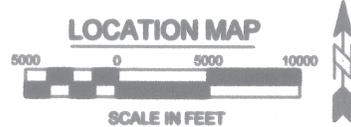
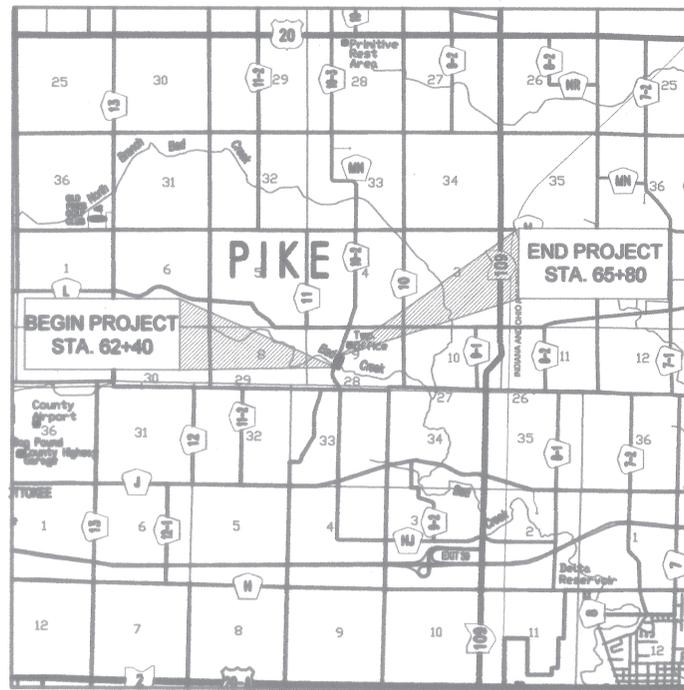


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LEGEND

- PORTION TO BE IMPROVED
- STATE AND FEDERAL ROUTES
- OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2012)	753
DESIGN YEAR ADT (2032)	1107
DESIGN HOURLY VOLUME (2032)	133
TRUCKS (24 HOUR B & C)	5%
FUNCTIONAL CLASSIFICATION	RURAL MINOR COLLECTOR

UTILITIES

CENTURYLINK
 375 EAST RIVERVIEW
 NAPOLEON, OHIO 43545
 PH. 419-598-4030
 PH. 419-592-9706

UNDERGROUND UTILITIES
 TWO WORKING DAYS
BEFORE YOU DIG
 CALL 1-800-362-2764 (TOLL FREE)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

VERTICAL DATUM
 ALL VERTICAL CONTROL
 IS BASED OFF
NAVD 88 (U.S.G.S.) DATUM
 (SEE GENERAL NOTES FOR BENCH MARK LOCATION)

FULTON COUNTY DEPARTMENT OF HIGHWAYS

BRIDGE 10-2K.3 REPLACEMENT

BETWEEN TWP. RD. K & CO. RD. L PIKE TOWNSHIP, FULTON CO., OHIO

2013

PROJECT DESCRIPTION
 A PARTIALLY O.P.W.C. FUNDED PROJECT CONSISTING OF REPLACING AN EXISTING CONCRETE T-BEAM BRIDGE OVER BAD CREEK WITH A PROPOSED PRESTRESSED CONCRETE BOX BEAM BRIDGE ON CAPPED PILE ABUTMENTS. THE ROADWAY IMPROVEMENT INVOLVES VERTICAL PROFILE ADJUSTMENT AND WIDENING THE PAVEMENT FROM 20' TO 22' AT BOTH APPROACHES TO THE BRIDGE.

2010 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.

PLAN & PROFILE SCALES:



HORIZONTAL SCALE IN FEET



VERTICAL SCALE IN FEET

CROSS SECTION SCALES:



HORIZONTAL SCALE IN FEET



VERTICAL SCALE IN FEET

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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.

APPROVED Paul Barnaby
 DATE 6/6/2013 PAUL BARNABY, FULTON COUNTY COMMISSIONER

APPROVED Perry Rupp
 DATE 6-6-13 PERRY RUPP, FULTON COUNTY COMMISSIONER

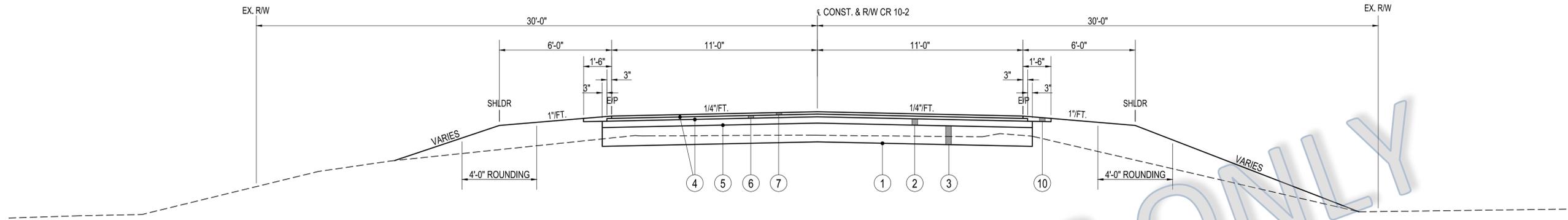
APPROVED Bill Rufenacht
 DATE 6-6-13 BILL RUFENACHT, FULTON COUNTY COMMISSIONER

APPROVED Frank T. Onweller
 DATE 6/6/13 FRANK T. ONWELLER, P.E., P.S., FULTON COUNTY ENGINEER



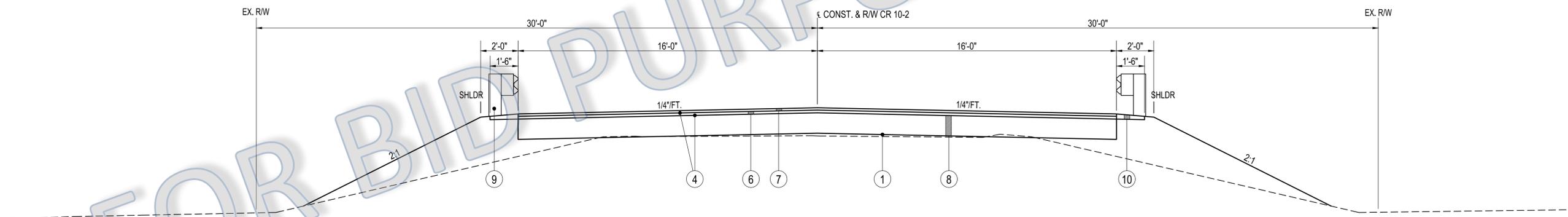
STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS
DRAWING	DATE	DESC.
BP-3.1 ASPHALT PAVING	4-20-12	SS 800
DM-4.4 CONSTRUCTION EROSION CONTROL	7-20-12	SS 832
PIS GR-1.1 GUARDRAIL DETAILS	1-18-13	
PIS GR-2.1 GUARDRAIL TYPE 5 AND 5A	1-18-13	
PIS GR-3.6 BRIDGE TERMINAL ASSEMBLY, TYPE TST	1-18-13	
PIS GR-4.1 TYPE A ANCHOR ASSEMBLY	1-18-13	
AS-1-81 REINFORCED CONCRETE APPROACH SLAB	7-19-02	
CPA-1-08 CAPPED PILE ABUTMENT	7-18-08	
DS-1-92 DRIP STRIP FOR STRUCTURES	7-18-03	
PSBD-2-07 PRESTRESSED CONCRETE BOX BEAM	1-21-11	
TST-1-99 TWIN STEEL TUBE BRIDGE RAILING	4-18-08	

Drawn By: BCR
 Date: 6/6/2013
 Checked By: FTO
 TITLE SHEET
 FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK
 FULTON COUNTY ENGINEERING DEPT.
 FRANK T. ONWELLER, P.E., P.S., COUNTY ENGINEER
 ROD CREAGER, P.E., P.S., CHIEF DEPUTY ENGINEER
 9720 Co Rd 14, WADSWORTH, OHIO, 43087
 PHONE: (619) 355-3616 FAX: (619) 355-1091
 1
 16



TYPICAL SECTION 1

NOT TO SCALE
 STA. 62+76 TO 63+68.42
 STA. 64+51.58 TO 65+61



TYPICAL SECTION 2

NOT TO SCALE
 STA. 63+68.42 TO 63+88.42
 STA. 64+31.58 TO 64+51.58

LEGEND

- ① ITEM 204 SUBGRADE COMPACTION
- ② ITEM 301 4" ASPHALT CONCRETE BASE
- ③ ITEM 304 12" AGGREGATE BASE
- ④ ITEM 407 TACK COAT (0.10 GAL./S.Y.)
- ⑤ ITEM 408 BITUMINOUS PRIME COAT (0.40 GAL./S.Y.)
- ⑥ ITEM 448 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22
- ⑦ ITEM 448 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22
- ⑧ ITEM 526 REINFORCED CONCRETE APPROACH SLAB (T=13")
- ⑨ ITEM 606 GUARDRAIL, TYPE 5
- ⑩ ITEM 617 RECONDITIONING OF SHOULDERS (1.5' x 4'), APPROVED MATERIAL 411

TYPICAL SECTIONS

FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK

FULTON COUNTY ENGINEERING DEPT.

FRANK T. ONWELLER, P.E., P.S. - COUNTY ENGINEER
 ROD CREAHER, P.E., P.S. - CHIEF DEPUTY ENGINEER
 9120 Co Rd 14, WALUSEON, OHIO, 43087
 PHONE (419) 335-3816 FAX (419) 335-1091

ARCHAEOLOGICAL & HISTORICAL SITES ADJACENT TO RIGHT OF WAY

ARCHAEOLOGICAL AND HISTORICAL SENSITIVE AREAS HAVE BEEN IDENTIFIED ADJACENT TO THE EXISTING RIGHT OF WAY. AT NO TIME SHALL THE CONTRACTOR UTILIZE IN ANY WAY THE PROPERTIES ADJACENT TO THE EXISTING RIGHT OF WAY.

ROUNDING

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

UTILITIES

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

TELEPHONE
CENTURYLINK
375 EAST RIVERVIEW
NAPOLEON, OHIO 43545
PH. 419-599-4024

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.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

BENCH MARK DATUM

ALL ELEVATIONS ARE REFERRED TO A DOUBLE HEADED NAIL WITH TAG IN WEST FACE OF A COTTONWOOD TREE, STA. 62+85.62, 25.8' RT., ELEVATION 764.55, NAVD 88 (U.S.G.S. DATUM). ADDITIONAL SITE BENCH MARKS HAVE BEEN ESTABLISHED AND CAN BE FOUND ON THE RESPECTIVE PLAN AND PROFILE SHEETS. ANY ADDITIONAL BENCH MARKS THAT MAY BE NEEDED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THIS SHALL BE PAID FOR UNDER ITEM 623 CONSTRUCTION LAYOUT AND STAKING.

CLEARING AND GRUBBING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING ALL DEBRIS TO THE ROAD RIGHT OF WAY LINE. THE EXISTING SHOULDERS AND SIDE SLOPES SHALL BE SCALPED AND CLEARED OF ANY AND ALL DEBRIS PRIOR TO EMBANKMENT CONSTRUCTION.

AT NO TIME SHALL ANY TREE BE REMOVED UNLESS SPECIFICALLY IDENTIFIED FOR REMOVAL BY THE ENGINEER.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

RELOCATION OR REMOVAL OF EXISTING TRAFFIC CONTROL DEVICES

ANY EXISTING TRAFFIC CONTROL SIGNS OR DELINEATORS WHICH CONFLICT WITH THE PROPOSED CONSTRUCTION OPERATIONS WILL BE RELOCATED OR REMOVED PRIOR TO CONSTRUCTION BY THE FULTON COUNTY HIGHWAY DEPARTMENT. TO ALLOW FOR PROPER SCHEDULING OF THE WORK, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO GIVE FULTON COUNTY AT LEAST A THREE WORKING DAY NOTICE OF THEIR INTENT TO BEGIN WORK IN THOSE AREAS WHERE TRAFFIC CONTROL DEVICES MUST BE RELOCATED. FAILURE TO PROVIDE THIS NOTICE WILL RESULT IN THE REMOVAL AND RE-ERECTION OF THE TRAFFIC CONTROL SIGNS BY THE CONTRACTOR AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER.

CROSSING EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE OF PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATION ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

FARM DRAINS AND HOUSE CONNECTIONS

EXISTING FARM DRAINS, ROOF DRAINS, CLEAN WATER DRAINS, FOOTER DRAINS, OR YARD DRAINS DISTURBED BY THE PROPOSED WORK SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTION TO A STORM SEWER, CATCH BASIN, OR OUTLET INTO A DITCH AS DIRECTED BY THE ENGINEER. THE LOCATION, TYPE, SIZE AND GRADE OF THE REQUIRED REPLACEMENT WILL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION. PAYMENT FOR ANY NECESSARY BENDS, TEES, WYES OR OTHER FITTINGS SHALL BE INCLUDED IN THE RESPECTIVE CONDUIT ITEM.

PIPE COLLARS

WHERE CONNECTIONS ARE MADE BETWEEN RIGID AND FLEXIBLE PIPE SECTIONS OR BETWEEN PIPE SECTIONS OF DIFFERENT MATERIAL OR TYPE OF END FABRICATION, WHETHER REQUIRED BY THE PLANS OR ENCOUNTERED IN CONNECTION TO EXISTING FACILITIES, THE JOINT SHALL BE SEALED BY MEANS OF A CONCRETE COLLAR, FERNCO FITTING OR APPROVED EQUAL. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 603.

DRAINAGE WITHIN PAVEMENT LIMITS

ALL ITEM 202 PIPE REMOVAL TRENCHES AND ALL PROPOSED Crossover TRENCHES SHALL BE BACKFILLED TO FIVE FEET OUTSIDE THE EDGE OF PROPOSED PAVEMENT BASE WITH NO. 8 GRANULAR BEDDING AND BACKFILL MATERIAL. THOSE PORTIONS OF THE TRENCHES THAT EXTEND OUTSIDE THE EDGE OF PROPOSED PAVEMENT BASE TO THE RIGHT OF WAY LINE, SHALL CONFORM WITH THE TYPE C CONDUIT TRENCH DETAIL AS SHOWN ON SHEET 4 OF 16. ALL BEDDING AND BACKFILL MATERIAL SHALL MEET THE COMPACTION REQUIREMENTS OF ITEM 603.

PIPE FITTINGS

THE UNIT PRICE BID FOR THE CONDUIT ITEMS SHALL INCLUDE ALL PROPOSED BENDS, TEES, WYES, AND OTHER FITTINGS NECESSARY TO CONSTRUCT THE CONDUIT. ALL PIPE FITTINGS SHALL BE FACTORY MADE.

ITEM 603 CONDUIT

THE JOINTS OF ALL PIPE PROVIDED FOR TYPE B CONDUIT SHALL BE EQUIPPED WITH GASKETS. ALL CONNECTIONS OF EXISTING TILE TO PROPOSED TYPE B CONDUIT SHALL BE OF A PREMIUM, WATERTIGHT JOINT.

ANY EXISTING TILE TO BE CUT OFF AND DESIGNATED AS "ABANDONED TILE" BY THE ENGINEER, SHALL BE SEALED OFF AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE NOTE OF LOCATION, SIZE AND CONDITION OF ANY EXISTING TILE THAT MAY COME INTO CONTACT WITH THE PROPOSED CONDUIT TRENCH.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED WITH THE PLANS IN CASE THE EXISTING ABANDONED 6 INCH CLAY TILE IN THE NORTHWEST QUADRANT OF THE BRIDGE IS LOCATED WITHIN THE EXCAVATION LIMITS OF THE PROPOSED WORK AND WILL NOT BE PERFORMED UNLESS DIRECTED BY THE ENGINEER.

- ITEM 202 - 40 FEET PIPE REMOVED UNDER 24"
- ITEM 603 - 45 FEET 6" CONDUIT, TYPE C

TYPE B CONDUIT SHALL MEET ANY OF THE FOLLOWING ODOT ITEMS: 706.02 (CLASS IV), 707.45, TYPE C CONDUIT SHALL MEET ANY OF THE FOLLOWING ODOT ITEMS: 706.02 (CLASS IV), 707.33, 707.42, 707.45. TYPE D CONDUIT SHALL MEET ANY OF THE FOLLOWING ODOT ITEMS: 707.01.

ALL EXPOSED TILE OUTLETS 12" AND UNDER SHALL HAVE ANIMAL GUARDS PLACED AT THE OUTLET AND BE INCLUDED IN THE PAY ITEM OF THE RESPECTIVE CONDUIT. THIS SHALL INCLUDE ALL OUTLETS INTO BASINS WHERE THE OUTLET PIPE IS GREATER THAN 12".

ALL PROPOSED CONNECTIONS TO EXISTING STRUCTURES SHALL BE A WATERTIGHT PREMIUM JOINT OR A CONCRETE COLLAR.

SLAG SHALL NOT BE PERMITTED FOR TYPE A AND TYPE B CONDUIT BEDDING/BACKFILL OR ANY STRUCTURES UNDER THE PAVEMENT.

ITEM 203 EXCAVATION

ALL EXISTING PAVEMENT AND BASE REMOVAL SHALL BE INCLUDED IN THE QUANTITY AND PAY ITEM 203, EXCAVATION.

ITEM 203 EMBANKMENT

PORTIONS OF THE EXISTING CHANNEL OUTSIDE OF THE ROADBED, SHALL BE FILLED AND SLOPED TO GRADE, AS CALLED FOR ON THE PLANS. THE CONTRACTOR SHALL USE SUITABLE MATERIALS, TO THE EXTENT AVAILABLE, FOR CHANNEL EMBANKMENTS. WHEN BORROW IS SPECIFIED IN THE PLANS AND TO BE PROVIDED BY THE CONTRACTOR, ALL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

NO PROVISIONS OF THE SPECIFICATIONS SHALL BE WAIVED FOR EMBANKMENT WHICH SUPPORT ANY PORTION OF THE NEW ROADBED OR STRUCTURAL MEMBERS.

UPON CLEARING THE EXISTING DITCH OF ALL VEGETATION, THE UNSUITABLE MATERIAL FROM THE DITCH BOTTOM SHALL BE REMOVED. THIS MATERIAL MAY BE USED FOR EMBANKMENT WITHIN THE PROJECT, AS APPROVED BY THE ENGINEER.

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, EMBANKMENT.

ITEM 204 PROOF ROLLING OF THE ROADBED

UPON COMPLETION OF GRADING THE ROADBED, THE CONTRACTOR SHALL PROOF ROLL THE SUBGRADE AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 204, SUBGRADE COMPACTION.

ITEM 304 AGGREGATE BASE

MATERIALS FURNISHED FOR THIS ITEM SHALL EXCLUDE ALL SLAG, LIMESTONE ONLY.

ITEM 411 CRUSHED AGGREGATE BASE FOR SHOULDER PARKING

MATERIALS FURNISHED FOR THIS ITEM SHALL EXCLUDE ALL SLAG. SHOULDER PARKING REQUIRING 411 SHALL BE PLACED TO A MINIMUM OF 6".

ITEM 617 ~ RECONDITIONING OF SHOULDERS

APPROVED MATERIAL FOR THIS ITEM SHALL BE IN ACCORDANCE WITH ODOT ITEM 411 AND SHALL EXCLUDE ALL SLAG.

ITEM 407 TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.10 GALLONS PER SQUARE YARD FOR THE ESTIMATING PURPOSES ONLY.

ITEM 408 PRIME COAT

THE RATE OF APPLICATION OF THE 408 PRIME COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.40 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

SEEDING AND MULCHING

THE SEEDING AND MULCHING IS TO BE PERFORMED BY FULTON COUNTY. THE CONTRACTOR SHALL KEEP THE AMOUNT OF DISTURBED SOIL TO A MINIMUM. IT IS THE INTENT OF FULTON COUNTY TO PERFORM THE SEEDING AND MULCHING ONCE AN AREA HAS REACHED FINAL GRADE. THIS WILL BE COORDINATED WITH THE CONTRACTOR SO THAT THE COUNTY DOES NOT DISTURB THE WORK OF THE CONTRACTOR.

ITEM 659 SEEDING AND MULCHING SITE PREPARATION

ITEM 659.10 AND 659.11 SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

UNDER ITEM 659.10, NO COMMERCIAL FERTILIZER, LIME, OR OTHER SOIL AMENDMENTS ARE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE TO RETURN THE LANDOWNERS' FRONTAGE TO ITS ORIGINAL CONDITION OR BETTER.

UNDER ITEM 659.11, THE CONTRACTOR WILL BE RESPONSIBLE TO FURNISH 4" OF TOP SOIL ON ALL FRONTAGE THAT IS MAINTAINED AS LAWN. THE REMAINDER OF THE PROJECT SHALL HAVE TOPSOIL PLACED, ENOUGH SO THAT IT IS SUITABLE FOR SEEDING. SUITABLE MATERIAL FROM THE PROJECT CAN BE USED FOR TOPSOIL, OTHERWISE THE CONTRACTOR WILL BE RESPONSIBLE TO HAUL IN SUITABLE MATERIAL PRIOR TO SEEDING.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN ITEM 203, EMBANKMENT.

ITEM 614 MAINTAINING TRAFFIC

A) METHODS OF MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ODOT ITEM 614 AND THE LATEST EDITION OF THE "OHIO MANUAL UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).

B) SHOULD ADDITIONAL SIGNS AND/OR BARRICADES BE REQUIRED TO PROVIDE CLARITY TO THE TRAFFIC CONTROL SCHEMES SET FORTH IN THE PLANS OR THE OMUTCD OR SHOULD ANY SIGNS AND/OR BARRICADES REQUIRE RELOCATION TO PROVIDE THIS CLARITY AS DIRECTED BY THE ENGINEER, THIS WORK SHALL BE INCLUDED IN ITEM 614, MAINTAINING TRAFFIC.

C) THE CONTRACTOR SHALL NOTIFY THE FULTON COUNTY ENGINEER IN WRITING SEVEN (7) WORKING DAYS PRIOR TO THE CLOSING OF THE ROAD UNDER CONSTRUCTION.

D) THE CONTRACTOR SHALL FOLLOW THE TRAFFIC MAINTENANCE DIAGRAM AS DETAILED ON THE SPECIFIED SHEET BEING TRAFFIC MAINTENANCE (SHEET 5 OF 16).

E) THE CONTRACTOR SHALL PLACE CONSTRUCTION DRUMS ALONG THE EDGE(S) OF PAVEMENT THROUGHOUT THE DURATION OF CONSTRUCTION IN PERTINENT AREAS.

F) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND KEEPING INFORMED, THE FULTON COUNTY SHERIFF AND ALL AFFECTED SCHOOL DISTRICTS DURING THE ENTIRE PROJECT.

G) PAYMENT FOR PROVIDING THE ABOVE METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE ITEM 614, MAINTAINING TRAFFIC.

ITEM 202 GUARDRAIL REMOVED FOR STORAGE

ALL EXISTING GUARDRAIL WILL BE REMOVED PRIOR TO CONSTRUCTION BY FULTON COUNTY. TO ALLOW FOR PROPER SCHEDULING OF THE WORK, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO GIVE FULTON COUNTY AT LEAST A THREE WORKING DAY NOTICE OF THEIR INTENT TO BEGIN WORK IN THOSE AREAS WHERE EXISTING GUARDRAIL MUST BE REMOVED. FAILURE TO PROVIDE THIS NOTICE WILL RESULT IN THE REMOVAL AND STORAGE OF THE GUARDRAIL BY THE CONTRACTOR AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER.

TEMPORARY SEDIMENT AND EROSION CONTROL

THE CONTRACTOR SHALL TAKE ANY AND ALL APPROPRIATE MEASURES TO LIMIT SOIL EROSION PRIOR TO ANY EXCAVATION, GRADING, OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES AUTHORIZED HEREIN.

ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED FOR TEMPORARY SEDIMENT AND EROSION CONTROL IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 832:

- ITEM 832 - EROSION CONTROL 2500 EACH

THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATION AND QUANTITIES FOR THIS ITEM WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

EROSION CONTROL

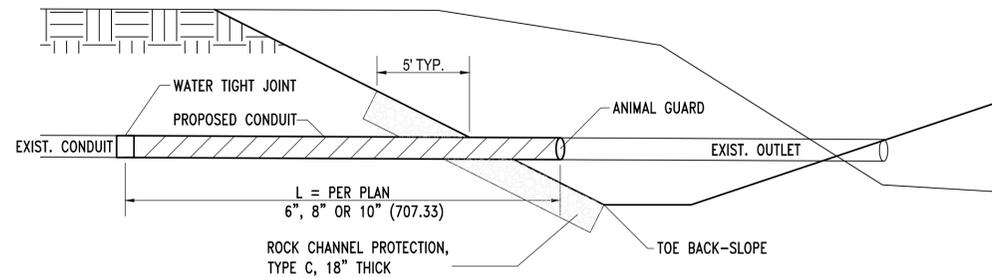
ITEM 601 IS PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE THIS ITEM. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATION AND QUANTITIES FOR THIS ITEM WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

CONTINGENCY QUANTITIES

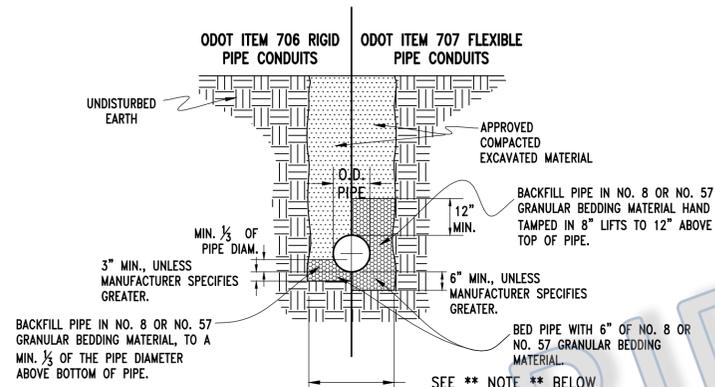
THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

Drawn By: BCR	Checked By: FTO
Date: 6/6/2013	Revised: -

GENERAL NOTES
 FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK
 FULTON COUNTY ENGINEERING DEPT.
 FRANK T. ONWELLER, P.E., P.S. - COUNTY ENGINEER
 ROD CREAGER, P.E., P.S. - CHIEF DEPUTY ENGINEER
 9120 Co Rd 14, WALUSEON, OHIO, 43087
 PHONE (419) 335-3316 FAX (419) 335-1091



PROPOSED TYPICAL DRAINAGE OUTLET INTO PROPOSED DITCH
NOT TO SCALE



TYPE C CONDUIT ~ TRENCH DETAIL
(OUTSIDE 5 FT. OF EDGE OF PAVEMENT)
* NOT TO SCALE

GENERAL SUMMARY					
SHEET NO.	ITEM	GRAND TOTAL	UNIT	DESCRIPTION	ORIGIN
ROADWAY					
6	201	1	LUMP	CLEARING AND GRUBBING	PLANS
4	202	124	SQ YD	PAVEMENT REMOVED FOR BUTT JOINTS	TABLE P
3, 4	202	110	FT	PIPE REMOVED UNDER 24"	PLANS, TABLE D
4	203	175	CU YD	EXCAVATION	TABLE E
4	203	126	CU YD	EMBANKMENT	TABLE E
4	204	658	SQ YD	SUBGRADE COMPACTION	TABLE P
4	603	225	FT	GUARDRAIL, TYPE 5	TABLE G
4	603	4	EACH	ANCHOR ASSEMBLY, TYPE A	TABLE G
4	603	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE TST	TABLE G
EROSION CONTROL					
4	601	113	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	TABLE D
3	832	2500	EACH	EROSION CONTROL	PLANS
DRAINAGE					
3	603	45	FT	6" CONDUIT, TYPE C	PLANS
4	603	30	FT	8" CONDUIT, TYPE C	TABLE D
4	603	40	FT	10" CONDUIT, TYPE C	TABLE D
PAVEMENT					
4	301	57	CU YD	ASPHALT CONCRETE BASE (4")	TABLE P
4	304	172	CU YD	AGGREGATE BASE	TABLE P
4	407	91	GALLON	TACK COAT	TABLE P
4	408	320	GALLON	PRIME COAT	TABLE P
4	411	8	CU YD	CRUSHED AGGREGATE FOR SHOULDER PARKING	TABLE P
4	448	44	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	TABLE P
4	448	38	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	TABLE P
4	617	7	CU YD	RECONDITIONING OF SHOULDERS	TABLE P
TRAFFIC CONTROL					
4	642	0.06	MILE	CENTER LINE, TYPE 1	TABLE M
4	642	0.13	MILE	EDGE LINE, TYPE 1	TABLE M
FOR STRUCTURE GENERAL SUMMARY, SEE SHEET 9					
INCIDENTALS					
	103	1	LUMP	PREMIUM FOR CONTRACT PERFORMANCE BOND AND MAINTENANCE GUARANTEE BOND	
	614	1	LUMP	MAINTAINING TRAFFIC	
	623	1	LUMP	CONSTRUCTION LAYOUT AND STAKING	

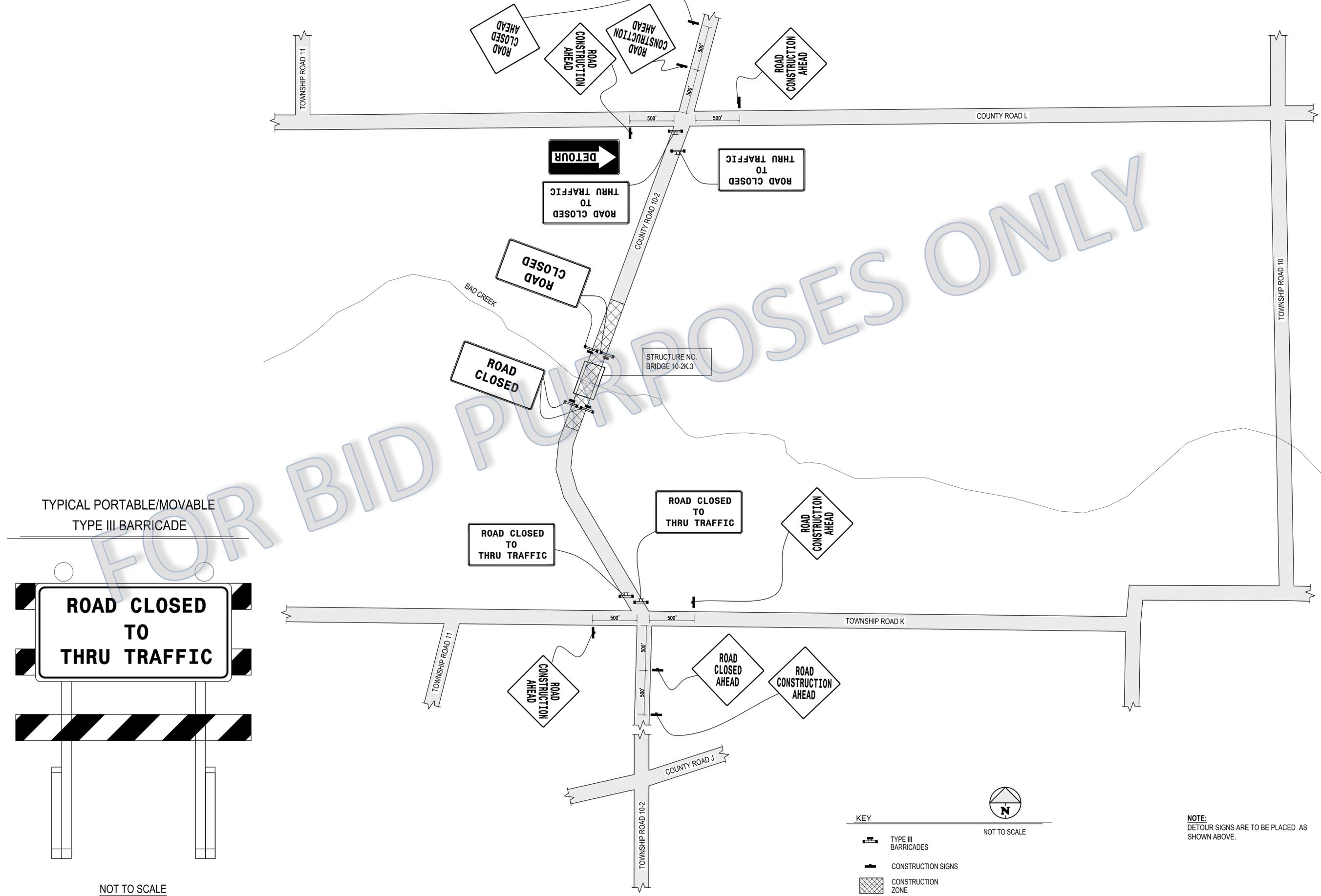
PAVEMENT TABLE "P"																		
REFERENCE NO.	SHEET NO.	STATION		LENGTH	EXISTING PAVEMENT WIDTH	PROPOSED PAVEMENT WIDTH	202	202	204	301	304	407	408	411	448	448	526	617
		FROM	TO				PAVEMENT REMOVAL FOR BUTT JOINTS	WEARING COURSE REMOVED	SUBGRADE COMPACTION	ASPHALT CONCRETE BASE (4")	304 AGGREGATE BASE (12")	TACK COAT (0.1 GAL./S.Y.)	BITUMINOUS PRIME COAT (0.4 GAL./S.Y.)	CRUSHED AGGREGATE FOR SHOULDER PARKING	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22, (1.75")	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22, (1.5")	REINFORCED CONCRETE APPROACH SLAB (1'-13")	RECONDITIONING OF SHOULDERS
		L.F.	FEET				FEET	SQ YD	SQ YD	SQ YD	CU YD	CU YD	GALLON	GALLON	CU YD	CU YD	CU YD	SQ YD
P-1	6	62+40.00	62+76.00	36.0	20.4	20.4	81.6					8.2				3.4		
P-2	6	62+76.00	63+68.42	92.4	20.0	22.0			236.2	26.2	78.7	22.6	92.4		11.2	9.4		3.4
P-3	6	63+68.42	63+88.42	20.0	20.0	32.0			71.1			7.1	28.4		4.6	3.0	71.1	
P-4	6	63+88.42	64+31.58	43.2	20.0	32.0		75.6				15.3	61.4		9.9	6.4		
P-5	6	64+31.58	64+51.58	20.0	20.0	32.0			71.1			7.1	28.4		4.6	3.0	71.1	
P-6	6	64+51.58	65+61.00	109.4	20.0	22.0			279.6	31.1	93.2	26.7	109.4	3.9	13.3	11.1		3.7
P-7	6	65+61.00	65+80.00	19.0	20.1	20.1	42.4					4.2		3.9		1.8		
TOTALS TO GENERAL SUMMARY							124	76	658	57	172	91	320	8	44	38	142	7

GUARDRAIL TABLE "G"									
REFERENCE NUMBER	SHEET NO.	STATION		OUT TO FACE	SIDE	517	606		
		FROM	TO			RAILING (TWIN STEEL TUBE)	GUARDRAIL, TYPE 5	ANCHOR ASSEMBLY, TYPE A	BRIDGE TERMINAL ASSEMBLY, TYPE TST
		FT	FT			FT	FT	EACH	EACH
G-1	6	63+30.18	63+86.43	16.0	LT.		56.25	1	1
G-2	6	63+30.18	63+86.43	16.0	RT.		56.25	1	1
G-3	6	63+86.16	64+33.82	16.0	LT.	47.67			
G-4	6	63+86.16	64+33.82	16.0	RT.	47.67			
G-5	6	64+33.55	64+89.8	16.0	LT.		56.25	1	1
G-6	6	64+33.55	64+89.8	16.0	RT.		56.25	1	1
TOTALS TO GENERAL SUMMARY						95.33	225	4	4

EARTHWORK TABLE "E"				
SHEET NO.	STATION		203	
	FROM	TO	EXCAVATION	EMBANKMENT
	7	62+00	64+50	72
8	65+00	66+00	103	48
TOTALS TO GENERAL SUMMARY			175	126

PAVEMENT MARKINGS TABLE "M"						
REFERENCE NUMBER	SHEET NO.	STATION		LENGTH (L)	642	642
		FROM	TO		CENTER LINE, TYPE 1 =L / 5280	EDGE LINE, TYPE 1
		FT	FT		MILE	MILE
M-1	6	62+40	65+80	340.00	0.06	0.13
TOTALS TO GENERAL SUMMARY						

DRAINAGE TABLE "D"											
REFERENCE NUMBER	SHEET NUMBER	STATION		SIDE	202	601	603				
		FROM	TO		PIPE REMOVED UNDER 24"	TYPE "C" ROCK CHANNEL PROTECTION	TYPE C				
		FT	CU YD		FT	FT					
D-1	16	63+57	64+02	LT.	45			40			
D-2	16	CHANNEL		BOTH		113					
D-3	16	64+24	64+54	RT.	25		30				
TOTALS TO GENERAL SUMMARY								70	113	30	40



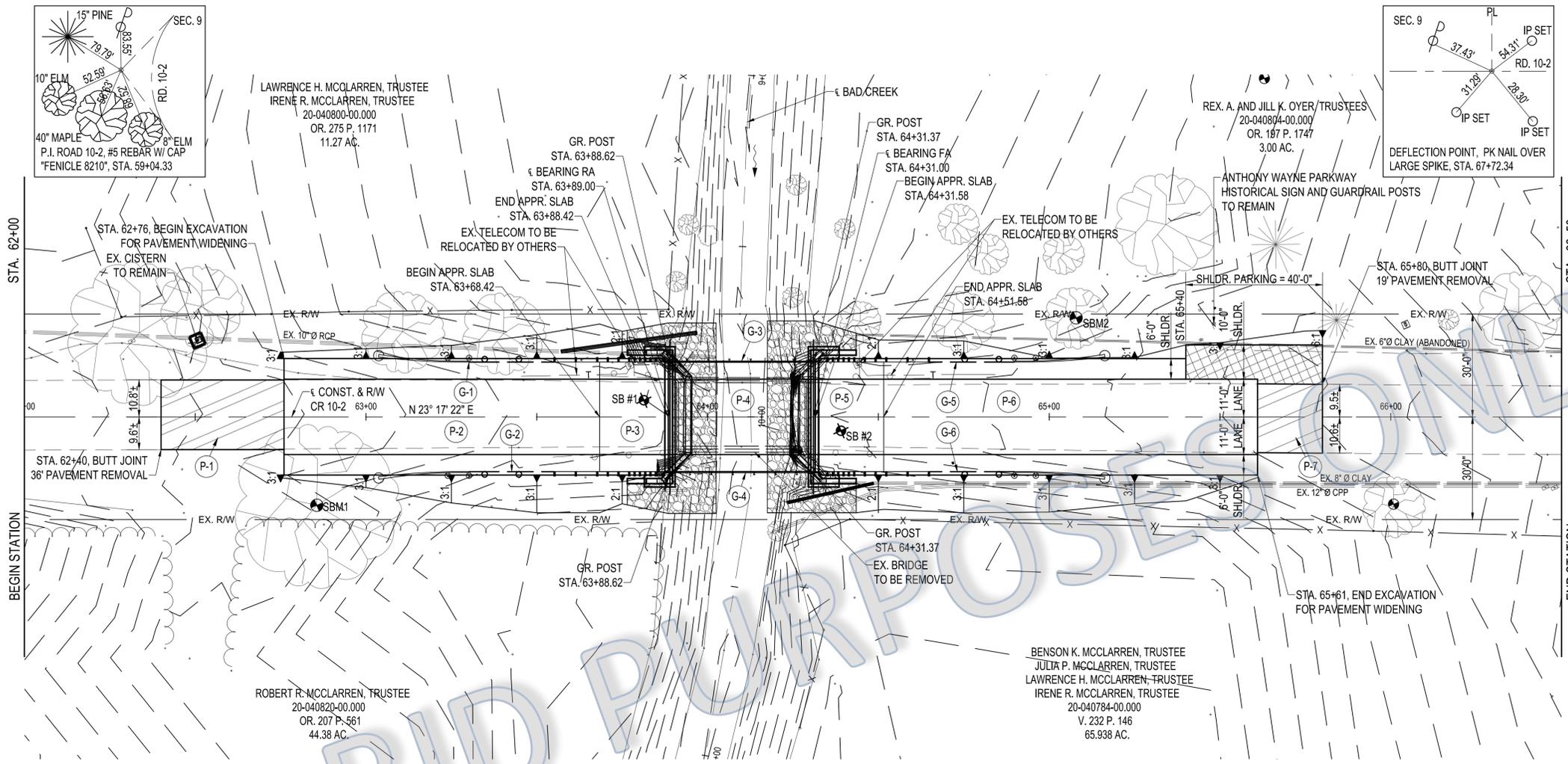
NOT TO SCALE

- KEY
- TYPE III BARRICADES
 - CONSTRUCTION SIGNS
 - CONSTRUCTION ZONE



NOT TO SCALE

NOTE:
 DETOUR SIGNS ARE TO BE PLACED AS SHOWN ABOVE.



BAD CREEK HYDRAULIC DATA AT PROPOSED SITE

DRAINAGE AREA, A = 10.5 SQ. MI
 MAIN CHANNEL SLOPE, SL = 4.1 FT./ MI.
 DESIGN Q - 10 YEAR = 521 CFS
 100 YEAR = 757 CFS
 10 YEAR W.S.E. = 754.12, VELOCITY = 2.16 FT./ SEC.
 100 YEAR W.S.E. = 755.13, VELOCITY = 2.69 FT./ SEC.

EXISTING STRUCTURE

TYPE: SINGLE SPAN CONCRETE T-BEAM ON GRAVITY
 TYPE CONCRETE ABUTMENTS
 SPAN: 31' C/C BEARING
 ROADWAY WIDTH: 20' F/F CONCRETE RAILING
 LOADING: HS-15
 SKEW: 0°
 APPROACH SLABS: NONE
 ALIGNMENT: TANGENT
 CROWN: 0.02 FT./FT.
 STRUCTURAL FILE NUMBER: 2633310
 DATE BUILT: 1925
 DISPOSITION: POOR
 LOAD CAPACITY: 17 TON

PROPOSED STRUCTURE

TYPE: SINGLE SPAN PRECAST PRESTRESSED CONCRETE BOX BEAM SUPERSTRUCTURE WITH ASPHALT CONCRETE WEARING SURFACE ON CAPPED PILE ABUTMENTS
 SPAN: 42' C/C BEARING
 ROADWAY WIDTH: 32.0' F/F GUARDRAIL
 SKEW: 0°
 DESIGN LOAD: HL-93
 APPROACH SLAB: L = 20.0' (AS-1-81)
 ALIGNMENT: TANGENT
 DESIGN ADT: 1107 (2032)
 CURRENT ADT: 753 (2012)
 CROSS SLOPE: 1/4" / FT.
 STRUCTURE FILE NUMBER: 2633337
 COORDINATES: LATITUDE N 41° 37' 15"
 LONGITUDE W 84° 04' 02"

LEGEND

① - HP 10X42 PILES
 REAR ABUTMENT ESTIMATED PILE LENGTH = 45 FT.
 FORWARD ABUTMENT ESTIMATED PILE LENGTH = 45 FT.

⊕ - SOIL BORING LOCATION

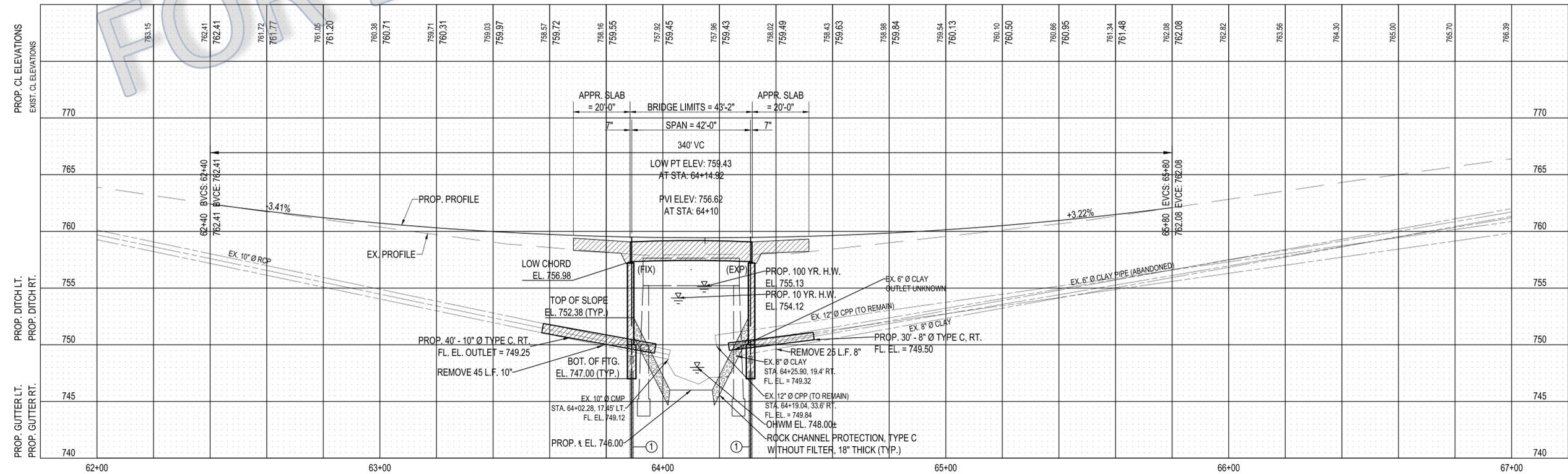
▨ - LIMITS OF PAVEMENT BUTT JOINT
 ▩ - LIMITS OF SHOULDER PARKING

BENCHMARK DESCRIPTIONS

SBM1 - DOUBLE HEADED NAIL WITH TAG IN WEST FACE COTTONWOOD TREE, STA. 62+85.62, 25.8' RT. - ELEV. 764.55
 SBM2 - DOUBLE HEADED NAIL WITH TAG IN EAST FACE WALNUT TREE, STA. 65+07.85, 28.9' LT. - ELEV. 761.30

NOTES

- FOR ADDITIONAL PROPOSED DRAINAGE DETAILS, SEE SHEET 16 OF 16.



PLAN AND PROFILE

FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK

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16

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

- AS-1-81 REVISED 7-19-02
- CPA-1-08 REVISED 7-18-08
- DS-1-92 REVISED 7-18-03
- PSBD-2-07 REVISED 1-21-11
- TST-1-99 REVISED 4-18-08

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2012, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING

DESIGN LOADING: HL-93
 FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ. FT.

DESIGN DATA

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
 CONCRETE CLASS C - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
 REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
 STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI
 CONCRETE FOR PRESTRESSED BEAMS:
 COMPRESSIVE STRENGTH (FINAL) - 7 KSI
 COMPRESSIVE STRENGTH (RELEASE) - 5 KSI
 PRESTRESSING STRAND:
 AREA = 0.167 SQ. IN.
 ULTIMATE STRENGTH = 270 KSI
 INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD

MEMBRANE WATERPROOFING
 ASPHALT CONCRETE OVERLAY
 STEEL DRIP STRIP
 SEALING OF CONCRETE SURFACES

SURVEY DISC ON STRUCTURE

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENT. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR THE STRUCTURE WHICH THE CONTRACTOR WILL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND RAILING. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK SHALL BE INCLUDED WITH ITEM 511.

ITEM 202, STRUCTURE REMOVED, AS PER PLAN

WHEN NO LONGER REQUIRED TO MAINTAIN TRAFFIC, THE EXISTING BRIDGE SHALL BE REMOVED AS PER PLAN IN ACCORDANCE WITH 503 - EXCAVATION FOR STRUCTURES. EXISTING CONCRETE REMOVED MAY BE USED AS CHANNEL PROTECTION MATERIAL, AS DIRECTED BY THE ENGINEER PROVIDING THE MATERIAL MEETS THE REQUIREMENTS OF 601.08.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS 131.2 KIPS PER PILE FOR THE REAR AND FORWARD ABUTMENTS.

ABUTMENT PILES, HP10X42:
 11 PILES, 40 FEET LONG, ORDER LENGTH (REAR)
 11 PILES, 40 FEET LONG, ORDER LENGTH (FORWARD)
 1 DYNAMIC LOAD TESTING ITEM

BEARING PAD SHIMS

PLACE 1/2" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA 6 INCHES BY 8 INCHES, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING. FURNISH TWO SHIMS PER BEAM. THE COUNTY WILL MEASURE THIS ITEM BY THE TOTAL NUMBER SUPPLIED. THE COUNTY WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - 1/2" PREFORMED BEARING PADS. ANY UNUSED SHIMS WILL BECOME THE PROPERTY OF THE COUNTY.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 GRANULAR MATERIAL PLACED IN LIFTS NOT TO EXCEED A THICKNESS OF MORE THAN 6 INCHES.

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

A CONCRETE SEALER SHALL BE APPLIED TO THE SURFACES INDICATED IN THESE PLANS AND AS DESCRIBED BELOW:

THE EXPOSED SURFACES OF THE ABUTMENT DOWN TO THE GROUND LINE, EXCLUDING THE BEARING SEATS;

THE EXPOSED SURFACES OF ALL WINGWALLS INCLUDING TOP AND BOTH SIDES AND END AREAS DOWN TO THE GROUND LINE; AND

THE PRESTRESSED BOX BEAM EXTERIOR FACE PLUS 6 INCHES UNDERDECK AND INTERIOR BEAM FACES FROM BOTTOM OF KEY TO BOTTOM OF BEAM PLUS 6 INCHES UNDERDECK, EACH SIDE OF BEAM.

GENERAL SUMMARY, BRIDGE 10-2K3.					
SHEET NO.	ITEM	GRAND TOTAL	UNIT	DESCRIPTION	ORIGIN
10	202	1	LUMP	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	PLAN
4	202	76	SQ YD	WEARING COURSE REMOVED	TABLE P
6,9,10	503	583	CU YD	UNCLASSIFIED EXCAVATION	PLAN
	505	1	LUMP	PILE DRIVING EQUIPMENT MOBILIZATION	PLAN
6,9,10	507	990	FT	STEEL PILES HP10X42, FURNISHED	PLAN
6,9,10	507	880	FT	STEEL PILES HP10X42, DRIVEN	PLAN
16	509	13,272	POUND	EPOXY COATED REINFORCING STEEL	TABLE RS
11,12,13	511	105	CU YD	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING	PLAN
11,13	512	228	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	PLAN
11	512	168	SQ YD	TYPE 3 WATERPROOFING	PLAN
14,15	515	8	EACH	PRESTRESSED CONCRETE NON-COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, B21-48	PLAN
11	516	129	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	PLAN
11	516	33	FT	2" DEEP JOINT SEALER, AS PER PLAN	PLAN
11	516	33	FT	SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	PLAN
9	516	16	EACH	1/8" PREFORMED BEARING PAD	PLAN
15	516	32	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (6" X 8" X 1.494" THICK)	PLAN
4	517	95.33	FT	RAILING (TWIN STEEL TUBE)	TABLE G
11,13	518	49	CU YD	POROUS BACKFILL WITH FILTER FABRIC	PLAN
14	518	81	FT	SPECIAL - STEEL DRIP STRIP	PLAN
11,13	518	91	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	PLAN
11,13	518	47	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	PLAN
9	523	1	EACH	DYNAMIC LOAD TESTING	PLAN
4	526	142	CU YD	REINFORCED CONCRETE APPROACH SLABS (T=13")	TABLE P

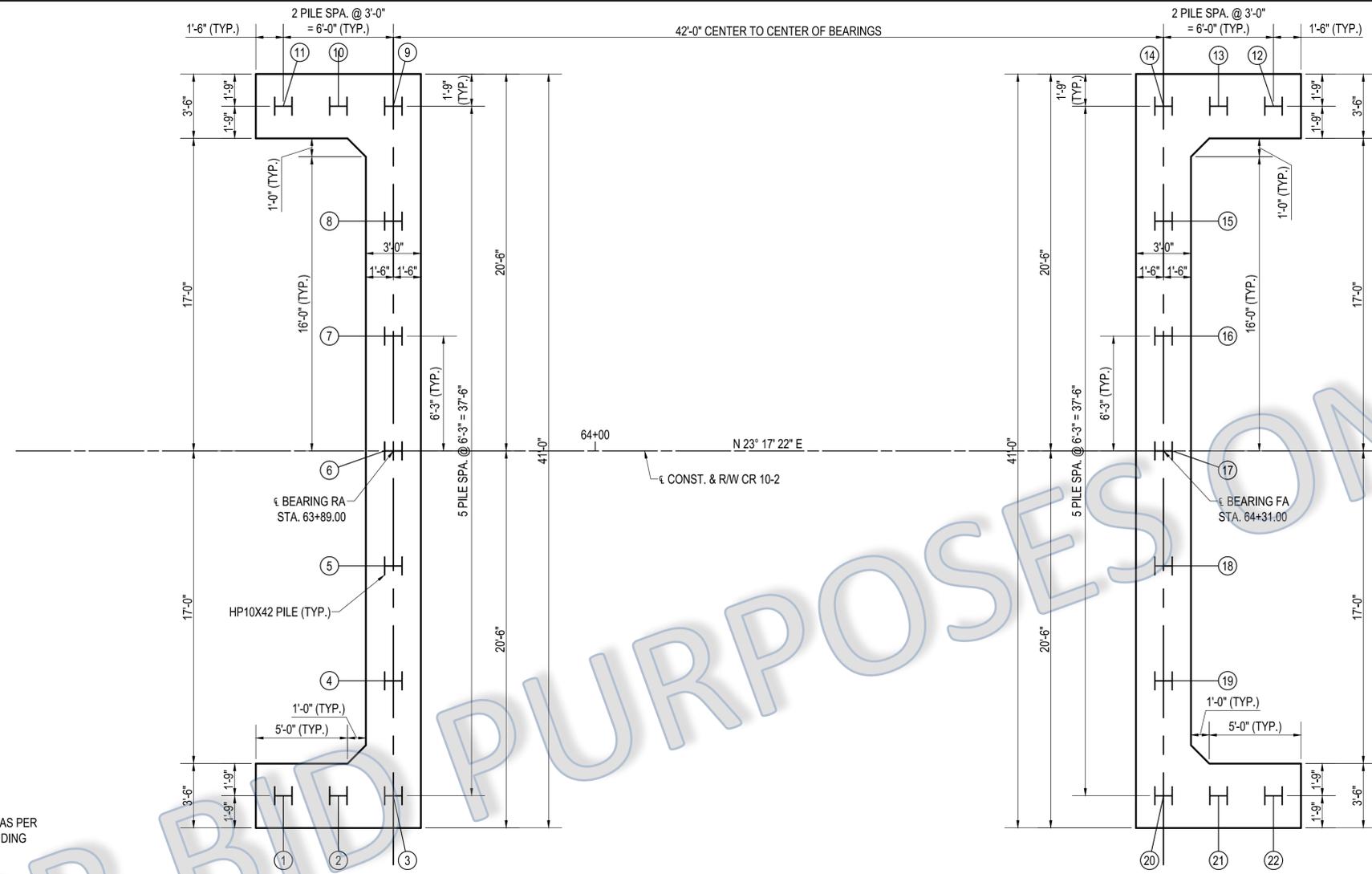
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 Checked By: FTO
 Date: 6/6/2013
 Revised:

BRIDGE GENERAL NOTES AND ESTIMATED QUANTITIES
 FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK

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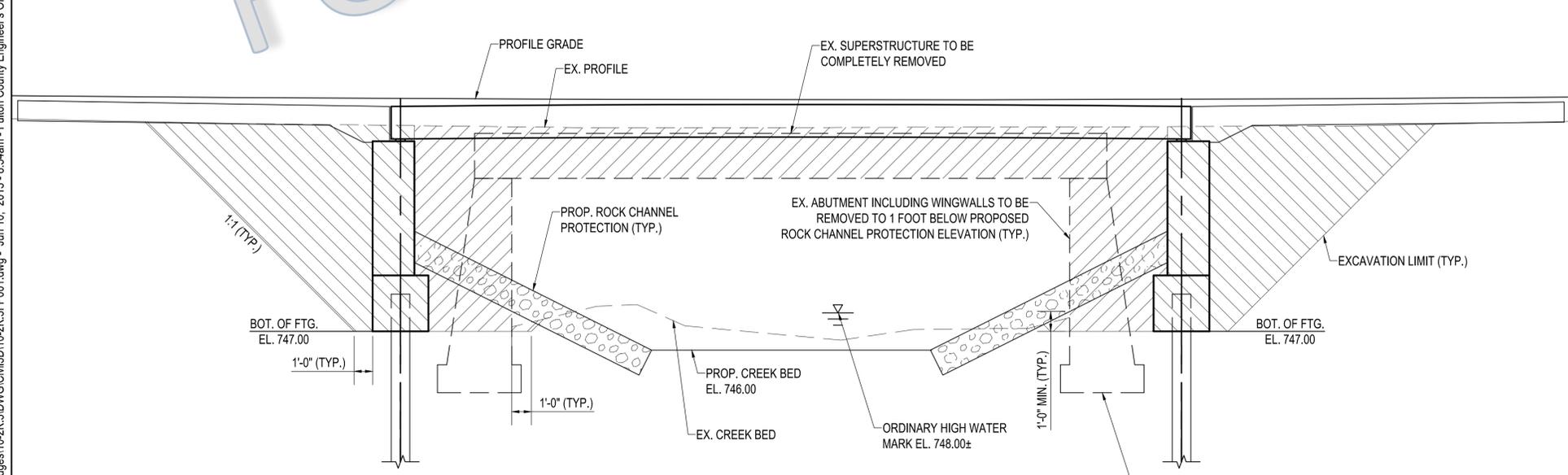


FOUNDATION PLAN

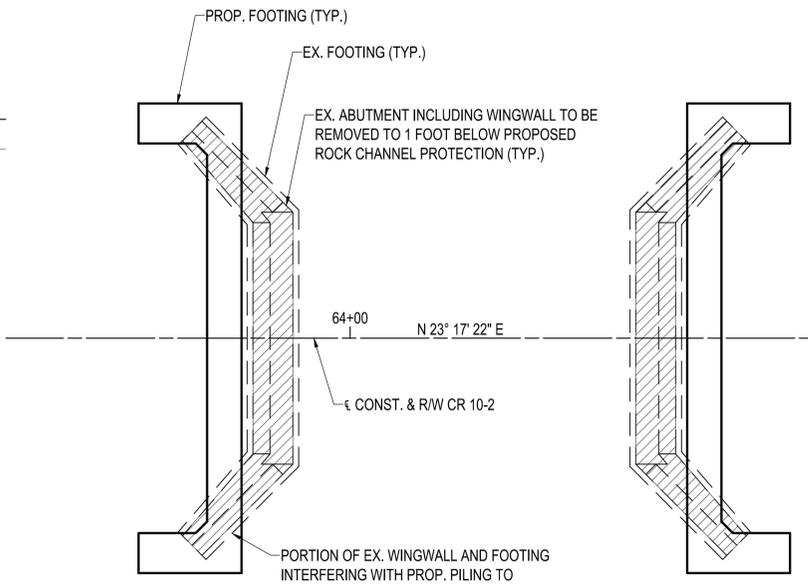
LEGEND
 O = PILE DESIGNATION
 RA = REAR ABUTMENT
 FA = FORWARD ABUTMENT

NOTES
 - ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN: BACKFILL SHALL CONFORM TO CMS 503.08.

- ITEM 202, STRUCTURE REMOVED, OVER 20 FT. SPAN, AS PER PLAN (FOR REMOVAL OF STRUCTURE ONLY AND INCLUDING EXCAVATION AS SHOWN WITHOUT BACKFILL)
- ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN (INCLUDES ALL ADDITIONAL EXCAVATION AND BACKFILL NECESSARY FOR PROPOSED STRUCTURE). SEE NOTE THIS SHEET.



EXCAVATION - REMOVAL DETAIL



EXCAVATION PLAN DETAIL



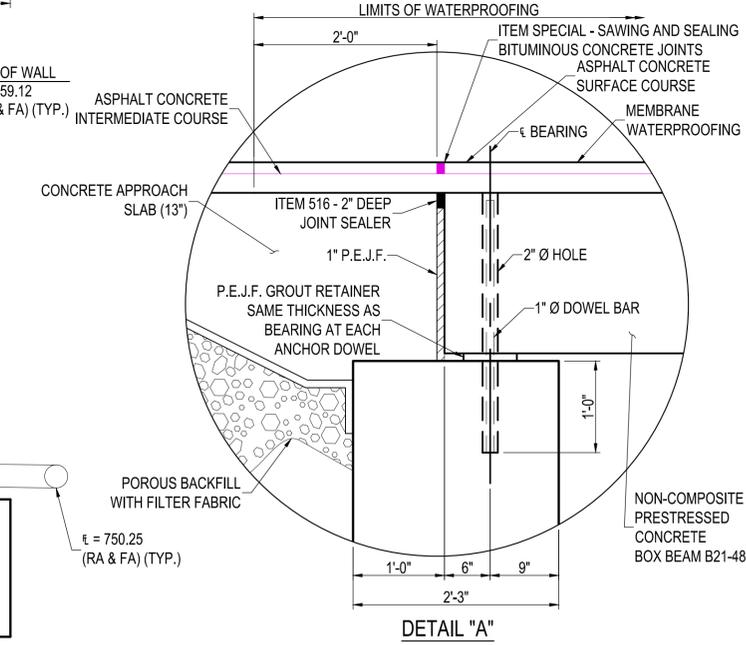
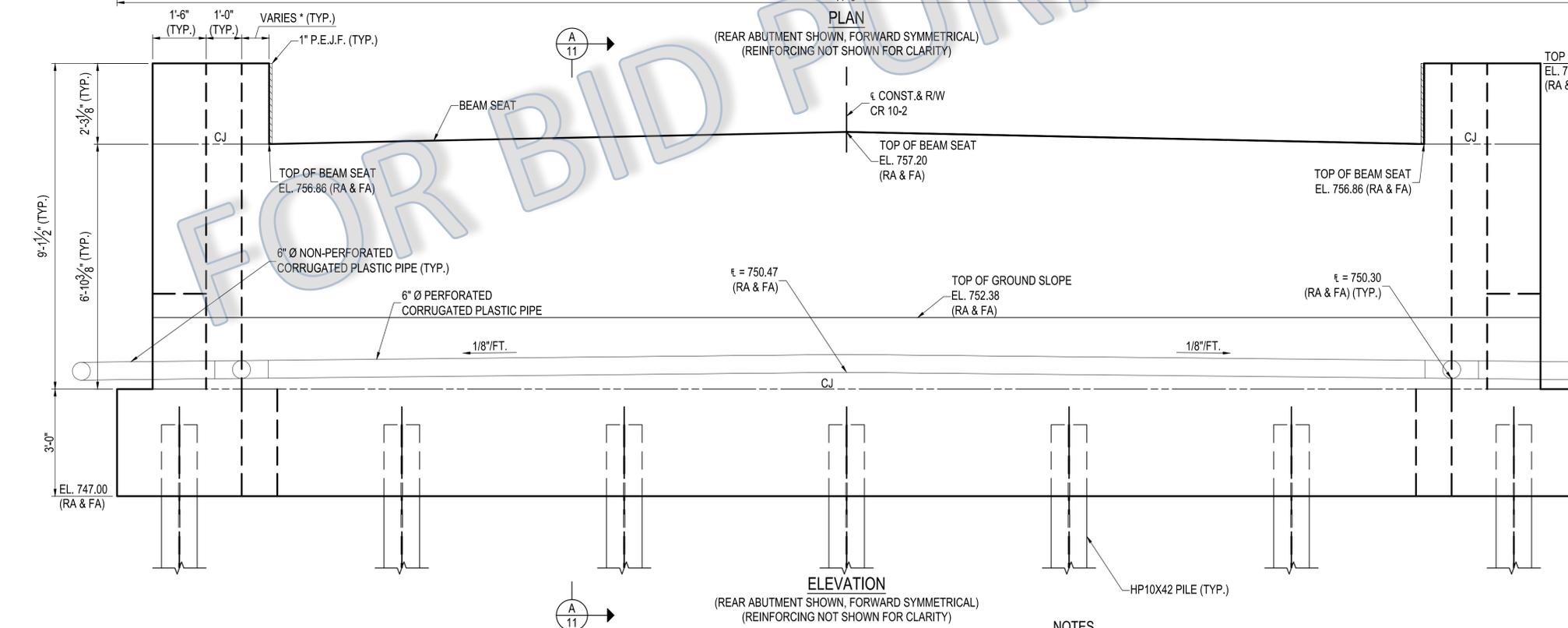
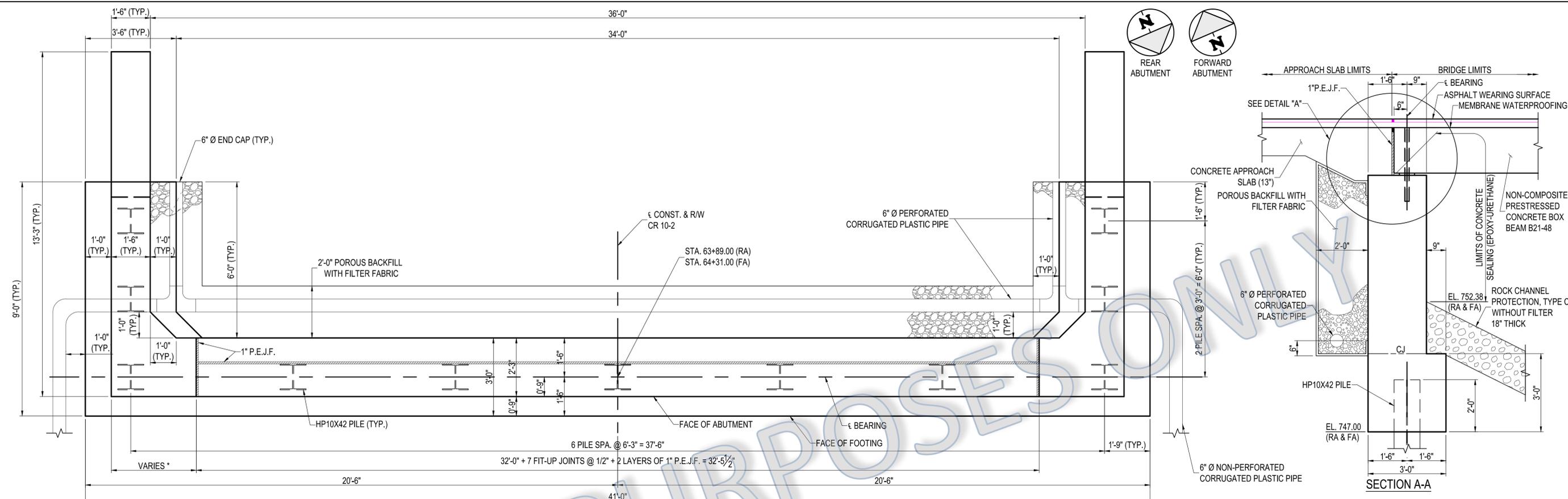
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 Date: 6/6/2013
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 Revised: -

FOUNDATION PLAN AND EXCAVATION DETAILS
 FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK

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LEGEND
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
RA = REAR ABUTMENT
FA = FORWARD ABUTMENT
CJ = CONSTRUCTION JOINT

NOTES

- POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK, SHALL EXTEND UP TO THE BOTTOM OF THE APPROACH SLAB, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
- FIXED ANCHOR DOWEL (REAR ABUTMENT) PROCEDURE: PLACE PREFORMED EXPANSION JOINT FILLER. DRILL AND CLEAN DOWEL HOLE. PLACE NON-SHRINK GROUT AS PER STD. DWG. PSBD-2-07, DOWEL BAR, AND P.E.J.F. PLUG. INCLUDE WITH ITEM 515 FOR PAYMENT.
- EXPANSION ANCHOR DOWEL (FORWARD ABUTMENT) PROCEDURE: PLACE PREFORMED EXPANSION JOINT FILLER. DRILL AND CLEAN DOWEL HOLE. PLACE 705.04 JOINT SEALER AS PER STD. DWG. PSBD-2-07, DOWEL BAR, AND P.E.J.F. PLUG. INCLUDE WITH ITEM 515 FOR PAYMENT.

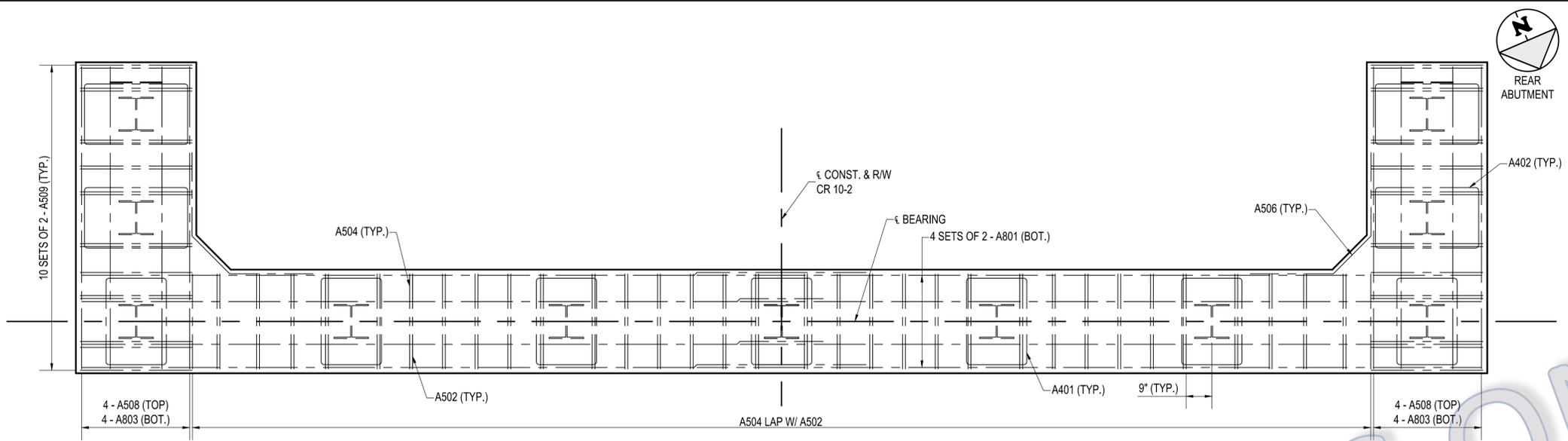
- ABUTMENT CONCRETE: DO NOT PLACE THE ABUTMENT CONCRETE ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT UNTIL PRESTRESSED CONCRETE BOX BEAMS HAVE BEEN ERECTED.

- SEALING OF BEAM SEATS: IF THE BEAM SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO THE SETTING OF THE BEARINGS, DO NOT APPLY THE SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE COUNTY WILL NOT PAY FOR THIS REMOVAL.

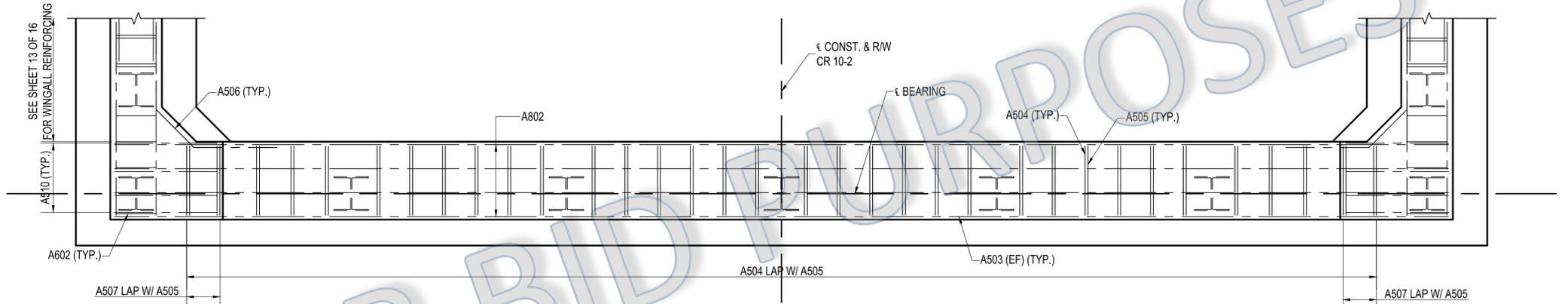
- * DIMENSION VARIES DUE TO BEAM FIT-UP. SEE SHEET 14 OF 16.

ABUTMENT DETAILS
FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK
 Drawn By: BCR
 Date: 6/6/2013
 Checked By: FTO
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FULTON COUNTY ENGINEERING DEPT.
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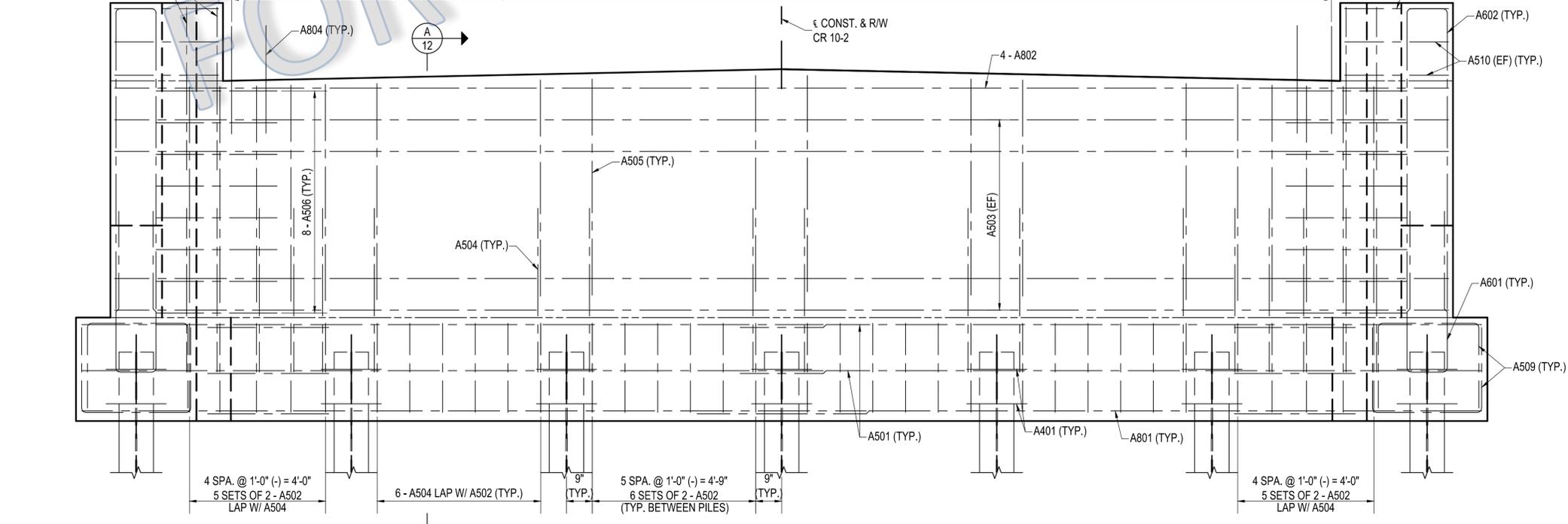
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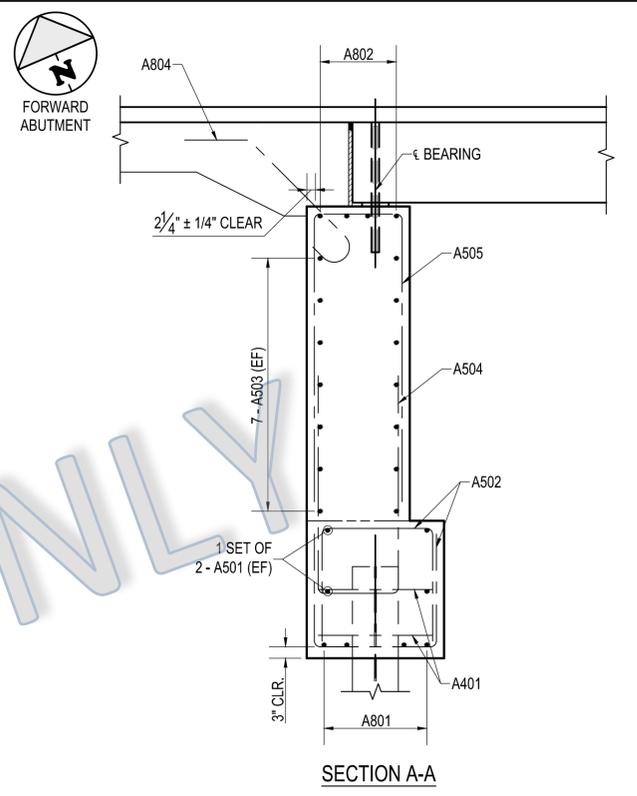
FOOTING REINFORCING PLAN
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND)



STEM WALL REINFORCING PLAN
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND)



ABUTMENT REINFORCING ELEVATION
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND)



SECTION A-A

LEGEND

- P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
- EF = EACH FACE

NOTES

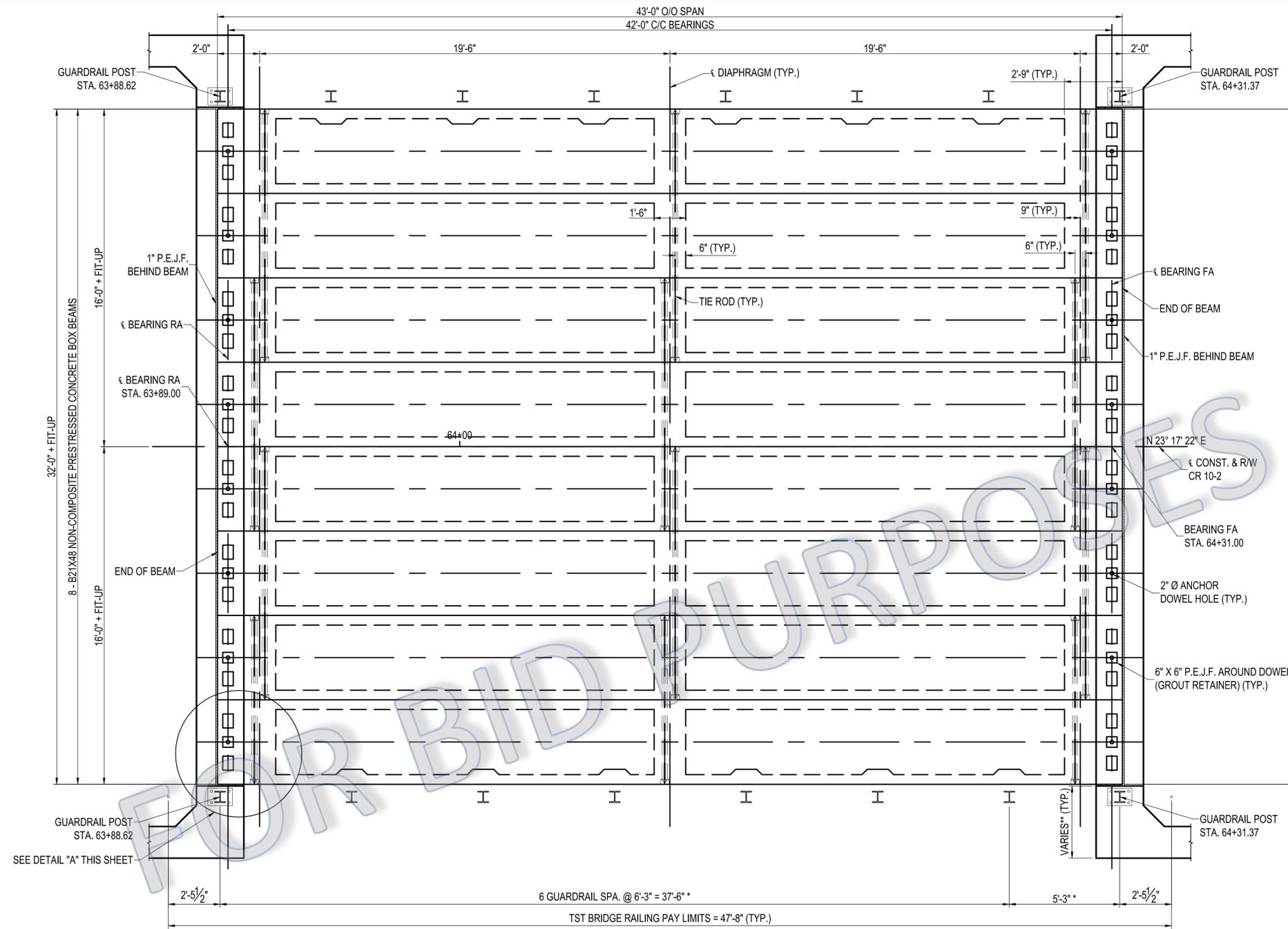
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
#5 BARS = 2'-5"
#6 BARS = 2'-11"
#8 BARS = 4'-11"
- BRIDGE SEAT REINFORCING, SETTING ANCHORS:
ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING DEVICES.

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Revised:	

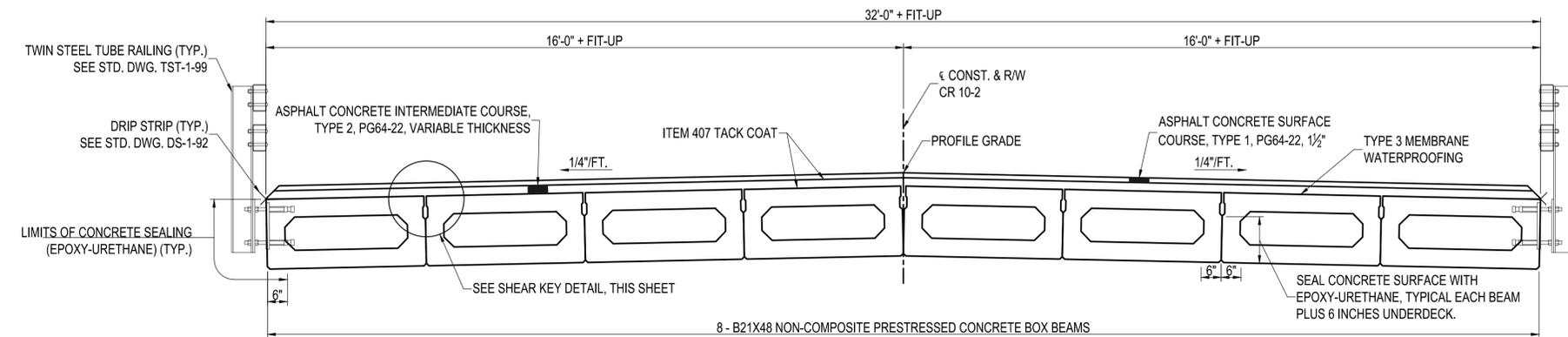
ABUTMENT REINFORCING DETAILS
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FRAMING PLAN

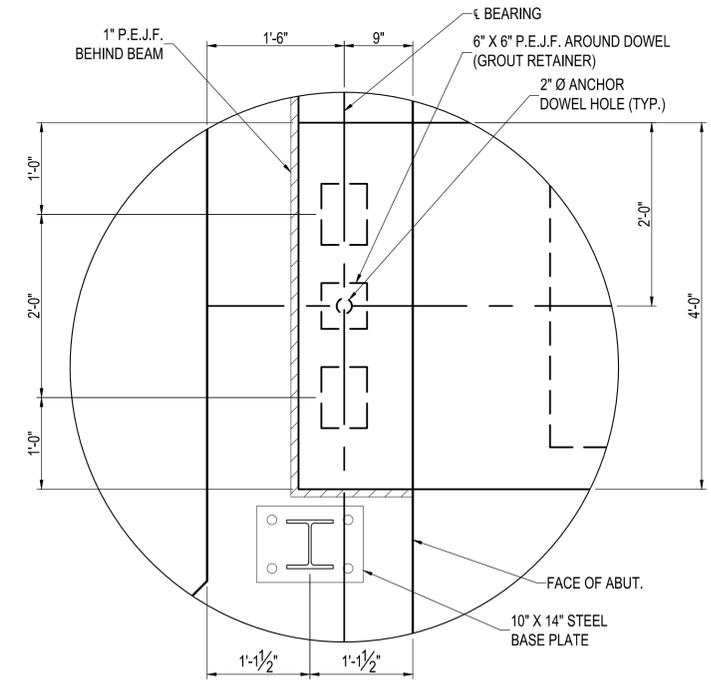


TRANSVERSE SECTION

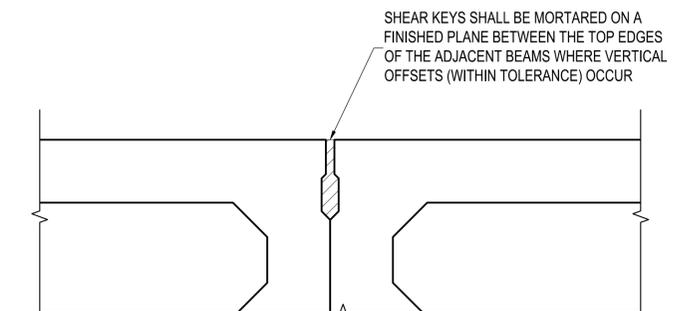


NOTES AND LEGEND

- * = LEFT FASCIA BEAM GUARDRAIL SPACING IS SIMILAR, OPPOSITE HAND.
- ** = DIMENSION VARIES DUE TO VARIABILITY OF BOX BEAM FIT-UP.
- FOR ADDITIONAL PRESTRESSED BOX BEAM DETAILS, SEE ODOT STD. DWG. PSBD-2-07.
- FOR TWIN STEEL TUBE BRIDGE RAILING DETAILS, SEE ODOT STD. DWG. TST-1-99
- P.E.J.F. = PREFORMED EXPANSION JOINT FILLER



DETAIL "A"



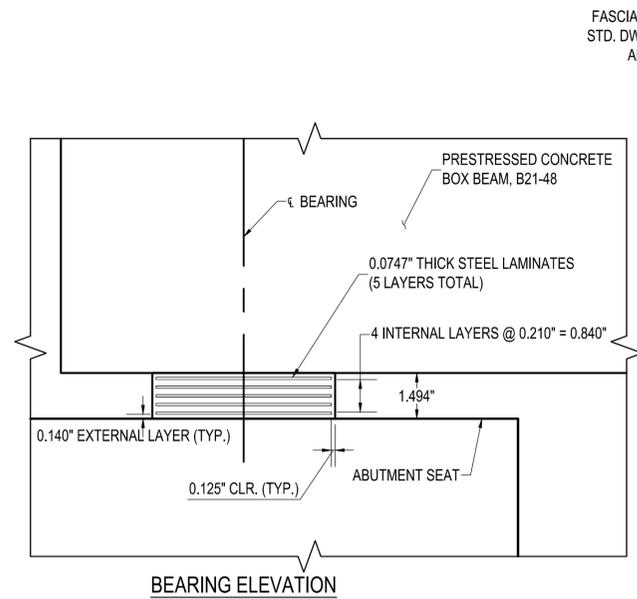
SHEAR KEY DETAIL

Drawn By: BCR
Date: 6/6/2013
Checked By: FTO
Revised:

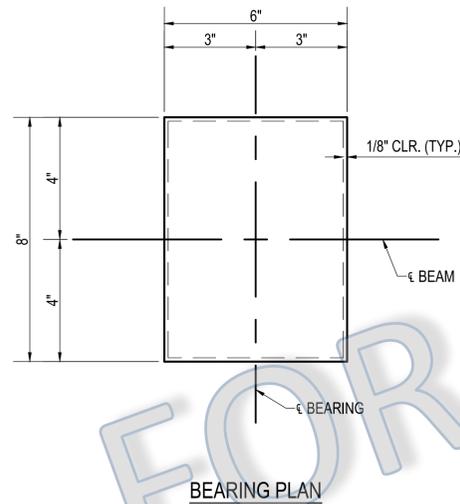
FRAMING PLAN AND TRANSVERSE SECTION
FULTON COUNTY BRIDGE 10-2K.3 REPLACEMENT OVER BAD CREEK

FULTON COUNTY ENGINEERING DEPT.
FRANK J. DWYER, P.E., P.S. - COUNTY ENGINEER
ROD CRAIGER, P.E., P.S. - CHIEF DEPUTY ENGINEER
9120 Co Rd 14, WAUSEON, OHIO, 43087
PHONE (419) 335-3316 FAX (419) 335-1091

File: G:\Projects\Bridges\10-2K.3\DWG\Civil3D\10-2K.3SD001.dwg - Jun 10, 2013 - 8:55am - Fulton County Engineer's Office



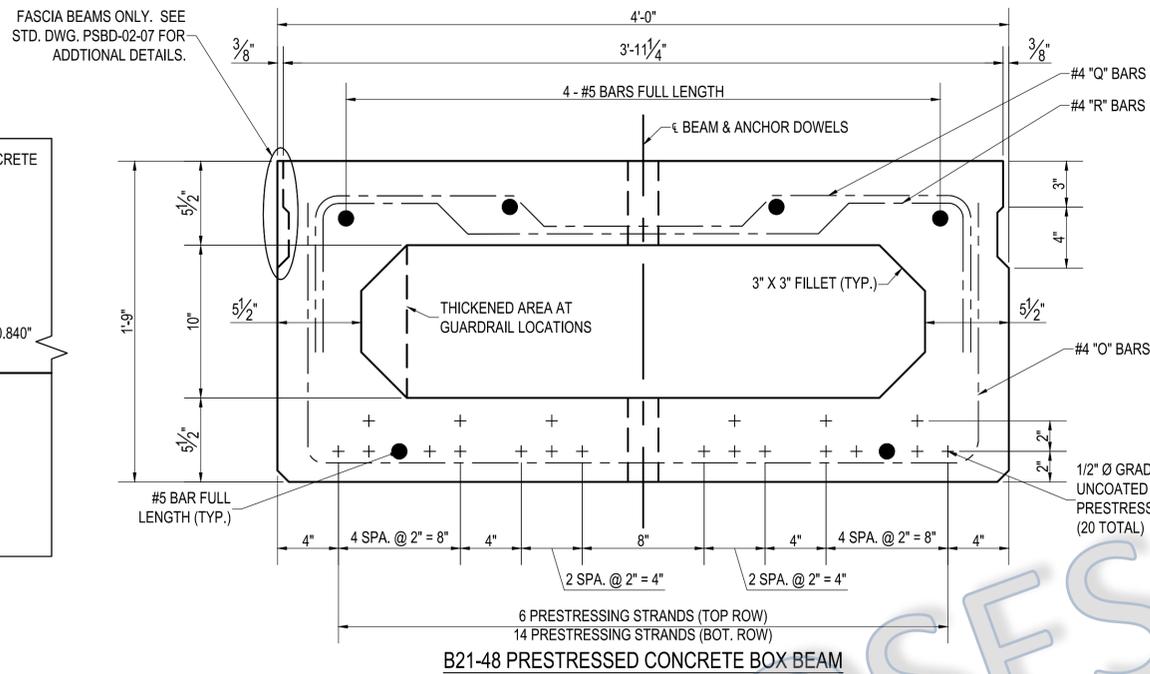
BEARING ELEVATION



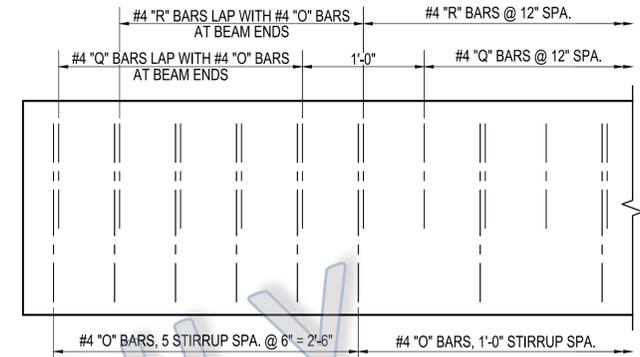
BEARING PLAN

BEARING DESIGN LOADS:

DEAD LOADS:	24.1 KIPS
LIVE LOAD WITHOUT IMPACT	21.7 KIPS
TOTAL	45.8 KIPS

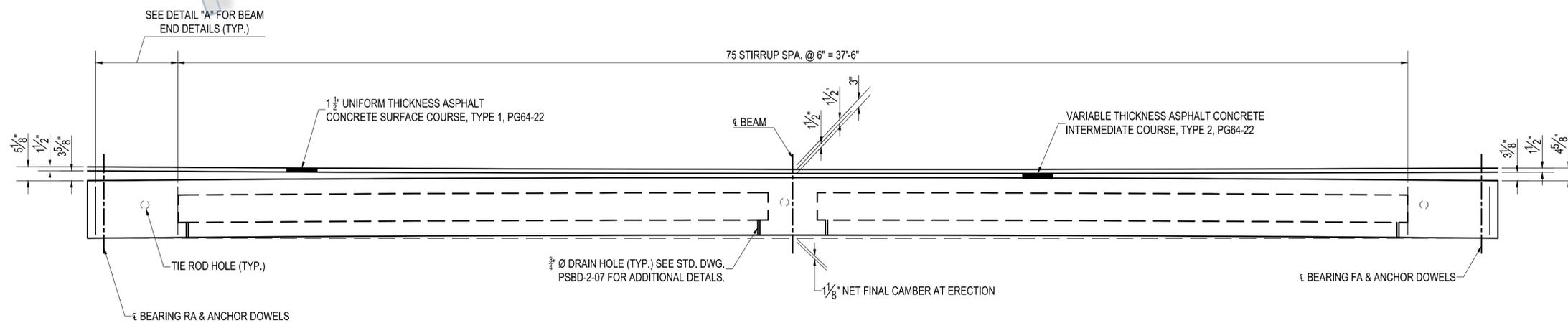


B21-48 PRESTRESSED CONCRETE BOX BEAM



DETAIL "A"

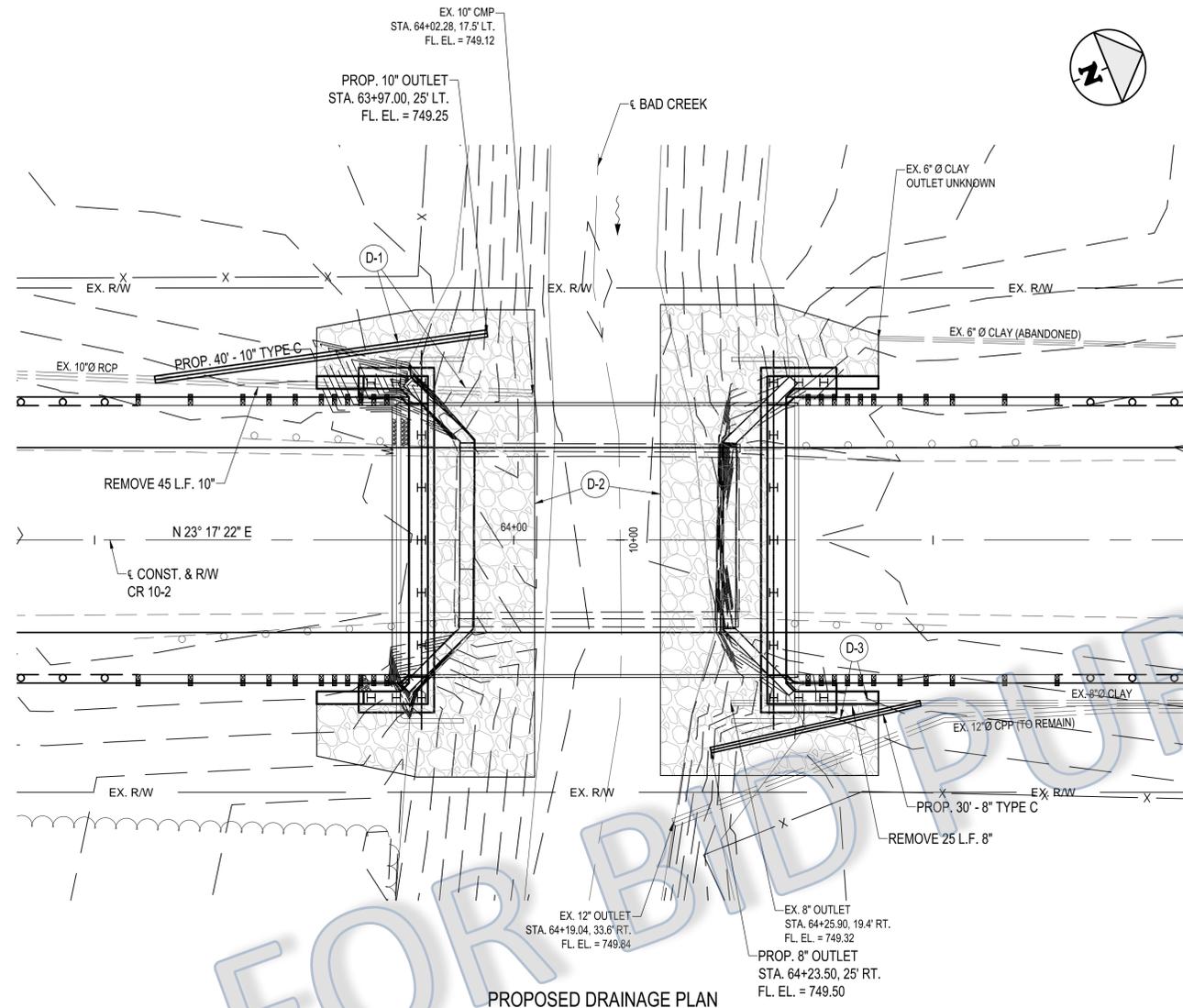
NOTE: STIRRUP SPACING SYMMETRICAL ABOUT BRIDGE CENTERLINE



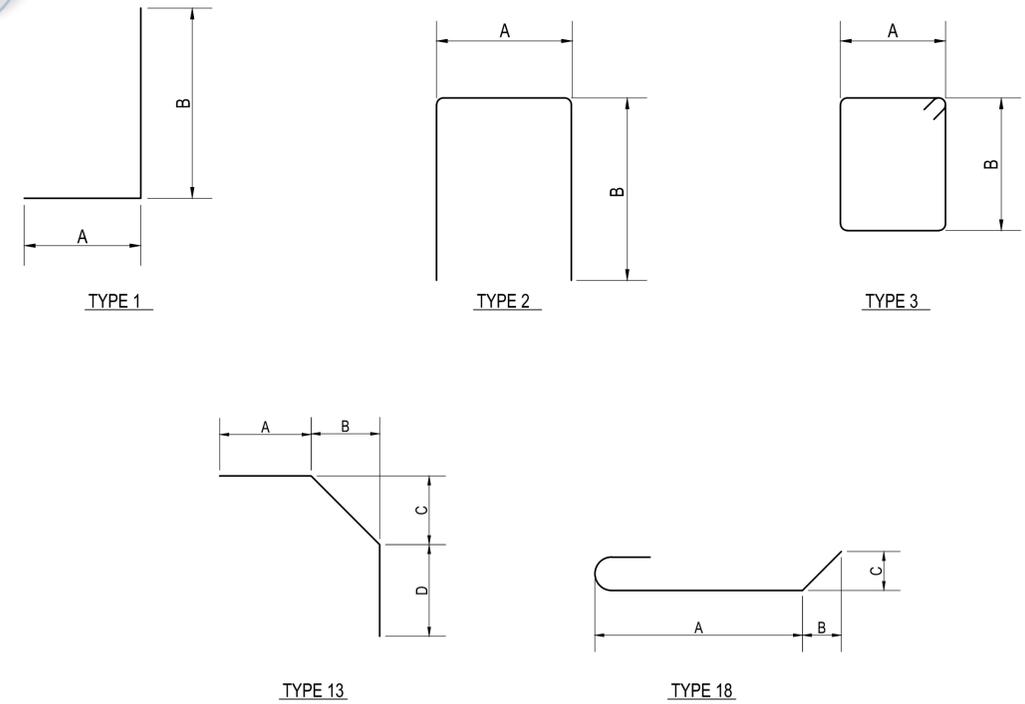
B21-48 CAMBER AND DEFLECTION
(EXTERIOR BEAM SHOWN, INTERIOR BEAM SIMILAR)

NOTES:

- PRESTRESSING STRAND:
STRAND DESCRIPTION = 1/2" Ø (A = 0.167 IN²), GRADE 270
7 WIRE, UNCOATED LOW RELAXATION PRESTRESSING STRAND
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202,500 PSI (LOW RELAXATION STRANDS)
INITIAL TENSION LOAD = 33.82 KIPS PER STRAND
- ASPHALT CONCRETE WEARING SURFACE:
ASPHALT CONCRETE WEARING SURFACE SHALL CONSIST OF A VARIABLE THICKNESS OF 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 AND 1 1/2" UNIFORM THICKNESS OF 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22. PLACE THE 448 INTERMEDIATE COURSE IN TWO OPERATIONS. THE FIRST PORTION OF THE COURSE SHALL BE OF 1 3/4" UNIFORM THICKNESS. FEATHER THE SECOND PORTION OF THE COURSE TO PLACE THE SURFACE PARALLEL TO AND 1 1/2" BELOW THE FINAL PAVEMENT SURFACE ELEVATION.
- ELASTOMERIC BEARINGS:
THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- THE FABRICATOR'S SHOP DRAWINGS SHALL SHOW COMPLETE DETAILS OF THE BEAM REINFORCING. SEE STD. DWG. PSBD-2-07 FOR ADDITIONAL BOX BEAM DETAILS.
- CAMBER FOR B21-48 BOX BEAM:
CALCULATED CAMBER AT TIME OF RELEASE IS 3/8" INCHES.
CALCULATED CAMBER AT TIME OF PAVING IS 1 1/8" INCHES.
CALCULATED LONG TERM CAMBER IS 1 1/2" INCHES.
CALCULATED DEFLECTION DUE TO DEAD LOAD APPLIED AFTER THE BEAMS ARE SET (WEIGHT OF SURFACE COURSE, RAILINGS, ETC.) IS 1/8" INCHES.



REINFORCING STEEL TABLE "RS"												
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR	FORWARD	TOTAL				A	B	C	D	E	R
A401	14	14	28	8' - 11"	167	3	1' - 9"	2' - 6"				
A402	8	8	16	9' - 11"	106	3	1' - 9"	3' - 0"				
A501	8	8	16	21' - 7"	360	STR						
A502	68	68	136	7' - 7"	1076	2	2' - 7"	2' - 8"	2' - 7"			
A503	14	14	28	38' - 8"	1129	STR						
A504	34	34	68	11' - 2"	792	2	4' - 9"	1' - 11"	4' - 9"			
A505	34	34	68	14' - 2"	1005	2	6' - 3"	1' - 11"	6' - 3"			
A506	22	22	44	6' - 4"	291	13	2' - 5"	1' - 1"	1' - 1"	2' - 5"		
A507	4	4	8	11' - 0"	92	2	4' - 8"	1' - 11"	4' - 8"			
A508	12	12	24	8' - 8"	217	STR						
A509	40	40	80	8' - 1"	674	2	2' - 7"	3' - 2"	2' - 7"			
A510	16	16	32	2' - 11"	97	STR						
A511	44	44	88	7' - 4"	673	STR						
A512	14	14	28	8' - 5"	246	2	3' - 9"	1' - 2"	3' - 9"			
A513	14	14	28	10' - 5"	304	2	4' - 9"	1' - 2"	4' - 9"			
A601	16	16	32	10' - 4"	497	2	4' - 9"	1' - 2"	4' - 9"			
A602	16	16	32	18' - 3"	877	2	8' - 8 1/2"	1' - 2"	8' - 8 1/2"			
A603	28	28	56	17' - 10"	1500	2	8' - 6"	1' - 2"	8' - 6"			
A801	8	8	16	22' - 10"	975	STR						
A802	4	4	8	38' - 8"	826	STR						
A803	8	8	16	8' - 8"	370	STR						
A804	33	33	66	5' - 8"	998	18	3' - 4"	1' - 0"	1' - 0"			
				TOTAL WEIGHT (LBS.) =		13272						



BENDING DIAGRAMS

NOTES

- BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STR" INDICATES STRAIGHT BAR.
- ALL REINFORCING STEEL TO BE EPOXY COATED.
- BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST TWO DIGITS INDICATE THE BAR SIZE NUMBER. EXAMPLE A501 IS A NO. 5 SIZE BAR.