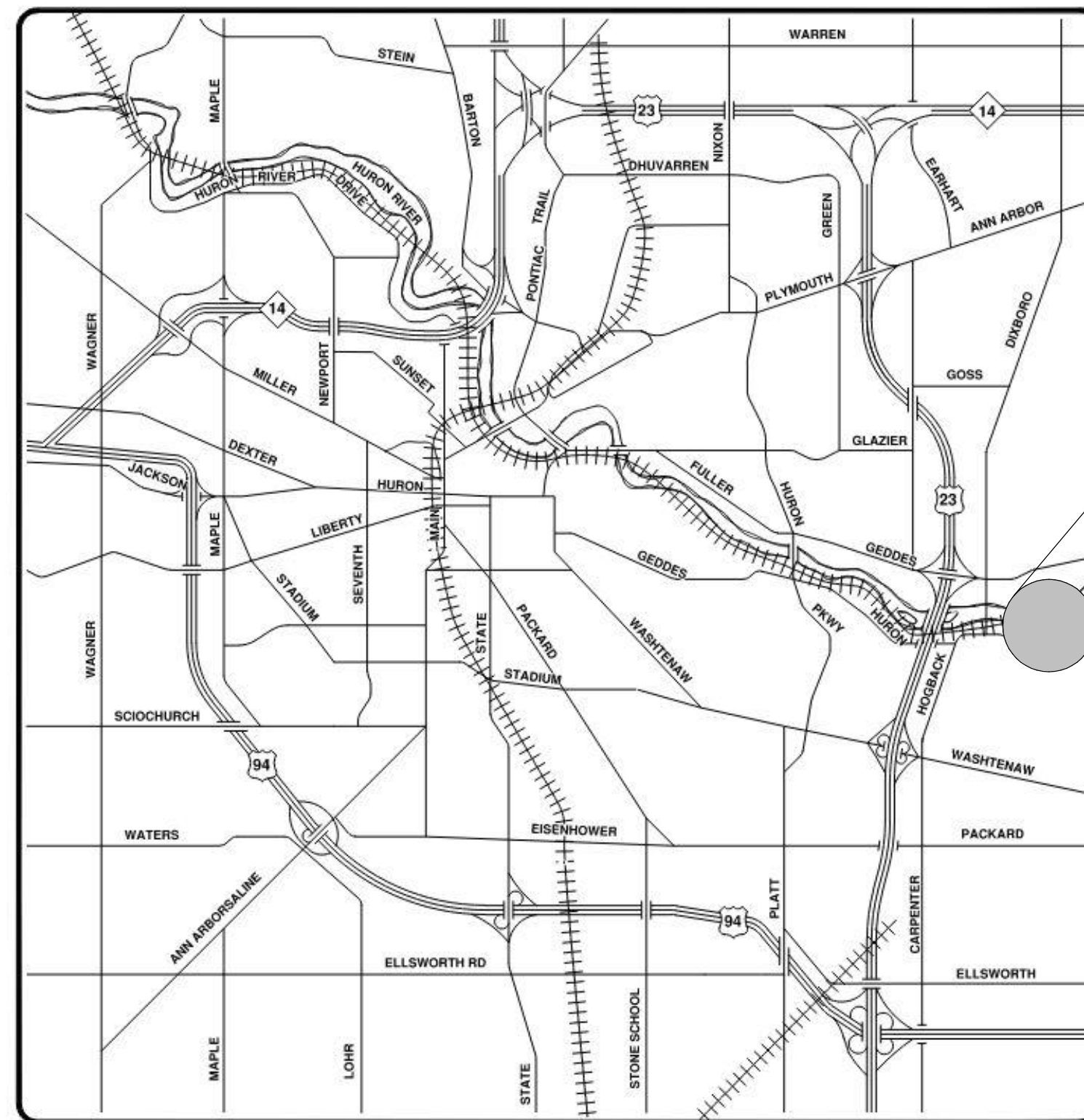






SHEET LIST TABLE	
SHEET NUMBER	SHEET NAME
G001	COVER
G002	GENERAL NOTES
SR101	ROOF PLAN
SR501	DETAILS
SR502	DETAILS



<p><u>PREPARED UNDER THE SUPERVISION OF</u></p> <div style="text-align: center;"></div> <p> _____ F. GREG EHMKE, PE PROJECT MANAGER</p> <p style="text-align: right;">06/17/2025 _____ DATE</p>	<p><u>CITY APPROVAL</u></p> <p style="text-align: right;">_____ ANNE M. WARROW SENIOR ENGINEER</p> <p style="text-align: right;">_____ DATE</p>
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THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.



<p>ET No.</p> <p>G001</p>	<p>SCALE</p> <p>NOT APPLICABLE</p>	<p>DRAWING No.</p> <p>G001</p>

GENERAL NOTES

DIVISION 01 - GENERAL REQUIREMENTS

- 1.1 ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES, LOCAL ZONING ORDINANCES AND FIRE CODES, INCLUDING THE FOLLOWING:
- A. CITY OF ANN ARBOR CODES AND ZONING ORDINANCES, CURRENT EDITION.
 - B. MICHIGAN BUILDING CODE, 2021 EDITION
- 1.2 LOADING - THE DESIGN LOADS FOR THE EXISTING STRUCTURE ARE UNKNOWN. DO NOT EXCEED 20-PSF FOR ANY MATERIAL STORAGE OR CONSTRUCTION LIVE LOADS.
- 1.3 DRAINAGE
- A. REFER TO PLAN FOR PROCEDURES RELATED TO LOCATING SUPPLEMENTAL DRAIN LOCATIONS.
- 1.4 CONSTRUCTION AND COORDINATION NOTES
- A. THE CONTRACTOR SHALL COORDINATE AND CHECK ALL DIMENSIONS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE AFFECTED WORK.
 - B. METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
 - C. CONSTRUCTION MEANS, METHODS, PROCEDURES, BRACING, AND SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE DRAWINGS REPRESENT THE WORK IN ITS FINISHED STATE.
 - D. THE STRUCTURE HAS BEEN DESIGNED FOR THE IN-SERVICE LOADS ONLY. SUPPORTING FORMWORK FOR ELEVATED CONSTRUCTION SHALL NOT BE REMOVED BEFORE THE CONCRETE HAS GAINED SUFFICIENT STRENGTH TO SAFELY SUPPORT THE DEAD AND SUPERIMPOSED LOADS WHICH SUBSEQUENTLY WOULD BE APPLIED. REFER TO SPEC SECTION 3, CONCRETE FORMING FOR ADDT. INFORMATION.
 - E. ALL OMISSIONS OR CONFLICTS AMONG VARIOUS ELEMENTS OF DRAWINGS AND/OR SPECIFICATIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED WORK.
 - F. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DESIGN DISCIPLINES AND COORDINATED WITH THE WORK OF ALL CONSTRUCTION TRADES.
 - G. THE NOTED DRAWING SCALES ARE FOR GENERAL REFERENCE ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY DIRECT SCALING OF THE DRAWINGS.
 - H. IF DRAWINGS AND SPECIFICATIONS ARE IN CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
 - I. VISITS TO THE JOB SITE BY THE ENGINEER TO OBSERVE CONSTRUCTION DO NOT IN ANY WAY MEAN GUARANTEE OF CONTRACTOR'S WORK, RESPONSIBILITY FOR COORDINATION, SUPERVISION, OR SAFETY AT JOB SITE.
 - J. FIELD VERIFY THE LOCATIONS OF EXISTING STRUCTURES, UTILITIES, ETC., AND NOTIFY ENGINEER OF INTERFERENCES NOT NOTED ON DRAWINGS.
 - K. PRIOR TO BEGINNING WORK, EACH WORK AREA IS TO BE COMPLETELY ENCLOSED. CONTRACTOR TO BE RESPONSIBLE FOR ADEQUATE VENTILATION, FUME AND DUST CONTROL.
 - L. ANY OPERATIONS THAT CREATE EXCESSIVE NOISE (HAMMERING, SHOTBLASTING, ETC.) TO BE GOVERNED BY THE LOCAL NOISE ORDINANCE.
 - M. TAKE EXTREME CAUTION NOT TO DAMAGE IN ANY WAY THE EXISTING UTILITY SERVICE LINES. LOCATE AND MARK ALL SERVICE LINES.

1.5 CONSTRUCTION PHASING

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL CONSTRUCTION ACTIVITY AND SHALL COOPERATE FULLY WITH OWNER FOR ALL CONSTRUCTION PHASING.
- B. CONTRACTOR SHALL SUBMIT PHASING PLANS, COMPLETE WITH TEMPORARY SIGNAGE, FOR REVIEW PRIOR TO START OF CONSTRUCTION.
- C. WORK OVER OCCUPIED SPACE SHALL BE PERFORMED BETWEEN HOURS SPECIFIED BY THE OWNER.
- D. COORDINATE WITH THE OWNER MOVING FURNITURE, SUPPLIES, AND MATERIALS IN ROOMS AS REQUIRED TO PERFORM REPAIRS.
- E. STAGING AREA FOR CONTRACTOR TO BE LOCATED ONSITE. CONTRACTOR SHALL COORDINATE WITH OWNER.
- F. PROTECT PEDESTRIAN TRAFFIC THROUGHOUT STRUCTURE AND ON SIDEWALKS AROUND PERIMETER OF THE STRUCTURE.
- G. PROVIDE OWNER APPROVED SIGNAGE AT THE BEGINNING OF THE CONSTRUCTION PHASE NECESSARY TO ADEQUATELY DIRECT VEHICLES AND PEDESTRIANS TO ALTERNATE SAFE ROUTES.
- H. SCHEDULE CONTRACTOR DELIVERIES AND WASTE HAULING TO MINIMIZE INTERFERENCE WITH EXISTING BUILDING OPERATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER.

1.6 FORMWORK AND SHORING

- A. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR SAFETY OF BUILDING OR EQUIPMENT DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATING TO CONSTRUCTION, ERECTION METHOD, BRACING, SHORING, RIGGING, GUYS, SCAFFOLDING, FORMWORK, AND OTHER WORK AIDS REQUIRED TO SAFELY PERFORM WORK INDICATED.
- B. CONTRACTOR IS RESPONSIBLE FOR PROVIDING APPROPRIATE SHORING.

1.7 CONCRETE DELAMINATION REPAIR

- A. SOUND ALL AREAS AS INDICATED ON DRAWINGS AND MARK PERIMETER OF AREAS.
- B. SAWCUT AND CHIP AT PERIMETER OF DELAMINATED AREAS AS INDICATED ON THE DRAWINGS.
- C. REMOVE EXISTING CONCRETE BEYOND DELAMINATION TO SOUND CONCRETE AS INDICATED ON THE DRAWINGS.
- D. REMOVE EXISTING CONCRETE BEYOND DELAMINATION EXPOSING EXISTING REINFORCEMENT STEEL PERIMETER AS INDICATED ON THE DRAWINGS.
- E. PROVIDE UNIFORM HORIZONTAL SURFACE BETWEEN ADJACENT BARS OR WIRES WHEN CAVITY ENCOMPASSES MORE THAN ONE BAR OR WIRE.
- F. CLEAN (AND COAT) ALL EXPOSED REINFORCEMENT STEEL AND OTHER EMBEDDED STEEL.
- G. PROVIDE PATCH MATERIAL AS INDICATED GENERAL NOTE 3.2.
- H. STEEL TROWEL FINISH OF UNFORMED CONCRETE PATCH SURFACES TO MATCH ADJACENT AREAS.
- I. WHERE APPLICABLE CHAMFER CORNERS TO MATCH ADJACENT AREAS.
- J. CONCRETE PATCH SURFACES TO BE PAINTED TO MATCH ADJACENT AREAS.
- K. NOMINAL SIZES OF MEMBERS ARE INDICATED ON DETAILS. ACTUAL SIZES MAY VARY.
- L. NOMINAL PATCH DEPTHS ARE INDICATED ON DETAILS. ACTUAL DEPTH MAY VARY.
- M. PAY BASIS SHALL BE AS INDICATED ON THE BID FORMS.

1.8 REPAIR QUANTITIES

- A. CONTRACTOR SHALL NOTIFY ENGINEER IF QUANTITIES SHOWN ON DRAWINGS ARE SUBSTANTIALLY DIFFERENT FROM THE ACTUAL QUANTITIES IN THE FIELD. SUBJECT LOCATIONS SHALL BE REVIEWED WITH THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.

1.9 DUST CONTROL

- A. FILTER FABRIC SHALL BE INSTALLED OVER ALL STORM DRAIN BASINS WITHIN THE WORK AREA.
- B. DUST, SILT, SEDIMENT ETC, SHALL NOT LEAVE THE SITE.
- C. ALL SAW CUTTING AND GRINDING OPERATIONS SHALL BE PERFORMED WET TO CONTROL DUST.

GRAPHIC SYMBOLS

ELEVATION, SECTION, ENLARGED PLAN, AND DETAIL DESIGNATION

ALT TEXT

1 View Name

SCALE: 1/8" = 1'-0"

PLAN DESIGNATION

ALT TEXT

PLAN

SCALE: 1/8" = 1'-0"

NORTH

NORTH ARROW DESIGNATIONS

TRUE NORTH

NORTH

EXTERIOR ELEVATION TAG

X XXX

INTERIOR ELEVATION / PHOTO TAG

A C XXXX D

ENLARGED DETAIL FRAME

1 A201

SECTION CUT LINE

1 A501

LEVEL CALLOUT

LEVEL ONE

0'-0"

ELEVATION TARGET

EL. 100'-0"

SPOT ELEVATION

UP

RAMP HINGE LINE - UP INDICATES THE SURFACE SLOPES UP. DN INDICATES THE SURFACE SLOPES DOWN.

BULLETIN IDENTIFICATION

ADDENDUM IDENTIFICATION

REVISION CLOUD

KEY NOTE TAG

DEMOLITION NOTE TAG

LOCATION REFERENCE LINE SYMBOL

1.10 CONCRETE AND SAW CUTTING WORK

- A. THE FOLLOWING REQUIREMENTS APPLY TO CONCRETE AND SAW CUTTING WORK (CUTTING, GRINDING, DRILLING, HYDRO-DEMOLITION, ETC.):
 - 1. DISCHARGE OF WATER, DUST OR DEBRIS FROM CONCRETE WORK TO STORM OR SANITARY SYSTEM IS PROHIBITED.
 - 2. STORM DRAINS MUST BE PROTECTED FROM DUST AND DEBRIS.
 - 3. ANY WATER USED DURING CONCRETE WORK (INCLUDING SWEEPING AND SAW CUTTING) MUST BE CONTAINED AND COLLECTED FOR PROPER DISPOSAL. SUGGESTED CONTROLS INCLUDE WET VACUUM, OR ABSORBENTS.
 - 4. GOOD HOUSEKEEPING PRACTICES MUST BE EMPLOYED AT THE JOBSITE. MINIMIZE DUST.

1.11 CONCRETE WASHOUT

- A. DO NOT DISCHARGE CONCRETE, MORTAR OR GROUT WASHOUT INTO STORM DRAINS, CATCH BASINS OR TO THE SANITARY SEWER SYSTEM. PERFORM WASHING OF CONCRETE TRUCKS IN DESIGNATED AREAS OR OFFSITE.
 - 1. DESIGNATED AREAS SHOULD BE CLEARLY LABELED. THEY SHOULD BE IN A PIT TO PREVENT RUNOFF OF WASTEWATER. PLACE DESIGNATED AREAS A MINIMUM OF 50 FEET FROM STORM DRAINS, BODIES OF WATER AND DITCHES. ALL DESIGNATED AREAS SHOULD BE LINED TO PREVENT SEEPAGE AND SHOULD HAVE A BARRIER.
 - 2. ALTERNATIVE TO A DESIGNATED AREA: PROVIDE A CONCRETE BOX. IF ONLY A SMALL AMOUNT OF CONCRETE WASHING IS TO OCCUR, ONE OPTION IS TO LINE A ROLL-OFF BOX. FOR VERY SMALL PROJECTS THIS COULD BE DONE WITH A DRUM.
- B. ONCE CONCRETE WASHOUT HAS HARDENED, BREAK UP AND DISPOSE OF PROPERLY. DISPOSAL OF HARDENED CONCRETE SHOULD OCCUR ON A REGULAR BASIS.
- C. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES PROVIDED ONCE THE WASHOUT AREA IS 75% FULL.

1.12 WASTE DISPOSAL

- A. ANY USED CHEMICAL PRODUCTS OR SOLVENTS INCLUDING CHEMICAL AND SOLVENT MIXTURES, RESIDUES, CONTAMINATED RAGS AND CONTAINERS SHOULD BE EVALUATED FOR PROPER DISPOSAL.

DIVISION 02 - EXISTING CONDITIONS

2.1 EXISTING STRUCTURES

- A. FIELD VERIFY THE LOCATIONS OF EXISTING UTILITIES, STRUCTURES, ETC AND NOTIFY ENGINEER OF ANY INTERFERENCE.
- B. WHERE DIMENSIONS ARE INDICATED FOR EXISTING STRUCTURES OR UTILITIES, THEY ARE APPROXIMATE AND FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY IN FIELD (V/F) ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ANY VARIATIONS BETWEEN EXISTING DIMENSIONS AND/OR ELEVATIONS ON DRAWINGS SHALL BE REPORTED TO THE ENGINEER.

DIVISION 03 - CAST-IN-PLACE CONCRETE

3.1 ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- A. ACI 318-19

3.2 CONCRETE

CONCRETE MEMBER	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (F/PSI)	MAXIMUM WATER/CEMENT RATIO	AIR CONTENT (%)	CORROSION INHIBITOR ADMIXTURE DOSAGE (GAL/UY)	MIN FLY ASH CONTENT	MIN GGBS CONTENT	NOTES
CURB/WALL	5,000	0.40	6.5	2	NOT REQD	NOT REQD	NOTE D & E
SLABS (ELEVATED)	5,000	0.40	6.5	2	NOT REQD	NOT REQD	NOTE E
ISLANDS, PADS, CURBS	4,000	0.40	6.5	NOT REQD	NOT REQD	NOT REQD	NOTE E
ALL OTHER	4,000	0.40	6.5	NOT REQD	NOT REQD	NOT REQD	

NOTES:

- A. MAXIMUM PERCENT OF TOTAL CEMENTITIOUS MATERIALS:
 - 1. WHERE BOTH FLY ASH AND GGBS (SLAG) ARE USED IN A MIX DESIGN THEIR TOTAL SHALL NOT EXCEED 35% BY WEIGHT OF THE TOTAL CEMENTITIOUS MATERIAL IN THE MIX DESIGN FOR SLABS AND 50% FOR FORMED MEMBERS.
 - 2. WHERE FLY ASH, SLAG AND SILICA FUME ARE USED IN A SINGLE MIX DESIGN, THE TOTAL SHALL NOT EXCEED 42% BY WEIGHT OF THE TOTAL CEMENTITIOUS MATERIAL IN THE MIX DESIGN.
- B. ENTRAINED AIR CONTENT VALUES ARE FOR IN-PLACE CONCRETE. AIR CONTENT TOLERANCE IS +/- 1.5%
- C. ALL CONCRETE IS NORMAL WEIGHT WITH A DENSITY OF APPROXIMATELY 145 PCF UNLESS NOTED OTHERWISE. THE WEIGHT OF FLY ASH GGBS ADMIXTURE(S) MAY BE INCLUDED WITH THE WEIGHT OF CEMENT.
- D. VERTICAL/OVERHEAD POLYMER MODIFIED REPAIR MORTAR. REFER TO SPECIFICATIONS.
- E. CONTRACTOR MAY USE READY MIX CONCRETE OR POLYMER MORTAR REPAIR MATERIAL. REFER TO SPECIFICATIONS.

3.3 CEMENT

- A. ASTM C150 TYPE I OR III
- B. ASTM C595 TYPE IL (10)

3.4 AGGREGATES

- A. ASTM C 33

3.5 MILD REINFORCEMENT

- A. MILD REINFORCEMENT; ASTM A 615 GRADE 60
- B. MILD REINFORCEMENT (LOW ALLOY WELDABLE); ASTM A 706 GRADE 60
- C. MECHANICAL TENSION AND COMPRESSION SPLICES AS INDICATED ON DRAWINGS
- D. MECHANICAL TERMINATION SIZES AS INDICATED ON DRAWINGS
- E. EPOXY COATING FOR PLAIN AND DEFORMED MILD REINFORCEMENT, ASTM A 775
- F. (WELDED PLAIN WIRE FABRIC SHEETS, ASTM A 185, GRADE 65) (WELDED DEFORMED WIRE FABRIC SHEETS, ASTM A 497, GRADE 65)
- G. EPOXY COATING FOR PLAIN WELDED WIRE FABRIC, ASTM A 884
- H. EPOXY COATING FOR DOWEL BARS SHALL BE THE SAME AS SPECIFIED FOR REINFORCEMENT TO BE SPLICED
- I. WELDING FOR REINFORCING STEEL, AWS D1.4

CONCRETE MEMBER		MINIMUM CONCRETE COVER	REINF COATING
WALLS	SIDES IN CONTACT W/ EARTH	2"	EPOXY COATED
	NOT IN CONTACT W/ EARTH	1 1/2"	EPOXY COATED
SLABS (ELEVATED)	TOP BARS	2"	EPOXY COATED
	BOTTOM BARS	1"	EPOXY COATED
ISLANDS, PADS, CURBS, MISC		1 1/2" FROM TOP	EPOXY COATED

3.6 CONCRETE ACCESSORIES

- A. MISCELLANEOUS STEEL SHAPES, PLATES, AND BARS, ASTM A 36, HOT-DIP GALVANIZED AFTER ASSEMBLY, STAINLESS STEEL ASTM A 666 OR ASTM A 276, TYPE 304L AS NOTED ON DRAWINGS.
- B. ANCHOR BOLTS, ASTM F 1554 GRADE 36, HOT-DIP GALVANIZED
- C. HEADED STUD ANCHORS, ASTM A 108, TO BE IN ACCORDANCE WITH AWS D1.1-TYPE B, SIZES AS INDICATED ON DRAWINGS
- D. POST-INSTALLED ANCHORS SHALL BE STAINLESS STEEL
 - 1. ANCHOR CAPACITY SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY ANCHOR MANUFACTURER. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE, AND INSTALLATION TEMPERATURE.
 - 2. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
 - 3. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS AND UNDER CONTINUOUS INSPECTION BY SPECIAL INSPECTOR.
 - 4. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE ENGINEER MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT ANCHOR INSTALLATION.
 - 5. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- E. EXISTING REINFORCEMENT (POST-TENSIONED TENDONS, PRESTRESSED STRANDS AND MILD REINFORCEMENT) IN THE CONCRETE STRUCTURE MAY CONFLICT WITH THE SPECIFIC ANCHOR LOCATIONS. THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS; BY CONCRETE SCANNER, GPR, X-RAY, OR OTHER NON-DESTRUCTIVE MEANS UNLESS APPROVED OTHERWISE BY ENGINEER. EXISTING REINFORCEMENT SHALL NOT BE DAMAGED DURING INSTALLATION OF POST-INSTALLED ANCHORS.
- F. SLIDE BEARING SYSTEMS SHALL BE AS INDICATED ON DRAWINGS.

3.7 GROUT

- A. PREMIXED, PACKAGED, NON-SHRINK, CHLORIDE-FREE, NON-STAINING, FC = 6,000 PSI MINIMUM, ASTM C 1107.

3.8 GENERAL CAST-IN-PLACE CONCRETE

- A. REINFORCEMENT
 - 1. PROVIDE (2) #5 ADDITIONAL REINFORCING BARS AROUND ALL OPENINGS. EXTEND BARS 2 FEET BEYOND CORNERS OF OPENING.
 - 2. PROVIDE STANDARD 90-DEGREE BAR HOOKS UNLESS NOTED OTHERWISE ON DRAWINGS.
 - 3. MINIMUM LENGTH OF LAP SPLICES SHALL BE BASED ON ACI 318 CLASS B, UNLESS NOTED OTHERWISE ON DRAWINGS.
 - 4. APPROVED REBAR COUPLERS MAY BE USED AT CONTRACTOR'S OPTION TO AID PLACEMENT OF DOWELS THROUGH FORMS.
 - 5. REINFORCING STEEL SHALL NOT BE BENT OR STRAIGHTENED IN THE FIELD UNLESS APPROVED BY ENGINEER OR AS INDICATED ON DRAWINGS.
 - 6. FIELD CUTTING OF REINFORCEMENT IS PROHIBITED UNLESS APPROVED BY ENGINEER.
 - 7. WELDING OF REINFORCEMENT IS PROHIBITED UNLESS SPECIFICALLY REQUIRED ON DRAWINGS OR APPROVED BY ENGINEER. DO NOT WELD EPOXY COATED REINFORCEMENT.
- B. ACCESSORIES
 - 1. ALL WELD ASSEMBLIES SHALL USE E70XX LOW HYDROGEN ELECTRODES. MINIMUM WELD SIZE IS 1/4 INCH. STAINLESS STEEL ELECTRODES SHALL BE TYPE 308L OR 347.
 - 2. FOR FIELD WELDING GALVANIZED CONNECTION HARDWARE, REMOVE SLAG, WIRE BRUSH, AND APPLY THREE COATS OF ZINC RICH COATING (ZRC) COLD GALVANIZING.
 - 3. INSTALL INSERTS AND ANCHORS CAST IN CONCRETE FOR SUSPENDING MECHANICAL AND ARCHITECTURAL ITEMS WHERE FEASIBLE. IF ADDITIONAL FASTENERS ARE NEEDED IN CONVENTIONALLY REINFORCED CONCRETE, USE DRILLED-IN TYPE ANCHORS LOCATED TO AVOID CONFLICT WITH REINFORCEMENT. DO NOT USE DRILLED-IN ANCHORS OR POWER-DRIVEN FASTENERS IN POST-TENSIONED CONCRETE UNLESS APPROVED BY ENGINEER.
 - 4. NO ALUMINUM CONDUIT OR PRODUCTS CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO THE CONCRETE SHALL BE EMBEDDED IN CONCRETE.
- C. JOINTS
 - 1. PROVIDE A 3/4 INCH CHAMFER EDGE ON EXPOSED CORNERS OF CONCRETE UNLESS OTHERWISE INDICATED ON DRAWINGS. TOP EDGES OF WALLS MAY BE TOOLED.
 - 2. TOOL SLAB JOINTS AT THE TIME OF FINISHING. SAW CUTTING IS NOT ALLOWED UNLESS SPECIFICALLY INDICATED ON DRAWINGS OR APPROVED BY ENGINEER.
 - 3. CAST WALLS WITH CONSTRUCTION AND CONTROL JOINTS SPACED AT 15 FEET ON CENTER MAXIMUM UNLESS NOTED ON DRAWINGS.
 - 4. CAST SLAB-ON-GRADE WITH CONSTRUCTION AND CONTROL JOINTS IN STRIPS 15 FEET BY 100 FEET MAXIMUM UNLESS NOTED OTHERWISE ON DRAWINGS.
 - 5. CONSTRUCTION JOINTS SHALL BE PREPARED BY ROUGHENING THE CONTACT SURFACE TO A FULL AMPLITUDE OF 1/4" AND LEAVING THE CONTACT SURFACE CLEAN AND FREE OF LAITANCE.
- D. GENERAL
 - 1. THE USE OF CHLORIDES SUCH AS DEICING PRODUCTS ARE PROHIBITED FOR USE OF MELTING ICE PRIOR TO PLACEMENT OF CONCRETE.

DIVISION 05 - METALS

5.1 ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- A. AISC 360-10
- B. AISC 341-10

5.2 W-SHAPES, ASTM A 992, GRADE 50

5.3 CHANNELS ANGLES, M-SHAPES, S-SHAPES, ASTM A 36

5.4 PLATES AND BARS, ASTM A 36

5.5 CORROSION-RESISTING STRUCTURAL STEEL, ASTM A 588, GRADE 50

5.6 HOLLOW STRUCTURAL SECTIONS, ASTM A 500, GRADE C

5.7 CORROSION-RESISTING COLD-FORMED STEEL TUBING, ASTM A 847

5.8 STEEL PIPE, ASTM A 53, TYPE E OR S, GRADE B STANDARD WEIGHT.

5.9 ALL WELDING SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRODES AND SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY SPECIFICATIONS. ALL WELDS SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER.

5.10 BOLTED CONNECTIONS SHALL BE MADE USING ASTM A 325-N 3/4 INCH DIAMETER HIGH STRENGTH BOLTS, NUTS, AND WASHERS BEARING TYPE CONNECTION WITH THREADS INCLUDED IN SHEAR PLANE, OR ASTM A 325-SC FOR SLIP CRITICAL CONNECTIONS OR AS INDICATED OTHERWISE ON DRAWINGS. TURN OF THE NUT METHOD.

- A. FINISH: MECHANICALLY DEPOSITED ZINC COATING, ASTM B 645 CLASS 50.

5.11 ANCHOR RODS, ASTM F 1554 GRADE 36

- A. NUTS, ASTM A 563 HEAVY HEX CARBON STEEL
- B. PLATE WASHERS, ASTM A 36
- C. WASHERS, ASTM F 436
- D. FINISH: HOT-DIP ZINC COATING, ASTM A 153 CLASS C.

5.12 CONNECTIONS NOT DETAILED ON DRAWINGS SHALL BE DESIGNED BY FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS

5.13 USE STANDARD AISC DOUBLE ANGLE CONNECTIONS WHERE POSSIBLE. SHOP CONNECTIONS NOT SPECIFICALLY DETAILED ON DRAWINGS SHALL BE BOLTED OR WELDED. FIELD CONNECTIONS SHALL BE BOLTED UNLESS SPECIFICALLY DETAILED OTHERWISE.

5.14 WHEN NO REACTIONS ARE INDICATED, DESIGN CONNECTIONS TO SUPPORT A REACTION VALUE EQUAL TO ONE HALF THE AISC TABULATED ALLOWABLE UNIFORM LOAD VALUE (6 KIPS MINIMUM)

5.15 NO SPLICED IN COLUMNS WILL BE PERMITTED UNLESS SPECIFICALLY NOTED ON DRAWINGS

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

7.1 JOINT SEALANTS

- A. PROVIDE JOINT SEALANTS AT LOCATIONS INDICATED IN DETAILS

DIVISION 09 - FINISHES

9.1 INSTALL PROTECTIVE COATING ON ALL SUPPORTED SLAB SURFACES AS SHOWN ON PLANS AND EXTENDED UP VERTICAL SURFACES 4 INCHES, INCLUDING WALLS, PANELS, COLUMNS, CURBS, PIPES, ETC., AS INDICATED IN DETAILS.

DIVISION 22 - PLUMBING

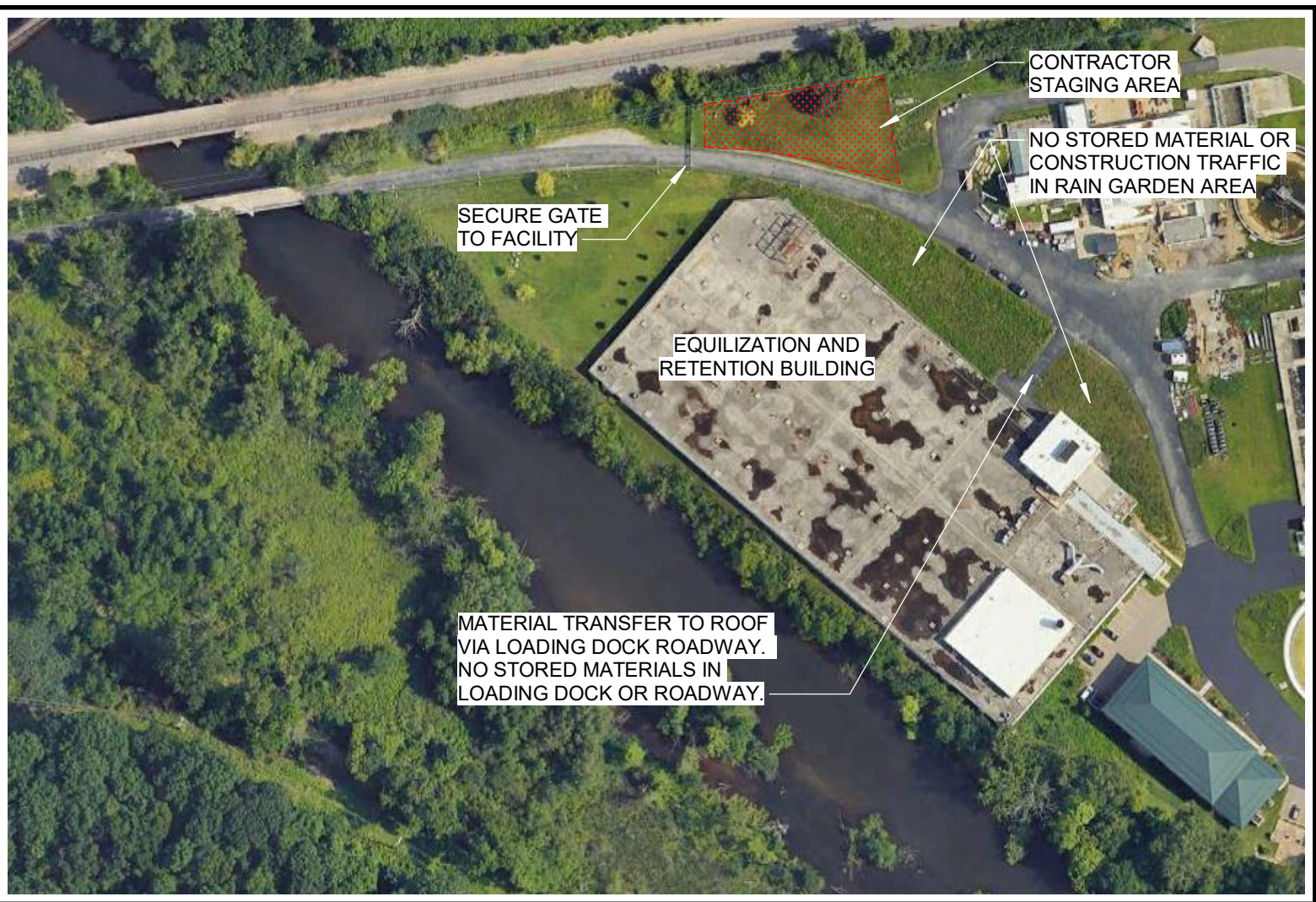
- 22.1 FOR EXISTING DRAINS AT CONCRETE ROOF, RETROFIT DRAINS WITH NEW DOME STRAINER. PROVIDE ADAPTER RINGS AS REQUIRED.
- 22.2 REFER TO PLAN FOR PROCEDURES RELATED TO LOCATING SUPPLEMENTAL DRAIN LOCATIONS.
- 22.3 FOR EXISTING DRAINS AT MEMBRANE ROOF LOCATIONS PROVIDE NEW CLAMPING RINGS AND DOME STRAINERS.

BUILDING CODE INFORMATION

THIS PROJECT CONSISTS OF REPAIRS AS DEFINED BY THE MICHIGAN REHAB CODE.

THE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE FOLLOWING CODES. NOTIFY THE ENGINEER/ARCHITECT OF ANY CONFLICTS.

- 2021 MICHIGAN BUILDING CODE
- 2021 MICHIGAN REHABILITATION CODE
- 2021 MICHIGAN PLUMBING CODE
- 2021 MICHIGAN MECHANICAL CODE
- 2023 NATIONAL ELECTRICAL CODE (WITH MICHIGAN AMENDMENTS PART 8 RULES)
- 2021 MICHIGAN COMMERCIAL ENERGY CODE
- 2013 ANSI/ASHRAE/IES STANDARD 90.1
- 2015 INTERNATIONAL FIRE CODE
- 2015 INTERNATIONAL FUEL GAS CODE
- 2017 ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

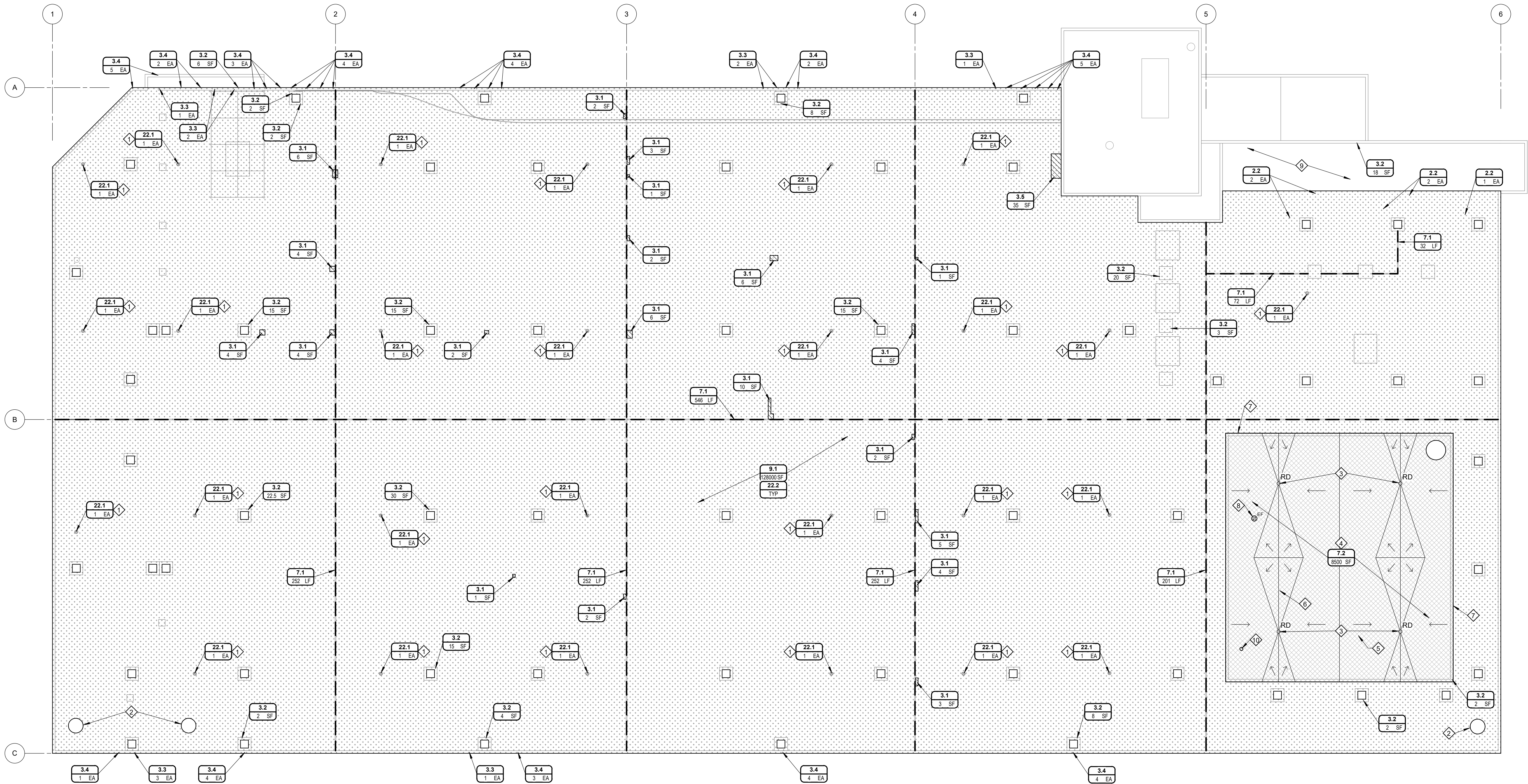


PROJECT STAGING & ACCESS PLAN
NO SCALE

GENERAL ABBREVIATIONS

ANCHOR BOLT
ADDITIONAL
ADJUSTABLE
ABOVE FINISHED FLOOR
ALUMINUM
ALTERNATE
APPROXIMATE
ARCHITECT
BALANCE
BITUMINOUS
BOTTOM OF
BOTTOM OF FOOTING
BOTTOM
BASEMENT
BOTTOM REINFORCEMENT
BEARING
CAST IN PLACE
CONSTRUCTION JOINT; CONTROL JOINT
CENTERLINE
CLEAR
CONCRETE MASONRY UNIT
COLUMN
CONCRETE
CONNECTION
CONSTRUCTION
CONTINUOUS
COORDINATE
CENTER
DEFORMED BAR ANCHOR
DOUBLE
DEGREES
DEMOLITION
DIAMETER
DIMENSION
DOWN
DOOR
DETAIL
DRAWING
DOWEL
EACH
EPOXY COATED
EACH FACE
ELEVATION
EXTERIOR INSULATION AND FINISH SYSTEM
EXPANSION JOINT
ELECTRICAL
ELEVATOR
EDGE OF STEEL
EQUAL
EQUIPMENT
EACH WAY
EXISTING
EXPANSION
EXTERIOR
FLOOR DRAIN
FOUNDATION
FINISHED FLOOR
FINISH
FOOTING STEP
FOOT/FEET
FOOTING
GAUGE/GAGE
GALVANIZED
GENERAL CONTRACTOR
GROUND GRANULATED BLAST-FURNACE SLAG
HOOK
HORIZONTAL
HOURS
HEADED STUD ANCHOR
HOLLOW STRUCTURAL SECTION
HEIGHT
HEATING VENTILATING AIR CONDITIONING
INSIDE DIAMETER
INCH/INCHES
INFORMATION
INVERTED TEE
JOINT
POUNDS
LINEAL FEET
MAXIMUM
MECHANICAL
MANUFACTURER
MINIMUM
MISCELLANEOUS
MASONRY OPENING
MOUNTING
METAL
NOT APPLICABLE
NOT IN CONTRACT
NUMBER
NOT TO SCALE
ON CENTER
OUTSIDE DIAMETER
OPPOSITE HAND
OPPOSITE
OVERFLOW ROOF DRAIN
PRECAST CONCRETE
PLATE
POUNDS PER SQUARE FOOT
POUNDS PER SQUARE INCH
POST-TENSIONED
RADIUS
ROOF DRAIN
REFERENCE
REINFORCING
REQUIRED
RIGHT OF WAY
SECTION
SQUARE FOOT
SIMILAR
SPACE/SPACING
SPECIFICATIONS
SQUARE
STAINLESS STEEL
STANDARD
STEEL
STRUCTURAL
TOP AND BOTTOM
TRENCH DRAIN
TEMPERATURE
TOP OF
TOP OF BEAM
TOP OF CONCRETE
TOP OF FOOTING
TOP OF MASONRY
TOP OF SLAB
TOP OF WALL
TOP REINFORCEMENT
TYPICAL
UNLESS NOTED OTHERWISE
VERTICAL
VERIFY IN FIELD
VOLUME
WITH
WIDE FLANGE
WALL CONTROL OR CONSTRUCTION JOINT
WATER STOP JOINT
WELDED WIRE FABRIC
ZINC RICH COATING

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WORK ITEMS

- 2.2 DEMOLISH UNUSED CONCRETE EQUIPMENT PAD AND PATCH ACCESS HOLES, REFER TO DETAILS 3-4/SR501
- 3.1 TOP OF SLAB REPAIR - PARTIAL DEPTH, REFER TO DETAIL 5/SR501
- 3.2 CURB REPAIR, REFER TO DETAIL 6/SR501
- 3.3 CURB/WALL REPAIR AT POST, REFER TO DETAILS 7/SR501
- 3.4 CLEAN AND FILL VOID SPACE AT POST SLEEVE, REFER TO DETAILS 8/SR501
- 3.5 REMOVE AND REPLACE CONCRETE PAD AT DOORWAY, REFER TO DETAIL 10/SR501
- 7.1 REMOVE AND REPLACE EXPANSION JOINT REFER TO DETAIL 2/SR502
- 7.2 REMOVE AND REPLACE ROOFING MEMBRANE SYSTEM, REFER TO KEY NOTE 4 AND DETAILS 8-10/SR502
- 9.1 REMOVE AND REPLACE PROTECTIVE COATING, REFER TO DETAILS 3-5/SR502
- 22.1 RETROFIT DOME STRAINER AT EXISTING DRAINS, REFER TO DETAIL 6/SR502
- 22.2 PROVIDE SUPPLEMENTAL ROOF DRAINS AT WATER PONDING AREAS, REFER TO PLAN NOTE 4 AND DETAIL 7/SR502

KEY NOTES

- 1 REMOVE AND REPLACE EXISTING ROOF DRAIN STRAINER WITH NEW LOW SILHOUETTE CAST IRON DOME STRAINER.
- 2 EXTEND PROTECTIVE COATING UP TO BOTTOM OF FLASHING.
- 3 PROVIDE NEW CLAMPING RINGS AND LOW SILHOUETTE CAST IRON DOME STRAINERS AT EXISTING ROOF DRAINS. FIELD VERIFY EXISTING DRAIN SIZE. INSULATION AT DRAINS TO START AT 3.5". MODIFICATION OF EXISTING DRAINS WILL BE REQUIRED TO MEET NEW INSULATION HEIGHT.
- 4 REMOVE EXISTING MEMBRANE ROOFING SYSTEM AND ACCESSORIES DOWN TO EXISTING CONCRETE DECK. REPLACE WITH NEW 80-MIL TPO ADHERED OVER R30 INSULATION WITH COVERBOARD ADHERED TO EXISTING CONCRETE ROOF DECK
- 5 ROOF SLOPE ON MAIN ROOF SHOULD BE 1/4": 12" MINIMUM.
- 6 SADDLE SLOPE SHOULD BE 1/2": 12" MINIMUM.
- 7 PROVIDE NEW BLOCKING TO BE INSTALLED AT PERIMETER TO MATCH NEW ROOF SYSTEM THICKNESS
- 8 INSTALL CRICKETS ON HIGH SIDE OF CURBS.
- 9 PROTECT EXISTING DECK COATING TO REMAIN.
- 10 VENT PIPE



ROOF PLAN

SCALE: 1" = 20'-0"

PLAN SYMBOLS

- XX** WORK ITEM NUMBER, REFER TO WORK ITEMS LIST
- 0 SF** QUANTITY UNIT
- 0 SF** QUANTITY OF REPAIR
- FLOOR REPAIR HATCH
- NEW PROTECTIVE COATING HATCH
- NEW ROOF MEMBRANE
- EXISTING DRAIN
- TAPERED INSULATION
- ROOF DRAIN
- OVERFLOW ROOF DRAIN
- EXHAUST FAN

PLAN NOTES

1. REFER TO G002 FOR GENERAL NOTES.
2. CLEAN AND DISPOSE OF ALL ROOF DEBRIS. CONTRACTOR SHALL REMOVE ALL BIOLOGICAL DEPOSITS FROM ROOF AND LEGALLY DISPOSE OF OFF-SITE. PRESSURE WASH WITH WATER THE ROOF SURFACE AND ADJACENT CURBS AND WALLS WITH MINIMUM OF 4,000-PSI. DO NOT DAMAGE EXISTING SURFACE OR PIPING/CONDUITS.
3. AT FULL-DEPTH SLAB CRACKS GREATER THAN 1/16" IN WIDTH, ROUT OUT AND REPLACE WITH CRYSTALLINE ADMIXTURE INFUSED CEMENTITIOUS PATCH MATERIAL, REFER TO DET 9/SR501.
4. PROVIDE SUPPLEMENTAL ROOF DRAINS AT LOCATIONS COORDINATED WITH THE ENGINEER IN THE FIELD. AFTER CLEANING, THE CONTRACTOR SHALL ARRANGE FOR AND WET ALL SLABS WITH WATER FOR THE PURPOSE OF DETECTING LOCATIONS OF INADEQUATE DRAINAGE. SLAB SURFACES SHALL BE WETTED UNTIL WATER FLOWS FREELY TO DRAINS. LOCATIONS OF INADEQUATE DRAINAGE ARE DEFINED AS 4'-0" SQ FT OR LARGER AREAS OF STANDING WATER (WITH A VISIBLE SHEEN) ISOLATED BY AREAS OF DRY SLAB AFTER 6 HOURS OF DRY TIME FOLLOWING THE SLAB WETTING. DOCUMENT AND COORDINATE WITH ENGINEER THE LOCATIONS AND EXTENTS OF INADEQUATE DRAINAGE LOCATIONS FOR CONSIDERATION FOR PLACEMENT OF SUPPLEMENTAL ROOF DRAINS. NEW ROOF DRAIN BASED ON ZURN MODEL Z111, 12" DIAMETER CAST IRON WITH LOW SILHOUETTE CAST IRON DOME STRAINER. PROVIDE 4" DIAMETER BY 30" LONG SCHEDULE 40 PVC (ASTM D2665) DRAIN OUTLET PIPE, PROVIDE TRAP SEAL AT INLET OF PVC PIPE BASED ON ZURN "ZSHIELD" Z1072.
5. THE FOLLOWING NOTES APPLY TO THIS PLAN SHEET. NOT ALL NOTES BELOW NECESSARILY APPLY TO THIS PROJECT.
- A. COORDINATE ALL WORK INDICATED PER THE PROJECT MANUAL AND DRAWINGS - NOTE: THE MOST STRINGENT REQUIREMENT OR MORE COSTLY WORK SHALL GOVERN WHERE CONFLICTS OCCUR.
- B. IF EXISTING CONDITIONS DIFFER FROM WHAT IS SHOWN, NOTIFY THE ARCHITECT IMMEDIATELY SO THE DESIGN MAY BE PROPERLY MODIFIED.
- C. COORDINATE PHASING AND SEQUENCING OF THE WORK TO MAINTAIN CONTINUING OPERATION, BUILDING SECURITY AND WEATHER TIGHTNESS.
- D. VERIFY ALL DIMENSIONS INDICATED ON DRAWINGS PRIOR TO CONSTRUCTION; COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.
- E. IF THE WORK RENOVATES AN EXISTING BUILDING AND AREAS WITHIN THE BUILDING ARE TO REMAIN OCCUPIED, PROVIDE AND MAINTAIN CONSTRUCTION BARRIER BETWEEN CONSTRUCTION AND OCCUPIED AREA.

City of Ann Arbor

Ann Arbor, Michigan

Equalization and Retention Building Roof Repairs

REVISIONS

06/17/2025 BIDDING & CONSTRUCTION

Drawn By RMULVANEY
Designer MBOLES
Reviewer GEHMKKE
Manager GEHMKKE

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2500882

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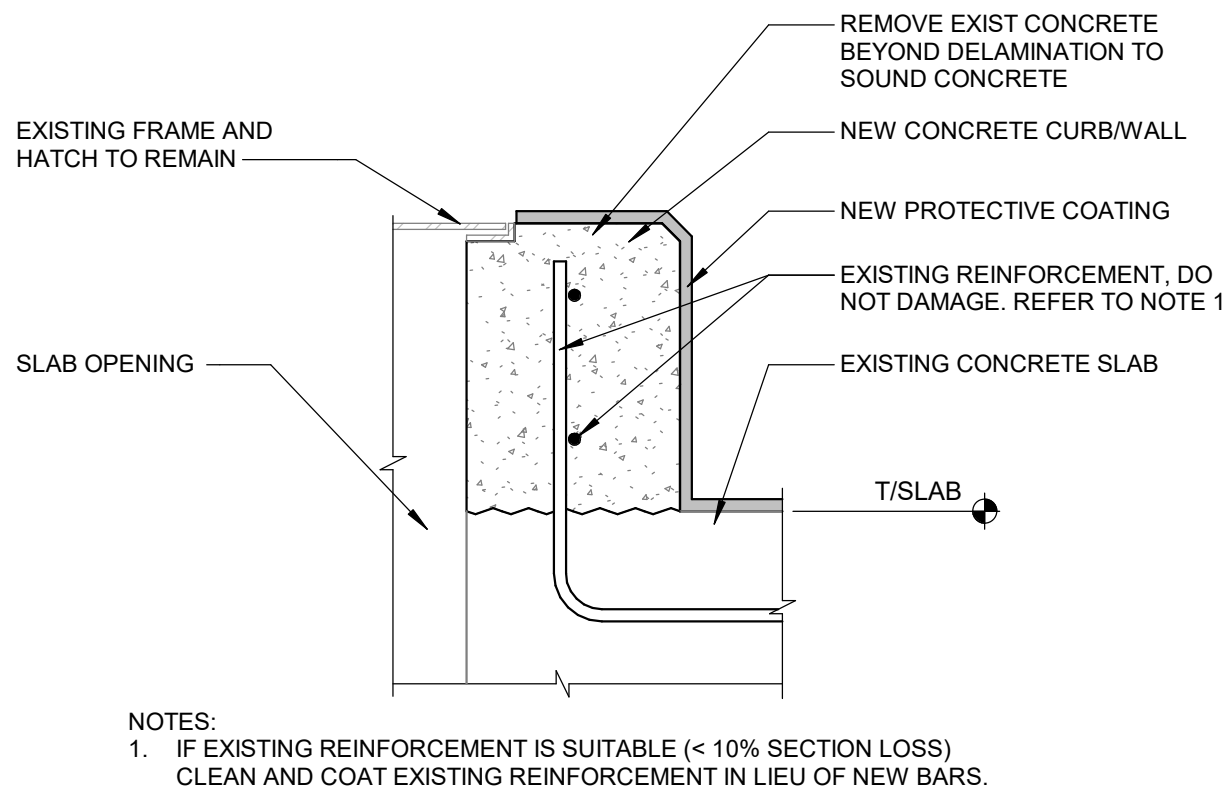
SR101

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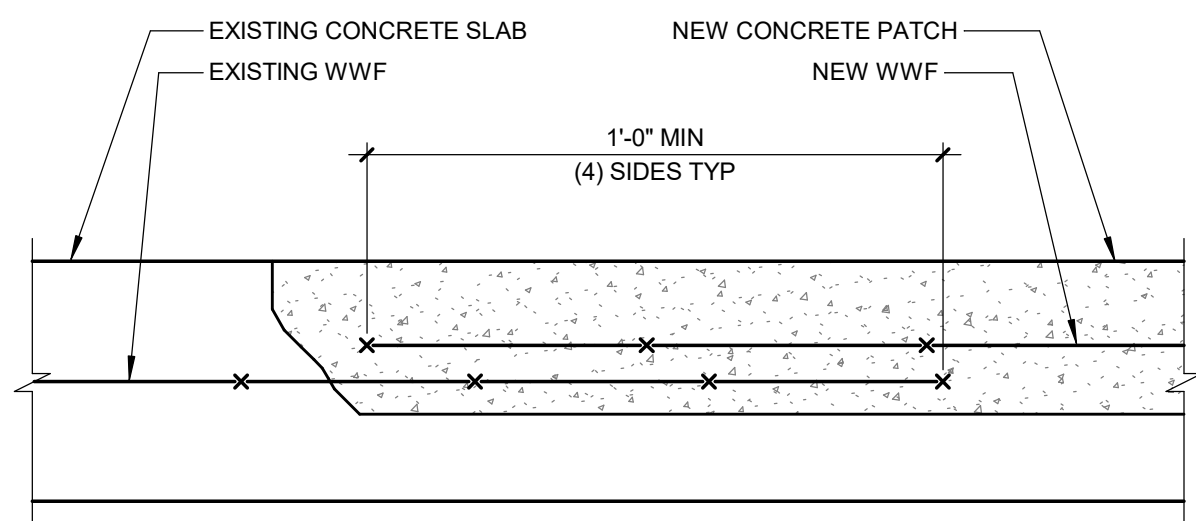
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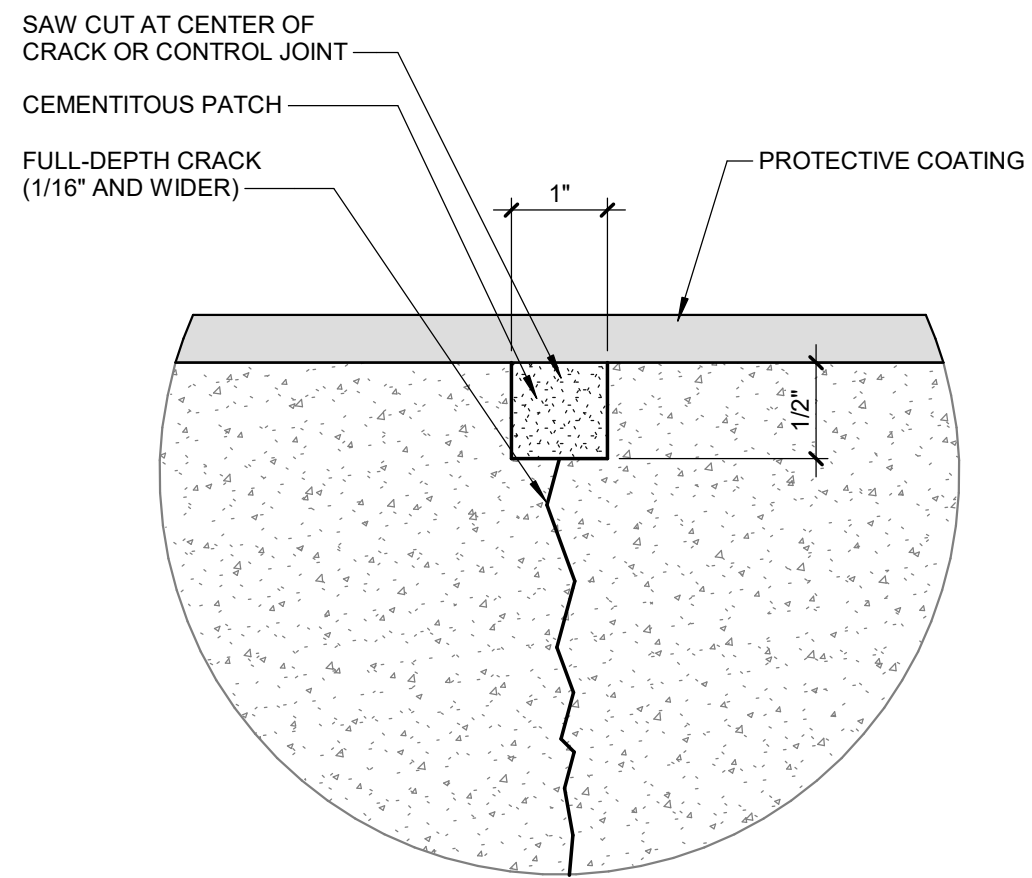
DEMOLITION DETAIL
EXISTING CONCRETE PAD
SCALE: NOT TO SCALE



6 CONCRETE CURB/WALL REPLACEMENT
SCALE: 1 1/2" = 1'-0"

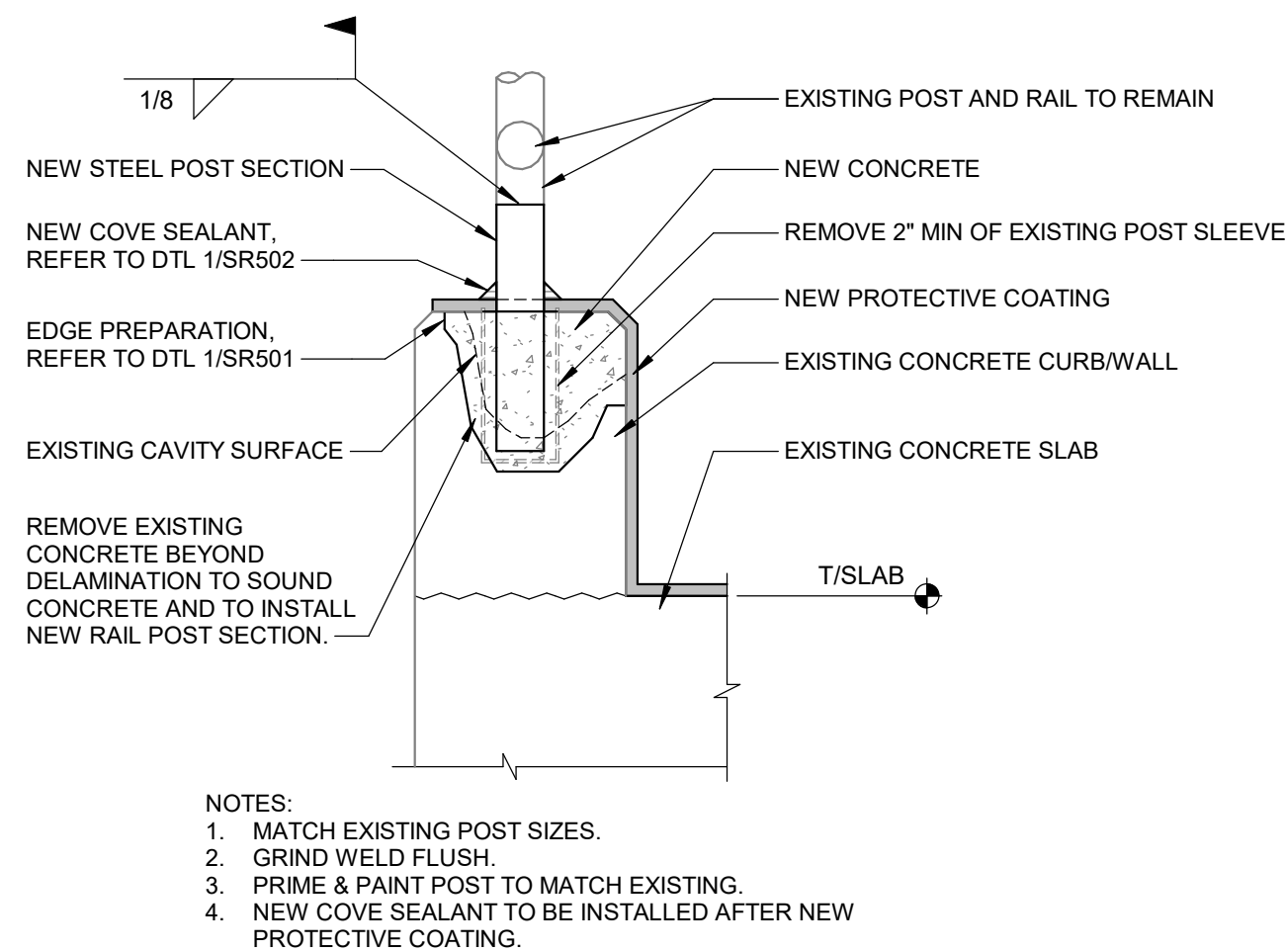
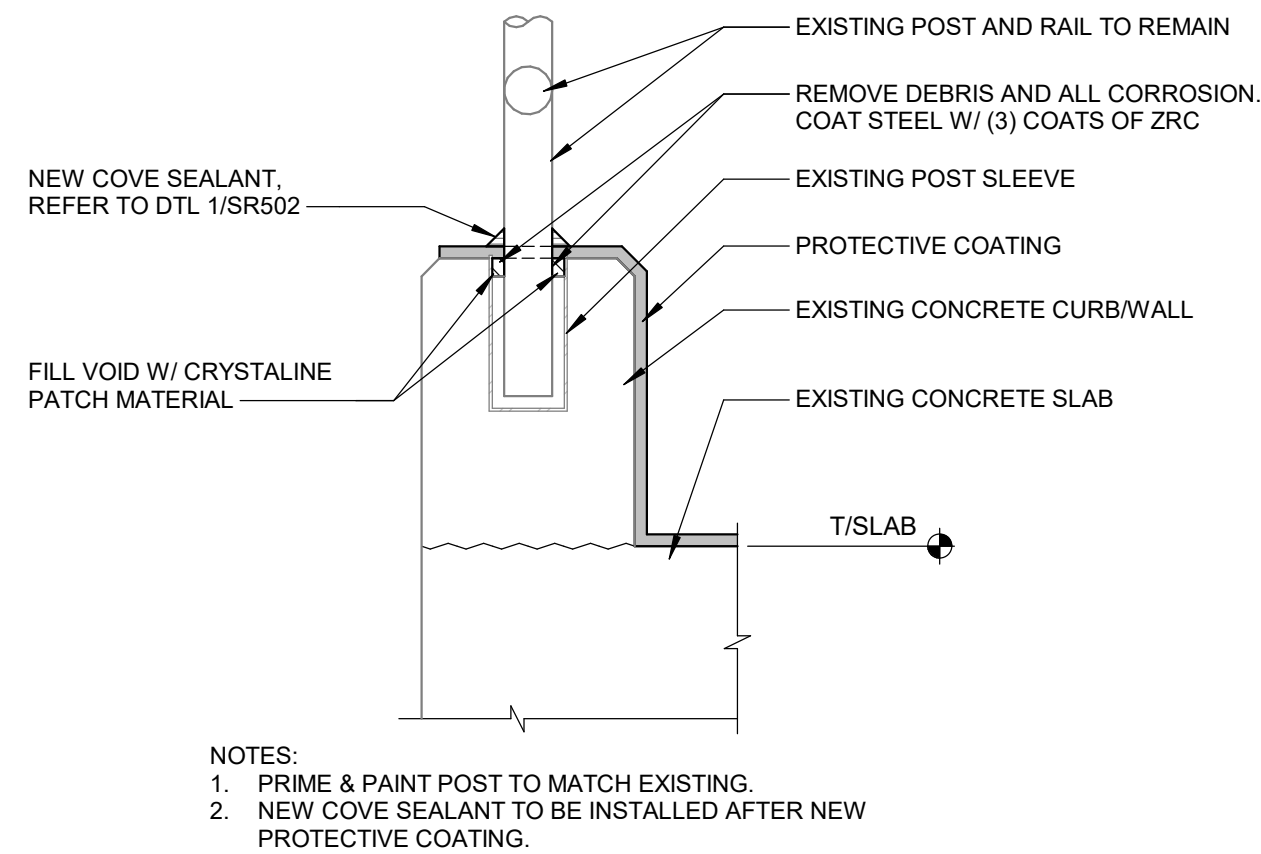


2 WWF SPLICE DETAIL
SCALE: NOT TO SCALE

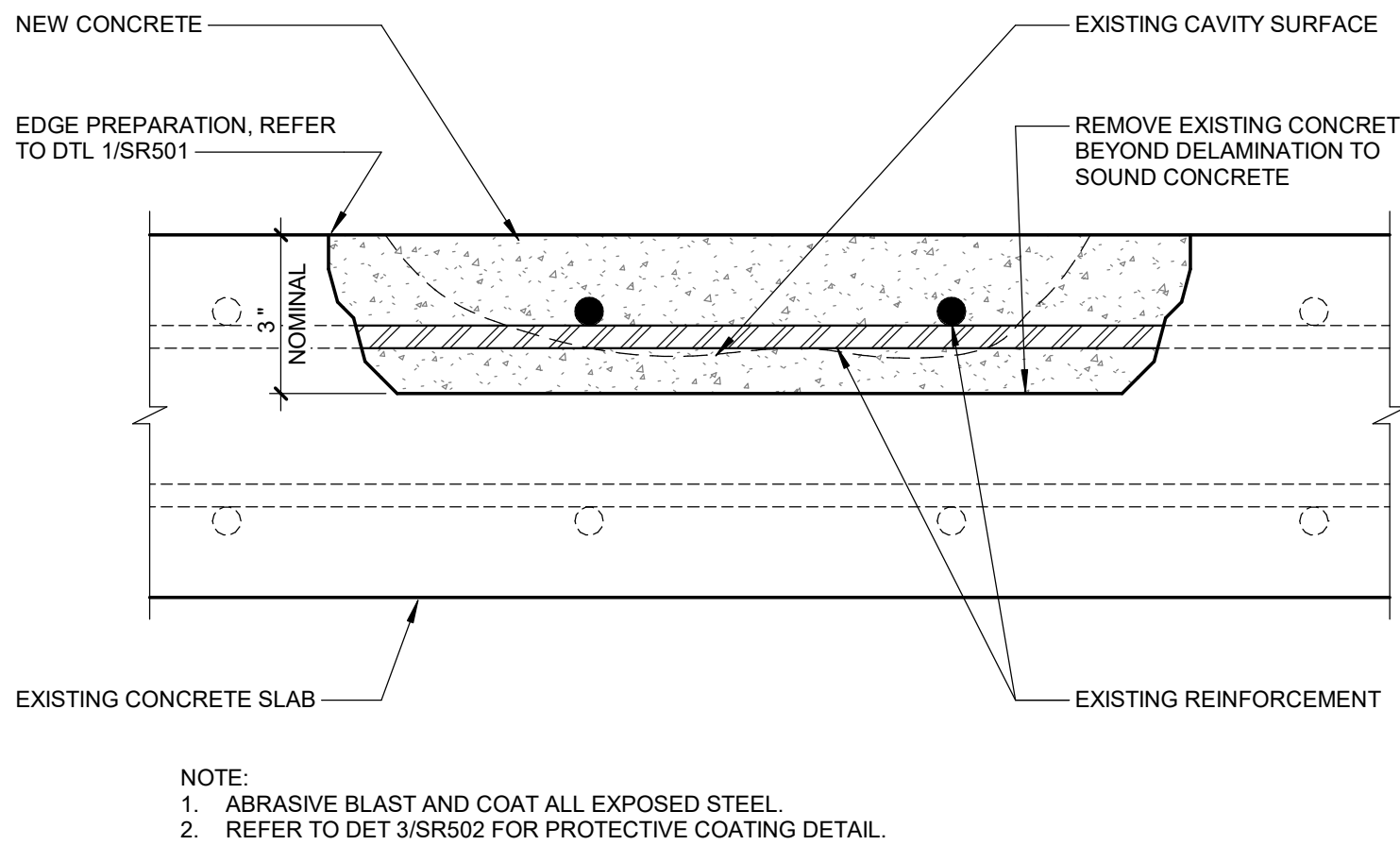


9 FULL-DEPTH CRACK DETAIL
SCALE: 12" = 1'-0"

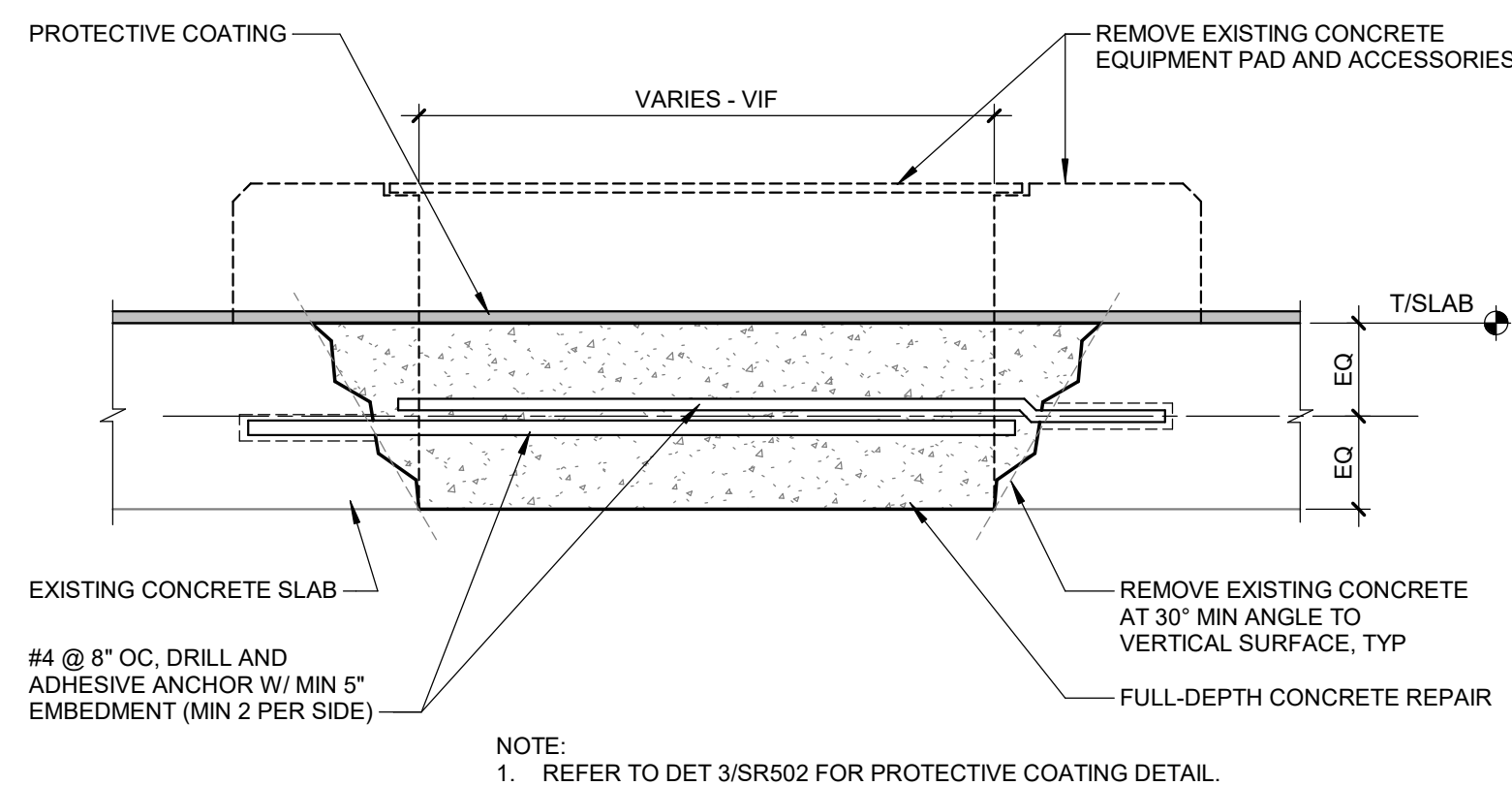
8 CLEAN AND FILL VOID SPACE AT POST SLEEVE CONCRETE CURB/WALL/POST REPAIR
SCALE: 1 1/2" = 1'-0"



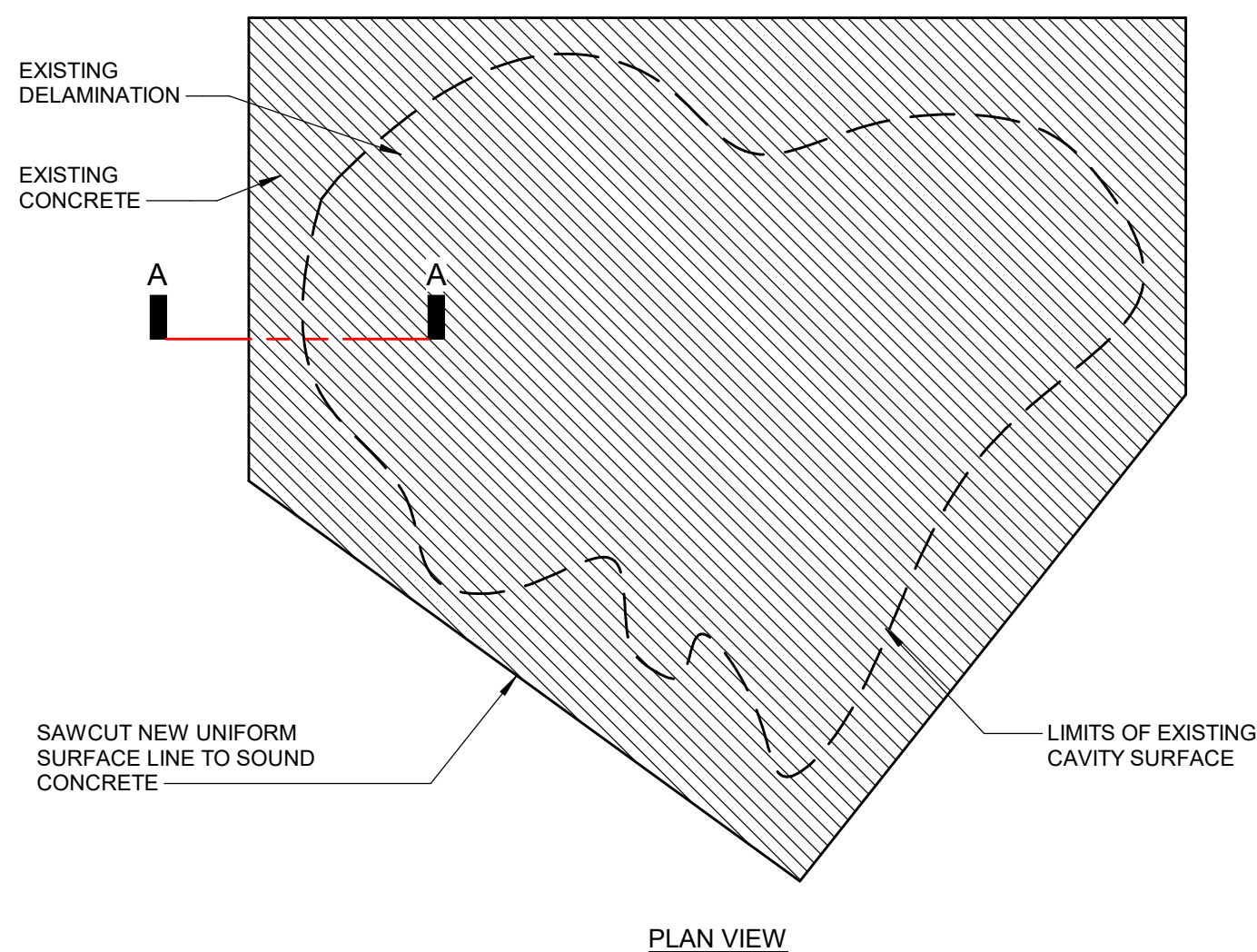
7 DELAMINATED CONCRETE CONCRETE CURB/WALL/POST REPAIR
SCALE: 1 1/2" = 1'-0"



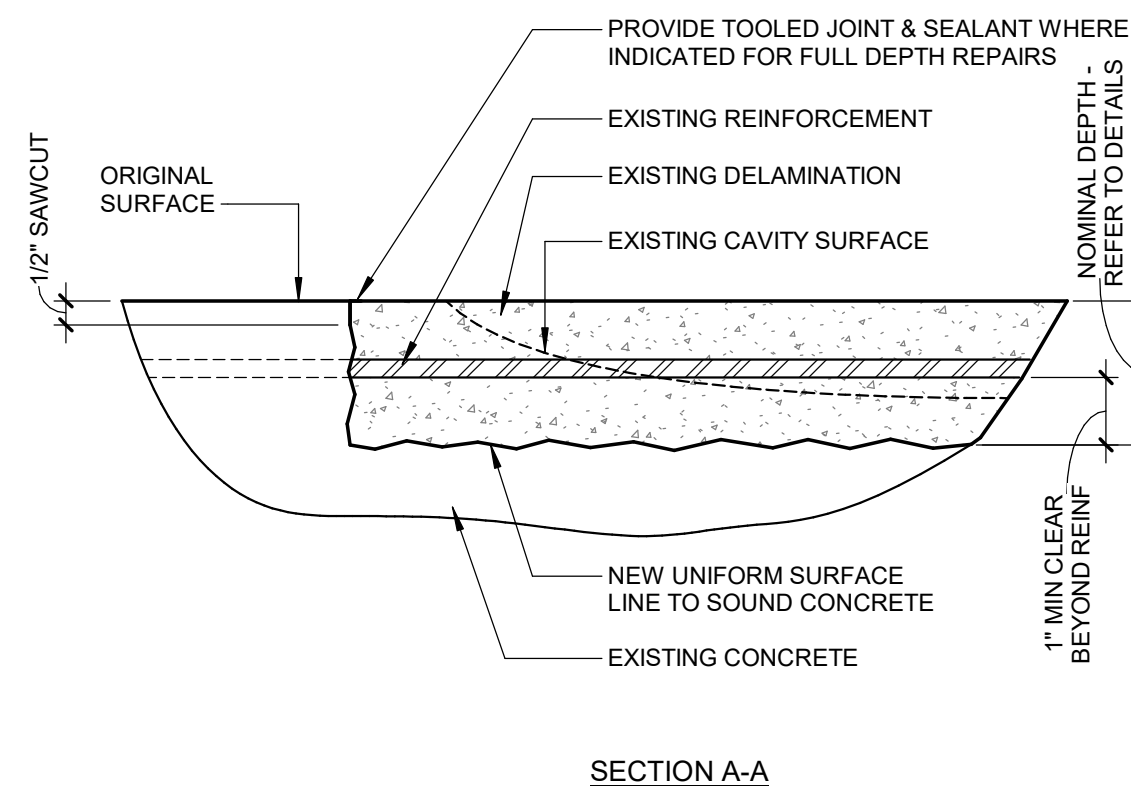
5 PARTIAL DEPTH CONCRETE SLAB REPAIR
SCALE: 3" = 1'-0"



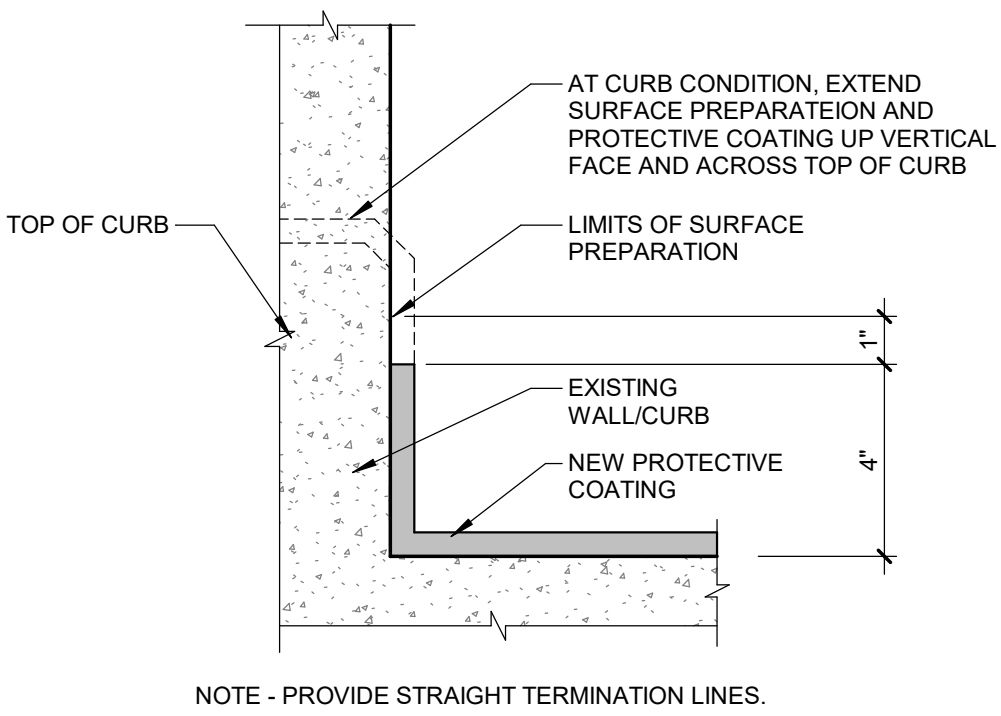
4 FULL-DEPTH CONCRETE SLAB REPAIR
SCALE: 1 1/2" = 1'-0"



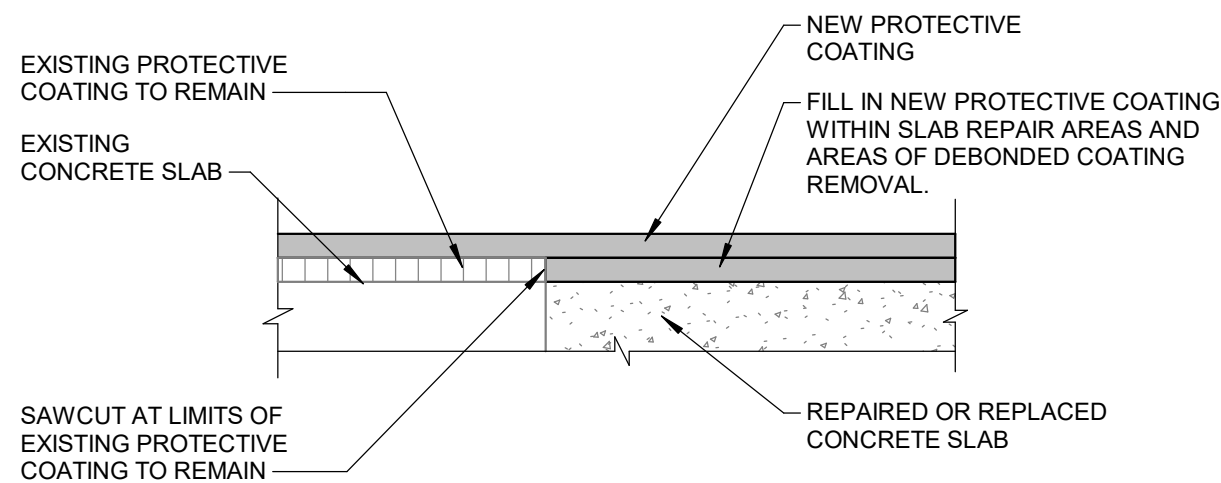
1 EDGE PREPARATION DETAIL
SCALE: NOT TO SCALE



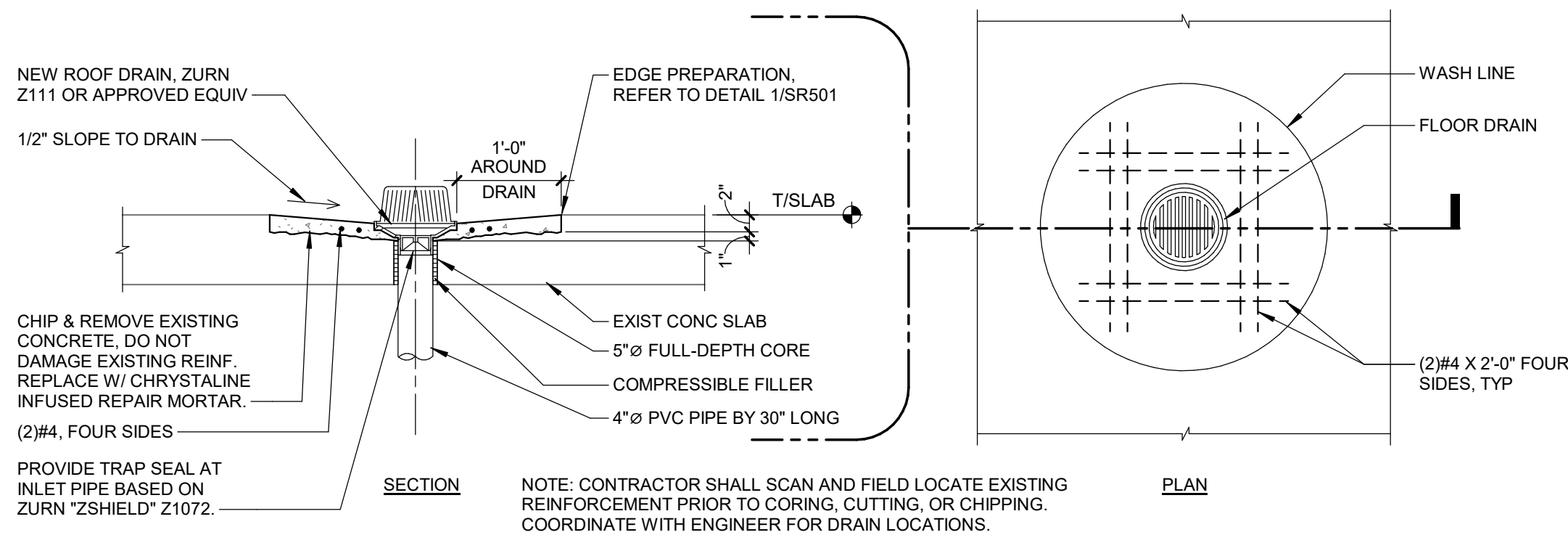
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AT WALL/CURB
PROTECTIVE COATING DETAIL
SCALE: 3" = 1'-0"



AT REPAIR/REPLACEMENT SLABS
PROTECTIVE COATING DETAIL
SCALE: 3" = 1'-0"

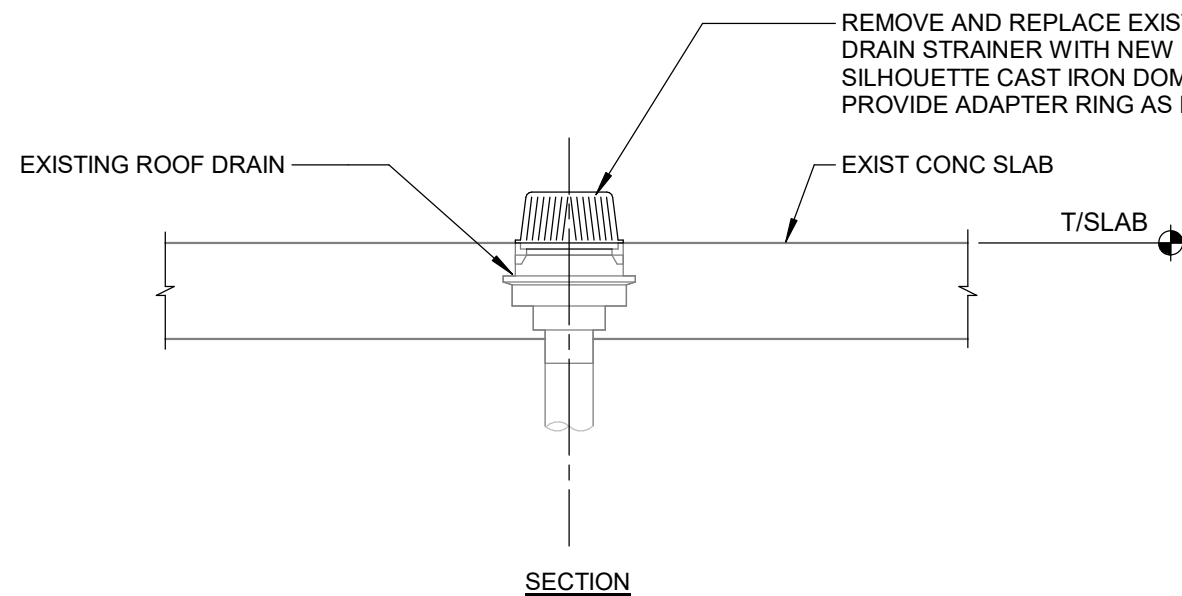


7 SUPPLEMENTAL ROOF DRAIN
SCALE: 3/4" = 1'-0"

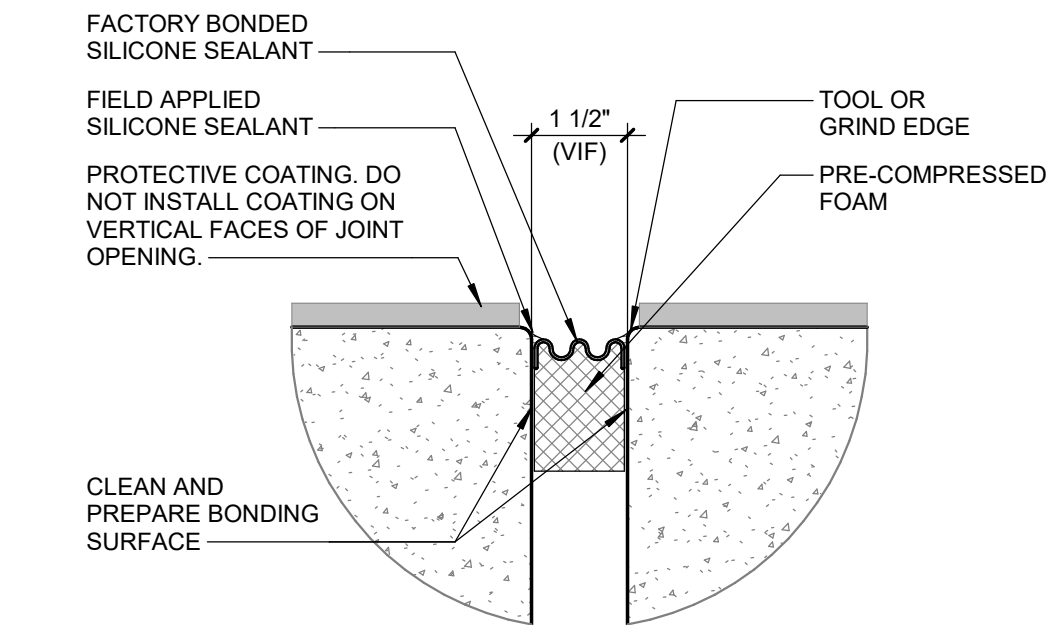
NOTE: CONTRACTOR SHALL SCAN AND FIELD LOCATE EXISTING REINFORCEMENT PRIOR TO CORING, CUTTING, OR CHIPPING. COORDINATE WITH ENGINEER FOR DRAIN LOCATIONS.

ENGINEERING SPECIFICATION: ZURN Z111

12" (305mm) DIAMETER FLAT DECK ROOF DRAIN, DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD AND LOW SILHOUETTE CAST IRON DOME.

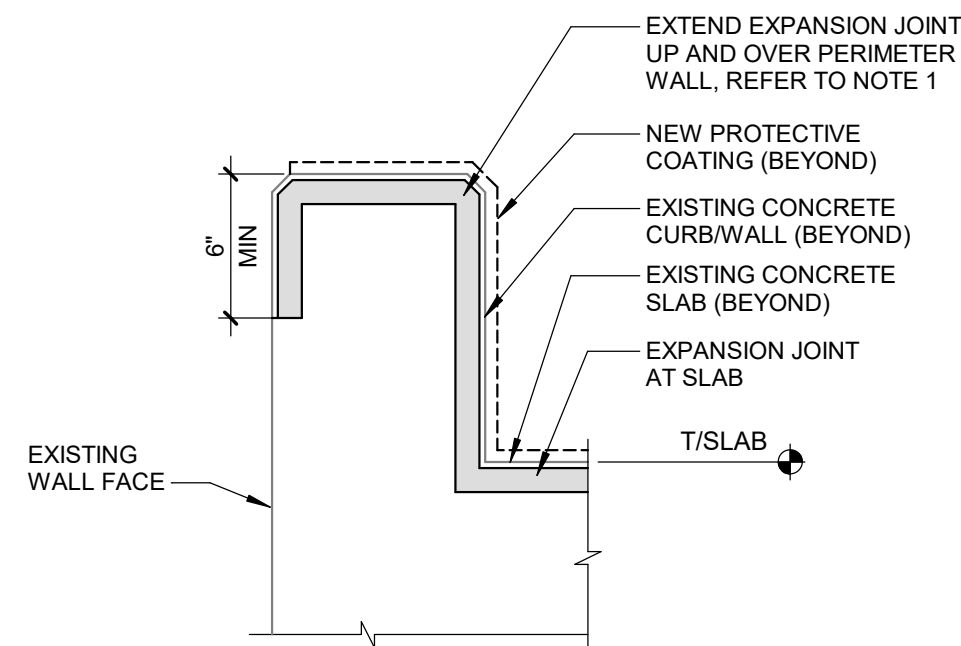


6 RETROFIT DOME STRAINER DETAIL
SCALE: 3/4" = 1'-0"

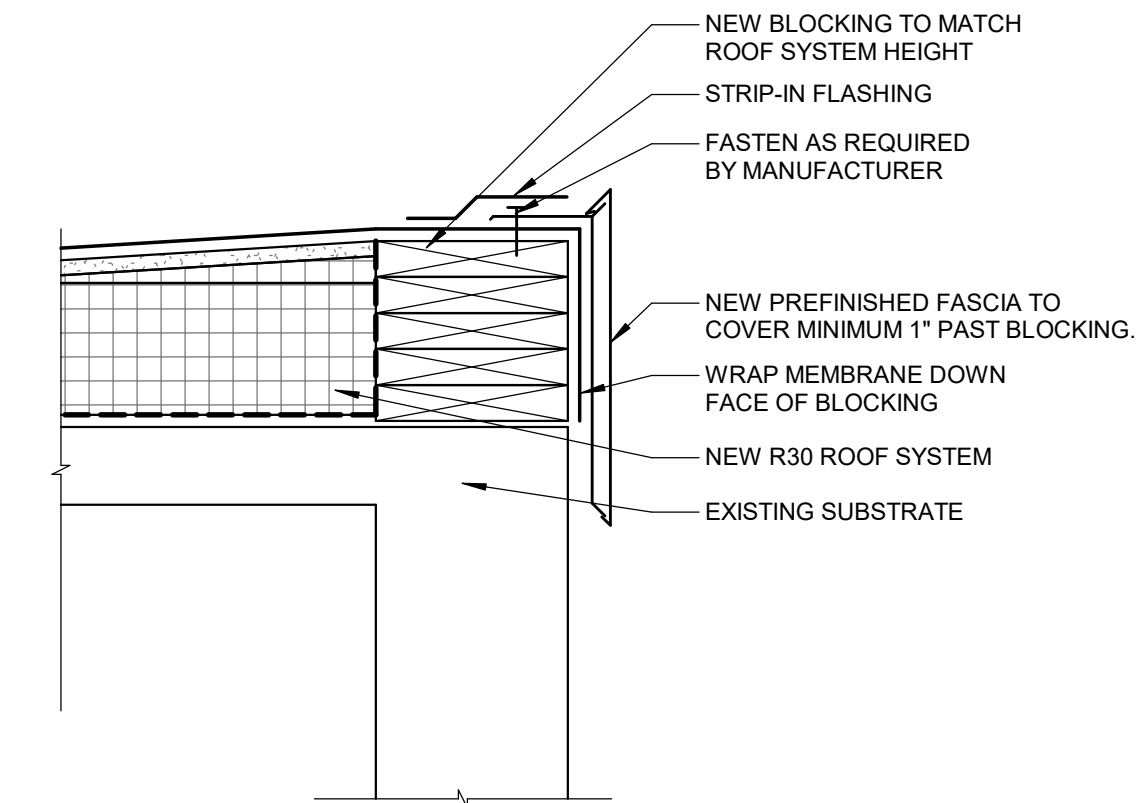


NOTES:
1. JOINT WIDTH (") IS DEPENDENT ON TEMPERATURE AND SHOULD BE REVIEWED BY MANUFACTURER PRIOR TO ORDERING MATERIAL.

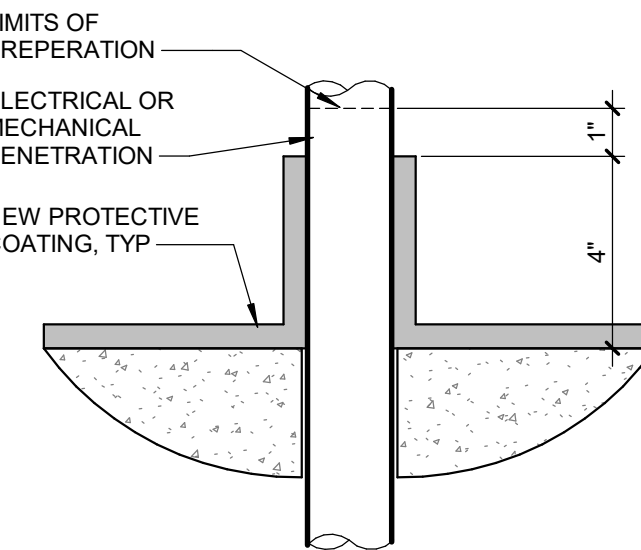
2 EXPANSION JOINT DETAIL
SCALE: 3" = 1'-0"



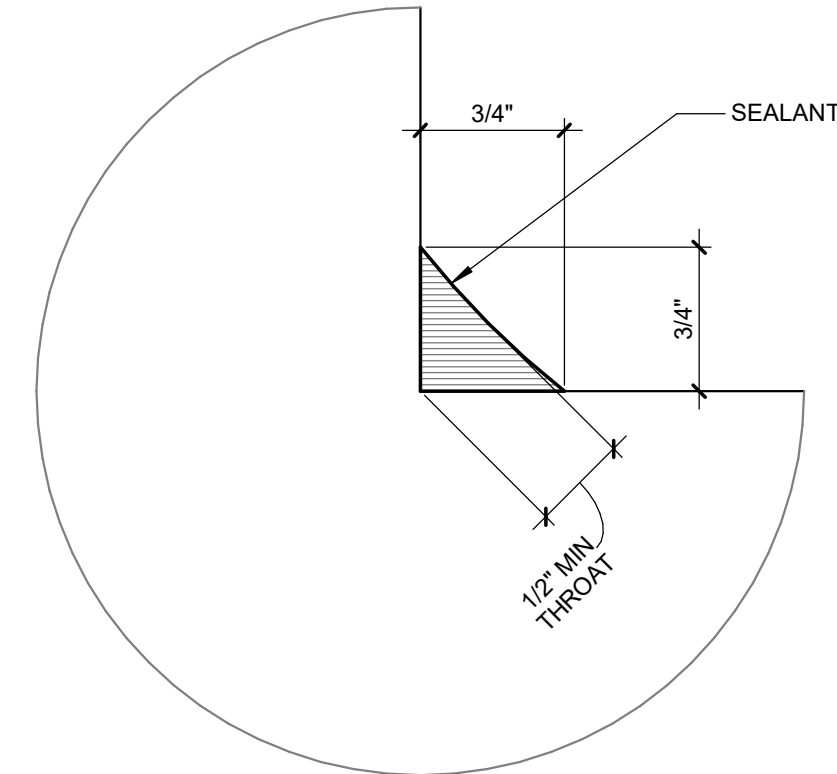
JOINT TERMINATION AT WALL/CURB
SCALE: 1 1/2" = 1'-0"



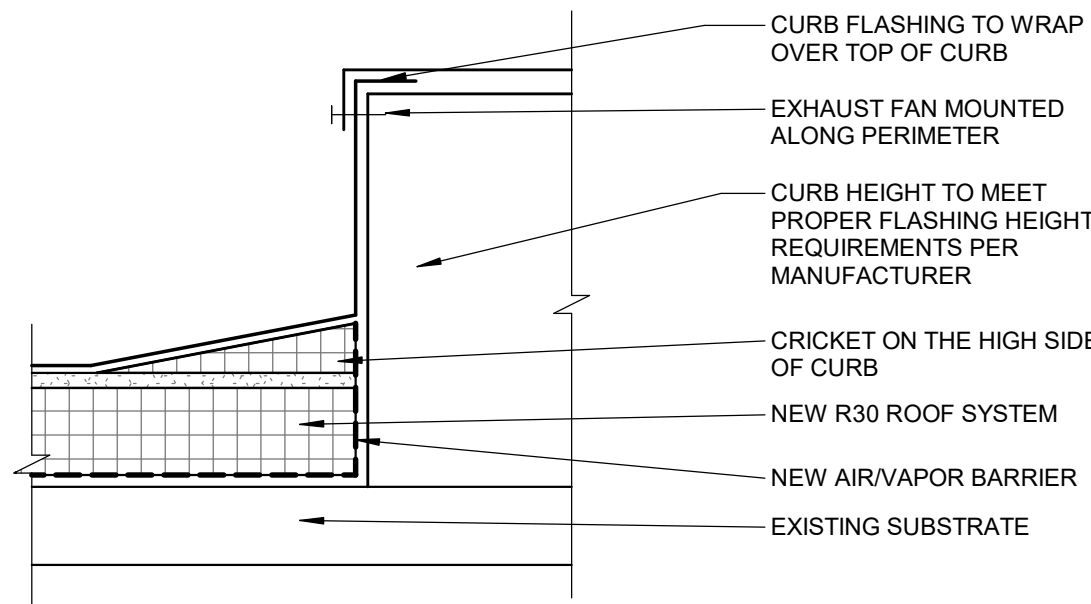
8 ROOF EDGE DETAIL
SCALE: 1 1/2" = 1'-0"



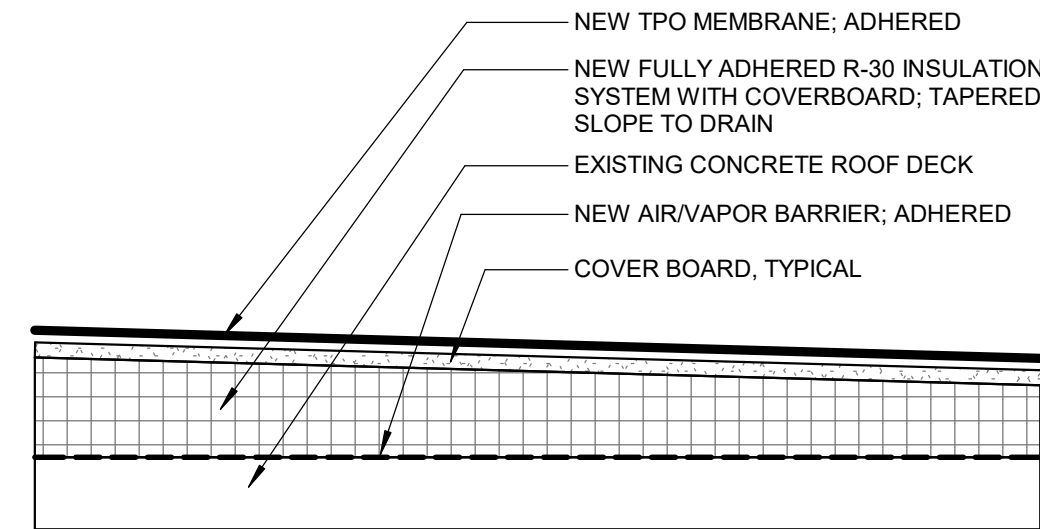
AT PENETRATIONS
PROTECTIVE COATING DETAIL
SCALE: 3" = 1'-0"



1 COVE SEALANT DETAIL
SCALE: 12" = 1'-0"



10 ROOF CURB DETAIL
SCALE: 1 1/2" = 1'-0"



9 NEW ROOF SYSTEM DETAIL
SCALE: 1 1/2" = 1'-0"

REVISIONS

06/17/2025 BIDDING & CONSTRUCTION

Drawn By RMULVANEY
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