

2023 Waterford School District Mott High School Roofing Replacement 1151 Scott Lake Road Waterford Twp., Michigan 48328



Orientation	Scale
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Project
2023 WATERFORD SCHOOL DISTRICT
MOTT HIGH SCHOOL
ROOFING REPLACEMENT

Project Location
1151 SCOTT LAKE RD.,
WATERFORD TWP., MI 48328

Sheet Name
COVER SHEET

Seal

Revisions

REV	ISSUED FOR	DATE	BY
	FOR BID	3-9-23	KD

SME Project No.
090588.02

Project Manager:
KD

Designer:
KD

CADD:
GUS

Checked By:
KD

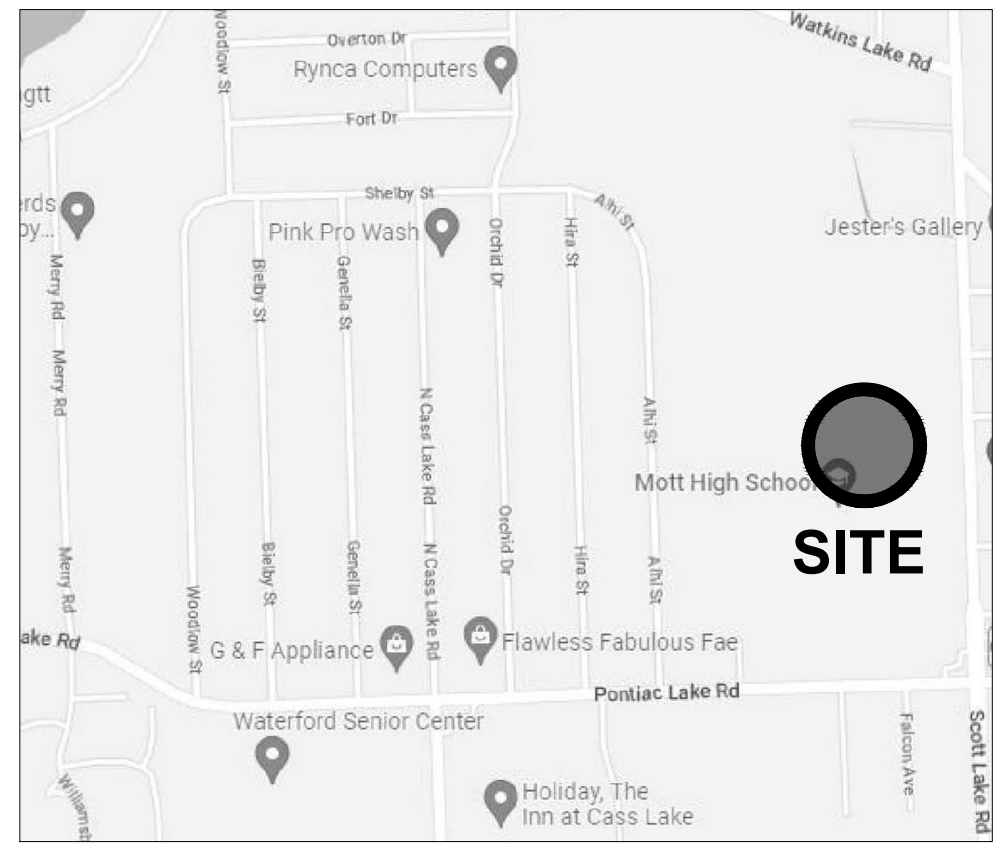
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OVERALL SITE AERIAL IMAGE
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LOCATION MAP
NOT TO SCALE

GENERAL NOTES

1. THE BUILDING WILL REMAIN PARTIALLY OCCUPIED WITH THE OWNER'S SCHEDULED SUMMER MAINTENANCE, CONSTRUCTION AND ACADEMIC/ATHLETIC ACTIVITIES DURING THE COURSE OF THIS PROJECT. CLOSELY COORDINATE WORK WITH THE OWNER'S REPRESENTATIVE AND OTHER ACTIVITIES THAT MAY BE OCCURRING AT THE SITE.
2. WHERE NOT INDICATED ON THE PROJECT DRAWINGS OR DESCRIBED IN THE SUMMARY OF WORK, PROVIDE THE MANUFACTURER'S STANDARD DETAILS. PROVIDE SPECIFIED CONTRACTOR'S SHOP DRAWINGS AND SPECIAL DETAILING REQUIREMENTS WITH THE PROJECT SUBMITTALS.
3. PROVIDE NECESSARY TEMPORARY FENCING, BARRICADES, OR STRUCTURES AND OTHER SUCH MEASURES AS NEEDED TO PROTECT PEDESTRIAN AND VEHICLE TRAFFIC ADJACENT TO THE WORK AREA.
4. PROVIDE TEMPORARY PROTECTION FOR EXTERIOR WALLS AND WINDOWS, ENTRANCES, LANDSCAPING AND PAVEMENTS. RESTORE DAMAGES CAUSED BY ROOFING OPERATIONS TO PRE-PROJECT CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
5. IN ADDITION TO ITEM 4 ABOVE, PROVIDE TEMPORARY PROTECTION FOR ROOFING THAT WILL BE TRAFFICKED OVER, OR USED FOR STAGING PURPOSES, INCLUDING BOTH NEW AND OLD ROOF AREAS, TO REDUCE THE POTENTIAL FOR LEAKAGE. SECTIONS ADJACENT TO THE WORK AREAS NOT INCLUDED IN THIS PROJECT ARE TO BE PROTECTED DURING THE FLASHING TIE-INS. THE CONTRACTOR WILL BE HELD RESPONSIBLE TO REPAIR SECTIONS DAMAGED DURING THIS PROJECT.
6. PROVIDE TEMPORARY ROOFING, TIE-INS, WATER BLOCKS, AND INTERIOR PROTECTION DURING THE ROOFING REPLACEMENT TO PREVENT LEAKAGE INTO THE BUILDING, AND WATER DAMAGE TO INTERIOR FURNISHINGS, FINISHES, STORED MATERIALS AND EQUIPMENT.
7. SPREAD OUT STORED MATERIALS ON THE ROOF SO AS NOT TO OVERLOAD THE ROOF DECKS.
8. STORE MATERIALS OFF THE GROUND ON PALLETS, AND COVERED WITH OPAQUE, BREATHABLE WATERPROOF TARPULINS TO PROTECT FROM UV EXPOSURE AND WET WEATHER.
9. STORE CONTAINERS OF MATERIALS SENSITIVE TO HIGH TEMPERATURES IN THE SHADE, OR IN CLIMATE CONTROLLED LOCATIONS.
10. STORAGE OF MATERIALS INSIDE THE BUILDING IS PROHIBITED UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE OWNER'S REPRESENTATIVE. NO STORAGE OF FLAMMABLE MATERIALS ON OR WITHIN THE BUILDING IS PERMITTED. HOIST FLAMMABLES TO THE GROUND AND EITHER SECURELY STORE OR REMOVE FROM THE SITE AT THE END OF EACH WORK DAY. STORE FLAMMABLE FLUIDS A MINIMUM 50 FEET AWAY FROM THE BUILDING WHEN NOT IN USE.
11. REMOVE DEBRIS FROM THE ROOF AND GROUNDS DAILY AND DISPOSE IN A PROPER MANNER.
12. PROMPTLY REPORT UNANTICIPATED CONDITIONS UNCOVERED DURING ROOFING REMOVAL AND REPLACEMENT THAT ARE CONTRARY TO THE PROJECT DOCUMENTS, OR WILL NEGATIVELY IMPACT THE NEW ROOFING SYSTEM, TO THE ENGINEER AND OWNER'S REPRESENTATIVE FOR REVIEW.
13. VERIFY DIMENSIONS AND FIELD CONDITIONS BEFORE ORDERING MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND VERIFYING WORK ITEMS REQUIRED FOR A COMPLETE WORK PRODUCT. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE UNDERSIDE OF THE ROOF DECK FOR CONDUITS OF OTHER UTILITIES THAT MAY BE DAMAGED FROM THE ROOFING PROJECT.
14. INSTALL NEW ROOFING IN COMPLIANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST REVISED EDITION OF THE NRCA ROOFING AND WATERPROOFING MANUAL, AND THE ROOFING MANUFACTURER.
15. PROVIDE SHEET METAL COMPONENTS THAT COMPLY WITH THE LATEST EDITION OF THE SMACNA ARCHITECTURAL SHEET METAL MANUAL. COPINGS AND PERIMETER EDGE FLASHINGS TO BE TESTED AND INSTALLED ANSI-SPRI ES-1 ASSEMBLIES.
16. SUBMIT THE SPECIFIC ROOFING MANUFACTURER'S PRODUCT DATA SHEETS, INSTALLATION GUIDELINES AND CONSTRUCTION DETAILS, AND THE SHEET METAL MANUFACTURER'S PRODUCT DATA SHEETS AND INSTALLATION INSTRUCTIONS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY MATERIALS.
17. PROVIDE LICENSED ELECTRICAL, PLUMBING, OR HVAC SUBCONTRACTORS TO DISCONNECT AND RECONNECT MECHANICAL UNITS, ADJUST OR RELOCATE UTILITIES, RAISE CURBS, ABANDON DESIGNATED CURBS, RAISE DUCTWORK, INSTALL NEW DRAINS OR SCUPPER COMPONENTS, AND ABANDON DESIGNATED DRAINS AND PIPING. IN-PLACE SYSTEMS SHALL ACCOMMODATE NEW INSULATION THICKNESSES AND MEET WARRANTY REQUIREMENTS FOR FLASH HEIGHT BY ROOFING MANUFACTURER. ALL MECHANICAL UNITS AND UTILITIES MUST BE OPERATIONAL AND DRAINS FREE FLOWING AT THE COMPLETION OF THE PROJECT. THIS INCLUDES CONDUITS DAMAGED BY SCREWS OR OTHER ITEMS THAT MAY DAMAGE UTILITIES. WORK TO BE COMPLETED IN ACCORDANCE WITH LOCAL CODES AND JURISDICTION(S) OF AUTHORITY. DO NOT SHUT OFF OR INHIBIT UTILITY SERVICES WITHOUT NOTIFYING OWNER'S REPRESENTATIVE IN ADVANCE.
18. EXISTING DRAINS ARE TO BE REPLACED DOWN TO THE FIRST CONTINUOUS SECTION OF VERTICAL OR HORIZONTAL PIPING BENEATH THE DECK FOR ALL STANDARD DRAIN AND OVERFLOW DRAINS THAT ARE TO BE REMOVED AND REPLACED.
19. NEW DRAIN LOCATIONS SHALL BE CONNECTED TO NEAREST ROOF STORM WATER PLUMBING SYSTEM.

LIST OF DRAWINGS

SHEET NO.	SHEET TITLE
G0.0	COVER SHEET
G1.0	ROOF AREA 20 WIND DESIGN LOADING / ZONE PLAN
A1.0	ROOF PLAN AREA 20
A5.0	DETAILS

ENGINEER

SME
43980 PLYMOUTH OAKS BLVD.
PLYMOUTH, MI 48170
(734) 454-9900
CONTACT: KYLE DAMEROW, EIT

OWNER / CLIENT

WATERFORD SCHOOL DISTRICT
501N. CASS LAKE ROAD
WATERFORD, MICHIGAN 48328
(248) 682-7800
OWNER REPRESENTATIVE: MR. JOHN KEGLOVITZ
WWW.WATERFORD.K12.MI.US

APPLICABLE CODES

2015 MICHIGAN BUILDING CODE

SCOPE OF WORK

BASE BID WORK:
WORK INCLUDES PROVIDING LABOR, MATERIALS, EQUIPMENT, AND ADMINISTRATION NECESSARY TO INTEGRATE A NEW ADHERED, BLACK REINFORCED 60-MIL EPDM SINGLE-PLY ROOFING MEMBRANE, WITH A 20-YEAR WARRANTY, INTO THE TOTAL BUILDING SYSTEM AS SHOWN ON THIS DRAWING SET.
ROOF AREAS:
ROOF AREA 20 IS APPROXIMATELY 10,410 SQUARE FEET.
TOTAL ROOF AREA IS APPROXIMATELY 10,410 SQUARE FEET.

WORK TASKS INCLUDE:

- REMOVE THE EXISTING AGGREGATE SURFACED BUILT-UP ROOF (BUR) MEMBRANE AND INSULATION TO EXPOSE THE STRUCTURAL DECKS.
- A. REVIEW ROOFING SUBSTRATES AND REPAIR OR REPLACE DETERIORATED ROOF DECK, PARAPET WALLS AND NAILERS AS NEEDED BASED ON UNCOVERED CONDITIONS DURING SELECTIVE DEMOLITION.
- B. INSTALL SUBSTRATE BOARD AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 53 23 ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING.
- C. INSTALL VAPOR RETARDER TO SUBSTRATE BOARD OR BASE SHEET AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 26 00 VAPOR RETARDERS.
- D. INSTALL POLYISOCYANURATE INSULATION AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 53 23 ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING. INSULATION SYSTEM TO MEET R-30.
- E. INSTALL COVER BOARD AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 53 23 ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING.
- F. INSTALL NEW METAL FLASHINGS AS SHOWN ON THE PROJECT DRAWINGS AND AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 62 00 SHEET METAL FLASHING AND TRIM.
- G. WHERE MECHANICAL UNITS ARE LIFTED TO ALLOW ROOF REPLACEMENT, REINSTALL FASTENERS WITH INTEGRAL RUBBER GASKETS ON ALL SIDES OF THE UNIT.

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Sheet Name
ROOF AREA 20
WIND DESIGN LOADING /
ZONE PLAN

Seal

Revisions

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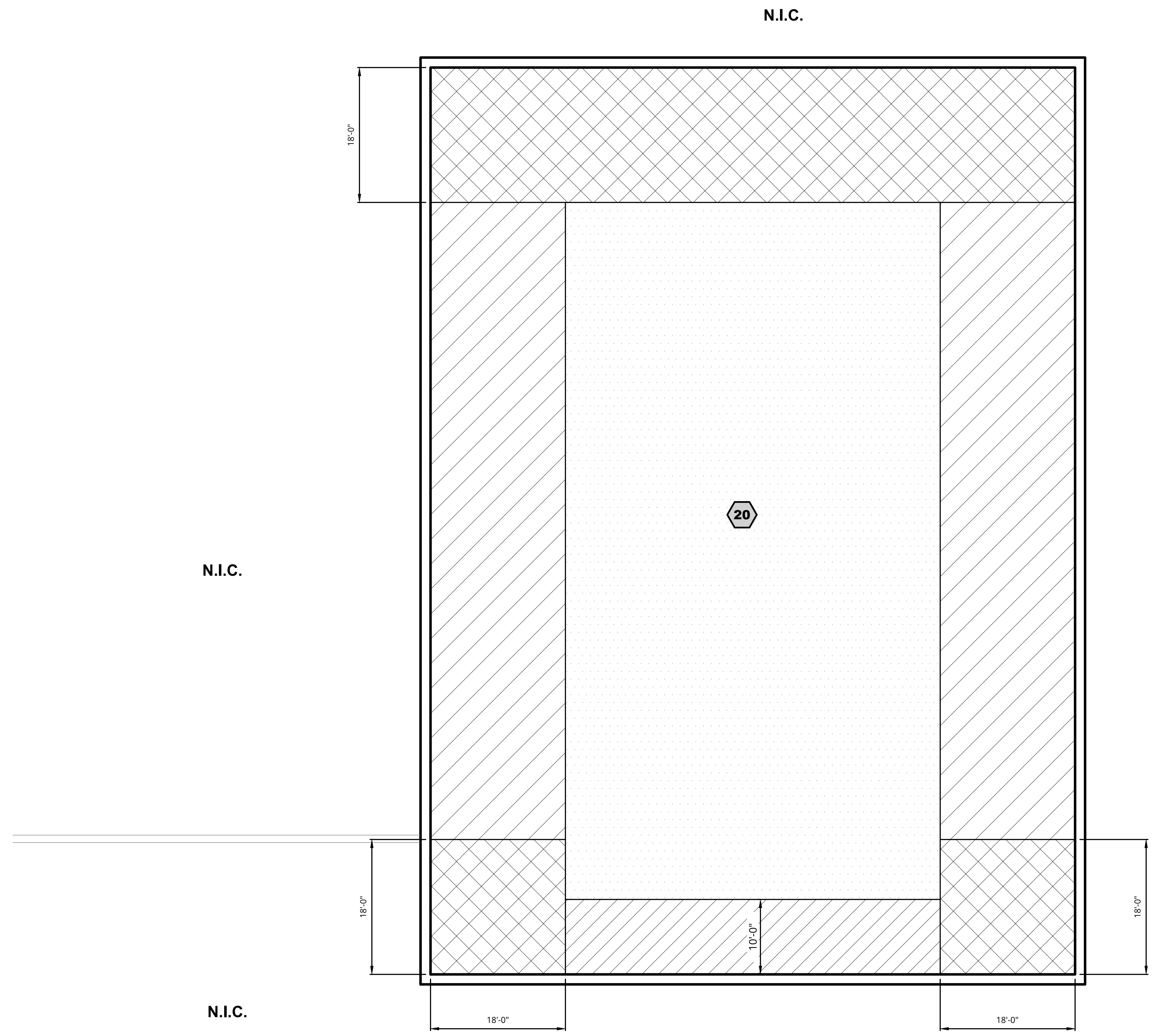
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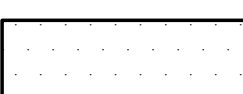
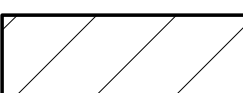
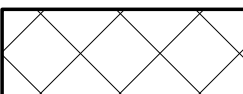
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G1.0

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LEGEND

-  ROOF AREA
-  ZONE 1
-  ZONE 2 AND 2' (2 PRIME)
-  ZONE 3 AND 3' (3 PRIME)

WIND DESIGN CRITERIA (MBC 2015)
MOTT HIGH SCHOOL
ULTIMATE DESIGN (FACTORED) BASIC WIND SPEED (3 SECOND GUST) = 120 MPH
NOMINAL WIND SPEED = 93 MPH
EXPOSURE CATEGORY = C
RISK CLASSIFICATION = III
INTERNAL PRESSURE COEFFICIENT (ENCLOSED BUILDING) = +/- 0.18

TABLE 1
SERVICE (UNFACTORED) DESIGN WIND LOADS - COMPONENTS AND CLADDING

ROOF SURFACE VERTICAL PRESSURE (PSF)	
ZONE 1	- 22
ZONE 2 AND 2' (2 PRIME) AND TOP/SIDE OF PARAPET	- 33
ZONE 3 AND 3' (3 PRIME) AND TOP/SIDE OF PARAPET	- 48

NOTE:
" - # " INDICATES PRESSURE ACTING AWAY FROM THE ROOF SURFACE, I.E. SUCTION

NOTES:
1. WORK WIND DESIGN LOADING ZONE PLAN WITH TABLE 1, THIS SHEET.
2. WIND UPLIFT PRESSURE GIVEN IN TABLE 1 TO BE USED FOR DESIGN OF ROOFING FASTENING SYSTEMS.
3. DESIGN PRESSURES BASED ON EFFECTIVE WIND AREA OF 10FT² OR LESS.

ROOF AREA 20
WIND DESIGN LOADING / ZONE PLAN
SCALE: 1/4" = 1'-0"



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Sheet Name
ROOF PLAN AREA 20

Seal

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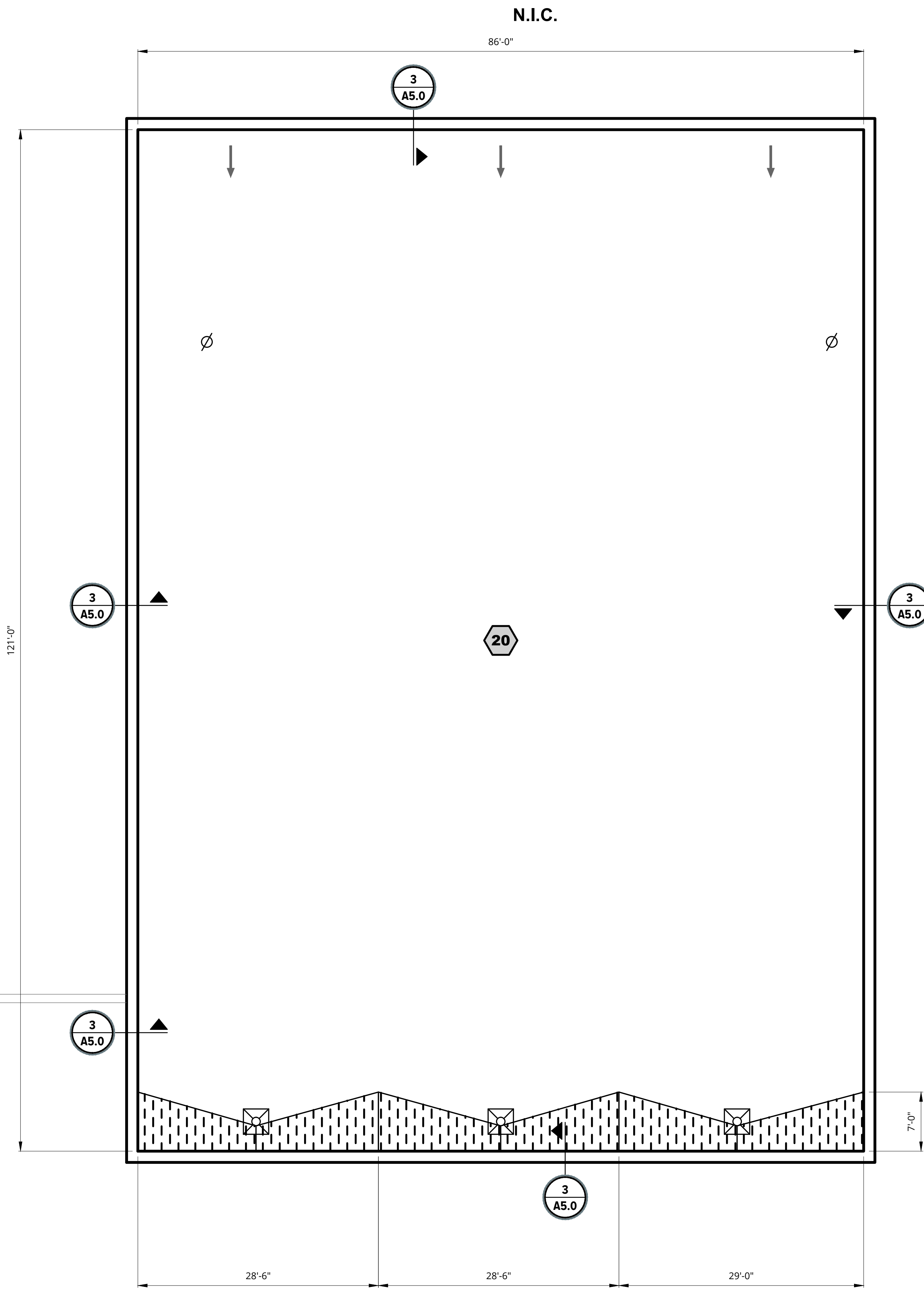
Designer:
KD

CADD:
GUS

Checked By:
KD

Reviewed By:
LD

Sheet No.
A1.0



LEGEND

	ROOF AREA
	EXISTING ROOF DRAIN, REFER TO DETAIL 1 ON SHEET A5.0
	SOIL VENT PIPE, REFER TO DETAIL 2 ON SHEET A5.0
	WATER SHED DIRECTION
N.I.C.	ROOF AREA NOT IN CONTRACT
	1½" PER FOOT TAPERED INSULATION SADDLE
	DETAIL CALL OUT

NOTES:
1. FIELD VERIFY ALL DIMENSIONS.

ROOF PLAN AREA 20
SCALE: 1/8" = 1'-0"

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Sheet Name
FLASHING DETAILS

Seal

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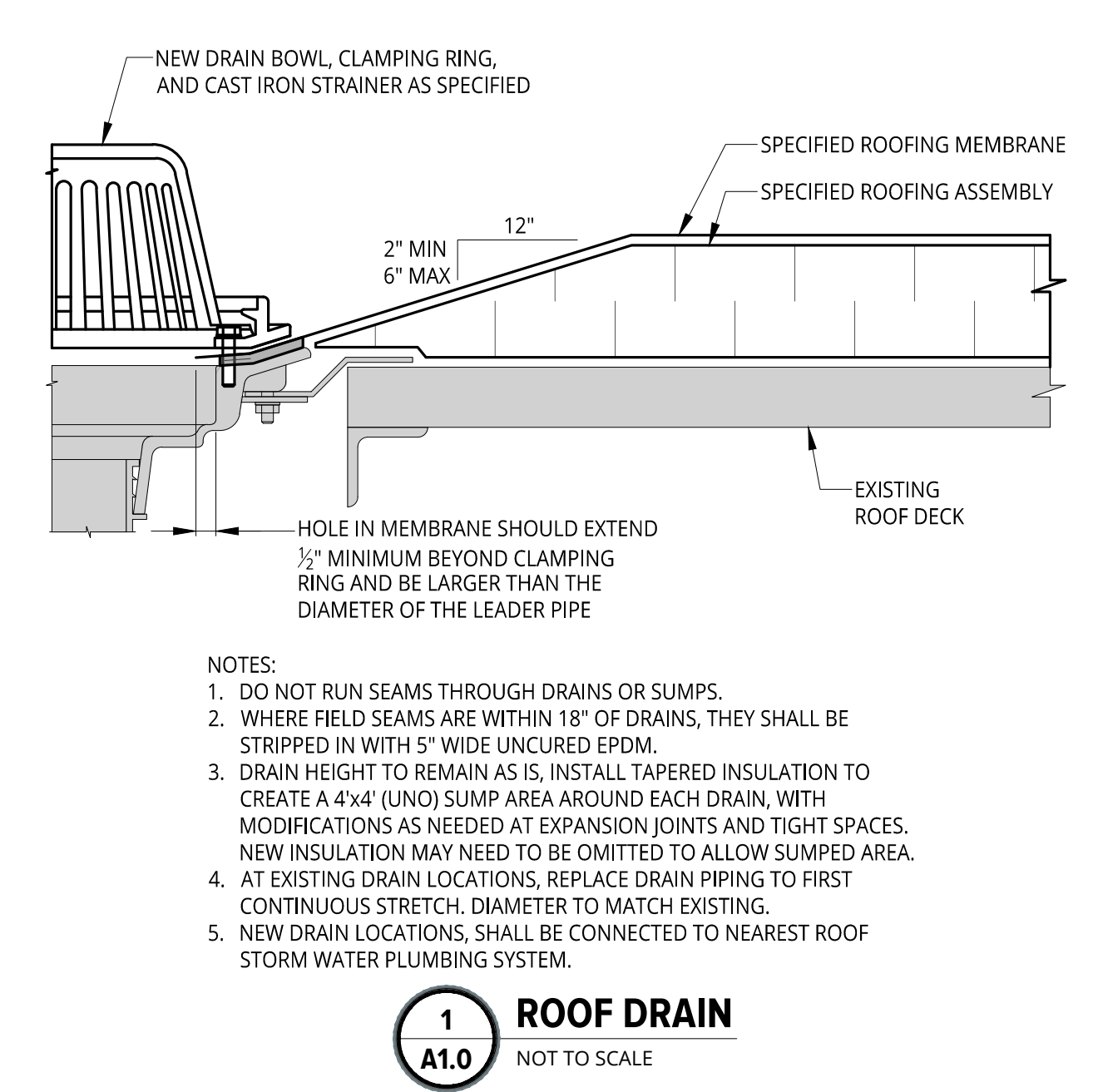
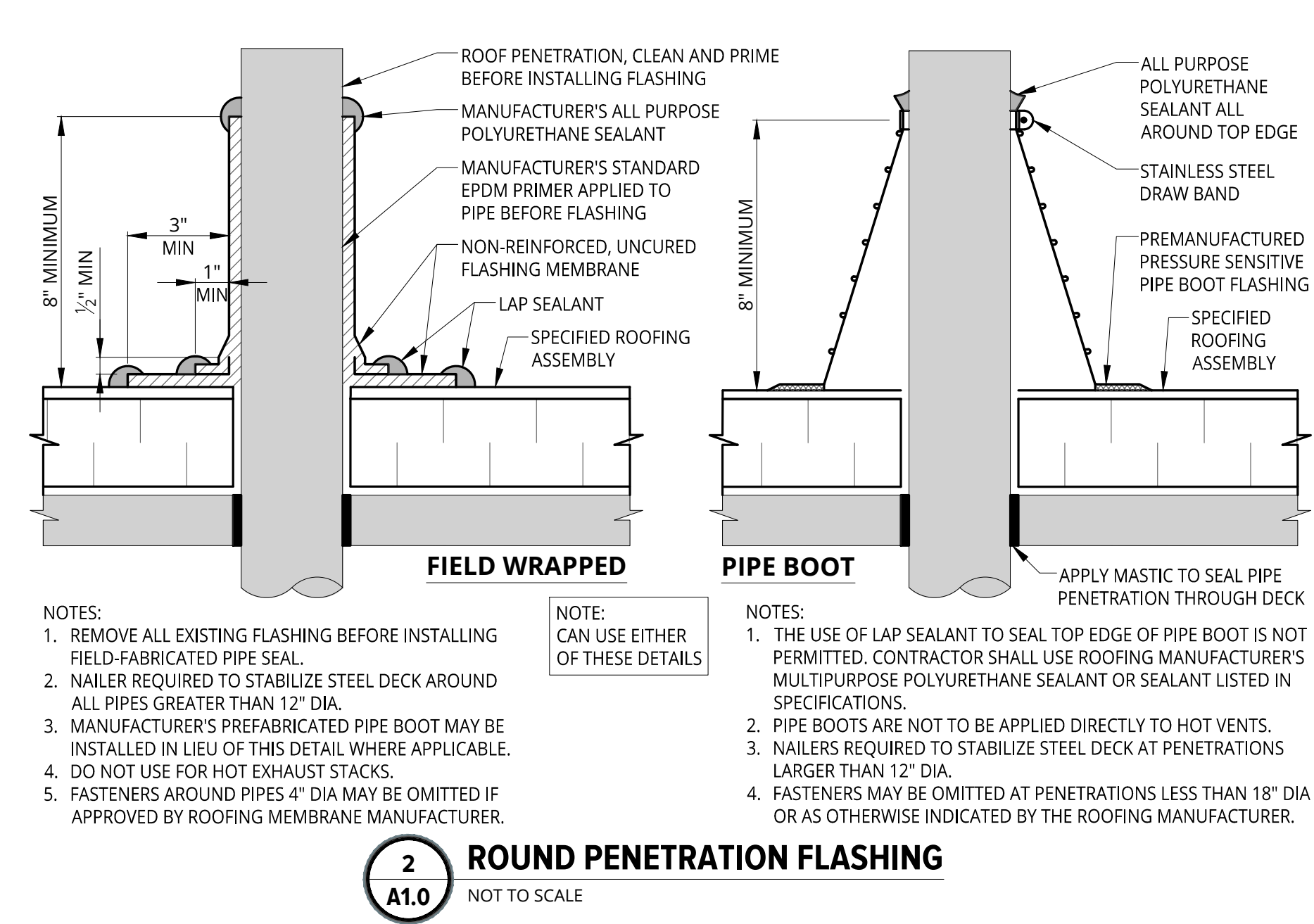
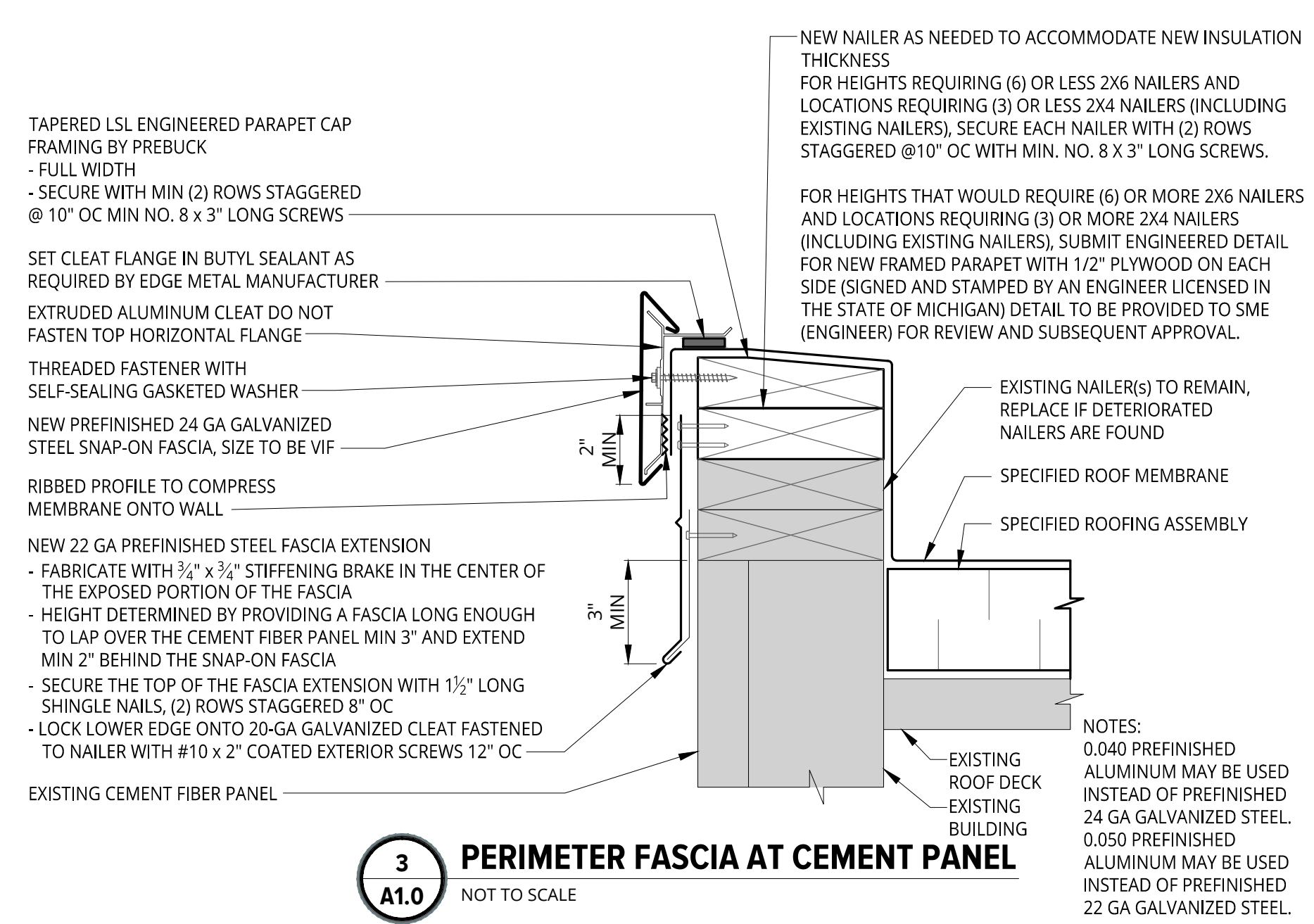
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Sheet No.
A5.0

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