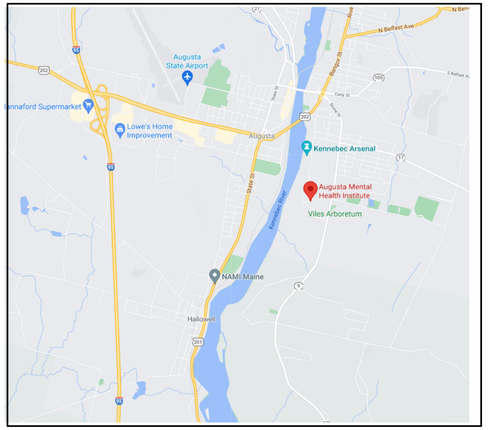
AMHI WELLNESS CENTER ROOF REPLACEMENT

BUREAU of GENERAL SERVICES

AUGUSTA, MAINE

ALLIED PROJECT #19-104



LOCATION MAP

ISSUED FOR BID ~ 06 MAY 2022 ~ NOT FOR CONSTRUCTION

DRAWING STATUS LIST

ISSUE	DESCRIPTION	DATE
	ISSUED FOR BID	05-06-2022

DRAWINGS

SHEET No.	SHEET TITLE							
G-000	COVER SHEET	•						
RD100	DEMOLITION PLAN	•						
R-100	ROOF PLAN	•						
R-500	ROOF DETAILS	•						

Allied Engineering
Structural Mechanical Electrical Plumbing

160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com

STATE OF MAINE
WILLIAM P. FAUCHER
NO. 7133
LICENSED PROFESSIONAL ENGINEER

William P. Faucher, P.E.
ASSISTED ROOF CONSULTANT
RCI
0659
RCI, Inc.

5/5/2022 8:57:48 AM
BIM 360://19104 AMHI Wellness Center/19104_R20.rvt

ROOF DEMOLITION NOTES

ROOF COMPOSITION (APPROXIMATELY 6,200 SF GYM ROOF; 7,000 SF LOW ROOFS)

1. STONE BALLAST
2. EPDM MEMBRANE
3. TAPERED INSULATION TO DRAIN INSULATION CKICKETS (DEPTH VARIES)
4. 2 LAYERS 2.2" POLYISOCYANURATE INSULATION
5. VAPOR BARRIER
6. 1-1/2" METAL ROOF DECK (20 GAGE)

DEMO NOTES

1 REMOVE STONE BALLAST, EPDM ROOFING IN ITS ENTIRETY. REMOVE INSULATION IN ITS ENTIRETY DOWN TO METAL DECKING. REMOVE PT PLATES.

2 REMOVE/POWERWASH/STORE CONCRETE WALKWAY MATS FROM ROOF.

3 REMOVE INTERIOR EXPOSED PARAPET SIDE-WALL FLASHING FLUSH TO BLOCK WALL SURFACE. REMOVE PARAPET CAP FLASHING AND PT PARAPET CAP PLATES BENEATH METAL CAP.

4 CUT EPDM MEBRANE 6 INCHES ABOVE ADJACENT ROOF SURFACE AND PEEL UP SIDEWALL TO UNDERSIDE OF FLASHING (DO NOT REMOVE EPDM UP TO FLASHING). MAINTAIN IN PLACE UNTIL REPLACEMENT EPDM APPLIED. ADHERE EXISTING (LIFTED) EPDM TO SIDEWALL AND LAP (ADHERE OVER PROPOSED VERTICAL EPDM WALL APPLICATION.

5 REMOVE PERIMETER METAL FLASHING AND PT PERIMETER PLATES OVER TOP OF WALL.

6 REMOVE/STORE/REINSTALL MECHANICAL VENTS FOR MEMBRANE INSTALLATION.

7 REMOVE VENT PIPE BOOT.

8 RAKE AND REPOINT MASONRY WITHIN 2 FEET OF CORNER, THIS FACE, FULL HEIGHT TO ROOF.

9 REMOVE CURB AND METAL COVER DOWN TO ROOF DECK.

10 COORDINATE DISCONNECTION OF DISH WITH OWNER. REMOVE/STORE/REINSTALL DISH AND COUNTERWEIGHT SYSTEMS ONCE ROOFING COMPLETE.

11 REMOVE/REINSTALL ROOF DRAINS TO FACILITATE VAPOR BARRIER, GYPSUM BOARD AND INSULATION. REMOVE/EXTEND ROOF DRAIN PIPING LENGTH TO FACILITATE ANY CHANGE IN DRAIN ATTACHMENT HEIGHT DIFFERENTIAL. DEVELOP 2'0" X 2'0" X 2' DEEP SUMP AT EACH ROOF DRAIN, EXTENDING INTO METAL DECK AS REQUIRED. REMOVE THRU-WALL SCUPPER ASSEMBLY AND PIPING AS REQUIRED TO FACILITATE PROPOSED REPLACEMENT SYSTEM.

12 REMOVE PT BLOCKING EITHER SIDE OF ROOF EXPANSION JOINT.

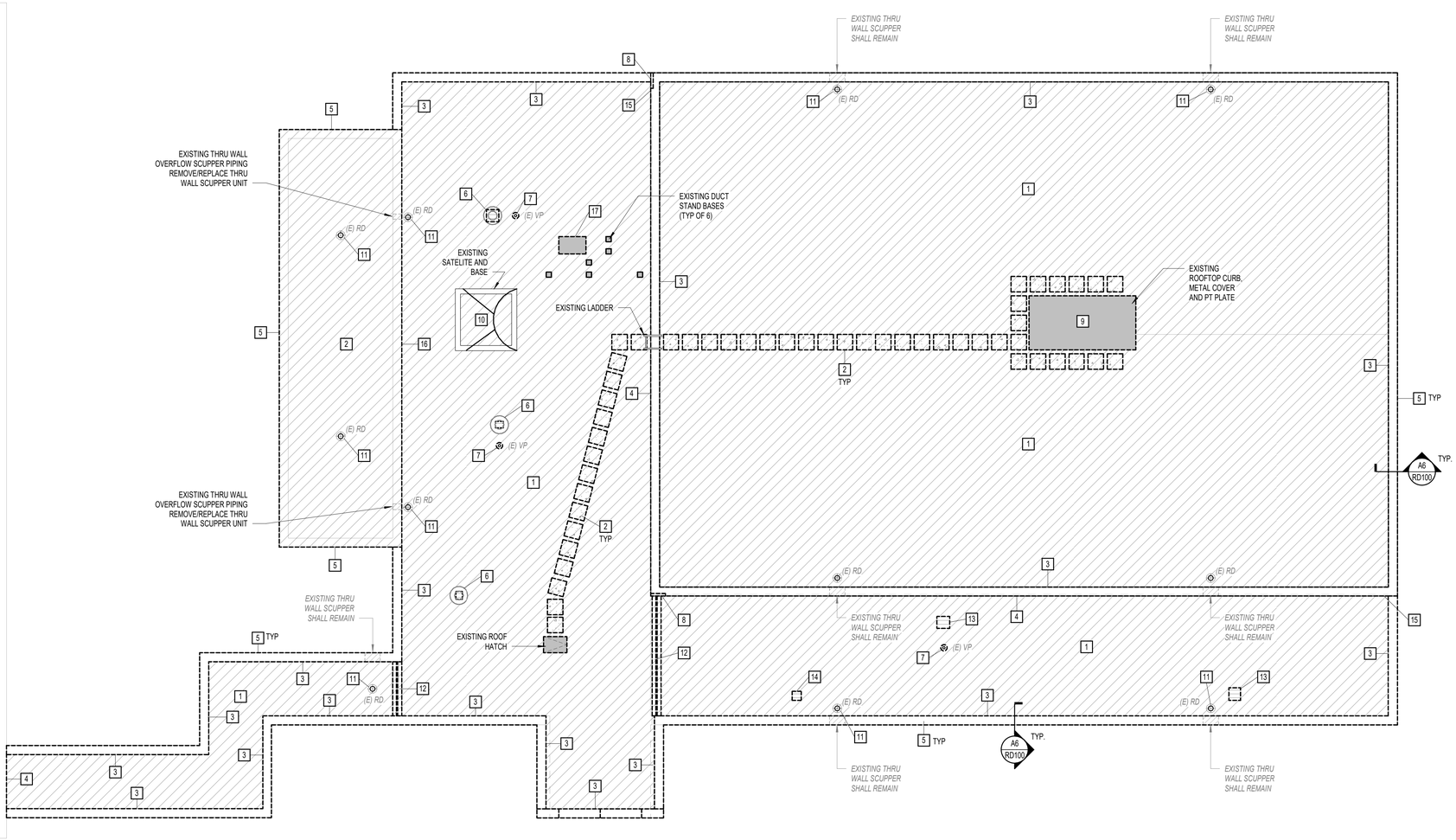
13 REMOVE CURB AND PT PLATES DOWN TO DECK.

14 FAN CURB TO REMAIN.

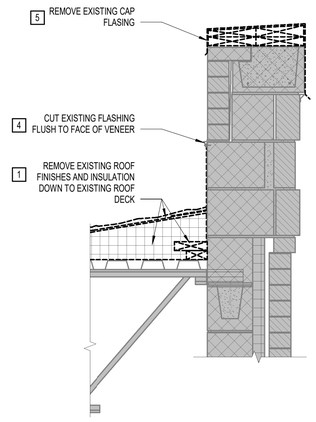
15 DEMO MASONRY TO FACILITATE INSTALLATION OF SUPPLEMENTAL ZINC-TIN ALLOY-COATED COPPER SHEET FLASHING AND MEMBRANE TERMINATION AT SIDE WALL. SEE DETAIL C1/R-500

16 REMOVE EPDM ON SIDE WALL AND TOP OF WALL. REMOVE PT PLATES.

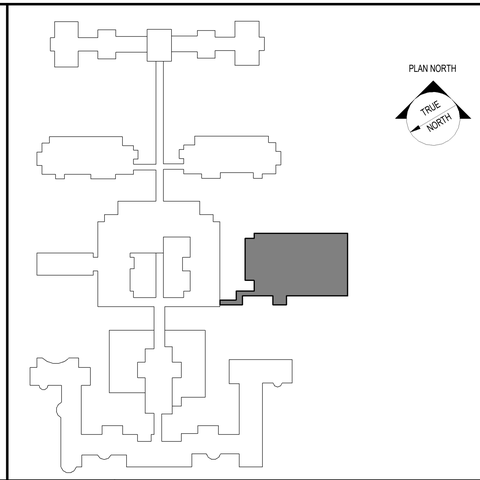
17 CUT EPDM AT BASE OF HVAC UNIT CURB TO ALLOW FOR PROPOSED EPDM INSTALLATION TO WRAP UP CURB WALL WHILE USING FLAP OF EXISTING TO LAP OVER AND ADHERE TO NEW EPDM



C1 | ROOF DEMOLITION PLAN
1/8" = 1'-0"



A6 | SECTION AT PARAPET DEMOLITION
1" = 1'-0"



A9 | KEYPLAN

160 Veranda Street
Portland, Maine 04103
P: 207.221.2260
F: 207.221.2266
Web:www.allied-eng.com
Allied Engineering
Structural Mechanical Electrical Plumbing

STATE OF MAINE
WILLIAM P. PALCHER
No. 7153
REGISTERED PROFESSIONAL ENGINEER

REVISIONS

No.	DESCRIPTION	DATE	BY

Date: -
Drawn By: PED
Checked By: WPF
Project Mgr: WPF
Project No.: 19-104
Cad File:
Graphic Scale: 0" 1"

DEMOLITION PLAN

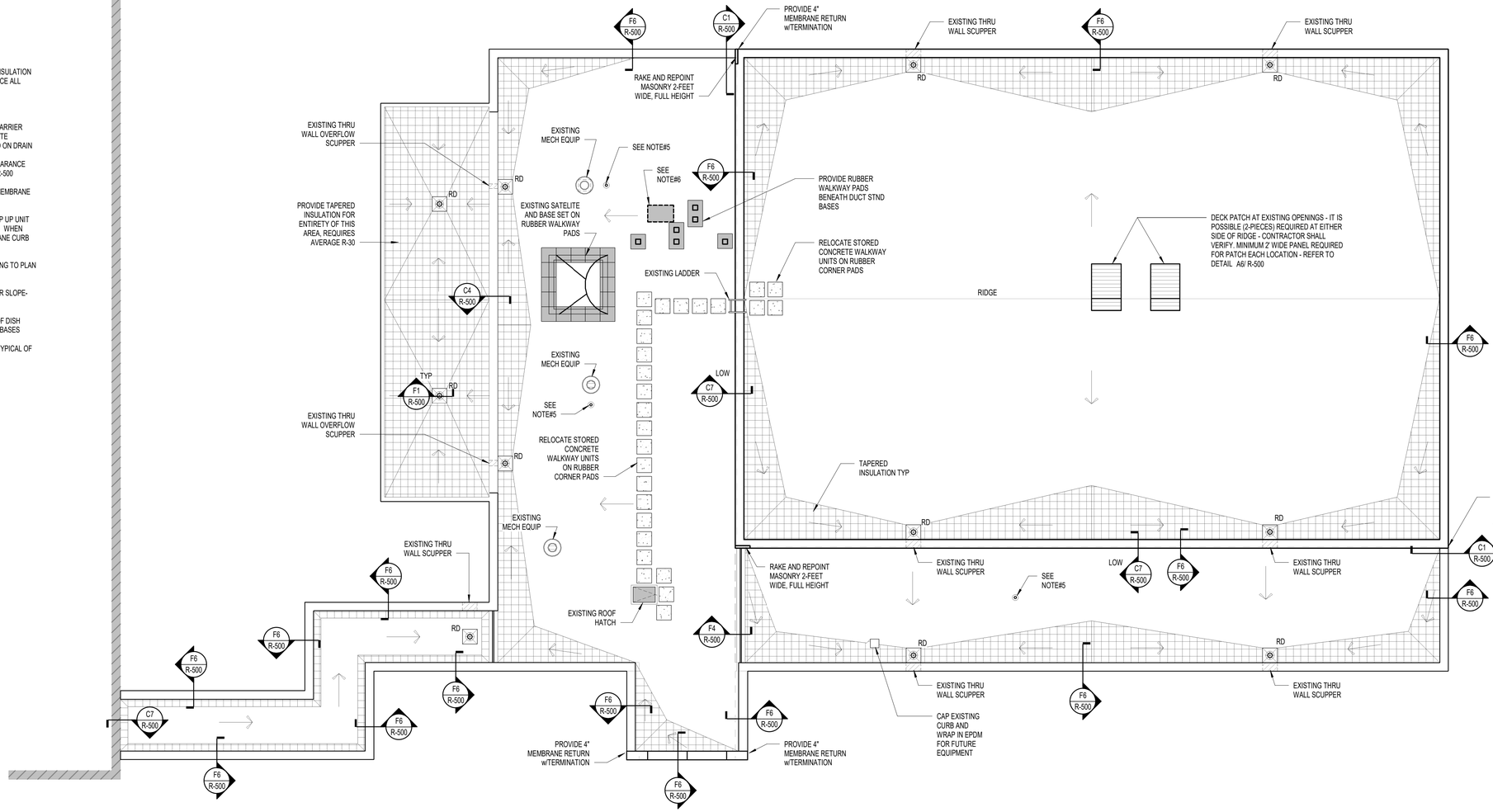
AMHI WELLNESS CENTER ROOF REPAIR
AUGUSTA, MAINE

RD100

ISSUED FOR BID ~ 06 MAY 2022 ~ NOT FOR CONSTRUCTION

REROOFING/CONSTRUCTION SCOPE

1. APPLY AIR/VABOR BARRIER, GYPSUM BOARD AND POLYISOCYANRUATE INSULATION MECHANICALLY FASTENED TO (E) 1-1/2" 20 GAGE METAL DECKING. REPLACE ALL BLOCKING AND COPING WOOD PLATES WITH KILN DRIED LUMBER.
2. REPLACE METAL FASCIA.
3. REMOVE DRAINS AND RAISE AS NECESSARY TO ALLOW FOR AIR/VAPOR BARRIER INSTALLATION. GYPSUM DECK BOARD AND MINIMUM 1" POLYISOCYANURATE INSULATION WITHIN THE REQUIRED 2 FT X 2 FT SQUARE SUMP CENTERED ON DRAIN
4. VENT PIPES (TYPICAL): PROVIDE AN EPDM PIPE BOOT WITH MINIMUM CLEARANCE FROM ROOF SURFACE TO CLAMP OF NOT LESS THAN 8". SEE DETAIL A9/ R-500
5. LIFT/STORE/REPLACE VENT/FANS TO ALLOW REINSTALLATION OF CURB MEMBRANE AND MEMBRANE TIE-INS WITH EXISTING FIELD MEMBRANE.
6. CUT MEMBRANE OF CURB AT ROOF LINE (ALL 4 SIDES OF UNIT) AND WRAP UP UNIT PRIOR TO INSTALLATION OF A NEW MEMBRANE CURB BASE APPLICATION. WHEN COMPLETE, ADHERE EXISTING MEMBRANE FLAP DOWN OVER NEW MEBRANE CURB FLASHING INSTALLATION.
7. REUSE EXISTING CONCRETE WALKWAY UNITS AND DISTRIBUTE ACCORDING TO PLAN LAYOUT. RETURN UNUSED CONCRETE WALKWAY UNITS TO OWNER.
8. (E) ROOF FRAMING IS SLOPED, WITH TAPERED INSULATION PROVIDED FOR SLOPE-TO-DRAIN FLOW ON ROOFS.
9. PROVIDE 2X2 ADHERED RUBBER WALKWAY PADS BENEATH PERIMETER OF DISH COUNTERWEIGHT SYSTEM AND FOR EACH OF THE DUCT POST SUPPORT BASES
10. PROVIDE RETROFIT SCUPPER OVERFLOW THRU-WALL SCUPPER DRAIN. TYPICAL OF 2-LOCATIONS



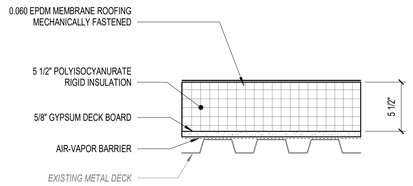
C1	ROOF PLAN
1/8" = 1'-0"	

STRUCTURAL NOTES

1. THIS BUILDING IS DESIGNED TO COMPLY WITH THE 2015 EDITIONs OF BOTH THE INTERNATIONAL BUILDING CODE (IBC) AND INTERNATIONAL EXISTING BUILDING CODE (IEBC); ASCE 7-10 "MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES.
2. DEAD LOADS: DESIGN INCLUDES THE SELF WEIGHT OF STRUCTURAL COMPONENTS PLUS 5 PSF ALLOWANCE FOR MISCELLANEOUS DUCTWORK, SPRINKLER PIPING AND OTHER HUNG ITEMS.
3. SNOW LOAD:
   - A. GROUND SNOW LOAD — Pg = 70 PSF
   - B. FLAT ROOF SNOW LOAD — Pf = 53.9 PSF
   - C. SNOW LOAD IMPORTANCE FACTOR — I_s = 1.0
   - D. SNOW EXPOSURE FACTOR — Ce = 1.0
   - E. SNOW THERMAL FACTOR — Ct = 1.1
   - F. SNOW DRIFTING IN ACCORDANCE WITH ASCE7
4. WIND LOAD:
   - A. BASIC WIND SPEED — V = 115 MPH
   - B. RISK CATEGORY — II
   - C. WIND EXPOSURE — EXPOSURE C
   - D. WIND INTERNAL PRESSURE COEFFICIENT — GCpi = ±0.18
   - E. ZONE "a" — 8 FEET (GYM) 3 FEET (LOW ROOFS)
   - F. DESIGN WIND LOADS:

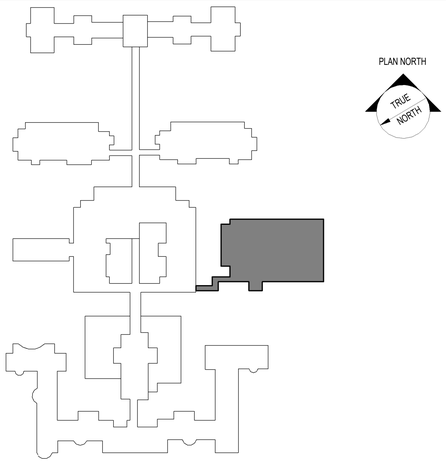
Component and Cladding Ultimate Wind Pressures

Roof Area	Surface Pressure (psf) 10 sf	50 sf	100 sf	500 sf
Negative Zone 1	-32.4	-30.4	-29.6	-29.6
Negative Zone 2	-54.3	-40.9	-35.1	-35.1
Negative Zone 3	-81.7	-49.1	-35.1	-35.1
Positive All Zones	16.0	16.0	16.0	16.0



PROPOSED ROOFING PROFILE

A6	PROPOSED ROOF PROFILE
1 1/2" = 1'-0"	



A9	KEYPLAN

160 Veranda Street
Portland, Maine 04103
P: 207.221.2260
F: 207.221.2266
Web:www.allied-eng.com
Allied Engineering
Structural Mechanical Electrical Plumbing

STATE OF MAINE — WILLIAM P. PALCHER No. 7153 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

No.	DESCRIPTION	DATE	BY

Date: -
Drawn By: PED
Checked By: WPF
Project Mgr: WPF
Project No: 19-104
Cad File:
Graphic Scale: 0" 1"

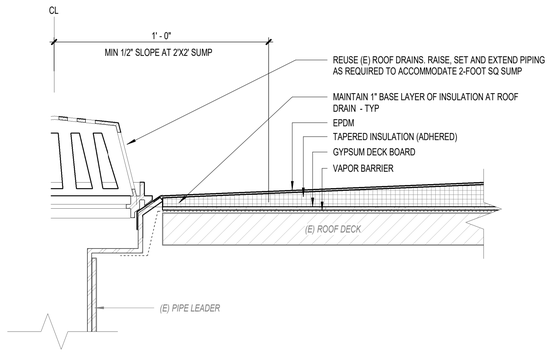
ROOF PLAN

AMHI WELLNESS CENTER ROOF REPAIR

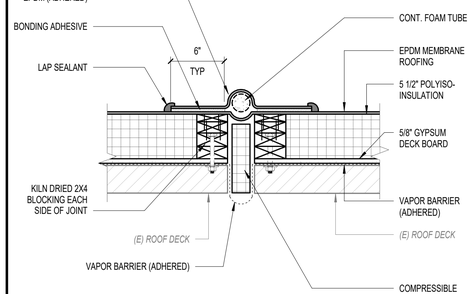
AUGUSTA, MAINE

R-100

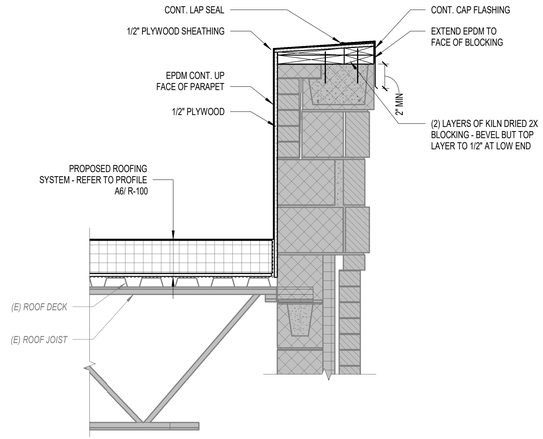
ISSUED FOR BID ~ 06 MAY 2022 ~ NOT FOR CONSTRUCTION



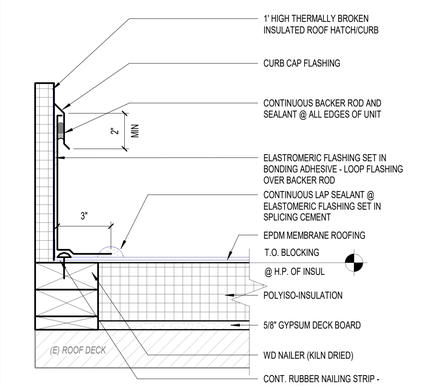
F1	TYP. MEMBRANE @ ROOF DRAIN
3" = 1'-0"	



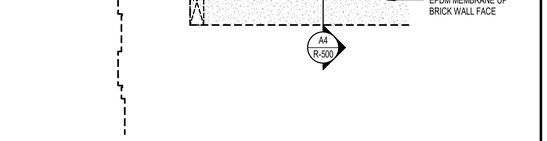
F4	EXPANSION JOINT IN ROOF
1 1/2" = 1'-0"	



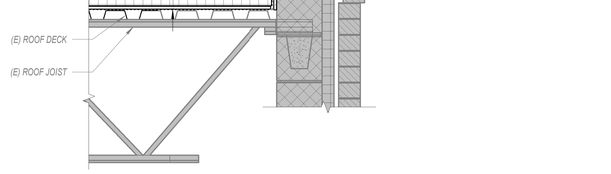
F6	SECTION AT PARAPET PROPOSED
1" = 1'-0"	



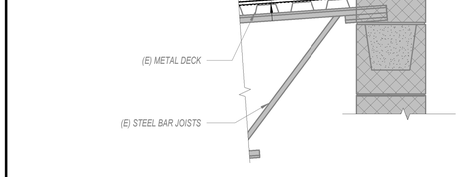
F9	ROOF HATCH DETAIL
3" = 1'-0"	



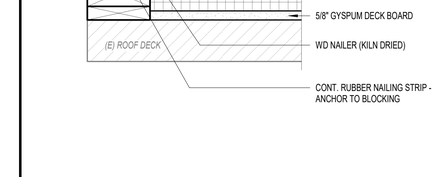
C1	CORNER FLASHING DETAIL
3/4" = 1'-0"	



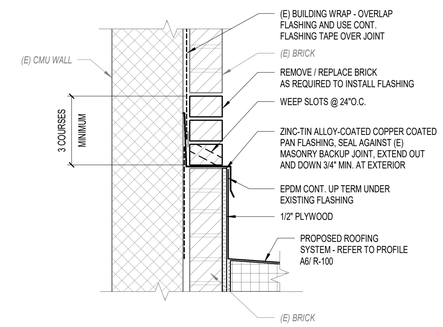
C4	SECTION AT HIGH-LOW ROOF
1" = 1'-0"	



C7	SECTION AT LOW ROOF TO GYM WALL
1" = 1'-0"	



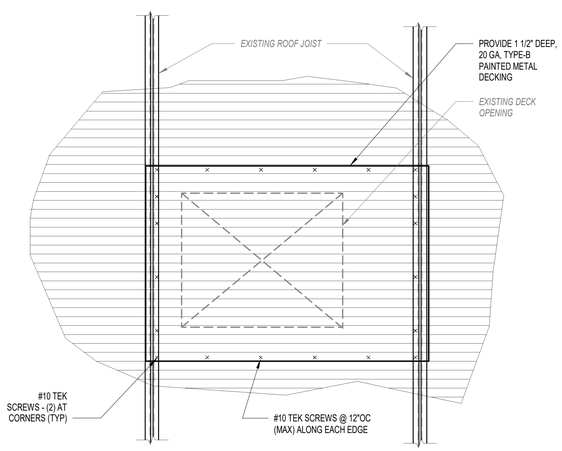
C9	VERTICAL TERMINATION @ ROOF TOP AHU
3" = 1'-0"	



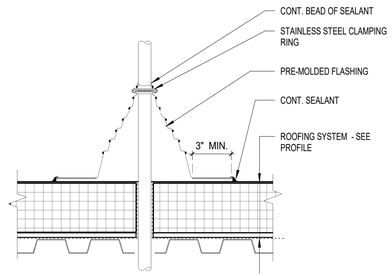
NOTES:

1. DO NOT REMOVE MORE THAN 6-FEET LENGTHS OF (3) COURSES AT A TIME TO INSTALL BASE FLASHING AND WEEP SLOTS.
2. OVERLAP (MIN. 2") AND TAPE BUILDING WRAP (MATCH EXISTING) OVER FLASHING.
3. LAP FLASHING AND TAPE JOINTS MIN 6" LAP

A4	BASE FLASHING DETAIL
1 1/2" = 1'-0"	



A6	DECK PATCH DETAIL
3/4" = 1'-0"	



A9	PIPE PENETRATION (BOOT)
1 1/2" = 1'-0"	

160 Veranda Street
Portland, Maine 04103
P: 207.221.2260
F: 207.221.2266
Web:www.allied-eng.com
Allied Engineering
Structural Mechanical Electrical Plumbing

STATE OF MAINE — WILLIAM P. FALCHER No. 7153 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

No.	DATE	BY	DESCRIPTION

Date: -
Drawn By: PED
Checked By: WPF
Project Mgr: WPF
Project No: 19-104
Cad File:
Graphic Scale: 0" 1"

ROOF DETAILS

AMHI WELLNESS CENTER ROOF REPAIR
AUGUSTA, MAINE

R-500

ISSUED FOR BID ~ 06 MAY 2022 ~ NOT FOR CONSTRUCTION

BIM 360://19104 AMHI Wellness Center/19104S_R20.rvt