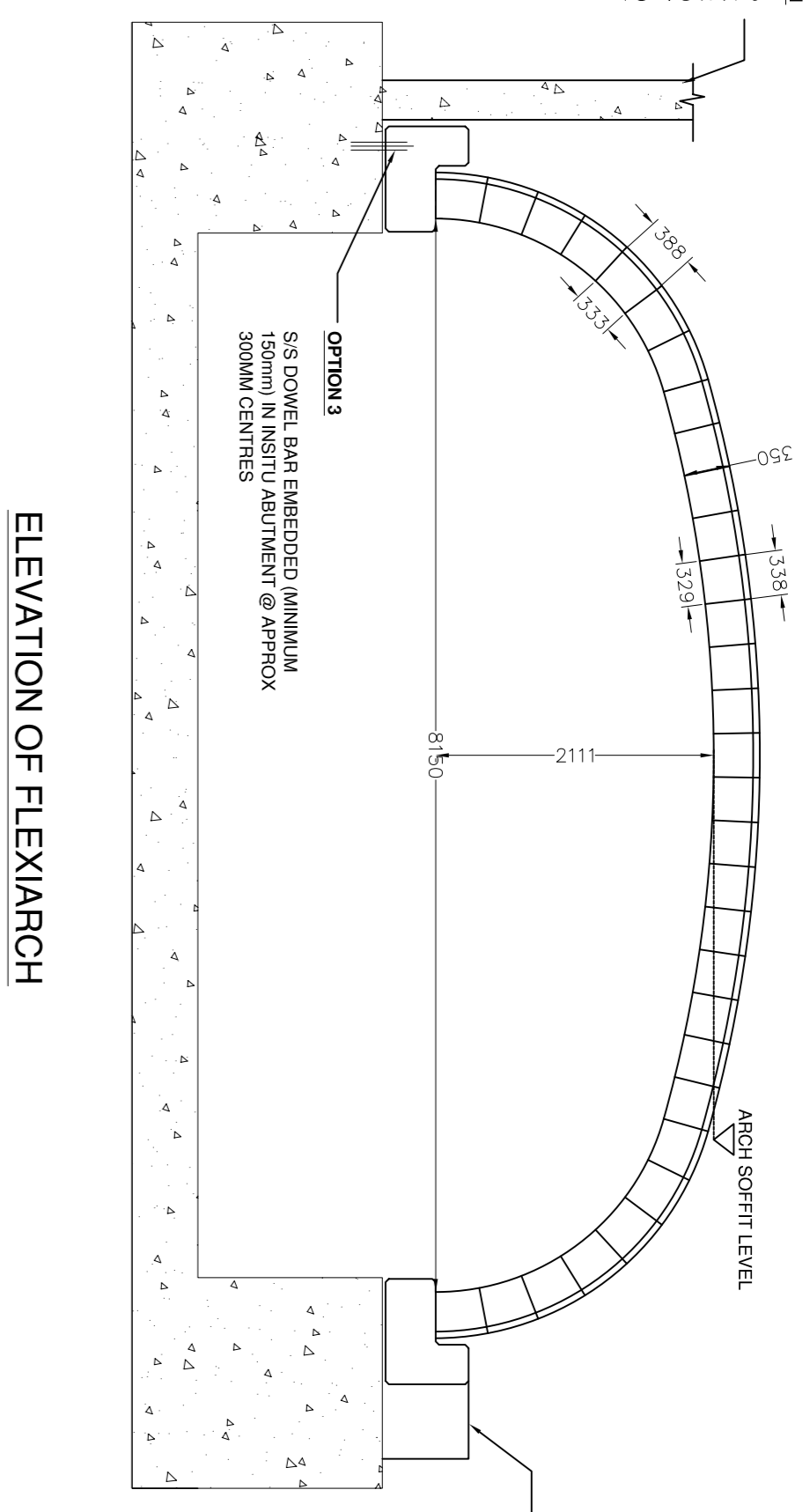


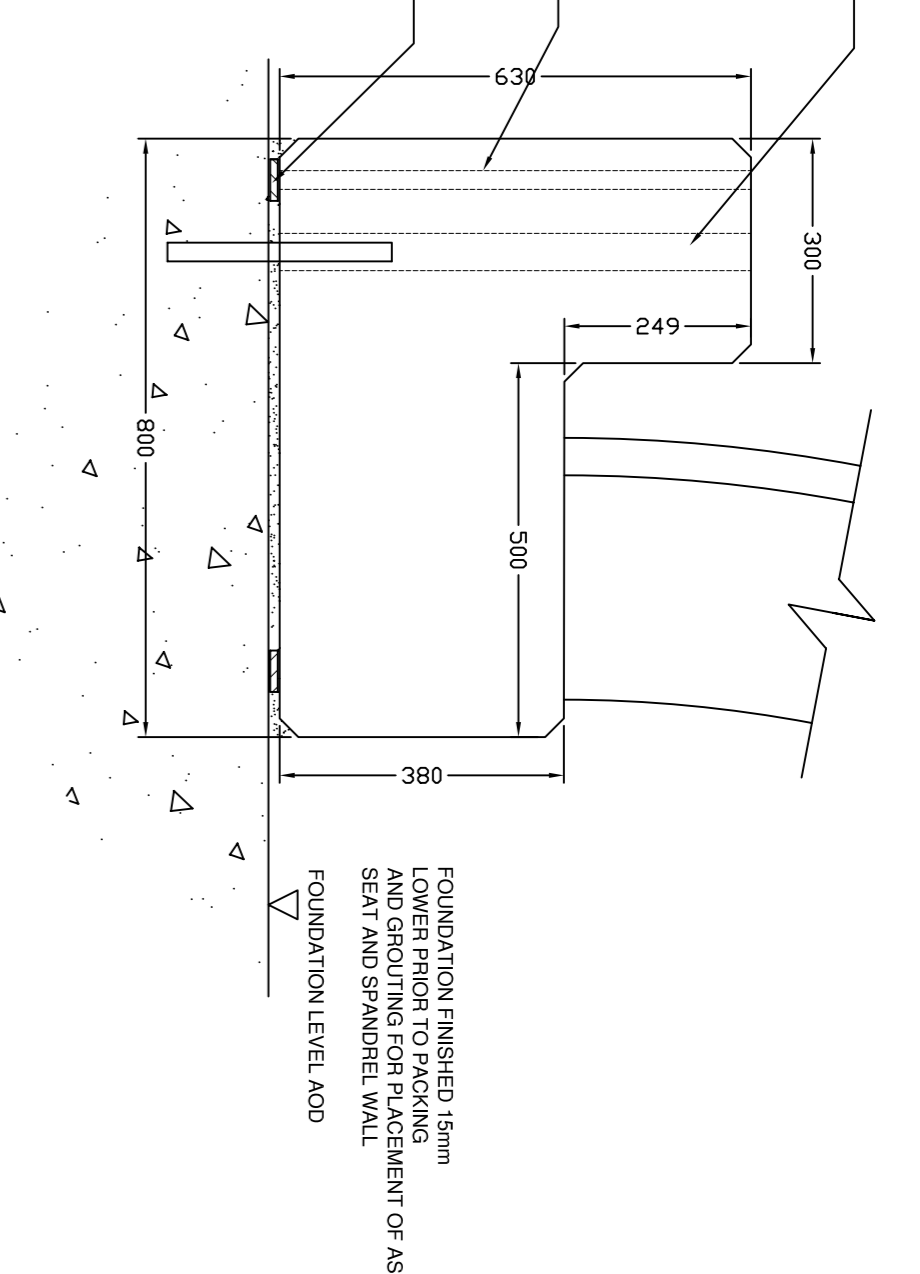
NOTES

- All dimensions are shown in mm, unless otherwise stated and levels are in metres to an arbitrary datum.
- This drawing is to be read in conjunction with all other drawings and standard documentation.
- C40/50 concrete mix (C18A-V) as per BS 8500-1:2006 for all precast units
- Chamfers around voussoirs to be 15mm and remainder of precast units to have chamfer of 25mm
- Surface finish on exposed faces of flexiarch units=F3
- Surface finish on top of FlexiArch unit and to base of sill = U2 Top surface of sill is also to be left roughened
- Nominal cover to Reinforcement 60mm + 5mm unless noted otherwise
- S/S Projected U bars to be cast into back of spandrel wall units to tie into backfill concrete.
- Bridge deck waterproofing and workmanship to comply with SHW Series 2003 and 2005.
- Steel floated (U4) finish required to top of C20/25 in-fill concrete to take waterproofing.
- 5N Concrete with 1800kg/m<sup>3</sup> density can be achieved using a combination of cement, sand and a highly air-entrained chemical mixture. The following guideline mix can be used.
 

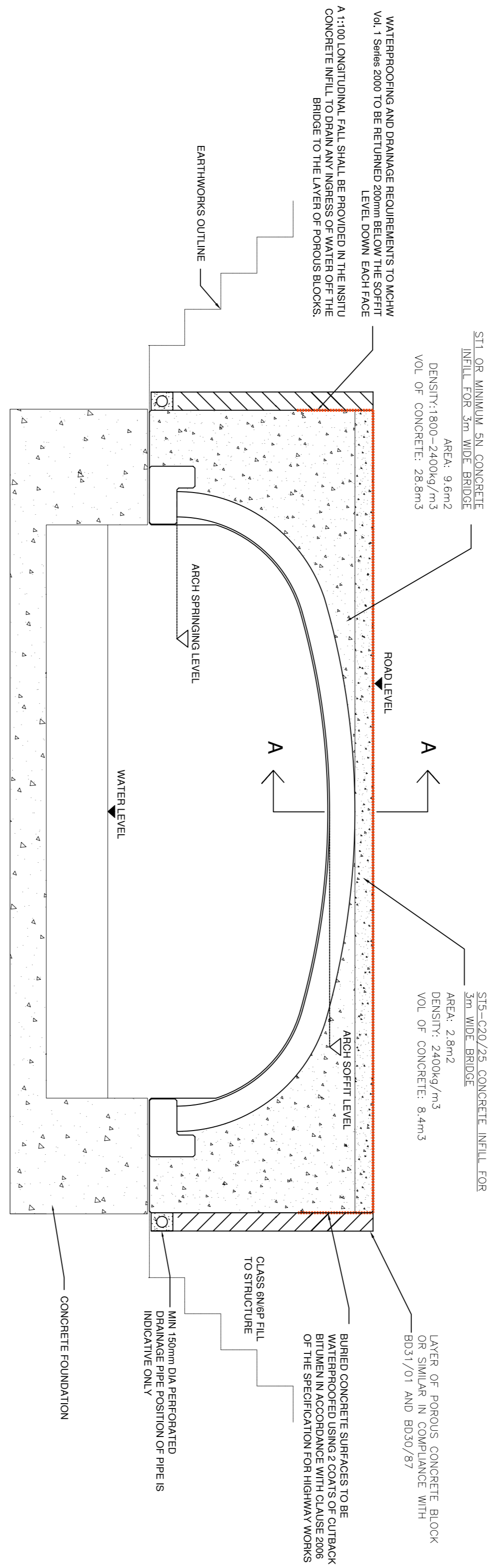
4-8 N strength (28 days)	
Concrete Sand (0/4)	1350 Kg
CEM1	250 Kg
Water	200 L
Foaming agent	5L per 6m <sup>3</sup> load (Larlrow FC or similar)
Hardened density in region of 1800Kg/m <sup>3</sup>	
- Concrete in-fill should be completed as per Macrete's Guidance Notes.
- Prior to any excavation, the contractor should consider propping the existing bridge to prevent movement during the works.
- Great care is required when excavating close to the existing foundation in order to prevent scour or loss of soil from below it. If this occurs concrete should be placed in any void formed.
- A series of plate bearing tests should be carried out during the foundation works to confirm the allowable bearing capacity of the soils.
- Non-Shrinkable cementitious grout of min 50N/mm<sup>2</sup> compressive strength to be used to fill the dowel holes and the gap between the cill units/spandrel walls and foundation. 24hrs to be allowed for grout to set before placement of arch units.
- All stainless steel to BS EN 10088-3 Grade 1.4436, EN Standard steel name: X3CrNiMo17-13-3



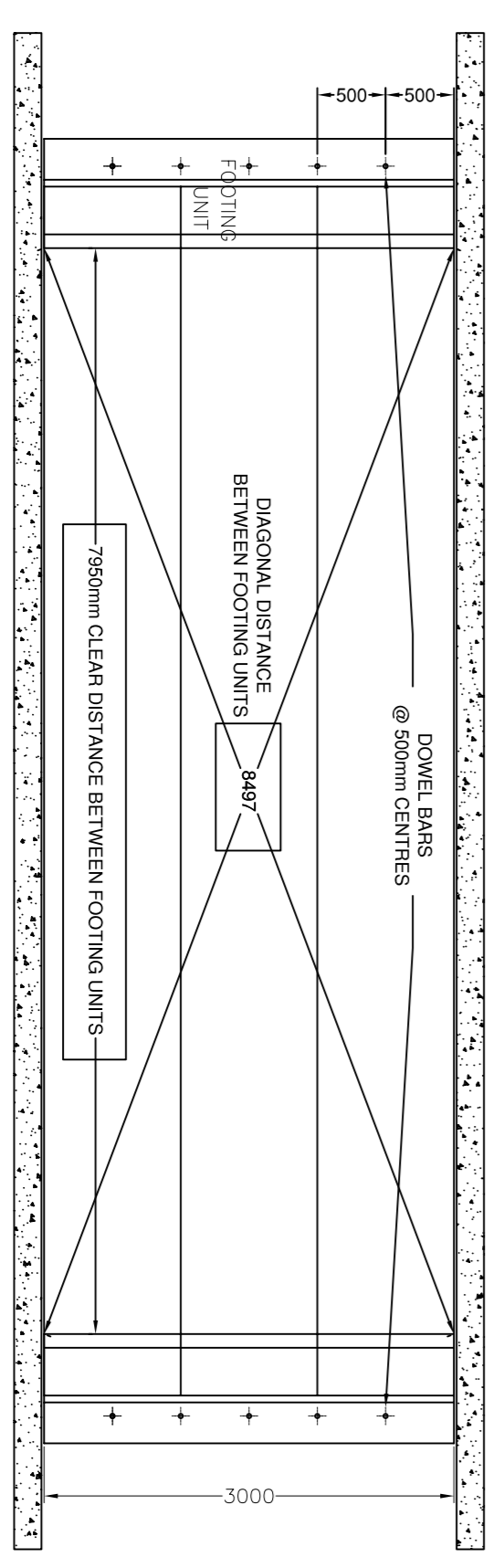
ELEVATION OF FLEXIARCH



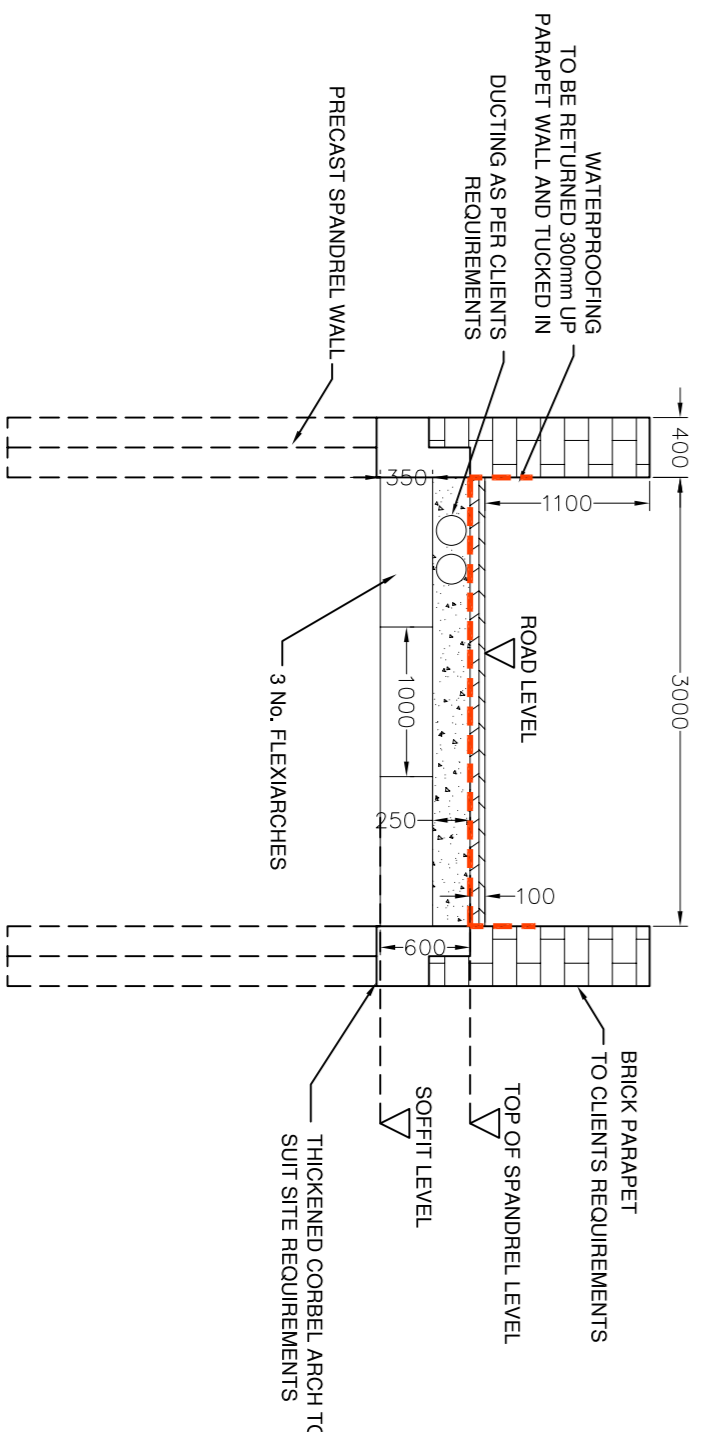
ARCH SPRINGING SEAT (AS SEAT) 1:10  
3m WIDE UNIT



END SECTION OF BRIDGE SHOWING CONCRETE INFILL DETAILS



PLAN ON FLEXIARCH BRIDGE



SECTION A-A THROUGH CENTRE OF BRIDGE

FOR APPROVAL

REVISION DETAILS	BY	DTE	AMENDMENT

**MACRETE**  
Precast concrete  
Ireland Limited  
50 GEECH ROAD  
TOWERBRIDGE  
CO. ANTRIM B741 3SE  
TEL (028) 796 50471 FAX 50084

PROJECT: MELKSHAM LINK - TOW PATH BRIDGE

TITLE: DETAILS OF FLEXIARCH BRIDGE UNITS

SCALE:	DATE:	DRAWN:	CHECKED:
1/50 UNO	09/02/12	DWC	-
DRAWING NO.	REVISION NO.	MACRETE/MELKSHAM LINK/03	-

OPTION 1  
IN SITU UPSTAND CAN BE EXTENDED UP TO 150mm ABOVE THE TOP OF THE ARCH UNITS. THIS OPTION IS ONLY TO BE USED FOR TEMPORARY FORMWORK FOR CONCRETE CASTING. DIMENSIONS INDICATIVE ONLY

MINIMUM SPANDEL (NO. 4) SET GAUGE 316 DOWEL BARS @ 50mm CENTRES POSITIONS IN AS SEAT TO BE DRILLED IMMEDIATELY AFTER PLACEMENT OF UNIT. DOWEL HOLES SHOULD BE FILED

OPTION 2  
IN SITU UPSTAND TO PROVIDE LATERAL RESTRAINT TO PRECAST FOOTING UNIT

AS SEAT PLACED ON 150mm NOMINAL SPINDLE AND GROUTED IN

FOUNDATION FINISHED 150mm AND GROUTING FOR PLACEMENT OF AS SEAT AND SPANDEL WALL FOUNDATION LEVEL AND

WATERPROOFING AND DRAINAGE REQUIREMENTS TO MATCH VOL. 1 SPEC. 2800 TO BE RETAINED LEVEL DOWN EACH FACE OF CONCRETE IN THE PRECAST BRIDGE TO THE LAYER OF POROUS BLOCKS.

SILL OR MINIMUM 5N CONCRETE INFILL FOR 3m WIDE BRIDGE  
AREA: 9.6m<sup>2</sup>  
DENSITY: 1800-2400kg/m<sup>3</sup>  
VOL. OF CONCRETE: 28.8m<sup>3</sup>

S/S-C20/25 CONCRETE INFILL FOR 3m WIDE BRIDGE  
AREA: 2.8m<sup>2</sup>  
DENSITY: 2400kg/m<sup>3</sup>  
VOL. OF CONCRETE: 8.4m<sup>3</sup>

LAYER OF POROUS CONCRETE BLOCK BO3/701 AND BO30/87

BLENDED CONCRETE SURFACES TO BE WATERPROOFED USING 2 COATS OF CURBACK BUTYLENE IN ACCORDANCE WITH CLAUSE 2006 OF THE SPECIFICATION FOR HIGHWAY WORKS

CLUSE SAND FILL TO STRUCTURE

MIN 150mm DIA PERFORATED DRAINAGE PIPE POSITION OF PIPE IS INDICATIVE ONLY

CONCRETE FOUNDATION

EARTHWORKS OUTLINE

ARCH SPRINGING LEVEL

ROAD LEVEL

ARCH SOFFIT LEVEL

WATER LEVEL

DOWEL BARS @ 50mm CENTRES

DIAGONAL DISTANCE BETWEEN FOOTING UNITS

750mm CLEAN DISTANCE BETWEEN FOOTING UNITS

WATERPROOFING TO BE RETURNED 300mm UP PARAPET WALL AND COVERED IN DUCTING AS PER CLIENTS REQUIREMENTS

PRECAST SPANDEL WALL

BRICK PARAPET TO CLIENTS REQUIREMENTS

TOP OF SPANDEL LEVEL

SOFFIT LEVEL

THICKENED CORREL ARCH TO SUIT SITE REQUIREMENTS