TYPICAL DETAIL - BID ITEM 035

NEW STEEL EXTRUSIONS W/ WELDED LOOP/ ANCHORAGE

** MAY REQUIRE EXISTING REBAR REMOVAL AND REPLACEMENT

NEW SUPERSTRUCTURE CONCRETE

±3'-0" + "A"

PRESERVE AND EXTEND EXISTING REINFORCING STEEL (TYP.)

SAWCUT ALL JOINT EDGES (TYP.) SAWCUT DEPTH 3/4"

** MAY REQUIRE EXISTING REBAR REMOVAL AND REPLACEMENT

WORK MAY REQUIRE CONSTRUCTING A HAUNCH TO PROVIDE ADEQUATE COVER FOR STEEL EXTRUSIONS

NEW ELASTOMERIC STRIP SEAL

APPROACH SLAB OR APPROACH PAVEMENT

PRESERVE AND EXTEND EXISTING REINFORCING STEEL (TYP.)

EXISTING ABUTMENT BACKWALL

NEW STEEL EXTRUSIONS W/ WELDED LOOP/ ANCHORAGE

** MAY REQUIRE EXISTING REBAR REMOVAL AND REPLACEMENT

NEW SUPERSTRUCTURE CONCRETE

±3'-0" + "A"

PRESERVE AND EXTEND EXISTING REINFORCING STEEL (TYP.)

EXISTING APPROACH SLAB

APPROACH PAVEMENT

PRESERVE AND EXTEND EXISTING REINFORCING STEEL (TYP.)

EXISTING SLEEPER FOOTER

** THICKNESS VARIES, UP TO 12"

** IF BARS REQUIRE REPLACEMENT, REINFORCEMENT TO BE PAID UNDER BID ITEM No. 035

NEW CONCRETE EXISTING CONCRETE

STRIP SEAL JOINT - AT SLEEPER FOOTER

NEW MEXICO DEPARTMENT OF TRANSPORTATION

BRIDGE AND CULVERT REPAIR PRICE AGREEMENT

BID ITEM 035

STRIP SEAL JOINT FULL DEPTH REPLACEMENT AT ABUTMENTS

BCRPA-1

DESIGNED BY: BAN DRAWN BY: BAN CHECKED BY: JCV PLOT DATE: 07/16/2018 DRAWING PATH: K:\Contracts\PREVENTIVE MAINTENANCE\Proposed 2018\State Funds2\BID ITEM 035.dwg
**TYPICAL DETAIL - BID ITEM 036**

**NEW STEEL EXTRUSIONS W/ WELDED LOQ/P ANCHORAGE (TYP.)**

**NEW SUPERSTRUCTURE CONCRETE**

**NEW ELASTOMERIC STRIP SEAL**

**SAWCUT ALL JOINT EDGES (TYP.)**

SAWCUT DEPTH 3/4"

**MAY REQUIRE EXISTING REBAR REMOVAL AND REPLACEMENT (TYP.)**

**STRIP SEAL JOINT FULL DEPTH REPLACEMENT AT PIERS**

- Thickness varies, up to 10"± (a few slab deck bridges may be up to 14"±)

**IF BARS REQUIRE REPLACEMENT, REINFORCEMENT TO BE PAID UNDER BID ITEM No. 036**

**RESOURCE REQUIREMENTS:**
- APPROVED EXPANSION JOINT MATERIAL; APPROVED NEW SUPERSTRUCTURE CONCRETE; FORMING PROCEDURES OR APPROVED EQUAL.

**REFERENCES:**
- STANDARD DRAWINGS 562-01-1/3 THRU 3/3; SPECIAL PROVISION FOR SECTION 512, SECTION 512, SECTION 540 AND SECTION 562 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, CURRENT EDITION.

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**LIMITATIONS:**
- REPLACEMENT WORK TO BE DETERMINED AND AGREED TO BY THE DISTRICT AND THE CONTRACTOR.

**CONSTRUCTION PROCEDURE:**
- PREPARE SURFACE BY REMOVING ALL DETERIORATED CONCRETE, EXISTING JOINT MEMBERS, DIRT, OIL, GREASE AND OTHER BOND INHIBITING MATERIAL.
- REMOVAL OF UNSOUND CONCRETE TO BE FULL DEPTH OF THE DECK. THE EXISTING REBAR SHALL BE PRESERVED AND SANDBLASTED TO REMOVE ALL DELETERIOUS MATERIAL AND RESTORED TO ITS ORIGINAL SHAPE, ADD REBAR AS NEEDED. APPLY MATERIAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. APPLY FINISH TO MEET EXISTING DECK FINISH.
- RAPID-SET-CONCRETE MAY BE USED AT THE DISCRETION OF THE PROJECT MANAGER.
STRIP SEAL JOINT
PARTIAL DEPTH REPLACEMENT

TYPICAL DETAIL - BID ITEM 037

DESCRIPTION:
REMOVAL OF EXISTING CONCRETE, REBAR, EXISTING JOINT, FORMING, PLACEMENT OF CONCRETE AND PLACEMENT OF NEW JOINT COMPONENTS. NEW REINFORCEMENT SHALL BE PAID UNDER PAY ITEM No. 037.

LIMITATIONS:
REPLACEMENT WORK TO BE DETERMINED AND AGREED TO BY THE DISTRICT AND THE CONTRACTOR.

CONSTRUCTION PROCEDURE:
PREPARE SURFACE BY REMOVING ALL DETERIORATED CONCRETE, EXISTING JOINT MEMBERS, DIRT, OIL, GREASE AND OTHER BOND INHIBITING MATERIAL, REMOVE CONCRETE TO THE DEPTH REQUIRED TO ACCOMMODATE THE NEW STEEL EXTRUSION, PRESERVE AND CLEAN EXISTING REBAR AND ADD REBAR AS NEEDED. INSTALL MATERIAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. APPLY FINISH TO MEET EXISTING DECK FINISH.

RAPID-SET-CONCRETE MAY BE USED AT THE DISCRETION OF THE PROJECT MANAGER.

RESOURCE REQUIREMENTS:
APPROVED EXPANSION JOINT MATERIAL; APPROVED NEW SUPERSTRUCTURE CONCRETE; FORMING AND PLACEMENT OF CONCRETE AND NEW COMPOUNDS.

REFERENCES:
STANDARD DRAWINGS 562.01-1/3 THRU 3/3; SPECIAL PROVISION FOR SECTION 512, SECTION 512, SECTION 533 AND SECTION 562 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, CURRENT EDITION.

* MINIMUM LENGTH = 3½" TO A MAXIMUM LENGTH = 13"
** IF BAR REQUIRES REPLACEMENT, REINFORCEMENT TO BE PAID UNDER PAY ITEM No. 037

STRIP SEAL JOINT
PARTIAL DEPTH REPLACEMENT

EXISTING JOINT MEMBERS REMOVED AND REPLACED WITH NEW COMPONENTS

NEW CONCRETE

EXISTING CONCRETE

NEW RAPID-SET-CONCRETE OR APPROVED MATERIAL (TYP.)

SAWCUT/CHIP JOINT EDGES (TYP.) SAWCUT DEPTH 3/4"

EXISTING CONCRETE DECK (OR ABUTMENT BACKWALL)

EXISTING BLOCK-OUTS IN DECK

NEW STEEL EXTRUSION ASSEMBLY "SUSPENDED" OR WELDED TO EXISTING JOINT STEEL

MAY REQUIRE EXISTING REBAR REMOVAL AND REPLACEMENT

NEW ELASTOMERIC STRIP SEAL

BID ITEM 037
STRIP SEAL JOINT PARTIAL DEPTH REPLACEMENT

NEW MEXICO DEPARTMENT OF TRANSPORTATION
BRIDGE AND CULVERT REPAIR PRICE AGREEMENT

DREW BID 037
BCRPA-3
**JOINT SEALS**

**DESCRIPTION:**
Removal of existing joint seals and replacement with new joint seals.

**LIMITATIONS:**
Joint work to be determined and agreed to by the district and the contractor.

**CONSTRUCTION PROCEDURE:**
Prepare and clean steel surface or concrete by removing dirt, oil, grease and other bond inhibiting materials to accept new joint seals. The existing exposed rebar shall be sandblasted to remove all deleterious material and restored to its original shape. Apply material in accordance with manufacturer's recommendations.

**Rapid-set-concrete may be used at the discretion of the district.**

**RESOURCE REQUIREMENTS:**
Approved materials for joint repair and placement procedure.

**REFERENCES:**
Standard Drawings 562-01-1/3 thru 3/3; Section 561 and Section 562 of the New Mexico Department of Transportation standard specifications for highway and bridge construction, current edition.

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**TYPICAL DETAIL - BID ITEM 038**

**EXISTING STEEL EXTRUSIONS**

**EXISTING CONCRETE DECK OR ABUTMENT BACKWALL**

**EXISTING STEEL BUMPER PLATES OR CONCRETE**

**EXISTING CONCRETE DECK OR ABUTMENT BACKWALL**

**NEW BRIDGE JOINT STRIP SEAL**

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**JOINT SEALS**

Various joint seal components installed at existing deck joint.

**EXISTING CONCRETE**

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**NEW MEXICO DEPARTMENT OF TRANSPORTATION**

**BRIDGE AND CULVERT REPAIR PRICE AGREEMENT**

**BID ITEM 038**

**JOINT SEALS**

BCRPA-4
PREMOLDED JOINT SEAL

DESCRIPTION:
REMOVAL OF EXISTING JOINT AND INSTALLATION OF PREFORMED JOINT MATERIAL.

LIMITATIONS:
JOINT WORK TO BE DETERMINED AND AGREED TO BY THE DISTRICT AND THE CONTRACTOR.

CONSTRUCTION PROCEDURE:
PREPARE SURFACE BY REMOVING ALL DIRT, OIL, GREASE AND OTHER BOND INHIBITING MATERIALS. INSTALL NEW MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. SAWCUT OR CHIPPING OF EXISTING CONCRETE MAY BE REQUIRED.

REQUIRED CERTIFICATION OF APPROVED CONTRACTOR FOR THE INSTALLATION OF PREFORMED CLOSED CELL FOAM BRIDGE JOINT STRIP SEALS OR PREFORMED SILICONE-COATED FOAM JOINT SYSTEM AND LABOR AND A FIVE (5) YEAR WARRANTY ON INSTALLED PREFORMED CLOSED CELL FOAM BRIDGE JOINT STRIP SEALS OR PREFORMED SILICONE-COATED FOAM JOINT SYSTEM AND LABOR SHALL BE FURNISHED IN WRITING TO THE DISTRICT ENGINEER OR DISTRICT ENGINEER'S DESIGNEE.

RESOURCE REQUIREMENTS:
APPROVED EXPANSION JOINT MATERIAL AND APPROVED PLACEMENT PROCEDURES.

REFERENCES:
STANDARD DRAWING 564-01-1/1; SPECIAL PROVISION FOR SECTION 564, SECTION 564 AND SPECIAL PROVISION FOR SECTION 565 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, CURRENT EDITION.

TYPICAL DETAIL - BID ITEM 039

CLEAN EXISTING CONCRETE SURFACE OF DELETERIOUS MATERIAL (STEEL OR CONCRETE)

TOP OF DECK OR ABUTMENT BACKWALL

SUGGESTED WIDTH ≤ 3-1/2" BRIDGE JOINT SEAL

SECTION 564 OR SECTION 565 BRIDGE JOINT SEAL BINDER RECOMMENDED BY MANUFACTURER OR APPROVED EQUAL

SECTION 564 OR SECTION 565 BRIDGE JOINT SEAL

* WIDTH VARIES WITH PRODUCT SELECTED. REFER TO MANUFACTURER'S RECOMMENDATIONS.

PREMOLDED JOINT SEAL

REMOVAL OF EXISTING JOINT AND INSTALLATION OF NEW JOINT MATERIAL
PREMOLDED JOINT SEAL WITH CONCRETE REMOVAL

DESCRIPTION:
REMOVAL OF EXISTING JOINT AND CONCRETE.
INSTALLATION OF PREMOLDED JOINT SEAL, RAPID SET CONCRETE OR APPROVED MATERIAL AND NEW JOINT COMPONENTS.

LIMITATIONS:
JOINT WORK TO BE DETERMINED AND AGREED TO BY THE DISTRICT AND THE CONTRACTOR.

CONSTRUCTION PROCEDURE:
PREPARE SURFACE BY REMOVING EXISTING JOINT, SAW CUTTING AND CHIPPING OF CONCRETE, REMOVE DIRT, OIL, GREASE AND OTHER BOND INHIBITING MATERIAL. THE EXISTING EXPOSED REBAR SHALL BE SANDBLASTED TO REMOVE ALL DELETERIOUS MATERIAL AND RESTORED TO ITS ORIGINAL SHAPE. APPLY MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

SAW CUTTING (3/4") AND CHIPPING OF EXISTING CONCRETE TO A MINIMUM DEPTH OF 2-1/2" IS REQUIRED.

RAPID-SET-CONCRETE MAY BE USED AT THE DISCRETION OF THE PROJECT MANAGER.

REQUIRED CERTIFICATION OF APPROVED CONTRACTOR FOR THE INSTALLATION OF PREFORMED CLOSED CELL FOAM BRIDGE JOINT SEALS OR PREFORMED SILICONE-COATED FOAM JOINT SYSTEM AND LABOR AND A FIVE (5) YEAR WARRANTY ON INSTALLED PREFORMED CLOSED CELL FOAM BRIDGE JOINT SEALS OR PREFORMED SILICONE-COATED FOAM JOINT SYSTEM AND LABOR SHALL BE FURNISHED IN WRITING TO THE DISTRICT ENGINEER OR DISTRICT ENGINEER'S DESIGNEE.

RESOURCE REQUIREMENTS:
APPROVED MATERIALS FOR JOINT REPAIR AND PLACEMENT PROCEDURE.

REFERENCES:
STANDARD DRAWING 564-01-1/1; SPECIAL PROVISION FOR SECTION 512, SECTION 512, SECTION 533, SECTION 564 AND SPECIAL PROVISION FOR SECTION 565 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, CURRENT EDITION.
TYPICAL DETAIL - BID ITEM 042

NEW PIER CAP CONSTRUCTED OF NEW SUBSTRUCTURE CONCRETE.

* NEW REINFORCEMENT TO BE PAID UNDER BID ITEM No. X59 - REINFORCING BARS.

EXISTING PILE (OR CONCRETE COLUMN) TO BE PRESERVED, CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW SUBSTRUCTURE CONCRETE.

SUBSTRUCTURE REPLACEMENT - PIER CAP REPLACEMENT

* THE DIMENSIONS OF THE NEW PIER CAP SHALL MATCH THE EXISTING CAP. REFER TO THE AS-BUILTS FOR EXISTING DIMENSIONS AND EXISTING REINFORCEMENT.

EXISTING PIER CAP, REMOVE
EXISTING PIER CAP OVER COLUMNS AND REPAIR AS NEEDED. CONSTRUCT WITH NEW SUBSTRUCTURE CONCRETE.

** NEW REINFORCEMENT TO BE PAID UNDER BID ITEM No. X59 - REINFORCING BARS.

NEW CONCRETE

EXISTING CONCRETE

NOTE:
WHEN CALLED FOR, A NEW PIER CAP AND/OR NEW PIER COLUMN(S) MUST BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW MEXICO. A MINIMUM OF 60 CALENDAR DAY ADVANCED NOTICE SHALL BE GIVEN TO THE NMDOT BRIDGE BUREAU FOR DESIGN.

SUBSTRUCTURE REPLACEMENT - PIER COLUMN REPLACEMENT

** THE DIMENSIONS OF THE NEW PIER CAP AND PIER COLUMNS SHALL MATCH THE EXISTING PIER CAPS AND PIER COLUMNS. REFER TO THE AS-BUILTS FOR EXISTING DIMENSIONS AND EXISTING REINFORCEMENT.
BACKWALL REPLACEMENT

DESCRIPTION:
REMOVAL OF EXISTING UNSOUND CONCRETE AND REINFORCEMENT (IF REQUIRED) AND REPLACEMENT WITH RAPID-SET-CONCRETE OR APPROVED MATERIAL. NEW REINFORCEMENT SHALL BE PAID UNDER PAY ITEM No. 043.

LIMITATIONS:
REPLACEMENT WORK TO BE DETERMINED AND AGREED TO BY THE DISTRICT AND THE CONTRACTOR.

CONSTRUCTION PROCEDURE:
PREPARE SURFACE BY REMOVING ALL DETERIORATED CONCRETE, EXISTING JOINT MEMBERS, DIRT, OIL, GREASE AND OTHER BOND INHIBITING MATERIALS. THE EXISTING REBAR SHALL BE PRESERVED AND SANDBLASTED TO REMOVE ALL DELETEROUS MATERIAL AND RESTORED TO ITS ORIGINAL SHAPE. APPLY REBAR AS NEEDED. APPLY MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

RAPID-SET-CONCRETE MAY BE USED AT THE DISCRETION OF THE PROJECT MANAGER.

UNIT BID PRICE IS FOR THE FIRST 10". THE CONTRACTOR WILL BE PAID 2% EXTRA FOR EACH ADDITIONAL INCH OF DEPTH BEYOND 10" DIRECTED TO BE REMOVED.

RESOURCE REQUIREMENTS:
NEW SUPERSTRUCTURES CONCRETE, FORMING AND PLACEMENT PROCEDURES.

REFERENCES:
SECTION 510, SPECIAL PROVISION FOR SECTION 511, SECTION 533 AND SECTION 540 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, CURRENT EDITION.

TYPICAL DETAIL - BID ITEM 043

NEW 3/4" PREFORMED BIT. JOINT FILLER (WHEN CONTINUOUS W/ P.C.C.P.)
RESTORE ANY DISTURBED P.M.B.P. OR P.C.C.P.

REMOVE BACKWALL TO SOUND CONCRETE
ABUTMENT BACKWALL OR WINGWALL

NEW CONCRETE MATERIAL EXTENDED WITH 3/8" AGGREGATE
PRESERVE AND EXTEND EXISTING REINFORCING BARS. IF REPLACEMENT IS REQUIRED, REINFORCEMENT TO BE PAID UNDER BID ITEM No. 043

NEW REINFORCEMENT TO BE PAID UNDER BID ITEM No. 043
NEW SUBSTRUCTURE CONCRETE

JOINT TO BE REPLACED UNDER BID ITEM Nos. 035, 037, 038, 039 OR 040

EXISTING BRIDGE DECK TO REMAIN OR BE REPAIRED UNDER ALTERNATE BID ITEMS

NEW CONCRETE
EXISTING CONCRETE
EXISTING P.M.B.P. OR P.C.C.P.

W-WIDTH VARIES: 1'-0" MIN. TO 1'-9" MAX. ±
D-DEPTH VARIES: UP TO MAXIMUM DEPTH OF 10"

BCRPA-8

NEW MEXICO DEPARTMENT OF TRANSPORTATION
BRIDGE AND CULVERT REPAIR
PRICE AGREEMENT

BID ITEM 043
BACKWALL REPLACEMENT

DESIGNED BY: BAV DR.OW BY: JCV CHECKED BY: JCV PLOT DATE:07/16/2018 DRAWING PATH:/Contracts/Preventive Maintenance/Proposed 2018/State Funds/BID ITEM 043.dwg