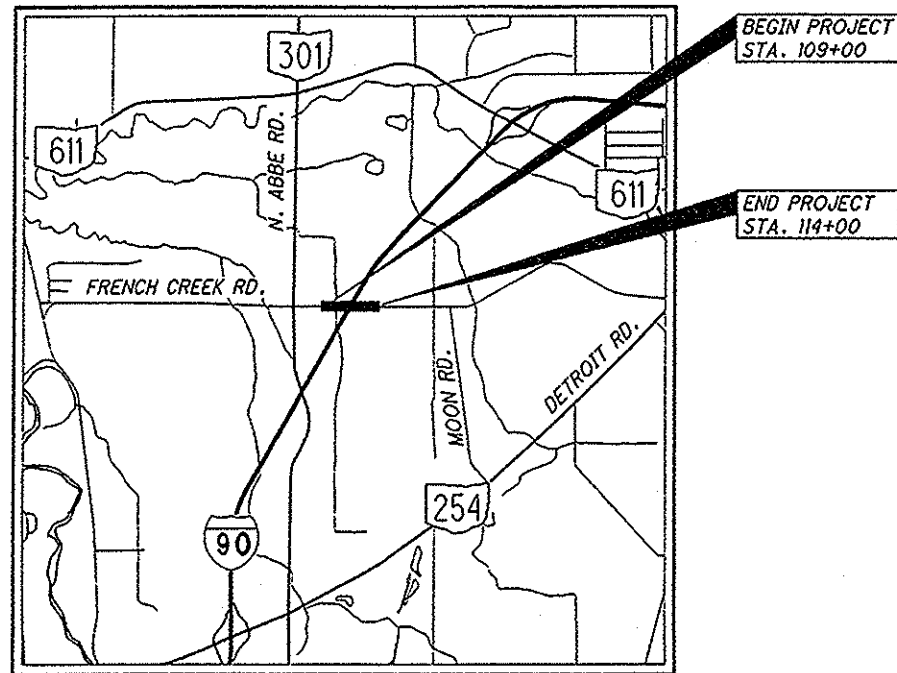


STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**LOR-90-17.53**

VILLAGE OF SHEFFIELD

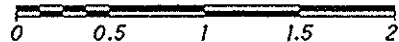
LORAIN COUNTY



LOCATION MAP

LATITUDE: 41°26'58" LONGITUDE: 82°04'15"

SCALE IN MILES



PORTION TO BE IMPROVED	—————
INTERSTATE HIGHWAY	—————
FEDERAL ROUTES	—————
STATE ROUTES	—————
COUNTY & TOWNSHIP ROADS	—————
OTHER ROADS	—————

DESIGN DESIGNATION	FRENCH CREEK RD. I-90	
CURRENT ADT (2015)	1,960	54,390
DESIGN YEAR ADT (2035)	2,080	56,670
DESIGN HOURLY VOLUME (2035)	210	5,640
DIRECTIONAL DISTRIBUTION	55%	60%
TRUCKS (24 HOUR B&C)	4%	14%
DESIGN SPEED	35 MPH	65 MPH
LEGAL SPEED	35 MPH	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION	URBAN LOCAL	INTERSTATE
NHS PROJECT	NO	NO

DESIGN EXCEPTIONS

NONE REQUIRED

**UNDERGROUND UTILITIES**  
CONTACT BOTH SERVICES  
CALL TWO WORKING DAYS  
BEFORE YOU DIG

CALL  
1-800-362-2764  
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS  
UNDERGROUND PROTECTION SERVICE  
CALL: 1-800-925-0988

PLAN PREPARED BY:  
JONES-STUCKEY LTD., INC.  
1655 W. MARKET ST., SUITE 355  
AKRON, OHIO 44313

ENGINEERS SEAL:  
STRUCTURES

SIGNED: Edward D. White  
DATE: 6/18/2013

ENGINEERS SEAL:  
ROADWAY

SIGNED: Ruth A. Klee  
DATE: 6/18/2013

INDEX OF SHEETS:

TITLE SHEET	1
TYPICAL SECTIONS	2-3
GENERAL NOTES	4
MAINTENANCE OF TRAFFIC	5-9
GENERAL SUMMARY	10-11
SUBSUMMARIES	12-14
PLAN AND PROFILE	15-16
CROSS SECTIONS	17
MISCELLANEOUS DETAILS	22-23
TRAFFIC CONTROL	24
STRUCTURES 20' AND OVER	25-48

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS			
BP-2.2	7/18/08	HW-2.1	1/18/13	A-1-69	7/19/02	TC-41.20	10/18/13	800	7/18/14
BP-3.1	4/20/12			AS-1-81	1/18/13	TC-42.20	10/18/13	821	4/20/12
BP-5.1	7/19/13	MGS-1.1	7/19/13	BR-2-98	7/20/12	TC-52.20	1/17/14	832	1/17/14
BP-9.1	7/19/13	MGS-2.1	7/19/13	GSD-1-96	7/19/02	TC-61.30	1/17/14	902	12/31/12
		MGS-3.1	7/19/13	SICD-1-96	7/19/02				
CB-2.1	1/18/13	MGS-4.3	1/18/13						
		MGS-6.1	7/19/13	MT-95.30	7/19/13				
DM-1.1	1/18/13			MT-95.40	7/19/13				
DM-4.3	7/19/13	RM-1.1	1/18/13	MT-95.50	7/19/13				
DM-4.4	7/20/12	RM-4.2	4/18/14	MT-101.60	7/19/13				
		RM-4.5	10/16/09	MT-101.70	1/17/14				
F-2.1	7/19/13	RM-4.6	7/19/13	MT-105.10	7/19/13				
F-3.1	7/19/13								
F-3.3	7/19/13								
F-3.4	7/19/13								

PROJECT DESCRIPTION

THE PROJECT INVOLVES THE REHABILITATION OF THE EXISTING BRIDGE CARRYING FRENCH CREEK ROAD OVER I-90 IN THE VILLAGE OF SHEFFIELD, LORAIN COUNTY. ROADWAY IMPROVEMENTS ALONG FRENCH CREEK ROAD INCLUDE RECONSTRUCTED PAVEMENT AND GUARDRAIL. TOTAL PROJECT LENGTH = 0.09 MILES

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.367 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.311 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 5.

APPROVED:   
DATE: 7-17-14 DISTRICT DEPUTY DIRECTOR

APPROVED:   
DATE: 8-11-14 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.  
E080 (928)

PID NO.  
81933

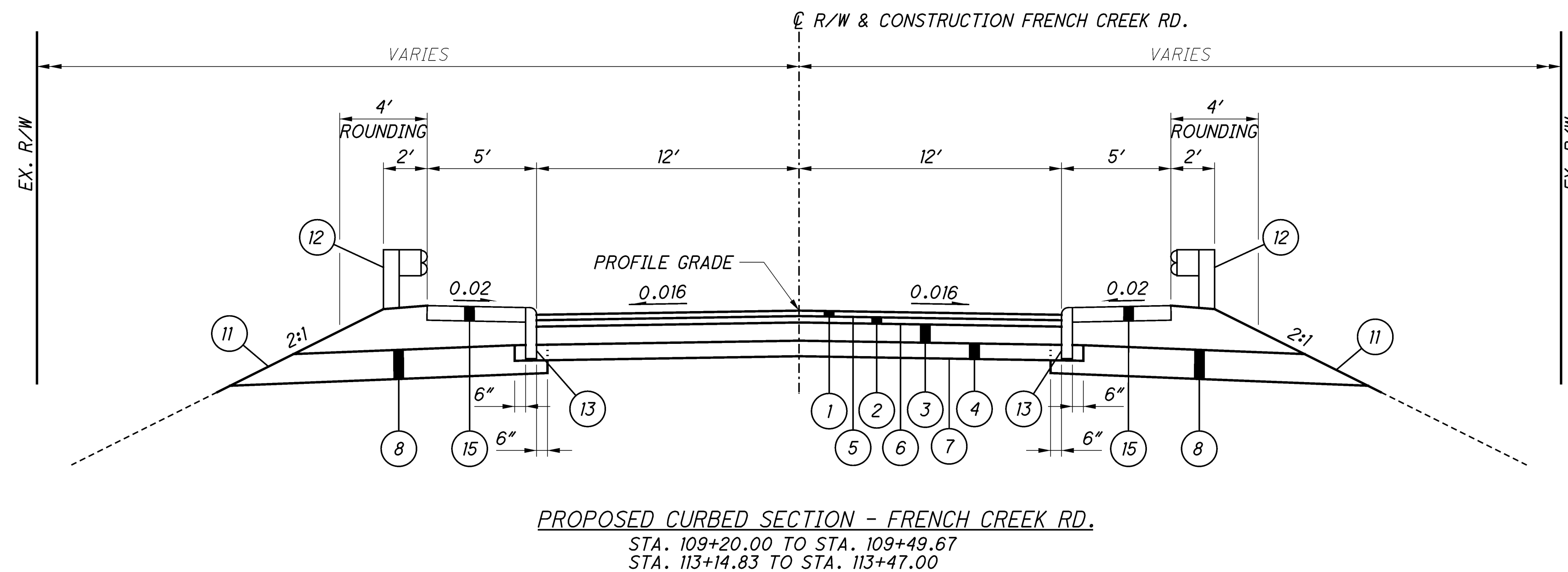
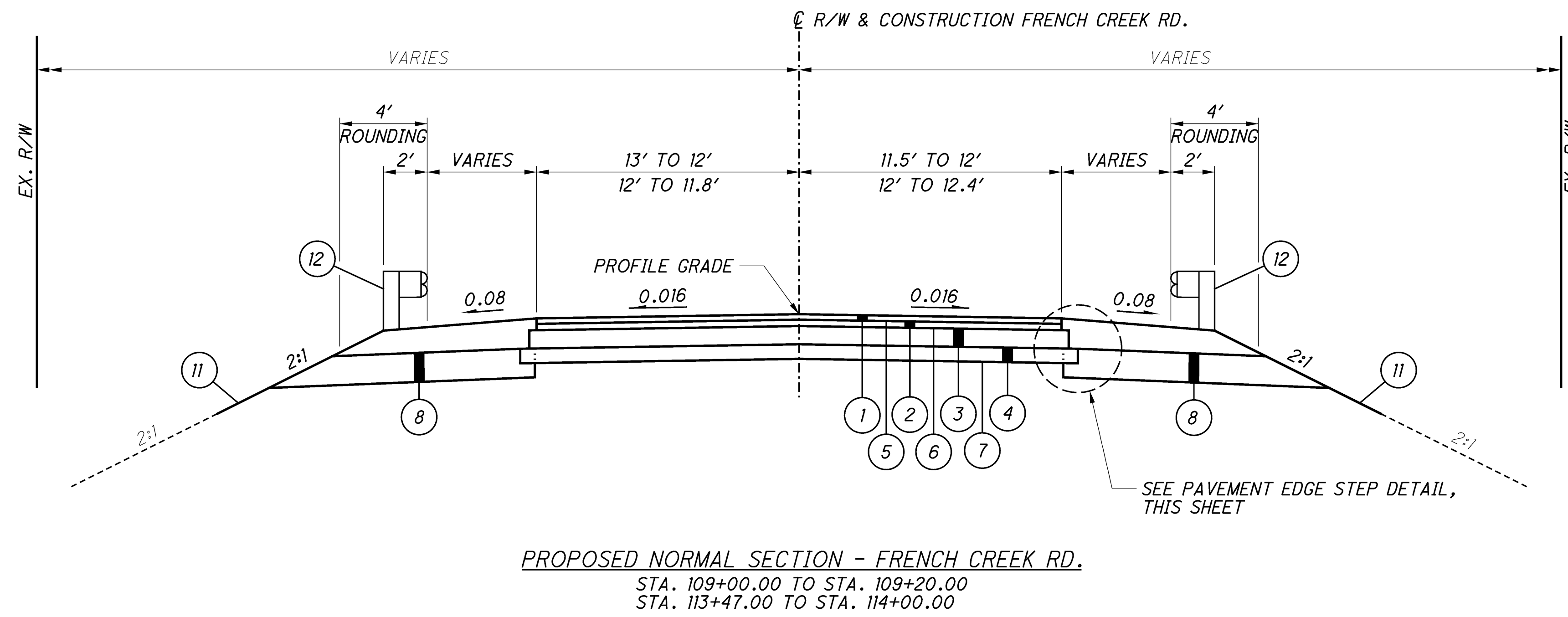
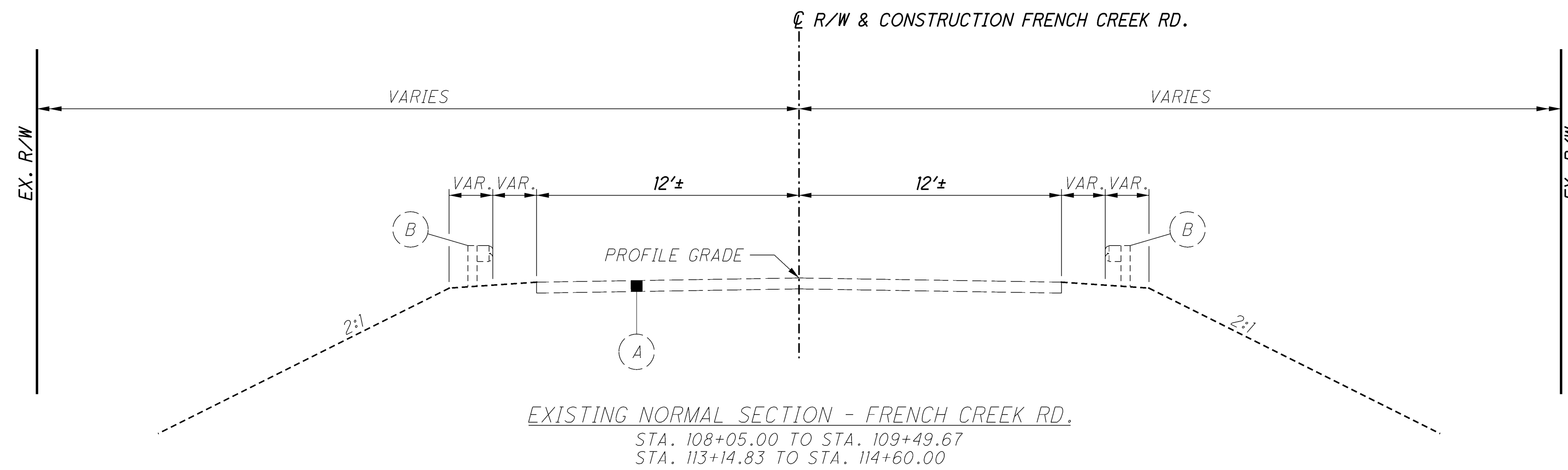
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
NONE

LOR-90-17.53

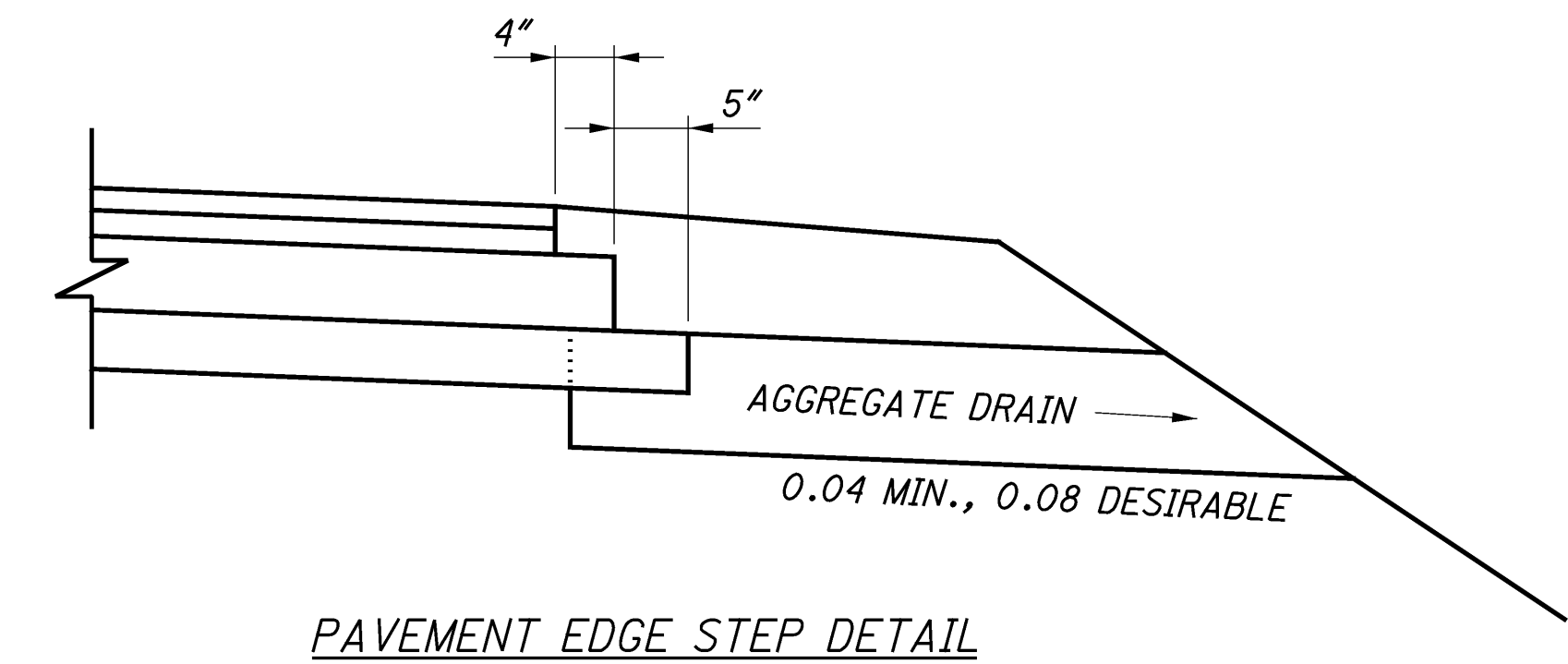
LOR - IR 90-17.53  
140524 PID - 81933  
Dist 3 10/30/2014  
Contract Proposal Available @ www.contracts.dot.state.oh.us/home

P:\3058 LOR-90-17.53\819333\roadway\sheets\819333GY001.dgn 6/18/2013 9:38:25 AM Jared Feller



LEGEND

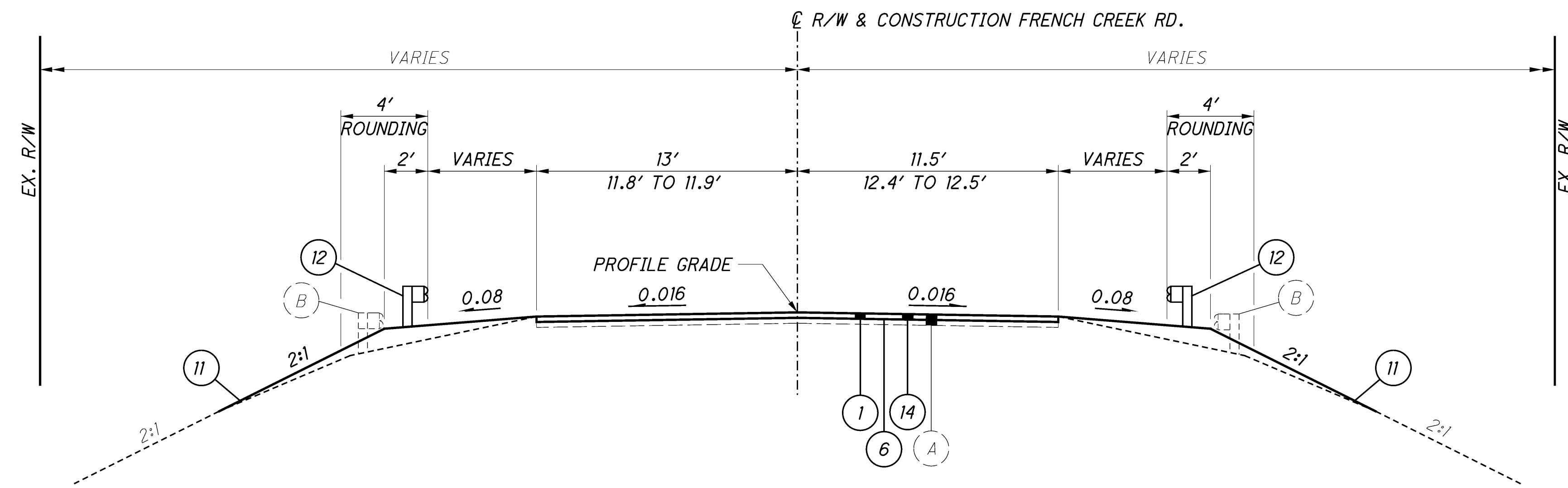
- ① ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (448), AS PER PLAN
- ② ITEM 442 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448), AS PER PLAN
- ③ ITEM 301 - 5" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 - 4" AGGREGATE BASE
- ⑤ ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL./SQ. YD.)
- ⑥ ITEM 407 - TACK COAT (0.075 GAL./SQ. YD.)
- ⑦ ITEM 204 - SUBGRADE COMPACTION
- ⑧ ITEM 605 - AGGREGATE DRAINS
- ⑨ ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN
- ⑩ ITEM 304 - 6" AGGREGATE BASE
- ⑪ ITEM 659 - SEEDING AND MULCHING
- ⑫ ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS
- ⑬ ITEM 609 - CURB, TYPE 6, AS PER PLAN
- ⑭ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1 1/2")
- ⑮ ITEM 608 - 4" CONCRETE WALK
- (A) EXISTING ASPHALT PAVEMENT
- (B) EXISTING GUARDRAIL



TYPICAL SECTIONS

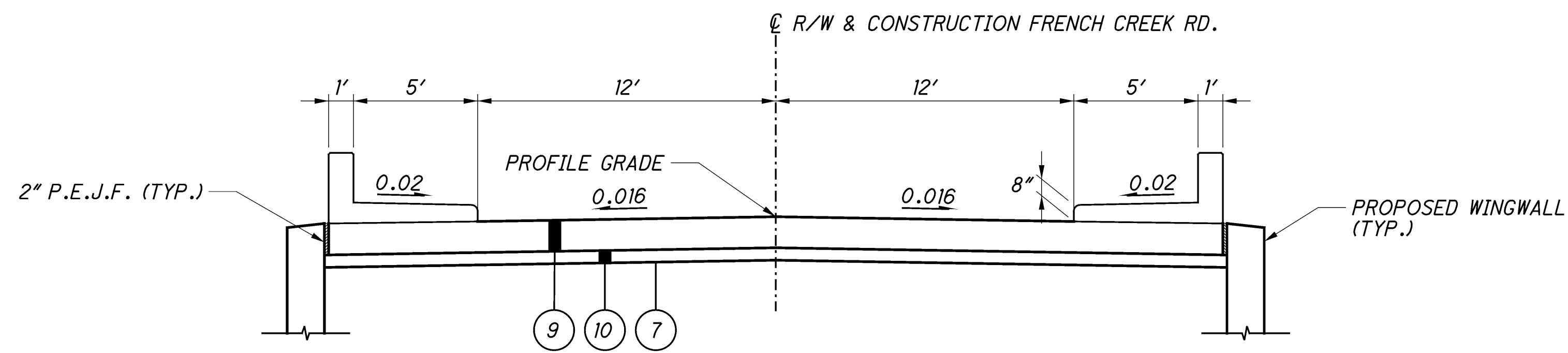
LOR-90-17.53

FOR LEGEND, SEE SHEET 2



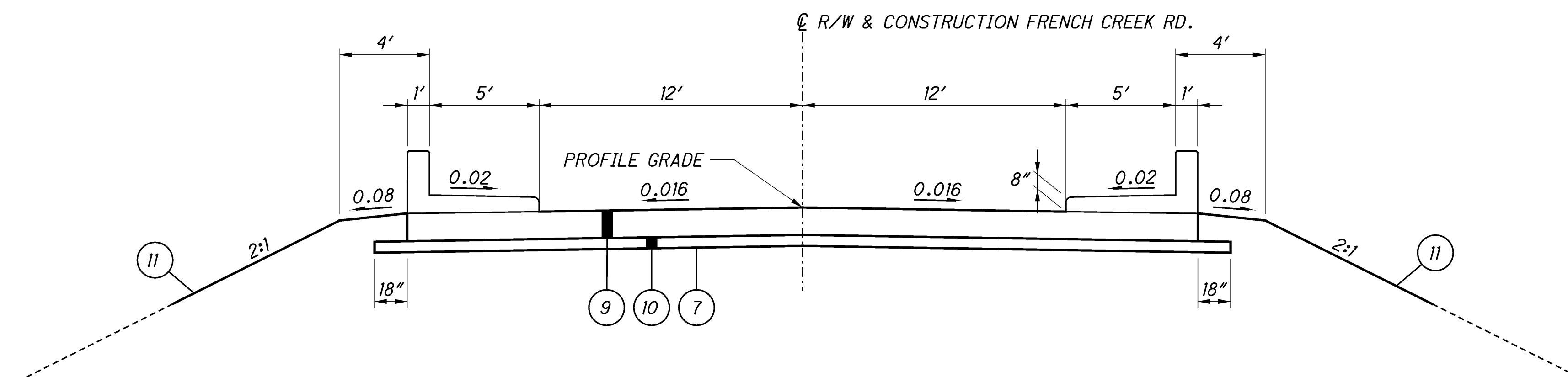
**PAVEMENT PLANING & RESURFACING / GUARDRAIL & SHOULDER GRADING - FRENCH CREEK RD.**

PAVEMENT PLANING & RESURFACING LIMITS: STA. 108+75.00 TO STA. 109+00.00  
STA. 114+00.00 TO STA. 114+25.00  
GUARDRAIL & SHOULDER GRADING LIMITS: STA. 108+05.00 TO STA. 109+00.00  
STA. 114+00.00 TO STA. 114+60.00



**APPROACH SLAB SECTION WITH WINGWALL - FRENCH CREEK RD.**

STA. 109+58.94 TO STA. 109+74.67  
STA. 112+89.83 TO STA. 113+06.98



**APPROACH SLAB SECTION WITHOUT WINGWALL - FRENCH CREEK RD.**

STA. 109+49.67 TO STA. 109+58.94  
STA. 113+06.98 TO STA. 113+14.83

**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

CENTURYLINK  
1730 WEST 19TH STREET  
LORAIN, OHIO 44052  
440-244-8330  
ATTN: BOB DAKIN

OHIO EDISON (DISTRIBUTION)  
6326 LAKE AVENUE  
ELYRIA, OHIO 44035  
440-326-3207  
ATTN: JEFF HALL

OHIO EDISON (TRANSMISSION)  
76 SOUTH MAIN STREET  
AKRON, OHIO 44308  
330-384-4835  
ATTN: CARLOS MUNOZ

RURAL LORAIN COUNTY WATER AUTHORITY  
42401 S.R. 303  
LAGRANGE, OHIO 44050  
440-355-5121  
ATTN: JIM TRUESDELL

SHEFFIELD VILLAGE WATER DEPARTMENT  
4480 COLORADO AVENUE  
SHEFFIELD VILLAGE, OHIO 44054  
330-949-6209  
ATTN: KEN KACZAY

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

ALL UTILITIES SHALL REMAIN IN PLACE DURING CONSTRUCTION AND ALL CONDUCTORS (TWO EXISTING 345KV TRANSMISSION LINES AND 12.5KV DISTRIBUTION LINES) SHALL REMAIN IN PLACE AND ENERGIZED DURING CONSTRUCTION.

**EXISTING PLANS**

EXISTING PLANS ENTITLED LOR-90-17.21 MAY BE INSPECTED IN THE ODOT DISTRICT 3 OFFICE IN ASHLAND.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**CLEARING AND GRUBBING**

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET FOR A TABLE CONTAINING PRIMARY PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PRIMARY PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

**PROJECT CONTROL**

POSITIONING METHOD: STATIC GPS  
MONUMENT TYPE: A

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD88  
GEOID: GEOID09

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD83(NSRS2007)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE NORTH ZONE  
COMBINED SCALE FACTOR: 0.999936473  
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHOD AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES.

UNITS ARE IN U.S. SURVEY FEET.

**BENCHING OF FOUNDATION SLOPES**

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

**MONUMENT ASSEMBLIES**

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEETS 15 & 16.

**ADDITIONAL SOIL INFORMATION**

SUBSURFACE INVESTIGATION INFORMATION IS AVAILABLE FROM THE ODOT DISTRICT 3 OFFICE IN ASHLAND.

**FENCE LENGTHS**

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

**CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL**

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. THE CONTRACTOR SHALL TRANSITION THE PROPOSED 31-INCH RAIL HEIGHT TO THE EXISTING RAIL HEIGHT OVER A LENGTH OF 25 FEET. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

**SEEDING AND MULCHING**

THE FOLLOWING ITEMS ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SEEDING AND MULCHING  
659, REPAIR SEEDING AND MULCHING  
659, COMMERCIAL FERTILIZER  
659, LIME  
659, WATER

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

**ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (448), AS PER PLAN**

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W8-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING PAVED BERMS, DRIVES, INTERSECTIONS, ETC.

REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:

MIX DESIGN:  
FOR Ndes USE 50 GYRATIONS, FOR Nmax USE 75 GYRATIONS.  
MINIMUM TOTAL PG BINDER CONTENT IS 6.0 PERCENT.  
USE A PG 64-22 BINDER.  
MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT IS 20 PERCENT.  
WHEN AN AGGREGATE SOURCE IS SPECIALLY DESIGNATED WITH AN SR ON THE AGGREGATE GRAVITY LIST DO NOT USE THE AGGREGATE EXCEPT AS ALLOWED FOR MEDIUM TRAFFIC IN THE GUIDELINES FOR MAINTAINING ADEQUATE PAVEMENT FRICTION IN SURFACE PAVEMENT.

QUALITY CONTROL:  
DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

**ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448), AS PER PLAN**

THIS ITEM SHALL BE USED FOR CORRECTION OF CROWN, PROFILE AND ANY OTHER IRREGULARITIES.

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W8-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:

MIX DESIGN:  
FOR Ndes USE 50 GYRATIONS, FOR Nmax USE 75 GYRATIONS.  
USE A PG 64-22 BINDER.  
MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT IS 30 PERCENT.  
DO NOT APPLY TABLE 442.02-1 EXCEPT SAND EQUIVALENT OF 45 APPLIES.  
APPLY 703.05 FOR COARSE AND FINE AGGREGATE EXCEPT GRADATION FOR FINE AGGREGATE DOES NOT APPLY.

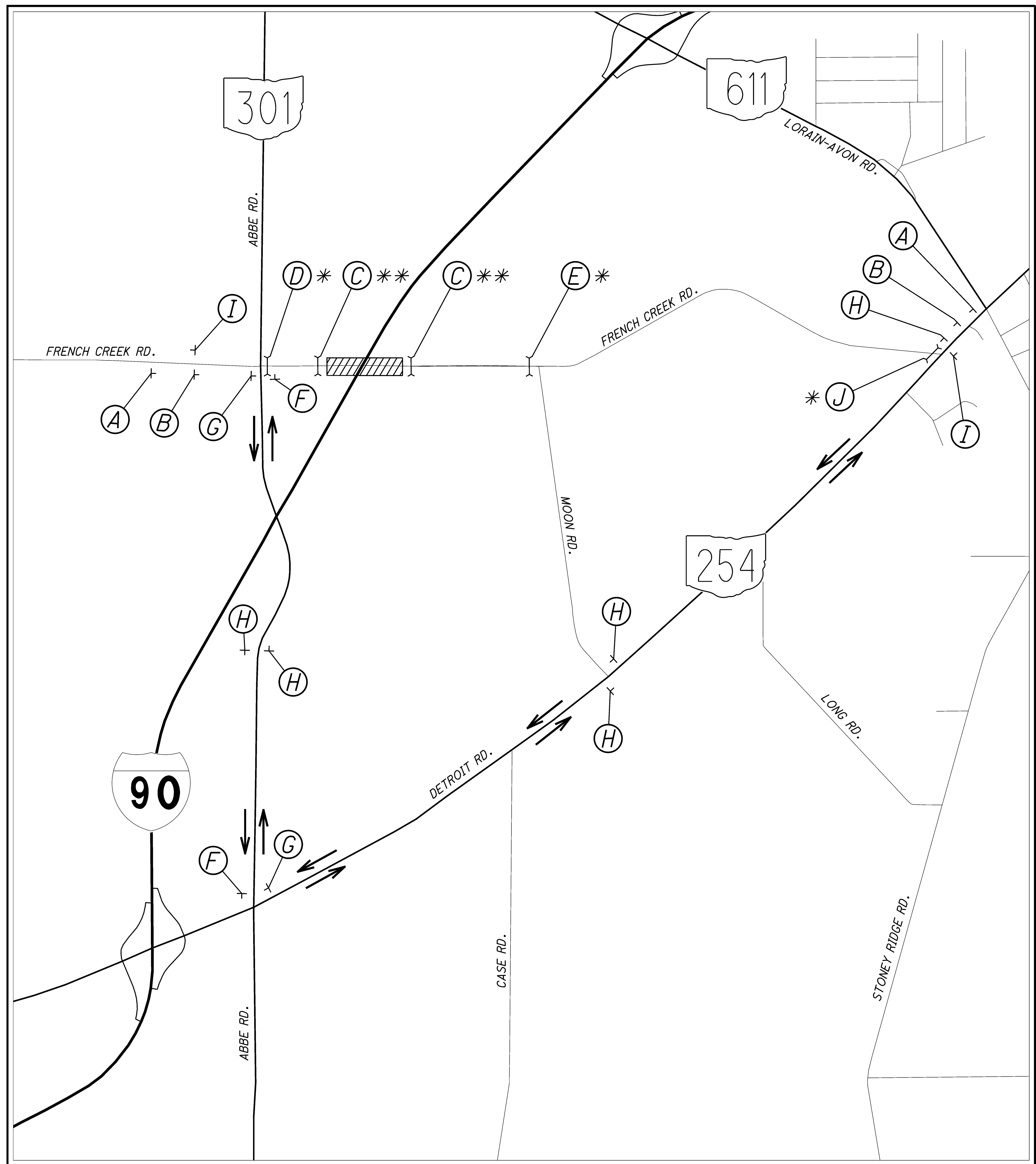
QUALITY CONTROL:  
DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

**ITEM SPECIAL, PRESSURE RELIEF JOINT, TYPE A**  
PRESSURE RELIEF JOINTS, TYPE A SHALL BE CONSTRUCTED PER THE DETAIL ON SHEET 23.

**ITEM 609, CURB, TYPE 6, AS PER PLAN**  
THE TYPE 6 CURB HEIGHT SHALL MATCH THE 8" APPROACH SLAB CURB HEIGHT THEN TAPER DOWN TO 6" CURB HEIGHT IN 4'. AT THE ENDS OF THE TYPE 6 CURB, TAPER CURB HEIGHT DOWN FROM 6" TO 0" IN 10'.

**EXISTING GUARDRAIL FOR SHOULDER PIER PROTECTION**  
THE EXISTING GUARDRAIL FOR THE I-90 SHOULDER PIER PROTECTION SHALL REMAIN IN PLACE, EXCEPT THE PORTION THAT MUST BE REMOVED AND REPLACED WITH THE MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1. IF THE CONTRACTOR CHOOSES TO REMOVE ADDITIONAL GUARDRAIL FOR ACCESS AND CONVENIENCE, THEN REMOVING AND RE-ERECTING THE GUARDRAIL SHALL BE AT THE CONTRACTOR'S EXPENSE.

PRIMARY PROJECT CONTROL INFORMATION						
POINT NUMBER	GRID COORDINATES U.S. SURVEY FEET		GROUND COORDINATES U.S. SURVEY FEET		ORTHOMETRIC HEIGHT (ELEVATION)	DESCRIPTION
	NORTHING	EASTING	NORTHING	EASTING		
CP-1	649764.196	2087000.305	649805.476	2087132.894	632.72	BRASS DISK IN CONCRETE
STA. 120+49.60	649747.253	2086928.835	649788.532	2087061.420	-	REBAR IN MONUMENT BOX
STA. 95+86.34	649819.805	2084466.804	649861.089	2084599.232	-	REBAR IN MONUMENT BOX
TBM B	649797.569	2084702.408	649838.851	2084834.851	629.88	CAPPED REBAR
TBM 99-33	649769.010	2086880.800	649810.291	2087013.382	633.42	ALUMINUM CAPPED REBAR



LEGEND

- OFFICIAL DETOUR ROUTE
- PORTION TO BE IMPROVED WHICH REQUIRES DETOUR
- TYPE 2 BARRICADE
- TYPE 3 BARRICADE WITH FLASHING WARNING LIGHTS

<p>(A)  ROAD CLOSED AHEAD W20-3-36</p>	<p>(B) French Creek Rd D3-1  DETOUR AHEAD W20-2-36</p>	<p>(C) ROAD CLOSED R11-2-48</p>
<p>(D) ROAD CLOSED TO THRU TRAFFIC R11-4-60  DETOUR</p>	<p>(E) ROAD CLOSED TO THRU TRAFFIC R11-4-60</p>	<p>(F) French Creek Rd D3-1  DETOUR M4-9L-30</p>
<p>(G) French Creek Rd D3-1  DETOUR M4-9R-30</p>	<p>(H) French Creek Rd D3-1  DETOUR</p>	<p>(I) END DETOUR M4-8a-24</p>
<p>(J) ROAD CLOSED 1.7 MILES AHEAD LOCAL TRAFFIC ONLY R11-3a-60  DETOUR M4-10L-48</p>		

NOTES:

1. THIS DETOUR SHALL BE USED WHEN COMPLETE CLOSURE OF FRENCH CREEK ROAD IS REQUIRED DUE TO THE REHABILITATION OF STRUCTURE LOR-90-1753, AS DIRECTED BY THE ENGINEER.
2. ALL DETOUR SIGNING IS INCLUDED IN THE LUMP SUM ITEM 614 - DETOUR SIGNING.
3. DETOUR SIGNS SHALL BE COVERED WHEN NOT IN USE.

NOT TO SCALE

P:\3058 LOR-90-17.53\819333\roadway\sheets\819333MD001.dgn 6/18/2013 9:39:00 AM Jared Feller

**ITEM 614 - MAINTAINING TRAFFIC**

1. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON FRENCH CREEK ROAD, EXCEPT FOR A PERIOD NOT TO EXCEED 180 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 5. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$4,000 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

2. NO WORK SHALL BE PERFORMED ON I-90 AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

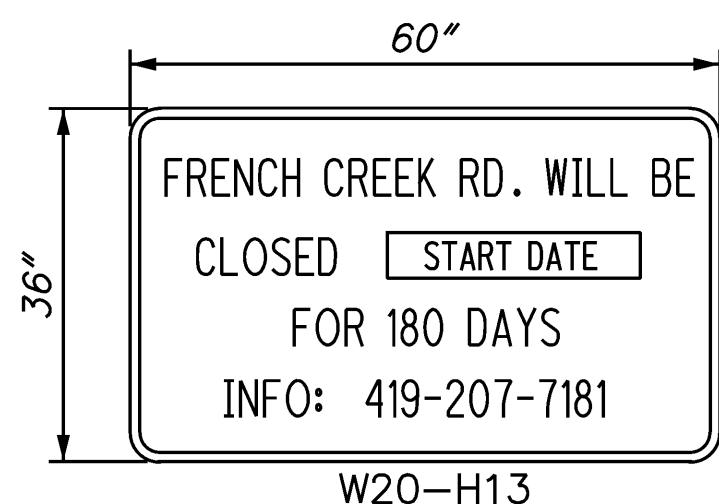
DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 NOON FRIDAY THROUGH 12:00 NOON MONDAY
MONDAY	12:00 NOON FRIDAY THROUGH 12:00 NOON TUESDAY
TUESDAY	12:00 NOON MONDAY THROUGH 12:00 NOON WEDNESDAY
WEDNESDAY	12:00 NOON TUESDAY THROUGH 12:00 NOON THURSDAY
THURSDAY	12:00 NOON WEDNESDAY THROUGH 12:00 NOON FRIDAY
THURSDAY (THANKSGIVING ONLY)	12:00 NOON WEDNESDAY THROUGH 12:00 NOON MONDAY
FRIDAY	12:00 NOON THURSDAY THROUGH 12:00 NOON MONDAY
SATURDAY	12:00 NOON FRIDAY THROUGH 12:00 NOON MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$75 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

3. LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

4. NOTICE OF CLOSURE SIGNS, AS DETAILED BELOW, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.



5. WRITTEN NOTIFICATION SHALL BE SENT TO THE VILLAGE OF SHEFFIELD POLICE, FIRE, AND SCHOOL SYSTEM 14 DAYS IN ADVANCE OF THE SCHEDULED ROAD CLOSURE.

6. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE 3 BARRICADES OF THE TYPE AND LOCATION AS SHOWN ON THE PLANS.

7. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL DRUMS, PORTABLE BARRIER, OBJECT MARKERS, BARRIER REFLECTORS, LINEAR DELINEATION, WORK ZONE IMPACT ATTENUATORS, FLASHING ARROW PANELS, WORK ZONE PAVEMENT MARKINGS AND SIGNS WHEN TRAFFIC IS MAINTAINED IN WORK ZONES. PAYMENT FOR ALL LABOR, EQUIPMENT, INCIDENTALS AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

8. NO FULL DEPTH BRIDGE REPAIR SHALL BE PERFORMED OVER AN OPEN LANE. A SAFETY NET OR PLATFORM SHALL BE REQUIRED TO PROTECT THE ROADWAY DURING THE REMOVAL OF THE EXISTING CONCRETE PARAPET AND DECK. THE CONTRACTOR SHALL PROVIDE A SAFETY NET OR PLATFORM OF SUITABLE STRENGTH ON THE UNDERSIDE OF THE DECK. THE DESIGN OF THE NET OR PLATFORM SHALL CONFORM WITH OSHA REQUIREMENTS AND THE APPROVAL OF THE ENGINEER AND SHALL REMAIN IN PLACE UNTIL THE WORK HAS BEEN COMPLETED AND ACCEPTED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A DEMOLITION PLAN AND SAFETY NET OR PLATFORM DESIGN 10 DAYS PRIOR TO COMMENCING ANY DEMOLITION FOR APPROVAL BY THE ENGINEER. THE SUBMITTAL SHALL BE IN WRITING TO THE DISTRICT CONSTRUCTION ENGINEER WITH A COPY TO THE PROJECT ENGINEER.

9. ALL LANES OF I-90 SHALL BE OPENED TO TRAFFIC AT ALL TIMES WITH THE FOLLOWING EXCEPTIONS:

(A.) LANE CLOSURE ON I-90 SHALL ONLY BE PERMITTED DURING ACTUAL REHABILITATION WORK OVER AND ADJACENT TO I-90 LANES. AT ALL OTHER TIMES, THE EXISTING LANES OF TRAFFIC SHALL BE MAINTAINED.

**(B.) SHORT DURATION CLOSURES OF I-90**

THE FOLLOWING NOTES SHALL APPLY FOR THE CLOSURE OF I-90:

(1.) CLOSURES WILL ONLY BE PERMITTED FOR THE REMOVAL AND ERECTION OF THE BEAMS.

(2.) CLOSURE OF I-90 SHALL ONLY BE PERMITTED MONDAY THRU THURSDAY BETWEEN 10:00 PM - 6:00 AM.

(3.) CLOSURE OF I-90 SHALL BE AS PER PLAN INSERT SHEET 209960 SHOWN ON SHEET 8, EXCEPT THAT THE DURATION OF CLOSURE SHALL NOT EXCEED TEN (10) MINUTES.

**(C.) DECK RECONSTRUCTION, FALSEWORK ERECTION AND REMOVAL, AND FIELD PAINTING OF STRUCTURAL STEEL**

LANE CLOSURE WILL BE REQUIRED DURING INSTALLATION AND SUBSEQUENT REMOVAL OF THE PROTECTIVE STRUCTURE AS REQUIRED FOR EXISTING CONCRETE DECK REMOVAL AND NEW CONCRETE DECK CONSTRUCTION. LANE CLOSURE WILL ALSO BE REQUIRED DURING PLACEMENT OF NEW CONCRETE DECK AND PAINTING OF EXISTING STEEL BEAMS OVER I-90 SPANS.

LANE CLOSURES SHALL BE PERFORMED UTILIZING ODOT STANDARD CONSTRUCTION DRAWING MT-95.30.

**(D.) PIER RECONSTRUCTION AND SHOULDER WORK**

DURING WORK NEAR THE CENTER PIER, THE EXISTING SHOULDER SHALL BE BLOCKED UTILIZING SCD MT-95.30. DURING WORK NEAR THE SHOULDER PIERS, THE EXISTING SHOULDER SHALL BE BLOCKED UTILIZING SCD MT-95.40. THE FOLLOWING ESTIMATED QUANTITIES ARE INCLUDED IN THE GENERAL SUMMARY FOR USE IN CLOSING THE OUTSIDE SHOULDERS USING PORTABLE BARRIER:

614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL) (24")	2 EACH
622, PORTABLE BARRIER, 32"	440 FT

(E.) VEHICLES AND EQUIPMENT SHALL ALWAYS MOVE WITH, AND NOT ACROSS OR AGAINST TRAFFIC. VEHICLES AND EQUIPMENT SHALL NOT PARK OR STOP EXCEPT WITHIN THE DESIGNATED WORK AREAS, AND SHALL ENTER AND LEAVE WORK AREAS IN A MANNER WHICH WILL NOT BE HAZARDOUS TO, OR INTERFERE WITH THE NORMAL TRAFFIC FLOW. PERSONAL VEHICLES WILL NOT BE PERMITTED TO PARK WITHIN THE RIGHT OF WAY EXCEPT IN SPECIFIC AREAS DESIGNATED BY THE ENGINEER.

(F.) DURING ALL CONSTRUCTION OPERATIONS WHERE IT IS NECESSARY TO CLOSE THE EXISTING TRAFFIC ON I-90, IT SHALL BE IN ACCORDANCE WITH THE CURRENT POLICY IN EFFECT OF THE PERMITTED LANE CLOSURES OF ODOT DISTRICT 3. REFER TO THE D-3 WEB PAGE FOR LANE CLOSURES AT: <http://PLCM.DOT.STATE.OH.US/>

(G.) THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN SHOWING REQUESTED LANE CLOSURE EVENTS AND TIMES REQUIRING SUCH CLOSURES, FOR APPROVAL BY THE DISTRICT WORK ZONE TRAFFIC ENGINEER.

10. THE CONTRACTOR SHALL USE PLAN INSERT SHEET 209563-CONSTRUCTION ACCESS POINTS FOR TRUCKS ENTERING & EXITING THE PROJECT. IF THE ENTRY OR EXIT POINTS ARE BEFORE OR AFTER THE PORTABLE BARRIER, THE CONTRACTOR SHALL USE TAPER RATES AND ACCELERATION/DECELERATION LENGTHS.

11. IF THE CONTRACTOR USES THE EXISTING SHOULDER TO MAINTAIN TRAFFIC, THE RUMBLE STRIPS SHALL BE PAVED OVER WITH ASPHALT CONCRETE FOR A SMOOTH SURFACE AND SUBSEQUENTLY REGRINDED TO ORIGINAL CONDITION.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**DUST CONTROL**

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

616, WATER	9 M GAL
------------	---------

**BARRIER REFLECTORS AND/OR OBJECT MARKERS**

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS. THE APPROVED LIST IS AVAILABLE AT THE "ROADWAY STANDARDS: PROPRIETARY ROADSIDE SAFETY DEVICES" WEB PAGE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

P:\3058\_LOR-90-17.53\81933\roadway\sheets\819.33MN001.dgn 6/18/2013 9:39:40 AM Jared Feller

**ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH CMS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET 8 OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 2 SIGN MONTH

**BARRIER DELINEATION**

INCREASED DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PORTABLE BARRIER, LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS:

ALONG TAPERS AND TRANSITION AREAS

THE INCREASED DELINEATION SHALL CONSIST OF EITHER LINEAR DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

THE LINEAR DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE 'CRIMPED'. PANELS SHALL BE PROVIDED AT THE RATE OF ONE PANEL EVERY 10 FEET ON PORTABLE BARRIER, SPACED EVENLY ALONG THE LENGTH OF THE RUN. THE PANELS SHALL BE MOUNTED SUCH THAT THE TOPS OF THE PANELS ARE 26 INCHES ABOVE THE PAVEMENT.

TRIPLE STACKED BARRIER REFLECTORS SHALL CONSIST OF THREE BARRIER REFLECTORS STACKED VERTICALLY IN THEIR ATTACHMENT TO PORTABLE BARRIER. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TOP OF THE MIDDLE BARRIER REFLECTOR SHALL BE LOCATED 26 INCHES ABOVE THE PAVEMENT.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE ODOT INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE ODOT, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

IN ADDITION TO THE REQUIREMENT OF CMS 614 AND THE ODOT, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 180 HOUR

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**ALTERNATE MAINTENANCE OF TRAFFIC PLANS**

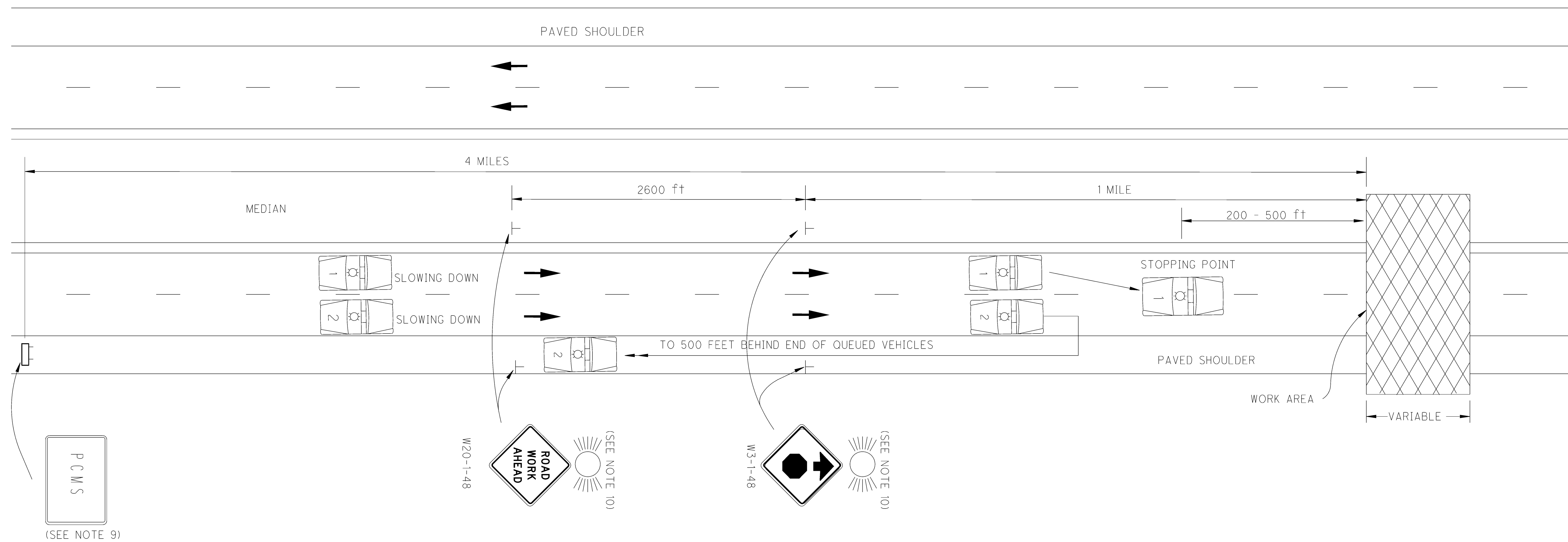
IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED IN EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ODOT DISTRICT CONSTRUCTION ENGINEER.

P:\3058 LOR-90-17-53\81933\roadway\sheet\819.33MN002.dgn 6/18/2013 9:39:52 AM Jared Felier

CALCULATED  
AKB  
CHECKED  
RAK

MAINTENANCE OF TRAFFIC

LOR-90-17-53



**NOTES**

1. This type of highway closure shall be used for all construction, maintenance and utility operations when the duration of closure will not exceed 15 minutes.
2. A minimum of two law enforcement officers (LEO) with patrol cars per direction shall be provided to block traffic and pace motorists to a stop. The number of patrol cars shall equal the number of lanes closed on the highway.
3. Patrol cars, with lights flashing, should enter the stream of traffic at approximately 3 miles before the point of closure. At approximately 2 miles before the point of closure, they should begin the gradual slow down. Traffic shall be brought to a complete stop a safe distance, between 200 and 500 feet, from the work area. This slowing operation shall take no more than 10 minutes. After traffic has been stopped, one patrol car shall travel along the roadway shoulder 500 feet behind the end of the queued vehicles.
4. The Contractor shall not begin work until traffic has been brought to a complete stop.
5. All entrance ramps located between the stopped traffic and the work area shall be closed.
6. After the highway has been closed and reopened via this procedure, both of the following requirements shall have been met before implementation of another short duration closure, except with the approval of the Engineer:
  - a) A minimum period of 15 minutes shall have elapsed; and
  - b) The queued traffic shall have dissipated.
7. The time frame for stopping traffic shall be specified.
8. The public shall be given advance notice of the upcoming closure by providing portable changeable message signs at the site in advance of the scheduled closing. Closure information should also be provided to the Engineer.
9. An ODOT-approved portable changeable message sign, Class 1, shall be provided during operation. The message sign shall be placed approximately 4 miles in advance of the closure or as directed by the Engineer. The message shall be ROAD CLOSED AHEAD (2 sec.), PREPARE TO STOP (2 sec.)
10. The Contractor shall erect and maintain 48-inch ROAD WORK AHEAD and Stop Ahead signs on each side of the highway. Each sign shall be equipped with one Type A flashing warning light and one flare. There shall be one flare at each sign on both sides of the roadway. The flare shall be replaced if it burns out.



P:\3058 LOR-90-17.53\Roadway\sheets\819.33PIS\_209563\_041610.dgn 6/18/2013 9:40:17 AM Jared Feller

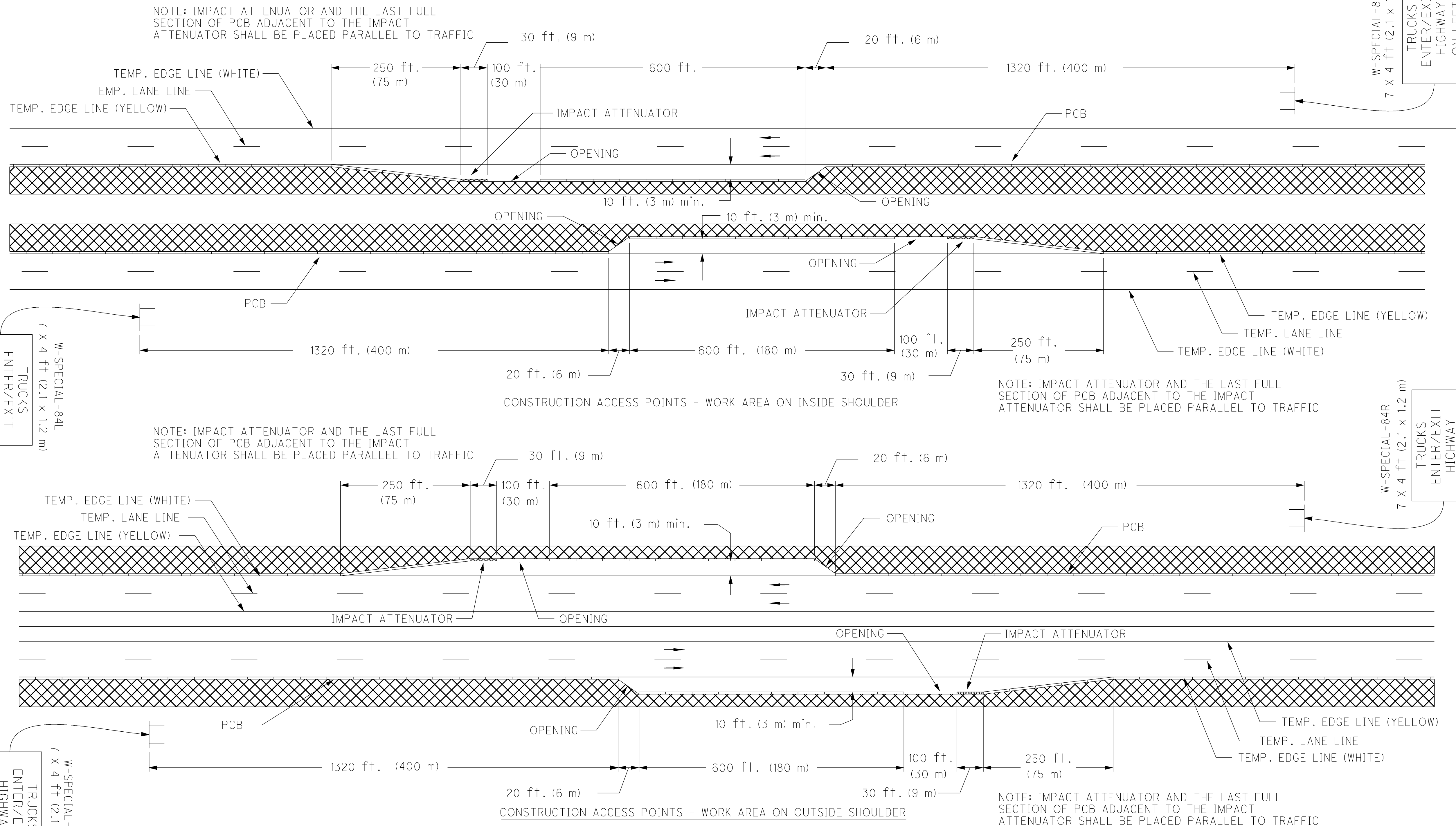
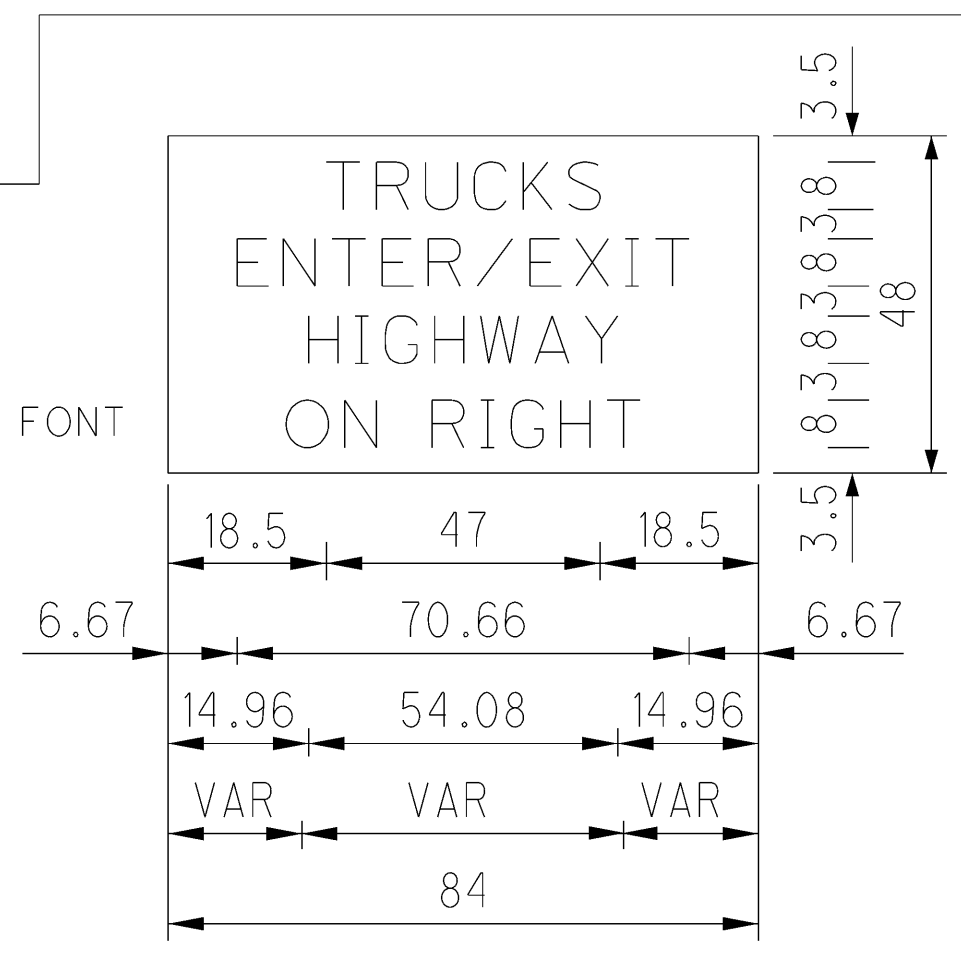


TABLE OF WIDTHS AND SPACES

18.50	T	5.94	1.65	R	6.38	2.05	U	6.37	2.06	C	6.37	1.65	K	6.50	1.65	S	6.38	18.50												
6.67	E	5.94	1.65	N	6.38	1.67	T	5.94	1.65	E	5.94	1.65	R	5.94	0.55	/	6.47	1.10	E	5.94	1.65	X	6.94	1.65	I	1.60	1.65	T	5.94	6.67
14.96	H	6.38	2.05	I	1.60	2.05	G	6.38	2.05	H	6.37	1.65	W	8.44	0.56	A	8.00	0.55	Y	8.00	14.96									
13.21	O	6.69	2.05	N	6.37	8.00	R	6.38	2.05	I	1.60	2.05	G	6.38	2.05	H	6.37	1.65	T	5.94	13.21									
15.87	O	6.69	2.05	N	6.37	8.00	L	6.38	1.65	E	5.94	1.65	F	5.94	1.65	T	5.94	15.87												

NO BORDER, BLACK ON ORANGE; E MOD FONT

W-SPECIAL-84 (R/L)  
(SIGN INFORMATION SHOWN IN ENGLISH UNITS ONLY)



CONSTRUCTION ACCESS POINTS

Construction access point locations may be selected by the Contractor with the approval of the Engineer. The locations shall be selected for good sight distance and ease of access for entering vehicles (avoid locations just beyond crest vertical curves, on overhead structures, on upgrades, etc.). In the event that the Engineer determines that an access point does not function in a safe manner, he/she shall order it immediately closed at no cost to the State. Access points may be relocated subject to the approval of the Engineer, as necessary to accomplish construction activities.

All costs for relocation of portable concrete barrier, installation, repair, replacement and removal of impact attenuators, grading for access drives and related costs shall be included in the lump sum bid for Item 614 Maintaining Traffic.



SHEET NUMBER										PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	12	14	OFFICE CALCS	01/IMS/BR											
<b>PAVEMENT</b>																	
						136	136	254	01000	136	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE					
						51	51	301	46000	51	CU YD	ASPHALT CONCRETE BASE, PG64-22					
						77	77	304	20000	77	CU YD	AGGREGATE BASE					
						37	37	407	10000	37	GALLON	TACK COAT					
						14	14	407	14000	14	GALLON	TACK COAT FOR INTERMEDIATE COURSE					
						21	21	442	10501	21	CU YD	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (448), AS PER PLAN	4				
						18	18	442	20201	18	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN	4				
								78	78	SPECIAL	45130000	78	FT	PRESSURE RELIEF JOINT, TYPE A	4		
				18				18	609	24510	18	FT	CURB, TYPE 4-C				
						124	124	609	26001	124	FT	CURB, TYPE 6, AS PER PLAN	4				
<b>TRAFFIC CONTROL</b>																	
								18	18	626	00100	18	EACH	BARRIER REFLECTOR			
								15	15	630	02100	15	FT	GROUND MOUNTED SUPPORT, NO. 2 POST			
								2	2	630	80100	2	SQ FT	SIGN, FLAT SHEET, 730.20			
								0.20	0.20	646	10000	0.20	MILE	EDGE LINE, 4"			
								0.10	0.10	646	10200	0.10	MILE	CENTER LINE			
<b>STRUCTURES 20' AND OVER</b>																	
<b>FOR STRUCTURE LOR-90-1753 GENERAL SUMMARY</b>																	
																	28
<b>MAINTANENCE OF TRAFFIC</b>																	
								180	180	614	11110	180	HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE			7
								2	2	614	12346	2	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL) (24")			6
								LUMP	LUMP	614	12420	LUMP		DETOUR SIGNING			
								2	2	614	18601	2	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN			7
								9	9	616	10000	9	M GAL	WATER			
								440	440	622	41000	440	FT	PORTABLE BARRIER, 32"			
								LUMP	LUMP	614	11000	LUMP		MAINTAINING TRAFFIC			6
								6	6	619	16010	6	MONTH	FIELD OFFICE, TYPE B			
								LUMP	LUMP	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING			
								LUMP	LUMP	624	10000	LUMP		MOBILIZATION			

GENERAL SUMMARY

LOR-90-17.53

P:\3058\_LOR-90-17.53\81933\roadway\sheets\81933GS001.dgn 6/18/2013 9:40:57 AM Jared Feller

REF NO.	SHEET NO.	STATION		SIDE	202	202	202	202		606	606		607		608	609		622	622	622		623
		FROM	TO		CONCRETE BARRIER REMOVED	GUARDRAIL REMOVED	MONUMENT ASSEMBLY REMOVED	FENCE REMOVED		GUARDRAIL, TYPE MGS WITH LONG POSTS	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		FENCE, TYPE 47		4" CONCRETE WALK	CURB, TYPE 4-C		CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D		MONUMENT ASSEMBLY
		FT	FT	EACH	FT				FT	EACH		FT		SQ FT	FT		FT	EACH	EACH		EACH	
G-1	15	108+05	109+61.51	LT					130	1												
G-2	15	108+05	109+42.33	RT					110	1												
M-1	15	109+00.00		CL																		1
R-1	15	108+05	109+70	LT																		
R-2	15	108+05	109+48	RT		165																
R-3	15	108+98.99		CL		143		1														
WK-1	15	109+20	109+56	LT											171							
WK-2	15	109+20	109+43	RT											96							
G-1	16	113+22.17	114+60	LT					111	1												
G-2	16	113+02.99	114+60	RT					130	1												
M-1	16	113+50.00		CL																		1
R-1	16	113+18	114+60	LT		142																
R-2	16	112+95	114+60	RT		165																
R-3	16	113+50.84		CL				1														
WK-1	16	113+22	113+47	LT											108							
WK-2	16	113+08	113+47	RT											183							
B-1	22	909+24	909+39	LT																		
B-2	22	909+39	909+59	LT														20		1		
B-3	22	909+59	909+73	LT															1			
F-1	22	109+44	109+69	RT									52									
F-2	22	109+89	110+00	LT									20									
F-3	22	112+59	112+77	RT									28									
F-4	22	113+00	113+21	LT									40									
G-1	22	909+70.75	909+97.65	LT						1						18						
R-1	22	909+16	909+82	LT	66																	
R-2	22	909+82	909+97.65	LT		16																
R-3	22	109+44	109+69	RT				52														
R-4	22	109+89	110+00	LT				20														
R-5	22	112+59	112+77	RT				29														
R-6	22	112+99	113+21	LT				42														
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>					66	631	2	143		481	5		140		558	18		20	1	1		2

CALCULATED AKB CHECKED RAK	ROADWAY SUBSUMMARY	LOR-90-17.53	12 48
-------------------------------------	--------------------	--------------	----------

P:\3058 LOR-90-17.53\819333\roadway\sheets\819333GS002.dgn 6/18/2013 9:41:10 AM Jared Feller

REF NO.	SHEET NO.	STATION		SIDE	601	602	605	605	611	611	611	611	BENDS AND BRANCHES FOR INFO ONLY		
		FROM	TO		ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CONCRETE MASONRY	6" SHALLOW PIPE UNDERDRAINS, 707.32	AGGREGATE DRAINS	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS, 707.42	12" CONDUIT, TYPE B	12" CONDUIT, TYPE F, 707.05, TYPE C	CATCH BASIN, NO. 3	6"x45" BEND	EACH	
					CU YD	CU YD	FT	FT	FT	FT	FT	EACH			
D-1	15	109+34		RT/LT						23		1			
D-2	15	109+34		LT	2	0.21					60	1			
UD-1	15	109+34	109+52	RT/LT			23		10						
	15	109+17		RT				11							
	15	109+42		LT				13							
D-1	16	113+33		RT/LT					23			1			
D-2	16	113+09	113+33	LT	2	0.21				65	1				
UD-1	16	113+13	113+33	RT/LT			26		10				1		
	16	113+22		RT				12							
	16	113+47		LT				11							
	16	113+72		RT				13							
	16	113+97		LT				13							
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>					4	0.4	49	73	20	46	125	4			

CALCULATED	AKB	DRAINAGE SUBSUMMARY
	CHECKED	
RAK		

P:\3058 LOR-90-17.53\81933\roadway\sheets\81933GS003.dgn 6/18/2013 9:41:24 AM Jared Feller

REF NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	626	626	626	626		630	630		646	646					
							BARRIER REFLECTOR (TYPE A)	BARRIER REFLECTOR (TYPE A2)	BARRIER REFLECTOR (TYPE B)	BARRIER REFLECTOR (TYPE B2)		GROUND MOUNTED SUPPORT, NO. 2 POST	SIGN, FLAT SHEET, 730.20		EDGE LINE, 4"	CENTER LINE					
							EACH	EACH	EACH	EACH		FT	SQ FT		MILE	MILE					
BR-1	22	I-90	909+24 TO 909+97.65	LT			1		1												
BR-1	24	FRENCH CREEK ROAD	108+05 TO 114+60	LT				4		4											
BR-2	24	FRENCH CREEK ROAD	108+05 TO 114+60	RT				4		4											
CL-1	24	FRENCH CREEK ROAD	108+75 TO 114+25	CL																0.10	
EL-1	24	FRENCH CREEK ROAD	108+75 TO 114+25	LT																0.10	
EL-2	24	FRENCH CREEK ROAD	108+75 TO 114+25	RT																0.10	
S-1	24	FRENCH CREEK ROAD	109+38	RT	I-H25a-12	12"X12"						7.5	1								
S-2	24	FRENCH CREEK ROAD	113+26	LT	I-H25a-12	12"X12"						7.5	1								
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>												18		15	2		0.20	0.10			

<b>TRAFFIC CONTROL SUBSUMMARY</b>	CALCULATED
	AKB CHECKED RAK
<b>LOR-90-17.53</b>	14 48



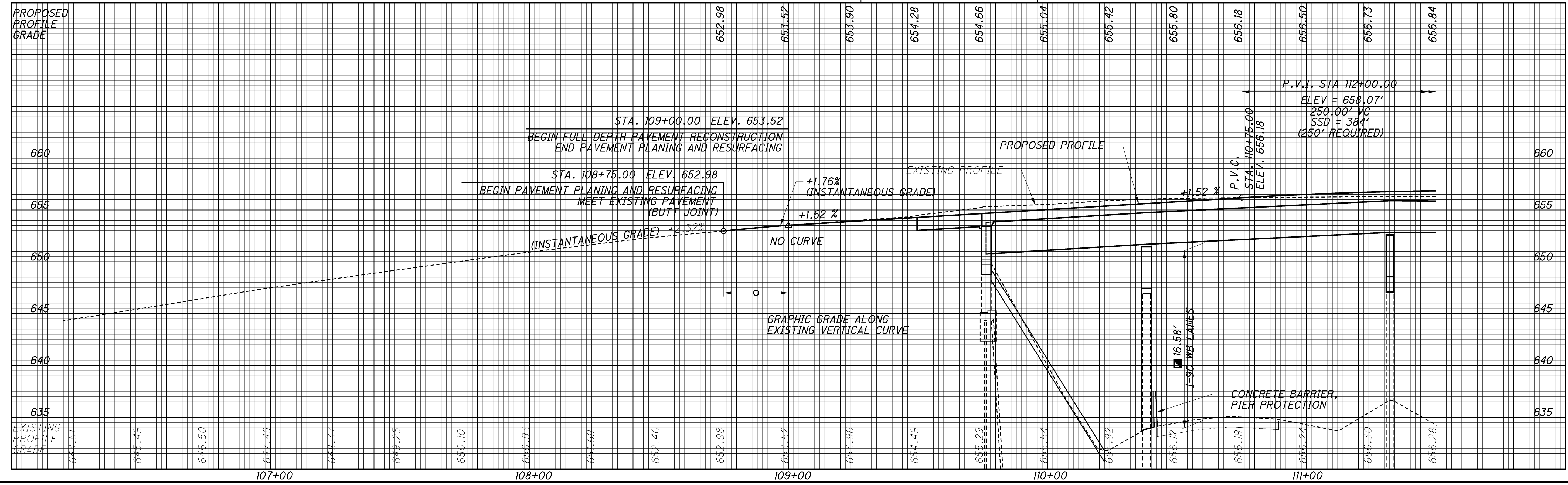
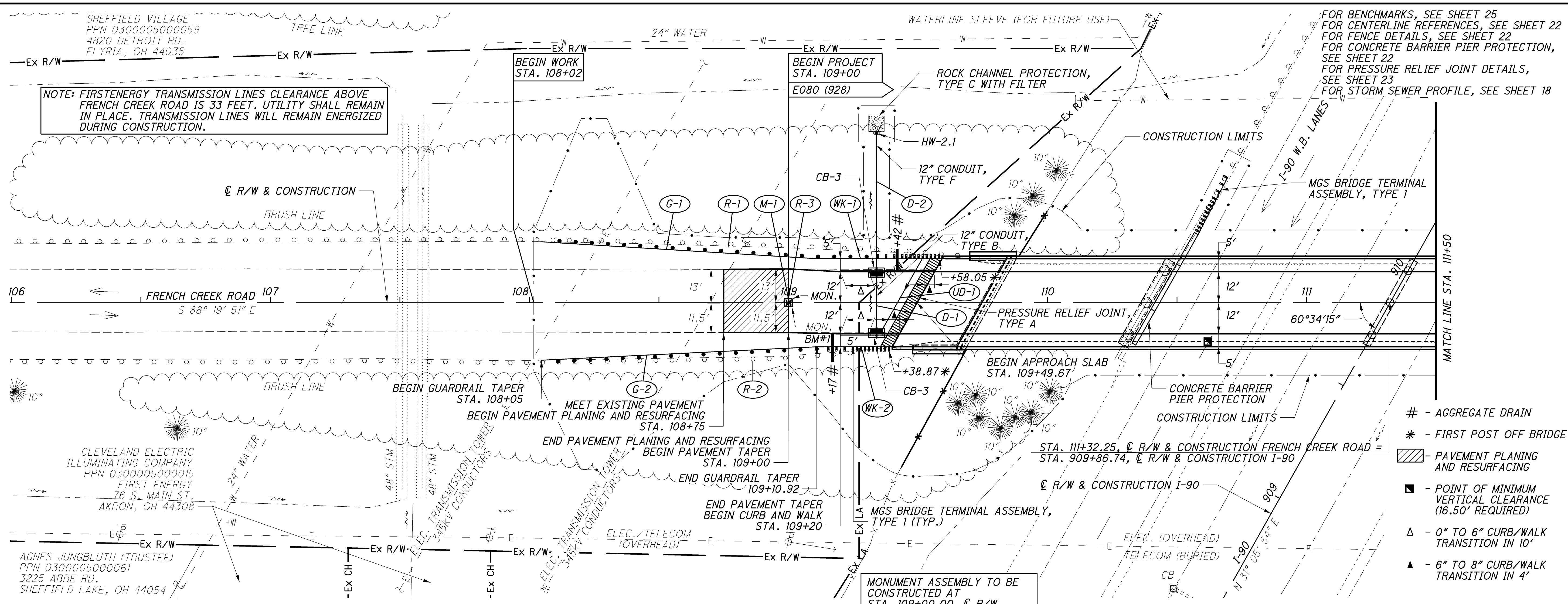
CALCULATED  
AKB  
CHECKED  
RAK

0 10 20 40  
HORIZONTAL  
SCALE IN FEET

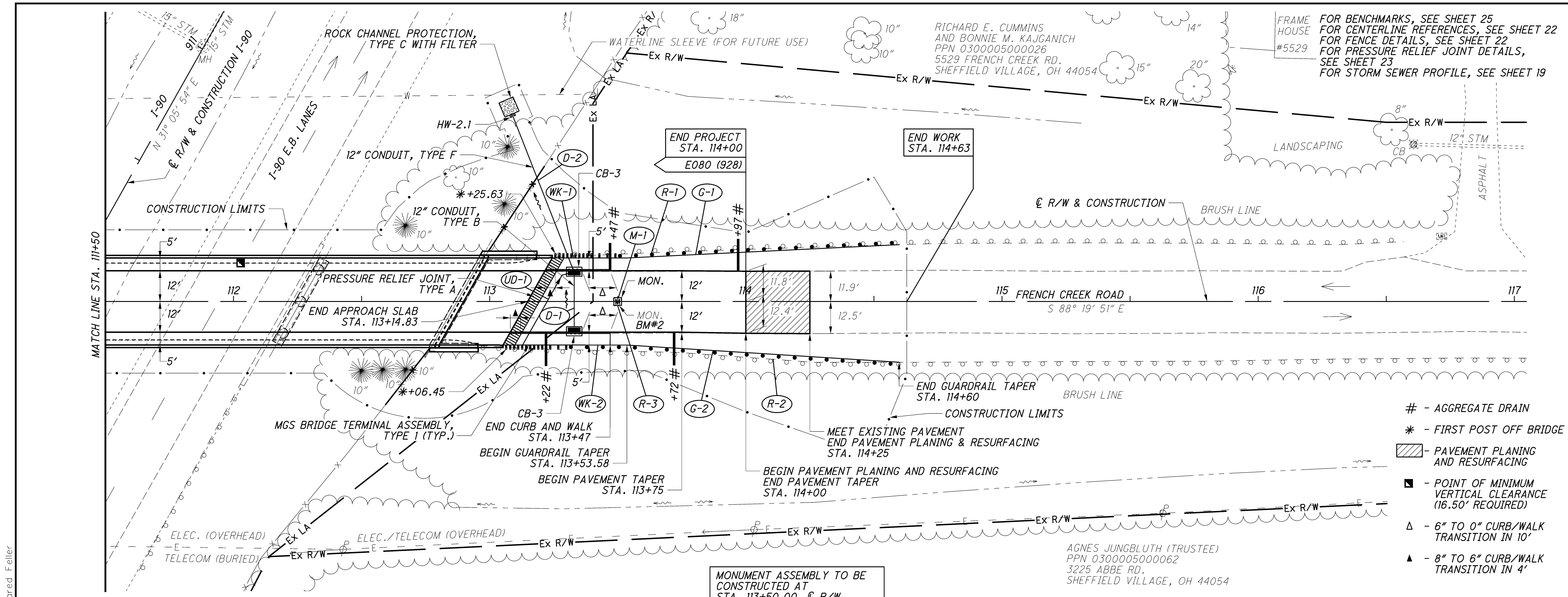
**PLAN AND PROFILE**  
106+00 TO 111+50

**LOR-90-17.53**

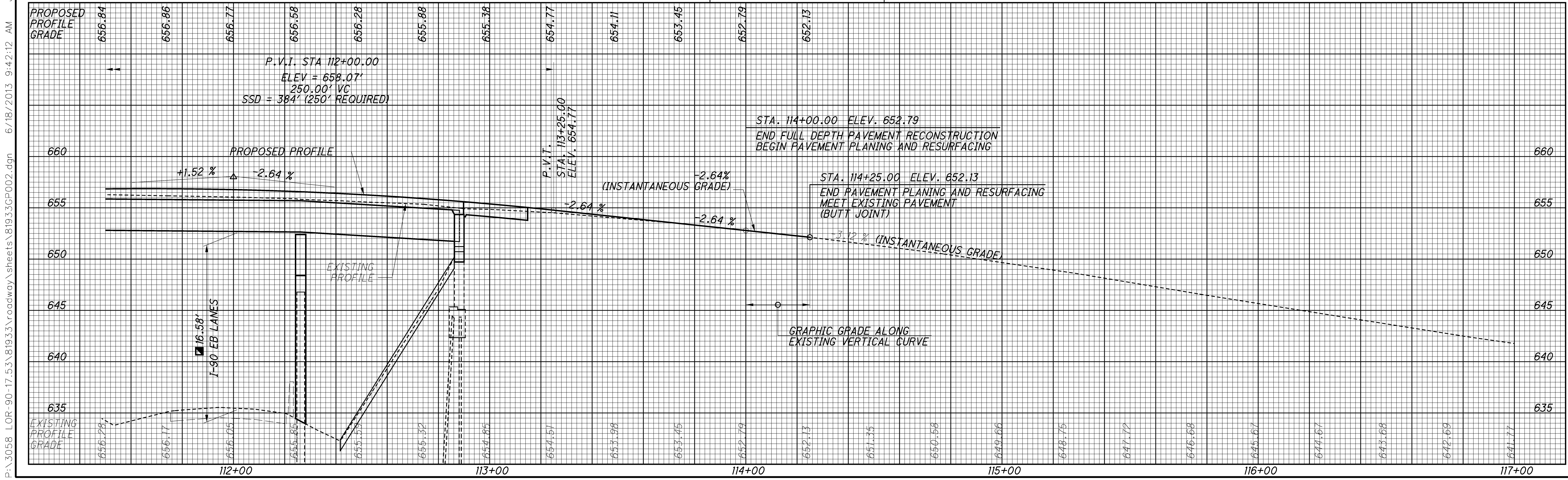
15  
48



P:\3058 LOR-90-17.53\81933\roadway\sheets\81933GP001.dgn 6/18/2013 9:41:39 AM Jared Feller

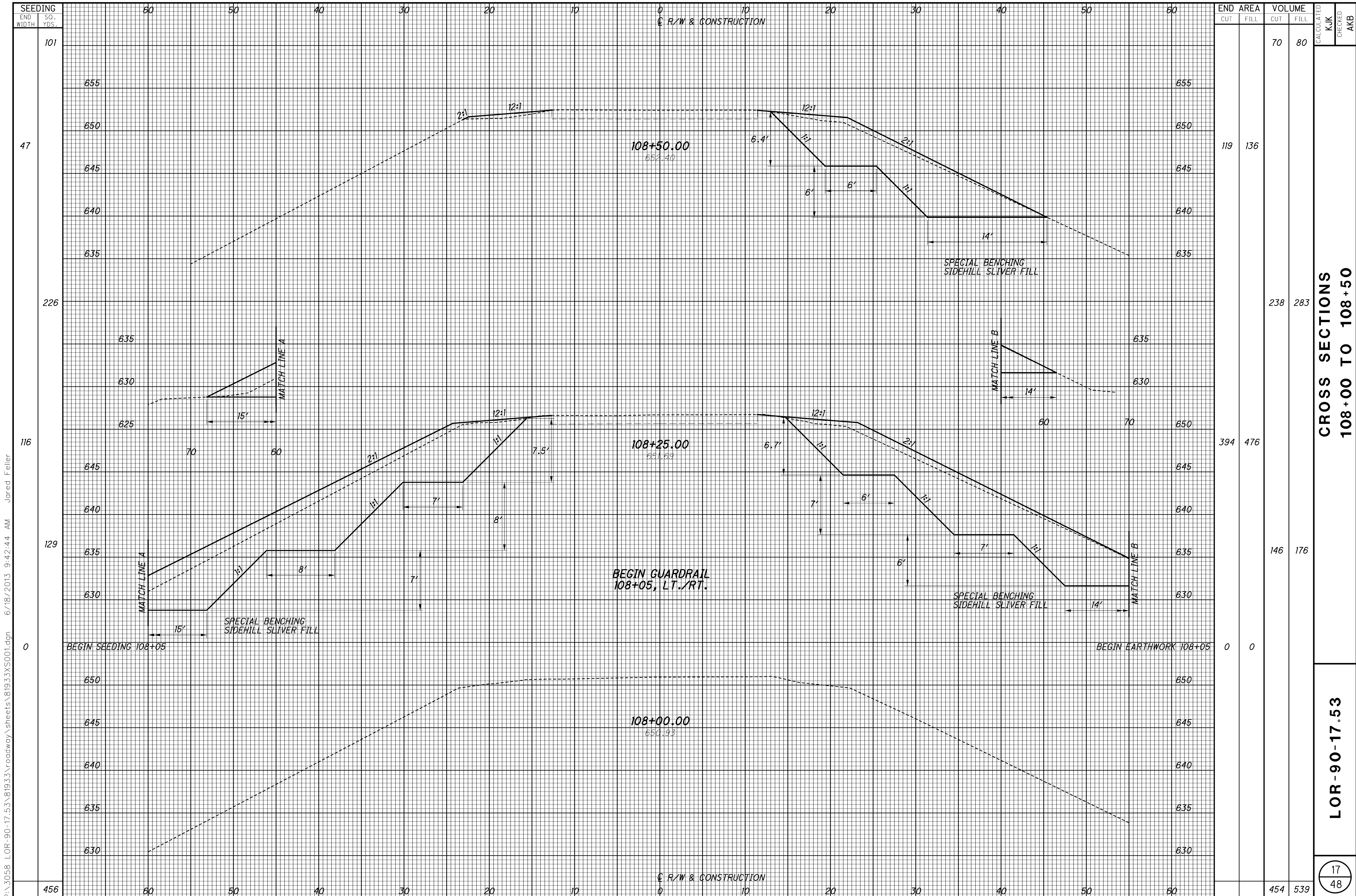


- # - AGGREGATE DRAIN
- \* - FIRST POST OFF BRIDGE
- ▨ - PAVEMENT PLANING AND RESURFACING
- - POINT OF MINIMUM VERTICAL CLEARANCE (16.50' REQUIRED)
- Δ - 6" TO 0" CURB/WALK TRANSITION IN 10'
- ▲ - 8" TO 6" CURB/WALK TRANSITION IN 4'



P:\3058 LOR-90-17.53\81933\roadway\sheet\81933GP002.dgn 6/18/2013 9:42:12 AM Jared Feller



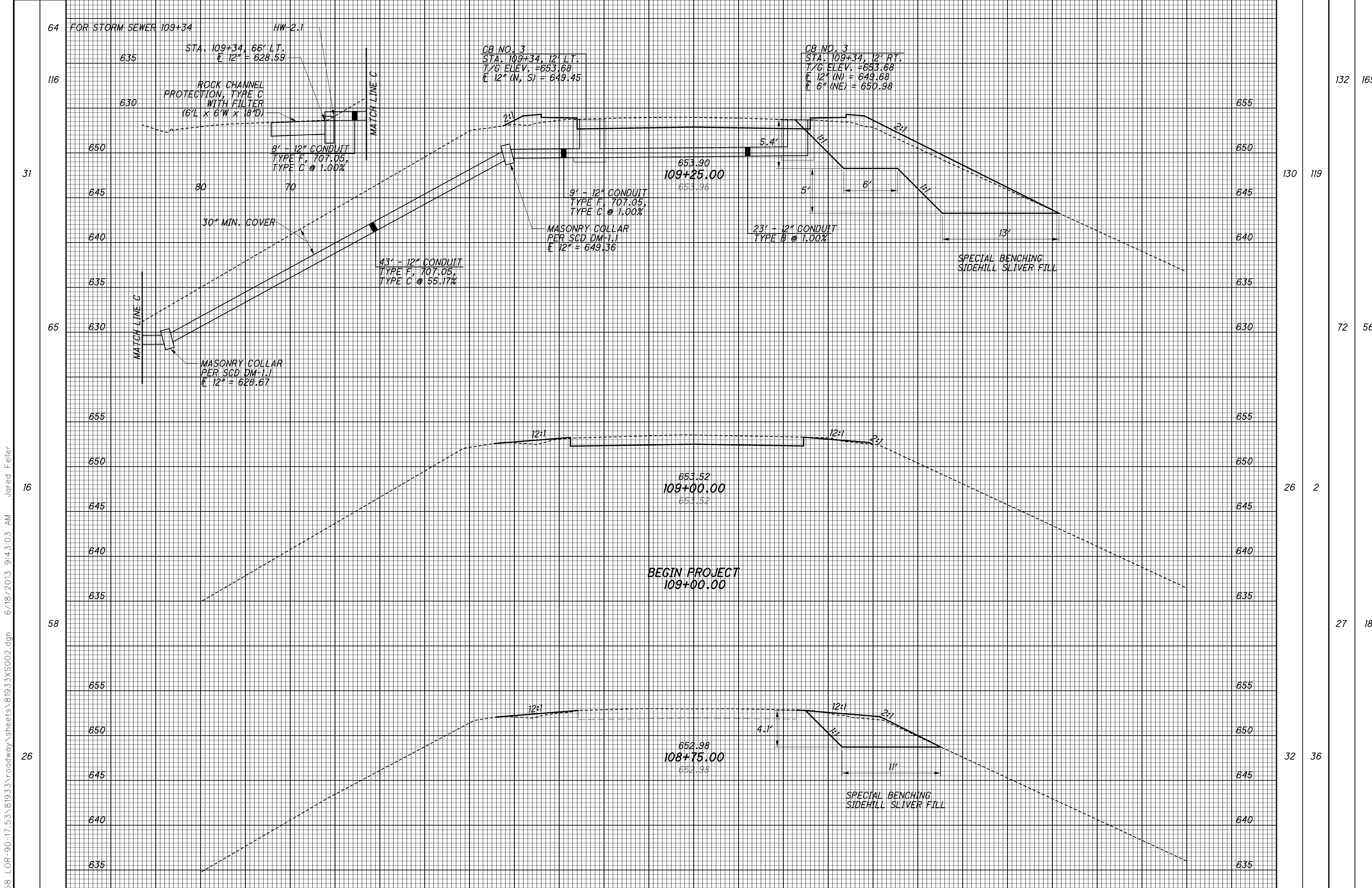


CROSS SECTIONS  
108+00 TO 108+50

LOR-90-17.53

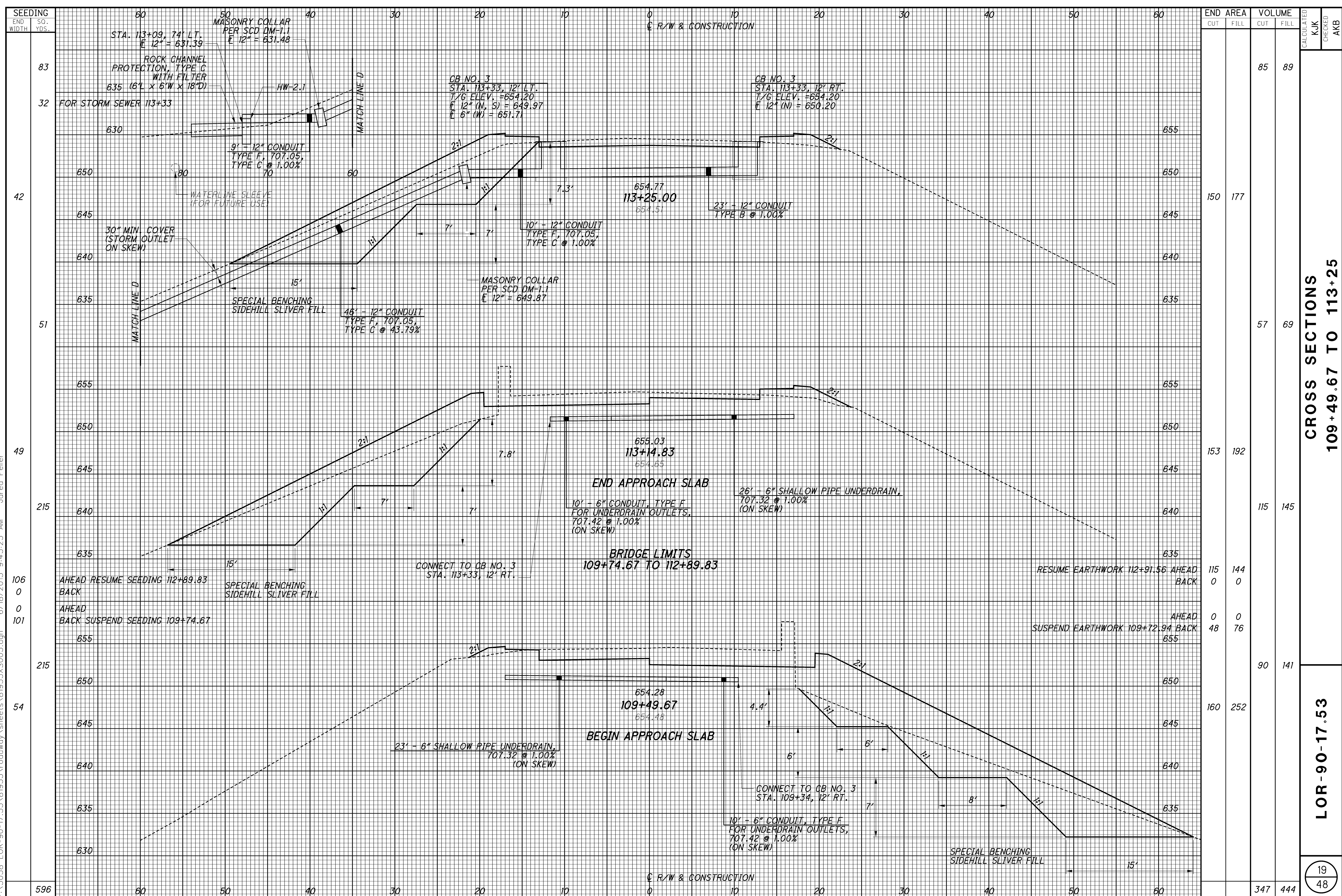
17  
48

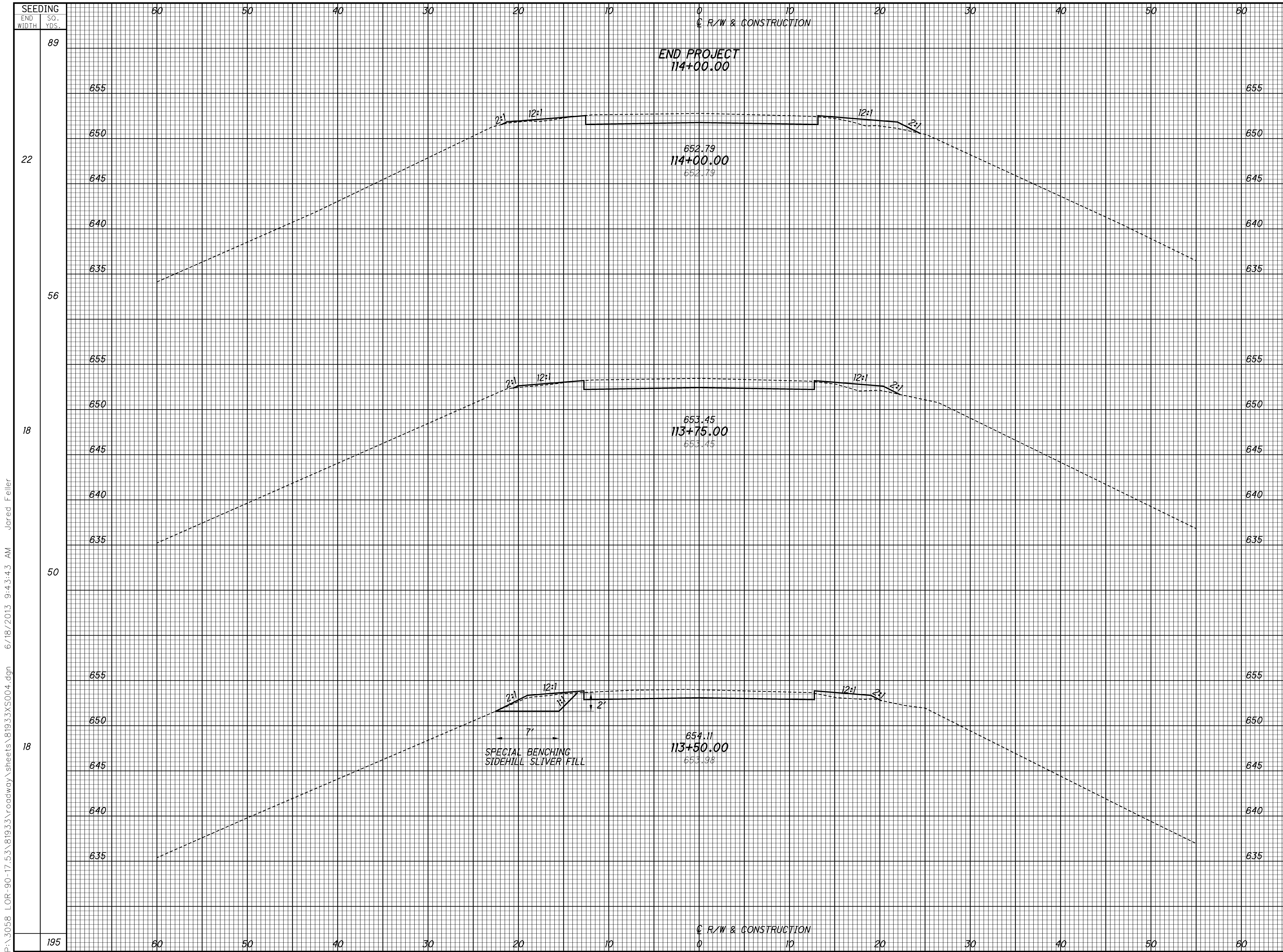
P:\3058 LOR-90-17.53\819333\roadway\sheets\819333XS001.dgn 6/18/2013 9:42:44 AM Jared Feller



P:\3058 LOR-90-17.53\819333\roadway\sheets\819333XS002.dgn 6/18/2013 9:43:03 AM Jared Feller

P:\3058 LOR-90-17.53\81933\roadway\sheets\81933XS003.dgn 6/18/2013 9:43:23 AM Jared Feller





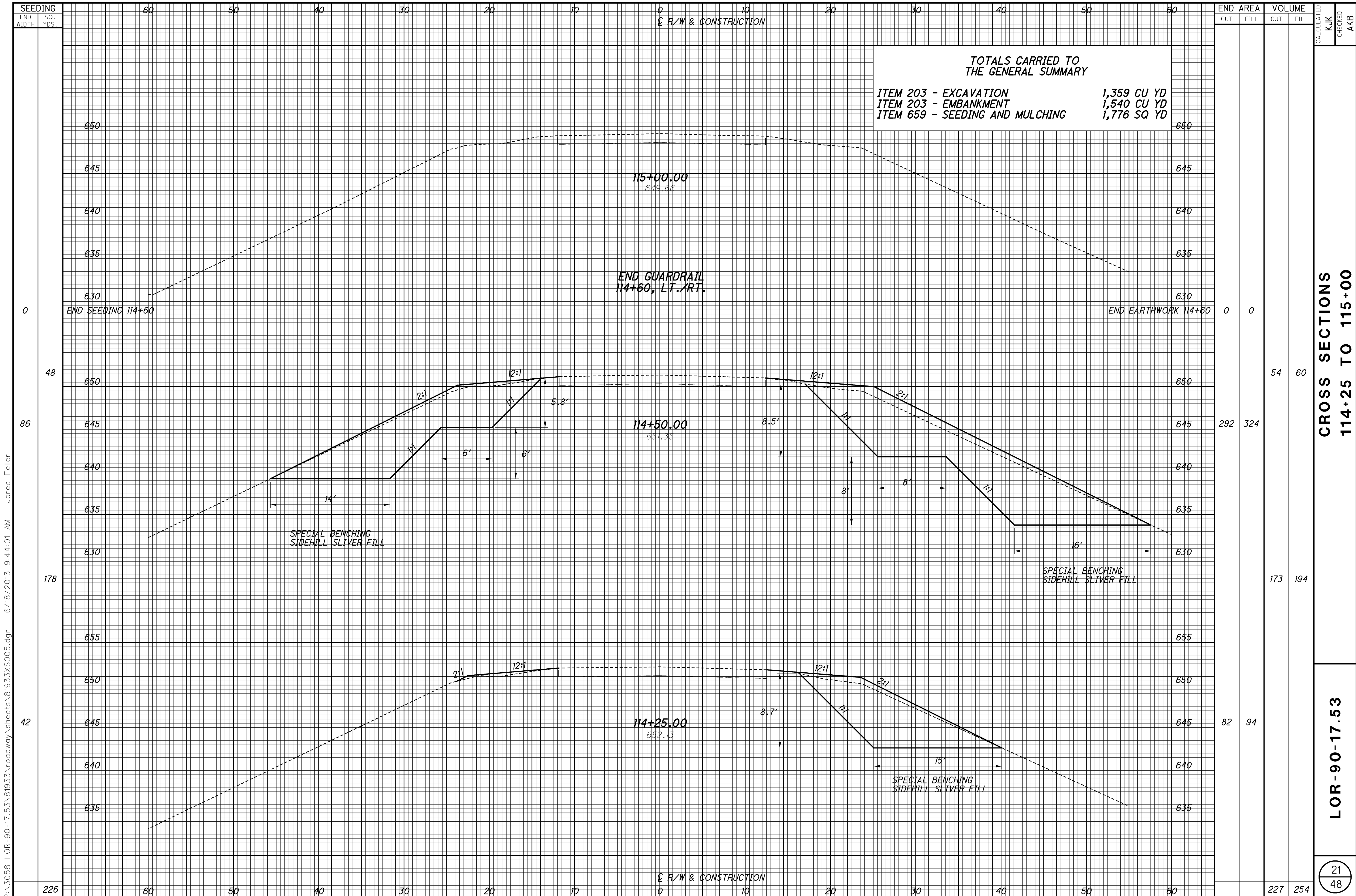
SEEDING END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED KJK	CHECKED AKB
		CUT	FILL	CUT	FILL		
89	22	25	6	50	46		
56	18	25	5	23	5		
18	50	27	9	27	9		
18	18	33	15	33	15		
195		100	60	100	60		

**CROSS SECTIONS  
113+50 TO 114+00**

**LOR-90-17.53**

20  
48

P:\3058 LOR-90-17.53\819333\roadway\sheet\819333XS004.dgn 6/18/2013 9:43:43 AM Jared Feller



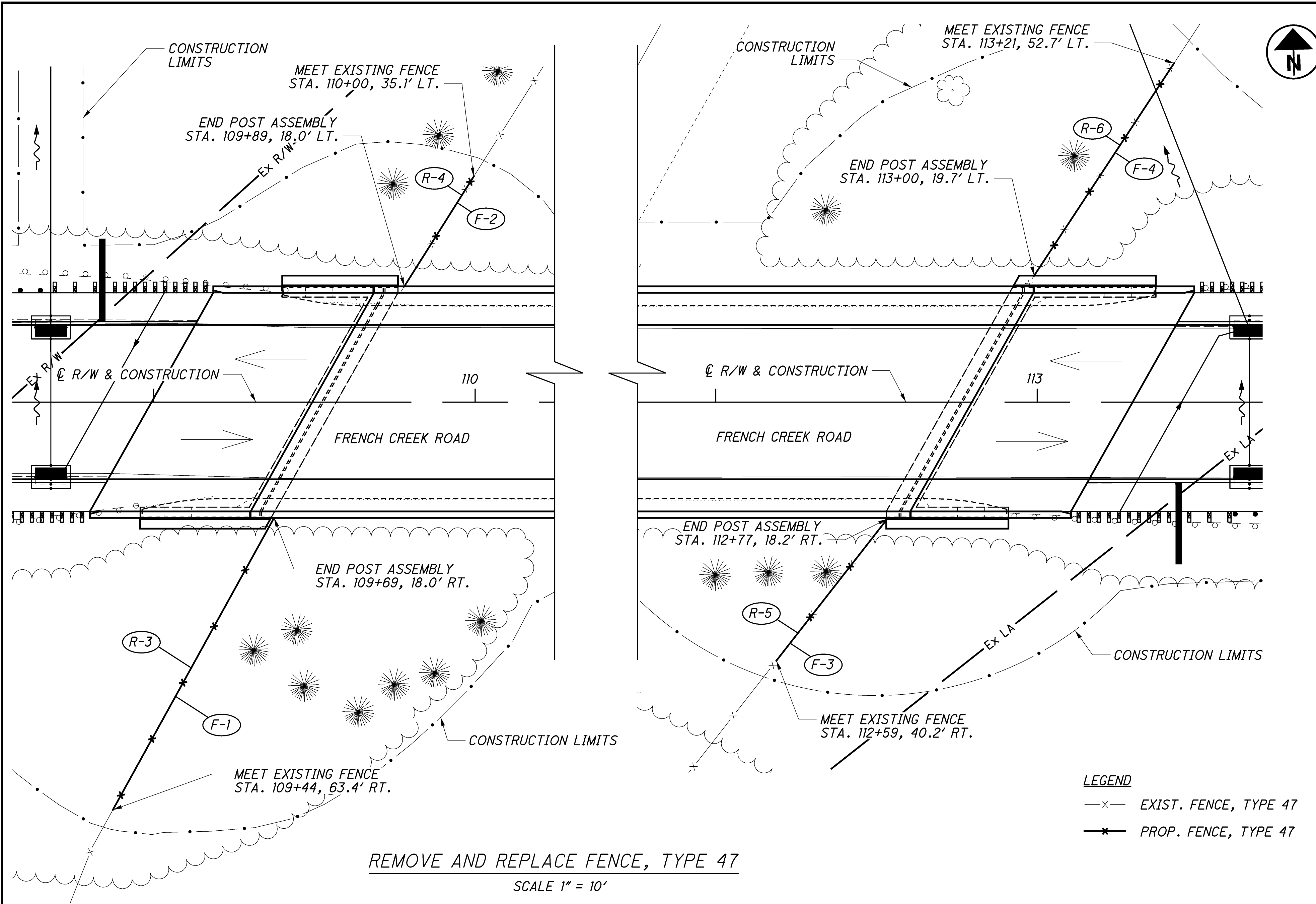
**CROSS SECTIONS  
114+25 TO 115+00**

**LOR-90-17.53**

21  
48

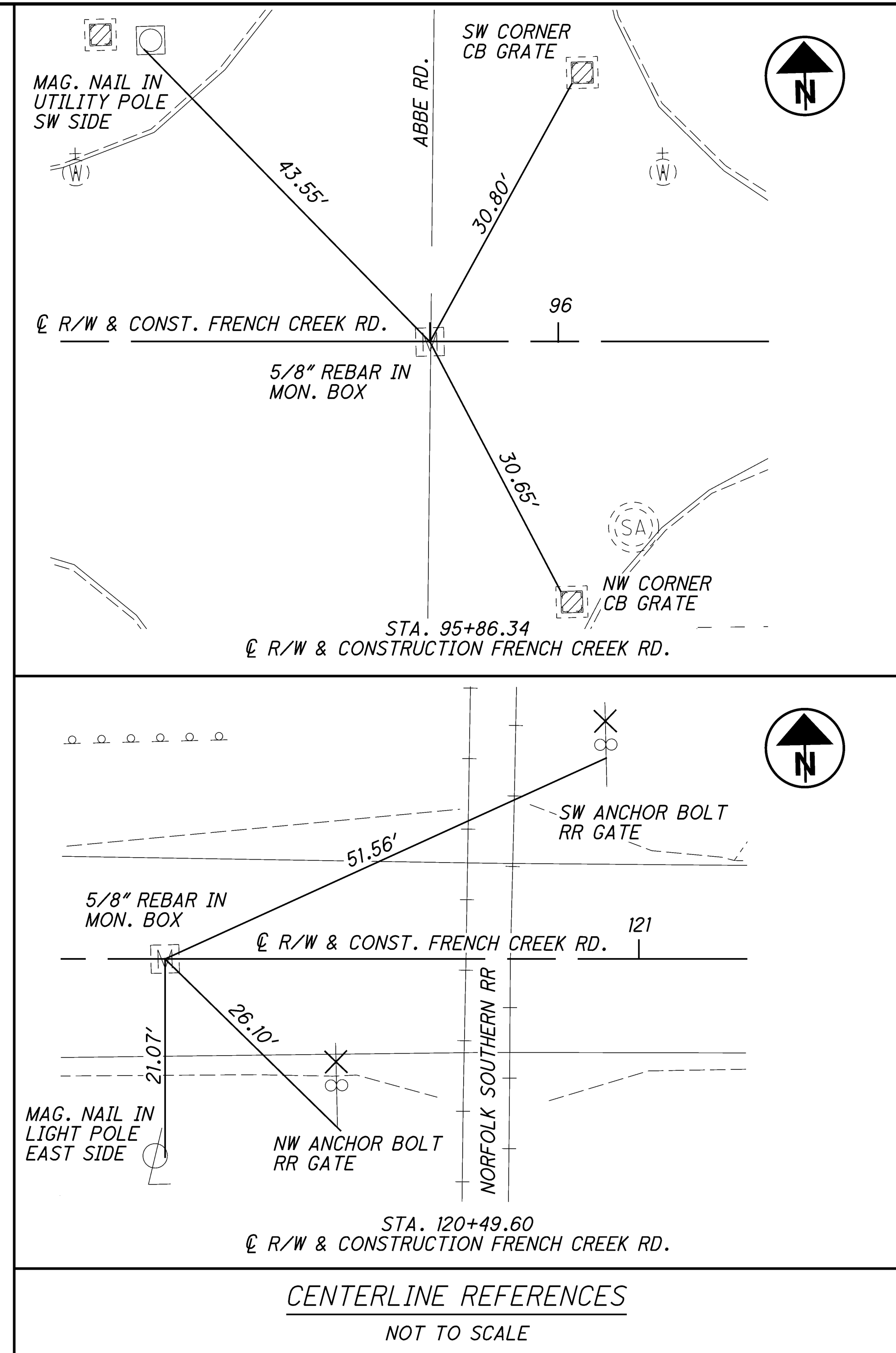
P:\3058 LOR-90-17.53\81933\roadway\sheets\81933XS005.dgn 6/18/2013 9:44:01 AM Jared Feller

P:\3058 LOR-90-17.53\819333\roadway\sheet\819333GM001.dgn 6/18/2013 9:44:21 AM Jared Feller



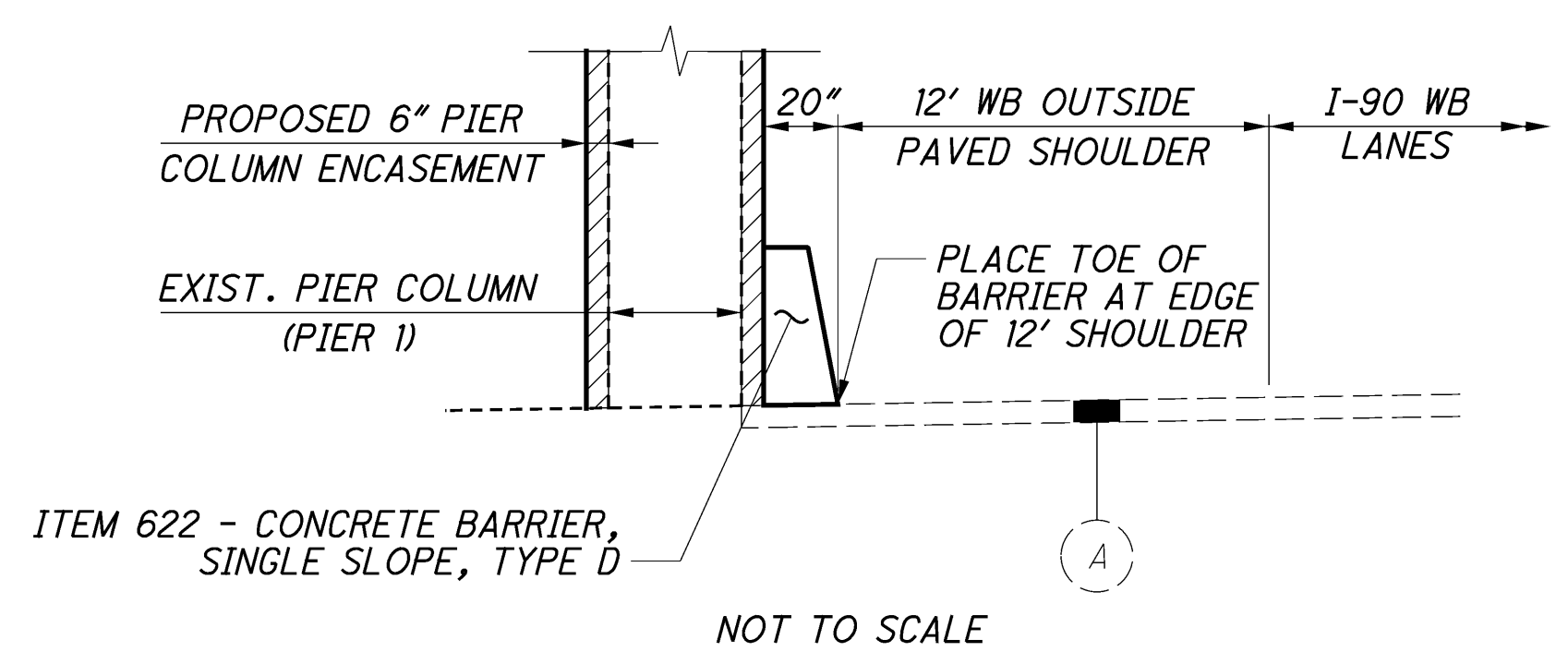
REMOVE AND REPLACE FENCE, TYPE 47  
SCALE 1" = 10'

**LEGEND**  
 -x- EXIST. FENCE, TYPE 47  
 \* PROP. FENCE, TYPE 47

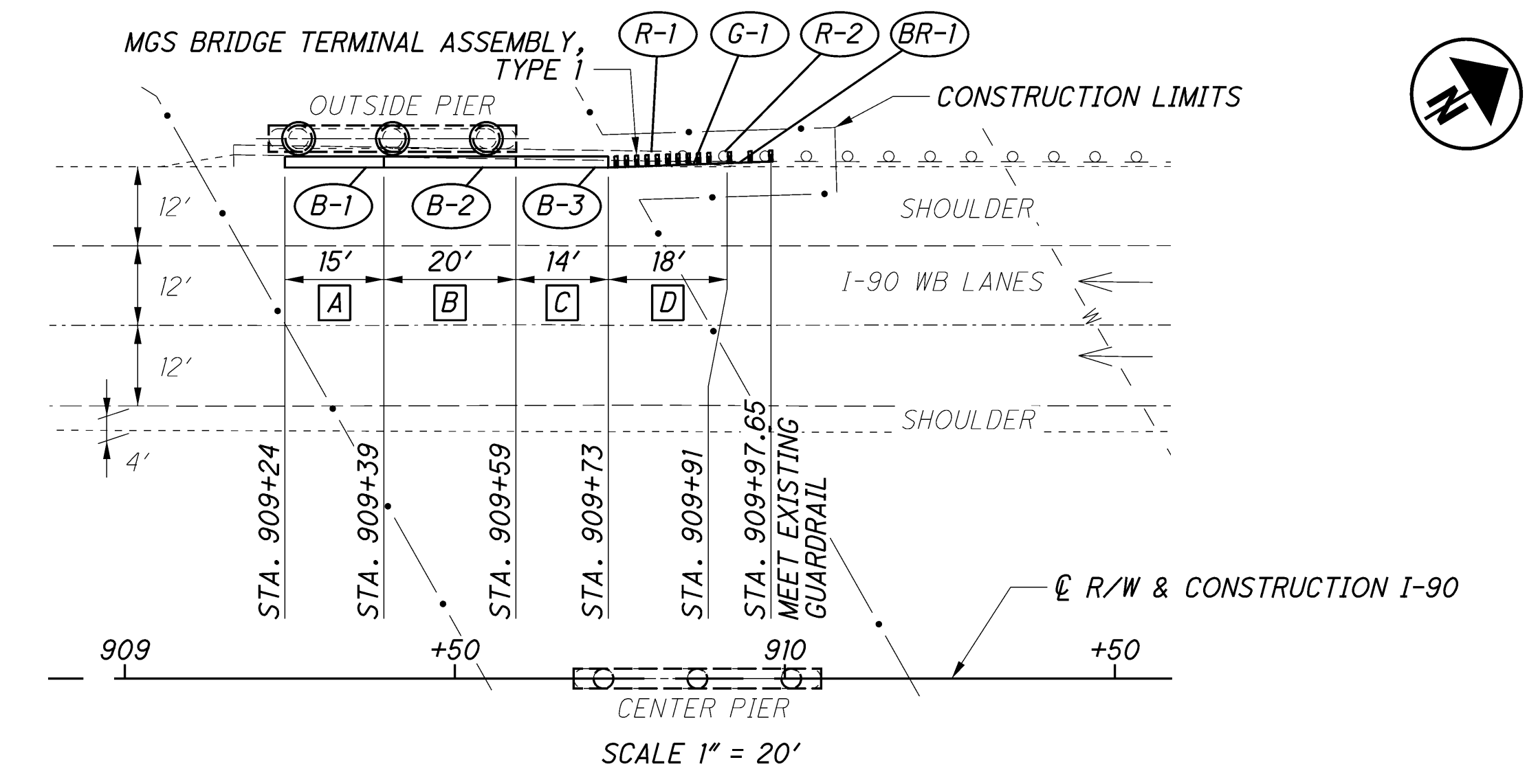


**CENTERLINE REFERENCES**  
NOT TO SCALE

**LEGEND**  
 [A] CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D PER RM-4.5  
 [B] CONCRETE BARRIER, SINGLE SLOPE, TYPE D PER RM-4.5  
 [C] CONCRETE BARRIER END SECTION, TYPE D PER RM-4.6  
 [D] CURB, TYPE 4-C PER BP-5.1  
 [A] EXISTING ASPHALT PAVEMENT



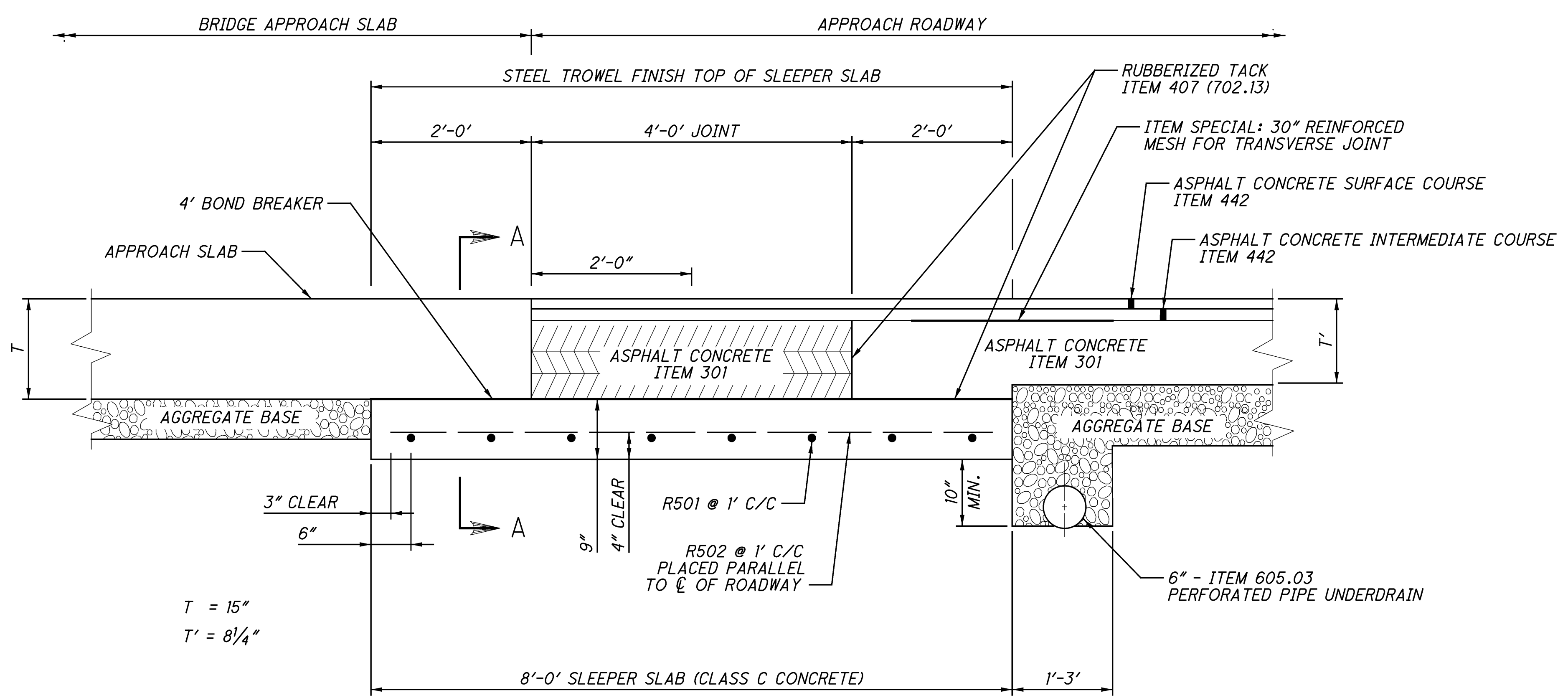
CONCRETE BARRIER PIER PROTECTION DETAILS  
WB OUTSIDE SHOULDER



SCALE 1" = 20'

MISCELLANEOUS DETAILS

LOR-90-17.53



SLEEPER SLAB AND PAVEMENT DETAIL

REINFORCING STEEL LIST			
MARK	SHAPE	NUMBER	LENGTH
R501	[1] STRAIGHT	8	S-0.5 FT.
R502	STRAIGHT	$N = \frac{S}{1 \text{ FT.}}$	$\frac{8}{\cos \theta}$ FT.

S = LENGTH OF SLEEPER SLAB IN FEET

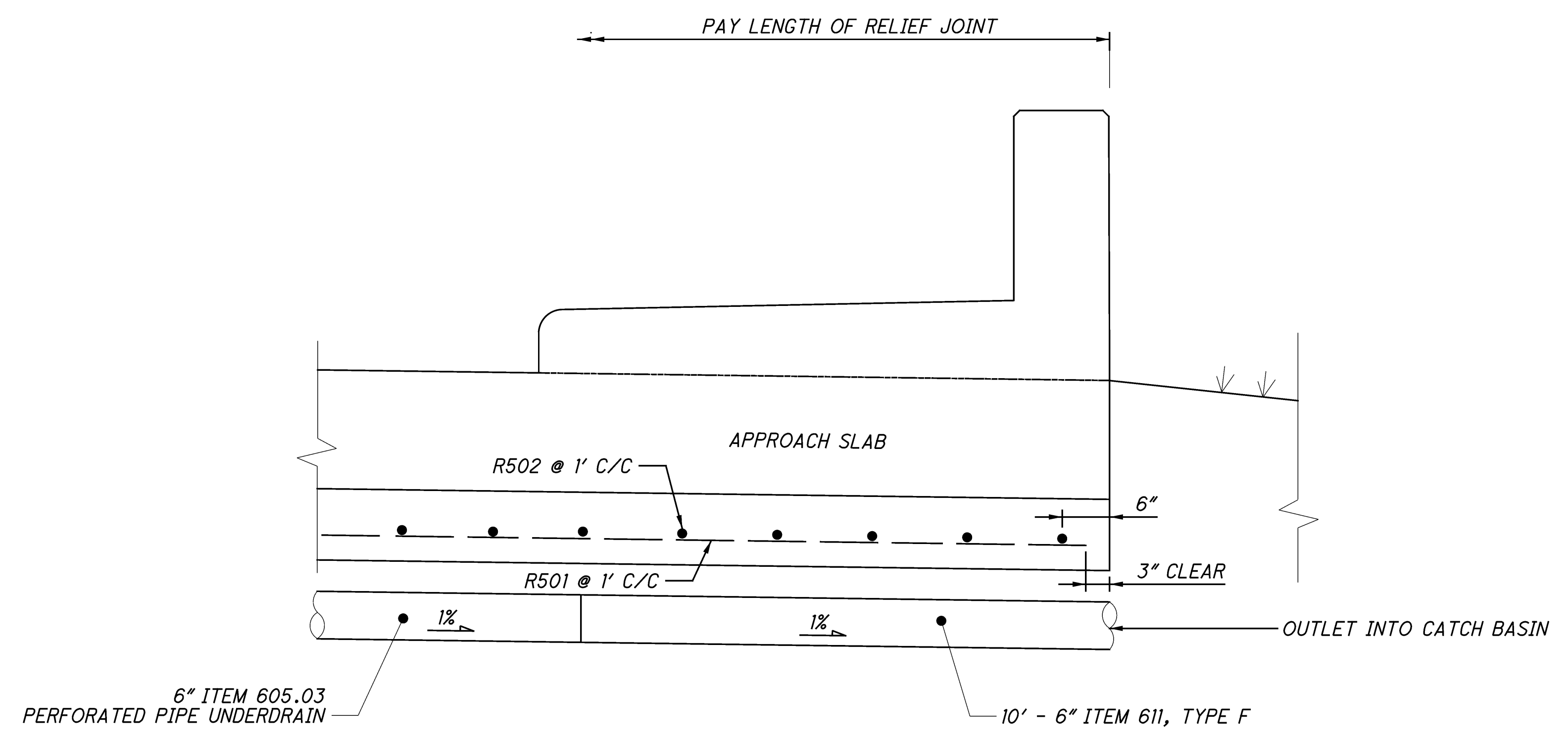
[1] R501 BARS MAY BE FURNISHED IN SEGMENTS WITH A 1'-7" BAR LAP BETWEEN SEGMENTS.

NOTES

**BOND BREAKER:** A BOND BREAKER CONSISTING OF TWO 4 FOOT SHEETS OF CLEAR OR OPAQUE POLYETHYLENE FILM, ITEM 705.06, SHALL BE CENTERED ABOVE THE JOINT BETWEEN THE SUBBASE AND THE SLEEPER SLAB. CARE SHALL BE TAKEN IN THE AREA BENEATH THE POLYETHYLENE FILM TO ENSURE THE SURFACE OF THE SUBBASE IS FINISHED SMOOTH AND IS FLUSH WITH OR SLIGHTLY HIGHER THAN THE SURFACE OF THE SLEEPER SLAB. THE FILM SHALL HAVE A NOMINAL THICKNESS OF 4 MILS.

**UNDERDRAIN:** A PERFORATED UNDERDRAIN SHALL BE PLACED AS SHOWN. IT SHALL EXTEND FROM EDGE TO EDGE OF THE SLEEPER SLAB AND BE OUTLETTED TO THE PROPOSED CATCH BASINS AS SHOWN ON SHEETS 15 & 16. FOR UNDERDRAIN DATA, SEE SHEET 19.

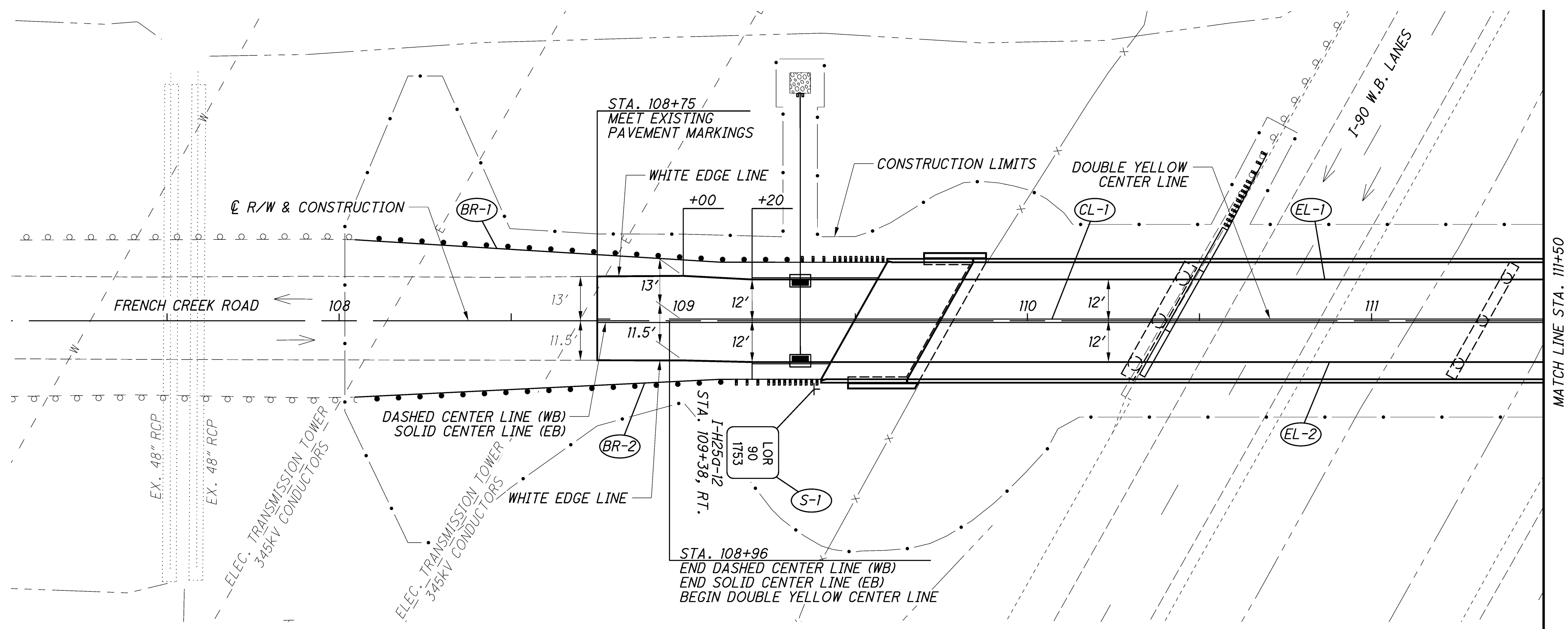
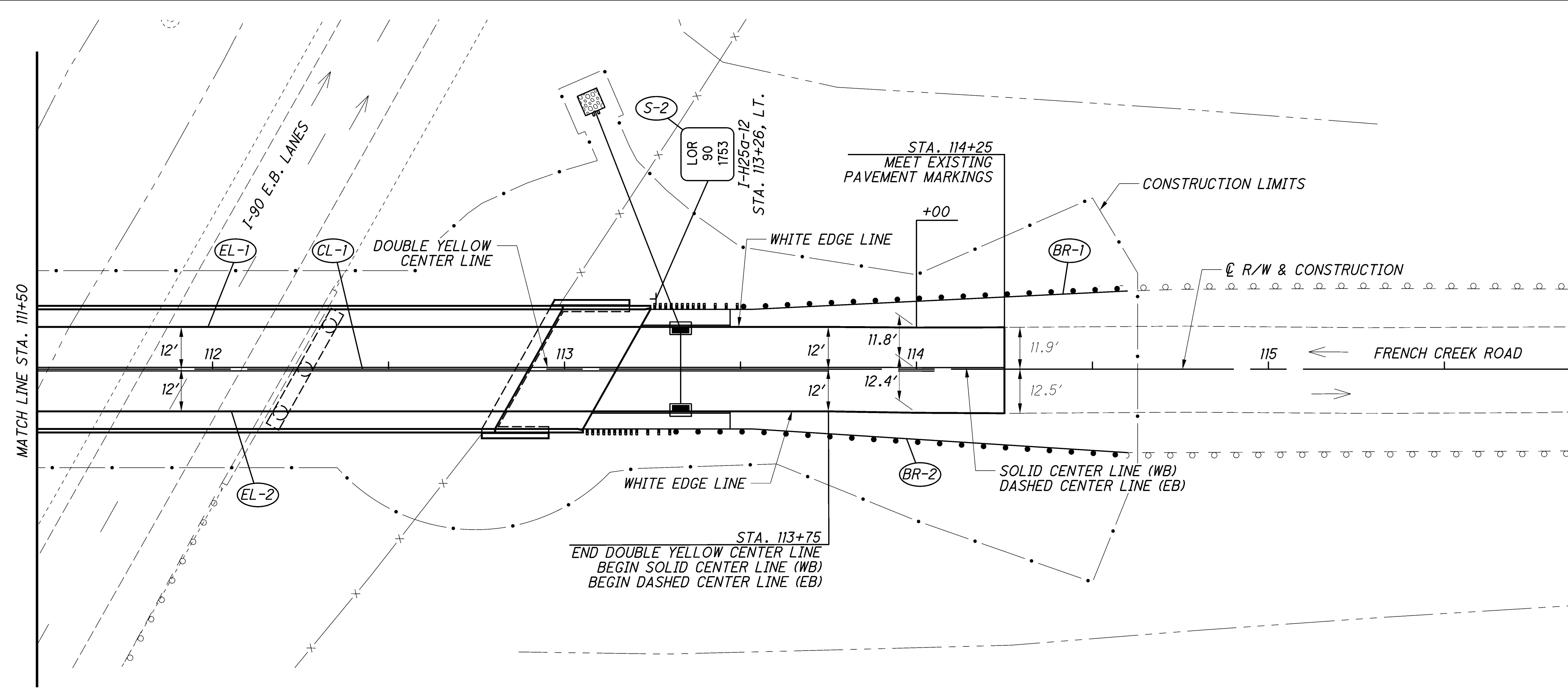
**PAYMENT:** MEASUREMENT OF THE PRESSURE RELIEF JOINT FOR PAYMENT PURPOSES SHALL BE ALONG THE CENTERLINE OF THE SLEEPER SLAB BETWEEN THE BACKS OF CURB. PAYMENT SHALL BE PER LINEAR FOOT OF ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE A AND SHALL INCLUDE ITEM 301 AND ALL LABOR, MATERIALS AND INCIDENTALS NEEDED TO CONSTRUCT THE JOINT AS SHOWN, EXCEPT FOR THE PIPE UNDERDRAIN. THE UNDERDRAINS SHALL BE PAID FOR PER LINEAR FOOT OF ITEM 707.32. ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS, THE OUTLET PIPE SHALL BE PAID FOR PER LINEAR FOOT OF ITEM 611 - 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS.



SECTION A-A

P:\3058\_LOR-90-17.53\81933\roadway\_sheets\81933GM002.dgn 6/18/2013 9:44:52 AM Jared Feller

P:\3058 LOR-90-17.53\819333\roadway\sheets\819333TP001.dgn 6/18/2013 9:45:07 AM Jared Feller



CALCULATED  
AKB  
CHECKED  
RAK

0 20 40  
HORIZONTAL  
SCALE IN FEET

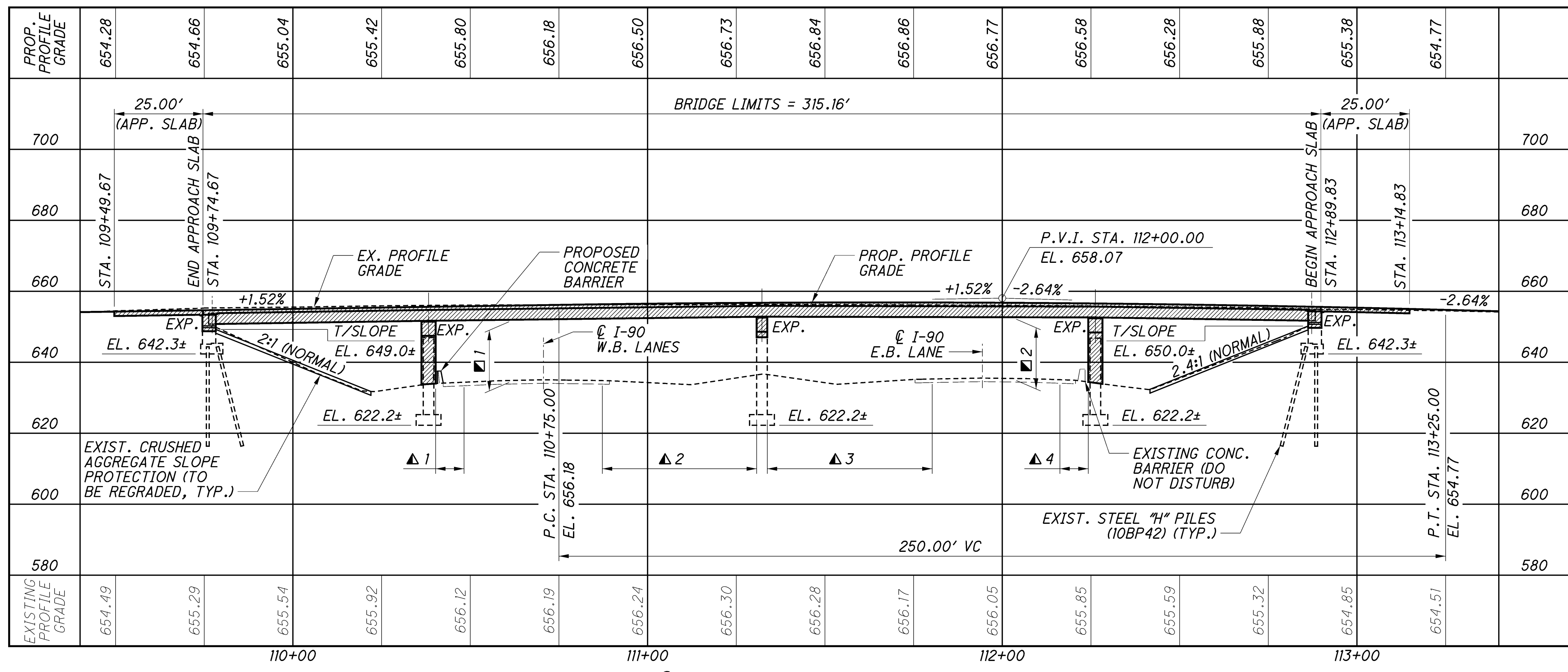
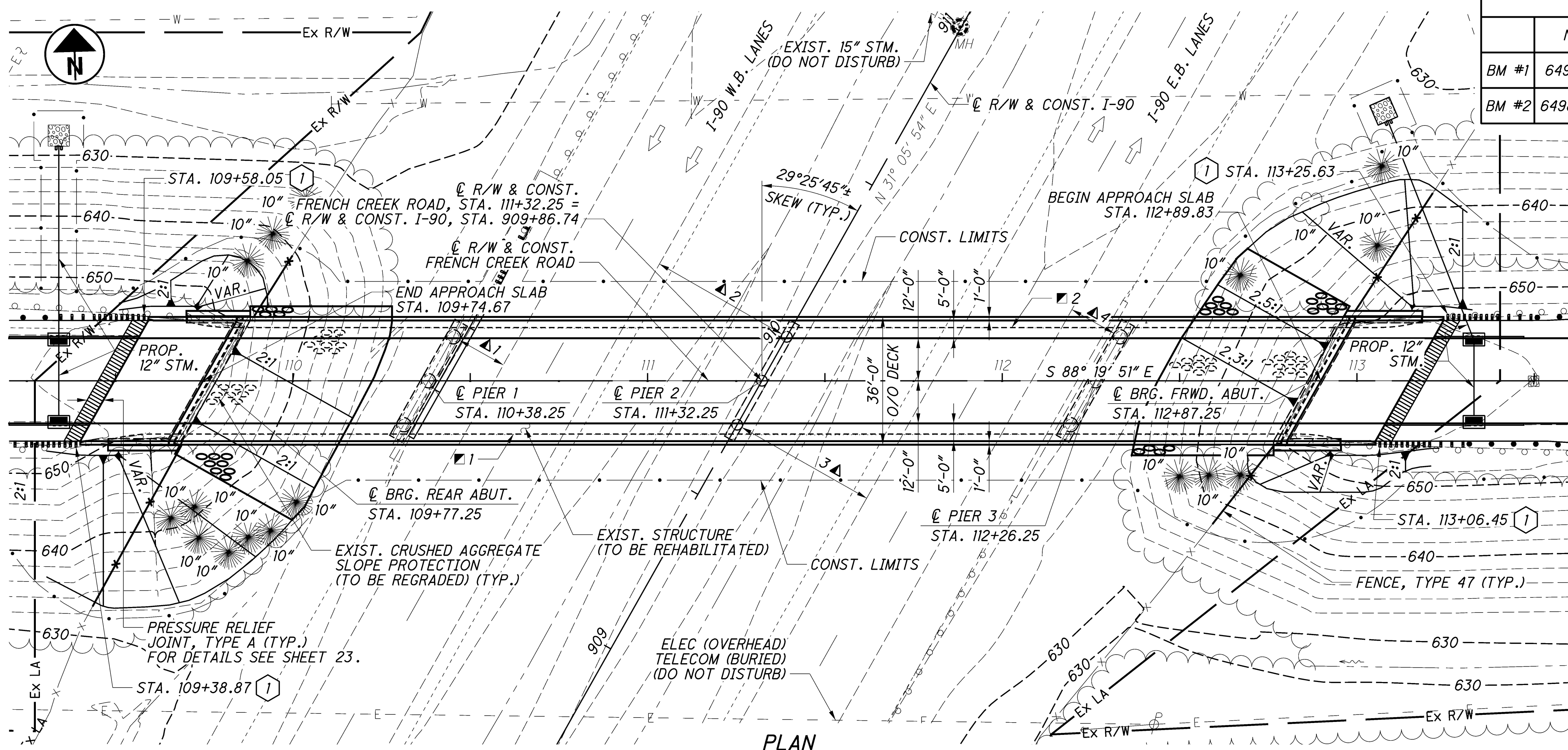
TRAFFIC CONTROL

LOR-90-17.53

24  
48



P:\3058 LOR-90-17-53\81933\structures\LOR090-1753CSP001.dgn 6/18/2013 9:45:25 AM Jored Feller



**BENCHMARKS**

	NORTH	EAST	CONST. STA.	OFFSET	ELEVATION	REMARKS
BM #1	649821.8918	2085912.0643	108+98.99	0.85' LT.	653.15	MON. BOX PIN
BM #2	649808.7709	2086361.9550	113+50.84	1.27' RT.	653.13	MON. BOX PIN

**NOTES**

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:  
 2015 ADT = 1,960      2015 ADTT = 78  
 2035 ADT = 2,080      2035 ADTT = 83

**LEGEND**

- MINIMUM VERTICAL CLEARANCES**
- 1 = 16.58' (16.50' REQ'D)
  - 2 = 16.58' (16.50' REQ'D)
- MINIMUM HORIZONTAL CLEARANCES**
- ▲ 1 = 13.67± (13.67' REQ'D)
  - ▲ 2 = 39.81± (30.00' REQ'D)
  - ▲ 3 = 40.48± (30.00' REQ'D)
  - ▲ 4 = 13.67± (13.67' REQ'D)
- ① MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 (FIRST POST LOCATION)

**EXISTING STRUCTURE**

TYPE: CONTINUOUS STEEL GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.  
 SPANS: 61'-0"±, 94'-0"±, 94'-0"±, 61'-0"± (C/C BEARINGS)  
 ROADWAY: 30'-0" TOE/TOE 2'-0" SAFETY CURB  
 LOADING: CF 130 (57)  
 SKEW: 29°25'45"± L.F.  
 APPROACH SLABS: 25'-0" (AS-1-54 MODIFIED)  
 ALIGNMENT: TANGENT  
 CROWN: 0.016±  
 STRUCTURE FILE NUMBER: 4704835  
 DATE BUILT: 1970  
 WEARING SURFACE: 1½"± ASPHALT CONCRETE  
 DISPOSITION: TO BE REHABILITATED

**PROPOSED STRUCTURE**

PROPOSED WORK: REPLACE EXISTING DECK SLAB WITH COMPOSITE DECK SLAB AND REPLACE EXISTING STEEL GIRDERS WITH STEEL BEAMS. CONVERT EXISTING ABUTMENTS TO SEMI-INTEGRAL, MODIFY WINGWALLS, REPLACE EXISTING PIER CAPS AND SEAL CONCRETE SURFACES.

TYPE: CONTINUOUS COMPOSITE STEEL BEAMS WITH REINFORCED CONCRETE DECK SLAB AND SUBSTRUCTURE (PORTIONS OF EXISTING SUBSTRUCTURE UNITS ARE TO BE SALVAGED)

SPANS: 61'-0", 94'-0", 94'-0", 61'-0" (C/C BEARING)  
 ROADWAY: 24'-0" TOE/TOE CURB WITH 5'-0" SIDEWALKS  
 LOADING: HS20-44 (CASE II) AND ALTERNATE MILITARY, 60 PSF FUTURE WEARING SURFACE  
 SKEW: 29°25'45"± L.F.  
 APPROACH SLABS: 25'-0" LONG (AS-1-81) (MODIFIED)  
 ALIGNMENT: TANGENT  
 CROWN: 0.016  
 WEARING SURFACE: 1" MONOLITHIC CONCRETE  
 COORDINATES: LATITUDE N41°27'00"  
 LONGITUDE W82°04'18"

**Jones Stuckey**  
 1655 W. MARKET STREET, SUITE 355  
 AKRON, OHIO 44313  
 DESIGN AGENCY  
 DATE: 6-17-13  
 REVIEWED: FJG  
 DRAWN: TMR  
 DESIGNED: DEA  
 CHECKED: EDW  
 STRUCTURE FILE NUMBER: 4704835  
 LORAIN COUNTY  
 STA. 109+74.67  
 STA. 112+89.83  
**SITE PLAN**  
 BRIDGE NO. LOR-90-1753  
 FRENCH CREEK ROAD OVER I-90  
**LOR-90-17.53**  
 PID No. 81933  
 1 / 24  
 25 / 48

**DESIGN SPECIFICATIONS**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE 2004 ODOT BRIDGE DESIGN MANUAL.

**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS**

REFER TO THE FOLLOWING ODOT STANDARD BRIDGE DRAWINGS:

A-1-69	REVISED	7-19-02
AS-1-81	REVISED	1-18-13
BR-2-98	REVISED	7-20-12
GSD-1-96	REVISED	7-19-02
SICD-1-96	REVISED	7-19-02

**DESIGN LOADING**

DESIGN LOADING: HS20, CASE II AND THE ALTERNATE MILITARY LOADING

FUTURE WEARING SURFACE (FWS) OF 60 PSF

**DESIGN STRESSES**

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

STRUCTURAL STEEL - ASTM A709 GRADE 50, YEILD STRENGTH 50000 PSI

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI  
SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615

**DECK PROTECTION METHOD**

EPOXY COATED REINFORCING STEEL WITH 2 1/2" CONCRETE COVER

**MONOLITHIC WEARING SURFACE**

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

**EXISTING STRUCTURE VERIFICATION**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

**PROPOSED WORK:**

1. REMOVE ENTIRE EXISTING DECK INCLUDING ASPHALT WEARING SURFACE, EXPANSION JOINTS AND SCUPPERS AND REMOVE ALL STRUCTURAL STEEL INCLUDING BEARINGS.
2. REMOVE EXISTING APPROACH SLABS.
3. REMOVE PORTIONS OF ABUTMENTS AND PIERS AS INDICATED IN THE PLANS.
4. RECONSTRUCT ABUTMENTS AND PIERS AS DETAILED IN THE PLANS.
5. SET NEW LAMINATED ELASTOMERIC BEARINGS AT THE ABUTMENTS AND PIERS AND ERECT NEW BEAMS INCLUDING CROSS-FRAMES.
6. INSTALL SHEAR CONNECTORS AND CONSTRUCT NEW DECK AND APPROACH SLABS.
7. SEAL CONCRETE SURFACES.
8. REPAIR/REGRADE EXISTING AGGREGATE SLOPE PROTECTION AND INSTALL NEW AGGREGATE SLOPE PROTECTION AT THE WIDENED PORTIONS OF THE STRUCTURE.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN**

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION INCLUDING THE DECK, PARAPETS, ALL STRUCTURAL STEEL INCLUDING CROSS-FRAMES, AND PORTIONS OF THE SUBSTRUCTURE AS INDICATED IN THE PLANS AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALL AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN.

**MAINTENANCE OF TRAFFIC**

FOR DETOUR PLAN AND MAINTENANCE OF TRAFFIC NOTES, SEE SHEETS 5/48 THROUGH 7/48.

**ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN**

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

**ITEM 519 - PATCHING CONCETE STRUCTURES, AS PER PLAN**

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

**ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT**

PAINT COLOR SHALL BE FEDERAL COLOR NUMBER 15526.

**ITEM 607 - VANDAL PROTECTION FENCE, 8 FOOT STRAIGHT, COATED FABRIC, AS PER PLAN**

THIS ITEM SHALL BE AS PER THE DETAILS IN THE PLAN WITH THE APPLICABLE PORTIONS OF STANDARD DRAWING VPF-1-90 AND THE MANUFACTURER'S RECOMMENDATIONS.

THE ANCHORS SHALL BE CAST IN PLACE.

THE COLOR OF THE FENCE FABRIC, RAILS, POSTS, PLATES, TIEWIRES, AND ADDITIONAL VISUAL HARDWARE AND CAULK SHALL BE BLACK.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 607 - VANDAL PROTECTION FENCE 8 FOOT STRAIGHT, COATED FABRIC, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN**

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING ASPHALT WEARING COURSE ON THE EXISTING APPROACH SLAB.

**DECK PLACEMENT ASSUMPTIONS**

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 1.09 KIPS FOR A TOTAL MACHINE LOAD OF 8.7 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA BEAM TO THE FACE OF THE SAFETY HANDRAIL OF 65".

P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753\CGN005.dgn 6/18/2013 9:45:47 AM Jored Feller



DESIGN AGENCY  
DATE 6-17-13  
REVIEWED FJG  
STRUCTURE FILE NUMBER 4704835

DRAWN TMR  
CHECKED EDW

GENERAL NOTES  
BRIDGE NO. LOR-90-1753  
FRENCH CREEK ROAD OVER I-90

DESIGNED DEA

LOR-90-17.53  
PID No. 81933

2/24  
26/48

P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CGN006.dgn 6/18/2013 9:45:57 AM Jared Feller

**ITEM 601 - SLOPE PROTECTION, MISC.: NEW AND REGRADED EXISTING CRUSHED AGGREGATE SLOPE PROTECTION**

THIS ITEM SHALL INCLUDE THE FURNISHING AND PLACING OF ADDITIONAL CRUSHED AGGREGATE SLOPE PROTECTION, 12 INCHES THICK, TO SUPPLEMENT THE EXISTING CRUSHED AGGREGATE SLOPE PROTECTION, IN AREAS AS REQUIRED TO MEET FINAL GROUND LINE AND NEW CRUSHED AGGREGATE SLOPE PROTECTION BENEATH WIDENED AREAS. PLACEMENT SHALL BE MADE AS DIRECTED BY THE ENGINEER. CRUSHED AGGREGATE SLOPE PROTECTION AT TERMINATION OF THE 6" NON-PERFORATED DRAINAGE PIPES AT THE ABUTMENTS IS ALSO INCLUDED WITH THIS ITEM. ALL MATERIALS AND WORK SHALL MEET THE REQUIREMENTS AS PER CMS ITEM 601.

ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR ITEM 601, SLOPE PROTECTION MISC.: NEW AND REGRADED EXISTING CRUSHED AGGREGATE SLOPE PROTECTION.

**ASBESTOS NOTIFICATION AND REMOVAL**

AN ASBESTOS SURVEY OF THE BRIDGE SCHEDULED FOR REHABILITATION (DECK REPLACEMENT) WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. APPROXIMATELY 35 SQ. FT. OF CATEGORY II REGULATED ASBESTOS CONTAINING MATERIALS WAS IDENTIFIED ON THE TOP GUARDRAIL CAULK ON CONCRETE WINGWALLS IDENTIFIED AS LOR-90-17.53 (SFN 4704835). THE REMOVAL AND DISPOSAL OF THE ASBESTOS CONTAINING MATERIAL MUST COMPLY WITH THE OHIO ADMINISTRATIVE CODE (OAC) REGULATIONS AND THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHA) STANDARD FOR ASBESTOS.

THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL TRAINED IN THE PROVISIONS OF NESHA ON SITE TO DIRECT THE REMOVAL OF THE ASBESTOS CONTAINING MATERIAL.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER AT THE PRECONSTRUCTION MEETING. THE CONTRACTOR SHALL COMPLETE THE FORM AND RETURN IT TO THE DISTRICT CONSTRUCTION ENGINEER ALONG WITH THE PERMIT FEE IF APPLICABLE. THE COMPLETION OF THIS FORM MAY BE PERFORMED AT THE PRECONSTRUCTION MEETING. THE DISTRICT CONSTRUCTION ENGINEER SHALL SUBMIT THE FORM AND CONTRACTORS FEE TO THE OEPA NORTHWEST DISTRICT OFFICE AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF THE DEMOLITION OF THE BRIDGE. THE DISTRICT CONSTRUCTION ENGINEER SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE CONTRACTOR. THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OF THE STRUCTURE UNTIL THE ABOVE REQUIREMENTS ARE MET.

INFORMATION ON THE FORM WILL INCLUDE:

- THE CONTRACTORS NAME AND ADDRESS.
- THE ASBESTOS REMOVAL SUB-CONTRACTOR'S NAME AND ADDRESS.
- THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL.
- THE DATES AND HOURS OF OPERATION FOR THE ASBESTOS REMOVAL.
- A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.
- A DESCRIPTION OF THE PLANNED DEMOLITION AND THE METHOD(S) TO BE USED.
- A DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE SITE.
- THE NAME AND ADDRESSES OF WASTE TRANSPORTERS TO BE USED ON THE PROJECT.
- THE NAME AND ADDRESS OF THE WASTE DISPOSAL FACILITY (LICENSED BY THE LOCAL HEALTH DEPARTMENT AND PERMITTED BY THE OEPA TO BE USED.
- A DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBED, PULVERIZED OR REDUCED TO POWDER.

A COPY OF THE OEPA FROM IS AVAILABLE FOR INSPECTION AT THE OOOT, DISTRICT 3 OFFICE AT 906 CLARK AVENUE, ASHLAND, OHIO,44805.

**BASIS OF PAYMENT**

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE, SUBMIT AND COMPLY WITH THE OEPA NOTIFICATION FORM AND TO REMOVE, TRANSPORT AND DISPOSE OF THE ASBESTOS CONTAINING MATERIAL. PAYMENT FOR THIS WORK SHALL BE MADE UNDER THE CONTRACT LUMP SUM PRICE BID FOR ITEM SPECIAL - ASBESTOS ABATEMENT.

**ABBREVIATIONS**

ABUT.	ABUTMENT
ADDIT.	ADDITIONAL
BRG.	BEARINGS
B.S.	BOTH SIDES
BOT.	BOTTOM
BTWN.	BETWEEN
C.I.P.	CAST-IN-PLACE
CLR.	CLEAR
CONC.	CONCRETE
CONST.	CONSTRUCTION
DIM.	DIMENSION
EA.	EACH
EQ.	EQUAL
EXIST.	EXISTING
FRWD.	FORWARD
F.S.	FAR SIDE
JT.	JOINT
MIN.	MINIMUM
NO.	NUMBER
N.P.C.P.P.	NON-PERFORATED CORRUGATED PLASTIC PIPE
N.S.	NEAR SIDE
P.C.P.P.	PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F.	PREFORMED EXPANSION JOINT FILLER
SER.	SERIES
SHLD.	SHOULDER
SPA.	SPACES OR SPACED
SPL.	SPLICE
TYP.	TYPICAL
V.P.F.	VANDAL PROTECTION FENCE



DESIGN AGENCY  
DATE 6-17-13  
REVIEWED FJG  
STRUCTURE FILE NUMBER 4704835

DRAWN TMR  
REVISIONS  
DESIGNED DEB  
CHECKED EDW

GENERAL NOTES  
BRIDGE NO. LOR-90-1753  
FRENCH CREEK ROAD OVER I-90

LOR-90-17.53  
PID No. 81933

3 / 24

27  
48

**ESTIMATED QUANTITIES**

CALCULATED: MOJ    DATE: 6-13-13  
 CHECKED: EDW    DATE: 6-14-13

PARTICIPATION 01/IMS/BR	ITEM	EXT.	TOTAL	UNITS	DESCRIPTION	SUPER- STRUCTURE	PIERS	ABUTMENTS	GENERAL	SEE
										STRUCTURE SHT. NO.
LUMP	202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	2
190	202	22901	190	SQ YD	APPROACH SLAB REMOVED, AS PER PLAN				190	2
1,240	202	23500	1,240	SQ YD	WEARING COURSE REMOVED				1,240	
47	503	21101	47	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN				47	8, 10
134,270	509	10001	134,270	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	117,973	9,857	6,440		2
196	510	10000	196	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT			196		
475	511	34446	475	CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	475				
63	511	34450	63	CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	63				
84	511	41012	84	CU YD	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		84			
66	511	44112	66	CU YD	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING			66		
1,334	512	10100	1,334	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	992	270	72		
313,354	513	10240	313,354	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 2	313,354				
3,615	513	20000	3,615	EACH	WELDED STUD SHEAR CONNECTORS	3,615				
15,449	514	00060	15,449	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	15,449				
15,449	514	00066	15,449	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	15,449				2
12	514	10000	12	EACH	FINAL INSPECTION REPAIR	12				
173	516	13900	173	SQ FT	2" PREFORMED EXPANSION JOINT FILLER			173		
110	516	14020	110	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			110		
15	516	44101	15	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (13" x 22" x 2.71" THICK), AS PER PLAN	15				13
10	516	44201	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (12" x 14" x 3.88" THICK), AS PER PLAN	10				13
64	518	21200	64	CU YD	POROUS BACKFILL WITH FILTER FABRIC			64		
96	518	40000	96	FT	6" PERFORATED CORRUGATED PLASTIC PIPE			96		
64	518	40010	64	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS			64		
8	519	11101	8	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN		6	2		2
200	526	25001	200	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN				200	21
479	601	21100	479	SQ YD	SLOPE PROTECTION, MISC.: NEW AND REGRADED EXISTING CRUSHED AGGREGATE SLOPE PROTECTION				479	3
628	607	39911	628	FT	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC, AS PER PLAN	628				2
LUMP	SPECIAL	69071000	LUMP		ASBESTOS ABATEMENT				LUMP	3

P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CEQ001.dgn 6/18/2013 9:46:06 AM Jared Feller



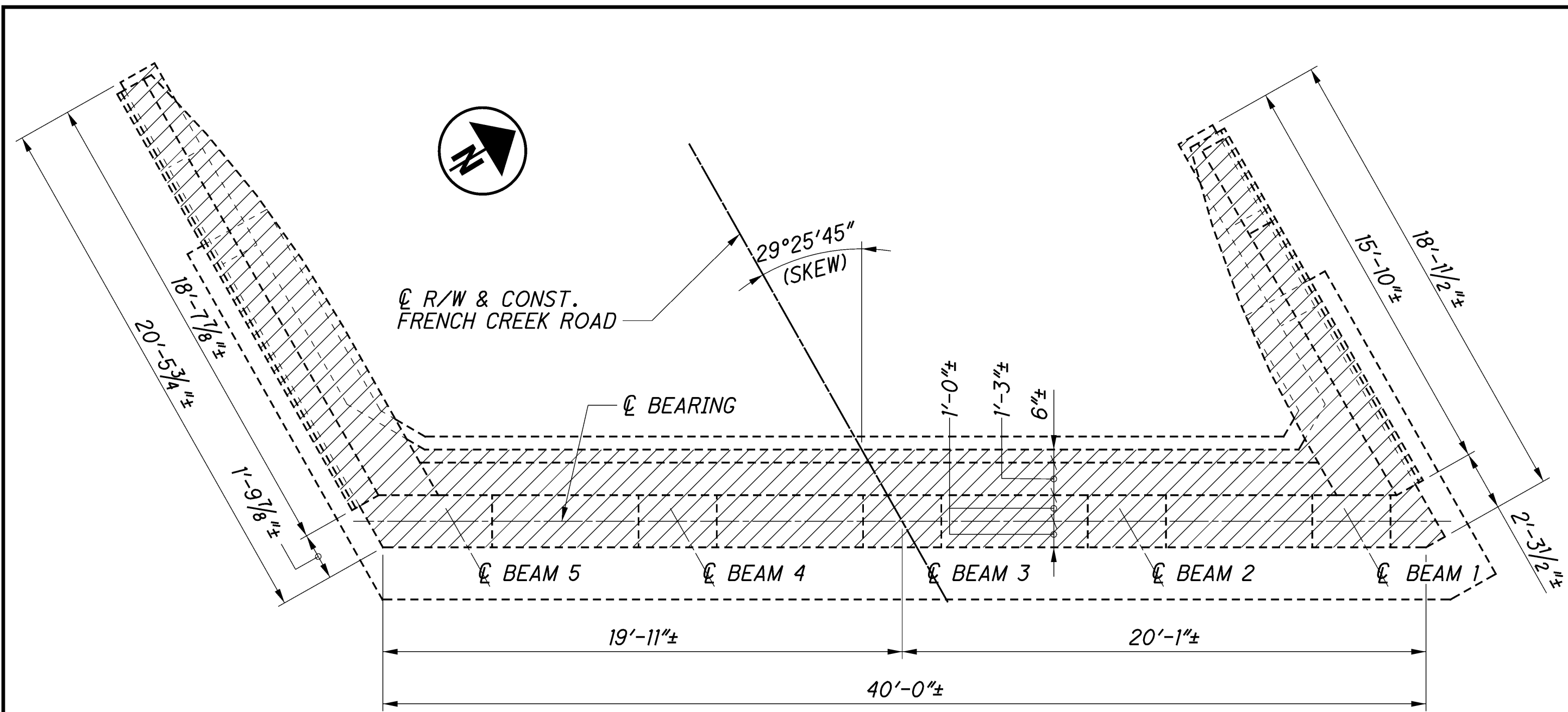
DESIGN AGENCY  
 DATE: 6-17-13  
 REVIEWED: FJG  
 STRUCTURE FILE NUMBER: 4704835

DRAWN: TMR  
 CHECKED: EDW

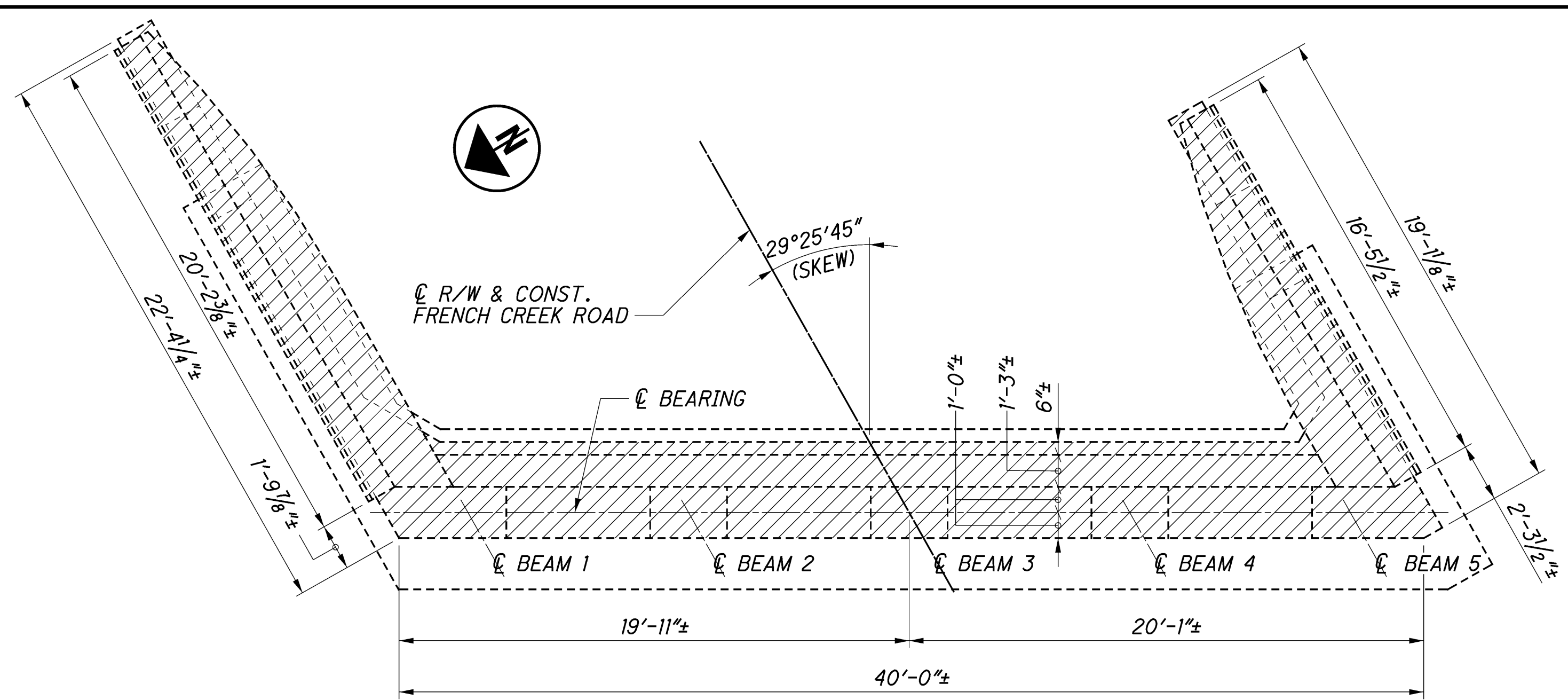
ESTIMATED QUANTITIES  
 BRIDGE NO. LOR-90-1753  
 FRENCH CREEK ROAD OVER I-90

LOR-90-17.53  
 PID No. 81933

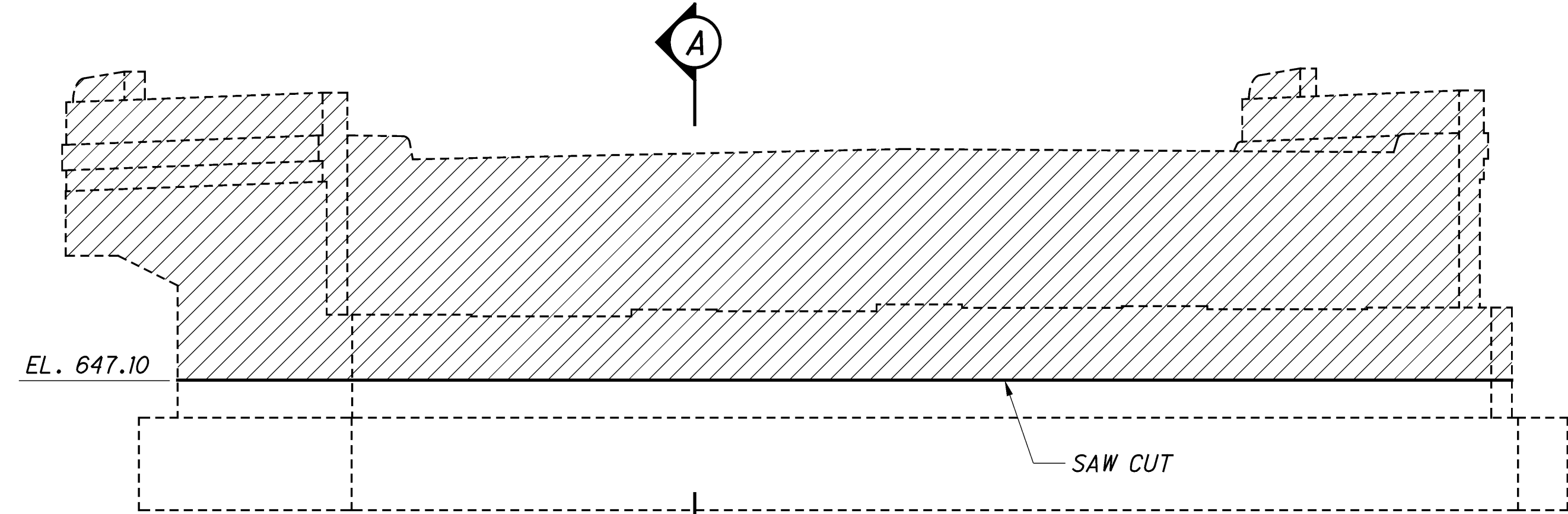
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CRE001.dgn 6/18/2013 9:46:17 AM Jared Feller



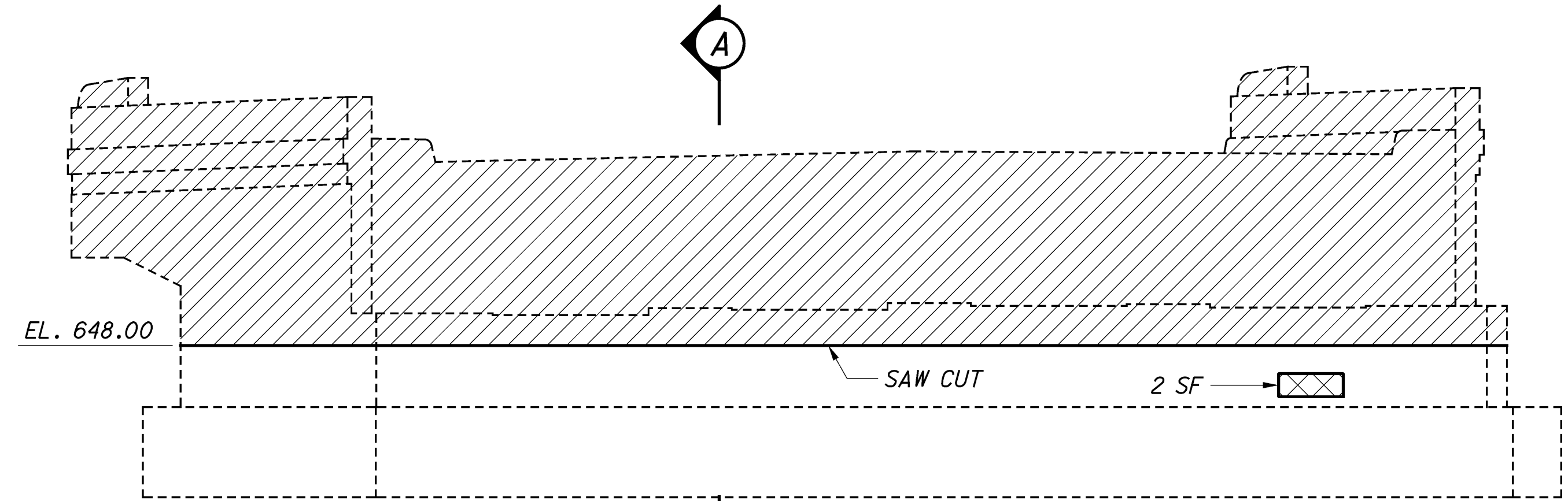
**PLAN**  
REAR ABUTMENT



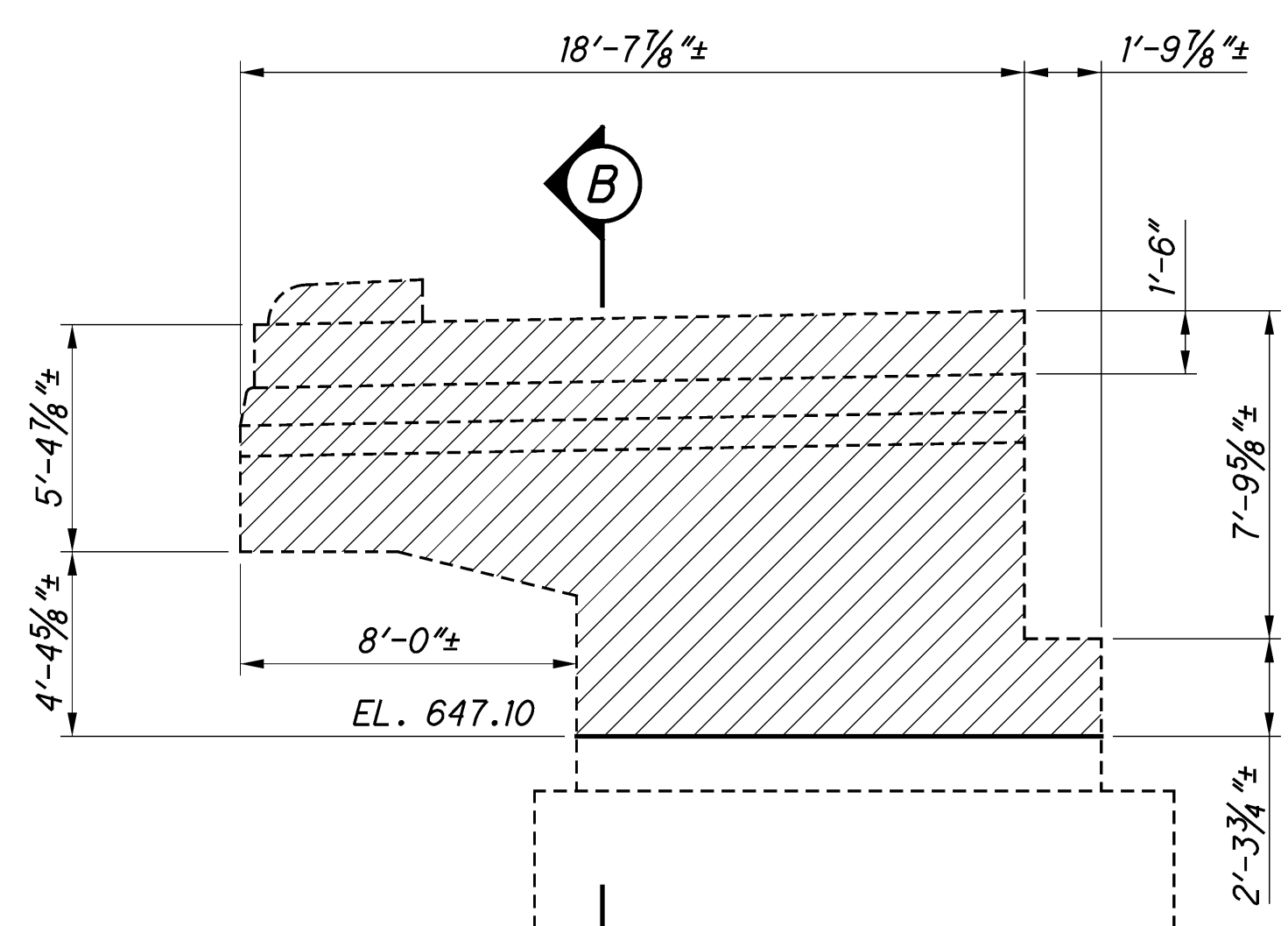
**PLAN**  
FRWD. ABUTMENT



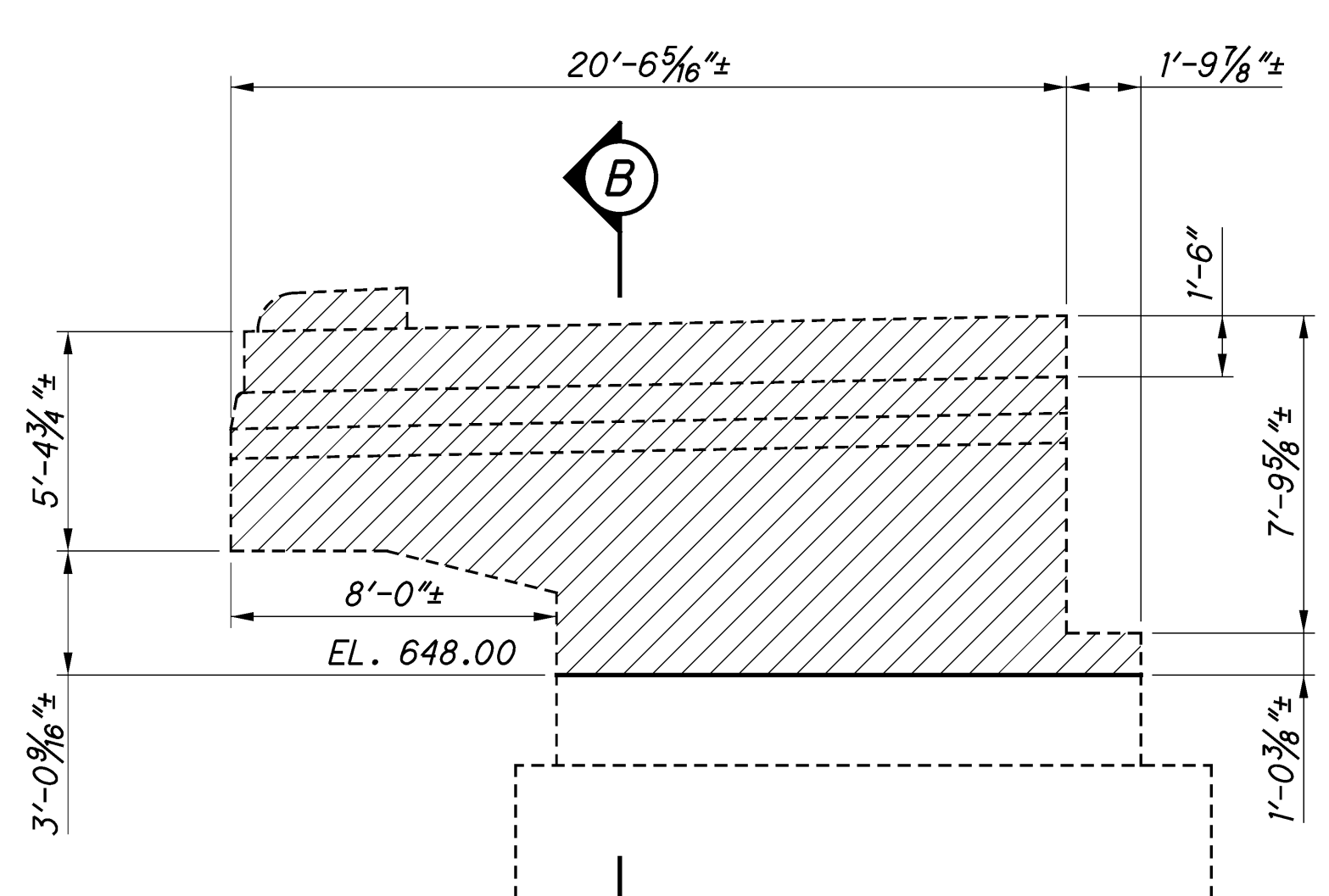
**ELEVATION**  
REAR ABUTMENT  
(PILES NOT SHOWN)



**ELEVATION**  
FRWD. ABUTMENT  
(PILES NOT SHOWN)



**ELEVATION**  
TYP. REAR ABUTMENT



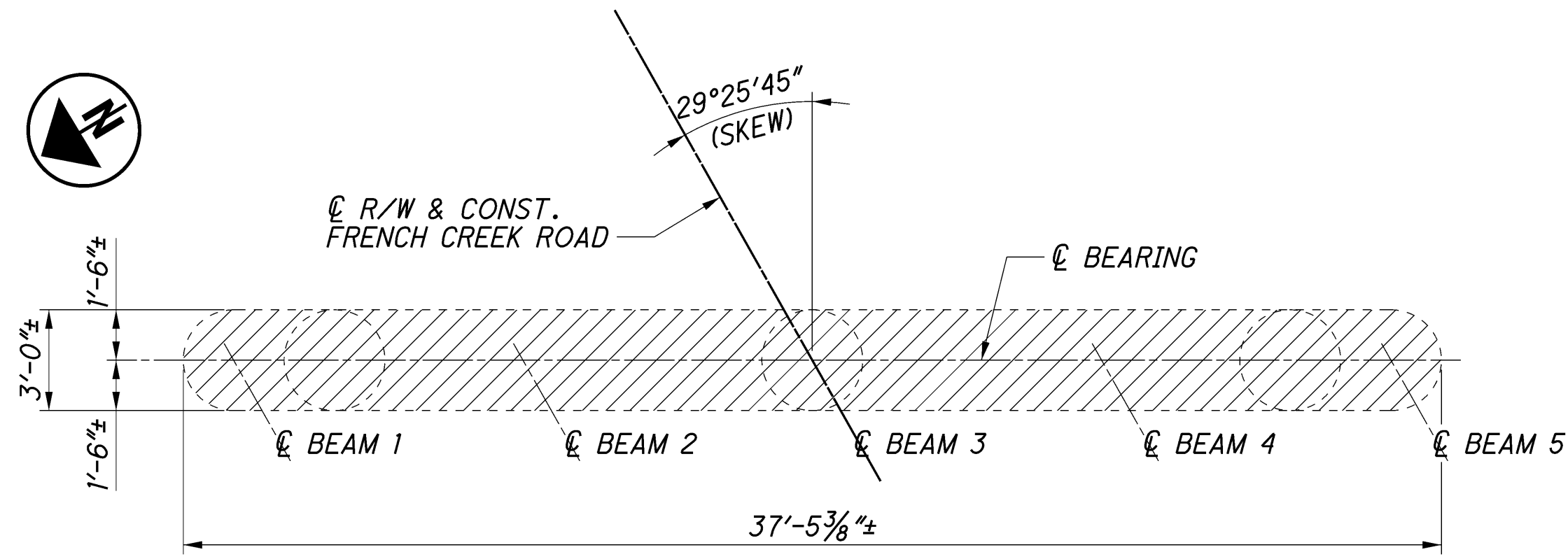
**ELEVATION**  
TYP. FRWD. ABUTMENT

- LEGEND**
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN.
  - ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN.

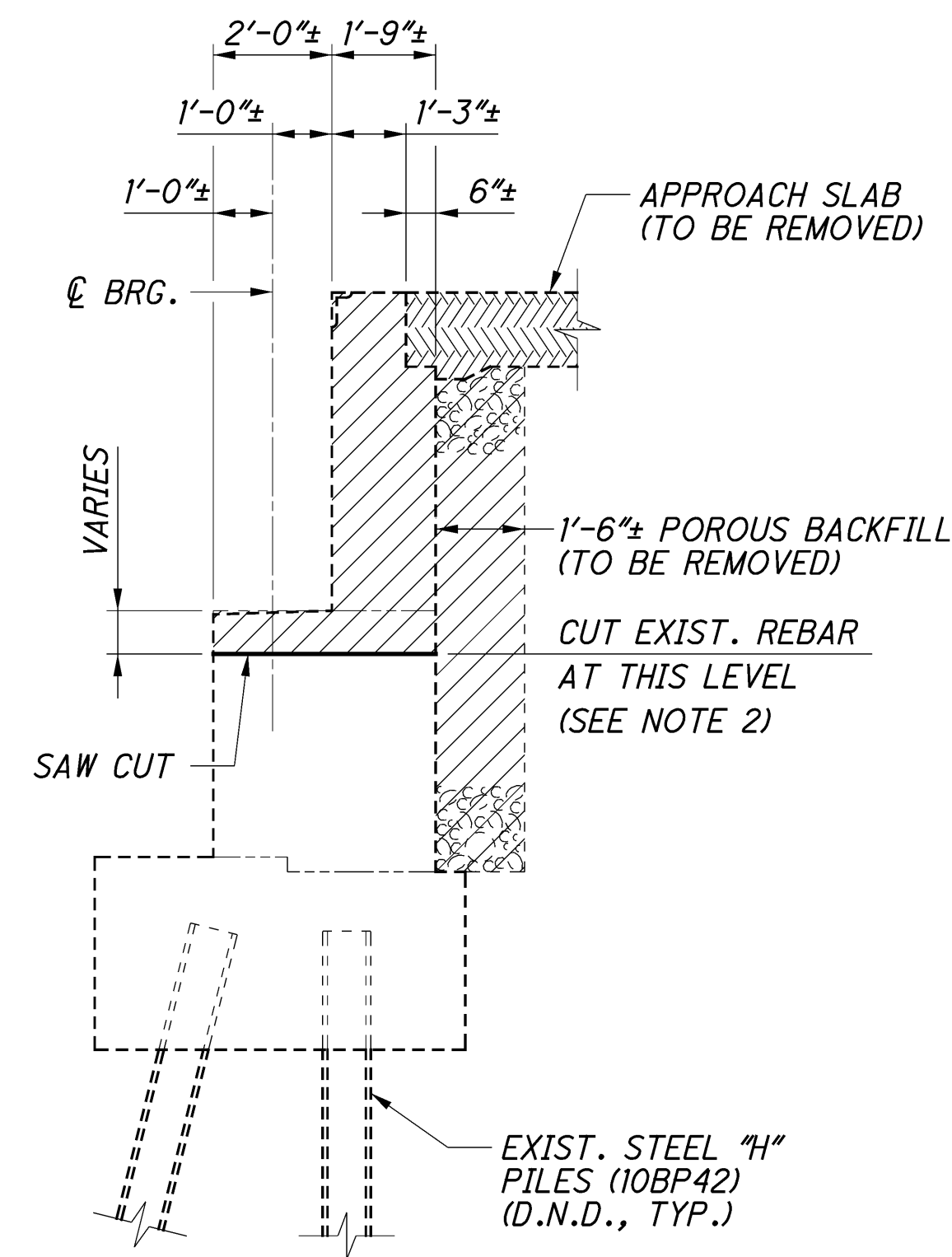
**NOTE:**  
FOR SECTIONS A & B, SEE SHEET 6/24.

<b>Jones Stuckey</b> 1655 W. MARKET STREET, SUITE 355 AKRON, OHIO 44313	
DESIGNED DEA	DATE 6-17-13
DRAWN MDC	REVIEWED FJG
CHECKED EDW	STRUCTURE FILE NUMBER 4704835
<b>SUBSTRUCTURE REMOVAL DETAILS</b> BRIDGE NO. LOR-90-1753 FRENCH CREEK ROAD OVER I-90	
<b>LOR-90-17.53</b> PID No. 81933	
5 / 24	
<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <span style="font-size: 12px;">29</span>  <span style="font-size: 12px;">48</span> </div>	

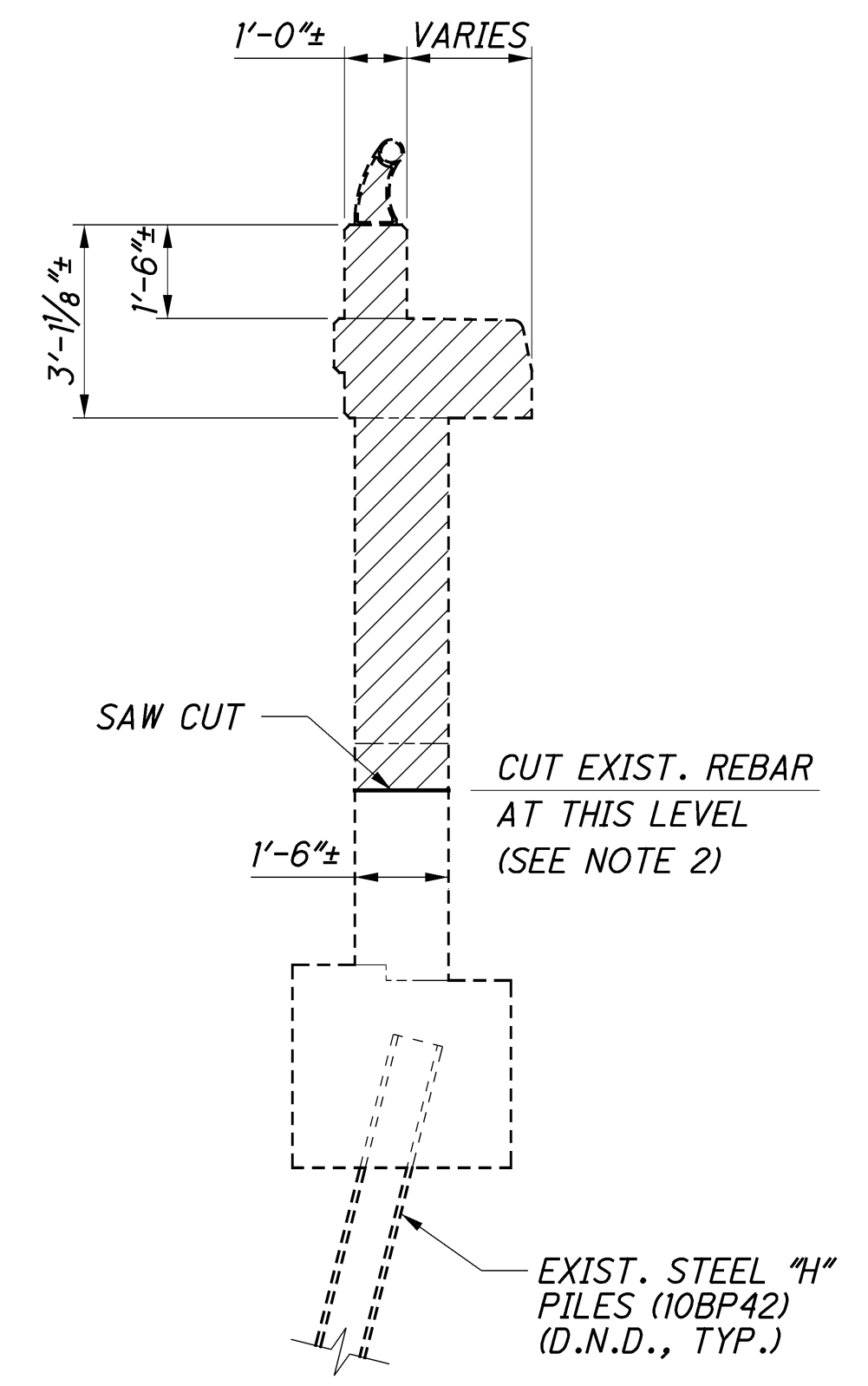
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CRE002.dgn 6/18/2013 9:46:32 AM Jared Feller



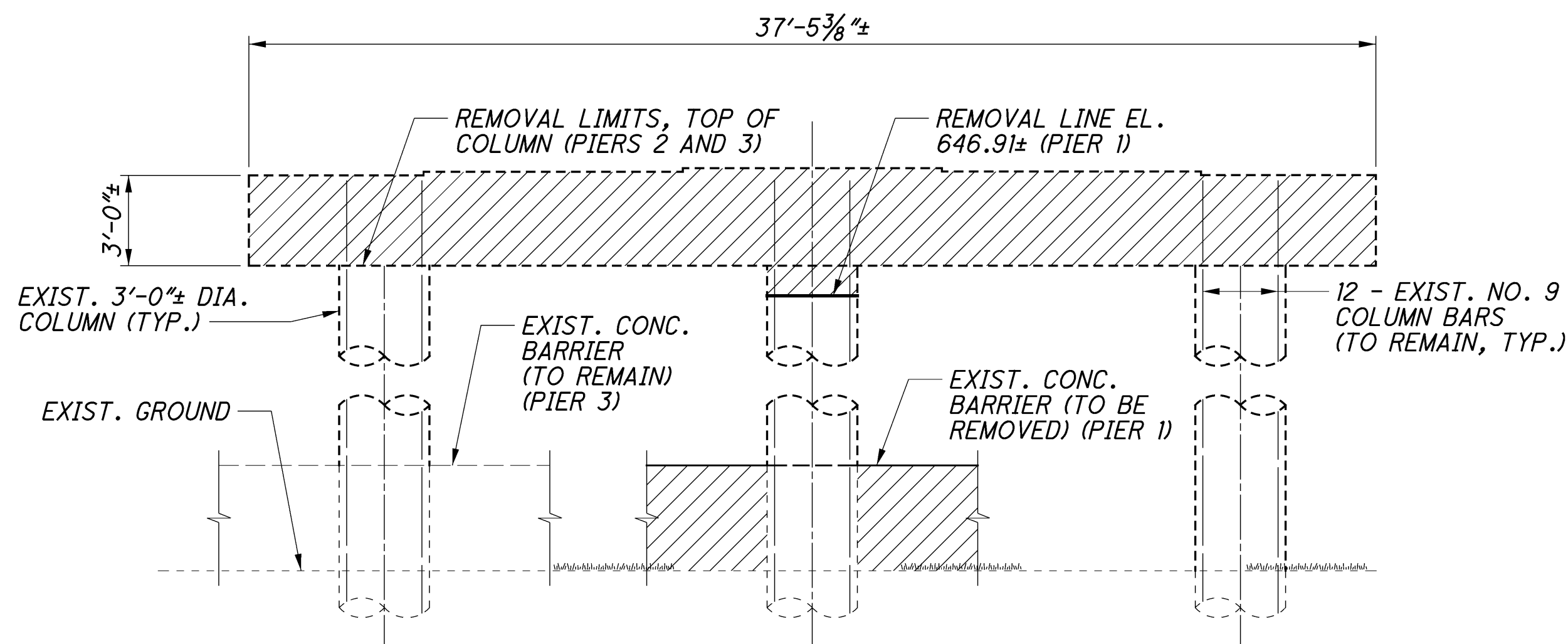
**PLAN**



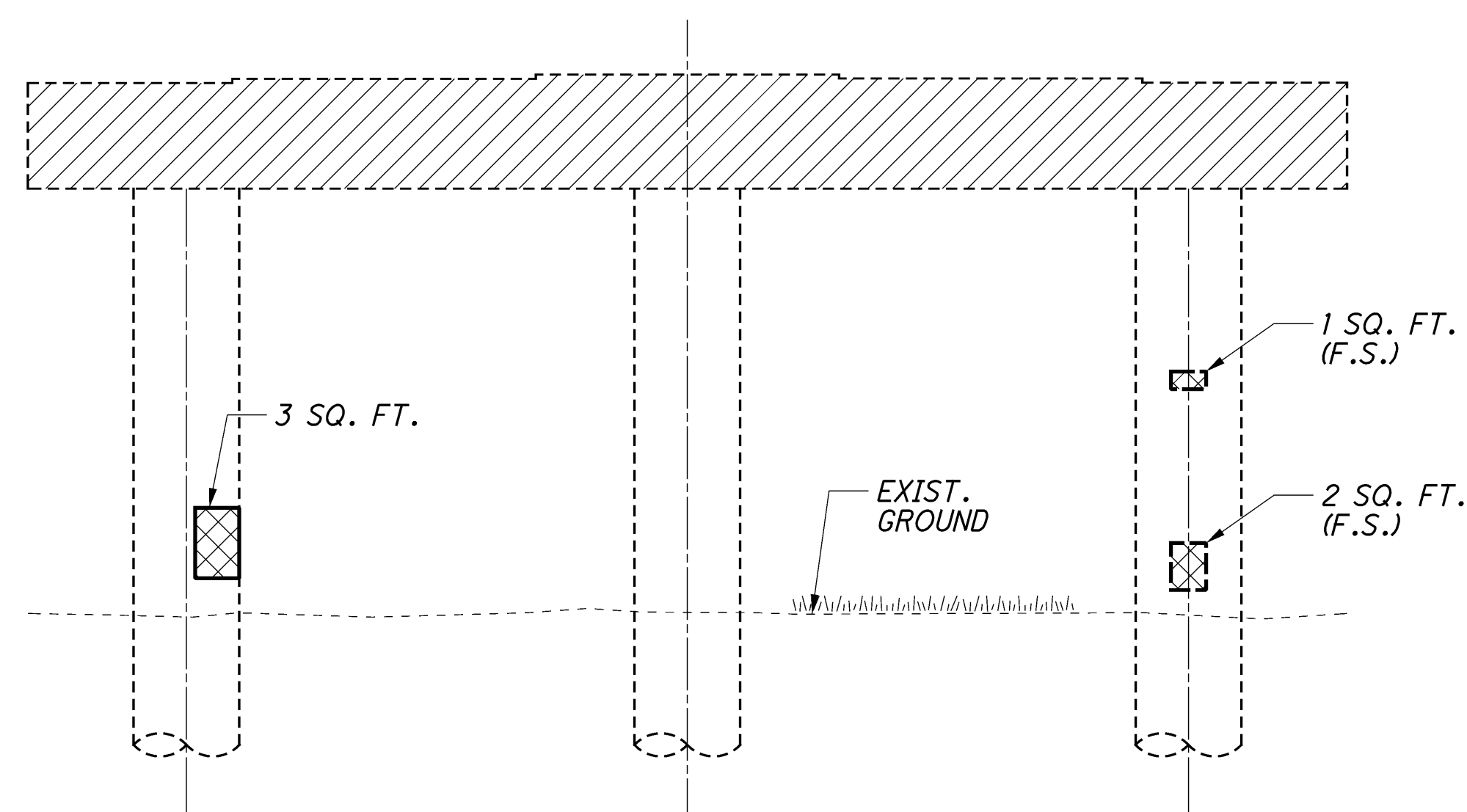
**SECTION A**  
REAR ABUTMENT IS SHOWN  
FORWARD ABUTMENT SIMILAR



**SECTION B**



**PIER REMOVAL DETAIL**  
(TYP. ALL PIERS, UNLESS OTHERWISE NOTED)



**PIER 2 PATCHING DETAIL**  
(LOOKING EAST)

**LEGEND**

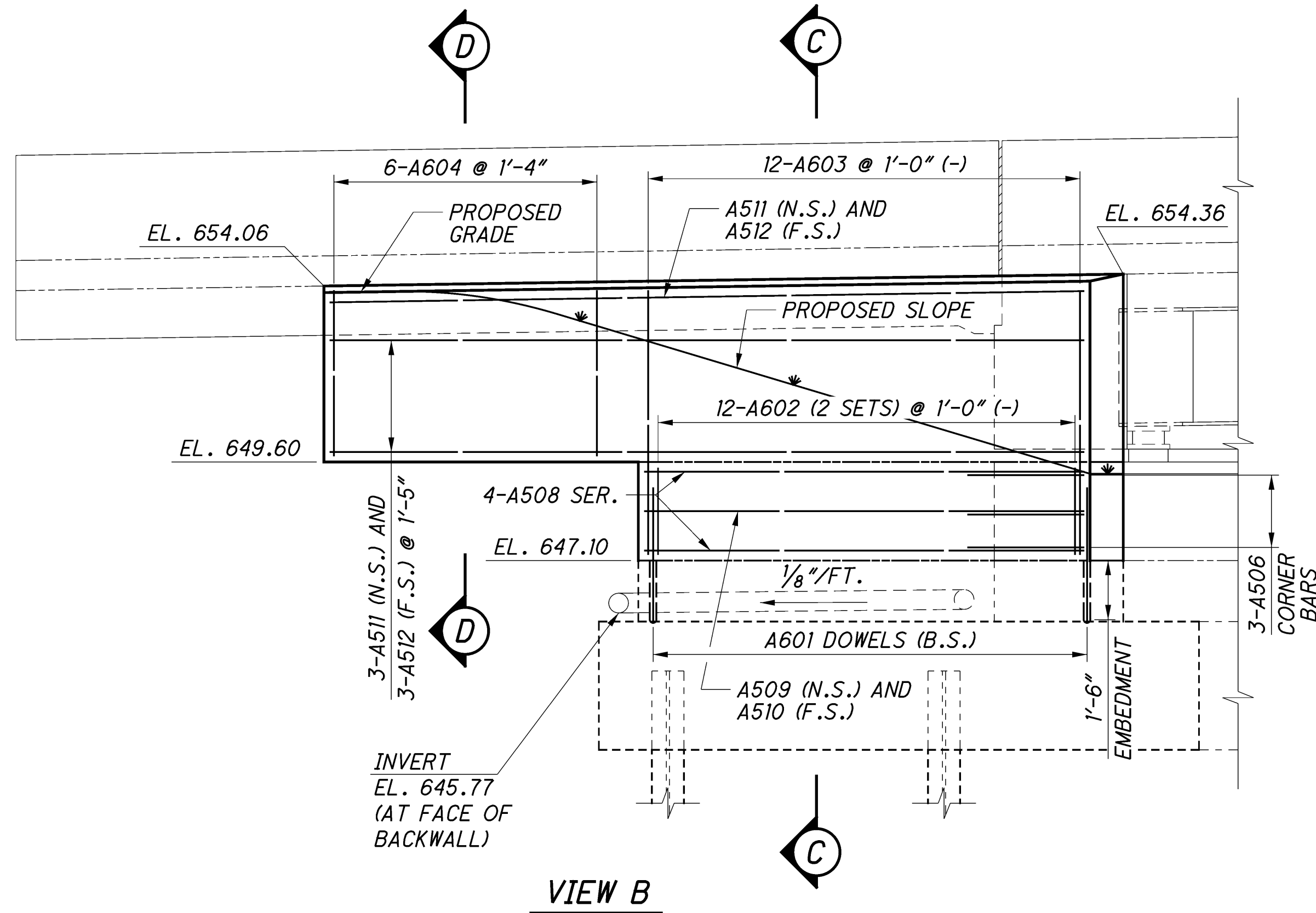
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN.
- ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN
- ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

**NOTE:**

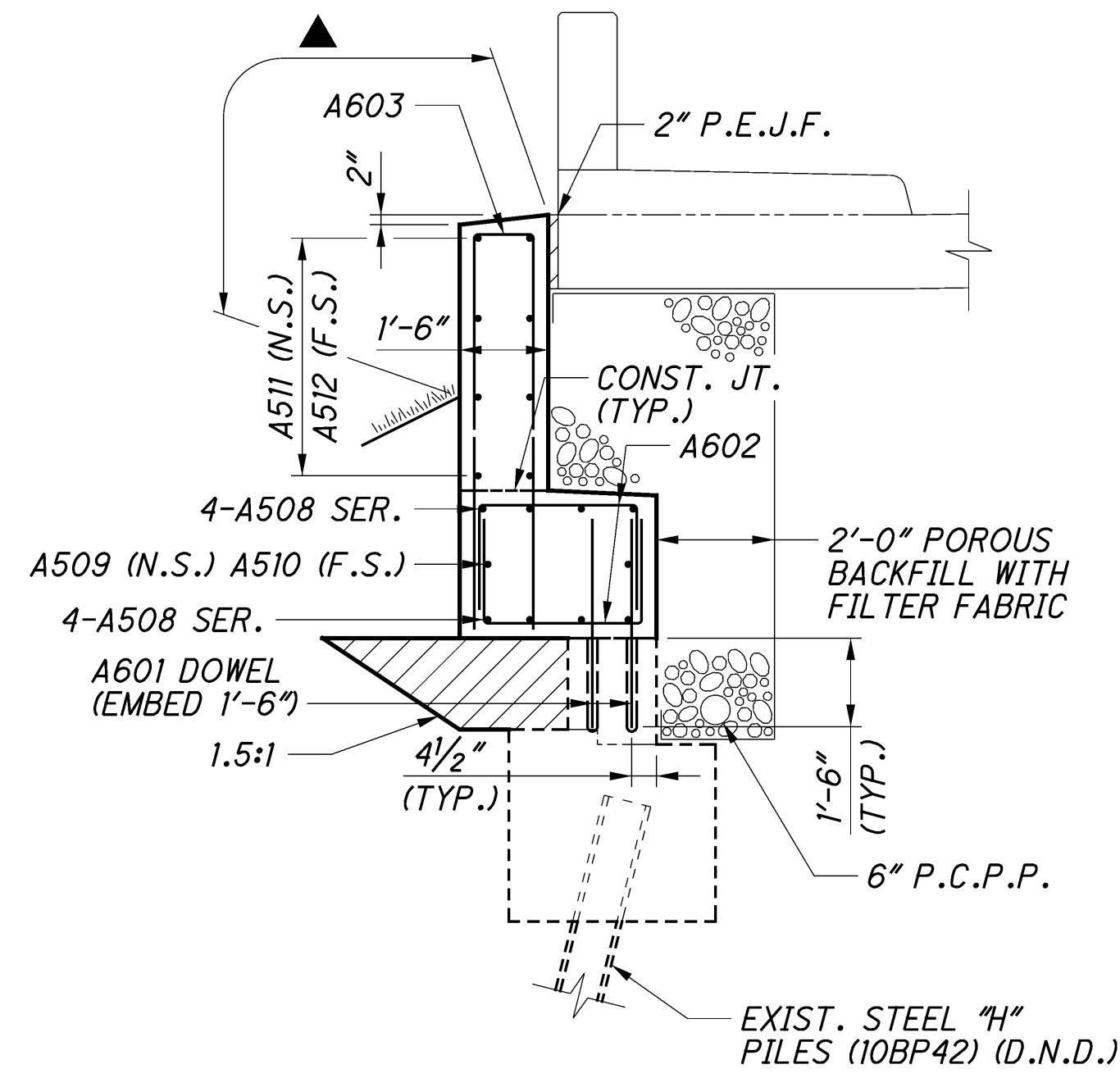
1. FOR THE LOCATIONS OF SECTIONS A & B, SEE SHEET **5/24**.
2. FOR REMOVAL SAW CUT ELEVATION, SEE SHEET **5/24**.



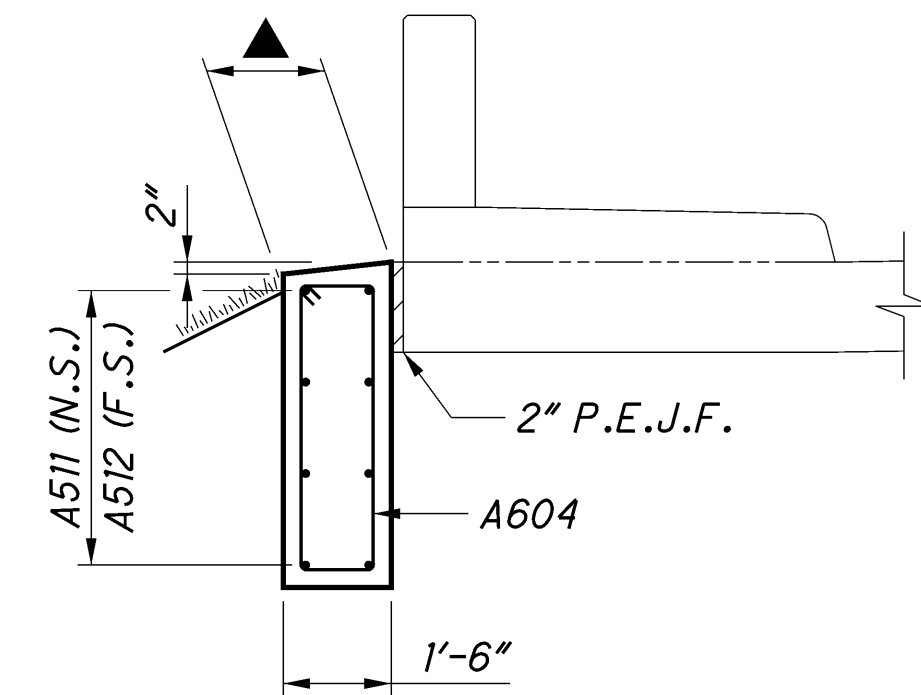
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753\AR002.dgn 6/18/2013 9:47:05 AM Jared Feller



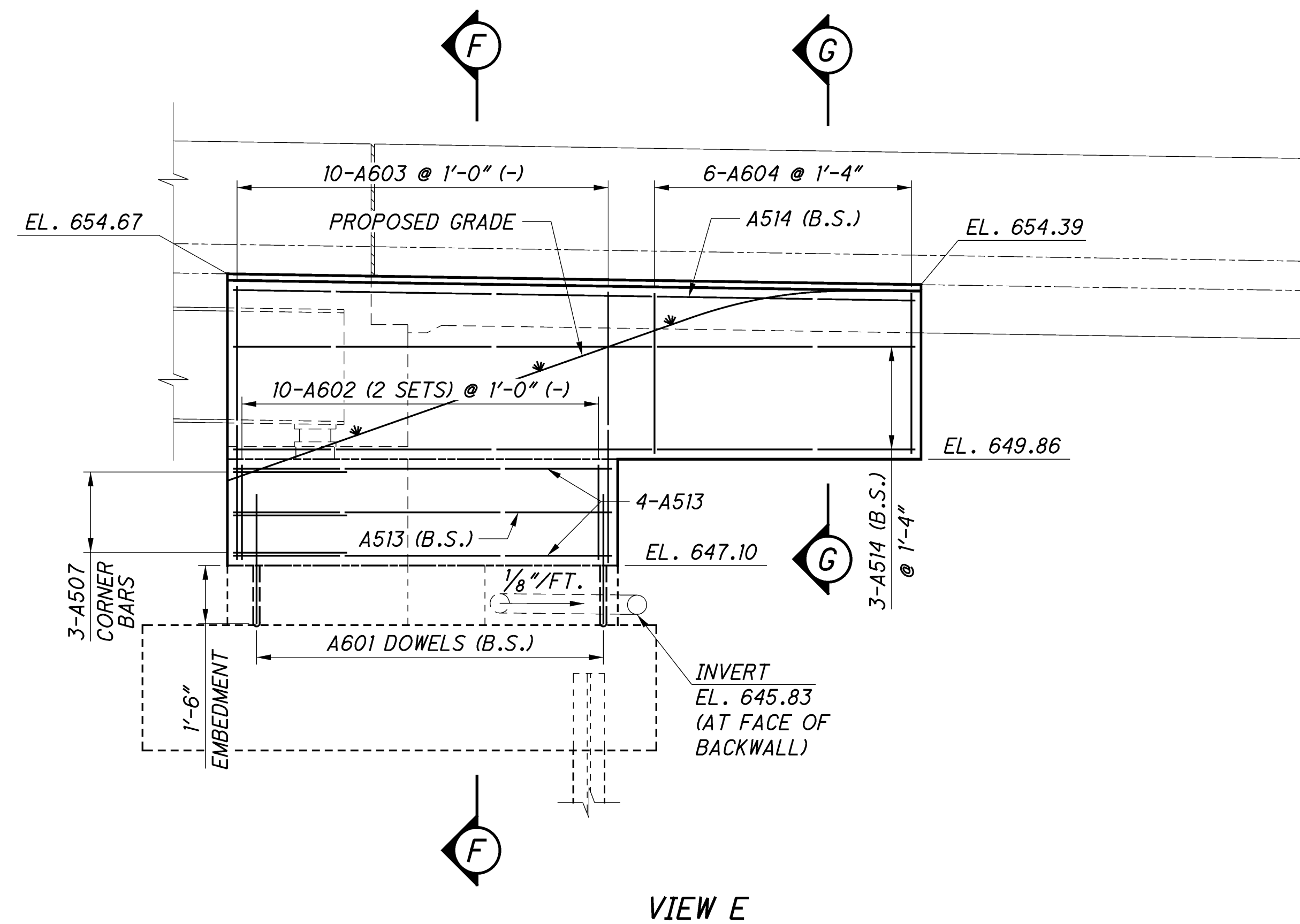
VIEW B



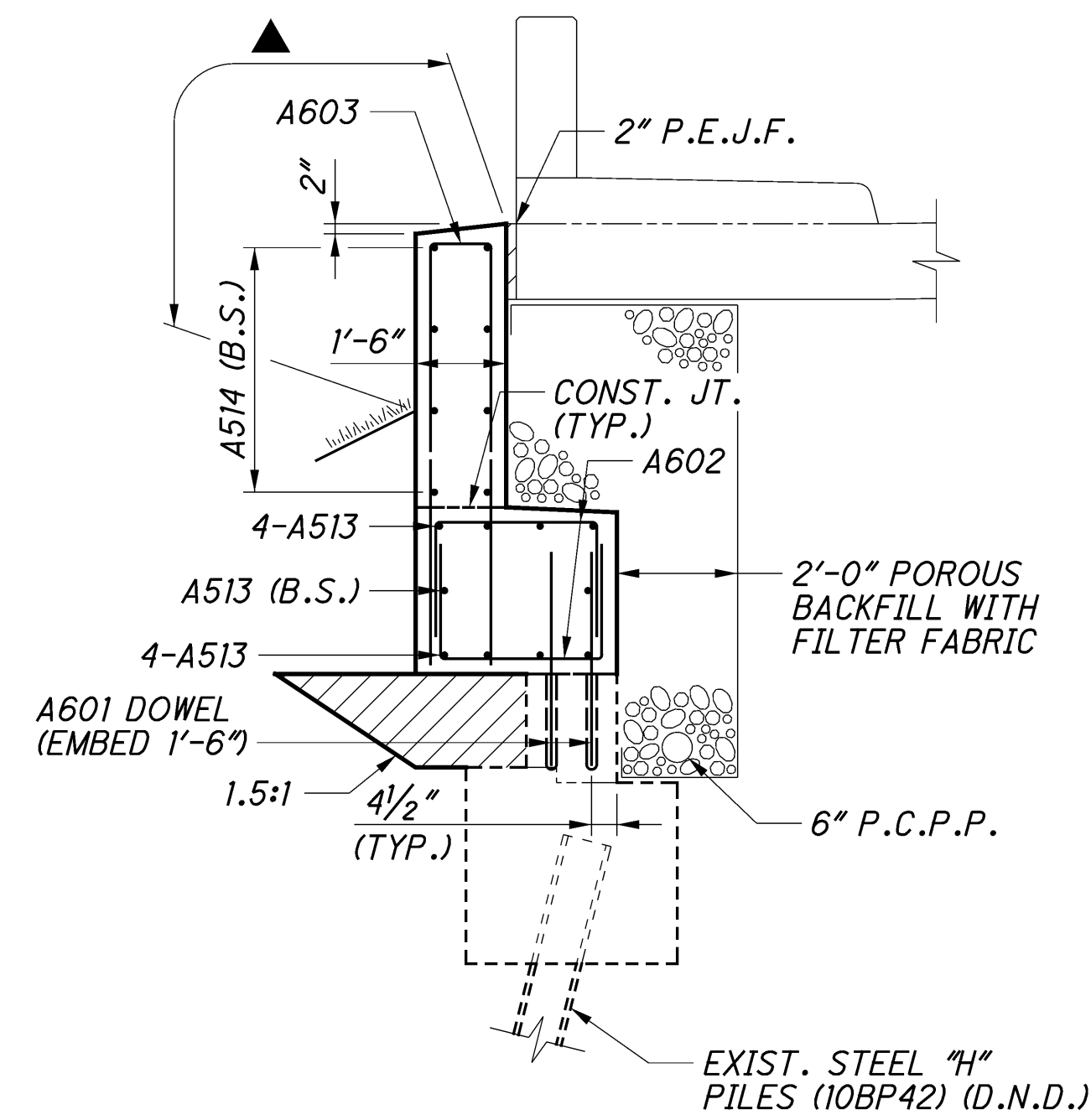
SECTION C



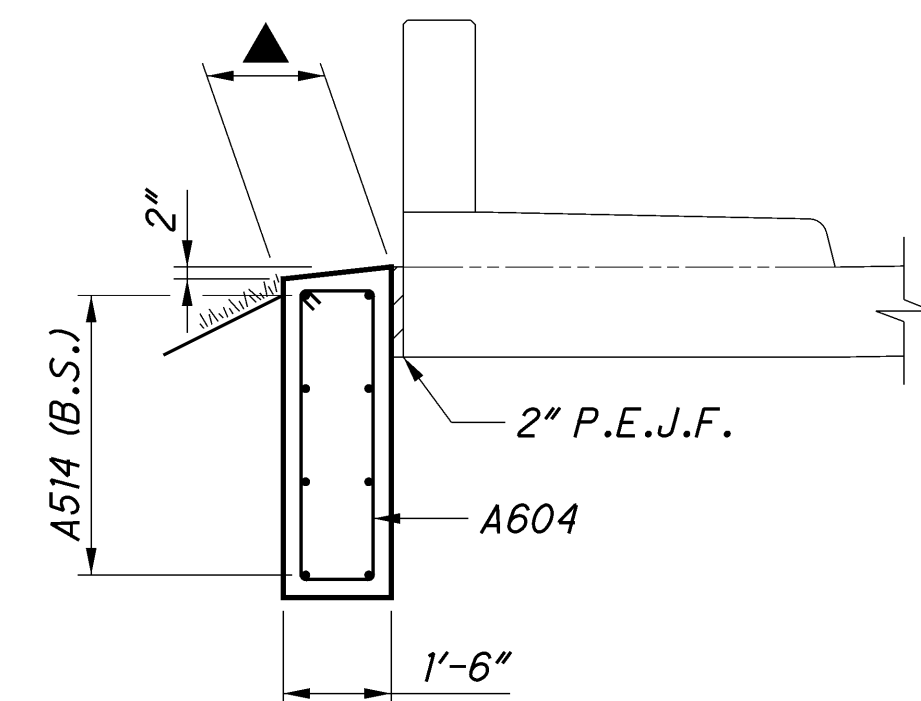
SECTION D



VIEW E



SECTION F



SECTION G

LEGEND

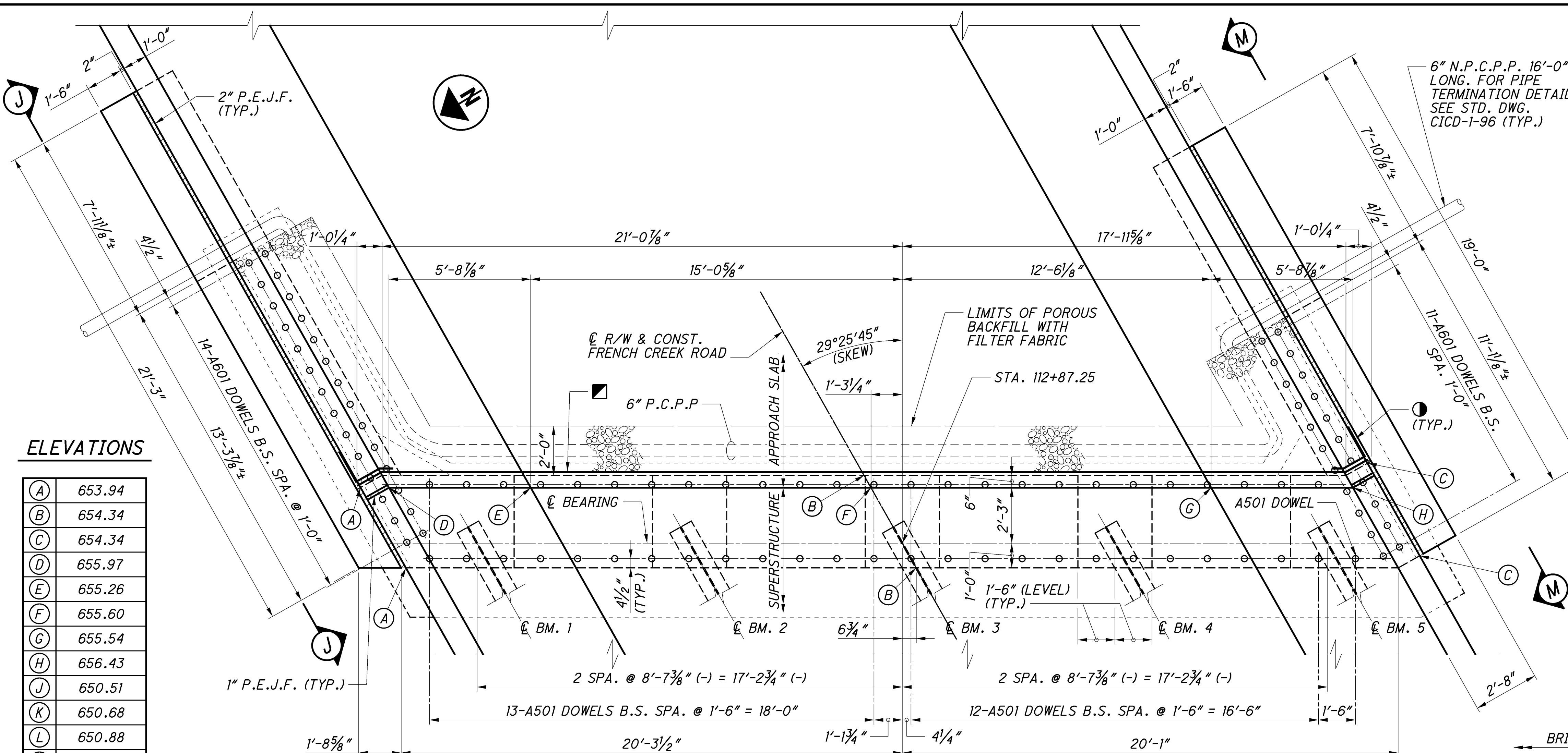
- ▲ LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
- ▨ LOW STRENGTH MORTAR (LSM) BACKFILL TO BE INCLUDED WITH ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN FOR PAYMENT.

NOTE:

FOR THE LOCATION OF VIEWS B AND E, SEE SHEET 7/24.



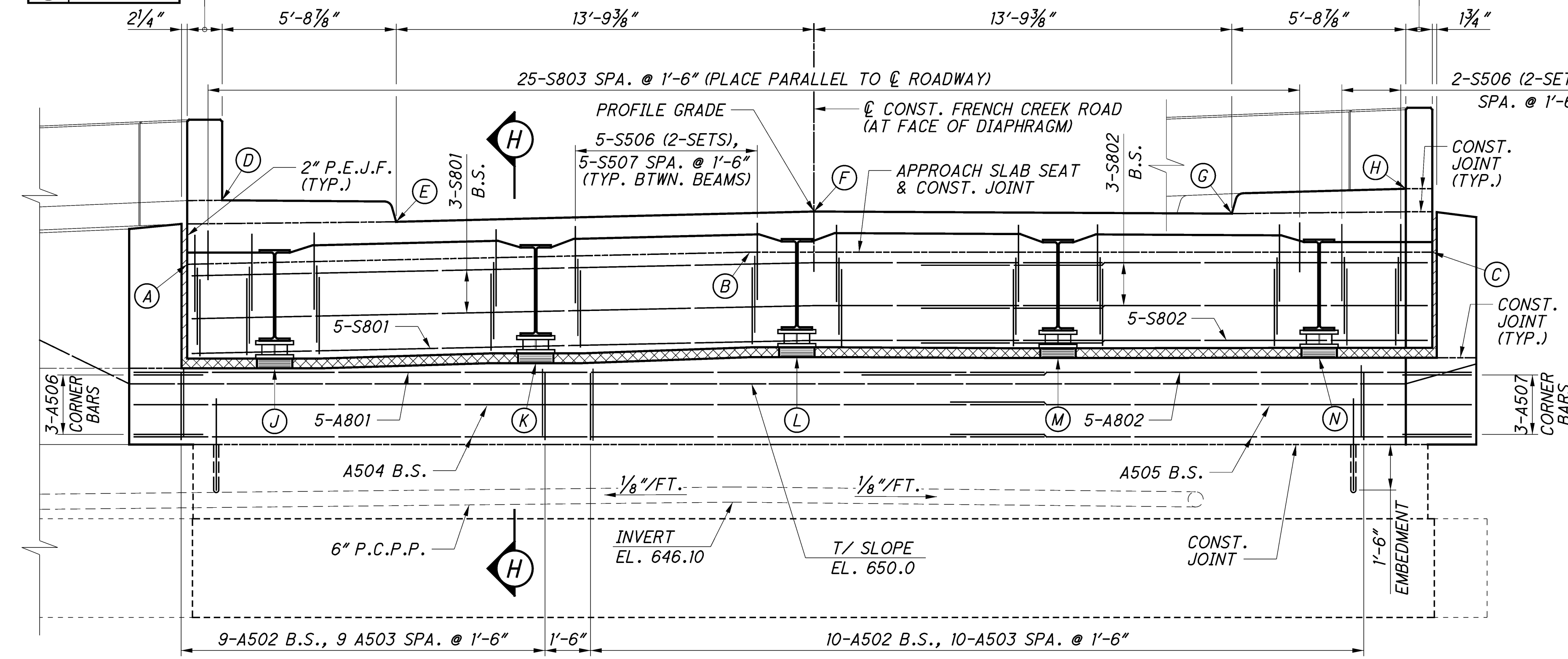
P:\3058 LOR-90-17-53\81933\structures\17533\sheets\090-1753CAF001.dgn 6/18/2013 9:47:19 AM Jared Feller



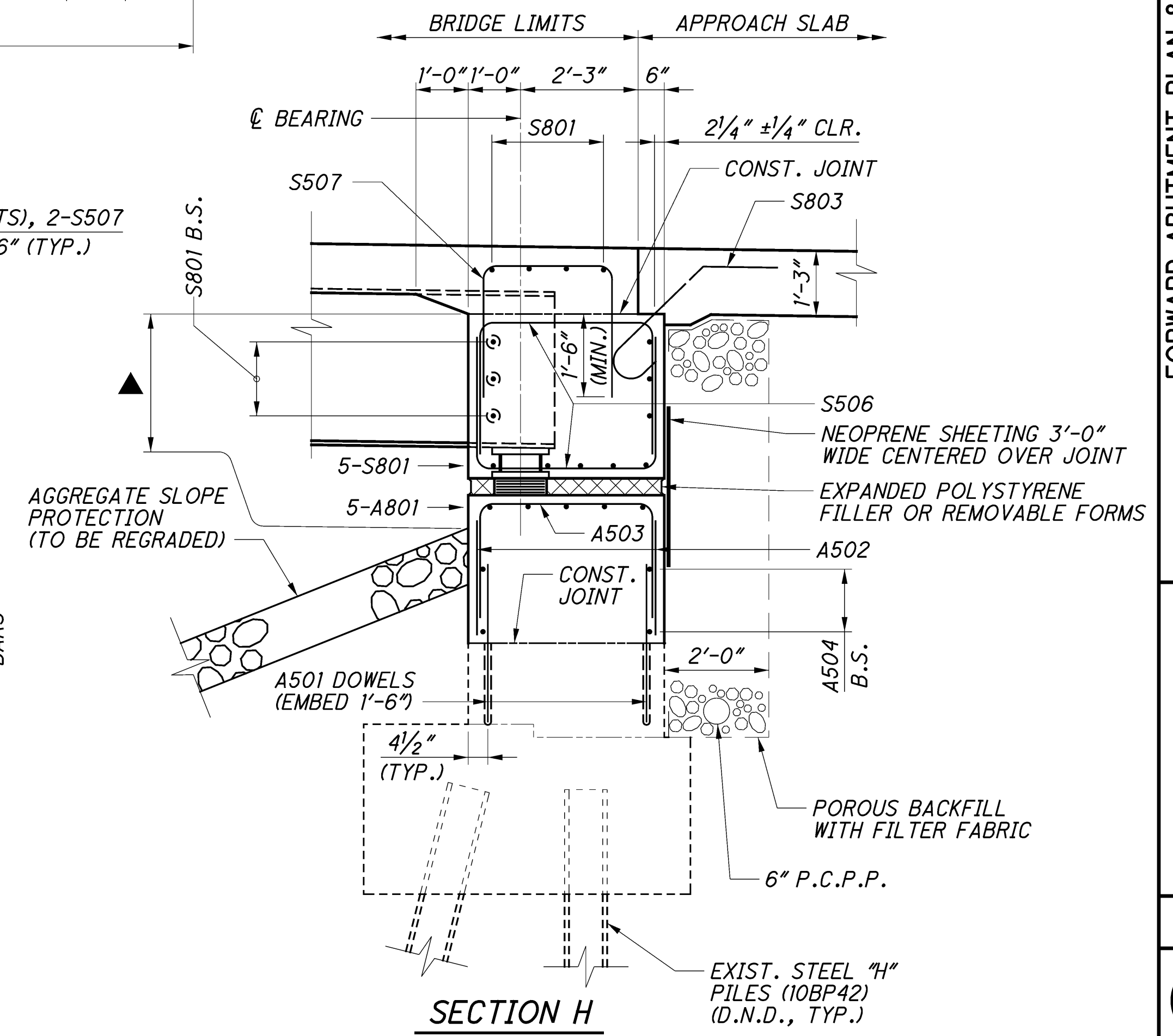
PLAN

**ELEVATIONS**

(A)	653.94
(B)	654.34
(C)	654.34
(D)	655.97
(E)	655.26
(F)	655.60
(G)	655.54
(H)	656.43
(J)	650.51
(K)	650.68
(L)	650.88
(M)	650.85
(N)	650.86



ELEVATION  
(EXIST. PILES NOT SHOWN)



SECTION H

- LEGEND**
- VERTICAL NEOPRENE SHEETING, 3'-0" WIDE, CENTERED OVER JOINT
  - NEOPRENE SHEETING, 3'-0" WIDE CENTERED OVER JOINT
  - ▲ LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
- NOTES:**
1. FOR VIEWS J AND M, SEE SHEET 10/24.
  2. FOR ADDITIONAL NOTES SEE SHEET 7/24.

**FORWARD ABUTMENT PLAN & ELEVATION**

BRIDGE NO. LOR-90-1753  
FRENCH CREEK ROAD OVER I-90

**LOR-90-17.53**  
PID No. 81933

9 / 24

33  
48

DESIGN AGENCY  
**Jones Stuckey**  
1655 W. MARKET STREET, SUITE 355  
AKRON, OHIO 44315

DATE  
6-17-13

REVIEWED  
FJG

DRAWN  
MDC

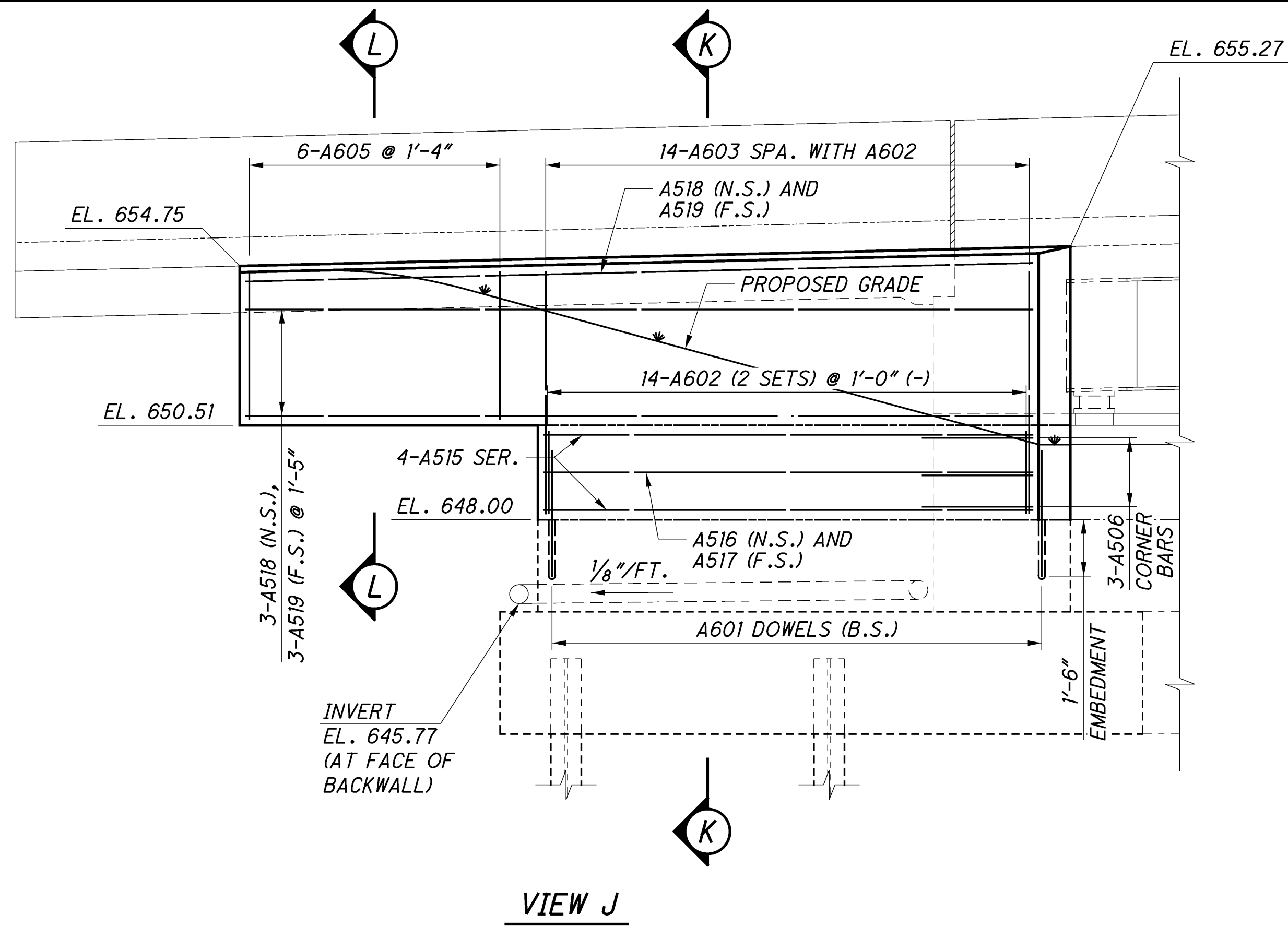
DESIGNED  
DEA

STRUCTURE FILE NUMBER  
4704835

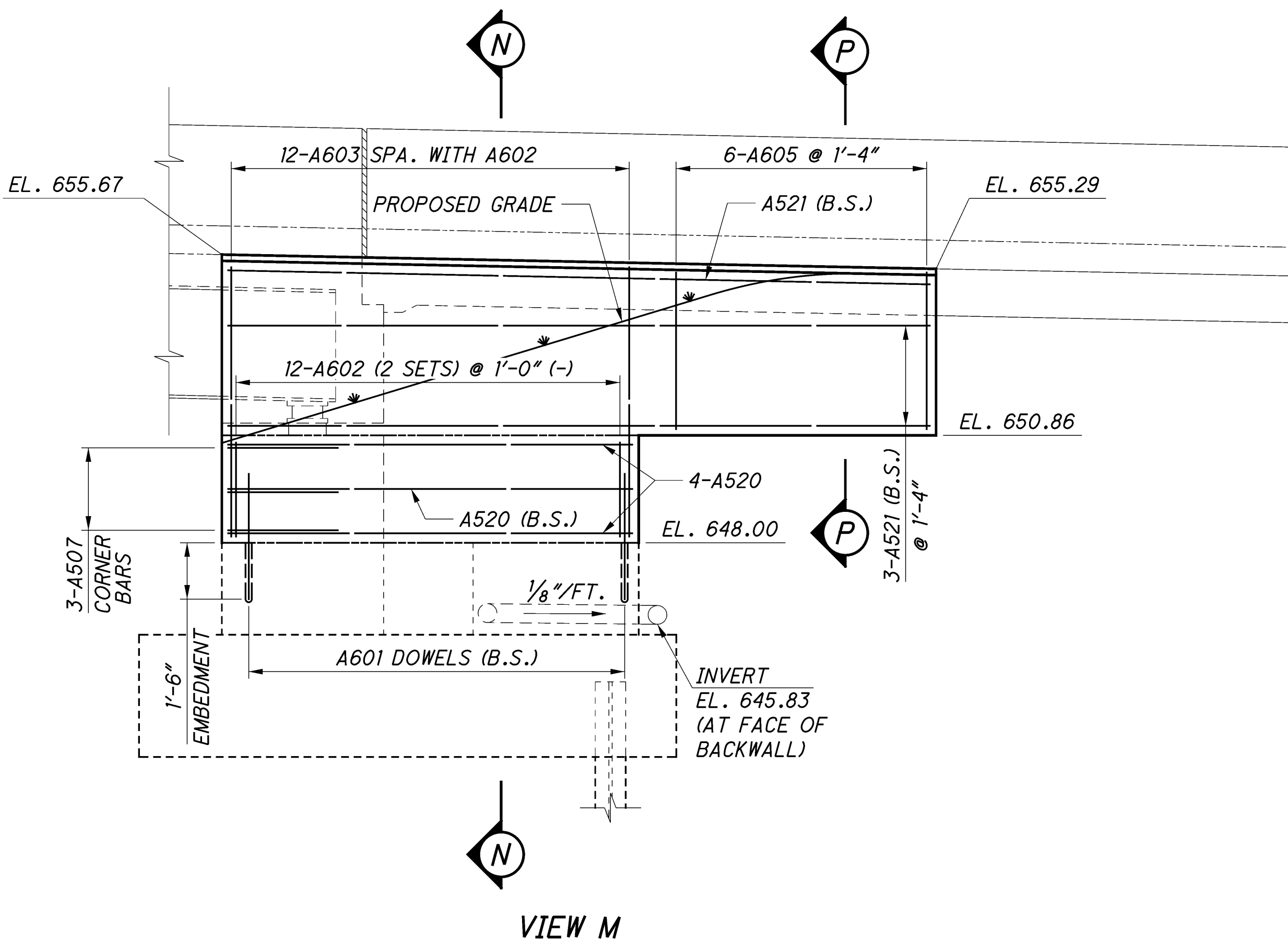
REVISED

CHECKED  
EDW

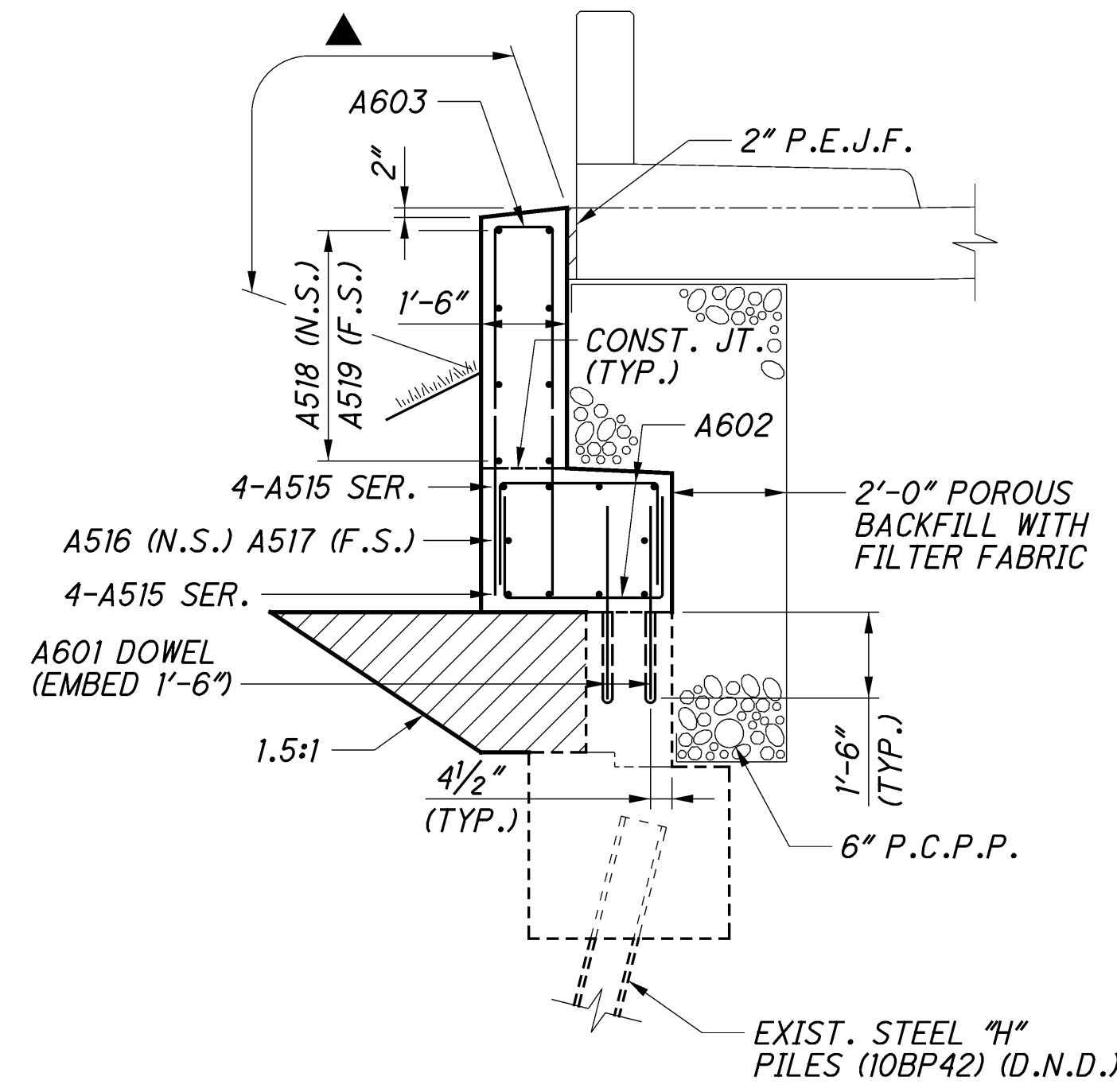
P:\3058 LOR-90-17-53\structures\lor090-1753CAF002.dgn 6/18/2013 9:47:40 AM Jared Feller



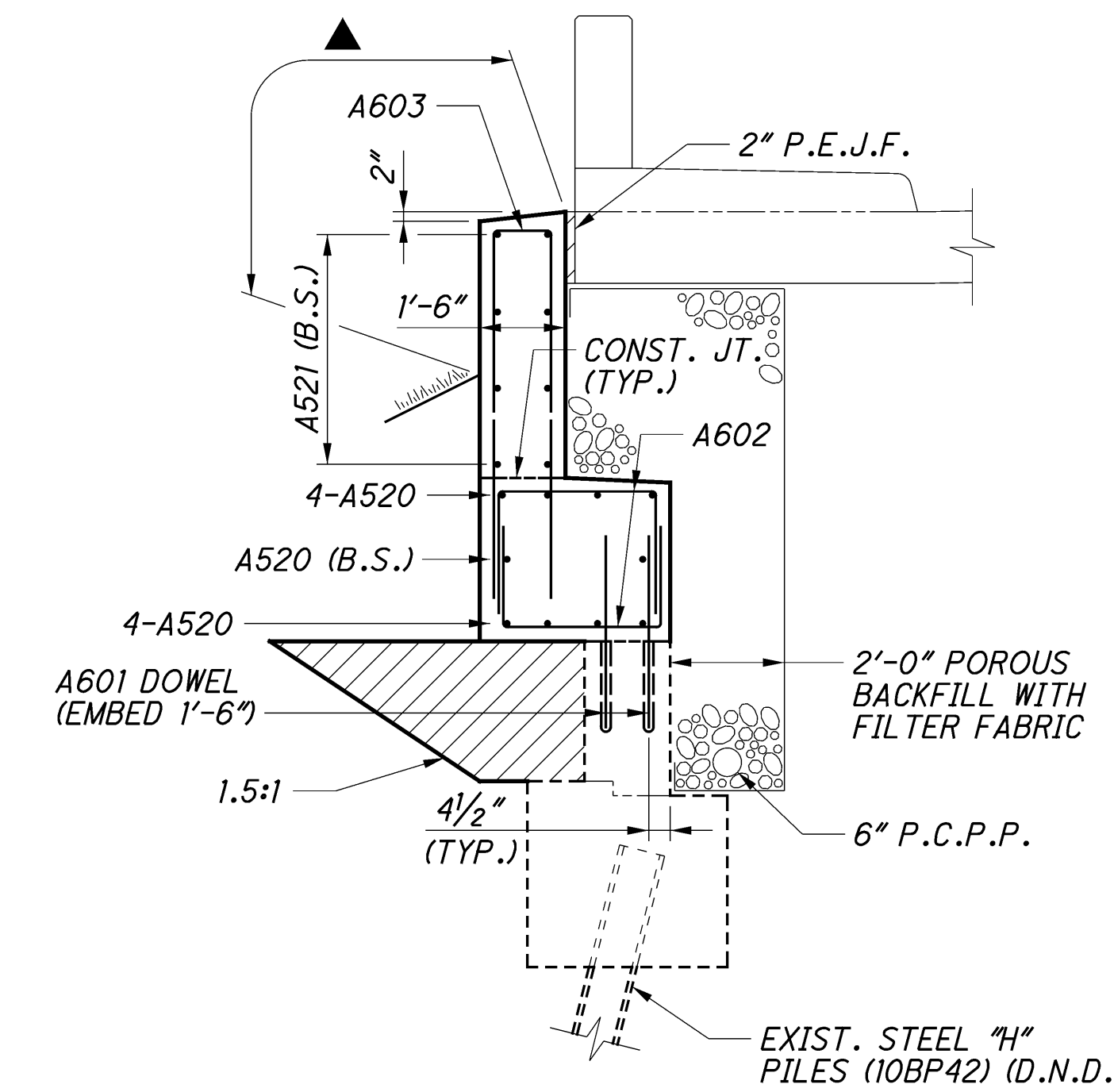
VIEW J



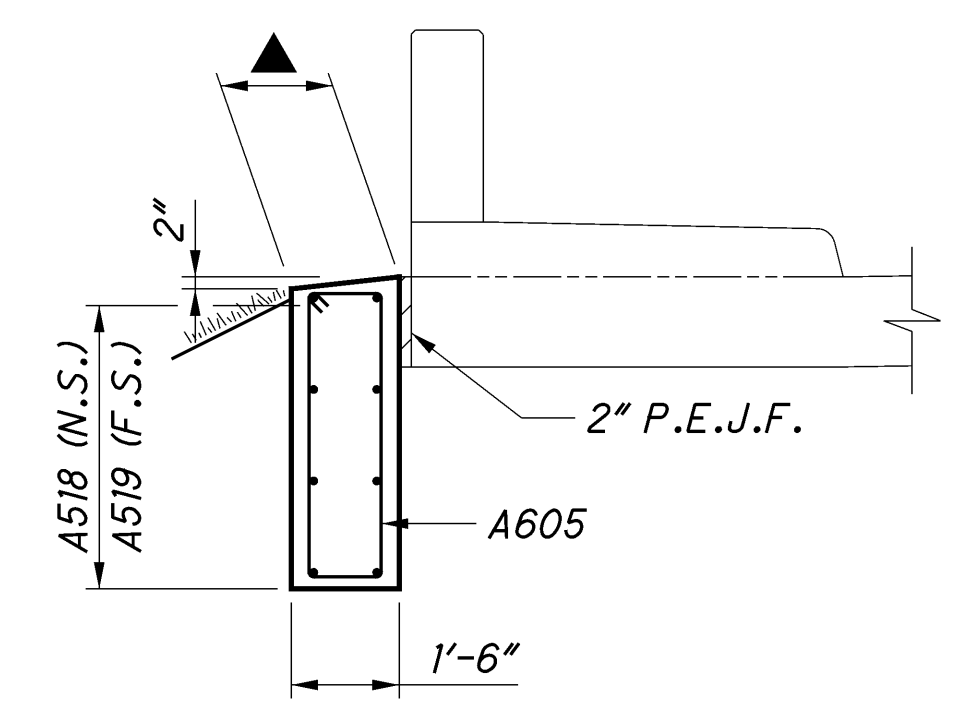
VIEW M



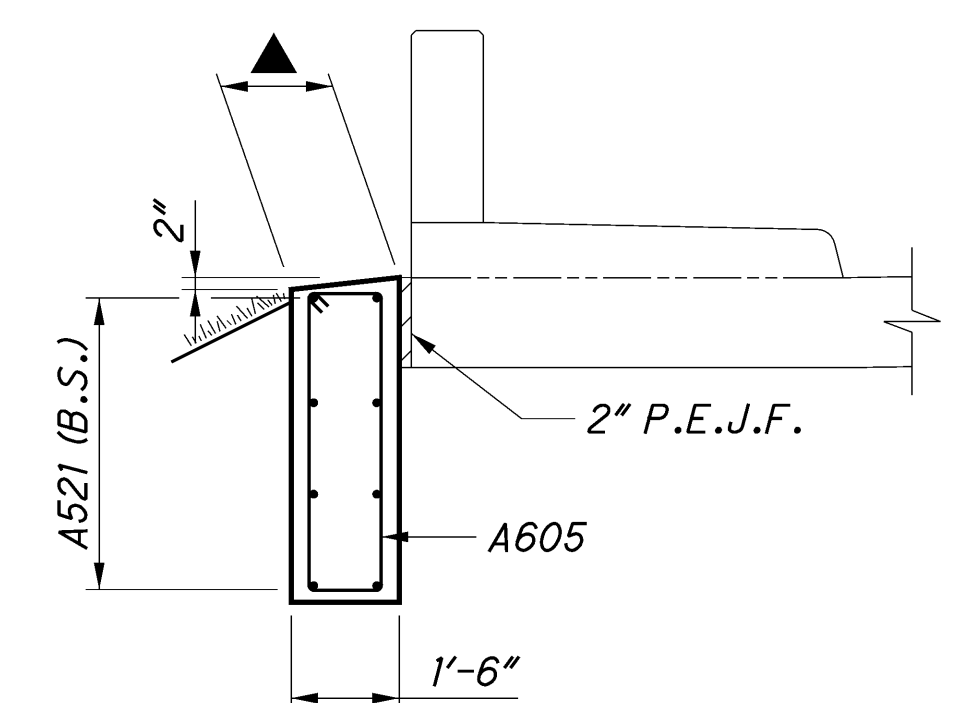
SECTION K



SECTION N



SECTION L



SECTION P

LEGEND

▲ LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

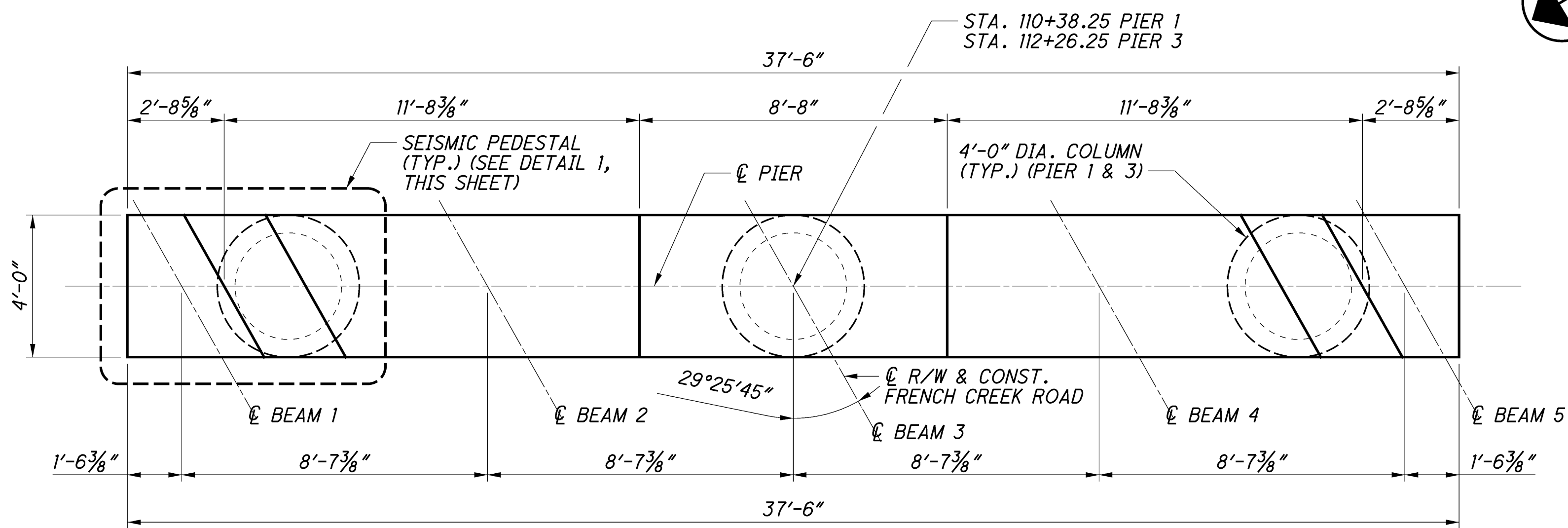
▨ LOW STRENGTH MORTAR (LSM) BACKFILL TO BE INCLUDED WITH ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN FOR PAYMENT.

NOTE:

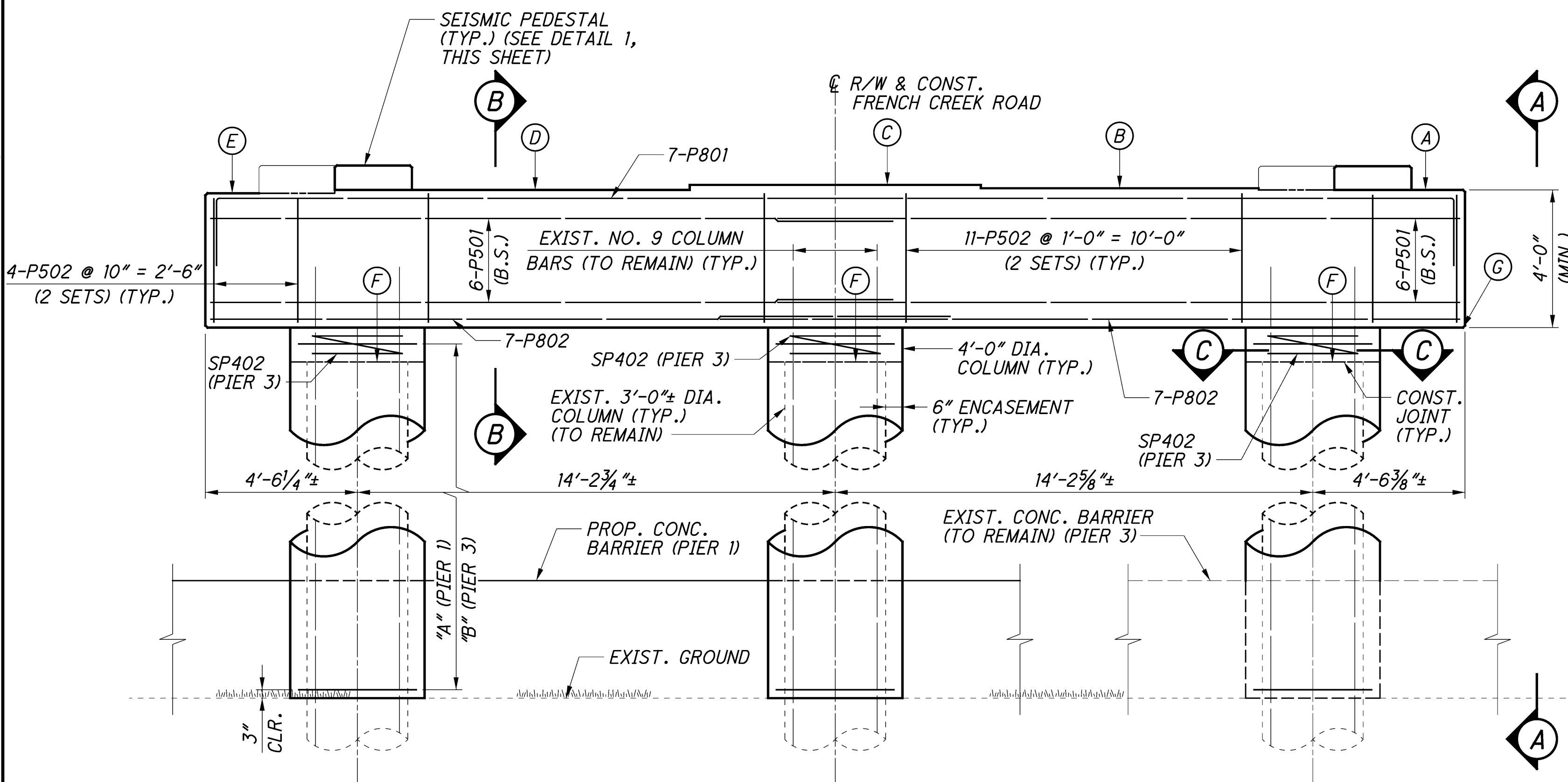
FOR THE LOCATION OF VIEWS J AND M, SEE SHEET 9/24.

**ELEVATIONS**

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
PIER 1	650.91	651.05	651.23	651.17	651.17	646.91	646.91
PIER 3	652.07	652.10	652.18	652.02	651.90	646.99±	647.90

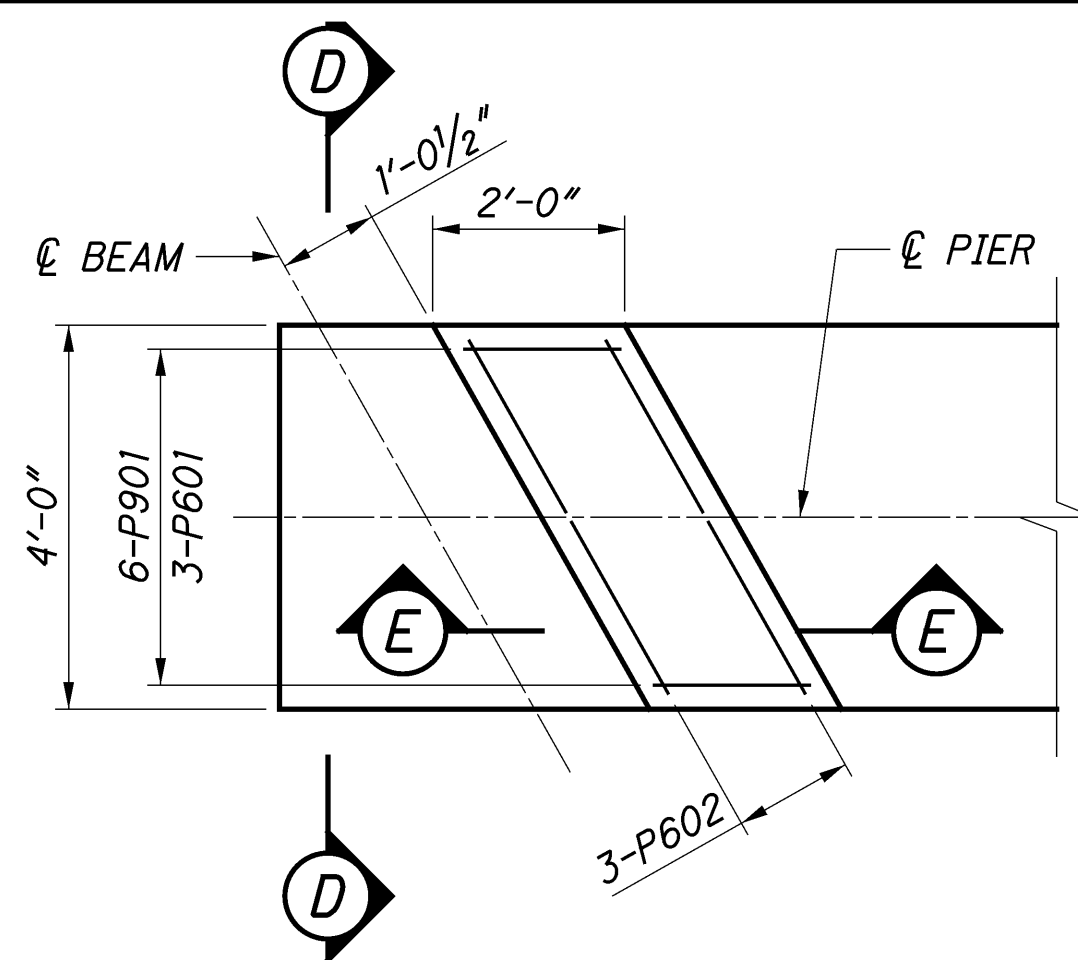


**PLAN**

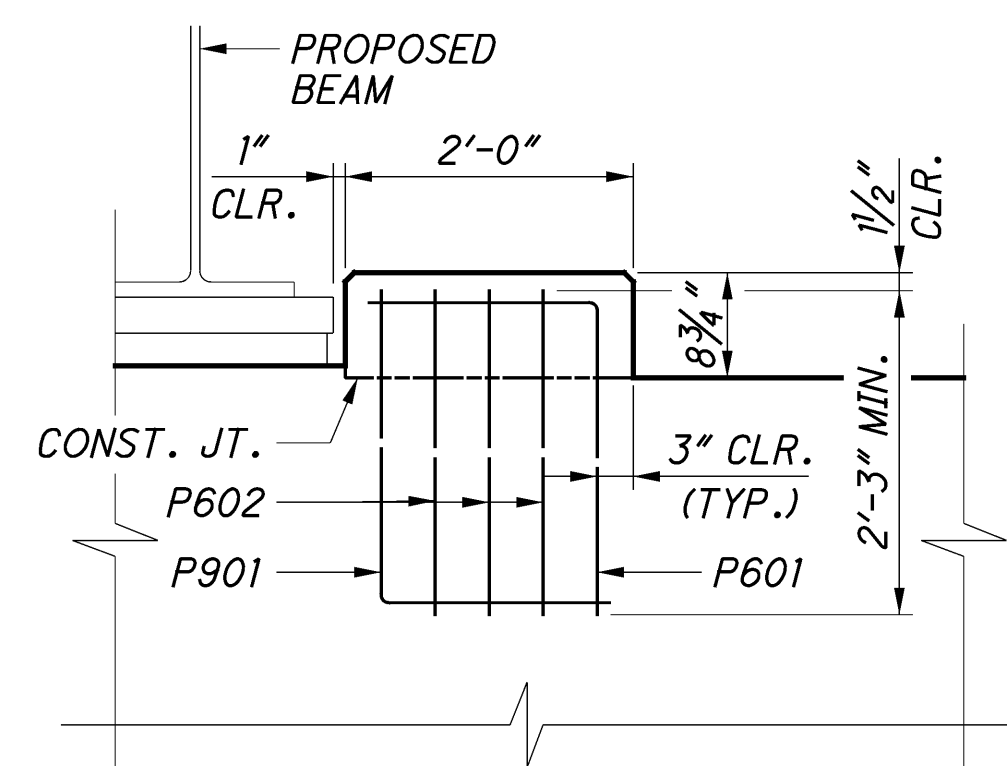


**PIER ELEVATION**

A = 14-P403 (PAIR) SPACED AT 12" MAX. (TYP. EACH COLUMN)  
 B = 15-P403 (PAIR) SPACED AT 12" MAX. (TYP. EACH COLUMN)

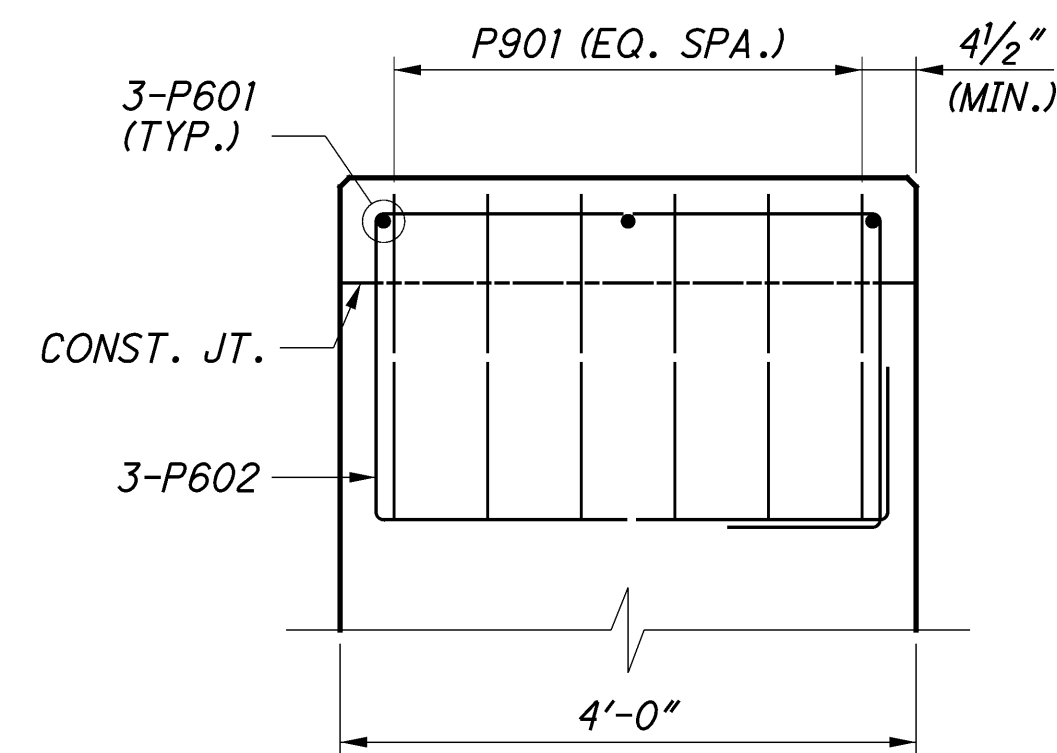


**DETAIL 1**

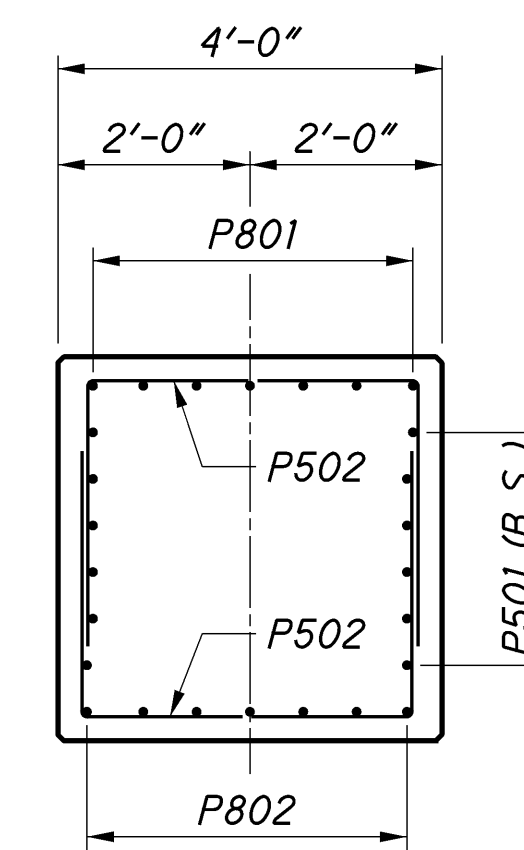


**SECTION E**

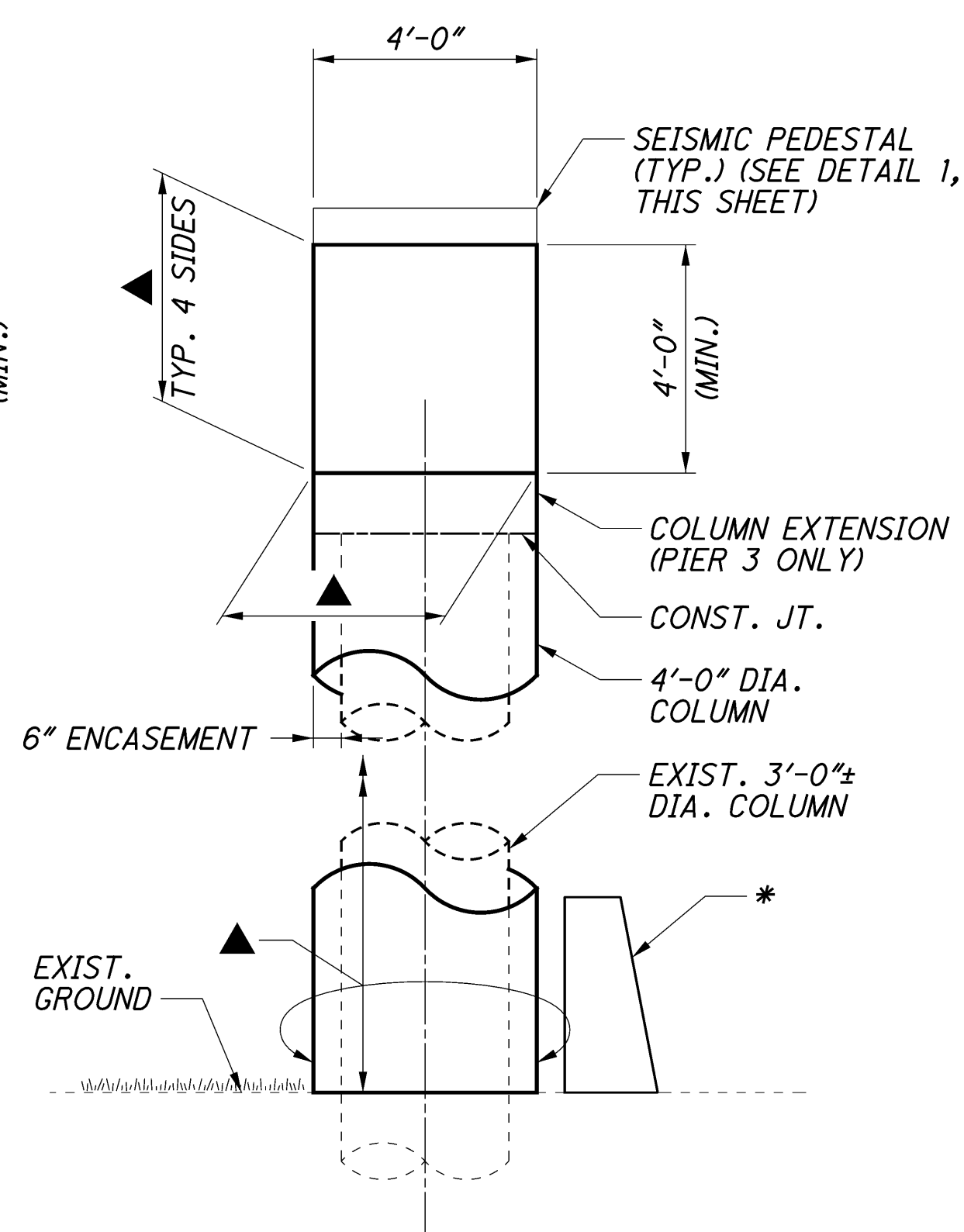
(SEISMIC PEDESTAL DETAIL, TYP. PIERS 1 AND 3)



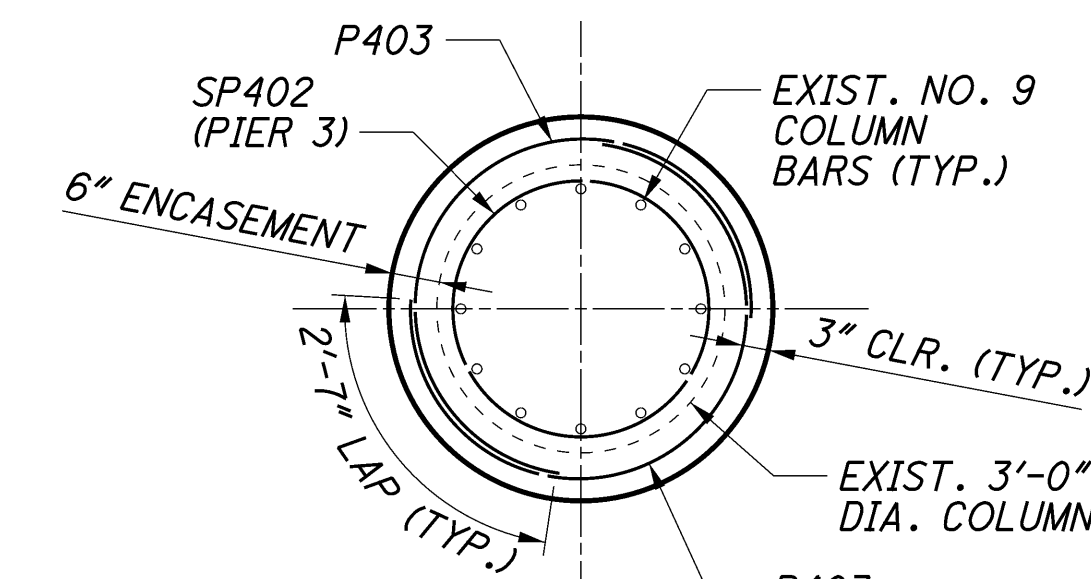
**SECTION D**



**SECTION B**



**VIEW A**



**SECTION C**

**LEGEND**

- ▲ LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
- \* - PIER 1: PROP. CONC. BARRIER  
 - PIER 3: EX. CONC. BARRIER (TO REMAIN)

**NOTES:**

1. FOR PIER 2 DETAILS, SEE SHEET 12/24.
2. MINIMUM REINFORCING STEEL LAP LENGTHS ARE AS FOLLOWS (UNLESS NOTED OTHERWISE):  
 NO. 4 BAR 2'-7"  
 NO. 5 BAR 2'-9"  
 NO. 8 BAR 6'-4" (BOT.)
3. THE SURFACE OF THE BEAM SEAT AT SEISMIC PEDESTAL LOCATIONS SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE A MINIMUM OF 1/4" DEEP.

P:\3058\_LOR-90-17.53\81933\structures\lor090\_1753\CP1001.dgn 6/18/2013 9:47:55 AM Jared Feller

**Jones Stuckey**  
 1655 W. MARKET STREET, SUITE 355  
 AKRON, OHIO 44315

DESIGN AGENCY: Jones Stuckey  
 DATE: 6-17-13  
 REVIEWED: FJG  
 DRAWN: TMR  
 DESIGNED: DEB  
 CHECKED: EDW

BRIDGE NO. LOR-90-1753  
 FRENCH CREEK ROAD OVER I-90

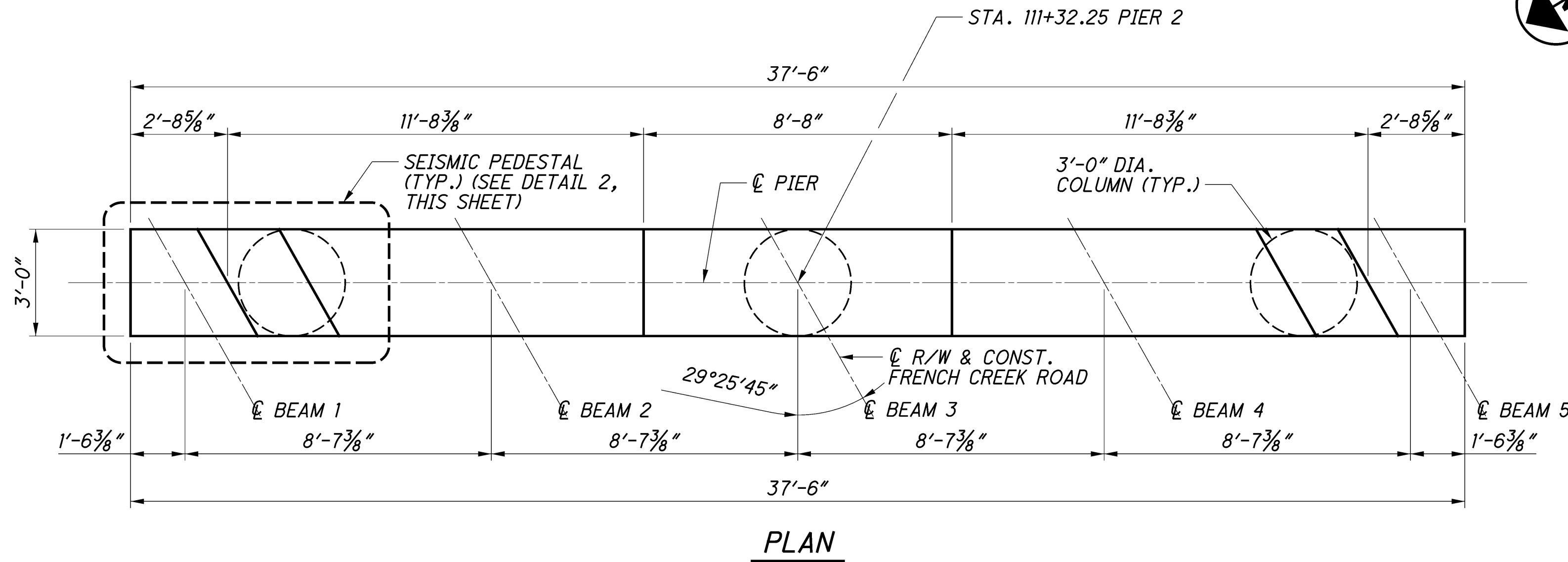
**LOR-90-17.53**  
 PID No. 81933

11 / 24

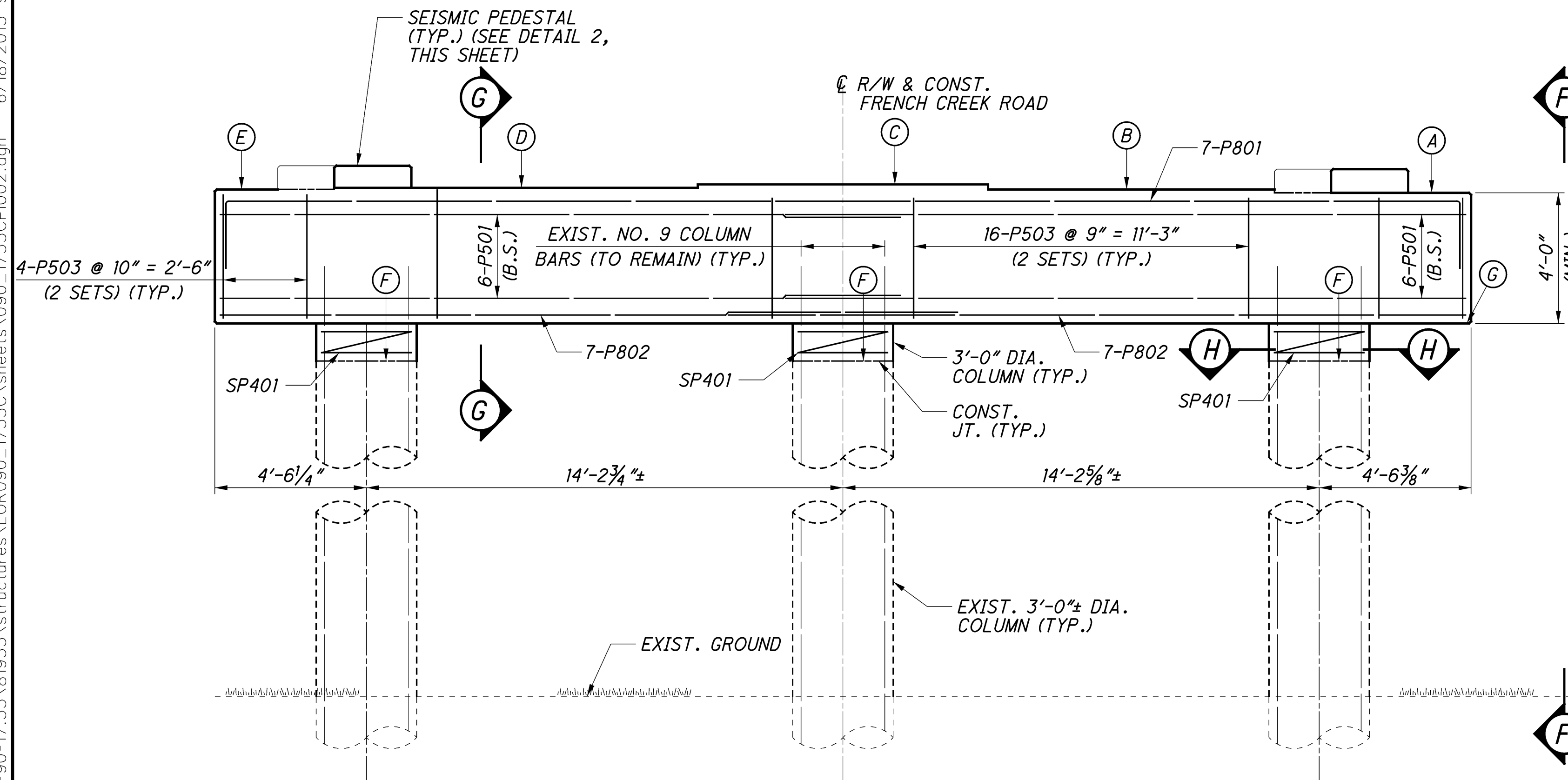
35  
48

**ELEVATIONS**

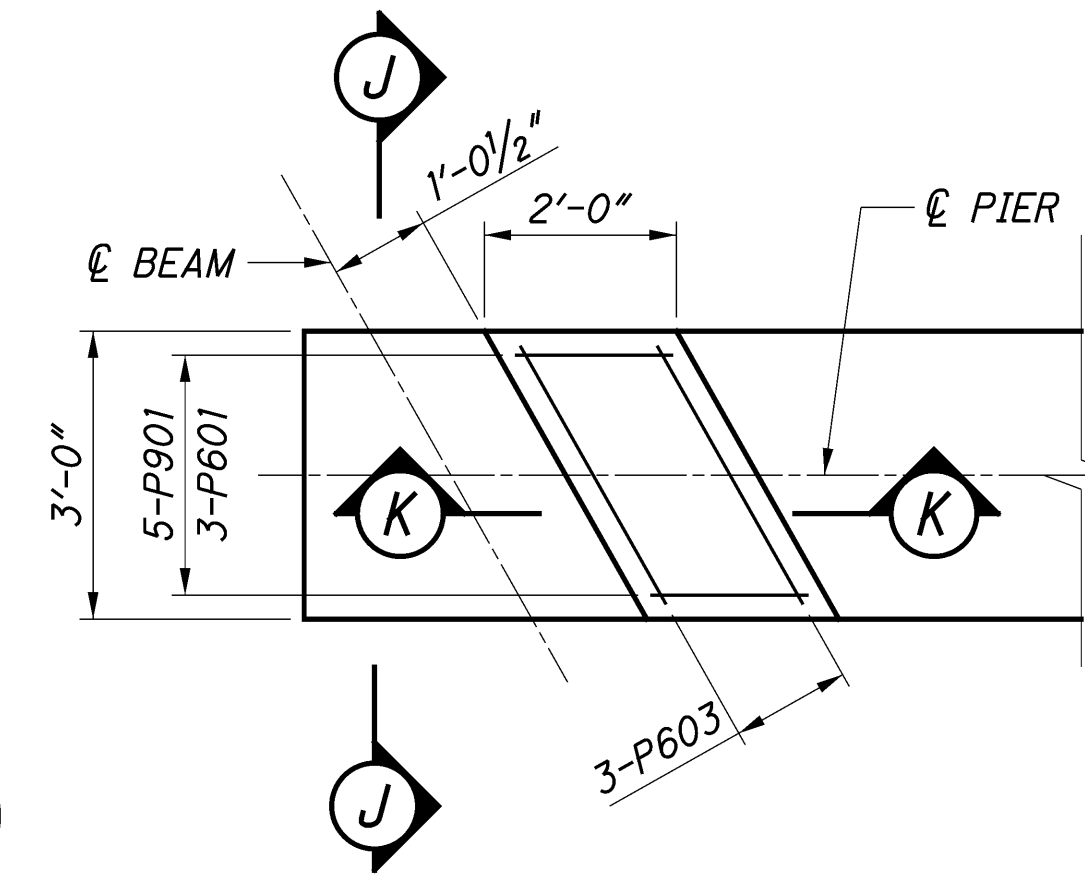
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
PIER 2	652.09	652.19	652.34	652.24	652.19	647.28±	648.09



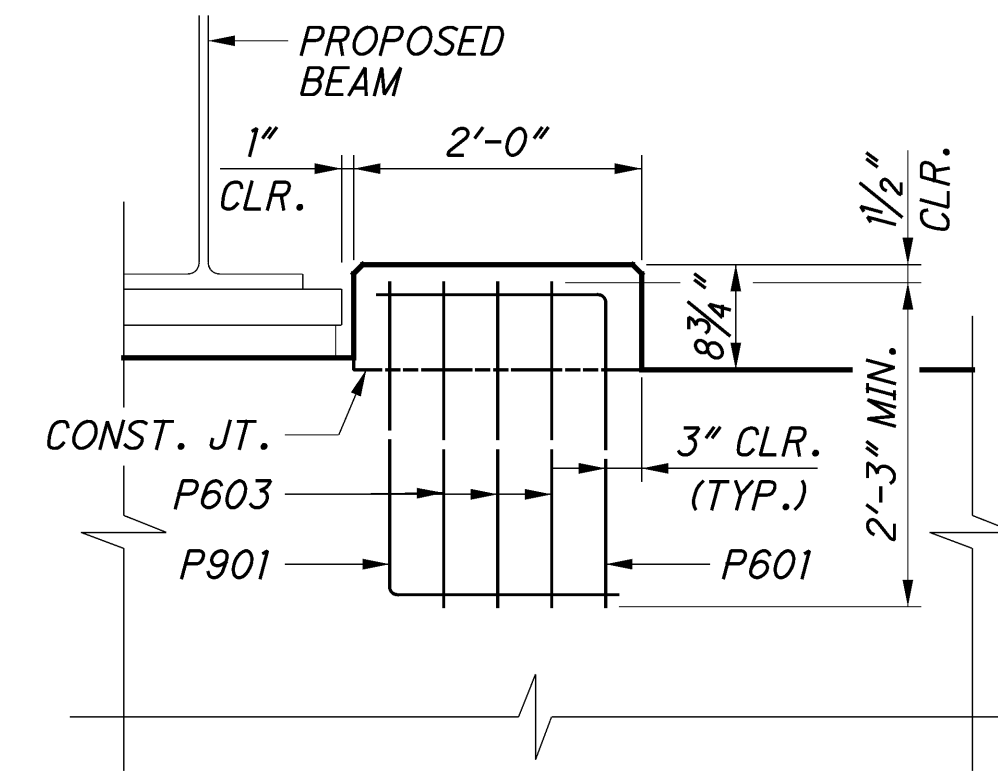
**PLAN**



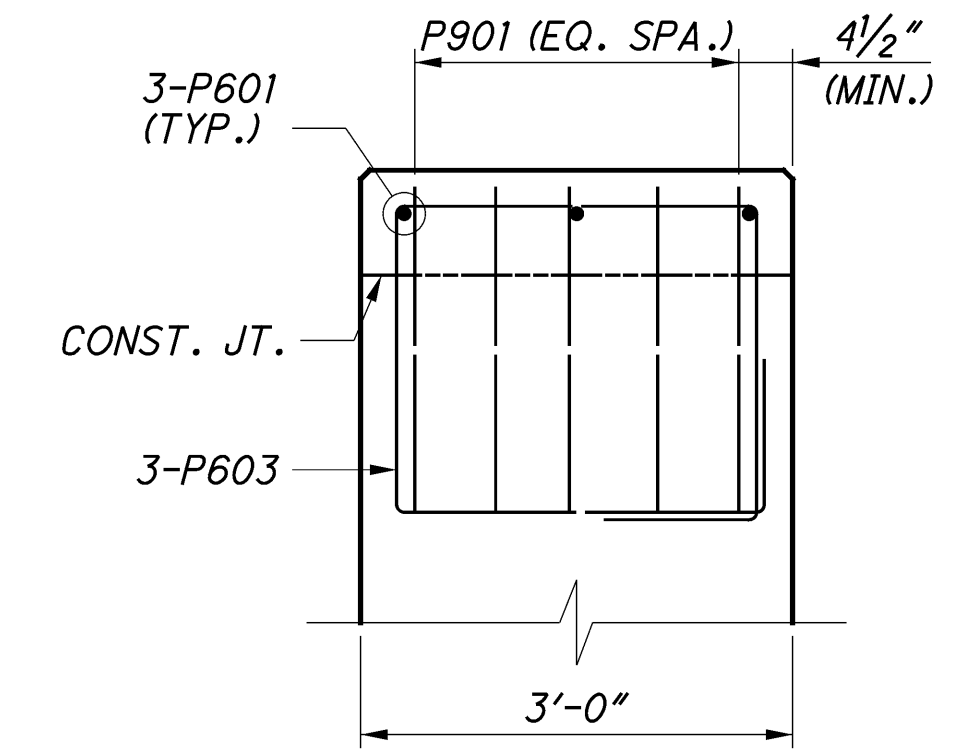
**PIER ELEVATION**



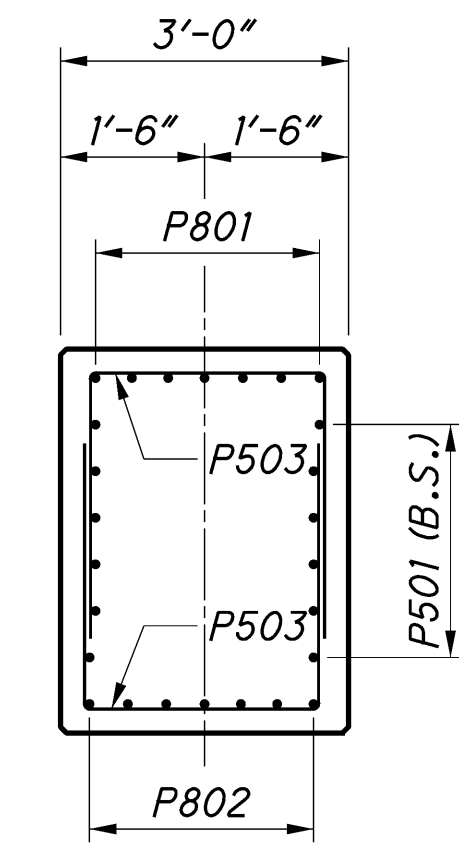
**DETAIL 2**



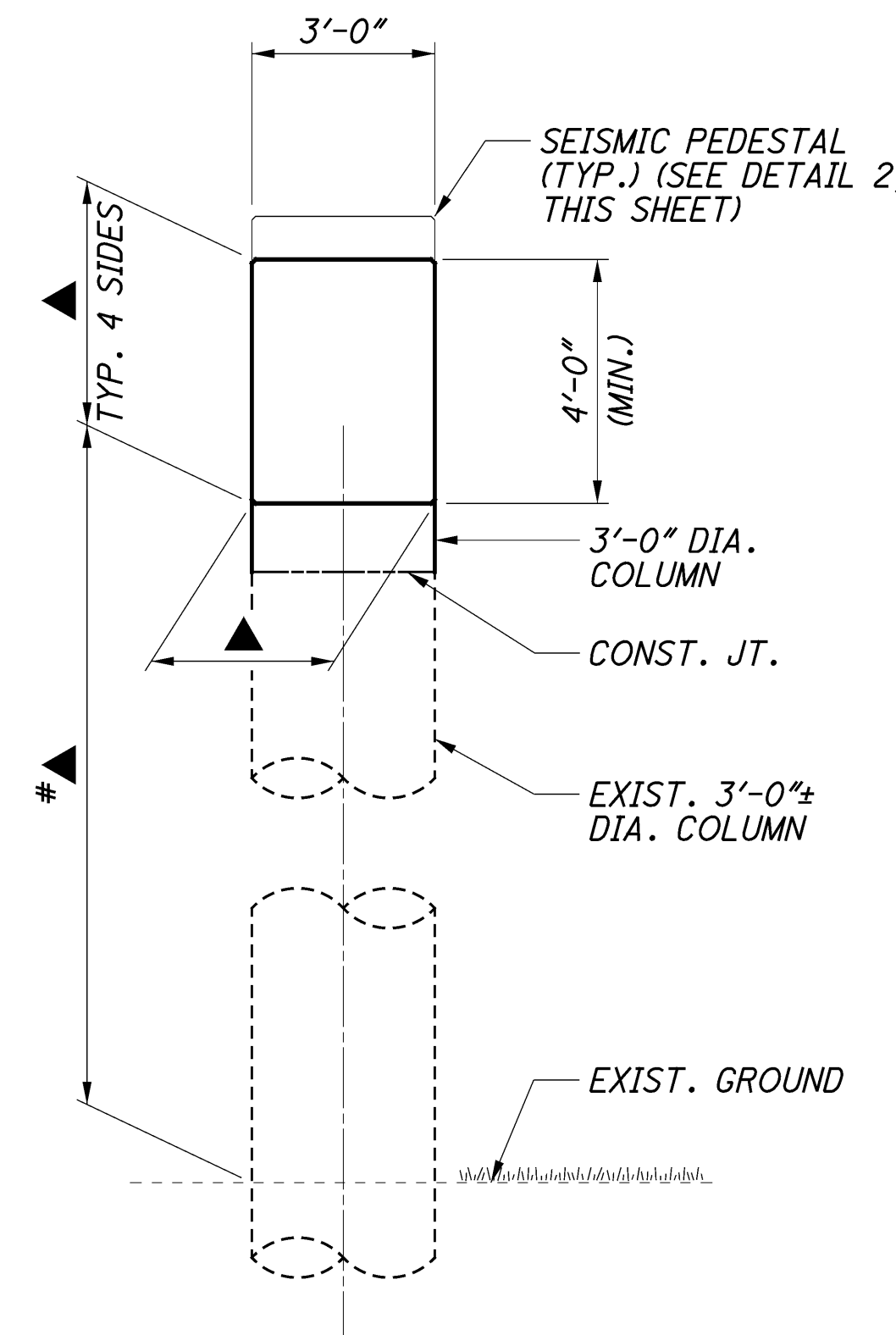
**SECTION K**  
(SEISMIC PEDESTAL DETAIL, PIER 2)



**SECTION J**

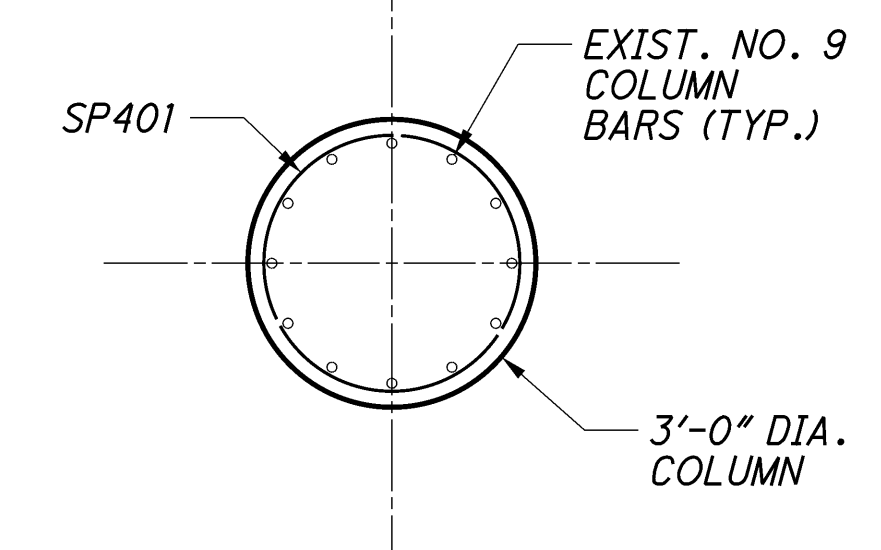


**SECTION G**



**VIEW F**

# LIMITS INCLUDE ENTIRE CIRCUMFERENCE



**SECTION H**

**LEGEND**

▲ LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

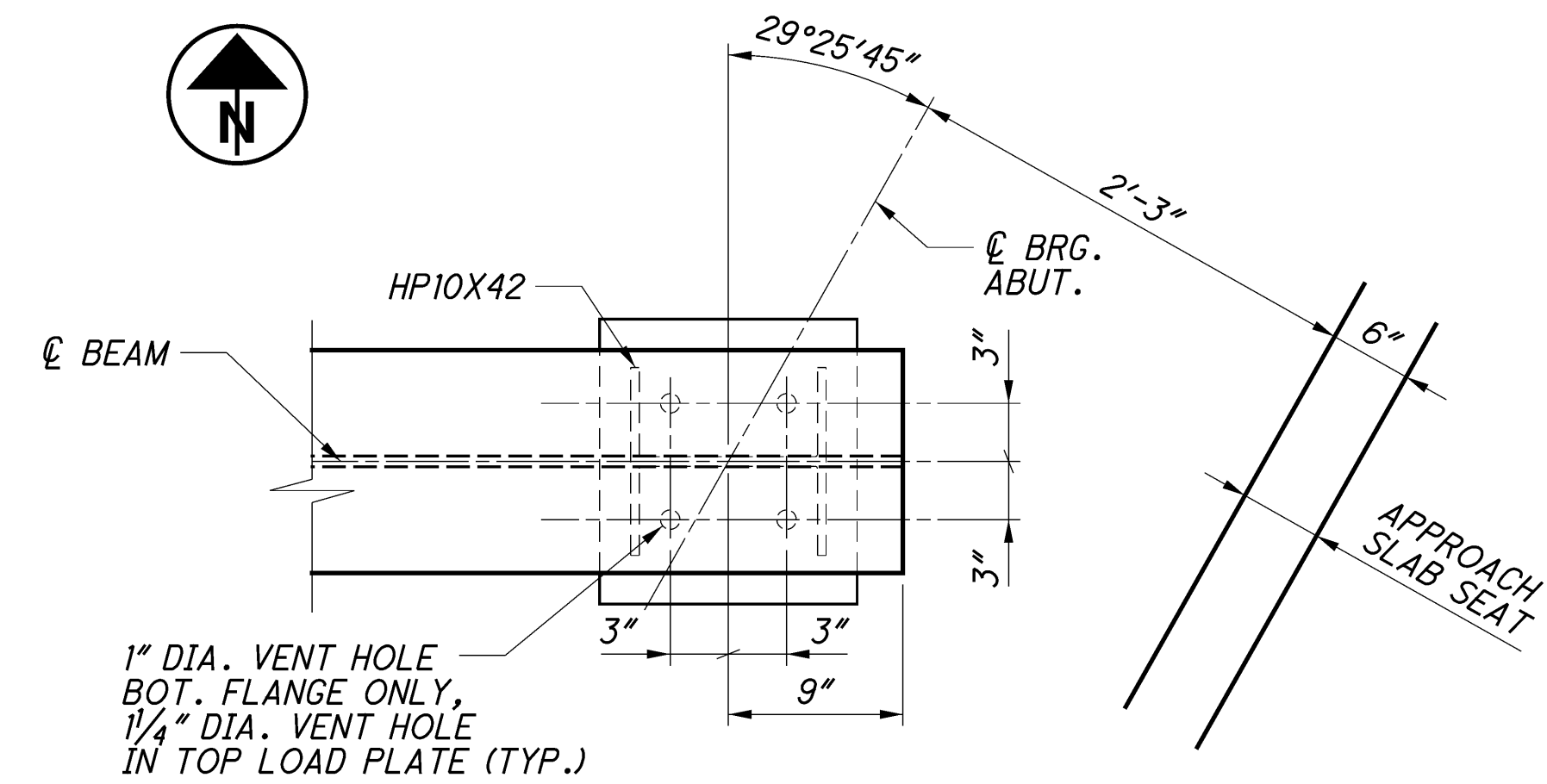
**NOTE:**

- FOR PIER 1 & 3 DETAILS, SEE SHEET 11/24.
- MINIMUM REINFORCING STEEL LAP LENGTHS ARE AS FOLLOWS (UNLESS NOTED OTHERWISE):  
NO. 5 BAR 2'-9"  
NO. 8 BAR 6'-4" (BOT.)
- THE SURFACE OF THE BEAM SEAT AT SEISMIC PEDESTAL LOCATIONS SHALL BE FINISHED WITH A SERRATED TROWEL. SERRATIONS SHALL BE A MINIMUM OF 1/4" DEEP.

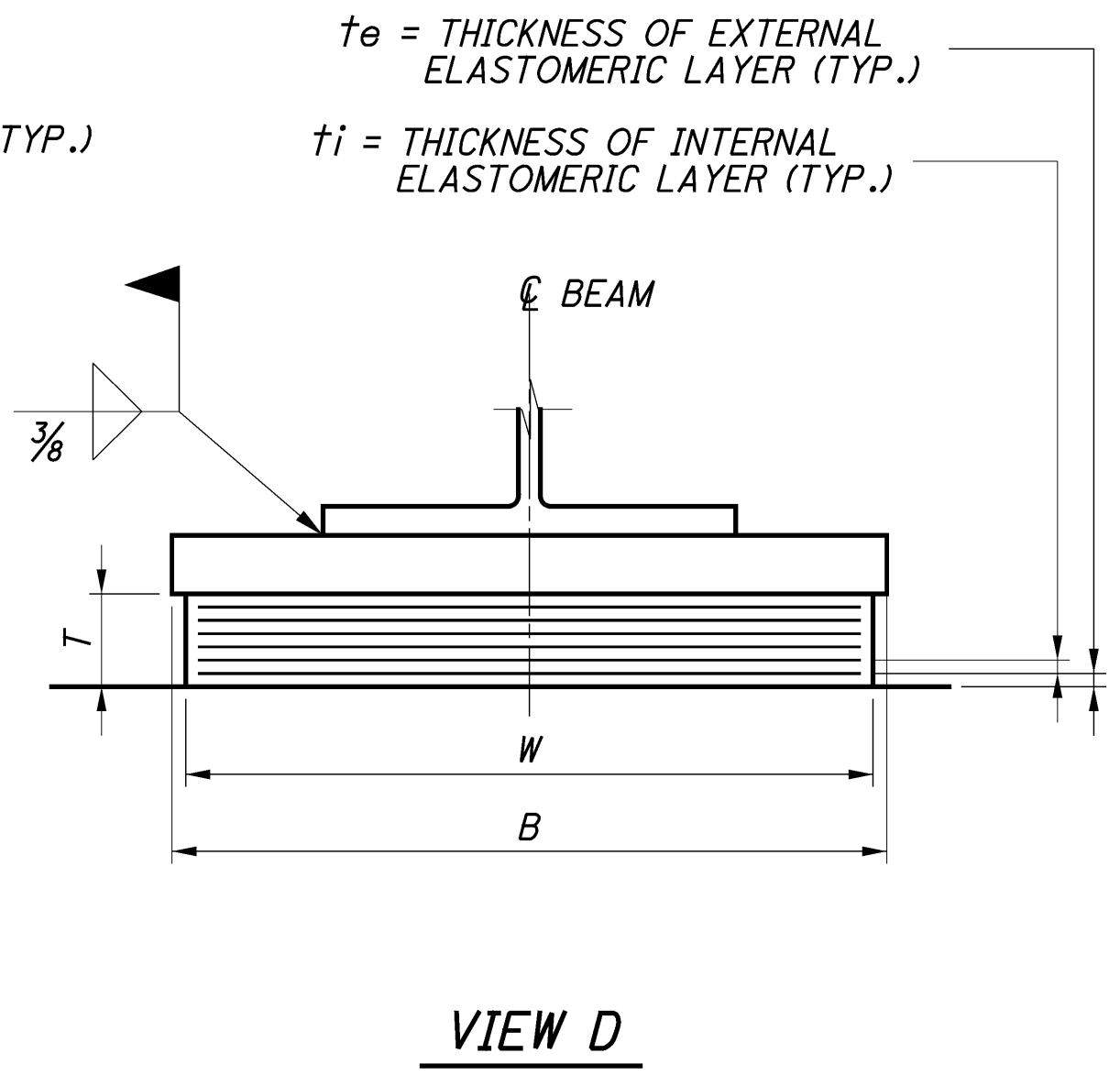
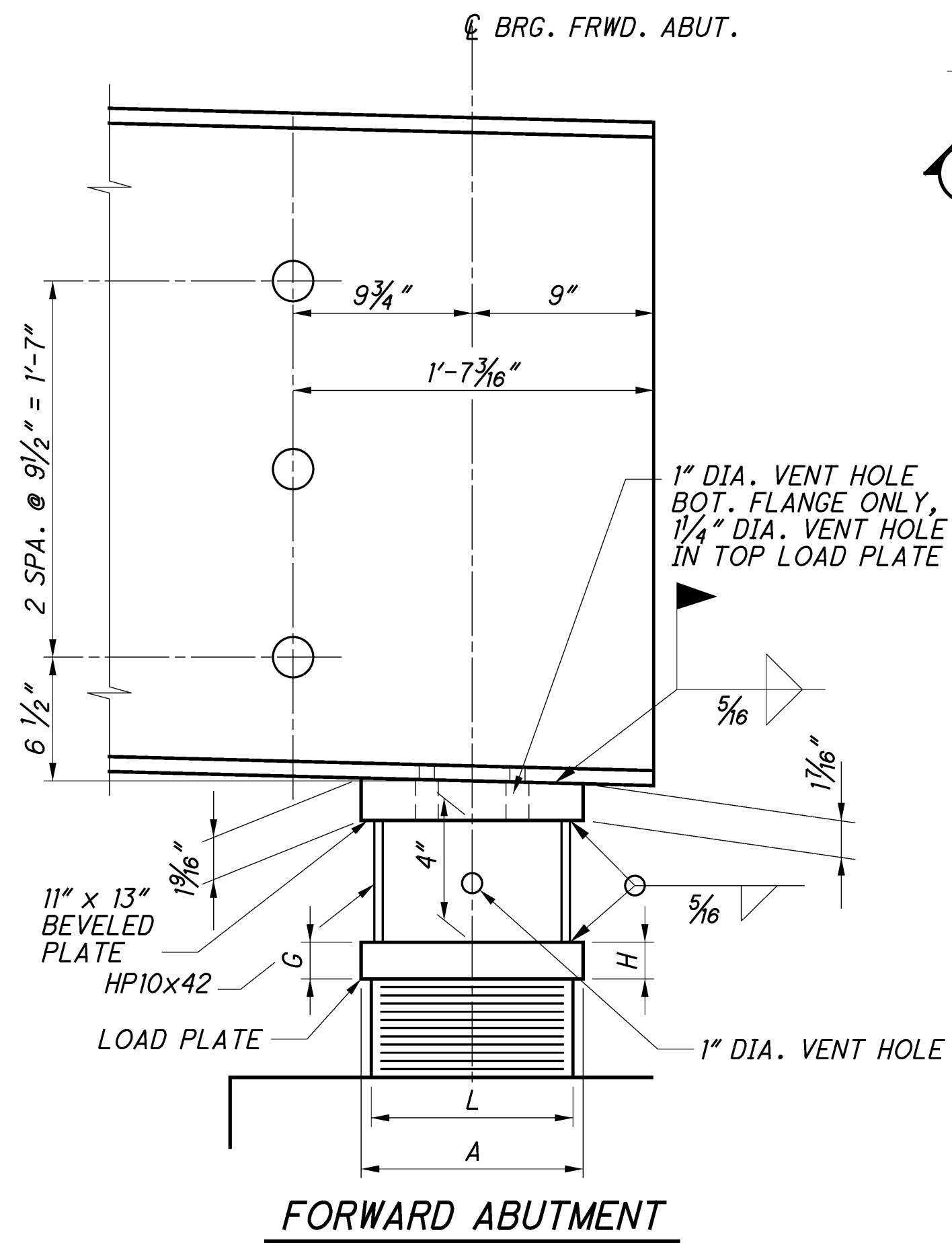
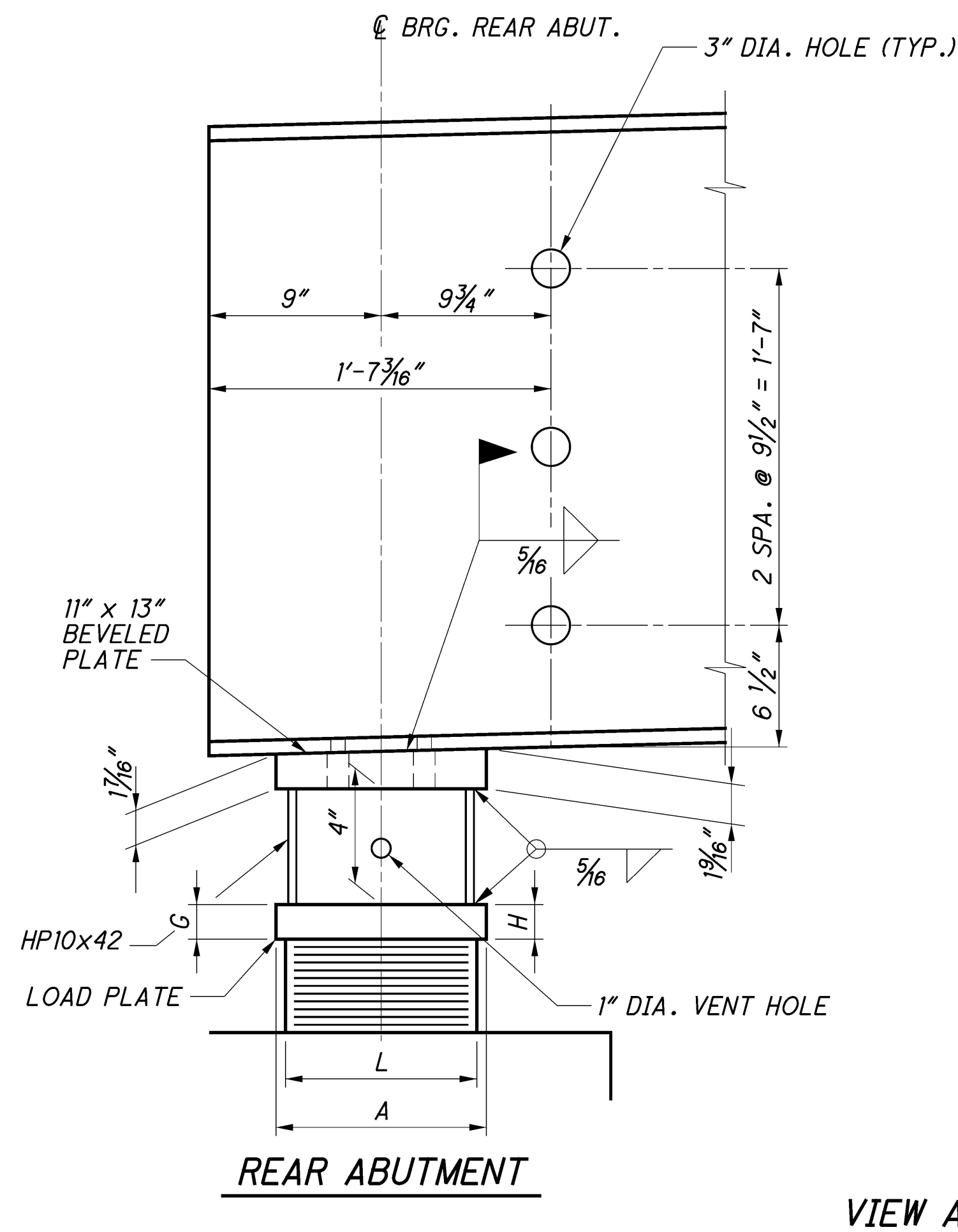
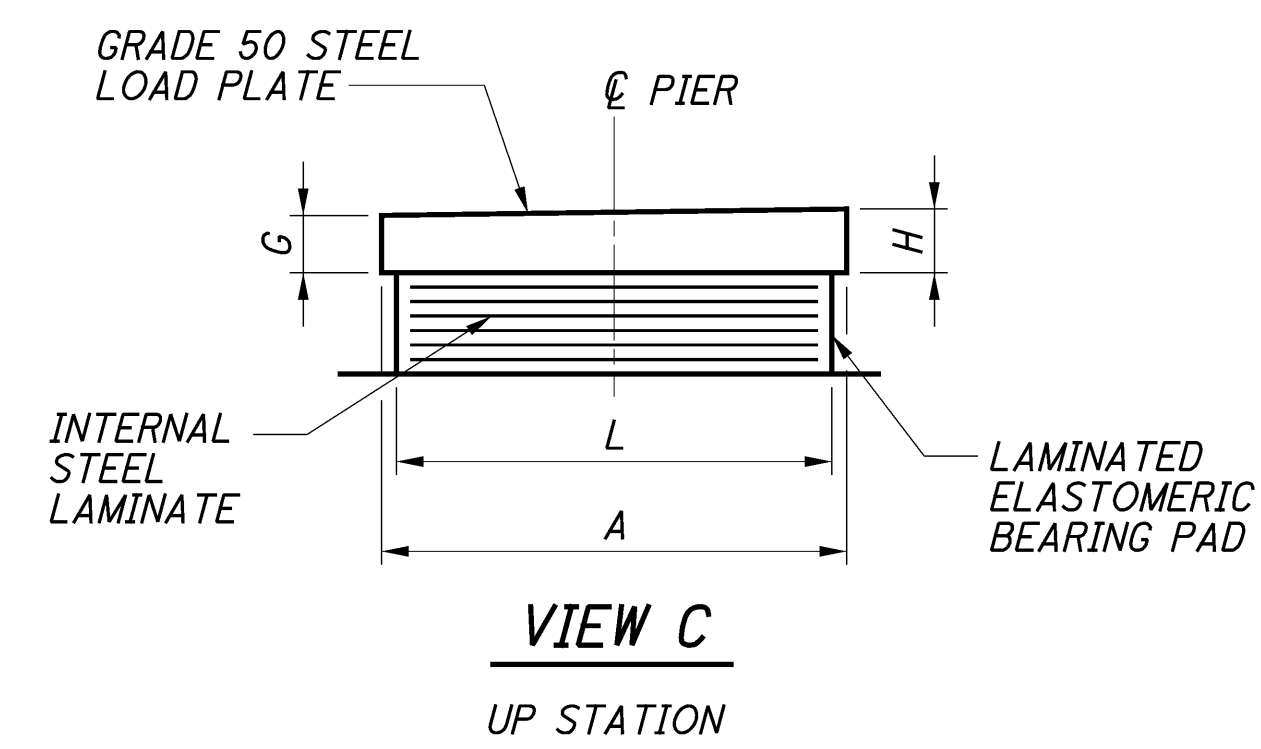
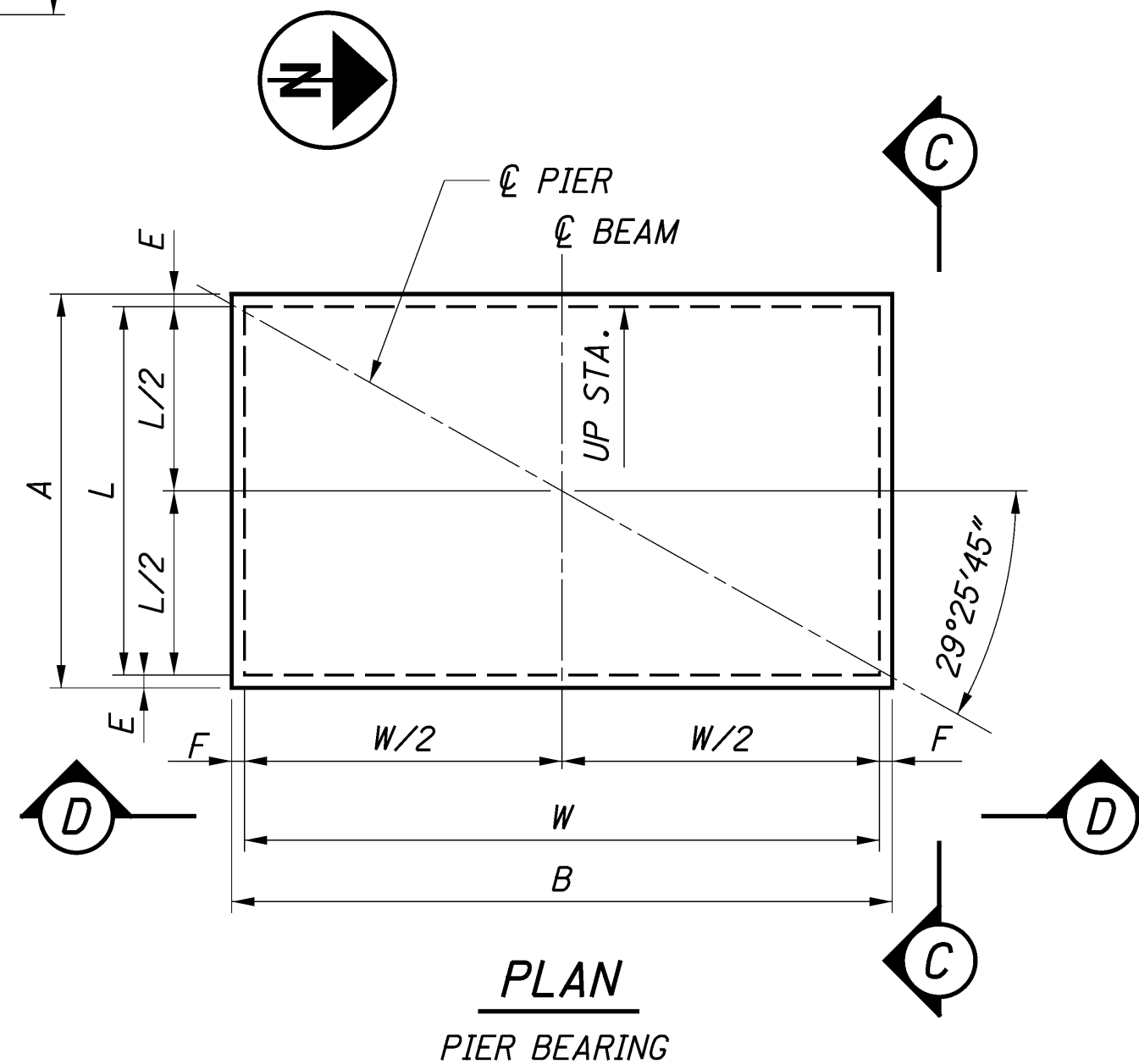
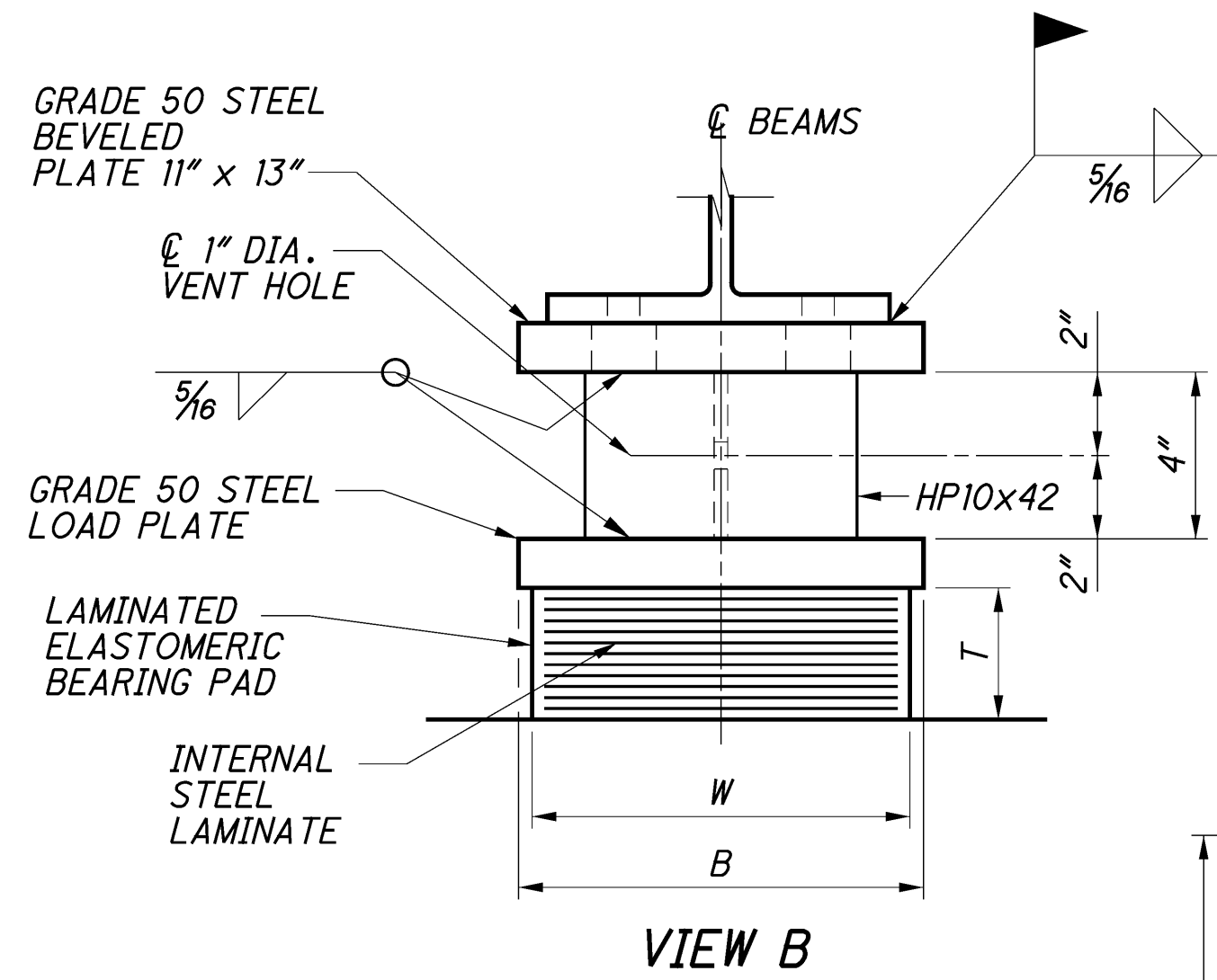
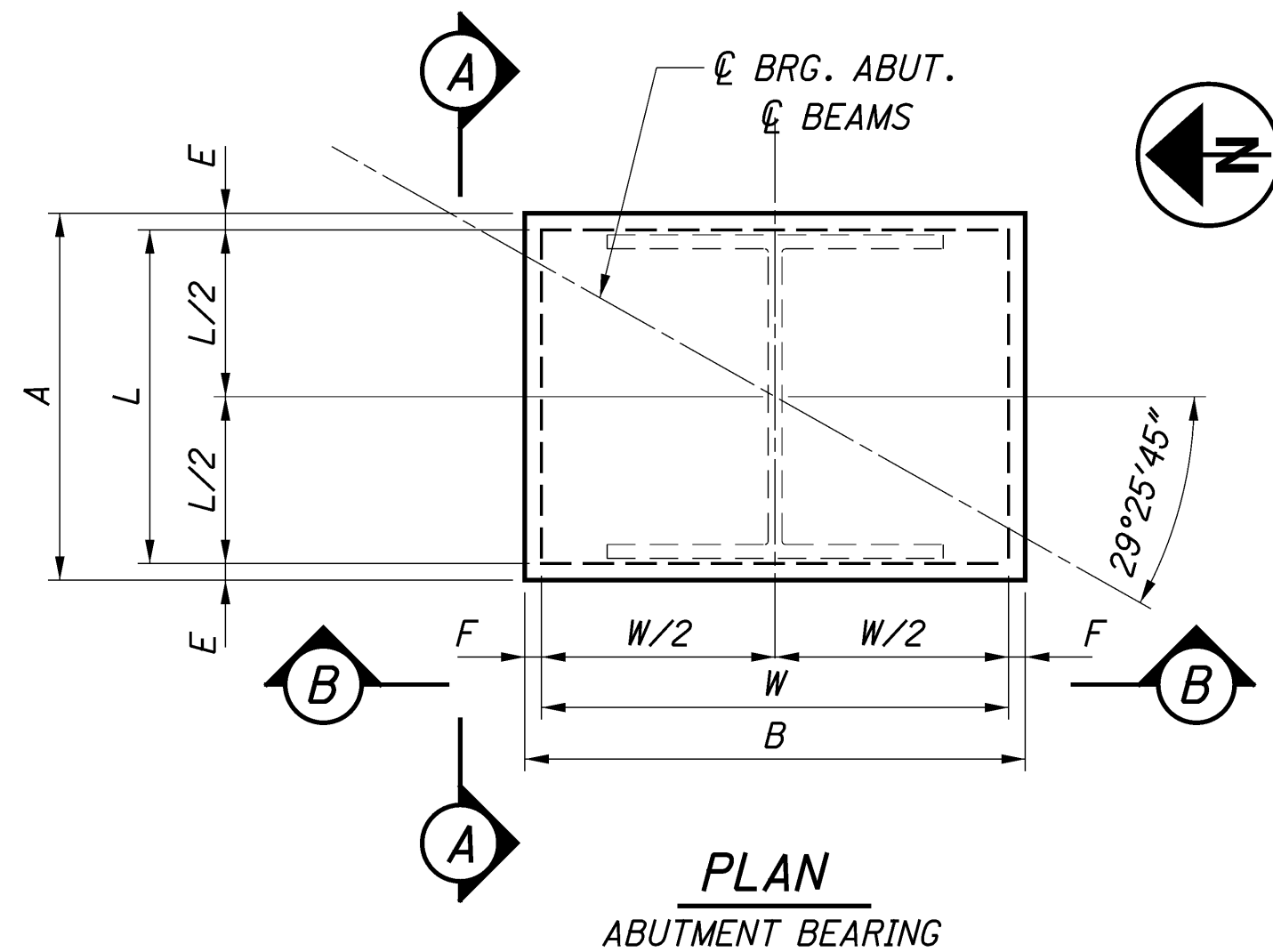
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753\PI002.dgn 6/18/2013 9:48:10 AM Jared Feller

\*\* INCLUDES FUTURE WEARING SURFACE  
\* WITHOUT IMPACT

SUB-STRUCTURE	STEEL LOAD PLATE						ELASTOMERIC PAD						STEEL LAMINATES NO. THICK.	TYPE	MIN. DEAD LOAD (K)	**MAX. DEAD LOAD (K)	LIVE * LOAD (K)	TOTAL LOAD (K)	
	A	B	E	F	G	H	L	W	T	NO. OF INTER. LAYERS	ti	te							
REAR ABUT.	13"	15"	1/2"	1/2"	1 1/2"	1 1/2"	12"	14"	3.88"	10	0.27	0.18	11	0.0747	EXP.	71.57	77.38	50.04	127.4
PIER 1	14"	23"	1/2"	1/2"	2 15/16"	3 1/16"	13"	22"	2.71"	5	0.36	0.23	6	0.0747	EXP.	131.27	156.23	96.54	252.8
PIER 2	14"	23"	1/2"	1/2"	3 3/16"	3 3/16"	13"	22"	2.71"	5	0.36	0.23	6	0.0747	EXP.	150.95	178.69	105.75	285.4
PIER 3	14"	23"	1/2"	1/2"	3 1/16"	2 15/16"	13"	22"	2.71"	5	0.36	0.23	6	0.0747	EXP.	131.27	156.23	96.54	252.8
FRWD. ABUT.	13"	15"	1/2"	1/2"	1 1/2"	1 1/2"	12"	14"	3.88"	10	0.27	0.18	11	0.0747	EXP.	71.57	77.38	50.04	127.4



**DETAIL 1**  
FRWD. ABUT. SHOWN, REAR ABUT. IS SIMILAR

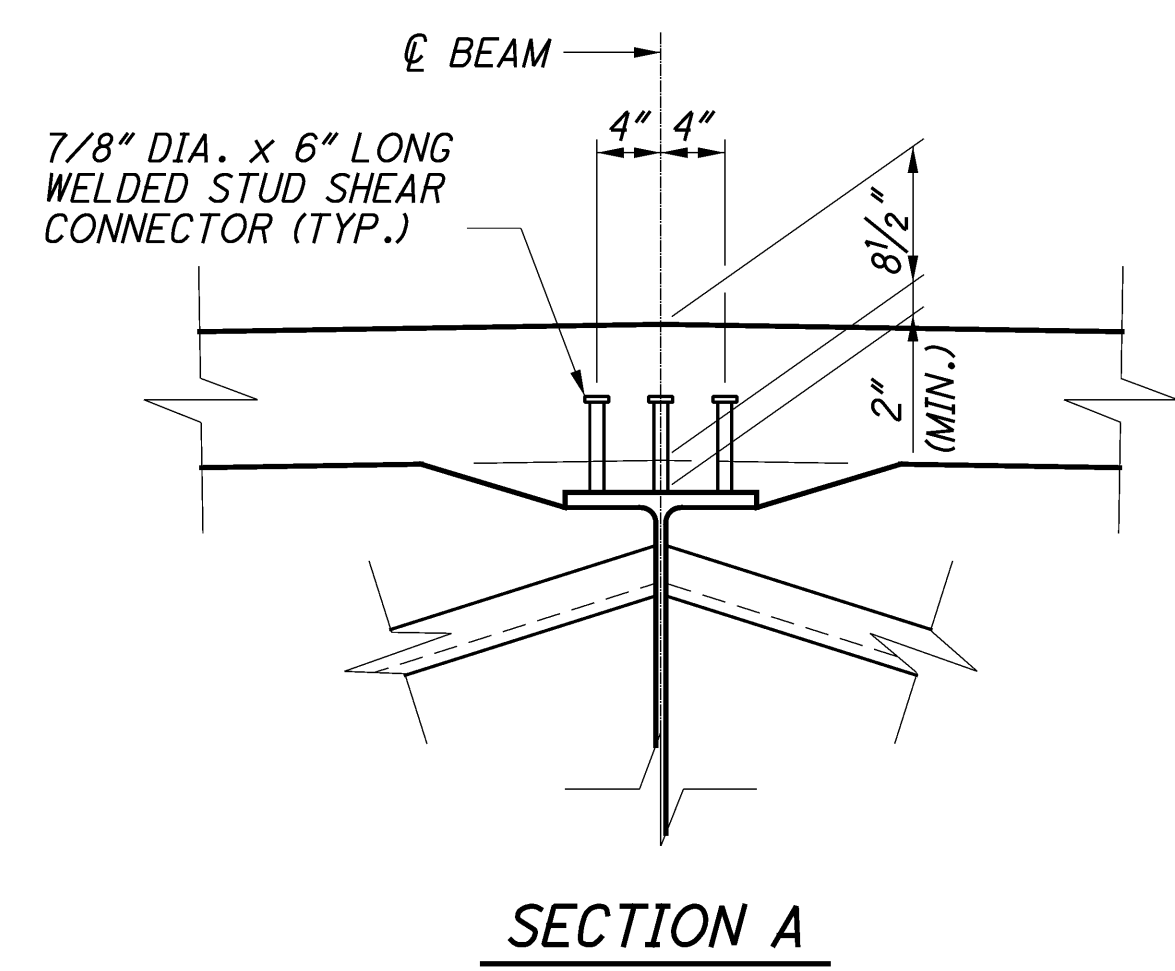
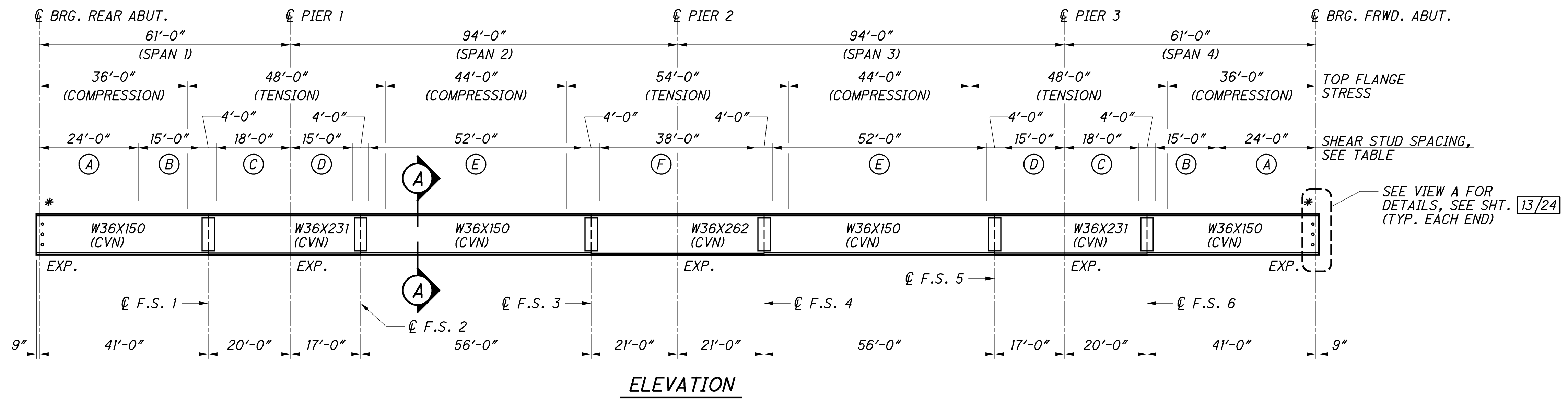
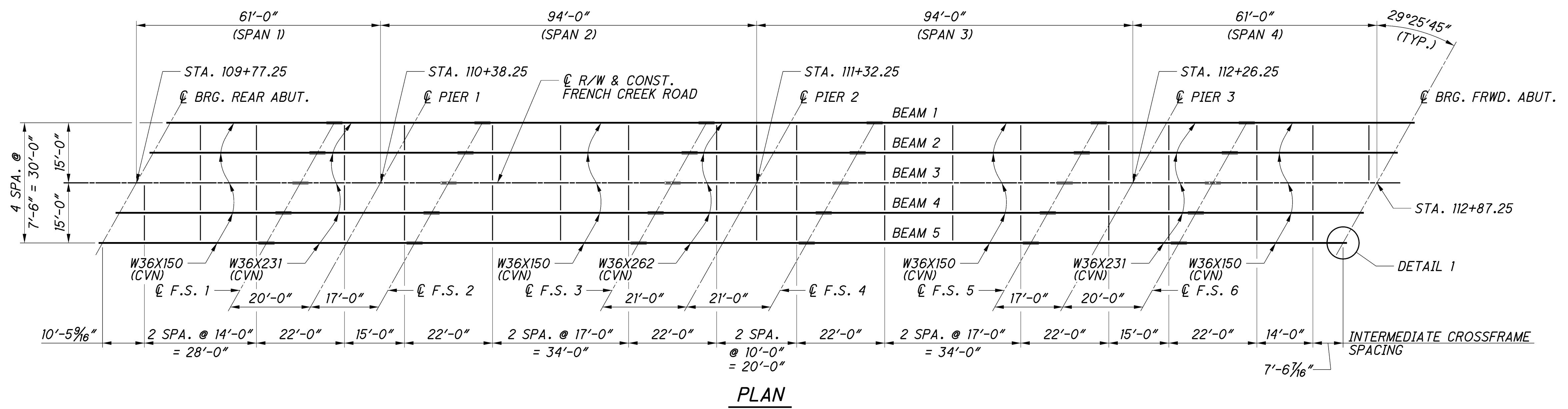


te = THICKNESS OF EXTERNAL ELASTOMERIC LAYER (TYP.)  
ti = THICKNESS OF INTERNAL ELASTOMERIC LAYER (TYP.)

**NOTES**

1. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
2. THE STEEL LOAD PLATE SHALL BE ASTM A709, GRADE 50 STEEL. THE LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE LAMINATED ELASTOMERIC BEARINGS DURING THE MOLDING PROCESS.
3. THE HP10 x 42 STEEL SHAPE AT THE ABUTMENTS SHALL BE ASTM A709, GRADE 50 STEEL.
4. FOR LOCATION OF DETAIL 1, SEE SHT. NO. 14/24.
5. BASIS OF PAYMENT: THE UNIT PRICE BID SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE LAMINATED ELASTOMERIC BEARINGS, STEEL LOAD PLATES, BEVELED PLATES AND HP SHAPES. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.
6. BEARINGS SHALL BE PAINTED WITH THE STRUCTURAL STEEL.

P:\3058 LOR-90-17-53\81933\structures\LOR090-1753\sheets\090-1753\CBR001.dgn 6/18/2013 9:48:24 AM Jorel Feller



**LEGEND**

\* - OFFSET THE FIRST STUD INWARD FROM THE  $\varnothing$  BRG. BY 1/16".

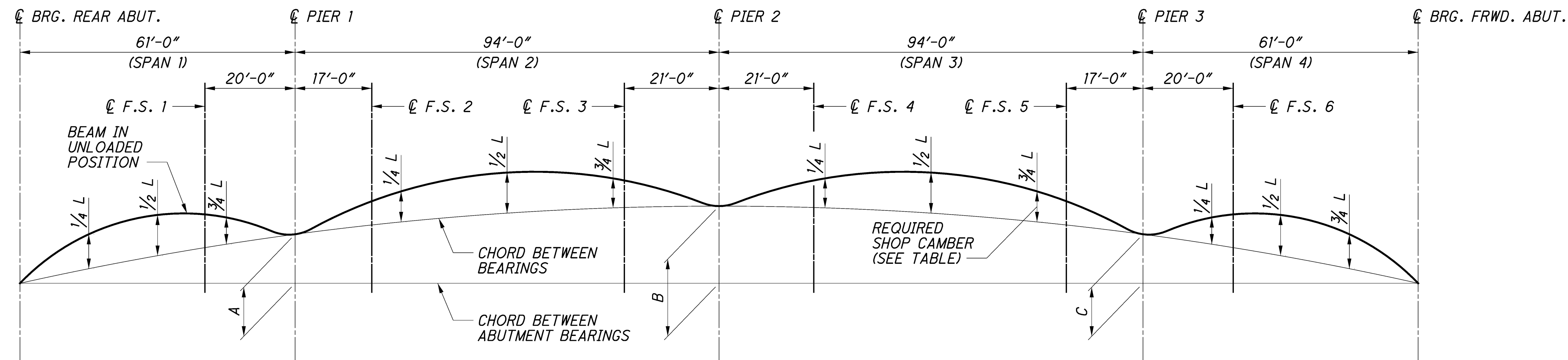
**NOTES**

- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 3/8" FOR GREATER THAN 3/4" THICK.
- CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- FOR BEAM CAMBER AND ADDITIONAL STEEL DETAILS, SEE SHEETS 15/24 AND 16/24.
- SEE STANDARD DRAWINGS GSD-1-96 FOR INTERMEDIATE CROSS FRAME DETAILS.
- FOR DETAIL 1, SEE SHEET 13/24.

**SHEAR STUD SPACING TABLE**

- (A) 24 SPA. @ 1'-0" = 24'-0"
- (B) 18 SPA. @ 10" = 15'-0"
- (C) 14 SPA. @ 1'-3 1/2" (-) = 18'-0"
- (D) 10 SPA. @ 1'-6" = 15'-0"
- (E) 39 SPA. @ 1'-4" = 52'-0"
- (F) 24 SPA. @ 1'-7" = 38'-0"

P:\3058 LOR-90-17.53\81933\structures\LOR090-1753\sheets\090-1753\SD001.dgn 6/18/2013 9:48:42 AM Jared Feller



**CAMBER DIAGRAM**

BEAM 1	SPAN 1				SPAN 2				SPAN 3				SPAN 4					
LOCATION OF POINTS	1/4 L	1/2 L	F.S. 1	3/4 L	F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3	F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5	1/4 L	F.S. 6	1/2 L	3/4 L
DEFLECTION DUE TO WEIGHT OF STEEL	1/16"	1/16"	0"	0"	1/8"	1/8"	1/4"	1/8"	1/8"	1/8"	1/2"	1/4"	1/8"	1/8"	0"	0"	1/16"	1/16"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/4"	1/4"	1/8"	1/16"	1/2"	3/4"	1 1/4"	5/8"	1/2"	1/2"	5/8"	1 1/4"	3/4"	1/2"	1/16"	1/8"	1/4"	1/4"
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0"	0"	0"	0"	1 3/16"	1 1/16"	1 7/16"	1 1/16"	1 3/8"	1 1/2"	1 5/8"	2 3/16"	1 5/8"	1 5/16"	1 1/16"	1 3/16"	1 5/16"	1 1/16"
REQUIRED SHOP CAMBER	5/16"	5/16"	1/8"	1/16"	1 1/16"	1 5/16"	3 5/16"	2 3/16"	2"	2 1/8"	2 3/4"	3 1/16"	2 1/2"	1 7/8"	3/4"	1 5/16"	1 1/4"	1"

LOCATION	A	B	C
BEAM 1	8 15/16"	1'-7"	1'-0 15/16"
BEAM 2	8 9/16"	1'-6 5/8"	1'-0 3/16"
BEAM 3	8 1/4"	1'-6 1/4"	1'-0 5/8"
BEAM 4	7 7/8"	1'-5 3/8"	1'-0 1/2"
BEAM 5	7 9/16"	1'-5 3/8"	1'-0 5/16"

**VERTICAL OFFSET TABLE**

BEAM 2	SPAN 1				SPAN 2				SPAN 3				SPAN 4					
LOCATION OF POINTS	1/4 L	1/2 L	F.S. 1	3/4 L	F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3	F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5	1/4 L	F.S. 6	1/2 L	3/4 L
DEFLECTION DUE TO WEIGHT OF STEEL	1/16"	1/16"	0"	0"	1/8"	1/8"	1/4"	1/8"	1/8"	1/8"	1/2"	1/4"	1/8"	1/8"	0"	0"	1/16"	1/16"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/4"	1/4"	1/8"	1/16"	1/2"	3/4"	1 1/4"	5/8"	1/2"	1/2"	5/8"	1 1/4"	3/4"	1/2"	1/16"	1/8"	1/4"	1/4"
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0"	0"	0"	0"	1 1/16"	1 5/16"	1 11/16"	1 7/8"	1 5/16"	1 1/2"	1 5/8"	2 3/16"	1 5/8"	1 5/16"	1 1/16"	1 3/16"	1 5/16"	1 1/16"
REQUIRED SHOP CAMBER	5/16"	5/16"	1/8"	1/16"	1 5/16"	1 13/16"	3 3/16"	2 1/8"	1 15/16"	2 1/8"	2 3/4"	3 1/16"	2 1/2"	1 7/8"	3/4"	1 5/16"	1 1/4"	1"

BEAM 3	SPAN 1				SPAN 2				SPAN 3				SPAN 4					
LOCATION OF POINTS	1/4 L	1/2 L	F.S. 1	3/4 L	F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3	F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5	1/4 L	F.S. 6	1/2 L	3/4 L
DEFLECTION DUE TO WEIGHT OF STEEL	1/16"	1/16"	0"	0"	1/8"	1/8"	1/4"	1/8"	1/8"	1/8"	1/2"	1/4"	1/8"	1/8"	0"	0"	1/16"	1/16"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/4"	1/4"	1/8"	1/16"	1/2"	3/4"	1 1/4"	5/8"	1/2"	1/2"	5/8"	1 1/4"	3/4"	1/2"	1/16"	1/8"	1/4"	1/4"
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0"	0"	0"	0"	5/8"	1 3/16"	1 9/16"	1 5/16"	1 1/4"	1 1/2"	1 5/8"	2 3/16"	1 5/8"	1 5/16"	1 1/16"	1 3/16"	1 5/16"	1 1/16"
REQUIRED SHOP CAMBER	5/16"	5/16"	1/8"	1/16"	1 1/4"	1 1/16"	3 1/16"	2 1/16"	2 7/8"	2 1/8"	2 3/4"	3 1/16"	2 1/2"	1 7/8"	3/4"	1 5/16"	1 1/4"	1"

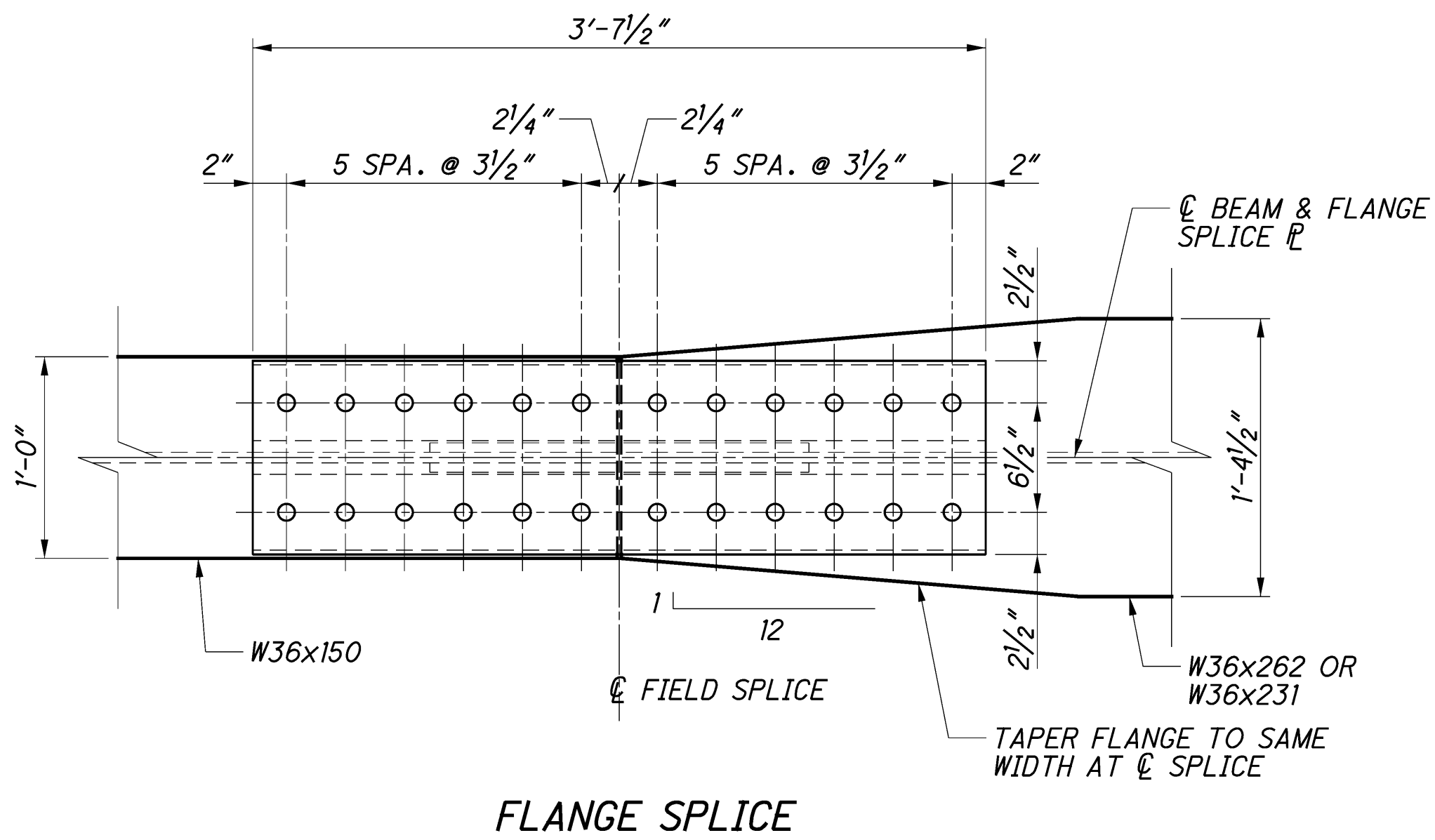
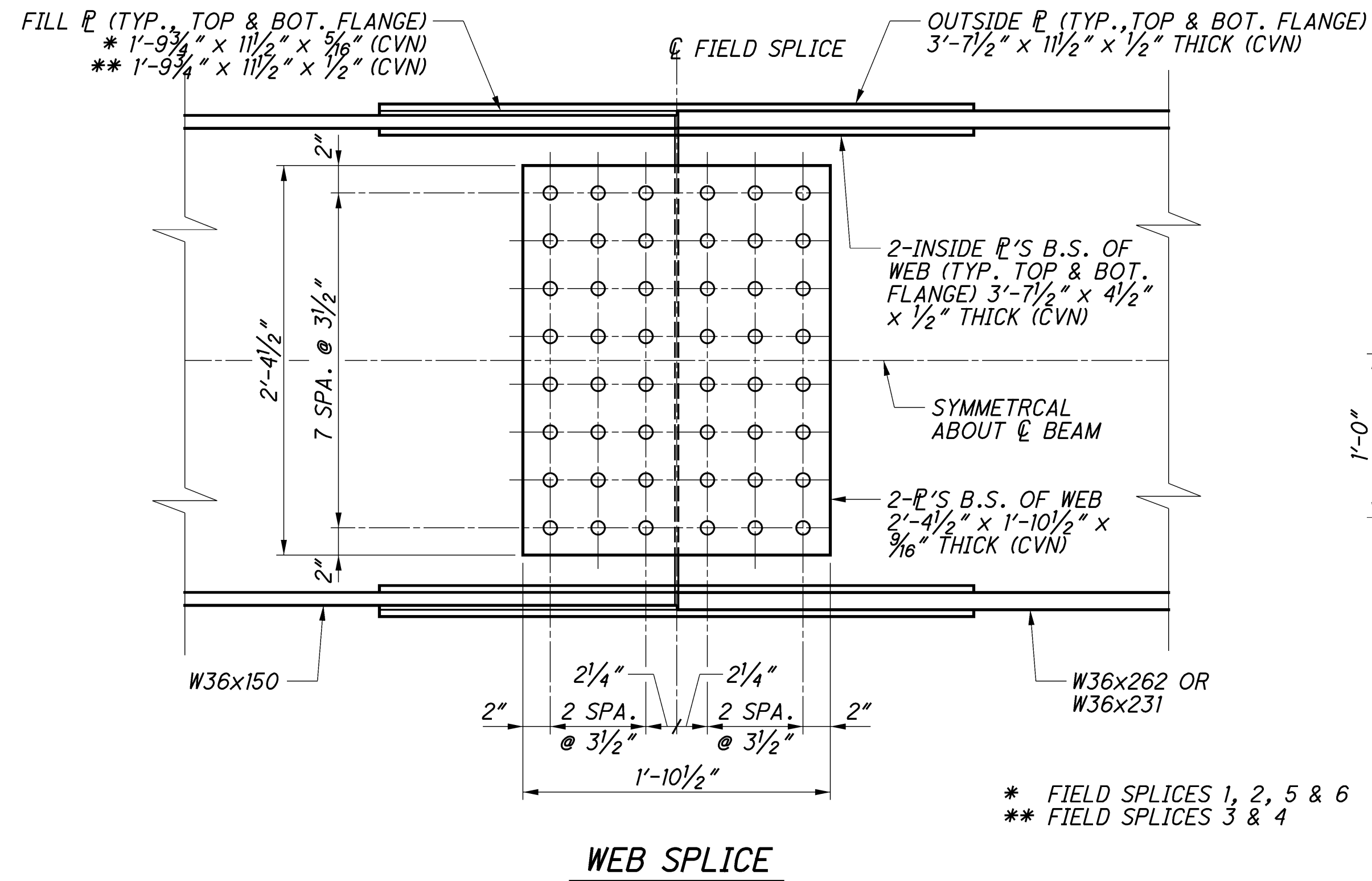
**CAMBER AND DEFLECTION TABLES - BEAMS 1, 2 AND 3**

**NOTES:**

- FOR ADDITIONAL STRUCTURAL STEEL NOTES, SEE SHEET [14/24].
- FOR ADDITIONAL CAMBER TABLES, SEE SHEET [16/24].

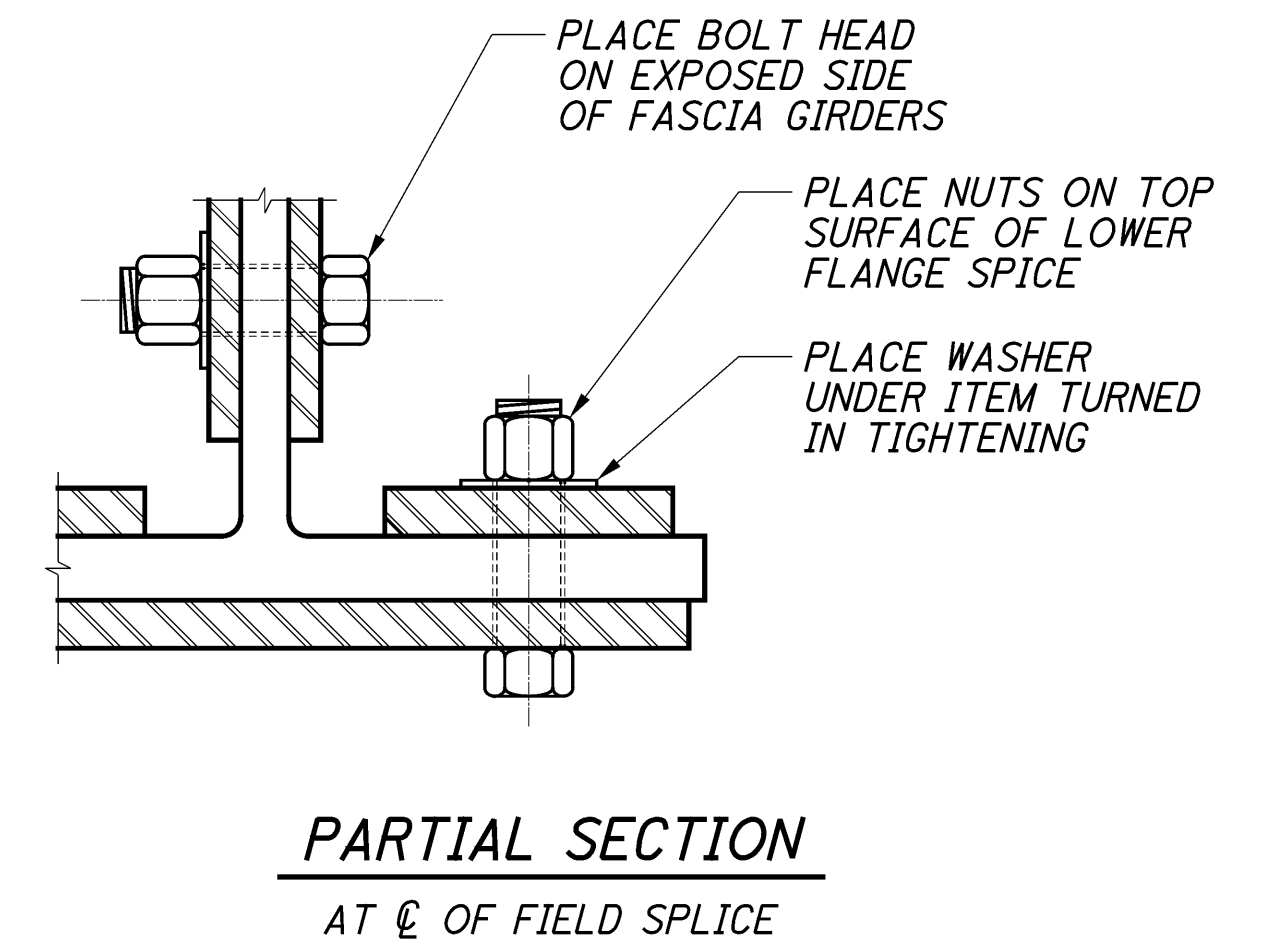
P:\3058\_LOR-90-17.53\81933\structures\LOR90-1753C\sheets\090-1753CSD002.dgn 6/18/2013 9:48:56 AM Jared Feller

P:\3058 LOR-90-17.53\81933\structures\lor090-1753\csd003.dgn 6/18/2013 9:49:09 AM Jared Feller



\* FIELD SPLICES 1, 2, 5 & 6  
\*\* FIELD SPLICES 3 & 4

**FIELD SPLICE DETAILS**  
TYPICAL FOR ALL SPLICE LOCATIONS



BEAM 4	SPAN 1				SPAN 2				SPAN 3				SPAN 4					
LOCATION OF POINTS	1/4 L	1/2 L	F.S. 1	3/4 L	F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3	F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5	1/4 L	F.S. 6	1/2 L	3/4 L
DEFLECTION DUE TO WEIGHT OF STEEL	1/16"	1/16"	0"	0"	1/8"	1/8"	1/4"	1/8"	1/8"	1/8"	1/2"	1/4"	1/8"	1/8"	0"	0"	1/16"	1/16"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/4"	1/4"	1/8"	1/16"	1/2"	3/4"	1 1/4"	5/8"	1/2"	1/2"	5/8"	1 1/4"	3/4"	1/2"	1/16"	1/8"	1/4"	1/4"
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0"	0"	0"	0"	1/2"	1 1/16"	1 3/8"	1 1/4"	1 3/16"	1 1/2"	1 5/8"	2 3/16"	1 5/8"	1 5/16"	1 1/16"	1 3/16"	1 5/16"	1 1/16"
REQUIRED SHOP CAMBER	5/16"	5/16"	1/8"	1/16"	1 1/8"	1 9/16"	2 7/8"	2"	1 13/16"	2 1/8"	2 3/4"	3 1/16"	2 1/2"	1 7/8"	3/4"	1 5/16"	1 1/4"	1"

BEAM 5	SPAN 1				SPAN 2				SPAN 3				SPAN 4					
LOCATION OF POINTS	1/4 L	1/2 L	F.S. 1	3/4 L	F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3	F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5	1/4 L	F.S. 6	1/2 L	3/4 L
DEFLECTION DUE TO WEIGHT OF STEEL	1/16"	1/16"	0"	0"	1/8"	1/8"	1/4"	1/8"	1/8"	1/8"	1/2"	1/4"	1/8"	1/8"	0"	0"	1/16"	1/16"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/4"	1/4"	1/8"	1/16"	1/2"	3/4"	1 1/4"	5/8"	1/2"	1/2"	5/8"	1 1/4"	3/4"	1/2"	1/16"	1/8"	1/4"	1/4"
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0"	0"	0"	0"	3/16"	5/8"	1 3/16"	1 1/8"	1 1/16"	1 1/2"	1 5/8"	2 3/16"	1 5/8"	1 5/16"	1 1/16"	1 3/16"	1 5/16"	1 1/16"
REQUIRED SHOP CAMBER	5/16"	5/16"	1/8"	1/16"	1 1/16"	1 1/2"	2 1/16"	1 7/8"	1 11/16"	2 1/8"	2 3/4"	3 1/16"	2 1/2"	1 7/8"	3/4"	1 5/16"	1 1/4"	1"

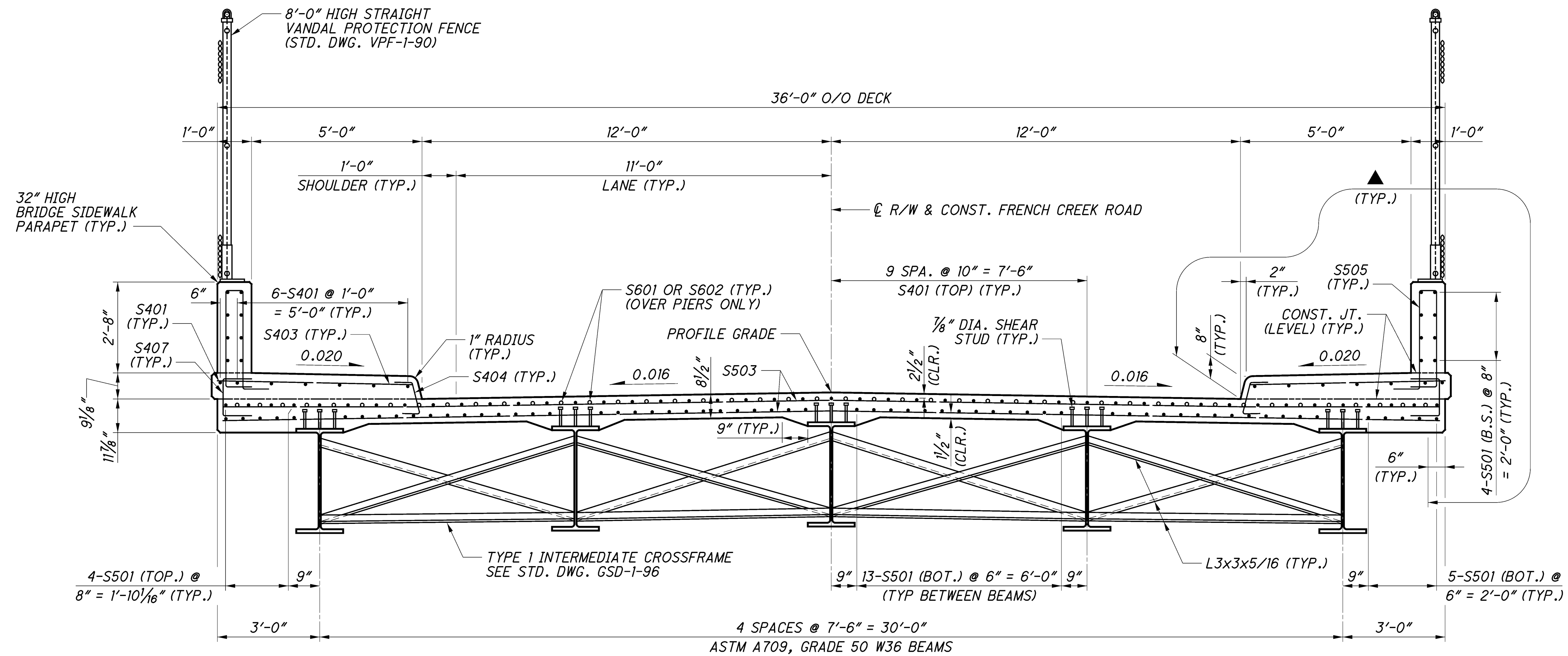
**CAMBER AND DEFLECTION TABLES - BEAMS 4 AND 5**

**NOTES:**

- ALL FASTENERS SHALL BE 1" DIA. A325, TYPE I, HIGH STRENGTH BOLTS.
- FOR ADDITIONAL STRUCTURAL STEEL NOTES, SEE SHEET 14/24.
- FOR CAMBER DIAGRAM AND ADDITIONAL CAMBER TABLES, SEE SHEET 15/24.



P:\3058 LOR-90-17-53\81933\structures\LOR090-1753\sheets\090-1753\CTS001.dgn 6/18/2013 9:49:23 AM Jared Feller



**TRANSVERSE SECTION**

**LEGEND**

▲ LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

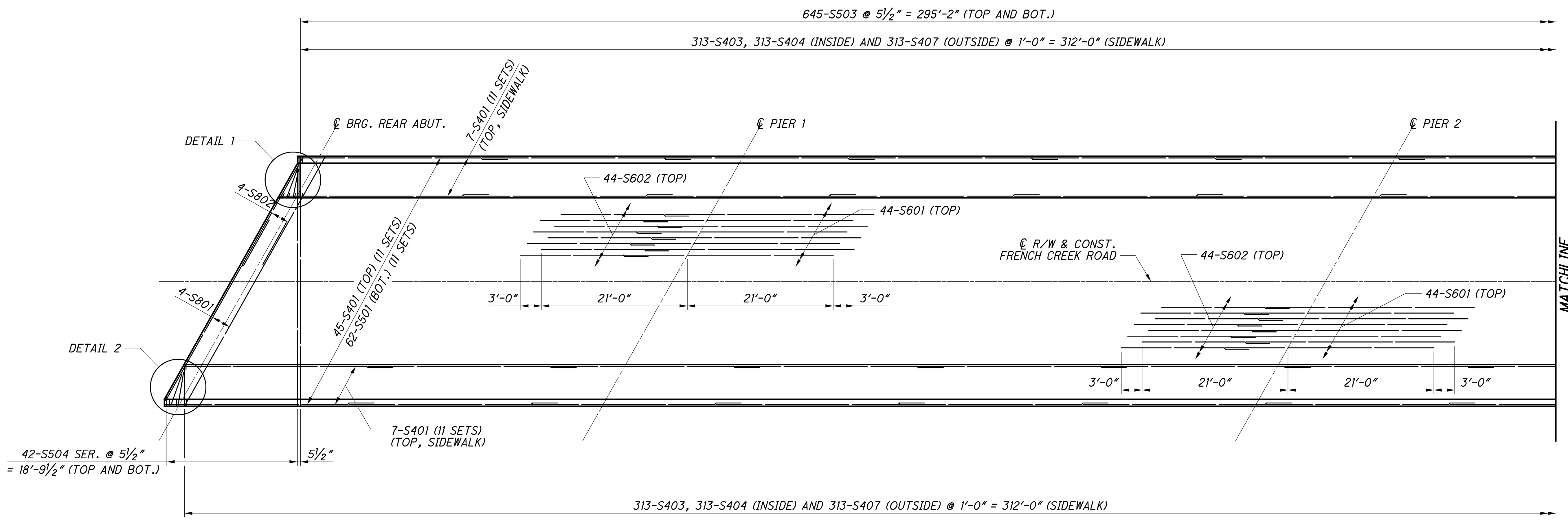
**NOTES:**

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS ± 3 INCHES.

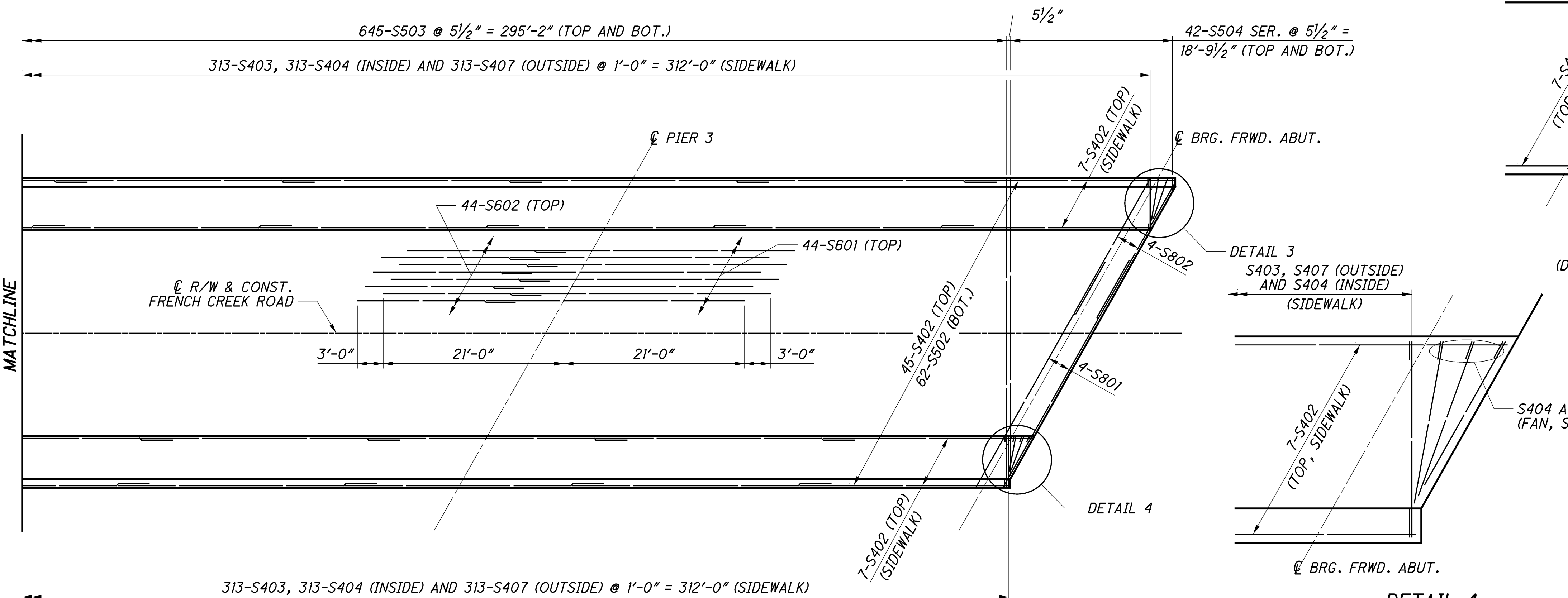
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE TOP OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.

2. LOCATION OF BOTTOM TRANSVERSE REINFORCING BARS MAY BE ADJUSTED BY A MAXIMUM OF 1/2" TO AVOID INTERFERENCE WITH THE SHEAR CONNECTORS.

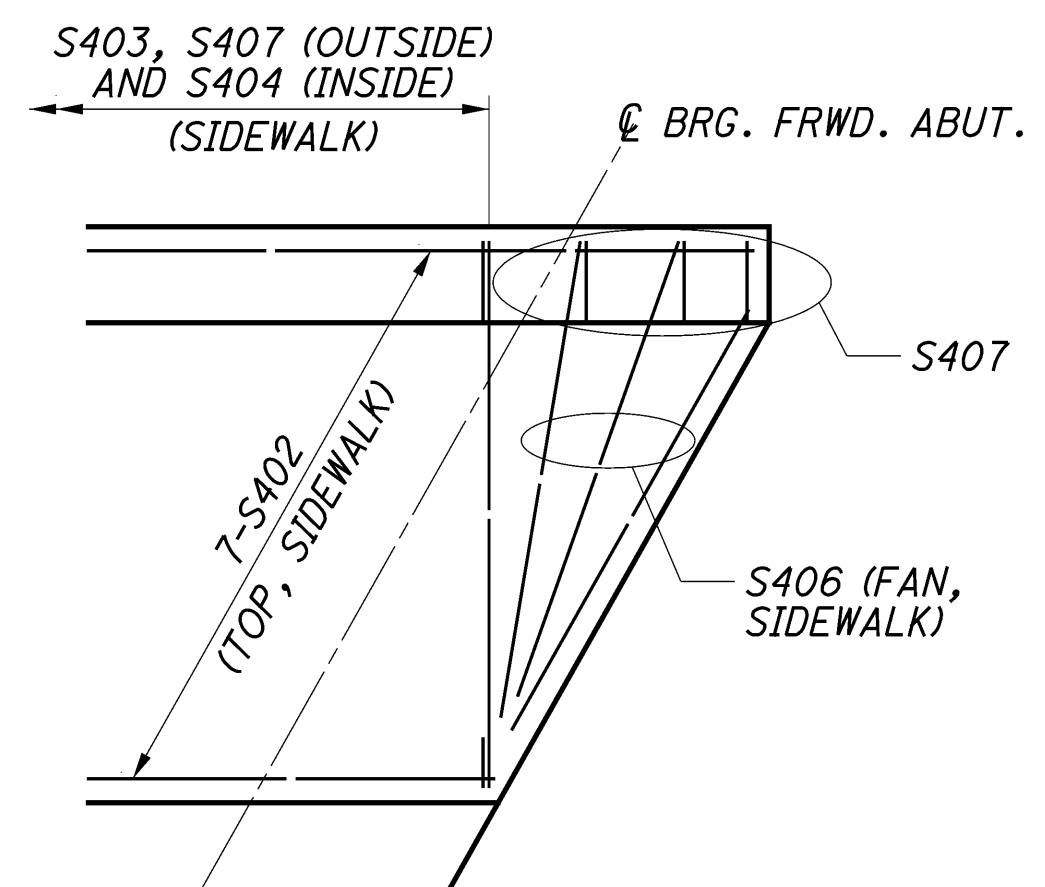
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753\CDP001.dgn 6/18/2013 9:49:34 AM Jored Feller



**PLAN**

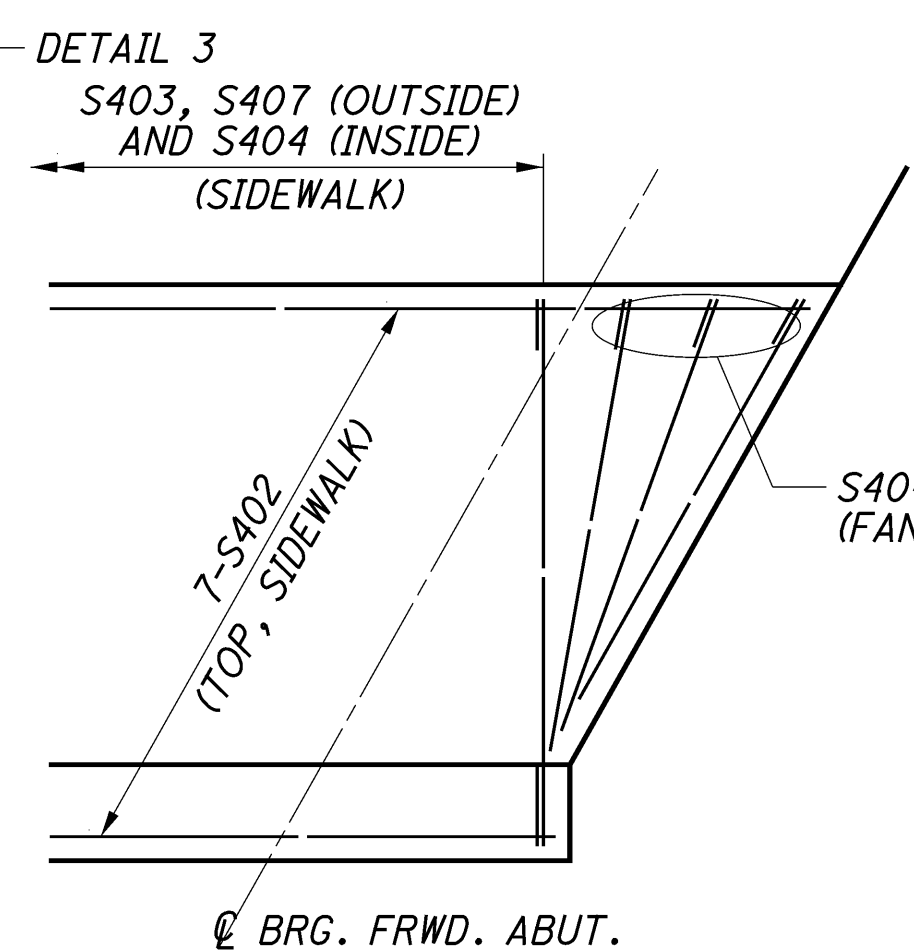


**PLAN**



**DETAIL 3**

(DETAIL 2, OPPOSITE HAND)  
 (DECK BARS NOT SHOWN FOR CLARITY)



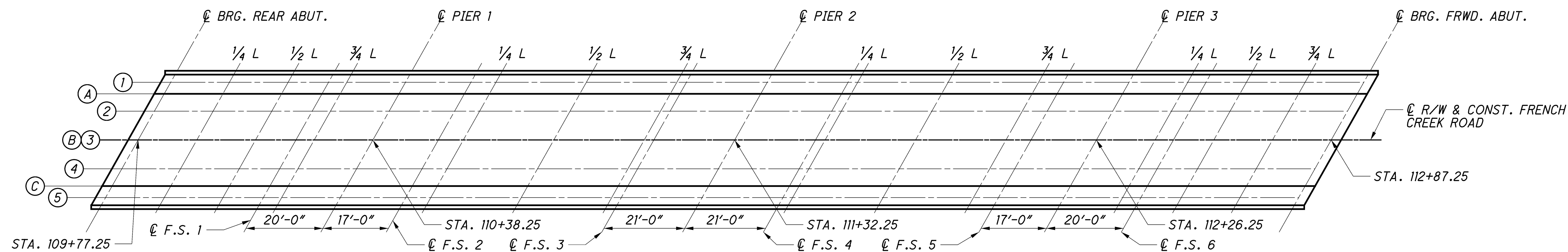
**DETAIL 4**

(DETAIL 1, OPPOSITE HAND)  
 (DECK BARS NOT SHOWN FOR CLARITY)

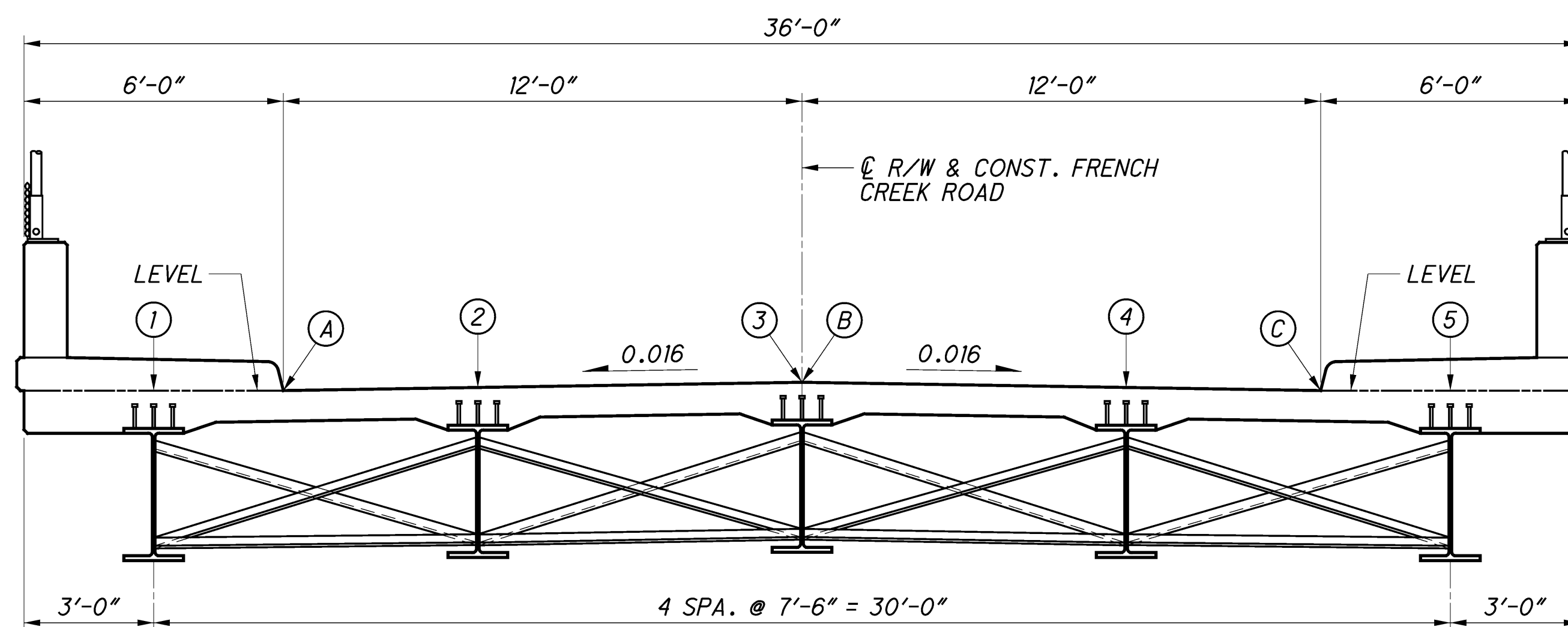
**NOTES:**

1. FOR TRANSVERSE SECTION AND FOR ADDITIONAL NOTES, SEE SHEET 17/24.
2. FOR SCREED, TOP OF HAUNCH AND FINISHED PAVEMENT ELEVATIONS, SEE SHEET 19/24.
3. FOR PARAPET DETAILS, SEE SHEET 20/24.
4. MINIMUM REBAR LAP LENGTHS ARE AS FOLLOWS:

LONGITUDINAL	
NO. 4 BARS	2'-3" (TOP)
NO. 5 BARS	2'-0" (BOT.)
NO. 6 BARS	3'-4" (TOP)
NO. 8 BARS	5'-10"



PLAN



TRANSVERSE SECTION

SCREED ELEVATIONS

LOCATION	C BRG. REAR ABUT.	SPAN 1				C PIER 1	SPAN 2					C PIER 2	SPAN 3					C PIER 3	SPAN 4				C BRG. FRWD. ABUT.
		1/4 L	1/2 L	F.S. 1	3/4 L		F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3		F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5		1/4 L	F.S. 6	1/2 L	3/4 L	
(A)	654.61	654.86	655.09	655.24	655.31	655.53	655.83	655.95	656.33	656.52	656.53	656.62	656.72	656.73	656.75	656.58	656.51	656.31	656.12	656.06	655.91	655.65	655.32
(B)	654.69	654.95	655.18	655.33	655.39	655.62	655.92	656.04	656.43	656.65	656.66	656.78	656.90	656.91	656.96	656.82	656.76	656.57	656.40	656.35	656.21	655.96	655.65
(C)	654.40	654.65	654.88	655.03	655.10	655.33	655.63	655.75	656.14	656.39	656.40	656.54	656.69	656.71	656.78	656.67	656.61	656.44	656.29	656.24	656.12	655.88	655.59

TOP OF HAUNCH ELEVATIONS

LOCATION	C BRG. REAR ABUT.	SPAN 1				C PIER 1	SPAN 2					C PIER 2	SPAN 3					C PIER 3	SPAN 4				C BRG. FRWD. ABUT.
		1/4 L	1/2 L	F.S. 1	3/4 L		F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3		F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5		1/4 L	F.S. 6	1/2 L	3/4 L	
(1)	653.92	654.18	654.41	654.56	654.62	654.85	655.15	655.27	655.64	655.82	655.83	655.92	656.01	656.02	656.04	655.86	655.79	655.58	655.39	655.33	655.18	654.91	654.58
(2)	653.93	654.18	654.41	654.56	654.63	654.86	655.16	655.28	655.66	655.86	655.87	655.97	656.08	656.09	656.12	655.97	655.90	655.70	655.52	655.46	655.32	655.06	654.74
(3)	653.99	654.24	654.47	654.62	654.69	654.91	655.21	655.33	655.72	655.94	655.95	656.07	656.19	656.21	656.25	656.11	656.05	655.86	655.70	655.64	655.50	655.25	654.94
(4)	653.80	654.05	654.29	654.44	654.50	654.73	655.03	655.15	655.54	655.78	655.79	655.92	656.06	656.08	656.14	656.02	655.96	655.78	655.63	655.57	655.44	655.21	654.91
(5)	653.67	653.92	654.15	654.30	654.37	654.59	654.89	655.01	655.41	655.66	655.68	655.82	655.97	655.99	656.07	655.97	655.91	655.75	655.60	655.55	655.43	655.20	654.92

FINISHED PAVEMENT ELEVATIONS

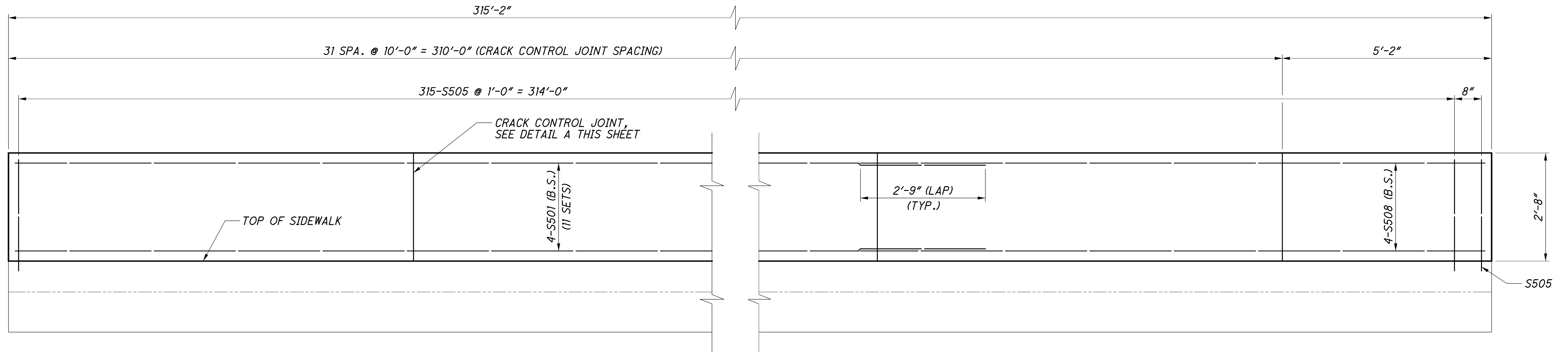
LOCATION	C BRG. REAR ABUT.	SPAN 1				C PIER 1	SPAN 2					C PIER 2	SPAN 3					C PIER 3	SPAN 4				C BRG. FRWD. ABUT.
		1/4 L	1/2 L	F.S. 1	3/4 L		F.S. 2	1/4 L	1/2 L	3/4 L	F.S. 3		F.S. 4	1/4 L	1/2 L	3/4 L	F.S. 5		1/4 L	F.S. 6	1/2 L	3/4 L	
(1)	654.63	654.86	655.09	655.25	655.33	655.56	655.82	655.92	656.24	656.48	656.50	656.62	656.68	656.68	656.64	656.51	656.46	656.29	656.09	656.03	655.86	655.59	655.28
(A)	654.61	654.84	655.07	655.23	655.30	655.53	655.79	655.89	656.22	656.47	656.49	656.62	656.68	656.68	656.65	656.52	656.47	656.31	656.12	656.05	655.89	655.62	655.32
(2)	654.64	654.87	655.10	655.26	655.33	655.57	655.82	655.92	656.26	656.52	656.54	656.68	656.74	656.75	656.73	656.61	656.56	656.41	656.22	656.16	656.00	655.74	655.45
(3)(B)	654.69	654.93	655.16	655.32	655.39	655.62	655.88	655.98	656.33	656.60	656.62	656.78	656.86	656.86	656.86	656.76	656.72	656.57	656.40	656.34	656.19	655.94	655.65
(4)	654.51	654.74	654.97	655.13	655.21	655.44	655.70	655.79	656.15	656.43	656.46	656.63	656.73	656.73	656.74	656.66	656.63	656.49	656.33	656.27	656.13	655.89	655.62
(C)	654.40	654.63	654.86	655.02	655.09	655.33	655.58	655.68	656.04	656.34	656.36	656.54	656.65	656.65	656.68	656.60	656.57	656.44	656.29	656.23	656.09	655.86	655.59
(5)	654.37	654.61	654.84	655.00	655.07	655.30	655.56	655.66	656.01	656.32	656.34	656.53	656.64	656.65	656.68	656.61	656.58	656.46	656.31	656.25	656.12	655.89	655.62

NOTES:

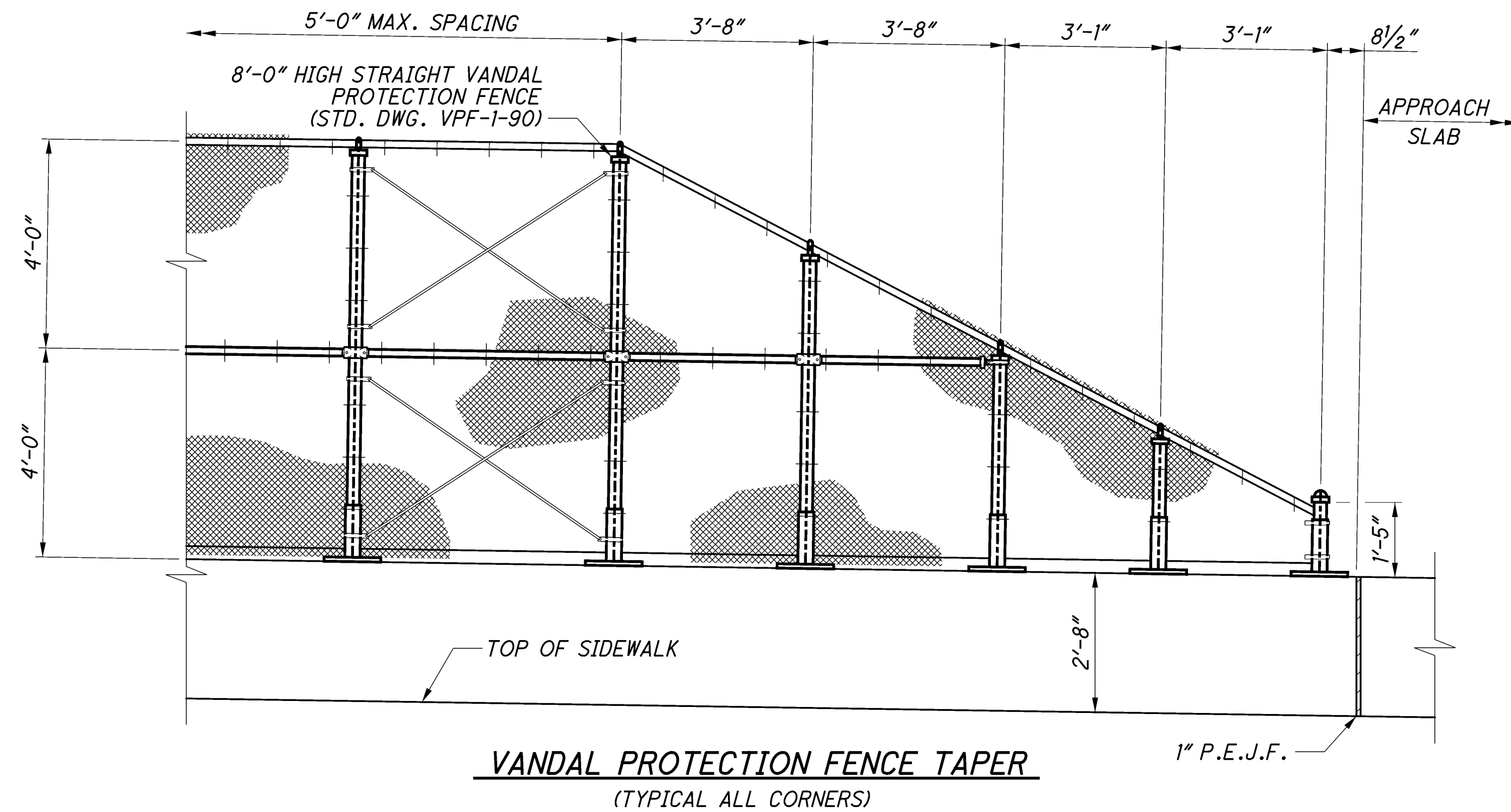
- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.



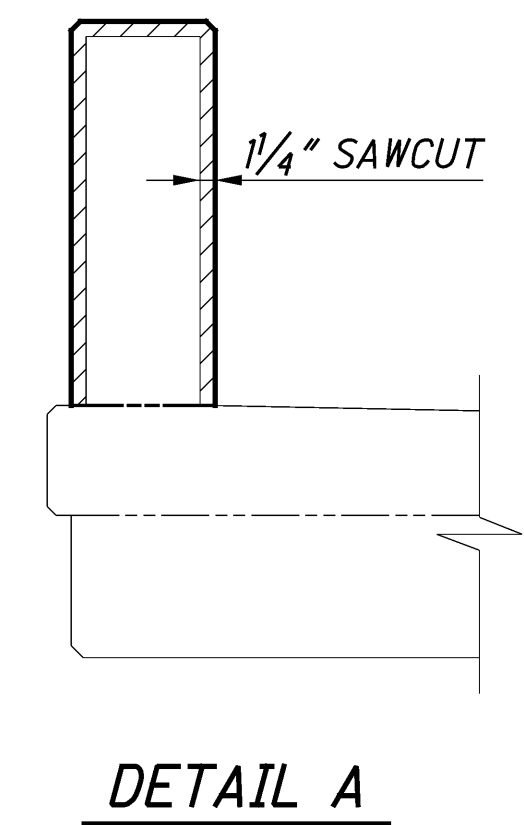
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CRA001.dgn 6/18/2013 9:50:03 AM Jared Feller



**NORTH PARAPET ELEVATION**  
(SOUTH PARAPET SIMILAR)



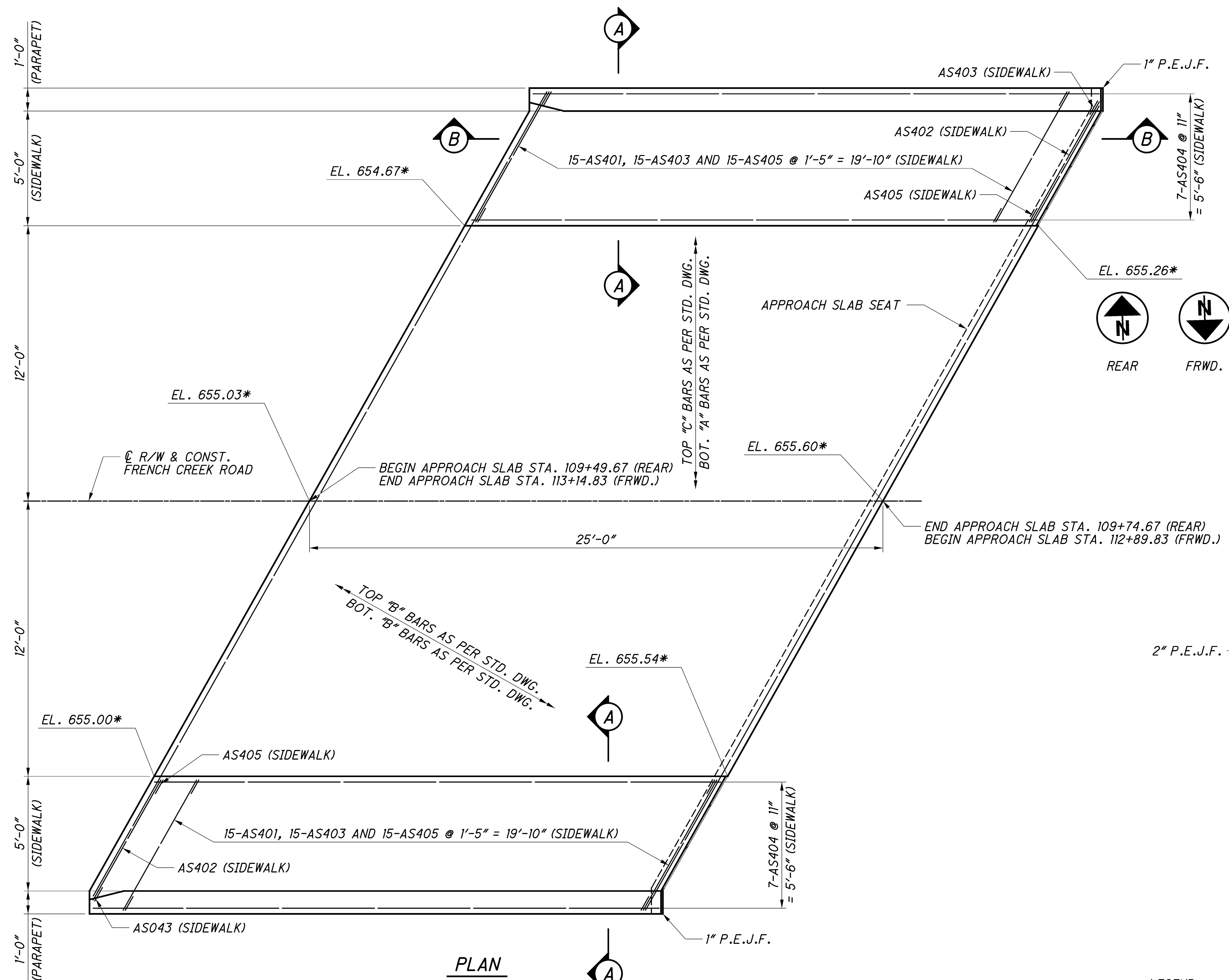
**VANDAL PROTECTION FENCE TAPER**  
(TYPICAL ALL CORNERS)



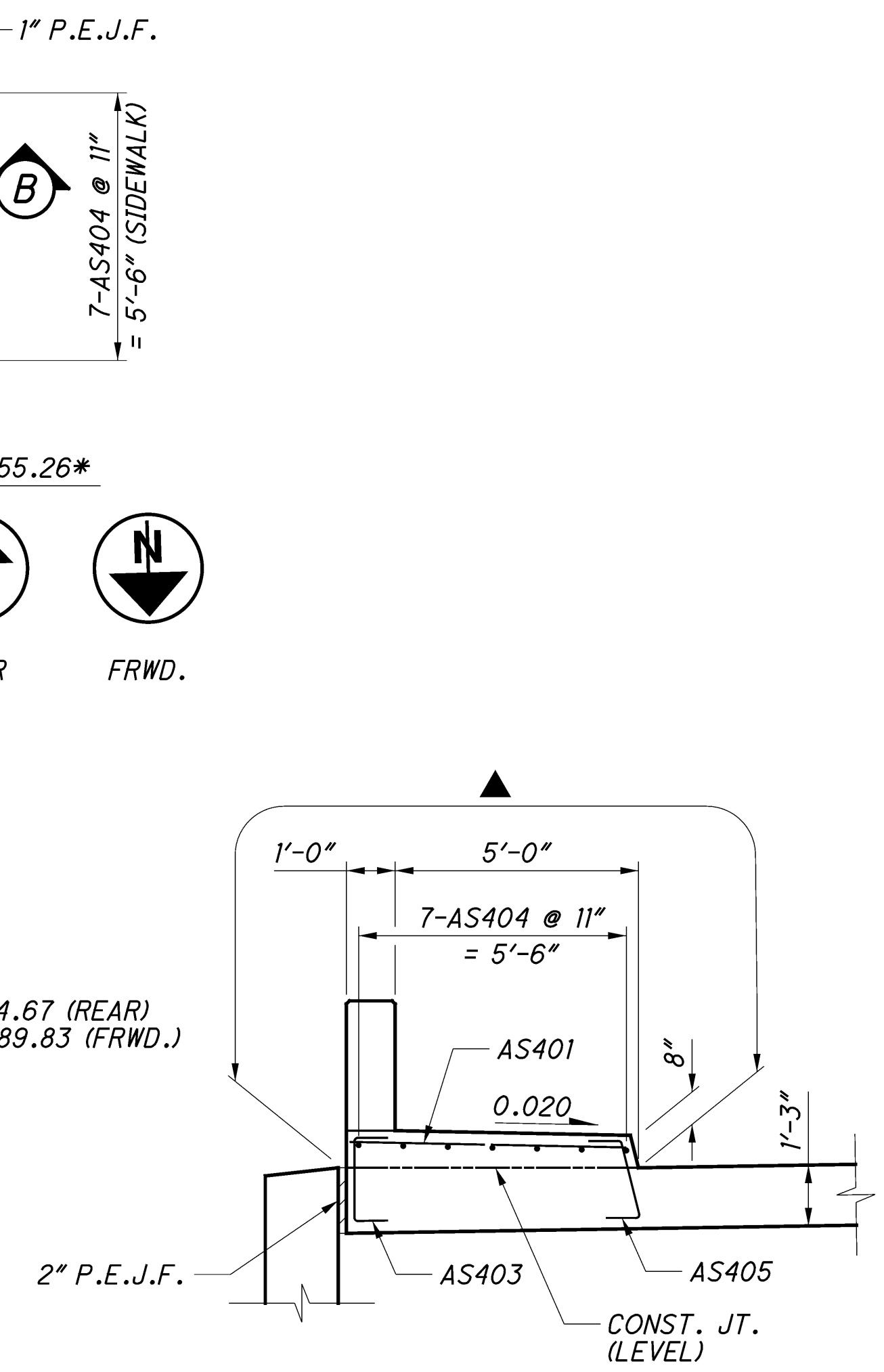
**DETAIL A**

NOTES:  
FOR TRANSVERSE SECTION, SEE SHEET 17/24.

P:\3058 LOR-90-17.53\81933\structures\lor090\_1753\cadd\002.dgn 6/18/2013 9:50:14 AM Jared Feller



**PLAN**  
(REAR APPROACH SLAB SHOWN, FRWD. APPROACH SLAB SIMILAR)  
\* ELEVATIONS FOR FRWD. APPROACH SLAB ONLY



**SECTION A**  
(SLAB AND RAILING BARS NOT SHOWN FOR CLARITY)

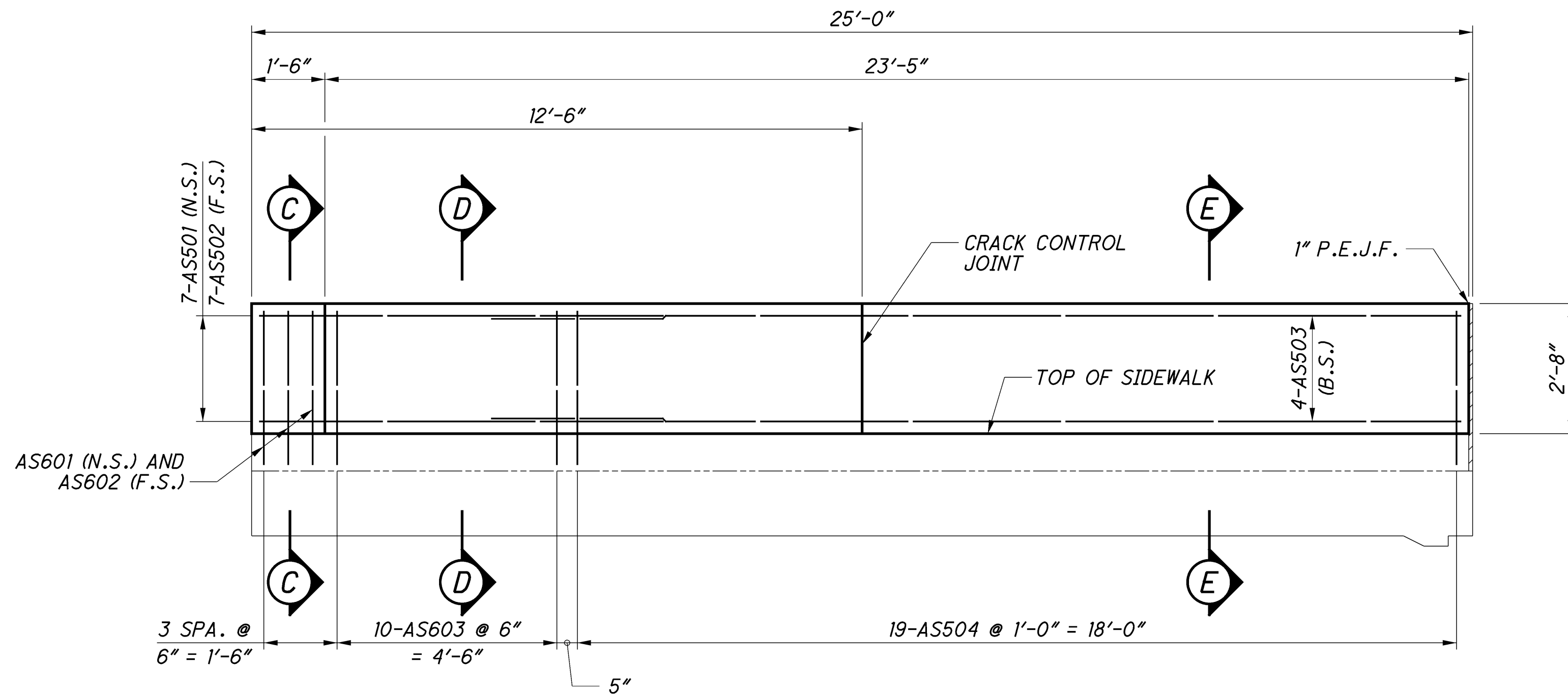
**LEGEND**

▲ LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

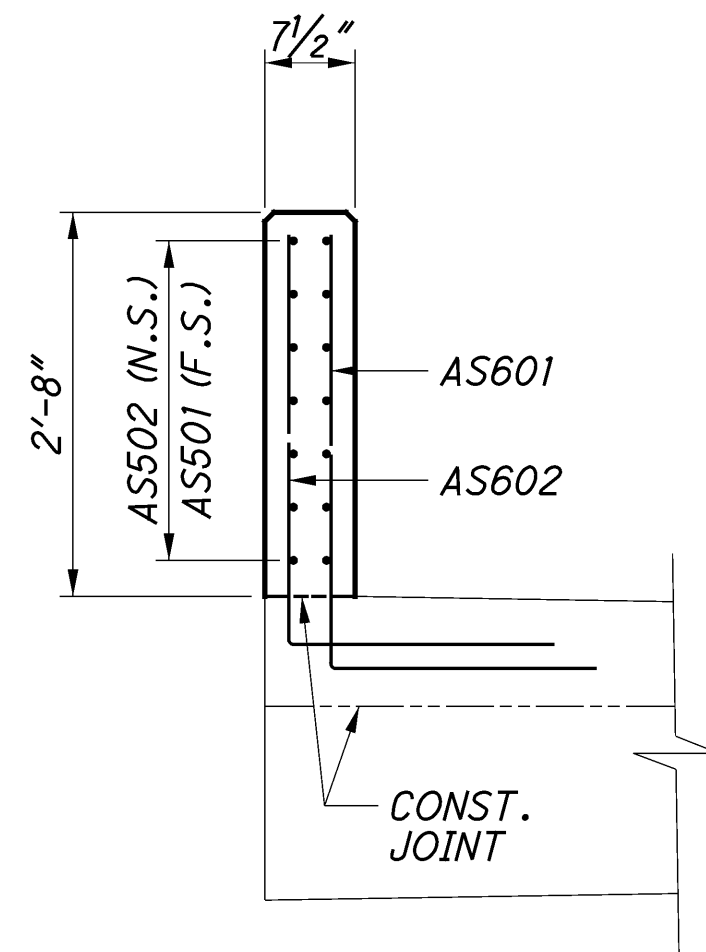
**NOTES:**

- REINFORCING SHOWN IS IN ADDITION TO STANDARD APPROACH SLAB REINFORCEMENT. FOR STANDARD APPROACH SLAB DETAILS, SEE STANDARD DRAWING AS-1-81.
- THE FOLLOWING ITEMS ARE INCLUDED WITH THE QUANTITY FOR ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN:
  - CONCRETE FOR APPROACH SLAB, SIDEWALKS AND PARAPETS.
  - ALL ASSOCIATED REINFORCING STEEL.
  - ALL PREFORMED EXPANSION JOINT FILLERS AND JOINT SEALERS.
  - SEALING OF CONCRETE SURFACES FOR APPROACH SLAB PARAPETS
  - WATERPROOFING
- FOR VIEW B, SEE SHEET 22/24.

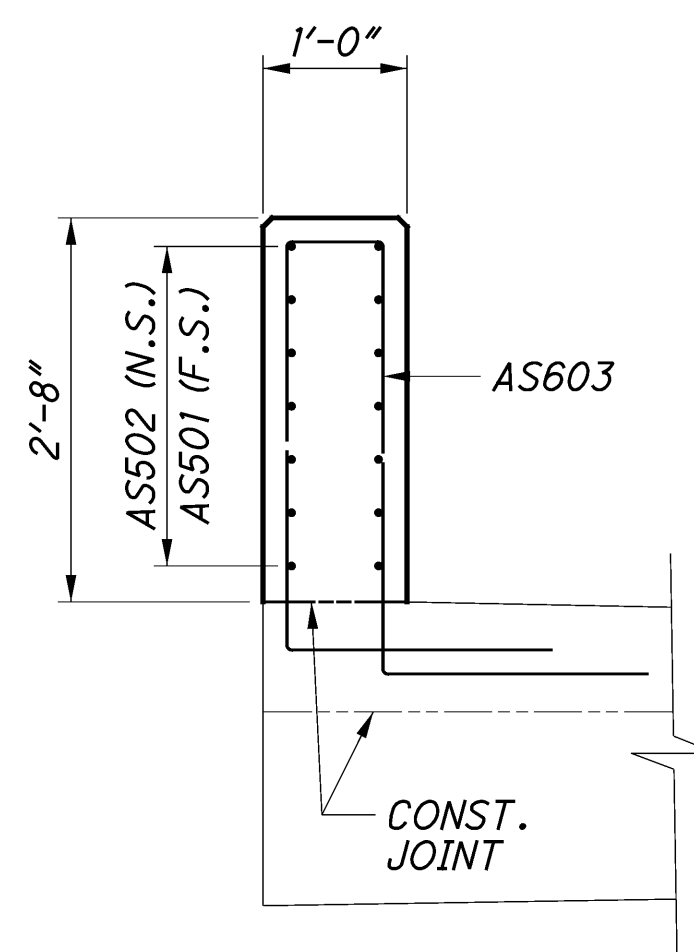
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CMD003.dgn 6/18/2013 9:50:28 AM Jared Feller



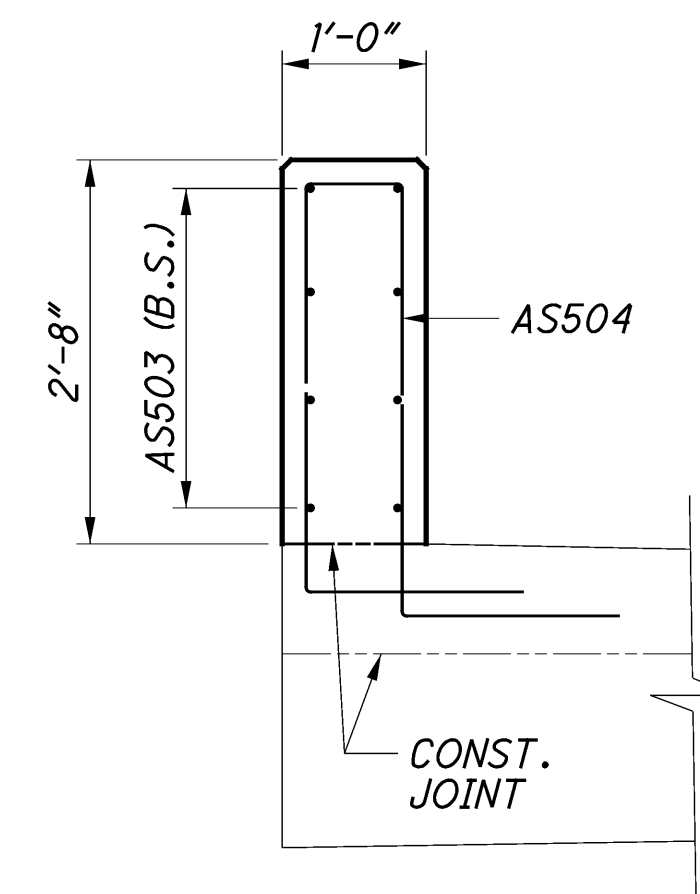
**VIEW B**  
(SIMILAR ALL 4 CORNERS)



**SECTION C**



**SECTION D**



**SECTION E**

**NOTES:**

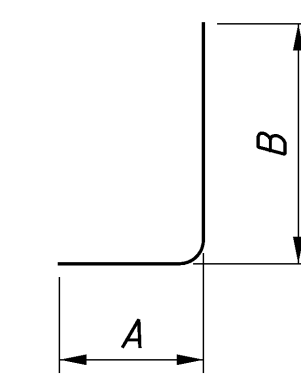
1. FOR ADDITIONAL APPROACH SLAB NOTES, SEE SHEET 21/24.
2. FOR LOCATION OF VIEW B, SEE SHEET 21/24.
3. FOR SIDEWALK AND APPROACH SLAB REINFORCING, SEE SHEET 21/24.
4. FOR BRIDGE TERMINAL ASSEMBLY, SEE STD. CONST. DWG. MGS-3.1.

DESIGNED	DEA	CHECKED	EDW
DRAWN	TMR	REVISED	
REVIEWED	FJG	STRUCTURE FILE NUMBER	4704835
DATE	6-17-13		

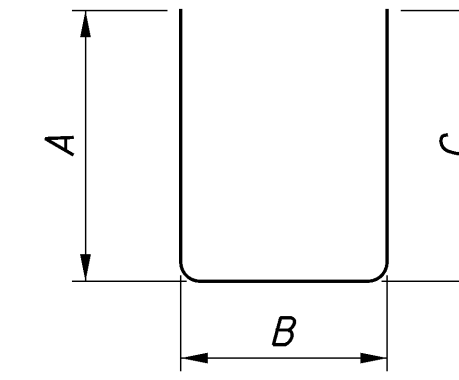
P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CRL001.dgn 6/18/2013 9:50:37 AM Jared Feller

MARK	NUMBER			LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS			INC.
	REAR	FORWARD	TOTAL				A	B	C	
<b>ABUTMENT BARS</b>										
A501	51	51	102	3'- 0"	319	ST				
A502	38	38	76	2'- 2"	172	ST				
A503	19	19	38	4'- 10"	192	2	0'- 10"	3'- 5"	0'- 10"	
A504	4	4	8	30'- 0"	250	ST				
A505	4	4	8	17'- 6"	146	ST				
A506	3	3	6	5'- 6"	34	19	2'- 9"	1'- 4"	2'- 5"	
A507	3	3	6	5'- 5"	34	1	2'- 9"	2'- 9"		
A508	2 SER. OF 4		2 SER. OF 4	11'- 2" TO 12'- 11"	100	ST				0'- 7"
A509	1		1	11'- 2"	12	ST				
A510	1		1	12'- 11"	13	ST				
A511	4		4	19'- 2"	80	ST				
A512	4		4	19'- 10"	83	ST				
A513	10		10	9'- 9"	102	ST				
A514	8		8	17'- 8"	147	ST				
A515		2 SER. OF 4	2 SER. OF 4	13'- 1" TO 14'- 9"	116	ST				0'- 6 5/8"
A516		1	1	13'- 1"	14	ST				
A517		1	1	14'- 9"	15	ST				
A518		4	4	21'- 0"	88	ST				
A519		4	4	21'- 8"	90	ST				
A520		10	10	10'- 9"	112	ST				
A521		8	8	18'- 8"	156	ST				
A601	44	50	94	3'- 4"	471	ST				
A602	44	52	96	6'- 8"	961	2	2'- 0"	3'- 0"	2'- 0"	
A603	22	26	48	13'- 10"	997	2	6'- 6"	1'- 2"	6'- 6"	
A604	12		12	10'- 11"	197	3	4'- 0"	1'- 2"		
A605		12	12	10'- 5"	188	3	3'- 9"	1'- 2"		
A801	5	5	10	30'- 0"	801	ST				
A802	5	5	10	20'- 7"	550	ST				
<b>TOTAL</b>					<b>6,440</b>					

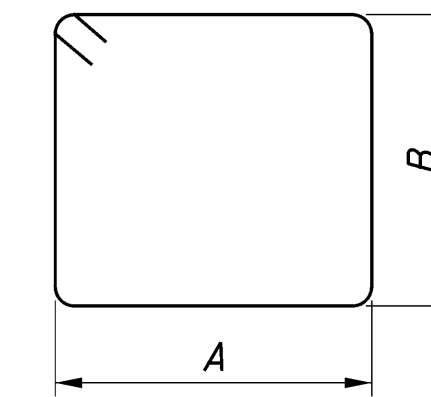
**STANDARD BAR TYPES**



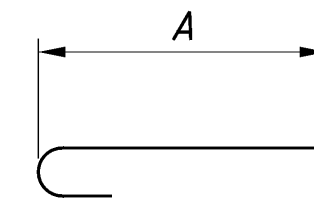
**TYPE-1**



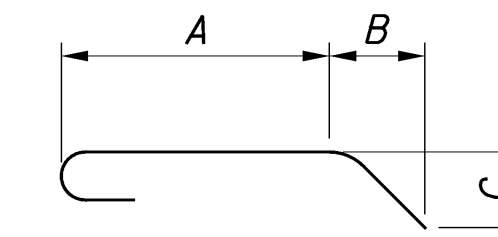
**TYPE-2**



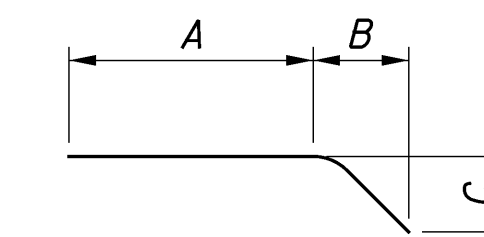
**TYPE-3**



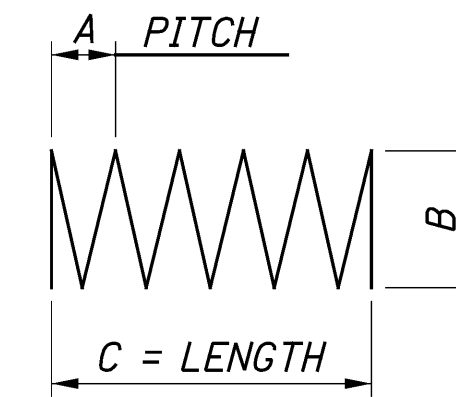
**TYPE-16**



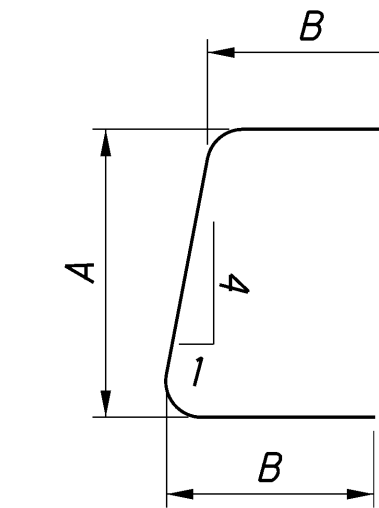
**TYPE-18**



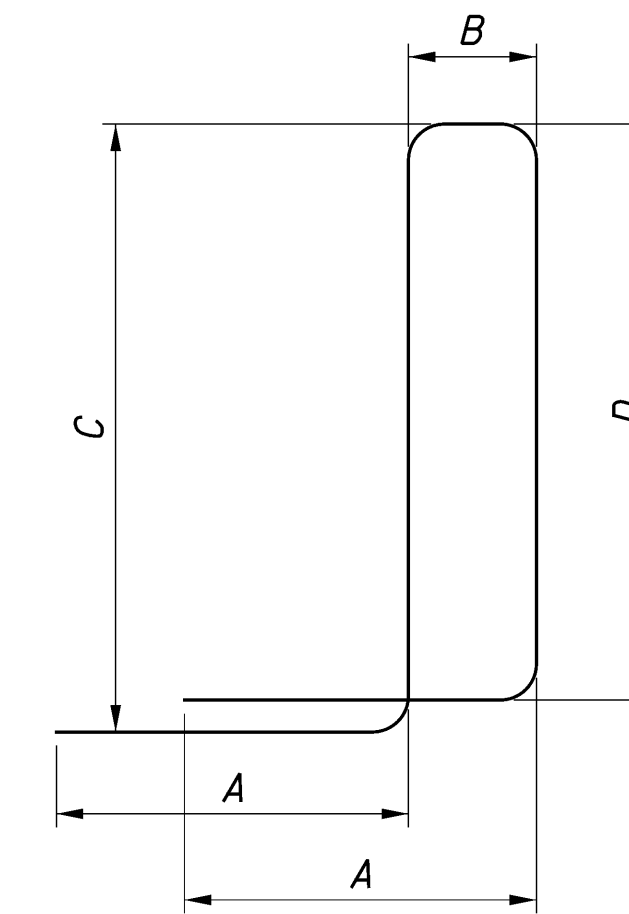
**TYPE-19**



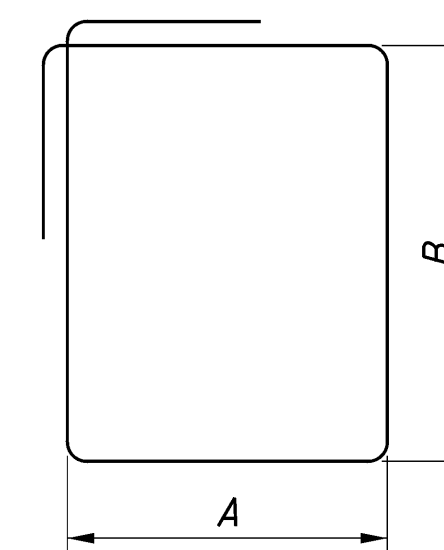
**TYPE-27**



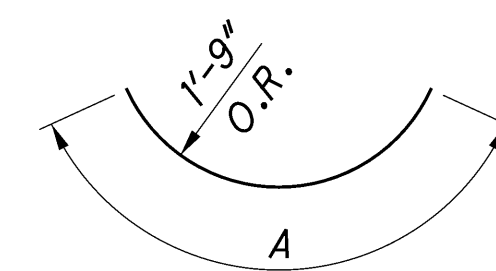
**TYPE-28**



**TYPE-30**



**TYPE-33**

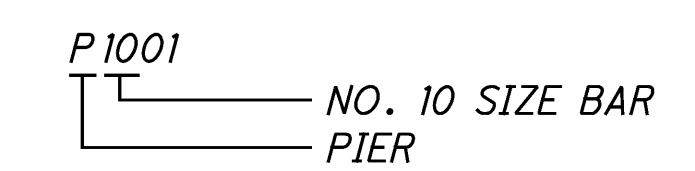
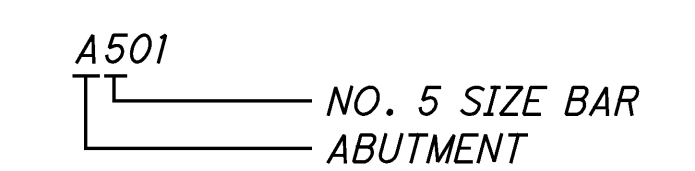


**TYPE-37**

**NOTES:**

1. BAR DIMENSIONS ARE OUT TO OUT UNLESS NOTED OTHERWISE.
2. ALL BARS ARE EPOXY COATED.
3. WHEN NO BAR LEG DIMENSIONS ARE SHOWN, A STANDARD BEND SHALL BE MADE.
4. BAR SIZE AND LOCATION ARE INDICATED IN THE BAR MARK. THE FIRST ALPHABETICAL LETTER(S) INDICATES LOCATION. THE NEXT DIGIT OF THE THREE DIGIT SERIES AND THE NEXT TWO DIGITS OF THE FOUR DIGIT SERIES INDICATES THE BAR SIZE NUMBER.

EXAMPLES:



**Jones Stuckey**  
 DESIGN AGENCY  
 1655 W. MARKET STREET, SUITE 355  
 AKRON, OHIO 44313

DATE: 6-17-13  
 REVIEWED: FJG  
 DRAWN: MOJ  
 DESIGNED: DEA  
 CHECKED: EDW  
 STRUCTURE FILE NUMBER: 4704835

**REINFORCING LIST**  
 BRIDGE NO. LOR-90-1753  
 FRENCH CREEK ROAD OVER I-90

LOR-90-17.53  
 PID No. 81933

23 / 24  
 47  
 48

P:\3058 LOR-90-17.53\81933\structures\LOR090\_1753C\sheets\090\_1753CRL002.dgn 6/18/2013 9:50:48 AM Jared Feller

MARK	NUMBER				LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS		
	PIER 1	PIER 2	PIER 3	TOTAL				A	B	C
PIER BARS										
SP401		3		3	0'-10"	80	27	4 1/2"	2'-6"	0'-10"
SP402			3	3	0'-11"	84	27	4 1/2"	2'-6"	0'-11"
P403	84		90	174	8'-1"	940	37	8'-1"		
P501	24	24	24	72	20'-0"	1,502	ST			
P502	60		60	120	10'-9"	1,345	2	3'-8"	3'-8"	3'-8"
P503		80		80	9'-9"	814	2	3'-8"	2'-8"	3'-8"
P601	3	3	3	9	3'-9"	51	1	1'-8"	2'-3"	
P602	3		3	6	14'-1"	127	33	4'-3"	2'-3"	
P603		3		3	11'-9"	53	33	3'-1"	2'-3"	
P801	7	7	7	21	39'-5"	2,210	2	1'-4"	37'-2"	1'-4"
P802	14	14	14	42	21'-9"	2,439	ST			
P901	6	5	6	17	3'-8"	212	1	1'-8"	2'-3"	
TOTAL						9,857				

MARK	NUMBER			LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS			
	REAR	FORWARD	TOTAL				A	B	C	D
APPROACH SLAB BARS (SIDEWALK AND RAILING ONLY)										
AS401	30	30	60	6'-6"	261	ST				
AS402	2	2	4	6'-0"	16	ST				
AS403	32	32	64	3'-1"	132	2	0'-10"	1'-7"	0'-10"	
AS404	14	14	28	24'-8"	461	ST				
AS405	32	32	64	3'-1"	132	28	0'-10"	1'-7"	0'-10"	
AS501	14	14	28	8'-3"	241	19	6'-11"	1'-4"	0'-4"	
AS502	14	14	28	8'-3"	241	ST				
AS503	16	16	32	19'-10"	662	ST				
AS504	38	38	76	9'-0"	713	30	1'-6"	0'-8"	3'-0"	2'-10"
AS601	6	6	12	4'-8"	84	1	1'-10"	3'-0"		
AS602	6	6	12	4'-6"	81	1	1'-10"	2'-10"		
AS603	20	20	40	9'-5"	566	30	1'-10"	0'-8"	3'-0"	2'-10"
TOTAL					3,590					

MARK	NUMBER	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS				INC.
					A	B	C	D	
DECK SLAB BARS									
S401	649	30'-0"	13,006	ST					
S402	59	9'-7"	378	ST					
S403	626	5'-8"	2,370	ST					
S404	632	2'-7"	1,091	28	1'-1"	0'-10"			
S405	6	4'-9"	19	ST					
S406	6	5'-0"	20	ST					
S407	626	2'-7"	1,080	2	0'-10"	1'-1"	0'-10"		
S501	858	30'-0"	26,847	ST					
S502	62	6'-10"	442	ST					
S503	1,290	35'-8"	47,988	ST					
S504	4	34'-5"	3,110	ST					0'-2 1/4"
	SER. OF	TO							
	42	1'-1"							
S505	632	9'-4"	6,152	30	1'-6"	0'-8"	3'-2"	3'-0"	
S506	96	8'-8"	868	2	2'-9"	3'-5"	2'-9"		
S507	48	7'-8"	384	2	2'-6"	2'-11"	2'-6"		
S508	16	15'-1"	252	ST					
S601	132	30'-0"	5,948	ST					
S602	132	18'-4"	3,635	ST					
S801	30	30'-0"	2,403	ST					
S802	30	16'-8"	1,335	ST					
S803	50	4'-10"	645	18	2'-7"	1'-0"	1'-0"		
TOTAL			117,973						

**NOTE:**

1. APPROACH SLAB BARS ARE LISTED FOR INFORMATION PURPOSES ONLY AND ARE TO BE INCLUDED WITH ITEM 526 FOR PAYMENT.
2. ONLY SIDEWALK AND PARAPET BARS ARE LISTED IN THE APPROACH SLAB BAR TABLE. FOR BARS NOT SHOWN, SEE STD. DWG. AS-1-81.
3. FOR ADDITIONAL NOTES AND STANDARD BAR TYPES, SEE SHEET [23/24].