

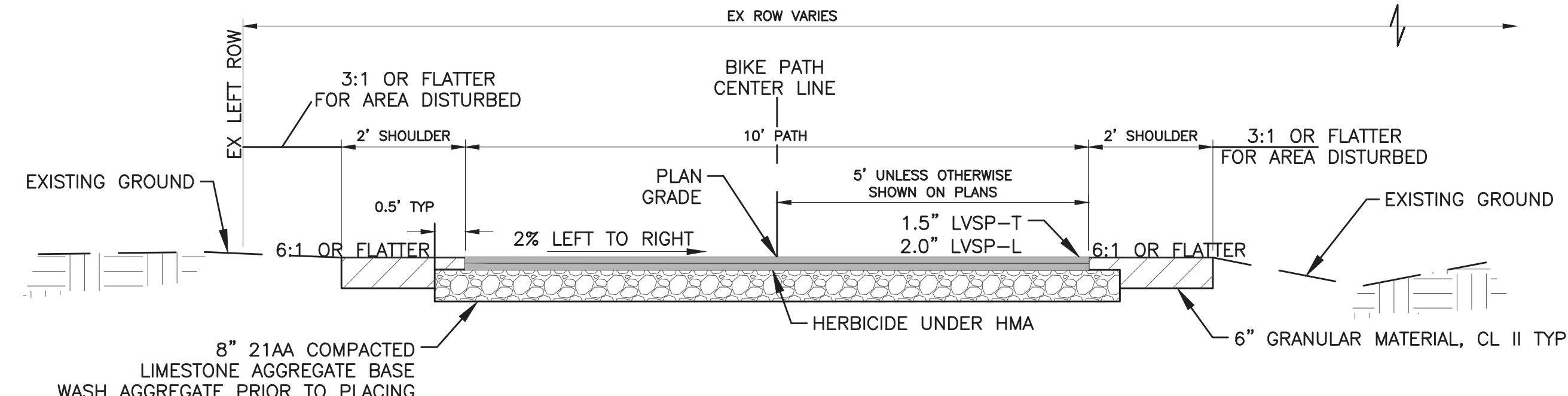
- NOTES:
- BINDER GRADE SHALL BE PG58-22 FOR ALL ASPHALT MIXTURES.
 - TARGET AIR VOIDS SHALL BE 3.0% FOR ALL ASPHALT MIXTURES.
 - HMA MIXTURES SHALL BE COMPACTED TO AT LEAST 95% OF THEORETICAL MAXIMUM DENSITY.
 - APPLY BOND COAT AT 0.05 TO 0.15 GAL/SYD BETWEEN HMA LIFTS.

NOTE:
 **1. CONTRACTOR CAN USE EXISTING CRUSHED SITE CONCRETE/ASPHALT AS AGGREGATE BASE MATERIAL. (CONTRACTOR SHALL INCREASE BASE THICKNESS BY 25%)

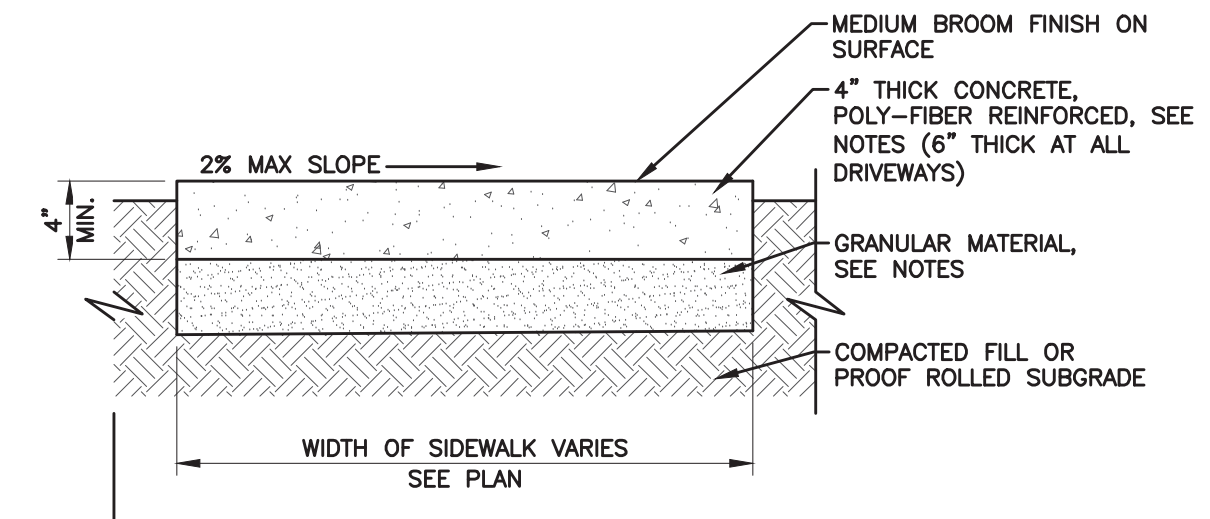
1 STANDARD HMA ROADWAY PAVEMENT DETAIL
 L21-1 NOT TO SCALE

HMA APPLICATION ESTIMATE				
PAY ITEM	HMA MIX	APP. RATE	EST. THICKNESS	PERF GRADE
HMA, 36A	36A (WEARING)	220 LB/SYD	1.5 INCH	PG 58-22
HMA, 13A	13A (LEVELING)	275 LB/SYD	2.5 INCH	PG 58-22

FOR INFORMATION ONLY: APPLY BOND COAT AT 0.05 TO .015 GAL/SYD BETWEEN PROPOSED HMA LIFTS (PAYMENT INCLUDED IN PAYMENT FOR HMA MIXTURES).

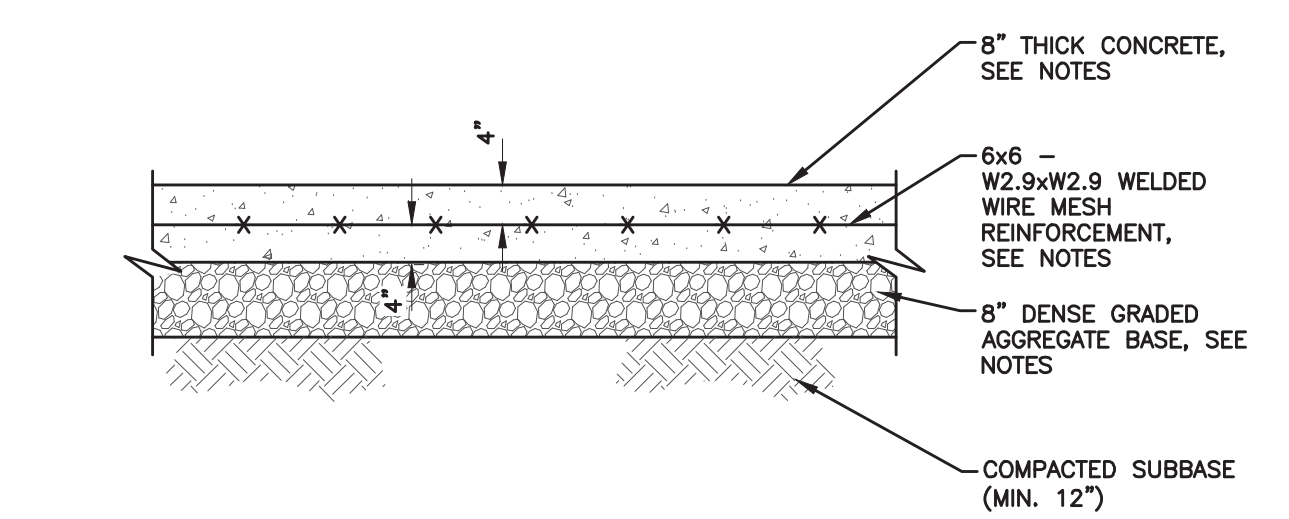


2 TYPICAL TRAIL CROSS SECTION
 L21-1 NO SCALE



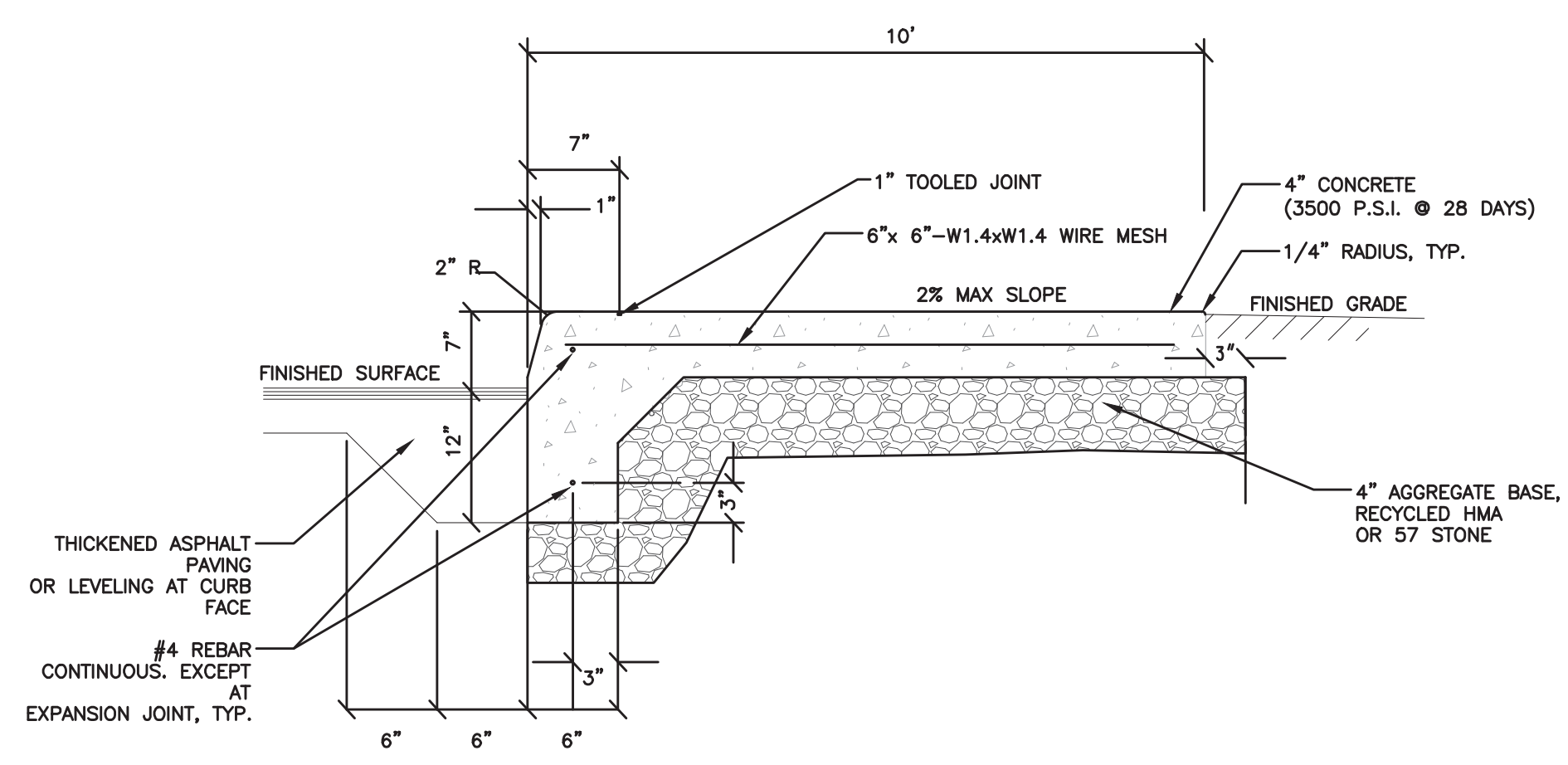
- NOTES:
- SIDEWALK SHALL BE 4" THICK UNLESS OTHERWISE NOTED AS 6" ON STRUCTURAL PLANS.
 - PROVIDE 1/4 INCH CONTROL JOINTS AT THE WIDTH OF THE WALK, NOT TO EXCEED 8 FEET, AND 1/2 INCH EXPANSION JOINTS AT 40 FEET O.C. FOR 4 FOOT WIDE SIDEWALKS, 50 FEET O.C. FOR 5 FOOT WIDE OR GREATER.
 - WHEN SIDEWALK IS TO BE REMOVED AND/OR REPLACED WITH NEW SIDEWALK, IT IS TO BE SAW CUT AND REMOVED TO THE NEAREST CONTROL JOINT.
- COLORED CONCRETE NOTES:
- REFER TO PLANS FOR COLORED CONCRETE LOCATIONS.
 - WALLS, SLABS, STEPS VERY IN DIMENSION AND THICKNESS, SEE SPECIFIC LOCATION DETAILS FOR MORE INFORMATION.
 - COLORED CONCRETE TO BE "ACORN DOME" FROM SYNERGY INTEGRAL COLORS PRODUCED BY DECORATIVE CONCRETE SOLUTIONS IN SAGINAW.
 - MIX COLOR AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.

3 CONCRETE WALK-STANDARD DETAIL & COLORED CONCRETE NOTES
 L21-1 NO SCALE

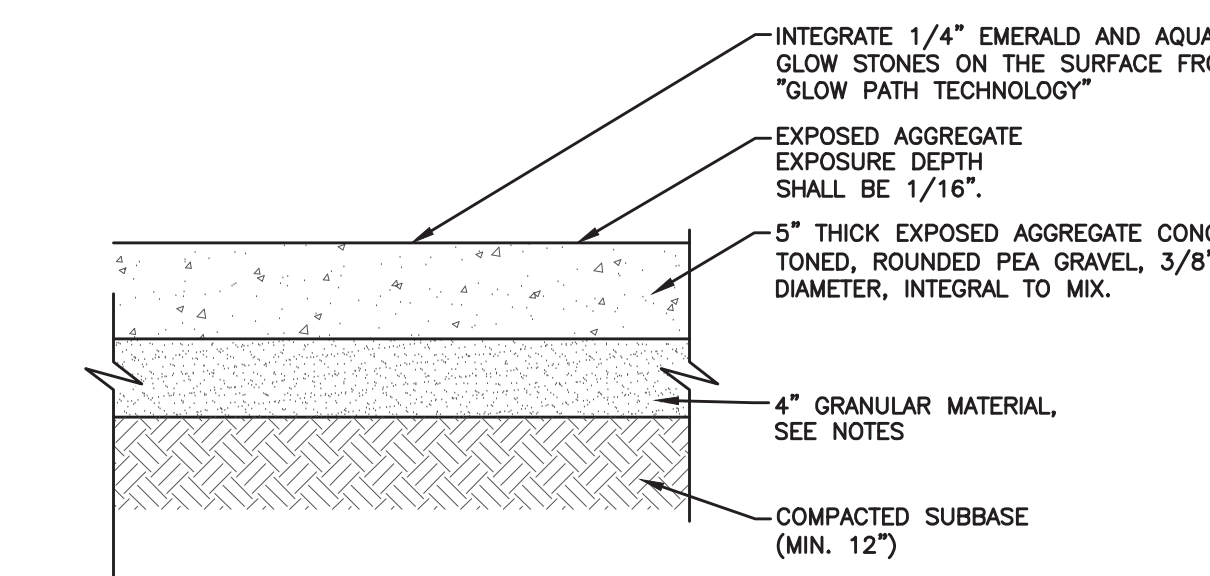


- REINFORCEMENT
- REINFORCEMENT SHALL NOT BE PLACED CLOSER THAN 9" FROM THE EDGE OF PAVEMENT OR THE EDGE OF A FINAL POUR.
 - REINFORCEMENT FABRIC SHALL CONFORM TO ASTM A 185.
 - WIRE FABRIC REINFORCEMENT SHALL LAY FLAT WHEN DELIVERED TO THE WORK AREA. THE USE OF SPACER BARS WILL BE REQUIRED FOR LIFTING BUNDLES OF REINFORCEMENT.
 - THE ENDS OF THE WIRE FABRIC REINFORCEMENT SHEETS SHALL BE FASTENED IN AT LEAST TWO PLACES ON EACH END.
 - THE WIRE FABRIC SHALL BE SUPPORTED BY 4" CHAIRS AT 2.0' O.C.
 - ALL SIDEWALKS, WALKS, RAMPS, AND LANDINGS TO HAVE A CONTROL JOINT EVERY 5FT AND EXPANSION JOINT EVERY 20FT.

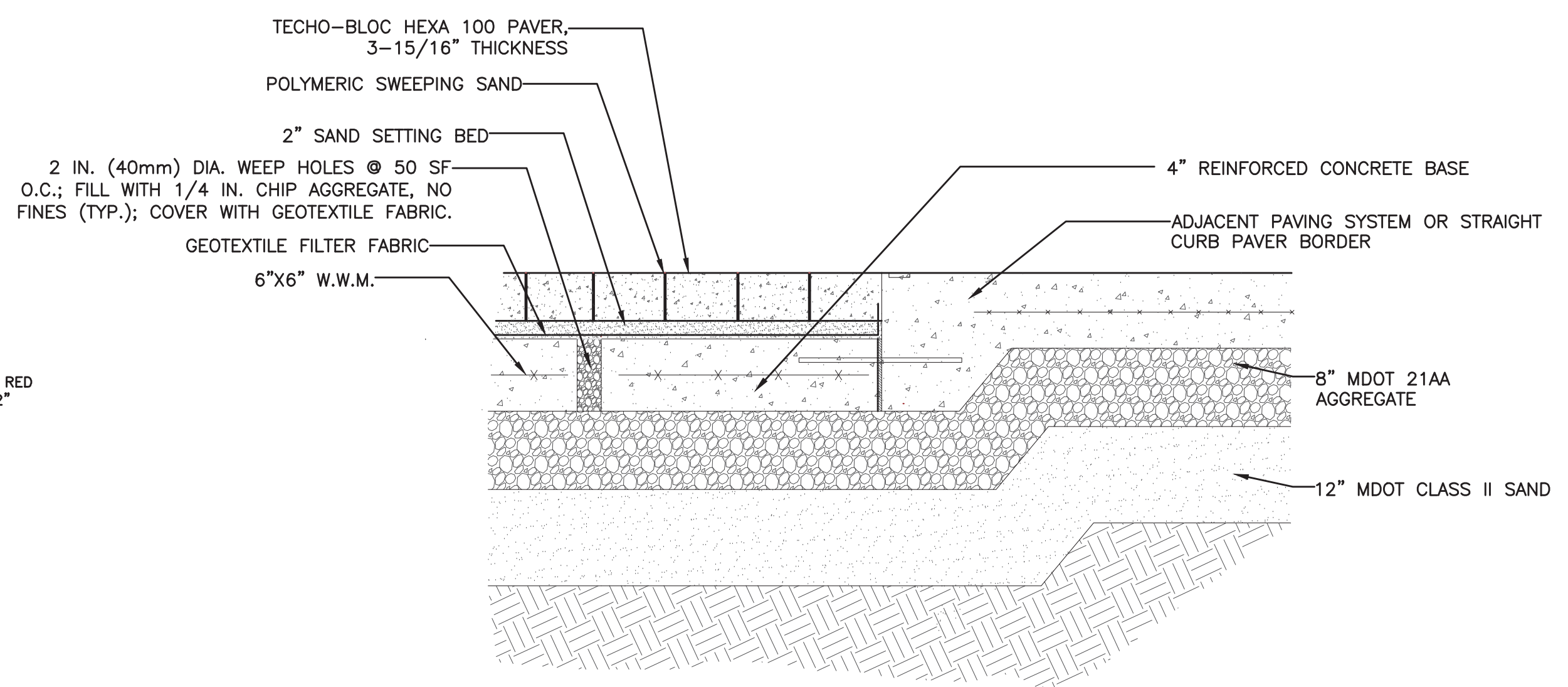
4 8" CONCRETE WALK-REINFORCED DETAIL
 L21-1 NOT TO SCALE



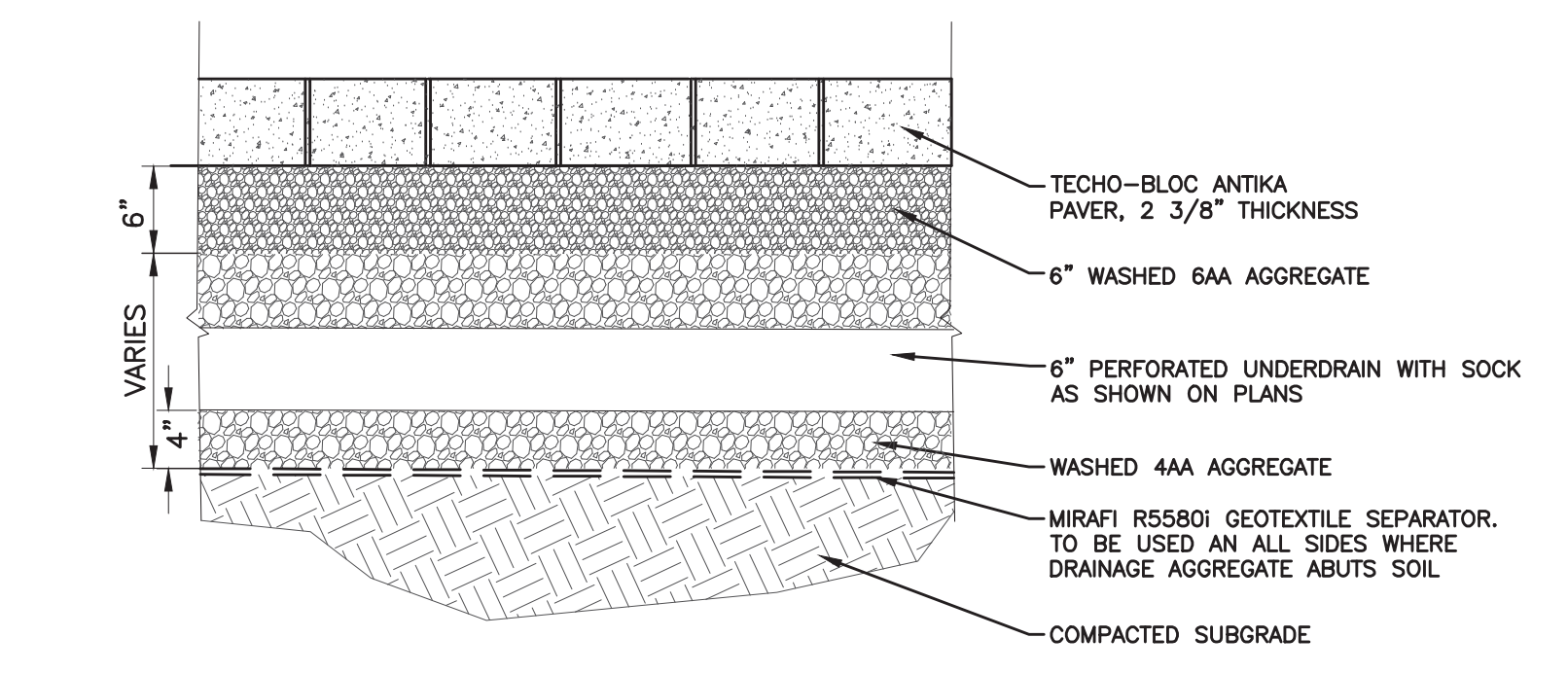
5 THICKENED EDGE CONCRETE WALK
 L21-1 NO SCALE



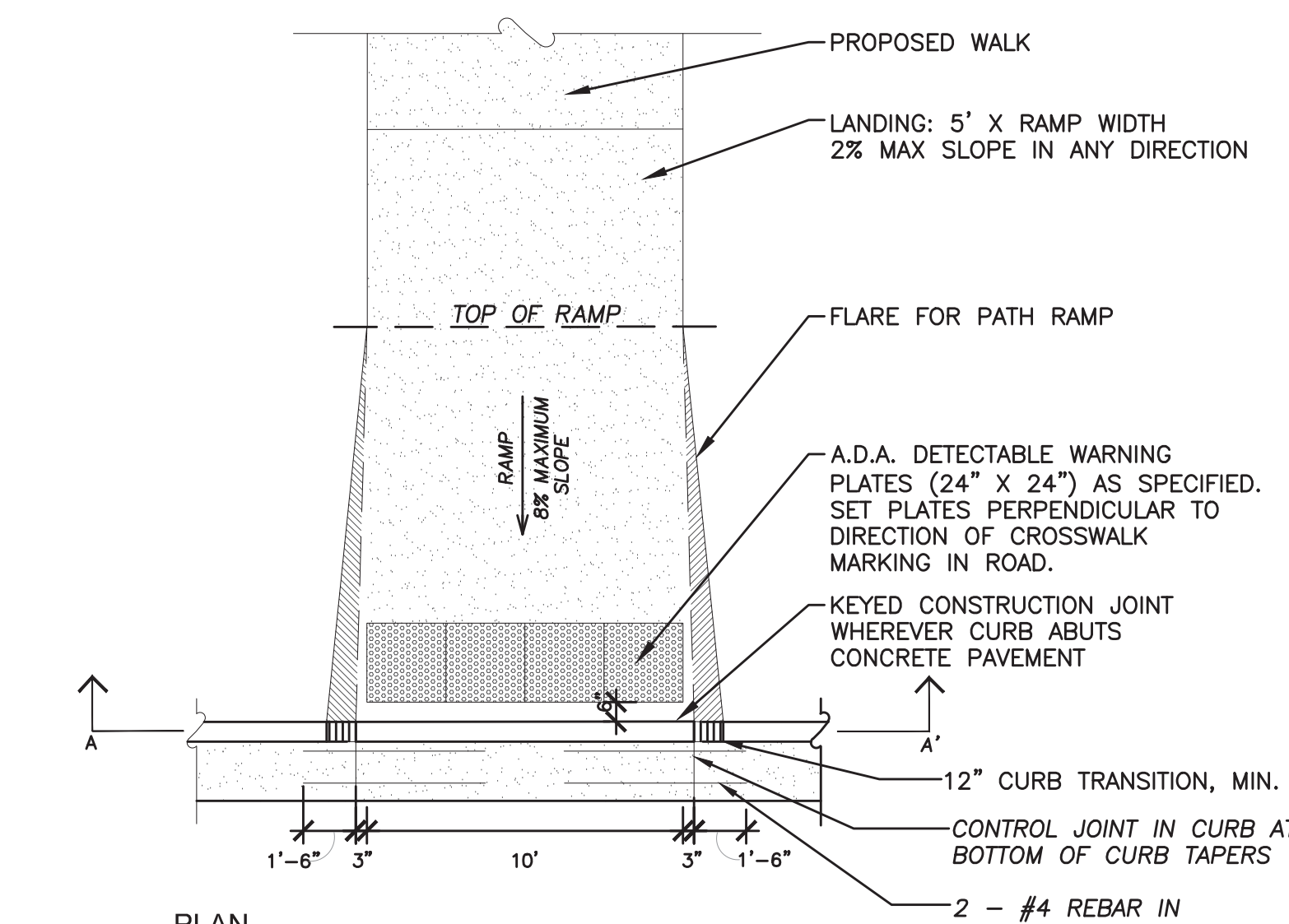
6 EXPOSED AGGREGATE CONCRETE PAVING SURFACE
 L21-1 NO SCALE



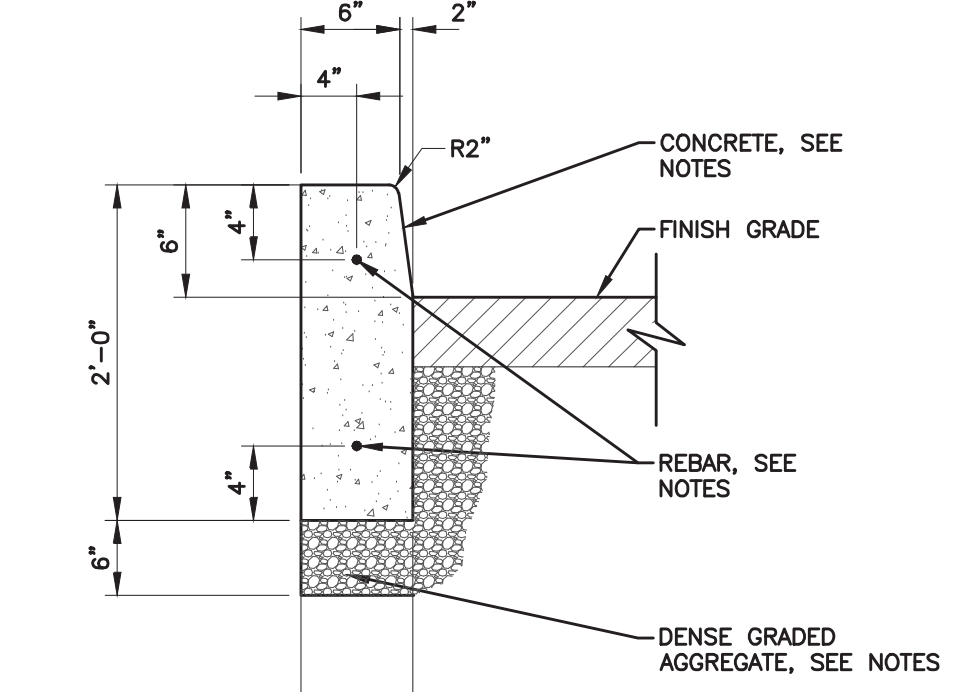
7 STANDARD PAVER DETAIL
 L21-1 NO SCALE



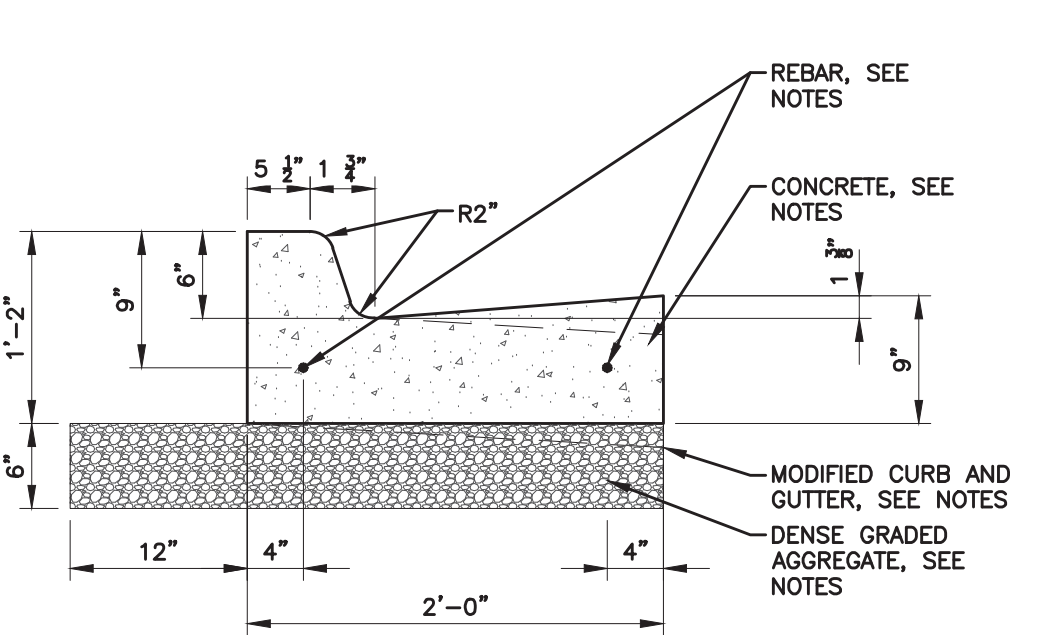
8 PERMEABLE PAVER SECTION
 L21-1 NO SCALE



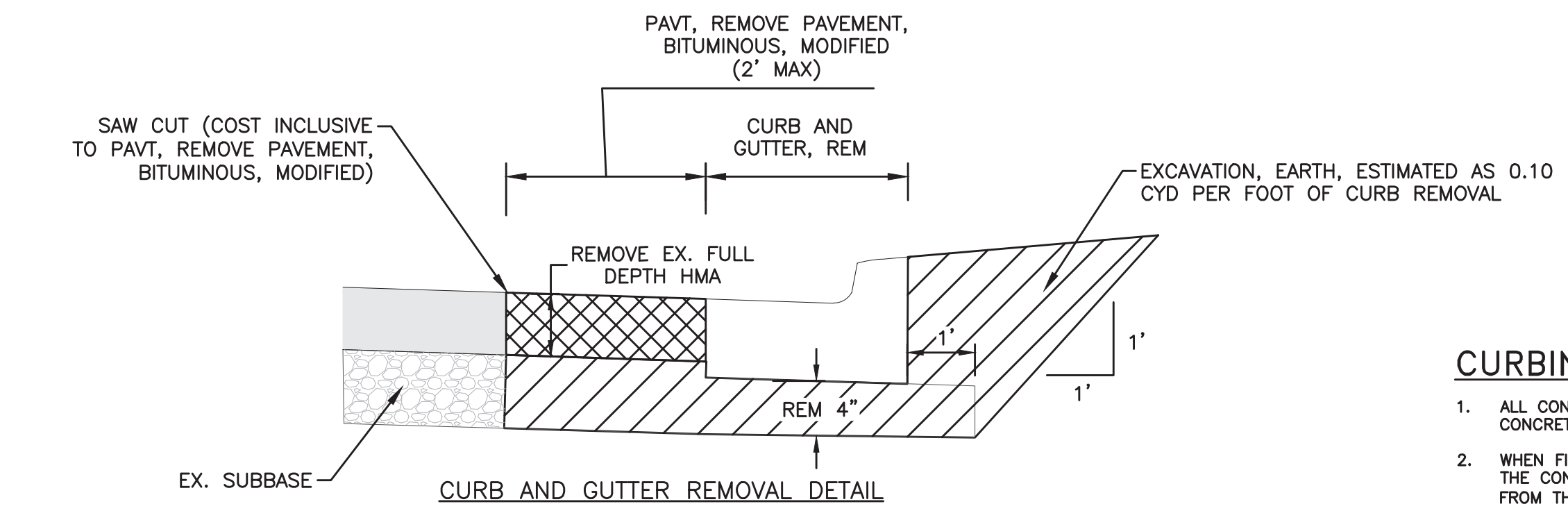
9 CURB RAMP
 L21-1 NO SCALE



10 STRAIGHT CURB DETAIL
 L21-1 NOT TO SCALE

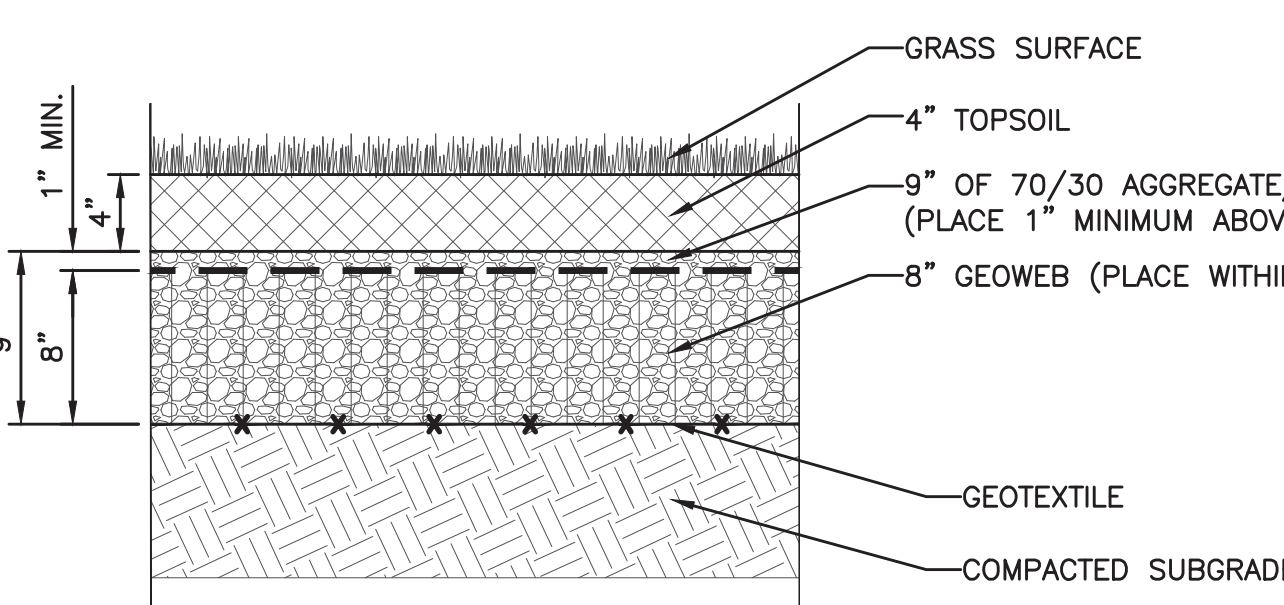


11 24" STANDARD CURB & GUTTER DETAIL
 L21-1 NOT TO SCALE

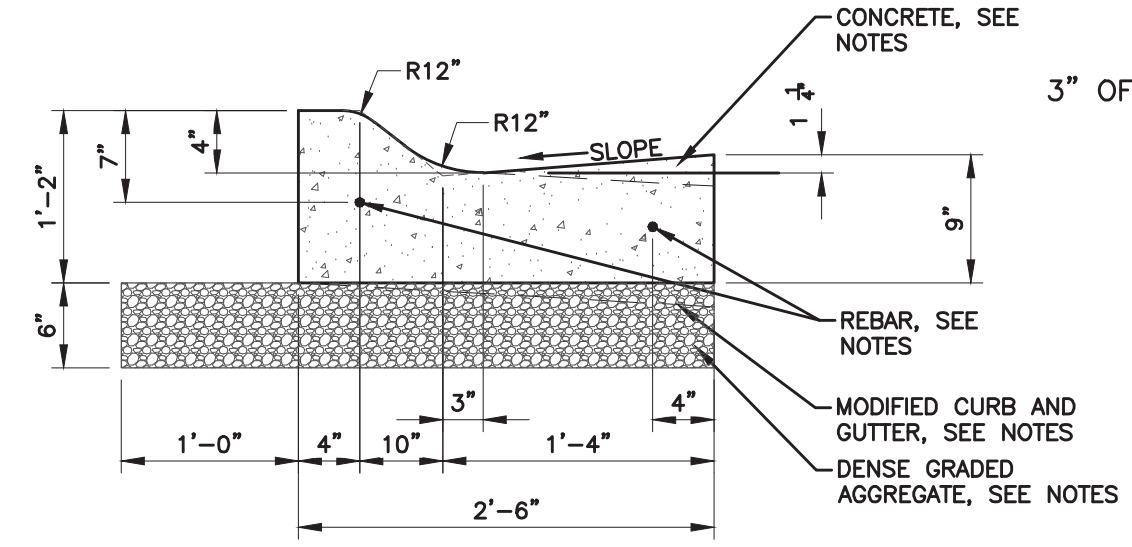


15 DETAIL FOR CONCRETE CURB AND GUTTER REPLACEMENT
 L21-1

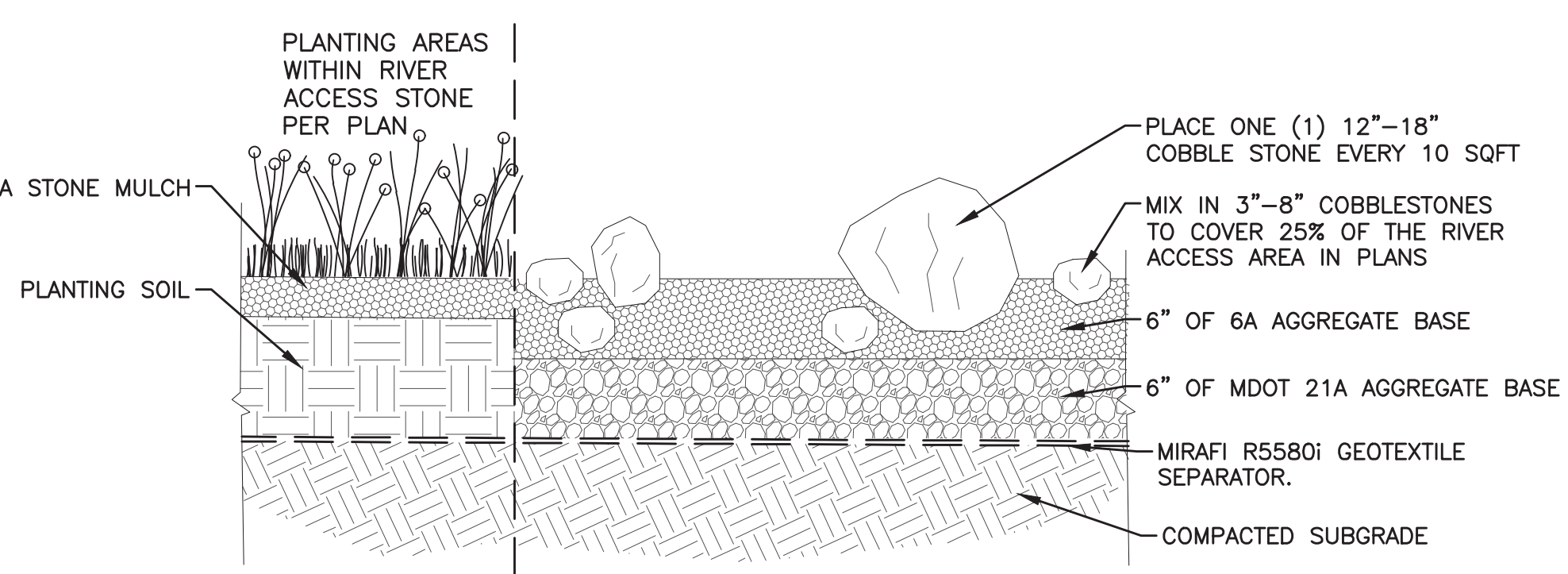
- CURBING NOTES:**
- ALL CONCRETE CURB AND GUTTER SHALL BE 4500 PSI CONCRETE, UNLESS OTHERWISE NOTED.
 - WHEN FINISH GRADE SLOPES AWAY FROM THE CURB & GUTTER THE CONTRACTOR SHALL MODIFY THE GUTTER TO SLOPE AWAY FROM THE FACE OF CURB (OR FLOWLINE) AT 1" PER FOOT.
 - AGGREGATE MATERIALS:
 - SAND - MDOT CLASS II
 - OPEN GRADED AGGREGATE - MDOT 6A OR ASHTO #57 AGGREGATE.
 - DENSE GRADED AGGREGATE - MDOT 22AA CRUSHED LESTONE.
 - CONCRETE CURB AND GUTTER JOINTS:
 - PLACE 1" FIBER JOINT FILLER AT 400' MAXIMUM INTERVALS.
 - PLACE 1" FIBER JOINT FILLER AT SPRING POINTS OF CURB RETURNS (& INTERSECTING STREETS).
 - PLACE 1" FIBER JOINT FILLER ADJACENT CONTRACTION JOINTS EACH SIDE OF CATCH BASINS.
 - PLACE CONTRACTION JOINTS AT 40' MAXIMUM INTERVALS (NO SAW CUT JOINTS ALLOWED).
 - ALL JOINTS SHALL BE FULL DEPTH AND PLACED AT RIGHT ANGLES TO THE EDGE OF CONCRETE CURB & GUTTER.
 - ALL REBAR SHALL BE #4 EPOXY COATED STEEL BARS MEETING ASTM A615, GRADE 60 UNLESS OTHERWISE NOTED.
 - ALL POLY FIBER REINFORCING SHALL BE COLLATED FIBRILLATED POLYPROPYLENE FIBER @ 50#/CYD, ULTRA-NET (2.5LGN2M), AS MANUFACTURED BY: FORTA CORPORATION OR APPROVED EQUAL.



12 REINFORCED LAWN DETAIL
 L21-1 NO SCALE



13 ROLLED CURB & GUTTER DETAIL
 L21-1 NO SCALE



14 RIVER ACCESS STONE SECTION
 L21-1 NO SCALE

REV#	DATE	DESCRIPTION	BY

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 5045 E. STANLEY ROAD
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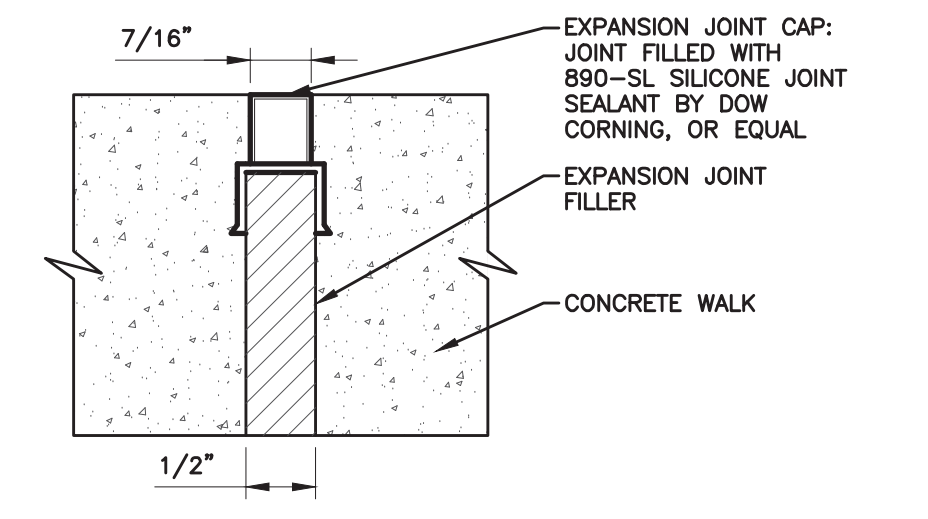
FLINT RIVERFRONT RESTORATION - PHASE 2
 SITE DETAILS - 1

ISSUED FOR: DATE: BY: FB 10/23/24 SAL
 JOB NO: GPA200301F
 SHEET: L21-1

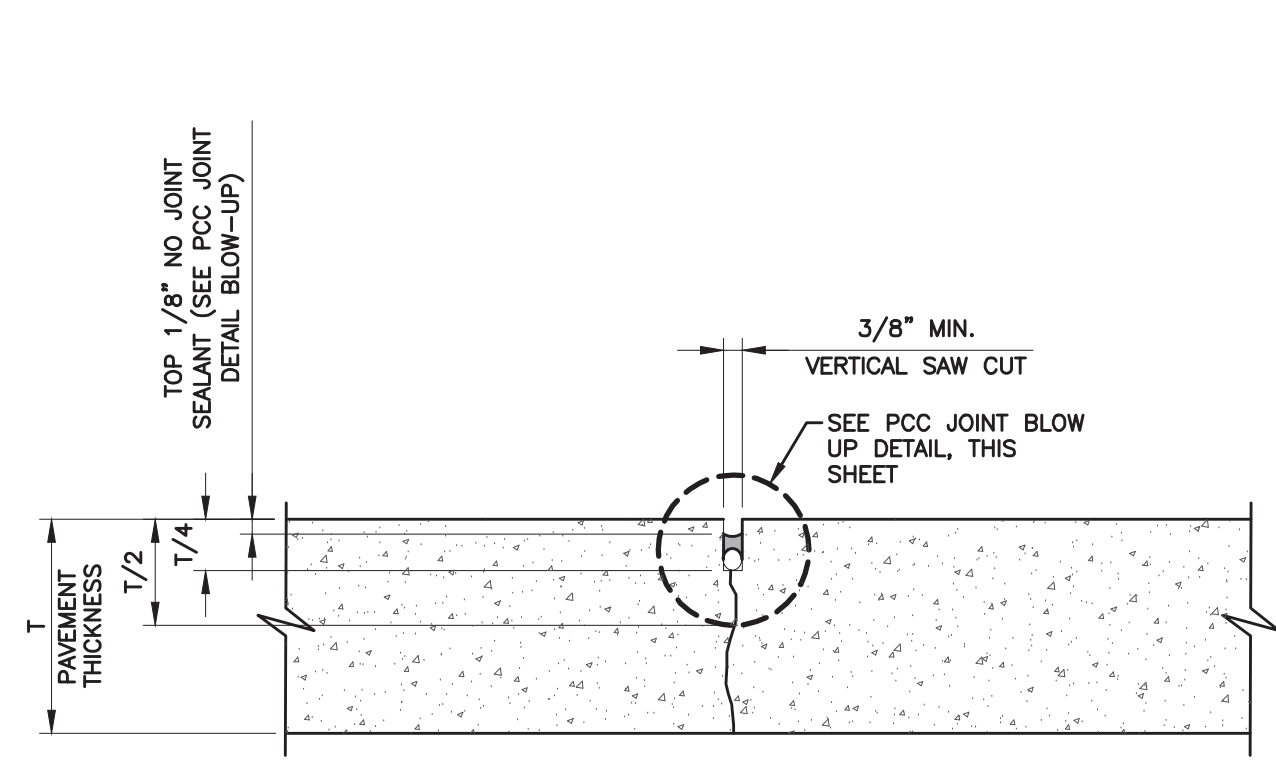
PROJECT MANAGER: JAMES WHEATLEY; DESIGNER: JAMES WHEATLEY; CHECKER: JAMES WHEATLEY; PLOTTED: 10/24/2024 10:29 AM BY: WHEATLEY, RUSSELL

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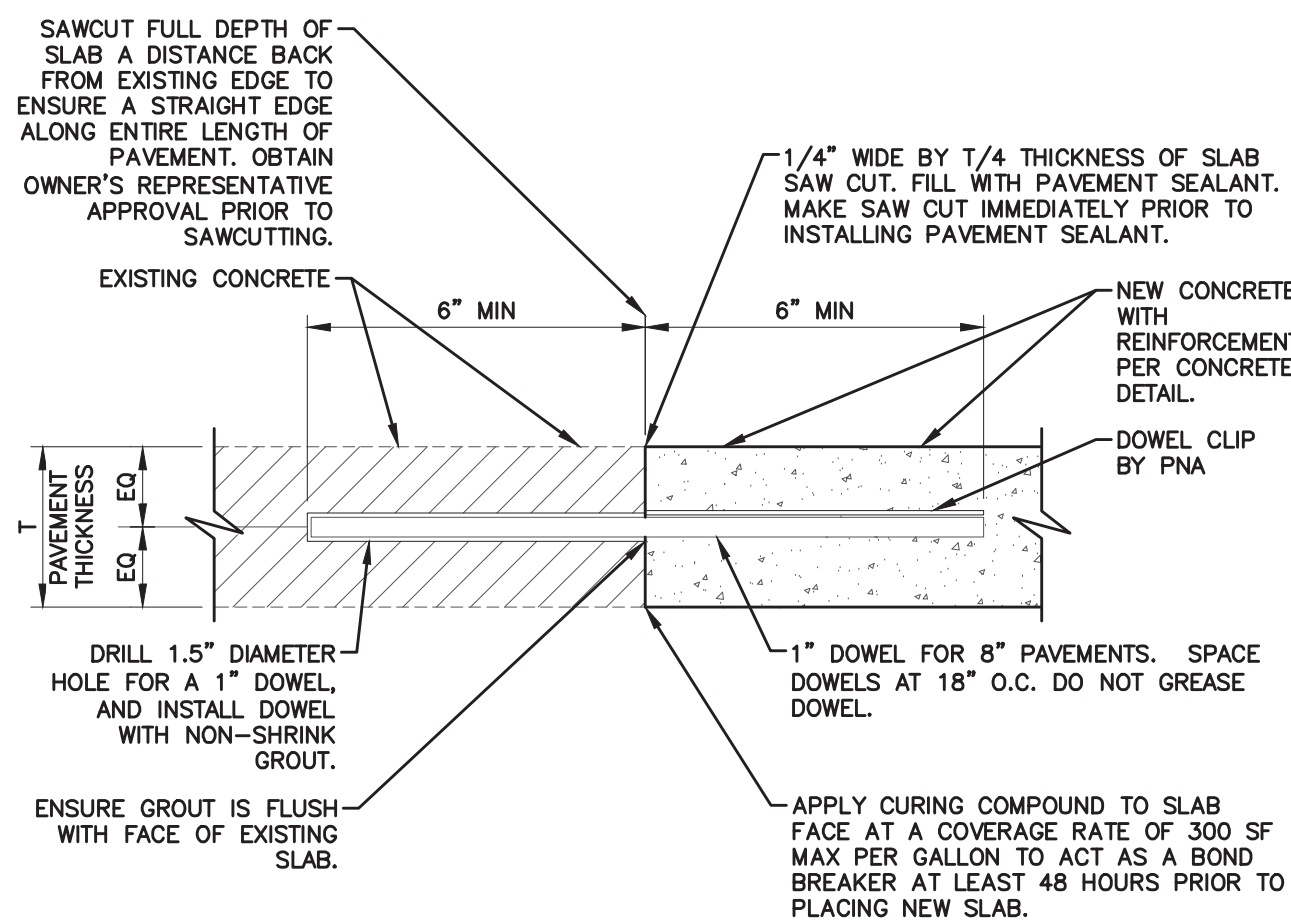
1 EXPANSION JOINT WITH EXPANSION BOARD CAP
L21-2 NOT TO SCALE



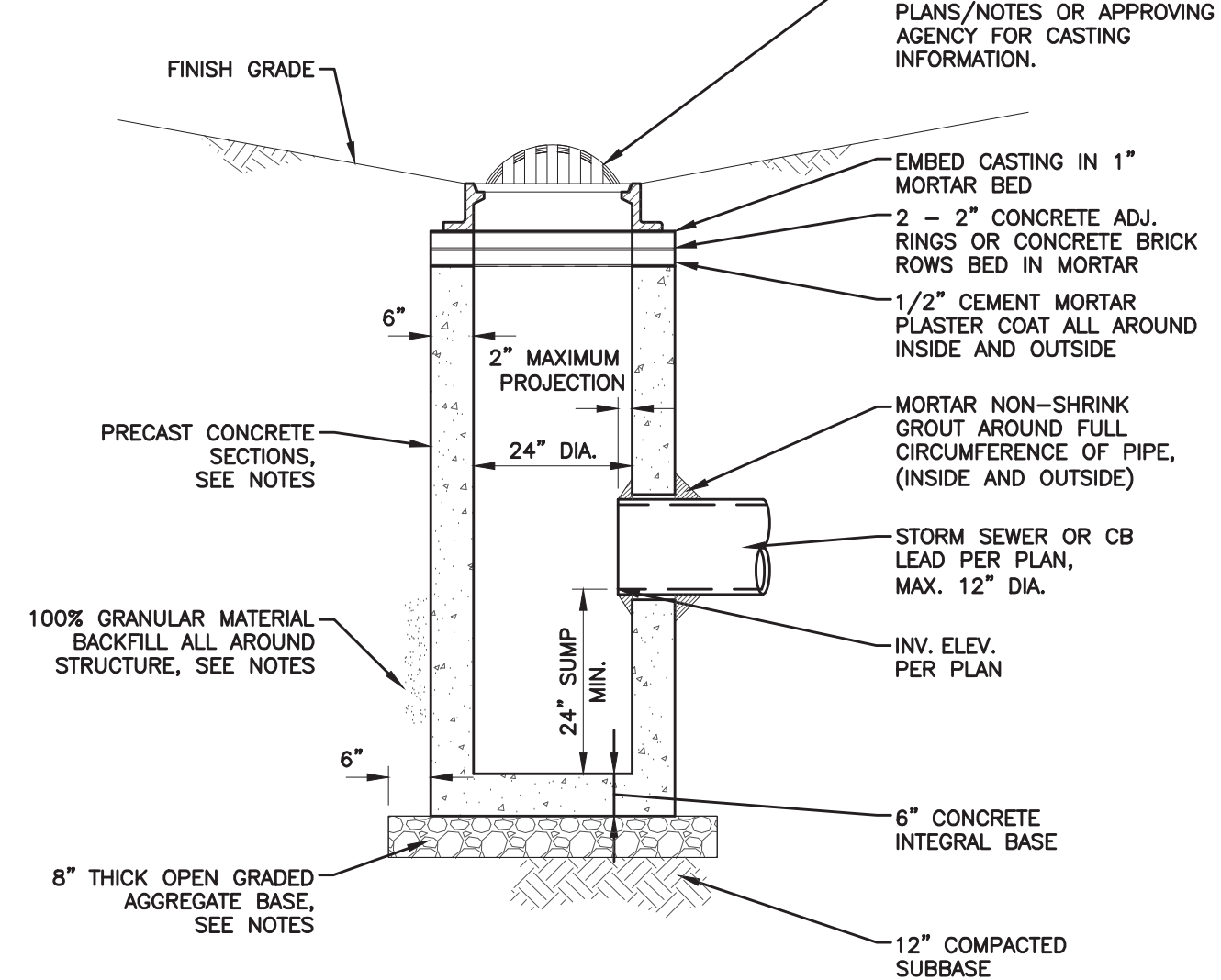
3 CONTRACTION JOINT DETAIL - CJ
L21-2 NOT TO SCALE



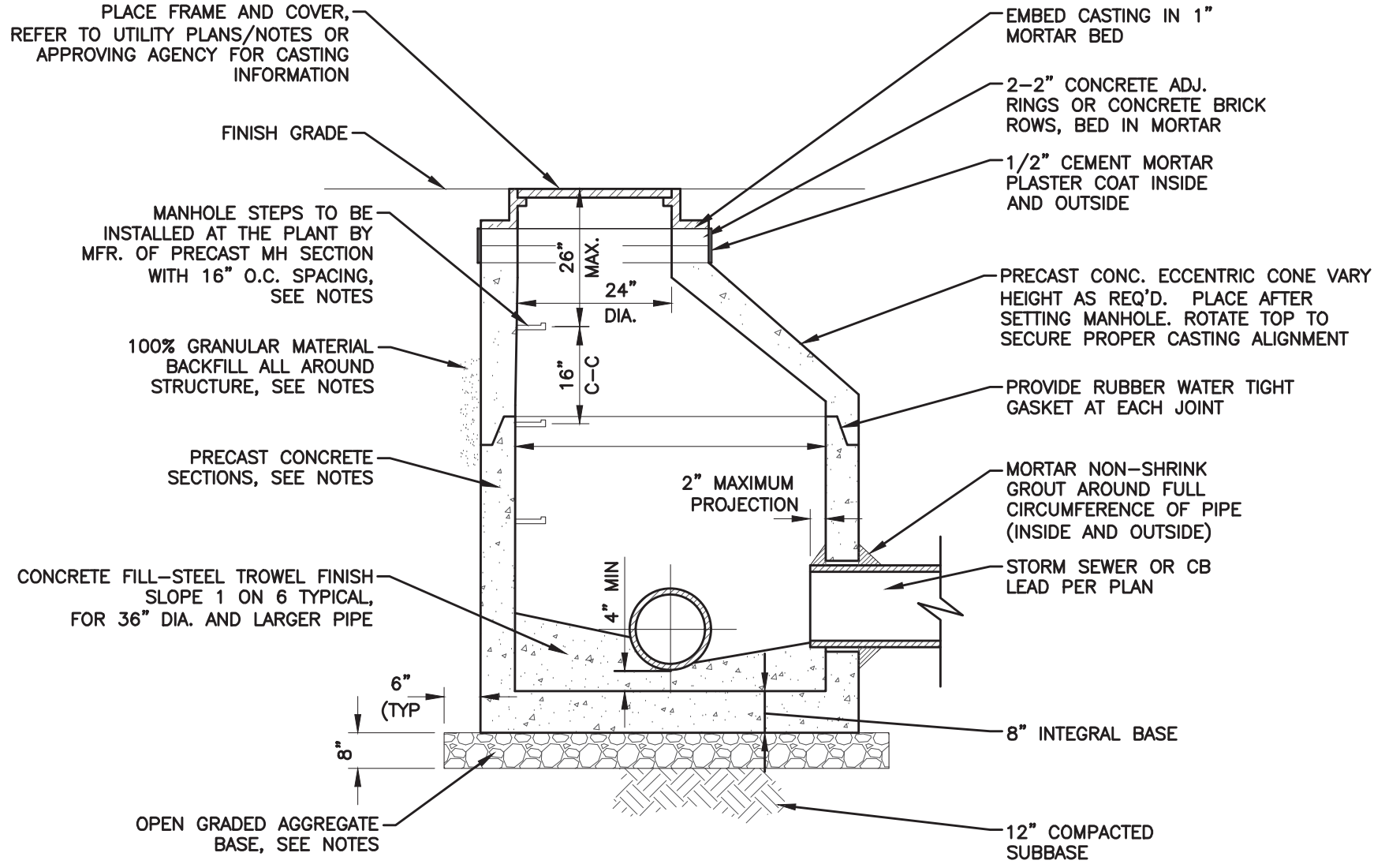
4 CONSTRUCTION JOINT AT EXISTING CONCRETE DETAIL
L21-2 NOT TO SCALE



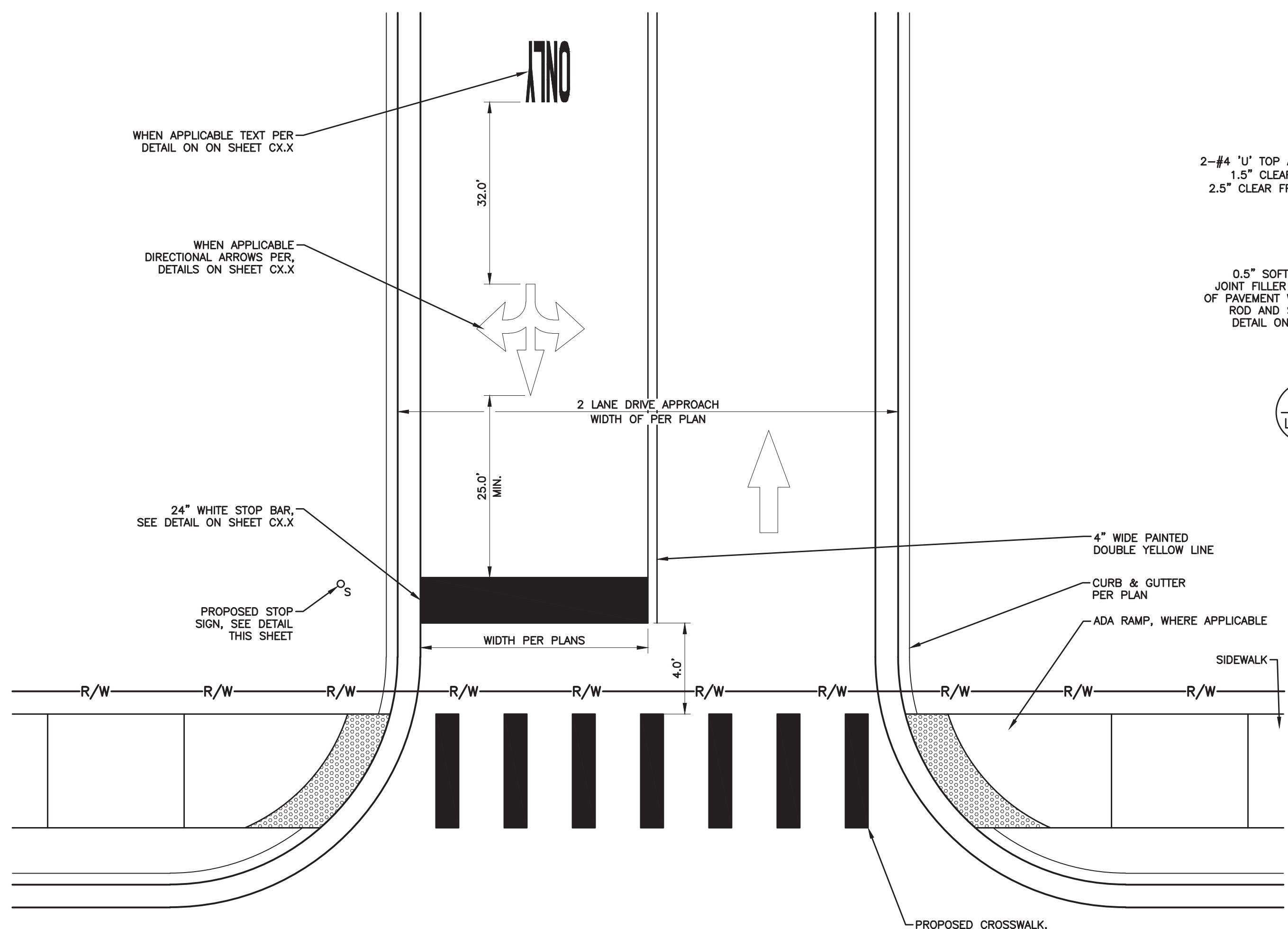
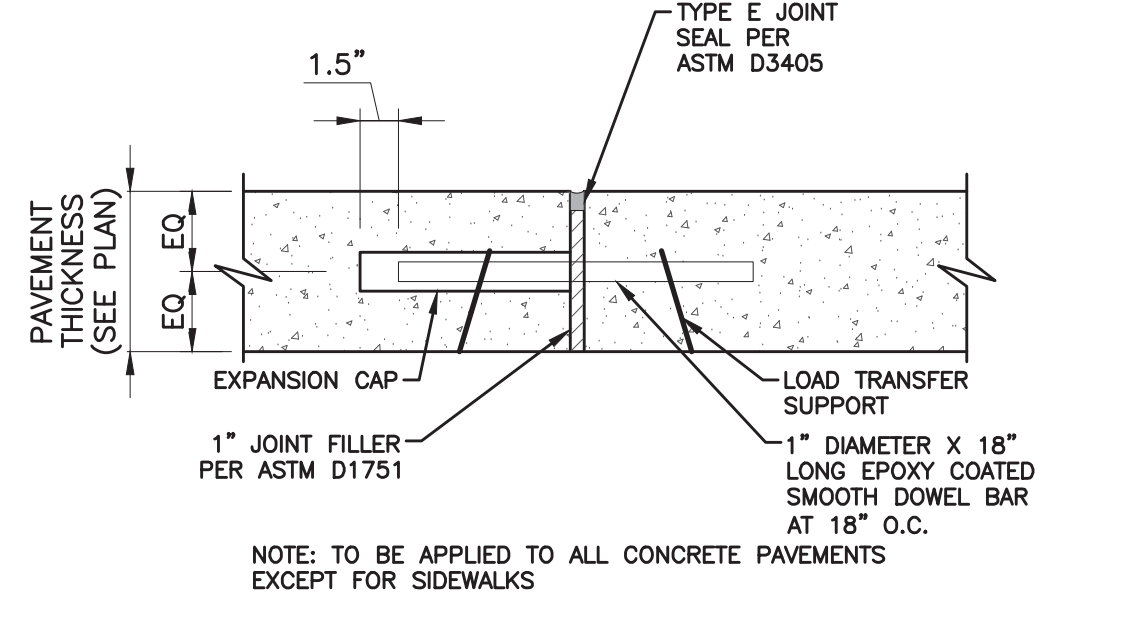
14 24" DIA. CATCH BASIN DETAIL
L21-2 NOT TO SCALE



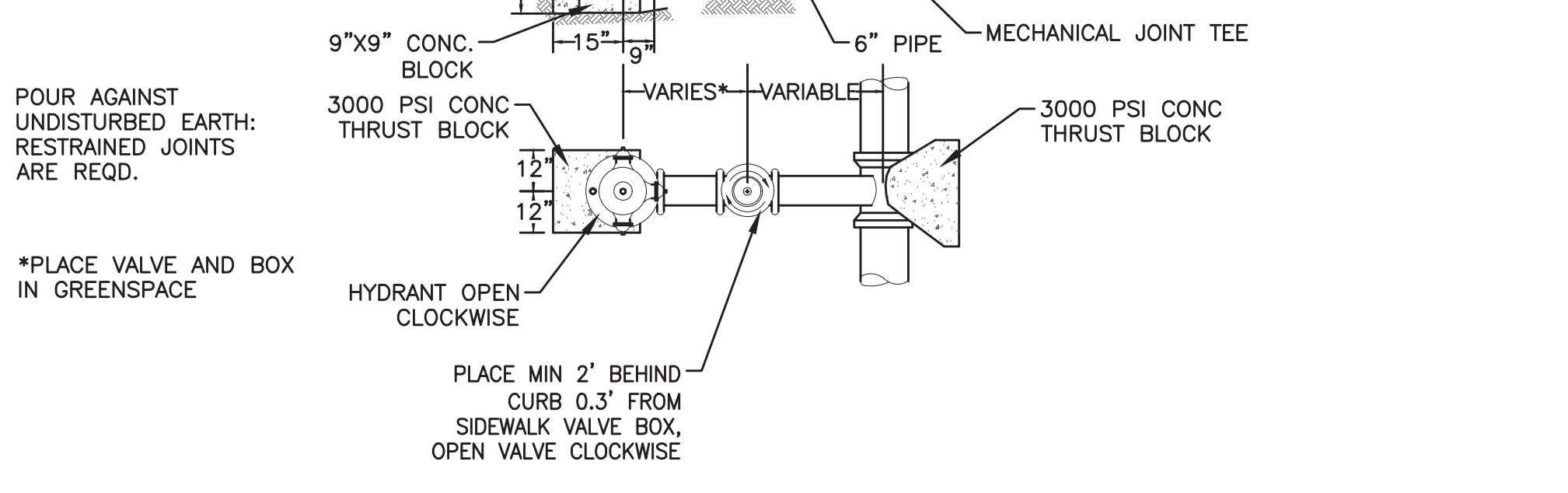
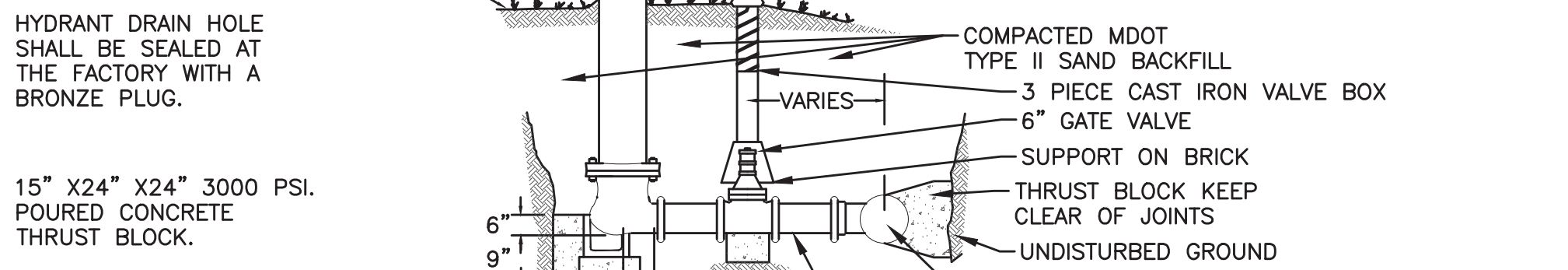
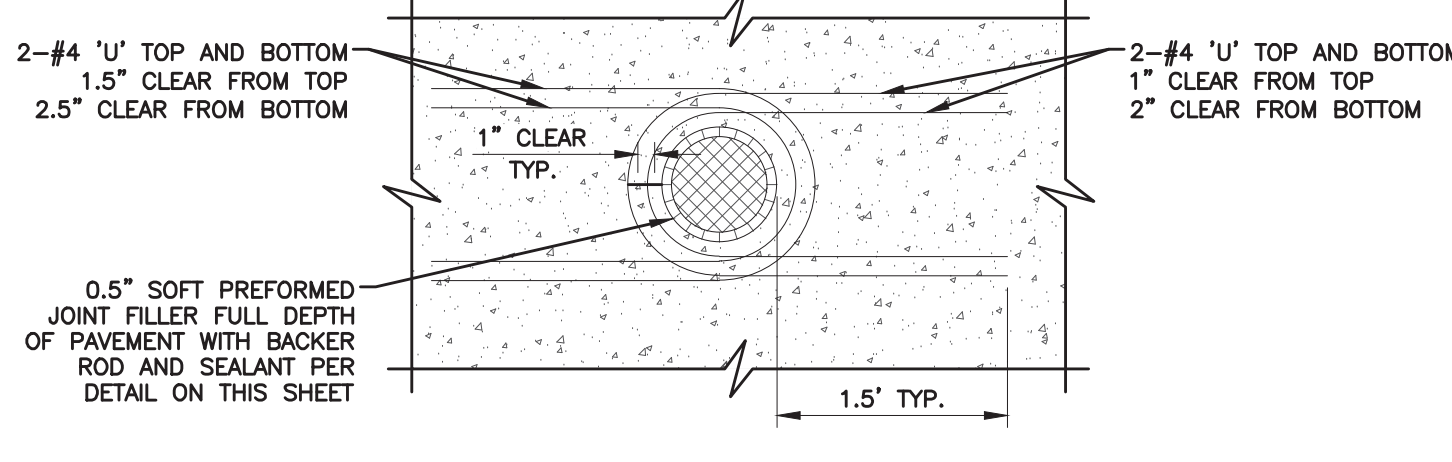
15 STANDARD STORM MANHOLE
L21-2 NOT TO SCALE



2 EXPANSION JOINT DETAIL - E2
L21-2 NOT TO SCALE



5 TYPICAL ROUND FIXED STRUCTURE PLAN DETAIL
L21-2 NOT TO SCALE



8 CROSSWALK DETAIL
L21-2 NOT TO SCALE

9 CITY OF FLINT FIRE HYDRANT ASSEMBLY DETAIL
NO SCALE

6 ISOLATION JOINT DETAILS
L21-2 NOT TO SCALE

6 ISOLATION JOINT DETAILS
L21-2 NOT TO SCALE

NYLOPLAST 24" DRAIN BASIN: 2824AG _X

(1, 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH BASIN O.D.

16" MIN WIDTH GUIDELINE

1" MIN THICKNESS GUIDELINE

(3) VARIABLE INVERT HEIGHTS AVAILABLE ACCORDING TO PLANS/STAKE (OFF)

MINIMUM PIPE BURIAL DEPTH PER PIPE MANUFACTURER RECOMMENDATION (MIN. MANUFACTURING REQ. SAME AS MIN. SUMP)

(4) ADAPTER INLET/OUTLET AVAILABLE PER PLAN (30° CONE HEIGHT PLUS 12" FOR MANUFACTURING PURPOSES)

TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADS, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

(5) VARIABLE SLUMP DEPTH ACCORDING TO PLANS (12" MIN. BASED ON MANUFACTURING REQ.)

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2221. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2221.

(6) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE:
4" - 24" FOR CORRUGATED HDPE (ADS N-20 HANCOCK DUAL WALL, ADS HANCOCK SINGLE WALL, N-12 HP, PVC SEWER (EX. SDR 35), PVC DWV (EX. SCH 40), PVC C900/C905 CORRUGATED & RIBBED PVC

WATER TIGHT JOINT (CORRUGATED HDPE SHOWN)

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PERFORATED	MEETS 1123	2824GCT	7001-110-211
STAIRCASE	MEETS 1123	2824GCS	7001-110-211
SOLID COVER	MEETS 1123	2824GSC	7001-110-211
SMOOTH	MEETS 1123	2824GSD	7001-110-211
DRIVE IN GRATE	LOAD RATING	2824GDI	7001-110-211

1 - GRATES/COVER SHALL BE DUCTILE IRON PER ASTM A895 GRADE 70-60
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A895 GRADE 70-60
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. REBAR ARE NEEDED FOR BASIN OVER 8" DUE TO SHIMMING RESTRICTIONS. SEE DRAWING NO. 7001-10-86
4 - DRAINAGE CONNECTION TUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D2221 FOR CORRUGATED HDPE (ADS N-20 HANCOCK DUAL WALL, N-12 HP, & PVC SEWER)
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE UP TO 30°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012

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DRAWN BY: EDC
DATE: 04-05-16
REVISIONS BY: NHH
DATE: 05-14-16

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NYLOPLAST
24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG SIZE: A SCALE: 1/4" = 1'-0" SHEET: 1 OF 1 DWG NO.: 7001-110-182 REV: E

7 TRAFFIC MARKING TYPICAL - 2 LANE DRIVE APPROACH
L21-2 NOT TO SCALE

7 TRAFFIC MARKING TYPICAL - 2 LANE DRIVE APPROACH
L21-2 NOT TO SCALE

NYLOPLAST 36" DRAIN BASIN: 2836AG _X

(1, 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH BASIN O.D.

16" MIN WIDTH GUIDELINE

1" MIN THICKNESS GUIDELINE

(3) VARIABLE INVERT HEIGHTS AVAILABLE ACCORDING TO PLANS/STAKE (OFF)

2.25 FT MIN. MANUFACTURING REQUIREMENT FROM TOP OF GRATE TO TOP OF PIPE (HEIGHT INCLUDES REDUCING CONE HEIGHT PLUS 12" FOR MANUFACTURING PURPOSES)

TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADS, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

(4) ADAPTER INLET/OUTLET AVAILABLE PER PLAN (30° CONE HEIGHT PLUS 12" FOR MANUFACTURING PURPOSES)

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2221. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2221.

(5) VARIABLE SLUMP DEPTH ACCORDING TO PLANS (12" MIN. BASED ON MANUFACTURING REQ.)

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2221. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2221.

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WATER TIGHT JOINT (CORRUGATED HDPE SHOWN)

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PERFORATED	MEETS 1123	2836GCT	7001-110-211
STAIRCASE	MEETS 1123	2836GCS	7001-110-211
SOLID COVER	MEETS 1123	2836GSC	7001-110-211
SMOOTH	MEETS 1123	2836GSD	7001-110-211
DRIVE IN GRATE	LOAD RATING	2836GDI	7001-110-211

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2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A895 GRADE 70-60
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. REBAR ARE NEEDED FOR BASIN BODIES OVER 8" DUE TO SHIMMING RESTRICTIONS. SEE DRAWING NO. 7001-10-86
4 - DRAINAGE CONNECTION TUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D2221 FOR CORRUGATED HDPE (ADS N-20 HANCOCK DUAL WALL, N-12 HP, & PVC SEWER)
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE UP TO 30°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012

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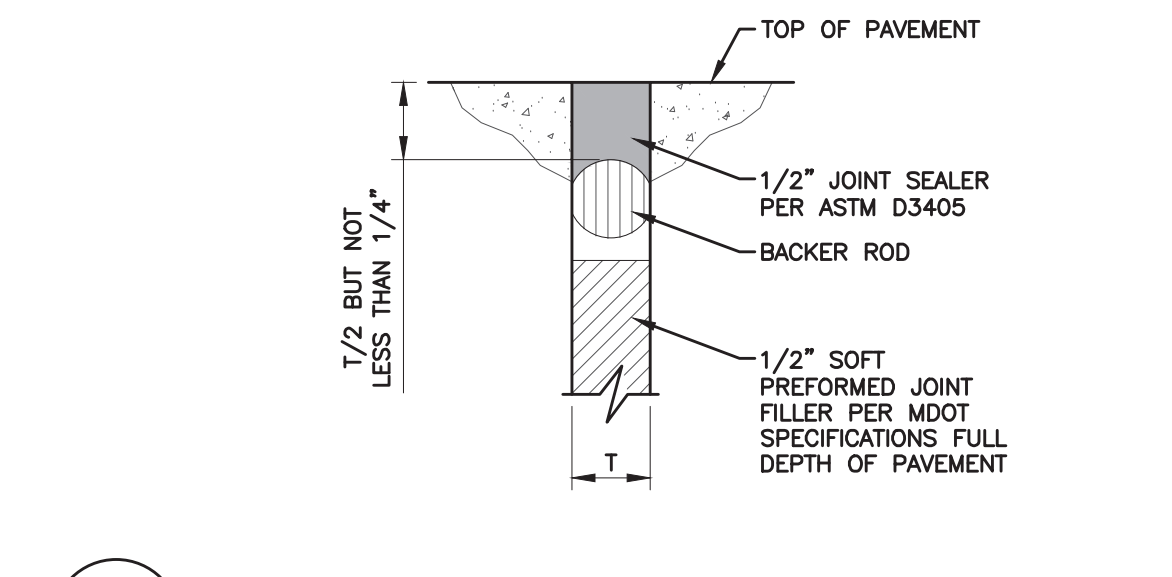
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DATE: 04-15-16

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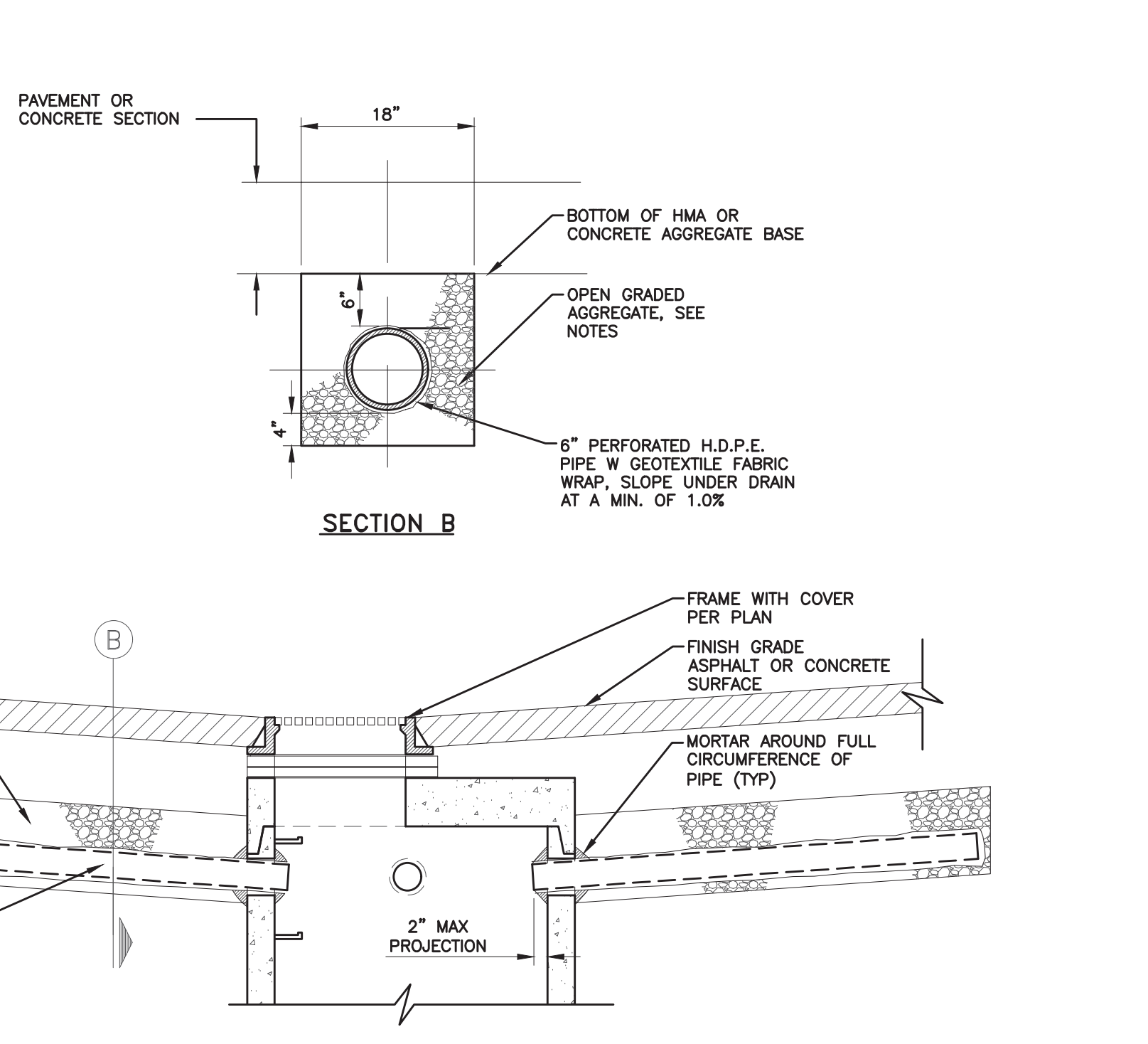
NYLOPLAST
36" DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG SIZE: A SCALE: 1/4" = 1'-0" SHEET: 1 OF 1 DWG NO.: 7001-110-186 REV: A

12 BACKER ROD AND SEALANT SECTION AT FIXED STRUCTURE DETAIL
L21-2 NOT TO SCALE



13 FINGER DRAIN DETAIL
L21-2 NOT TO SCALE



REV#	DATE	DESCRIPTION	BY

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255 S. Saginaw Street, Suite 201
Flint, MI 48602
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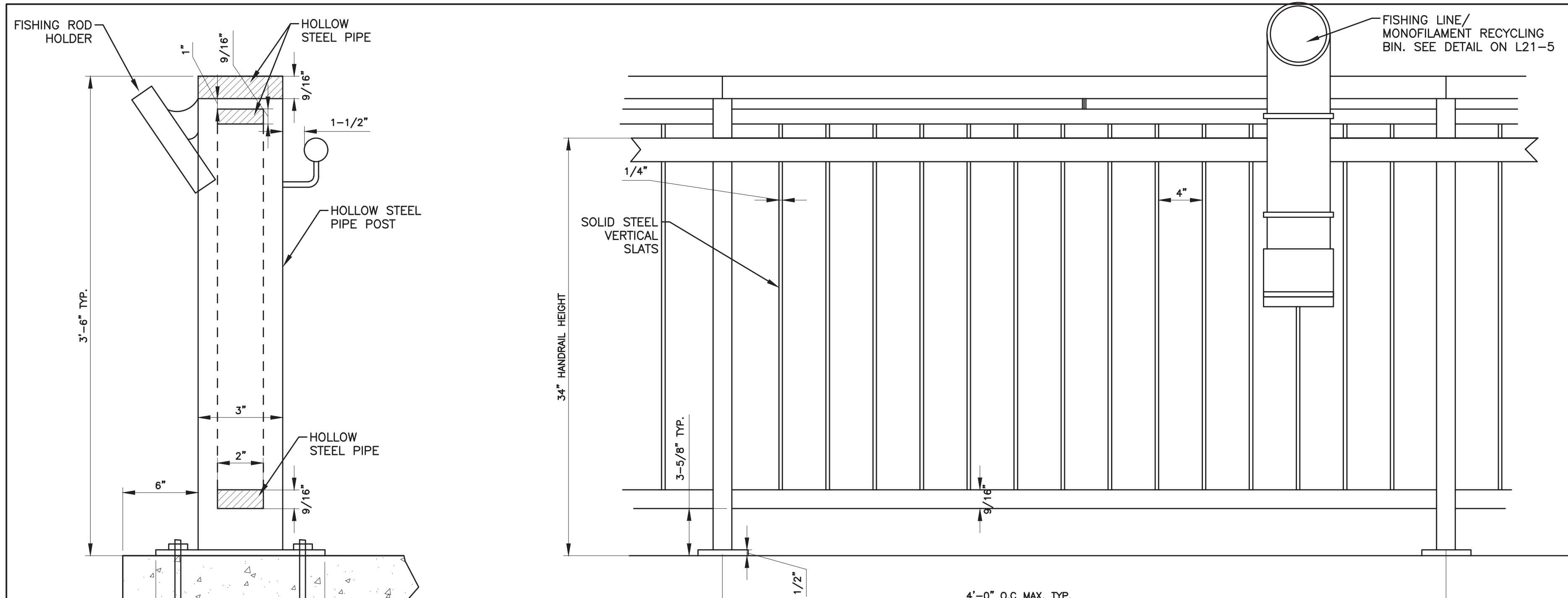
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48606

FLINT RIVERFRONT RESTORATION - PHASE 2
SITE DETAILS - 2

ISSUED FOR: DATE: BY: JOB NO.
10/23/24 SAL GPA200301F
SHEET
L21-2

PROJECT MANAGER: MICHAEL WOODS; DESIGNER: JAMES WOODS; CHECKER: JAMES WOODS; DATE: 10/23/24; TIME: 10:29 AM; BY: WOODS, RUSSELL

FLINT RIVER RESTORATION

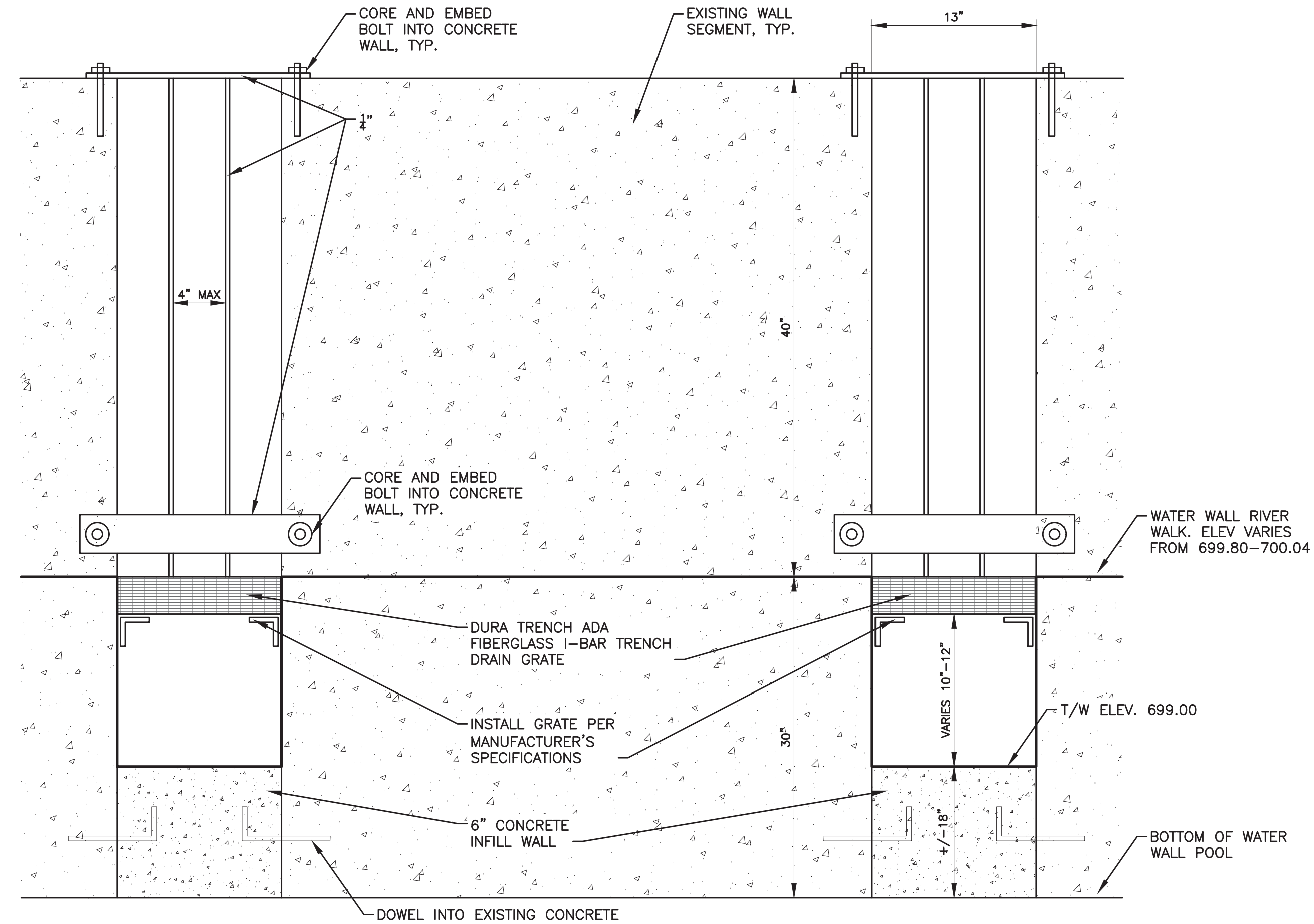


- NOTES:**
- CONTRACTOR SHALL ADAPT THIS DESIGN FOR APPLICATION AS NECESSARY THROUGHOUT PROJECT, INCLUDING HANDRAIL PER CODE, AND ANGLED BASE PLATES TO MAINTAIN VERTICAL POSTS AND UPRIGHTS.
 - CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLED HANDRAILS ARE COMPLIANT WITH THE 2012 MICHIGAN BUILDING CODE AND CURRENT ADA REQUIREMENTS.
 - ALL STEEL TO BE PRIMED AND PAINTED BLACK.
 - ALL JOINTS ARE CONTINUOUS WELDS.
 - ALL STEEL AND WELDS, BOTH SHOP AND FIELD, SHALL BE CLEANED TO SSPC-SP3 AND/OR PER PAINT MANUFACTURERS RECOMMENDATIONS PRIOR TO PRIMING/PAINTING.
 - ALL STEEL SHALL BE SHOP PRIMED AFTER FABRICATION AND FIELD PRIMED AFTER INSTALLATION. CONTRACTOR SHALL USE PRIMER IN ALKO SYSTEMS FOR STEEL SURFACES EXPOSED TO WEATHERING.
 - PAIN SHALL BE FOR EXTERIOR STEEL APPLICATIONS AND MANUFACTURED BY SHERWIN WILLIAMS. PREPARE SURFACE AND APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

BASE PLATE-PLAN

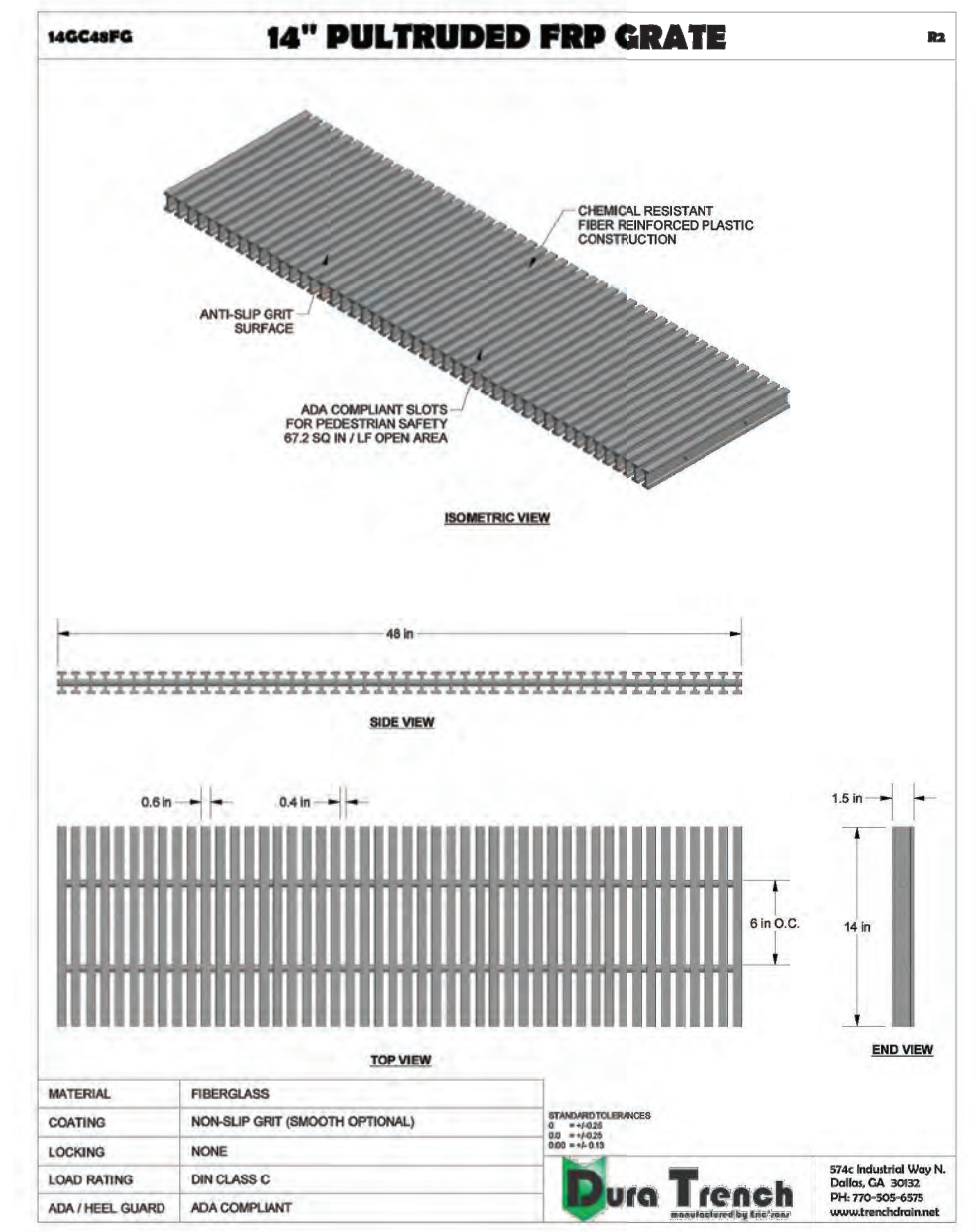
- FISHING ROD HOLDER NOTES:**
- CONTRACTOR TO INSTALL THREE ROD HOLDERS SPACED 12FT APART EVERY 110FT ON RAILING TYPE 'A' AT THE EDGE OF THE RIVER.
 - ROD HOLDER TO BE INTERIOR DIAMETER OF 1 3/8" AND 4" MIN LENGTH WITH OPEN TOP AND BOTTOM.
 - ROD HOLDER TO BE INSTALLED AT 25° ANGLE.
 - ROD HOLDER TO BE WELDED TO PROPOSED RAILING WITH BRACKET.
 - LOCATIONS TO BE FIELD VERIFIED WITH LANDSCAPE ARCHITECT.

1 RAILING-TYPE A DETAIL
L21-3 NO SCALE



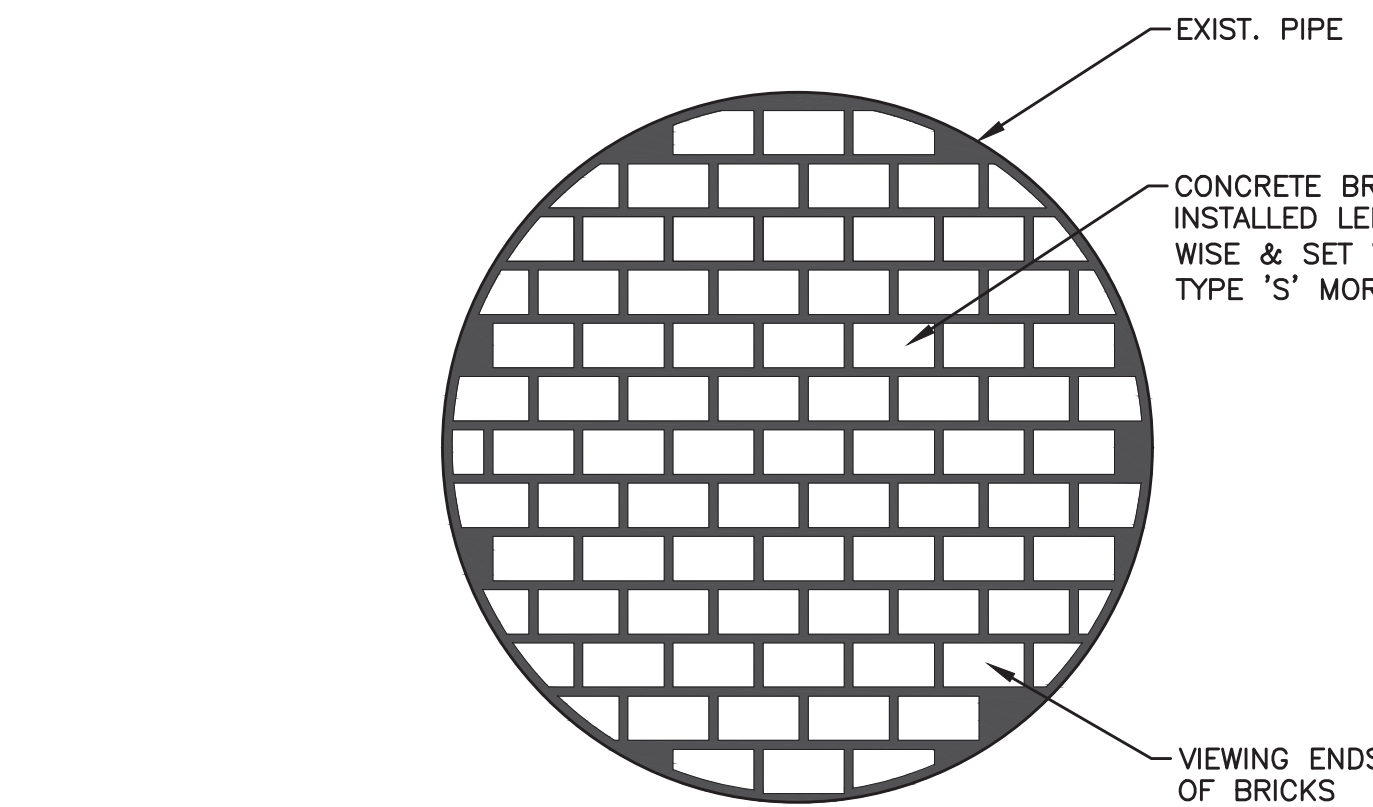
2 RAILING-TYPE A 'MODIFIED' AND SIDEWALK OPENINGS AT WATER WALL
L21-3 NO SCALE

- NOTES:**
- NEW CONCRETE INFILL TO BE INSTALLED ONLY AT LOCATIONS ALONG THE RIVERFRONT, INCIDENTAL TO STRUCTURAL WATER WALL COMPLETE PAY ITEM.
 - INTERIOR GAPS UNDER NEW TRENCH GRATES WITHIN WATER WALL BLOCK SHALL REMAIN OPEN.



- NOTES:**
- MODEL "PULTRUDED FRP GRATE" FROM DURA TRENCH.
 - COLOR TO BE AGATE GRAY (RAL 7035) 9840-7199OR.
 - ALL GRATE LOCATIONS ARE TO BE FIELD MEASURED BEFORE ORDERING AND INSTALLATION.
 - MOUNTING, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

DRAIN GRATE
NO SCALE



4 STRUCTURE ABANDONMENT DETAIL - TYPE 1 PIPE BULKHEAD
L21-3 NO SCALE



- NOTES:**
- MODEL "LIL-20" 6FT WITH HORIZ. STEEL SLAT SEATING FROM VICTOR STANLEY.
 - COLOR TO BE STANDARD BLACK.
 - MOUNTING-BOLT TO CONCRETE PER MANUFACTURER'S SPECIFICATIONS.

6 BENCH - STANDARD
L21-3 NO SCALE



- NOTES:**
- MODEL "LIL-23NA" 6FT WITH HORIZ. STEEL SLAT SEATING FROM VICTOR STANLEY.
 - COLOR TO BE STANDARD BLACK.
 - MOUNTING-BOLT TO CONCRETE PER MANUFACTURER'S SPECIFICATIONS.

7 BENCH - BACKLESS
L21-3 NO SCALE



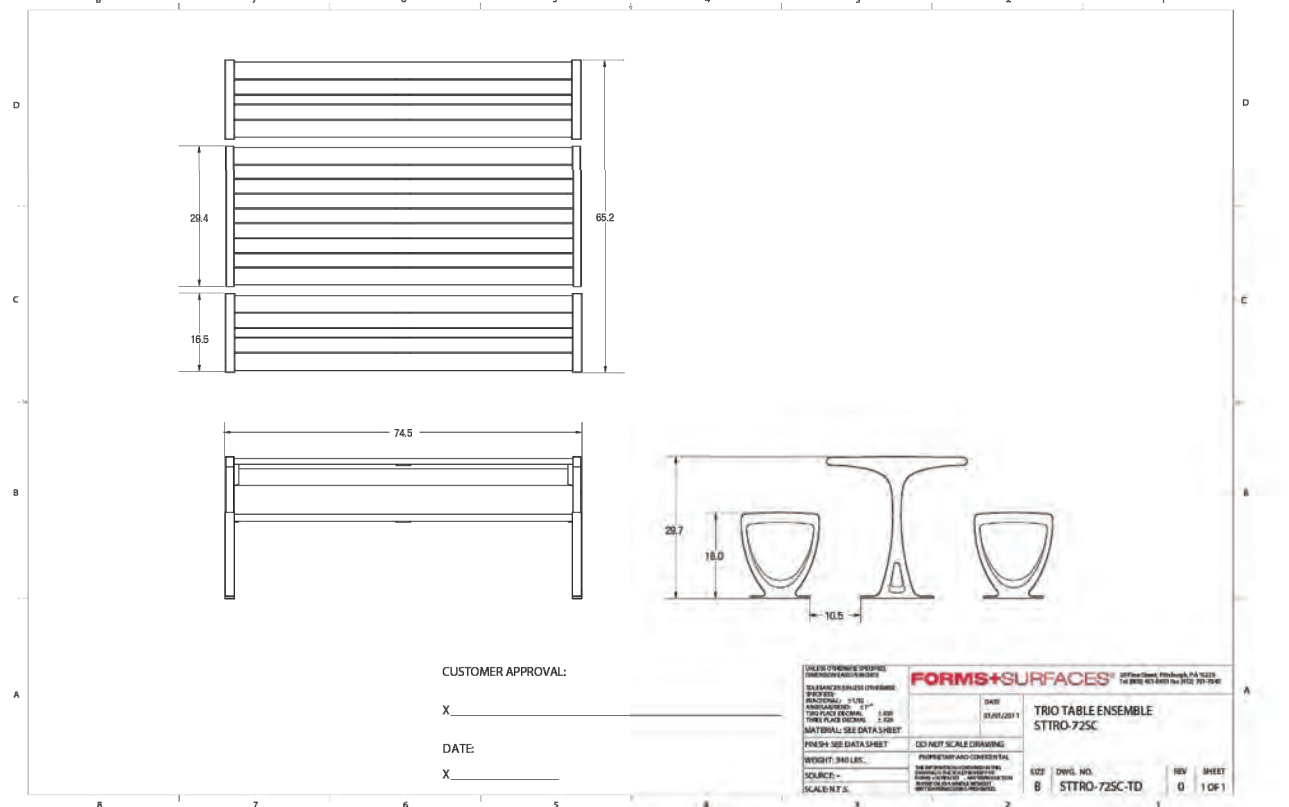
- NOTES:**
- MODEL "SDC-45" 45 GALLON CAPACITY LITTER BIN FROM VICTOR STANLEY.
 - COLOR TO BE STANDARD BLACK.
 - MOUNTING-BOLT TO CONCRETE PER MANUFACTURER'S SPECIFICATIONS.

8 LITTER BIN
L21-3 NO SCALE

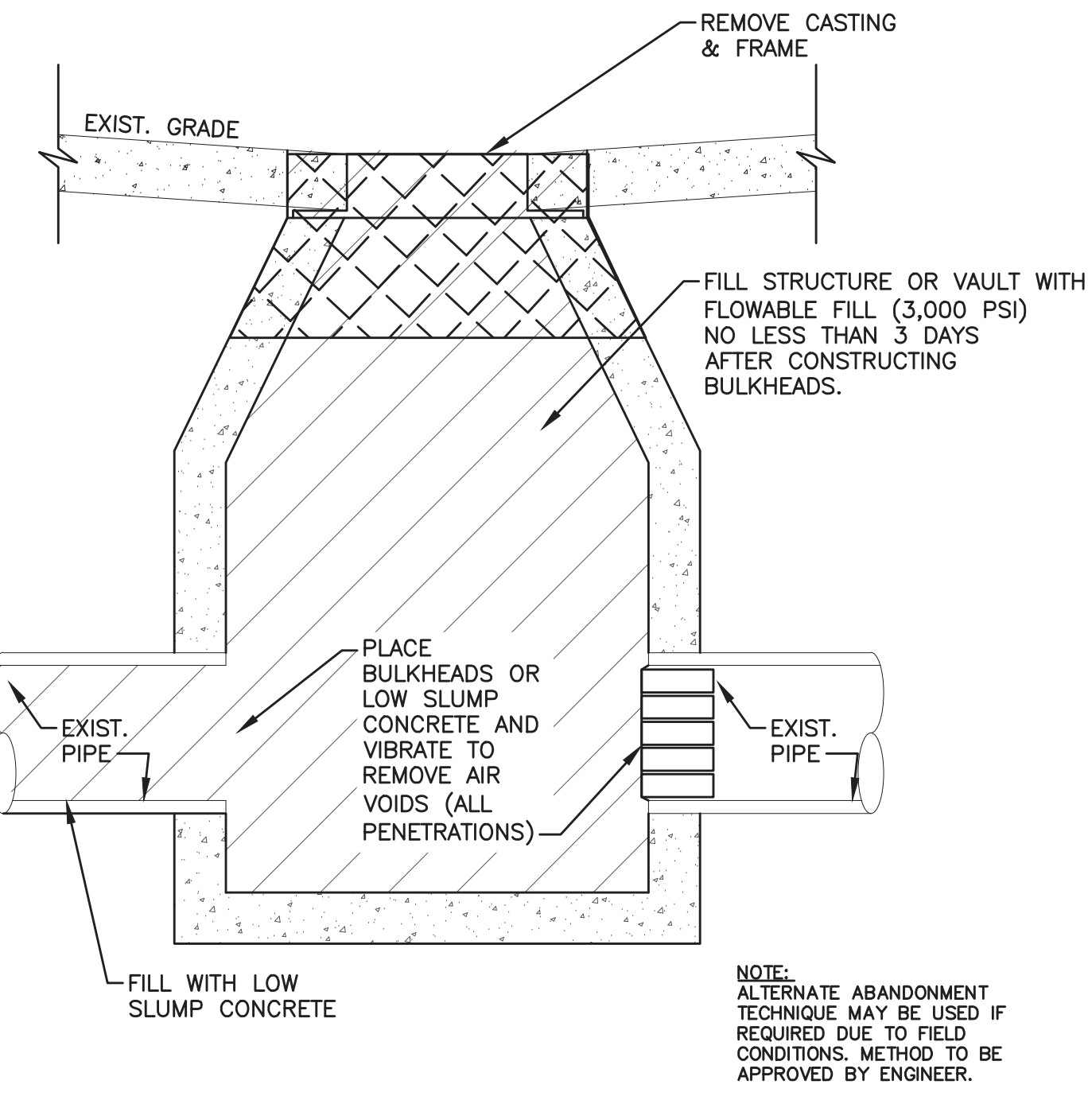


- NOTES:**
- MODEL "TRIO TABLE ENSEMBLE" 6FT FROM FORMS+SURFACES.
 - SLAT MATERIAL TO BE ALUMINUM.
 - MOUNTING-BOLT TO CONCRETE PER MANUFACTURER'S SPECIFICATIONS.
 - COLOR OF FRAME AND SLATS TO BE STANDARD BLACK.
 - QUANTITY OF TRIO TABLE ENSEMBLE (STANDARD) IS XX. QUANTITY OF TRIO TABLE ENSEMBLE WITH ADA OPTION IS X. LANDSCAPE ARCHITECT TO CONFIRM LOCATIONS OF ADA PRIOR TO INSTALLATION.

9 PICNIC TABLE
L21-3 NO SCALE



ADA COMPLIANT TABLE, SEE TABLES MARKED WITH 'A' ON SITE PLANS.



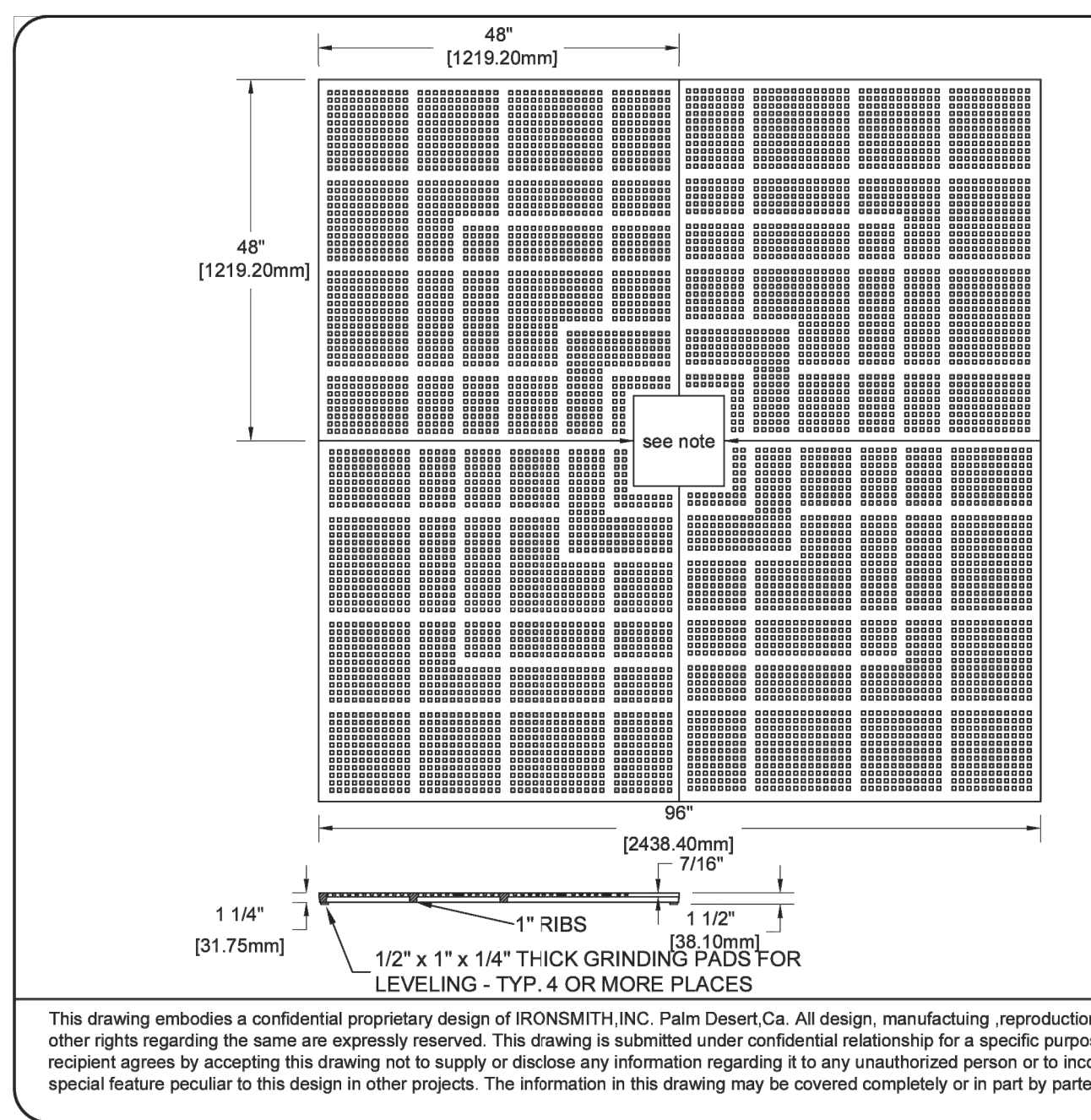
5 STRUCTURE ABANDONMENT DETAIL - TYPE 2
L21-3 NO SCALE



- NOTES:**
- CONTRACTOR TO VERIFY LADDER HEIGHT AT EACH LOCATION PRIOR TO INSTALLATION.
 - STEEL LADDER SHALL BE MANUFACTURED FROM TRI-ARC OR APPROVED EQUAL. LADDER MUST MEET OSHA STANDARDS.
 - CONTRACTOR TO INSTALL LADDER TO FLOODWALL PER MANUFACTURER RECOMMENDATIONS.

8 RIVER EGRESS SAFETY LADDER DETAIL
L21-3 NO SCALE

LADDER #	LADDER HEIGHT	B/ WALL	T/ WALL	ESTIMATED WALL HEIGHT
1	14	689.2	705.5	16.3
2	10	693.3	705.6	12.3
3	13	689.9	705.6	15.7
4	15	688.5	705.5	17
5	16	686.4	704.5	18.1
6	11	688.6	701.6	13
7	8	691.2	701.6	10.4
8	6	691	699.5	8.5
9	9	691	702.5	11.5
10	19	689.4	710.4	21
11	9	689.4	701.3	11.9
12	10	688.5	701.4	12.9
13	11	688.5	701.6	13.1
14	11	688.5	701.6	13.1
15	11	687.9	701.6	13.7
16	13	685.7	701.5	15.8
17	13	686.5	701.5	15
18	12	687.2	701.5	14.3
19	12	687.2	701.5	14.3
20	11	687.8	701.5	13.7
21	11	688.5	701.5	13
22	9	688.5	700.2	11.7
23	9	688.5	700.2	11.7
24	11	688.5	701.5	13
25	4	688.4	694.7	6.3
26	14	688.5	705.1	16.6
27	10	688.5	701.2	12.7
28	10	688.5	701.2	12.7
29	6	693.4	701.4	8
30	13	685.8	701.6	15.8
31	12	687.5	701.5	14
32	9	690.1	701.6	11.5
33	9	690.1	701.6	11.5
34	10	689.6	701.8	12.2
35	10	689.6	701.8	12.2
36	21	687.6	711.1	23.5



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9614 MARKET STREET TREE GRATE
96" x 96" tree grate in four sections.
1/2 Maximum square opening for pedestrian safety and A.D.A. Compliance.
Cast from 100% recycled iron, Aluminum or Bronze for pedestrian loads only.
Tree opening: 12" x 12" 25'
Grates can be ordered with or later expanded to these openings. Please specify when ordering.
Finish: unfinished or Black dip or Enamel paint or Polyurethane Paint or Powder coat. Specify finish and color.
Use frame model: 9600P-CS
Weight: Iron=1155 lb/ 525 Kg Aluminum=410 lb/187 Kg



- NOTES:**
- MODEL 9614 BY IRONSMITH OR APPROVED EQUAL.
 - GRATE TO BE 96" X 96", BE ADA COMPLIANT, UNFINISHED CAST IRON, WITH AN 18" TREE OPENING.
 - EMBED MOUNT
 - COLOR TO BE BLACK POWDERCOAT.

10 BIKE RACK - DETAIL
L21-3 NO SCALE

REV#	DATE	DESCRIPTION	BY



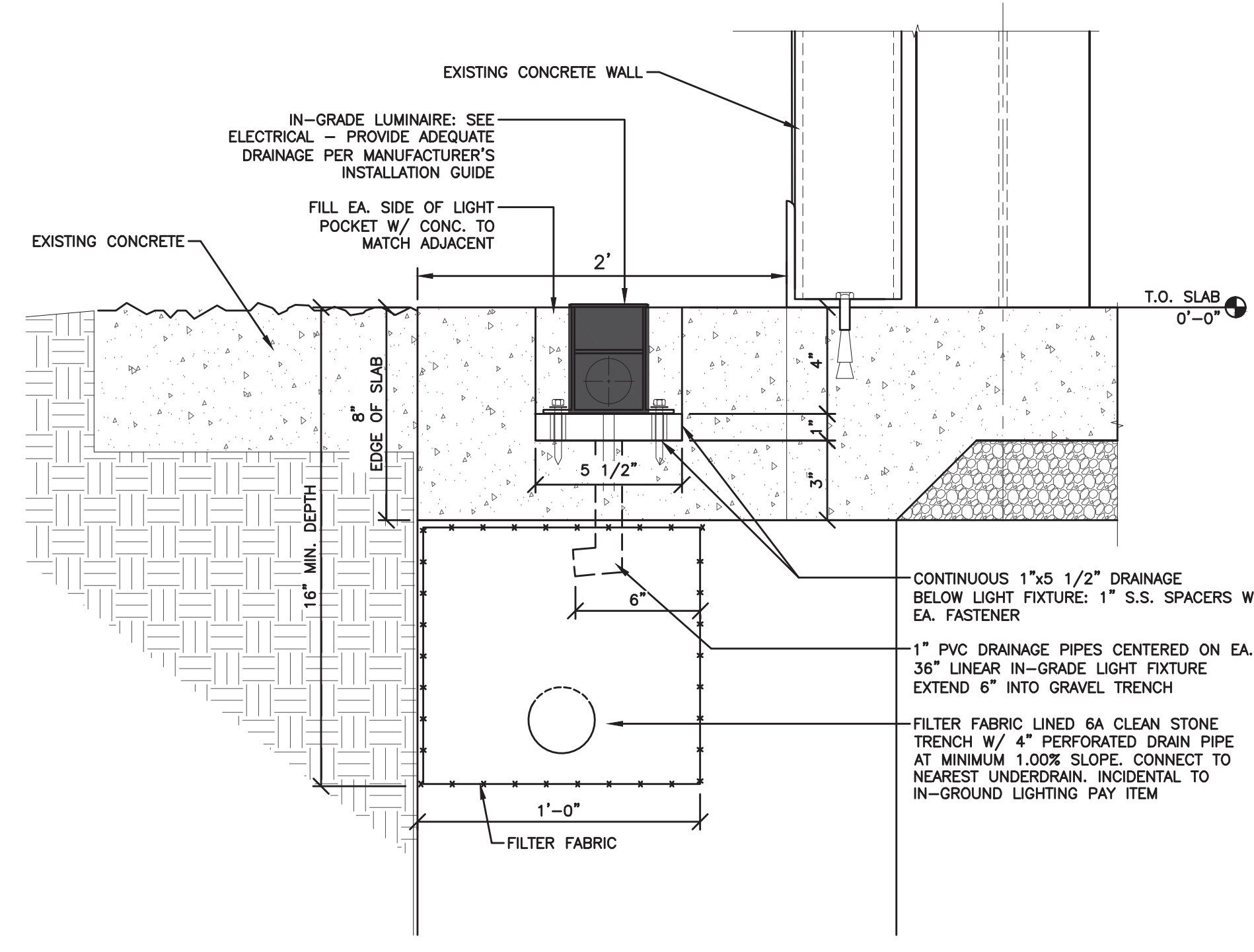
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
SITE DETAILS - 3

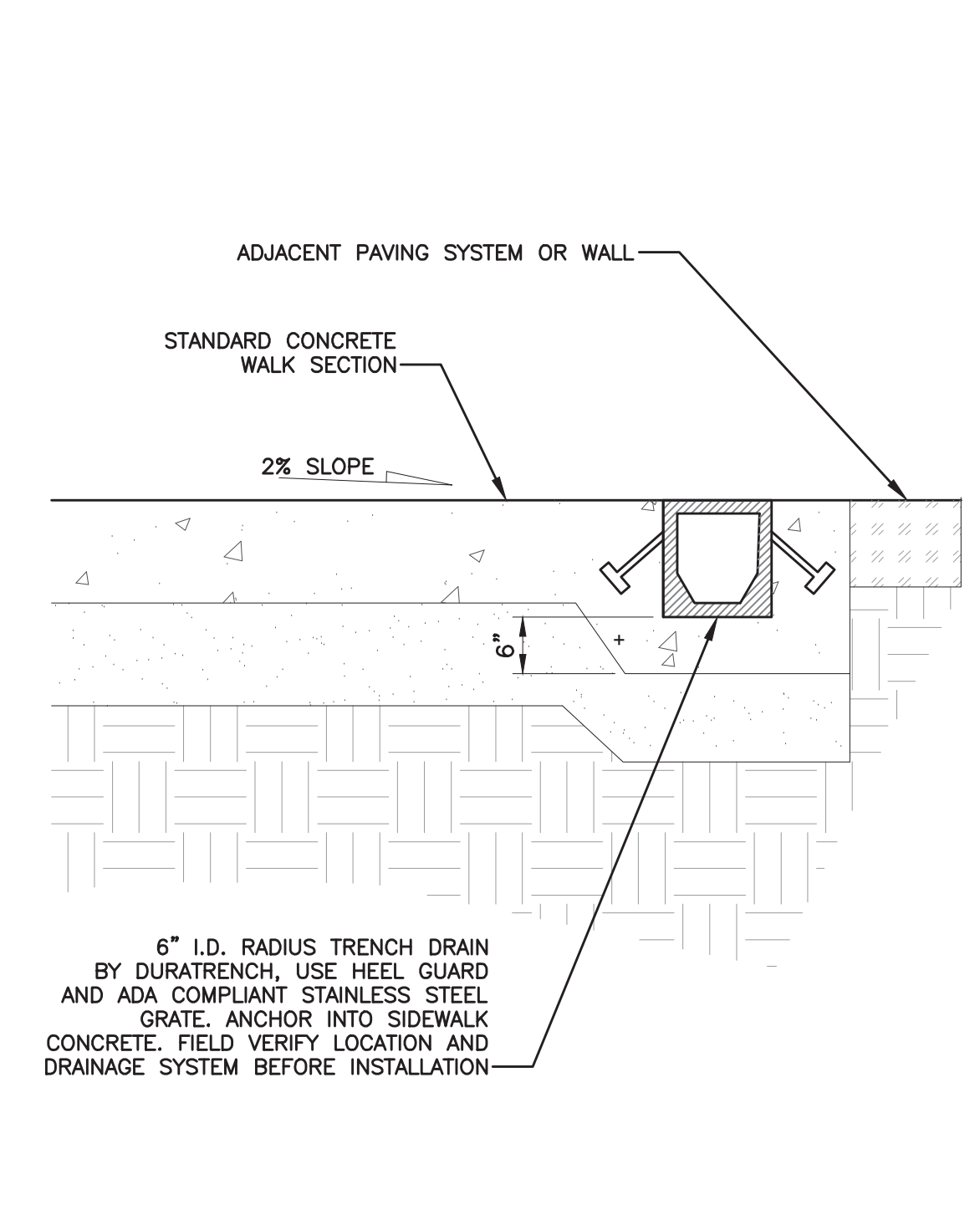
ISSUED FOR:	DATE:	BY:	JOB NO.:
FB	10/23/24	SAL	GPA200301F
SHEET			L21-3

PROJECT MANAGER: Russel Russell; DESIGNER: Russel Russell; DATE PLOTTED: 10/24/2024 10:29 AM; BY: WANLEY, RUSSELL

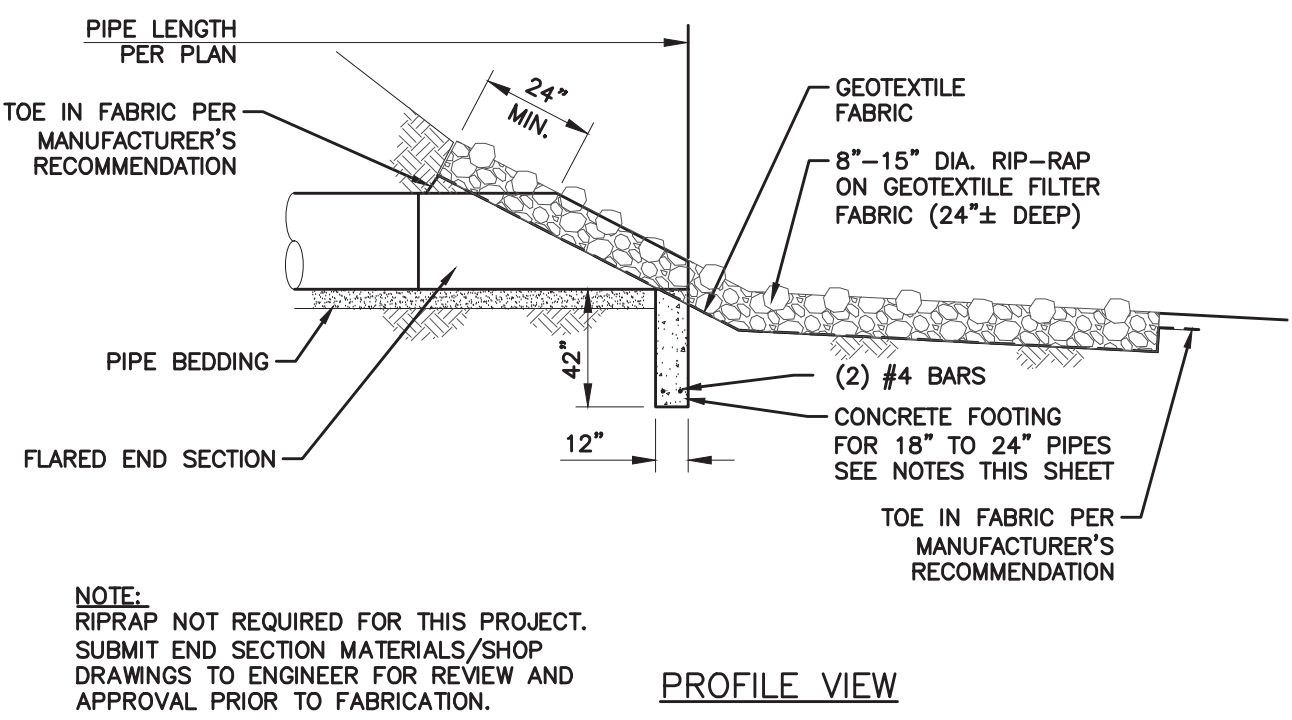
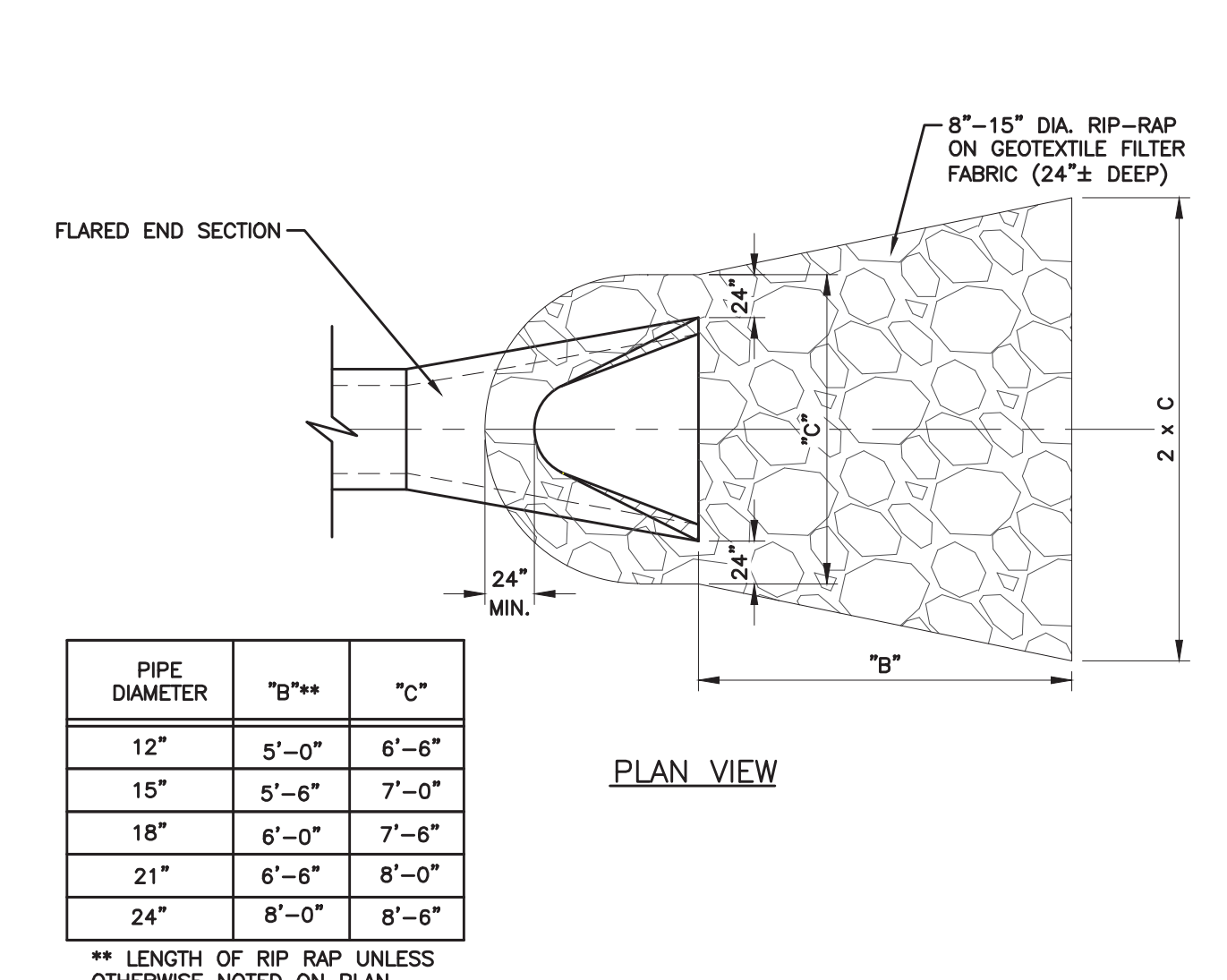
© Wade Trim, Inc. FLINT RIVER RESTORATION



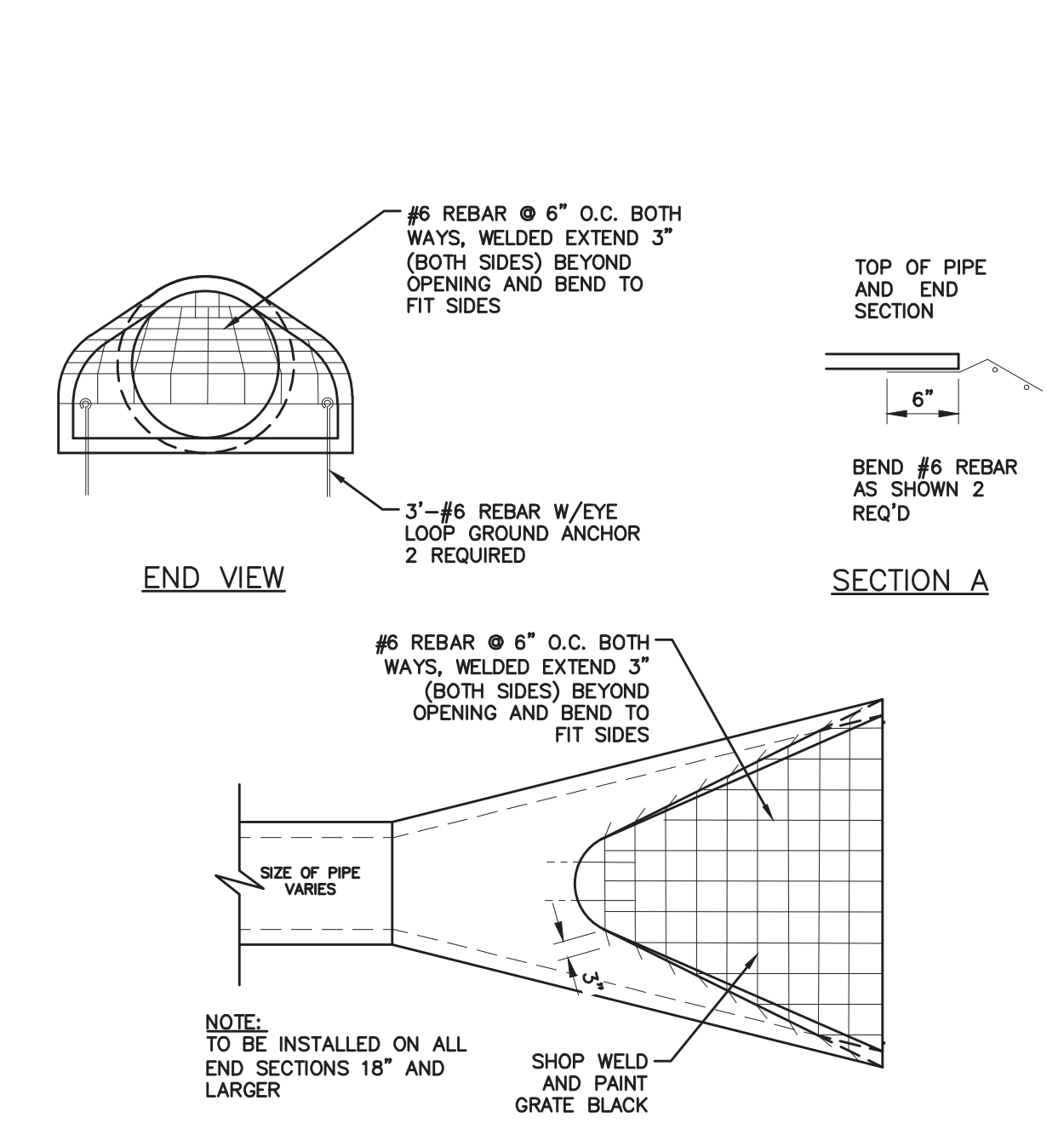
1 IN-GROUND LIGHTING DETAIL
L21-4 NO SCALE



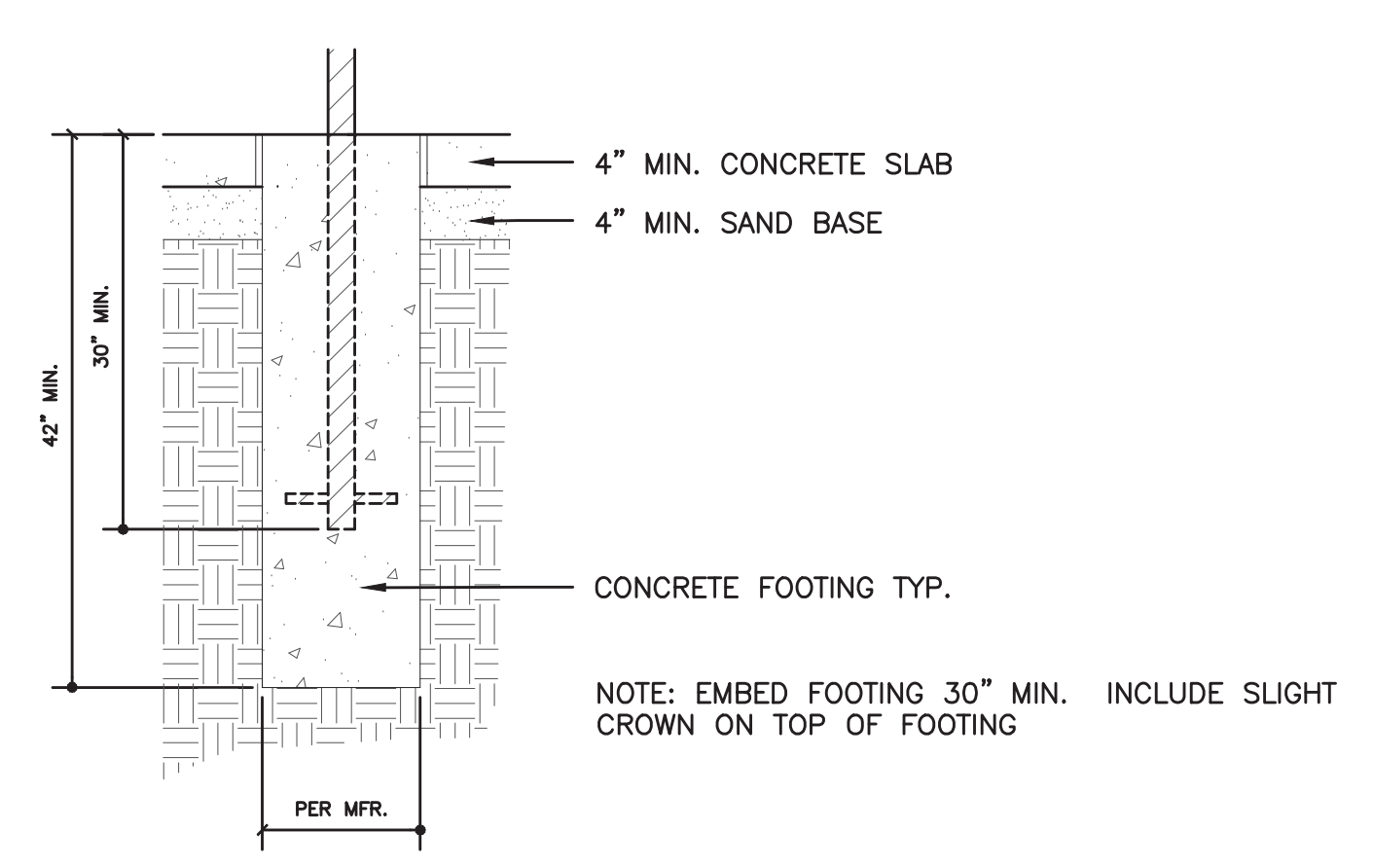
2 4\"/>



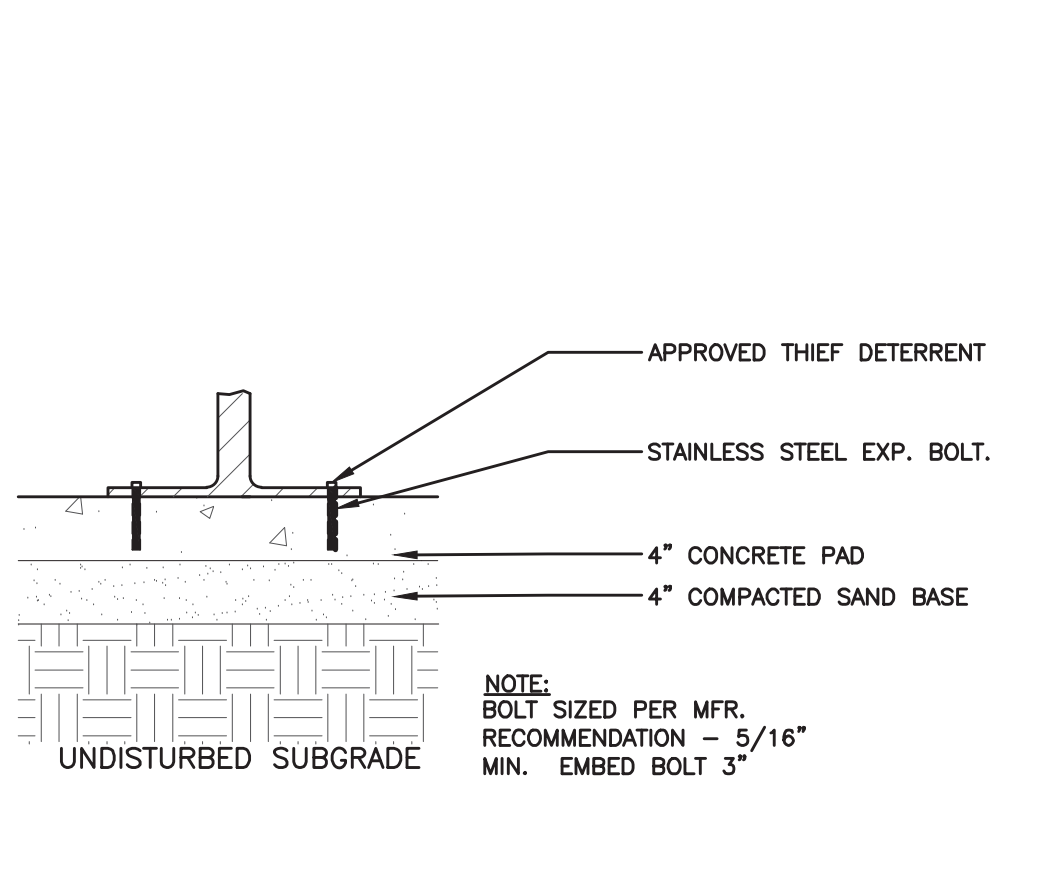
3 END SECTION AND RIPRAP DETAIL
L21-4 NO SCALE



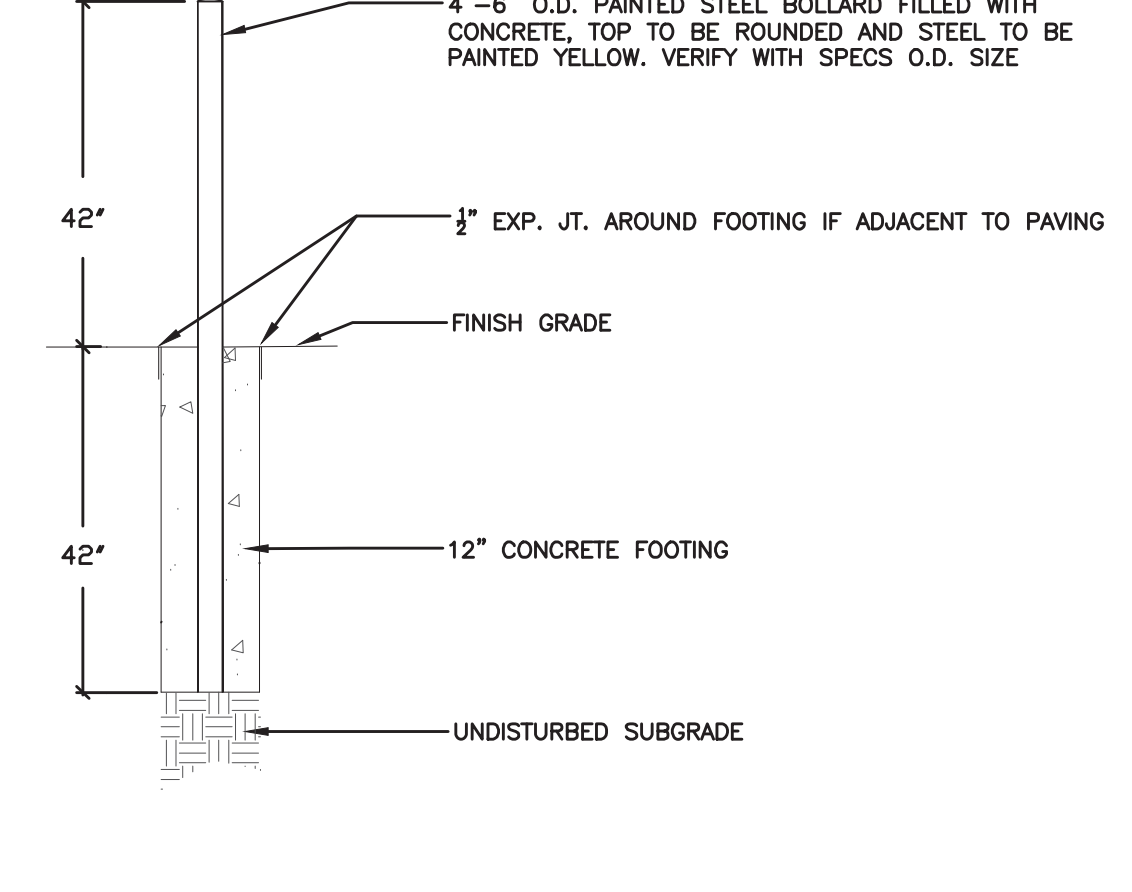
2 END SECTION BAR GRATE DETAIL
L21-4 NO SCALE



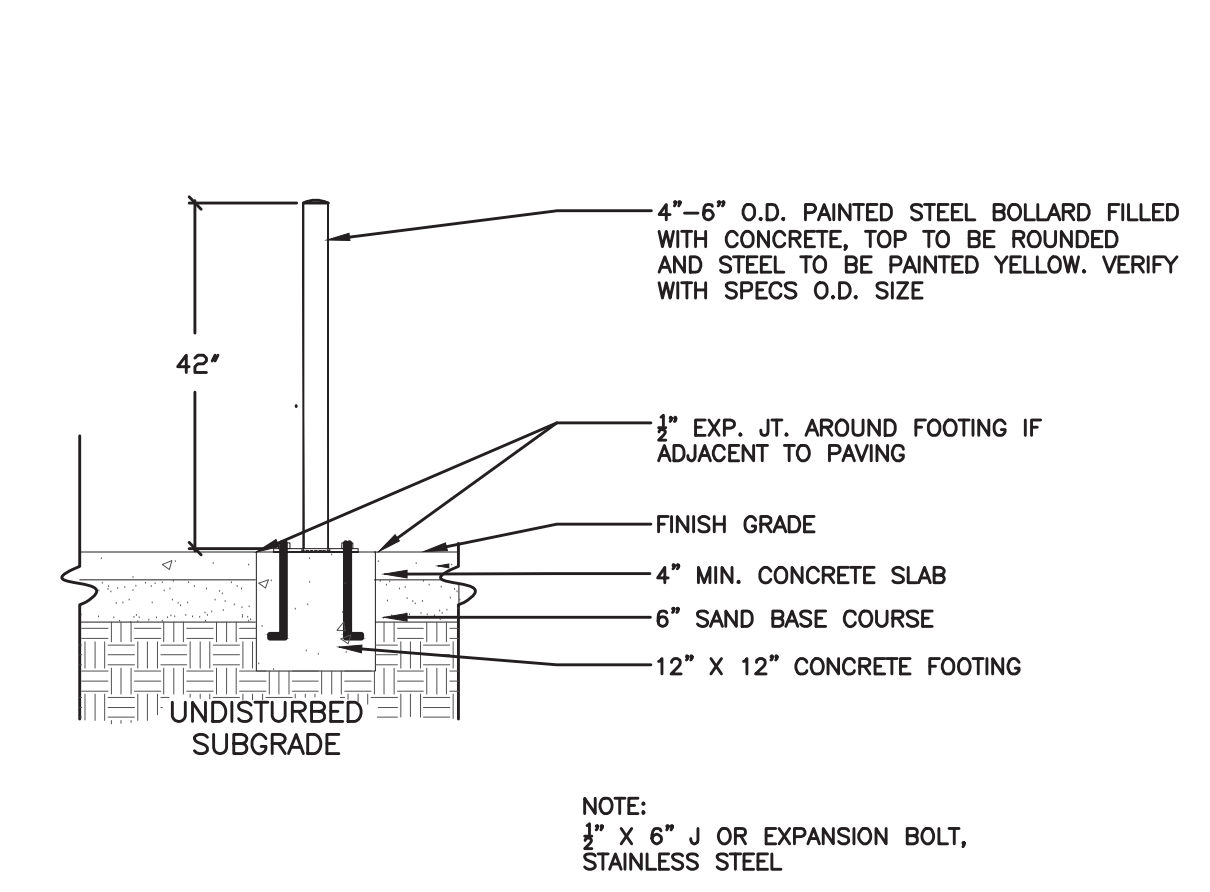
3 TYPICAL IN-GROUND MOUNT DETAIL
L21-4 NO SCALE



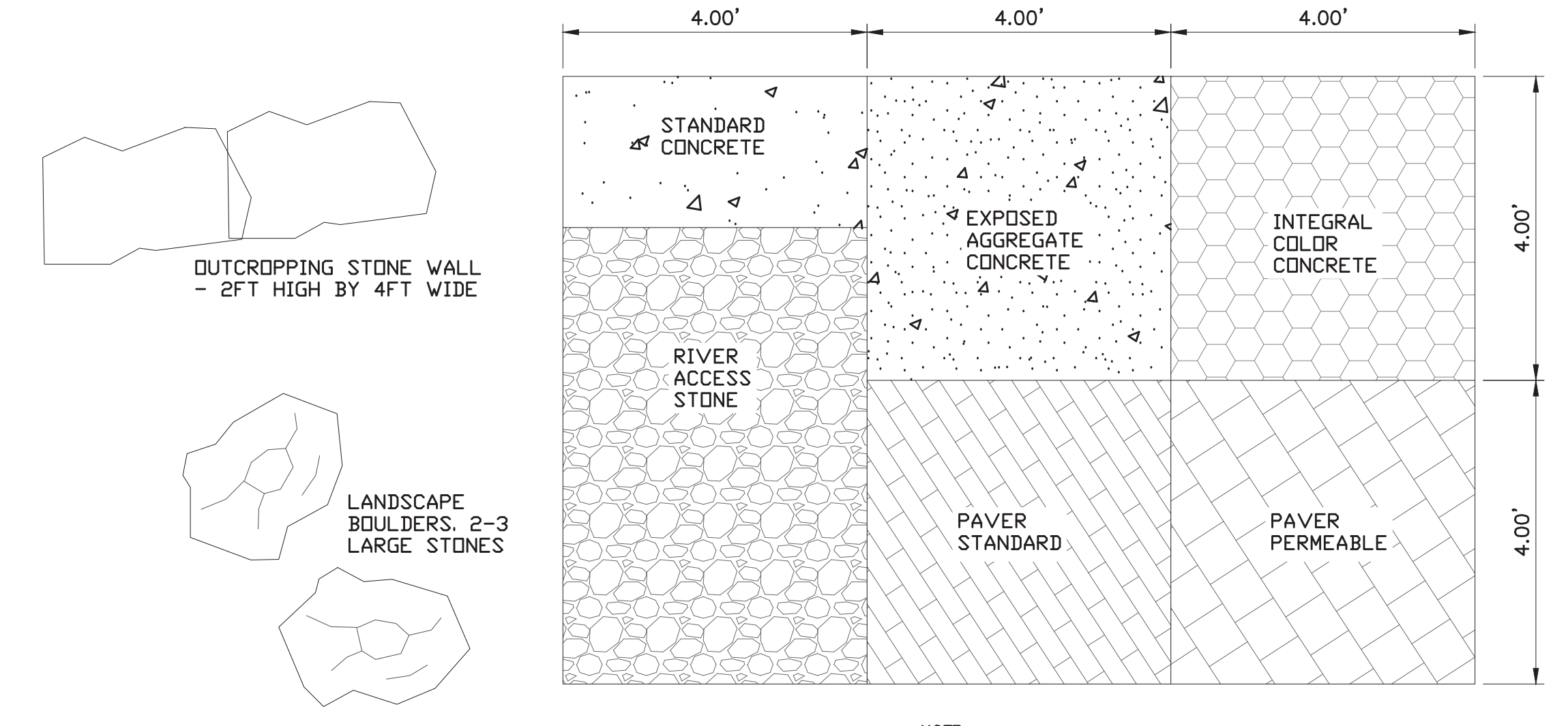
4 TYPICAL SURFACE MOUNT
L21-4 NO SCALE



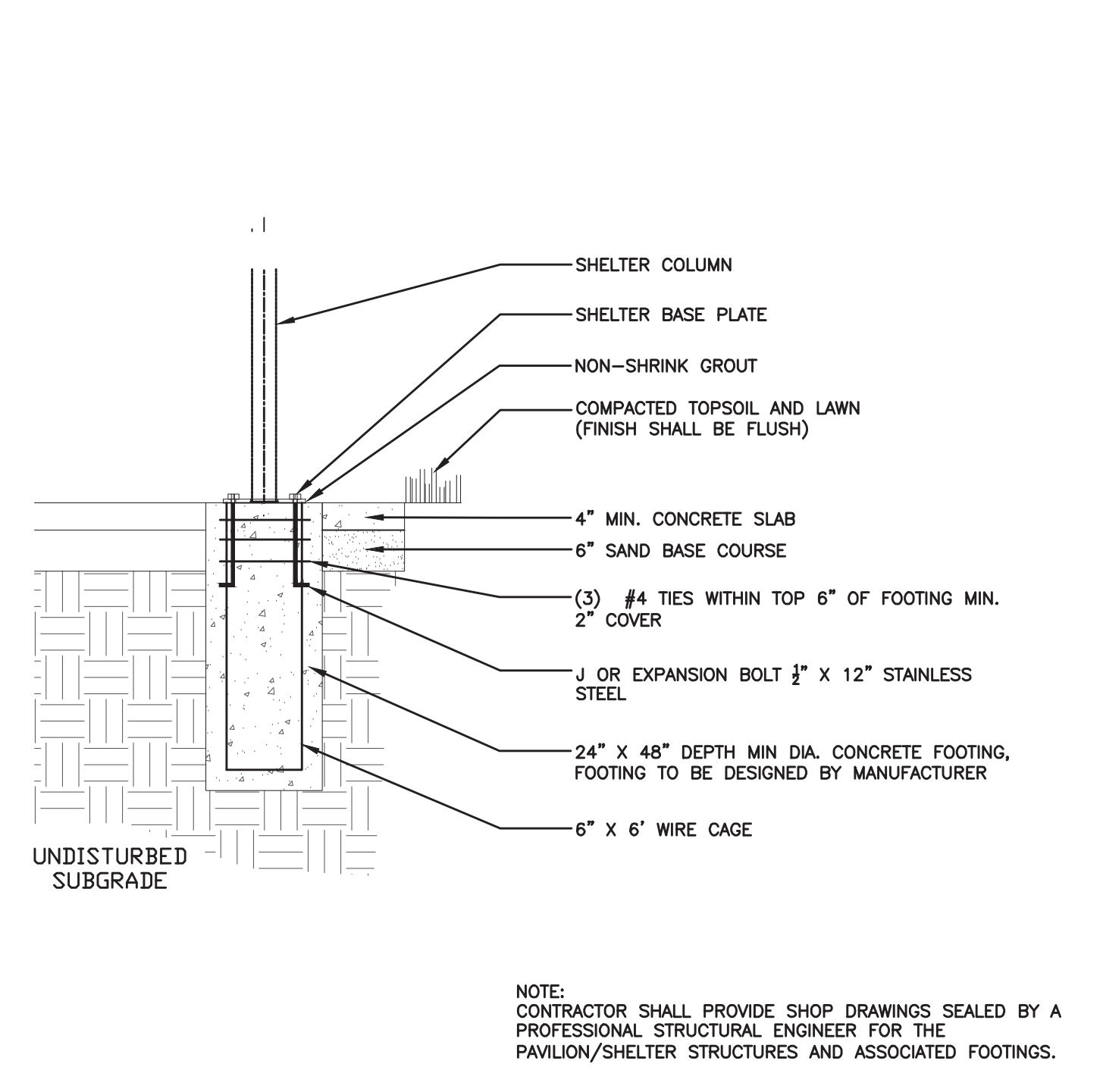
5 STEEL BOLLARD DETAIL
L21-4 NO SCALE



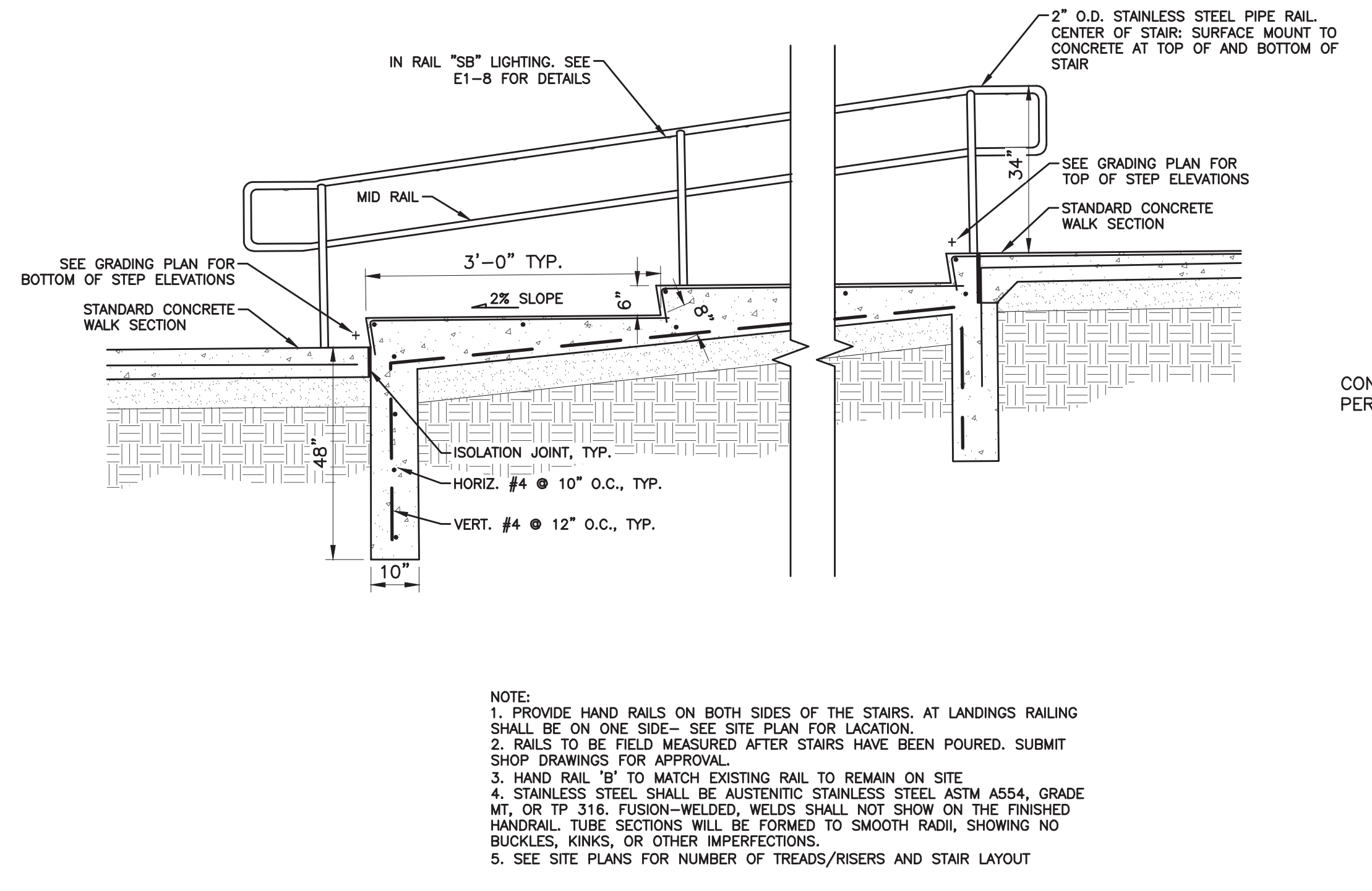
6 SURFACE MOUNT STEEL BOLLARD DETAIL
L21-4 NO SCALE



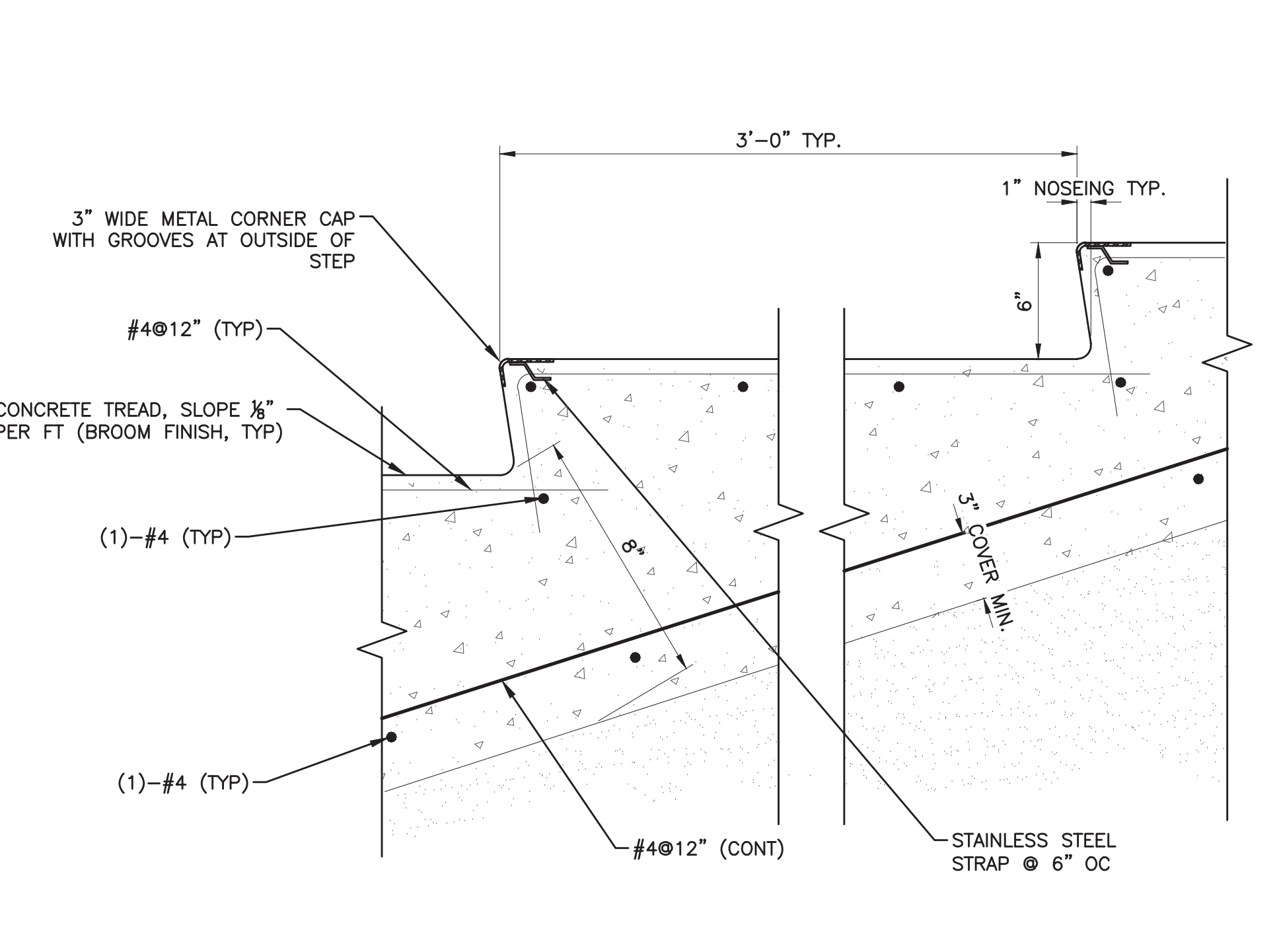
11 HARDSCAPE MOCK UP
L21-4 NO SCALE



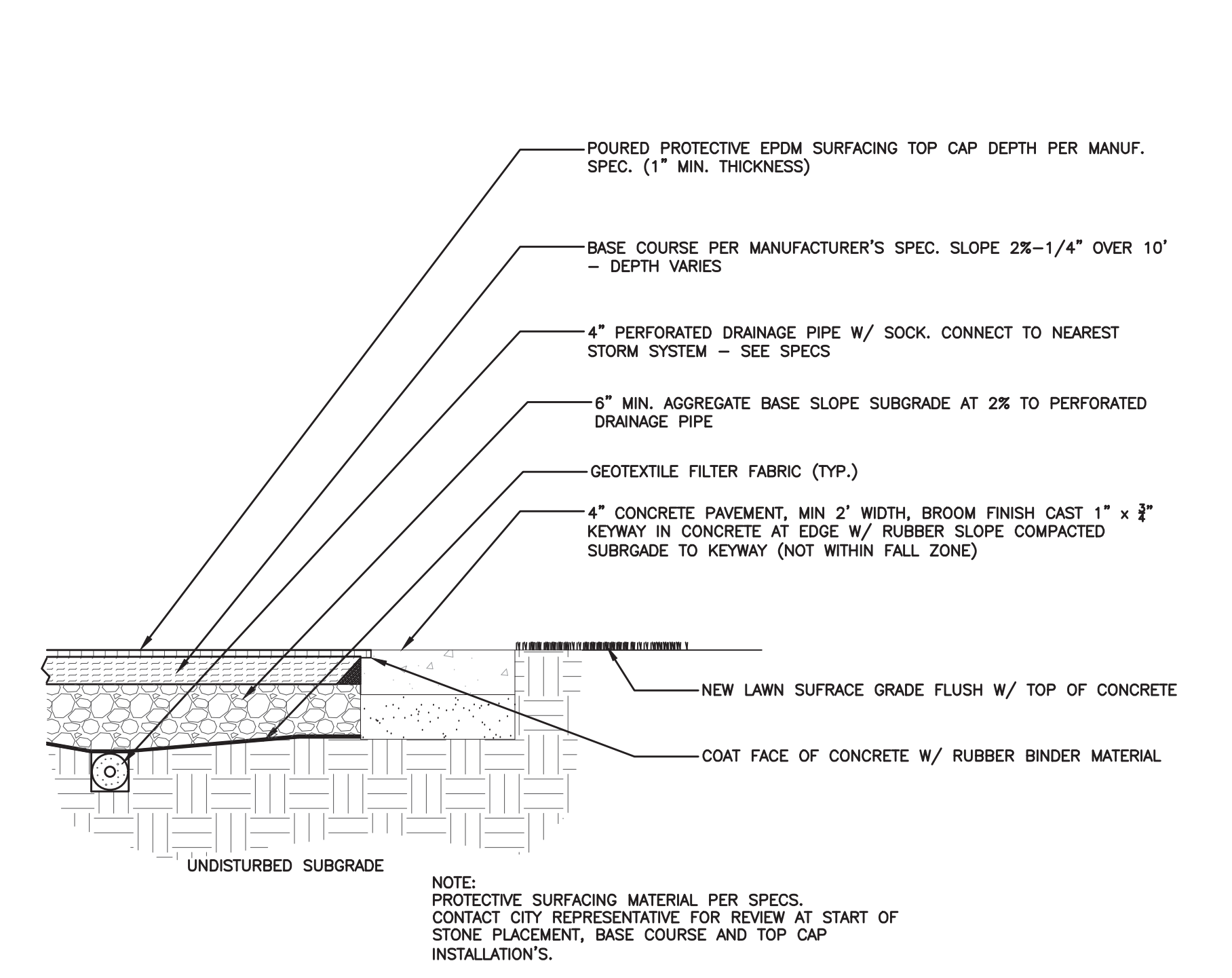
7 TYPICAL SHELTER FOOTING DETAIL
L21-4 NO SCALE



8 STAIRS-PERRONS DETAIL & HANDRAIL 'B' DETAIL
L21-4 NO SCALE



9 PERRON STEP ENLARGEMENT WITH REINFORCING DETAIL
L21-4 NO SCALE



10 POURED IN PLACE SURFACING DETAIL
L21-4 NO SCALE

REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
SITE DETAILS - 4

ISSUED FOR: (FB)	DATE: 10/23/24	BY: SAL	JOB NO: GPA200301F
SHEET			L21-4

PROJECT MANAGER: Russel Russell; FIELD PLAN INFORMATION: DETAIL-4 - PLOTTED: 10/24/2024 12:29 AM BY: WANLEY, RUSSELL

© Wade Trim, Inc. FLINT RIVER RESTORATION

Model: Custom Monoslope Shelter - 10' x 20'

Manufacturing Mission: To provide all prefabricated components and installation instructions for a free standing bolt together, tubular steel constructed shelter kit.

Design Criteria: Structure shall be designed to meet site specific snow and wind load design criteria using most current applicable building codes. All structural members are ASTM A-500 U.S. grade B steel. Welded connection plates shall be ASTM A-36 hot rolled steel. All construction performed to latest ASCE standards by AWS Certified welders. All framing connections are done using A325 grade bolts with concealed access openings from above and will later be concealed by the roofing. All roof framing shall be flush against the roof decking to eliminate the possibility of roof leakage.

Tubular Steel Columns and Beams: Column dimension shall be 6" x 6" 3/16" tubular steel welded to 5/8" base plates for surface mounting. Main support beams are 6" x 6" x 3/16" and purlins are 6" x 4" x 3/16". Steel sizes are preliminary and may change due to ongoing review and final engineering.

Roofing: 24 Ga. pre-cut steel Multi-Rib panels with Kynar 500 finish in a variety of colors with white underside. Standard roof slope is a 2/12 pitch with a eave height of 8'-0". Attached to structural frame with exposed screws painted to match roof color. Missing 24 Ga. trim included.

Frame Finish: All steel framework will receive a corrosion protective TGIC Polyester powder coat, electro-statically applied and cured at 400°F. A large selection of standard colors are available.

Foundation: All columns need to be anchored to concrete footings (footing design provided separately). Columns can be surface mounted to footings with anchor bolts or below finish slab elevation or they can be embedded directly into the footing without base plates upon request. Anchor bolts and mixing templates are included. Optional base plate covers are available at an additional cost.

Hardware: All structural hardware and roofing fasteners shall be provided.

Warranty: 10 years against manufacturer defects.

Not Included: Concrete work of any kind, unloading of product and installation.

Model: MO-1020-SW-XP

DESIGN SPECIFICATIONS

Model: MO-2030-SW-XP-10E

DESIGN SPECIFICATIONS

Model: MO-2525-SW-XP-TG

DESIGN SPECIFICATIONS

Model: MO-1515-SW-XP

DESIGN SPECIFICATIONS

PAVILION NOTES:

- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER FOR THE PAVILION STRUCTURES AND ASSOCIATED FOOTINGS.
- STANDARD COLOR TO BE SELECTED BY LANDSCAPE ARCHITECT AS PART OF SHOP DRAWING SUBMITTALS.
- MINIMUM CLEARANCE OF ALL PAVILIONS TO BE 10'.
- ROOF DECK TO INCLUDE 2"x6" #1 GRADE END MATCHED, SINGLE TONGUE AND GROOVE SOUTHERN YELLOW PINE.

1 L21-5 DETAILS FOR PAVILION 1 & 2 COVERWORX 10X20 MONOSLOPE NO SCALE

2 L21-5 DETAILS FOR PAVILION 3 COVERWORX 25X25 MONOSLOPE NO SCALE

3 L21-5 DETAILS FOR PAVILION 3 COVERWORX 20X30 MONOSLOPE NO SCALE

4 L21-5 DETAILS FOR PAVILION 3 COVERWORX 20X30 MONOSLOPE NO SCALE

5 L21-5 VAULT TOILET: EASI-SET SIERRA-DRY-VAULT NO SCALE

NOTES:

- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER FOR THE VAULT TOILET STRUCTURES AND ASSOCIATED FOOTINGS.



Trapezio Backed Bench 212in, Surface Mount, Concrete

Product Drawing | www.landscapeforms.com | Date: 5/23/2021 | Ph: 800.521.2546

NOTES:

- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER FOR THE VAULT TOILET STRUCTURES AND ASSOCIATED FOOTINGS.



6 L21-5 LANDSCAPE FORMS TRAPEZIO BENCH NO SCALE

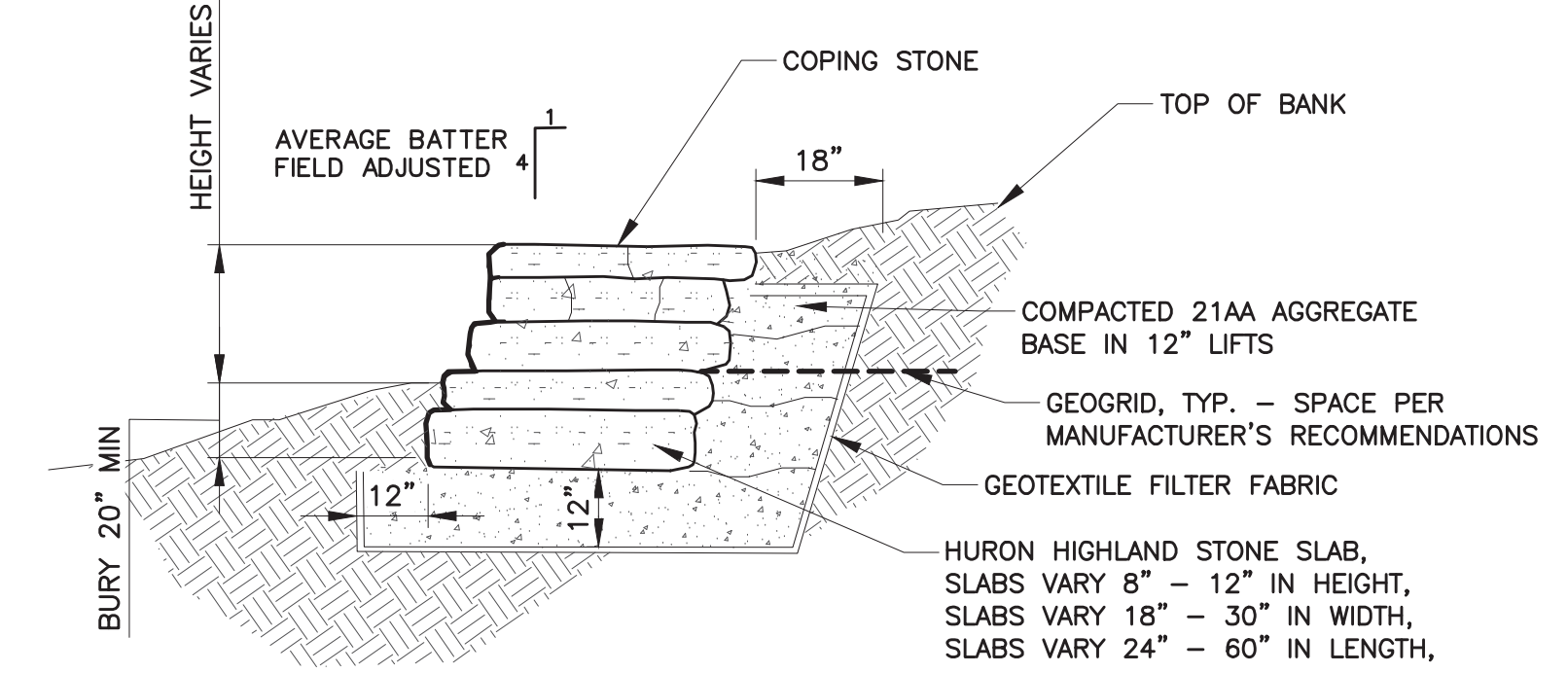


NOTES:

- FISHING LINE BIN TO BE MADE OUT OF 6" PVC PIPE
- ATTACH "FUEL IN AND RECYCLE" SIGN NEXT TO BIN
- ADHERE FISHING LINE RECYCLING DECALS TO BIN
- SIGNS AND DECALS TO BE FROM <http://www.fishingline.com> OR APPROVED EQUAL
- BINS WILL BE PLACED IN RIVERBANK PARK BLOCKS IN THE FOLLOWING QUANTITIES:

PLAYGROUND BLOCK: 2
GRAND TRAVERSE BLOCK: 2
ARCHIMEDES SCREW BLOCK: 2
MARKET STALL BLOCK: 1
AMPHITHEATER BLOCK: 1
GRAND FOUNTAIN BLOCK: 1
U OF M BLOCK: 1
WATER WALL BLOCK: 1

BINS ARE TO BE FIELD LOCATED ON A METAL POST ADJACENT TO A TRASH BIN.



HURON HIGHLAND LESTMONE

ORION STONE DEPOT
4888 JOSLYN RD, ORION TWP, MI 48359
(248)391-2490
questions@orionstone.com

28028 SWAY BENCH

NOTES:

- MODEL "SWAY BENCH" FROM GAMETIME
- COLOR TO BE STANDARD BLACK
- MOUNTING: EMBED IN CONCRETE PER MANUFACTURER'S SPECIFICATIONS

ELEVATION VIEW

INSTALLATION INSTRUCTIONS:

- CONCRETE REQUIREMENTS: 2500 PSI CONCRETE
- EMBEDMENT: 12" DEEP
- ANCHOR BOLTS: 1/2" DIA. X 12" LONG
- BACK OF CONCREMENT: 12" MIN.

10 L21-5 SWINGING BENCH NO SCALE

7 L21-5 USCG 24" LIFE RING NO SCALE

8 L21-5 FISHING LINE/ MONOFILAMENT RECYCLING BIN NO SCALE

REV#	DATE	DESCRIPTION	BY

WADE TRIM

205 S. Saginaw Street, Suite 201
Flint, MI 48602
810.231.2666
www.wadestrim.com

GENESEE COUNTY PARKS & REC

5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2

SITE DETAILS - 5

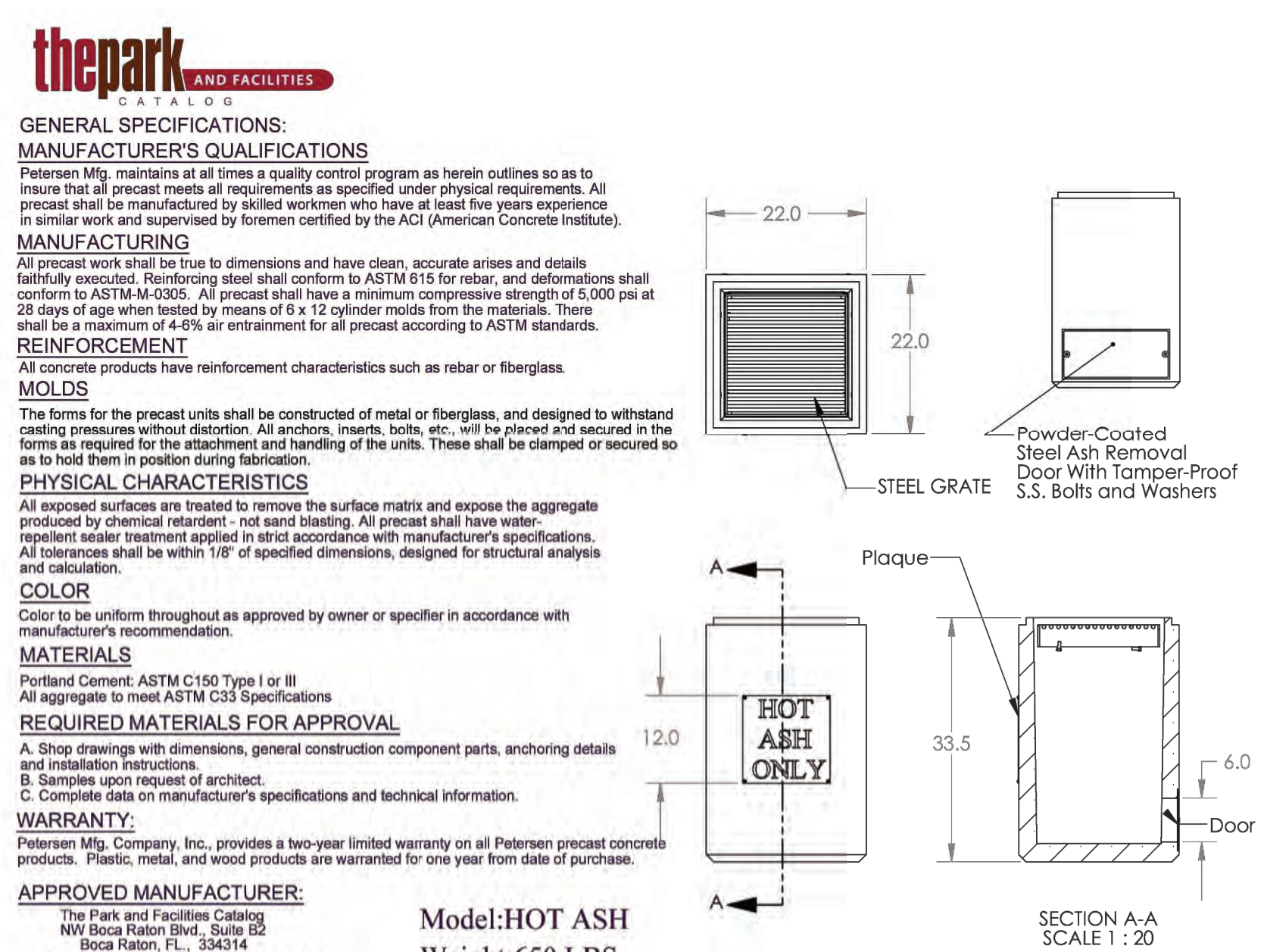
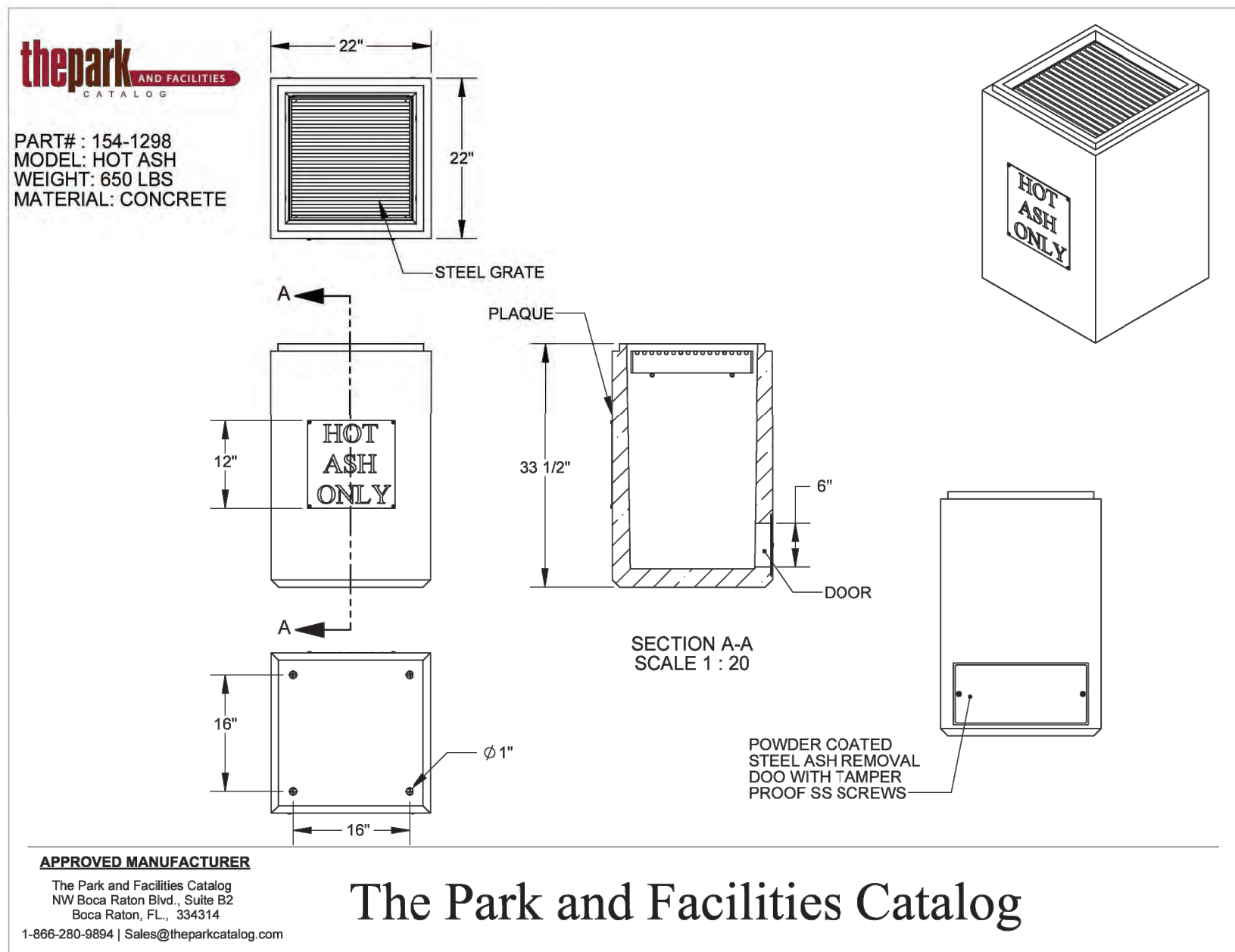
ISSUED FOR: DATE: BY: (FB) 10/23/24 SAL

JOB NO. GPA200301F

SHEET L21-5

PROJECT MANAGER: Ryan Whaley; DESIGNER: Ryan Whaley; DATE: 10/24/2024 12:29 AM; BY: WHALEY, RUSSELL

FLINT RIVER RESTORATION

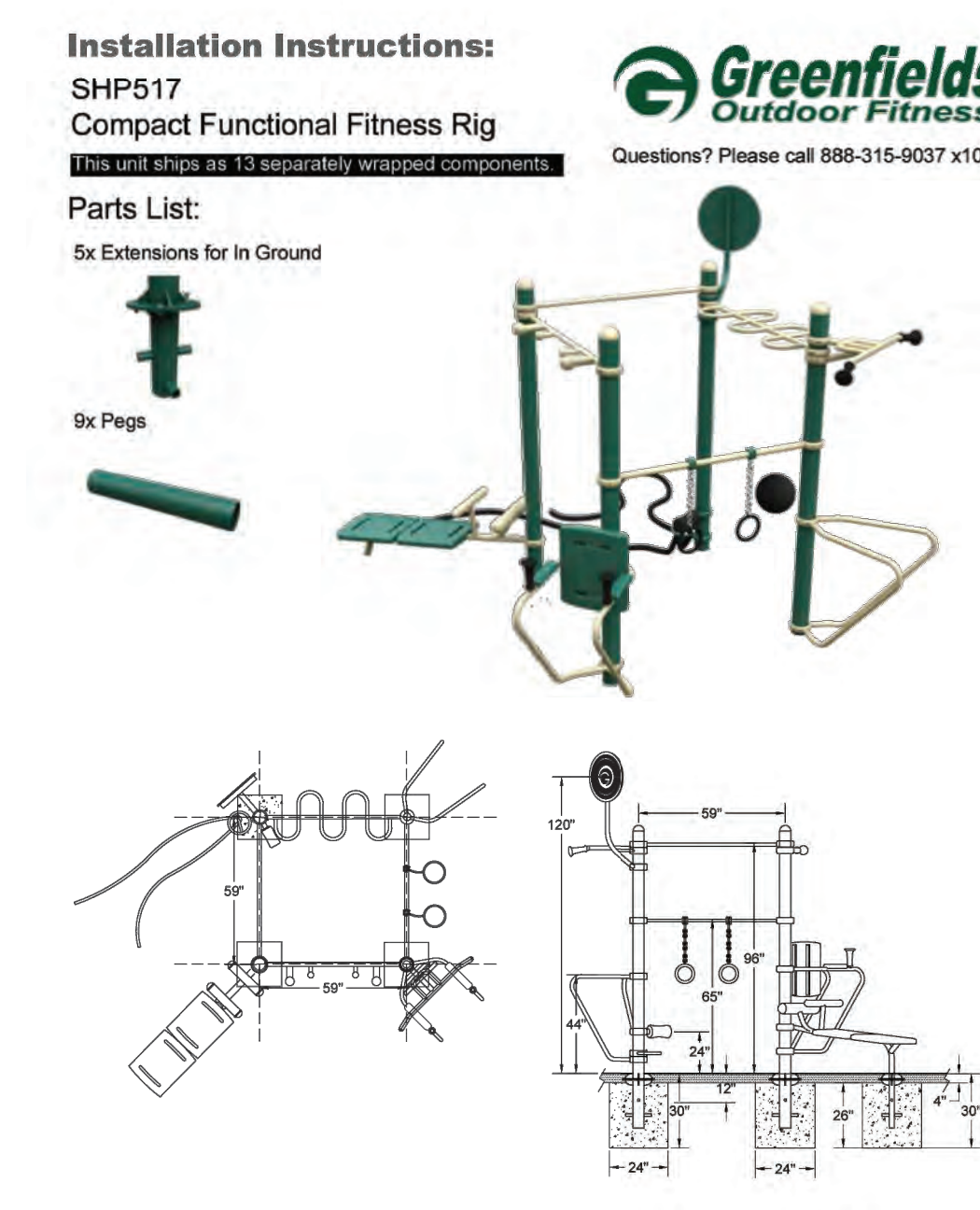
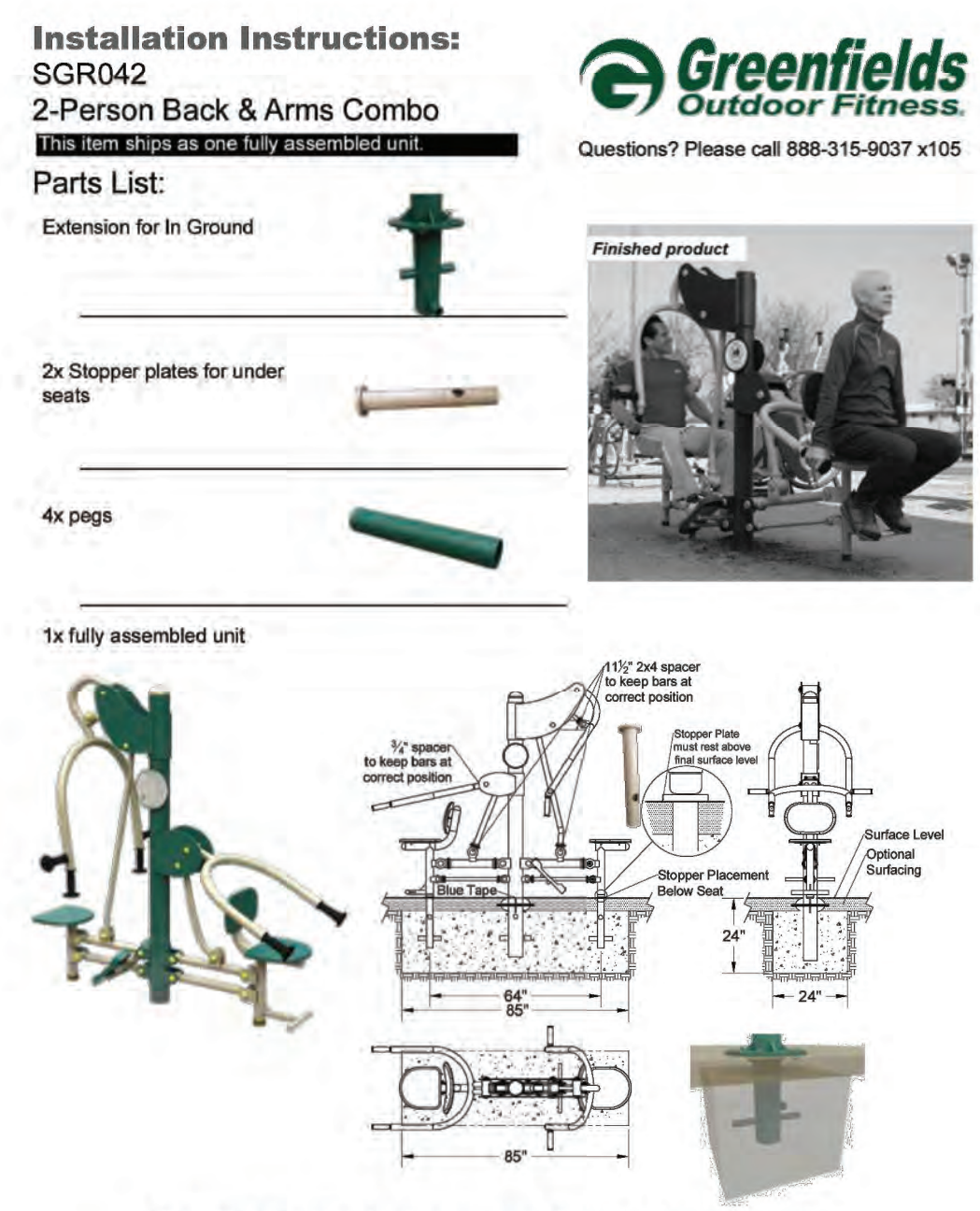
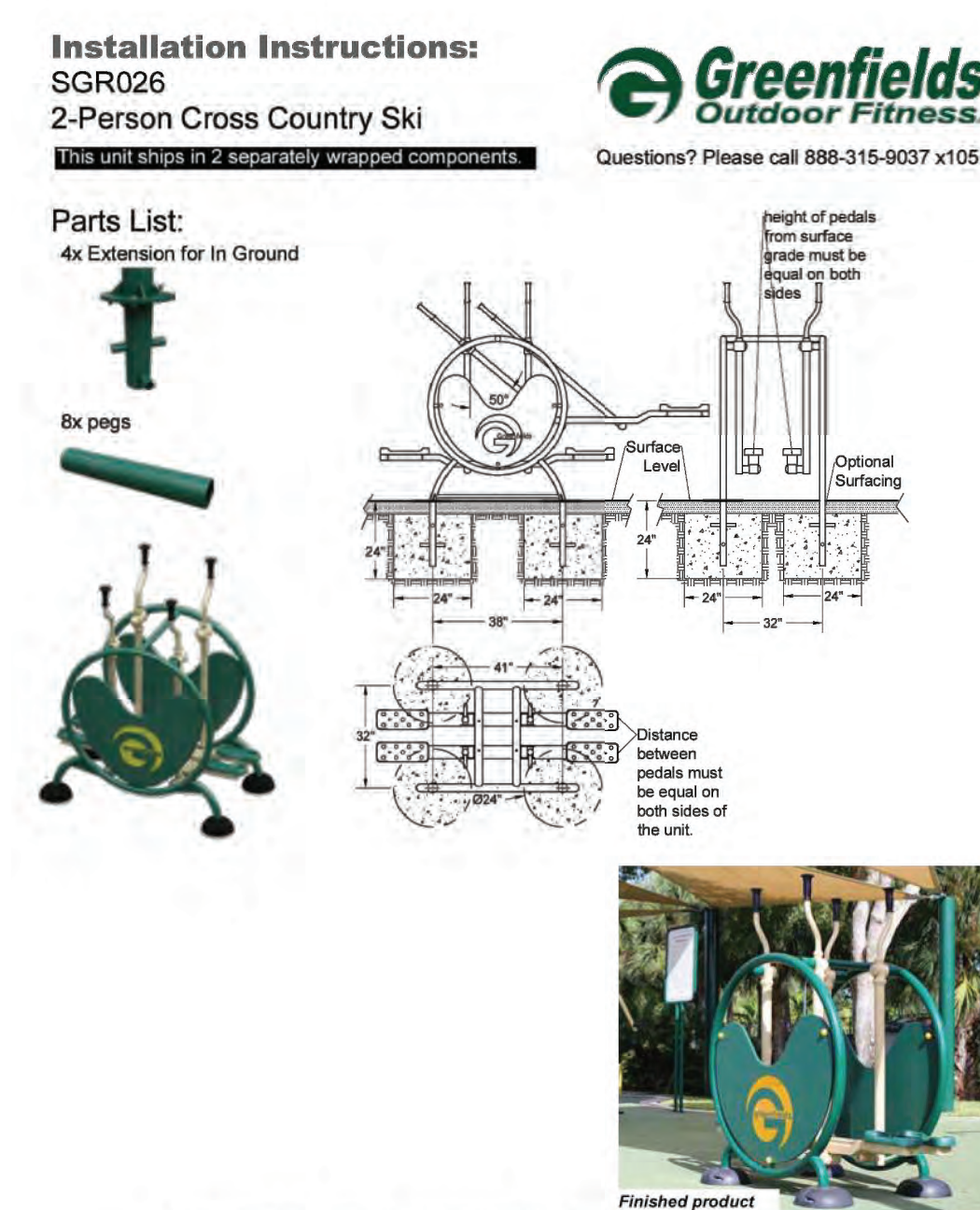
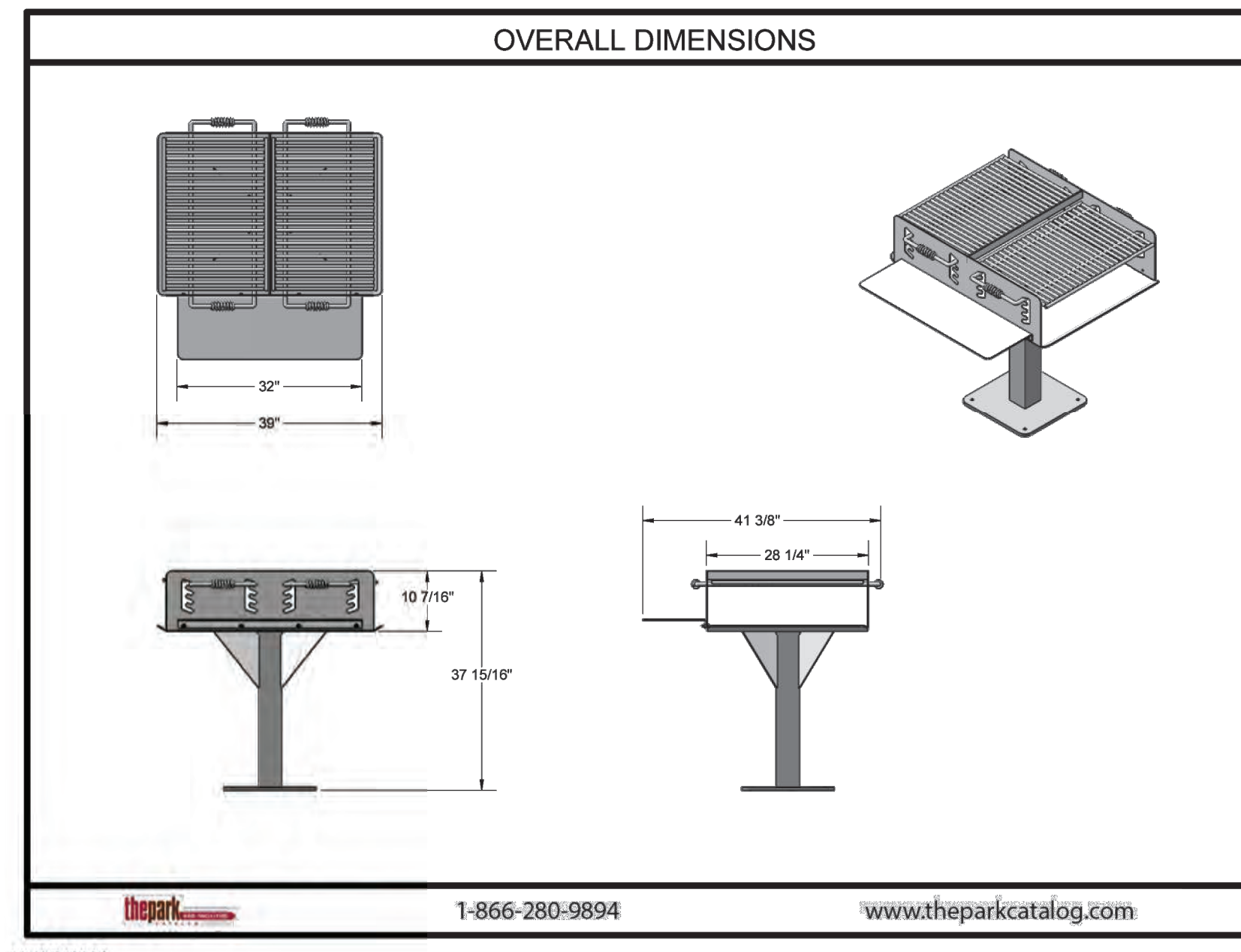
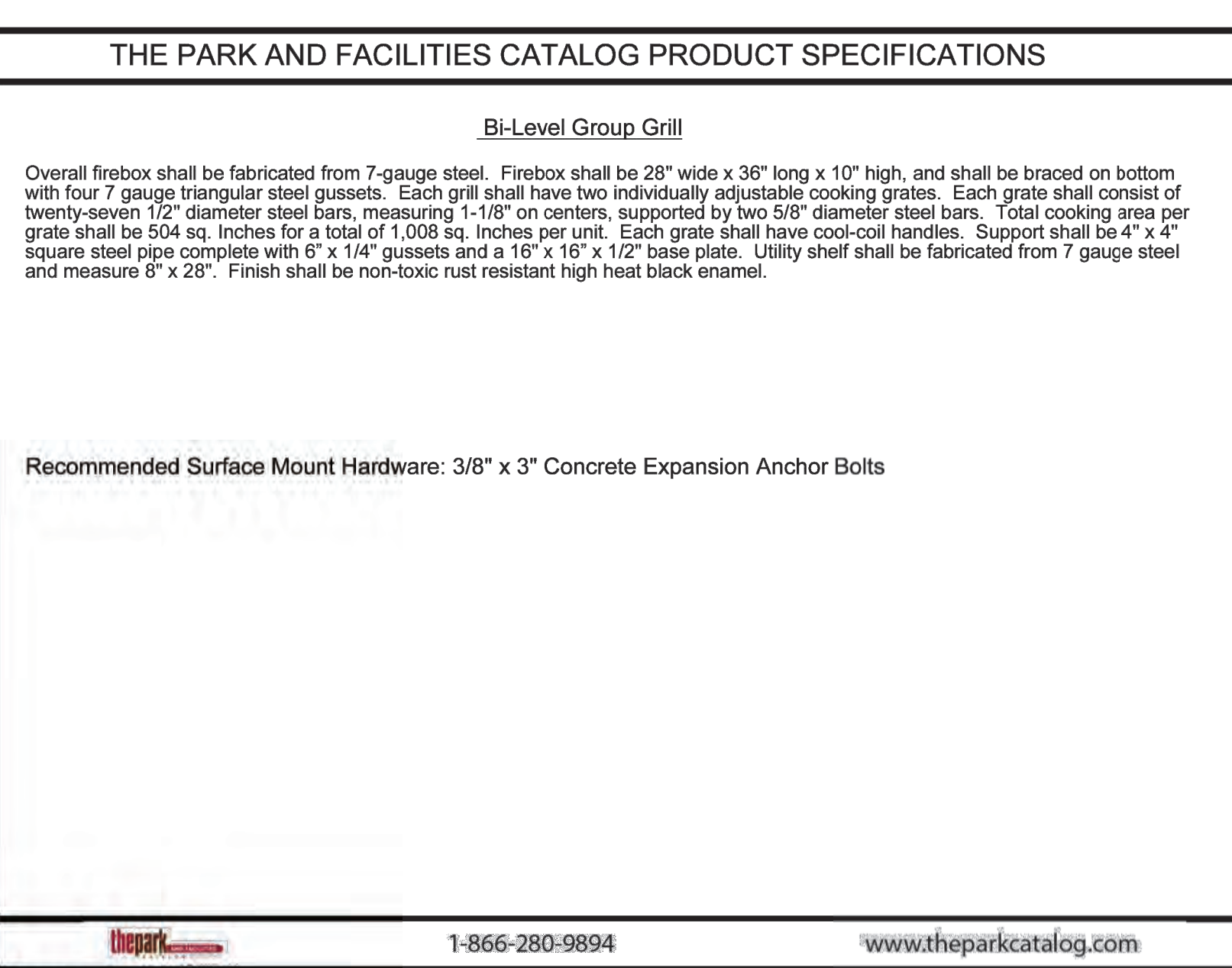


the park and facilities
GENERAL SPECIFICATIONS:
MANUFACTURER'S QUALIFICATIONS:
Paterson Mfg. maintains an all-time quality control program as herein outlined so as to insure that all precast meets all requirements as specified under physical requirements. All precast shall be manufactured by skilled workers with have at least five years experience in similar work and supervised by foremen certified by the ACI (American Concrete Institute).

The Park and Facilities Catalog

- NOTES:
1. MODEL "HOT ASH" FROM THE PARK AND FACILITIES CATALOG OR APPROVED EQUAL COLOR AND TEXTURE TO BE DOVE GRAY SAND BLASTED

1
L21-6
HOT ASH BIN
NO SCALE



10/17/2011 Page 6 of 7

10/17/2011 Page 7 of 7

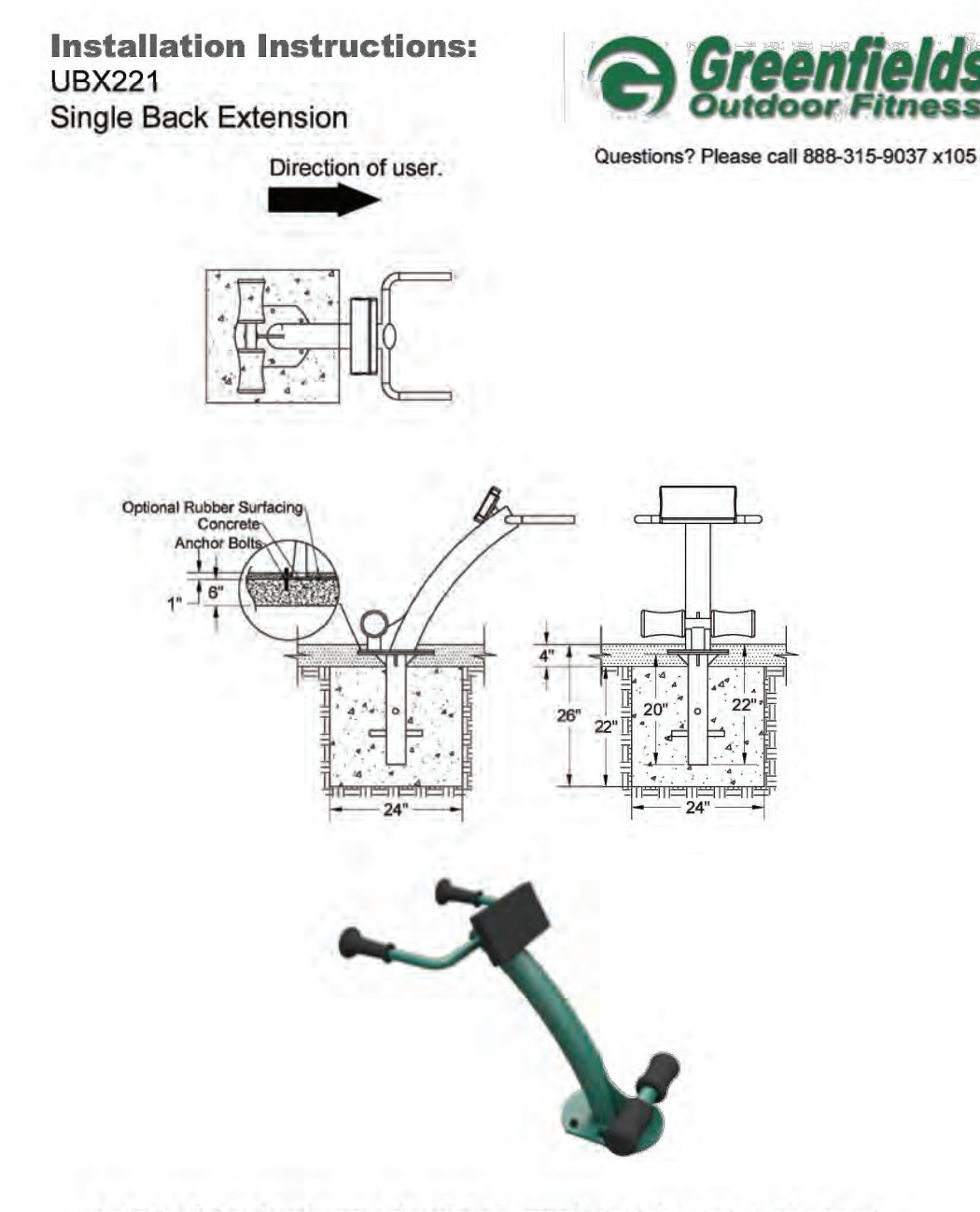
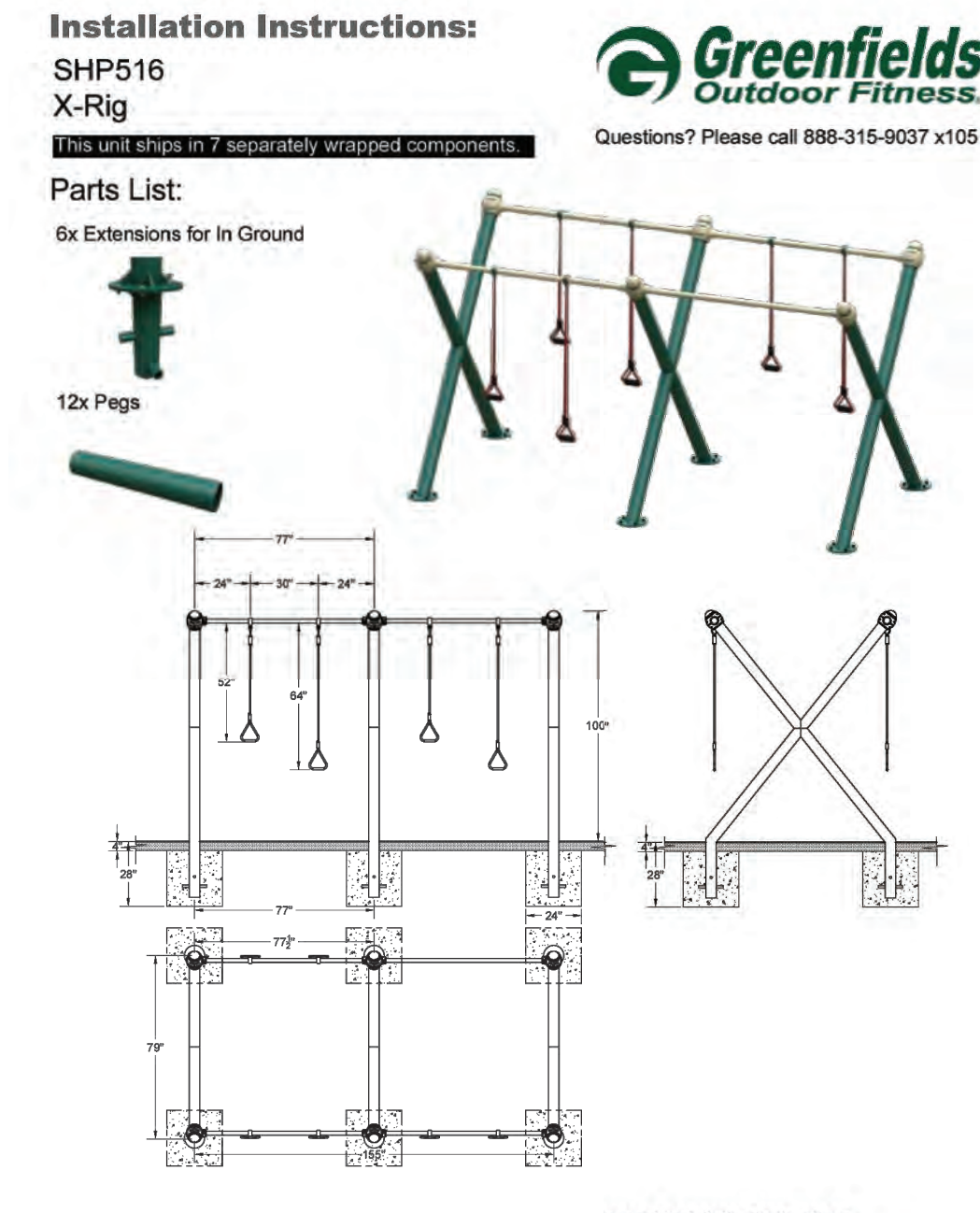
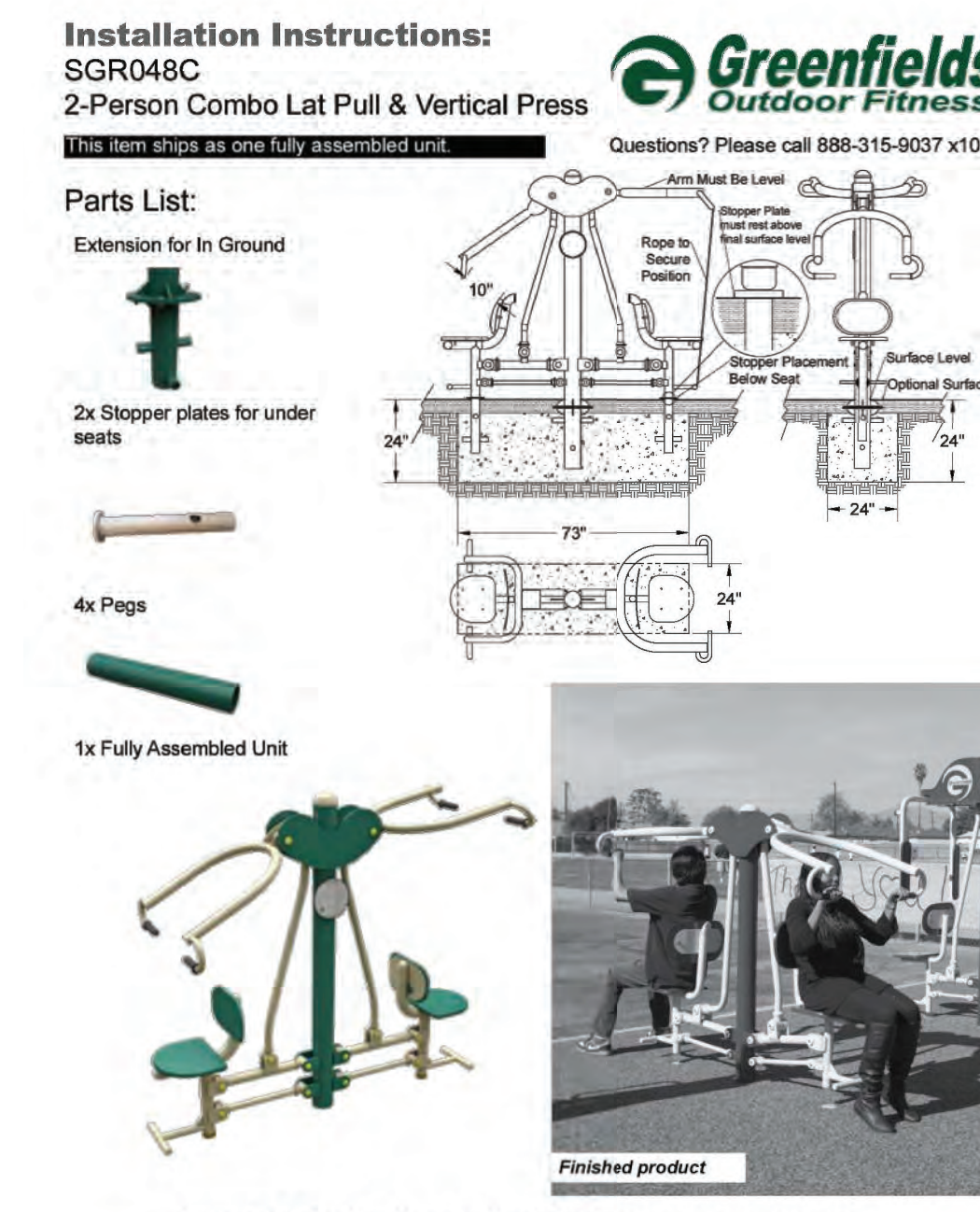
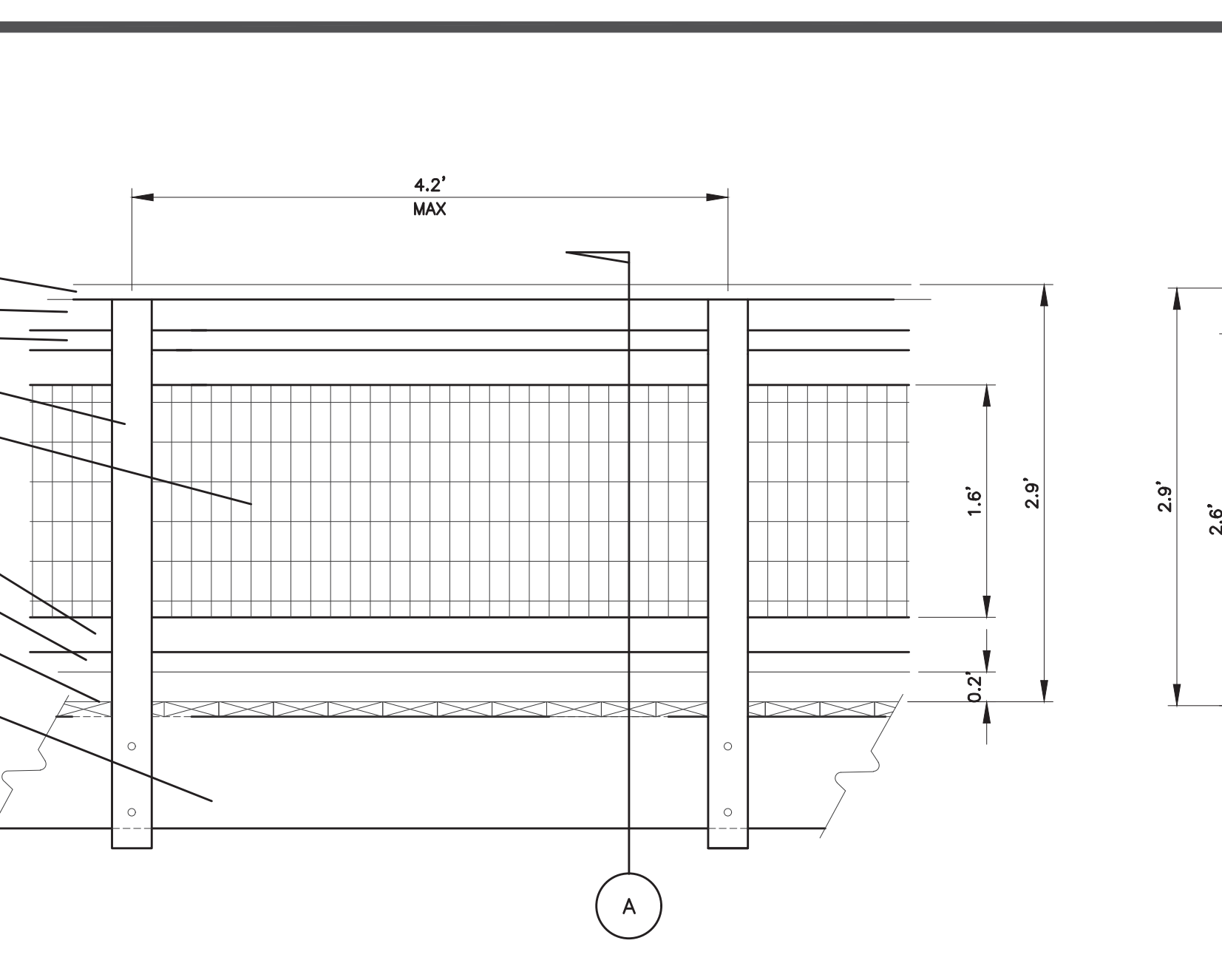
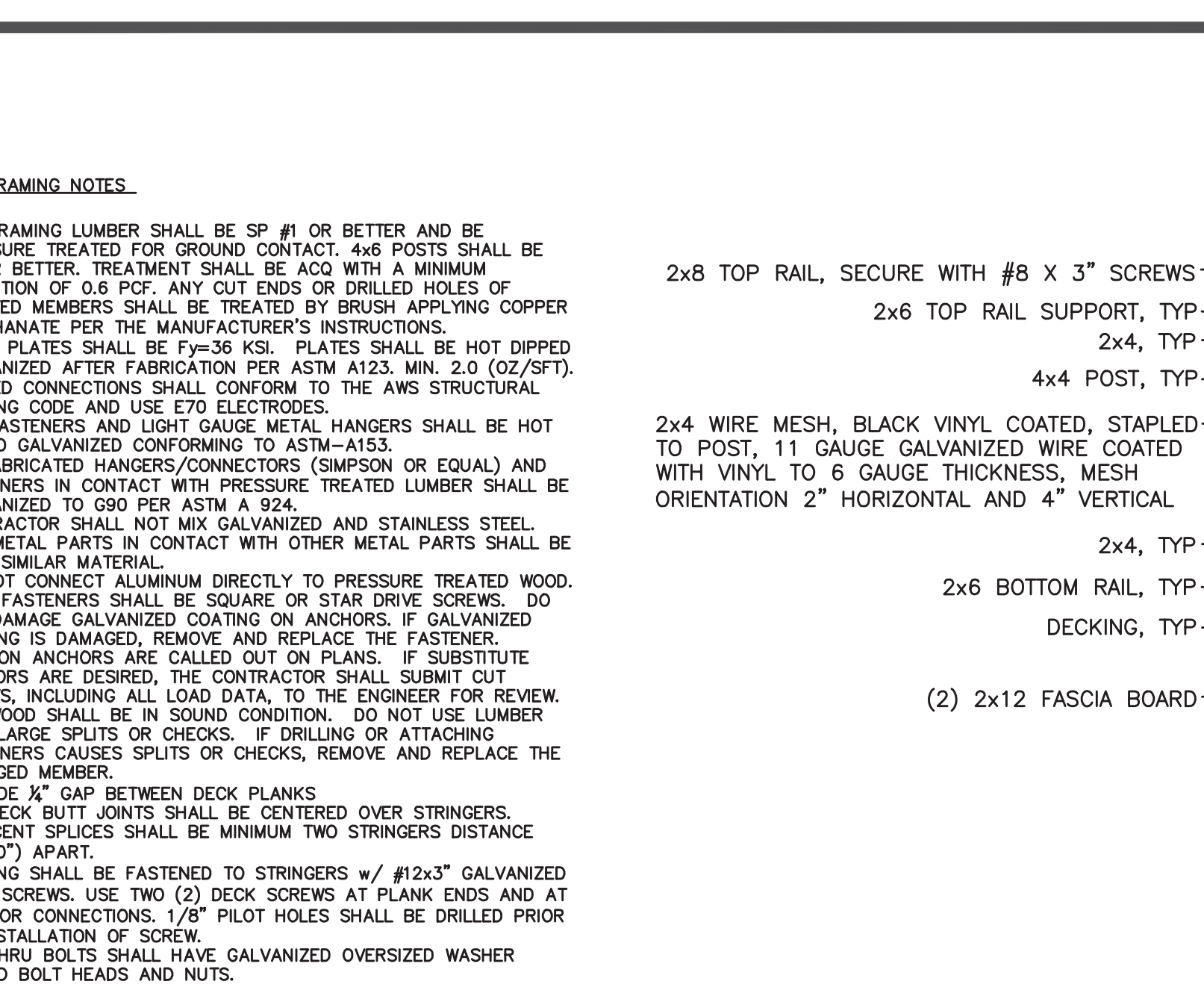
During installation, please be sure to also refer to the general installation instructions.

During installation, please be sure to also refer to the general installation instructions.

During installation, please be sure to also refer to the general installation instructions.

- NOTES:
1. *TOOL SO BI-LEVEL GROUP WITH UTILITY SHELF* ITEM# 398-1027 FROM THE PARK AND FACILITIES CATALOG OR APPROVED EQUAL SURFACE MOUNT

2
L21-6
BBO GRILL
NO SCALE



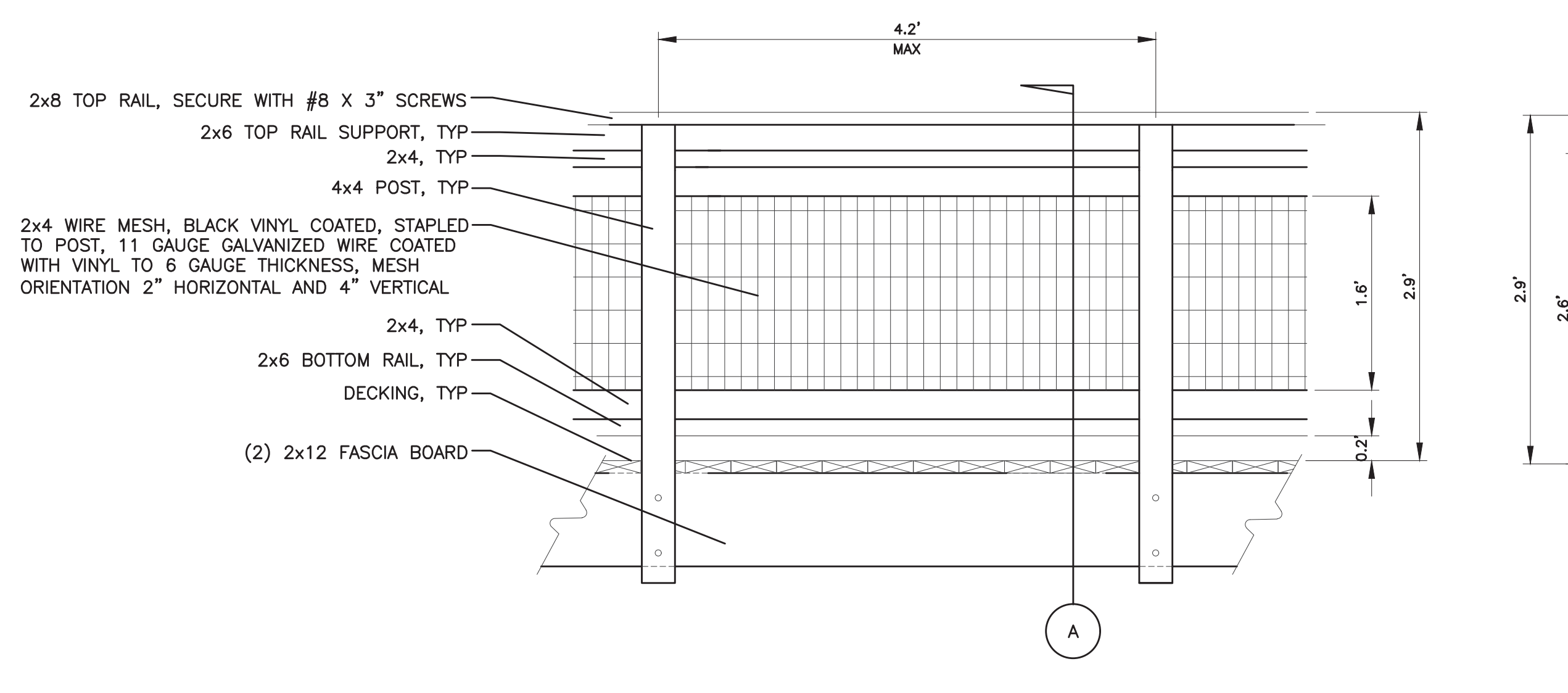
During installation, please be sure to also refer to the general installation instructions.

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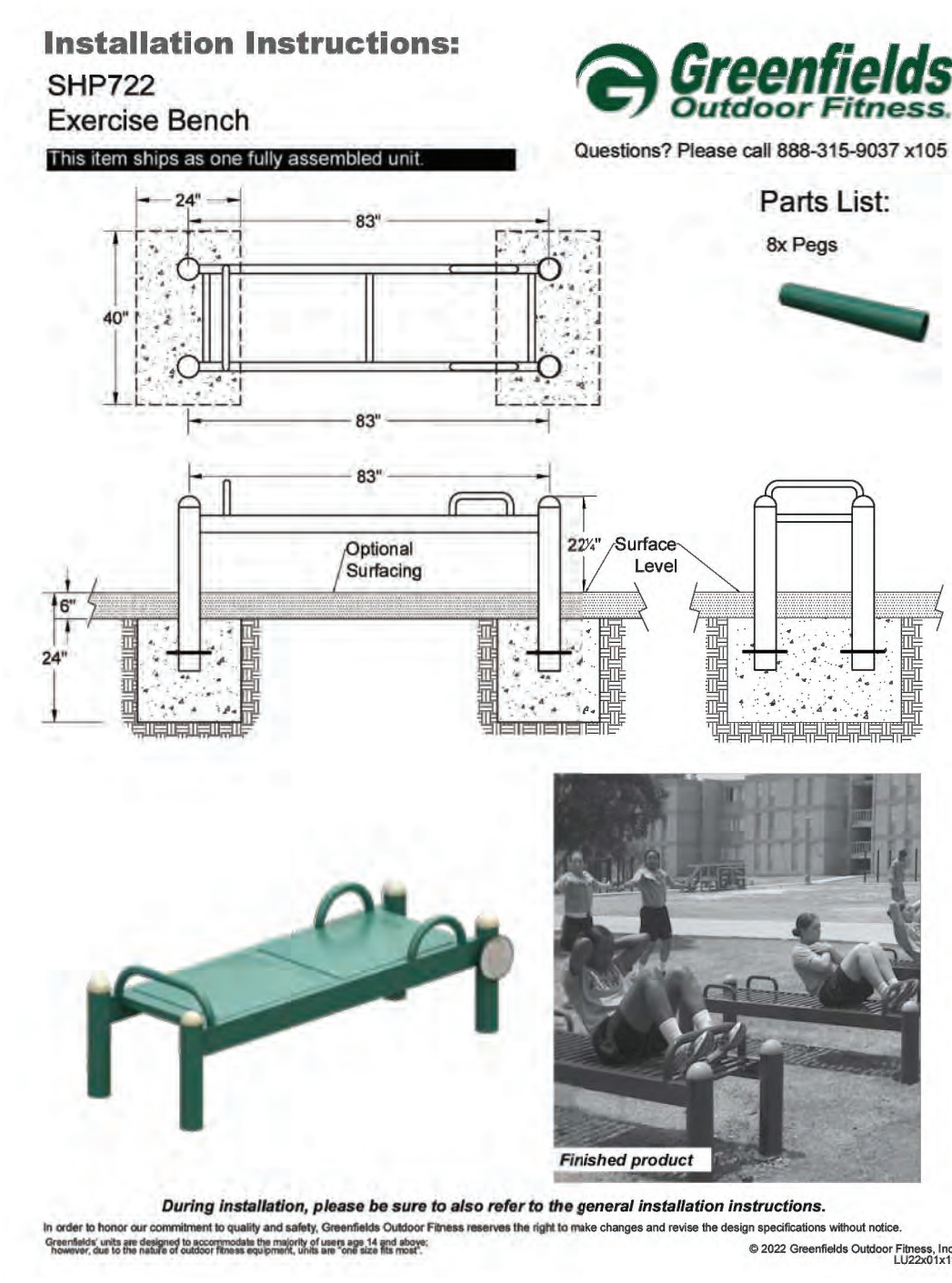
WOOD FRAMING NOTES:

- ALL FRAMING LUMBER SHALL BE SP #1 OR BETTER AND BE PRESSURE TREATED FOR GROUND CONTACT. 4x6 POSTS SHALL BE #2 OR BETTER. TREATMENT SHALL BE ACO WITH A MINIMUM RETENTION OF 0.6 PCF. ANY CUT ENDS OR DRILLED HOLES OF TREATED MEMBERS SHALL BE TREATED BY BRUSH APPLYING COPPER NAPHTHATE PER THE MANUFACTURER'S INSTRUCTIONS.
- STEEL PLATES SHALL BE Fy=36 KSI. PLATES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM A125, MIN. 2.0 (OZ/FT²). WELDED CONNECTIONS SHALL CONFORM TO THE AWS STRUCTURAL WELDING CODE AND USE E70 ELECTRODES.
- ALL FASTENERS AND LIGHT GAUGE METAL HANGERS SHALL BE HOT DIPPED GALVANIZED CONFORMING TO ASTM-A153.
- PREFABRICATED HANGERS/CONNECTORS (SMIPSON OR EQUAL) AND FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE GALVANIZED TO 990 PER ASTM A 924.
- CONTRACTOR SHALL NOT MIX GALVANIZED AND STAINLESS STEEL. ANY METAL PARTS IN CONTACT WITH OTHER METAL PARTS SHALL BE OF A SIMILAR MATERIAL.
- DO NOT CONNECT ALUMINUM DIRECTLY TO PRESSURE TREATED WOOD.
- DECK FASTENERS SHALL BE SQUARE OR STAR DRIVE SCREWS. DO NOT DAMAGE GALVANIZED COATING ON ANCHORS. IF GALVANIZED COATING IS DAMAGED, REMOVE AND REPLACE THE FASTENER.
- SMIPSON ANCHORS ARE CALLED OUT ON PLANS. IF SUBSTITUTE ANCHORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT CUT SHEETS, INCLUDING ALL LOAD DATA, TO THE ENGINEER FOR REVIEW.
- ALL WOOD SHALL BE IN SOUND CONDITION. DO NOT USE LUMBER WITH LARGE SPLITS OR CHECKS. IF DRILLING OR ATTACHING FASTENERS CAUSES SPLITS OR CHECKS, REMOVE AND REPLACE THE DAMAGED MEMBER.
- PROVIDE 1/4 GAP BETWEEN DECK PLANKS.
- ALL DECK BUTT JOINTS SHALL BE CENTERED OVER STRINGERS. ADJACENT SPLICES SHALL BE MINIMUM TWO STRINGERS DISTANCE (2'-0") APART.
- DECKING SHALL BE FASTENED TO STRINGERS W/ #12x27 GALVANIZED DECK SCREWS. USE TWO (2) DECK SCREWS AT PLANK ENDS AND AT INTERIOR CONNECTIONS. 1/8" PILOT HOLES SHALL BE DRILLED PRIOR TO INSTALLATION OF SCREW.
- ALL THRU BOLTS SHALL HAVE GALVANIZED OVERSIZED WASHER BEHIND BOLT HEADS AND NUTS.



- NOTES:
1. LOWERED/ACCESSIBLE RAILING TO BE INSTALLED IN TWO PANEL LOCATIONS. EXACT LOCATIONS TO BE CONFIRMED WITH LANDSCAPE ARCHITECT IN FIELD.

4
L21-6
WOOD RAILING WITH METAL MESH PANELS
NO SCALE



During installation, please be sure to also refer to the general installation instructions.

During installation, please be sure to also refer to the general installation instructions.

3
L21-6
OUTDOOR FITNESS EQUIPMENT
NO SCALE

- NOTES:
1. GREENFIELDS SUPPLIER: VICKI CRAWFORD, SNIDER RECREATION, EMAIL: VCRAWFORD@GVSINIDER.COM OR APPROVED EQUAL
2. ALL PIECES TO BE SURFACE MOUNTED TO CONCRETE
3. COLORS TO BE CUSTOM SILVER AND BLACK, SELECTED BY LANDSCAPE ARCHITECT
4. EQUIPMENT TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATION, DRAWING DETAILS, AND INSTALLATION INSTRUCTIONS. LOCATION TO BE VERIFIED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION

REV#	DATE	DESCRIPTION	BY

WADE TRIM
255 S. Saginaw Street, Suite 201
Flint, MI 48502
910.231.2556
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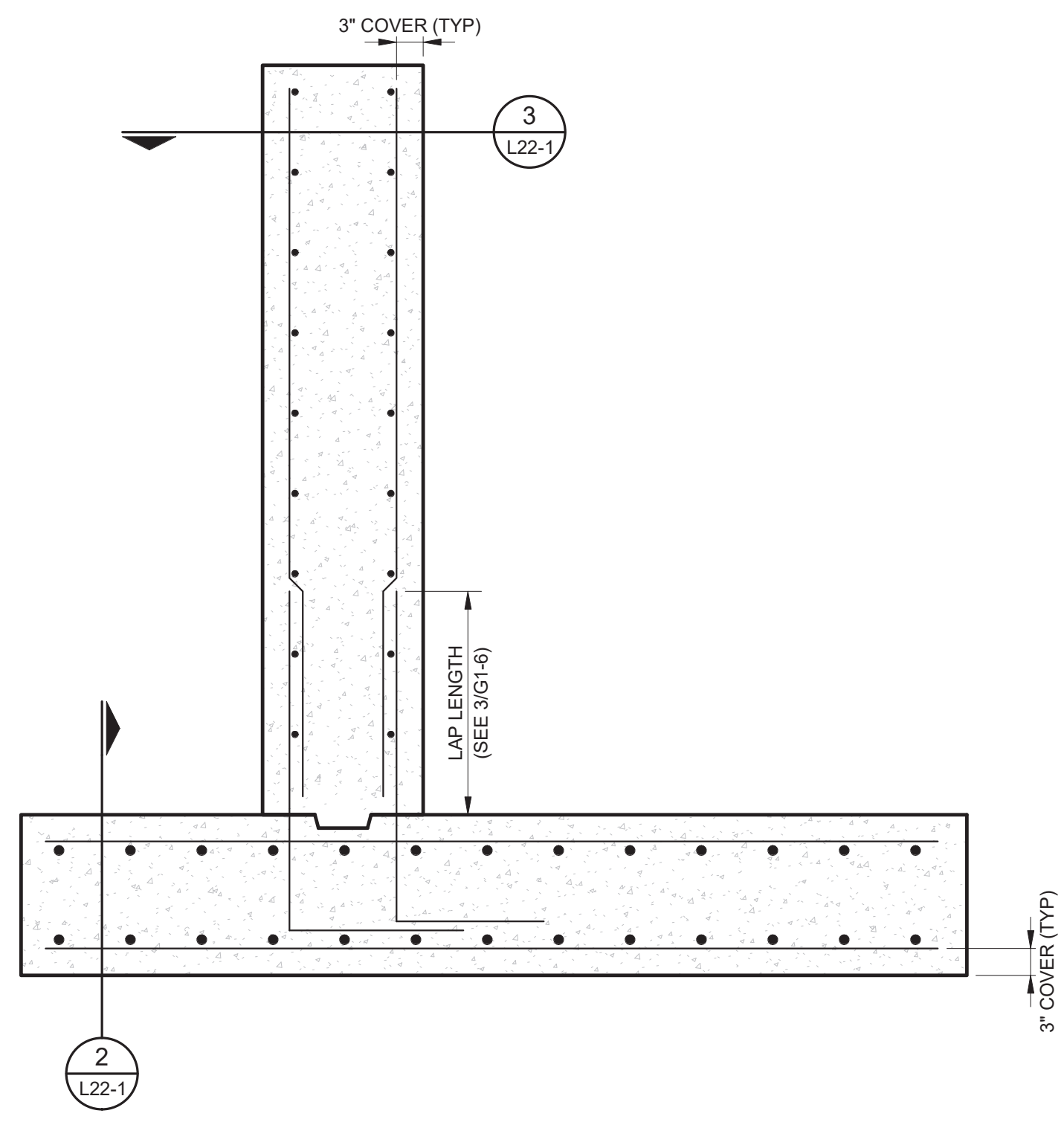
GENESENE COUNTY PARKS & REC
5045 E. STANLEY ROAD
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FLINT RIVERFRONT RESTORATION - PHASE 2
SITE DETAILS - 6

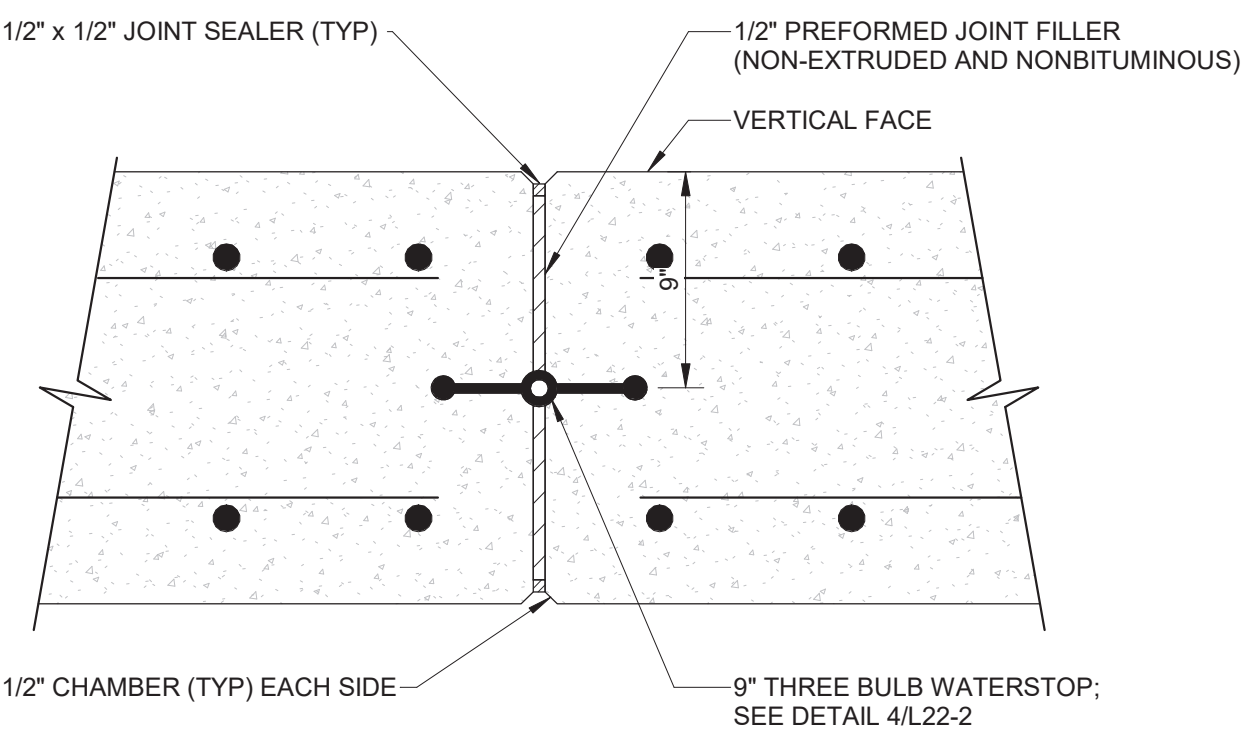
ISSUED FOR: DATE: BY: JOB NO.
FB 10/23/24 SA GPA200301F
SHEET
L21-6

PROJECT MANAGER: VICKI CRAWFORD, SNIDER RECREATION, EMAIL: VCRAWFORD@GVSINIDER.COM
DETAIL-6 - PLOTTED: 10/24/2024 10:30 AM BY: WHALEY, RUSSELL

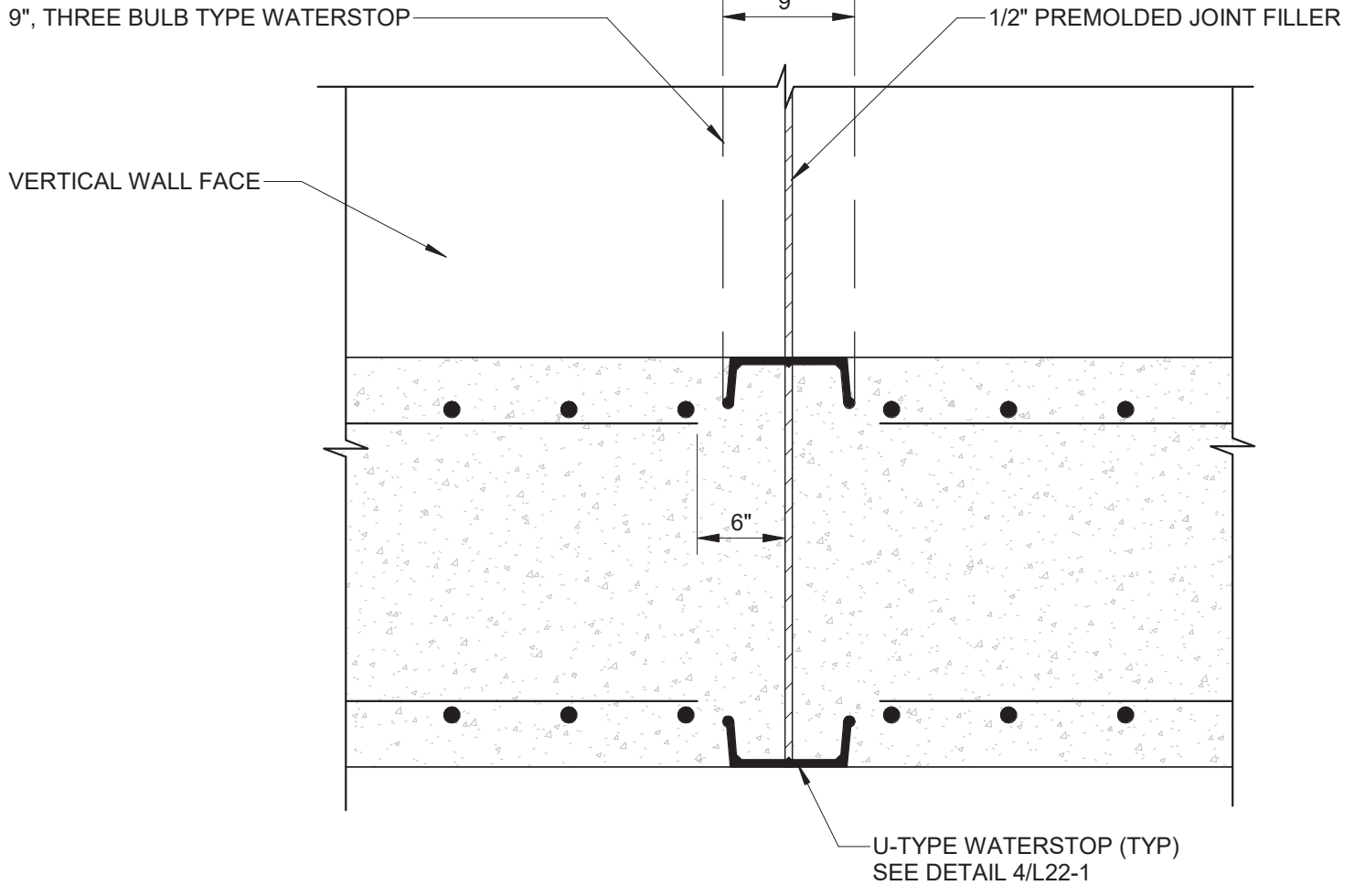
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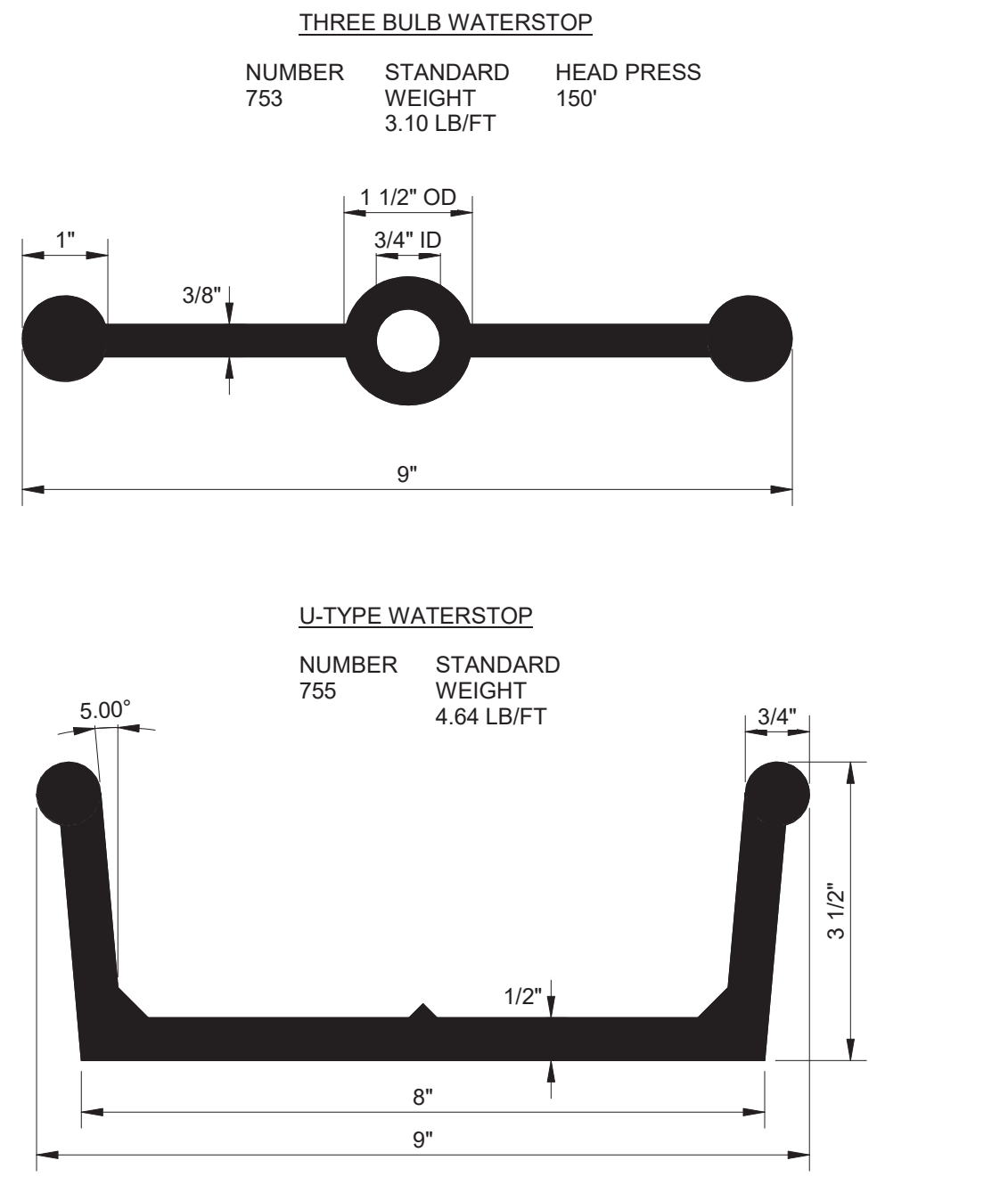
1 TYPICAL RETAINING WALL JOINT SECTION
SCALE: 3/4" = 1'-0"



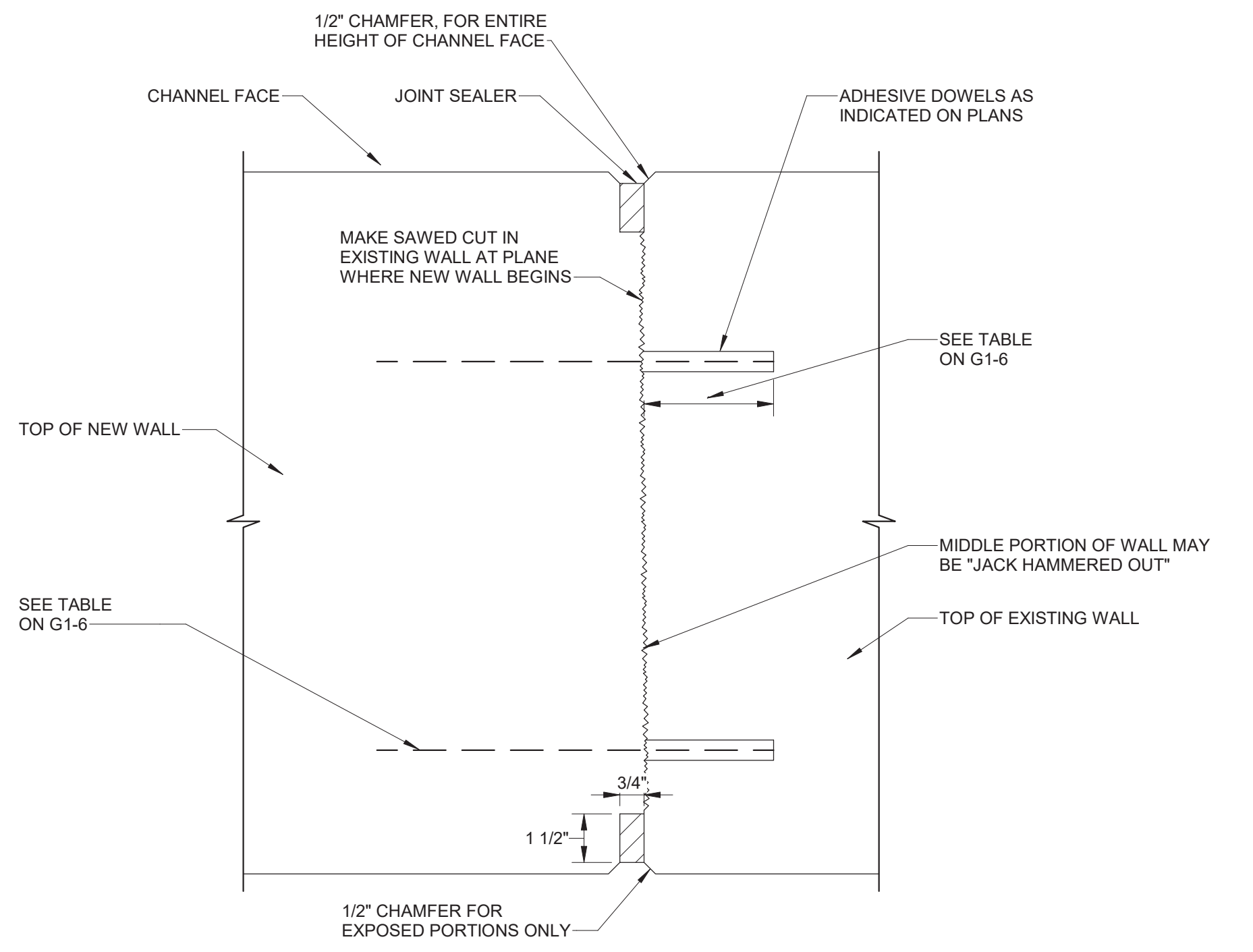
2 TYPICAL RETAINING WALL STEM EXPANSION JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



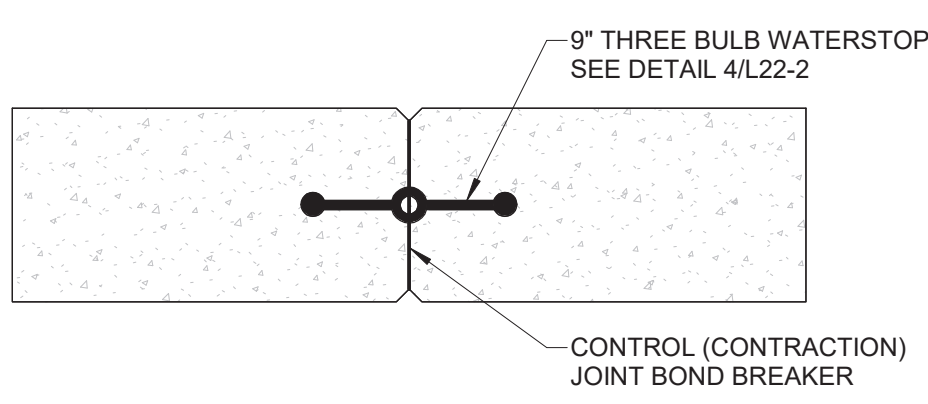
3 TYPICAL RETAINING WALL FOUNDATION EXPANSION JOINT DETAIL
SCALE: 1" = 1'-0"



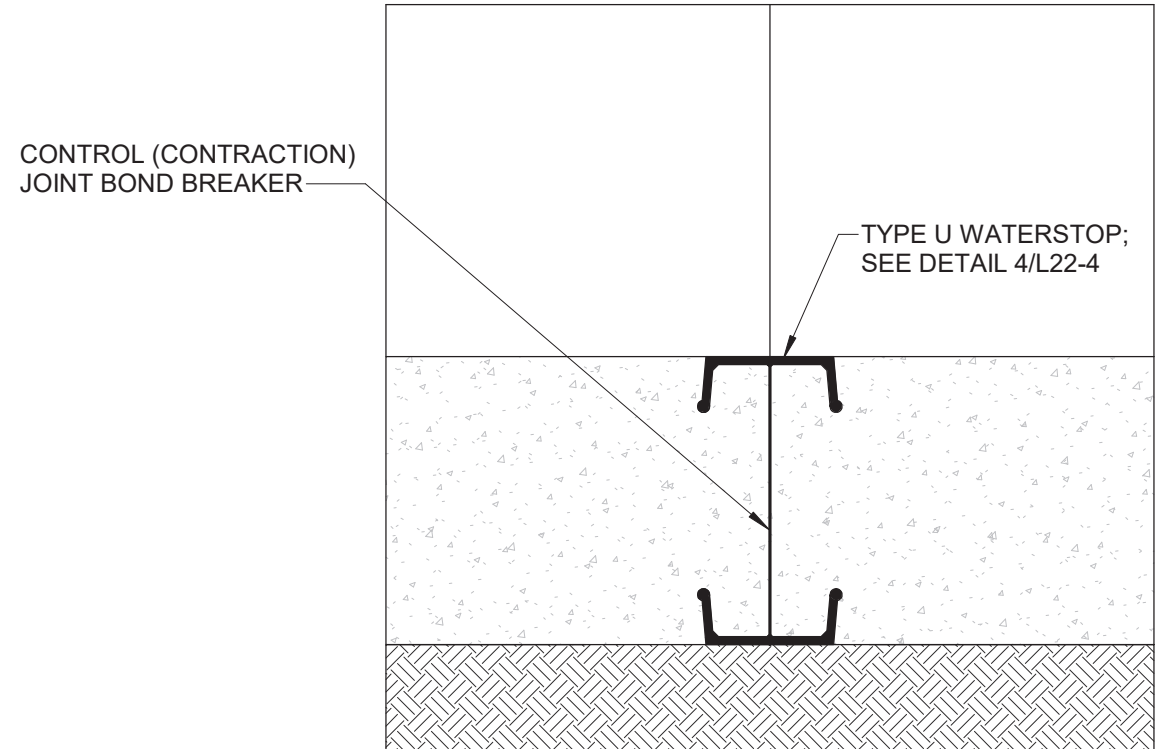
4 RETAINING WALL WATERSTOP DETAILS
SCALE: 6" = 1'-0"



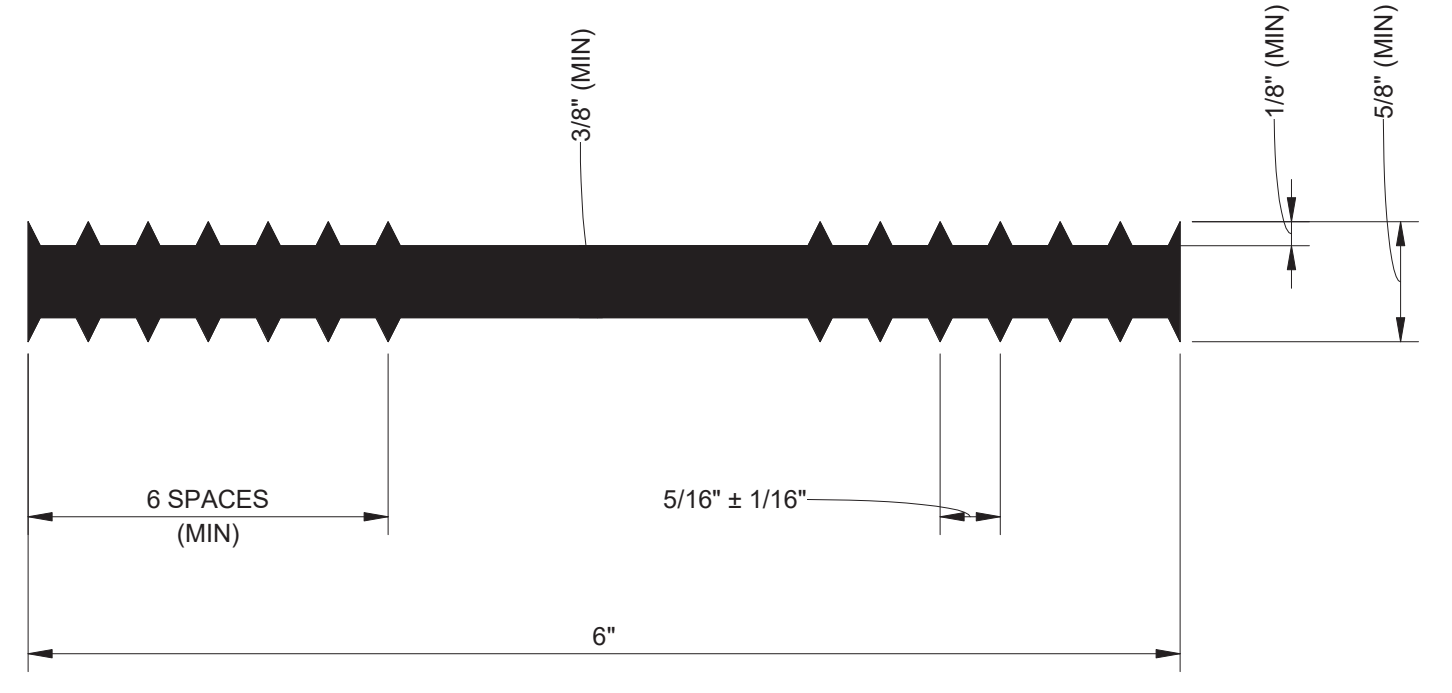
5 TYPICAL JOINT AT EXISTING WALLS
SCALE: 3" = 1'-0"



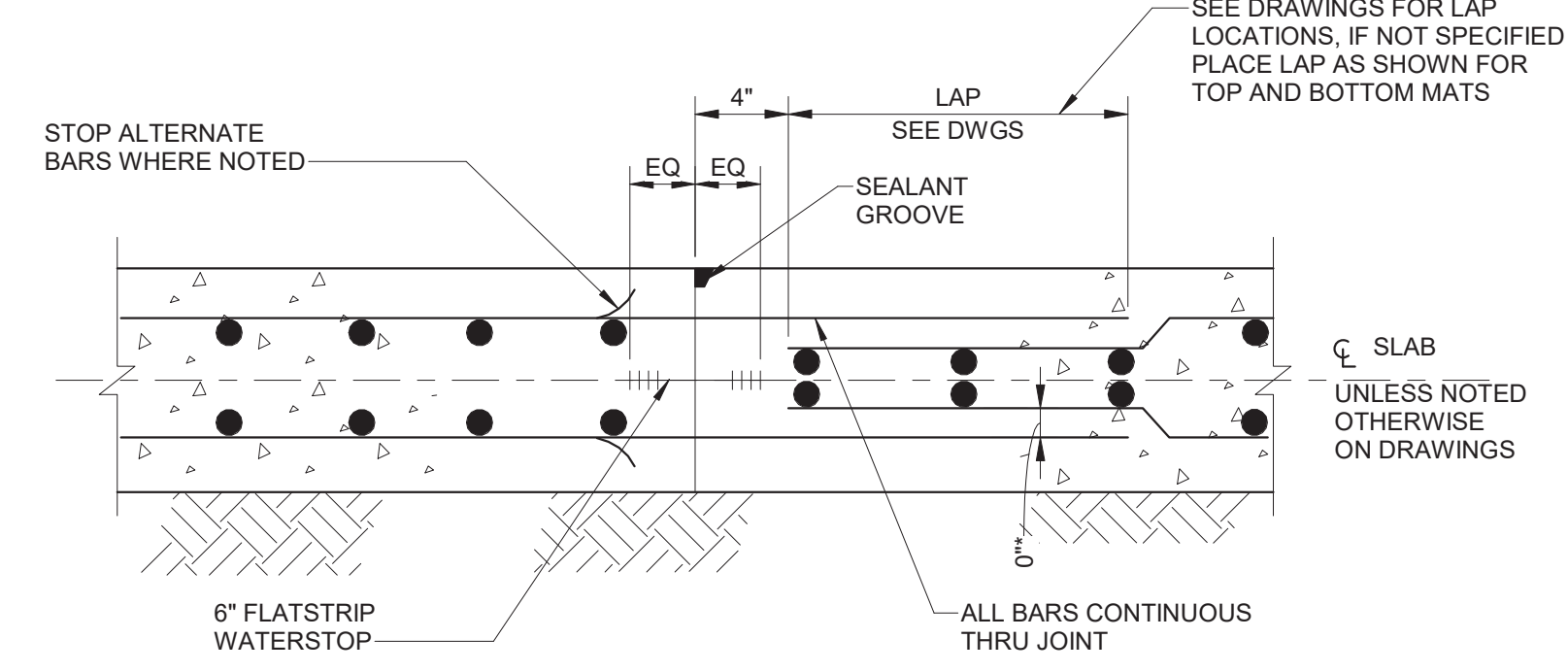
6 TYPICAL RETAINING WALL CONTROL (CONTRACTION) JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



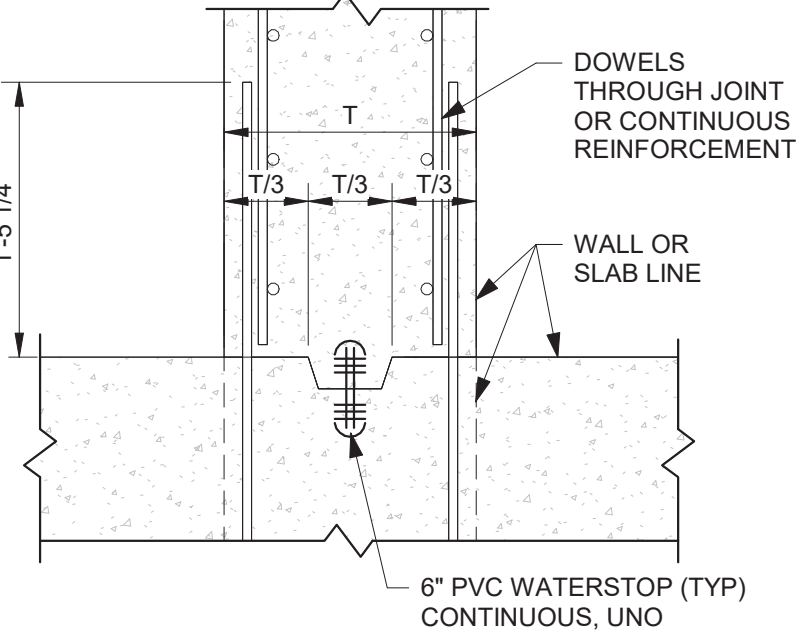
7 TYPICAL RETAINING WALL FOUNDATION CONTROL (CONTRACTION) JOINT DETAIL
SCALE: 1" = 1'-0"



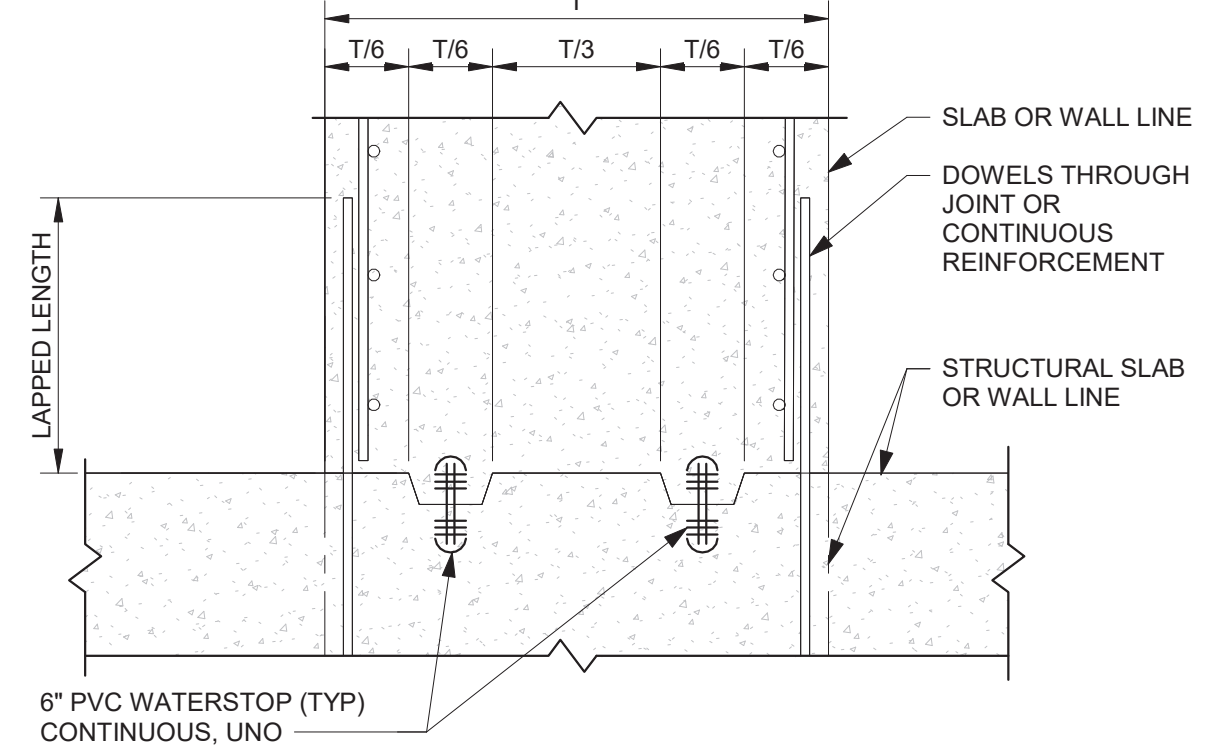
8 6" FLATSTRIP WATERSTOP
SCALE: 12" = 1'-0"



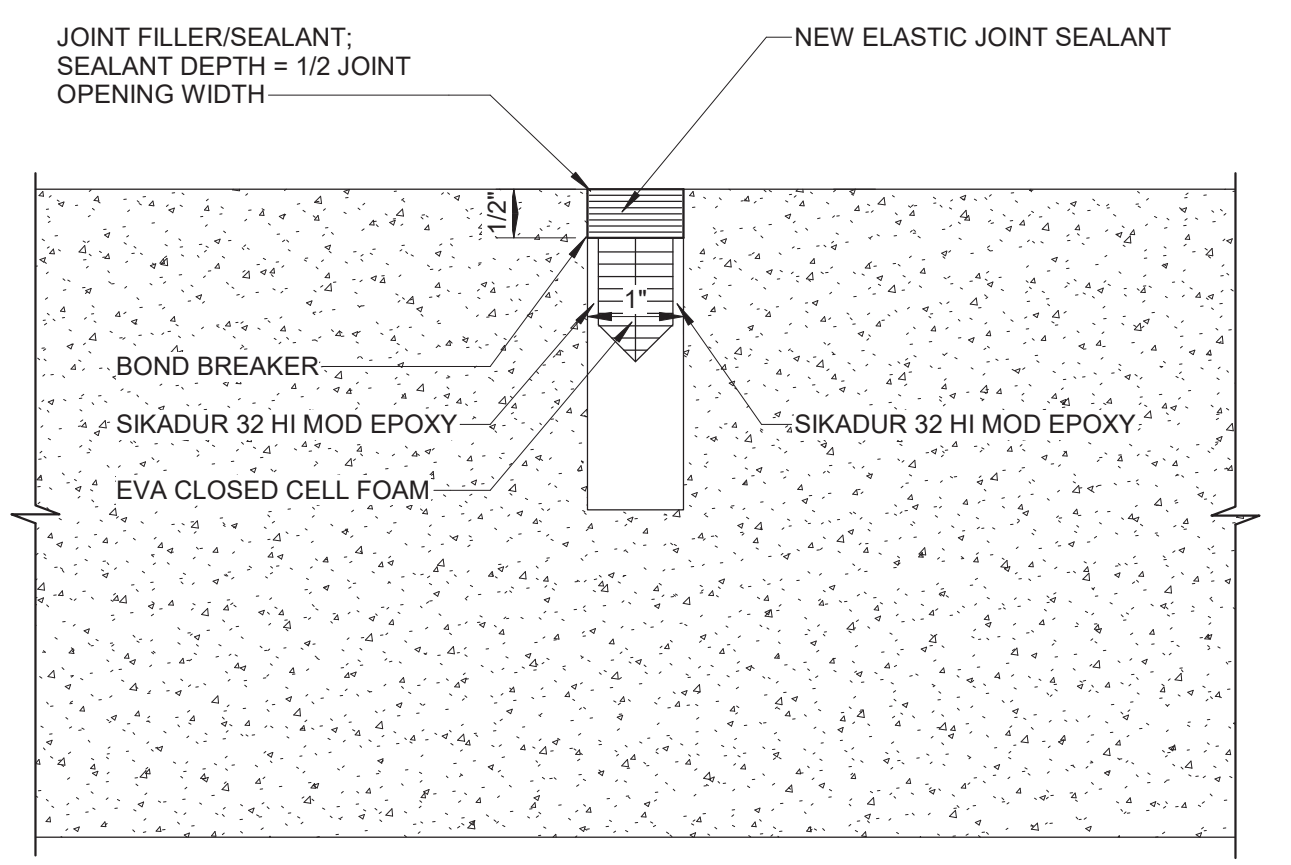
9 WITH WATERSTOP AND SEALANT GROOVE/
NO WATERSTOP OR SEALANT GROOVE/
SLAB-ON-GRADE CONSTRUCTION JOINTS
SCALE: 1 1/2" = 1'-0"



10 STANDARD JOINT-ALTERNATE
SCALE: 1" = 1'-0"



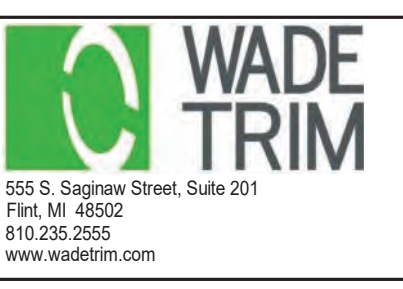
11 EXPANSION JOINT DETAIL
SCALE: 6" = 1'-0"



NOTES:
1. MECHANICALLY PREPARE SURFACE PER MANUF. RECOMMENDATIONS.
2. INSTALL EVA CLOSED CELL FOAM AS INDICATED. ON EXTERIOR JOINT INSTALL BOND BREAKER BETWEEN EVA CLOSED CELL FOAM AND SEALANT.
3. INSTALL ELASTIC JOINT SEALANT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS SPECIFIED IN SECTION 03 32 00.
4. INSTALL SEALANT EVENLY AND TOOL TO ASSURE BOND TO ADJACENT SURFACES. DO NOT OVERFILL JOINT.

PROJECT MANAGER: 11/17/2024 3:16:54 PM
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REV#	DATE	DESCRIPTION	BY



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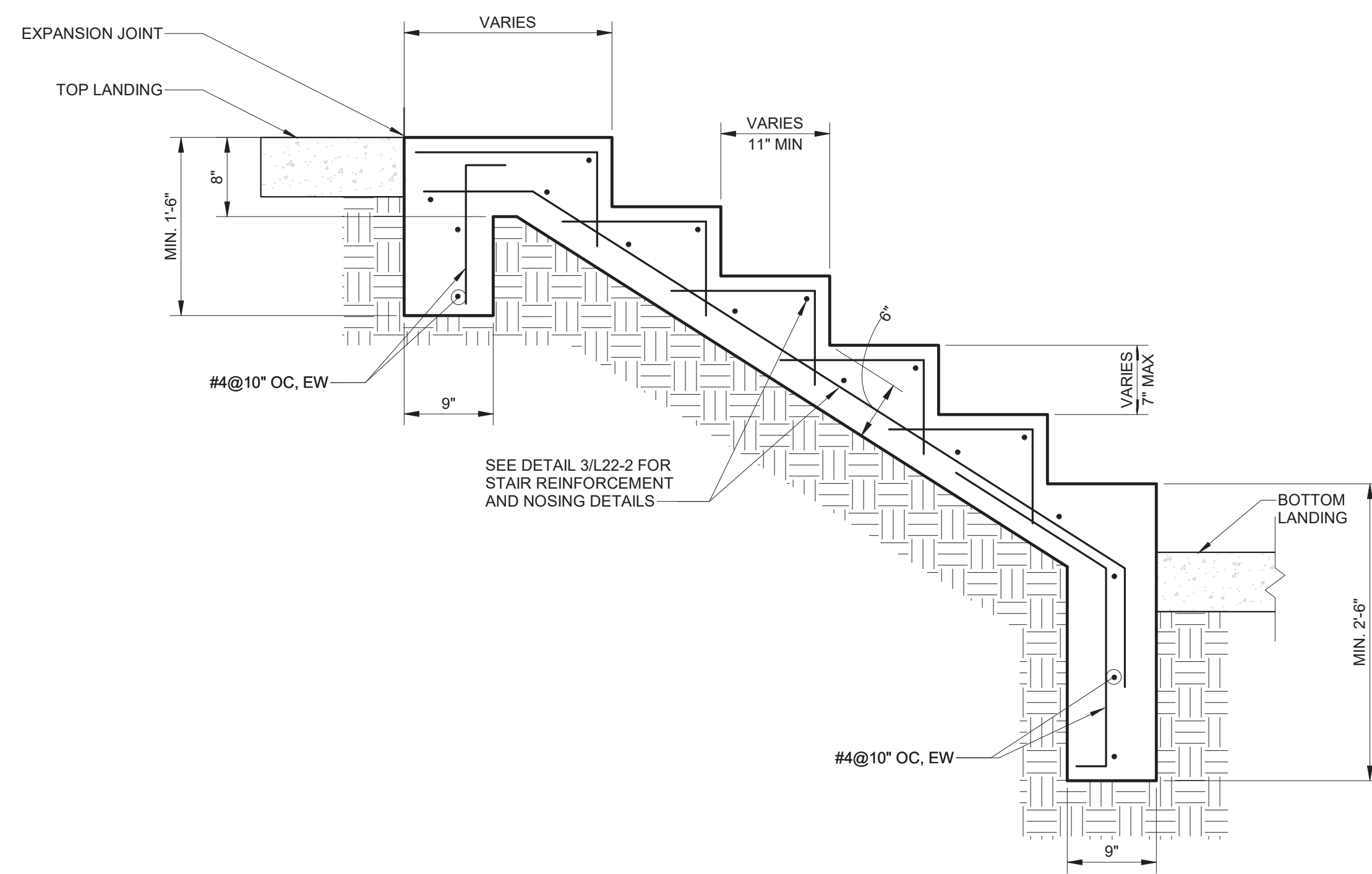
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION—PHASE 2
GENERAL STRUCTURAL DETAILS - 1

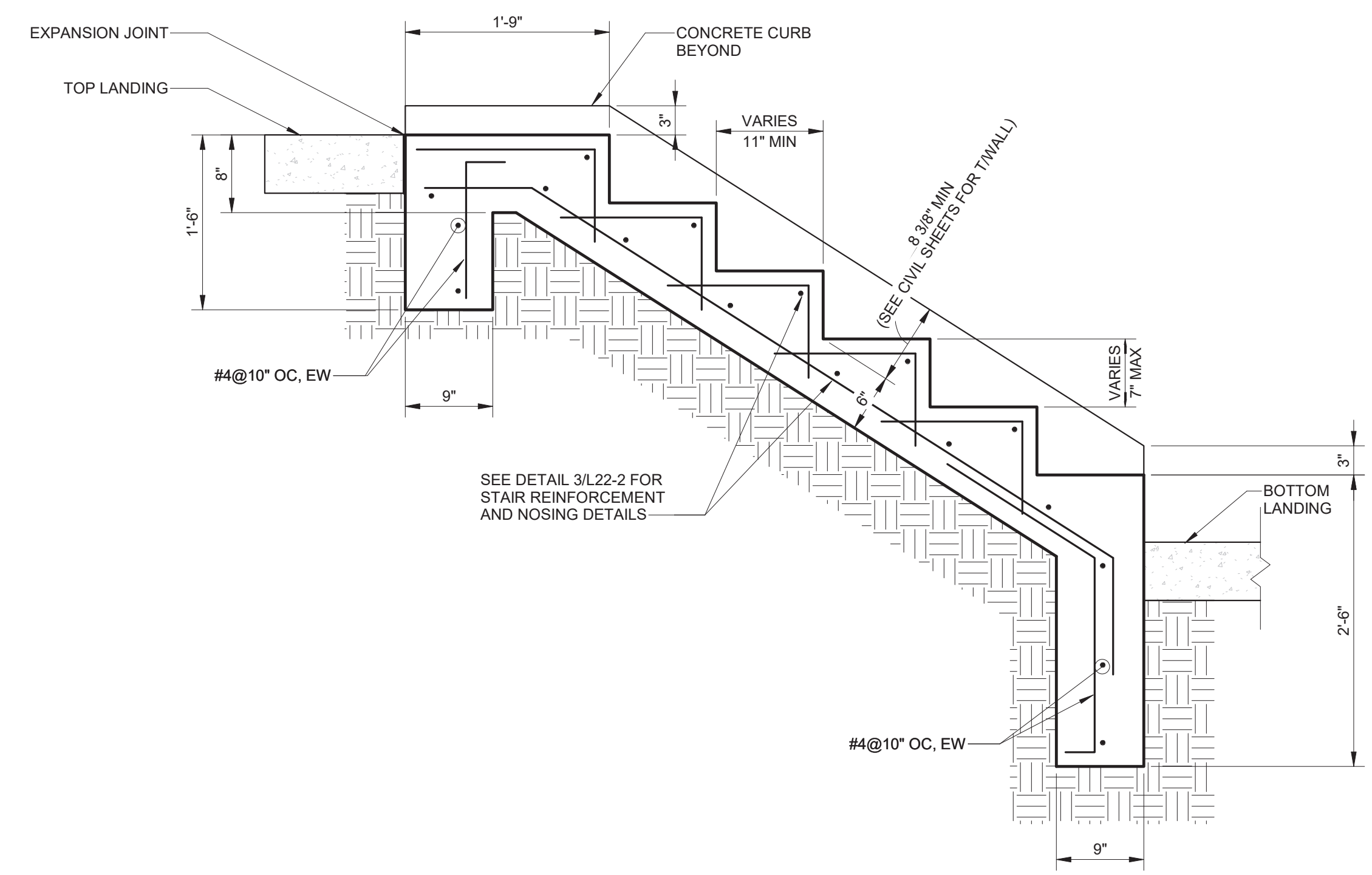
ISSUED FOR: DATE: BY: #
10/23/24 6

JOB NO: GFA200301F
SHEET: L22-1

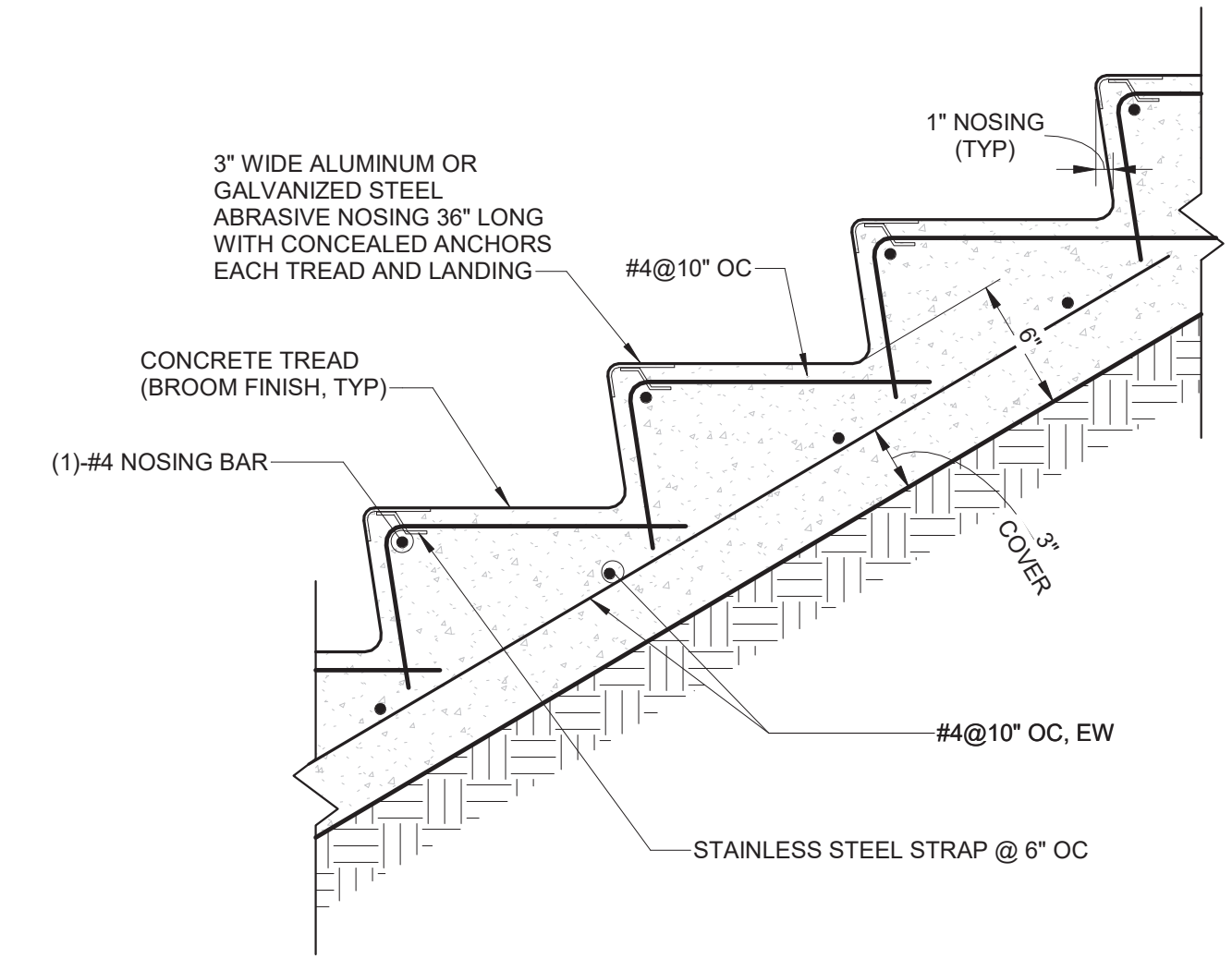
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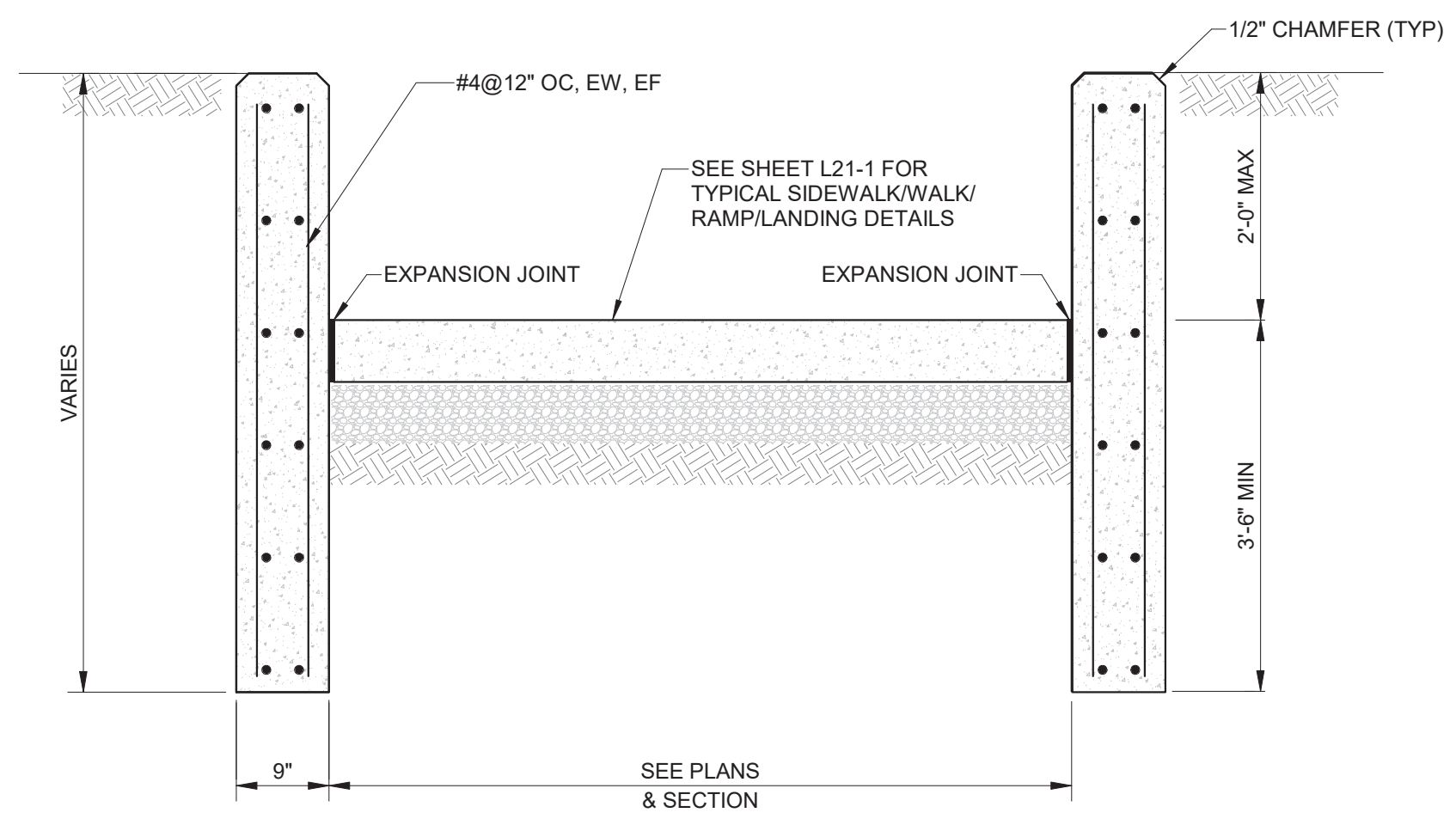
1 TYPICAL CONCRETE STAIR WITHOUT SIDE WALLS SECTION
SCALE: 1" = 1'-0"



2 TYPICAL CONCRETE STAIR WITH SIDE WALLS SECTION
SCALE: 1" = 1'-0"

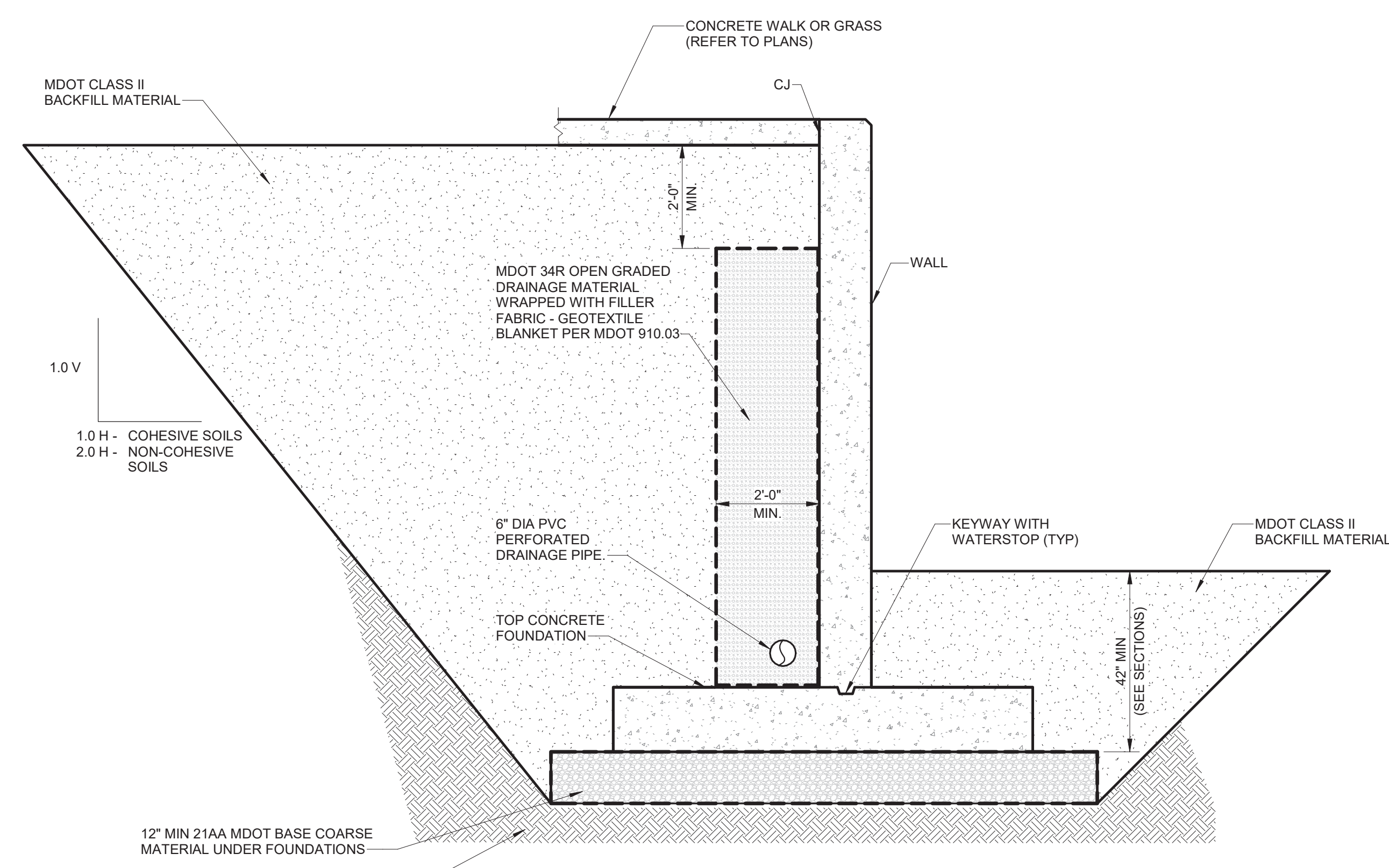


3 CONCRETE STAIR REINFORCING DETAIL
SCALE: 1 1/2" = 1'-0"



4 CONCRETE SIDEWALK/WALK/RAMP/
LANDING CURB DETAIL
SCALE: 3/4" = 1'-0"

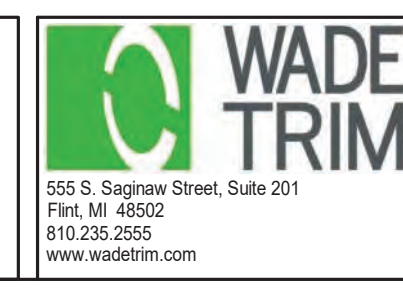
NOTE: USE THIS DETAIL IF INDICATED ON THE STRUCTURAL DRAWINGS.
OTHERWISE, USE TYPICAL STRAIGHT CURB DETAIL ON SHEET L21-1.



5 TYPICAL RETAINING WALL DETAIL
SCALE: 1/2" = 1'-0"

11/1/2024 3:16:58 PM PROJECT MANAGER: R:\06171488\UPA\General-Structural-Notes & Details-R19.rvt

REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
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FLINT RIVERFRONT RESTORATION - PHASE 2
GENERAL STRUCTURAL DETAILS - 2

ISSUED FOR: DATE: BY: #
10/23/24

JOB NO: GFA200301F
SHEET: L22-2

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TABLE 1: DIAGONAL BARS
ALL OPENINGS

SLAB OR WALL THICKNESS		DIAG. BARS - (4) SIDES OF OPENING EF. EQUAL SPACING		
FROM	TO & INCLUDING	NO.	BAR SIZE	LENGTH
0	8"	1	#4	3'-0"
8"	16"	2	#5	4'-0"
16"	24"	3	#6	5'-0"
24"	32"	4	#6	5'-0"
32"	40"	5	#7	6'-0"

TABLE 2: LENGTH OF EXTRA BARS
CENTERED OF C_O OF OPENING

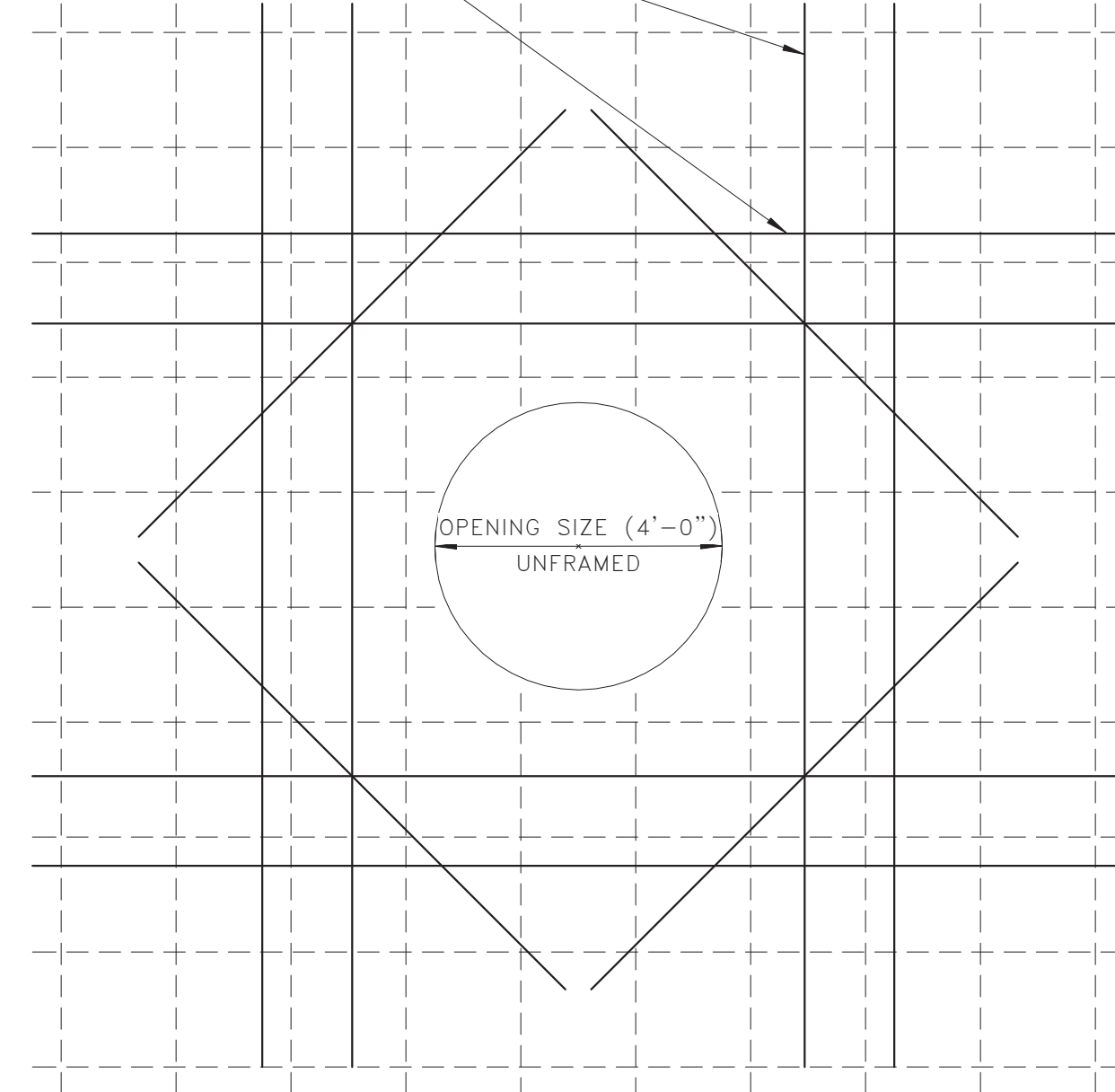
BAR SIZE	LENGTH = OPENING PLUS	BAR SIZE	LENGTH = OPENING PLUS
#4	3'-0"	#8	10'-0"
#5	4'-0"	#9	12'-0"
#6	6'-0"	#10	16'-0"
#7	8'-0"	#11	20'-0"

TABLE 3: OPENING REINFORCEMENT SCHEDULE

TYPE OF OPENING	THICKNESS	REINFORCEMENT REQUIRED		
		EXTRA	DIAGONAL	I - BARS
UNFRAMED	16" OR LESS	YES	YES	NO
	16" - 4'-0"	YES	YES	YES
FRAMED (BEAMS)	ALL	NO	YES	NO

ALL OPENINGS LESS THAN 6" SPREAD REINFORCEMENT TO CLEAR; NO DIAGONALS REQUIRED

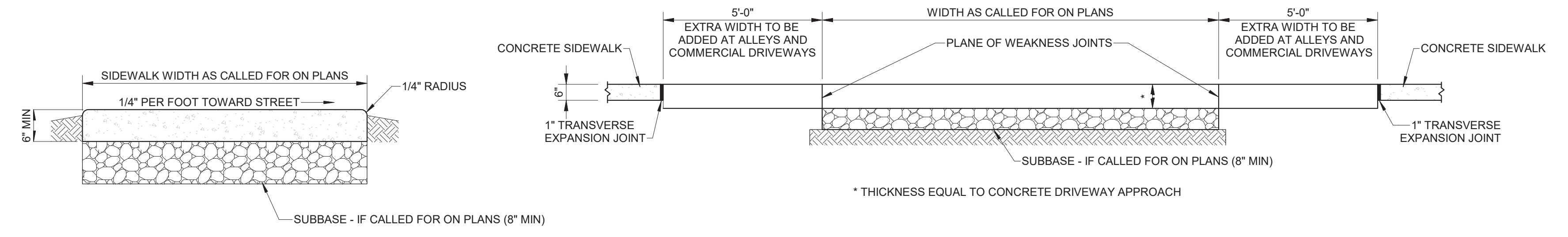
PROVIDE EXTRA BARS EW, EF, TO REPLACE BARS CUT BY OPENING (1/2 ES). WHEN NUMBER OF CUT BARS IS ODD NUMBER INCREASE TO NEXT LARGEST EVEN NUMBER



PLAN-CIRCULAR SLAB OPENING
ELEV-CIRCULAR WALL OPENING

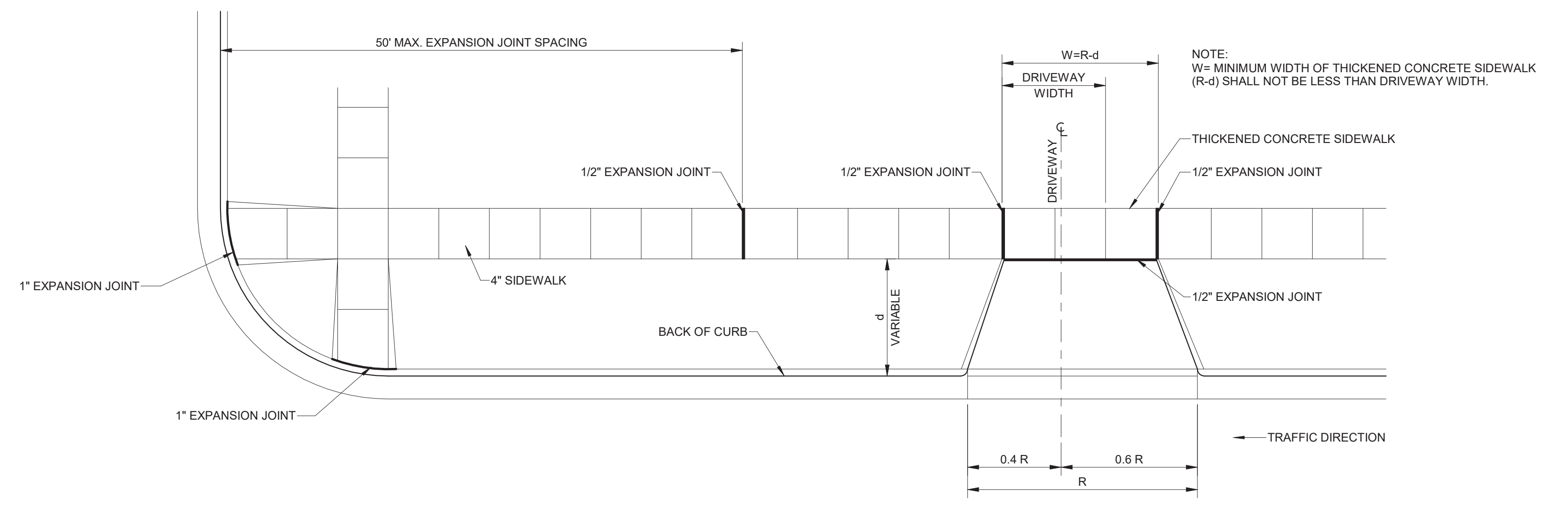
1 ADDITIONAL REINFORCEMENT AROUND OPENINGS
SCALE: 1" = 1'-0"

2 UNFRAMED OPENING DETAIL
SCALE: 1" = 1'-0"

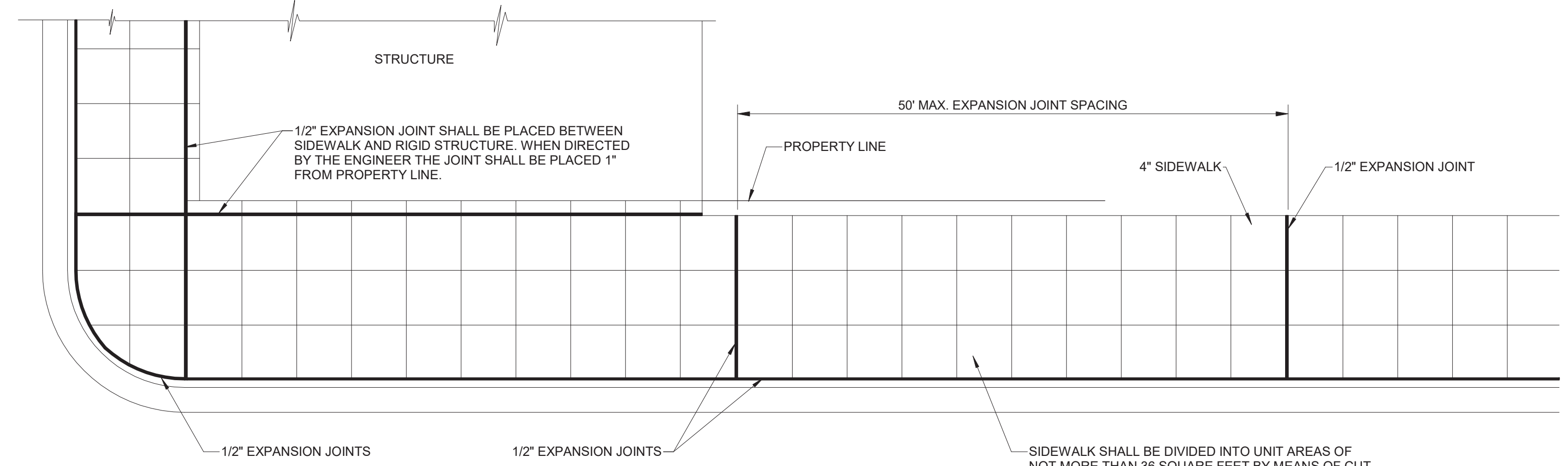


6" CONCRETE SIDEWALK

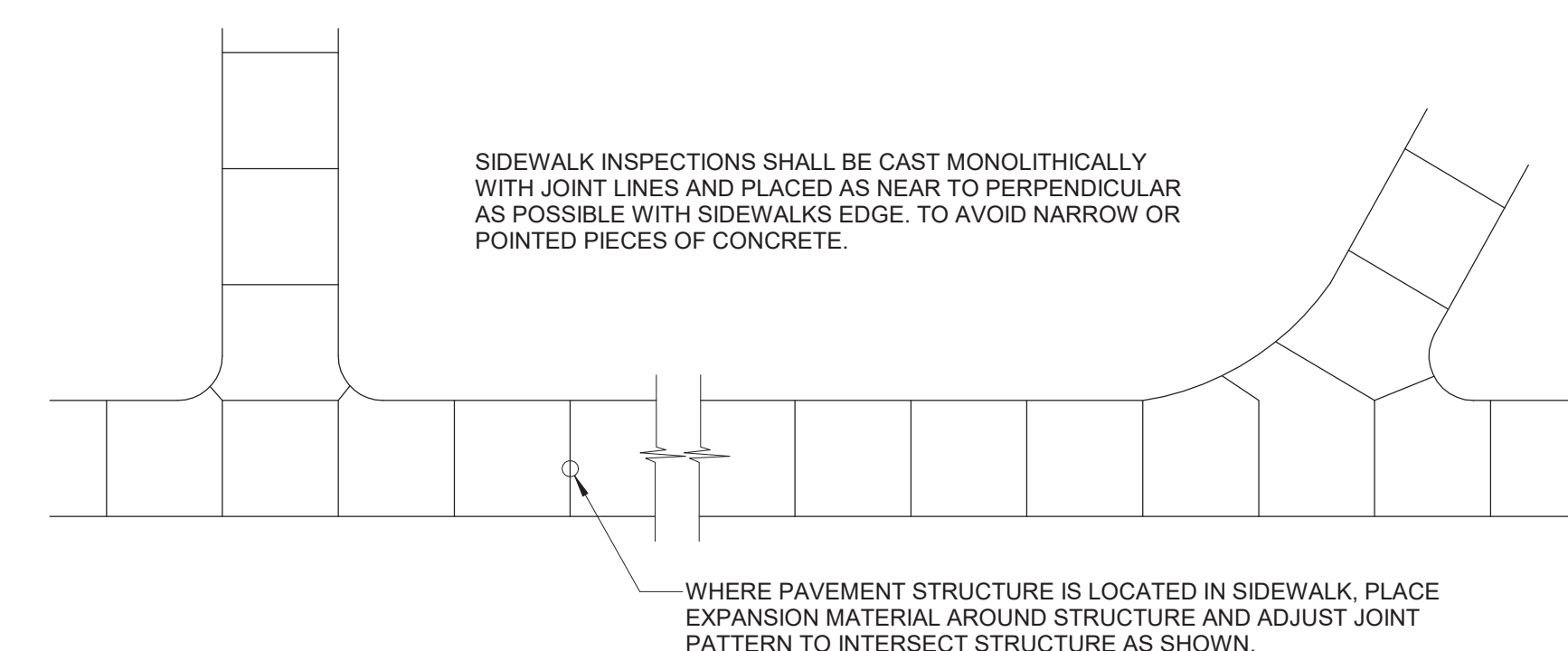
THICKENED CONCRETE SIDEWALK



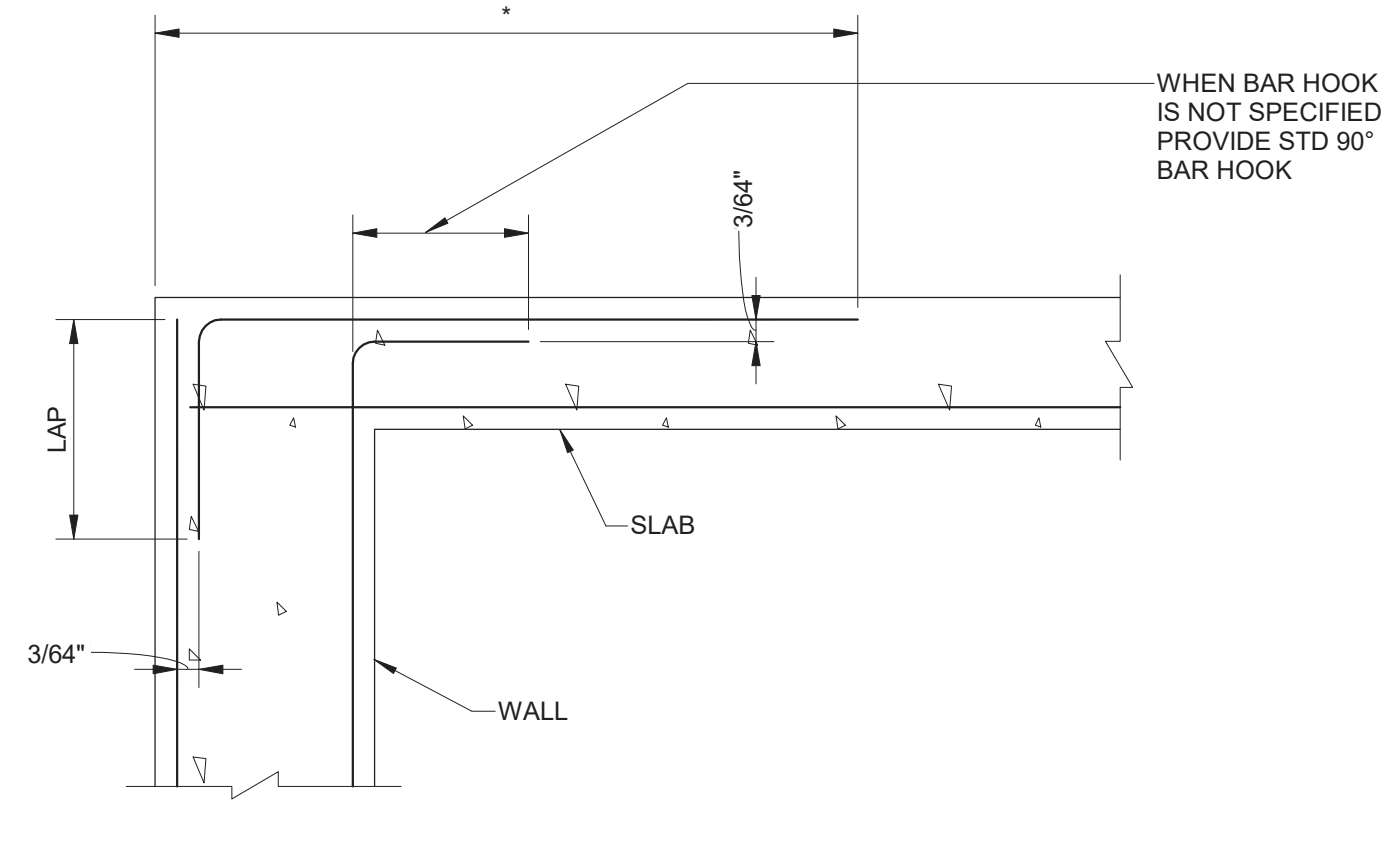
LOCATION OF JOINTS IN CONCRETE SIDEWALK



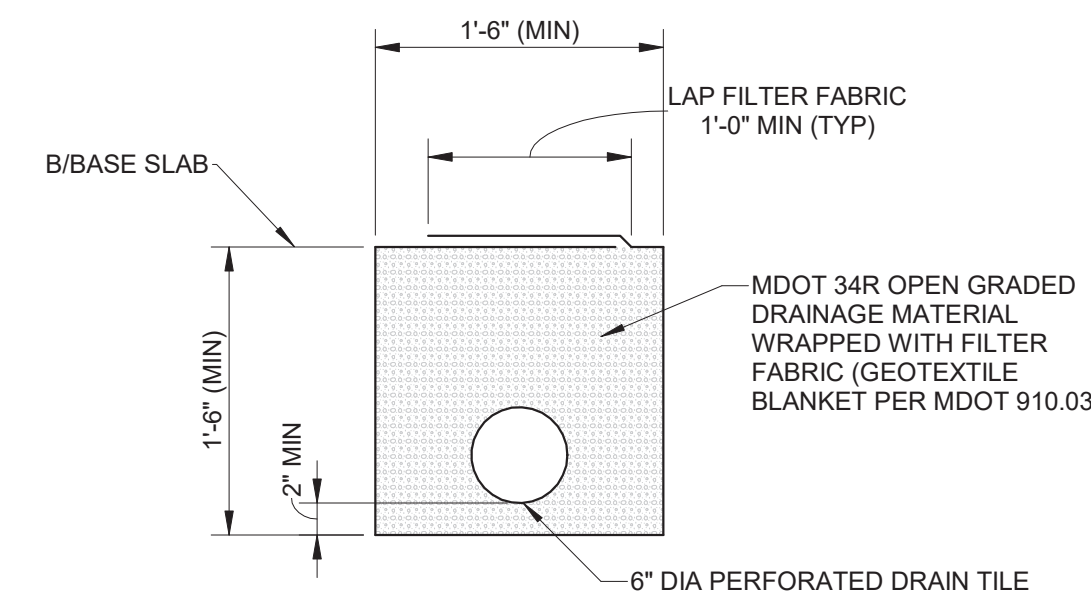
TYPICAL SIDEWALK JOINT LAYOUT



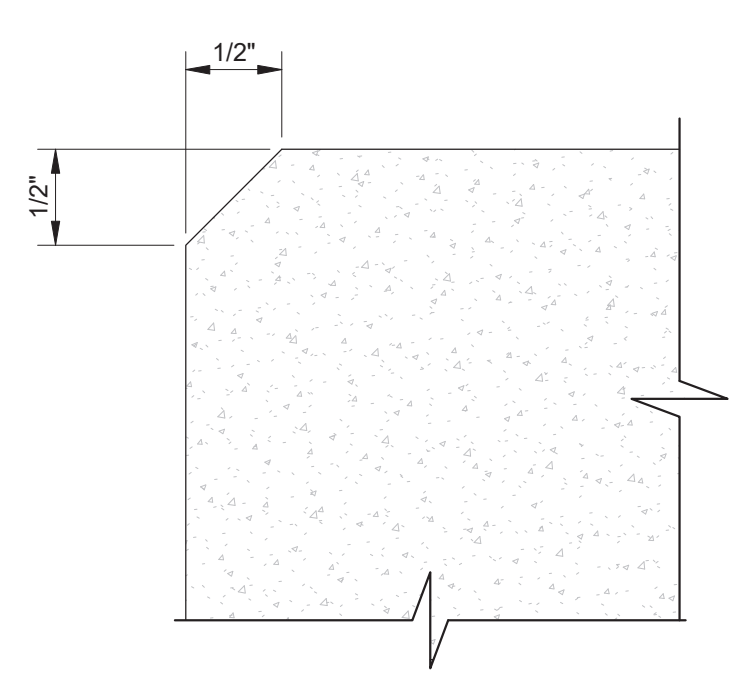
7 SIDEWALK DETAILS
SCALE: 3/8" = 1'-0"



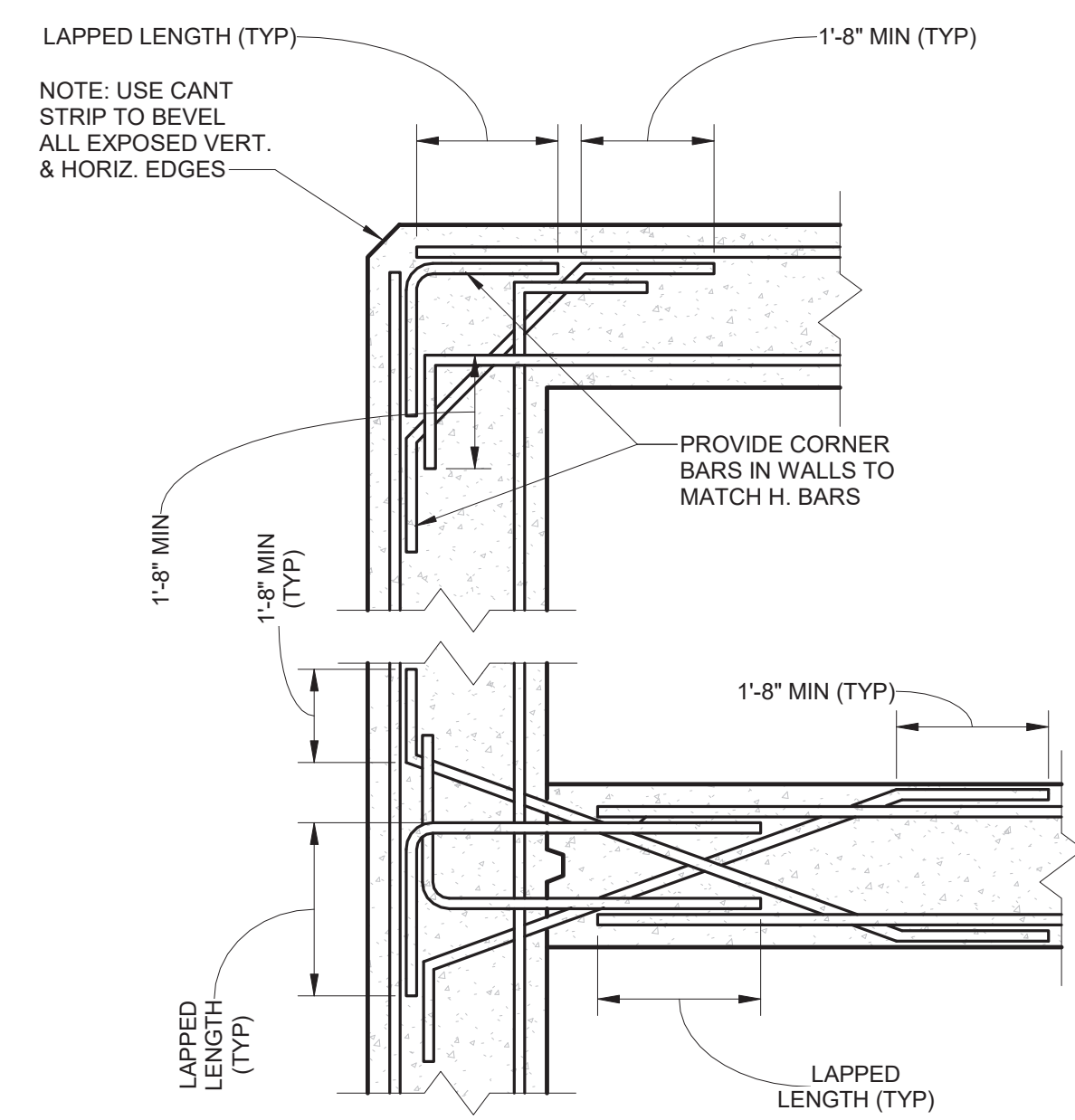
3 STANDARD FOR REINFORCING BAR DETAILING
SCALE: 3/4" = 1'-0"



4 DRAIN TILE (DT) TRENCH
SCALE: 1" = 1'-0"



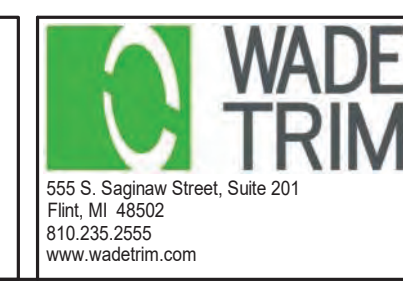
5 CHAMFER DETAIL
SCALE: 12" = 1'-0"



6 SECTIONAL PLAN OF WALLS
SCALE: 1 1/2" = 1'-0"

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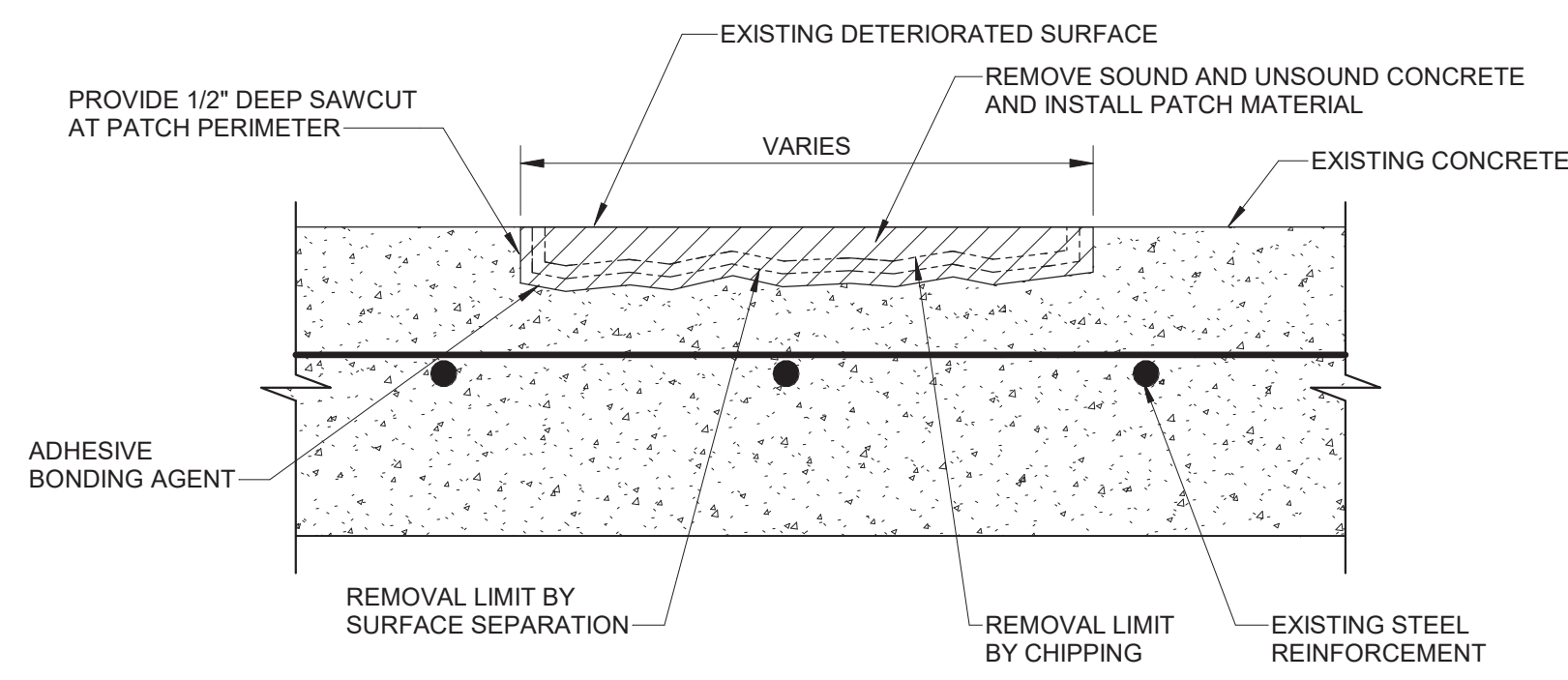
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION-PHASE 2
GENERAL STRUCTURAL DETAILS - 3

ISSUED FOR: DATE: BY: #8 10/23/24 #2

JOB NO: GPA200301F
SHEET: L22-3

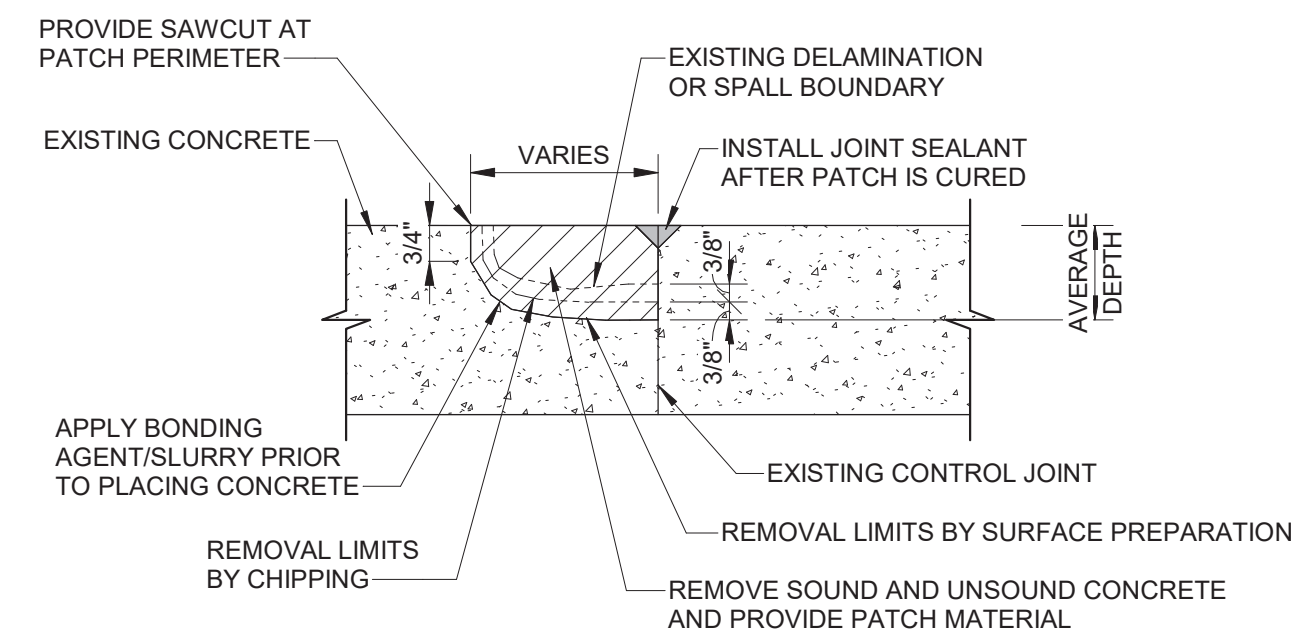
FLINT RIVER RESTORATION



NOTES:

1. THIS DETAIL APPLIES TO DETERIORATED AREAS THAT ARE NOT DEEP ENOUGH TO IMPACT STEEL REINFORCEMENT.
2. REMOVE ALL DETERIORATED, SOUND AND UNSOUND CONCRETE IN HATCH AREA TO FORM RECTANGULAR AREA.
3. PREPARE PATCH AREA PER SPECIFICATION SECTION 03 01 30.
4. PATCH MATERIAL SHALL BE AS SPECIFIED IN SPECIFICATION SECTION 03 01 30, AS APPROVED BY ENGINEER.
5. PROVIDE POSITIVE DRAINAGE IN TOP OF PATCH AT REPAIR SITE.
6. REPAIR MAY BE ORIENTED HORIZONTALLY, VERTICALLY, OR OVERHEAD.

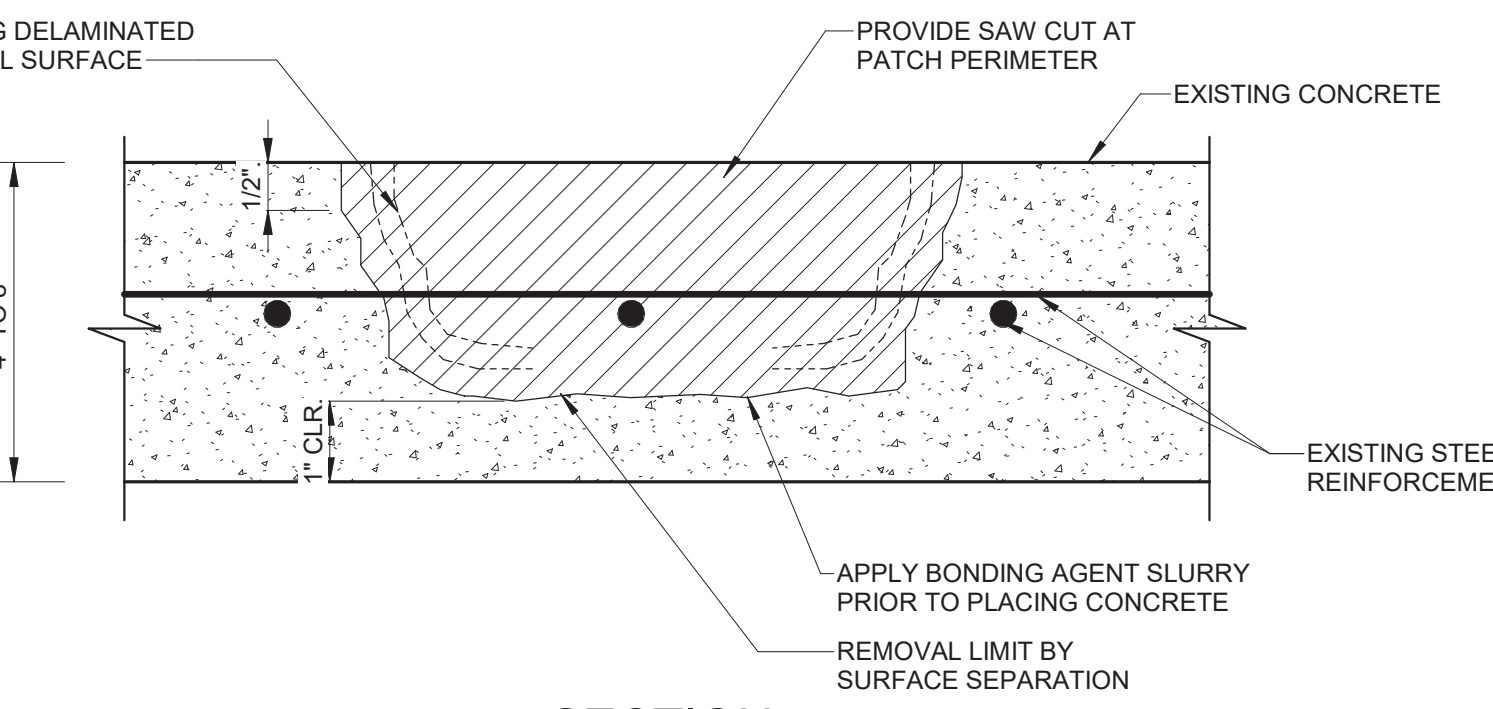
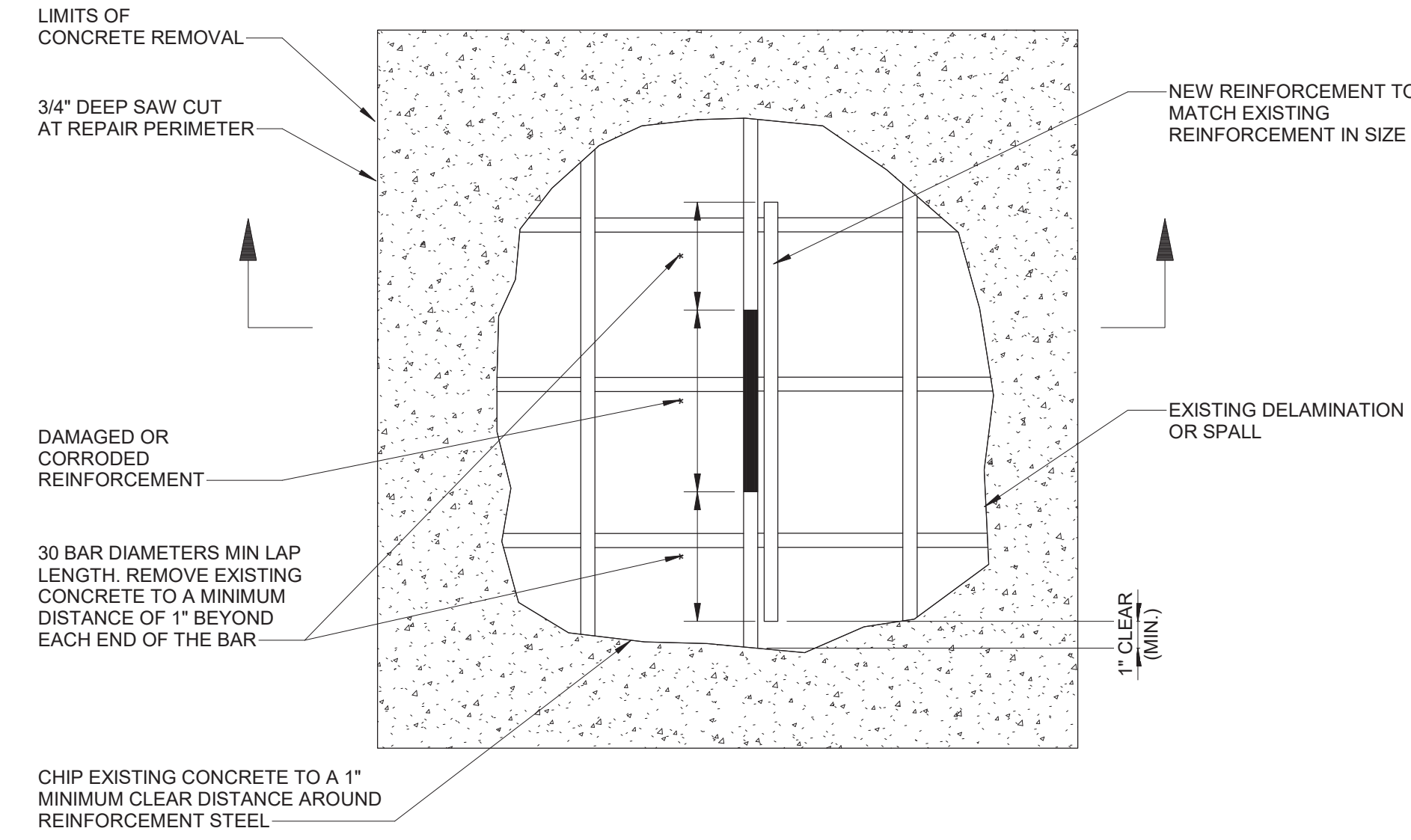
1 SHALLOW HORIZONTAL AND VERTICAL/OVERHEAD CONCRETE REPAIR DETAIL
SCALE: 1 1/2" = 1'-0"



NOTES:

1. REMOVE ALL DELAMINATED, SOUND, AND UNSOUND CONCRETE IN HATCH AREA. DETERIORATED AREA MAY OCCUR ON ONE OR BOTH SIDES OF MOVEMENT JOINT (ONLY ONE SIDE SHOWN).
2. PREPARE PATCH AREA PER SPECIFICATION SECTION 03 01 30.
3. CLEAN EXPOSED REINFORCEMENT STEEL (NOT SHOWN FOR CLARITY) OF RUST AND LAITANCE TO EXPOSE METAL BY SANDBLASTING OR WATER BLASTING OR MECHANICALLY PREPARE BY WIRE WHEEL. COAT EXPOSED EXISTING REINFORCING WITH ANTI-CORROSION COATING OR APPROVED EQUIVALENT. WHERE EXISTING REINFORCEMENT HAS LOST MORE THAN 15% OF ITS CROSS SECTIONAL AREA, ADD SUPPLEMENTAL STEEL WHERE DETERMINED NECESSARY BY THE ENGINEER.
4. PATCH MATERIAL SHALL BE AS SPECIFIED IN SPECIFICATION SECTION 03 01 30.

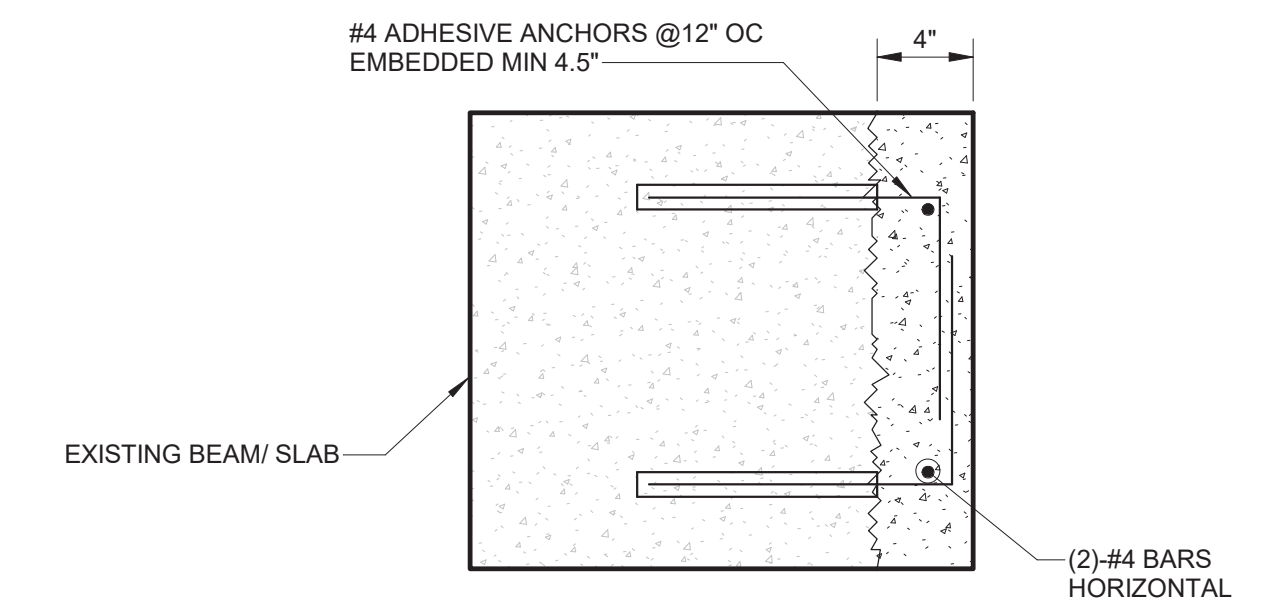
2 CONCRETE REPAIR ALONG JOINT
SCALE: 3" = 1'-0"



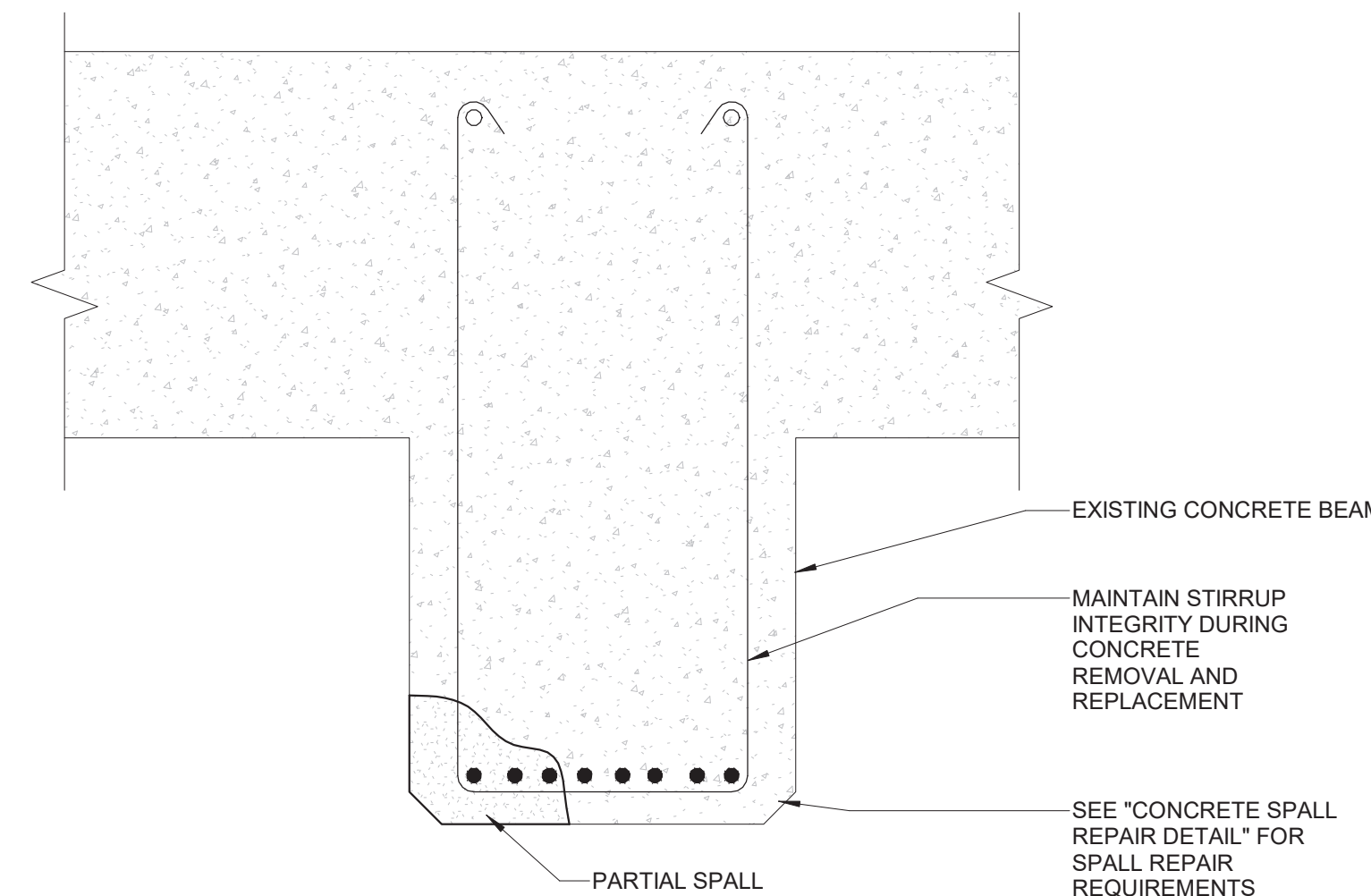
NOTES:

1. REMOVE ALL DETERIORATED, SOUND AND UNSOUND CONCRETE IN HATCH AREA TO FORM RECTANGULAR AREA.
2. PREPARE PATCH AREA PER SPECIFICATION SECTION 03 01 30.
3. CLEAN EXPOSED REINFORCEMENT STEEL OF RUST AND LAITANCE TO EXPOSE WHITE METAL BY SANDBLASTING OR WATERBLASTING OR MECHANICALLY PREPARE BY WIRE WHEEL. COAT EXPOSED EXISTING REINFORCEMENT WITH ANTI-CORROSION COATING OR APPROVED EQUIVALENT. WHERE EXISTING REINFORCEMENT HAS LOST MORE THAN 15% OF ITS CROSS SECTIONAL AREA, ADD SUPPLEMENTAL STEEL WHERE DETERMINED NECESSARY BY THE ENGINEER IN ACCORDANCE WITH DETAIL. THIS SHEET.
4. SURFACE SHALL BE DAMP BUT FREE OF STANDING WATER.
5. PATCH MATERIAL SHALL BE AS SPECIFIED IN SPECIFICATION SECTION 03 01 30 AND AS APPROVED BY ENGINEER.
6. HORIZONTAL PATCHES SHALL PROVIDE POSITIVE DRAINAGE AT REPAIR SITE. THE INSTALLATION OF ADDITIONAL PATCH MATERIAL TO ACHIEVE POSITIVE DRAINAGE IS INCIDENTAL TO THE WORK.
7. DETAIL NOT TO SCALE AND BOTTOM REINFORCING NOT SHOWN FOR CLARITY.
8. REPAIR MAY BE ORIENTED HORIZONTALLY, VERTICALLY, OR OVERHEAD.

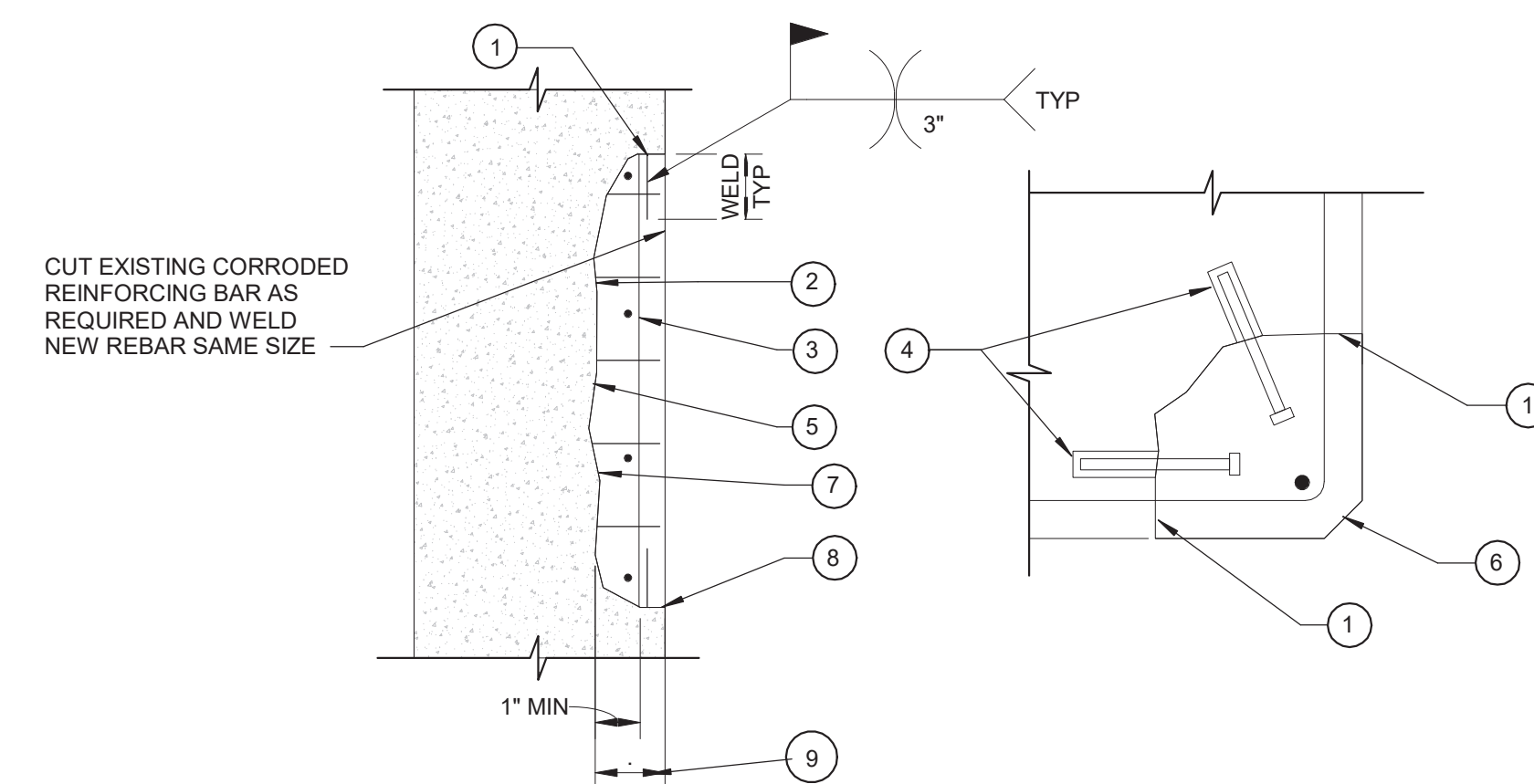
4 DEEP HORIZONTAL/OVERHEAD CONCRETE REPAIR DETAIL
SCALE: 1 1/2" = 1'-0"



5 CONCRETE REPAIR AT BEAM/SLAB
SCALE: 1 1/2" = 1'-0"

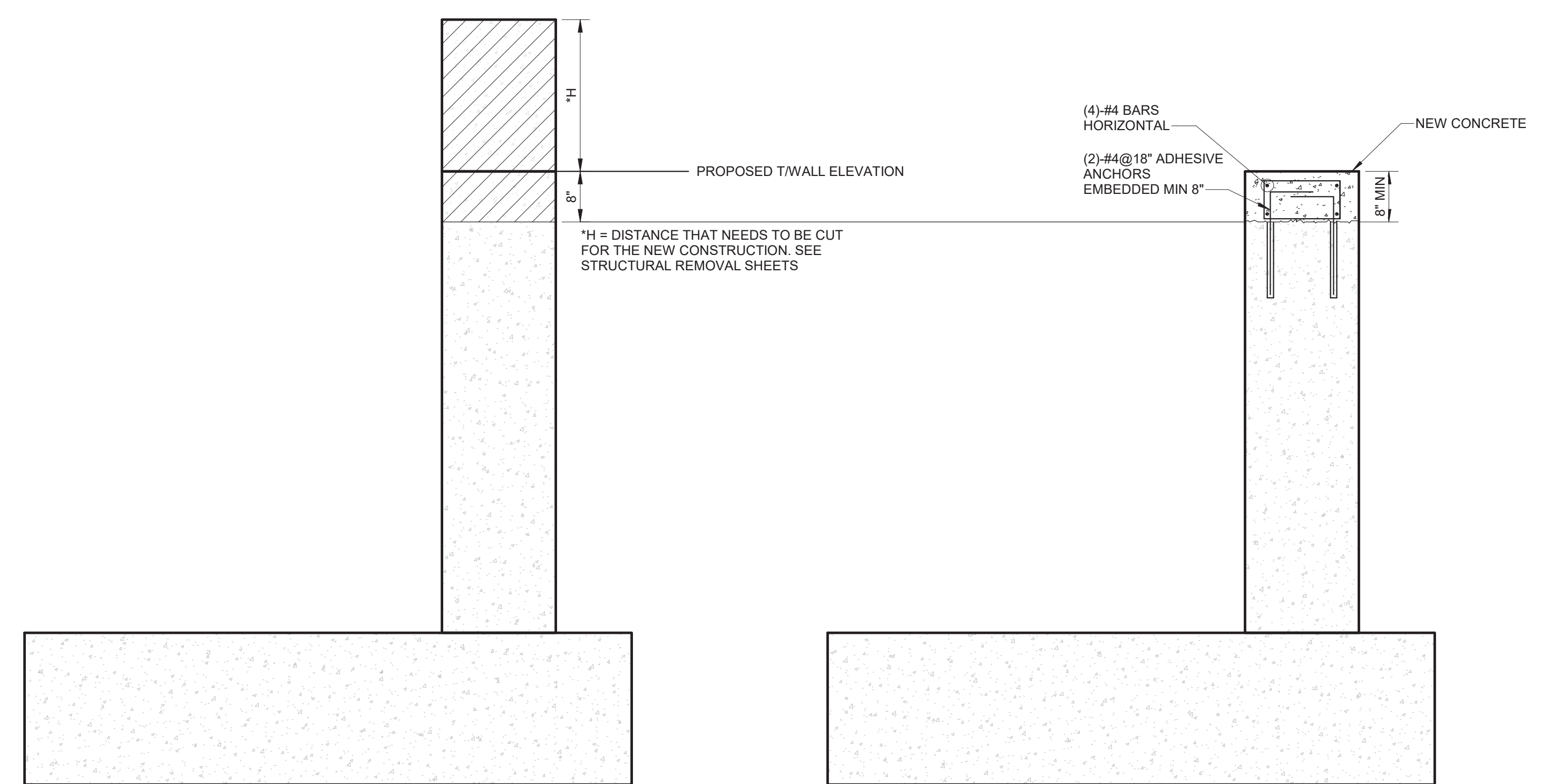


3 CONCRETE BEAM REPAIR NO NEW STEEL
SCALE: 1 1/2" = 1'-0"

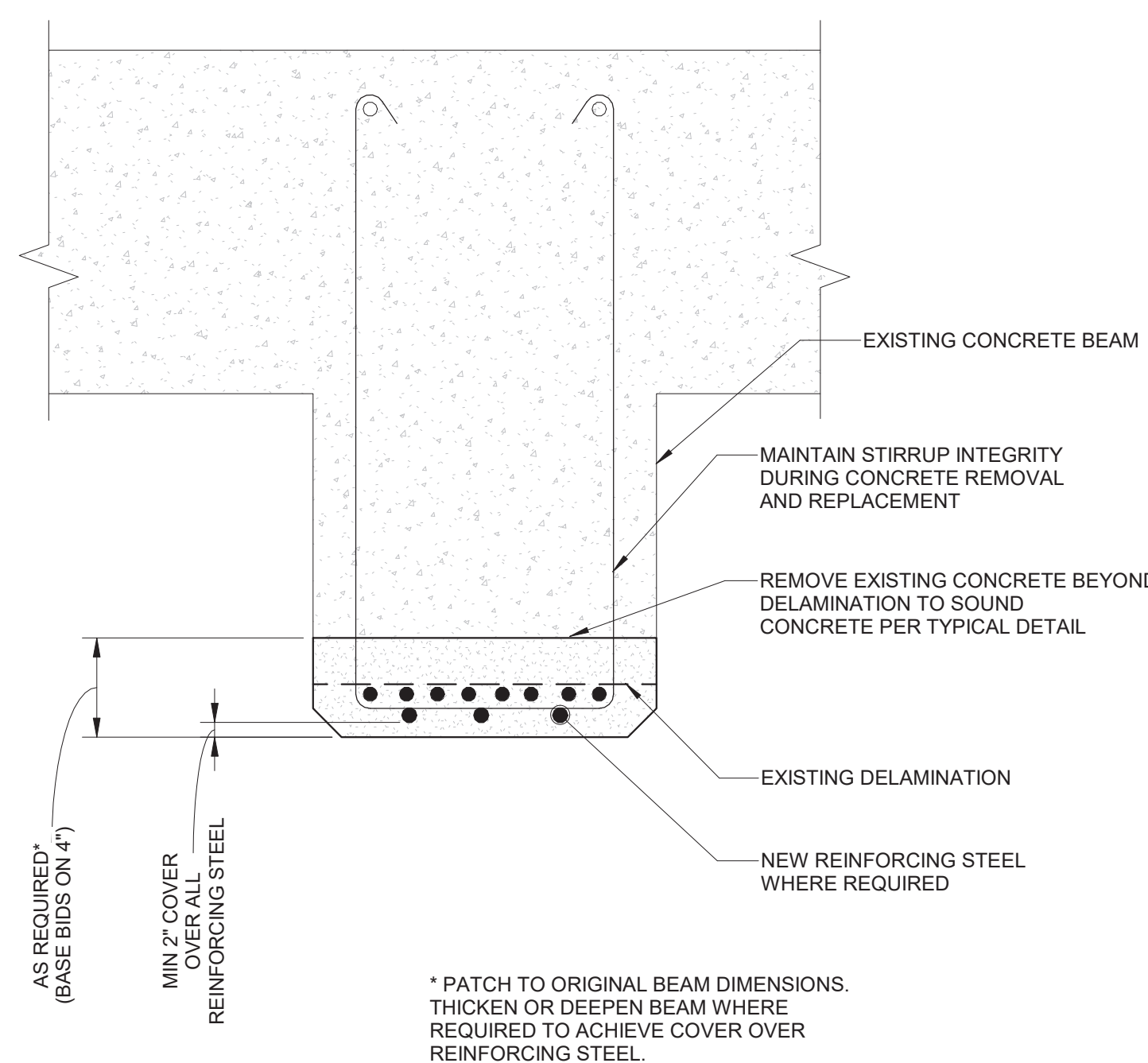


1. SCORE-CUT PERIMETER OF REPAIR AREA AS GENERALLY SHOWN. DO NOT CUT REINFORCING.
2. REMOVE ALL DETERIORATED CONCRETE UNTIL SOUND CONCRETE IS EXPOSED. CHIP CONCRETE SUBSTRATE TO OBTAIN A SURFACE PROFILE OF 1/8-INCH IN DEPTH WITH A NEW FRACTURED AGGREGATE SURFACE.
3. WHERE REINFORCING STEEL WITH ACTIVE CORROSION IS ENCOUNTERED, ENGINEER TO REVIEW CONDITION OF CORRODED REBARS PRIOR TO REPAIR. REPLACEMENT IS REQUIRED WHERE LOSS ON REBAR CROSS SECTION IS OVER 25%. WHEN REPAIRING, WHERE REINFORCING REMAINS, CLEAN REINFORCING STEEL TO REMOVE ALL CONTAMINANTS AND RUST. REMOVE CONCRETE TO A DEPTH OF 1-INCH MINIMUM BEHIND REINFORCING BAR AS SHOWN. SAND BLAST ALL EXPOSED REINFORCING STEEL AND INTERIOR CONCRETE SURFACES IN REPAIR AREA.
4. INSTALL 1/4" DIAMETER A316 STAINLESS STEEL PINS AT 12" SPACING STAGGERED, WITH MINIMUM EMBEDMENT AS SPECIFIED FOR ADHESIVE MATERIALS.
5. SURFACE SHALL BE DAMP BUT FREE OF STANDING WATER.
6. FORM SURFACE WITH CHAMFER TO MATCH EXISTING SURFACE.
7. INSTALL CONCRETE SPALL REPAIR MATERIALS PER THE MANUFACTURER'S REQUIREMENTS.
8. REFER TO THE GENERAL NOTES FOR ADDITIONAL NOTES ON SPECIFIED CONCRETE PRODUCTS AND REQUIREMENTS FOR COORDINATION OF WORK.
9. FOR BID PURPOSES, ASSUME TOTAL DEPTH OF REPAIR AS 6 INCHES.

7 TYPICAL CONCRETE CORNER SPALL REPAIR DETAILS
SCALE: 1" = 1'-0"



8 REMOVAL OF CONCRETE WALL ABOVE GRADE DETAIL
SCALE: 3/4" = 1'-0"



6 CONCRETE BEAM REPAIR WITH NEW STEEL
SCALE: 1 1/2" = 1'-0"

REV#	DATE	DESCRIPTION	BY



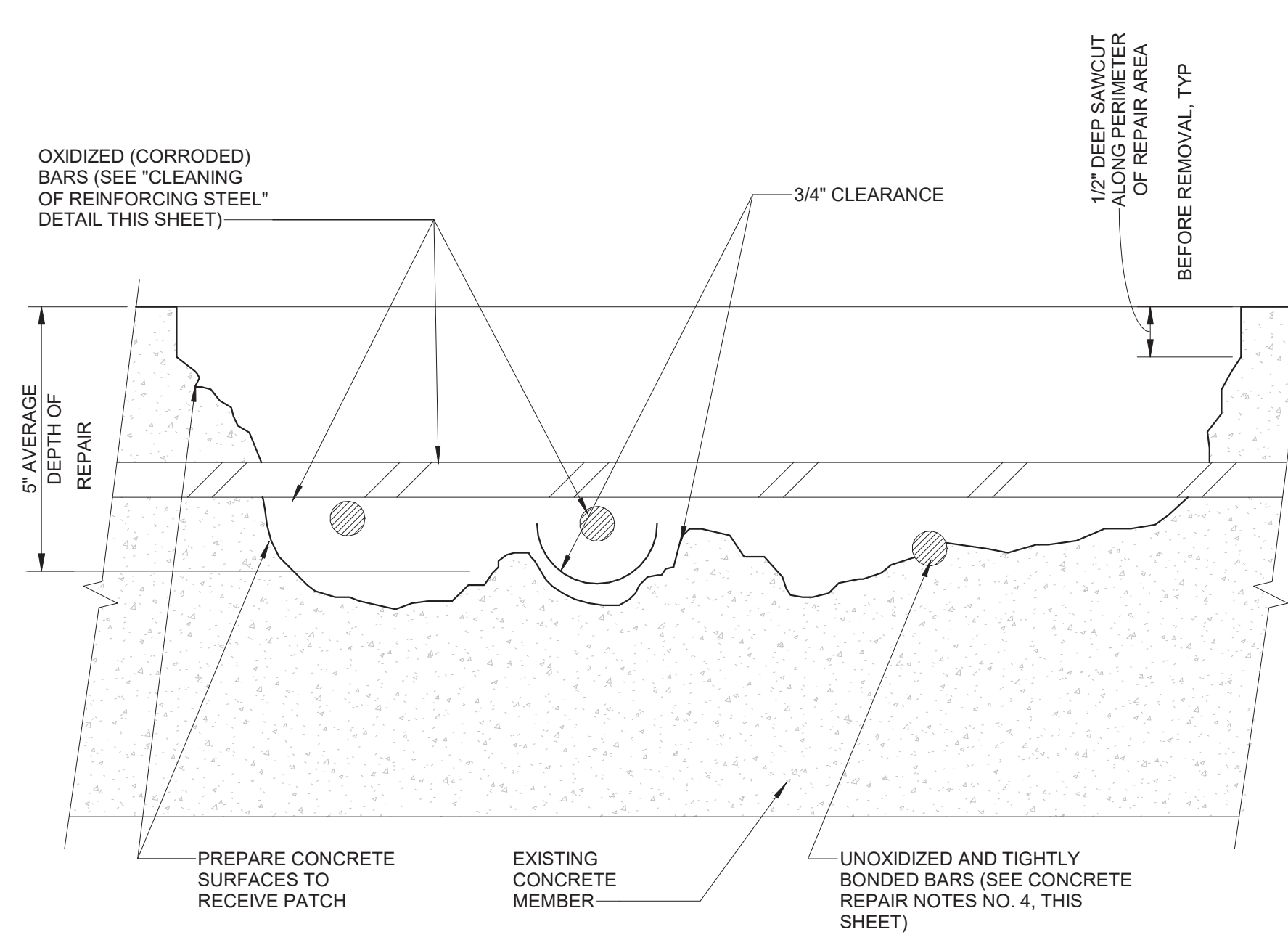
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48906

FLINT RIVERFRONT RESTORATION—PHASE 2
CONCRETE REHABILITATION DETAILS — 1

ISSUED FOR: DATE: BY: #

JOB NO: GFA200301F
SHEET: L22-4

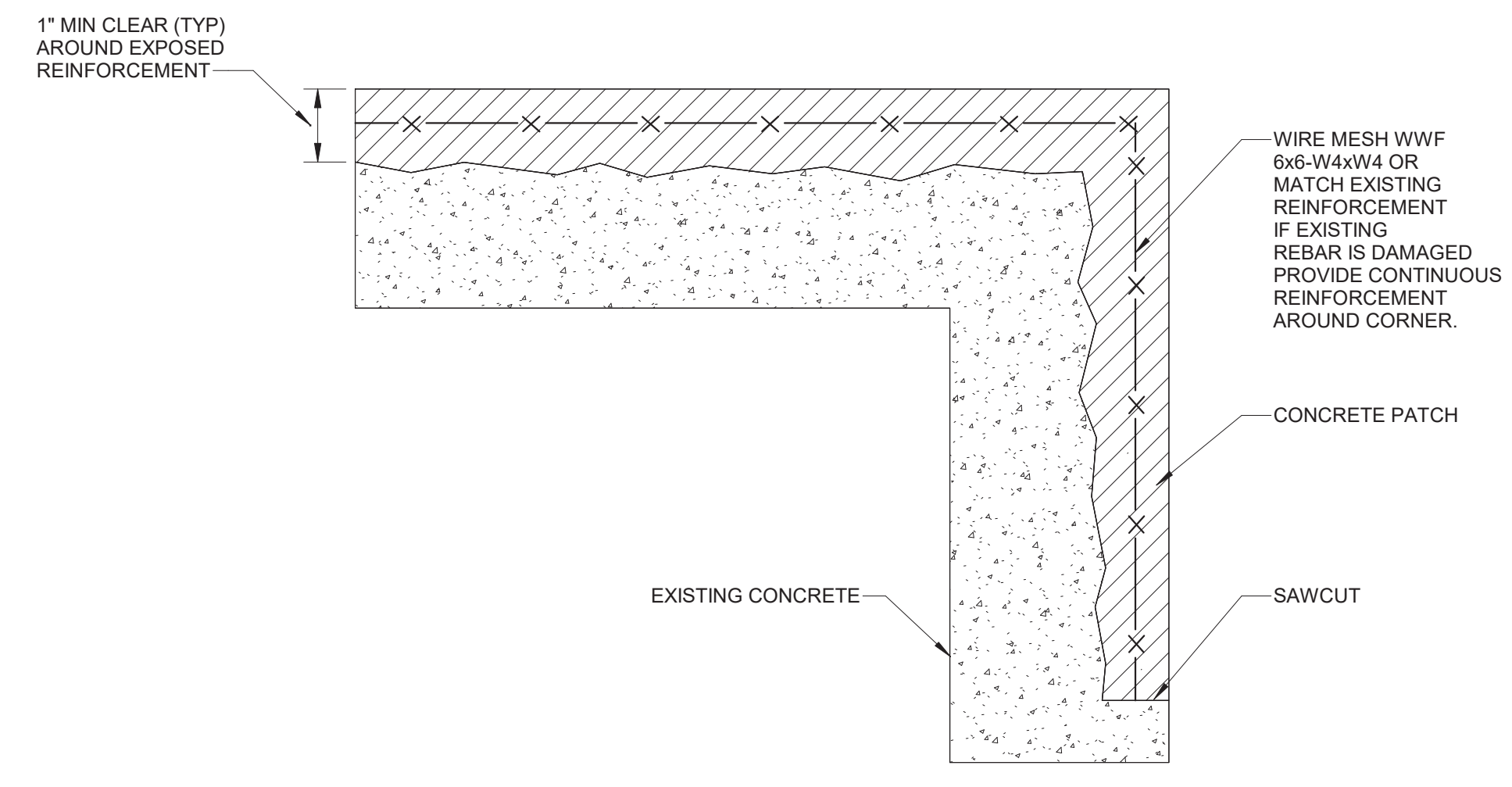
PROJECT MANAGER: 11/1/2024 3:17:11 PM
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EXPOSING, UNDERCUTTING REINFORCING STEEL AND CONDITIONING CONCRETE FOR PATCHING

CONCRETE REPAIR NOTES

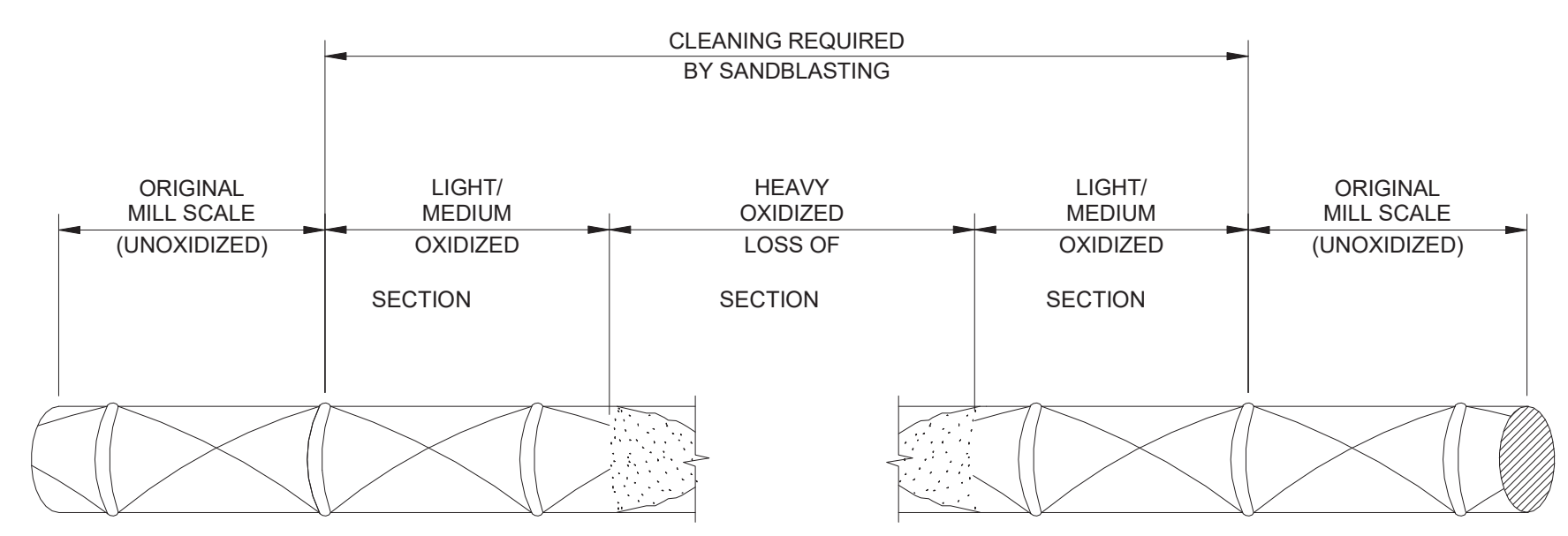
- LOCATE AREAS OF CONCRETE WITH DELAMINATIONS, SPALLS, SCALING, AND UNSOUND CONCRETE. MARK ON SURFACE OF CONCRETE THE AREA TO BE REPAIRED AS SPECIFIED. PRIOR TO THE REMOVAL OF ANY CONCRETE, PROVIDE 24 HOURS NOTICE TO THE ENGINEER IN ORDER FOR THE ENGINEER AND CONTRACTOR TO VERIFY REPAIR LIMITS.
- SAWCUT PERIMETER OF AREA TO BE REPAIRED TO DEPTH OF 1/2" AS SHOWN. THE REPAIRED AREAS SHALL BE IN A RECTANGULAR SHAPE, WITH SAW CUTS AT RIGHT ANGLES.
- REMOVE LOOSE OR DELAMINATED CONCRETE ABOVE OXIDIZED REINFORCING STEEL. ONCE INITIAL REMOVALS ARE MADE, PROCEED WITH THE UNDERCUTTING OF ALL EXPOSED OXIDIZED (CORRODED) BARS. PROVIDE A MINIMUM OF 3/4" CLEARANCE BETWEEN EXPOSED REBARS AND SURROUNDING CONCRETE.
- IF UNOXIDIZED REINFORCING BARS ARE EXPOSED DURING THE UNDERCUTTING PROCESS, CARE SHALL BE TAKEN NOT TO DAMAGE THE BARS BOND TO SURROUNDING CONCRETE. IF BOND BETWEEN BAR AND CONCRETE IS BROKEN, UNDERCUTTING OF THE BAR SHALL BE REQUIRED.
- INSTALL NEW REINFORCING BARS TO SUPPLEMENT EXISTING BARS WHICH HAVE LOST MORE THAN 25% OF THEIR CROSS SECTIONAL AREA. THE NEW REINFORCING BARS SHALL BE THE SAME DIAMETER AS THE EXISTING BAR, AND SHALL EXTEND A DISTANCE OF 30 TIMES THE BAR AND SHALL EXTEND A DISTANCE OF 30 TIMES THE BAR (SEE "REPAIR OF REINFORCING STEEL" DETAIL THIS SHEET).
- REMOVE ALL RUST AND LANTANCE FROM EXPOSED REINFORCING STEEL TO EXPOSED BARE METAL BY SANDBLASTING AS SPECIFIED. (SEE "CLEANING OF REINFORCING STEEL" DETAIL FOR EXTENT OF CLEANING REQUIRED).
- REMOVE ALL BOND INHIBITING MATERIALS FROM CONCRETE INCLUDING BUT NOT LIMITED TO DIRT, CONCRETE SLURRY, AND LOOSELY BONDED AGGREGATE, BY ABRASIVE BLASTING OR HIGH PRESSURE WATERBLASTING. CHECK THE SURFACE AFTER CLEANING TO ENSURE THAT SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE AND THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
- COAT ALL EXPOSED REINFORCING STEEL AND PREPARED CONCRETE SURFACES TO RECEIVE PATCHING MATERIAL WITH CORROSION INHIBITOR AND BONDING AGENT (PER SPECIFICATIONS) AND APPLY PATCH MATERIAL AS SPECIFIED.
- PRIOR TO ANY PATCHING OF CONCRETE, PROVIDE 24 HOUR NOTICE TO THE ENGINEER FOR INSPECTION OF THE REPAIRED LIMITS AND TO QUANTIFY REPAIR AREAS WITH THE CONTRACTOR FOR PAYMENT.
- CONCRETE REPAIR MORTAR SHALL BE AS SPECIFIED.
- THESE DETAILS APPLY TO THE CONCRETE REPAIRS THROUGHOUT THE PROJECT AREA. SOME OF THESE MISCELLANEOUS AREAS MAY REQUIRE CONFINED SPACE ENTRY CONTRACTOR TO PROVIDE ALL NECESSARY SAFETY MEASURE WHEN CONFINED SPACE ENTRY IS REQUIRED.



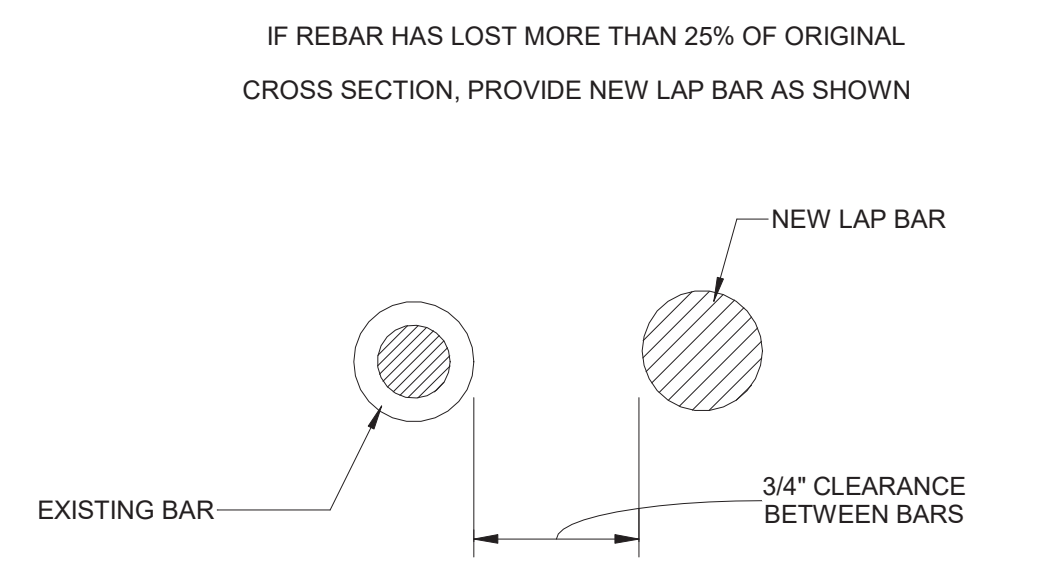
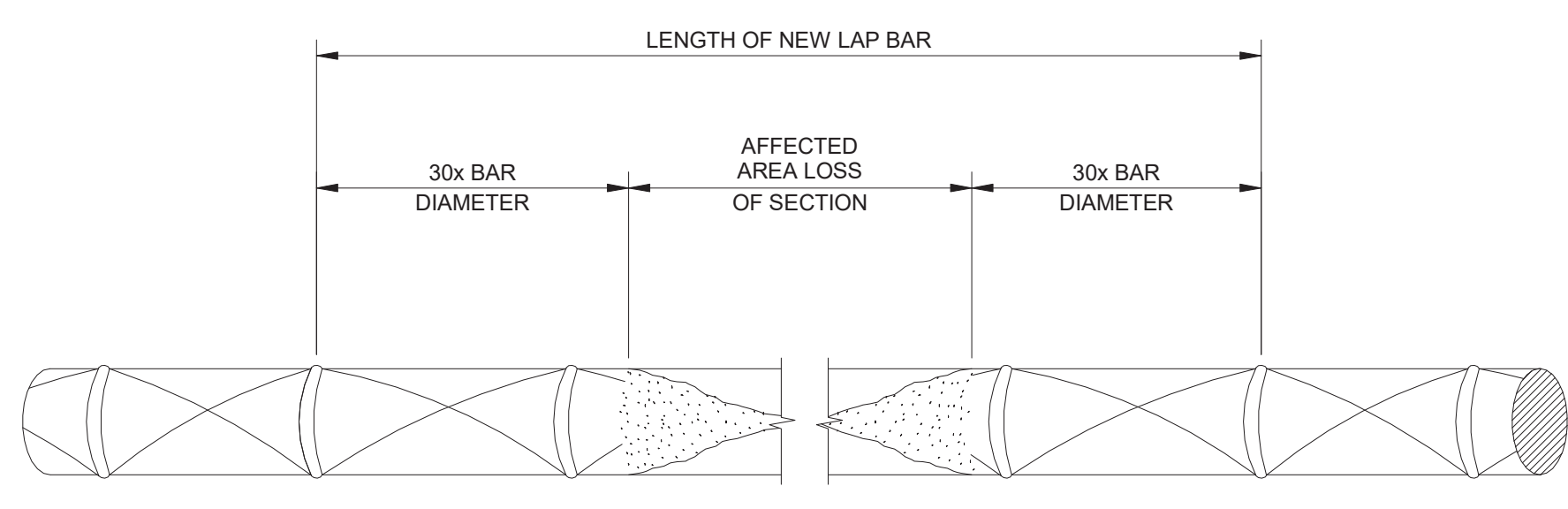
NOTES:

- REMOVE DETERIORATED CONCRETE TO SOUND CONCRETE SURFACE IN ACCORDANCE WITH SECTION 03 01 30.
- CLEAN EXPOSED REINFORCEMENT STEEL OF RUST AND LANTANCE TO EXPOSE WHITE METAL BY SANDBLASTING OR WATERBLASTING OR MECHANICALLY PREPARE BY WIRE WHEEL. COAT EXPOSED EXISTING REINFORCEMENT WITH ANTI-CORROSION COATING OR APPROVED EQUIVALENT. WHERE EXISTING REINFORCEMENT HAS LOST MORE THAN 15% OF ITS CROSS SECTIONAL AREA, ADD SUPPLEMENTAL STEEL, WHERE DETERMINED NECESSARY BY THE ENGINEER IN ACCORDANCE WITH DETAIL, THIS SHEET.
- PROVIDE WIRE MESH OR MATCH EXISTING REINFORCEMENT AS DIRECTED BY ENGINEER.
- FOR AREAS GREATER THAN 2'-0" x 2'-0", ANCHOR THE REINFORCEMENT WITH TIE WIRE TO EXPANSION HOOK BOLTS, 3/8" x 3" AT 2'-0" ON CENTER (4 MIN).
- PATCH CONCRETE IN ACCORDANCE WITH SPECIFICATION SECTION 03 01 30.

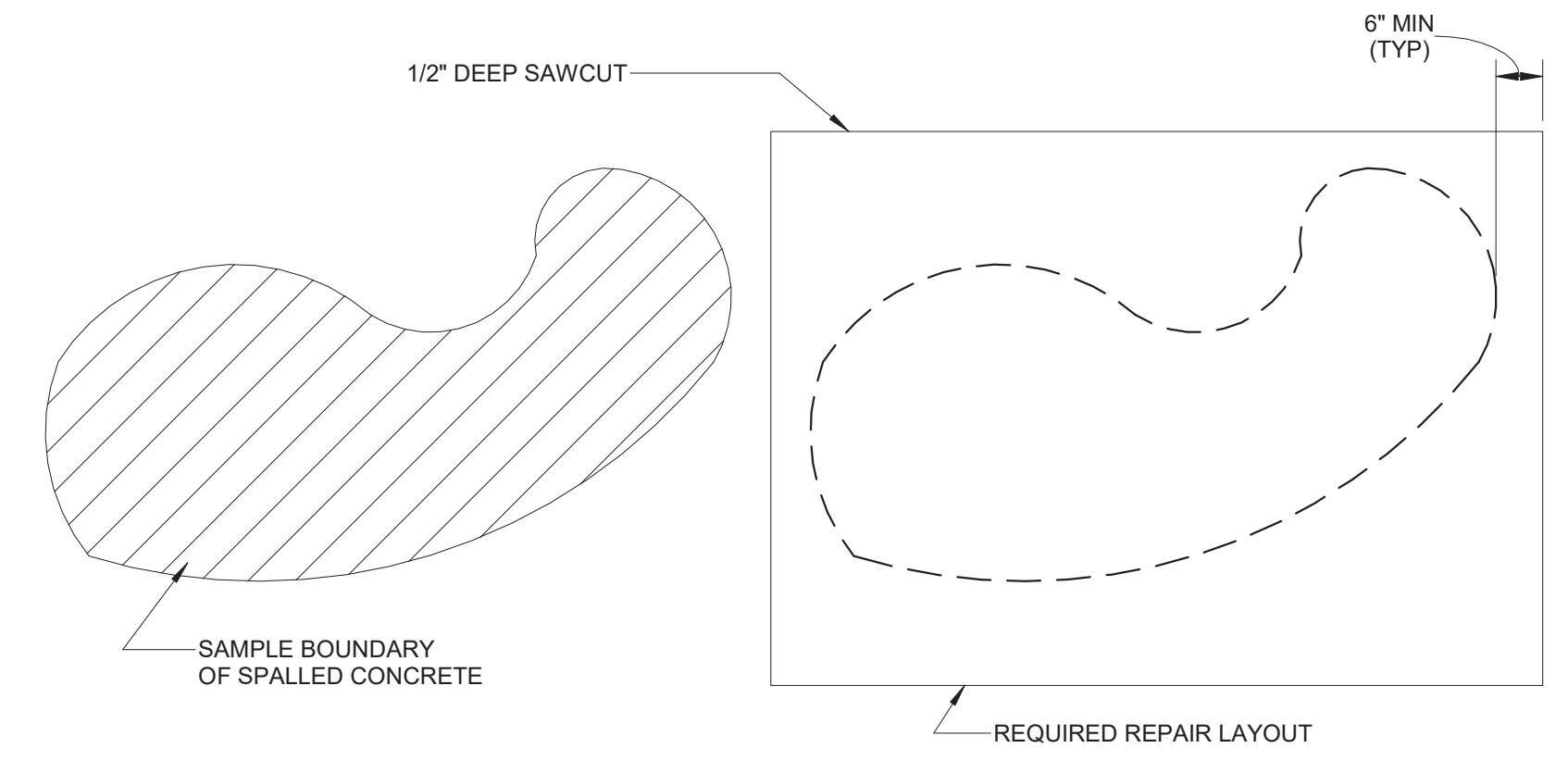
2 CORNER REPAIR DETAIL
 SCALE: 1 1/2" = 1'-0"



CLEANING OF REINFORCING STEEL



REPAIR OF REINFORCING STEEL DUE TO LOSS OF SECTION



1 CONCRETE SPALL REPAIR DETAIL
 SCALE: 1 1/2" = 1'-0"

REV#	DATE	DESCRIPTION	BY



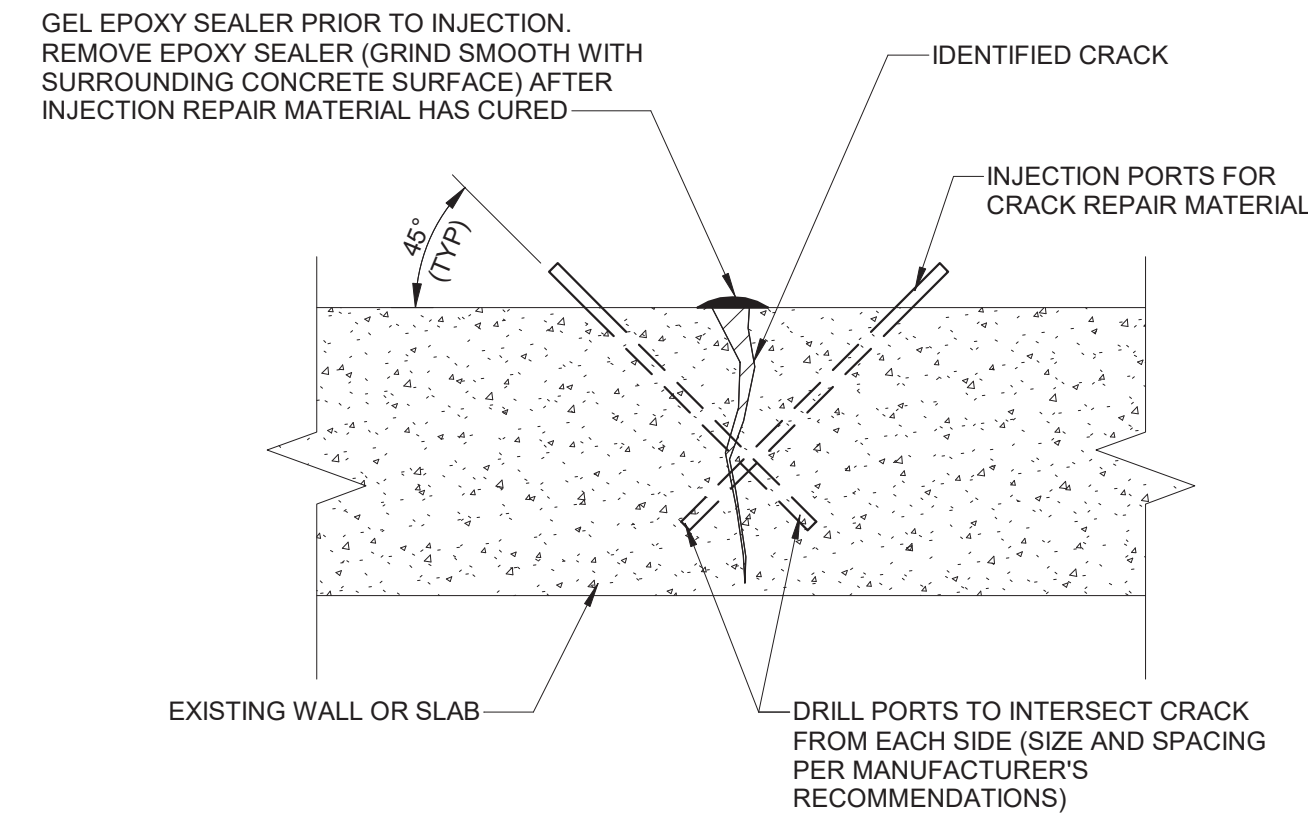
GENESEE COUNTY PARKS & REC
 5045 E. STANLEY ROAD
 FLINT, MI 48506

FLINT RIVERFRONT RESTORATION—PHASE 2
 CONCRETE REHABILITATION DETAILS — 2

ISSUED FOR: DATE: BY: #
 10/23/24 6

JOB NO: GFA200301F
 SHEET: L22-5

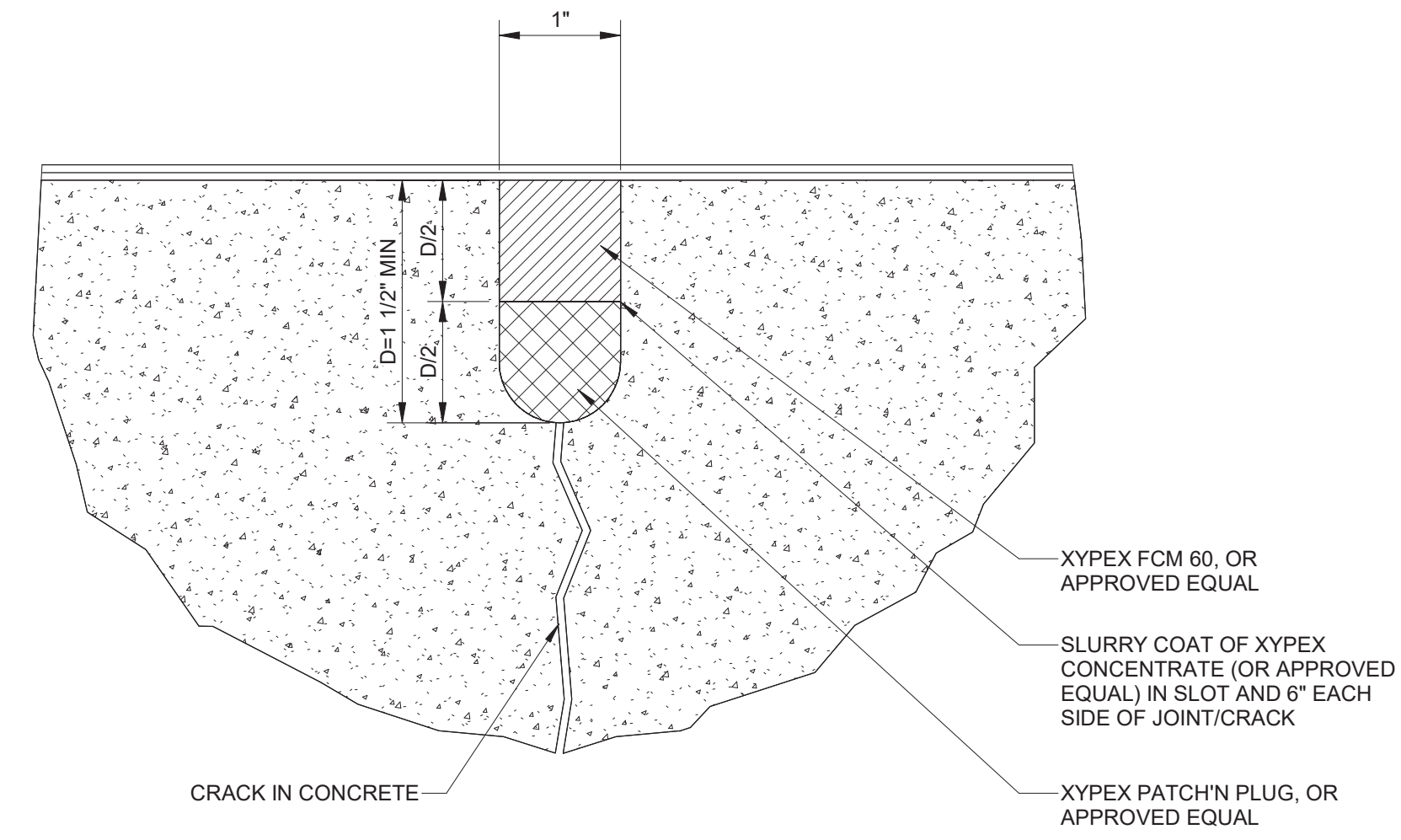
© Wade Trim Group, Inc. FLINT RIVER RESTORATION



NOTES:

1. IDENTIFY CRACKS TO BE INJECTED. LOCATION AND QUANTITY OF CRACKS/FRACTURES TO BE INJECTED AND TYPE OF INJECTION MATERIAL ARE TO BE CONFIRMED AND APPROVED BY THE ENGINEER.
2. LOCATE REINFORCING STEEL IN CONCRETE STRUCTURE. LOCATE INJECTION HOLE POSITION AND WORK WITH CARE TO AVOID DAMAGE TO EXISTING REINFORCING STEEL. DRILL HOLES SIZED AS RECOMMENDED BY THE INJECTION MATERIAL MANUFACTURER, AT A 45° ANGLE TO THE SURFACE, AND BEGINNING AT A DISTANCE AWAY FROM CRACK SO THAT THE DRILLED HOLE INTERCEPTS THE CRACK AT APPROXIMATELY ONE-HALF THE CONCRETE DEPTH.
3. INSERT INJECTION PACKERS AS RECOMMENDED BY THE INJECTION MATERIAL MANUFACTURER, INTO THE DRILLED HOLES AND TIGHTEN.
4. CLEAN CONCRETE SURFACE IN ACCORDANCE WITH SPECIFICATIONS.
5. PUMP INJECTION MATERIAL THROUGH THE INJECTOR PACKER UNTIL THE HOLE WILL NOT TAKE MORE MATERIAL, OR THE MATERIAL IS NO LONGER VISIBLY SEEPING OUT OF THE CRACKS.
6. INJECTION MAY BE HORIZONTAL, VERTICAL OR OVERHEAD.

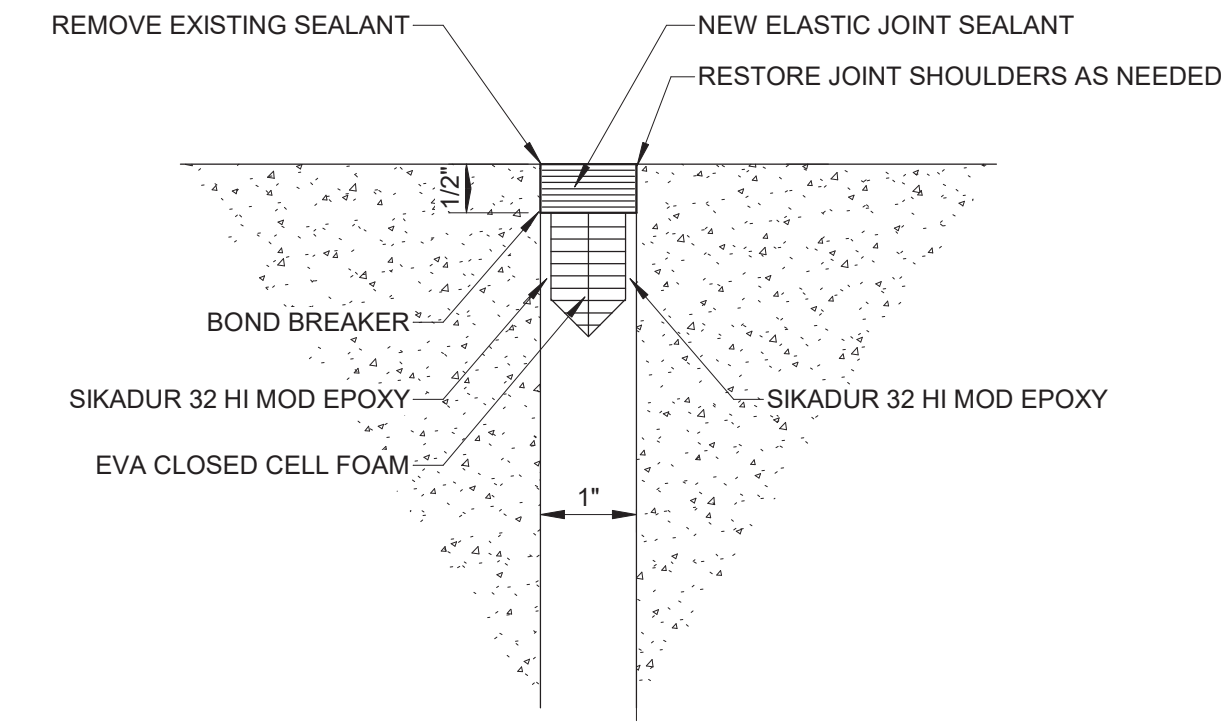
1 CONCRETE CRACK REPAIR DETAIL
SCALE: 1" = 1'-0"



NOTES:

1. IDENTIFY FRACTURES TO BE REPAIRED. LOCATION AND QUANTITY OF FRACTURES TO BE CONFIRMED AND APPROVED BY THE ENGINEER.
2. USING ROUTING MACHINE, WITH THE FLEXIBILITY TO FOLLOW THE IRREGULAR FRACTURES, ROUT OUT THE FRACTURE IN A "U" SHAPED SLOT (A "V" SHAPED JOINT IS NOT ACCEPTABLE) MIN 1 1/2 INCHES DEEP BY 1 INCH WIDE.
3. REMOVE ALL LOOSE MATERIAL AND SATURATE DRY AREAS WITH WATER. ALLOW WATER TO SOAK IN AND THEN REMOVE ALL SURFACE WATER.
4. APPLY XYPEX PATCHN PLUG TO HALF THE DEPTH OF THE SLOT IMMEDIATELY AFTER REMOVING SURFACE WATER. PATCHN PLUG SHOULD BE APPLIED TO THE FULL LENGTH OF THE CRACK/FRACTURE AREA.
5. USE CHEMICAL GROUTING IF LEAKS CANNOT BE STOPPED WITH XYPEX PATCHN PLUG.
6. APPLY A SLURRY COAT OF XYPEX FCM 60 IN THE SLOT AND ON A SIX INCH STRIP OF CONCRETE ON EITHER SIDE OF THE SLOT.
7. WHILE SLURRY COAT IS STILL TACKY, FILL THE SLOT TO THE SURFACE LEVEL WITH XYPEX FCM 60. APPLY THE XYPEX FCM 60 BY GLOVED HAND, THEN COMPRESS IT TIGHTLY BY USING A PNEUMATIC PACKING TOOL OR A HAMMER AND BLOCK.
8. WET THE XYPEX FCM 60 SURFACE LIGHTLY WITH WATER, THEN APPLY A SLURRY COAT OF XYPEX FCM 60 CONCRETE OVER THE REPAIRED AREA.
9. CURE BY FOG SPRAYING PERIODICALLY WITH WATER FOR TWO DAYS OR APPLY XYPEX GAMMA CURE IMMEDIATELY AFTER THE SLURRY COAT HAS SET.

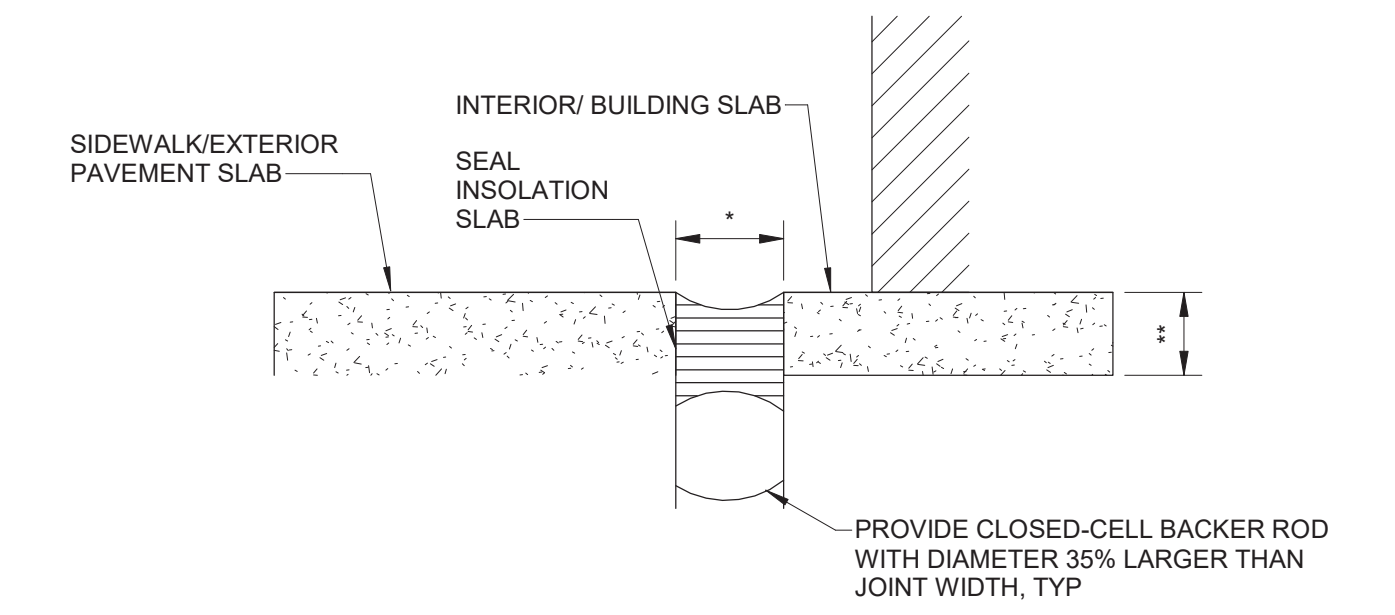
2 CONCRETE FRACTURE REPAIR DETAIL
SCALE: 3/4" = 1'-0"



NOTES:

1. SAWCUT SEALANT AS DETAILED.
2. CLEAN SURFACES BY HIGH PRESSURE WATER BLASTING OR SAND BLASTING OR MECHANICALLY PREPARE SURFACE PER MANUF. RECOMMENDATIONS. FOLLOW SAND BLASTING BY LOW PRESSURE WATER BLASTING. REMOVE LOOSE PARTICLES USING HIGH PRESSURE AIR. LET SURFACES DRY.
3. INSTALL EVA CLOSED CELL FOAM AS INDICATED. ON EXTERIOR JOINT INSTALL BOND BREAKER BETWEEN EVA CLOSED CELL FOAM AND SEALANT.
4. INSTALL ELASTIC JOINT SEALANT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS SPECIFIED IN SECTION 03 01 30.
5. INSTALL SEALANT EVENLY AND TOOL TO ASSURE BOND TO ADJACENT SURFACES. DO NOT OVERFILL JOINT.

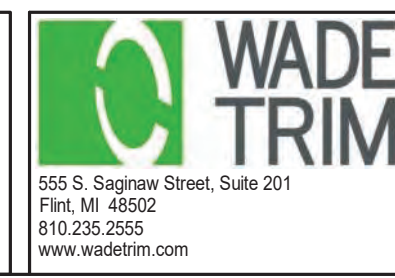
3 EXISTING EXPANSION JOINT REPAIR DETAIL
SCALE: 6" = 1'-0"



* VARIES WITH LOCATION
** SEALANT DEPTH = 1/2 WIDTH (MIN 1/4", MAX 1")

4 ISOLATION JOINT SEALANT DETAIL
SCALE: 3" = 1'-0"

REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION—PHASE 2
CONCRETE REHABILITATION DETAILS — 3

ISSUED FOR: DATE: BY: #

JOB NO: GFA200301F

SHEET L22-6

LANDSCAPE LEGEND AND SCHEDULE

TREES	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY
AA	(Symbol)	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	Clump 8' Ht.	13
AG	(Symbol)	Acer glabrum	Paperbark Maple	Clump 8' Ht.	13
AR	(Symbol)	Acer rubrum	Red Maple	2.5" Cal.	16
AS	(Symbol)	Acer saccharum	Sugar Maple	2.5" Cal.	7
BN	(Symbol)	Betula nigra	River Birch	Clump 10' Ht.	10
CO	(Symbol)	Celtis occidentalis	Hackberry	2.5" Cal.	8
CF	(Symbol)	Cornus florida	Flowering Dogwood	8' Ht.	4
CV	(Symbol)	Crataegus viridis 'Winter King'	Winter King Hawthorn	1.5" Cal.	1
GD	(Symbol)	Gymnocladus dioica	Kentucky Coffee Tree	2.5" Cal.	17
JV	(Symbol)	Juniperus virginiana 'Corcoran'	Emerald Sentinel Juniper	8' Ht.	18
LS	(Symbol)	Liquidambar styraciflua 'Cherokee'	Cherokee Sweetgum	2.5" Cal.	20
PF	(Symbol)	Pinus flexilis 'Vanderwolf's Pyramid'	Vanderwolf Pine	8' Ht.	6
PR	(Symbol)	Pinus resinosa	Red Pine	8' Ht.	5
QA	(Symbol)	Quercus alba	White Oak	3" Cal.	12
QB	(Symbol)	Quercus bicolor	Swamp White Oak	3" Cal.	2
TA	(Symbol)	Tilia americana	American Linden	2.5" Cal.	9

LIVE STAKE SHRUB	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY
CA	(Symbol)	Cornus amomum	Dogwood	LS	34
CS	(Symbol)	Cornus sericea	Red-Osier Dogwood	LS	34
SC	(Symbol)	Sambucus canadensis	Black Elderberry	LS	17

SHRUBS/GRASSES	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY
(Symbol)	JA	Juniperus horizontalis	Creeping Juniper	#3	43
(Symbol)	PA	Pennisetum alopecuroides 'Hamel'	Fountain Grass	#2	760
(Symbol)	PT	Pachysandra terminalis	Japanese Pachysandra	Qt.	1,100
(Symbol)	PV	Panicum virgatum 'Shenandoah'	Switchgrass	#1	508
(Symbol)	RA	Rhus aromatica	Gro-Low Fragrant Sumac	#3	339
(Symbol)	WF	Waldsteinia fragaroides	Barren Strawberry	Qt.	1,385

LAWN/SEED MIXES	QTY
(Symbol)	Lawn Seed Mix 28,600 SF
(Symbol)	Bioretention Seed Mix 9,825 SF

SEED MIX PLANT LIST

BIORETENTION MIX		
GRASSES		
Botanical Name	Common Name	PLS LBS/ACRE
Bouteloua hirsuta	Blue Grama Grass	1
Festuca ovina	Sheeps Fescue	1
Helictotrichon sempervirens	Blue Oat Grass	0.50
Schizachyrium scoparium	Little Bluestem	1.50
Sporobolus heterolepis	Prairie Dropseed	2

SOIL PREPARATION: ROUGH GRADED
DISTRIBUTION TYPE: BROADCAST SEEDING
COVER CROP: Avena sativa - COMMON OATS AT 30 LBS/ACRE

GENERAL SITE RESTORATION SEED MIX: CONTRACTOR TO RESTORE ALL DISTURBED
LAWN AREAS ON SITE WITH MDOOT MICHIGAN CLASS A SEED MIXTURE, UNLESS OTHERWISE NOTED.

PLANTING MIXTURE NOTES

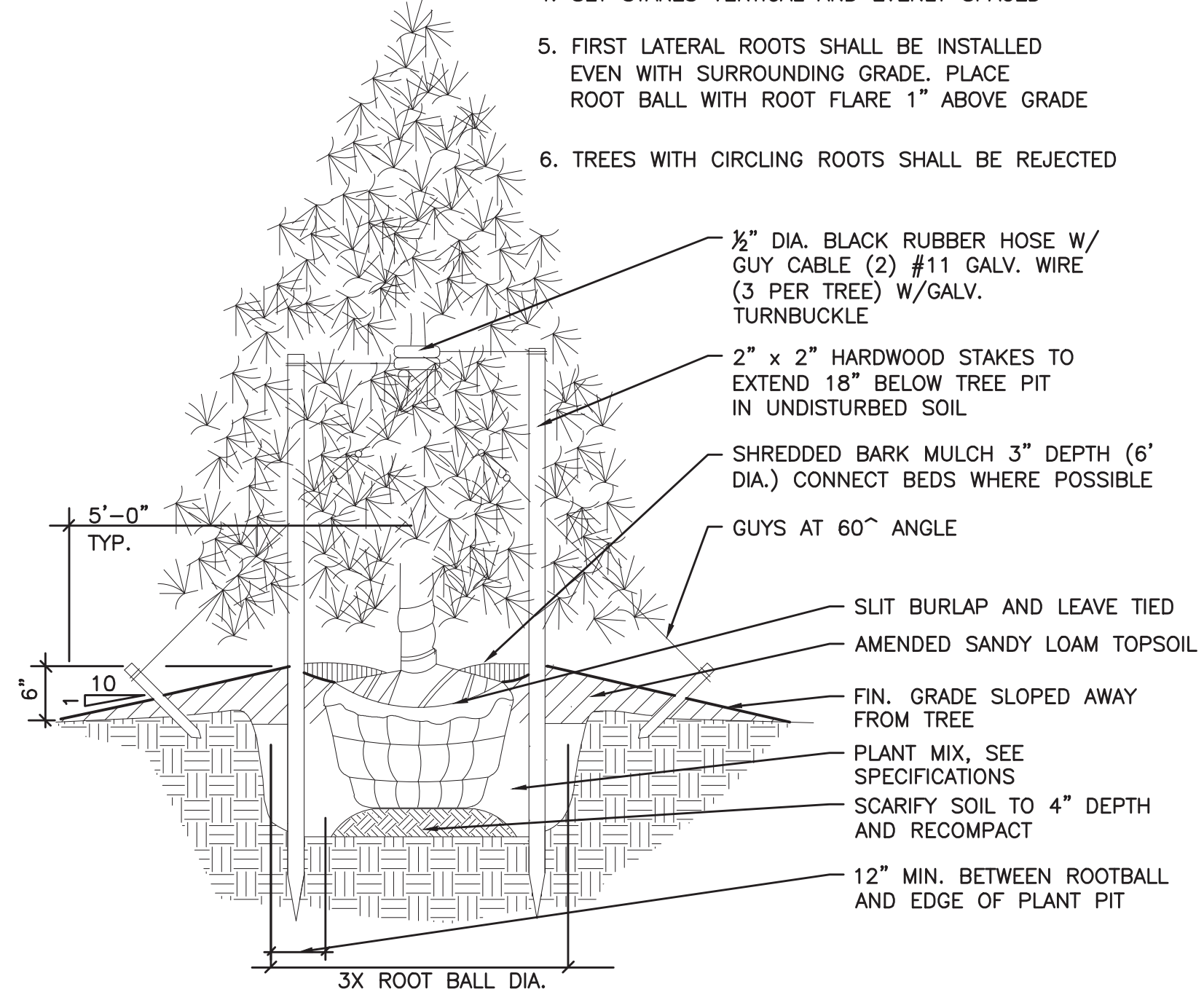
- MIXTURE SHALL BE A MIXTURE OF 6 PARTS TOPSOIL, 4 PARTS MEDIUM-COARSE SAND, AND 1 PART COMPOST. ADD FERTILIZER AT THE QUANTITY AS RECOMMENDED BY THE MANUFACTURER. PLANTING MIXTURE SHALL BE FREE FROM STICKS, STONES, SOO CLODS, OR OTHER MATERIAL WHICH MIGHT LEAVE POCKETS AROUND THE ROOTS.
- TOPSOIL SHALL BE FERTILE, FRABLE, SANDY CLAY LOAM WITHOUT ADMIXTURE OF SUBSOIL. TOPSOIL IS TO BE FREE OF GLASS, STONES GREATER THAN ONE (1) INCH IN ANY DIMENSION, WEEDS, UNDESIRABLE GRASSES AND OTHER EXTRANEOUS MATERIALS. TOPSOIL SHALL HAVE THE FOLLOWING RANGE OF VALUES:
pH: 5.0 TO 7.5
SOLUBLE SALTS: 500 PPM MAX
ORGANIC CONTENT: 5% TO 30%
SILT CONTENT: 35% TO 50%
CLAY CONTENT: 5% TO 10%
DELETERIOUS MAT: 5% MAX
ROCK, GRAVEL, STONES, STICKS, ROOTS, SOO, ETC.
TOPSOIL IS TO BE FINAL SCREENED THRU A 5/8" MAXIMUM MESH SCREEN PRIOR TO DELIVERY TO THE PROJECT SITE. ENGINEER SHALL REVIEW SOURCE AND FINAL SCREEN ANALYSIS PRIOR TO RELEASE OF TOPSOIL. CONTRACTOR SHALL SUBMIT A CERTIFIED ANALYSIS OF THE TOPSOIL FROM EACH SOURCE TO THE ENGINEER. TOPSOIL SHALL BE PLACED IN 4-INCH MINIMUM THICKNESS THROUGHOUT.
- SAND FOR PLANTING MIXTURE SHALL BE CLEAN, MEDIUM-COARSE, UNGRADED SAND CONFORMING TO ASTM C3 FOR FINE AGGREGATES.
- COMPOST SHALL BE COMPOSTED PINE BARK FINES OR OTHER HIGH-LIGNIN BARK FROM SPRUCE, FIR, OR OTHER CONIFERS.

LANDSCAPE NOTES

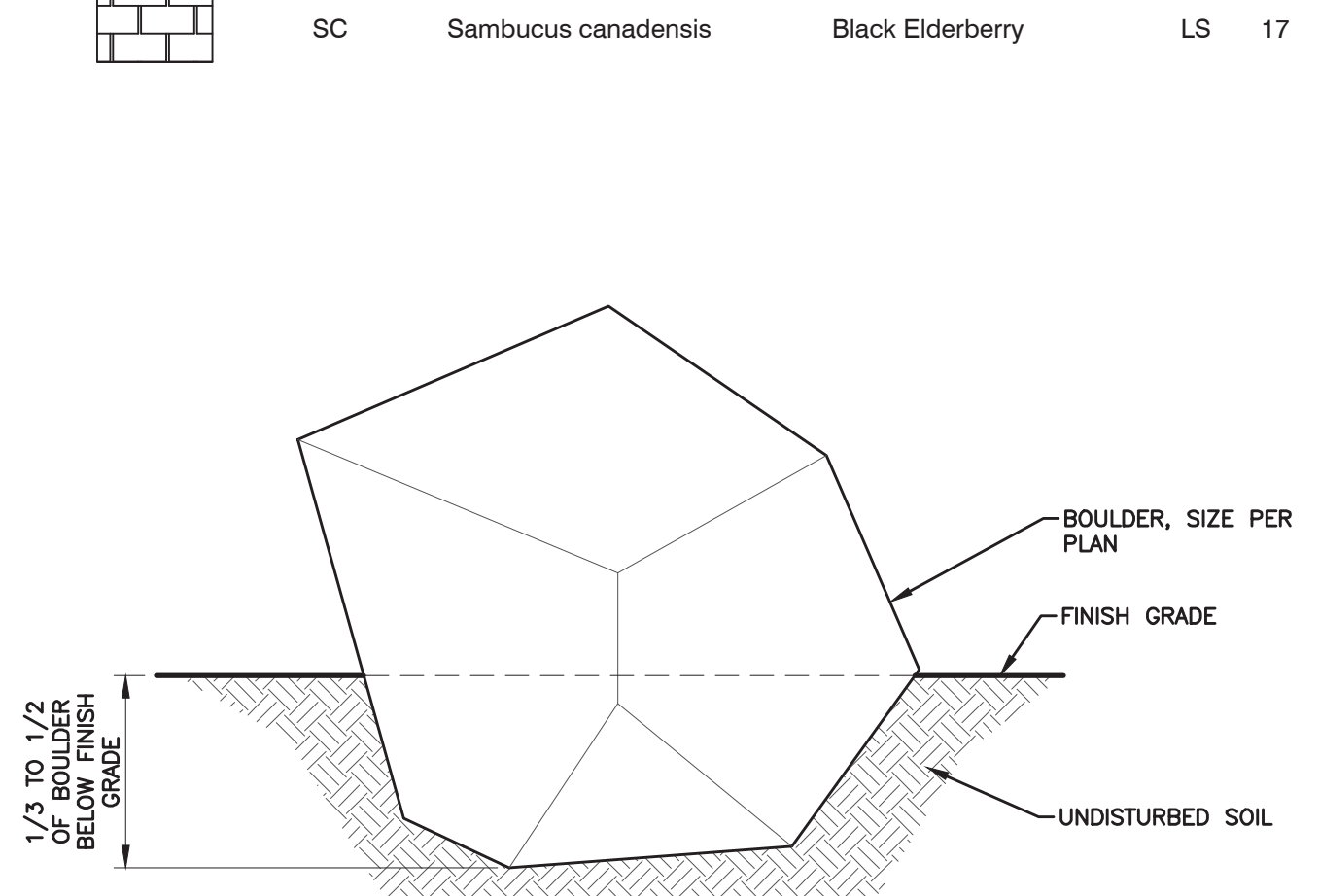
- ALL PLANTS TO BE INSTALLED IN ACCORDANCE WITH AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
- CONTRACTOR SHALL PROVIDE A PLANTING MIXTURE MEETING THE FOLLOWING REQUIREMENTS, IF THE ENGINEER HAS ANY CONCERNS WITH THE QUALITY OF THE PLANTING MIXTURE, THE ENGINEER SHALL BE ALLOWED TWO WEEKS TO OBTAIN SOIL TEST TO DETERMINE SPECIFICATION COMPLIANCE. NO PLANT MATERIAL SHALL BE PLANTED PRIOR TO ENGINEER APPROVAL OF PLANTING MIXTURE. ALL PLANT MATERIAL SHALL BE MAINTAINED BY THE CONTRACTOR IN A VIGOROUS GROWING CONDITION DURING THIS TIME AT NO ADDITIONAL COST.
- SPACING OF PLANT MATERIALS SHALL BE AS SHOWN ON DRAWING OR ON PLANT LIST. THE ENGINEER SHALL REVIEW THE PLACEMENT OF PLANT MATERIAL PRIOR TO AND AFTER INSTALLATION, AND RESERVES THE RIGHT TO ADJUST LAYOUT TO ACCOMMODATE SITE CONDITIONS AND DESIGN INTENT.
- ALL PLANT MATERIALS SHALL CONFORM TO PLANT SCHEDULES. SIZES SHALL BE THE MINIMUM STATED ON THE PLANT LIST OR LARGER. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.A.N. STANDARDS FOR NURSERY STOCK."
- NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN FINISHED AND REVIEWED BY THE ENGINEER.
- FINAL PLANT LOCATIONS SHALL BE MARKED BY CONTRACTOR THREE WORKING DAYS PRIOR TO PLANTING FOR ENGINEER REVIEW.
- ALL PLANTED PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANTS ORIGINAL GRADE BEFORE DIGGING.
- PLANT MATERIAL, ESPECIALLY EVERGREENS, TO BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) PREVAIL.
- IF FOR ANY REASON ANY BALLED AND BURLAPED PLANT MATERIALS NEED TO BE STORED ON SITE LONGER THAN A 24-HOUR PERIOD, THEIR ROOT BALLS SHALL BE PROTECTED. ALL PLANTS SHALL BE THOROUGHLY WATERED EACH DAY THEY ARE STORED ON SITE. PLANTS MAY BE STORED ON SITE FOR A MAXIMUM OF TWO (2) WEEKS, OR 14 DAYS. ANY PLANTS ALLOWED TO DRY OUT AS DETERMINED BY THE ENGINEER WILL BE REJECTED.
- NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL WRAPPING MATERIALS MADE OF SYNTHETIC OR PLASTICS SHALL BE COMPLETELY REMOVED AT TIME OF PLANTING.
- THE CONTRACTOR SHALL FILL PLANT PIT WITH PREPARED PLANT MIX TO 1/2 DEPTH OF ROOT BALL OR ROOT MASS, PACK FIRMLY, FIDDLE WITH WATER, THEN FOR BALLED AND BURLAPED MATERIAL, THE BURLAP AND ALL LACING (INCLUDING WIRE BASKET IF NECESSARY) SHALL BE REMOVED FROM THE UPPER 1/3 OF ROOTBALL, THEN FINISH BACKFILLING ADDING SOIL FERTILIZER TO THE PLANT MIX, PACK FIRMLY AND WATER. A SAUCER SHALL BE PLACED AROUND EVERY PLANT AND SHALL BE APPROVED PRIOR TO PLANTING OF ANY MULCH.
- ALL DISTURBED LAWN AREAS SHALL BE RESTORED WITH 4-INCHES OF TOPSOIL, SPREAD, FINE GRADED, AND SEEDED/SODDED AS SPECIFIED. PRIOR TO INSTALLATION OF TOPSOIL, SPREAD, FINE GRADED, AND SEEDED/SODDED AS SPECIFIED, PRIOR TO INSTALLATION OF TOPSOIL, LOOSEN SUBGRADE TO A DEPTH OF 2 INCHES. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
- TOPSOIL SHALL CONSIST OF FRABLE, SHREDDED, AND SCREENED SOIL REASONABLY FREE OF GRASS, ROOTS, WEEDS, STICKS, STONES OR OTHER FOREIGN MATERIALS. THE TOPSOIL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. SOIL COMPOSITION SHOULD CONTAIN AN ORGANIC CONTENT OF 2 TO 6 PERCENT AND BE CLASSIFIED AS A LOAM OR SANDY LOAM AS SPECIFIED IN THE "GUIDE FOR U.S.D.A. SOIL TEXTURAL CLASSIFICATION".
- ALL TREES AND SHRUBS ARE TO BE FERTILIZED ONCE ROOTS SYSTEM IS ESTABLISHED WITH AGRIFORM 21-GRAM FERTILIZER TABLETS AT RATES RECOMMENDED BY MANUFACTURER.
- ALL PLANTS AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.
- AT PLANTING TIME, ALL DEAD AND BROKEN BRANCHES SHALL BE PRUNED ON ALL DECIDUOUS TREES.
- CONTRACTOR SHALL APPLY ENGINEER APPROVED PRE-EMERGENT HERBICIDE, "PREEN" OR EQUAL, TO SHRUB AND GROUND COVER PLANTING AREAS AT THE TIME OF PLANTING (IF SPRING PLANTED) OR THE FOLLOWING SPRING. CONTRACTOR SHALL ENSURE THE PLANT MATERIALS ARE RESISTANT TO THE HERBICIDES PROPERTIES. HERBICIDE SHALL BE APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND IN ACCORDANCE WITH SOUND HORTICULTURAL PRACTICES.
- ALL TREES, SHRUBS AND PERENNIAL GROUND COVER SHALL RECEIVE A MINIMUM DEPTH OF THREE INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH, WHERE PLANT BEDS MEET PAVEMENTS, LAWN, OR STEEL EDGING CUT THE GRADE TO ALLOW FOR MULCH AND THREE-INCH DROP FROM ADJOINING FINISH GRADE.
- ALL PLANT BEDS SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8-INCHES AND BACKFILLED WITH SPECIFIED PLANT MIX AS PER PLANTING BED DETAILS. BEDS SHALL BE EDGED WITH METAL EDGING AROUND PERIMETER. ALL EDGING SHALL BE 4" WIDE - 12 GAUGE STEEL, COLOR BLACK. CONTRACTOR SHALL LAYOUT EDGING FOR APPROVAL AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE. ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) FULL YEAR FOLLOWING PLANTING. ALL DISEASED, DAMAGED, OR DEAD MATERIAL SHOWN ON THE SITE PLAN SHALL BE REPLACED BY THE END OF THE FOLLOWING GROWING SEASON.
- APPLICATIONS OF FERTILIZER BEYOND THE INITIAL TOPSOIL AND SEEDING SHALL BE A FERTILIZER WITH NO PHOSPHORUS. CONTRACTOR SHALL PERFORM SOIL TESTS (2 PER PARK BLOCK) TO CONFIRM THE FERTILIZER AND LIME NECESSARY FOR THE SITE. CONTRACTOR TO LIMIT THE AMOUNT OF FERTILIZER AND LIME TO WHAT IS ABSOLUTELY NECESSARY TO ENSURE OPTIMAL GROWTH.
- EROSION CONTROL BLANKETS SHALL NOT BE USED ON THIS PROJECT. IN LIEU OF THESE BLANKETS, THE CONTRACTOR SHALL STABILIZE THE SEEDED AREAS USING STRAW CRIMPED INTO THE GROUND USING A MULCH ANCHORING TOOL (DISC WITH VERTICAL COULTERS) OR BY HYDROSEEDING WITH A CELLULOSE OR WOOD FIBER MULCH.

NOTES:

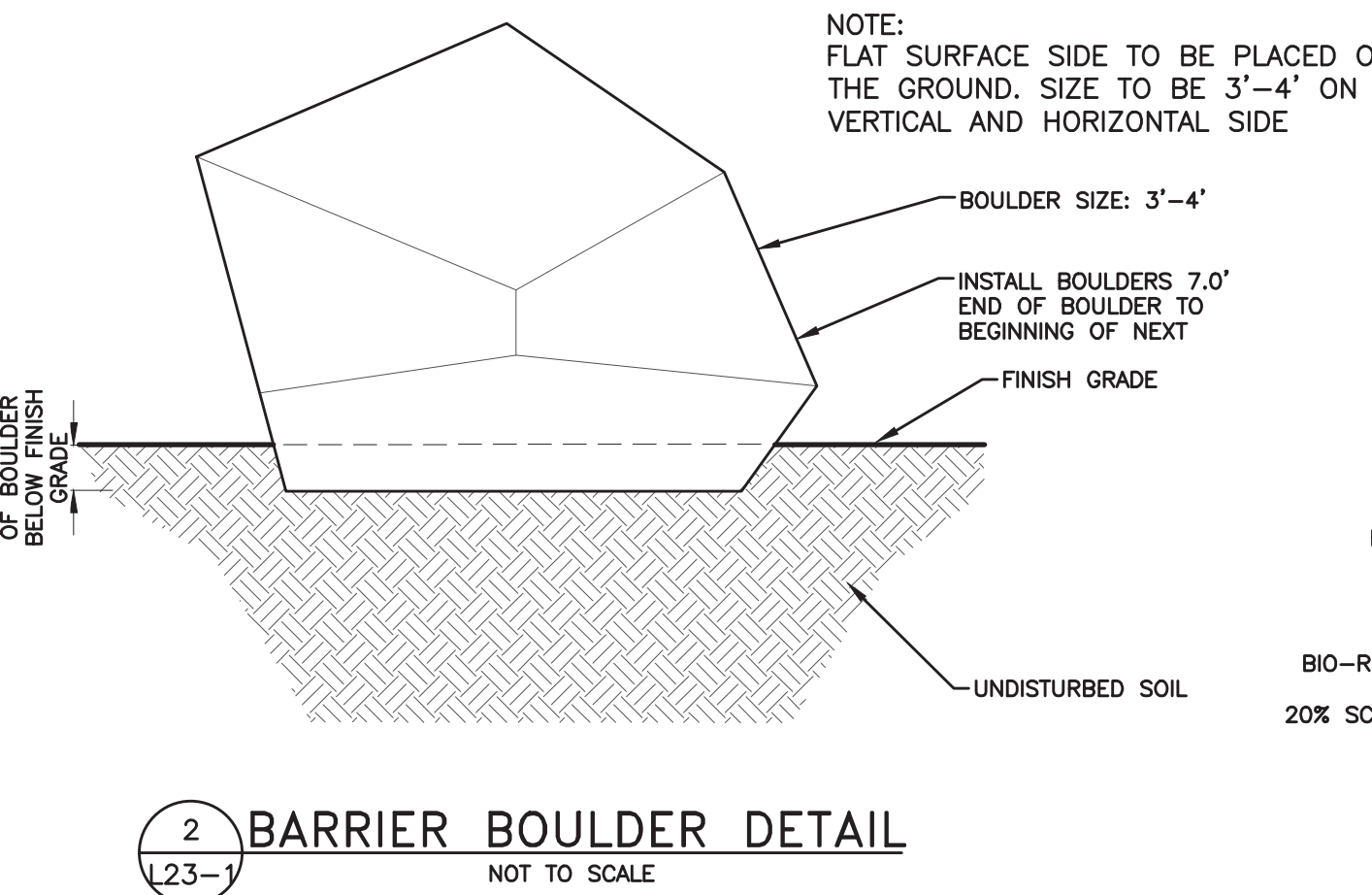
- STAKE ALL EVERGREEN TREES UNDER 12' HIGH
- NEVER CUT CENTRAL LEADER
- PRUNE ONLY TO REMOVE DEAD OR BROKEN BRANCHES
- SET STAKES VERTICAL AND EVENLY SPACED
- FIRST LATERAL ROOTS SHALL BE INSTALLED EVEN WITH SURROUNDING GRADE. PLACE ROOT BALL WITH ROOT FLARE 1" ABOVE GRADE
- TREES WITH CIRCLING ROOTS SHALL BE REJECTED



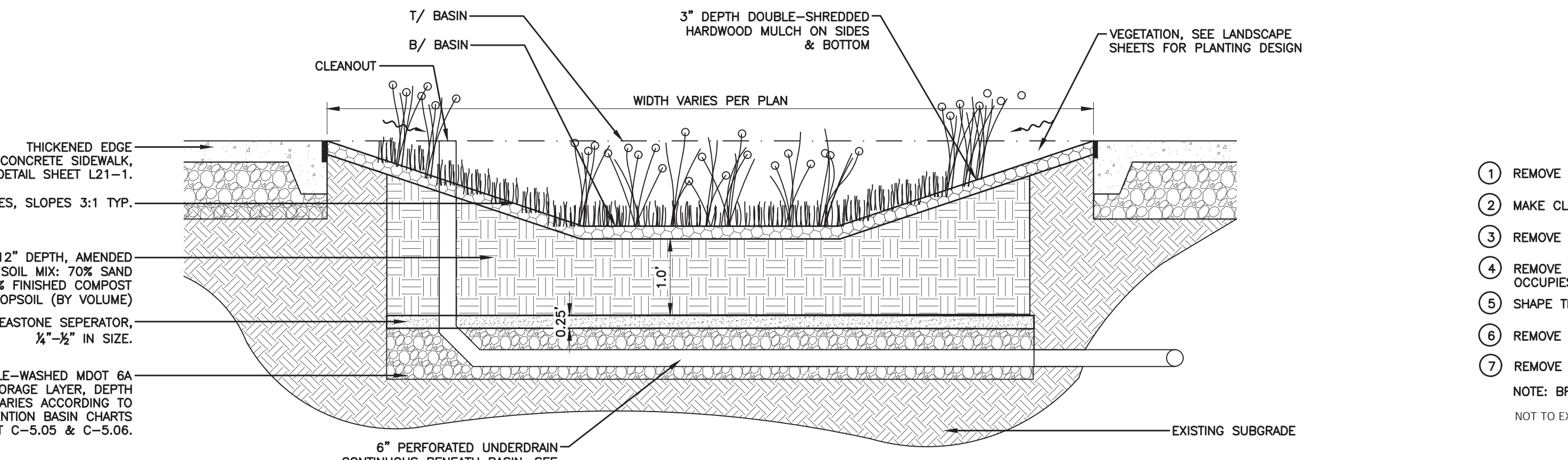
10 EVERGREEN TREE DETAIL
NOT TO SCALE



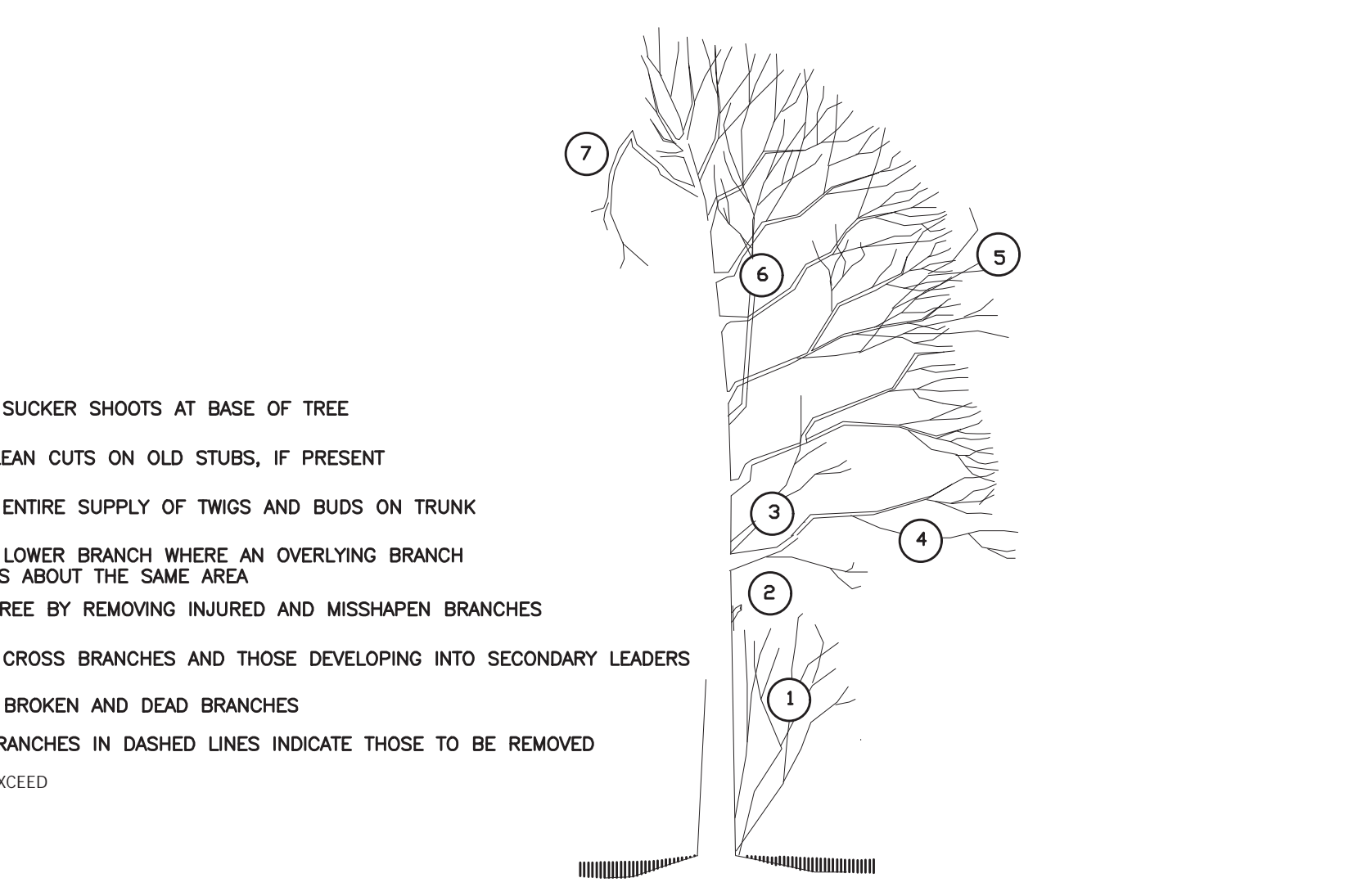
1 LANDSCAPE BOULDER DETAIL
NOT TO SCALE



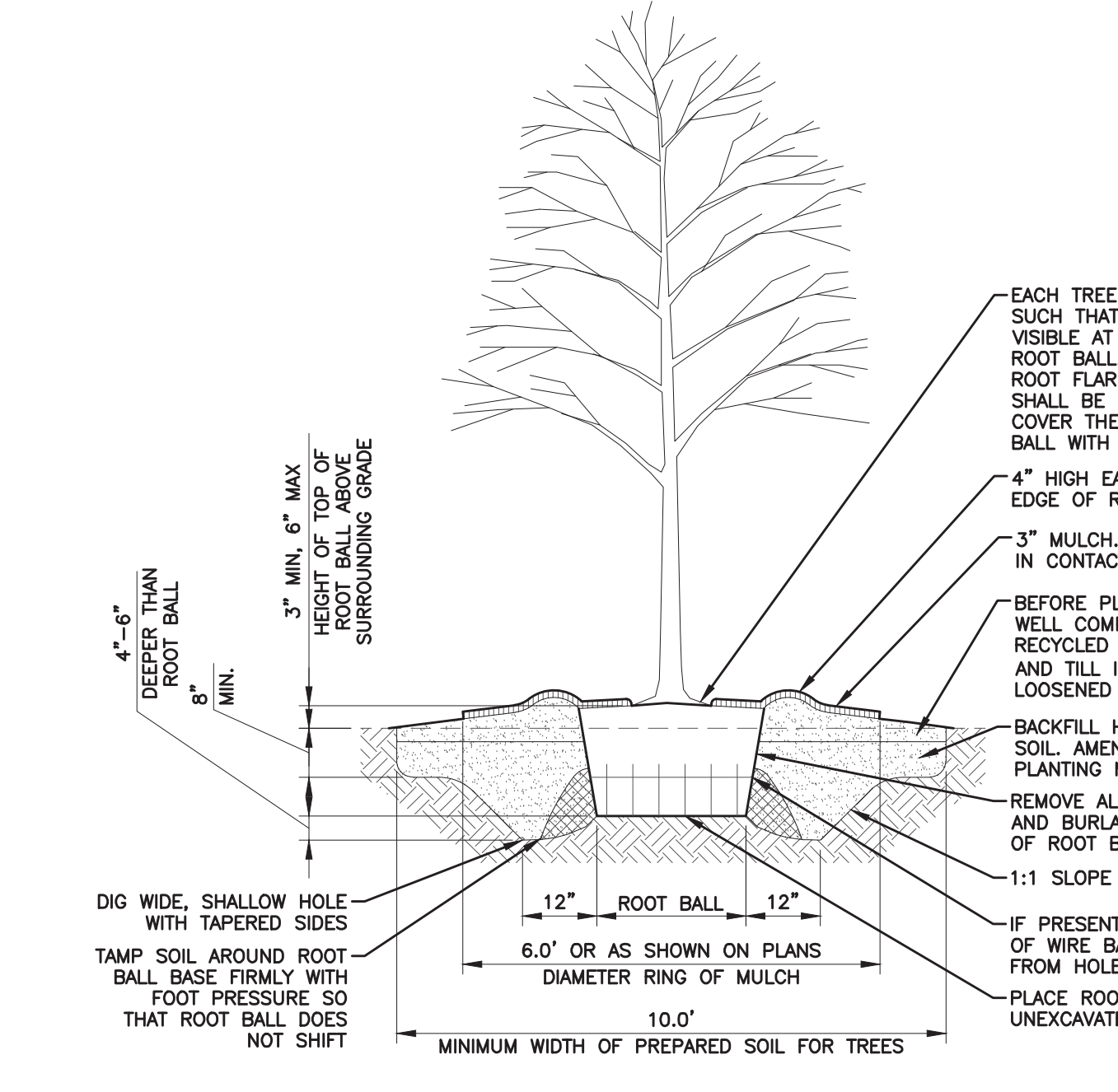
2 BARRIER BOULDER DETAIL
NOT TO SCALE



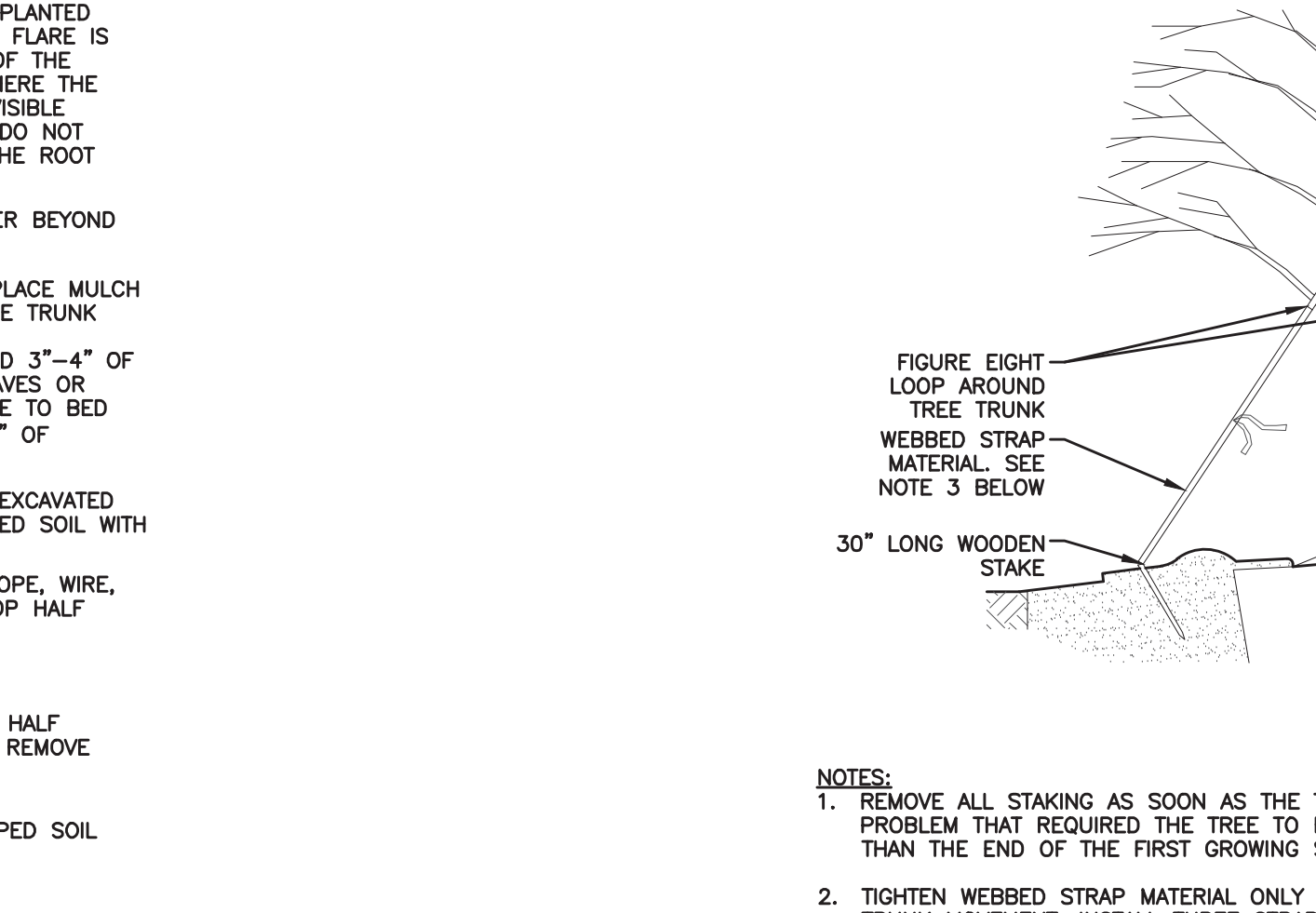
3 TYPICAL BIORETENTION BASIN DETAIL
NO SCALE



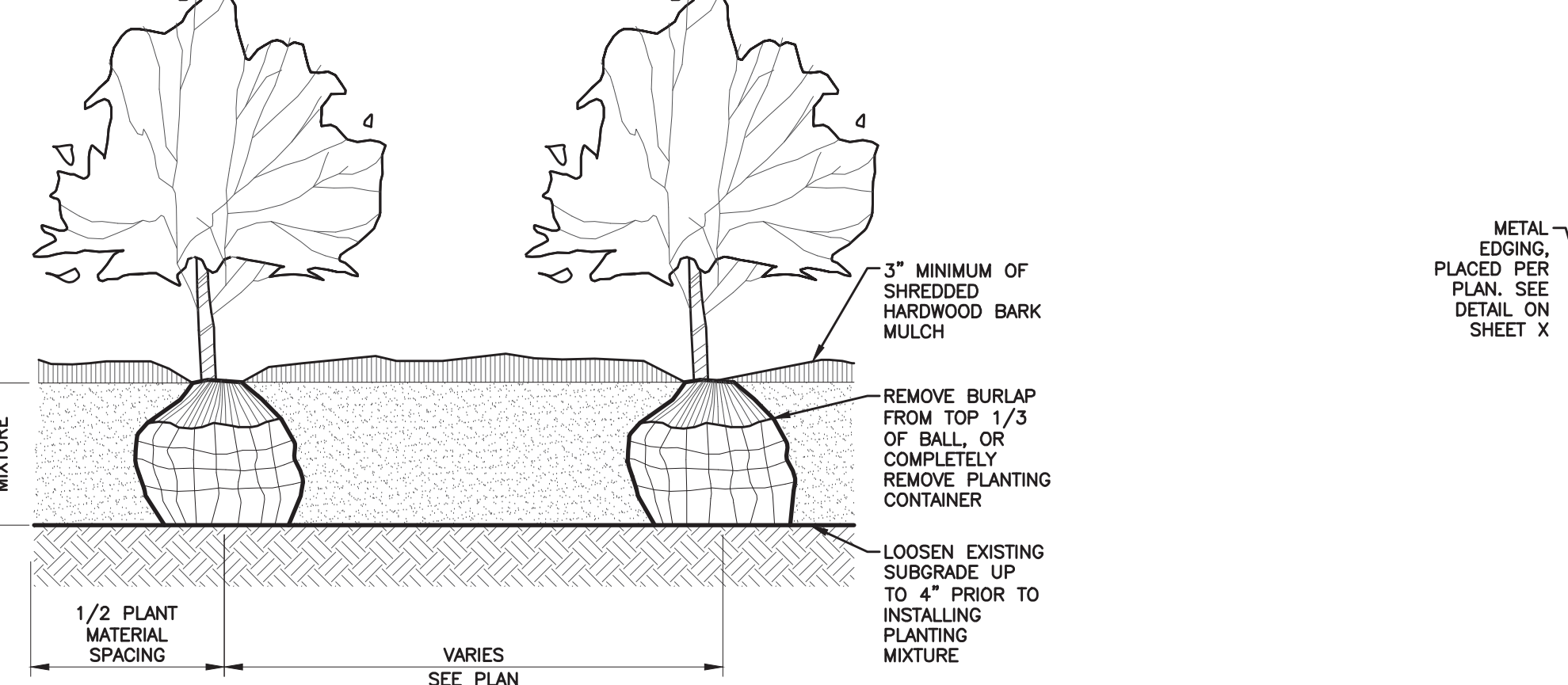
4 TREE PRUNING
NOT TO SCALE



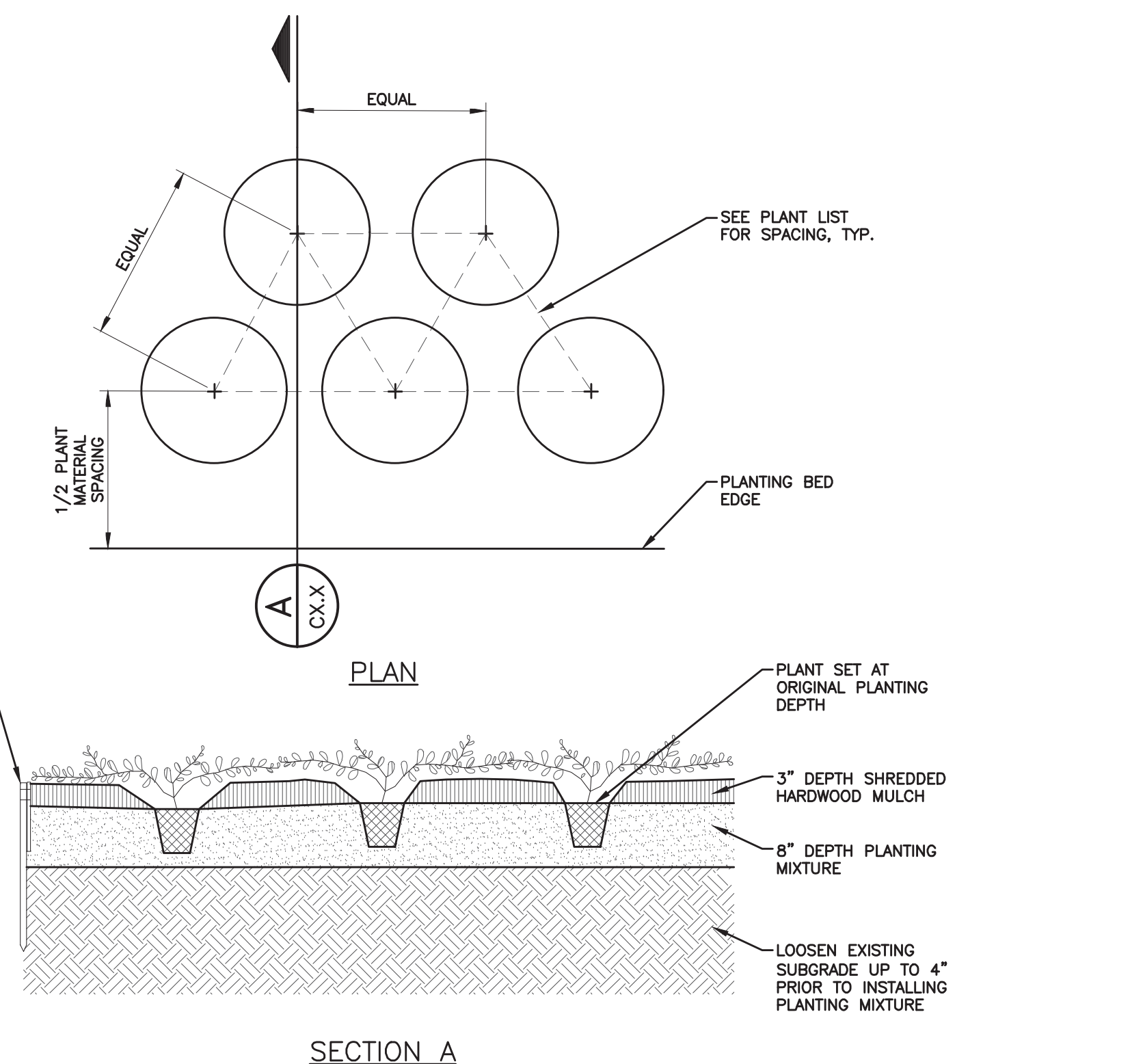
5 TREE PLANTING DETAIL
NOT TO SCALE



6 TREE STAKING DETAIL
NOT TO SCALE



7 SHRUB PLANTING DETAIL
NOT TO SCALE



8 GROUNDCOVER PLANTING DETAIL
NOT TO SCALE

PROJECT MANAGER: BRUCE WATSON, WTD+PLS LANDSCAPE-DETAILS.DWG - L23-1 - PLOTTED 10/24/2024 9:30 AM BY WHALEY, RUSSELL

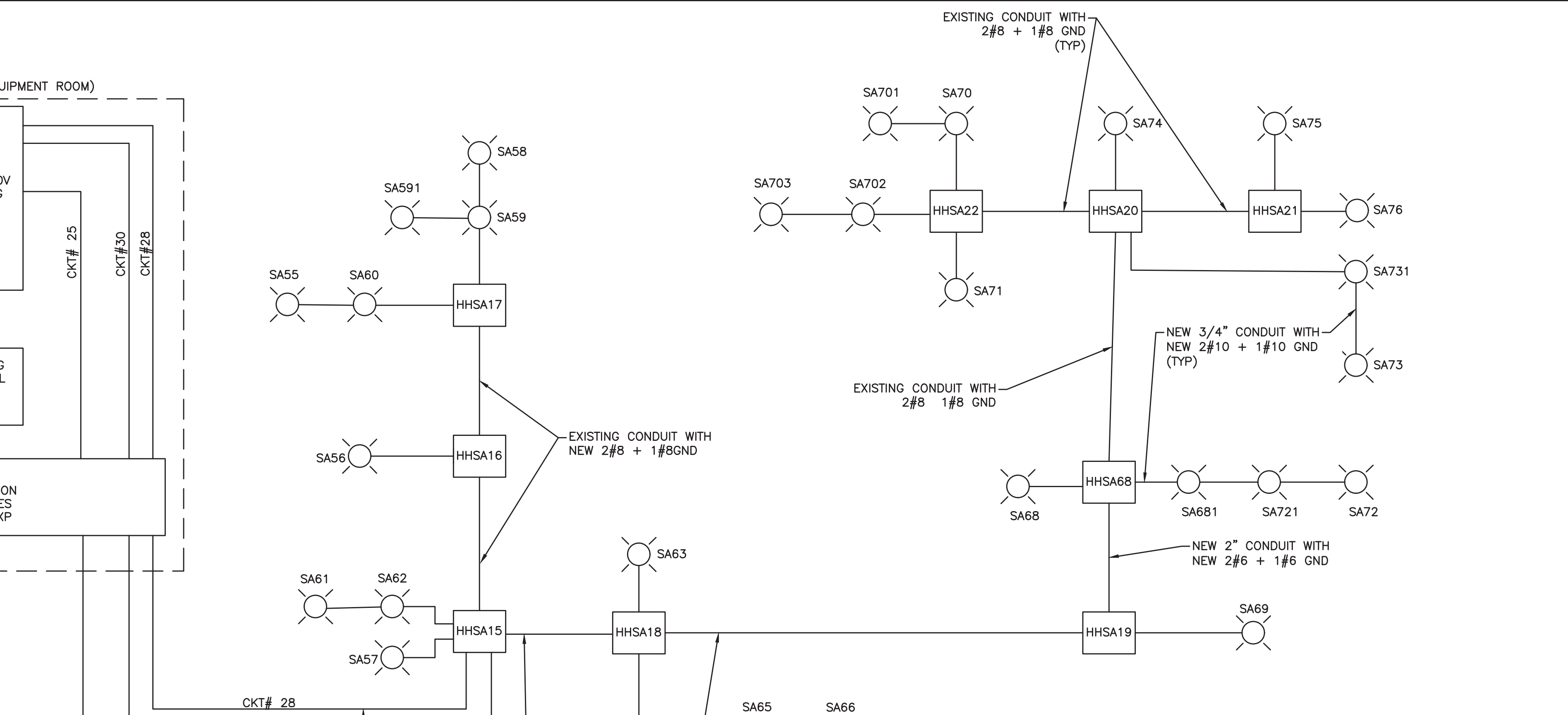
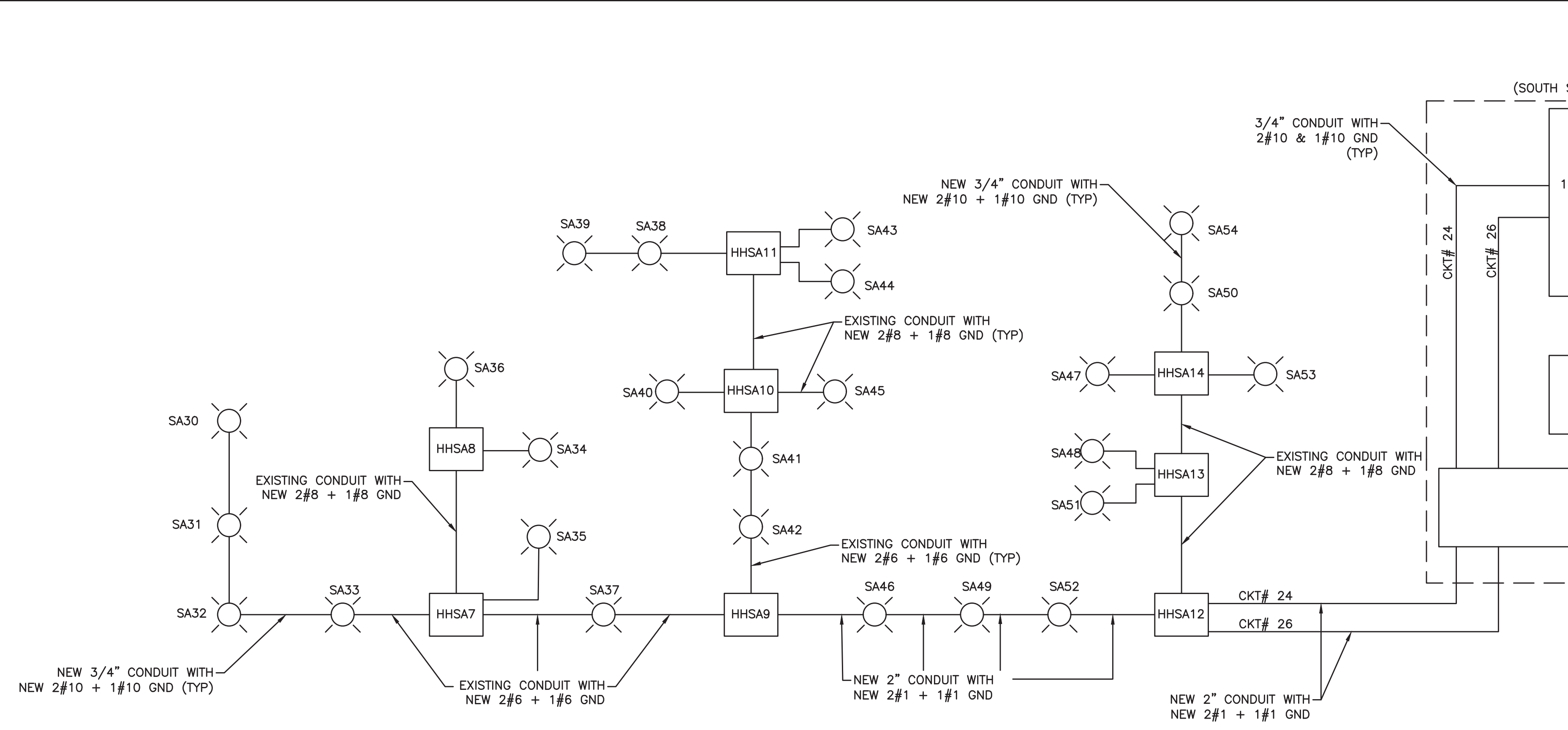
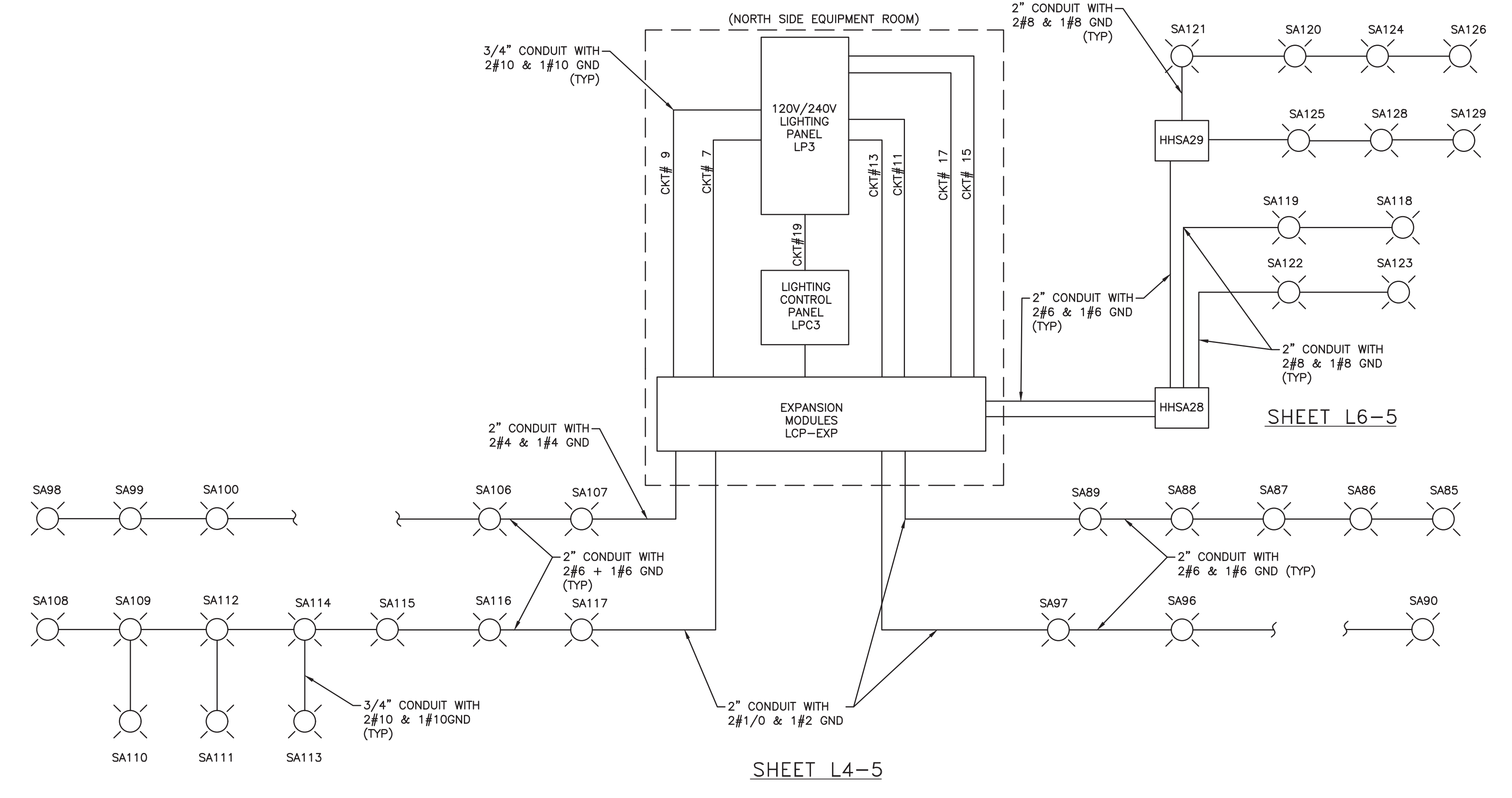
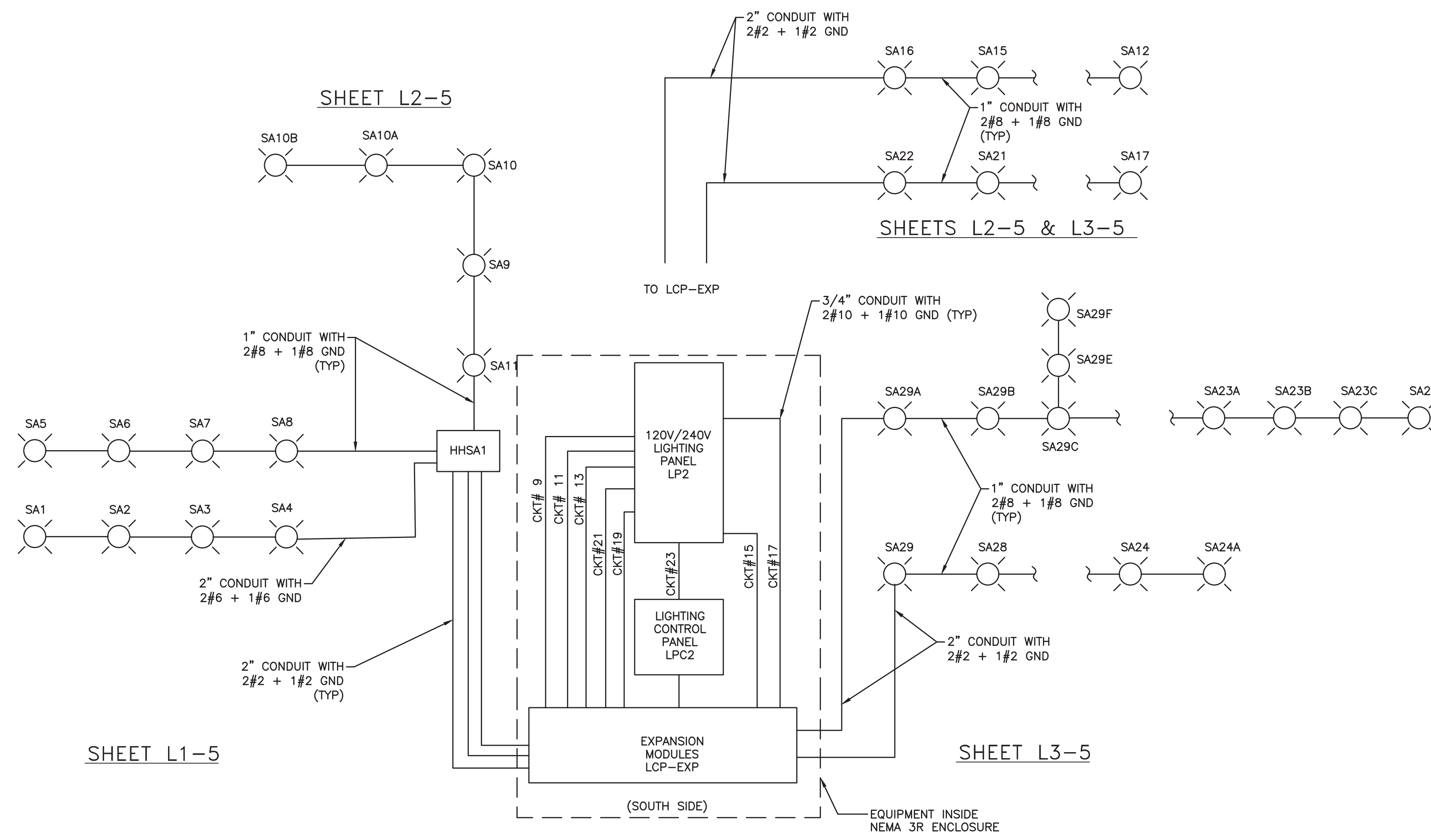
REV#	DATE	DESCRIPTION	BY

WADE TRIM
395 S. Saginaw Street, Suite 201
Flint, MI 48602
910.291.5556
www.wadestrim.com

GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LANDSCAPE - DETAILS

ISSUED FOR: DATE: BY: JOB NO.
10/23/24 SAL GPA200301F
SHEET
L23-1



1 LIGHTING DIAGRAMS LIGHT SA
NOT TO SCALE

PROJECT MANAGER: JAMES WEAVER; DESIGNER: JAMES WEAVER; DATE: 10/24/2024 9:30 AM BY: WHALEY, RUSSELL; C:\P\WORK\2024\06\1530\ELCP-PLS-LIGHTING DETAILS.DWG - E1-1 - PLOTTED: 10/24/2024 9:30 AM BY: WHALEY, RUSSELL



Know what's below.
Call before you dig.

REV#	DATE	DESCRIPTION	BY



925 S. State Street, Suite 201
Flint, MI 48502
910.291.2656
www.wadetrim.com

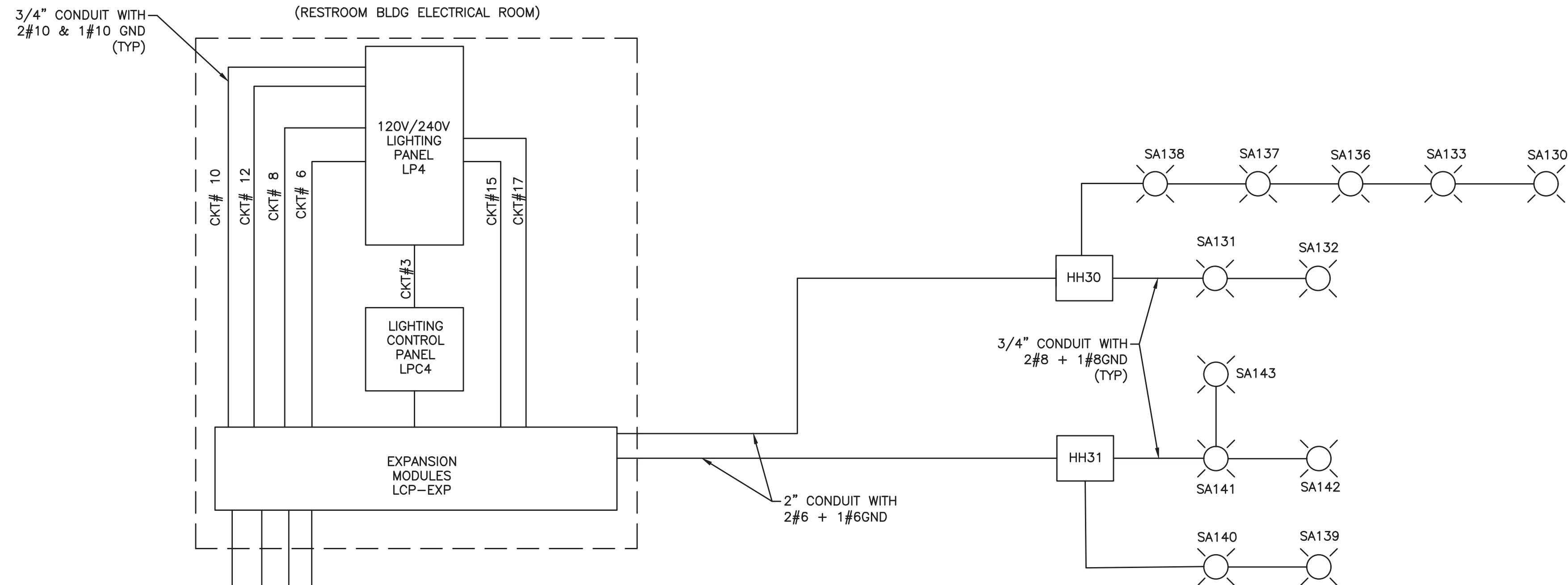
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING DIAGRAMS

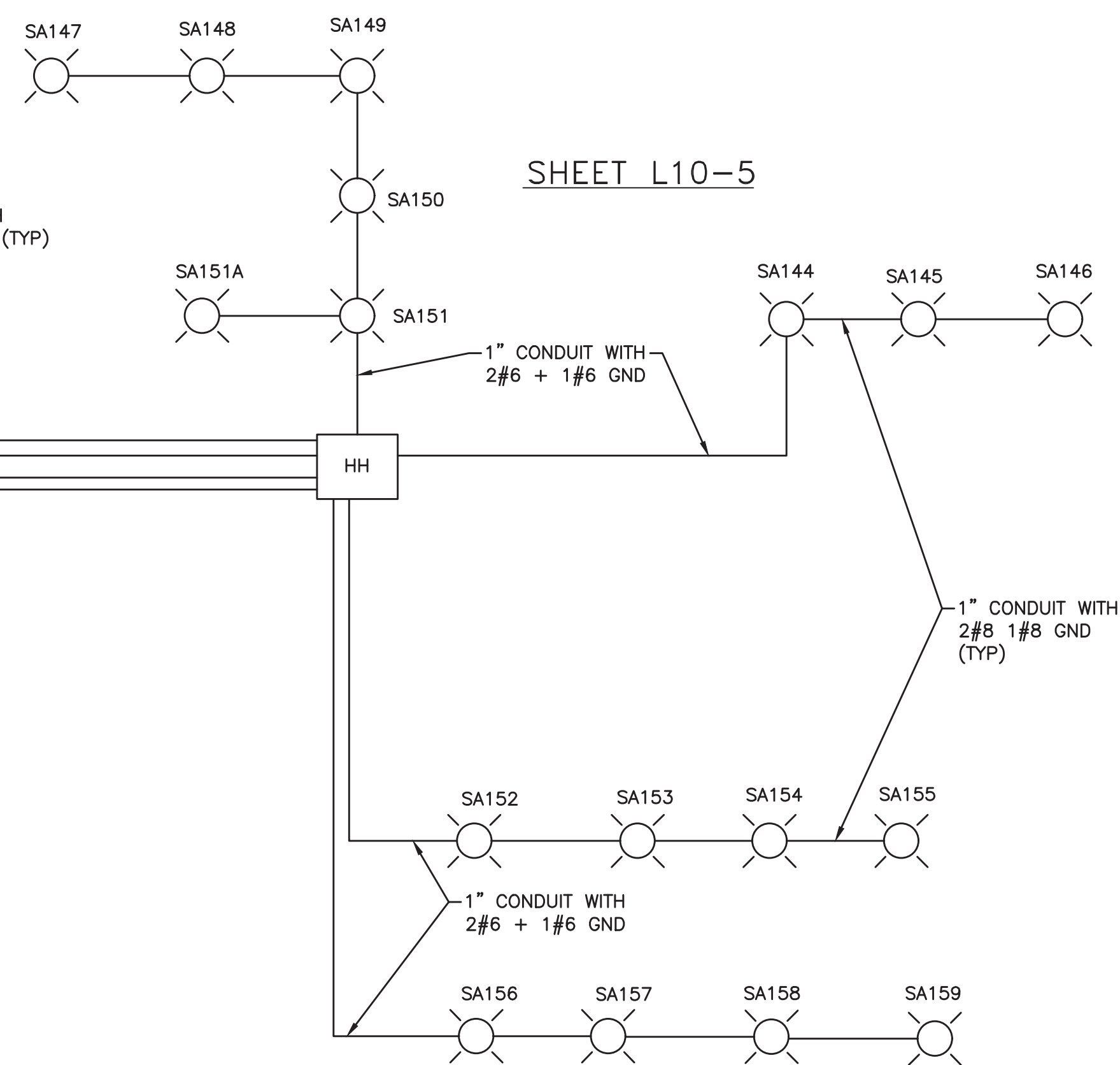
ISSUED FOR: DATE: BY:
JOB NO. GPA200301F
10/23/24 SAL

SHEET
E1-1

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SHEET L7-5



SHEETS L10-5, L11-5

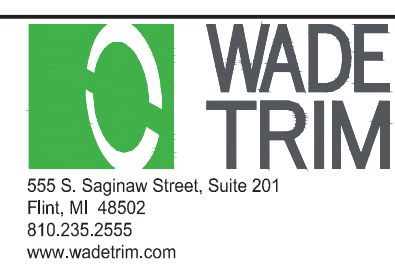
1 LIGHTING DIAGRAMS LIGHT SA
NOT TO SCALE

PROJECT MANAGER: Russ Whaley; DESIGNER: Russ Whaley; DATE: 10/23/24; SHEET: E1-2; PLOTTED: 10/24/2024 9:30 AM BY: WHALEY, RUSSELL



Know what's below.
Call before you dig.

REV#	DATE	DESCRIPTION	BY



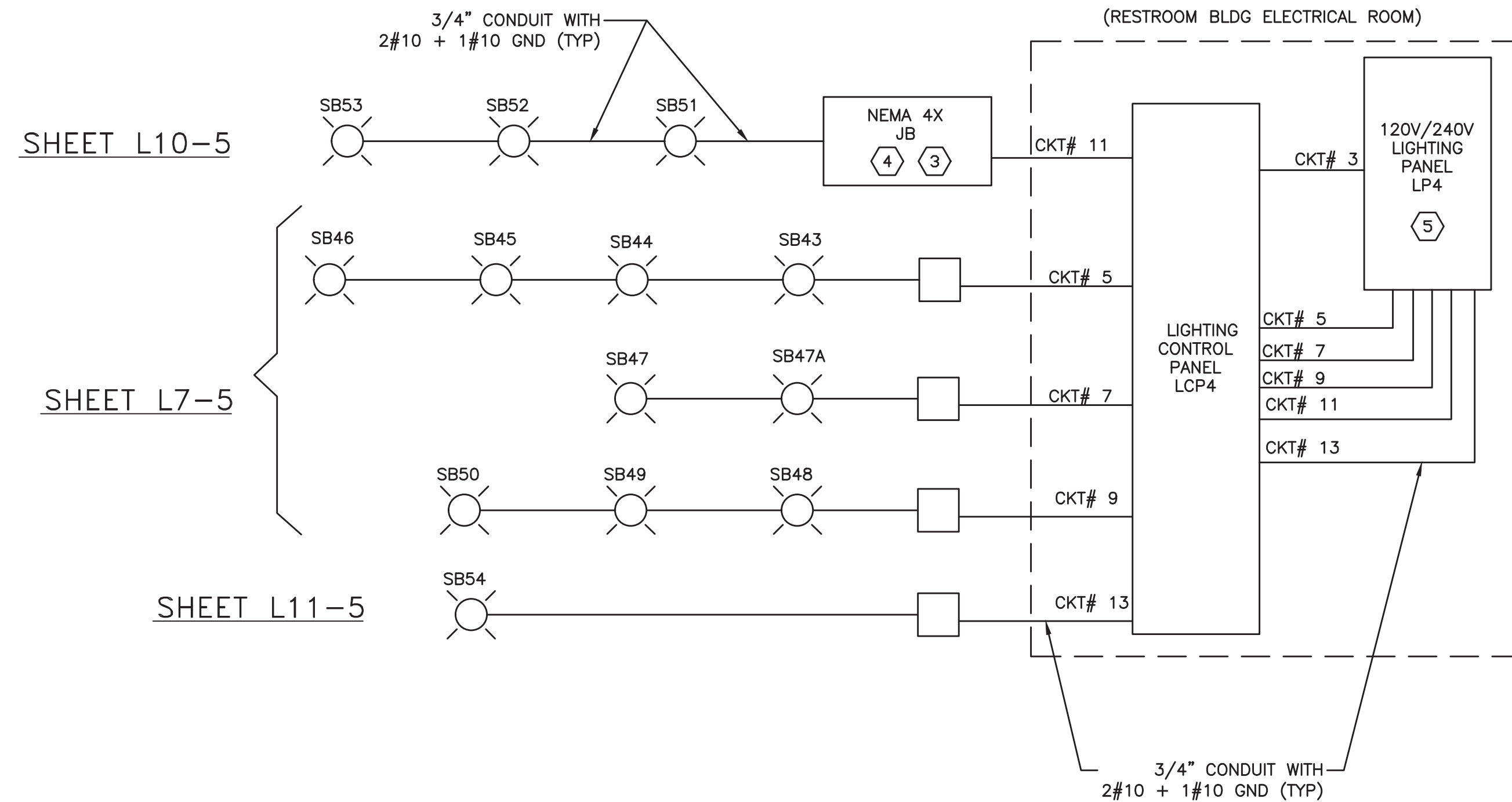
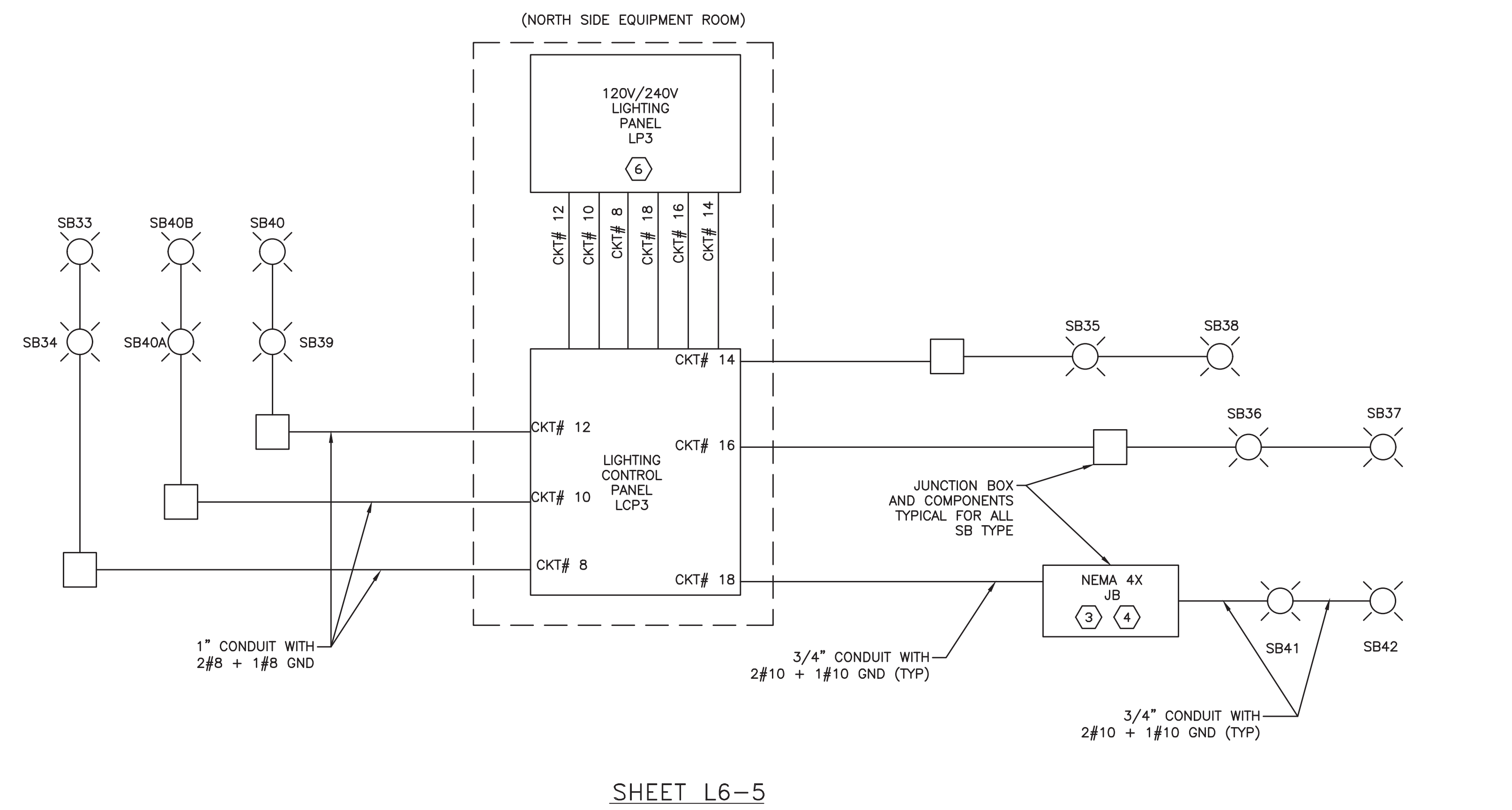
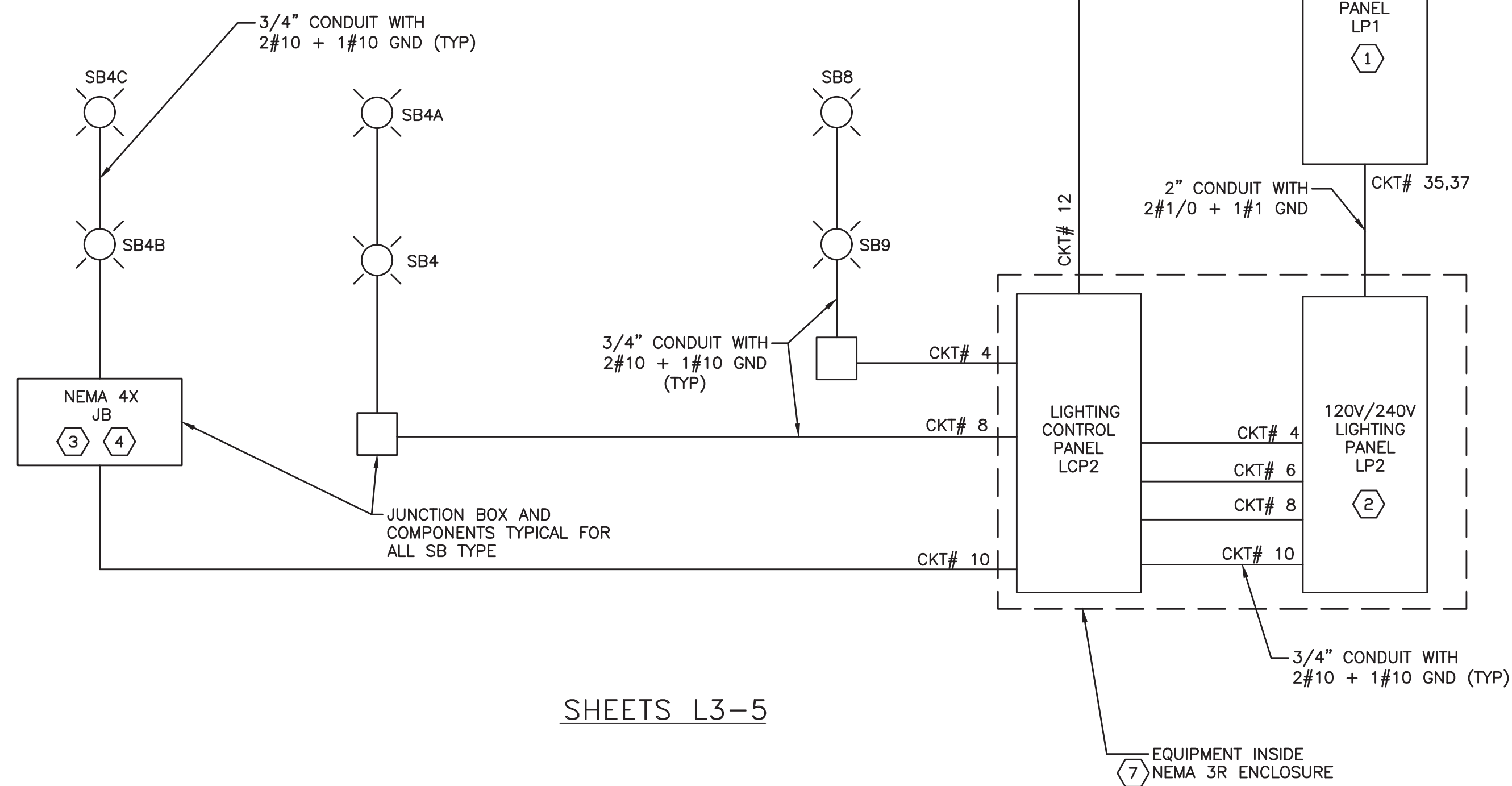
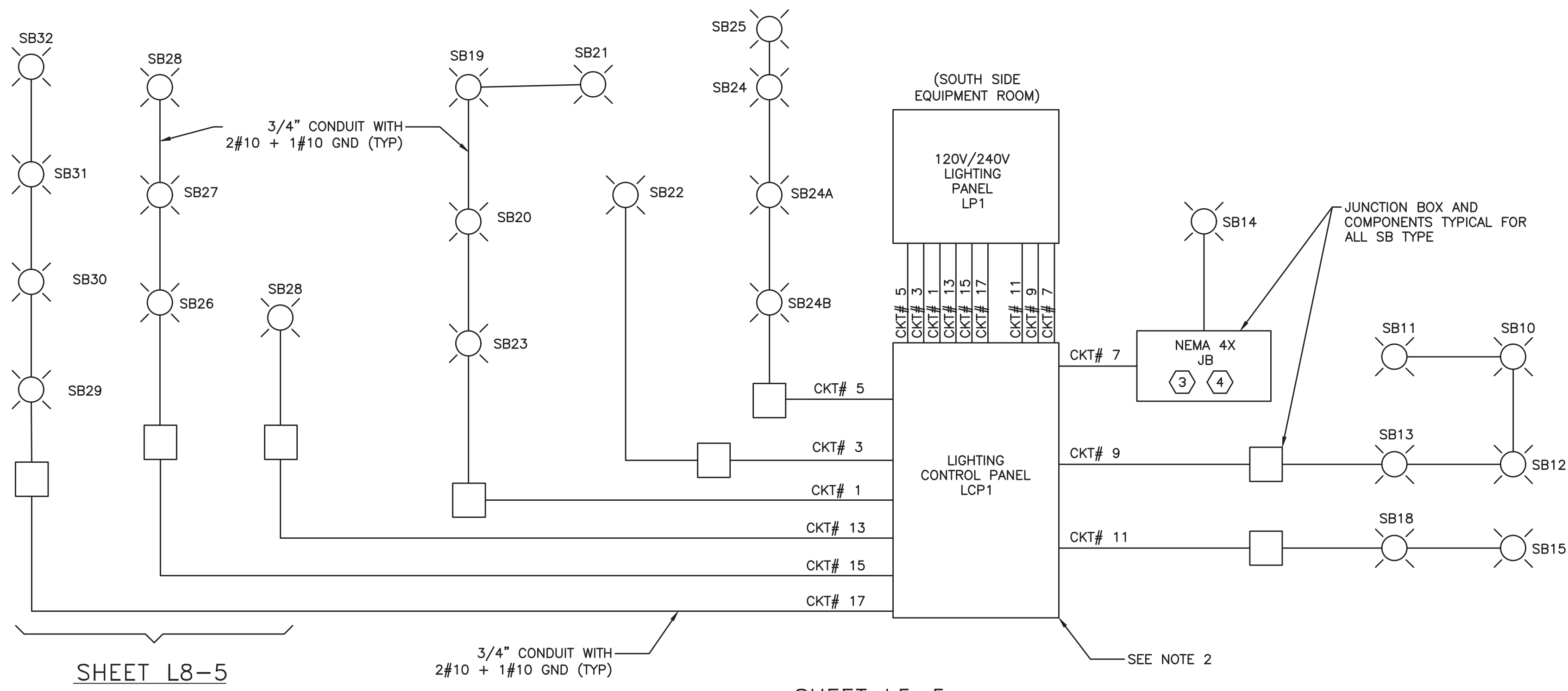
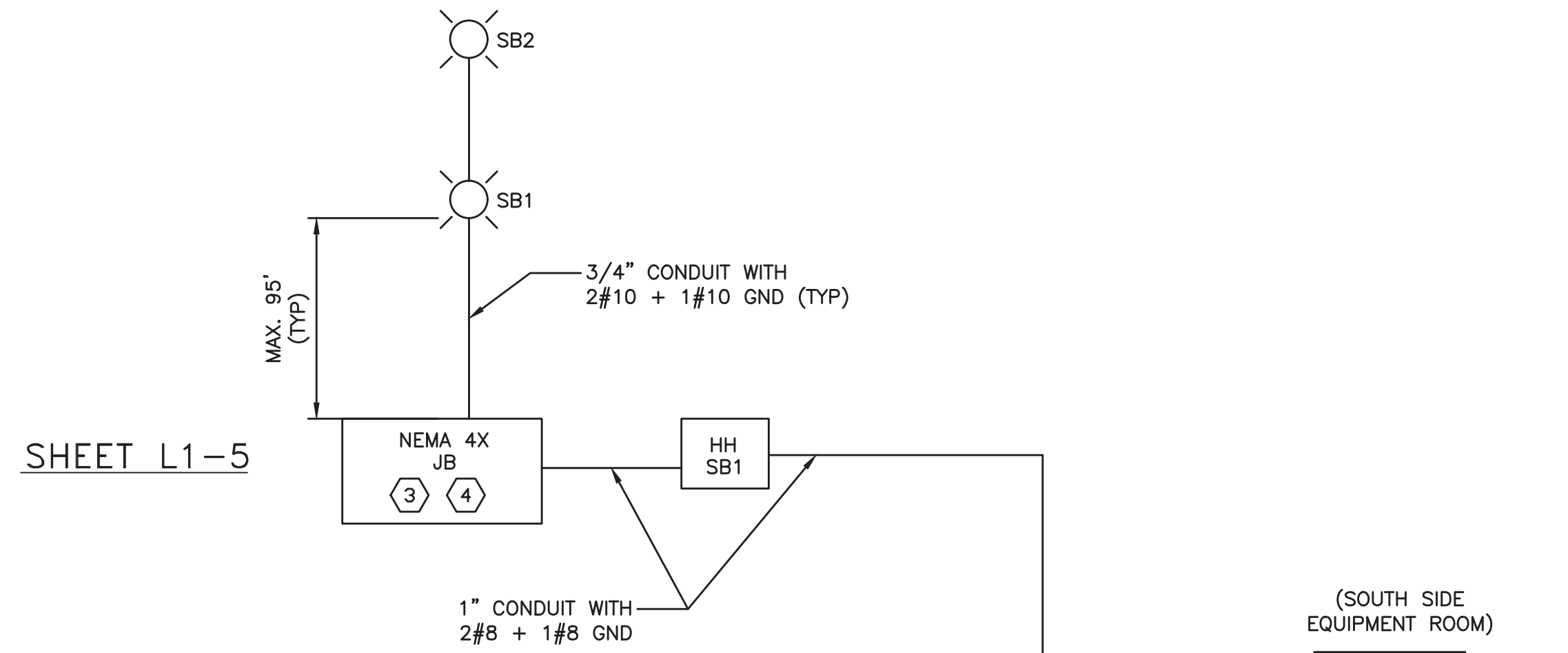
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING DIAGRAMS

ISSUED FOR: IFB	DATE: 10/23/24	BY: SAL
-----------------	----------------	---------

JOB NO. GPA200301F
SHEET E1-2

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KEYED NOTES

- ① POW-R-LINE XPERT LIGHTING PANEL (LP1) 240V/120V, 225A MAIN CB, 42 CIRCUITS, NEMA 12 ENCLOSURE, MODEL PRL1X BY EATON OR APPROVED EQUAL.
- ② POW-R-LINE XPERT LIGHTING PANEL (LP2) 240V/120V, 40A MAIN CB, 42 CIRCUITS, NEMA 12 ENCLOSURE, MODEL PRL1X BY EATON.
- ③ STANDARD NEMA 4X ENCLOSURE, IP67, MODEL LUENCLOSURE4XP BY WAGNER.
- ④ PROVIDE 100W CONSTANT VOLTAGE LED DRIVER, INPUT 120-277V, OUTPUT 24VDC, MODEL AC-A100VD24H4.1 BY ACELEDS.
- ⑤ POW-R-LINE XPERT LIGHTING PANEL (LP4) 240V/120V, 60A MAIN CB, 42 CIRCUITS, NEMA 12 ENCLOSURE, MODEL PRL1X BY EATON OR APPROVED EQUAL.
- ⑥ POW-R-LINE XPERT LIGHTING PANEL (LP3) 240V/120V, 50A MAIN CB, 42 CIRCUITS, NEMA 12 ENCLOSURE, MODEL PRL1X BY EATON OR APPROVED EQUAL.
- ⑦ NEMA 3R ENCLOSURE, INSULATED ALUMINUM, PADLOCKABLE HANDLE, SIZE PER EQUIPMENT LAYOUT, BY ARMORLOGIX OR APPROVED EQUAL.

NOTES

- 1. PROVIDE ALL COMPONENTS REQUIRED BY WAGNER AND TEST CONNECTIONS.
- 2. POWER FROM LP1 PANEL TO 100W LED DRIVER WILL BE FROM 1 POLE CIRCUIT BREAKER, 1 PHASE, GFCl, CONTROLLED FROM THE ASTRONOMIC TIME CLOCK THAT IS PART OF THE LIGHTING CONTROL PANEL.
- 3. POWER FROM LP2, LP3 & LP4 PANELS TO 100W LED DRIVER WILL BE 120V, 1 PHASE, GFCl.
- 4. PROVIDE HANDHOLES AS REQUIRED PER THE NATIONAL ELECTRICAL CODE.
- 5. COORDINATE FIELD LOCATION OF THE NEMA 4X JUNCTION BOX WITH LANDSCAPE ARCHITECT.

1 LIGHTING DIAGRAMS LIGHT SB
NOT TO SCALE

PROJECT MANAGER: JAMES WAGNER; FIELD SUPERVISOR: NEILSON; DESIGNER: JEFFREY WAGNER; DATE: 10/24/2024 9:30 AM BY: WAHLEY, RUSSELL



REV#	DATE	DESCRIPTION	BY

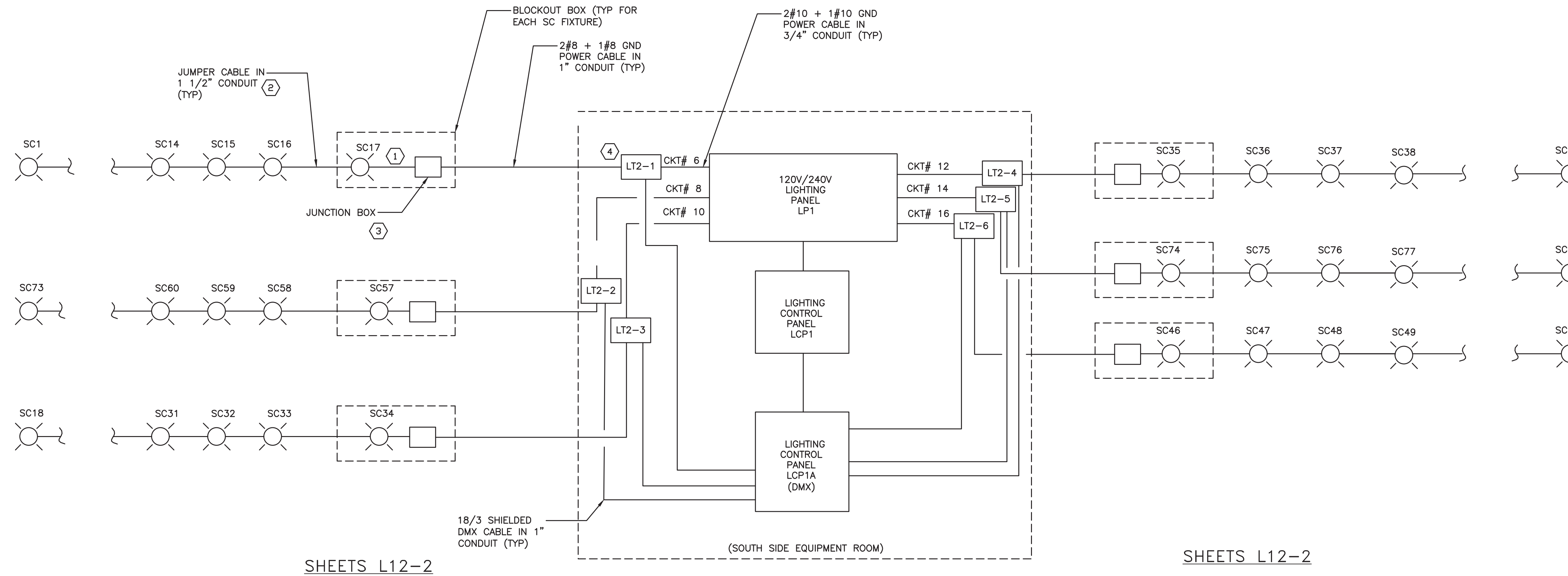


GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING DIAGRAMS

ISSUED FOR: IFB	DATE: 10/23/24	BY: SAL	JOB NO: GPA200301F
SHEET			E1-3

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SHEETS L12-2

SHEETS L12-2

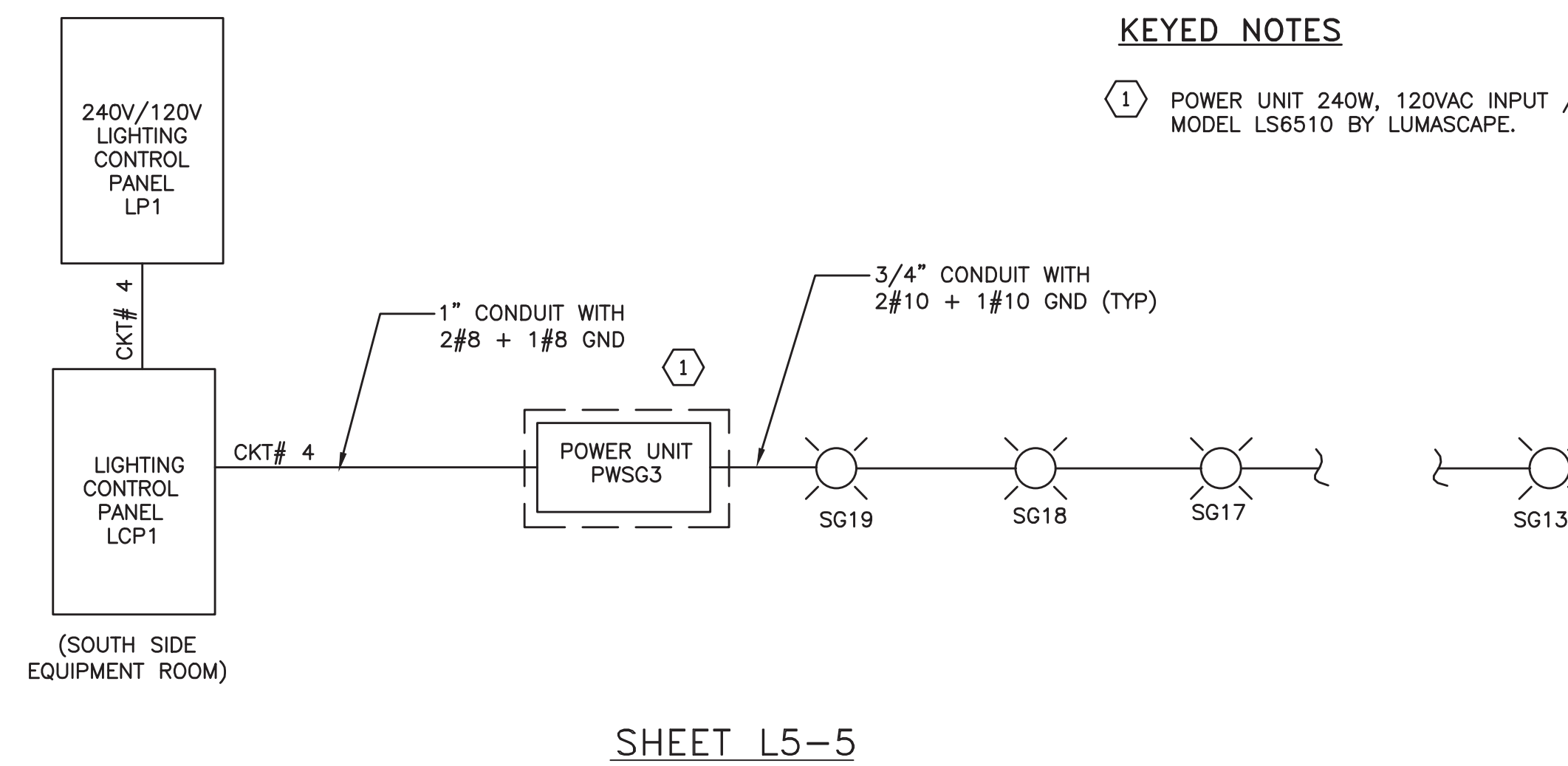
1 LIGHTING DIAGRAM LIGHT SC
NOT TO SCALE

KEYED NOTES

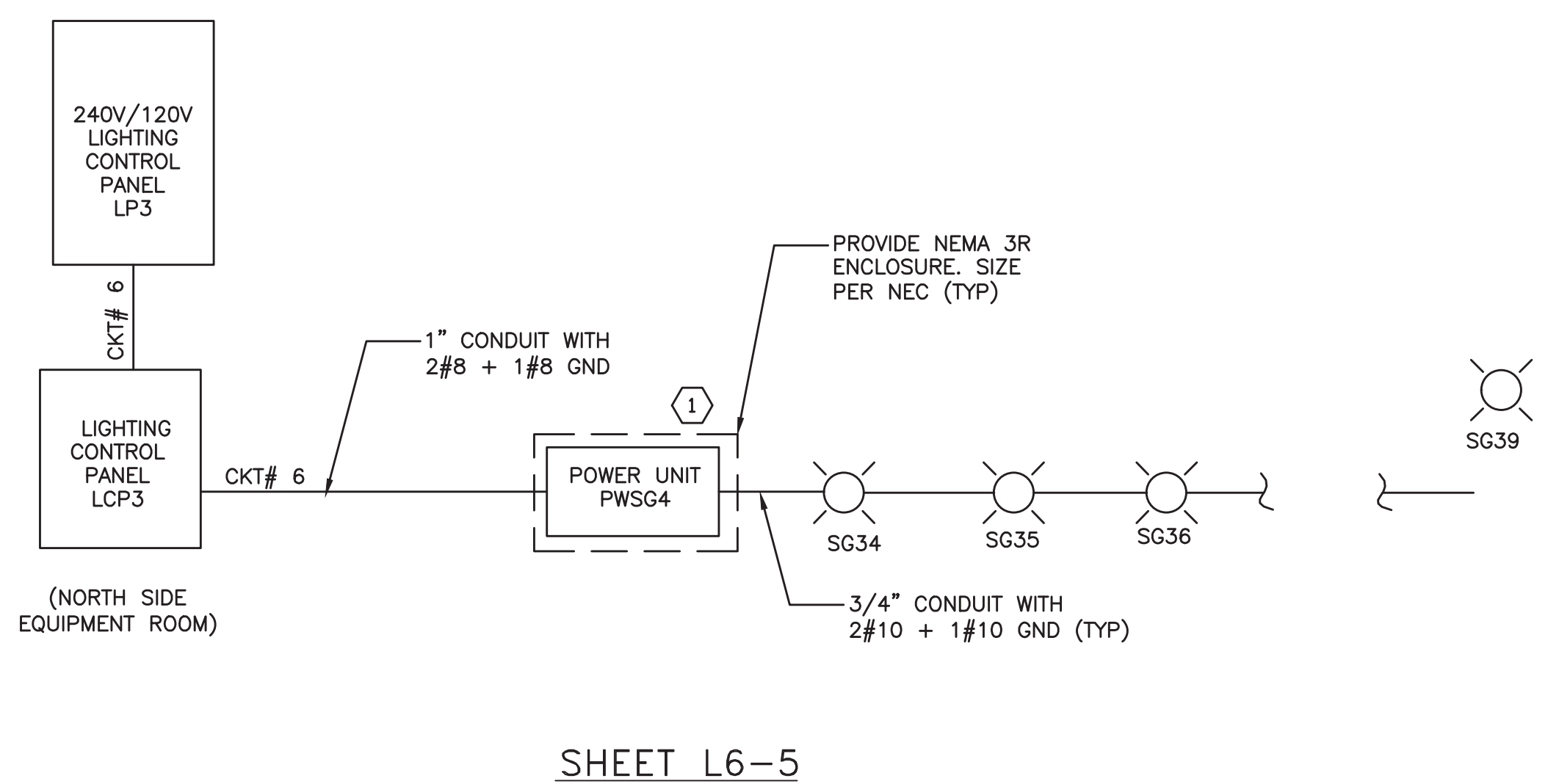
- ① LEADER CABLE, 50 FEET LENGTH MAXIMUM, MODEL LO1LC BY LUMENPULSE.
- ② JUMPER CABLE, 10 FEET LENGTH MAXIMUM, MODEL LO1JC BY LUMENPULSE.
- ③ JUNCTION BOX IP68, MODEL LO1-JBOX BY LUMENPULSE.
- ④ LUMENPULSE TRANSLATOR 2 BY LUMENPULSE.

NOTES

- 1. PROVIDE ALL COMPONENTS REQUIRED BY LUMENPULSE AND TEST CONNECTIONS.



SHEET L5-5

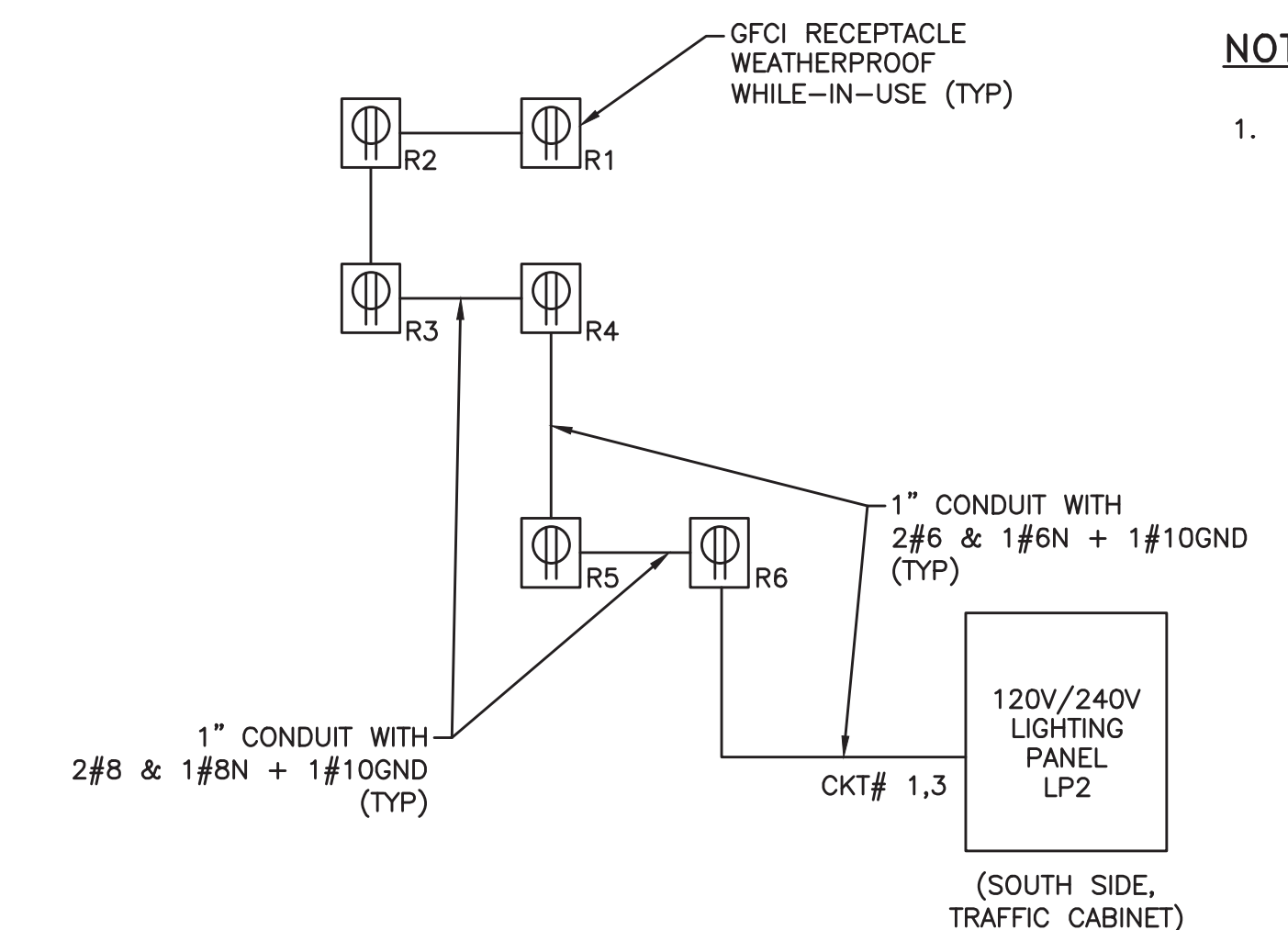


SHEET L6-5

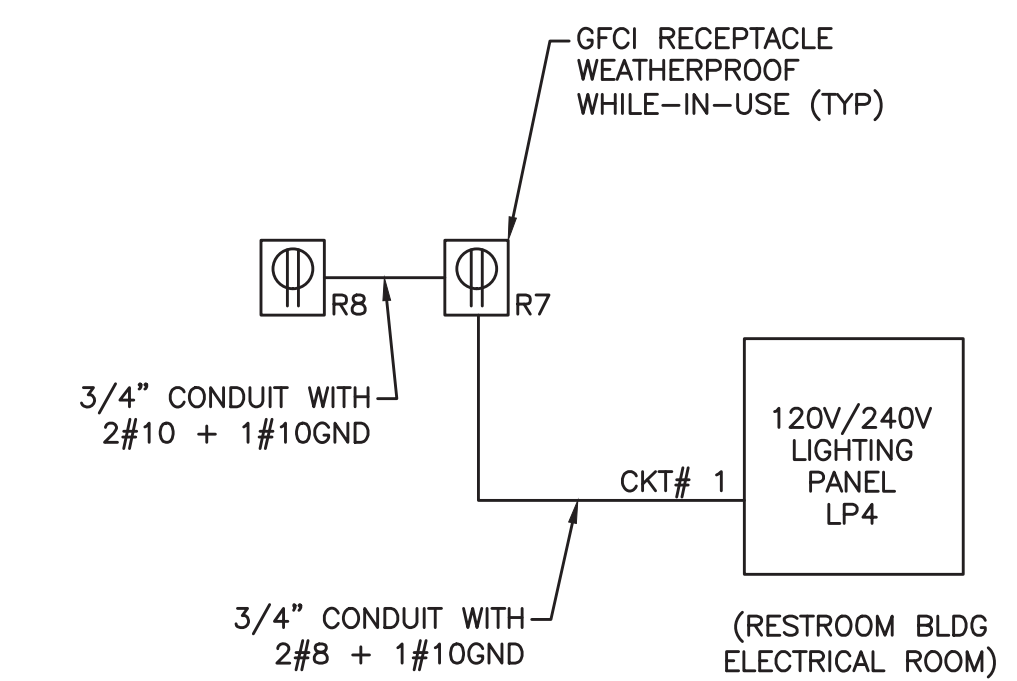
2 LIGHTING DIAGRAM LIGHT SG
NOT TO SCALE

KEYED NOTES

- ① POWER UNIT 240W, 120VAC INPUT / 24VDC OUTPUT, MODEL LS6510 BY LUMASCAPE.



3 RECEPTACLE DIAGRAM SHEETS L1-5, L2-5, L3-5
NOT TO SCALE



4 RECEPTACLE DIAGRAM SHEET L10-5
NOT TO SCALE

PROJECT MANAGER: JAMES WEAVER; FIELD SUPERVISOR: MICHAEL WEAVER; ELECTRICAL DESIGNER: JEFFREY WEAVER; LIGHTING DESIGNER: JEFFREY WEAVER; DATE: 10/24/2024 9:30 AM BY: WHALEY, RUSSELL



Know what's below.
Call before you dig.

REV#	DATE	DESCRIPTION	BY



225 S. BAYVIEW STREET, SUITE 201
FLINT, MI 48902
915.231.2556
www.wadetrims.com

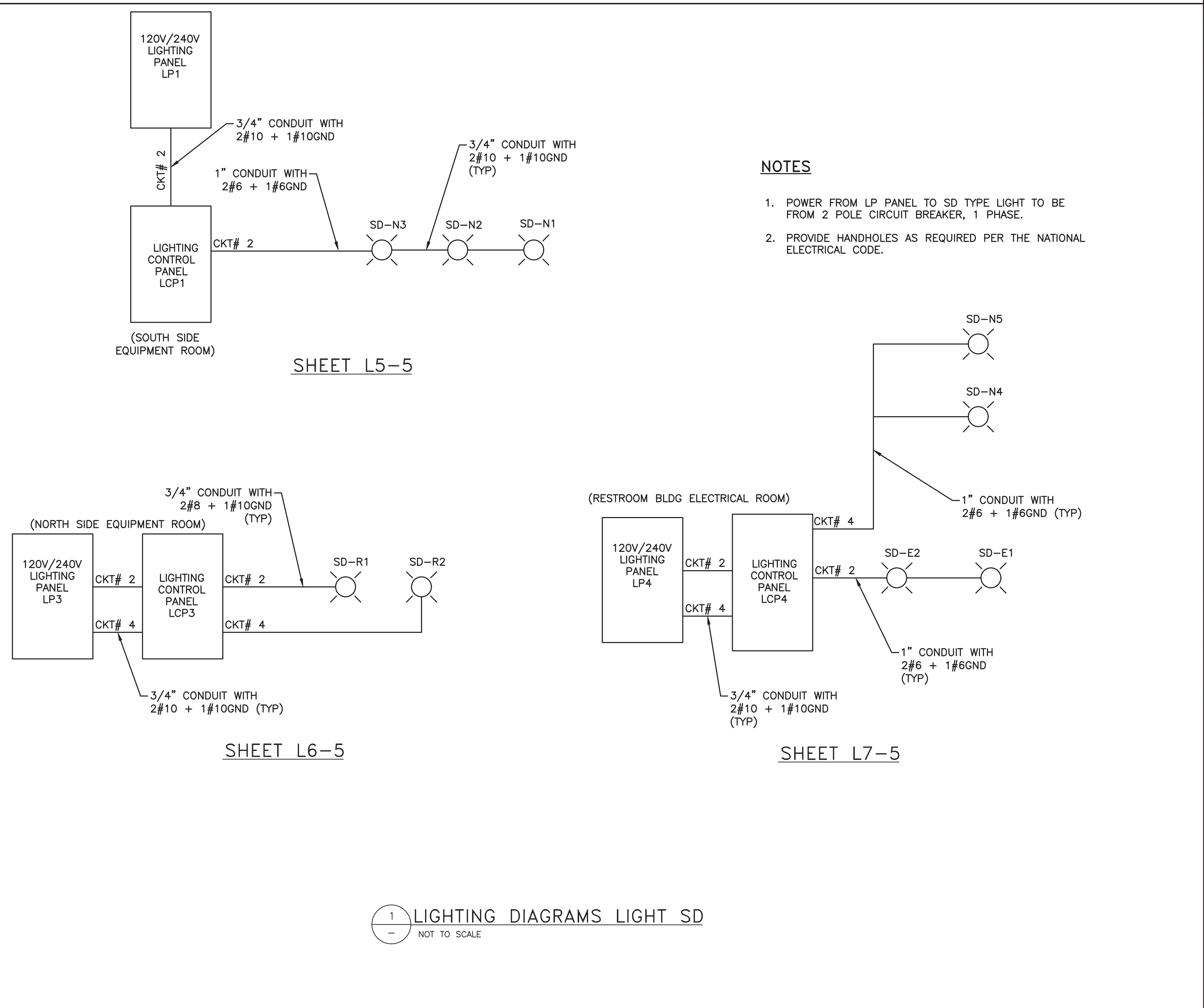
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48906

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING DIAGRAMS

ISSUED FOR: DATE: BY:
IFB 10/23/24 SAL

JOB NO. GPA200301F
SHEET E1-4

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NOTES

- POWER FROM LP PANEL TO SD TYPE BOLLARD TO BE FROM 2 POLE CIRCUIT BREAKER, 1 PHASE.
- PROVIDE HANDHOLES AS REQUIRED PER THE NATIONAL ELECTRICAL CODE.

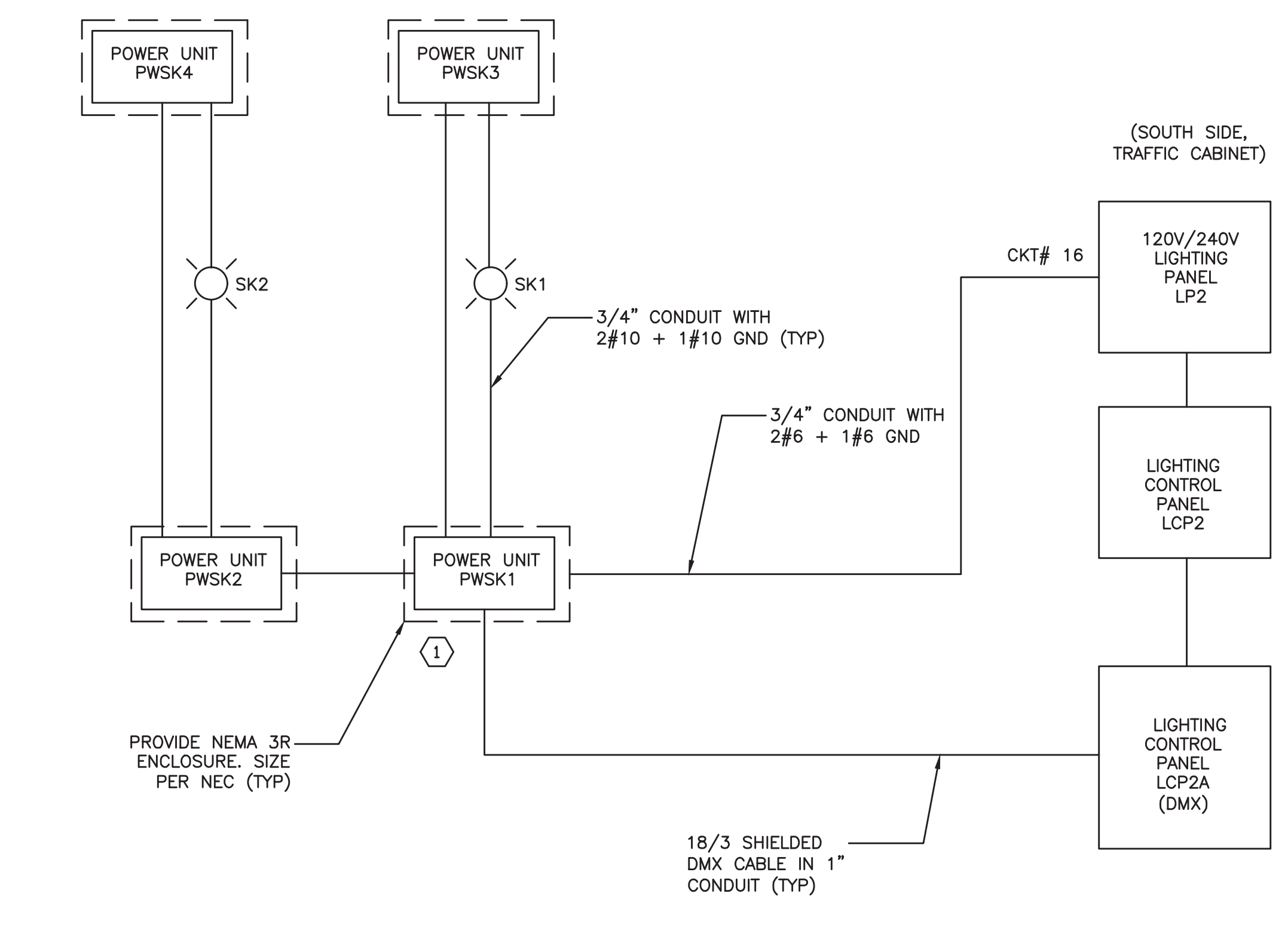
NOTES

- POWER FROM LP PANEL TO SE TYPE BOLLARD TO BE FROM 2 POLE CIRCUIT BREAKER, 1 PHASE.
- PROVIDE HANDHOLES AS REQUIRED PER THE NATIONAL ELECTRICAL CODE.

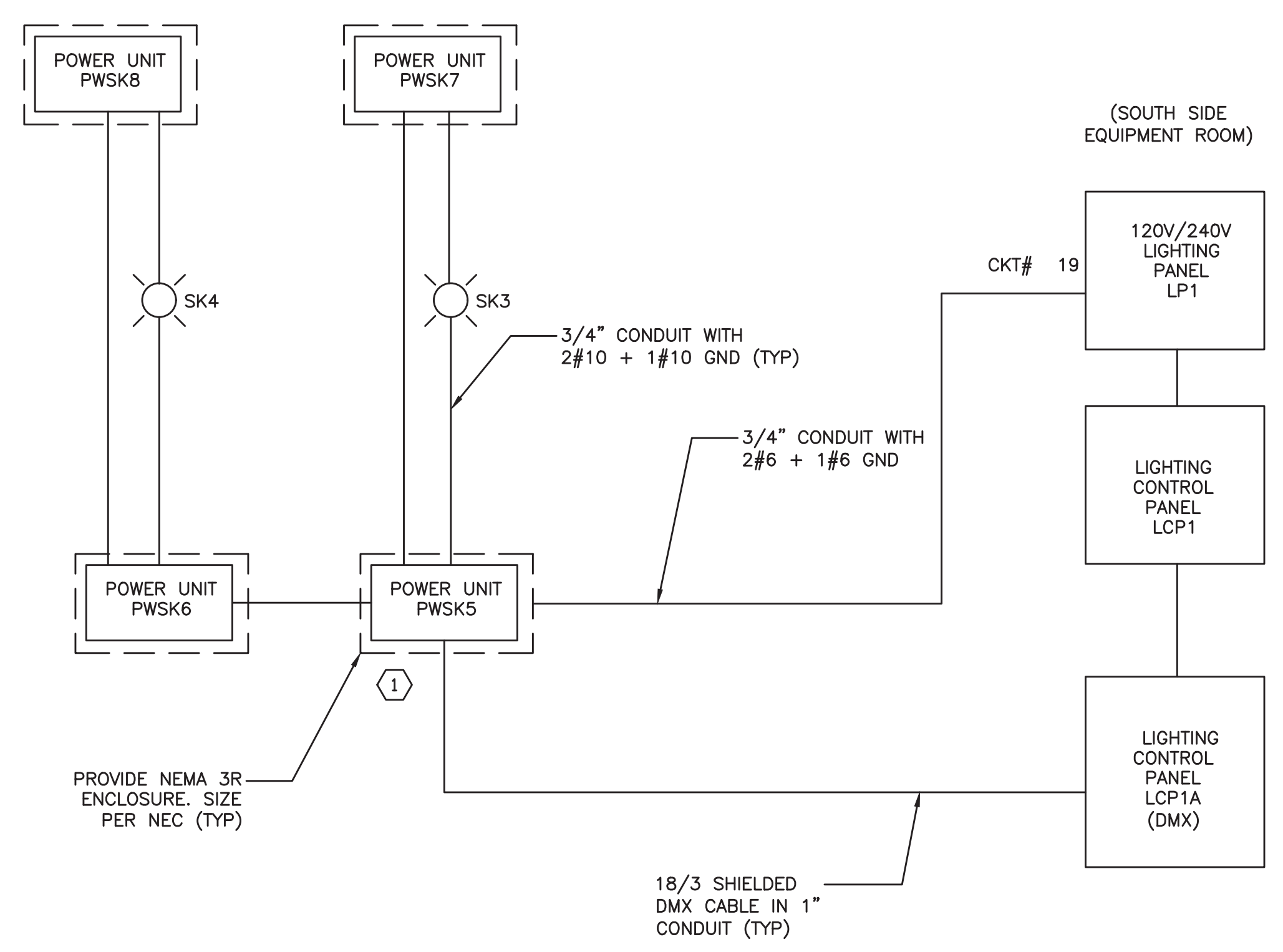
1 LIGHTING DIAGRAMS LIGHT SD
NOT TO SCALE

KEYED NOTES

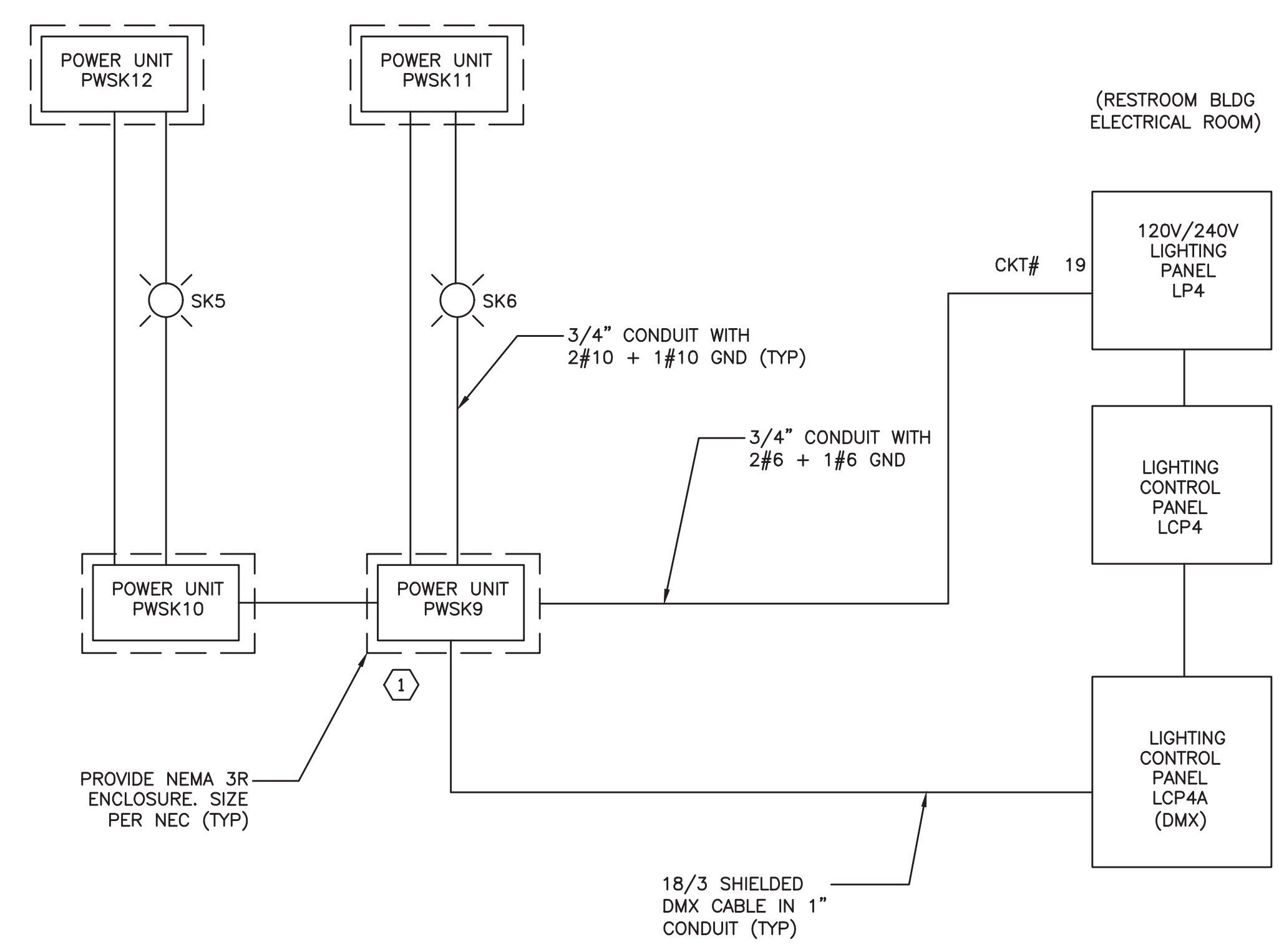
1 POWER UNIT 100W, 120VAC INPUT / 30VDC OUTPUT, MODEL HLG-100H BY MEAN WELL.



SHEETS L3-5 & L12-4
BEACH STREET BRIDGE



SHEETS L8-5 & L12-4
SAGINAW STREET BRIDGE



SHEETS L7-5 & L12-4
HARRISON STREET BRIDGE

3 LIGHTING DIAGRAMS LIGHT SK
NOT TO SCALE

PROJECT MANAGER: CHRIS WEAVER; FIELD SUPERVISOR: MICHAEL WEAVER; ELECTRICAL DESIGNER: JEFFREY RUSSELL; DATE: 10/24/2024; 9:30 AM BY: WEAVER, RUSSELL



REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING DIAGRAMS

ISSUED FOR: DATE: BY:
IFB 10/23/24 SAL

JOB NO. GPA200301F
SHEET E1-5

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FLINT RIVERBANK PARK
FLINT, MICHIGAN

ISSUE DATE: 04/26/2023
REVISIONS:

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES
SA	LOUIS POULSEN FLINDT PLAZA 12FT / CORTEN COLOR / HANDHOLE AT 10'AFG / 37WLED / 3000K / xx(LUMEN) / 120-277 / 35 / xx(POLETYPE) / 0 / 10VDIM / HONEYCOMB LOUVER(S)	Multi-directional Pedestrian Scale Pole along Walkways	LED 3000K 0-10V DIM	3	111W max (37W Per Light Module)	120-277	
SB	WAGNER LUMENPOD 28 ASYMMETRIC LULR-xx(RAIL SIZE)-30K-A- x(DRIVE CURRENT) / Provide all components, cables, power supplies, etc. required for complete system Provide (1) 100W driver per 32 pods with 16ga. conductors. Driver to be located within exterior rated electrical box in a remote and accessible location.	LED Pod-Light In Handrail. Handrail by Others. Spacing of pod-lights as shown on Architectural Drawings. Location : Stairs and/or Ramps	LED 3000K 116 lm/w ON/OFF	1	2.1W Per Node	120V DRIVER AND 24VDC FIXTURE	
SC	LUMENPULSE LUMENFACADE LOI-120/277-48-RGBW30K-WW- TS0-INTL-LT-ASL/ LUMENTALK LTL2-120-DMX-UL-BK / LIDL	In-Grade Linear RGB LED Wallwash Uplight Location : Pedestrian Tunnels	LED RGBW3K 17.25W/FT 3,477LM DMX	Integral	17.25 W/FT	120-277	
SD-N	SELUX Floodlight (Qty 4) OLIVIO GRANDE LED OLGL - x(OPTICS) - U - X(LIGHT ENGINE) - 3000K - x(FINISH) - UNV - DM Pole (20') O-AT535-x(FINISH)-x(BASE)	NEW - Feature Lighting Pole + New Floodlights Location : Amphitheatre Block + Archimedes Screw Block	LED 3000K 0-10V DIM	Integral	58W max per floodlight	120-277	

FLINT RIVERBANK PARK
FLINT, MICHIGAN

ISSUE DATE: 04/26/2023
REVISIONS:

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES
SD-E	SELUX Floodlight (Qty 10) OLIVIO GRANDE LED OLGL - x(OPTICS) - U - X(LIGHT ENGINE) - 3000K - x(FINISH) - UNV - DM - ***CORD LENGTH (TBD) Pole - EXISTING POLE TO BE REFURBISHED AND REUSED	EXISTING - Feature Lighting Pole + New Floodlights Location : Waterwall Block	LED 3000K 0-10V DIM	Integral	58W max per floodlight	120-277	Retrofit Details Req'd
SD-R	SELUX Floodlight (Qty 10) OLIVIO GRANDE LED OLGL - x(OPTICS) - U - X(LIGHT ENGINE) - 3000K - x(FINISH) - UNV - DM - ***CORD LENGTH (TBD) Pole - EXISTING POLE TO BE REFURBISHED AND REUSED	RELOCATED - Feature Lighting Pole + New Floodlights Location : Fountain Block	LED 3000K 0-10V DIM	Integral	58W max per floodlight	120-277	Retrofit Details Req'd
SE	Meteor Lighting SP8-30K-xxx(FINISH)-WD-AKE- 4S ULW-10873-27W/475LM-W30- x(FINISH)-120-277	Solar Lighted Bollard Location : Water Access Locations	LED 3000K MOTION SENSOR	Integral	N/A SOLAR	N/A SOLAR	
SF	Meteor Lighting SH220C-WAM-x(FINISH)-HS	Solar Marker Light Location : Water Entry	LED 3000K	Integral	N/A SOLAR	N/A SOLAR	
SG	Lumacape LS9405LED-2-B4-SS-WD-23-U- x(CABLE LENGTH) / xxx(STATIC COLOR POWER SUPPLY)	Wall Recessed (Submersible) Marker Light Location : Water Entry	LED BLUE ON/OFF	Integral	2W	120V DRIVER AND 24VDC FIXTURE	
SH	FailSafe H12F-LD4-10W-30-OPL-BK- UNV-EDC1	Vandal Resistant Surface Mount Lensed LED Area Light at Grand Fountain Ceilings.	LED 3000K ON/OFF	Integral	10W	UNV (120-277)	

FLINT RIVERBANK PARK
FLINT, MICHIGAN

ISSUE DATE: 04/26/2023
REVISIONS:

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES
SJ	Cooper Invue LXS-VA-2-830-x(VOLT)-AST-C- x(Finish TBD)-Px(Photocell TBD) ARPA2 Valmont 20' POLE DS340-500V200-P7-x(FINISH TBD)-DT-AB	Cantilever Tenon Post-top Pedestrian + Roadway Light - Dark Sky Approved + Optically controlled glare control lens. 20' Aluminum Pole (5" radius Pole, with 2" tenon). Located : On Bridges	LED 3000K ON/OFF	Integral	55W	As Req'd by EE - Match Existing	Request EPA from Pole Manufactu rer to verify Future Banner Compatibi lity
SK	Traxon Allegro Dot L RGBW Dome 25pxl 15" Pitch Black (Custom) / Xlock cable 95ft Black (Custom) / AM35500055 (Allegro Dot M/L Field Cut End Cap) / DC AD.001020 (Allegro Dot Pixel Distributor) / AM019490055 (LED Engine 100W 30V Outdoor Allegro Dot) / DE.AC.0100000 (RJ45 Field Installation Male Connector WC) Control Equipment TBD Note: The pixel distributor and power supply shall be located in a NEMA 3R enclosure to minimize the risk of vandalism. Enclosure must have cable glands to protect cable / keep water from filling the enclosure, and shall be located where the internal temperature stays below the operating temperature of the injector and PSU.	RGBW Cable Connected Direct View Frosted-Dome-Lensed Nodes. Located : Spans Length of Bridge Face	LED RGBW 135 lm/node DXM	Integral	3W / Node	UNV (120-277)	

PROJECT MANAGER: JAMES WAGNER, FIELD SUPERVISOR: EDDIE PUTS, LIGHTING DETAILS: DWG - E1-7 - PLOTTED: 10/24/2024 9:30 AM BY: WHALEY, RUSSELL



REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING SCHEDULE

ISSUED FOR: DATE: BY:
JFB 10/23/24 SAL

JOB NO. GPA200301F

SHEET E1-7

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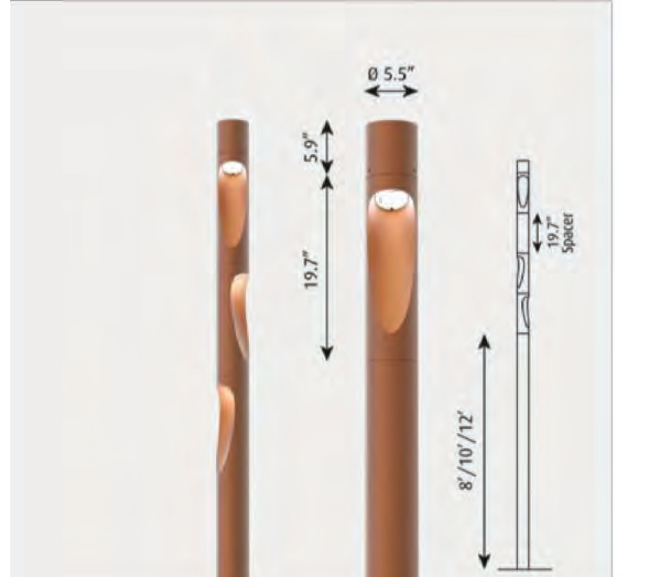
rbl | FLINT RIVERFRONT PLAZA
22774
FLINT, MICHIGAN

TYPE SA

Specification sheet 1/3

Flindt Plaza

Project name: _____
Project type: _____
Notes: _____



Design
Chris Reed

Product description
This fixture emits a downward directed light. The light source is located at the top, inside the asymmetric covering on the side of the pole top where the greatest source of a luminaire that allows the light to form an attractive canopy shape. To enhance the flexibility in the lighting design, the light source has been split into two, with reflectors vertically adjustable by 15 degrees. The fixture is designed for use in a variety of applications. A canopy for the luminaire may be installed at a 12 foot pole. Standard CCT is 2700K, 3000K, or 4000K, controlled by electronic dimmable driver housed within the light fixture. Dimmer module requires 100-277V AC 15 amp rated to use with a variety of available control modules. Part of a family.

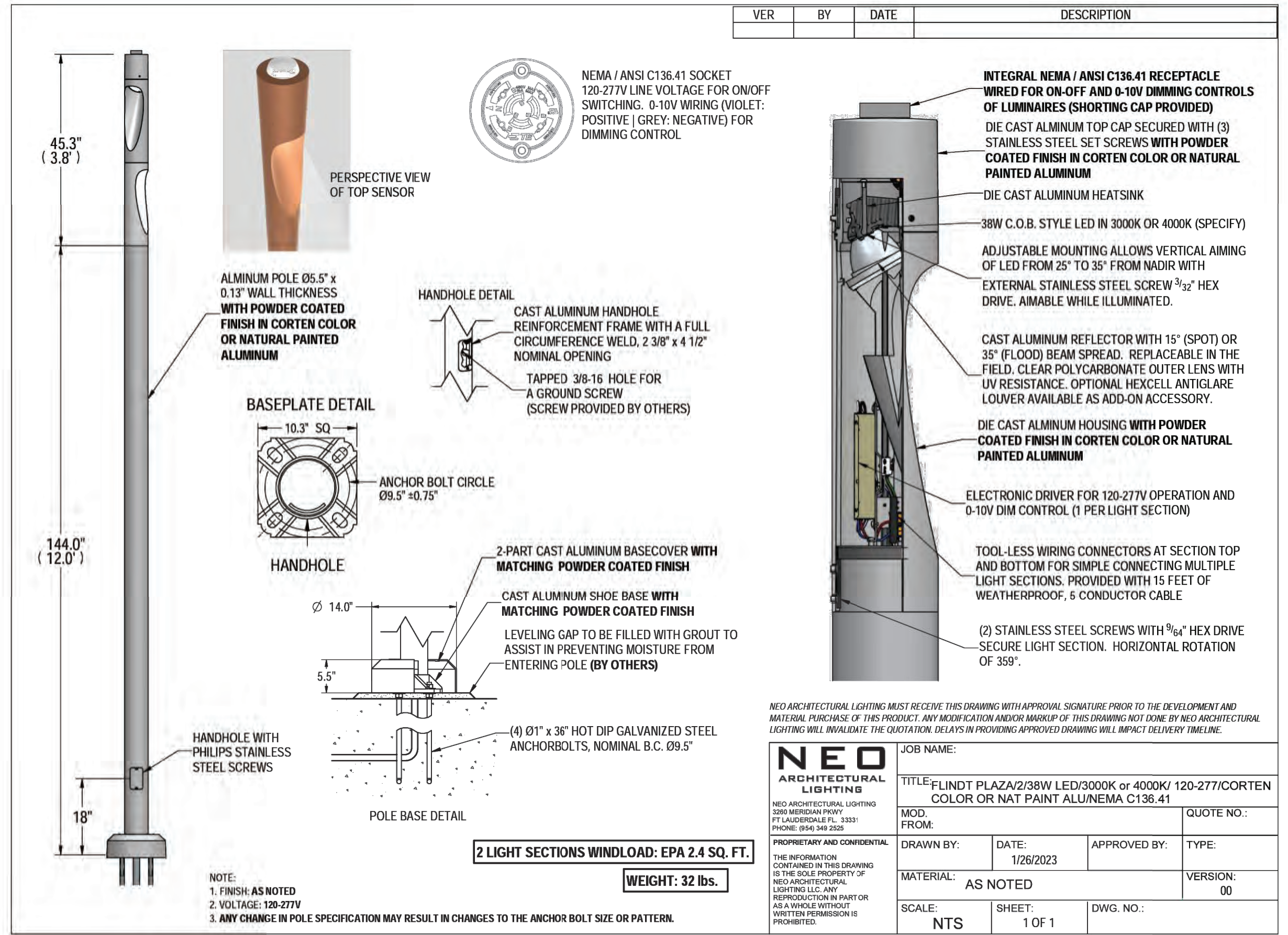
Variant options

Dimension	Color	Light source	Lumen	Voltage/frequency	Distribution/Type	Pole type	Lighting control
10 FT	Concrete	37W LED2700K	2830	100-277V/50/60 Hz	10'	POST W/SHIELD PLATE	Dim 0-10v
10 FT	Natural paint aluminum	37W LED3000K	2830		10'		
8 FT		37W LED4000K	2872		8'		
			2936				
			3071				
			3094				
			3038				
			3071				
			3071				
			3142				

louis poulsen | © Louis Poulsen 2019 | louispoulsen.com

(DETAIL PROVIDED BY LIGHTING SUPPLIER)

1 TYPICAL TYPE "SA" LIGHT
NOT TO SCALE



VER | **BY** | **DATE** | **DESCRIPTION**

NEMA / ANSI C136.41 SOCKET
120-277V LINE VOLTAGE FOR ON/OFF SWITCHING. 0-10V WIRING (VIOLET): POSITIVE (GREY: NEGATIVE) FOR DIMMING CONTROL.

INTEGRAL NEMA / ANSI C136.41 RECEPTACLE WIRING FOR ON/OFF AND 0-10V DIMMING CONTROLS OF LUMINAIRES (SHORTING CAP PROVIDED)
DIE CAST ALUMINUM TOP CAP SECURED WITH (3) STAINLESS STEEL SET SCREWS WITH POWDER COATED FINISH IN CORTEN COLOR OR NATURAL PAINTED ALUMINUM
DIE CAST ALUMINUM HEATSINK
38W C.O.B. STYLED IN 3000K OR 4000K (SPECIFY)
ADJUSTABLE MOUNTING ALLOWS VERTICAL AIMING OF LED FROM 25° TO 35° FROM NAHUR WITH EXTERNAL STAINLESS STEEL SCREW 3/16" HEX DRIVE. AIMABLE WHILE ILLUMINATED.

CAST ALUMINUM REFLECTOR WITH 15° (SPOT) OR 35° (FLOOD) BEAM SPREAD. REPLACEABLE IN THE FIELD. CLEAR POLYCARBONATE OUTER LENS WITH UV RESISTANCE. OPTIONAL HEXCELL ANTIGLARE LOUVER AVAILABLE AS ADD-ON ACCESSORY.

DIE CAST ALUMINUM HOUSING WITH POWDER COATED FINISH IN CORTEN COLOR OR NATURAL PAINTED ALUMINUM

ELECTRONIC DRIVER FOR 120-277V OPERATION AND 0-10V DIM CONTROL (PER LIGHT SECTION)

TOOL-LESS WIRING CONNECTORS AT SECTION TOP AND BOTTOM FOR SIMPLE CONNECTING MULTIPLE LIGHT SECTIONS. PROVIDED WITH 15 FEET OF WEATHERPROOF, 5 CONDUCTOR CABLE.

(2) STAINLESS STEEL SCREWS WITH 3/16" HEX DRIVE SECURE LIGHT SECTION. HORIZONTAL ROTATION OF 30°.

ALUMINUM POLE Ø6.5" x 0.13" WALL THICKNESS WITH POWDER COATED FINISH IN CORTEN COLOR OR NATURAL PAINTED ALUMINUM

HANDHOLE DETAIL
CAST ALUMINUM HANDHOLE REINFORCEMENT FRAME WITH A FULL CIRCUMFERENCE WELD, 2.38" x 4.12" NOMINAL OPENING
TAPPED 3/8-16 HOLE FOR A GROUND SCREW (SCREW PROVIDED BY OTHERS)

BASEPLATE DETAIL
10.3" SQ
ANCHOR BOLT CIRCLE Ø9.5" ±0.75"

HANDHOLE
Ø 14.0"

2 PART CAST ALUMINUM BASECOVER WITH MATCHING POWDER COATED FINISH
CAST ALUMINUM SHOULDER BASE WITH MATCHING POWDER COATED FINISH
LEVELING GAP TO BE FILLED WITH GROUT TO ASSIST IN PREVENTING MOISTURE FROM ENTERING POLE (BY OTHERS)

(4) Ø1" x 3/8" HOT DIP GALVANIZED STEEL ANCHOR BOLTS, NOMINAL B.C. Ø9.5"

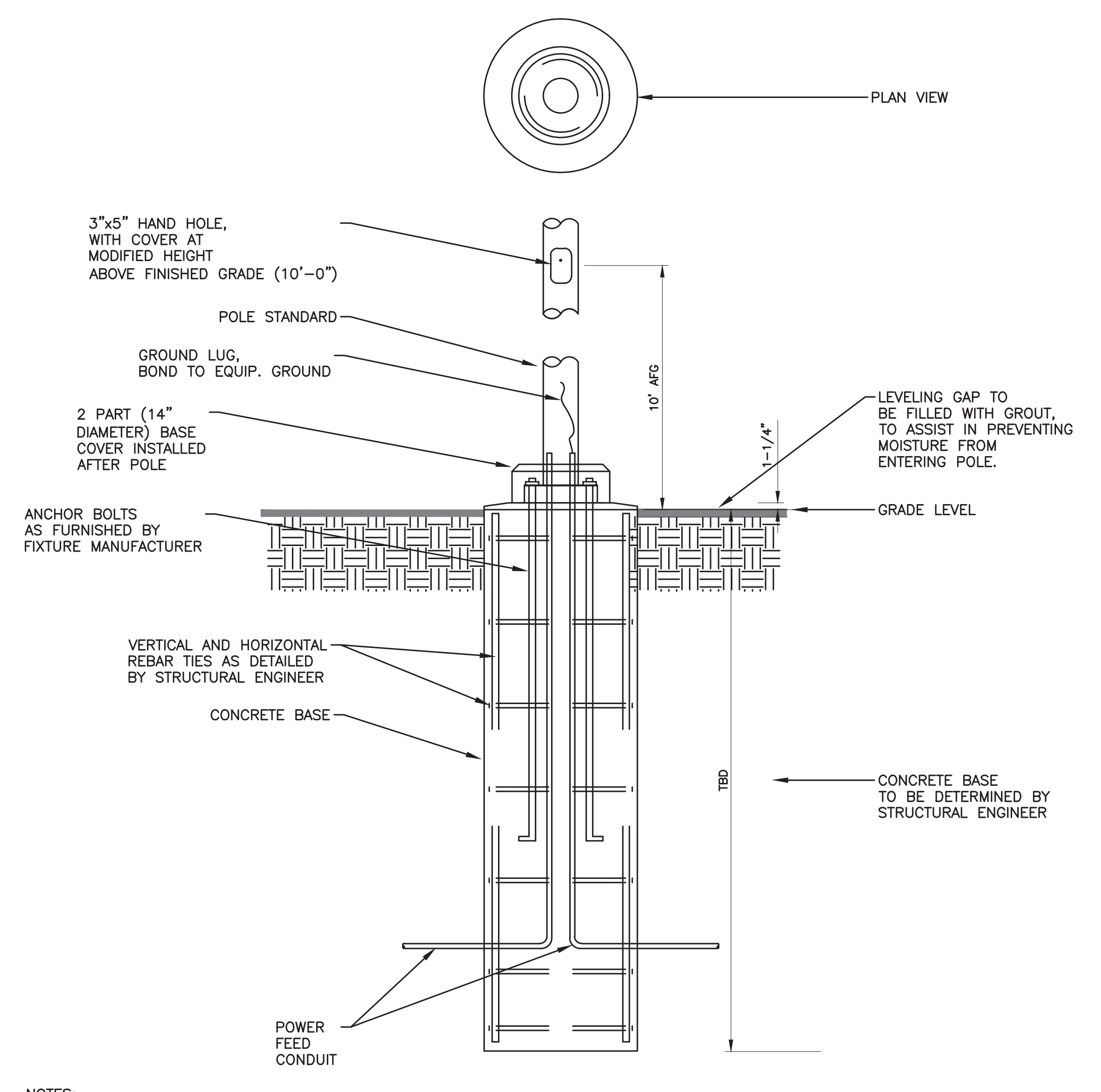
POLE BASE DETAIL

2 LIGHT SECTIONS WINDLOAD: EPA 2.4 SQ. FT. WEIGHT: 32 lbs.

NOTE:
1. FINISH AS NOTED
2. VOLTAGE: 120-277V
3. ANY CHANGE IN POLE SPECIFICATION MAY RESULT IN CHANGES TO THE ANCHOR BOLT SIZE OR PATTERN.

(DETAIL PROVIDED BY LIGHTING SUPPLIER)

2 TYPICAL MOUNTING DETAIL TYPE "SA" LIGHT POLE
NOT TO SCALE



3"x5" HAND HOLE, WITH COVER AT MODIFIED HEIGHT ABOVE FINISHED GRADE (10'-0")

POLE STANDARD

GROUND LUG, BOND TO EQUIP. GROUND

2 PART (14" DIAMETER) BASE COVER INSTALLED AFTER POLE

LEVELING GAP TO BE FILLED WITH GROUT, TO ASSIST IN PREVENTING MOISTURE FROM ENTERING POLE.

GRADE LEVEL

ANCHOR BOLTS AS FURNISHED BY FIXTURE MANUFACTURER

VERTICAL AND HORIZONTAL REBAR TIES AS DETAILED BY STRUCTURAL ENGINEER

CONCRETE BASE

CONCRETE BASE TO BE DETERMINED BY STRUCTURAL ENGINEER

POWER FEED CONDUIT

10" AFS

1'-1/4"

TBD

NOTES:
1. FOR PEDESTRIAN POLES TYPE SA, CONTRACTOR TO PROVIDE FOUNDATION DESIGN WHICH IS SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MICHIGAN. DESIGN AND INSTALLATION OF FOUNDATION IS INCLUDED IN LIGHTING, (SA) PEDESTRIAN POLES PAY ITEM.

POLE BASE SCHEMATIC DETAIL - FLUSH AT GRADE

rbl | FLINT RIVERFRONT PLAZA
22774
FLINT, MICHIGAN

TYPE SB

LUMENPOD® 28 ASYMMETRIC

Another Lumenra® Component for Life Safety and Light.

PROJECT NAME: _____
REP AGENCY: _____
APPROX. LINEAR FT.: _____

SERVICE OPTIONS: Field Measure Job Site Support System Installation

PART NUMBER BUILDER

EXAMPLE	FIXTURE TYPE	RAIL SIZE	COLOR TEMP	OPTIC	DRIVE CURRENT
LULR6640KA5	LULR	A	A	A	6.25W @ 800mA

ELECTRICAL SPECIFICATIONS

24VDC	ETL LISTED WET, IK9, IP68	0-10V INPUT	-40°F TO +120°F
INPUT VOLTAGE	CERTIFICATIONS	DIMMING	OPERATING TEMP
CLASS 2 REQUIRED	5 YEARS	UP TO 122 lm/W LED	80+
DRIVER	WARRANTY	EFFICIENCY	CRI
			WIRE LENGTH

CONSTRUCTION
The Lumenpod 28's machined aluminum body dissipates heat while the cast stainless face integrates seamlessly with the rail. A precisely engineered retention spring positions it perfectly flush with standard diameter handrail. Removal is achieved only with our unique tool, solidifying a tamper resistant installation. US PAT. # 10,612,734 B2

PHOTOMETRICS
Asymmetric performance is design specific and provides superb illumination results in any application. IES reports to view or download and available by scanning the QR code or visiting our website.

LUMENGEAR™ LED DRIVER & NEMA ENCLOSURE OPTIONS
Wagner offers multiple ETL listed options for both 24VDC power supplies and NEMA enclosures. Quantities and types will be configured based on your specifications and design. Additional specification options are available by request. Not all options apply to all products—please verify compatibility with the factory.

CLASS II DRIVERS:
• STD 100W
• DSI, DMK, 0-10V Dimming Protocols
• Multiple Wattages
• Made in USA Units Available

NEMA ENCLOSURES:
• 4X - Polycarbonate, Painted Steel or Stainless Steel
• LUMENPOST™ - Integrated 100W, 0-10V DIM

NOTES:
SPACING OF LUMENPOD NODES IN HANDRAIL SHALL BE AS FOLLOWS:
1. INSTALL NODE "6" FROM END OF HANDRAIL/EDGE OF TOP OR BOTTOM STEP.
2. EVENLY SPACE NODES IN HANDRAIL BETWEEN THE TOP AND BOTTOM NODES (TOP AND BOTTOM OF STEP).
3. CONTRACTOR TO PROVIDE SHOP DRAWING SHOWING PLACEMENT OF NODES PRIOR TO INSTALLATION AT EVERY HANDRAIL LOCATION.

WAGNER | 888-243-6914 | flint@wagner.com
3000 West Brown Deer Road, Ft. Meade, WI 53224, USA

(DETAIL PROVIDED BY LIGHTING SUPPLIER)

5 TYPICAL TYPE "SB" LIGHT
NOT TO SCALE

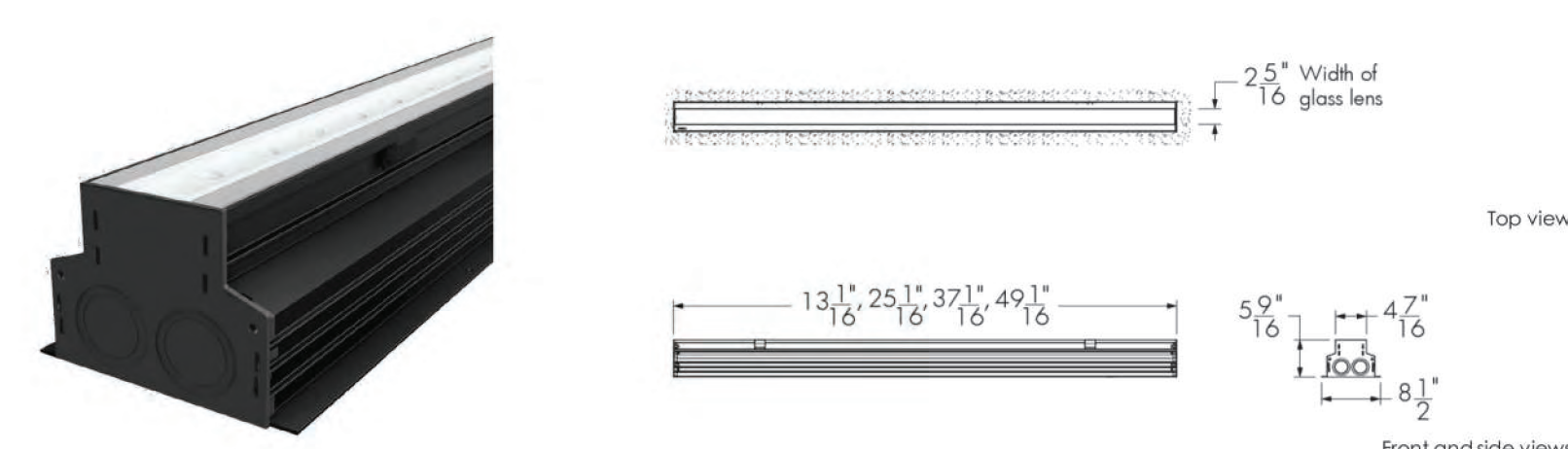
rbl | FLINT RIVERFRONT PLAZA
22774
FLINT, MICHIGAN

TYPE SC

lumenfacade Inground

WHITE AND STATIC COLORS

Project Name: _____ **Qty:** _____
Type: _____ **Catalog / Part Number:** _____



Photometric Summary

Delivered output (lm)	Intensity (cand cd)
WW	3634
8"x8"	4512
10"x10"	4410
10"x30"	4586
10"x60"	3876
10"x90"	4077
12"x24"	4346
30"x30"	4730
30"x60"	4035
35"x35"	4812
50"x90"	4656
60"x60"	3868
80"x80"	4548
100"x90"	4070

Description
The Lumenfacade Inground is an LED luminaire designed for ground recessed lighting applications, including asymmetric wall washing, grazing, and linear wayfinding. An innovative, plug and play design simplifies installation, protecting the system from water infiltration and ensuring long-lasting performance. Featuring second generation LED technology, the Lumenfacade Inground is available in four different sizes (12 in, 24 in, 36 in or 48 in), with a wide choice of outputs, color temperatures, color-mixing systems, optics and controls. A unique asymmetric washwidth distribution is also available, providing exceptional uniformity and brightness for walls and signage.

Features
Walk over compliant up to 500 kg in any type of ground. Walk over compliant up to 1000 kg in concrete

Color and Color Temperature
2200K, 2700K, 3000K, 3500K, 4000K, Red, Green, Blue

Length (nominal)
12 in, 24 in, 36 in, 48 in

Optics
Asymmetric washwidth, 8" x 8", 10" x 10", 10" x 30", 10" x 60", 10" x 90", 12" x 24", 30" x 30", 30" x 60", 35" x 35", 50" x 90", 60" x 60", 80" x 80", 90" x 90"

Tilt Setting (factory set)
0 degrees, 2.5 degrees, 5 degrees, 20 degrees

Optical Option
Internal louver

Options
Anti-slip lens, CE (certification covers European Economic Area)

Power Consumption
5 W/ft (meets ASHRAE standards for linear lighting on building facades - not available for 12 in fixture lengths), 8.5 W/ft (R0 version), 15.25 W/ft (R0 version), typically 20% higher for 12 in fixture lengths

Warranty
5-year limited warranty

Performance
Maximum Delivered Output 4,730 lm (48 in fixture, 4000K, 30" x 30", 0° tilt setting, DMK/RDM)

lumenpulse™
1220 Marie-Victorie Blvd., Longueuil, QC, J4G 2H9, CA | 1 United States 617.307.8762 | Canada 1.877.937.3003 | 514.937.3003 | #14.937.6089
www.lumenpulse.com | www.lumenpulse.com/usa | www.lumenpulse.com/usa/usa

(DETAIL PROVIDED BY LIGHTING SUPPLIER)

3 TYPICAL TYPE "SC" LIGHT
NOT TO SCALE

rbl | FLINT RIVERFRONT PLAZA
22774
FLINT, MICHIGAN

TYPE SD

Olivo Grande LED Universal

selux

Date: _____ **Customer:** _____ **Qty:** _____

Order Code: OLG.L _____

OLGL	Series	Height	Finish	Options
OLGL	OLGL Olivo Grande LED			
Optics	S09 Spot, V	F40 Flood, Medium, 4P	F80 Flood, 7P	ASM Asymmetric (No SLH or SLV option)
Mounting	U Universal (back-mount)	T1 Single Pole Top		
Light Engine	2G350 14W / 190lm	2G725 20W / 230lm	2G130 20W / 230lm	
CCT	30 3000K	40 4000K		
Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze SV Silver SP Specify Premium Color
Voltage	UNV 120-277V	120	208	240 277 347
Options	D2 Dark Sky (0-10V) Dimmable	DM DMX Dimmable	HL50 50% Color Filter (optional factory)	SLH Spigot Lens Horizontal (fixed)
	HX High Heat Sink	CF Color Filter (optional factory)	SLV Spigot Lens Vertical (fixed)	

Product Modifications
Please list modification requirements for review by factory.

Approvals

DATE: _____

(DETAIL PROVIDED BY LIGHTING SUPPLIER)

4 TYPICAL TYPE "SD" LIGHT
NOT TO SCALE

PROJECT MANAGER: CHRIS REED, WAGNER LIGHTING DETAILS (DWG) - E1-8 - PLOTTED: 10/24/2024 9:30:44 AM BY: WHALEY, RUSSELL



REV#	DATE	DESCRIPTION	BY

WADE TRIM
295 S. Bayshore Street, Suite 201
Flint, MI 48602
915.231.2556
www.wadetrim.com

GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING - DETAILS

ISSUED FOR: DATE: BY: SAL
10/23/24

JOB NO. GPA200301F

SHEET E1-8

© 2024 Selux Inc. FLINT RIVER RESTORATION

Invue

DESCRIPTION

The LuxeScape Collection presents a contemporary, architectural design providing superior uniformity and efficient illumination. Designed to enhance urban spaces with beautiful visual appearances and integral control solutions, LuxeScape integrates into any environment while providing high visibility by utilizing industry-leading WaveStream™ LED optics.

SPECIFICATION FEATURES

Construction
Housing assembly is IP66 rated and cast from low copper content corrosion resistant aluminum, maintaining strength and precision to sustain long term daylight appearance. 30 rated construction avoids damages from installation generated vibration. Corrosion resistant color matching hardware are minimized to enhance appearance.

Optics
Designed for complex site or pedestrian applications, WaveStream™ LED optical waveguide technology produces both symmetric NEMA Type V and asymmetric NEMA Type IV distributions. The waveguide is manufactured from precision injection molded acrylic delivering visual comfort and optically controlled illumination for improved glare control. Luminance efficiency measures in excess of 100 lm/W for 4000K (+/- 2760 CCT at 70 CRI min). Optional 3000K CCT at 70 CRI or 3000K CCT at 80 CRI also available.

Electrical
LED drivers are uniquely positioned and mounted for

maximum thermal performance and extended life. Standard 0-10V dimming drivers and surge protection module are designed to withstand 100V of transient line surge. Drivers operate at 120-277V 50/60Hz with 347V 60Hz or 480V 60Hz operation optional. Suitable for ambient temperature applications as low as -40°C (40°F) to 40°C (104°F). High ambient options available allow for 50°C operation.

Controls
Control options are designed to be simple, cost-effective, energy code, and regulation compliant solutions featuring WaveLine. See control options page for more details.

Acrylic Mount
The integrated aluminum contemporary waveguide arm is bolted directly to the pole using

an "N" drill pattern. Provides a seamless transition to a 4" or 5" round pole. Spider & Cantilever Mount Filter assembly mounts over 2" O.D. tenon and can be adapted to a 2-3/8" tenon. It is secured via concealed, corrosion resistant set screw and jam screw pairs in six inconspicuous locations. Filter design provides seamless transition to 4" O.D. round pole top. Optional mounting accessories include a twin arm mount and wall mount arm.

Finish
Cooper Lighting Solutions utilizes premium ultra-weatherable TIGC based polyester powder coatings specifically formulated to withstand extended outdoor exposure while providing decorative appeal. Finish is compliant to 3,000 hour salt spray standard per ASTM B117. RAL and custom color matches available. Options to meet Bay American Art requirements.

Warranty
Five-year warranty.



LXS LUXESCAPE COLLECTION

DECORATIVE LUMINAIRE

CERTIFICATION DATA

UL Listed
FCC Class A
ROHS2002
ANSI C136.31 103 Vibration
ASTM A306 Low Copper Alloy
ASTM B117 Salt Spray Test
ROHS2002
DesignLife Consortium* Qualified*
Dark Sky Approved 1300K CCT and warmer only

ENERGY DATA

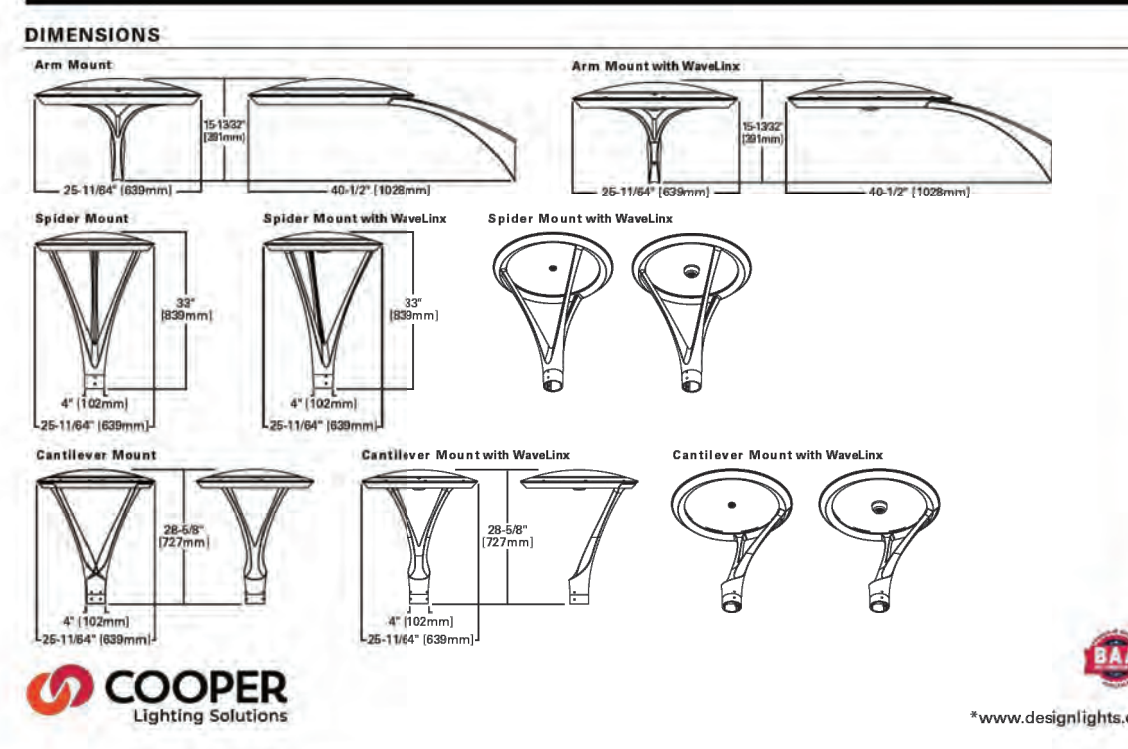
Electronic LED Driver
+3.0 Power Factor
+20% Total Harmonic Distortion
120-277V 50/60Hz, 347V 60Hz, 480V 60Hz
40°C Ambient Temperature Rating
As low as -40°C (-40°F) minimum temperature
*See MINIMUM TEMPERATURE table

EPA Effective Projected Area (Sq. Ft.)

Arm Mount: 1.0
Cantilever Mount: 1.3
Spider Mount: 1.5

SHIPPING DATA

Approximate Net Weight:
Arm Mount Weight: 41 lbs. (18.6 kg.)
Cantilever Mount Weight: 48 lbs. (21.8 kg.)
Spider Mount Weight: 53 lbs. (24 kg.)



(DETAIL PROVIDED BY LIGHTING SUPPLIER)

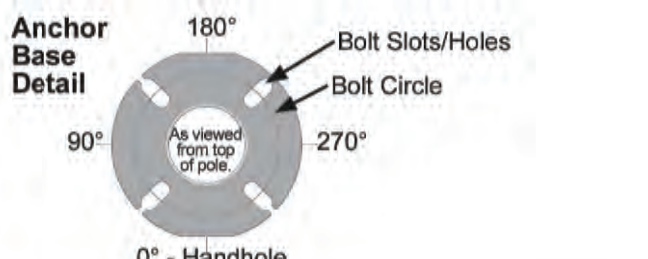
DS340 Round Non-Tapered Steel Post



Job Name: _____ Client Name: _____
Job Location - City: _____ State: _____ Created By: _____ Date: _____
Product: DS340 Quote: _____ Customer Approval: _____ Date: _____

ANCHORAGE DATA

POLE	BASE PLATE		ANCHOR BOLTS		Anchor Base Detail		
	BASE DIA. (IN)	THK (IN)	DIA. (IN)	PROJECTION (IN)			
3.00	0.120	8.00	1.00	10.50	0.750 x 0.75 x 17.00 x 3.00	3.50	0.25
4.00	0.120	8.00	1.00	10.50	0.750 x 0.75 x 17.00 x 3.00	3.50	0.25
4.50	0.120	8.00	1.00	10.50	0.750 x 0.75 x 17.00 x 3.00	3.50	0.25
5.00	0.120	8.00	1.00	10.50	0.750 x 0.75 x 17.00 x 3.00	3.50	0.25
5.00	0.180	8.00	1.00	10.50	0.750 x 0.75 x 17.00 x 3.00	3.50	0.25



DESIGNATION, LOAD AND DIMENSIONAL DATA

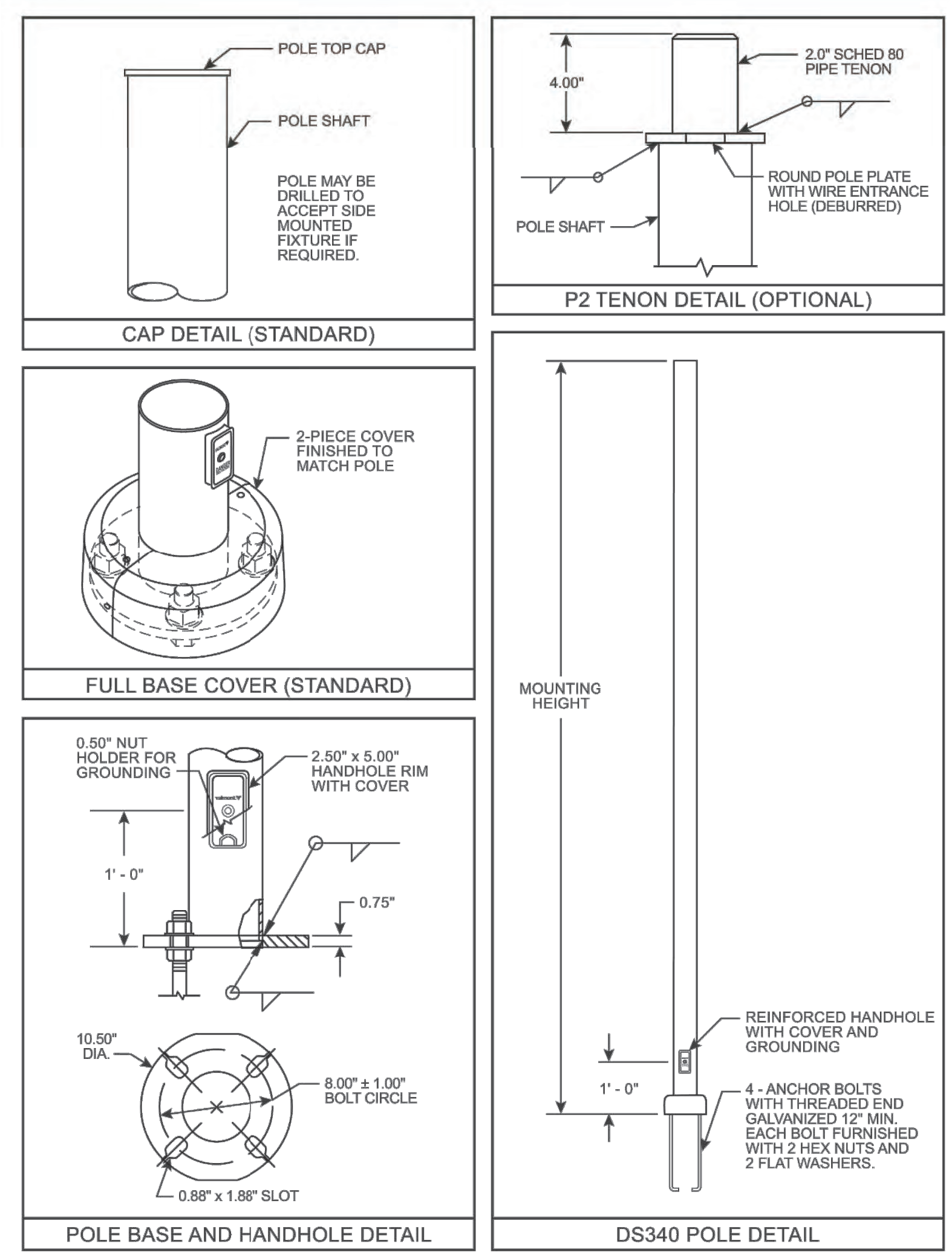
NOMINAL HEIGHT (FT)	50 MPH WIND		100 MPH WIND		POLE DIMENSIONS		DESIGNATION				
	WT. (LBS)	WT. (LBS)	WT. (LBS)	WT. (LBS)	TOP OD (IN)	STRUCTURE WEIGHT (LBS)					
10'-0"	19.1	480	10.0	375	12.2	305	4.00	4.00	120	70	400V100
12'-0"	24.5	615	19.5	490	15.8	395	4.50	4.50	120	75	450V100
14'-0"	25.0	625	20.0	500	16.4	410	5.00	5.00	120	80	500V120
16'-0"	30.0	720	22.0	520	17.0	420	5.50	5.50	120	85	550V120
18'-0"	34.0	800	24.0	540	17.5	430	6.00	6.00	120	90	600V120
20'-0"	38.0	880	26.0	560	18.0	440	6.50	6.50	120	95	650V120
22'-0"	42.0	960	28.0	580	18.5	450	7.00	7.00	120	100	700V120
24'-0"	46.0	1040	30.0	600	19.0	460	7.50	7.50	120	105	750V120
26'-0"	50.0	1120	32.0	620	19.5	470	8.00	8.00	120	110	800V120
28'-0"	54.0	1200	34.0	640	20.0	480	8.50	8.50	120	115	850V120
30'-0"	58.0	1280	36.0	660	20.5	490	9.00	9.00	120	120	900V120

1. Maximum EPA (Effective Projected Area) and weight values are based on side mounted fixtures only. Consult factory on loading criteria for pole top mounted luminaires and/or accessories.
2. Structure weight is a nominal value which includes the pole shaft and base plate only.

PRODUCT ORDERING CODES

MODEL	FINISH	ANCHOR BOLTS	POLE DIMENSIONS	ANCHOR BOLTS	ANCHOR BOLTS	ANCHOR BOLTS
DS340	Galvanized	Galvanized	4.00	4.00	4.00	4.00

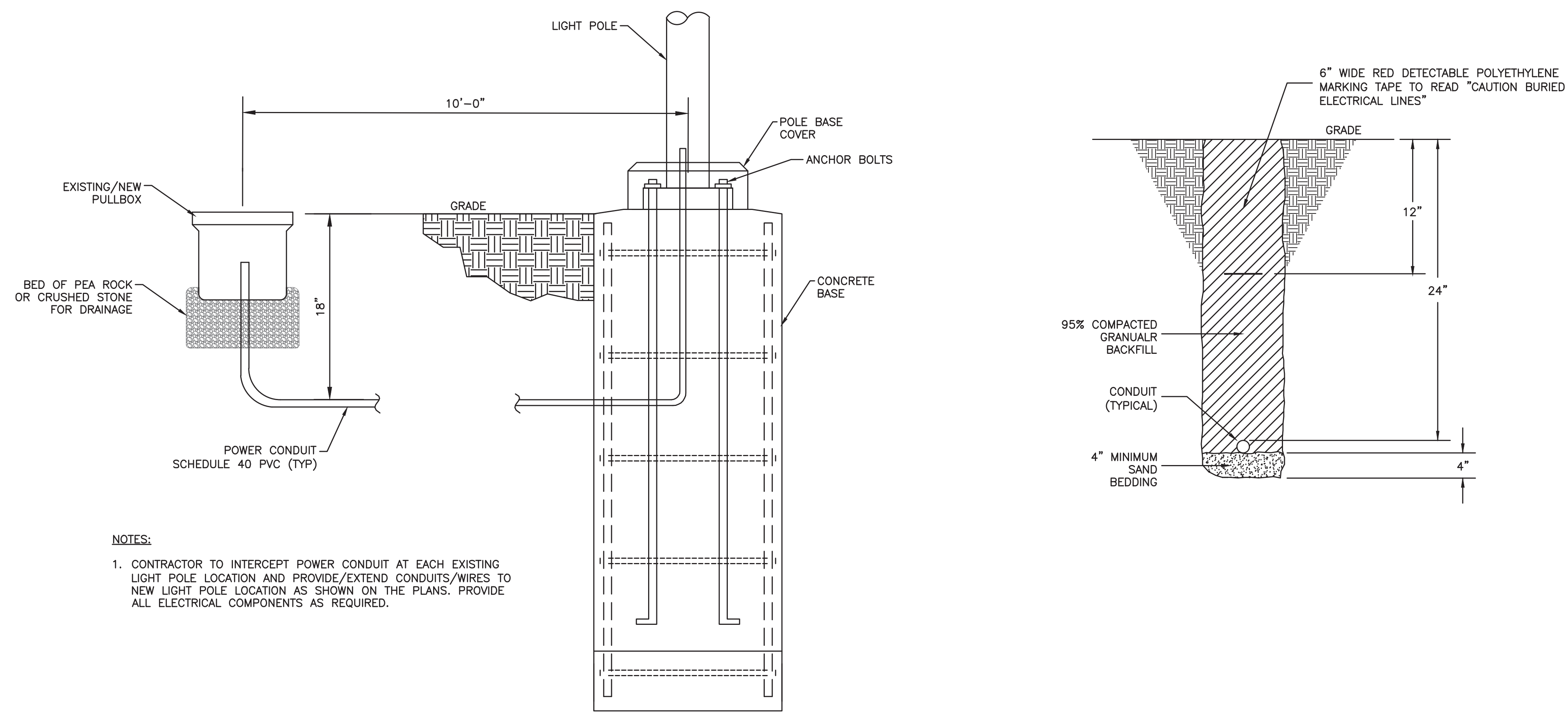
DS340 - Round Non-Tapered Steel Post



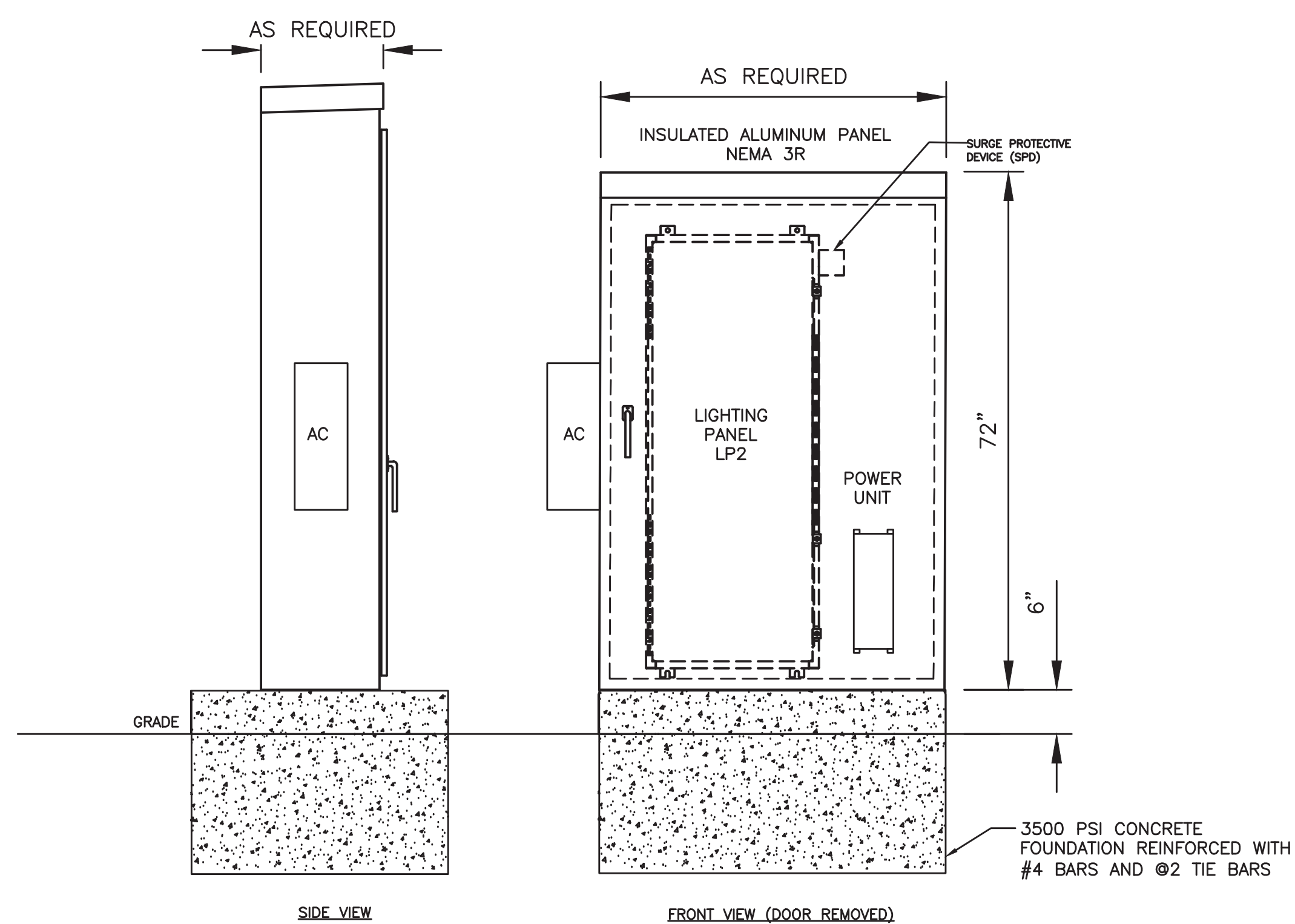
VALMONT INDUSTRIES, INC. 28803 IDA STREET, PO BOX 358 - VALLEY, NE 68084 USA 800.825.6668 VALMONTSTRUCTURES.COM

POLE FOR TYPE "SJ" LIGHT
(REFER TO SHEET E2-1 FOR POLE FOUNDATION DETAILS)

1 TYPICAL TYPE "SJ" LIGHT
NOT TO SCALE



NOTES:
1. CONTRACTOR TO INTERCEPT POWER CONDUIT AT EACH EXISTING LIGHT POLE LOCATION AND PROVIDE/EXTEND CONDUITS/WIRES TO NEW LIGHT POLE LOCATION AS SHOWN ON THE PLANS. PROVIDE ALL ELECTRICAL COMPONENTS AS REQUIRED.



NOTES:
1. NOT ALL INTERIOR EQUIPMENT IS SHOWN. REFER TO LIGHTING DIAGRAMS FOR MORE DETAILS.

5 TYPICAL LIGHT POLE CONNECTION
NOT TO SCALE

6 TYPICAL UNDERGROUND CONDUIT DETAIL
NOT TO SCALE

7 TYPICAL OUTDOOR ENCLOSURE DETAIL
NOT TO SCALE



Know what's below. Call before you dig.

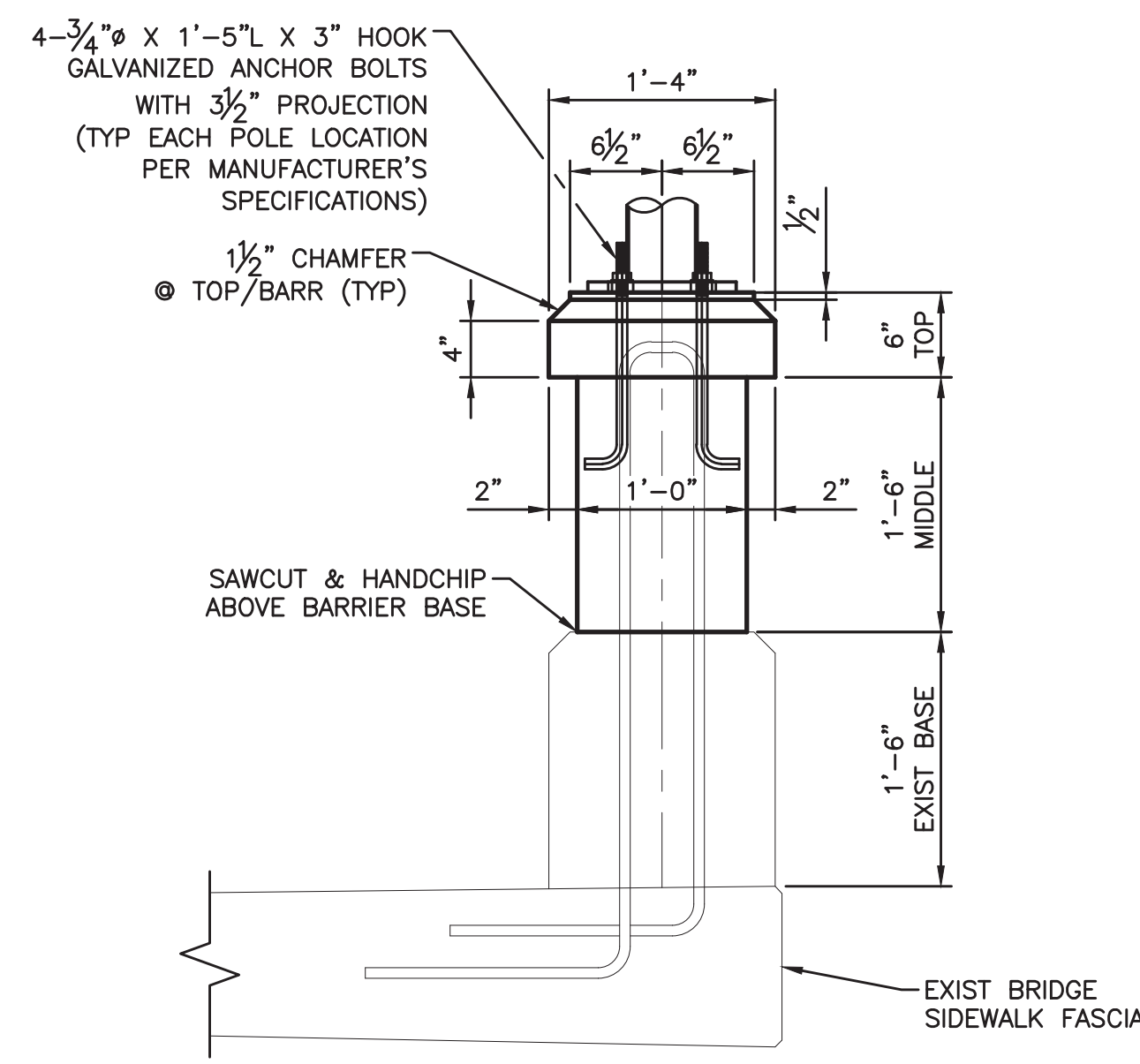
REV#	DATE	DESCRIPTION	BY



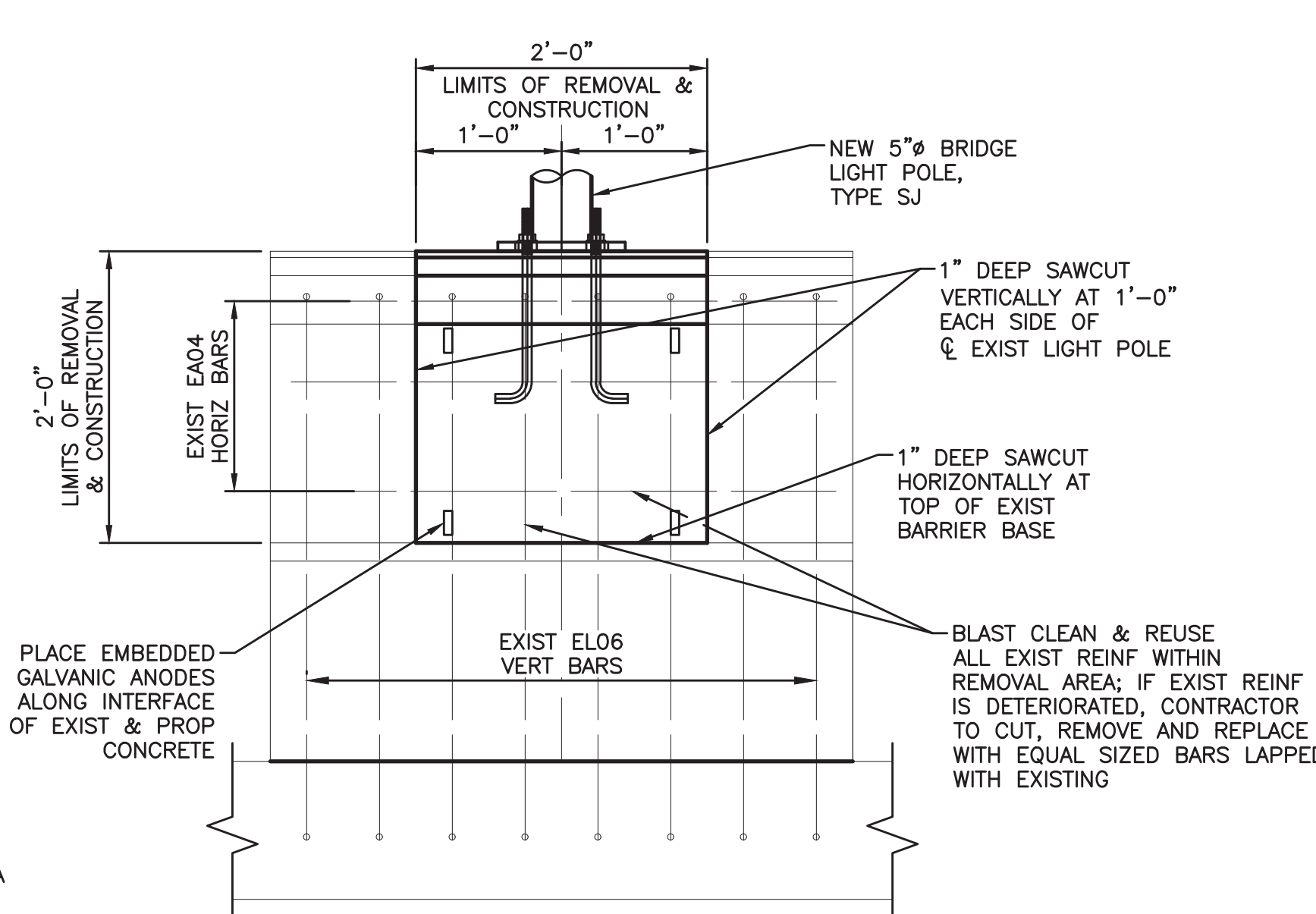
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
LIGHTING - DETAILS

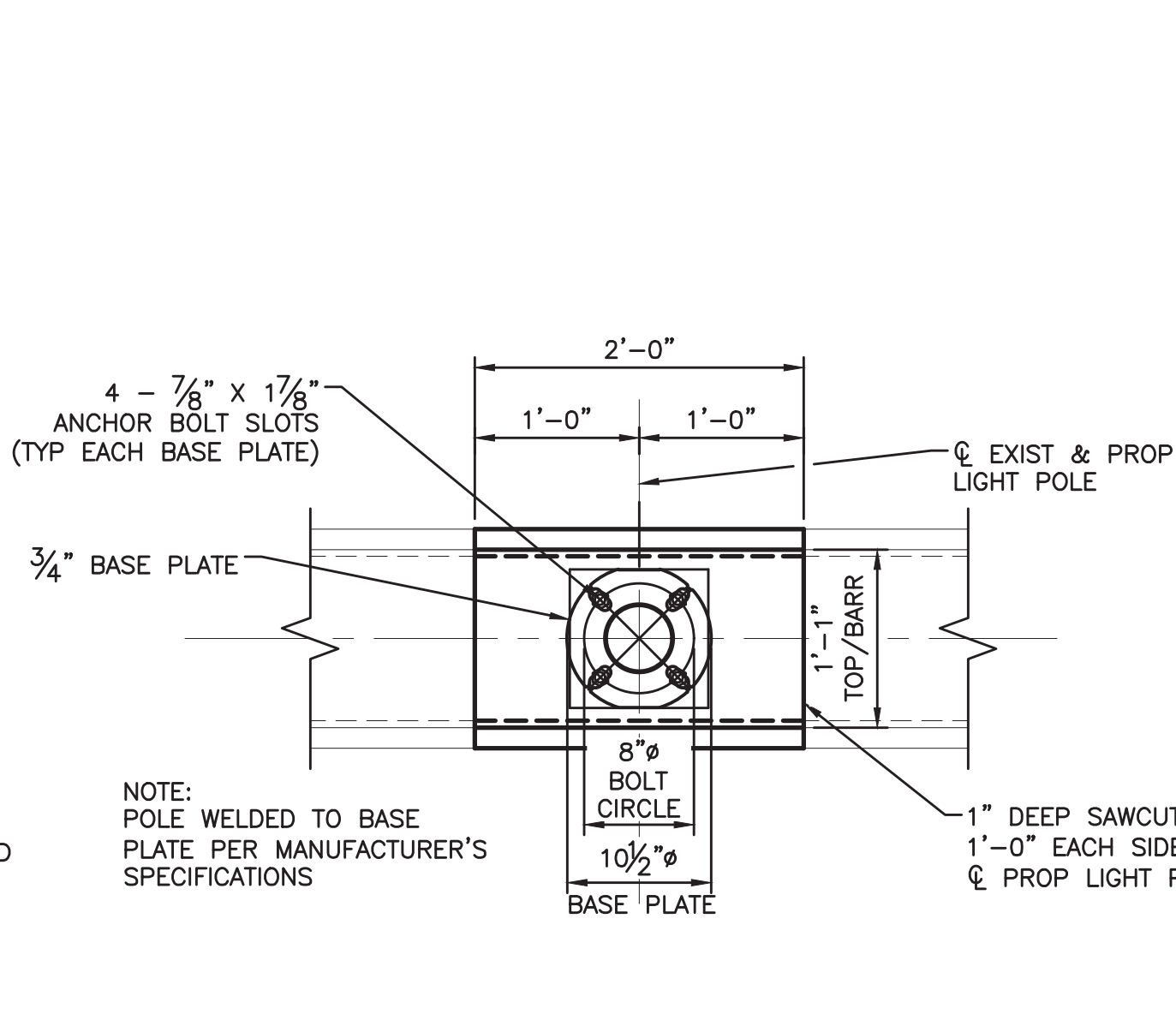
ISSUED FOR: FB	DATE: 10/23/24	BY: SAL	JOB NO: GPA200301F
SHEET			E1-10



TYPICAL CROSS SECTION

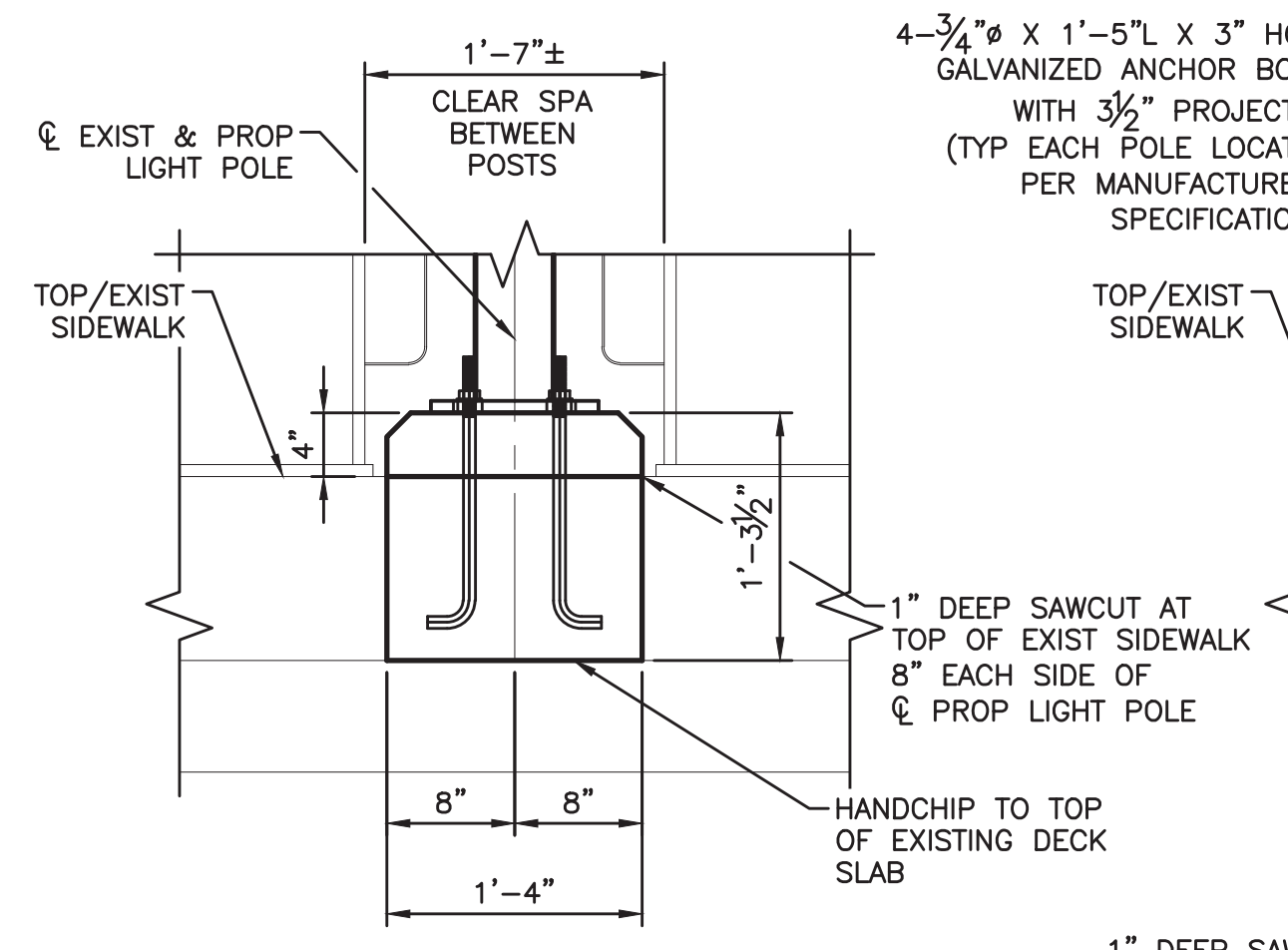


TYPICAL ELEVATION VIEW

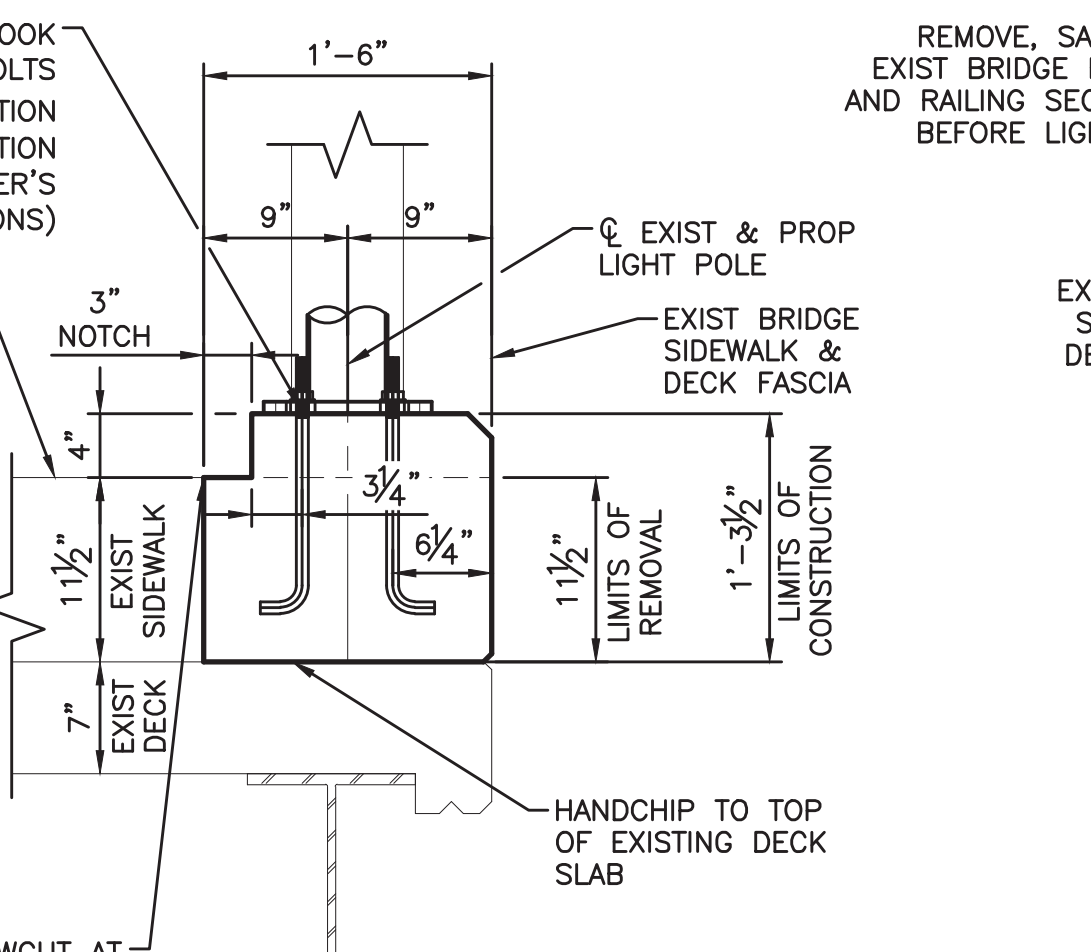


TYPICAL PLAN VIEW

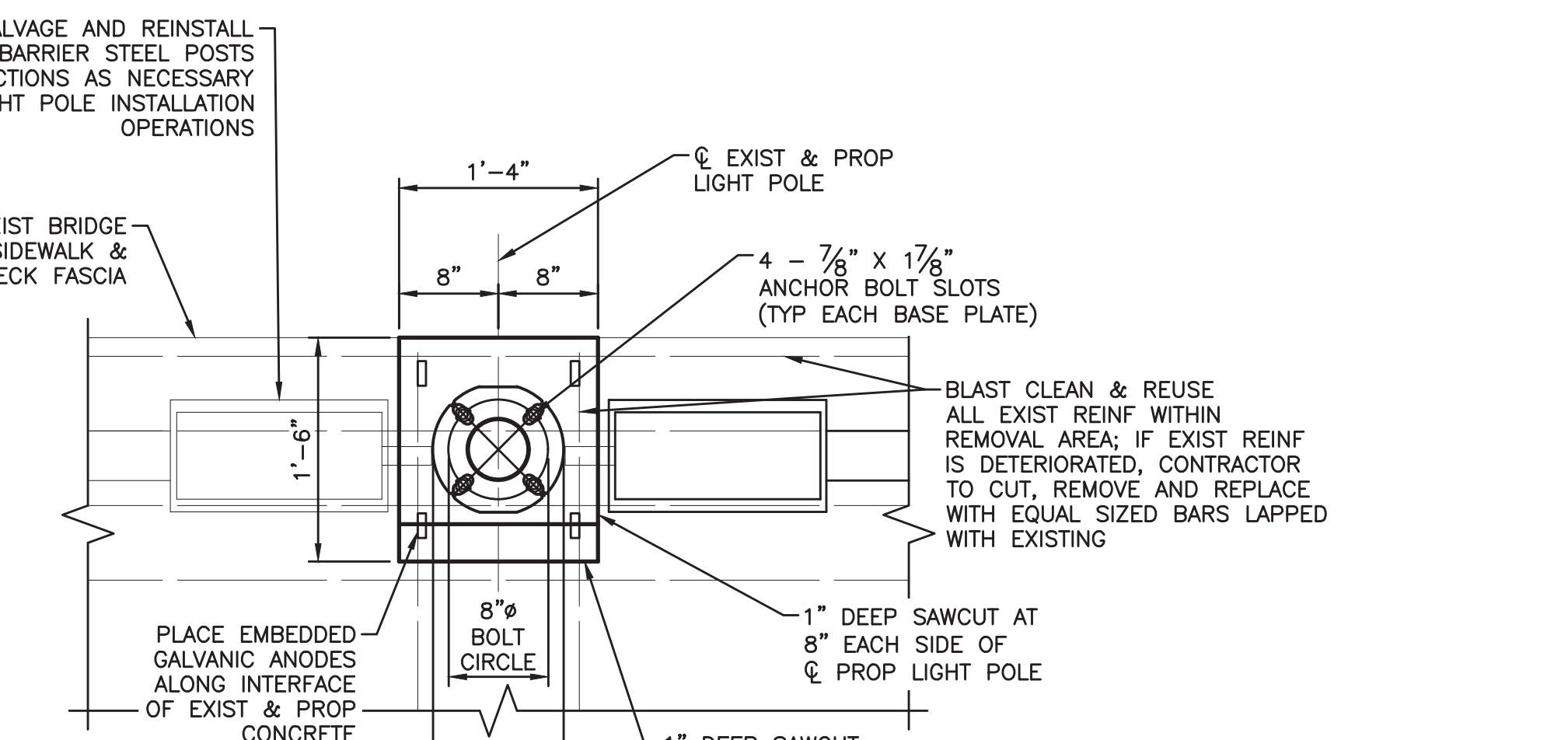
**BEACH STREET BRIDGE
LIGHT POLE ANCHORAGE DETAILS
FOR TYPICAL BARRIER POST
(TYP @ 6 LOCATIONS)
(PROPOSED LOCATIONS TO MATCH EXISTING LOCATIONS)**



TYPICAL ELEVATION VIEW

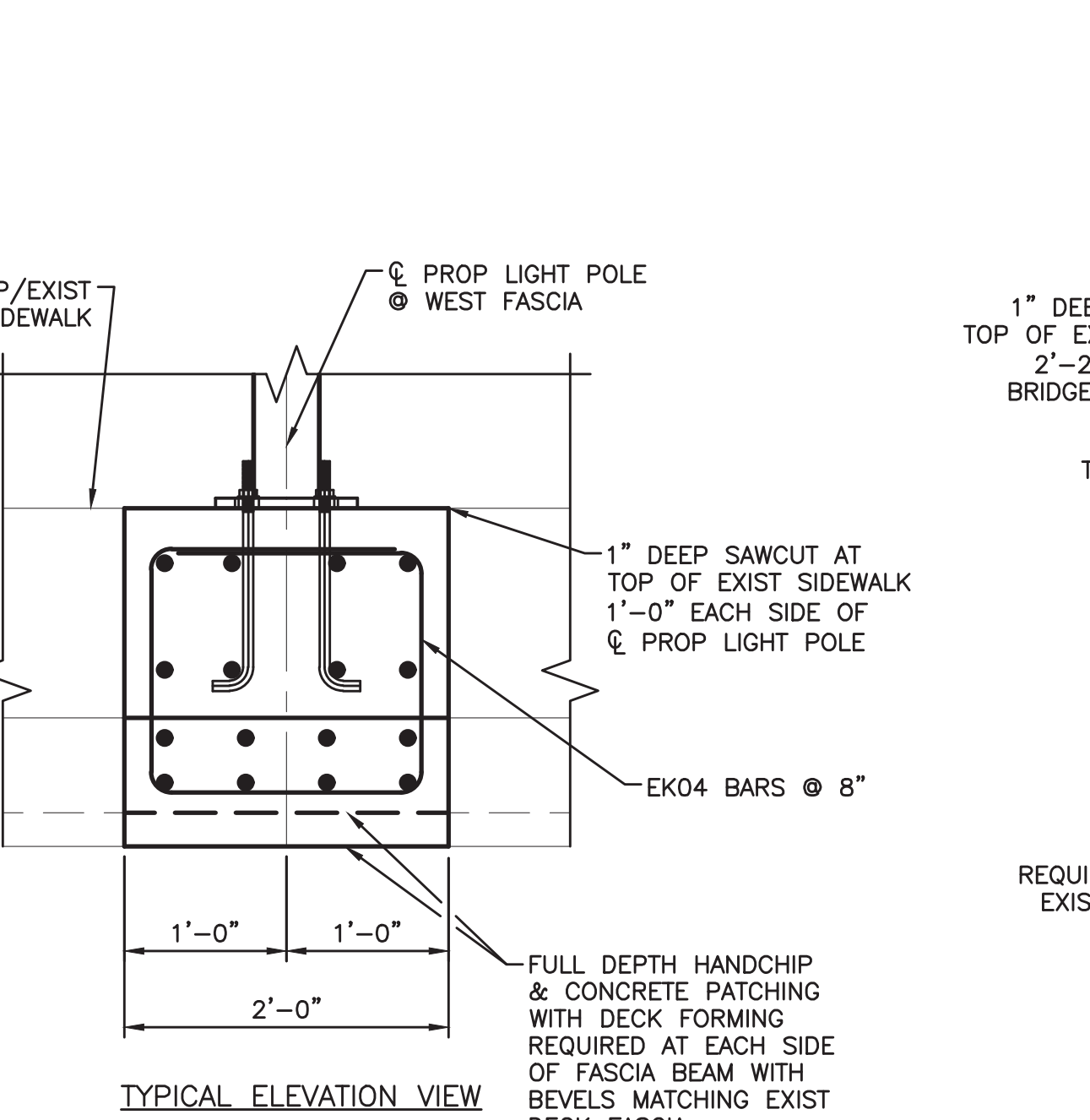


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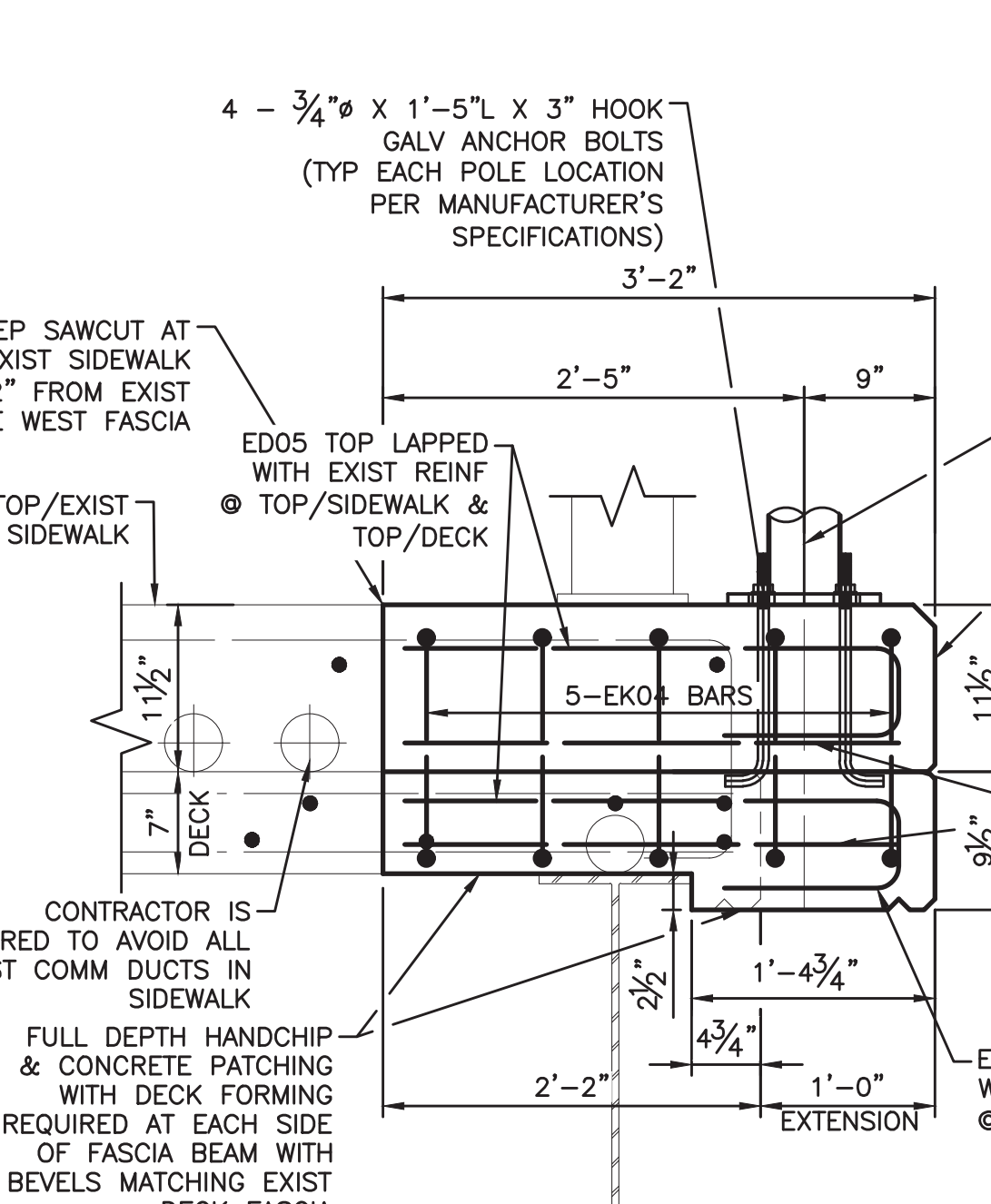


TYPICAL PLAN VIEW

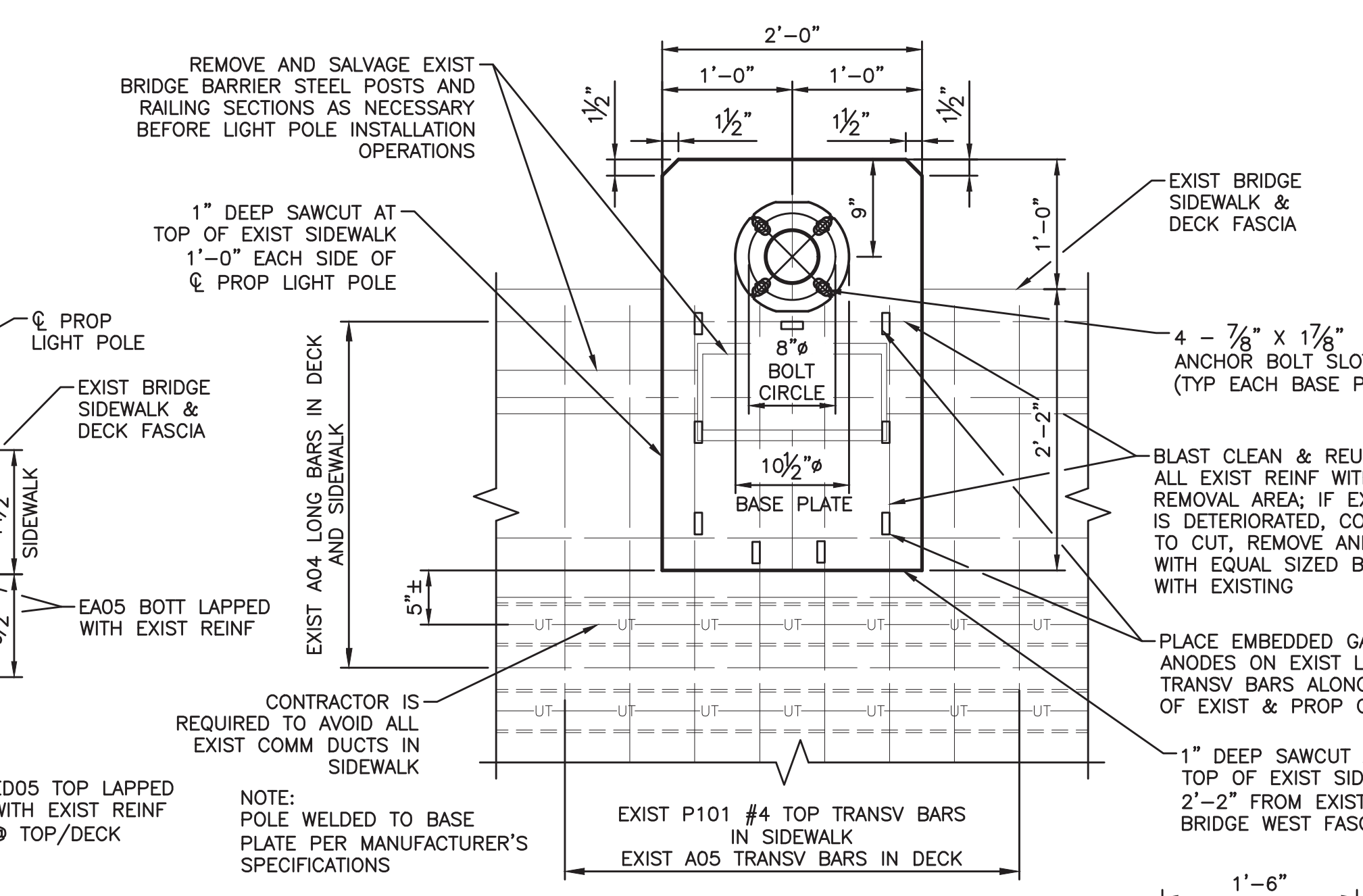
**HARRISON STREET BRIDGE
LIGHT POLE ANCHORAGE DETAILS
FOR EAST SIDEWALK SECTION
(TYP @ 2 LOCATIONS)
(PROPOSED LOCATIONS TO MATCH EXISTING LOCATIONS)**



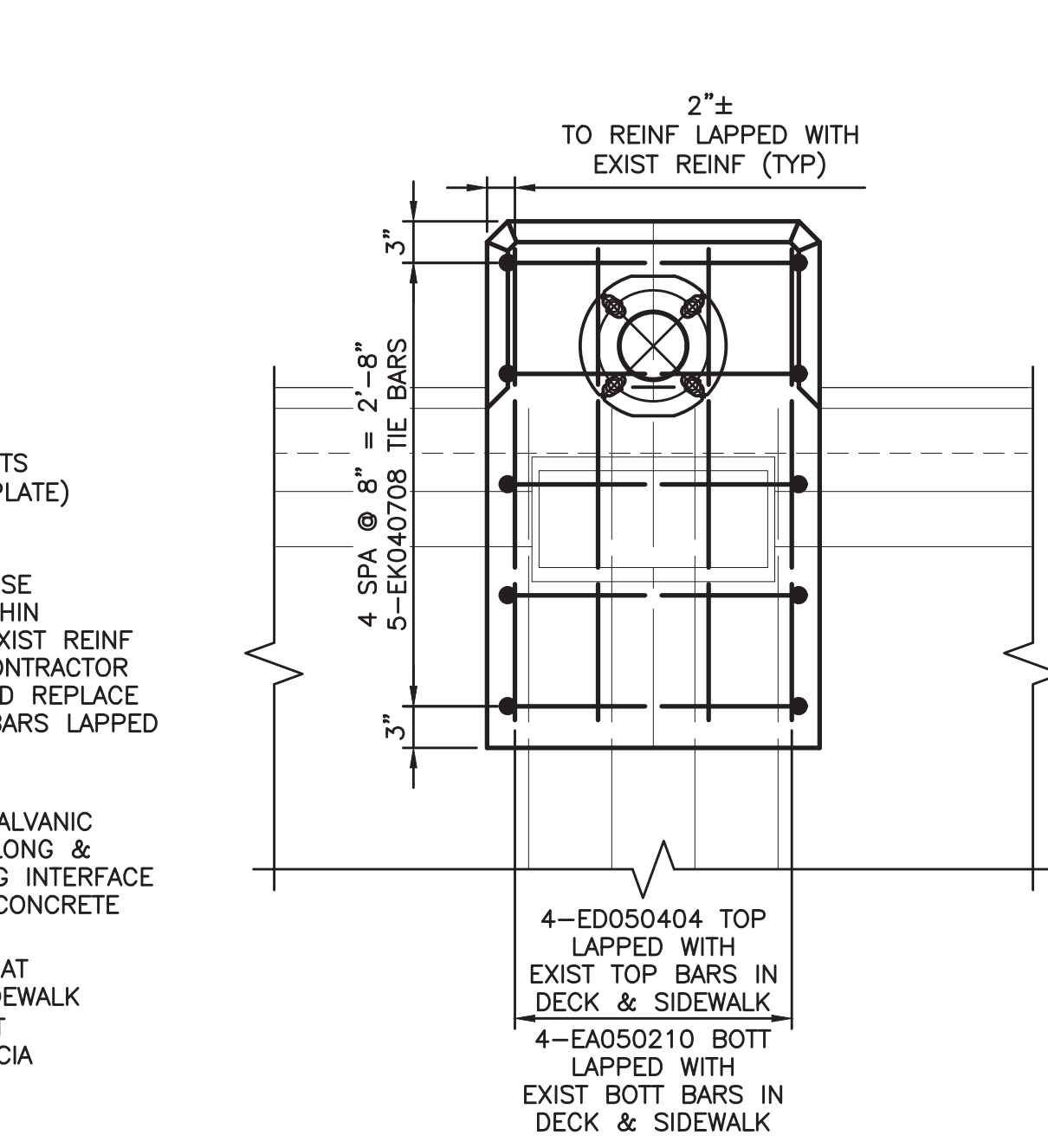
TYPICAL ELEVATION VIEW



TYPICAL CROSS SECTION



TYPICAL PLAN VIEW

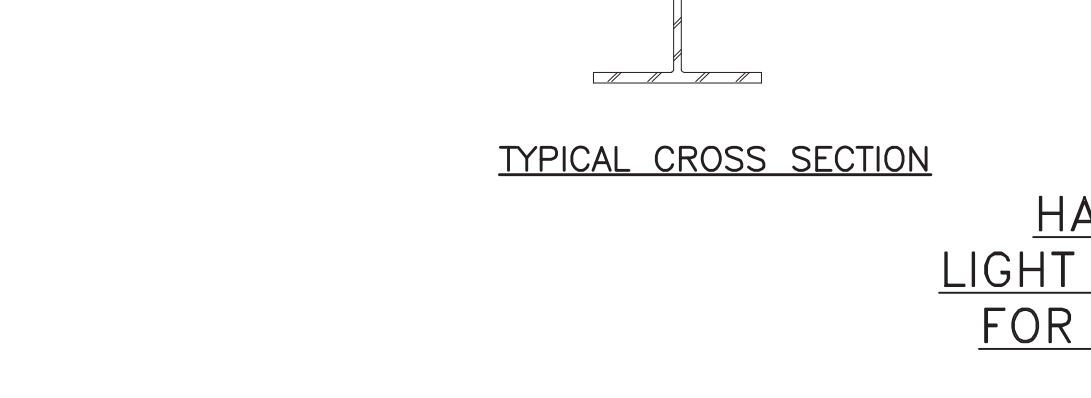


TYPICAL REINFORCEMENT PLAN VIEW

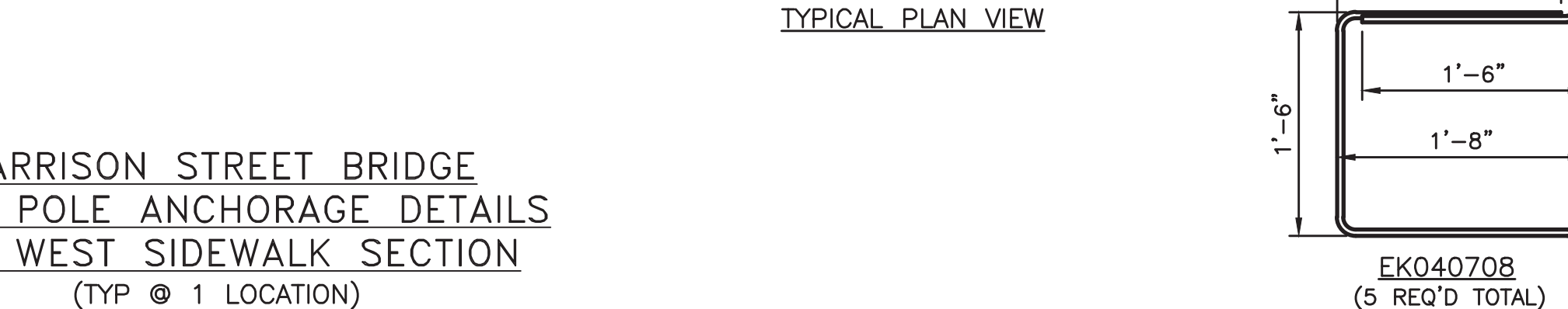
**HARRISON STREET BRIDGE
LIGHT POLE ANCHORAGE DETAILS
FOR WEST SIDEWALK SECTION
(TYP @ 1 LOCATION)**



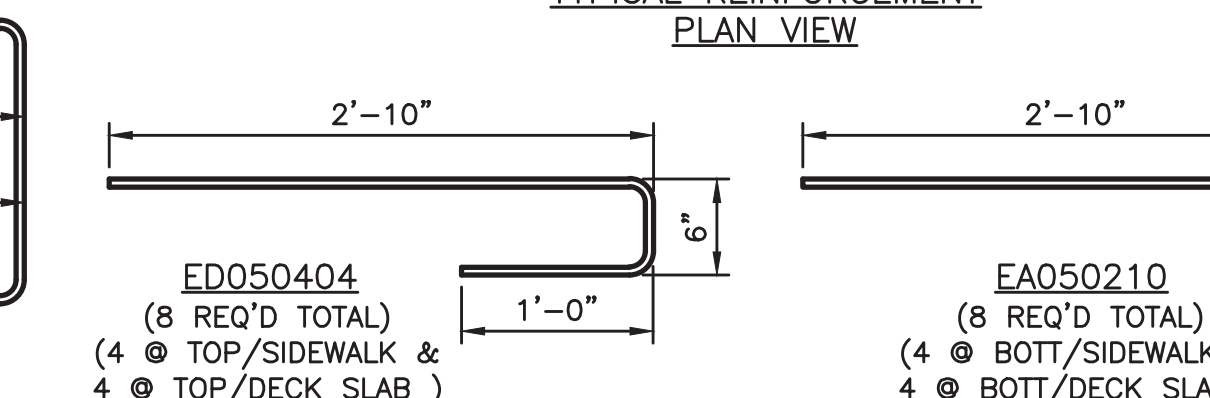
TYPICAL ELEVATION VIEW



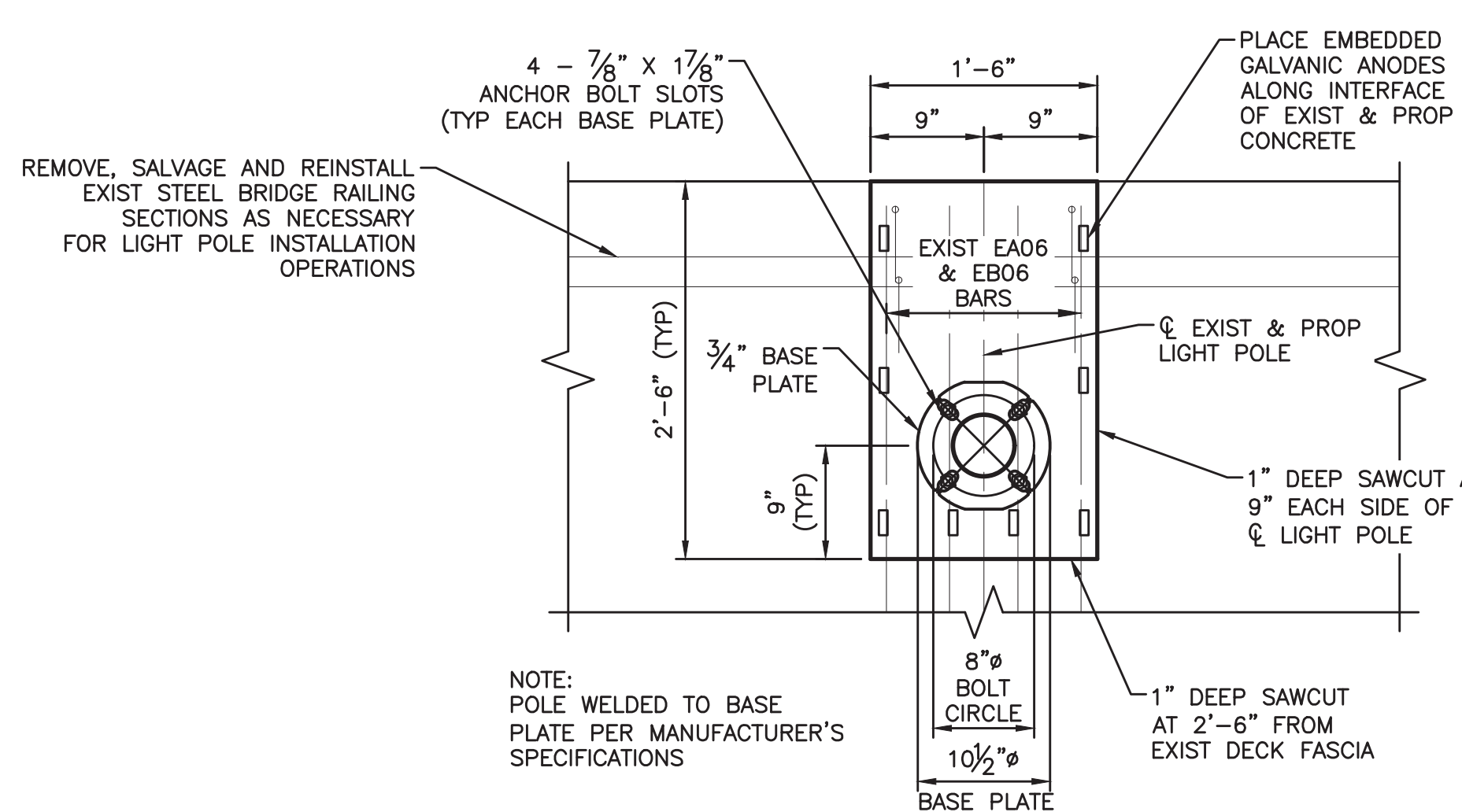
TYPICAL CROSS SECTION



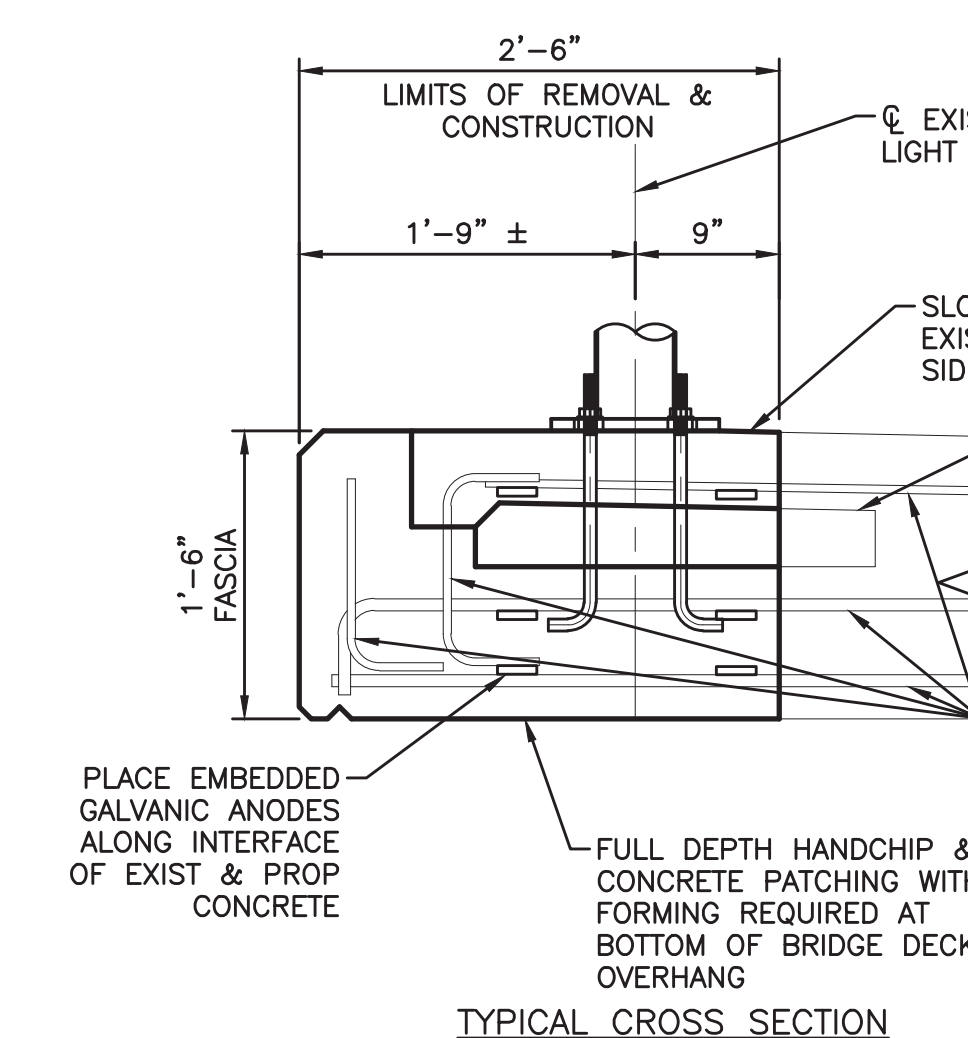
TYPICAL PLAN VIEW



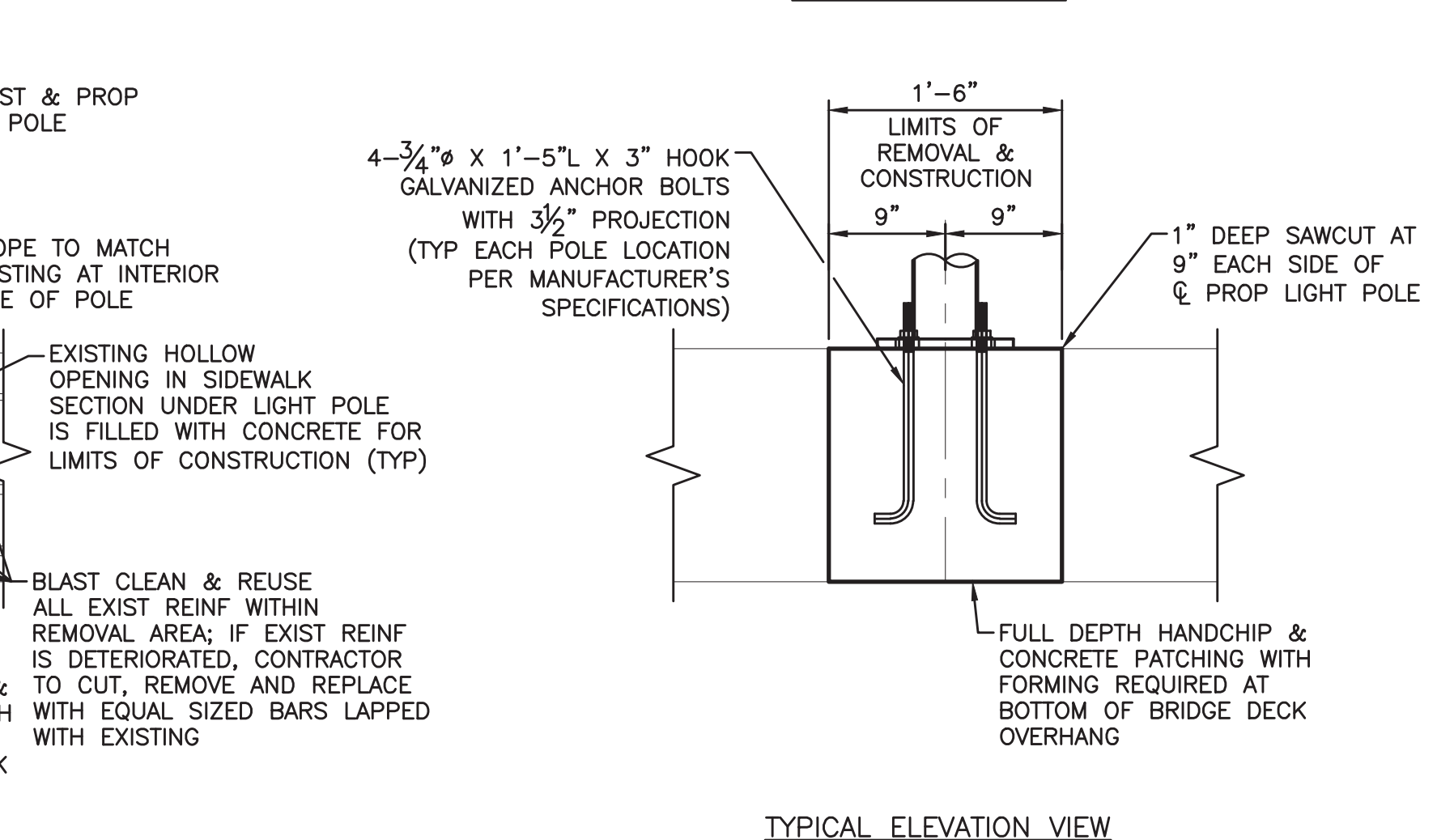
TYPICAL REINFORCEMENT PLAN VIEW



TYPICAL PLAN VIEW



TYPICAL CROSS SECTION



TYPICAL ELEVATION VIEW

**SAGINAW STREET BRIDGE
LIGHT POLE ANCHORAGE DETAILS
FOR TYPICAL SIDEWALK SECTION
(TYP @ 6 LOCATIONS)
(PROPOSED LOCATIONS TO MATCH 5 EXISTING LOCATIONS & 1 NEW LOCATION)**

BRIDGE LIGHT POLE ANCHORAGE NOTES

WORK THIS SHEET WITH THE LIGHTING DETAILS AND SPECIFICATIONS ON SHEETS L12-4 & E1-10.

CONTRACTOR IS REQUIRED TO VERIFY DIMENSIONS AND CLEARANCES TO EXISTING LIGHT POLES AND BRIDGE RAILINGS AND ADJUST PLACEMENT OF LIGHT POLES AS NECESSARY, AS APPROVED BY THE ENGINEER.

REMOVAL OF EXISTING PORTIONS OF DECK, SIDEWALK AND BRIDGE BARRIERS WITH SAWCUTTING AND HAND CHIPPING IS REQUIRED TO MEET THE CONSTRUCTION REQUIREMENTS OF SECTION 712.03.C & 712.03.F OF THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. THIS WORK IS PAID FOR AS "REMOVE BRIDGE ITEMS, COMPLETE".

CONSTRUCTION OF THE LIGHT POLE ANCHORAGE COMPONENTS INCLUDES FORMING, POURING, FINISHING AND CURING LATEX PATCHING CONCRETE, SUPPLYING AND PLACING STEEL REINFORCEMENT AND EMBEDDED GALVANIC ANODES. THIS WORK IS PAID FOR AS "BRIDGE IMPROVEMENTS, COMPLETE".

PATCHING CONCRETE IS REQUIRED TO MEET THE MATERIAL REQUIREMENTS OF THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 1006.02.B. AND TABLE 1006-1 FOR MIXTURE TYPE C-L.

STEEL REINFORCEMENT USED IS REQUIRED TO MEET THE REQUIREMENTS OF THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 905. ALL PROPOSED REINFORCEMENT IS REQUIRED TO BE EPOXY-COATED.

CONTRACTOR IS REQUIRED TO HANDCHIP AREAS OF CONCRETE WITHOUT CUTTING OR DAMAGING EXISTING REINFORCEMENT. ANY DAMAGED REINFORCEMENT WILL BE REMOVED AND REPLACED IN KIND, AS APPROVED BY THE ENGINEER. IF REMOVED REINFORCEMENT RESULTS IN INSUFFICIENT LAP LENGTH, REINFORCEMENT WILL BE DOWELED INTO EXISTING CONCRETE WITH ADHESIVE ANCHOR SYSTEM, AS APPROVED BY THE ENGINEER.

EMBEDDED GALVANIC ANODE INSTALLATION: GALVANIC ANODES USED ARE REQUIRED TO MEET THE REQUIREMENTS OF THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 712 AND MANUFACTURER'S RECOMMENDATIONS.

TIE GALVANIC ANODES TO EXISTING EXPOSED REINFORCEMENT WITH PLACEMENT AROUND THE PERIMETER OF THE CONCRETE PATCHED AREA. PLACE IN A GRID PATTERN WITHIN THE INTERIOR OF THE REPAIR IF THE REINFORCEMENT IS IN CONTACT WITH EXISTING CONCRETE. SPACING OF ALL EMBEDDED GALVANIC ANODES VARIES WITH MANUFACTURER'S SPECIFICATIONS AND NOT TO EXCEED A MAXIMUM SPACING OF 2'-0". FINAL SPACING AS APPROVED BY THE ENGINEER. A 3/4" MIN CLEARANCE IS REQUIRED FROM ANODE TO EXIST CONCRETE SURFACE.

EXISTING BRIDGE RAILING NOTE: EXISTING BRIDGE RAILING POSTS, RAILING SECTIONS, BASE PLATES AND ANY ASSOCIATED ANCHOR BOLTS, NUTS AND WASHERS, RAILING BRACKETS OR ADDITIONAL HARDWARE IS REQUIRED TO BE REMOVED AND SALVAGED IN THE VICINITY OF EACH PROPOSED LIGHT POLE LOCATION. AFTER LIGHT POLE CONSTRUCTION IS COMPLETE, THE PREVIOUSLY SALVAGED BRIDGE RAILING COMPONENTS WILL BE REINSTALLED. IF RAILING COMPONENTS ARE DAMAGED WHILE STORED, THE CONTRACTOR IS REQUIRED TO NOTIFY THE ENGINEER AND REPLACE THOSE ITEMS IN KIND, AS VERIFIED AND APPROVED BY THE ENGINEER.

AT THE WEST SIDE OF HARRISON STREET, REPLACE EXISTING BRIDGE RAILING POST ANCHOR BOLTS WITH GALVANIZED BOLTS, NUTS, WASHERS AND OTHER ASSOCIATED HARDWARE. ALL HARDWARE IS REQUIRED TO BE PAINTED TO MATCH BRIDGE RAILING PAINT. THIS WORK IS PAID FOR AS "BRIDGE IMPROVEMENTS, COMPLETE".

BARRICADES TO BLOCK OPEN SECTIONS IN RAILING ARE REQUIRED WHEN CONSTRUCTION IS NOT ACTIVE.

PROJECT: MANAGER: BRIDGE RESTORATION; SHEET: PLUS-BRIDGE LIGHTING.DWG - E2-1 - PLOTTED: 10/24/2024 8:37 AM BY: WHALEY, RUSSELL

REV#	DATE	DESCRIPTION	BY



GENESESE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
BRIDGE LIGHTING ANCHORAGE DETAILS

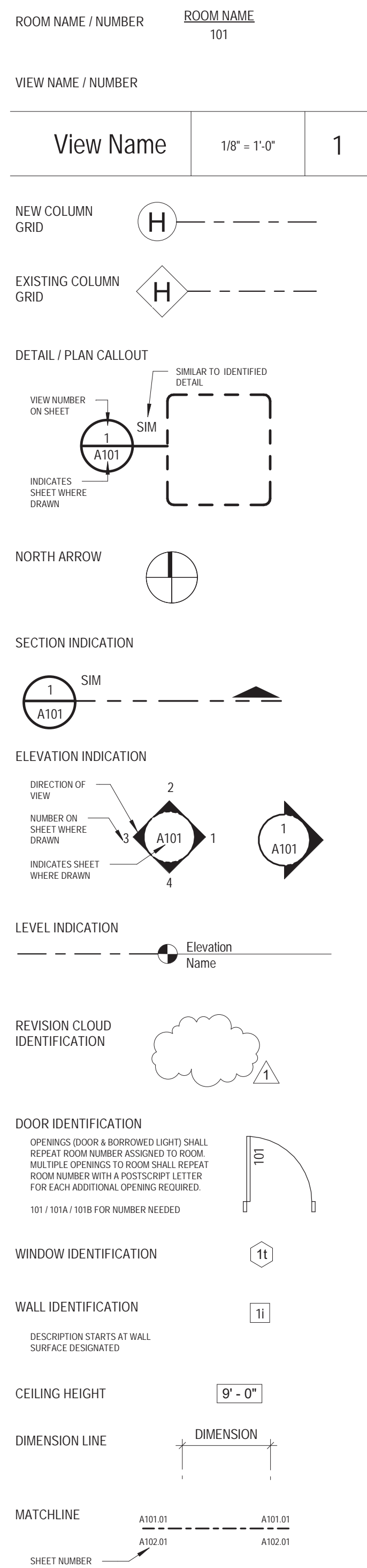
ISSUED FOR: DATE: BY: FB	10/23/24 SAL	JOB NO. GPA200301F
SHEET		E2-1

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ABBREVIATIONS

AB ANCHOR BOLT	FFC FIRE EXTINGUISHER CABINET	MISC MISCELLANEOUS	STRL STRUCTURAL
ABV ABOVE	FF FACTORY FINISH	MARK MARK	SUB SUBSTATION
AC ACOUSTIC/Acoustical	FF FACE TO FACE/FINISH TO FINISH	mm MILLIMETER	SURF SURFACE/SURFACING
AC AIR CONDITIONING	FFE FINISH FLOOR ELEVATION	MO MASONRY OPENING	SW SWITCH
ACC ACCESS	FFK FIXTURES, FURNISHINGS & EQUIP.	MEETING MEETING	SYN SYMMETRIC
ACH AIR CONDITIONING UNIT	FH FIRE HYDRANT	MTG METAL/METALIC	SYS SYSTEM
ADD ADDENDUM	FHC FIRE HOSE CABINET	MULL MULLION	
ADJ ADJUSTABLE	FIG FIGURE		
AFF ABOVE FINISH FLOOR	FIN FINISH/FINISHED	N NORTH	T THERMOSTAT/TREAD
AHU AIR HANDLING UNIT	FIN FLR/FFL FINISH FLOOR	NA NOT APPLICABLE	TAN TANGENT
ALT ALTERNATE	FIXT FIXTURE	NC NOT IN CONTRACT	T&B TOP AND BOTTOM
ALUMAL ALUMINUM	FLASH FLASHING	NO or # NO OR #	T&G TONGUE AND GROOVE
AND AND	FLG FLOORING/FLASHING/FLANGE	NOM NOMINAL	TB TEST BOARDING/TOWEL BAR
ANOD ANODIZED	FLR FLOOR	NOISE NOISE REDUCTION COEFFICIENT	TBD TACKBOARD TO BE DETERMINED
AP ACCESS PANEL	FLR FLUORESCENT	NTS NOT TO SCALE	TDR TRENCH DRAIN
APPROX APPROXIMATE	FFM FEET PER MINUTE	OA OUTSIDE AIR/OVERALL	TECH TECHNICAL
ARCH ARCHITECT/ARCHITECTURAL	FFR FIREPROOF/FIREPROOFING	OC ON CENTER	TEL TELEPHONE
@ AUTOMATIC	FR FIRE RETARDANT	OD OUTSIDE DIAMETER/OUTSIDE DIMENSION	TEMP TEMPORARY/TEMPERED
AV AVERAGE	FRM FRAME	OF OUTSIDE FACE DIMENSION	THK THICKNESS
BD BOARD	FT FTG FOOTING	OFF OFFICE	THRU THROUGH/THROUGHOUT
BF BARRIER FREE	FURN FURNISH/FURNISHED	OH OPPOSITE HAND/OVERHEAD	TOS TOP OF STEEL/TOP OF SLAB
BIT BITUMINOUS	FURR FURRING/FURRED	OPG OPENING	TP TANGENT POINT
BLDG BUILDING	FVC FIRE VALVE CABINET	OPP OPPOSITE	TRAN TRANSOM/TRANSFORMER
BLK BLOCK/BLOCKING		OZ OUNCE	TUBE SECTION/TUBE STEEL
BLVD BOULEVARD		PA PUBLIC ADDRESS	TV TELEVISION
BM BEAMBENCHMARK		PASS PASSAGE/PASSENGER	TW THROUGH WALL
BRG BEARING		PBD PARTICLE BOARD	TYP TYPICAL
BTU BRITISH THERMAL UNIT		PC PRECAST/PC	UC UNDERCUT
		PCF POUNDS PER CUBIC FOOT	UG UNDERGROUND
		PCP PRECAST CONCRETE PANEL	UH UNIT HEATER
		PERF PERFORATED	UL UNDERWRITER'S LABORATORY
		PERM PERMANENT	UN UNLESS OTHERWISE NOTED
		PERP PERPENDICULAR	URN URINAL
		PGE PAGE	VAC VACUUM
		PKG GALLONS PER HOUR	VAR VARIABLE/VARIES
		PL PLATE/PROPERTY LINE	VENT VENTILATE/VENTILATION
		PLMBG PLUMBING	VERT VERTICAL/VERTICALLY
		PLF POUNDS PER LINEAR FOOT	VEST VESTIBULE
		PLWD PLYWOOD	VIF VERIFY IN FIELD
		POL POLISHED	VOL VOLUME
		POS POSITION/POSITIVE	VR VAPOR RETARDER
		PREFAB PREFABRICATED	W WIDE/WIDTH/WEST/WASTENATTS
		PROJ PROJECT/PROJECTION	WI WITH
		PSF POUNDS PER SQUARE FOOT	WC WATER CLOSET
		PSI POUNDS PER SQUARE INCH	WOOD WOOD
		PT POINT/PAINT	WL WORKING LINE
		PTD PAINTED	WM WATER METER
		PTN PARTITION	WO WINDOW OPENING
		PVC POLYVINYLCHLORIDE	WO WITHOUT
		PVMT PAVEMENT	WP WATERPROOF/WEATHERPROOF
		QTY QUANTITY	WQ WORKING POINT
		QTR QUARTER	WT WEIGHT/WATER TIGHT
		R RISER	WWF WELDED WIRE FABRIC
		RAD or R RADIUS	WWW WELDED WIRE MESH
		RC RAIN CONDUCTOR	WCL WIRE GLASS
		REF REFLECTED CEILING PLAN	
		RD ROAD/ROOF DRAIN	
		REBAR REINFORCEMENT BAR	
		RECVC RECEIVER/CEILING	
		REF REFERENCE/REF	
		REFR REFRIGERATOR	
		REG REGISTER	
		REIN REINFORCE/REINFORCEMENT	
		REQ REQUIRED	
		REV REVISION/REVISION	
		RFB ROOFING	
		RH RIGHT HAND	
		RHR RIGHT HAND REVERSE	
		RM ROOM	
		RND ROUND	
		RO ROUGH OPENING	
		ROW RIGHT OF WAY	
		RUP ROOF TOP UNIT	
		S SOUTH/STORM/SINK	
		SA SUPPLY AIR	
		SAG SUPPLY AIR GRILLE	
		SAN SANITARY	
		SAN SANITARY	
		SC SOLID CORE	
		SCHED SCHEDULE	
		SCHFD SCHEDULE	
		SECT SECTION	
		SF SQUARE FEET/SUPPLY FAN	
		SHR SHOWER	
		SIM SIMILAR	
		SOG SLAB ON GRADE	
		SPEC SPECIFICATION	
		SPKLR SPRINKLER	
		SPKR SPEAKER	
		SQ SQUARE	
		STAGG STAGGERED	
		STC SOUND TRANSMISSION CLASS	
		SS STAINLESS STEEL	
		ST STREET	
		STD STANDARD	
		STIFF STIFFENER	
		STL STEEL	
		STOR STORAGE	

DRAWING SYMBOLS



APPLICABLE CODES

- 2015 MICHIGAN BUILDING CODE (APRIL 20, 2017)
- 2015 MICHIGAN REHAB CODE FOR EXISTING BUILDINGS (DECEMBER 13, 2016)
- 2015 MICHIGAN RESIDENTIAL CODE W/ ADMIN RULES PART 5 (FEBRUARY 8, 2016)
- 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
- 2009 ICC/ANSI ACCESSIBLE AND USABLE BUILDING & FACILITIES
- 2015 MICHIGAN MECHANICAL CODE (APRIL 12, 2017)
- 2018 MICHIGAN PLUMBING CODE (SEPTEMBER 15, 2021)
- 2017 NATIONAL ELECTRICAL CODE W/ PART 8 AMENDMENTS (JANUARY 4, 2019)
- 2015 MICHIGAN UNIFORM ENERGY CODE (SEPTEMBER 20, 2017)
- STATE OF MICHIGAN FIRE SAFETY BOARD RULES - NEW AND EXISTING SCHOOL COLLEGE, & UNIVERSITY FIRE SAFETY
- 2012 NFPA 101 WITH BFS AMENDMENTS

* REFER TO STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DOCUMENTS ADDITIONAL INFORMATION AND APPLICABLE CODES

BUILDING CODE SUMMARY

GOVERNING CODE	MICHIGAN REHAB CODE FOR EXISTING BUILDINGS 2015 EDITION	REMARKS
BUILDING AREA (504)	515 SF	ALTERATION - LEVEL 1
BUILDING USE GROUP (CHAPTER 3)	ASSEMBLY GROUP A-3	
TYPE OF CONSTRUCTION (CHAPTER 6)	TYPE V-B CONSTRUCTION	
FIRE SUPPRESSION PROVIDED (SECTION 903)	NOT REQUIRED	
ALLOWABLE BUILDING HEIGHT & NUMBER OF STORES (TABLES 504.3, 504.4)	40' & 1 STORY	EXISTING: 1 STORY
SPECIAL PROVISIONS (HEIGHT & AREA) (SECTION 510)	NOT APPLICABLE	
TOTAL ALLOWABLE BUILDING HEIGHT	40'	EXISTING: 11' - 2" TOP OF HIGH PARAPET
TABULAR FLOOR AREA PER STORY (TABLE 506.2)	6,000 SF	
ACTUAL FLOOR AREA PER STORY	1ST FLOOR 515 SF	
TOTAL AREA	515 SF	
OCCUPANT LOAD PER STORY (TABLE 1004.1.2)	1ST FLOOR 25 PEOPLE	
TOTAL OCCUPANT LOAD	25 PEOPLE	
COMMON PATH OF EGRESS TRAVEL (TABLE 1006.2.1)	75'-0"	
MAXIMUM LENGTH OF EXIT TRAVEL (TABLE 1017.2)	200'-0"	MAXIMUM EXISTING: 24' - 0"
CAPACITY OF EGRESS COMPONENTS		
EXIT ACCESS CORRIDORS (PARA 1005.1 & TABLE 1020.2)	0.2' PER OCCUPANT 44' MINIMUM IN EACH CORRIDOR	NO EXISTING CORRIDORS
DOORS (PARA 1005.3.2 & PARA 1010.1.1)	0.2' PER OCCUPANT 32" WIDE MINIMUM FOR EACH DOOR	EXISTING DOORS: 36" WIDE
FIRE RESISTANCE RATINGS OF STRUCTURAL ELEMENTS		
PRIMARY STRUCTURAL FRAME (TABLE 601)	0 HOUR	
INTERIOR AND EXTERIOR BEARING WALLS, COLUMNS, BEAMS, GIRDERS, TRUSSES, AND ARCHES (TABLE 601)	SUPPORTING MORE THAN ONE FLOOR, COLUMNS OR OTHER BEARING WALLS SUPPORTING A ROOF ONLY	0 HOUR EXTERIOR BEARING WALLS 0 HOUR INTERIOR BEARING WALLS 0 HOUR
EXTERIOR NON BEARING WALLS (TABLE 602)		0 HOUR
INTERIOR NON-BEARING WALLS (TABLE 601)		0 HOUR
FLOOR CONSTRUCTION (TABLE 601)		0 HOUR
ROOF CONSTRUCTION (TABLE 601)		0 HOUR

PROJECT MANAGER: Jason Korman
FIELD SUPERVISOR: Jason Korman
W/ WORKSPACE: TRIM, HERNANDEZ/01/03/2025 3:28 PM BY: HERNANDEZ, MELISSA

REV#	DATE	DESCRIPTION	BY

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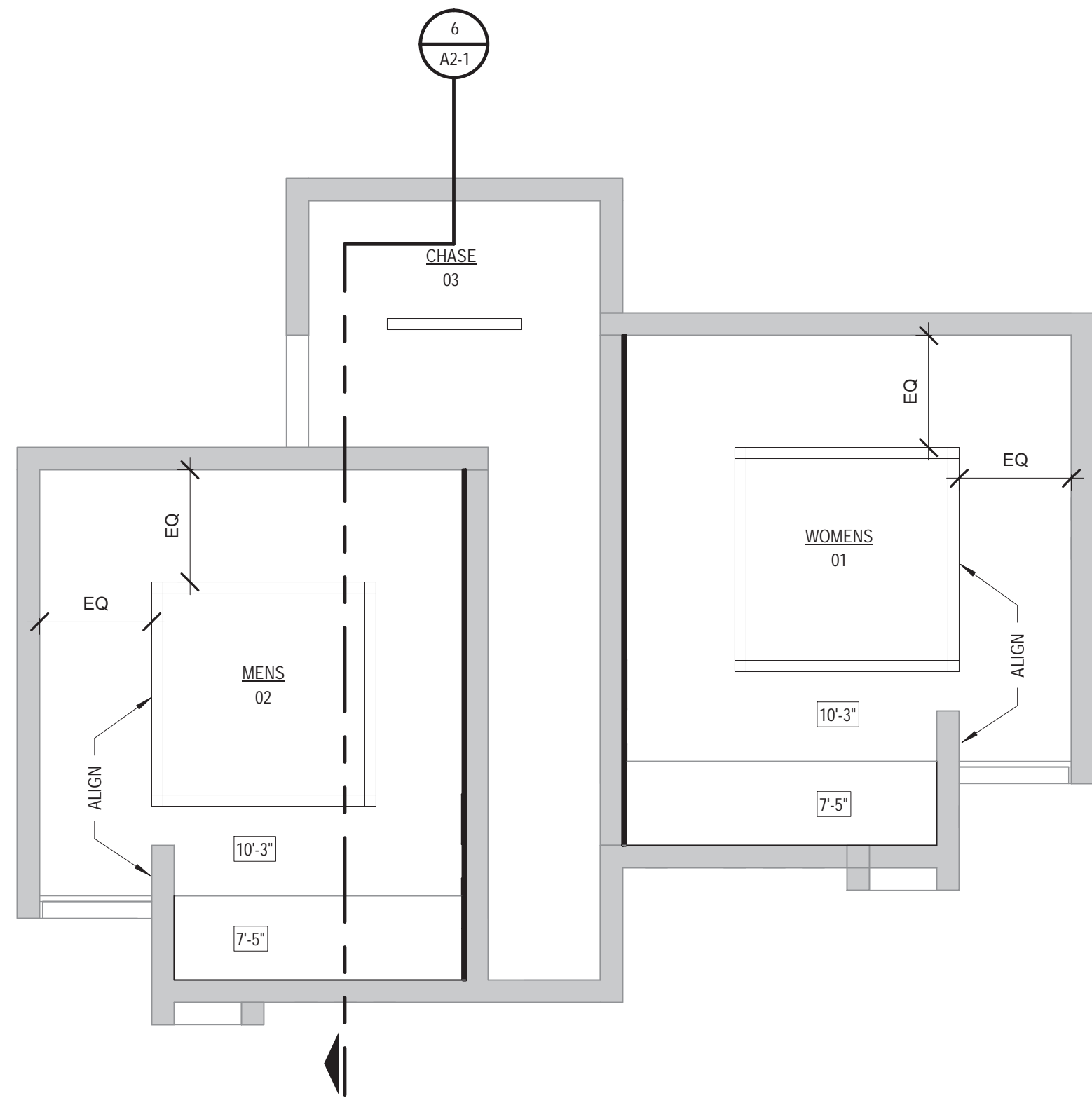
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
GENERAL NOTES

ISSUED FOR: IFB SET	DATE: 12/16/23	BY: CEI
IFB SET	5/17/24	CEI
IFB SET	10/23/24	CEI

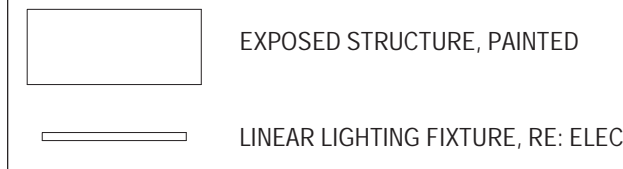
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SHEET AG-1

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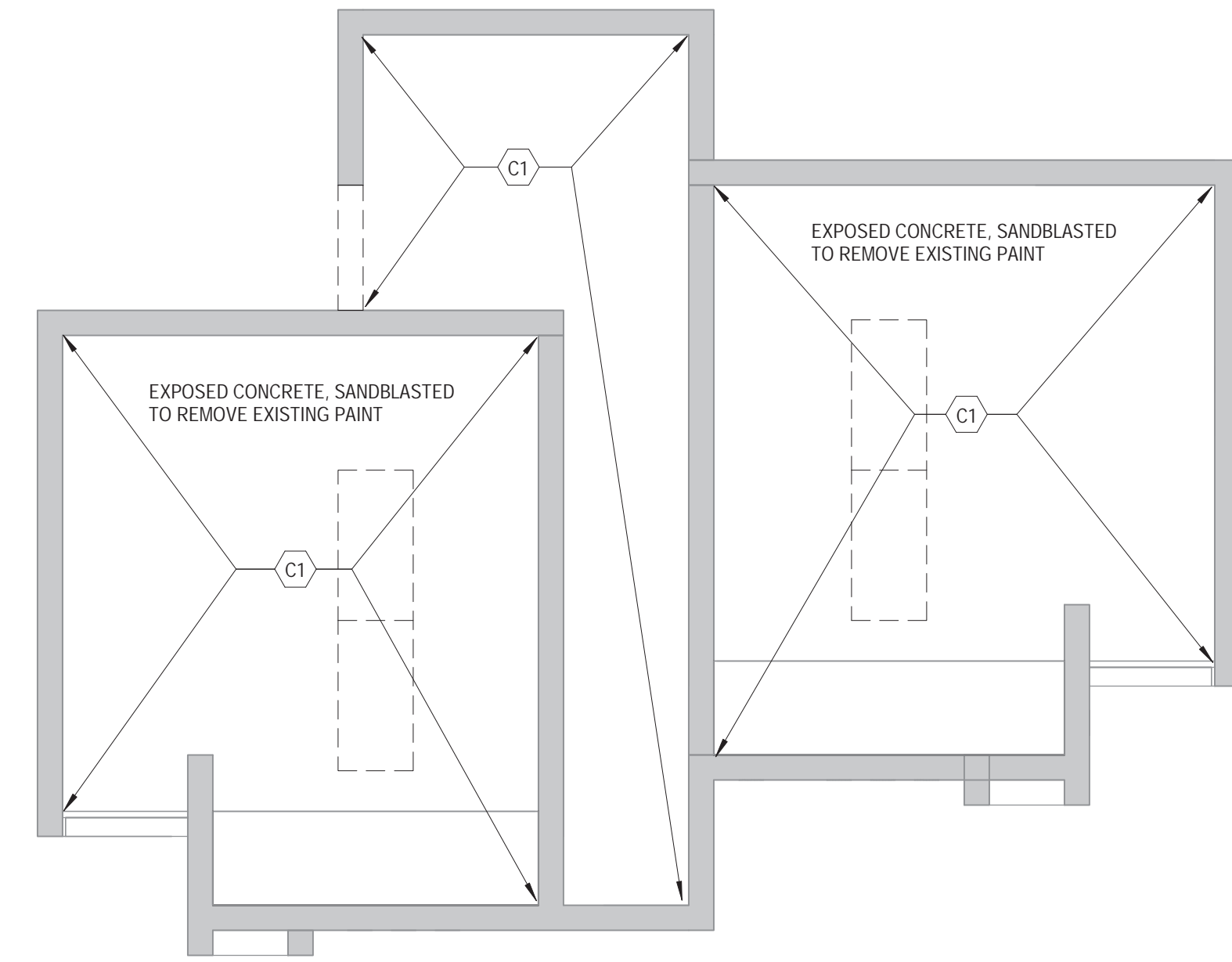
REFLECTED CEILING PLAN 1/4" = 1'-0" 4

CEILING PLAN LEGEND



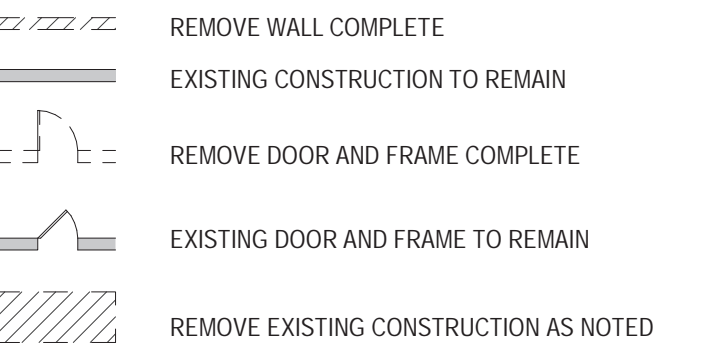
CEILING PLAN GENERAL NOTES

- REFER TO ARCHITECTURAL GENERAL INFORMATION SHEET FOR CEILING SYMBOLS AND ABBREVIATIONS
- REFER TO MECHANICAL AND ELECTRICAL GENERAL INFORMATION SHEET FOR CEILING SYMBOLS AND ABBREVIATIONS
- REFER TO FLOOR PLANS FOR PARTITION TYPE DESIGNATIONS
- COORDINATE LOCATION OF ALL ELEMENTS WITHIN HARD CEILING WITH ARCHITECT PRIOR TO INSTALLATION
- ALL ELEMENTS MOUNTED TO EXPOSED CEILING TO MATCH PAINTED SURFACE ON WHICH THEY ARE ATTACHED UNLESS PROHIBITED BY CODE, INCLUDING, BUT NOT LIMITED TO: MECHANICAL ELEMENTS, ELECTRICAL ELEMENTS, PLUMBING ELEMENTS, STRUCTURAL ELEMENTS



CEILING DEMOLITION PLAN 1/4" = 1'-0" 2

DEMOLITION LEGEND



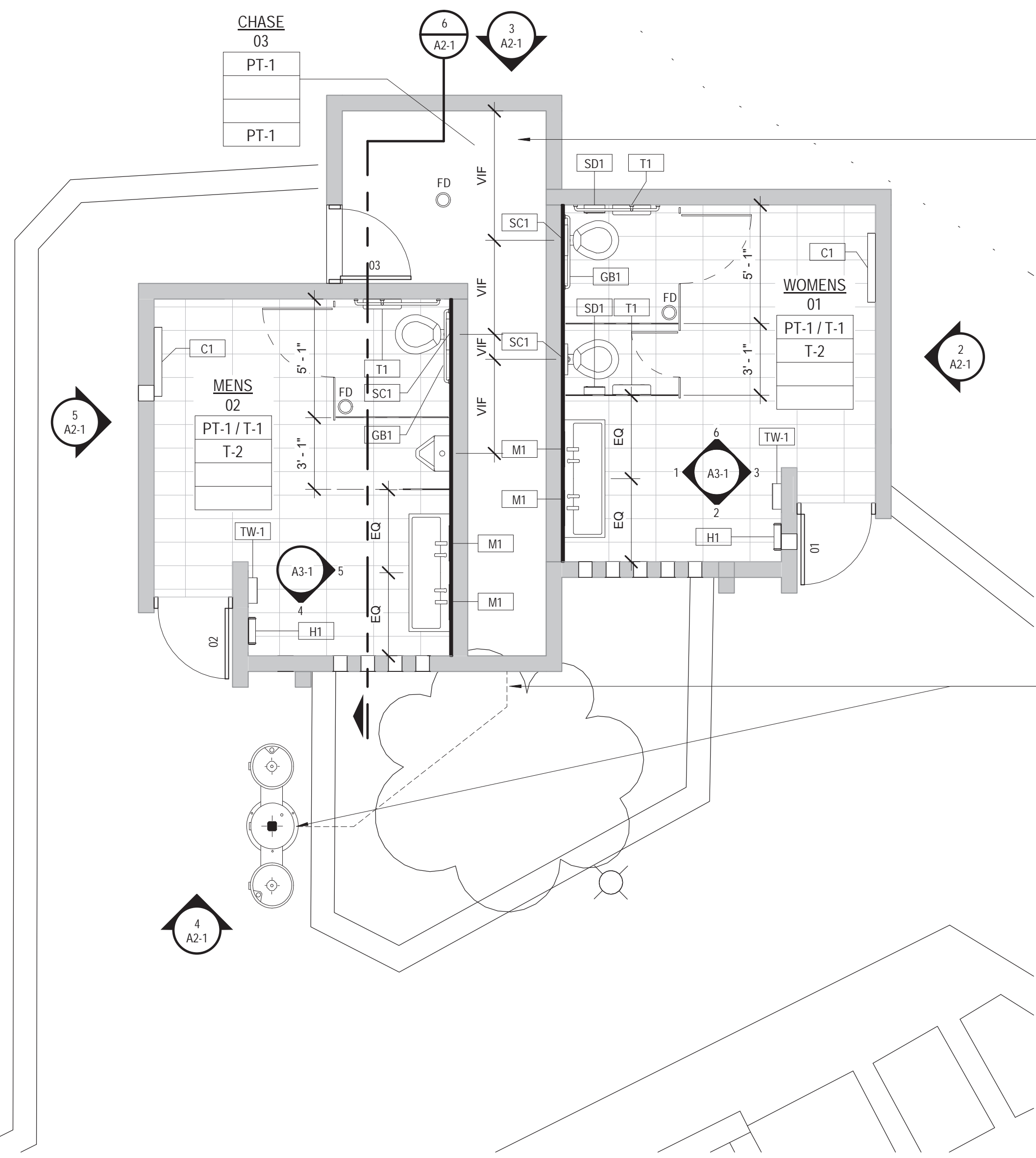
DEMOLITION KEYNOTES

NOTE: REFER TO EXTERIOR ELEVATIONS FOR ALL EXTERIOR DEMO SCOPE

- FLOORS:
- F1 REMOVE EXISTING FLOORING MATERIAL DOWN TO SUB FLOOR OR SLAB. PREPARE SURFACE FOR NEW FINISH
 - F2 REMOVE RAISED CONCRETE SLAB
- WALLS:
- W1 WHERE EXISTING CONCRETE WALLS ARE TO REMAIN. REMOVE ALL LOOSE AND PEELING PAINT BY SCRAPING. SANDBLAST TO EXPOSE CONCRETE WHERE NOTED. CLEAN WITH WATER AND DETERGENT
 - W2 REMOVE EXISTING TILE AND GROUT FROM WALLS
- CEILING:
- C1 EXISTING CONCRETE CEILING TO REMAIN. REMOVE ALL CEILING MOUNTED EQUIPMENT, CONDUIT, AND LIGHT FIXTURES. REMOVE ALL LOOSE AND PEELING PAINT FROM PLASTER BY SCRAPING. SANDBLAST TO EXPOSE CONCRETE WHERE NOTED. PREP CEILING FOR NEW PAINT FINISH. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
- OPENINGS:
- O1 REMOVE DOOR, HARDWARE, AND FRAME IN ITS ENTIRETY.
 - O2 REMOVE DOOR, FRAME TO REMAIN - REMOVE ALL LOOSE AND PEELING PAINT BY SCRAPING. CLEAN WITH WATER AND DETERGENT.
- MISCELLANEOUS:
- M1 REMOVE ALL PLUMBING FIXTURES INCLUDING TOILETS, LAVS, AND TOILET ACCESSORIES. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.

DEMOLITION NOTES

- CONTRACTOR SHALL VISIT SITE TO VERIFY ACTUAL EXTENT OF DEMOLITION PRIOR TO BID. DO NOT RELY SOLELY ON THE DRAWINGS FOR DEMOLITION SCOPE. ALL DEMOLITION REQUIRED TO CARRY OUT THE WORK OF THE CONTRACT SHALL BE PART OF THE CONTRACT. NO ADDITION TO THE CONTRACT AMOUNT WILL BE ALLOWED DUE TO FAILURE TO FIELD VERIFY DEMOLITION SCOPE OR FAILURE TO EXAMINE ALL CONTRACT DOCUMENTS.
- VERIFY AND INVESTIGATE ALL CONDITIONS IN THE FIELD PRIOR TO STARTING DEMOLITION. NOTIFY ARCHITECT OF DISCREPANCIES. LOCATE AND IDENTIFY SERVICES TO REMAIN IN OPERATION, INCLUDING ALL UTILITY LINES PENETRATING FLOOR, UNDOCUMENTED CONDITIONS, UTILITY RISERS, ETC.
- PRIOR TO CUTTING EXISTING CONSTRUCTION, DETERMINE THE PRESENCE OF AND PROTECT ACTIVE TELECOMMUNICATION, DATA & ELECTRICAL LINES AND PIPING WHICH MAY BE DAMAGED BY SUCH CUTTING.
- REMOVE AND REINSTALL ITEMS TO BE SALVAGED WHERE INDICATED AND WHERE ADVISED BY OWNER.
- COORDINATE DEMOLITION WITH OWNER'S REQUIREMENTS AND OTHER CONTRACTORS RETAINED BY THE OWNER.
- CONTRACTOR TO FOLLOW OWNER'S REQUIREMENTS FOR ENSURING SECURITY AND SAFETY OF THE BUILDING THROUGH DEMOLITION AND CONSTRUCTION. CONTROL NOISE, VIBRATION, AND ANY OTHER DISTURBING FACTORS. COORDINATE WORK HOURS WITH OWNER PRIOR TO PROCEEDING WITH THE WORK.
- UTMOST CARE MUST BE TAKEN DURING DEMOLITION TO ENSURE THAT EXISTING CONSTRUCTION TO REMAIN IS NOT DAMAGED. REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY DEMOLITION ACTIVITIES.
- CONTRACTOR IS TO PROVIDE COMPLETE DUST PROOF ENCLOSURE IN ALL AREAS WHERE DEMOLITION IS TO OCCUR. COMPLY WITH ALL OSHA, NFPA AND OTHER APPLICABLE RULES AND REGULATIONS REGARDING DUST AND DEBRIS REMOVAL.
- CONTRACTOR IS TO VACUUM ACCESS CORRIDORS AT THE END OF EACH DAY, AT A MINIMUM.
- FLOORS: REMOVE ALL DEBRIS, DUST AND DIRT. CLEAN WITH WATER AND DETERGENT. WHERE INDICATED, REMOVE FLOOR FINISH DOWN TO STRUCTURAL SLAB.
- WHERE EXISTING PLASTER AND CONCRETE WALLS AND COLLINGS ARE TO REMAIN, REMOVE ALL LOOSE AND PEELING PAINT BY SCRAPING. CLEAN WITH WATER AND DETERGENT.
- WHERE CEILING IS TO REMAIN, REMOVE DUST, DIRT AND DEBRIS. REMOVE ALL LOOSE AND PEELING PAINT FROM PLASTER CEILING BY SCRAPING. DO NOT REMOVE SPRAY FIRE PROTECTION.
- WHERE EXISTING DOORS ARE TO REMAIN, REMOVE ALL LOOSE AND PEELING PAINT BY SCRAPING. CLEAN WITH WATER AND DETERGENT.
- WHEN REMOVING MECHANICAL AND ELECTRICAL ITEMS, REMOVE ALL ASSOCIATED CONSTRUCTION INCLUDING FASTENERS, CABLE, RODS, ETC.
- INVENTORY SALVAGED ITEMS: LIST SHALL INCLUDE DESCRIPTION OF ITEM, DIMENSIONS (OVERALL WIDTH, HEIGHT, DEPTH), COLOR, APPROX. WEIGHT, AND PHOTO.
- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
- DO NOT PROCEED WITH NEW FLOOR OPENINGS OR WALL OPENINGS UNTIL NEW SUPPORT STRUCTURE IS IN PLACE. SEE STRUCTURAL.
- ALL TOILETS LAVATORIES, URINALS, SHOWERS AND WALL-MOUNTED TOILET ROOM ACCESSORIES TO BE REMOVED UNLESS SPECIFICALLY NOTED TO BE SALVAGED.
- REMOVE ALL CEILING AND SUPPORT SYSTEMS COMPLETE UNDO. CEILING IN STAIRWELLS AND LANDINGS TO REMAIN.
- REMOVE ALL FLOOR FINISHES AND WALL BASE COMPLETE AND PREPARE FLOOR FOR NEW FINISH.



NEW 4" POURED CONCRETE SLAB ON GRADE WITH 406-WT 4xWT 4 WWP, LOCATED AT TOP 1/3 OF SLAB, ON MIN 6" COMPACTED GRANULAR FILL OVER COMPACTED SUBGRADE. SLOPE 1/8" / 12" TO FLOOR DRAIN

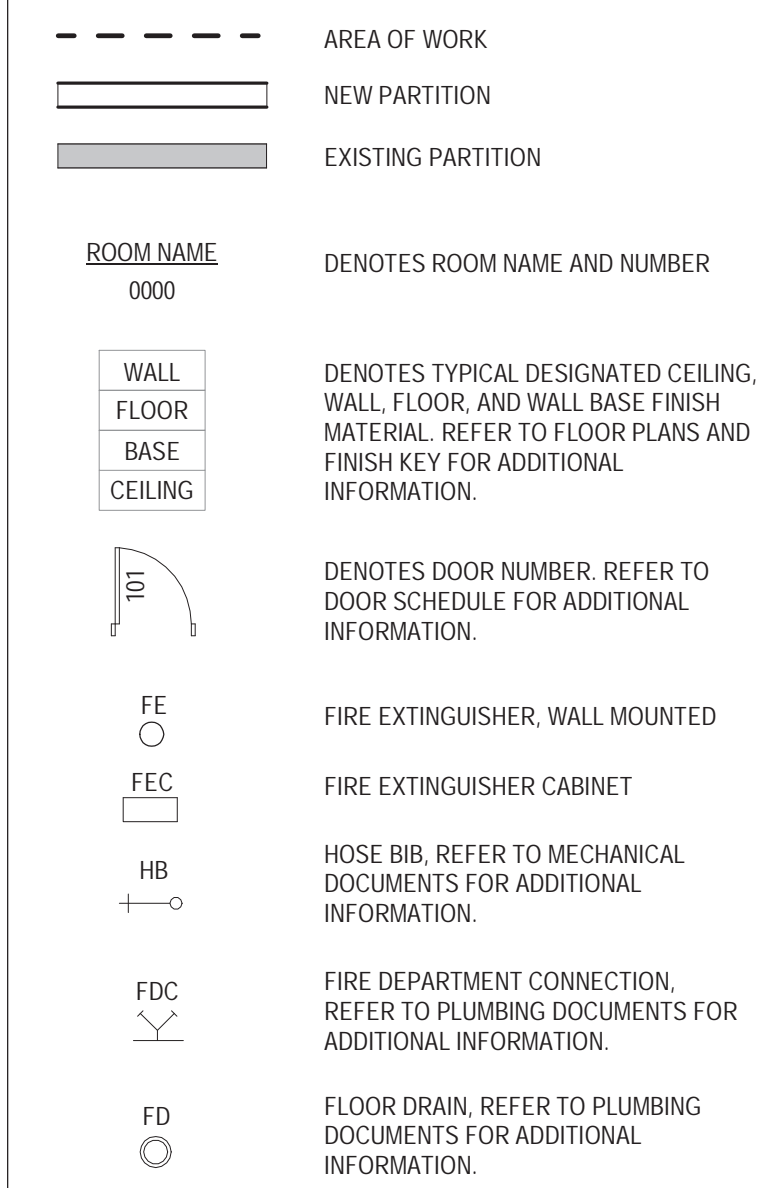
DRINKING FOUNTAIN WITH BOTTLE FILLER. REFER TO SITE / CIVIL FOR REQUIRED DOMESTIC AND SANITARY PLUMBING

ACCESSORIES LEGEND

- S1 AUTOMATIC SOAP DISPENSER
- H1 HAND DRYER
- TW1 PAPER TOWEL DISPENSER / WASTE RECEPTACLE
- T1 TOILET TISSUE DISPENSER
- SC1 TOILET SEAT COVER DISPENSER
- SD1 SANITARY DISPOSAL (WOMEN'S BATHROOM ONLY)
- GB1 ACCESSIBLE TOILET GRAB BARS (SIDE, REAR AND VERTICAL BARS)
- M1 MIRROR
- C1 DIAPER CHANGING STATION

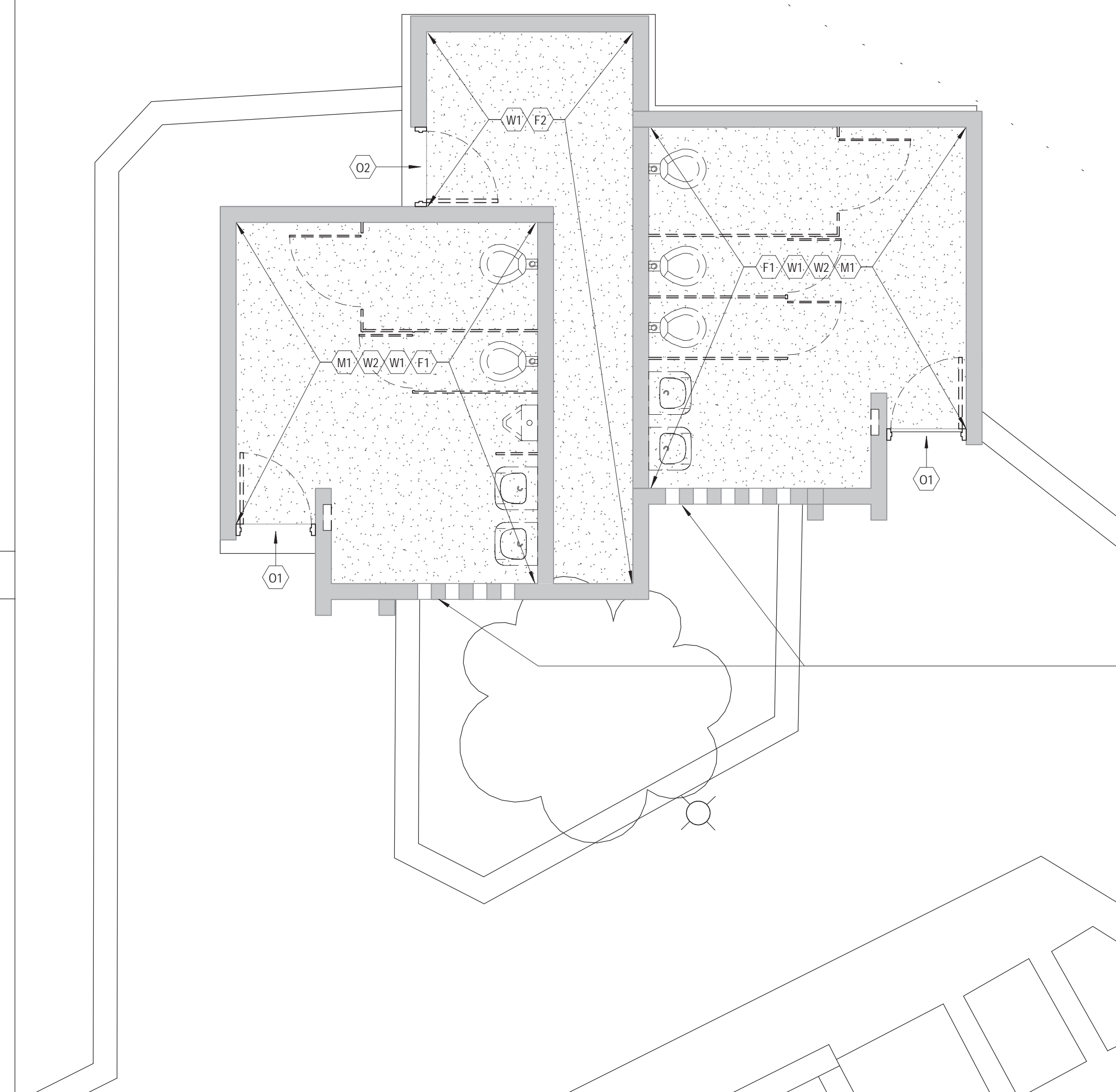
FLOOR PLAN 1/4" = 1'-0" 3

FLOOR PLAN LEGEND



FLOOR PLAN NOTES

- ARCH ELEV 0'-0" - EXISTING GROUND FLOOR ELEV
- CONTRACTOR TO COORDINATE WITH ARCHITECT ALL DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING CONDITIONS PRIOR TO ANY WORK OR INSTALLATION
- ALL DIMENSIONS ARE TO FACE OF GYPSUM BOARD, COLUMN CENTERLINE, FACE OF CONCRETE, AND OR FACE OF MASONRY UNO
- PROVIDE PATCHING COMPOUND AND UNDERLAYMENT TO REPAIR FLOORS DAMAGED BY DEMOLITION. RESTORE FLOOR SURFACE TO A LEVEL SUBSTRATE SUITABLE FOR INSTALLATION OF NEW FLOORING.
- PROVIDE POSITIVE SLOPE AT ALL FLOOR DRAINS. REDUCE SUPPORTED SLAB DESIGNED THICKNESS BY 1/4" MAX TO ACCOMMODATE FLOOR SLOPE TO DRAIN
- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR EQUIPMENT PAD LOCATIONS.
- INFILL ALL UNUSED FLOORWALL PENETRATIONS TO MATCH ADJACENT SURFACE.



REFER TO EXTERIOR ELEVATIONS FOR DEMOLITION WORK AT EXISTING CAST-IN-PLACE CONCRETE WALL

DEMOLITION PLAN 1/4" = 1'-0" 1

PROJECT MANAGER: JAMES KOTKON; FIELD BOOK INFORMATION; W/ WORKSPACE TRIM; W/ HERNANDEZ/08/10/2025 3:28 PM BY: HERNANDEZ, MELISSA

REV#	DATE	DESCRIPTION	BY



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5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
PLANS AND DEMOLITION PLANS

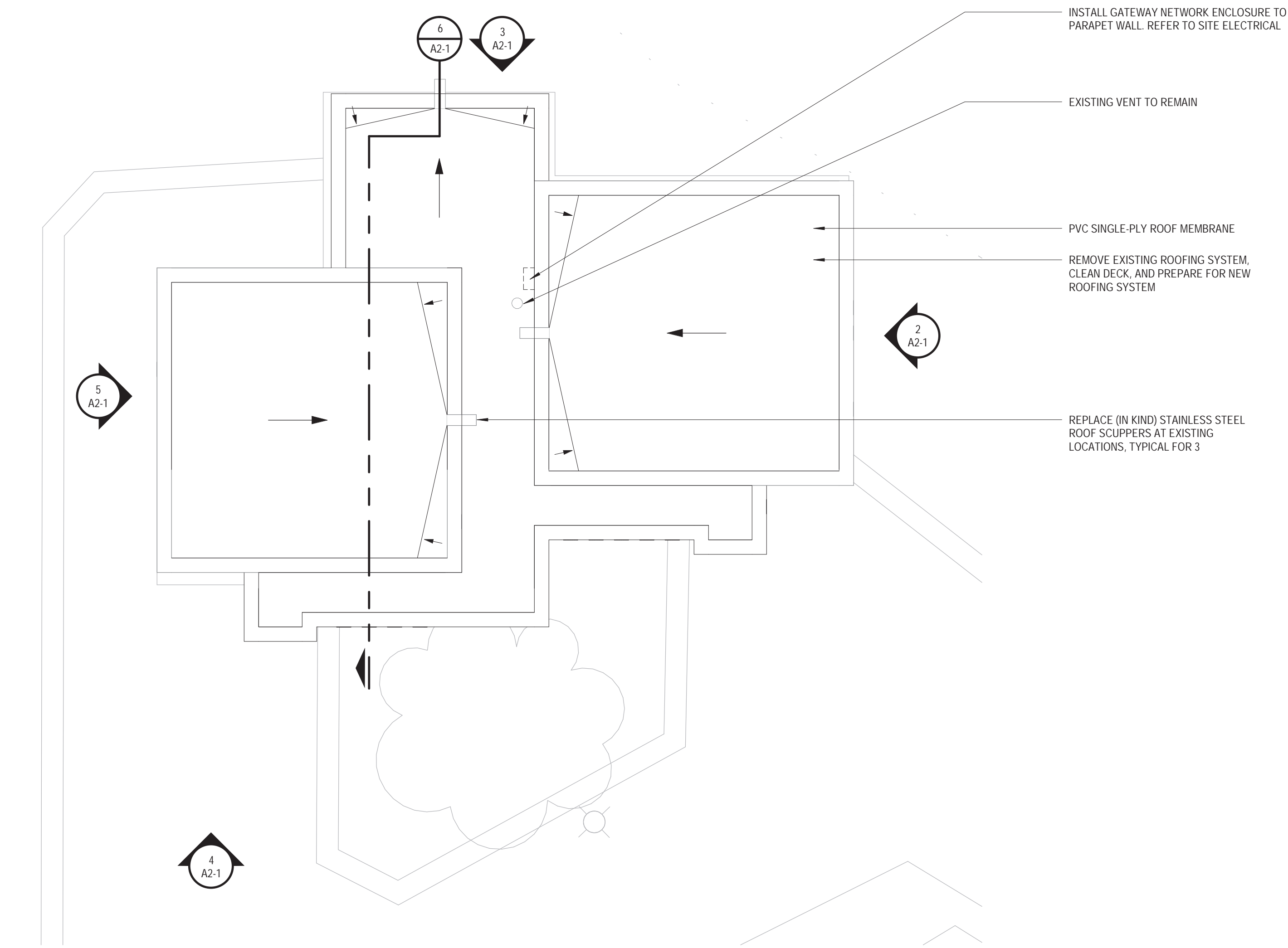
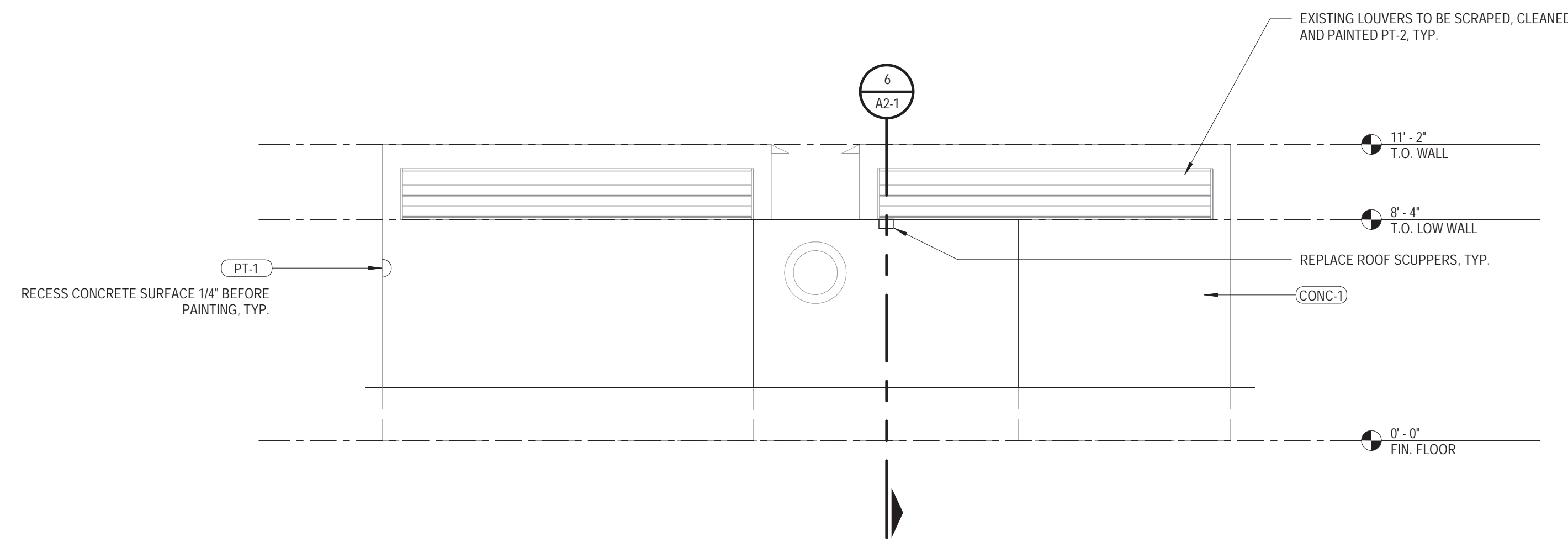
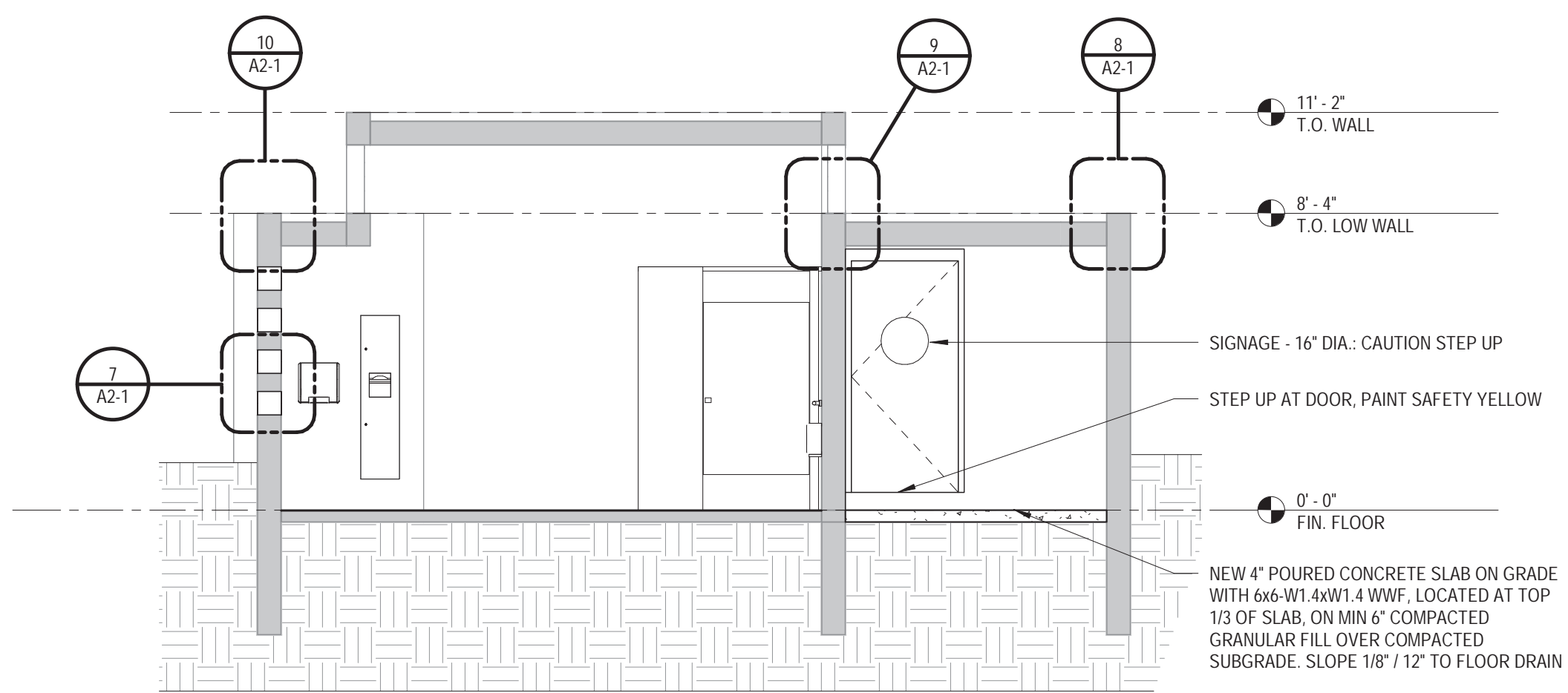
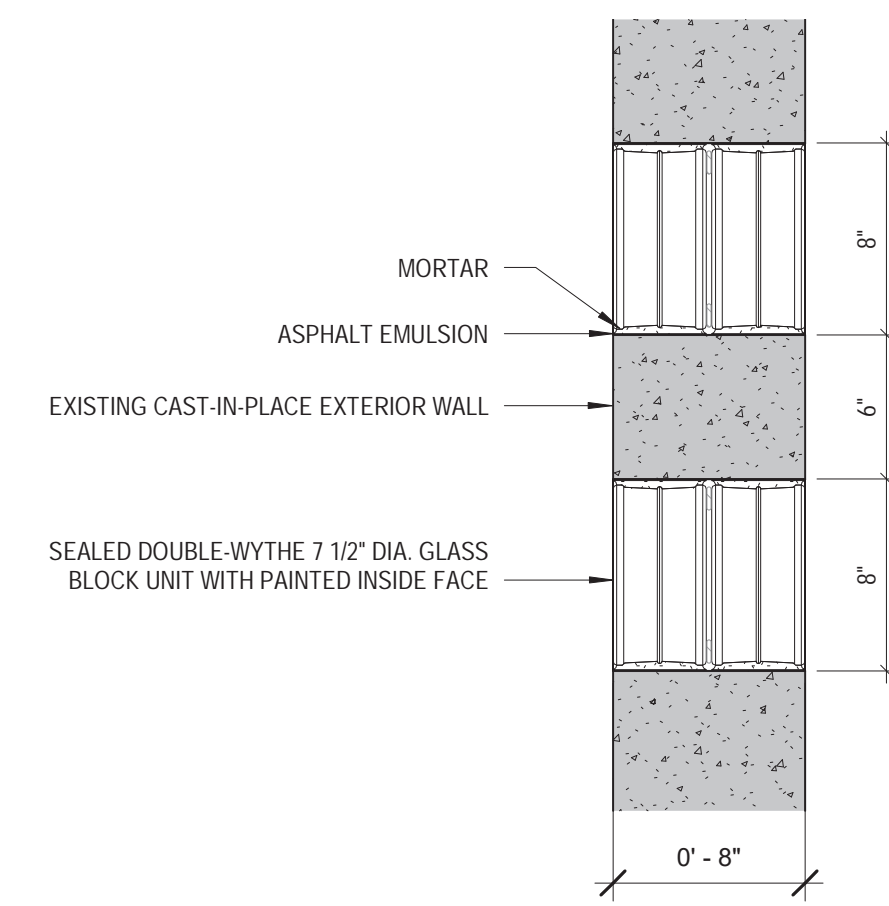
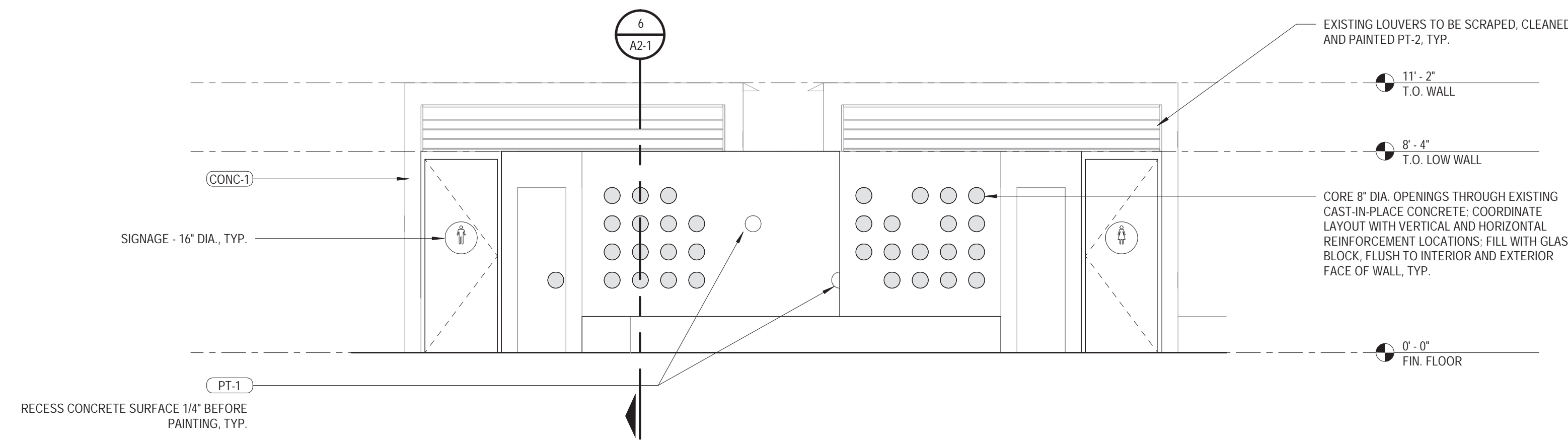
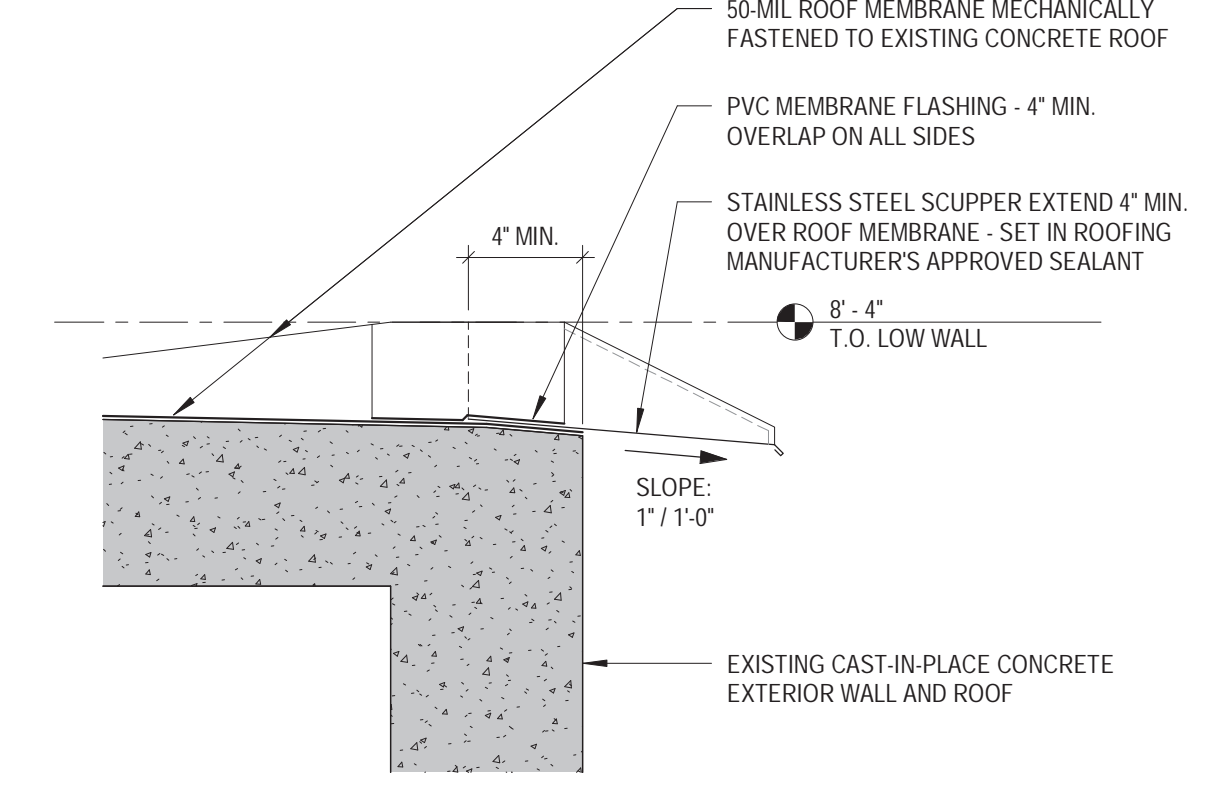
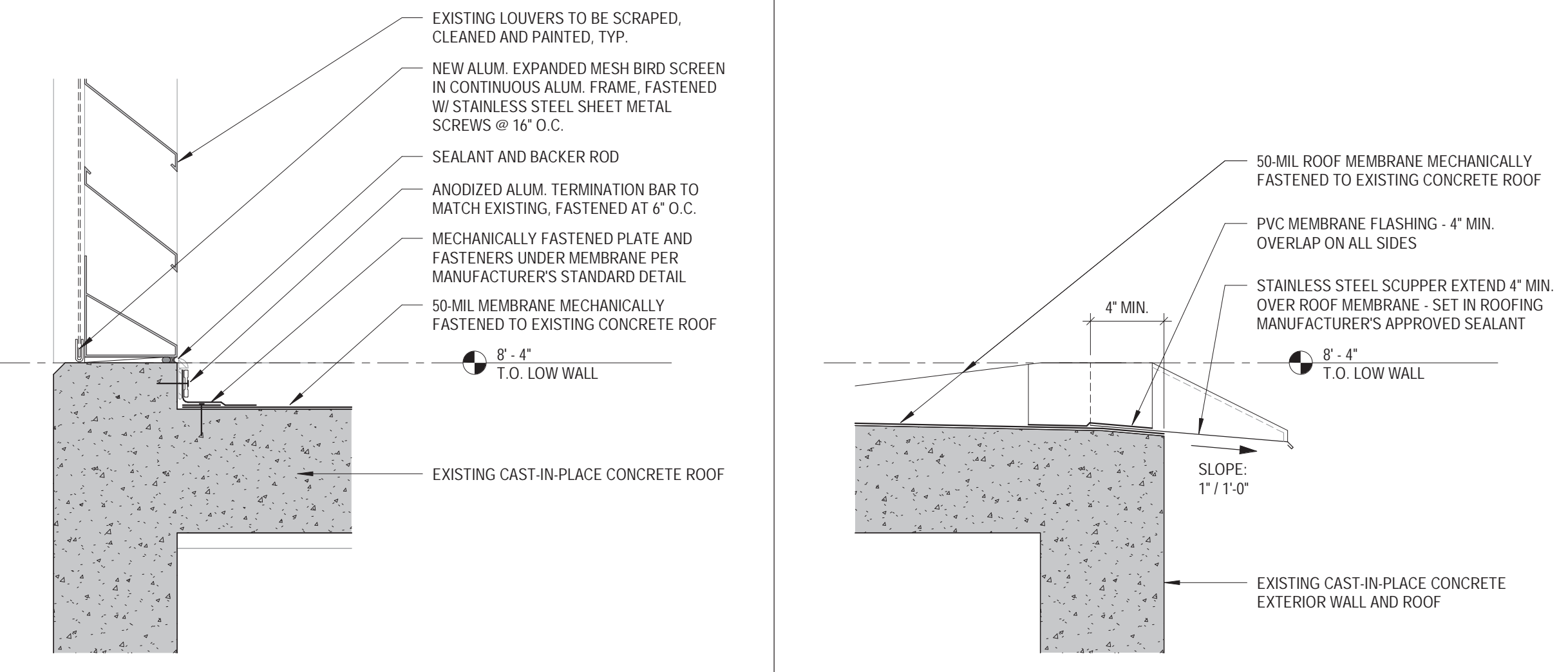
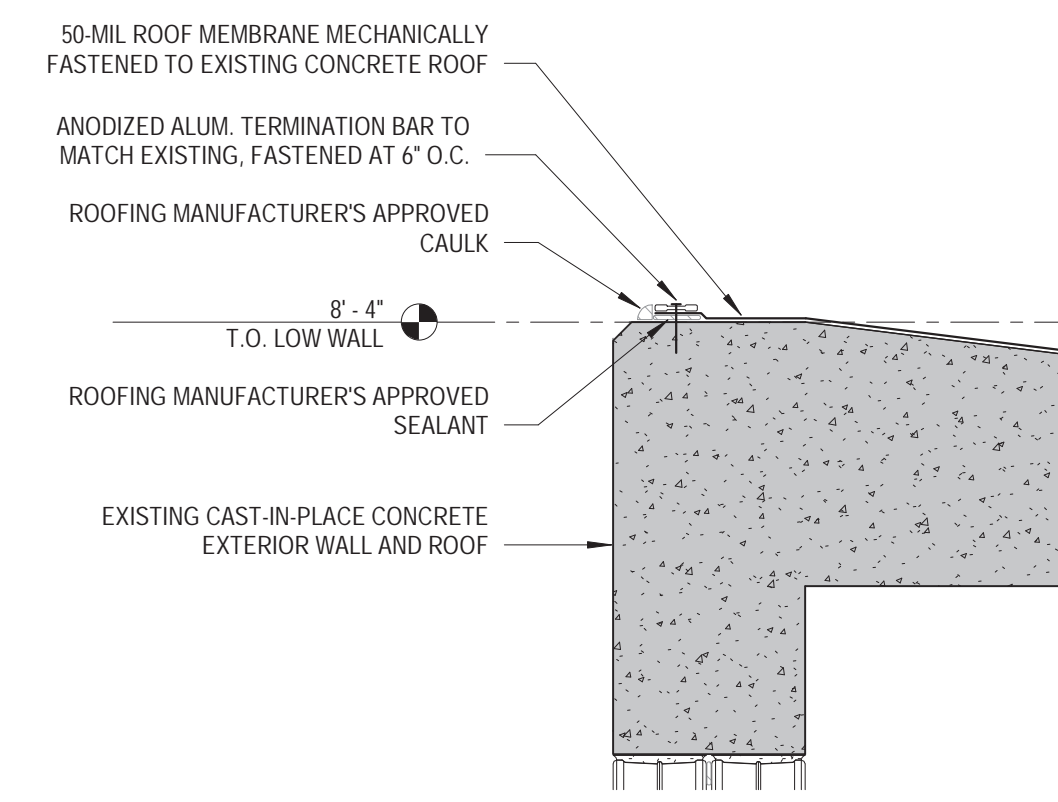
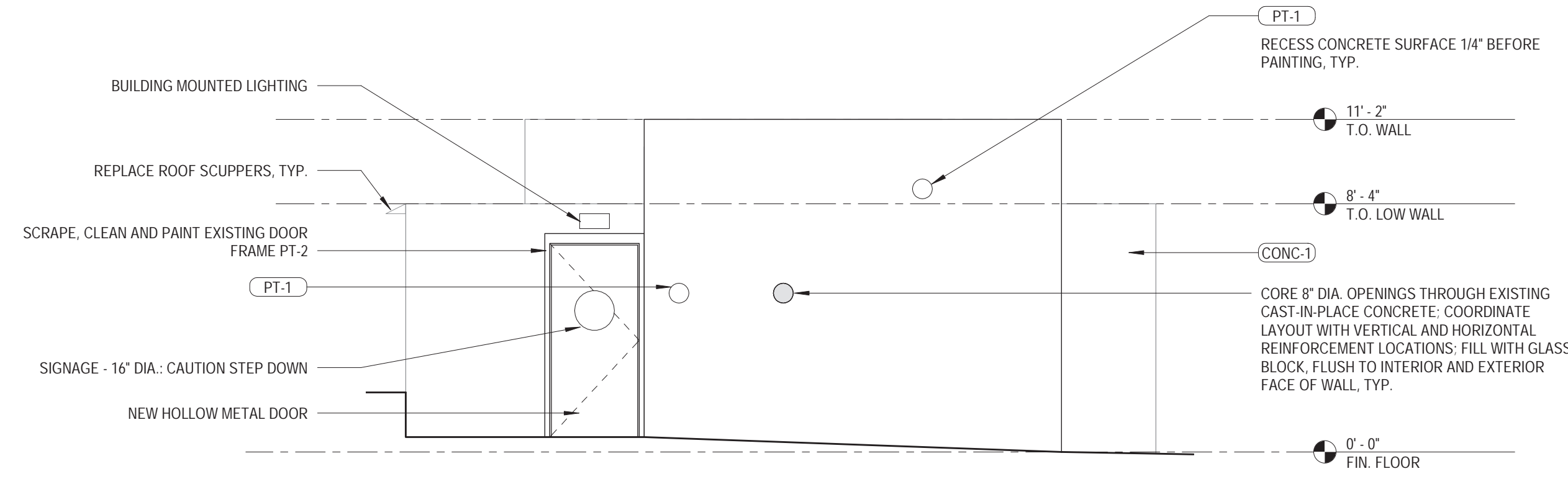
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IFB SET	12/18/23	CEI	GPA200301F
IFC	5/17/24	CEI	
IFB SET	10/23/24	CEI	

SHEET
A1-1

FLINT RIVERFRONT RESTORATION

EXTERIOR ELEVATION NOTES

- ALL EXTERIOR CAST-IN-PLACE CONCRETE TO BE CLEANED WITH LIGHT DUTY CONCRETE CLEANER AND TREATED WITH SEALANT/GRANITE PROTECTOR, FOLLOWING MANUFACTURER'S RECOMMENDATIONS
- ALL ELEVATIONS INDICATED ARE ESTIMATED AND SHALL BE FIELD VERIFIED BY CONTRACTOR
- PERFORM SCAN OF EXISTING CONCRETE WALL FOR VERTICAL AND HORIZONTAL REINFORCEMENT LOCATIONS IN AREAS WHERE CORED OPENINGS ARE TO BE LOCATED. REVIEW WITH ARCHITECT TO COORDINATE LAYOUT. COORDINATE EXTERIOR PAINT LOCATIONS WITH LAYOUT OF CORED OPENINGS



ROOF PLAN LEGEND

→ ROOF SLOPE DIRECTION

○ EXISTING VENTS TO REMAIN

ROOF PLAN NOTES

- PROVIDE NEW ROOFING MEMBRANE AT ALL EXISTING ROOF SURFACES. INSPECT ROOF SUBSTRATE AND ASSEMBLY FOR DAMAGE, QUALITY AND REPAIR AS REQUIRED. PROVIDE POSITIVE SLOPE AT ALL ROOF DRAINS.
- RE-FLASH ALL ROOF PENETRATIONS AT MECH, EXHAUST, VENTS, ETC.
- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

PROJECT MANAGER: Jason Korman
FIELD SUPERVISOR: MELISSA HERNANDEZ
WORKSPACE: TRIM_HERNANDEZ/08/10/2024 3:24 PM BY: HERNANDEZ, MELISSA

REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
ROOF PLAN AND EXTERIOR ELEVATIONS

ISSUED FOR: IFB SET	DATE: 12/16/23	BY: CEI	JOB NO. GPA200301F SHEET A2-1
IFB SET	5/17/24	CEI	
IFB SET	10/23/24	CEI	

FLINT RIVERFRONT RESTORATION

SCHEDULES

MATERIAL INDEX

TAG	DESCRIPTION	MANUFACTURER	PRODUCT INFO	SPEC SECTION	LOCATION	NOTES
CONC-1	SEALED CONCRETE	PROSOCO	SURE KLEAN WEATHER SEAL BLOCK-GUARD & GRAFFITI CONTROL 15		EXTERIOR WALLS AND INTERIOR WALLS WHERE NOTED	
GR-1	GROUT	TEC	COLOR: 905 LIGHT COOL GRAY	093000	USE WITH T-1	
GR-2	GROUT	TEC	COLOR: 934 SLATE GRAY	093000	USE WITH T-2	
PF-1	PAINT	SHERWIN WILLIAMS	SW7005 PURE WHITE	099123	INTERIOR WALLS AND CEILINGS	
PF-2	PAINT	SHERWIN WILLIAMS	SW6258 TRICORN BLACK / SW7069 IRON ORE	099123	LOUVERS, HOLLOW METAL DOORS AND FRAMES	
T-1	TILE	VIRGINIA TILE	COLLECTION: WOW BEJMAT. STYLE: SQUARE (6X6). COLOR: WHITE GLOSS	093000	TOILET ROOM WET WALLS	
T-2	TILE	VIRGINIA TILE	COLLECTION: CROSSVILLE RETROACTIVE 2.0. STYLE: FIELD TILE (12X24). COLOR: LEADEN MATTE. COVE WALL BASE (6X12)	093000	COVE WALL BASE AT TOILET ROOM WET WALLS ONLY	
TH-1	THRESHOLD					
TP-1	TOILET PARTITION	BRADLEY CORP	SENTINEL OVERHEAD BRACED SERIES 400. HDPE. COLOR: TBD		TOILET ROOMS	

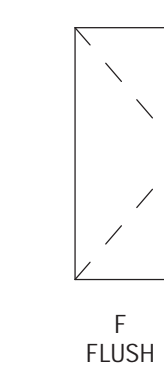
ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOORS		WALLS	CEILING	COMMENTS
		FLOOR	BASE			
01	WOMENS	T-2		PT-1 / T-1		EXPOSED CONCRETE WHERE NOTED
02	MENS	T-2		PT-1 / T-1		EXPOSED CONCRETE WHERE NOTED
03	CHASE			PT-1	PT-1	

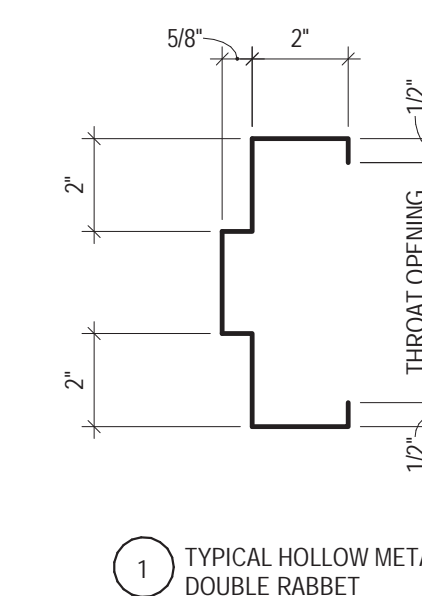
DOOR SCHEDULE

FIN. FLOOR	NUMBER	FIRE RATING	WIDTH	HEIGHT	DOOR			FRAME			HARDWARE	GLASS TYPE	NOTES
					TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH			
	01	-	3'-0"	8'-0"	F	HM	PT-2	1	HM	PT-2		2.0	VERIFY DIMENSIONS IN FIELD
	02	-	3'-0"	8'-0"	F	HM	PT-2	1	HM	PT-2		2.0	VERIFY DIMENSIONS IN FIELD
	03	-	3'-0"	6'-6"	H	HM	PT-2	1	HM	PT-2		1.0	VERIFY DIMENSIONS IN FIELD

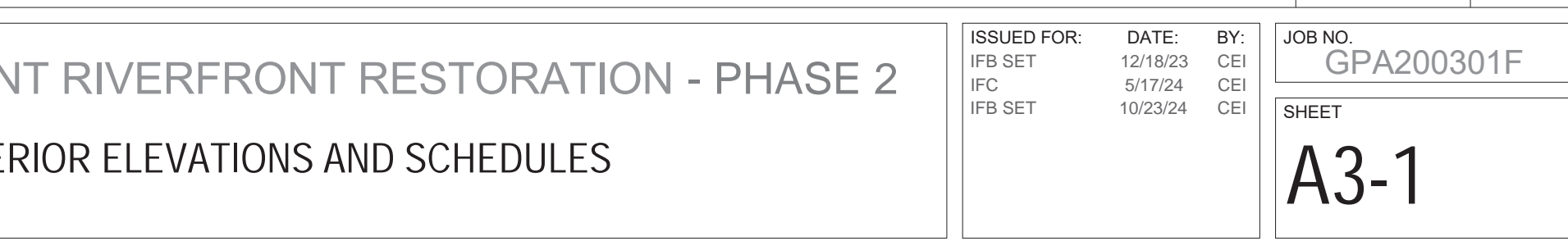
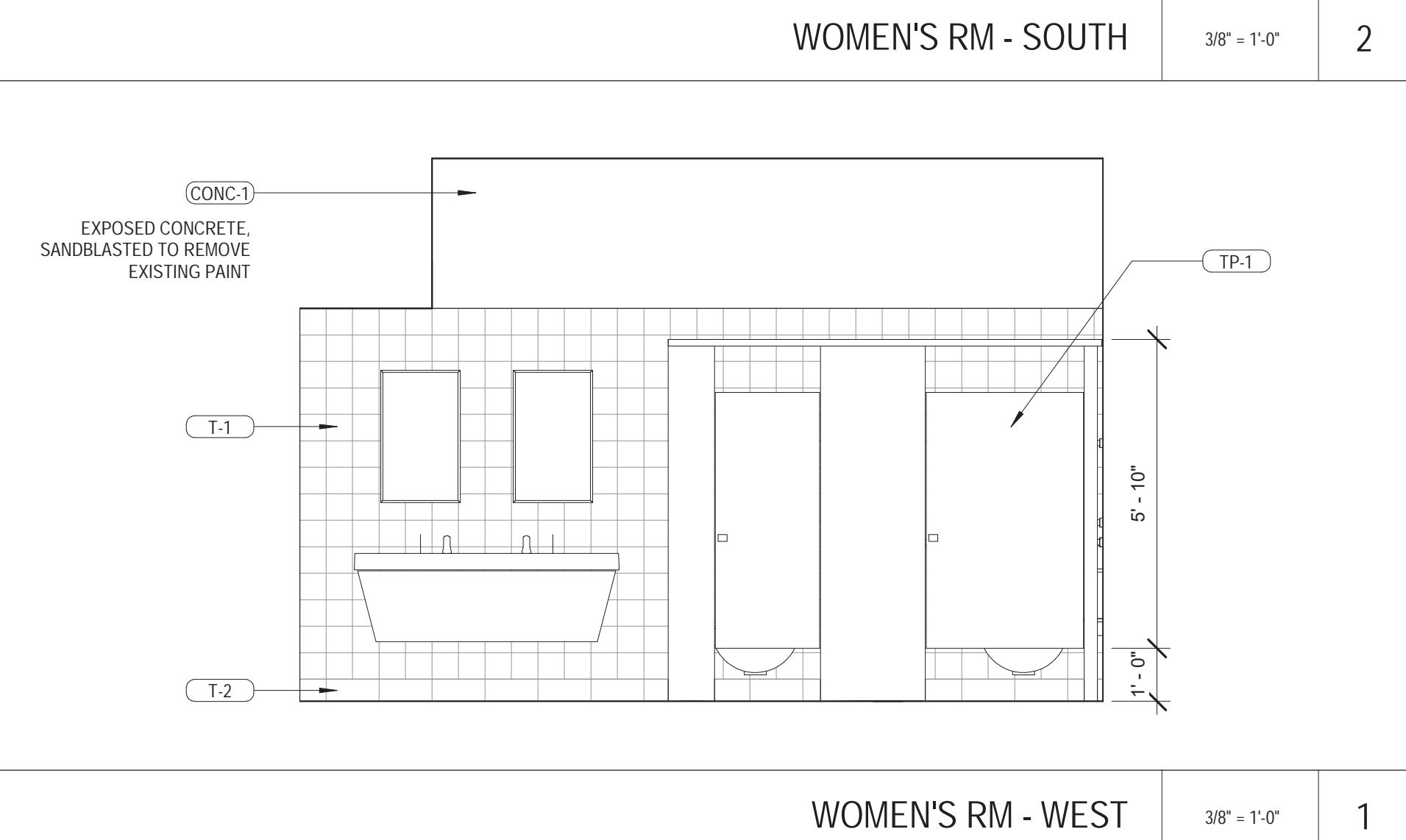
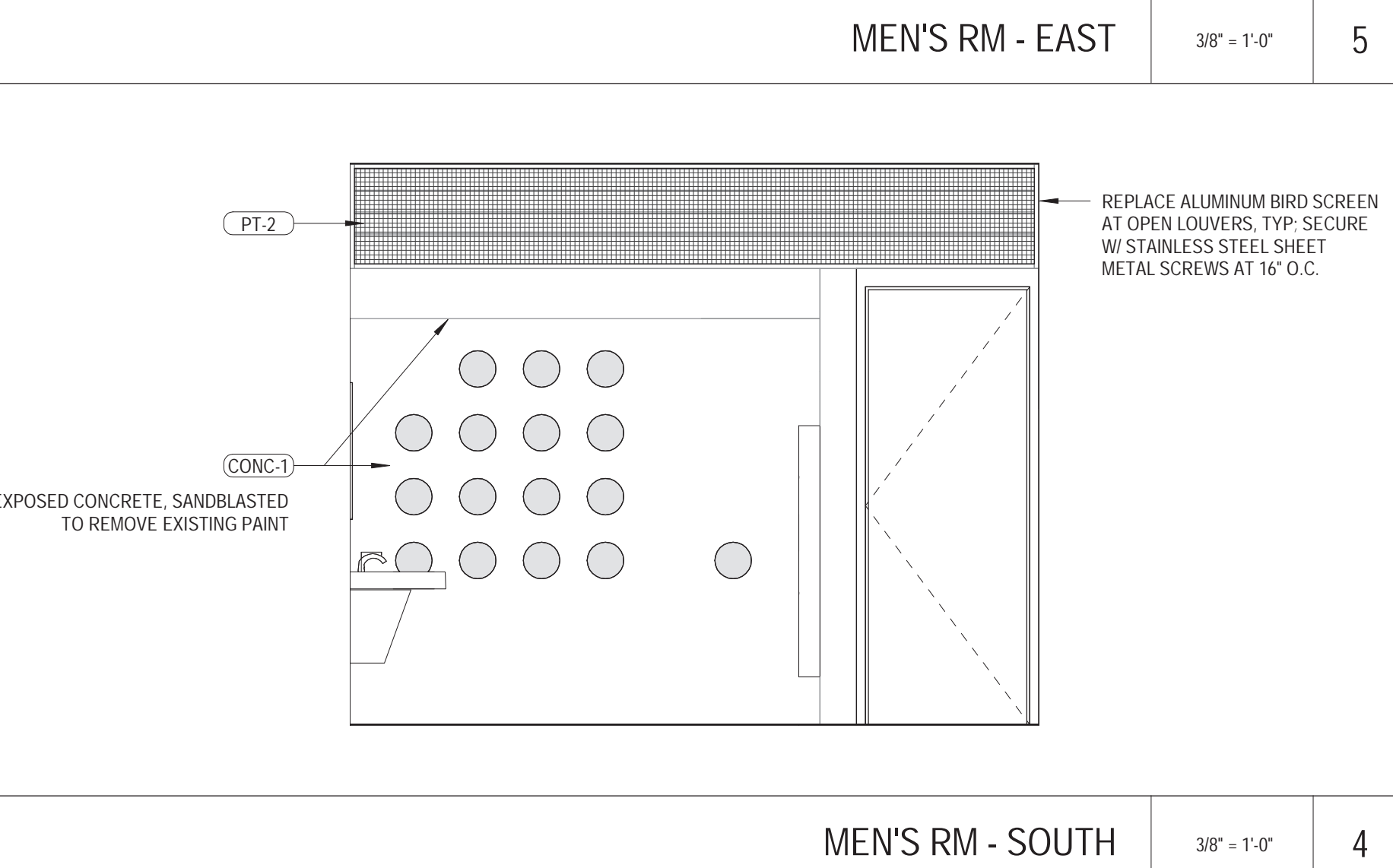
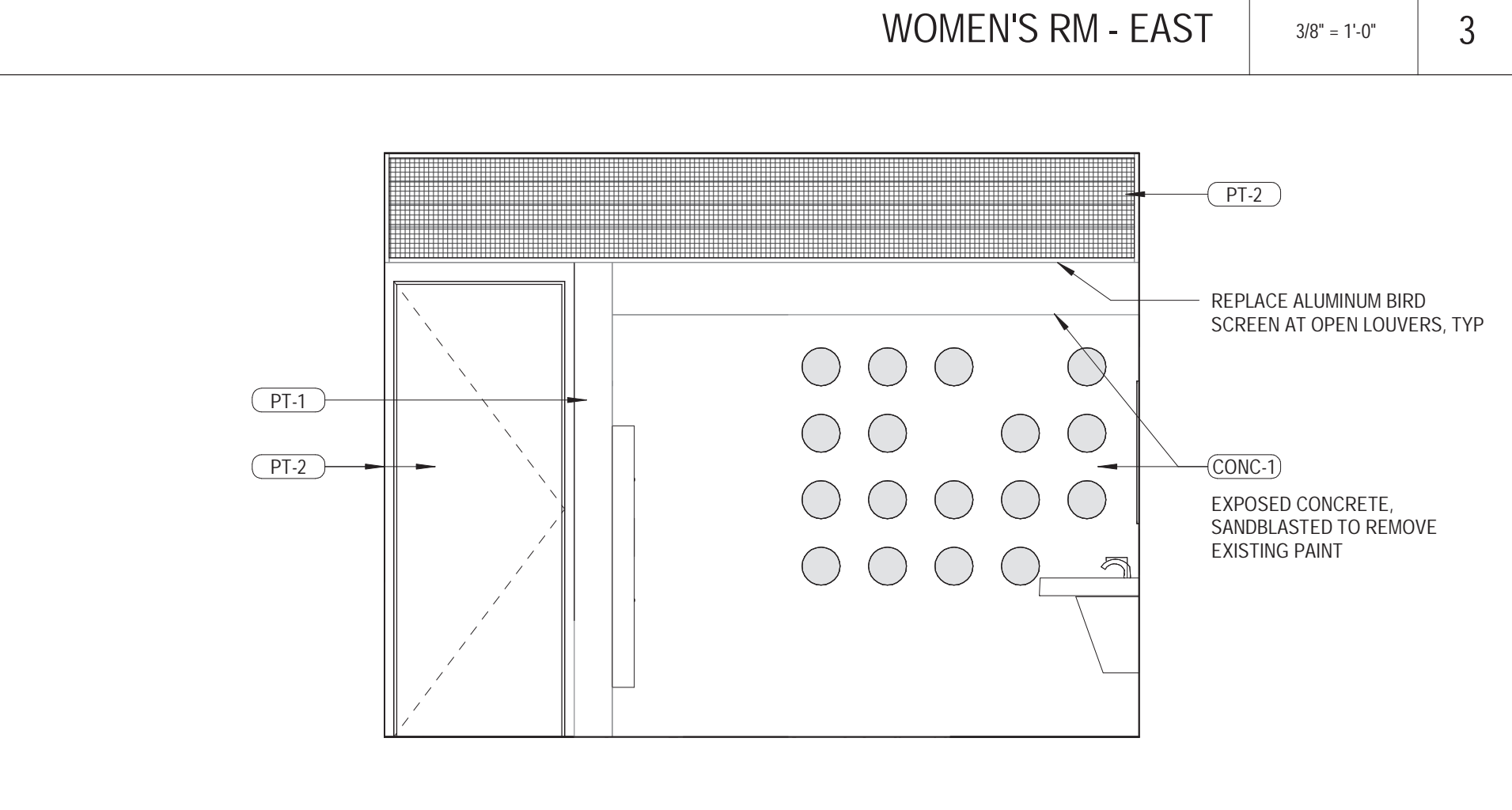
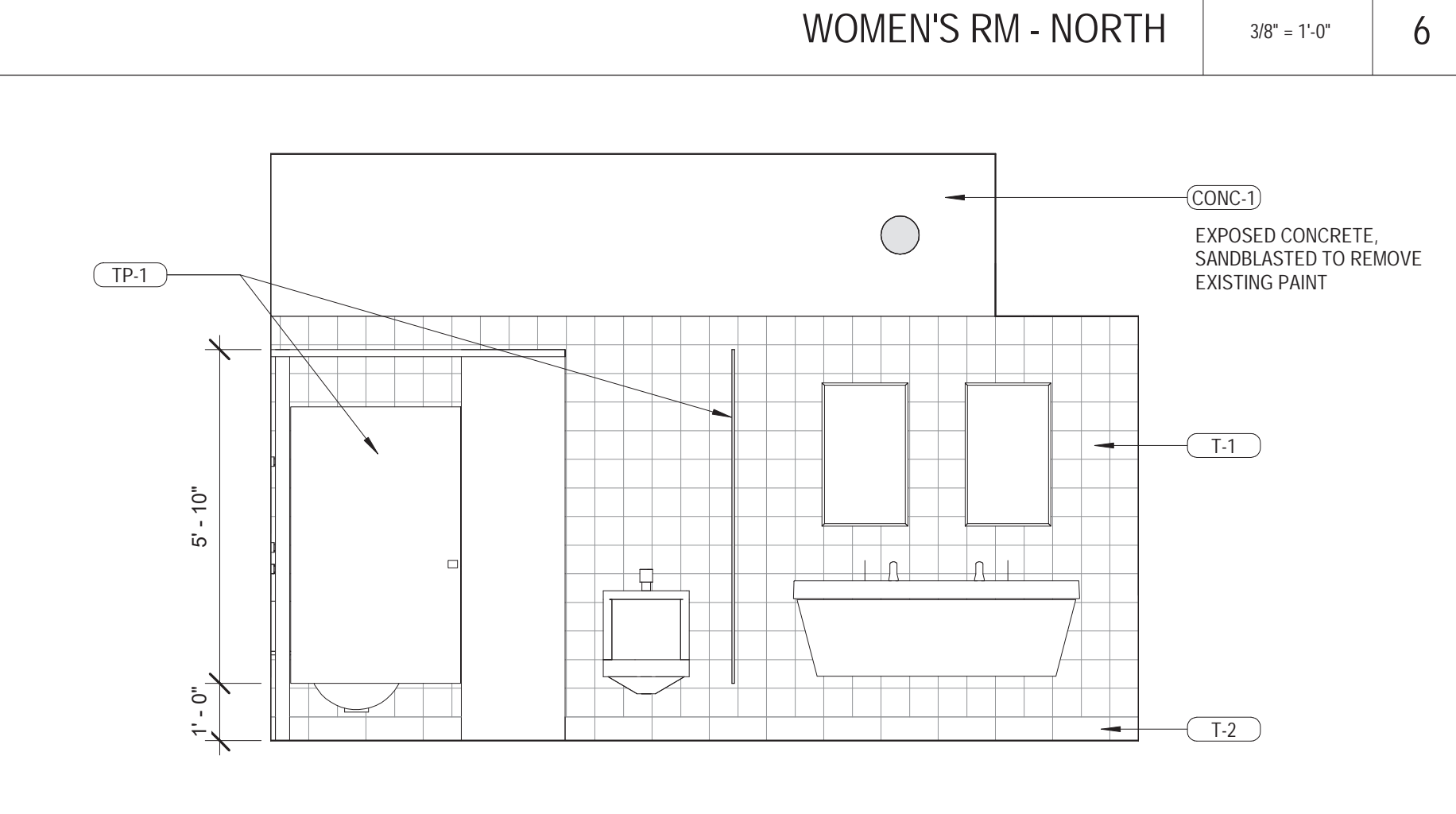
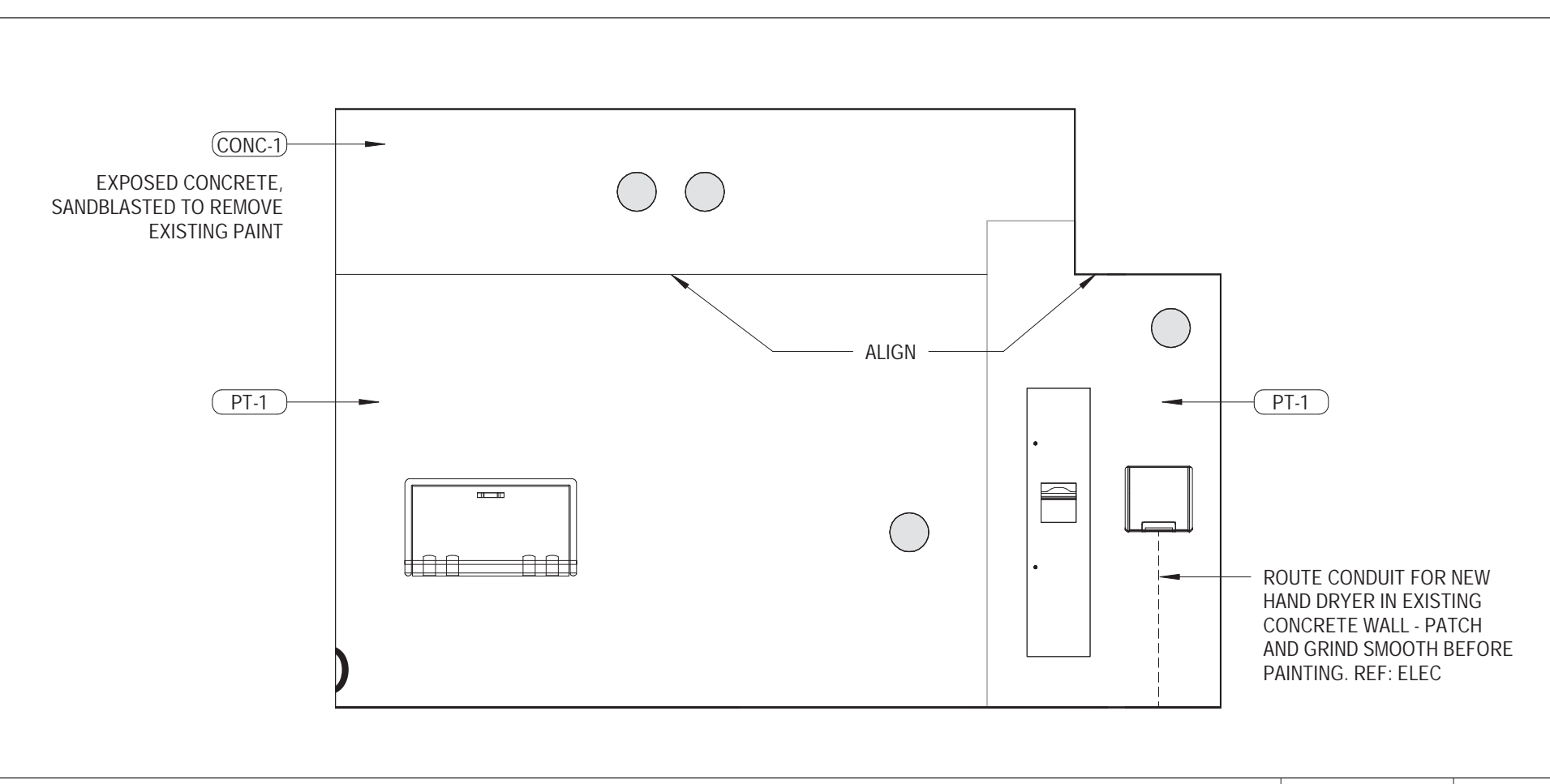
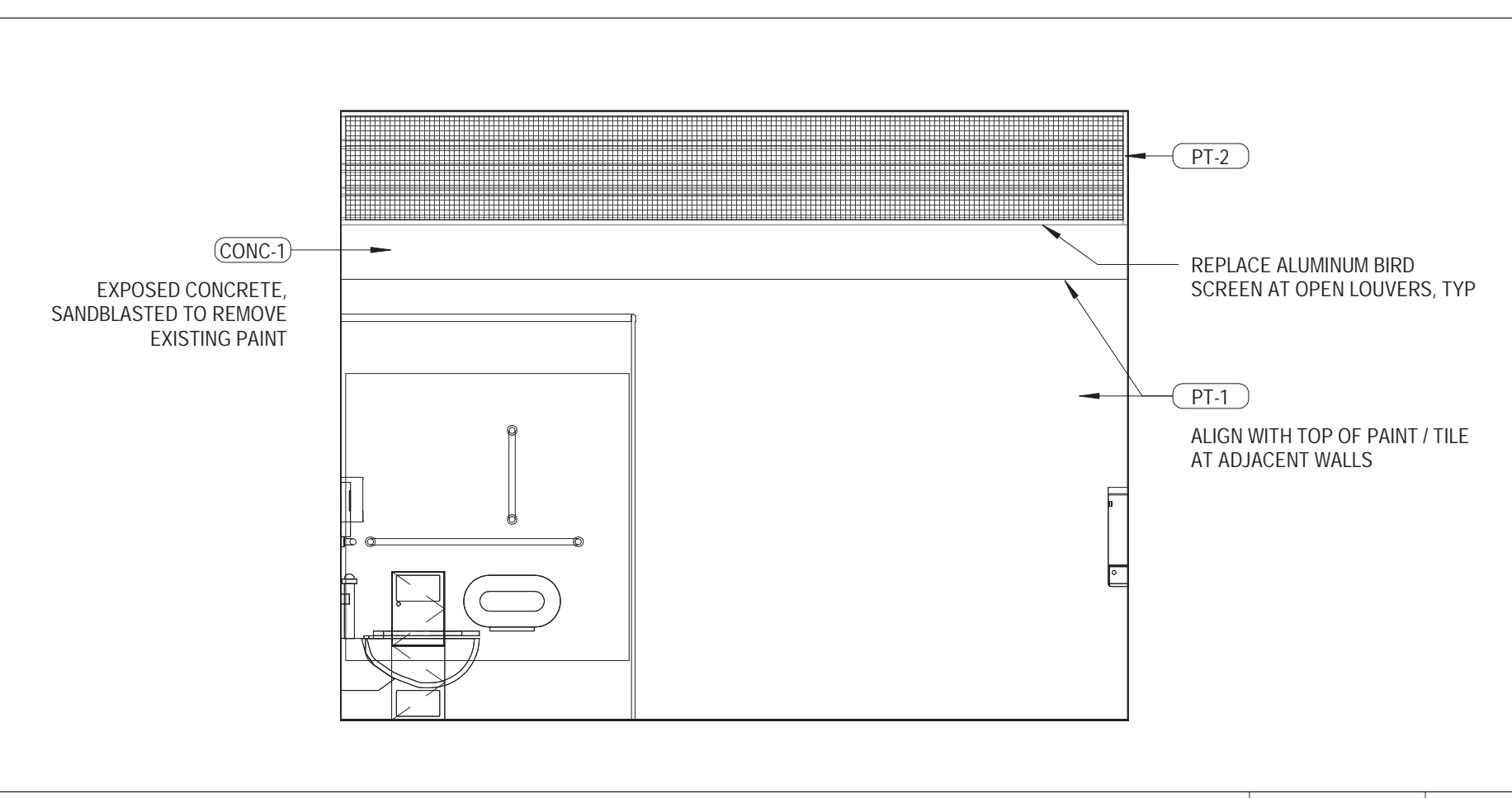
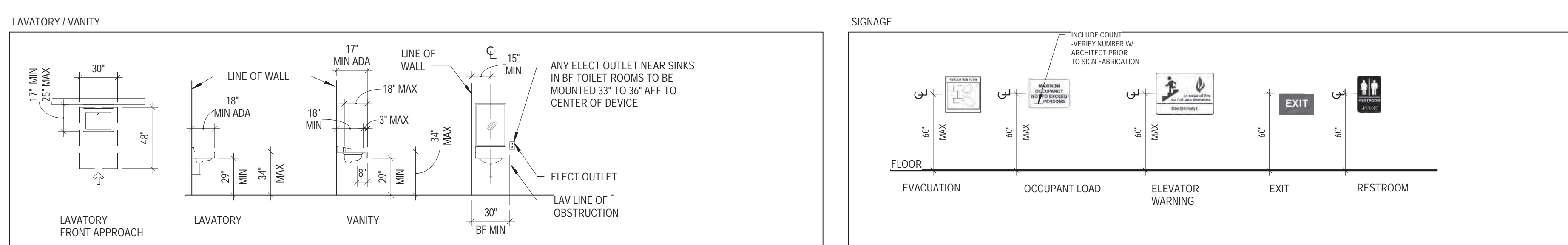
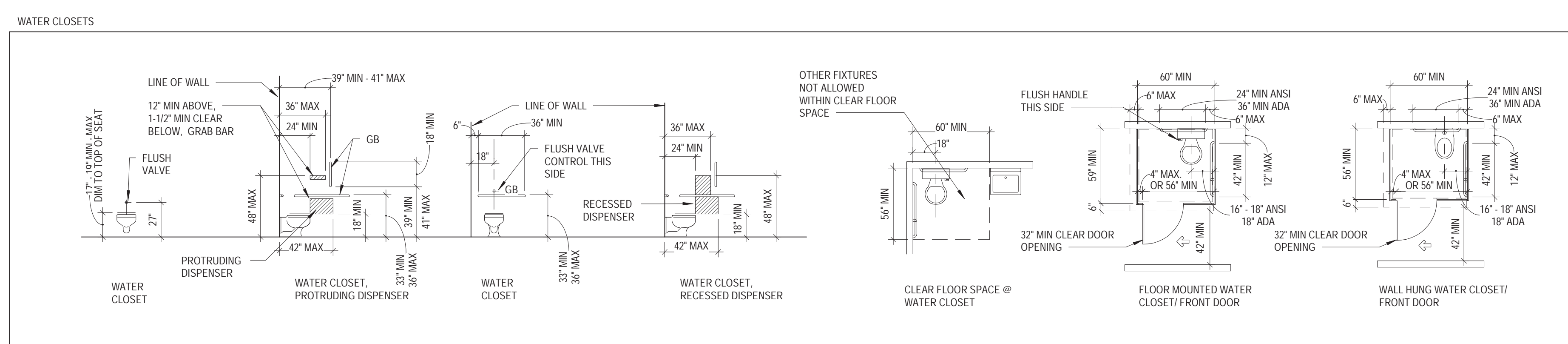
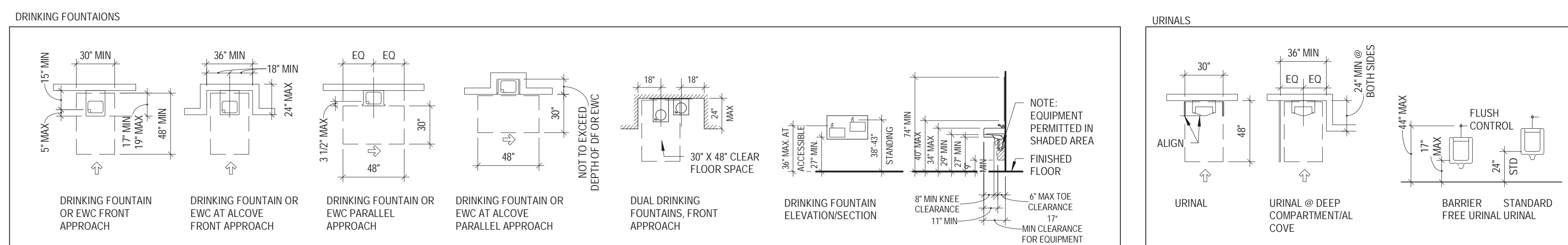
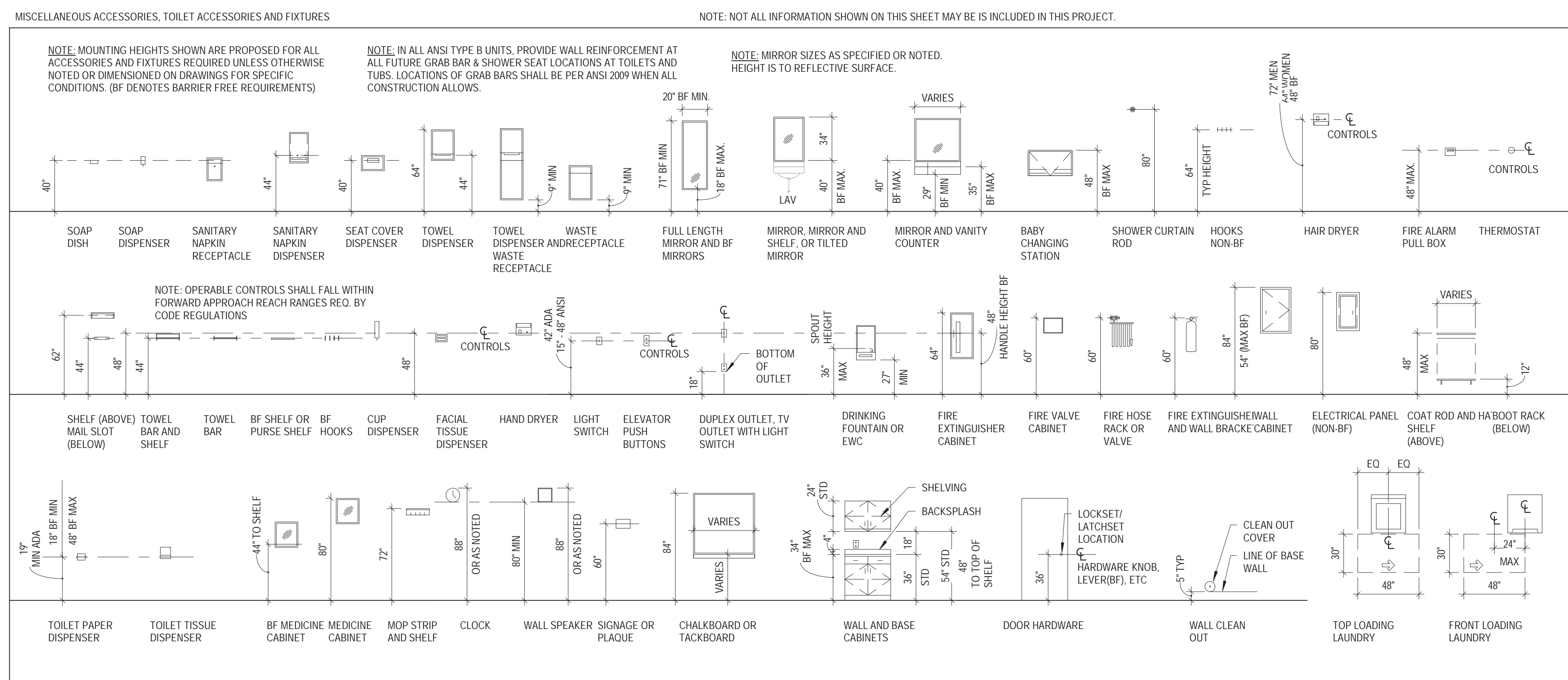
DOOR TYPES



DOOR FRAME TYPES



TYPICAL MOUNTING HEIGHTS AND CLEARANCES (ADA & ANSI A117.1-2009)



PROJECT MANAGER: JAMES KERRON
FIELD SUPERVISOR: JAMES KERRON
PROJECT MANAGER: MELISSA HERNANDEZ
W/ WORKSPACE: TRIM, HERNANDEZ/01/03/2025 3:23 PM BY: HERNANDEZ, MELISSA

REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
INTERIOR ELEVATIONS AND SCHEDULES

ISSUED FOR: IFB SET	DATE: 12/16/23	BY: CEI	JOB NO. GPA200301F
IFC SET	5/17/24	CEI	
IFB SET	10/23/24	CEI	
SHEET			A3-1

FLINT RIVERFRONT RESTORATION

ABBREVIATIONS

ACCU	AIR CONDITIONING CONDENSING UNIT	F	FAHRENHEIT
AD	ACCESS DOOR	FD	FLOOR DRAIN
AFF	ABOVE FINISHED FLOOR	FLR	FLOOR
AHU	AIR HANDLING UNIT	FSW	FEET PER MINUTE
AP	ACCESS PANEL	FS	FLOOR SINK
ASR	AUTOMATIC SPRINKLER RISER	FT.	FEET
AAV	AIR ADMITTANCE VALVE		
BTU	BRITISH THERMAL UNIT	GPM	GALLONS PER MINUTE
CC	COOLING COIL	IB	HOSE BIBB
CF	CENTRIFUGAL FAN	HO	HUB OUTLET
CFM	CUBIC FEET PER MINUTE	HP	HORSEPOWER
CI	CAST IRON	HW	HOT WATER (POTABLE)
CO	CLEAN OUT	HWR	HOT WATER RETURN (POTABLE)
COND	CONDENSATE	IN	INCHES
CONT	CONTINUATION	INL	INLET
CUH	CABINET UNIT HEATER	INV	INVERT
CW	COLD WATER	LAT	LEAVING AIR TEMPERATURE
CWS	CHILLED WATER SUPPLY	LAV	LAVATORY
CWR	CHILLED WATER RETURN	LBS/HR	POUNDS PER HOUR
		LWT	LEAVING WATER TEMPERATURE
Db	DRY BULB TEMPERATURE, °F	MAX.	MAXIMUM
dB	DECIBELS	MBH	1000 BTU/HR
DDC	DIRECT DIGITAL CONTROL	MECH	MECHANICAL
DET	DETAIL	MIN.	MINIMUM
DIA	DIAMETER	MISC	MISCELLANEOUS
DN	DOWN	NC	NORMALLY CLOSED
DS	DOWNSPOUT	NIC	NOT IN CONTACT
DWG.	DRAWING	NO	NORMALLY OPEN
EA	EXHAUST AIR	NOM.	NOMINAL
ECUH	ELECTRIC CABINET UNIT HEATER	NFWH	NON FREEZE WALL HYDRANT
EF	EXHAUST FAN	OA	OUTSIDE AIR
ELEV.	ELEVATION	OF	OVERFLOW
ESP	EXTERNAL STATIC PRESSURE	OFD	OVERFLOW DRAIN
EUH	ELECTRIC UNIT HEATER		
EX	EXISTING		
EXH	EXHAUST		
EXIST	EXISTING		

P	PUMP	TP	TOTAL PRESSURE
PD	PRESSURE DROP (FEET OF WATER)	TYP	TYPICAL
PSI	POUNDS PER SQUARE INCH	UH	UNIT HEATER
PRV	PRESSURE REDUCING VALVE	UON	UNLESS OTHERWISE NOTED
RA	RETURN AIR	V	VALVE
RD/SP	ROOF DRAIN/STAND PIPE	VTR	VENT THRU ROOF
BAL	BALANCE	W	WASTE
RET	RETURN	WG	WALL GAUGE
RF	RETURN FAN	WH	WALL HYDRANT
RH	REHEAT COIL		
RH	RELATIVE HUMIDITY		
RPW	REVOLUTIONS PER MINUTE		
RS	ROOF SUMP		
RC	RAIN CONDUCTOR		
REL	RELOCATED		
REB	REBALANCE		
SA	SUPPLY AIR		
SAN	SANITARY WASTE		
SD	SMOKE DETECTOR		
SF	SUPPLY FAN		
SG	SPECIFIC GRAVITY		
SP	STAND PIPE		
SPR	SPRINKLER		
SPR/STP	SPRINKLER STANDPIPE		
SFS	STATIC PRESSURE SENSOR		
STK	STACK		

PLUMBING, PIPING & FIRE PROTECTION

	ITEM TO BE REMOVED		MANUAL AIR VENT
	EXISTING WORK		TEST PLUG (PRESSURE/TEMPERATURE)
	NEW WORK		NEW CONNECTION
	ISOLATION VALVE		COLD WATER PIPING
	CHECK VALVE		HOT WATER PIPING
	WATER FLOW SWITCH		HOT WATER RETURN PIPING
	VALVE IN RISER		VENT PIPING
	STRAINER		SANITARY LINE (UNDERGROUND)
	PIPE ANCHOR		SANITARY LINE (ABOVE GROUND)
	EXPANSION JOINT - SLIDING		STORM LINE
	ALIGNMENT GUIDE		STEAM
	UNION		CONDENSATE RETURN
	SPRINKLER HEAD (PENDANT)		OXYGEN
	SPRINKLER HEAD (UPRIGHT)		VACUUM
	CLEANOUT		MEDICAL AIR
	CLEANOUT FLOOR		NITROGEN
	CLEANOUT WALL		NITROUS OXIDE
	CLEANOUT GRADE		NATURAL GAS
	FLOOR DRAIN (FD)		FIRE SPRINKLER PIPE (FS)
	REDUCER - CONCENTRIC		HEATING HOT WATER SUPPLY
	SPRINKLER STANDPIPE		HEATING HOT WATER RETURN
	STATIC PRESSURE SENSOR		THERMOMETER
	STACK		CHILLED WATER SUPPLY
	TOTAL PRESSURE		CHILLED HOT WATER RETURN
	TYPICAL		CONDENSATE DRAIN
	UNIT HEATER		
	UNLESS OTHERWISE NOTED		
	VALVE		
	VENT THRU ROOF		
	WASTE		
	WALL GAUGE		
	WALL HYDRANT		

MECHANICAL DRAWING INDEX	
SHEET	DESCRIPTION
M-0.1	MECHANICAL NOTES, SYMBOLS, AND LEGEND
M-1.1	PLUMBING DEMOLITION AND NEW WORK PLAN
M-2.1	HVAC DEMOLITION AND NEW WORK PLAN
M-3.1	MECHANICAL DETAILS, CONTROLS, AND SCHEDULES
M-4.1	MECHANICAL SPECIFICATIONS

GENERAL HVAC NOTES:

THE FOLLOWING NOTES APPLY TO ALL HVAC DRAWINGS, EXCEPT WHERE OTHERWISE INDICATED.

- WHEREVER VOLUME DAMPERS OCCUR ABOVE CEILINGS WITHOUT REMOVABLE TILE AND AN ACCESS PANEL IS NOT FURNISHED, PROVIDE AN EXPOSED DAMPER REGULATOR TO ALLOW DAMPER ADJUSTMENT FROM BELOW CEILING. UNIT TO BE EQUAL TO VENTILOCK No. 666 IN 1/2"x3/8" SIZE.
- ALL DIMENSIONS SHOWN FOR DUCTWORK ARE NET INSIDE DIMENSIONS.
- DIFFUSER AND REGISTER LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN.
- THROUGH SOME OFFSETS & TRANSITIONS ARE SHOWN IN PIPING AND SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING AND SHEET METAL OFFSET & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
- DUCT PRESSURE CONSTRUCTION CLASSIFICATION SHALL BE AS SPECIFIED.
- ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE SAME NOMINAL SIZE AS INDICATED ON THE DRAWINGS.
- ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASE OR SUSPENDED CEILING.
- ACCESS PANELS AND DOORS ARE REQUIRED THROUGH BUILDING CONSTRUCTION ASSEMBLIES SUCH AS WALLS, CEILING, PARTITIONS AND FLOORS TO SERVICE AND MAINTAIN DAMPERS, CONTROL MOTORS, REGULATORS, VALVES, FLEXIBLE DUCT CONNECTIONS AND OTHER ITEMS OR DEVICES INCORPORATED IN MECHANICAL WORK. SUCH PANELS AND DOORS SHALL BE PROVIDED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE LOCATION OF ACCESS DOORS AND PANELS AND VERIFY THE EXACT QUANTITY, SIZE, FIRE-RATING AND LOCATION AFTER THE SYSTEMS AND EQUIPMENT REQUIRING ACCESS HAVE BEEN INSTALLED AND PRIOR TO THE CLOSURE OF THE AFFECTED CEILING AND BUILDING ASSEMBLIES. MINIMUM ACCESS PANEL AND DOOR SIZE SHALL BE 24 INCHES BY 18 INCHES UNLESS OTHERWISE NOTED.
- ALL DUCTWORK PENETRATING FIRE-RATED WALLS AND FLOORS SHALL BE PROVIDED WITH FIRE DAMPERS AND ACCESS DOOR.

PLUMBING GENERAL NOTES:

- FOR PIPE SIZES TO INDIVIDUAL PLUMBING FIXTURES AND VARIOUS PIECES OF EQUIPMENT REFER TO SPECIFICATIONS.
- IN ALL WASTE DRAINAGE PIPING THE CONTRACTOR SHALL FURNISH AND INSTALL CLEANOUTS (IN ADDITION TO THE CLEANOUTS INDICATED ON DRAWINGS AS REQUIRED BY THE GOVERNING PLUMBING CODE).
- REFER TO HVAC GENERAL NOTE-4
- FOR ADDITIONAL NOTES COMMON TO PLUMBING REFER TO HVAC NOTES.

HVAC LEGEND & SYMBOLS

	INDICATES RECTANGULAR DUCT WITH DUCT SIZE 18 INCHES WIDE (IN PLANE OF DRAWING) AND 6 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.		VOLUME CONTROL DAMPER (MANUAL)
	INDICATES RECTANGULAR DUCT WITH DUCT SIZE 22 INCHES WIDE (IN PLANE OF DRAWING) AND 14 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.		FLEXIBLE CONNECTION OR FLEXIBLE DUCT CONNECTOR
	INDICATES ROUND DUCT WITH DUCT SIZE OF 6 INCHES IN DIAMETER. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT (FROM DUCT ORIGIN AT TEE TO END OF DUCT) UNLESS OTHERWISE NOTED.		MOTORIZED DAMPER
	VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF		COMBINATION FIRE AND SMOKE DAMPER
	INCLUDED RISE IN RESPECT TO AIR FLOW		RF SHIELDING DAMPER
	INCLUDED DROP IN RESPECT TO AIR FLOW		THERMOSTAT
	VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES)		TEMPERATURE SENSOR
	VANED ELBOW (SHORT RADIUS)		
	INDICATES FLEXIBLE DUCT (RUNOUT) OF SIZE AS SCHEDULED OR SHOWN. LENGTH SHALL NOT EXCEED 5 FT.		
	DUCT TURNING UP		
	DUCT TURNING DOWN		
	VERTICAL FIRE DAMPER		
	HORIZONTAL FIRE DAMPER		
	POINT OF NEW CONNECTION		
	DUCT SMOKE DETECTOR		
	ITEM TO BE REMOVED		

REV#	DATE	DESCRIPTION	BY

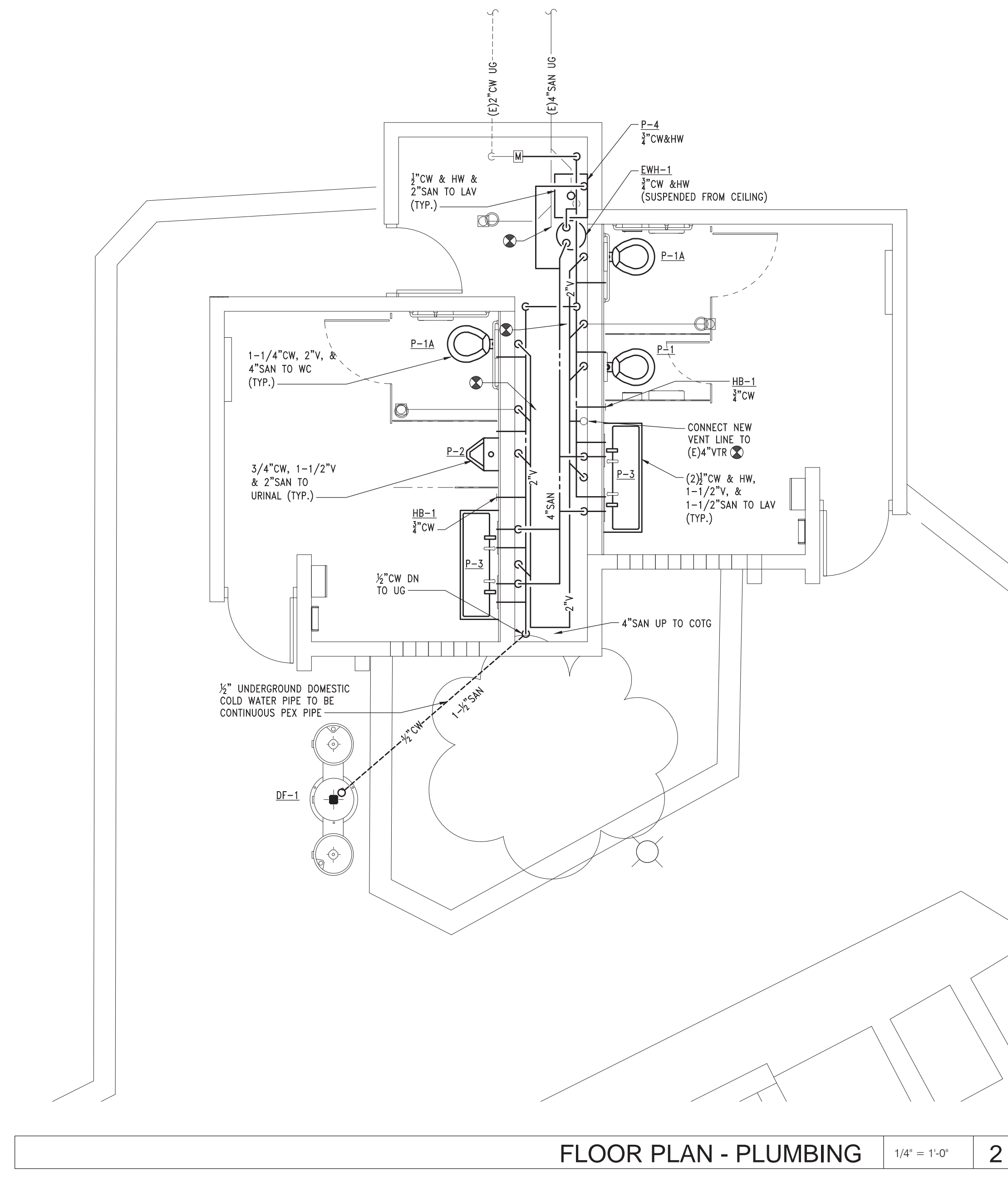


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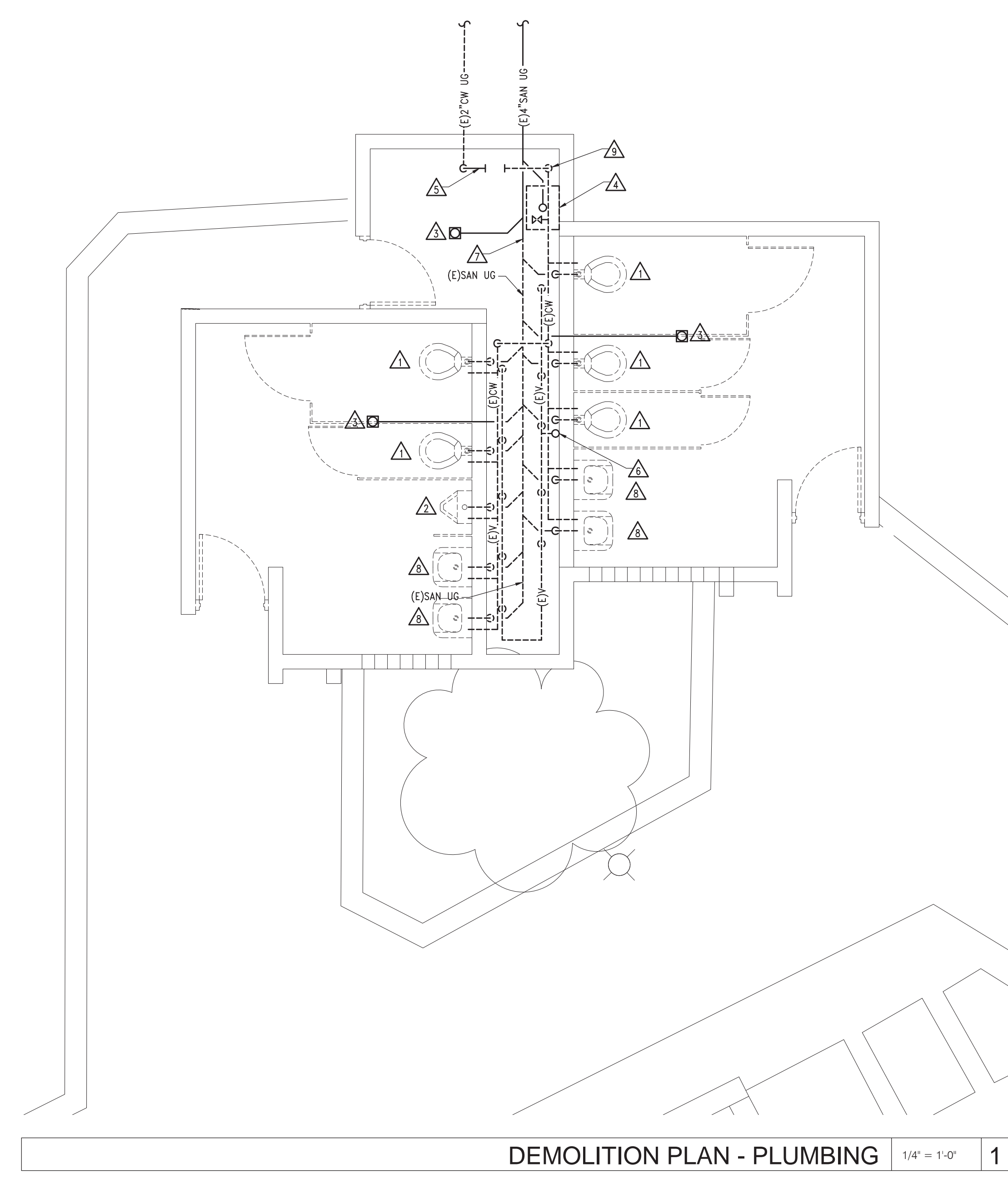
FLINT RIVERFRONT RESTORATION - PHASE 2
MECHANICAL NOTES, SYMBOLS AND LEGEND

ISSUED FOR:	DATE:	BY:
IFB SET	12/18/23	JJR
IFB SET	5/17/24	JJR
IFB SET	10/23/24	JJR

JOB NO:	GPA200301F
SHEET:	M0-1



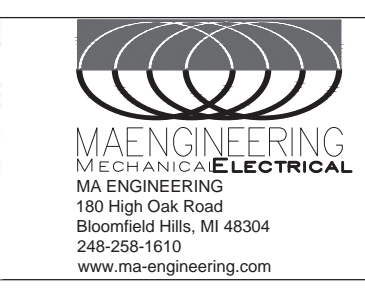
FLOOR PLAN - PLUMBING 1/4" = 1'-0" 2



DEMOLITION PLAN - PLUMBING 1/4" = 1'-0" 1

- DEMOLITION KEY NOTES:**
- △ DEMO EXISTING WATER CLOSET AND ALL ASSOCIATED CW, VENT, AND SANITARY PIPING BACK TO MAIN.
 - △ DEMO EXISTING URINAL AND ALL ASSOCIATED CW, VENT, AND SANITARY PIPING BACK TO MAIN.
 - △ EXISTING FLOOR DRAIN TO REMAIN. PROVIDE NEW HEAVY DUTY BRONZE STRAINER WITH TAMPER PROOF SCREWS.
 - △ DEMO EXISTING SERVICE SINK, HOSE BIB, AND ALL ASSOCIATE CW PIPING. EXISTING SAN ROUGH IN TO REMAIN. CLEAN AND POWER WASH SANITARY ROUGH IN.
 - △ EXISTING CW LEAD-IN AND STUB WITH FLANGE TO REMAIN.
 - △ DEMO ALL VENT PIPING. EXISTING 4"VTR TO REMAIN.
 - △ DEMO EXISTING SANITARY MAIN BACK TO FLOOR DRAIN LOCATED IN CHASE NEAR WATER METER LOCATION.
 - △ DEMO EXISTING LAVATORY AND ALL ASSOCIATED CW, VENT, AND SANITARY PIPING BACK TO MAIN.
 - △ DEMO ALL CW PIPING BACK TO METER LOCATION.

REV#	DATE	DESCRIPTION	BY

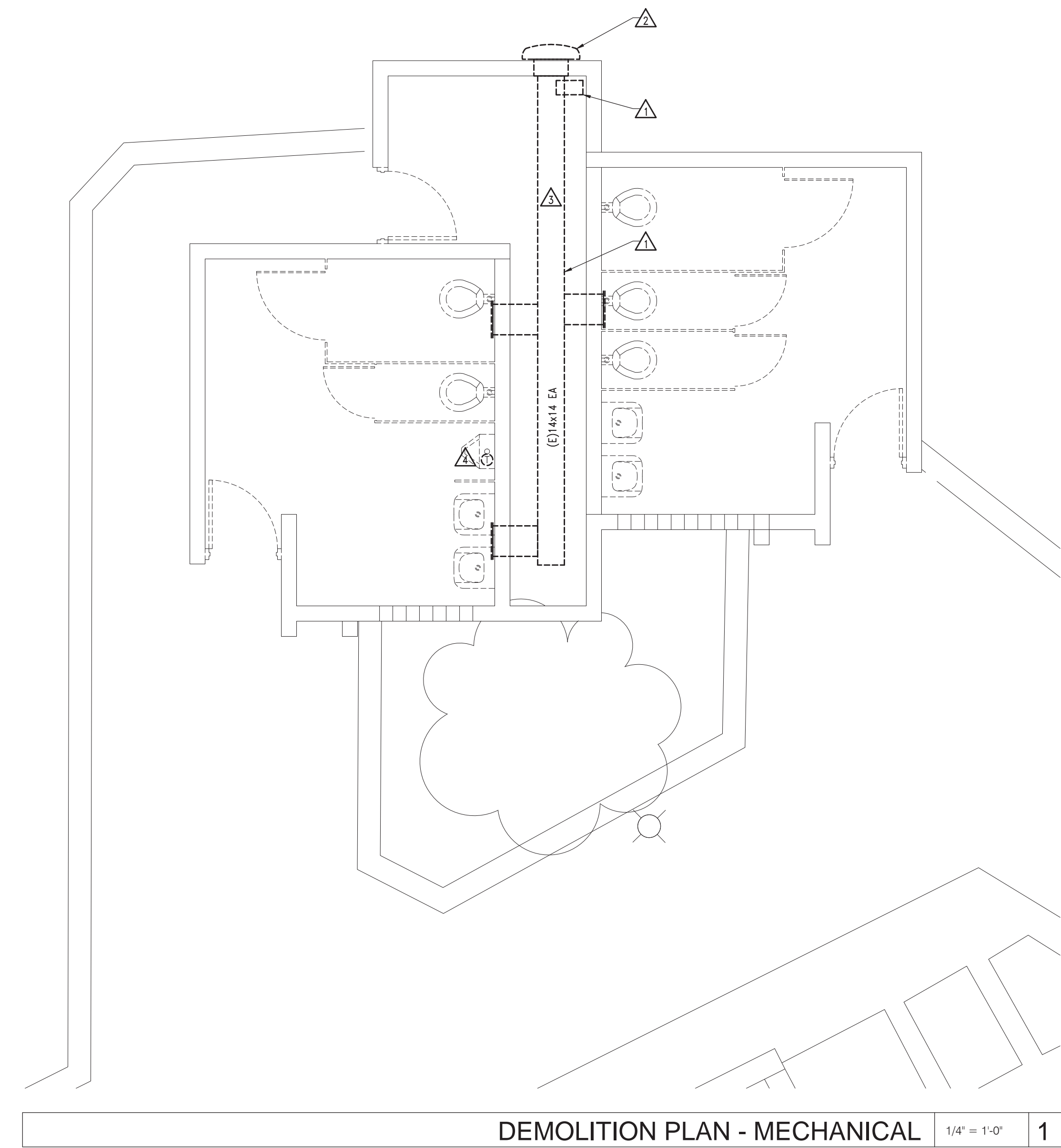
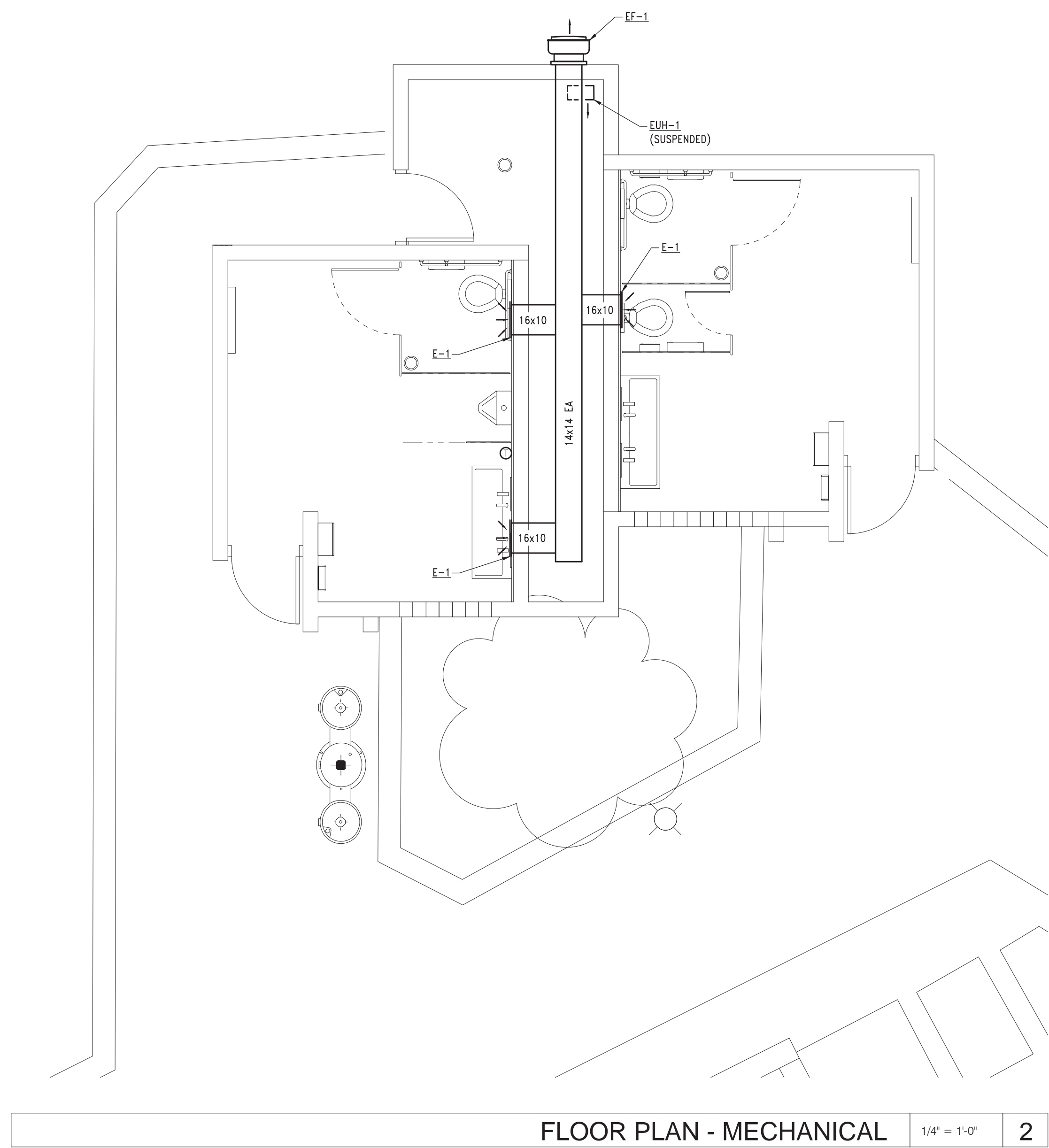


GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
PLUMBING DEMOLITION AND NEW WORK PLAN

ISSUED FOR:	DATE:	BY:
IFB SET	12/18/23	JDR
IFC	5/17/24	JDR
IFB SET	10/23/24	JDR

JOB NO.	GPA200301F
SHEET	M1-1



- DEMOLITION KEY NOTES:**
- △ DEMO EXISTING UNIT HEATER AND ALL ASSOCIATED WIRING AND CONTROLS.
 - △ DEMO EXISTING WALL MOUNTED EXHAUST FAN AND ALL ASSOCIATED WIRING AND CONTROLS.
 - △ DEMO AND REPLACE ALL DUCTWORK, SUPPORTS, AND GRILLES.
 - △ DEMO EXISTING THERMOSTAT

REV#	DATE	DESCRIPTION	BY

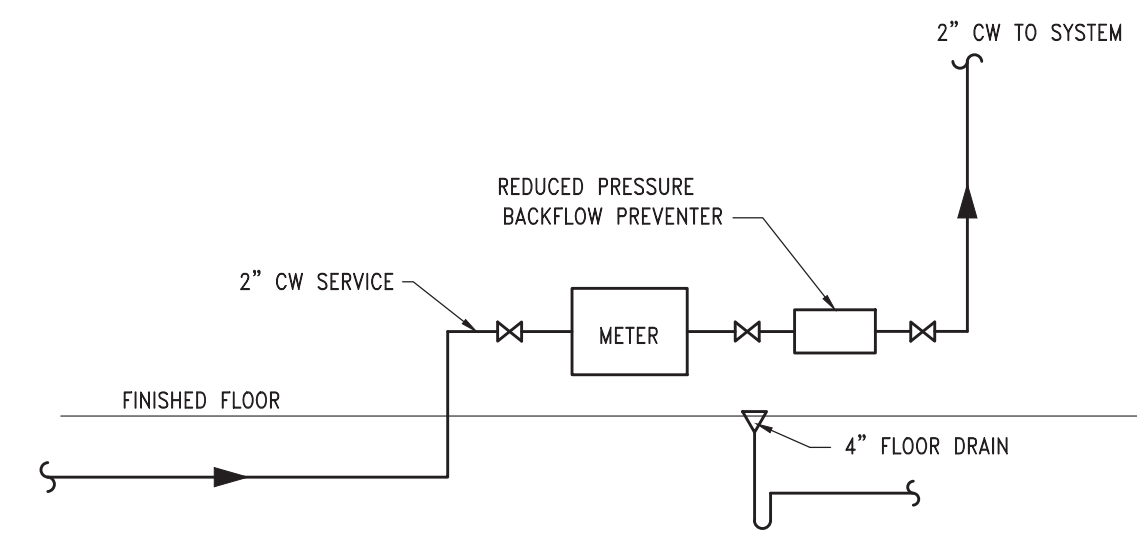


GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

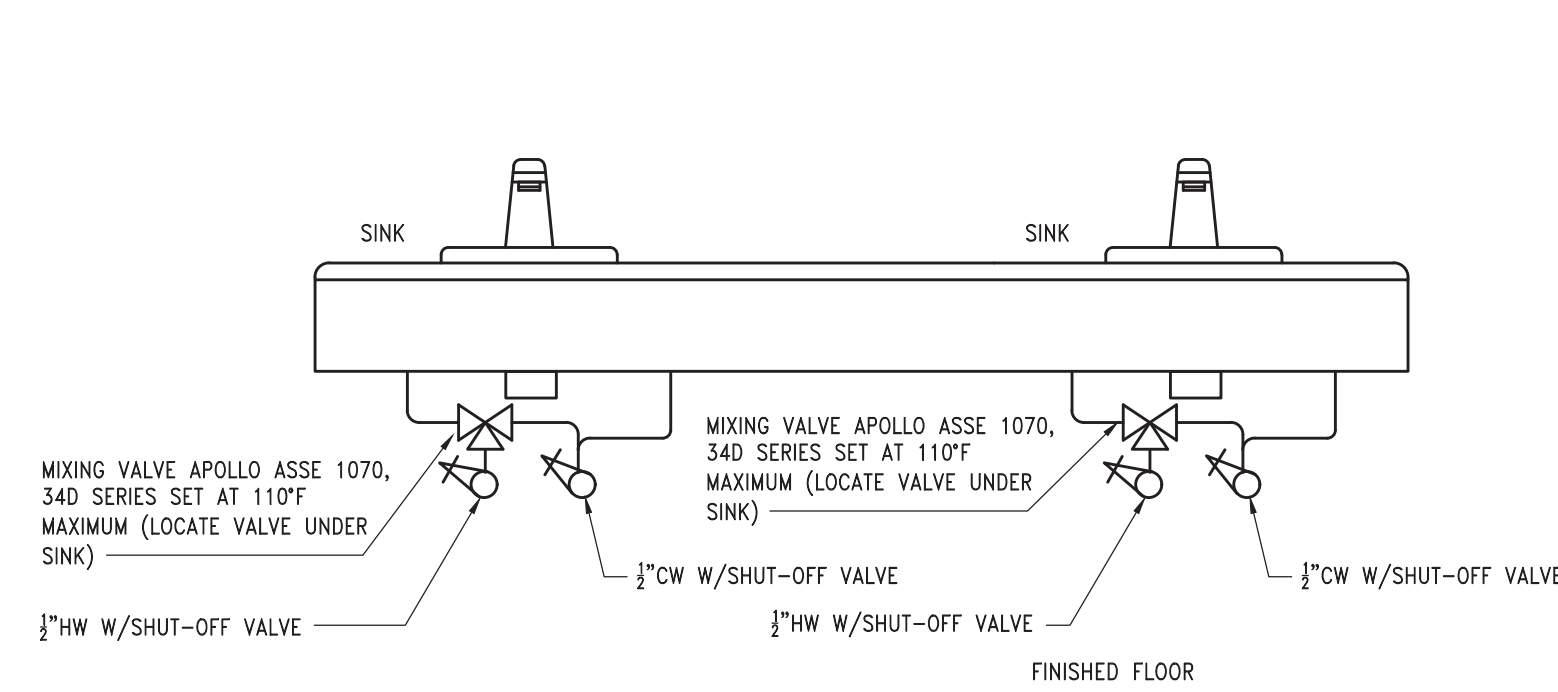
FLINT RIVERFRONT RESTORATION - PHASE 2
HVAC DEMOLITION AND NEW WORK PLAN

ISSUED FOR:	DATE:	BY:
IFB SET	12/18/23	JDR
IFC SET	5/17/24	JDR
IFB SET	10/23/24	JDR

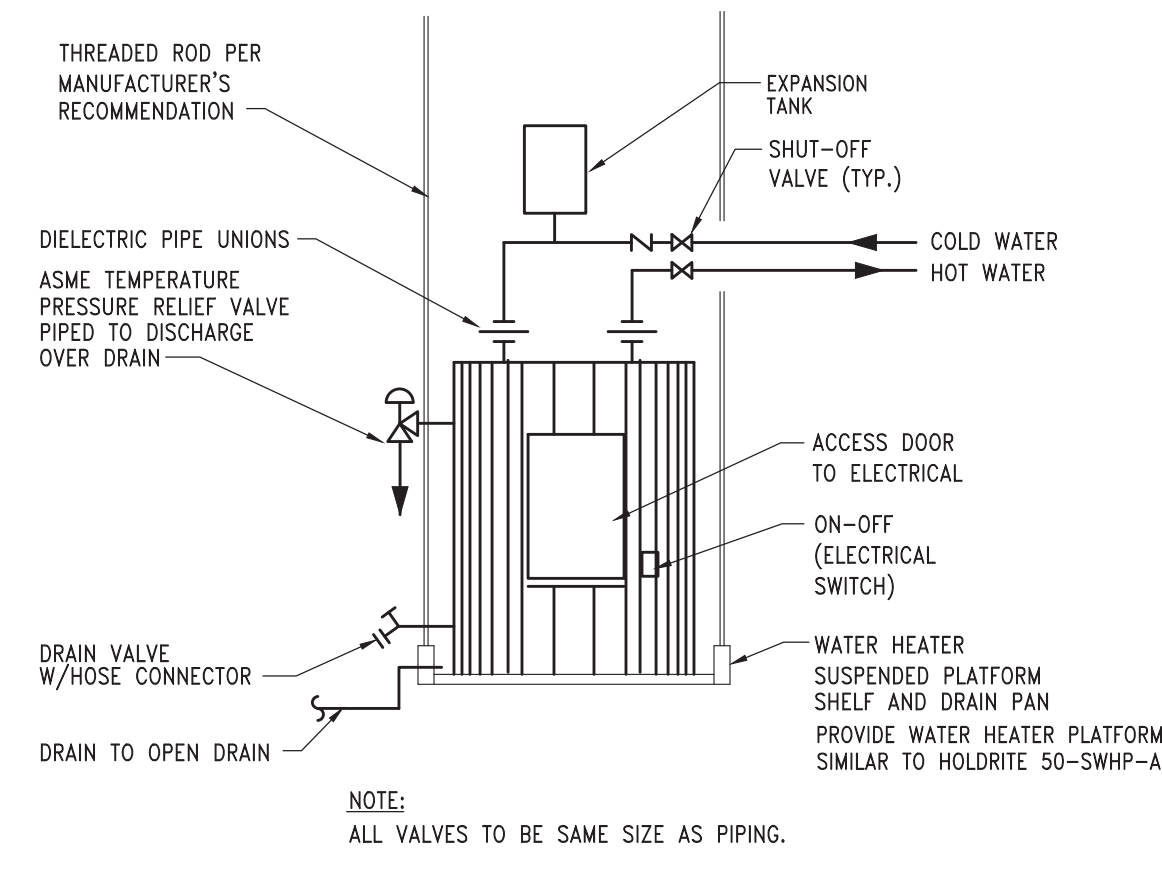
JOB NO.	GPA200301F
SHEET	M2-1



TYPICAL WATER METER DIAGRAM
SCALE: NONE

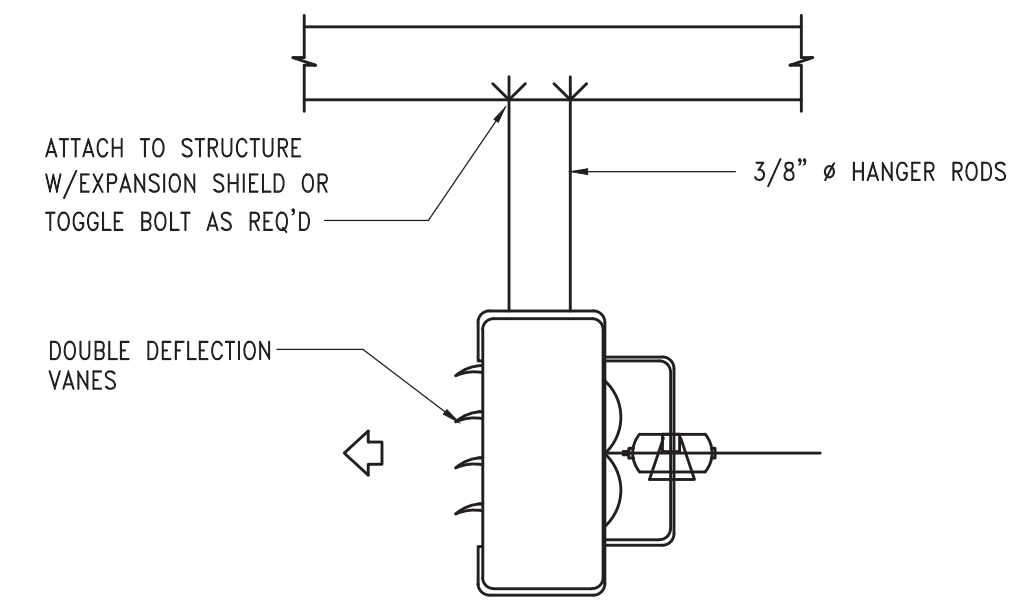


MIXING VALVE PIPING DETAIL FOR LAV'S AND HAND SINKS
SCALE: NONE

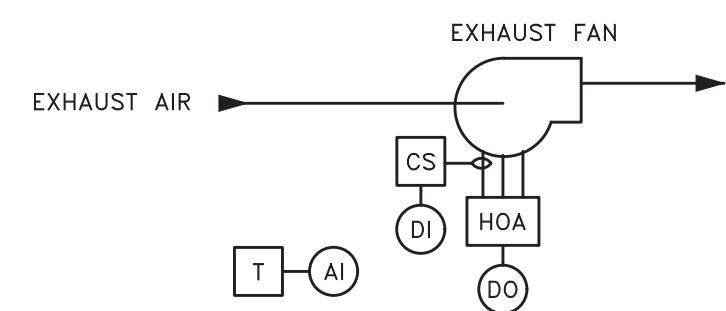


ELECTRIC WATER HEATER DETAIL
SCALE: NONE

ITEM #	FIXTURE	MANUFACTURER	MODEL	MATERIAL	TRIM	FIXTURE CONNECTION				NOTES/ACCESSORIES
						COLD WATER	HOT WATER	WASTE	VENT	
CO	CLEANOUT	MIFAB	C1230	LACQUERED CAST IRON	LINE OR FLOOR CLEANOUT WITH 1/2" THICK GASKETED COMBINED DUCTILE IRON COVER AND PLUG	-	-	SEE PLAN	-	FURNISH WITH VANDAL RESISTANT STAINLESS STEEL SCREWS. ALSO INSTALL COIG INSIDE PARKING GARAGE AREA
COTG	CLEANOUT TO GRADE	MIFAB	C1300-MF	LACQUERED CAST IRON	HEAVY DUTY ACCESS HOUSING WITH ANCHOR FLANGES. FURNISH WITH MODEL C1230 FLOOR CLEANOUT	-	-	SEE PLAN	-	FURNISH WITH VANDAL RESISTANT STAINLESS STEEL SCREWS. ALSO INSTALL COIG INSIDE PARKING GARAGE AREA
TWV	THERMOSTATIC MIXING VALVE	WATTS	MMV-M1	BRONZE	ASSE 1070 LISTED FOR POINT OF USE APPLICATION WITH ADJUSTABLE THERMOSTAT AND SOLDERED CONNECTIONS	1/2"	1/2"	-	-	INSTALL AT EACH HAND SINK AND LAVATORY TO LIMIT HW TO 110°F
HB-1	NON FREEZE WALL HYDRANT	ZURN	21300	POLISHED BRONZE COVER AND BRONZE INTERIOR	WALL CLAMP, INTEGRAL BACKFLOW PREVENTER, TAMPER PROOF, COMPRESSION CLOSING VALVE, HINGED COVER AND KEY LOCK	3/4"	-	-	-	INSTALL PER MANUFACTURERS INSTRUCTIONS AND INSTALL SHUT-OFF VALVE ON INTERIOR OF BUILDING
DF-1	FREEZE RESISTANT OUTDOOR PEDESTAL DRINKING FOUNTAIN AND BOTTLE FILLER	ELKAY	LK4430BFUFTRK	STAINLESS STEEL	VANDAL RESISTANT, FREEZE RESISTANT, FLOOR MOUNTED, FREE STANDING PEDESTAL, NON REFRIGERATED, TWO BUBBLER, WITH BOTTLE FILLER	1/2"	-	1-1/2"	-	INSTALL PER MANUFACTURERS INSTRUCTIONS AND INSTALL SHUT-OFF VALVE ON INTERIOR OF BUILDING. COLOR BY ARCHITECT.



UNIT HEATER DETAIL
SCALE: NONE



SEQUENCE OF OPERATION

1. EF HAND OFF AUTO SWITCH IS NORMALLY IN THE AUTO POSITION.
2. WHEN SPACE TEMPERATURE IS ABOVE SETPOINT EF AUTOMATIC DAMPER AND ASSOCIATED RELIEF HOOD AUTOMATIC DAMPER OPEN AND FAN IS ENERGIZED.

EXHAUST FAN DETAIL W/TEMP CONTROL
NO SCALE

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER & MODEL NO.	WEIGHT (LBS)	AREA SERVED	LOCATION	CFM	ESP (IN. OF WATER)	RPM	DRIVE TYPE	FAN TYPE	ELECTRICAL		NOTES/ACCESSORIES
										HP OR WATTS	VOLTS/PHASE	
EF-1	GREENHECK CUE-090-VG	31	SEE PLAN	EXTERIOR WALL	400	0.25	1,154	DIRECT	CENTRIFUGAL	1/10 HP	120/1	A B C D E F G H

NOTES AND ACCESSORIES DESIGNATION

A	FURNISH DISCONNECT SWITCH.	E	FAN SHALL ALWAYS BE ON DURING BUILDING OCCUPANCY.
B	CONTROL WITH THERMOSTAT.	F	PROVIDE BIRD SCREEN.
C	INTERLOCK FAN OPERATION WITH LIGHT FIXTURE.	G	UPON CALL FOR COOLING, FAN SHALL SWITCH ON FOR A MINIMUM OF 30 MINUTES. TIME SHALL BE USER ADJUSTABLE.
D	PROVIDE STARTER.	H	COORDINATE VOLTAGE WITH ELECTRICAL

GRILLE, REGISTER AND DIFFUSER SCHEDULE

TAG	MANUFACTURER & MODEL NO.	SERVICE	MOUNTING	OVERALL SIZE	NECK SIZE	CONSTRUCTION	NOTES/ACCESSORIES
E-1	PRICE WELF	EAG	WALL	---	16x10	STAINLESS STEEL	A

KEY:
 SAD - CEILING OR WALL SUPPLY DIFFUSER
 SAG - CEILING OR WALL SUPPLY GRILLE
 TAG - WALL TRANSFER GRILLE
 RAR - CEILING OR WALL RETURN REGISTER
 RAG - CEILING OR WALL RETURN GRILLE
 EAG - CEILING OR WALL EXHAUST GRILLE

NOTES AND ACCESSORIES DESIGNATION

A	CONFIRM SIZE WITH EXISTING WALL PENETRATION	C	--
B	PROVIDE TAMPER PROOF SCREWS	D	--

ELECTRIC UNIT HEATER SCHEDULE

REFER TO CONTRACT DOCUMENTS FOR EXACT QUANTITIES

TAG	MANUFACTURER & MODEL NO.	CAPACITY (BTU/HR)	CAP. (KW)	CFM	MAX. AMP RATING	MIN. CIRCUIT FUSE SIZE	MOTOR (HP)	RPM	VOLT/PH	NOTES/ACCESSORIES
EUH-1	MARKEL 5100 SERIES	11,200	3.3	400	13.7	--	--	--	240/1	A B C D

NOTES AND ACCESSORIES DESIGNATION

A	UNIT MTD DISCONNECT SWITCH BY ELECTRICAL	C	HANGING KIT	E	
B	REMOTE THERMOSTAT	D	COORDINATE VOLTAGE WITH ELECTRICAL	F	

ELECTRIC WATER HEATER SCHEDULE

TAG	MANUFACTURER & MODEL NO.	AREA SERVED	CAPACITIES		ELECTRICAL		NOTES/ACCESSORIES
			STORAGE GALLON	RECOVERY GPH	TO "F"	VOLTS/PHASE	
EWH-1	LOCHINVAR RAD06GS	SEE PLAN	6	12	100	240/1	3.0 A B C D

NOTES AND ACCESSORIES DESIGNATION

A	P & T RELIEF VALVE DRAIN TO JANITOR SINK	D	PROVIDE DRAIN PAN
B	EXPANSION TANK	E	
C	DISCONNECT SWITCH	F	

REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
MECHANICAL DETAILS, CONTROLS AND SCHEDULES

ISSUED FOR: DATE: BY:
 IFB SET 12/18/23 JDR
 IFC SET 5/17/24 JDR
 IFB SET 10/23/24 JDR

JOB NO: GPA200301F
SHEET

M3-1

PANELBOARD: RP-1A		MOUNTING: SURFACE				
VOLTAGE: 120/240V, 1 PHASE, 3 WIRE + G		AIC: AS SPECIFIED				
MAIN: 100 A MCB		FEEDER: 1 1/4" C, 3#2 & 1#8 G				
		SPD EQUIPPED: <NO>				
Circ No	Breaker Pole Trip	Location	Load Information Description Code	Connected Watts Phase A	Phase C	
1	1 20	Mech Rm	Lighting L	83		
3	1 20	Mech Rm	Time Switch X		200	
5	1 20	Mech Rm	EF-1 1/10 HP M	200		
7	1 20	Exterior	Lighting L		44	
9	1 20	Toilet Rm	Lighting L	600		
11	1 20	Toilet Rm	Receptacles for Sensors R		400	
13	1 20	Toilet Rm	Hand Dryer M	1200		
15	1 20	Toilet Rm	Hand Dryer M		1200	
17	1 20	SPARE				
19	1 20	SPARE				
21	1 20	SPARE				
23	1 20	SPARE				
25	1 20	SPARE				
27	2 60	LIGHTING PANEL LP-4	L		3000	
29						
4	2 20	Mech Rm	EUH-1 H	1650		
6	2 20	Mech Rm	EW-1 W	1500		
8					1500	
10	1 20	SPARE				
12	1 20	SPARE				
14	1 20	SPARE				
16	1 20	SPARE				
18	1 20	SPARE				
20	1 20	SPARE				
22	1 20	SPARE				
24	1 -	SPARE				
26	1 -	SPARE				
28	1 -	SPARE				
30	1 -	SPARE				
CONNECTED KW: 16				Phase Watts:	8,233	7,994
CONNECTED AMPS: 68						
DEMAND KW: 16						
DEMAND AMPS: 68						

DEMOLITION GENERAL NOTES:

- DA. REFER TO SHEET E-0.1 FOR ELECTRICAL LEGEND.
- DB. THESE DEMOLITION NOTES AND PLAN DO NOT FULLY REPRESENT ALL DEMOLITION WORK REQUIRED TO INSTALL NEW WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS, BUT ARE INTENDED TO SERVE AS GENERAL DEMOLITION GUIDELINES. REFER TO ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF INCIDENTAL DEMOLITION WORK NOT INDICATED ON THIS PLAN. NOT ALL ELECTRICAL DEVICES, LIGHTING, EQUIPMENT, ETC. ARE INDICATED ON THESE PLANS. FIELD VERIFY EXISTING CONDITIONS.
- DC. MAINTAIN CIRCUIT CONTINUITY TO ALL EXISTING TO REMAIN ITEMS ON THE SAME CIRCUIT OUTSIDE OF RENOVATION AREA.
- DD. DEMOLITION WORK SHALL INCLUDE ALL ASSOCIATED AND ABANDONED BOXES, CONDUITS, SURFACE RACEWAYS, WIRING ETC. BACK TO SOURCE. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- DE. PROVIDE NEW TYPEWRITTEN DIRECTORIES IN ALL PANELS DISTURBED DUE TO NEW WORK. ALL SPARE BREAKERS TO BE PLACED IN "OFF" POSITION. IDENTIFY ALL CIRCUITS EXISTING, NEW OR SPARE, REFER TO SPECIFICATIONS FOR ADDITIONAL INFO.
- DF. PROVIDE COVERPLATES FOR ALL ABANDONED DEVICES, REFER TO SPECIFICATION.
- DG. COORDINATE WITH ARCHITECTURAL, STRUCTURAL & MECHANICAL DRAWINGS FOR COMPLETE SCOPE OF DEMOLITION WORK.
- DH. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEW OF THE AMOUNT OF DEMOLITION REQUIRED PRIOR TO BID SUBMITTAL.
- DI. TRACE BACK TO PANELBOARDS ALL BRANCH CIRCUITS WITHIN THE RENOVATED AREA. IDENTIFY ALL CIRCUITS THAT ARE TO REMAIN AND THE CIRCUITS THAT ARE TO BECOME AVAILABLE AFTER THE DEMOLITION WORK. EXISTING TO REMAIN BRANCH CIRCUITS TO BE PROTECTED DURING THE RENOVATION. THE BRANCH CIRCUITS THAT ARE BECOMING AVAILABLE TO BE RE-USED FOR THE NEW WORK. REFER TO GENERAL NOTE-DG ABOVE.
- DJ. ALL EXISTING TO REMAIN ITEMS WITHIN THE RENOVATED AREA TO BE CLEANED, PAINTED, PROVIDED WITH NEW COVERPLATES, NEW DEVICES, ETC. AS REQUIRED TO MATCH NEW INSTALLATIONS, COORDINATE WITH ARCHITECT/TEENANT.
- DM. ALL PENETRATIONS AND DAMAGED SURFACES FOR ANY REMOVED ELECTRICAL WORK TO BE REPAIRED AND SEALED, COORDINATE WITH ARCHITECT FOR EXACT REQUIREMENTS.

KEYED DEMOLITION NOTES:

- (D1) DISCONNECT AND REMOVE HAND DRYERS AND PREPARE FOR INSTALLATION OF NEW UNITS. RE-USE EXISTING BRANCH CIRCUIT WIRING.
- (D2) DISCONNECT POWER TO EXISTING EXHAUST FAN AND SPACE HEATER TO ALLOW FOR REPLACEMENT BY OTHERS. RUN NEW BRANCH CIRCUIT WIRING FROM NEW LP-1A. EXISTING CONDUIT MAY BE REUSED.
- (D3) DISCONNECT AND REPLACE EXISTING LIGHTING FIXTURE WITH NEW FIXTURE IN PLACE. RE-USE BRANCH CIRCUITING FOR NEW FIXTURE. REMOVE EXISTING WALL SWITCH. FIXTURE TO HAVE INTEGRAL OCCUPANCY SENSOR.
- (D4) DISCONNECT AND REPLACE EXISTING EXTERIOR LIGHTING FIXTURE WITH NEW FIXTURE IN PLACE. RE-USE BRANCH CIRCUITING FOR NEW FIXTURE AND RECONNECT TO EXISTING TIME SWITCH FOR LIGHTING CONTROLS.
- (D5) CONTRACTOR TO FIELD VERIFY EXISTING ELECTRICAL SERVICE AND VOLTAGE AND REPLACE EXISTING PANEL WITH NEW PANEL AS SCHEDULED. RE-CONNECT ALL EXISTING TO REMAIN BRANCH CIRCUITS TO NEW PANEL AS REQUIRED.
- (D6) EXISTING DISCONNECT AND PUMP CONTROL PANEL TO REMAIN. SEE UTILITY PLAN ON SHEET E-0.1 FOR MORE INFORMATION.

GENERAL ELECTRICAL NOTES:

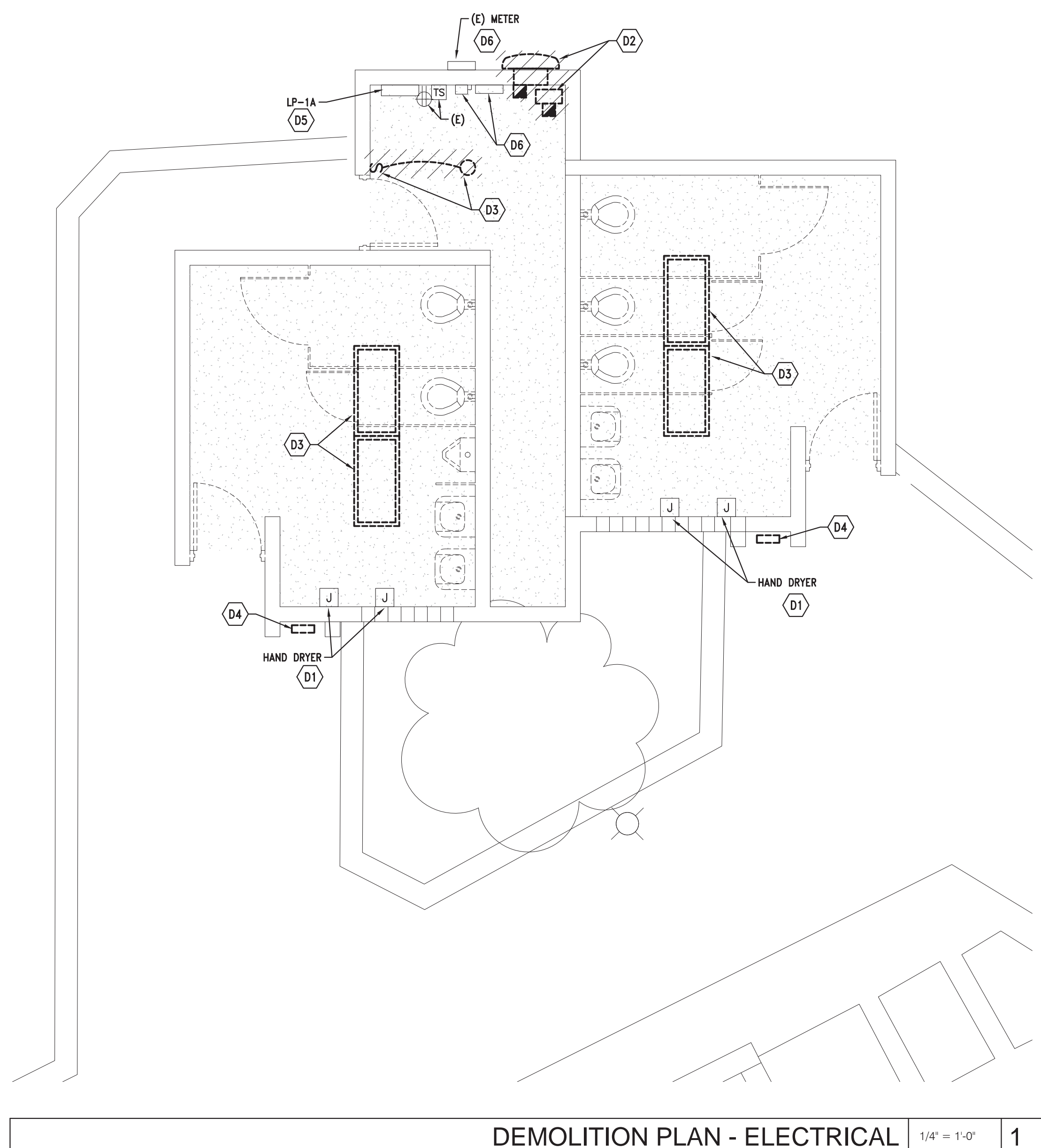
- A. REFER TO SHEET E-0.1 FOR ELECTRICAL LEGEND AND GENERAL NOTES.
- B. REFER TO SHEET E-2.1 FOR SPECIFICATIONS FOR ADDITIONAL LAMP AND BALLAST REQUIREMENTS.
- C. COORDINATE LIGHTING LAYOUT WITH ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS, MECHANICAL FLOOR PLANS AND MECHANICAL DUCT WORK PRIOR TO ROUGH-IN FOR EXACT LOCATIONS AND MOUNTING OF ALL CEILING & WALL MOUNTED LIGHT FIXTURES.
- D. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL LAMPS FOR ALL TYPES OF LIGHTING FIXTURES.
- E. ALL FIXTURE FINISHES/COLORS TO BE COORDINATED WITH ARCHITECT.
- F. ALL WIRING SHALL BE SIZED PROPERLY FOR FULL COMPLIANCE WITH THE NEC REQUIREMENTS FOR AMPACITY AND MAXIMUM VOLTAGE DROP LIMITATIONS. REFER TO SHEET E-0.1 FOR CIRCUIT LENGTH TABLES.
- G. PROPOSED EQUAL LIGHTING FIXTURES SHALL HAVE EQUAL DELIVERED LUMENS AND SHALL BE SUBMITTED FOR ARCHITECT/OWNER REVIEW AND APPROVAL PRIOR TO BID.
- H. ALL ELECTRICAL DEVICES SHALL BE LISTED FOR THE INTENDED USE.
- I. CONTRACTOR TO CONDUCT A COORDINATION MEETING WITH ALL OTHER TRADES PRIOR TO START OF THE WORK TO DETERMINE EQUIPMENT LOCATIONS AND PATHWAYS TO AVOID INTERFERENCES WITH OTHER SYSTEMS AND TO MAINTAIN THE CODE REQUIRED, DEDICATED EQUIPMENT SPACE, WORKING CLEARANCES AND ACCESS.
- J. MAINTAIN SERVICE CONTINUITY TO ALL EXISTING TO REMAIN ITEMS ON THE SAME BRANCH CIRCUIT OR CONNECT TO NEAREST AVAILABLE OR PROVIDE NEW AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS. TRACE BACK TO SOURCE AND IDENTIFY ALL EXISTING BRANCH CIRCUITS SERVING THE AREA.
- K. PROVIDE NEW DEVICE AND COVER PLATE FOR ALL LOCATIONS WHERE EXISTING DEVICE IS REMAINING.
- L. USE #10 WIRE FOR LIGHTING CIRCUIT HOMERUNS LONGER THAN 150 FEET FROM PANEL.
- M. REFER TO MECHANICAL FLOOR PLANS, SCHEDULES AND DIAGRAMS FOR EXACT LOCATION OF EQUIPMENT AND WIRING REQUIREMENTS.
- N. REFER TO MECHANICAL FLOOR PLANS, SCHEDULES AND DIAGRAMS FOR EXACT LOCATION OF EQUIPMENT AND WIRING REQUIREMENTS. PROVIDE SERVICES TO ALL EQUIPMENT PER MANUFACTURER'S REQUIREMENTS AND/OR SHOP DRAWING SUBMITTALS, INCLUDING BREAKER/FUSE, DISCONNECT SWITCH, STARTERS, INTERLOCKING, 120VOLT CONTROL WIRING, FEEDER WIRING AND CONDUIT SIZES.
- O. EXACT LOCATIONS AND REQUIREMENTS FOR ALL EQUIPMENT AND OUTLETS FOR THE EQUIPMENT SHALL BE VERIFIED WITH OWNER, EQUIPMENT SUPPLIER AND ARCHITECT PRIOR TO INSTALLATION AND ALL EQUIPMENT SHALL BE PER MANUFACTURER'S INSTALLATION REQUIREMENTS. LOCATE DISCONNECT SWITCHES, FOR MECHANICAL AND BUILDING EQUIPMENT TO MAINTAIN WORKING CLEARANCES. LOCATIONS ON THESE PLANS ARE FOR REFERENCE ONLY.
- P. PROVIDE FIRE STOPPING SYSTEM WHERE REQUIRED TO MAINTAIN THE FIRE RESISTANCE RATINGS OF THE NEW AND EXISTING ASSEMBLIES.
- Q. ALL 20 AMP BRANCH CIRCUITS LONGER THAN 100'-0" SHALL UTILIZE A MINIMUM OF #10 WIRES FOR VOLTAGE DROP. ALL 30 AMP BRANCH CIRCUITS LONGER THAN 150'-0" SHALL UTILIZE A MINIMUM OF #8 WIRES FOR VOLTAGE DROP. ALL 50 AMP BRANCH CIRCUITS LONGER THAN 100'-0" SHALL UTILIZE A MINIMUM OF #8 WIRES FOR VOLTAGE DROP. MAXIMUM OF 3% AT DESIGN LOAD.
- R. CIRCUIT NUMBERS INDICATED, SHOW INTENT ONLY. ELECTRICAL TRADES CONTRACTOR SHALL FIELD VERIFY EXISTING PANEL CONDITIONS AND CIRCUIT ACCORDINGLY. UTILIZE SPARE BREAKERS WHERE POSSIBLE TO FEED NEW EQUIPMENT OR PROVIDE NEW 120 VOLT 20A-1P CIRCUIT BREAKER IN EXISTING PANEL INDICATED, (MAXIMUM OF 1600 WATTS PER BRANCH CIRCUIT).

KEYED ELECTRICAL NOTES:

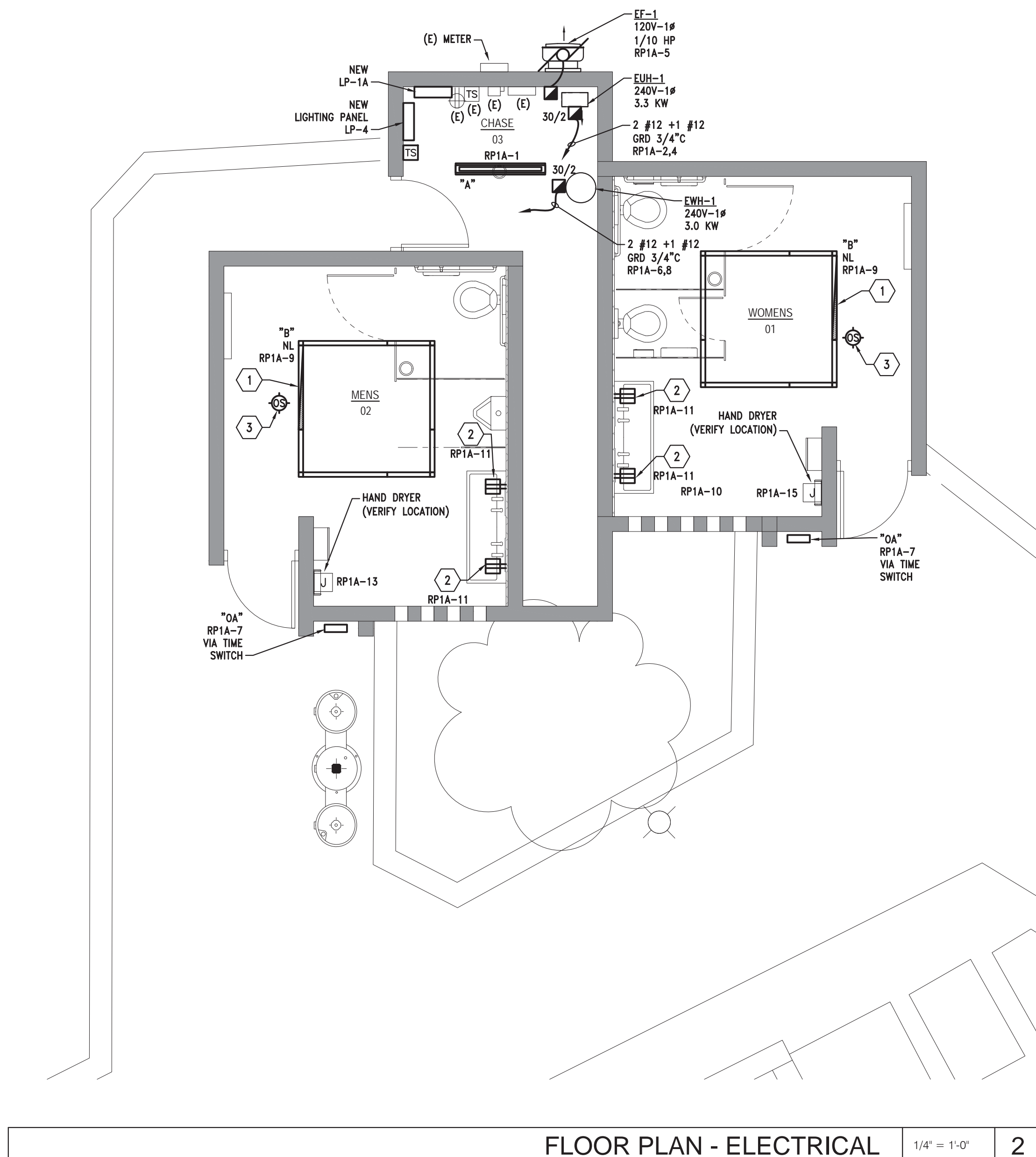
- (1) ALL EMERGENCY BATTERY UNITS SHALL BE WIRED TO ROOM OR AREA LIGHTING CIRCUIT AHEAD OF ANY LOCAL AND/OR AUTOMATIC LIGHTING CONTROL.
- (2) PROVIDE GFCI DUPLEX RECEPTACLE UNDER SINK FOR FAUCET AND SOAP POWER. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.
- (3) PROVIDE COLD WEATHER LINE VOLTAGE CEILING SENSOR FOR FIXTURE TYPE "B" TO AUTOMATICALLY REDUCE GENERAL LIGHTING 5.0% WITHIN 20 MINUTES OF OCCUPANTS LEAVING. SENSOR TO BE MOUNTED TO J-BOX AND CONTRACTOR TO MAKE WIRING CONNECTIONS BETWEEN THE FIXTURE AND SENSOR/J-BOX.

LIGHTING FIXTURE SCHEDULE:

- "A" PENDANT MOUNTED, 2"x4" LONG COLD WEATHER VANDAL RESISTANT LED FIXTURE WITH OPAL POLYCARBONATE LENS AND SMOOTH FLAT END CAPS, SIGNAL CIRCUIT, 120/277 VOLT, ELECTRONIC DRIVER, STANDARD ILLUMINATION, WHITE FINISH, INTEGRATED MOTION/OCCUPANCY SENSOR, 80 CRI (VERIFY MOUNTED TYPE AND PROVIDE ALL MOUNTING HARDWARE FOR A COMPLETE INSTALLATION), 3662 LUMENS, 33 WATTS
 FAIL-SAFE: #HVS2L-30-4-LD4-SD-40-UNV-0-EDC1-OS1-PMY, OR APPROVED EQUAL
- "B" PENDANT MOUNTED, 6"x6" SQUARE COLD WEATHER VANDAL RESISTANT LED FIXTURE WITH OPAL POLYCARBONATE LENS WITH 90° CORNER CONNECTORS, SIGNAL CIRCUIT, 120/277 VOLT, 0-10V DIMMING, 4000K, 21972 TOTAL LUMENS, 210 WATTS (VERIFY MOUNTED TYPE AND PROVIDE ALL MOUNTING HARDWARE FOR A COMPLETE INSTALLATION).
 FAIL-SAFE: #HVS2L-(4)X-(4)Z-LD4-SD-40-UNV-0-EDD1-EL10W-(4)HVS2L/CRNR/CONN-PMY, OR APPROVED EQUAL (VERIFY SIZE WITH FLOOR PLAN).
- "DA" 11.9"x4.4"x3.4" IP65 RATED EXTERIOR STAINLESS STEEL LED FIXTURE, WHITE GLASS LENS, 120 VOLT DRIVER, 85 CRI, 730lm, 4000K, 730 LUMENS, 17W
 FC LIGHTING: #FCSL208-120V-4K-CRIBS-7L-SS, OR APPROVED EQUAL

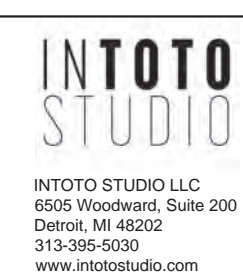
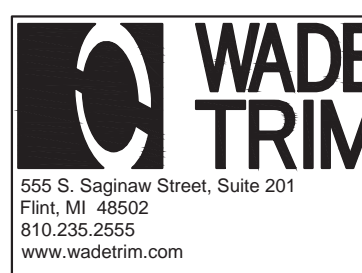


DEMOLITION PLAN - ELECTRICAL 1/4" = 1'-0" 1



FLOOR PLAN - ELECTRICAL 1/4" = 1'-0" 2

REV#	DATE	DESCRIPTION	BY

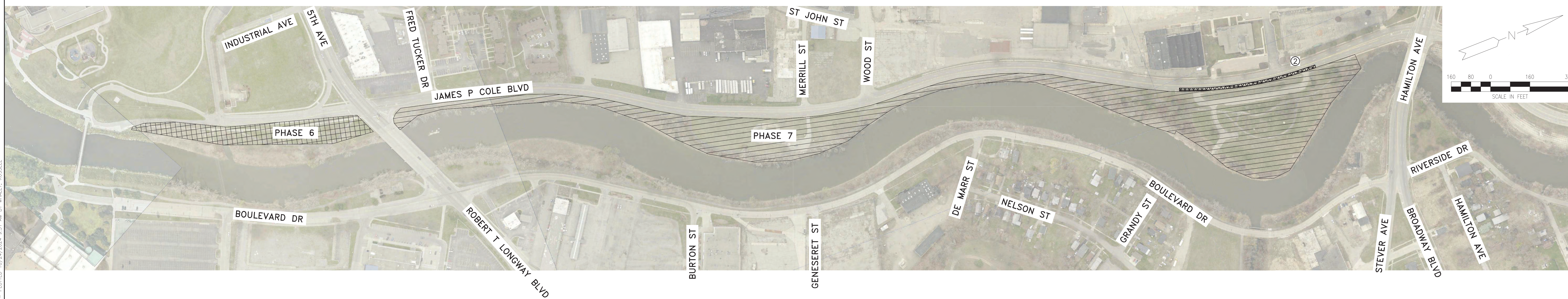
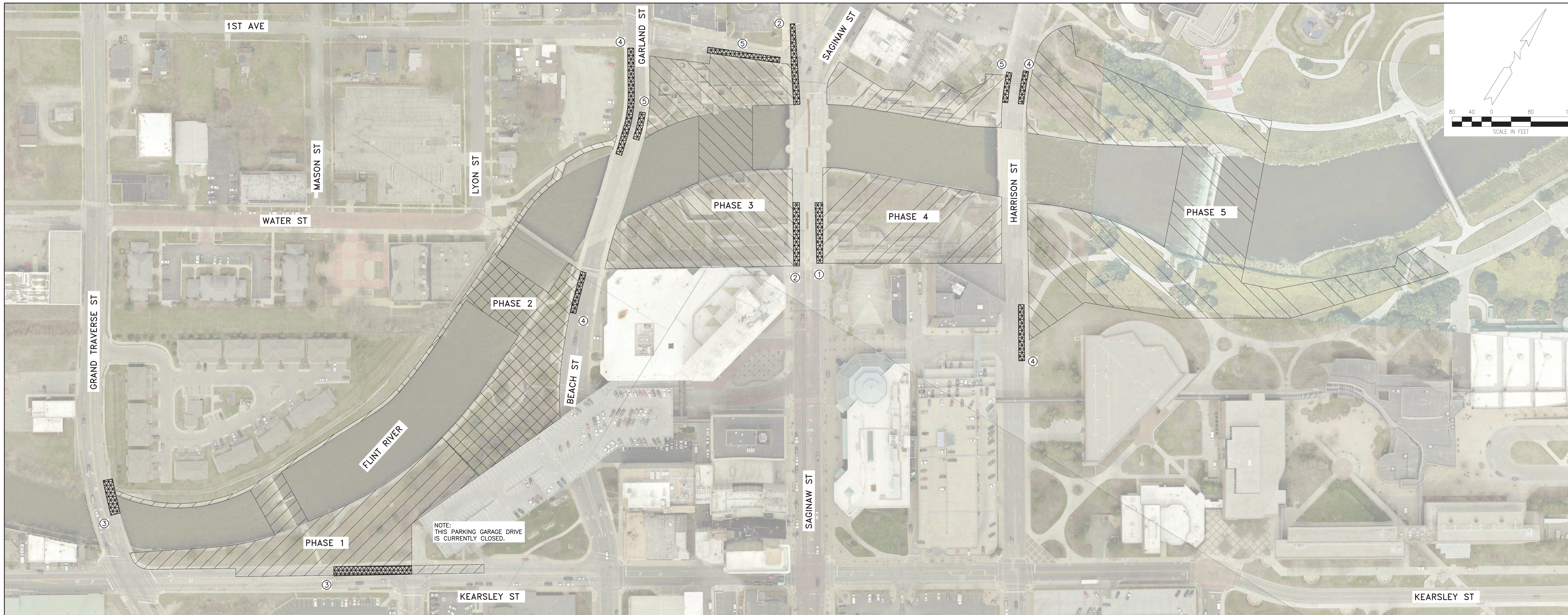


GENESEE COUNTY PARKS & REC
 5045 E. STANLEY ROAD
 FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
 ELECTRICAL DEMOLITION AND NEW PLAN

ISSUED FOR: IFC SET
 DATE: 5/17/24
 BY: JDR
 JOB NO: GPA200301F

SHEET: E1-1



- LEGEND**
- ① MDOT DETAIL 122-NF-SHL-(R) SHOULDER (PARKING LANE) CLOSURE ON A 2-LANE, UNDIVIDED ROADWAY.
 - ② MDOT DETAIL 123-NF-1LC-(R) RIGHT LANE CLOSURE ON A 4-LANE UNDIVIDED ROADWAY.
 - ③ MDOT DETAIL 137-CLT-SHIFT-OLC: LANE SHIFT ON A 3-LANE UNDIVIDED ROADWAY.
 - ④ MDOT DETAIL 204-FW-1LC-(R): SINGLE RIGHT LANE CLOSURE ON A FREEWAY OR DIVIDED ROADWAY.
 - ⑤ MDOT DETAIL 204-FW-1LC-(L): SINGLE LEFT LANE CLOSURE ON A FREEWAY OR DIVIDED ROADWAY.

VEHICLE TRAFFIC CONTROL TYPICALS



REV#	DATE	DESCRIPTION	BY



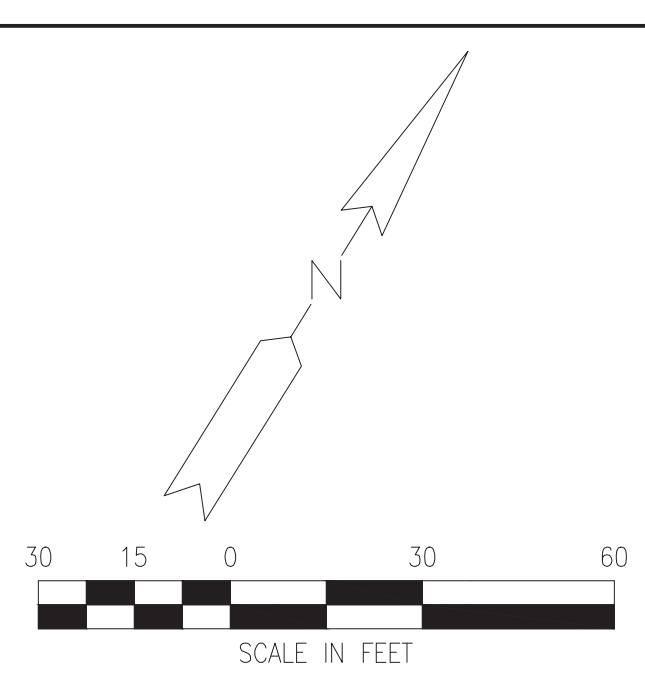
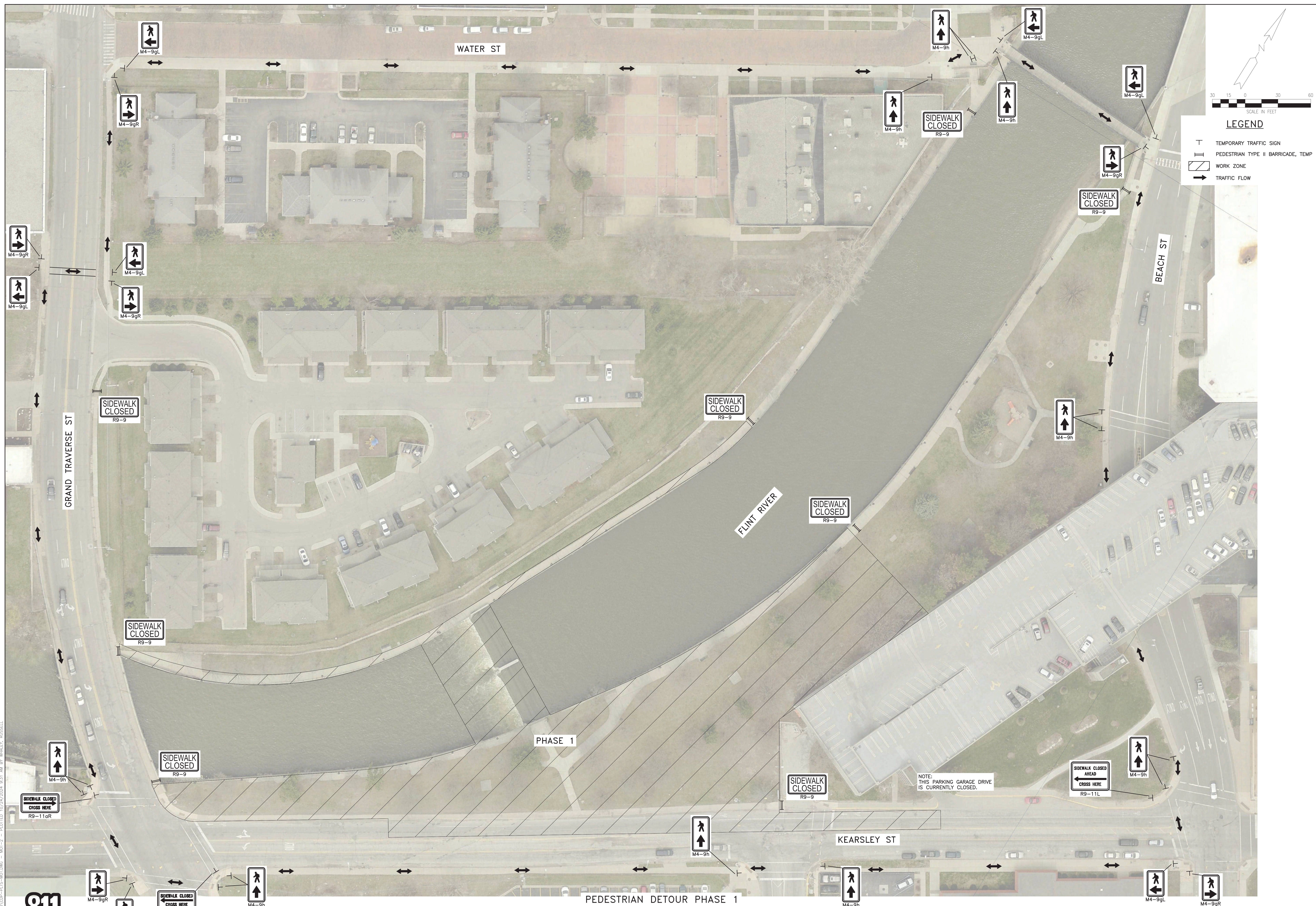
GENESEE COUNTY PARKS & REC
 5045 E. STANLEY ROAD
 FLINT, MI 48506

FLINT RIVERFRONT RESTORATION – PHASE 2
 MAINTENANCE OF TRAFFIC

ISSUED FOR: FBI	DATE: 10/23/24	BY: SAL	JOB NO: GPA200301F
SHEET			MOT-1

PROJECT MANAGER: [Name], [Title], [Company] - PLOTTED: 10/24/2024 10:31 AM BY: [Name]

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- LEGEND**
- T TEMPORARY TRAFFIC SIGN
 - PEDESTRIAN TYPE II BARRICADE, TEMP
 - WORK ZONE
 - TRAFFIC FLOW

NOTE: THIS PARKING GARAGE DRIVE IS CURRENTLY CLOSED.



REV#	DATE	DESCRIPTION	BY



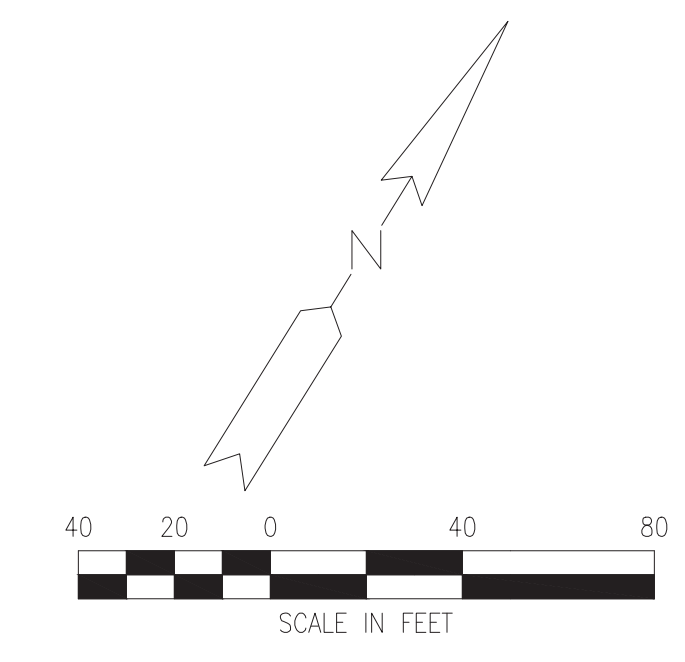
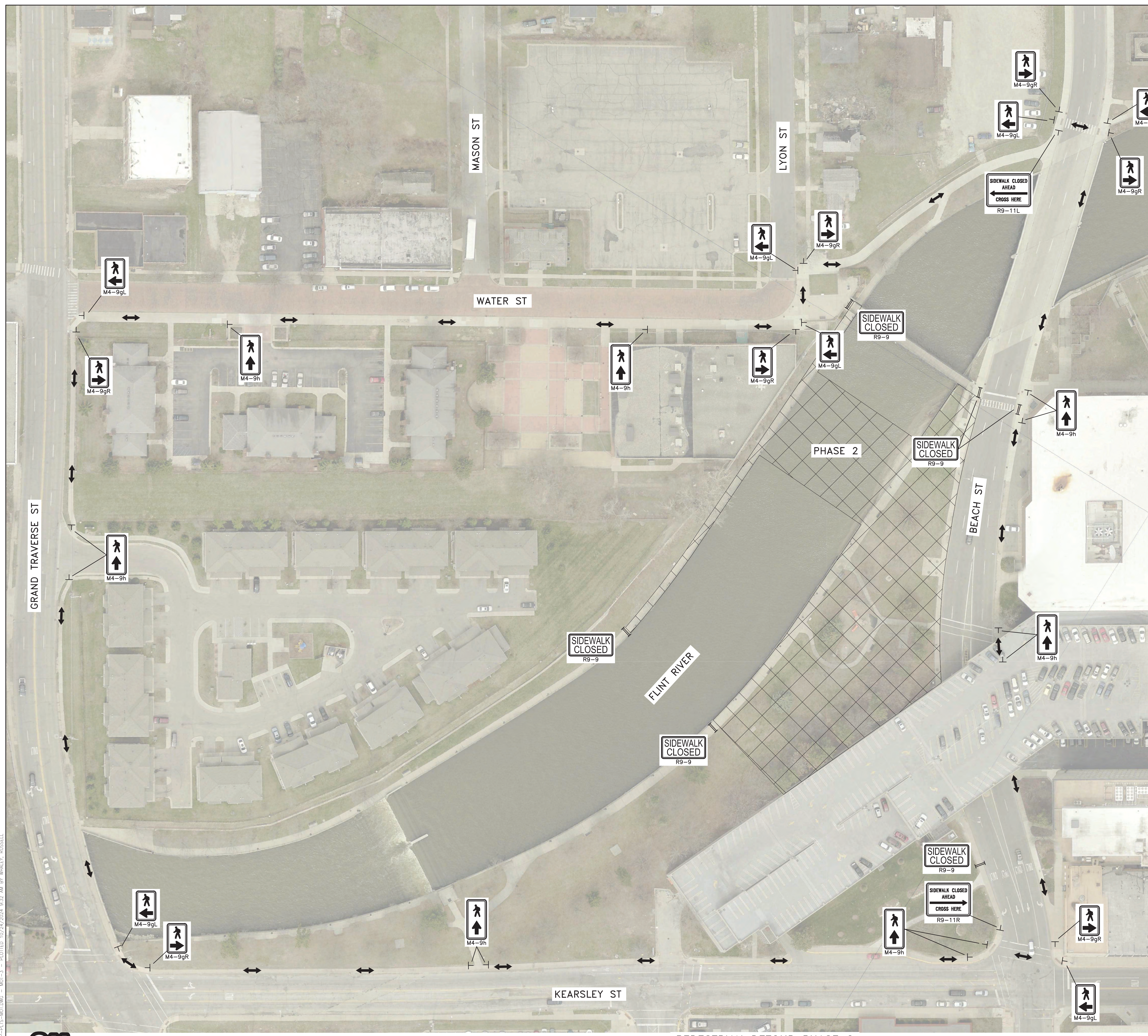
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
MAINTENANCE OF TRAFFIC

ISSUED FOR: (FB)	DATE: 10/23/24	BY: SAL	JOB NO: GPA200301F
SHEET			MOT-2

PROJECT MANAGER: MICHAEL WATSON; DESIGNER: JEFFREY WATSON; PLOTTED: 10/24/2024 9:31 AM BY: WATSON, RUSSELL

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LEGEND

- T TEMPORARY TRAFFIC SIGN
- PEDESTRIAN TYPE II BARRICADE, TEMP
- WORK ZONE
- TRAFFIC FLOW

PEDESTRIAN DETOUR PHASE 2



REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
 5045 E. STANLEY ROAD
 FLINT, MI 48506

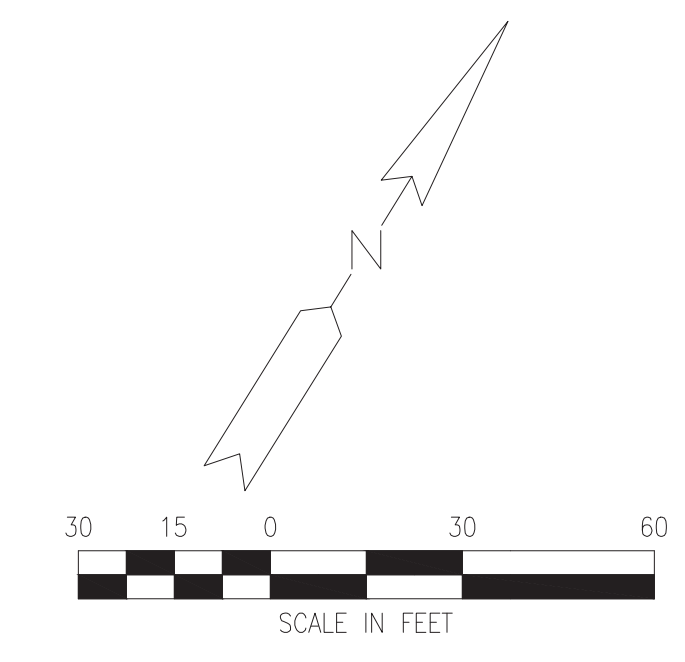
FLINT RIVERFRONT RESTORATION – PHASE 2
 MAINTENANCE OF TRAFFIC

ISSUED FOR: DATE: BY:
 (FB) 10/23/24 SAL

JOB NO. GPA200301F
 SHEET MOT-3

PROJECT MANAGER: [Name], 811, 10/24/2024, 9:32 AM, BY: WHALEY, RUSSELL

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LEGEND

- T TEMPORARY TRAFFIC SIGN
- PEDESTRIAN TYPE II BARRICADE, TEMP
- WORK ZONE
- TRAFFIC FLOW

PROJECT MANAGER: JAMES WATSON, CIVIL ENGINEER, GCP+PLUS-MOT-DWG - MOT-4 - PLOTTED 10/24/2024 9:32 AM BY WHALEY, RUSSELL



REV#	DATE	DESCRIPTION	BY

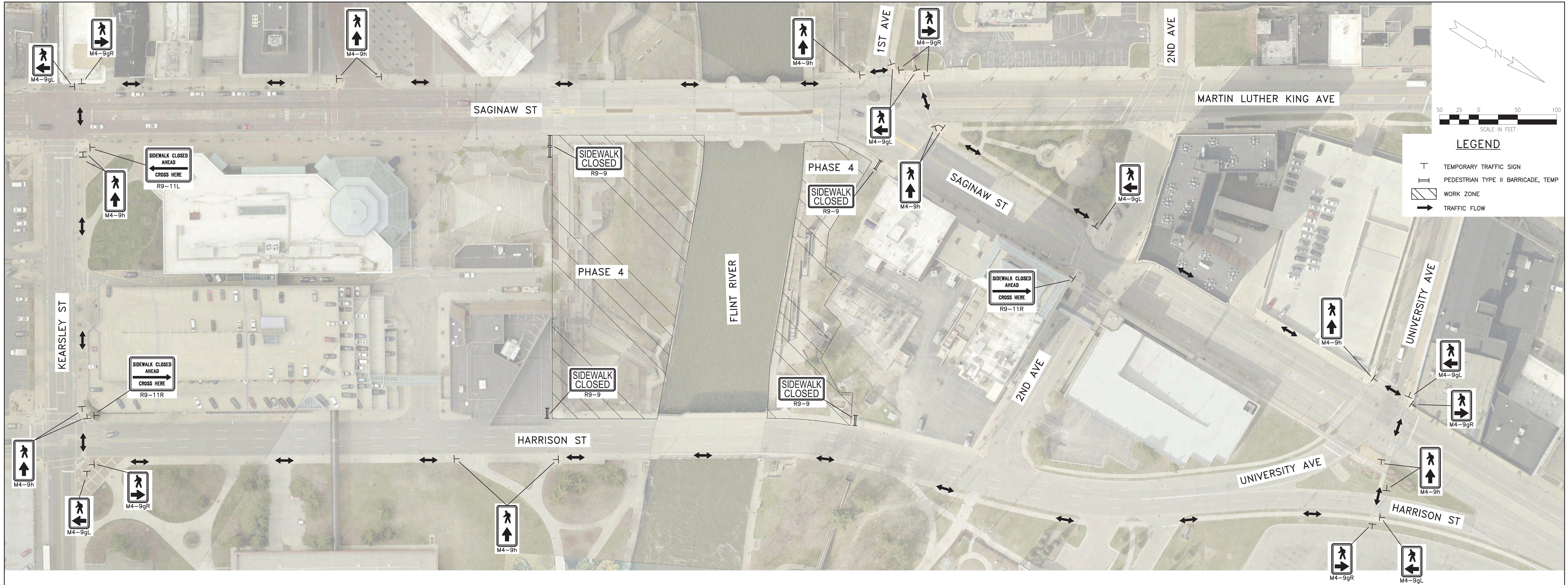


GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
MAINTENANCE OF TRAFFIC

ISSUED FOR: IFB	DATE: 10/23/24	BY: SAL	JOB NO.: GPA200301F
SHEET			MOT-4

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PEDESTRIAN DETOUR PHASE 4

PROJECT MANAGER: CHRIS WEAVER; DESIGNER: JEFFREY WILSON; CHECKER: JEFFREY WILSON; PLOTTED: 10/24/2024 9:32 AM BY: WILSON, RUSSELL



REV#	DATE	DESCRIPTION	BY



GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

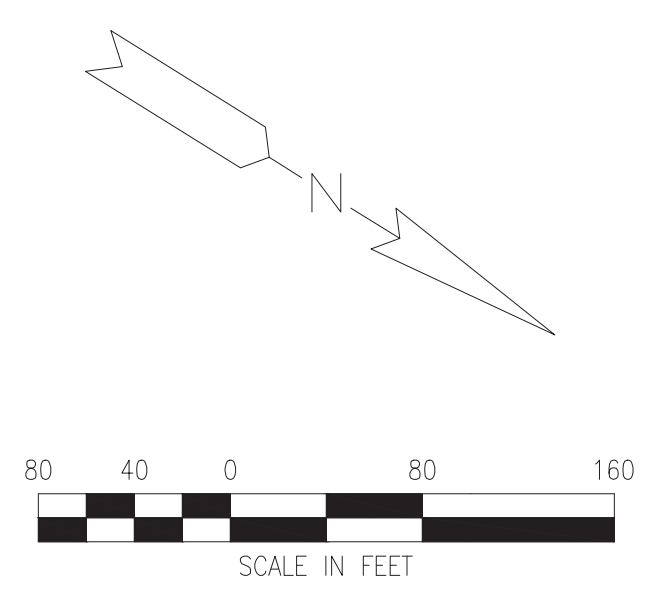
FLINT RIVERFRONT RESTORATION – PHASE 2
MAINTENANCE OF TRAFFIC

ISSUED FOR: (FB)	DATE: 10/23/24	BY: SAL	JOB NO.: GPA200301F
SHEET			MOT-5

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PEDESTRIAN DETOUR PHASE 5



LEGEND

- TEMPORARY TRAFFIC SIGN
- PEDESTRIAN TYPE II BARRICADE, TEMP
- WORK ZONE
- TRAFFIC FLOW

PROJECT MANAGER: GARY WATSON; DESIGNER: JEFFREY WATSON; PLOTTED: 10/24/2024 9:32 AM BY: WHALEY, RUSSELL



REV#	DATE	DESCRIPTION	BY

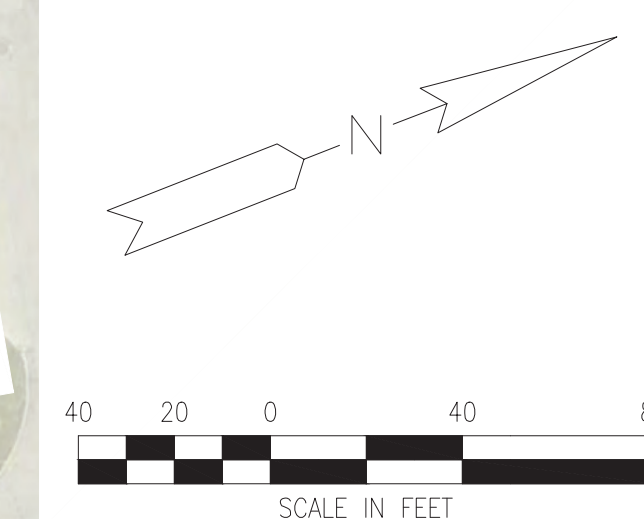
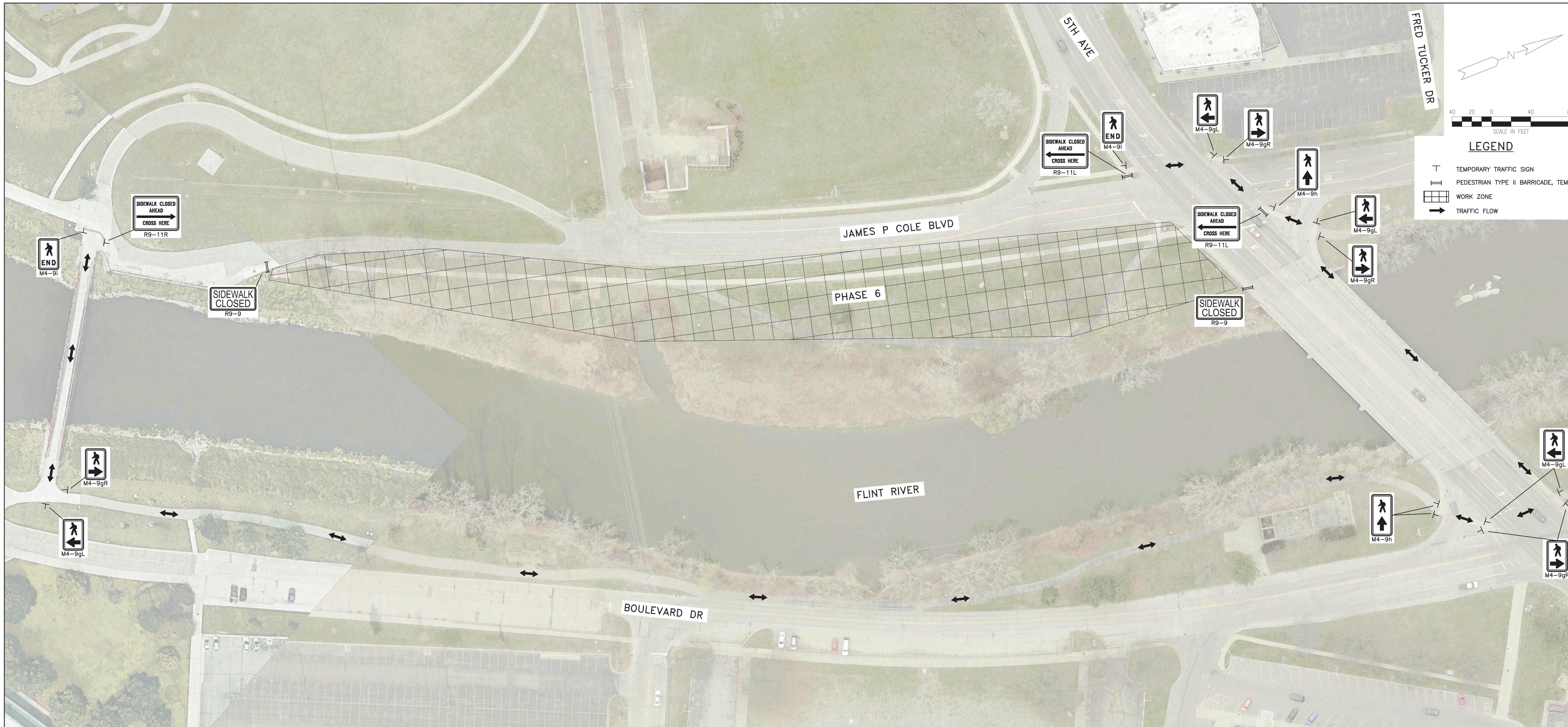


GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION – PHASE 2
MAINTENANCE OF TRAFFIC

ISSUED FOR: (FB)	DATE: 10/23/24	BY: SAL	JOB NO: GPA200301F
SHEET			MOT-6

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LEGEND

- T TEMPORARY TRAFFIC SIGN
- PEDESTRIAN TYPE II BARRICADE, TEMP
- WORK ZONE
- TRAFFIC FLOW

PROJECT MANAGER: Kevin Whaley, 10/24/2024, 9:32 AM BY: WHALEY, RUSSELL



REV#	DATE	DESCRIPTION	BY



PEDESTRIAN DETOUR PHASE 6

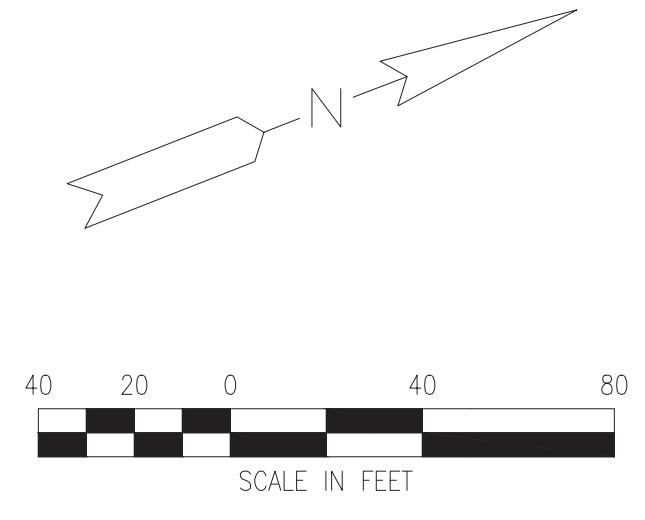
GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION – PHASE 2
MAINTENANCE OF TRAFFIC

ISSUED FOR: (FB)	DATE: 10/23/24	BY: SAL
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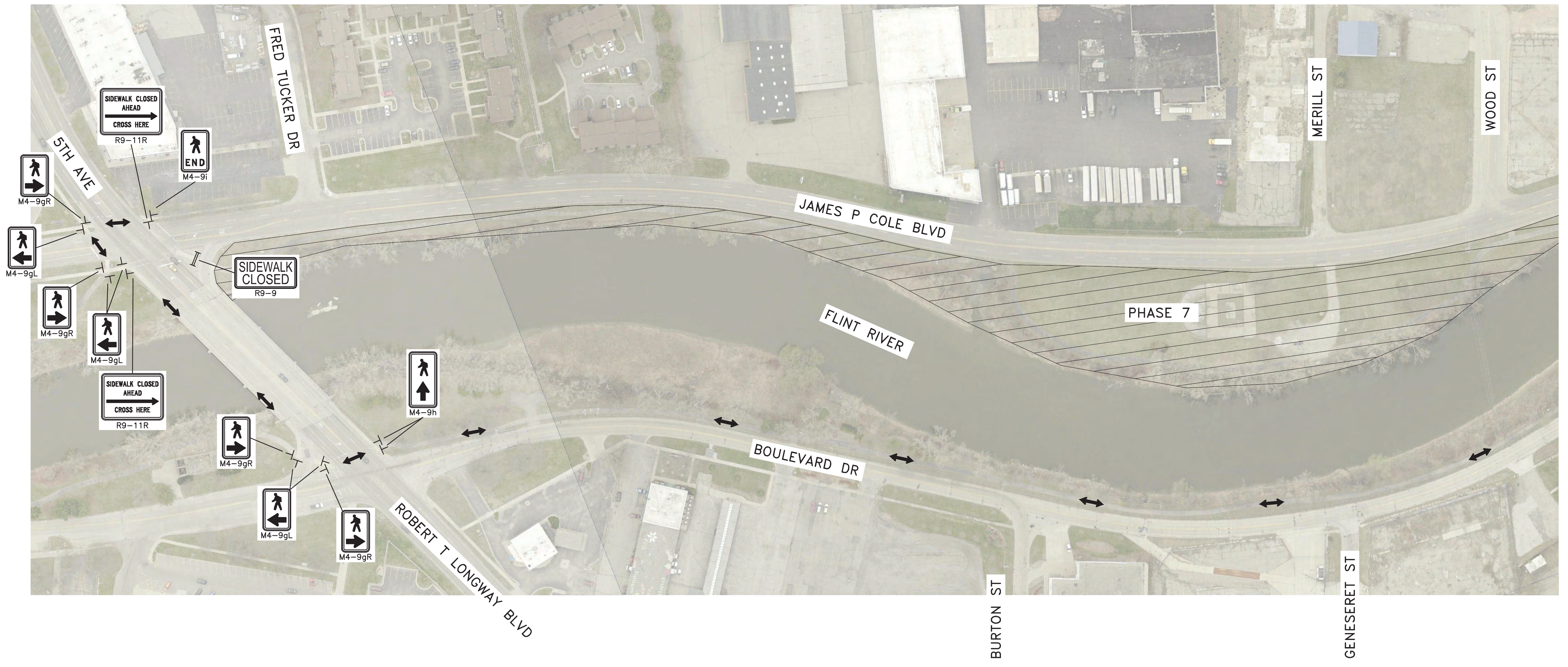
JOB NO. GPA200301F
SHEET MOT-7

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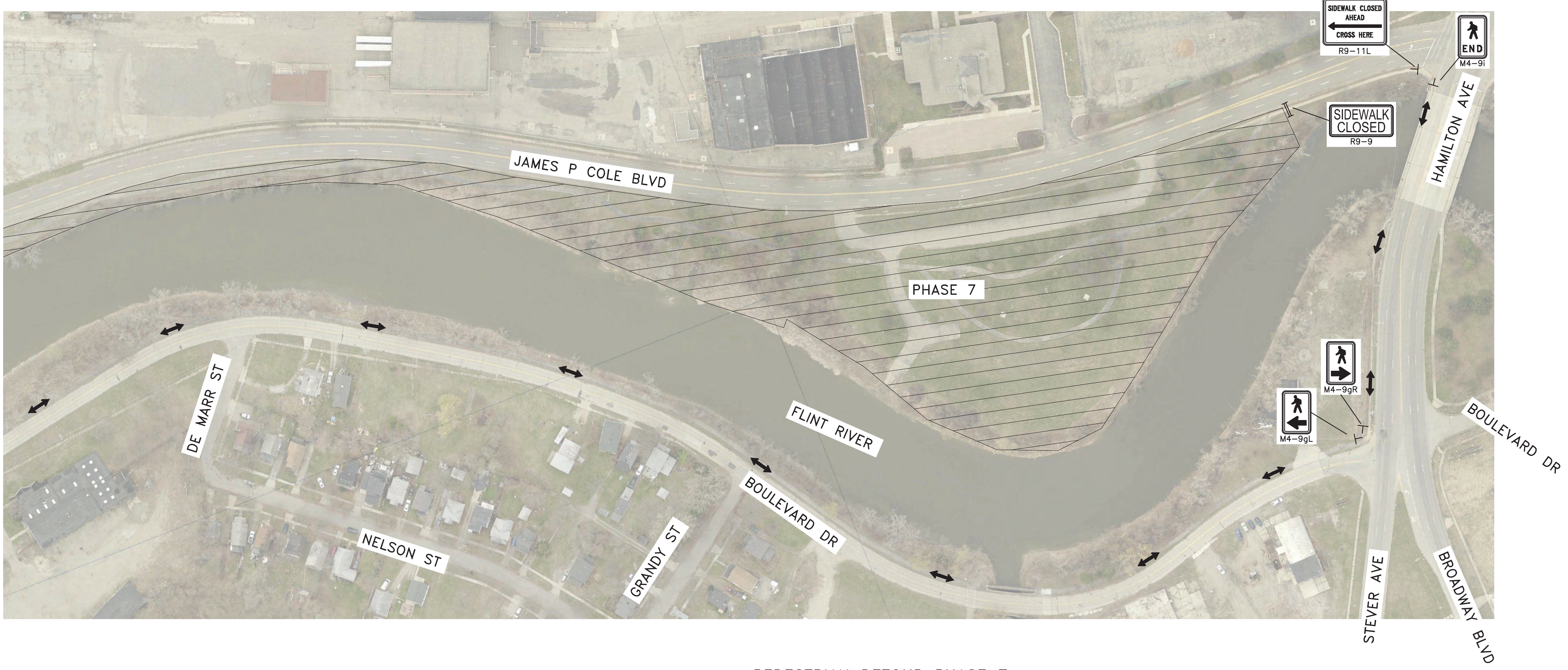


LEGEND

- T TEMPORARY TRAFFIC SIGN
- PEDESTRIAN TYPE II BARRICADE, TEMP
- WORK ZONE
- TRAFFIC FLOW



MATCH LINE SEE BELOW LEFT



MATCH LINE SEE ABOVE RIGHT

PEDESTRIAN DETOUR PHASE 7

GENESEE COUNTY PARKS & REC
5045 E. STANLEY ROAD
FLINT, MI 48506

FLINT RIVERFRONT RESTORATION - PHASE 2
MAINTENANCE OF TRAFFIC

ISSUED FOR: (FB)	DATE: 10/23/24	BY: SAL	JOB NO. GPA200301F
SHEET			MOT-8

PROJECT MANAGER: [Name], FIELD SUPERVISOR: [Name], PLOTTED: 10/24/2024 9:33 AM BY: WHALEY, RUSSELL



REV#	DATE	DESCRIPTION	BY



FLINT RIVER RESTORATION