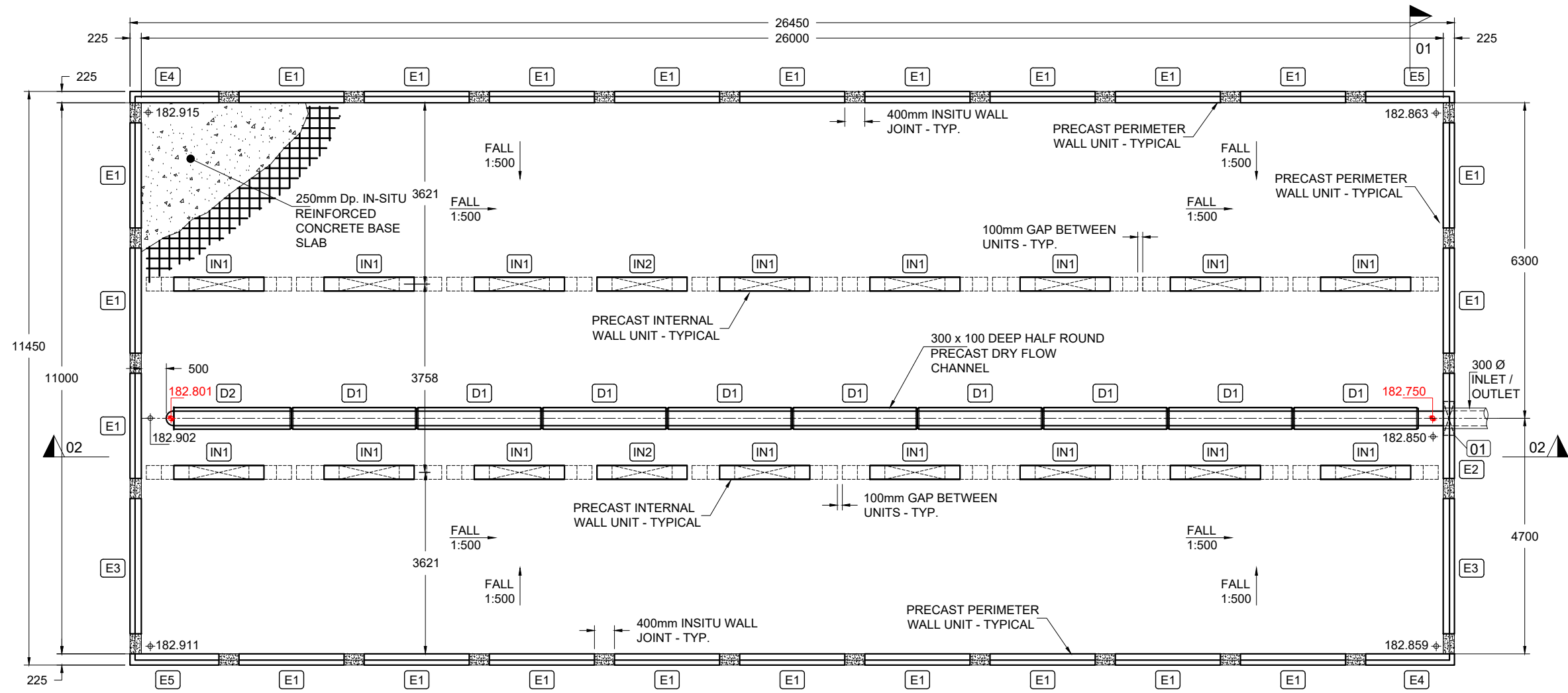


Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	0	20-05-25	ISSUED FOR APPROVAL
Date:	20-05-25	A	25-09-25	YORKSHIRE WATER REFERENCE NUMBER ADDED
Drng No.:	STS4287-001	B	18-11-25	COVER LEVEL, TURRET REFERENCE AND YW NOTE REVISED

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED"

DRAWING TITLE: RIVA HOMES
CROFT STREET, BIRKENSHAW
1.4m DEEP ATTENUATION TANK
BASE LAYOUT

YORKSHIRE WATER REFERENCE NUMBER : S104-2025-035



BASE PLAN:
Scale: 1:100

ISSUED FOR APPROVAL

00.000 + = DENOTES INVERT LEVEL IN DRY FLOW CHANNEL
00.000 ⊕ = DENOTES STRUCTURAL SLAB LEVEL

PRECAST CONCRETE SPECIFICATION	
CONCRETE GRADE:	C40/50
EXPOSURE CLASS:	XD1 / XC4
DESIGN CHEMICAL CLASS:	DC-1
MIN CEMENT CONTENT:	360 kg/m³
CEMENT TYPE:	CEM IIB-S
GGBS CONTENT:	25%
MAX WATER / CEMENT RATIO:	0.45
AGGREGATE TYPE:	LIMESTONE
MAX AGGREGATE SIZE:	14mm
SLUMP CLASS:	N/A

INSITU CONCRETE SPECIFICATION GENERAL	
CONCRETE GRADE:	C35/45
EXPOSURE CLASS:	XD1 / XC4
DESIGN CHEMICAL CLASS:	DC-1
MIN CEMENT CONTENT:	325 kg/m³
MAX CEMENT CONTENT:	400 kg/m³
CEMENT TYPE:	CEM IIIA + SR
GGBS CONTENT:	50%
MAX WATER / CEMENT RATIO:	0.50
AGGREGATE TYPE:	LIMESTONE
MAX AGGREGATE SIZE:	20mm
SLUMP CLASS:	SEE NOTE 1

INSITU CONCRETE SPECIFICATION WALL JOINTS AND ROOF SCREED	
CONCRETE GRADE:	C35/45
EXPOSURE CLASS:	XD1 / XC4
DESIGN CHEMICAL CLASS:	DC-1
MIN CEMENT CONTENT:	380 kg/m³
MAX CEMENT CONTENT:	400 kg/m³
CEMENT TYPE:	CEM IIIA + SR
GGBS CONTENT:	50%
MAX WATER / CEMENT RATIO:	0.50
AGGREGATE TYPE:	LIMESTONE
MAX AGGREGATE SIZE:	10mm
SLUMP CLASS:	SEE NOTE 1
NOTE 1: PUMP MIX 120mm TARGET SLUMP (TOLERANCE -10mm, +40mm)	

NOMINAL COVER	
PRECAST:	40mm
INSITU:	45mm
BASE SLAB BOTTOM STEEL:	50mm
SURFACE FINISHES	
ROOF SCREED:	WOOD FLOAT
BASE SLAB:	STEEL TROWEL
INTERNAL SURFACE:	FAIR WORKED
EXTERNAL SURFACE:	FAIR

KEY TO PRECAST WALL TYPES					
TYPE	DESCRIPTION	QUANTITY	HEIGHT	WIDTH	WEIGHT
E1	STANDARD EXTERNAL WALL	23	1.900m	2.10m	2.13t
E2	STANDARD EXTERNAL WALL WITH OPENING	1	1.900m	2.10m	1.87t
E3	CUSTOM EXTERNAL WALL	2	1.900m	2.70m	2.74t
E4	CUSTOM EXTERNAL WALL	2	1.900m	1.775m	1.80t
E5	CUSTOM EXTERNAL WALL	2	1.900m	1.775m	1.80t
IN1	STANDARD INTERNAL WALL	16	1.39m	2.90m	1.36t
IN2	MODIFIED STANDARD INTERNAL WALL	2	1.39m	1.80m	1.09t
D1	STANDARD PRECAST DRY FLOW CHANNEL (2.50m LONG)	9	0.100m	0.30m	0.43t
D2	STANDARD PRECAST DRY FLOW CHANNEL (2.35m LONG)	1	0.100m	0.30m	0.40t

DESIGN ASSUMPTIONS	
DESIGN LIFE:	50 YEARS
DESIGN EXPOSURE CLASSIFICATION:	XD1 / XC4
DESIGN CHEMICAL CLASS:	DC-1
TIGHTNESS CLASS:	CLASS 1
IMPOSED LOAD ON COVER SLAB:	MORE ONEROUS OF 10 kn/m² UDL OR 40t HGV AXLE LOADING
MAXIMUM COVER LEVEL:	+185.880m (1.367m OVERBURDEN)
MINIMUM COVER LEVEL:	+185.100m (0.535m OVERBURDEN)
ASSUMED INTERNAL WATER LEVEL:	TOP OF TANK LEVEL
ASSUMED GROUND WATER LEVEL (FLOATATION):	SURFACE LEVEL
ASSUMED GROUND WATER LEVEL (ULS):	SURFACE LEVEL
ASSUMED GROUND WATER LEVEL (SLS):	TOP OF TANK LEVEL
ASSUMED ALLOWABLE BEARING PRESSURE	>150 kn/m²

ESTIMATED INSITU CONCRETE VOLUMES	
INSITU CONCRETE BLINDING	28.5m³
BASE SLAB	77.0m³
ROOF SCREED	40.0m³
INSITU WALL JOINTS	4.5m³
BENCHING	n/a
ESTIMATED VOLUMES INCLUDE A 5% ALLOWANCE FOR SITE DEVIATION	

KEY TO WALL OPENING TYPES			
	QUANTITY	DESCRIPTION	INVERT
01	1	675mm x 650mm OPENING FOR 300 Ø CONCRETE PIPE	182.750

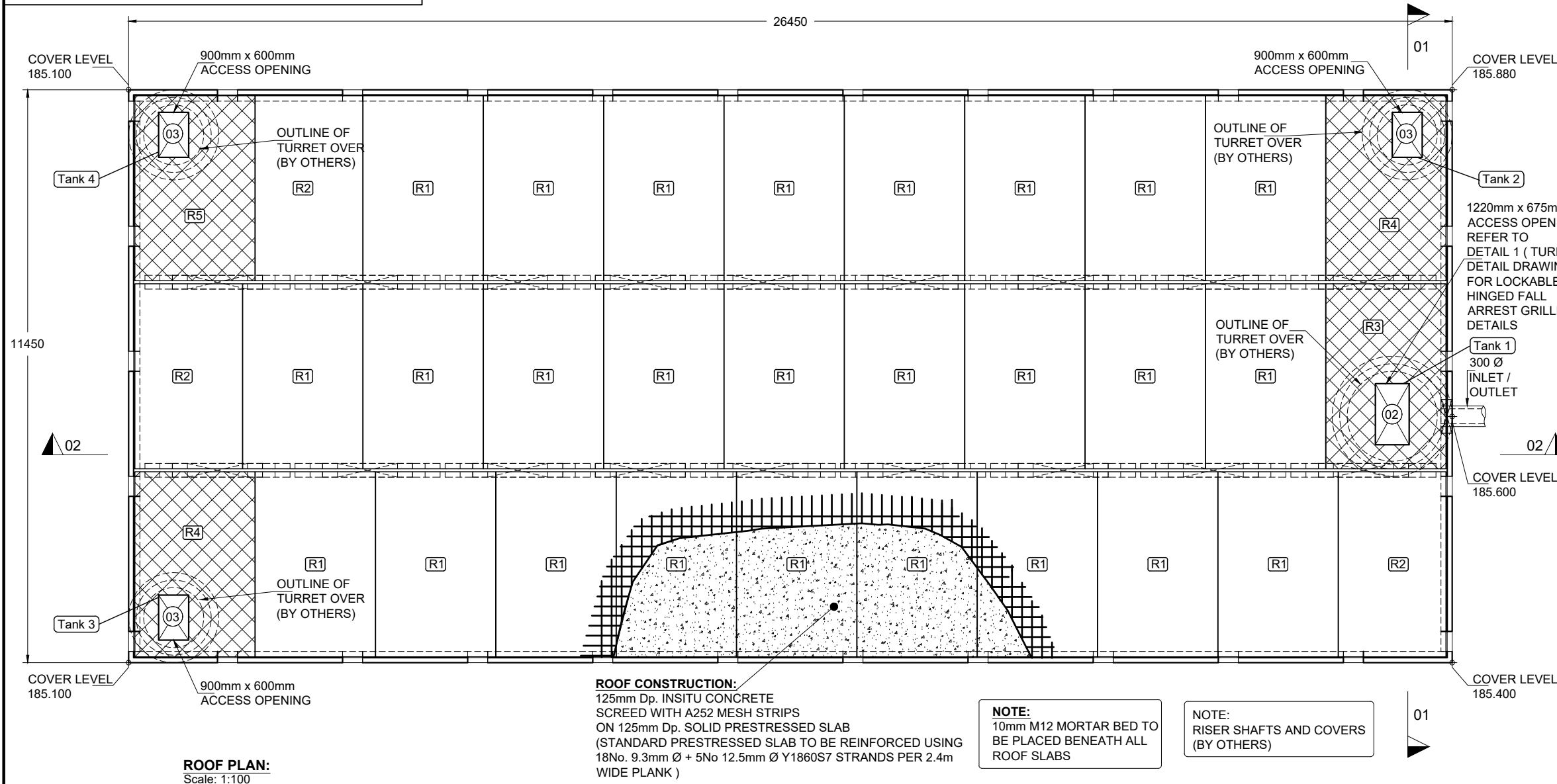
ESTIMATED MORTAR REQUIRED	
M12 MORTAR	0.4m³
ESTIMATED VOLUMES INCLUDE A 5% ALLOWANCE FOR SITE DEVIATION	

Drawn By: TH	Rev.	Date.	Comments.
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ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED"

DRAWING TITLE: RIVA HOMES
CROFT STREET, BIRKENSHAW
1.4m DEEP ATTENUATION TANK
ROOF LAYOUT

YORKSHIRE WATER REFERENCE NUMBER : S104-2025-035

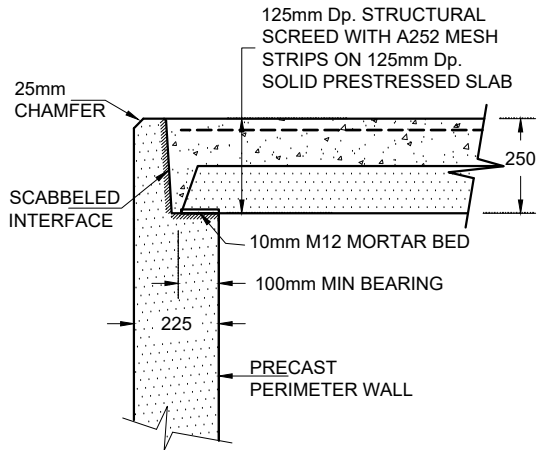


ROOF PLAN:
Scale: 1:100

ROOF CONSTRUCTION:
125mm Dp. INSITU CONCRETE SCREED WITH A252 MESH STRIPS ON 125mm Dp. SOLID PRESTRESSED SLAB (STANDARD PRESTRESSED SLAB TO BE REINFORCED USING 18No. 9.3mm Ø + 5No 12.5mm Ø Y1860S7 STRANDS PER 2.4m WIDE PLANK)

- NOTE:** 10mm M12 MORTAR BED TO BE PLACED BENEATH ALL ROOF SLABS
- NOTE:** RISER SHAFTS AND COVERS (BY OTHERS)

ISSUED FOR APPROVAL



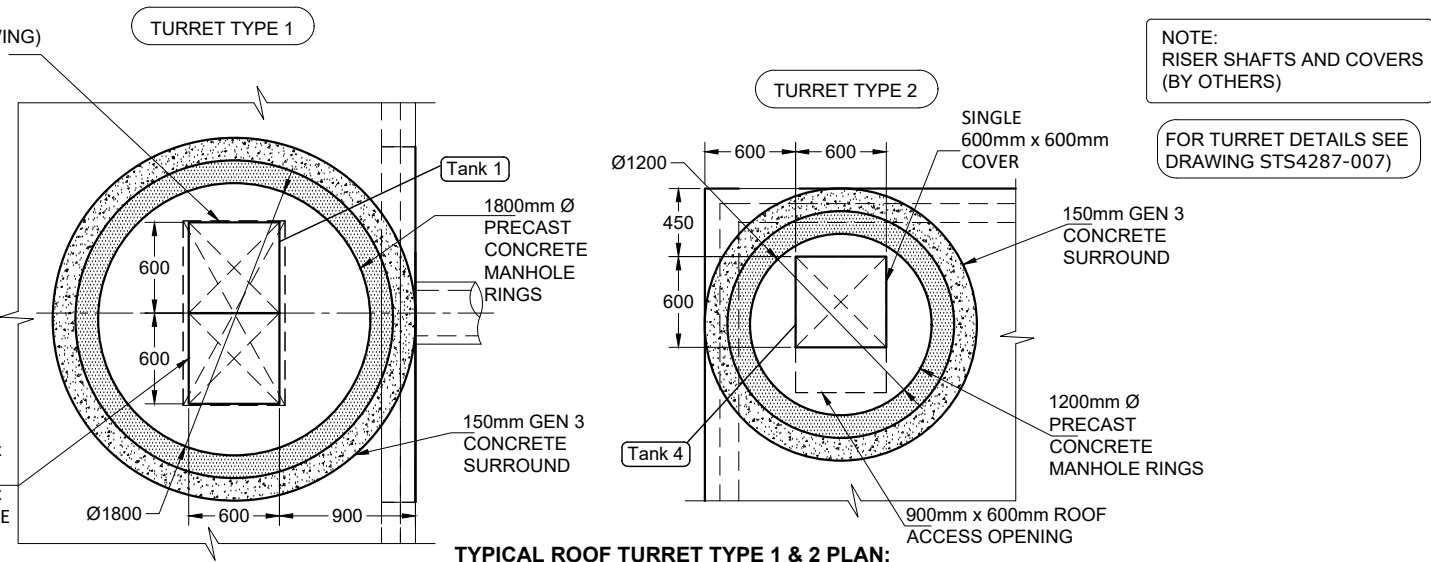
PERIMETER WALL - TOP OF WALL DETAIL:
SCALE: 1:20

KEY TO ROOF SLAB TYPES						
UNIT	DESCRIPTION	WIDTH	LENGTH	DEPTH	WEIGHT	QUANTITY
R1	SOLID PRESTRESSED SLAB	2.400m	3.700m	125mm	2.61t	26
R2	NARROW SOLID PRESTRESSED SLAB	2.150m	3.700m	125mm	2.34t	3
R3	CUSTOM SLAB WITH OPENING	2.400m	3.700m	150mm	2.96t	1
R4	CUSTOM SLAB WITH OPENING	2.400m	3.700m	150mm	3.06t	2
R5	CUSTOM SLAB WITH OPENING	2.400m	3.700m	150mm	3.06t	1

NOTE: STANDARD PRESTRESSED SLAB TO BE REINFORCED USING 18No. 9.3mm Ø + 5No 12.5mm Ø Y1860S7 STRANDS PER 2.4m WIDE PLANK

1220mm x 675mm ACCESS OPENING REFER TO DETAIL 1 (TURRET DETAIL DRAWING) FOR LOCKABLE HINGED FALL ARREST GRILLE DETAILS

NOTE: CHAMBER RINGS TO THE CARLOW TANK MUST NOT OVERHANG THE CARLOW TANK ROOF SLAB



TYPICAL ROOF TURRET TYPE 1 & 2 PLAN:
Scale: 1:50

KEY TO ROOF OPENING TYPES		
QUANTITY	DESCRIPTION	
02	1	1220mm x 675mm ROOF OPENING
03	3	900mm x 600mm ROOF OPENING

NOTE: RISER SHAFTS AND COVERS (BY OTHERS)

FOR TURRET DETAILS SEE DRAWING STS4287-007)

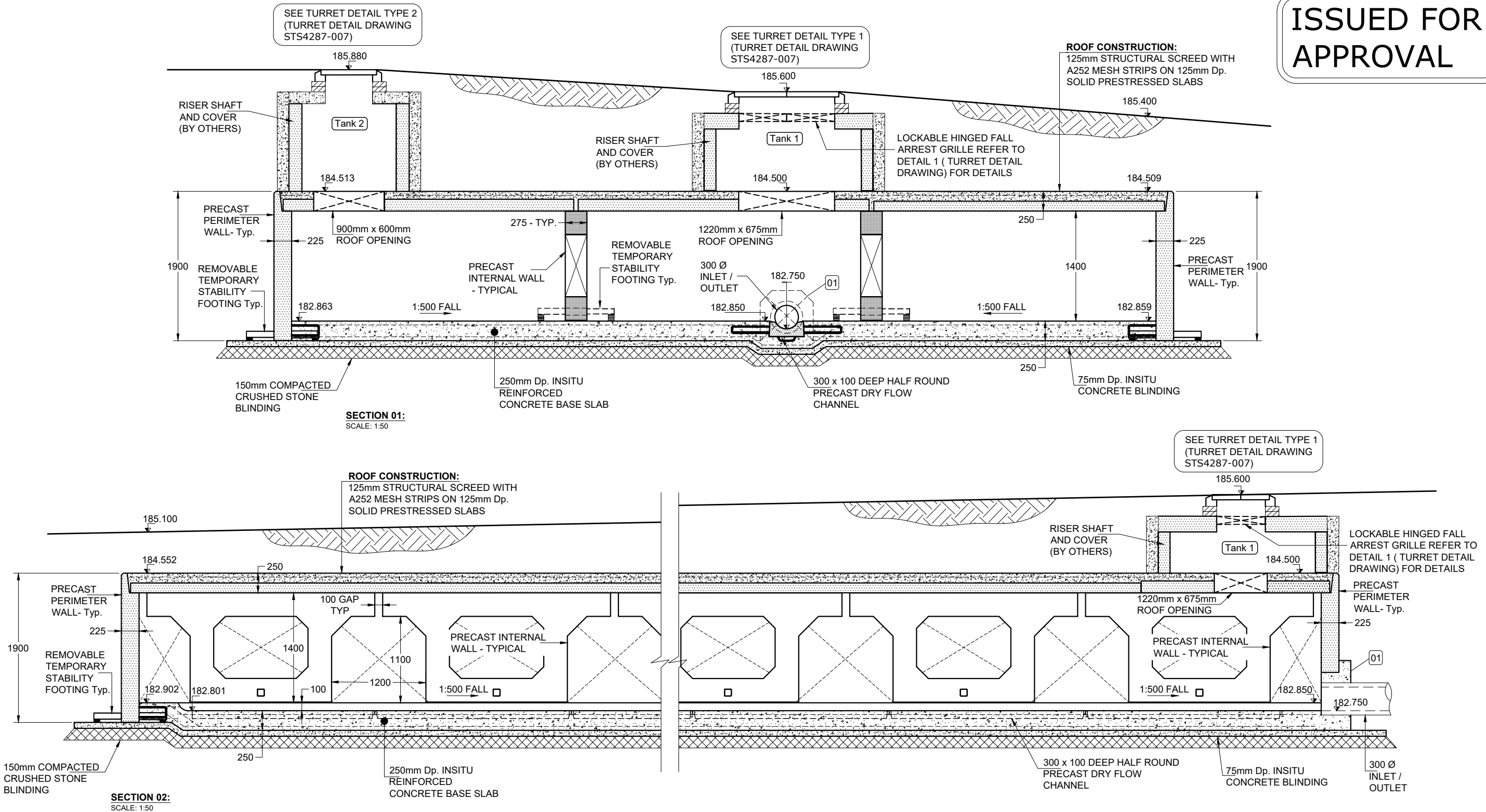
Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	0	20-05-25	ISSUED FOR APPROVAL
Date:	20-05-25	A	25-09-25	YORKSHIRE WATER REFERENCE NUMBER ADDED
Drg No.:	STS4287-003	B	18-11-25	COVER LEVEL, TURRET REFERENCE AND YW NOTE REVISED

DRAWING TITLE: RIVA HOMES
CROFT STREET, BIRKENSHAW
1.4m DEEP ATTENUATION TANK
SECTIONS SHEET 1

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED"

YORKSHIRE WATER REFERENCE NUMBER : S104-2025-035

ISSUED FOR APPROVAL

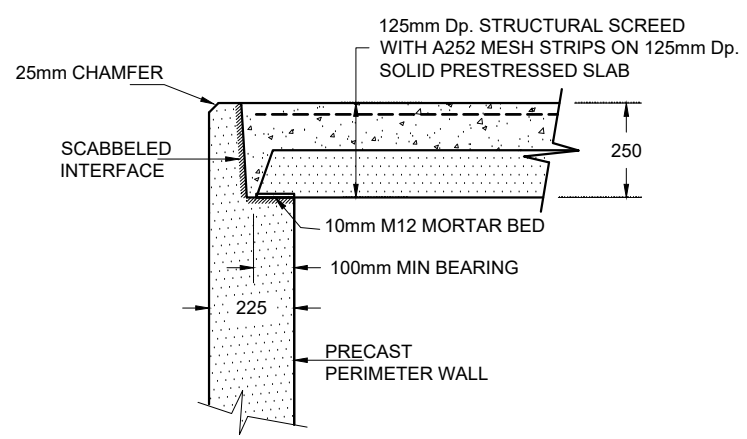


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Chkd By:	PL	0	20-05-25	ISSUED FOR APPROVAL
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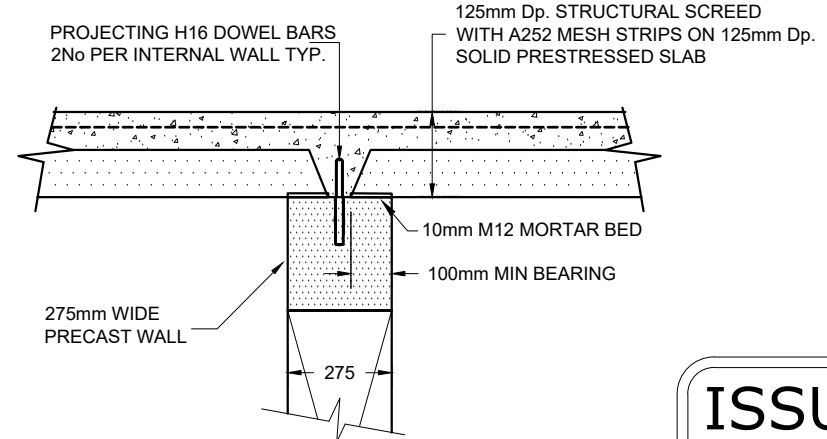
DRAWING TITLE: RIVA HOMES
CROFT STREET, BIRKENSHAW
1.4m DEEP ATTENUATION TANK
DETAILS SECTIONS

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED"

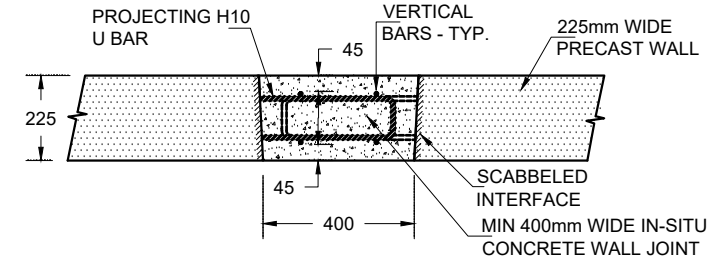
YORKSHIRE WATER REFERENCE NUMBER : S104-2025-035



PERIMETER WALL - TOP OF WALL DETAIL:
SCALE: 1:20

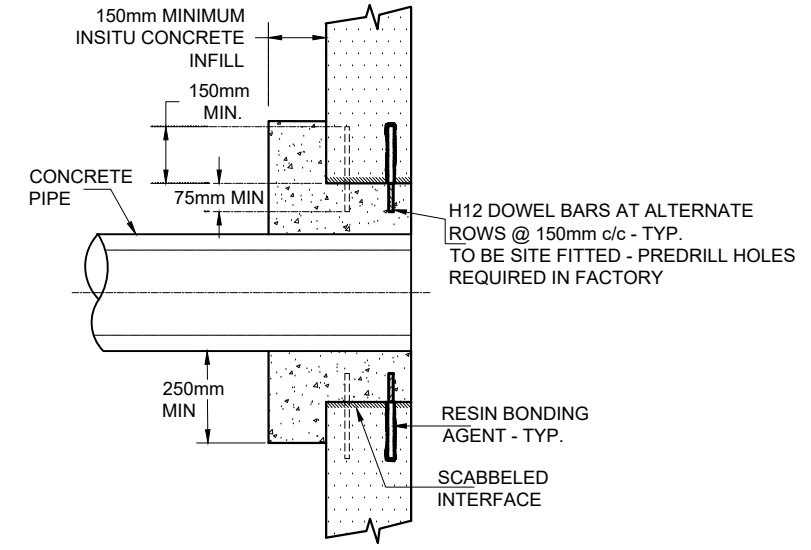


INTERNAL WALL - TOP OF WALL DETAIL:
SCALE: 1:20

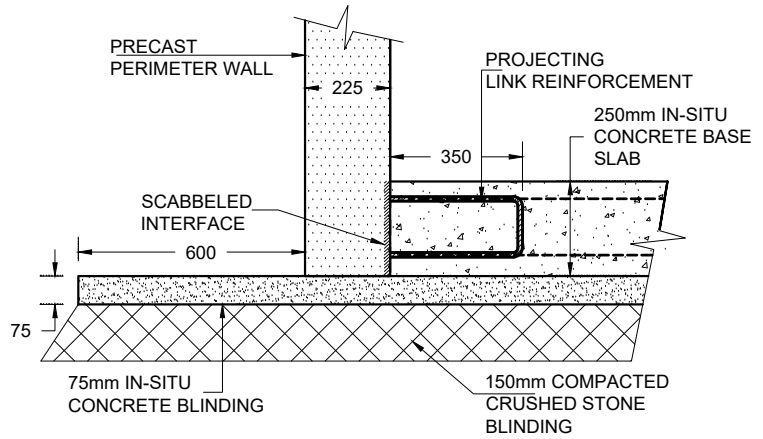


PLAN VIEW - TYPICAL WALL JOINT DETAIL:
SCALE: 1:20

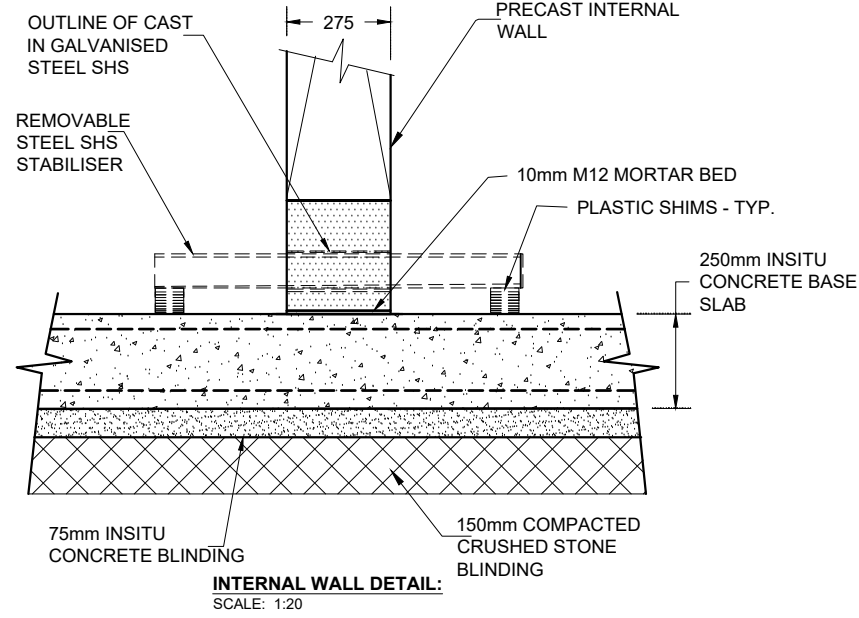
ISSUED FOR APPROVAL



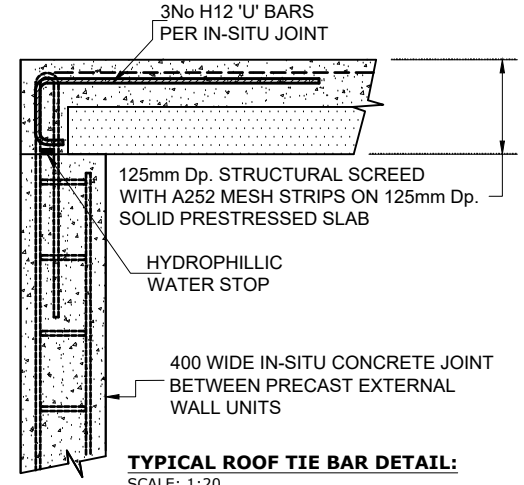
PIPE CONNECTION SECTION
SCALE: 1:20



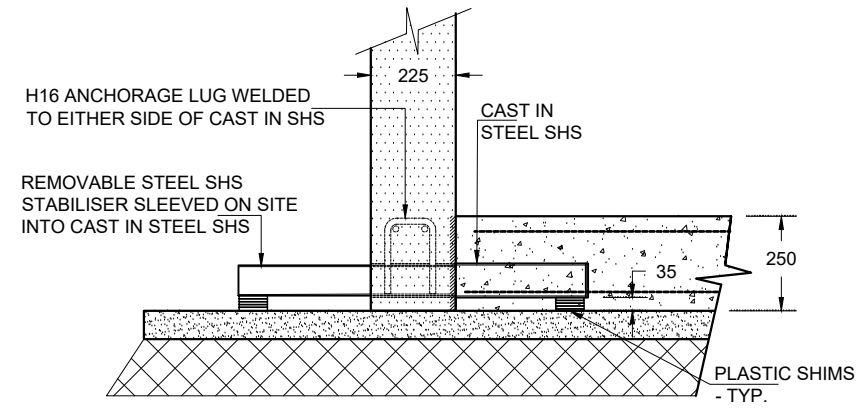
PERIMETER WALL DETAIL:
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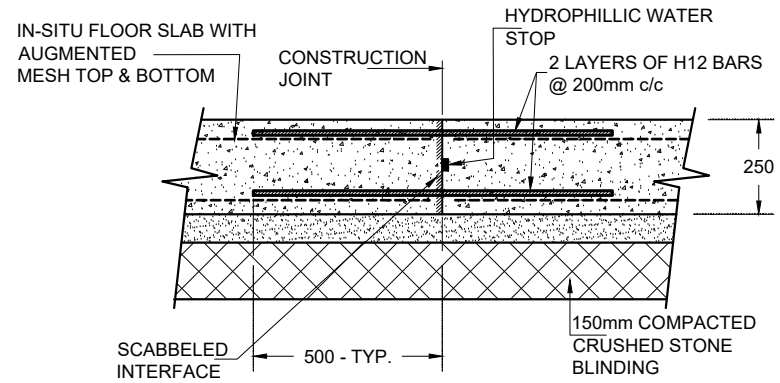
INTERNAL WALL DETAIL:
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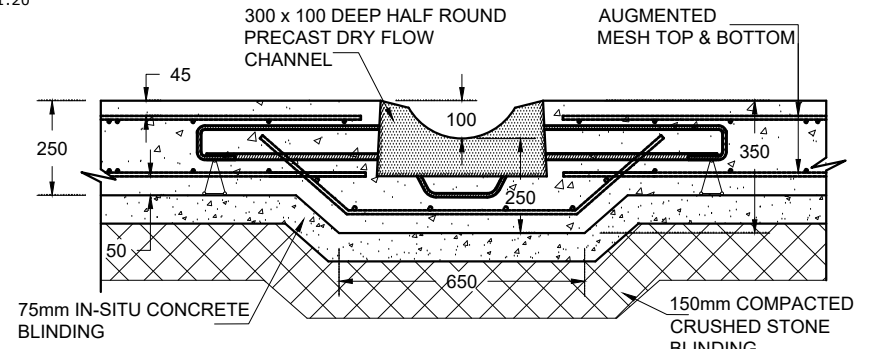
TYPICAL ROOF TIE BAR DETAIL:
SCALE: 1:20



PERIMETER WALL - TEMPORARY STABILITY FOOTING DETAIL:
SCALE: 1:20



CONSTRUCTION JOINT DETAIL:
(AS REQUIRED)
SCALE: 1:20



DRY FLOW CHANNEL DETAIL:
SCALE: 1:20

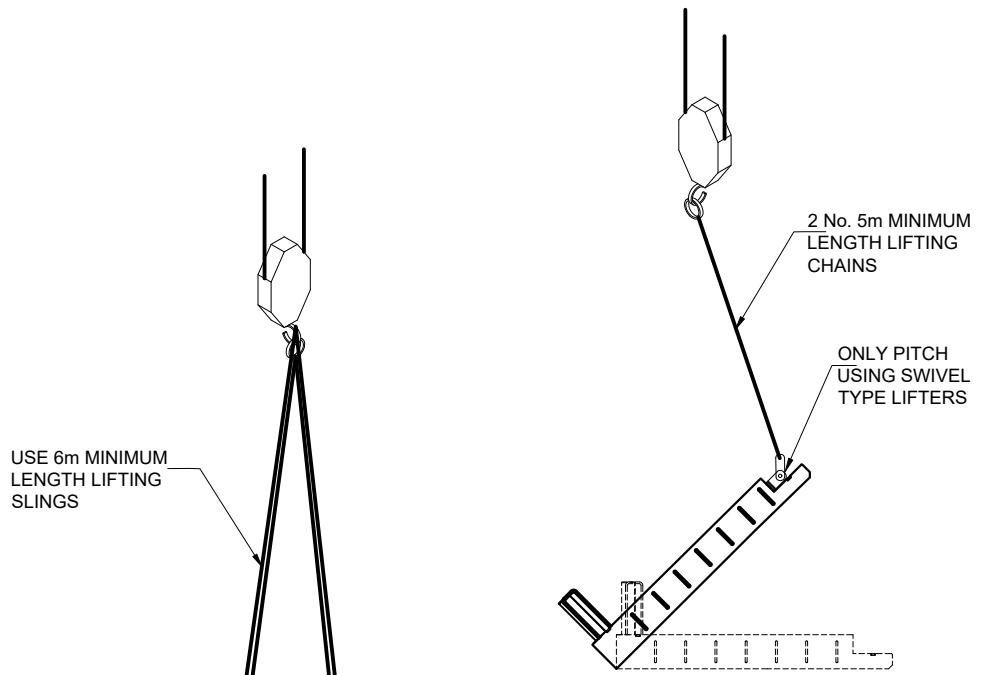
Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	0	20-05-25	ISSUED FOR APPROVAL
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ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED"

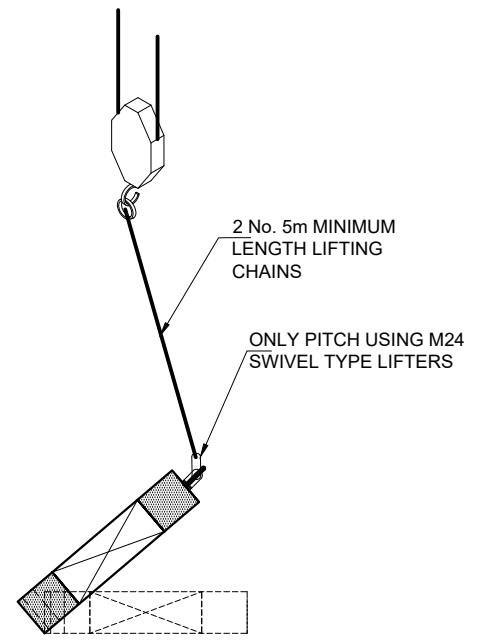
DRAWING TITLE: RIVA HOMES
CROFT STREET, BIRKENSHAW
1.4m DEEP ATTENUATION TANK
LIFTING DETAILS

YORKSHIRE WATER REFERENCE NUMBER : S104-2025-035

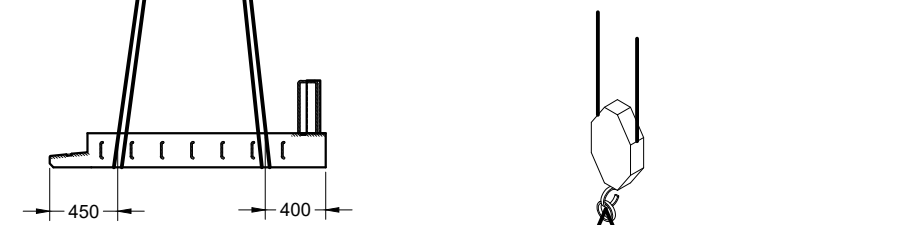
ISSUED FOR APPROVAL



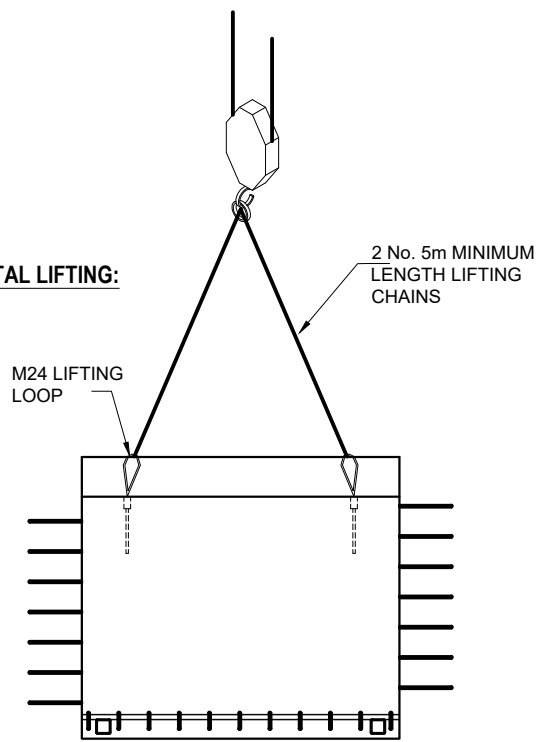
EXTERNAL WALL LIFTING ARRANGEMENT - PITCHING UNIT:



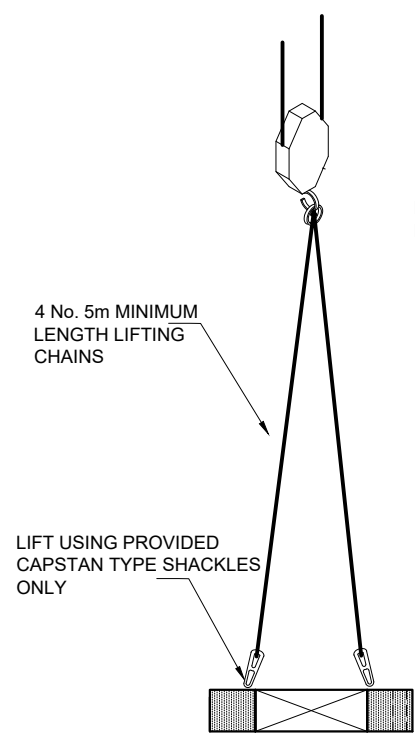
INTERNAL WALL LIFTING ARRANGEMENT - PITCHING UNIT:



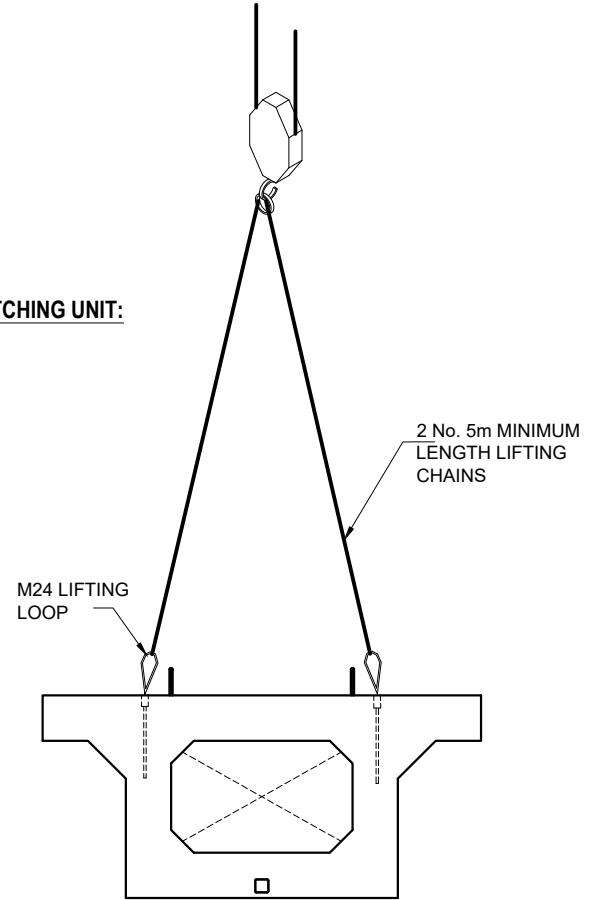
EXTERNAL WALL LIFTING ARRANGEMENT - HORIZONTAL LIFTING:



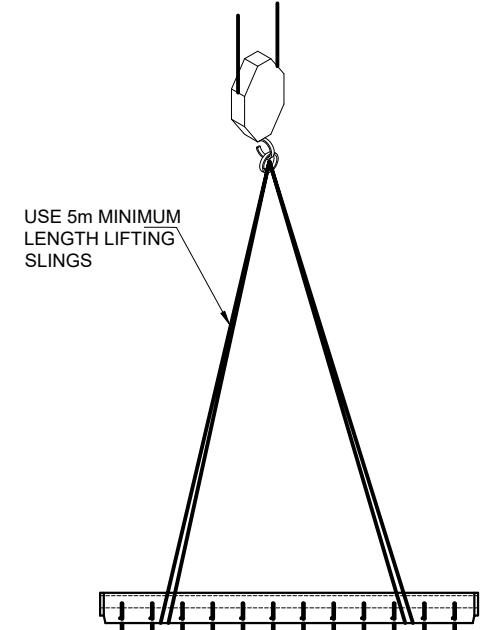
EXTERNAL WALL LIFTING ARRANGEMENT - GENERAL LIFTING AND FINAL POSITIONING:



INTERNAL WALL LIFTING ARRANGEMENT - HORIZONTAL LIFTING:



INTERNAL WALL LIFTING ARRANGEMENT - GENERAL LIFTING AND FINAL POSITIONING:

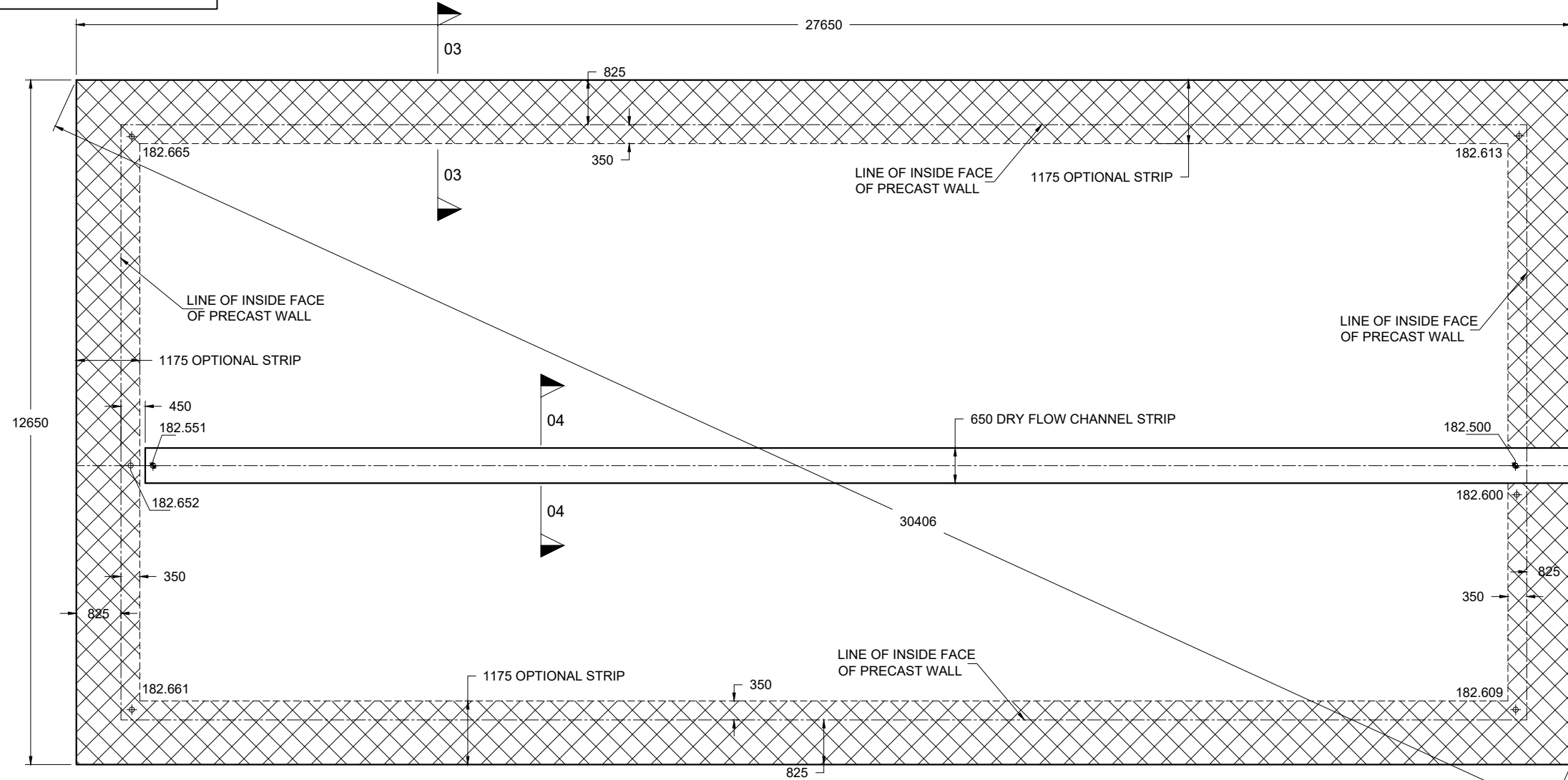


PRECAST DRY FLOW CHANNEL LIFTING ARRANGEMENT - GENERAL LIFTING AND FINAL POSITIONING:

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TH	0	20-05-25	ISSUED FOR APPROVAL
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STS4287-006			

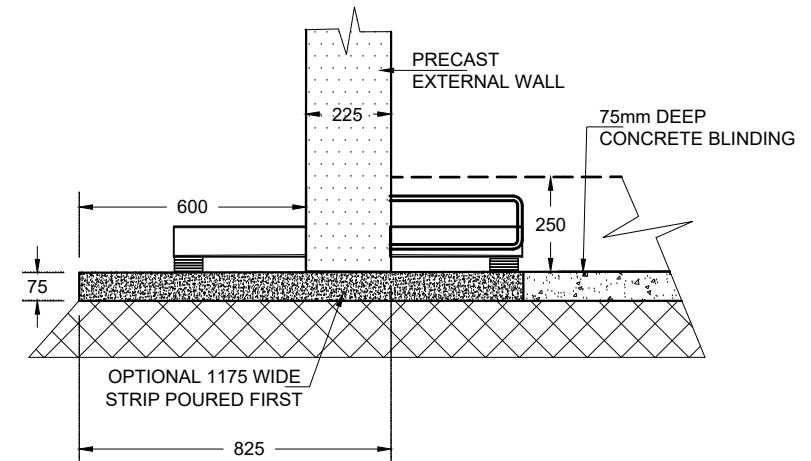
ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED*

YORKSHIRE WATER REFERENCE NUMBER : S104-2025-035

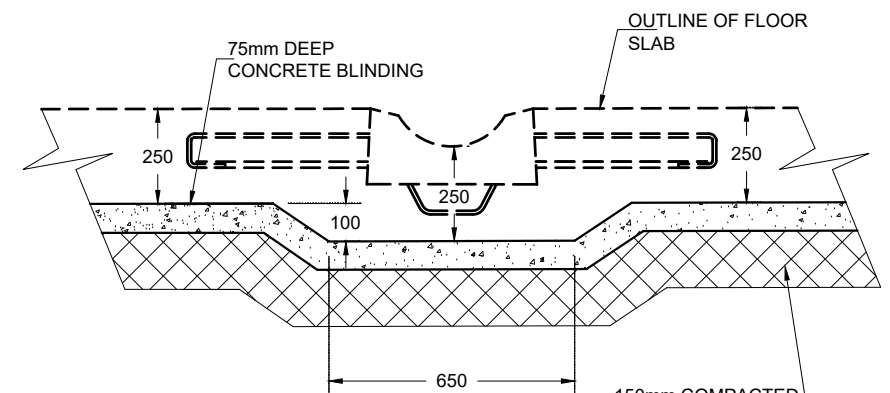


BLINDING SETTING OUT PLAN:
Scale: 1:100

NOTE:
ALL LEVELS ARE TOP OF BLINDING LAYER LEVEL



SECTION 03:
SCALE: 1:20



SECTION 04:
SCALE: 1:20

ISSUED FOR APPROVAL

Drawn By:	TH	Rev.	Date.	Comments.
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DRAWING TITLE: RIVA HOMES
CROFT STREET, BIRKENSRAW
1.4m DEEP ATTENUATION TANK
TURRET DETAILS

YORKSHIRE WATER REFERENCE NUMBER : S104-2025-035

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED"

ISSUED FOR APPROVAL

