Supplementary Information

The following information is associated with Network Rail Standard:
**NR CIV/SD/827** Rev A

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### CAD Drawing

- CIV/SD/827

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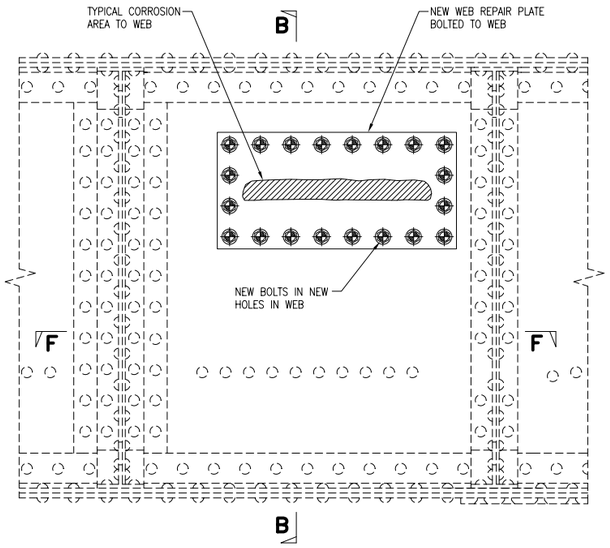
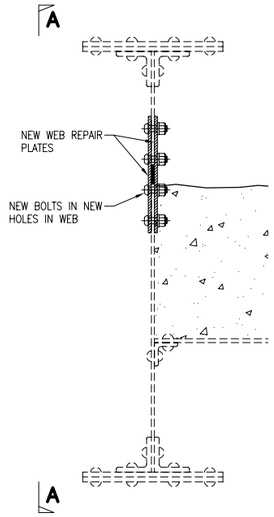
## REPAIR TYPE 1




**ELEVATION A–A**
SCALE 1:10




**SECTION B–B**
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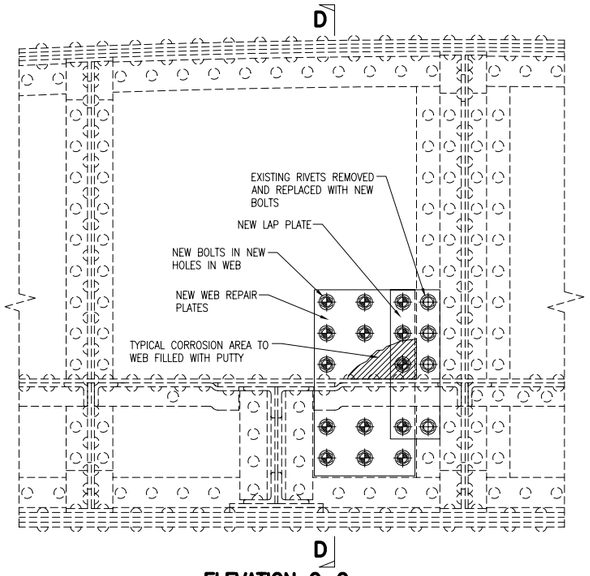


**ELEVATION C–C**
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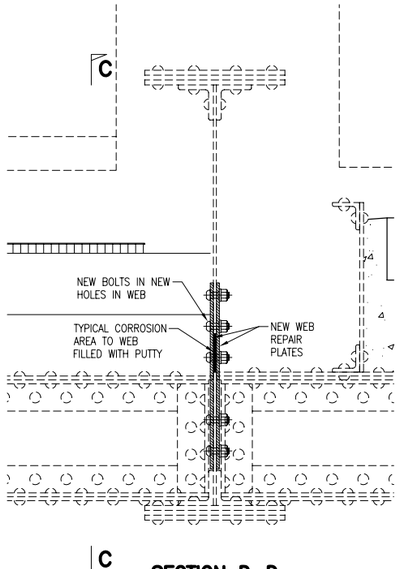


**SECTION D–D**
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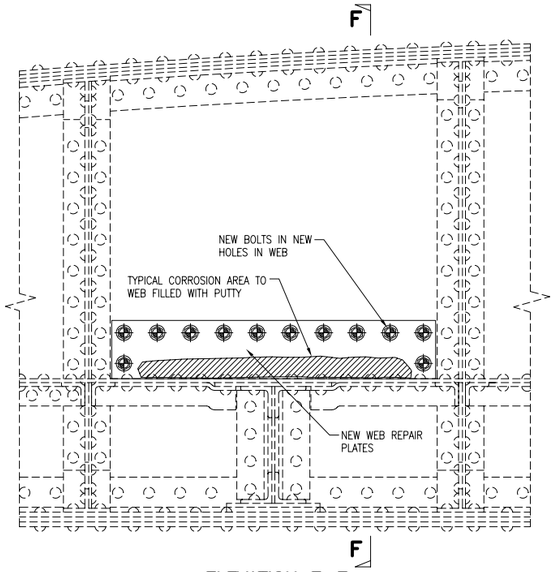
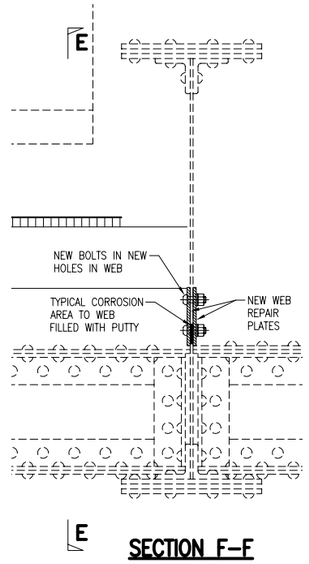



**ELEVATION E–E**
SCALE 1:10




**SECTION F–F**
SCALE 1:10

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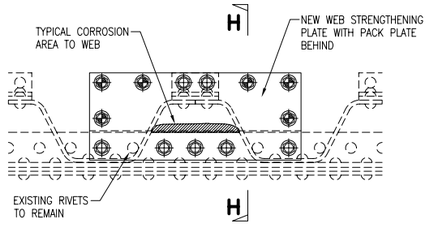
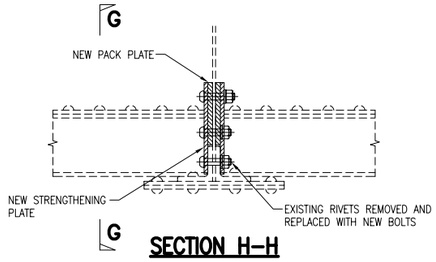



**ELEVATION G–G**
SCALE 1:10




**SECTION H–H**
SCALE 1:10

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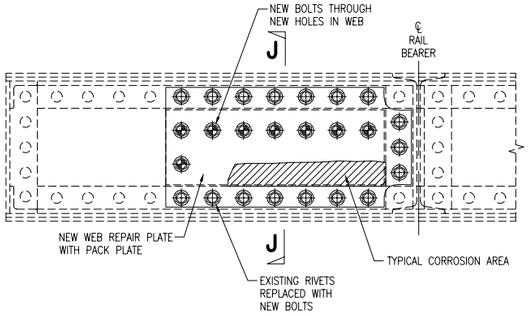
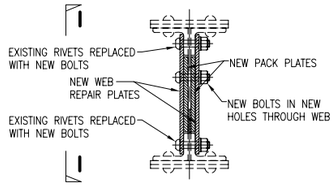



**ELEVATION I–I**
SCALE 1:10




**SECTION J–J**
SCALE 1:10

DRAWING No. NR/CIV/SD/827

NOTES

GENERAL NOTES

1. THIS DRAWING SHOWS A TYPICAL EXAMPLE OF WEB STRENGTHENING USED TO GENERATE ADDITIONAL CAPACITY TO EXISTING METALLIC LONGITUDINAL GIRDERS.
2. THE SIZES AND DIMENSIONS SHOWN ON THIS DRAWING RELATE TO EITHER A TYPICAL EDGE OR CENTRE LONGITUDINAL GIRDER. THE CONFIGURATION OF STRENGTHENING PLATE IS THE RESPONSIBILITY OF THE DESIGNER.
3. ALL EXISTING PLATES, STIFFENERS AND CONFIGURATION OF THE GIRDER ARE TO BE CONFIRMED ON SITE BY THE DESIGNER.

SPECIFICATION

1. FOR SPECIFICATION REFER TO DRG. NR/CIV/SD/801.

DESIGN ASSUMPTIONS

1. THE DESIGNER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE WEB STRENGTHENING SYSTEM WHICH SHALL ADDRESS AS A MINIMUM THE FOLLOWING.
   - A) LATERAL CLEARANCES FOR ACCESS TO THE WORKS
   - B) 'LOCKED IN' PERMANENT LOAD STRESSES
   - C) CONDITION OF EXISTING WEB PANEL
   - D) CLEARANCES BETWEEN BOLTS
   - E) EXTENT AND SEQUENCE OF RIVET REPLACEMENT IF REQUIRED
   - F) INTEGRITY OF FLOOR CONNECTIONS
2. THE DESIGNER SHALL CHECK THE VARIOUS STAGES IN THE CONSTRUCTION SEQUENCE TO ENSURE THE INTEGRITY OF THE GIRDER AND OTHER CONNECTING PARTS ARE MAINTAINED THROUGHOUT THE WORKS. (SAFETY)
3. THE DESIGNER SHALL SPECIFY THE SLIP FACTOR ($\mu$) REQUIRED FOR FAYING SURFACES TO SATISFY THE DESIGN.
4. THE DESIGNER SHALL CHECK THE NUMBER OF RIVETS OR BOLTS THAT CAN BE REMOVED AT ANY ONE TIME UNDER THE LOADING REGIME FOR THE GIVEN WORK ITEM. (SAFETY)

NOTE

- DENOTES NEW BOLT IN EXISTING HOLE REAMED TO SUIT.
- DENOTES NEW BOLT IN PRE DRILLED HOLE.
- DENOTES EXISTING RIVET TO BE LEFT IN PLACE.

| Rev | Date | Description of revision | Design'd | C'kd |
|---|---|---|---|---|
| A | 22.06.12 | FIRST ISSUE | MK | AGW |
| P1 | 01.07.11 | DRAFT PUBLICATION ISSUE | MK | AGW |

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| | Name | Position | Signature | Date |
|---|---|---|---|---|
| Approved | Paul Clark | Head of Engineering Infrastructure Projects Central Region | P.C. | June 12 |

Master copy with original signatures held by Network Rail HQ CIVIL ENGINEERING STANDARD DESIGN

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# METALLIC STRUCTURE REPAIRS STANDARD DRAWINGS

## WEB REPAIRS

| | | |
|---|---|---|
| Scale | AS SHOWN | |
| Drawing Number | NR/CIV/SD/827 | A |

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