

GENERAL

- THESE NOTES APPLY TO THE REPLACEMENT HAVANT FOOTBRIDGE, HAMPSHIRE.
- THE BRIDGE CROSSES THE UP AND DOWN RAILWAY LINES AND PLATFORMS AT HAVANT STATION.
- THE RAILWAY IS ELECTRIFIED WITH THIRD RAIL (DC) APPARATUS.
- THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR HIGHWAY WORKS (MCHW VOLUMES 1 AND 2 DATED OCTOBER 2022) AND RELEVANT SPECIFICATION APPENDICES.

ABBREVIATIONS USED:

- CJ – CONSTRUCTION JOINT
- EGL – EXISTING GROUND LEVEL
- FGL – FINISHED GROUND LEVEL
- HCC – HAMPSHIRE COUNTY COUNCIL
- MCHW – MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS
- MJ – MOVEMENT JOINT
- NTS – NOT TO SCALE
- SCI – STEEL CONSTRUCTION INSTITUTE
- SHW – SPECIFICATION FOR HIGHWAY WORKS
- SOL – SETTING OUT LINE
- SOP – SETTING OUT POINT
- UNO – UNLESS NOTED OTHERWISE

DIMENSIONS

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM.
- GLOBAL COORDINATES ARE GIVEN IN EASTINGS (E) AND NORTHINGS (N) TO ORDNANCE SURVEY NATIONAL GRID.
- DIMENSIONS OF STEELWORK ARE STATED FOR A NOMINAL BRIDGE TEMPERATURE OF 15°C.
- ALL KEY DIMENSIONS AND COORDINATES SHALL BE VERIFIED BY SITE SURVEY PRIOR TO CONSTRUCTION AND FABRICATION.
- NO DIMENSIONS ARE TO BE OBTAINED BY SCALING DRAWINGS.

LOAD ASSUMPTIONS

- DESIGN CARRIED OUT IN ACCORDANCE WITH THE LATEST REVISIONS OF:
 - APPROVAL IN PRINCIPLE (DOCUMENT UW25-BHB-XX-XX-RP-C-0010)
 - FORM A (DOCUMENT UW25-BHB-XX-XX-RP-C-0020).
- THE BRIDGE HAS NOT BEEN DESIGNED TO ACCOMMODATE VEHICLE LOADING.

SERVICES

- THE PRINCIPAL CONTRACTOR SHALL ENSURE THAT THE LOCATION OF ALL SERVICES IS DETERMINED PRIOR TO THE COMMENCEMENT OF ANY PILING, EXCAVATION, DEMOLITION OR OTHER WORK THAT COULD RESULT IN DAMAGE TO SERVICES.
- PARTICULAR ATTENTION SHALL BE GIVEN TO:
 - NETWORK RAIL HV (33KV) CABLE ROUTES
 - NETWORK RAIL SIGNALLING CABLES
 - BT DUCTS
- THE FOLLOWING SERVICES ARE TO BE ACCOMMODATED ON THE BRIDGE:
 - FUNCTIONAL LIGHTING

TEMPORARY WORKS

- THE PRINCIPAL CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING ALL ASPECTS OF THE TEMPORARY WORKS INCLUDING FOUNDATIONS, TRESTLES, LIFTING POINTS, SUPPORT POINTS, TEMPORARY ATTACHMENTS, AND ANY BRACING REQUIRED FOR THE NEW FOOTBRIDGE ERECTION, DEMOLITION OF THE EXISTING FOOTBRIDGE AND ASSOCIATED PERMANENT WORKS OR OTHER TEMPORARY CONDITIONS.
- THE PRINCIPAL CONTRACTOR SHALL SUBMIT METHOD STATEMENTS AND RISK ASSESSMENTS, CALCULATIONS AND DRAWINGS TO THE DESIGNER AND PRINCIPAL DESIGNER FOR APPROVAL IN ORDER TO DEMONSTRATE THAT THE CONSTRUCTION METHOD WILL HAVE NO ADVERSE EFFECT ON THE PERMANENT WORKS. TO BE PROVIDED FOUR WEEKS (MINIMUM) IN ADVANCE OF WORKS COMMENCING.
- THE CATEGORY FOR THE TEMPORARY WORKS SHALL BE 2. THE PRINCIPAL CONTRACTOR SHALL REFER TO ALL REQUIREMENTS IN CG300. NO WORK SHALL COMMENCE BEFORE THE TYPE P DESIGN AND CHECK CERTIFICATES HAVE BEEN ACCEPTED BY THE TAA.

DRAINAGE

- DRAINAGE OF THE BRIDGE SUPERSTRUCTURE TO BE AS INDICATED ON THE DRAWINGS.
- BRIDGE SUPERSTRUCTURE DRAINAGE WILL DISCHARGE TO SURFACE WATER DRAINAGE SYSTEMS NORTH AND SOUTH OF THE BRIDGE. REFER TO HCC DRAWINGS FOR ARRANGEMENTS AND DETAILS OF THE SITE WIDE SURFACE WATER DRAINAGE SYSTEMS.

STRUCTURAL STEELWORK

- TO BE READ IN CONJUNCTION WITH SERIES 1800 SPECIFICATION APPENDIX (UW25-BHB-XX-XX-SP-C-1800), APPENDIX 18/1.
- THE PRINCIPAL CONTRACTOR IS RESPONSIBLE FOR THE QUALITY OF ALL COMPLETED WORKS REQUIRED BY THE CONTRACT. SUBCONTRACTORS, INCLUDING FABRICATORS, ERECTORS AND FIELD PAINTERS MAY BE USED BY THE PRINCIPAL CONTRACTOR, BUT THE PRINCIPAL CONTRACTOR RETAINS RESPONSIBILITY FOR ALL MATERIALS, OPERATIONS AND THE FINAL PRODUCT.
- THE STRUCTURAL STEELWORK DRAWINGS INCLUDED IN THIS CONTRACT ARE DESIGN DRAWINGS. THE PRINCIPAL CONTRACTOR SHALL PROVIDE FABRICATION DRAWINGS FOR ALL STRUCTURAL STEELWORK FOUR WEEKS (MINIMUM) PRIOR TO COMMENCING FABRICATION. THE PRINCIPAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS ON THE FABRICATION DRAWINGS AND SUBMIT TO THE DESIGNER FOR APPROVAL.
- THE PRINCIPAL CONTRACTOR SHALL BE SATISFIED WITH THE CONSTRUCTABILITY OF THE BRIDGE PRIOR TO COMMENCEMENT OF WORKS.
- METHOD STATEMENTS FOR FABRICATION AND ERECTION OF THE STEELWORK SHALL BE SUBMITTED TO THE DESIGNER FOUR WEEKS (MINIMUM) PRIOR TO COMMENCEMENT OF THE WORKS.
- UKCA MARKING OF STEELWORK IS REQUIRED IN ACCORDANCE WITH THE CONSTRUCTION PRODUCTS REGULATIONS.
- EXECUTION CLASS FOR STEELWORK TO BE EXC3 MINIMUM; ANY ELEMENTS REQUIRING HIGHER EXECUTION CLASSES SHALL BE IDENTIFIED ON THE DRAWINGS.
- STEEL FABRICATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LATEST VERSION OF THE FOLLOWING CODES AND THEIR ASSOCIATED UK NATIONAL ANNEX:
 - BS EN 1993-1 DESIGN OF STEEL STRUCTURES: PARTS 1 – 12
 - BS EN 1993-2 DESIGN OF STEEL STRUCTURES: STEEL BRIDGES
 - BS EN 1090 EXECUTION OF STEEL STRUCTURES AND ALUMINIUM STRUCTURES: PARTS 1 & 2
 - BS EN 10025 TECHNICAL DELIVERY CONDITIONS OF HOT ROLLED STRUCTURAL STEELS
 - BS EN 10210 HOT FINISHED STEEL STRUCTURAL HOLLOW SECTIONS
 - BS EN 15048 NON-PRELOADED STRUCTURAL BOLTING ASSEMBLIES
 - BS EN 14399 HIGH STRENGTH STRUCTURAL BOLTING ASSEMBLIES FOR PRELOADING
 - BS EN 1011 WELDING - RECOMMENDATIONS FOR WELDING OF METALLIC MATERIALS
- ALL STRUCTURAL STEEL SHALL BE GRADE S355 IN ACCORDANCE WITH BS EN 10210 (HOLLOW SECTIONS) AND GRADE S355 IN ACCORDANCE WITH BS EN 10025 (PLATES AND OPEN SECTIONS). THERE ARE NO SPECIFIC REQUIREMENTS FOR SUBGRADES. A MAXIMUM CARBON EQUIVALENT VALUE SHALL APPLY.
- BOLTED CONNECTIONS IN THE STRUCTURE ARE TO BE MADE WITH NON-PRELOADED OR PRELOADED BOLTS AS SHOWN ON THE DRAWINGS.

- WHERE NON-PRELOADED BOLTS ARE USED, THESE SHALL BE GRADE 8.8 ITEMS IN ACCORDANCE WITH BS EN ISO 4014 OR BS EN ISO 4017 AND PROVIDED WITH LOCKING DEVICES.
- PRELOADED BOLTS MAYBE EITHER HR (HSFG) OR HRC (TCB) IN ACCORDANCE WITH EN 14399.
- THE USE OF DIRECT TENSION INDICATORS (LOAD INDICATING WASHERS) IS PROHIBITED.
- LOW STRESS HARD STAMPING MAY BE USED IN ACCORDANCE WITH THE RECOMMENDATIONS OF SCI GUIDANCE NOTE 5.05 MARKING OF STEELWORK.
- ANY COUNTERSUNK HOLES SHALL BE DETAILED TO PROVIDE A FLUSH SURFACE.
- ANY REQUIREMENTS FOR FULL CONTACT BEARING SURFACES SHALL BE IDENTIFIED ON THE DRAWINGS.
- A TRIAL ASSEMBLY IS NOT REQUIRED.
- THERE ARE NO RESTRICTIONS ON THE LOCATION OF BUTT WELDS USED TO ACCOMMODATE AVAILABLE LENGTHS OF CONSTITUENT PRODUCTS.
- THERE IS NO REQUIREMENT TO GRIND BUTT WELDS FLUSH UNO WITH DUE CONSIDERATION TO PREVENT DEBRIS AND MOISTURE BECOMING TRAPPED AS A RESULT.
- PERMANENT STEEL BACKING IS PERMITTED FOR SINGLE SIDED BUTT WELDS.
- WHERE BOLTS ARE EXPOSED, THEY SHALL HAVE THEIR HEADS ON THE EXTERNAL (MORE VISIBLE) SURFACE.
- CONTACT SURFACES IN PRELOADED CONNECTIONS SHALL BE PREPARED TO CLASS A OR B OF BS EN 1090-2 MINIMUM FRICTION COEFFICIENT 0.4).
- CONTACT SURFACES IN PRELOADED CONNECTIONS SHALL BE PROTECTED UNTIL THE CONNECTIONS ARE ASSEMBLED.
- ALL WELDS SHALL BE Z6 FILLET WELDS UNLESS NOTED OTHERWISE. ALL WELDS SHALL FORM A CONTINUOUS SEAL WITH NO INTERMITTENT WELDING PERMITTED.
- FILLET WELD SIZES SHALL BE CONSISTENTLY SHOWN ON DRAWINGS INDICATING THE THROAT THICKNESS 'A' OR LEG LENGTH 'Z' IN ACCORDANCE WITH BS EN ISO 2553.
- PARTIAL PENETRATION WELD SIZES SHALL BE CONSISTENTLY SHOWN ON DRAWINGS INDICATING THE THROAT THICKNESS 'S' IN ACCORDANCE WITH BS EN ISO 2553.
- WELD SYMBOLS ARE TO BE IN ACCORDANCE WITH "SYSTEM B" OF BS EN ISO 2553.
- ALL RHS/SHS/CHS SECTIONS TO BE FULLY WELDED AND SEALED AGAINST INGRESS OF MOISTURE. NO INTERNAL TREATMENT SYSTEM IS REQUIRED. HOLES FOR FASTENERS ETC ARE NOT PERMITTED.
- ALTERNATIVE CRITERIA - FUNCTIONAL TOLERANCES. STEELWORK TO PROVIDE SUPPORT TO GLAZING SHALL BE SUBJECT TO FUNCTIONAL TOLERANCE CLASS 2 IN ACCORDANCE WITH BS EN 1090-2 ANNEX B.
- WHERE BOLTS PASS THROUGH OVERSIZE OR SLOTTED HOLES, PLATE WASHERS IN ACCORDANCE WITH BS EN 1090-2:2018 CL. 8.2.4 SHALL BE PROVIDED.

EXPANSION JOINTS

- EXPANSION JOINTS IN APPROACH RAMPS SHALL COMPRISE ELASTOMERIC COMPRESSION SEALS OR COVER PLATES AS SHOWN ON THE DRAWINGS.
- REFER TO DRAWING UW25-BHB-XX-XX-DR-C-0500.

BEARINGS

- REFER TO DRAWING UW25-BHB-XX-XX-DR-C-0500.

PROTECTION OF STEELWORK

- REFER TO SERIES 1900 SPECIFICATION APPENDIX (UW25-BHB-XX-XX-SP-C-1900), APPENDIX 19/1 ET SEQ.

PRECAMBER

- THE REQUIRED FINAL PROFILE OF THE STRUCTURE IS FULLY DEFINED ON THE DRAWINGS.
- ALLOWANCE SHALL BE MADE OF PERMANENT DEFORMATIONS OF THE STRUCTURE BASED UPON THE ACTUAL SEQUENCE OF CONSTRUCTION.
- THE FABRICATOR SHALL ALSO MAKE DUE ALLOWANCE FOR FABRICATION EFFECTS SUCH AS WELDING AND CUTTING PROCESSES.
- THE FABRICATOR SHALL INDICATE THE PRECAMBER ALLOWANCE TO BE MADE ON THE FABRICATION DRAWINGS TAKING INTO ACCOUNT ANY PROPOSED VARIATION TO THE METHOD OF CONSTRUCTION OUTLINE IN THESE NOTES.

BIMETALLIC CORROSION

- CONNECTIONS BETWEEN DISSIMILAR METALS SHALL BE INSULATED.

CONCRETE

- FOR CONCRETE PILES, REFER TO SERIES 1600 SPECIFICATION APPENDIX (UW25-BHB-XX-XX-SP-G-1600), CL. 2.4.
- FOR STRUCTURAL CONCRETE, REFER TO SERIES 1700 SPECIFICATION APPENDIX (UW25-BHB-XX-XX-SP-C-1700), APPENDIX 17/1 ET SEQ.

REINFORCEMENT

- DIMENSIONING, CUTTING AND BENDING OF REINFORCEMENT IS TO BE IN ACCORDANCE WITH BS8666:2020.
- SPICES OTHER THAN THOSE SHOWN ON THE DRAWINGS MAY ONLY BE MADE WITH THE APPROVAL OF THE DESIGNER.
- SCHEDULING OF REINFORCEMENT IS IN ACCORDANCE WITH BS EN 3766:2003 AND BS EN:2005.
- THE QUALITY OF REINFORCEMENT IS INDICATED BY THE APPROPRIATE SYMBOL: B – GRADE 500B OR 500C TO BS 4449 ALIGNED WITH BS EN 10080.
- SPACINGS GIVEN FOR ALL REINFORCEMENT ARE PERPENDICULAR TO BARS.
- CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON DRAWINGS UNLESS OTHERWISE AGREED WITH THE DESIGNER.
- CONSTRUCTION JOINTS ARE TO BE FORMED WITHOUT THE USE OF SCABBLING AS FAR AS REASONABLY PRACTICABLE.
- REINFORCEMENT TO BE ADJUSTED LOCALLY TO ACCOMMODATE ANCHORS.
- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SPECIFIED BY THE DESIGNER
- REINFORCEMENT TO BE FREE FROM MUD, OIL, LOOSE RUST OR ANY OTHER MATERIAL PRIOR TO FIXING AND CONCRETING.
- STARTER BARS TO BE CAPPED/PROTECTED WHERE REINFORCEMENT IS LEFT EXPOSED.

- MINIMUM LAP AND ANCHORAGE LENGTHS IN ACCORDANCE WITH EN 1992-1-1 ARE SHOWN BELOW. WHERE LAPPING BARS WITH VARYING DIAMETERS, THE LAP LENGTH IS BASED ON THE SMALLER BAR DIAMETER:

MINIMUM LAPS (MM)					
BAR SIZE	B12	B16	B20	B25	B32
POOR BOND	640	930	1220	1590	2030
GOOD BOND	450	650	860	1110	1420

MINIMUM ANCHORAGES (MM)					
BAR SIZE	B12	B16	B20	B25	B32
POOR BOND	510	680	850	1060	1350
GOOD BOND	360	480	600	740	950

CAST IN ANCHORAGES

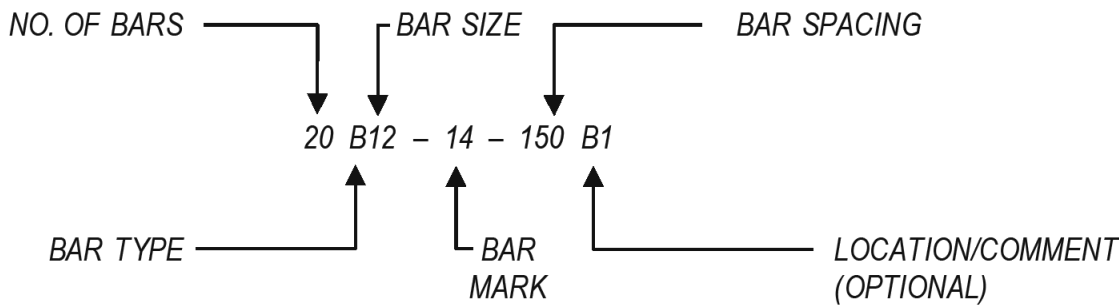
- CAST IN ANCHORAGES FOR PIERS ARE TO COMPRISE M30 GRADE 8.8 STUD ARRANGED ON COMMON ANCHOR PLATES.
- TEMPLATES SHALL BE PROVIDED AT THE TOP OF THE ANCHORAGES AND SECURELY ATTACHED TO FORMWORK OR OTHER TEMPORARY WORKS TO CONTROL POSITION DURING CONCRETING.
- ANCHOR PLATES TO BE GRADE S275 TO BS EN 10025

REINFORCEMENT NOTATION

ABBREVIATIONS FOR BAR PLACEMENT:

AB	ALTERNATE BARS	NF1	NEAR FACE OUTER LAYER
ABR	ALTERNATE BARS REVERSED	NF2	NEAR FACE SECOND LAYER
ABS	ALTERNATE BARS STAGGERED	PAS	POSITIONED AS SHOWN
AP	ALTERNATE PLACES	SB	STARTER BARS
B1	BOTTOM FACE OUTER LAYER	SF1	SIDE FACE OUTER LAYER
B2	BOTTOM FACE SECOND LAYER	SF2	SIDE FACE SECOND LAYER
EF	EACH FACE	STG	STAGGERED
FF1	FAR FACE OUTER LAYER	T1	TOP FACE OUTER LAYER
FF2	FAR FACE SECOND LAYER	T2	TOP FACE SECOND LAYER
LB	L BAR	UB	U-BAR

REINFORCEMENT CALL UP STYLE:



PILING

- REFER TO REFER TO SERIES 1600 SPECIFICATION APPENDIX (UW25-BHB-XX-XX-SP-G-1600).

BEDDING AND GROUTING MORTAR

- ALL BASE PLATES TO BE GROUTED WITH HIGH STRENGTH NON-SHRINK GROUT, MINIMUM 15MM THICK.
- BEDDING MORTARS SHALL BE PROPRIETARY PRE-BATCHED PRODUCTS IN ACCORDANCE WITH SHW CLAUSE 2601.
- BEDDING MORTAR SHALL BE STORED, MIXED, INSTALLED, AND CURED STRICTLY IN ACCORDANCE WITH THE SUPPLIER'S RECOMMENDATIONS.
- THE USE OF PERMANENT METAL SHIMS IS PROHIBITED.

WATERPROOFING/SURFACING

- THE BRIDGE DECK IS TO BE FINISHED WITH A PROPRIETARY COMBINED WATERPROOFING AND SURFACING SYSTEM AS SHOWN ON THE DRAWINGS.
- STAIRS ARE TO BE PROVIDED WITH COLOUR MATCHED PROPRIETARY NON SLIP TREADS WITH CONTRAST NOSINGS.
- CORDUROY TACTILE STRIPS ARE TO BE PROVIDED AT THE TOP AND BOTTOM OF STAIRS.
- THE SURFACE OF THE RAMPS SHALL CONTRAST VISUALLY WITH THAT OF THE LEVEL LANDINGS. COLOURS OF AGGREGATE FINISHES ARE SUBJECT TO ACCEPTANCE BY HCC.
- ALL BURIED CONCRETE SURFACES TO BE WATERPROOFED IN ACCORDANCE WITH THE SHW CLAUSE 2004.

PARAPETS

- PARAPETS ON APPROACHES AND STAIRS TO BE IN ACCORDANCE WITH CONTAINMENT CLASS 3 TO BS 7818 AND ARRANGED AS INDICATED ON THE RELEVANT DRAWINGS.
- PARAPETS ON THE MAIN SPAN ARE FORMED IN PART BY THE BRIDGE STRUCTURE AND IN PART BY LAMINATED GLASS PANELS AS INDICATED ON THE RELEVANT DRAWINGS.
- LAMINATED GLASS SHALL BE PROVIDED IN ACCORDANCE WITH THE RELEVANT PERFORMANCE SPECIFICATION (UW25-BHB-XX-XX-SP-O-2601). THE REFERENCE OF DESIGN COMPRISES:
 - INNER PLY 10MM HEAT STRENGTHENED GLASS
 - INTERLAYER 1.52MM PVB
 - OUTER PLY 10MM HEAT STRENGTHENED GLASS
- TAMPER RESISTANT GLAZING FIXINGS SHALL BE ARRANGED TO PERMIT REMOVAL/REPLACEMENT OF GLASS FROM THE BRIDGE DECK.
- WHERE PROVIDED, HANDRAILS SHALL BE FINISHED IN A CONTRAST COLOUR.

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DO NOT SCALE THIS DRAWING.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING

CONSTRUCTION.

- REFER TO GENERAL NOTES - SHEET 2.

MAINTENANCE/CLEANING/OPERATION.

- REFER TO GENERAL NOTES - SHEET 2.

DECOMMISSIONING/DEMOLITION

- REFER TO GENERAL NOTES - SHEET 2.

Notes

P04	SS - ISSUED FOR APPROVAL	03.07.26	DP	MC
P03	SS - ISSUED FOR APPROVAL	29.06.26	DP	MC
P02	SS - ISSUED FOR APPROVAL	23.03.26	DP	MC
P01	SS - ISSUED FOR REVIEW	13.03.26	DP	MC
Rev	Description	Date	Dm	App'd

TECHNICAL APPROVAL

Project Stage

S5 - FOR APPROVAL

Status of Drawing

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Project **HAVANT FOOTBRIDGE REPLACEMENT**

Dwg Title **GENERAL NOTES
SHEET 1**

Job No. 069056		Scale@ A1 N/A	
Drawn By. DP	Checked By. MB	Approved By. MC	
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