MASONRY UNIT (CMU) WALL TO REMAIN
- 6

EXIST PRE-CAST CONCRETE CLADDING TO REMAIN
- 7

EXIST STEEL FRAMING TO REMAIN
- 8

EXIST WOOD BLOCKING TO REMAIN
- 9

EXIST PLYWOOD TO REMAIN
- 10

EXIST WOOD SHIM TO REMAIN
- 11

EXIST THROUGH-WALL FLASHING; CUT FLUSH WITH FACE OF MASONRY
- 12

EXIST SINGLE-PLY MEMBRANE TO REMAIN

NOTE:

0.032" PREFINISHED ALUMINUM COUNTERFLASHING NOT SHOWN FOR CLARITY

FABRICATE LAST SECTION OF EXPANSION JOINT COVER FROM SS; TURN UP WALL AND SOLDER JOINTS BETWEEN BACK LEG AND VERTICAL FACE

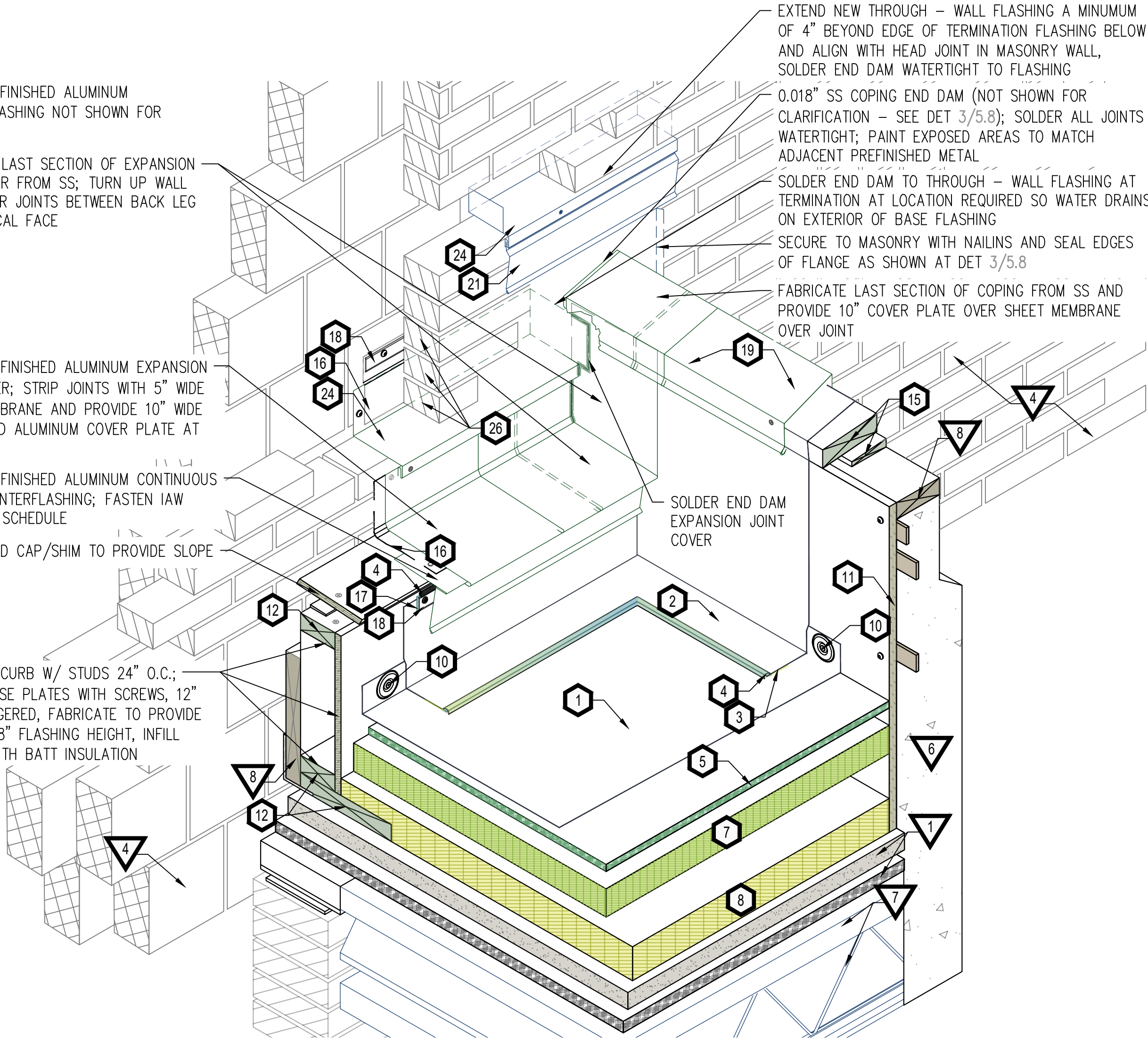
0.032" PREFINISHED ALUMINUM EXPANSION JOINT COVER; STRIP JOINTS WITH 5" WIDE SHEET MEMBRANE AND PROVIDE 10" WIDE PREFINISHED ALUMINUM COVER PLATE AT END

0.040" PREFINISHED ALUMINUM CONTINUOUS CLEAT COUNTERFLASHING; FASTEN IAW FASTENING SCHEDULE

1/2" PLYWOOD CAP/SHIM TO PROVIDE SLOPE

2x4 WOOD CURB W/ STUDS 24" O.C.; FASTEN BASE PLATES WITH SCREWS, 12" O.C., STAGGERED, FABRICATE TO PROVIDE REQUISITE 8" FLASHING HEIGHT, INFILL CAVITIES WITH BATT INSULATION

1  
A5.9  
COPING TERMINATION AT MASONRY WALL WITH EXPANSION JOINT (PRECAST CONCRETE PARAPET)  
NOT TO SCALE



FASTENER SCHEDULE

FASTEN COMPONENTS IN ACCORDANCE WITH THE FOLLOWING FASTENER SCHEDULE, DRAWINGS AND SPECIFICATIONS, WHICHEVER IS MOST STRINGENT. SPECIAL CARE MUST BE TAKEN AT BUILDING CORNERS WHERE FASTENER SPACING IS REDUCED (NUMBER OF FASTENERS ARE INCREASED).

ELEMENT	SUBSTRATE	FASTENER	CONNECTION TYPE	SPACING
WOOD NAILER/BLOCKING (HORIZONTAL)	to MASONRY/CONCRETE	1/2" Ø SS ANCHOR BOLTS	PRE-DRILLED HOLES (SEE NOTE 1)	48" O.C.; WITHIN 10' OF CORNERS PROVIDE FASTENERS 24" O.C. (SEE NOTE 2)
WOOD NAILER/BLOCKING (VERTICAL)	to MASONRY	1/2" Ø SS NAILINS OR TAPCONS	DIRECT/ PRE-DRILL	12" O.C., STAGGERED; WITHIN 8' OF CORNERS PROVIDE FASTENERS 6" O.C. (SEE NOTE 2)
WOOD NAILER/BLOCKING	to GYPSUM DECKING	3/4" Ø TOGGLE BOLT	PRE-DRILL	24" O.C. (SEE NOTE 2); AT PENETRATIONS, PROVIDE MIN. 2 PER SIDE; AT SMALL CURBS (e.g., ROOF HATCH CURB, EXHAUST FAN CURB, ETC.), PROVIDE MIN. 3 PER SIDE
WOOD NAILER/BLOCKING	to STEEL DECKING	SS, #12 SELF-TAPPING SCREWS (LENGTH AS REQ. TO PENE. 3 THREADS, MIN)	DIRECT-SELF TAP	12" O.C., STAGGERED; WITHIN 8' OF CORNERS PROVIDE FASTENERS 6" O.C. (SEE NOTE 2)
WOOD NAILER/BLOCKING	to STEEL FRAMING	SS, #12 SELF-DRILLING SCREWS (LENGTH AS REQ. TO PENE. 3 THREADS, MIN)	DIRECT-SELF DRILL	12" O.C., STAGGERED; WITHIN 8' OF CORNERS PROVIDE FASTENERS 6" O.C. (SEE NOTE 2)
WOOD NAILER (HORIZONTAL OR VERTICAL)	to WOOD NAILER (HORIZONTAL)	12d SS NAILS	DIRECT	12" O.C., STAGGERED; WITHIN 8' OF CORNERS PROVIDE FASTENERS 6" O.C. (SEE NOTE 2)
WOOD NAILER (VERTICAL)	to WOOD NAILER (VERTICAL)	12d SS NAILS	TOE NAILED	12" O.C.; WITHIN 8' OF CORNERS PROVIDE FASTENERS 6" O.C. (SEE NOTE 2)
WOOD CANT	to WOOD CURB	#14, 3" SS SCREWS W/1 1/4" PENETRATION	DIRECT	12" O.C., STAGGERED; WITHIN 8' OF CORNERS PROVIDE ANCHORS 6" O.C. (SEE NOTE 2)
CONTINUOUS CLEAT (PERIMETER FLASHINGS)	to WOOD NAILER/BLOCKING	2" SS ROOFING NAIL W/ 1/4" Ø HEAD, MIN.	DIRECT	6" O.C., MAX.; WITHIN 8' OF CORNERS PROVIDE FASTENERS 3" O.C. (SEE NOTE 2)
CONTINUOUS CLEAT (PERIMETER FLASHINGS)	to MASONRY/CONCRETE	1 1/2" LONG, 1/2" Ø SS NAILINS	DIRECT	6" O.C., MAX.; WITHIN 8' OF CORNERS PROVIDE FASTENERS 3" O.C. (SEE NOTE 2)
GRAVEL STOP/D RIP EDGE	to WOOD NAILER	1 1/2" SS ROOFING NAIL W/ 1/4" Ø HEAD, MIN.	DIRECT	3" O.C., STAGGERED
METAL COPING	to WOOD NAILER/BLOCKING	2" LONG, #10 SS SCREW W/NEOPRENE WASHER	DIRECT	16" O.C., MAX.; WITHIN 8' OF CORNERS PROVIDE FASTENERS 8" O.C. (SEE NOTE 2)
TERMINATION BAR	to MASONRY/CONCRETE	1/2" Ø SS NAILINS OR TAPCONS	PRE-DRILL	6" O.C.
TERMINATION BAR	to STEEL STUD FRAMING	SS, #12 SELF-DRILLING SCREWS (LENGTH AS REQ. TO PENE. 3 THREADS, MIN)	DIRECT-SELF DRILL	EVERY STUD
METAL COUNTERFLASHING	to METAL RECEIVER	SS, #10 SCREW W/NEOP. WASHER (LENGTH AS REQ. TO PENE. 3 THREADS, MIN)	DIRECT-SELF TAP	24" O.C. (MIN. 2 PER SIDE AT CURBS)
WOOD SHEATHING	to STUD FRAMING/ CURB	8d SS COMMON NAILS	DIRECT	12" O.C. @ INTERIOR STUDS, 6" O.C. @ BOARD EDGES
WOOD SHEATHING	to WOOD BLOCKING	8d SS COMMON NAILS	DIRECT	12" O.C. @ INTERIOR, 6" O.C. @ BOARD EDGES
WOOD SHEATHING	to MASONRY WALL	1/2" Ø NAILINS OR TAPCONS	DIRECT/ PRE-DRILL	12" O.C. @ INTERIOR, 6" O.C. @ BOARD EDGES
NOTE 1		HOLES MUST BE BLOWN-OUT AND BRUSHED PRIOR TO INSTALLATION OF FASTENER		
NOTE 2		WITHIN 8' OF CORNERS, DECREASE FASTENER SPACING TO HALF OF LISTED VALUE		

#

DATE

SUBMISSIONS/REVISIONS

01	02/11/2020	80% SUBMISSION SET
02	02/28/2020	95% SUBMISSION SET
03	03/11/2020	BID SET

ROOF REPLACEMENT

JOHN ADAMS ELEMENTARY SCHOOL

ALEXANDRIA CITY PUBLIC SCHOOLS

5651 RAYBURN AVENUE

ALEXANDRIA, VIRGINIA 22331

R

RESTORATION ENGINEERING, INC.

10702 NEW GLEN DRIVE, #4

FARMERS, VA 22030

DATE

03/11/2020

PROJECT

BID SET

BY

REP

GBG

DATE

908.024

AS NOTED

A - 5.9

14

OF

14