

*FIELD VERIFY

REPAIR PLAN

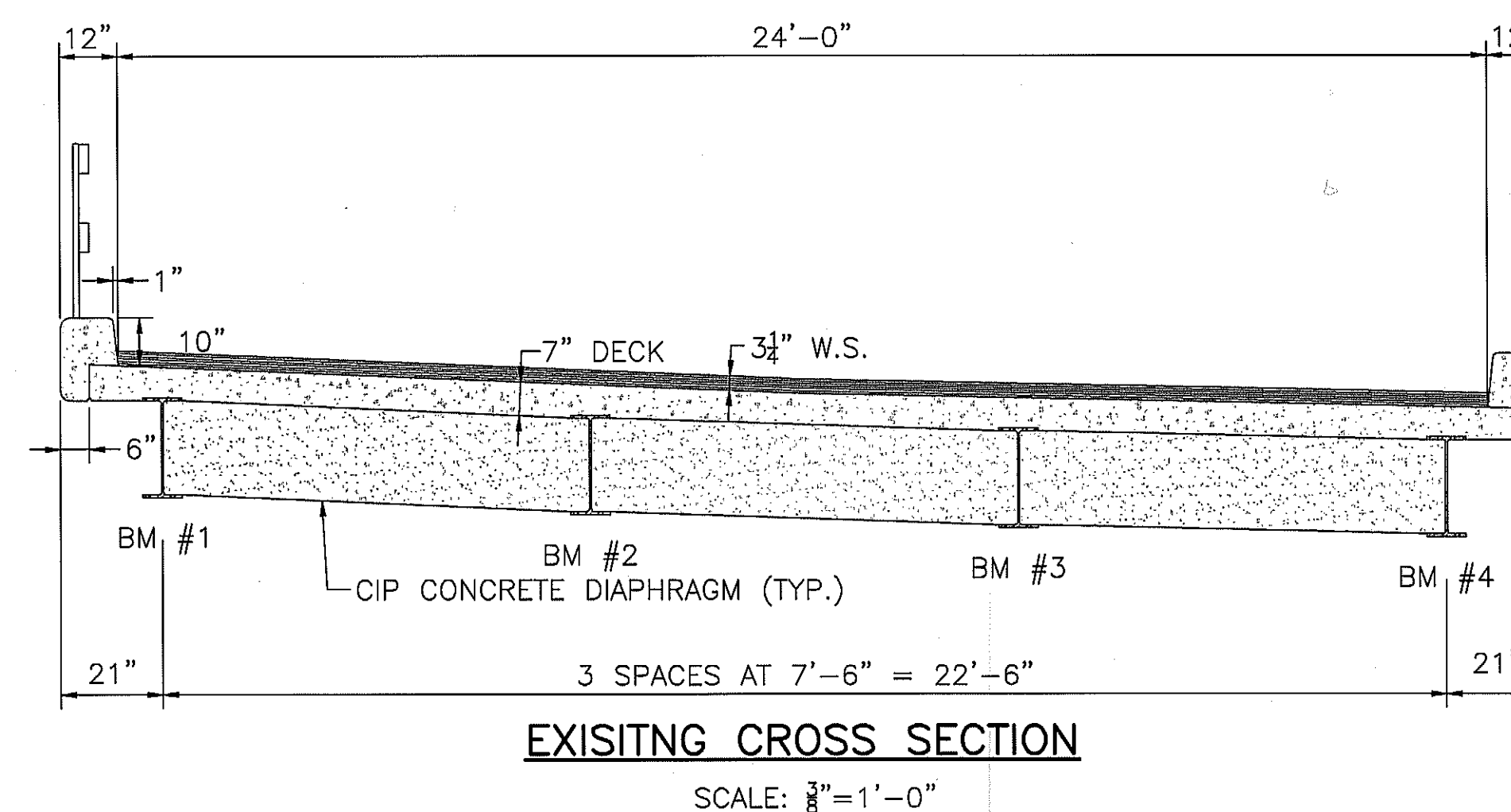
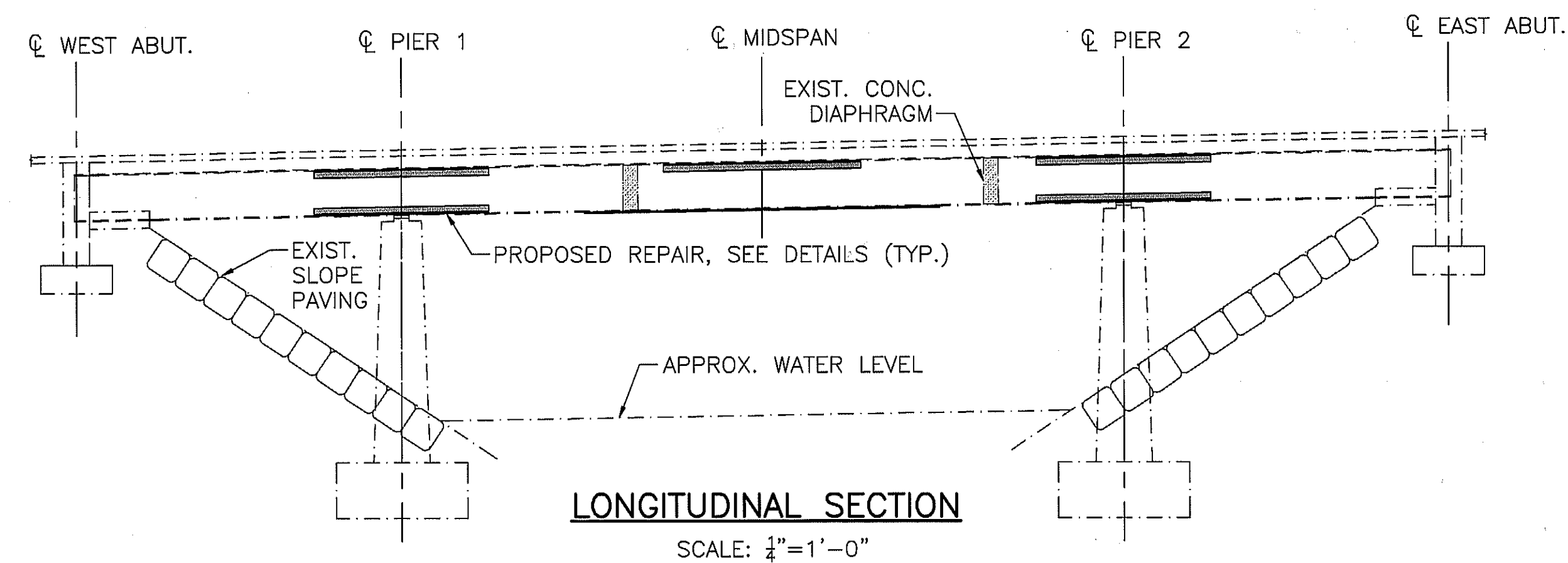
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- GENERAL DESIGN IN ACCORDANCE WITH THE 17TH EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS WITH INTERIM SPECIFICATIONS THROUGH 2002, FOR HS20 LOADING.
- EXISTING STRUCTURE DIMENSIONS AND DETAILS ARE ACCORDING TO ORIGINAL CONSTRUCTION DRAWINGS, OBSERVATION, AND FIELD MEASUREMENTS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND EXISTING DETAILS NECESSARY FOR THE COMPLETION OF THE WORK BY FIELD MEASUREMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF, AND SHALL NOT ORDER ANY MATERIAL OR COMMENCE AND FABRICATION UNTIL THEY HAVE MADE THE REQUIRED MEASUREMENTS ON THE ACTUAL STRUCTURE AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.
- TRAFFIC IS NOT REQUIRED TO BE RESTRICTED TO COMPLETE THESE REPAIRS.
- THE CONTRACTOR'S ATTENTION IS DRAWN TO THE VARIABLE LOCATION OF CONCRETE DIAPHRAGMS AND THE NEED TO LOCATE THE PROPOSED H.S. BOLT HOLES FOR THE COVER PLATES TO AVOID ANY INTERFERENCE WITH THE DIAPHRAGMS.
- ALL NEW STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50 AND SHALL BE GALVANIZED TO AASHTO M 232.
- ALL BOLTS SHALL BE 3/4" Ø HIGH STRENGTH (H.S.) BOLTS IN 1 1/8" Ø HOLES, CONFORMING TO AASHTO M 164. ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED TO AASHTO M 232.
- ALL PROPOSED STEEL SHALL ARRIVE AT THE FIELD WITH THE HOLES SUB DRILLED (OR SUB PUNCHED) TO 1 1/8" Ø.
- ALL HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 960 OF THE MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- AT ALL REPAIR LOCATIONS, THE EXISTING STEEL, PLUS AN ADDITIONAL 6" ALONG THE FAYING SURFACES, SHALL BE CLEANED OF ALL PAINT, RUST, SCALE, OR OTHER DELETERIOUS MATERIAL TO SSPC-SP11 CONDITION.
- THE CONTRACTOR SHALL ASSUME THAT THE COATING ON THE EXISTING STEEL CONTAINS LEAD, UNLESS OTHERWISE DETERMINED BY TESTING.
- THE EXISTING CLEANED SURFACES SHALL RECEIVE ONE COAT OF PRIME PAINT, SELECTED FROM THE NEPCOAT "B" LIST.
- NO REPAIR SHALL COMMENCE, AT A PARTICULAR LOCATION, UNTIL ALL MATERIAL IS ON HAND TO COMPLETE THE REPAIR AT THIS LOCATION.
- THE CONTRACTOR SHALL ENSURE THAT NO DAMAGE OCCURS TO THE EXISTING STEEL TO REMAIN. ANY DAMAGE WHICH MAY OCCUR SHALL BE REPAIRED USING A

PROCEDURE APPROVED BY THE ENGINEER.

- THE CONTRACTOR SHALL MAKE TEMPLATES FROM THE PROPOSED STEEL LOCATING ALL HOLES FOR H.S. BOLTS. THE TEMPLATES SHALL BE LOCATED AND HELD SECURELY IN PLACE ON THE EXISTING STRUCTURE AND THE LOCATION OF ALL HOLES TRANSFERRED TO THE EXISTING STEEL. WELDING IS NOT ALLOWED.
- ALL HOLES IN THE EXISTING STEEL SHALL BE SUB DRILLED TO 1 1/8" Ø.
- THE PROPOSED STEEL REPAIR PLATES AND ANGLES SHALL BE SECURED IN PLACE WITH TEMPORARY BOLTS 1/2" Ø BOLTS, ONLY TIGHTENED SUFFICIENTLY TO ENSURE THAT THE PROPOSED STEEL MAINTAINS ITS ALIGNMENT WITH THE EXISTING STEEL. WELDING IS NOT ALLOWED.
- ALL HOLES SHALL BE REAMED TO FULL SIZE, 1 1/8" Ø, IN THE ASSEMBLED POSITION. ADJUST LOCATION OF TEMPORARY BOLTS AS REQUIRED TO COMPLETE ALL HOLES.
- AFTER ALL HOLES HAVE BEEN REAMED TO FULL SIZE, REMOVE THE PROPOSED STEEL AND APPLY A COATING OF EPOXY REPAIR COMPOUND TO ALL FAYING SURFACES (PLUS 1") OF THE EXISTING STEEL.
- APPLY THE EPOXY REPAIR COMPOUND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE INTENT IS TO FILL ANY IRREGULARITIES AND FILL ANY VOIDS BETWEEN THE PROPOSED STEEL AND THE EXISTING STEEL DUE TO SECTION LOSS OF THE EXISTING.
- AS SOON AS POSSIBLE, PRIOR TO SETTING/CURING OF THE EPOXY REPAIR COMPOUND, THE PROPOSED STEEL SHALL BE PROPERLY POSITIONED AND BROUGHT INTO FIRM CONTACT WITHIN THE WORKING LIMITS OF THE EPOXY REPAIR COMPOUND.
- THE NEW STEEL SHALL BE HELD SECURELY IN POSITION WITH TEMPORARY BOLTS, ONLY TENSIONED SUFFICIENTLY TO HOLD THE ALIGNMENT OF THE NEW AND EXISTING STEEL.
- NEW 3/4" Ø H.S. BOLTS SHALL THEN BE INSTALLED AND TENSIONED ACCORDING TO SECTION 960 OF THE MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES. TENSIONING SHALL BEGIN AT ONE END OR THE CENTER OF THE REPAIR PLATES OR ANGLES AND EXTEND OUTWARD.
- EPOXY COMPOUND FOR STRUCTURAL STEEL REPAIRS SHALL BE A SOLVENT FREE, MOISTURE TOLERANT, EPOXY PASTE ADHESIVE SYSTEM. THE EPOXY PASTE SHALL BE DEVELOPED SPECIFICALLY FOR FILLING, SMOOTHING, SEALING, OR FAIRING APPLICATIONS ON METALS. THE PASTE SHALL BE APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LATEST WRITTEN INSTRUCTIONS. AN ACCEPTABLE PRODUCT SHALL BE ONE OF THE FOLLOWING OR AN APPROVED EQUAL:

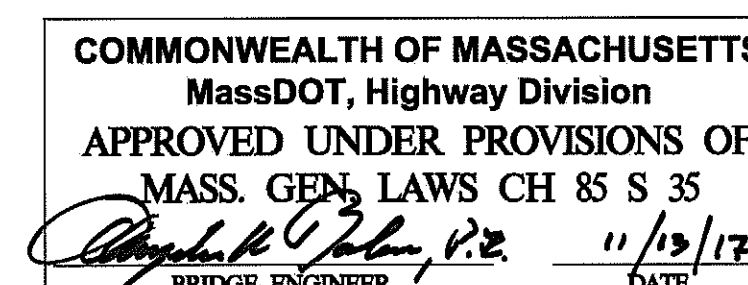


ITW PHILADELPHIA RESINS REPAIR COMPOUND MANUFACTURED BY:
ITW PHILADELPHIA RESINS
130 COMMERCE DRIVE, MONTGOMERYVILLE, PA 18936
855-8450
855-4688
SALES@ITWPRC.COM
WEBSITE: WWW.PHILADELPHIARESINS.COM

SIKADUR 31, HI-MOD GEL MANUFACTURED BY:
SIKA CORPORATION
201 POLITO AVENUE, LYNDHURST, NJ 07071
800-933-7452
201-933-6225
WEBSITE: WWW.SIKAUSA.COM,

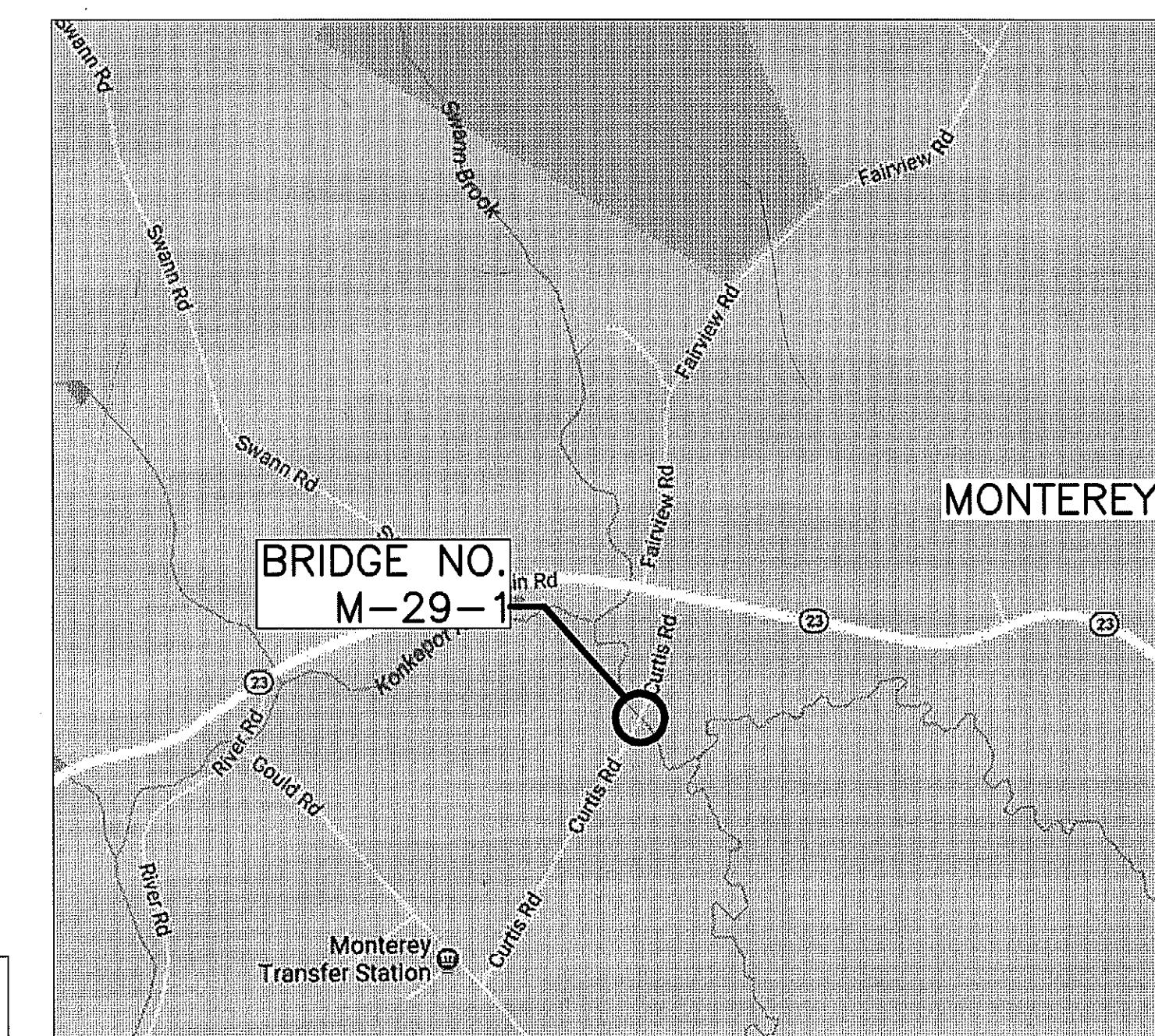
DEVCON PLASTIC STEEL PUTTY (A) MANUFACTURED BY:
ITW DEVCON
30 ENDICOTT STREET
DANVERS, MA 01923
800-933-8266
WEBSITE: WWW.DEVCON.COM

FX-738 METAL FILLED EPOXY MANUFACTURED BY:
SIMPSON STRONG-TIE
PLEASANTON, CA 94588,
800-999-5099
WEBSITE WWW.STRONGTIE.COM



INDEX OF DRAWINGS

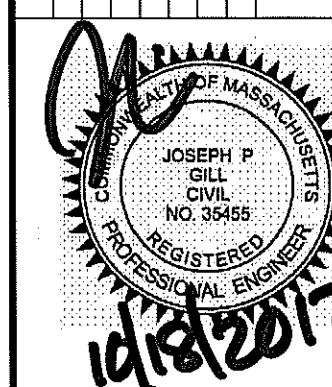
- 01 PLAN, ELEVATION, AND CROSS SECTION
- 02 REPAIR DETAILS



63 KENDRICK STREET
NEEDHAM, MA 02494
781-355-7100
781-355-7101 (FAX)

GILL
ENGINEERING

DATE
10/12/2017

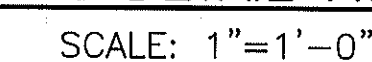
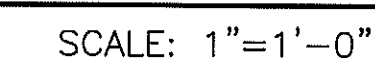
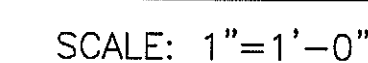
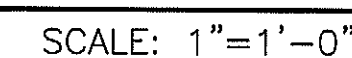
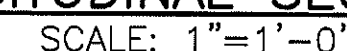
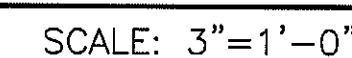
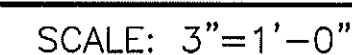


BRIDGE REPAIR PLANS

TOWN OF MONTEREY

BRIDGE REPAIRS FOR MONTEREY M-29-1 (OSW)
CURTIS ROAD OVER KONKAPOT RIVER

PLAN
ELEVATION
AND CROSS
SECTIONS
SHEET 1 OF
2



SHEET 2 OF
2