



Building Code Clause(s) B1 & B2

PRODUCER STATEMENT – PS1 – DESIGN

(Guidance on use of Producer Statements (formerly page 2) is available at www.ipenz.nz)

ISSUED BY: Puhoi to Warkworth Motorway PPP - Design Joint Venture (DJV) (Design Firm)

TO: Northern Express Group (Owner/Developer)

TO BE SUPPLIED TO: Auckland Council (Building Consent Authority)

IN RESPECT OF: Puhoi Viaduct (Description of Building Work)

AT: Puhoi (Address)

Town/City: Puhoi (Address) LOT DP SO

We have been engaged by the owner/developer referred to above to provide: Structural and Geotechnical Design

(Extent of Engagement) B1 & B2 services in respect of the requirements of Clause(s) of the Building Code for:

All or Part only (as specified in the attachment to this statement), of the proposed building work.

The design carried out by us has been prepared in accordance with:

Compliance Documents issued by the Ministry of Business, Innovation & Employment (verification method/acceptable solution) or

Alternative solution as per the attached schedule (Schedule 1)

The proposed building work covered by this producer statement is described on the drawings titled:

as referred to on Schedule 2 and numbered as referred to on Schedule 2 together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

- (i) Site verification of the following design assumptions as referred to on Schedule 3
(ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation:

CM1 CM2 CM3 CM4 CM5 (Engineering Categories) or as per agreement with owner/developer (Architectural)

I, [Redacted] s 9(2)(a) am: CPEng 10683 # Reg Arch # (Name of Design Professional)

I am a Member of: IPENZ NZIA and hold the following qualifications: BE (Hons), FIPENZ

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Design Firm is a member of ACENZ: [Checked]

SIGNED BY [Redacted] s 9(2)(a) (Signature)

ON BEHALF OF Puhoi to Warkworth Motorway PPP - Design Joint Venture (DJV) Date 2 May 2018 (Design Firm)

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000*.

This form is to accompany Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent. THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACENZ, IPENZ AND NZIA

Schedules to Producer Statement - PS1

▶ Element of Building Work:

This Producer Statement covers the design package of Pūhoi Viaduct of the Pūhoi to Warkworth Motorway project. This package includes the Drawings and Technical Specifications associated with the structural and geotechnical design of the bridge structure.

▶ Schedule 1 – Alternative Solutions

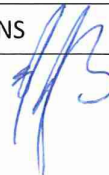
The compliance documents issued by the Department of Building and Housing for Building Code Clauses B1 and B2 do not adequately cover the design of the element which is the subject of this producer statement.

The design has been prepared in accordance with NZTA Bridge Manual 3rd Edition, Amendment 1, with project specific modifications.

▶ Schedule 2 – Drawings and Specifications

DRAWING LIST

Drawings Number	Drawing Title	Revision
P2Wk-DRG-SE-00-0010	REINFORCED CONCRETE - GENERAL NOTES SHEET 1	D
P2Wk-DRG-SE-00-0011	REINFORCED CONCRETE - GENERAL NOTES SHEET 2	C
P2Wk-DRG-SE-00-0012	STRUCTURAL STEEL - GENERAL NOTES	C
P2Wk-DRG-SE-00-0030	BARRIERS GENERAL ARRANGEMENT - PRECAST BARRIER PANEL	D
P2Wk-DRG-SE-00-0032	BARRIERS STEEL BRIDGES - TYPICAL SECTIONS	D
P2Wk-DRG-SE-00-0033	BARRIER RAIL STEELWORK DETAILS - SHEET 1	C
P2Wk-DRG-SE-00-0034	BARRIER RAIL STEELWORK DETAILS - SHEET 2	B
P2Wk-DRG-SE-00-0035	BARRIERS WIRE ROPE BARRIER DETAILS	B
P2Wk-DRG-SE-00-0036	BARRIERS COVER PLATE DETAILS	A
P2Wk-DRG-SE-00-0037	BARRIERS TRANSITION BARRIER - SHEET 1	D
P2Wk-DRG-SE-00-0038	BARRIERS TRANSITION BARRIER - SHEET 2	C
P2Wk-DRG-SE-00-0050	EXPANSION JOINTS DETAILS	D
P2Wk-DRG-SE-00-0055	UNDER BRIDGE TREATMENT & SCOUR PROTECTION	B
P2Wk-DRG-SE-00-0070	ACCESS/SECURITY FENCES	B
P2Wk-DRG-SE-18-0001	12-12- PŪHOI VIADUCT COVER SHEET, LOCATION PLAN AND DRAWING LIST	D
P2Wk-DRG-SE-18-0002	12-12- PŪHOI VIADUCT- GENERAL NOTES	D
P2Wk-DRG-SE-18-0005	12-12- PŪHOI VIADUCT - PLAN AND LONGITUDINAL SECTION	D
P2Wk-DRG-SE-18-0006	12-12- PŪHOI VIADUCT -TYPICAL CROSS SECTIONS	D



P2Wk-DRG-SE-18-0010	12-12- PŪHOI VIADUCT -GROUND WORKS AND FILLING DETAILS SHEET 1	B
P2Wk-DRG-SE-18-0011	12-12- PŪHOI VIADUCT -GROUND WORKS AND FILLING DETAILS SHEET 2	B
P2Wk-DRG-SE-18-0015	12-12- PŪHOI VIADUCT -GEOTECHNICAL INSTRUMENTATION AND MONITORING DETAILS SHEET 1	B
P2Wk-DRG-SE-18-0016	12-12- PŪHOI VIADUCT -GEOTECHNICAL INSTRUMENTATION AND MONITORING DETAILS SHEET 2	D
P2Wk-DRG-SE-18-0020	12-12- PŪHOI VIADUCT –PILES SETOUT PLAN	D
P2Wk-DRG-SE-18-0021	12-12- PŪHOI VIADUCT –ABUTMENT PILES GENERAL ARRANGEMENT	D
P2Wk-DRG-SE-18-0022	12-12- PŪHOI VIADUCT –PIER PILES GENERAL ARRANGEMENT	C
P2Wk-DRG-SE-18-0025	12-12- PŪHOI VIADUCT – ABUTMENT PILES REINFORCEMENT	B
P2Wk-DRG-SE-18-0026	12-12- PŪHOI VIADUCT – PIER PILES REINFORCEMENT	B
P2Wk-DRG-SE-18-0030	12-12- PŪHOI VIADUCT – NORTH ABUTMENT GENERAL ARRANGEMENT- SHEET 1	D
P2Wk-DRG-SE-18-0031	12-12- PŪHOI VIADUCT – NORTH ABUTMENT GENERAL ARRANGEMENT- SHEET 2	B
P2Wk-DRG-SE-18-0032	12-12- PŪHOI VIADUCT – NORTH ABUTMENT GENERAL ARRANGEMENT- SHEET 3	C
P2Wk-DRG-SE-18-0036	12-12- PŪHOI VIADUCT – SOUTH ABUTMENT GENERAL ARRANGEMENT- SHEET 1	D
P2Wk-DRG-SE-18-0037	12-12- PŪHOI VIADUCT – SOUTH ABUTMENT GENERAL ARRANGEMENT- SHEET 2	C
P2Wk-DRG-SE-18-0038	12-12- PŪHOI VIADUCT – SOUTH ABUTMENT GENERAL ARRANGEMENT- SHEET 3	C
P2Wk-DRG-SE-18-0045	12-12- PŪHOI VIADUCT –NORTH ABUTMENT REINFORCEMENT SHEET 1	C
P2Wk-DRG-SE-18-0046	12-12- PŪHOI VIADUCT –NORTH ABUTMENT REINFORCEMENT SHEET 2	B
P2Wk-DRG-SE-18-0047	12-12- PŪHOI VIADUCT –NORTH ABUTMENT REINFORCEMENT SHEET 3	B
P2Wk-DRG-SE-18-0048	12-12- PŪHOI VIADUCT –SOUTH ABUTMENT REINFORCEMENT SHEET 1	C
P2Wk-DRG-SE-18-0049	12-12- PŪHOI VIADUCT –SOUTH ABUTMENT REINFORCEMENT SHEET 2	B
P2Wk-DRG-SE-18-0055	12-12- PŪHOI VIADUCT –PIER PILECAP GENERAL ARRANGMENT	D
P2Wk-DRG-SE-18-0056	12-12- PŪHOI VIADUCT –PIER PILECAP REINFORCEMENT SHEET 1	B
P2Wk-DRG-SE-18-0057	12-12- PŪHOI VIADUCT –PIER PILECAP REINFORCEMENT SHEET 2	B
P2Wk-DRG-SE-18-0060	12-12- PŪHOI VIADUCT –PIER ELEVATIONS	D
P2Wk-DRG-SE-18-0061	12-12- PŪHOI VIADUCT –PIER REINFORCEMENT	B
P2Wk-DRG-SE-18-0065	12-12- PŪHOI VIADUCT –PIER CROSSHEAD GENERAL ARRANGEMENT	D
P2Wk-DRG-SE-18-0066	12-12- PŪHOI VIADUCT –PIER CROSSHEAD REINFORCEMENT SHEET 1	C
P2Wk-DRG-SE-18-0067	12-12- PŪHOI VIADUCT –PIER CROSSHEAD REINFORCEMENT SHEET 2	C
P2Wk-DRG-SE-18-0070	12-12- PŪHOI VIADUCT- BEARING LAYOUT PLANS	D

P2Wk-DRG-SE-18-0071	12-12- PŪHOI VIADUCT- STEEL WORK BEARING DETAILS	B
P2Wk-DRG-SE-18-0075	12-12- PŪHOI VIADUCT- STEEL WORK GENERAL ARRANGEMENT - SHEET 1	D
P2Wk-DRG-SE-18-0076	12-12- PŪHOI VIADUCT- STEEL WORK GENERAL ARRANGEMENT - SHEET 2	D
P2Wk-DRG-SE-18-0078	12-12- PŪHOI VIADUCT- STEEL WORK TYPICAL GIRDER ELEVATION SHEET 1	B
P2Wk-DRG-SE-18-0079	12-12- PŪHOI VIADUCT- STEEL WORK TYPICAL GIRDER ELEVATION SHEET 2	B
P2Wk-DRG-SE-18-0080	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 1	B
P2Wk-DRG-SE-18-0081	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 2	B
P2Wk-DRG-SE-18-0082	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 3	B
P2Wk-DRG-SE-18-0083	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 4	B
P2Wk-DRG-SE-18-0084	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 5	B
P2Wk-DRG-SE-18-0085	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 6	B
P2Wk-DRG-SE-18-0086	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 7	B
P2Wk-DRG-SE-18-0087	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 8	B
P2Wk-DRG-SE-18-0088	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 9	C
P2Wk-DRG-SE-18-0089	12-12- PŪHOI VIADUCT- STEEL WORK DETAILS SHEET 10	B
P2Wk-DRG-SE-18-0090	12-12- PŪHOI VIADUCT- STEEL WORK GIRDERS PRECAMBER DETAILS – SHEET 1	A
P2Wk-DRG-SE-18-0091	12-12- PŪHOI VIADUCT- STEEL WORK GIRDERS PRECAMBER DETAILS – SHEET 2	A
P2Wk-DRG-SE-18-0095	12-12- PŪHOI VIADUCT- FUTURE MAINTENANCE WALKWAY GENERAL ARRANGEMENT (FOR INFORMATION)	A
P2Wk-DRG-SE-18-0096	12-12- PŪHOI VIADUCT- FUTURE MAINTENANCE WALKWAY DETAILS (FOR INFORMATION)	A
P2Wk-DRG-SE-18-0100	12-12- PŪHOI VIADUCT- PRECAST DECK PLANKS LAYOUT SHEET 1	C
P2Wk-DRG-SE-18-0101	12-12- PŪHOI VIADUCT- PRECAST DECK PLANKS LAYOUT SHEET 2	B
P2Wk-DRG-SE-18-0102	12-12- PŪHOI VIADUCT- PRECAST DECK PLANKS DETAILS	B
P2Wk-DRG-SE-18-0105	12-12- PŪHOI VIADUCT- PRECAST DECK PLANKS REINFORCEMENT DETAILS SHEET 1	C
P2Wk-DRG-SE-18-0106	12-12- PŪHOI VIADUCT- PRECAST DECK PLANKS REINFORCEMENT DETAILS SHEET 2	C
P2Wk-DRG-SE-18-0107	12-12- PŪHOI VIADUCT- PRECAST DECK PLANKS REINFORCEMENT DETAILS SHEET 3	C
P2Wk-DRG-SE-18-0110	12-12- PŪHOI VIADUCT-CAST INSITU DECK REINFORCEMENT DETAILS SHEET 1	B
P2Wk-DRG-SE-18-0111	12-12- PŪHOI VIADUCT-CAST INSITU DECK REINFORCEMENT DETAILS SHEET 2	C



P2Wk-DRG-SE-18-0125	12-12- PŪHOI VIADUCT-BARRIER LAYOUT PLAN	B
P2Wk-DRG-SE-18-0130	12-12- PŪHOI VIADUCT-DECK DRAINAGE DETAILS SHEET 1	B
P2Wk-DRG-SE-18-0135	12-12- PŪHOI VIADUCT-SERVICES SUPPORT DETAILS	C
P2Wk-DRG-SE-18-0137	12-12- PŪHOI VIADUCT- PLAN AND LONGITUDINAL SECTION MAINTENANCE ACCESS TRACKS	A
P2Wk-DRG-SE-18-0140	12-12- PŪHOI VIADUCT-JACKING LOCATIONS AND DETAILS	C
P2Wk-DRG-SE-18-0150	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – FACING PANELS PLAN	B
P2Wk-DRG-SE-18-0151	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – FACING PANELS ELEVATIONS	C
P2Wk-DRG-SE-18-0152	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – TYPICAL SECTIONS	C
P2Wk-DRG-SE-18-0153	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – GEOGRID LAYOUT PLAN AND NOTES	C
P2Wk-DRG-SE-18-0154	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – GEOGRID ELEVATIONS	B
P2Wk-DRG-SE-18-0155	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – TYPICAL GEOGRID SECTIONS	B
P2Wk-DRG-SE-18-0156	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS –DETAILS	B
P2Wk-DRG-SE-18-0157	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – PRECAST PANELS DETAILS	C
P2Wk-DRG-SE-18-0158	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – ACCESS HATCH DETAILS	C
P2Wk-DRG-SE-18-0159	12-12- PŪHOI VIADUCT-SOUTH ABUTMENT MSE WALLS – TOP AND BOTTOM CONNECTION DETAILS	C
P2Wk-DRG-SE-18-0200	12-12 PŪHOI VIADUCT – BASIS OF DESIGN CONSTRUCTION SEQUENCE – SHEET 1	D
P2Wk-DRG-SE-18-0201	12-12 PŪHOI VIADUCT BASIS OF DESIGN CONSTRUCTION SEQUENCE – SHEET 2	D
P2Wk-DRG-SE-18-0202	12-12 PŪHOI VIADUCT – BASIS OF DESIGN CONSTRUCTION SEQUENCE – SHEET 3	D
P2Wk-DRG-SE-18-0203	12-12 PŪHOI VIADUCT – BASIS OF DESIGN CONSTRUCTION SEQUENCE – SHEET 4	B

Specification Number	Title	Revision
650-SPEC-001-NX2	SUBSOIL DRAINAGE FOR EARTHWORKS	2A
650-SPEC-002-NX2	EARTHWORKS	4
650-SPEC-003-NX2	GEOTECHNICAL INSTRUMENTATION	2A
650-SPEC-006-NX2	MECHANICAL STABILISED EARTH	C
650-SPEC-008-NX2	BORED PILES	A
680-SPEC-001-NX2	REINFORCED CONCRETE SUPPLY	1A

680-SPEC-002-NX2	CONCRETE CONSTRUCTION	1A
680-SPEC-004-NX2	CONCRETE REPAIR	B
680-SPEC-005-NX2	STRUCTURAL STEELWORK	B
680-SPEC-006-NX2	PROTECTIVE COATINGS	B
680-SPEC-007-NX2	BEARING AND DECK JOINTS	B

SPECIFICATION LIST

► **Schedule 3 – Site Verification of Design Assumptions**

Certain elements of the design for the Pūhoi Viaduct will be subject to site verification. More specifically founding levels, subgrade conditions shall be confirmed on site depending on actual ground conditions. Set out of elements shall be confirmed on site depending on as-built values and geometry. Any subsequent modifications will be based on the actual conditions encountered, and represent accepted practice for engineering.

Signed:



████████████████████

s 9(2)(a)

Date:

8 May 2018

On behalf of Pūhoi to Warkworth Motorway PPP - Design Joint Venture (DJV).

RELEASED UNDER THE OFFICIAL INFORMATION ACT 1982