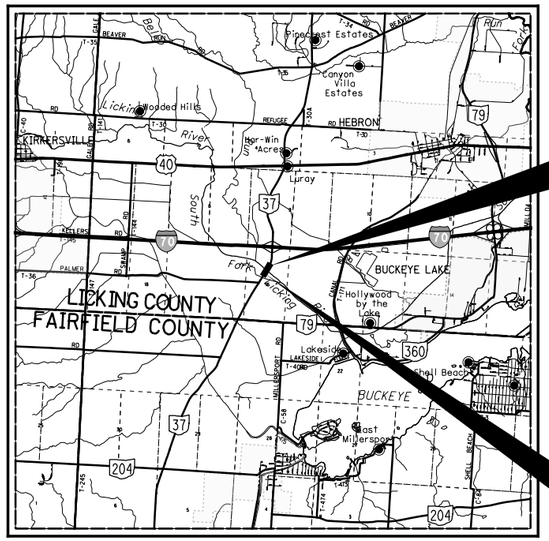
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

LIC-37-25.05

UNION TOWNSHIP

LICKING COUNTY



LOCATION MAP

LATITUDE: 39°56'15" N LONGITUDE: 82°32'10" W

N

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

INDEX OF SHEETS:

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DESIGN DESIGNATION

CURRENT ADT (2022)	11000
DESIGN YEAR ADT (2042)	13100
DESIGN HOURLY VOLUME (2042)	1310
DIRECTIONAL DISTRIBUTION	62%
TRUCKS (24 HOUR B&C)	7%
DESIGN SPEED	45 MPH
LEGAL SPEED	45 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
MINOR ARTERIAL (RURAL)
NHS PROJECT ---------- NO

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
CARPENTER MARTY transportation
6612 SINGLETREE DRIVE COLUMBUS, OH 43229
614.656.2424 * WWW.CMTRAN.COM

ROADWAY ENGINEER'S SEAL:

STATE OF OHIO
TONY W. GRIESHOP
E-70196
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Tony W Grieshop
DATE: 12/10/2021

STRUCTURES ENGINEER'S SEAL:

STATE OF OHIO
GREGORY D. JOHNSON
E-66952
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Gregory D Johnson
DATE: 12/10/2021

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	7/17/15	TST-1-99	1/15/21				
BP-2.2	1/15/21						
BP-3.1	1/17/20	MT-97.10	4/19/19				
		MT-101.60	1/17/20				
DM-4.3	1/15/16	MT-105.10	1/17/20				
DM-4.4	1/15/16						
		TC-41.20	10/18/13				
MGS-1.1	7/16/21	TC-42.20	10/18/13				
MGS-2.1	1/19/18	TC-52.10	10/18/13				
MGS-3.1	1/19/18	TC-52.20	1/15/21				
MGS-4.2	7/19/13	TC-61.30	7/19/19				
MGS-4.3	1/18/13						
AS-1-15	7/17/15						
DS-1-92	7/18/03						
PSBD-2-07	7/20/18						

SUPPLEMENTAL SPECIFICATIONS	
800-2019	1/21/22
832	10/19/18

SPECIAL PROVISIONS
ASBESTOS SURVEY REPORT 5/26/2021

FEDERAL PROJECT NUMBER

E210 (128)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

PROJECT INVOLVES REPLACING THE SUPERSTRUCTURE ON LIC-37-25.08 (SFN 4501942) WITH MINOR ROADWAY APPROACH WORK AND PROFILE ADJUSTMENT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.2 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.2 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES 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 SHEETS 6-8.

APPROVED Jason Z Stuyve
DATE 12/21/2021 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER KDW
REVIEWER TWG 12-07-21
PROJECT ID 114392
SHEET 1 TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:14 AM USER: BRussell
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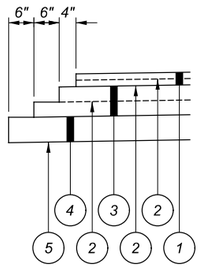
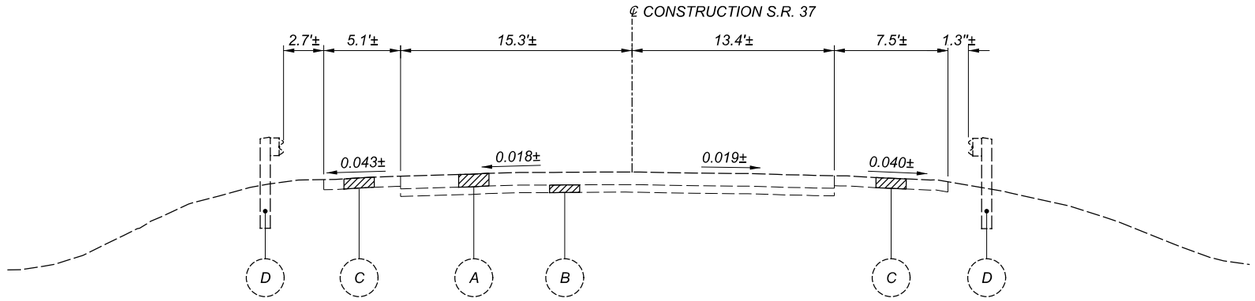
LEGEND

1	ITEM 441	3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (1.5 IN. MAX LIFT THICKNESS)
2	ITEM 407	NON-TRACKING TACK COAT
3	ITEM 301	9" ASPHALT CONCRETE BASE, PG64-22
4	ITEM 304	6" AGGREGATE BASE
5	ITEM 204	SUBGRADE COMPACTION
6	ITEM 606	GUARDRAIL, TYPE MGS WITH LONG POSTS
7	ITEM 659	SEEDING AND MULCHING
8	ITEM 605	AGGREGATE DRAINS
9	ITEM 526	REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN
10	ITEM 452	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P

A	EXISTING 10"± ASPHALT CONCRETE
B	EXISTING 6"± AGGREGATE BASE
C	EXISTING 8" SHOULDER
D	EXISTING GUARDRAIL
E	EXISTING 10"± CONCRETE

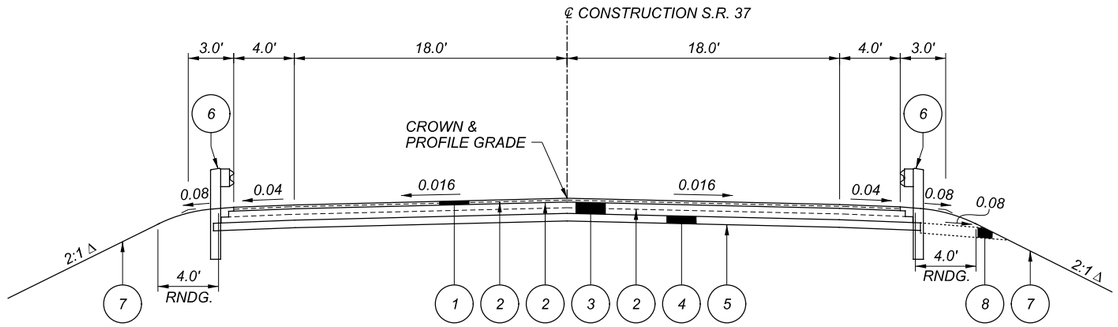


BASE AND
SUBBASE STEP DETAIL



EXISTING ADJOINING NORMAL SECTION - S.R. 37

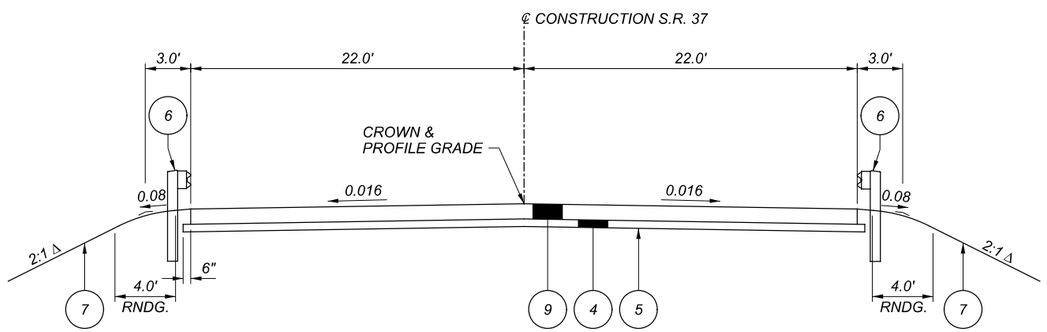
SECTION APPLIES:
STA. 42+50.00



PROPOSED NORMAL SECTION - S.R. 37

SECTION APPLIES:
STA. 42+50.00 TO STA. 42+80.08

Δ OR AS SHOWN IN THE CROSS SECTIONS



APPROACH SLAB NORMAL SECTION - S.R. 37

SECTION APPLIES:
STA. 42+80.08 TO STA. 42+95.08
STA. 43+92.85 TO STA. 44+07.85

TYPICAL SECTIONS

LIC-37-25.05

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DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
KDW

REVIEWER
TWG 12-07-21

PROJECT ID
114392

SHEET 2 TOTAL 33

LEGEND

1	ITEM 441	3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (1.5 IN. MAX LIFT THICKNESS)
2	ITEM 407	NON-TRACKING TACK COAT
3	ITEM 301	9" ASPHALT CONCRETE BASE, PG64-22
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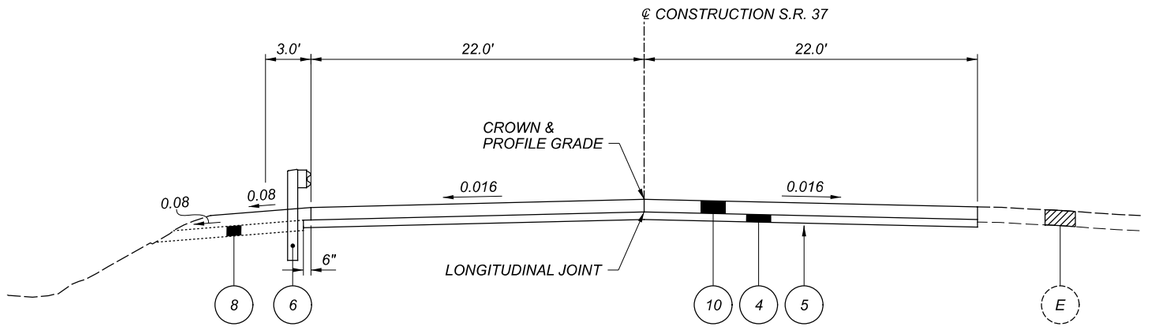
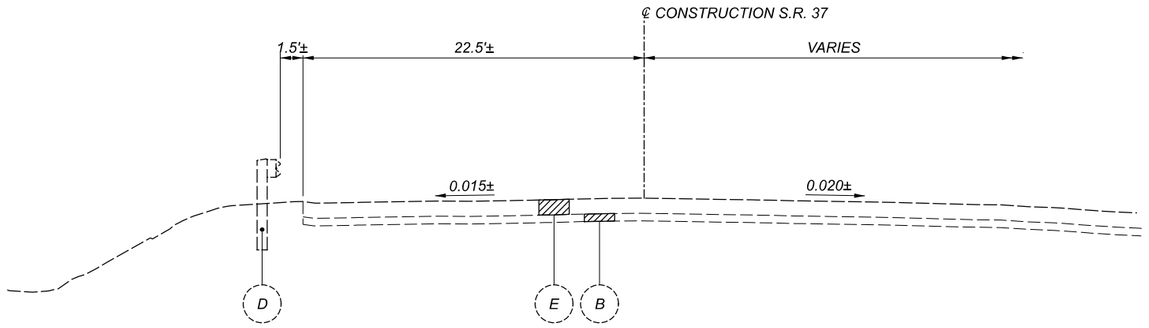
C	EXISTING 8" SHOULDER
D	EXISTING GUARDRAIL
E	EXISTING 10"± CONCRETE



PROPOSED NORMAL SECTION - S.R. 37

SECTION APPLIES:
STA. 44+07.85 TO STA. 44+22.00



EXISTING ADJOINING NORMAL SECTION - S.R. 37

SECTION APPLIES:
STA. 44+22.00

TYPICAL SECTIONS

DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER
KDW

REVIEWER
TWG 12-07-21

PROJECT ID
114392

SHEET 3 TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:40 AM USER: BRussell
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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:

WATER:
LICKING COUNTY UTILITIES
4455C WALNUT RD.
BUCKEYE LAKE, OHIO 43008
P.O. BOX 845
ATTN: KEVIN EBY
740-928-0302
wbilling@Lcounty.com

ELECTRIC:
SOUTH CENTRAL POWER CO.
2780 COONPATH ROAD, NE
P.O. OFFICE BOX 250
LANCASTER, OHIO 43130
ATTN: MIKE CHALFAN
740-689-6198
chalfan@southcentralpower.com

GAS:
DOMINION ENERGY
21 EAST STATE STREET #911
COLUMBUS, OHIO 43214
ATTN: TRACY
330-478-3104
Tracy14@dominionenergy.com
Relocation@dominionenergy.com

GAS:
NATIONAL GAS AND OIL COOPERATIVE
120 O'NEIL DRIVE
HEBRON, OHIO 43025
ATTN: GREG WILSON
740-348-1254
GWilson@theenergycoop.com

TELECOM:
FRONTIER COMMUNICATIONS
1300 SANDUSKY ROAD
MARION, OHIO 43302
ATTN: ROBERT CHANDLER
740-369-0826
robert.L.chandler@ftr.com

TELECOM:
SPECTRUM CABLE TV
3770 EAST LIVINGSTON AVE.
COLUMBUS, OHIO 43227-2280
ATTN: ANTHONY ADAMS
614-827-7971
Anthony.Adams@charter.com

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.

POWER LINES

THE CONTRACTOR FOR THIS PROJECT MUST BE QUALIFIED TO WORK IN CLOSE PROXIMATY TO OVERHEAD PRIMARY ELECTRIC LINES, AND FOLLOW ALL OSHA RULES AND REQUIREMENTS TO MAINTAIN THE MINIMUM CLEARANCE DISTANCE PER SECTION 1407-1411 OF THE OSHA SMALL ENITITY COMPLIANCE GUIDE FOR THE FINAL RULE FOR CRANES AND DERRICKS IN CONSTRUCTION. INFORMATION NEEDED TO FULFILL THE OSHA REQUIREMENTS SHOULD BE OBTAINED FROM SOUTH CENTRAL POWER COMPANY. (SEE UTILITY CONTACTS ABOVE)

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.

EXISTING PLANS

EXISTING PLANS ENTITLED LIC-37-25.63 (1983) MAY BE INSPECTED IN THE ODOT DISTRICT 5 OFFICE IN JACKSONTOWN.

SURVEYING PARAMETERS

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

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

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: TYPE B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE
COMBINED SCALE FACTOR: 1.00005373
ORIGIN OF COORDINATE
SYSTEM: 0,0

USE THE POSITIONING METHODS 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. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH C&MS 623.

UNITS ARE IN U.S. SURVEY FEET.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST 2 EACH

659, TOPSOIL 41 CY
(371 SY)(111 CY/1000 SY)= 41.2 CY

659, REPAIR SEEDING AND MULCHING 19 SY
(371 SY)(0.05)= 18.6 SY

659, COMMERCIAL FERTILIZER 0.05 TON
(371 SY)/(7410 TON/SY)= 0.050 TON

659, LIME 0.08 ACRE
(371 SY)/(4840 SY/ACRE)= .077 ACRE

659, WATER 2 M GAL.
(371 SY)(0.0054 M GAL / SY)= 2.0 M GAL.

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 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD & MAPPING SERVICES WEBSITE. AN EMAIL CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO Cody.Gierhart@dot.ohio.gov AFTER ALL INFORMATION HAS BEEN COLLECTED. THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING NAME OF SURVEYOR, DATE(S) OF COLLECTION, HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO STATE PLANE COORDINATE SYSTEM NORTH OR SOUTH), VERTICAL DATUM (I.E. NAVD 88, GEOID12A) AND METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.) AND BE IN A TABLE FORM AS FOLLOWS:

POINT NUMBER, NORTHING, EASTING, ELEVATION, FEATURE CODE, DESCRIPTION

BELOW IS A LIST OF THE ITEMS THE CONTRACTOR IS REQUIRED TO PROVIDE FOR THE PROJECT:

- GUARDRAIL (BEGIN, END, TYPE OF END TERMINAL FOR EACH RUN)

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE OHIO DEPARTMENT OF TRANSPORTATION SURVEY & MAPPING SPECIFICATIONS MANUAL.

ALL COST ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

IN ADDITION TO THE ABOVE REQUIREMENTS, THE LOCATIONS OF ALL PROPOSED GUARDRAIL INSTALLATIONS SHALL BE STAKED BY THE CONTRACTOR PRIOR TO INSTALLATION ON THIS PROJECT. THE CONTRACTOR IS REQUIRED TO STAKE EACH LOCATION TO INDICATE THE BEGINNING AND END OF EACH GUARDRAIL RUN. THIS WILL ALSO INCLUDE INDICATING THE TYPE OF END TREATMENT TO BE INSTALLED AT EACH LOCATION. THE CONTRACTOR SHALL STAKE EACH LOCATION AT LEAST TWO (2) DAYS PRIOR TO INSTALLATION.

BEFORE GIVING THE CONTRACTOR FINAL APPROVAL TO INSTALL THE RUN OF GUADRAIL, THE PROJECT ENGINEER MAY ADJUST THE LOCATION AS STAKED TO PROVIDE THE MAXIMUM PROTECTION FOR THE TRAVELING PUBLIC. NO GUARDRAIL WILL BE INSTALLED UNTIL THE PROJECT ENGINEER GIVE THE CONTRACTOR APPROVAL FOR EACH LOCATION.

PAYMENT FOR STAKING WILL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK AS DESCRIBED ABOVE AND WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

CENTERLINE CONSTRUCTION REFERENCES AND BENCHMARKS

			GRID		GROUND			
STATION	OFFSET (FT)	SIDE	NORTHING	EASTING	NORTHING	EASTING	ELEVATION	DESCRIPTION
32+25.06		℄	704925.457	1957603.147	704963.333	1957708.329		POT
35+95.65	18.34	RT	705230.209	1957814.768	705268.101	1957919.962	895.75	IRON PIN SET W/CAP, CP03
41+30.70	23.32	LT	705706.252	1958062.485	705744.170	1958167.692	894.91	IRON PIN SET W/CAP, CP02
43+93.25	34.96	RT	705898.208	1958250.840	705936.136	1958356.057	893.44	IRON PIN SET W/CAP, CP01
44+82.60		℄	705992.513	1958268.444	706030.446	1958373.662		TS
53+12.46		℄	706770.610	1958514.482	706808.585	1958619.713		ST

PROJECT SCALE FACTOR: 1.00005373

ITEM 605 - AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT THE FOLLOWING LOCATIONS AND THE TOTAL QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

STATE ROUTE 37
STA. 42+70.00, RT. 5 FT.
STA. 44+22.00, LT. 9 FT.
TOTAL = 14 FT.

ITEM 407 - NON-TRACKING TACK COAT

THE RATE OF APPLICATION OF THE ITEM 407, NON-TRACKING TACK COAT SHALL BE PER CMS TABLE 407.06-1 AND SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.08 GAL/SY FOR TACK COAT UNDER THE INTERMEDIATE COURSE AND AN AVERAGE APPLICATION RATE OF 0.05 GAL/SY FOR TACK COAT UNDER THE SURFACE COURSE, (FOR ESTIMATING PURPOSES ONLY).

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. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

REMOVED MATERIALS

ALL REMOVED MATERIALS EXCEPT AS NOTED ELSEWHERE IN THE PLANS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE JOB SITE.

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.

GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER
KDW

REVIEWER
TWG 12-07-21

PROJECT ID
114392

SHEET 4 TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:41 AM USER: BRussell
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ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE B, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE T, AS PER PLAN

ANCHOR ASSEMBLY, MGS TYPE T, AS PER PLAN SHALL BE PLACED IN ACCORDANCE WITH C&MS ITEM 606 GUARDRAIL AND ROADWAY SCD MGS-4.2 WITH THE FOLLOWING EXCEPTION:

THE BCT TIMBER POST (POST NO. 2 IN SCD MGS-4.2) SHALL BE OMITTED FROM THE ASSEMBLY. THE LENGTH OF THE W-BEAM TERMINAL RAIL SHALL BE REDUCED AND THE ANCHOR BRACKET ASSEMBLY CONNECTION TO THE W-BEAM TERMINAL RAIL SHALL OCCUR BETWEEN POST NO. 1 AND THE FINAL POST (POST NO. 13 IN SCD MGS-3.1) OF THE BRIDGE TERMINAL ASSEMBLY.

PAYMENT WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY FOR CONSTRUCTION OF THE ANCHOR ASSEMBLY.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING

WHERE NEW CONCRETE IS PLACED ADJACENT TO AND TIED TO EXISTING CONCRETE, THE CONTRACTION JOINT SPACING REQUIRED IN STANDARD CONSTRUCTION DRAWING BP-2.2 WILL BE WAIVED. CONSTRUCT CONTRACTION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL CONTRACTION JOINTS IN THE EXISTING CONCRETE PAVEMENT. INSTALL EXPANSION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL EXPANSION JOINTS IN THE EXISTING CONCRETE PAVEMENT.

INSPECTION FOR BATS AND NESTING BIRDS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS AND/OR NESTING BIRDS. IF ANY BATS OR NESTING BIRDS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

NEST REMOVAL

DISTRICT 5 PERSONAL WILL KNOCK DOWN INACTIVE BIRD NESTS BETWEEN AUGUST 31 AND MAY 1 AND PREVENT ANY BIRDS FROM NESTING BY BLOCKING ACCESS OR KNOCKING DOWN NEW NESTS BEFORE EGGS ARE LAID.

IN-STREAM WORK

DO NOT PLACE ANY TEMPORARY OR PERMANENT FILL WITHIN THE JURISDICTIONAL BOUNDARIES OF ALL STREAMS, WETLANDS, AND JURISDICTIONAL DITCHES DURING CONSTRUCTION OF THIS PROJECT, INCLUDING SCAFFOLDING OR BRACING. DO NOT PLACE ANY EQUIPMENT WITHIN THE JURISDICTIONAL BOUNDARY OF ANY WATERWAY. IF DEBRIS ENTERS THE WATERWAY DURING CONSTRUCTION, REMOVE THE DEBRIS IMMEDIATELY USING EQUIPMENT STAGED OUTSIDE THE JURISDICTIONAL BOUNDARY.

SWALLOW NESTS

ECOLOGICAL STUDIES IDENTIFIED SWALLOW NESTS ON THE BRIDGE. IF CONSTRUCTION ACTIVITIES WILL OCCUR BETWEEN MAY 1 AND AUGUST 31 ON THIS STRUCTURE, INSPECT THE STRUCTURE FOR EVIDENCE OF AN ACTIVE BIRD NEST CONTAINING AN EGG OR CHICK PRIOR TO STARTING WORK. PROVIDE WRITTEN CONFIRMATION OF THE INSPECTION, INCLUDING A STATEMENT WHETHER AN ACTIVE NEST WAS FOUND, TO THE ENGINEER. IF NO NESTS ARE ENCOUNTERED DURING THE INSPECTION, OR IF ONLY INACTIVE NESTS THAT DO NOT CONTAIN AN EGG OR CHICK ARE ENCOUNTERED, PROCEED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR MAY REMOVE AND DESTROY INACTIVE NESTS. THE CONTRACTOR MAY INSTALL EXCLUSION MEASURES BETWEEN AUGUST 31 AND MAY 1 TO PREVENT MIGRATORY BIRDS FROM NESTING ON THE STRUCTURE. PROJECTS PERFORMING CONSTRUCTION ACTIVITIES BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 30 DO NOT REQUIRE AN INSPECTION FOR MIGRATORY BIRDS OR AVOIDANCE MEASURES. IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK IS ENCOUNTERED, AVOID IMPACTS TO THE NEST UNTIL ALL DEVELOPING BIRDS ARE ABLE TO INDEPENDENTLY FLY FROM THE NEST. IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK CANNOT BE AVOIDED, CONTACT THE ENGINEER AT LEAST 4 WEEKS PRIOR DESTROYING AN ACTIVE NEST SO THE DEPARTMENT CAN OBTAIN A DEPREDATION PERMIT FROM THE U.S. FISH AND WILDLIFE SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND COMPLETING ALL TASKS RELATED TO OBTAINING THE DEPREDATION PERMIT EXCEPT FOR DIRECT COORDINATION WITH THE MIGRATORY BIRD REGIONAL PERMIT OFFICE. DO NOT PROCEED WITH ACTIVITIES THAT WILL IMPACT AN ACTIVE NEST UNTIL THE DEPARTMENT CONFIRMS THE DEPREDATION PERMIT IS RECEIVED.

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:42 AM USER: BRussell
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DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER
KDW

REVIEWER
TWG 12-07-21

PROJECT ID
114392

SHEET 5 TOTAL 33

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 45 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8 . A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

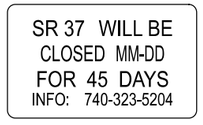
LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY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

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP 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 OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.



W20-H13-60

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

100 FT. SOUTH AND 25 FT. NORTH OF LIC-37-25.08

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS:

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B 10 CY
ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C 10 CY
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 10 CY
ITEM 616, WATER 10 M GAL.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 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.

INCENTIVE/DISINCENTIVE CONTRACT TABLE

USE THE FOLLOWING INFORMATION IN COMBINATION WITH PROPOSAL NOTE 121 AS LISTED IN THE PROPOSAL. THIS PROJECT FALLS WITHIN LAKEWOOD LOCAL SCHOOL DISTRICT, NATIONAL TRAIL RACEWAY, AND BUCKEYE LAKE STATE PARK/MARINA. THIS PROJECT SHALL DETOUR TRAFFIC ON S.R. 37, MINIMIZING IMPACTS TO LAKEWOOD LOCAL SCHOOL SEASON WHILE AVOIDING IMPACTS TO THE SWEET CORN FESTIVAL HELD IN NEARBY MILLERSPORT IN MID-SEPTEMBER.

THIS PROJECT SHALL DETOUR TRAFFIC ON S.R. 37 ONLY BETWEEN JUNE 01, 2022 AND THE DATE SHOWN IN THE TABLE BELOW.

CONTRACT SEGMENT – LOCATION OF CRITICAL WORK	COMPLETION DATE	TIME PERIOD	DISINCENTIVE $ PER TIME PERIOD	INCENTIVE $ PER TIME PERIOD	MAXIMUM INCENTIVE $
BRIDGE SUPERSTRUCTURE REPLACEMENT @ BRIDGE NO. LIC-37-25.08 – 2 LANES OF S.R. 37 CLOSED WITHIN PROJECT LIMITS	8/31/2022	DAY	$5,000	$5,000	$30,000

ITEM 614 - DETOUR SIGNING

THE CONTRACTOR SHALL PROVIDE, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL DETOUR SIGNING AND SUPPORTS AS SHOWN ON SHEET 8 AND ON MT-101.60. PAYMENT FOR ALL LABOR,EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - DETOUR SIGNING.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SHALL BE USED AT THE INTERSECTION OF S.R. 158 AND S.R. 204 TO ACCOMODATE TRUCK TURNS WHILE TRAFFIC IS DETOURED. THE FOLLOWING QUANTITY CARRIED TO THE GENERAL SUMMARY IS BASED ON APPROXIMATELY 450 SQUARE FEET OF PAVEMENT BEING PLACED AT THE NE CORNER OF THE INTERSECTION. THE PAVEMENT SHALL REMAIN IN PLACE AFTER CONSTRUCTION IS COMPLETE.

ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN 50 SY

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE FOLLOWING INFORMATION:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT 614-887-4510 OR EMAIL AT D05.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION BY FAX AT 614-887-4525 OR EMAIL AT BRIAN.BOSCH@DOT.OHIO.GOV

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT 614-728-4099 OR EMAIL AT HAULING.PERMIT@DOT.OHIO.GOV

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE-MENTIONED ITEMS, VIA MEDIA SOURCES.

MAINTENANCE OF TRAFF GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER KDW
REVIEWER TWG 10-22-21
PROJECT ID 114392
SHEET 6 TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:44 AM USER: BRussell
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ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, 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 800 FEET AND 650 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 C&MS 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 C&MS 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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 8 SIGN MONTH
(ASSUMING 4 PCMS SIGNS FOR 2 MONTHS)

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 OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, 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.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

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.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

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. 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 THAT 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 QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 40 HOURS

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 A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

MAINTENANCE OF TRAFF GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
KDW

REVIEWER
TWG 10-22-21

PROJECT ID
114392

SHEET 7 TOTAL 33

LIC-37-25.05

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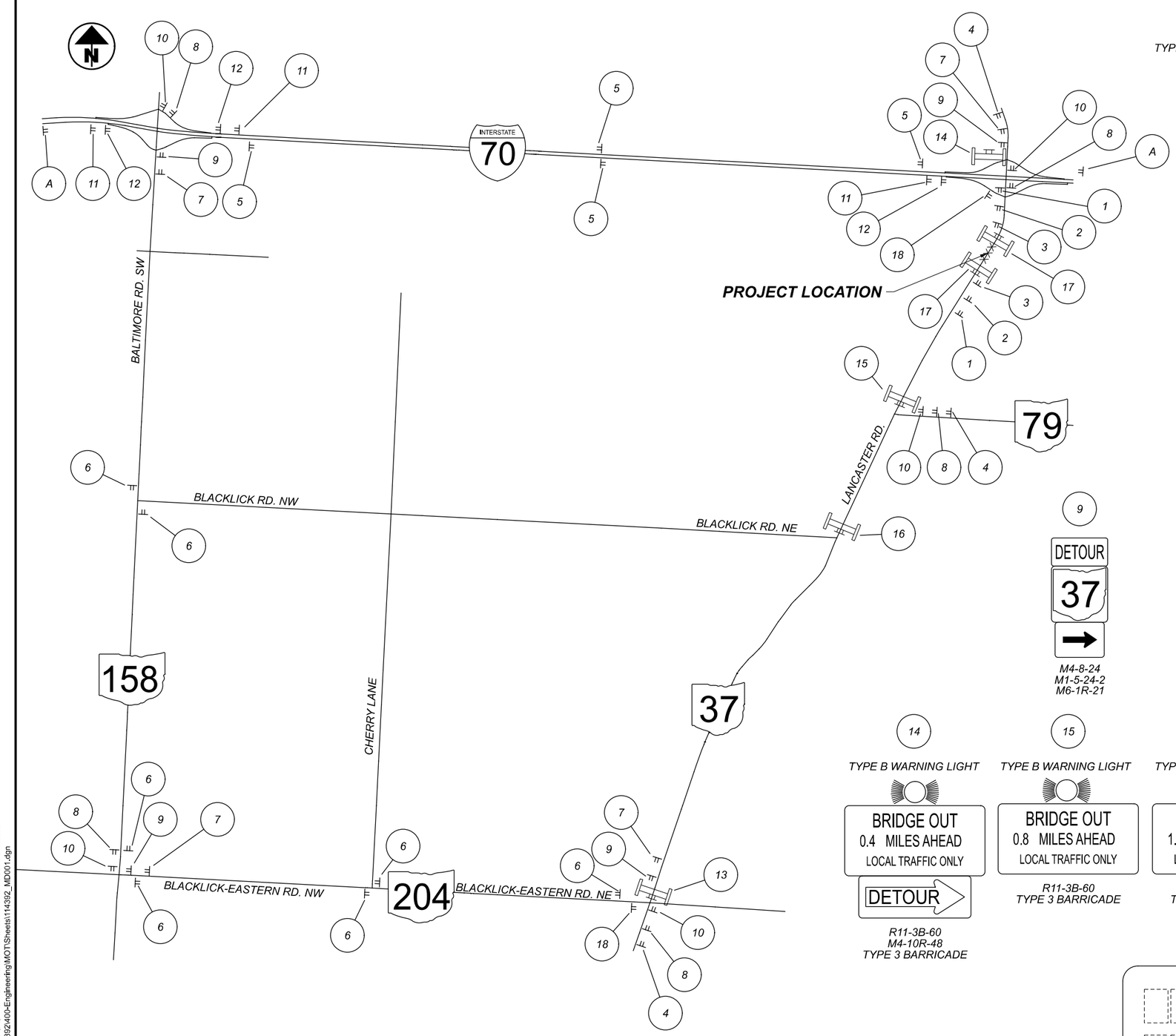

1 — TYPE A WARNING LIGHT
ROAD WORK AHEAD
W20-1-48

2 — TYPE A WARNING LIGHT
ROAD CLOSED AHEAD
1000 FEET
W20-3-48
W16-2P-30

3
ROAD CLOSED AHEAD
500 FEET
W20-3-48
W16-2P-30

4
DETOUR AHEAD
W20-2-36

5
DETOUR
37
M4-8-30
M1-5-36-2

6
DETOUR
37
M4-8-24
M1-5-24-2
M6-3-21

7
DETOUR
37
M4-8-24
M1-5-24-2
M5-1R-21

8
DETOUR
37
M4-8-24
M1-5-24-2
M5-1L-21

9
DETOUR
37
M4-8-24
M1-5-24-2
M6-1R-21

10
DETOUR
37
M4-8-24
M1-5-24-2
M6-1L-21

11
DETOUR
37
M4-8-30
M1-5-36-2
M5-2R-30

12
DETOUR
37
M4-8-30
M1-5-36-2
M6-2R-30

13 — TYPE B WARNING LIGHT
BRIDGE OUT
3.0 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR
R11-3B-60
M4-10L-48
TYPE 3 BARRICADE

14 — TYPE B WARNING LIGHT
BRIDGE OUT
0.4 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR
R11-3B-60
M4-10R-48
TYPE 3 BARRICADE

15 — TYPE B WARNING LIGHT
BRIDGE OUT
0.8 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B-60
TYPE 3 BARRICADE

16 — TYPE B WARNING LIGHT
BRIDGE OUT
1.3 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B-60
TYPE 3 BARRICADE

17 — TYPE B WARNING LIGHT
ROAD CLOSED
R11-2-48
TYPE 3 BARRICADE

18
END DETOUR
M4-8A-24

A

PCMS

SR 37	USE
SOUTH	EXIT 122
CLOSED	SR 158

DETOUR PLAN

LIC-37-25.05

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DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	JJL
REVIEWER	TWG 10-22-21
PROJECT ID	114392
SHEET	8
TOTAL	33

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
						4	6	7	10	11	16	33	01/NFP/ BR						
																		ROADWAY	
						LS							LS	201	11000	LS		CLEARING AND GRUBBING	
									212				212	202	23000	212	SY	PAVEMENT REMOVED	
										385			385	202	38000	385	FT	GUARDRAIL REMOVED	
											73		73	203	10000	73	CY	EXCAVATION	
											58		58	203	20000	58	CY	EMBANKMENT	
									389				389	204	10000	389	SY	SUBGRADE COMPACTION	
										200			200	606	15100	200	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
										1			1	606	26050	1	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
										2			2	606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
										1			1	606	26551	1	EACH	ANCHOR ASSEMBLY, MGS TYPE T, AS PER PLAN	5
										4			4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
																		EROSION CONTROL	
										10			10	601	34100	10	CY	ROCK CHANNEL PROTECTION, TYPE B WITHOUT FILTER	
						2							2	659	00100	2	EACH	SOIL ANALYSIS TEST	
						41							41	659	00300	41	CY	TOPSOIL	
											371		371	659	10000	371	SY	SEEDING AND MULCHING	
						19							19	659	14000	19	SY	REPAIR SEEDING AND MULCHING	
						0.05							0.05	659	20000	0.05	TON	COMMERCIAL FERTILIZER	
						0.08							0.08	659	31000	0.08	ACRE	LIME	
						2							2	659	35000	2	MGAL	WATER	
													5,000	832	30000	5,000	EACH	EROSION CONTROL	
																		DRAINAGE	
						14							14	605	31100	14	FT	AGGREGATE DRAINS	
																		PAVEMENT	
									38				38	301	46000	38	CY	ASPHALT CONCRETE BASE, PG64-22	
									63				63	304	20000	63	CY	AGGREGATE BASE	
									31				31	407	20000	31	GAL	NON-TRACKING TACK COAT	
									12				12	441	50100	12	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M	
									71				71	452	14010	71	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
																		TRAFFIC CONTROL	
										6			6	626	00110	6	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
										8			8	630	02100	8	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
										2			2	630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
										1			1	630	86002	1	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
										0.06			0.06	646	10010	0.06	MILE	EDGE LINE, 6"	
										0.06			0.06	646	10200	0.06	MILE	CENTER LINE	
										90			90	646	10600	90	FT	TRANSVERSE/DIAGONAL LINE	
																		STRUCTURE OVER 20 FOOT SPAN (LIC-37-25.08)	19
																		MAINTENANCE OF TRAFFIC	
							10						10	410	12000	10	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
							10						10	410	13000	10	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
								40					40	614	11110	40	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
							LS						LS	614	12420	LS		DETOUR SIGNING	
							10						10	614	13000	10	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
								8					8	614	18601	8	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	7
													LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
							50						50	615	20001	50	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	6
							10						10	616	10000	10	MGAL	WATER	
																		INCIDENTALS	
							LS						LS	614	11000	LS		MAINTAINING TRAFFIC	
													LS	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	4
													LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER JJL

REVIEWER TWG 12-07-21

PROJECT ID 114392

SHEET 9 TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:47 AM USER: BRussell
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STATION RANGE			ROUTE	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	301 9" ASPHALT CONCRETE BASE, PG64-22	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT (0.05 GAL/SY)	407 NON-TRACKING TACK COAT (0.08 GAL/SY)	441 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M	452 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P							
					FT	FT	SY	SY	SY	SY	CY	CY	GAL	GAL	CY	SY							
42+50.00	TO	42+80.08	SR 37	LT/RT	30.08	42.30	141.38		141.4														
42+50.00	TO	42+80.08	SR 37	LT/RT	30.08	44.00	147.06						7.4	11.8	12.3								
42+50.00	TO	42+80.08	SR 37	LT/RT	30.08	44.67	149.29				18.7			11.9									
42+50.00	TO	42+80.08	SR 37	LT/RT	30.08	45.67	152.63				19.1												
42+50.00	TO	42+80.08	SR 37	LT/RT	30.08	46.67	155.97					26.0											
42+50.00	TO	42+80.08	SR 37	LT/RT	30.08	47.00	157.08			157.1													
42+80.08	TO	42+95.08	SR 37	LT/RT	15.00	45.00	75.00					12.5											
42+80.08	TO	42+95.08	SR 37	LT/RT	15.00	47.00	78.33			78.3													
43+92.85	TO	44+07.85	SR 37	LT/RT	15.00	45.00	75.00					12.5											
43+92.85	TO	44+07.85	SR 37	LT/RT	15.00	47.00	78.33			78.3													
44+07.85	TO	44+22.00	SR 37	LT/RT	14.15	45.09	70.89		70.9							70.9							
44+07.85	TO	44+22.00	SR 37	LT/RT	14.15	46.09	72.46					12.1											
44+07.85	TO	44+22.00	SR 37	LT/RT	14.15	48.09	75.61			75.6													
TOTALS CARRIED TO GENERAL SUMMARY									212.3 212	389.4 389	37.7 38	63.1 63	7.4	23.7 31	12.3 12	70.9 71							

PAVEMENT CALCULATIONS

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER JJL

REVIEWER TWG 12-07-21

PROJECT ID 114392

SHEET 10 TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:48 AM USER: BRussell
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ESTIMATED QUANTITIES

REF. NO.	SHEET NO.	LOCATION	STATION FROM	STATION TO	SIDE	202 GUARDRAIL REMOVED (FT)	601 ROCK CHANNEL PROTECTION, TYPE B WITHOUT FILTER (CY)	606 GUARDRAIL TYPE MGS WITH LONG POSTS (FT)	606 ANCHOR ASSEMBLY, MGS TYPE B (EACH)	606 ANCHOR ASSEMBLY, MGS TYPE T (EACH)	606 ANCHOR ASSEMBLY, MGS TYPE T, AS PER PLAN (EACH)	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 (EACH)	626 BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL (EACH)	630 GROUND MOUNTED SUPPORT, NO. 2 POST (FT)	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION (EACH)	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL (EACH)	646 EDGE LINE, 6" (MILE)	646 CENTER LINE (DOUBLE SOLID) (MILE)	646 TRANSVERSE/ DIAGONAL LINE (FT)			
CL-1	12	S.R. 37	42+50.00	44+22.00	LT/RT													0.06	90			
EW-1	12	S.R. 37	42+50.00	44+22.00	RT												0.03					
EW-2	12	S.R. 37	42+50.00	44+22.00	LT												0.03					
E-1	12	S.R. 37	42+94.33	43+02.80	LT/RT		5															
E-2	12	S.R. 37	43+85.15	43+93.59	LT/RT		5															
GR-1	12	S.R. 37	41+41.65	42+90.10	RT	164		125		1		1	2									
GR-2	12	S.R. 37	41+88.64	42+95.58	LT	115		37.5	1			1	2									
GR-3	12	S.R. 37	43+92.31	44+03.60	RT	28					1	1	1									
GR-4	12	S.R. 37	43+97.83	44+57.44	LT	78		37.5		1		1	1									
SN-1	12	S.R. 37	42+10		LT									8	2	1						
TOTALS CARRIED TO GENERAL SUMMARY						385	10	200	1	2	1	4	6	8	2	1	0.06	0.06	90			

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:45:49 AM USER: BRussell
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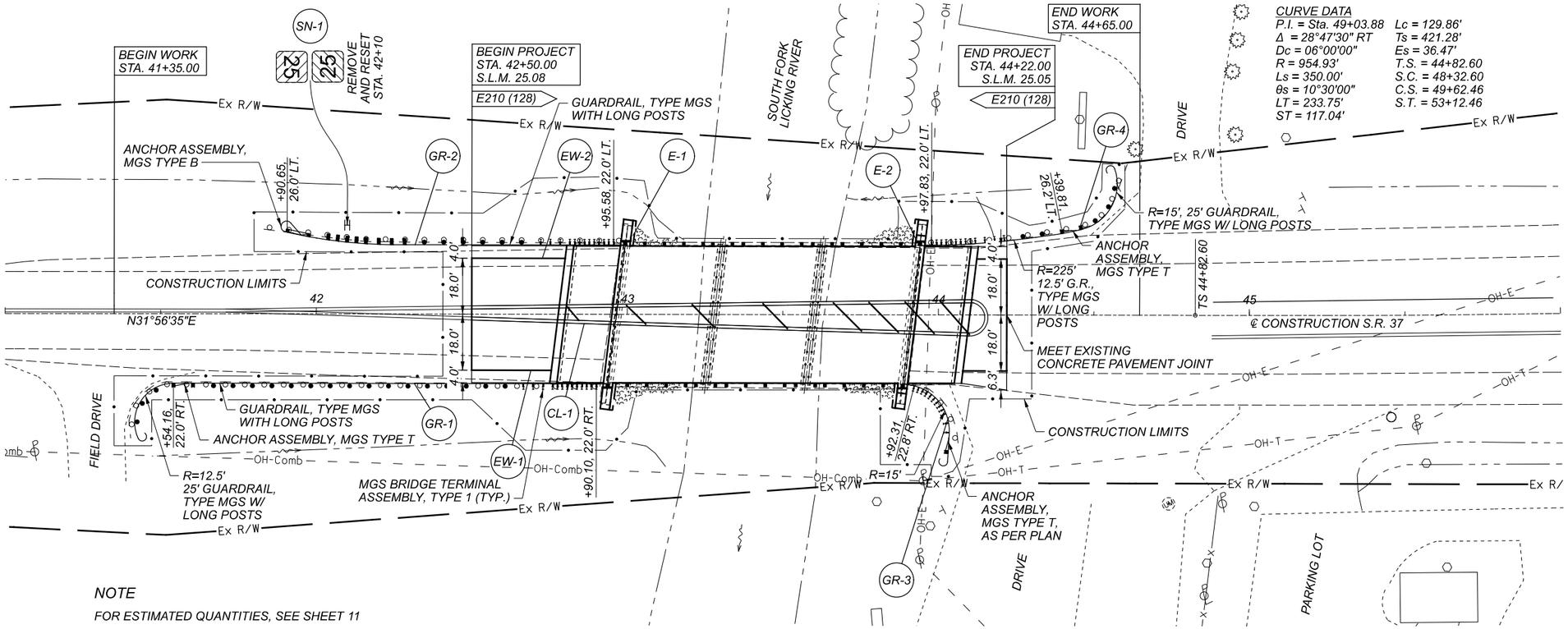
DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
JJL

REVIEWER
TWG 12-07-21

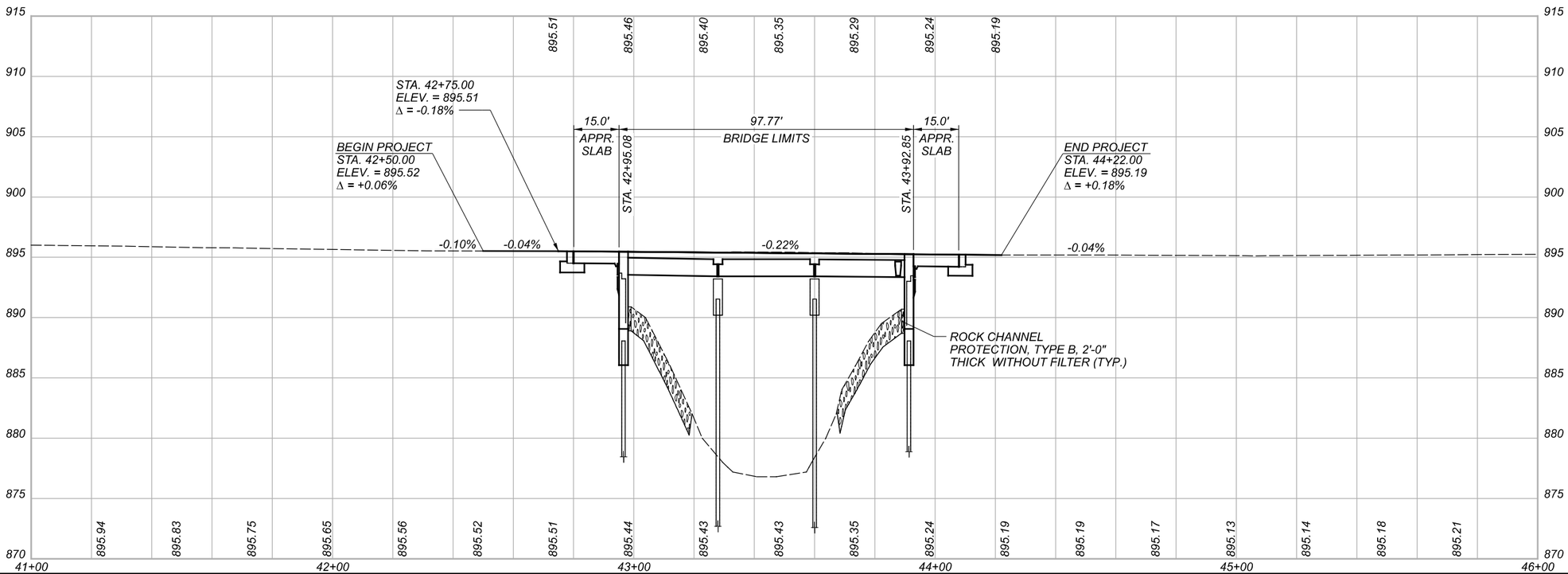
PROJECT ID
114392

SHEET 11 TOTAL 33



NOTE

FOR ESTIMATED QUANTITIES, SEE SHEET 11



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE
STA. 41+00.00 TO STA. 46+00.00

LIC-37-25.05

MODEL: GP001(Sheet) PAPERSIZE: 17x11(in.) DATE: 1/6/2022 TIME: 8:45:50 AM USER: BRussell
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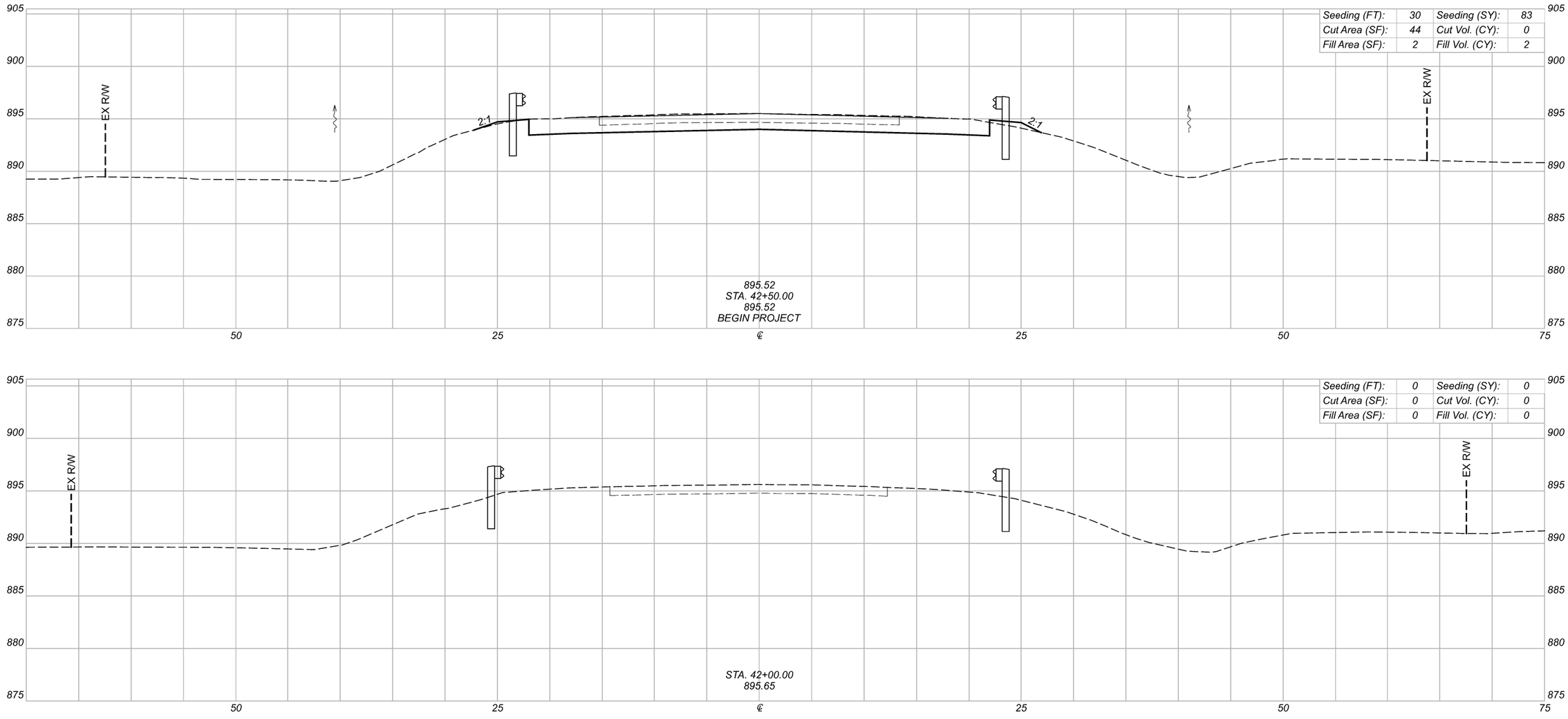
DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER	KDW
REVIEWER	TWG 12-07-21
PROJECT ID	114392
SHEET	12
TOTAL	33



CROSS SECTIONS
STA. 42+00.00 TO STA. 42+50.00

LIC-37-25.05

MODEL: Sheet | PAPERSIZE: ITxII (in.) DATE: 1/6/2022 TIME: 8:45:56 AM USER: BRussell
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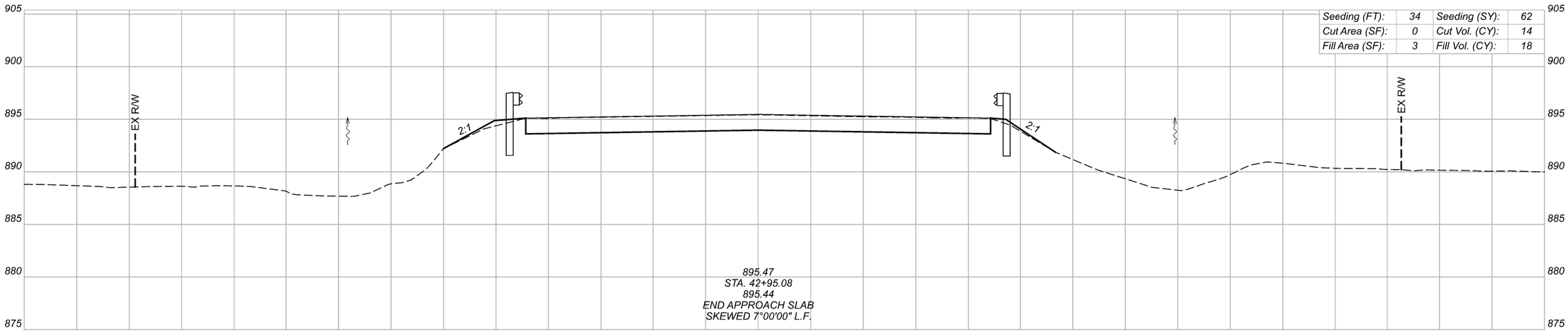
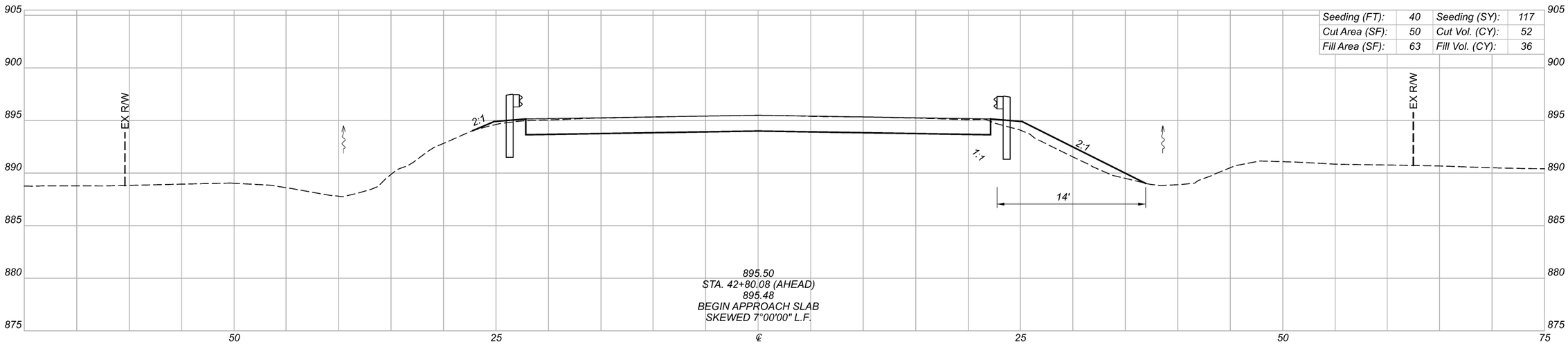
DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	REVIEWER	PROJECT ID
KDW	TWG 12-07-21	114392

Sheet Totals		
Seeding	Cut	Fill
83	0	2

SHEET	TOTAL
13	33





CROSS SECTIONS
STA. 42+80.08 TO STA. 42+95.08

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	KDW
REVIEWER	TWG 12-07-21
PROJECT ID	114392
SHEET	14
TOTAL	33

Sheet Totals		
Seeding	Cut	Fill
179	25	12

LIC-37-25.05

MODEL: Sheet 2 PAPERSIZE: 17x11(in.) DATE: 1/6/2022 TIME: 8:46:00 AM USER: BRussell
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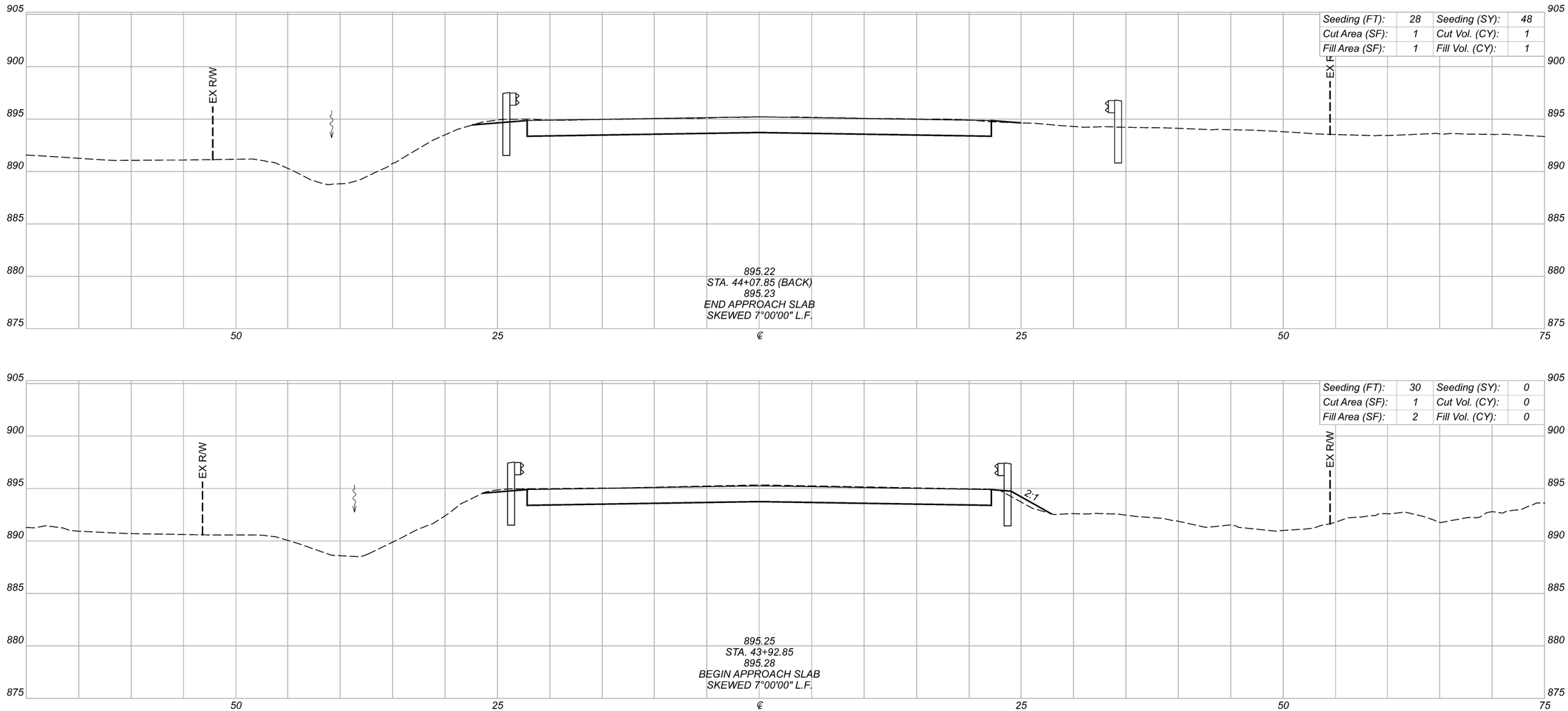

CROSS SECTIONS
STA. 43+92.85 TO STA. 44+07.85

LIC-37-25.05

MODEL: Sheet 3 PAPERSIZE: 17x11(in.) DATE: 1/6/2022 TIME: 8:46:05 AM USER: BRussell
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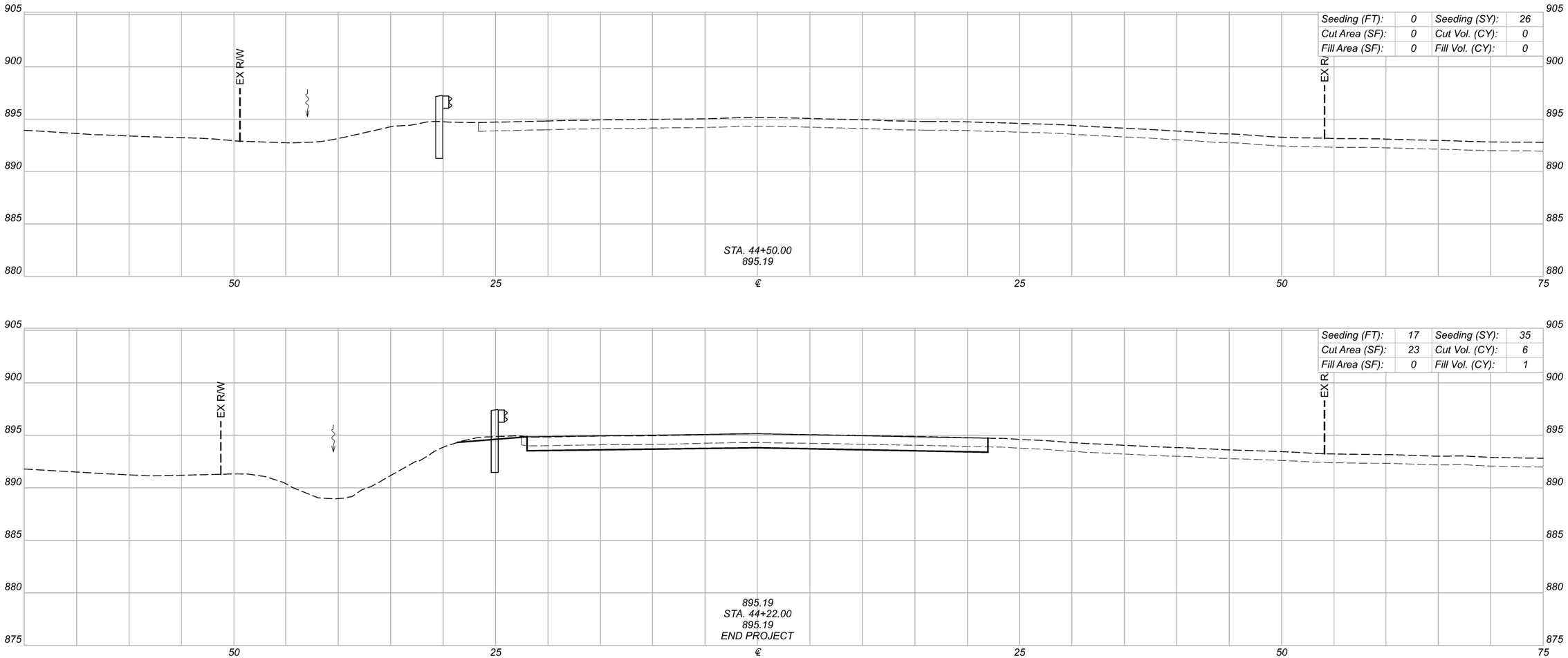
DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	KDW
REVIEWER	TWG 12-07-21
PROJECT ID	114392
SHEET	15
TOTAL	33

Sheet Totals

Seeding	Cut	Fill
48	1	1

EARTHWORK QUANTITY SUBSUMMARY				
STATION FROM	STATION TO	203		659
		EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
		CY	CY	SY
42+00.00	42+50.00	0	2	83
42+80.08	42+95.08	66	54	179
43+92.85	44+07.85	1	1	48
44+22.00	44+50.00	6	1	61
TO GENERAL SUMMARY		73	58	371



CROSS SECTIONS
STA. 44+22.00 TO STA. 44+50.00

DESIGN AGENCY
CARPENTER MARTY Transportation

DESIGNER
KDW
REVIEWER
TWG 12-07-21
PROJECT ID
114392

Sheet Totals		
Seeding	Cut	Fill
61	6	1

SHEET	TOTAL
16	33

LIC-37-25.05

MODEL: Sheet 4 PAPERSIZE: 17x11(in.) DATE: 1/6/2022 TIME: 8:46:10 AM USER: BRussell
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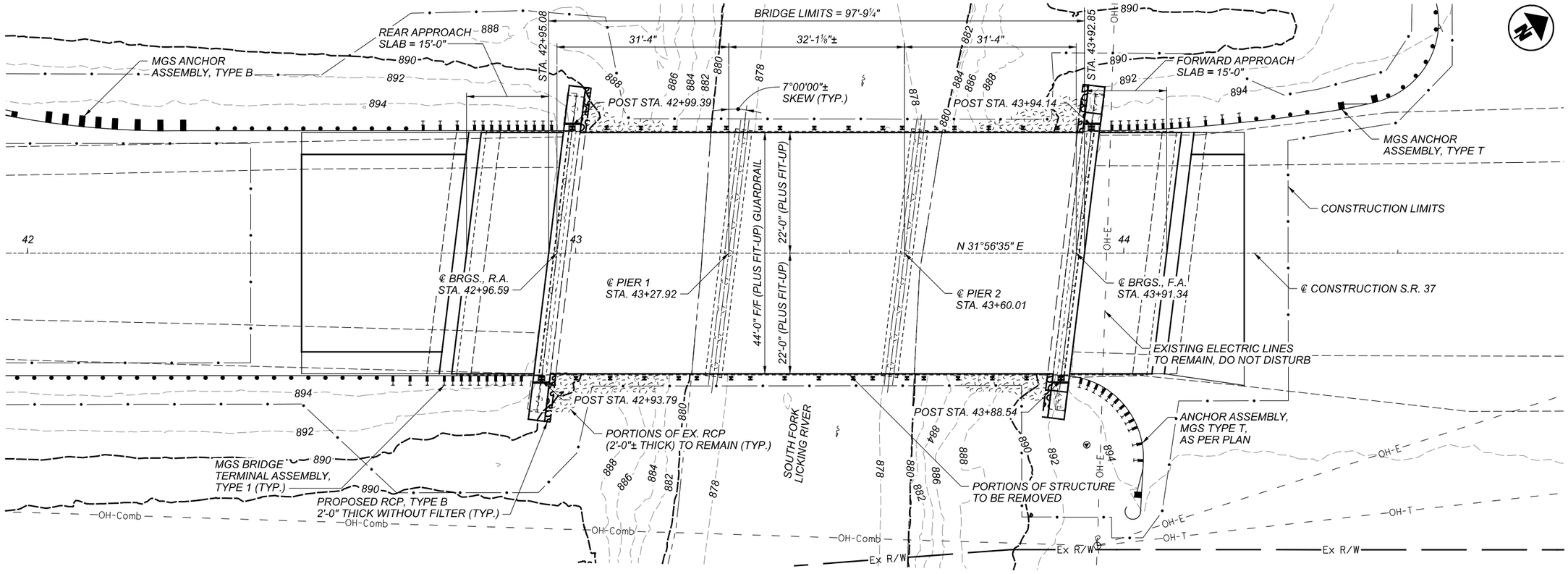
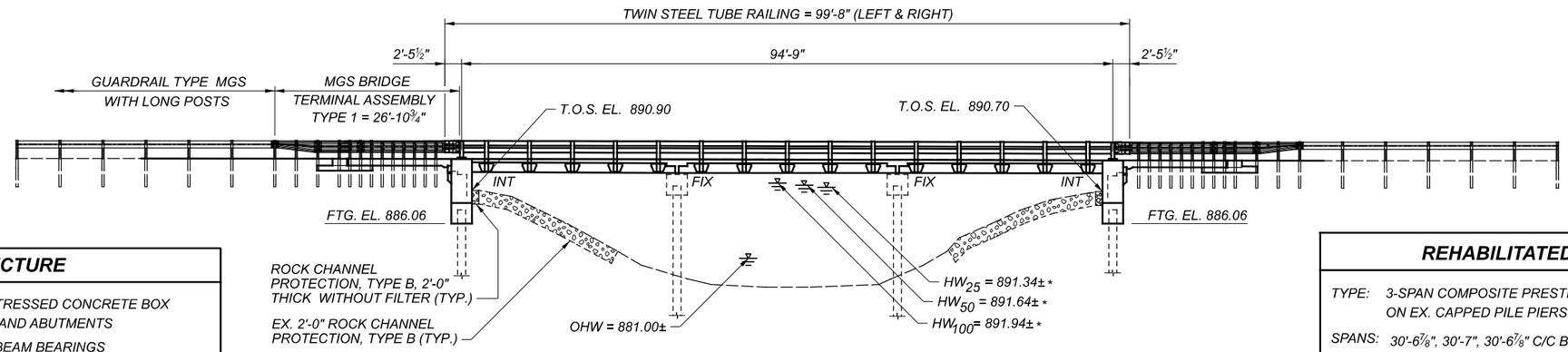


PLAN



ELEVATION

EXISTING STRUCTURE

TYPE: 3-SPAN NON-COMPOSITE PRESTRESSED CONCRETE BOX BEAMS ON CAPPED PILE PIERS AND ABUTMENTS

SPANS: 30'-6⅞"±, 30'-6⅞"±, 30'-6⅞"± C/C BEAM BEARINGS

ROADWAY: 44'-0"± F/F RAILING

LOADING: HS-20 & ALTERNATE MILITARY LOADING

SKEW: 7°00'00"± L.F.

WEARING SURFACE: 3½"± ASPHALT CONCRETE

APPROACH SLABS: 15'-0" LONG (AS-1-72)

ALIGNMENT: TANGENT

CROWN: 3/16"±/FT.

STRUCTURE FILE NUMBER: 4501942

DATE BUILT: 1983

DISPOSITION: BRIDGE REHABILITATION

REHABILITATED STRUCTURE

TYPE: 3-SPAN COMPOSITE PRESTRESSED CONCRETE BOX BEAMS ON EX. CAPPED PILE PIERS AND NEW INTEGRAL ABUTMENTS

SPANS: 30'-6⅞", 30'-7", 30'-6⅞" C/C BEAM BEARINGS

ROADWAY: 44'-0" F/F RAILING

LOADING: HL-93 (SUPERSTRUCTURE); HS-20-44 (SUBSTRUCTURE)

FUTURE WEARING SURFACE: 0.06 KSF

SKEW: 7°00'00"± L.F.

APPROACH SLABS: 15'-0" LONG, THICKNESS = 1'-0" (AS-1-15)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

COORDINATES: LATITUDE: 39°56'16.76"

LONGITUDE: 82°32'12.47"

DECK AREA: 4302 SF

LEGEND

* - ELEVATION TAKEN FROM EXISTING PLANS

GENERAL PLAN
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942

DESIGN AGENCY

CARPENTER MARTY Transportation

DESIGNER	CHECKER
MTJ	AMR

REVIEWER: GDJ 10-18-21

PROJECT ID: 114392

SUBSET	TOTAL
1	17

SHEET	TOTAL
17	33

LIC-37-25.05

MODEL: Plan 1 [Sheet] PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:17 AM USER: BRussell
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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	7-17-2015
DS-1-92	REVISED	7-18-2003
PSBD-2-07	REVISED	7-20-2018
TST-1-99	REVISED	1-15-2021

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN DATA

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI

PRESTRESSING STRAND:
AREA = 0.167 IN ^{2}
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

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 C&MS, 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.

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 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 BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

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.

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY FOR THE LIC-37-25.08 BRIDGE SCHEDULED FOR DEMOLITION WORK WAS CONDUCTED BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. A COPY OF THE ASBESTOS INSPECTION REPORT FOR THE STRUCTURE IS INCLUDED IN THE PLAN PACKAGE FOR THIS PROJECT. THE ASBESTOS INSPECTION REPORT DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS ABOVE REGULATORY LIMITS. DISPOSE ASBESTOS CONTAINING MATERIALS IN A LANDFILL LICENSED BY THE OHIO DEPARTMENT OF HEALTH AND PERMITTED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY - DIVISION OF AIR POLLUTION CONTROL TO ACCEPT ASBESTOS CONTAINING MATERIAL. THE REMOVAL AND DISPOSAL OF ALL ASBESTOS CONTAINING MATERIAL MUST COMPLY WITH THE OHIO ADMINISTRATIVE CODE (OAC) REGULATIONS AND THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAP) STANDARD FOR ASBESTOS.

ELECTRONIC SUBMISSION: SUBMIT A COMPLETED ELECTRONIC NOTIFICATION OF DEMOLITION AND RENOVATION FORM (NDRF), APPLICABLE FEES, AND THE ASBESTOS INSPECTION REPORT TO THE OEPA AT LEAST 10 DAYS PRIOR TO ANY DEMOLITION ACTIVITY, RENOVATION ACTIVITY, OR BOTH. SUBMIT THE NDRF AND PAYMENT ALONG WITH THE ASBESTOS INSPECTION REPORT USING THE OEPA EBUSINESS CENTER. SUBMIT ONE ELECTRONIC PDF COPY AND ONE HARD COPY OF THE NDRF TO THE ENGINEER. THE ENGINEER WILL PROVIDE ONE COPY TO THE DISTRICT ENVIRONMENTAL STAFF.

HARD COPY SUBMISSION: THE CONTRACTOR MAY SUBMIT A HARD COPY OF THE COMPLETED NDRF AND PAYMENT ALONG WITH THE ASBESTOS INSPECTION REPORT. FOLLOW THE MAILING INSTRUCTIONS ON THE NDRF. CHECK WITH LOCAL HEALTH DEPARTMENT TO DETERMINE IF THEY REQUIRE A HARD COPY SUBMITTAL. SUBMIT THE COMPLETED NDRF TO OEPA AT LEAST 10 DAYS PRIOR TO DEMOLITION ACTIVITY, RENOVATION ACTIVITY, OR BOTH. RETAIN TWO HARD COPIES OF THE NDRF AND SUBMIT ONE COPY TO THE ENGINEER AND ONE COPY TO DISTRICT ENVIRONMENTAL STAFF.

BASIS OF PAYMENT: SUBMIT ALL DOCUMENTATION RELATED TO THE SURVEY, ABATEMENT, TRANSPORT, AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS TO THE ENGINEER WITHIN TWO WEEKS OF COMPLETION. THE ENGINEER WILL PROVIDE A COPY OF THE DOCUMENTATION TO THE DISTRICT ENVIRONMENTAL STAFF. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN AND WILL INCLUDE ALL NECESSARY NOTIFICATION AND APPLICATION FEES REQUIRED.

ITEM 515 - PRESTRESSED COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB17-48, AS PER PLAN (LENGTH = 31'-7")

THE DISTRICT WILL FURNISH THE PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS. THE PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS WILL BE AVAILABLE FOR DELIVERY AFTER JUNE 1, 2022 UPON PROPER NOTIFICATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION AND ALL ITEMS LISTED BELOW RELATED TO INSTALLATION.

THE DISTRICT WILL PROVIDE THE CONTRACTOR WITH THE MANUFACTURER'S NAME AND A CONTACT PERSON AT THE PRE-CONSTRUCTION MEETING OR UPON REQUEST AFTER THE PROJECT AWARD. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWENTY-ONE (21) DAYS ADVANCE NOTICE TO THE MANUFACTURER PRIOR TO DELIVERY OF THE PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS TO PROVIDE THE MANUFACTURER TIME TO SCHEDULE THE DELIVERY.

EVEN THOUGH THE PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS ARE SET UP FOR INSTALLATION ONLY, THE CONTRACTOR IS STILL RESPONSIBLE FOR VERIFYING THE CAMBER OF EACH BEAM PRIOR TO SHIPMENT AS PER CMS 515.18. THE CONTRACTOR SHALL VERIFY THE BEAM CAMBER PRIOR TO POURING THE ABUTMENT BEAM SEATS IN CASE ADJUSTMENTS ARE NEEDED DUE TO THE CAMBER BEING ABOVE OR BELOW THE DESIGN CAMBER (Dt).

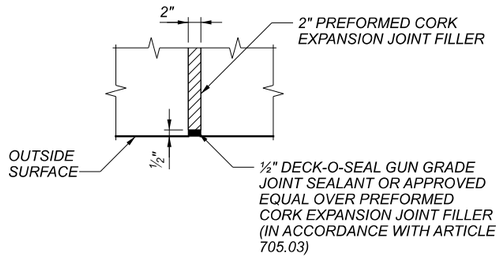
ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN

UPON COMPLETION OF THE PROPOSED BRIDGE DECK, APPROACH SLAB, AND ASPHALT RESURFACING THE CONTRACTOR SHALL SAW CUT ALONG THE END OF THE BRIDGE DECK ENDS (WITHOUT CUTTING THE DECK) AN AREA 1" WIDE BY 2" DEEP AND FILL THIS AREA WITH HOT APPLIED JOINT SEALER 705.04.

ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 2" P.E.J.F., APP CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ½" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

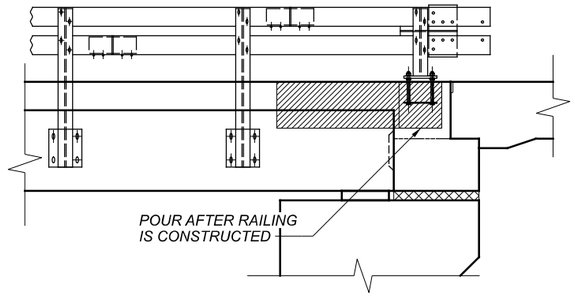
DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 2" P.E.J.F., A.P.P., SQ. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 517 - RAILING (TWIN STEEL TUBE), AS PER PLAN

POUR CONCRETE FOR THE SECTION OF WINGWALL SURROUNDING THE END POSTS AFTER THE REST OF THE BRIDGE HAS BEEN CONSTRUCTED. SEE STD DWG TST-1-99 FOR CONSTRUCTION JOINT LOCATION.



FOR ADDITIONAL DETAILS, SEE STD DWG TST-1-99

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN C&MS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING 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 526 - REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO C&MS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED IN THE PLAN. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

ITEM SPECIAL - PILE ENCASEMENT

ENCASE ALL EXISTING STEEL PIPE PILES FOR THE CAPPED PILE PIERS IN CLASS QC1 CONCRETE. PROVIDE A CONCRETE SLUMP BETWEEN 6 TO 8 INCHES WITH THE USE OF A SUPERPLASTICIZER. PLACE THE CONCRETE WITHIN A FORM THAT CONSISTS OF A POLYETHYLENE PIPE (707.33) OR PVC PIPE (707.42). THE ENCASEMENT SHALL EXTEND FROM EXISTING PILE ENCASEMENT UP TO THE CONCRETE PIER CAP. POSITION THE PIPE SO THAT AT LEAST 3 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE.

THE CONTRACTOR SHALL REMOVE OR REPAIR ANY EXISTING IMPERFECTIONS (GOUGES, SCRAPES, SCRATCHES, PACK RUST LOOSE PAINT, ETC.) OF THE PILES TO THE SATISFACTION OF THE ENGINEER.

THE DEPARTMENT WILL MEASURE PILE ENCASEMENT BY THE NUMBER OF FEET. THE DEPARTMENT WILL DETERMINE THE SUM AS THE LENGTH MEASURED ALONG THE AXIS OF EACH PILE FROM THE BOTTOM OF THE ENCASEMENT TO THE BOTTOM OF THE PIER CAP. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM SPECIAL - PILE ENCASEMENT.

BEARING PAD SHIMS

PLACE 1/8" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA 8 INCHES BY 10 INCHES, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING. FURNISH TWO SHIMS PER BEAM. THE DEPARTMENT WILL MEASURE THIS ITEM BY THE TOTAL NUMBER SUPPLIED. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - 1/8" PREFORMED BEARING PADS. ANY UNUSED SHIMS WILL BECOME THE PROPERTY OF THE STATE.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAIL SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE DISTRICT 5 SMOOTHNESS COORDINATOR. PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM GROOVING OF THE BRIDGE DECK.

GENERAL NOTES
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942
DESIGN AGENCY
CARPENTER MARTY transportation
DESIGNER MTJ | CHECKER AMR
REVIEWER GDJ 10-18-21
PROJECT ID 114392
SUBSET 2 | TOTAL 17
SHEET 18 | TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17X11 (In.) DATE: 1/6/2022 TIME: 8:46:21 AM USER: BRussell
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ABUTMENTS	PIERS	SUPERSTRUCTURE	GENERAL	PART. 01/NFP/ BR	ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			LS		202	11203		LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	2
			147	147	202	22900	147	SY	APPROACH SLAB REMOVED	
			615	615	202	23500	615	SY	WEARING COURSE REMOVED	
		176		176	202	38500	176	FT	BRIDGE RAILING REMOVED	
			LS		503	21301		LS	UNCLASSIFIED EXCAVATION, AS PER PLAN	17
	126			126	SPECIAL	507E71200	126	FT	PILE ENCASEMENT	2,8
8,156		19,890		28,046	509	10000	28,046	LB	EPOXY COATED REINFORCING STEEL	
		108		108	511	31612	108	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE	
115				115	511	43512	115	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
45	30	20		95	512	10050	95	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
		33		33	515	12031	33	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB17-48, AS PER PLAN, (LENGTH = 31'-7")	2
		27		27	516	13901	27	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	2
		104		104	516	14014	104	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
			89	89	516	14600	89	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	17
		89		89	516	31011	89	FT	2" DEEP JOINT SEALER, AS PER PLAN	2
		66		66	516	41100	66	EACH	1/8" PREFORMED BEARING PAD	
		132		132	516	43200	132	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE), 8"X10"X2.374"	
		200		200	517	70001	200	FT	RAILING (TWIN STEEL TUBE), AS PER PLAN	2
			73	73	518	21200	73	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	2
		238		238	SPECIAL	518E22300	238	FT	STEEL DRIP STRIP	
			123	123	518	40000	123	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
			28	28	518	40010	28	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
	115			115	519	11101	115	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	2,8
			148	148	526	10001	148	SY	REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN	2

ESTIMATED QUANTITIES
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
MTJ	JMV

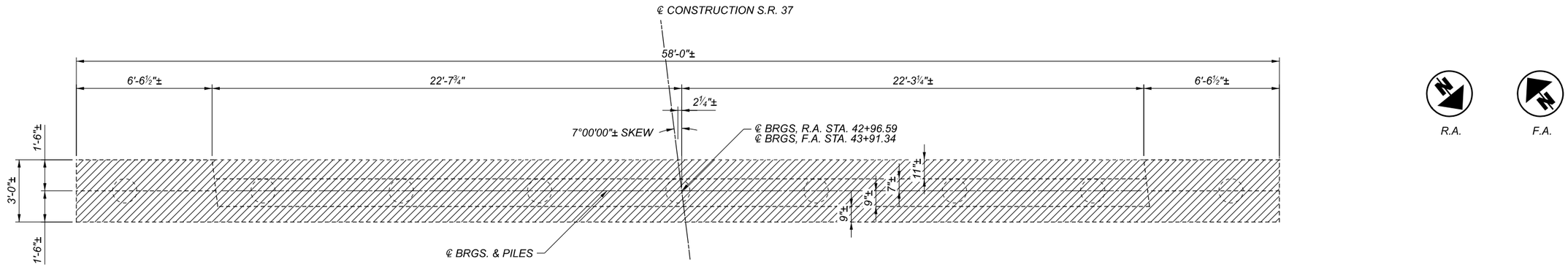
REVIEWER
GDJ 10-18-21

PROJECT ID
114392

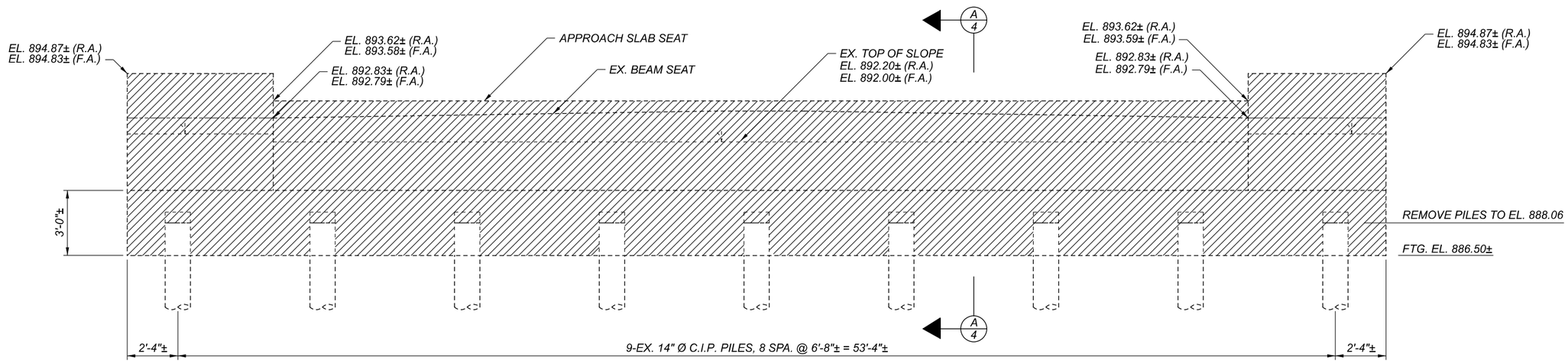
SUBSET	TOTAL
3	17

SHEET	TOTAL
19	33

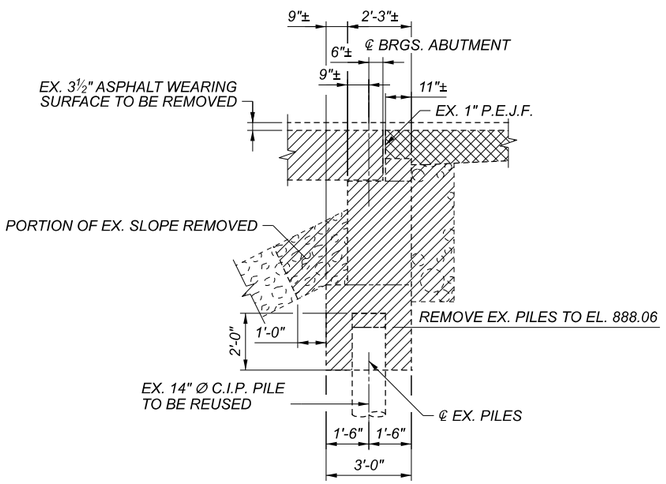
LIC-37-25.05



PLAN



ELEVATION



A/4 SECTION

LEGEND

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

ITEM 202, APPROACH SLAB REMOVED

ABUTMENT REMOVAL DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN	4501942
DESIGN AGENCY	CARPENTER MARTY transportation
DESIGNER	AMR
CHECKER	MTJ
REVIEWER	GDJ 10-18-21
PROJECT ID	114392
SUBSET	4
TOTAL	17
SHEET	20
TOTAL	33

LIC-37-25.05

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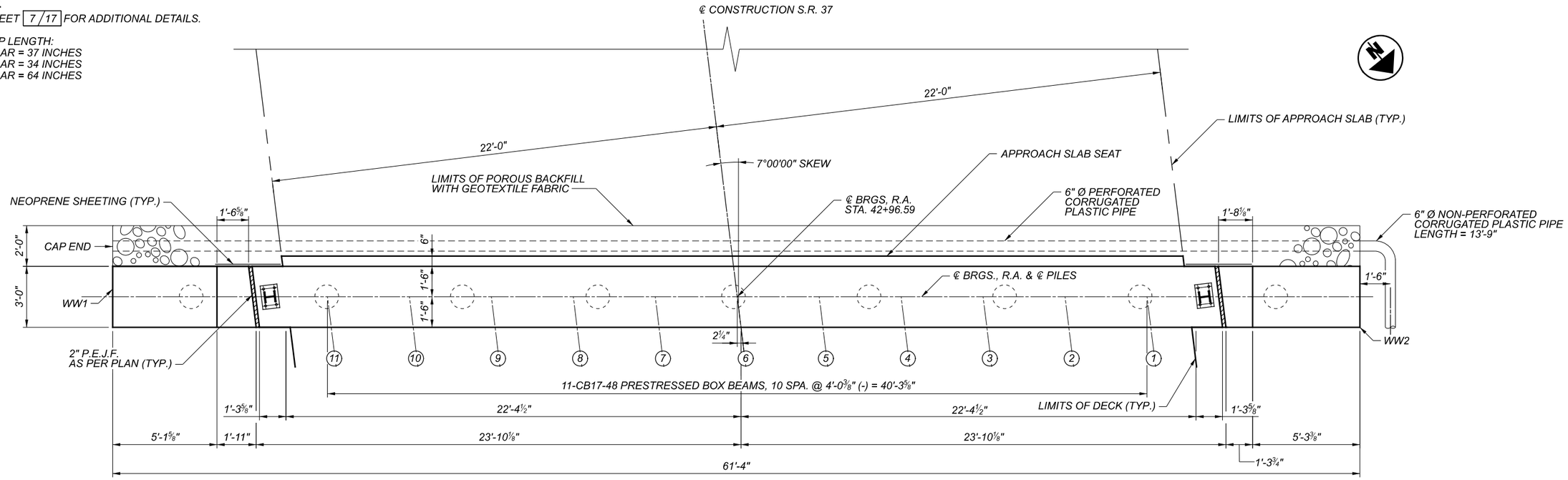
NOTES

1. SEE SHEET 7/17 FOR ADDITIONAL DETAILS.
2. MIN. LAP LENGTH:
   #5 BAR = 37 INCHES
   #6 BAR = 34 INCHES
   #8 BAR = 64 INCHES



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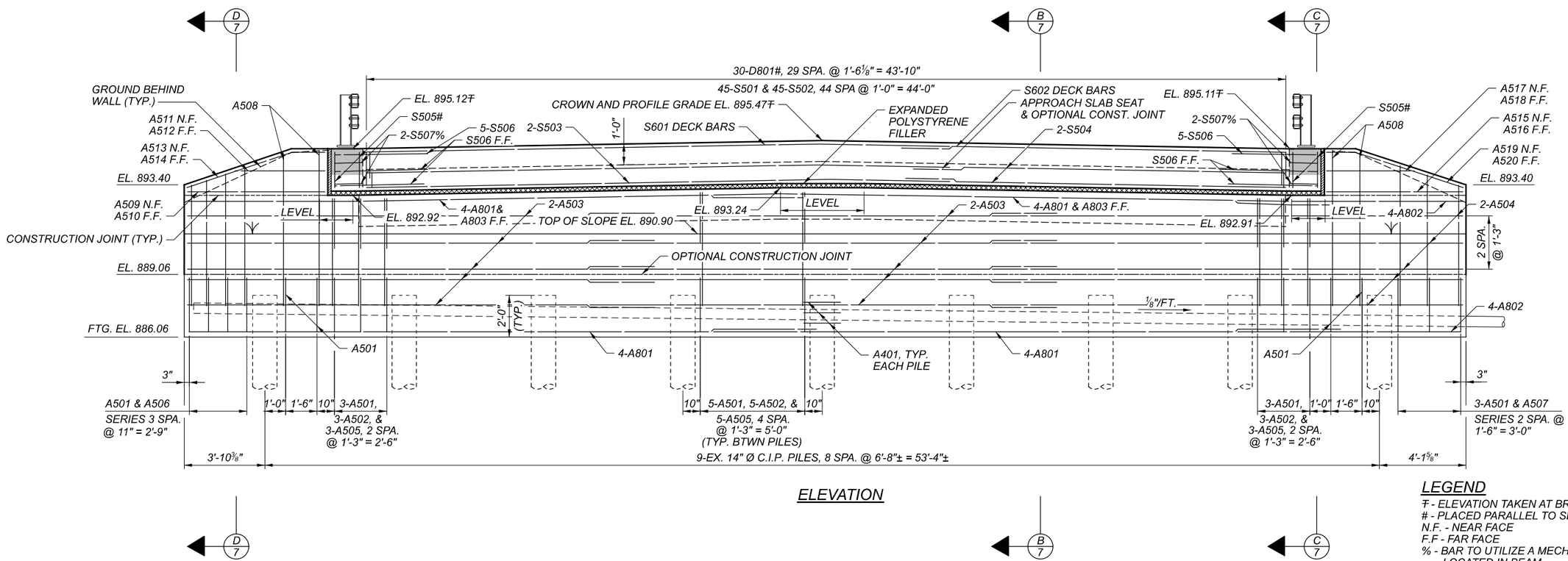

ELEVATION

LEGEND

Ŧ - ELEVATION TAKEN AT BRIDGE LIMITS
- PLACED PARALLEL TO SKEW
N.F. - NEAR FACE
F.F - FAR FACE
% - BAR TO UTILIZE A MECHANICAL CONNECTOR LOCATED IN BEAM
(#) - BEAM NUMBER

- POUR AFTER RAILING CONSTRUCTED

REAR ABUTMENT DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942
DESIGN AGENCY CARPENTER MARTY transportation
DESIGNER JMV | CHECKER BWR
REVIEWER GDJ 10-18-21
PROJECT ID 114392
SUBSET 5 | TOTAL 17
SHEET 21 | TOTAL 33

LIC-37-25.05

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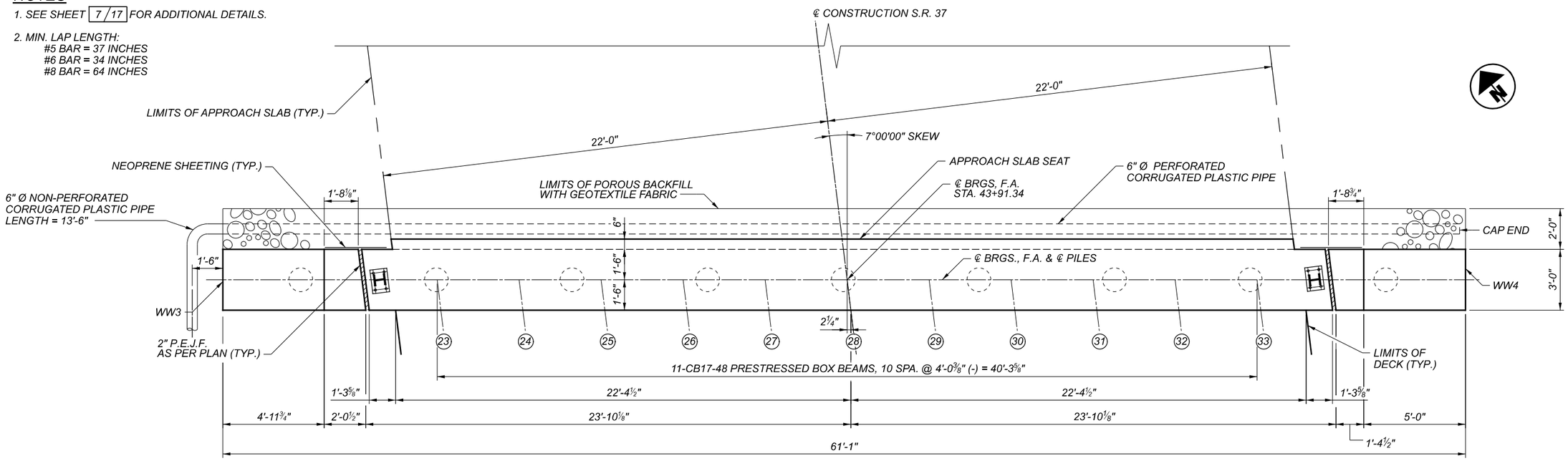
NOTES

1. SEE SHEET 7/17 FOR ADDITIONAL DETAILS.
2. MIN. LAP LENGTH:
   #5 BAR = 37 INCHES
   #6 BAR = 34 INCHES
   #8 BAR = 64 INCHES



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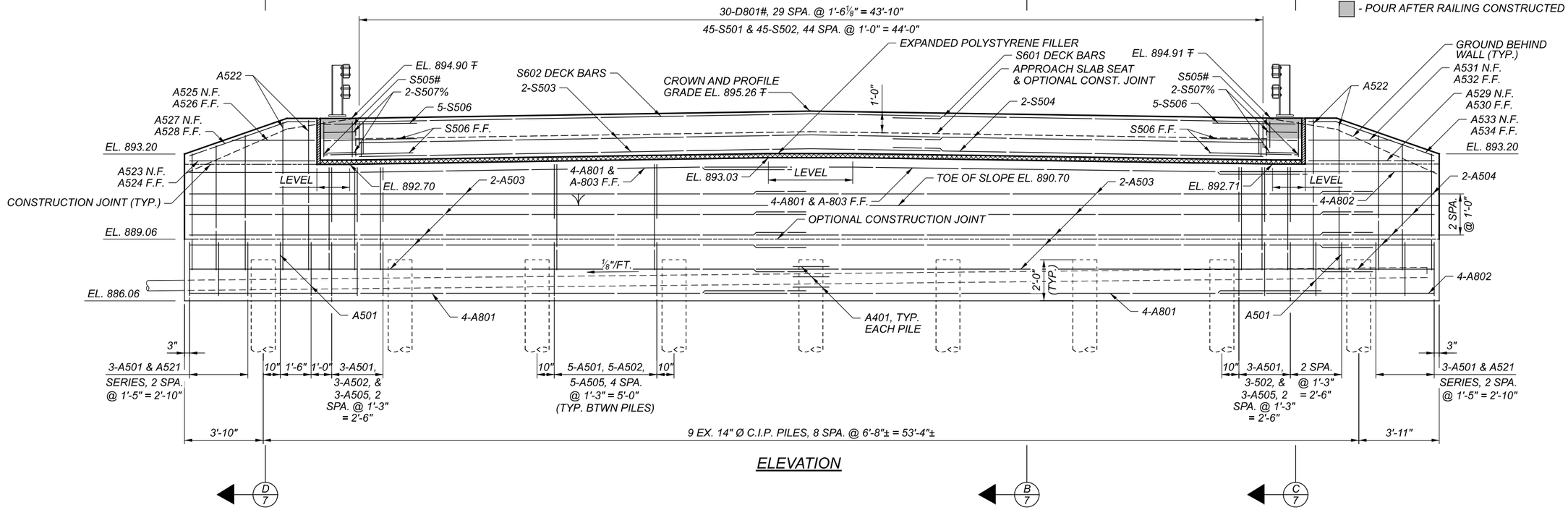

ELEVATION

LEGEND

₸ - ELEVATION TAKEN AT BRIDGE LIMITS
- PLACED PARALLEL TO SKEW
N.F. - NEAR FACE
F.F - FAR FACE
% - BAR TO UTILIZE A MECHANICAL CONNECTOR LOCATED IN BEAM
(#) - BEAM NUMBER
- POUR AFTER RAILING CONSTRUCTED

FORWARD ABUTMENT DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

LIC-37-25.05

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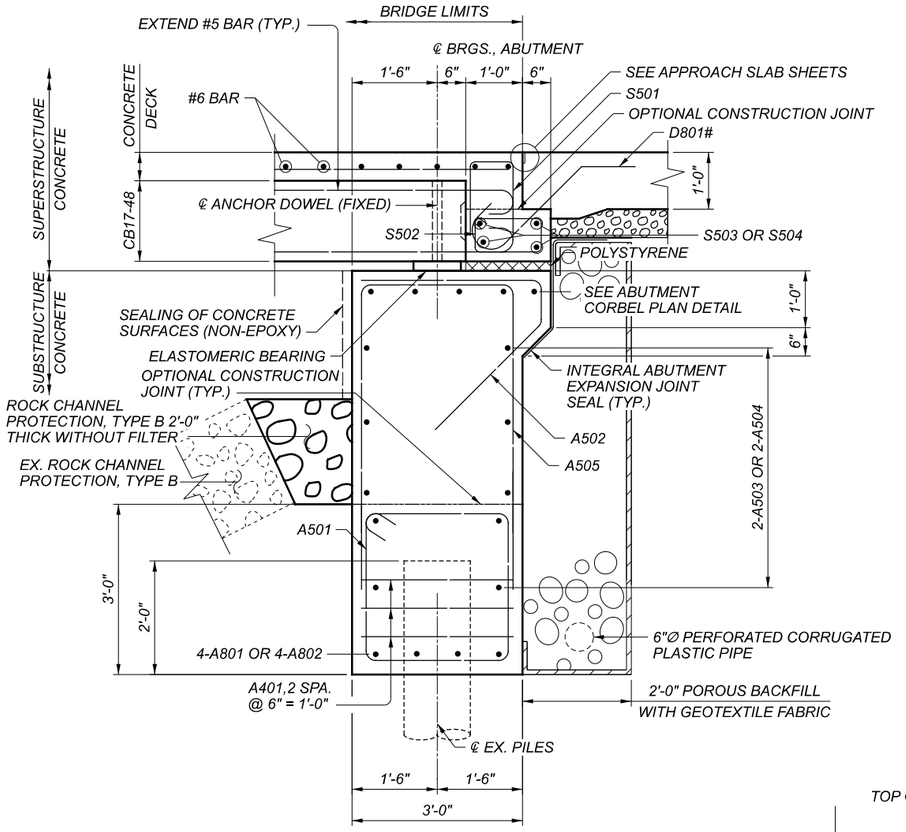
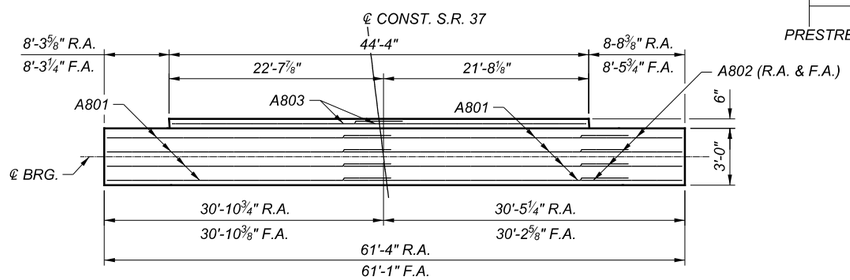
SFN	4501942
DESIGN AGENCY	CARPENTER MARTY transportation
DESIGNER	JMV
CHECKER	BWR
REVIEWER	GDJ 10-18-21
PROJECT ID	114392
SUBSET	6
TOTAL	17
SHEET	22
TOTAL	33

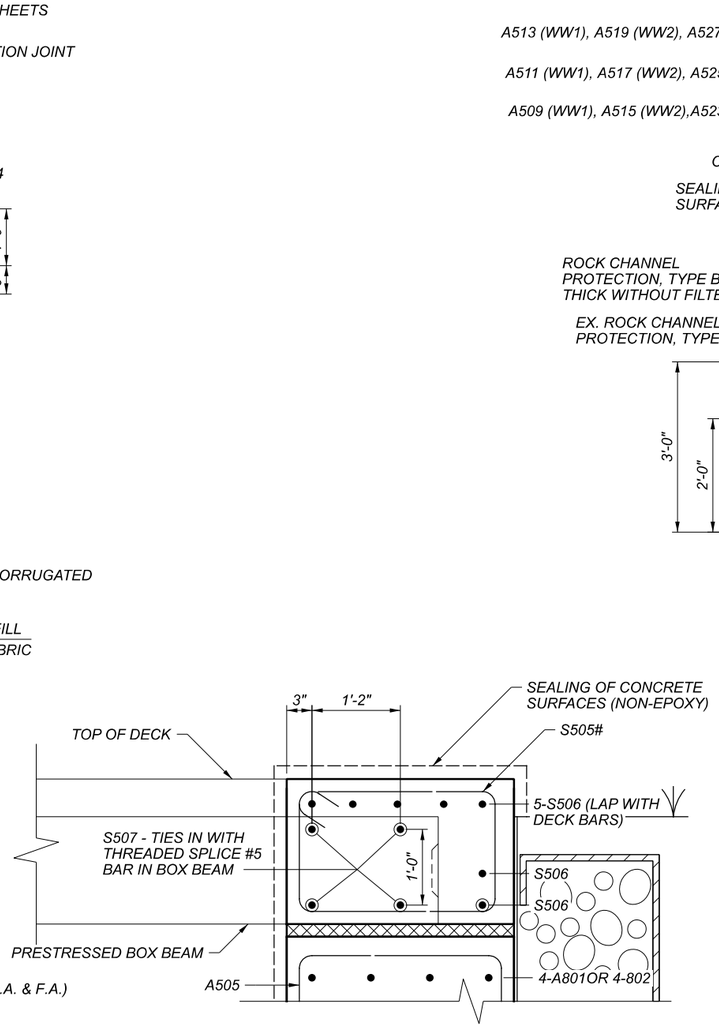


B 5 B 6 SECTION

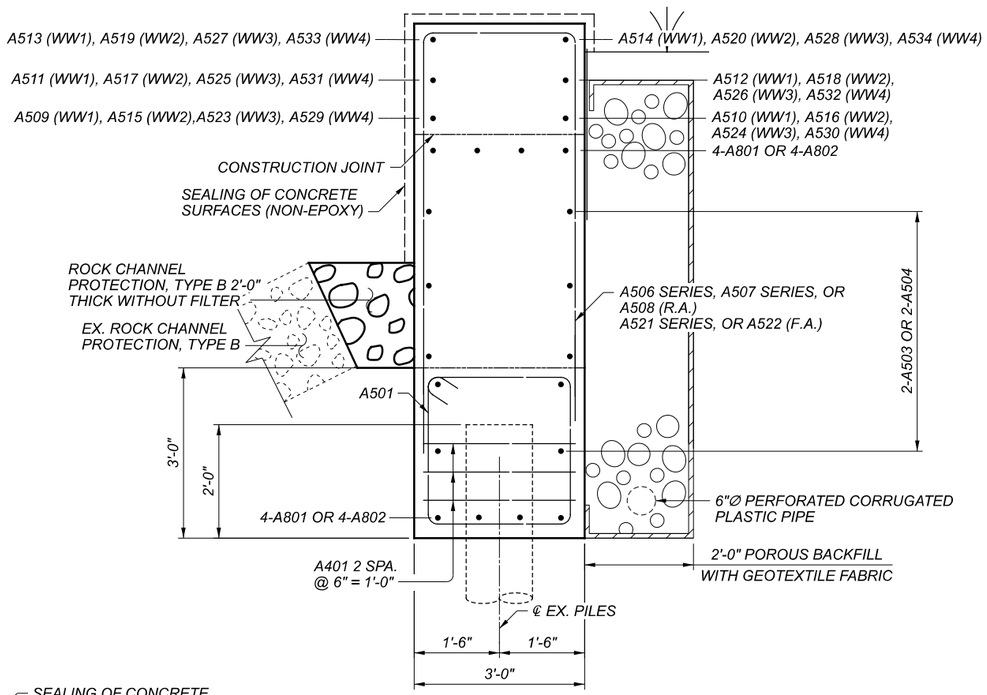
R.A. F.A.



ABUTMENT CORBEL PLAN DETAIL



C 5 C 6 SECTION



D 5 D 6 SECTION

NOTES

1. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR BAR HOLES.
2. SEE STD. DWG. PSBD-2-07 FOR ANCHOR DOWEL DETAILS (FIXED FOR BOTH ABUTMENTS).
3. FLUSH MOUNTED POST LOCATIONS SHALL BE LOCATED BY THE ENGINEER AFTER FIT-UP DIMENSIONS HAVE BEEN VERIFIED.
4. MINIMUM LAP SPLICE LENGTHS:
   #5 BAR = 37 INCHES
   #6 BAR = 34 INCHES
   #8 BAR = 64 INCHES
5. DO NOT PLACE THE ABUTMENT CONCRETE ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT UNTIL THE PRESTRESSED BOX BEAMS HAVE BEEN ERECTED.
6. INSTALL NEOPRENE SHEETING, 3'-0" WIDE, CENTERED ON JOINT AND EXTENDING FROM APPROACH SLAB SEAT TO 1'-6" BELOW THE BEAM SEAT ELEVATION.
7. INCLUDE POLYSTYRENE FOR PAYMENT WITH THE BRIDGE SUPERSTRUCTURE.
8. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK SLAB CONCRETE.

LEGEND

- PLACED PARALLEL TO THE SKEW

ABUTMENT SECTIONS & DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN	4501942
DESIGN AGENCY	CARPENTER MARTY transportation
DESIGNER	JMV
CHECKER	BWR
REVIEWER	GDJ 10-18-21
PROJECT ID	114392
SUBSET	7
TOTAL	17
SHEET	23
TOTAL	33

LIC-37-25.05

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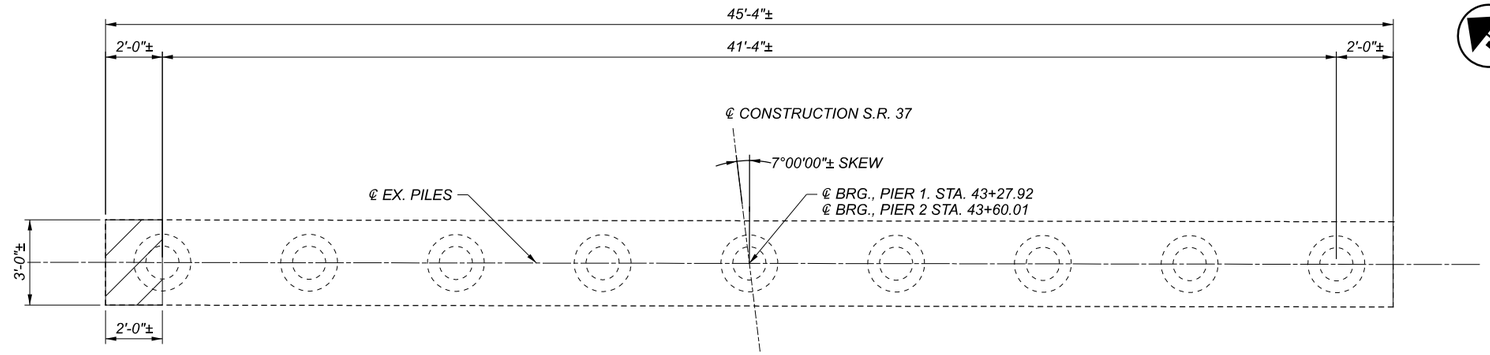
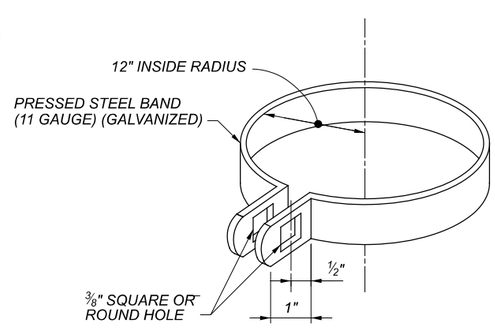
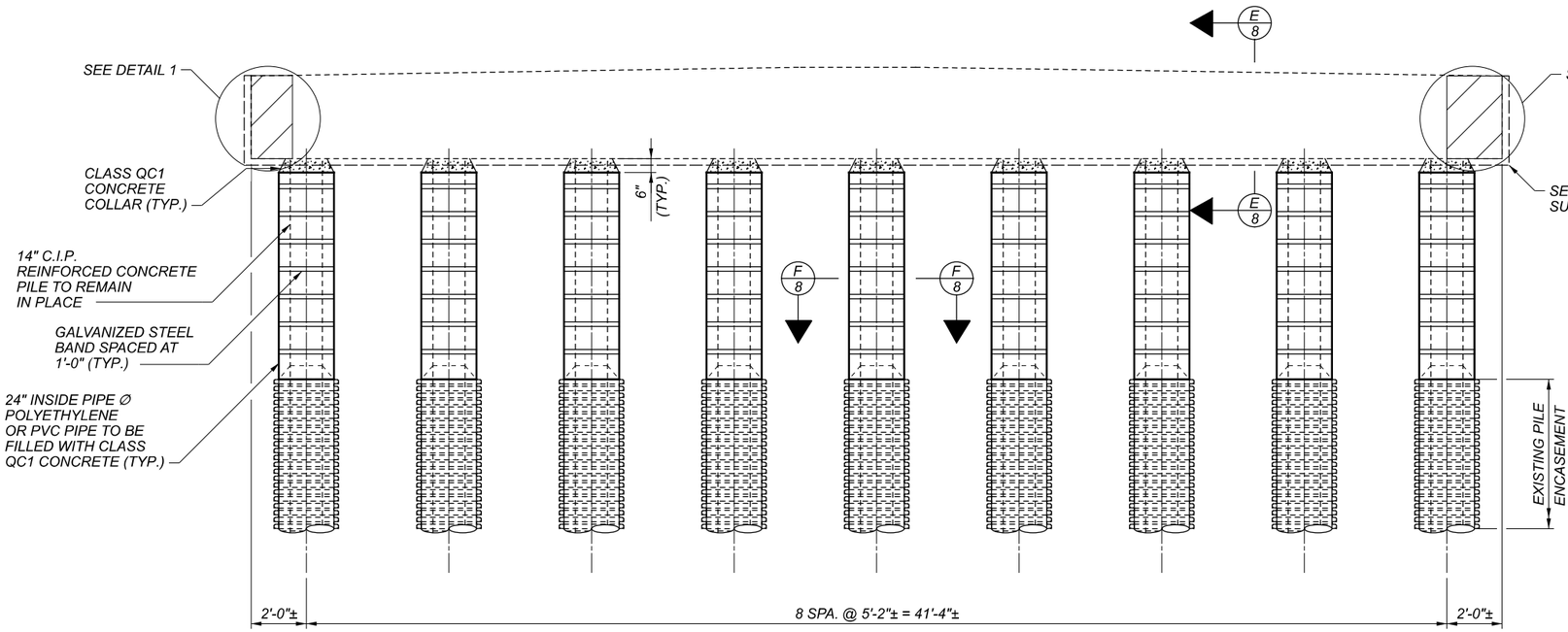


PIER PLAN

(PATCH TOP OF PIER 2 ONLY)



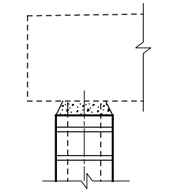
BAND DETAIL

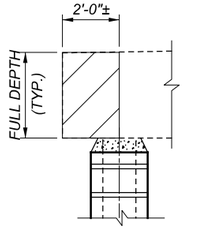


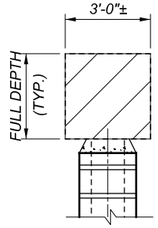
PIER ELEVATION

(PIER 2 SHOWN)

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN		
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN DECEMBER OF 2020.		
EXACT DIMENSIONS AND LOCATIONS OF PATCHES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.		
ESTIMATED PATCHING QUANTITIES (S.F.)		
LOCATION	MEASURED QUANTITIES	ESTIMATED QUANTITIES
PIER 1	28.50	42.75
PIER 2	48.00	72.00
TOTAL	76.50	114.75
*- ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.		

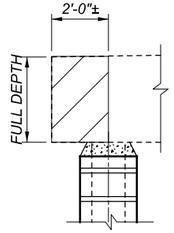


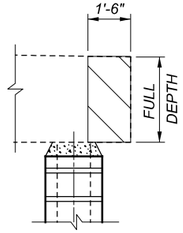


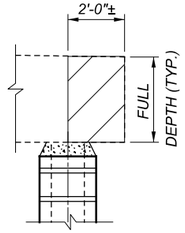


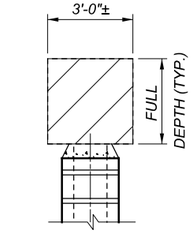
DETAIL 1

WEST EDGE OF PIER



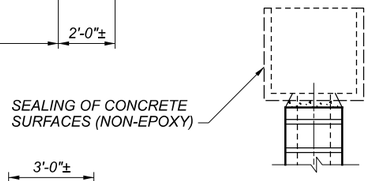




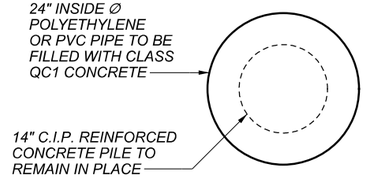


DETAIL 2

EAST EDGE OF PIER



E 8 SECTION



F 8 SECTION

LEGEND

▨ - ITEM-519 PATCHING CONCRETE STRUCTURE, AS PER PLAN

PIER DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942
DESIGN AGENCY CARPENTER MARTY transportation
DESIGNER JMV | CHECKER BWR
REVIEWER GDJ 10-18-21
PROJECT ID 114392
SUBSET 8 | TOTAL 17
SHEET 24 | TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:28 AM USER: BRussell
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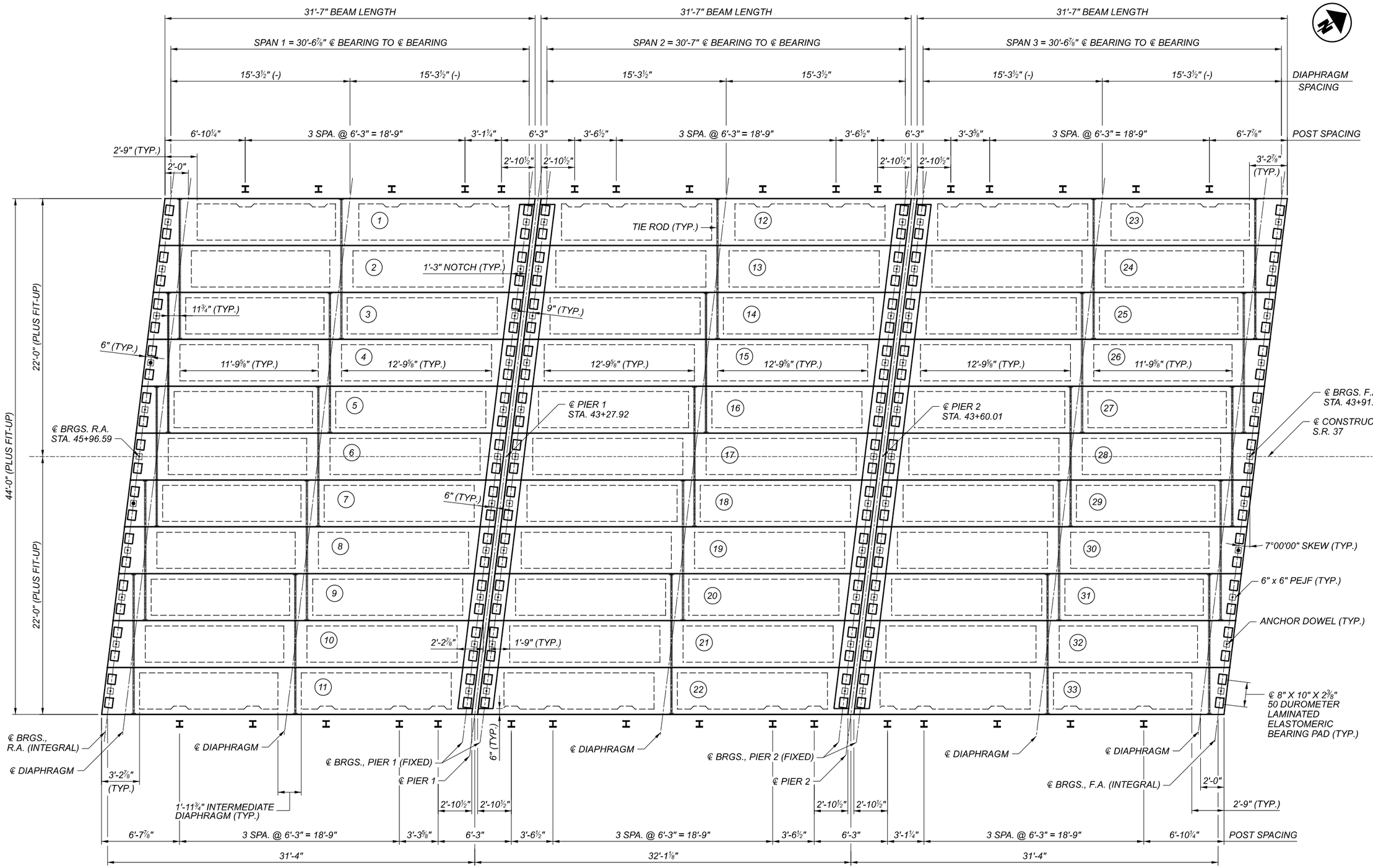


FRAMING PLAN

LEGEND

(#) - BEAM NUMBER

NOTES

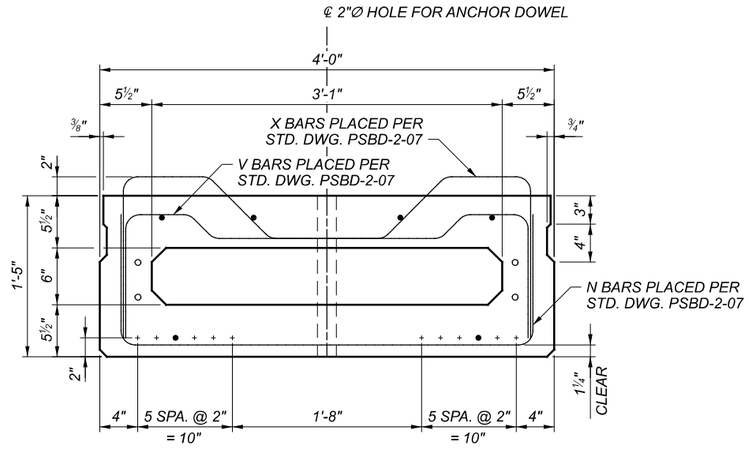
1. SEE STD. DWG. PSBD-2-07 FOR ADDITIONAL NOTES AND DETAILS.
2. SEE SHEET 12/17 FOR ELASTOMERIC BEARING DETAILS.

FRAMING PLAN
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

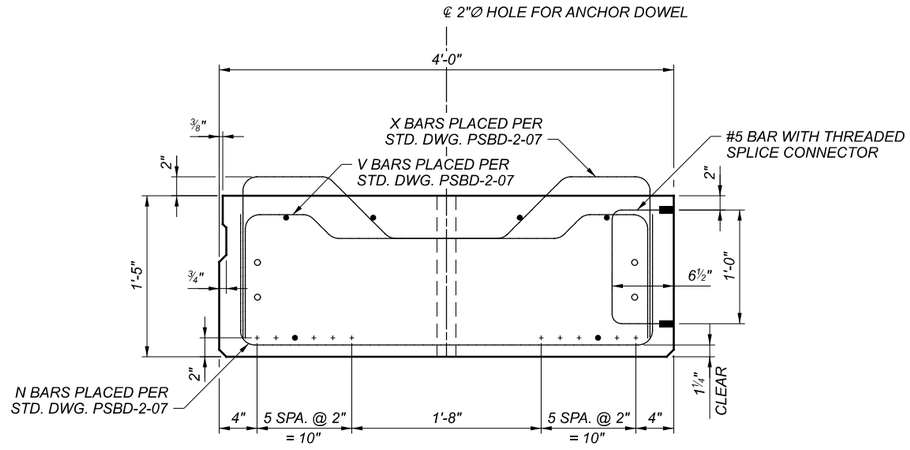
LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:29 AM USER: BRussell
P:\ODT\05\0010_LIC-37-25.05\114392\400-Engineering\Structures\SFN_4501942\Sheets\114392_SFN_4501942_SS001.dgn

SFN	4501942
DESIGN AGENCY	CARPENTER MARTY transportation
DESIGNER	JMV
CHECKER	AMR
REVIEWER	GDJ 10-18-21
PROJECT ID	114392
SUBSET	9
TOTAL	17
SHEET	25
TOTAL	33



CB17-48 BEAM DETAIL



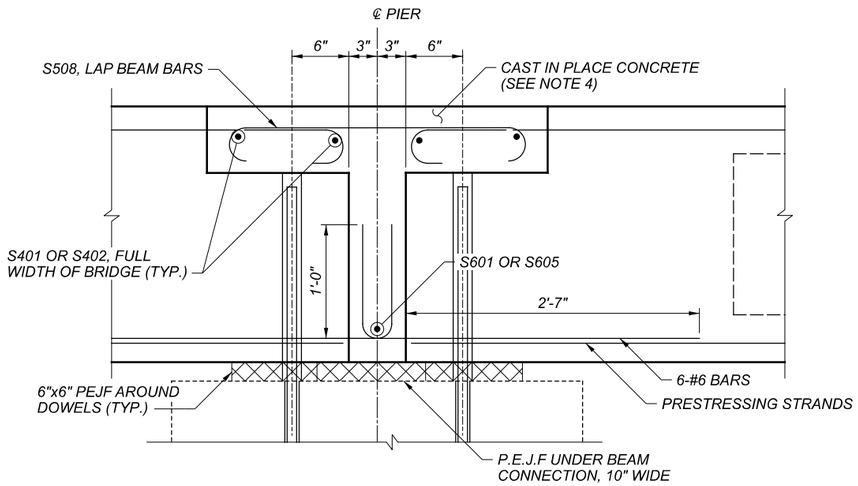
CB17-48 FASCIA BEAM DETAIL
END OF BEAM

LEGEND FOR CB17-48

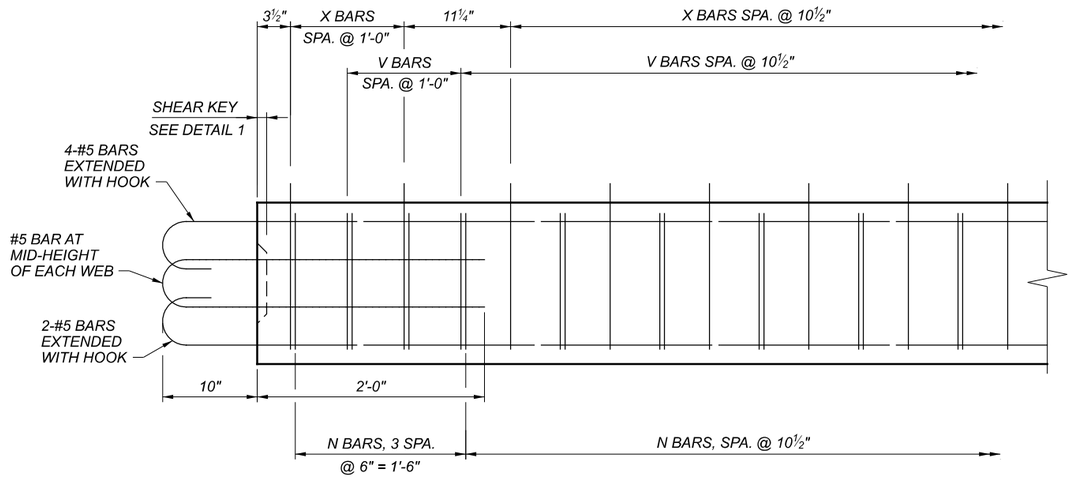
+ - ½" DIAMETER STRANDS, 0.167 IN²

● - #5 BAR FULL LENGTH OF BEAM

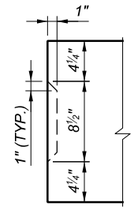
○ - #5 BAR MID-HEIGHT OF BEAM



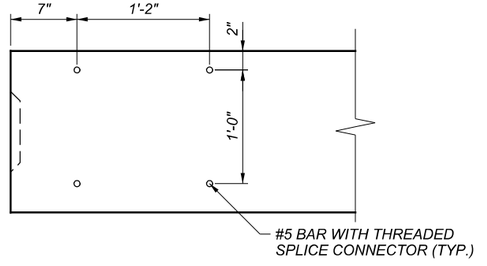
BEAM CONNECTION OVER PIER DETAIL



PARTIAL ELEVATION AT ABUTMENT END (CB17-48)



DETAIL 1



PARTIAL ELEVATION AT FASCIA BEAM ABUTMENT ENDS

NOTES

1. REFER TO STD. DWG. PSBD-2-07 FOR ADDITIONAL NOTES AND DETAILS.
2. BEAM EDGE SHEAR KEY DETAIL SHALL BE OMITTED ON BEAMS 1, 11, 12, 22, 23, & 33 OUTSIDE FACES.
3. REINFORCING BARS PROJECTING FROM THE PRESTRESSED MEMBER SHALL BE EPOXY COATED.
4. CONCRETE IS INCLUDED WITH ITEM 511, CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE FOR PAYMENT.
5. #5 BAR WITH THREADED SPLICE CONNECTOR, INCIDENTAL TO ITEM 515 - PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB17-48, AS PER PLAN

BEAM DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN	4501942
DESIGN AGENCY	CARPENTER MARTY Transportation
DESIGNER	JMV
CHECKER	AMR
REVIEWER	GDJ 10-18-21
PROJECT ID	114392
SUBSET	10
TOTAL	17
SHEET	26
TOTAL	33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:30 AM USER: BRussell
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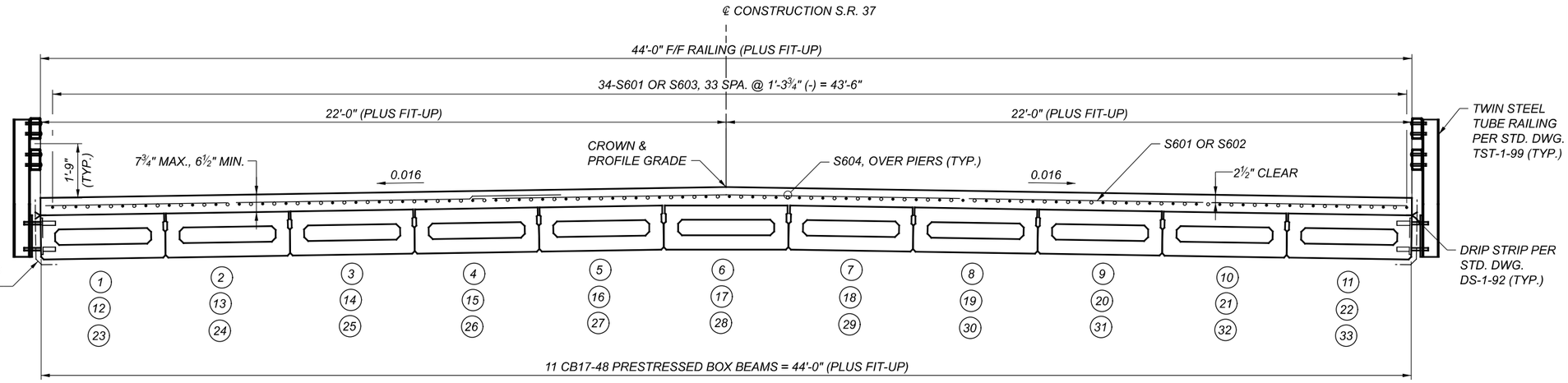
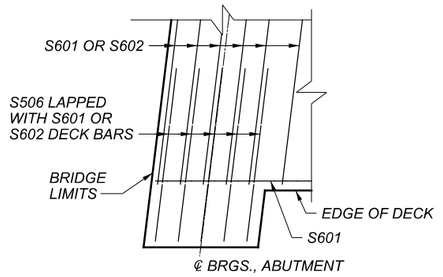
NOTES

1. SEE SHEET 10/17 FOR ADDITONAL NOTES AND DETAILS
2. MIN LAP LENGTH:
   #5 BAR = 37 INCHES
   #6 BAR = 34 INCHES
   #8 BAR = 64 INCHES

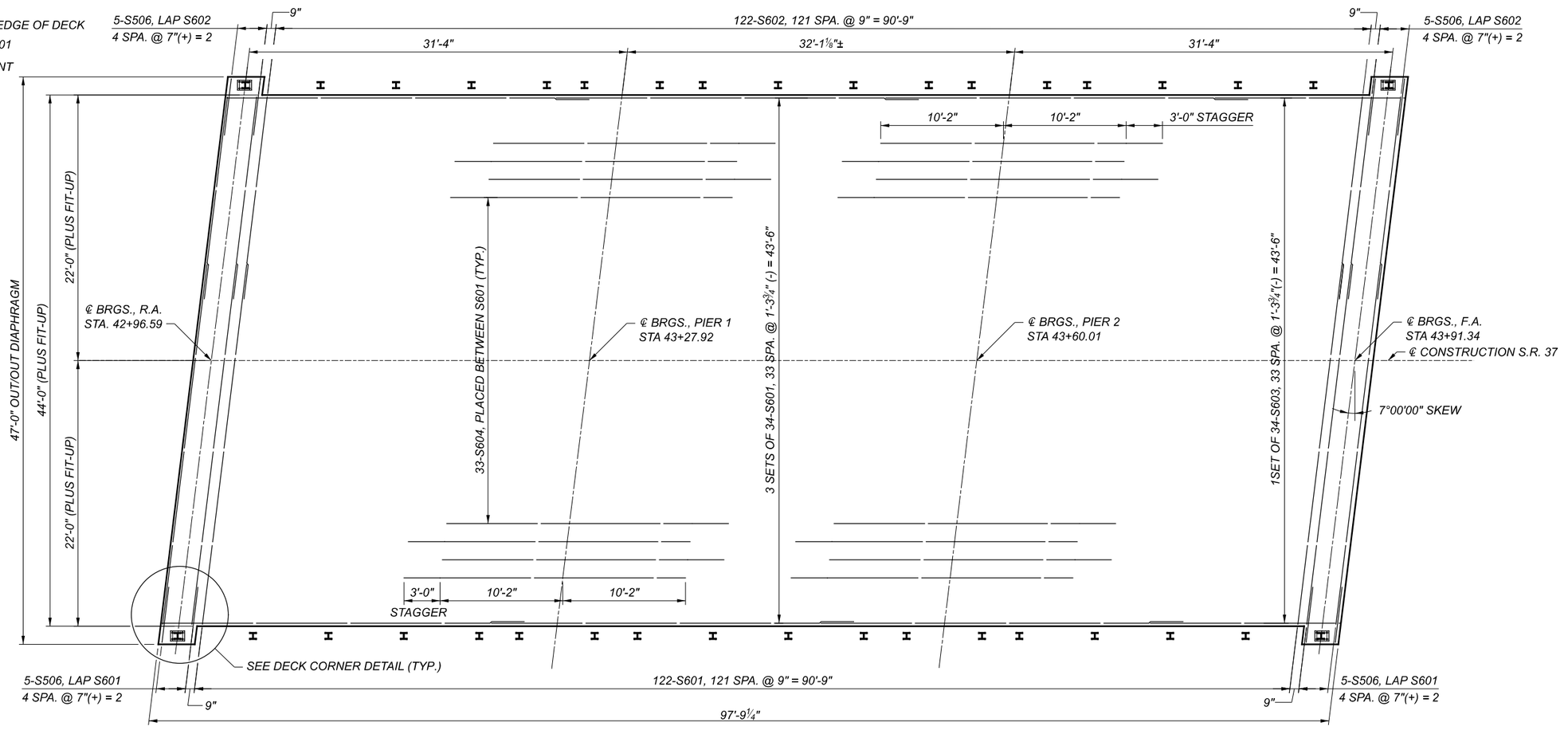


TRANSVERSE SECTION



DECK CORNER DETAIL

ALL CORNERS SIMILAR



DECK PLAN

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:31 AM USER: BRussell
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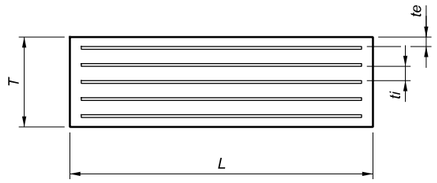
TRANSVERSE SECTION AND DECK PLAN
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN	4501942
DESIGN AGENCY	CARPENTER MARTY transportation
DESIGNER	JMV
CHECKER	AMR
REVIEWER	GDJ 10-18-21
PROJECT ID	114392
SUBSET	11
TOTAL	17
SHEET	27
TOTAL	33

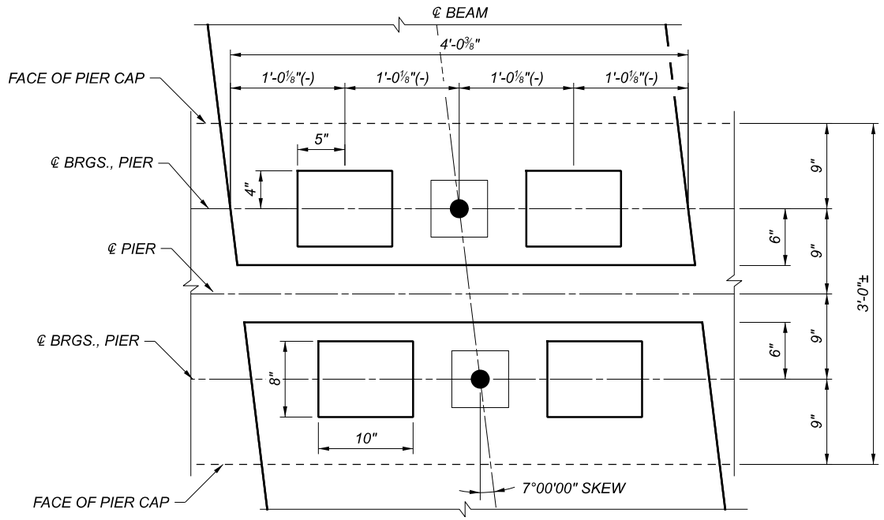
ELASTOMERIC BEARINGS										
LOCATION	BEARING DIMENSIONS							SERVICE REACTIONS		MAXIMUM TOTAL LOAD
	L	W	ti	te	T	N	N-1	DL	LL	
ALL BEAMS	8"	10"	0.375"	0.25"	2.374"	5	4	11.81 K	13.52 K	25.33 K

LEGEND

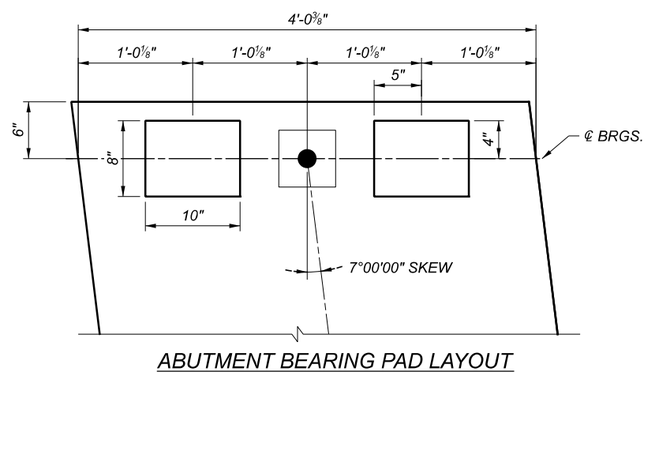
ti = THICKNESS OF INTERNAL LAYERS
te = THICKNESS OF EXTERNAL LAYERS
T = TOTAL THICKNESS OF ELASTOMERIC BEARING
N = NUMBER OF STEEL LAMINATES
INTERNAL STEEL LAMINATE THICKNESS = 0.0747" (14 GAUGE)
N-1 = NUMBER OF INTERNAL LAYERS



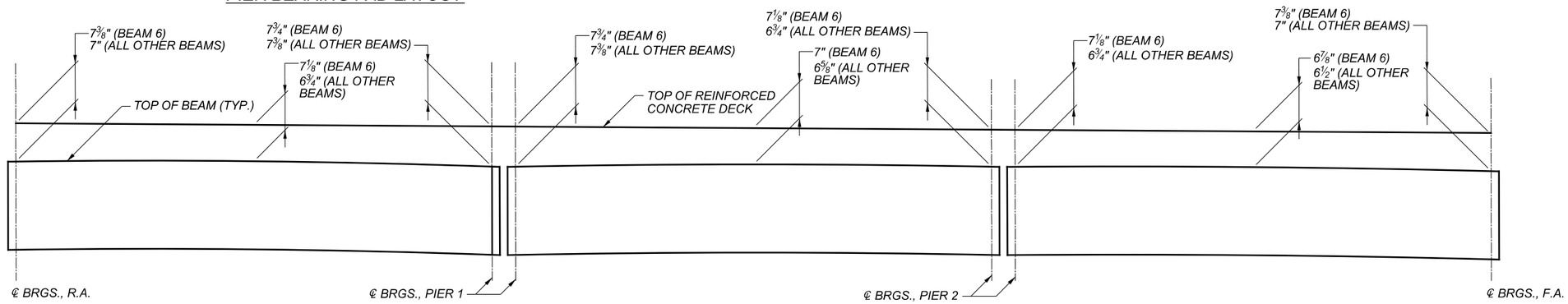
LAMINATED ELASTOMERIC BEARING PAD
8" X 10" X 2.374"



PIER BEARING PAD LAYOUT



ABUTMENT BEARING PAD LAYOUT



TOPPING DIAGRAM

R.A.

F.A.

CAMBER

ESTIMATED CAMBER AT DAY 0 (D0) IS ¼"

ESTIMATED CAMBER AT DAY 30 (D30) IS ⅜"

DEFLECTION DUE TO REMAINING DEAD LOAD (E.G. CONCRETE DECK, RAILING, ETC.) IS ⅛"

THE BEAM SEAT ELEVATIONS ASSUME ESTIMATED CAMBER D30.

NOTES

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO LRFD 9TH EDITION.
2. DECK SLAB THICKNESS FOR CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK CONCRETE IS MEASURED ACCORDING TO C&MS 511, IN ADDITION TO THE DESIGN SLAB THICKNESS, THE QUANTITY INCLUDES A VARIABLE THICKNESS THAT PROVIDES AN ALLOWANCE FOR BEAM CAMBER.

SUPERSTRUCTURE AND BEARING DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942
DESIGN AGENCY CARPENTER MARTY transportation
DESIGNER JMV | CHECKER AMR
REVIEWER GDJ 10-18-21
PROJECT ID 114392
SUBSET 12 | TOTAL 17
SHEET 28 | TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:32 AM USER: BRussell
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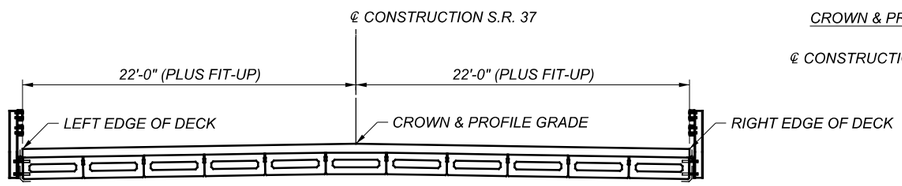
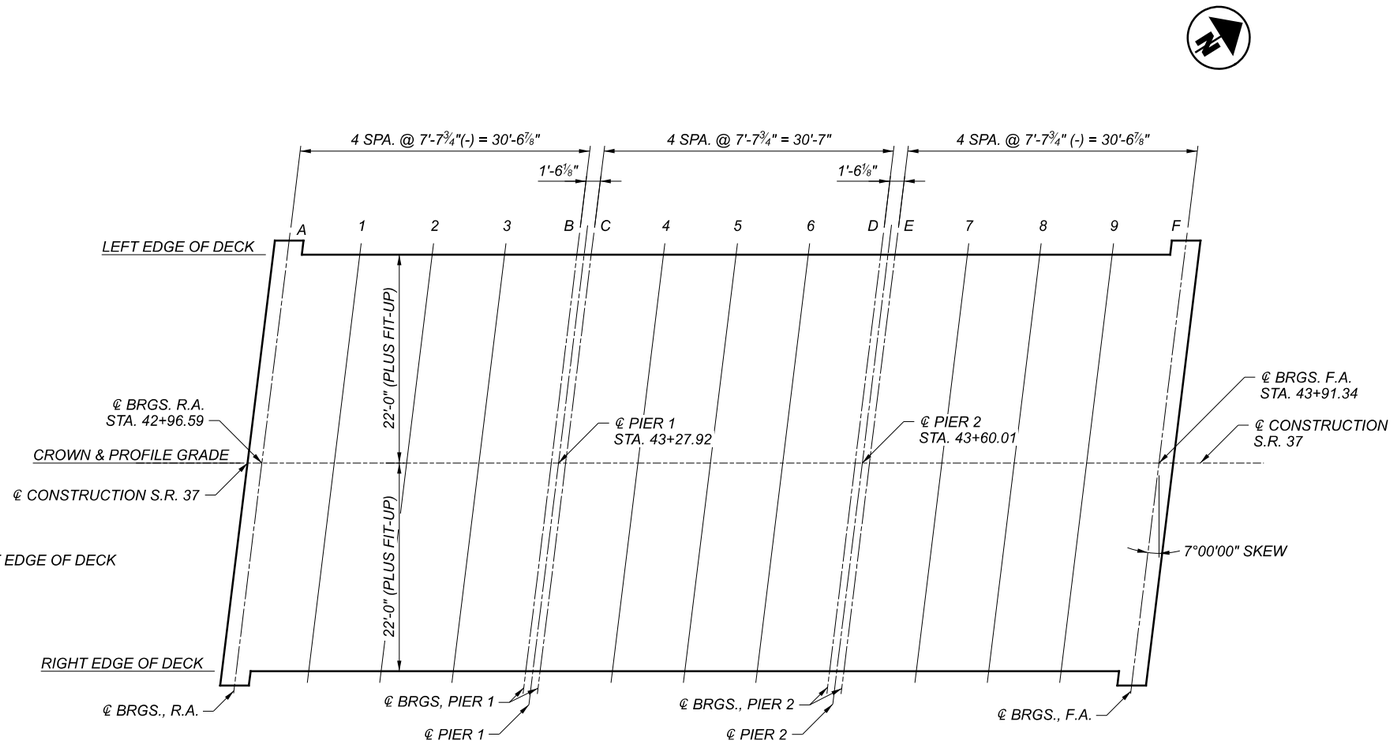
SCREED ELEVATIONS (FT.) *																
LOCATION	DESCRIPTION	A	1	2	3	B	C	4	5	6	D	E	7	8	9	F
LEFT EDGE OF DECK	STATION	42+99.29	43+06.93	43+14.58	43+22.22	43+29.86	43+31.38	43+39.02	43+46.67	43+54.31	43+61.95	43+63.47	43+71.11	43+78.76	43+86.40	43+94.04
	ELEVATION	895.11	895.10	895.08	895.07	895.04	895.04	895.03	895.01	894.99	894.97	894.97	894.96	894.94	894.92	894.90
CROWN & PROFILE GRADE	STATION	42+96.59	43+04.23	43+11.88	43+19.52	43+27.16	43+28.68	43+36.32	43+43.97	43+51.61	43+59.25	43+60.77	43+68.41	43+76.06	43+83.70	43+91.34
	ELEVATION	895.47	895.46	895.44	895.42	895.40	895.40	895.39	895.37	895.35	895.33	895.33	895.31	895.30	895.28	895.26
RIGHT EDGE OF DECK	STATION	42+93.89	43+01.53	43+09.17	43+16.82	43+24.46	43+25.98	43+33.62	43+41.26	43+48.91	43+56.55	43+58.07	43+65.71	43+73.35	43+81.00	43+88.64
	ELEVATION	895.12	895.11	895.11	895.08	895.06	895.05	895.04	895.02	895.01	894.98	894.98	894.97	894.95	894.93	894.91



TRANSVERSE SECTION



PLAN

LEGEND

* - STATIONS ARE BASED ON NO FIT-UP

NOTE

SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED LOADS.

SCREED ELEVATIONS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942
DESIGN AGENCY CARPENTER MARTY transportation
DESIGNER JMV | CHECKER AMR
REVIEWER GDJ 10-18-21
PROJECT ID 114392
SUBSET 13 | TOTAL 17
SHEET 29 | TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:33 AM USER: BRussell
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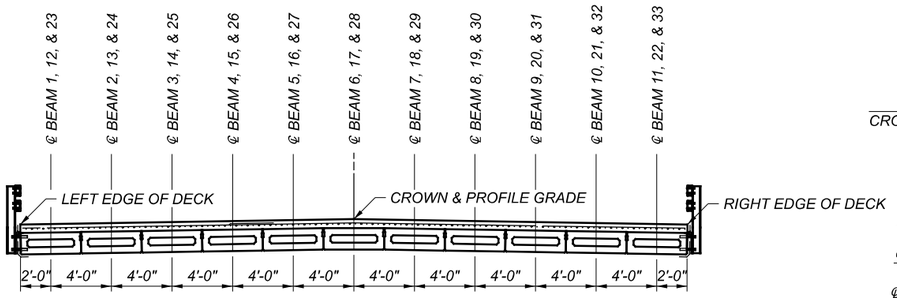
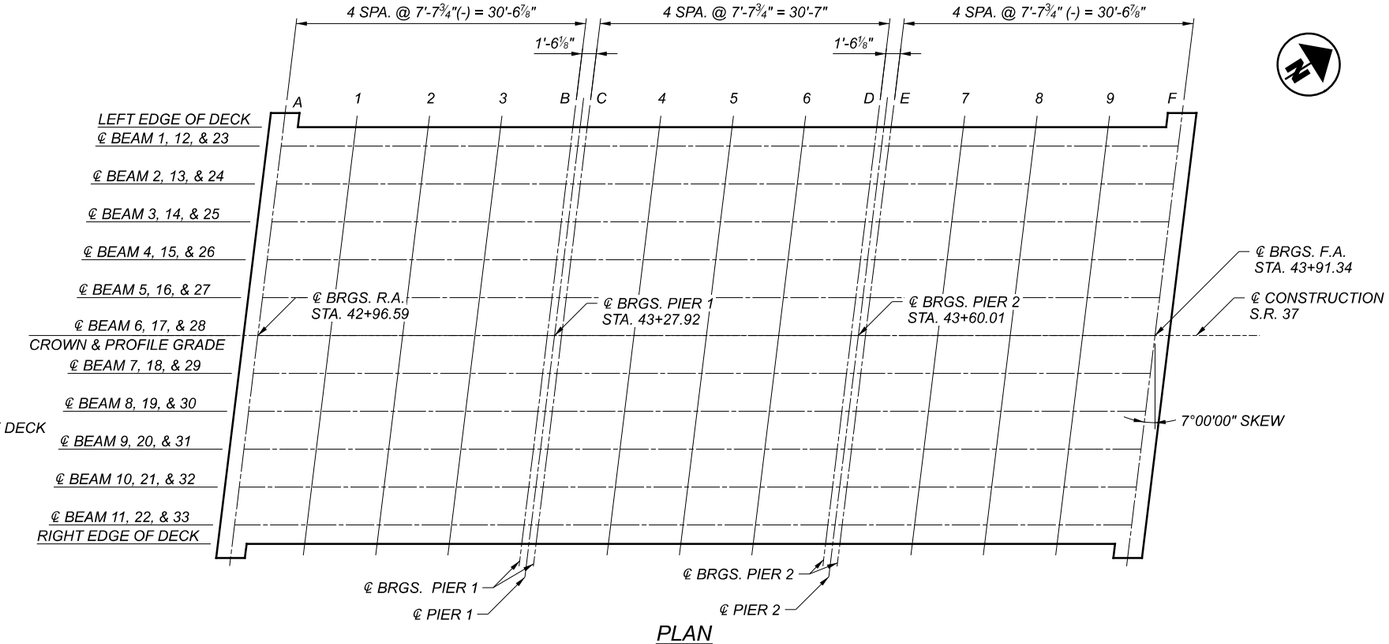
FINAL DECK SURFACE ELEVATIONS (FT.)																
LOCATION	DESCRIPTION	A	1	2	3	B	C	4	5	6	D	E	7	8	9	F
LEFT EDGE OF DECK	STATION	42+99.29	43+06.93	43+14.58	43+22.22	43+29.86	43+31.38	43+39.02	43+46.67	43+54.31	43+61.95	43+63.47	43+71.11	43+78.76	43+86.40	43+94.04
	ELEVATION	895.11	895.10	895.08	895.06	895.04	895.04	895.02	895.01	894.99	894.97	894.97	894.95	894.93	894.92	894.90
CENTERLINE BEAM 1, 12, & 23	STATION	42+99.05	43+06.69	43+14.33	43+21.97	43+29.62	43+31.14	43+38.78	43+46.42	43+54.06	43+61.71	43+63.23	43+70.87	43+78.51	43+86.15	43+93.80
	ELEVATION	895.15	895.13	895.11	895.09	895.08	895.07	895.06	895.04	895.02	895.00	895.00	894.98	894.97	894.95	894.93
CENTERLINE BEAM 2, 13, & 24	STATION	42+98.55	43+06.20	43+13.84	43+21.48	43+29.12	43+30.64	43+38.29	43+45.93	43+53.57	43+61.21	43+62.73	43+70.38	43+78.02	43+85.66	43+93.30
	ELEVATION	895.21	895.19	895.18	895.16	895.14	895.14	895.12	895.10	895.09	895.07	895.07	895.05	895.03	895.02	895.00
CENTERLINE BEAM 3, 14, & 25	STATION	42+98.06	43+05.71	43+13.35	43+20.99	43+28.63	43+30.15	43+37.80	43+45.44	43+53.08	43+60.72	43+62.24	43+69.89	43+77.53	43+85.17	43+92.81
	ELEVATION	895.28	895.26	895.24	895.22	895.21	895.20	895.19	895.17	895.15	895.14	895.13	895.11	895.10	895.08	895.06
CENTERLINE BEAM 4, 15, & 26	STATION	42+97.57	43+05.21	43+12.86	43+20.50	43+28.14	43+29.66	43+37.30	43+44.95	43+52.59	43+60.23	43+61.75	43+69.39	43+77.04	43+84.68	43+92.32
	ELEVATION	895.34	895.32	895.31	895.29	895.27	895.27	895.25	895.23	895.22	895.20	895.20	895.18	895.16	895.15	895.13
CENTERLINE BEAM 5, 15, & 27	STATION	42+97.08	43+04.72	43+12.37	43+20.01	43+27.65	43+29.17	43+36.81	43+44.46	43+52.10	43+59.74	43+61.26	43+68.90	43+76.55	43+84.19	43+91.83
	ELEVATION	895.41	895.39	895.37	895.35	895.34	895.33	895.32	895.30	895.28	895.27	895.26	895.24	895.23	895.21	895.19
CENTERLINE BEAM 6, 17, & 28, CROWN & PROFILE GRADE	STATION	42+96.59	43+04.23	43+11.88	43+19.52	43+27.16	43+28.68	43+36.32	43+43.97	43+51.61	43+59.25	43+60.77	43+68.41	43+76.06	43+83.70	43+91.34
	ELEVATION	895.47	895.45	895.44	895.42	895.40	895.40	895.38	895.36	895.35	895.33	895.33	895.31	895.29	895.28	895.26
CENTERLINE BEAM 7, 18, & 29	STATION	42+96.10	43+03.74	43+11.38	43+19.03	43+26.67	43+28.19	43+35.83	43+43.47	43+51.12	43+58.76	43+60.28	43+67.92	43+75.56	43+83.21	43+90.85
	ELEVATION	895.41	895.39	895.37	895.36	895.34	895.34	895.32	895.30	895.28	895.27	895.26	895.25	895.23	895.21	895.20
CENTERLINE BEAM 8, 19, & 30	STATION	42+95.61	43+03.25	43+10.89	43+18.54	43+26.18	43+27.70	43+35.34	43+42.98	43+50.63	43+58.27	43+59.79	43+67.43	43+75.07	43+82.72	43+90.36
	ELEVATION	895.34	895.33	895.31	895.29	895.28	895.27	895.26	895.24	895.22	895.20	895.20	895.18	895.17	895.15	895.13
CENTERLINE BEAM 9, 20, & 31	STATION	42+95.12	43+02.76	43+10.40	43+18.04	43+25.69	43+27.21	43+34.85	43+42.49	43+50.13	43+57.78	43+59.30	43+66.94	43+74.58	43+82.22	43+89.87
	ELEVATION	895.28	895.26	895.25	895.23	895.21	895.21	895.19	895.18	895.16	895.14	895.14	895.12	895.10	895.09	895.07
CENTERLINE BEAM 10, 21, & 32	STATION	42+94.63	43+02.27	43+09.91	43+17.55	43+25.20	43+26.72	43+34.36	43+42.00	43+49.64	43+57.29	43+58.81	43+66.45	43+74.09	43+81.73	43+89.38
	ELEVATION	895.22	895.20	895.18	895.17	895.15	895.15	895.13	895.11	895.10	895.08	895.08	895.06	895.04	895.02	895.01
CENTERLINE BEAM 11, 22, & 33	STATION	42+94.13	43+01.78	43+09.42	43+17.06	43+24.70	43+26.22	43+33.87	43+41.51	43+49.15	43+56.79	43+58.31	43+65.96	43+73.60	43+81.24	43+88.88
	ELEVATION	895.16	895.14	895.12	895.10	895.09	895.08	895.07	895.05	895.03	895.02	895.01	895.00	894.98	894.96	894.94
RIGHT EDGE OF DECK	STATION	42+93.89	43+01.53	43+09.17	43+16.82	43+24.46	43+25.98	43+33.62	43+41.26	43+48.91	43+56.55	43+58.07	43+65.71	43+73.35	43+81.00	43+88.64
	ELEVATION	895.12	895.11	895.09	895.07	895.06	895.05	895.04	895.02	895.00	894.98	894.98	894.96	894.95	894.93	894.91



TRANSVERSE SECTION



PLAN

LEGEND

* - STATIONS ARE BASED ON NO FIT-UP

NOTE

FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

FINAL DECK SURFACE ELEVATIONS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
JMV	AMR

REVIEWER: GDJ 10-18-21

PROJECT ID: 114392

SUBSET	TOTAL
14	17

SHEET	TOTAL
30	33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:35 AM USER: BRussell
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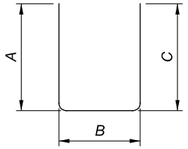
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS				
					A	B	C	D	INC
SUPERSTRUCTURE									
S401	8	30'-0"	161	STR					
S402	8	17'-6"	94	STR					
S501	90	3'-7"	337	2	1'-7"	0'-8"	1'-7"		
S502	90	4'-2"	392	3	1'-2"	0'-8"			
S503	8	30'-0"	251	STR					
S504	8	17'-1"	143	STR					
S505	8	9'-0"	76	3	2'-8"	1'-7"			
S506	28	5'-5"	159	STR					
S507%	16	1'-4"	23	STR					
S508	88	4'-1"	375	17	2'-8"				
S601	236	30'-0"	10635	STR					
S602	132	16'-10"	3338	STR					
S603	34	16'-0"	818	STR					
S604	66	23'-4"	2314	STR					
S605	2	17'-6"	53	STR					
D801	60	4'-6"	721	18	2'-3"	1'-0"	1'-0"		
		SUB-TOTAL	19890						

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS				
	R.A.	F.A.	TOTAL				A	B	C	D	INC
ABUTMENTS											
A401	27	27	54	9'-0"	325	3	1'-9"	2'-6"			
A501	47	46	93	11'-1"	1076	3	2'-8"	2'-7"			
A502	36	36	72	6'-9"	507	10	2'-2"	2'-2"	0'-8"	3'-2"	
A503	20	20	40	30'-0"	1252	STR					
A504	10	10	20	7'-2"	150	STR					
A505	36	36	72	13'-5"	1008	2	5'-6"	2'-8"	5'-6"		
A506	1 SERIES OF 4		1 SERIES OF 4	14'-5" TO 16'-3"	66	2	6'-0" TO 6'-11"	2'-8"	6'-0" TO 6'-11"		4" (-)
A507	1 SERIES OF 3		1 SERIES OF 3	14'-5" TO 16'-3"	49	2	6'-0" TO 6'-11"	2'-8"	6'-0" TO 6'-11"		6" (-)
A508	4		4	17'-9"	75	2	7'-8"	2'-8"	7'-8"		
A509	1		1	6'-8"	7	STR					
A510	1		1	6'-4"	7	STR					
A511	1		1	4'-4"	5	STR					
A512	1		1	4'-1"	5	STR					
A513	1		1	6'-10"	8	19	1'-9"	4'-11"	1'-6"		
A514	1		1	6'-5"	7	19	1'-4"	4'-11"	1'-6"		
A515	1		1	6'-3"	7	STR					
A516	1		1	6'-7"	7	STR					
A517	1		1	3'-11"	5	STR					
A518	1		1	4'-3"	5	STR					
A519	1		1	6'-4"	7	19	1'-1"	5'-1"	1'-6"		
A520	1		1	6'-9"	8	19	1'-6"	5'-1"	1'-6"		
A521		2 SERIES OF 3	2 SERIES OF 3	13'-11" TO 15'-11"	94	2	5'-9" TO 6'-9"	2'-8"	5'-9" TO 6'-9"		6"
A522		4	4	17'-5"	73	2	7'-6"	2'-8"	7'-6"		
A523		1	1	6'-8"	7	STR					
A524		1	1	6'-3"	7	STR					
A525		1	1	4'-6"	5	STR					
A526		1	1	4'-2"	5	STR					
A527		1	1	6'-9"	8	19	1'-10"	4'-9"	1'-6"		
A528		1	1	6'-5"	7	19	1'-6"	4'-9"	1'-6"		
A529		1	1	6'-0"	7	STR					
A530		1	1	6'-4"	7	STR					
A531		1	1	3'-10"	4	STR					
A532		1	1	4'-2"	5	STR					
A533		1	1	6'-2"	7	19	1'-2"	4'-10"	1'-6"		
A534		1	1	6'-6"	7	19	1'-6"	4'-10"	1'-6"		
A801	16	16	32	30'-0"	2564	STR					
A802	8	8	16	11'-8"	499	STR					
A803	2	2	4	24'-8"	264	STR					
				SUB-TOTAL	8156						

BENDING DIAGRAM



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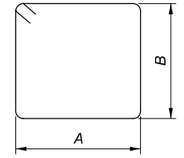

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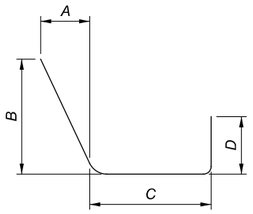

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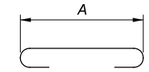

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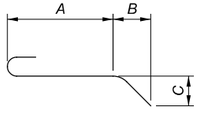

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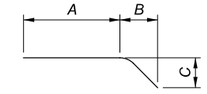

TYPE-19

NOTES

1. THE BAR NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN, THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A501 IS A NO. 5 BAR. BAR DIMENSIONS ARE OUT TO OUT UNLESS OTHERWISE NOTED.

2. ALL REINFORCING STEEL TO BE EPOXY COATED.

LEGEND

% - BAR TO UTILIZE A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE FACE OF THE OUTSIDE BOX BEAM. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY, DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

REINFORCING STEEL
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
JMV	BWR

REVIEWER
GDJ 10-18-21

PROJECT ID
114392

SUBSET	TOTAL
15	17

SHEET	TOTAL
31	33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:36 AM USER: BRussell
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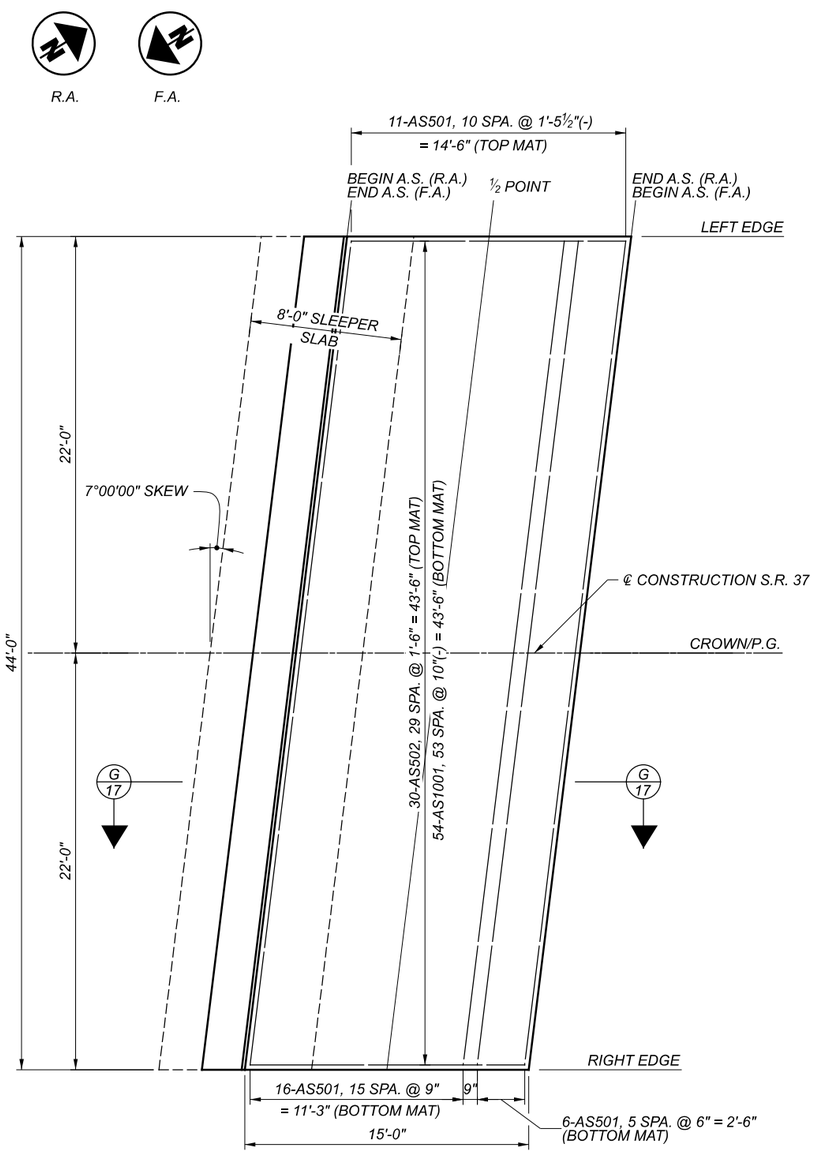
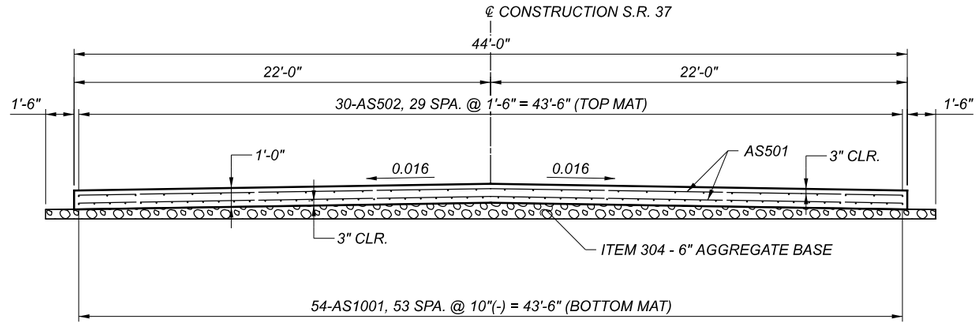


PLAN



ELEVATION

APPROACH SLAB ELEVATIONS							
LOCATION	DESCRIPTION	BEGIN A.S. (R.A.)	1/2 POINT	END A.S. (R.A.)	BEGIN A.S. (F.A.)	1/2 POINT	END A.S. (F.A.)
LEFT EDGE	STATION	42+82.78	42+90.28	42+97.78	43+95.55	44+03.05	44+10.55
	ELEVATION	894.89	894.88	894.86	894.90	894.88	894.86
CROWN/P.G.	STATION	42+80.08	42+87.58	42+95.08	43+92.85	44+00.35	44+07.85
	ELEVATION	895.25	895.23	895.22	895.25	895.23	895.22
RIGHT EDGE	STATION	42+77.38	42+84.88	42+92.38	43+90.15	43+97.65	44+05.15
	ELEVATION	894.90	894.89	894.87	894.91	894.89	894.87

NOTE

REFER TO STD. DWG. AS-1-15 FOR ADDITIONAL NOTES AND DETAILS

APPROACH SLAB DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
MTJ	AMR

REVIEWER
GDJ 10-18-21

PROJECT ID
114392

SUBSET	TOTAL
16	17

SHEET	TOTAL
32	33

LIC-37-25.05

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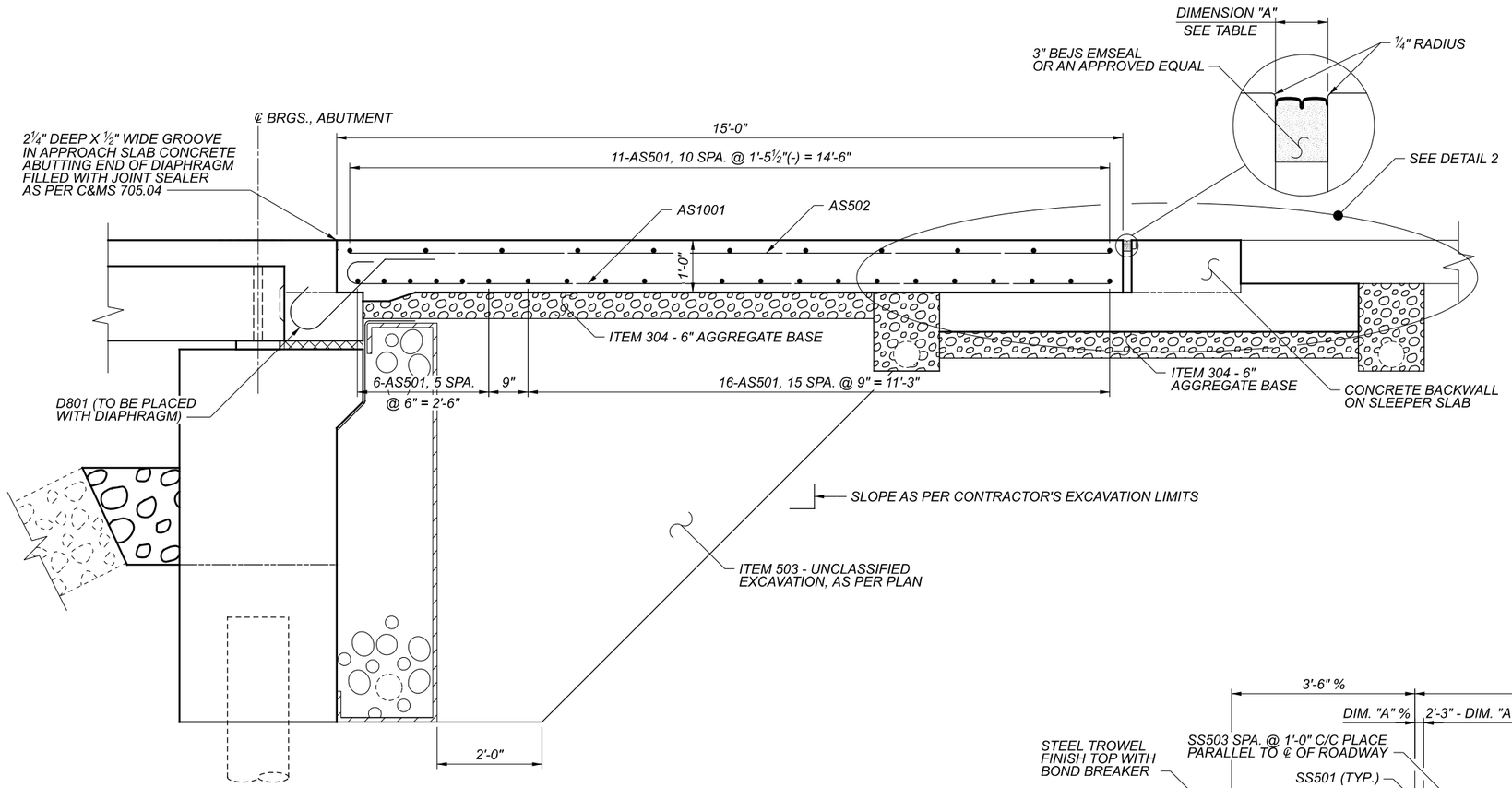


G 16 SECTION

LEGEND

(1) - THIS PORTION OF THE SLEEPER SLAB SHALL NOT BE POURED UNTIL AFTER THE APPROACH SLAB HAS BE CONSTRUCTED

% - DIMENSION TAKEN PERPENDICULAR TO JOINT

NOTES

1. ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB EMSEAL: FURNISH MATERIAL CONFORMING TO 705.11. THE SEAL CONFIGURATION SHOULD BE SIMILAR TO THE DETAILS SHOWN HEREIN. ACCEPTED MANUFACTURES ARE: EMSEAL JOINT SYSTEM LTD. (MODEL 3" BEJS) OR AN APPROVED EQUIVALENT. INSTALL THE SEAL ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURER'S DESIGNATED REPRESENTATIVE. FURNISH SEALS IN ONE CONTINUOUS PIECE UNLESS APPROVED BY THE ENGINEER.

2. BOND BREAKER: A BOND BREAKER CONSISTING OF TWO 4 FOOT SHEETS OF CLEAR OR OPAQUE POLYETHYLENE FILM, ITEM 705.06, SHALL BE CENTERED ON THE SLEEPER SLAB AND BELOW THE APPROACH SLAB, WHERE NOTED. CARE SHALL BE TAKEN IN THE AREA BENEATH THE POLYETHYLENE FILM TO ENSURE THE SURFACE OF THE SLEEPER SLAB IS FINISHED SMOOTH. THE FILM SHALL HAVE A NOMINAL THICKNESS OF 4 MILS.

3. PAYMENT: MEASUREMENT OF THE EXPANSION JOINT FOR PAYMENT PURPOSES SHALL BE ALONG THE CENTERLINE OF THE SLEEPER SLAB. PAYMENT SHALL BE PER FOOT OF ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB AND SHALL INCLUDE 3" BEJS SEAL AS PROVIDED BY EMSEAL JOINT SYSTEM LTD. AT 25 BRIDLE LANE, WESTBOROUGH, MA 01581 (800) 526-8365 OR AN APPROVED EQUAL, CLASS QC2 WITH QC/QA CONCRETE SLEEPER SLAB, RESTEEL AND ALL LABOR, MATERIALS AND INCIDENTALS NEEDED TO CONSTRUCT THE JOINT AS SHOWN, INCLUDING THE PIPE UNDERDRAINS. THE UNDERDRAINS SHALL BE INSTALLED AS PER C&MS ITEM 605.03 - 6" PIPE UNDERDRAIN (707.31) AND WILL INLCUDE THE NECESSARY GRANULAR MATERIAL.

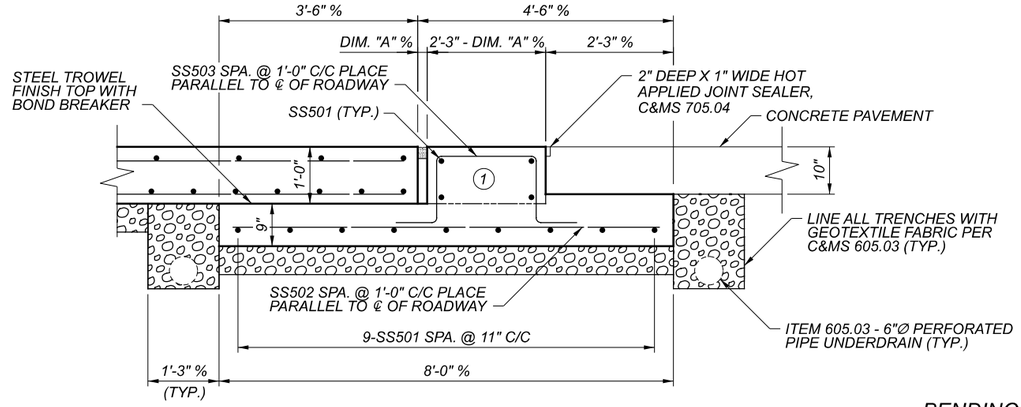
ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE EXISTING WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO C&MS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

AMBIENT TEMP (°F)	DIMENSION "A"
90°	$1\frac{13}{16}$"
80°	$2\frac{1}{16}$"
70°	$2\frac{5}{16}$"
60°	$2\frac{5}{8}$"
50°	$2\frac{7}{8}$"
40°	$3\frac{1}{8}$"
30°	$3\frac{3}{8}$"



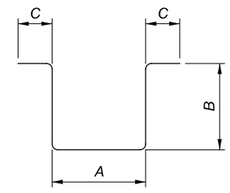
DETAIL 2

MARK	NUMBER R.A.	NUMBER F.A.	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSION A	DIMENSION B	DIMENSION C
SLEEPER SLABS									
SS501	13	13	26	43'-10"	1189	STR			
SS502	45	45	90	7'-6"	705	STR			
SS503	45	45	90	4'-11"	462	6	1'-5"	1'-2"	10"
				SUB-TOTAL	2356				

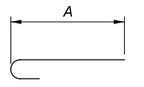
MARK	NUMBER R.A.	NUMBER F.A.	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSION A
APPROACH SLABS							
AS501	33	33	66	43'-10"	3018	STR	
AS502	30	30	60	14'-6"	908	STR	
AS1001	54	54	108	15'-11"	7397	16	14'-6"
				SUB-TOTAL	11323		

APPROACH SLAB REINFORCING STEEL TO BE INCLUDED FOR PAYMENT WITH ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN

BENDING DIAGRAM



TYPE-6



TYPE-16

FORWARD APPROACH SLAB DETAILS
BRIDGE NO.: LIC-37-2508
OVER SOUTH FORK LICKING RIVER

SFN 4501942
DESIGN AGENCY CARPENTER MARTY transportation
DESIGNER MTJ | CHECKER AMR
REVIEWER GDJ 10-21-21
PROJECT ID 114392
SUBSET 17 | TOTAL 17
SHEET 33 | TOTAL 33

LIC-37-25.05

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 1/6/2022 TIME: 8:46:38 AM USER: BRussell
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