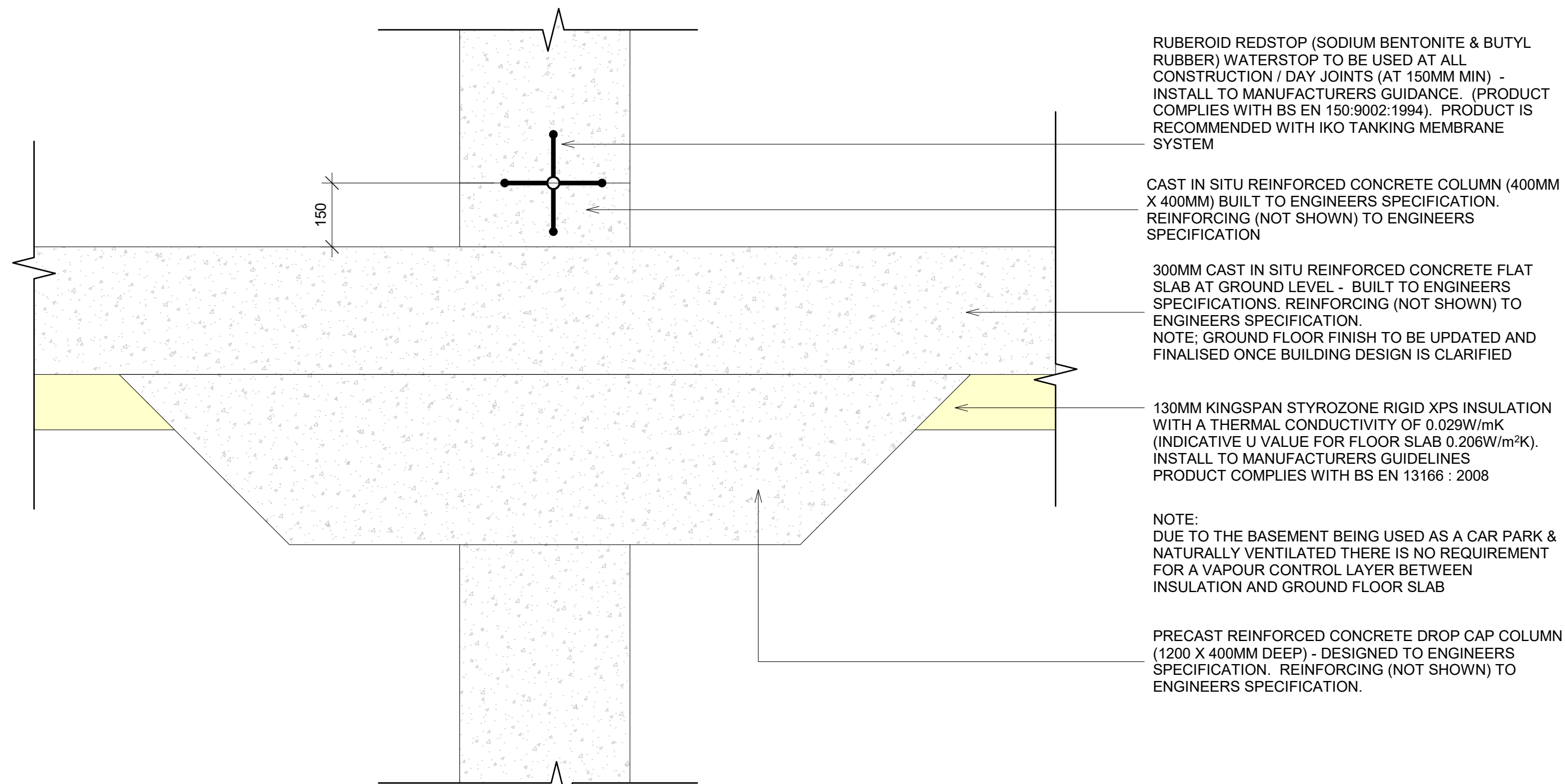




ARCH 2121 TDS Project 4 – Construction Details

DT 175-02 ARCHITECTURAL TECHNOLOGY

GROUND FLOOR SLAB & BASEMENT COLUMN CONNECTION



RUBEROID REDSTOP (SODIUM BENTONITE & BUTYL RUBBER) WATERSTOP TO BE USED AT ALL CONSTRUCTION / DAY JOINTS (AT 150MM MIN) - INSTALL TO MANUFACTURERS GUIDANCE. (PRODUCT COMPLIES WITH BS EN 150:9002:1994). PRODUCT IS RECOMMENDED WITH IKO TANKING MEMBRANE SYSTEM

CAST IN SITU REINFORCED CONCRETE COLUMN (400MM X 400MM) BUILT TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION

300MM CAST IN SITU REINFORCED CONCRETE FLAT SLAB AT GROUND LEVEL - BUILT TO ENGINEERS SPECIFICATIONS. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION. NOTE: GROUND FLOOR FINISH TO BE UPDATED AND FINALISED ONCE BUILDING DESIGN IS CLARIFIED

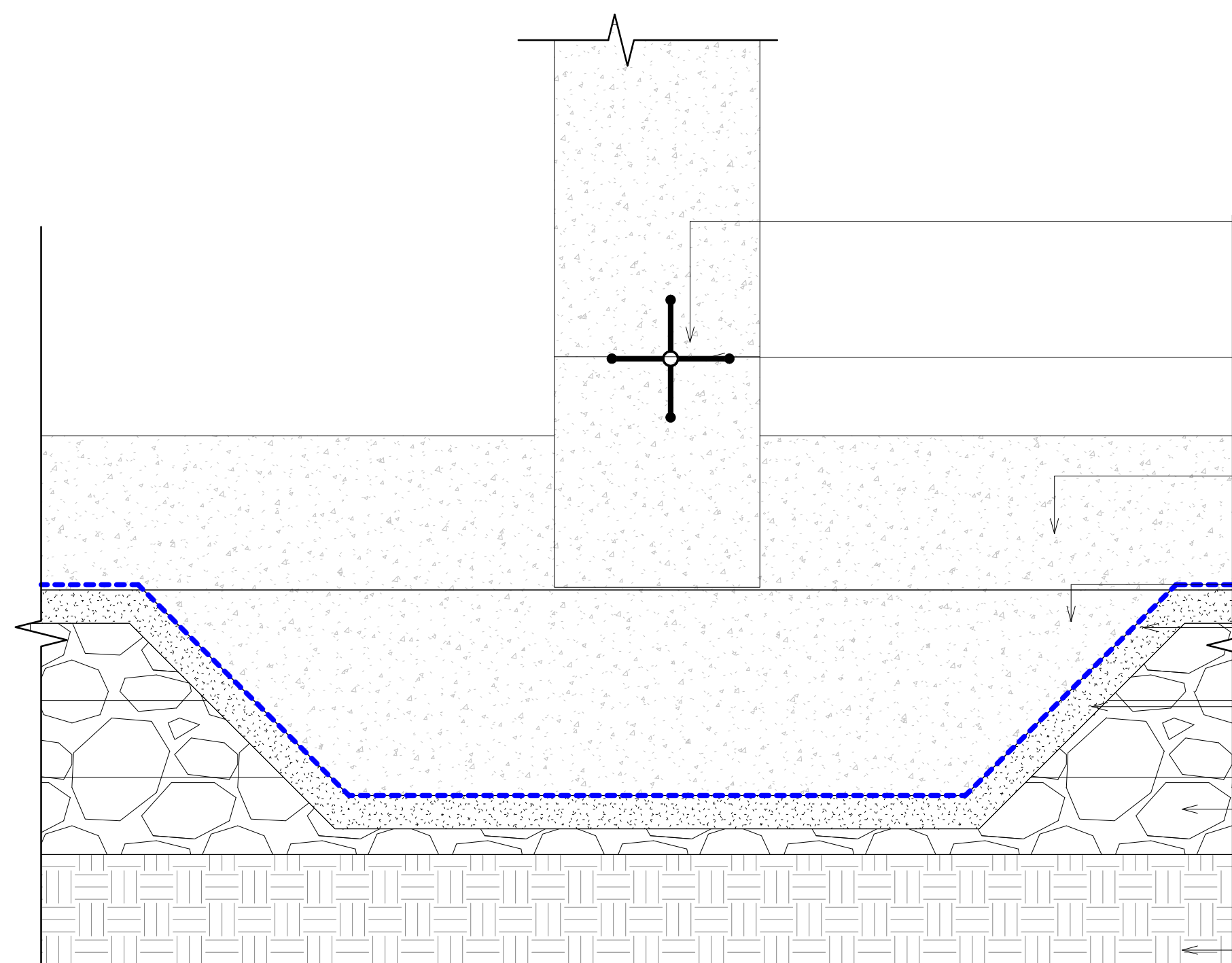
130MM KINGSPAN STYROZONE RIGID XPS INSULATION WITH A THERMAL CONDUCTIVITY OF 0.029W/mK (INDICATIVE U VALUE FOR FLOOR SLAB 0.206W/m²K). INSTALL TO MANUFACTURERS GUIDELINES. PRODUCT COMPLIES WITH BS EN 13166 : 2008

NOTE: DUE TO THE BASEMENT BEING USED AS A CAR PARK & NATURALLY VENTILATED THERE IS NO REQUIREMENT FOR A VAPOUR CONTROL LAYER BETWEEN INSULATION AND GROUND FLOOR SLAB

PRECAST REINFORCED CONCRETE DROP CAP COLUMN (1200 X 400MM DEEP) - DESIGNED TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION.

1 Ground Floor Slab & Basement Column Connection
1 : 10

BASEMENT COLUMN & GROUND FLOOR DETAIL



NOTE: REINFORCEMENT IN COLUMN IS PROVIDING PRIMARY REINFORCEMENT - THE STEEL IN THE CONCRETE THAT HELPS CARRY THE LOAD. NOTE: REINFORCEMENT BARS AND COVER AS PER ENGINEER'S SPECIFICATION. FOR INDICATIVE PURPOSES ONLY REINFORCEMENT COVER SHOWN IN PLAN ABOVE NOT LESS THAN 40MM OR BAR DIAMETERS FOR LONGITUDINAL BARS IN A COLUMN.

NOTE: AS THE BASEMENT FLOOR SLAB IS A CAR PARK AND CATEGORISED 'UNOCCUPIED' IN TGD L, THERE IS NO REQUIREMENT FOR INSULATION UNDER THE FLOOR SLAB. IN SOME INSTANCES, INSULATION IS USED AS A LIGHTER LAYER (THAN HARDWARE) AS PART OF THE BACKFILL. IF THERE WAS A REQUIREMENT FOR FLOOR INSULATION, 130MM KINGSPAN STYROZONE XPS WITH A THERMAL CONDUCTIVITY OF 0.029W/mK. INSTALL TO MANUFACTURERS GUIDANCE WOULD BE USED. (INDICATIVE U-VALUE FOR FLOOR SLAB WOULD BE 0.206W/m²K)

RUBEROID REDSTOP (SODIUM BENTONITE & BUTYL RUBBER) WATERSTOP TO BE USED AT ALL CONSTRUCTION / DAY JOINTS (AT 150MM MIN) - INSTALL TO MANUFACTURERS GUIDANCE. (PRODUCT COMPLIES WITH BS EN 150:9002:1994)

CAST IN SITU REINFORCED CONCRETE COLUMN (400MM X 400MM) BUILT TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION

400MM CAST IN SITU REINFORCED CONCRETE BASEMENT FLOOR DESIGNED TO ENGINEER SPECIFICATIONS. (NOTE: STEEL REINFORCING BARS SHOWN FOR INDICATIVE PURPOSES ONLY.)

PRECAST REINFORCED CONCRETE PAD FOUNDATION (1200 X 400MM DEEP) - DESIGNED TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION.

IKO TANKING HYLOAD MEMBRANE 2000 SA. INSTALL TO MANUFACTURERS GUIDANCE. PRODUCT COMPLIES WITH BS 8102:2009

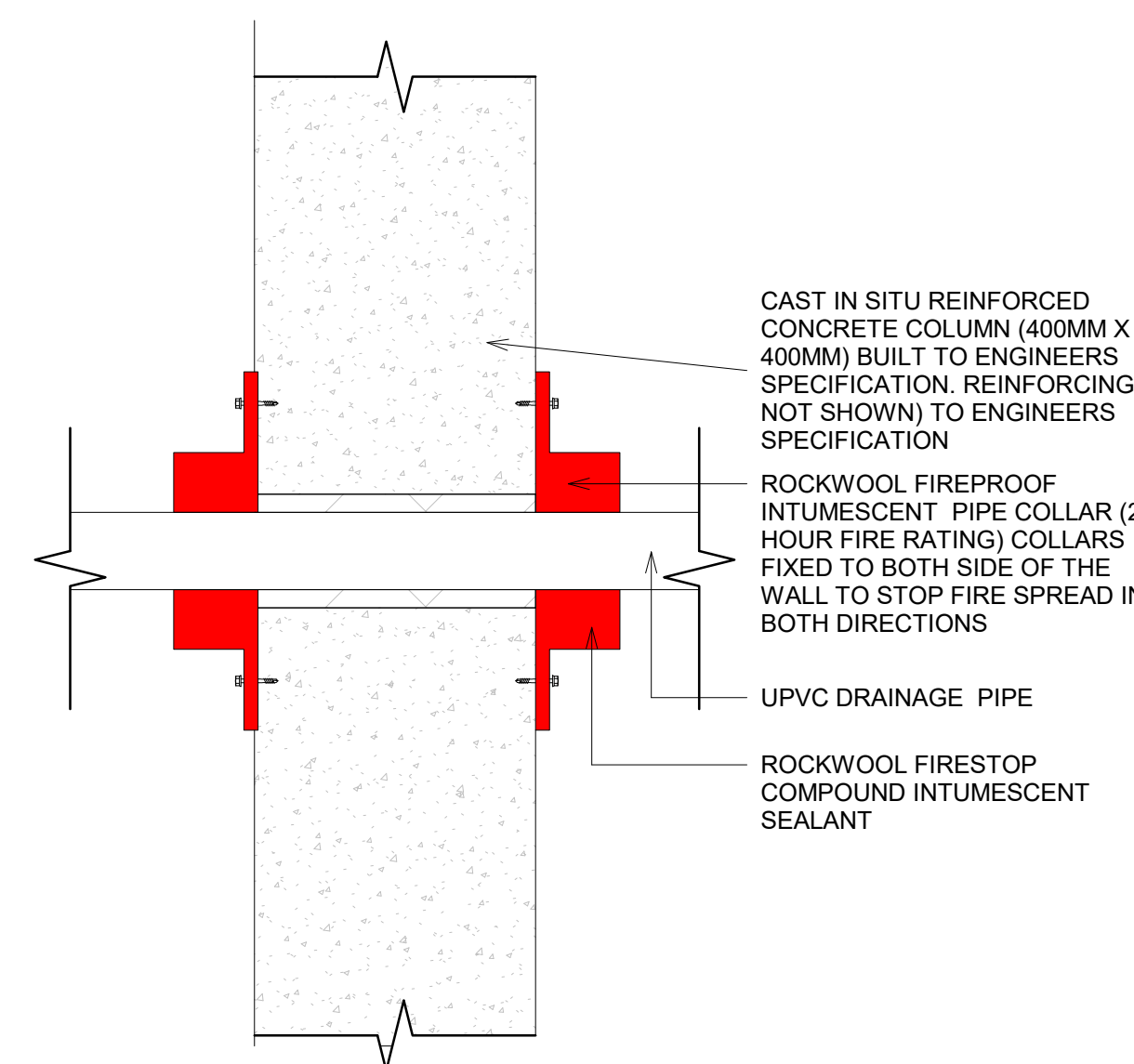
65MM BLINDING LAYER (ENSURE COMPLIANCE WITH SR21:2004@A1:2007 AND LAID TO AN ADEQUATE DEPTH IN LINE WITH ENGINEERS RECOMMENDATIONS.

150MM (MIN) HARDWARE LAYERS - ENSURE HARDWARE IS WELL COMPACTED, CLEAN, FREE FROM MATTER AND GRADED (40MM SIZE OF STONES). HARDWARE SHOULD CONFORM WITH I.S. EN 13242:2002 (TGD C - AMENDMENTS - SEPTEMBER 2004).

EARTH

2 Basement Column & Ground Floor Detail
1 : 10

FIRE PROOF DETAIL AROUND PIPE THROUGH A COLUMN



CAST IN SITU REINFORCED CONCRETE COLUMN (400MM X 400MM) BUILT TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION

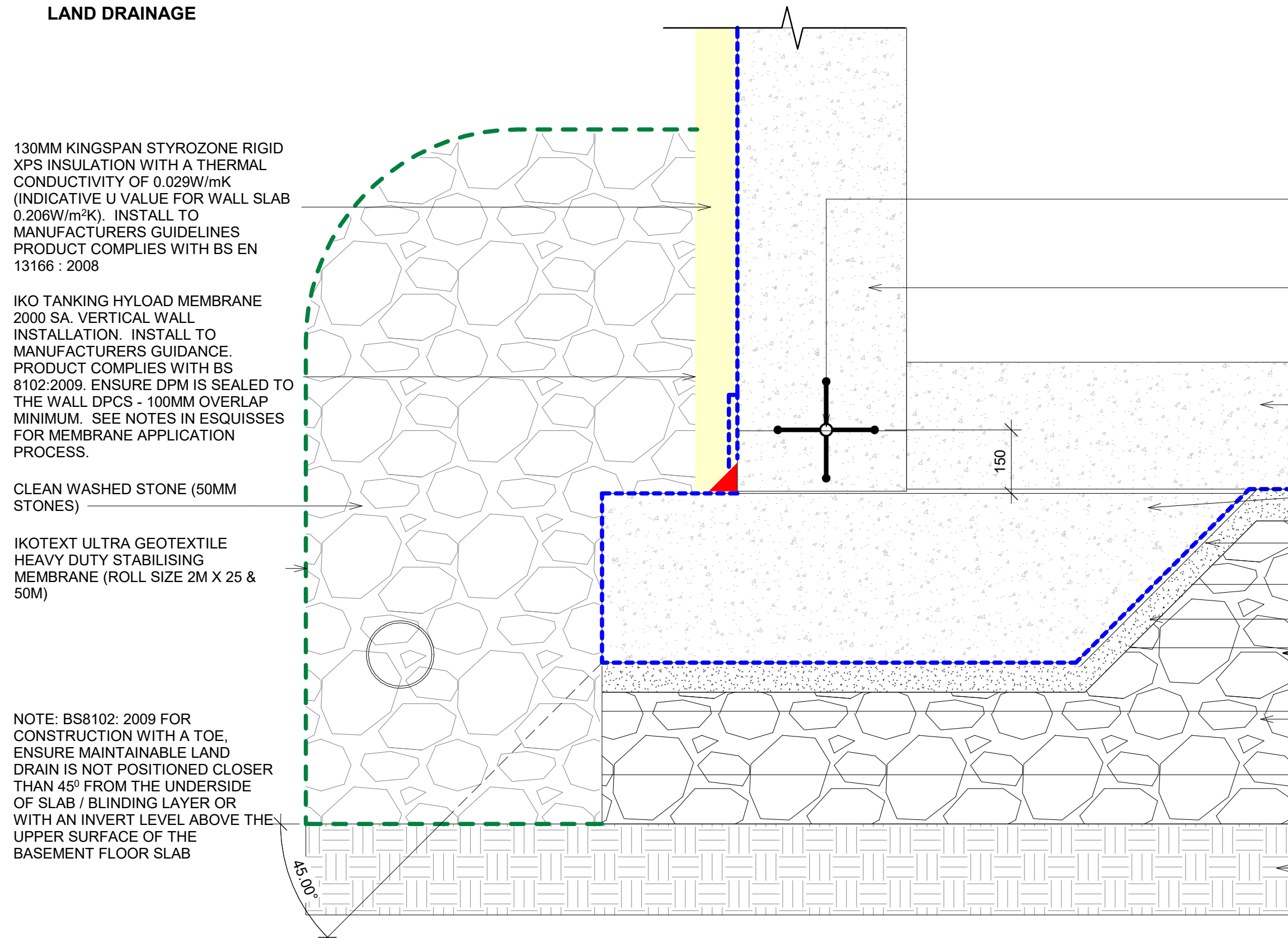
ROCKWOOL FIREPROOF INTUMESCENT PIPE COLLAR (2 HOUR FIRE RATING) COLLARS FIXED TO BOTH SIDE OF THE WALL TO STOP FIRE SPREAD IN BOTH DIRECTIONS

UPVC DRAINAGE PIPE

ROCKWOOL FIRESTOP COMPOUND INTUMESCENT SEALANT

4 Fire Proof Detail Around Pipe through a Column
1 : 10

LAND DRAINAGE



130MM KINGSPAN STYROZONE RIGID XPS INSULATION WITH A THERMAL CONDUCTIVITY OF 0.029W/mK (INDICATIVE U VALUE FOR WALL SLAB 0.206W/m²K). INSTALL TO MANUFACTURERS GUIDELINES. PRODUCT COMPLIES WITH BS EN 13166 : 2008

IKO TANKING HYLOAD MEMBRANE 2000 SA. VERTICAL WALL INSTALLATION. INSTALL TO MANUFACTURERS GUIDANCE. PRODUCT COMPLIES WITH BS 8102:2009. ENSURE DPM IS SEALED TO THE WALL DPCS - 100MM OVERLAP MINIMUM. SEE NOTES IN ESQUISSES FOR MEMBRANE APPLICATION PROCESS.

CLEAN WASHED STONE (50MM STONES)

IKOTEXT ULTRA GEOTEXTILE HEAVY DUTY STABILISING MEMBRANE (ROLL SIZE 2M X 25 & 50M)

NOTE: BS8102: 2009 FOR CONSTRUCTION WITH A TOE, ENSURE MAINTAINABLE LAND DRAIN IS NOT POSITIONED CLOSER THAN 45° FROM THE UNDERSIDE OF SLAB / BLINDING LAYER OR WITH AN INVERT LEVEL ABOVE THE UPPER SURFACE OF THE BASEMENT FLOOR SLAB

RUBEROID REDSTOP (SODIUM BENTONITE & BUTYL RUBBER) WATERSTOP TO BE USED AT ALL CONSTRUCTION / DAY JOINTS (AT 150MM MIN) - INSTALL TO MANUFACTURERS GUIDANCE. (PRODUCT COMPLIES WITH BS EN 150:9002:1994). PRODUCT IS RECOMMENDED WITH IKO TANKING MEMBRANE SYSTEM

CAST IN SITU REINFORCED CONCRETE RETAINING WALL (400MM X 400MM) BUILT TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION

400MM CAST IN SITU REINFORCED CONCRETE BASEMENT FLOOR DESIGNED TO ENGINEER SPECIFICATIONS. (NOTE: STEEL REINFORCING BARS SHOWN FOR INDICATIVE PURPOSES ONLY.)

PRECAST REINFORCED CONCRETE PAD FOUNDATION (1200 X 400MM DEEP) - DESIGNED TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION.

IKO TANKING HYLOAD MEMBRANE 2000 SA. INSTALL TO MANUFACTURERS GUIDANCE. PRODUCT COMPLIES WITH BS 8102:2009

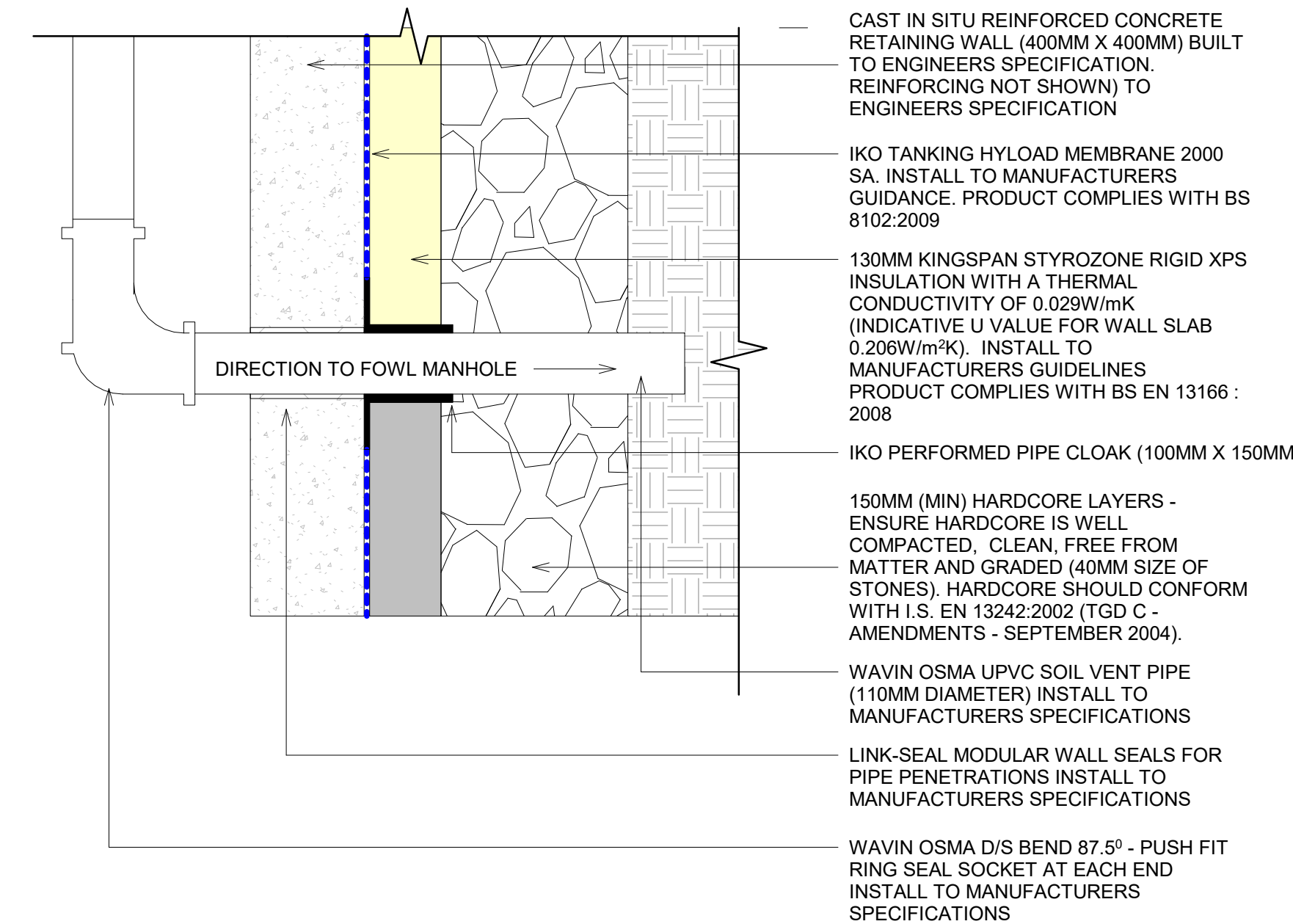
65MM BLINDING LAYER (ENSURE COMPLIANCE WITH SR21:2004@A1:2007 AND LAID TO AN ADEQUATE DEPTH IN LINE WITH ENGINEERS RECOMMENDATIONS.

150MM (MIN) HARDWARE LAYERS - ENSURE HARDWARE IS WELL COMPACTED, CLEAN, FREE FROM MATTER AND GRADED (40MM SIZE OF STONES). HARDWARE SHOULD CONFORM WITH I.S. EN 13242:2002 (TGD C - AMENDMENTS - SEPTEMBER 2004).

EARTH

3 Land Drainage
1 : 10

PIPE THROUGH EXTERNAL WALL DETAIL



CAST IN SITU REINFORCED CONCRETE RETAINING WALL (400MM X 400MM) BUILT TO ENGINEERS SPECIFICATION. REINFORCING (NOT SHOWN) TO ENGINEERS SPECIFICATION

IKO TANKING HYLOAD MEMBRANE 2000 SA. INSTALL TO MANUFACTURERS GUIDANCE. PRODUCT COMPLIES WITH BS 8102:2009

130MM KINGSPAN STYROZONE RIGID XPS INSULATION WITH A THERMAL CONDUCTIVITY OF 0.029W/mK (INDICATIVE U VALUE FOR WALL SLAB 0.206W/m²K). INSTALL TO MANUFACTURERS GUIDELINES. PRODUCT COMPLIES WITH BS EN 13166 : 2008

IKO PERFORMED PIPE CLOAK (100MM X 150MM)


150MM (MIN) HARDWARE LAYERS - ENSURE HARDWARE IS WELL COMPACTED, CLEAN, FREE FROM MATTER AND GRADED (40MM SIZE OF STONES). HARDWARE SHOULD CONFORM WITH I.S. EN 13242:2002 (TGD C - AMENDMENTS - SEPTEMBER 2004).

WAVIN OSMA UPVC SOIL VENT PIPE (110MM DIAMETER) INSTALL TO MANUFACTURERS SPECIFICATIONS

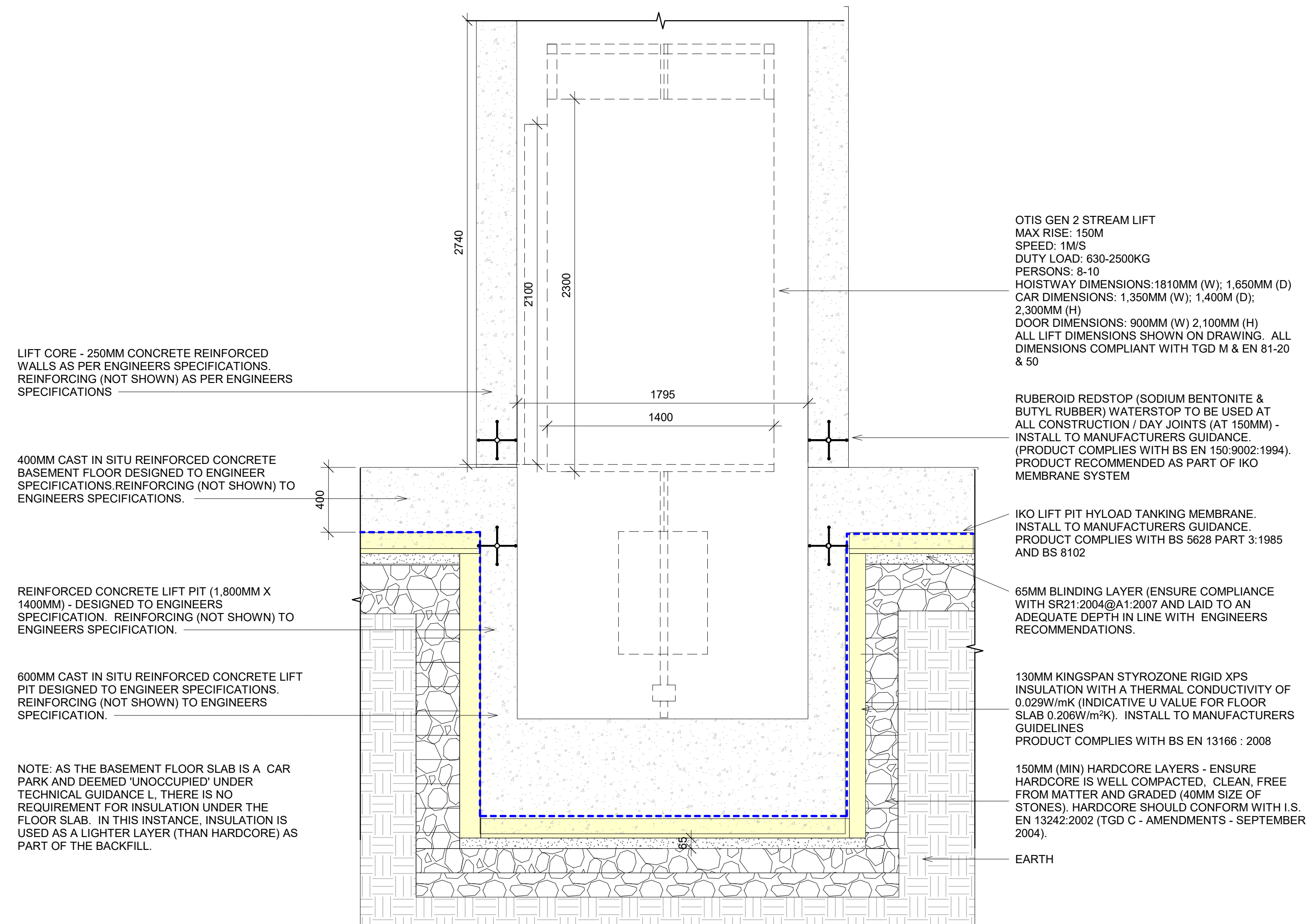
LINK-SEAL MODULAR WALL SEALS FOR PIPE PENETRATIONS INSTALL TO MANUFACTURERS SPECIFICATIONS

WAVIN OSMA D/S BEND 87.5° - PUSH FIT RING SEAL SOCKET AT EACH END INSTALL TO MANUFACTURERS SPECIFICATIONS


5 Pipe Through External Wall Detail
1 : 10

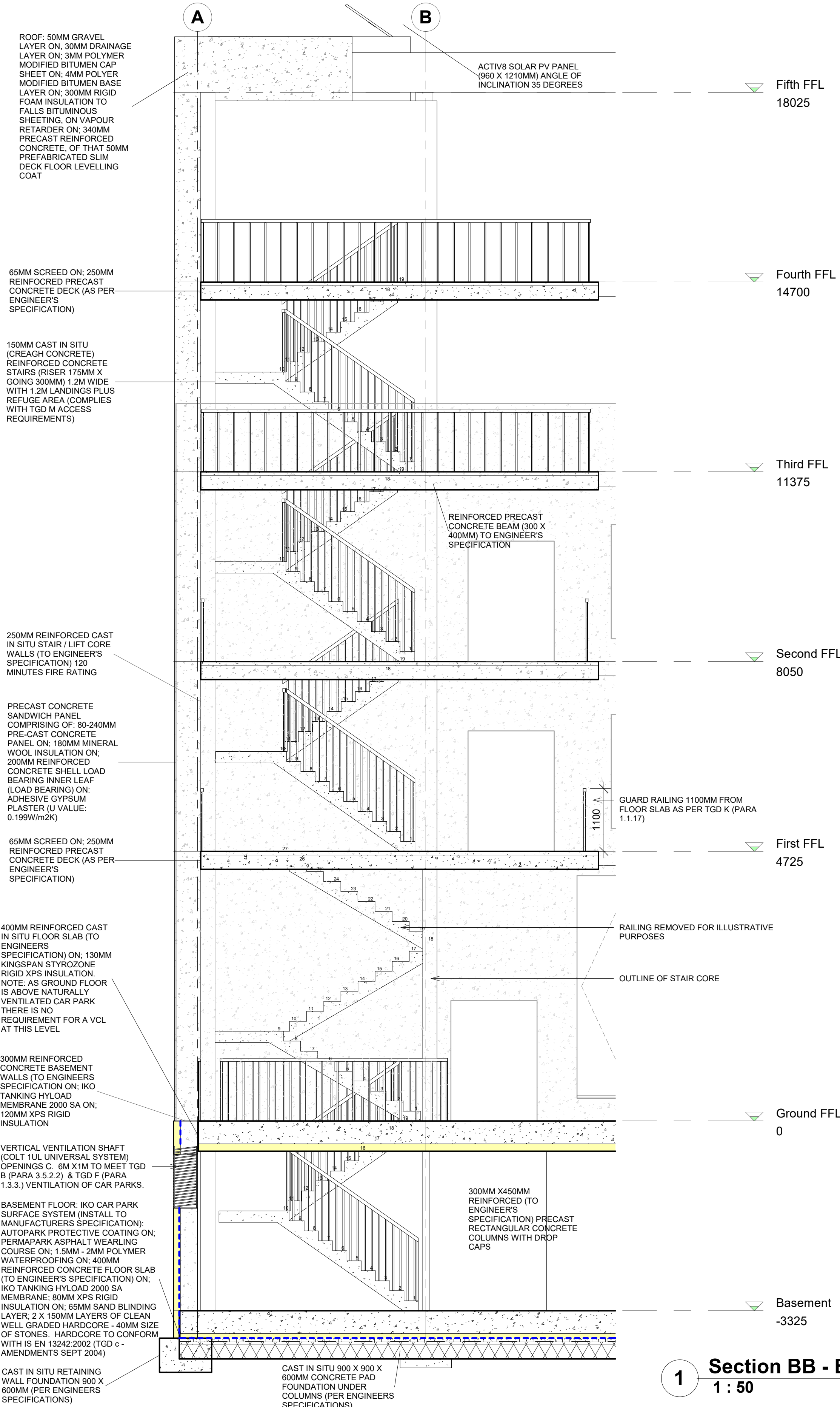
Organisation Name TUDublin	Client Name DT175 02	Scale 1 : 10	Project number TDS 4	Date 17 May 2019	Drawn by Emma Harrington		Emma Harrington DT175-02 2018_19
Project Name TDS Project - Concrete Building	Sheet Name Details of Basement	Checked by EJH	P402				

BASEMENT LIFT PIT DETAIL

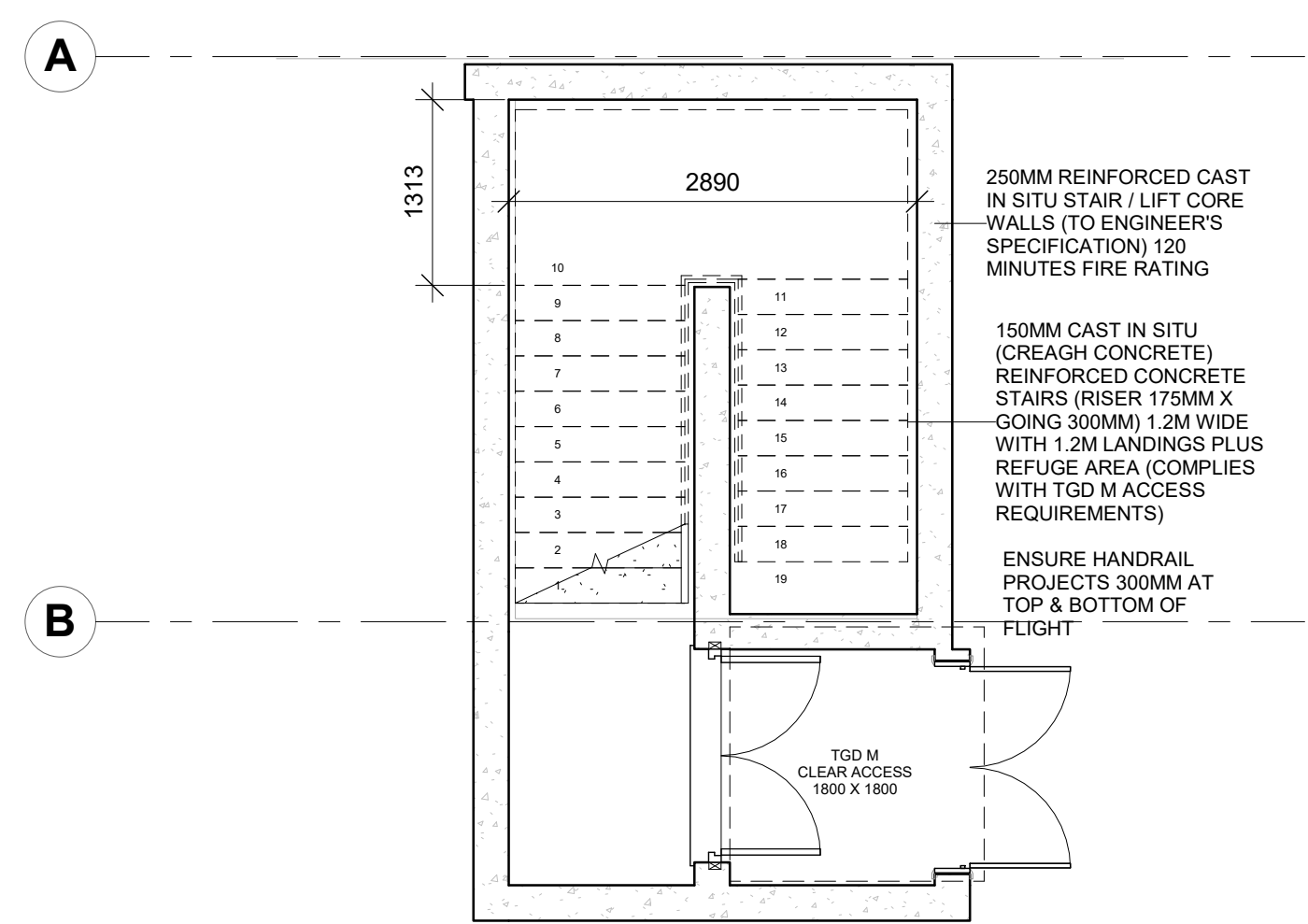


1 Lift & Lift Pit Details
 1 : 20

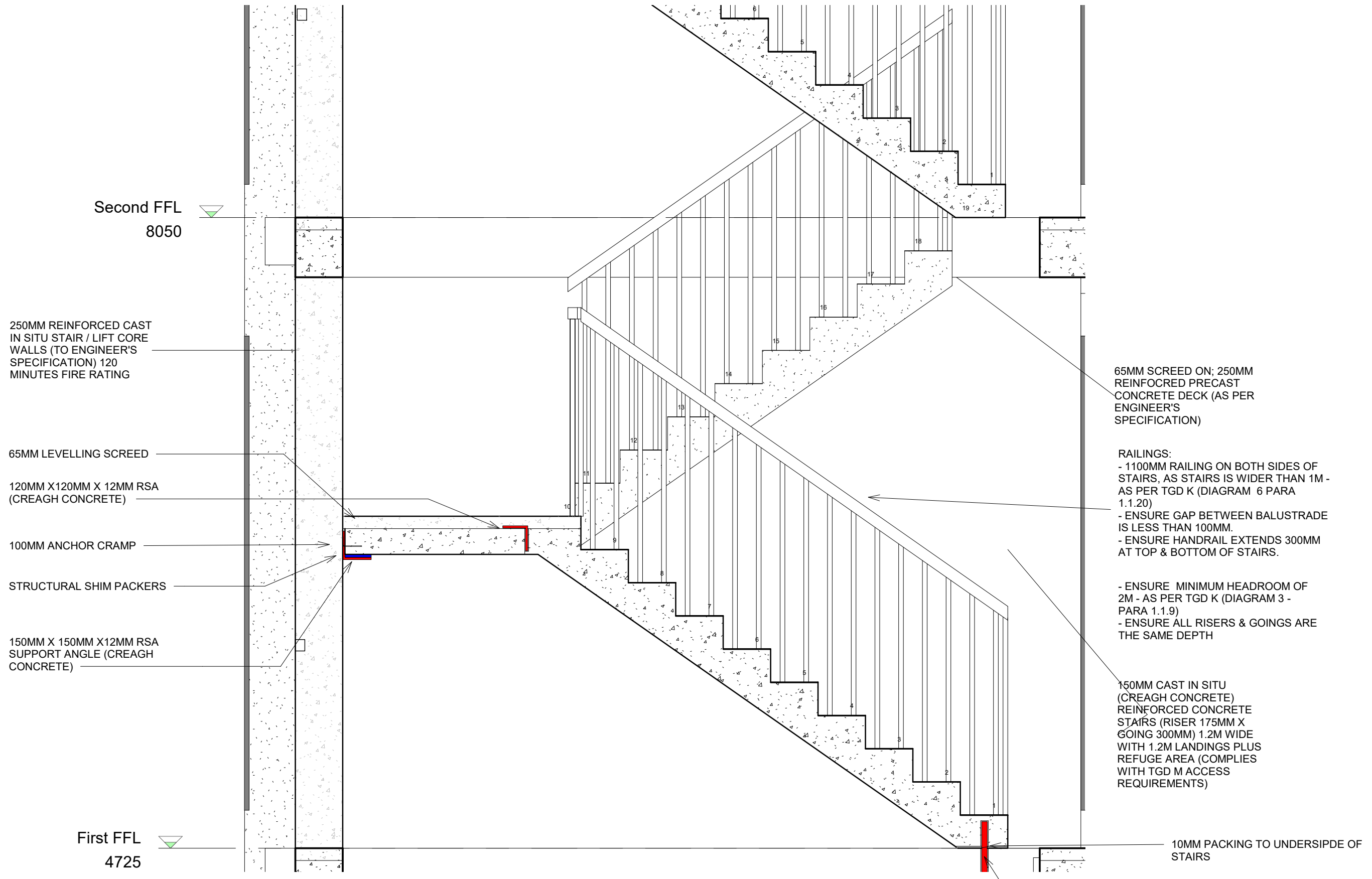
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Project Name TDS Project - Concrete Building	Sheet Name Lift Pit Details	Checked by Checker		007					



1 Section BB - External Stairs
1 : 50



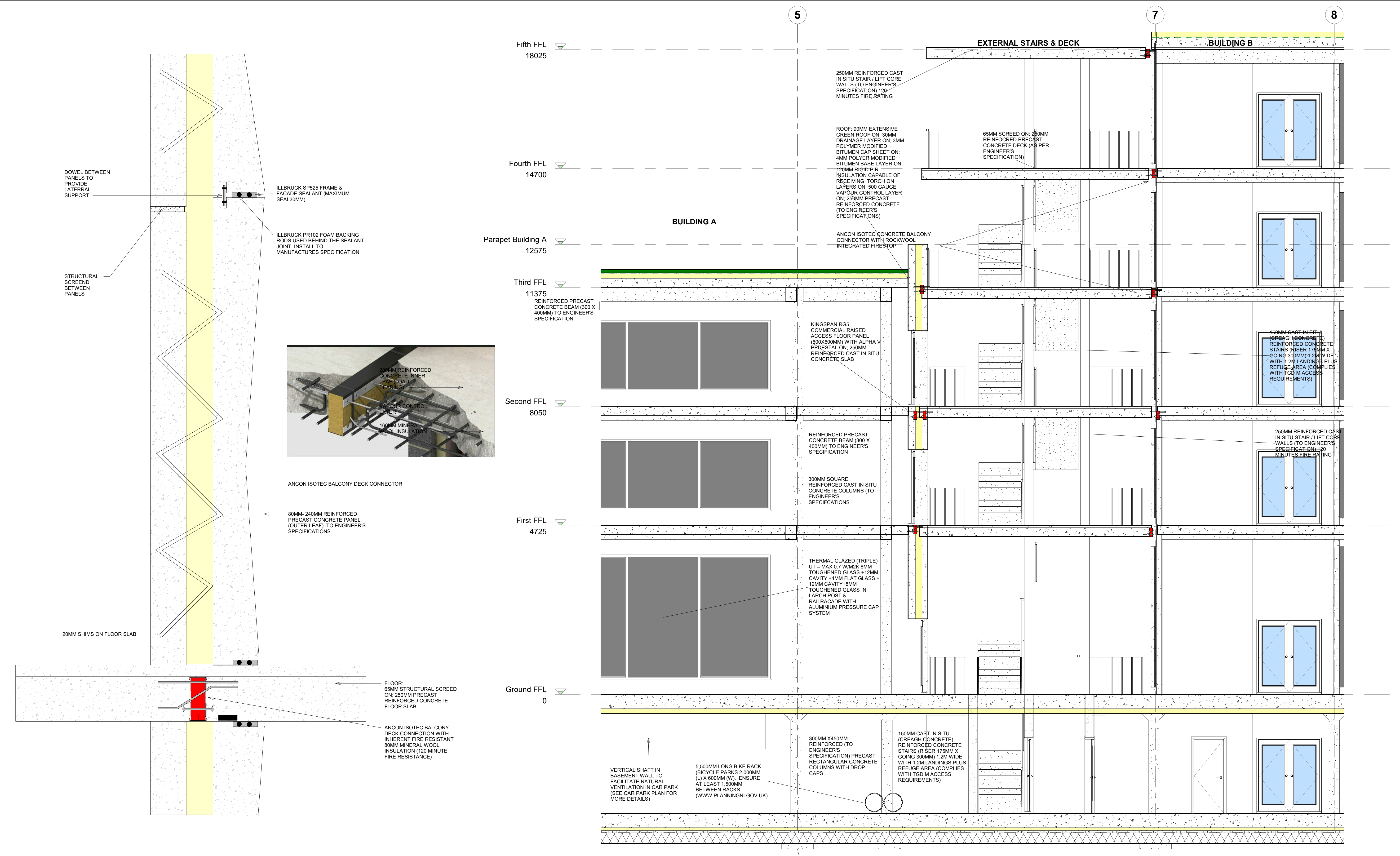
2 Stairs - Plan
1 : 50



3 Section BB - External Stairs Connection Details
1 : 20


Organisation Name TUDublin	Client Name DT175 02	Scale As indicated	Project number 2E	Date 10 April 2019	Drawn by Emma Harrington	 Emma Harrington DT175-02 2018_19
Project Name TDS Project 2&3	Sheet Name Open Stair / Balcony - Plan, Section, Elevation	Checked by Checker	403			



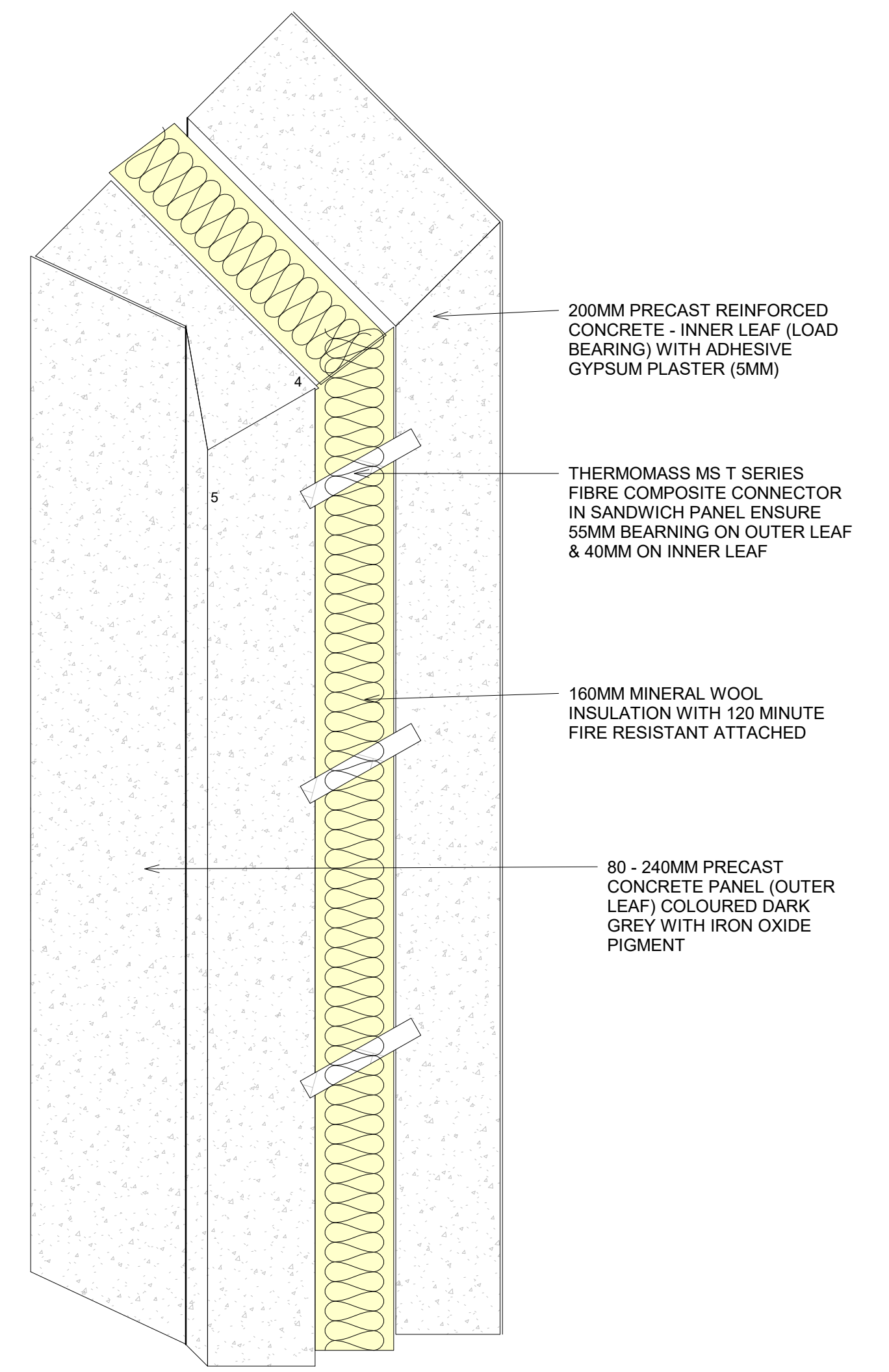
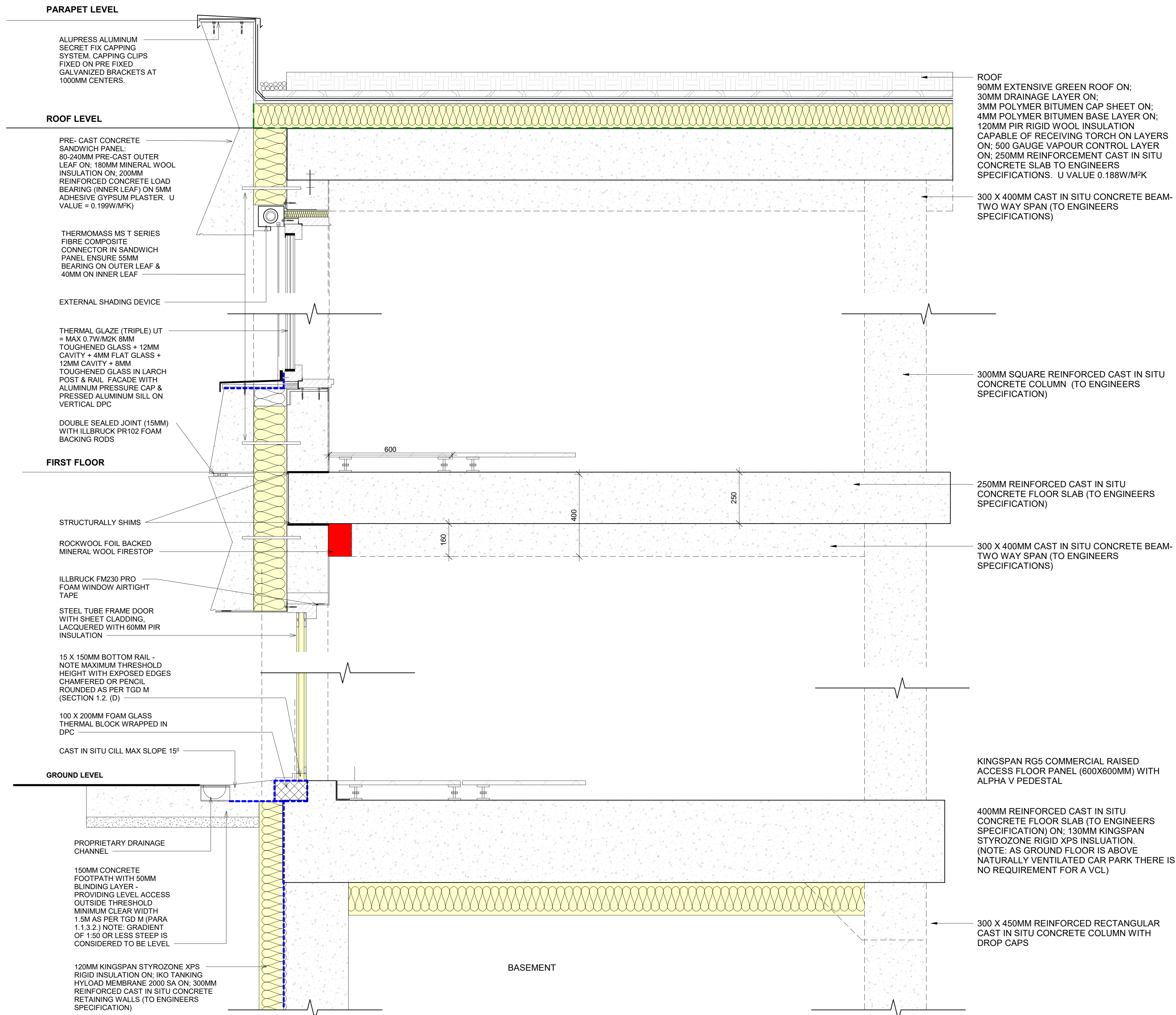


1 Balcony Deck & Panel Details
1 : 10

2 Callout - Floors / Deck Detail
1 : 50

Organisation Name TUDublin	Client Name DT175 02	Scale As indicated	Project number 2E	Date 10 April 2019	Drawn by Emma Harrington	 Emma Harrington DT175-02 2018_19
Project Name TDS Project 2&3	Sheet Name Open Stair / Balcony Details	Checked by Checker	404			



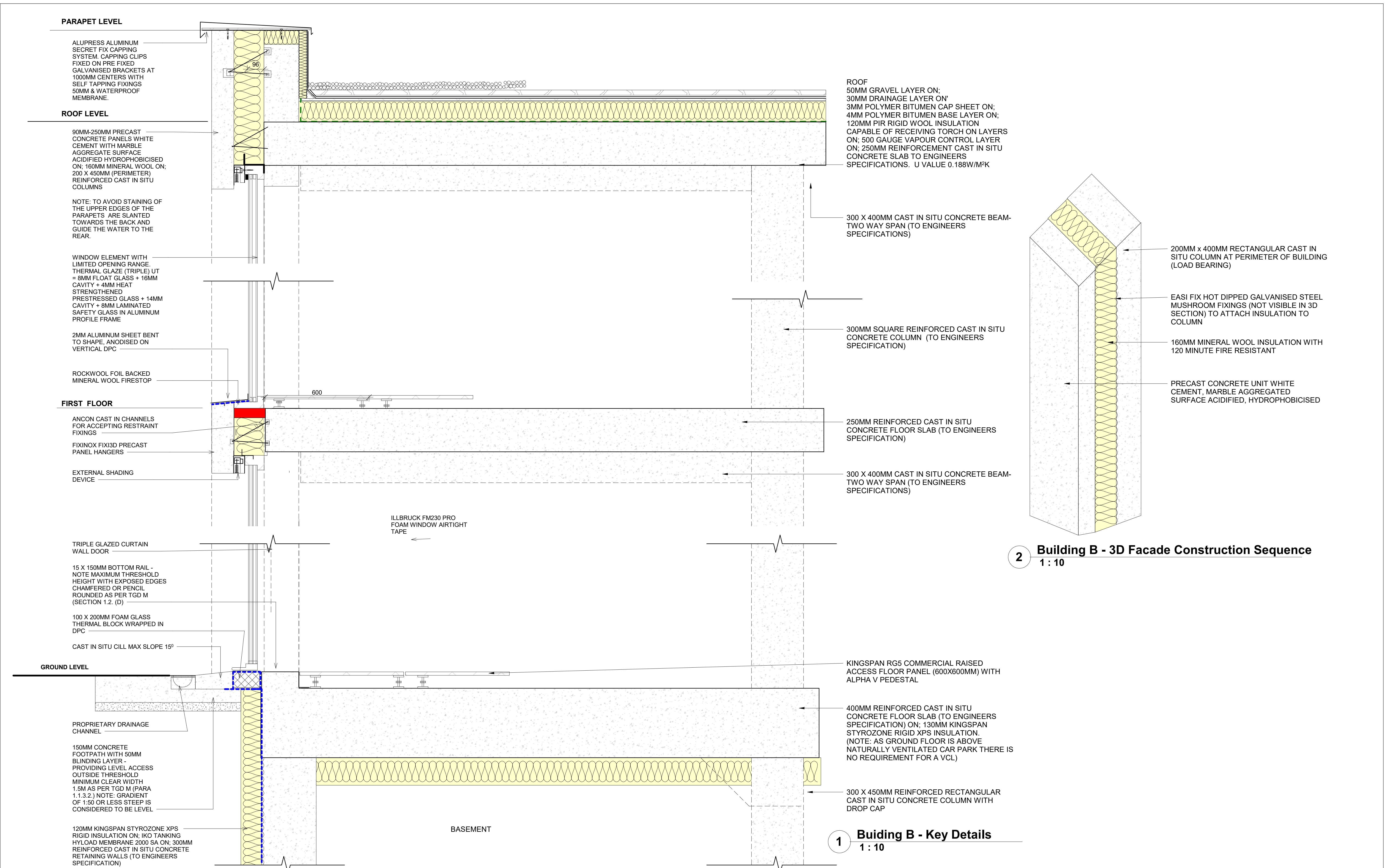




2 Building A - 3D Facade (Sandwich Panel)
1 : 10

1 Building A - Key Details
1 : 10

Organisation Name TUDublin	Client Name DT175 02	Scale 1 : 10	Project number TDS 4	Date 17 May 2019	Drawn by Emma Harrington		Emma Harrington DT175-02 2018_19	
Project Name TDS Project - Concrete Building	Sheet Name Building A - Construction Details	Checked by EJH	P403					



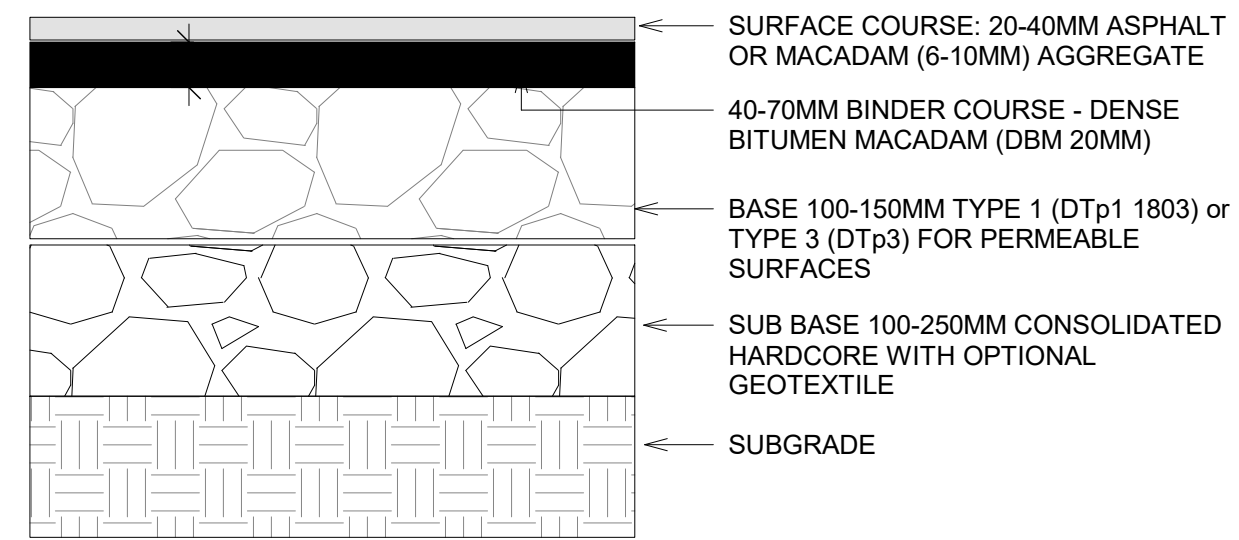


Organisation Name TUDublin	Client Name DT175 02	Scale 1 : 10	Project number TDS 4	Date 17 May 2019	Drawn by Emma Harrington		Emma Harrington DT175-02 2018_19	
Project Name TDS Project - Concrete Building	Sheet Name Building B - Construction Details	Checked by EJH	P404					

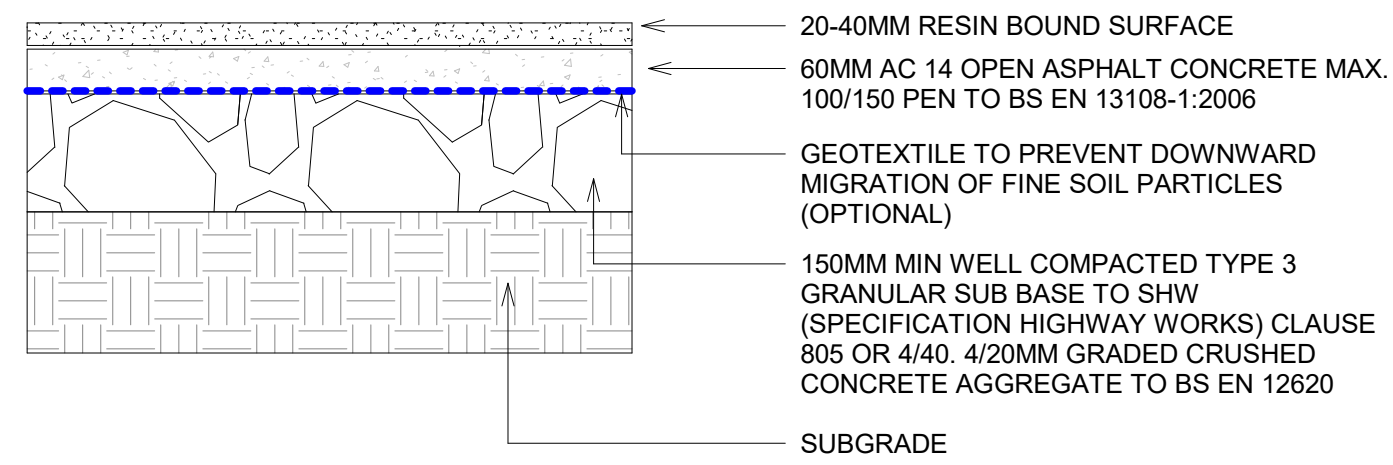
LANDSCAPING DETAILS - ROADS, FOOTPATHS, KERBS & DRAINAGE

(SEE ESQUISSES PAGE 1-9 FOR MORE DETAILS)

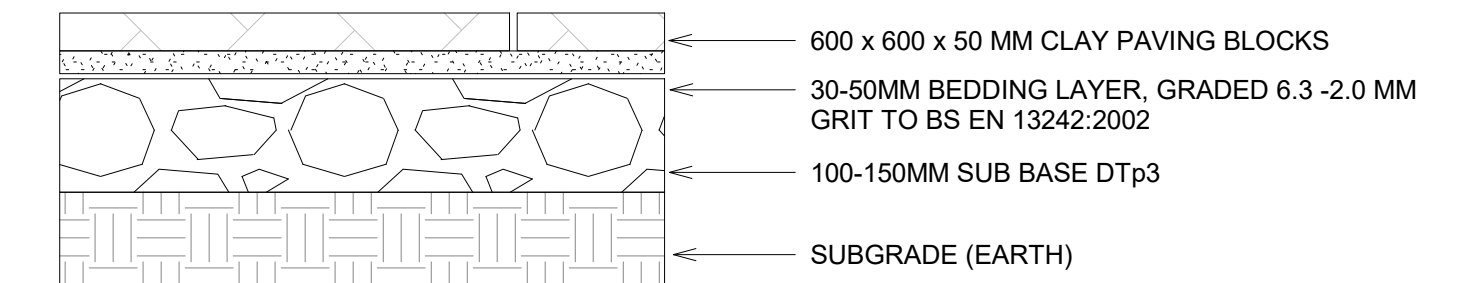
ROADWAY - BITUMEN MACADAM COURSE



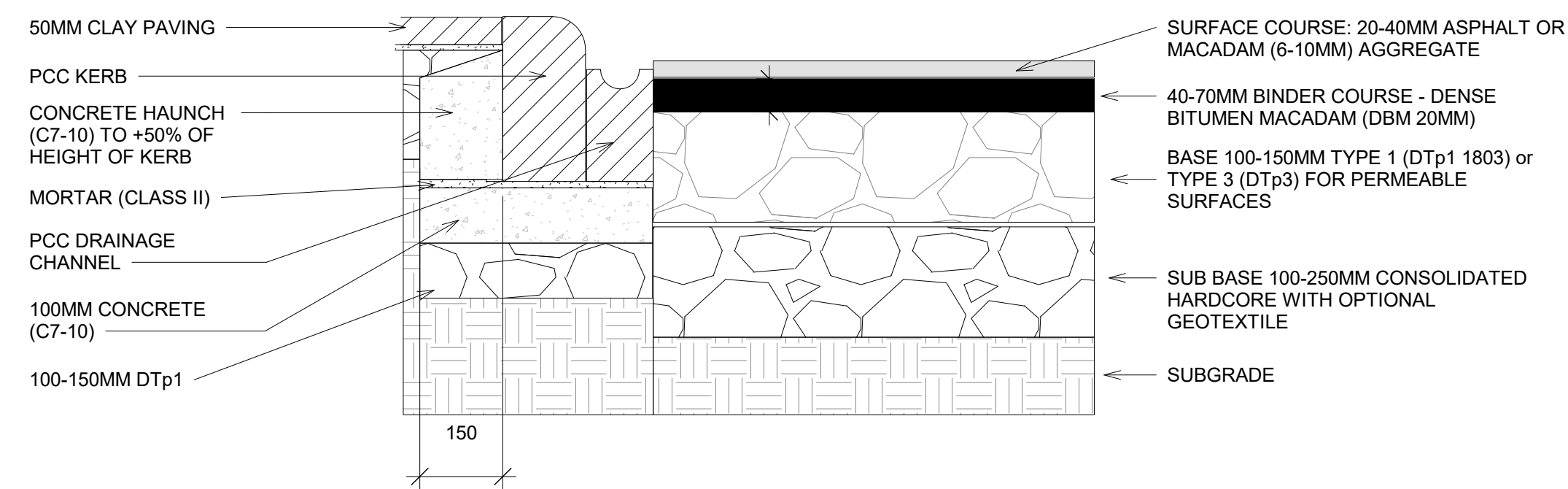
RESIN BOUND SURFACE AS A PATHWAY - IMPERMEABLE



FOOTPATHS - CLAY BLOCK PAVING: IMPERMEABLE

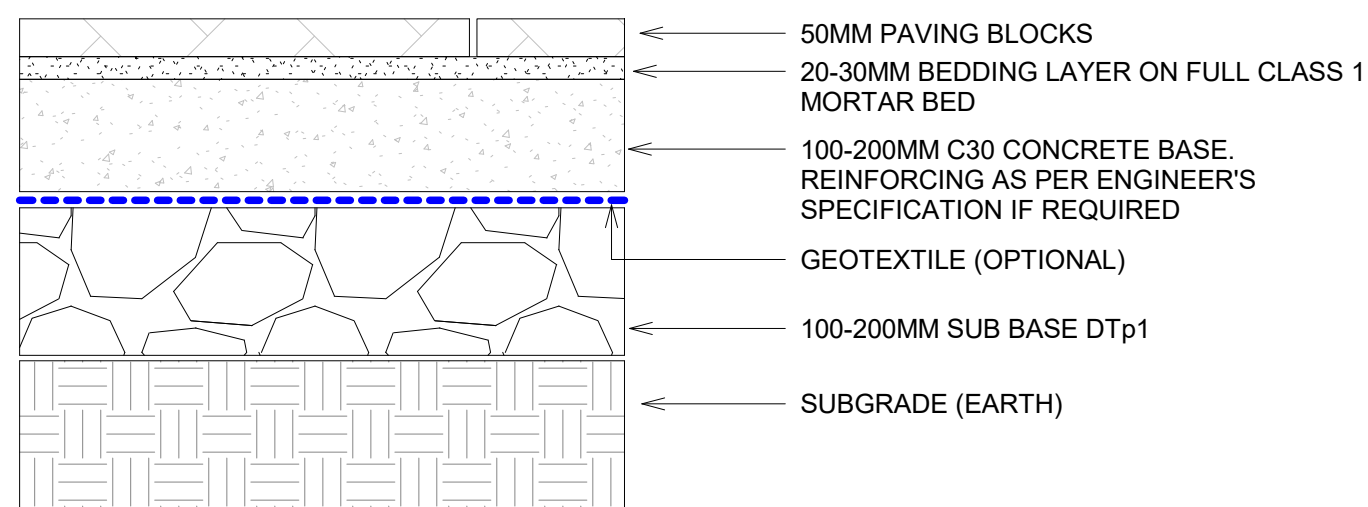


DRAINAGE AT ROADWAY - PRE CAST OPEN WATER CHANNELS

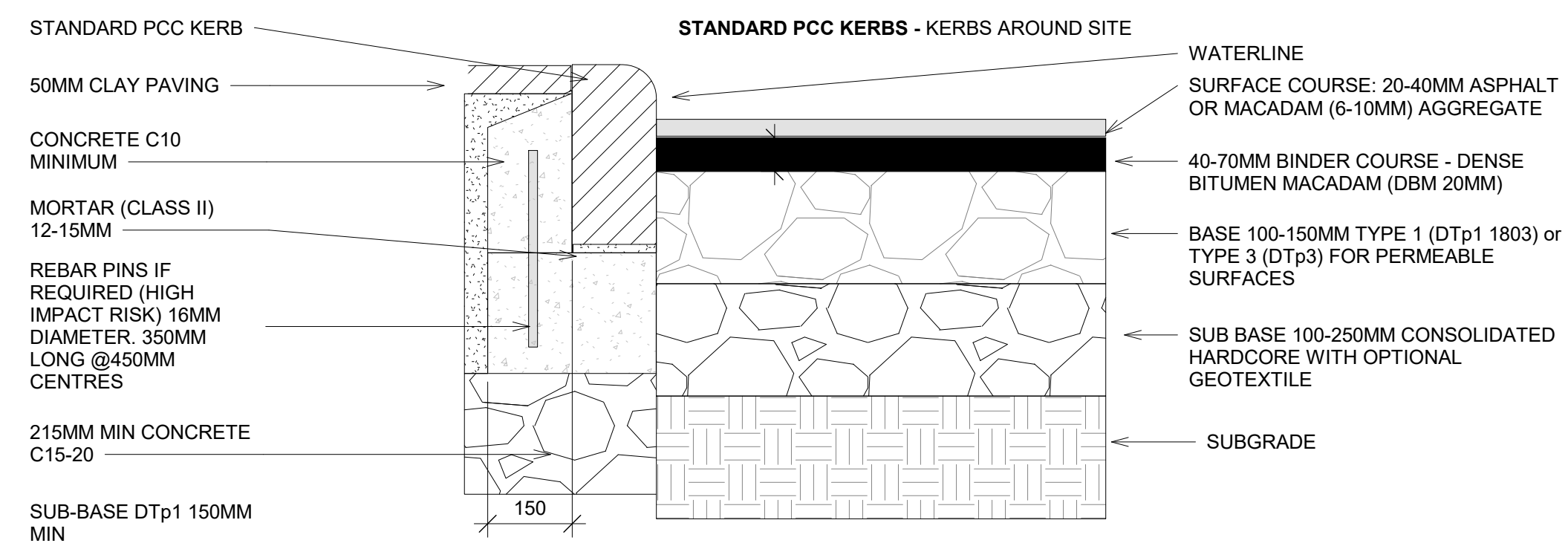


NOTE: THE KERB & DRAINAGE CAN BE CONSTRUCTED ON THE SAME SUB BASE AND CONCRETE FOUNDATION. HOWEVER THE PAVING OR ROAD SUPPORT LAYERS SHOULD BE CONSTRUCTED SEPARATELY FROM THE DRAINAGE & KERB ELEMENTS. THIS ENSURES THAT ANY MOVEMENT IN THE PAVED AREA IS CONSTRAINED BY THE EDGING STRUCTURES, THAT IT DOES NOT FLATTEN OR FALL.

PAVING SLABS AS A PARKING OR ROAD SURFACE - IMPERMEABLE

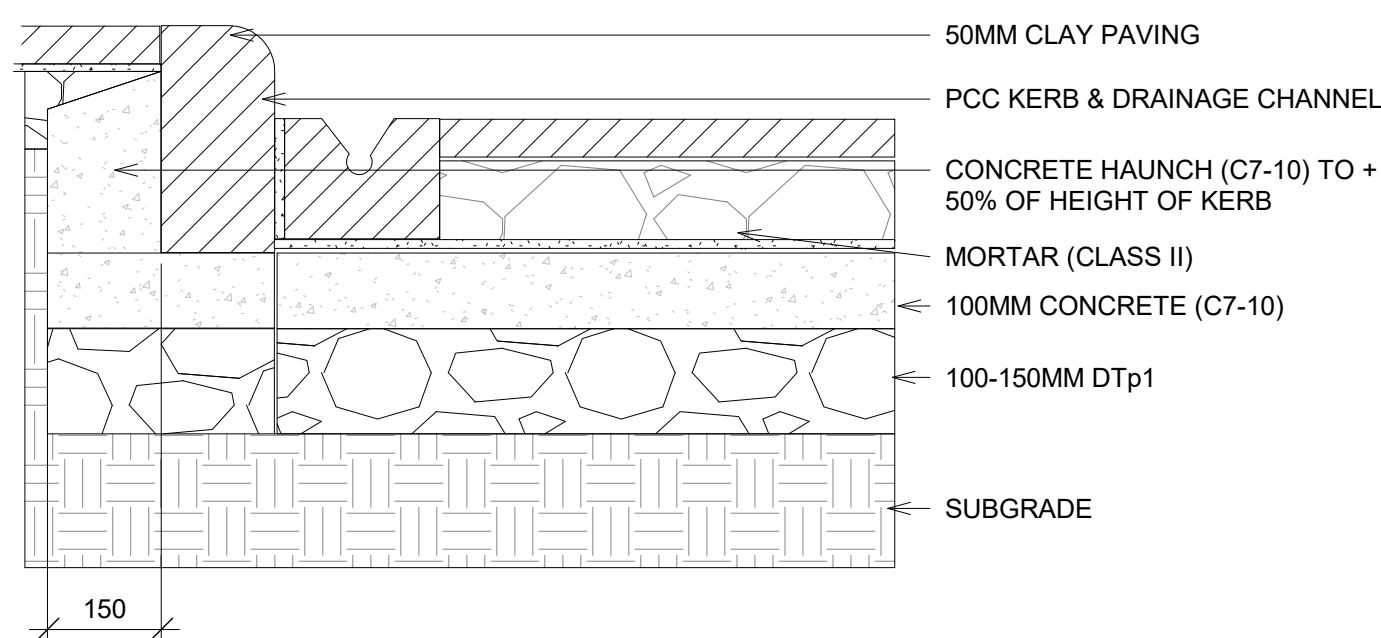


NOTE: HERRINGBONE PATTERN IS THE MOST EFFECTIVE PATTERN AS EACH BLOCK IS IN CONTACT WITH AS MANY BONDS AS POSSIBLE (MAX. 6) AND DISTRIBUTES LOAD & LATERAL FORCES. JOINT WIDTH IS 6MM (MIN) FILLED WITH GRADED 6.3 2MM GRIT. ALL JOINTS SHOULD BE FIRMLY FILLED.




NOTE: ROAD SURFACE IS LAID 25-75MM BELOW WATERLINE

DRAINAGE AT KERBS - DRAINAGE AT FOOTPATH & SET DOWN AREA



1 Landscaping (Hard) Features 1 : 10

Organisation Name TUDublin	Client Name DT175 02	Scale 1 : 10	Project number TDS 4	Date 17 May 2019	Drawn by Emma Harrington		Emma Harrington DT175-02 2018_19			
Project Name TDS Project - Concrete Building	Sheet Name Details of (Hard) Landscaping Features	Checked by EJH	P401							

1:20 Bay Model: Photographs



Front Elevation



Rear Elevation - Through Building



East Elevation - Through Building



East Elevation - Through Building



West Elevation - Close up of Roof Build Up