



January 22, 2024

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, PA 17120

Re: Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter the public grade crossing by the rehabilitation of the existing bridge where State Route 0018 (7th Avenue) crosses, above grade, the tracks of Norfolk Southern Railway Company (DOT 503 768L) and CSX Transportation, Inc. (DOT 584 878T) in the Borough of New Brighton and the City of Beaver Falls, Beaver County and the allocation of costs incident thereto.

Dear Secretary Chiavetta:

Enclosed for filing, please find the Application of the Department of Transportation.

A copy of this Application and Exhibits has been served upon the parties in the Certificate of Service to the Application.

Sincerely,

Philip M. Mutunga

Philip M. Mutunga, P.E
Grade Crossing Engineer
Department of Transportation
Engineering District 11-0

Attachments

cc: Parties of Record

Barry J. Basom, P.E., Acting Chief, Utilities and Right-of-Way Section, 7th Floor, CKB
Karen L. Cummings, Senior Counsel, Office of Chief Counsel, 9th Floor, CKB
William M. Sinick, P.E., Manager, Technical Utility Services, 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 grade crossing by the rehabilitation of the existing bridge where State Route 0018 (7th Avenue) crosses, above grade, the tracks of Norfolk Southern Railway Company (DOT 503 768L) and CSX Transportation, Inc. (DOT 584 878T) in the Borough of New Brighton and the City of Beaver Falls, Beaver County and the allocation of costs incident thereto.

Application
Docket No. _____

Electronically Filed

APPLICATION OF THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF
TRANSPORTATION

Applicant, Commonwealth of Pennsylvania, Department of Transportation, files this Application pursuant to the provisions of 66 Pa.C.S § 2702 and 52 Pa. Code § 5.13 for the modification of the public above grade crossing where State Route 0018 crosses tracks Norfolk Southern Railway Company (DOT 503 768L) and CSX Transportation, Inc. (DOT 584 878T) in the Borough of New Brighton and the City of Beaver Falls, Beaver County as described below:

1. The name and address of Applicant are Commonwealth of Pennsylvania, Department of Transportation, Douglas M. Seeley, P.E., Assistant District Executive - Design, Engineering District 11-0, 45 Thoms Run Road, Bridgeville, PA 15017

2. The name and address of attorney for the Applicant are Caroline G. Robelen, Assistant Counsel, Commonwealth of Pennsylvania, Department of Transportation, Office of Chief Counsel, PO Box 8212, Harrisburg, PA 17105-8212.

3. The Applicant is an agency of Commonwealth of Pennsylvania, organized and existing under the Administrative Code of 1929, 71 P.S. § 511, et seq. and generally 36 P.S. § 670 - 401 et seq.

4. The names and addresses of the persons, parties and entities concerned in, or affected by the proposed construction, to the best of the Applicant's knowledge, are shown in the certificate of service. In addition to those served, the Applicant requests that the following also receive service of all documents in this matter:

Barry J. Basom, P.E., Acting Chief
Right of Way, Utilities and Grade Crossing
Division
Pennsylvania Department of Transportation
PO Box 3362
Harrisburg, PA 17105-3362
babasom@pa.gov

Karen L. Cummings, Senior Assistant Counsel
Office of Chief Counsel
Pennsylvania Department of Transportation
PO Box 8212
Harrisburg, PA 17105-8212
kcummings@pa.gov

5. The Applicant is seeking approval to alter the crossing by rehabilitating the existing bridge where State Road 0018 (7th Avenue) crosses the tracks of Norfolk Southern Railway Company (DOT 503768L) and CSX Transportation, Inc. (DOT 584878T).

A Location Map is attached hereto and marked as Exhibit "A". Also attached hereto and marked as Exhibit "B" are the Preliminary Plans for the project.

6. The Applicant is not aware of prior Public Utility Commission proceedings for this crossing.

7. The average daily traffic for State Route 0018 at this crossing is 6,131 (EB), 6,188 (WB) vehicles with 6% (EB), 5% (WB) trucks.

8. The estimated total cost for the construction activities is \$ 13,000,000. The funding for the project is anticipated to be 80% Federal funds and 20% State funds.
9. This project is necessary and proper for the safety and convenience of the public.
10. A conference of all parties of interest should be held to discuss the proposed project.

Wherefore, Applicant respectfully requests that the Public Utility Commission approve this Application.

Respectfully Submitted:

 Digitally signed by
dseeley
Date: 2024.01.22
07:48:25-05'00'

Douglas M. Seeley, P.E.
Assistant District Executive-Design
Department of Transportation
Engineering District 11-0
45 Thoms Run Road
Bridgeville, PA 15017
Phone: (412) 429-5005
Fax: (412) 429-5069
Email: dseeley@pa.gov

Dated: 01/22/2024

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter the public grade crossing by the rehabilitation of the existing bridge where State Route 0018 (7th Avenue) crosses, above grade, the tracks of Norfolk Southern Railway Company (DOT 503 768L) and CSX Transportation, Inc. (DOT 584 878T) in the Borough of New Brighton and the City of Beaver Falls, Beaver County and the allocation of costs incident thereto.

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VERIFICATION

I, Philip M. Mutunga, hereby state that the facts above set forth are true and correct to the best of my knowledge, information, and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. §4904 (relating to unsworn falsification to authorities).

Date: January 22, 2024

Philip M. Mutunga
Philip M. Mutunga, P.E.
Grade Crossing Engineer
Department of Transportation
Engineering District 11-0
45 Thoms Run Road
Bridgeville, PA 15017
pmutunga@pa.gov

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter the public grade crossing by the rehabilitation of the existing bridge where State Route 0018 (7th Avenue) crosses, above grade, the tracks of Norfolk Southern Railway Company (DOT 503 768L) and CSX Transportation, Inc. (DOT 584 878T) in the Borough of New Brighton and the City of Beaver Falls, Beaver County and the allocation of costs incident thereto.

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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 by electronic mail.

Shawn Starling, P.E.
Norfolk Southern Railroad Company
650 West Peachtree Street NW - Box 45
Atlanta, GA 30308
douglas.starling@nscorp.com

Mariah Wise
Columbia Gas of PA, Inc.
4000 Energy Drive
Bridgeville PA 15017
MWise@nisource.com

Christopher Rapone, P.E.
AECOM
1700 Market Street Suite 1600
Philadelphia, PA 19103
PAPUC@aecom.com

Mr. Gary Redondo
Verizon Pennsylvania, LLC
3151 Pioneer Avenue
Pittsburgh, PA 15226
gary.redondo@verizon.com

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CSX Transportation, Inc.
1 Bell Crossing
Selkirk, NY 12158
michael_sliper@csx.com

John Morgan
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6305 Farmview Ln
Cicero, NY 13039
john.r.morgan@windstream.com

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City of Beaver Falls
715 15th Street
Beaver Falls, PA 15010
cjones@beaverfallspa.org

David Binger
Century Link
200 Technology Dr
Pittsburgh, PA 15219
david.binger@lumen.com
NationalRelo@centurylink.com

Thomas J. Albanese
New Brighton Borough
610 Third Avenue
New Brighton, PA 15066
manager@newbrightonpa.org

Paul Hervantine
Beaver Falls Municipal Authority
1425 Eighth Avenue, P.O. BOX 400
Beaver Falls, PA 15010
herv@bfwater.net
info@bfwater.net

Jim Runatz
Duquesne Light Company
1901 Edison Street
Pittsburgh, PA 15116
jrunatz@duqlight.com

Dated this 22nd Day of January, 2024

Philip M. Mutunga
Philip M. Mutunga, P.E.
Grade Crossing Engineer
Department of Transportation
Engineering District 11-0
45 Thoms Run Road
Bridgeville, PA 15017
pmutunga@pa.gov

Project Location Map

SR 0018-B62 – SR 18 BRIDGE REHABILITATION PROJECT

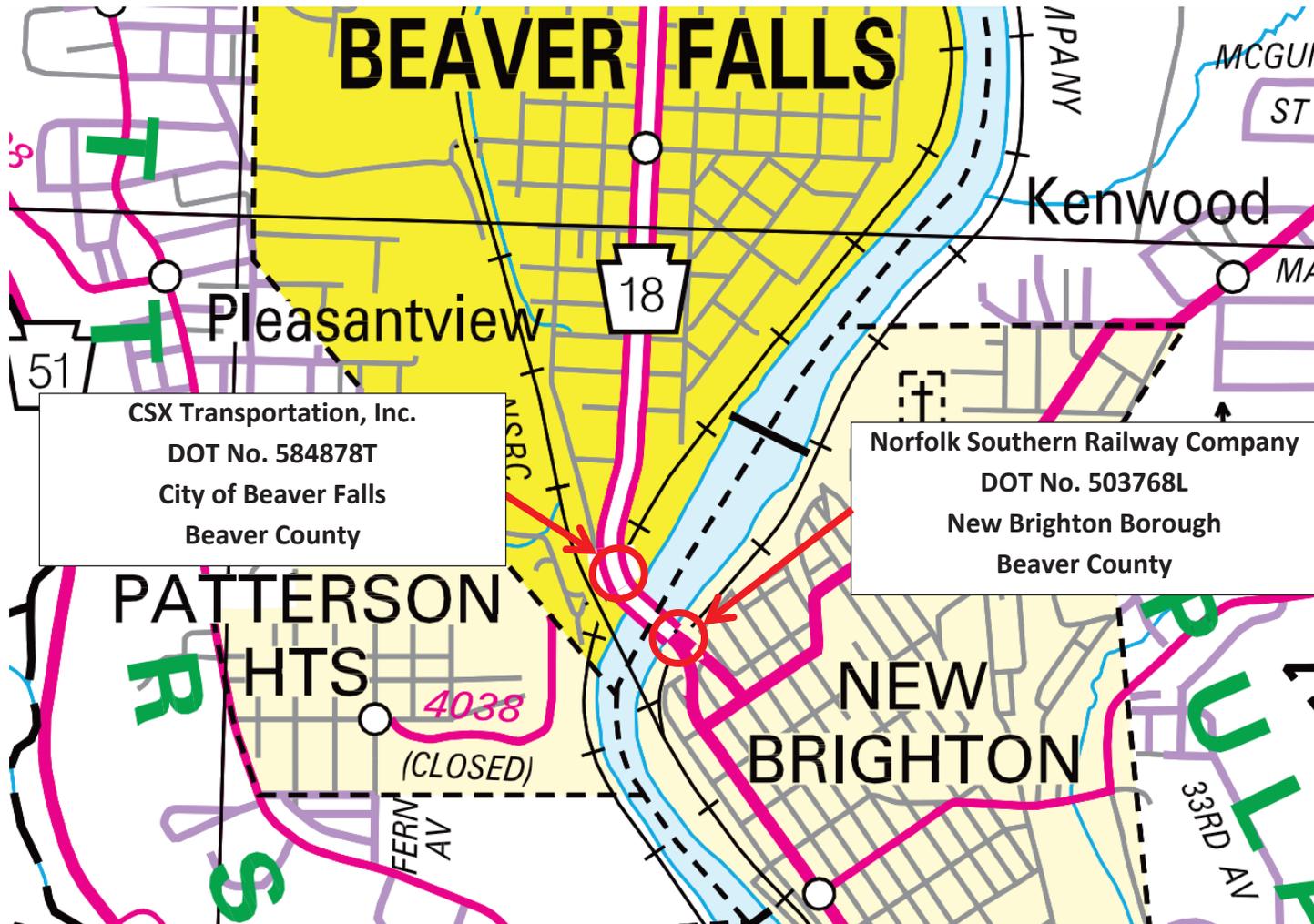
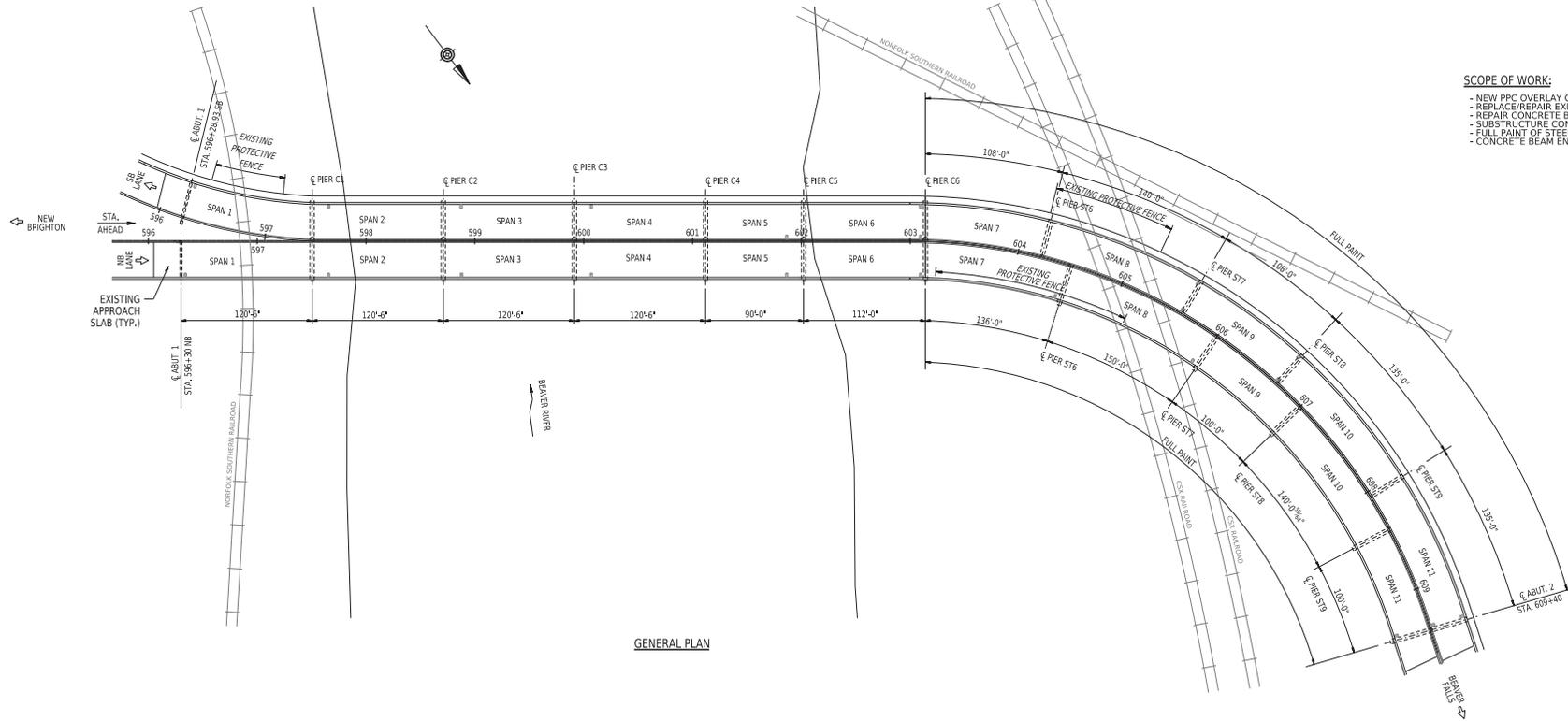


Exhibit "A"
Location Map
Page 1 of 1



- SCOPE OF WORK:**
- NEW PPC OVERLAY OF BRIDGE DECKS
 - REPLACE/REPAIR EXPANSION JOINTS
 - REPAIR CONCRETE BARRIERS
 - SUBSTRUCTURE CONCRETE REPAIRS
 - FULL PAINT OF STEEL BEAM SPANS
 - CONCRETE BEAM END REPAIRS

GENERAL PLAN

Exhibit "B"
Page 1 of 5

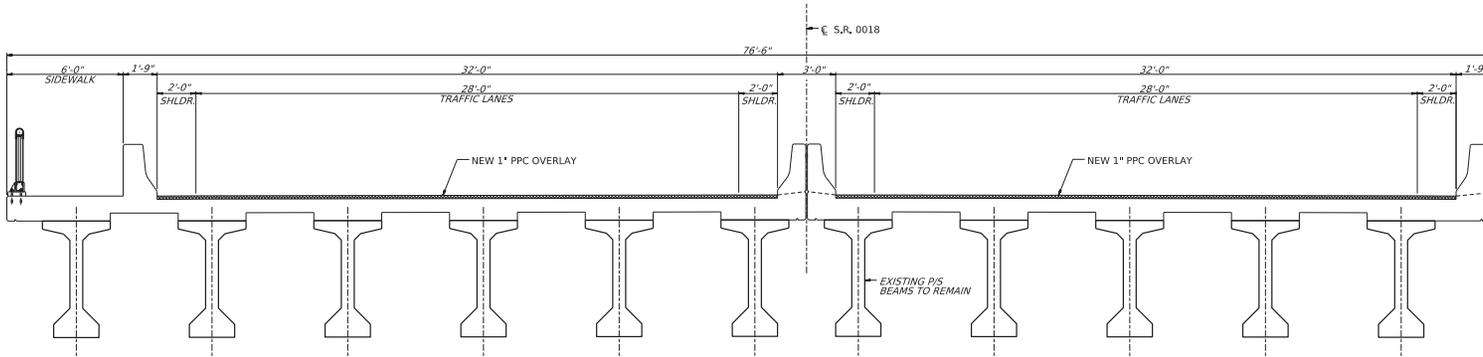
MARK	DESCRIPTION	BY	CHK'D.	RECM'D.	DATE
REVISIONS					

MPMS/ECMS PROJ: 105441 S.R. 0018 PREVIOUSLY KNOWN AS L.R. 77
 BMS STR ID: 04-0018-0610-0000, 04-0018-0611-0000 BRKEY: 3449 (NB), 3450 (SB)

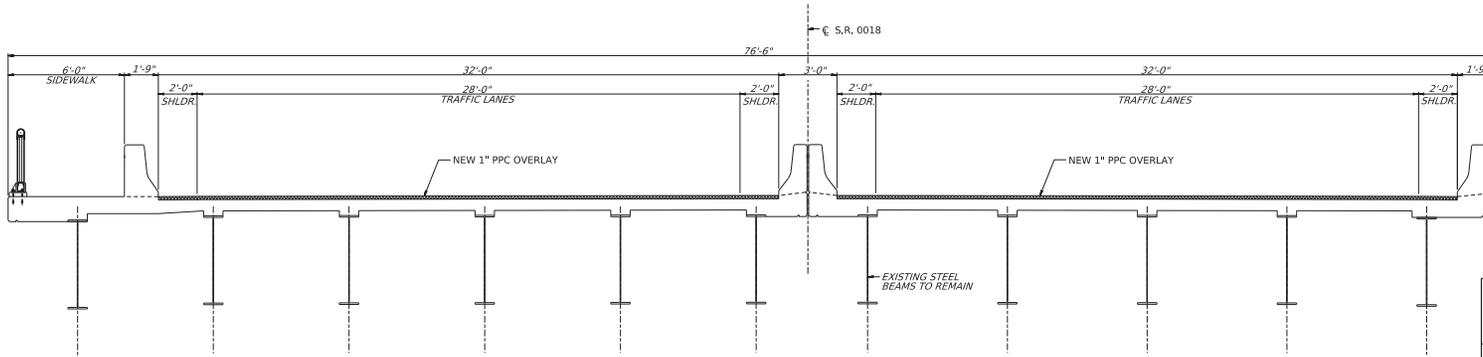
COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

BEAVER COUNTY
 S.R. 0018 SECTION B62
 SEG. 0610 OFF. 0000 (N.B.) / SEG. 0611 OFF. 0000 (S.B.)
 S.R. 0018-B62 STA. 600+00.00
 OVER BEAVER RIVER
 MIXED STEEL & P/S CONCRETE BEAM BRIDGE
 GENERAL PLAN

RECOMMENDED	SHEET <u>1</u> OF <u> </u>
	S-00000



TYPICAL SECTION (SPANS 1-5)
LOOKING AHEAD STATION



TYPICAL SECTION (SPANS 6-11)
LOOKING AHEAD STATION

MARK	DESCRIPTION	BY	CHK'D.	RECM'D.	DATE
REVISIONS					

MPMS/ECMS PROJ: 105441 S.R. 0018 PREVIOUSLY KNOWN AS L.R. 77
 BMS STR ID: 04-0018-0610-0000, 04-0018-0611-0000 BRKEY: 3449 (NB), 3450 (SB)

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

BEAVER COUNTY
S.R. 0018 SECTION B62
 SEG. 0610 OFF. 0000 (N.B.) / SEG. 0611 OFF. 0000 (S.B.)
 S.R. 0018-B62 STA. 600+00.00
 OVER BEAVER RIVER
 MIXED STEEL & P/S CONCRETE BEAM BRIDGE
 TYPICAL SECTIONS

RECOMMENDED	SHEET <u>3</u> OF <u> </u>
	S-00000

GENERAL NOTES

DESIGN SPECIFICATIONS:

- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2017, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, DECEMBER 2019.

GENERAL:

- PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2020, AASHTO/AWS D1.5M/D1.5: 2015 BRIDGE WELDING CODE, AND CONTRACT SPECIAL PROVISIONS.
- VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
- ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
- SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68°F.
- PROVIDE 3/4" SAW CUTS AT ALL REMOVAL LIMITS, UNLESS OTHERWISE NOTED.
- THE ENGINEER RESERVES THE RIGHT TO CHANGE THE NATURE AND LIMITS OF THE WORK TO ASSURE A SATISFACTORY REPAIR.
- ACCESS, ANY REQUIRED SHIELDING AND STAGING WILL NOT BE PAID UNDER SEPARATE ITEMS.
- CONTRACTOR RESPONSIBLE FOR REMOVING DEBRIS FROM CONSTRUCTION OPERATIONS FROM THE JOB SITE.
- CONSTRUCTION DETAILS OTHER THAN THOSE SHOWN ARE TO CONFORM TO THE STANDARD DRAWINGS.
- DO NOT UNDERCUT OR REMOVE ANY CONCRETE BELOW SUPERSTRUCTURE BEAM BEARING AREAS UNLESS PERMITTED BY THE DEPARTMENT'S REPRESENTATIVE.
- REPAIR ANY AREAS DAMAGED BEYOND THE REMOVAL LIMITS INDICATED, AND AS DIRECTED BY THE DEPARTMENT'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE DEPARTMENT. THE CONTRACTOR IS RESPONSIBLE FOR THE STRUCTURAL STABILITY AND THE INTEGRITY OF THE STRUCTURE AND ITS COMPONENTS THROUGHOUT THE DURATION OF THE CONTRACT. ANY DAMAGES INCURRED DURING CONSTRUCTION, AS DETERMINED BY THE DEPARTMENT'S REPRESENTATIVE, ARE TO BE REPLACED AND/OR REPAIRED AT NO COST TO THE DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY PROPERTY DAMAGE DONE DURING CONSTRUCTION. REPAIRS ARE TO BE MADE TO THE SATISFACTION OF THE DEPARTMENT'S REPRESENTATIVE AND OWNER AT CONTRACTOR'S EXPENSE.
- BRIDGE IS NOT WEIGHT RESTRICTED. SEE PUBLICATION 408 SECTION 105.17 FOR CONSTRUCTION LOADING LIMITS.
- PROVIDE A MINIMUM WIDTH OF 2-1/2" AT 68 DEGREES F FOR STRIP SEAL INSTALLATIONS UNLESS OTHERWISE NOTED.

REINFORCEMENT:

- PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET REQUIREMENTS OF ASTM A 615/A 615M, A 996/A 996M, OR A 706/A 706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A 996/A 996M REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, SHEAR BLOCKS, BEAMS, FOOTING, PILES, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
- FOR REINFORCEMENT BARS, PROVIDE MINIMUM LAP AND EMBEDMENT LENGTH OF 30 DIAMETERS OR IN ACCORDANCE WITH AASHTO AS MODIFIED BY DR-4, WHICHEVER IS GREATER.
- USE EPOXY COATED REINFORCEMENT BARS ON THIS PROJECT.
- GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.
- CLEAN ALL EXISTING REINFORCEMENT TO REMOVE ANY RUST, DUST, OR OTHER FOREIGN MATERIALS AND COAT WITH AN EPOXY PAINT PRIOR TO PLACING NEW CONCRETE.
- REMOVE AND REPLACE IN KIND ALL DAMAGED OR HEAVILY CORRODED REINFORCEMENT BARS (WITH 25% LOSS OR MORE) WITH THE SAME SIZE REINFORCEMENT BARS. SPLICE NEW REINFORCEMENT BARS TO EXISTING BARS.

UTILITIES:

- COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTIONS 105.06 AND 107.12
- VERIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO STARTING WORK, AND CONDUCT OPERATIONS IN A MANNER WHICH ENSURES THE UTILITIES WILL NOT BE DISTURBED OR ENDANGERED AND ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES DURING CONSTRUCTION. THE DEPARTMENT DOES NOT ASSUME RESPONSIBILITY FOR REIMBURSEMENT OF RELOCATION DESIGN WORK OR LIABILITY FOR ACCURACY OF TYPE, SIZE AND LOCATION OF ANY UTILITY.

CONCRETE:

- PROVIDE 2" CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.
 - USE CLASS AA CEMENT CONCRETE, EXCEPT USE NO. 8 COARSE AGGREGATE IN BARRIERS.
 - USE AAAP CEMENT CONCRETE, EXCEPT USE NO. 8 COARSE AGGREGATE IN DECK BLOCKOUTS.
 - A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT, IF APPROVED BY DISTRICT BRIDGE ENGINEER.
 - RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.
 - CHAMFER EXPOSED CONCRETE EDGES 1 IN. BY 1 IN., EXCEPT AS NOTED.
 - APPLY EPOXY BONDING COMPOUND TO EXISTING CONCRETE SURFACES WHERE NEW CONCRETE WILL BE PLACED AGAINST EXISTING CONCRETE. EPOXY BONDING COMPOUND MATERIAL TO BE IN ACCORDANCE WITH SECTION 706.1 WHERE NEW CONCRETE IS TO BE PLACED AGAINST EXISTING CONCRETE. THE CONNECTION OF THE NEW AND EXISTING CONCRETE IS TO BE IN ACCORDANCE WITH SECTION 1003.30M UNLESS OTHERWISE INDICATED.
- BRIDGE REHABILITATION:**
- DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS 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 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 TO BE PERFORMED MAY DIFFER FROM THOSE INDICATED.
 - DURING REMOVAL OR RECONSTRUCTION, DO NOT DAMAGE PORTIONS OF THE EXISTING STRUCTURE THAT REMAIN. REPAIR ANY AREA DAMAGED BEYOND THE REMOVAL LIMITS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.
 - DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.
 - EXISTING STRUCTURE DRAWINGS:
S-14335-B, DATED MARCH 15, 1984

TABULATION OF BRIDGE BID ITEMS AND APPROXIMATE QUANTITIES					
ITEM NO.	ITEM	UNIT	NORTHBOUND	SOUTHBOUND	TOTAL
1001-0980	MECHANICAL TEXTURING WITH LONGITUDINAL SAWED GROOVES	SY	00	00	00
1040-0200	CONCRETE BRIDGE BARRIER REPAIR, TYPE 2	SF	00	00	00
1041-0010	SCARIFICATION, 1/4" DEPTH	EACH	00	00	00
1041-0020	SCARIFICATION, 1/2" DEPTH	EACH	00	00	00
1047-0010	POLYESTER POLYMER CONCRETE OVERLAY, 1"	SY	00	00	00
1070-0200	PAINTING EXISTING STRUCTURAL STEEL	LS	00	00	00
1072-0100	CONTAINMENT	LS	00	00	00
1072-0200	WASTE MANAGEMENT	LS	00	00	00
1072-0300	WORKER HEALTH AND SAFETY	LS	00	00	00
1090-1006	STANDARD EXPANSION DAM REPLACEMENT, 3" MOVEMENT	LF	00	00	00
1090-1008	STANDARD EXPANSION DAM REPLACEMENT, 3 1/2" MOVEMENT	LF	00	00	00
1090-1006	STANDARD EXPANSION DAM REPLACEMENT, 4" MOVEMENT	LF	00	00	00
9000-0000	CLEAN AND FLUSH EXISTING SCUPPERS AND DOWNSPOUTS	LS	00	00	00
9000-0000	BRIDGE BARRIER AND JOINT SEALING	SY	00	00	00
9000-0000	CLEAN AND FLUSH BRIDGE SEATS	LS	00	00	00
9000-0000	BEAM END REPAIRS	SF	00	00	00
9000-9001	REPAIR DETERIORATED CONCRETE	CF	00	00	00

MARK	DESCRIPTION	BY	CHK'D.	REC'D.	DATE
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 MIXED STEEL & P/S CONCRETE BEAM BRIDGE
GENERAL NOTES

RECOMMENDED	SHEET <u>4</u> OF <u> </u>
	S-00000

Exhibit "B"
 Page 4 of 5

CONSTRUCTION PROCEDURE

REMOVAL, REPAIR AREA PREPARATION, AND REINFORCEMENT INSTALLATION.

- PROVIDE SATISFACTORY PROTECTIVE SHIELDING BELOW REPAIR AREAS.
- PROVIDE MEANS TO COLLECT CONCRETE AND DEBRIS FROM REMOVAL OPERATIONS AND ABRASIVE BLAST MEDIA USED TO CLEAN THE REPAIR AREAS.
- SOUND AND DETERMINE EXTENT OF REPAIR AREAS IN THE PRESENCE OF A REPRESENTATIVE.
- OUTLINE EDGE OF THE DESIGNATED REPAIR AREAS WITH A 1" MAXIMUM DEPTH SAWCUT.
- WITHIN THE OUTLINED REPAIR AREAS, REMOVE DETERIORATED CONCRETE TO A DEPTH OF 3/8-INCH BEHIND THE FIRST MAT OF REINFORCEMENT BARS TO SOUND CONCRETE, ALLOW UNCOVERED OR EXPOSED REINFORCEMENT BARS TO HAVE A 3/8-INCH CLEARANCE ALL AROUND. IF CONCRETE IS UNSOUND AT A DEPTH OF 3/8-INCH BEHIND REINFORCEMENT BARS, DO NOT REMOVE ADDITIONAL CONCRETE WITHOUT APPROVAL OF THE STRUCTURE CONTROL ENGINEER.
- SQUARE-OUT/BEVEL EDGE OF REPAIR AREAS TO KEY IN CONSTRUCTION, USE HAND TOOLS FOR REMOVING DETERIORATED CONCRETE, USE PNEUMATIC HAMMERS, IF REQUIRED, NOT EXCEEDING AN IMPACT RATING OF 30 FOOT POUNDS, IF DETERIORATED CONCRETE EXTENDS BEYOND THE INITIALLY OUTLINED REPAIR AREA, ENLARGE AREA AS DIRECTED BY THE REPRESENTATIVE.
- AFTER REMOVAL OPERATIONS ARE COMPLETE, REMOVE DEBRIS AND LOOSE MATERIALS. IMMEDIATELY BEFORE WET ABRASIVE BLASTING (WAB), WET REPAIR AREAS WITH LOW PRESSURE WATER. CLEAN REPAIR AREAS, PREPARED SUBSTRATE AND REINFORCEMENT BARS, BY WAB. WAB EXPOSED REINFORCEMENT BARS TO NEAR-WHITE METAL ACCORDING TO SSPC-SP 10 (WAB). ONCE WAB IS COMPLETE, FLUSH REPAIR AREAS WITH WATER TO REMOVE ANY REMAINING ABRASIVE BLAST MEDIA. ENSURE REPAIR AREAS ARE DRY AND FREE OF SPENT ABRASIVE. THEN EPOXY COAT EXPOSED REINFORCEMENT BARS WITHIN THE SAME WORKDAY AS WAB. USE EPOXY BONDING COMPOUND THAT ARE NOT EPOXY COATED WITHIN THE SAME WORKDAY OR DO NOT MEET SSPC-SP 10 (WAB). SPLICE DAMAGED OR HEAVILY CORRODED REINFORCEMENT BARS AT 50% OR MORE SECTION LOSS AS SHOWN ON STANDARD DRAWING BC-736M. IF ENOUGH SPLICE LENGTH IS NOT AVAILABLE, DRILL NEW DOWEL HOLES AND PLACE DOWEL BARS AS DIRECTED.
- PLACE EPOXY COATED NO. 4 BENT "L" REINFORCEMENT BARS IN A 1'-0" CENTER-TO-CENTER MAXIMUM SPACED GRID. ANCHOR INTO SOUND CONCRETE WITH EPOXY ANCHORING SYSTEM.
- ATTACH WWF TO THE BENT "L" REINFORCEMENT BARS WITH ANNEALED IRON WIRE AT A MAXIMUM SPACING OF 1'-0" IN EACH DIRECTION. IF USING 6X6 WWF, PLACE A SECOND LAYER OF 6X6 WWF AND STAGGER TO ACHIEVE A 3X3 GRID SPACINGS.
- REPAIR CONCRETE DAMAGED DURING REPAIR OPERATIONS TO THE SATISFACTION OF THE REPRESENTATIVE AT NO ADDITIONAL COST TO THE DEPARTMENT.
- PROPERLY DISPOSE COLLECTED CONCRETE, DEBRIS, AND ABRASIVE BLAST MEDIA.

CONCRETE PLACEMENT

▲: CONVENTIONAL METHOD

- SET FORMS TO PROVIDE MINIMUM CONCRETE COVER OF 2 INCHES. IF ENOUGH CONCRETE COVER ON EXISTING REINFORCEMENT BARS IS NOT AVAILABLE, HAUNCH REPAIR OUTWARD.
- MAINTAIN EXISTING CHAMFERS.

- AIR-BLAST REPAIR AREAS WITH OIL-FREE COMPRESSED AIR TO REMOVE ANY REMAINING CONTAMINANTS DETRIMENTAL TO THE BOND OF NEW CONCRETE, APPLY EPOXY BONDING COMPOUND TO REPAIR AREAS. WHILE EPOXY BONDING COMPOUND IS STILL TACKY, PLACE CLASS AA CEMENT CONCRETE WITH NO. 8 COARSE AGGREGATE. DO NOT PLACE CONCRETE IF COMPOUND IS NO LONGER TACKY OR HAS HARDENED, RECOAT COMPOUND THAT IS NO LONGER TACKY. WIRE BRUSH HARDENED COMPOUND AND RECOAT REPAIR AREA.

- WATER CURE REPAIR AREAS.

◆: SHOTCRETE METHOD

- PROVIDE MINIMUM CONCRETE COVER OF 2 INCHES, IF ENOUGH CONCRETE COVER ON EXISTING REINFORCEMENT BARS IS NOT AVAILABLE, HAUNCH REPAIR OUTWARD.
- MAINTAIN EXISTING CHAMFERS.

- AIR-BLAST REPAIR AREAS WITH OIL-FREE COMPRESSED AIR TO REMOVE ANY REMAINING CONTAMINANTS DETRIMENTAL TO THE BOND OF NEW CONCRETE.

- SATURATE PREPARED CONCRETE SUBSTRATE WITH CLEAN WATER THE DAY BEFORE SHOTCRETE APPLICATION. BRING WETTED SURFACES TO A SATURATED SURFACE DRY (SSD) CONDITION BEFORE APPLICATION OF SHOTCRETE, DO NOT APPLY SHOTCRETE TO A DRY SURFACE, OR TO A SURFACE WITH FREE SURFACE WATER.

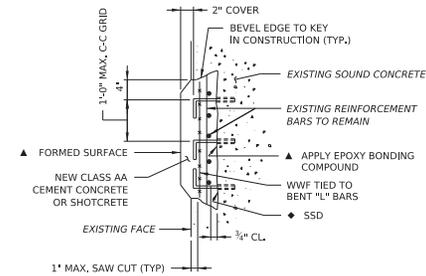
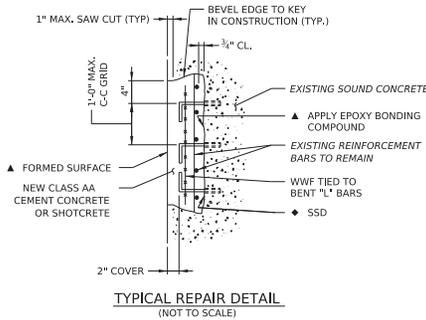
- WATER CURE REPAIR AREAS, LIQUID MEMBRANE CURING COMPOUND MAY BE USED ONLY WHEN ACCEPTED BY THE REPRESENTATIVE.

ITEM 9000-9002 REPAIR DETERIORATED CONCRETE (FOR INFORMATION ONLY)

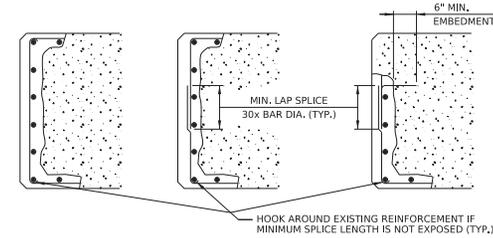
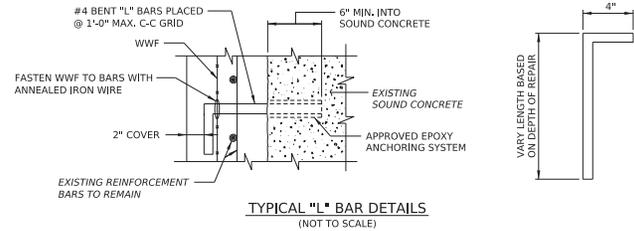
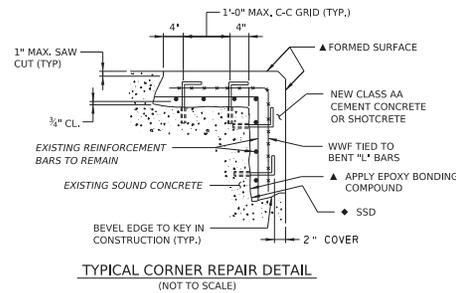
(THIS ITEM INCLUDES PAYMENT FOR THE FOLLOWING MATERIALS AND THEIR INSTALLATIONS)

DOWEL HOLES	SECTION 1003, DIAMETER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
REINFORCEMENT BARS (EPOXY COATED)	SECTION 709.1
EPOXY ANCHORING SYSTEM	BULLETIN 15 AND MANUFACTURER'S RECOMMENDATIONS
WELDED WIRE FABRIC (WWF) EPOXY OR GALVANIZED	SECTION 709.3, 3x3, 4x4, OR 6x6 WWF MADE OF 8, 10, OR 11 GAUGE WIRE
ANNEALED IRON WIRE	ASTM A684
▲ FORMS	SECTION 1001.2(h)
▲ EPOXY BONDING COMPOUND	ASTM C881 TYPE II, GRADE 2
▲ CLASS AA CEMENT CONCRETE	SECTION 704 EXCEPT USE NO. 8 COARSE AGGREGATE
◆ SHOTCRETE	SECTION 1043.2(a)

NOTE: ANY ADDITIONAL REINFORCING STEEL IS INCIDENTAL TO ITEM 9000-9002.



REPAIR FOR LESS THAN 2" COVER
(NOT TO SCALE)



SPlice DETAILS FOR PIER CAP STIRRUPS WITH ≥ 50% SECTION LOSS
(NOT TO SCALE)

NOTES

- USE A PACHOMETER TO LOCATE EXISTING REINFORCEMENT WHEN DRILLING DOWEL HOLES TO AVOID DRILLING THRU EXISTING BARS.

LEGEND

- ▲ : CONVENTIONAL METHOD (FORM AND PLACE) ONLY
- ◆ : SHOTCRETE METHOD ONLY
- SSD : SATURATED SURFACE DRY
- WWF : WELDED WIRE FABRIC

MARK	DESCRIPTION	BY	CHK'D.	REC'D.	DATE
REVISIONS					

MPMS/ECMS PROJ: 105441 S.R. 0018 PREVIOUSLY KNOWN AS L.R. 77
BMS STR ID: 04-0018-0610-0000, 04-0018-0611-0000 BRKEY: 3449 (NB), 3450 (SB)

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

BEAVER COUNTY
S.R. 0018 SECTION B62
SEG. 0610 OFF. 0000 (N.B.) / SEG. 0611 OFF. 0000 (S.B.)
S.R. 0018-B62 STA. 600+00.00
OVER BEAVER RIVER
MIXED STEEL & P/S CONCRETE BEAM BRIDGE
CONCRETE REPAIR DETAILS

RECOMMENDED	SHEET <u>5</u> OF <u> </u>
	S-00000

Exhibit "B"
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