



CITY OF ANN ARBOR COMMUNITY SERVICES PARKS AND RECREATION

GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE ITB #4736

NOTES:

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.



REV.	ISSUED FOR BID	DESCRIPTION	DATE	AS DRAWN	RRB CHECKED
	06-28-23				

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48104-2647
ANN ARBOR 734.794.6410
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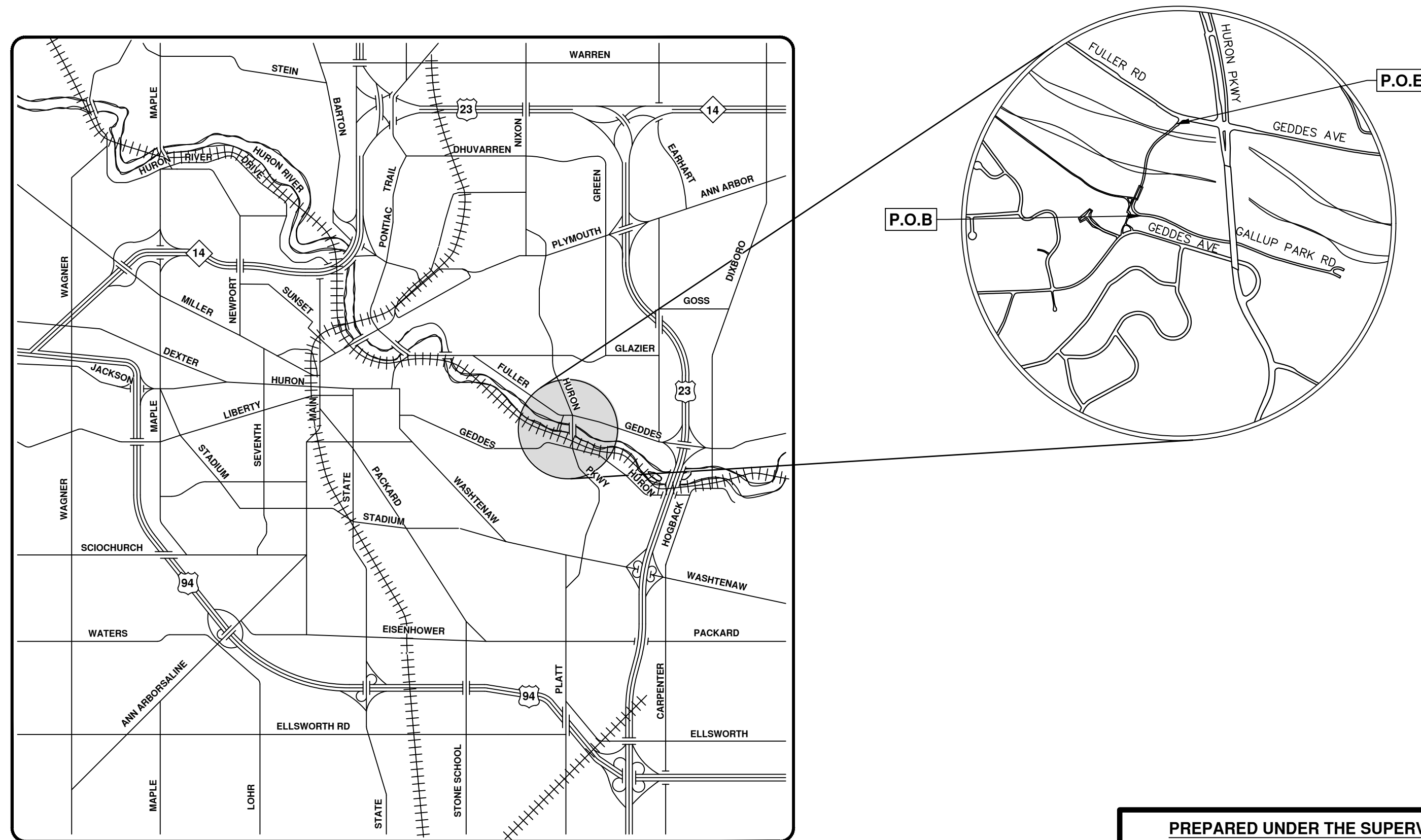
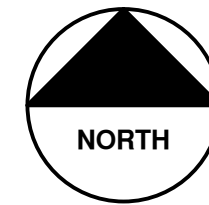


CITY OF ANN ARBOR - COMMUNITY SERVICES - PARKS AND RECREATION
COVER SHEET
SCALE
DRAWING No.

SHEET No.
1 OF 55

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VICINITY MAP

<p>PREPARED UNDER THE SUPERVISION OF</p> <p>ROBERT BREEN, P.E. PROJECT MANAGER</p> <p>06/29/2023 DATE</p>	<p>COMMUNITY SERVICES - PARKS AND RECREATION CONTACT</p> <p>HILLARY HANZEL, PROJECT MANAGER, PARK PLANNER & LANDSCAPE ARCHITECT</p> <p>CITY OF ANN ARBOR GUY C. LARCOM CITY HALL 301 E. HURON ANN ARBOR, MI 48104 734.794.6230 EXT. 42548 hhanzel@a2gov.org</p>
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EXISTING LEGEND

EX = EXISTING

	FIRE HYDRANT		WATER MAIN
	GATE VALVE IN BOX		WATER MAIN ABANDONED
	GATE VALVE IN WELL		STORM SEWER
	STOP BOX		STORM SEWER ABANDONED
	WATER VAULT		SANITARY SEWER
	WELL		SANITARY SEWER ABANDONED
	CATCH BASIN (SQ)		GAS MAIN
	CATCH BASIN (RD)		GAS MAIN (DEAD)
	STORM MANHOLE		ELECTRICAL OVER HEAD
	NON-CURB CATCH BASIN (SQ)		ELECTRICAL UNDER GROUND
	END SECTION		ELECTRICAL DUCT BANK
	SANITARY MANHOLE		TELEPHONE OVER HEAD
	CLEAN-OUT		TELEPHONE UNDER GROUND
	POST		TELEPHONE DUCT BANK
	PEDESTRIAN SIGNAL		CABLE TV OVER HEAD
	SIGN		CABLE TV UNDER GROUND
	HAND HOLE		FIBER OPTIC
	ORNAMENTAL LIGHT		FIBER OPTIC DUCT BANK
	FLOOD LIGHT		BOUNDARY
	UNKNOWN MANHOLE		BUILDING
	TELEPHONE MANHOLE		CENTERLINE OF DITCH
	TELEPHONE RISER		CENTERLINE/CROWN OF ROAD
	GAS VALVE		CONTOUR MAJOR
	GAS VENT		CONTOUR MINOR
	GAS BOX		EDGE OF WATER
	ELECTRICAL RISER		FLOODPLAIN
	TRANSFORMER		FENCE
	UTILITY POLE		GRAVEL
	LAMP POLE		GUARDRAIL
	GUY ANCHOR		STONE WALL
	GUY POLE		R.O.W.
	MONITORING WELL		TREELINE
	MAILBOX		WETLAND
	SOIL BORING		EDGE OF BRUSH
	TRAVERSE POINT		HEDGE
	BENCH MARK		TREE (DECIDUOUS)
	IRON PIPE		TREE (CONIFEROUS)
	MON BOX		SHRUB (DECIDUOUS)
			STUMP
			TREE TO REMAIN & PROTECT (DECIDUOUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREAST HEIGHT (INCHES) X 10
			TREE TO REMAIN & PROTECT (CONIFEROUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREAST HEIGHT (INCHES) X 10

PROPOSED LEGEND

PROP = PROPOSED

	HYDRANT (PLAN)		WATER MAIN
	WATER GATE WELL		STORM SEWER
	REDUCER		SANITARY SEWER
	WATER GATE VALVE		FIBER OPTIC
	WATER STOP BOX		ELECTRICAL
	WATER VAULT		CENTERLINE OF DITCH
	INLET		CENTERLINE OF ROAD
	DOUBLE INLET		FENCE
	INLET JUNCTION CHAMBER		GRAVEL
	ROUND CATCH BASIN		SILT FENCE
	STORM MANHOLE		PROTECTIVE FENCE
	DRAIN ARROW		GUARDRAIL
	FLARED END SECTION		LOT/UNIT
	SANITARY MANHOLE		CURB
	CLEAN-OUT		TEMPORARY GRADING PERMIT
	BARREL		CONTOUR MAJOR
	SIGN		CONTOUR MINOR
	PUSH BUTTON		WATER EASEMENT
	HAND HOLE		STORM EASEMENT
			SANITARY EASEMENT
			R.O.W.
			LIMITS OF CONSTRUCTION
			LIMIT OF GRADING
			STONE WALL
			DETECTABLE WARNING
			ASPHALT
			CONCRETE
			SIDEWALK
			TREE (DECIDUOUS)
			TREE (CONIFEROUS)
			TREE TO BE REMOVED (DECIDUOUS)
			TREE TO BE REMOVED (CONIFEROUS)
			STUMP TO BE REMOVED



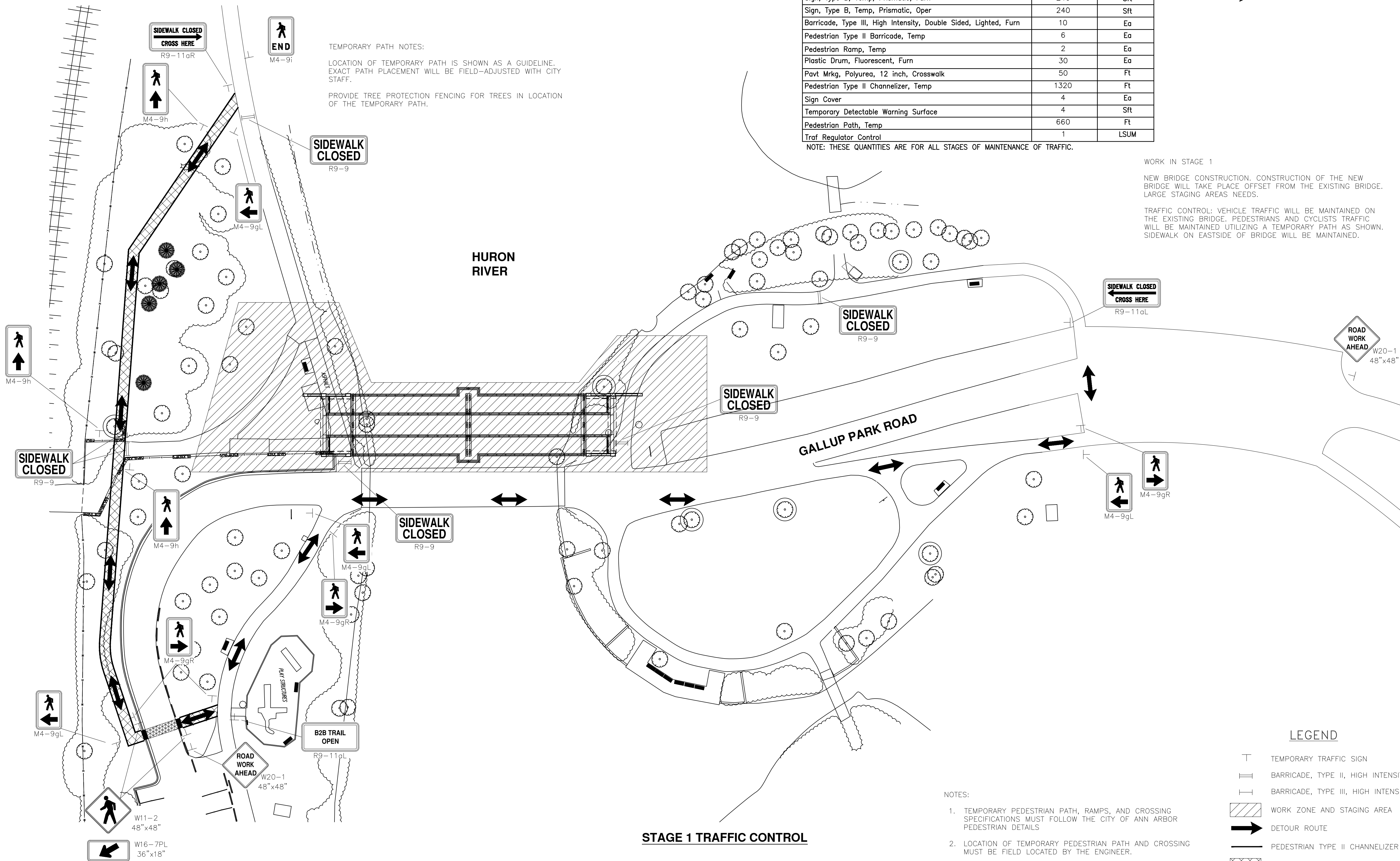
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CITY OF ANN ARBOR - COMMUNITY SERVICES - PARKS AND RECREATION
GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
 LEGEND

SCALE: NTS
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TEMPORARY PATH NOTES:
 LOCATION OF TEMPORARY PATH IS SHOWN AS A GUIDELINE.
 EXACT PATH PLACEMENT WILL BE FIELD-ADJUSTED WITH CITY STAFF.
 PROVIDE TREE PROTECTION FENCING FOR TREES IN LOCATION OF THE TEMPORARY PATH.

MAINTENANCE OF TRAFFIC QUANTITIES		
ITEM	QUANTITY	UNIT
Minor Traf Devices	1	LSUM
Sign, Type B, Temp, Prismatic, Furn	240	Sft
Sign, Type B, Temp, Prismatic, Oper	240	Sft
Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	10	Ea
Pedestrian Type II Barricade, Temp	6	Ea
Pedestrian Ramp, Temp	2	Ea
Plastic Drum, Fluorescent, Furn	30	Ea
Pavt Mrkg, Polyurea, 12 inch, Crosswalk	50	Ft
Pedestrian Type II Channelizer, Temp	1320	Ft
Sign Cover	4	Ea
Temporary Detectable Warning Surface	4	Sft
Pedestrian Path, Temp	660	Ft
Traf Regulator Control	1	LSUM

NOTE: THESE QUANTITIES ARE FOR ALL STAGES OF MAINTENANCE OF TRAFFIC.

WORK IN STAGE 1
 NEW BRIDGE CONSTRUCTION. CONSTRUCTION OF THE NEW BRIDGE WILL TAKE PLACE OFFSET FROM THE EXISTING BRIDGE. LARGE STAGING AREAS NEEDS.
 TRAFFIC CONTROL: VEHICLE TRAFFIC WILL BE MAINTAINED ON THE EXISTING BRIDGE. PEDESTRIANS AND CYCLISTS TRAFFIC WILL BE MAINTAINED UTILIZING A TEMPORARY PATH AS SHOWN. SIDEWALK ON EASTSIDE OF BRIDGE WILL BE MAINTAINED.

STAGE 1 TRAFFIC CONTROL

- NOTES:
- TEMPORARY PEDESTRIAN PATH, RAMPS, AND CROSSING SPECIFICATIONS MUST FOLLOW THE CITY OF ANN ARBOR PEDESTRIAN DETAILS
 - LOCATION OF TEMPORARY PEDESTRIAN PATH AND CROSSING MUST BE FIELD LOCATED BY THE ENGINEER.
 - SEE THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR STAGING DETAILS.

LEGEND

	TEMPORARY TRAFFIC SIGN
	BARRICADE, TYPE II, HIGH INTENSITY
	BARRICADE, TYPE III, HIGH INTENSITY
	WORK ZONE AND STAGING AREA
	DETOUR ROUTE
	PEDESTRIAN TYPE II CHANNELIZER
	TEMPORARY PATH
	TEMPORARY PEDESTRIAN RAMP WITH DETECTABLE WARNING SURFACE
	TEMPORARY CROSSWALK

811
Know what's below. Call before you dig.

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 GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
 DESIGN - BRIDGE REPLACEMENT PLANS
 MAINTENANCE OF TRAFFIC PLAN

REV. 1
 DESCRIPTION: MAINTENANCE OF TRAFFIC PLAN
 DATE: 06-28-23
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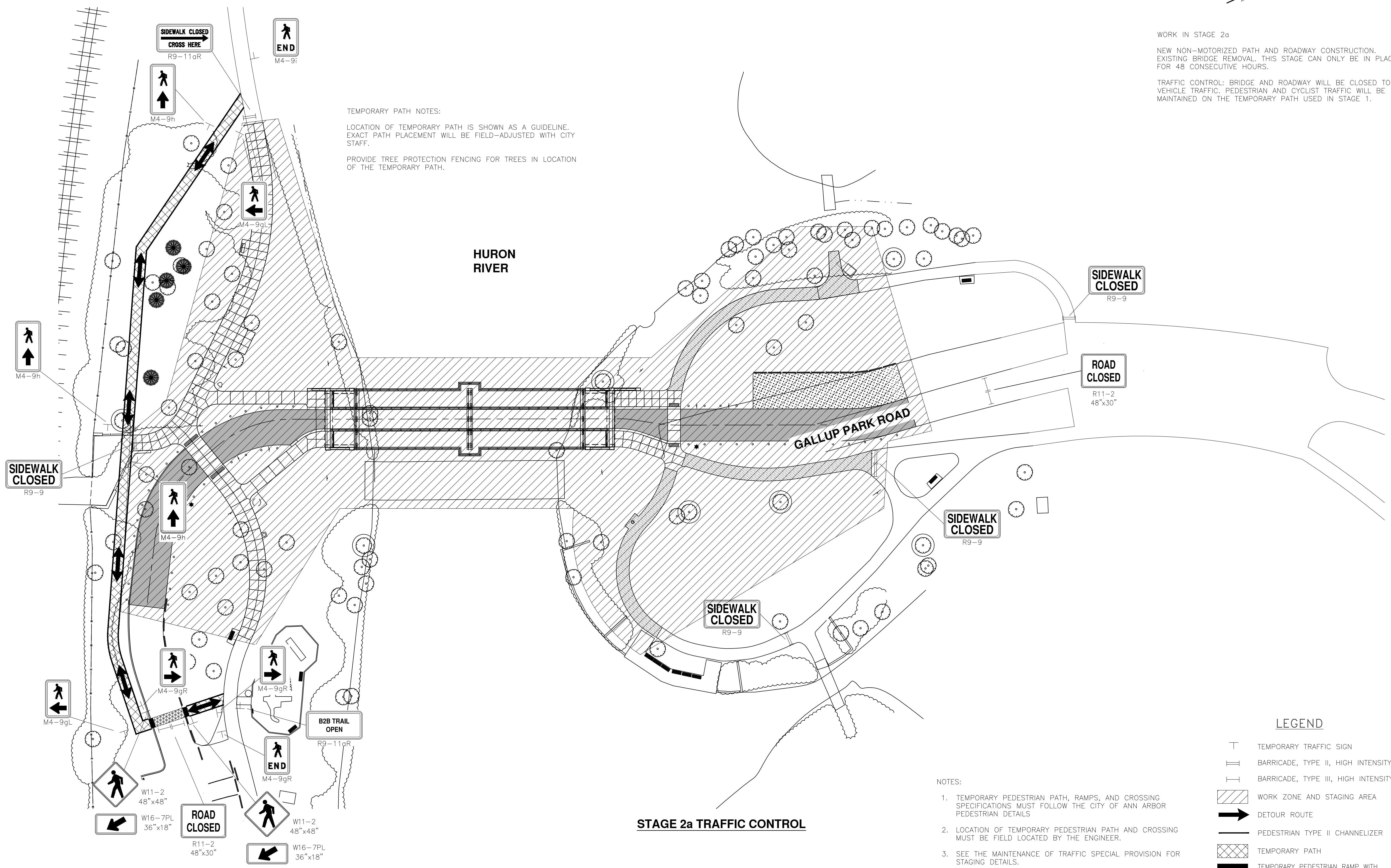
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CITY OF ANN ARBOR
 MICHIGAN

SCALE:

DRAWING No. **4 OF 55**

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TEMPORARY PATH NOTES:
 LOCATION OF TEMPORARY PATH IS SHOWN AS A GUIDELINE. EXACT PATH PLACEMENT WILL BE FIELD-ADJUSTED WITH CITY STAFF.
 PROVIDE TREE PROTECTION FENCING FOR TREES IN LOCATION OF THE TEMPORARY PATH.

WORK IN STAGE 2a
 NEW NON-MOTORIZED PATH AND ROADWAY CONSTRUCTION. EXISTING BRIDGE REMOVAL. THIS STAGE CAN ONLY BE IN PLACE FOR 48 CONSECUTIVE HOURS.
 TRAFFIC CONTROL: BRIDGE AND ROADWAY WILL BE CLOSED TO VEHICLE TRAFFIC. PEDESTRIAN AND CYCLIST TRAFFIC WILL BE MAINTAINED ON THE TEMPORARY PATH USED IN STAGE 1.

STAGE 2a TRAFFIC CONTROL

- NOTES:
1. TEMPORARY PEDESTRIAN PATH, RAMPS, AND CROSSING SPECIFICATIONS MUST FOLLOW THE CITY OF ANN ARBOR PEDESTRIAN DETAILS
 2. LOCATION OF TEMPORARY PEDESTRIAN PATH AND CROSSING MUST BE FIELD LOCATED BY THE ENGINEER.
 3. SEE THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR STAGING DETAILS.

LEGEND

	TEMPORARY TRAFFIC SIGN
	BARRICADE, TYPE II, HIGH INTENSITY
	BARRICADE, TYPE III, HIGH INTENSITY
	WORK ZONE AND STAGING AREA
	DETOUR ROUTE
	PEDESTRIAN TYPE II CHANNELIZER
	TEMPORARY PATH
	TEMPORARY PEDESTRIAN RAMP WITH DETECTABLE WARNING SURFACE
	TEMPORARY CROSSWALK

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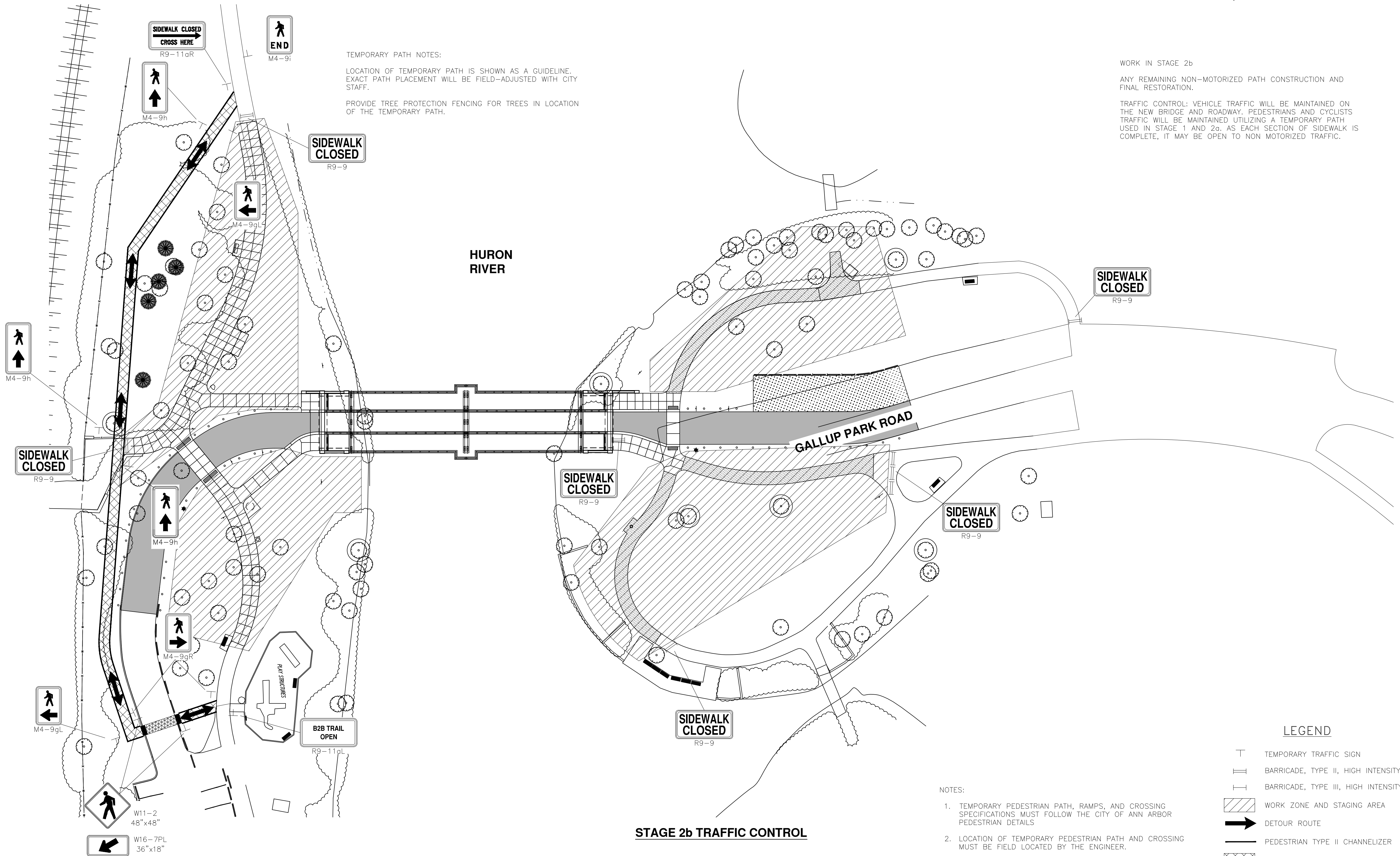
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TEMPORARY PATH NOTES:
 LOCATION OF TEMPORARY PATH IS SHOWN AS A GUIDELINE.
 EXACT PATH PLACEMENT WILL BE FIELD-ADJUSTED WITH CITY STAFF.
 PROVIDE TREE PROTECTION FENCING FOR TREES IN LOCATION OF THE TEMPORARY PATH.

WORK IN STAGE 2b
 ANY REMAINING NON-MOTORIZED PATH CONSTRUCTION AND FINAL RESTORATION.
 TRAFFIC CONTROL: VEHICLE TRAFFIC WILL BE MAINTAINED ON THE NEW BRIDGE AND ROADWAY. PEDESTRIANS AND CYCLISTS TRAFFIC WILL BE MAINTAINED UTILIZING A TEMPORARY PATH USED IN STAGE 1 AND 2a. AS EACH SECTION OF SIDEWALK IS COMPLETE, IT MAY BE OPEN TO NON MOTORIZED TRAFFIC.

STAGE 2b TRAFFIC CONTROL

- NOTES:
1. TEMPORARY PEDESTRIAN PATH, RAMPS, AND CROSSING SPECIFICATIONS MUST FOLLOW THE CITY OF ANN ARBOR PEDESTRIAN DETAILS
 2. LOCATION OF TEMPORARY PEDESTRIAN PATH AND CROSSING MUST BE FIELD LOCATED BY THE ENGINEER.
 3. SEE THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR STAGING DETAILS.

LEGEND

	TEMPORARY TRAFFIC SIGN
	BARRICADE, TYPE II, HIGH INTENSITY
	BARRICADE, TYPE III, HIGH INTENSITY
	WORK ZONE AND STAGING AREA
	DETOUR ROUTE
	PEDESTRIAN TYPE II CHANNELIZER
	TEMPORARY PATH
	TEMPORARY PEDESTRIAN RAMP WITH DETECTABLE WARNING SURFACE
	TEMPORARY CROSSWALK

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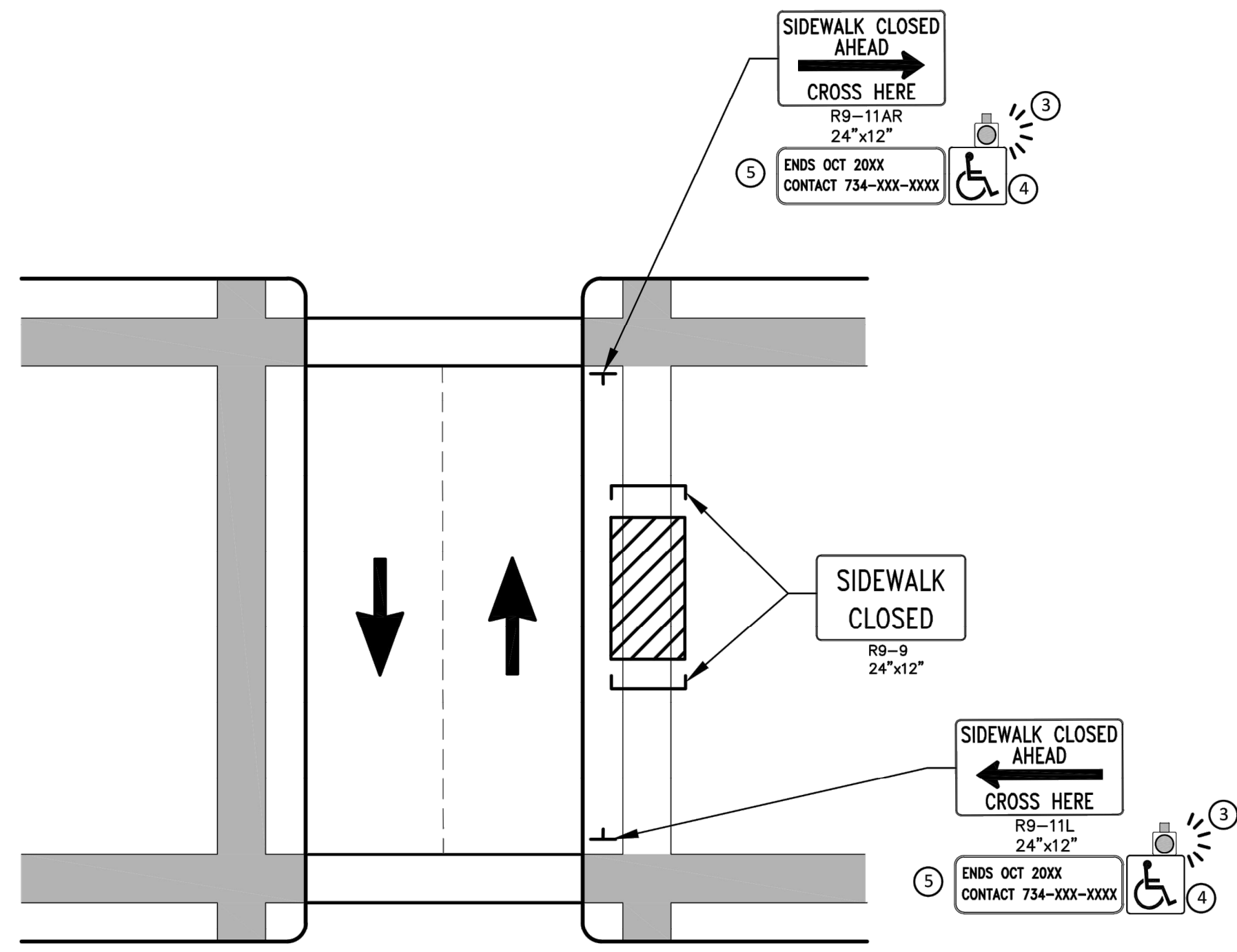
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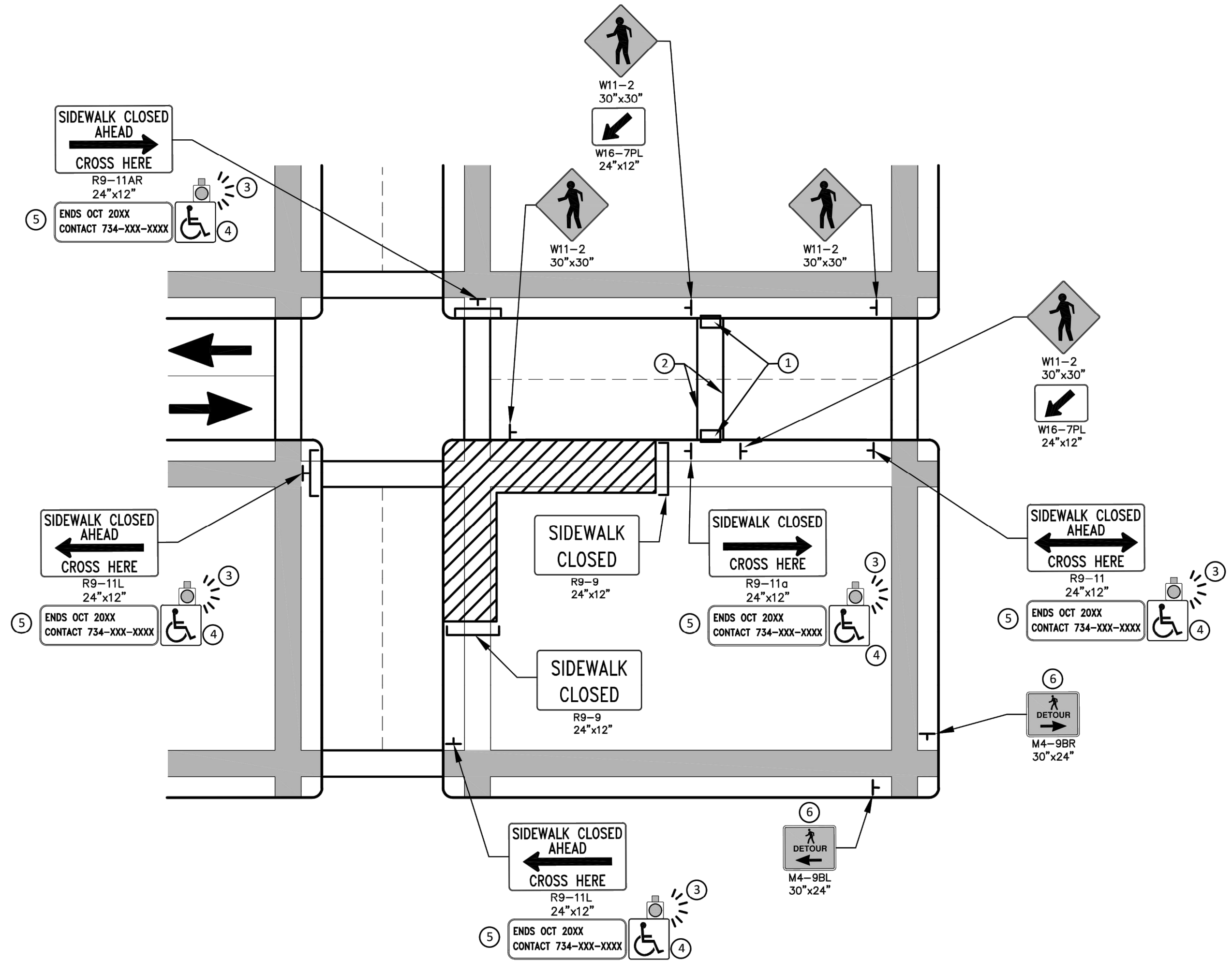
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PEDESTRIAN DETOUR USING OPPOSITE SIDE OF STREET



OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS
(FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, THE CONTRACTOR SHALL PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED OR DEACTIVATED BY THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE THIS WORK WITH THE ENGINEER A MINIMUM OF 72 HOURS (NOT INCLUDING WEEKENDS & HOLIDAYS) PRIOR TO THE BEGINNING OF WORK THAT REQUIRES A SIDEWALK CLOSURE.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT OF TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE PROJECT PLANS.

SPECIFIC NOTES

1. TEMPORARY CURB RAMP WITH DETECTABLE WARNINGS.
2. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
3. AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHALL BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHOULD BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
5. TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
6. PEDESTRIAN DETOUR TRAILBLAZING SIGNS SHALL BE USED IF THE PEDESTRIAN DETOUR IS IN A LOCATION OTHER THAN ACROSS THE STREET FROM THE SIDEWALK CLOSURE.

PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MMUTCD, PART 6.
2. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.
3. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET. IF THE TPAR IS LESS THAN 5 FEET IN WIDTH, A 5 FOOT BY 5 FOOT PASSING SPACE SHALL BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.
4. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF NCHRP 350 AND THE MMUTCD SHALL BE USED.
5. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.
6. THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.
7. WHEN DIRECTED BY THE ENGINEER, OR STATED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL BY THE ENGINEER A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. NO WORK SHALL BE ALLOWED TO BEGIN UNTIL THIS PLAN IS APPROVED BY THE ENGINEER IN WRITING.
8. PROVISION OF THE TPAR AND ALL OF ITS ELEMENTS, INCLUDING BUT NOT LIMITED TO, CREATION OF THE TEMPORARY PEDESTRIAN CONTROL PLAN, SIGNS, CHANNELIZING DEVICES, BARRICADES, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM OF WORK "MINOR TRAF DEVICES."

LEGEND

- SIGN
- EXISTING PEDESTRIAN SURFACE
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- BARRIER
- SIDEWALK BARRICADE
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE

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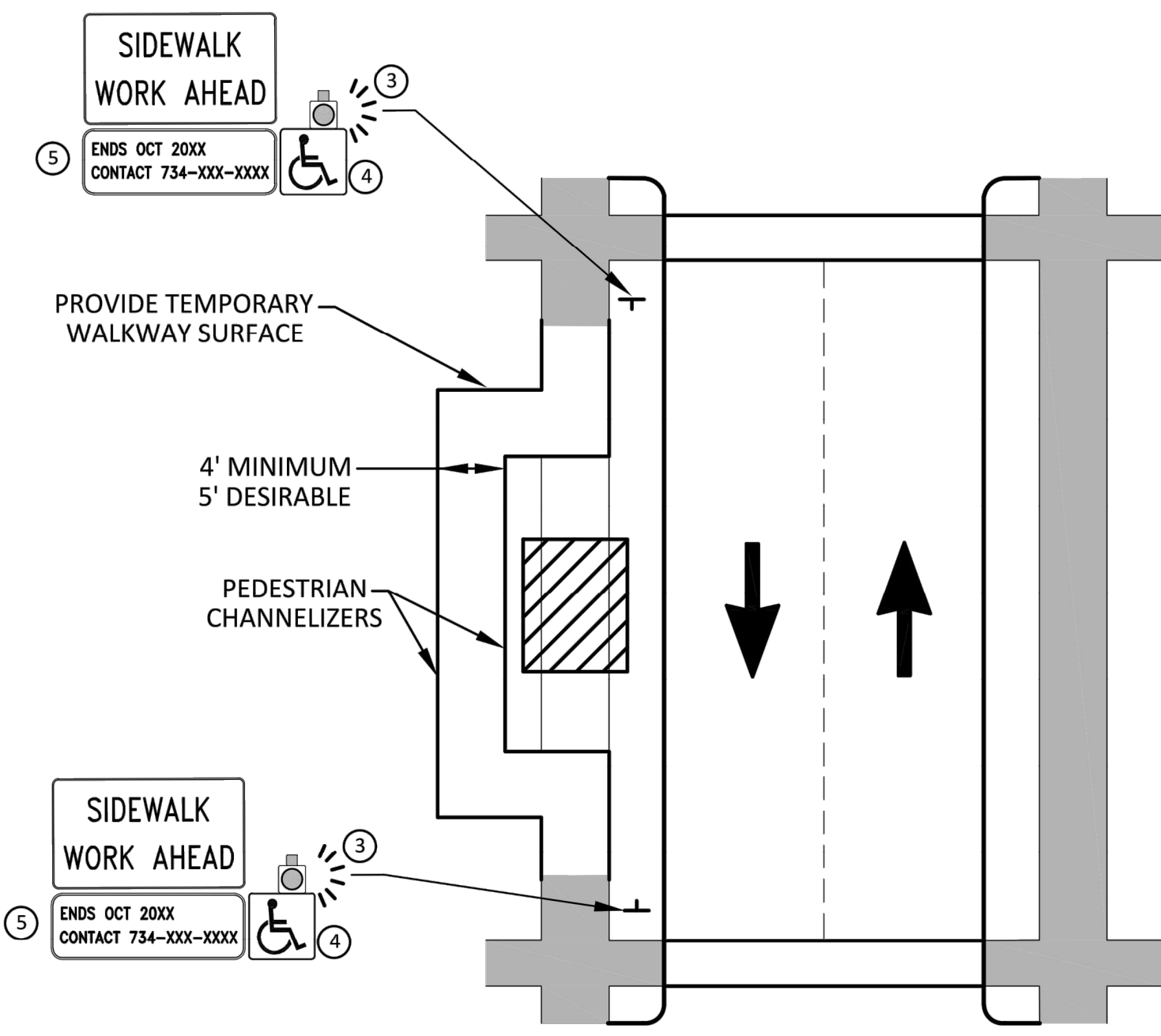
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COMMUNITY SERVICES - PARKS AND RECREATION
GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
MAINTENANCE OF TRAFFIC PLAN

SCALE: [Graphic Scale]

DRAWING No. [Blank]

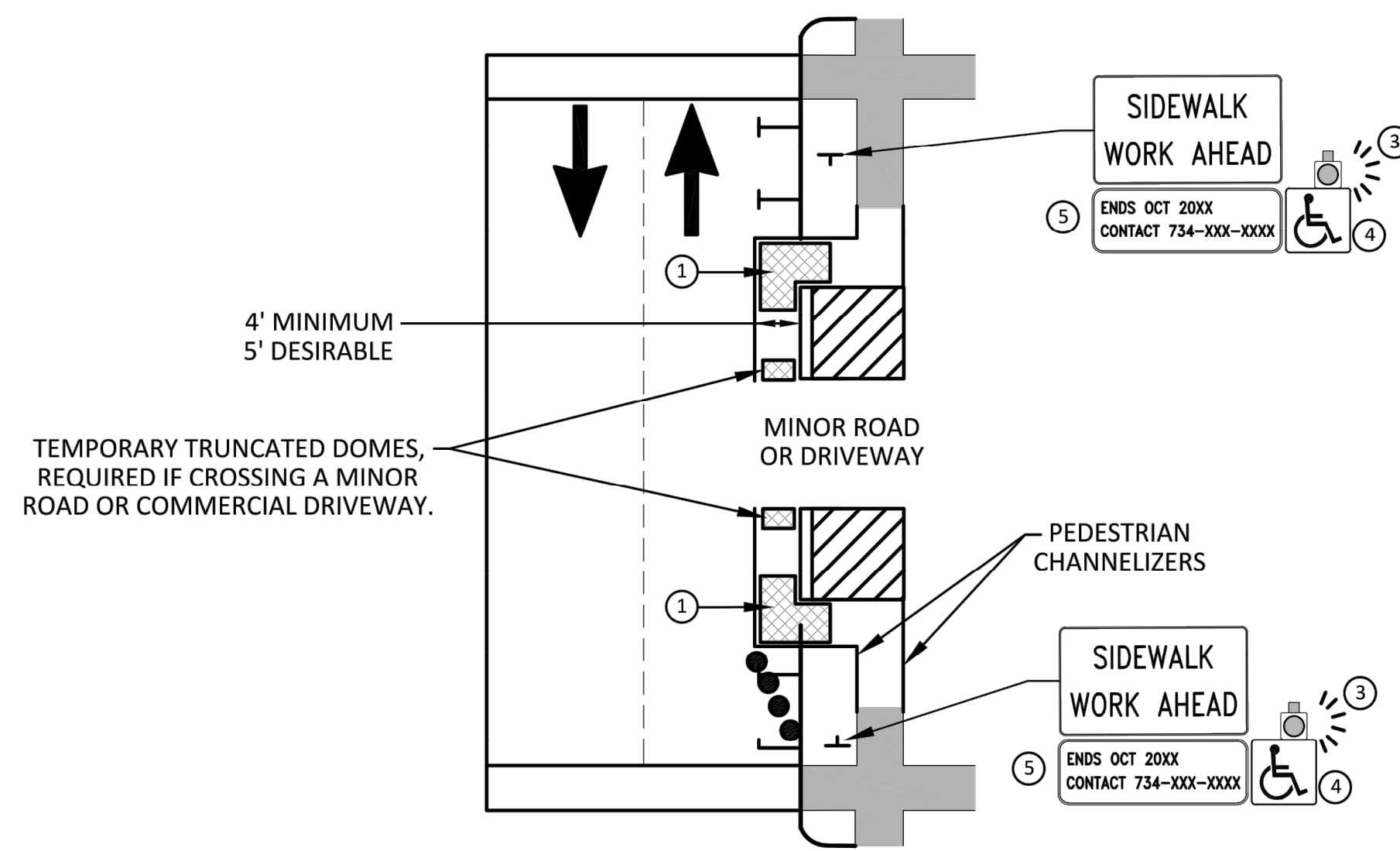
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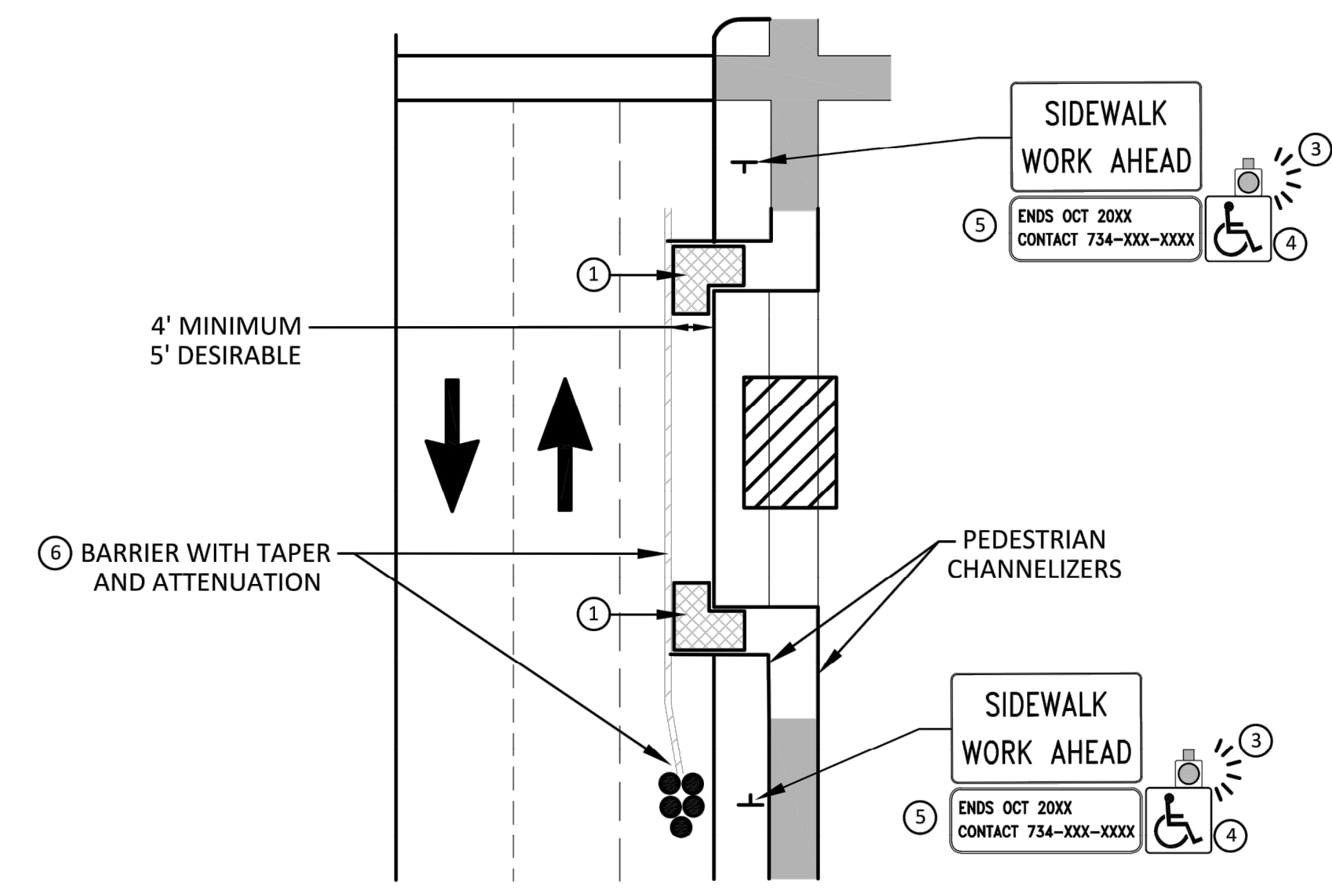


**BYPASS ON ADJACENT AVAILABLE
RIGHT OF WAY**
BYPASS TYPE A

NOTE: MAY ONLY BE USED ON ROADWAY WITH POSTED
SPEED OF 45 MPH OR LESS.



**SIDEWALK BYPASS USING PARKING OR
SHOULDER ON LOW SPEED ROADWAY**
BYPASS TYPE B



**SIDEWALK BYPASS USING
SHOULDER OR PARKING LANE ON
HIGH SPEED ROADWAY**
BYPASS TYPE C

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, THE CONTRACTOR SHALL PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED OR DEACTIVATED BY THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE THIS WORK WITH THE ENGINEER A MINIMUM OF 72 HOURS (NOT INCLUDING WEEKENDS & HOLIDAYS) PRIOR TO THE BEGINNING OF WORK THAT REQUIRES A SIDEWALK CLOSURE.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT OF TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF A TRAFFIC CONTROL DEVICE IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE PROJECT PLANS.

SPECIFIC NOTES

1. TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
2. 5 DEVICE TAPER 25 FEET LONG, RECOMMENDED WHEN THE CLOSED AREA WAS USED AS AN INTERMITTENT TRAFFIC LANE OR BYPASS LANE. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
3. AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHOULD BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
5. TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
6. SEE MMUTCD FOR GUIDANCE ON PLACEMENT AND USAGE OF BARRIER.

LEGEND

- ⊕ SIGN
- ▨ EXISTING PEDESTRIAN SURFACE
- ▩ WORK AREA
- ▬ PEDESTRIAN CHANNELIZATION DEVICE
- ▬ BARRIER
- ⌈ SIDEWALK BARRICADE
- ➔ DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE



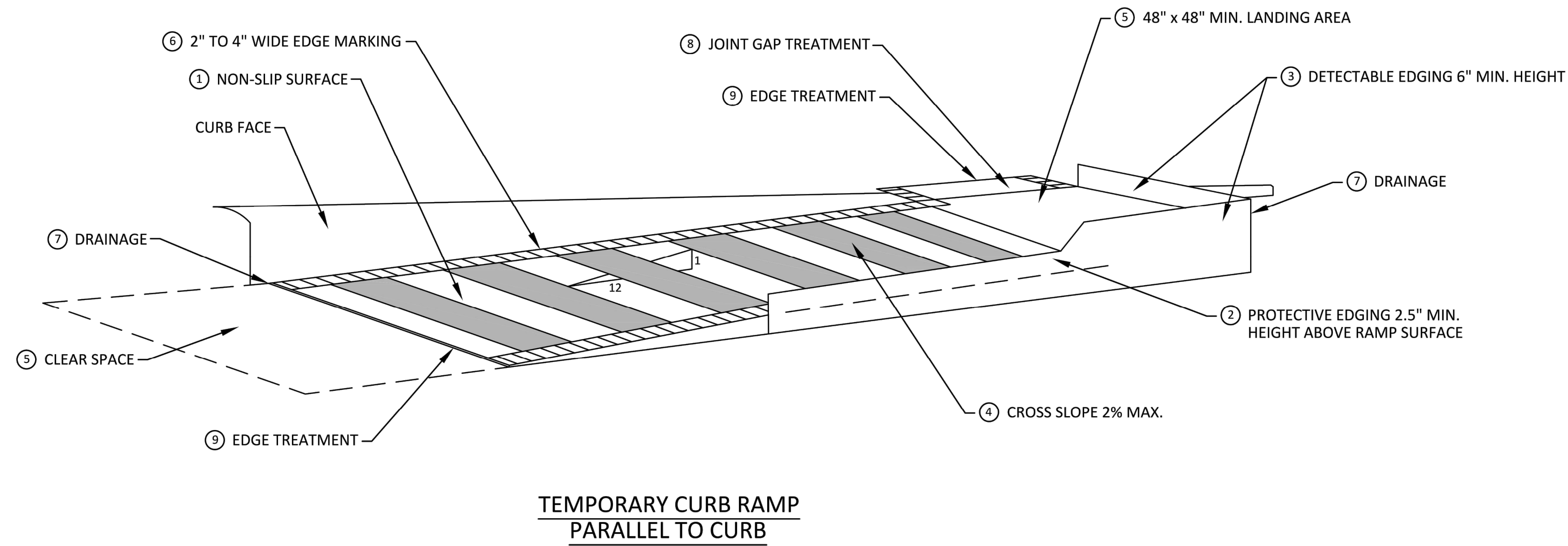
REV.	DESCRIPTION	DATE	AS DRAWN	CHECKED
06-28-23	ISSUED FOR BID	06-28-23	AS	RRB

CITY OF ANN ARBOR
COMMUNITY SERVICES
PARKS AND RECREATION
301 EAST BIRCH STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org/parks



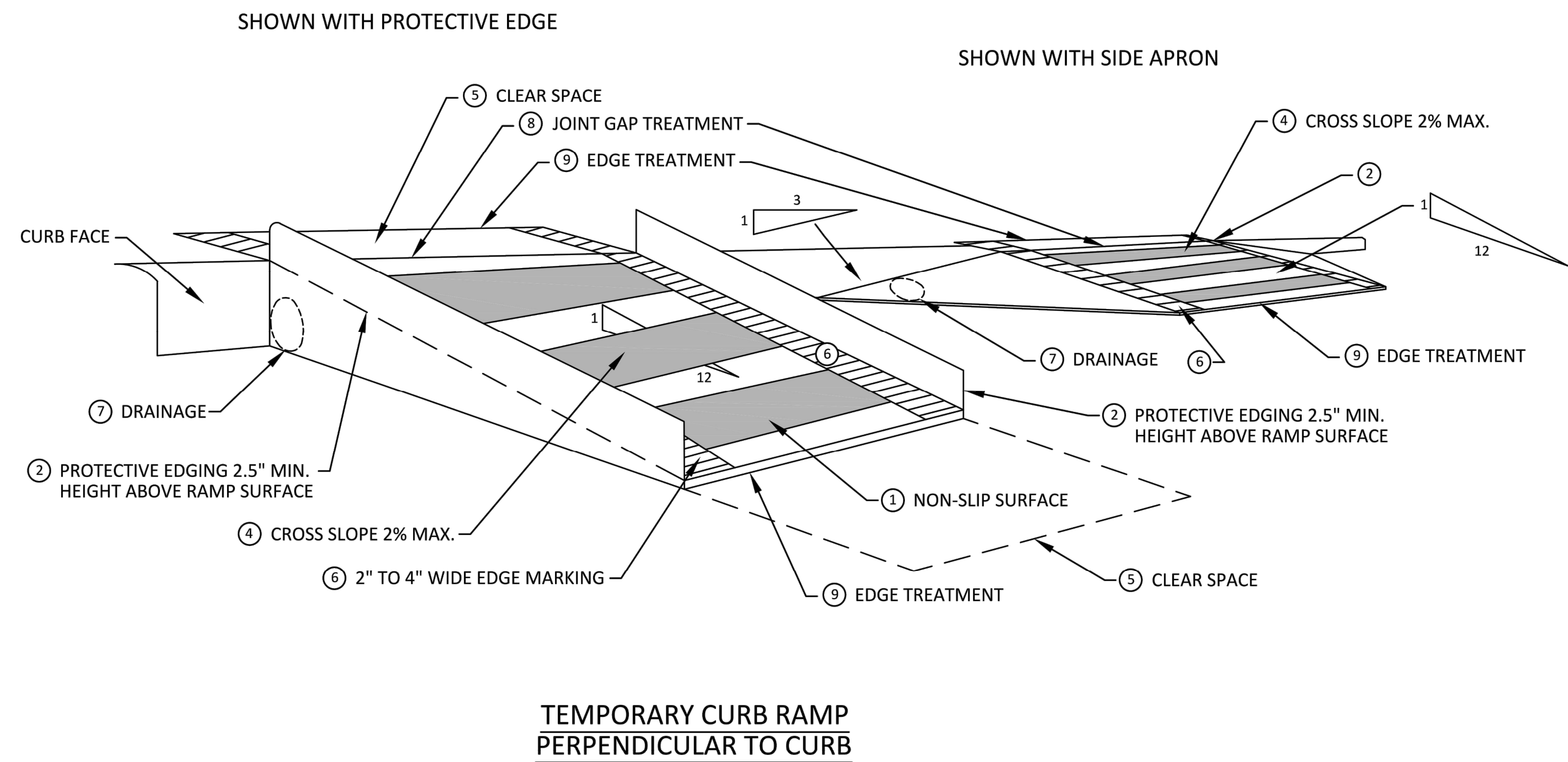
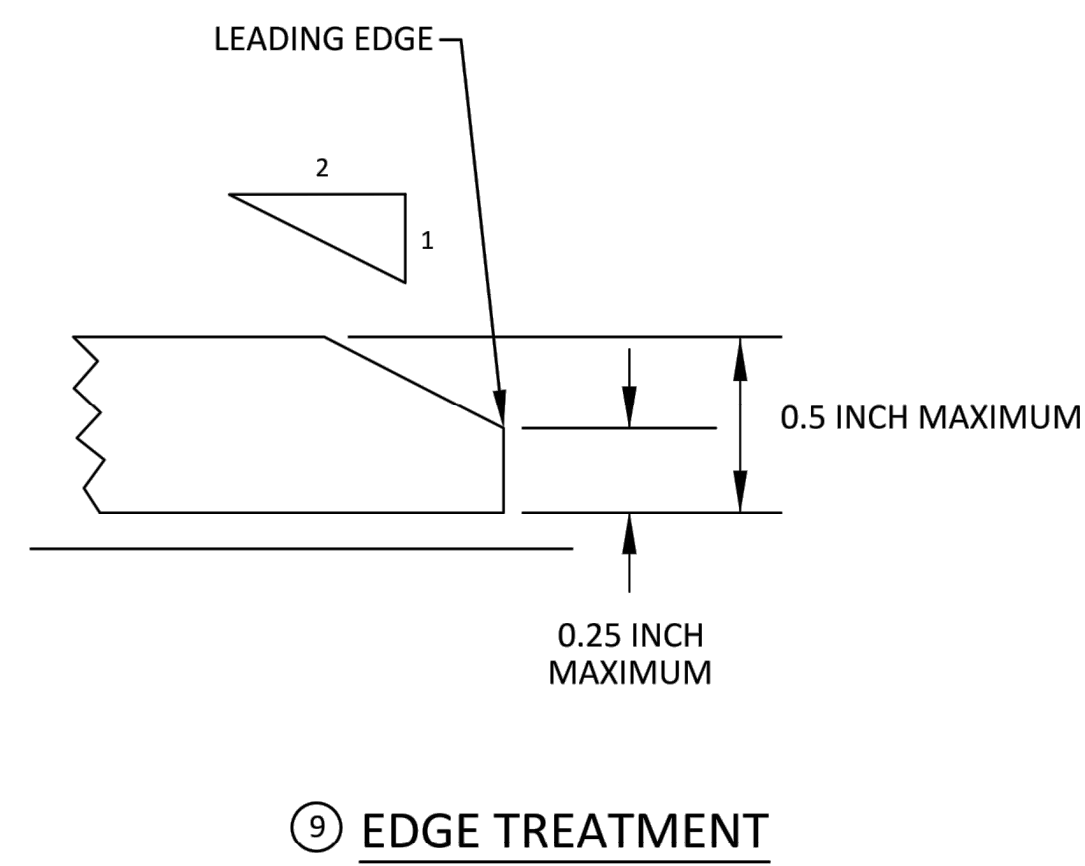
CITY OF ANN ARBOR - COMMUNITY SERVICES - PARKS AND RECREATION
GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
MAINTENANCE OF TRAFFIC PLAN

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SPECIFIC NOTES

- ① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. PROTECTIVE EDGING WITH A 2.5" MIN. HEIGHT ABOVE THE RAMP SHALL BE PLACED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3. PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ② DETECTABLE EDGING ANYTIME A HANDRAIL IS REQUIRED, AND ANYTIME THE PATH CHANGES DIRECTION. THIS INCLUDES A TURN ONTO THE RAMP FROM THE PATH. DETECTABLE EDGING MUST BEGIN A MAXIMUM OF 2.5" ABOVE THE RAMP SURFACE, AND EXTEND AT LEAST 6" ABOVE THE RAMP SURFACE. CONTRASTING COLOR SHALL BE PLACED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ③ CURB RAMPS AND LANDINGS SHALL HAVE A 2% MAX. CROSS SLOPE.
- ④ CLEAR SPACE OF 48" x 48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- ⑤ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR, 2" TO 4" WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
- ⑥ WATER FLOW IN THE GUTTER SYSTEM SHALL NOT BE IMPEDED.
- ⑦ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- ⑧ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHOULD BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2" HEIGHT.



REV.	DESCRIPTION	DATE	AS DRAWN	RRB CHECKED
06-28-23	ISSUED FOR BID			

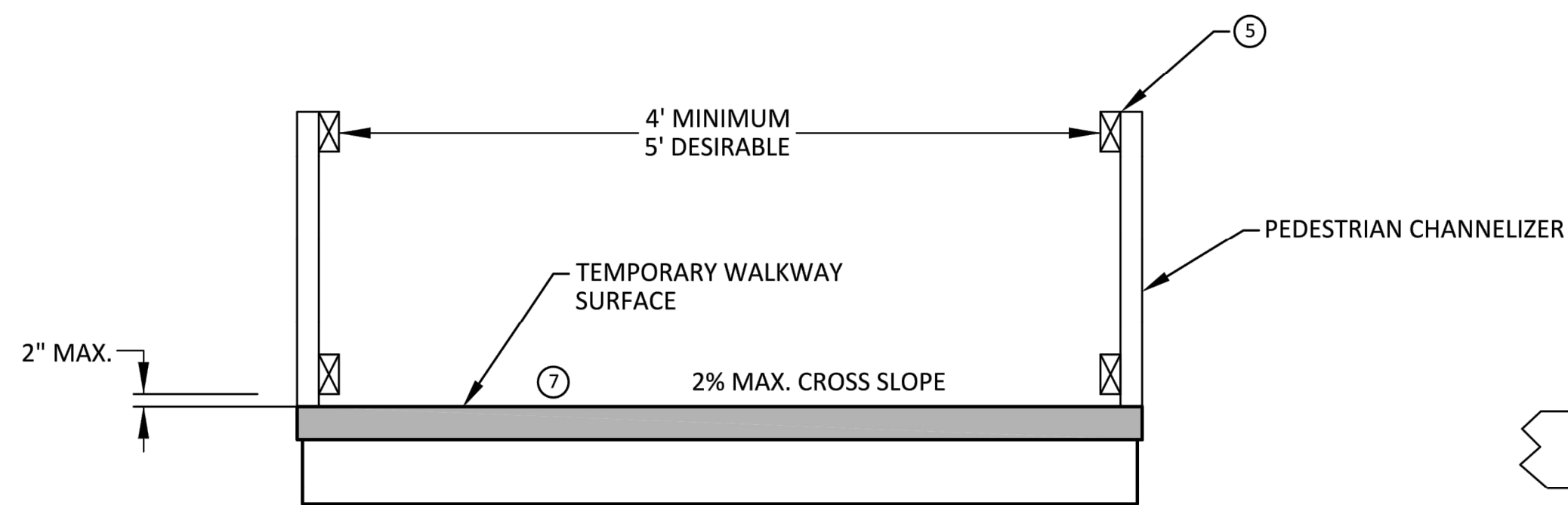
CITY OF ANN ARBOR
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CITY OF ANN ARBOR - COMMUNITY SERVICES - PARKS AND RECREATION
GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
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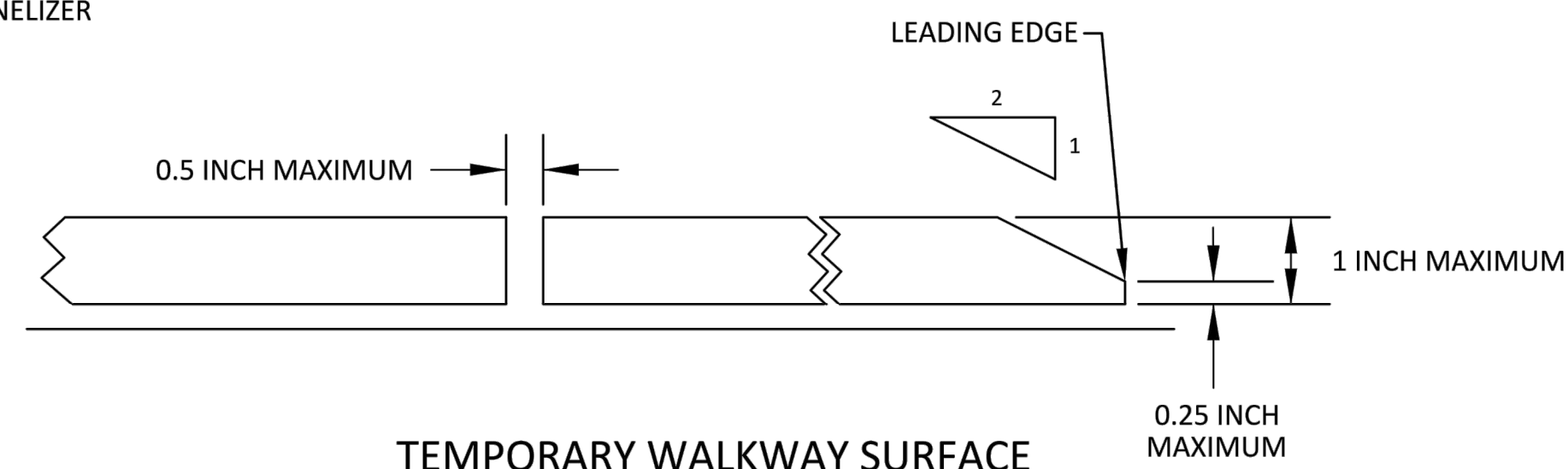
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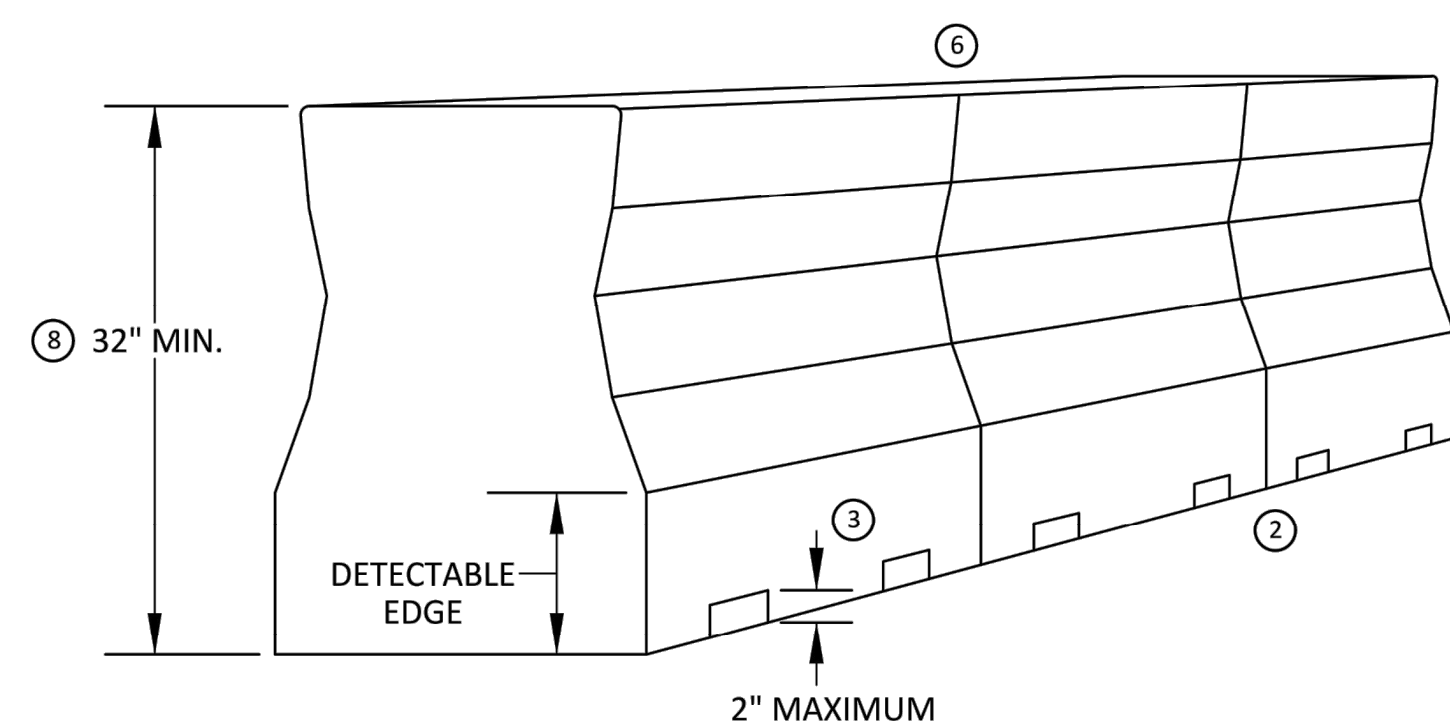
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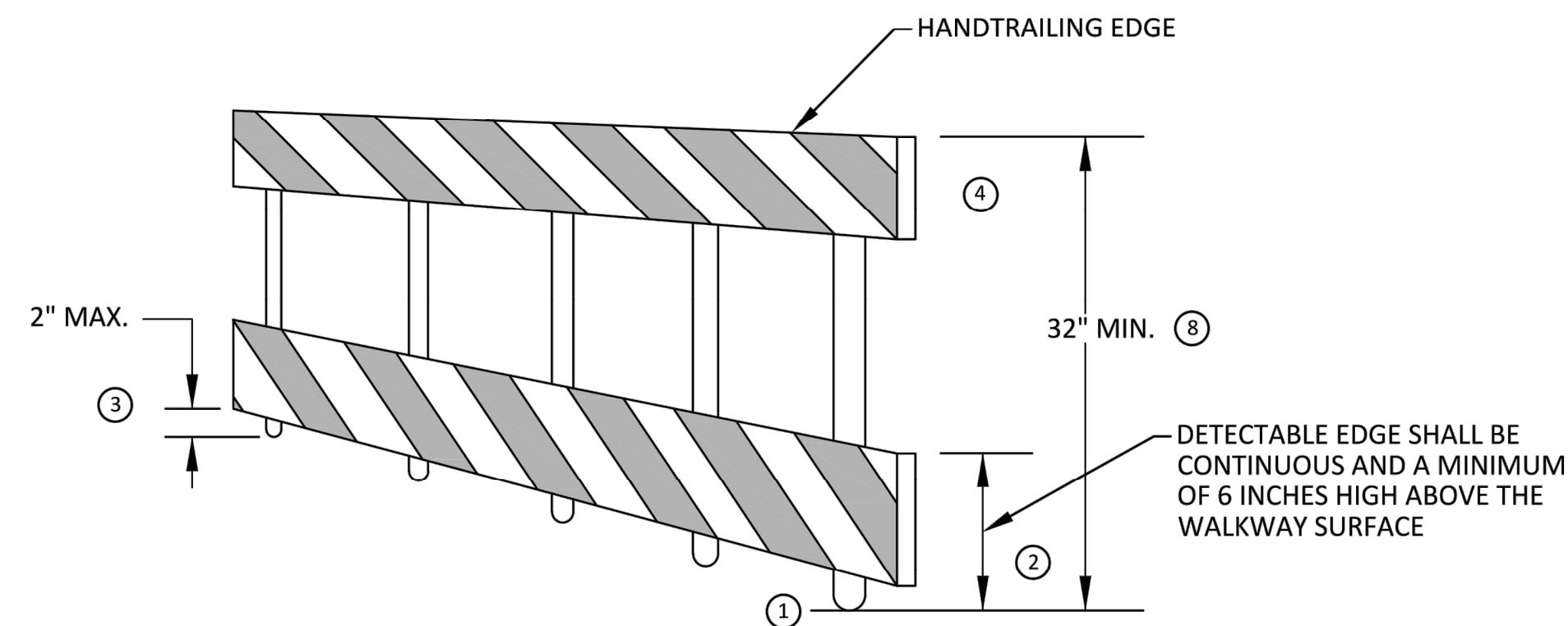
TEMPORARY PEDESTRIAN ACCESS



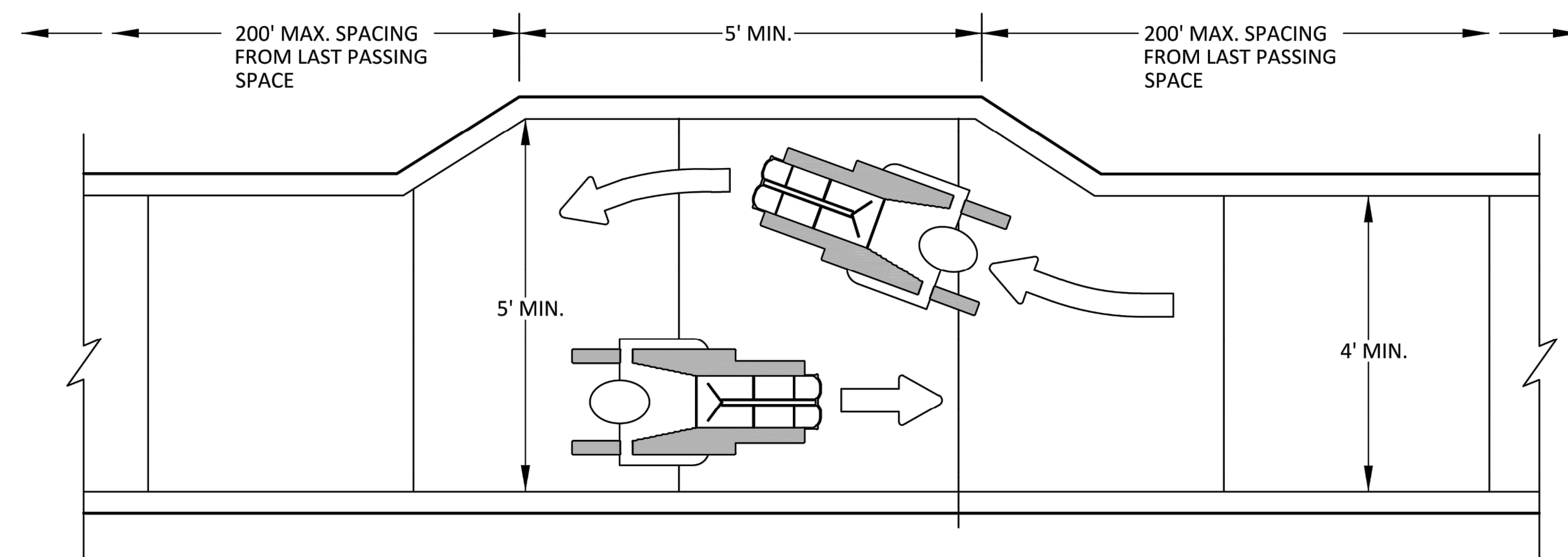
TEMPORARY WALKWAY SURFACE



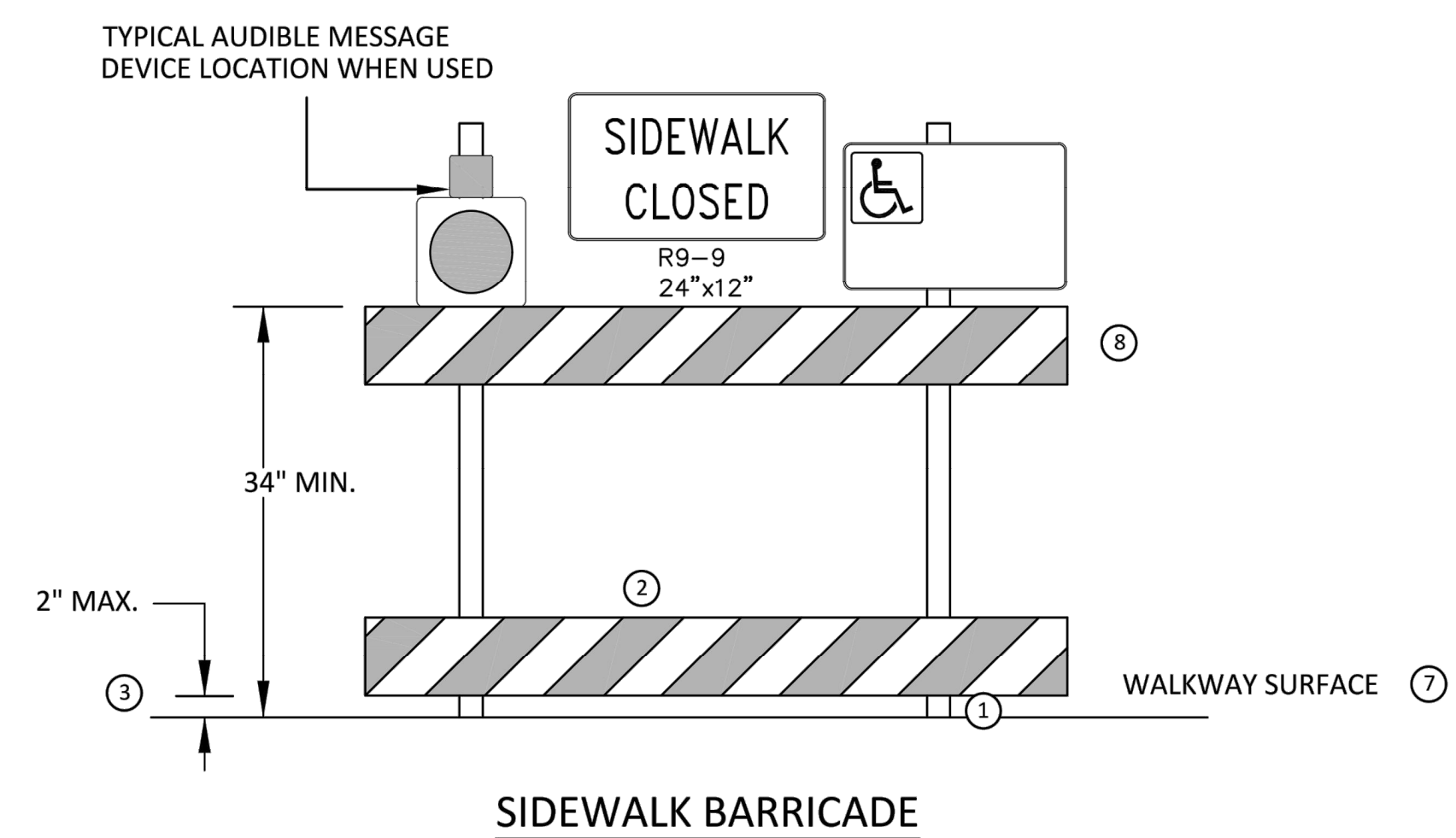
PEDESTRIAN CHANNELIZER USING A BARRIER
(MINIMUM REQUIREMENTS)



PEDESTRIAN CHANNELIZER
(MINIMUM REQUIREMENTS)



NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL



SIDEWALK BARRICADE

GENERAL NOTES

RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4 INCHES INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27 INCHES ABOVE THE WALKWAY SURFACE.

ANY PEDESTRIAN DEVICES USED TO PROVIDE POSITIVE PROTECTION FOR PEDESTRIANS OR WORKERS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS APPROPRIATE FOR THE BARRIER'S APPLICATION.

BARRICADES SHALL BE PLACED CONTINUOUSLY ACROSS THE ENTIRE WIDTH OF THE WALKWAY SURFACE BEING CLOSED.

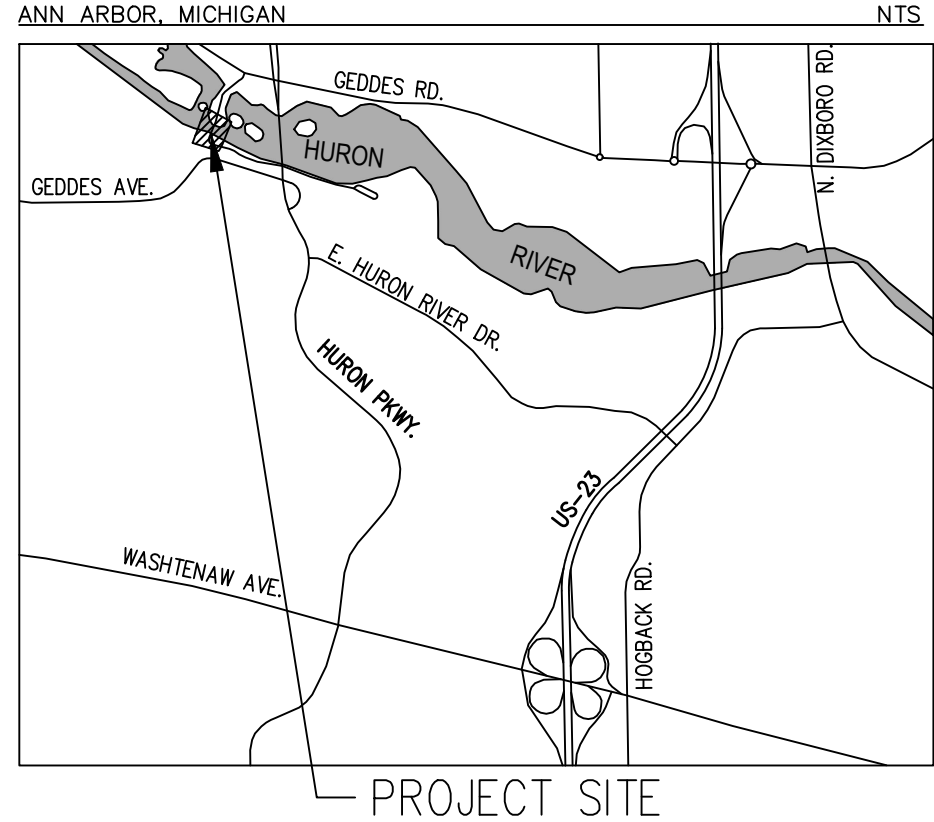
SPECIFIC NOTES

- 1 ANY TRIPPING HAZARD IN THE WALKWAY NEEDS A DETECTABLE EDGE. BALLAST SHALL BE LOCATED BEHIND OR INTERNAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHALL NOT EXTEND INTO THE 48 INCH MINIMUM WALKWAY CLEAR SPACE AND SHALL NOT EXCEED 0.5 INCHES IN HEIGHT ABOVE THE WALKWAY SURFACE.
- 2 DETECTABLE EDGES SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES IN HEIGHT ABOVE WALKWAY SURFACE AND HAVE COLOR MARKINGS CONTRASTING WITH THE WALKWAY SURFACE.
- 3 DEVICES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2 INCHES IS ALLOWED FOR DRAINAGE PURPOSES.
- 4 PROVIDE A HANDRAIL ON BOTH SIDES OF THE RAMP IF THE RAMP IS NOT EXPOSED TO VEHICLE TRAFFIC AND HAS A TOTAL RISE GREATER THAN 6 INCHES, AND A LENGTH GREATER THAN 72 INCHES.
- ENSURE THE HANDRAIL IS 1.25 AND 1.5 INCHES WIDE AND CONFIGURED TO BE A "GRASPABLE" CROSS-SECTION.
SEE CONSTRUCTION SUBSECTION 2.A FOR ADDITIONAL DETAILS.
WHEN THE RAMP IS EXPOSED TO TRAFFIC, IN LIEU OF HANDRAILS, USE A PROTECTIVE EDGE 2.5 INCHES MINIMUM HEIGHT ABOVE THE RAMP SURFACE OR 1:10 FLARE ON BOTH SIDES OF THE RAMP.
- 5 ALL DEVICES SHALL BE FREE OF SHARP OR ROUGH EDGES, AND FASTENERS (BOLTS) SHALL BE ROUNDED TO PREVENT HARM TO HANDS, ARMS OR CLOTHING OF PEDESTRIANS.
- 6 ALL DEVICES USED TO CHANNELIZE PEDESTRIAN FLOW SHOULD INTERLOCK SUCH THAT GAPS DO NOT ALLOW PEDESTRIANS TO STRAY FROM THE INTENDED CHANNELIZED PATH.
- 7 A WALKWAY SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED.
- 8 LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS SHALL BE 32 INCHES IN HEIGHT OR GREATER.



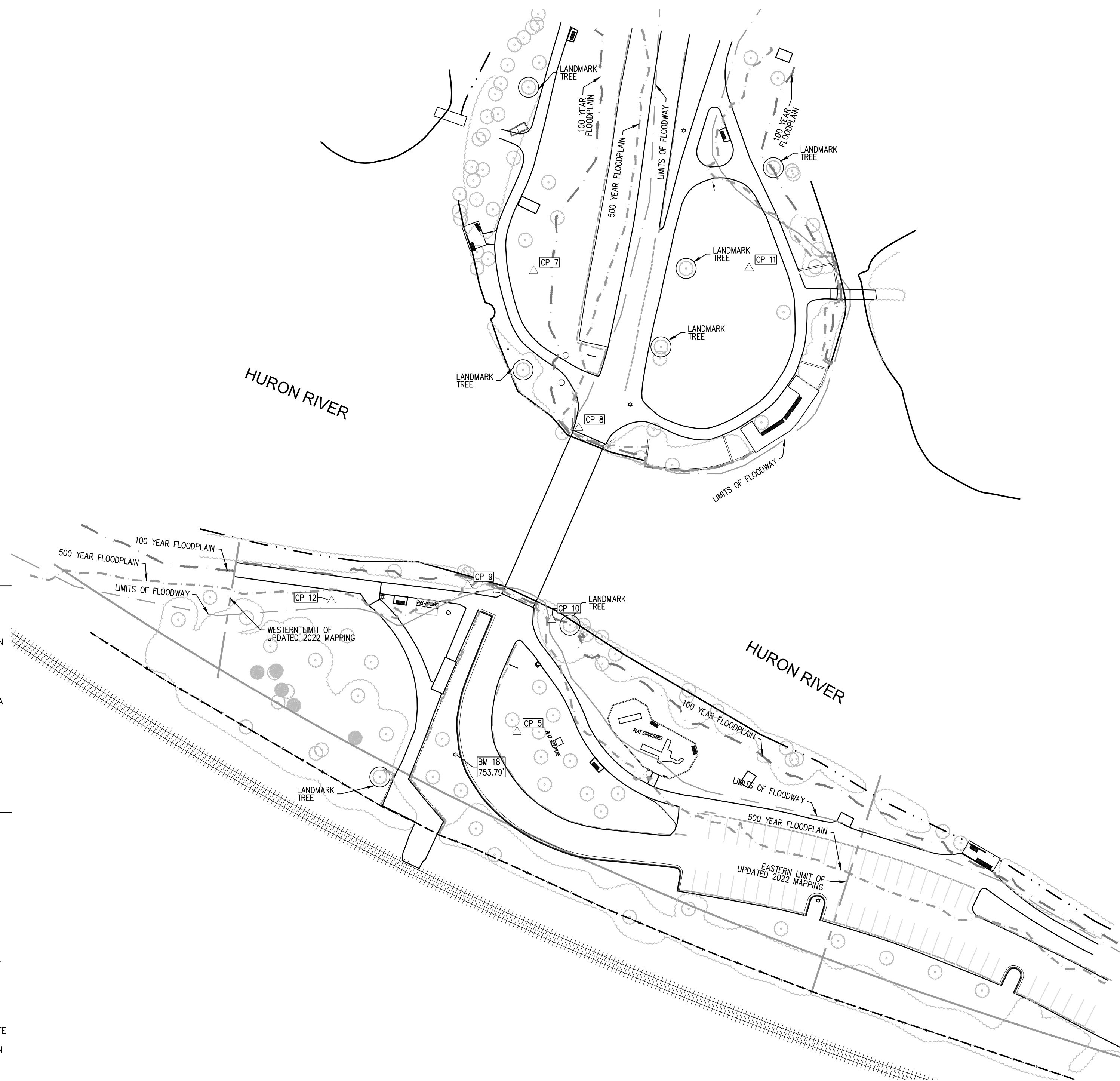
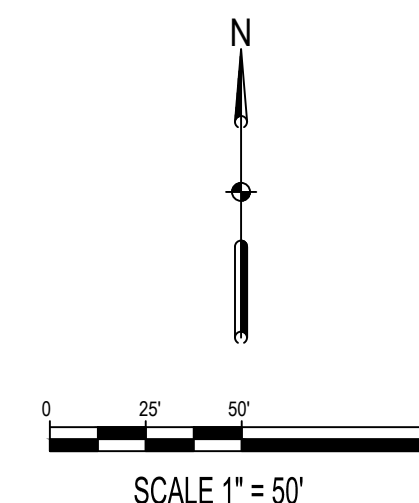
CITY OF ANN ARBOR - COMMUNITY SERVICES - PARKS AND RECREATION
GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
MAINTENANCE OF TRAFFIC PLAN

VICINITY SKETCH
ANN ARBOR, MICHIGAN NTS



TOPOGRAPHIC SURVEY

OF A PORTION OF GALLUP PARK, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN



SUE DEFINITIONS:

- QUALITY LEVEL D:**
INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS. THIS WOULD INCLUDE HISTORICAL PLAN RESEARCH, AERIAL IMAGERY, ETC.
- QUALITY LEVEL C:**
INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D.
- QUALITY LEVEL B:**
INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS (I.E. GROUND PENETRATING RADAR, RADIODETECTION) TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. THIS INFORMATION IS CORRELATED WITH LEVELS C AND D. ELEVATIONS SHOWN ON QUALITY LEVEL B FEATURES ARE REPORTED TO THE NEAREST HUNDRETH OF A FOOT (0.01), BUT THEIR VERTICAL ACCURACY SHOULD BE INTERPRETED TO ONLY 1"-2"±.
- QUALITY LEVEL A:**
PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT WITH SOFT DIGS (I.E. HAND DIG, AIR KNIFE).

SURVEY NOTES:

- HORIZONTAL DATUM IS ACCORDING TO MICHIGAN STATE PLANE GRID COORDINATES, SOUTH ZONE (2113), GEOID 2012A, INTERNATIONAL FEET AS LINEAR UNIT OF MEASURE. BATHYMETRIC DATA WAS COLLECTED BY WADE TRIM IN JULY OF 2020. THIS DATA IS INCORPORATED INTO THE CONTOUR SURFACE SHOWN HEREON.
- VERTICAL DATUM IS ACCORDING TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), WITH BENCHMARKS LISTED HEREON.
- SMITHGROUP PERFORMED A TOPOGRAPHIC SURVEY UTILIZING DATA COLLECTED WITH GLOBAL POSITIONING RECEIVERS REFERENCING THE MICHIGAN CONTINUOUSLY OPERATING REFERENCE NETWORK FOR SITE CONTROL.
- THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING LAND BOUNDARY, EASEMENTS, RIGHTS-OF-WAY, AND OTHER INFORMATION THAT MAY AFFECT TITLE WAS GAINED FROM AVAILABLE TAX RECORDS AND/OR RECORDED LEGAL DOCUMENTS FOR ADJOINING PARCELS.
- MISS-DIG DESIGN TICKET B001271748-008 WAS ISSUED FOR THIS PROJECT. AS OF THE DATE OF THIS SURVEY, RECORD UTILITY MAPS WERE RECEIVED OR OTHERWISE OBTAINED FROM THE FOLLOWING UTILITY OWNERS: AT&T (TELECOM), COMCAST (TELECOM), DTE (NATURAL GAS) & CITY OF ANN ARBOR (WATER & SEWER).
- UNDERGROUND UTILITY LOCATIONS WERE DERIVED FROM ACTUAL MEASUREMENTS ON VISIBLE UTILITIES, MISS DIG FLAGS/MARKINGS, AND/OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS, NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UNDERGROUND UTILITIES IN THE AREA.
- MANNIK AND SMITH GROUP (M.S.G.) MARKED UTILITIES ON SITE TO SUE LEVEL B, ON NOVEMBER 29, 2022. M.S.G. RETURNED TO THE SITE ON FEBRUARY 10, 2023 WITH THEIR TEAM TO EXPOSE SELECT UTILITIES FOR SUE LEVEL A. SMITHGROUP MAPPED THE MARKINGS AND INCORPORATED THEM INTO THE SURVEY AS SHOWN HEREON. THESE MARKINGS ARE SHOWN IN THE SURVEY PER THE LINETYPE SHOWN IN THE LEGEND.
- SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED AND ARE NOT CONSIDERED A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE AND OR DEVELOPMENT OF THIS SITE.
- ADDITIONAL SPOT ELEVATIONS MAY BE CONTAINED IN THE PROJECT DATABASE, AND ALTHOUGH NOT APPEARING IN THE RECORD PLAN DOCUMENT DUE TO SCALE AND VISIBILITY, WERE UTILIZED IN THE DIGITAL TERRAIN MODEL FOR CREATION OF THE ONE-FOOT CONTOURS. THE ADDITIONAL SPOT ELEVATION DATA IS AVAILABLE FOR FUTURE DESIGN ANALYSIS, BEING LOCATED ON A FROZEN LAYER WITHIN THE PROJECT DATABASE.
- AS PART OF THE SURVEY EFFORT, SMITHGROUP RESEARCHED THE LOCATION OF THE EXISTING MICHIGAN CENTRAL RAILROAD RIGHT-OF-WAY (R.O.W.). VALUATION MAPS (VAL MAPS) FOR THE RAILROAD AS WELL AS A SELECTION OF SURROUNDING PLATS, DEEDS AND ASSESSING LEGAL DESCRIPTIONS WERE REVIEWED TO DETERMINE THE LIMITS OF THE R.O.W.

ORIGINAL DEEDS REFERENCED ON THE VAL MAPS DATE TO 1848 & 1849 AND NOTE A R.O.W. WIDTH OF 100' WIDE. LOOKING AT THE SURROUNDING PLATS IT WAS APPARENT THAT THE FULL R.O.W. WIDTH DID NOT EXIST BETWEEN GEDDES RD. AND THE EXISTING RAILROAD FENCE THAT KEEPS PARK VISITORS OFF OF THE TRACKS.

FURTHER REVIEW OF THE DOCUMENTS PROVIDED BY THE CITY SHOWS THE EXISTENCE OF A LEASE AGREEMENT BETWEEN REPRESENTATIVES FOR THE MICHIGAN CENTRAL RAILROAD COMPANY AND THE CITY OF ANN ARBOR (INSTRUMENT NO. 93-066690, DATED JUNE 16, 1974). OUR INTERPRETATION OF THE DOCUMENT CONCLUDES THAT THE CITY HAS LEASED LANDS BACK FROM THE RAILROAD. ON SAID DOCUMENT, THE LEASED LANDS ARE DEPICTED GRAPHICALLY WITH A SINGLE DIMENSION OF 20' TO THE CENTERLINE OF THE WEST BOUND TRACKS. MEASUREMENTS TAKEN FROM THE EXISTING TRACKS DO NOT MATCH OCCUPATION BY BOTH PARTIES NOR WITH THE GRAPHIC DEPICTION ON THE RECORD DOCUMENT. THE LEASE AGREEMENT NOTES THAT THE CITY IS TO INSTALL A CHAIN LINK FENCE, 6 FEET IN HEIGHT, THE ENTIRE LENGTH OF THE LEASE LINE, THOUGH THE AGE OF THE FENCE MAPPED IN THE FIELD HAS NOT BEEN VERIFIED, IT DOES APPEAR TO HAVE BEEN IN THIS LOCATION FOR A NUMBER OF YEARS.

CONSIDERING THAT THE TRACKS ARE NOT BELIEVED TO BE THE ORIGINAL WEST BOUND TRACK NOTED IN THE LEASE AGREEMENT, THE EXISTING FENCE LINE IS THE BEST EVIDENCE AVAILABLE FOR THE LIMITS OF THE LEASE WHICH IS THE FUNCTIONING BOUNDARY BETWEEN THE CITY AND THE RAILROAD. THERE ARE ADDITIONAL RESTRICTIONS ON THE LEASED LANDS THAT SHOULD BE REVIEWED PRIOR TO DEVELOPMENT.

BENCHMARKS

- BENCHMARK 18**
TOP OF NORTHERLY BOLT IN LIGHT POLE
BASE ON SOUTH SIDE OF GALLUP ROADWAY,
SOUTHEAST OF WOODEN BRIDGE.
NORTHING = 283241.78
EASTING = 13303122.90
ELEVATION = 753.79 FEET (NAVD88)
- BENCHMARK 19**
TOP OF NORTHWESTERLY BOLT IN LIGHT
POLE BASE ON SOUTH SIDE OF GALLUP
ROADWAY, UNDER HURON PARKWAY BRIDGE
OVERPASS.
NORTHING = 282879.56
EASTING = 13304164.51
ELEVATION = 752.04 FEET (NAVD88)
- BENCHMARK 20**
SET BENCHTIE MARKER IN NORTHEAST FACE
OF WOODEN UTILITY POLE, SOUTH OF
EASTERN GALLUP PARK PARKING LOT.
NORTHING = 282506.43
EASTING = 13305240.01
ELEVATION = 752.81 FEET (NAVD88)

CONTROL POINT TABLE

Point No.	Northing	Easting	Elevation	Description
5	283257.42	13303165.46	752.03	CP SG CAP REBAR
7	283578.37	13303177.10	749.45	CP MAG NAIL
8	283469.03	13303208.46	752.96	CP MAG NAIL
9	283359.50	13303131.26	751.40	CP SG CAP REBAR
10	283335.49	13303189.69	749.96	CP SG CAP REBAR
11	283580.34	13303327.09	756.25	CP SG CAP REBAR
12	283348.41	13303036.28	751.18	CP SG CAP REBAR

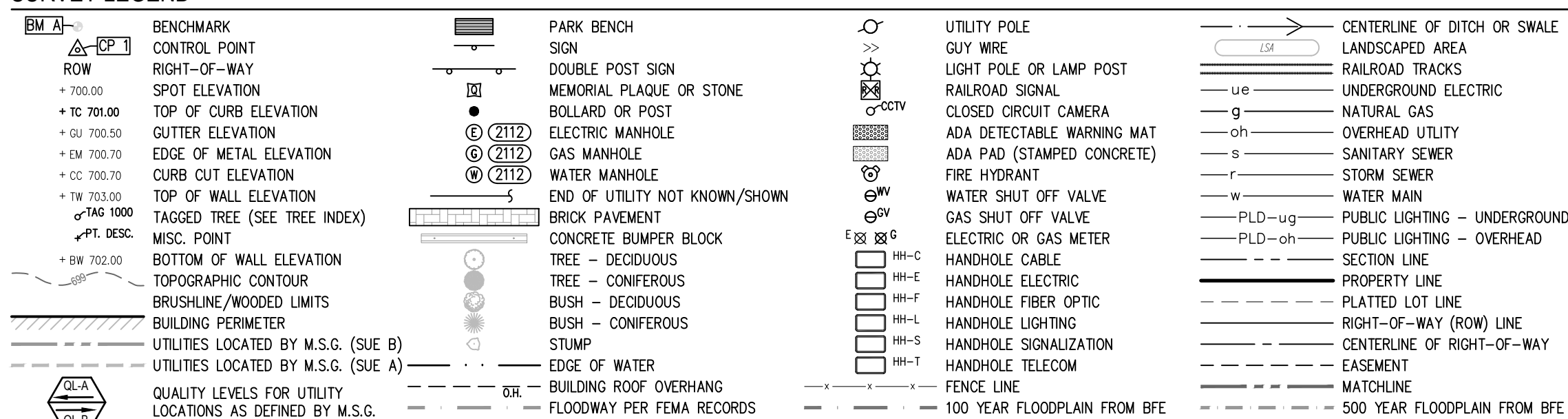
FLOODPLAIN NOTE:

PORTIONS OF THIS SITE, AS SHOWN ON THIS LIMITED TOPOGRAPHIC SURVEY LIE, IN SPECIAL FLOOD HAZARD AREA "ZONE AE" AND (OTHER) FLOOD AREA "ZONE X", ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NO. 26161C, PANEL 0264E, FOR WASHTENAW COUNTY, MICHIGAN, EFFECTIVE DATE APRIL 3, 2012. ACCORDING TO SAID PANEL, ZONE AE IS DEFINED AS AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - BASE FLOOD ELEVATIONS DETERMINED. ZONE X IS DEFINED AS AREAS OF 0.2% ANNUAL CHANCE FLOOD.

THE BASE FLOOD ELEVATIONS (BFE) FOR THE HURON RIVER AT WESTERN END OF THE SITE (NEAR EXISTING WOODEN BRIDGE) VARIES. THE FLOOD STUDY PROFILE WAS UTILIZED TO MODEL THE EXISTING BFE'S AND COMPARE THEM TO THE EXISTING SITE CONTOURS. THE RESULTING 100 YEAR FLOODPLAIN AND 500 YEAR FLOODPLAIN LINES ARE SHOWN HEREON.

THE BALANCE OF AREA SURVEYED LIES IN (OTHER) AREA "ZONE X" (UNSHADED), DEFINED AS AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN. UNSURVEYED PORTIONS OF THE SUBJECT PROPERTY MAY LIE IN OTHER FLOOD ZONES. FURTHER REVIEW MAY BE NECESSARY TO DETERMINE EXACT FLOOD ZONE LOCATIONS.

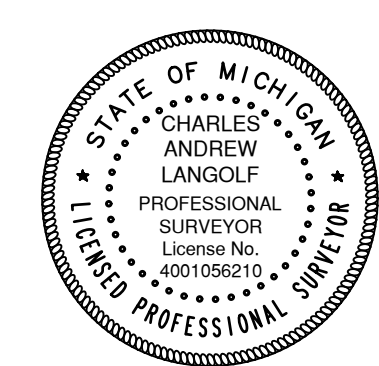
SURVEY LEGEND



CERTIFICATE:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH LOCAL AND STATE JURISDICTIONAL REQUIREMENTS REGULATING MAPPING STANDARDS. THE UNDERSIGNED STATES THAT PROPER FIELD PROCEDURES, INSTRUMENTATION AND ADEQUATE STAFF WERE EMPLOYED TO ACHIEVE THE RESULTS INDICATED HEREIN.

Charles A. Langolf
CHARLES A. LANGOLF, PS 56210
PROFESSIONAL SURVEYOR
STATE OF MICHIGAN
4001056210
charles.langolf@smithgroup.com



04/18/2023
DATE

811
Know what's below.
Call before you dig.

ISSUED FOR BIDS	DESCRIPTION	DATE	DRAWN	CHECKED	REV.
		06-28-23	DC	CL	

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PUBLIC SERVICES
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P.O. BOX 8647
ANN ARBOR, MI 48107-8647
www.aagov.org

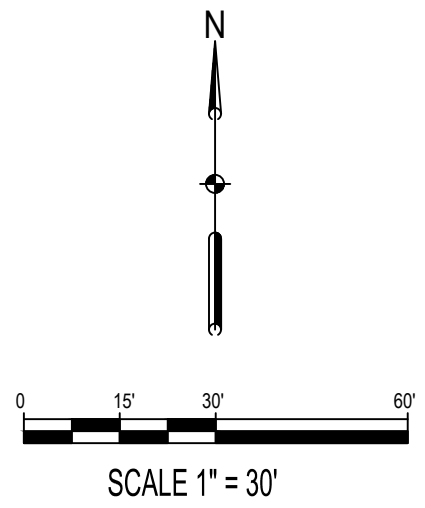
CITY OF ANN ARBOR MICHIGAN

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
TOPOGRAPHIC SURVEY

SCALE PLAN: SCALE 1" = 50'
DRAWING No. 14310
SHEET No. 10 OF 55



Know what's below.
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NO BATHYMETRY PROVIDED IN THIS AREA

NO BATHYMETRY PROVIDED IN THIS AREA

HURON RIVER

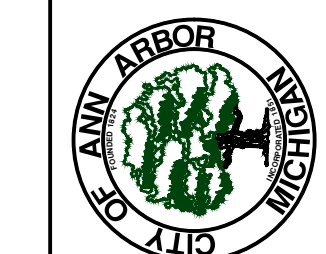
BATHYMETRIC SOUNDINGS PROVIDED BY WADE-TRIM, INC.

BATHYMETRIC SOUNDINGS PROVIDED BY WADE-TRIM, INC.

SURVEY LEGEND

<ul style="list-style-type: none"> BM A BENCHMARK CP CONTROL POINT ROW RIGHT-OF-WAY SPOT ELEVATION + TO 700.00 TOP OF CURB ELEVATION + G 700.50 GUTTER ELEVATION + EM 700.70 EDGE OF METAL ELEVATION + CC 700.70 CURB CUT ELEVATION + TW 703.00 TOP OF WALL ELEVATION + TAG 1000 TAGGED TREE (SEE TREE INDEX) + PT. DESC. MISC. POINT + BW 702.00 BOTTOM OF WALL ELEVATION TOPOGRAPHIC CONTOUR BRUSHLINE/WOODED LIMITS BUILDING PERIMETER UTILITIES LOCATED BY M.S.G. (SUE B) UTILITIES LOCATED BY M.S.G. (SUE A) QUALITY LEVELS FOR UTILITY LOCATIONS AS DEFINED BY M.S.G. 	<ul style="list-style-type: none"> PARK BENCH SIGN DOUBLE POST SIGN MEMORIAL PLAQUE OR STONE BOLLARD OR POST ELECTRIC MANHOLE GAS MANHOLE WATER MANHOLE END OF UTILITY NOT KNOWN/SHOWN BRICK PAVEMENT CONCRETE BUMPER BLOCK TREE - DECIDUOUS TREE - CONIFEROUS BUSH - DECIDUOUS BUSH - CONIFEROUS STUMP EDGE OF WATER BUILDING ROOF OVERHANG FLOODWAY PER FEMA RECORDS 	<ul style="list-style-type: none"> UTILITY POLE GUY WIRE LIGHT POLE OR LAMP POST RAILROAD SIGNAL CLOSED CIRCUIT CAMERA ADA DETECTABLE WARNING MAT ADA PAD (STAMPED CONCRETE) FIRE HYDRANT WATER SHUT OFF VALVE GAS SHUT OFF VALVE ELECTRIC OR GAS METER HANDHOLE CABLE HANDHOLE ELECTRIC HANDHOLE FIBER OPTIC HANDHOLE LIGHTING HANDHOLE SIGNALIZATION HANDHOLE TELECOM FENCE LINE 100 YEAR FLOODPLAIN FROM BFE 	<ul style="list-style-type: none"> CENTERLINE OF DITCH OR SWALE LANDSCAPED AREA RAILROAD TRACKS UNDERGROUND ELECTRIC NATURAL GAS OVERHEAD UTILITY SANITARY SEWER STORM SEWER WATER MAIN PUBLIC LIGHTING - UNDERGROUND PUBLIC LIGHTING - OVERHEAD SECTION LINE PROPERTY LINE PLATTED LOT LINE RIGHT-OF-WAY (ROW) LINE CENTERLINE OF RIGHT-OF-WAY EASEMENT MATCHLINE 500 YEAR FLOODPLAIN FROM BFE
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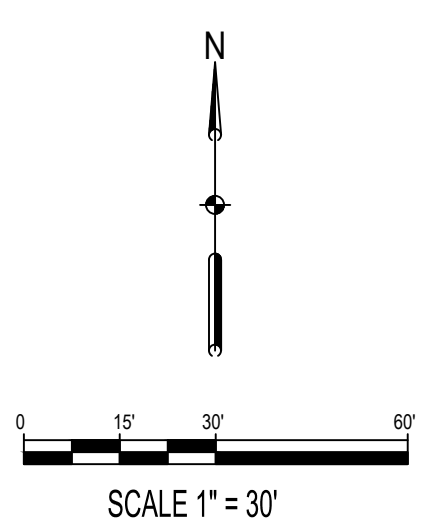
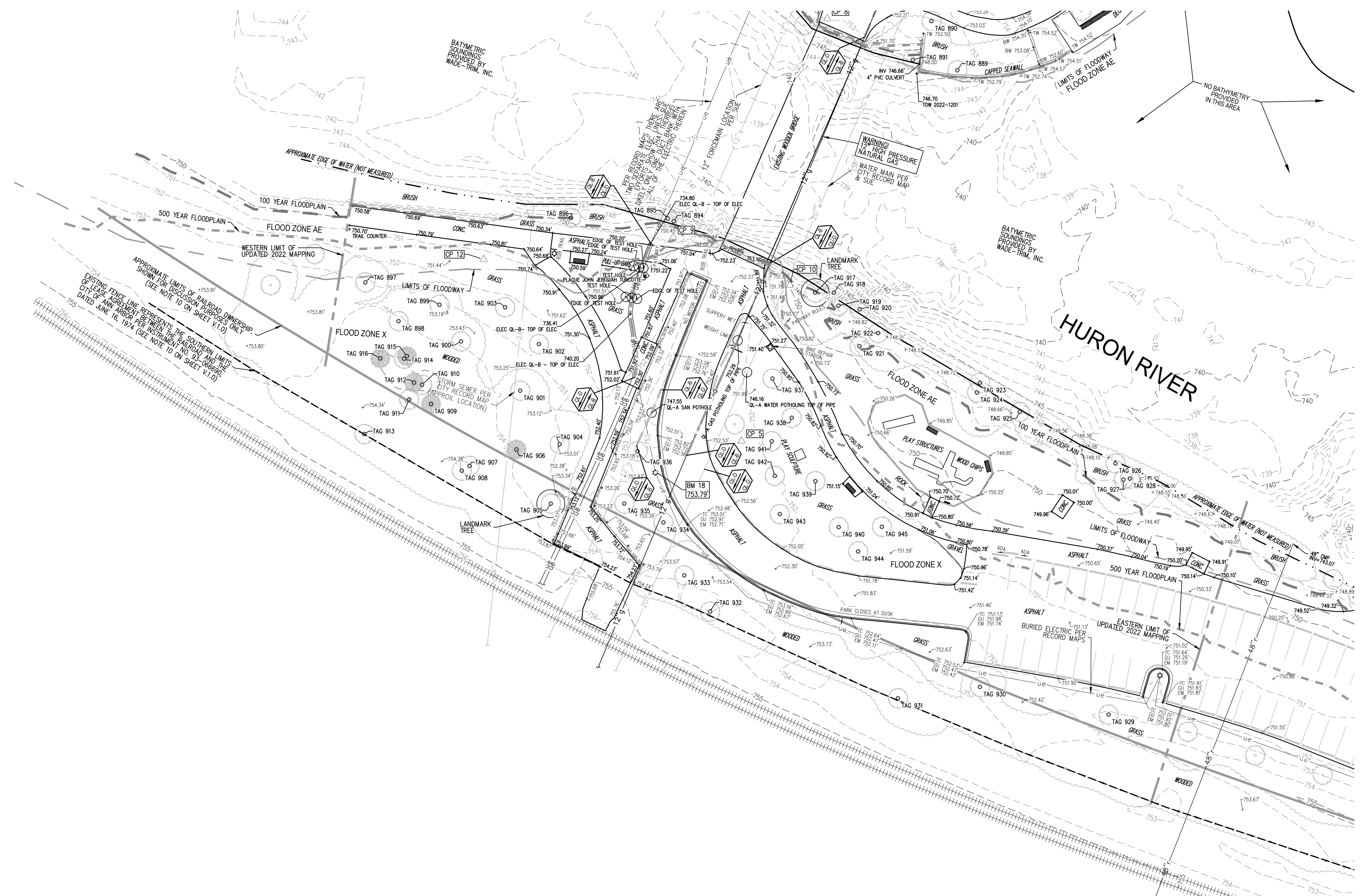
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CITY OF ANN ARBOR - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
TOPOGRAPHIC SURVEY

SHEET No. 11 OF 55
SCALE PLAN: SCALE 1" = 30'
DRAWING No. 14310

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
06-28-23	ISSUED FOR BIDS		DC	CL



SURVEY LEGEND

<p>BM A- CONTROL POINT</p> <p>CP 12- CONTROL POINT</p> <p>+ 750.00- SPOT ELEVATION</p> <p>+ TC 701.00- TOP OF CURB ELEVATION</p> <p>+ GU 700.50- GUTTER ELEVATION</p> <p>+ EM 700.70- EDGE OF METAL ELEVATION</p> <p>+ CC 700.70- CURB CUT ELEVATION</p> <p>+ TW 703.00- TOP OF WALL ELEVATION</p> <p>+ TAG 1000- TAGGED TREE (SEE TREE INDEX)</p> <p>+ PT. DESC. - MISC. POINT</p> <p>+ BW 702.00- BOTTOM OF WALL ELEVATION</p> <p>--- TOPOGRAPHIC CONTOUR</p> <p>--- BRUSHLINE/WOODED LIMITS</p> <p>--- BUILDING PERIMETER</p> <p>--- UTILITIES LOCATED BY M.S.G. (SUE B)</p> <p>--- UTILITIES LOCATED BY M.S.G. (SUE A)</p> <p>--- QUALITY LEVELS FOR UTILITY LOCATIONS AS DEFINED BY M.S.G.</p>	<p>--- PARK BENCH</p> <p>--- SIGN</p> <p>--- DOUBLE POST SIGN</p> <p>--- MEMORIAL PLAQUE OR STONE</p> <p>--- BOLLARD OR POST</p> <p>--- (2112) ELECTRIC MANHOLE</p> <p>--- (2112) GAS MANHOLE</p> <p>--- (2112) WATER MANHOLE</p> <p>--- END OF UTILITY NOT KNOWN/SHOWN</p> <p>--- BRICK PAVEMENT</p> <p>--- CONCRETE BUMPER BLOCK</p> <p>--- TREE - DECIDUOUS</p> <p>--- TREE - CONIFEROUS</p> <p>--- BUSH - DECIDUOUS</p> <p>--- BUSH - CONIFEROUS</p> <p>--- STUMP</p> <p>--- EDGE OF WATER</p> <p>--- BUILDING ROOF OVERHANG</p> <p>--- FLOWWAY PER FEMA RECORDS</p>	<p>--- UTILITY POLE</p> <p>--- GUY WIRE</p> <p>--- LIGHT POLE OR LAMP POST</p> <p>--- RAILROAD SIGNAL</p> <p>--- CLOSED CIRCUIT CAMERA</p> <p>--- ADA DETECTABLE WARNING MAT</p> <p>--- ADA PAD (STAMPED CONCRETE)</p> <p>--- FIRE HYDRANT</p> <p>--- WATER SHUT OFF VALVE</p> <p>--- GAS SHUT OFF VALVE</p> <p>--- ELECTRIC OR GAS METER</p> <p>--- HH-C HANDHOLE CABLE</p> <p>--- HH-E HANDHOLE ELECTRIC</p> <p>--- HH-F HANDHOLE FIBER OPTIC</p> <p>--- HH-L HANDHOLE LIGHTING</p> <p>--- HH-S HANDHOLE SIGNALIZATION</p> <p>--- HH-T HANDHOLE TELECOM</p> <p>--- FENCE LINE</p> <p>--- 100 YEAR FLOODPLAIN FROM BFE</p>	<p>--- CENTERLINE OF DITCH OR SWALE</p> <p>--- LANDSCAPED AREA</p> <p>--- RAILROAD TRACKS</p> <p>--- UNDERGROUND ELECTRIC</p> <p>--- NATURAL GAS</p> <p>--- OVERHEAD UTILITY</p> <p>--- SANITARY SEWER</p> <p>--- STORM SEWER</p> <p>--- WATER MAIN</p> <p>--- PLD-UG PUBLIC LIGHTING - UNDERGROUND</p> <p>--- PLD-OH PUBLIC LIGHTING - OVERHEAD</p> <p>--- SECTION LINE</p> <p>--- PROPERTY LINE</p> <p>--- PLATTED LOT LINE</p> <p>--- HANDHOLE LIGHTING</p> <p>--- CENTERLINE OF RIGHT-OF-WAY</p> <p>--- EASEMENT</p> <p>--- MATCHLINE</p> <p>--- 500 YEAR FLOODPLAIN FROM BFE</p>
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CITY OF ANN ARBOR - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
TOPOGRAPHIC SURVEY

SCALE PLAN: SCALE 1" = 30'
DRAWING No. 14310
SHEET No. 12 OF 55

POINT NO.	CODE	TAG NO.	DBH	SPECIES		NOTES
7188	TAG	850	8	Alnus glutinosa	Black alder	
7189	TAG	851	10	Alnus glutinosa	Black alder	
7190	TAG	852	6	Alnus glutinosa	Black alder	
7191	TAG	853	12	Alnus glutinosa	Black alder	
7192	TAG	854	9	Alnus glutinosa	Black alder	
7193	TAG	855	9	Alnus glutinosa	Black alder	
7194	TAG	856	8	Alnus glutinosa	Black alder	
7195	TAG	857	8	Alnus glutinosa	Black alder	
7196	TAG	858	8	Alnus glutinosa	Black alder	
7197	TAG	859	11	Fraxinus pennsylvanica	Red ash	Diseased
7198	TAG	860	8	Alnus glutinosa	Black alder	
7199	TAG	861	6	Alnus glutinosa	Black alder	
7200	TAG	862	7	Alnus glutinosa	Black alder	
7201	TAG	863	9	Alnus glutinosa	Black alder	
7202	TAG	864	14	Quercus bicolor	Swamp white oak	
7203	TAG	865	11	Acer plataoides	Norway maple	Dead
7204	TAG	866	6	Alnus glutinosa	Black alder	
7205	TAG	867	6	Alnus glutinosa	Black alder	
7206	TAG	868	8	Alnus glutinosa	Black alder	
7207	TAG	869	7	Alnus glutinosa	Black alder	
7208	TAG	870	12	Quercus bicolor	Swamp white oak	
7209	TAG	871	8	Alnus glutinosa	Black alder	
7210	TAG	872	27	Salix nigra	Black willow	See Tree Health/Condition Form
7211	TAG	873	6	Acer rubrum	Red maple	
7212	TAG	874	14	Quercus bicolor	Swamp white oak	
7213	TAG	875	11	Acer rubrum	Red maple	
7215	TAG	876	7	Acer rubrum	Red maple	
7216	TAG	877	6	Acer rubrum	Red maple	
7217	TAG	878	18	Liquidambar styraciflua	Sweetgum	See Tree Health/Condition Form
7218	TAG	879	15	Quercus bicolor	Swamp white oak	
7220	TAG	880	10	Acer plataoides	Norway maple	
7221	TAG	881	16	Morus alba	White mulberry	
7222	TAG	882	16	Acer saccharum	Sugar maple	See Tree Health/Condition Form
7223	TAG	883	8	Alnus glutinosa	Black alder	
7224	TAG	884	6	Alnus glutinosa	Black alder	
7225	TAG	885	7	Morus alba	White mulberry	
7226	TAG	886	7	Ulmus pumila	Siberian elm	
7227	TAG	887	6	Acer negundo	Boxelder	
7228	TAG	888	12	Quercus spp.	Oak	Possibly English oak
7229	TAG	889	6	Morus alba	White mulberry	
7230	TAG	890	8	Morus alba	White mulberry	
7231	TAG	891	8	Fraxinus pennsylvanica	Red ash	
7232	TAG	892	27	Salix nigra	Black willow	See Tree Health/Condition Form
7233	TAG	893	28	Salix nigra	Black willow	See Tree Health/Condition Form
7237	TAG	894	6	Morus alba	White mulberry	
7238	TAG	895	6	Alnus glutinosa	Black alder	
7239	TAG	896	6	Morus alba	White mulberry	
7252	TAG	897	6	Acer rubrum	Red maple	

POINT NO.	CODE	TAG NO.	DBH	SPECIES		NOTES
7251	TAG	898	8	Acer rubrum	Red maple	
7250	TAG	899	6	Acer rubrum	Red maple	
7253	TAG	900	6	Acer rubrum	Red maple	
7254	TAG	901	6	Acer rubrum	Red maple	
7255	TAG	902	6	Acer rubrum	Red maple	
7256	TAG	903	6	Acer rubrum	Red maple	
7263	TAG	904	8	Acer rubrum	Red maple	
7265	TAG	905	24	Acer negundo	Boxelder	See Tree Health/Condition Form
7266	TAG	906	11	Pinus sylvestris	Scotch pine	
7267	TAG	907	11	Acer negundo	Boxelder	
7268	TAG	908	11	Acer negundo	Boxelder	
7269	TAG	909	9	Pinus sylvestris	Scotch pine	
7270	TAG	910	11	Acer negundo	Boxelder	
7271	TAG	911	9	Pinus sylvestris	Scotch pine	
7273	TAG	912	8	Pinus sylvestris	Scotch pine	
7272	TAG	913	11	Acer negundo	Boxelder	
7274	TAG	914	6	Morus alba	White mulberry	
7275	TAG	915	8	Pinus sylvestris	Scotch pine	
7276	TAG	916	8	Pinus sylvestris	Scotch pine	
7277	TAG	917	18	Ulmus americana	American elm	See Tree Health/Condition Form
7278	TAG	918	8	Alnus glutinosa	Black alder	
7279	TAG	919	6	Alnus glutinosa	Black alder	
7280	TAG	920	6	Alnus glutinosa	Black alder	
7281	TAG	921	7	Alnus glutinosa	Black alder	
7282	TAG	922	12	Robinia pseudoacacia	Black locust	
7283	TAG	923	22	Salix nigra	Black willow	
7284	TAG	924	9	Robinia pseudoacacia	Black locust	
7285	TAG	925	11	Robinia pseudoacacia	Black locust	
7286	TAG	926	18	Salix nigra	Black willow	
7287	TAG	927	9	Robinia pseudoacacia	Black locust	
7288	TAG	928	12	Robinia pseudoacacia	Black locust	
7289	TAG	929	8	Gleditsia triacanthos	Honey locust	
7290	TAG	930	7	Gleditsia triacanthos	Honey locust	
7291	TAG	931	7	Acer negundo	Boxelder	
7292	TAG	932	7	Morus alba	White mulberry	
7293	TAG	933	7	Acer rubrum	Red maple	
7294	TAG	934	6	Acer rubrum	Red maple	
7295	TAG	935	8	Acer rubrum	Red maple	
7296	TAG	936	7	Acer rubrum	Red maple	
7297	TAG	937	9	Quercus bicolor	Swamp white oak	
7298	TAG	938	10	Quercus bicolor	Swamp white oak	
7299	TAG	939	8	Quercus bicolor	Swamp white oak	
7300	TAG	940	6	Quercus bicolor	Swamp white oak	
7302	TAG	941	4	Gymnocladus dioica	Kentucky coffeetree	
7303	TAG	942	4	Gymnocladus dioica	Kentucky coffeetree	
7304	TAG	943	4	Gymnocladus dioica	Kentucky coffeetree	
7305	TAG	944	4	Quercus bicolor	Swamp white oak	
7306	TAG	945	6	Quercus bicolor	Swamp white oak	

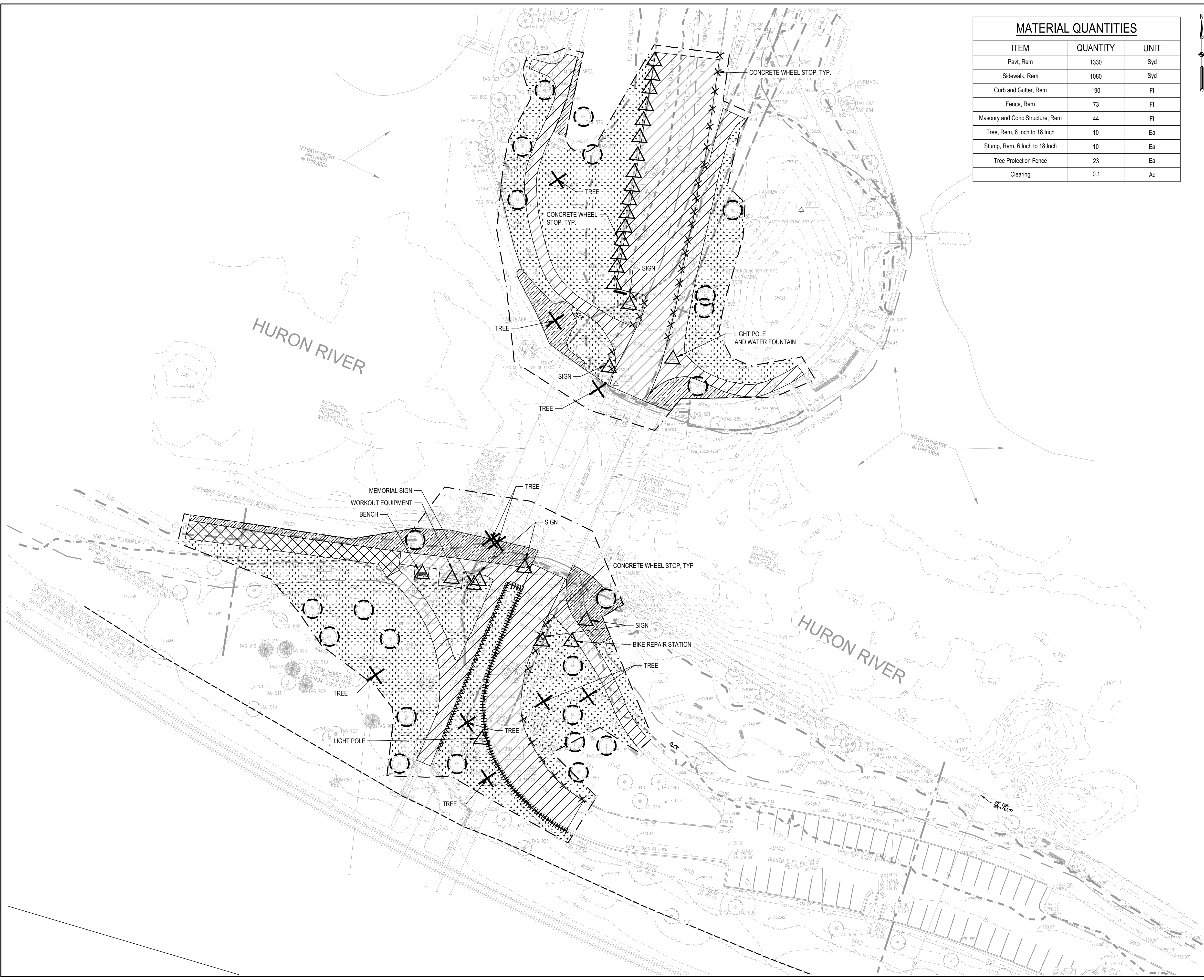


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TOPOGRAPHIC SURVEY

SCALE PLAN: SCALE 1" = 30'
DRAWING No. 14310



MATERIAL QUANTITIES		
ITEM	QUANTITY	UNIT
Pavt, Rem	1330	Syd
Sidewalk, Rem	1080	Syd
Curb and Gutter, Rem	190	Ft
Fence, Rem	73	Ft
Masonry and Conc Structure, Rem	44	Ft
Tree, Rem, 6 Inch to 18 Inch	10	Ea
Stump, Rem, 6 Inch to 18 Inch	10	Ea
Tree Protection Fence	23	Ea
Clearing	0.1	Ac

SITE DEMOLITION NOTES

- CONTRACTOR SHALL COORDINATE USE OF THE SITE AND HOURS OF CONSTRUCTION WITH THE CITY OF ANN ARBOR.
- ALL DEMOLISHED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL ORDINANCES, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL REMOVE AND SALVAGE ITEMS TO OWNER AS SPECIFIED AND AS NOTED ON THE DRAWINGS. THE CONTRACTOR SHALL EXERCISE CARE WHEN REMOVING THESE ITEMS TO PREVENT DAMAGE. ALL MATERIALS ARE TO BE DELIVERED TO OWNER AS NOTED.
- MEMORIAL PLAQUE(S) FOUND ON THE SITE SHALL BE SALVAGED AND RETURNED TO THE CITY OF ANN ARBOR.
- SAWCUT ALL EXISTING PAVEMENT AND CURBS FULL DEPTH. REMOVE CONCRETE WALK AND CURBS TO NEAREST JOINT.
- COORDINATE WORK ON THIS DRAWING WITH SOIL EROSION AND SEDIMENTATION CONTROL, LAYOUT, GRADING AND UTILITY PLANS.
- SALVAGE ANY SIGNS TO BE REMOVED AND COORDINATE WITH THE CITY OF ANN ARBOR FOR STORAGE DURING CONSTRUCTION.
- CONTRACTOR SHALL DISPOSE OF EXCESS EXCAVATED MATERIAL AND IMPORT ADDITIONAL MATERIAL AS NECESSARY. EXCAVATED MATERIALS SHALL ONLY BE USED FOR SITE FILL IF APPROVED AND ACCEPTED BY A SOILS/GEO TECHNICAL TESTING AGENT.
- LOCATION OF TEMPORARY CONSTRUCTION FENCING IS TO BE DETERMINED BY THE OWNER TO MEET CONSTRUCTION ACTIVITIES.
- STRIP AND REMOVE TOPSOIL FROM EXISTING LANDSCAPE AREAS AS NECESSARY. SEGREGATE MATERIALS AND PROVIDE EROSION PROTECTION FOR TEMPORARY STOCKPILES AS NECESSARY. REMOVAL OF EXISTING GRAVEL, STONE, AND/OR TOPSOIL FOR REUSE MUST BE SEPARATED BY TYPE AND REPLACED ACCORDING TO SPECIFICATIONS WITHIN DIVISION 02. NO MIXING OF STOCKPILES FOR REUSE WILL BE ALLOWED.
- EXISTING LANDSCAPING:
 - EXISTING TREES AND SHRUBS TO BE REMOVED SHALL INCLUDE STUMP AND ROOT REMOVAL. TREES AND PLANTINGS IDENTIFIED BY CITY OF ANN ARBOR TO BE SALVAGED SHALL BE TRANSPLANTED TO A LOCATION DETERMINED BY THE OWNER. TRANSPLANTING WILL BE PERFORMED UTILIZING APPROPRIATELY SIZED TREE SPADE. TRANSPLANTING TREES USING BACK HOE OR OTHER EXCAVATION EQUIPMENT WILL NOT BE ALLOWED.
 - TREES AND PLANTINGS NOT IDENTIFIED BY CITY OF ANN ARBOR TO BE SALVAGED.
 - PROTECT EXISTING LANDSCAPING, TREES AND LAWN AREAS TO REMAIN. CONTRACTOR RESPONSIBLE IF DAMAGE OCCURS DURING PROJECT DURATION. PROTECT EXISTING TREES TO REMAIN AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, BRUISING OF BARK, SMOTHERING OF TREES WITH STOCKPILE EXCAVATION AND CONSTRUCTION MATERIALS OR PARKING VEHICLES WITHIN DRIP LINES. MAINTAIN EXISTING TREE MULCH RINGS.
- DAMAGE BY THE CONTRACTOR TO TREES OR LANDSCAPE TO REMAIN, TO BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL NOT PERFORM ANY CONSTRUCTION OR GRADING OPERATIONS WITHIN THE DRIP LINE OF ANY EXISTING TREES SHOWN TO REMAIN UNLESS INDICATED ON PLANS.
- PROTECT LIGHT POLES SCHEDULED TO REMAIN.
- PRIOR TO COMMENCEMENT OF WORK, VERIFY DEPTHS AND LOCATIONS OF ANY EXISTING UTILITIES (TO REMAIN). DAMAGE BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS, SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER IMMEDIATELY OF ANY EXISTING UTILITY CONFLICTS.
- THE CONTRACTOR SHALL REMOVE THE EXISTING AGGREGATE BASE MATERIALS BENEATH ALL PROPOSED TOPSOIL LAWN AREAS, AND LOOSEN SOILS PER EARTHWORK SPECIFICATION.
- CAD FILES WILL BE PROVIDED UPON REQUEST TO THE CONTRACTOR FOR THE PURPOSE OF CONSTRUCTION STAKING.
- SITE CONSTRUCTION FENCE TO BE PLACED NEAR PROJECT LIMIT LINES AND CONTRACTOR TO OBTAIN APPROVAL BY THE OWNER PRIOR TO COMMENCEMENT OF WORK THERE SHALL BE NO CONTRACTOR ACTIVITY BEYOND CONSTRUCTION FENCING. PROTECT ALL LANDSCAPING UNLESS OTHERWISE NOTED ON THE PLANS. TREE PROTECTION FENCE SHALL BE PLACED AT THE TREE DRIP LINE, AND NOT WITHIN ROOT ZONE.

LEGEND

- PAVT, REM
REMOVE ASPHALT PAVEMENT FULL DEPTH,
INCL. AGG BASE
- PAVT, REM
REMOVE CONCRETE PAVEMENT
- REMOVE LANDSCAPING, STRIP AND
REMOVE TOPSOIL
- CLEARING
- FENCE, REM
- CONCRETE STRUCTURE, REM
REMOVE STONE WALL
- REMOVE TREE OR ITEM AS DENOTED
- CURB AND GUTTER, REM
- TREE PROTECTION FENCE 1
16
- RELOCATE ITEM, AS NOTED AND SHOWN
ON LAYOUT PLAN
- LIMIT OF WORK



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 PUBLIC SERVICES - ENGINEERING
 GALLUP PARK BRIDGE AND
 SITE IMPROVEMENTS
 DEMOLITION PLAN
 SCALE PLAN: 1" = 30'
 DRAWING No.
 14310
 SHEET No.
 14 OF 55

MATERIAL QUANTITIES		
ITEM	QUANTITY	UNIT
Erosion Control, Gravel Access Approach	2	Ea
Erosion Control, Silt Fence	1330	Ft
Erosion Control, Inlet Protection, Fabric Drop	2	Ea



SHEET NOTES

GENERAL NOTES

1. LOCATION OF CONSTRUCTION FENCE AND ENTRANCE GATES TO BE COORDINATED WITH THE OWNER.
2. TOTAL DISTURBED AREA: 1.13 ACRES
3. SITE IS ADJACENT TO THE HURON RIVER.

SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE

IN ACCORDANCE WITH RULE 1709 PROMULGATED UNDER THE AUTHORITY OF PART 91, SOIL EROSION AND SEDIMENTATION CONTROL, OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, AS AMENDED, AND IN ADDITION TO THE INFORMATION IN THE PROJECT PLANS AND SPECIFICATIONS, THE FOLLOWING GENERAL CONDITIONS APPLY TO ANY EARTH CHANGE AUTHORIZED BY THIS DOCUMENT:

- DESIGN, CONSTRUCT, AND COMPLETE THE EARTH CHANGE IN A MANNER THAT LIMITS THE EXPOSED AREA OF DISTURBED LAND FOR THE SHORTEST PERIOD OF TIME.
- REMOVE SEDIMENT CAUSED BY ACCELERATED SOIL EROSION FROM RUNOFF WATER BEFORE IT LEAVES THE SITE OF THE EARTH CHANGE.
- TEMPORARY OR PERMANENT CONTROL MEASURES SHALL BE DESIGNED AND INSTALLED TO CONVEY WATER AROUND, THROUGH OR FROM THE EARTH CHANGE AT A NON-EROSIVE VELOCITY.
- INSTALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES BEFORE OR UPON COMMENCEMENT OF THE EARTH CHANGE ACTIVITY AND MAINTAIN THE MEASURES ON A DAILY BASIS. REMOVE TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AFTER PERMANENT SOIL EROSION MEASURES ARE IN PLACE AND THE AREA IS STABILIZED. ("STABILIZED" MEANS THE ESTABLISHMENT OF VEGETATION OR THE PROPER PLACEMENT, GRADING OR COVERING OF SOIL TO ENSURE ITS RESISTANCE TO SOIL EROSION, SLIDING, OR OTHER EARTH MOVEMENT.)
- COMPLETE PERMANENT SOIL EROSION CONTROL MEASURE FOR THE EARTH CHANGE WITHIN FIVE (5) CALENDAR DAYS AFTER FINAL GRADING OR UPON COMPLETION OF THE FINAL EARTH CHANGE. IF IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE THE EARTH CHANGE, THEN MAINTAIN TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IN PLACE AND THE AREA IS STABILIZED.
- CONTRACTOR TO MAINTAIN SESC CONTROLS UNTIL LANDSCAPE IS ESTABLISHED AND FINAL SESC INSPECTION WITH APPROVAL HAS BEEN COMPLETED.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LANDSCAPING DURING THE WARRANTY PERIOD.

SOIL EROSION AND SEDIMENTATION CONTROL GENERAL NOTES

1. ACCORDING TO MICHIGAN PART 91 ADMINISTRATIVE RULE 1703, A SOIL EROSION AND SEDIMENTATION CONTROL (SESC) PLAN IS REQUIRED FOR CONSTRUCTION SITES WITH OVER ONE ACRE OF EARTH CHANGE. A FORMAL SESC PLAN IS NOT REQUIRED FOR SITES DISTURBING LESS THAN ONE ACRE WHICH ARE ALSO GREATER THAN 500 FEET FROM WATERS OF THE STATE (LAKES, STREAMS, WETLANDS, ETC.). THE EARTH CHANGE FOR THIS SITE WILL BE APPROXIMATELY 1.13 ACRES. THE NEAREST WATERS OF THE STATE IS THE HURON RIVER, WHICH IS ADJACENT TO THE LIMITS OF WORK. CONSEQUENTLY, A FORMAL SESC PLAN IS REQUIRED.
2. DURING CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM MAINTENANCE ON THE STORM WATER SYSTEM.

EROSION AND SEDIMENT CONTROL WORK TO CONFORM TO STANDARDS AND SPECIFICATIONS OF THE CITY OF ANN ARBOR.

1. EROSION AND SEDIMENTATION FROM WORK ON THIS SITE TO BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, RIVERS, LAKES AND PONDS.
2. CONTRACTOR TO APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED.
3. STAGING THE WORK TO BE DONE BY THE CONTRACTOR AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
4. SOIL EROSION CONTROL PRACTICES TO BE ESTABLISHED BEFORE CONSTRUCTION BEGINS BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES SHALL BE APPLIED AS A PERIMETER DEFENSE AGAINST TRANSPORTING OF SILT OFF THE SITE.
5. INSTALL TEMPORARY INLET FILTERS AT ALL ADJACENT AND DOWN-GRADIENT STORM WATER INLETS, CATCH BASINS AND MANHOLES THAT MAY BE IMPACTED. CATCH BASIN INLET FILTERS SHALL BE MAINTAINED CLEAN AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. IF A FILTER HAS HOLES OR IS INUNDATED WITH SEDIMENT, THE FILTER WILL REQUIRE REPLACEMENT.
6. INSTALL AN ANTI-TRACKING PAD AT THE SITE ENTRY AND EXIT(S) IF THERE IS A POTENTIAL FOR TRACK-OUT TO OCCUR FROM THE DISTURBED AREA.
7. THROUGHOUT THE CONSTRUCTION PERIOD, ALL MUD/SILT TRACKED ONTO EXISTING ROADS FROM THE SITE DUE TO CONSTRUCTION SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR.
8. PLACE STOCKPILES AND OTHER SPOIL PILES AWAY FROM THE DRAINAGE SYSTEM TO MINIMIZE SEDIMENT TRANSPORT. IF THE STOCKPILE AND/OR SPOIL PILE MUST REMAIN ON-SITE OVERNIGHT, OR IF THE WEATHER CONDITIONS INDICATE THE CHANCE FOR PRECIPITATION, A) COVER THE PILE WITH WATER REPELLENT MATERIAL TO PREVENT EROSION AND/OR B) INSTALL SILT FENCING AROUND THE BASE OF THE PILE TO PREVENT TRANSPORT OF SEDIMENT TO THE STORM WATER SYSTEM, OR APPLY OTHER CONTROL METHODS APPROPRIATE TO THE SITE. CONTROL MEASURES TO GUARD AGAINST WIND EROSION MUST ALSO BE EMPLOYED, SUCH AS WETTING OR COVERING THE STOCKPILES. KEEP AS FEW STOCKPILES AS POSSIBLE DURING THE COURSE OF THE PROJECT.
9. SEEDING OR OTHER STABILIZATION SHALL BE REQUIRED IMMEDIATELY TO AREAS WHICH HAVE BEEN DAMAGED BY RUNOFF.
10. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL ON THE SITE THROUGHOUT THE DURATION OF THE CONSTRUCTION PROCESS. CHLORIDE SHALL NOT BE USED FOR DUST CONTROL.
11. THE CONTRACTOR TO INSPECT THE SOIL EROSION AND SEDIMENTATION CONTROL DEVICES ONCE EACH WEEK AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT WHICH RESULTS IN A STORM WATER DISCHARGE FROM THE SITE. THE FOLLOWING STEPS SHALL BE IMPLEMENTED IF ANY DAMAGE HAS OCCURRED.
12. CONCRETE WASHOUT - DO NOT DISCHARGE CONCRETE WASHOUT INTO STORM DRAINS, CATCH BASINS OR TO THE SANITARY SEWER SYSTEM. PERFORM WASHING OF CONCRETE TRUCKS IN DESIGNATED AREAS OR AN APPROVED OFFSITE LOCATION.
13. INSTALL EROSION CONTROL, INLET PROTECTION, FILTER BAG WHEN PROPOSED DRAINAGE STRUCTURES ARE INSTALLED AND MAINTAIN INLET PROTECTION THROUGH THE COMPLETION OF CONSTRUCTION.

LEGEND

- EROSION CONTROL, SILT FENCE
- EROSION CONTROL, GRAVEL ACCESS APPROACH
- TURBIDITY CURTAIN, SEE BRIDGE PLANS
- LIMIT OF WORK

2	16
3	16



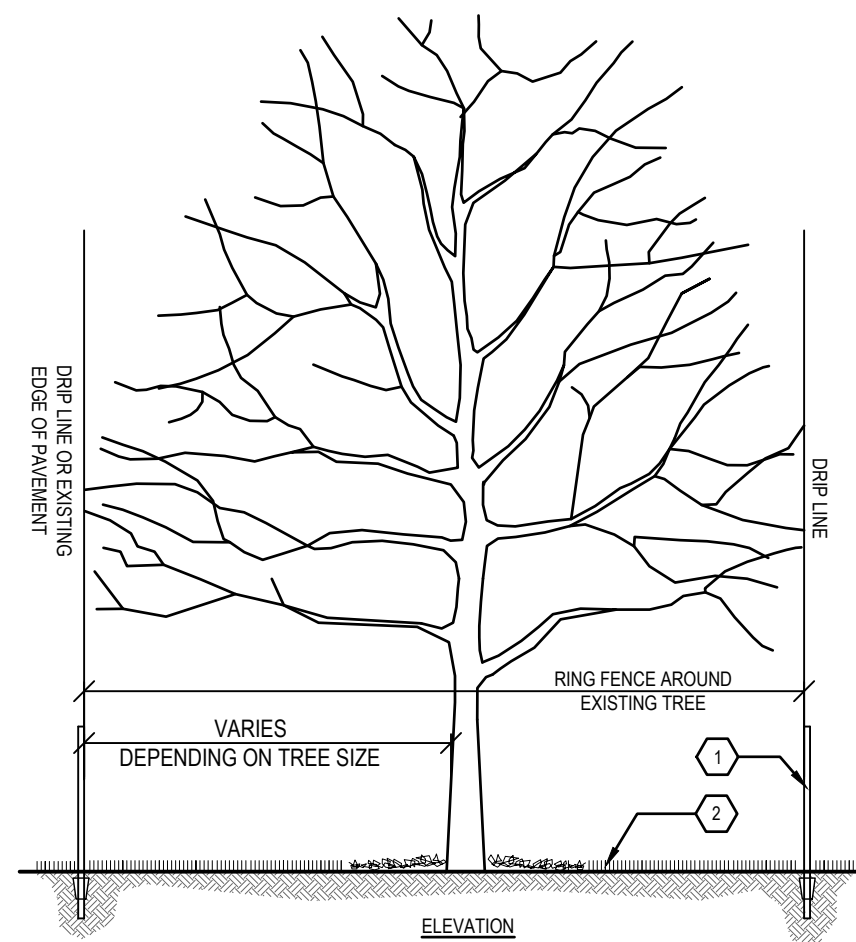
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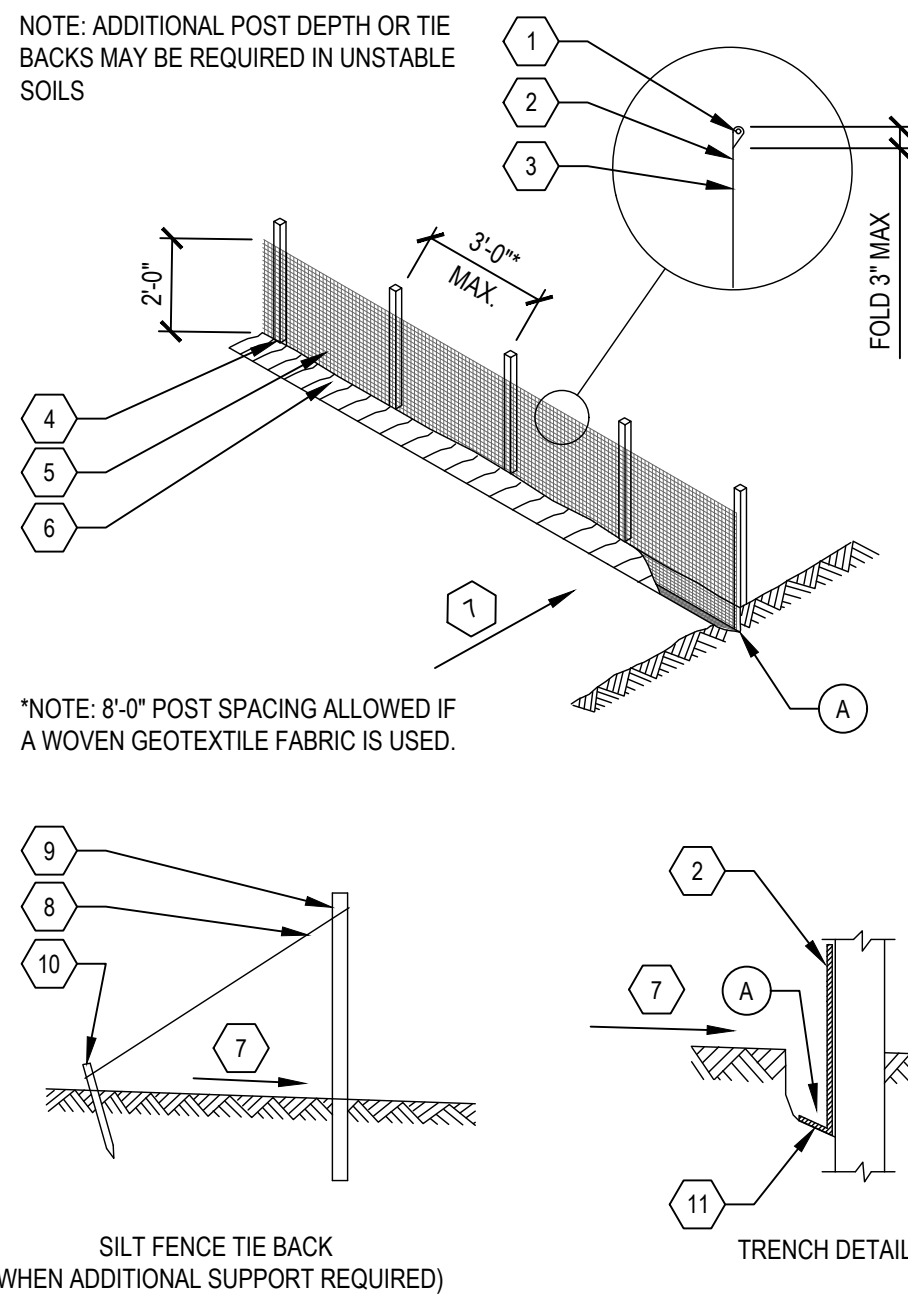


CITY OF ANN ARBOR - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
SOIL EROSION & SEDIMENTATION CONTROL PLAN

SCALE PLAN: 1" = 30'
DRAWING No. 14310

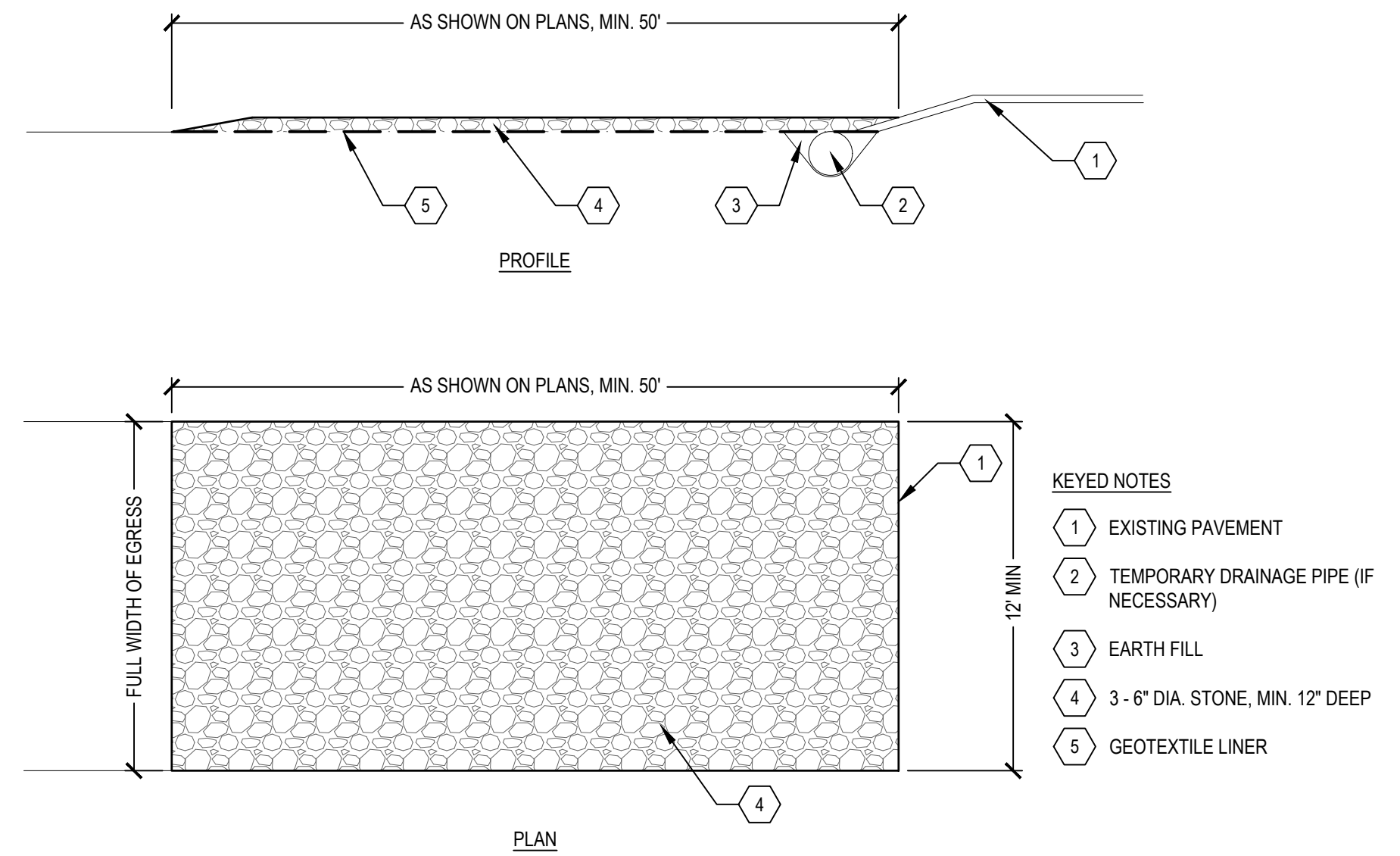


- NOTES:**
1. TREE PROTECTION FENCING IS TO BE ERECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
 2. ALL DEBRIS, FILL, EQUIPMENT OR MATERIAL IS TO BE KEPT CLEAR OF AREA WITHIN PROTECTIVE FENCE. NO CLEANING OF EQUIPMENT OR MATERIAL, OR STORAGE, OR DISPOSAL OF ANY MATERIAL WITHIN THE DRIP LINE OF ANY TREES TO BE SAVED.
 3. TREE PROTECTION FENCE CAN BE COMBINED TO INCLUDE MULTIPLE TREES.
 4. FIELD CONFIRM TREE PROTECTION LOCATIONS WITH OWNER PRIOR TO CONSTRUCTION.
 5. MAINTAIN TREE PROTECTION IN GOOD VERTICAL CONDITION FOR THE DURATION OF THE PROJECT.
 6. REMOVE AND DISPOSE OF MATERIALS AT PROJECT COMPLETION.
- KEYED NOTES:**
- 1 SET 4' HIGH CONSTRUCTION FENCE AT DRIP LINE
 - 2 NO EQUIPMENT TO BE USED WITHIN THE DRIP LINE. EXISTING GRADE SHALL NOT BE DISTURBED UNLESS APPROVED BY OWNER'S REPRESENTATIVE.



- NOTE:** ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS
- KEYED NOTES:**
- 1 SUPPORT CORD
 - 2 GEOTEXTILE FABRIC
 - 3 FLOW
 - 4 WOOD POSTS 2 LENGTH 3'-4" 20" DEPTH IN GROUND
 - 5 GEOTEXTILE FABRIC ONLY
 - 6 BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL ATTACH THE FABRIC TO THE POSTS WITH WIRE STAPLES OR WOODEN LATH AND NAILS
 - 7 FLOW DIRECTION
 - 8 TIEBACK BETWEEN FENCE POST AND ANCHOR
 - 9 SILT FENCE
 - 10 ANCHOR STAKE MIN. 18" LONG
 - 11 EXCESS FABRIC

- GENERAL NOTES:**
- FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC, FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
 - WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/2" x 1 1/2" OF OAK OR HICKORY.



- KEYED NOTES:**
- 1 EXISTING PAVEMENT
 - 2 TEMPORARY DRAINAGE PIPE (IF NECESSARY)
 - 3 EARTH FILL
 - 4 3-6" DIA. STONE, MIN. 12" DEEP
 - 5 GEOTEXTILE LINER

1 TREE PROTECTION FENCE

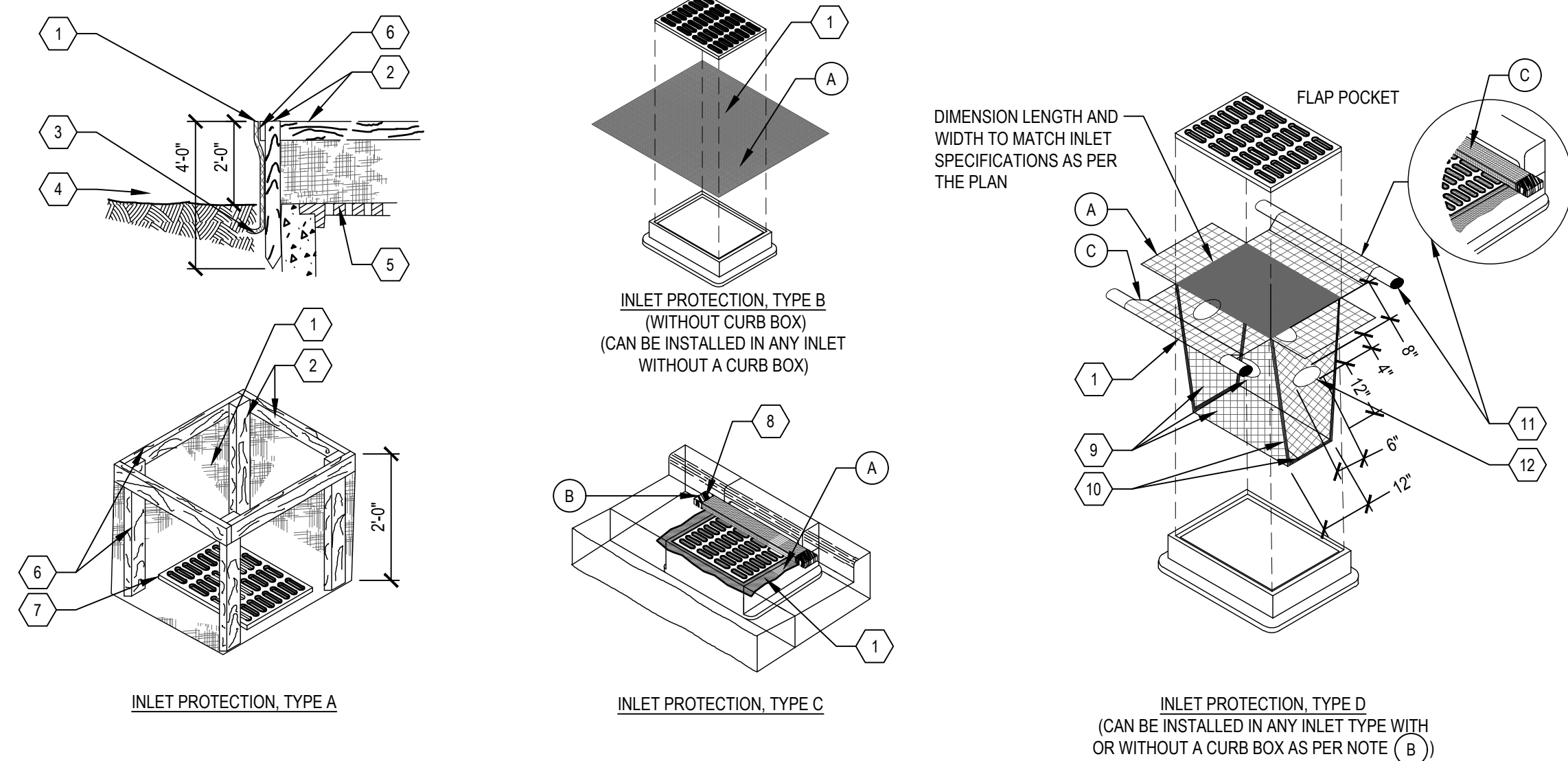
SCALE: 1/4"=1'

2 EROSION CONTROL, SILT FENCE

SCALE: 1/2"=1'

3 EROSION CONTROL, GRAVEL ACCESS APPROACH

SCALE: 1"=10'



- KEYED NOTES:**
- 1 GEOTEXTILE FABRIC, TYPE FF
 - 2 2" x 4" STAKE AND CROSS BRACING
 - 3 BURIED FABRIC MIN. 6" DEPTH
 - 4 DIRECTION OF RUNOFF WATER FLOW
 - 5 GRATED INLET
 - 6 ATTACH GEOTEXTILE FABRIC, TYPE FF TO THE STAKES AND CROSS BRACING.
 - 7 INLET WITH OR WITHOUT GRATE
 - 8 WOOD 2" x 4" EXTENDS 8" BEYOND GRATE WIDTH ON BOTH SIDES, LENGTH VARIES. SECURE TO GRATE WITH WIRE OR PLASTIC TIES (WITH CURB BOX)
 - 9 FRONT, BACK, AND BOTTOM TO BE MADE FROM SINGLE PIECE OF FABRIC
 - 10 MINIMUM DOUBLE STITCHED SEAMS ALL AROUND SIDE PIECES AND ON FLAP POCKETS.
 - 11 USE REBAR OR STEEL ROD FOR REMOVAL OR FOR INLETS WITH CAST CURB BOX USE WOOD 2" X 4", EXTEND 10" BEYOND GRATE WIDTH ON BOTH SIDES, LENGTH VARIES. SECURE TO GRATE WITH WIRE OR PLASTIC TIES
 - 12 4" X 6" OVAL HOLE SHALL BE HEAT CUT INTO ALL FOUR SIDE PANELS.

GENERAL NOTES:

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT A WOOD 2x4.

INSTALLATION NOTES:

TYPE B & C
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D
DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCHE THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

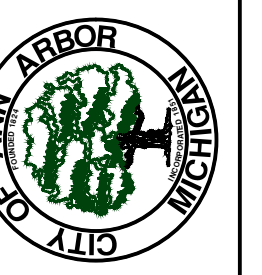
4 EROSION CONTROL, INLET PROTECTION, FILTER BAG

SCALE: N.T.S.



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CITY OF ANN ARBOR - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
SOIL EROSION & SEDIMENTATION CONTROL DETAILS

SHEET No. 14310
DRAWING No. 14310




MATERIAL QUANTITIES		
ITEM	QUANTITY	UNIT
HMA, 5EML	93	Ton
HMA, 4EML	63	Ton
HMA, 3EML	123	Ton
Aggregate Base, 6 inch	975	SY
Aggregate Base, 8 inch	48	SY
Aggregate Base, 10 inch	762	SY
Aggregate Surface Cse, 6 inch	232	SY
Conc Pavt, Nonreinf, 6 inch	248	SY
Sidewalk, Conc, 6 inch	6447	SF
Curb and Gutter, Conc, Det F4	107	LF
Straight Curb, Conc, 18" wide	128	LF
Bench, Relocate	1	Ea
Workout Equipment, Relocate	1	Ea
Water Fountain, Relocate	1	Ea
Detectable Warning Surface	32	LF
Bollard, Wood	49	Ea
Ledge Stone Bank Reinforcement, 12 inch (See Bridge Plans for Quantity Table)		
Ledge Stone Bank Reinforcement, 24 inch (See Bridge Plans for Quantity Table)		
Aggregate Base, LM (under Ledge Stone) (See Bridge Plans for Quantity Table)		
Geotextile Liner is included with Ledgestone and Riprap Pay Items		
Riprap, Spec Class III (Under Ledge Stone) (See Bridge Plans for Quantity Table)		
Sign, Type III B	8	Ea
Regulatory Sign, Relocate	5	Ea
Border to Border Trail Marker, Relocate	1	Ea
Memorial Sign, Relocate	1	Ea
Bike Repair Station, Relocate	1	Ea
Concrete Wheel Stop, Relocate	10	Ea
Light Pole, Relocate	2	Ea

- ### SITE LAYOUT NOTES
- NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY IDENTIFIED DISCREPANCIES WITHIN THE CONSTRUCTION DOCUMENTS PRIOR TO THE START OF WORK. DURING PERFORMANCE OF THE WORK, VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK. IN ALL CASES WHERE A CONFLICT MAY OCCUR, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED AND WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
 - PRIOR TO THE COMMENCEMENT OF WORK, VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION AND TAKE RESPONSIBILITY FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF CONSTRUCTION.
 - PROTECT EXISTING LANDSCAPING, CONTRACTOR RESPONSIBLE IF DAMAGE OCCURS DURING PROJECT DURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TREE PROTECTION FENCE DURING PROJECT DURATION.

PROVIDE DEDUCT ALTERNATE FOR 2' MIN. DEPTH MICHIGAN BOULDERS (MIXED LIMESTONE, GRANITE AND BSALT), 18" TO 30", EN LIEU OF LEDGESTONE & BEDDING AGGREGATE AT NORTHEAST, SOUTHWEST AND SOUTHEAST BANKS.

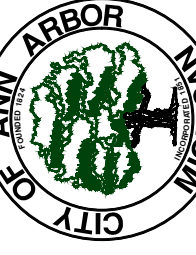
LEGEND

A	ASPHALT PAVEMENT - HEAVY DUTY	1
B	ASPHALT PAVEMENT	2
C	PVMT, CONC/ SIDEWALK, CONC SEE PLANS FOR LOCATIONS	3-4
D	CURB AND GUTTER, CONC	7
E	BENCH, RELOCATE	14
F	WORKOUT EQUIPMENT, RELOCATE	14
G	WATER FOUNTAIN, RELOCATE	14
H	DETECTABLE WARNING SURFACE	14
I	BOLLARD, WOOD	12
J	FUTURE KIOSK	14
K	LEDGE STONE BANK REINFORCEMENT (SEE BRIDGE PLANS FOR QUANTITY TABLE)	1-4
L	SIGN, TYPE III B, REGULATORY ONE LANE BRIDGE AHEAD YIELD TO ONCOMING TRAFFIC	10
M	SIGN TYPE III B, REGULATORY SPEED LIMIT	10
N	REGULATORY SIGN, RELOCATE NO MOTOR VEHICLES SIGN	11
O	REGULATORY SIGN, RELOCATE PATHWAY SIGN 1	11
P	REGULATORY SIGN, RELOCATE PATHWAY SIGN 2	11
Q	BORDER TO BORDER TRAIL MARKER, RELOCATE	12
R	MEMORIAL STONE SIGN, RELOCATE	14
S	SIGN TYPE III B, REGULATORY NO SWIMMING, NO JUMPING, NO ALCOHOL	9
T	BIKE REPAIR STATION, RELOCATE	14
U	LIGHT POLE, RELOCATE	14
V	AGGREGATE SURFACE CSE, 6 INCH	8
W	RIPRAP (SEE BRIDGE PLANS FOR QUANTITY TABLE)	14
X	LIMIT OF WORK	14
Y	STRAIGHT CURB, CONC 18" WIDE W/ 5' TAPER TO FLUSH, AS SHOWN ON PLAN	14
Z	CONCRETE WHEEL STOP, RELOCATE	14
	CONTROL JOINT	
	EXPANSION JOINT	



Know what's below.
Call before you dig.

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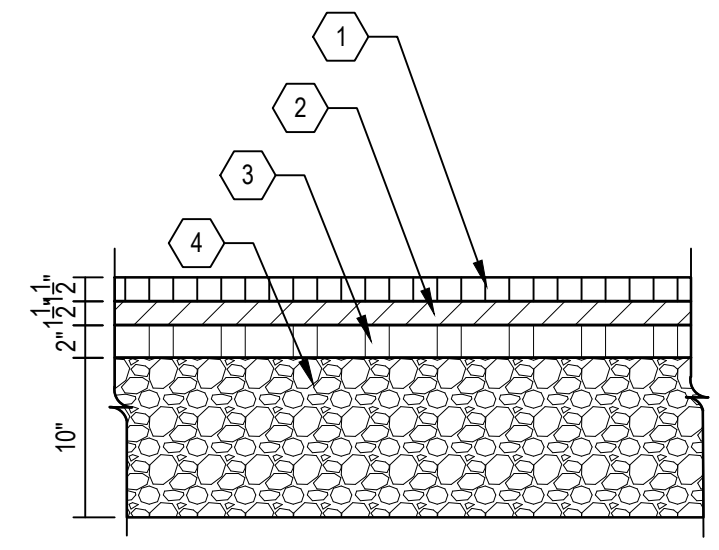
GALLUP PARK BRIDGE AND SITE IMPROVEMENTS

SITE LAYOUT PLAN

SCALE PLAN: PLAN: 1" = 30'

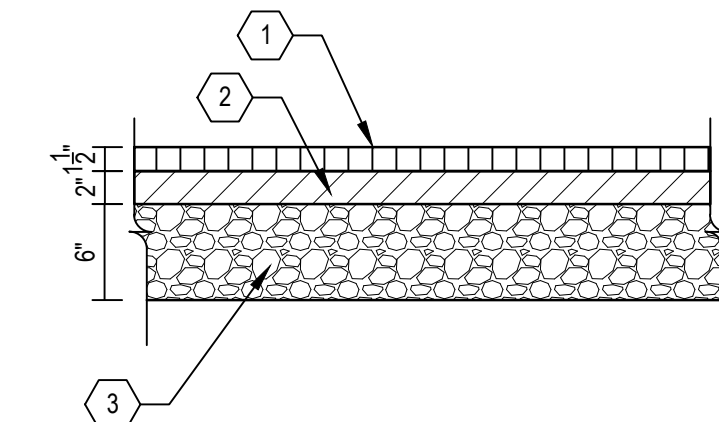
DRAWING No. 14310

SHEET No. 17 OF 55



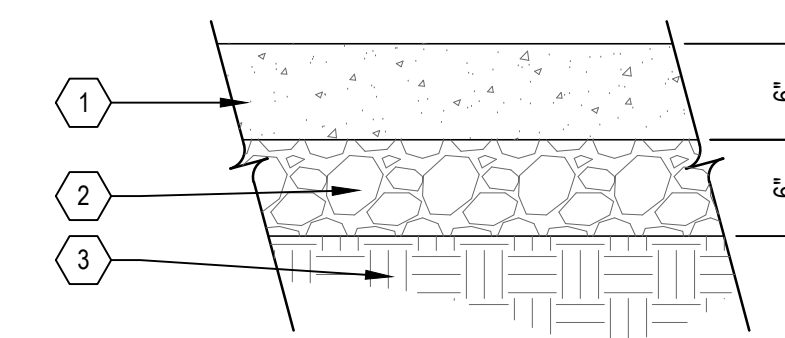
- 1 HMA WEARING COURSE (5E1)
- 2 HMA LEVELING COURSE (4E1)
- 3 HMA BASE COURSE (3C)
- 4 MDOT AGGREGATE BASE (21AA LIMESTONE)

1 ASPHALT PAVEMENT, HEAVY DUTY (ROAD) SCALE: NTS



- 1 HMA WEARING COURSE (5E1)
- 2 HMA LEVELING COURSE (4E1)
- 3 MDOT AGGREGATE BASE (21AA LIMESTONE)

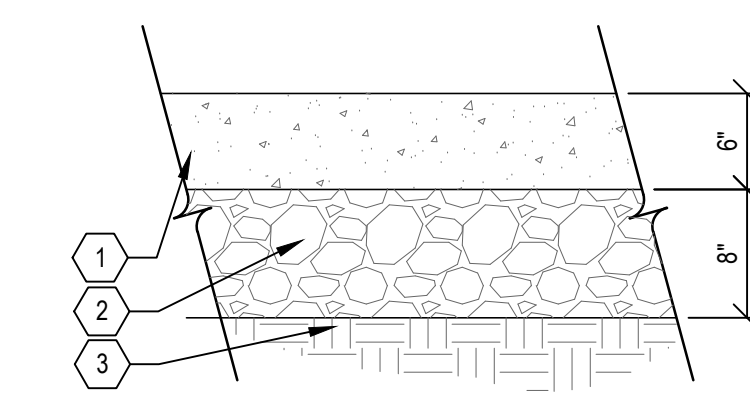
2 ASPHALT PAVEMENT, PATHWAYS SCALE: NTS



- KEYED NOTES**
- 1 CONCRETE SIDEWALK
 - 2 BASE COURSE
 - 3 SUBGRADE

NOTE:
ALL CONCRETE TO HAVE A LIGHT BROOM FINISH PERPENDICULAR TO LINE OF TRAVEL.

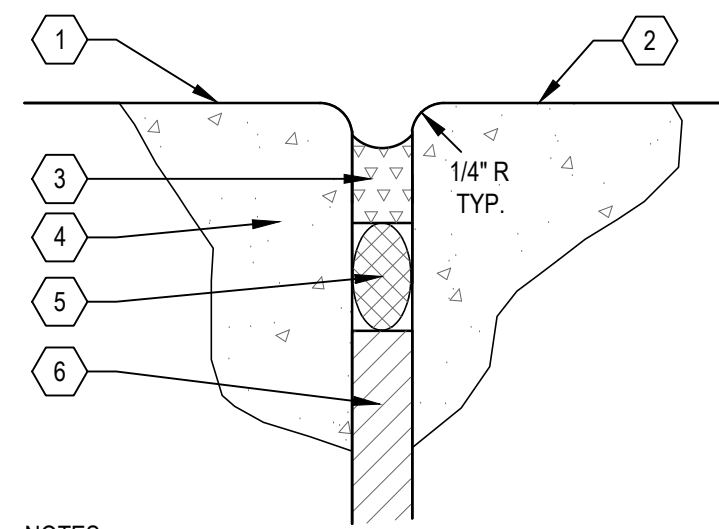
3 CONCRETE SIDEWALK SCALE: 1"=1'



- KEYED NOTES**
- 1 CONCRETE PAVEMENT
 - 2 BASE COURSE
 - 3 SUBGRADE

NOTE:
ALL CONCRETE TO HAVE A LIGHT BROOM FINISH PERPENDICULAR TO LINE OF TRAVEL.

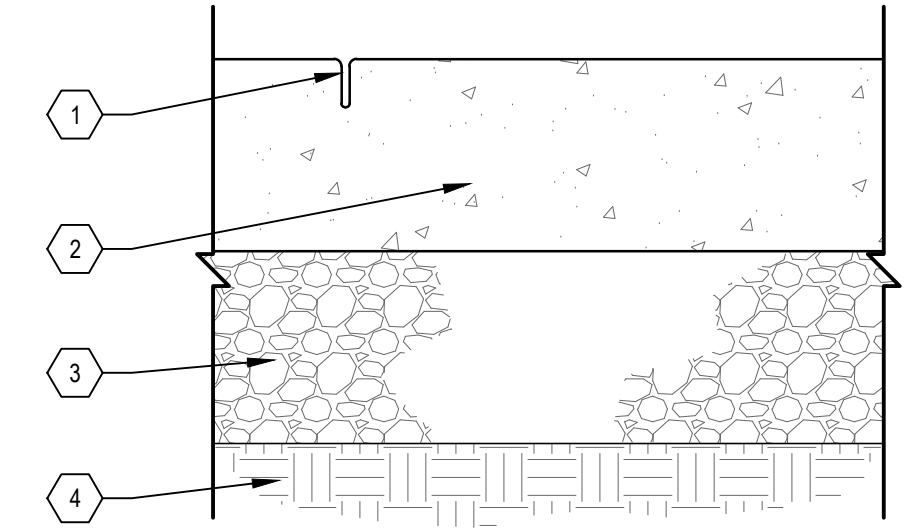
4 CONCRETE PAVEMENT SCALE: 1"=1'



- KEYED NOTES**
- 1 LIGHT BROOM FINISH
 - 2 TOP OF PAVEMENT
 - 3 JOINT SEALANT
 - 4 CONCRETE PAVEMENT
 - 5 FOAM BACKER ROD
 - 6 EXPANSION JOINT MATERIAL

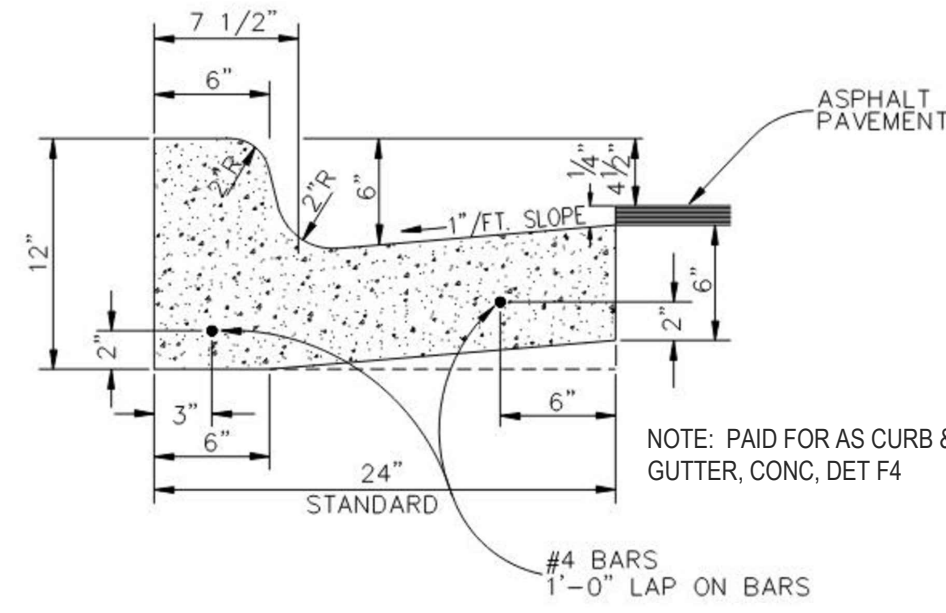
NOTES:
1. BACKER ROD AND SEALANT PER MANUFACTURER'S RECOMMENDATIONS
2. REFER TO LAYOUT PLANS FOR CONTROL JOINT AND EXPANSION JOINT LOCATIONS.

5 EXPANSION JOINT ENLARGEMENT SCALE: NTS

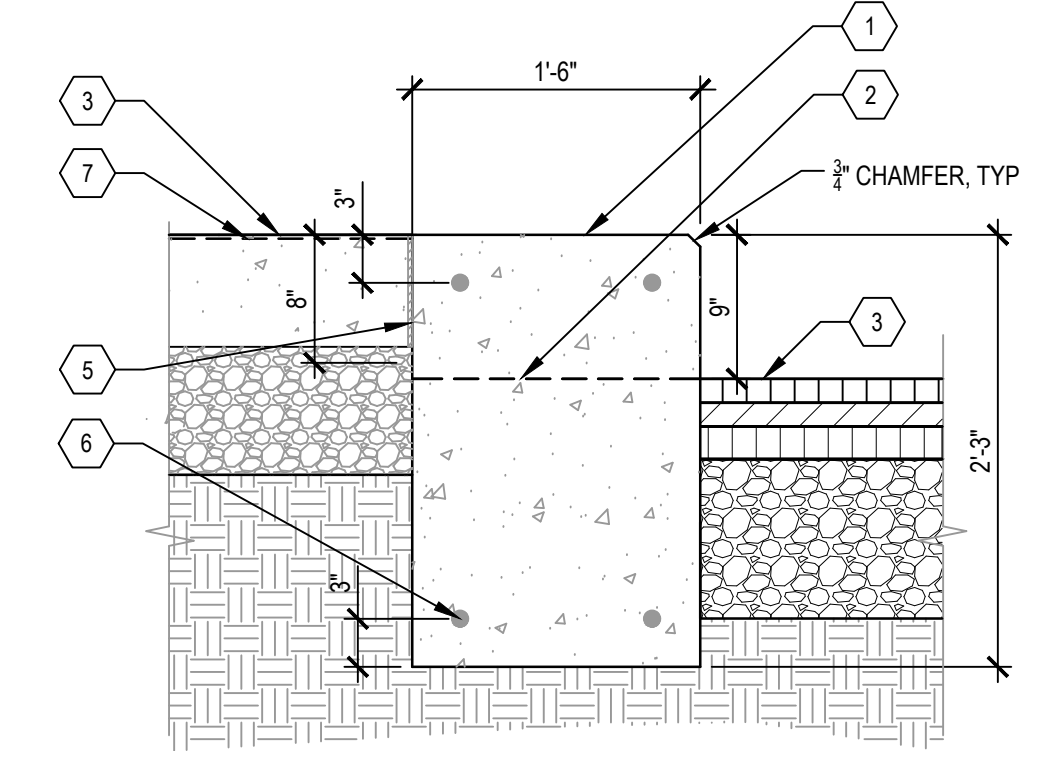


- KEYED NOTES**
- 1 CONTROL JOINT: 1/4 DEPTH OF PAVEMENT (SAWCUT)
 - 2 CONCRETE WALK
 - 3 AGGREGATE BASE
 - 4 SUBGRADE

6 CONTROL JOINT ENLARGEMENT NTS

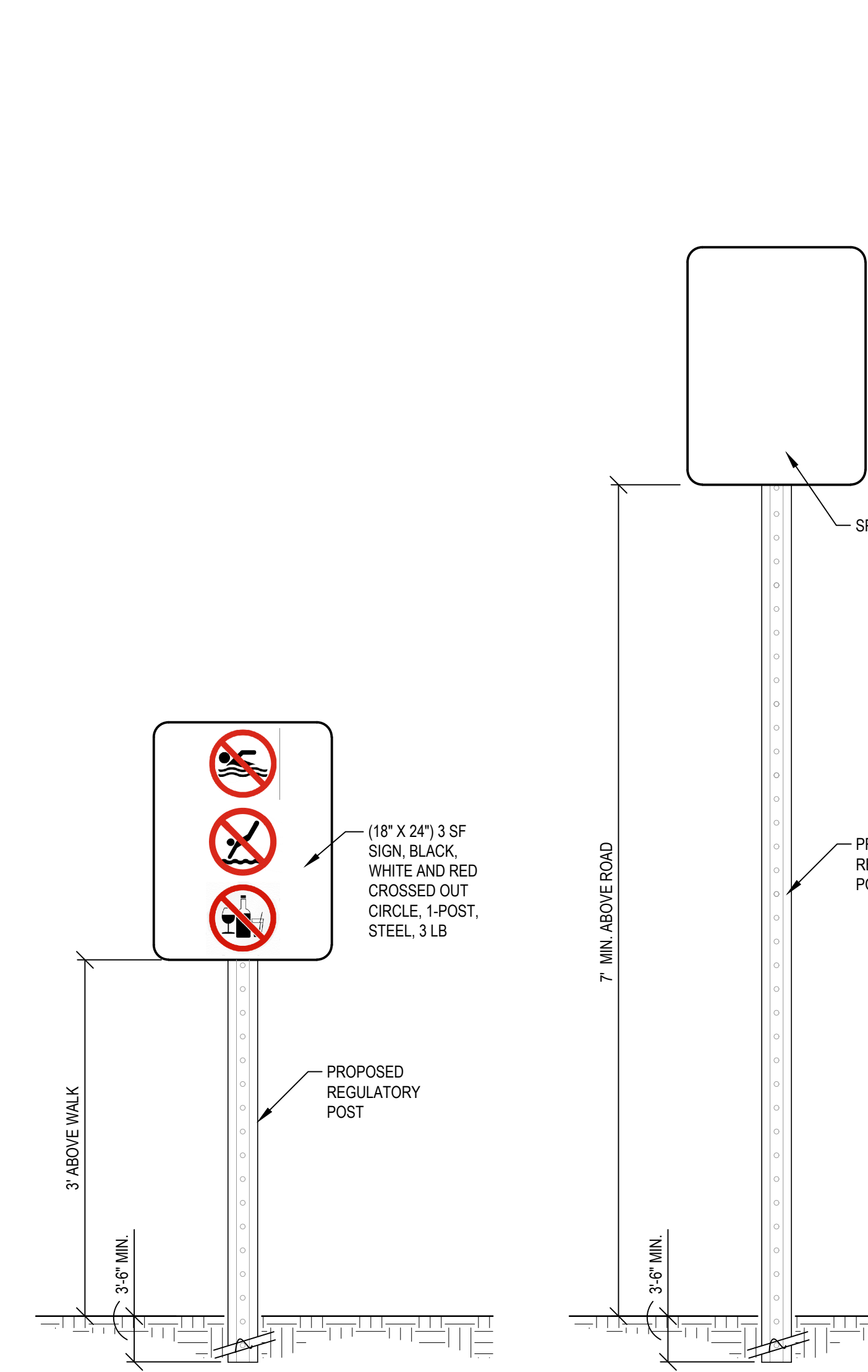


7 CONCRETE CURB AND GUTTER NTS

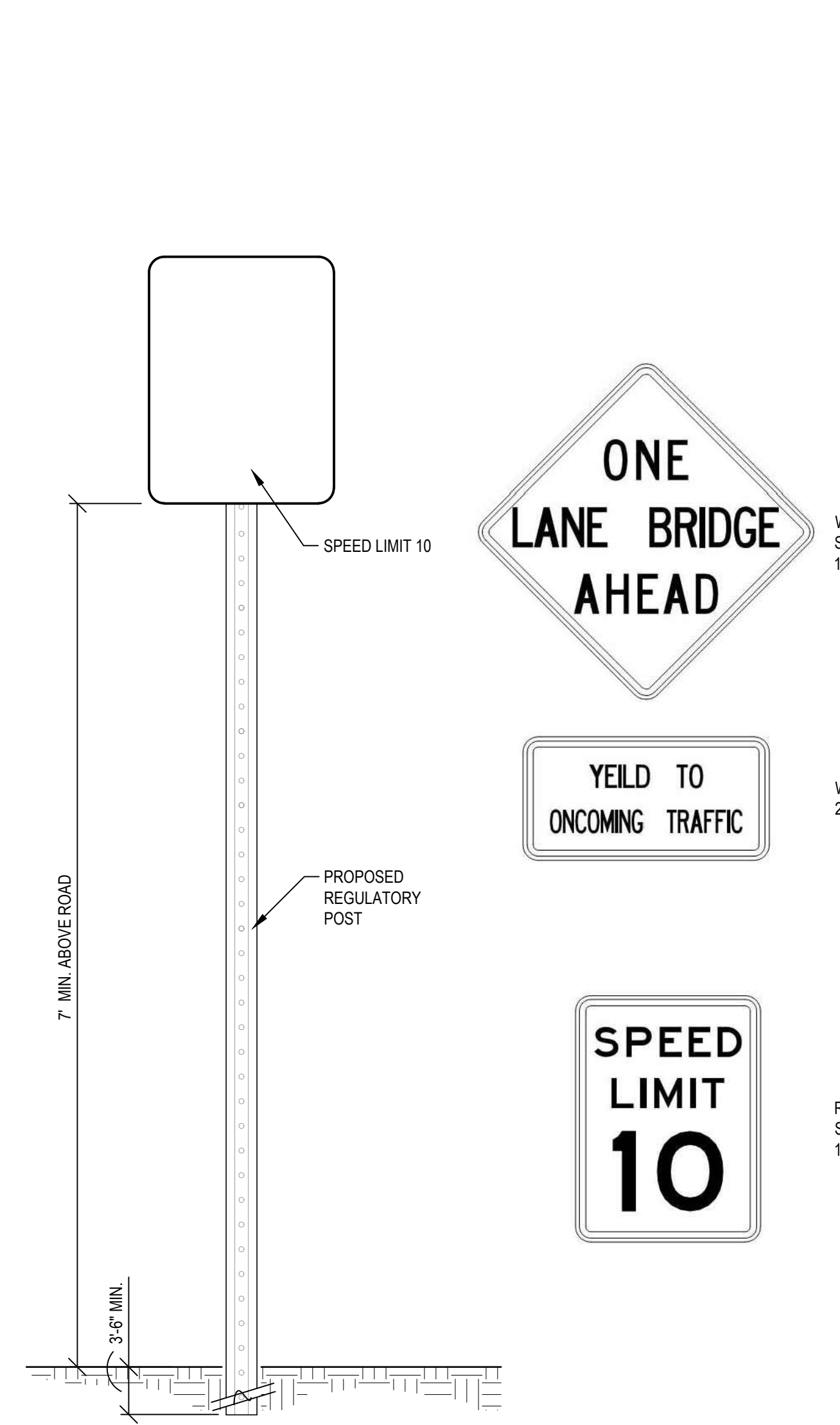


- KEYED NOTES**
- 1 CONCRETE STRAIGHT CURB (18")
 - 2 5' TAPER TO FLUSH WITH FINISH GRADE AT EACH END OF CURB LENGTH
 - 3 FINISH GRADE @ ROAD (SEE PLANS)
 - 4 FINISH GRADE @ WALK (SEE PLANS)
 - 5 EXPANSION JOINT, TYP.
 - 6 #4 BARS CONT.
 - 7 TIMBER WALK BEYOND

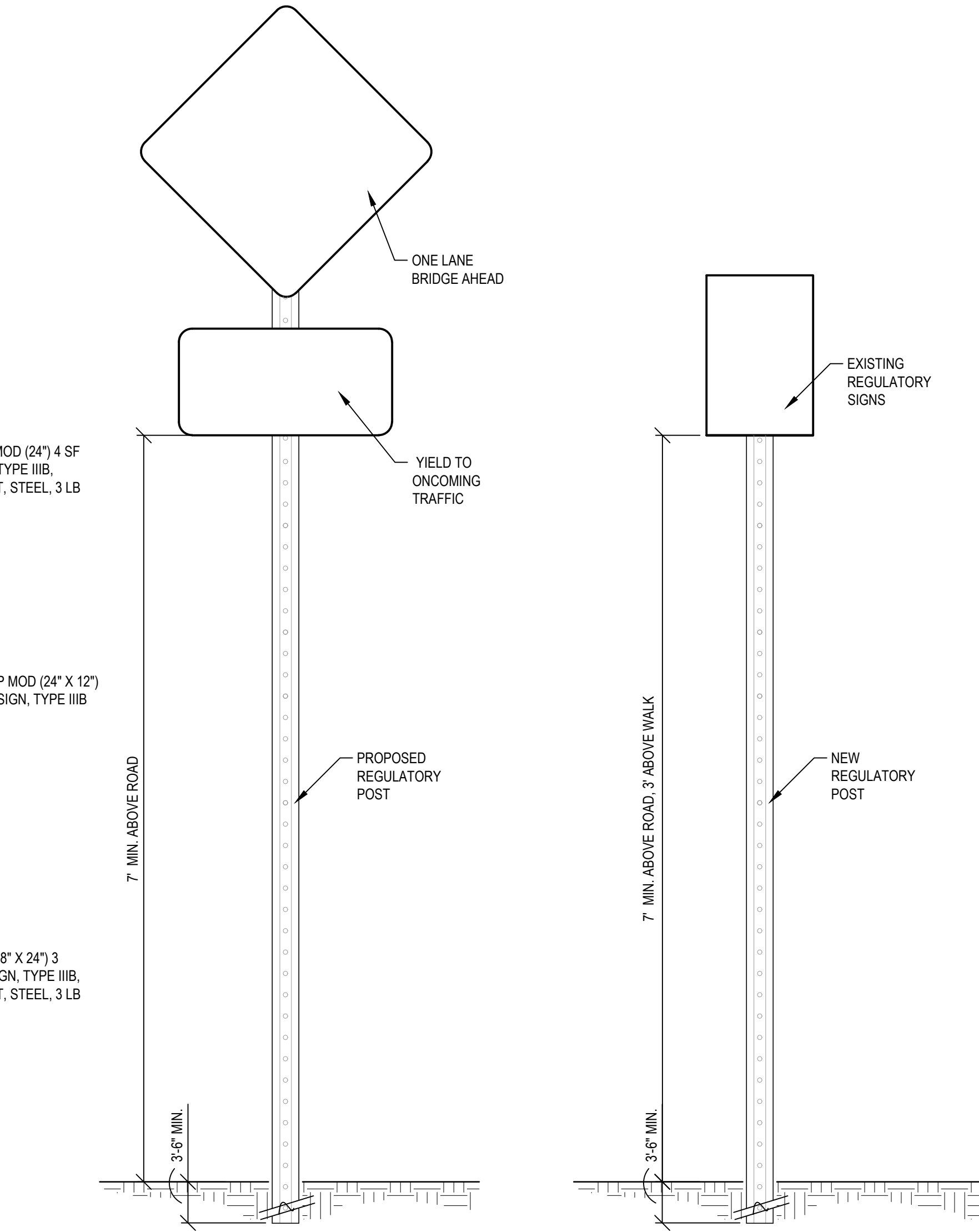
8 CONCRETE STRAIGHT CURB, 18" WIDE NTS



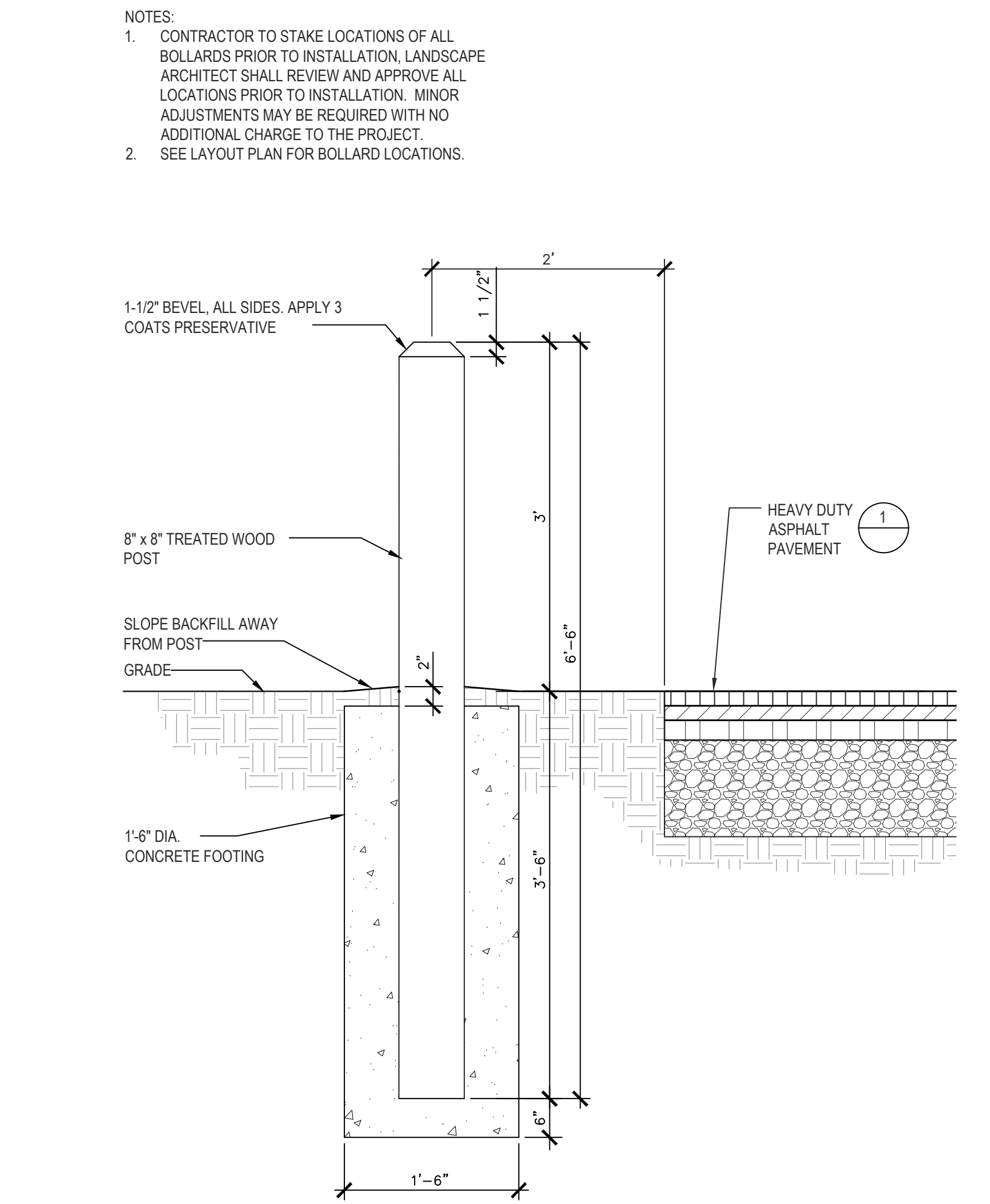
9 NEW PEDESTRIAN REGULATORY SIGN SCALE: NTS



10 NEW VEHICULAR REGULATORY SIGNS SCALE: NTS



11 RELOCATED REGULATORY SIGNS SCALE: NTS



12 WOOD BOLLARD (RELOCATED B2B MARKER- SIMILAR INSTALLATION) SCALE: NTS



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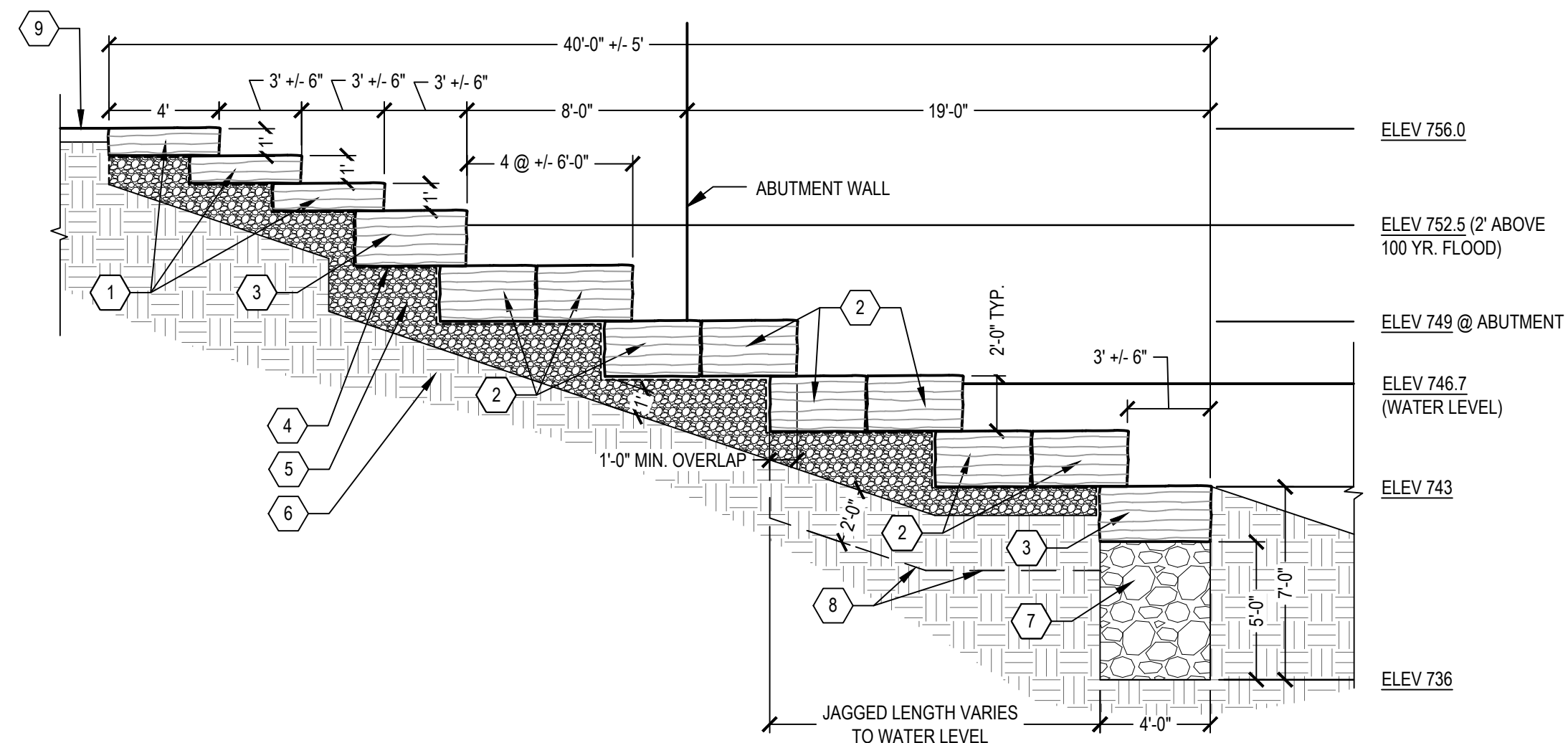


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
DRAWING No. 14310
SHEET No. 18 OF 55

- 1 NATURAL STONE (12" HEIGHT, 48" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 2 NATURAL STONE (24" HEIGHT, 42" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 3 NATURAL STONE (24" HEIGHT, 48" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 4 GEOTEXTILE LINER (INCLUDED WITH LEDGE STONE AND RIPRAP PAY ITEMS)
- 5 AGGREGATE BASE (SEE BRIDGE PLANS FOR QUANTITY TABLE)
- 6 COMPACTED SUBGRADE
- 7 HEAVY RIPRAP @ TOE TRENCH (PAID FOR AS RIPRAP, SPEC, CLASS III. SEE BRIDGE PLANS FOR QUANTITY TABLE)
- 8 HEAVY RIPRAP IN 4' WIDE TRENCH UNDER EAST SIDE OF SOUTHEAST LEDGE STONE (PAID FOR AS RIPRAP, SPEC, CLASS III. SEE BRIDGE PLANS FOR QUANTITY TABLE)
- 9 LAWN AREA

NOTE:

- GEOTEXTILE FABRIC TO FULLY WRAP TOP, ALL SIDES OF AGGREGATE BASE AND BETWEEN AGGREGATE BASE AND RIPRAP.
- ABUT JOINTS TIGHT BETWEEN STONES.
- CONTRACTOR IS REQUIRED TO PROVIDE LEVEL SURFACE FOR LEDGE STONE BANK REINFORCEMENT AT RIPRAP TOE.



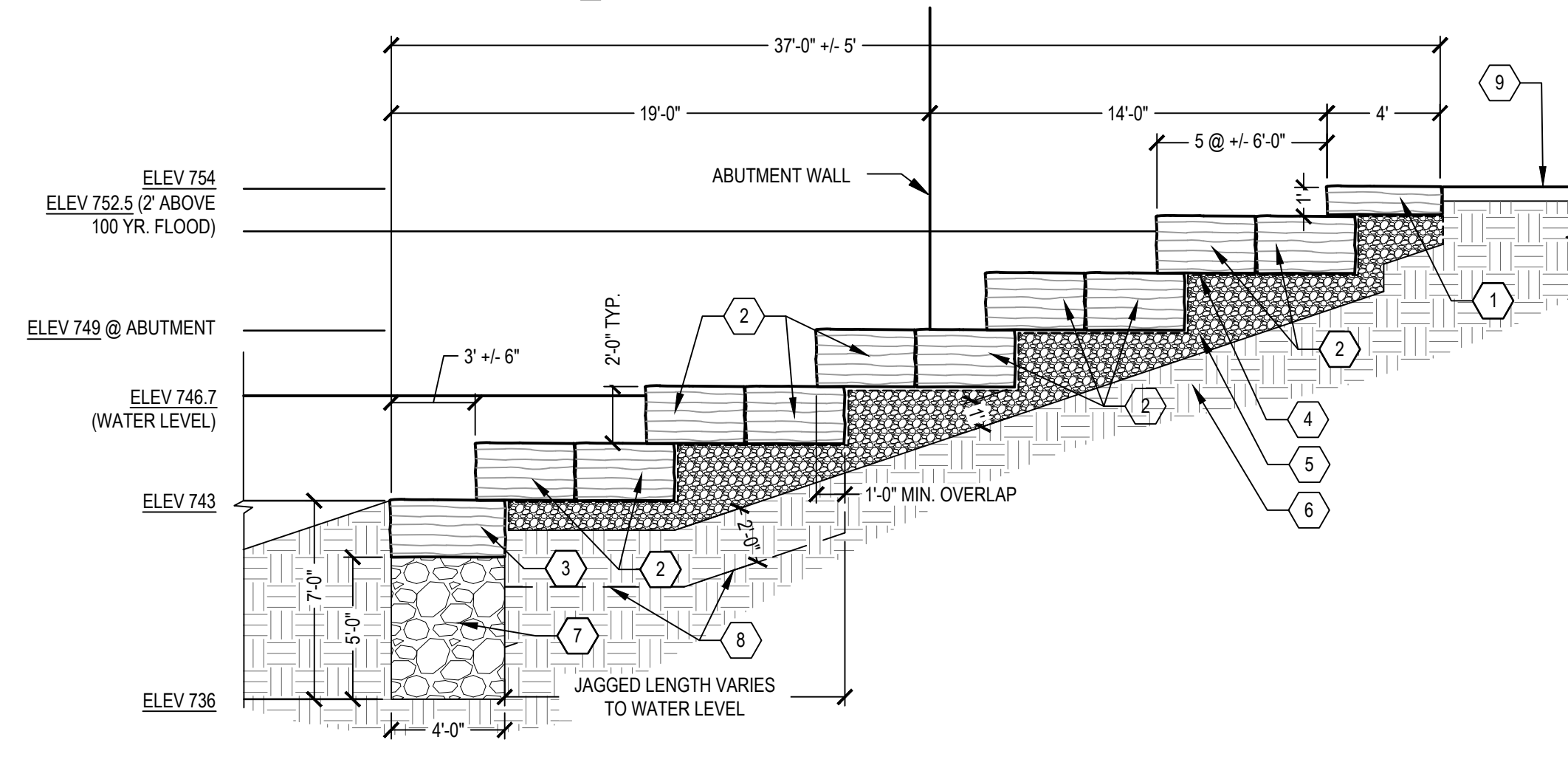
1 SOUTHEAST RIVER BANK - LEDGE STONE BANK REINFORCEMENT

1" = 5'

- 1 NATURAL STONE (12" HEIGHT, 48" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 2 NATURAL STONE (24" HEIGHT, 42" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
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- 8 HEAVY RIPRAP IN 4' WIDE TRENCH UNDER WEST SIDE OF SOUTHWEST LEDGE STONE (PAID FOR AS RIPRAP, SPEC, CLASS III (SEE BRIDGE PLANS FOR QUANTITY TABLE)
- 9 LAWN AREA

NOTE:

- GEOTEXTILE FABRIC TO FULLY WRAP TOP, ALL SIDES OF AGGREGATE BASE AND BETWEEN AGGREGATE BASE AND RIPRAP.
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- CONTRACTOR IS REQUIRED TO PROVIDE LEVEL SURFACE FOR LEDGE STONE BANK REINFORCEMENT AT RIPRAP TOE.



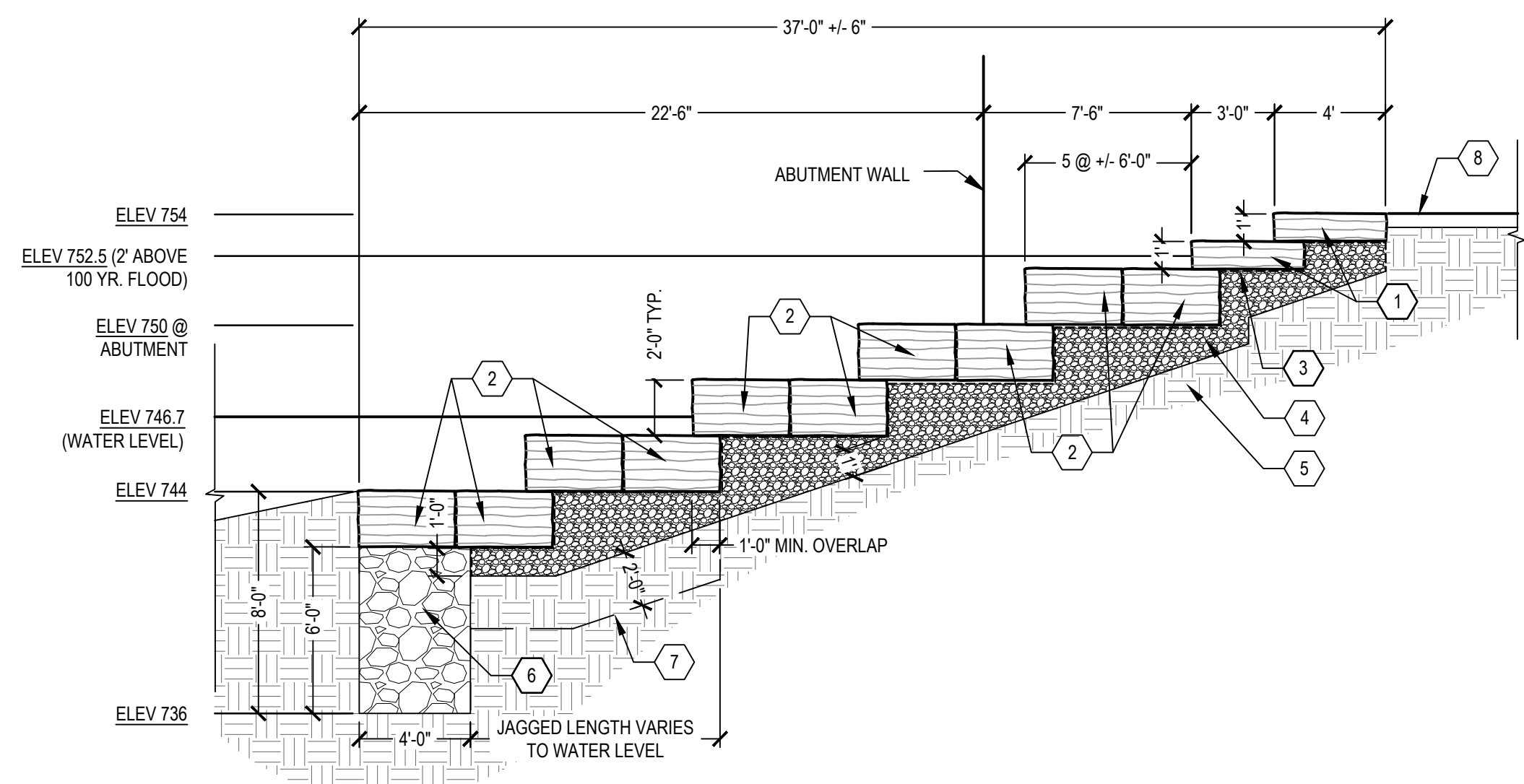
2 SOUTHWEST RIVER BANK - LEDGE STONE BANK REINFORCEMENT

1" = 5'

- 1 NATURAL STONE (12" HEIGHT, 48" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60"). SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 2 NATURAL STONE (24" HEIGHT, 42" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60"). SEE BRIDGE PLANS FOR QUANTITY TABLE.
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- 8 LAWN AREA

NOTE:

- GEOTEXTILE FABRIC TO FULLY WRAP TOP, ALL SIDES OF AGGREGATE BASE AND BETWEEN AGGREGATE BASE AND RIPRAP.
- ABUT JOINTS TIGHT BETWEEN STONES.
- CONTRACTOR IS REQUIRED TO PROVIDE LEVEL SURFACE FOR LEDGE STONE BANK REINFORCEMENT AT RIPRAP TOE.



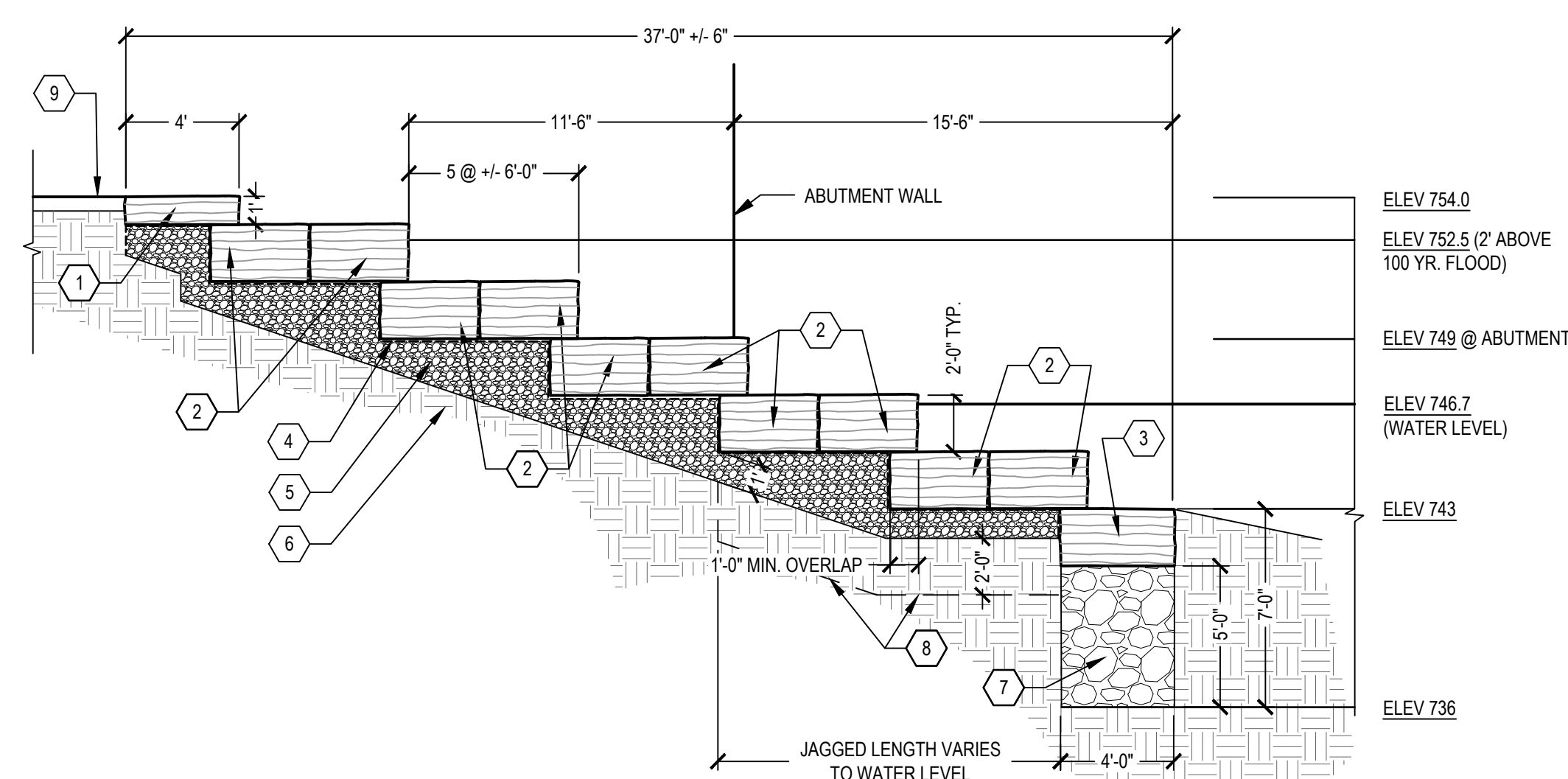
3 NORTHEAST RIVER BANK - LEDGE STONE BANK REINFORCEMENT

1" = 5'

- 1 NATURAL STONE (12" HEIGHT, 48" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 2 NATURAL STONE (24" HEIGHT, 42" MIN. DEPTH, WIDTH TO VARY FROM 24 - 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 3 NATURAL STONE (24" HEIGHT, 48" MIN. DEPTH, WIDTH TO VARY FROM 24" TO 60") SEE BRIDGE PLANS FOR QUANTITY TABLE.
- 4 GEOTEXTILE LINER (INCLUDED WITH LEDGE STONE AND RIPRAP PAY ITEMS)
- 5 AGGREGATE BASE (SEE BRIDGE PLANS FOR QUANTITY TABLE)
- 6 COMPACTED SUBGRADE
- 7 HEAVY RIPRAP @ TOE TRENCH (PAID FOR AS RIPRAP, SPEC, CLASS III. SEE BRIDGE PLANS FOR QUANTITY TABLE)
- 8 HEAVY RIPRAP IN 4' WIDE TRENCH UNDER WEST SIDE OF NORTHWEST LEDGE STONE (PAID FOR AS RIPRAP, SPEC, CLASS III (SEE BRIDGE PLANS FOR QUANTITY TABLE)
- 9 LAWN AREA

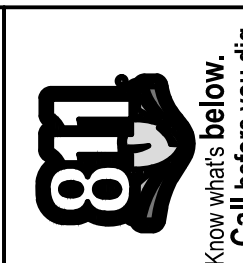
NOTE:

- GEOTEXTILE FABRIC TO FULLY WRAP TOP, ALL SIDES OF AGGREGATE BASE AND BETWEEN AGGREGATE BASE AND RIPRAP.
- ABUT JOINTS TIGHT BETWEEN STONES.
- CONTRACTOR IS REQUIRED TO PROVIDE LEVEL SURFACE FOR LEDGE STONE BANK REINFORCEMENT AT RIPRAP TOE.



4 NORTHWEST RIVER BANK - LEDGE STONE BANK REINFORCEMENT

1" = 5'



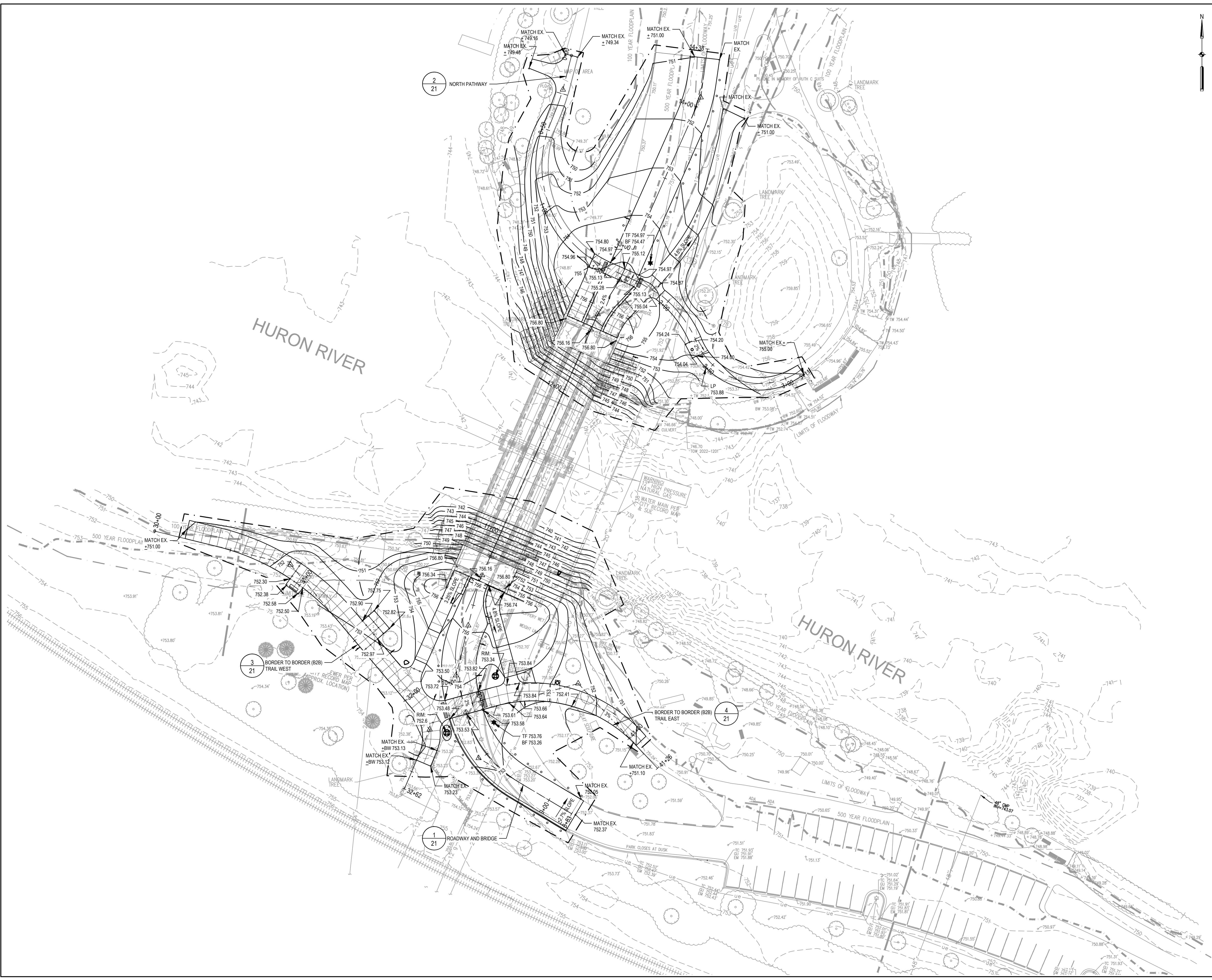
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DESCRIPTION	REV.			

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
SITE DETAILS

SCALE PLAN:
DRAWING No. 14310



SITE GRADING NOTES

1. PROVIDE POSITIVE DRAINAGE TO EXISTING AND PROPOSED DRAINAGE STRUCTURES.
2. TRANSITION FROM PROPOSED TO EXISTING GRADES OVER 10', AS INDICATED, OR AS REQUIRED TO PROVE A SMOOTH, UNIFORM TRANSITION BETWEEN SURFACES.
3. THIS PROJECT WILL REQUIRE AN SESC GRADING PERMIT FROM THE CITY OF ANN ARBOR.
4. 100 YEAR FLOODPLAIN - CUT & FILL CALCULATION
 - NORTH SIDE = 177.08 CUBIC YARDS (FILL)
 - SOUTH SIDE = 14.61 CUBIC YARDS (FILL)
 - NET = 191.69 CUBIC YARDS (FILL)

LEGEND

	T/C 100.00	TOP OF CURB
	B/C 100.00	BOTTOM OF CURB
	RIM 100.00	RIM ELEVATION
	HP 100.00	HIGH POINT
	LP 100.00	LOW POINT
	100.00	SPOT ELEVATION
	TF 100.00	TOP OF FOUNDATION
	BF 100.00	BOTTOM OF FOUNDATION
	SWALE LINE	SWALE LINE
	PROPOSED CONTOUR	PROPOSED CONTOUR
	EXISTING CONTOUR	EXISTING CONTOUR

N
 Know what's below.
 Call before you dig.

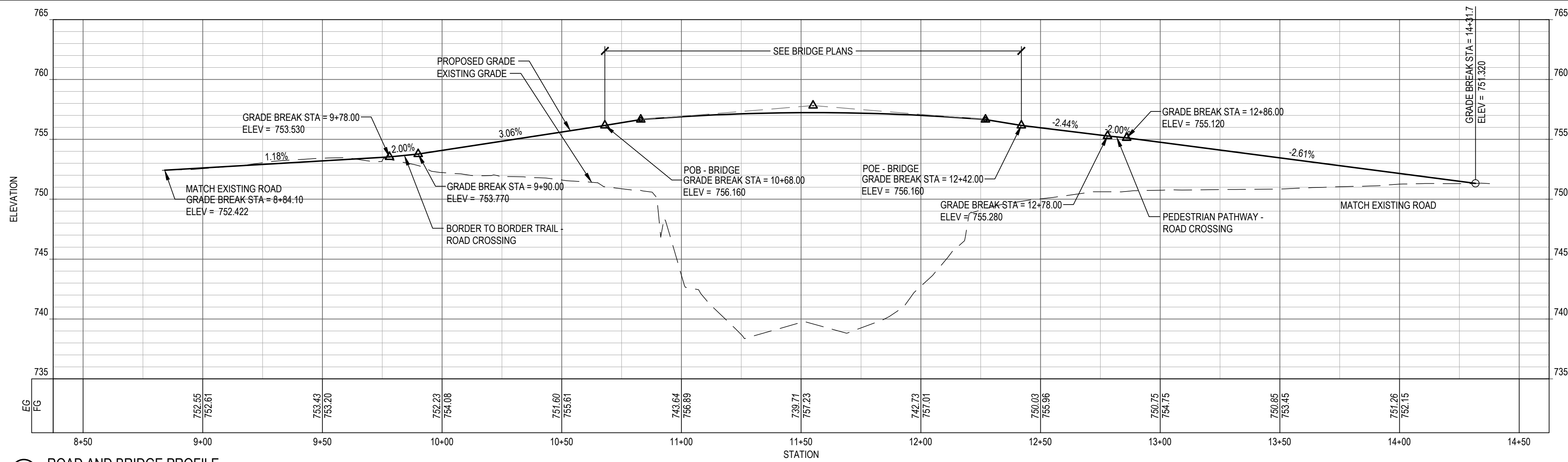
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND SITE IMPROVEMENTS
SITE GRADING PLAN

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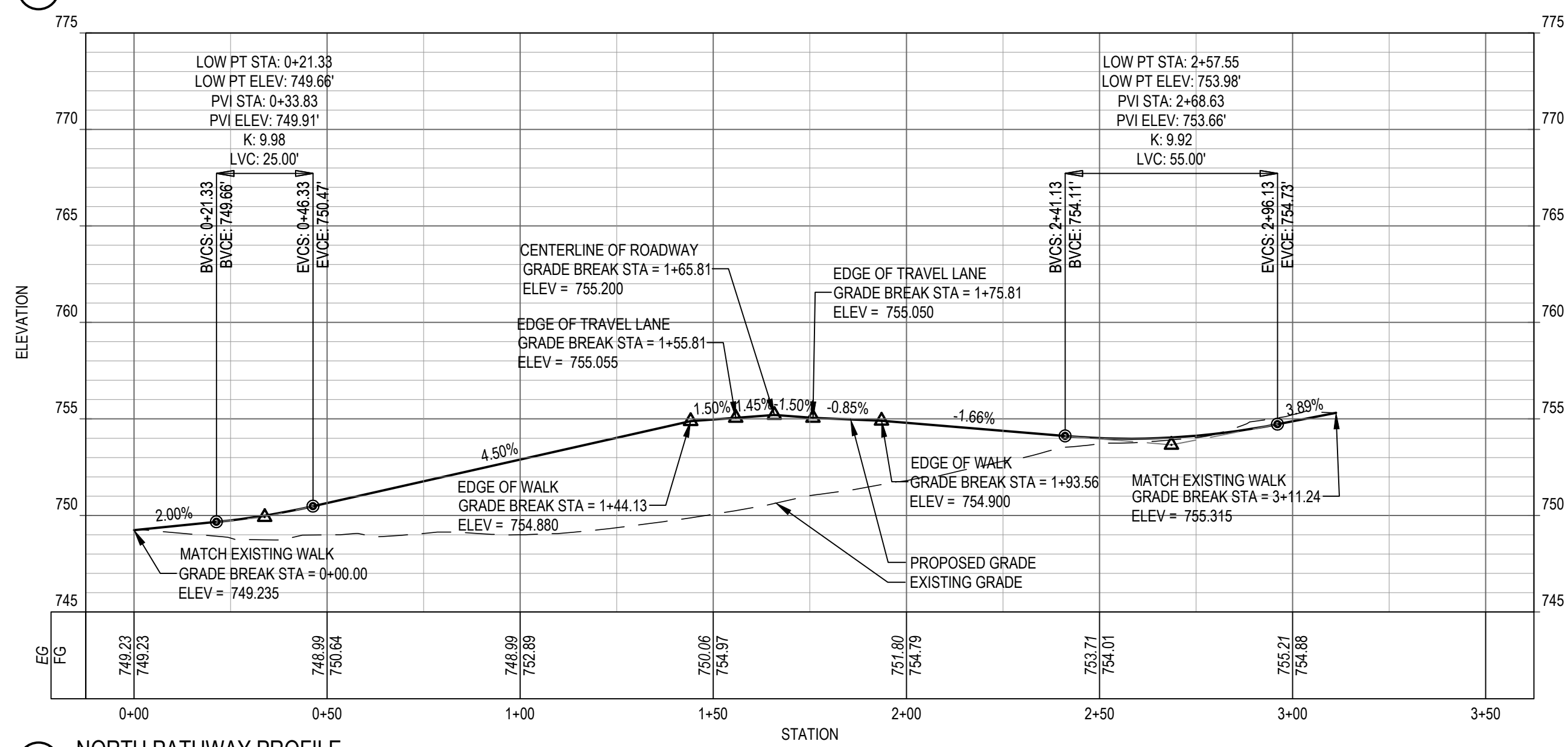
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND SITE IMPROVEMENTS
SITE GRADING PLAN

SCALE PLAN: PLAN: 1" = 30'
 DRAWING NO. 14310
 SHEET NO. 20 OF 55



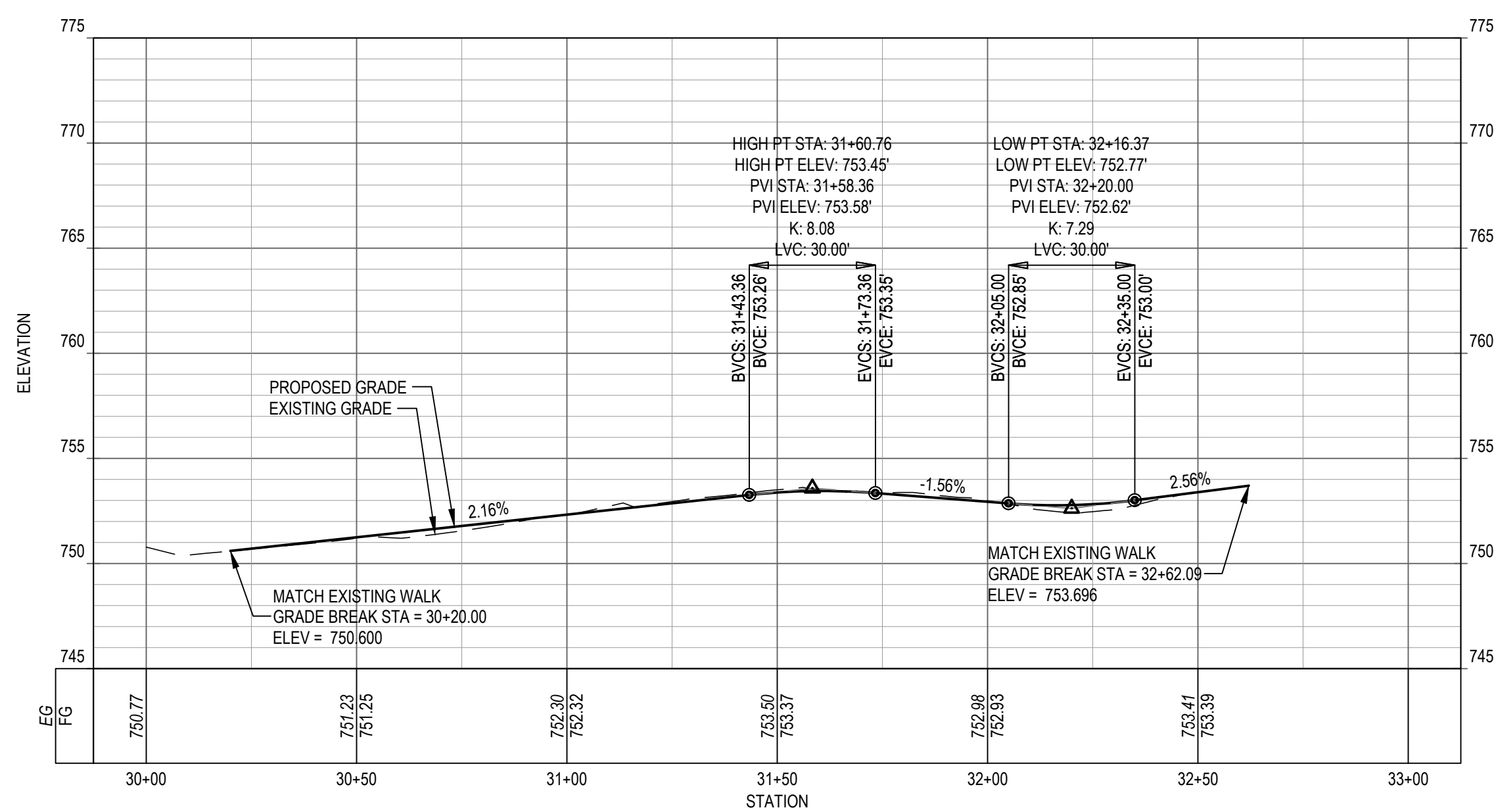
1 ROAD AND BRIDGE PROFILE

HORIZ SCALE: 1"=30'
VERT SCALE: 1"=6'



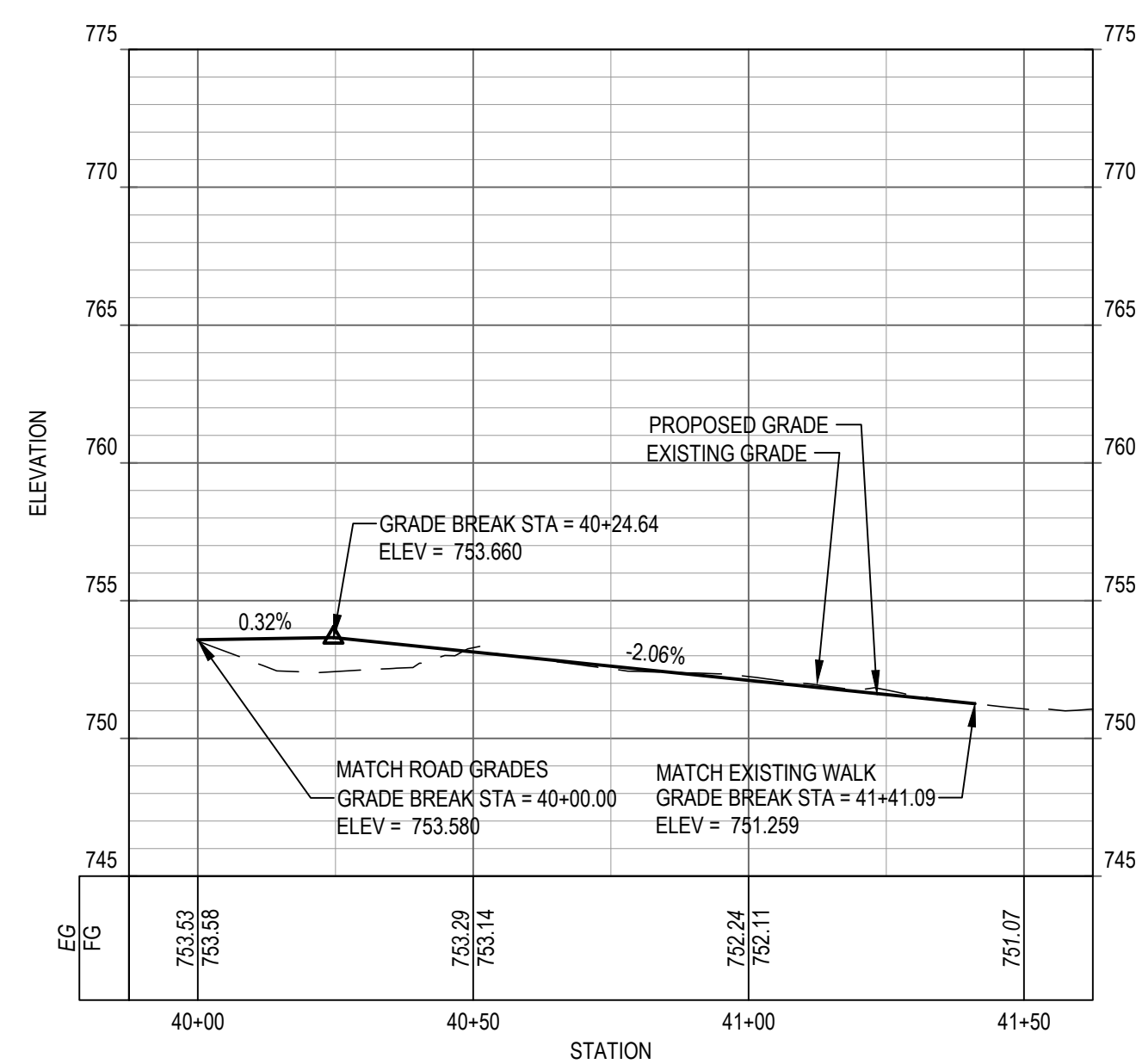
2 NORTH PATHWAY PROFILE

HORIZ SCALE: 1"=30'
VERT SCALE: 1"=6'



3 BORDER TO BORDER (B2B) TRAIL WEST PROFILE

HORIZ SCALE: 1"=30'
VERT SCALE: 1"=6'



4 BORDER TO BORDER (B2B) TRAIL EAST PROFILE

HORIZ SCALE: 1"=30'
VERT SCALE: 1"=6'



Know what's below.
Call before you dig.

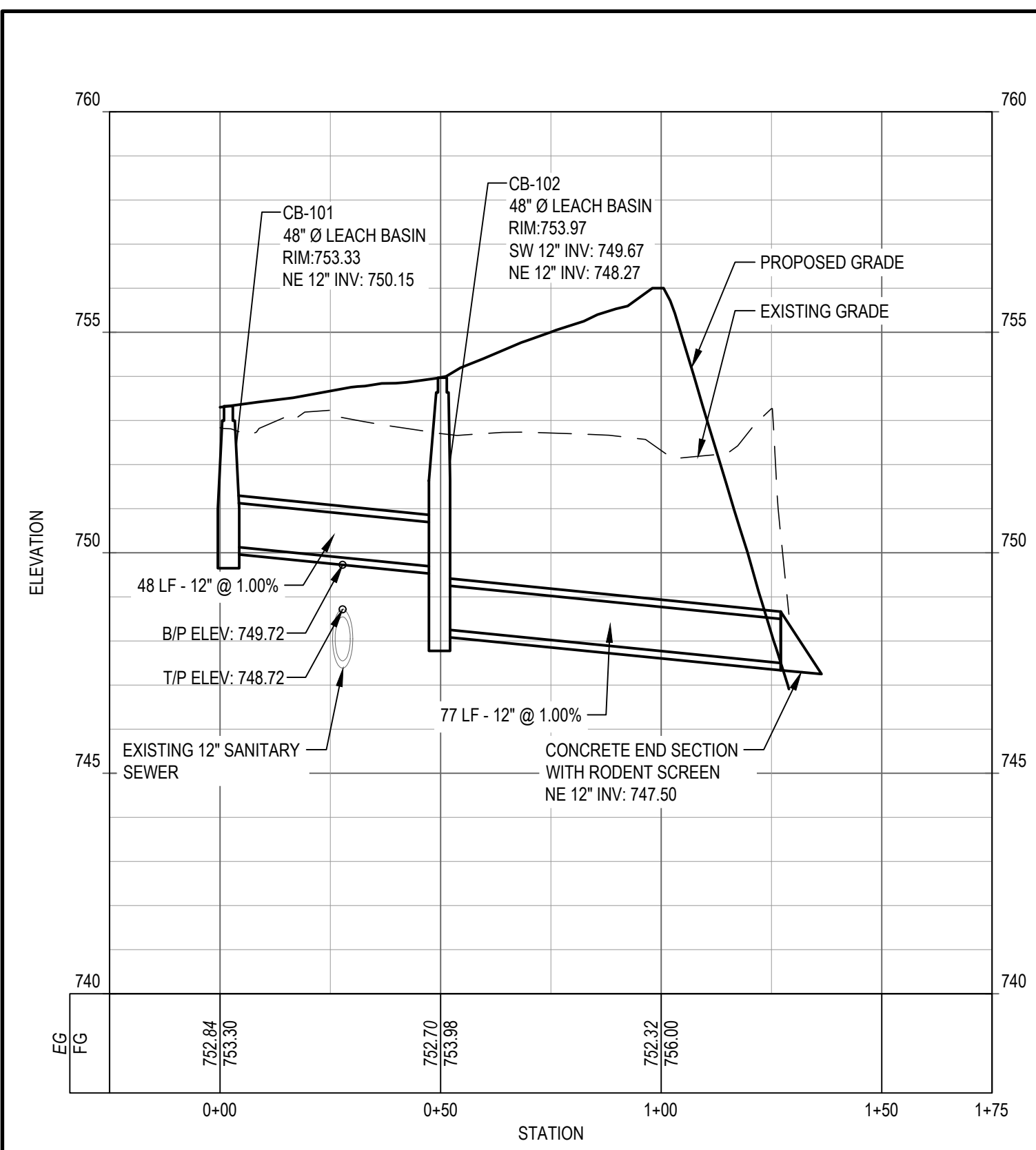
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	ISSUED FOR BIDS	06-28-23	KD	EM

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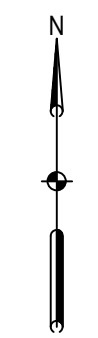


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND
SITE IMPROVEMENTS
ROADWAY AND PATHWAY PROFILES

SCALE PLAN:
DRAWING No.
14310



MATERIAL QUANTITIES		
ITEM	QUANTITY	UNIT
Dr Structure, 48 inch dia	2	Ea
Sewer, CI IV, 12 inch, Tr Det B	125	Ft
Culv End Section, 12 inch	1	Ea
Dr Structure Cover, Type G	2	Ea

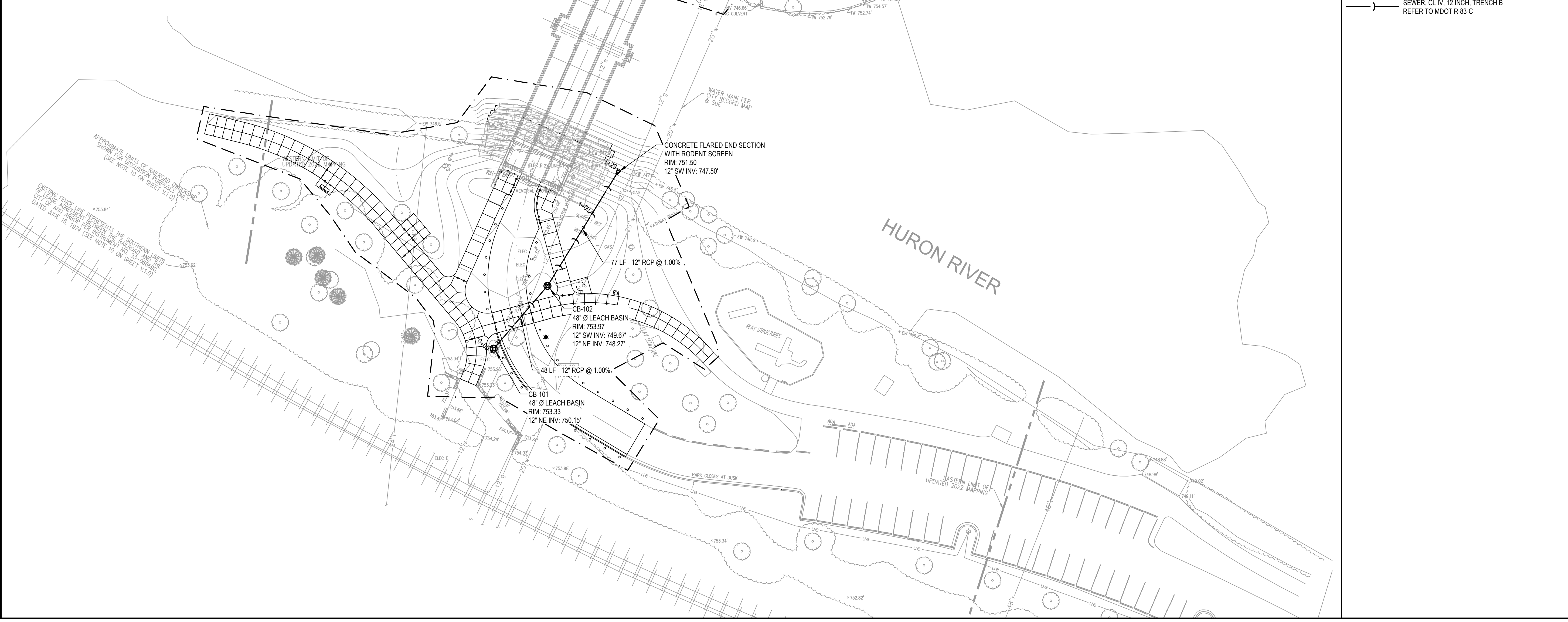


SHEET NOTES

- PRIOR TO THE COMMENCEMENT OF WORK, VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION AND TAKE RESPONSIBILITY FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF CONSTRUCTION.
- SECURE ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES WITH UTILITIES ON THE SITE PRIOR TO THE CONSTRUCTION OF THE PROJECT. ADHERE TO ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS OR REGULATIONS PERTAINING TO THE PROJECT.
- THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES STANDARD SPECIFICATIONS.
- ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- COORDINATE WORK OF SUBCONTRACTORS AND ALL OTHER CONTRACTORS TO ENSURE ORDERLY AND EFFICIENT COMPLETIONS OF ALL WORK.
- THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTORS OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THE CITY OF ANN ARBOR STANDARD SPECIFICATIONS.
- THIS PROJECT WILL REQUIRE AN EGLE FLOODPLAIN PERMIT.

LEGEND

- DR STRUCTURE, 48 INCH DIA LEACHING BASIN - REFER TO MDOT R-1-G
- FLARED END SECTION REFER TO MDOT R-86-F
- SEWER, CL IV, 12 INCH, TRENCH B REFER TO MDOT R-83-C



REV	DATE	DESCRIPTION
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND SITE IMPROVEMENTS
STORM SEWER PLAN

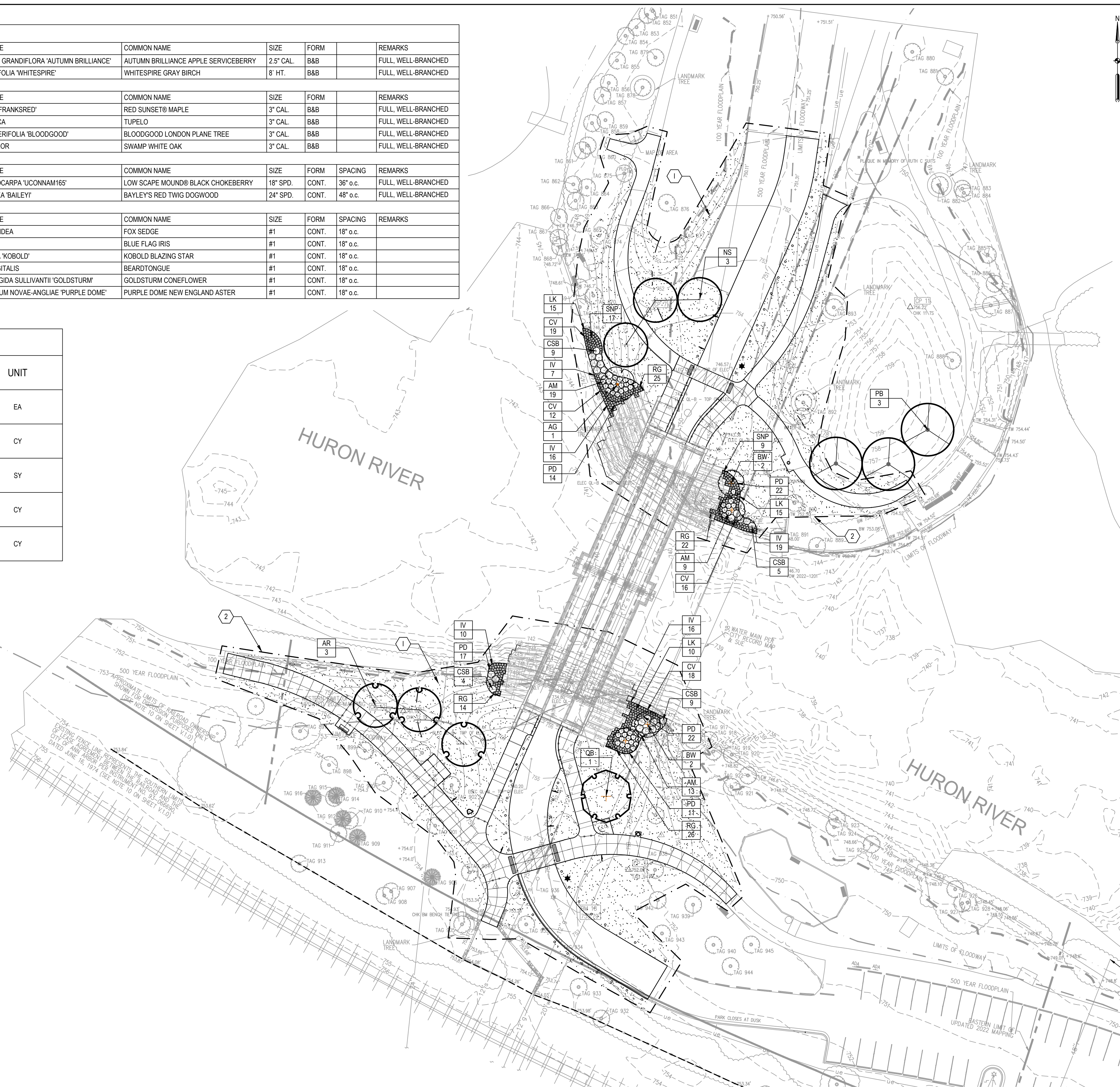
SCALE PLAN: PLAN: 1" = 30'
DRAWING No. 14310
SHEET No. 22 OF 55

PLANT SCHEDULE

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	REMARKS	
AG	1	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	2.5" CAL.	B&B	FULL, WELL-BRANCHED	
BW	4	BETULA POPULIFOLIA 'WHITESPIRE'	WHITESPIRE GRAY BIRCH	8" HT.	B&B	FULL, WELL-BRANCHED	
SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	REMARKS	
AR	3	ACER RUBRUM 'FRANKSRED'	RED SUNSET® MAPLE	3" CAL.	B&B	FULL, WELL-BRANCHED	
NS	3	NYSSA SYLVATICA	TUPELO	3" CAL.	B&B	FULL, WELL-BRANCHED	
PB	3	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANE TREE	3" CAL.	B&B	FULL, WELL-BRANCHED	
QB	1	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL.	B&B	FULL, WELL-BRANCHED	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	REMARKS
AM	46	ARONIA MELANOCARPA 'CONNAM165'	LOW SCAPE MOUND® BLACK CHOKEBERRY	18" SPD.	CONT.	36" o.c.	FULL, WELL-BRANCHED
CSB	27	CORNUS SERICEA 'BAILEY'	BAYLEY'S RED TWIG DOGWOOD	24" SPD.	CONT.	48" o.c.	FULL, WELL-BRANCHED
PERENNIALS / ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	REMARKS
CV	65	CAREX VULPINOIDEA	FOX SEDGE	#1	CONT.	18" o.c.	
IV	68	IRIS VIRGINICA	BLUE FLAG IRIS	#1	CONT.	18" o.c.	
LK	40	LIATRIS SPICATA 'KOBOLD'	KOBOLD BLAZING STAR	#1	CONT.	18" o.c.	
PD	86	PENSTEMON DIGITALIS	BEARDTONGUE	#1	CONT.	18" o.c.	
RG	87	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'	GOLDSTURM CONEFLOWER	#1	CONT.	18" o.c.	
SNP	26	SYMPHYOTRICHUM NOVAE-ANGLIAE 'PURPLE DOME'	PURPLE DOME NEW ENGLAND ASTER	#1	CONT.	18" o.c.	

MATERIAL QUANTITIES

ITEM	QUANTITY	UNIT
Exterior Plants- see Plant Schedule above		EA
Shredded Bark Mulch, 2 inch	10	CY
Seeded Lawn	3059	SY
Planting Mixture, 12 inch	59	CY
Topsoil	340	CY



SITE LANDSCAPE NOTES

- CONTRACTOR SHALL VERIFY ALL MEASUREMENTS IN THE FIELD.
- EXISTING UTILITIES: THE EXISTING UTILITY DATA SHOWN IS FOR REFERENCE ONLY AND MAY NOT SHOW ALL EXISTING UTILITIES OR DATA. FIELD VERIFY ALL UTILITIES PRIOR TO PLANTING. CONTACT OWNER'S REPRESENTATIVE IF CONFLICTS ARE FOUND
- ALL EXISTING PLANT MATERIAL MAY NOT BE SHOWN. FIELD VERIFY EXISTING VEGETATION AND REMOVE ONLY AS DIRECTED BY CITY OF ANN ARBOR OR LANDSCAPE ARCHITECT.
- EXISTING LANDSCAPING: PROTECT EXISTING LANDSCAPING TO REMAIN. CONTRACTOR TO ASSUME RESPONSIBILITY IF DAMAGE OCCURS DURING PROJECT CONSTRUCTION. PROTECT EXISTING TREES TO REMAIN AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS OR BRANCHES, BRUISING OF BARK, SMOTHERING OF TREES WITH STOCKPILE EXCAVATION OR CONSTRUCTION MATERIALS, OR PARKING VEHICLES AND EQUIPMENT WITHIN DRIP LINES. MAINTAIN EXISTING TREE MULCH RINGS. ANY DAMAGE BY THE CONTRACTOR TO EXISTING TREES OR LANDSCAPING TO REMAIN SHALL BE REPAIRED/REPLACED AT NO COST TO OWNER.
- REPAIR ALL LAWN AREAS THAT ARE DAMAGED BY THE WORK WITH SPECIFIED LAWN MIX. AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO LOOSEN SOIL AND MEET REQUIREMENTS OF DIVISION 02 SECTIONS FOR EARTHWORK, SOIL AND AGGREGATES, AND TOPSOIL REQUIREMENTS OF SECTION 02920 "LAWNS AND GRASSES". ALL ADDITIONAL AREAS DISTURBED BY CONTRACTOR SHALL ALSO BE REPAIRED WITH SAME SEED MIX AT NO ADDITIONAL COST.
- TOPSOIL: ALL AREAS NOTED AS LAWNS OR NOT OTHERWISE OCCUPIED BY PAVEMENTS, STRUCTURES OR PLANT BEDS SHALL RECEIVE A MINIMUM OF 4" OF PRE-APPROVED OFF-SITE TOPSOIL. ALL TOPSOIL SHALL BE TESTED AND AMENDED PER SOIL TESTING LABORATORY REQUIREMENTS TO MEET CRITERIA OUTLINED IN SECTION 02920 "LAWNS AND GRASSES".
- ALL PLANT BEDS SHALL RECEIVE A MINIMUM OF 12" OF PLANTING BED MIX. PLANT BEDS INCLUDE ALL SHRUB MASSINGS AND PERENNIAL/ORNAMENTAL GRASS/GROUND COVER BEDS.
- THE LAYOUT OF ALL PLANTING BEDS, TREES, AND SHRUBS SHALL BE STAKED BY THE CONTRACTOR PRIOR TO ANY PLANT INSTALLATION FOR REVIEW BY THE LANDSCAPE ARCHITECT. INTERNAL BED LAYOUT SHALL ALSO INCLUDE PERENNIAL GROUPINGS BY SPECIES, FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. THE LANDSCAPE ARCHITECT MAY MAKE ANY MINOR ADJUSTMENTS AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
- GRAVEL AND MULCH BEDS: CONTRACTOR TO RESTORE DAMAGED GRAVEL AND MULCH BEDS TO ORIGINAL CONDITION AFTER PROJECT WORK IS COMPLETE. ANY DAMAGE BY THE CONTRACTOR TO EXISTING STONE, GRAVEL OR MULCH BEDS SCHEDULED TO REMAIN SHALL BE REPAIRED/REPLACED AT NO COST TO OWNER. REMOVAL OF EXISTING GRAVEL, STONE, MULCH AND/OR TOPSOIL FOR REUSE MUST BE SEPARATED BY TYPE AND REPLACED ACCORDING TO SPECIFICATIONS WITHIN DIVISION 02. NO MIXING OF STOCKPILES FOR REUSE WILL BE ALLOWED
- ALL PLANT BEDS, TO BE MULCHED WITH 2" SHREDDED BARK MULCH, PER SPECIFICATIONS AND DETAILS.
- PLANT MIX AND MULCH SHALL NOT BE PLACED ABOVE THE ROOT FLARE OF ANY TREE OR OVER THE ROOT CROWN OF ANY SHRUB OR PERENNIAL.

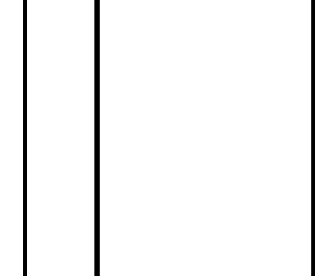
LEGEND

- PROPOSED TREE
- PROPOSED PLANTING
- LAWN
- LIMIT OF WORK



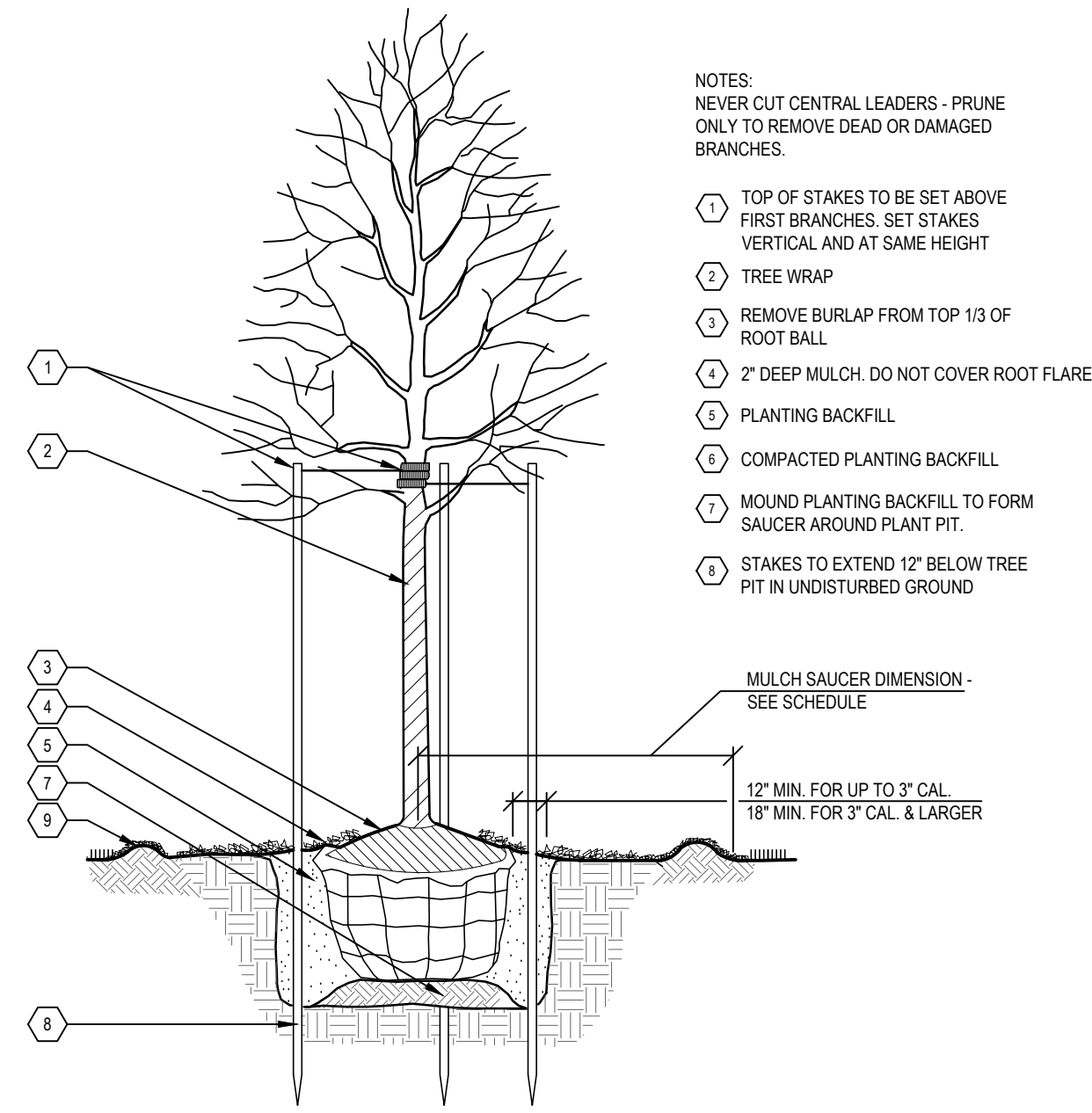
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND SITE IMPROVEMENTS
SITE LANDSCAPE PLAN

SCALE PLAN: PLANI: 1" = 30'
DRAWING No. 14310
SHEET No. 23 OF 55



- NOTES:
NEVER CUT CENTRAL LEADERS - PRUNE ONLY TO REMOVE DEAD OR DAMAGED BRANCHES.
- TOP OF STAKES TO BE SET ABOVE FIRST BRANCHES. SET STAKES VERTICAL AND AT SAME HEIGHT
 - TREE WRAP
 - REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL
 - 2" DEEP MULCH. DO NOT COVER ROOT FLARE
 - PLANTING BACKFILL
 - COMPACTED PLANTING BACKFILL
 - MOUND PLANTING BACKFILL TO FORM SAUCER AROUND PLANT PIT.
 - STAKES TO EXTEND 12" BELOW TREE PIT IN UNDISTURBED GROUND

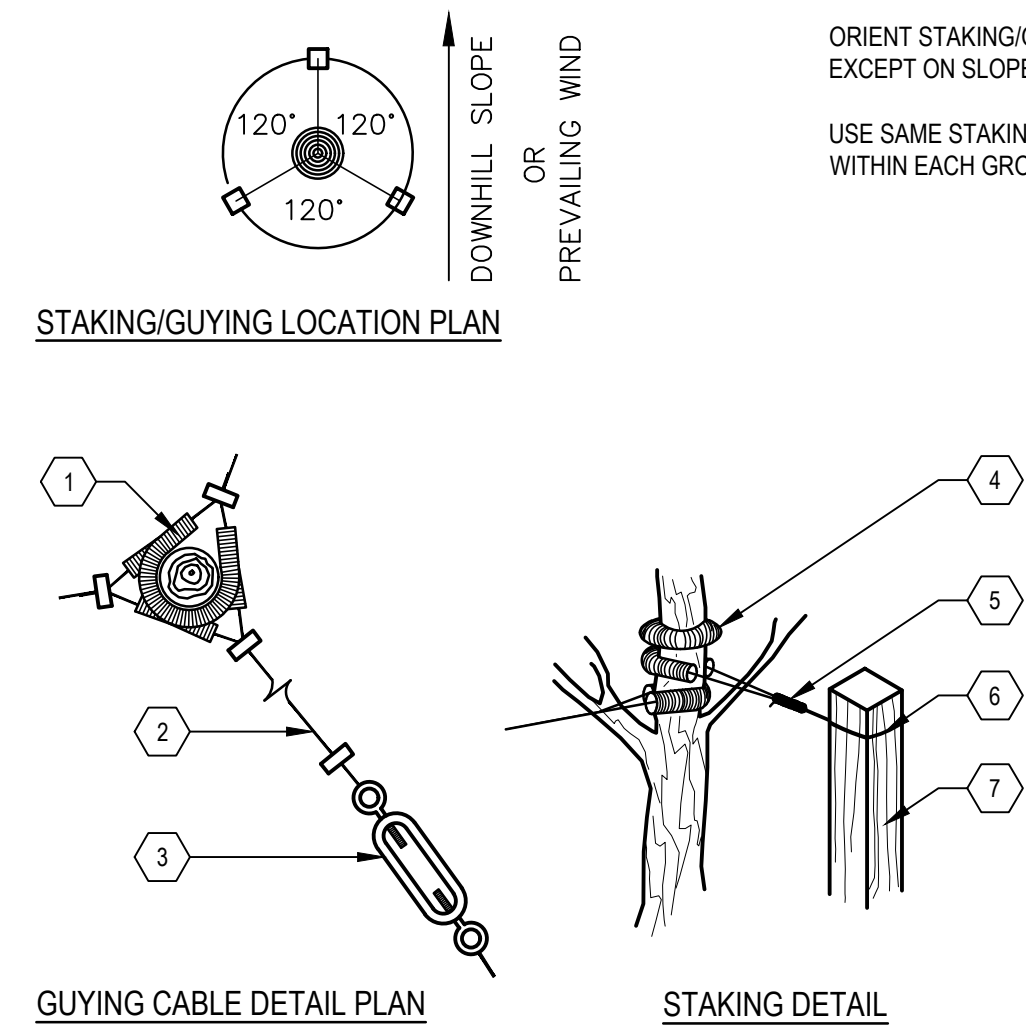
MULCH SAUCER DIMENSION - SEE SCHEDULE
12" MIN. FOR UP TO 3" CAL.
18" MIN. FOR 3" CAL. & LARGER

SCHEDULES

SIZE	STAKING	MULCH SAUCER DIMENSION (NON-BED AREAS)
• BETWEEN 2.5' & 3.5' CAL.	• TRIPLE STAKE	• 5' DIA.

1 SHADE TREE PLANTING

SCALE: NTS

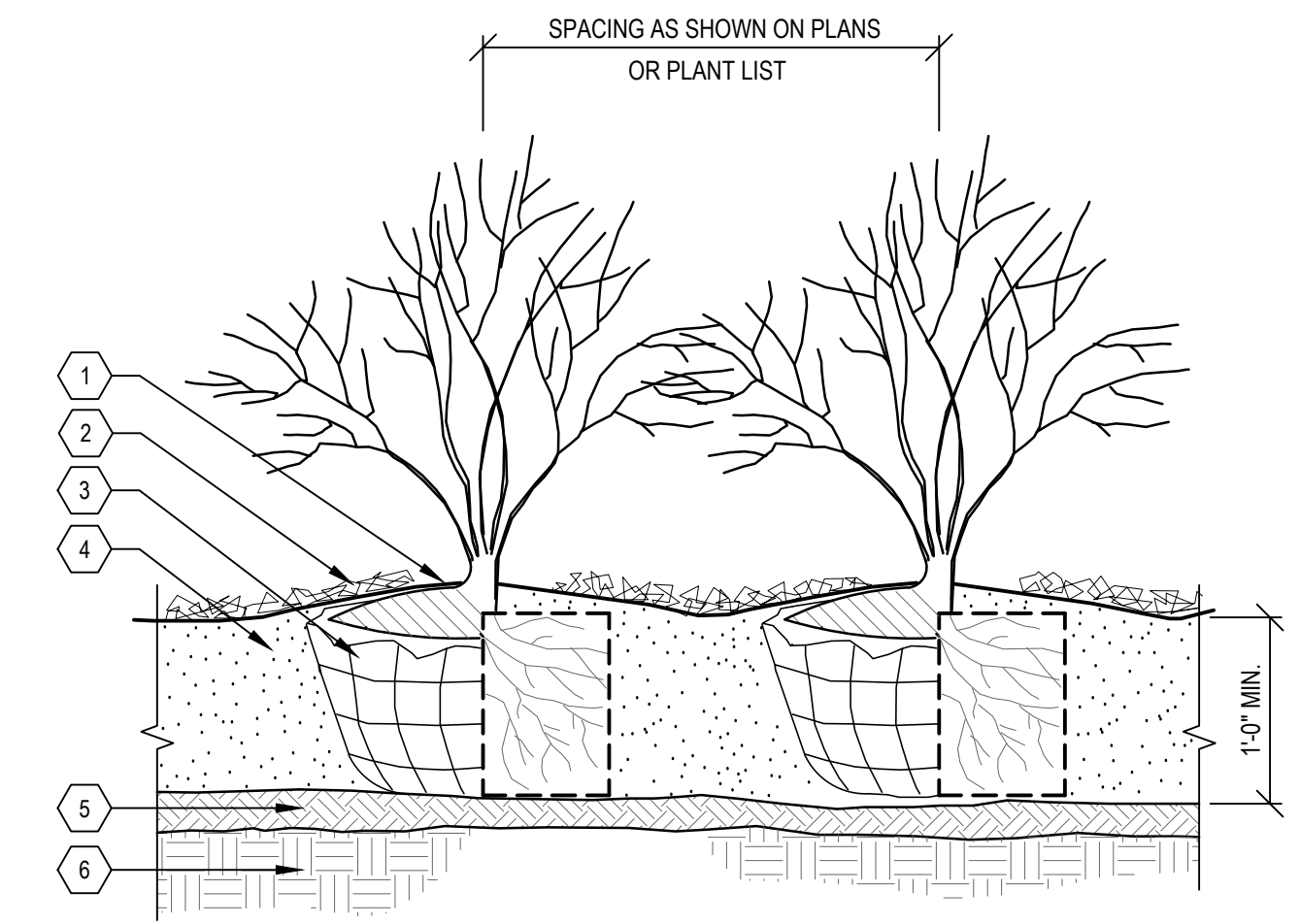


- NOTES:
ORIENT STAKING/GUYING TO PREVAILING WINDS AND SLOPES, EXCEPT ON SLOPES GREATER THAN 3:1 ORIENT TO SLOPE.
USE SAME STAKING/GUYING ORIENTATION FOR ALL PLANTS WITHIN EACH GROUPING OR AREA.

- 1/2" DIA. RUBBER HOSE CHAFING GUARD 2-PLY, COLOR BLACK
- GUYING CABLE SECURED W/CLAMPS
- TURNBUCKLE WITH 6" OPENING
- 1/2" DIA. RUBBER HOSE CHAFING GUARD 2-PLY, COLOR BLACK
- DOUBLE STRAND #14 GAUGE GALV. WIRE, NEATLY TWISTED
- NOTCH POSTS TO SET STAKE WIRE
- STAKES AS SPECIFIED 3 PER TREE

2 TREE STAKING AND GUYING- SINGLE STEM TREE

SCALE: NTS



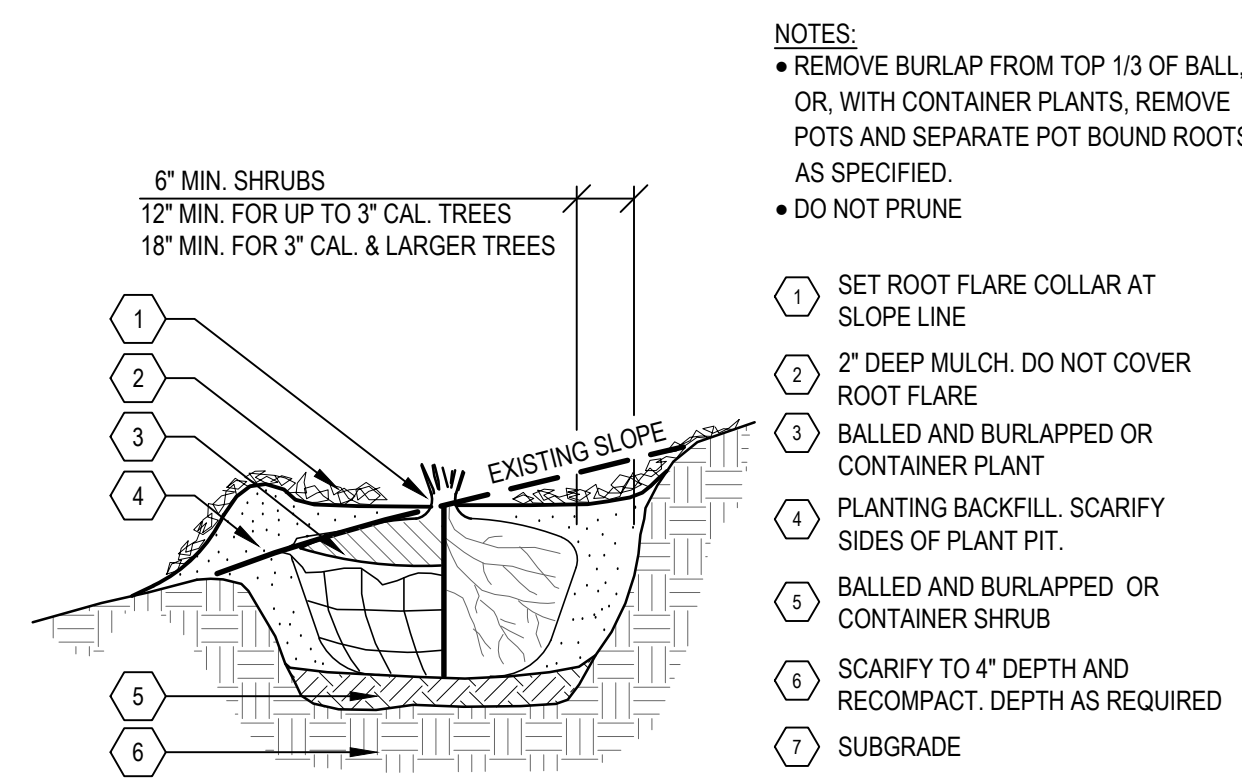
- NOTES:
• REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL, OR, WITH CONTAINER PLANTS, REMOVE POTS AND SEPARATE POT BOUND ROOTS AS SPECIFIED.
• DO NOT PRUNE SHRUBS EXCEPT TO REMOVE DEAD OR BROKEN BRANCHES
- SET ROOT FLARE CROWN OF BALL AT FINISHED GRADE
 - 2" DEEP MULCH. DO NOT COVER ROOT FLARE
 - BALLED AND BURLAPPED OR CONTAINER SHRUB
 - PLANT BED MIX
 - SCARIFY TO 4" DEPTH AND RECOMPACT.
 - SUBGRADE - SLOPE TO FOLLOW FINISH GRADES TO MAINTAIN UNIFORM PLANT BED MIX DEPTH

3 SHRUB PLANTING

SCALE: NTS

SCHEDULES

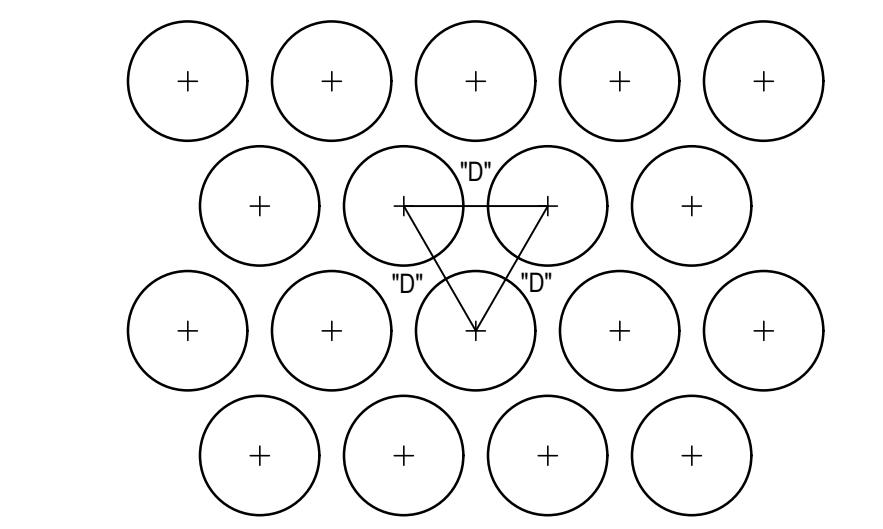
SIZE	STAKING / GUYING	MULCH SAUCER DIMENSION (NON-BED AREAS)
• SHRUB	• NONE	• 3' DIA.
• TREE: 2" CAL. & SMALLER	• DOUBLE STAKE	• 4' DIA.
• TREE: BETWEEN 2.5' & 3.5' CAL.	• TRIPLE STAKE	• 5' DIA.



- NOTES:
• REMOVE BURLAP FROM TOP 1/3 OF BALL, OR, WITH CONTAINER PLANTS, REMOVE POTS AND SEPARATE POT BOUND ROOTS AS SPECIFIED.
• DO NOT PRUNE
- SET ROOT FLARE COLLAR AT SLOPE LINE
 - 2" DEEP MULCH. DO NOT COVER ROOT FLARE
 - BALLED AND BURLAPPED OR CONTAINER PLANT
 - PLANTING BACKFILL. SCARIFY SIDES OF PLANT PIT.
 - BALLED AND BURLAPPED OR CONTAINER SHRUB
 - SCARIFY TO 4" DEPTH AND RECOMPACT. DEPTH AS REQUIRED
 - SUBGRADE

4 PLANTING ON SLOPES

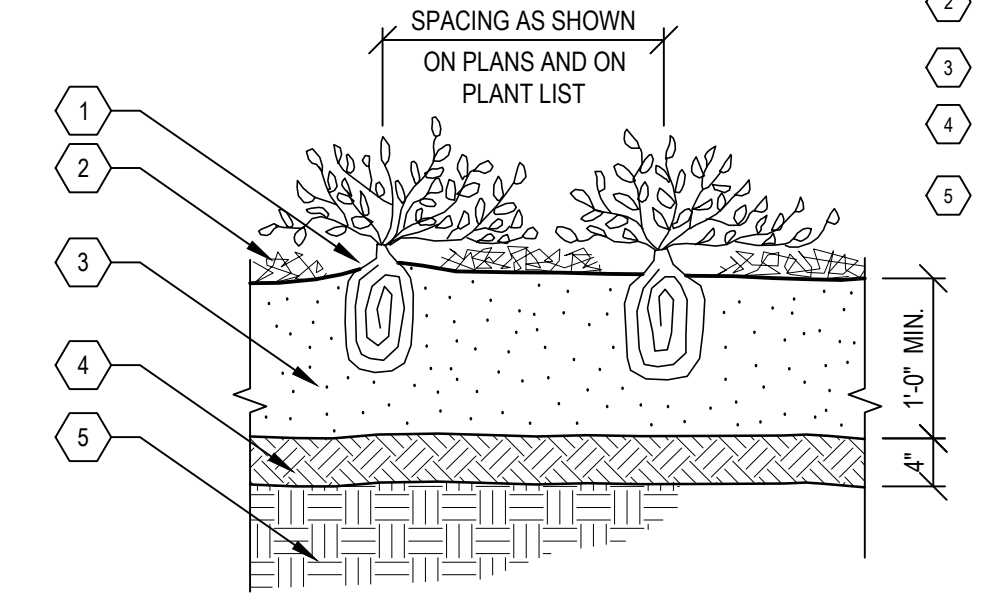
SCALE: NTS



D=DIMENSION OF PLANT SPACING (SHRUB, GROUNDCOVER OR PERENNIAL) AS INDICATED ON PLANS.

5 TYPICAL PLANT SPACING

SCALE: NTS



- NOTE:
CONTAINER PLANTS: REMOVE POTS AND SEPARATE POT BOUND ROOTS AS SPECIFIED.
- SET ROOT FLARE (COLLAR) AT FINISHED GRADE
 - 2" DEEP MULCH. DO NOT COVER ROOT FLARE
 - PLANT BED MIX
 - SCARIFY TO 4" DEPTH AND RECOMPACT
 - SUBGRADE

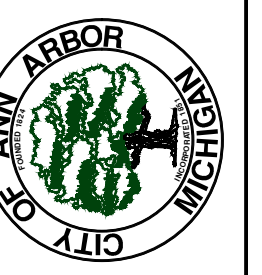
6 PERENNIAL/ORNAMENTAL GRASS PLANTING BED

SCALE: NTS



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	06-28-23	DA		

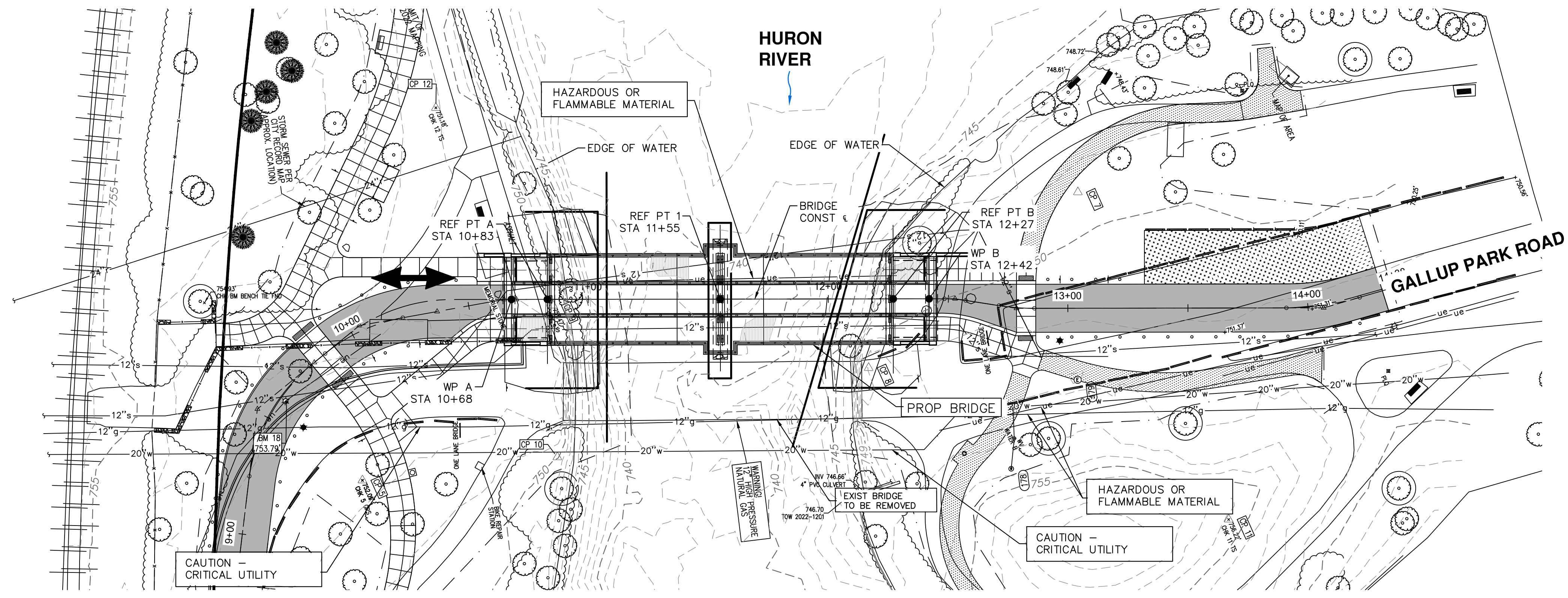
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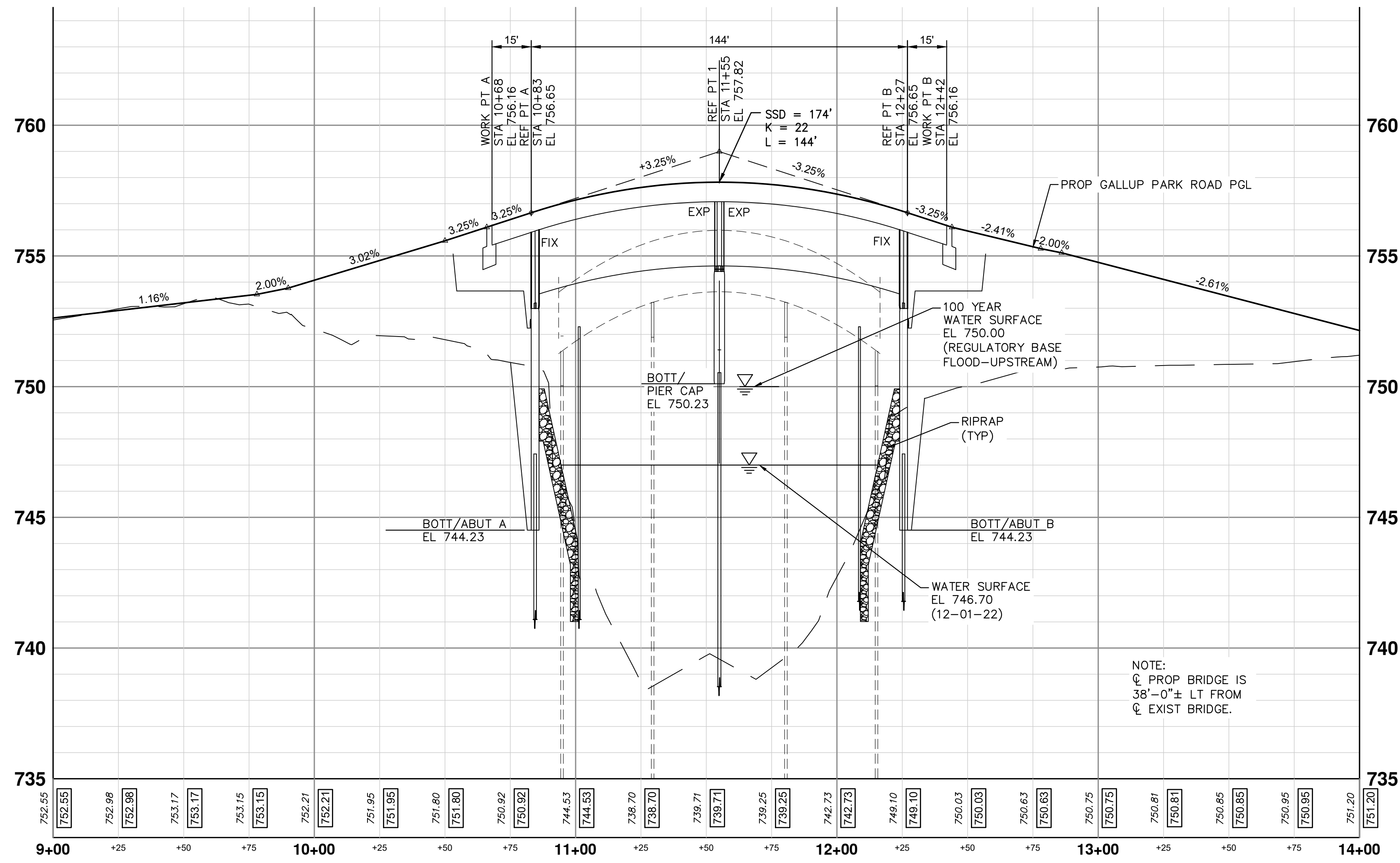
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
GALLUP PARK BRIDGE AND SITE IMPROVEMENTS
SITE LANDSCAPE DETAILS

SCALE PLAN: 1" = 30'
DRAWING No. 14310

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SITUATION PLAN



PROFILE ALONG GALLUP PARK ROAD CENTERLINE

EXISTING STRUCTURE

THE EXISTING STRUCTURE IS A THREE SPAN TIMBER BRIDGE WITH SPAN LENGTHS OF 34'-8", 51'-0" AND 34'-8", RESULTING IN A TOTAL BRIDGE LENGTH OF 120'-4". THE EXISTING CLEAR ROADWAY WIDTH IS 12'-0" WITH 6"-1 7/8" RAISED SIDEWALKS ON BOTH THE EAST AND WEST SIDES. THE EXISTING ABUTMENTS AND PIERS ARE TIMBER PILE BENTS. THE EXISTING STONE ABUTMENT SHALL REMAIN IN PLACE. THE BRIDGE WAS BUILT IN 1976.

REFERENCE POINT COORDINATES

REF PT	NORTH	EAST	ELEV
A	283358.42	13303128.00	756.65
1	283424.24	13303157.19	757.82
B	283490.05	13303186.38	756.65
WORK PT	NORTH	EAST	ELEV
A	283344.71	13303121.92	756.16
B	283503.75	13303192.45	756.16

NOTES

- THE WORK COVERED BY THESE PLANS INCLUDES MAINTAINING TRAFFIC, CONSTRUCTION OF THE PROPOSED BRIDGE, PLACING RIPRAP TO THE LIMITS SHOWN AND REMOVAL OF THE EXISTING BRIDGE. ALL OTHER WORK IS INCLUDED IN THE ROAD PLANS THAT ARE A PART OF THIS CONTRACT.
- THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
- THE GROUND ADJACENT TO THE STRUCTURE SHALL BE GRADED BY THE CONTRACTOR TO PROVIDE DRAINAGE.
- GALLUP PARK DRIVE TRAFFIC IS TO BE MAINTAINED ALONG THE EXISTING GALLUP PARK BRIDGE WHILE THE PROPOSED BRIDGE IS BEING CONSTRUCTED.
- PLAN ELEVATIONS REFER TO NAVD88 DATUM.
- THE WATER LEVEL IS SUBJECT TO CHANGE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING A DETERMINATION OF WATER LEVELS THAT MAY EXIST DURING CONSTRUCTION.
- MEASURES SHALL BE TAKEN TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE INTO THE WATER COURSE. IF DEBRIS FALLS INTO THE WATER COURSE, IT SHALL BE REMOVED IMMEDIATELY, SINCE DISTURBANCE OF THE WATERWAY BOTTOM MAY BE AS HARMFUL AS THE DEBRIS ITSELF. THE PREVENTATIVE MEASURES MUST BE EFFECTIVE. REMOVAL OF DEBRIS WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN BID ITEM "STRUCTURES, REM".
- TEMPORARILY STORED EXCAVATED MATERIAL SHALL BE STORED ON AN UPLAND SITE, AND SHALL NOT BE ALLOWED TO ERODE INTO THE WATERCOURSE.
- SOIL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE UTILIZED ON THIS PROJECT TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND SEDIMENTATION. SEE ROAD CONSTRUCTION PLAN FOR DETAILS.

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GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
 GENERAL PLAN OF SITE

ISSUED FOR BID
 DATE: 06-28-23
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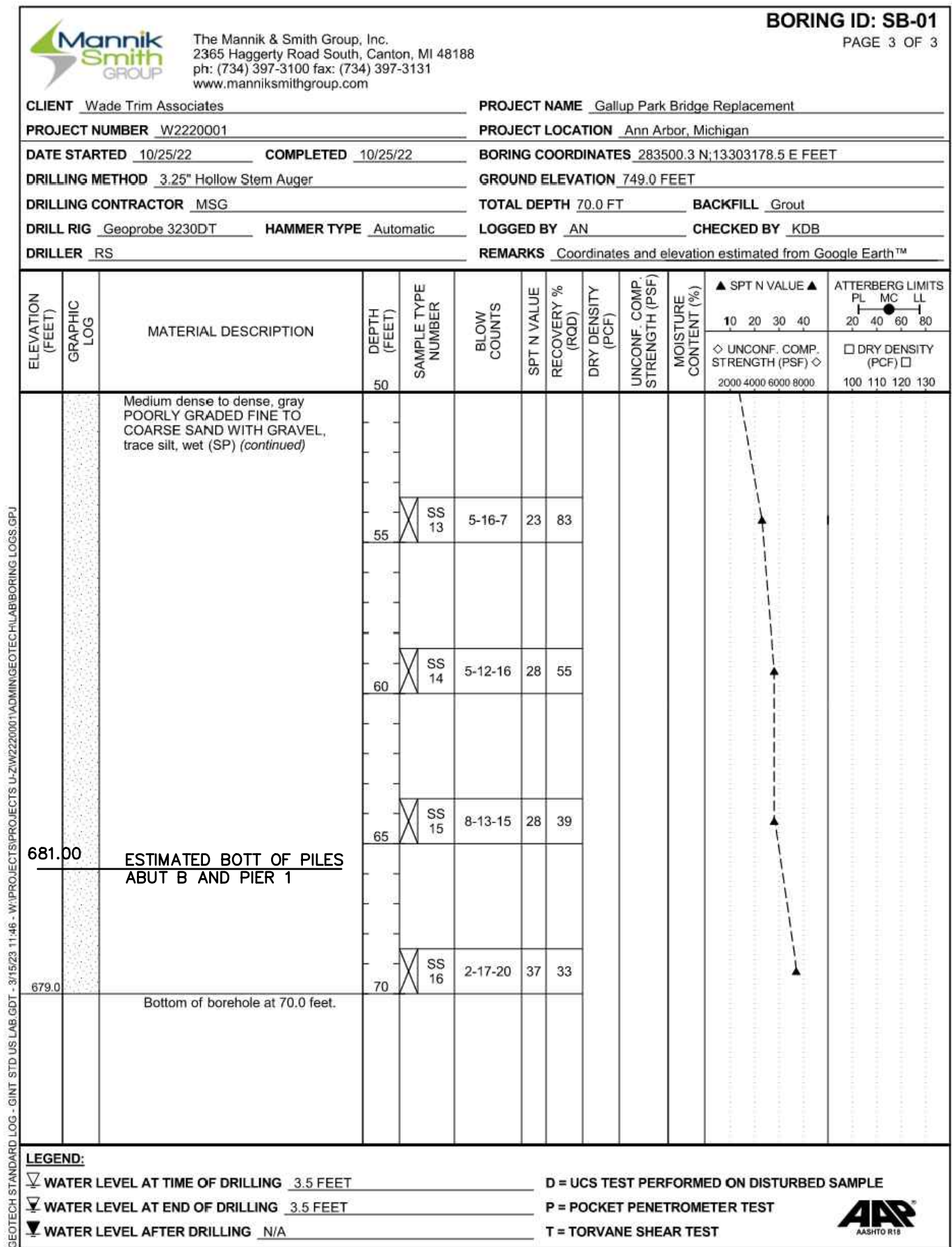
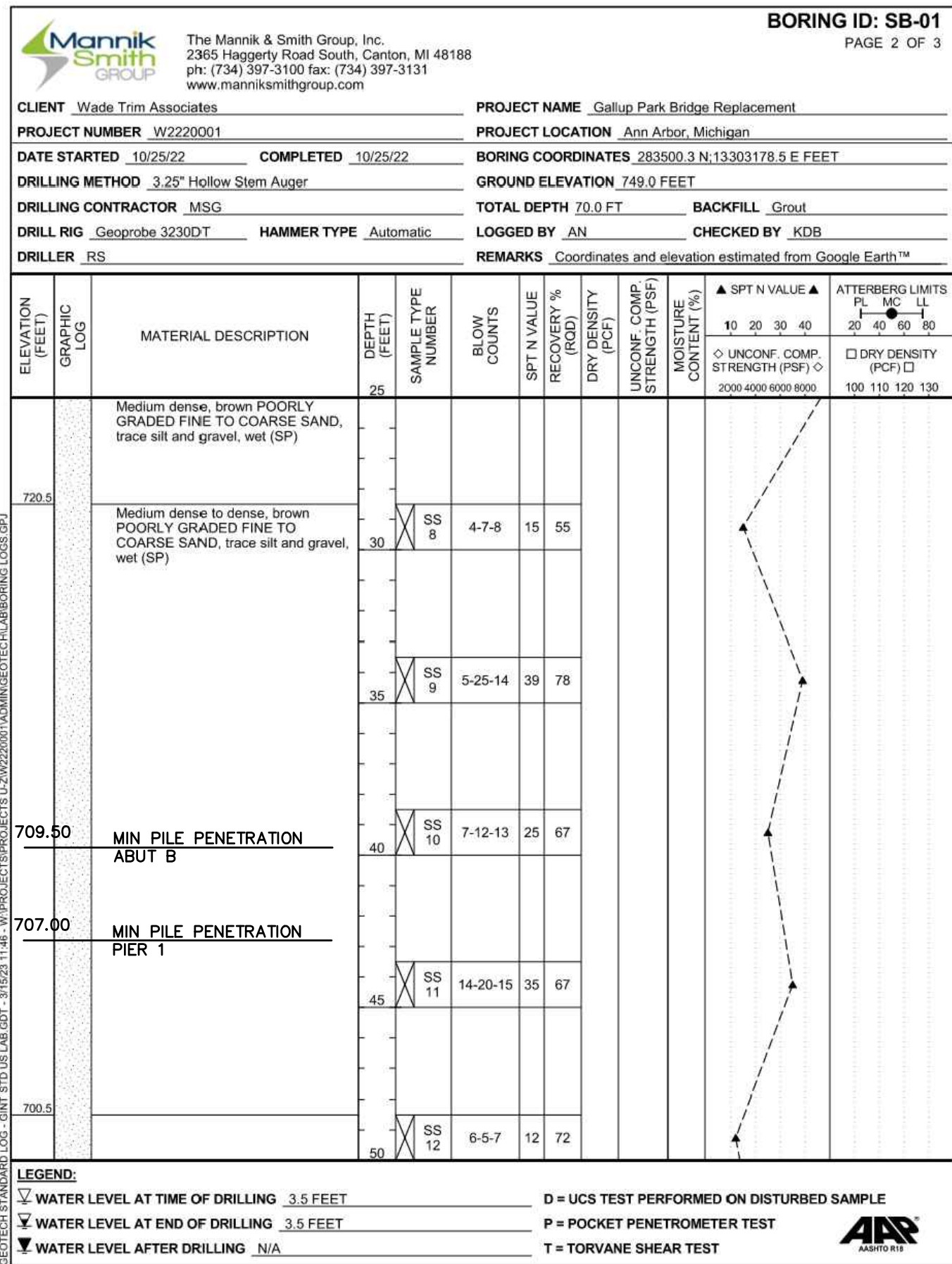
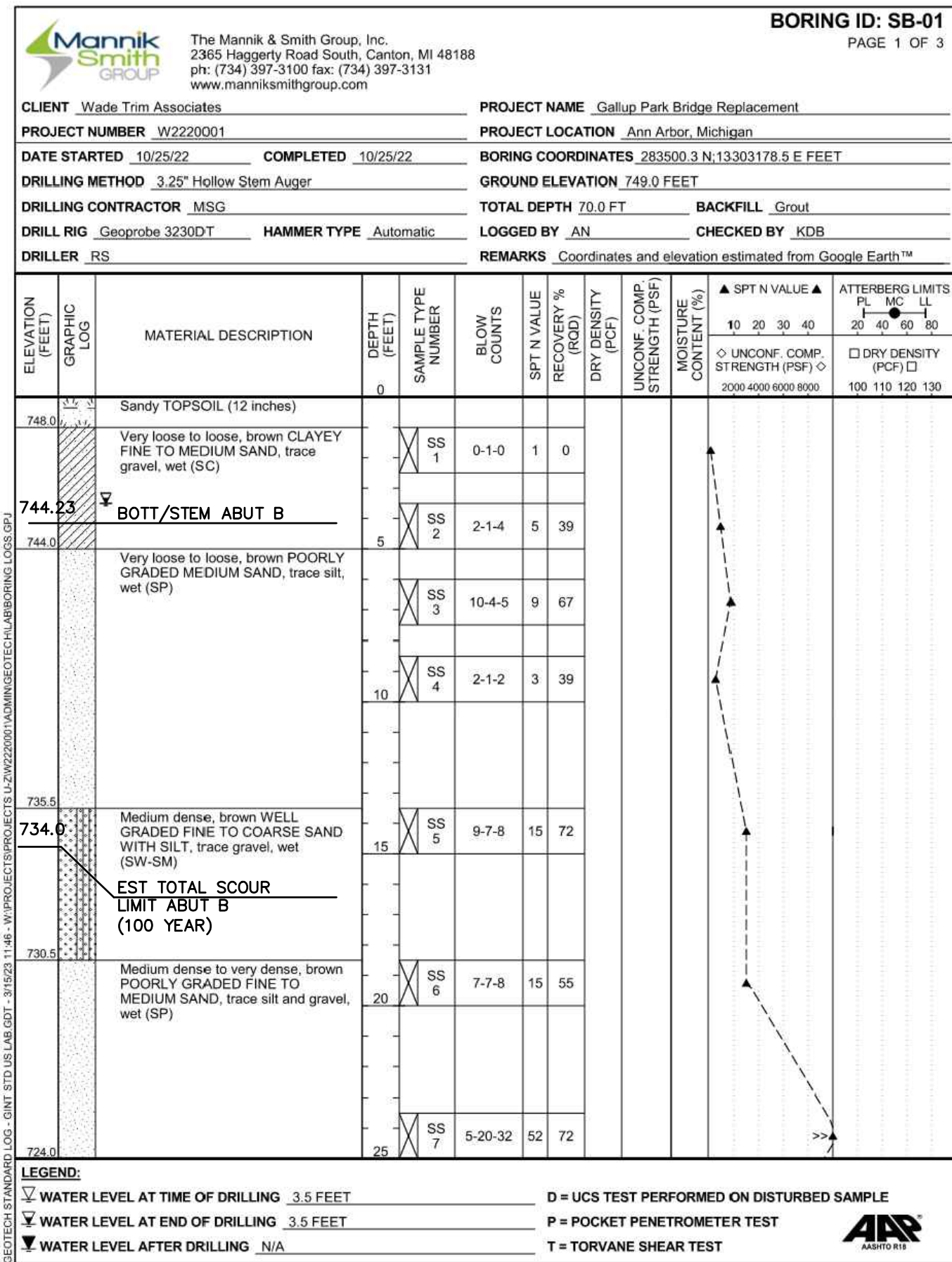
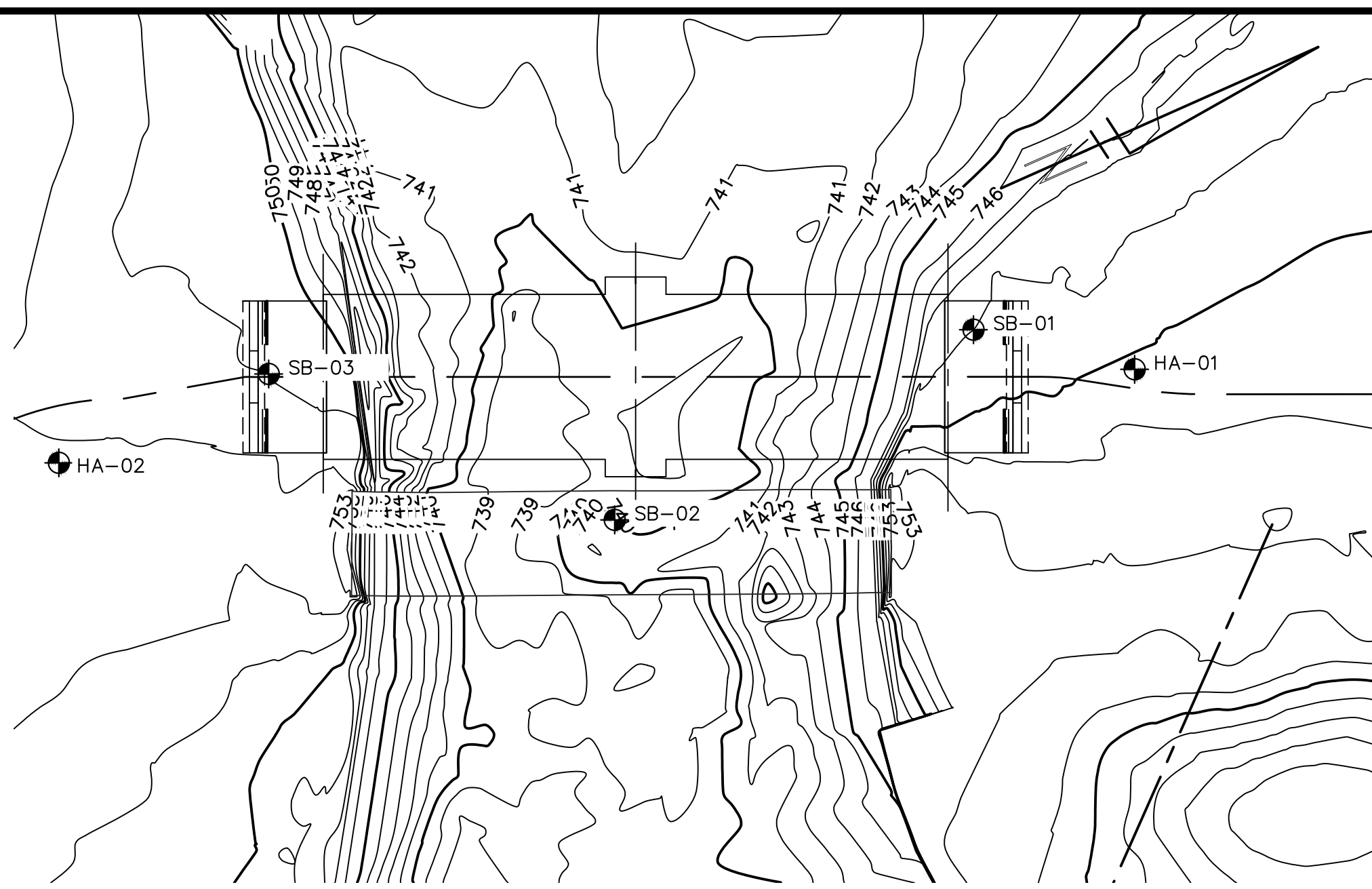
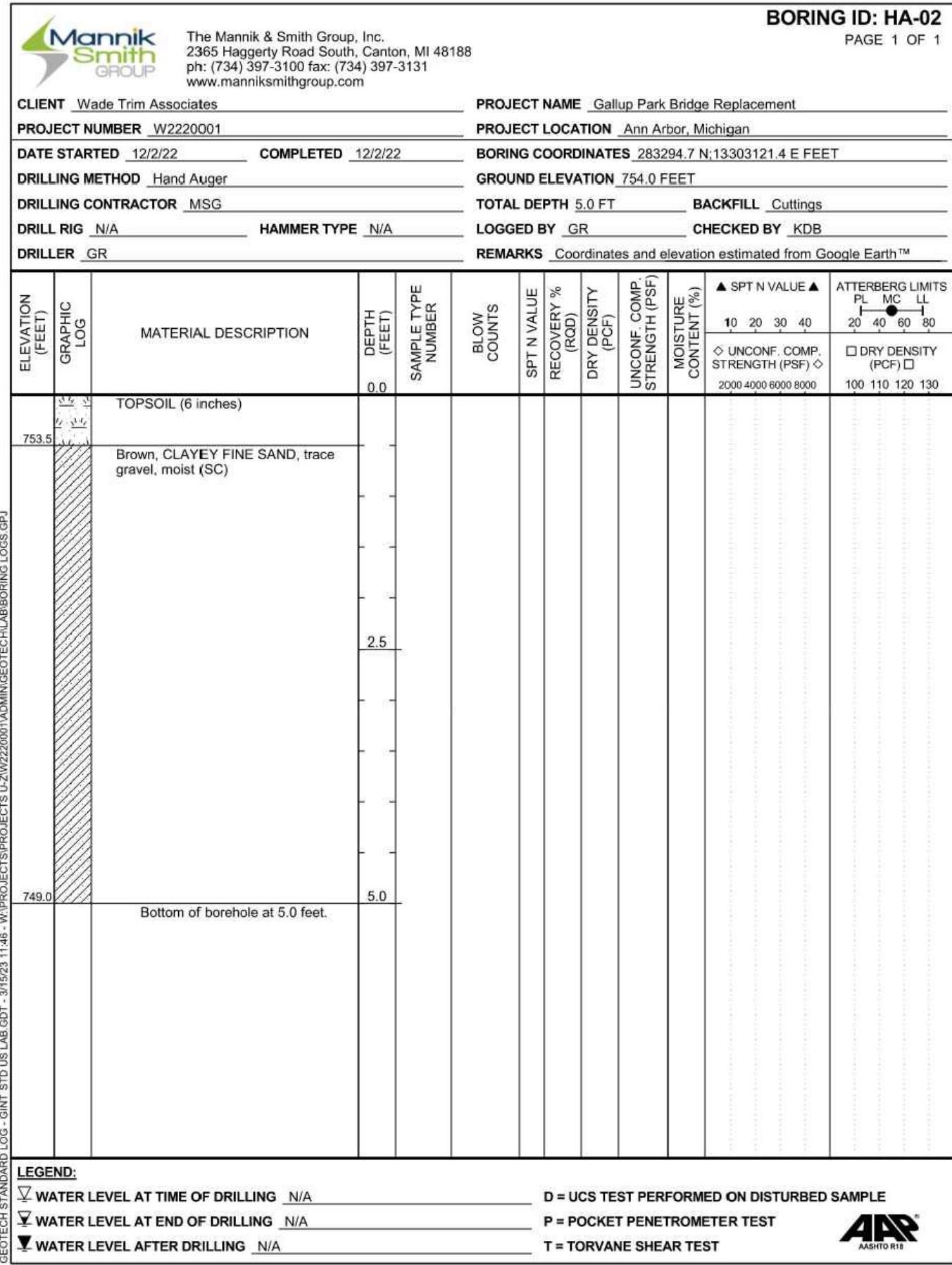
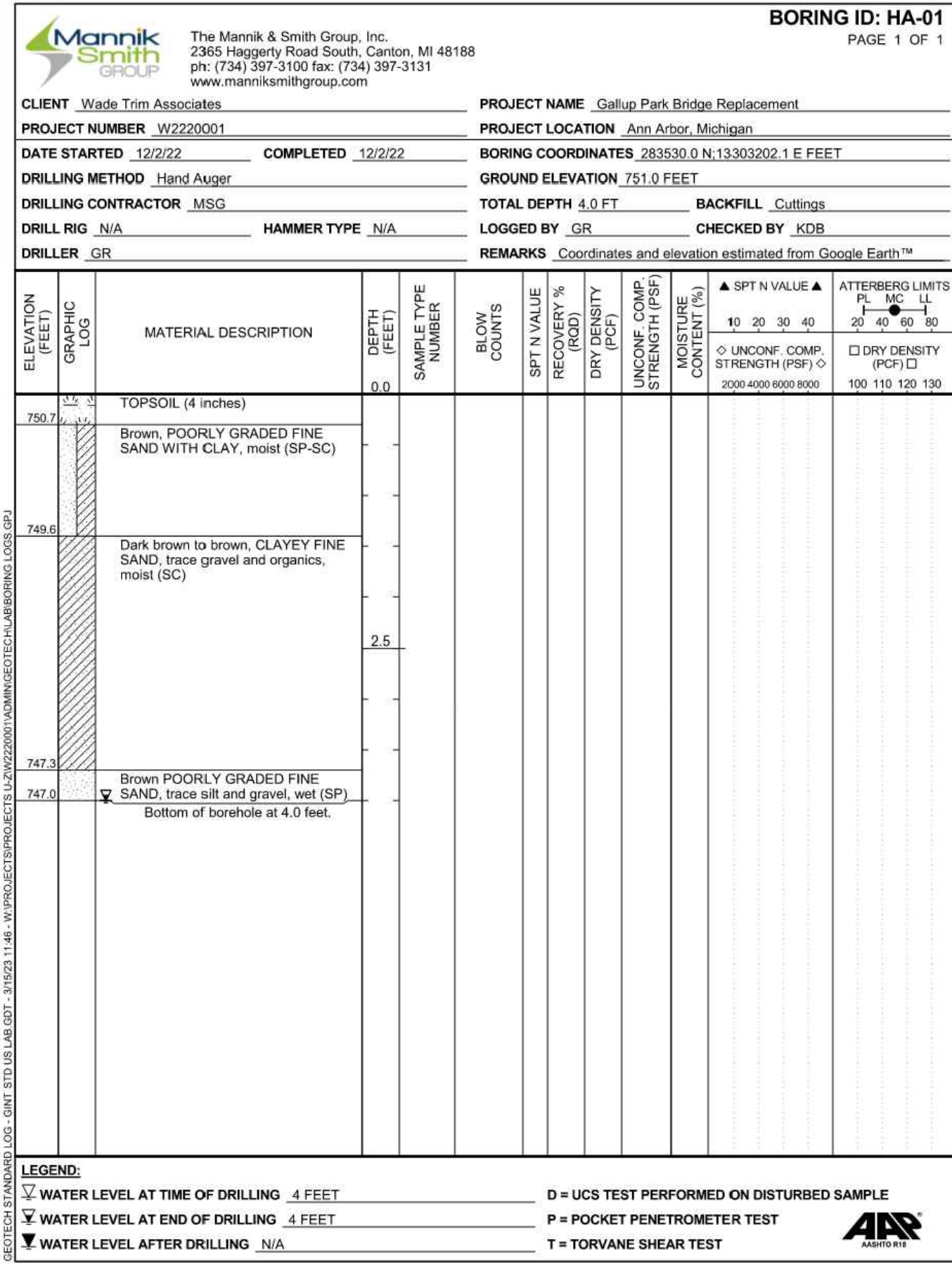
REV. DESCRIPTION

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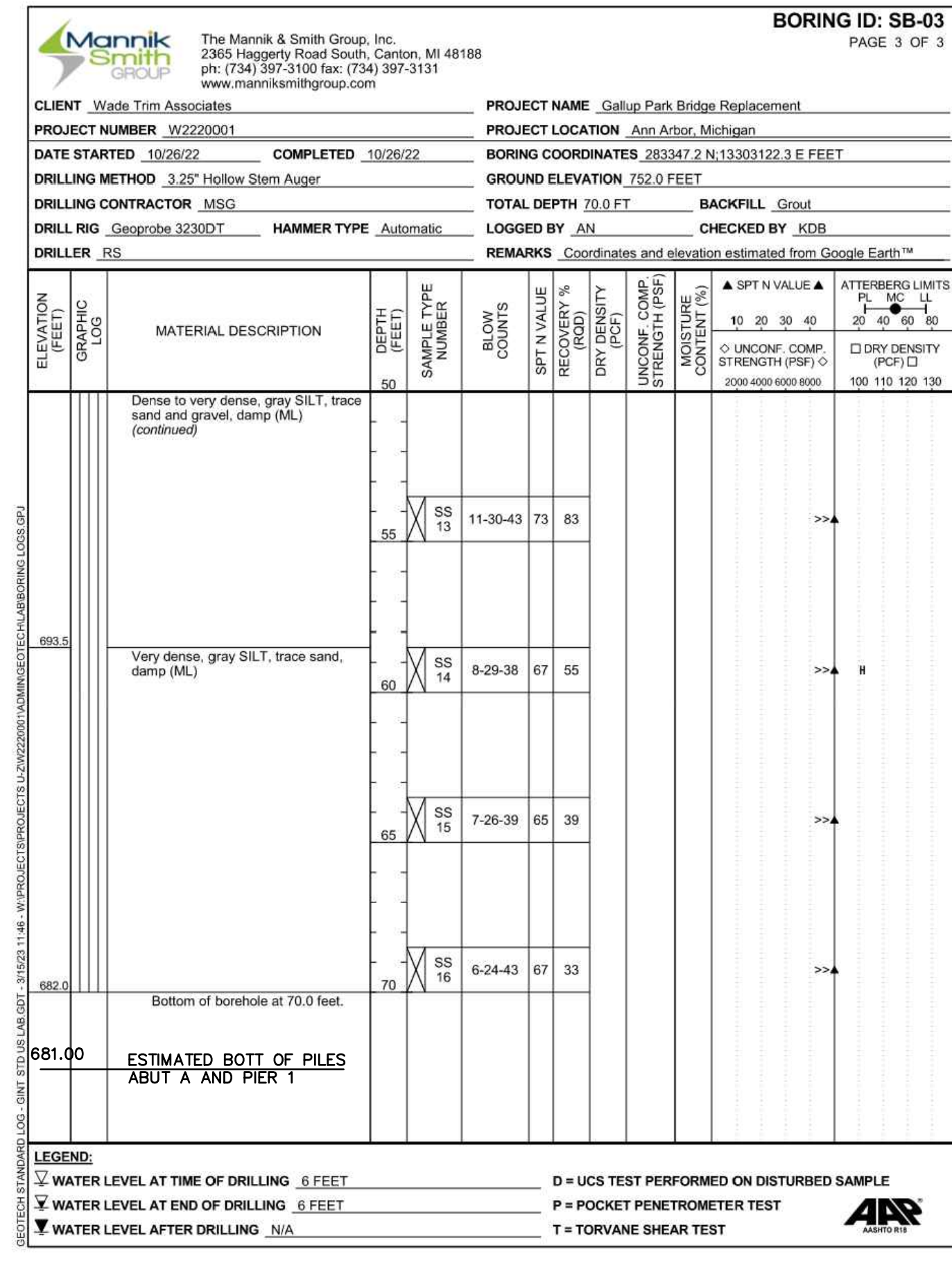
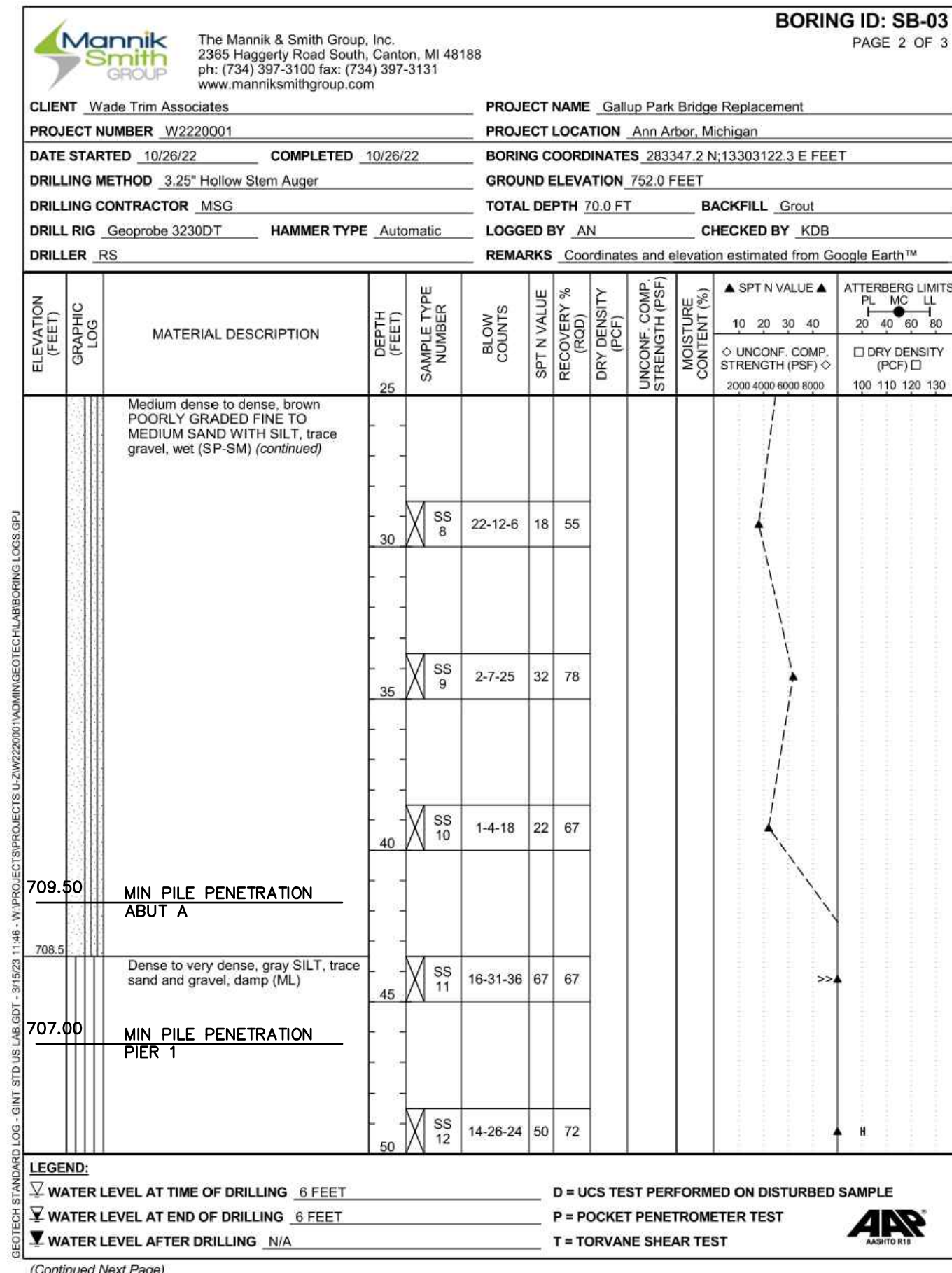
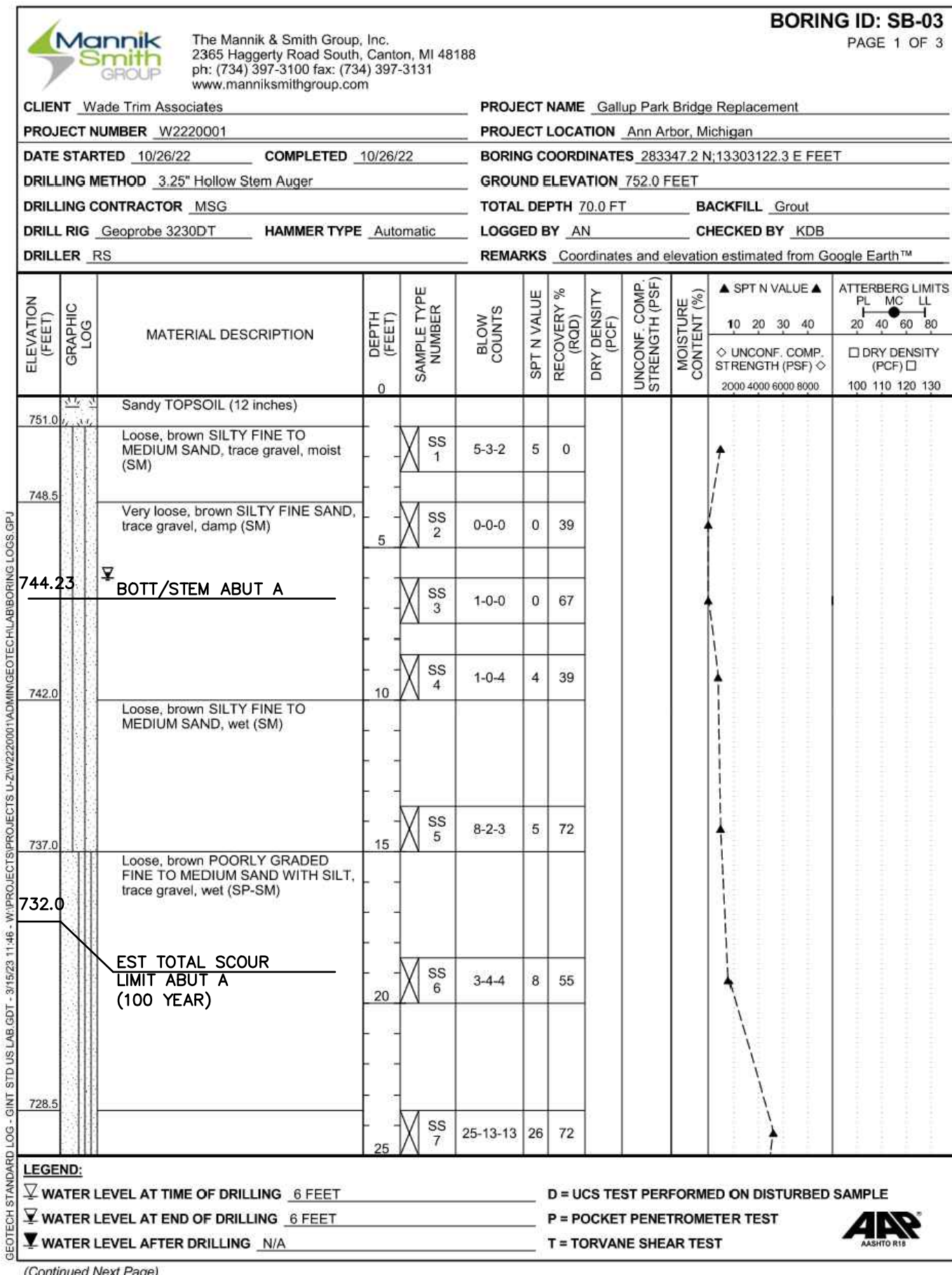
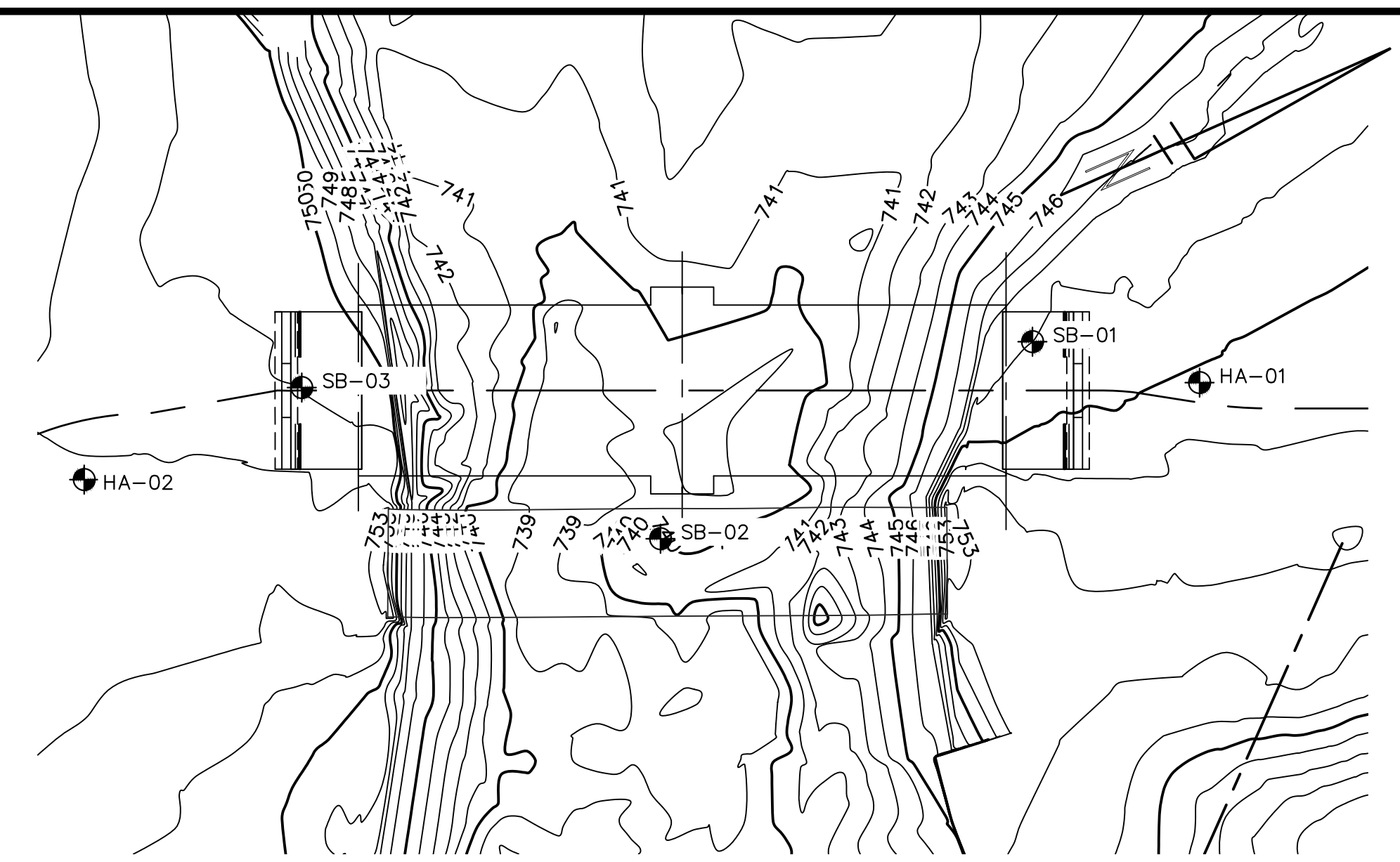
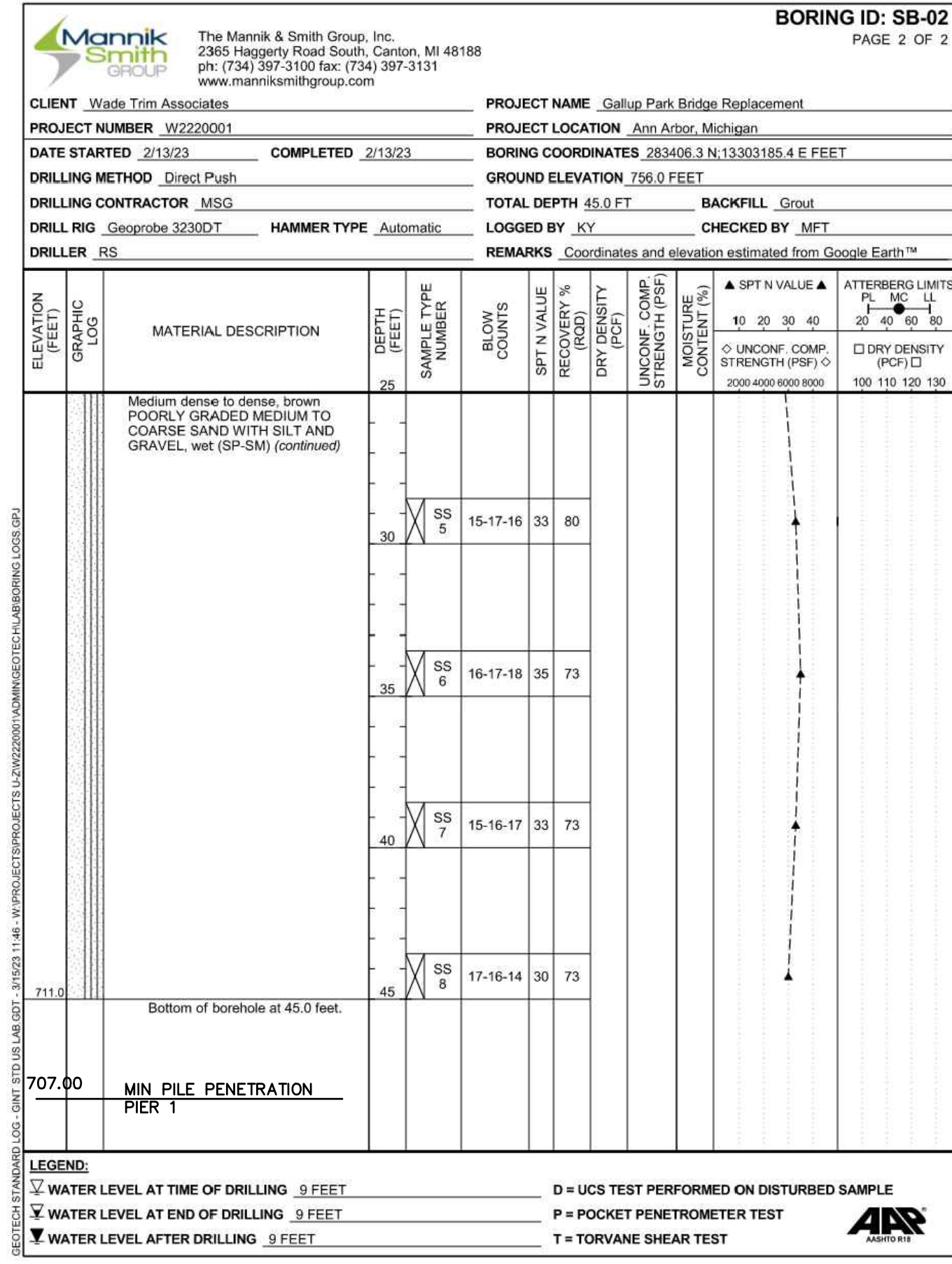
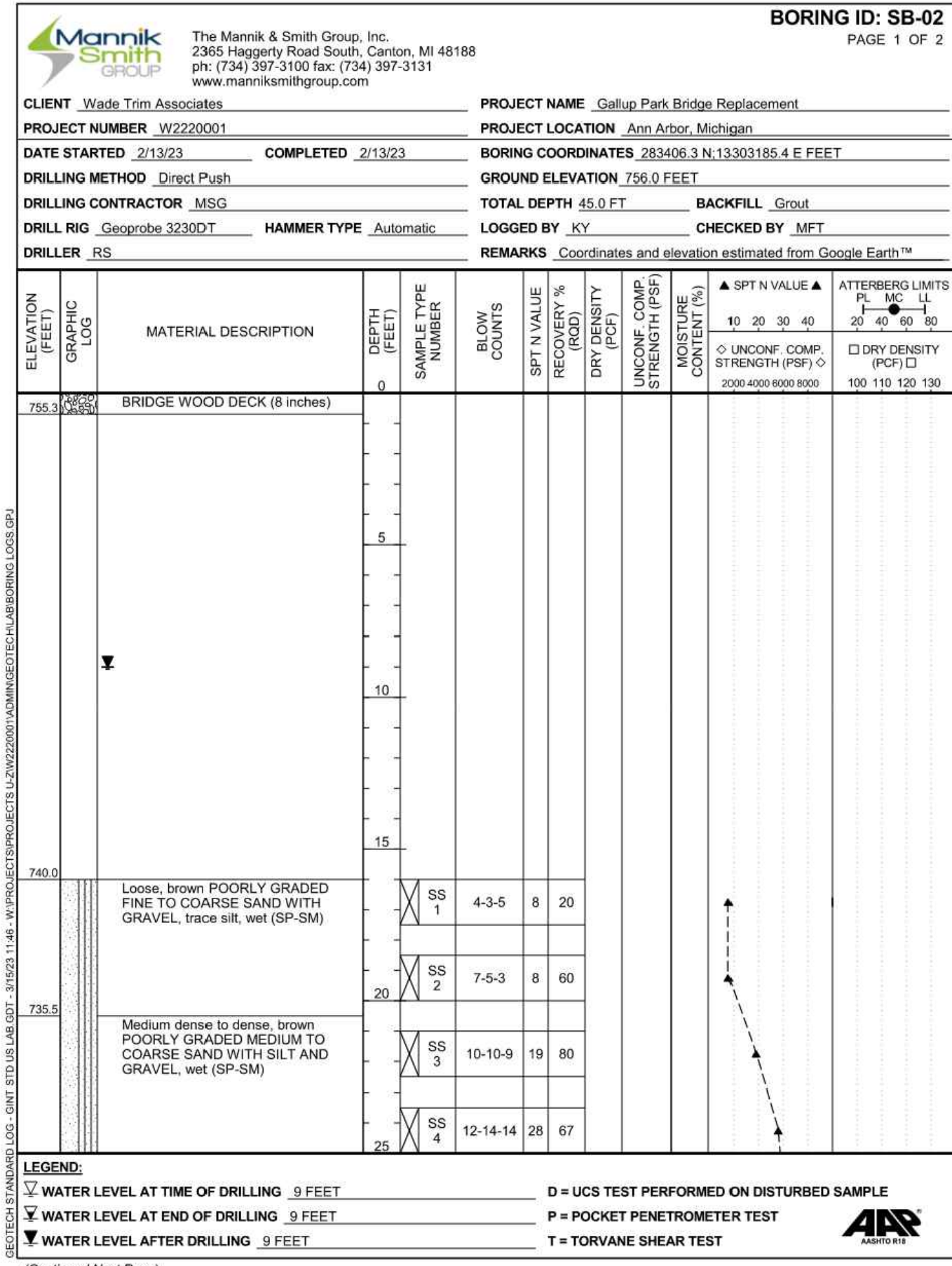
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GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
SOIL BORINGS

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SOIL BORINGS

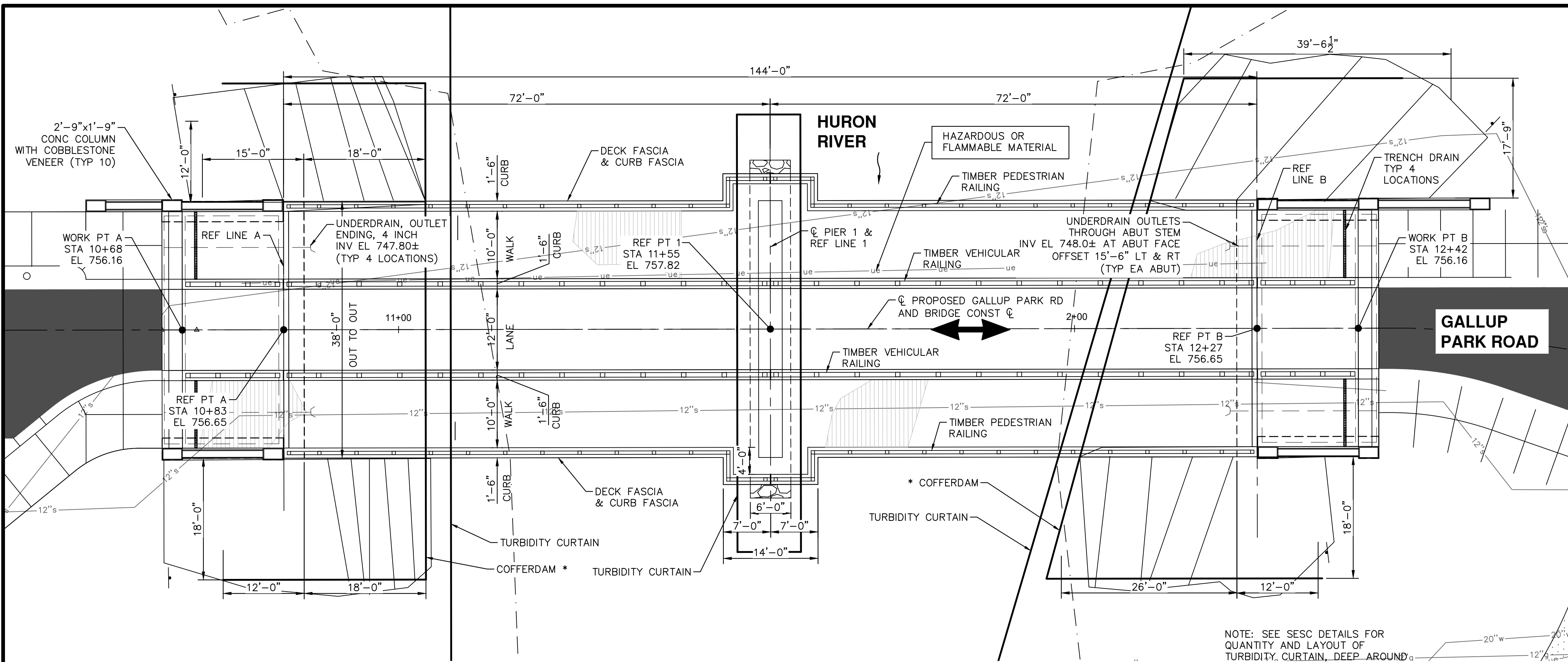
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PLAN

MISCELLANEOUS QUANTITIES		
ITEM	QUANTITY	UNIT
Structures, Rem	1	LSUM
Excavation, Fdn	366	Cyd
Backfill, Structure, CIP	389	Cyd
False Decking	9925	Sft
Conc Surface Coating	462	Syd
Underdrain, Fdn, 4 inch	292	Ft
Underdrain Outlet, 4 inch	102	Ft
Vibration Monitoring	1	LSUM
Conc, Low Temperature Protection	536	Cyd

RIPRAP CHANNEL PROTECTION QUANTITIES			
	OPTION A QUANTITY	OPTION B QUANTITY	UNIT
Riprap, Spec, Class III	455	455	Syd
Riprap, Fieldstone, Spec	300	300	Ton
Ledge Stone Bank Reinforcement, 12 inch	23	5	Cyd
Ledge Stone Bank Reinforcement, 24 inch	170	55	Cyd
Aggregate Base, LM	231	231	Cyd

OPTION A QUANTITY NOTE
RIPRAP, SPEC, CLASS III PLACED FROM ABUTMENT FACE TO TOE HEADER AND FROM DECK FASCIA TO DECK FASCIA UNDER THE BRIDGE AND AROUND PIER PILES. LEDGE STONE BANK REINFORCEMENT IS PLACED AT EACH QUADRANT PER THE DIMENSIONS SHOWN IN THE PLAN.

OPTION B RIPRAP QUANTITY NOTE
RIPRAP, SPEC, CLASS III PLACED FROM ABUTMENT FACE TO TOE HEADER AND FROM DECK FASCIA TO DECK FASCIA UNDER THE BRIDGE AND AROUND PIER PILES TO THE DIMENSIONS SHOWN IN THE PLAN. LEDGE STONE BANK REINFORCEMENT IS PLACED AT THE NORTHWEST QUADRANT ONLY PER THE DIMENSIONS SHOWN ON THE PLAN. RIPRAP, FIELDSTONE SPEC IS PLACED AT THE SOUTHWEST, SOUTHEAST AND NORTHEAST QUADRANTS PER THE DIMENSIONS SHOWN IN THE PLAN.

NOTE: SEE SESC DETAILS FOR QUANTITY AND LAYOUT OF TURBIDITY CURTAIN, DEEP AROUND BRIDGE ABUTMENTS AND PIER.

NOTES

THE DESIGN OF THIS STRUCTURE IS BASED ON THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION HL-93 LOADING. LIVE LOAD PLUS DYNAMIC LOAD ALLOWANCE DEFLECTION DOES NOT EXCEED 1/1000 OF SPAN LENGTH.

THE DESIGN OF THE DECK SLAB IS BASED UP ON THE STRIP METHOD AS DEFINED IN THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION, UTILIZING HL-93 LOADING.

WITHOUT THE PREVENTIVE MEASURES SHOWN ON THESE PLANS, THERE IS A POSSIBILITY THAT STREAMBED SCOUR MAY OCCUR. AT ABUTMENT A (SOUTH), THE ESTIMATED CONTRACTION SCOUR DEPTH IS CALCULATED TO BE 2 FEET (EL 736.00) AND TOTAL SCOUR OF 6 FEET (EL 732.00). AT ABUTMENT B (NORTH) CONTRACTION SCOUR DEPTH OF 2 FEET (EL 736.00) AND TOTAL SCOUR DEPTH OF 4 FT (EL 734.00). AT PIER 1, THE ESTIMATED CONTRACTION SCOUR IS CALCULATED TO BE 2 FEET (EL 736.00) AND TOTAL SCOUR DEPTH OF 6 FEET (EL 732.00). THESE DEPTHS ARE BASED ON A 100 YEAR RUNOFF EVENT. THESE DEPTHS ARE BASED ON A 100 YEAR RUNOFF EVENT.

GEOTEXTILE LINER SHALL BE PLACED ON ALL SLOPES PRIOR TO PLACING RIPRAP. PAYMENT FOR GEOTEXTILE LINER SHALL BE INCLUDED IN PAYMENT FOR RIPRAP.

THE RIPRAP QUANTITY IS BASED ON THE LATERAL DIMENSIONS OF THE AREA TO BE PROTECTED, REGARDLESS OF THE NUMBER OF LAYERS REQUIRED. THE ESTIMATED WEIGHT OF RIPRAP, SPEC, CLASS III IS 736 TONS (OPTION A & OPTION B). LEDGE STONE BANK REINFORCEMENT, 12 INCH IS 50 TONS (OPTION A) OR 11 TONS (OPTION B). LEDGE STONE BANK REINFORCEMENT, 24 INCH IS 368 TONS (OPTION A) OR 119 TONS (OPTION B). RIPRAP, FIELDSTONE, SPEC IS 300 TONS (OPTION B ONLY).

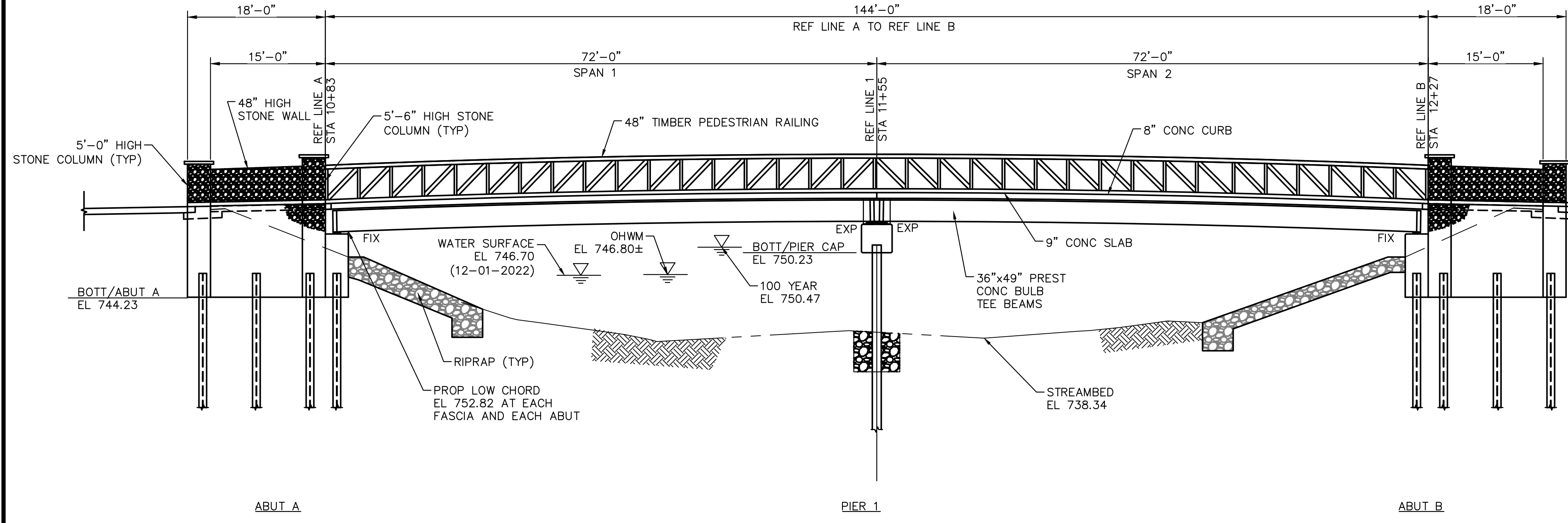
FALSE DECKING AREAS SHALL INCLUDE THE CLEAR SPAN AREAS BOUNDED BY EXPOSED FACES OF ABUTMENTS AND EACH PIER FACE AND OUTSIDE EDGE OF EACH DECK FASCIA. THE ESTIMATED AREA IS 9925 SQUARE FEET DURING CONSTRUCTION.

SUMMARY OF HYDRAULIC ANALYSIS							
FLOOD DATA	EXISTING				PROPOSED		
	DISCHARGE (CFS)	WATER SURFACE ELEV. AT U/S FACE OF STRUCTURE (FT)	VELOCITY AT D/S FACE (FT)	WATER SURFACE ELEV. AT U/S FACE OF STRUCTURE (FT)	VELOCITY AT D/S FACE (FT)	WATERWAY AREA AT D/S FACE (SQ FT)	CHANGE IN WSEL FROM U/S FACE OF PROPOSED STRUCTURE (FT)
10-YEAR	5000	748.89	5.85	748.78	5.82	859.33	-0.11
50-YEAR	7400	749.99	7.80	749.88	7.73	957.51	-0.11
100-YEAR	8500	750.62	8.49	750.47	8.40	1012.48	-0.15
500-YEAR	11000	752.29	9.34	752.04	9.34	1177.73	-0.25

PROPOSED BRIDGE AREA BELOW LOW CHORD IS 1510 SQUARE FEET

1. THE EXISTING BRIDGE AREA BELOW THE LOW CHORD IS 1220 SFT.
2. EXISTING OVERTOPPING ELEVATION IS 754.33 FT.
3. PROPOSED OVERTOPPING ELEVATION IS 757.74 FT.
4. DO NOT USE BROKEN CONCRETE FOR RIPRAP.
5. THE WATER SURFACE AND/OR ENERGY GRADE ELEVATIONS SHOWN ON HYDRAULIC TABLE ARE TO BE USED FOR COMPARISON PURPOSES ONLY AND ARE NOT TO BE USED FOR ESTABLISHING A REGULATORY FLOODPLAIN. THE ELEVATIONS MAY BE USED PROVIDED THEY ARE VERIFIED WITH THE WATER RESOURCES DIVISION, MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY.

*** COFFERDAM NOTE:**
THE INTENT OF THE COFFERDAM FOR THIS PROJECT IS TO UTILIZE TEMPORARY STEEL SHEET PILING OR SOME OTHER APPROVED WATER DIVERSION METHOD IF AN ALTERNATIVE MEANS OF WATER DIVERSION IS PROPOSED, IT SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLING THE COFFERDAM. MEASURES SHALL BE TAKEN TO NOT DISTURB THE EXISTING UNDERGROUND UTILITIES THAT WILL NOT BE RELOCATED. COFFERDAMS SHALL BE PAID ON A LUMP SUM BASIS REGARDLESS OF ACTUAL SIZE AND TYPE USED BY CONTRACTOR TO MEET CONSTRUCTION REQUIREMENTS.



ELEVATION
NORMAL TO REF LINES

WORK THIS SHEET WITH SHEET 17 FOR LIMITS AND TYPE OF RIPRAP

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GENERAL PLAN OF STRUCTURE

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GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS

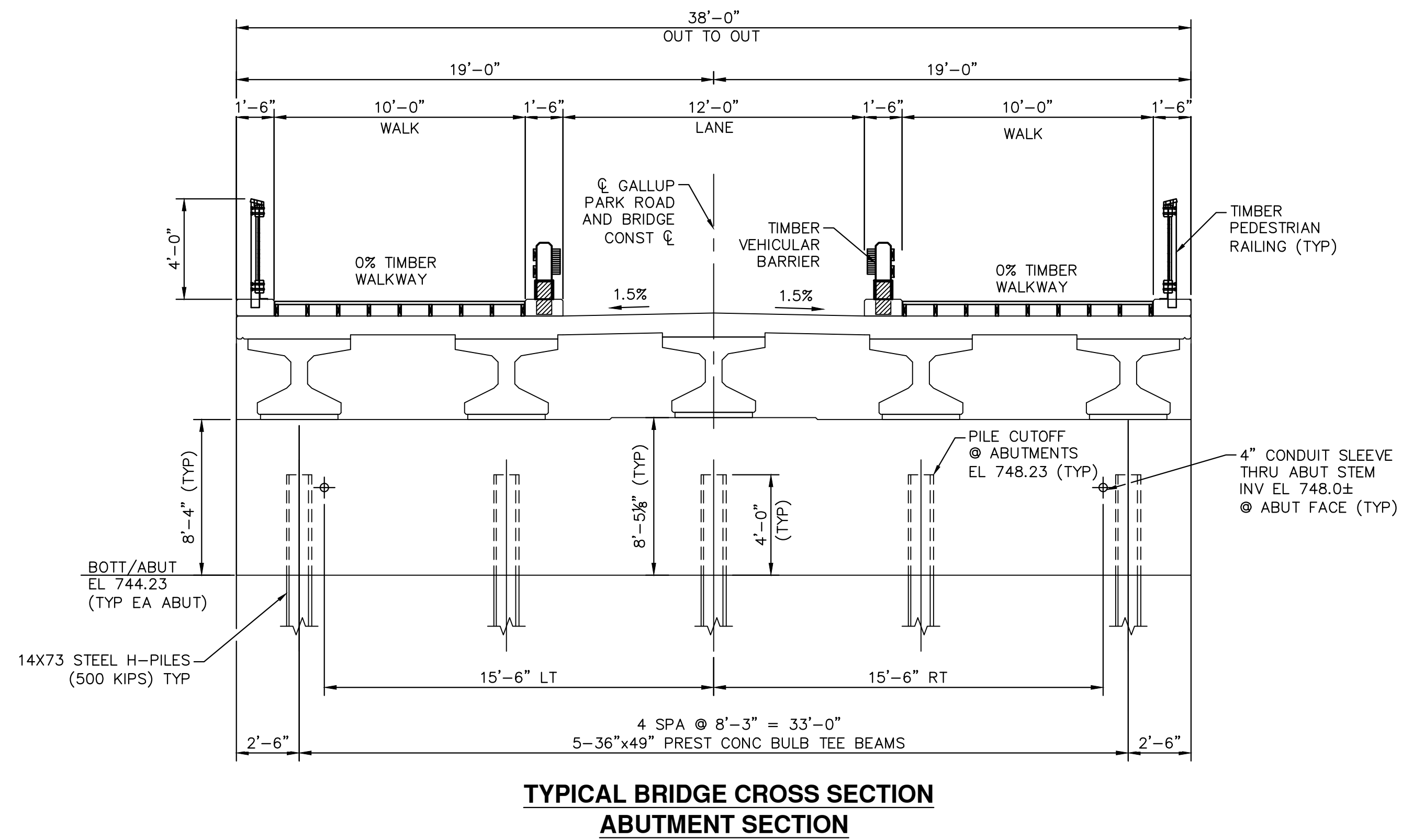
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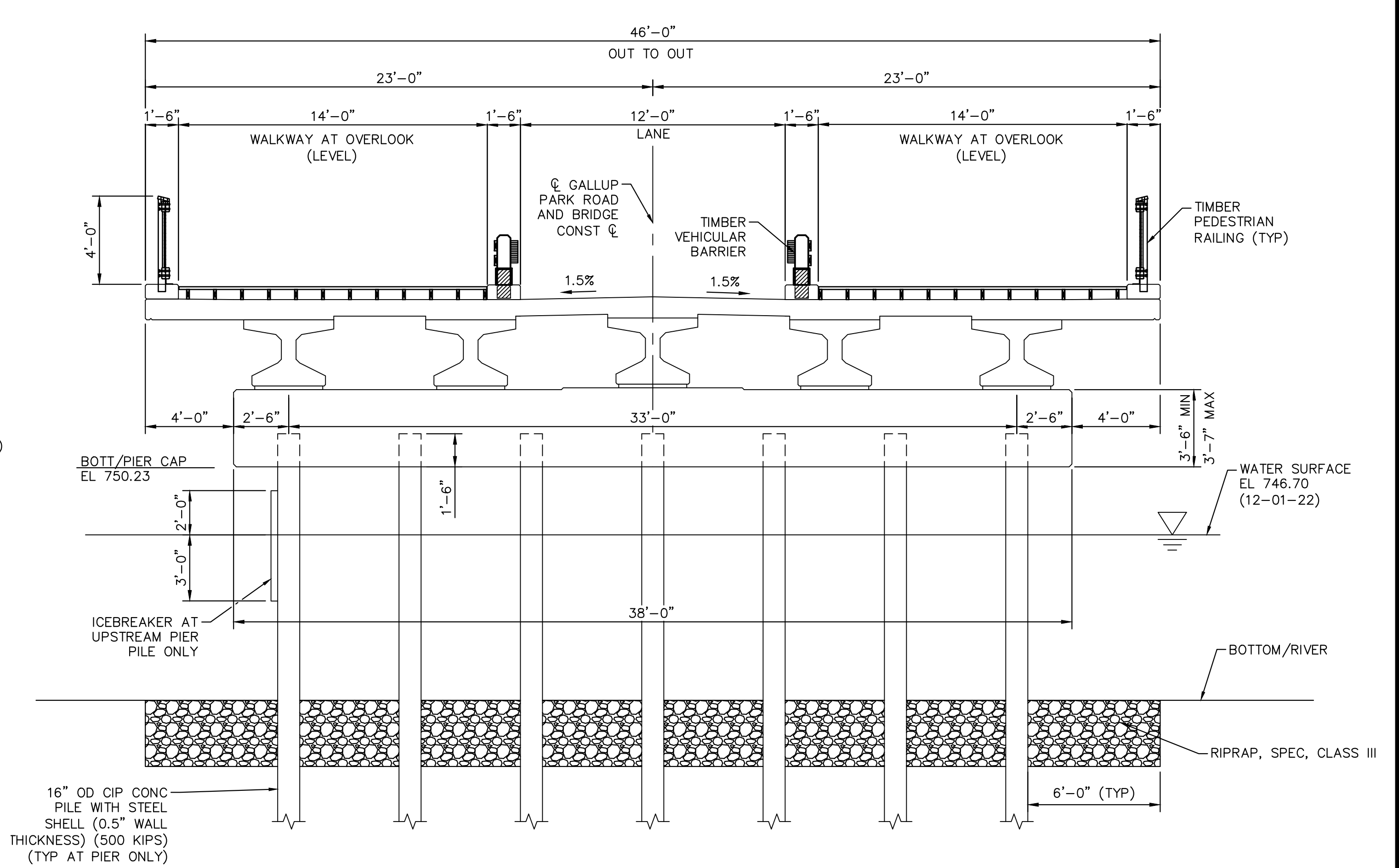
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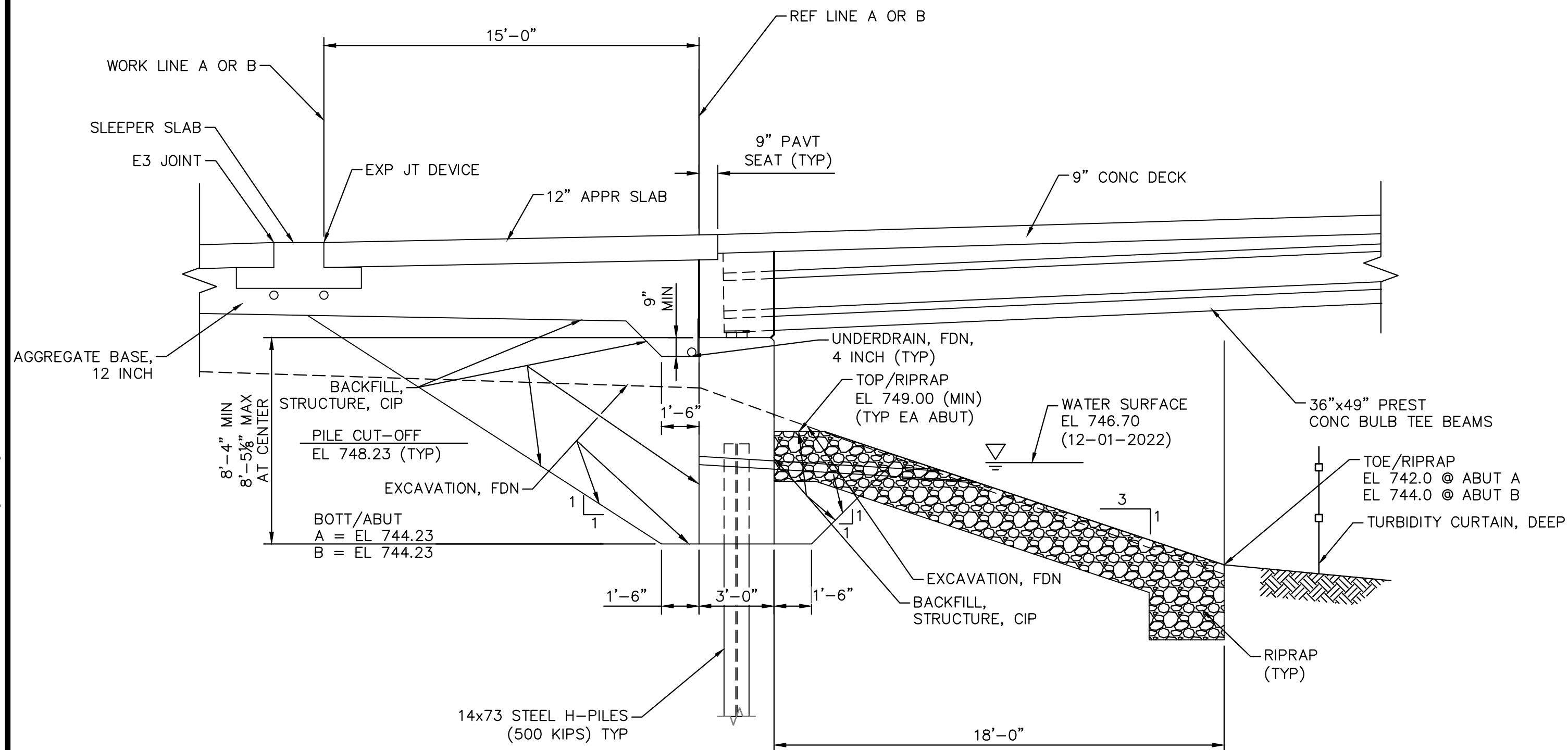
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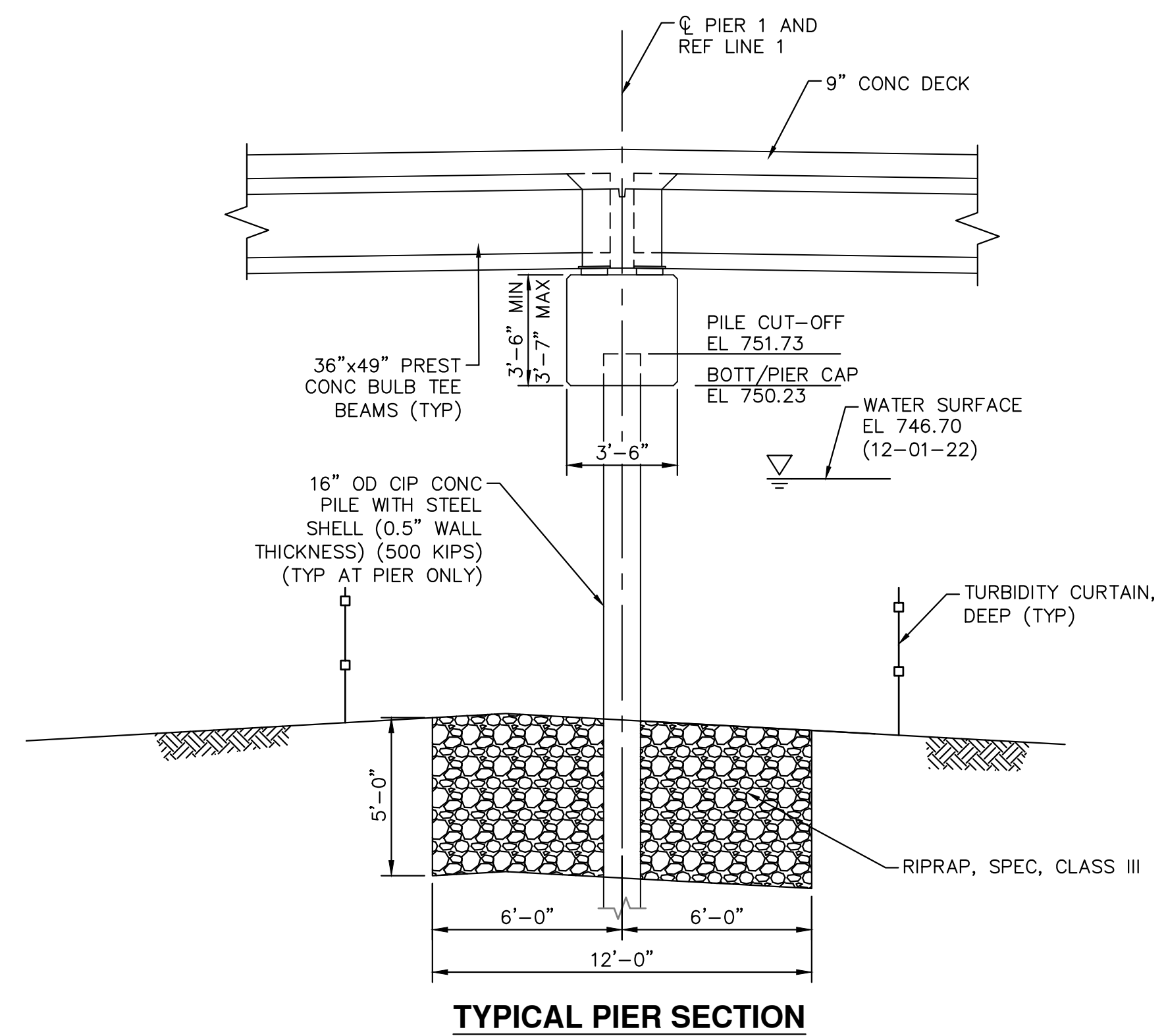
**TYPICAL BRIDGE CROSS SECTION
ABUTMENT SECTION**



**TYPICAL BRIDGE CROSS SECTION
PIER SECTION**



TYPICAL ABUTMENT SECTION



TYPICAL PIER SECTION

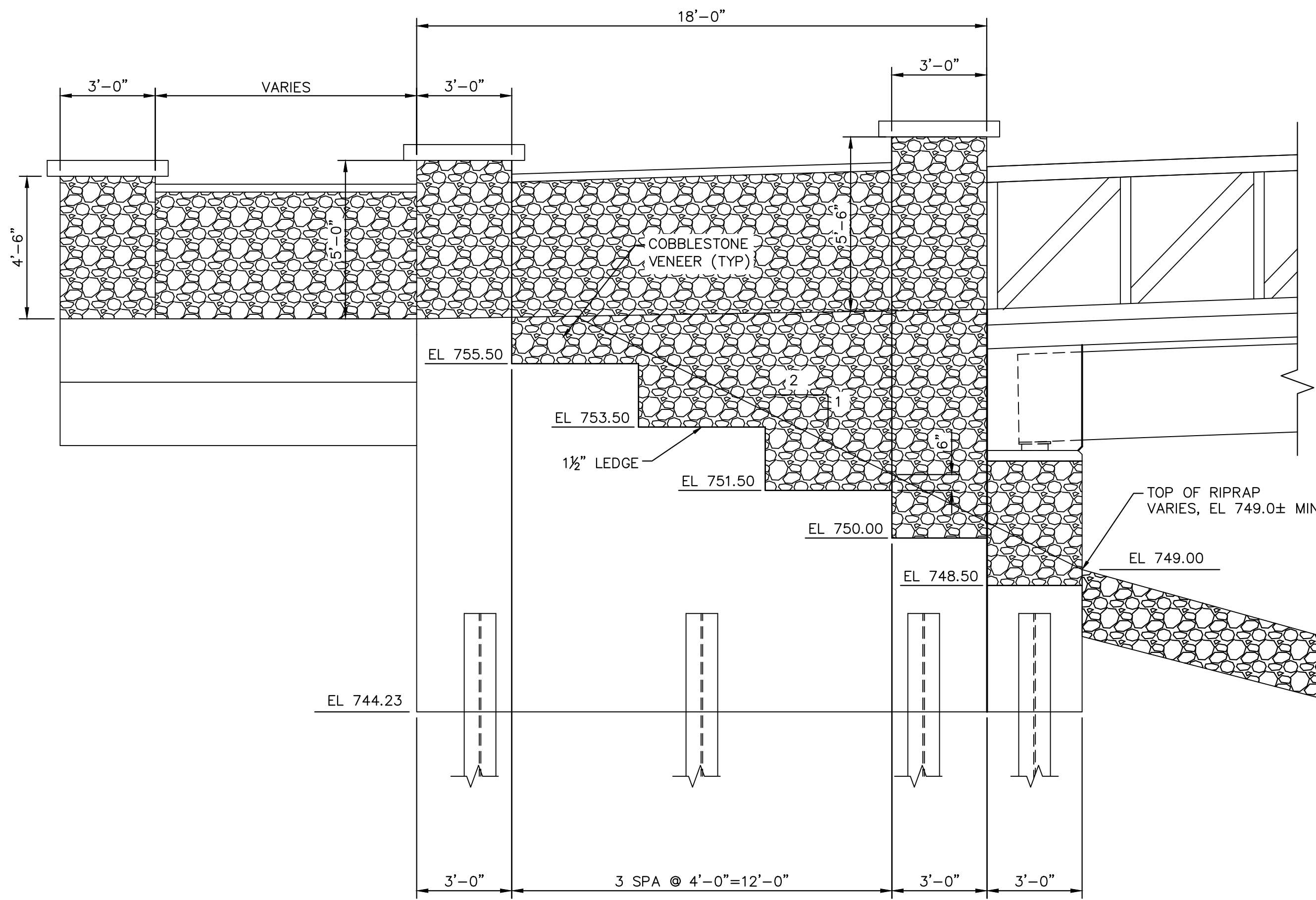


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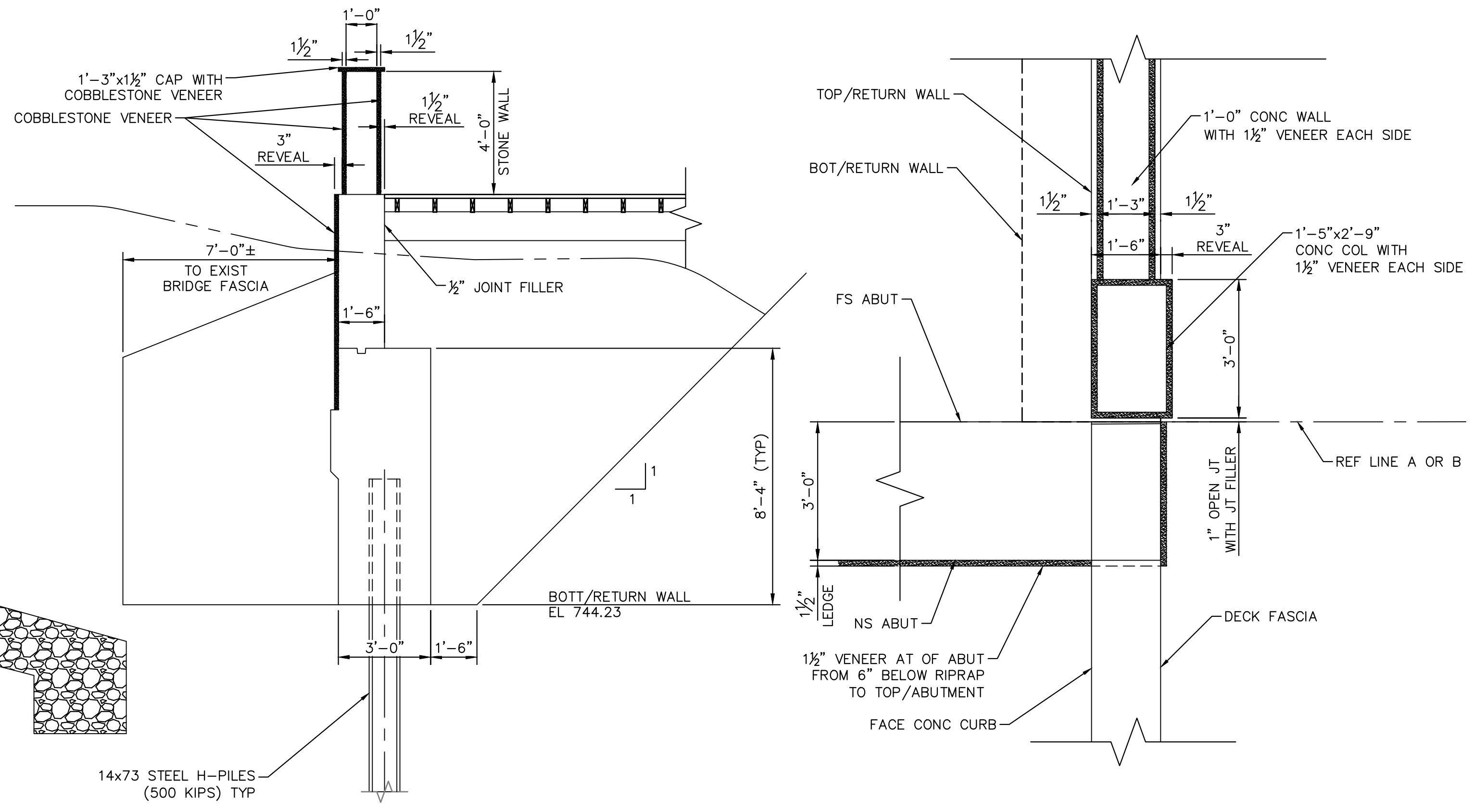
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GENERAL PLAN OF STRUCTURE

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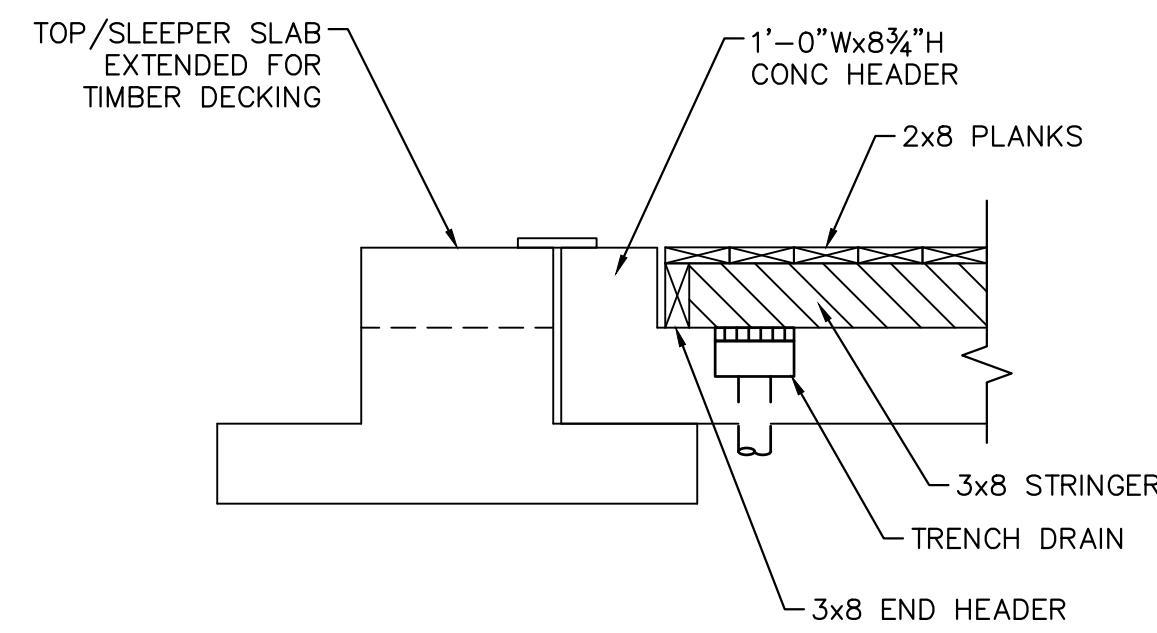


TYPICAL RETURN WALL ELEVATION

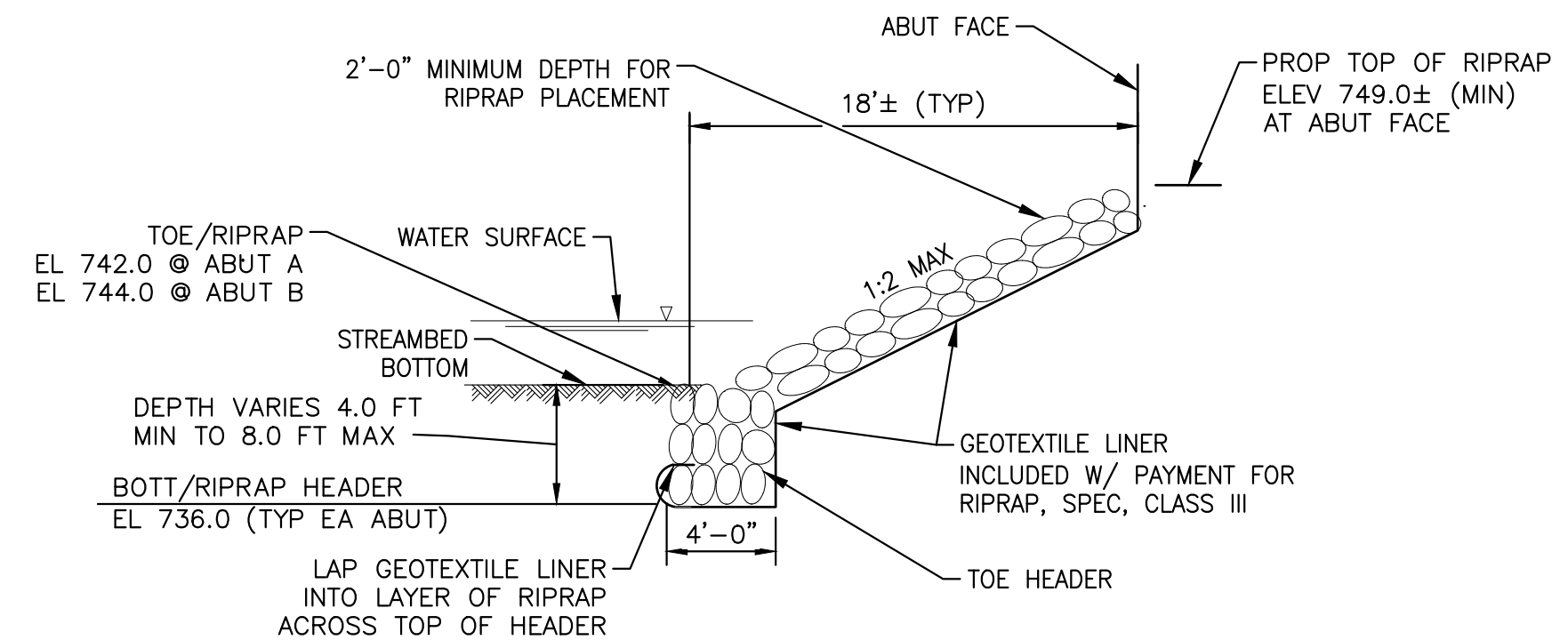


TYPICAL RETURN WALL SECTION
SOUTHEAST RETURN WALL SHOWN

PARTIAL PLAN



CONCRETE HEADER DETAIL

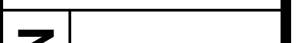


PROTECTION RIPRAP DETAIL
(PAID FOR AS "RIPRAP, SPEC, CLASS III" OR ALTERNATE "RIPRAP, FIELDSTONE, SPEC")
(FOR RIPRAP AT EACH QUADRANT ALONG RETURN WALLS, SEE LEDGESTONE DETAILS)



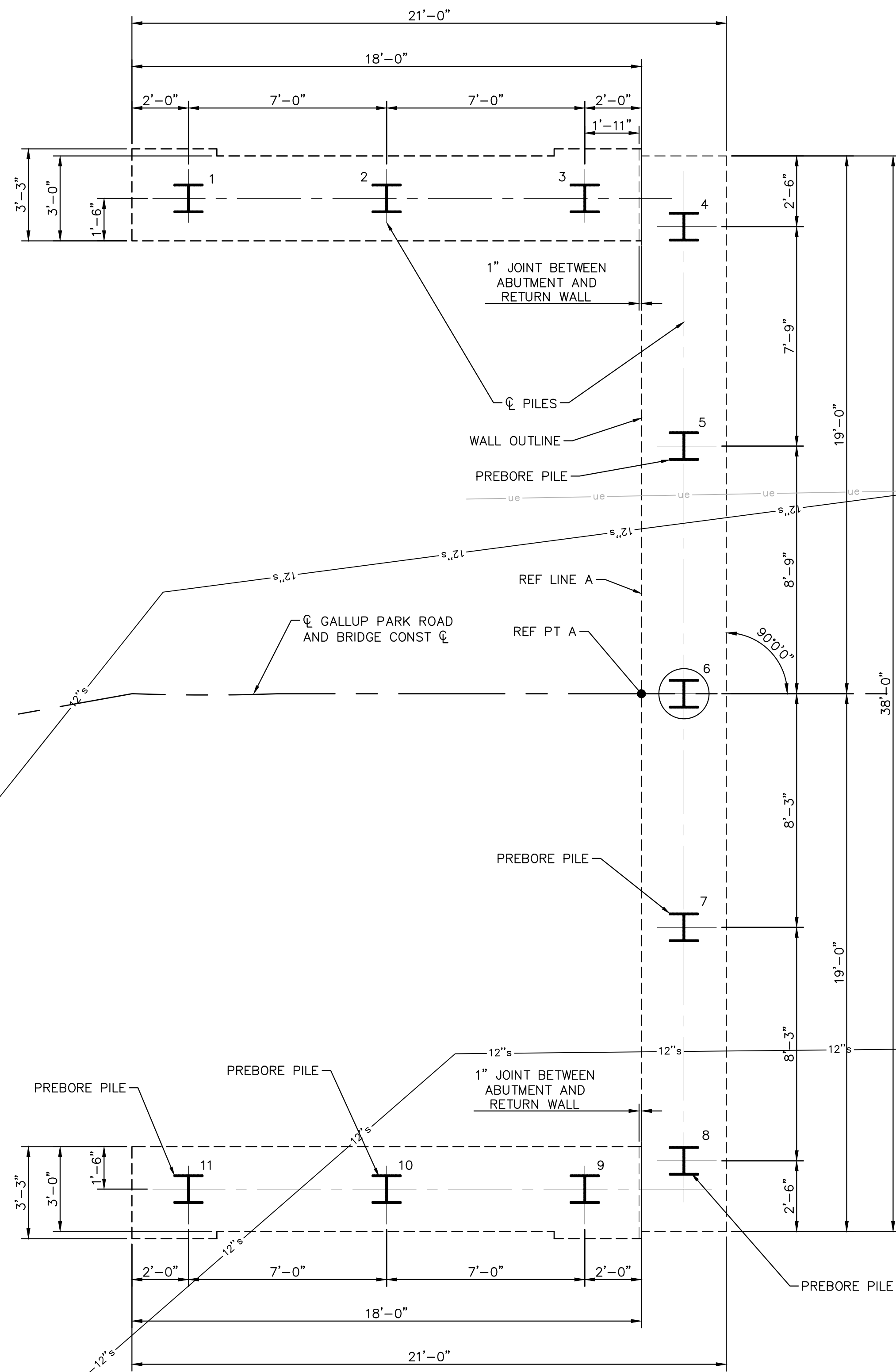
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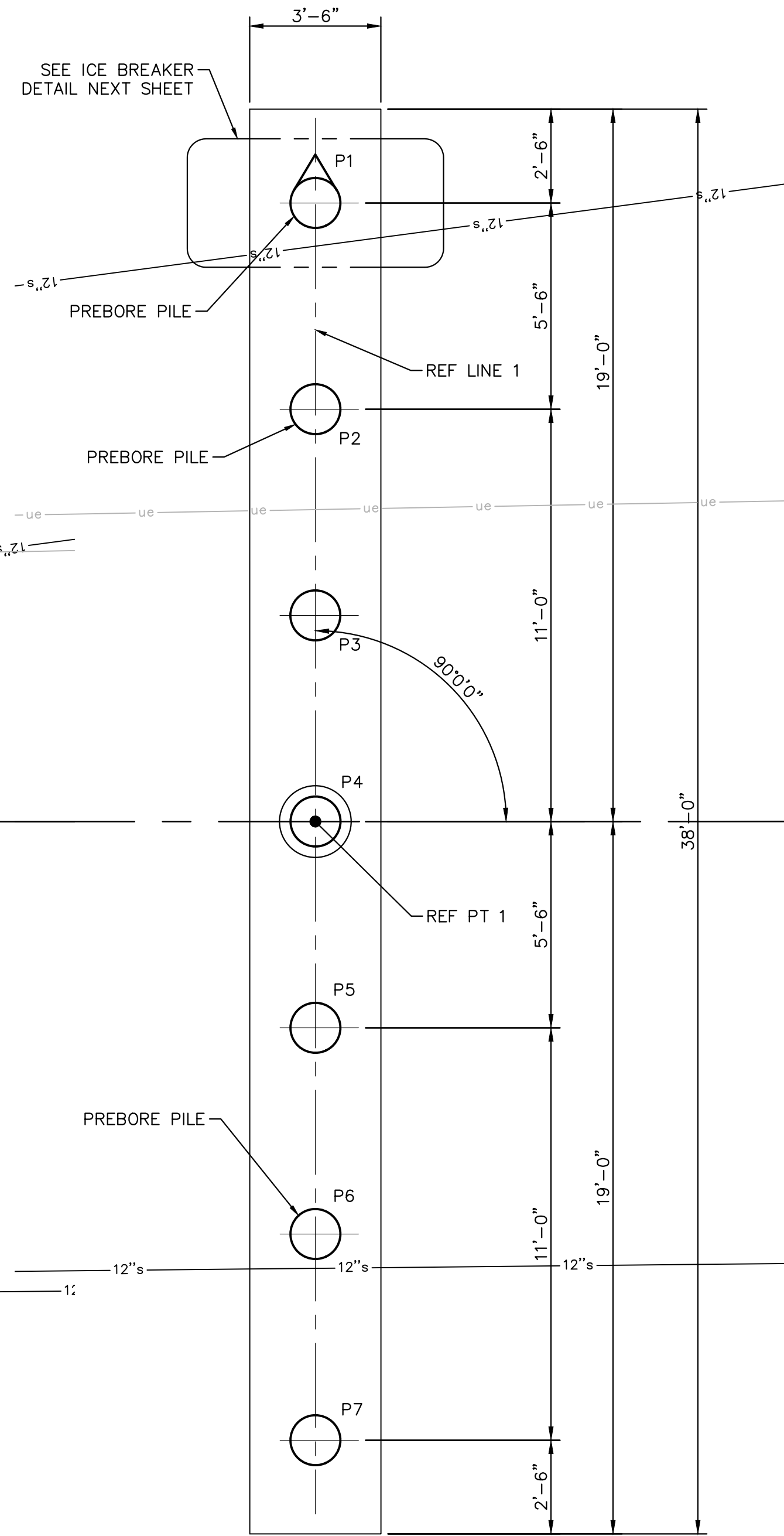


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GENERAL PLAN OF STRUCTURE

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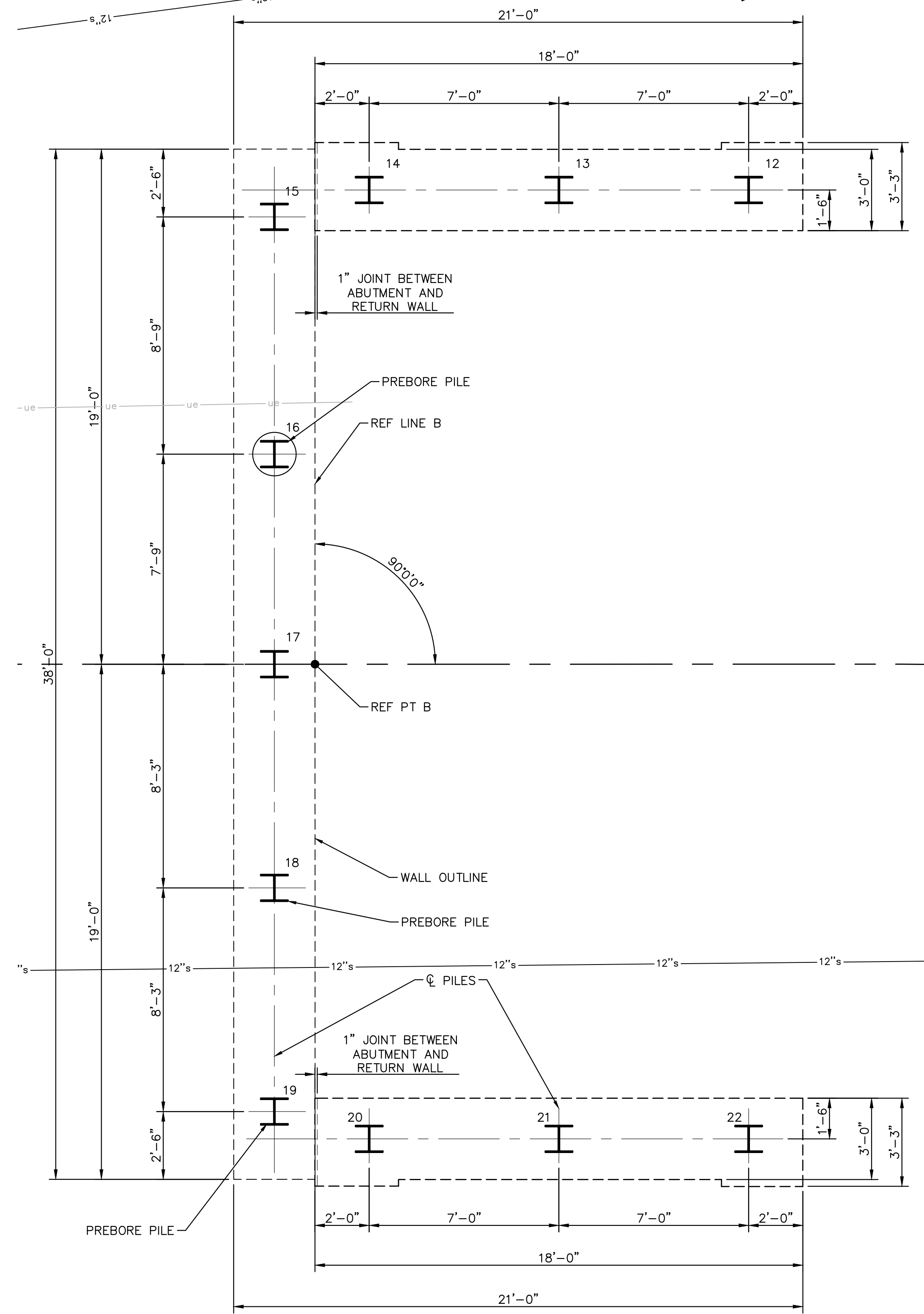


ABUTMENT A



PIER 1

PILE PLAN



ABUTMENT B

LEGEND

- H --- DENOTES VERTICAL H-PILES.
- ⊕ --- DENOTES VERTICAL TEST H-PILES.
- --- DENOTES VERTICAL CIP CONC PILES.
- ⊙ --- DENOTES VERTICAL TEST CIP CONC PILES.



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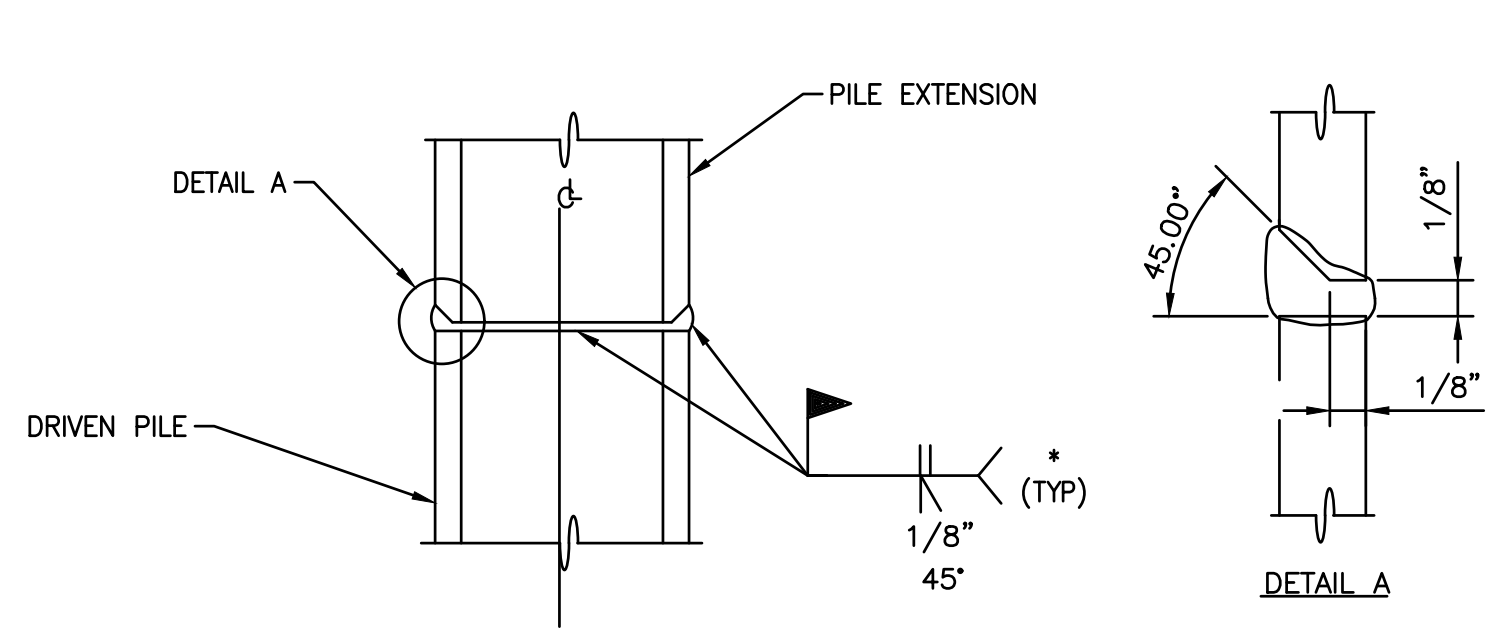
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 DESIGN - BRIDGE REPLACEMENT PLANS
 PILE PLAN

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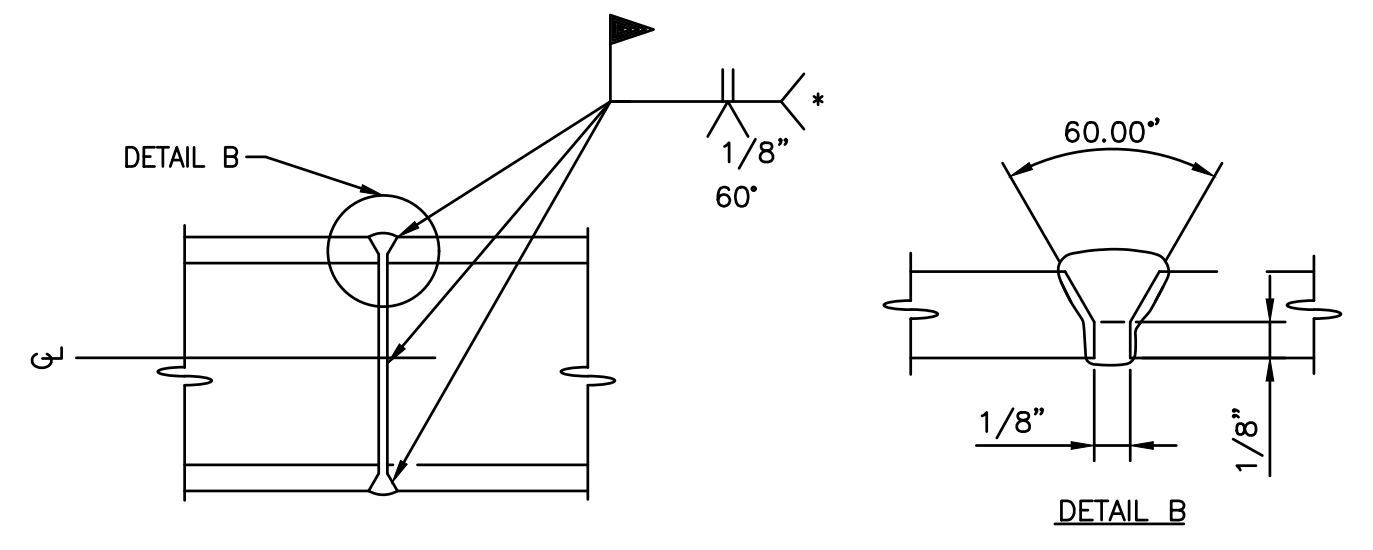
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DESIGN - BRIDGE REPLACEMENT PLANS
PILE DETAILS

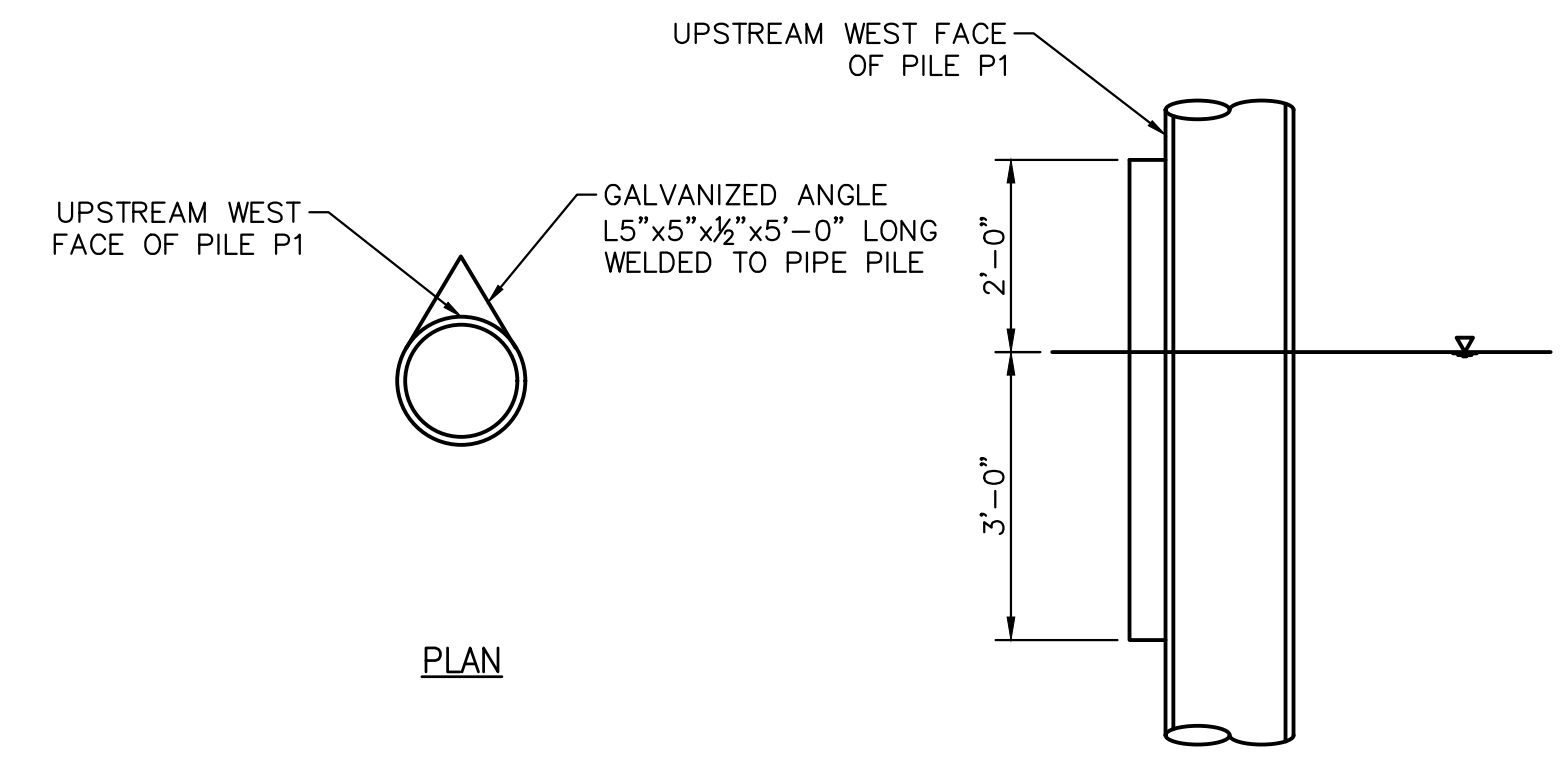


SPLICE DETAILS - TYP AT ABUTMENTS
FOR PILES IN PLACE (HORIZONTAL JOINT)

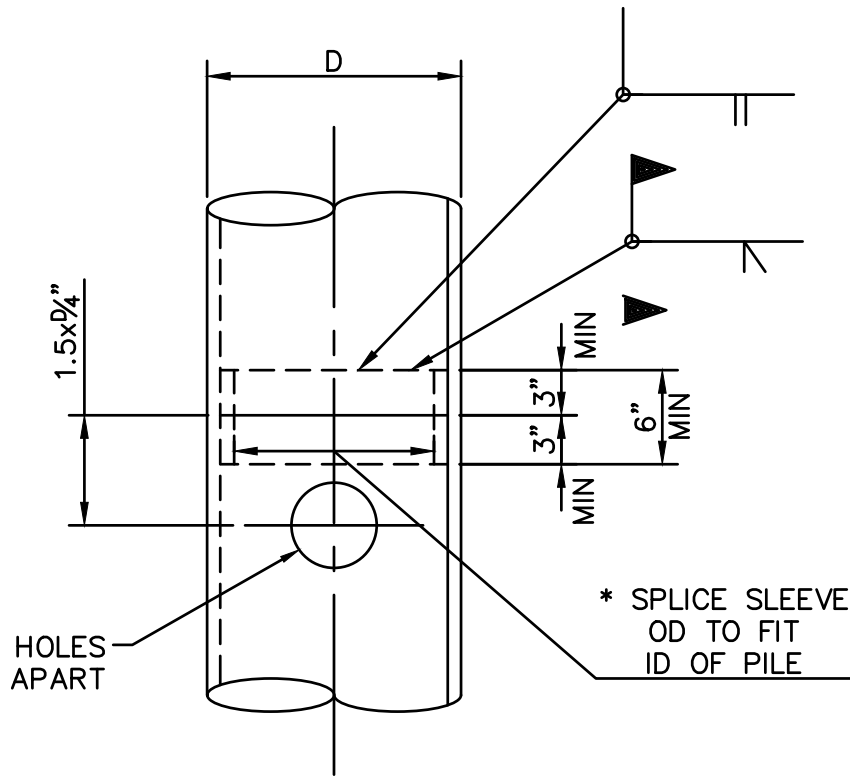
* BACK GOUGE AND GRIND EDGE PREPARATION SMOOTH



SPLICE DETAILS - TYP AT ABUTMENTS
FOR PILES IN HORIZONTAL POSITION

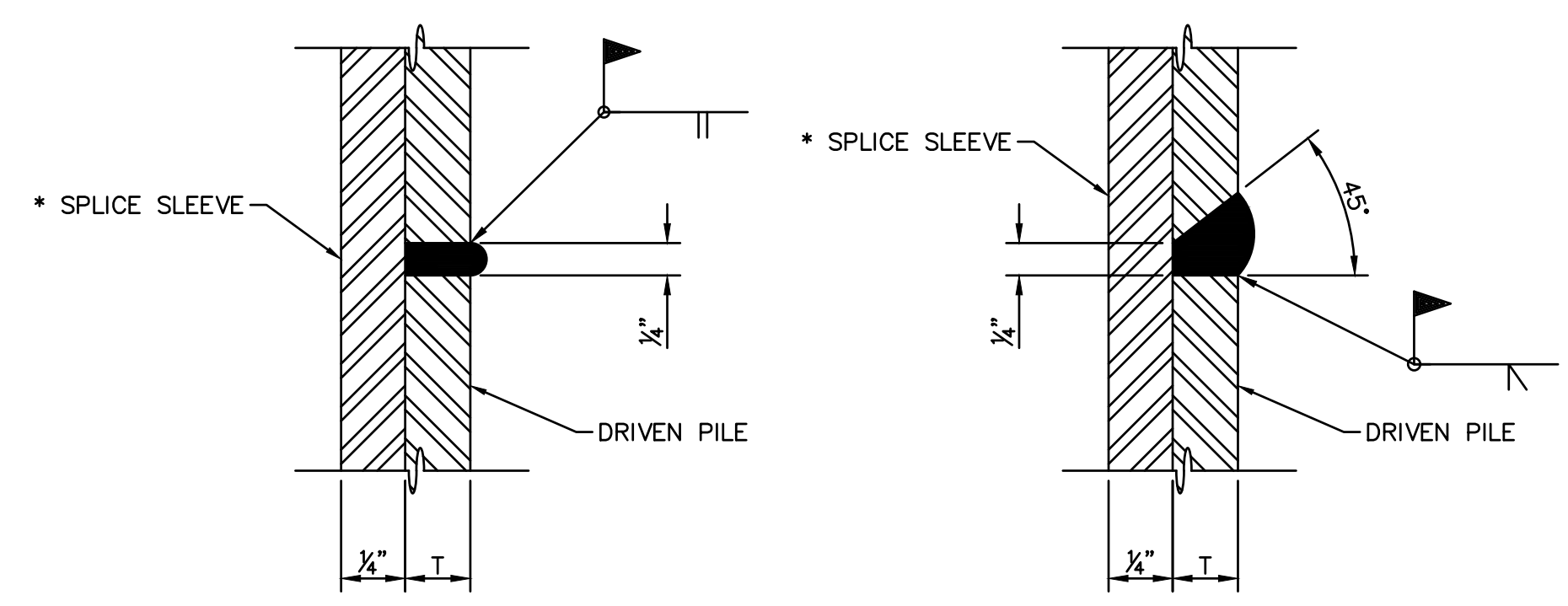


ICE BREAKER DETAIL
UPSTREAM WEST FACE OF PILE P1 ONLY



SPLICE DETAILS - TYP AT PIER
FOR SPIRAL WELDED AND SEAMLESS PIPE SHELLS

* SPLIT CHILL RINGS AS RECOMMENDED BY THE MANUFACTURER MAY BE SUBSTITUTED FOR SPLICE SLEEVES IF APPROVED BY THE ENGINEER.
** DRILL OR FLAME CUT CIRCULAR HANDLING HOLES. GRIND FLAME CUT HOLES TO MAKE CIRCULAR AND REMOVE HARDENED EDGE OR CUT OFF SECTION OF PILE WITH FLAME CUT HOLES PRIOR TO SPLICING OR CONCRETE PLACEMENT.



SPLICE DETAILS - TYP AT PIER

PILE, STEEL, FURN AND DRIVEN, 14 INCH HP14x73							
LOCATION	PILE TYPE	NUMBER OF PILES	ESTIMATED LENGTH FURNISHED & DRIVEN		PILE POINTS (EACH)	SPLICES (EACH)	CUT-OFF ELEV.
			EACH FEET	TOTAL FEET			
Abutment A & SW & SE Return Walls	TEST-VERT	1	80	80	1	1	748.23
	VERTICAL	10	70	700	10	10	748.23
	TOTAL	11		780	11	11	
Abutment B & NW & NE Return Walls	TEST-VERT	1	80	80	1	1	748.23
	VERTICAL	10	70	700	10	10	748.23
	TOTAL	11		780	11	11	
COMBINED TOTAL		22		1560	22	22	

PILE, CIP CONC, FURN AND DRIVEN, 16 INCH (0.50 INCH WALL THICKNESS)							
LOCATION	PILE TYPE	NUMBER OF PILES	ESTIMATED LENGTH FURNISHED & DRIVEN		PILE POINTS (EACH)	SPLICES (EACH)	CUT-OFF ELEV.
			EACH FEET	TOTAL FEET			
Center Pier 1	TEST-VERT	1	85	85	1	1	751.73
	VERTICAL	6	75	450	6	6	751.73
	TOTAL	7		535	7	7	
COMBINED TOTAL		7		535	7	7	

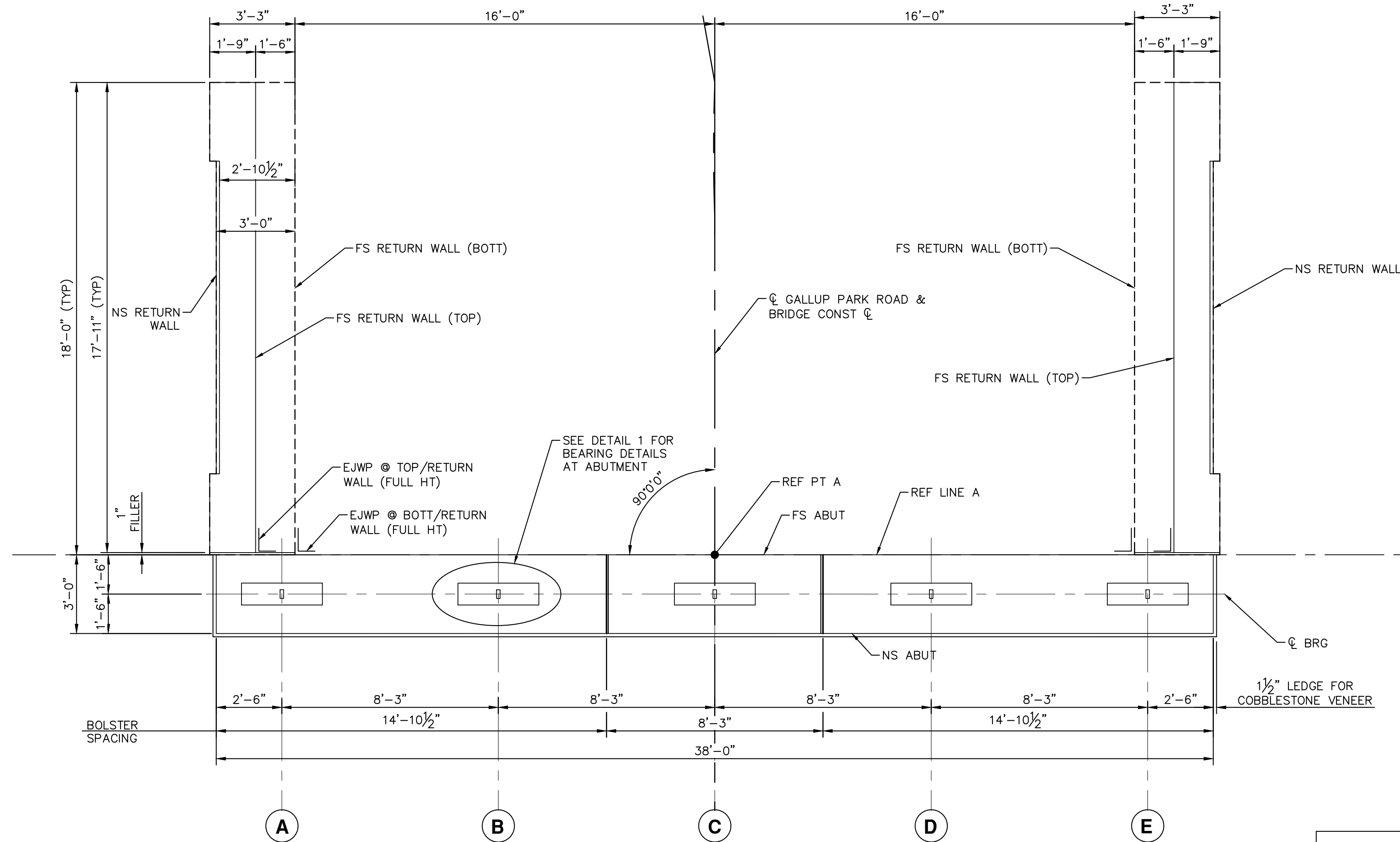
QUANTITIES THIS SHEET		
ITEM	QUANTITY	UNIT
Pile Driving Equipment, Furn	1	LSUM
Pile, Steel, Furn and Driven, 14 inch	1560	Ft
Test Pile, Steel, 14 inch	2	Ea
Pile Point, Steel	22	Ea
Pile, Steel, Splice	29	Ea
Pile, Galv	1	LSUM
Prebore, Fdn Piling	653	Ft
Pile, CIP Conc, Furn and Driven, 16 inch	535	Ft
Test Pile, CIP Conc, 16 inch	1	Ea
Pile Point, CIP Conc	7	Ea

NOTES:

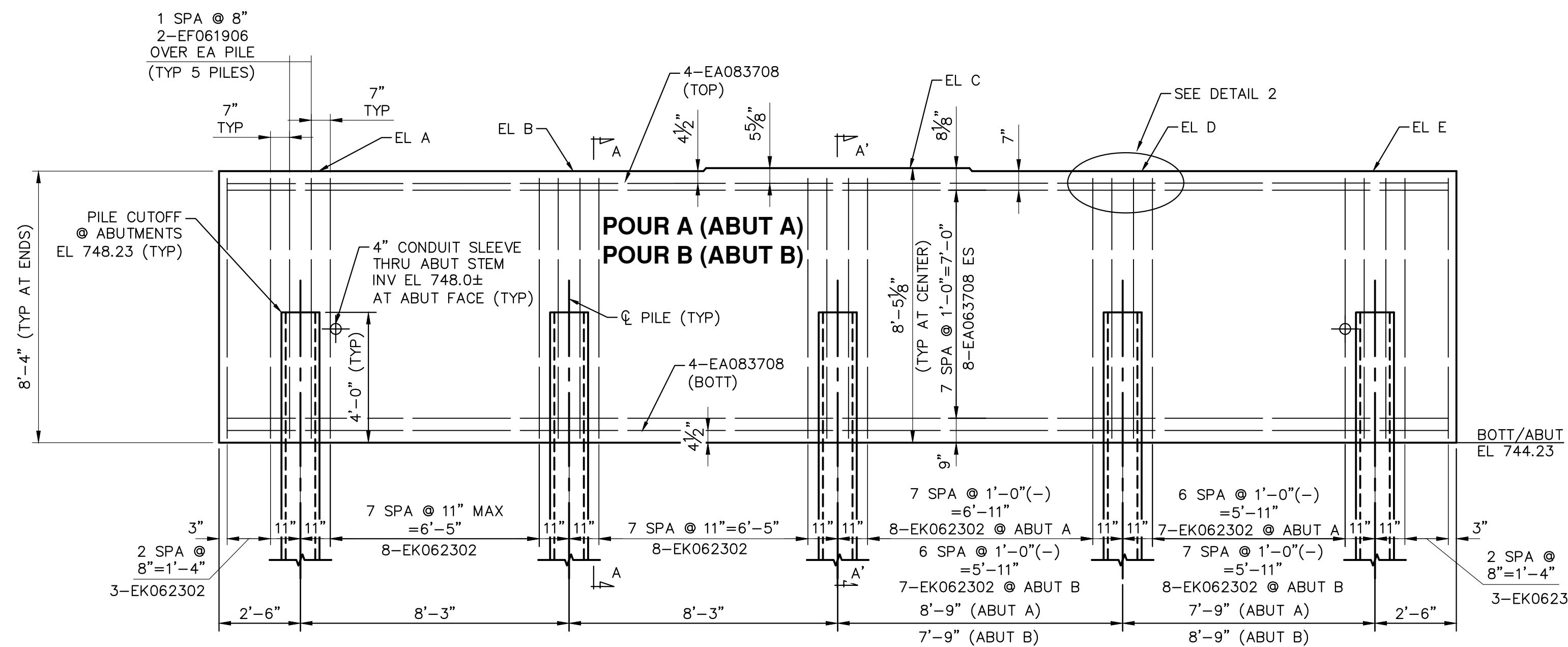
DRIVE ALL PILES TO A NOMINAL PILE DRIVING RESISTANCE NOT LESS THAN 500 KIPS. DETERMINE NOMINAL PILE DRIVING RESISTANCE (R_{ndr}) USING THE FHWA-MODIFIED GATES DYNAMIC FORMULA.
THE ESTIMATED PILE LENGTH IS BASED ON THE STATIC ANALYSIS.
FOR THE PIER, DRIVE PILES IN A SEQUENCE THAT BEGINS WITH THE CENTER OF THE PILE GROUP AND PROCEEDS OUTWARD IN BOTH DIRECTIONS OR FROM ONE SIDE OF THE PILE GROUP TO THE OTHER SIDE. THE CONTRACTOR MAY REQUEST ENGINEER APPROVAL TO SEQUENCE THE PILE DRIVING FROM THE CENTER OF THE PILE GROUP OUTWARD IN A CLOCKWISE OR COUNTERCLOCKWISE PATTERN IF FOUR OR MORE ROWS OF PILES EXIST.
FOR THE PIERS, STEEL PILES USED FOR PILE BENTS ARE CONSIDERED MAIN MEMBERS AND ALL WELDING MUST BE ACCORDING TO AASHTO/AWS D1.5 BRIDGE WELDING CODE, AS MODIFIED BY THE CURRENT SPECIAL PROVISION FOR STRUCTURAL STEEL AND ALUMINUM CONSTRUCTION.
FOR THE ABUTMENTS, USE ONLY THE PILE SPLICE DETAILS WITHIN THE PLANS.
AT ABUTMENT WALLS AND RETURN WALLS, USE HP14x73 STEEL PILES. AT PIER 1, WITH THE CAST-IN-PLACE CONCRETE PILES, USE 16 INCH OD STEEL PILE SHELLS WITH A MINIMUM OF 0.500 INCH NOMINAL WALL THICKNESS.
DRIVE PILES TO SUCH ACCURACY THAT THE ENDS OF THE PILES TO BE EMBEDDED IN THE CONCRETE ARE WITHIN 3" OF THE LOCATION SHOWN ON THE PLANS.
USE STEEL H-PILES AND SPLICES THAT HAVE A YIELD STRENGTH NOT LESS THAN 50 KSI.
USE STEEL PILE SHELLS AND SPLICE SLEEVES FOR CIP CONC PILES MEETING THE REQUIREMENTS OF ASTM A252 GRADE 3 MODIFIED (50 KSI).
THE FACTORED PILE RESISTANCE AVAILABLE TO RESIST ALL FACTORED LOADS INCLUDING THE ESTIMATED FACTORED DOWNDRAG IS EQUAL TO 50 PERCENT OF NOMINAL PILE DRIVING RESISTANCE.
PILES SHALL BE DRIVEN IN THE ORIENTATION SHOWN ON THE PILE LAYOUT PLAN.
STEEL PILES USED FOR PILE BENTS ARE CONSIDERED MAIN MEMBERS AND ALL WELDING MUST BE ACCORDING TO AASHTO/AWS D1.5 BRIDGE WELDING CODE, AS MODIFIED BY THE CURRENT SPECIAL PROVISION FOR STRUCTURAL STEEL AND ALUMINUM CONSTRUCTION.
USE ONLY THE PILE SPLICE DETAILS WITHIN THE PLANS.
USE PILE POINTS AT EACH PILE LOCATION AT ABUTMENTS AND PIER.

C:\pwwork2\d1264804\SDT-PLTS-PileDetails2-Gallup.dwg Dwg. Created: 28-Jun-23 - _a2_standard bw.stb - Plot Date: 2-Aug-23

C:\pw_work2\d1264804\SAD-PLTS-AbutDetailsA-Gallup.dwg Dwg Created: 17-Jul-23 - _a2 standard bw.stb - Plot Date: 2-Aug-23

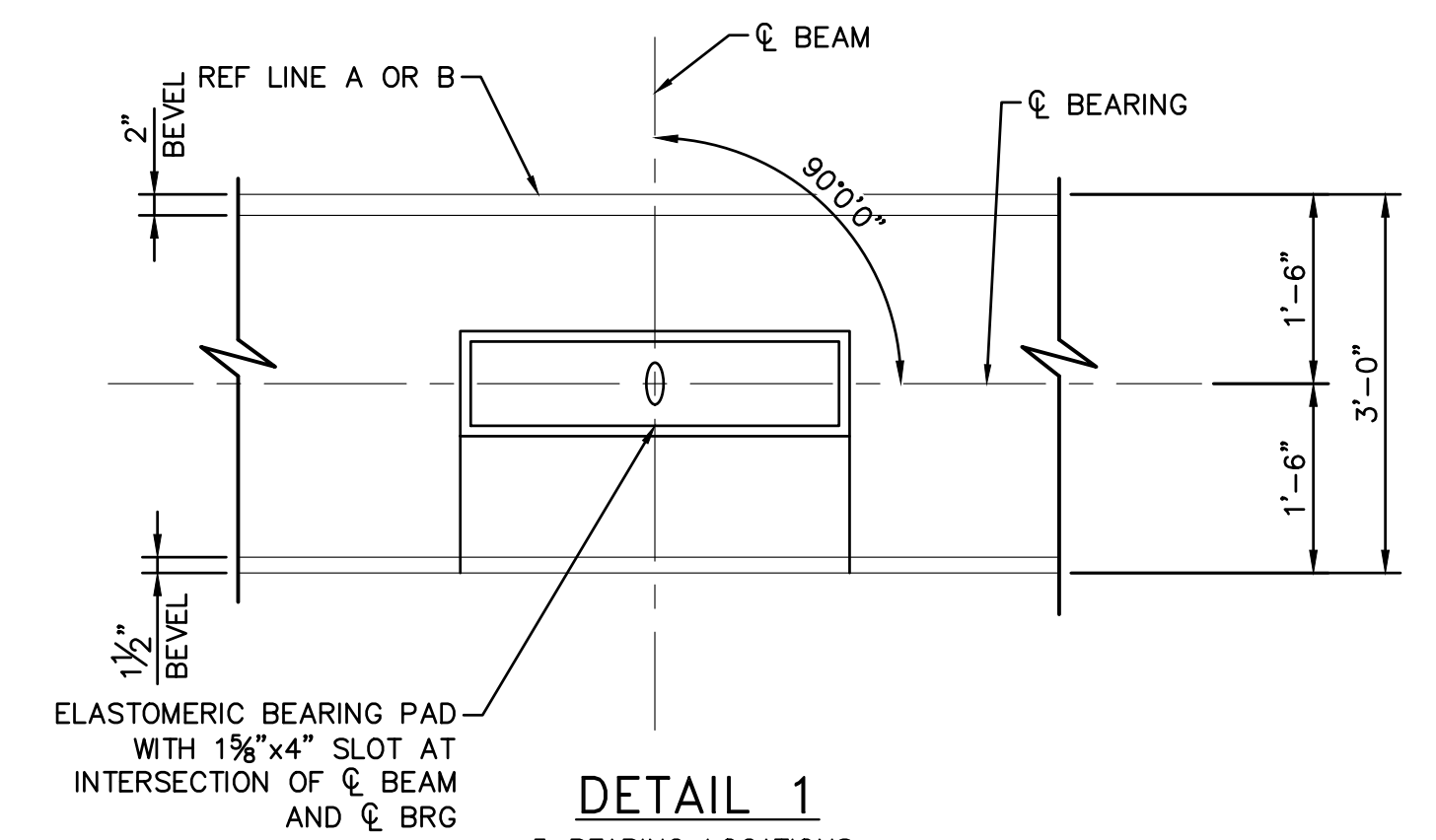


ABUTMENT A WALL PLAN
(ABUTMENT B WALL PLAN OPP HAND)

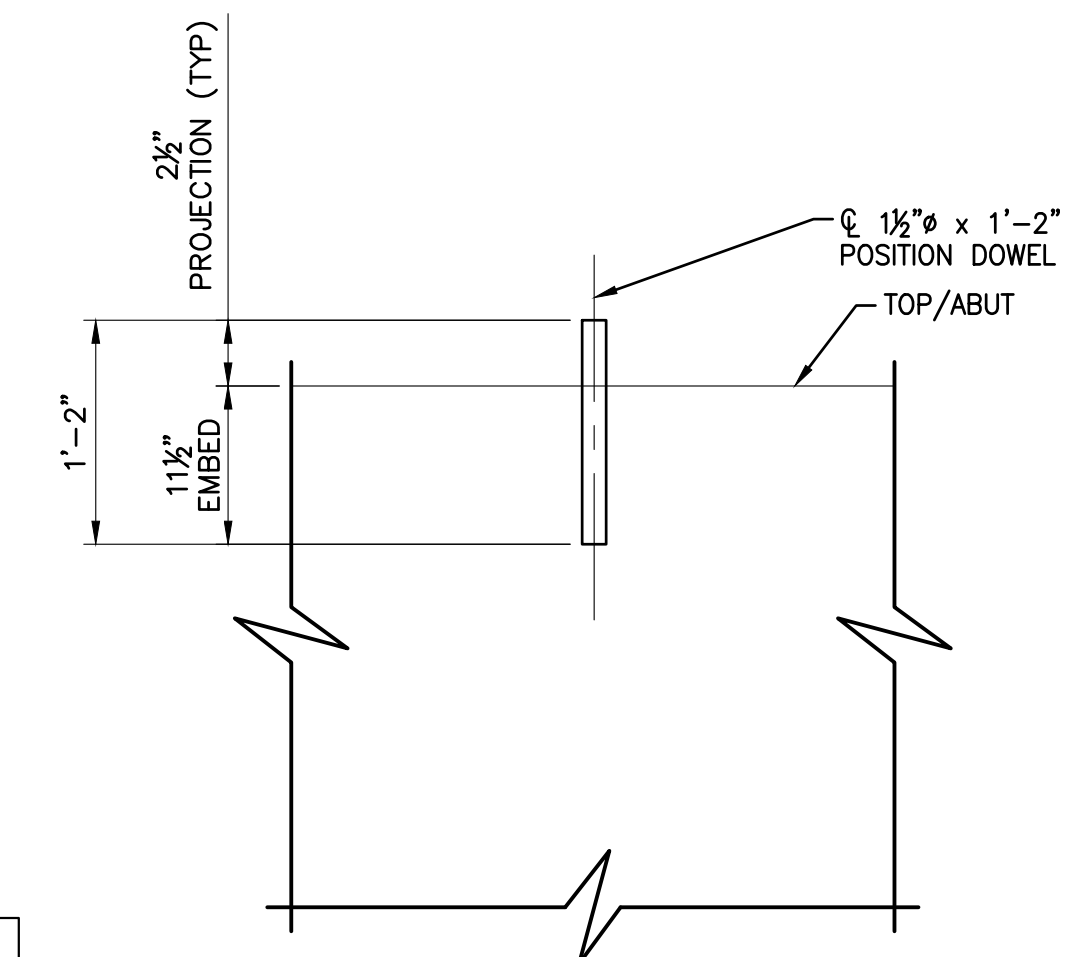


ABUTMENT A ELEVATION
(ABUTMENT B SIMILAR)

NOTE: ALL ABUT PILES ARE
STEEL HP 14x72 H-PILES
(500 KIPS) (TYP)



DETAIL 1
5 BEARING LOCATIONS
AT EACH ABUTMENT



DETAIL 2
5 BEARING LOCATIONS
AT EACH ABUTMENT

SUBSTRUCTURE CONCRETE QUANTITIES

POUR	AMT (CYD)	LOCATION
A	36.6	ABUT A STEM
B	36.6	ABUT B STEM
C	21.2	SW RET WALL - TOP AND BOTT
D	21.2	SE RET WALL - TOP AND BOTT
E	21.2	NW RET WALL - TOP AND BOTT
F	21.2	NE RET WALL - TOP AND BOTT
G	3.5	SW RET WALL EXT - FTG AND BASE
H	5.0	NW RET WALL EXT - FTG AND BASE
J	6.8	TYPICAL APPROACH WALL ON RW - TOTAL
K	9.6	PILLAR CONCRETE - TOTAL
L	1.2	SW APPROACH WALL @ RET WALL EXT
M	1.9	NW APPROACH WALL @ RET WALL EXT
SUBTOTAL	186.0	

QUANTITIES THIS SHEET

ITEM	QUANTITY	UNIT
Substructure Conc	228	Cyd
Joint Waterproofing, Expansion	105	Sft
Cobblestone Veneer	1600	Sft
Stone Cap	205	Sft

NOTES:

- JWP DENOTES JOINT WATERPROOFING.
- EJWP DENOTES JOINT WATERPROOFING, EXPANSION.
- NS DENOTES NEAR SIDE.
- FS DENOTES FAR SIDE.
- ES DENOTES EACH SIDE.
- FOR BEVEL AND MOLDING DETAILS, SEE MDOT BRIDGE STANDARD PLANS B-103 SERIES.
- LOW TEMPERATURE PROTECTION OF CONCRETE SHALL BE APPLIED ACCORDING TO SECTION 706.03 J. OF THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- PLACE FILL MATERIAL IN FRONT AND BEHIND ABUTMENT AT THE SAME TIME. UNBALANCED FILL HEIGHTS WILL NOT BE ALLOWED UNTIL THE PRECAST BEAMS AND CONCRETE DECK HAVE BEEN PLACED.
- PLACEMENT OF POSITION DOWELS SHALL BE FIELD DRILLED. POSITION DOWELS WILL NOT BE PAID FOR SEPARATELY. PAYMENT FOR THIS WORK WILL BE INCLUDED IN "PREST CONC BULB-TEE BEAM, ERECT, 36 INCH BY 49 INCH".

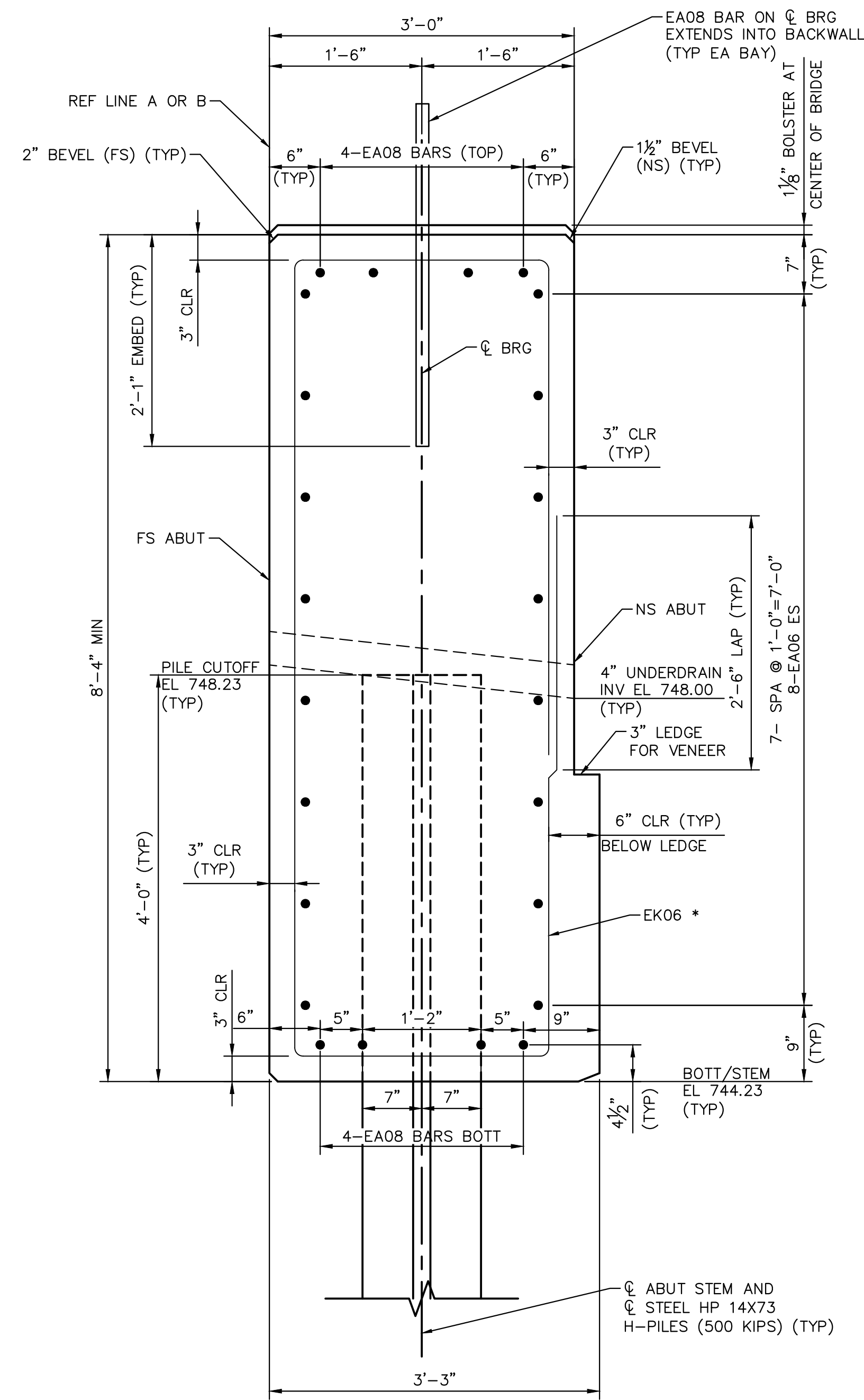
MIN LAP TABLE

BAR	LAP
EA06	3'-4"
EA08	6'-8"

BEAM SEAT ELEVATIONS

BEAM	ABUT A	ABUT B
A	752.56	752.56
B	752.56	752.56
C	752.65	752.65
D	752.56	752.56
E	752.56	752.56

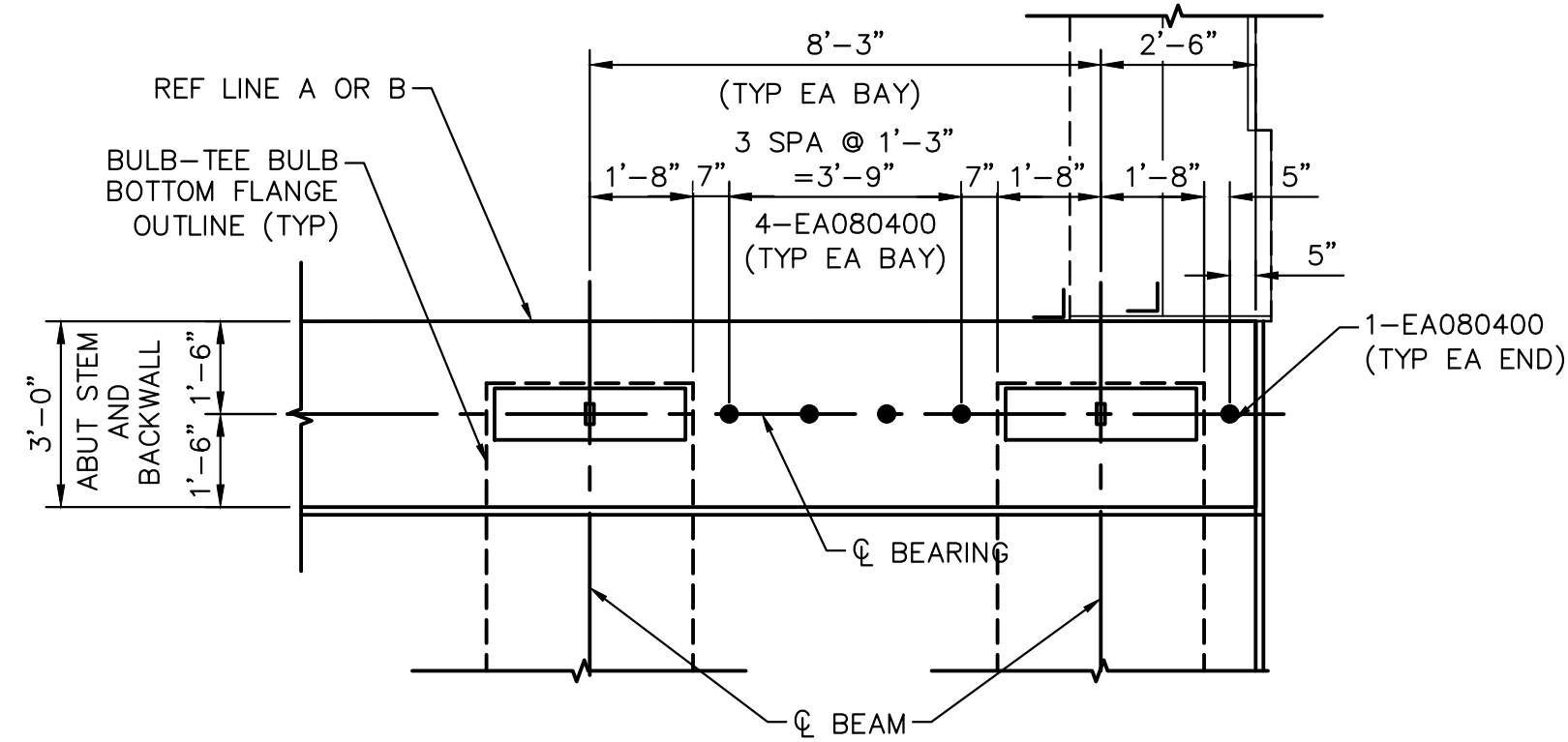
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SECTION A-A

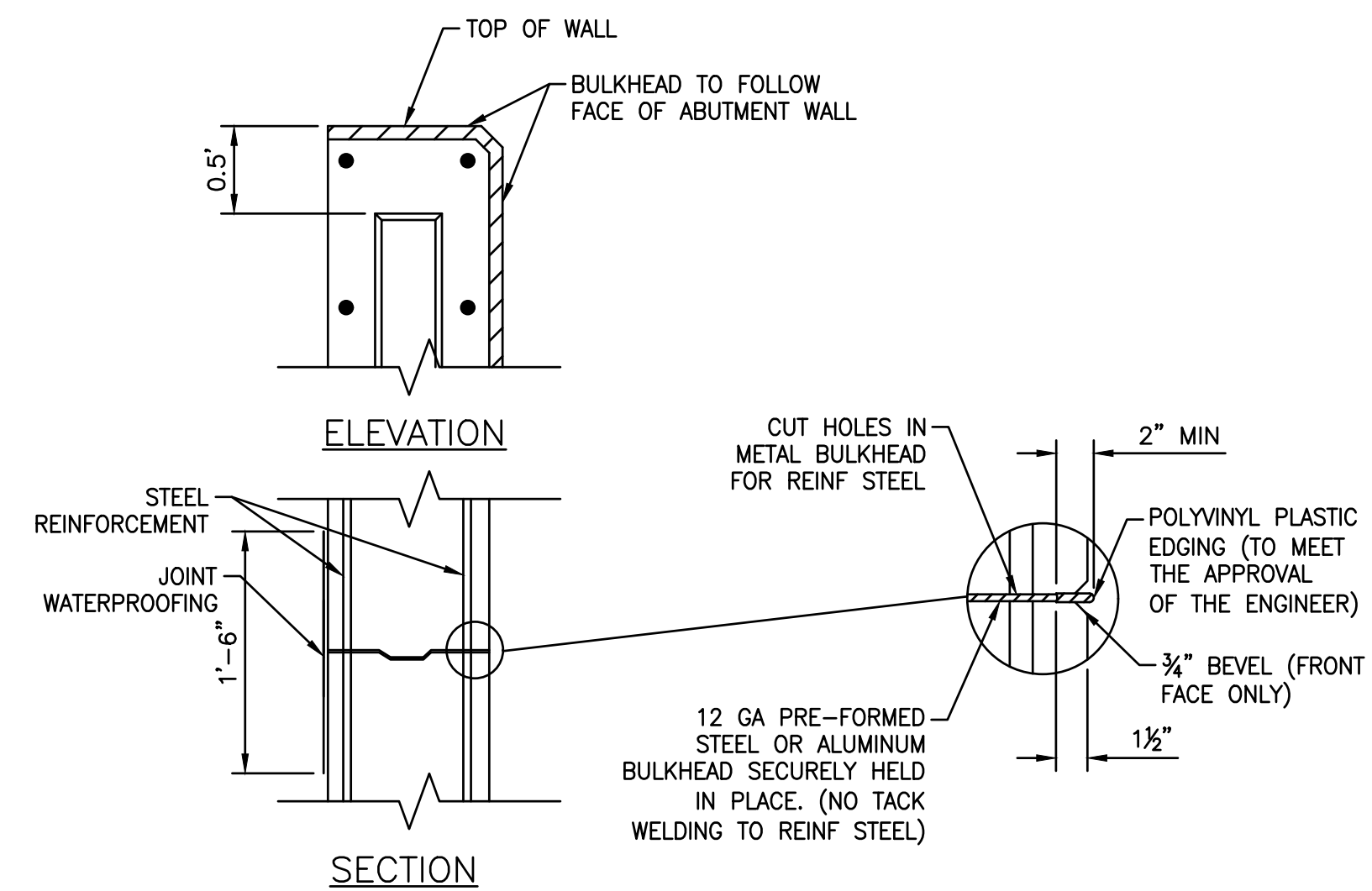
SECTION A'-A'

* IN SECTION A'-A', WILL BE 2-EF06 BARS OVER EACH PILE

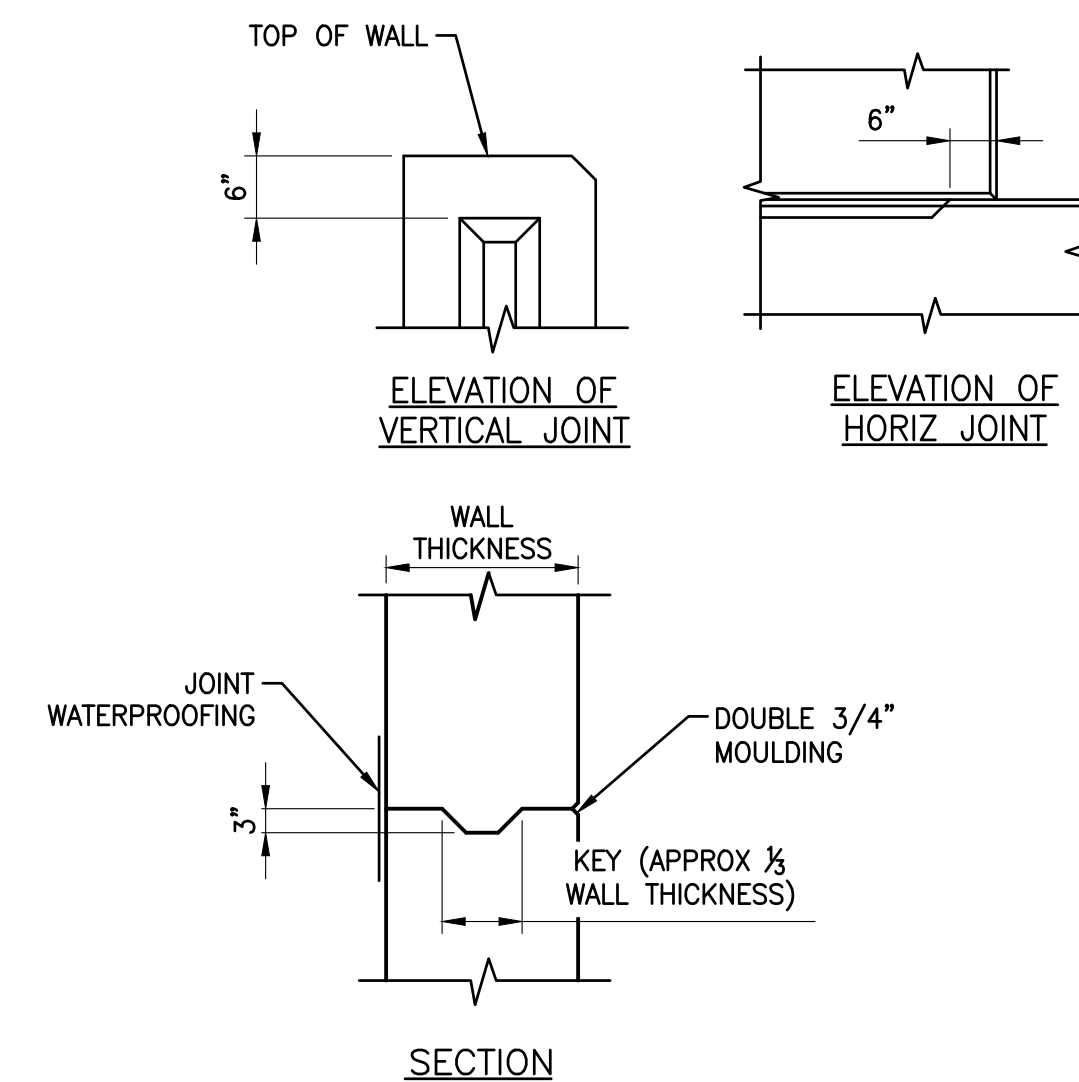


PARTIAL ABUTMENT WALL PLAN

(DISPLAYING EA08 VERTICAL BARS IN THE ABUTMENT WALL, ON THE ϕ BEARING BETWEEN BEAMS, TYPICAL FOR EACH BAY) (TYP EA ABUTMENT)



METAL BULKHEAD DETAILS



CONSTRUCTION JOINT DETAILS



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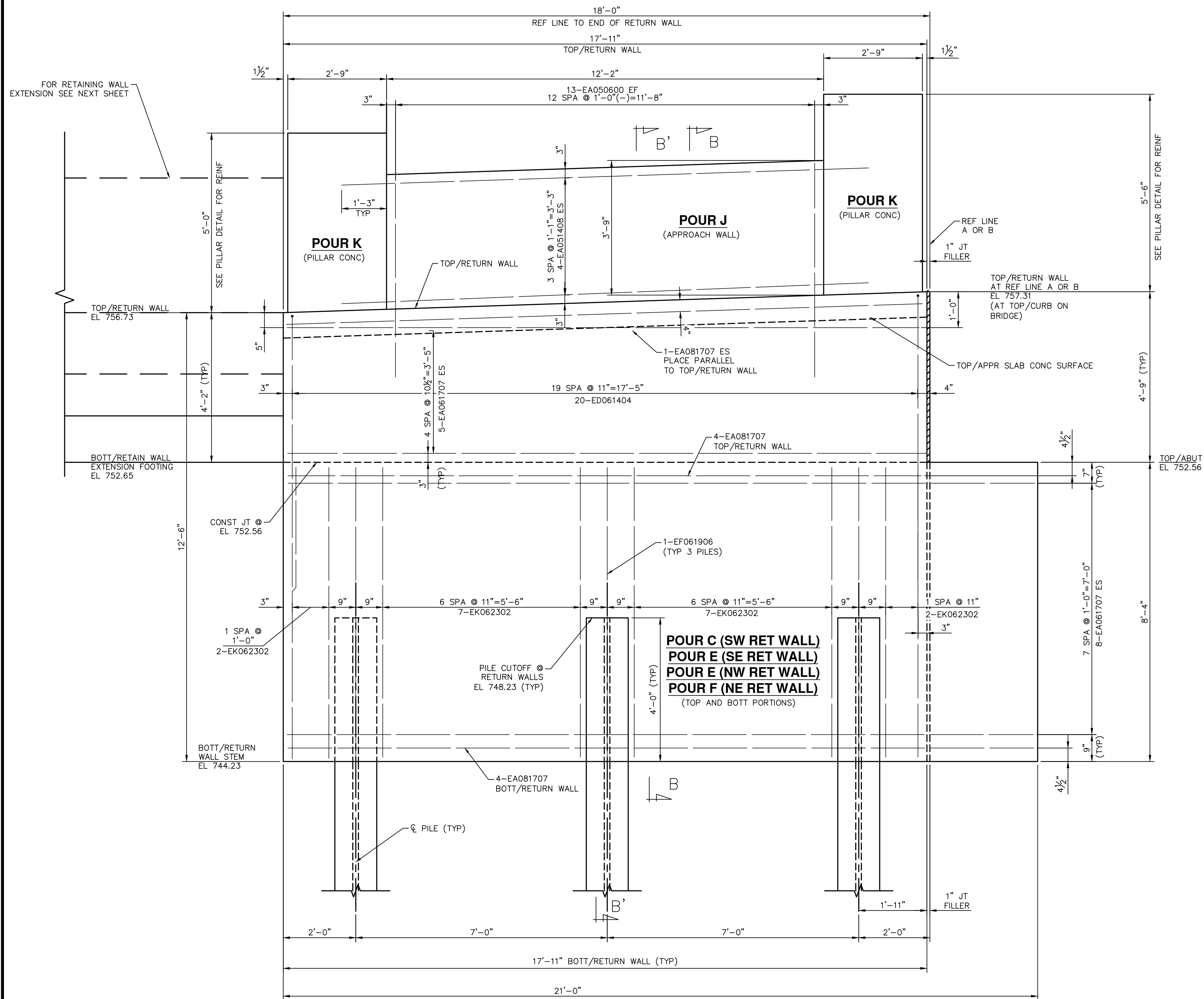


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DESIGN - BRIDGE REPLACEMENT PLANS
ABUTMENT DETAILS

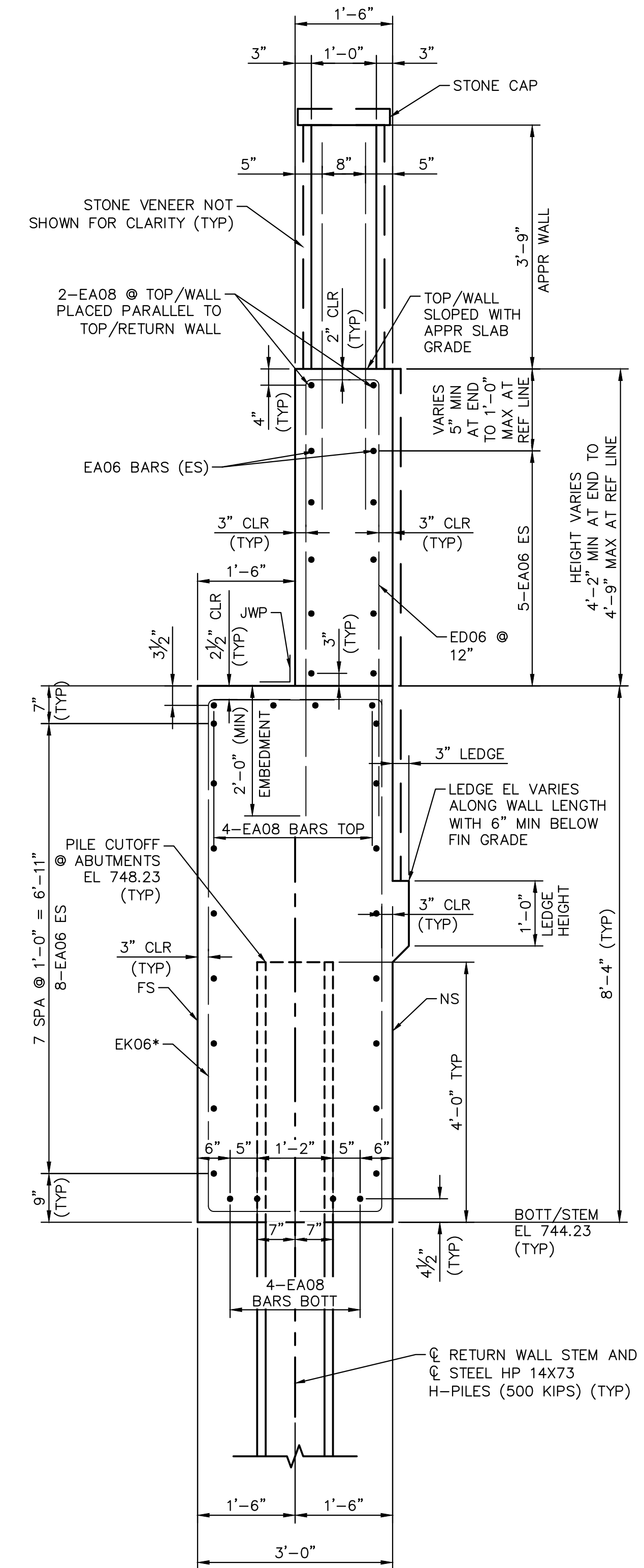
SCALE
DRAWING No.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
06-28-23	ISSUED FOR BID	AS	RRB	

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TYPICAL RETURN WALL ELEVATION
SEE SHOWN (SW, NW AND NE SIMILAR)

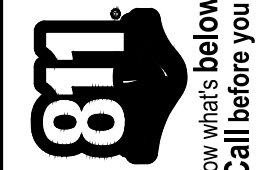


SECTION B-B

SECTION B'-B'

* IN SECTION B'-B', WILL BE EF06 BARS OVER EACH PILE

NOTE: STONE VENEER AND CONCRETE CAPS NOT SHOWN FOR CLARITY.



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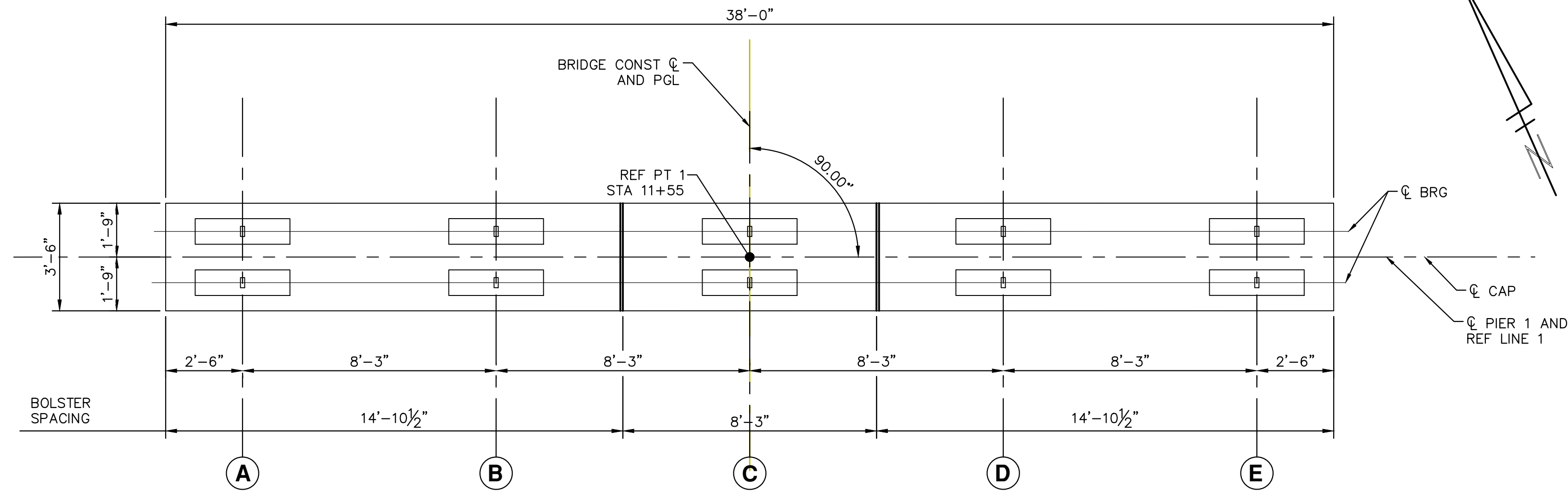
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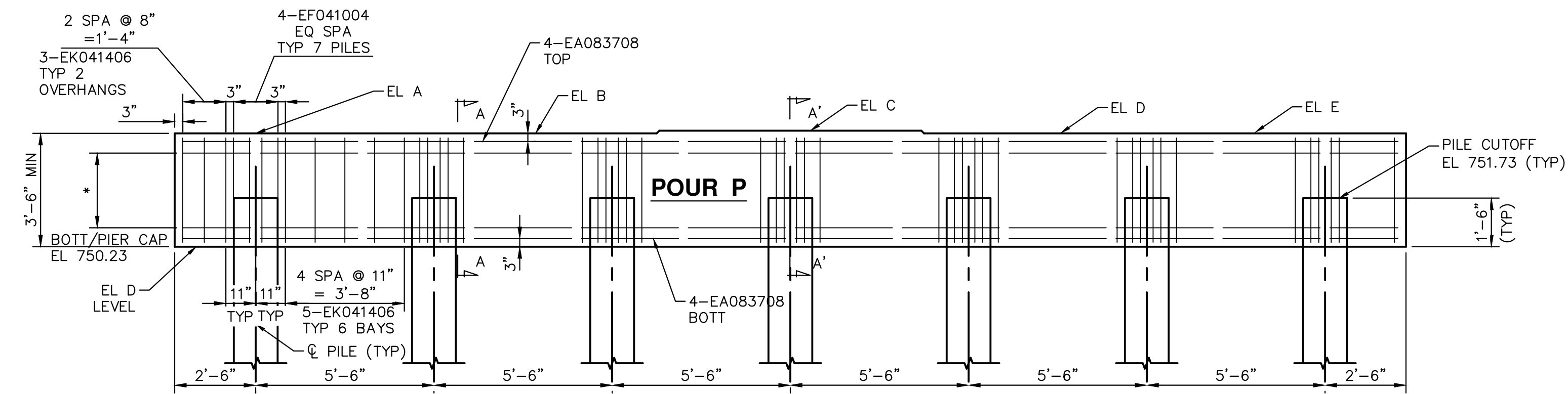
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DESIGN - BRIDGE REPLACEMENT PLANS
ABUTMENT DETAILS

REV.	DATE	DESCRIPTION
06-28-23		ISSUED FOR BID
AS		DRAWN
RRB		CHECKED

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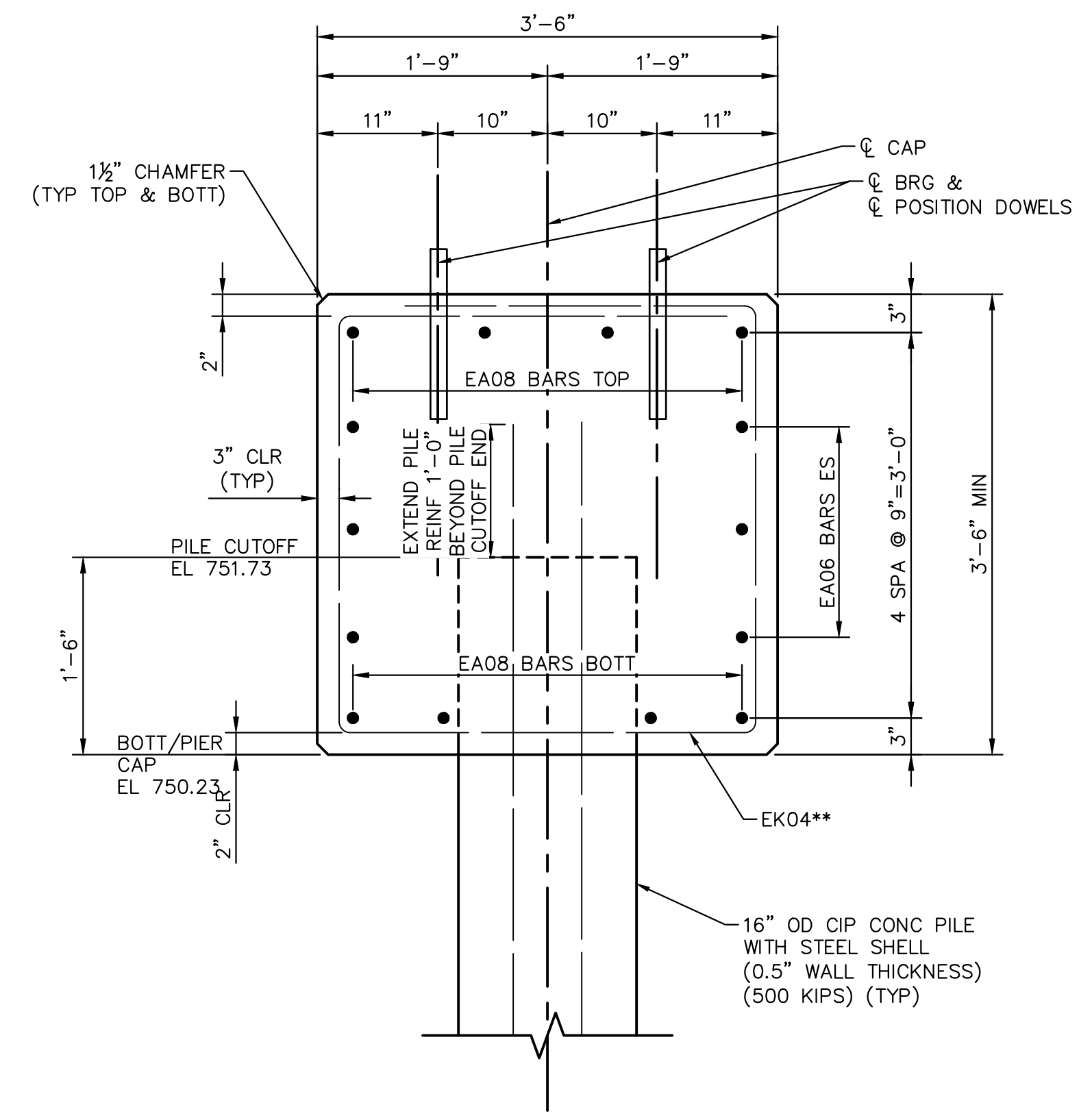
PLAN



ELEVATION

* 2 SPA @ 9" = 1'-6", 3-EA063708 ES

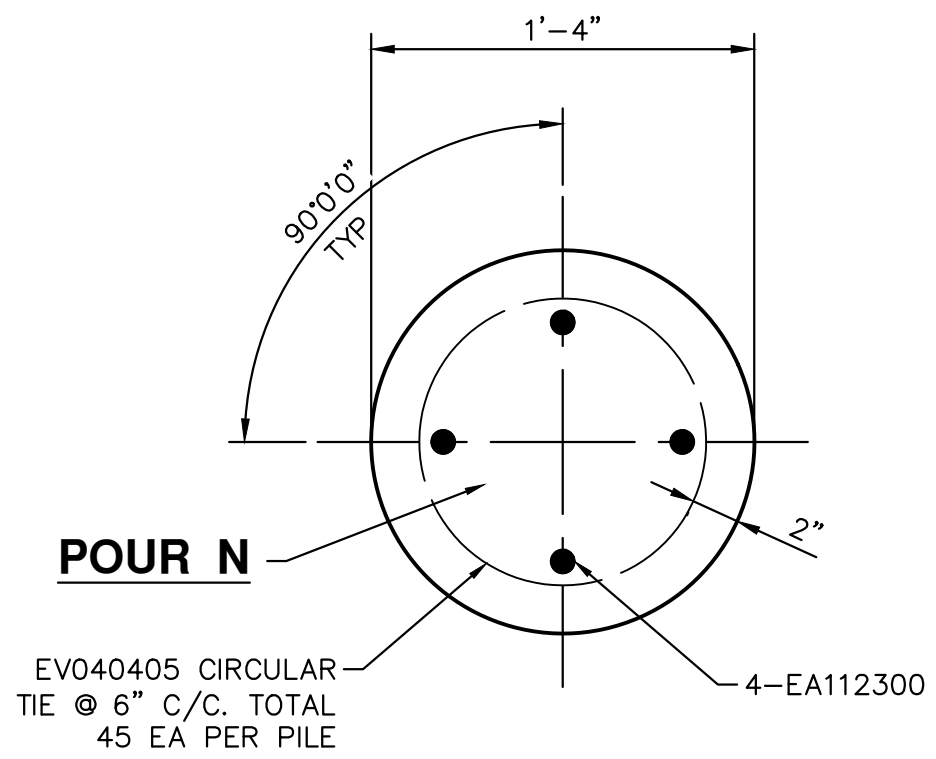
NOTE: ALL PIER PILES ARE 16" OD CIP CONC PILE WITH STEEL SHELL (0.5" WALL THICKNESS) (500 KIPS) (TYP)



SECTION A-A

SECTION A'-A'

** IN SECTION A'-A', WILL BE EF06 BARS OVER EACH PILE



PILE REINFORCEMENT DETAIL

NOTE: EXTEND REINFORCEMENT FROM TOP OF PILE TO AT LEAST 10 FT BELOW GROUND LINE.

SUBSTRUCTURE CONCRETE QUANTITIES

POUR	AMT (CYD)	LOCATION
N	24.4	CIP CONC PILES (TOTAL)
P	16.8	PIER 1 CAP
SUBTOTAL	41.2	

BEAM SEAT ELEVATIONS

BEAM	PIER 1
A	753.73
B	753.73
C	753.82
D	753.73
E	753.73



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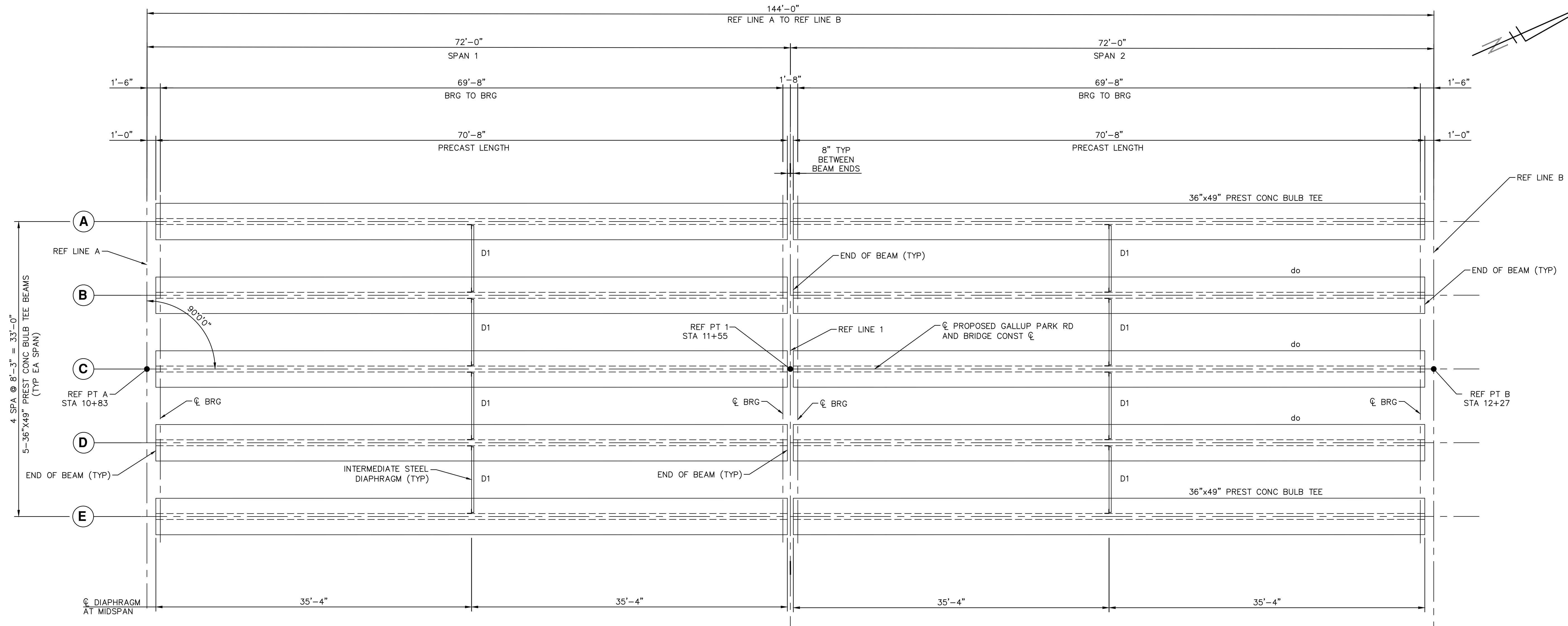


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DESIGN - BRIDGE REPLACEMENT PLANS
PIER DETAILS

SCALE
DRAWING No.

REV.	DESCRIPTION	DATE	AS DRAWN	RRB CHECKED
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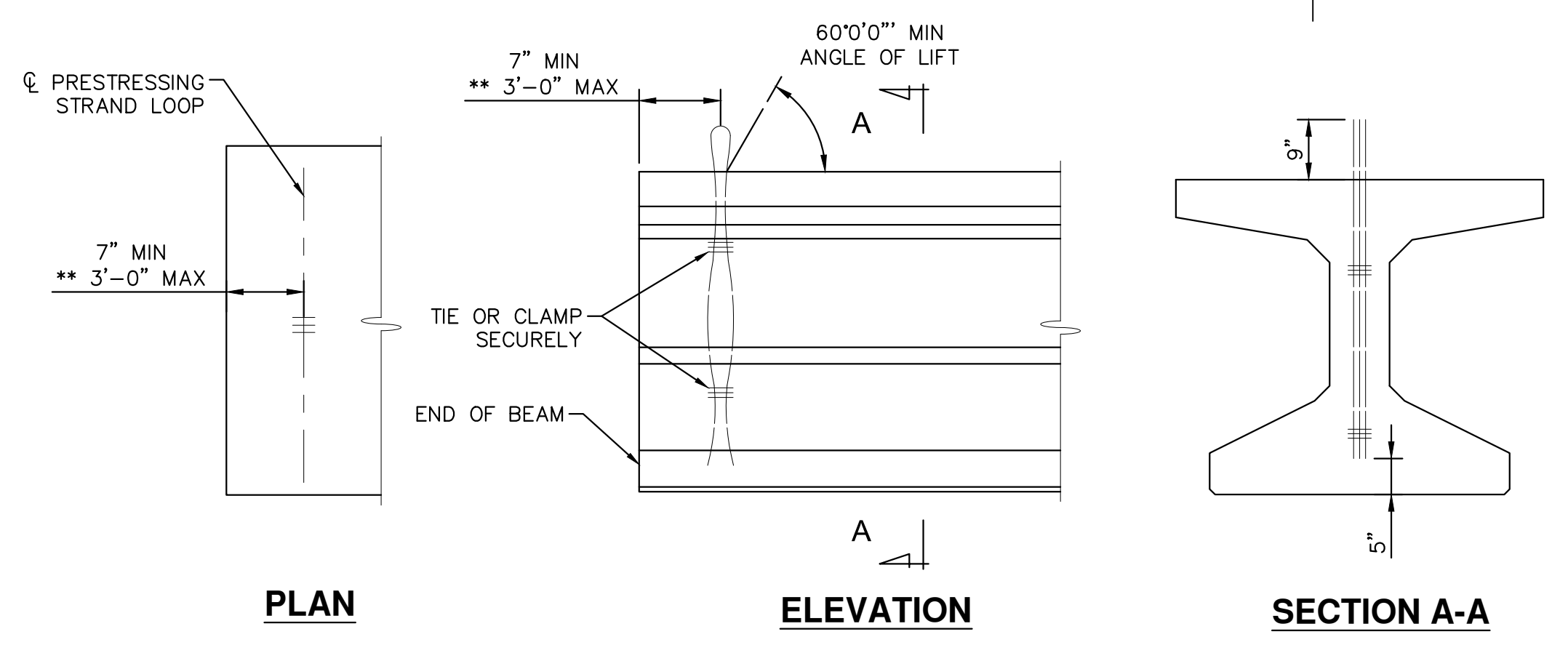


ERECTION DIAGRAM

NOTES:

- USE 0.6" NOMINAL DIAMETER PRESTRESSING STRAND MEETING THE REQUIREMENTS OF AASHTO M203 (ASTM A416), GRADE 270, LOW RELAXATION STRAND.
- TENSION 0.6" DIAMETER PRESTRESSING STRANDS TO AN INITIAL PRESTRESS OF 44,000 LBS.
- TOTAL ESTIMATED CHANGE OF LENGTH OF BOTTOM FLANGE AT TRANSFER OF PRESTRESS FORCE IS 0.25" FOR SPAN 1 AND 0.25" FOR SPAN 2.
- THE ESTIMATED BEAM CAMBER AT RELEASE IS 2.78" FOR SPAN 1 AND 2.78" FOR SPAN 2. THIS CAMBER IS DUE TO PRESTRESS AND DEAD LOAD OF THE BEAM ONLY AND IS MEASURED IN THE ERECTED POSITION.
- DURING HANDLING AND TRANSPORTATION, SUPPORT BEAMS 3 FEET FROM EACH END.
- THREADING OF REINFORCEMENT AND INSTALLATION INTO CONCRETE INSERTS IS INCLUDED IN THE BID ITEM "PREST CONC BULB-TEE BEAM, FURN, 36 INCH BY 49 INCH".
- USE 3/8" BOLT DIAMETER CONCRETE INSERTS FOR INTERMEDIATE STEEL DIAPHRAGMS; DAYTON SUPERIOR, F42 OR F64 FERRULE LOOP INSERT; WILLIAMS FORM, F15 OR F16 FERRULE LOOP INSERT; MEADOW BURKE, FX-2 OR FX-5 FERRULE INSERT - LOOP; OR ENGINEER APPROVED EQUAL. ELECTROPLATE GALVANIZE FERRULE INSERTS AND BOLTS ACCORDING TO ASTM B633, SERVICE CONDITION 4. CAST INSERTS WITH THE INTERIOR FACE OF EACH FASCIA BEAM AT MIDSPAN.
- USE CONTINUOUS HOLE FORMED WITH 1 1/2" ID PVC PIPE SLEEVES AT EACH END FOR REINFORCEMENT AT BACKWALLS AT ABUTMENT A AND ABUTMENT B. THERE ARE NO HOLES IN ENDS OF THE BEAMS AT THE PIER.
- USE CONTINUOUS HOLE FORMED WITH 1 1/4" ID PVC PIPE SLEEVES AT MIDSPAN OF INTERIOR BEAMS ONLY FOR CONNECTION TO INTERMEDIATE DIAPHRAGMS.
- REMOVE LIFTING DEVICES AFTER BEAMS ARE ERECTED. REMOVAL IS INCLUDED IN THE BID ITEM "PREST CONC BULB-TEE BEAM, ERECT, 36 INCH BY 49 INCH".

- USE NON-DEFORMED STEEL RODS ACCORDING TO AASHTO M270 GRADE 36 AND HOT-DIP GALVANIZED ACCORDING TO AASHTO M111, AS POSITION DOWELS FOR PRECAST BEAMS.
- FILL HOLES CAST OR FORMED IN THE BEAM WITH NON-SHRINKING GROUT. INCLUDED IN THE BID ITEM "PREST CONC BULB-TEE BEAM, ERECT, 36 INCH BY 49 INCH".
- AT EACH BEAM, APPLY A SMOOTH FINISH TO THE OUTER 6 INCHES OF BEAM TOP SURFACE, AND THEN COAT WITH A BOND BREAKER ACCORDING TO SECTION 708 OF THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. APPLY A ROUGH FINISH TO THE REMAINING BEAM TOP SURFACE TO PROVIDE A 1/4-INCH SURFACE TEXTURE.
- APPLY CONCRETE SURFACE COATING TO THE ENTIRE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS IN EACH SPAN. CONCRETE SURFACE COATING COLOR IS AS APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
- STEEL FOR SOLE PLATES SHALL MEET THE REQUIREMENTS OF AASHTO M270 GRADE 36. SOLE PLATES ARE REQUIRED IN ALL BEAM ENDS.
- PROVIDE GRADE 60 (KSI) BEAM STEEL REINFORCEMENT, INCLUDING STIRRUPS.
- PROVIDE STRUCTURAL STEEL, CONFORMING TO AASHTO M270 GRADE 50 FOR INTERMEDIATE STEEL DIAPHRAGMS.
- GALVANIZE OR EPOXY COAT ITEMS CAST INTO THE BEAMS TO FACILITATE BRIDGE CONSTRUCTION (FORMING, FINISHING, ETC.).
- DO NOT DRILL HOLES INTO BEAMS.
- BLOCK OUT CONCRETE AT ELASTOMERIC PADS.
- IF THE POSITION DOWELS AT THE ABUTMENTS AND PIER ARE MISALIGNED, IN RELATIONSHIP TO THE CENTERLINE OF BEARINGS, DUE TO TEMPERATURE EFFECTS ON THE BEAMS, PLACE ELASTOMERIC BEARINGS WITH HOLES CENTERED ON THE DOWELS.
- THE DESIGN OF ALL ELASTOMERIC BEARINGS IS BASED ON AASHTO LRFD METHOD A. FABRICATE ELASTOMERIC BEARINGS ACCORDING TO SECTION 707 OF THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.



DETAILS OF LIFTING DEVICE

NOTE: LIFTING OF BEAM SHALL BE BY EQUAL LOADS TO EACH PAIR OF LIFTING DEVICES. OTHER TYPES OF LIFTING DEVICES MAY BE USED SUBJECT TO APPROVAL BY THE ENGINEER.

PRESTRESSING STRAND LIFTING DEVICES		
BEAM WEIGHT	STRAND SIZE	NUMBER OF STRANDS
34 TONS	0.6"	3

MISCELLANEOUS QUANTITIES		
ITEM	QUANTITY	UNIT
Bearing, Elastomeric, 2 inch	7400	Sin
Prest Conc Bulb-Tee Beam, Furn, 36 inch by 49 inch	707	Ft
Prest Conc Bulb-Tee Beam, Erect, 36 inch by 49 inch	707	Ft
Steel Diaphragm, Prest Conc Beam, Furn and Fab	1546	Lb
Steel Diaphragm, Prest Conc Beam, Erect	1546	Lb

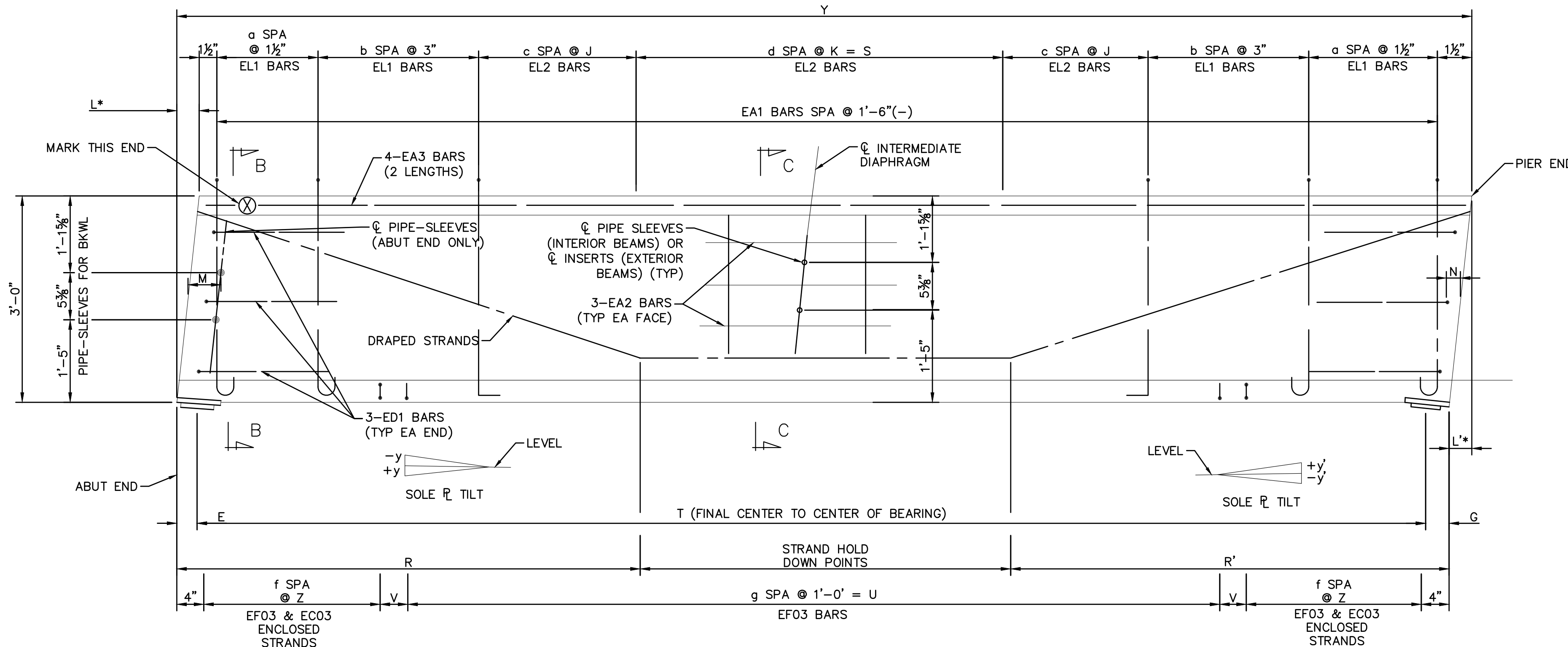
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ISSUED FOR BID 06-28-23 DATE	DESCRIPTION REV.
AS DRAWN	RRB CHECKED

SCALE

DRAWING No.
38 OF 55

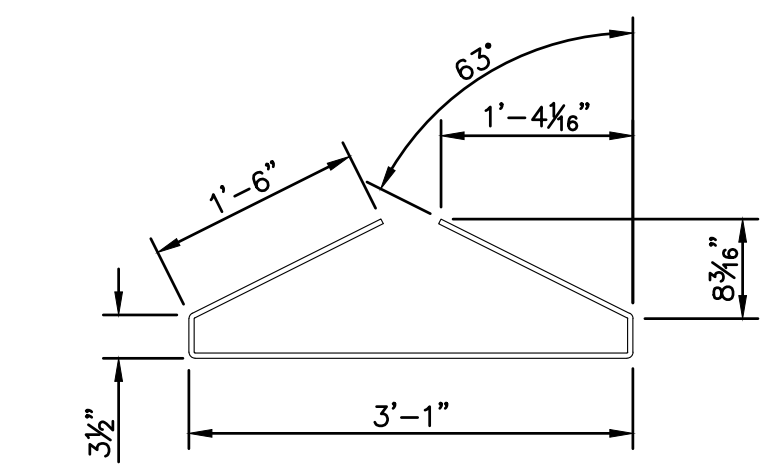
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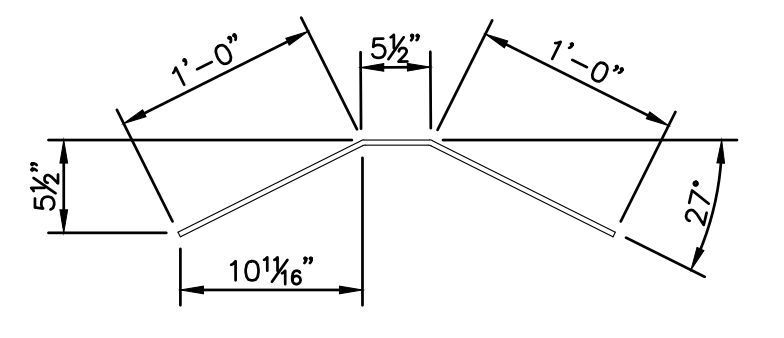
ELEVATION

BEAM DATA		
SPAN	1	1
MARK	A-E	A-E
NO.REQ.		
a	5	5
b	24	24
c	16	16
d	42	42
E	6"	6"
f	16	16
g	52	52
G	6"	6"
J	6"	6"
K	1'-0"(-)	1'-0"(-)
L* (@ ABUT)	1/2"	1/2"
L* (@ PIER)	1/4"	1/4"
M	1'-8 1/2"	1'-8 1/2"
N	---	---
R	28'-3"	28'-3"
S	41'-2"	41'-2"
T	69'-8"	69'-8"
U	52'-0"	52'-0"
V	1'-0"	1'-0"
Y	70'-8"	70'-8"
Z	6"	6"

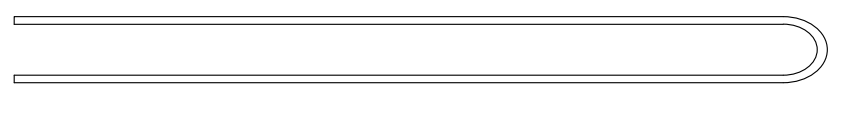
* FORMING DIMENSION
+ MEASURED ALONG BEAM C



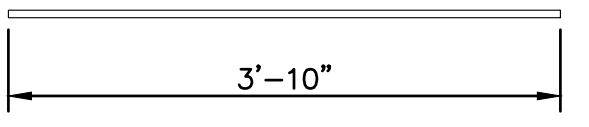
EF030608
(870 BARS REQ'D)
(87 BARS PER BEAM X 10 BEAMS = 870 BARS REQ'D)



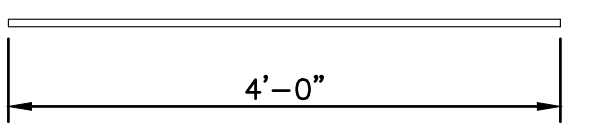
EC030206
(340 BARS REQ'D)
(34 BARS PER BEAM X 10 BEAMS = 340 BARS REQ'D)



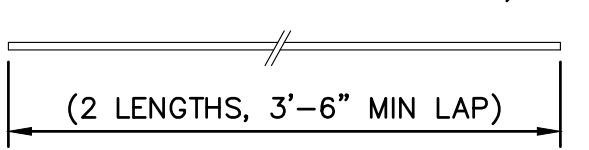
ED1
EA041205
HORIZ END BARS
(60 BARS REQ'D)



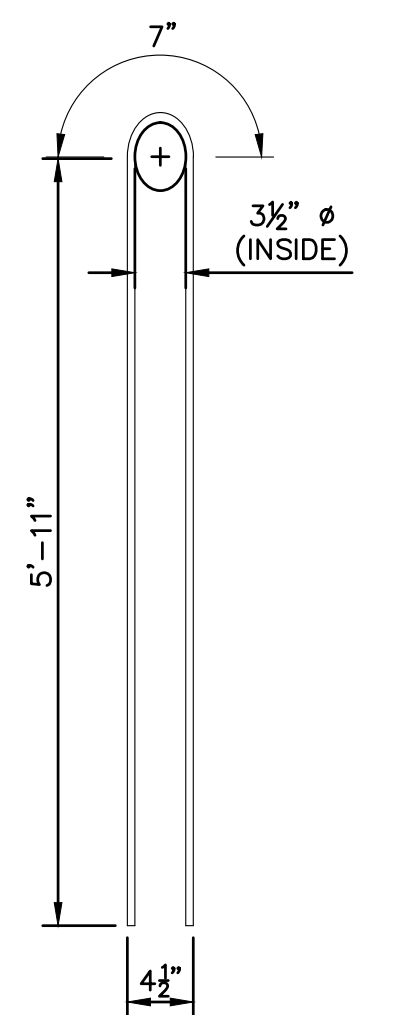
EA1
EA040310
(480 BARS REQ'D)
(48 BARS PER BEAM X 10 BEAMS = 480 BARS REQ'D)



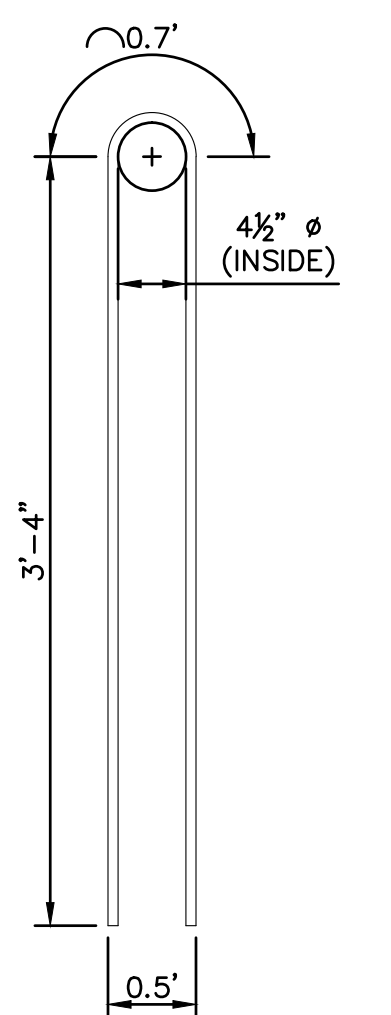
EA2
EA050400
(60 BARS REQ'D)
(6 BARS PER BEAM X 10 BEAMS = 60 BARS REQ'D)



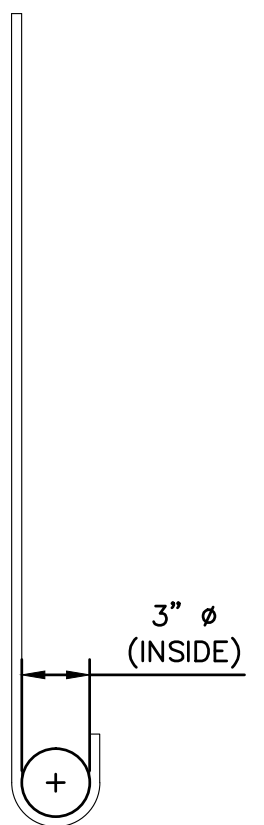
EA3
EA063700 @ TOP/BEAM
(80 BARS REQ'D)
(8 BARS PER BEAM X 10 BEAMS = 80 BARS REQ'D)



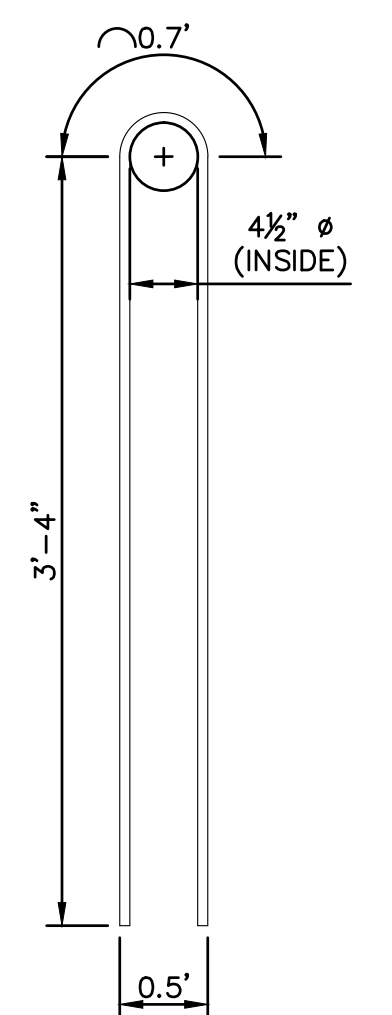
ED1
ED041205
HORIZ END BARS
(60 BARS REQ'D)
(6 BARS PER BEAM X 10 BEAMS = 60 BARS REQ'D)



EL1
EL05 STIRRUPS
(600 BARS REQ'D)
(60 BARS PER BEAM X 10 BEAMS = 600 BARS REQ'D)



SIDE VIEW



EL2
EL05 STIRRUPS
(730 BARS REQ'D)
(73 BARS PER BEAM X 10 BEAMS = 730 BARS REQ'D)

SIDE VIEW

BEAM LINE	SPAN 1		SPAN 2	
	ABUT A	PIER 1	PIER 1	ABUT B
A-E	-1/4"	0	0	-1/4"

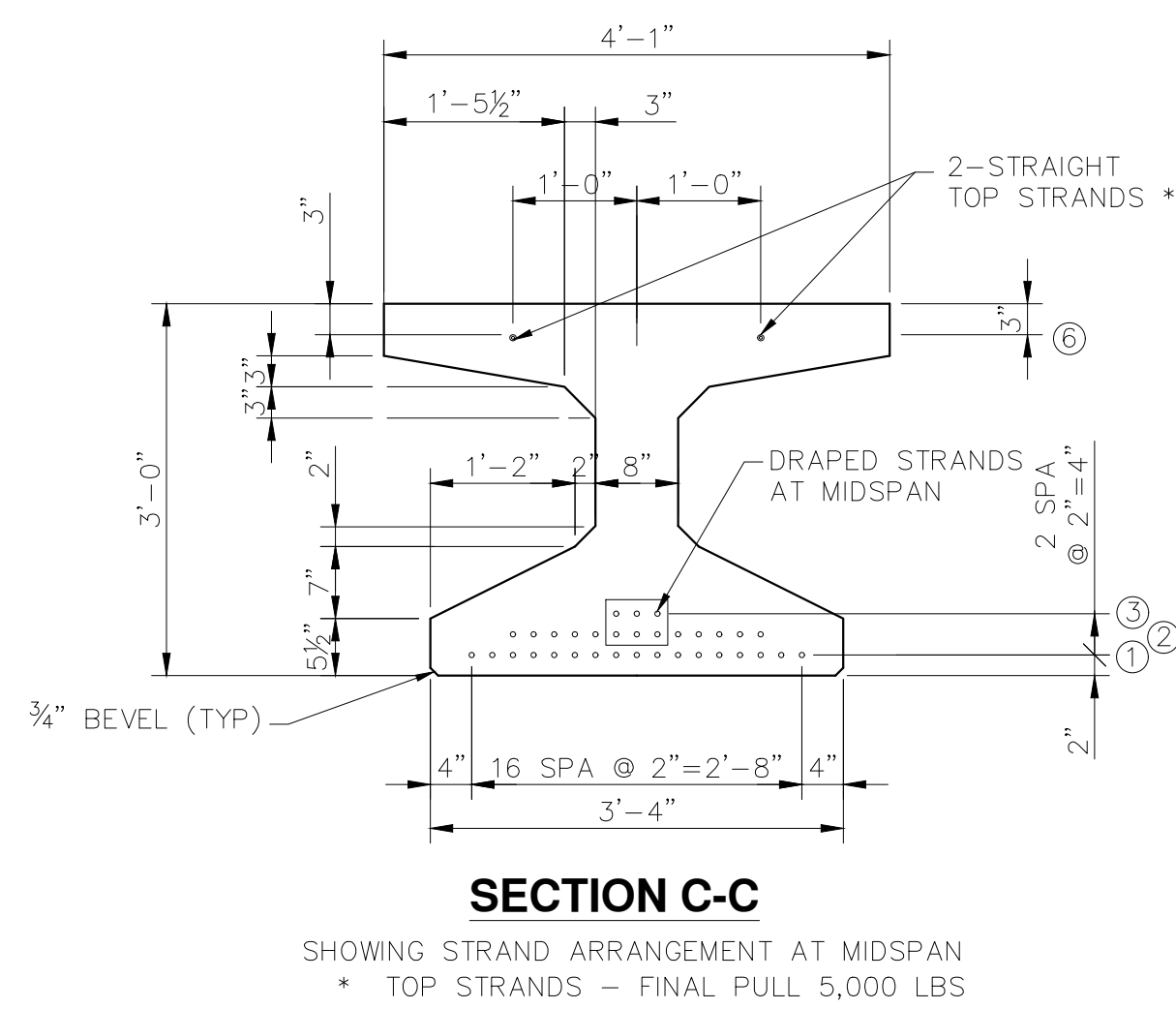
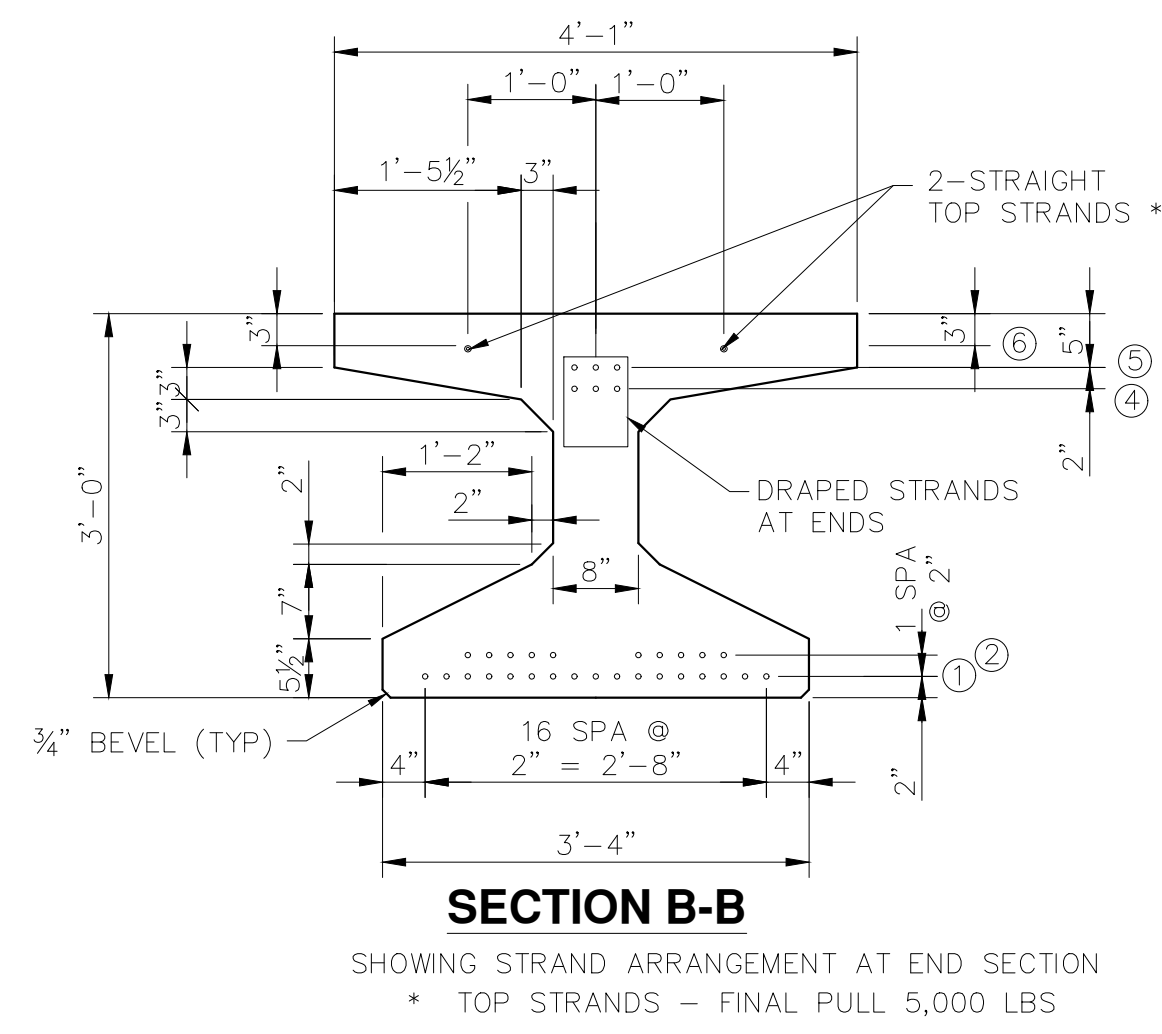
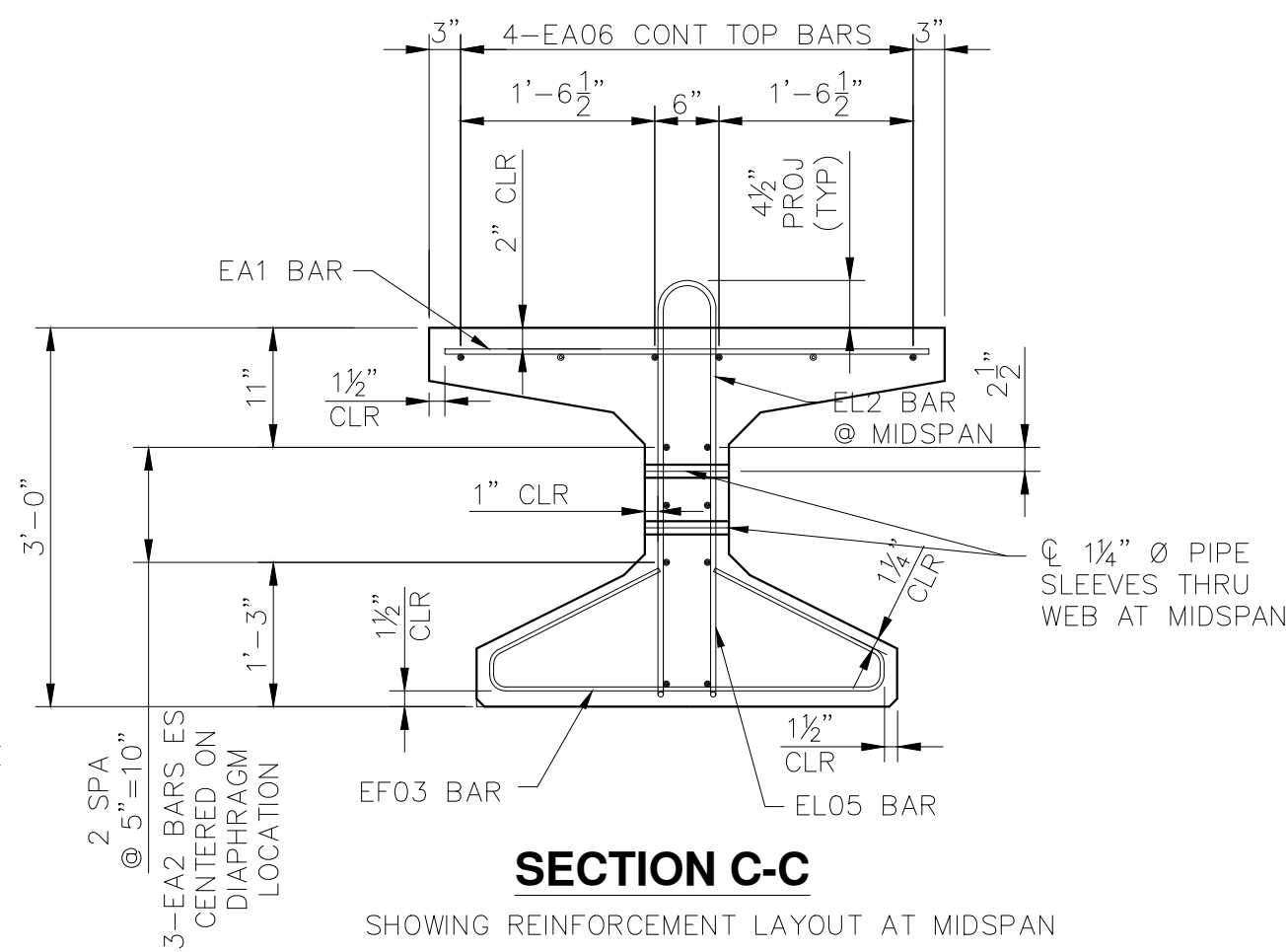
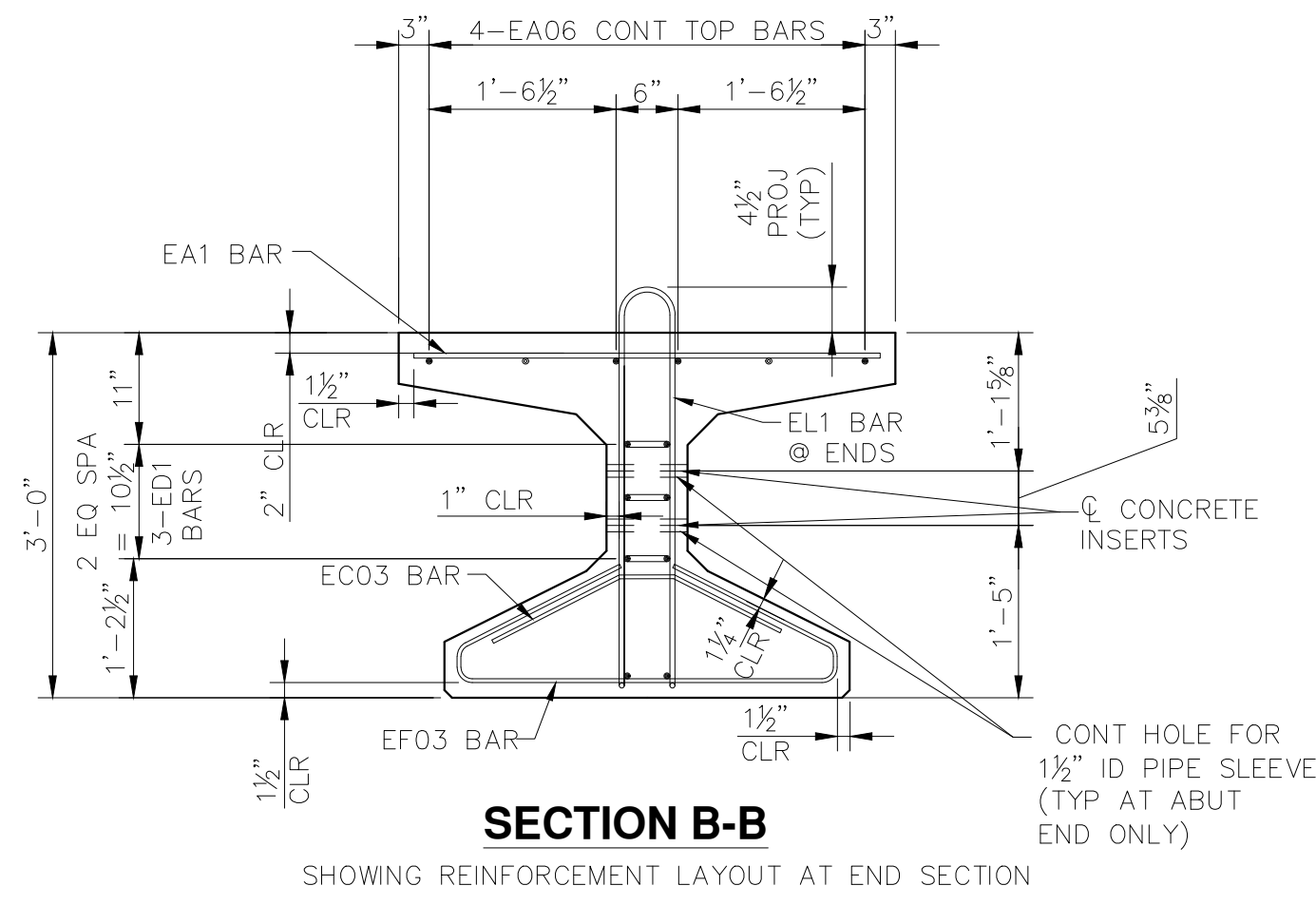


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GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
PRESTRESSED CONCRETE BEAM DETAILS

SCALE

DRAWING No. _____



STRAND LOCATION TABLE															
SPAN	MIDSPAN (SECTION B-B)						END FACE (SECTION A-A)						TOTAL NUMBER	REQUIRED CONCRETE COMPRESSIVE STRENGTH (PSI)	
	BOTTOM			TOP			BOTTOM			TOP					
	①	②	③	④	⑤	⑥*	①	②	③	④	⑤	⑥*		28 DAY	AT RELEASE
1	17	13	3	-	-	2	17	10	-	3	3	2	33	8,000	7,000
2	17	13	3	-	-	2	17	10	-	3	3	2	33	8,000	7,000

* TOP STRAND FINAL PULL 5,000 LBS

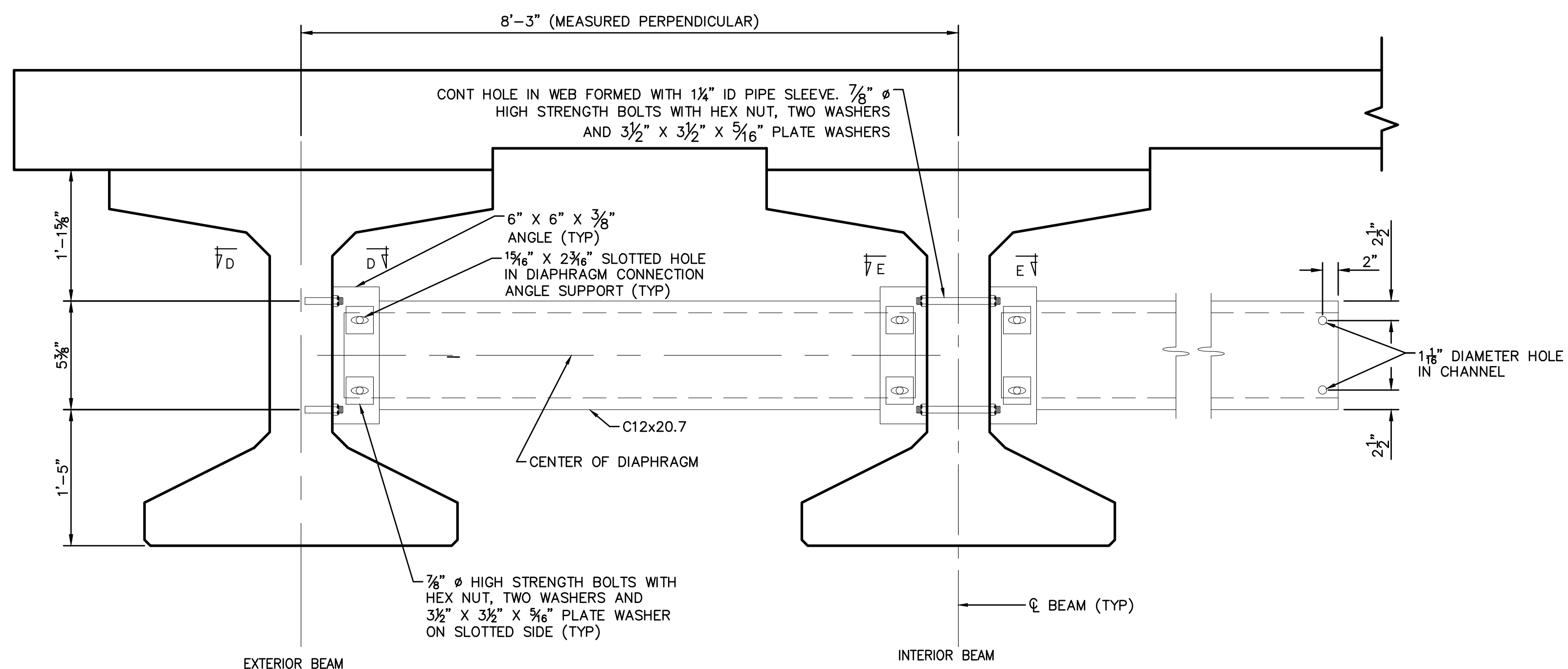


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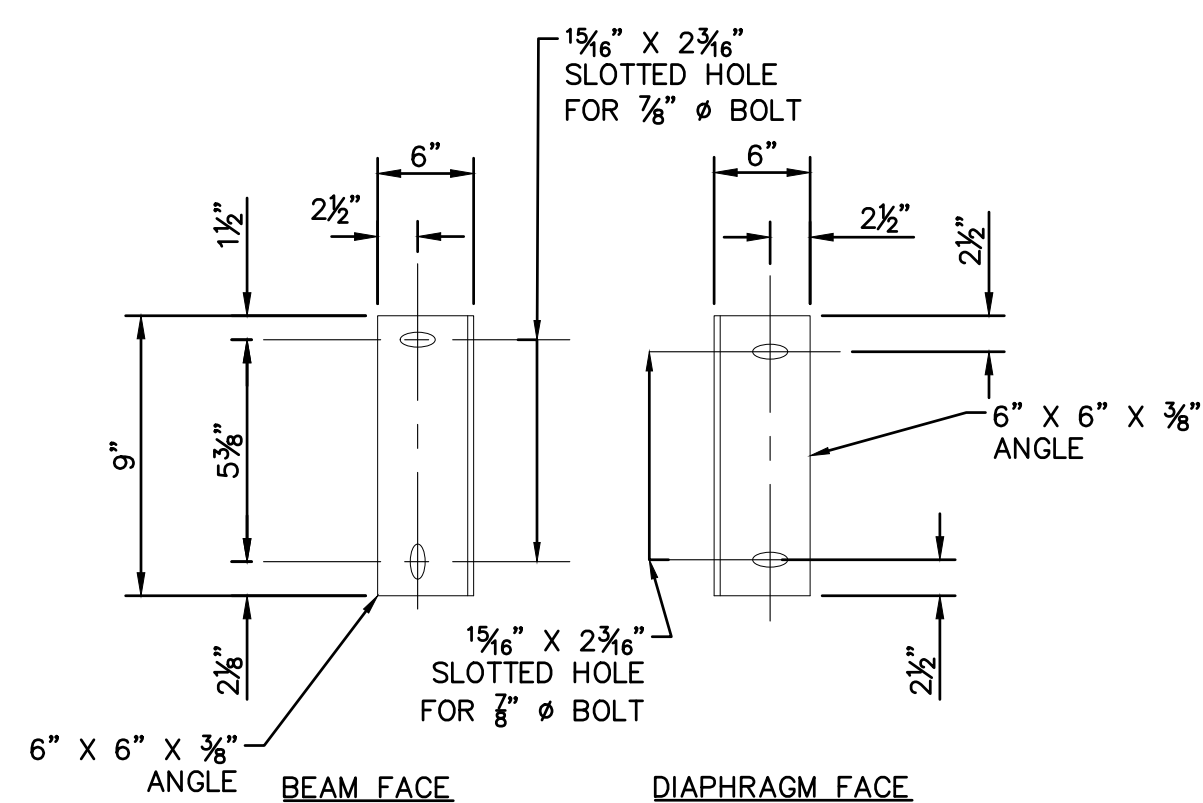
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DESIGN - BRIDGE REPLACEMENT PLANS
PRESTRESSED CONCRETE BEAM DETAILS

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
06-28-23	ISSUED FOR BID		AS	RRB

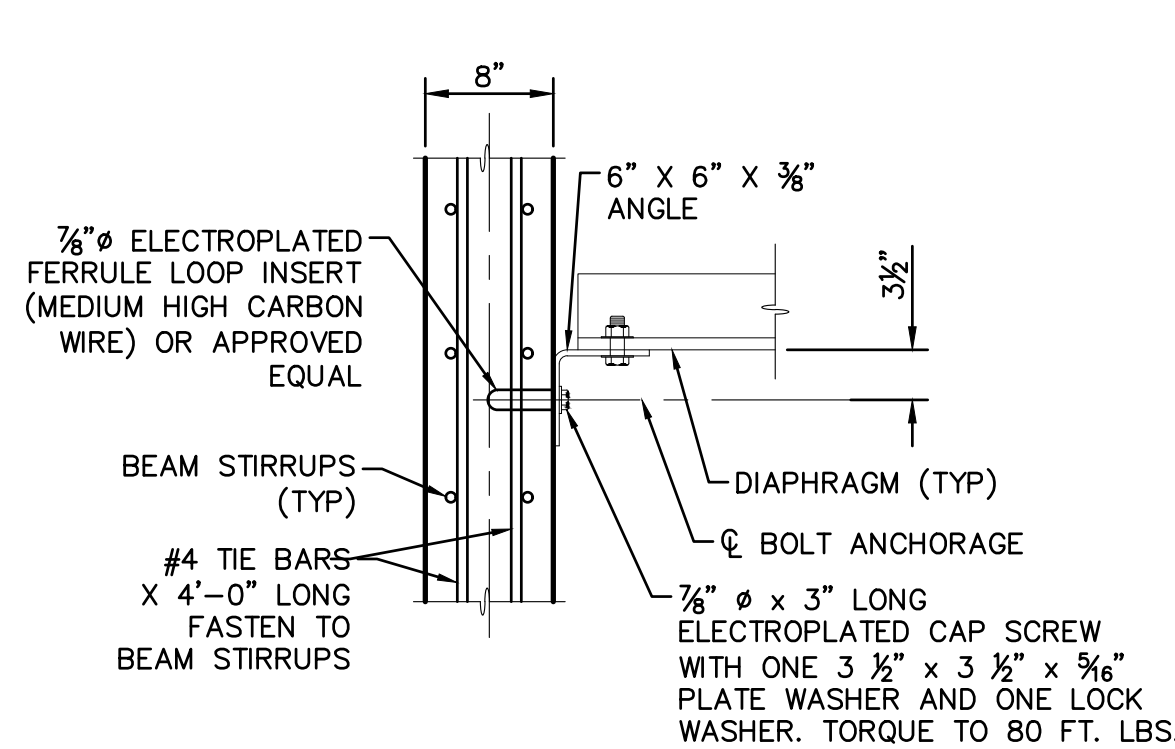
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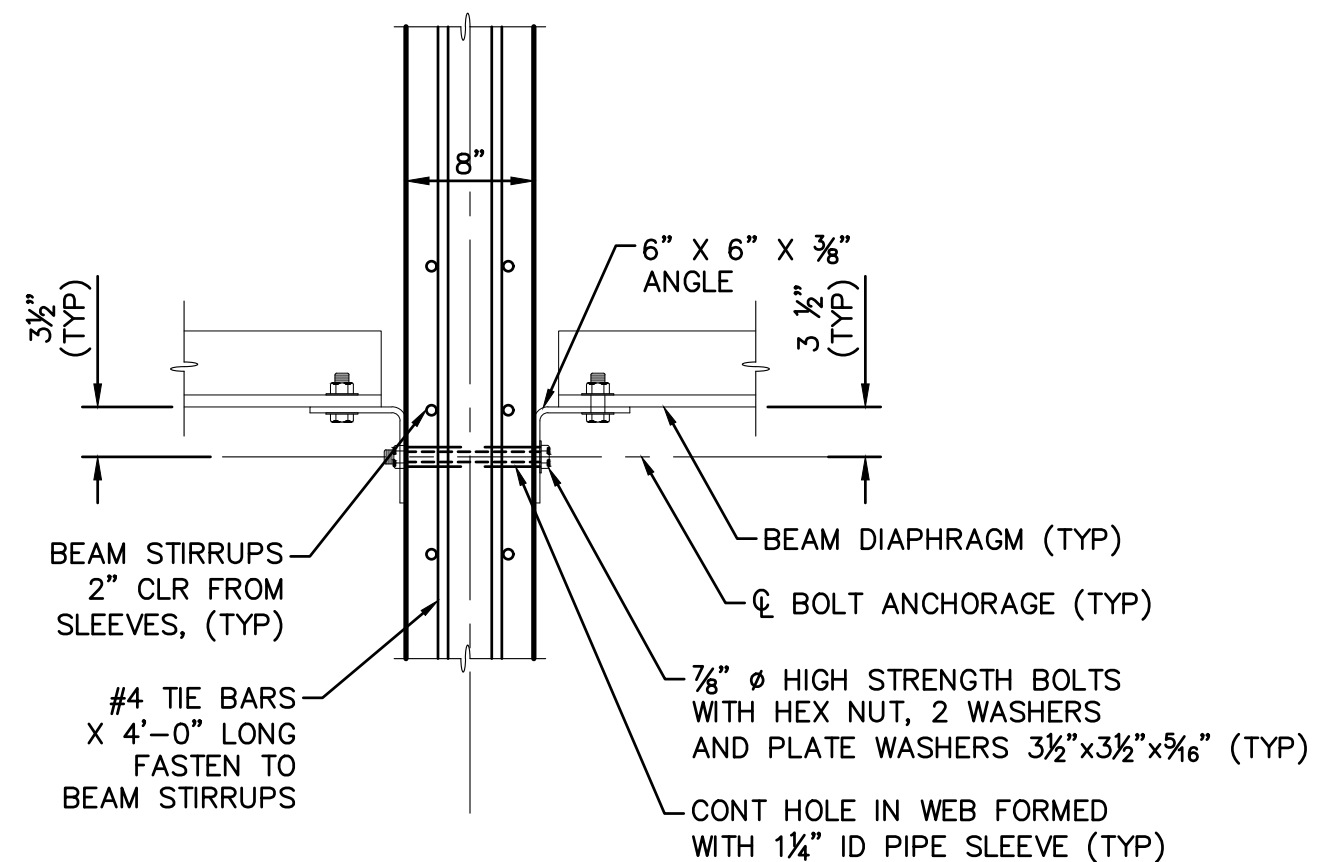
PARTIAL TRANSVERSE SECTION OF DIAPHRAGM - D1



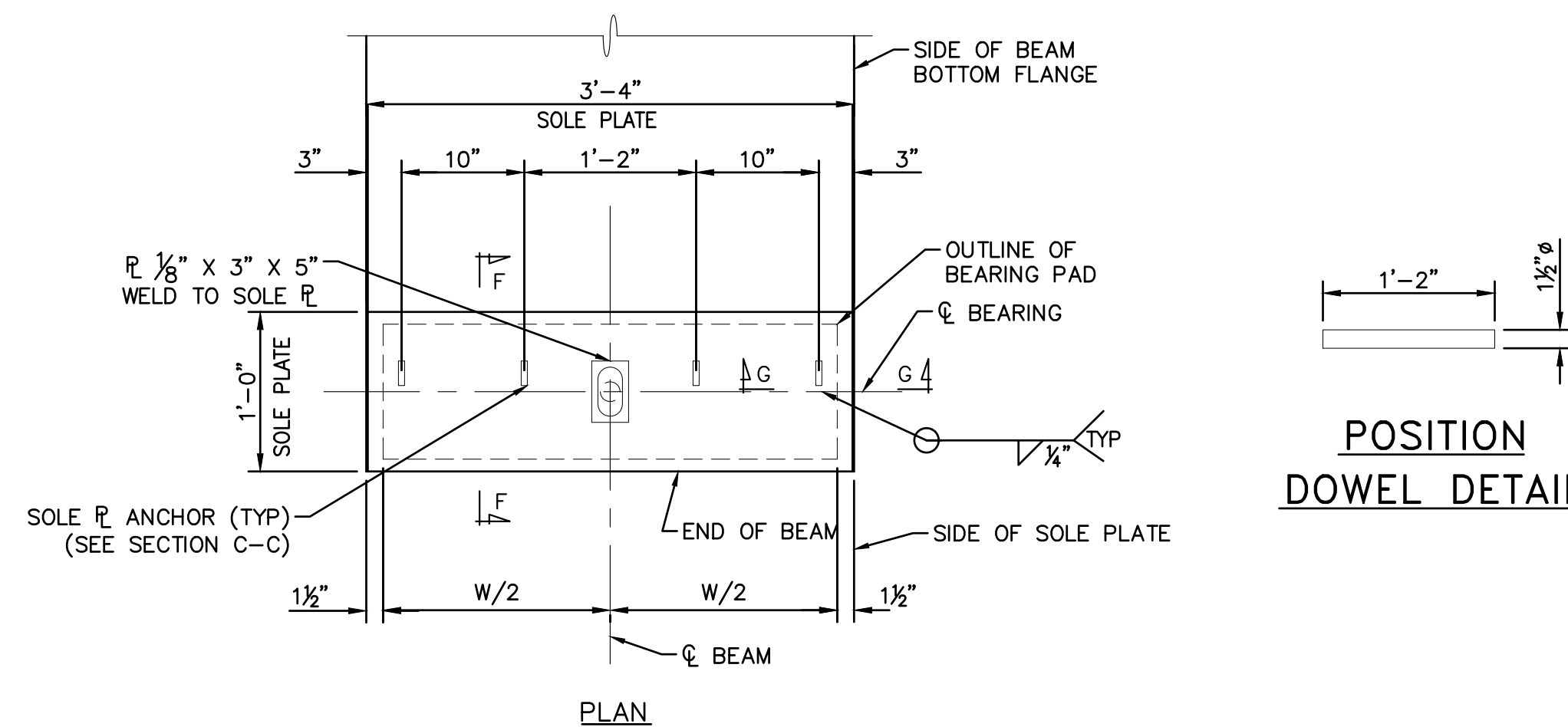
DIAPHRAGM D1 CONNECTION ANGLE



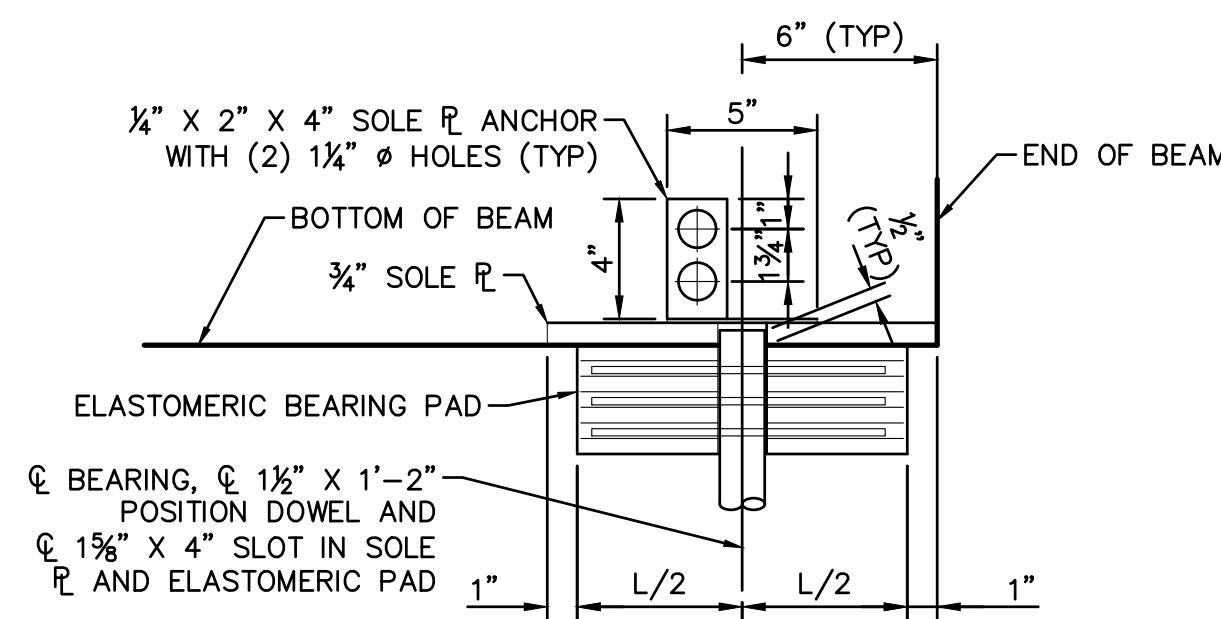
SECTION D-D



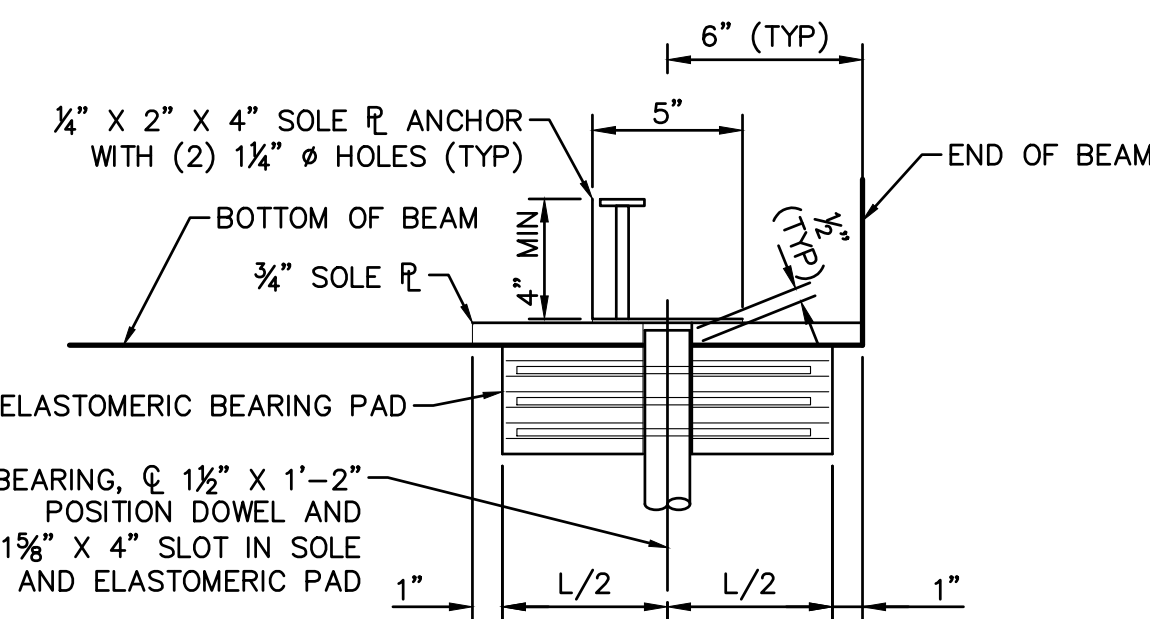
SECTION E-E



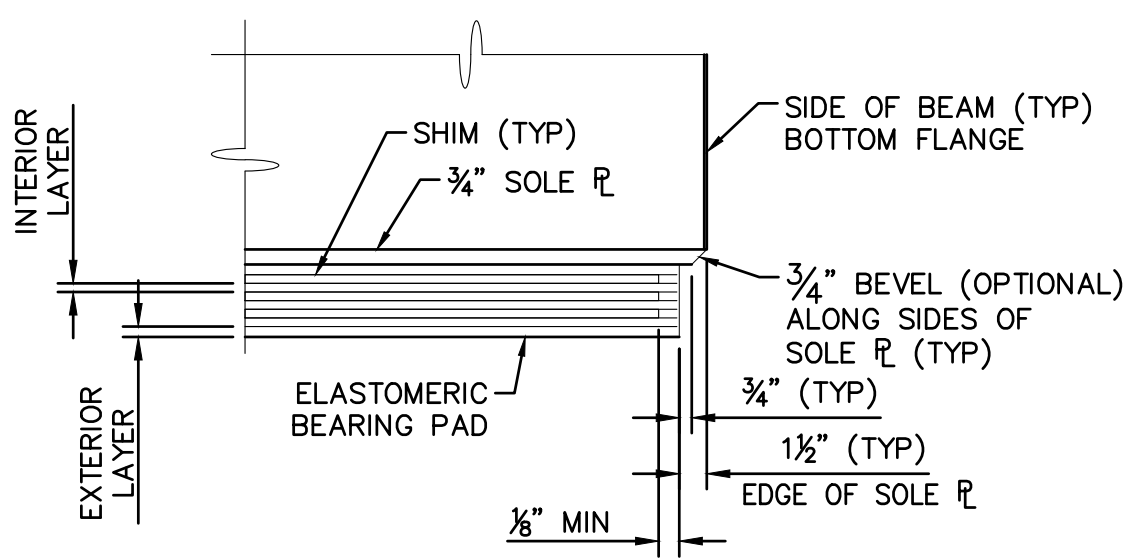
BEARING DETAILS



**SECTION F-F
PLATE OPTION**



**SECTION F-F
SHEAR STUD OPTION**



SECTION G-G

ELASTOMERIC PAD AND SHIM DIMENSIONS

	SPAN 1		SPAN 2	
	ABUT A	PIER 1-LT	PIER 1-RT	ABUT B
PAD THICKNESS	2"	2"	2"	2"
(L) PARALLEL TO BEAM	10"	10"	10"	10"
(W) PERPENDIC. TO BEAM	37"	37"	37"	37"
EXTERIOR LAYER	5/16"	5/16"	5/16"	5/16"
INTERIOR LAYER	2 @ 1/2"	2 @ 1/2"	2 @ 1/2"	2 @ 1/2"
SHIMS	3 @ 1/8"	3 @ 1/8"	3 @ 1/8"	3 @ 1/8"



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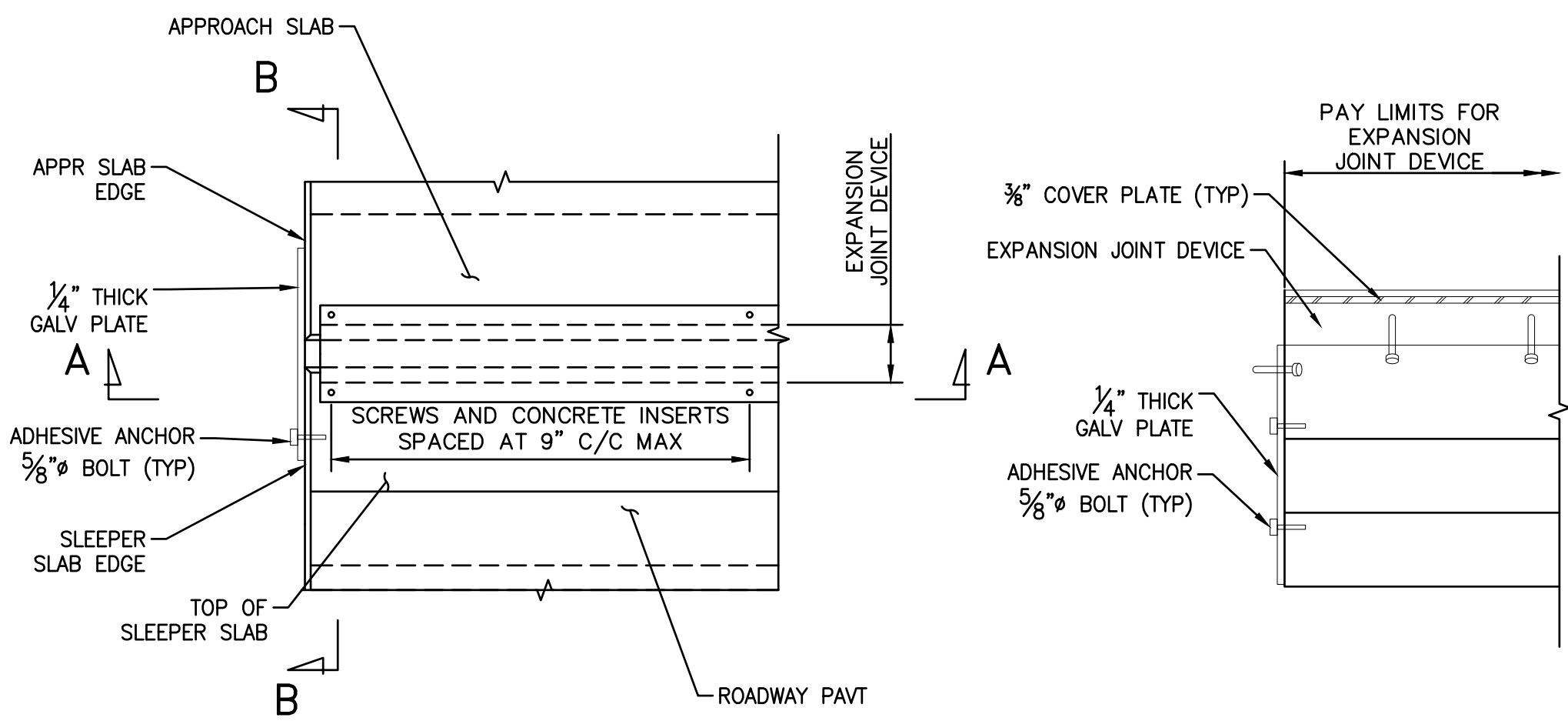
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SCALE
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SHEET No.
41 OF 55

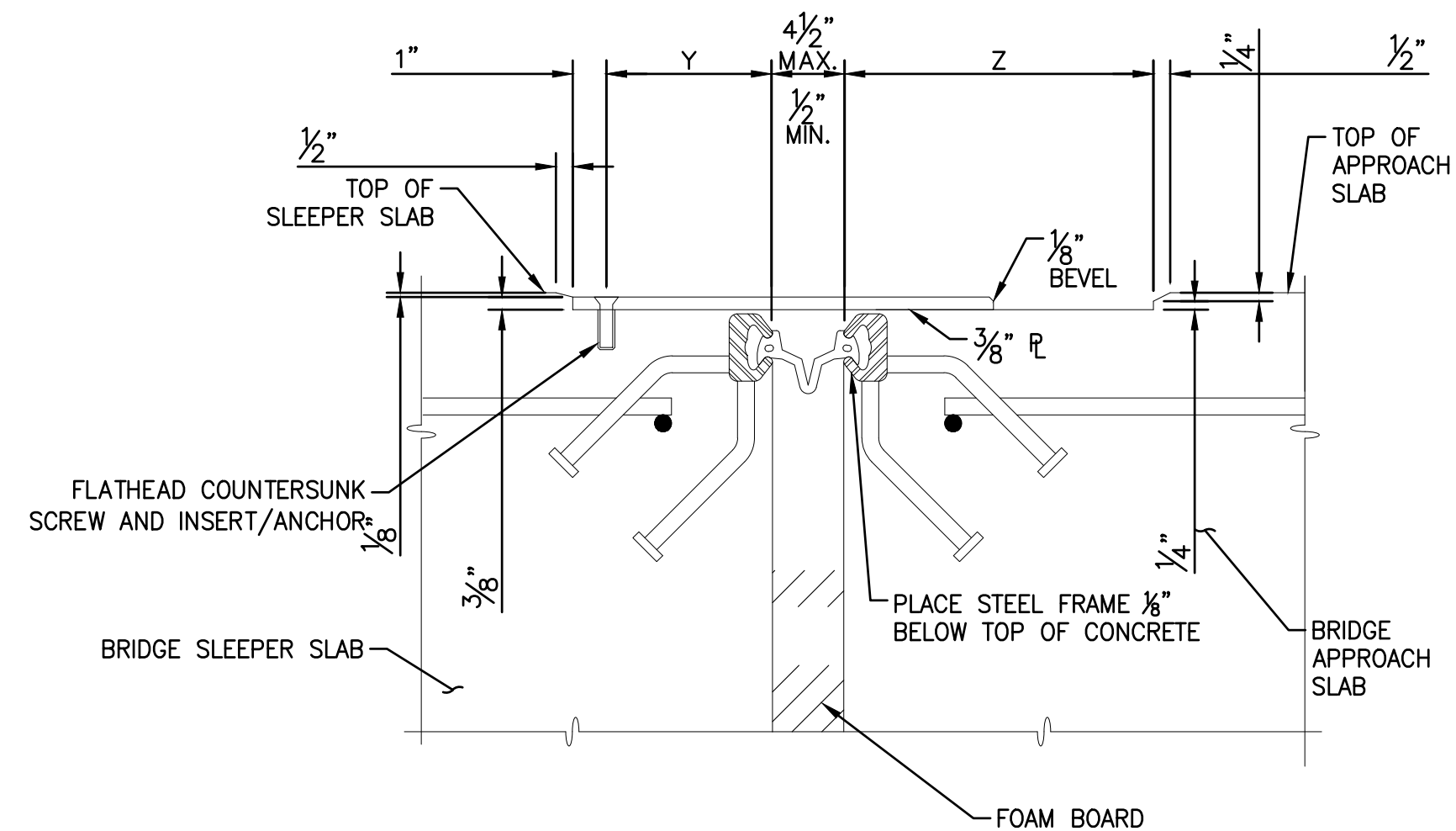
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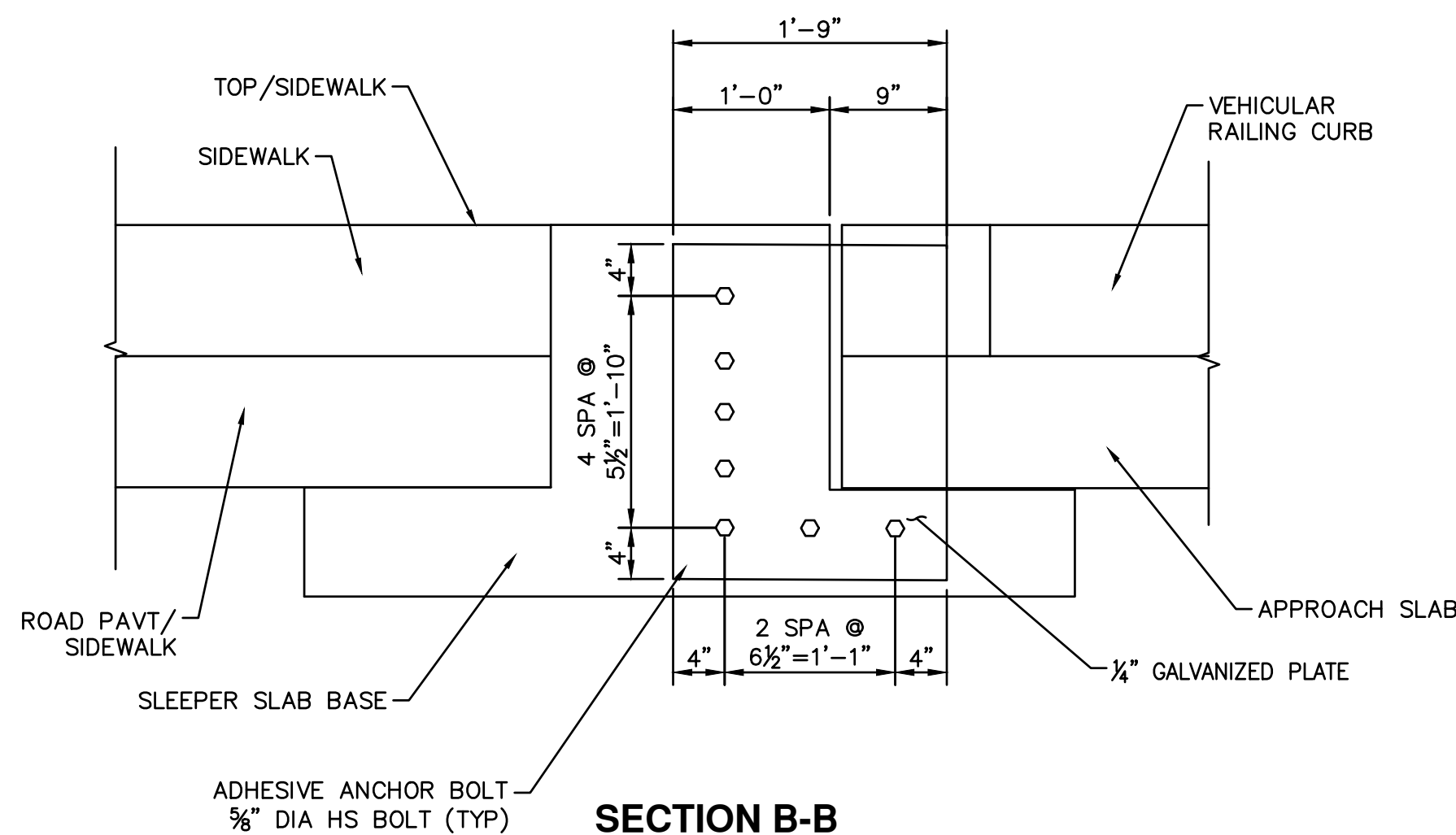


PLAN AT SLEEPER SLAB

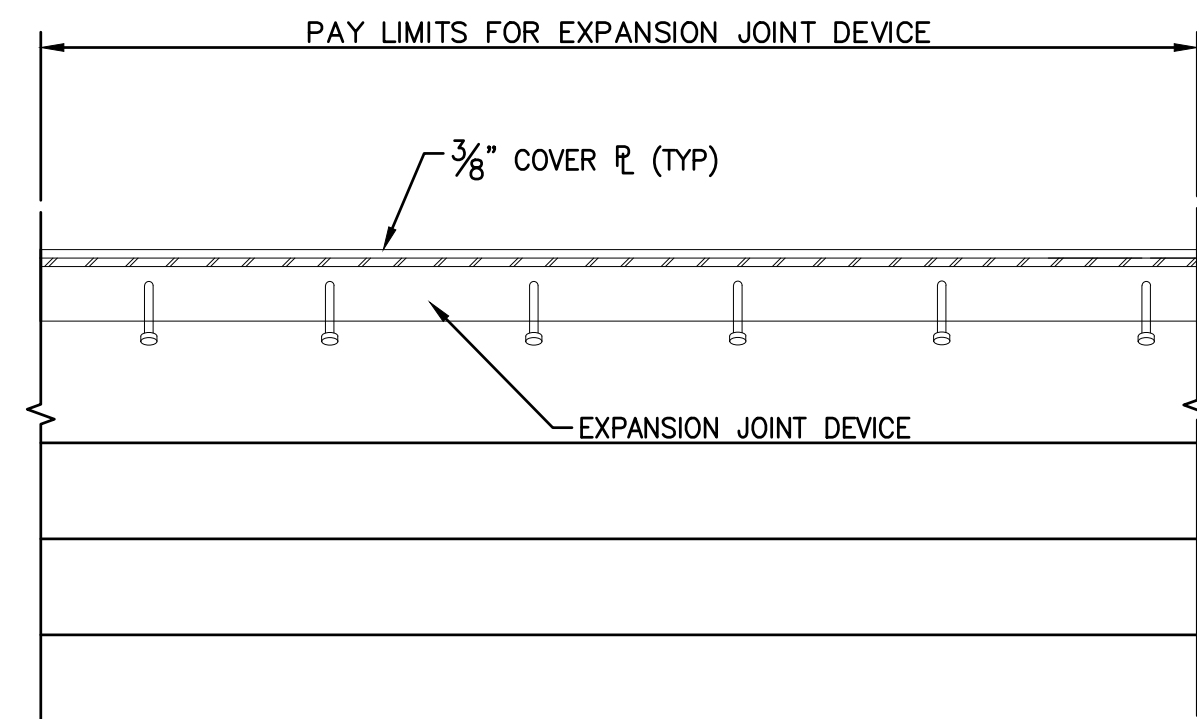
SECTION A-A



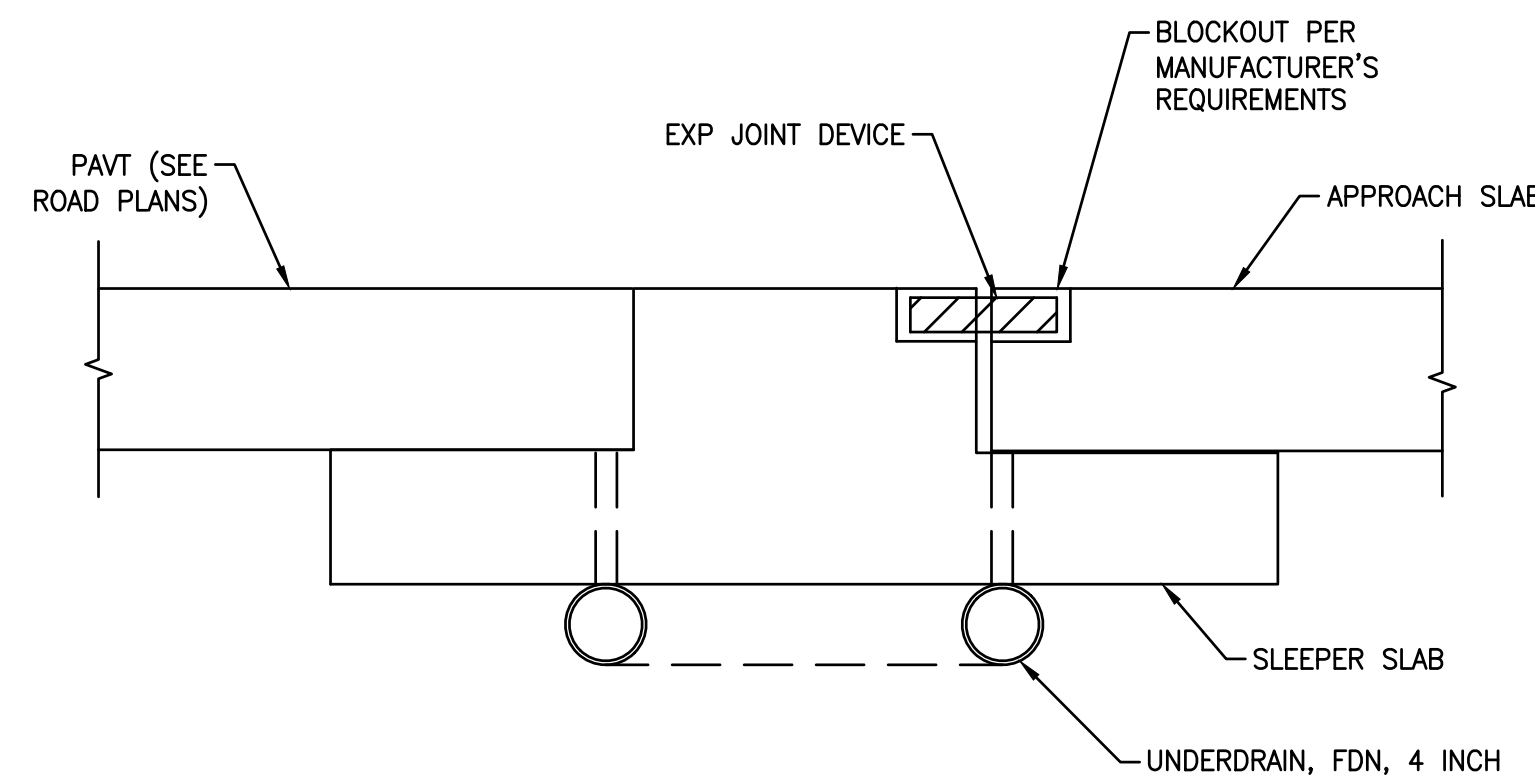
SECTION THROUGH EXPANSION JOINT AND COVER PLATE



SECTION B-B



SECTION C-C



SECTION AT ROADWAY

NOTES:

JOINT TYPES

THE EXPANSION JOINT DEVICE SHALL BE OF A TYPE THAT INCLUDES A CONTINUOUS NEOPRENE (OR EQUIVALENT) SEAL ACROSS THE DECK. UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR HAS THE OPTION OF USING ANY OF THE DEVICES LISTED BELOW:

DEVICE	MANUFACTURER
WABO STRIP SEAL - TYPE M	WATSON-BOWMAN & ACME, INC.
WABO STRIP SEAL - TYPE A	WATSON-BOWMAN & ACME, INC.
STEEFLIX-SSA2	D.S. BROWN
STEEFLIX-SSCM	D.S. BROWN
ONFLEX 40 SS	STRUCTURAL RUBBER PRODUCTS CO.
ONFLEX 40 SSA	STRUCTURAL RUBBER PRODUCTS CO.

THE MODEL OF THE JOINT TYPE SELECTED SHALL BE SUITABLE TO ACCOMMODATE THE TOTAL MOVEMENT NOTED ON THE PLANS.

COMPLETE WORKING DRAWINGS OF ALL DETAILS OF FABRICATION OF THE EXPANSION JOINT DEVICE SHALL BE SUBMITTED FOR REVIEW IN ACCORDANCE WITH STANDARD SPECIFICATION 104.02.

FABRICATION AND INSTALLATION

REMOVE SHIPPING BOLTS PRIOR TO PLACEMENT OF CONCRETE.

THE EXPANSION JOINT SHALL BE SHOP FABRICATED TO CONFORM TO THE CONTOUR OF THE APPROACH SLAB AND SLEEPER SLAB. IT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS SUBJECT TO NOTES HEREIN AND THE APPROVAL OF THE ENGINEER.

WHEN EXPANSION JOINT DEVICE IS CONTINUOUS ON EACH SIDE OF AN OBSTRUCTION SUCH AS THE END OF A BRIDGE RAILING, CONCRETE CURBS, BRUSH BLOCKS, PARAPETS OR END WALLS, THE END OF THE OBSTRUCTION SHALL BE OFFSET PER MANUFACTURER'S SPECIFICATIONS FROM EXPANSION JOINT DEVICE TO NOT INTERFERE WITH INSTALLATION AND MAINTENANCE.

TIE SLAB REINFORCING STEEL TO STEEL FRAME ANCHORS TO MAXIMUM EXTENT PRACTICABLE WITHOUT DAMAGING GALVANIZED OR EPOXY COATINGS.

THE TOP OF THE EXPANSION JOINT DEVICE SHALL BE SET 1/4" - 3/8" BELOW THE CONCRETE SLAB (PAVEMENT).

THE STEEL ANCHORAGE FOR STRIP SEAL GLANDS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SUBSECTION 707.03C.17 OF THE STANDARD SPECIFICATIONS.

THE AREA OF THE STEEL ANCHORAGE AND SEALING GLAND WHICH WILL BE IN CONTACT WITH A SEALANT, OR LUBRICANT-ADHESIVE SHALL BE CLEANED WITH TOLUENE OR OTHER APPROVED SOLVENT.

IN THE EVENT THAT SPLICING IS REQUIRED OF THE SEALING GLAND, IT SHALL BE SPLICED BY AN APPROVED METHOD (SUCH AS COLD VULCANIZATION) BY A TRAINED REPRESENTATIVE OF THE MANUFACTURER.

DETAILS AT CURBS OR BARRIERS

END OF EXPANSION JOINT SHALL TERMINATE AT SIDES OR EDGES OF SLABS PER MANUFACTURER'S SPECIFICATIONS.

MATERIALS

THE COST OF ALL MATERIALS AND LABOR REQUIRED FOR PROPER INSTALLATION OF THE EXPANSION JOINT DEVICE AND END PLATE ASSEMBLIES AT THE APPROACH SLAB EDGE IS INCLUDED IN THE PAYMENT FOR THE EXPANSION JOINT DEVICE.

WABO STRIP SEAL TYPE M			
TOTAL TRAVEL *	PLATE WIDTH	Y	Z
< 1"	10"	3 3/4"	5 3/4"
1" - 2"	11"	3 3/4"	6 3/4"
2" - 3"	12"	3 3/4"	7 3/4"
> 3"	13"	3 3/4"	8 3/4"

ALL OTHER DEVICES			
TOTAL TRAVEL *	PLATE WIDTH	Y	Z
< 1 1/2"	8"	2 1/2"	5"
1 1/2" - 3 1/2"	10"	2 1/2"	7"
> 3 1/2"	12"	2 1/2"	9"

* SEE TABLE FOR MINIMUM TOTAL TRAVEL ALONG CENTERLINE OF BRIDGE

SIDEWALK AND SHARED USE PATH SECTIONS

ALL STEEL FOR COVER PLATE SHALL BE AASHTO M270, GRADE 36, MEET THE REQUIREMENTS OF ASTM A786 AND GALVANIZED (ASTM A123).

USE ASTM F 593 (TYPE 304) STAINLESS STEEL 3/4" OR 1/2" DIAMETER FLATHEAD COUNTERSUNK SCREWS WITH 3/4" OR 1/2" DIAMETER INSERTS OR FLUSH TYPE EXPANSION ANCHORS WITH A MINIMUM ALLOWABLE OR SAFE WORKING TENSION LOAD CAPACITY OF 1200 POUNDS.

CAST CURBS AND SIDEWALKS WITH 3/8" SLIDING PLATES IN PLACE TO INSURE THAT INSERTS AND SCREWS ARE ALIGNED PROPERLY. APPLY BOND BREAKER TO SLIDING PLATES PRIOR TO INSTALLATION.

FORM CONCRETE RECESS AREA IN TOP OF APPROACH SLAB AND GRIND TO PROVIDE SMOOTH SURFACE. TOOL OR GRIND CONCRETE EDGES TO 1/4" RADIUS. APPLY ONE COAT OF EPOXY RESIN ADHESIVE TO ALLOW BENT SLIDING PLATE TO MOVE FREELY WITHOUT FRICTION. CARE SHALL BE TAKEN SO THAT NO ADHESIVE COMES IN CONTACT WITH ANY PART OF THE EXPANSION JOINT DEVICE OR GLAND. REMOVE ANY FOREIGN PARTICLES FROM THE SURFACE PRIOR TO INSTALLING PLATES.

INSTALL PLATES SO THAT THE SCREWS AND INSERTS ARE SET ON THE HIGH SIDE OF LONGITUDINAL SIDEWALK GRADE.

THE COST OF ALL MATERIALS AND LABOR REQUIRED FOR PROPER INSTALLATION OF THE COVER PLATE IS INCLUDED IN THE PAYMENT FOR THE EXPANSION JOINT DEVICE COVER PLATE.

END PLATE TABLE	
STRUCTURE NUMBER	SIZE
	1'-9"W x 2'-6"H

STRUCTURE NAME	ANGLE OF CROSSING TO NEAREST 10'	LOCATION OF JOINT	MIN. TOT. TRAVEL ALONG CENTERLINE OF BRIDGE *	REQUIRED LENGTH OF EXPANSION JOINT DEVICE
GALLUP PARK BRIDGE	90°	WEST SLEEPER SLAB	3/4"	36'-6"
GALLUP PARK BRIDGE	90°	EAST SLEEPER SLAB	3/4"	36'-6"

ITEM	QUANTITY	UNIT	AMOUNT
Expansion Joint Device		Ft	73
Expansion Joint Device, Cover Plate		Ft	40



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EXPANSION JOINT DETAILS

SCALE:

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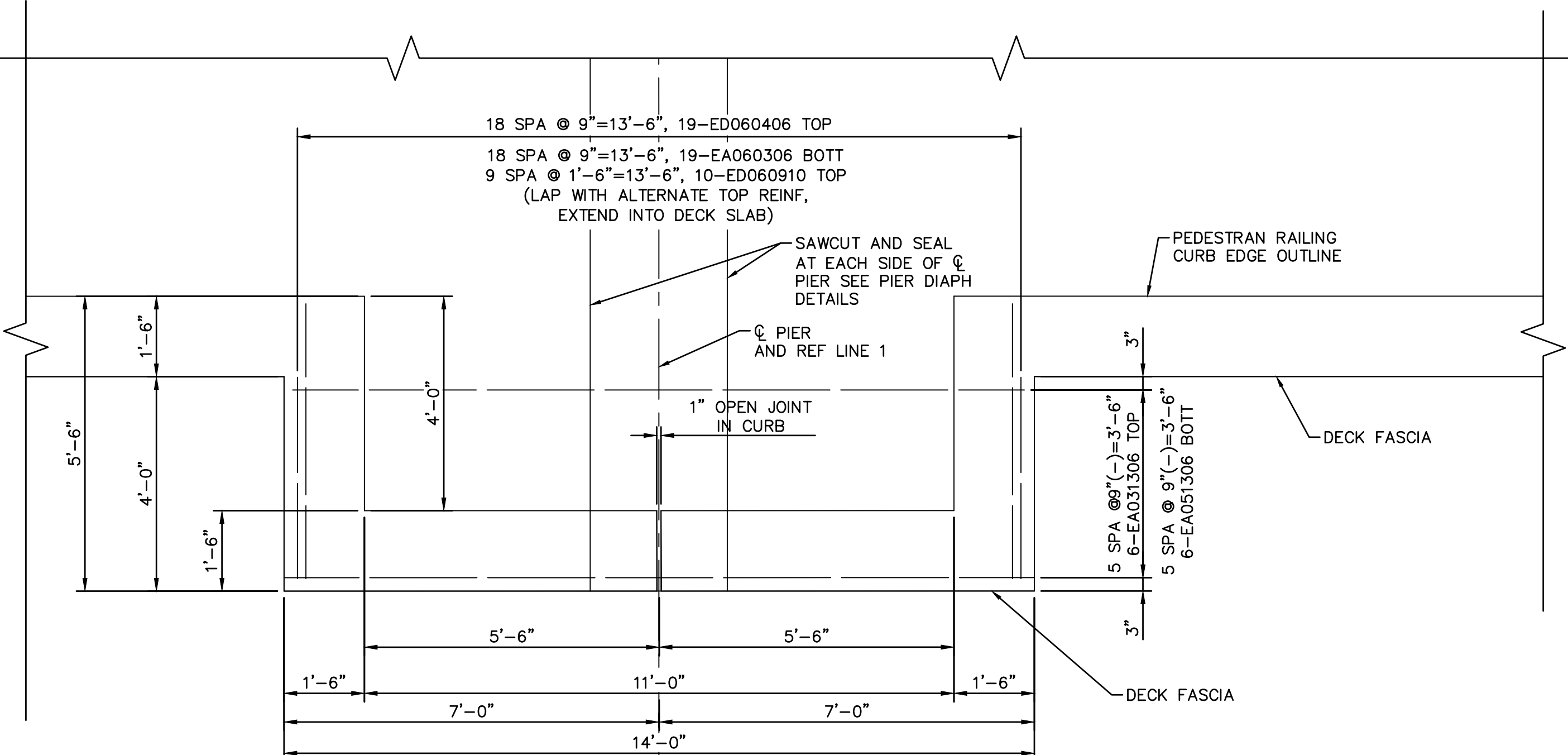
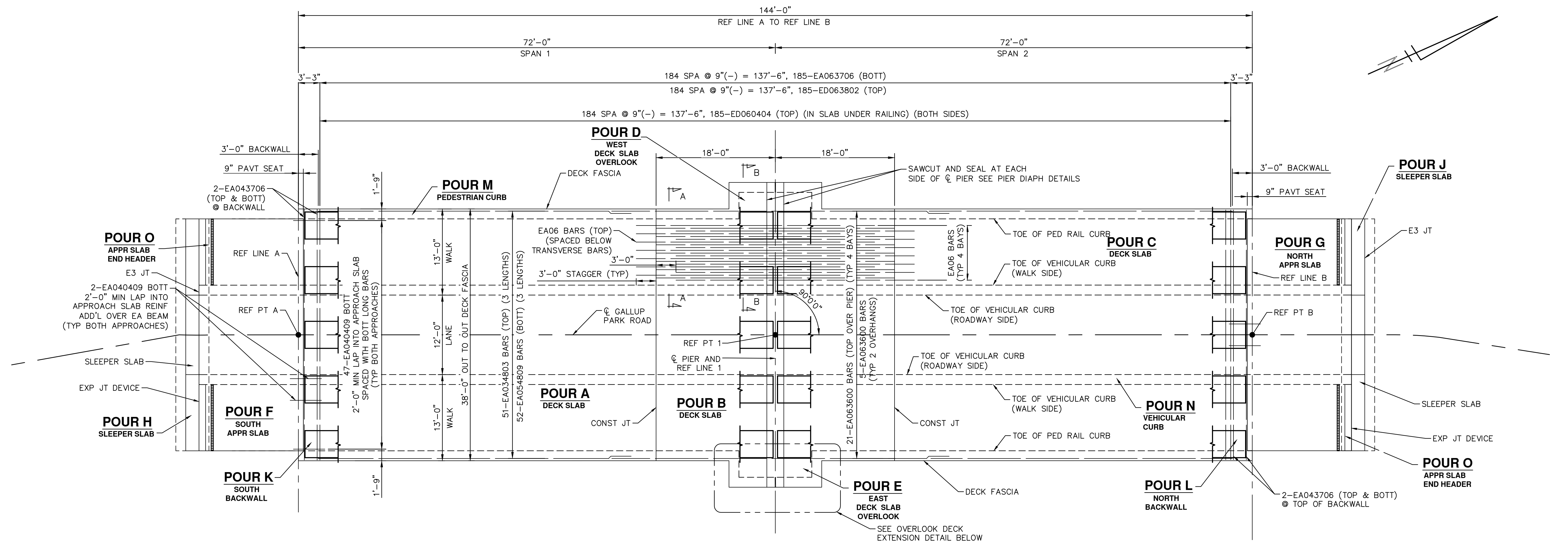
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SUPERSTRUCTURE DETAILS

SCALE
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SHEET No.

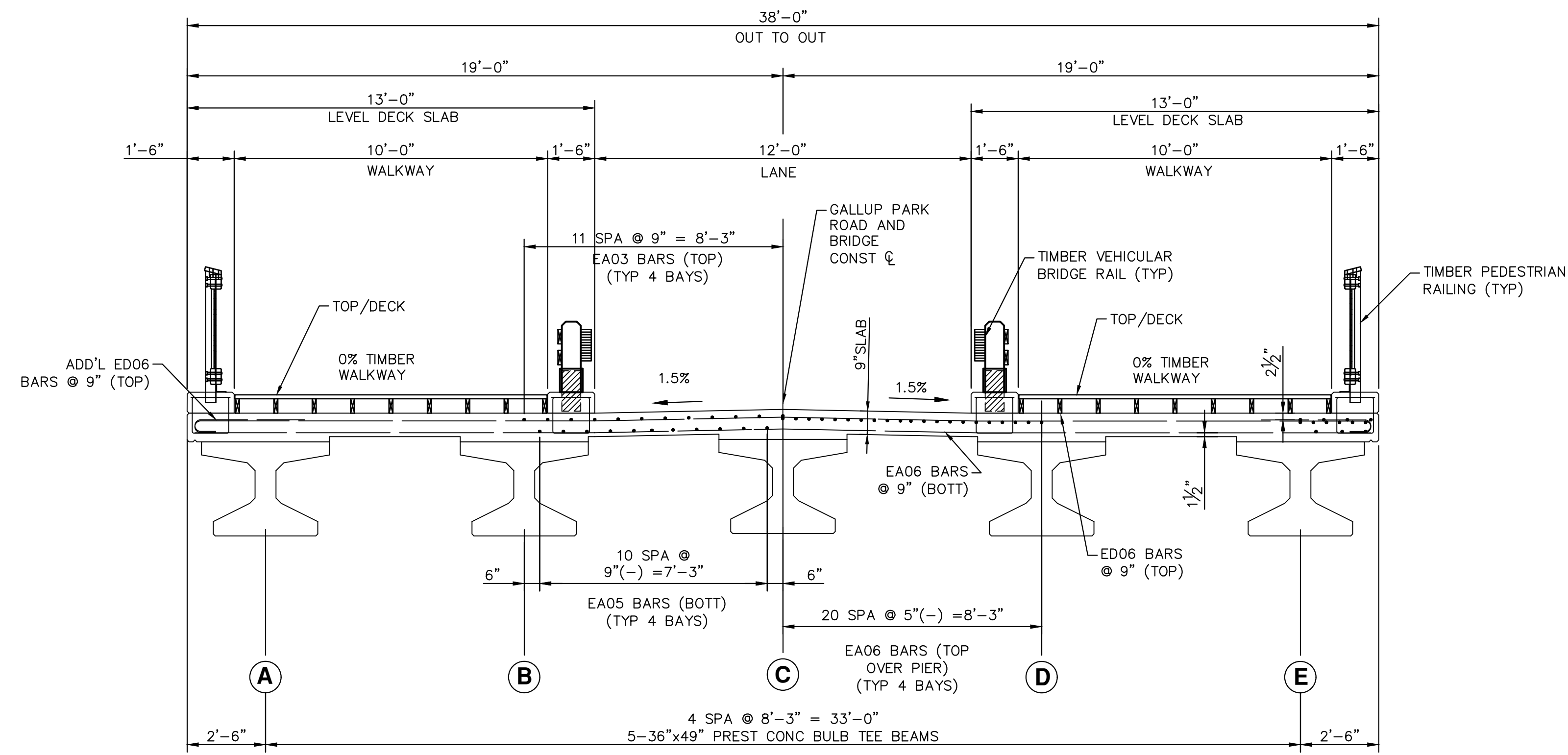


SUPERSTRUCTURE CONCRETE QUANTITIES		
POUR	AMT (CYD)	LOCATION
* A	69.7	DECK SLAB - SPAN 1
* B	43.5	DECK SLAB - OVER PIER
* C	69.7	DECK SLAB - SPAN 2
* D	2.0	WEST DECK SLAB OVERLOOK
* E	2.0	EAST DECK SLAB OVERLOOK
* F	20.5	SOUTH APPROACH SLAB
* G	20.5	NORTH APPROACH SLAB
H	9.3	SOUTH SLEEPER SLAB
J	9.3	NORTH SLEEPER SLAB
K	12.6	SOUTH BACKWALL
L	12.6	NORTH BACKWALL
M	7.7	PIER DIAPHRAGM
N	12.7	PEDESTRIAN RAIL CURBS
P	14.5	VEHICULAR RAIL CURBS
Q	1.1	APPROACH SLAB WALKWAY HEADERS
SUBTOTAL	152.8	

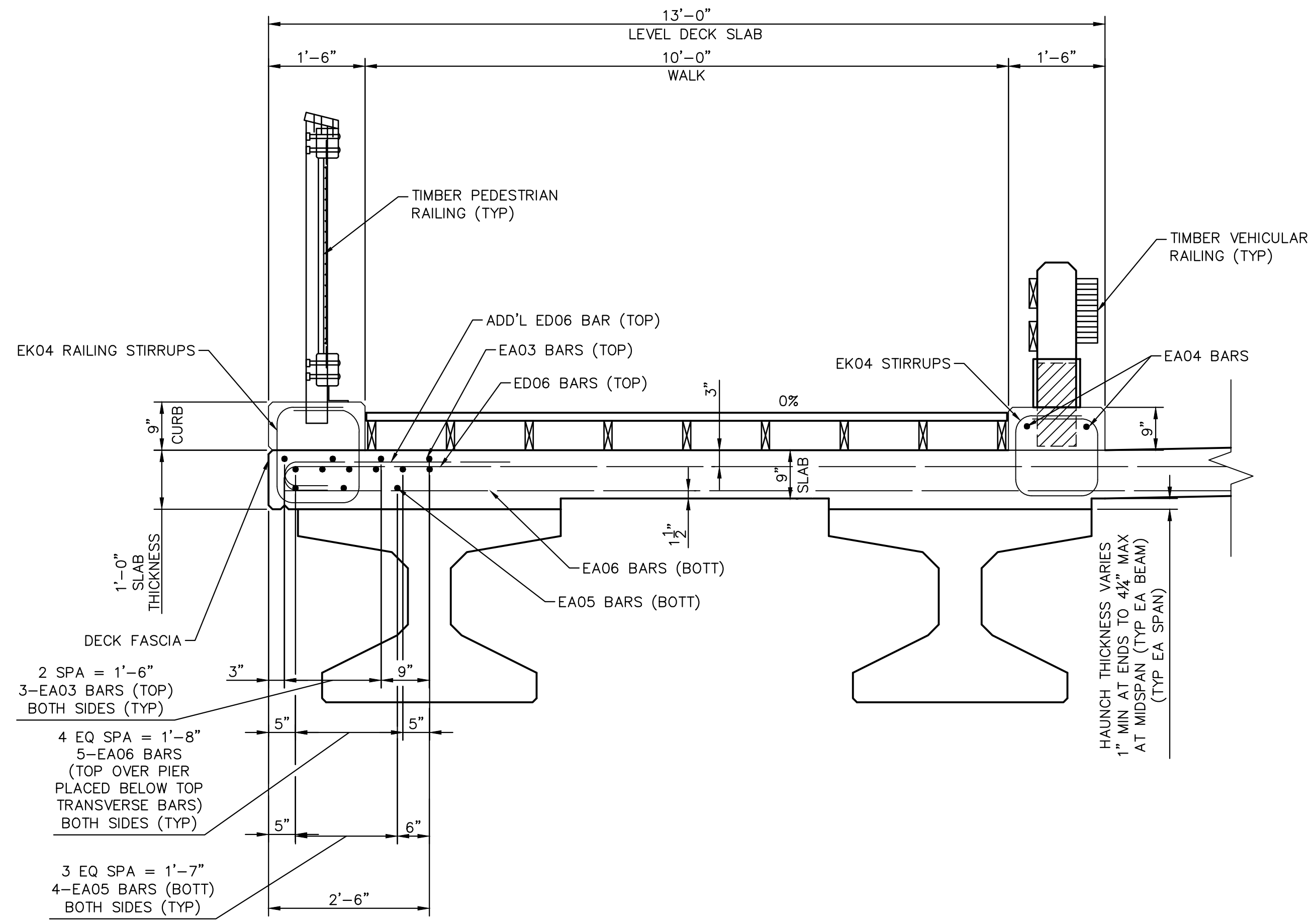
MIN LAP TABLE	
BAR	LAP
EA03	1'-2"
EA04	1'-7"
EA05	2'-0"
EA06	2'-4"

* INDICATES NIGHT CASTING QUANTITY

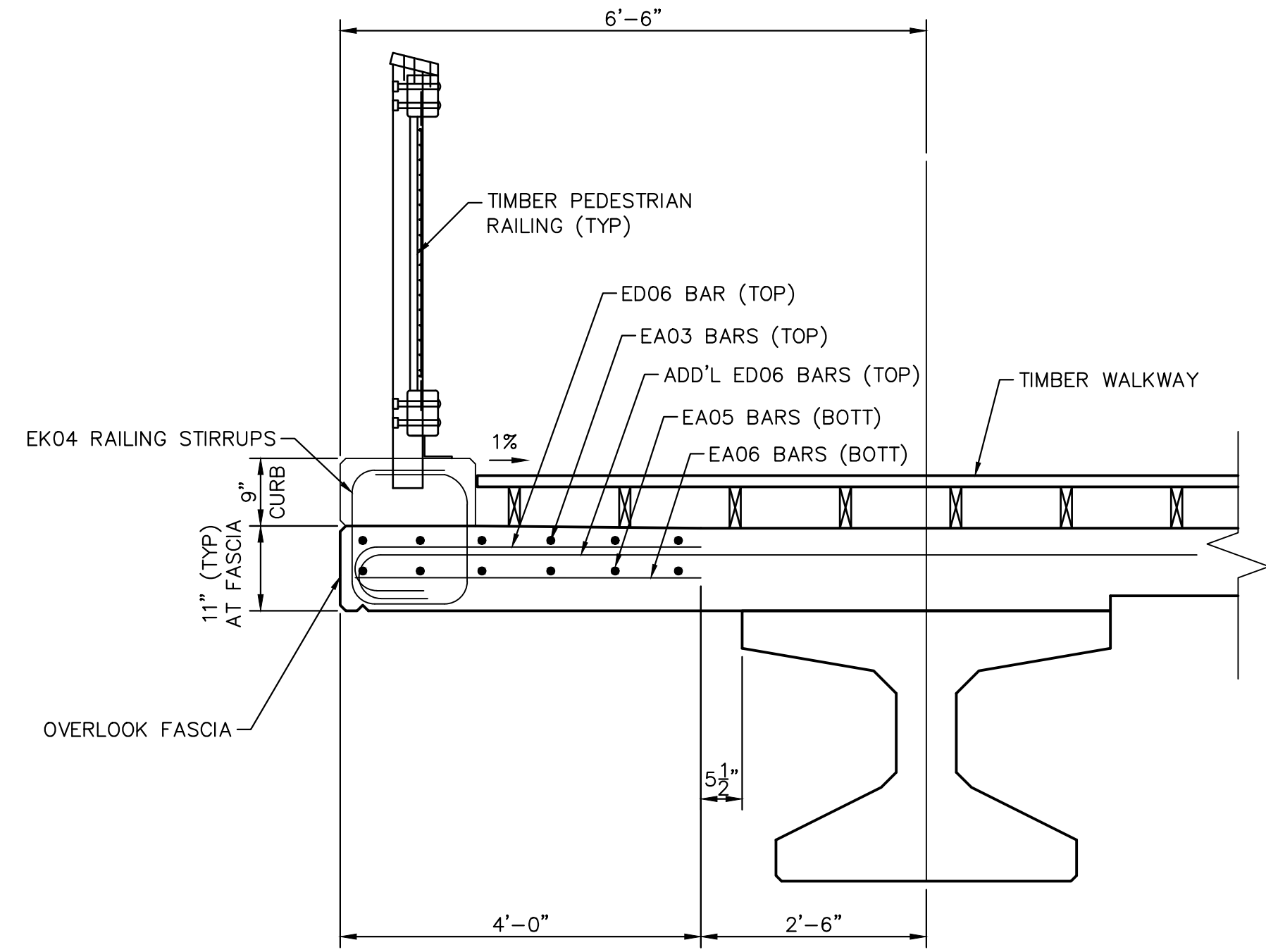
MISCELLANEOUS QUANTITIES		
ITEM	QUANTITY	UNIT
Superstructure Conc	80	Cyd
Superstructure Conc, Night Casting	228	Cyd
Superstructure Conc, Form, Finish and Cure	1	LS
Superstructure Conc, Form, Finish and Cure, Night Casting	1	LS
Bridge Ltg, Furn and Rem	1	LS
Bridge Ltg, Oper and Maintain	228	Cyd
Joint, Expansion, E3	73	Ft
Timber Rail, Vehicular	348	Ft
Timber Rail, Pedestrian	360	Ft
Timber Walkway	5200	Sft
Elec Grounding System	1	Ea



TYPICAL SLAB SECTION



SECTION A-A
(DECK SECTION)



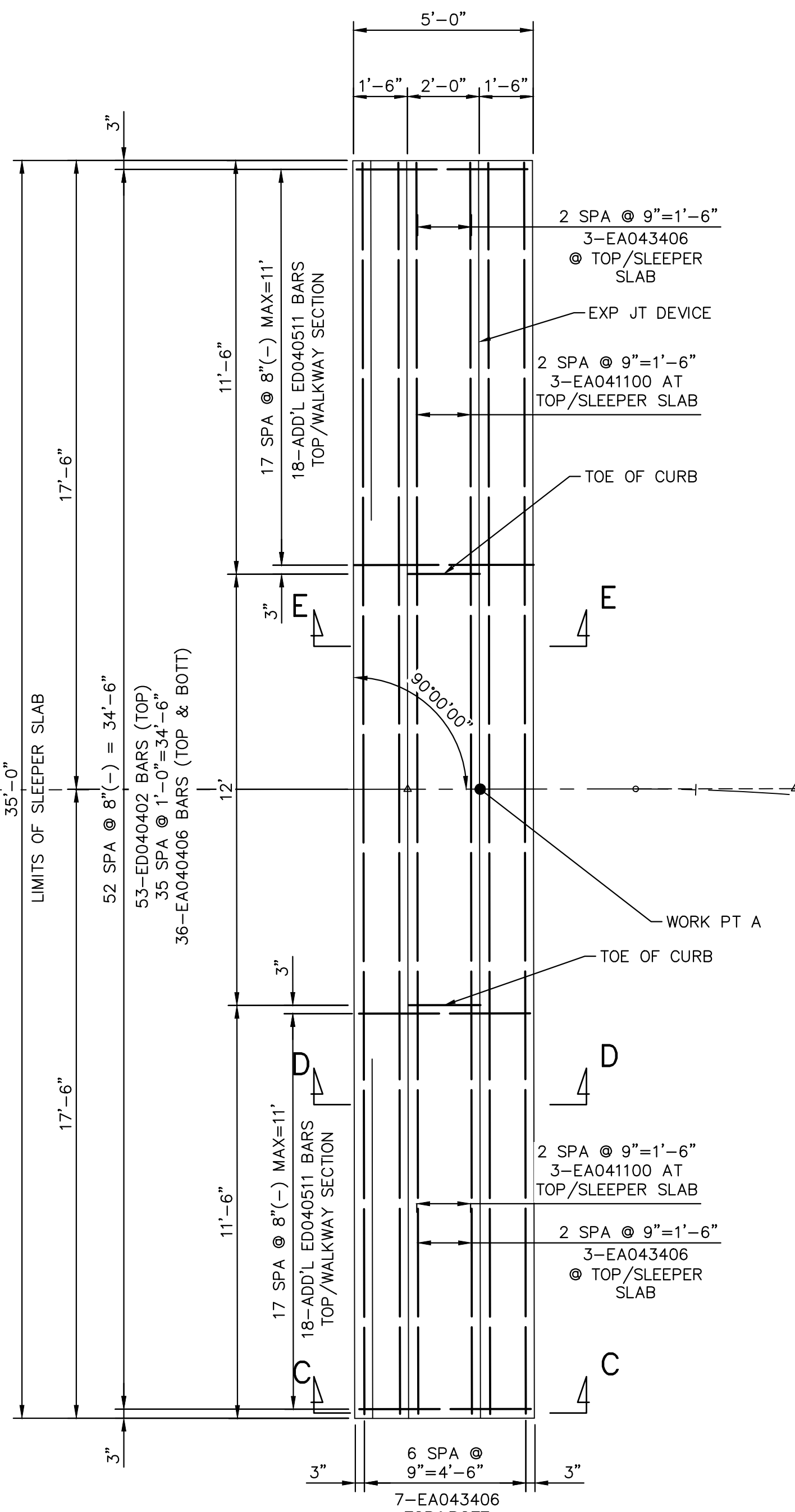
SECTION B-B
(OVERLOOK SECTION)

NOTES:

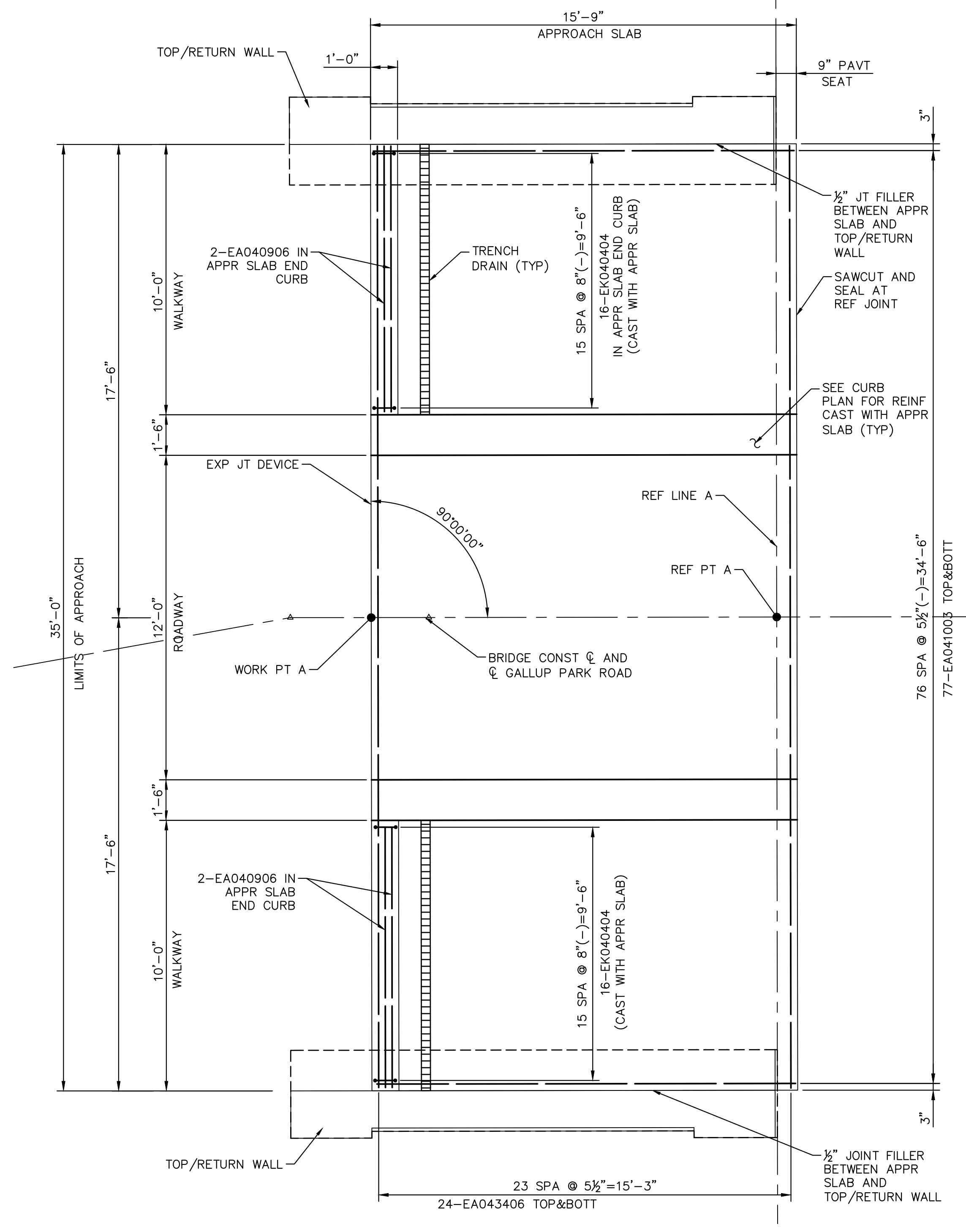
- JWP DENOTES JOINT WATERPROOFING.
- EJWP DENOTES EXPANSION JOINT WATERPROOFING.
- NS DENOTES NEAR SIDE.
- FS DENOTES FAR SIDE.
- ES DENOTES EACH SIDE.
- "EDGE" OR "GROOVE" DENOTES EDGING OR GROOVING WITH AN APPROVED TOOL.
- ALPHABETICAL DESIGNATION OF DECK POURS IS NOT TO BE CONSTRUED AS A POUR SEQUENCE.
- APPLY LOW TEMPERATURE PROTECTION OF CONCRETE ACCORDING TO SECTION 706.03 J. OF THE STANDARD SPECIFICATION FOR CONSTRUCTION. LOW TEMPERATURE PROTECTION OF CONCRETE IS INCLUDED IN THE RELATED ITEMS OF WORK.
- DO NOT POUR DECK CONCRETE UNTIL DIAPHRAGM CONCRETE ATTAINS A COMPRESSIVE STRENGTH OF 3,000 psi.
- THIS DECK POUR IS DESIGNATED A NIGHT POUR, AND THEREFORE SUBJECT TO THE RESTRICTIONS OF SECTION 706.03 I. OF THE STANDARD SPECIFICATIONS.
- NO PORTION OF DECK FORMWORK OR SUPPORTS SHALL PROTRUDE ABOVE THE TOP OF PROPOSED HAUNCH (OR TOP IF THE BEAM WHERE THERE IS NO PROPOSED HAUNCH).
- PROVIDE A SAWED JOINT 1/2" DEEP BY 1/8" WIDE (MINIMUM) IN THE TOP OF SLAB AT TRANSVERSE CONSTRUCTION JOINTS OVER THE BACKWALL AND FILL TO 1/2" BELOW TOP OF CONCRETE WITH POLYURETHANE HYBRID SEALANT. IF AN OPTIONAL CONSTRUCTION JOINT IS NOT USED, THE JOINT IS TO BE SAWED WITHIN 24 HOURS OF PLACING THE CURING AND IS TO BE FILLED WITH HOT-POURED JOINT SEALANT. (INCLUDED IN THE BID ITEM "SUPERSTRUCTURE CONC, FORM, FINISH, AND CURE, NIGHT CASTING").
- THE CONTRACTOR MAY USE METAL STAY IN PLACE FORMS. IF USED, ELIMINATING THE POLYSTYRENE AND FILLING THE CORRUGATIONS WITH CONCRETE IS PROHIBITED.
- FOR TIMBER RAILING POST ANCHORAGE INTO CONCRETE CURB, THE CONTRACTOR IS REQUIRED TO UTILIZE MOMENT POST BASE SLEEVES (SIMPSON STRONG TIE, TYPE MPBZ OR EQUIVALENT, AS APPROVED BY THE ENGINEER). THESE ANCHORAGE LOCATIONS ARE DETAILED IN TYPICAL RAILING AND CURB SECTIONS AND DETAILS WITH MOMENT POST BASE EMBEDMENT INTO AND PROJECTION OUT OF CONCRETE CURBS AT EACH VEHICULAR AND PEDESTRIAN RAILING POST. MOMENT POST BASE SLEEVES ARE INCLUDED WITH THE MATERIAL AND INSTALLATION COSTS OF TIMBER RAILING PAY ITEMS "Timber Rail, Pedestrian" AND "Timber Rail, Vehicular".
- EXPOSED PORTION OF MOMENT POST BASE SLEEVE, ABOVE TOP OF CURB, IS REQUIRED TO BE COVERED WITH 1x8 OR 1x10 TIMBER PLANK COVER. TIMBER PLANK COVER MATERIALS, HARDWARE AND INSTALLATION ARE INCLUDED WITH THE COST OF "Timber Rail, Pedestrian" AND "Timber Rail, Vehicular" ITEMS.

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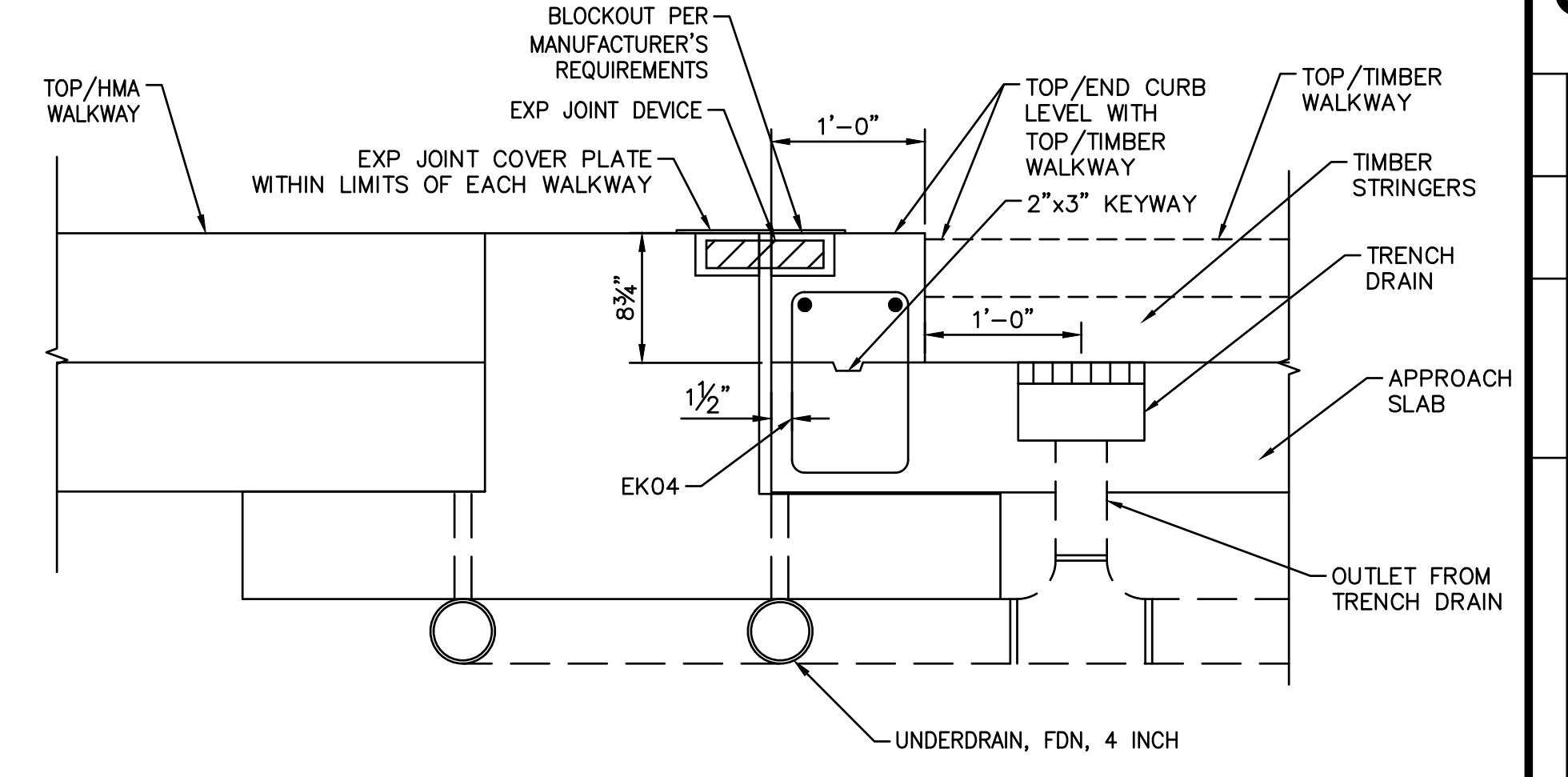


PLAN OF SOUTH SLEEPER SLAB
(NORTH OPP END SIMILAR)

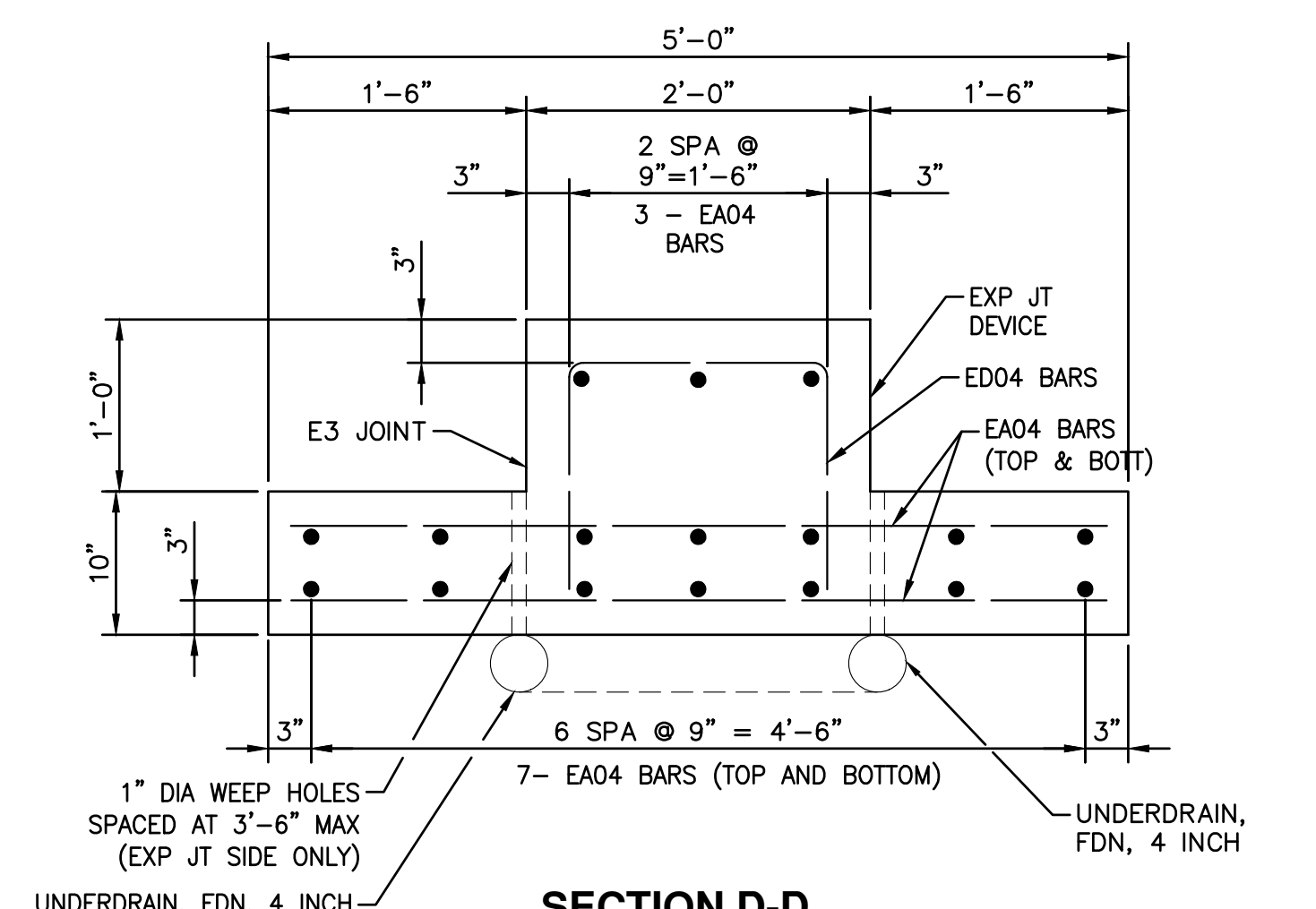


PLAN OF SOUTH APPROACH SLAB
(NORTH OPP END SIMILAR)

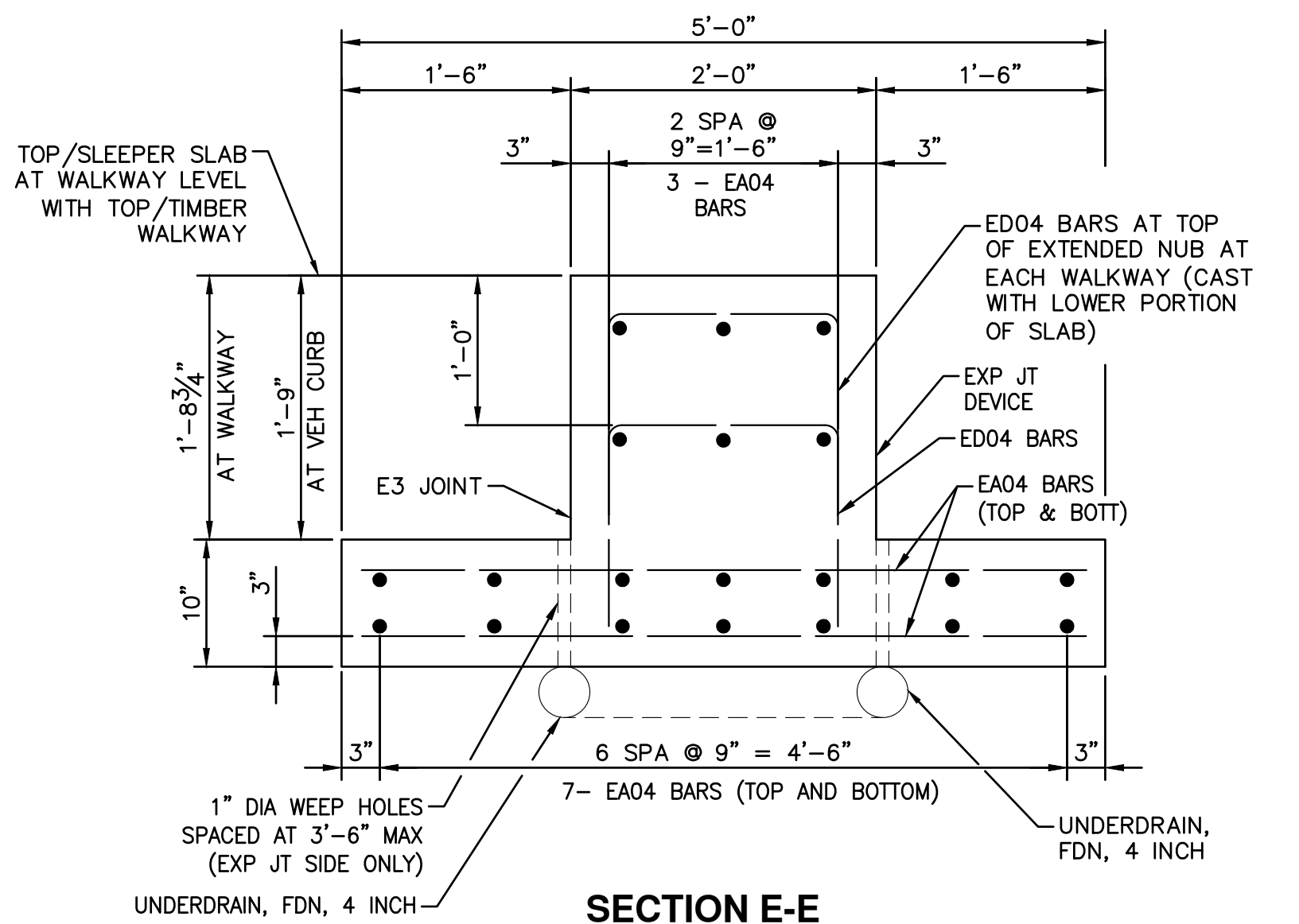
TRENCH DRAINS ARE TO BE INCLUDED IN THE PAY ITEM "UNDERDRAIN, FDN, 4 INCH"



SECTION C-C
TYPICAL SECTION AT END OF
APPROACH SLAB WITHIN WALKWAY



SECTION D-D
TYPICAL SLEEPER SLAB
SECTION WITHIN WALKWAY



SECTION E-E
TYPICAL SLEEPER SLAB
SECTION WITHIN WALKWAY



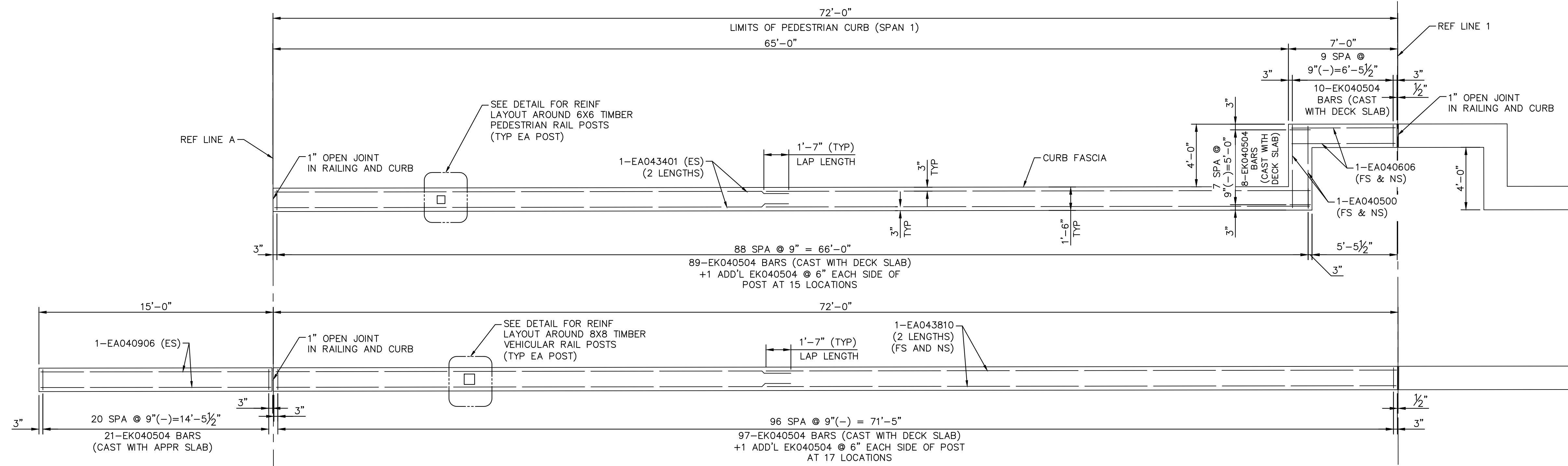
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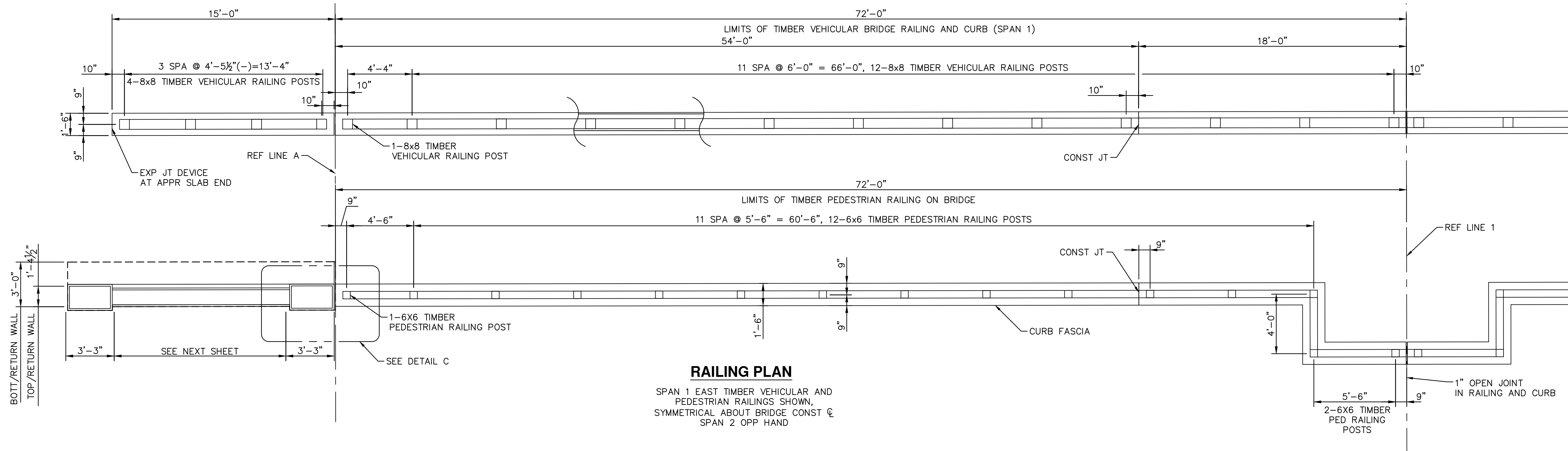


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DESIGN - BRIDGE REPLACEMENT PLANS
SUPERSTRUCTURE DETAILS

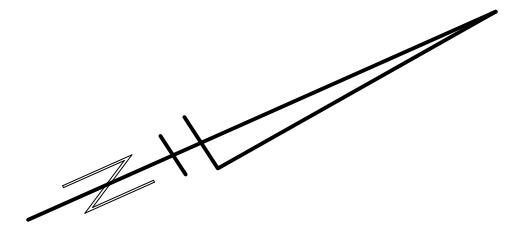
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CURB PLAN
SPAN 1 WEST TIMBER VEHICULAR AND PEDESTRIAN RAILINGS SHOWN, SYMMETRICAL ABOUT BRIDGE CONST & SPAN 2 OPP HAND

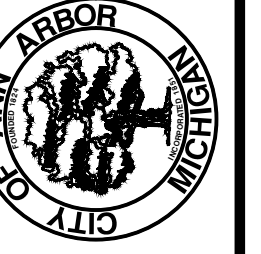


RAILING PLAN
SPAN 1 EAST TIMBER VEHICULAR AND PEDESTRIAN RAILINGS SHOWN, SYMMETRICAL ABOUT BRIDGE CONST & SPAN 2 OPP HAND



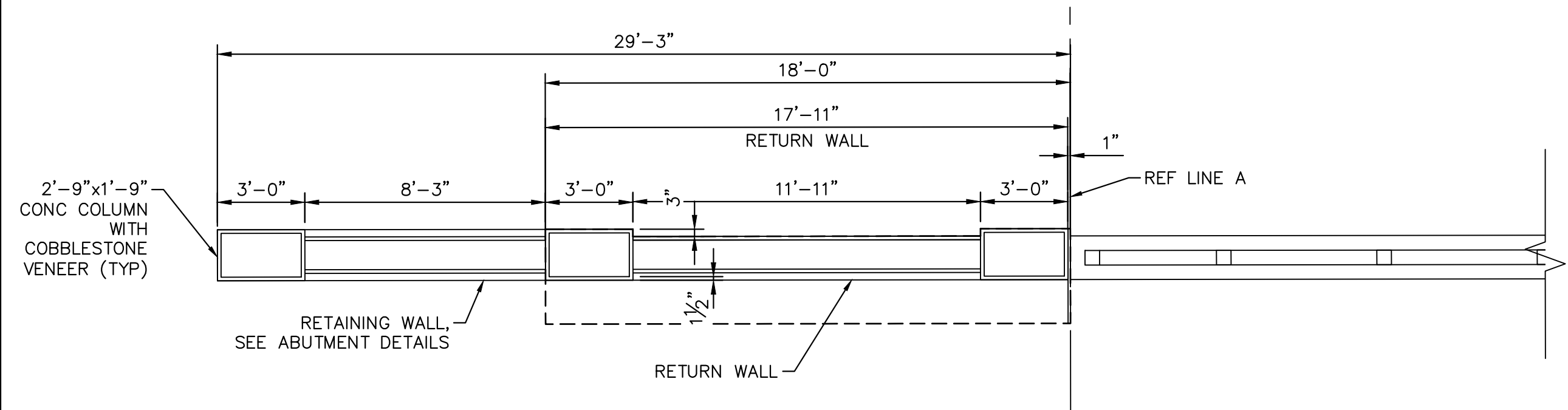
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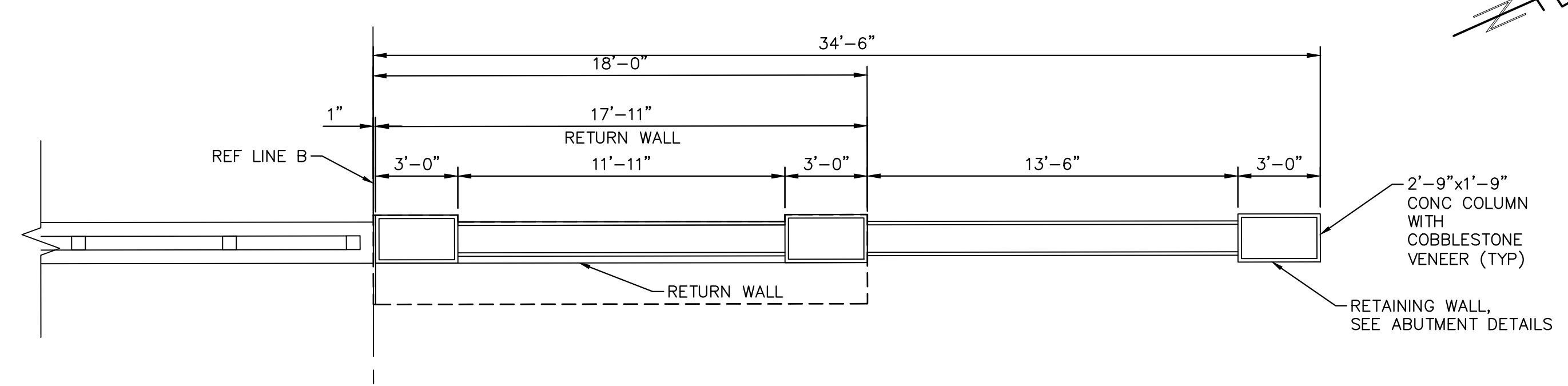


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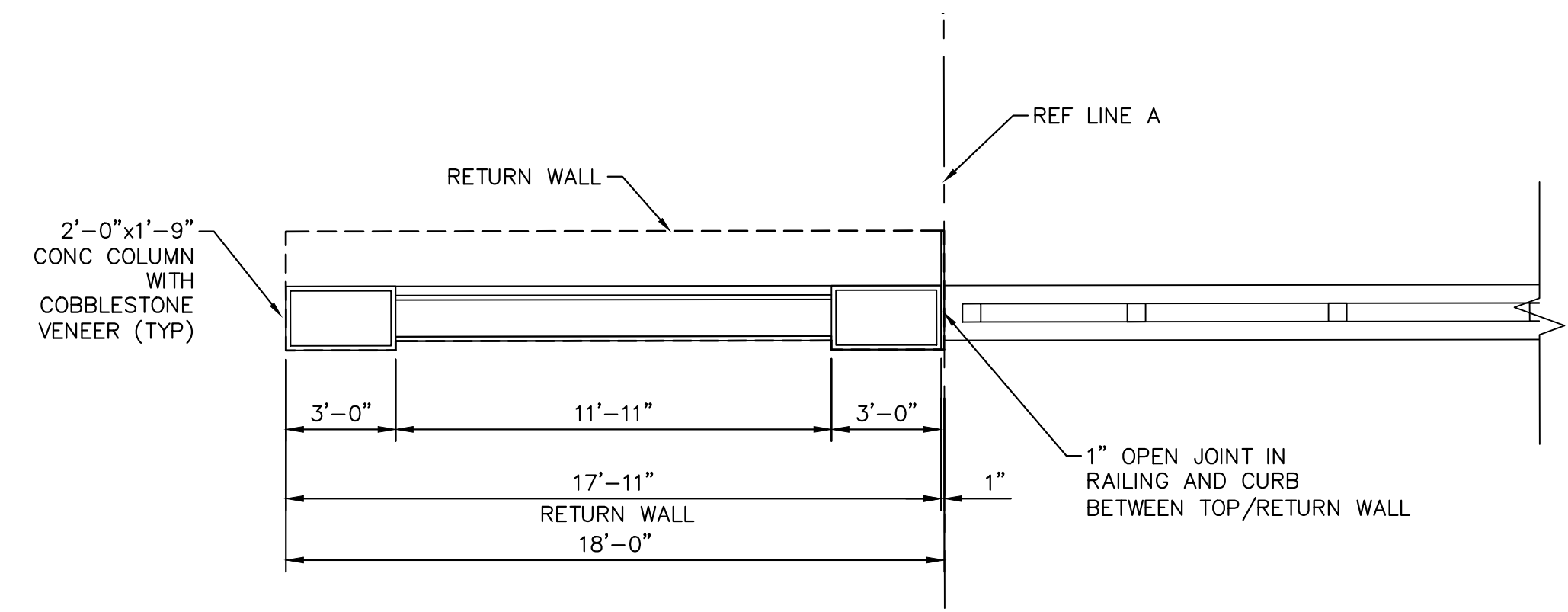
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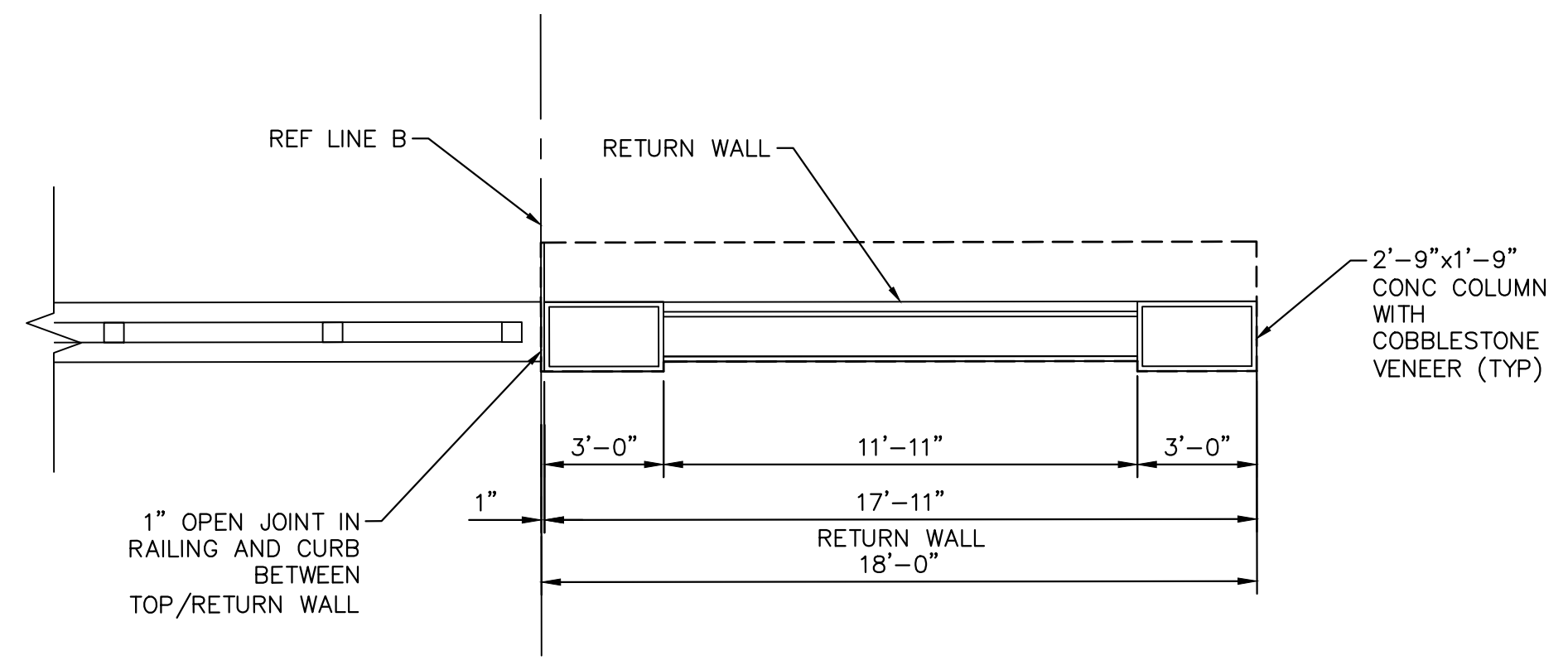
RAILING PLAN
SPAN 1 WEST PEDESTRIAN RAILING SHOWN,



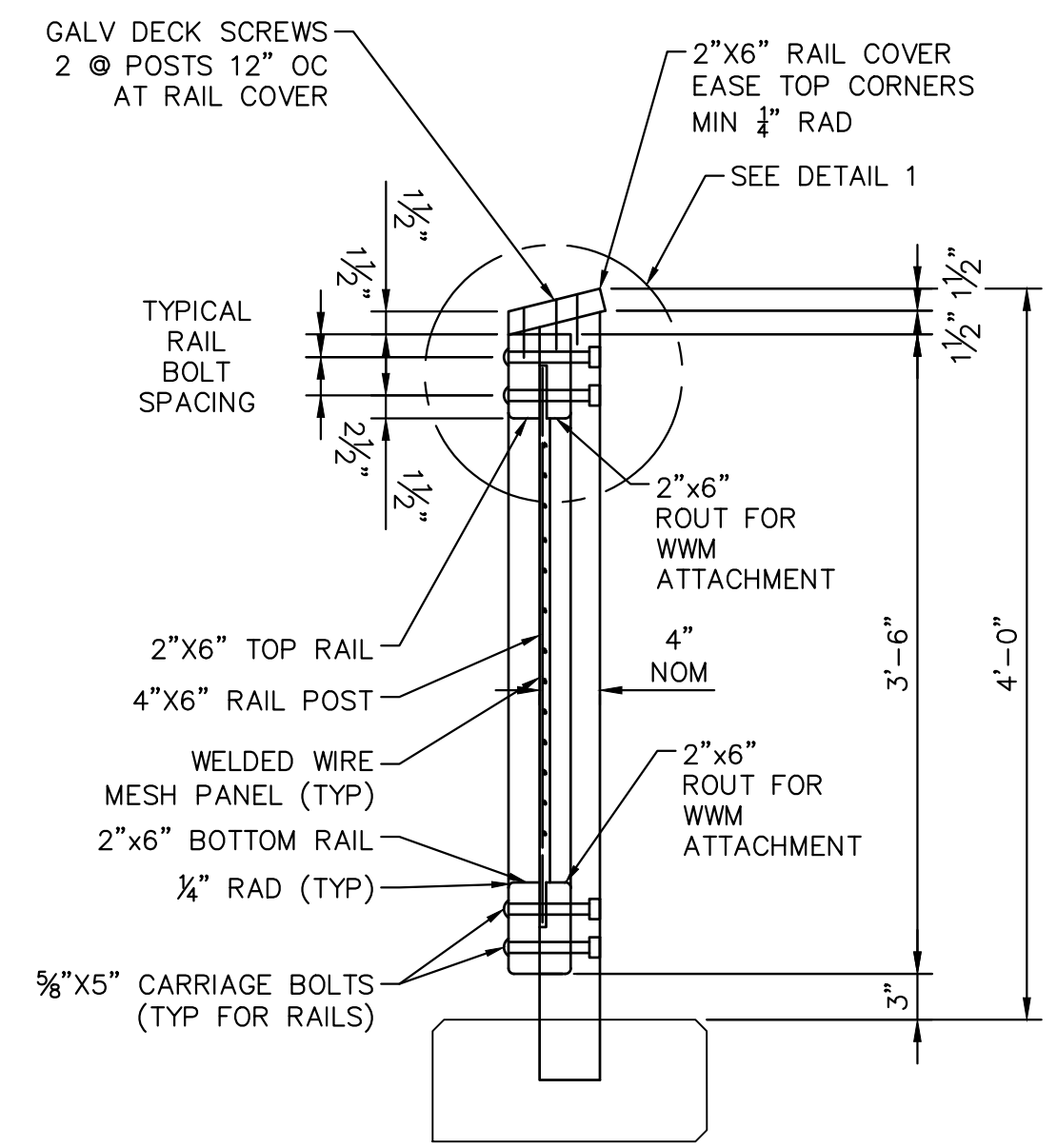
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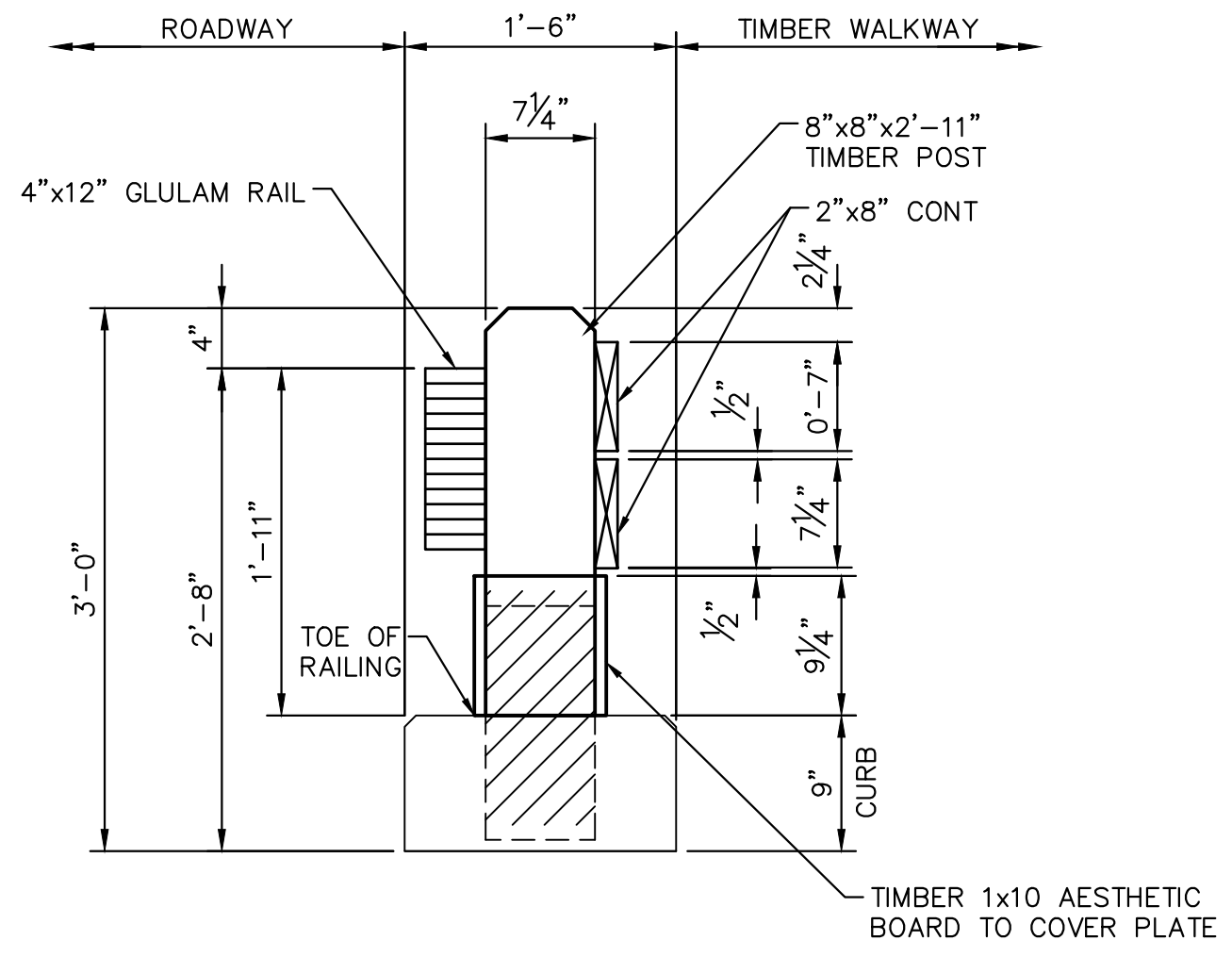
RAILING PLAN
SPAN 1 EAST PEDESTRIAN RAILING SHOWN,



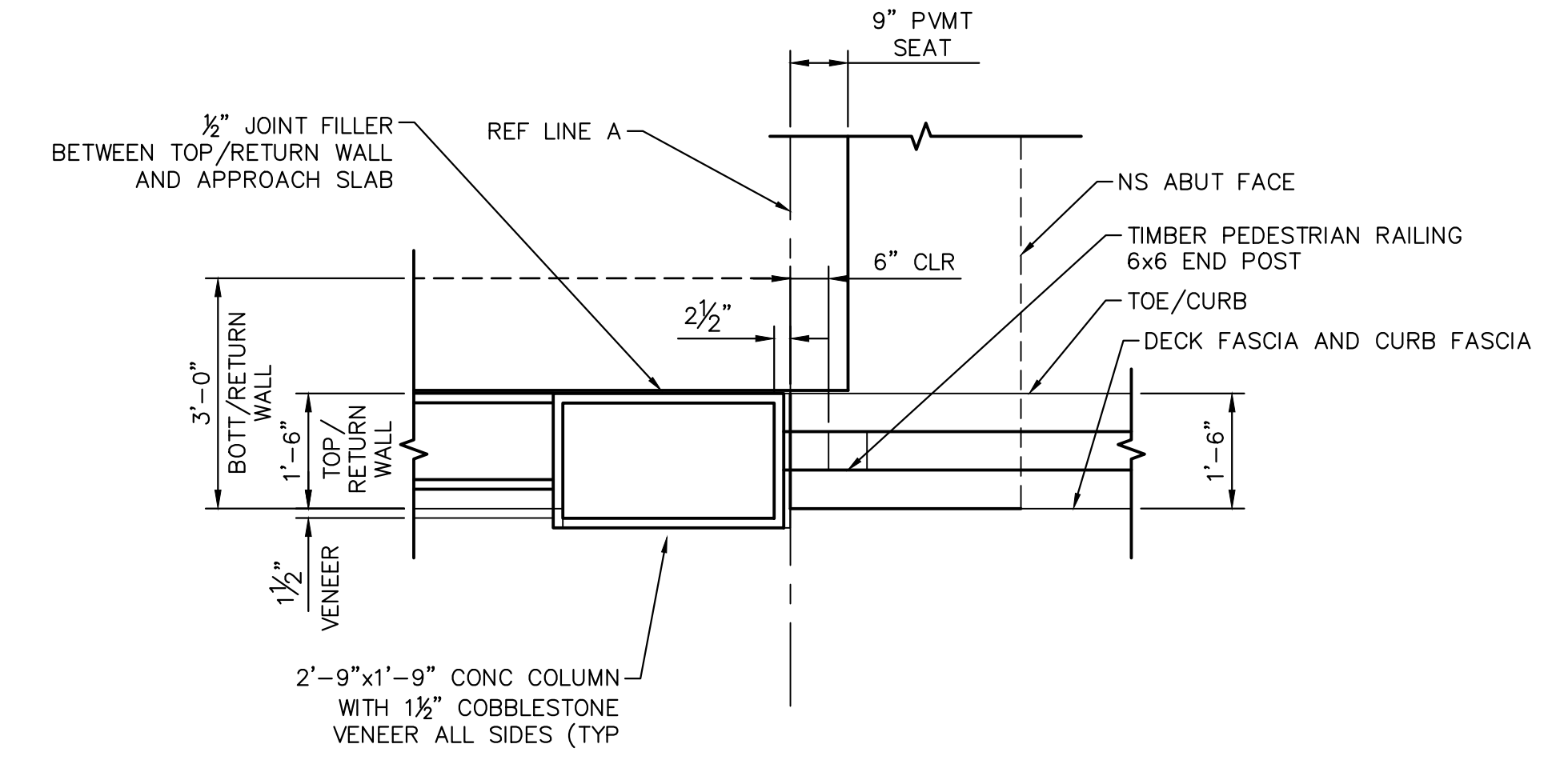
RAILING PLAN
SPAN 2 EAST PEDESTRIAN RAILING SHOWN,



TIMBER PEDESTRIAN RAILING DETAIL



TIMBER VEHICULAR BRIDGE RAIL DETAIL



DETAIL C
EAST SIDE OF REF LINE A SHOWN
SYMMETRICAL ABOUT BRIDGE CONST C FOR WEST SIDE
WEST AND EAST SIDES OF REF LINE B OPP HAND

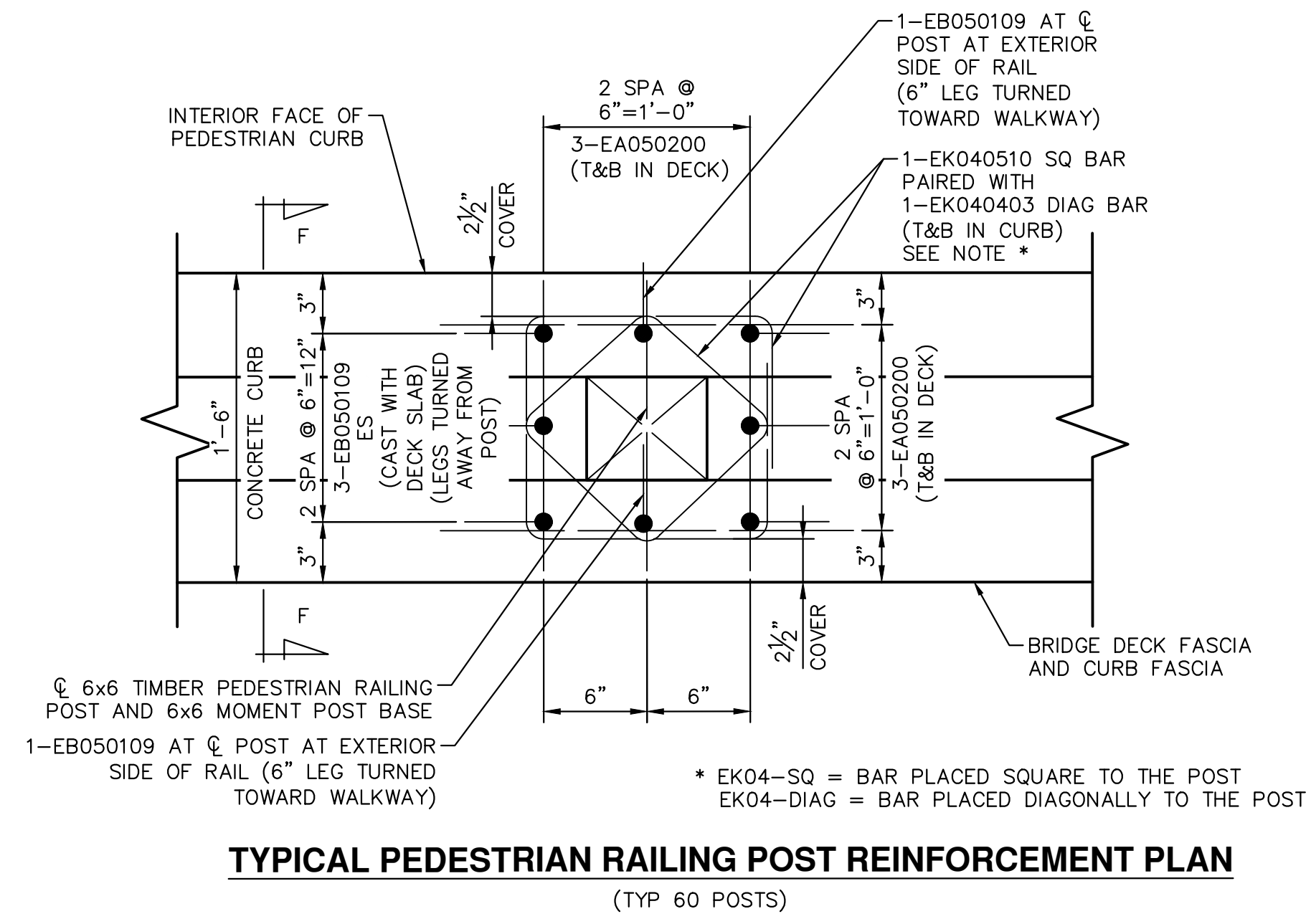


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06-28-23	ISSUED FOR BID	AS	RRB	CHECKED

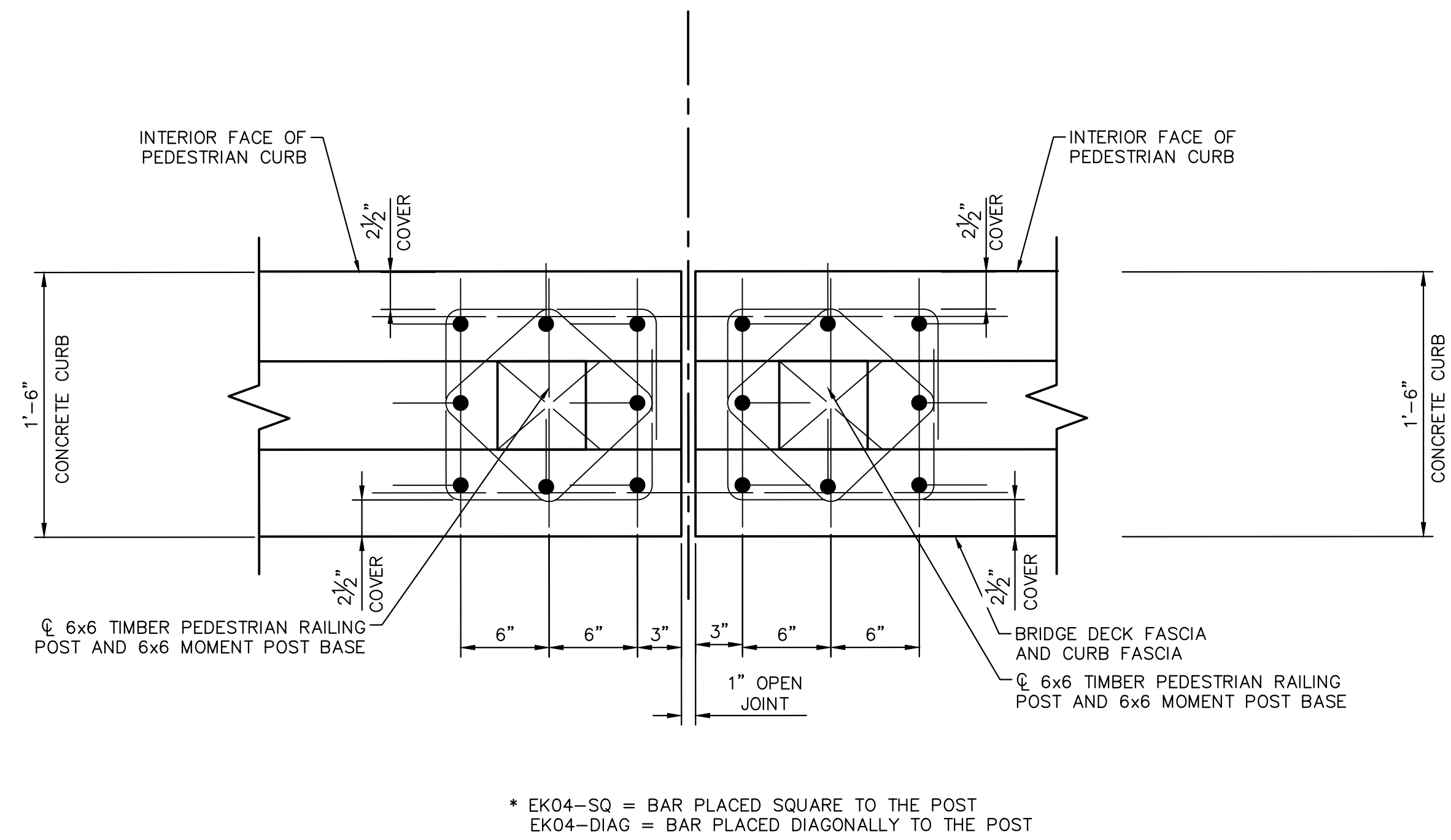
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SUPERSTRUCTURE DETAILS

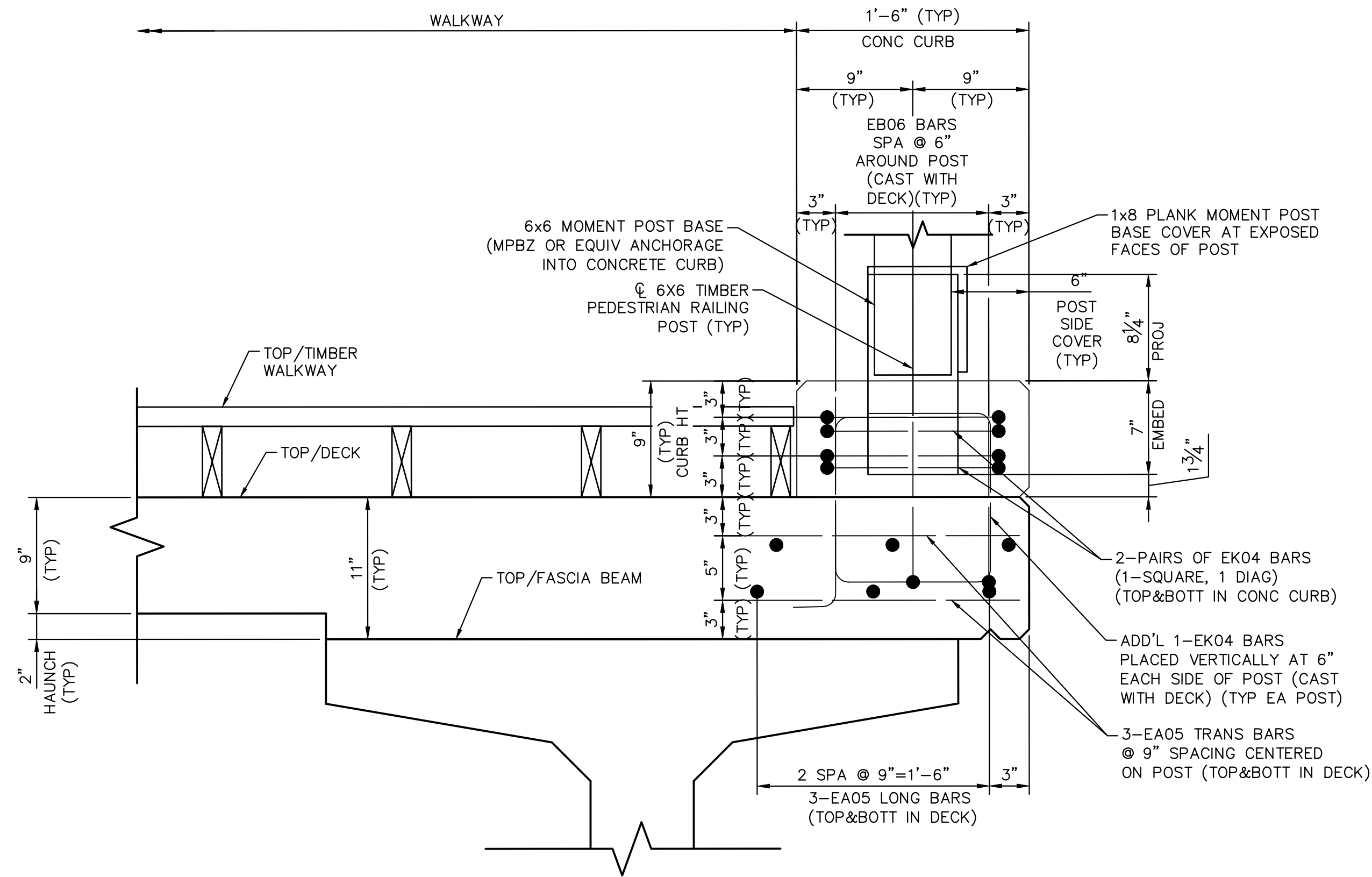
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TYPICAL PEDESTRIAN RAILING POST REINFORCEMENT PLAN
(TYP 60 POSTS)



TYPICAL PEDESTRIAN RAILING POST REINFORCEMENT PLAN



SECTION F-F
TYPICAL PEDESTRIAN RAILING
CURB SECTION AT POST



REV.	DESCRIPTION	DATE	AS DRAWN	RRB CHECKED
06-28-23	ISSUED FOR BID			

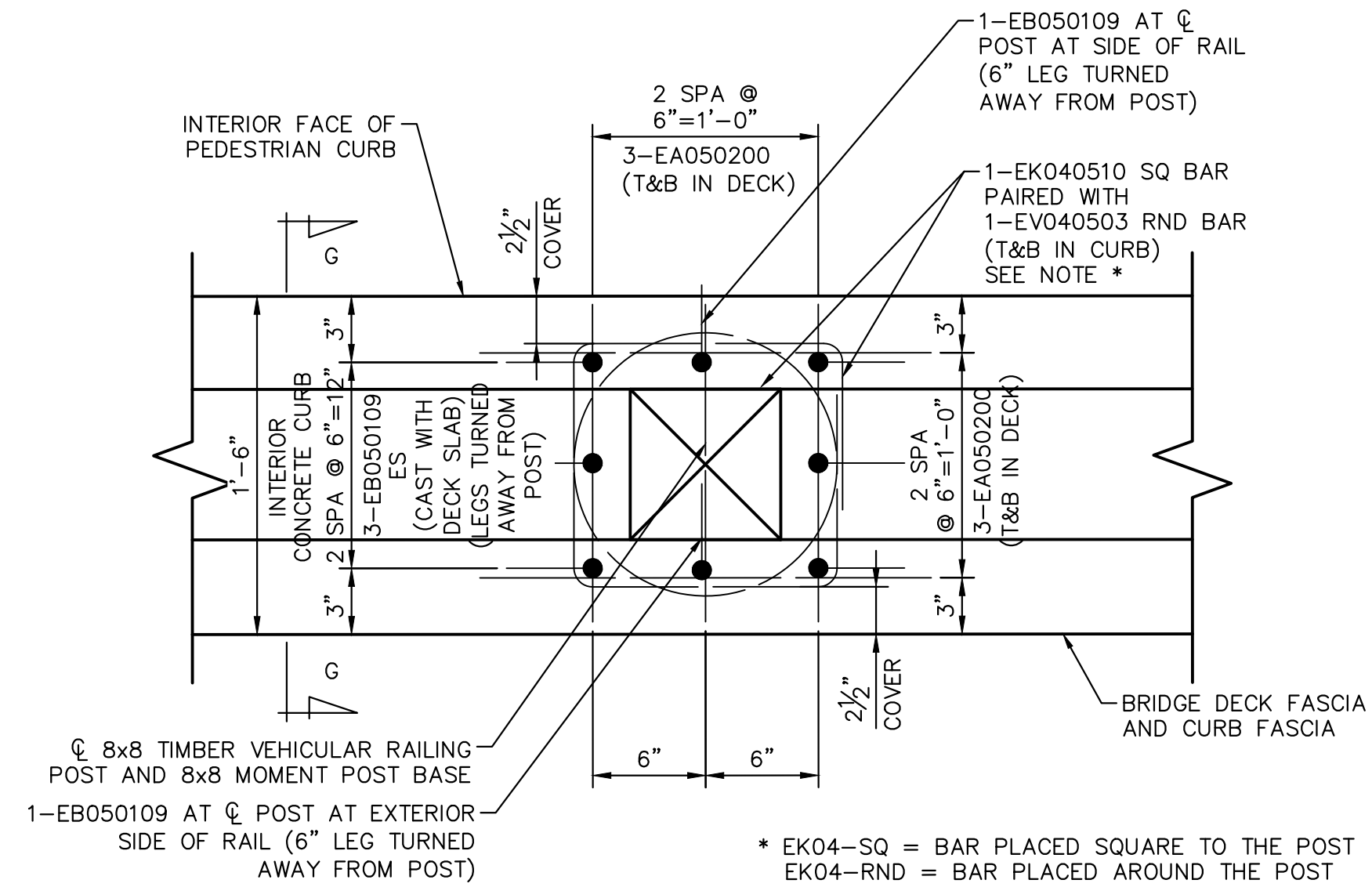
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DESIGN - BRIDGE REPLACEMENT PLANS
SUPERSTRUCTURE DETAILS

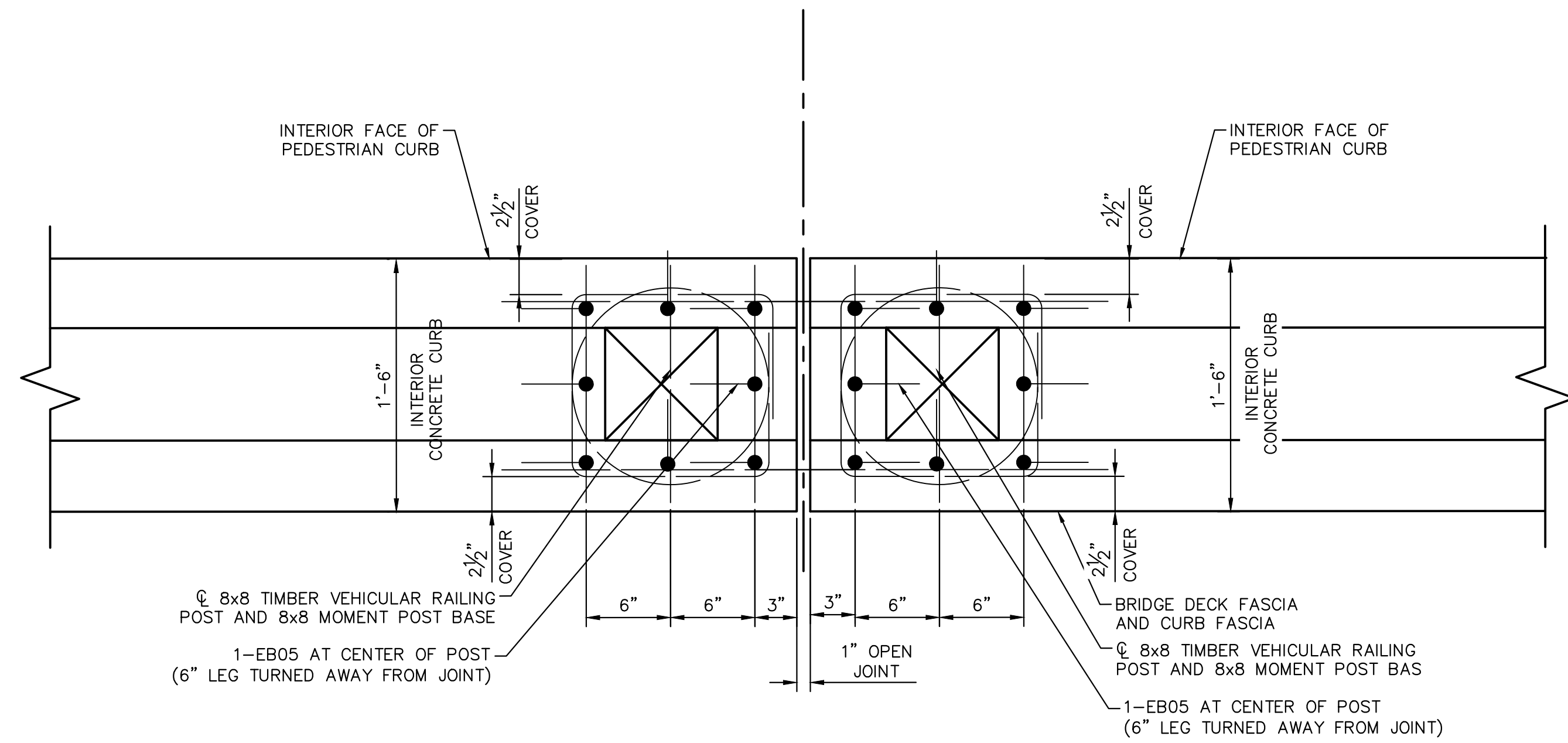
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DRAWING No. _____

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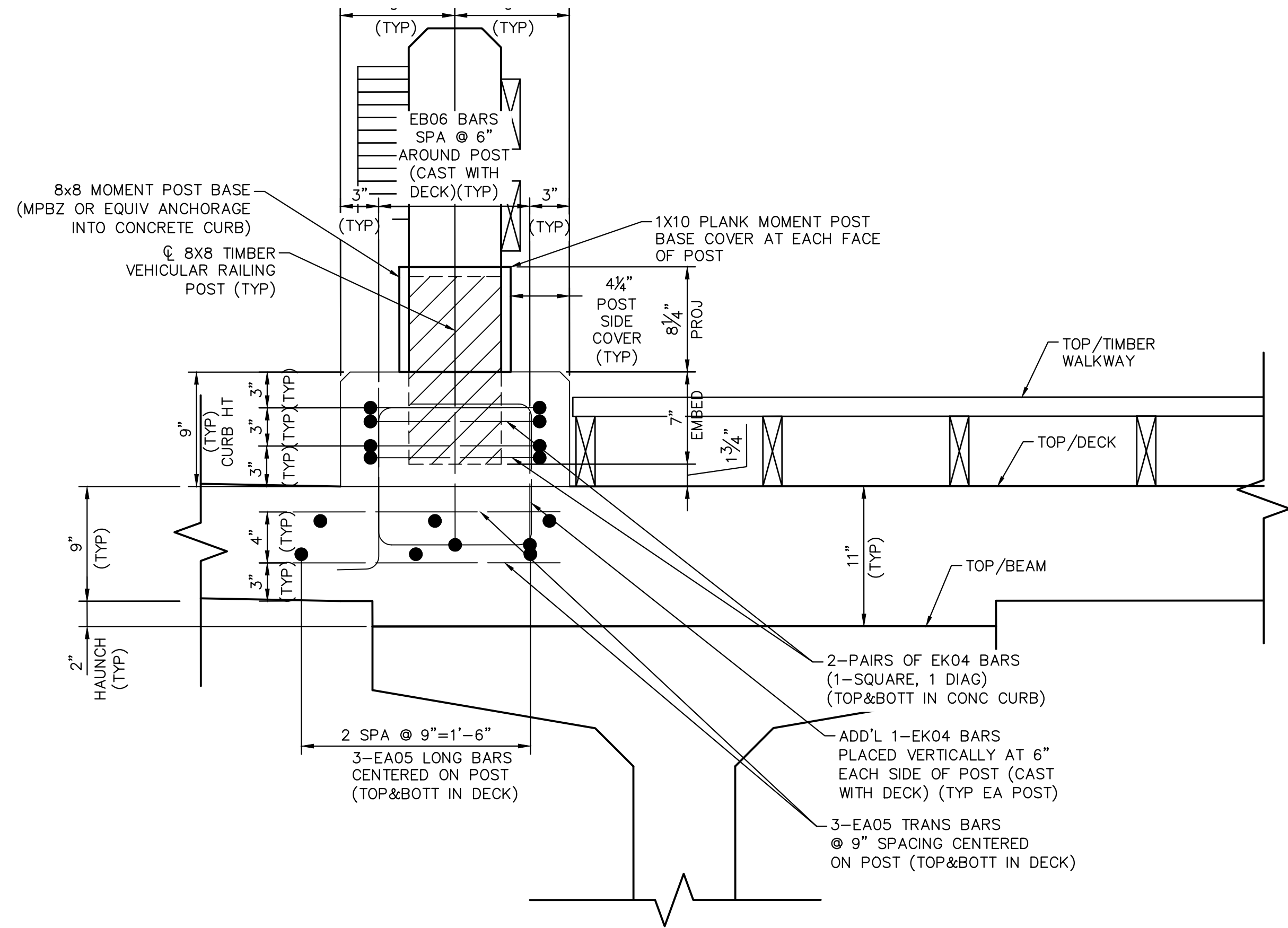


TYPICAL VEHICULAR RAILING POST REINFORCEMENT PLAN
(TYP 68 POSTS)



* EK04-SQ = BAR PLACED SQUARE TO THE POST
EK04-DIAG = BAR PLACED DIAGONALLY TO THE POST

TYPICAL VEHICULAR RAILING POST REINFORCEMENT PLAN AT OPEN JOINT



SECTION G-G
TYPICAL VEHICULAR RAILING CURB SECTION AT POST



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

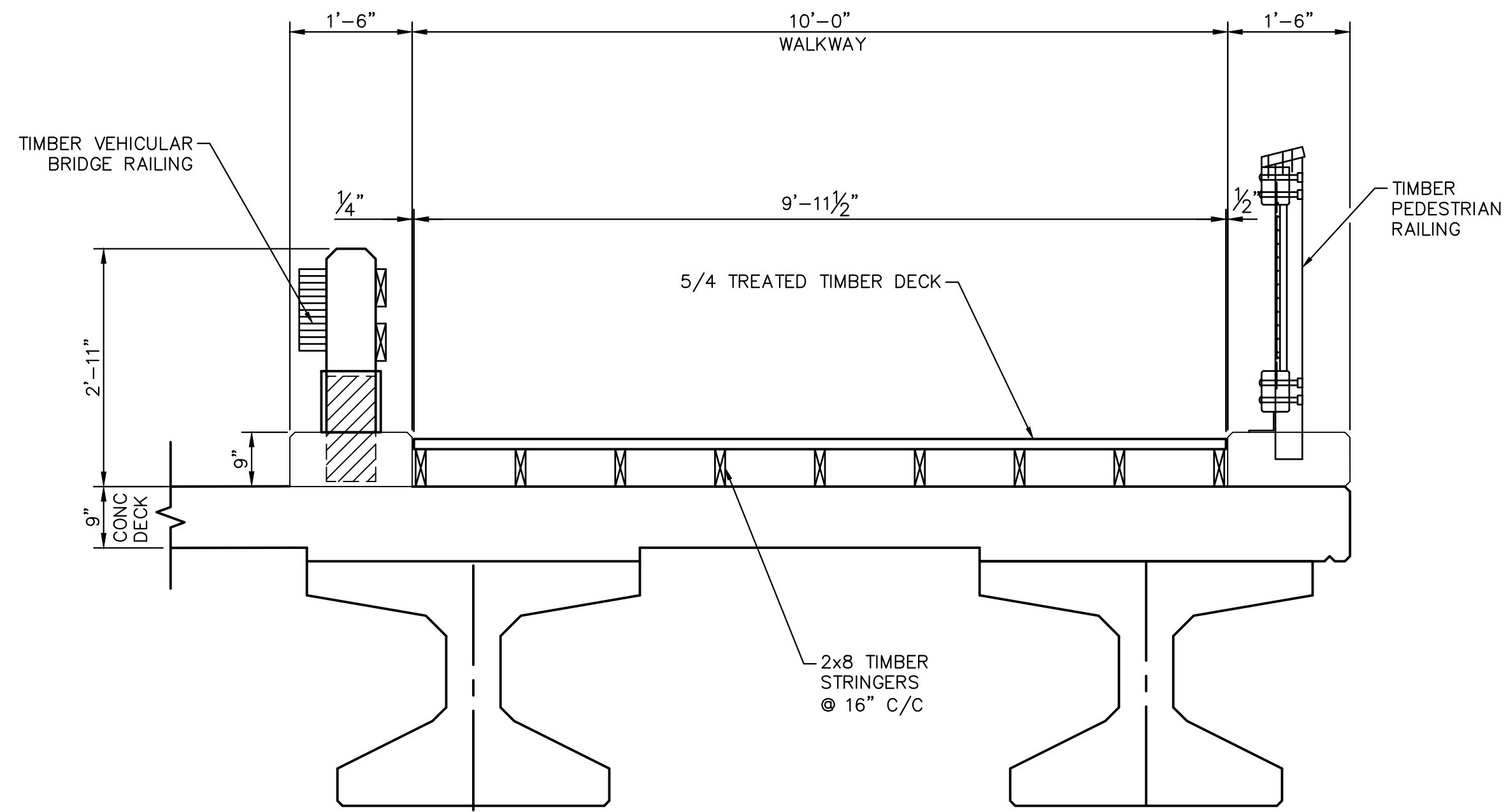
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SUPERSTRUCTURE DETAILS

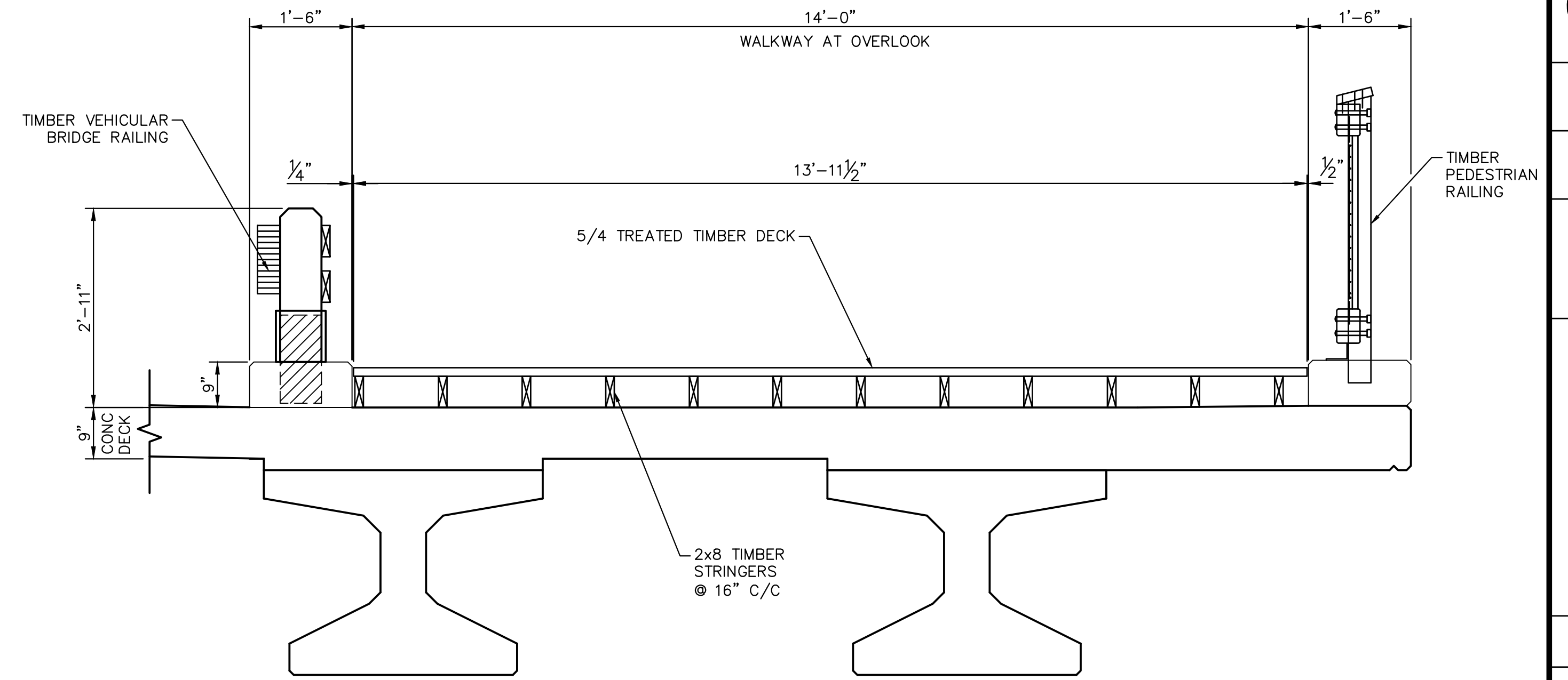
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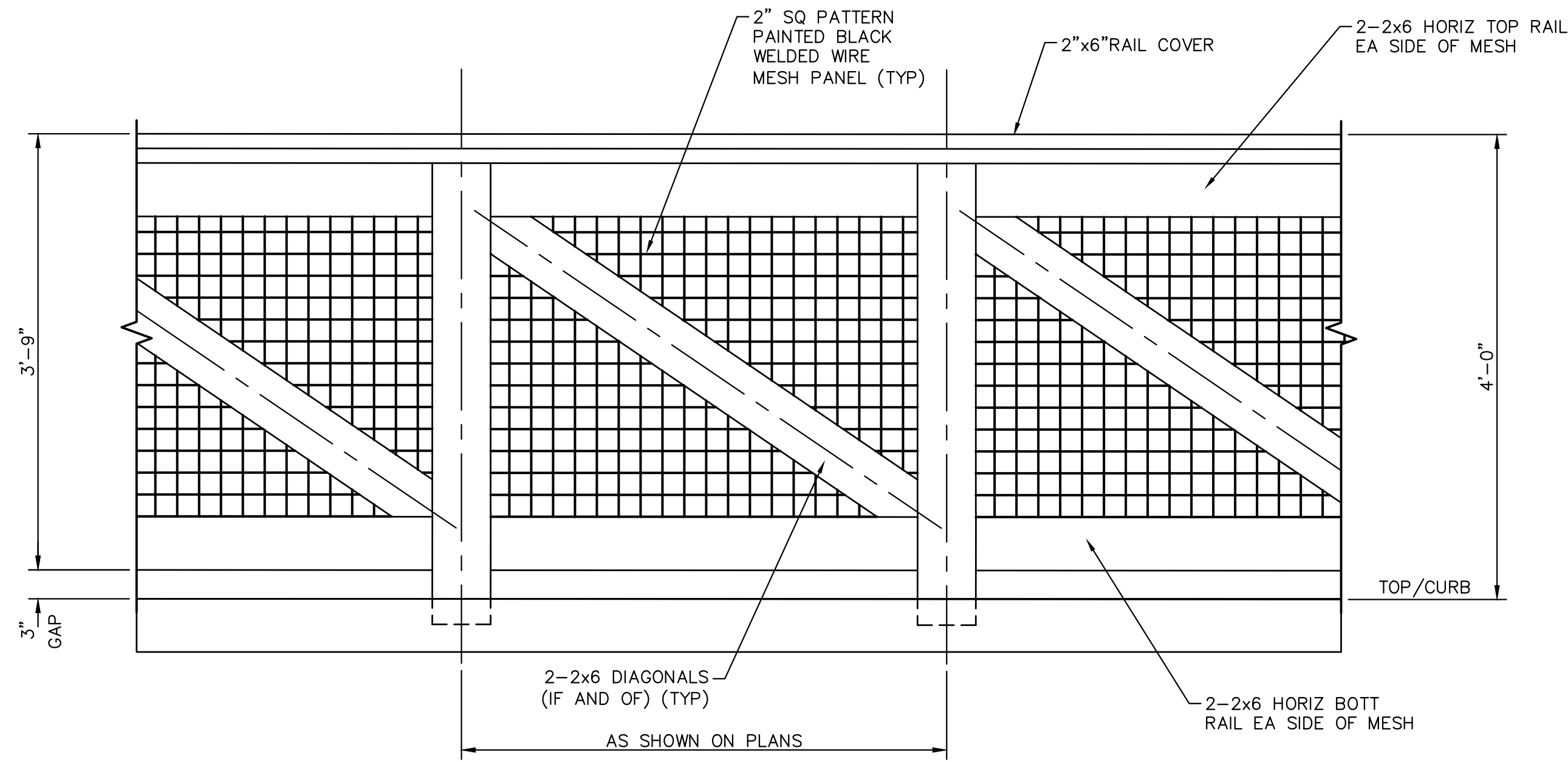
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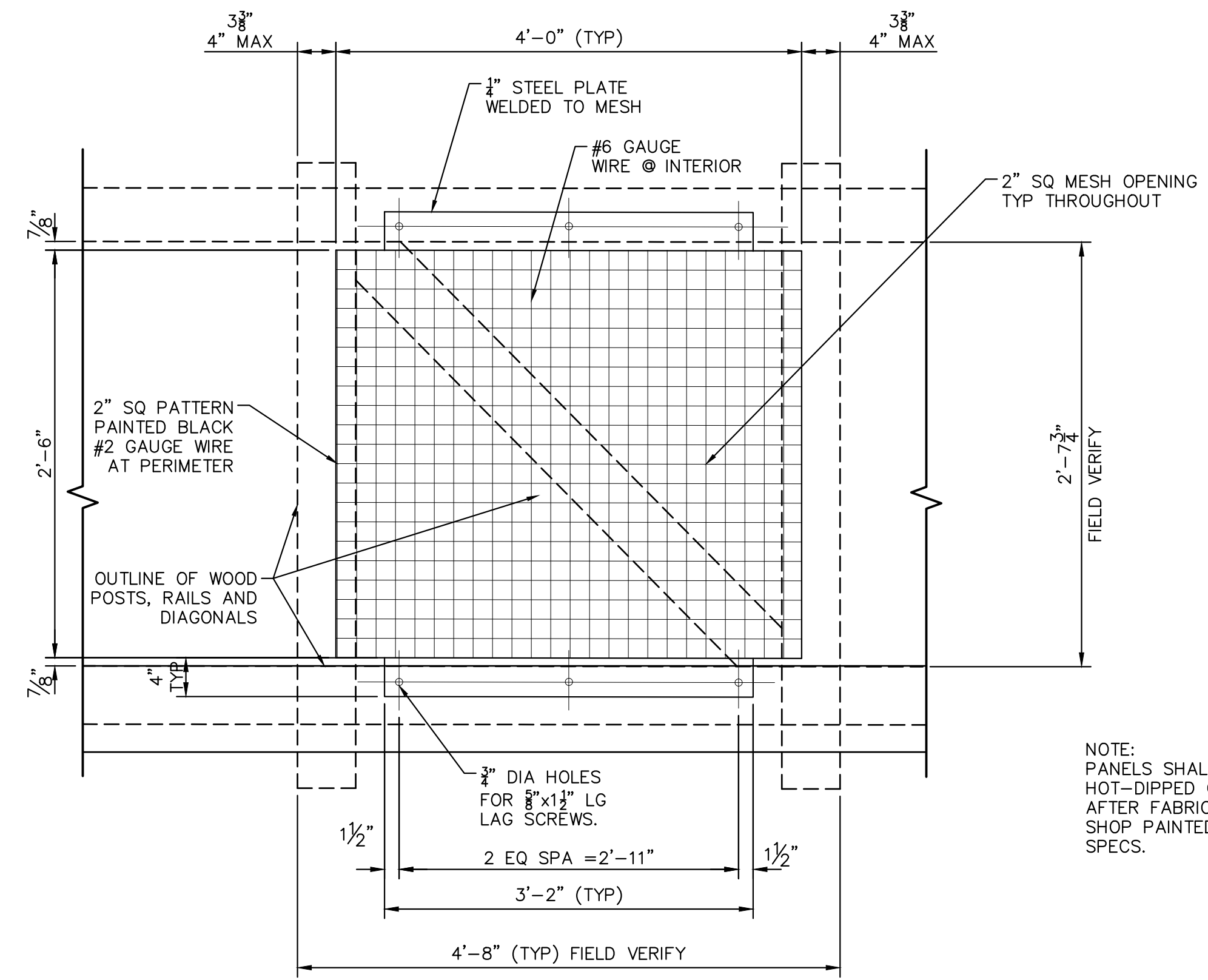
SIDEWALK DETAIL



OVERLOOK DETAIL



PARTIAL TIMBER PEDESTRIAN RAILING ELEVATION



WELDED WIRE MESH PANEL ELEVATION

NOTE:
PANELS SHALL BE
HOT-DIPPED GALVANIZED
AFTER FABRICATION AND
SHOP PAINTED BLACK. SEE
SPECS.



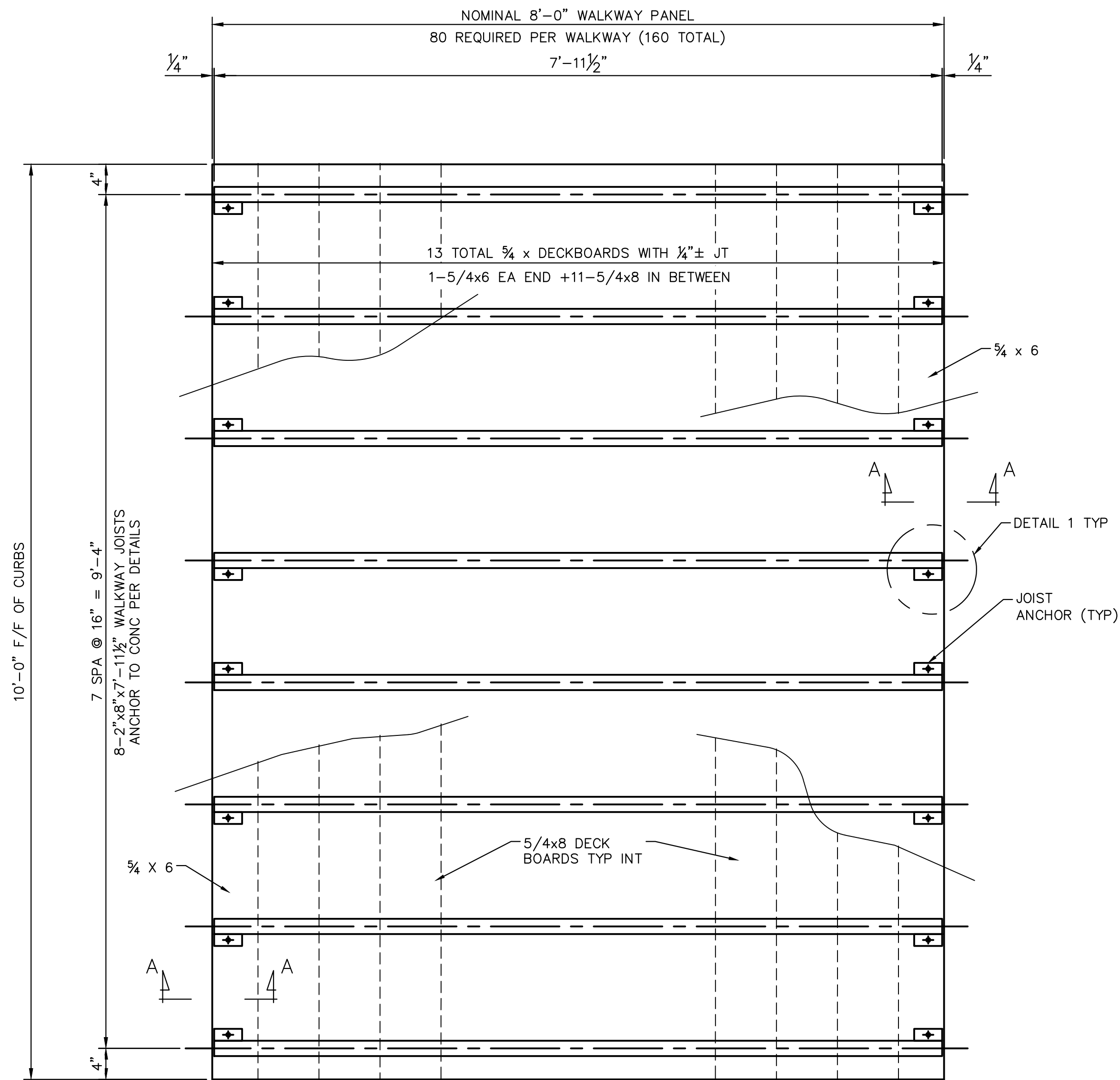
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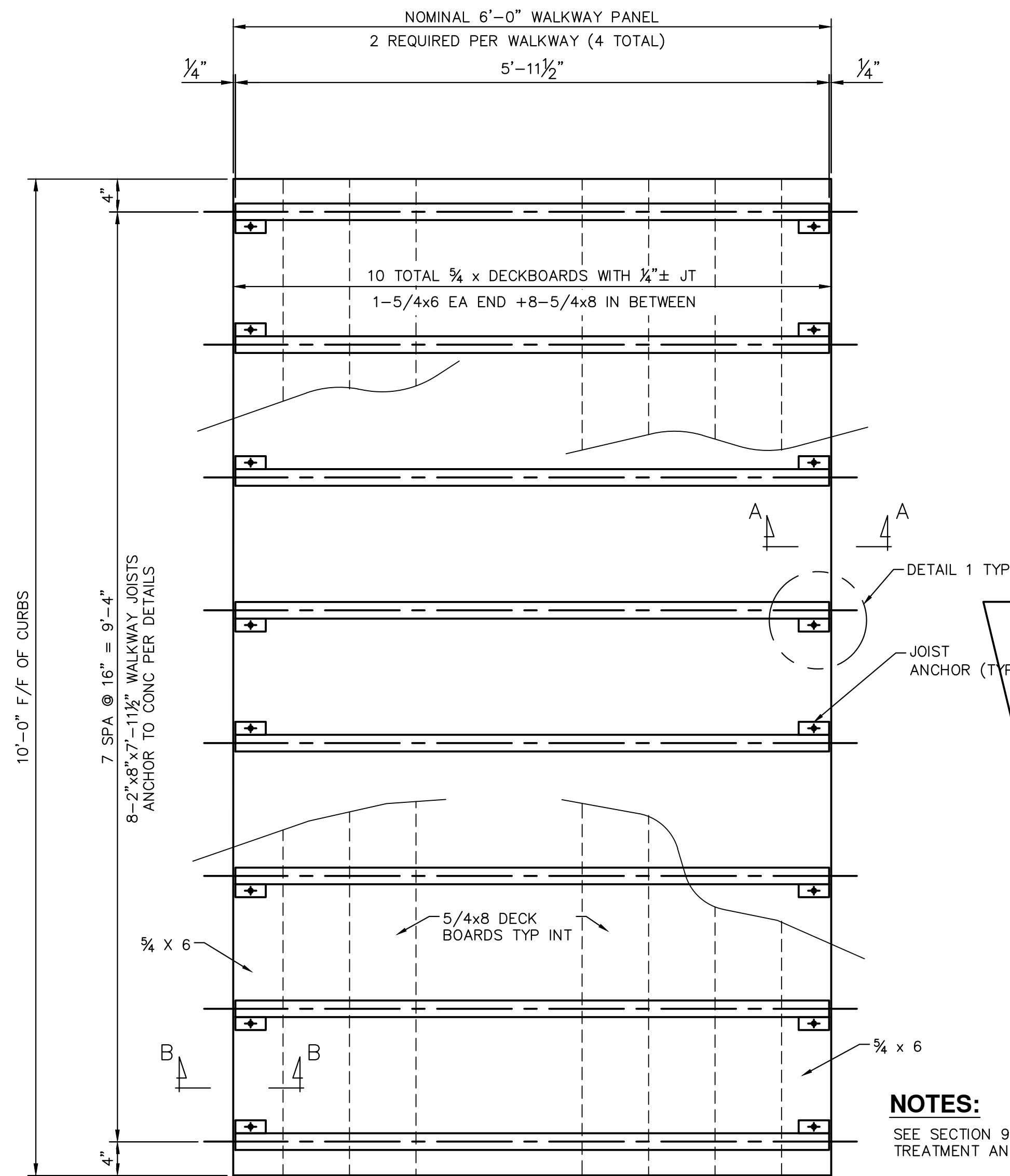
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DRAWING No.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

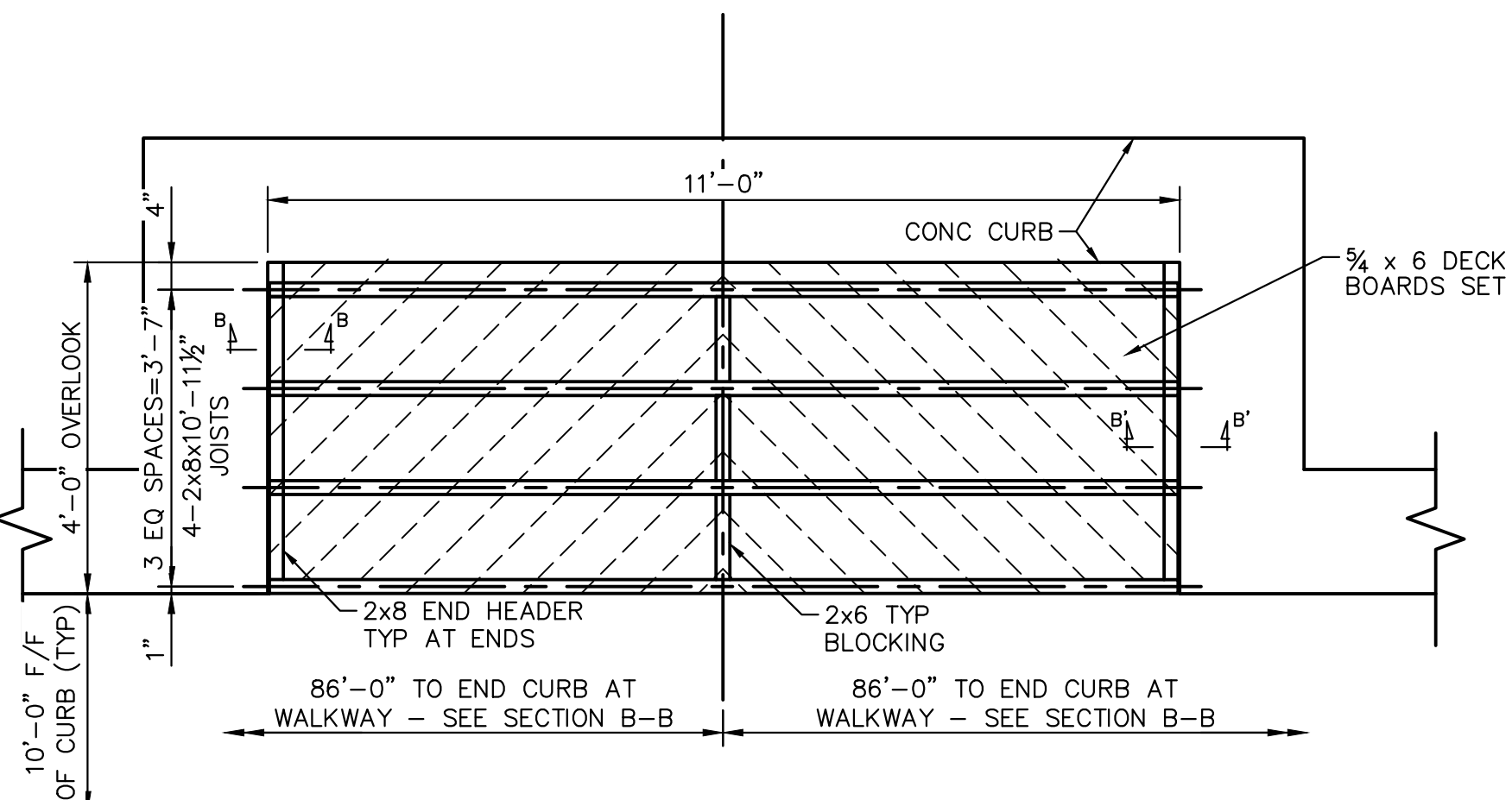
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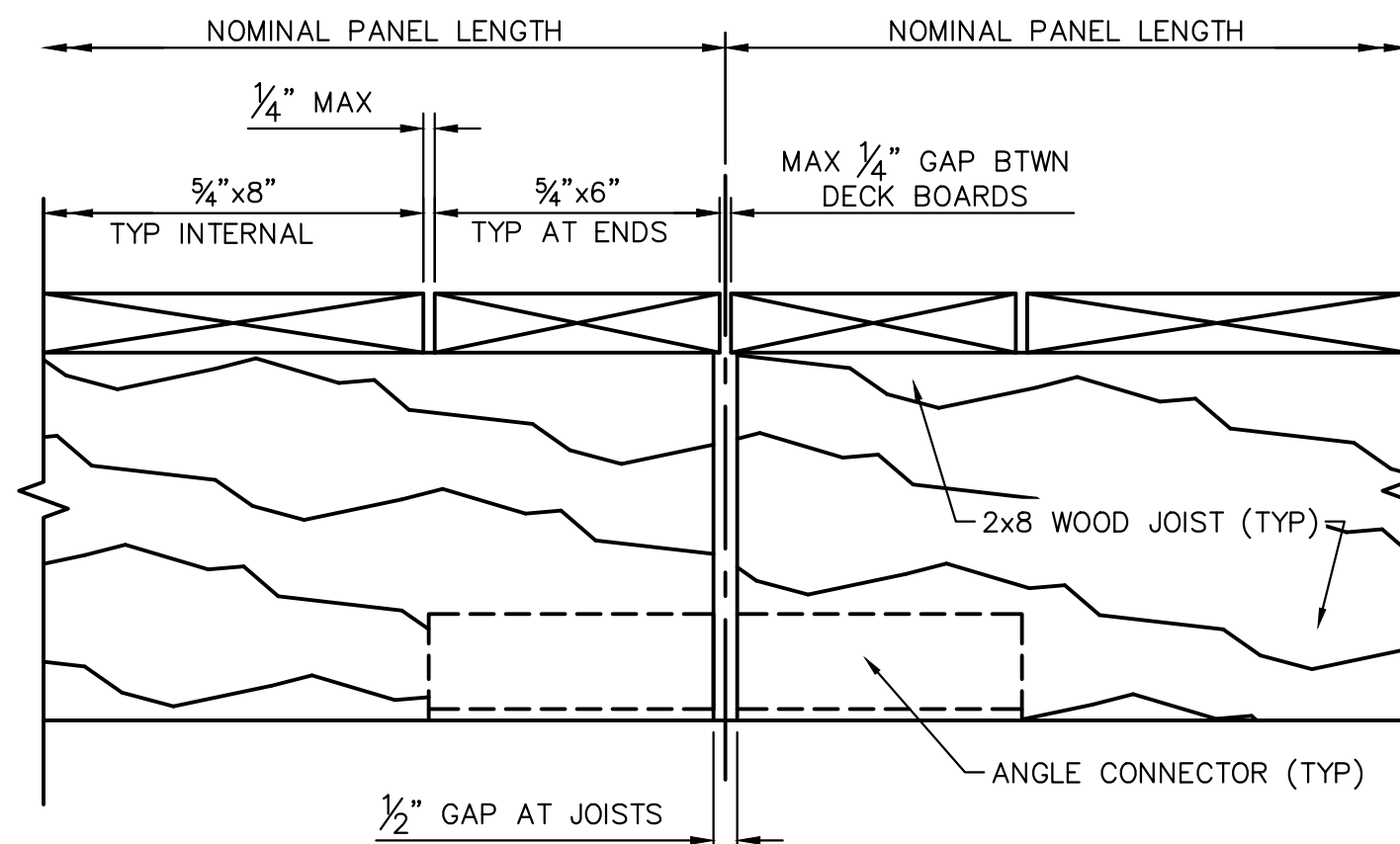
PLAN - TIMBER WALKWAY - 8 FT SEGMENT



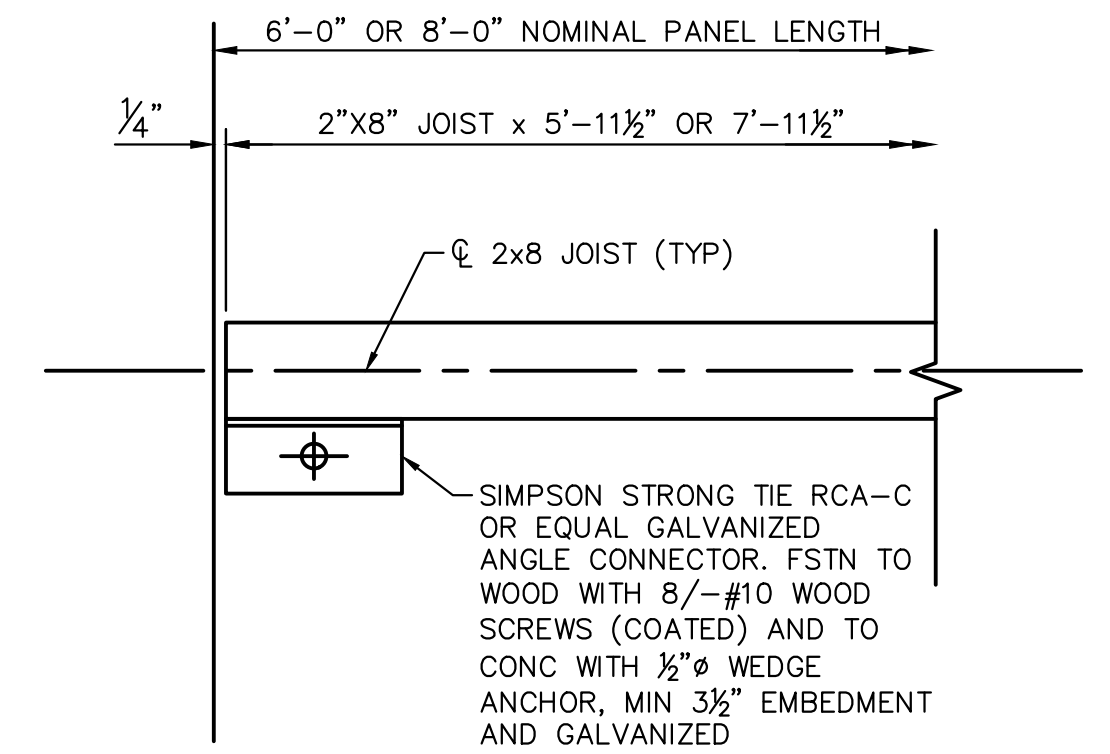
PLAN - TIMBER WALKWAY - 6 FT SEGMENT



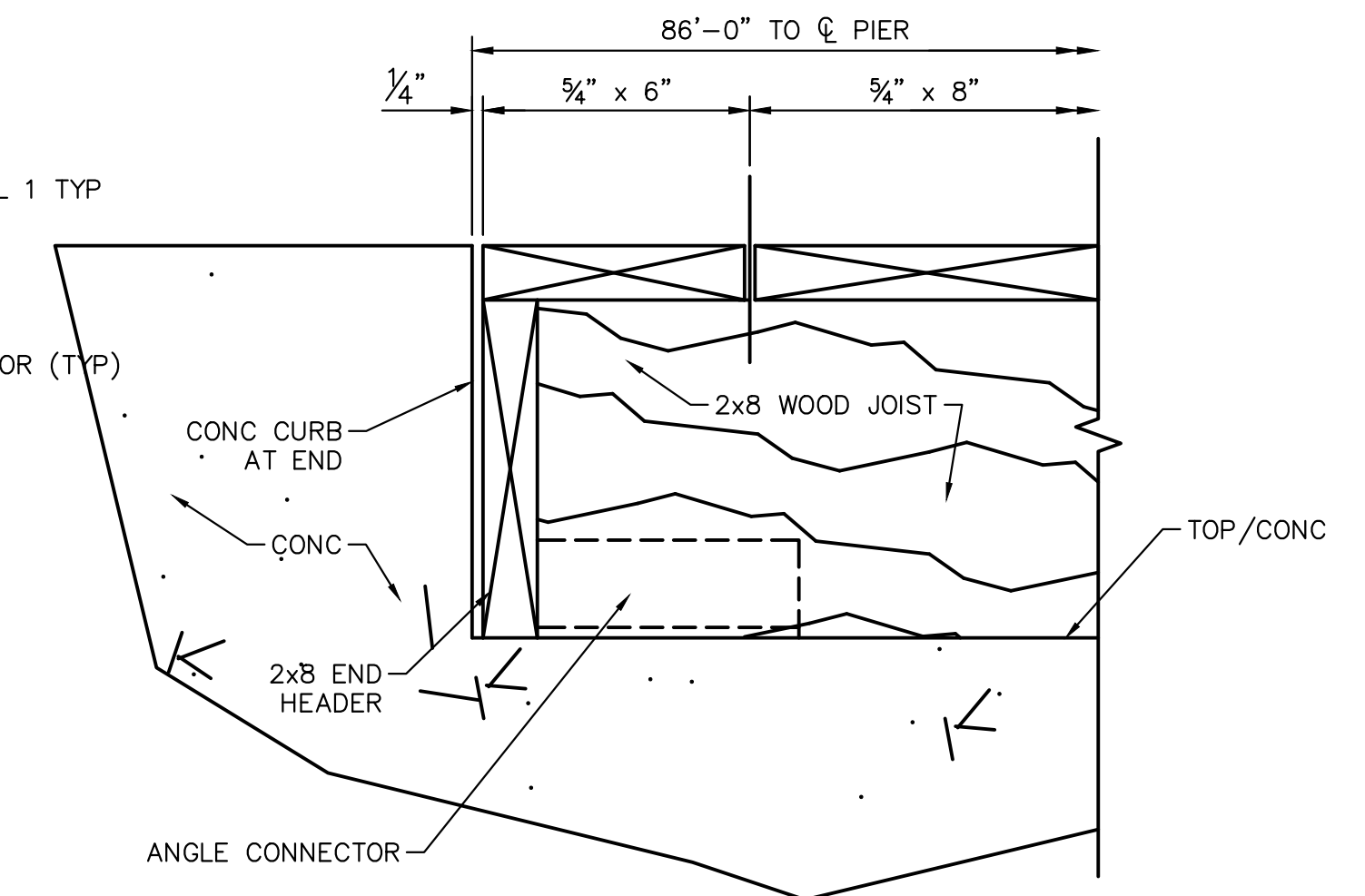
PLAN AT OVERLOOK



SECTION A-A




DETAIL 1



SECTION B-B SECTION B'-B' (OPP HAND)


NOTES:

- SEE SECTION 912 OF MDOT STANDARD SPECIFICATIONS FOR SPECIFICS ON WOOD SPECIES, PRESERVATIVE TREATMENT AND OTHER RELATED ITEMS.
- CONTRACTOR SHALL FIELD VERIFY AS-BUILT DIMENSION OF CONCRETE PRIOR TO TIMBER WALKWAY FABRICATION.
- ALL LUMBER FOR TIMBER WALKWAY AND HARDRAILS SHALL BE KILN DRIED SOUTHERN PINE DIMENSIONAL LUMBER. ALL MEMBERS SHALL BE DENSE SELECT STRUCTURAL WITH Fb (REP) = 2350 psi (MIN). 3/4" DECK PLANKS SHALL BE #1 OR BETTER WITH Fb (REP) = 1700 psi (MIN). ALL LUMBER SHALL BE PRESSURE TREATED PER SPECIFICATIONS AND IS COMPATIBLE WITH GALVANIZED FASTENERS.
- ALL STEEL FASTENERS SHALL BE HOT DIPPED GALVANIZED AS NOTED BELOW:
 - A. FASTENERS (BOLTS, NAILS, SCREWS) PER ASTM A153 (MIN 1.0 OZ/SFT)
 - B. JOIST ANCHORS PER ASTM A653, G 185 (MIN 0.9 OZ/SFT)
- ALL NAILS SHALL BE GALVANIZED SPIRAL SHANKED COATED NAILS FOR EXTERIOR USE.
- ALL SCREWS SHALL BE COATED FOR EXTERIOR USE.
- PREFABRICATED HANGERS/CONNECTORS (SIMPSON OR EQUAL) AND FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE GALVANIZED.
- ALL TOENAIL CONNECTIONS SHALL BE PRE-DRILLED TO PREVENT SPLITTING.
- PROVIDE 1/8" GAP MAX BETWEEN DECK PLANKS.
- DECKING SHALL BE FASTENED TO STRINGERS W/#12 x 3" GALVANIZED DECK SCREWS. USE THREE (3) DECK SCREWS AT PLANK ENDS AND TWO (2) SCREWS AT INTERIOR CONNECTIONS TO STRINGERS.
- ALL THRU-BOLTS SHALL HAVE GALVANIZED OVERSIZED WASHERS BEHIND BOLT HEADS AND NUTS.
- 1/2" LAG SCREWS SHALL BE MIN 5" LONG.
- TIMBER WALKWAY HAS BEEN DESIGNED FOR A PEDESTRIAN LIVE LOAD OF 90 PSF.
- WELDED WIRE PANELS MEETING THE REQUIREMENTS OF ASTM F-2453 SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM-123. THEY SHALL THEN BE BLACK PVC (VINYL) COATED.
- FIELD VERIFY THE CLEAR OPENINGS AT THE RAILINGS PRIOR TO FABRICATING THE WIRE PANELS. THE DISTANCE BETWEEN THE TIMBER MEMBERS AND THE PANEL EDGES SHALL NOT EXCEED 4 INCHES.
- DRILL PILOT HOLES IN THE TOP AND BOTTOM RAILS PRIOR TO INSTALLATION OF LAG SCREWS FOR WELDED WIRE PANELS.
- 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.
- 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.




Know what's below. Call before you dig.

ISSUED FOR BID	DATE	AS DRAWN	RRB CHECKED						
06-28-23									
DESCRIPTION									
REV.									

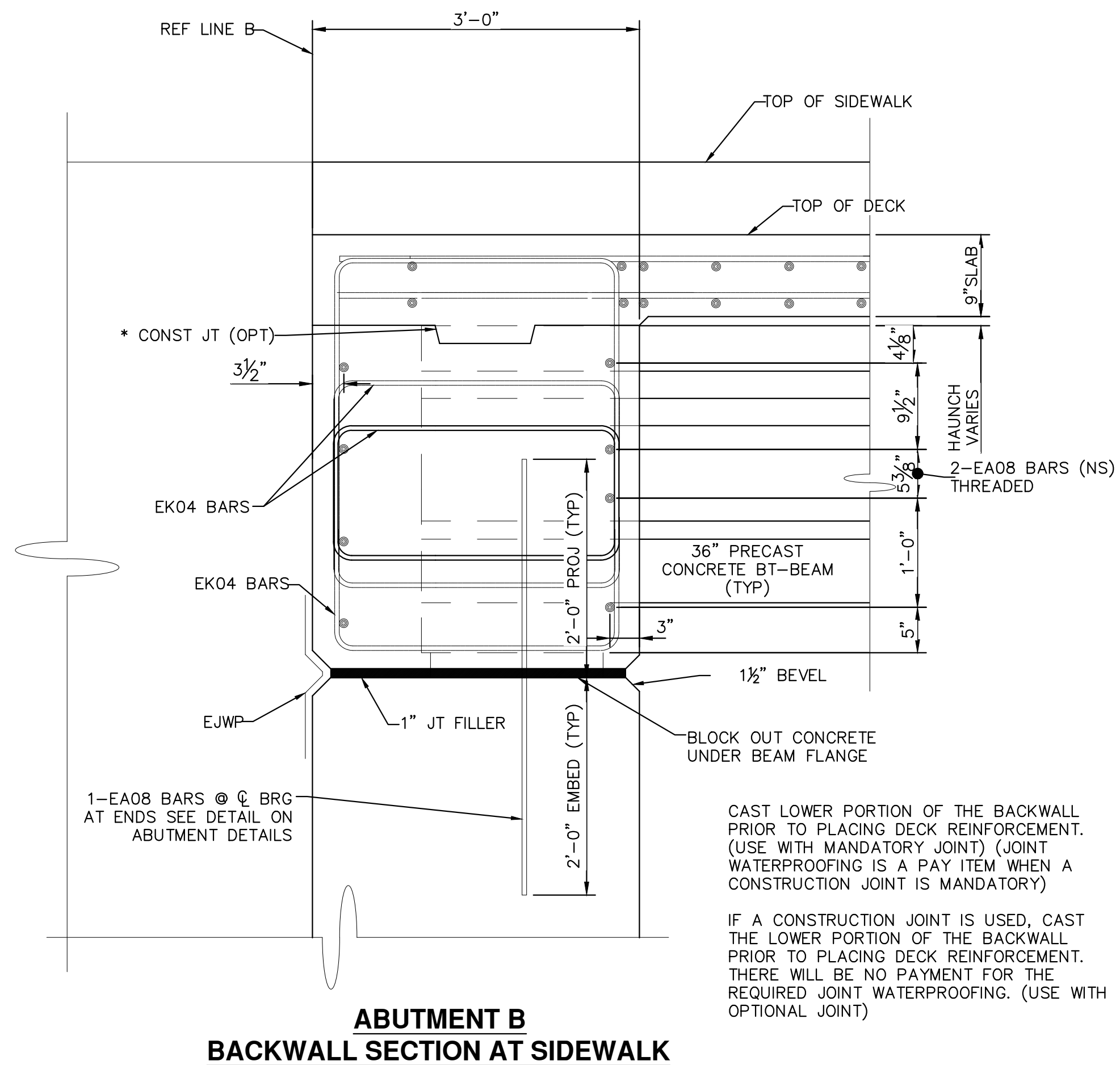
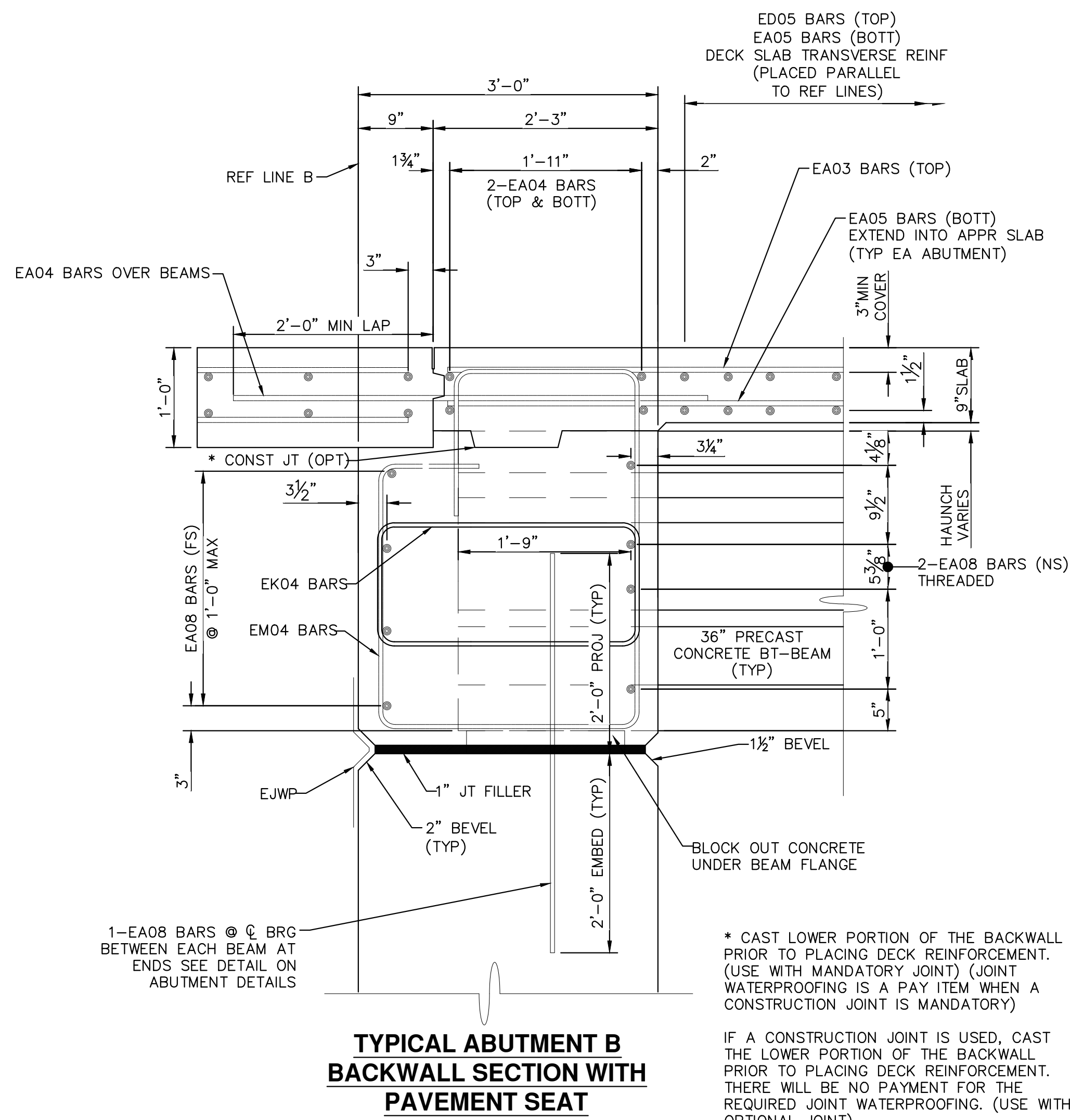
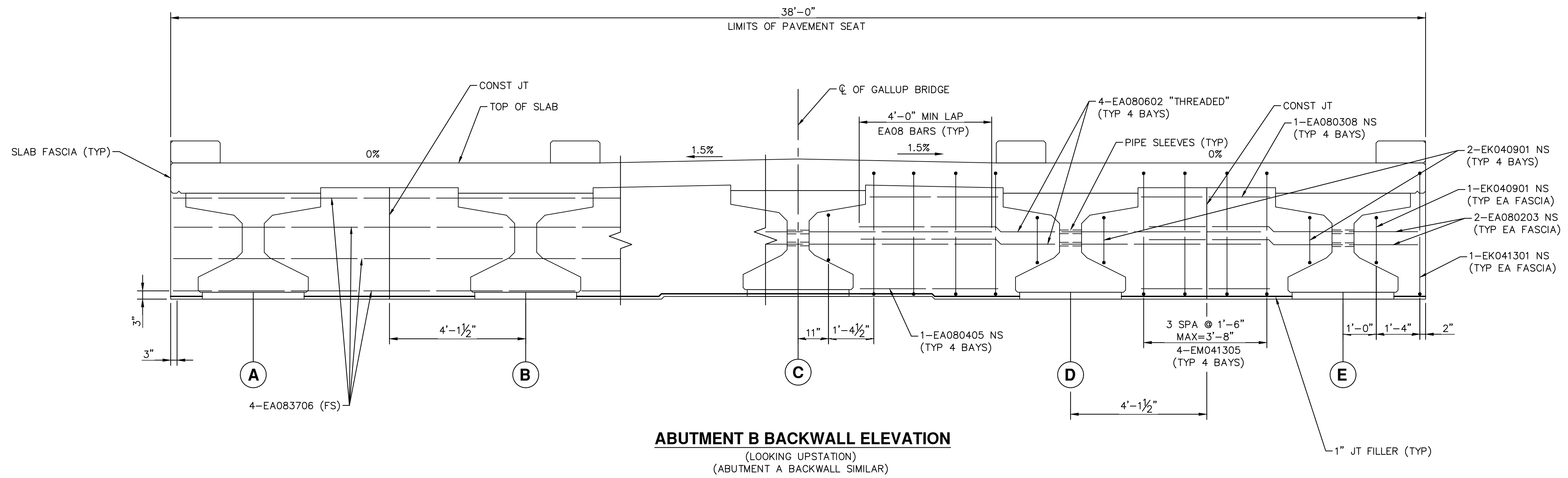


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DESIGN - BRIDGE REPLACEMENT PLANS
 SUPERSTRUCTURE DETAILS

SCALE 

DRAWING No. **51 OF 55**

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811
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06-28-23	ISSUED FOR BID	AS	RRB	

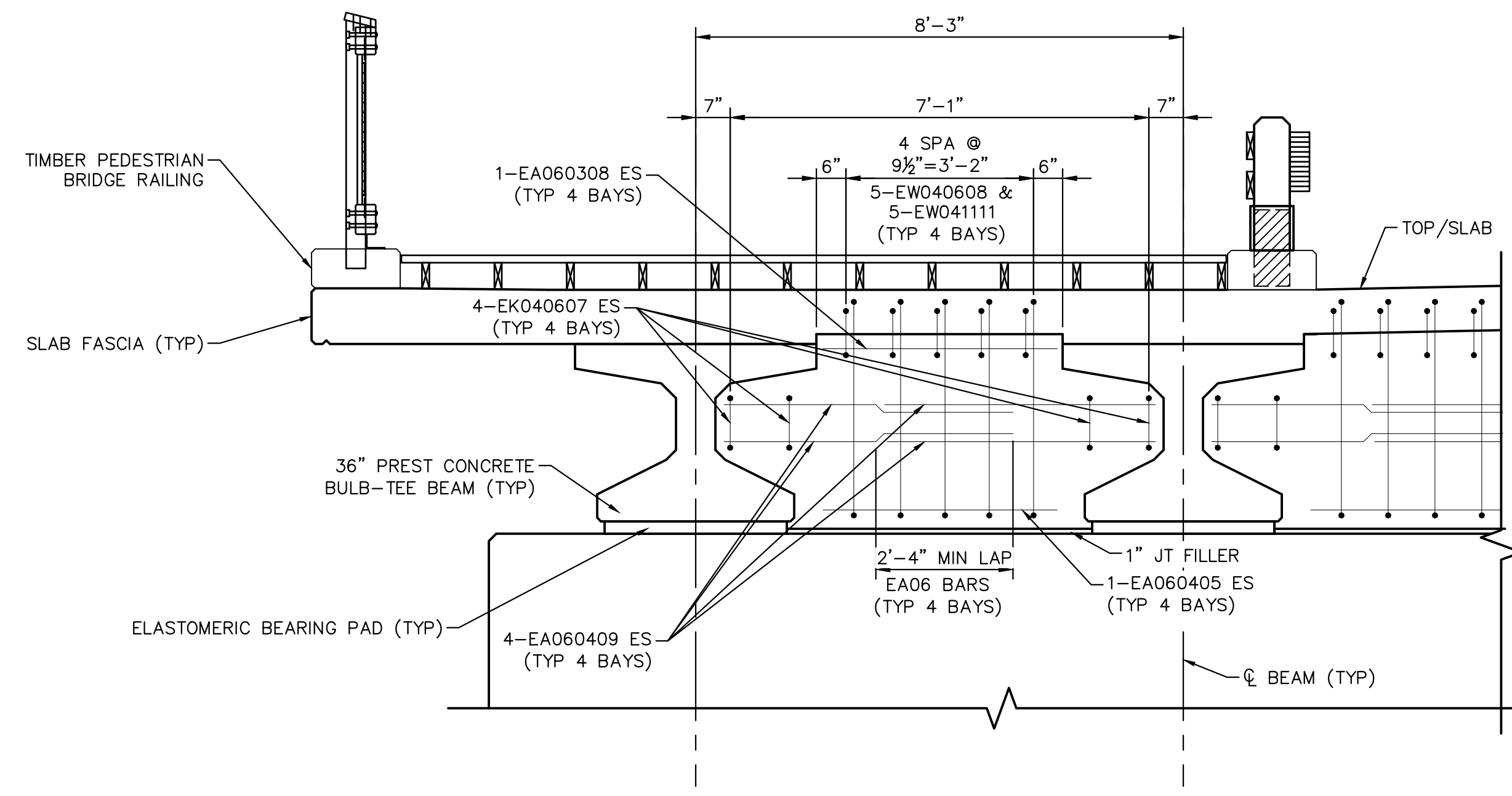
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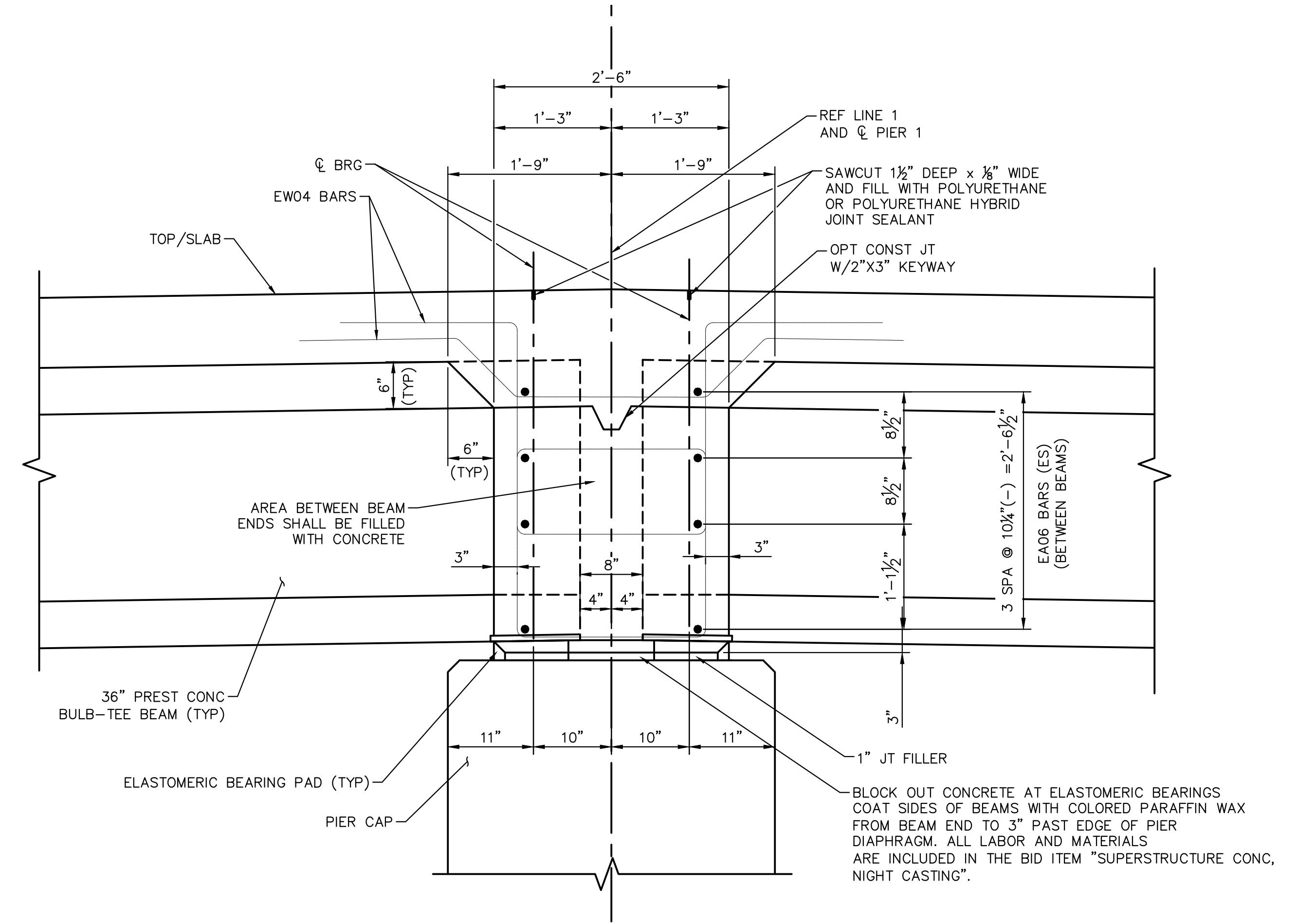
SHEET No.
52 OF 55

SCALE
DRAWING No.

C:\pw_work2\d1264804\SBID-PLTS-SuperDetails7-Gallup.dwg Dwg Created: 28-Jun-23 - _a2_standard bw.stb - Plot Date: 2-Aug-23



PIER DIAPHRAGM ELEVATION



PIER DIAPHRAGM SECTION



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

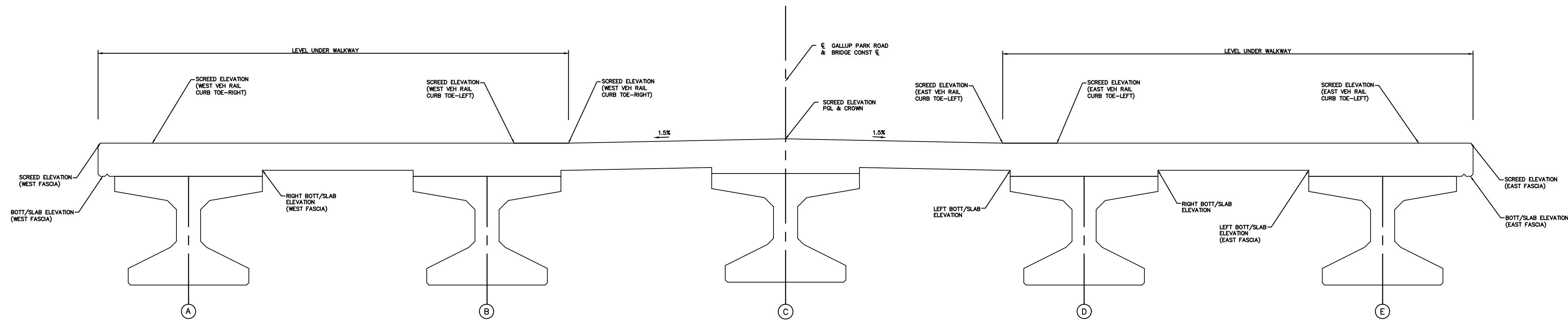
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 SUPERSTRUCTURE DETAILS

SCALE

DRAWING No.

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TYPICAL DECK SECTION
(LOOKING UPSTATION)

		EXP. JT DEVICE	WORK PT A	REF LINE A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	REF LINE B	WORK PT B	EXP. JT DEVICE																			
					CL BRG A																				CL BRG 1S	CL BRG 1N	CL BRG B																					
A	WEST FASCIA RIGHT	X	X	X	755.77	756.01	756.23	756.41	756.56	756.69	756.79	756.86	756.90	756.91	756.90	756.90	756.90	756.86	756.79	756.69	756.56	756.41	756.23	756.01	755.77																							
	LEFT				755.86	756.10	756.31	756.49	756.65	756.77	756.87	756.94	756.98	757.00	756.98	756.98	757.00	756.98	756.94	756.87	756.77	756.65	756.49	756.31	756.10	755.86																						
B	RIGHT	X	X	X	755.86	756.10	756.31	756.49	756.65	756.77	756.87	756.94	756.98	757.00	756.98	756.98	757.00	756.98	756.94	756.87	756.77	756.65	756.49	756.31	756.10	755.86																						
	LEFT				755.95	756.19	756.40	756.58	756.74	756.86	756.96	757.03	757.07	757.09	757.07	757.07	757.09	757.07	757.03	756.96	756.86	756.74	756.58	756.40	756.19	755.95																						
C	CENTER-PGL RIGHT	X	X	X	755.95	756.19	756.40	756.58	756.74	756.86	756.96	757.03	757.07	757.09	757.07	757.07	757.09	757.07	757.03	756.96	756.86	756.74	756.58	756.40	756.19	755.95																						
	LEFT				755.86	756.10	756.31	756.49	756.65	756.77	756.87	756.94	756.98	757.00	756.98	756.98	757.00	756.98	756.94	756.87	756.77	756.65	756.49	756.31	756.10	755.86																						
D	RIGHT	X	X	X	755.86	756.10	756.31	756.49	756.65	756.77	756.87	756.94	756.98	757.00	756.98	756.98	757.00	756.98	756.94	756.87	756.77	756.65	756.49	756.31	756.10	755.86																						
	LEFT				755.86	756.10	756.31	756.49	756.65	756.77	756.87	756.94	756.98	757.00	756.98	756.98	757.00	756.98	756.94	756.87	756.77	756.65	756.49	756.31	756.10	755.86																						
E	RIGHT	X	X	X	755.86	756.10	756.31	756.49	756.65	756.77	756.87	756.94	756.98	757.00	756.98	756.98	757.00	756.98	756.94	756.87	756.77	756.65	756.49	756.31	756.10	755.86																						
	LEFT				755.77	756.01	756.23	756.41	756.56	756.69	756.79	756.86	756.90	756.91	756.90	756.90	756.90	756.86	756.79	756.69	756.56	756.41	756.23	756.01	755.77																							
DISTANCE FROM C/L BRG A					0	6.97	13.93	20.90	27.87	34.83	41.80	48.77	55.73	62.70	69.67	71.33	78.30	85.27	92.23	99.20	106.17	113.13	120.10	127.07	134.03	141.00																						
DISTANCE FROM LAST POINT					0	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	1.67	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97																						

BOTTOM OF SLAB ELEVATIONS

		EXP. JT DEVICE	WORK PT A	REF LINE A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	REF LINE B	WORK PT B	EXP. JT DEVICE																			
					CL BRG A																				CL BRG 1S	CL BRG 1N	CL BRG B																					
WEST FASCIA	X	X	X	X	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																						
					WEST PED RAIL CURB TOE-RIGHT	756.02	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																				
WEST VEH RAIL CURB TOE-LEFT	X	X	X	X	756.02	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																					
					WEST VEH RAIL CURB TOE-RIGHT	756.02	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																				
GALLUP PARK ROAD PGL & CROWN	X	X	X	X	756.11	756.70	756.94	757.15	757.33	757.49	757.61	757.71	757.78	757.82	757.83	757.82	757.82	757.83	757.82	757.78	757.71	757.61	757.49	757.33	757.15	756.94	756.70																					
					EAST VEH RAIL CURB TOE-LEFT	756.02	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																				
EAST VEH RAIL CURB TOE-RIGHT	X	X	X	X	756.02	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																					
					EAST PED RAIL CURB TOE-LEFT	756.02	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																				
EAST FASCIA	X	X	X	X	756.61	756.85	757.06	757.24	757.40	757.52	757.62	757.69	757.73	757.74	757.73	757.73	757.74	757.73	757.69	757.62	757.52	757.40	757.24	757.06	756.85	756.61																						
DISTANCE FROM C/L BRG A					0	6.97	13.93	20.90	27.87	34.83	41.80	48.77	55.73	62.70	69.67	71.33	78.30	85.27	92.23	99.20	106.17	113.13	120.10	127.07	134.03	141.00																						
DISTANCE FROM LAST POINT					0	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	1.67	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97																						

SCREED ELEVATIONS

BEAM / LOCATION	WORK PT A - EXP JT @ SOUTH APPROACH	REF LINE A	REF LINE 1	REF LINE B	WORK PT B - EXP JT @ NORTH APPROACH
W Slab Fascia		756.56	757.73	756.56	
West Veh Rail-Curb Toe-RT		756.02	756.56	756.56	756.02
A		756.56	757.73	756.56	
B		756.56	757.73	756.56	
West Veh Rail-Curb Toe-LT		756.02	756.56	756.56	756.02
West Veh Rail-Curb Toe-RT		756.02	756.56	756.56	756.02
C - GALLUP PGL & CROWN		756.11	756.65	757.82	756.11
East Veh Rail-Curb Toe-LT		756.02	756.56	756.56	756.02
East Veh Rail-Curb Toe-RT		756.02	756.56	756.56	756.02
D		756.56	757.73	756.56	
E		756.56	757.73	756.56	
East Veh Rail-Curb Toe-LT		756.02	756.56	756.56	756.02
E Slab Fascia		756.56	757.73	756.56	

BULKHEAD ELEVATIONS

NOTES:

BOTTOM OF SLAB ELEVATIONS ARE RIGHT ANGLES TO THE BEAM CENTERLINE AND ARE BASED ON THE CONDITION THAT THE BEAMS AND DIAPHRAGMS ARE COMPLETELY ERRECTED WITH NO OTHER LOADS APPLIED. THESE ELEVATIONS INCLUDE ALLOWANCE FOR VERTICAL CURVE AND DEFLECTION DUE TO FORMS, STEEL REINFORCEMENT, CONCRETE SLAB, AND RAILINGS.

SCREED ELEVATIONS ARE BASED ON THE CONDITION THAT NO SLAB CONCRETE HAS BEEN CAST AND THAT FORMWORK AND STEEL REINFORCEMENT ARE IN PLACE.

SCREED RAILS FOR FINISHING OF STRUCTURAL CONCRETE SHALL BE LOCATED OVER FASCIA BEAMS.

ELEVATIONS FOR BOTTOM OF SLAB AND/OR SCREED ELEVATIONS ARE GIVEN ALONG BEAM CENTERLINES FROM CENTERLINE OF BEARING TO CENTERLINE OF BEARING AT EQUAL SPACINGS.



Know what's below. Call before you dig.

CITY OF ANN ARBOR
COMMUNITY SERVICES
PARKS AND RECREATION
301 E. GAY STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org/parks

CITY OF ANN ARBOR - COMMUNITY SERVICES - PARKS AND RECREATION
GALLUP PARK VEHICLE AND PEDESTRIAN BRIDGE
DESIGN - BRIDGE REPLACEMENT PLANS
SLAB AND SCREED DETAILS

SCALE
DRAWING No.
SHEET No.
54 OF 55

REV.	ISSUED FOR BID	DATE	AS	RRB	CHECKED
	06-28-23		AS	RRB	CHECKED

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BAR	DIMENSIONS														NO. REQD	TOTAL WT.
	a	b	c	d	e	f	g	h	j	k	m	n	p			
ABUTMENT A	EA063708	37'-8"													16	906
	EA080400	4'-0"													18	193
	EA083708	37'-8"													8	805
	EF061906	2'-6"	7'-10"	8"	7'-10"	0	8"	8"	8"	0					10	293
	EK062302	2'-6"	5'-2"	5'-2"	7'-10"										37	1288
TOTAL															3485	
ABUTMENT B	EA063708	37'-8"													16	906
	EA080400	4'-0"													18	193
	EA083708	37'-8"													8	805
	EF061906	2'-6"	7'-10"	8"	7'-10"	0	8"	8"	8"	0					10	293
	EK062302	2'-6"	5'-2"	5'-2"	7'-10"										37	1288
TOTAL															3485	
PIER CAP	EA063708	37'-8"													6	340
	EA083708	37'-8"													8	805
	EF041004	3'-0"	3'-0"	8"	3'-0"	0	8"	8"	8"	0					28	194
	EK041406	3'-0"	2'-9"	2'-9"	3'-0"										36	349
TOTAL															1688	
PILE	EA112300	23'-0"													28	3422
	EV040405	2'-11"	9"	5"	6"	3"									315	930
TOTAL															4352	
SOUTHWEST RETURN WALL	EA050600	6'-0"													26	163
	EA051408	14'-8"													8	123
	EA061707	17'-7"													26	687
	EA081707	17'-7"													10	470
	ED061404	6'-8"	1'-0"	6'-8"											20	431
	EF061906	2'-6"	7'-10"	8"	7'-10"	0	8"	8"	8"	0					3	88
	EK062302	2'-6"	5'-2"	5'-2"	7'-10"										18	627
TOTAL															2589	
SOUTHEAST RETURN WALL	EA050600	6'-0"													26	163
	EA051408	14'-8"													8	123
	EA061707	17'-7"													26	687
	EA081707	17'-7"													10	470
	ED061404	6'-8"	1'-0"	6'-8"											20	431
	EF061906	2'-6"	7'-10"	8"	7'-10"	0	8"	8"	8"	0					3	88
	EK062302	2'-6"	5'-2"	5'-2"	7'-10"										18	627
TOTAL															2589	
NORTHEAST RETURN WALL	EA050600	6'-0"													26	163
	EA051408	14'-8"													8	123
	EA061707	17'-7"													26	687
	EA081707	17'-7"													10	470
	ED061404	6'-8"	1'-0"	6'-8"											20	431
	EF061906	2'-6"	7'-10"	8"	7'-10"	0	8"	8"	8"	0					3	88
	EK062302	2'-6"	5'-2"	5'-2"	7'-10"										18	627
TOTAL															2589	
NORTHWEST RETURN WALL	EA050600	6'-0"													26	163
	EA051408	14'-8"													8	123
	EA061707	17'-7"													26	687
	EA081707	17'-7"													10	470
	ED061404	6'-8"	1'-0"	6'-8"											20	431
	EF061906	2'-6"	7'-10"	8"	7'-10"	0	8"	8"	8"	0					3	88
	EK062302	2'-6"	5'-2"	5'-2"	7'-10"										18	627
TOTAL															2589	
SOUTHWEST RETAINING WALL	EA041104	11'-4"													16	122
	EA050208	2'-8"													24	67
	EA050506	5'-6"													18	104
	EA051010	10'-10"													8	91
	EB040400	3'-8"	4"												24	65
ED040700	2'-8"	1'-8"	2'-8"											24	113	
TOTAL															562	
NORTHWEST RETAINING WALL	EA041604	16'-4"													16	175
	EA050208	2'-8"													24	67
	EA050506	5'-6"													18	104
	EA051010	10'-10"													8	91
	EB040400	3'-8"	4"												24	65
	ED040700	2'-8"	1'-8"	2'-8"											24	113
	TOTAL															772
PILLAR	EA080609	6'-9"													80	1442
	EK030410	1'-2"	9"	9"	1'-0"										150	273
TOTAL															1715	

BAR	DIMENSIONS														NO. REQD	TOTAL WT.
	a	b	c	d	e	f	g	h	j	k	m	n	p			
NORTH BACKWALL	EA080203	2'-3"													4	25
	EA080308	3'-8"													4	40
	EA080405	4'-5"													4	48
	EA080602	6'-2"													16	264
	EA083706	37'-6"													4	401
	EK040901	1'-2 3/4"	2'-0"	2'-0"	2'-7 3/8"										10	61
	EK041301	3'-7 1/8"	2'-0"	2'-0"	2'-7 3/8"										2	18
	EM041305	2'-9"	2'-7 3/8"	3'-8 1/2"	1'-10"	1'-0"	1'-6"								16	144
	TOTAL															1001
	SOUTH BACKWALL	EA080203	2'-3"													4
EA080308		3'-8"													4	40
EA080405		4'-5"													4	48
EA080602		6'-2"													16	264
EA083706		37'-6"													4	401
EK040901		1'-2 3/4"	2'-0"	2'-0"	2'-7 3/8"										10	61
EK041301		3'-7 1/8"	2'-0"	2'-0"	2'-7 3/8"										2	18
EM041305		2'-9"	2'-7 3/8"	3'-8 1/2"	1'-10"	1'-0"	1'-6"								16	144
TOTAL															1001	
PIER DIAPHRAGM BACKWALL		EA060308	3'-8"													8
	EA060405	4'-5"													8	54
	EA060409	4'-9"													32	229
	EK040607	9 1/2"	1'-6"	1'-6"	2'-0"										32	141
	EW040608	1'-7"	0'-0"	#REF!	0'-0"	1'-7"	0'-0"	7"	7"	5"					20	90
	EW041111	1'-6 1/2"	0'-0"	2'-0"	0'-0"	1'-6 1/2"	0'-0"	3'-5"	3'-5"	3'-5"					20	160
TOTAL															719	
DECK SLAB	EA031306	13'-6"													12	61
	EA034803	48'-3"													153	2776
	EA040409	4'-9"													114	362
	EA043706	37'-6"													8	201
	EA051306	13'-6"													12	169
	EA054809	48'-9"													156	7933
	EA060306	3'-6"													38	200
	EA063600	36'-0"													94	5083
	EA063706	37'-6"													185	10421
	ED060404	3'-4"	6"	6"											370	2409
	ED060406	3'-6"	6"	6"											38	257
	ED060910	8'-10"	6"	6"											20	296
	ED063802	36'-2"	1'-0"	1'-0"											185	10606
TOTAL															40774	
SOUTH APPROACH	EA040906	9'-6"													4	26
	EA041003	10'-3"													154	1055
	EA043406	34'-6"													48	1107
	EK040404	1'-3"	8"	8"	6"										32	93
TOTAL															2281	
NORTH APPROACH	EA040906	9'-6"													4	26
	EA041003	10'-3"													154	1055
	EA043406	34'-6"													48	1107
	EK040404	1'-3"	8"	8"	6"										32	93
TOTAL															2281	
SOUTH SLEEPER	EA040406	4'-6"													72	217
	EA041100	11'-0"													6	45
	EA043406	34'-6"													20	461
	ED040511	2'-2 1/2"	1'-6"	2'-2 1/2"											36	143
	ED040402	1'-4"	1'-6"	1'-4"											53	148
	TOTAL															1014
NORTH SLEEPER	EA040406	4'-6"													72	217
	EA041100	11'-0"													6	45
	EA043406	34'-6"													20	461
	ED040511	2'-2 1/2"	1'-6"	2'-2 1/2"											36	143
	ED040402	1'-4"	1'-6"	1'-4"											53	148
	TOTAL															1014
Pedestrian Curb Railing	EA040500	5'-0"													8	27
	EA040606	6'-6"													8	35
	EA043401	34'-1"													16	365
	EA050200	2'-0"													720	1502
	EB050109	1'-3"	6"					</								