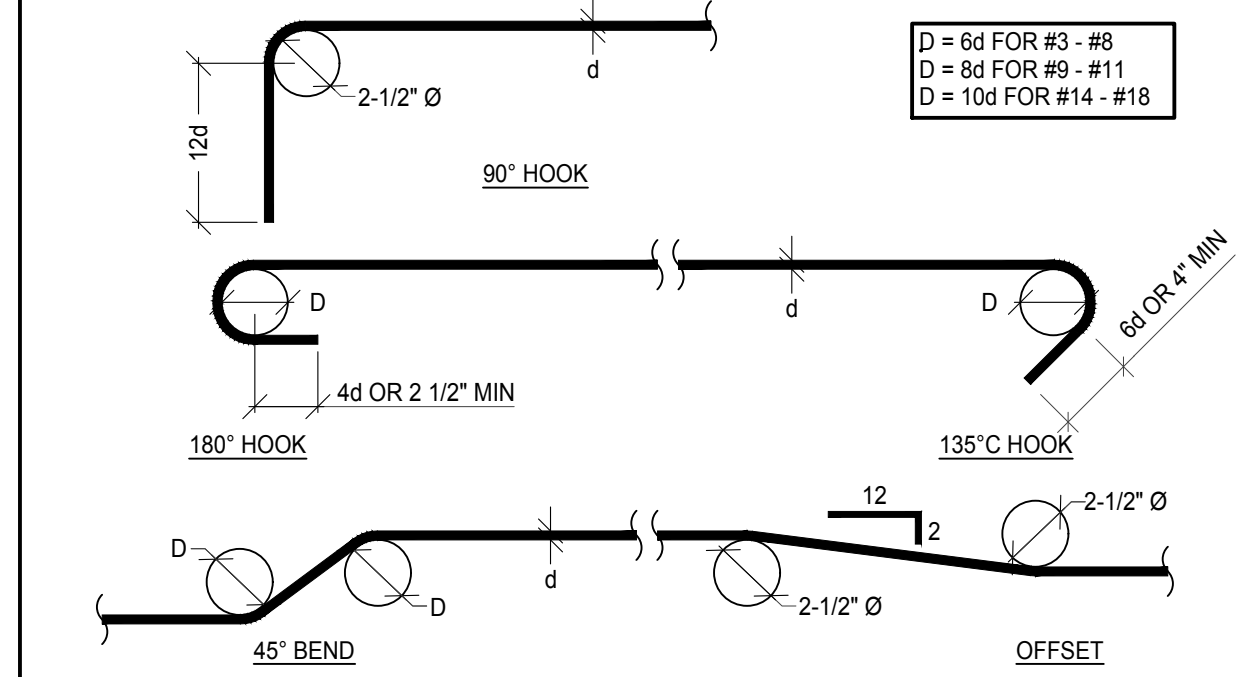


SPECIAL INSPECTION REQUIREMENTS

- SOILS
CONCRETE
SEE SPECIFIC DISCIPLINE DRAWINGS FOR ADDITIONAL DESIGNATED SEISMIC SYSTEMS REQUIRING SPECIAL INSPECTION WHICH ARE NOT CONTAINED IN THE STRUCTURAL DRAWINGS.
- SPECIAL INSPECTION AND TESTING AS REQUIRED BY THE IBC SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER UNLESS WAIVED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE REQUIRED INSPECTIONS/TESTS AS INDICATED BELOW, REFERRING TO THE IBC SECTION INDICATED AS APPROPRIATE.
- SPECIAL INSPECTION REPORTS FROM THE INSPECTOR SHALL BE SENT TO THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL.
 - BRING ANY DISCREPANCIES TO THE CONTRACTOR'S IMMEDIATE ATTENTION.
 - NOTIFY THE ENGINEER OF ANY NON-PASSING WORK THAT THE CONTRACTOR CANNOT READILY CORRECT.
 - ANY UNCORRECTED DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL PRIOR TO COMPLETION OF THAT PHASE OF THE WORK.
 - A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTIONS OF ANY DISCREPANCIES SHALL BE PROVIDED.
- SPECIAL INSPECTORS
 - SPECIAL INSPECTORS SHALL BE QUALIFIED PERSONS WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

BAR SIZE	CONCRETE REINFORCING BAR LAP SPLICE SCHEDULE															
	FC = 3000 PSI				FC = 4000 PSI				FC = 5000 PSI				FC = 6000 PSI			
	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP
#3	17"	22"	22"	28"	15"	19"	19"	24"	13"	17"	17"	22"	12"	16"	16"	20"
#4	22"	29"	29"	38"	19"	25"	25"	33"	17"	22"	22"	29"	16"	21"	21"	27"
#5	28"	36"	36"	47"	24"	31"	31"	41"	22"	28"	28"	36"	20"	26"	26"	33"
#6	33"	43"	43"	56"	29"	37"	37"	49"	26"	34"	34"	43"	24"	31"	31"	40"
#7	49"	63"	63"	81"	42"	54"	54"	70"	37"	48"	48"	63"	35"	45"	45"	58"
#8	55"	72"	72"	93"	47"	62"	62"	80"	42"	55"	55"	71"	39"	51"	51"	66"
#9	62"	81"	81"	105"	53"	69"	69"	90"	48"	62"	62"	81"	44"	58"	58"	75"
#10	70"	91"	91"	118"	60"	78"	78"	101"	54"	70"	70"	91"	50"	65"	65"	84"
#11	78"	101"	101"	131"	67"	87"	87"	112"	60"	77"	77"	100"	55"	72"	72"	93"

- NOTES:
- THESE NOTES SHALL BE USED FOR ALL SPLICES, UNLESS NOTED OTHERWISE.
 - TOP BARS ARE CLASSIFIED AS HORIZONTAL BARS WHERE 12" OR MORE OF FRESH CONCRETE IS CAST BELOW THE REINFORCING BAR.
 - CLASS 'B' SPLICES SHALL BE USED FOR ALL SPLICES UNLESS NOTED OTHERWISE.
 - TIES AND STIRRUPS SHALL NOT BE SPLICED.
 - FOR ALL LIGHTWEIGHT CONCRETE, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3.
 - FOR ALL EPOXY COATED BARS, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3 FOR TOP BARS AND 1.5 FOR REGULAR BARS.



TYPE	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA
	CONTINUOUS	PERIODIC	
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	X	1908.4
2. REINFORCING BAR WELDING: <ul style="list-style-type: none"> a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 b. INSPECT SINGLE PASS FILLET WELDS, MAXIMUM 5/16" c. INSPECT ALL OTHER WELDS 	X	-	AWS D1.4, ACI 318: 26.6.4
3. INSPECT ALL ANCHORS CAST IN CONCRETE	-	X	ACI 318: 817.8.2
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS <ul style="list-style-type: none"> a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a 	X	-	ACI 318: 17.8.2.4
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION AND TECHNIQUES.	X	-	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR: <ul style="list-style-type: none"> a. APPLICATION OF PRESTRESSING FORCES b. GROUTING OF BONDED PRESTRESSING TENDONS 	X	-	126.10
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	-	X	-
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	X	26.11.2
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	-	X	26.11.1, 2(b)

VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION	
	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

GENERAL NOTES:

- VISITS TO THE JOB SITE BY REPRESENTATIVES OF THE ENGINEER DO NOT SUBSTITUTE APPROVAL OF THE WORK PERFORMED BY THE CONTRACTOR OR HIS SUBCONTRACTORS AND ARE MERELY FOR THE PURPOSE OF OBSERVING THE WORK PERFORMED.
- CONTRACTOR SHALL NOTIFY ENGINEER/ARCHITECT OF ANY DISCREPANCIES, OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN ALL CASES, UNLESS OTHERWISE DIRECTED, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN AND BE PERFORMED.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS, DIMENSIONS AND ELEVATIONS, ETC., AT THE SITE AND SHALL COORDINATE WORK PERFORMED BY ALL TRADES. SEE ARCHITECT'S PLANS FOR DIMENSIONS. DO NOT SCALE DRAWINGS.
- SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER/ARCHITECT PRIOR TO FABRICATION OR ERECTION FOR ANY PREFABRICATED OR MANUFACTURER-DESIGNED COMPONENTS AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THIS STRUCTURE RESIDES.
- SIZES, LOCATIONS, LOADS, AND ANCHORAGES OF EQUIPMENT SHALL BE VERIFIED IN THE FIELD WITH EQUIPMENT MANUFACTURERS (SUPPLIERS) PRIOR TO FABRICATION OR INSTALLATION OF SUPPORTING STRUCTURES.
- TEMPORARY BRACING SHALL BE PROVIDED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING WIND. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY, OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE INSTALLED.
- DURING AND AFTER CONSTRUCTION THE CONTRACTOR AND/OR OWNER SHALL KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN LOAD.
- CONTRACTOR AND ALL SUBCONTRACTORS SHALL PERFORM THEIR TRADES AND DUTIES IN A MANNER CONFORMING TO THE PROCEDURES AND REQUIREMENTS AS STATED IN THE 2015 INTERNATIONAL BUILDING CODE, (OR LATEST ACCEPTED CODE ADOPTED BY THE LOCAL BUILDING OFFICIALS).
- ANY SPECIAL INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL OR THE INTERNATIONAL BUILDING CODE ARE THE RESPONSIBILITY OF THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION WITHIN AND ADJACENT TO THE JOB SITE.

FOOTINGS, FOUNDATIONS AND SLAB ON GRADE NOTES:

- ALL FOOTING SIZES ARE BASED ON AN ALLOWABLE SOIL BEARING PRESSURE AS SHOWN IN THE DESIGN CRITERIA. ANY SOIL CONDITION ENCOUNTERED DURING EXCAVATION THAT IS CONTRARY TO THOSE USED FOR DESIGN OF FOOTINGS AS OUTLINED IN WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING.
- SOIL PREPARATION UNDER FOOTINGS AND SLABS ON GRADE SHALL BE IN ACCORDANCE WITH THE SOILS REPORT.
- NO FOOTINGS SHALL BE PLACED IN WATER, SNOW, FROZEN GROUND, OR UNSTABLE SOILS.
- ALL EXCAVATIONS ADJACENT TO AND BELOW FOOTING ELEVATION FOR OTHER TRADES SHALL BE ACCOMPLISHED PRIOR TO POURING ANY FOOTINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LATERALLY SUPPORTING ALL RETAINING TYPE FOUNDATION WALLS WHILE COMPACTING BEHIND WALLS AND UNTIL ALL SUPPORTING MEMBERS HAVE BEEN PLACED (SUCH AS FLOOR).
- ALL REINFORCEMENTS SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE.
- PROVIDE DOWELS IN FOOTING AND FOUNDATIONS TO MATCH ALL VERTICAL BARS IN WALLS AND COLUMNS ABOVE, UNLESS NOTED OTHERWISE.
- ALL EXTERIOR FOOTINGS MUST BEAR AT OR BELOW FROST DEPTH, MEASURED FROM LOWEST ADJACENT FINAL GRADE.
- UNLESS NOTED OTHERWISE, ALL FOOTINGS AT COLUMNS TO BE CENTERED BELOW COLUMNS.
- UNLESS NOTED OTHERWISE, ALL FOOTINGS SHALL HAVE VERTICAL FACES FORMED WITH STANDARD FORMING MATERIALS (WOOD, METAL, ETC.) WITH PRIOR APPROVAL OF ARCHITECT AND ENGINEER. CONCRETE FOR FOOTINGS CAN BE PLACED IN EXCAVATED "SOIL" FORMS PROVIDED THAT THE DIMENSIONS ARE INCREASED 3" ON EACH SIDE.

CONCRETE NOTES:

- ALL FOOTINGS, FOUNDATIONS, AND SLABS ON DECK SHALL BE NORMAL WEIGHT CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO A LEAST 4,500 LBS. PER SQUARE INCH WITHIN 28 DAYS AFTER POURING.
- UNLESS OTHERWISE NOTED, ALL FOUNDATION WALL VERTICAL JOINTS SHALL BE KEVED WITH A KEY 1-1/2" DEEP, A LENGTH 2" LESS THAN THE MEMBER, AND A WIDTH 1/2 OF THE MEMBER. REINFORCING SHALL BE CONTINUOUS THRU JOINT.
- ALL CONCRETE WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.
- BEFORE CONCRETE IS POURED CHECK WITH ALL TRADES TO INSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, ETC. RELATIVE TO WORK.
- CONTRACTOR IS RESPONSIBLE FOR ALL SHORING AND FORMWORK.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENT, CLIPS OR GROUNDS, REQUIRED TO BE ENCASED IN CONCRETE AND FLOOR LOCATION OF FLOOR FINISHES AND SLAB DEPRESSIONS.

REINFORCING STEEL NOTES:

- ALL REINFORCING BARS SHALL CONFORM TO ASTM STANDARD A-615 GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM STANDARD A-185. SHALL BE SUPPLIED IN FLAT SHEETS AND SHALL HAVE A MIN. SIDE LAP OF 8 INCHES. ADEQUATELY TIE AND SUPPORT ALL REINFORCING STEEL AS SPECIFIED BY ACI 315 TO MAINTAIN EXACT REQUIRED POSITION. ALL FIELD BENT DOWELS SHALL BE GRADE 40 WITH SPACING INDICATED REDUCED BY 1/3.
- REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE COVERAGE:
 - A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH. 3"
 - B. EXPOSED TO EARTH OR WEATHER:
 - #6 & LARGER. 2"
 - #5 & SMALLER. 1 1/2"
 - C. NOT EXPOSED TO WEATHER OR EARTH:
 - SLABS, WALLS, JOISTS, #11 & SMALLER 3/4"
 - BEAMS, COLUMNS: MAIN REINFORCING OR TIES 1 1/2"
 - D. SLAB ON GRADE:
 - PLACE REINFORCING AT CENTER OF SLAB UNLESS INDICATED OTHERWISE.
- EXCEPT WHERE NOTED, CONTINUOUS REINFORCEMENT SHALL BE SPLICED AT POINTS OF MIN. STRESS BY LAPPING 44 BAR DIAMETERS IN CONCRETE AND 50 BAR DIAMETERS IN MASONRY.
- ALL VERTICAL REINFORCING SHALL BE DOWELED TO FOOTINGS OR STRUCTURE BELOW WITH DOWELS TO MATCH. SPLICE LENGTHS SHALL COMPLY WITH NOTE 3. DOWELS INTO FOOTINGS SHALL TERMINATE WITH A STANDARD HOOK, AND SHALL EXTEND TO WITHIN 4" OF THE BOTTOM OF THE FOOTING.
- DO NOT WELD REINFORCING EXCEPT AS NOTED ON PLANS. WHERE REINFORCING IS WELDED, USE ASTM A706 REINFORCING.

DESIGN CRITERIA:	
GOVERNING CODE	LRFD AASHTO
SOIL	
FROST DEPTH	36" MIN.
SOIL BEARING PRESSURE	2500 PSF
SOIL REPORT BY:	CMT ENGINEERING LABORATORIES
PROJECT #:	12557
DATE:	APRIL 18, 2019

Reeve & Associates, Inc.
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Revisions: Description: _____
 Date: _____

SUNSHINE VALLEY BRIDGE
 HUNTSVILLE, UTAH

GENERAL STRUCTURAL NOTES

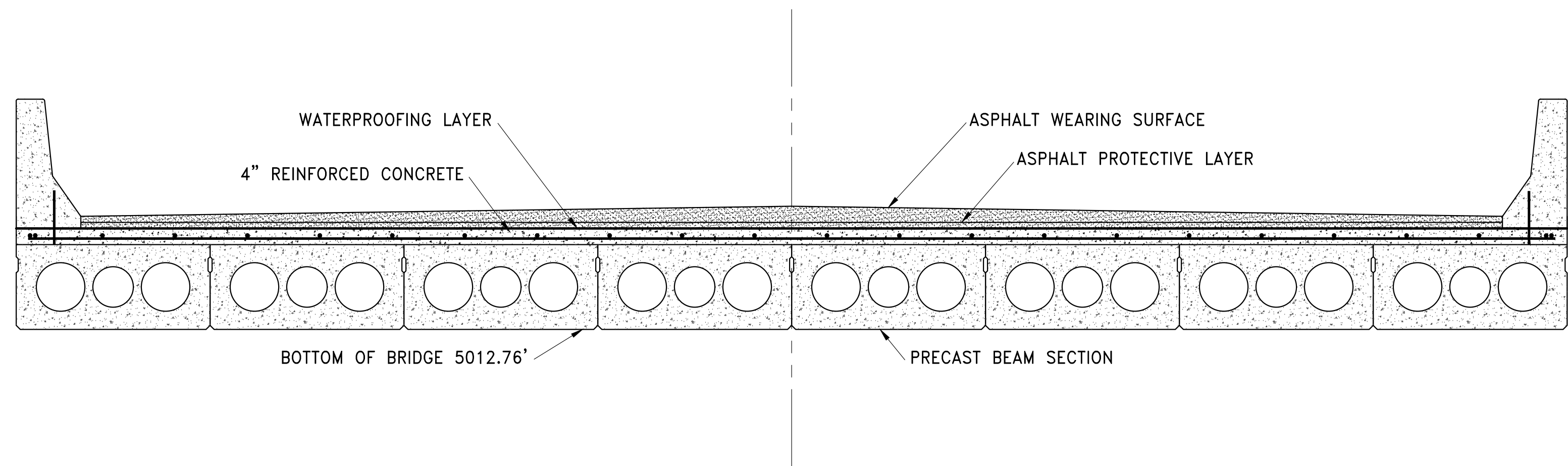
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PROFESSIONAL ENGINEER
JEFFERY M. TURVILLE
 9412168
 04/29/2019
 STATE OF UTAH

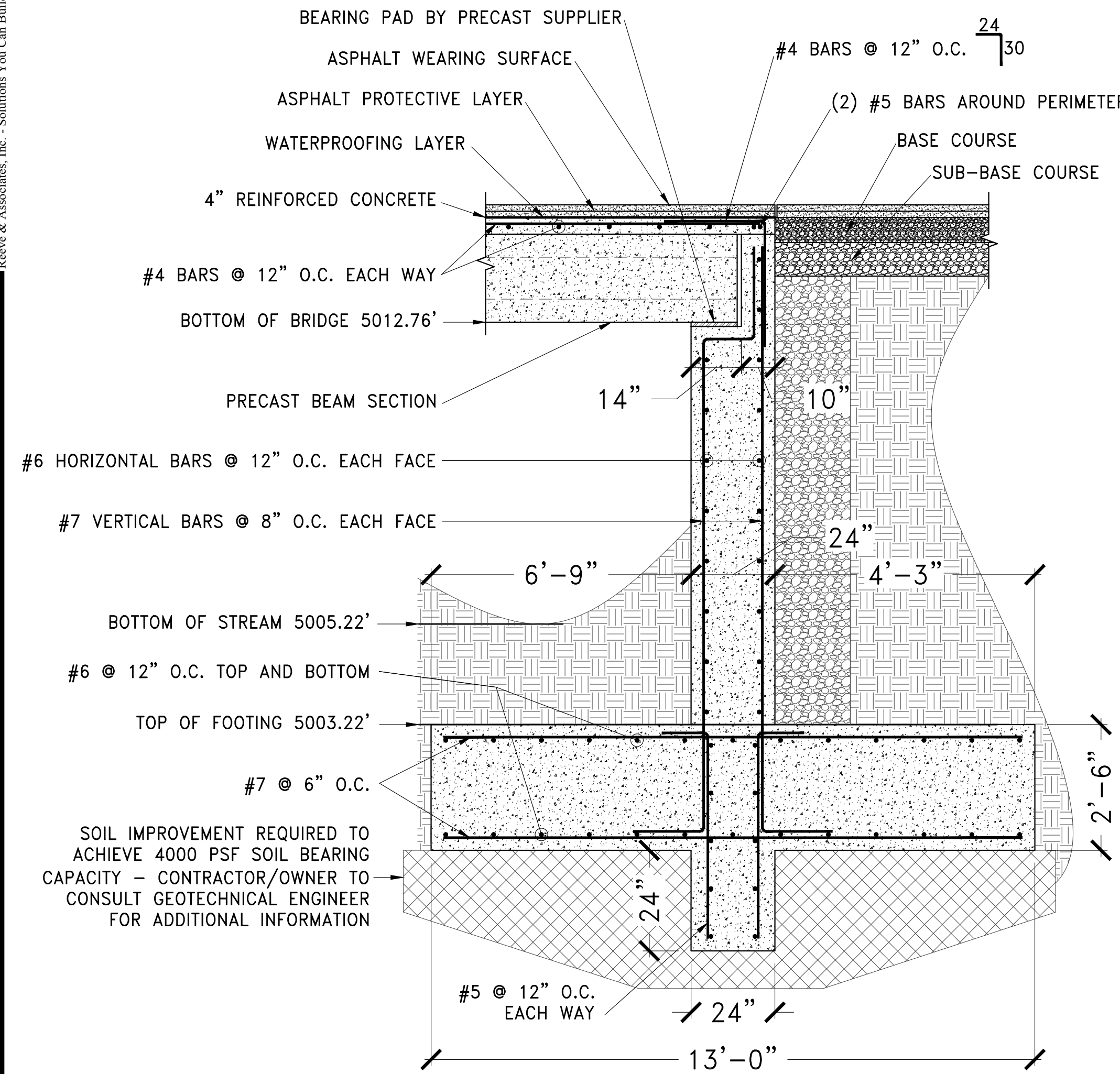
STRUCTURAL DRAWINGS ONLY

Project Info.
 Engineer: J.M.T.
 Drafter: A.W.B.
 Begin Date: APRIL 25, 2019
 Number: 4825-21

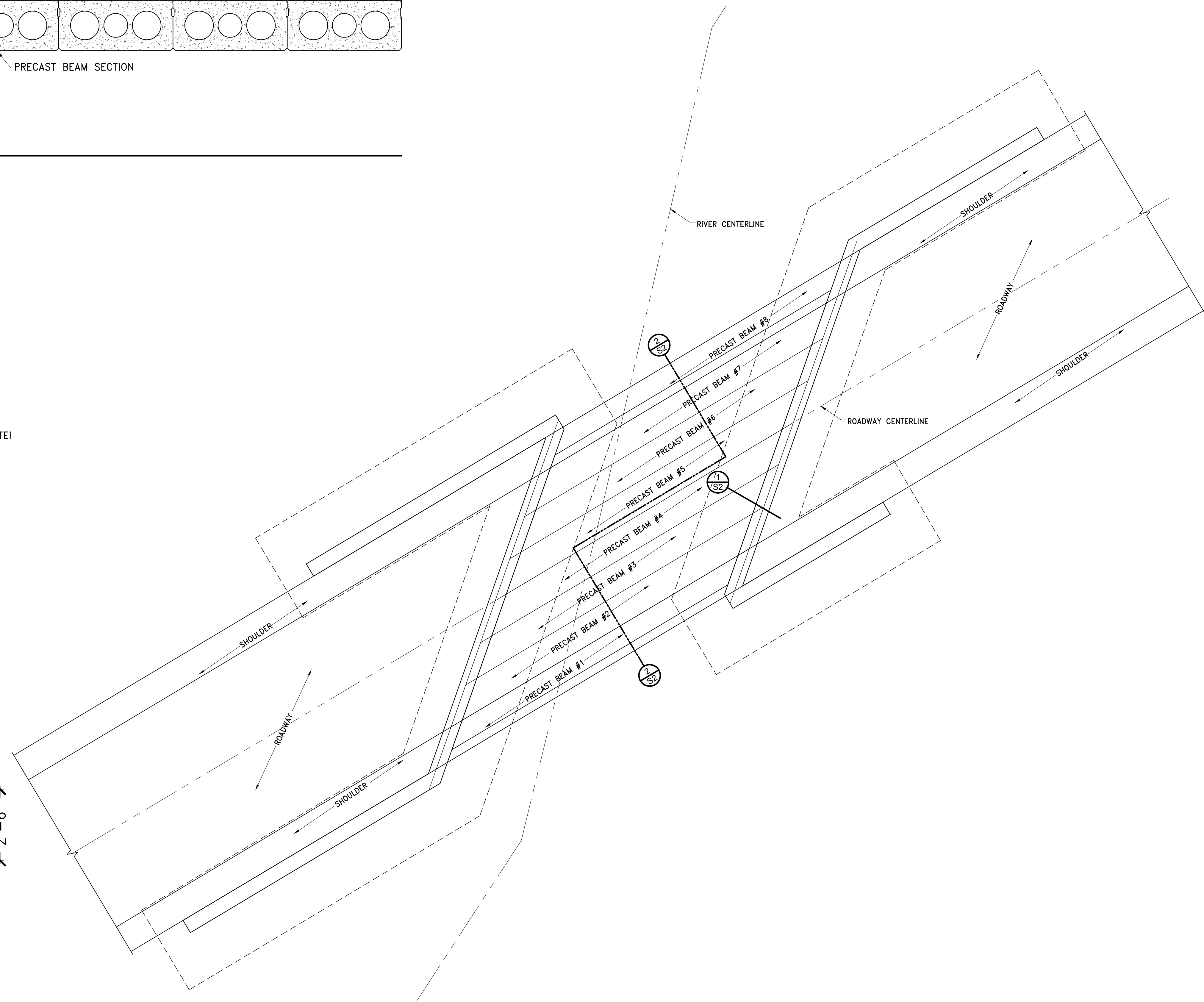
Sheet **S2**
S1 Sheets



2 BRIDGE SECTION
SCALE: NONE



1 BRIDGE WALL SECTION
SCALE: NONE



FOOTING & FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

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Revisions:

Date:	Description:

SUNSHINE VALLEY BRIDGE
HUNTSVILLE, UTAH

FOOTING & FOUNDATION PLAN

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STATE OF UTAH
PROFESSIONAL ENGINEER
JEFFERY M. TURVILLE
9412168
04/25/2019

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Sheet **S2** of **S2** Sheets