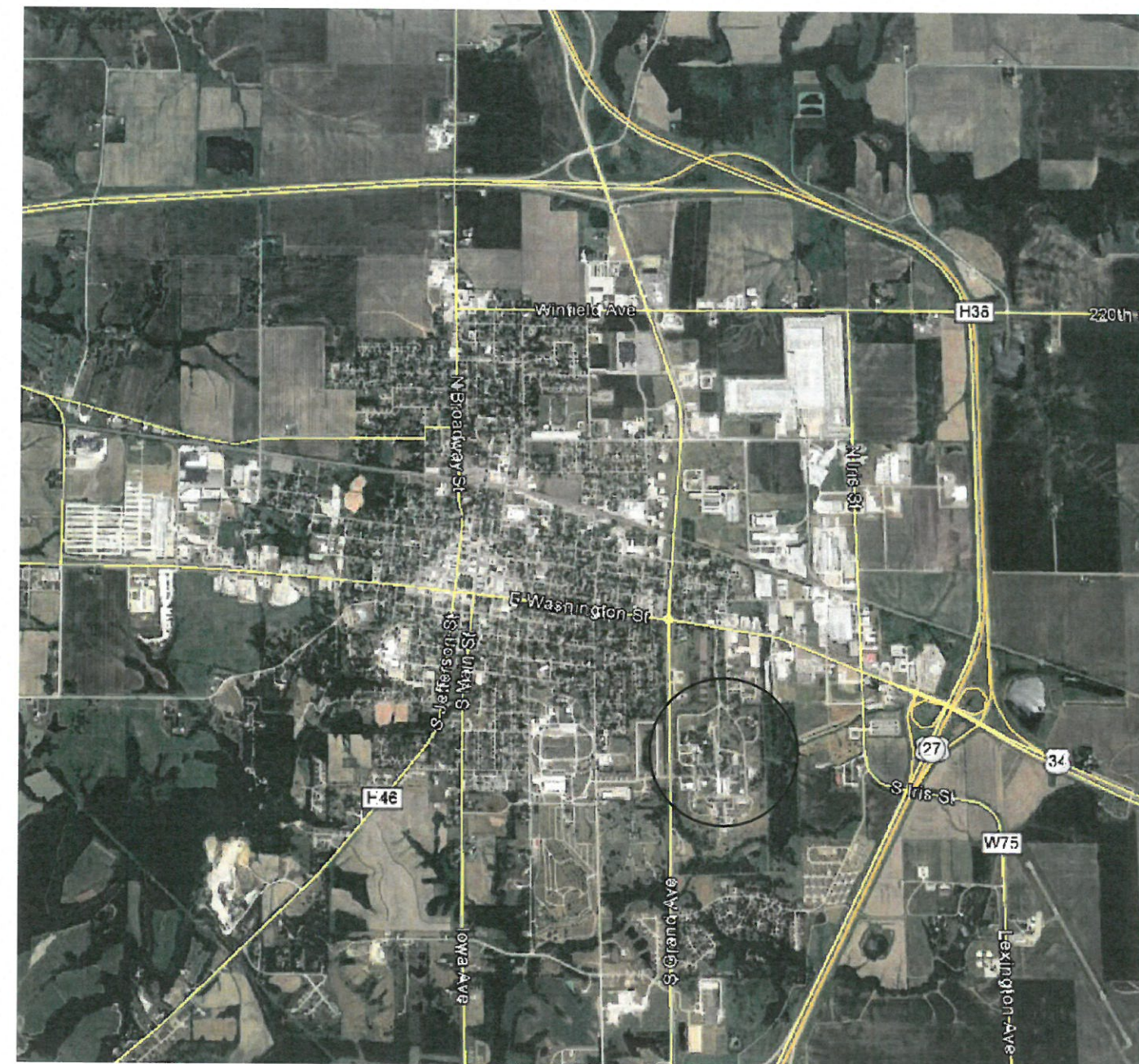
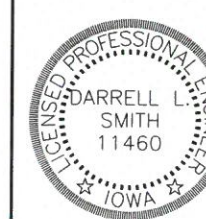


## DRAWING INDEX

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MOUNT PLEASANT  
CORRECTIONAL FACILITY



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WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL  
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ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.  
*Darrell L. Smith* April 26, 2019  
DARRELL SMITH, P.E.  
License number is 11460  
My license renewal date is December 31, 2020  
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20-26

MT. PLEASANT CORRECTIONAL FACILITY (MPCF) BUILDING 20 - MAIN  
ROOF & ARCADE LINK ROOF CONSTRUCTION NOTES

1. EXISTING ROOFING SYSTEM ON EACH ROOF LEVEL AS FOLLOWS:

a. **BUILDING 20 MAIN ROOF (NORTH, SOUTH & WEST WINGS)-** CONCRETE DECK, ASPHALTIC BASE SHEET APPLIED IN HOT ASPHALT, TAPERED EXPANDED POLYSTYRENE (EPS) INSULATION SPOT MOPPED WITH HOT ASPHALT. 0.5 INCH FIBERBOARD HOT MOPPED APPLIED, ADHERED EPDM MEMBRANE. EPS INSULATION THICKNESS VARIES FROM 1.5 INCHES TO 6.5 INCHES. EXISTING SANDBAGS ON ROOF TO BE REMOVED BY CONTRACTOR INTACT AND DELIVERED TO MPCF FACILITY STAFF. PARAPET WALL HEIGHT 24 INCHES ±.

b. **ELEVATOR PENTHOUSE -** CONCRETE DECK, ASPHALTIC BASE SHEET APPLIED IN HOT ASPHALT, 0.5 INCH EPS INSULATION 0.5 INCH FIBERBOARD HOT MOPPED APPLIED. PARAPET WALL HEIGHT VARIES FROM 11 TO 15 INCHES ±

c. **STAIRWELL -** CONCRETE DECK, ASPHALTIC BASE SHEET APPLIED IN HOT ASPHALT 0.5 INCH FIBERBOARD HOT MOPPED APPLIED. PARAPET WALL HEIGHT VARIES FROM 14 TO 19 INCHES ±

d. **NEW STAIRWELL ROOF -** METAL DECK, TAPERED POLYISOCYANURATE (ISO) INSULATION APPLIED, ADHERED EPDM MEMBRANE. ISO INSULATION THICKNESS VARIES FROM 2.5 INCHES TO 3.5 INCHES.

e. **ARCADE LINK ROOF .** CONCRETE DECK, ASPHALTIC BASE SHEET APPLIED IN HOT ASPHALT, TAPERED EXPANDED POLYSTYRENE (EPS) INSULATION SPOT MOPPED WITH HOT ASPHALT, 3 INCHES ISO INSULATION. ALL INSULATION HOT MOPPED APPLIED, ADHERED EPDM MEMBRANE. EPS INSULATION THICKNESS VARIES FROM 0.75 INCHES TO 5 INCHES. PARAPET WALL HEIGHT 24 INCHES ±.
2. **BASE BID 01 - BUILDING 20 MAIN ROOF (ALL WINGS)**

a. REMOVE EXISTING MEMBRANE, INSULATION AND BASE SHEET TO CONCRETE DECK. AREAS WHERE BASE SHEET IS WELL ADHERED TO DECK AND CANNOT BE REMOVED AND CANNOT BE REMOVED EASILY WITHOUT CHIPPING/DAMAGING CONCRETE DECK CAN REMAIN.

b. INSTALL NEW BASE LAYER OF 3.5 INCHES OF ISO (2 LAYERS) AT SUMP EDGE FROM ROOF DRAINS, AND ONE-HALF INCH HIGH DENSITY ISO COVER BOARD. ALL LAYERS IN INSULATION ADHESIVE. TAPERED INSULATION TO HAVE 1/8 INCH PER FOOT SLOPE- SADDLES TO HAVE 1/4 INCH PER FOOT CROSS-SLOPE. INSTALL NEW ADHERED 60 MIL BLACK EPDM WITH BONDING ADHESIVE. ALL NEW ROOF CONSTRUCTION TO OBTAIN 20 YEAR EPDM MANUFACTURER'S WARRANTED SYSTEM
3. **BASE BID 01 - PENTHOUSE AND STAIRWELL**

a. REMOVE EXISTING MEMBRANE, INSULATION AND BASE SHEET TO CONCRETE DECK. AREAS WHERE BASE SHEET IS WELL ADHERED TO DECK AND CANNOT BE REMOVED EASILY WILL REMAIN.

b. INSTALL NEW LAYER HALF INCH HIGH DENSITY ISO COVER BOARD IN INSULATION ADHESIVE. INSTALL NEW ADHERED 60 MIL BLACK EPDM WITH BONDING ADHESIVE. ALL NEW ROOF CONSTRUCTION TO OBTAIN 20 YEAR EPDM MANUFACTURER'S WARRANTED SYSTEM.
4. **BASE BID 01 - NEW STAIRWELL ROOF -** REMOVE EXISTING MEMBRANE. INSTALL NEW ONE INCH POLYISOCYANURATE AND ONE-HALF INCH HIGH DENSITY ISO COVER BOARD WITH MECHANICAL FASTENERS OVER EXISTING INSULATION. FASTENER DENSITY MINIMUM TO BE ONE FASTENER PER 3 SQUARE FEET OF BOARD AREA - 11 FASTENERS PER 4 FEET X 8 FEET BOARD - 6 PER 4 FEET X 4 FEET BOARD. INSTALL NEW ADHERED 60 MIL BLACK EPDM WITH BONDING ADHESIVE. ALL NEW ROOF CONSTRUCTION TO OBTAIN 20 YEAR EPDM MANUFACTURER'S WARRANTED SYSTEM
5. **ALTERNATE BID 01- ARCADE LINK ROOF**

a. REMOVE EXISTING MEMBRANE, INSULATION AND BASE SHEET TO CONCRETE DECK. AREAS WHERE BASE SHEET IS WELL ADHERED TO DECK AND CANNOT BE REMOVED EASILY WITHOUT CHIPPING/DAMAGING CONCRETE DECK CAN REMAIN.

b. INSTALL NEW BASE LAYER OF 3.5 INCHES OF ISO (2 LAYERS) AT SUMP EDGE FROM ROOF DRAINS, AND ONE-HALF INCH HIGH DENSITY ISO COVER BOARD. ALL LAYERS IN INSULATION ADHESIVE. TAPERED INSULATION TO HAVE 1/8 INCH PER FOOT SLOPE- SADDLES TO HAVE 1/4 INCH PER FOOT CROSS-SLOPE. INSTALL NEW ADHERED 60 MIL BLACK EPDM WITH BONDING ADHESIVE. ALL NEW ROOF CONSTRUCTION TO OBTAIN 20 YEAR EPDM MANUFACTURER'S WARRANTED SYSTEM
6. **ALTERNATE BIDS 02 (MAIN ROOF ALL WINGS, PENTHOUSE BOTH STAIRWELLS) and 03 (ARCADE LINK ROOF) - 25 YEAR MANUFACTURER'S WARRANTY**

a. INSTALL ROOF ASSEMBLY, MEMBRANE AND FLASHINGS SO A 25-YEAR EPDM MANUFACTURER'S WARRANTY CAN BE OBTAINED FOR THE ROOF(S).
7. MPCF FACILITY STAFF WILL REMOVE/RELOCATE EXISTING CONDUITS, JUNCTION BOXES, LIGHT FIXTURES, SATELLITE DISH AND OTHER ELECTRICAL APPURTENANCES FOR NEW ROOF INSULATION/MEMBRANE AND COPING CAP INSTALLATION. CONTRACTOR RESPONSIBLE TO COORDINATE WITH MPCF STAFF FOR THIS WORK CONTRACTOR WILL FIELD VERIFY DIMENSIONS OF ALL COPING CAPS PRIOR TO BID IF NEED TO AND FABRICATION FOR SHEET METAL COPING.
8. CONTRACTOR TO INSTALL NEW 6 INCH X 8 INCH-60 MIL EPDM SHEET UNDER ALL WOOD BLOCKING SUPPORTING CONDUIT ON ROOF. ADD 12 NEW WOOD BLOCKS FOR CONDUIT NOT SUPPORTED BY EXISTING BLOCKS.
9. CONTRACTOR TO INSTALL NEW 6 INCH X 18 INCH EPDM MANUFACTURER'S EPDM WALKWAY PAD UNDER ALL EXISTING WOOD BLOCKING SUPPORTING EXISTING DUCTWORK AND SUPPORTS.
10. MODIFY THE DOORS FROM THE ELEVATOR PENTHOUSE AND STAIRWELL PER DETAILS. AS PART OF THIS ROOF REPLACEMENT PROJECT, THE CONTRACTOR SHALL INSTALL NEW CONCRETE MASONRY UNIT (CMU) AND REPLACE THE TWO DOORS NOTED .THE CONTRACTOR SHALL REMOVE BOTH DOORS AND REPLACE WITH NEW

HOLLOW METAL FRAMES AND INSULATED HOLLOW METAL (HM) DOORS IN THE SAME LOCATIONS AS SHOWN IN THE DETAILS AND AS FOUND ON SITE. NOTE DIFFERENCES IN DOOR DIMENSIONS AND SUBSTRATE CONDITIONS.

- 11.**DOOR REPLACEMENT SPECIFICATIONS:**

A. PROVIDE A NEW 14 GAUGE HM FRAMES AT DEPTHS NOTED, BUT THE EXTERIOR FACE OF THE NEW FRAMES SHALL BE MOUNTED AT THE SAME LOCATION AS THE EXISTING UNITS. GROUT FILL THE FRAMES AND EXPANSION ANCHOR FRAMES INTO THE EXISTING CONCRETE OR CONCRETE BLOCK (VERIFY) WALLS. USE MINIMUM 3 ANCHORS PER JAMB, 6 TOTAL. FRAMES AND DOORS SHALL BE PRIME PAINTED AND RECEIVE FIELD COAT OF EXTERIOR GRADE PAINT FOLLOWING INSTALLATION, COLOR TO BE DETERMINED BY OWNER'S REPRESENTATIVE. PROVIDE NEW ALUMINUM SILL PLATES AND WEATHER-STRIPPING AROUND BOTH FRAMES AND PROVIDE SWEEP AT THE BOTTOM OF EACH DOOR.

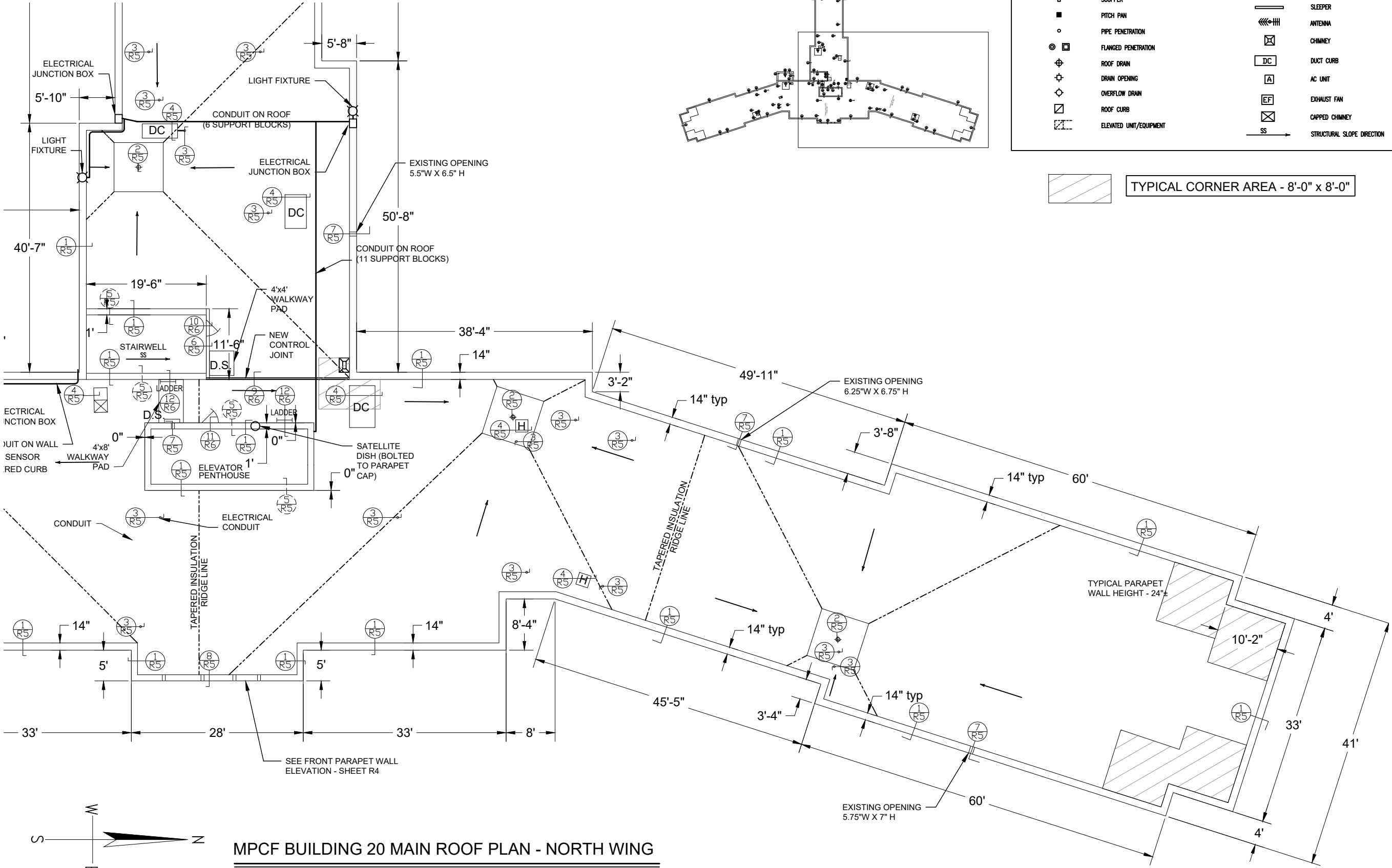
B. PROVIDE NEW 1-3/4” NOMINAL INSULATED 16 GUAGE HM DOORS WITH 3 HINGES, OUTWARD SWINGING, DOOR CLOSERS, OVERHEAD DOOR STOPS, AND NEW STOREROOM LEVER LATCH-SETS. CONFIRM KEYING WITH OWNER'S REPRESENTATIVE. QUALITY LEVEL OF HARDWARE SHALL BE 'HEAVY-DUTY' COMMERCIAL GRADE. LATCH-SETS SHALL BE BY YALE, CORBIN, LCN, NORTON, SARGENT OR EQUAL.

C. OVERHEAD DOOR STOPS BY IVES, ROCKWOOD MANUFACTURING, SARGENT OR EQUAL; DOOR THRESHOLDS AND PERIMETER WEATHER SEALS BY NATIONAL GUARD, PEMKO, REESE OR EQUAL. HM DOORS AND FRAMES SHALL BE PROVIDED BY ASSA ABLOY, CECO, CURRIES, REPUBLIC, STEELCRAFT OR EQUAL. SEAL ALL EXTERIOR JOINTS BETWEEN DOOR AND ROUGH OPENING WITH EXTERIOR GRADE SEALANTS. SEAL UNDER THRESHOLDS WITH CONTINUOUS BEAD OF SEALANT.
12. MODIFY LADDERS ON ELEVATOR PENTHOUSE AND STAIRWELL AS DETAILED TO ACCOMMODATE NEW ROOF SURFACE HEIGHT
13. EXISTING DOWNSPOUT ON STAIRWELL AND ELEVATOR PENTHOUSE TO REMAIN . MODIFY DOWNSPOUT FROM STAIRWELL ROOF TO ACCOMMODATE NEW ROOF SURFACE HEIGHT. REMOVE BOTTOM SECTION AND ADD NEW SECTION ON BOTTOM FOR THIS DOWNSPOUT.
14. CONTRACTOR'S CREW **SHALL NOT** WEAR YELLOW SAFETY VESTS. BACKGROUND CHECKS ON CONTRACTOR'S STAFF AND CREW WILL BE REQUIRED FOR ACCESS. STANDARD HOURS FOR CONSTRUCTION WORK SHALL BE- 7:00 AM TO 4:00 PM. ANY TIME OUTSIDE THIS RANGE NEEDS TO BE COORDINATED WITH LOCAL STAFF MINIMUM 48 HOURS BEFORE.
15. CONTRACTOR SHALL COORDINATE MOVING OF RAZOR WIRE AND PADS WITH FACILITY STAFF FOR DEMOLITION AND NEW ROOF COMPONENT INSTALLATION. RAZOR WIRE MUST REMAIN ON ROOF AT ALL TIMES.
16. ACCESS TO ALL ROOFS FOR CONSTRUCTION SHALL BE AS DESIGNATED BY OWNER. STORAGE AREA FOR MATERIALS SHALL BE IN PARKING LOT AS DESIGNATED BY FACILITY STAFF. CONTRACTOR TO PROVIDE BARRICADES, DETOUR SIGNS AND ORANGE FLEXIBLE FENCING AS REQUIRED AND PROTECTION FOR MATERIALS AND TRAFFIC. MAINTAIN PEDESTRIAN AND OCCUPANT ACCESS AND EGRESS TO AND FROM BUILDINGS AT ALL TIMES. COORDINATE LOCATION OF DUMPSTER CHUTE WITH FACILITY STAFF.
17. DRAWINGS ARE PRODUCED AT TABLOID (11-INCHES by 17-INCHES) SIZE. ANY SCALE SHOWN IS APPLICABLE WHEN PRINTED AT THIS SIZE. NOTE THAT ROOF PLANS AND OTHER PROJECT DRAWINGS PRODUCED OR PRINTED AT OTHER PAPER SIZES WILL NOT BE CORRECTLY SCALED WHERE APPLICABLE.
18. CONTRACTOR RESPONSIBLE FOR ANY AND ALL PERMITS REQUIRED BY LOCAL GOVERNMENTAL AGENCIES.
19. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING ADJACENT LAWN AREAS, ABOVE GROUND AND UNDERGROUND UTILITIES, PAVING, AND EXTERIOR BUILDING WALLS FROM DAMAGE. ANY DAMAGE DUE TO CONTRACTOR OPERATIONS SHALL BEREPAIRED TO MATCH EXISTING CONDITIONS AT CONTRACTOR'S EXPENSE.
20. CONTRACTOR RESPONSIBLE TO VERIFY ALL ROOF MEASUREMENTS NO ADDITIONAL PAYMENT FOR INCORRECT MEASUREMENTS SHOWN ON PLANS WILL BE PROVIDED.

PLAN KEY

SYMBOL LEGEND

|  |                         |  |                            |
|--|-------------------------|--|----------------------------|
|  | PARAPET WALL            |  | CRICKET/SADDLE             |
|  | METAL EDGE              |  | RIDGE/VALLEY LINE          |
|  | CONTROL JOINT           |  | SLOPE DIRECTION            |
|  | SCUPPER                 |  | SLEEPER                    |
|  | PITCH PAN               |  | ANTENNA                    |
|  | PIPE PENETRATION        |  | CHIMNEY                    |
|  | FLANGED PENETRATION     |  | DUCT CURB                  |
|  | ROOF DRAIN              |  | AC UNIT                    |
|  | DRAIN OPENING           |  | EXHAUST FAN                |
|  | OVERFLOW DRAIN          |  | CAPPED CHIMNEY             |
|  | ROOF CURB               |  | STRUCTURAL SLOPE DIRECTION |
|  | ELEVATED UNIT/EQUIPMENT |  |                            |



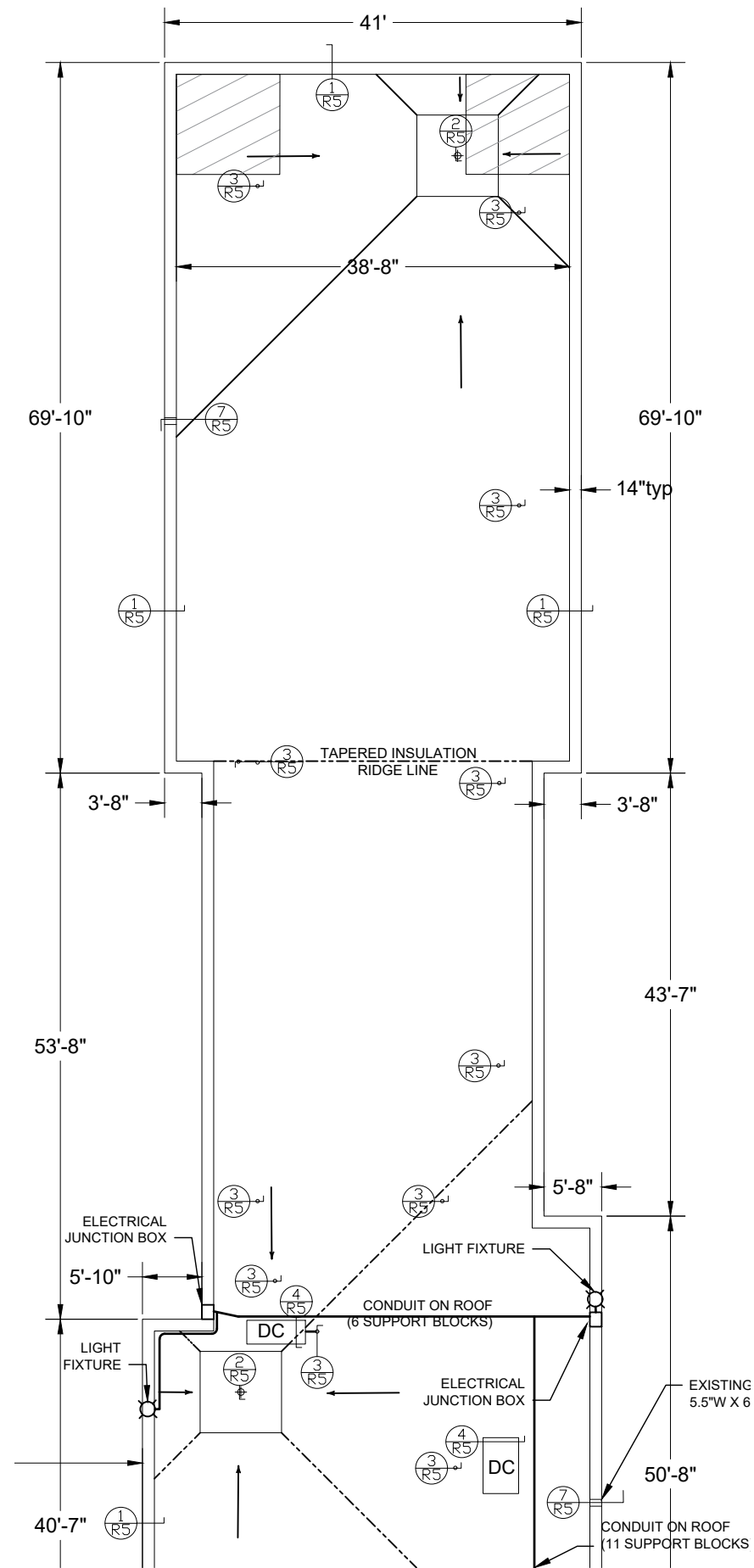
MPCF BUILDING 20 MAIN ROOF PLAN - NORTH WING  
SCALE: 1/16" = 1'

ROOF PLANS  
MOUNT PLEASANT CORRECTIONAL FACILITY  
BLDG. 20 MAIN ROOF PLAN  
MOUNT PLEASANT, IOWA — NORTH WING

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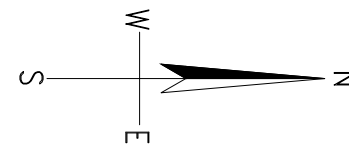
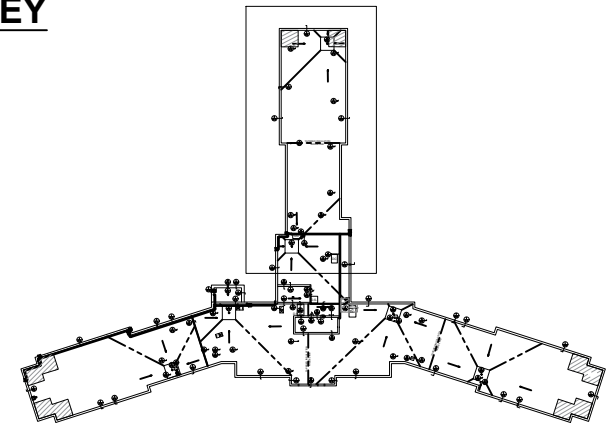
SYMBOL LEGEND

|       |                         |        |                            |
|-------|-------------------------|--------|----------------------------|
| ===== | PARAPET WALL            |        | CRICKET/SADDLE             |
| ===== | METAL EDGE              | -----  | RIDGE/VALLEY LINE          |
| ----- | CONTROL JOINT           | -----> | SLOPE DIRECTION            |
| ===== | SCUPPER                 | =====  | SLEEPER                    |
| ■     | PITCH PAN               | =====  | ANTENNA                    |
| ○     | PIPE PENETRATION        |        | CHIMNEY                    |
| ⊙     | FLANGED PENETRATION     | DC     | DUCT CURB                  |
| ⊕     | ROOF DRAIN              | A      | AC UNIT                    |
| ⊕     | DRAIN OPENING           | EF     | EXHAUST FAN                |
| ⊕     | OVERFLOW DRAIN          |        | CAPPED CHIMNEY             |
| ⊕     | ROOF CURB               | SS     | STRUCTURAL SLOPE DIRECTION |
|       | ELEVATED UNIT/EQUIPMENT |        |                            |



TYPICAL CORNER AREA - 8'-0" x 8'-0"

### PLAN KEY



MPCF BUILDING 20 MAIN ROOF PLAN - WEST WING  
SCALE: 1/16" = 1'

ROOF PLAN  
MOUNT PLEASANT CORRECTIONAL FACILITY

BUILDING 20 MAIN ROOF  
PLAN - WEST WING

MOUNT PLEASANT, IOWA

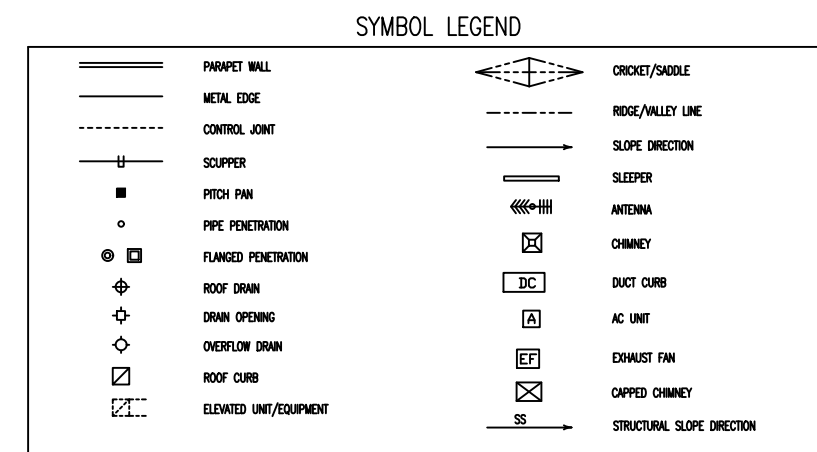
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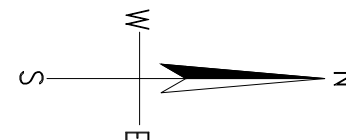
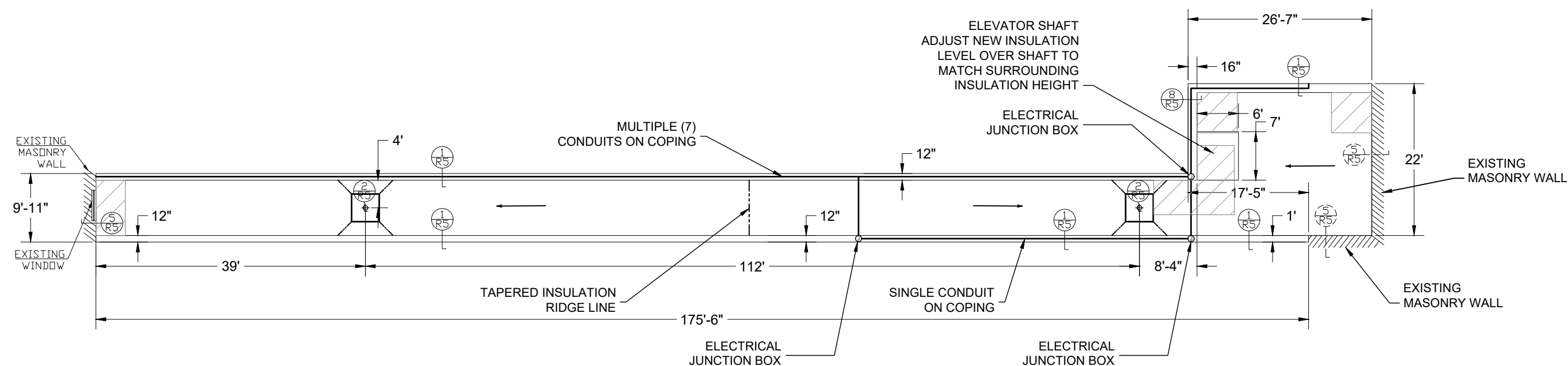
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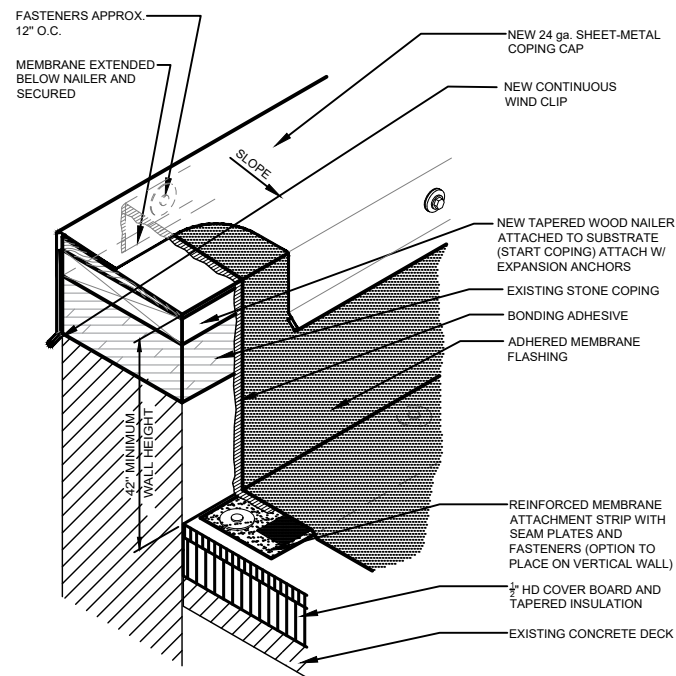
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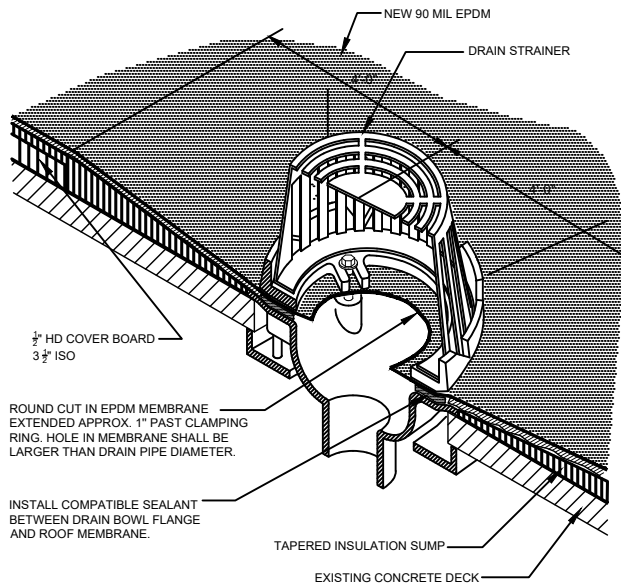
TYPICAL CORNER AREA - 4'-0" X4'-0"



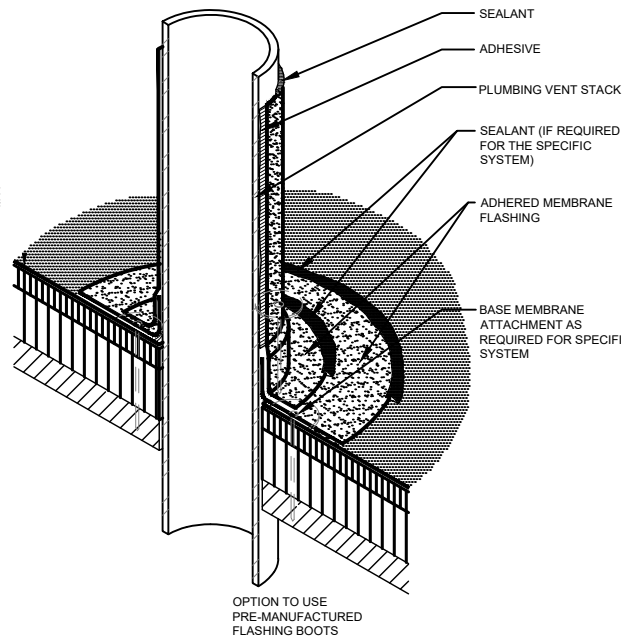
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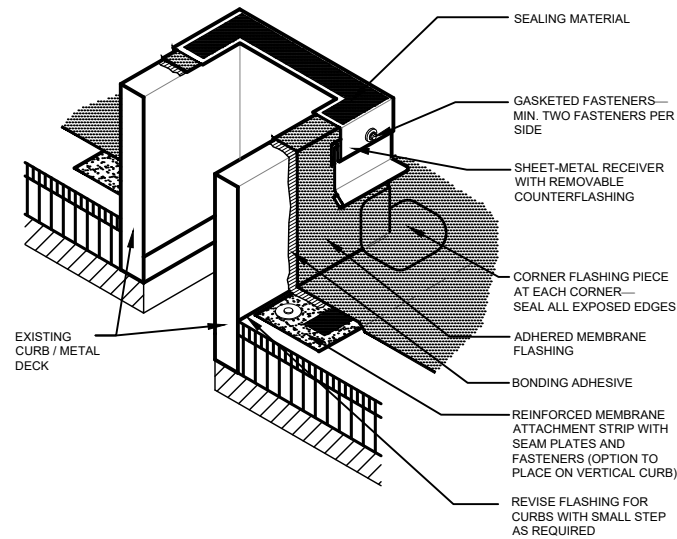
① WALL FLASHING W/ METAL COPING  
SCALENTS



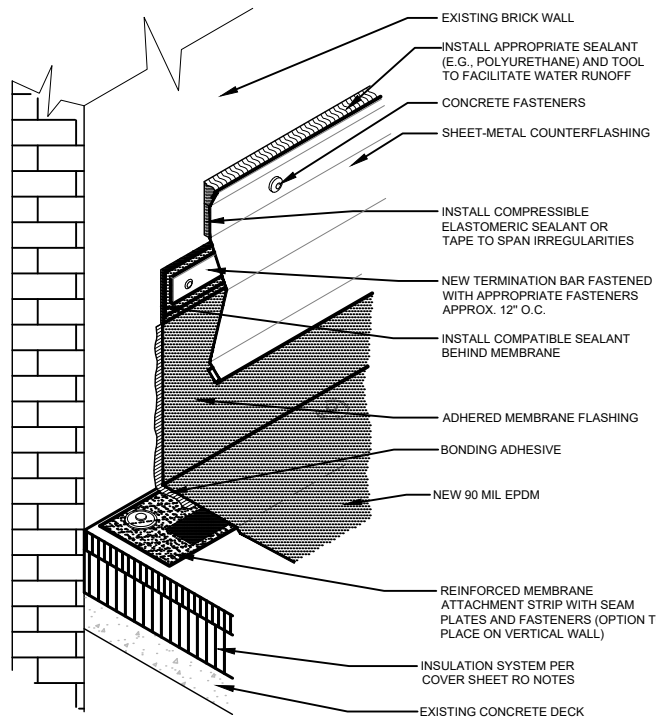
② ROOF DRAIN  
SCALENTS



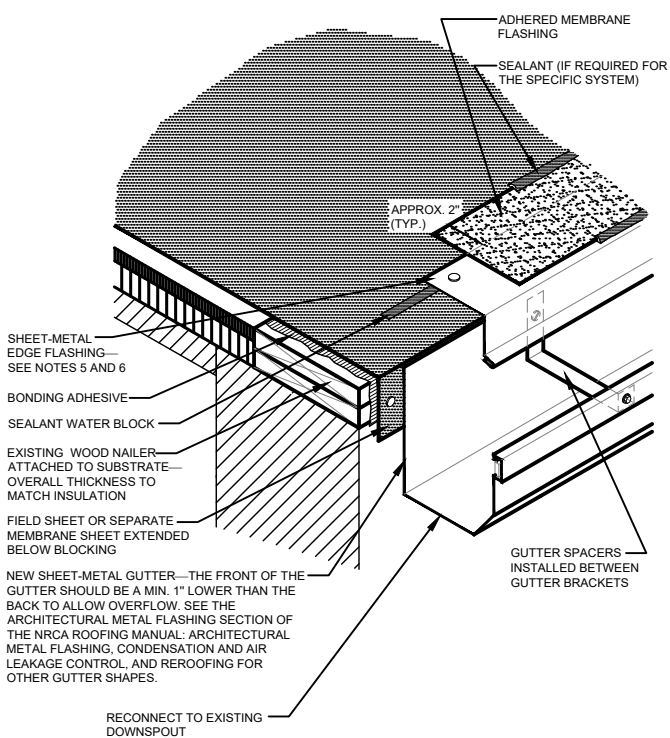
③ ROOF PENETRATION  
SCALENTS



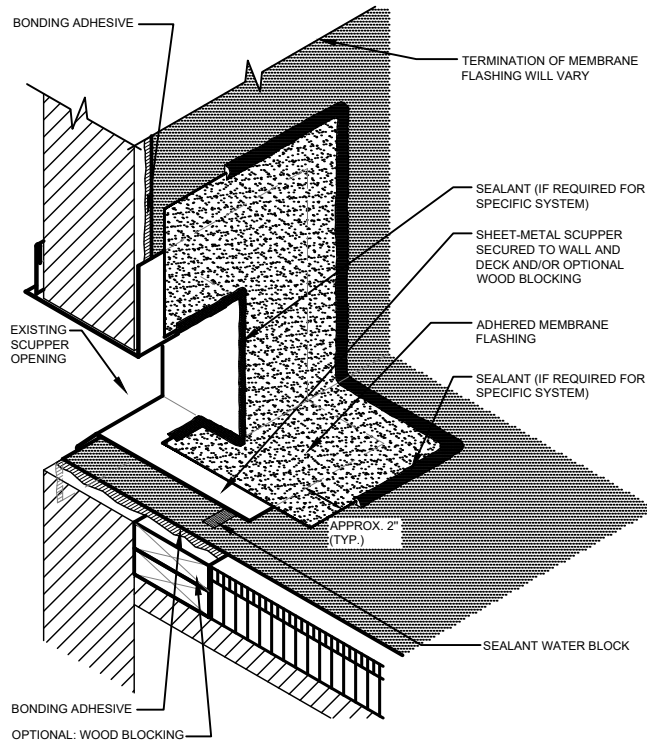
④ DUCT CURB FLASHING  
SCALENTS



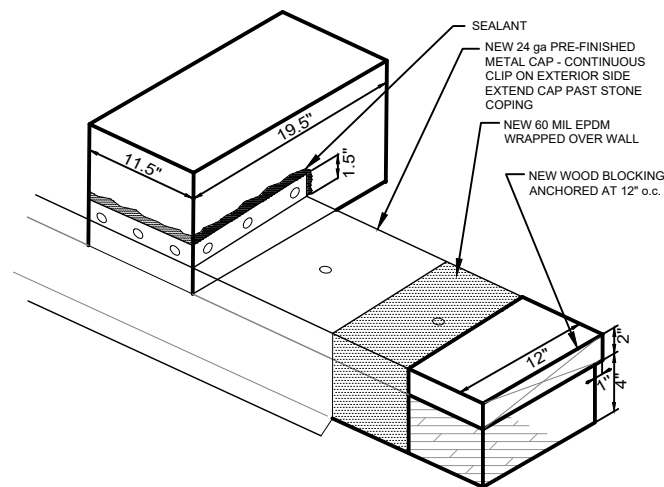
⑤ WALL BASE FLASHING  
SCALENTS



⑥ GUTTER  
SCALENTS



⑦ THROUGH WALL SCUPPER  
SCALENTS



⑧ PARAPET FLASHING AT FRONT ENTRY WALL  
SCALENTS

MPCF ROOF DETAILS

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ROOF DETAILS  
MOUNT PLEASANT CORRECTIONAL FACILITY

ROOF DETAILS  
MOUNT PLEASANT, IOWA

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R5

