Project Number: 18570
Latest Issue: 23/06/2022

CONSTRUCTION DRAWINGS

Pouto Wharf
Pouto Point

DRAWING INDEX					
SHEET	**DRAWING NO.**	**DESCRIPTION**	**ISSUE DATE**	**STATUS**	**REVISION**
1	S001	General Notes	2022-06-21	Construction	1
2	S002	General Notes Continued	2022-06-21	Construction	1
3	S100	Proposed Wharf Location and Layout	2022-06-21	Construction	1
4	S101	Wharf Head	2022-06-21	Construction	1
5	S200	Section 1	2022-06-21	Construction	1
6	S201	Layout Through CL	2022-06-23	Construction	2
7	S202	Bracing Along Grids	2022-06-21	Construction	1
8	S203	Fender Layout	2022-06-21	Construction	1
9	S600	Details - Sheet 1	2022-06-23	Construction	2
10	S601	Details - Sheet 2	2022-06-23	Construction	2
11	S602	Details - Sheet 3	2022-06-21	Construction	1

ANY VARIATIONS TO THE DESIGNS OR DRAWINGS NEED TO BE APPROVED BY THE DESIGN ENGINEER & ALL DIMENSIONS/ LAYOUTS TO BE CONFIRMED WITH THE ARCHITECT'S DRAWINGS

GENERAL NOTES & LIMITATIONS OF USE

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION TO THE PROJECT WHICH MAY INCLUDE (BUT NOT LIMITED TO); ARCHITECTURAL DRAWINGS, ARCHITECTURAL & STRUCTURAL SPECIFICATIONS, INSPECTION SCHEDULES, GEOTECHNICAL REPORTS, SPECIALIST SYSTEM DESIGN (ie: HVAC, FIRE) AND ANY OTHER 3rd PARTY DOCUMENTATION FOR SPECIALIST DESIGNERS ENGAGED ON THE PROJECT.
2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM DRAWINGS. USE FIGURED DIMENSIONS ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION OR FABRICATION. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
3. ANY DISCREPANCIES ENCOUNTERED ON SITE WITH THE DESIGN SHALL BE REFERRED TO THE DESIGN ENGINEER IMMEDIATELY FOR RESOLUTION BEFORE PROCEEDING WITH CONSTRUCTION OR FABRICATION OF COMPONENTS.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF ALL TEMPORARY WORK TO ENSURE ADEQUATE STRENGTH AND STABILITY OF THE STRUCTURE AND GROUND DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL ENSURE SAFE WORK PRACTICES ON SITE IN ACCORDANCE WITH ALL APPLICABLE HEALTH & SAFETY CODES, RELEVANT STANDARDS AND LEGISLATION.
6. WHERE PROPRIETARY PRODUCTS ARE SPECIFIED IN THE STRUCTURAL DRAWINGS SUBSTITUTIONS MAY ONLY BE MADE IF APPROVED BY THE ENGINEER.
7. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE NZ BUILDING CODE, CURRENT CODES OF PRACTICE AND ANY LOCAL TERRITORIAL AUTHORITY REQUIREMENTS.
8. NO HOLES OR CHASES MAY BE DONE IN THE CONCRETE MEMBERS UNLESS INDICATED ON THE PLANS OR APPROVED BY THE DESIGN ENGINEER
9. STANDARD ENGINEERING ABBREVIATIONS MAY HAVE BEEN USED IN THE DRAWINGS, COMMON ABBREVIATIONS ARE AS SHOWN BELOW:

ALT	ALTERNATE	MIN	MINIMUM
APPROX.	APPROXIMATE	N/A	NOT APPLICABLE
B	BOTTOM	NF	NEAR FACE
BOS	BOTTOM OF STEEL	NTS	NOT TO SCALE
CHS	CIRCULAR HOLLOW SECTION	OD	OUTSIDE DIAMETER
CONC.	CONCRETE	PCD	PITCH CIRCLE DIAMETER
COS	CHECK ON SITE	PCP	PRECAST PANEL
CRS	CENTERS	PFC	PARALLEL FLANGE CHANNEL
CJ	CONSTRUCTION JOINT	R	PLAIN ROUND BAR (300E)
CL	CENTER LINE	RB	REIDBAR (500E)
D	DEFORMED BAR (300E)	REF	REFER
DPC	DAMP PROOF COURSE	REBAR	REINFORCING BAR
DPM	DAMP PROOF MEMBRANE	RHS	RECTANGULAR HOLLOW SECTION
DIA	DIAMETER	RL	REDUCED LEVEL
DIM	DIMENSION	SFL	STRUCTURAL FLOOR LEVEL
DP	DOWNPIPE	SHS	SQUARE HOLLOW SECTION
DRG/DWG	DRAWING	SIM	SIMILAR
EA	EQUAL ANGLE	SJ or SC	SAWN CONTROL JOINT
EF	EACH FACE	SOP	SET OUT POINT
EJ	EXPANSION JOINT	S/S	STAINLESS STEEL
ELEV	ELEVATION	SSL	STRUCTURAL SLAB LEVEL
EW	EACH WAY	STIFF	STIFFENER
EX	EXISTING	STGD	STAGGERED
FF / BF	FRONT FACE / BACK FACE	STRPS	STIRRUPS
FFL	FINISHED FLOOR LEVEL	STRS	STARTERS
FL	FLOOR LEVEL	T	TOP
FGL	FINISHED GROUND LEVEL	T/S	TOPSIDE
FW	FILLET WELD	THK	THICK
FWAR	FILLET WELD ALL AROUND	TOC	TOP OF CONCRETE
GALV	GALVANISED	TOF	TOP OF FOOTING
GL	GROUND LEVEL	TOS	TOP OF STEEL
Gr	GRADE	TOW	TOP OF WALL
HD	DEFORMED BAR (500E)	TYP	TYPICAL
H.D. GALV	HOT DIP GALVANISED	U/S	UNDERSIDE
HR	PLAIN ROUND BAR (500E)	UA	UNEQUAL ANGLE
ID	INSIDE DIAMETER	UB	UNIVERSAL BEAM
IL	INVERT LEVEL	UC	UNIVERSAL COLUMN
Lg	LONG	UNO	UNLESS NOTED OTHERWISE
MAX	MAXIMUM		

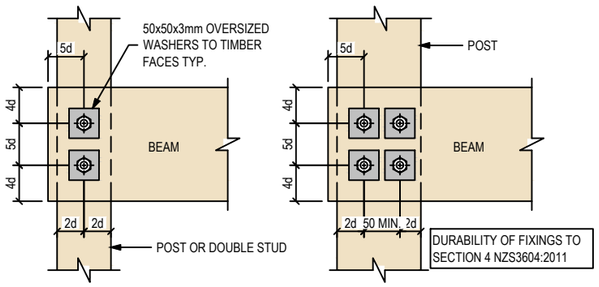


FIGURE 1: MINIMUM DISTANCES FOR BOLTS IN TIMBER (U.N.O)
"d" DENOTES Ø OF BOLT IN mm

FOUNDATIONS, EXCAVATIONS & BACKFILL

1. READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE GEOTECHNICAL REPORT OR SOIL TESTS FOR ASSUMED GROUND BEARING CAPACITIES.
2. FOUNDATION SYSTEMS:

   2a) NZS3604:2011 COMPLIANT FOUNDATIONS
   UNLESS SPECIFIED OR DETAILED OTHERWISE ALL FOUNDATIONS SHALL BEAR UPON SOLID BOTTOM IN UNDISTURBED GOOD GROUND MATERIAL OR UPON FIRM FILL FOR WHICH A CERTIFICATE OF SUITABILITY HAS BEEN ISSUED UNDER NZS 4431. REFER TO NOTE 4 BELOW AND TO CLAUSE 3.1.3 NZS3604:2011 FOR DETERMINATION OF GOOD GROUND.

   2b) SPECIFICALLY ENGINEERED DESIGN (S.E.D.) FOUNDATIONS SYSTEMS
   WHERE FOUNDATION SYSTEMS ARE SPECIFICALLY DESIGNED BASED ON SITE SPECIFIC SOIL PARAMETERS THEN GEOTECHNICAL REQUIREMENTS WILL BE AS NOTED ON THE DRAWINGS, ANY SUCH GEOTECHNICAL NOTES DIRECTLY SHOWN ON THE DRAWINGS SHALL ALWAYS TAKE PRECEDENCE OVER ANY OTHER GENERAL NOTES IN THIS SECTION.

3. ALL EXCAVATIONS AND PLACING OF HARDFILL TO BE CARRIED OUT IN DRY CONDITIONS. IF DEWATERING IS REQUIRED THE SITE SHALL BE MAINTAINED IN A DEWATERED CONDITION THE DURATION OF THE FOUNDATION WORK. MANAGE ON SITE STORAGE OF FILL TO MINIMIZE SURFACE PONDING IN THE EVENT OF RAIN.
4. GRANULAR FILL SHALL BE PLACED IN ACCORDANCE WITH NZS 4431:1989 AND TO THE GENERAL REQUIREMENTS AS OUTLINED BELOW.
   - 4.1) WHERE COMPACTED HARDFILL IS TO BE PLACED BELOW A BUILDING USE A SUITABLE AP40 OR AP65 GRAVEL WITH A MAXIMUM DRY DENSITY OF AT LEAST 2150kg/m³. ALLOW FOR A 10-25mm MAX. SAND BLINDING FOR WHERE DPM SHEETS ARE TO BE INSTALLED OVER THE HARDFILL BASE.
   - 4.2) PLACE AND COMPACT THE FILL MATERIAL IN LAYERS OF 150mm MAXIMUM THICKNESS USING A LARGE SELF-DRIVEN PLATE COMPACTOR (DO NOT TRACK ROLL WITH AN EXCAVATOR).
   - 4.3) THE FILL MATERIAL IS TO BE DENSITY TESTED USING A NUCLEAR DENSOMETER (ND) TO ENSURE FILL IS COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY (MDD). A READING OF 6 ND TESTS ARE TO BE CARRIED OUT FOR EVERY 400mm LIFT AND 95% OF SUCH READINGS TO EXCEED THE GREATER OF THE MDD or 2150kg/m³.
   - 4.4) THE CONTRACTOR IS TO OBTAIN THE MAXIMUM DRY DENSITY CERTIFICATE FOR THE FILL MATERIAL AND SUPPLY IT TO THE ENGINEER WITH THE ND TEST RESULTS.
   - 4.5) FAILURE TO UNDERTAKE THESE STEPS MAY RESULT IN FILL MATERIAL BEING LIFTED AND PLACED AGAIN AT THE CONTRACTORS EXPENSE.

TIMBER FRAMING

1. ALL TIMBER FRAMING TO BE SG8 IN ACCORDANCE WITH NZS3622:2004 UNLESS NOTED OTHERWISE. DO NOT ACCEPT DAMAGED, FAULTY OR DEFECTIVE MATERIALS.
2. LIGHT TIMBER FRAMING CONSTRUCTION TO COMPLY WITH NZS3604:2011 AND OR ANY SPECIFIC ENGINEERED DESIGN OR APPROVED PROPRIETARY DESIGN TABLES.
   WHERE IN DOUBT FOR WHICH A STANDARD DETAIL FROM NZS3604:2011 CAN NOT BE APPLIED CONTACT THE ENGINEER FOR RESOLUTION IMMEDIATELY.
3. DURABILITY OF FIXINGS AND FASTENERS IN ACCORDANCE WITH SECTION 4 of NZS3604:2011 AND TO THE ARCHITECTS SPECIFICATIONS.
4. DURABILITY OF FRAMING AND HAZARD CLASS TREATMENT OF TIMBER IN ACCORDANCE WITH NZS3602:2003 AND TO THE ARCHITECTS SPECIFICATIONS.

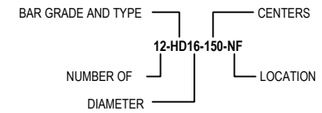
   GENERALLY MINIMUM REQUIREMENTS;
   - 4.1) ALL TIMBER MEMBERS IN GROUND CONTACT SHALL HAVE H5 LEVEL OF TREATMENT TO AS/NZS1604.
   - 4.2) ALL TIMBER MEMBERS EXPOSED TO EXTERIOR WEATHER CONDITIONS AND DAMPNESS BUT NOT IN GROUND CONTACT SHALL HAVE H3.2 LEVEL OF TREATMENT TO AS/NZS1604.
   - 4.3) ALL TIMBER MEMBERS PROTECTED FROM THE WEATHER (ie: ENCLOSED TIMBER) BUT EXPOSED TO GROUND ATMOSPHERE SHALL HAVE H1.2 LEVEL OF TREATMENT TO AS/NZS1604

   FOR FURTHER INFORMATION AND THE TREATMENT REQUIREMENTS OF ALL OTHER CASES REFER TO TABLE 1, NZS3602:2003.

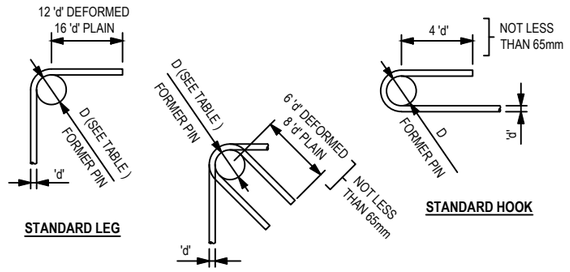
5. WHERE H5 TIMBER PILES HAVE BEEN CUT AFTER TREATMENT REFER TO CLAUSE 6.4.3.3 NZS3604:2011 FOR REQUIRED BRUSH TREATMENT TO CUT SURFACES. THE SURFACE SHALL NOT BE CUT FOR FIXINGS AND OTHER PURPOSES CLOSER THAN 150mm TO THE FINISHED GROUND LEVEL.
6. BOLTING
   ALL BOLTS TO TIMBER FRAMING TO BE GRADE 4.6, UNLESS OTHER NOTED, WITH 50x50x3mm OVERSIZED WASHERS TO TIMBER FACES. MINIMUM EDGE DISTANCES AS PER FIGURE 1.
7. NOTCHES AND HOLES IN TOP PLATES
   GENERALLY REFER TO SECTION 8.7.5 NZS3604:2011.
8. NOTCHES AND HOLES IN FLOOR JOISTS
   GENERALLY REFER TO SECTION 7.1.7 NZS3604:2011, SPECIFIC ENGINEERING DESIGN MAY NEED TO BE UNDERTAKEN WHEN OUTSIDE OF THESE STATED LIMITATIONS. AVOID RUNNING PLUMBING THROUGH FLOOR JOISTS UNLESS SPECIFICALLY DESIGNED FOR.
9. NOTCHES AND HOLES IN STUDS
   GENERALLY REFER TO CLAUSE 8.5.1.6 NZS3604:2011.

REINFORCEMENT

1. THE ENGINEER SHALL BE INFORMED, WHEN FIXING OF REINFORCEMENT IS COMPLETE TO ALLOW INSPECTION BEFORE PLACEMENT OF CONCRETE WHERE STIPULATED IN THE INSPECTION SCHEDULE.
2. ALL WORK TO BE CARRIED OUT BY A COMPETENT REBAR STEEL CONTRACTOR OR LBP BUILDER LICENSED IN THIS SKILL. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR BENDING SCHEDULES, REBAR SHOWN IN THESE DRAWINGS ARE DIAGRAMMATIC ONLY TO ILLUSTRATE DESIGN INTENT.
3. FOR REINFORCEMENT LAP LENGTHS REFER TO THE APPROPRIATE TABLES IN SECTIONS 'REINFORCED MASONRY' OR 'REINFORCED CONCRETE'.
4. REINFORCEMENT DESIGNATIONS ON THE DRAWINGS ARE AS FOLLOWS:



5. WELDING OF REINFORCEMENT IS NOT PERMITTED UNDER ANY CIRCUMSTANCES UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER VIA A WRITTEN SITE INSTRUCTION.
6. ADEQUATELY SUPPORT AND SECURE REINFORCEMENT IN POSITION AGAINST DISPLACEMENT AND MAINTAIN MINIMUM SPECIFIED CLEAR CONCRETE COVER TO REINFORCEMENT. TOLERANCES ON CONCRETE COVER SHALL BE IN ACCORDANCE WITH NZS3109.
7. BENDING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH NZS 3101 & NZS 3109 AND AS SHOWN IN THE FIGURES AND TABLES BELOW;



MINIMUM BEND DIAMETER OF REINFORCING BARS				
STEEL GRADE	BAR SIZE (mm) 'd'	MINIMUM DIAMETER OF BEND FOR MAIN BARS	MINIMUM DIAMETER OF BEND FOR STIRRUPS AND TIES	
			PLAIN BARS	DEFORMED BARS
300E OR	6-20	5d	2d	4d
500E	24-40	6d	3d	6d

8. BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE SITE BENT UNLESS SHOWN ON THE DRAWINGS OR SPECIFICALLY APPROVED BY THE ENGINEER

PROPRIETARY FIXINGS

(EPOXY FIXED ANCHORS, MECHANICAL ANCHORS, TIMBER CONNECTORS & FIXINGS)

1. ALL PROPRIETARY ANCHORS OR FIXINGS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS USING THE PRODUCTS SPECIFIED IN THE DRAWINGS.
2. NO SUBSTITUTION OF OTHER PRODUCTS FROM THE DRAWINGS OR SPECIFICATIONS IS PERMITTED UNLESS WRITTEN APPROVAL IS MADE BY THE DESIGN ENGINEER.
3. A PS3 MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER FOR ANCHORS OR CONNECTORS HIGHLY CRITICAL TO THE STRUCTURAL PERFORMANCE OF THE BUILDING.
4. WHERE INCORRECT OR SUB STANDARD PRODUCTS ARE USED THE ENGINEER MAY REQUEST DESTRUCTIVE TESTING / LOAD TESTING OR FURTHER DESIGN AND CONSTRUCTION MONITORING, ALL OF WHICH ARE AT THE CONTRACTOR EXPENSE TO ENSURE THE ORIGINAL DESIGN OBJECTIVES ARE MET.

REINFORCED CONCRETE

1. ALL CONCRETE WORK TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NZS 3101, NZS 3109 AND ANY OTHER REFERENCED STANDARDS.
   WHERE STRUCTURAL DESIGN SHOWN EXCEEDS THE MINIMUM REQUIREMENTS OF THESE STANDARDS THE STRUCTURAL DESIGN & DRAWINGS SHALL ALWAYS TAKE PRECEDENCE OVER THE MINIMUM REQUIREMENTS DEFINED IN THESE STANDARDS.
2. NO CONCRETE SHALL BE PLACED UNTIL LDE LTD HAS INSPECTED THE REINFORCING STEEL. THE INSPECTION DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO ENSURE THAT ALL WORK IS IN ACCORDANCE WITH THE NZ BUILDING CODE, RELEVANT STANDARDS AND CONTRACT DOCUMENTS.
3. MINIMUM REQUIRED CHARACTERISTIC CONCRETE GRADES ARE AS SPECIFIED IN THE DRAWINGS.
4. CONCRETE GRADES ARE AS SPECIFIED AS '28 DAY SPECIFIED COMPRESSIVE STRENGTHS' AS DEFINED IN NZS 3109. ALL SUPPLY AND PRODUCTION SHALL BE IN ACCORDANCE WITH NZS 3104. CONCRETE BATCH STRENGTH CERTIFICATES MAY BE REQUESTED AT THE DISCRETION OF THE DESIGN ENGINEER AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THEM WHERE REQUESTED. IF NO STRENGTH CERTIFICATES CAN BE PROVIDED THEN THE CONTRACTOR SHALL TAKE CORE SAMPLES OF THE CONCRETE AND HAVE THEM TESTED AT A CERTIFIED TEST FACILITY AT THEIR OWN COST.
5. ALL REINFORCING STEEL SHALL BE GRADE 300E OR 500E IN COMPLIANCE WITH AS/NZS 4671. THE REPLACEMENT OF REINFORCEMENT WHICH HAS BEEN DETAILED ON THE STRUCTURAL DRAWINGS WITH AN EQUIVALENT STRENGTH REINFORCING OF DIFFERENT GRADE IS NOT PERMITTED UNDER ANY CIRCUMSTANCES.
6. ALL VISIBLE CONCRETE SURFACE FINISHES ARE TO BE CONFIRMED WITH THE ARCHITECT, REFER TO NZS 3114 FOR FURTHER INFORMATION OF FINISHING.
7. MINIMUM COVER TO STEEL REINFORCEMENT SHALL BE AS SHOWN BELOW UNLESS SPECIFIED OTHERWISE IN THE DRAWINGS AND IN ACCORDANCE WITH NZS 3101.

ELEMENT	MIN. COVER
CONCRETE CAST DIRECTLY AGAINST GROUND	75mm
CONCRETE CAST AGAINST GROUND AND PROTECTED BY A DPM	50mm
CONCRETE CAST AGAINST FORMWORK	50mm
ANY CONCRETE SLAB OR WALL SURFACE EXPOSED TO WEATHER	50mm
TOP OF A CONCRETE SLAB PROTECTED FROM WEATHER	30mm

8. NO REINFORCEMENT WIRE TIES SHALL PROJECT INTO THE MINIMUM CONCRETE COVER.
9. ALL REINFORCEMENT MUST BE CLEAN AND FREE FROM MUD, LOOSE RUST, MILL SCALE, CONCRETE LAITANCE, OIL OR ANY OTHER CONTAMINANTS AT THE TIME CONCRETE IS PLACED.
10. ALL REINFORCEMENT SHALL BE ADEQUATELY SECURED AGAINST DISPLACEMENT AT INTERSECTIONS BY THE USE OF IRON WIRE TIES WITH A DIAMETER GREATER THAN 1.25mm OR BY APPROVED CLIPS. ALL REINFORCING SUPPORTS SHALL MAINTAIN THE CORRECT POSITION OF THE REINFORCEMENT DURING PLACEMENT AND VIBRATION OR COMPACTION OF THE CONCRETE.
11. ALL CONSTRUCTION JOINTS SHALL BE TYPE-B CONSTRUCTION JOINTS PREPARED IN ACCORDANCE WITH NZS 3109, UNLESS OTHERWISE NOTED. METHODS WHICH AVOID SCABBLING ARE PREFERRED FOR INTENTIONALLY ROUGHENING THE CONCRETE SURFACE AT CONSTRUCTION JOINTS.
12. UNLESS OTHERWISE SHOWN MESH IN FLOOR SLABS SHALL BE LAPPED THE GREATER OF
    - 225mm (CLAUSE 7.5.8.3, NZS3604:2011)
    - AS PER MANUFACTURER'S SPECIFICATIONS
13. THE DEVELOPMENT OF PLAIN BARS SHALL RELY ON HOOKS IN ACCORDANCE WITH NZS3101.
14. SPLICE LAP LENGTHS ARE TO BE IN ACCORDANCE WITH NZS3101 AND TO THE VALUES AS SHOWN BELOW. STAGGER LAPS WHERE POSSIBLE, WHERE LAPS CANNOT BE STAGGERED REFER TO ENGINEER FOR GUIDANCE. WHERE OFFSET SPLICES ARE REQUIRED THE INCLINED PORTION OF THE BAR SHALL NOT EXCEED A 1 IN 6 CRANK.

* LAP LENGTHS (mm) - DEFORMED BARS							
CONCRETE STRENGTH	BAR GRADE	BAR DIAMETER 'd'					
		10	12	16	20	25	32
20MPa	300E	440	530	700	870	1110	1400
	500E	730	880	1170	1460	1820	2330
25MPa	300E	390	470	620	780	1010	1250
	500E	650	790	1040	1300	1630	2090
30MPa	300E	390	430	570	720	890	1140
	500E	600	720	960	1190	1490	1900
35MPa	300E	390	400	530	660	830	1050
	500E	560	660	870	1110	1380	1760
40+MPa	300E	390	390	490	620	770	990
	500E	520	620	830	1030	1290	1640

*ALLOWANCE HAS BEEN MADE IN THIS TABLE FOR A MULTIPLIER OF x1.3 FACTOR FOR 'TOP BARS' ie: FOR WHICH 300mm OF FRESH CONCRETE IS CAST BELOW THE MEMBER. (REFER TO CLAUSE 8.6.3.2, NZS3101.1:2006). FOR SLABS OR FOUNDATIONS LESS THAN 300mm THICK TOTAL THICKNESS TABULATED VALUES SHOWN CAN BE REDUCED BY A FACTOR OF 1/1.3.

Original Size = A3

CLIENT
Kaipara District Council
Kaipara

PROJECT
Pouto Wharf
Southern end of Pouto Road
Pouto

DRAWING TITLE
General Notes

No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

DESIGN: TA
DRAWN: TA
DATE: 21/06/22
CHECKED:
SCALE A3: As shown

PROJECT STATUS: Construction
PROJECT: 18570
SHEET: of
DRAWING No: S001
REV: 1

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STRUCTURAL STEELWORK

1. ALL STRUCTURAL STEELWORK, FABRICATION AND ERECTION SHALL COMPLY WITH THE STEEL STRUCTURES STANDARD NZS3404.

2. THESE DRAWINGS ARE TO SHOW DESIGN INTENT. THE CONTRACTOR IS TO PREPARE SHOP DRAWINGS FOR REVIEW BY THE DESIGN ENGINEER UNLESS AGREED UPON OTHERWISE IN WRITING. NO FABRICATION IS TO COMMENCE UNTIL SHOP DRAWINGS ARE REVIEWED AND WRITTEN CONSENT ISSUED. ALLOW 14 DAYS FOR ENGINEERS REVIEW.

3. UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS, REQUIRED STEELWORK GRADES ARE AS FOLLOWS;
   - ALL PLATE, FLATS AND ANGLES GRADE 300MPa
   - ALL PLATES FOR HERA CONNECTIONS GRADE 350MPa
   - OPEN SECTIONS (UB, UC, PFC, TFC) GRADE 300MPa
   - HOLLOW SECTIONS (SHS, CHS, RHS) GRADE 350MPa

4. UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS, WELDS SHALL GENERALLY BE
   - FILLET WELDS: STRUCTURAL PURPOSE (SP), CONTINUOUS
   - BUTT WELDS: STRUCTURAL PURPOSE (SP), FULL PENETRATION
   AND TO THE REQUIREMENTS AS STIPULATED IN AS/NZS 1554.

5. ANY WELD NOT DETAILED SHALL BE A MINIMUM OF 6mm FILLET WELD ALL AROUND (SP: STRUCTURAL PURPOSE) AND TO THE REQUIREMENTS AS STIPULATED IN AS/NZS 1554.

6. SEEK APPROVAL FROM THE DESIGN ENGINEER WHERE REPLACING BOLTED CONNECTIONS WITH FULLY WELDED CONNECTIONS.

7. ALL HOLLOW SECTIONS TO BE SEALED WITH 3mm CAP PLATES TO PREVENT THE INGRESS OF MOISTURE.

8. FLAME CUTTING OF HOLES IS NOT PERMITTED, ALL HOLES TO BE DRILLED (OR REAMED) TO FULL SIZE.

9. UNLESS NOTED OTHERWISE ALL BOLTS SHALL BE GRADE 8.8 AND SNUG TIGHTENED. GENERALLY THREADS ARE PERMITTED IN THE SHEAR PLANES UNLESS DETAILED OTHERWISE.
   WHERE **Gr 8.8/TB** IS INDICATED BOLTS MUST BE INSTALLED AS A FULLY TENSIONED BEARING TYPE JOINT.
   WHERE **Gr 8.8/TF** IS INDICATED BOLTS MUST BE FULLY TENSIONED FRICTION TYPE JOINTS. (TO AS 1252)

10. ALL FIXINGS (ie: BOLTS, NUTS AND WASHERS) TO BE HOT DIP GALVANISED BY THE MANUFACTURER IN ACCORDANCE WITH AS/NZS 1214.

11. ALLOW FOR 10mm OF DRY PACK GROUT AND SHIMS BENEATH ALL BASE PLATES. GROUTING OF BASE PLATES TO OCCUR AFTER ALL STEELWORK AND HOLD DOWN ANCHORS ALIGNED. THE DRY PACK GROUT SHALL BE AN APPROVED NON SHRINK GROUT AND HAVE A MIN. COMPRESSIVE STRENGTH OF 50MPa AT 28 DAYS.

12. COAT ANY SITE WELDS, CUTS, EXPOSED ENDS OR SITE DRILLED / REAMED STEEL WITH 2 COATS OF A ZINC RICH PAINT TO THE ENGINEERS SATISFACTION.

STRUCTURAL STEEL COATINGS / CORROSION PROTECTION

1. CHECK WITH THE ARCHITECTURAL SPECIFICATION FOR ANY REQUIREMENTS OF SPECIALIST OR SPECIFIC PAINT AND GALVANIC FINISHES TO STRUCTURAL STEEL.

2. WHERE NO SPECIFIC REQUIREMENTS ARE INDICATED IN THE SPECIFICATIONS REFER TO THE DRAWINGS FOR THE SELECTION OF CORROSION PROTECTION . CORROSION PROTECTION IS TO BE IN ACCORDANCE WITH TECHNICAL SPECIFICATION SNZ TS 3404:2018.

3. ANY ITEM REQUIRED TO BE HOT DIP GALVANISED FOR CORROSION PROTECTION SHALL BE DONE SO IN ACCORDANCE WITH AS/NZS 4680.

4. ANY ITEM REQUIRED TO BE PAINTED FOR CORROSION PROTECTION SHALL BE DONE SO IN ACCORDANCE WITH AS/NZS 2312.

5. AT THE ENGINEERS DISCRETION A PS3 FROM THE CONTRACTOR MAY BE REQUIRED FOR THE COATING SYSTEM.

Original Size = A3

CLIENT
Kaipara District Council
Kaipara

PROJECT
Pouto Wharf
Southern end of Pouto Road
Pouto

DRAWING TITLE
General Notes Continued

LDE LAND DEVELOPMENT & ENGINEERING

No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

DESIGN:	TA
DRAWN:	TA
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SCALE A3:	As shown

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Original Size = A3

CLIENT
Kaipara District Council
Kaipara

PROJECT
Pouto Wharf
Southern end of Pouto Road
Pouto

DRAWING TITLE
Proposed Wharf Location and Layout

LDE LAND DEVELOPMENT & ENGINEERING

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1	Construction	TA	21/06/2022

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SCALE A3:	As shown

PROJECT STATUS: Construction
PROJECT: 18570
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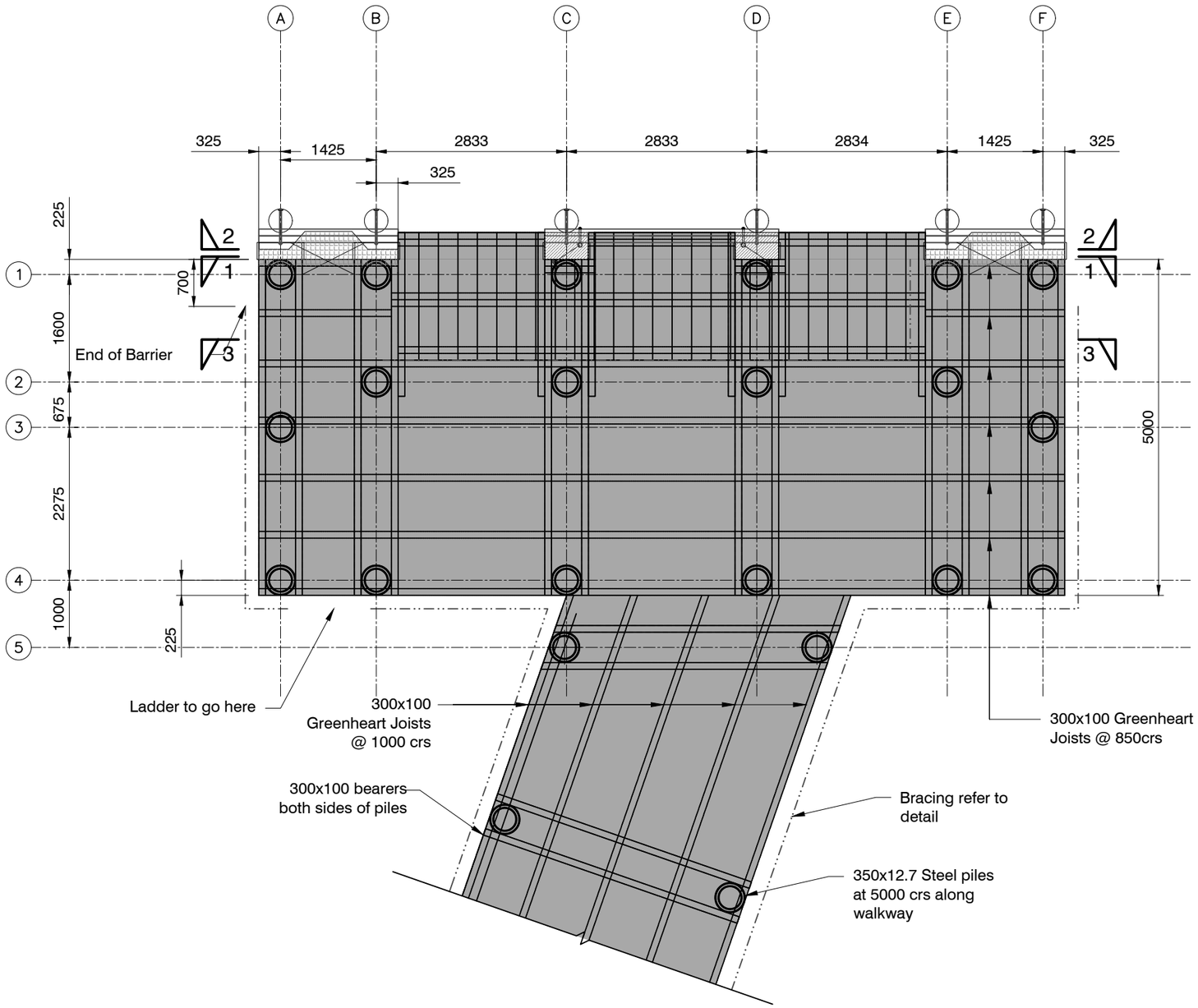
DRAWING No: S100
REV: 1



WHARF HEAD

Scale 1:75

Original Size = A3

CLIENT	PROJECT	DRAWING TITLE	
Kaipara District Council Kaipara	Pouto Wharf Southern end of Pouto Road Pouto	Wharf Head	LDE LAND DEVELOPMENT & ENGINEERING

No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

DESIGN:	TA
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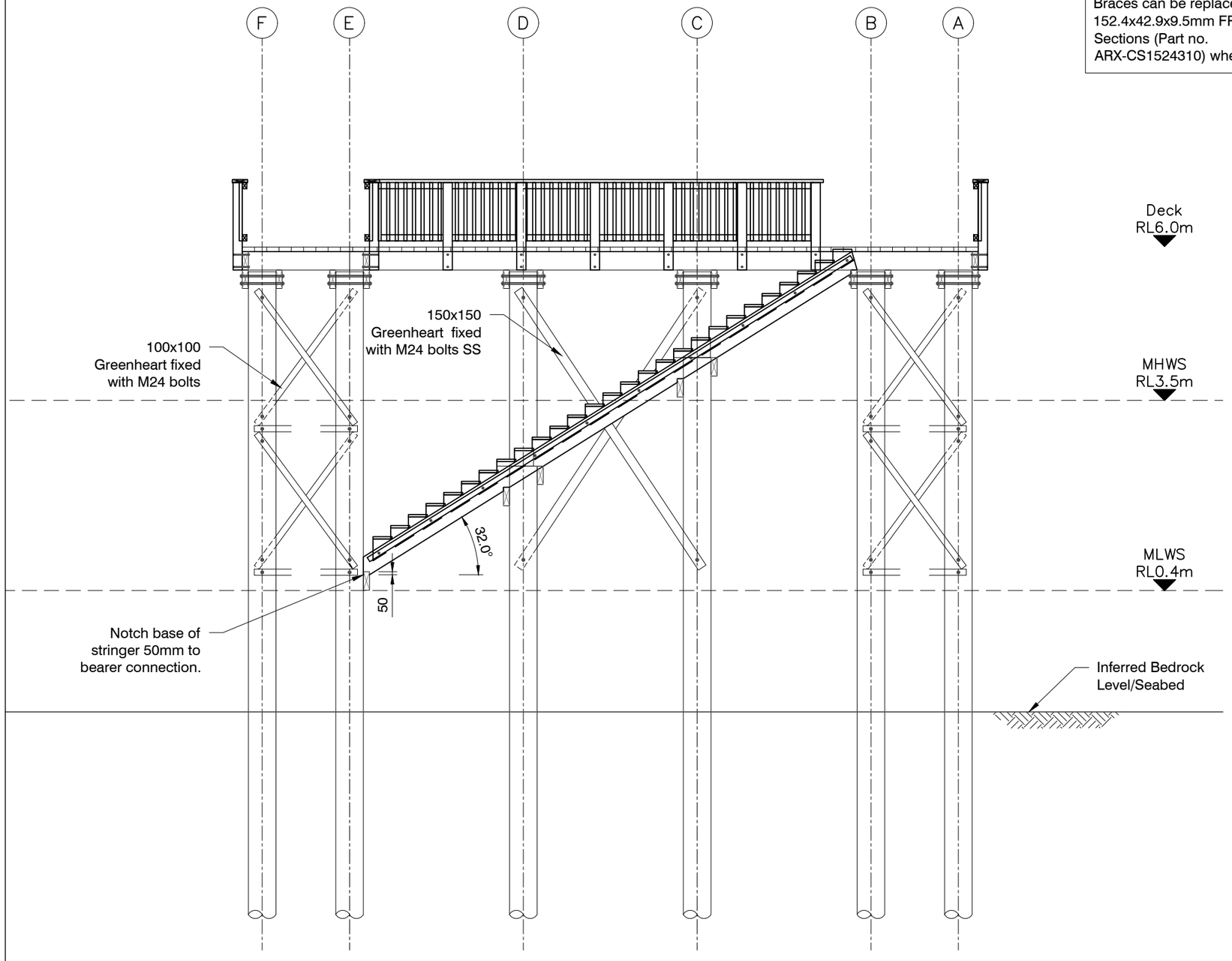
DATE:	21/06/22
CHECKED:	
SCALE A3:	As shown

PROJECT STATUS: Construction

PROJECT: 18570 SHEET: of

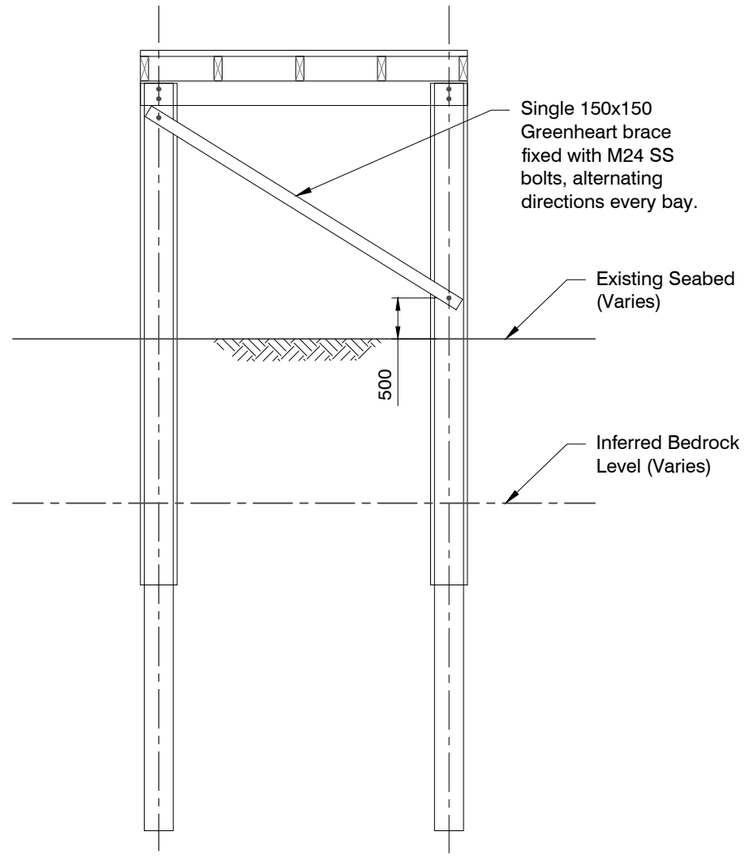
DRAWING No: S101 REV: 1

Note:
Braces can be replaced with 152.4x42.9x9.5mm FRP C Sections (Part no. ARX-CS1524310) where required



SECTION 1

Scale 1:75



SECTION 4

Scale 1:75

Original Size = A3

CLIENT	Kaipara District Council Kaipara	DESIGN: TA	PROJECT STATUS: Construction
PROJECT	Pouto Wharf Southern end of Pouto Road Pouto	DRAWN: TA	PROJECT: 18570 SHEET: of
DRAWING TITLE	Section 1	DATE: 21/06/22	DRAWING No: S200 REV: 1
		CHECKED:	
		SCALE A3: As shown	

No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

LAND DEVELOPMENT & ENGINEERING

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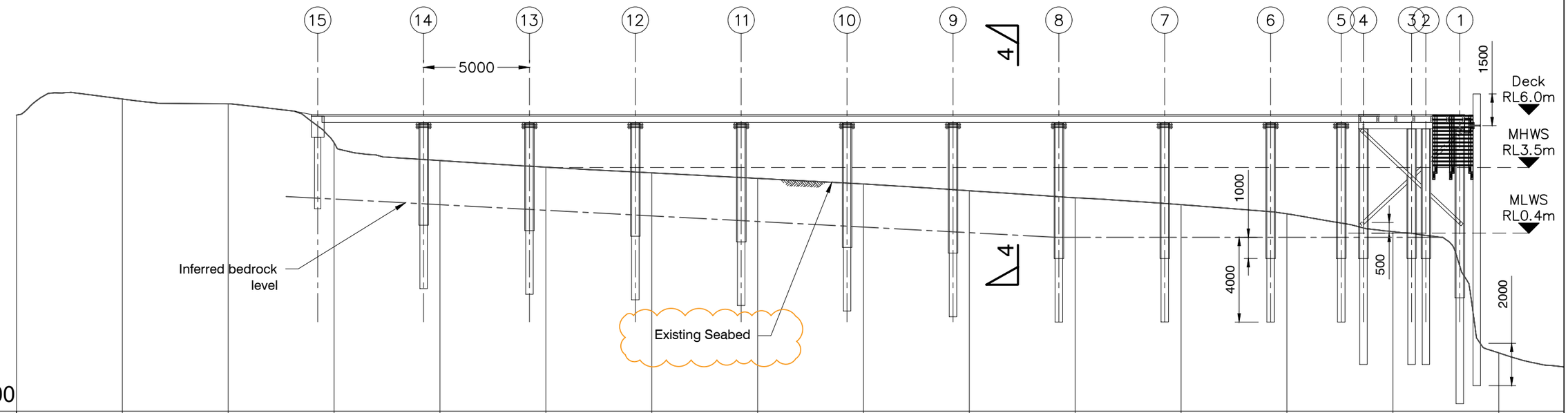


Datum R.L. -8.00														
Seabed Level	6.73	6.50	4.66	3.83	3.52	3.25	2.99	2.72	2.40	2.07	1.75	1.31	0.47	-5.25
Chainage	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00

LAYOUT THROUGH CL OF WHARF AND WALKWAY

Scale 1:200

Original Size = A3

CLIENT
Kaipara District Council
Kaipara

PROJECT
Pouto Wharf
Southern end of Pouto Road
Pouto

DRAWING TITLE
Layout Through CL

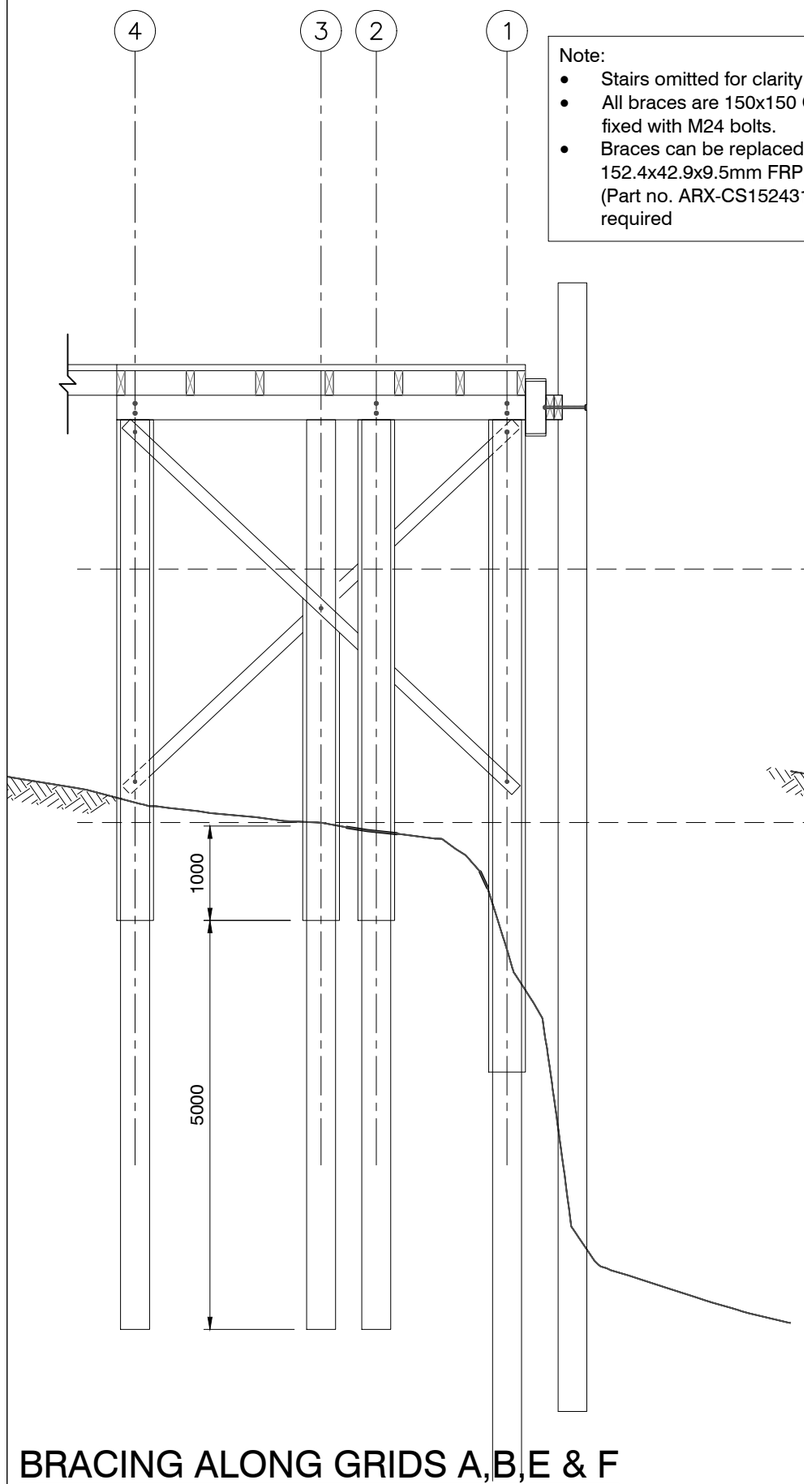
LDE LAND DEVELOPMENT & ENGINEERING

No.	REVISION	BY	DATE
2	Wording	TA	23/06/2022
1	Construction	TA	21/06/2022

DESIGN: TA
DRAWN: TA
DATE: 21/06/22
CHECKED:
SCALE A3: As shown

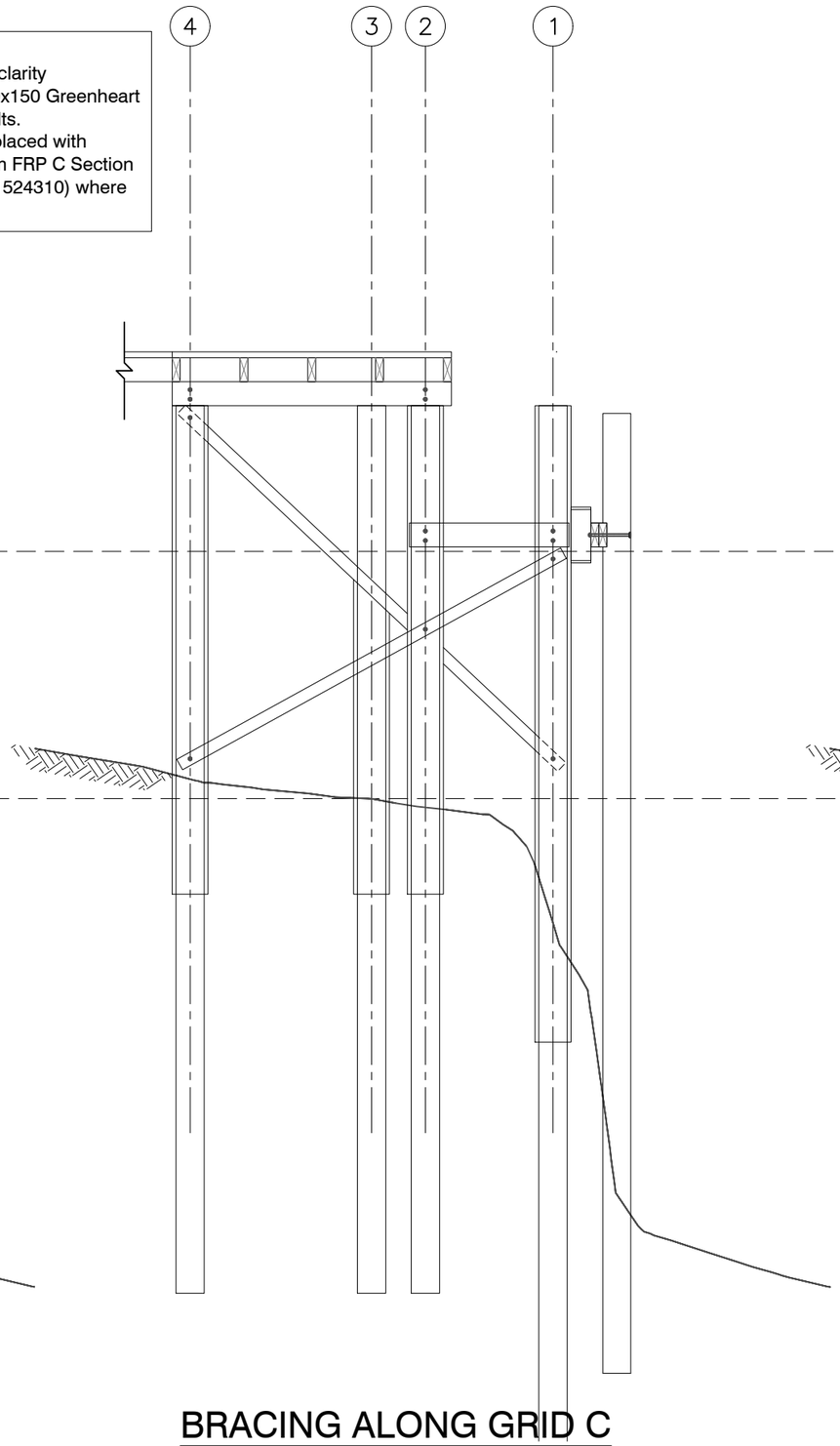
PROJECT STATUS: Construction
PROJECT: 18570
SHEET: of
DRAWING No: S201
REV: 2

Note:
- Stairs omitted for clarity
- All braces are 150x150 Greenheart fixed with M24 bolts.
- Braces can be replaced with 152.4x42.9x9.5mm FRP C Section (Part no. ARX-CS1524310) where required



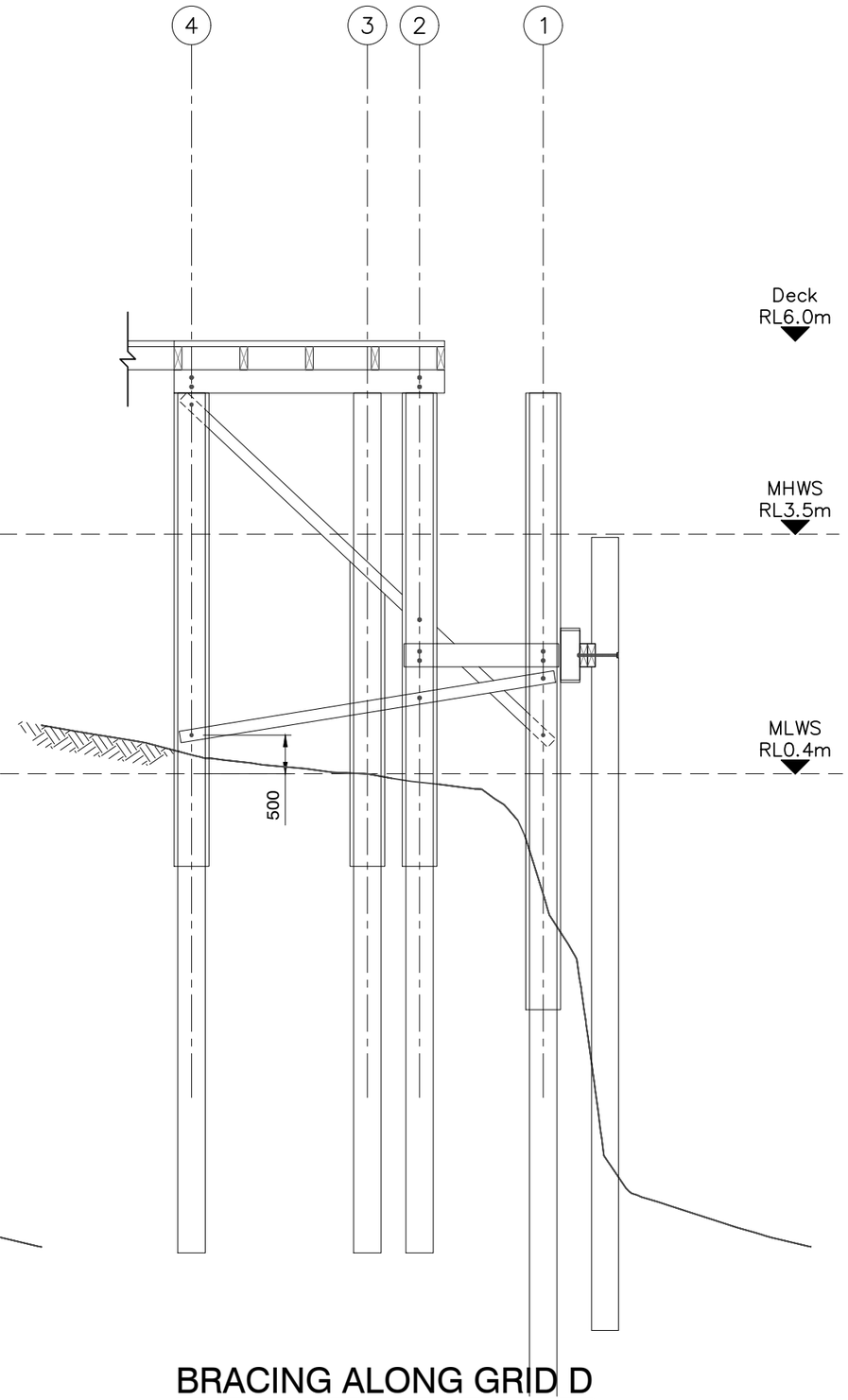
BRACING ALONG GRIDS A,B,E & F

Scale 1:75



BRACING ALONG GRID C

Scale 1:75



BRACING ALONG GRID D

Scale 1:75

Original Size = A3

CLIENT	Kaipara District Council Kaipara
PROJECT	Pouto Wharf Southern end of Pouto Road Pouto
DRAWING TITLE	Bracing Along Grids

LDE LAND DEVELOPMENT & ENGINEERING

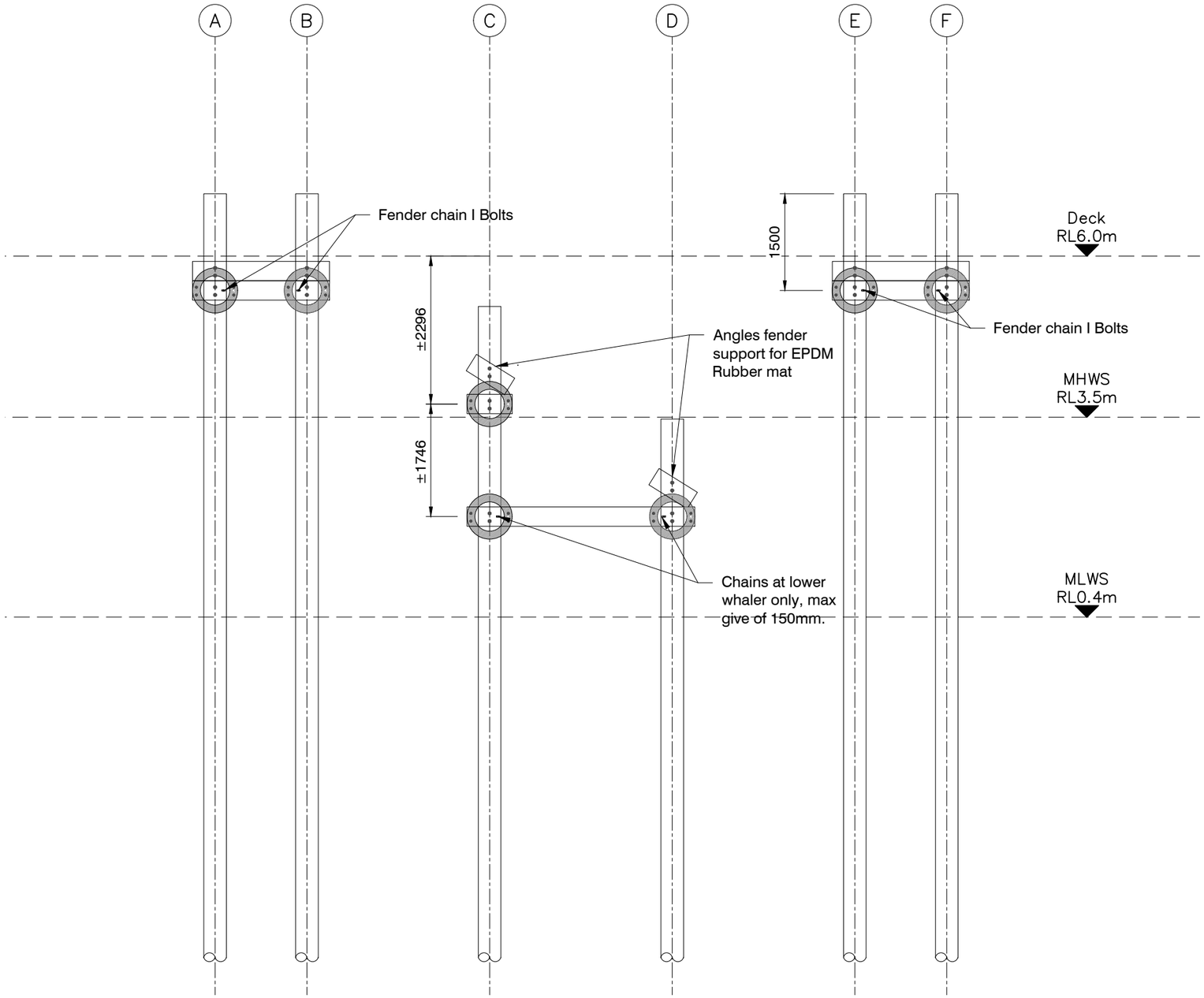
No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

DESIGN:	TA
DRAWN:	TA
DATE:	21/06/22
CHECKED:	
SCALE A3:	As shown

PROJECT STATUS: Construction

PROJECT: 18570 SHEET: of

DRAWING No: S202 REV: 1



SECTION 2

Scale 1:75

Original Size = A3

CLIENT
Kaipara District Council
Kaipara

PROJECT
Pouto Wharf
Southern end of Pouto Road
Pouto

DRAWING TITLE
Fender Layout

LDE LAND DEVELOPMENT & ENGINEERING

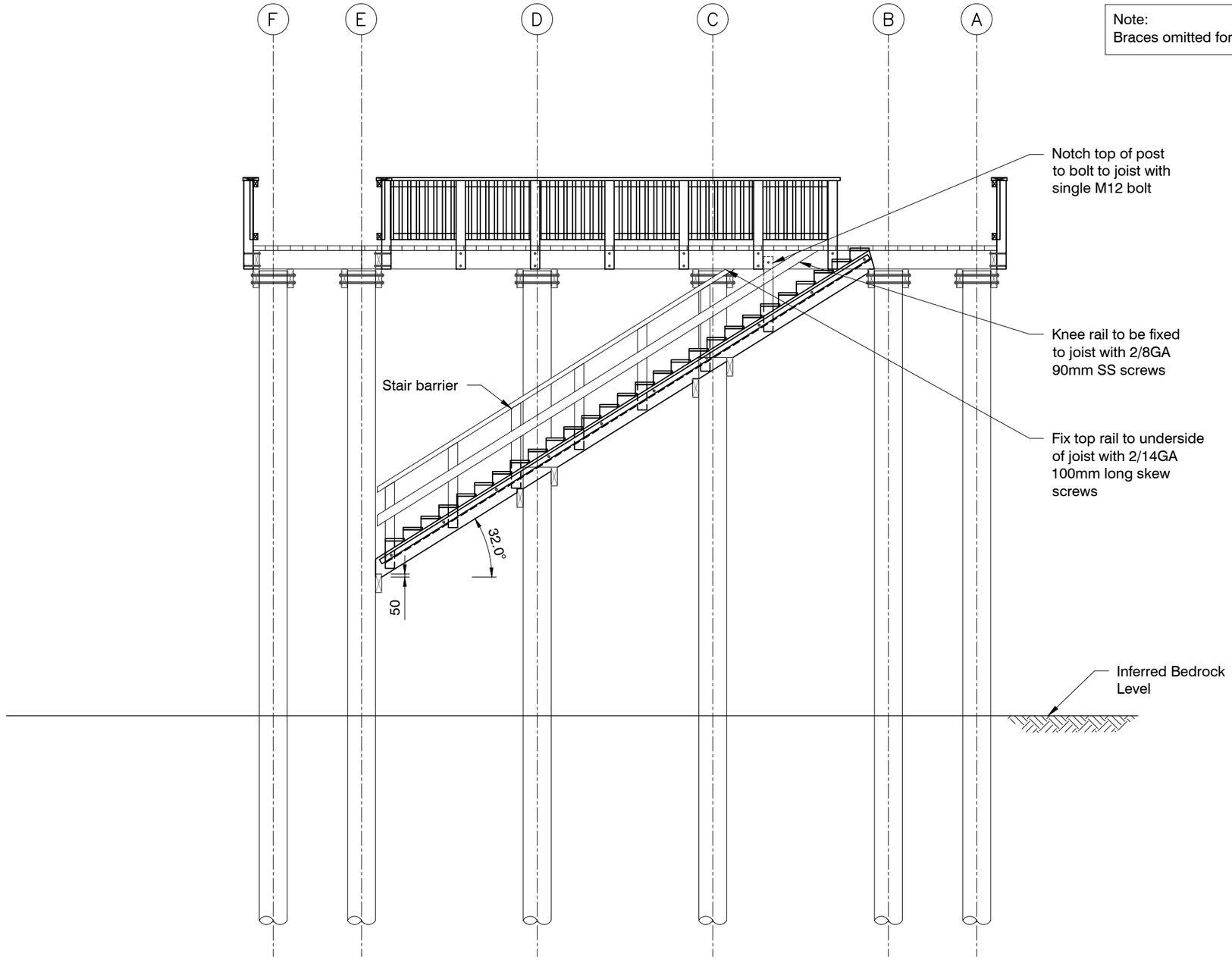
No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

DESIGN:	TA
DRAWN:	TA
DATE:	21/06/22
CHECKED:	
SCALE A3:	As shown

PROJECT STATUS: Construction

PROJECT: 18570 SHEET: of

DRAWING No: S203 REV: 1



SECTION 3 - STAIR HANDRAILING

Scale 1:75

Original Size = A3

CLIENT	Kaipara District Council Kaipara	PROJECT	Pouto Wharf Southern end of Pouto Road Pouto
DRAWING TITLE	Fender Layout		

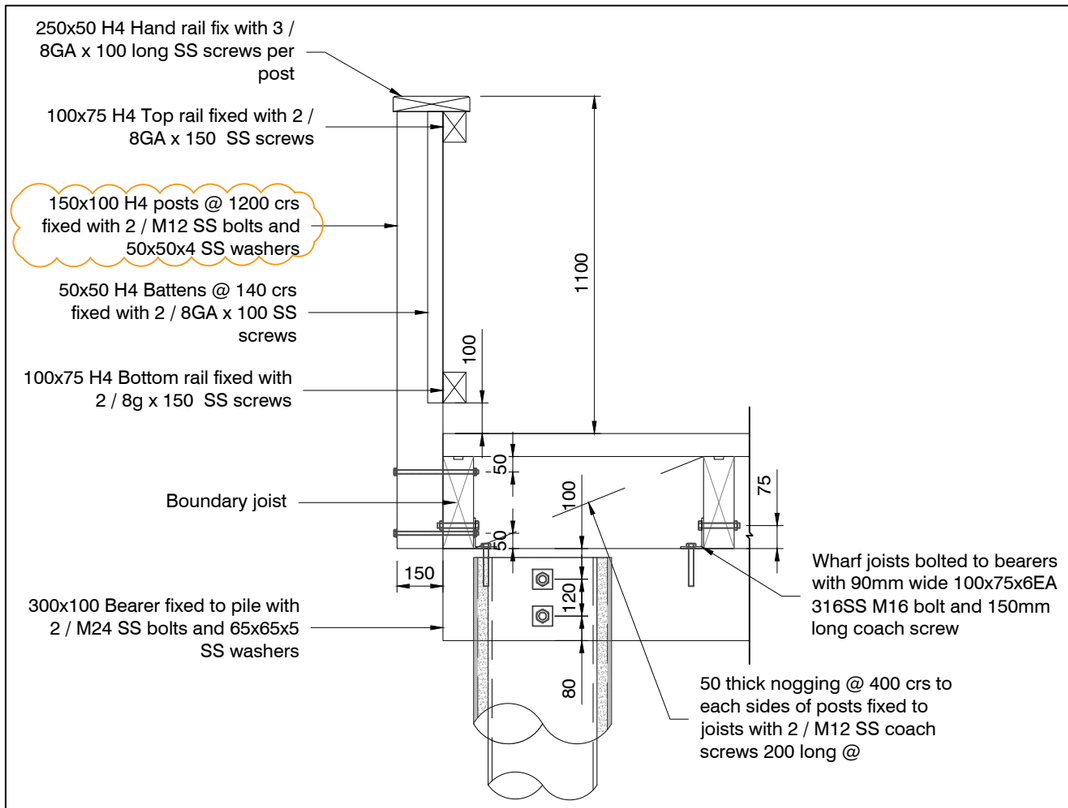
No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

DESIGN:	TA
DRAWN:	TA
DATE:	21/06/22
CHECKED:	
SCALE A3:	As shown

PROJECT STATUS: Construction

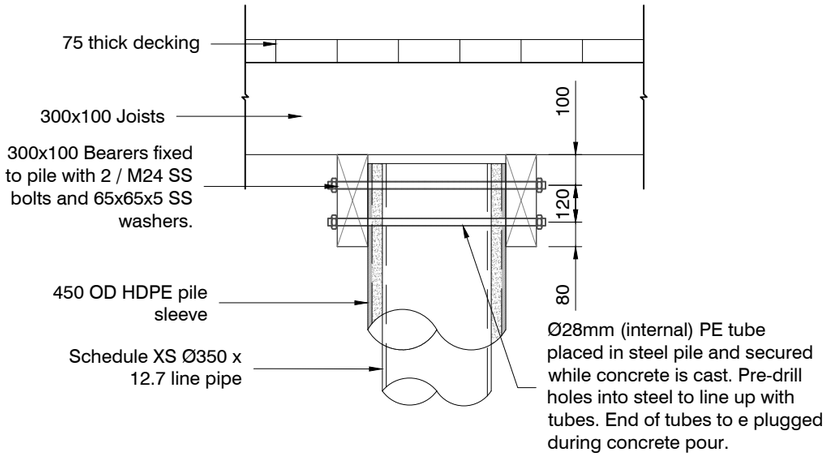
PROJECT: 18570 SHEET: of

DRAWING No: S204 REV: 1



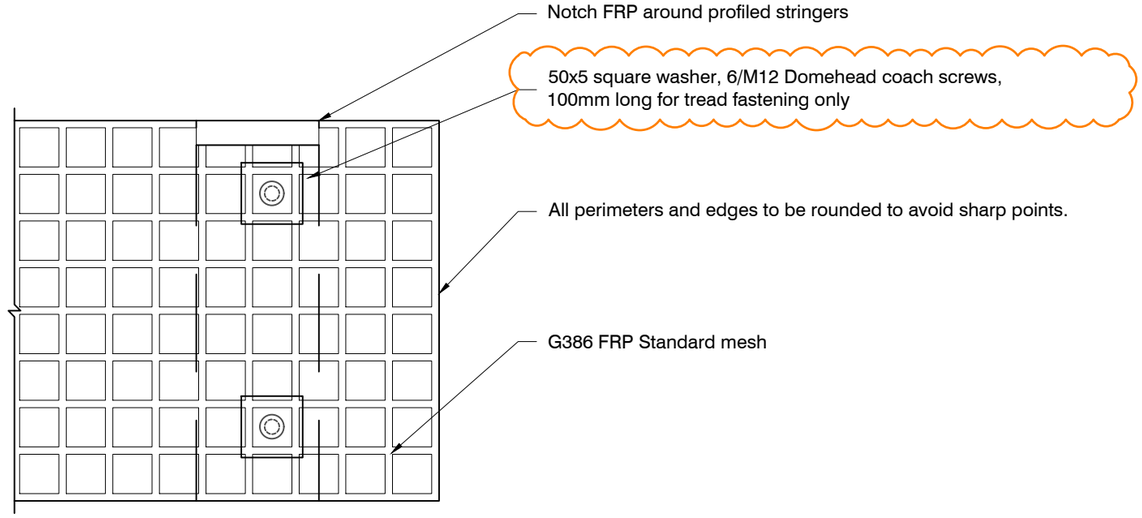
TYPICAL BARRIER DETAIL

Scale 1:20



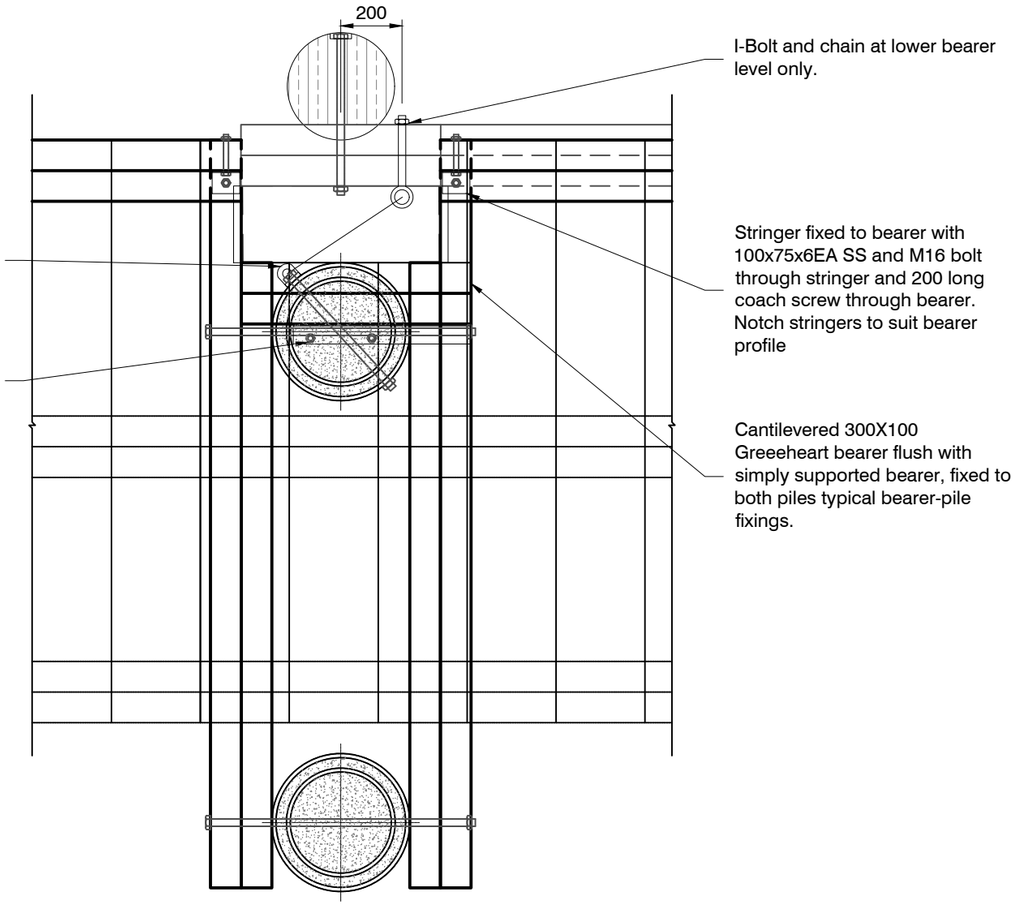
TYPICAL FLOOR DETAILS

Scale 1:20



TYPICAL LAYOUT AT STRINGER-TREAD CONNECTION

Scale 1:5



STAIR CUT OUT

Scale 1:20

Original Size = A3

CLIENT: Kaipara District Council, Kaipara

PROJECT: Pouto Wharf, Southern end of Pouto Road, Pouto

DRAWING TITLE: Details Sheet 1

LDE LAND DEVELOPMENT & ENGINEERING

No.	REVISION	BY	DATE
2	Revised bolts	TA	23/06/2022
1	Construction	TA	21/06/2022

DESIGN: TA
DRAWN: TA
DATE: 21/06/22
CHECKED:
SCALE A3: As shown

PROJECT STATUS: Construction
PROJECT: 18570
SHEET: of
DRAWING No: S600
REV: 2

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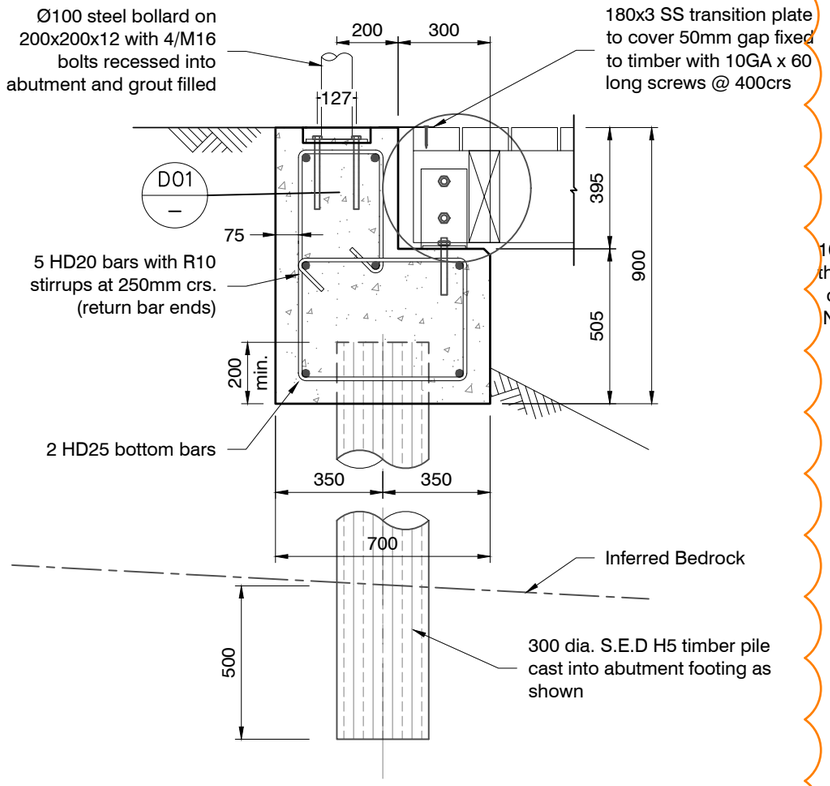
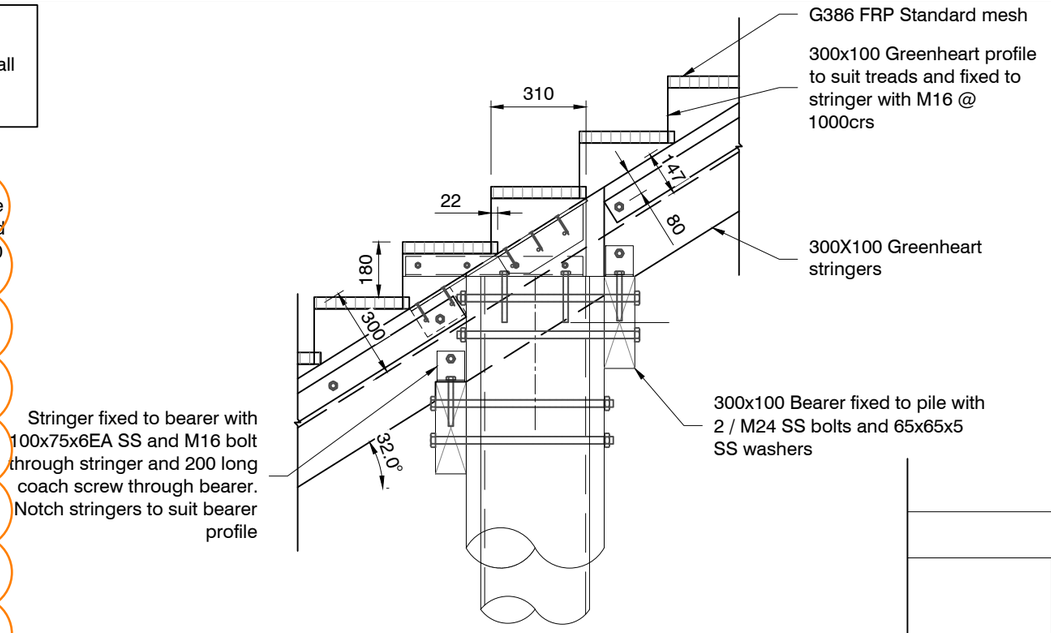
Note:
Contractor to confirm final walkway levels and ensure there is enough clear space between concrete faces to allow for installation of bridge structural steel elements. Structural steel contractor to confirm all dimensions on site prior to fabrication. Discrepancies must be reported to both the architect and engineer immediately.



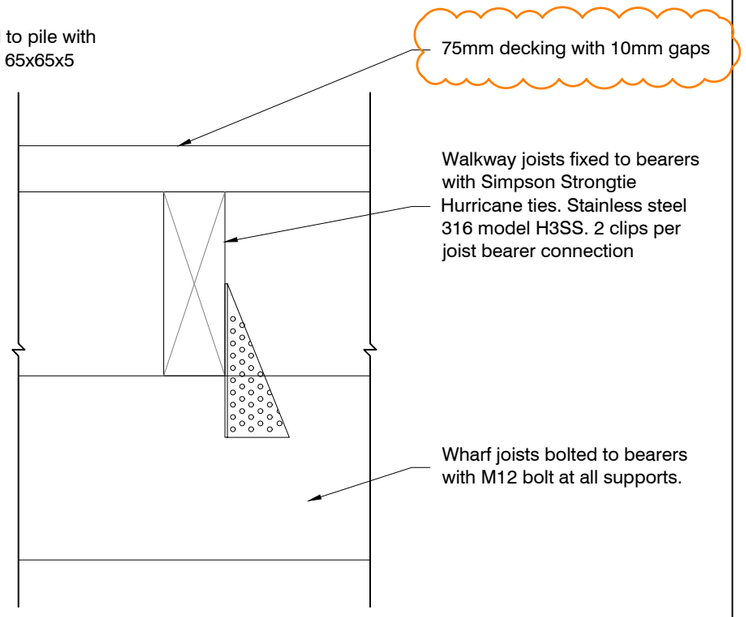
ABUTMENT DETAILS

Scale 1:20



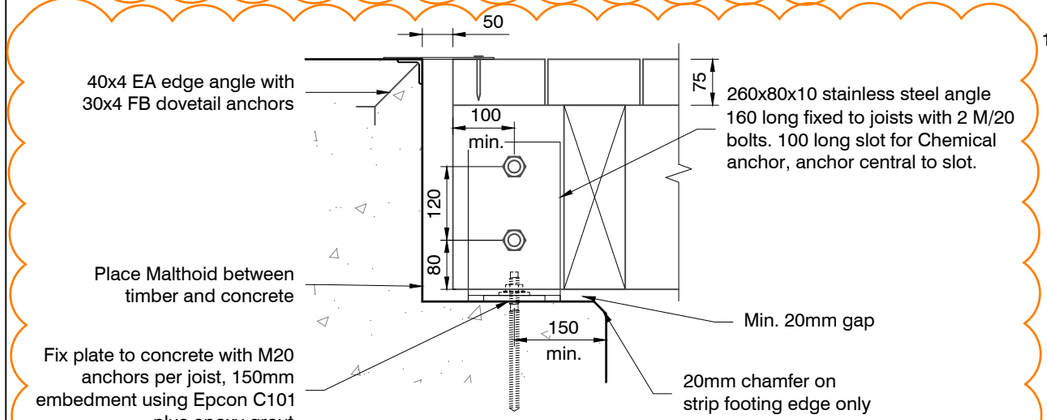
STAIR DETAILS

Scale 1:20



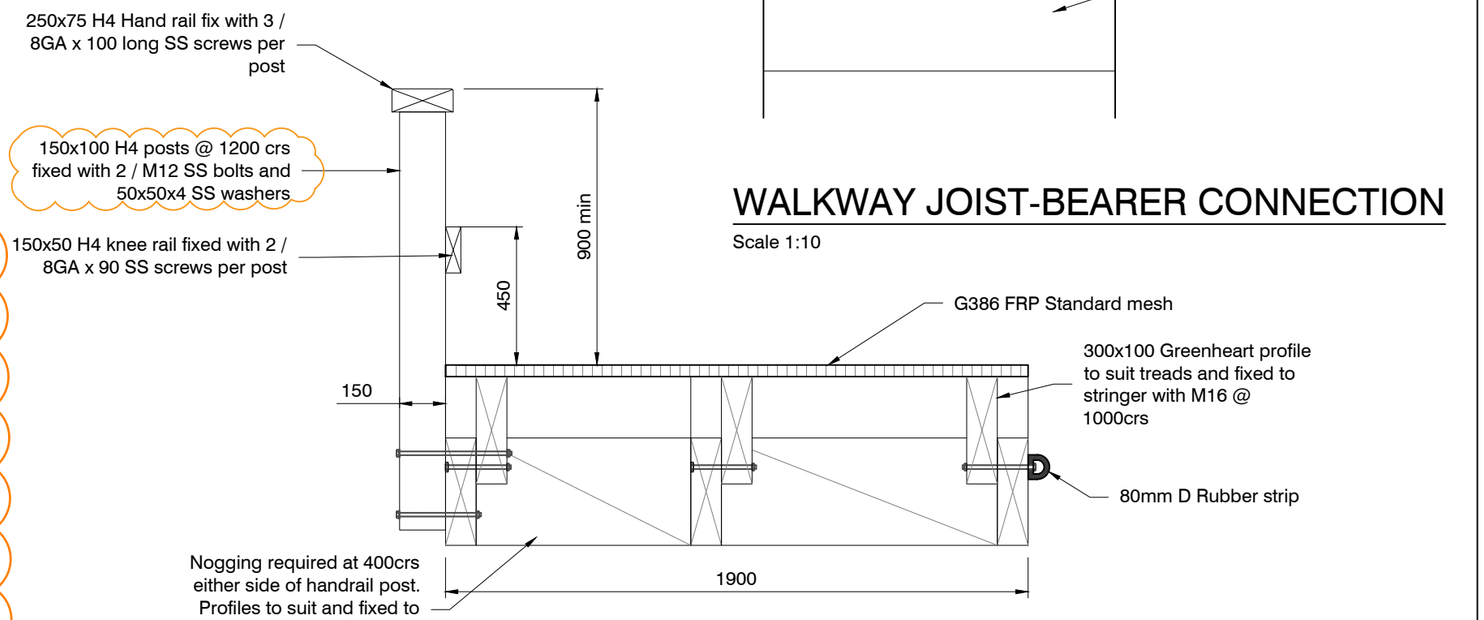
WALKWAY JOIST-BEARER CONNECTION

Scale 1:10



DETAIL 1

Scale 1:10



STAIR SECTION

Scale 1:20

Original Size = A3

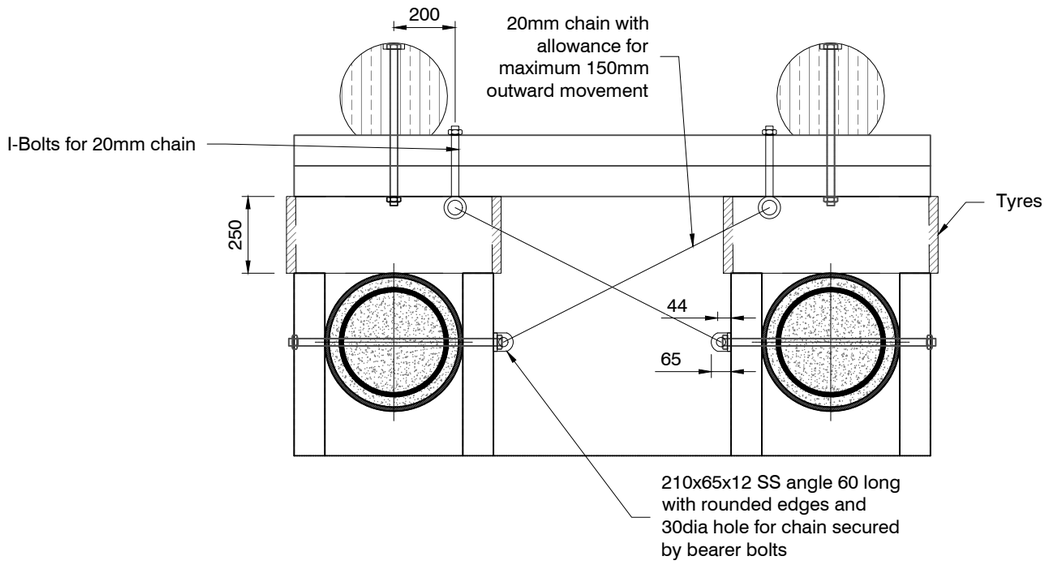
CLIENT	Kaipara District Council Kaipara		
PROJECT	Pouto Wharf Southern end of Pouto Road Pouto		
DRAWING TITLE	Details Sheet 2		

LDE LAND DEVELOPMENT & ENGINEERING

No.	REVISION	BY	DATE
2	Revised bolts	TA	23/06/2022
1	Construction	TA	21/06/2022

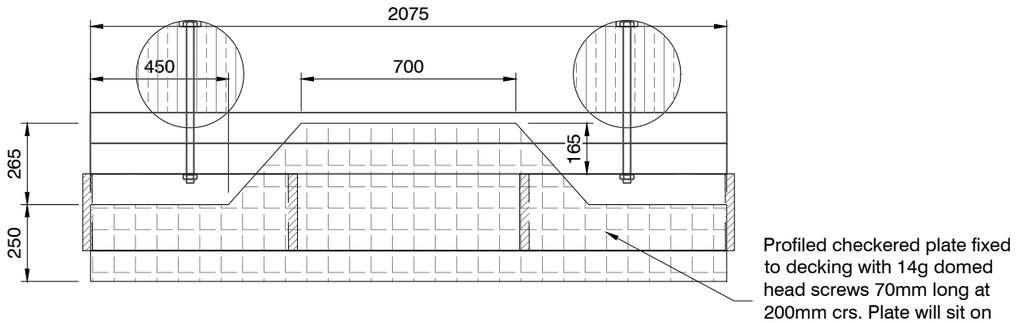
DESIGN:	TA
DRAWN:	TA
DATE:	21/06/22
CHECKED:	
SCALE A3:	As shown

PROJECT STATUS: Construction
PROJECT: 18570
SHEET: of
DRAWING No: S601
REV: 2



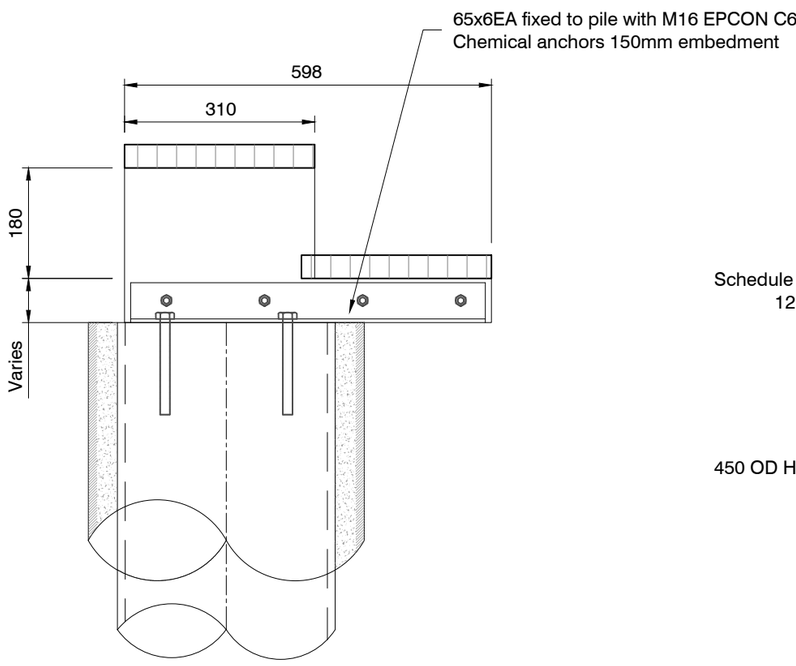
Fender fixings

Scale 1:20



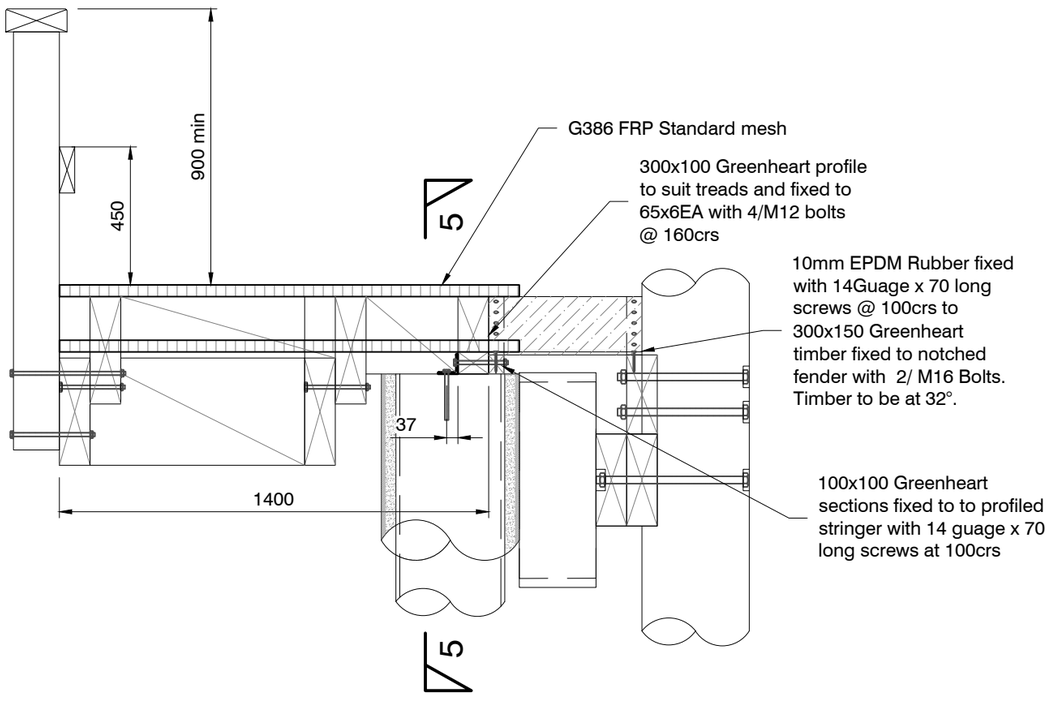
COVER PLATE DETAIL

Scale 1:20



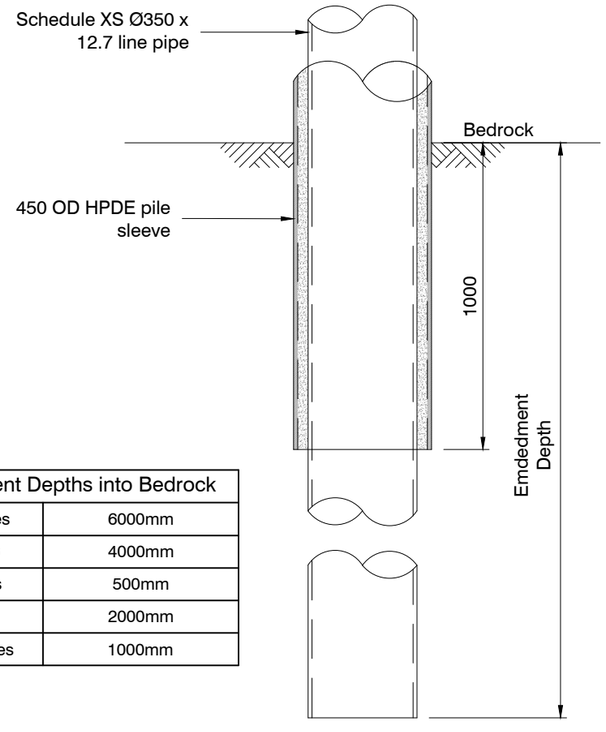
SECTION 5

Scale 1:10



CUTOUT STAIR SECTION

Scale 1:20



Pile Embedment Depths into Bedrock	
Wharf Head Piles	6000mm
Walkway Piles	4000mm
Abutment Piles	500mm
Fender Piles	2000mm
HPDE Pile sleeves	1000mm

PILE DETAILS

Scale 1:20

Original Size = A3

CLIENT
Kaipara District Council
Kaipara

PROJECT
Pouto Wharf
Southern end of Pouto Road
Pouto

DRAWING TITLE
Details
Sheet 3

LDE LAND DEVELOPMENT & ENGINEERING

No.	REVISION	BY	DATE
1	Construction	TA	21/06/2022

DESIGN: TA
DRAWN: TA
DATE: 21/06/22
CHECKED:
SCALE A3: As shown

PROJECT STATUS: Construction
PROJECT: 18570
SHEET: of
DRAWING No: S602
REV: 1