HARANIA CREEK PIPE BRIDGE HARANIA CREEK, MANGERE, AUCKLAND





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DATE: OCT 2024 STRUCTURAL JOB No: 240345

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Rev	Date	Amendment

Date: Cad Ref:	OCT 2024	PROJECT HARANIA CREEK PIPE BRIDGE	DRAWING TITLE DRAWING SCHEDULE	Ch Th rep
Designed	J.W			
Drawn	T.G	HARANIA CREEK, MANGERE,		OR
Checked	Y.L	AUCKLAND		OR

JMBER	SHEET NAME	CURRENT REVISION
	COVER PAGE	A
	DRAWING SCHEDULE	A
	GENERAL NOTES	A
	SITE PLAN	A
	3D VIEW - OVERALL SITE - SHEET 1	A
	3D VIEW - OVERALL SITE - SHEET 2	A
	3D VIEW - STEEL PIPE BRIDGE	A
	3D VIEW - CHAMBER / FOOT BRIDGE - SHEET 1	A
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	OVERALL PLAN - SHEET 1	A
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	CHAMBER - 1 FOUNDATION PLAN	A
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	CHAMBER - 1 BASE SLAB PLAN	A
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	CHAMBER - 1 WALL LAYOUT	A
	CHAMBER - 2 WALL LAYOUT	A
	CHAMBER - 1 LID PLAN	A
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	CHAMBER SECTIONS	A
	CHAMBER WALL ELEVATIONS	A
	FOOT BRIDGE FRAMING PLAN	Α
	FOOT BRIDGE SECTIONS	A
	FOOT BRIDGE ELEVATION - SHEET 1	A
	FOOT BRIDGE ELEVATION - SHEET 2	A

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GENERAL

- 1 THE SPECIFICATION AND DRAWINGS SHALL TAKE PRECEDENCE OVER THESE NOTES AND DETAILS.
- 2 MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE NEW ZEALAND BUILDING CODE, THE CURRENT EDITION OF THE RELEVANT NEW ZEALAND STANDARDS, INCLUDING ASSOCIATED STANDARDS, AND LOCAL AUTHORITY REGULATIONS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS
- 3 THE DESIGN ADEQUACY INCORPORATED IN THESE DRAWINGS IS SUBJECT TO THE REQUIREMENTS INCLUDED IN THE SPECIFICATION FOR THE WORKS AND THE DESIGN ASSUMPTIONS INCORPORATED INTO THE CALCULATIONS AND REPORTS FOR THE PROJECT.
- 4 THE DRAWINGS SHOW THE DESIGN INTENT. SHOP DETAILING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 5 THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL SETTING OUT, NIBS, REBATES, SETDOWNS AND THE LIKE. ALL DISCREPANCIES SHALL BE REFERRED TO THE PRINCIPAL CONSULTANT OR THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 6 ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED. THE ENGINEERS DRAWINGS SHALL NOT BE SCALED.
- 7 DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES. THIS INCLUDES ALL EXISTING STRUCTURES FORMING PART OF, OR AFFECTED BY, THE WORKS. THE CONTRACTOR SHALL DESIGN AND PROVIDE PROPPING TO SUPPORT ALL CAST INSITU AND PRECAST CONCRETE WORK UNTIL SUCH CONCRETE HAS REACHED THE REQUIRED STRENGTH TO BE SELF SUPPORTING.
- 8 IF DURING CONSTRUCTION ANY PART OF THE WORKS SHOW SIGNS OF DISTRESS, EXCESSIVE DEFLECTION, CONFLICT OF COMPONENTS OR OTHER PROBLEMS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER WHO SHALL INVESTIGATE AND ISSUE SUCH INSTRUCTIONS AS ARE CONSIDERED NECESSARY.

INSPECTION

- 1 CONTRACTOR TO REVIEW BUILDING CONSENT AND ARRANGE INSPECTIONS BY COUNCIL AND ENGINEER AS REQUIRED BY CONSENT DOCUMENTATION
- 2 THE CONTRACTOR MUST BE SATISFIED THAT THE WORKS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS BEFORE CONFIRMING AN INSPECTION BY THE ENGINEER

CONCRETE

- 1 ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH NZS 3109
- 2 UNLESS STATED OR DETAILED OTHERWISE ON THE DRAWINGS, ALL REINFORCEMENT MUST BE PROVIDED WITH A MINIMUM CONCRETE COVER AS SHOWN ON THE FOLLOWING TABLE.

MEMBER	CONCRETE COVER TO REINFORCEMENT (mm)				
	CAST AGAINST & EXPOSED TO EARTH PERMANENTLY OR WEATHER		CAST AGAINST & PERMANENTLYEXPOSED TO EARTH OR WEATHERNOT EXPOSED OR IN CONTACT		D TO WEATHER T WITH GROUND
	EXPOSED TO EARTH	INSITU PRECAST		INSITU	PRECAST
FOUNDATIONS	75	50	40		
BEAMS AND COLUMNS (PRIMARY REINFORCING)	75	50	40	40	35
TIES, STIRRUPS & SPIRALS	75	40	30	25	20
WALLS, SLABS & RIBS DIA <24/DIA= or >24	75	40/45	30/40	25/30	20/25

3 UNLESS STATED OTHERWISE ON THE DRAWINGS THE FOLLOWING CONCRETE STRENGTHS SHALL BE USED:

RC PILE	40 MF
GROUND BEAM AND PILE CAP	40 MF
BASE SLAB	40 MF
PRECAST PANELS	40 MF
IN-SITU WALLS	40 MF
FLOOR SLAB	40 MF

4 NO HOLES. CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE APPROVAL OF THE ENGINEER.

- 5 ALLOW FOR ALL CAST-IN CLEATS, HOLDING DOWN BOLTS AND THE LIKE.
- 6 INSITU AND PRECAST SUSPENDED SLABS AND BEAMS SHALL BE GIVEN A POSITIVE UPWARD CAMBER OF 2mm PER 1000mm OF SPAN. ALLOWANCES SHALL BE MADE FOR CAMBER WHEN SETTING OUT LEVELS.
- 7 PROVIDE D12 TRIMMER BARS TO ALL SLAB EDGES, UNLESS NOTED OTHERWISE.
- 8 CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AS DETAILED AND WHERE SHOWN ON THE DRAWINGS. OR AS SPECIFICALLY APPROVED BY THE ENGINEER.
- 9 SLABS ON GROUND SHALL BE SAWCUT AND SHALL CONSIST OF 3mm WIDE CUTS TO THE DEPTHS NOTED IN THE TABLE BELOW. THE MAXIMUM SLAB PANEL AREA BETWEEN JOINTS SHALL BE AS NOTED IN THE TABLE BELOW WITH A MAXIMUM SPACING BETWEEN JOINTS OF 6m. THESE ARE GENERAL GUIDELINES AND SHOULD BE FOLLOWED UNLESS OTHERWISE NOTED ON THE DRAWINGS.

SLAB THICKNESS	SAW CUT DEPTH	MAXIMUM PANEL AREA
100 THK	25mm	25m²
150 THK	35mm	35m²
200 THK	40mm	40m²

10 WHERE REQUIRED TO MEET NZBC E2/AS3, CONCRETE & CONCRETE MASONRY STRUCTURES TO COMPLY WITH CCANZ CP01 - 2014 OR AS SPECIFIED BY OTHERS.



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REINFORCEMENT

- 2 TYPICAL BAR DESIGNATIONS ARE AS FOLLOWS: 16 - HD20 - 300 EF 9 - R10 TIES - 200
- **4 SPLICES IN REINFORCEMENT:** GRADE 300 = 40xBAR DIA GRADE 500 = 60xBAR DIA

BAR Ø GRADE 300 DEFORMED GRADE 500 DEFORMED BARS (HD)

- DEFORMED REINFORCING
- 6 LAPPED AT RANDOM BARS:
- SHALL BE TIED IN PLACE.

TYPE OF LAP

- DETAILED OTHERWISE

REINFORCING MESH LAPS

SE62-SE92 MESH LAP LENGTH = 400 SE73-SE93 MESH LAP LENGTH = 400

REINFORCING STANDARD HOOKS

BLOCKWORK

- STANDARD GRADE B.
- CONTINUOUS INSPECTION.
- THE DRAWINGS.

REMOVAL OF FORMWORK

ITEMS FROM WHICH FORMV IS TO BE REMOVED

BEAMSIDES AND WALLS
COLUMNS AND SLABS IN BI CONSTRUCTION (PROPS TO UNDER SLABS OF SPANS O
REMOVAL OF PROPS FROM OF SPAN OVER 1500mm IN AND SLAB CONSTRUCTION
BEAMS, SOFFITS, ARCH RIE AND SLAB SPANS EXCEEDI

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1 REINFORCEMENT SHALL BE NEW ZEALAND MANUFACTURED TO AS/NSZ 4671. ALL REINFORCEMENT TO BE HIGH DUCTILITY CLASS E. WIRE MESH SHALL BE IN ACCORDANCE WITH NZS 3422, TO MIN GRADE 500MPa THE INTERNAL RADIUS OF BENDS SHALL BE AS LIMITED BY AS/NZS 3109

DENOTES 16No PACIFIC GRADE 500E DEFORMED 20 DIA BARS AT 300 CENTRES IN EACH FACE

DENOTES 9No GRADE 300E PLAIN ROUND 10 DIA TIES AT 200 CENTRES

3 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.

SHALL BE MADE ONLY IN THE POSITION SHOWN ON THE DRAWINGS OR AS OTHERWISE APPROVED BY THE ENGINEER. THE FOLLOWING SPLICE LAP LENGTHS SHALL BE USED IN REINFORCED CONCRETE AND BLOCK WORK UNLESS DETAILED OTHERWISE ON THE DRAWINGS

SPLICE LAP LENGTHS						
	10	12	16	20	25	32
BARS (D)	400	480	640	800	1000	1280
BARS (HD)	600	720	960	1200	1500	1920

5 LAP SPLICE LENGTH FOR ROUND REINFORCING BARS SHALL BE TWICE THE CORRESPONDING VALUE FOR

WHERE LAPS ARE NOT SPECIFICALLY SHOWN BARS MAY BE LAPPED AT RANDOM IN A STAGGERED PATTERN. BARS SHALL BE 3.0m MINIMUM LENGTH BUT WHERE ACCURATE PLACING IS CRITICAL BARS LONGER THAN 3.0m MAY INCORPORATE ONE LAP COMPLYING WITH THE ABOVE TABLES.

7 SLAB REINFORCEMENT SHALL BE SUPPORTED ON STOOLS OR OTHER APPROVED METHODS. STARTERS

1 PARALLEL LAP - TYPICAL FOR SLABS AND BLOCK WALLS UNLESS DETAILED OTHERWISE

LAP LENGTH AS ABOVE

2 OFFSET LAP - TYPICAL FOR BEAMS, COLUMNS AND REINFORCED CONCRETE WALLS UNLESS

LAP LENGTH AS ABOVE 📋 12xDIA

TO NZS3101:2006 CLAUSE 8.6.8.2 REQUIRES ONE MESH SQUARE + 50mm

LAP LENGTH

1 ALL BENDING OF STEEL BAR REINFORCEMENT AND STANDARD HOOKS TO BE AS PER SECTION 8 NZS3101:PART1

1 MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NZS 4210 AND TO NZS 4230 MASONRY

2 ALL BLOCKWORK SHALL BE DIRECTLY SUPERVISED BY A REGISTERED MASON WHO SHALL PROVIDE

3 ALL MASONRY UNITS SHALL BE OPEN END REINFORCING UNITS, THE BOTTOM COURSE TO BE PLACED UPSIDE DOWN. ALL CELLS ARE TO BE FILLED.

4 FOR HEIGHTS OVER 1.2m THE 'HIGH LIFT' METHOD OF GROUTING SHALL BE USED. PROVIDE CLEAN OUT PORTS AT EVERY VERTICAL BAR AND AT THE BOTTOM OF EVERY LIFT UNLESS SHOWN ON THE DRAWINGS. 5 CONTROL JOINTS ARE TO BE PROVIDED AT 6.0m MAXIMUM CENTRES UNLESS SHOWN OTHERWISE ON

	ORDINARY PC CEMEN	ORTLAND IT	RAPID HARDENING CEMENT		
VORK	COLD WEATHER 7°(OR LESS)	TEMPERATE WEATHER	COLD WEATHER 7°(OR LESS)	TEMPERATE WEATHER	
	DAYS	DAYS	DAYS	DAYS	
	6	2	5	1	
AM AND SLAB BE LEFT /ER 1500mm)	10	5	7	2	
SLABS BEAM	14	10	4	4	
S, OR BARRELS IG 4500mm	28	16	21	8	

PROJECT HARANIA CREEK PIPE BRIDGE HARANIA CREEK, MANGERE, AUCKLAND

FLOOR LOADING

TYPE	<u>L.L. (kPa)</u>	<u>S.D.L. (kPa)</u>
MAINTENANCE WALKWAY	1.5	0

SUSPENDED FLOORS

- 1 PRE-CAST CONCRETE FLOOR SYSTEM SHALL BE PROPPED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- 2 STEEL FLOOR BEAMS SHALL BE PROPPED IN TWO LOCATIONS 2.5m FROM THE SU REMAIN IN PLACE FOR A MINIMUM OF 14 DAYS WITH A MINIMUM OF TWO FLOORS EACH STEEL BEAM PROP SHALL HAVE A SAFE LOAD CARRYING CAPACITY OF 10 TO

STEELWORK

- 1 MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NZS 3404 WELDII AS/NZS 1554.1 IN CONJUNCTION WITH NZS 3404 APPENDIX D
- 2 ALL CONNECTONS SPLICES AND BASEPLATES SHALL BE TO HERA REPORT R4-100 ON THE DRAWINGS UNLESS SPECIFICALLY NOTED OR DETAILED.
- 3 BOLTS SHALL GENERALLY BE SNUG FIT HIGH STRENGTH BOLTS TO AS/NZS 1252. B SHALL BE HIGH STRENGTH BOLTS TO AS/NZS 1252 FULLY TENSIONED IN ACCORDA
- 4 WELDS TO BE CONTINUOUS SINGLE BEVEL BUTT OR 5mm CONTINUOUS FILLET WE WELDS) AS APPROPRIATE UNLESS NOTED OTHERWISE.
- 5 HOLDING DOWN BOLTS AND CAST-IN ITEMS SHALL BE SET ACCURATELY BY TEMPL PLUMB AND LEVEL BEFORE CONCRETING.
- 6 BASEPLATES SHALL BEAR DIRECTLY ON 20 NOMINAL THICKNESS DRY PACK MORT
- 7 WASHERS, TAPERED WHERE NECESSARY, ARE TO BE USED UNDER BOLT HEADS A
- 8 HOLLOW SECTION MEMBERS SHALL BE CAPPED AND ALL JOINTS SEALED
- 9 FOR HOT DIP GALVANISED ITEMS ALLOW FOR TOLERANCES, VENT HOLES ETC. VE SEALED AFTER GALVANISING
- 10 UNLESS OTHERWISE SPECIFIED ALL STEELWORK SHALL BE PAINTED WITH ONE CO PHOSPHATE PRIMER IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDA THE STEEL SURFACE FOR PAINTING SHALL BE IN ACCORDANCE WITH BS 7079, PAR UNLESS NOTED OTHERWISE IN THE MANUFACTURER'S RECOMMENDATIONS. DO N BE ENCASED IN CONCRETE OR SURFACES FORMING PART OF A TENSIONED BOLT

TIMBER

- 1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH NZS 3602 & I
- 2 LIGHT TIMBER FRAMED CONSTRUCTION SHALL BE IN ACCORDANCE WITH NZS 3604

REID THREADED INSERTS

1 ALL THREADED INSERTS TO BE INSTALLED IN ACCORDANCE WITH THE REID INSTA DATED JULY 2019, INCLUDING USING EPOXY.

EPOXY STUDS

1 ALL EPOXY STUDS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPI 2 ALL EPOXY TO BE HILTI HIT-HY200 MINIMUM 100mm EMBEDMENT UNLESS OTHERW





WALL & SLAB PENETRATIONS

PENETRATIONS LESS THAN 300 GREATEST DIMENSION ARE GENERALLY NOT SHOWN ON THE DRAWINGS. TRIMMERS SHALL BE PROVIDED FOR ALL PENETRATIONS WITH ONE DIMENSION GREATER THAN 200 OR 200 DIAMETER. TRIMMERS TO BE: 1-D16 FOR THICKNESS UP TO 150 2-D16 FOR THICKNESS 155 - 300

DRAWING TITLE GENERAL NOTES	Check all dimension This drawing and reproduced withou
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			GENER	RAL AB	BREVIATI	ONS	
THE PORTS. THE PROPS SHALL	L	GENERAL	COS ES FL GL IL SFL SFL SFL TBC TYP UNO	CHECK (EQUALL EXISTIN: FINISHE GROUNI INVERT LONG NOT TO REDUCE SMALL E STRUCT TO BE A TO BE C TYPICAL UNLESS	DN SITE SPACED D LEVEL LEVEL SCALE D LEVEL ND DIAMETEI URAL FINISHE DVISED ONFIRMED	R ED LEVEL ERWISE	
ROPPED AT ANY ONE TIM NNES. (DEAD + LIVE LOAD G SHALL COMPLY WITH	E. ')	CEMENT	PC PCP PSC RC REO B C	PRECAS PRECAS PRESTR REINFOI REINFOI BOTTOM CENTRA	T CONCRETE T CONCRETE ESSED CONC RCED CONCR RCEMENT	PANEL RETE ETE	
S SHOWN TYPICALLY ILTS DESIGNATED Mxx/8.8 ICE WITH NZS 3404. .DS (6mm FOR MANUAL		RETE & REINFOR	CAR CJR EEJ EEF HF NST V	COVER CONSTR CONSTR EACH FA EXPANS EACH W FAR FAC HORIZOI NEAR FA SAWCUT TOP VERTICA	ALL ROUND UCTION/CON ION JOINT AY ION ION JOINT AY ICE	TROL JOI	NT
TE FOR POSITION, R UNLESS NOTED. D NUTS		CONCI	ALT ABR ABS LAR NL STA STG STRPS TRIM	ALTERN ALTERN LAP AT F NO LAP STARTE STAGGE STIRRUF TRIMME	ATE ATE BAR REV ATE BAR STA RANDOM R(S) R	ERSED GGERED	
AT OF AN APPROVED ZINC IONS. PREPARATION OF A1, CONDITION St2 T PAINT STEELWORK TO D CONNECTION.	;	STEEL	TOS T/O U/S CRS DIA PCD R C/W HD	TOP OF TOP OF UNDERS CENTER DIAMETE PITCH C RADIUS COMPLE HOLDING	STEEL SIDE S R IRCLE DIAME TE WITH G DOWN BOLT	TER	
ZS 3603 ATION GUIDE,		WELDING	HD GALV FW CFW FWAR SVBW DVBW SBBW DBBW	HOT DIP FILLET V CONTINI FILLET V SING V E DOUBLE SINGLE DOUBLE	GALVANISED VELD JOUS FILLET VELD ALL ROU 3UTT WELD V BUTT WELD BEVEL BUTT V BEVEL BUTT	WELD JND O WELD WELD	
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R 300 MIN LEG R IS GREATER		H			12d OR 300 M WHICHEVER GREATER	IN LEG IS	12d OR 300 MIN WHICHEVER IS GREATER
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PROJECT HARANIA CREEK PIPE BRIDGE

HARANIA CREEK, MANGERE, AUCKLAND DRAWING TITLE

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	Designed	J.W			
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Designed	J.W
Drawn	T.G
Checked	Y.L
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PROJECT HARANIA CREEK PIPE BRIDGE

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T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV	
Y.L	AUCKLAND		ORIGINAL SCALE	1 : 150	240345	S020	A	
	OCT 2024 J.W T.G Y.L	OCT 2024PROJECT HARANIA CREEK PIPE BRIDGEJ.WHARANIA CREEK, MANGERE, AUCKLAND	OCT 2024 PROJECT DRAWING TITLE J.W HARANIA CREEK PIPE BRIDGE PILE LAYOUT PLAN T.G HARANIA CREEK, MANGERE, AUCKLAND HARANIA CREEK, MANGERE,	OCT 2024 PROJECT DRAWING TITLE Check all dimensions and this drawing and design reproduced without the way of t	OCT 2024 PROJECT DRAWING TITLE Check all dimensions and levels on site before J.W Image: Drawing and design remains the property This drawing and design remains the property T.G HARANIA CREEK, MANGERE, ORIGINAL SIZE A1 Y.L ORIGINAL SCALE 1 : 150	OCT 2024 PROJECT DRAWING TITLE DRAWING TITLE DIE DIE	OCT 2024 PROJECT DRAWING TITLE Check all dimensions and levels on site before commencing construction. This drawing and design remains the property of ACH Consulting Ltd and may not be reproduced without the written permission of ACH Consulting Ltd. DWG No. J.W HARANIA CREEK, MANGERE, AUCKLAND JOB No. JOB No. JOB No. DWG No. Y.L ORIGINAL SIZE A1 JOB No. DWG No. DWG No.	

PILE SCHEDULE						
MARK	TYPE					
P1	273 x 12.7 CHS, 25m LONG SCREW PILES WITH 750DIA. x 4.0m DEPTH RC SLEEVE. T.B.C BY GEOTECHNICAL ENGINEER					

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50	Α	25.10.24	RESOURCE CONSENT	
nz	Rev	Date	Amendment	

Date _____ Cad _____ Desi Draw Chec By

Ph: 09 839 705 Email: info@achconsulting.co.n

e:	OCT 2024	PROJECT	DRAWING TITLE	Check all dimensions an	d levels on site befor	re commencing constru	uction.	
d Ref:		HARANIA CREEK PIPE BRIDGE	STEEL PIPE BRIDGE	reproduced without the v	vritten permission of	ACH Consulting Ltd.	to and may not be	
signed	J.W		FOUNDATION AND PIER PLAN					
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 150	240345	S100	A

PIER FOUNDATION SCHEDULE					
MARK	TYPE	REINFORCING			
PC1	6500x4250x1200mm DEEP PILE CAP	HD20 @ 150 CRS TOP & BTM EACHWAY			
PIER WALL SCHEDULE					
MARK	TYPE	REINFORCING			
PW1	600 THK INSITU WALL	HD20 VERT.BARS @ 150 CRS E.F HD20 HORIZ.BARS @ 150 CRS E.F HR10 TIES @ 300 CRS			

FOOT BRIDGE ABOVE NOT SHOWN FOR CLARITY REFER S300 SEREIS DRAWINGS

	3 Kawakawa Place					Date:
	Westgate					Cad F
	PO Box 84-287 Westgate, Auckland 0657					Desig
						Draw
CONSULTING ENGINEERS	Ph: 09 839 7050	A	25.10.24	RESOURCE CONSENT		
	Email: info@achconsulting.co.nz	Rev	Date	Amendment	Ву	Chec

e:	OCT 2024	PROJECT	DRAWING TITLE	Check all dimensions and	d levels on site before	e commencing constru	uction.	
d Ref:		HARANIA CREEK PIPE BRIDGE	STEEL PIPE BRIDGE SECTIONS	reproduced without the w	remains the property ritten permission of A	ACH Consulting L ACH Consulting Ltd.	to and may not be	
signed	J.W		- SHEET 1					DE\/
wn	T.G	HARANIA CREEK, MANGERE,			A1			
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 100	240345	S110	A

te: d Ref:	OCT 2024	PROJECT HARANIA CREEK PIPE BRIDGE	DRAWING TITLE STEEL PIPE BRIDGE SECTIONS	Check all dimensions and levels on site before commencing construction. This drawing and design remains the property of ACH Consulting Ltd and may not be reproduced without the written permission of ACH Consulting Ltd.				
awn	J.W T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S111	A

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e:	OCT 2024	PROJECT	DRAWING TITLE	Cł
Ref:		HARANIA CREEK PIPE BRIDGE	TYP. STEEL PIPE SECTION	re
igned	J.W			
wn	T.G	HARANIA CREEK, MANGERE,		OR
cked	Y.L	AUCKLAND		OR
I				

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GINAL SIZE	A1	JOB No.	DWG No.	REV
GINAL SCALE	1 : 10	240345	S130	А

	3 Kawakawa Place					Date:
	Westgate					Cad R
	PO Box 84-287 Westgate, Auckland 0657					Desigr
			05 40 04			Drawn
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e: I Ref:	OCT 2024	PROJECT HARANIA CREEK PIPE BRIDGE	DRAWING TITLE CHAMBER - 1 FOUNDATION	Check all dimensions and levels on site before commencing construction. This drawing and design remains the property of ACH Consulting Ltd and may not be reproduced without the written permission of ACH Consulting Ltd.					
signed	J.W		PLAN		1		1		
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV	
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S200	A	

CHAMBER FOUNDATION SCHEDULE			
MARK	ТҮРЕ		
GB1	900 WIDE x 750 DEEP FOOTING		
GB2	900 WIDE x 750 DEEP FOOTING		

1	· 50	
'	. 50	

e: I Ref:	OCT 2024	PROJECT HARANIA CREEK PIPE BRIDGE	DRAWING TITLE CHAMBER - 2 FOUNDATION PLAN	Check all dimensions and levels on site before commencing construction. This drawing and design remains the property of ACH Consulting Ltd and may not be reproduced without the written permission of ACH Consulting Ltd.					
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV	
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S201	A	

CHAMBER FOUNDATION SCHEDULE			
MARK	ТҮРЕ		
GB1	900 WIDE x 750 DEEP FOOTING		
GB2	900 WIDE x 750 DEEP FOOTING		

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CHAMBER - 1 BASE SLAB PLAN 1 : 50

e:	OCT 2024	PROJECT	DRAWING TITLE	Check all dimensions and	l levels on site before	e commencing constru	uction.	
d Ref:		HARANIA CREEK PIPE BRIDGE	CHAMBER - 1 BASE SLAB PLAN	reproduced without the w	ritten permission of A	CH Consulting Ltd.	a and may not be	
signed	J.W							
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S202	A

	FLOOR SCHEDULE
MARK	TYPE
	500mm CONCRETE SLAB
S1	TOP & BTM EACHWAY
	HR6 LINKS @ 300 CRS. MAX.

EXISTING PROPERTY -BOUNDARY LINE

1

CHAMBER - 2 BASE SLAB PLAN 1 : 50

9:	OCT 2024	PROJECT	DRAWING TITLE	Check all dimensions and	levels on site before		iction.	
Ref:		HARANIA CREEK PIPE BRIDGE	CHAMBER - 2 BASE SLAB PLAN	reproduced without the write	tten permission of A	CH Consulting Ltd.	u anu may not be	
igned	J.W							
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S203	A

	FLOOR SCHEDULE
MARK	TYPE
	500mm CONCRETE SLAB
S1	TOP & BTM EACHWAY
	HR6 LINKS @ 300 CRS. MAX.

	3 Kawakawa Place					Dat
	Westgate					Ca
	PO Box 84-287 Westgate, Auckland 0657					Des
						Dra
CONSULTING ENGINEERS	Ph: 09 839 7050	A	25.10.24	RESOURCE CONSENT		
	Email: info@achconsulting.co.nz	Rev	Date	Amendment	By	Che
		1.00	Date	, anonamont	by	L

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e:	OCT 2024	PROJECT	d levels on site before	site before commencing construction.					
d Ref:		HARANIA CREEK PIPE BRIDGE CHAMBER - 1 WALL LAYOUT		reproduced without the written permission of ACH Consulting Ltd and may not be					
signed	J.W								
iwn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV	
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S204	A	
· · · ·					÷				

CHAMBER WALL SCHEDULE									
TYPE	TYPE	REINFORCING							
W1	350 IN-SITU WALL	HD20 @ 150 CRS HORIZ.& VERT. BARS EACH FACE							
W2	600 IN-SITU WALL	HD20 @ 150 CRS HORIZ. & VERT. BARS EACH FACE							
W3	1000 IN-SITU WALL	HD32 @ 150 CRS HORIZ.& VERT. BARS EACH FACE							
W4	1500 IN-SITU WALL	HD32 @ 150 CRS HORIZ.& VERT. BARS EACH FACE							

	3 Kawakawa Place					Dat
	Westgate					Cac
	PO Box 84-287 Westgate, Auckland 0657					Des
						Dra
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e:	OCT 2024	PROJECT HARANIA CREEK PIPE BRIDGE		Check all dimensions an This drawing and design	d levels on site befor remains the property	e commencing constr of ACH Consulting L	uction. td and may not be	
d Ref:			CHAMBER - 2 WALL LAYOUT	reproduced without the written permission of ACH Consulting Ltd.				
signed	J.W							
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S205	A

CHAMBER WALL SCHEDULE									
TYPE	TYPE	REINFORCING							
W1	350 IN-SITU WALL	HD20 @ 150 CRS HORIZ.& VERT. BARS EACH FACE							
W2	600 IN-SITU WALL	HD20 @ 150 CRS HORIZ. & VERT. BARS EACH FACE							
W3	1000 IN-SITU WALL	HD32 @ 150 CRS HORIZ.& VERT. BARS EACH FACE							
W4	1500 IN-SITU WALL	HD32 @ 150 CRS HORIZ.& VERT. BARS EACH FACE							

Cad Des Drav _____ Che By Ch

3 Kawakawa Place Westgate

Date:	OCT 2024	PROJECT	Check all dimensions an This drawing and design	d levels on site befor remains the propert	re commencing constru y of ACH Consulting Lt	uction. d and may not be	
			reproduced without the w	ritten permission of	ACH Consulting Ltd.		
Designed	J.W						
Drawn	T.G	HARANIA CREEK, MANGERE,	ORIGINAL SIZE	A1		DWG No.	REV
Checked	Y.L	AUCKLAND	ORIGINAL SCALE	1 : 50	240345	S206	A

FLOOR SCHEDULE						
MARK	ТҮРЕ					
S2	200mm IN-SITU CONCRETE LID REINFORCING T.B.C					

e: d Ref:	OCT 2024	PROJECT DRAWING TITLE HARANIA CREEK PIPE BRIDGE CHAMBER - 2 LID PLAN	Check all dimensions and levels on site before commencing construction. This drawing and design remains the property of ACH Consulting Ltd and may not be reproduced without the written permission of ACH Consulting Ltd.						
signed	J.W								
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV	
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S207	A	

	FLOOR SCHEDULE						
MARK	ТҮРЕ						
S2	200mm IN-SITU CONCRETE LID REINFORCING T.B.C						

CHAMBER 2 / BOUNDARY FENCE SECTION S201 1 : 50

e: Ref:	OCT 2024	PROJECT HARANIA CREEK PIPE BRIDGE	DRAWING TITLE CHAMBER SECTIONS	Check all dimensions and levels on site before commencing construction. This drawing and design remains the property of ACH Consulting Ltd and may not be reproduced without the written permission of ACH Consulting Ltd						
igned	J.W									
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV		
cked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S210	A		

CHAMBER WALL SCHEDULE							
TYPE	TYP	PE	REINFORCING				
W1	350 IN-SIT	U WALL	HD20 @ 150 CRS HORIZ.& VERT. BARS EACH FACE				
W2	600 IN-SITU WALL		HD20 @ 150 CRS HORIZ. & VERT. BARS EACH FACE				
W3	1000 IN-SIT	U WALL	HD32 @ 150 CRS HORIZ.& VERT. BARS EACH FACE				
W4	1500 IN-SIT	U WALL	HD32 @ 150 CRS HORIZ.& VERT. BARS EACH FACE				
	PILE SCHEDULE						
	MARK		ТҮРЕ				
	P1	273 x 12. DEPTH	7 CHS, 25m LONG SCREW PILES WITH 750DIA. x 4.0m I RC SLEEVE. T.B.C BY GEOTECHNICAL ENGINEER				
	CHAMBER FOUNDATION SCHEDULE						
	MARK		TYPE				
	GB1		900 WIDE x 750 DEEP FOOTING				
	GB2		900 WIDE x 750 DEEP FOOTING				

FLOOR SCHEDULE

TYPE

500mm CONCRETE SLAB HD25 @150 CRS. MAX TOP & BTM EACHWAY HR6 LINKS @ 300 CRS. MAX.

200mm IN-SITU CONCRETE LID REINFORCING T.B.C

(LOWEST) 7590

MARK

S1

S2

e:	OCT 2024	PROJECT	DRAWING TITLE	Check all dimensions an	d levels on site before	e commencing constru	ction.	
l Ref:		HARANIA CREEK PIPE BRIDGE	CHAMBER WALL ELEVATIONS	reproduced without the w	vritten permission of A	CH Consulting Ltd.	u and may not be	
signed	J.W						1	
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 50	240345	S215	A

	TYPE	TYPE	
	W1 W2	350 IN-SITU W	ALL HD20 @ 150 CRS HORIZ.& VERT. BARS EACH FACE
	W3 1 W4 1	000 IN-SITU W	ALL HD32 @ 150 CRS HORIZ. & VERT. BARS EACH FACE (ALL HD32 @ 150 CRS HORIZ & VERT. BARS EACH FACE
		MARK	TYPE
		P1 27:	3 x 12.7 CHS, 25m LONG SCREW PILES WITH 750DIA. x 4.0m DEPTH RC SLEEVE. T.B.C BY GEOTECHNICAL ENGINEER
			HAMBER FOUNDATION SCHEDULE
LID ST)		GB1	900 WIDE x 750 DEEP FOOTING
590		GBZ	900 WIDE X 730 DEEP FOOTING
		MADK	FLOOR SCHEDULE
			500mm CONCRETE SLAB
		S1	TOP & BTM EACHWAY
		S2	200mm IN-SITU CONCRETE LID REINFORCING T.B.C
	NCRETE		
			(2)
		7587	
		7587 W2	TOP OF LID
		7587 W2	TOP OF LID (LOWEST)
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
		7587 W2	TOP OF LID (LOWEST) 7590
	50mm S	7587 W2	TOP OF LID (LOWEST) 7590
	50mm S	7587 W2	TOP OF LID (LOWEST) 7590
	50mm S	7587 W2	TOP OF LID (LOWEST) 7590
5	50mm S	7587 W2	TION
5 S204	50mm S 50mm S VVAL 1 : 50	T587 W2	TOP OF LID (JOWEST) 7590
5 S204	50mm S 50mm S VVAL 1 : 50	7587 W2	TOP OF LID (JOWEST) 7590
5	50mm S 50mm S VVAL 1 : 50	7587 W2	TOP OF LID (JOWEST) 7590
5	50mm S 50mm S VVAL 1 : 50	7587 W2	TOP OF LID (LOWEST) 7590
5 5204	50mm.S 50mm.S 1 : 50	7587 W2	TION
5 S204	50mm S 50mm S 1 : 50	7587 W2	TION_
5 5204	50mm S VVAL 1:50	7587 W2	TOP OF LID (LOWEST) 7590 TOP OF LID (LOWEST) 7590 TOP OF LID (LOWEST) 7590
5	50mm S 50mm S 1 : 50		TOP OF LID (LOWEST) 7500 GB1 E TION TION
	50mm S 50mm S VVAL 1:50	7587 W2	TOP OF LID (LOWEST) 7590 GB1 EN TION
5 S204	50mm S 50mm S VVAL 1 : 50	7587 W2	TOP OF LID (LOWEST) 7590 GB1 E TON TON TON

	3 Kawakawa Place Westgate
	PO Box 84-287 Westgate, Auckland 0657
CONSULTING ENGINEERS	Ph: 09 839 7050 Email: info@achconsulting.co.nz

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lev	Date	Amendment

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Designed	J.W						DWON		
Drawn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DVVG No.	REV	
Checked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 100	240345	S300	A	

BEAM SCHEDULE				
MARK	ТҮРЕ			
B1	610UB125 WITH HDG600-5D COATING			
B2	300PFC WITH HDG600-5D COATING			
BR1	89x6 SHS WITH HDG600-5D COATING			
J1	2-290x45 SG8 @ 1247 CRS. H3.2 TREATED			
J2	190x45 SG8 @ 450 CRS MAX. H3.2 TREATED			
	COLUMN SCHEDULE			
MARK	TYPE			
<u> </u>				

Rev Date

By

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igned	J.W				1	1			
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV	
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 100	240345	S310	A	

e:	OCT 2024	PROJECT	DRAWING TITLE	Che
I Ref:		HARANIA CREEK PIPE BRIDGE	FOOT BRIDGE ELEVATION -	rep
igned	J.W		SHEET 1	
wn	T.G	HARANIA CREEK, MANGERE,		ORI
ecked	Y.L	AUCKLAND		ORI

REV

e:	OCT 2024		DRAWING TITLE	IG TITLE Check all dimensions and levels				/els on site before commencing construction.					
Ref:		HARANIA CREEK PIPE BRIDGE	FOOT BRIDGE ELEVATION -	reproduced without the written permission of ACH Consulting Ltd and may not be									
igned	J.W		SHEET 2										
wn	T.G	HARANIA CREEK, MANGERE,		ORIGINAL SIZE	A1	JOB No.	DWG No.	REV					
ecked	Y.L	AUCKLAND		ORIGINAL SCALE	1 : 20	240345	S312	A					