pennsylvania
DEPARTMENT OF TRANSPORTATION

April 27, 2023

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265

Re: Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter the public crossing (DOT 843 020 P) where Township Road 942, Lower Coleville Road, crosses, at grade, tracks of SEDA-COG Joint Rail Authority operated on by the Nittany and Bald Eagle Railroad in Spring Township, Centre County, and the allocation of costs incident thereto.

Dear Secretary Chiavetta:

In accordance with ordering paragraph number 3 of the PUC Secretarial Letter/Order at Docket No. A-2021-3029574 dated February 8, 2022, please find attached for your approval one copy of the construction roadway and structure plans for the subject crossing on Township Road 942, Lower Coleville Road in Centre County. The construction roadway plan consists of sheets 1-23. The construction structure plans consist of sheets 1-32.

The Department of Transportation hereby avers that a set of the aforesaid plans have been sent to the parties of record in accordance with the attached Certificate of Service by electronic mail.

We respectfully request the approval of these plans and the subsequent issuance of a PUC Order or a Secretarial Letter. Should you have any questions or concerns, please feel free to contact Mark A. Schultz at 814.765.0442.

Sincerely,

Mark A. Schultz, Transportation Planning Manager
Engineering District 2-0
Department of Transportation

Enclosure(s)

020/MAS/tjl

0427-1-mas

cc: Parties of Record
Chief, Right-of-Way and Utilities Section, 7th Floor, CKB
Office of Chief Counsel, 9th Floor, CKB
Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter the public at grade crossing where Township Road 942, Lower Coleville Road, crosses the track(s) of SEDACOG Joint Rail Authority, DOT Number 843 020 P in Spring Township, Centre County and the allocation of costs incident thereto.	Application Docket No. A-2021-3029574 **Electronically Filed**

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the participants listed below, in accordance with the requirements of 52 Pa. Code § 1.54, by first class mail, postage prepaid:

SEDA-COG Joint Rail Authority
Kyle Postupack, Property Manager
201 Furnace Road
Lewisburg, PA 17837
Phone No.: 570-524-4491
Email: kpostupack@seda-cog.org

Nittany & Bald Eagle Railroad
C/O North Shore Railroad
Jeb Stotter, President
356 Priestly Avenue
Northumberland, PA 17857
Phone No.: 570-473-7949
Email: jstotter@nshr.com

Centre County Commissioners
Margaret Gray, Chief Clerk
Room 151, Willowbank Office Building
420 Holmes Street
Bellefonte, PA 16823
Phone No.: 814-355-6700
Email: mngray@centrecountypa.gov

Spring Township
Mike Danneker, Secretary
1309 Blanchard Street
Bellefonte, PA 16823
Phone No.: 814-355-7543
Email: mdanneker@springtownship.org

Spring Township Water Authority
Mike Danneker, Secretary
1309 Blanchard Street
Bellefonte, PA 16823
Phone No.: 814-355-7543
Email: mdanneker@springtownship.org

Spring-Benner-Walker Joint Authority (Sewer)
N Warren Miller
170 Irish Hollow Road
Bellefonte, PA 16823
Phone No.: 814-355-4778
Email: wmiller@sbwja.com

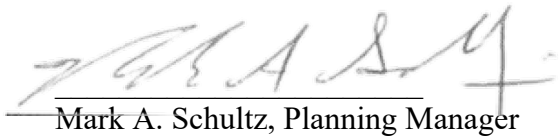
Columbia Gas of Pennsylvania
Logan Harper
1600 Colony Road
York, PA 17408
Phone No. 717-849-0137
Email: LHarper@nisource.com

Comcast Cable Communications
Jeff Walker
250 Reese Road
State College, PA 16801
Phone No.: 814-954-5207
Email: Jeffrey_Walker2@comcast.com

West Penn Power
Rob Rhodes
2800 East College Avenue
State College, PA 16801
Phone No.: 814-231-5339
Email: rwrhodes@firstenergycorp.com

Verizon Pennsylvania
Joe Schoch
250 South Allen Street
State College, PA 16801
Phone No.: 814-231-6565
Email: joseph.l.schoch.jr@verizon.com

Dated this 27th Day of April, 2023



Mark A. Schultz, Planning Manager
PennDOT Engineering District 2-0
70 PennDOT Drive
Clearfield, PA 16830
Phone: 814.765.0442
Email: markschult@pa.gov

DISTRICT	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
2-0	CENTRE	SPRING	----	T-942	---	10

ALSO INCLUDED:

PERMANENT SIGNING, PAVEMENT MARKINGS AND DELINEATION PLAN	3	SHEETS
TRAFFIC CONTROL PLAN	2	SHEET
EROSION AND SEDIMENT POLLUTION CONTROL PLAN	4	SHEETS
STRUCTURE PLAN L-412D	32	SHEETS
CROSS SECTIONS	4	SHEETS

CENTRE COUNTY

DRAWINGS

FOR

CONSTRUCTION

OF

TOWNSHIP ROAD T-942

IN

SPRING TOWNSHIP

FROM STA 9+00.00 TO STA 14+75.00 LENGTH 375.00 FT 0.071 MI

SCALE

HORIZONTAL 0 25 50 FEET

VERTICAL 0 5 10 FEET

DESIGN DESIGNATION

HIGHWAY CLASSIFICATION	- RURAL LOCAL ROAD
DESIGN SPEED	- 25 MPH
PAVEMENT WIDTH	- 24 FT
SHOULDER WIDTH	- 5 FT LT & 5.7 RT

TRAFFIC DATA

CURRENT ADT	- 662 (2022)
DESIGN YEAR ADT	- 667 (2023)
DHV	- 74 (11%)
D	- 55%
T	- 5%

RELEASED FOR CONSTRUCTION

DESIGN REVIEWED BY:

David J Johnson 4/19/2023

LARSON DESIGN GROUP
1000 COMMERCE PARK DRIVE, SUITE 201
WILLIAMSPORT, PA 17701

THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH THE DEPARTMENT'S DESIGN AND CONSTRUCTION CRITERIA AND STANDARDS AND IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

PREPARED BY:
P. JOSEPH LEHMAN, INC.
CONSULTING ENGINEERS
P.O. BOX 419
HOLLIDAYSBURG, PA 16648

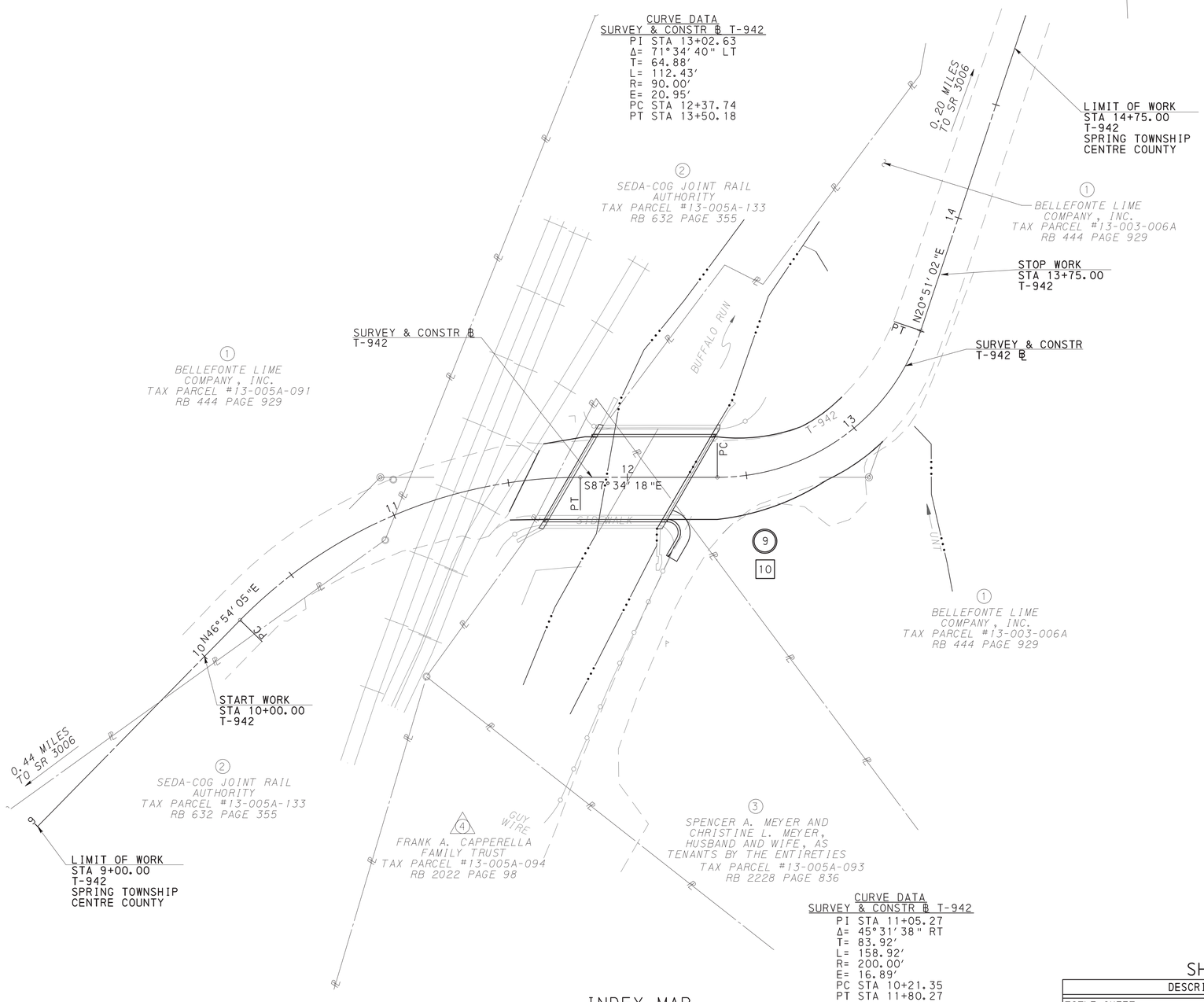
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060996

Adam Katrancha
REG PROF ENGINEER

18 April 2023
DATE

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	2 OF 10
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



INDEX MAP

0 25 50 FEET

LEGEND

- ◯ - PLAN
- □ - PROFILE
- ○ - PARCEL IDENTIFICATION NUMBER
- △ - PARCEL IDENTIFICATION NUMBER - NO TAKE

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

SHEET INDEX

DESCRIPTION	SHEET
TITLE SHEET	1
INDEX MAP	2
LOCATION MAP, GENERAL NOTES & COORDINATES	3
TYPICAL SECTIONS AND DETAILS	4-5
SUMMARY SHEET	6
TABULATIONS	7-8
PLAN AND PLOT SHEETS	9-10

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060096

G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\01 Roadway Plan\T-942\12181-001-T-942-CON-IDX
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TABULATION OF OVERALL LENGTH

STA 9+00.00 TO STA 14+75.00 575.00 FEET 0.109 MILES

TABULATION OF CONSTRUCTION LENGTH

STA 10+00.00 TO STA 13+75.00 375.00 FEET 0.071 MILES

LIST OF STATIONING EQUALITIES

-NONE-

SUMMARY OF PROJECT COORDINATES

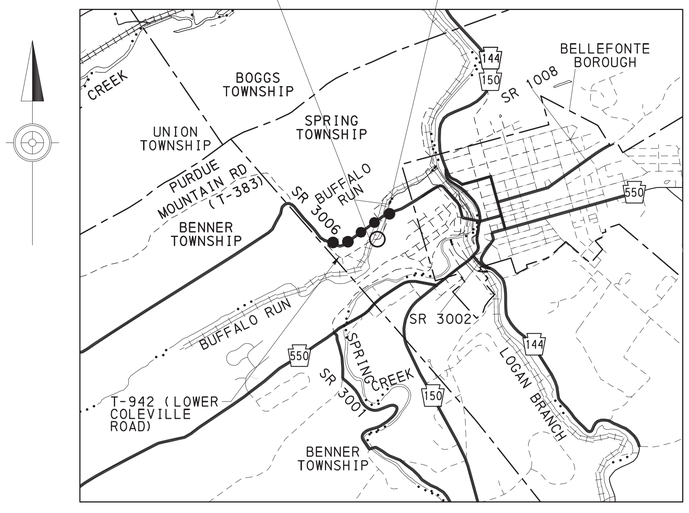
BASED ON THE PENNSYLVANIA STATE PLANE (NORTH ZONE) COORDINATE SYSTEM
AVERAGE COMBINED FACTOR = 0.99993607

RTE.	STATION	POINT	COORDINATES		BEARING
			NORTH	EAST	
SURVEY & CONSTR @ T-942	9+00.00	BEGIN STA	270620.5820	1956146.4135	
	10+21.35	PC	270703.4933	1956235.0183	N46°54′05"E
	11+05.27	PI	270760.8341	1956296.2968	
	11+80.27	PT	270757.2781	1956380.1441	S87°34′18"E
	12+37.74	PC	270754.8427	1956437.5705	
	13+02.63	PI	270752.0935	1956502.3958	
	13+50.18	PT	270812.7279	1956525.4900	N20°51′02"E
	14+89.36	END STA	270942.7965	1956575.0300	

FOUR (4) PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) DECIMAL PLACES.

LIMIT OF WORK
STA 9+00.00
T-942
SPRING TOWNSHIP
CENTRE COUNTY

LIMIT OF WORK
STA 14+75.00
T-942
SPRING TOWNSHIP
CENTRE COUNTY



LOCATION MAP

0 ½ 1 MILE

MAP LEGEND

- PROJECT
- MUNICIPAL BOUNDARY
- STATE HIGHWAY
- RAILROAD
- LOCAL ROAD
- STREAM
- DETOUR ROUTE

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

PUBLIC UTILITIES

PENNSYLVANIA ONE CALL SYSTEM 1-800-242-1776
SERIAL NO. 20230290172 (SPRING TOWNSHIP)

WEST PENN POWER
2800 EAST COLLEGE AVENUE
STATE COLLEGE, PA 16801
PHONE: (814) 231-5339
ATTN: ROBERT RHODES
EMAIL: rwrhodes@firstenergycorp.com

E E
E E

VERIZON PENNSYLVANIA LLC
250 SOUTH ALLEN STREET
STATE COLLEGE, PA 16801
PHONE: (814) 231-6565
ATTN: JOE SCHOCH
EMAIL: joseph.l.schoch.jr@verizon.com

T T
T T

SPRING BENNER WALKER JOINT AUTHORITY
170 IRISH HOLLOW ROAD
BELLEFONTE, PA 16823
PHONE: (814) 355-4778
ATTN: WARREN MILLER
EMAIL: wmiller@sbwja.com

S S S

COLUMBIA GAS OF PENNSYLVANIA
1600 COLONY ROAD
YORK, PA 17408
PHONE: (717) 817-9123
ATTN: WILLIAM SHUPE
EMAIL: wshupe@nisource.com

G G G

BELLEFONTE BOROUGH
236 WEST LAMB STREET
BELLEFONTE, PA 16823
PHONE: (814) 355-1501
ATTN: MATT AUMAN
EMAIL: mauman@bellefonte.gov

W W W

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	3 OF 10
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY ON T-942 FROM STA 9+00.00 TO STA 11+37.00 AND FROM STA 13+75.00 TO STA 14+75.00 IS 33 FEET, BASED ON THE ACT OF MAY 1, 1933, P.L. 103, SECTION 1105, AS AMENDED. T-942 HAS BEEN OPENED AND MAINTAINED FOR TWENTY-ONE (21) YEARS OR MORE BY SPRING TOWNSHIP, A SECOND-CLASS TOWNSHIP. THERE IS NO PUBLIC RECORD OF ANY OTHER WIDTH.

THE LEGAL RIGHT-OF-WAY ON T-942 FROM STA 11+37.00 TO STA 13+75.00 VARRIES FROM 33 FEET TO 85 FEET, BASED ON THE RIGHT-OF-WAY PLAN FOR T-942, SECTION MTF R/W, APPROVED BY THE CENTRE COUNTY COMMISSIONERS ON MAY 10, 2022 AND RECORDED IN CENTRE COUNTY RECORDER OF DEEDS OFFICE ON JULY 6, 2022 IN INSTRUMENT NO. 02022-0008.

DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

RC-10M JUNE 1, 2010
RC-11M JUNE 1, 2010
RC-12M NOVEMBER 1, 2022
RC-13M JUNE 1, 2010
RC-25M FEBRUARY 27, 2023
RC-30M FEBRUARY 27, 2023
RC-40M FEBRUARY 8, 2019
RC-50M FEBRUARY 27, 2023
RC-51M FEBRUARY 27, 2023
RC-54M FEBRUARY 27, 2023
RC-57M NOVEMBER 30, 2021
RC-70M FEBRUARY 8, 2019
RC-75M JUNE 1, 2010

BC-732M JANUARY 31, 2019
BC-735M SEPTEMBER 30, 2016
BC-736M JANUARY 31, 2019
BC-751M JANUARY 31, 2019
BC-752M FEBRUARY 19, 2021
BC-755M JANUARY 31, 2019
BC-775M SEPTEMBER 30 2016
BC-788M JANUARY 31, 2019

TC-8600 JUNE 13, 2013
TC-8604 AUGUST 17, 2021
TC-8702B JUNE 13, 2013
TC-8702C JUNE 13, 2013
TC-8716 JUNE 13, 2013

THREE TO TEN WORKING DAYS PRIOR TO EXCAVATION BASED ON THE COMPLEXITY OF THE PROJECT, THE CONTRACTOR MUST CONTACT THE PA ONE-CALL SYSTEM, INC., PHONE 1-800-242-1776, SERIAL NO. _____ FOR SPRING TOWNSHIP. ADDITIONAL INFORMATION AVAILABLE AT HTTPS://WWW.PA1CALL.ORG/PA811/PUBLIC

THE CONTRACTOR IS REQUIRED TO NOTIFY THE DEPARTMENT AND SUBMIT AN ALLEGED VIOLATION REPORT (AVR) TO THE PA PUBLIC UTILITY COMMISSION THROUGH THE PA ONE CALL SYSTEM, WWW.PA1CALL.ORG, WITHIN TEN (10) BUSINESS DAYS AFTER A UTILITY LINE IS STRUCK, DAMAGED, OR PREVIOUS DAMAGE IS DISCOVERED AS REQUIRED BY PENNSYLVANIA'S UNDERGROUND UTILITY LINE PROTECTION LAW ACT 50 (P.L. 852, NO. 287 AMENDED OCT. 30, 2017).

TEMPORARY CONSTRUCTION EASEMENT. AN EASEMENT TO USE THE LAND AS NECESSARY DURING CONSTRUCTION OF THE THE PROJECT. THE EASEMENT IS REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE COUNTY.

HORIZONTAL CONTROL IS BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NORTH ZONE) NORTH AMERICAN DATUM (NAD83/2011 CORRECTION) ESTABLISHED BY GPS STATIC (OPUS). AVERAGE COMBINED FACTOR = 0.99993607.

VERTICAL CONTROL IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) (GEOID 18B)(GPS STATIC).

ALL CURVE DATA IS BASED ON THE ARC DEFINITION UNLESS OTHERWISE INDICATED.

THERE ARE NO NAVIGABLE STREAMS ON THE PROJECT.

THE HALF CIRCELD NUMBER INDICATES A SCALED DIMENSION.

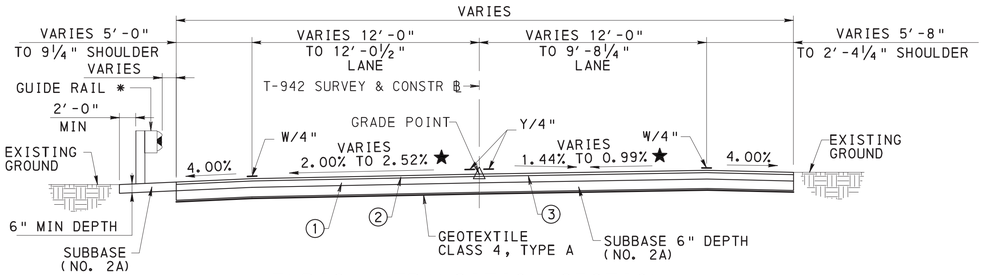
+50
20′

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060096

SURVEY BOOK NO. 581, 588, & 595

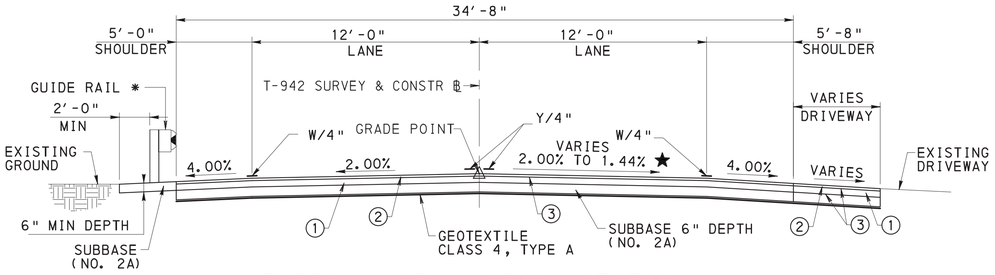
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	4 OF 10
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



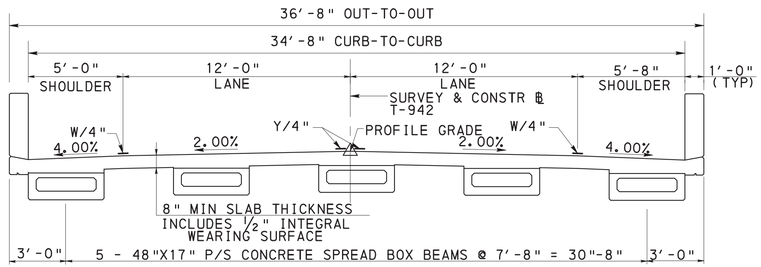
TYPICAL TRANSITION SECTION

STA 12+37.74 TO STA 12+80.00
NOT TO SCALE



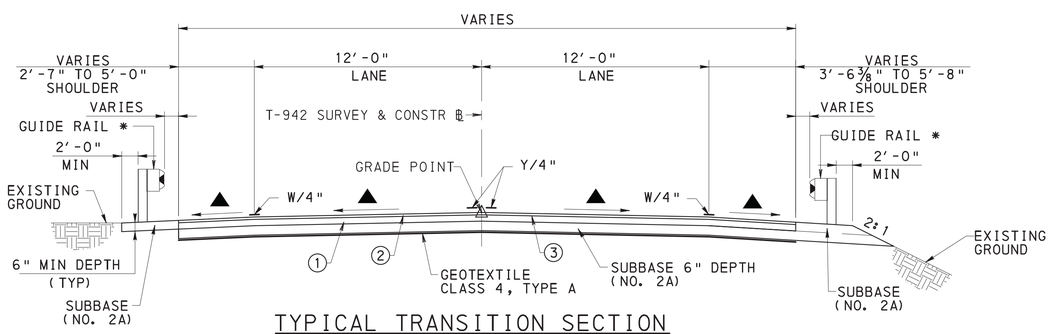
TYPICAL NORMAL CROWN SECTION

STA 12+27.02 TO STA 12+37.74
NOT TO SCALE



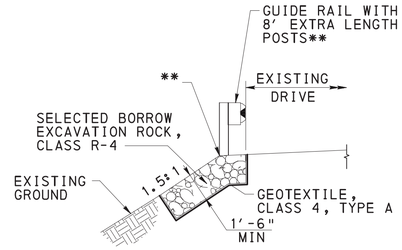
TYPICAL BRIDGE SECTION

BRIDGE STA 11+75.25 TO STA 12+27.02



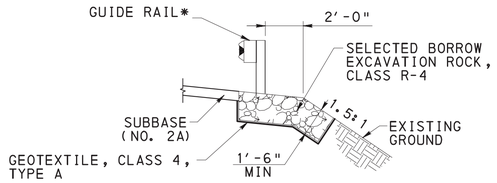
TYPICAL TRANSITION SECTION

STA 11+56.82 TO STA 11+75.25
NOT TO SCALE



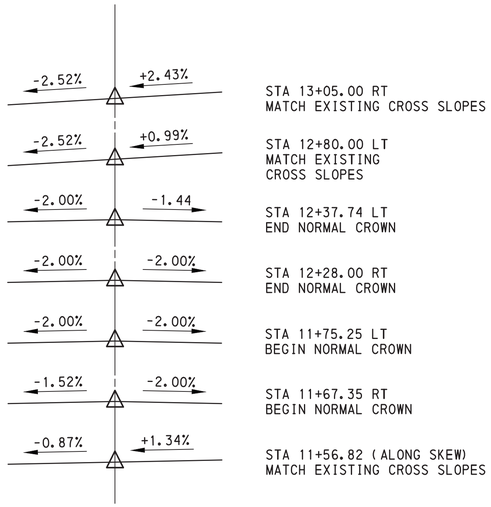
TYPICAL SECTION AT FAR RIGHT DRIVE

STA 11+97.00 TO STA 12+17.53 RT
NOT TO SCALE



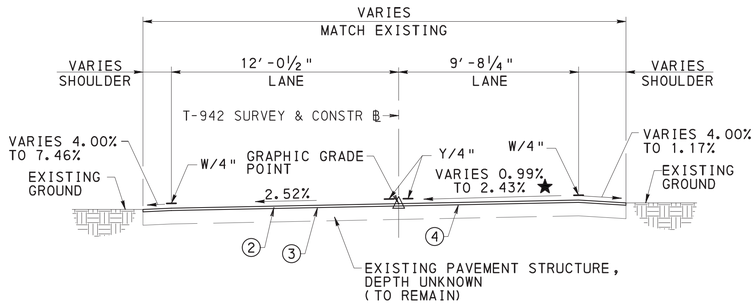
ROCK SLOPE PROTECTION AT NEAR RIGHT

STA 11+38.15 TO STA 11+63.86 RT
NOT TO SCALE



★ T-948 CROSS SLOPE CONTROLS

LOOKING STATIONS AHEAD
NOTE: CROSS SLOPE ROTATED ABOUT CENTERLINE GRADE POINT



TYPICAL MILL AND OVERLAY SECTION

STA 12+80.00 TO STA 13+05.00
NOT TO SCALE

LEGEND

①	- SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALS, 25.0 MM MIX, 4½" DEPTH
②	- SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1½" DEPTH, SRL-L
③	- ASPHALT TACK COAT
④	- MILLING OF ASPHALT PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR
Y/4"	- 4" YELLOW WATERBORNE PAVEMENT MARKINGS
W/4"	- 4" WHITE WATERBORNE PAVEMENT MARKINGS
*	- SEE PLAN FOR LIMITS OF GUIDE RAIL
**	- LOCATE FILL SLOPE BREAK POINT AT REAR FACE OF GUIDE RAIL POST ONLY IF REQUIRED TO PREVENT FILL SLOPE INTO STREAMBED. WHERE ALLOWABLE, PROVIDE 1'-0" MIN FROM REAR FACE OF GUIDE RAIL POST TO FILL SLOPE BREAK POINT.
★	- SEE T-942 CROSS SLOPE CONTROLS, THIS SHEET
▲	- SEE NEAR APPROACH DETAIL ON SHEET 5.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
no 060096

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

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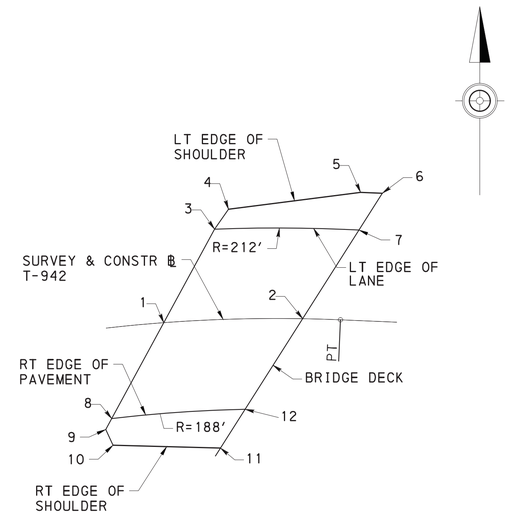
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	5 OF 10
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

LOCATION	STATION	OFFSET	SIDE	FINISHED GRADE ELEVATION
1	11+56.82	0.00′	BL	760.26
2	11+75.25	0.00′	BL	760.15
3	11+64.03	12.00′	LT	760.08
4	11+65.85	14.58′	LT	759.97
5	11+82.22	17.00′	LT	759.68
6	11+85.10	17.00′	LT	759.66
7	11+82.22	12.00′	LT	759.88
8	11+48.47	12.00′	RT	760.46
9	11+47.45	13.35′	RT	760.48
10	11+48.21	15.53′	RT	760.43
11	11+63.66	17.04′	RT	759.85
12	11+67.35	12.00′	RT	759.95



NEAR APPROACH ASPHALT PAVING LAYOUT DETAIL

NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060996

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

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2/13/2023 3:49 PM

STR - STRUCTURE PLAN L-412D
SPMP - PERMANENT SIGNING, PAVEMENT MARKINGS AND DELINEATION PLAN
TCP - TRAFFIC CONTROL PLAN
♦ - SEE SPECIAL PROVISIONS

SUMMARY

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				02	CENTRE	T-942	---	6 OF 10
				SPRING TOWNSHIP				

QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET
X	0608 0001 / LS	MOBILIZATION		NO TAB
X	0686 0063 / LS	CONSTRUCTION SURVEYING, TYPE D, MODIFIED ♦		NO TAB
500	0845 0001 / DOLLA	UNFORESEEN WATER POLLUTION CONTROL		NO TAB
X	1018 0053 / LS	REMOVAL OF PORTION OF EXISTING BRIDGE ♦		NO TAB
10	1091 0331 / LF	EPOXY INJECTION CRACK SEAL		NO TAB
EITHER X	8250 0003 / LS	CONSTRUCTION OF PRESTRESSED CONCRETE SUPERSTUCTURE REPLACEMENT, L-412D ♦	1	STR
OR X	8251 0003 / LS	CONSTRUCTION OF STEEL SUPERSTRUCTURE REPLACEMENT, L-412D ♦	1	NO TAB
X	8913 0003 / LS	CONSTRUCT ROADWAY ♦		7, 8, SPMP
X	8915 0003 / LS	CONSTRUCTION OF MAINTENANCE AND PROTECTION OF TRAFFIC ♦		TCP
50	9000 0001 / DAY	RAILROAD FLAGGING ♦		NO TAB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060996

TABULATION OF QUANTITIES

8913-0003 CONSTRUCT ROADWAY

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				02	CENTRE	T-942	---	7 OF 10
				SPRING TOWNSHIP				

ITEM NUMBERS AND DESCRIPTIONS LISTED IN TABULATIONS ARE SOLELY FOR THE PURPOSE OF IDENTIFYING THE SPECIFIED UNITS OF WORK AND LOCATIONS, AND ARE NTO TO BE CONSTRUED AS CONTRACT OR PAY ITEM.

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ADAM KATRANCHA — ENGINEER No 060996

0201 0003 LS CLEARING AND GRUBBING	0203 0001 CY CLASS 1 EXCAVATION	0203 0006 LF SAW CUTTING	0212 0014 SY GEOTEXTILE, CLASS 4, TYPE A	0313 0323 SY SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALS, 25.0 MM MIX, 4 1/2" DEPTH	0350 0106 SY SUBBASE 6" DEPTH (NO. 2A)	0350 0120 CY SUBBASE (NO. 2A)	0413 0195 SY SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-L	0460 0001 SY ASPHALT TACK COAT	0491 0019 SY MILLING OF ASPHALT PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR	0620 0400 EACH TERMINAL SECTION, SINGLE	0620 0503 LF REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)	0620 1602 LF TYPE 31-S GUIDE RAIL WITH 8' EXTRA LENGTH POSTS	4620 2010 EACH THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB MODIFIED	9000 0003 EACH THRIE-BEAM TERMINAL SECTION, SINGLE	ITEM NUMBER UNIT	REMARKS	SIDE	STATIONS
																T-942		
X											138					ENTIRE PROJECT		9+00.00 to 14+75.00
										1			1			CONNECT TO EXISTING GUIDE RAIL	RT	11+40.00 to 11+63.66
	25		67	73	77		73	148								FULL DEPTH PAVING	LT / RT	11+56.82 to 11+75.25
						2										SHOULDER BACKUP	LT / RT	11+56.82 to 13+05.00
		24														NEAR APPROACH	LT / RT	11+75.25
													1	1		CONNECT TO EXISTING GUIDE RAIL	LT	11+77.00 to 11+85.10
												12.5	1			CONNECT TO EXISTING GUIDE RAIL	RT	12+17.54 to 12+27.02
		24														FAR APPROACH	LT / RT	12+27.02
				64	54		64	128								CAPPERELLA DRIVE	RT	12+27.02 to 12+50.00
	63		182	189	196		189	380								FULL DEPTH PAVING	LT / RT	12+27.02 to 12+80.00
										1			1			CONNECT TO EXISTING GUIDE RAIL	LT	12+36.84 to 12+64.35
					19											GRAVEL DRIVE	RT	12+61.05 to 12+95.76
							70	70	70							MILL AND OVERLAY	LT / RT	12+80.00 to 13+05.00
---	88	48	249	326	346	2	396	726	70	2	138	12.5	4	1		TOTALS		

PROJECT ID: 5336 MPMS: ECMS: 2/14/2023 9:48:28 AM

TABULATION OF QUANTITIES

8913-0003 CONSTRUCT ROADWAY (CONT'D)

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				02	CENTRE	T-942	---	8 OF 10
				SPRING TOWNSHIP				

ITEM NUMBERS AND DESCRIPTIONS LISTED IN TABULATIONS ARE SOLELY FOR THE PURPOSE OF IDENTIFYING THE SPECIFIED UNITS OF WORK AND LOCATIONS, AND ARE NTO TO BE CONSTRUED AS CONTRACT OR PAY ITEM.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
ADAM KATRANCHA
No 060996

SELECTED BORROW EXCAVATION ROCK, CLASS R-4 0205 0264 CY	SELECTED BORROW EXCAVATION ROCK, CLASS R-8 0205 0268 CY	GEOTEXTILE, CLASS 4, TYPE A 0212 0014 SY	TEMPORARY BARRIER, TEST LEVEL 3, BARRIER DEFLECTION DISTANCE < /=5' 0627 3050 LF	TOPSOIL FURNISHED AND PLACED 0802 0003 SY	SEEDING AND SOIL SUPPLEMENTS - FORMULA B, INCLUDING MULCH 0804 0001 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA L, INCLUDING MULCH 0804 0006 LB	SEEDING - FORMULA E MODIFIED 4804 0014 LB	TEMPORARY PROTECTIVE FENCE 0811 0003 LF	PUMPED WATER FILTER BAG 0855 0003 EACH	COMPOST FILTER SOCK, 12" DIAMETER 0867 0012 LF	TEMPORARY DIVERSION DIKE SYSTEM 9000 0001 LF	CONCRETE WASHOUT 9000 0002 EACH	REMARKS (ITEM NUMBER, UNIT)	SIDE	STATIONS
													T-942		
							5		1			1	ENTIRE PROJECT		0+00.00
6		14											STREAM BANK STABILIZATION	RT	11+37.97 to 11+62.50
										25			CFS1	RT	11+39.00 to 11+57.00
								37					TEMPORARY PROTECTIVE FENCE	RT	11+40.00 to 11+63.00
			47										NEAR APPROACH	RT / LT	11+62.00 to 11+75.00
5	30	24											STREAM BANK STABILIZATION, R-8 CHOKED WITH R-4	LT	11+82.42 to 11+97.26
											29			LT	11+90.00 to 11+97.00
										49			CFS2	RT	11+96.00 to 12+12.00
											29			RT	12+04.00 to 12+16.00
12		25											STREAM BANK STABILIZATION	RT	12+12.00 to 12+19.68
			64										FAR APPROACH	RT / LT	12+27.00 to 12+51.00
				104	5									RT	12+30.00 to 12+70.00
											25			LT	12+40.00 to 12+50.00
3		8											STREAM BANK STABILIZATION	LT	12+46.00 to 12+59.25
						9								LT	12+50.00 to 13+60.00
										89			CFS3	LT	12+51.00 to 13+75.00
						1								RT	12+85.00 to 13+05.00
										17			CFS5	RT	12+92.00 to 13+05.00
										72			CFS4	LT	13+53.00 to 13+71.00
26	30	71	111	104	5	10	5	37	1	252	83	1	TOTALS		

SHEET 1 OF 1 PROJECT ID: 5336 MPMS: ECMS: 2/13/2023 3:26:56 PM

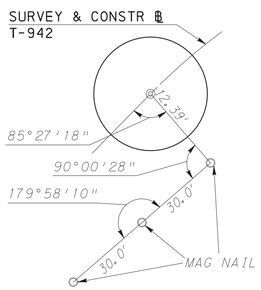
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	9 OF 10
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

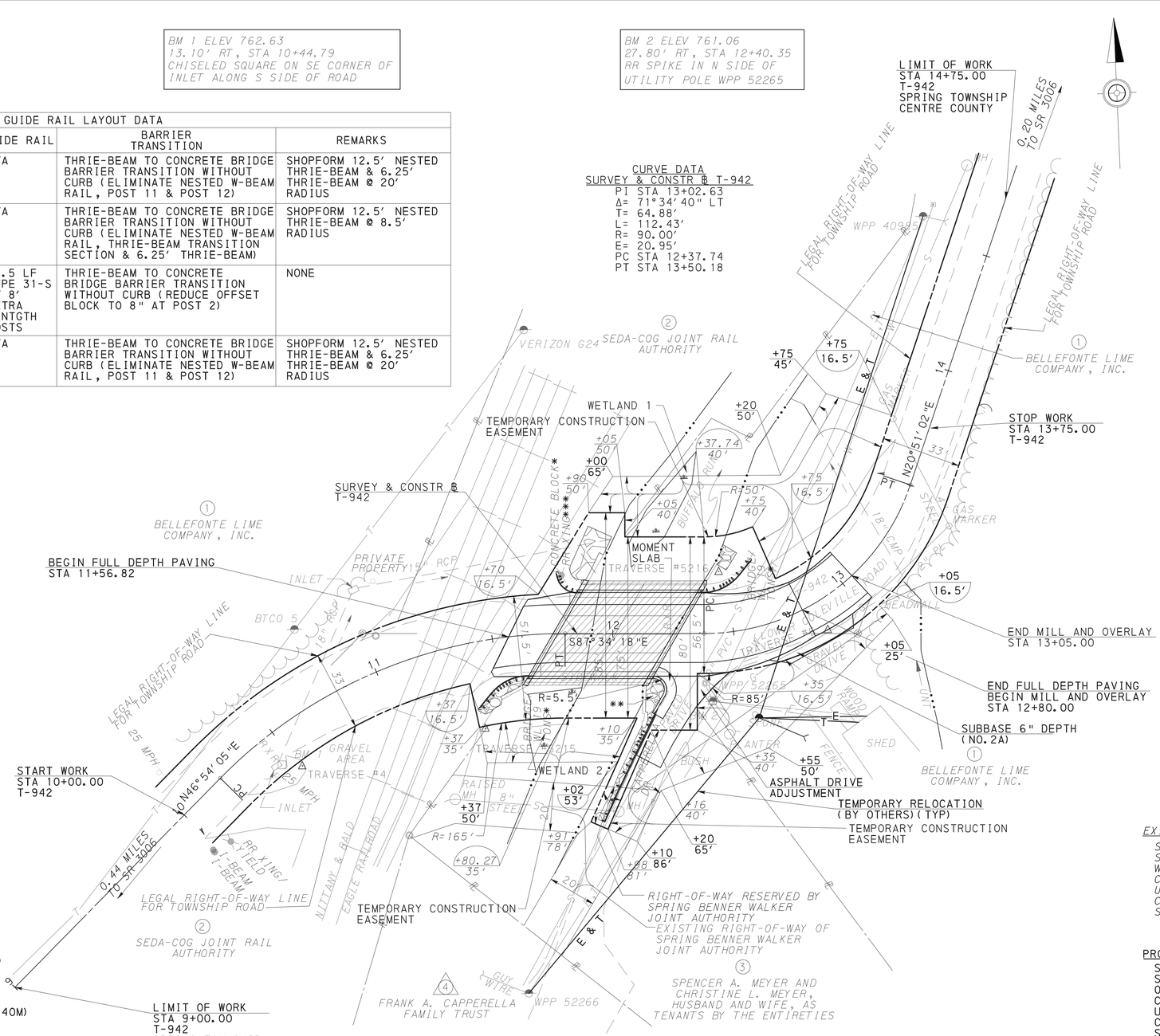
BM 1 ELEV 762.63
13.10' RT, STA 10+44.79
CHISELED SQUARE ON SE CORNER OF INLET ALONG S SIDE OF ROAD

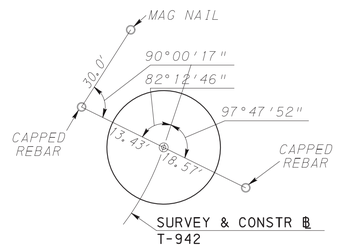
BM 2 ELEV 761.06
27.80' RT, STA 12+40.35
RR SPIKE IN N SIDE OF UTILITY POLE WPP 52265

GUIDE RAIL LAYOUT DATA				
	TERMINAL TREATMENT	GUIDE RAIL	BARRIER TRANSITION	REMARKS
NEAR APPROACH RT	TERMINAL SECTION, SINGLE	N/A	THRIE-BEAM TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB (ELIMINATE NESTED W-BEAM RAIL, POST 11 & POST 12)	SHOPFORM 12.5' NESTED THRIE-BEAM & 6.25' THRIE-BEAM @ 20' RADIUS
NEAR APPROACH LT	THRIE-BEAM TERMINAL SECTION, SINGLE	N/A	THRIE-BEAM TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB (ELIMINATE NESTED W-BEAM RAIL, THRIE-BEAM TRANSITION SECTION & 6.25' THRIE-BEAM)	SHOPFORM 12.5' NESTED THRIE-BEAM @ 8.5' RADIUS
FAR APPROACH RT	TIE-IN TO EXISTING 2-S GUIDE RAIL	12.5 LF TYPE 31-S W/ 8' EXTRA LENTGTH POSTS	THRIE-BEAM TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB (REDUCE OFFSET BLOCK TO 8" AT POST 2)	NONE
FAR APPROACH LT	TERMINAL SECTION, SINGLE	N/A	THRIE-BEAM TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB (ELIMINATE NESTED W-BEAM RAIL, POST 11 & POST 12)	SHOPFORM 12.5' NESTED THRIE-BEAM & 6.25' THRIE-BEAM @ 20' RADIUS



SURVEY & CONSTR ℄ T-942
PC STA 10+21.35





SURVEY & CONSTR ℄ T-942
PT STA 13+50.18

LEGEND

- SELECTED BORROW EXCAVATION ROCK, CLASS R-8. CHOKE VOIDS WITH SELECTED BORROW EXCAVATION ROCK, CLASS R-4 (SLOPE PROTECTION, PER RC-40M)
- SELECTED BORROW EXCAVATION ROCK, CLASS R-4 (SLOPE PROTECTION, PER RC-40M)
- *DELINEATED WETLAND*
- *PORTION OF EXISTING STRUCTURE* (TO BE REMOVED)
- *PARCEL IDENTIFICATION NUMBER*
- *PARCEL IDENTIFICATION NUMBER* - NO TAKE
- * - TO BE REMOVED
- ** - RESET POST MOUNTED SIGN, TYPE B (CAPPERELLA DR)
- *** - RESET POST MOUNTED SIGN, TYPE C. INSTALL POST MOUNTED SIGN, TYPE F (R1-2 (YIELD), 18"X18")

PLAN
0 25 50 FEET

CURVE DATA
SURVEY & CONSTR ℄ T-942
PI STA 11+05.27
Δ= 45°31'38" RT
T= 83.92'
L= 158.92'
R= 200.00'
E= 16.89'
PC STA 10+21.35
PT STA 11+80.27

EXISTING STRUCTURE DATA
STA 12+01.16
SINGLE SPAN NON-COMPOSITE P/S ADJ BOX BEAM BRIDGE
WITH REINFORCED CONCRETE ABUTMENTS & WINGWALLS
CLEAR SPAN = 47.7'±
UNDERCLEAR = 2.7'
CURB-TO-CURB = 36.0'±
SKEW = 60^LT

PROPOSED STRUCTURE DATA
STA 12+01.16
SINGLE SPAN COMPOSITE P/S SPREAD BOX BEAM BRIDGE
ON EXISTING REINFORCED CONCRETE ABUTMENTS & WINGWALLS
CLEAR SPAN = 47.7'±
UNDERCLEAR = 2.8'
CURB-TO-CURB = 34'-8"
SKEW = 60^LT

TEMPORARY CONSTRUCTION EASEMENT. AN EASEMENT TO USE THE LAND AS NECESSARY DURING CONSTRUCTION OF THE THE PROJECT. THE EASEMENT IS REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE COUNTY.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060096

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

FOR PROFILE, SEE SHEET 10

SURVEY BOOK NO. 581, 588, & 595

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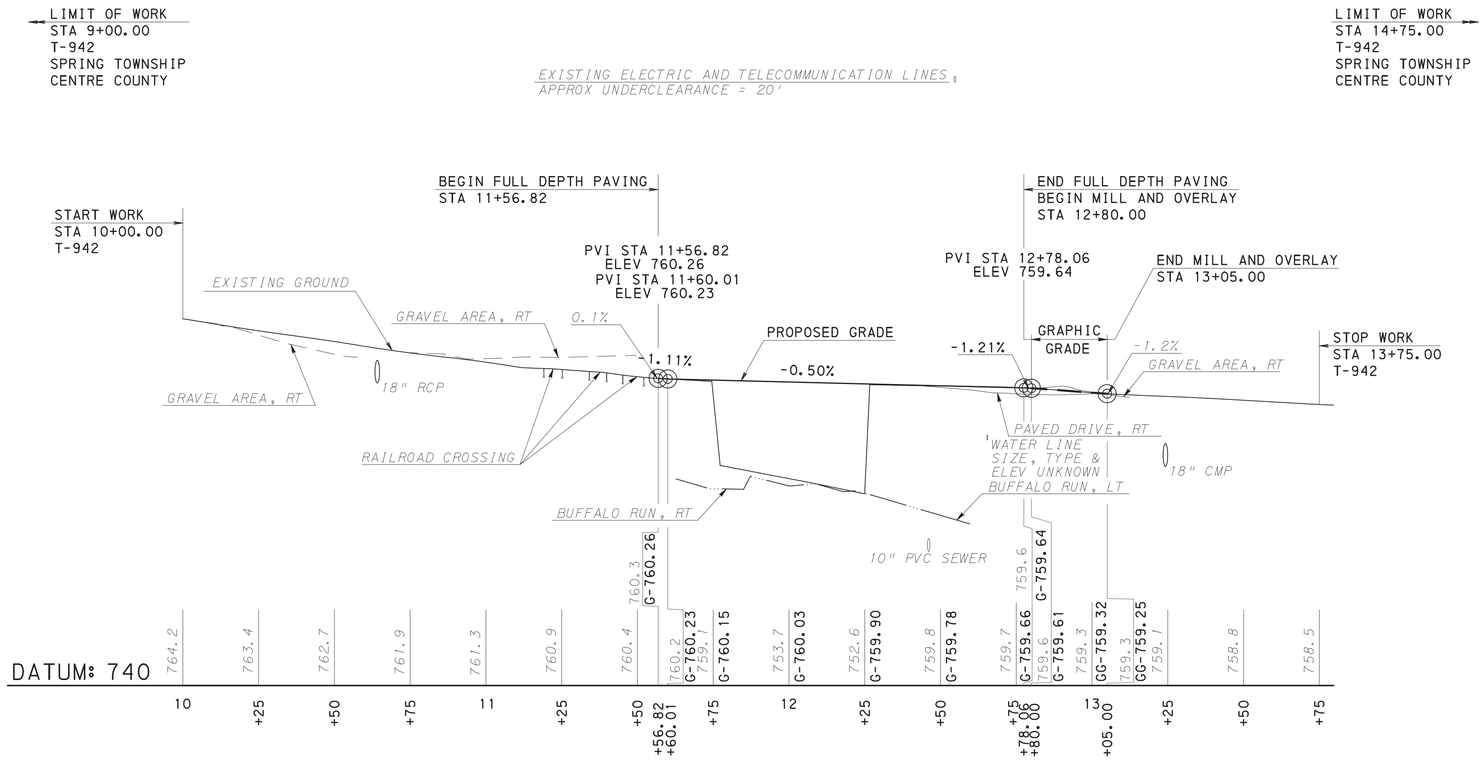
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	10 OF 10
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



T-942 PROFILE

HORIZONTAL 0 25 50 FEET

VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 9

SURVEY BOOK NO. 581, 588, & 595

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060996

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

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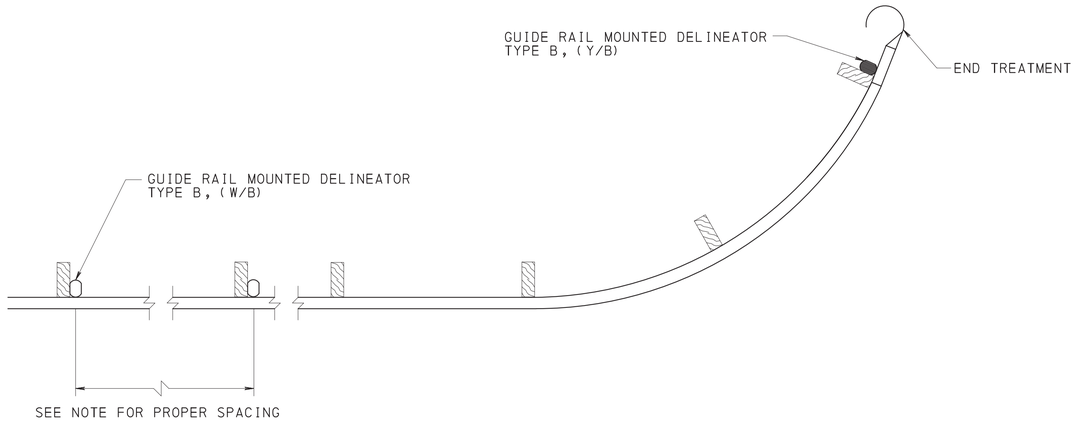


NOTE: 75' SPACING ON TANGENTS AND HORIZONTAL CURVES WITH A RADIUS GREATER THAN 1000'
37.5' SPACING ON HORIZONTAL CURVES WITH A RADIUS LESS THAN OR EQUAL TO 1000'

TYPICAL GUIDE RAIL DELINEATION PLACEMENT GUIDELINES

NOT TO SCALE

SHEET INDEX BLOCK

DESCRIPTION	SHEET
GENERAL NOTES AND DETAILS	1
TABULATION	2
PLAN	3

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	1 OF 3
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

GENERAL NOTES

INSTALL SIGNS, PAVEMENT MARKINGS AND DELINEATION IN ACCORDANCE WITH PENNDOT PUBLICATION 111 TRAFFIC CONTROL, TC-8600 AND TC-8700 SERIES, DATED JUNE 13, 2013. THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PUB 212, OFFICIAL TRAFFIC CONTROL DEVICES, DATED APRIL 2011, OR AS DIRECTED BY THE COUNTY REPRESENTATIVES.

FOR NAMES, ADDRESSES, AND LOCATIONS OF EXISTING FACILITIES, REFERENCE CONSTRUCTION PLAN.

ANY LEGAL OR PRIVATE SIGN THAT IS TO BE REMOVED FOR CONSTRUCTION THAT IS WITHIN THE PROJECT LIMITS SHALL BE REINSTALLED AT OR NEAREST ITS ORIGINAL LOCATION AT NO COST TO THE COUNTY. IF SIGN IS DETERMINED UNNECESSARY, IT SHALL BE RETURNED TO ITS OWNER.

PLACE ALL SIGNS ENTIRELY WITHIN THE LEGAL RIGHT-OF-WAY.

FOR FABRICATION OF ALL STANDARD SIGNS, REFER TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 236, LATEST EDITION.

ALL TYPE B POST MOUNTED SIGNS ARE TO BE INSTALLED USING SQUARE POSTS AND ANCHORS OF APPROPRIATE SIZE. ANCHORS SHALL NOT EXTEND MORE THAN 1 INCH ABOVE THE GROUND LINE.

RIVETS SHALL NOT BE USED TO ATTACH SIGNS TO POSTS.

DO NOT REMOVE EXISTING SIGNS UNTIL THE NEW SIGNS ARE INSTALLED.

APPLY PAVEMENT MARKINGS AT THE WIDTH INDICATED.

USE WATERBORNE PAINT FOR ALL LONGITUDINAL LINES. ON THE FINAL BITUMINOUS WEARING COURSE OR CONCRETE SURFACE, APPLY TWO APPLICATIONS OF PAINT. APPLY THE SECOND APPLICATION AFTER THE FIRST IS DRY, WITHIN 24 HOURS.

APPLY ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

INSTALL GUIDE RAIL DELINEATORS AS PER TC-8604, OR AS DIRECTED BY THE COUNTY.

REMOVE AND REPLACE STATE ROUTE AND SEGMENT MARKERS IN ACCORDNACE WITH PUB. 408, SECTION 901.3(h).

DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS.

TC-8600	(13 SHEETS)	JUNE 13, 2013
TC-8604	(4 SHEETS)	JUNE 13, 2013
TC-8702B	(9 SHEETS)	JUNE 13, 2013

RELEASED FOR CONSTRUCTION

DESIGN REVIEWED BY:

David J Johnson 4/19/2023

LARSON DESIGN GROUP
1000 COMMERCE PARK DRIVE, SUITE 201
WILLIAMSPORT, PA 17701

THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH THE DEPARTMENT'S DESIGN AND CONSTRUCTION CRITERIA AND STANDARDS AND IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

PREPARED BY:
P. JOSEPH LEHMAN, INC.
CONSULTING ENGINEERS
P.O. BOX 419
HOLLIDAYSBURG, PA 16648

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No. 060996

Adam Katrancha
REG PROF ENGINEER

18 April 2023
DATE

PERMANENT SIGNING, PAVEMENT MARKINGS AND DELINEATION PLAN

TABULATION OF QUANTITIES

8913-0003 CONSTRUCT ROADWAY (CONT'D)

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				02	CENTRE	T-942	---	2 OF 3
				SPRING TOWNSHIP				

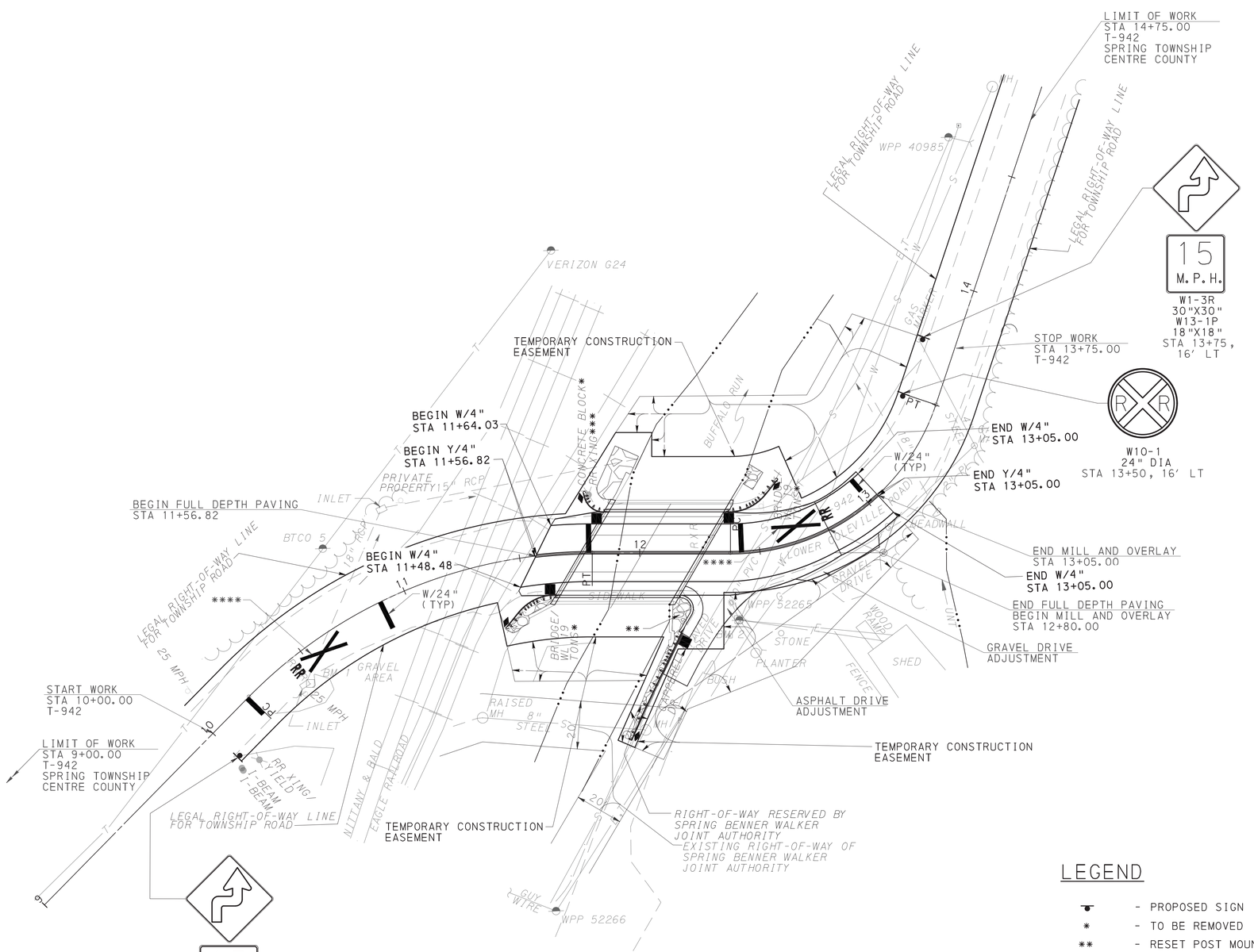
ITEM NUMBERS AND DESCRIPTIONS LISTED IN TABULATIONS ARE SOLELY FOR THE PURPOSE OF IDENTIFYING THE SPECIFIED UNITS OF WORK AND LOCATIONS, AND ARE NTO TO BE CONSTRUED AS CONTRACT OR PAY ITEM.

ADAM KATRANCHA
No 060996

POST MOUNTED SIGNS, TYPE B 0931 0001 SF	POST MOUNTED SIGNS, TYPE F 0935 0001 SF	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/B) 0937 0104 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/B) 0937 0106 EACH	RESET POST MOUNTED SIGNS, TYPE B 0941 0001 EACH	RESET POST MOUNTED SIGNS, TYPE C 0942 0002 EACH	4" WHITE WATERBORNE PAVEMENT MARKINGS 0962 1000 LF	24" WHITE WATERBORNE PAVEMENT MARKINGS 0962 1004 LF	4" YELLOW WATERBORNE PAVEMENT MARKINGS 0962 1005 LF	WHITE WATERBORNE PAVEMENT LEGEND, "RR CROSSING", 6'-6", 10' LANE WIDTH (INCLUDES "X", "RR", AND 2 TRANSVERSE BANDS) 0962 1050 EACH	REMOVE POST MOUNTED SIGNS, TYPE B 0971 0001 EACH	REMARKS	SIDE	STATIONS
											GROUPING TITLE HERE		
6.3	2.3										W1-3R, W13-1P	RT	10+00.00
							9					RT	10+20.00
									1		RAILROAD CROSSING PAVEMENT MARKING	RT	10+50.00
							12					RT	10+89.00
		1	1									RT	11+40.00 to 11+63.66
		1	1									LT	11+47.00 to 11+85.10
						590		596			TWO APPLICATIONS	LT / RT	11+56.82 to 13+05.00
										1		RT	11+65.00
	2.3				1						R1-2 (YIELD)	RT	11+75.00
							12					LT	11+80.00
										1		LT	12+05.00
				1							CAPPERELLA DRIVE	RT	12+15.00
		1	1									RT	12+17.54 to 12+27.02
		1	1									LT	12+36.84 to 12+64.35
							12					LT	12+42.00
									1		RAILROAD CROSSING PAVEMENT MARKING	LT	12+75.00
							12					LT	13+01.00
3.2											W10-1	LT	13+50.00
6.3	2.3										W1-3R, W13-1P	RT	13+75.00
15.8	6.9	4	4	1	1	590	57	596	2	2	TOTALS		

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	3 OF 3
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



PLAN

0 25 50 FEET

LEGEND

⊸	- PROPOSED SIGN
*	- TO BE REMOVED
**	- RESET POST MOUNTED SIGN, TYPE B (CAPPERELLA DR)
***	- RESET POST MOUNTED SIGN, TYPE C. INSTALL POST MOUNTED SIGN, TYPE F (R1-2 (YIELD), 18"X18")
****	- RAILROAD CROSSING MARKING (SEE TC-8600, SHEET 7 FOR DETAILS). REPLACE EXISTING MARKINGS AT NEAR APPROACH AT SIMILAR LOCATION
W/24"	- 24" WHITE WATERBORNE PAVEMENT MARKINGS
W/4"	- 4" WHITE WATERBORNE PAVEMENT MARKINGS
Y/4"	- 4" YELLOW WATERBORNE PAVEMENT MARKINGS
■	- GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/B)
♦	- GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/B)

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No 060096

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

PERMANENT SIGNING, PAVEMENT MARKINGS AND DELINEATION PLAN

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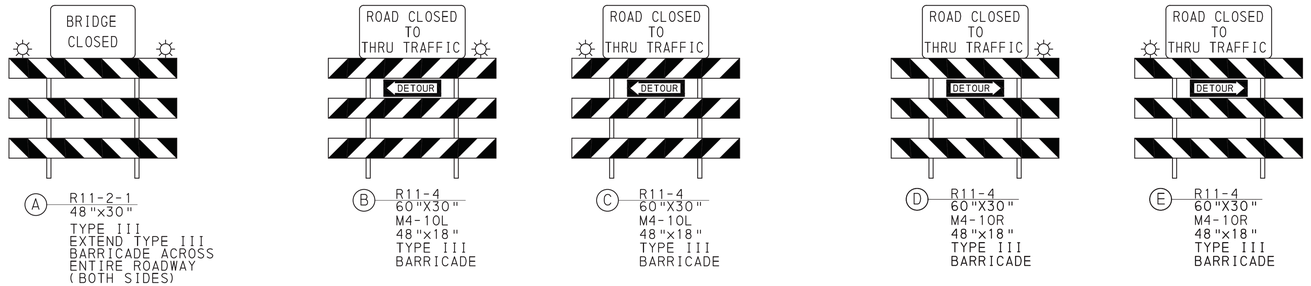


(A) R11-2-1 48"x30" TYPE III EXTEND TYPE III BARRICADE ACROSS ENTIRE ROADWAY (BOTH SIDES)

(B) R11-4 60"X30" M4-10L 48"x18" TYPE III BARRICADE

(C) R11-4 60"X30" M4-10L 48"x18" TYPE III BARRICADE

(D) R11-4 60"X30" M4-10R 48"x18" TYPE III BARRICADE

(E) R11-4 60"X30" M4-10R 48"x18" TYPE III BARRICADE

(F) M4-9R 30"x24"

(G) M4-9SL 30"x24"

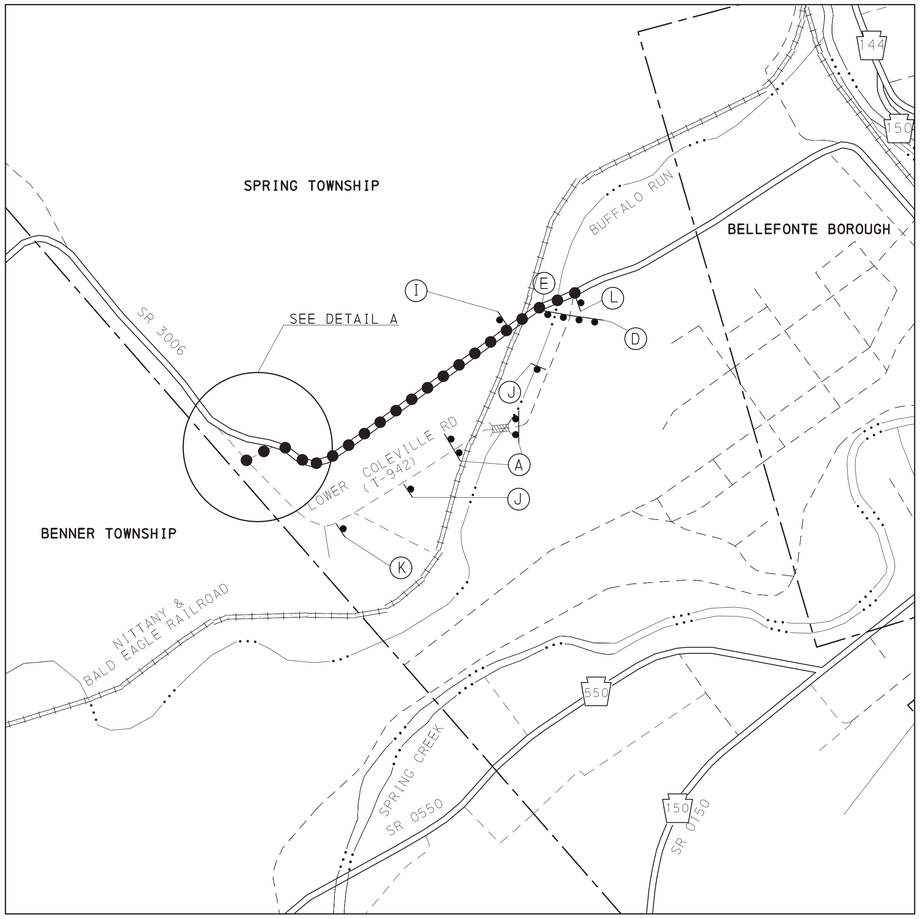
(H) M4-9L 30"x24"

(I) M4-9S 30"x24"

(J) W20-3 36"x36" W30-1-1 20"X6"

(K) W20-3 36"x36" W30-1-2 20"X6"

(L) M4-8A 24"x18"



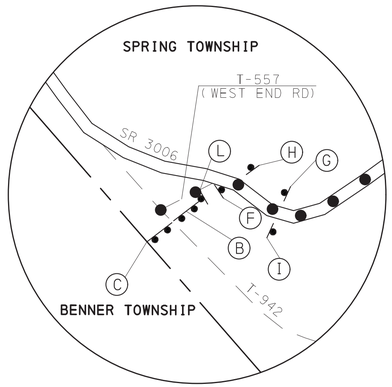
DETOUR MAP

0 500 1000 FEET

TABULATION OF TRAFFIC CONTROL DEVICES

(FOR INFORMATION ONLY)

STD. NO.	DESCRIPTION	SIZE	QUANTITY
M4-8A	END DETOUR	24" X 18"	2
M4-9L	DETOUR, LEFT	30" X 24"	1
M4-9R	DETOUR, RIGHT	30" X 24"	1
M4-9S	DETOUR, STRAIGHT	30" X 24"	2
M4-9SL	LEFT ADVANCE DETOUR	30" X 24"	1
M4-10L	DETOUR ARROW, LEFT	48" X 18"	2
M4-10R	DETOUR ARROW, RIGHT	48" X 18"	2
W20-3	ROAD CLOSED	36" X 36"	3
W30-1-1	DISTANCE (500 FT) (PANEL)	20" X 6"	2
W30-1-2	DISTANCE (1000 FT) (PANEL)	20" X 6"	1
			1
R11-4	ROAD CLOSED TO THRU TRAFFIC	60" X 30"	4
R11-2-1	BRIDGE CLOSED	48" X 30"	2
-	TYPE III BARRICADES	-	SUFF
-	CHANNELIZING DEVICES WITH TYPE B LIGHT	-	SUFF



DETAIL A

0 250 500 FEET

LEGEND

- WORK AREA
- MUNICIPAL ROAD
- STATE HIGHWAY
- MUNICIPAL BOUNDARY
- RAILROAD
- SIGN
- TYPE III BARRICADE
- DETOUR ROUTE

RELEASED FOR CONSTRUCTION

DESIGN REVIEWED BY:

David J. Johnson 4/19/2023

LARSON DESIGN GROUP
1000 COMMERCE PARK DRIVE, SUITE 201
WILLIAMSPORT, PA 17701

THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH THE DEPARTMENT'S DESIGN AND CONSTRUCTION CRITERIA AND STANDARDS AND IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

PREPARED BY:
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ADAM KATRANCHA — ENGINEER — 060996

Adam Katrancha
REG PROF ENGINEER

18 April 2023
DATE

SHEET INDEX BLOCK

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TRAFFIC CONTROL PLAN

DESIGNER: AK	DRAFTER: JTS	CHECKER: RDB	JOB #: 7136

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	1 OF 2
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

GENERAL NOTES

THIS WORK CONSISTS OF THE MAINTENANCE OF TRAFFIC AND THE PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION AND ON APPROVED DETOURS.

FURNISH, ERECT, PLACE AND MAINTAIN THE TRAFFIC CONTROL SIGNS AND DEVICES AND MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS AND,

1. THE SPECIAL PROVISIONS OF THE CONTRACT.
2. PA CODE, TITLE 67, CHAPTER 212, OFFICIAL TRAFFIC CONTROL DEVICES.
3. PDT PUBLICATION 213, TEMPORARY TRAFFIC CONTROL GUIDELINES.
4. PDT PUBLICATION 35, QUALIFIED PRODUCTS LIST FOR CONSTRUCTION (BULLETIN 15).
5. PDT PUBLICATION 408/2020, SPECIFICATIONS AND CURRENT INTERIMS.
6. FEDERAL HIGHWAY ADMINISTRATION, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
7. PDT PUBLICATION 236, HANDBOOK OF APPROVED SIGNS.
8. PDT PUBLICATION 111, TRAFFIC CONTROL PAVEMENT MARKINGS AND SIGNING STANDARDS.

IMMEDIATELY UPON COMPLETION OF THE WORK, REMOVE THE DEVICES. UNLESS OTHERWISE SPECIFIED, THEY REMAIN THE PROPERTY OF THE CONTRACTOR. THE TOWNSHIP WILL REMOVE ANY TRAFFIC CONTROL DEVICES ERECTED BY TOWNSHIP FORCES.

THE REPRESENTATIVE WILL INSPECT ALL TRAFFIC CONTROL DEVICES PRIOR TO THE START OF WORK AND PERIODICALLY DURING THE LIFE OF THE PROJECT.

COVER OR REMOVE ALL SIGNS NOT IN USE OR CONFLICTING TO THE OPERATION BEING PERFORMED. WHEN COVERING EXISTING SIGNS, USE MATERIALS AND PROCEDURES CONSISTENT WITH PUBLICATION 408 SECTION 901.3(a) AND (cc).

THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY AS SPECIFIED IN SECTION 901.3(a) OF PUBLICATION 408.

ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR IN LIKE NEW CONDITION AND MAINTAINED AS SUCH.

REMOVE CONFLICTING PAVEMENT MARKINGS IN ACCORDANCE WITH PUBLICATION 408 SECTION 963.

INVENTORY AND DOCUMENT ALL EXISTING SIGNS AND PAVEMENT MARKING PATTERNS PRIOR TO THE BEGINNING OF CONSTRUCTION WITH THE PROJECT ENGINEER OR REPRESENTATIVE.

ALL POST MOUNTED SIGNS MUST BE MOUNTED ON BREAKAWAY STEEL POSTS AS SPECIFIED IN SECTION 1103.08 OF PUBLICATION 408.

TWO (2) WEEKS PRIOR TO IMPLEMENTING DETOUR, CONTACT: EMERGENCY SERVICES (POLICE, FIRE, MEDICAL, ETC.), LOCAL BUSINESSES, LOCAL MUNICIPALITIES, LOCAL POST MASTER AND SCHOOL DISTRICT.

USE TYPE III OR BETTER RETROREFLECTIVE SHEETING ON ALL LONG-TERM SIGNS AND TYPE III BARRICADE RAILS, UNLESS OTHERWISE NOTED.

PERFORM ALL WORK WITHIN THE LEGAL RIGHT-OF-WAY OR TEMPORARY CONSTRUCTION EASEMENTS.

ALL SIGN AND CHANNELIZING DEVICE LOCATIONS MAY BE ADJUSTED BACK OR FORWARD DUE TO DRIVEWAYS, AND/OR AS FIELD CONDITIONS DICTATE.

MAINTAIN ACCESS TO ALL INTERSECTING ROADWAYS, BUSINESSES AND PRIVATE RESIDENCES DURING CONSTRUCTION. LOCATE ALL SIGNS SO THAT SIGHT DISTANCE IS NOT OBSTRUCTED AT DRIVEWAYS.

ADDITIONAL TRAFFIC CONTROL REQUIREMENTS ARE SHOWN ON THE FOLLOWING PUBLICATION 213 GENERAL APPLICATIONS AND PATAS: GA 10 AND PATAS 101,102, 201 AND 215.

DETAILS OTHER THAN THOSE INDICATED ARE ON THE FOLLOWING STANDARD DRAWINGS:

TC-8702B	JUNE 13, 2013
TC-8716	JUNE 13, 2013
TC-8717	JUNE 13, 2013

TABULATION OF QUANTITIES

8915-0003 CONSTRUCTION OF MPT

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				02	CENTRE	T-942	---	2 OF 2
				SPRING TOWNSHIP				

MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION	ADDITIONAL WARNING LIGHTS, TYPE B	ADDITIONAL TRAFFIC CONTROL SIGNS	ADDITIONAL TYPE III BARRICADES	ITEM NUMBER / UNIT	REMARKS	SIDE	STATIONS
0901 0001 LS	0901 0231 DAY	0901 0240 SF	9000 0003 EACH				
					T-942		
	120	100	14		ENTIRE PROJECT	LT / RT	10+00.00 to 13+75.00
---	120	100	14		TOTALS		

ITEM NUMBERS AND DESCRIPTIONS LISTED IN TABULATIONS ARE SOLELY FOR THE PURPOSE OF IDENTIFYING THE SPECIFIED UNITS OF WORK AND LOCATIONS, AND ARE NTO TO BE CONSTRUED AS CONTRACT OR PAY ITEM.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER No 060996

PROJECT ID: 5336 MPMS: ECMS: 2/13/2023 2:51:09 PM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	1 OF 4
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

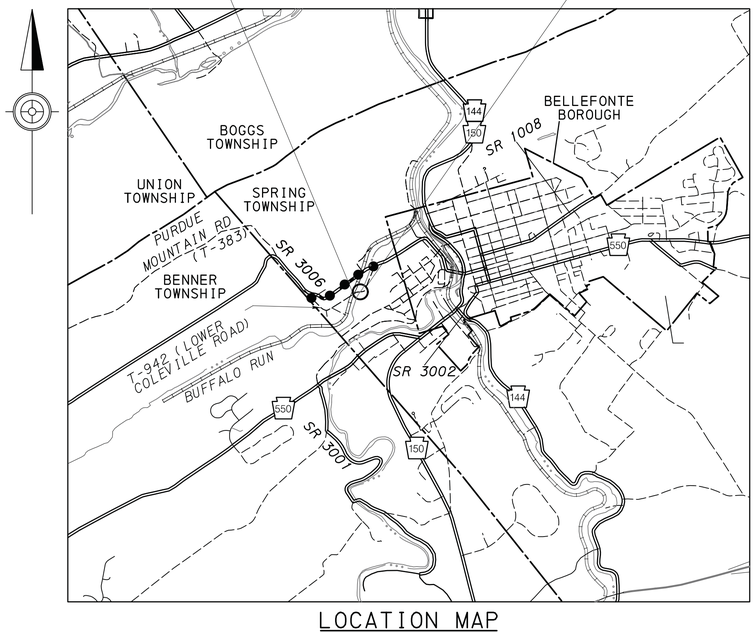
BMP INSPECTION, MAINTENANCE, AND REPAIR (IMR) SCHEDULE

BMP	INSPECTION	MAINTENANCE	REPAIR
COMPOST FILTER SOCK	WEEKLY AND AFTER EACH MEASURABLE RAINFALL EVENT	REMOVE SEDIMENT WHEN IT REACHES ½ OF THE EXPOSED HEIGHT.	ANY SECTION OF THE FILTER SOCK THAT HAS BEEN UNDERMINED OR WASHED OUT SHOULD BE IMMEDIATELY REPLACED WITH ADDITIONAL FILTER SOCK OR A ROCK FILTER OUTLET.
CONCRETE WASHOUT	DAILY, WHEN UTILIZED	———	DAMAGED OR LEAKING WASHOUTS SHOULD BE REPAIRED OR REPLACED IMMEDIATELY.
SEEDING AND MULCHING	WEEKLY AND AFTER EACH MEASURABLE RAINFALL EVENT	———	IF WASHOUTS OCCUR, EVALUATE IF CONCENTRATED FLOW IS LIKELY TO HAPPEN AGAIN. IF SO, RE-SEED AND STABILIZE WITH AN APPROPRIATE RECP. IF CONCENTRATED FLOW IS NOT LIKELY TO HAPPEN AGAIN, RE-SEED AND APPLY MULCH.
TEMPORARY DIVERSION DIKE SYSTEM	WEEKLY AND AFTER EACH RAINFALL EVENT	———	REPLACE OR REPAIR LEAKING SECTIONS TO KEEP SYSTEM FUNCTIONAL.
TEMPORARY PROTECTIVE FENCE	WEEKLY AND AFTER EACH RAINFALL EVENT	———	ANY SECTION OF THE PROTECTIVE FENCE THAT HAS BEEN DAMAGED, UNDERMINED OR WASHED OUT SHOULD BE IMMEDIATELY REPLACED WITH ADDITIONAL PROTECTIVE FENCE.
PUMPED WATER FILTER BAG	DAILY AND PRIOR TO THE START OF PUMPING	UPON DETECTION OF ANY PROBLEM WITH A PWFB OR HOSE BETWEEN THE PUMP AND THE BAG, CEASE PUMPING IMMEDIATELY AND DO NOT RESUME UNTIL THE PROBLEM IS CORRECTED OR ANOTHER BAG OR HOSE IS PLACED INTO OPERATION.	REPLACE BAG WHEN IT IS ½ FULL OF SEDIMENT FOR VEGETATED AREAS; IF THE BAG IS PLACED ON #57 STONE (PER RC-57M DETAIL), REPLACE WHEN THE BAG IS FULL. IF LESS THAN ½ FULL AND DESIGN FLOW RATE IS REDUCED DUE TO SEDIMENT ACCUMULATION OR BAG IS DAMAGED, REPLACE BAG.

NOTE: A "MEASURABLE RAINFALL EVENT" IS DEFINED BY PA DEP AS 0.1 INCHES OF RAIN DURING A SINGLE EVENT.

LIMIT OF WORK
STA 9+00.00
T-942
SPRING TOWNSHIP
CENTRE COUNTY

LIMIT OF WORK
STA 14+75.00
T-942
SPRING TOWNSHIP
CENTRE COUNTY



LOCATION MAP
0 ½ 1 MILE

MAP LEGEND
- PROJECT
- MUNICIPAL BOUNDARY
- STATE HIGHWAY
- LOCAL ROAD
- RAILROAD
- STREAM
- DETOUR ROUTE

EROSION AND SEDIMENT POLLUTION CONTROL CONSTRUCTION PROCEDURES

GENERAL NOTES

OBSERVE THE APPLICABLE FOLLOWING PROCEDURES DURING THE PERIOD OF CONSTRUCTION AS DIRECTED.

1.) KEEP A COPY OF THE APPROVED DRAWINGS STAMPED SIGNED AND DATED BY THE REVIEWING AGENCY AT THE PROJECT SITE AT ALL TIMES.
2.) AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), INVITE ALL CONTRACTORS, THE COUNTY AND TOWNSHIP'S REPRESENTATIVE, A DEP REPRESENTATIVE AND A REPRESENTATIVE FROM THE CENTRE COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3.) AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4.) PROCEED WITH ALL EARTH DISTURBANCE ACTIVITIES IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE REQUIRES WRITTEN APPROVAL FROM PA DEP PRIOR TO IMPLEMENTATION.
5.) LIMIT CLEARING, GRUBBING, AND TOPSOIL STRIPPING TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. DO NOT COMMENCE GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS DOCUMENT.
6.) CLEARLY MARK AND/OR FENCE THE LIMITS OF DISTURBANCE BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN. CONSTRUCTION VEHICLES ARE NOT PERMITTED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE DRAWINGS.
7.) PLACE STOCKPILES NO GREATER THAN 35 FEET IN HEIGHT WITH SLOPES NO STEEPER THAN 2H:1V.
8.) IF UNFORESEEN CONDITIONS ARE ENCOUNTERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE COUNTY AND TOWNHIP IN ACCORDANCE WITH PUBLICATION 408, SPECIFICATIONS, SECTION 110.02.
9.) REMOVE ALL BUILDING MATERIALS AND WASTES FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH PA DEP'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 AND 287.1 ET. SEQ. DO NOT BURN, BURY, DUMP OR DISCHARGE ANY BUILDING MATERIALS, WASTES OR UNUSED BUILDING MATERIALS AT THE SITE.
10.) OBTAIN E&SPC PLAN APPROVAL FOR ALL OFF SITE WASTE AND BORROW AREAS FROM THE CENTRE COUNTY CONSERVATION DISTRICT OR PA DEP, AND FULLY IMPLEMENT THE PLAN PRIOR TO ACTIVATING THE SITE.
11.) ENSURE THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL.
12.) PUMP WATER FROM WORK AREA(S) ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN.
13.) MAINTAIN ALL E&S BMPS UNTIL THE SITE IS STABILIZED.
14.) INSPECT ALL E&S BMPS AFTER EACH MAJOR RUNOFF EVENT AND ON A WEEKLY BASIS. PERFORM ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK IMMEDIATELY, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING AND RE-NETTING.
15.) MAINTAIN A LOG ON SITE SHOWING DATES THAT THE E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED.
16.) RETURN SEDIMENT THAT IS TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY AND DISPOSE OF IN THE MANNER DESCRIBED IN THIS PLAN. DO NOT WASH, SHOVEL, OR SWEEP THE SEDIMENT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
17.) DISPOSE OF ALL SEDIMENT REMOVED FROM BMPS IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
18.) STABILIZE ALL DISTURBED AREAS IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUB-AREA OF THE PROJECT. DURING NON-GERMINATING MONTHS, APPLY MULCH OR PROTECTIVE BLANKETING AS DESCRIBED IN THE PLAN. STABILIZE AREAS NOT AT FINISHED GRADE THAT WILL BE RE-ACTIVATED WITHIN ONE YEAR IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. STABILIZE THOSE AREAS THAT WILL NOT BE REACTIVATED WITHIN ONE YEAR IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
19.) ENSURE THAT CUT AND FILL SLOPES ARE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
20.) ENSURE THAT E&S BMPS REMAIN FUNCTIONAL UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE CENTRE COUNTY CONSERVATION DISTRICT OR PA DEP.
21.) AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, REMOVE TEMPORARY E&S BMPS OR CONVERT THEM TO PERMANENT PCSM BMPS. IMMEDIATELY STABILIZE ALL AREAS DISTURBED DURING THE REMOVAL OR CONVERSION OF THE BMPS.
22.) FAILURE TO CORRECTLY INSTALL E&SPC BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&SPC BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
23.) HANDLE CONCRETE WASH WATER IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. DO NOT ALLOW WASH WATER TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
24.) KEEP ALL CHANNELS FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.

PA DEP WATER QUALITY CHAPTER 93 DESIGNATION	PA FISH AND BOAT COMMISSION CLASSIFICATION	IN-STREAM RESTRICTION
HQ-CWF, MF	SUPPORTS NATURAL REPRODUCTION OF TROUT, CLASS A TROUT STREAM	OCTOBER 1 TO APRIL 1

SHEET INDEX BLOCK	
DESCRIPTION	SHEET
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DETAIL SHEET	3
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CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE

1.) THE CONTRACTOR WILL BE RESPONSIBLE TO PERFORM "ENVIRONMENTAL DUE DILIGENCE" TO ENSURE THAT ALL FILL MATERIALS BROUGHT ON-SITE MEET "CLEAN FILL" STANDARDS AS DEFINED BY PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
2.) CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
3.) ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

PROJECT CONTACTS

DEP NORTHCENTRAL REGIONAL OFFICE

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CENTRE COUNTY

ANNE MESSNER
WILLOWBANK OFFICE BUILDING
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BELLEFONTE, PA 16823
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SPRING TOWNSHIP

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PLAN PREPARER

LARSON DESIGN GROUP

PROJECT MANAGER: DAVID J. JOHNSON, P.E.
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WILLIAMSPORT, PA 17701
PHONE: 570-323-6603

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

PENNSYLVANIA ACT 287 AS AMENDED REQUIRES 3 WORKING DAYS FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PENNSYLVANIA ONE CALL DESIGN SERIAL NUMBER
20221780960

PREPARED BY
LARSON DESIGN GROUP
1000 COMMERCE PARK DRIVE
WILLIAMSPORT, PA 17701

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DAVID J. JOHNSON — ENGINEER PE074510

David J. Johnson
REG PROF ENG

6-29-2022
DATE

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DESIGNER: ASC	DRAFTER: ASC	CHECKER: MDD	JOB #: 12181-001

DATE:6/27/2022
TIME:3:03:32 PM
FILE:pw:\\dg-pw.bentley.com:dg-pw-01\Documents\Projects\12181-001\T-942 (Lower Colevillle Road)\CAD\02-Highway\E&S\12181-001-T-942-ES-GN
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PLOT DRIVER:\\OPERATIONS\CAD\Transportation\LDG_Workspace\CLIENT\LDG\plot\pdf-penndot-bw.pltcfg
PEN TABLE:_PENTBL_

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	2 OF 4
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

SUGGESTED CONSTRUCTION SEQUENCE

1. INSTALL TEMPORARY WETLAND PROTECTIVE FENCE AND COMPOST FILTER SOCK AS INDICATED ON THE PLAN.
2. CLEAR AND GRUB AS REQUIRED. DO NOT DISTURB WETLAND AREAS.
3. EXCAVATE BEHIND THE ABUTMENTS AS SHOWN ON THE BRIDGE PLANS.
4. REMOVE THE EXISTING BEAMS AND BARRIERS.
5. INSTALL CONCRETE WASHOUT AS INDICATED ON THE PLAN.
6. CONSTRUCT NEW CONCRETE BEAM SEATS ON THE ABUTMENTS.
7. CONSTRUCT NEW SUPERSTRUCTURE AS INDICATED ON THE BRIDGE PLANS.
8. INSTALL PUMPED WATER FILTER BAG.
9. INSTALL TEMPORARY DIVERSION DIKE SYSTEM AS INDICATED ON THE PLANS. INSTALL ROCK PROTECTION AT THE DOWNSTREAM WINGS AS INDICATE ON THE PLANS AND PERFORM EPOXY INJECTION CRACK SEAL AT FAR RIGHT ABUTMENT CORNER AS INDICATED ON THE BRIDGE PLANS. PUMP ALL WATER FROM THE WORK AREA TO THE PUMPED WATER FILTER BAG. IMMEDIATELY UPON THE COMPLETION OF WORK, REMOVE THE TEMPORARY DIVERSION DIKE SYSTEM.
10. CONSTRUCT FAR RIGHT MOMENT SLAB.
11. BACKFILL THE ABUTMENTS, CONSTRUCT THE APPROACH ROADWAYS AND INSTALL GUIDE RAIL.
12. GRADE AND CONTOUR THE PROJECT AREA AS SHOWN ON THE PLAN.
13. SEED AND MULCH ALL DISTURBED AREAS AS SPECIFIED IN THE SPECIFICATIONS AND ON THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN.
14. REMOVE AND PROPERLY DISPOSE OF ANY REMAINING SEDIMENT AND POLLUTION CONTROL DEVICES AFTER FINAL SITE STABILIZATION IS ACHIEVED. PERMANENT STABILIZATION REQUIRES A UNIFORM EROSION RESISTANT PERENNIAL VEGETATIVE COVER WITH A MINIMUM COVERAGE DENSITY OF AT LEAST 70 PERCENT ACROSS THE DISTURBED AREA.

SOILS LEGEND AND INFORMATION:

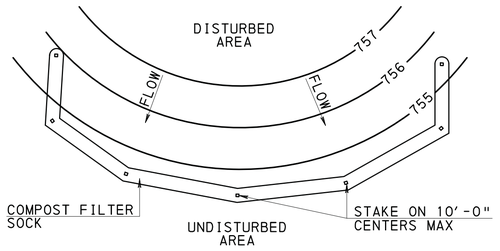
Mm
1.) TYPE: MELVIN SILT LOAM, 0 TO 2 PERCENT SLOPES
2.) LOCATION: FAR APPROACH
3.) DESCRIPTION: POORLY DRAINED SOILS IN FLOOD PLAINS. THESE SOILS HAVE MODERATELY HIGH TO HIGH PERMEABILITY. THE AVAILABLE WATER CAPACITY IS VERY HIGH. THE SOIL IS RARELY FLOODED AND NEVER PONDED. THE LAND CAPABILITY CLASS IS 3W.

OhC
1.) TYPE: OPEQUON-HAGERSTOWN COMPLEX, 8 TO 15 PERCENT SLOPES
2.) LOCATION: NEAR APPROACH
3.) DESCRIPTION: WELL DRAINED SOILS ON HILLS. THESE SOILS HAVE MODERATELY LOW TO HIGH PERMEABILITY. THE AVAILABLE WATER CAPACITY IS VERY LOW. THE SOIL IS NEVER FLOODED AND IS NEVER PONDED. THE LAND CAPABILITY CLASS IS 4E.

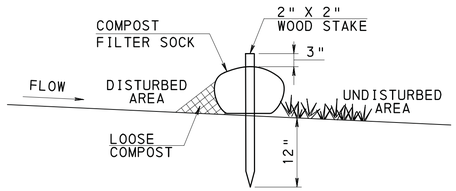
MuB
1.) TYPE: MURRILL CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
2.) LOCATION: NEAR APPROACH
3.) DESCRIPTION: WELL DRAINED SOILS ON VALLEY SIDES. THESE SOILS HAVE MODERATELY HIGH TO HIGH PERMEABILITY. THE AVAILABLE WATER CAPACITY IS MODERATE. THE SOIL IS NEVER FLOODED AND IS NEVER PONDED. THE LAND CAPABILITY CLASS IS 2E.

SOIL LIMITATIONS

THE Mm AND OhC SOILS ARE A POOR SOURCE OF ROADWAY FILL. SOILS BEYOND THE TOE OF SLOPE OF THE EXISTING ROADWAY EMBANKMENT SHOULD NOT BE USED AS ROADWAY EMBANKMENT ON THIS PROJECT.



PLAN VIEW



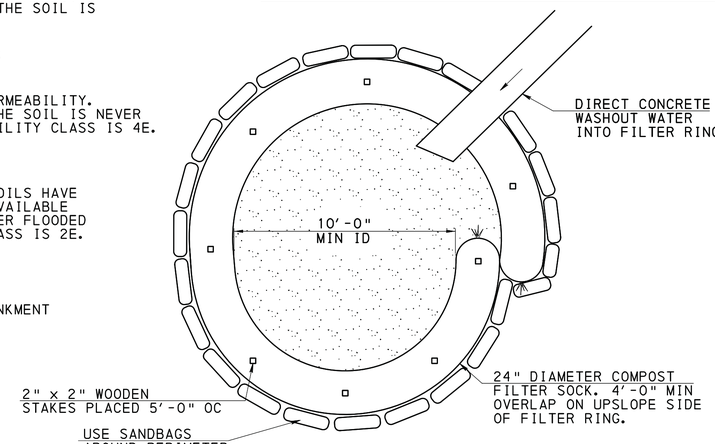
SECTION VIEW

COMPOST FILTER SOCK

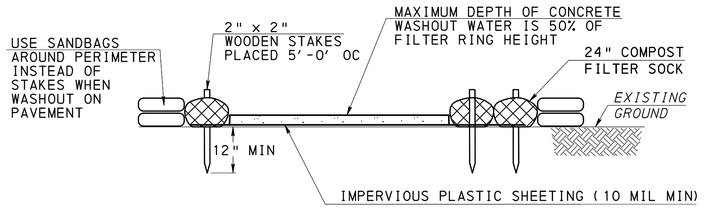
NOT TO SCALE

NOTES

1. REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION IS ONE HALF THE HEIGHT OF THE EXPOSED COMPOST FILTER SOCK.
2. PLACE COMPOST FILTER SOCK ON LEVEL GRADE. EXTEND BOTH ENDS OF THE COMPOST FILTER SOCK AT LEAST 8'-0" UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT.
3. REPLACE BIODEGRADABLE FILTER SOCK AFTER 6 MONTHS; PHOTODEGRADABLE AFTER 12 MONTHS.
4. REMOVE STAKES FROM THE SOCK AS SOON AS THE TRIBUTARY AREA IS STABILIZED. CUT OPEN MESH AND SPREAD MULCH AS A SOIL SUPPLEMENT.



PLAN VIEW



ELEVATION VIEW

CONCRETE WASHOUT

NOT TO SCALE

NOTES

1.) CONTRACTOR MAY INSTALL TEMPORARY CONCRETE WASHOUT AT A LOCATION OF THEIR CHOICE WITHIN THE LEGAL R.O.W. IT MUST BE IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS, PENNDOT "STANDARD DRAWINGS" (PUBLICATION 72M) AND "SPECIFICATIONS" (PUBLICATION 408), CURRENT EDITION; THE PADEP "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL"; AS SHOWN ON THIS CONSTRUCTION PLAN. THE CONTRACTOR MUST ALSO COMPLY WITH THE REQUIREMENTS OF PADEP RULES AND REGULATIONS IDENTIFIED IN TITLE 25, CHAPTER102, "EROSION CONTROL". IN THE EVENT OF CONFLICT AMONG THESE REQUIREMENTS AND POLLUTION CONTROL LAWS, RULES OR REGULATIONS OF OTHER FEDERAL, STATE, OR LOCAL AGENCIES, THE MORE RESTRICTIVE LAWS,RULES, OR REGULATIONS WILL APPLY.

2.) LOCATE IN LEVEL AREAS (LESS THAN 2% GRADE) MORE THAN 50' FROM STORM DRAINS, OPEN DITCHES OR SURFACEWATERS. UNDER NO CIRCUMSTANCES IS CONCRETE WASH WATER PERMITTED TO ENTER ANY SURFACE WATERS.

3.) CONSTRUCT AND MAINTAIN TEMPORARY CONCRETE WASHOUT FACILITIES IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

4.) FOR ADDED HEIGHT, PLACE 18" COMPOST FILTER SOCK STACKED ON TOP OF DOUBLE 24" COMPOST FILTER SOCK IN PYRAMIDAL CONFIGURATION.

5.) MAINTAIN CONTINUOUS CONTACT BETWEEN IMPERVIOUS PLASTIC SHEETING AND SOCK AT ALL LOCATIONS.

6.) INSPECT CONCRETE WASHOUT DAILY.

7.) IMMEDIATELY DEACTIVATE AND REPAIR OR REPLACE DAMAGED OR LEAKING WASHOUTS.

8.) REMOVE ACCUMULATED MATERIALS WHEN WASHOUT REACHES 50 PERCENT CAPACITY.

9.) WASHOUT OF CONCRETE TRUCKS MUST BE PERFORMED IN DESIGNATED AREAS ONLY.

SEEDING AND MULCHING RECOMMENDATIONS

IN ACCORDANCE WITH PENNDOT PUB. 408, SECTIONS 804 AND 805, SUMMARIZED AS FOLLOWS:

FORMULA AND SPECIES	% BY WEIGHT	MINIMUM % PURITY	MINIMUM % GERMINATION	MAX. % WEED SEED	SEEDING RATE LBS. PER 1000 SY
FORMULA B (PERMANENT SEED)					**44.0 TOTAL**
• PERENNIAL RYEGRASS MIXTURE (LOLIUM PERENNE). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL RYEGRASS COMPONENT.	20	97	90	0.10	8.5
• CREEPING RED FESCUE OR CHEWINGS FESCUE (FESTUCA RUBRA OR SSP COMMUTATE) (IMPROVED AND CERTIFIED)	30	97	85	0.10	12.5
• KENTUCKY BLUEGRASS MIXTURE (POA PRATENSIS). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL BLUEGRASS COMPONENT.	45	97	80	0.15	21.0
• ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	5	95	90	0.10	2.0
FORMULA E (TEMPORARY SEED)					**10.0 TOTAL**
• ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	100	95	90	0.10	10.0
FORMULA L (PERMANENT SEED)					**48.0 TOTAL**
• HARD FESCUE MIXTURE (FESTUCA LONGFOLIA). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL HARD FESCUE COMPONENT.	55	97	85	0.10	26.4
• CREEPING RED FESCUE (FESTUCA RUBRA) (IMPROVED AND CERTIFIED)	35	97	85	0.10	16.8
• ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	10	95	90	0.10	4.8

SEEDING SCHEDULE

SPREAD SEEDS WHERE INDICATED AND AT THE RATES SPECIFIED IN ABOVE TABLE, OR AS OTHERWISE INDICATED.
SPREAD SEEDS WITHIN THE FOLLOWING DATES, OR AS OTHERWISE INDICATED OR DIRECTED.

- FORMULA B & L - MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 15
- FORMULA E - MARCH 15 TO OCTOBER 15

SOIL SUPPLEMENTS PER 1000 SY

- PULVERIZED AGRICULTURAL LIMESTONE	800 LBS.
- 10-20-20 ANALYSIS COMMERCIAL FERTILIZER	140 LBS.
- 38-0-0 UREAFORM FERTILIZER	50 LBS.
OR	
- 32-0-0 TO 38-0-0 SULFUR COATED UREA FERTILIZER	59 TO 50 LBS. AS DIRECTED
OR	
- 31-0-0 IBDU FERTILIZER	61 LBS.

MULCHING PER 1000 SY

- HAY OR STRAW	1200 LBS.
- NONASPHALTIC EMULSION	MANUFACTURER'S RECOMMENDED RATE
- WOOD-CELLULOSE	160 LBS.

COMPOST FILTER SOCK LOCATIONS

SOCK #1 12" DIA		SOCK #2 12" DIA		SOCK #3 12" DIA		SOCK #4 12" DIA		SOCK #5 12" DIA	
STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET
11+39	38' RT	11+96	82' RT	12+51	25' LT	13+53	14' LT	12+92	23' RT
11+54	35' RT	11+94	77' RT	13+75	35' LT	13+53	32' LT	13+05	16' RT
11+57	23' RT	12+12	38' RT			13+71	32' LT		
						13+71	14' LT		
LENGTH	25 LF	LENGTH	49 LF	LENGTH	89 LF	LENGTH	72 LF	LENGTH	17 LF

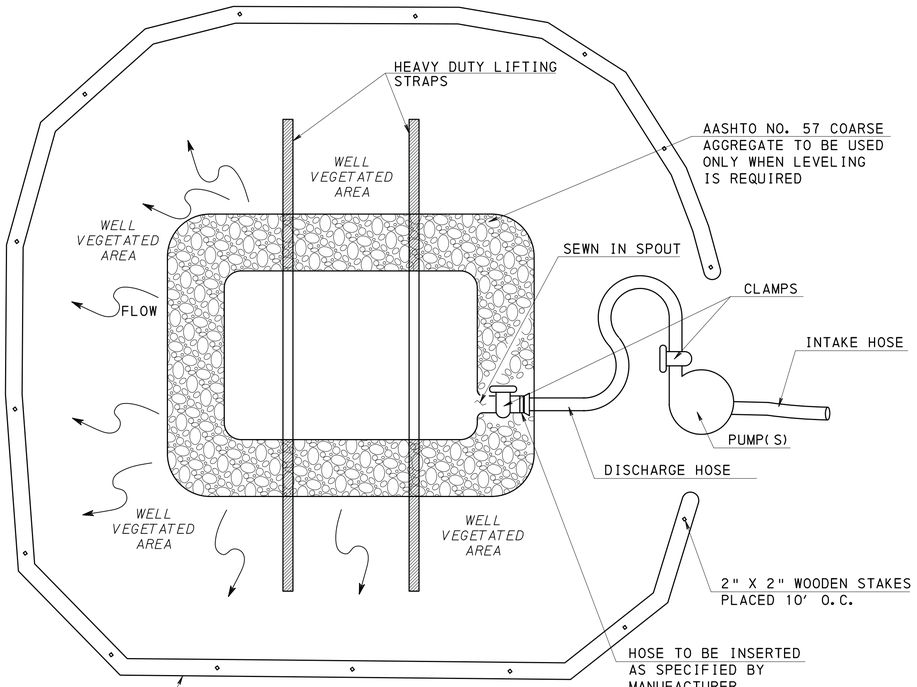
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID J. JOHNSON
ENGINEER
PE074510

DESIGNER: ASC	DRAFTER: ASC	CHECKER: MDD	JOB #: 12181-001

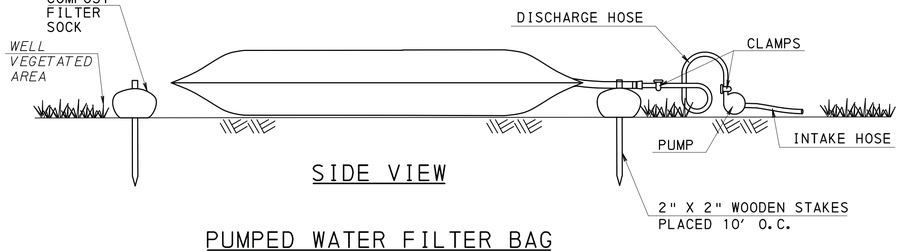
EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	3 OF 4
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



TOP VIEW



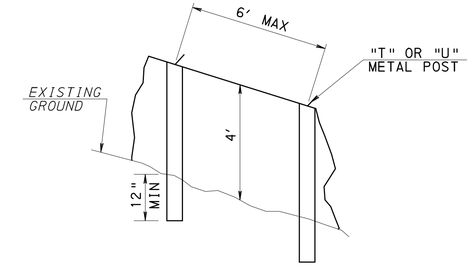
SIDE VIEW

PUMPED WATER FILTER BAG

NOT TO SCALE

NOTES

1. LOCATE BAG IN LEVEL AREAS (LESS THAN 5% GRADE). WHEN LEVEL AREAS ARE NOT AVAILABLE, PLACE SELECTED BORROW EXCAVATION, COARSE AGGREGATE, NO. 57 TO LEVEL THE BAG.
2. LOCATE BAG IN A WELL VEGETATED AREA. DISCHARGE ONTO A STABLE, EROSION RESISTANT AREA. WHEN VEGETATED AREA IS NOT AVAILABLE, PROVIDE A GEOTEXTILE (CLASS 4, TYPE A) LINED FLOW PATH TO A STABLE EROSION RESISTANT RECEIVING WATER COURSE OR A WELL VEGETATED AREA.
3. LOCATE BAG IN AN AREA ACCESSIBLE BY EQUIPMENT FOR MAINTENANCE AND REMOVAL PURPOSES.
4. DO NOT INSERT MORE THAN ONE HOSE INTO A BAG.
5. REPLACE THE BAG WHEN 50% OF THE SEDIMENT CAPACITY HAS BEEN FILLED AND/OR WHEN THERE IS A FAILURE.
6. REMOVE AND PROPERLY DISPOSE OF THE PUMPED WATER FILTER BAGS. RESTORE THE AREA IN ACCORDANCE WITH THE SPECIFICATIONS IN PUBLICATION 408. DO NOT CUT FILTER BAG OR DISTRIBUTE AND SEED SEDIMENT.
7. DO NOT PERMIT DISCHARGE FROM THE BAG TO DRAIN BACK INTO WORK OR ACCESS AREAS OF THE PROJECT.
8. DO NOT EXCEED A PUMP RATE OF OF 750 GPM OR HALF THE MAXIMUM SPECIFIED BY THE MANUFACTURER FOR THE PUMPED WATER FILTER BAG, WHICHEVER IS LESS. THE INDICATED PUMP RATE IS NOT INTENDED TO BE THE DEWATERING RATE. PROVIDE ADDITIONAL BAGS AND PUMPS AS NECESSARY TO DEWATER THE EXCAVATION BASED ON FIELD CONDITIONS ENCOUTERED. PUMP INTAKE SHOULD BE FLOATING AND SCREENED.



TEMPORARY PROTECTIVE FENCE

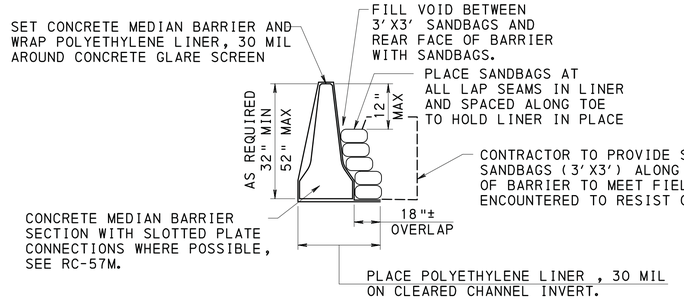
NOT TO SCALE

NOTES

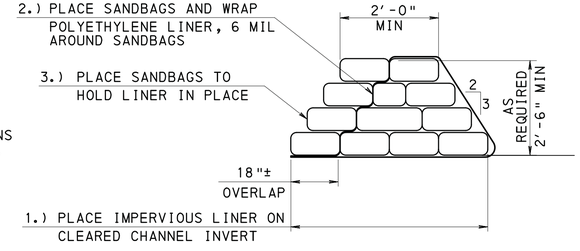
1. INSTALL THE FENCE USING A METAL "T" OR "U" POST DRIVEN INTO THE GROUND TO A DEPTH OF 12 TO 18 INCHES. POSTS SHOULD BE SPACED EVERY 6 FEET. NOTE: NOTCHED POSTS ARE IDEAL TO PREVENT THE FENCE FROM SLIPPING.
2. SECURE THE FENCE TO THE POST USING THREE WIRE TIES, WRAPPED AROUND THE FENCE STRAND AND THE POST. TENSION WIRE OR ROPE MAY BE USED AS A TOP STRINGER AND WOVEN THROUGH THE TOP ROW OF STRANDS TO PREVENT POTENTIAL SAGGING.
3. TWO ROLLS OF SAFETY FENCE MAY BE OVERLAPPED AT THE INTERSECTION OF A POST AND SECURED WITH WIRE TIES.

TEMPORARY PROTECTIVE FENCE LOCATIONS

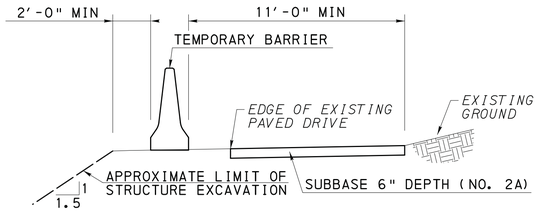
FENCE #1	
STATION	OFFSET
11+40	39' RT
11+57	43' RT
11+63	21' RT
LENGTH	37 LF



CONCRETE MEDIAN BARRIER



SANDBAG DAM



TYPICAL TEMPORARY DRIVE RELOCATION SECTION

NOT TO SCALE

TEMPORARY DIVERSION DIKE SYSTEM

NOT TO SCALE

NOTES

1. ADJUST AS NECESSARY TO FIT FIELD CONDITIONS ENCOUNTERED AND TO ACCOUNT FOR CONTRACTOR'S METHOD OF OPERATION.
2. CONTRACTOR MUST HAVE EQUIPMENT AVAILABLE ON SITE TO BREACH THE TEMPORARY DIVERSION DIKE SYSTEM IN THE EVENT OF HIGH WATER.
3. REMOVE THE TEMPORARY DIVERSION DIKE SYSTEM AND RESTORE STREAMBED TO ITS ORIGINAL CONDITION OR AS SHOWN ON THE PLAN IMMEDIATELY AT THE COMPLETION OF ASSOCIATED WORK.
4. THE TEMPORARY DIVERSION DIKE SYSTEM IS A REGULATED WATER OBSTRUCTION AND NOT AN E&S CONTROL STRUCTURE. A CONTRACTOR IS NOT TO MAKE CHANGES TO THE DESIGN OF THESE STRUCTURES WITHOUT SPECIFIC APPROVAL FROM CENTRE COUNTY CONSERVATION DISTRICT AND PADEP.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID J. JOHNSON
ENGINEER
PE074510

DESIGNER: ASC	DRAFTER: ASC	CHECKER: MDD	JOB #: 12181-001

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	4 OF 4
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

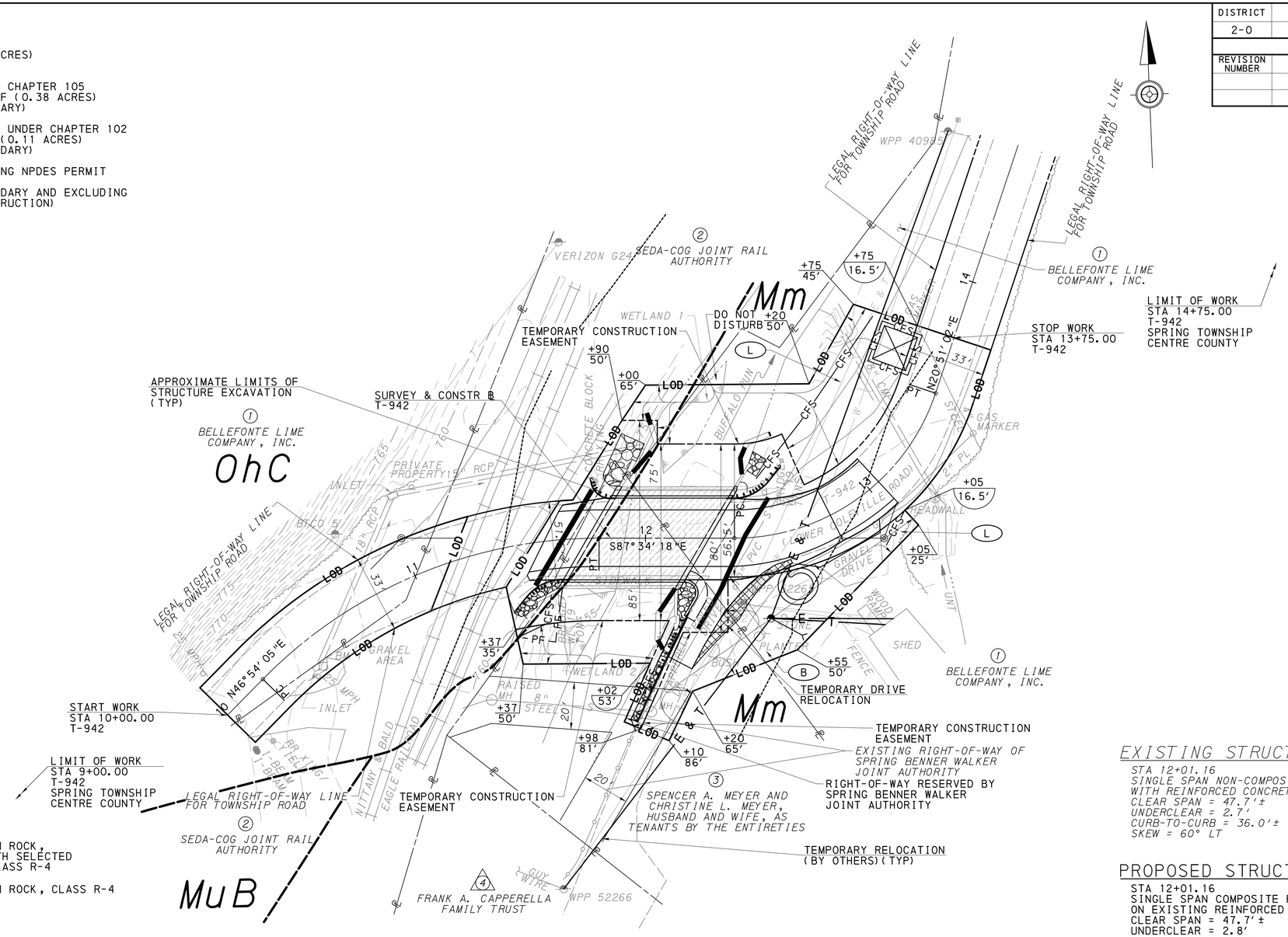
PROPOSED WORK AREA:

AREA OF DISTURBANCE = 23,398 SF (0.54 ACRES)
(AREA WITHIN LOD LINES)

AREA OF EARTH DISTURBANCE COVERED UNDER CHAPTER 105
WATERWAY ENCROACHMENT PERMIT = 16,355 SF (0.38 ACRES)
(AREA WITHIN 100-YEAR FLOOD WATER BOUNDARY)

AREA OF PAVEMENT RECONSTRUCTION COVERED UNDER CHAPTER 102
ROAD MAINTENANCE ACTIVITIES = 4,895 SF (0.11 ACRES)
(AREA OUTSIDE 100-YEAR FLOOD WATER BOUNDARY)

AREA OF EARTH DISTURBANCE FOR DETERMINING NPDES PERMIT
REQUIREMENT = 2,148 SF (0.05 ACRES)
(AREA OUTSIDE 100-YEAR FLOOD WATER BOUNDARY AND EXCLUDING
REGULATED WETLANDS AND PAVEMENT RECONSTRUCTION)



PLAN

0 25 50 FEET

LEGEND

- SELECTED BORROW EXCAVATION ROCK, CLASS R-8. CHOKE VOIDS WITH SELECTED BORROW EXCAVATION ROCK, CLASS R-4
- SELECTED BORROW EXCAVATION ROCK, CLASS R-4
- SUBBASE 6" DEPTH (NO. 2A)
- *DELINEATED WETLAND* (DO NOT DISTURB)
- *PORTION OF EXISTING STRUCTURE* (TO BE REMOVED)
- *PARCEL IDENTIFICATION NUMBER*
- *PARCEL IDENTIFICATION NUMBER* - NO TAKE
- SOIL BOUNDARY
- MuB - SOIL TYPE
- PF - PROTECTIVE FENCE
- CFS - COMPOST FILTER SOCK, 12" DIAMETER
- B - SEEDING TYPE
- CONCRETE WASHOUT
- *EXISTING COUNTOURS*
- *EXISTING WATER EDGE*
- LOD - LIMIT OF DISTURBANCE
- APPROXIMATE 100-YEAR FLOOD WATER BOUNDARY
- PUMPED WATER FILTER BAG
- TEMPORARY DIVERSION DIKE SYSTEM
- TEMPORARY BARRIER

EXISTING STRUCTURE DATA

STA 12+01.16
SINGLE SPAN NON-COMPOSITE P/S ADJ BOX BEAM BRIDGE
WITH REINFORCED CONCRETE ABUTMENTS & WINGWALLS
CLEAR SPAN = 47.7'±
UNDERCLEAR = 2.7'
CURB-TO-CURB = 36.0'±
SKEW = 60° LT

PROPOSED STRUCTURE DATA

STA 12+01.16
SINGLE SPAN COMPOSITE P/S SPREAD BOX BEAM BRIDGE
ON EXISTING REINFORCED CONCRETE ABUTMENTS & WINGWALLS
CLEAR SPAN = 47.7'±
UNDERCLEAR = 2.8'
CURB-TO-CURB = 34'-8"
SKEW = 60° LT

THE TEMPORARY DIVERSION DIKE SYSTEM IS A REGULATED WATER OBSTRUCTION AND NOT AN E&S CONTROL STRUCTURE. A CONTRACTOR IS NOT TO MAKE CHANGES TO THE DESIGN OF THESE STRUCTURES WITHOUT SPECIFIC APPROVAL OF CENTRE COUNTY CONSERVATION DISTRICT AND PA DEP.

TEMPORARY CONSTRUCTION EASEMENT. AN EASEMENT TO USE THE LAND AS NECESSARY DURING CONSTRUCTION OF THE PROJECT. THE EASEMENT IS REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE COUNTY.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID J. JOHNSON
ENGINEER
PE074510

DESIGNER:	DRAFTER:	CHECKER: MDD	JOB #: 12181-001

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DATE:6/27/2022
TIME:3:03:53 PM
FILE:pw:\\idg-pw.bentley.com:idg-pw-01\Documents\Projects\12181-001\T-942 (Lower Colevilile Road)\CAD\02_Highway\E&S\12181-001-T-942-E&S-PN
USER:mdeblander
MODEL:Default
PLOT DRIVER:$(MOPERATIONS\CAD\Transportation\IDG_Workspace\CLIENT\IDG\plot\pdf-penmdot-bw.pltcfg
PEN TABLE:_PENTBL.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	T-942	---	1 OF 4
SPRING TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

CENTRE COUNTY

TOWNSHIP ROAD T-942 (LOWER COLEVILLE ROAD)

STA 9+00.00 TO STA 14+75.00 (LIMITS OF WORK)

TOTAL SHEETS 4

CROSS SECTIONS

T-942 (LOWER COLEVILLE ROAD)
STA 11+56.82 TO STA 13+05.00 SHEET 2 TO SHEET 4

RELEASED FOR CONSTRUCTION

DESIGN REVIEWED BY:

David J Johnson 4/19/2023

LARSON DESIGN GROUP
1000 COMMERCE PARK DRIVE, SUITE 201
WILLIAMSPORT, PA 17701

THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH THE DEPARTMENT'S DESIGN AND CONSTRUCTION CRITERIA AND STANDARDS AND IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

PREPARED BY:
P. JOSEPH LEHMAN, INC.
CONSULTING ENGINEERS
P.O. BOX 419
HOLLIDAYSBURG, PA 16648

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ADAM KATRANCHA
ENGINEER
No. 060996

Adam Katrancha
REG PROF ENGINEER

18 April 2023
DATE

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
2-0	CENTRE	T-942	---			2 OF 4

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

℄

STA 11+85.10 LT END GUIDE RAIL (CONNECT TO STRUCTURE)
STA 11+82.22 LT BEGIN 5'-0" SHOULDER WIDTH
STA 11+77.16 LT BEGIN GUIDE RAIL
STA 11+75.25 LT END SUPERELEVATION TRANSITION, BEGIN NORMAL SECTION

STA 11+80.27 RT BEGIN 5'-8" SHOULDER WIDTH
STA 11+75.25 BEGIN STRUCTURE

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

EOS 759.81 OFF 15.77
EOP 759.92 OFF 12.00

-2.88% -1.98% G-760.15 -2.00%

765 760 755 750

APPROXIMATE LIMITS OF STRUCTURE EXCAVATION

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

PRELIMINARY	
C-8.3	F-0
FINAL	
C-	F-
TC-	TF-

SB = 15.8 LF

11+75

STA 11+65.85 LT BEGIN TRAPER TO 5'-0" SHOULDER WIDTH

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

EOS 759.97 OFF 17.34
EOP 760.08 OFF 14.11

3.39% -0.87% G-760.26 1.34% 1.40%

EOP 760.46 OFF 14.47
EOS 760.48 OFF 16.13

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

STA 11+67.35 RT END SUPERELEVATION TRANSITION, BEGIN NORMAL SECTION
STA 11+63.66 RT END GUIDE RAIL (CONNECT TO STRUCTURE)

PRELIMINARY	
C-33.5	F-0
FINAL	
C-	F-
TC-	TF-

SB = 33.5 LF

11+56.82 (ALONG SKEW)

STA 11+56.82 BEGIN FULL DEPTH PAVING
MATCH EXISTING LANE AND SHOULDER CROSS SLOPES AND WIDTHS
BEGIN SUPERELEVATION TRANSITION
STA 11+48.21 RT BEGIN TAPER TO 5'-8" SHOULDER WIDTH
STA 11+40.12 RT BEGIN GUIDE RAIL
STA 10+00.00 START WORK
STA 9+00.00 LIMIT OF WORK

NOTES:
SB = SUBBASE 6" DEPTH (NO. 2A)

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

SCALE: 1 INCH = 5 FEET

Application No.	T-942	Finals Plotted By	AK
Route No.	LDG	Finals Checked By	CJB
Original Plotted By		Area By	
		Area Checked By	AK
Original Checked By	CJB		
Template By	CJB		
Area By	CJB		

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
2-0	CENTRE	T-942	---			3 OF 4

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

℄

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

EOS 759.31 OFF 3.30
EOP 759.36 OFF 12.04

-4.00% -2.46% G-759.66 0.70% -4.00%

EOP 759.72 OFF 9.96
EOS 759.61 OFF 12.70

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

5'-0" GRAVEL DRIVE

WATER LINE —○— (SIZE, TYPE & DEPTH UNKNOWN)

2" PLASTIC GAS LINE —○— (DEPTH UNKNOWN)

765 760 755 750

10" PVC SEWER LINE —○—

12+75

PRELIMINARY
C- 28.4 F- 0
FINAL
C- F-
TC- TF-
SB = 31.0 LF

STA 12+37.74 LT BEGIN TAPER TO EXISTING LANE WIDTHS
STA 12+37.74 LT END 5'-0" SHOULDER WIDTH
BEGIN TAPER TO EXISTING SHOULDER WIDTH

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

EOS 759.40 OFF 17.00
EOP 759.60 OFF 12.00

EOP 759.67 OFF 12.00
EOS 759.44 OFF 17.67

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

STA 12+37.74 RT BEGIN TAPER TO EXISTING LANE WIDTHS
STA 12+37.74 RT END 5'-8" SHOULDER WIDTH
BEGIN TAPER TO EXISTING SHOULDER WIDTH

PRELIMINARY
C- 34.8 F- 0
FINAL
C- F-
TC- TF-
SB = 43.5 LF
SBM = 1.6 SF

STA 12+64.35 LT END GUIDE RAIL
STA 12+37.74 LT END NORMAL SECTION, BEGIN SUPERELEVATION TRANSITION

EXISTING WINGWALL

-4.00% -2.00% G-759.84 -1.44% -4.00% -2.39%

ASPHALT DRIVE

APPROXIMATE LIMITS OF STRUCTURE EXCAVATION

12+37.74

STA 12+36.84 LT BEGIN GUIDE RAIL (CONNECT TO STRUCTURE)

10" PVC SEWER LINE —○—

STA 12+33.00 RT ℄ ASPHALT DRIVE (39.76' AVG. L X 13.86' AVG W)
STA 12+28.00 RT END NORMAL SECTION, BEGIN SUPERELEVATION TRANSITION

STA 12+27.02 END STRUCTURE
STA 11+96.59 RT END GUIDE RAIL ALONG PAVED DRIVE (CONNECT TO EXISTING GUIDE RAIL
STA 12+17.54 RT BEGIN GUIDE RAIL ALONG PAVED DRIVE (CONNECT TO STRUCTURE)

NOTES:
SB = SUBBASE 6" DEPTH (NO. 2A)
SBM = SUBBASE (NO. 2A)

SCALE: 1 INCH = 5 FEET

Finals Plotted By	AK		
Finals Checked By	CJB		
Area By			
Area Checked By	AK		
Original Checked By	CJB		
Template By	CJB		
Area By	CJB		
Application No.	T-942		
Route No.	LDG		
Original Plotted By			

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
2-0	CENTRE	T-942	---			4 OF 4

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

℄

STA 14+75.00 LIMIT OF WORK
STA 13+75.00 STOP WORK
STA 13+05.00 END MILL AND OVERLAY

STA 13+05.00 RT END SUPERELEVATION TRANSITINO, MATCH EXISTING LANE AND SHOULDER CROSS SLOPES

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

EOS 758.86 OFF 13.22
EOP 758.95 OFF 12.04

EOS 759.46 OFF 12.19
EOP 759.49 OFF 9.69

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

-7.46% -2.52% GG-759.25 2.43% -1.17%

765 760 755 750

WATER LINE (SIZE, TYPE & DEPTH UNKNOWN)

10" PVC SEWER LINE

8" 2" PLASTIC GAS LINE (DEPTH UNKNOWN)

13+05

PRELIMINARY
C- 0 F- 0
FINAL
C- F-
TC- TF-

765 760 755 750

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

EOS 759.28 OFF 12.80
EOP 759.31 OFF 12.04

EOS 759.62 OFF 12.03
EOP 759.71 OFF 9.69

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

5'-0" GRAVEL DRIVE

-4.00% 2.52% G-759.6 0.99% -4.00%

765 760 755 750

PRELIMINARY
C- 27.2 F- 0
FINAL
C- F-
TC- TF-
SB = 29.8 LF

STA 12+80.00 LT END SUPERELEVATION TRANSITION, MATCH EXISTING LANE CROSS SLOPES

WATER LINE (SIZE, TYPE & DEPTH UNKNOWN)

8" 2" PLASTIC GAS LINE (DEPTH UNKNOWN)

STA 12+80.00 RT GRAVEL DRIVE
SUBBASE 6" DEPTH (NO. 2A)
(5.00' L X 33.10 AVG W)

STA 12+80.00 END FULL DEPTH PAVING
BEGIN MILL AND OVERLAY
MATCH EXISTING LANE AND SHOULDER WIDTHS

12+80

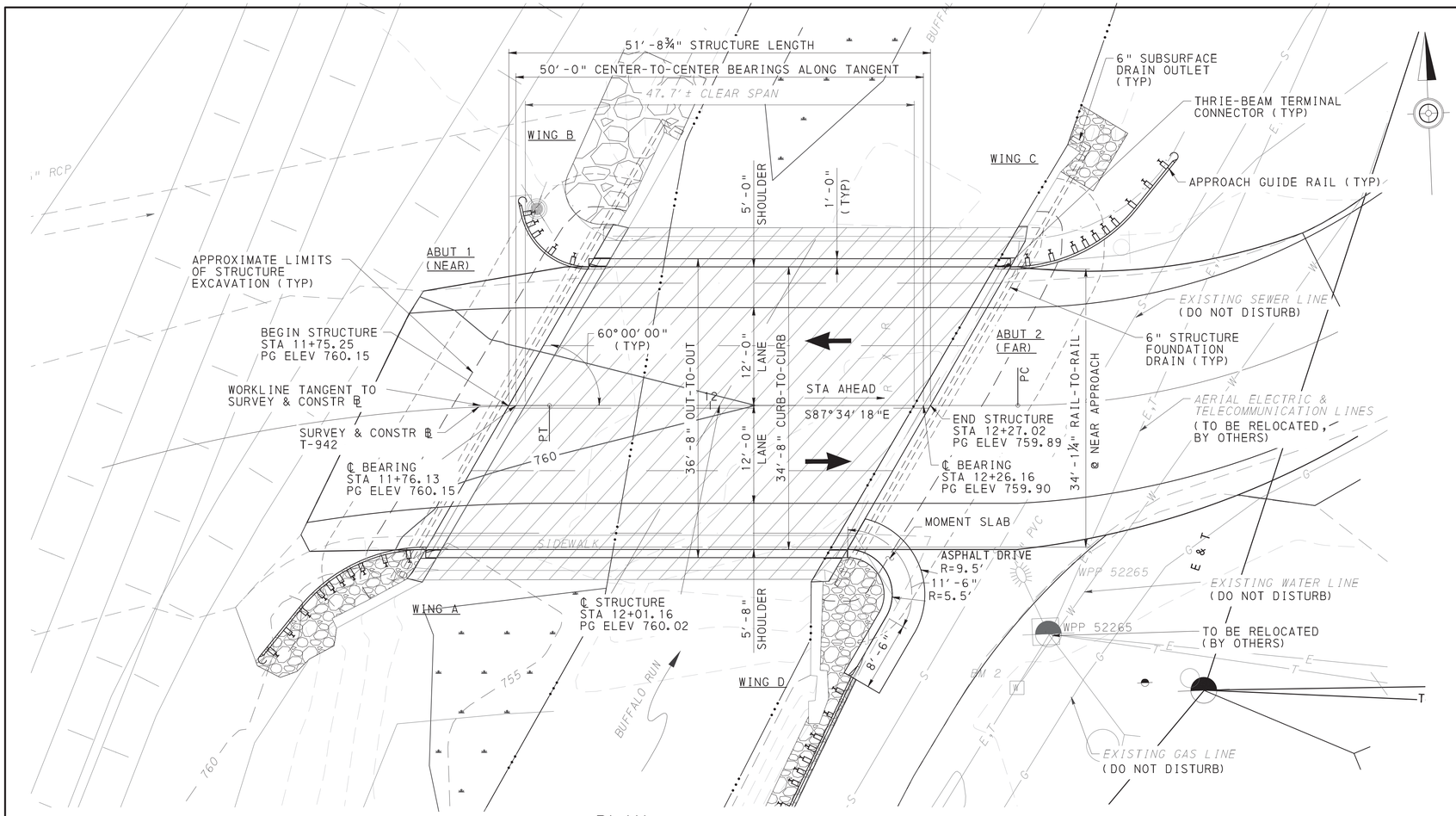
10" PVC SEWER LINE

NOTES:
SB = SUBBASE 6" DEPTH (NO. 2A)

Finals Plotted By	AK
Finals Checked By	CJB
Area By	
Area Checked By	AK
Original Checked By	CJB
Template By	CJB
Area By	
Application No.	
Route No.	T-942
Original Plotted By	LDG

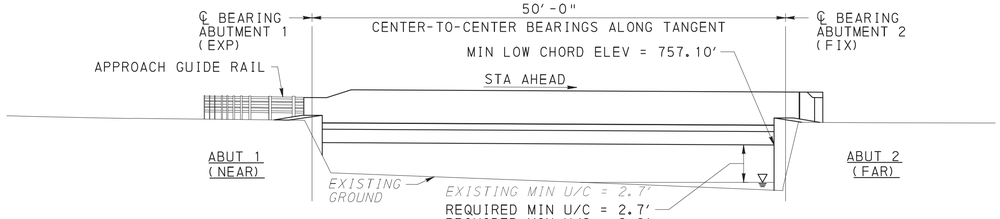
80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

SCALE: 1 INCH = 5 FEET



PLAN

4 0 4 8 FEET



- NO EXPANSION DAMS REQUIRED
- USE LAMINATED ELASTOMERIC BEARING PADS AT ABUTMENTS

ELEVATION

4 0 4 8 FEET

LEGEND

- SELECTED BORROW EXCAVATION ROCK, CLASS R-4
- SELECTED BORROW EXCAVATION ROCK, CLASS R-8 - CHOKE VOIDS WITH SELECTED BORROW EXCAVATION ROCK, CLASS R-4
- *PORTION OF EXISTING STRUCTURE* (TO BE REMOVED)
- *DELINEATED WETLAND*
- *EXISTING WATER EDGE*
- *EXISTING CONTOUR*
- PROPOSED CONTOUR
- DIRECTION OF TRAFFIC

PG - PROFILE GRADE
U/C - UNDERCLEARANCE

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

EXISTING STRUCTURE DATA

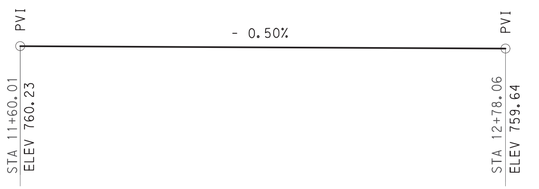
STA 12+01.16
SINGLE SPAN NON-COMPOSITE P/S ADJ BOX BEAM BRIDGE
WITH REINFORCED CONCRETE ABUTMENTS & WINGWALLS
CLEAR SPAN = 47.7'±
UNDERCLEAR = 2.7'±
CURB-TO-CURB = 36.0'±
*SKEW = 60^*

HORIZONTAL CURVE DATA

CURVE DATA SURVEY & CONSTR ℄ T-942	CURVE DATA SURVEY & CONSTR ℄ T-942
PI STA 11+05.27	PI STA 13+02.63
Δ= 45°31'38" RT	Δ= 71°34'40" LT
T= 83.92'	T= 64.88'
L= 158.92'	L= 112.43'
R= 200.00'	R= 90.00'
E= 16.89'	E= 20.95'
PC STA 10+21.35	PC STA 12+37.74
PT STA 11+80.27	PT STA 13+50.18

VERTICAL CURVE DATA

SURVEY & CONSTR ℄ T-942
NO CURVE



NOTES:

- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTION, SEE SHEET 3.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
- FOR SCOPE OF WORK, SEE SHEET 2.

PENNDOT ENGINEERING DISTRICT 2-0
FOR STRUCTURAL ADEQUACY ONLY

4/19/2023 — DATE
George M Yuhl — DISTRICT BRIDGE ENGINEER

RELEASED FOR CONSTRUCTION

DESIGN REVIEWED BY:
David J Johnson 4/19/2023

LARSON DESIGN GROUP
1000 COMMERCE PARK DRIVE, SUITE 201
WILLIAMSPORT, PA 17701

THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH THE DEPARTMENT'S DESIGN AND CONSTRUCTION CRITERIA AND STANDARDS AND IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

DESCRIPTION	DWG. NO.	APP. DATE
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06-01-2010
BACKFILL AT STRUCTURES	RC-12M	11-01-2022
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-19-2021
TYPE 31 STRONG POST GUIDE RAIL	RC-51M	11-30-2021
PERMANENT METAL DECK FORMS	BC-732M	11-23-2022
ANCHOR SYSTEMS	BC-734M	02-19-2021
WALL CONSTRUCTION AND EXPANSION JOINT DETAILS	BC-735M	09-30-2016
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	11-23-2022
BRIDGE DRAINAGE	BC-751M	01-31-2019
CONCRETE DECK SLAB DETAILS	BC-752M	11-23-2022
BEARINGS	BC-755M	01-31-2019
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	11-23-2022

SUPPLEMENTAL DRAWINGS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E PENNSYLVANIA

PREPARED BY:

P. JOSEPH LEHMAN, INC.
CONSULTING ENGINEERS
OLDE FARM OFFICE CENTRE
P.O. BOX 419
HOLLIDAYSBURG, PA 16648

SIGNATURE: Husam A Obeid
DATE: MARCH 31, 2023

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

GENERAL PLAN & ELEVATION

SHEET 1 OF 32

L-412D

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\01-T942.GPE
USER: BGoslvier1
DATE: 03/31/23 - 10:04 AM

GENERAL NOTES

- PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2020 AND THE CONTRACT SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS:

- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2017, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, DECEMBER 2019.
- LIVE LOAD DISTRIBUTION TO BEAMS IS BASED UPON DM-4 DISTRIBUTION FACTOR METHOD.
- DESIGN IS IN ACCORDANCE WITH LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD.

DESIGN LIVE LOADS:

- PHL-93, P-82, AND P2016-13.
- FATIGUE DESIGN IS BASED ON THE FOLLOWING:
  PRESTRESSED CONCRETE: ADTT 19 (2023) (ONE-DIRECTIONAL)
- MAXIMUM ALLOWABLE TENSILE STRESS IN PRECOMPRESSED TENSILE ZONE: 0.0948*SQRT(F'C)

DEAD LOADS:

- INCLUDES A SURFACE AREA DENSITY OF 30 LB/SF FOR FUTURE WEARING SURFACE ON THE DECK SLAB
- INCLUDES A SURFACE AREA DENSITY OF 15 LB/SF FOR PERMANENT METAL DECK FORMS WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORM, PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.

GENERAL:

- WORK WITHIN THE EXISTING RIGHT-OF-WAY.
- PROVIDE 2 INCH CONCRETE COVER ON REINFORCEMENT BARS EXCEPT AS NOTED.
- USE EITHER PERMANENT METAL FORMS OR REMOVABLE FORMS TO CONSTRUCT THE DECK SLAB.
- USE CLASS AAAP CEMENT CONCRETE IN THE NEW DECK SLAB.
- USE CLASS AA CEMENT CONCRETE IN THE BARRIERS, CONCRETE DIAPHRAGMS, CHEEKWALLS, SHEAR BLOCKS AND MOMENT SLABS.
- USE CLASS A CEMENT CONCRETE IN THE ABUTMENT CAPS.
- A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE COUNTY.
- IF CONCRETE DIAPHRAGMS ARE POURED MONOLITHICALLY WITH THE DECK, USE CLASS AAAP CEMENT CONCRETE FOR THE DIAPHRAGMS AT NO ADDITIONAL COST TO THE COUNTY.
- PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408 /2020, SECTION 1001.3(K)9.
- PLACE ALL GIRDERS WITH THEIR WEBS VERTICAL.
- PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A615 OR ASTM A706. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED.
- EPOXY COAT ALL REINFORCING BARS.
- GALVANIZED REINFORCEMENT BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCEMENT BARS AT NO ADDITIONAL COST TO THE COUNTY.
- RAKE FINISH ALL HORIZONTAL CONSTRUCTION JOINTS EXCEPT AS NOTED.
- VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
- CHAMFER EXPOSED CONCRETE EDGES ¾" INCH BY ¾" INCH EXCEPT AS NOTED.
- ALL DIMENSIONS ARE HORIZONTAL EXCEPT AS NOTED.
- SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68 DEGREES F.
- DECK SLAB THICKNESS INCLUDES A 1/2" INTEGRAL WEARING SURFACE.
- PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.
- USE EPOXY BONDING COMPOUND WHEREVER NEW CONCRETE COMES IN CONTACT WITH EXISTING CONCRETE IN ACCORDANCE WITH PUBLICATION 408, SECTION 706.1 AND 1040.3(e)1.
- RETAIN EXISTING REINFORCEMENT BARS AS INDICATED. ABRASIVE BLAST CLEAN EXISTING REINFORCEMENT TO A SSPC-SP6. REPLACE ANY BARS DAMAGED DURING REMOVAL OPERATIONS, AS DIRECTED BY THE ENGINEER. PAINT EXISTING REINFORCEMENT BARS WITH AN APPROVED EPOXY PAINT IN ACCORDANCE WITH SECTION 709.1(c) OF PUBLICATION 408.
- ALL DETAILS OF DESIGN, SUCH AS CHAMFERS, JOINTS, OVERHANGS, ETC. IN THE EXISTING STRUCTURE ARE TO BE DUPLICATED IN THE REPAIR WORK.

GENERAL (CONT.):

- FINISH AND CURE ALL REPAIRS IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS AND PUBLICATION 408.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STRUCTURAL STABILITY AND INTEGRITY OF THE COMPLETE SUPERSTRUCTURE AND SUBSTRUCTURE THROUGHOUT THE DURATION OF THE CONTRACT. ANY DAMAGES INCURRED DURING CONSTRUCTION, AS DETERMINED BY THE ENGINEER, ARE TO BE REPAIRED AND/OR REPLACED AT NO EXTRA COST TO THE COUNTY.
- NO STOCKPILING OF MATERIALS ON THE BRIDGE IS PERMITTED. THE BRIDGE IS CLOSED DUE TO THE FAILED EXTERIOR BEAMS.
- PRIOR TO DRILLING DOWEL HOLES INTO EXISTING CONCRETE COMPONENTS, LOCATE EXISTING REINFORCEMENT STEEL WITH A PACHOMETER.
- SEISMIC FORCES WERE CONSIDERED. SITE CLASS IS NOT CLASS E.

UTILITY NOTES:

- COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTIONS 105.06 AND 107.12.

WATERWAY NOTES:

- NOTIFY THE REGIONAL HEADQUARTERS OF THE FISH COMMISSION PRIOR TO CONSTRUCTION AND COOPERATE FULLY DURING CONSTRUCTION.
  NORTHCENTRAL REGIONAL OFFICE
  595 EAST ROLLING RIDGE DRIVE
  BELLEFONTE, PA 16823
  PHONE: (814) 359-5127
- NOTIFY THE CENTRE COUNTY CONSERVATION DISTRICT PRIOR TO CONSTRUCTION AND COOPERATE FULLY DURING CONSTRUCTION.
  414 HOLMES STREET; SUITE 4
  BELLEFONTE, PA 16823
  PHONE: (814) 355-6817

EXISTING STRUCTURE PLANS:

- DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY THE COUNTY OR ITS AUTHORIZED REPRESENTATIVES AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT YOU WILL ENCOUNTER IN THE FIELD.
- THE INFORMATION SHOWN ON THE PLANS FOR THE EXISTING BRIDGE IS NOT PART OF THE PLANS, PROPOSAL, OR CONTRACT, AND IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OF THE UNIT PRICES USED FOR BIDDING PURPOSES. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT THE INFORMATION IS CORRECTLY SHOWN. THE BIDDER IS NOT TO RELY ON THIS INFORMATION, BUT IS TO ASSUME THE POSSIBILITY THAT CONDITIONS AFFECTING THE COST AND/OR QUANTITIES OF WORK MAY DIFFER FROM THOSE INDICATED.

INDEX OF DRAWINGS

SHEET NO	TITLE
1	GENERAL PLAN & ELEVATION
2	GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS
3	TYPICAL SECTION & DECK ELEVATIONS
4	REMOVAL DETAILS
5	ABUTMENT 1 REPAIRS
6	ABUTMENT 1 BEARING SEAT ELEVATIONS
7	ABUTMENT 1 CHEEKWALL DETAILS
8	ABUTMENT 2 REPAIRS
9	ABUTMENT 2 BEARING SEAT ELEVATIONS
10	ABUTMENT 2 CHEEKWALL DETAILS
11	SUBSTRUCTURE REINFORCEMENT BAR SCHEDULE
12	DECK & BEAM ELEVATIONS
13	FRAMING PLAN - 1
14	FRAMING PLAN - 2
15	BOX BEAM DETAILS
16	ELASTOMERIC BEARING DETAILS
17	BEAM FABRICATION DETAILS - 1
18	BEAM FABRICATION DETAILS - 2
19	STRAND TABLES
20	DIAPHRAGM DETAILS - 1
21	DIAPHRAGM DETAILS - 2
22	DECK SLAB REINFORCEMENT PLAN
23	DECK SLAB SECTION
24	MISCELLANEOUS DECK & SLAB DETAILS
25	BARRIERS & MISCELLANEOUS DETAILS
26	DECK BARRIER END TRANSITION ELEVATION
27	DECK BARRIER END TRANSITION SECTIONS
28	MOMENT SLAB DETAILS
29	MOMENT SLAB BARRIER SECTIONS
30	SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE
31	RATINGS TABLES W/ FWS
32	RATINGS TABLES W/O FWS

APPROXIMATE QUANTITIES - BRIDGE STRUCTURE, AS DESIGNED

ITEM NO.	ITEM	UNIT	ABUT. 1	ABUT. 2	SUPER.	MOMENT SLAB	TOTAL
8250-0003	CONSTRUCTION OF PRESTRESSED CONCRETE SUPERSTRUCTURE REPLACEMENT, L-412D	LS					
(1)	CLASS 3 EXCAVATION	CY	37	37	——	——	74
(1)	MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES	SY	41	41		——	82
(1)	NO. 57 COARSE AGGREGATE	CY	10	10	——	——	20
(1)	CLASS AAAP CEMENT CONCRETE (2)	CY	——	——	57	——	57
(1)	CLASS AA CEMENT CONCRETE (3)	CY	2	2	18	10	32
(1)	CLASS A CEMENT CONCRETE	CY	6	6	——	——	12
(1)	SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL	CY	30	30	——	——	60
(1)	PRESTRESSED CONCRETE SPREAD BOX BEAMS, 48" X 17"	LF	——	——	259	——	259
(1)	REINFORCEMENT BARS, EPOXY COATED	LB	1,117	915	11,704	1,524	15,260
(1)	STAINLESS STEEL REINFORCEMENT BARS	LB	——	83	——	——	83
(1)	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (BOILED LINSEED OIL)	SY	9	9	306	20	344
(1)	EPOXY INJECTION CRACK SEAL	LF	——	10	——	——	10
(1)	DOWEL HOLES, 12" DEPTH	EA	84	81	——	——	165
(1)	NO. 2A COURSE AGGREGATE (4)	CY	——	3	——	——	3
(1)	6" STRUCTURE FOUNDATION DRAIN	LF	66	66	——	——	132
(1)	SELECT BORROW EXCAVATION ROCK, CLASS R-4	CY	13	9	——	——	22

(1) ITEMS IN BRIDGE STRUCTURE LUMP SUM ITEM 8250-0003 - GIVEN FOR INFORMATION ONLY.
(2) INCLUDES CLASS AAAP CONCRETE IN DECK SLAB AND APPROXIMATELY 3 CUBIC YARDS OF CLASS AAAP CONCRETE TO ACCOUNT FOR STAY-IN-PLACE FORM TROUGHS.
(3) INCLUDES CLASS AA CONCRETE IN CHEEKWALLS, MOMENT SLAB, CONCRETE DIAPHRAGMS AND BARRIERS.
(4) SUBBASE UNDER MOMENT SLAB.

SCOPE OF WORK

1.) REMOVE EXISTING BITUMINOUS WEARING SURFACE AND CONCRETE PARAPETS.
2.) EXCAVATE BEHIND ABUTMENTS AND WINGWALLS, AS REQUIRED.
3.) REMOVE THE EXISTING BEAMS.
4.) REMOVE PORTIONS OF EXISTING ABUTMENTS, CHEEKWALLS, AND WINGS AS REQUIRED.
5.) CONSTRUCT NEW CONCRETE BEAM SEATS ON THE ABUTMENTS AND PERFORM EPOXY INJECTION CRACK SEAL.
6.) SET NEW PRESTRESSED CONCRETE SPREAD BOX BEAMS.
7.) CONSTRUCT CHEEKWALLS, SHEAR BLOCKS, AND PORTION OF WINGS, AS REQUIRED.
8.) DRILL DOWEL HOLES AND CONSTRUCT CONCRETE DIAPHRAGMS.
9.) CONSTRUCT THE NEW CONCRETE DECK AND BARRIERS.
10.) INSTALL WATERPROOFING MEMBRANE AND FOUNDATION DRAIN ON THE REAR FACE OF THE ABUTMENTS.
11.) BACKFILL THE ABUTMENTS AND WINGWALLS.
12.) CONSTRUCT MOMENT SLAB AND BARRIER AT WING D.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

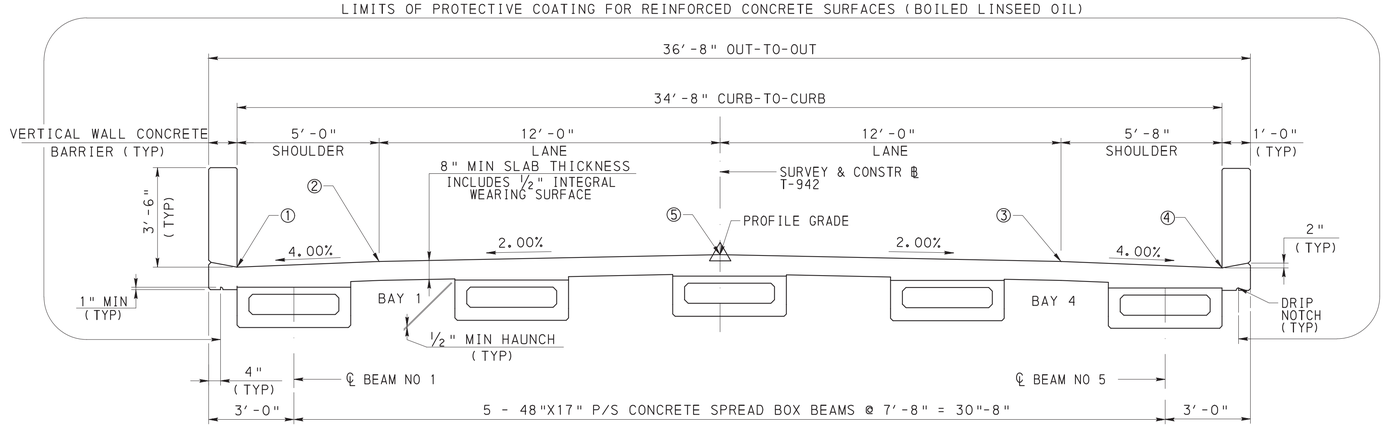
4/19/2023
DATE

SHEET 2 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\02-T942_General Notes
USER: BCoadyler
DATE: 03/31/23 - 10:05 AM



- BEAMS DESIGNED UTILIZING 10 KSI CONCRETE AND 0.6" DIA STRANDS.

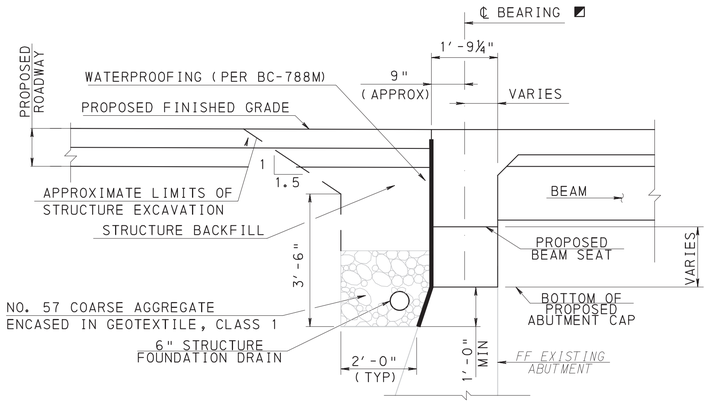
PROPOSED TYPICAL SECTION LOOKING STATIONS AHEAD

1 0 1 2 3 FEET

ELEVATION TABLE
TOP OF SLAB ELEVATION

STATION	PT. ①	PT. ②	PT. ⑤	PT. ③	PT. ④
11+63.66	———	———	———	———	759.85
11+67.35	———	———	———	759.95	759.74
11+70.00	———	———	———	759.94	759.72
11+75.25	———	———	760.15	759.91	759.69
11+76.13	———	———	760.15	759.91	759.68
11+80.00	———	———	760.13	759.89	759.66
11+82.22	———	759.88	760.12	759.88	759.65
11+85.10	759.66	759.86	760.10	759.86	759.64
11+90.00	759.64	759.84	760.08	759.84	759.61
12+00.00	759.59	759.79	760.03	759.79	759.56
12+10.00	759.54	759.74	759.98	759.74	759.51
12+16.83	759.51	759.71	759.95	759.71	759.48
12+20.00	759.49	759.69	759.93	759.69	759.46
12+20.10	759.49	759.69	759.93	759.69	———
12+26.16	759.46	759.66	759.90	———	———
12+27.02	759.45	759.65	759.89	———	———
12+30.00	759.44	759.64	———	———	———
12+33.95	759.42	759.62	———	———	———
12+36.84	759.41	———	———	———	———

ELEVATIONS GIVEN AT THE FIRST AND LAST STATIONS LISTED FOR EACH POINT ARE LOCATED AT THE BEGIN/END OF DECK.



TYPICAL ABUTMENT BACKFILL & DRAINAGE DETAIL

NOT TO SCALE

◩ BASED ON UNKNOWN CONDITIONS OF THE EXISTING ABUTMENT, IT SHOULD BE NOTED THAT THE ℄ BEARNGS IS LAID OUT BASED ON THE STATIONING GIVEN FOR ℄ BEARINGS AND THE FRAMING PLAN ON SHEET 13. THE POSITION OF THE ℄ BEARINGS IS NOT TO BE LAID OUT BASED ON DIMENSIONS FROM FRONT OR REAR FACE OF THE PROPOSED CAP WHICH MAY VARY. THE BACK FACE OF THE EXISTING AND PROPOSED MAY NOT LINE UP.

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.
- APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (BOILED LINSEED OIL) TO THE FRONT FACE OF THE NEW ABUTMENT CAPS TO 2'-0" BEYOND THE DRIP NOTCH, THE TOP OF THE NEW CONCRETE CHEEKWALLS AND THE REAR FACE OF THE NEW CONCRETE CHEEKWALLS TO 1'-0" BELOW FINISHED GROUND.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

TYPICAL SECTION & DECK ELEVATIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

4/19/2023
DATE

SHEET 3 OF 32

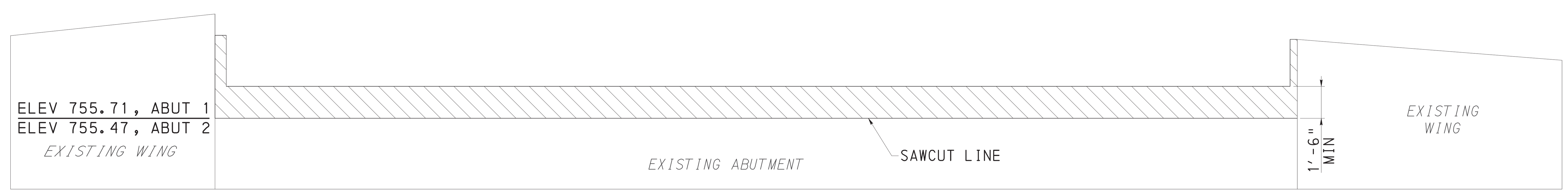
L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\03-T942_Typ Sections
USER: BCasalvieri
DATE: 03/31/23 - 10:05 AM

REMOVAL OF EXISTING CONCRETE NOTES

- THE CONTRACTOR IS TO EXERCISE CARE SO AS NOT TO DAMAGE THE EXISTING REINFORCEMENT BARS OR THE CONCRETE THAT IS TO REMAIN IN PLACE. DURING THE REMOVAL OPERATION, ANY DAMAGE TO THE STRUCTURE BEYOND THE REMOVAL AREA CAUSED BY THE CONTRACTORS OPERATION IS TO BE REPAIRED OR REPLACED IN ACCORDANCE WITH PENNDOT SPECIFICATION AND STANDARD, AND TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE COUNTY.
- BLAST CLEAN REINFORCEMENT BARS THAT ARE EXPOSED DUE TO THE REMOVAL OPERATION TO REMOVE ALL RUST AND OTHER FOREIGN MATERIALS. A MINIMUM CLEARANCE OF 1" AROUND ALL EXPOSED REINFORCEMENT BARS TO BE PROVIDED. APPLY AN APPROVED EPOXY COATED SYSTEM TO ALL REINFORCEMENT BARS BEING RETAINED.
- REINFORCE EXISTING REINFORCEMENT BARS WITH MORE THAN 20% SECTION LOSS AFTER CLEANING WITH ADDITIONAL SAME SIZE DOWEL BARS EMBEDDED INTO EXISTING CONCRETE AS DIRECTED BY THE ENGINEER.
- EQUIPMENT: POWER DRIVEN HAND TOOLS FOR REMOVAL OF DETERIORATED CONCRETE TO CONFORM TO THE FOLLOWING RESTRICTIONS.
  1. DO NOT USE PNEUMATIC HAMMERS HEAVIER THAN 30 LBS.
  2. DO NOT OPERATE PNEUMATIC HAMMERS OR MECHANICAL CHIPPING TOOLS AT AN ANGLE IN EXCESS OF 45° RELATIVE TO THE SURFACE OF THE CONCRETE THAT IS BEING REMOVED.
  3. USE HAND TOOLS SUCH AS HAMMERS AND CHISELS, OR SMALL AIR CHISELS TO REMOVE FINAL PARTICLES OF UNSOUND CONCRETE OR TO PROVIDE NECESSARY CLEARANCE AROUND THE REINFORCEMENT BARS.
- DISPOSE OF ALL REMOVED MATERIALS SATISFACTORILY AND IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.



TYPICAL EXISTING ABUTMENT ELEVATION

2 1 0 2 4 FEET

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR ABUTMENT 1 REPAIRS, SEE SHEET 5.
- FOR ABUTMENT 1 BEARING SEAT ELEVATIONS, SEE SHEET 6.
- FOR ABUTMENT 1 CHEEKWALL DETAILS, SEE SHEET 7.
- FOR ABUTMENT 2 REPAIRS, SEE SHEET 8.
- FOR ABUTMENT 2 BEARING SEAT ELEVATIONS, SEE SHEET 9.
- FOR ABUTMENT 2 CHEEKWALL DETAILS, SEE SHEET 10.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.

LEGEND

- PORTION OF EXISTING STRUCTURE (TO BE REMOVED)

Mark	Description	By	Chk'd	Recm'd	Date

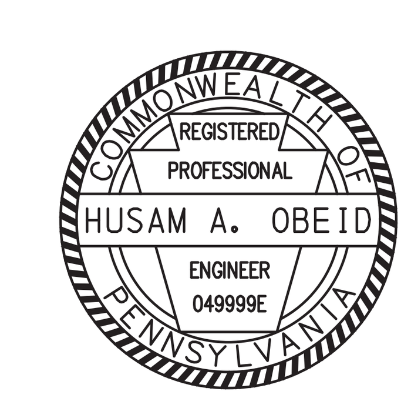
Revisions

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

REMOVAL DETAILS



4/19/2023
DATE

SHEET 4 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

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USER: BCasalvieri
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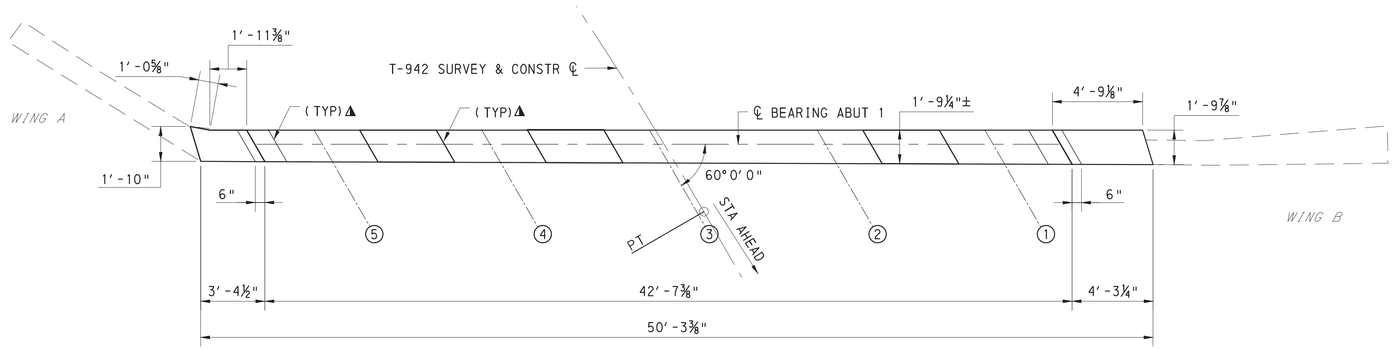

ABUTMENT 1 PLAN

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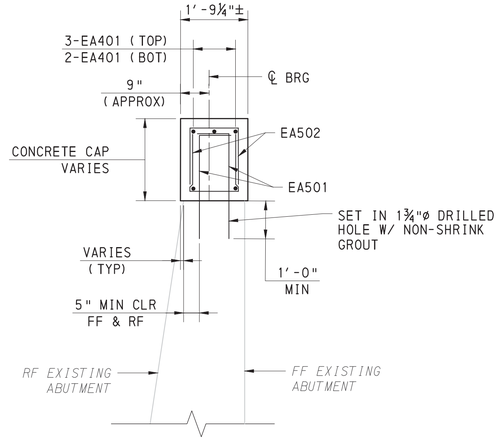

TYPICAL SECTION

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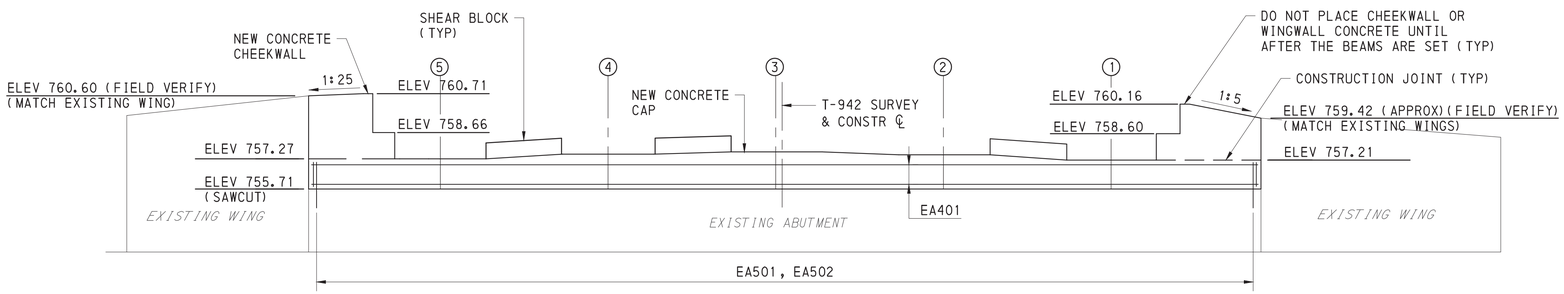
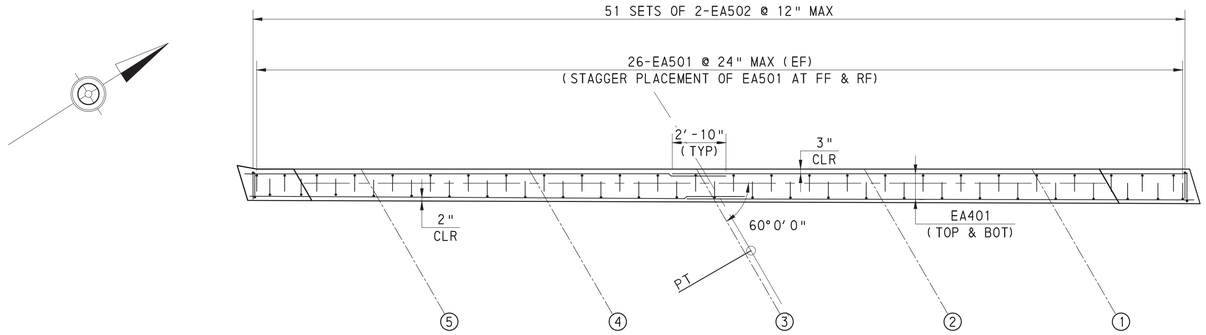


ABUTMENT 1 ELEVATION

2 1 0 2 4 FEET



ABUTMENT 1 REINFORCEMENT

2 1 0 2 4 FEET

LEGEND

(#) BEAM NUMBER

▲ REFERENCE BC-788M FOR LOCATIONS OF 1" NEOPRENE BEARING PAD MATERIAL BETWEEN BEAMS AND CHEEKWALLS/SHEARBLOCK.

NOTES:

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- FOR ABUTMENT 1 CHEEKWALL DETAILS, SEE SHEET 7.
- FOR ABUTMENT 2 REPAIRS, SEE SHEET 8.
- FOR ABUTMENT 2 BEARING SEAT ELEVATIONS, SEE SHEET 9.
- FOR ABUTMENT 2 CHEEKWALL DETAILS, SEE SHEET 10.
- FOR SUBSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE SHEET 11.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.
- APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (BOILED LINSEED OIL) TO THE FRONT FACE OF THE NEW ABUTMENT CAPS TO 2′-0" BEYOND THE DRIP NOTCH, THE TOP OF THE NEW CONCRETE CHEEKWALLS AND THE REAR FACE OF THE NEW CONCRETE CHEEKWALLS TO 1′-0" BELOW FINISHED GROUND.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

ABUTMENT 1 REPAIRS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 5 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

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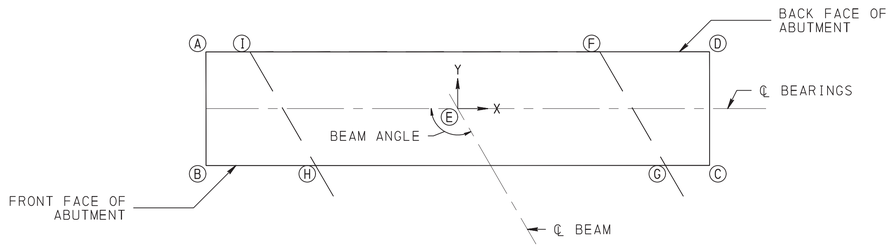
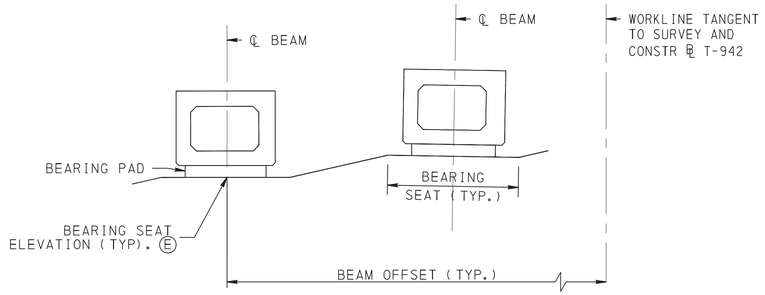


BEARING SEAT PLAN VIEW

NOT TO SCALE



BEARING SEAT ELEVATION VIEW

NOT TO SCALE

NOTE: SEE BEARING SEAT PLAN VIEW DETAIL FOR FURTHER DETAILS.

ABUTMENT 1 BEARING SEAT LOCATION AND ELEVATION TABLE

BEAM NO.	℄ BEAM OFFSET	BEAM ANGLE	BRG. SEAT SLOPE		Ⓐ			Ⓑ			Ⓒ			Ⓓ			Ⓔ		
			X	Y	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.
1	17′-3⅞"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.21	-3′-3⅞"	-1′-0¼"±	757.21	3′-5¾"	-1′-0¼"±	757.21	3′-5¾"	9"	757.21	0"	0"	757.21
2	8′-5⅝"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.49	-3′-3⅞"	-1′-0¼"±	757.49	3′-5¾"	-1′-0¼"±	757.49	3′-5¾"	9"	757.49	0"	0"	757.49
3	-4⅝"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.64	-3′-3⅞"	-1′-0¼"±	757.64	3′-5¾"	-1′-0¼"±	757.64	3′-5¾"	9"	757.64	0"	0"	757.64
4	-9′-2⅞"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.52	-3′-3⅞"	-1′-0¼"±	757.52	3′-5¾"	-1′-0¼"±	757.52	3′-5¾"	9"	757.52	0"	0"	757.52
5	-18′-1⅛"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.27	-3′-3⅞"	-1′-0¼"±	757.27	3′-5¾"	-1′-0¼"±	757.27	3′-5¾"	9"	757.27	0"	0"	757.27

ABUTMENT 1 BEARING SEAT LOCATION AND ELEVATION TABLE

BEAM NO.	℄ BEAM OFFSET	BEAM ANGLE	BRG. SEAT SLOPE		Ⓕ			Ⓖ			Ⓗ			Ⓘ		
			X	Y	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.
1	17′-3⅞"	120°-00′-00"	*	*	1′-10½"	9"	757.21	2′-10¾"	-1′-0¼"±	757.21	-1′-8⅝"	-1′-0¼"±	757.21	-2′-8⅞"	9"	757.21
2	8′-5⅝"	120°-00′-00"	*	*	1′-10½"	9"	757.49	2′-10¾"	-1′-0¼"±	757.49	-1′-8⅝"	-1′-0¼"±	757.49	-2′-8⅞"	9"	757.49
3	-4⅝"	120°-00′-00"	*	*	1′-10½"	9"	757.64	2′-10¾"	-1′-0¼"±	757.64	-1′-8⅝"	-1′-0¼"±	757.64	-2′-8⅞"	9"	757.64
4	-9′-2⅞"	120°-00′-00"	*	*	1′-10½"	9"	757.52	2′-10¾"	-1′-0¼"±	757.52	-1′-8⅝"	-1′-0¼"±	757.52	-2′-8⅞"	9"	757.52
5	-18′-1⅛"	120°-00′-00"	*	*	1′-10½"	9"	757.27	2′-10¾"	-1′-0¼"±	757.27	-1′-8⅝"	-1′-0¼"±	757.27	-2′-8⅞"	9"	757.27

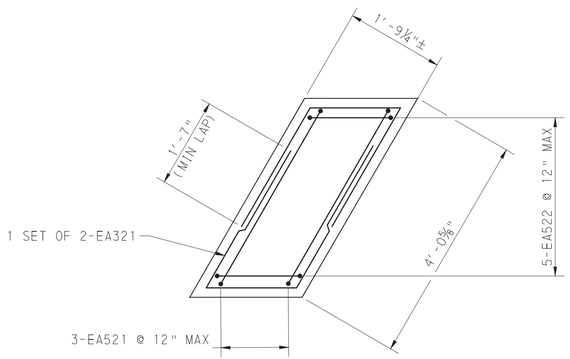
NOTE:

℄ BEAM OFFSET IS MEASURED ALONG THE ℄ BEARING.
℄ BEAM OFFSET IS MEASURED FROM A WORKLINE TANGENT TO THE ℄ TO THE ℄ OF BEAM AT THE BEARING SEAT POINT Ⓔ.
NEGATIVE OFFSETS ARE MEASURED TO THE LEFT OF THE ℄ OF ROADWAY, FACING THE ABUTMENT.

POSITIVE "BEARING SEAT SLOPE Y" REPRESENTS AN INCREASE IN ELEVATION FROM FRONT TO BACK FACE OF ABUTMENT, IN THE DIRECTION OF THE POSITIVE Y-AXIS SHOWN IN THE BEARING SEAT PLAN VIEW.

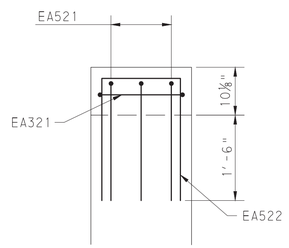
POSITIVE "BEARING SEAT SLOPE X" REPRESENTS AN INCREASE IN ELEVATION IN THE DIRECTION OF THE POSITIVE X-AXIS SHOWN IN THE BEARING SEAT PLAN VIEW.

* BEAM SEATS ARE LEVEL UNDER BEAMS, AND SLOPED AT 1 IN/FT BETWEEN BEAMS FOR DRAINAGE.



SHEAR BLOCK PLAN VIEW

12 6 0 12 INCHES



SHEAR BLOCK ELEVATION VIEW

12 6 0 12 INCHES

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
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- FOR ABUTMENT 1 REPAIRS, SEE SHEET 5.
- FOR ABUTMENT 2 REPAIRS, SEE SHEET 8.
- FOR ABUTMENT 2 BEARING SEAT ELEVATIONS, SEE SHEET 9.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

ABUTMENT 1 BEARING SEAT ELEVATIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 6 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\06-T942_Abut 1 Bearing Seat Elev
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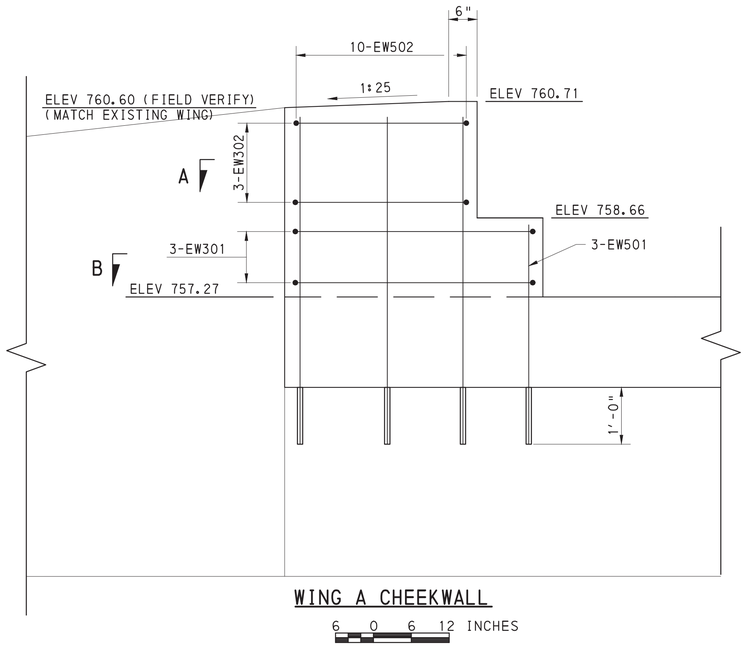
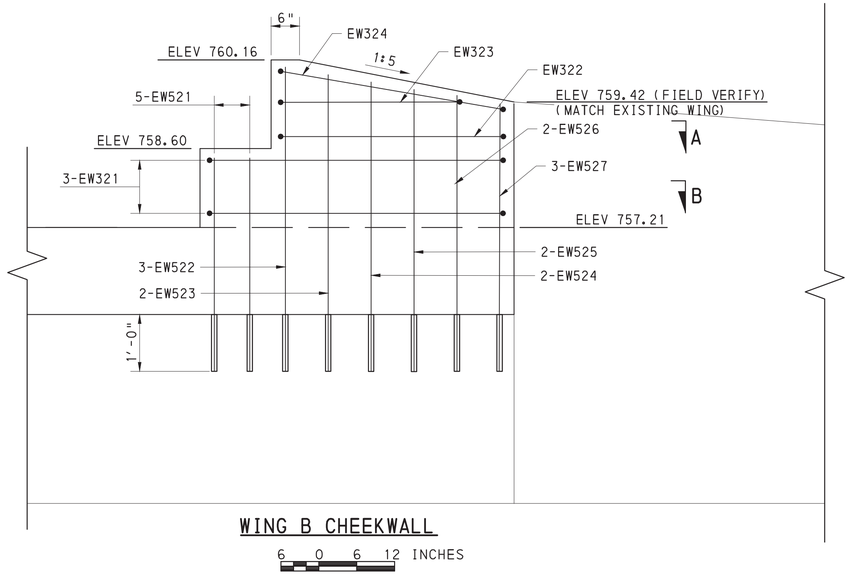


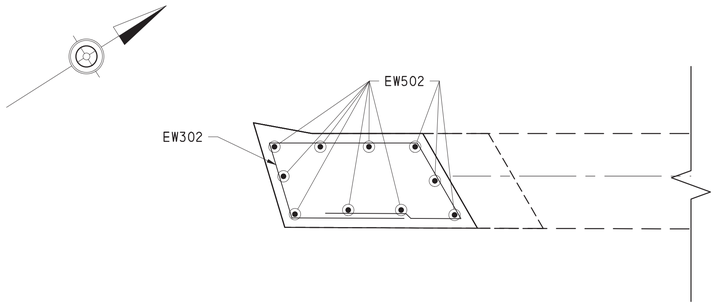
WING A CHEEKWALL

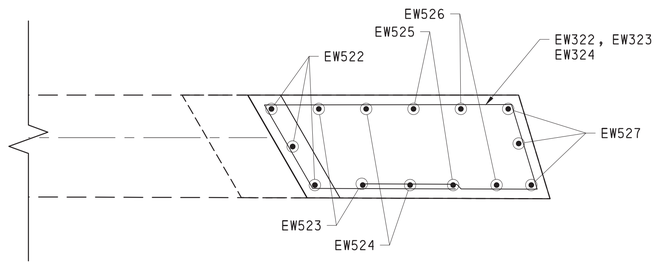
6 0 6 12 INCHES



WING B CHEEKWALL

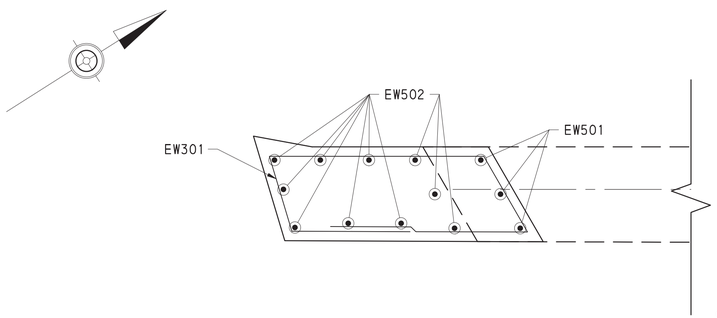
6 0 6 12 INCHES

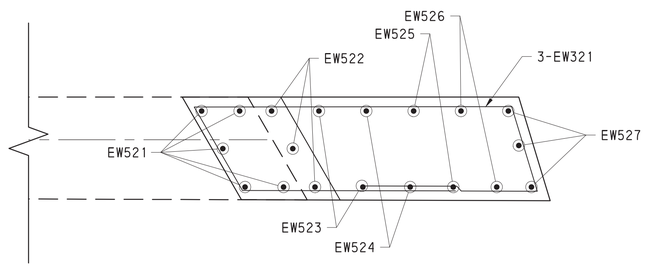




SECTION A-A

6 0 6 12 INCHES





SECTION B-B

6 0 6 12 INCHES

NOTES:

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- FOR ABUTMENT 2 REPAIRS, SEE SHEET 8.
- FOR ABUTMENT 2 BEARING SEAT ELEVATIONS, SEE SHEET 9.
- FOR ABUTMENT 2 CHEEKWALL DETAILS, SEE SHEET 10.
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Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

ABUTMENT 1 CHEEKWALL DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 7 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\07-T942_Abut 1 Cheekwalls
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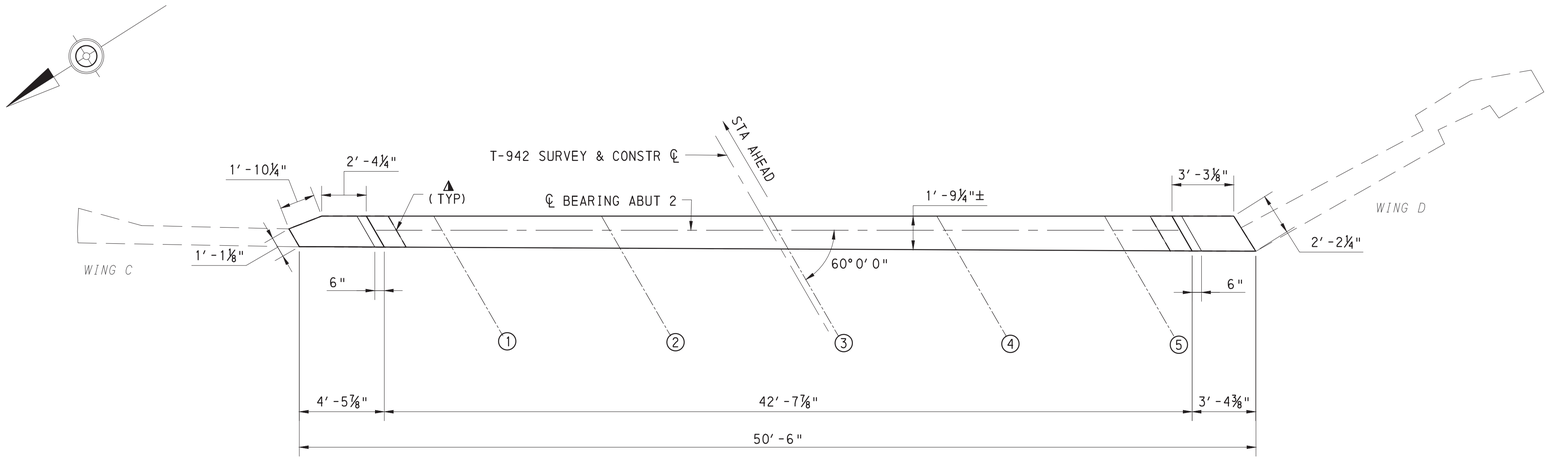
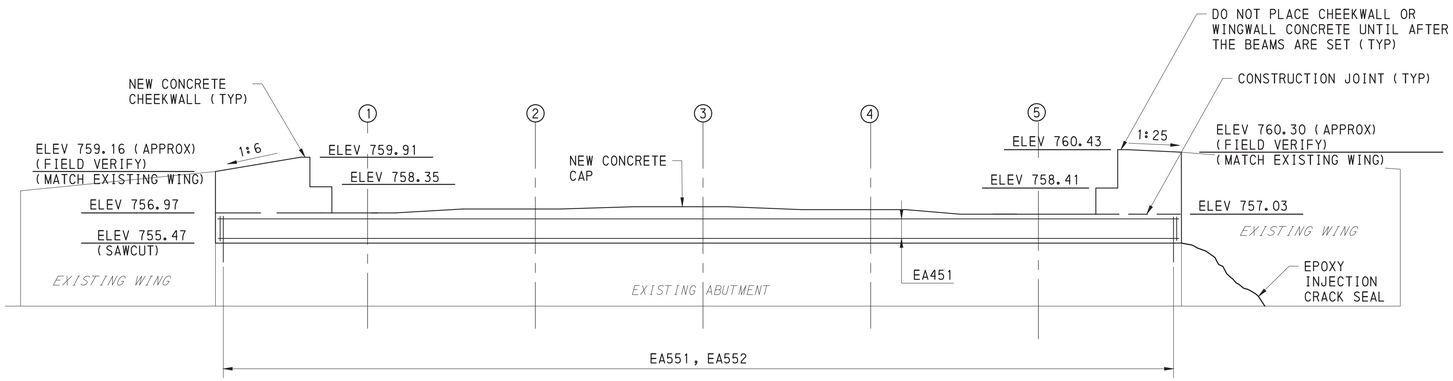


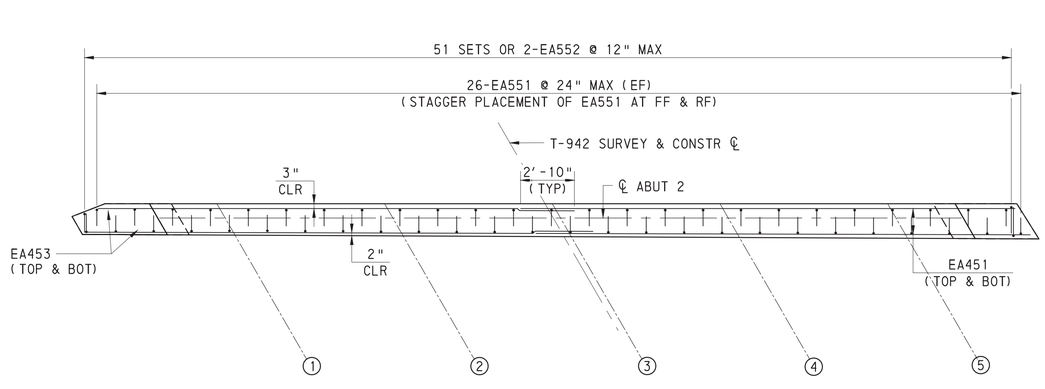
ABUTMENT 2 PLAN

2 1 0 2 4 FEET



ABUTMENT 2 ELEVATION

2 1 0 2 4 FEET



ABUTMENT 2 REINFORCEMENT

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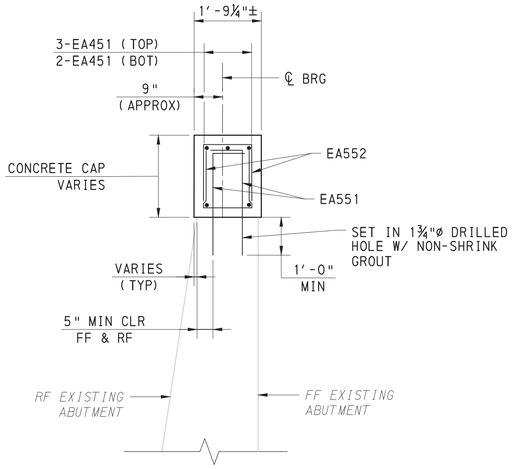

TYPICAL SECTION

1 0 1 2 FEET

NOTES:

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LEGEND

(#) BEAM NUMBER

▲ REFERENCE BC-788M FOR LOCATIONS OF 1" NEOPRENE BEARING PAD MATERIAL BETWEEN BEAMS AND CHEEKWALLS.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
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1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

ABUTMENT 2 REPAIRS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

4/19/2023
DATE

SHEET 8 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\08-T942_Abutment 2
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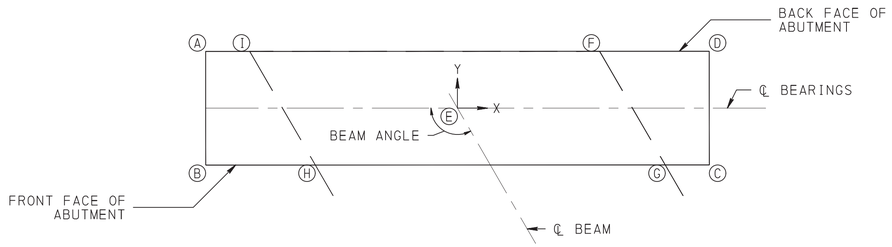
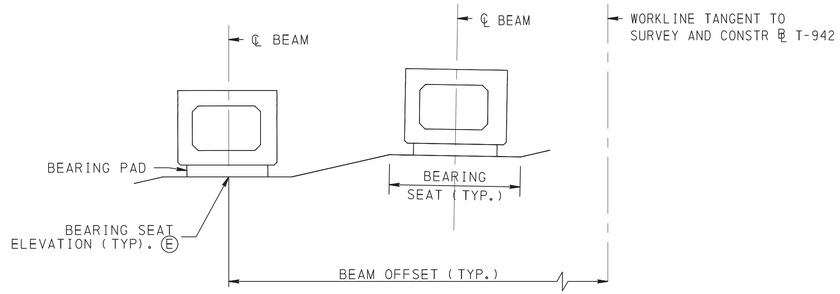


BEARING SEAT PLAN VIEW

NOT TO SCALE



BEARING SEAT ELEVATION VIEW

NOT TO SCALE

NOTE: SEE BEARING SEAT PLAN VIEW DETAIL FOR FURTHER DETAILS.

ABUTMENT 2 BEARING SEAT LOCATION AND ELEVATION TABLE																		
BEAM NO.	℄ BEAM OFFSET	BEAM ANGLE	BRG. SEAT SLOPE		Ⓐ			Ⓑ			Ⓒ			Ⓓ			Ⓔ		
			X	Y	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.
1	-17′-3 ⅞"	120°-00′-00"	*	*	-3′-3⅞"	9"	756.97	-3′-3⅞"	-1′-0¼"±	756.97	3′-5¾"	-1′-0¼"±	756.97	3′-5¾"	9"	756.97	0"	0"	756.97
2	-8′-5⅝"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.25	-3′-3⅞"	-1′-0¼"±	757.25	3′-5¾"	-1′-0¼"±	757.25	3′-5¾"	9"	757.25	0"	0"	757.25
3	4⅝"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.40	-3′-3⅞"	-1′-0¼"±	757.40	3′-5¾"	-1′-0¼"±	757.40	3′-5¾"	9"	757.40	0"	0"	757.40
4	9′-2⅞"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.28	-3′-3⅞"	-1′-0¼"±	757.28	3′-5¾"	-1′-0¼"±	757.28	3′-5¾"	9"	757.28	0"	0"	757.28
5	18′-1⅛"	120°-00′-00"	*	*	-3′-3⅞"	9"	757.03	-3′-3⅞"	-1′-0¼"±	757.03	3′-5¾"	-1′-0¼"±	757.03	3′-5¾"	9"	757.03	0"	0"	757.03

ABUTMENT 2 BEARING SEAT LOCATION AND ELEVATION TABLE																		
BEAM NO.	℄ BEAM OFFSET	BEAM ANGLE	BRG. SEAT SLOPE		Ⓕ			Ⓖ			Ⓗ			Ⓘ				
			X	Y	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.		
1	-17′-3⅞"	120°-00′-00"	*	*	1′-10½"	9"	756.97	2′-10¾"	-1′-0¼"±	756.97	1′-8⅝"	-1′-0¼"±	756.97	-2′-8⅞"	9"	756.97		
2	-8′-5⅝"	120°-00′-00"	*	*	1′-10½"	9"	757.25	2′-10¾"	-1′-0¼"±	757.25	1′-8⅝"	-1′-0¼"±	757.25	-2′-8⅞"	9"	757.25		
3	4⅝"	120°-00′-00"	*	*	1′-10½"	9"	757.40	2′-10¾"	-1′-0¼"±	757.40	1′-8⅝"	-1′-0¼"±	757.40	-2′-8⅞"	9"	757.40		
4	9′-2⅞"	120°-00′-00"	*	*	1′-10½"	9"	757.28	2′-10¾"	-1′-0¼"±	757.28	1′-8⅝"	-1′-0¼"±	757.28	-2′-8⅞"	9"	757.28		
5	18′-1⅛"	120°-00′-00"	*	*	1′-10½"	9"	757.03	2′-10¾"	-1′-0¼"±	757.03	1′-8⅝"	-1′-0¼"±	757.03	-2′-8⅞"	9"	757.03		

NOTE:

℄ BEAM OFFSET IS MEASURED ALONG THE ℄ BEARING.
℄ BEAM OFFSET IS MEASURED FROM A WORKLINE TANGENT TO THE ℄ OF BEAM AT THE BEARING SEAT POINT Ⓔ.
NEGATIVE OFFSETS ARE MEASURED TO THE LEFT OF THE ℄ OF ROADWAY, FACING THE ABUTMENT.

POSITIVEBEARING SEAT SLOPE Y" REPRESENTS AN INCREASE IN ELEVATION FROM FRONT TO BACK FACE OF ABUTMENT, IN THE DIRECTION OF THE POSITIVE Y-AXIS SHOWN IN THE BEARING SEAT PLAN VIEW.

POSITIVEBEARING SEAT SLOPE X" REPRESENTS AN INCREASE IN ELEVATION IN THE DIRECTION OF THE POSITIVE X-AXIS SHOWN IN THE BEARING SEAT PLAN VIEW.

* BEAM SEATS ARE LEVEL UNDER BEAMS, AND SLOPED AT 1 IN/FT BETWEEN BEAMS FOR DRAINAGE.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR REMOVAL DETAILS, SEE SHEET 4.
- FOR ABUTMENT 1 REPAIRS, SEE SHEET 5.
- FOR ABUTMENT 1 BEARING SEAT ELEVATIONS, SEE SHEET 6.
- FOR ABUTMENT 2 REPAIRS, SEE SHEET 8.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

ABUTMENT 2 BEARING SEAT ELEVATIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

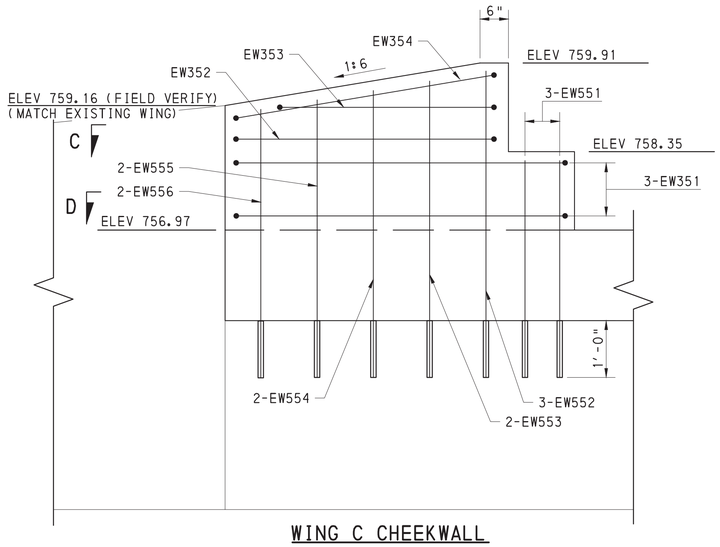
4/19/2023
DATE

SHEET 9 OF 32

L-412D

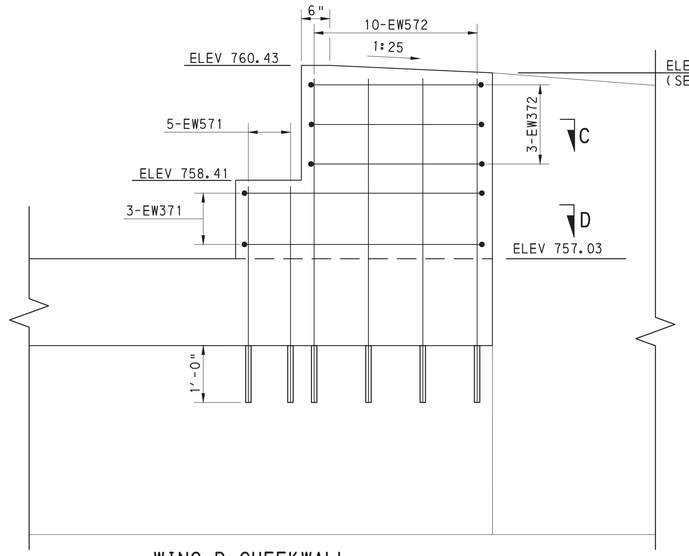
DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\09-T942_Abut 2 Bearing Seat Elev
USER: BGoslyier1
DATE: 03/31/23 - 10:07 AM



WING C CHEEKWALL

6 0 6 12 INCHES



WING D CHEEKWALL

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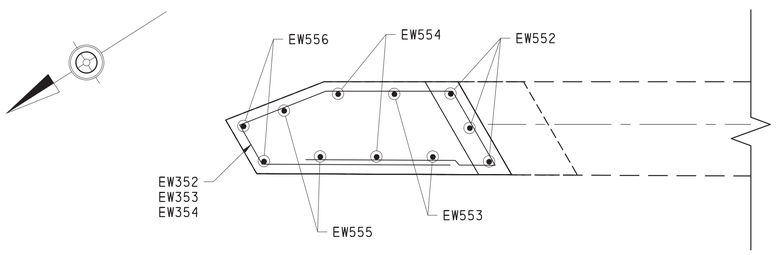
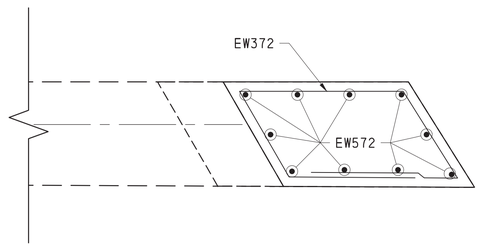
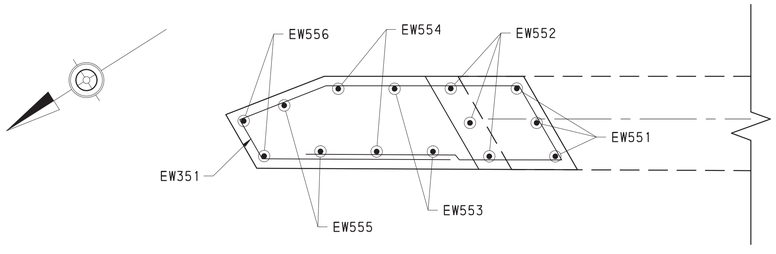
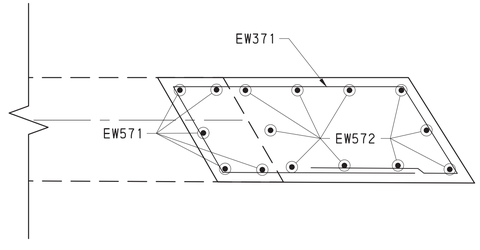




SECTION C-C

6 0 6 12 INCHES





SECTION D-D

6 0 6 12 INCHES

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR REMOVAL DETAILS, SEE SHEET 4.
- FOR ABUTMENT 1 REPAIRS, SEE SHEET 5.
- FOR ABUTMENT 1 BEARING SEAT ELEVATIONS, SEE SHEET 6.
- FOR ABUTMENT 1 CHEEKWALL DETAILS, SEE SHEET 7.
- FOR ABUTMENT 2 REPAIRS, SEE SHEET 8.
- FOR ABUTMENT 2 BEARING SEAT ELEVATIONS, SEE SHEET 9.
- FOR SUBSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE SHEET 11.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.
- APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (BOILED LINSEED OIL) TO THE FRONT FACE OF THE NEW ABUTMENT CAPS TO 2'-0" BEYOND THE DRIP NOTCH, THE TOP OF THE NEW CONCRETE CHEEKWALLS AND THE REAR FACE OF THE NEW CONCRETE CHEEKWALLS TO 1'-0" BELOW FINISHED GROUND.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

ABUTMENT 2 CHEEKWALL DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 10 OF 32

L-412D

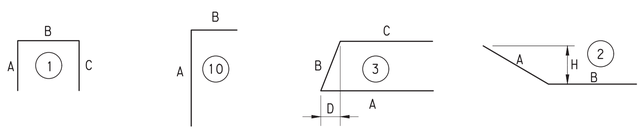
DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\10-T942_Abut 2 Cheekwalls
USER: BGastiver1
DATE: 03/31/23 - 10:07 AM

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	LENGTH	NO	TYPE	A	B	C	D	E	F	G	REMARKS
ABUTMENT 1												
EA401	4	26′-7"	10	STR								
EA501	5	2′-10"	52	10	2′-0"	10"						
EA502	5	3′-8"	102	1	1′-2"	1′-4"	1′-2"					
WING A												
EW301	3	11′-10"	3	STR								BEND IN FIELD
EW302	3	9′-6"	2	STR								BEND IN FIELD
EW501	5	3′-9¼"	3	STR								
EW502	5	5′-8½"	10	STR								
WING B												
EW321	3	15′-0"	3	STR								BEND IN FIELD
EW322	3	12′-6½"	1	STR								BEND IN FIELD
EW323	3	10′-6½"	1	STR								BEND IN FIELD
EW324	3	12′-2½"	1	STR								BEND IN FIELD
EW521	5	3′-9¼"	3	STR								
EW522	5	5′-4"	3	STR								
EW523	5	5′-2¼"	2	STR								
EW524	5	5′-0¾"	2	STR								
EW525	5	5′-11¼"	2	STR								
EW526	5	5′-0¾"	2	STR								
EW527	5	4′-8¼"	3	STR								
SHEAR BLOCKS												
EA321	3	7′-6"	6	3	3′-0"	1′-6"	3′-0"	0′-9"				
EA521	5	8′-1"	9	1	2′-3"	3′-7"	2′-3"					
EA522	5	5′-11½"	15	1	2′-3"	1′-5½"	2′-3"					

MARK	SIZE	LENGTH	NO	TYPE	A	B	C	D	E	F	G	REMARKS
ABUTMENT 2												
EA451	4	26′-7"	10	STR								
EA551	5	2′-10"	52	10	2′-0"	10"						
EA552	5	3′-8"	102	1	1′-2"	1′-4"	1′-2"					
WING C												
EW351	3	13′-7"	3	STR								BEND IN FIELD
EW352	3	11′-3"	1	STR								BEND IN FIELD
EW353	3	9′-8½"	1	STR								BEND IN FIELD
EW354	3	9′-10"	1	STR								
EW551	5	3′-9"	3	STR								
EW552	5	5′-3½"	2	STR								
EW553	5	5′-1½"	2	STR								
EW554	5	4′-11½"	2	STR								
EW555	5	4′-9½"	2	STR								
EW556	5	4′-7½"	2	STR								
WING D												
EW371	3	12′-8½"	3	STR								BEND IN FIELD
EW372	3	9′-4½"	3	STR								BEND IN FIELD
EW571	5	3′-9"	5	STR								
EW572	5	5′-7¾"	10	STR								



EF422

- BAR NUMBER
- BAR SIZE
- COMPONENT (F=FOOTING, W=WALL, S=SLAB, ETC.)
- EPOXY COATED

BAR MARK LEGEND

NOTES:

- DO NOT USE RAIL STEEL (A616).
- "E" PREFIX DENOTES EPOXY COATED BARS.
- "J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.
- "STR" DENOTES STRAIGHT BAR.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

SUBSTRUCTURE REINFORCEMENT BAR SCHEDULE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 11 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\11-T942_Sub Reinforcement Schedule
USER: BGaslvieri
DATE: 03/31/23 - 10:07 AM

TABLE OF TOP OF DECK ELEVATIONS AT 10TH POINTS ALONG CENTERLINE OF BEAM

LOCATION	BEAM NUMBER				
	1	2	3	4	5
C.L. BRG. ABUT. 1	759.75	759.98	760.14	760.02	759.86
5.000	759.72	759.96	760.12	759.99	759.79
10.000	759.70	759.93	760.09	759.96	759.76
15.000	759.67	759.91	760.07	759.94	759.73
20.000	759.65	759.88	760.04	759.91	759.71
25.000	759.62	759.86	760.02	759.89	759.68
30.000	759.60	759.83	759.99	759.86	759.66
35.000	759.57	759.81	759.97	759.84	759.63
40.000	759.55	759.78	759.94	759.81	759.61
45.000	759.52	759.76	759.92	759.79	759.58
C.L. BRG. ABUT. 2	759.50	759.73	759.89	759.76	759.56

DECK ELEVATIONS ARE GIVEN AT THE C.L. OF EACH BEAM.
LOCATIONS GIVEN ARE THE DISTANCE (FT.) ALONG THE C.L. OF EACH BEAM TO EACH 10TH POINT AS MEASURED FROM THE C.L. OF BEARING AT ABUTMENT 1.

TABLE OF TOP OF BEAM ELEVATIONS AT 10TH POINTS ALONG CENTERLINE OF BEAM

LOCATION	BEAM NUMBER				
	1	2	3	4	5
C.L. BRG. ABUT. 1	758.77	759.05	759.20	759.08	758.83
5.000	758.81	759.09	759.25	759.12	758.88
10.000	758.84	759.12	759.28	759.15	758.90
15.000	758.85	759.13	759.29	759.16	758.91
20.000	758.85	759.13	759.29	759.16	758.91
25.000	758.83	759.11	759.27	759.14	758.89
30.000	758.80	759.08	759.24	759.11	758.86
35.000	758.75	759.03	759.19	759.06	758.81
40.000	758.69	758.97	759.13	759.00	758.75
45.000	758.61	758.89	759.05	758.92	758.67
C.L. BRG. ABUT. 2	758.52	758.80	758.95	758.83	758.58

NOTE: THE TOP OF BEAM ELEVATIONS SHOWN IN THE TABLE ARE THE DESIGN VALUES COMPUTED INCLUDING THE EFFECT OF THE DESIGN BEAM CAMBER.

TABLE OF BOTTOM OF BEAM ELEVATIONS AT 10TH POINTS ALONG CENTERLINE OF BEAM

LOCATION	BEAM NUMBER				
	1	2	3	4	5
C.L. BRG. ABUT. 1	757.36	757.64	757.79	757.67	757.42
5.000	757.40	757.68	757.83	757.71	757.46
10.000	757.42	757.70	757.86	757.73	757.49
15.000	757.44	757.71	757.87	757.74	757.50
20.000	757.43	757.71	757.87	757.74	757.50
25.000	757.42	757.69	757.85	757.72	757.48
30.000	757.38	757.66	757.82	757.69	757.45
35.000	757.34	757.61	757.77	757.64	757.40
40.000	757.27	757.55	757.71	757.58	757.34
45.000	757.20	757.48	757.63	757.51	757.26
C.L. BRG. ABUT. 2	757.10	757.39	757.54	757.42	757.17

NOTE: THE BOTTOM OF BEAM ELEVATIONS SHOWN IN THE TABLE ARE THE DESIGN VALUES COMPUTED INCLUDING THE EFFECT OF THE DESIGN BEAM CAMBER AND IS BASED SOLELY ON THE NOMINAL BEAM DEPTH (DOES NOT INCLUDE ANY EFFECTS FROM DAPPING OR SOLE PLATES).

FOR PRESTRESSED CONCRETE BEAMS, AS PER DM-4, THESE VALUES SHOULD NOT BE USED FOR CALCULATING THE VERTICAL CLEARANCE TO THE BOTTOM OF THE BEAM. IN THAT CASE, A STRAIGHT LINE VARIATION BETWEEN THE BOTTOM OF BEAM ELEVATION AT EACH BEARING SHOULD BE USED.

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

TABLE OF DECK SLAB THICKNESSES

BEAM NO.	SLAB THICKNESS	
	CL BRG. ABUT. 1	CL BRG. ABUT. 2
1	11¾"	11¾"
2	11⅛"	11⅛"
3	11¼"	11¼"
4	11¼"	11⅛"
5	12⅜"	11¾"

NOTE: LOCATION OF DECK SLAB THICKNESSES IS WHERE THE C.L. OF BEAM INTERSECTS THE C.L. OF BEARING.

NOTE: DECK SLAB THICKNESS IS MEASURED FROM THE TOP OF DECK TO THE TOP OF BEAM.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

DECK AND BEAM ELEVATIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER 049999E

4/19/2023
DATE

SHEET 12 OF 32

L-412D

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\12-T942_Deck and Beam Elev.
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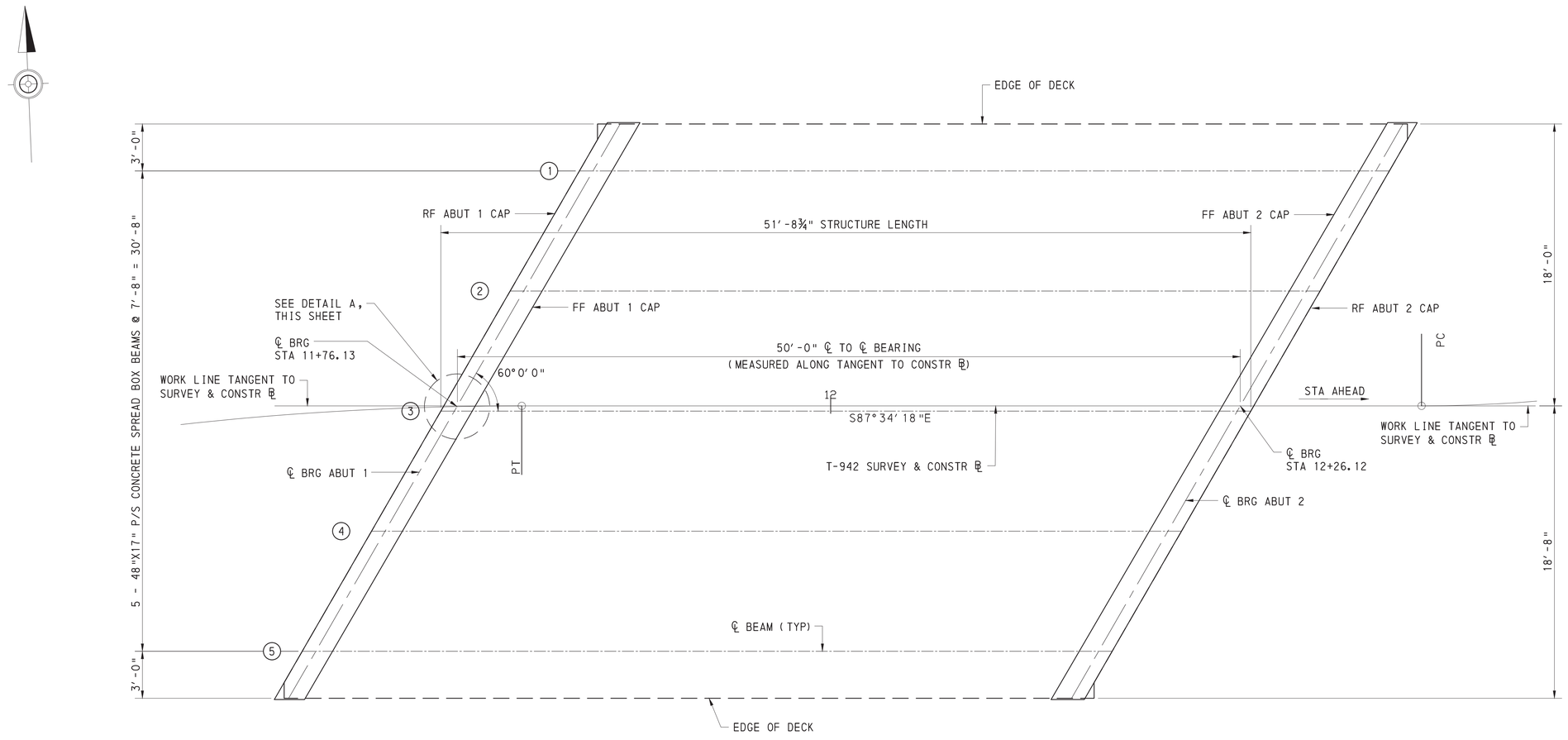
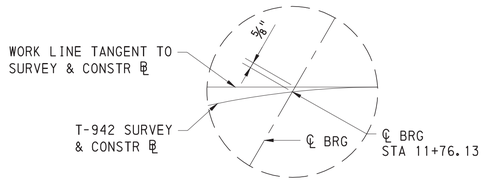


FRAMING PLAN

2 1 0 2 4 FEET



DETAIL A

NOT TO SCALE

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR FRAMING PLAN - 2, SEE SHEET 14.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.

LEGEND

(#) BEAM NUMBER

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

FRAMING PLAN - 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

4/19/2023
DATE

SHEET 13 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

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USER: BGsolvier1
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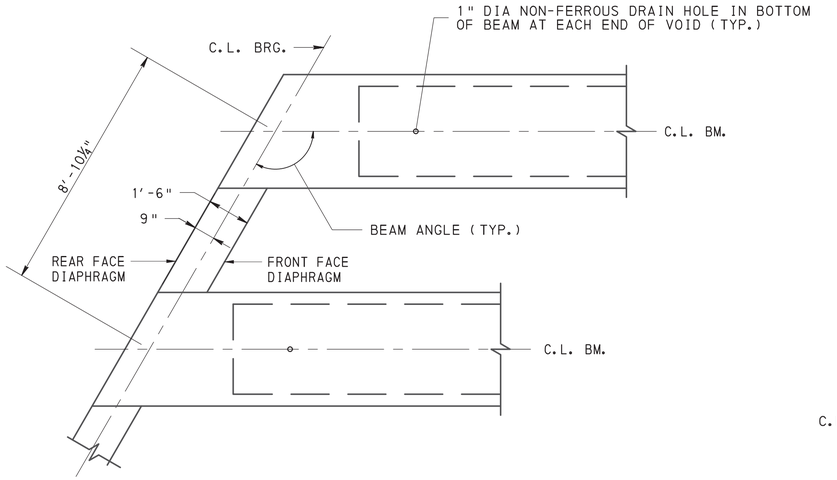
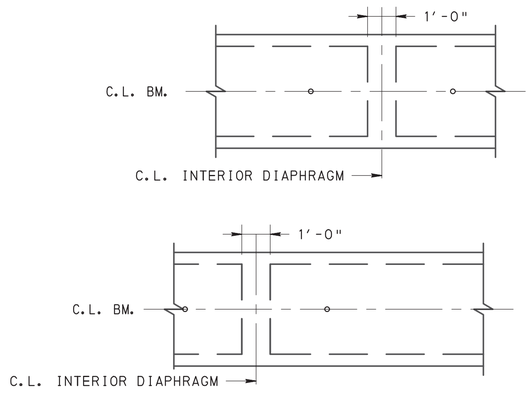


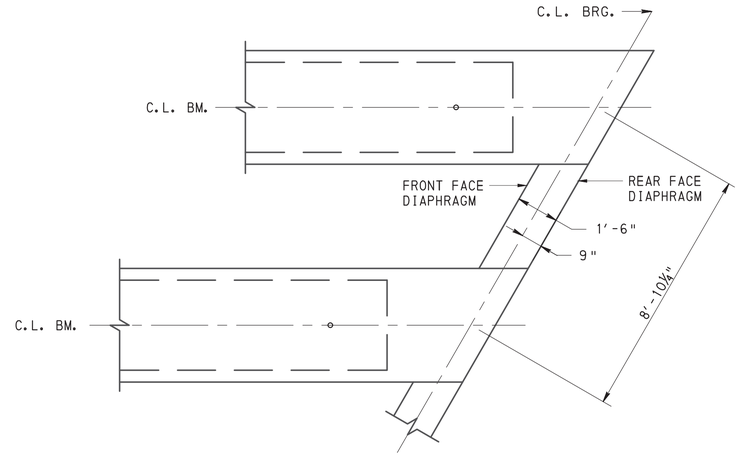
END DIAPHRAGM LAYOUT
AT ABUTMENT 1

1 0 1 2 3 FEET



INTERIOR DIAPHRAGM

1 0 1 2 3 FEET



END DIAPHRAGM LAYOUT
AT ABUTMENT 2

1 0 1 2 3 FEET

BEAM NO.	BEAM ANGLE	BEAM LENGTH C - C BRG. *	BEAM LENGTH TOTAL *
1	120°-00'-00"	50'-0"	51'-8¾"
2	120°-00'-00"	50'-0"	51'-8¾"
3	120°-00'-00"	50'-0"	51'-8¾"
4	120°-00'-00"	50'-0"	51'-8¾"
5	120°-00'-00"	50'-0"	51'-8¾"

* HORIZONTAL DIMENSION ALONG C.L. BEAM

BEAM SCHEDULE

NOTE: BEAM ANGLE MEASURED FROM C.L. BEAM TO C.L. BRG. IN CLOCKWISE DIRECTION.

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR FRAMING PLAN - 1, SEE SHEET 13.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING STRUCTURE IN THE FIELD AS NECESSARY FROM PROPER FIT OF THE PROPOSED CONSTRUCTION.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

FRAMING PLAN - 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

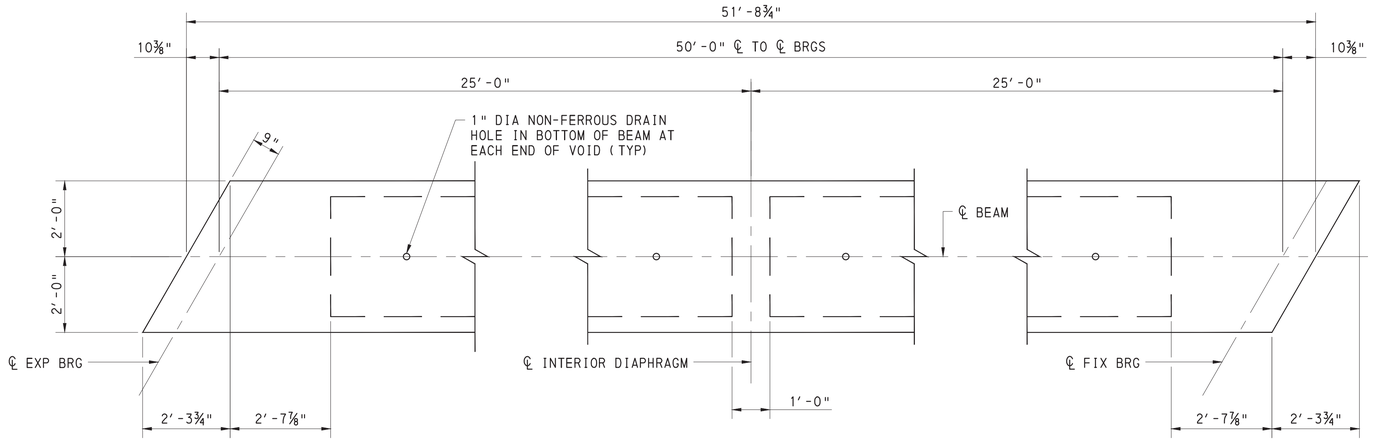
4/19/2023
DATE

SHEET 14 OF 32

L-412D

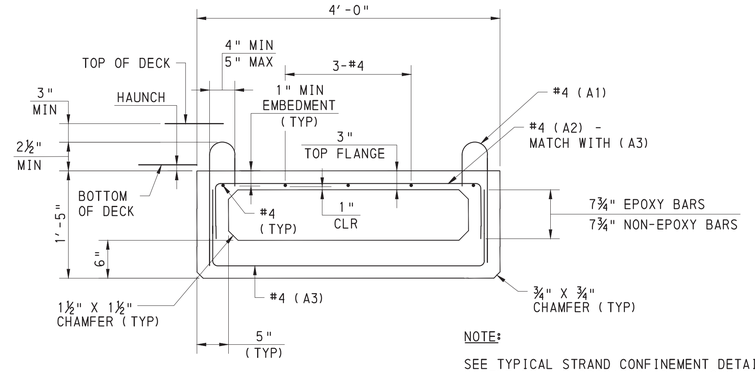
DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\14-T942_Framing Plan - 2
USER: BGastwirt
DATE: 03/31/23 - 10:08 AM



INTERIOR DIAPHRAGMS

1 0 1 2 FEET

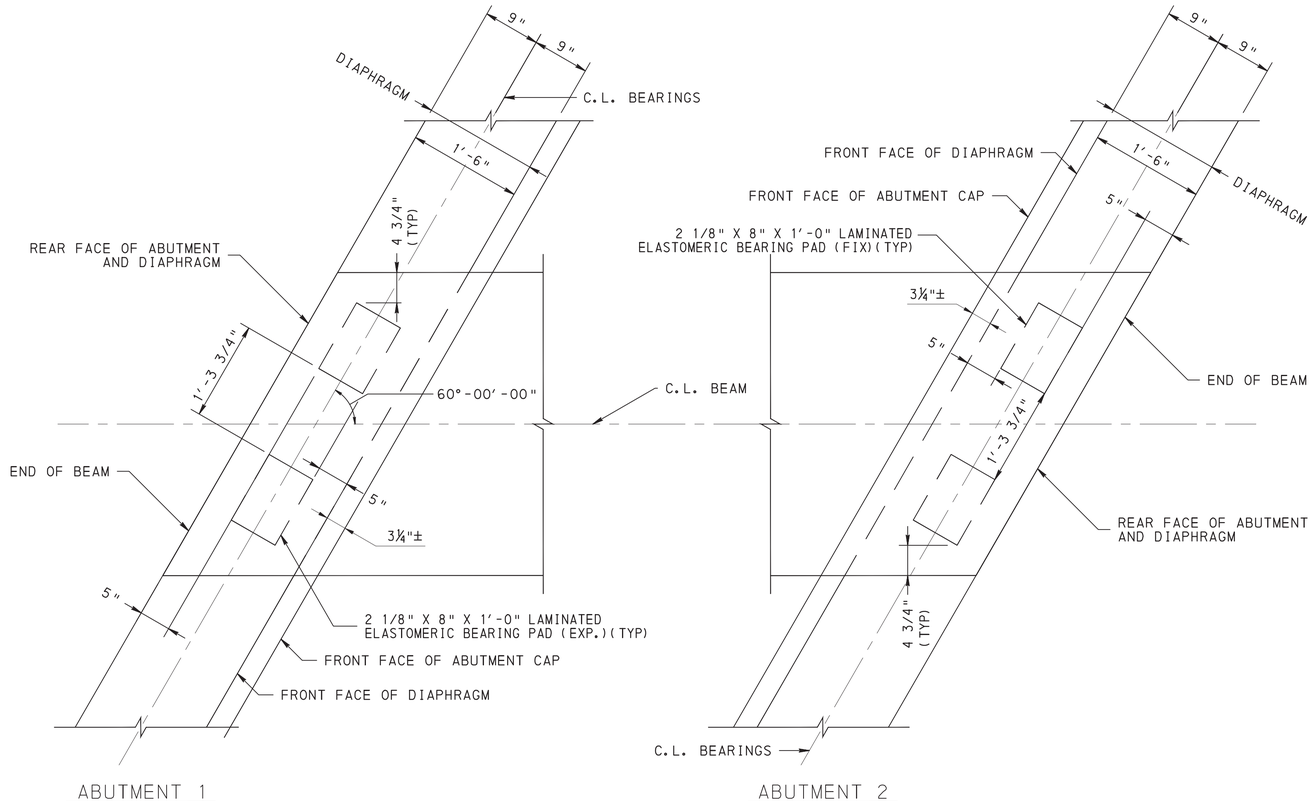


NOTE:

SEE TYPICAL STRAND CONFINEMENT DETAIL ON THE BEAM FABRICATION DETAILS SHEET FOR CLEARANCES NOT SHOWN.

TYPICAL BEAM SECTION

6 0 6 12 INCHES



STRUCTURE PLAN AT END OF BEAM

6 0 6 12 INCHES

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
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OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

BOX BEAM DETAILS

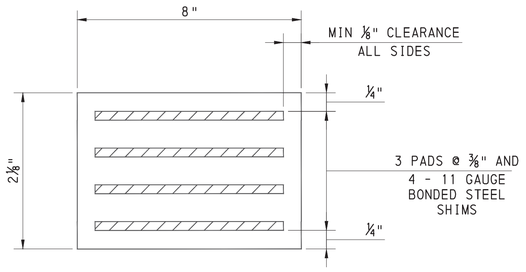
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

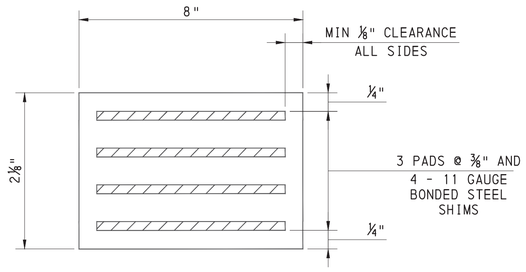
SHEET 15 OF 32

L-412D

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\15-T942_Box Beam Details
USER: BCastelvieri
DATE: 03/31/23 - 10:08 AM



ELASTOMERIC BEARING PAD SECTION
ABUTMENT 1
NOT TO SCALE



ELASTOMERIC BEARING PAD SECTION
ABUTMENT 2
NOT TO SCALE

ELASTOMERIC BEARING PADS				
LOCATION	BEARING TYPE	ITEM DESCRIPTION	SIZE (T x L x W)	NUMBER REQUIRED
ABUT. 1	EXPANSION	LAMINATED PADS	2 1/8 " x 8" x 1'-0"	10
ABUT. 2	FIXED	LAMINATED PADS	2 1/8 " x 8" x 1'-0"	10

NOTES:

- SMOOTH CUT AND DEBURR METAL SHIMS.
- GRIT BLAST AND DEGREASE METAL SHIMS.
- MANUFACTURE ALL BEARINGS IN ACCORDANCE WITH THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PLANS AND SPECIFICATIONS (PUB. 408) SECTION 1113.02 AND DESIGN MANUAL - PART 4.
- ALL BEARING PADS ARE TO BE MOLDED TO DESIGN DIMENSIONS. CUTTING TO SIZE AFTER FABRICATION IS PROHIBITED.
- PROVIDE NEOPRENE 50 +/-5 DUROMETER.
- PROVIDE MINIMUM LOW-TEMPERATURE NEOPRENE GRADE 3.
- PROVIDE INTERNAL SHIMS AS PER ASTM A36 GRADE 36.
- VULCANIZE PATCH PIN GROOVES.
- FABRICATOR MAY USE CONTRACT DRAWINGS TO FABRICATE BEARING PADS.

DESIGN CRITERIA:

- BEARING PADS DESIGNED USING AASHTO METHOD = A
- EXPANSION LENGTH = 50'-0"
- TEMPERATURE RANGE FOR BEARING DESIGN = 80 F degrees
- TEMPERATURE RANGE FOR SUBSTRUCTURE DESIGN = 58 F degrees
- LL ROTATION ABOUT TRANSVERSE AXIS OF PAD = 0.004001 RADIANS
- LL ROTATION ABOUT LONGITUDINAL AXIS OF PAD = 0.002310 RADIANS
- DL1 ROTATION = 0.011314 RADIANS
- DL2 ROTATION = 0.001093 RADIANS
- CONSTRUCTION TOLERANCE ABOUT TRANSVERSE AXIS OF PAD = 0.00300 RADIANS
- CONSTRUCTION TOLERANCE ABOUT LONGITUDINAL AXIS OF PAD = 0.00000 RADIANS
- DL1 ROTATION MOVEMENT = 0.107"
- DL2 ROTATION MOVEMENT = 0.028"
- LL ROTATION MOVEMENT = 0.105"
- MAXIMUM DL REACTION = 51 kip
- MINIMUM DL REACTION = 39 kip
- MAXIMUM LL REACTION (W/O IMPACT) = 62 kip
- MINIMUM LL REACTION (W/O IMPACT) = 0 kip

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR ABUTMENT 1 BEARING SEAT ELEVATIONS, SEE SHEET 6,
- FOR ABUTMENT 2 BEARING SEAT ELEVATIONS, SEE SHEET 9.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

ELASTOMERIC BEARING DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

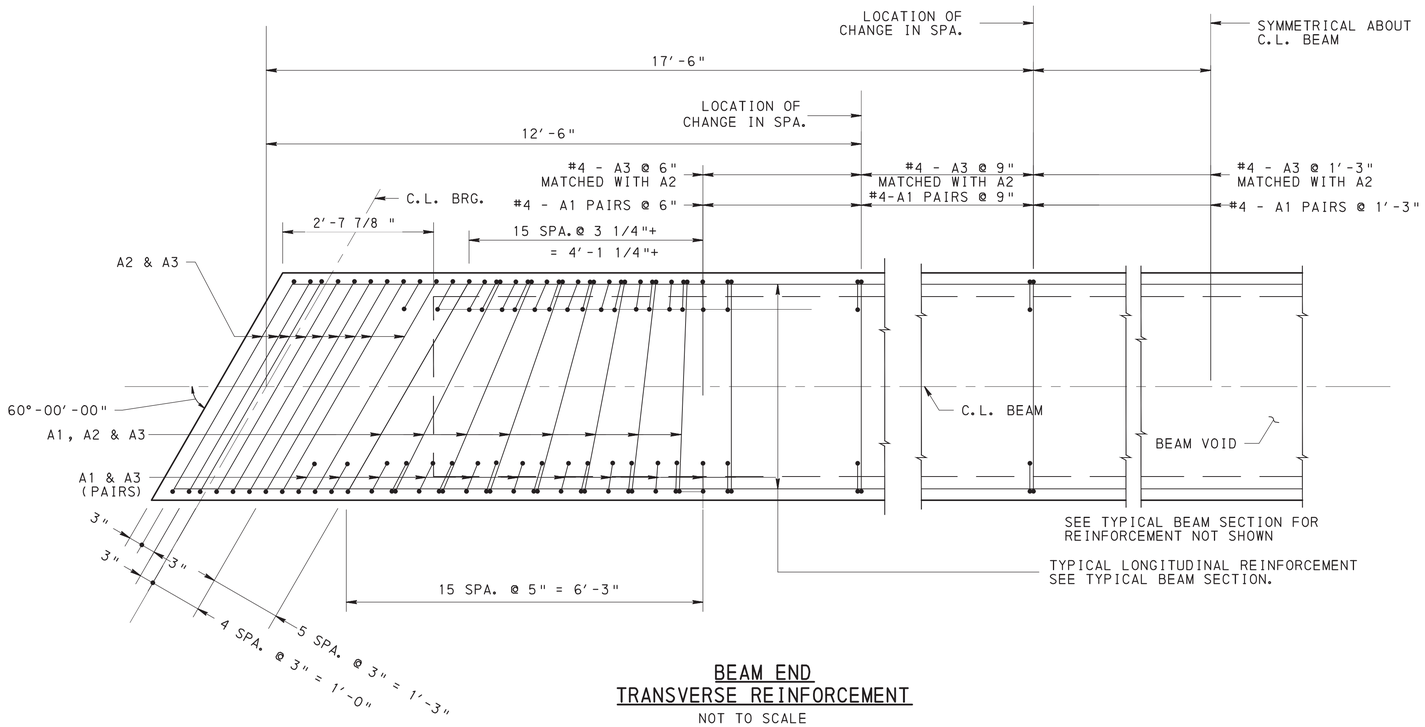
4/19/2023
DATE

SHEET 16 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\16-T942_Bearing Pads
USER: BCasalvieri
DATE: 03/31/23 - 10:08 AM

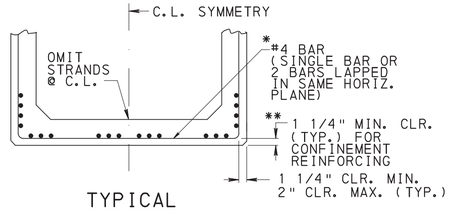


BEAM END TRANSVERSE REINFORCEMENT

NOT TO SCALE

NOTES:

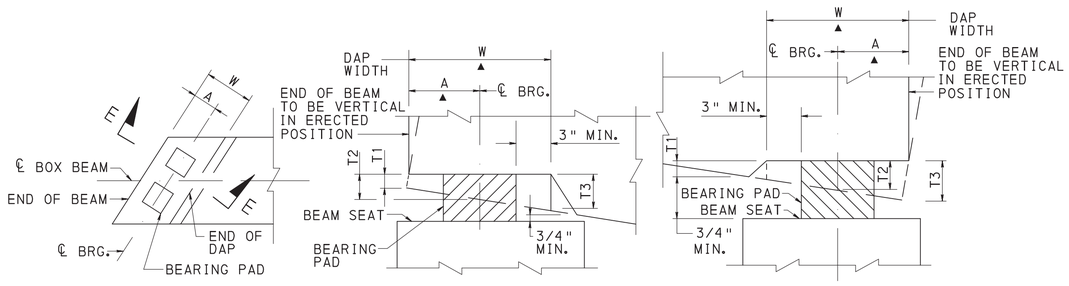
1. EPOXY COAT ALL REBARS FOR A DISTANCE OF 9'-0" FROM BEAM ENDS ADJACENT TO DECK JOINTS.
2. EPOXY COAT ALL REINFORCEMENT WHICH PROTRUDES INTO BRIDGE DECK FROM TOP OF BEAMS.
3. CALCULATE BEARING SEAT ELEVATION, DAPPING DIMENSIONS, SLOPE AND HAUNCH DEPTH USING THE FINAL NET CAMBER - "C".
4. END ZONE REINFORCEMENT MAY BE INCREASED BY FABRICATOR TO REFLECT FABRICATOR'S EXPERIENCE AND/OR TO CONTROL CRACKING. WIRE MESH OF EQUIVALENT AREA IS PERMISSIBLE FOR CRACK CONTROL REINFORCEMENT.
5. FABRICATOR TO CHECK STABILITY FOR HANDLING AND TRANSPORTING OF THE MEMBERS.
6. MINIMUM COVER ON REINFORCEMENT BARS:
   TOP SLAB - 1" MIN.
   INSIDE VOID - 1" MIN.
   ELSEWHERE - 2" MIN. UNLESS OTHERWISE NOTED
7. FOR TYPICAL CORNER BLOCKOUT DETAIL, SEE BC-775M.



TYPICAL STRAND CONFINEMENT ALL BEAMS

* FOR LIMITS OF STRAND CONFINEMENT REINFORCEMENT, REFER TO DESIGN MANUAL, PART 4, D5.10.10.2.

** IF THE BEAM IS DAPPED, SEE THE BEAM DAP DETAIL AND MAINTAIN 1 1/4" MINIMUM CLEARANCE IN THE DAP AREA.



PLAN

SECTION E-E AT HIGH END OF BEAM
ABUTMENT 1

SECTION E-E AT LOW END OF BEAM
ABUTMENT 2

▲ DENOTES MEASURED NORMAL TO ℄ BEARING

BEAM DAP DETAILS

NOT TO SCALE

BEAM NO.	DAP INFORMATION									
	ABUTMENT 1					ABUTMENT 2				
	W	A	T1	T2	T3	W	A	T1	T2	T3
1	1'-4"	9"	7/16"	5/16"	1/4"	1'-4"	9"	1/4"	7/16"	5/8"
2	1'-4"	9"	7/16"	5/16"	1/4"	1'-4"	9"	1/4"	7/16"	5/8"
3	1'-4"	9"	7/16"	5/16"	1/4"	1'-4"	9"	1/4"	7/16"	5/8"
4	1'-4"	9"	7/16"	5/16"	1/4"	1'-4"	9"	1/4"	7/16"	5/8"
5	1'-4"	9"	7/16"	5/16"	1/4"	1'-4"	9"	1/4"	7/16"	5/8"

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR BEAM FABRICATION DETAILS - 2, SEE SHEET 18.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

BEAM FABRICATION DETAILS - 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

4/19/2023
DATE

SHEET 17 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\17-T942_Beam Fab Details - 1
USER: BGastiver1
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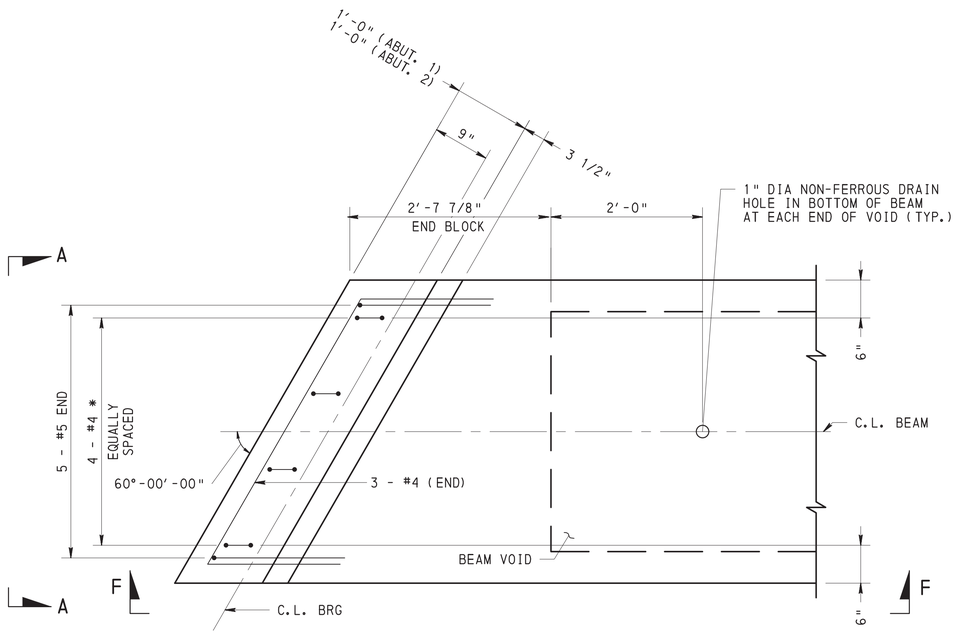
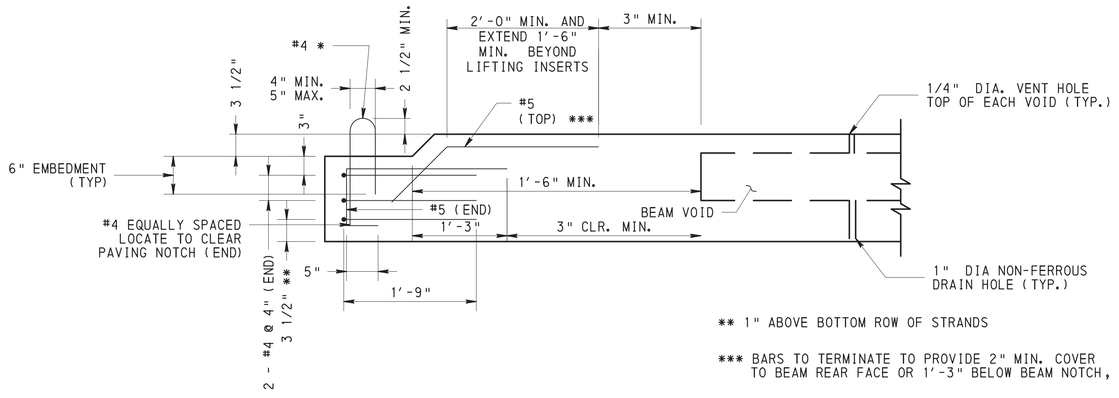


* BARS MAY BE ROTATED PARALLEL TO BEAM END ALONG CENTERLINE OF BEARING. BARS TO TERMINATE 1/4" ABOVE THE TOP OF THE BOTTOM SLAB OR 1'-3" BELOW BEAM NOTCH, WHICHEVER IS LESS.

PLAN - BEAM END LONGITUDINAL REIN.

6 0 6 12 INCHES

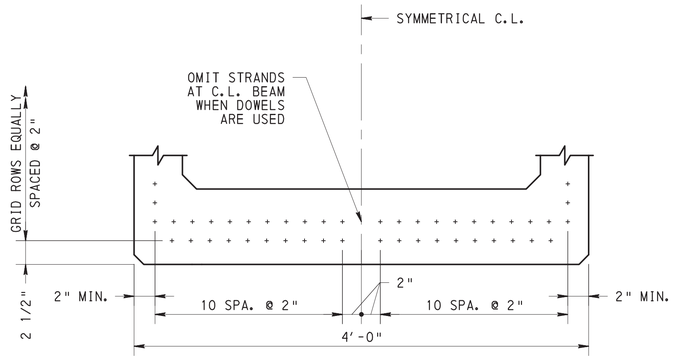


** 1" ABOVE BOTTOM ROW OF STRANDS

*** BARS TO TERMINATE TO PROVIDE 2" MIN. COVER TO BEAM REAR FACE OR 1'-3" BELOW BEAM NOTCH,

SECTION F-F

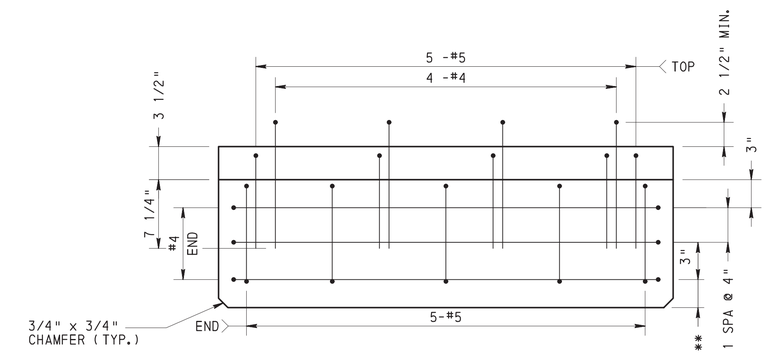
6 0 6 12 INCHES



TYPICAL STRAND PATTERN

6 0 6 INCHES

1. DO NOT PLACE MORE THAN ONE COLUMN OF PRESTRESSING STRANDS IN THE WEBS.
2. DO NOT PLACE PRESTRESSING STRANDS AT CORNER LOCATION IN BOTTOM ROW.



** 1" ABOVE BOTTOM ROW OF STRANDS

VIEW A-A

6 0 6 INCHES

Mark	Description	By	Chk'd	Recm'd	Date
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NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR BEAM FABRICATION DETAILS - 1, SEE SHEET 17.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

BEAM FABRICATION DETAILS - 2

4/19/2023
DATE

SHEET 18 OF 32

L-412D

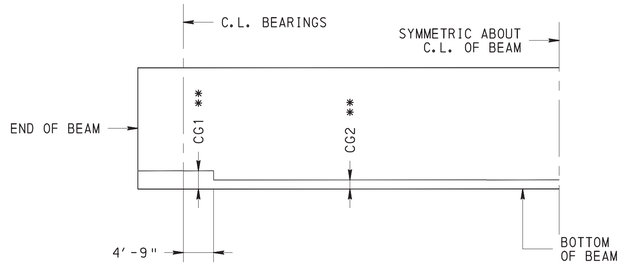
DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\18-T942_Beam Fab Details - 2
USER: BCastvliet
DATE: 03/31/23 - 10:08 AM

CAMBER AND PRESTRESS TABLE					
BEAM NO.	TOTAL NO. OF STRANDS	JACKING PRESTRESS FORCE	A	B	C
1	36	1581.9 K	3.57"	1.34"	2.23"
2	36	1581.9 K	3.57"	1.41"	2.16"
3	36	1581.9 K	3.57"	1.28"	2.29"
4	36	1581.9 K	3.57"	1.41"	2.16"
5	36	1581.9 K	3.57"	1.34"	2.23"

DEBONDING DETAIL LOCATION	CENTER OF GRAVITY (CG)	NO. STRANDS BONDED
CG1	3.62"	32
CG2	3.50"	36

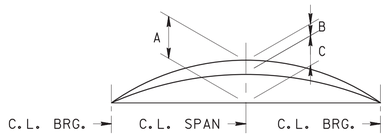
NOTE: NUMBER OF DEBONDED STRANDS DOES NOT INCLUDE CRACK CONTROL DEBONDING



** DISTANCE FROM BOTTOM OF BEAM TO CENTERLINE OF GRAVITY OF STRANDS

DEBONDING DETAIL

NOT TO SCALE
(NOTE: DIAGRAM SHOWN ALONG C.L. BEAM)



BEAM CAMBER DIAGRAM

A = ESTIMATED PRESTRESS CAMBER LESS DEFLECTION DUE TO DEAD LOAD OF BEAM TIMES CREEP FACTOR (CHECK IN FIELD).
B = DEFLECTION DUE TO ALL DEAD LOAD EXCEPT BEAM WEIGHT AND FUTURE WEARING SURFACE.
C = A-B = NET FINAL CAMBER
THE THICKNESS OF THE CONCRETE HAUNCH SHALL BE VARIED TO ACHIEVE THE PROPER GRADE AND CROSS SLOPE AND TO COMPENSATE FOR ANY INACCURACIES IN BEAM CAMBER.

A, B AND C ARE THEORETICAL VALUES AND MAY VARY WITH ACTUAL CONCRETE STRENGTH (AGE), VARIOUS PRESTRESSING CONDITIONS, CREEP FACTOR AND PRESTRESS LOSSES.

USE A CREEP FACTOR EQUAL TO 1.60 AND P/S LOSS EQUAL TO 10%.

PRESTRESSING DATA

CONCRETE STRENGTH AT STRAND RELEASE	8500 psi
CONCRETE STRENGTH AT 28 DAYS (F'C)	10000 psi
JACKING PRESTRESS STRESS	202500 psi
270 ksi LOW RELAXATION STRANDS, 0.6" DIA., 0.217 in**2 STRAND AREA	

Mark	Description	By	Chk'd	Recm'd	Date
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BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
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STRAND TABLES

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

4/19/2023
DATE

SHEET 19 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\19-T942_Strand Tables
USER: BCasalvieri
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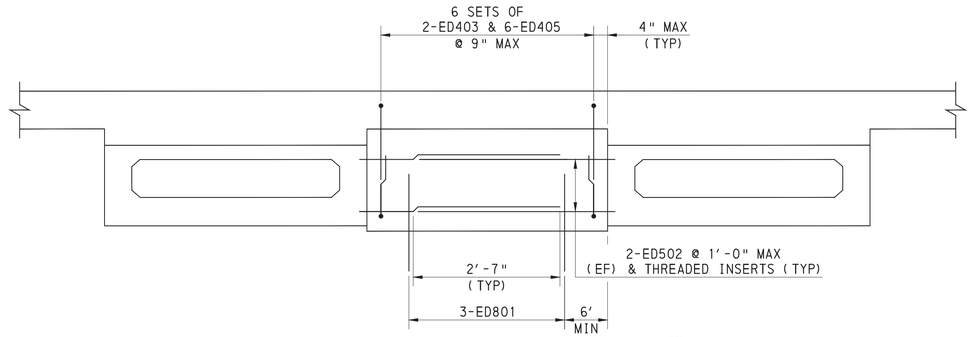
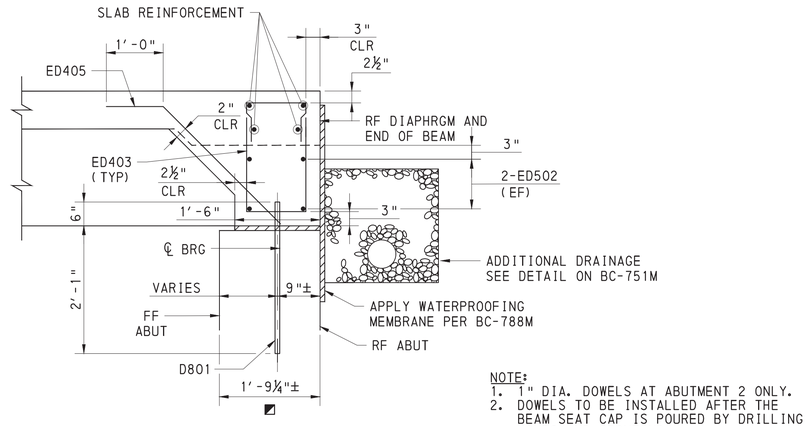


NOTE:
1. REINFORCEMENT SHOWN IN BAY IS TO BE USED IN ALL BAYS AT ABUTMENT 2.
2. INSERTS TO BE GALVANIZED OR COMPLETELY ZINC-ELECTROPLATED.

FULL DEPTH END DIAPHRAGM @ FIXED END ABUTMENT 2

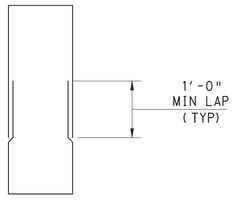
12 6 0 12 INCHES



NOTE:
1. 1" DIA. DOWELS AT ABUTMENT 2 ONLY.
2. DOWELS TO BE INSTALLED AFTER THE BEAM SEAT CAP IS POURED BY DRILLING HOLES AND GROUTING.

SECTION THRU FULL DEPTH END DIAPHRAGM @ FIXED END ABUTMENT 2

12 6 0 12 INCHES



TYPICAL DIAPHRAGM BAR

NOT TO SCALE

NOTE:

LAP TYPICAL FOR ALL DIAPHRAGMS (END AND INTERMEDIATE)

◩ BASED ON UNKNOWN CONDITIONS OF THE EXISTING ABUTMENT, IT SHOULD BE NOTED THAT THE ℄ BEARNGS IS LAID OUT BASED ON THE STATIONING GIVEN FOR ℄ BEARINGS AND THE FRAMING PLAN ON SHEET 13. THE POSITION OF THE ℄ BEARINGS IS NOT TO BE LAID OUT BASED ON DIMENSIONS FROM FRONT OR REAR FACE OF THE PROPOSED CAP WHICH MAY VARY. THE BACK FACE OF THE EXISTING AND PROPOSED MAY NOT LINE UP.

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR DIAPHRAGM DETAILS - 2, SEE SHEET 21.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

DIAPHRAGM DETAILS - 1

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 20 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\20-T942_Diaphragms-1
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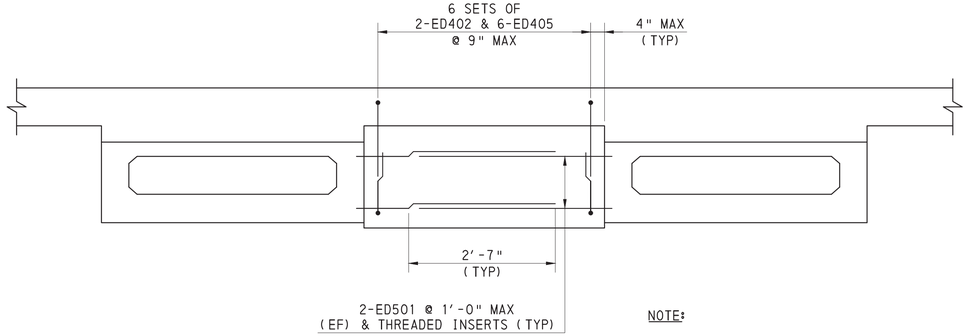
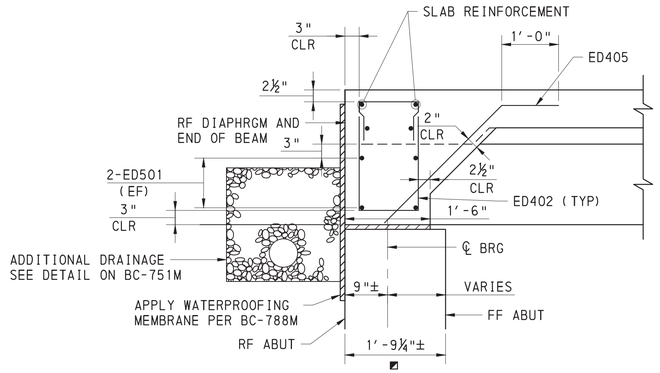


NOTE:

1. REINFORCEMENT SHOWN IN BAY IS TO BE USED IN BAY 2 AT ABUTMENT 1.
2. INSERTS TO BE GALVANIZED OR COMPLETELY ZINC-ELECTROPLATED.

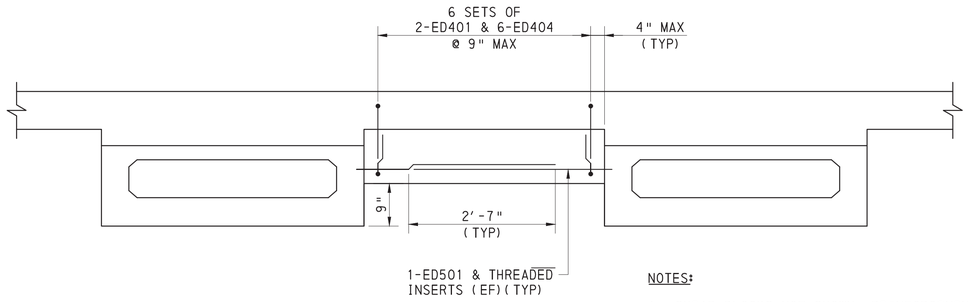
FULL DEPTH END DIAPHRAGM @ EXPANSION END WITHOUT SHEAR BLOCK ABUTMENT 1

NOT TO SCALE



SECTION THRU FULL DEPTH END DIAPHRAGM @ EXPANSION END WITHOUT SHEAR BLOCK ABUTMENT 1

NOT TO SCALE

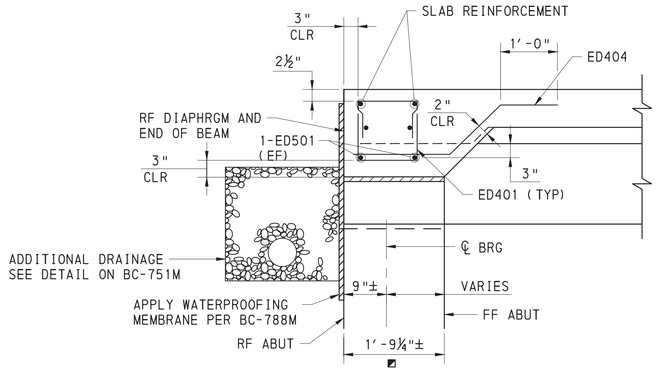


NOTES:

1. SHEAR BLOCKS NOT SHOWN. REINFORCEMENT SHOWN IN BAY IS TO BE USED IN BAYS 1, 3 & 4 AT ABUTMENT 1.
2. INSERTS TO BE GALVANIZED OR COMPLETELY ZINC-ELECTROPLATED.

FULL DEPTH END DIAPHRAGM @ EXPANSION END WITH SHEAR BLOCK ABUTMENT 1

NOT TO SCALE



SECTION THRU FULL DEPTH END DIAPHRAGM @ EXPANSION END WITH SHEAR BLOCK ABUTMENT 1

NOT TO SCALE

◩ BASED ON UNKNOWN CONDITIONS OF THE EXISTING ABUTMENT, IT SHOULD BE NOTED THAT THE ℄ BEARNGS IS LAID OUT BASED ON THE STATIONING GIVEN FOR ℄ BEARINGS AND THE FRAMING PLAN ON SHEET 13. THE POSITION OF THE ℄ BEARINGS IS NOT TO BE LAID OUT BASED ON DIMENSIONS FROM FRONT OR REAR FACE OF THE PROPOSED CAP WHICH MAY VARY. THE BACK FACE OF THE EXISTING AND PROPOSED MAY NOT LINE UP.

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR DIAPHRAGM DETAILS - 1, SEE SHEET 20.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

DIAPHRAGM DETAILS - 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

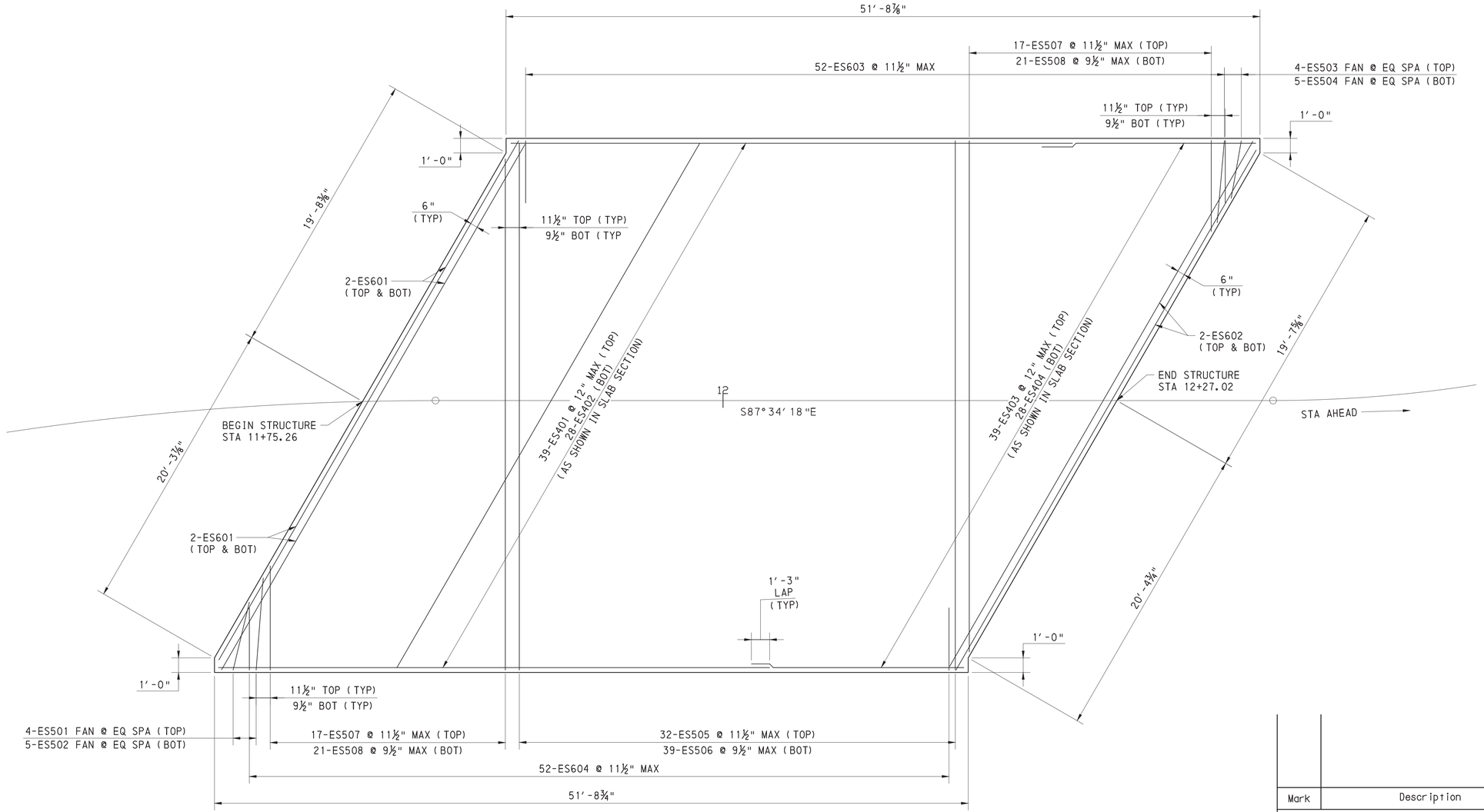
4/19/2023
DATE

SHEET 21 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\21-T942_Diaphragms-2
USER: BGoalvier
DATE: 03/31/23 - 10:09 AM



DECK PLAN

2 1 0 2 4 FEET

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR DECK SLAB SECTION, SEE SHEET 23.
- FOR MISC DECK & SLAB DETAILS, SEE SHEET 24.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

DECK SLAB REINFORCEMENT PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

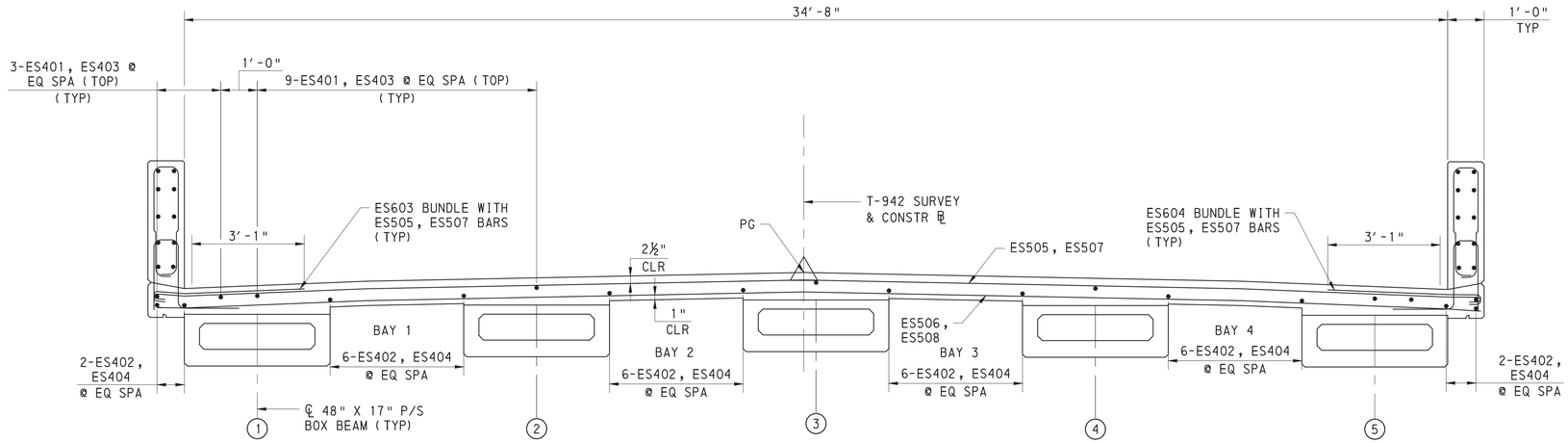
4/19/2023
DATE

SHEET 22 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\22-T942_Deck Slab Rein Plan
USER: BCasalvieri
DATE: 03/31/23 - 10:09 AM



DECK SECTION

1 0 1 2 FEET

LEGEND

(#) BEAM NUMBER

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR DECK SLAB REINFORCEMENT PLAN, SEE SHEET 22.
- FOR MISC DECK & SLAB DETAILS, SEE SHEET 24.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

DECK SLAB SECTION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER 049999E

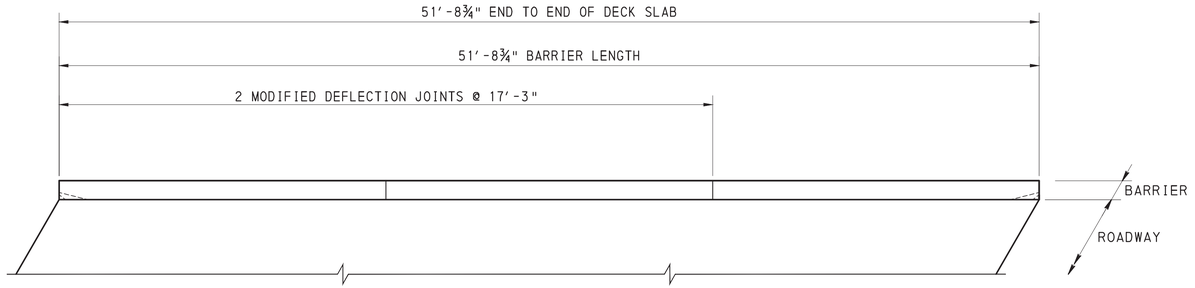
4/19/2023
DATE

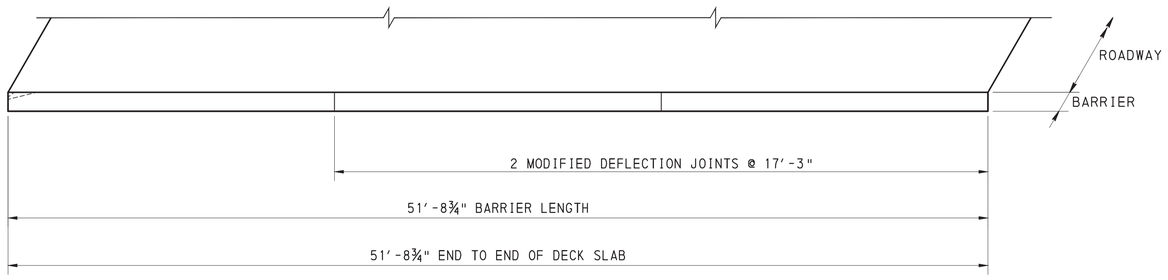
SHEET 23 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\23-T942_Deck Slab Section
USER: BCastelvier
DATE: 03/31/23 - 10:09 AM





PLAN - BARRIER & SLAB DETAIL

2 0 2 4 FEET

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR DECK SLAB REINFORCEMENT PLAN, SEE SHEET 22.
- FOR DECK SLAB SECTION, SEE SHEET 23.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

MISCELLANEOUS DECK & SLAB DETAILS

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HUSAM A. OBEID
ENGINEER
049999E

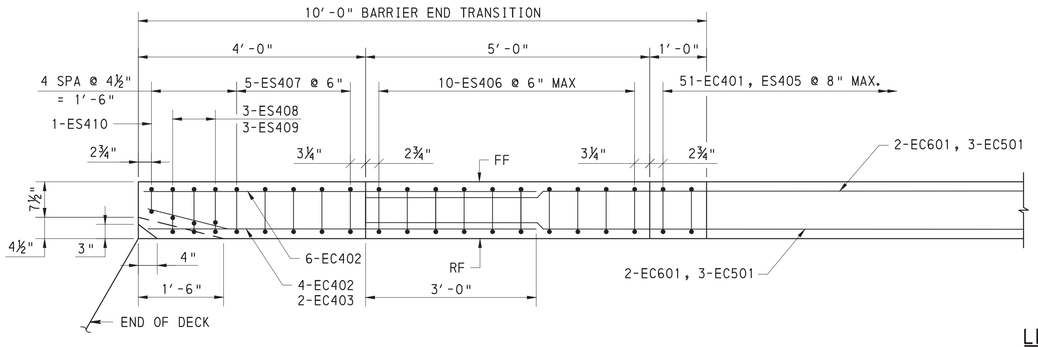
4/19/2023
DATE

SHEET 24 OF 32

L-412D

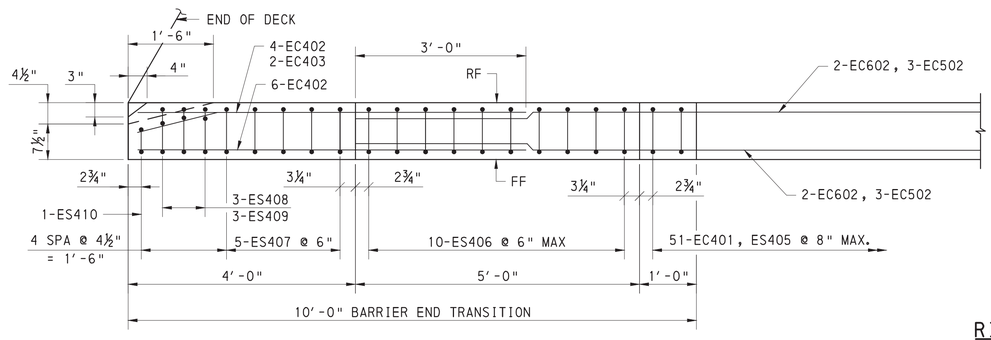
DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\24-T942_Misc Deck & Slab Details
USER: BGoslyn
DATE: 03/31/23 - 10:09 AM



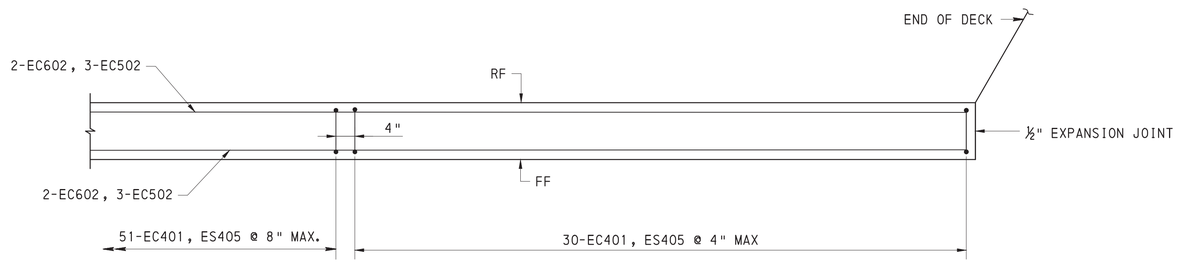
LEFT BARRIER DETAIL

12 0 12 INCHES



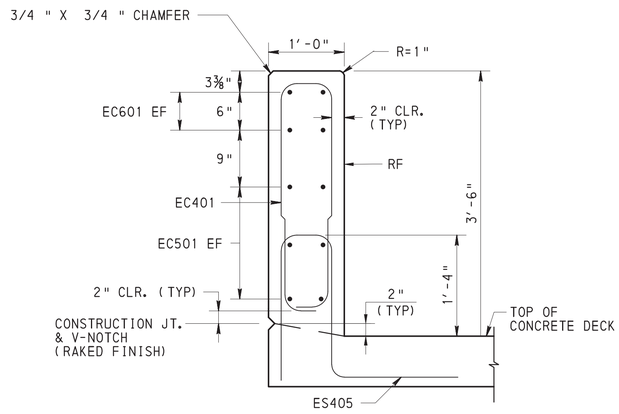
RIGHT BARRIER DETAIL

12 0 12 INCHES



NOTES:

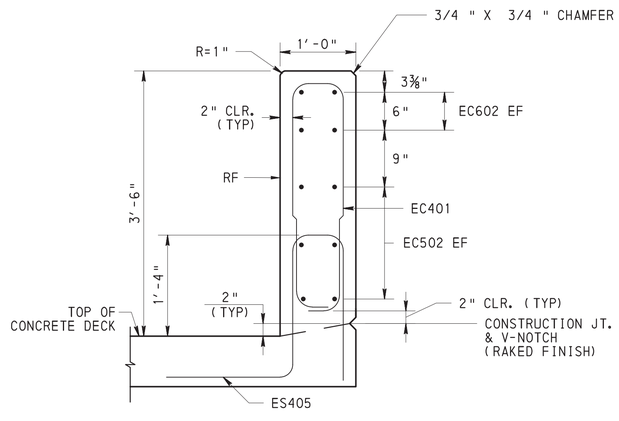
- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR DECK BARRIER END TRANSITION ELEVATION, SEE SHEET 26.
- FOR DECK BARRIER END TRANSITION SECTIONS, SHEET SHEET 27.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.



LOOKING AHEAD STATIONS

LEFT DECK BARRIER REINFORCING

6 0 6 12 INCHES



LOOKING AHEAD STATIONS

RIGHT DECK BARRIER REINFORCING

6 0 6 12 INCHES

LEGEND

FF FRONT FACE
RF REAR FACE
EF EACH FACE

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
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CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

BARRIERS & MISCELLANEOUS DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

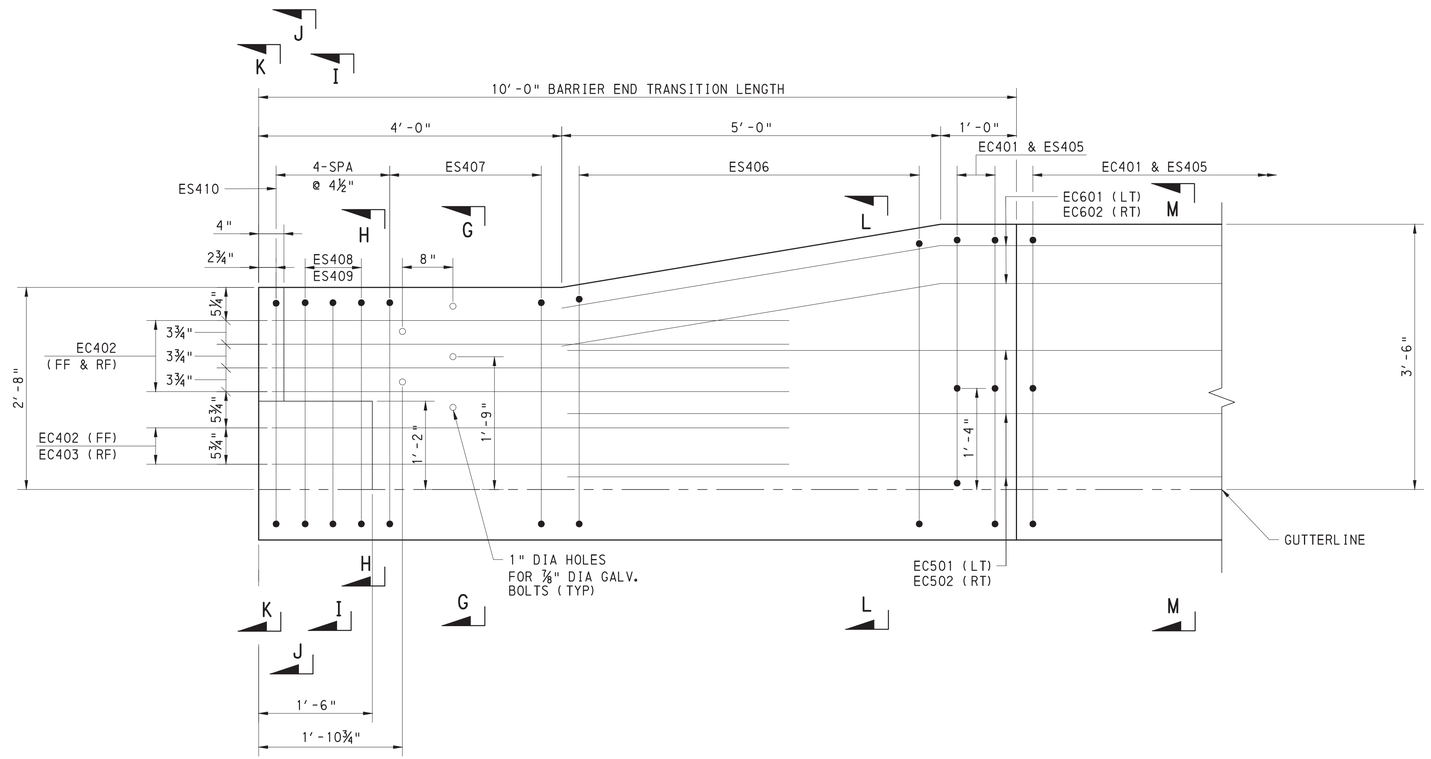
4/19/2023
DATE

SHEET 25 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\25-T942_Barriers and Misc
USER: BCassiyieri
DATE: 03/31/23 - 10:10 AM



TYPICAL BARRIER END TRANSITION - ELEVATION

(TYPICAL AT ALL EXCEPT FAR RIGHT)

12 0 12 INCHES

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR ADDITIONAL DECK BARRIER DETAILS, SEE SHEET 25.
- FOR DECK BARRIER END TRANSITION SECTIONS, SHEET SHEET 27.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
	Revisions				

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

LEGEND

FF FRONT FACE
RF REAR FACE
EF EACH FACE
RT RIGHT
LT LEFT

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ENGINEER
049999E
COMMONWEALTH OF PENNSYLVANIA

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DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

DECK BARRIER END TRANSITION ELEVATION

4/19/2023
DATE

SHEET 26 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\26-T942_Deck Barrier End Transition Elevation
USER: BCasavieri
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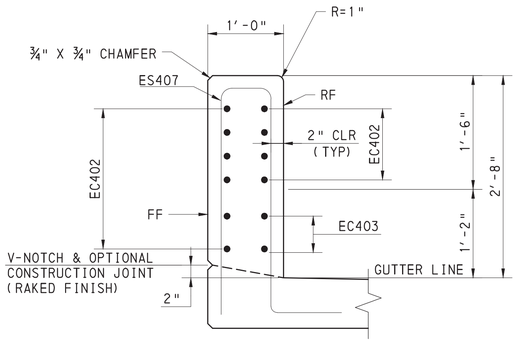
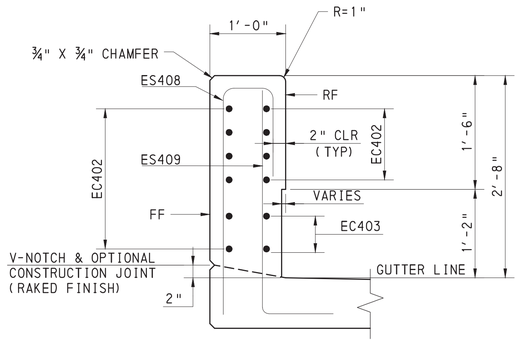


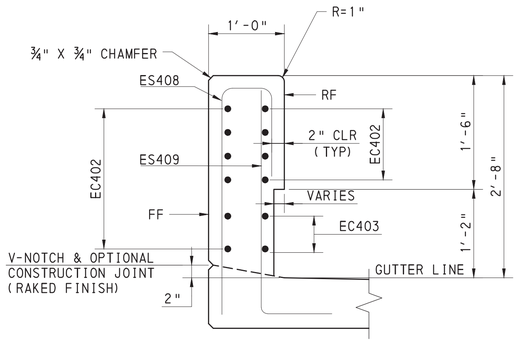
SECTION G-G

6 0 6 12 INCHES



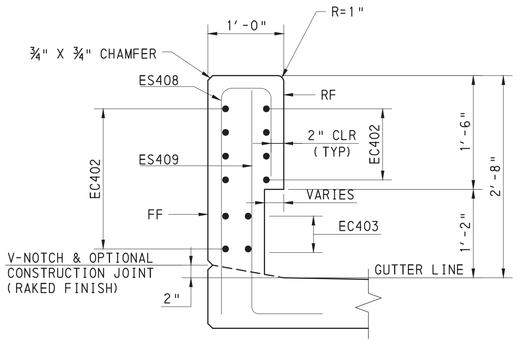
SECTION H-H

6 0 6 12 INCHES



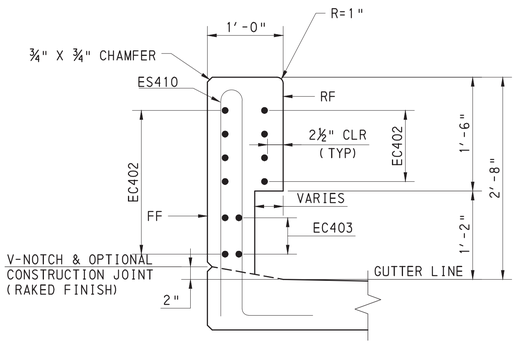
SECTION I-I

6 0 6 12 INCHES



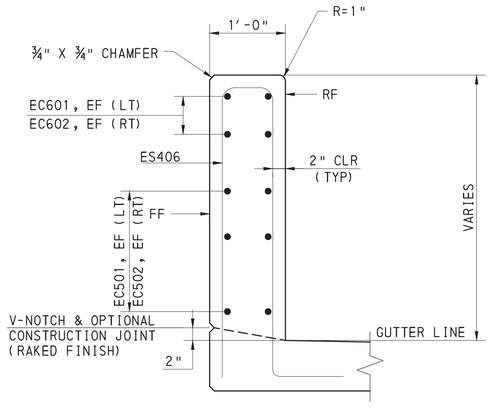
SECTION J-J

6 0 6 12 INCHES



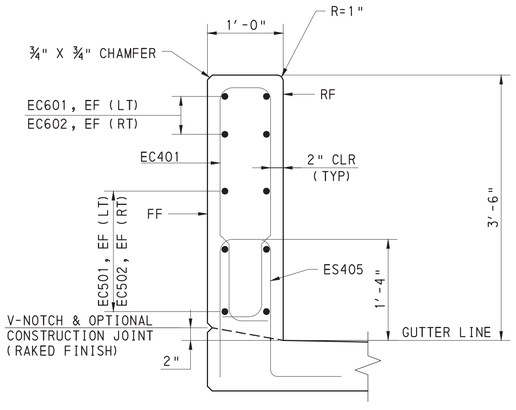
SECTION K-K

6 0 6 12 INCHES



SECTION L-L

6 0 6 12 INCHES



SECTION M-M

6 0 6 12 INCHES

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR TYPICAL SECTIONS & DECK ELEVATIONS, SEE SHEET 3,
- FOR ADDITIONAL DECK BARRIER DETAILS, SEE SHEET 25.
- FOR DECK BARRIER END TRANSITION ELEVATION, SHEET SHEET 26.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

LEGEND

FF	FRONT FACE
RF	REAR FACE
EF	EACH FACE
RT	RIGHT
LT	LEFT

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E
COMMONWEALTH OF PENNSYLVANIA

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DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

DECK BARRIER END TRANSITION SECTIONS

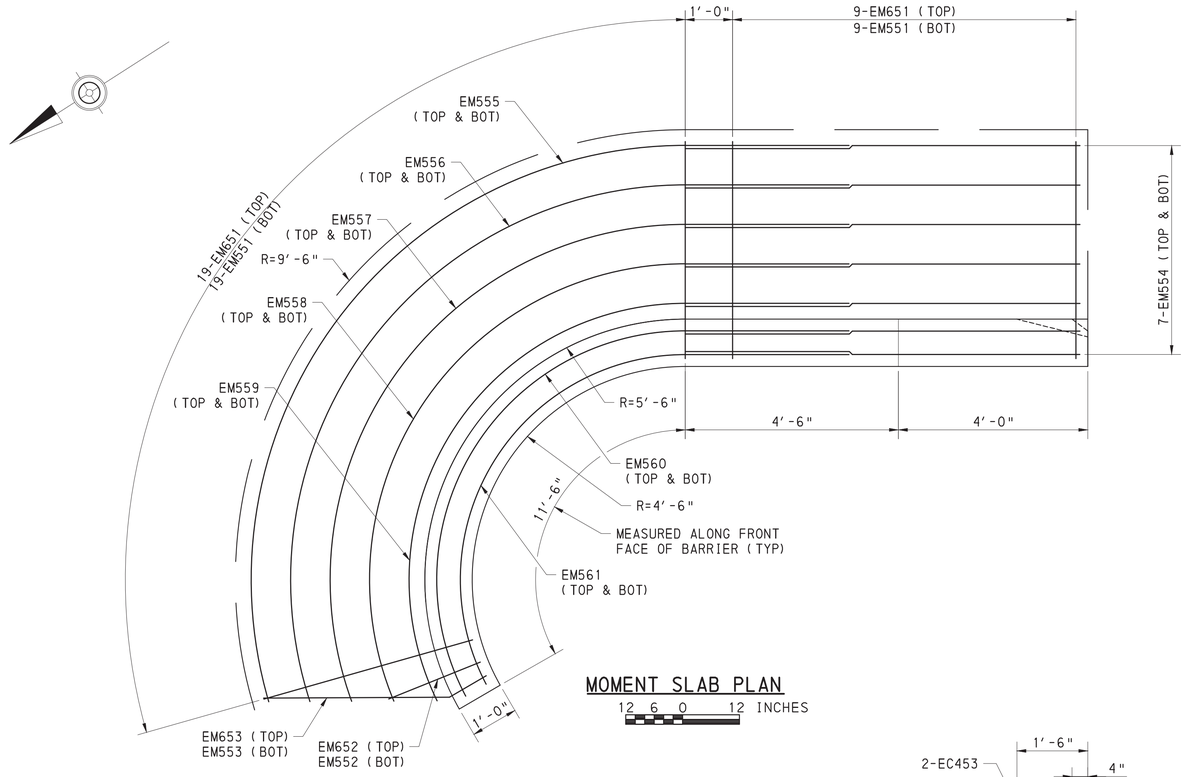
4/19/2023
DATE

SHEET 27 OF 32

L-412D

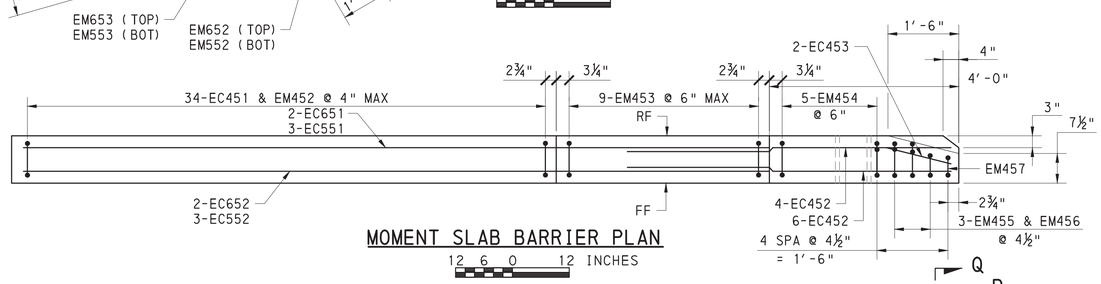
DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\27-T942_Deck Barrier End Transition Sections
USER: BCasalvieri
DATE: 03/31/23 - 04:29 PM



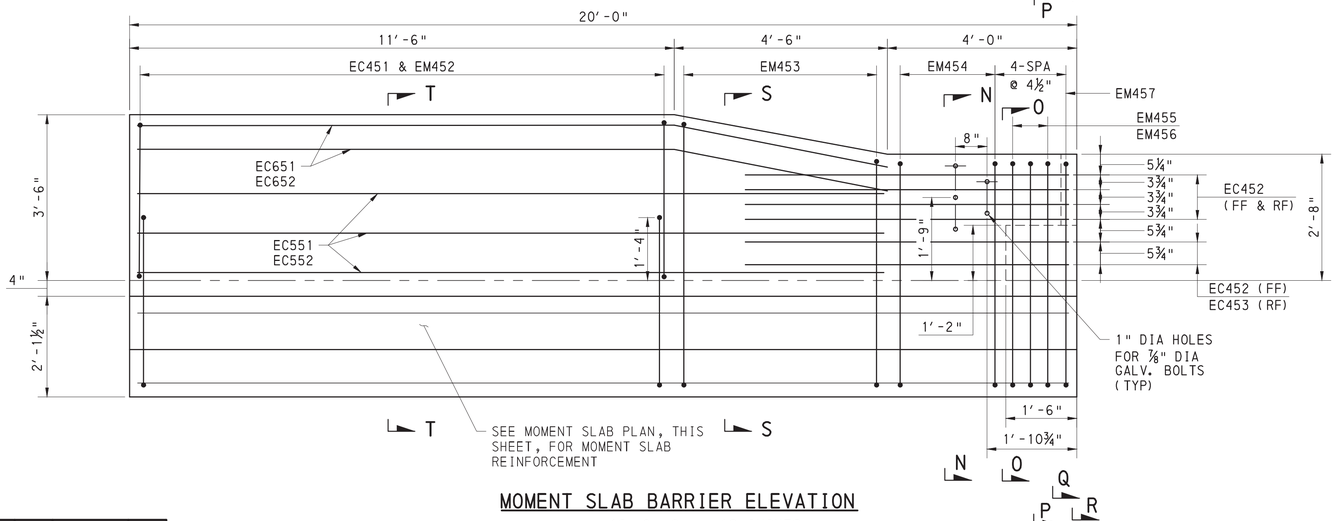
MOMENT SLAB PLAN

12 6 0 12 INCHES



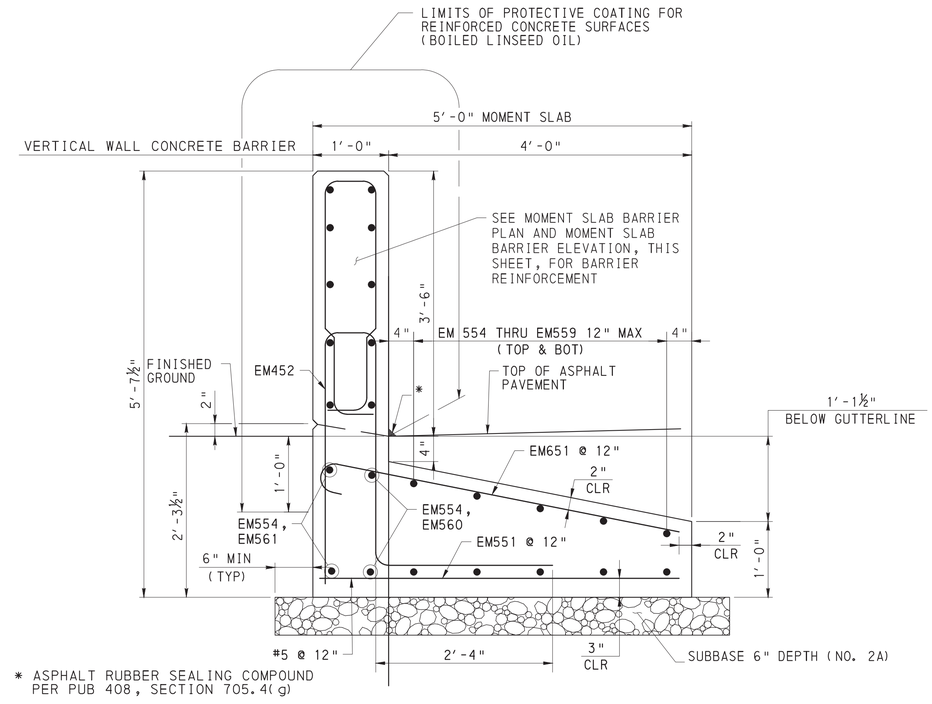
MOMENT SLAB BARRIER PLAN

12 6 0 12 INCHES



MOMENT SLAB BARRIER ELEVATION

12 6 0 12 INCHES



* ASPHALT RUBBER SEALING COMPOUND
PER PUB 408, SECTION 705.4(g)

MOMENT SLAB TYPICAL SECTION

6 0 6 12 INCHES

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR MOMENT SLAB BARRIER SECTIONS, SEE SHEET 29.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

MOMENT SLAB DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

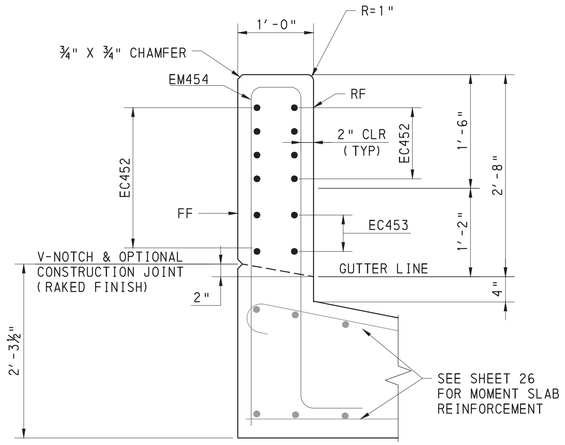
4/19/2023
DATE

SHEET 28 OF 32

L-412D

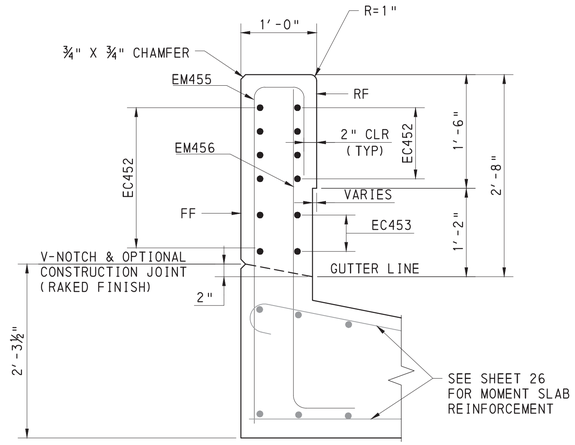
DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\28-T942_Moment Slab
USER: BCasalvieri
DATE: 03/31/23 - 10:10 AM



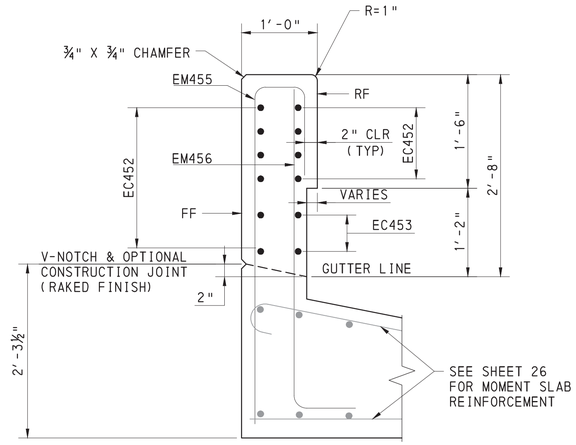
SECTION N-N

6 0 6 12 INCHES



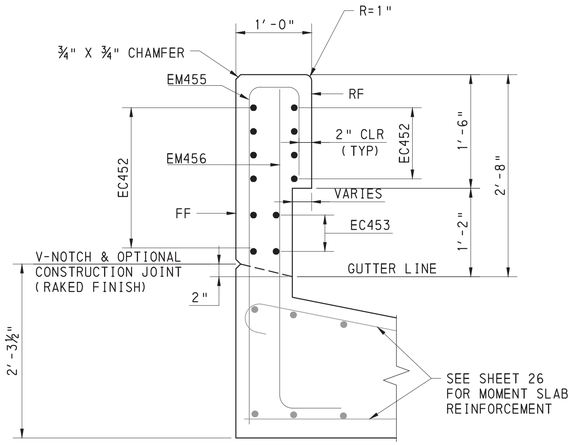
SECTION O-O

6 0 6 12 INCHES



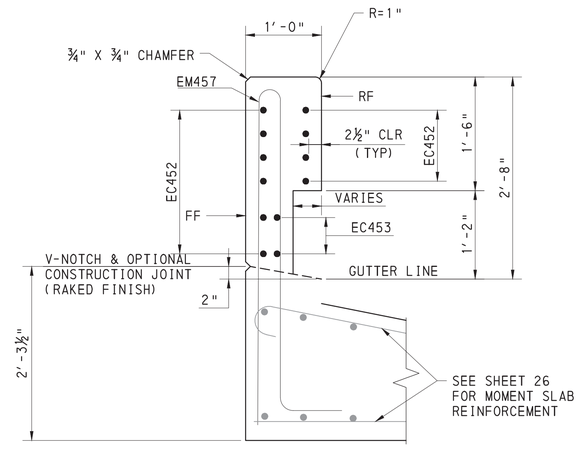
SECTION P-P

6 0 6 12 INCHES



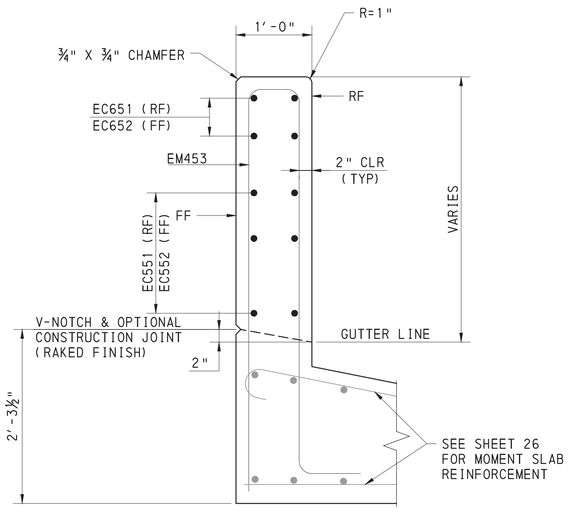
SECTION Q-Q

6 0 6 12 INCHES



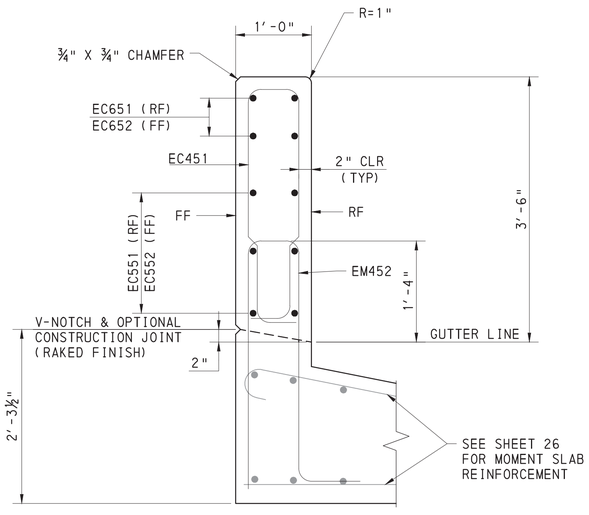
SECTION R-R

6 0 6 12 INCHES



SECTION S-S

6 0 6 12 INCHES



SECTION T-T

6 0 6 12 INCHES

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, QUANTITIES & INDEX OF DRAWINGS, SEE SHEET 2.
- FOR MOMENT SLAB BARRIER VERTICAL REINFORCEMENT SPACING AND ADDITIONAL MOMENT SLAB DETAILS, SEE SHEET 28.
- FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 30.

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

MOMENT SLAB BARRIER SECTIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

4/19/2023
DATE

SHEET 29 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\29-T942_Moment Slab Sections
USER: BGoselyner1
DATE: 03/31/23 - 10:11 AM

REINFORCEMENT BAR SCHEDULE

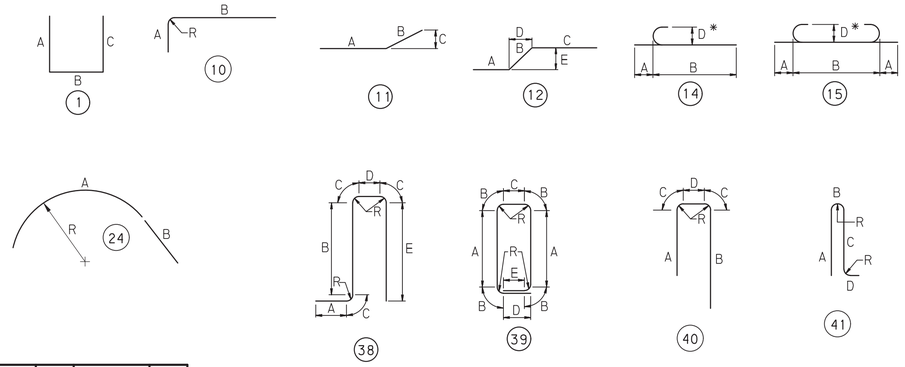
MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	R	REMARKS
SLAB											
ES401	4	39	40'-0"	STR							
ES402	4	28	40'-0"	STR							
ES403	4	39	12'-7"	STR							
ES404	4	28	12'-7"	STR							
ES405	4	132	5'-11½"	38	1'-6"	1'-6"	4"	3"	1'-8½"	2"	
ES406	4	30	8'-0⅛" TO 9'-8⅛"	38	1'-6"	2'-8½" TO 3'-6½"	2⅜"	5"	2'-9½" TO 3'-7½"	1"	A & B VARIES 1⅛", 3 EACH
ES407	4	15	8'-0⅛"	38	1'-6"	2'-8½"	2⅜"	5"	2'-9½"	1"	
ES408	4	9	4'-8¼"	40	2'-10½"	1'-0"	2⅜"	5"		1"	
ES409	4	9	4'-3½"	10	1'-6"	2'-9½"				1½"	
ES410	4	3	7'-3¼"	41	2'-10"	6¼"	2'-5"	1'-6"		1½"	
ES501	5	4	4'-7" TO 7'-11"	14	7"	VARIES					B VARIES 4'-0" TO 7'-4" VARIES 1 EACH BY 1'-1¼"+
ES502	5	5	4'-0" TO 7'-7"	STR							VARIES 1 EACH BY 10¾"+
ES503	5	4	4'-7" TO 7'-11"	14	7"	VARIES					B VARIES 4'-0" TO 7'-4" VARIES 1 EACH BY 1'-1¼"+
ES504	5	5	4'-0" TO 7'-7"	STR							VARIES 1 EACH BY 10¾"+
ES505	5	32	37'-6"	15	7"	36'-4"					
ES506	5	39	36'-4"	STR							
ES507	5	34	9'-6" TO 36'-1"	14	7"	VARIES					2 SETS OF 17: B VARIES 8'-11" TO 35'-6" VARY EACH BAR IN SET BY 1'-4"-
ES508	5	42	8'-11" TO 35'-6"	STR							2 SETS OF 21, VARY EACH BAR IN SET BY 1'-4"-
ES601	6	4	41'-4" TO 42'-0"	STR							2 @ 42'-0", 2 @ 41'-4"
ES602	6	4	41'-4" TO 42'-0"	STR							2 @ 42'-0", 2 @ 41'-4"
ES603	6	52	4'-10"	14	8"	4'-2"					
ES604	6	52	4'-10"	14	8"	4'-2"					
BARRIER											
EC401	4	132	7'-5½"	39	2'-7"	4"	3"	5½"	3"	2"	
EC402	4	30	6'-10"	STR							
EC403	4	6	6'-10⅝"	11	5'-5⅝"	1'-5"	4⅛"				
EC501	5	6	43'-9"	STR							
EC502	5	6	47'-7"	STR							
EC601	6	8	24'-0"	11	18'-11"	5'-1"	10"				
EC602	6	4	47'-8"	11	42'-7"	5'-1"	10"				
DIAPHRAGM											
ED401	4	36	3'-2½"	1	1'-1"	1'-0½"	1'-1"				
ED402	4	12	4'-0½"	1	1'-6"	1'-0½"	1'-6"				
ED403	4	48	4'-0½"	1	1'-6"	1'-0½"	1'-6"				
ED404	4	18	4'-0"	12	1'-1"	1'-10⅝"	1'-0"	1'-4"	1'-4"		
ED405	4	30	3'-11"	11	1'-0"	3'-0¾"	2'-2"				
ED501	5	20	3'-8"	STR							THREADED 3" ON ONE END
ED502	5	32	3'-8"	STR							THREADED 3" ON ONE END
D801	8	12	2'-7"	STR							STAINLESS STEEL DOWELS

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	R	REMARKS
MOMENT SLAB BARRIER											
EC451	4	34	7'-5½"	39	2'-7"	4"	3"	5½"	3"	2"	
EC452	4	10	6'-10"	STR							
EC453	4	2	6'-10¾"	11	5'-5¾"	1'-5"	4"				
EC551	5	3	15'-2½"	24	10'-9½"	4'-5"				5'-3"	
EC552	5	3	15'-2"	24	9'-9"	4'-5"				4'-9"	
EC651	6	2	15'-4½"	24	10'-9½"	4'-7"				5'-3"	BEND STR PORTION DOWN AT 11°
EC652	6	2	15'-4"	24	9'-9"	4'-7"				4'-9"	BEND STR PORTION DOWN AT 11°
MOMENT SLAB											
EM452	4	34	9'-5"	38	2'-4"	2'-10"	4"	3"	3'-0"	2"	
EM453	4	9	13'-2⅛" TO 11'-6⅛"	38	2'-4"	4'-9" TO 3'-11"	2⅜"	5"	5'-1" TO 4'-3"	1"	
EM454	4	5	11'-6⅛"	38	2'-4"	3'-11"	2⅜"	5"	4'-3"	1"	
EM455	4	3	6'-1¼"	40	1'-0½"	4'-3"	2⅜"	5"		1"	
EM456	4	3	6'-6"	10	2'-4"	4'-2"					
EM457	4	1	11'-0¼"	41	4'-3"	6¼"	3'-11"	2'-4"		1½"	
EM551	5	28	4'-9"	STR							
EM552	5	1	2'-1"	STR							
EM553	5	1	4'-11"	11	4'-0"	11"	5"				
EM554	5	14	8'-4"	STR							
EM555	5	2	20'-7"	24	17'-1"	3'-6"				9'-2"	
EM556	5	2	19'-2½"	24	15'-8½"	3'-6"				8'-4"	
EM557	5	2	17'-11"	24	14'-5"	3'-6"				7'-6"	
EM558	5	2	16'-8"	24	13'-2"	3'-6"				6'-8"	
EM559	5	2	15'-4"	24	11'-10"	3'-6"				5'-10"	
EM560	5	2	14'-2"	24	10'-8"	3'-6"				5'-3"	
EM561	5	2	13'-3"	24	9'-9"	3'-6"				4'-9"	
EM651	5	28	5'-5½"	14	8"	4'-9½"		4½"			
EM652	6	1	2'-9"	14	8"	2'-1"		4½"			
EM653	6	1	4'-11"	11	4'-0"	11"	5"				H = 5"

EF422

- BAR NUMBER
- BAR SIZE
- COMPONENT (F=FOOTING, W=WALL, S=SLAB, ETC.)
- EPOXY COATED

BAR MARK LEGEND



NOTES:

- DO NOT USE RAIL STEEL (A616).
- "E" PREFIX DENOTES EPOXY COATED BARS.
- "J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.
- "STR" DENOTES STRAIGHT BAR.

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 30 OF 32

L-412D

FILE: G:\Projects\V71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\30-T942_Super Reinforcement Schedule
USER: BCasalvieri
DATE: 03/31/23 - 10:11 AM

LEFT FASCIA BEAM WITH FWS SIMPLE SPAN		P/S SPREAD BOX BEAM 48/17						
		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.730	0.730	0.730	0.730	N/A	0.730	N/A
	LOCATION (ft)	25.00	25.00	25.00	25.00	N/A	25.00	N/A
	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	1.97M	1.41M	1.14M	1.01M	N/A	1.21M	N/A
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.808	0.808	0.808	0.808	0.808	0.808	0.730
	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	25.00
	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.00V	2.12V	1.78V	1.58V	1.34V	1.86V	1.12M
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2614.84	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.18						

FIRST LEFT INTERIOR BEAM WITH FWS SIMPLE SPAN		P/S SPREAD BOX BEAM 48/17						
		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.570	0.570	0.570	0.570	N/A	0.570	N/A
	LOCATION (ft)	25.00	25.00	25.00	25.00	N/A	25.00	N/A
	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.48M	1.78M	1.44M	1.27M	N/A	1.53M	N/A
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.720	0.720	0.720	0.720	0.720	0.720	0.720
	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	17.50
	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.61V	2.56V	2.15V	1.92V	1.62V	2.24V	1.35V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2710.78	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.28						

INTERIOR BEAM WITH FWS SIMPLE SPAN		P/S SPREAD BOX BEAM 48/17						
		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.570	0.570	0.570	0.570	N/A	0.570	N/A
	LOCATION (ft)	25.00	25.00	25.00	25.00	N/A	25.00	N/A
	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.75M	1.97M	1.60M	1.41M	N/A	1.70M	N/A
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.720	0.720	0.720	0.720	0.720	0.720	0.720
	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	17.50
	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.75V	2.67V	2.25V	2.01V	1.69V	2.35V	1.42V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2710.78	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.33						

FIRST RIGHT INTERIOR BEAM WITH FWS SIMPLE SPAN		P/S SPREAD BOX BEAM 48/17						
		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.570	0.570	0.570	0.570	N/A	0.570	N/A
	LOCATION (ft)	25.00	25.00	25.00	25.00	N/A	25.00	N/A
	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.48M	1.78M	1.44M	1.27M	N/A	1.53M	N/A
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.720	0.720	0.720	0.720	0.720	0.720	0.720
	LOCATION (ft)	32.50	32.50	17.50	17.50	17.50	17.50	17.50
	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.61V	2.56V	2.15V	1.92V	1.62V	2.24V	1.35V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2710.78	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		17.50						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.28						

RIGHT FASCIA BEAM WITH FWS SIMPLE SPAN		P/S SPREAD BOX BEAM 48/17						
		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.730	0.730	0.730	0.730	N/A	0.730	N/A
	LOCATION (ft)	25.00	25.00	25.00	25.00	N/A	25.00	N/A
	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	1.96M	1.41M	1.14M	1.00M	N/A	1.21M	N/A
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.808	0.808	0.808	0.808	0.808	0.808	0.808
	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	17.50
	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	2.99V	2.12V	1.78V	1.58V	1.34V	1.85V	1.12V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2614.84	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.18						

NOTES:
GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

SYMBOL DESIGNATION FOR RATING FACTORS:
M - MOMENT RATING FACTOR CONTROLS
V - SHEAR RATING FACTOR CONTROLS

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP

T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

RATINGS TABLES W/ FWS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL HUSAM A. OBEID ENGINEER 049999E

4/19/2023
DATE

SHEET 31 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: G:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\31-T942_Ratings Tables with FWS
USER: BCasoVieri
DATE: 03/31/23 - 10:11 AM

LEFT FASCIA BEAM WITHOUT FWS		P/S SPREAD BOX BEAM 48/17						
SIMPLE SPAN		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY	DISTRIBUTION FACTOR	0.730	0.730	0.730	0.730	N/A	0.730	N/A
RATING	LOCATION (ft)	25.00	22.50	25.00	25.00	N/A	25.00	N/A
(IR)	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.13M	1.52M	1.23M	1.09M	N/A	1.31M	N/A
OPERATING	DISTRIBUTION FACTOR	0.808	0.808	0.808	0.808	0.808	0.808	0.808
RATING	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	17.50
(OR)	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.13V	2.21V	1.85V	1.65V	1.40V	1.94V	1.17V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2614.84	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.22						

FIRST RIGHT INTERIOR BEAM WITHOUT FWS		P/S SPREAD BOX BEAM 48/17						
SIMPLE SPAN		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY	DISTRIBUTION FACTOR	0.570	0.570	0.570	0.570	N/A	0.570	N/A
RATING	LOCATION (ft)	25.00	22.50	25.00	25.00	N/A	25.00	N/A
(IR)	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.68M	1.92M	1.55M	1.37M	N/A	1.65M	N/A
OPERATING	DISTRIBUTION FACTOR	0.720	0.720	0.720	0.720	0.720	0.720	0.720
RATING	LOCATION (ft)	32.50	32.50	32.50	32.50	17.50	17.50	17.50
(OR)	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.74V	2.66V	2.24V	2.00V	1.69V	2.34V	1.41V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2710.78	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.32						

FIRST LEFT INTERIOR BEAM WITHOUT FWS		P/S SPREAD BOX BEAM 48/17						
SIMPLE SPAN		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY	DISTRIBUTION FACTOR	0.570	0.570	0.570	0.570	N/A	0.570	N/A
RATING	LOCATION (ft)	25.00	22.50	25.00	25.00	N/A	25.00	N/A
(IR)	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.68M	1.92M	1.55M	1.37M	N/A	1.65M	N/A
OPERATING	DISTRIBUTION FACTOR	0.720	0.720	0.720	0.720	0.720	0.720	0.720
RATING	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	17.50
(OR)	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.74V	2.66V	2.24V	2.00V	1.69V	2.34V	1.41V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2710.78	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.32						

RIGHT FASCIA BEAM WITHOUT FWS		P/S SPREAD BOX BEAM 48/17						
SIMPLE SPAN		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY	DISTRIBUTION FACTOR	0.730	0.730	0.730	0.730	N/A	0.730	N/A
RATING	LOCATION (ft)	25.00	22.50	25.00	25.00	N/A	25.00	N/A
(IR)	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.12M	1.51M	1.23M	1.08M	N/A	1.30M	N/A
OPERATING	DISTRIBUTION FACTOR	0.808	0.808	0.808	0.808	0.808	0.808	0.808
RATING	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	17.50
(OR)	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.12V	2.21V	1.85V	1.65V	1.39V	1.93V	1.16V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2614.84	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		17.50						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.22						

INTERIOR BEAM WITHOUT FWS		P/S SPREAD BOX BEAM 48/17						
SIMPLE SPAN		H20	HS20	ML-80	PHL-93	P-82	TK527	P2016-13
INVENTORY	DISTRIBUTION FACTOR	0.570	0.570	0.570	0.570	N/A	0.570	N/A
RATING	LOCATION (ft)	25.00	22.50	25.00	25.00	N/A	25.00	N/A
(IR)	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	N/A	SERV-III	N/A
	RATING FACTOR	2.95M	2.11M	1.71M	1.51M	N/A	1.82M	N/A
OPERATING	DISTRIBUTION FACTOR	0.720	0.720	0.720	0.720	0.720	0.720	0.720
RATING	LOCATION (ft)	17.50	17.50	17.50	17.50	17.50	17.50	17.50
(OR)	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II
	RATING FACTOR	3.85V	2.74V	2.32V	2.09V	1.76V	2.43V	1.48V
MAXIMUM FACTORED MOMENT RESISTANCE (kip-ft)		2710.78	SPAN LENGTH (ft) = 50.00					
LOCATION (ft)		20.00						
MAXIMUM FACTORED SHEAR RESISTANCE (kips)		422.72						
LOCATION (ft)		2.37						

NOTES:
GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

SYMBOL DESIGNATION FOR RATING FACTORS:
M - MOMENT RATING FACTOR CONTROLS
V - SHEAR RATING FACTOR CONTROLS

Mark	Description	By	Chk'd	Recm'd	Date
Revisions					

BMS NO: 14-7221-0942-0005 MPMS/ECMS PROJ. 112818 BRKEY: 9841

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CENTRE COUNTY
SPRING TOWNSHIP
T-942 STA 12+01.16
OVER BUFFALO RUN
1-SPAN COMP P/S SPR BOX BEAM SUPER REPL

RATINGS TABLES W/O FWS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
HUSAM A. OBEID
ENGINEER
049999E

4/19/2023
DATE

SHEET 32 OF 32

L-412D

DESIGN BY	EDC	CHK'D BY	HAO
DRAWN BY	BDC	CHK'D BY	CKS

FILE: C:\Projects\71xx\7136 Glenn O. Hawbaker, Inc., Centre Co Multimodal Bridge Rehabilitation Bundle\03 Drawings\05 Structure Plan\Final_T-942\32-T942_Ratings Tables without FWS
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DATE: 04/18/23 - 11:14 AM