



**NOTES:**

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
- ALL LEVELS ARE IN METRES UNLESS STATED OTHERWISE.
- DO NOT SCALE IN CASE OF ANY DOUBTS, OMISSIONS OR ERRORS SEEK CLARIFICATION FROM THE DESIGNER.
- DETAILS PROVIDED ON THIS DRAWING ARE INDICATIVE AND SUBJECT TO CHANGE DURING DETAILED DESIGN.
- THE FOLLOWING IS REQUIRED TO PROGRESS THE DETAILED DESIGN OF THE PREFERRED OPTION:
  - TOPOGRAPHICAL SURVEY OF THE BRIDGE LOCATION AND SURROUNDINGS - VERIFY LEVELS AND GEOMETRY ASSOCIATED WITH THE NEW BRIDGE OPTION.
  - SITE INVESTIGATION - VERIFY ASSUMPTIONS IDENTIFY RISK ASSOCIATED WITH THE BRIDGE FOUNDATIONS.
  - STAKEHOLDER LIAISON/CONSULTATION - CONFIRM CONSTRAINTS ASSOCIATED WITH THE DESIGN OF THE NEW BRIDGE, AS A MINIMUM THIS SHOULD INCLUDE LIAISON WITH THE FOLLOWING PARTIES:
    - STATUTORY UNDERTAKERS - CONFIRM SERVICES IMPACTING THE NEW BRIDGE WORKS.
    - NCC TIA - CONFIRM LOADING AND OTHER BRIDGE DESIGN RELATED CONSTRAINTS.
    - BOREHOLE INFORMATION/GROUND CONDITIONS.
    - NWR - CONFIRM GEOMETRIC CONSTRAINTS AND POSSESSION REQUIREMENTS.
- THE BRIDGE DESIGNED TO LOADING LM1/LM2 AND LM3 LOADING UP TO A MAXIMUM SV196.
- ALL IN-SITU CONCRETE TO BE GRADE C40/50 AND PRESTRESS BEAM TO BE C50/60.

**INDICATIVE CONSTRUCTION SEQUENCE:**

- BELOW IS AN INDICATIVE CONSTRUCTION SEQUENCE OF KEY OPERATIONS FOR THE PROPOSED CONSTRUCTION OF THE BRIDGE. DETAILS ARE ALSO PROVIDED OF ANTICIPATED POSSESSION AND NON-POSSESSION WORKS.
- ESTABLISH SAFE WORKING AREA BY ERECTING A TEMPORARY FENCE ALONGSIDE THE RAILWAY TO PREVENT ACCESS TO AREAS CLASSED AS 'ON OR NEAR THE LINE'. (ERECTED IN ACCORDANCE WITH NETWORK RAIL STANDARDS AND WILL BE SUBJECT TO TEMPORARY WORKS APPROVAL). THIS IS REQUIRED TO PREVENT THE NEED FOR POSSESSIONS DURING FOUNDATION AND SUBSTRUCTURE WORKS.
- INSTALL PILES AND CONSTRUCT PILECAP-OUTSIDE POSSESSION.
- CONSTRUCT REINFORCED WALL, ABUTMENT AND REINFORCED EARTH WALL (INCLUDING BACKFILL) - OUTSIDE POSSESSION WORKING.
- DELIVER THE BEAMS ON SITE AND INSTALL ALL BEAMS & GRP PANELS OVER THE BANKSEATS DURING POSSESSION.
- INSTALL GRP PERMANENT FORMWORK DURING POSSESSION.
- CAST DECK SLAB - OUTSIDE POSSESSION WORKING.
- CAST DIAPHRAGM AFTER DECK HAS ACHIEVED DESIRED CUBE STRENGTH AND MAKE INTEGRAL - OUTSIDE POSSESSION WORKING.
- INSTALL FORMWORK FOR THE DECK CANTILEVER CONSTRUCTION - DURING POSSESSION WORKING.
- CAST CANTILEVER DECK AND PARAPET PLINTH AFTER DECK SLAB HAS ACHIEVED DESIRED CUBE STRENGTH - OUTSIDE POSSESSION WORKING.
- BACKFILL BEHIND ABUTMENT UP TO ROAD LEVEL OUTSIDE POSSESSION.
- INSTALL PARAPETS - DURING POSSESSION WORKING.
- INSTALL WATERPROOFING, KERBS, VERGES, SURFACING, ETC. - OUTSIDE POSSESSION WORKING.

**SAFETY, HEALTH AND ENVIRONMENTAL SYMBOL LEGEND**

⚠ INDICATES A RESIDUAL RISK AS A WARNING

**IN ADDITION TO THE INFORMATION NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAIL ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS:**

**CONSTRUCTION:**

- REF 001 - WORKING ALONGSIDE/NEAR ELECTRIFIED LINE RAIL LINE
- REF 002 - PRESENCE OF NEARBY LIFT
- REF 003 - HEAVY LIFTING STRUCTURAL ELEMENT
- REF 004 - UNKNOWN SERVICES
- REF 005 - UNKNOWN GROUND CONDITIONS
- REF 006 - LIMITED TOPOGRAPHICAL SURVEY INFORMATION
- REF 007 - LIMITED STAKEHOLDER ENGAGEMENT

NO	REV	DATE	DESCRIPTION	MT	RM	HM
01	1	14/02/2019	ISSUED FOR INFORMATION			

Designer: **WSP**

Three White Rose Office Park, Millshaw Park Lane, Leeds, LS11 0DL  
 Tel: +44 (0)113 395 6200, Fax: +44 (0)113 395 6201  
 http://www.wspgroup.com

Client: **Northamptonshire County Council** **Network Rail**

Project Title: **NORTHAMPTON NORTHWEST RELIEF ROAD**

Drawing Title: **GENERAL ARRANGEMENT PRECAST INTEGRAL BRIDGE**

Scale	AS SHOWN @ A1	Drawn	JW	Designed	MT	Checked	RM	Approved	HM	QR CODE
Size	A1	Date	14/02/2019	Date	14/02/2019	Date	14/02/2019	Date	14/02/2019	

Status: **FOR INFORMATION** Suitability: **S0**

Drawing Number: **70021598-WSP-SBR-0001-DR-CB-0001** Revision: **P.1**

\* - NWR HAVE SPECIFIED A CLEARANCE OF 600mm ABOVE THE OLE, MIN 4.5 LATERAL CLEARANCE FROM THE ABUTMENT FACE.