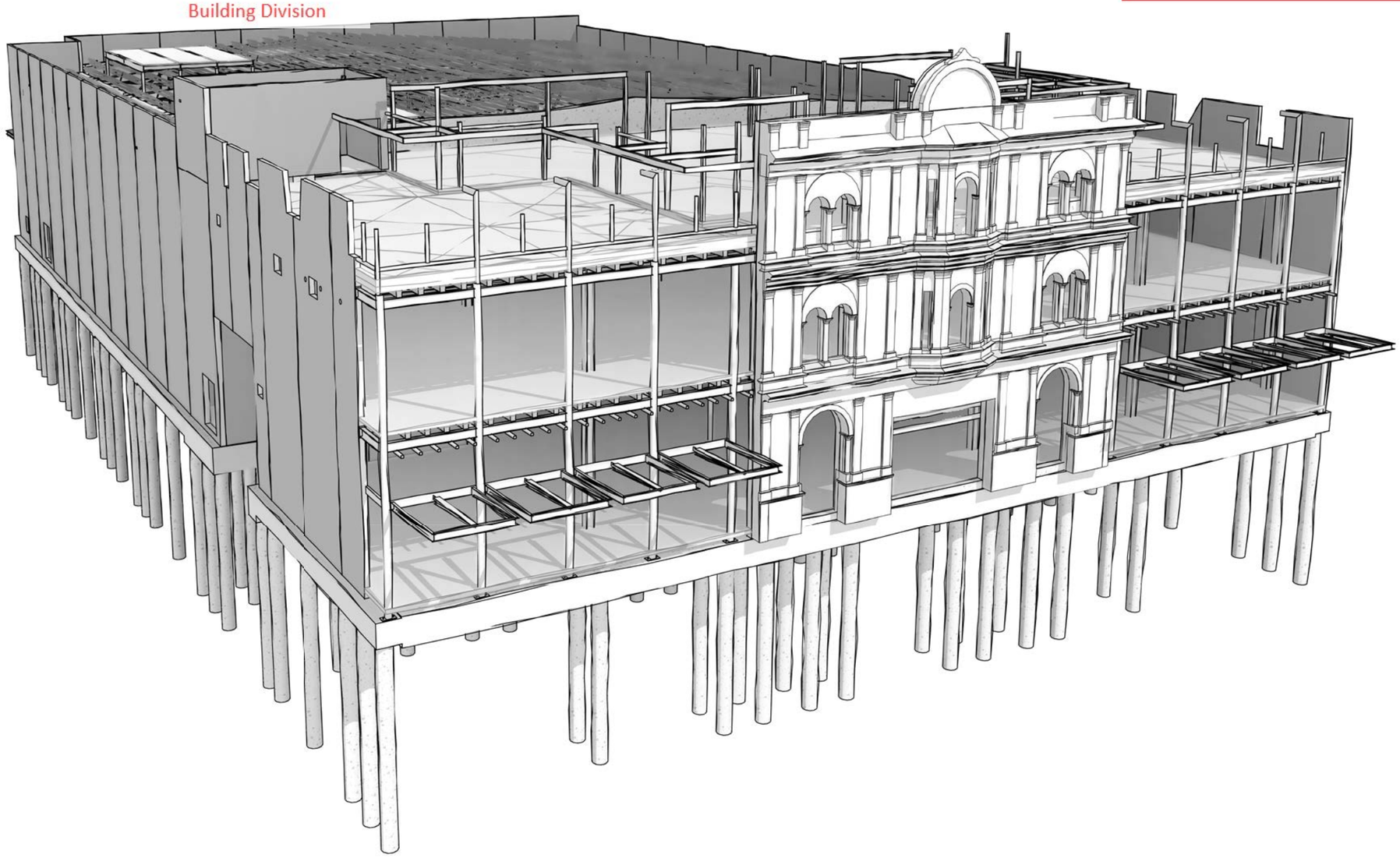

lewis bradford
CONSULTING ENGINEERS

CONSENT ISSUE 25.10.19

INVERCARGILL CENTRAL
ZONE 1 ANCHOR

118083-Z1-WD-ST 0000

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Grand total: 97					

BUILDING CONSENT NUMBER

2019/1381

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Invercargill City Council
Building Consent Authority
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Approved For Issue
27/02/2020

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
DRAWING INDEX

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 0001 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

GENERAL NOTES:

This drawing is to be read in conjunction with all relevant Engineers and Architects drawings and the Specification.

Refer Architects drawings for all set out dimensions, opening sizes, slab set downs, rebates, insitu nibs and upstands etc.

All discrepancies shall be referred to the Architect for resolution before proceeding work.

Refer hydraulic drawings for pipe penetrations required through foundations.

Foundation material shall be approved by the Engineer for safe bearing capacity before construction of any footings.

All reinforcing steel shall be manufactured by Pacific Steel Limited using the microalloy process and shall be Grade 500 E or Grade 300 E

Typical wall reinforcing:
HD12 at 400 crs. each way (unless stated otherwise). HD16 trimmers to all edges and openings.

All insitu interfaces and construction joints shall be thoroughly roughened to 5mm amplitude.

All precast to insitu interfaces and grouted joints shall be thoroughly roughened to 5mm amplitude.

Confirm all lift dimensions with lift manufacturers before commencing construction. Also confirm location of lift pit sumps.

Slab construction joints and saw cuts as shown or typically at 5000 each way. Discuss and agree setout of construction joints and saw cuts well in advance of construction with Site Engineer.
Refer Specification also.

Unless agreed in writing by the Engineer allow to water cure all floor slabs for at least 7 days by ponding or similar methods

All load bearing steelwork (including columns, beams, etc.) will require specific fire rating where noted on structural drawings.
Refer also to Fire Engineer and/or Architect for requirements, details, and fire rating options.

General work sequences assume normal construction methods completed by competent tradesmen. The Contractor is strongly encouraged to pre-plan all phases of the construction process and discuss any specific areas that are non-standard or of concern well in advance with the design/site engineer.

PRECAST PANEL NOTES:

Refer Architects drawings for all set out dimensions, opening sizes, slab set downs, rebates etc. Should there be any discrepancies between the architectural and engineering plans advise the engineer.

All reinforcing steel shall be manufactured by Pacific Steel Limited using the microalloy process and shall be Grade 500E or Grade 300E

Confirm all lift dimensions with lift manufacturers before commencing construction. Also confirm location of lift pit sumps.

Construction joints, where not shown on drawings, shall be located to the approval of the Engineer.

No penetrations, chases or embedments of pipes, other than those shown on the structural drawings shall be made in concrete members without the prior approval of the Engineer.

Unless shown otherwise all horizontal and vertical precast panel joints to be 15mm.

All insitu interfaces and construction joints shall be thoroughly roughened to 5mm amplitude.

All precast to insitu interfaces and grouted joints shall be thoroughly roughened to 5mm amplitude.

The lifting and transporting etc. of all panels is the responsibility of the Contractor, this includes the provision of strong backs as required (refer Specification).

The Contractor shall provide two hardcopies of the shop drawings for precast concrete work to the Engineer for approval 14 days prior to manufacture.

The Engineer shall be given a copy of the prestressed floor unit layout plan and design calculations for approval before any floor units are manufactured.

All precast beams to be propped during construction.

Unless noted otherwise provide 35 mm cover to horizontal bars (i.e. outer bars).

Typically horizontal bars in double reinforced panels are to be outside vertical reinforcing
35mm cover to outside bars typical

STEELWORK NOTES :

All structural steel shall comply with NZS 3404.

Refer Architect's drawings for details of drilled hole requirements to suit timber plate fixings to steel work members unless detailed otherwise.

Surface preparation and corrosion protection of steel work shall be in accordance with the Specification.

All exposed ends of RHS members to be capped with ex. 6mm ms plate unless shown otherwise.

All plates shall be 10mm minimum unless noted otherwise.

Unless shown otherwise, all welds are to be 6 fillet weld all round refer to the Specification for type and class of weld.

Mild steel flat anchors to weldplates to have minimum bend radius of 2.5 x thickness of flat and bent around a former pin.

All bolts and nuts shall be grade 8.8 high strength.

Oversized holes up to 1.33D may be provided for fixing structural steelwork to cast-in items (such as floor seating angle connections to cast-in Reid threaded inserts) if required for construction tolerance.
All oversized holes must be accompanied with a flat square steel washer 6mm min. thick welded all around with 6 fwar min.

All holding down bolts and other fixing devices, shall have a minimum yield stress of 240 MPa unless noted otherwise.

All exterior steel work to be hot dip galvanised in accordance with AS/NZS 4680, unless noted otherwise. All cold formed purlins/girts exposed to the weather to have 450g/m2/ galvanising.

Exposed steel work members and brackets to be fire rated where noted on the structrual drawings to Architects specification.

All load bearing steelwork (including columns, beams, etc.) will require specific fire rating where noted on structural drawings.
Refer also to Fire Engineer and/or Architect for requirements, details, and fire rating options.

All dry pack mortar/grout shall have a compressive strength of at least 40 MPa unless noted otherwise.

The Contractor shall provide two hardcopies of the shop drawings for the structural steel work to the Engineer for approval, 14 days prior to manufacture.

REIDBRACE NOTES:

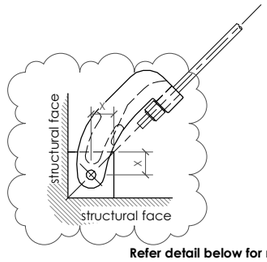
to reduce sag it is permissible to pre-tension unlubricated braces to a maximum of;
100Nm torque for RB16 bracing
250Nm torque for RB20 bracing
400Nm torque for RB25 bracing
750Nm torque for RB32 bracing

Install Reidbrace in strict accordance with Reid's details including site installation of safety clip, tension nut and spring and washers either side of cleats.

Provide plastic sleeves wired to brace where braces cross

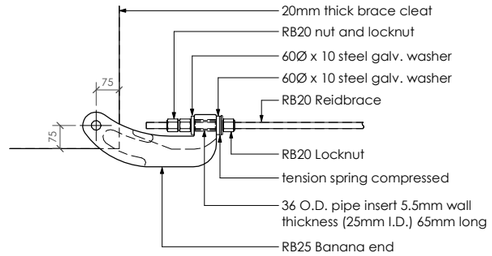
Where splicing of bars is required use Reidbar couplers

All RB25 & RB32 Reidbar crossbracing to have ductile steel fuse plate elements to end bays of bracing.



Reidbrace Size	Minimum Edge Distance = X	Cleat Plate Thickness	Weld Type U.N.O.
RB12	50mm	12mm	6mm
RB16	50mm	12mm	8mm
RB20	50mm	20mm	8mm
RB25	75mm	25mm	8mm
RB32	75mm	25mm	10mm

Refer detail below for modified brace and connection.



RB25 BANANA END CONVERSION TO RB20 ROOF BRACING

INSITU CONCRETE NOTES:

Refer Architects drawings for all set out dimensions, opening sizes, slab set downs, rebates etc. Should there be any discrepancies between the architectural and engineering drawings advise the engineer.

All reinforcing steel shall be manufactured by Pacific Steel Limited using the microalloy process and shall be Grade 500E or Grade 300E.

All insitu interfaces and construction joints shall be thoroughly roughened to 5mm amplitude.

Refer hydraulic drawings for pipe penetrations required through foundations.

All reinforcing to be continuous around corners.

Bar annotations:

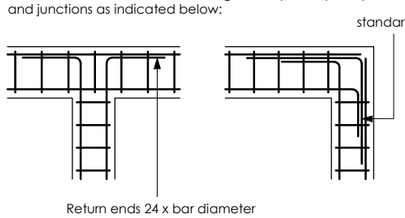
HD - denotes grade 500E
D - denotes grade 300E.

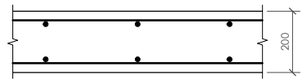
Refer to Specification for cover requirements to reinforcement.

Refer to Architect's drawings for details of cast-in fixings requirements to suit timber plate fixings to concrete work unless noted otherwise. typically M12 galvanised bolts at 800.

Refer specification for minimum concrete compressive strength for all insitu concrete work.

All horizontal foundation reinforcing must lap adequately at corners and junctions as indicated below:





MASONRY NOTES:

Refer Architects drawings for all set out dimensions, opening sizes, slab set downs, rebates, insitu nibs and upstands etc.

Confirm all lift dimensions with lift manufacturers before commencing construction. Also confirm location of lift pit sumps.

Concrete masonry blocks shall have a compressive strength of 20 MPa, density 1750 kg/m3/ and conform to AS/NZS 4455, unless noted otherwise.

Mortar shall comply with the requirements of NZS 4210, with compressive strength not less than 20 MPa.

All cores shall be grout filled (20 MPa) unless noted otherwise on the drawings.

In general, walls to be full height before grouting cores. Cleanout openings to be provided in the bottom course (1200mm crs. maximum).
Before placing vertical reinforcement, cores are to be cleaned of all mortar fins and droppings through cleanout openings which are not to be closed until inspected by the Engineer.
Grout to be rodded to ensure filling of cores with a maximum continuous pour height of 3600mm.

Control joints should be provided at 8000mm maximum crs. Where not shown on the drawings, the joints should be located to the approval of the Engineer.

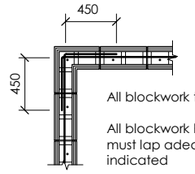
Where masonry is to be constructed on suspended concrete without a corresponding wall under, the concrete must be fully depropped before commencement of this masonry.

Cutting chases in loadbearing masonry units is not permitted without prior approval of the Engineer.

Typical wall reinforcing:
HD12 at 400 crs. each way (unless stated otherwise). HD16 trimmers to all edges and openings.

DEFORMED GRADE 500E	
Bar size	Lap length concrete
HD10	600mm
HD12	700mm
HD16	800mm
HD20	1000mm
HD25	1250mm
HD32	1600mm

All horizontal foundation reinforcing must lap adequately at corners and junctions as indicated below.



All blockwork to be fully filled.

All blockwork horizontal reinforcing must lap adequately at corners as indicated

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
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2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1
ANCHOR

DRAWING TITLE:
STANDARD NOTES

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: _
SCALE: N . A

118083-Z1-WD-ST 0002
REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9098 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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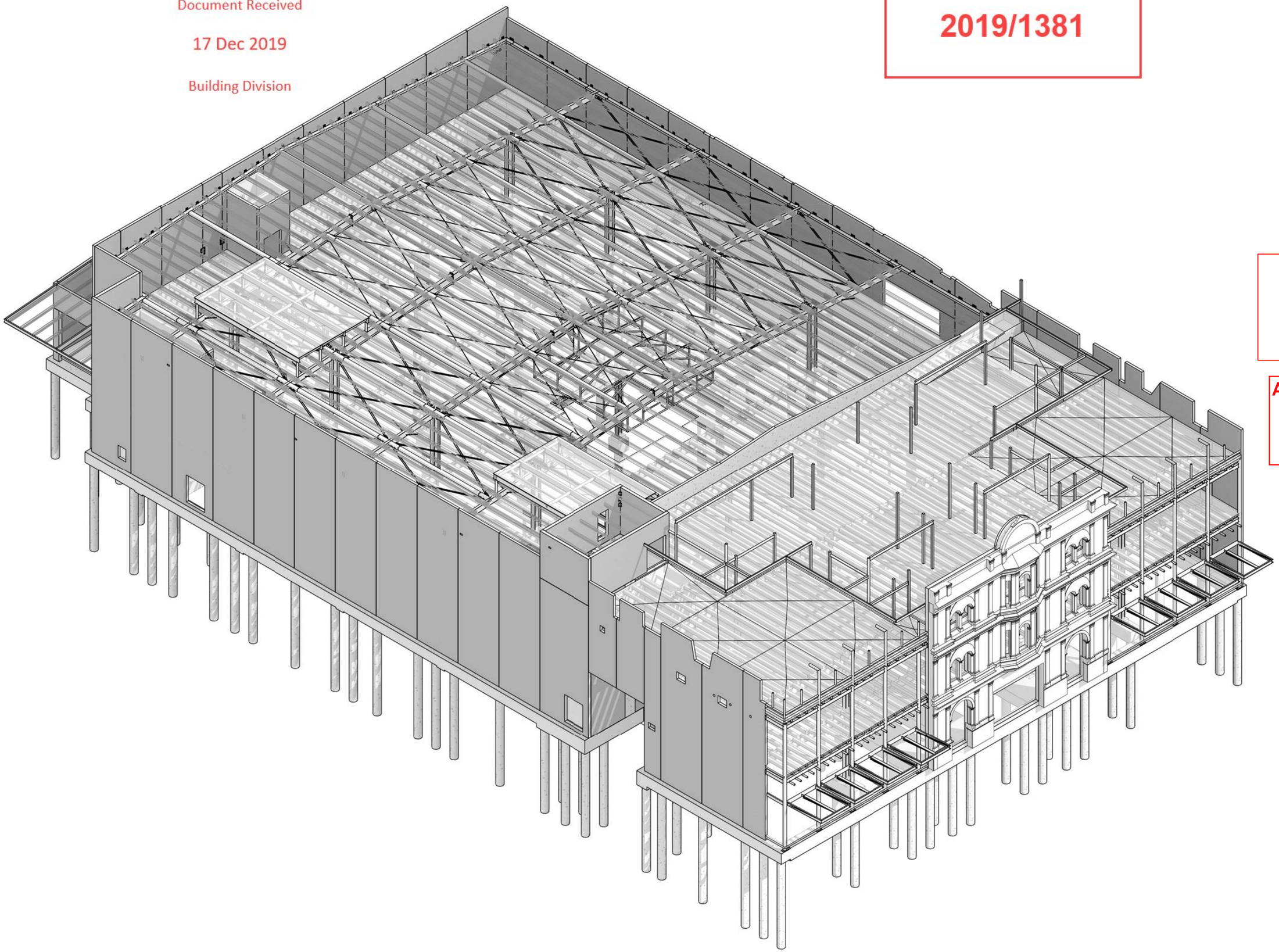

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NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
OVERALL 3D VIEW

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 0003	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
OVERALL 3D VIEW

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 0004	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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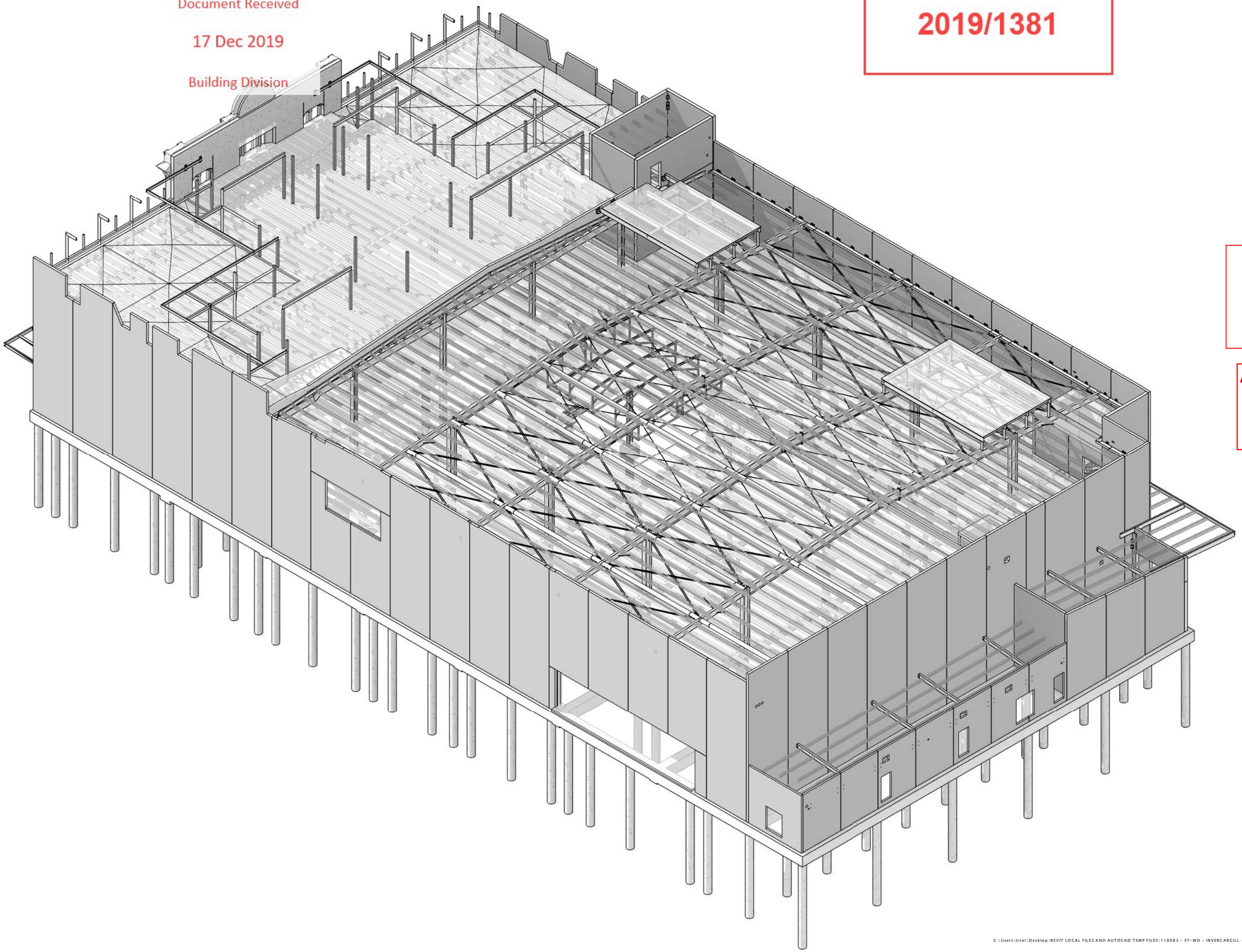

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INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
OVERALL 3D VIEW

DRAWN: GPW	SCALE:
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118083-Z1-WD-ST 0005	REV. 2

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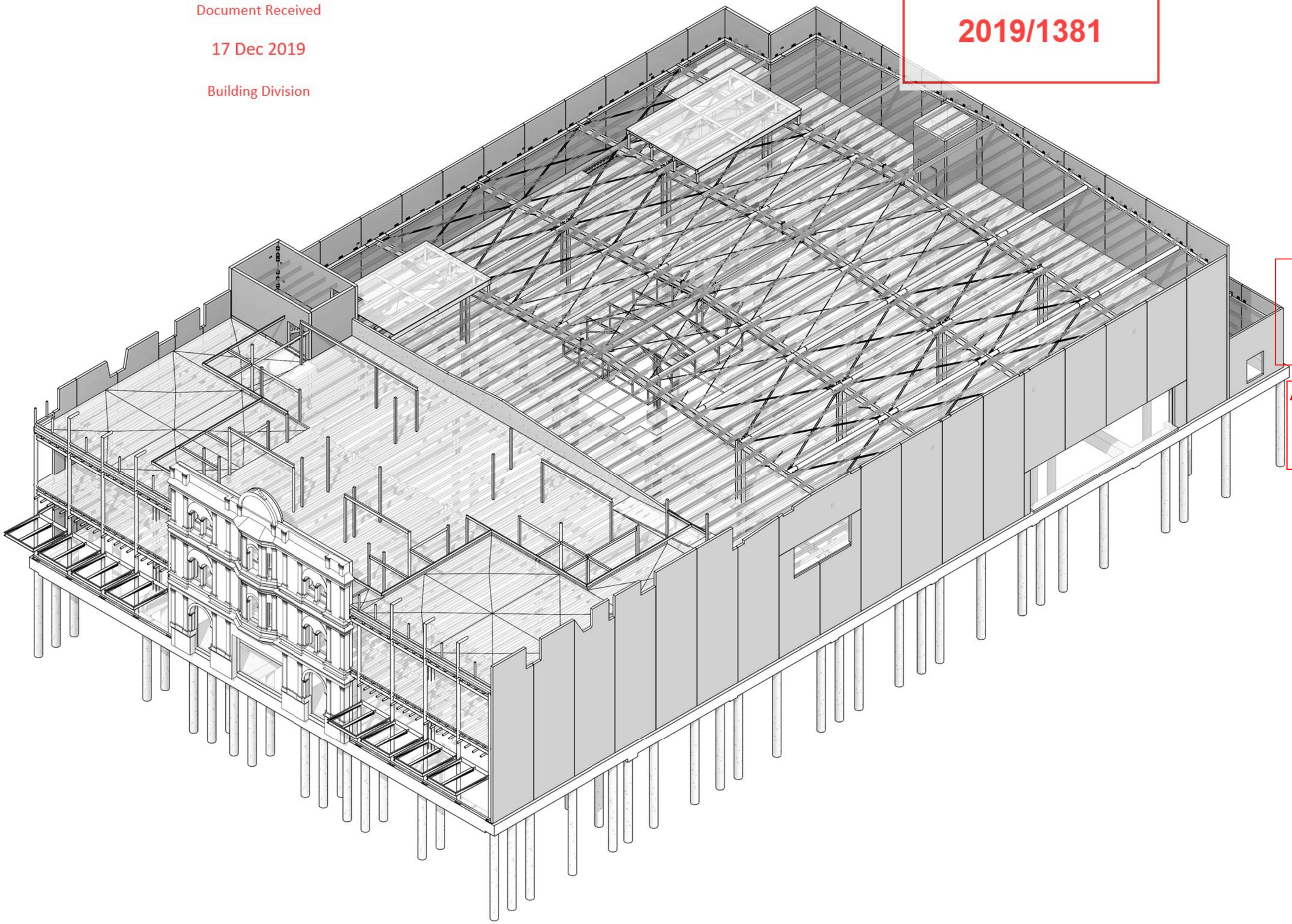

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Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
OVERALL 3D VIEW

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 0006 REV. 2

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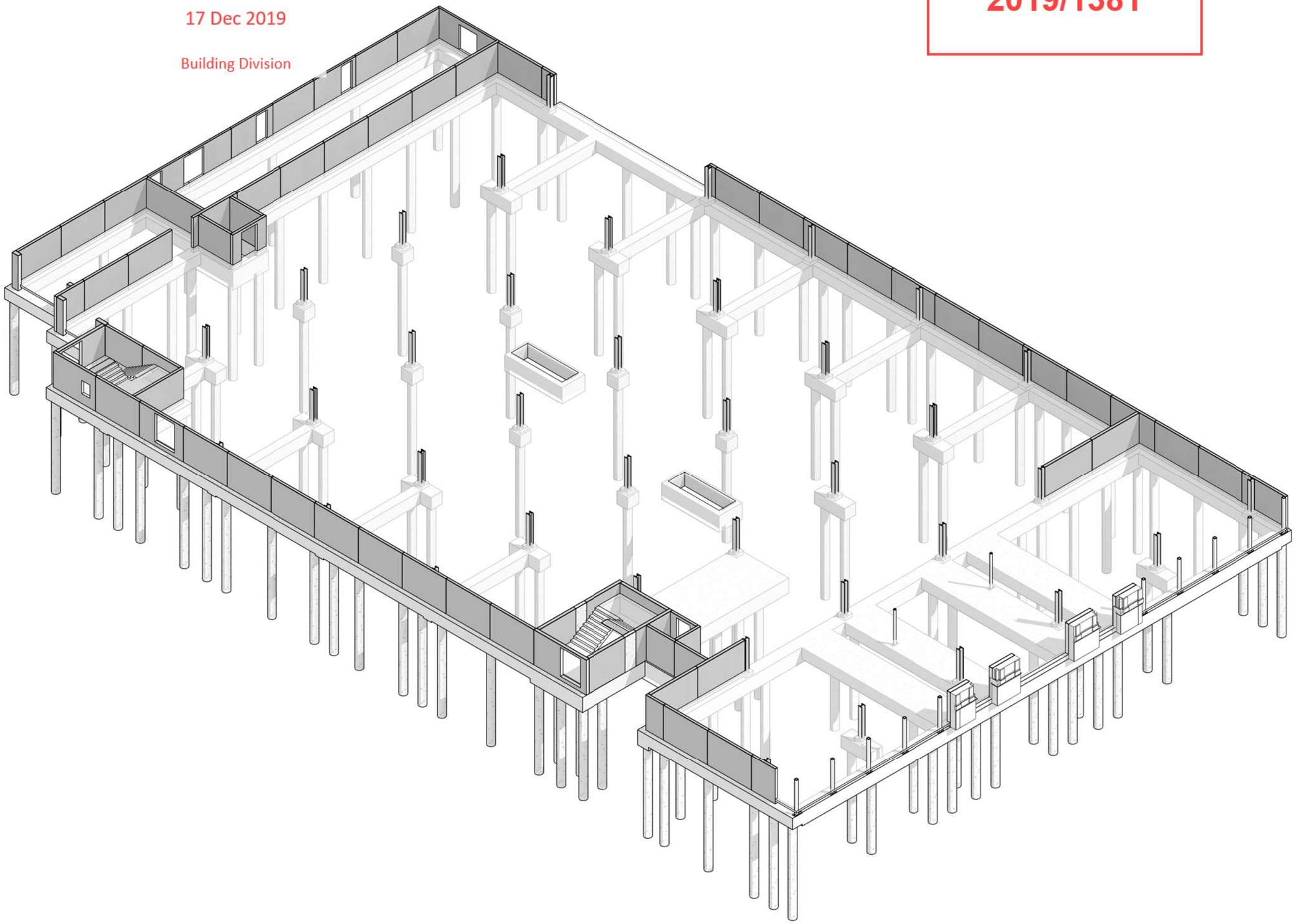

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR
3D VIEW

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1100	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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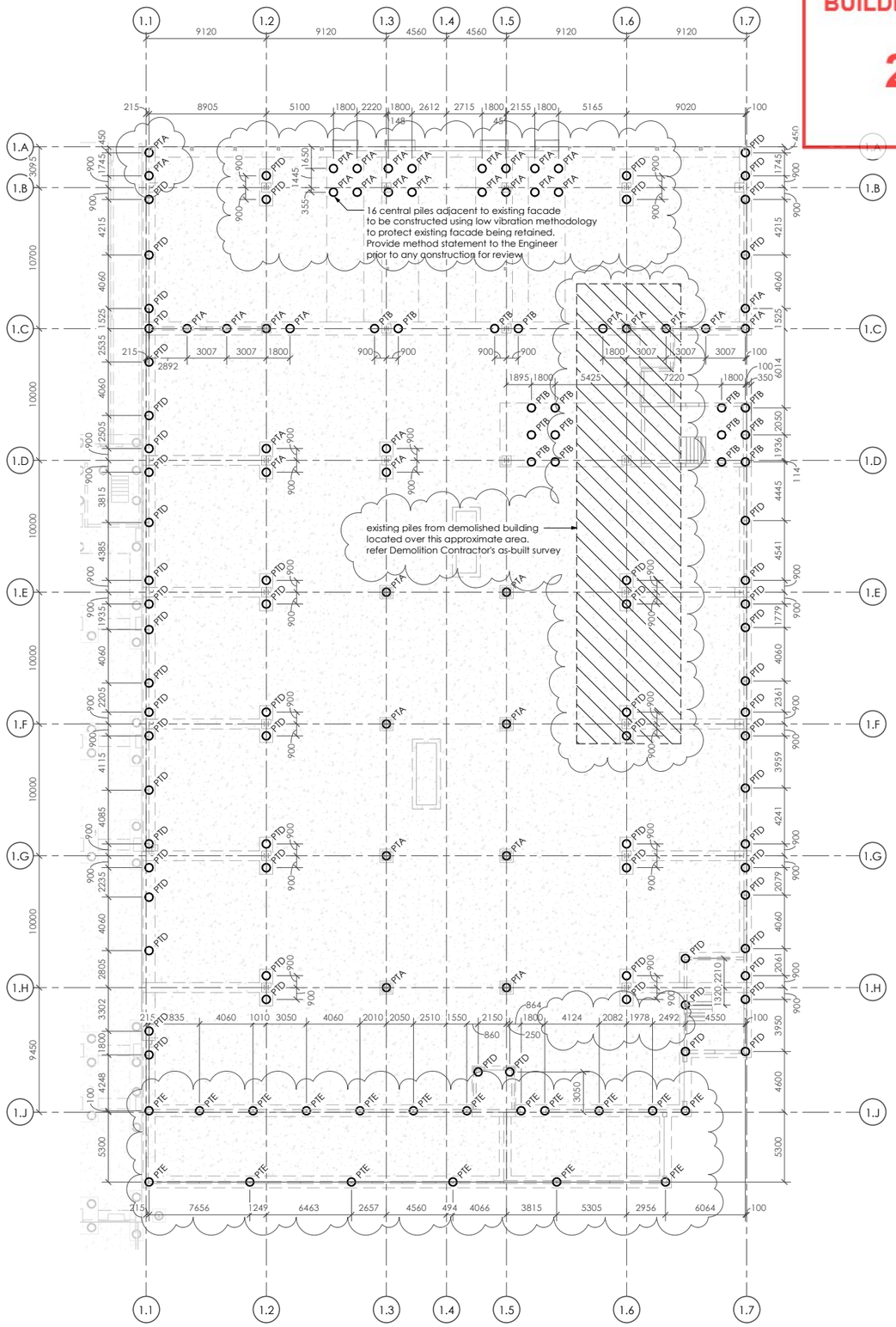

GROUND FLOOR - PILE PLAN
1 : 200

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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2	23.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR
PILE PLAN

DRAWN: GPW	SCALE: 1 : 200 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1101	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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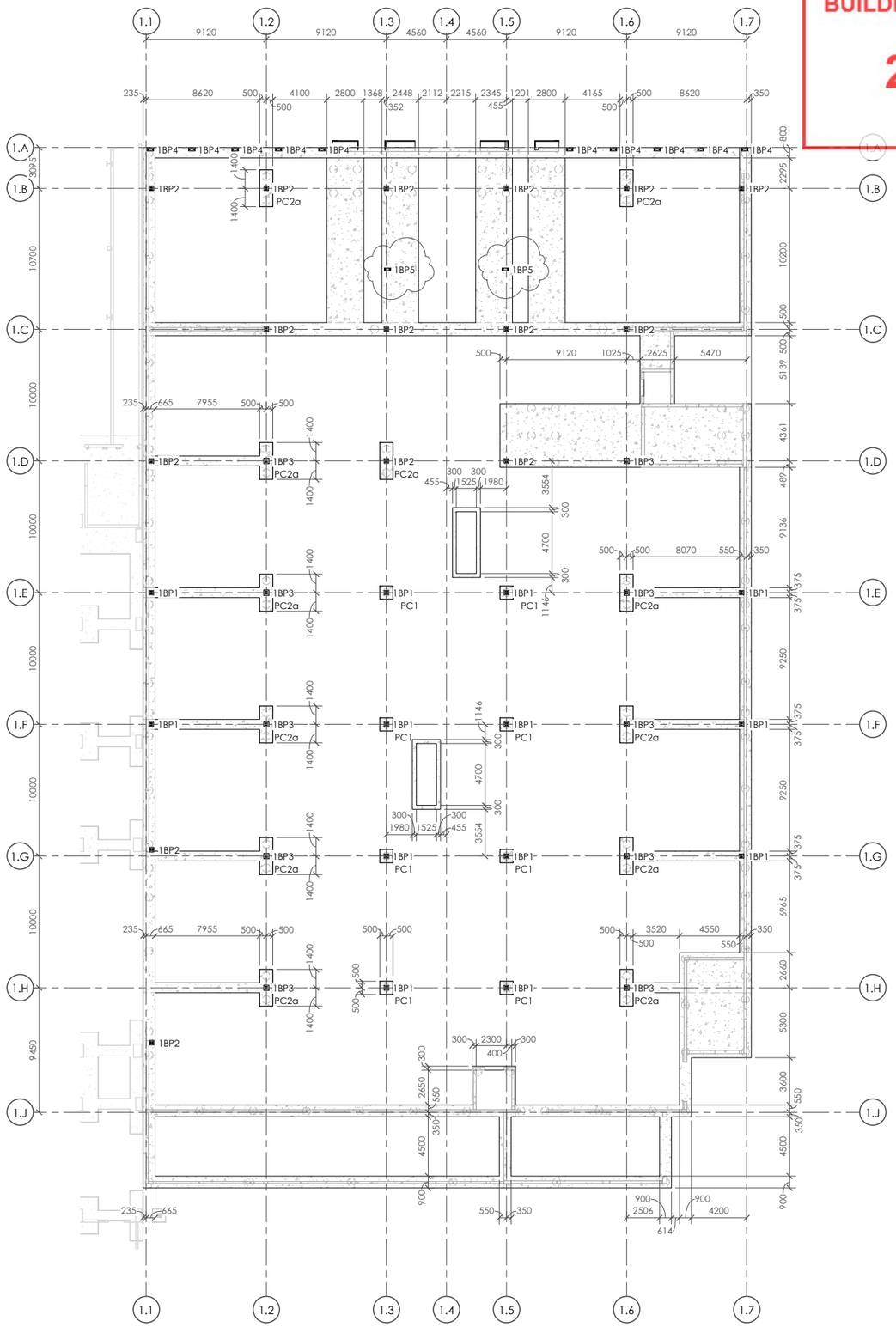
Building Division

BUILDING CONSENT NUMBER

2019/1381



GROUND FLOOR - FOUNDATION PLAN

1 : 200

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NOTES :

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Refer also to Structural Specification.

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CLIENT:
HWCP

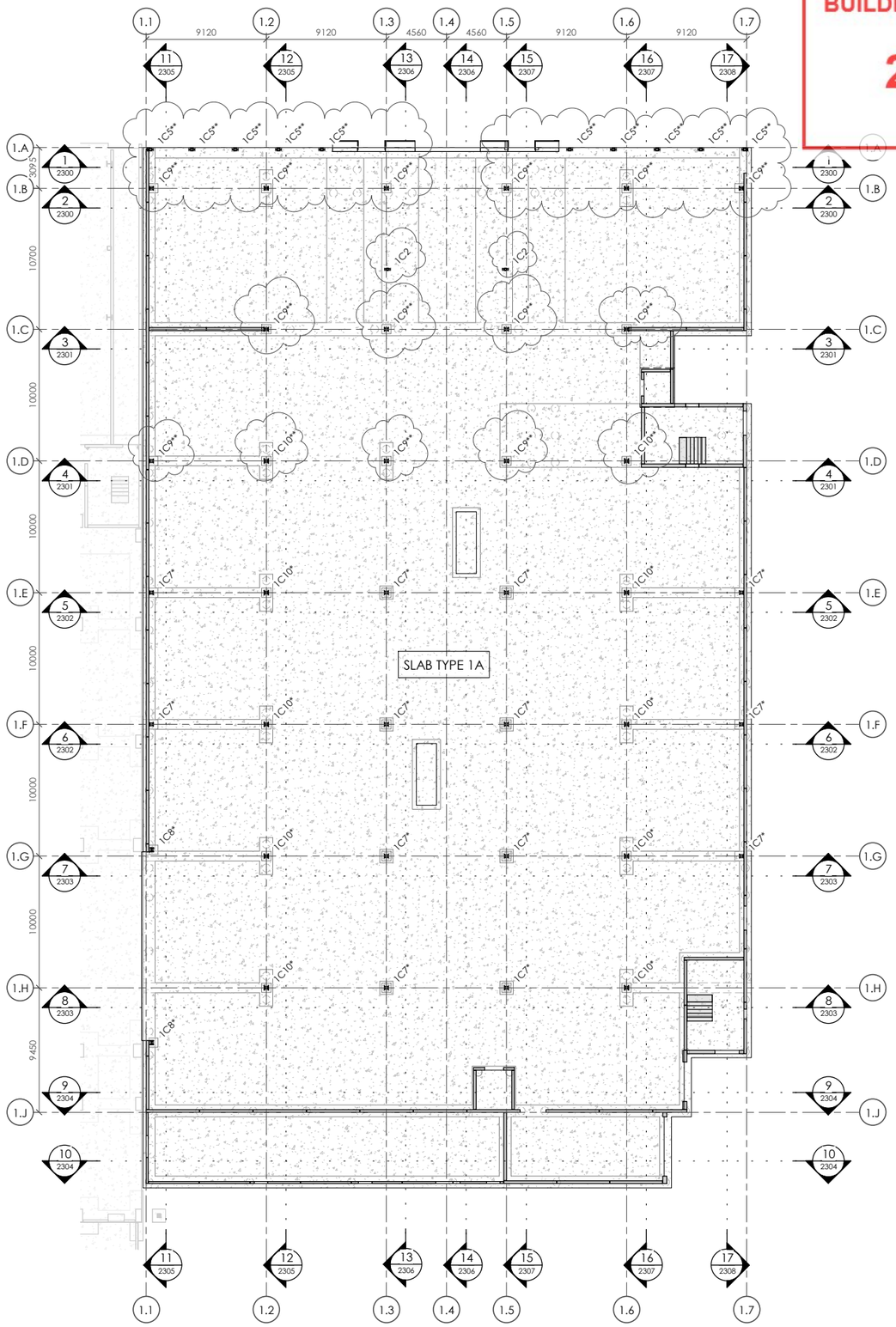
lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR
FOUNDATION PLAN

DRAWN: GPW	SCALE: 1 : 200 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1102	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9097 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 371, Queenstown Phone: (03) 442 9667



GROUND FLOOR - OVERALL PLAN

1 : 200

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND	
1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

FLOOR LEGEND

FLOOR TYPE 1	90 thick insitu topping on 25 timber infills (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 to 50 x 50 x 6 SHS HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infills on 250 Interspan ribs at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 to 50 x 50 x 6 SHS HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
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CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR
OVERALL PLAN

DRAWN: GPW	SCALE: 1 : 200 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1103	REV. 2

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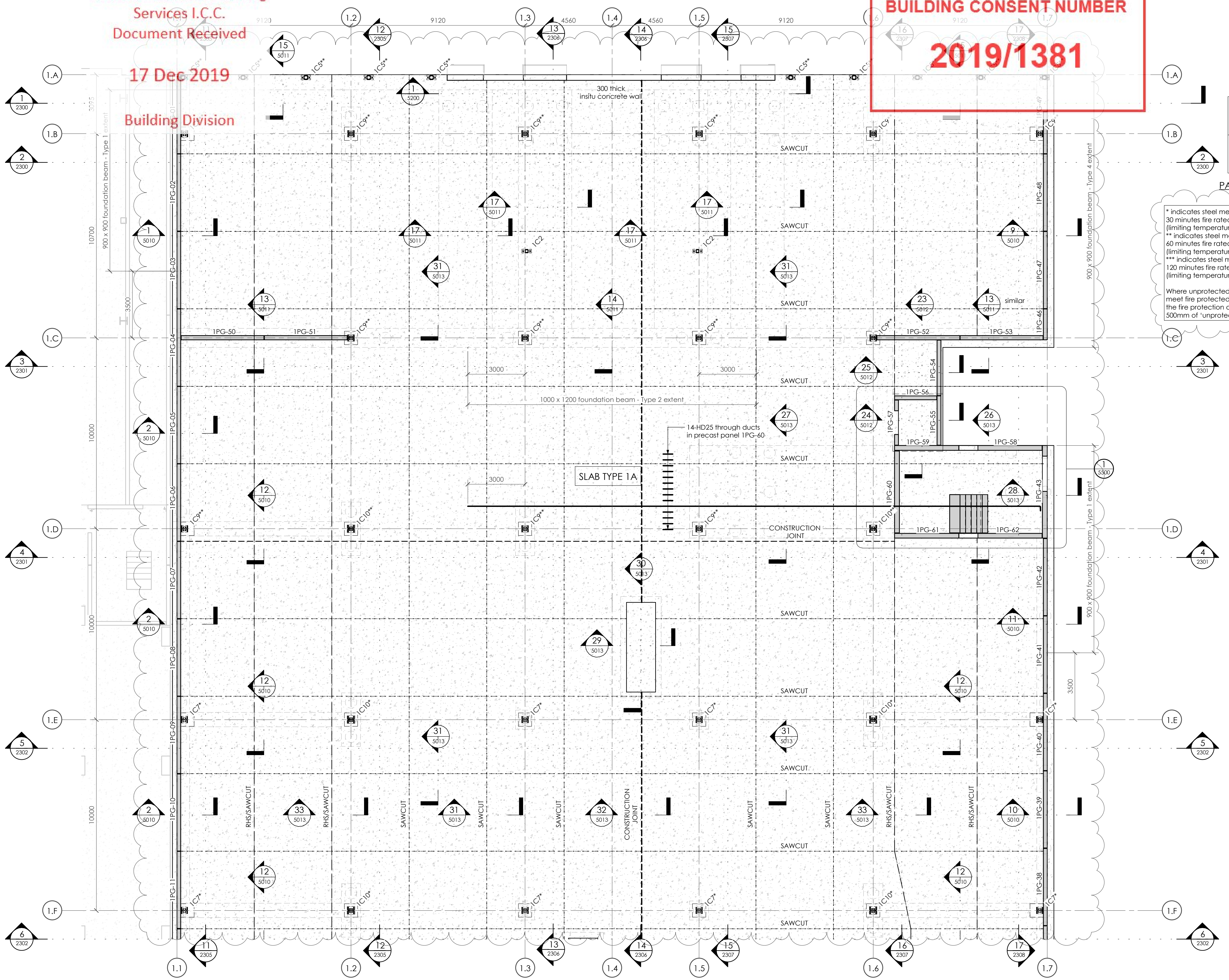

GROUND FLOOR - PART PLAN A
1 : 100

PART PLAN KEY

G
H

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND	
1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND	
FLOOR TYPE 11	90 thick insitu topping on 25 timber infills on 250 Interspan ribs at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top cover U.N.O. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infills on 250 Interspan ribs at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top cover U.N.O. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 50mm top cover on DPM on 50mm sand blinding on 150 min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

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CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR
PART PLAN A

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: _
SCALE: 1 : 100 at A1

118083-Z1-WD-ST 1104
REV. 2

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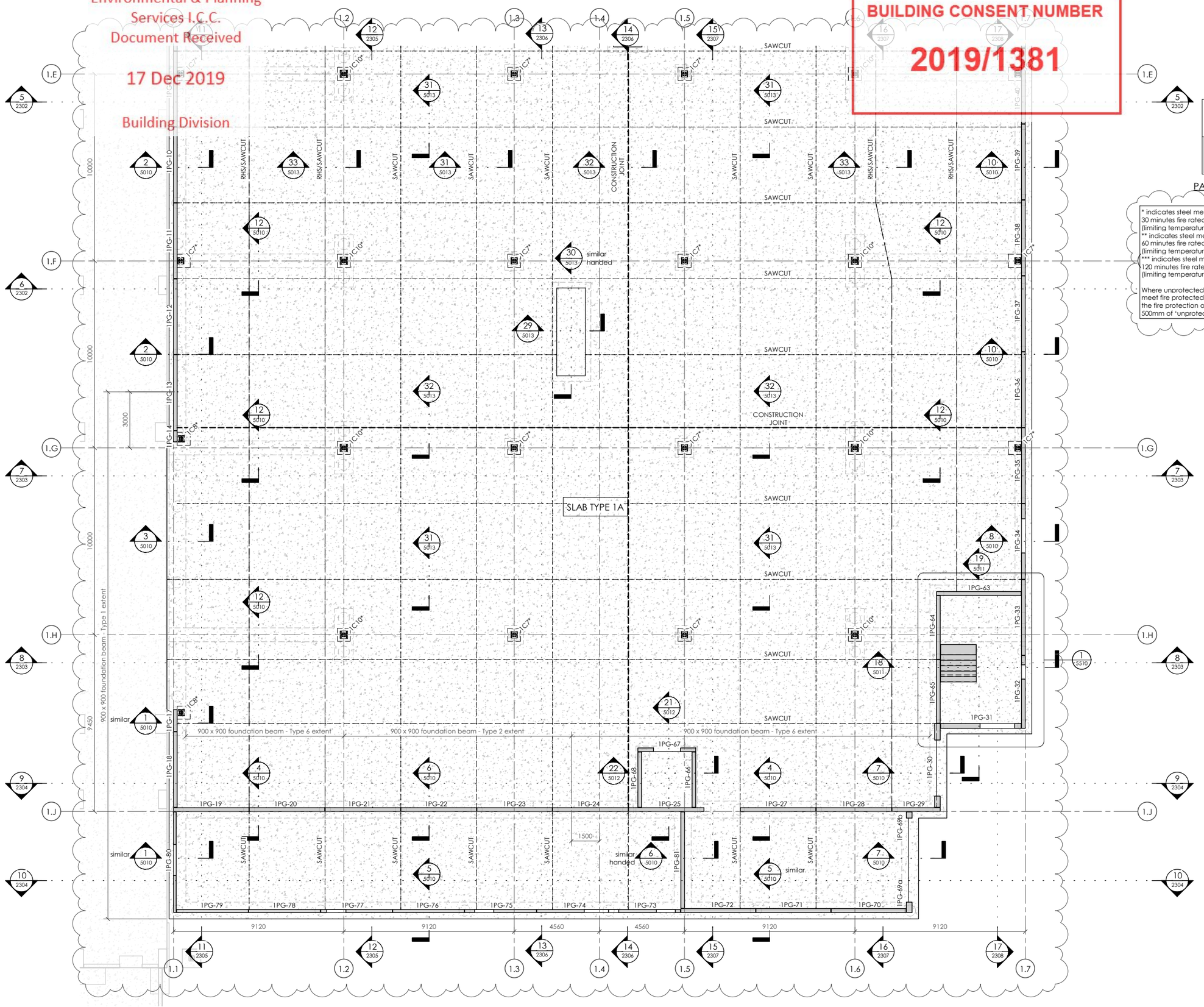
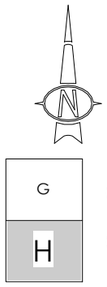


GROUND FLOOR - PART PLAN B

1 : 100



PART PLAN KEY

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

- Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND

FLOOR TYPE 1A — 90 thick insitu topping on 25 timber infills on 250 deep GL8 I 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top cover, HD12 trimmer bars to all edges, corners and openings. Refer plans for additional reinforcing.

FLOOR TYPE 12 — 80-165 thick insitu topping on 25 timber infills on 250 deep GL8 I at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top cover, HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

SLAB TYPE 1A — 150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. Refer plans for additional reinforcing.

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CLIENT:
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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR
PART PLAN B

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 1105 — REV. 2

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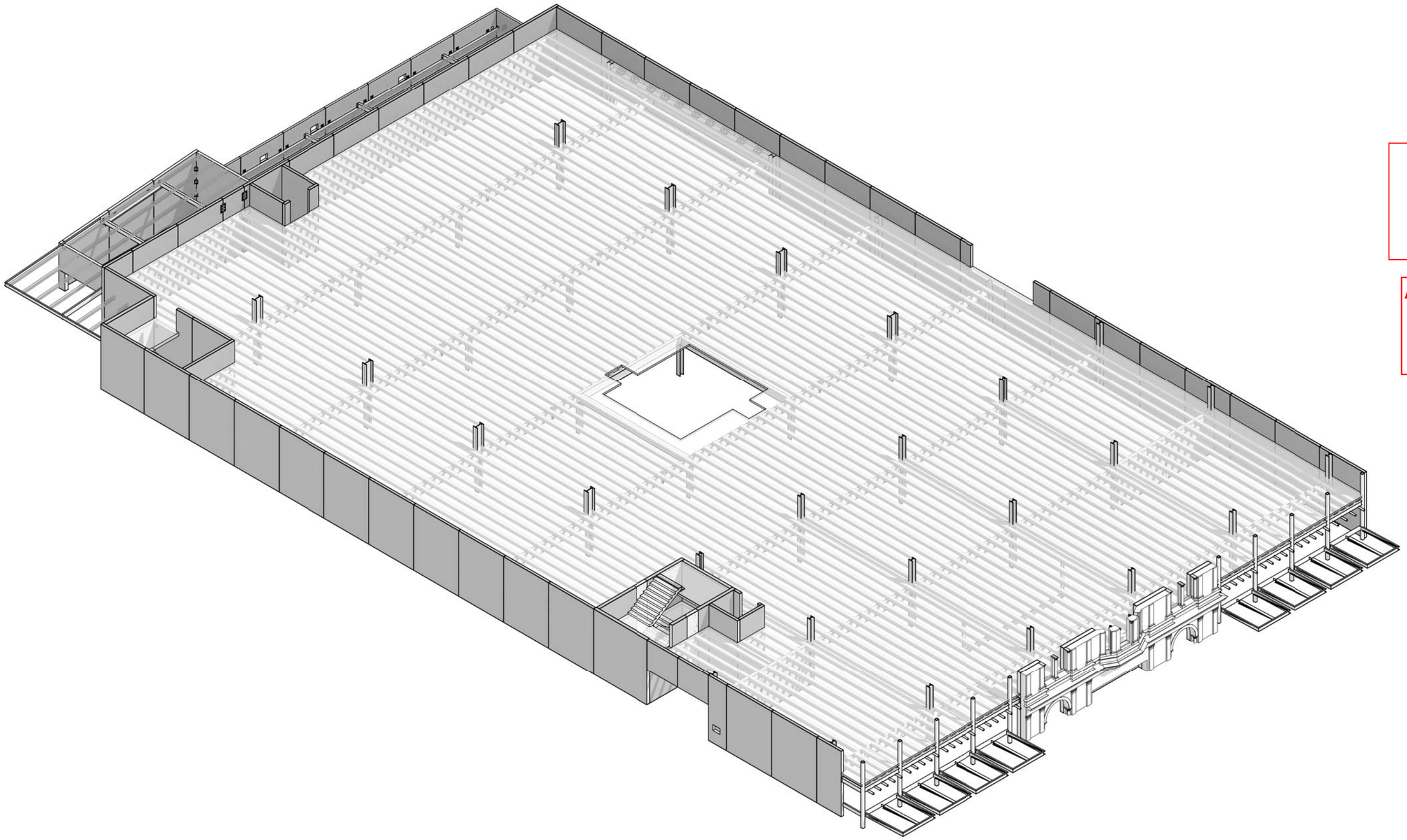

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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CLIENT:
HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 1
3D VIEW

DRAWN: GPW	SCALE:
ENGINEER: EL/TSS	at A1
CHECKED: _	
118083-Z1-WD-ST 1110	REV. 2

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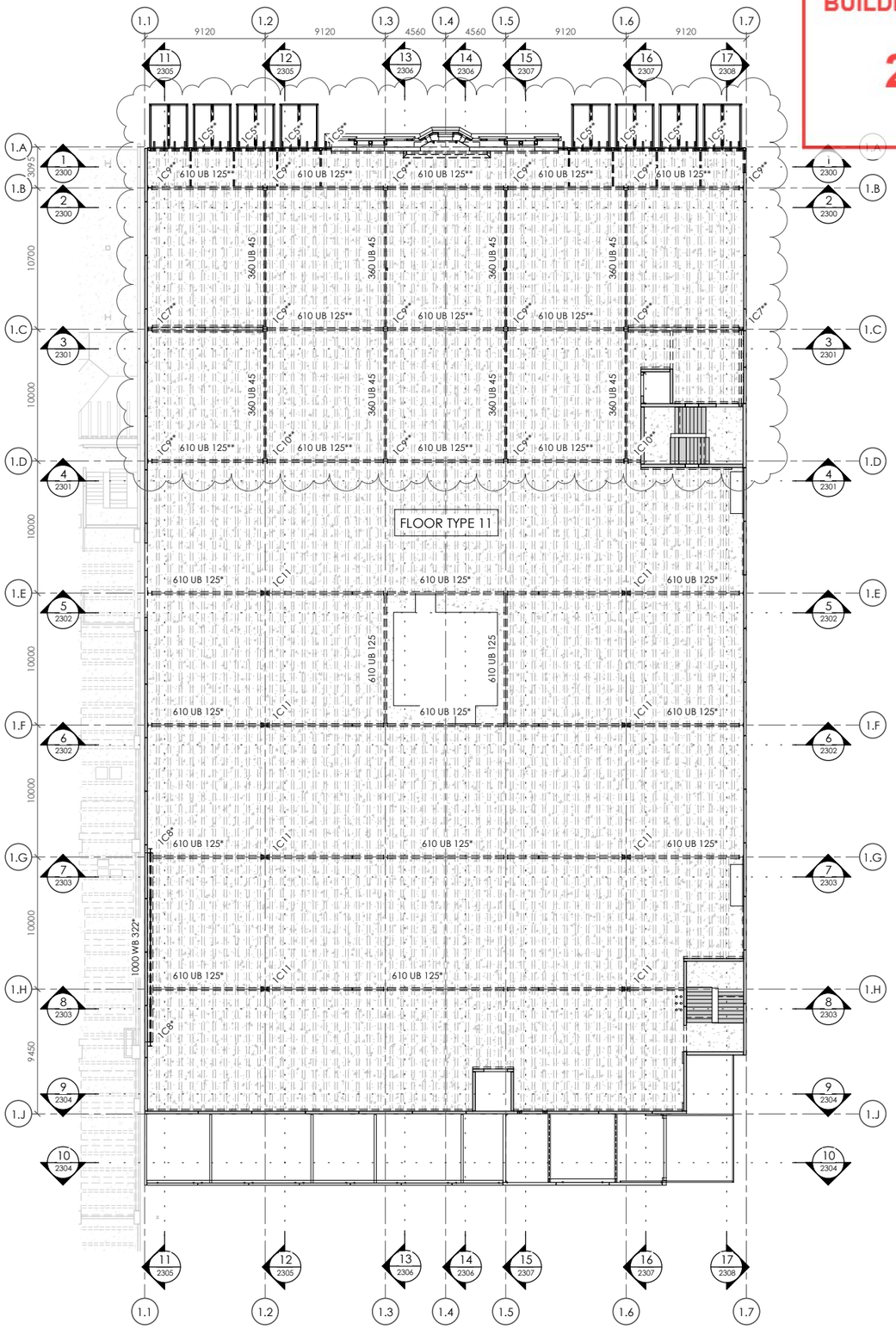

LEVEL 1 - OVERALL PLAN
1 : 200

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND	
1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

FLOOR LEGEND

FLOOR TYPE 1	90 thick insitu topping on 25 timber infills on 250 deep GL8 at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top cover and HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infills on 250 deep GL8 at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top cover and HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
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CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 1
OVERALL PLAN

DRAWN: GPW	SCALE: 1 : 200 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 1111 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 3096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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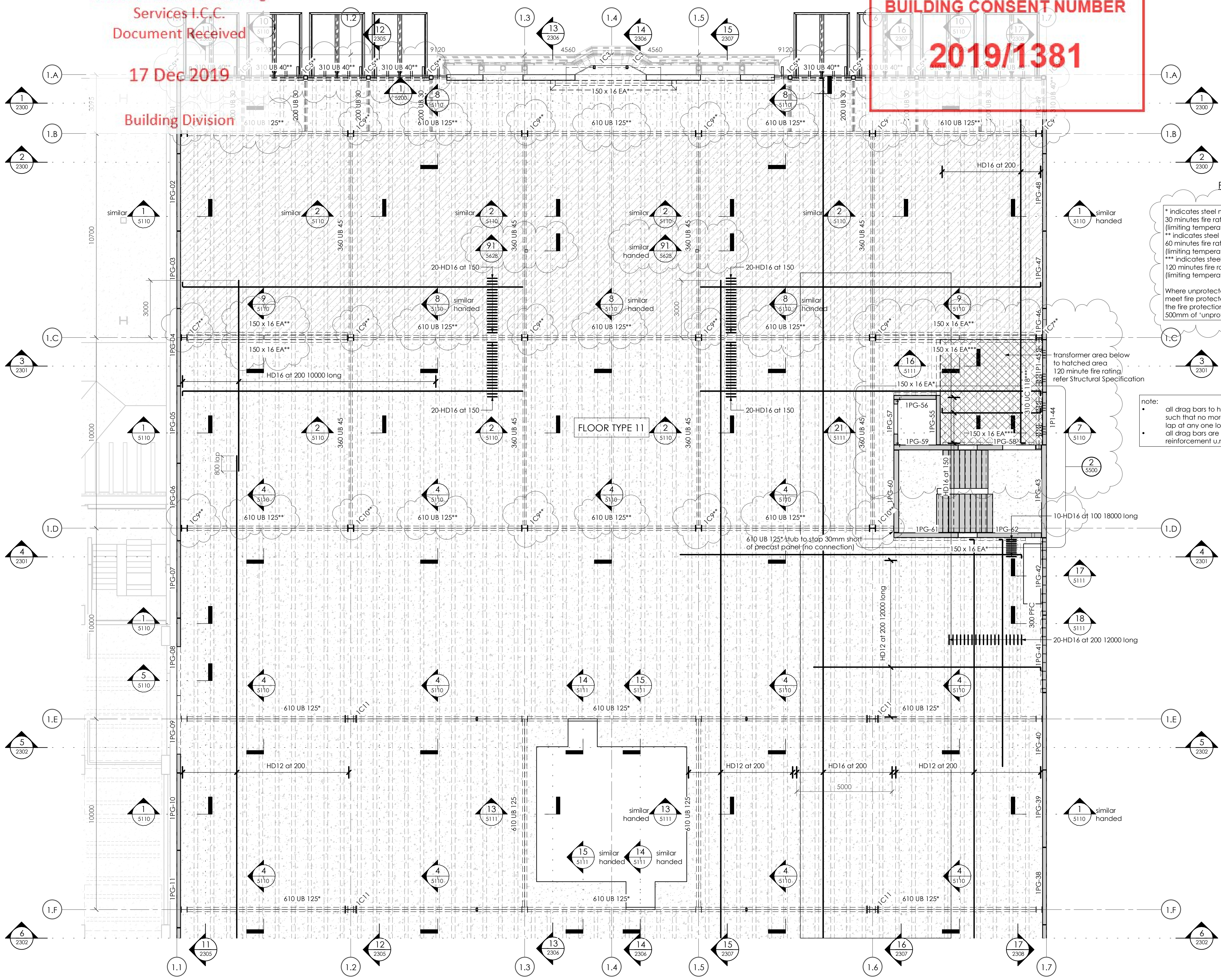

LEVEL 1 - PART PLAN A

1 : 100

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NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

PART PLAN KEY

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

note:
- all drag bars to have staggered laps such that no more than 35% of bars lap at any one location
- all drag bars are in lieu of typical reinforcement u.n.o.

COLUMN LEGEND	
1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND	
FLOOR TYPE 11	90 thick insitu topping on 25 timber infills on 250 Interspan ribs at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top cover U.N.O. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infills on 250 Interspan ribs at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top cover U.N.O. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 50mm top cover on DPM on 20mm sand blinding on 150 min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

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CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 1
PART PLAN A

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: -
SCALE: 1 : 100 at A1

118083-Z1-WD-ST 1112
REV. 2

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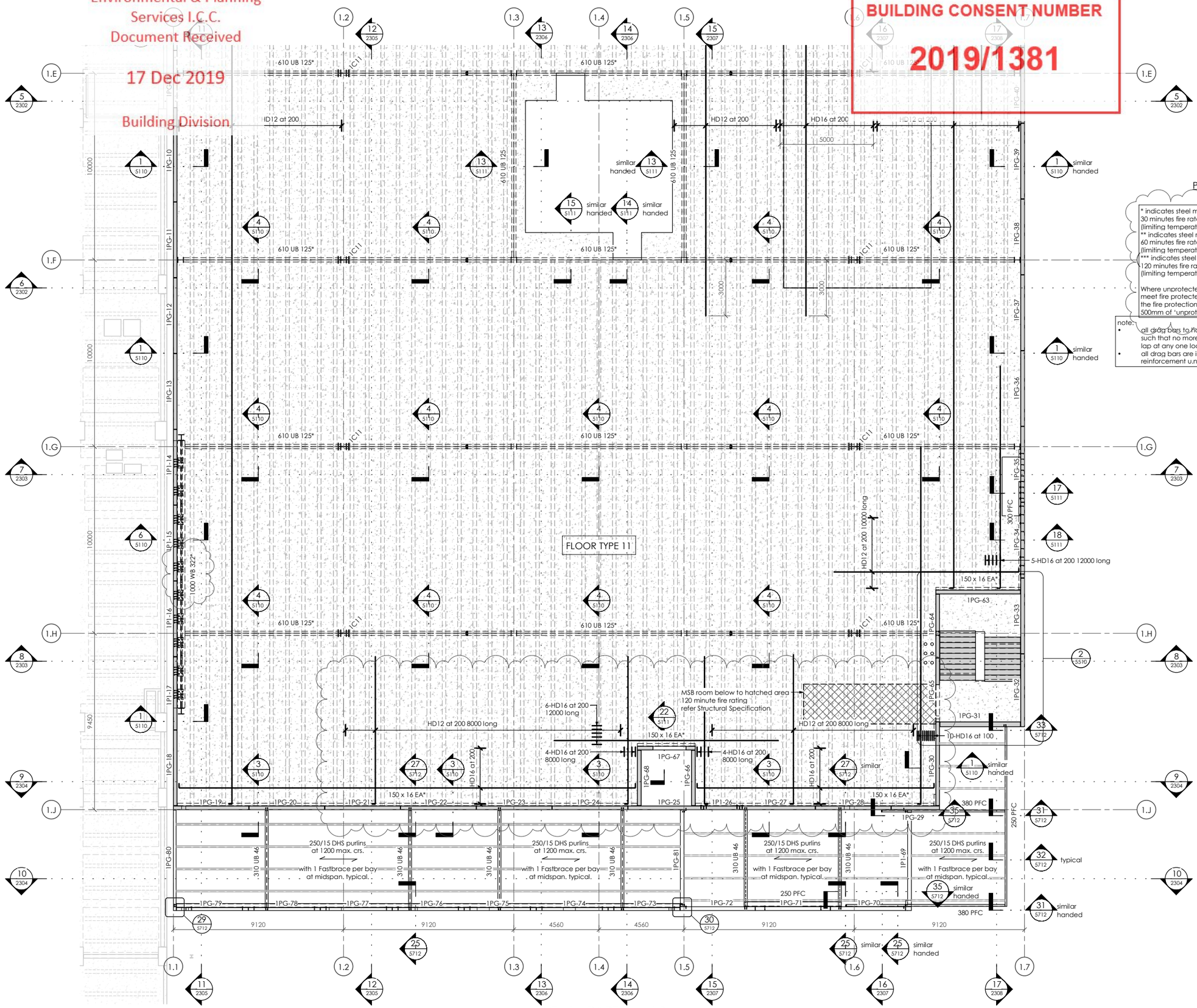

LEVEL 1 - PART PLAN B

1 : 100

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REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

PART PLAN KEY

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

- Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

note:
- all drag bars to have staggered laps such that no more than 35% of bars lap at any one location
- all drag bars are in lieu of typical reinforcement u.n.o.

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND

FLOOR TYPE 11: 90 thick insitu topping on 25 timber infills (300 Interspan GD51 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top cut HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

FLOOR TYPE 12: 80-165 thick insitu topping on 25 timber infills on 250 Interspan GD1 at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top cut HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

SLAB TYPE 1A: 150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 1
PART PLAN B

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 1113 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9096 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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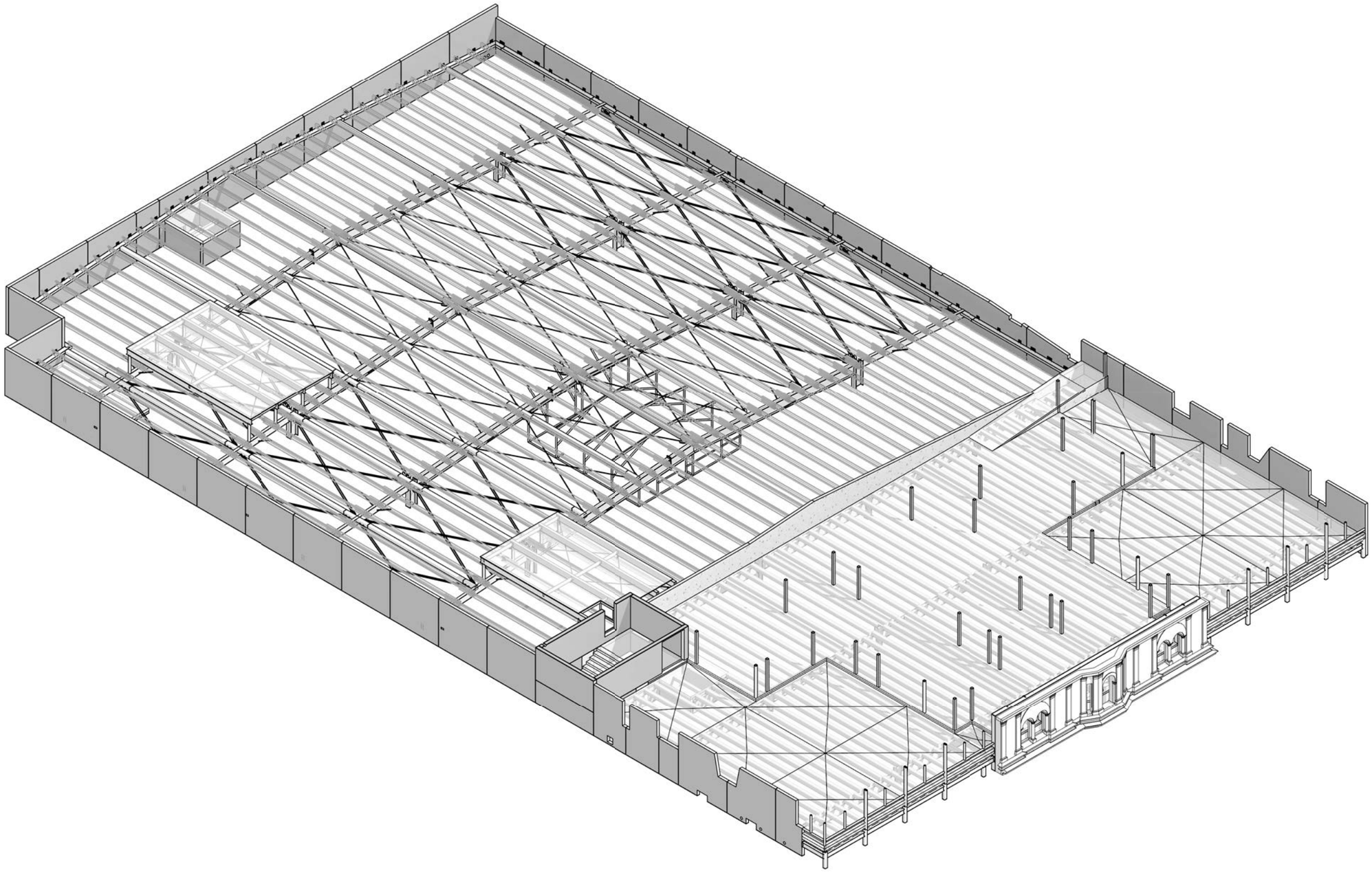
Document Received

17 Dec 2019

Building Division

BUILDING CONSENT NUMBER

2019/1381



CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Invercargill City
Council
Building Consent
Authority
Approved Site Copy

Approved For Issue
27/02/2020

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 2
3D VIEW

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 1120 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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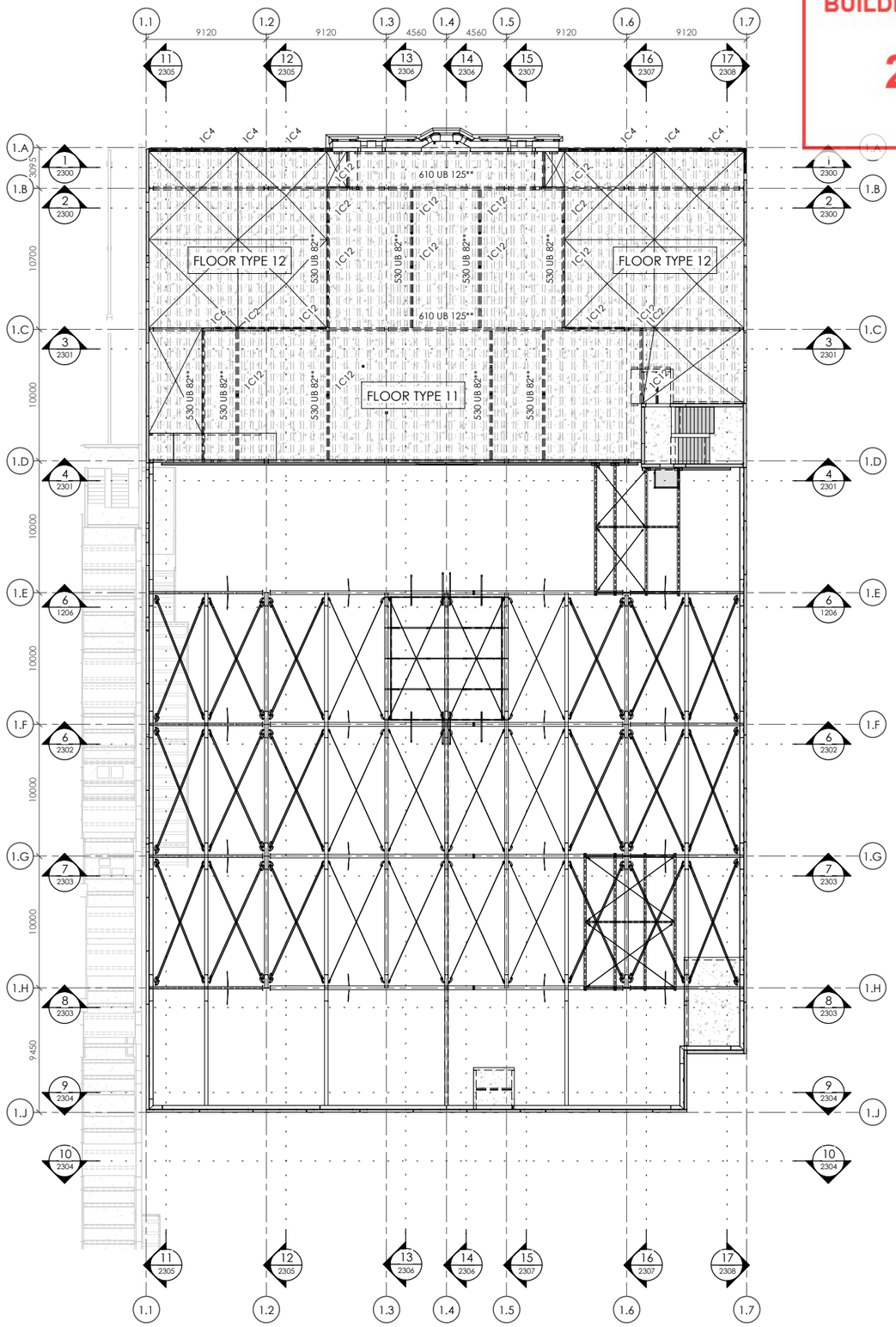


LEVEL 2 - OVERALL PLAN
1 : 200

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND	
1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

FLOOR LEGEND

FLOOR TYPE 11	90 thick insitu topping on 25 timber infills (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 to 2 x HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infills on 250 Interspan ribs at 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 to 2 x HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

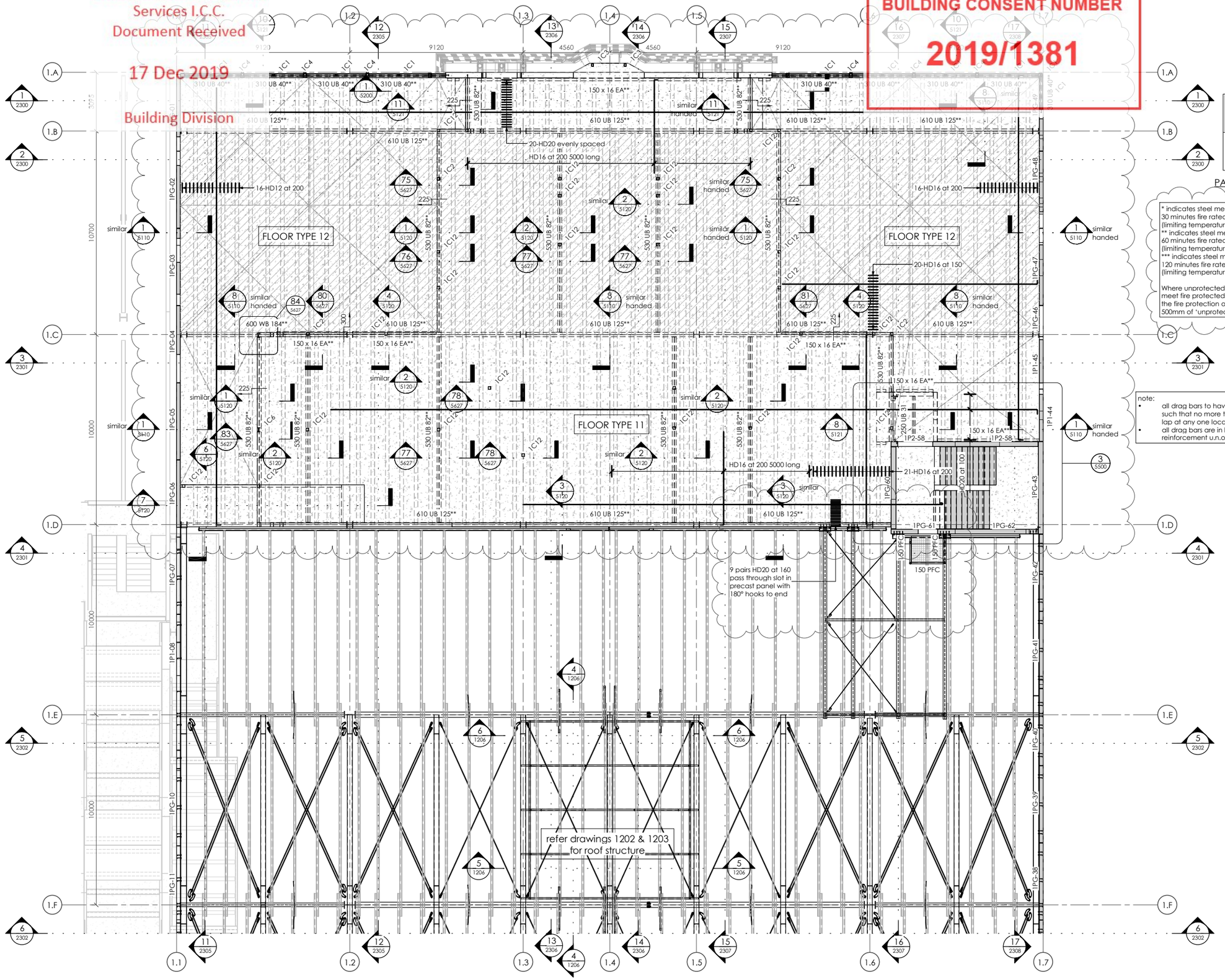
lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 2
OVERALL PLAN

DRAWN: GPW	SCALE: 1 : 200 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1121	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



LEVEL 2 - PART PLAN A
1 : 100

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND	
1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

PART PLAN KEY

G
H

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

FLOOR LEGEND

FLOOR TYPE 11	90 thick insitu topping on 25 timber infills (300 Interspan ribs to hatched areas) reinforce with HD12 @ 200 crs. e.w. with 30 top bars and HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infills (300 Interspan ribs at 900 max. crs. to hatched areas) reinforce with HD12 @ 200 crs. e.w. with 30 top bars and HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

note:
- all drag bars to have staggered laps such that no more than 35% of bars lap at any one location
- all drag bars are in lieu of typical reinforcement u.n.o.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

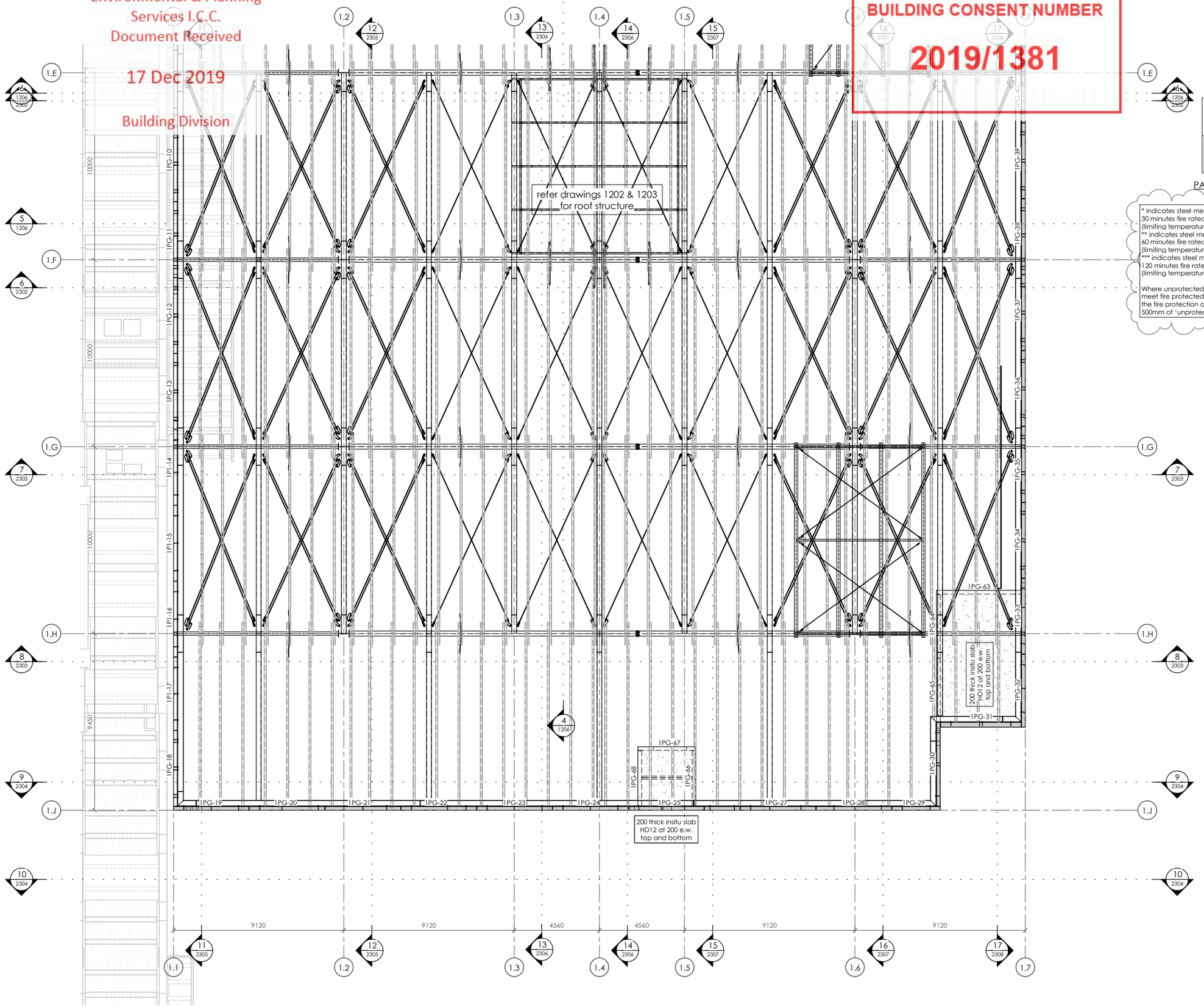
lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 2
PART PLAN A

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1122	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9096 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



LEVEL 2 - PART PLAN B
1 : 100

PART PLAN KEY

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

- Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND

FLOOR TYPE 1 — 90 thick insitu topping on 25 timber infills on 250 deep SG11 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top bars HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

FLOOR TYPE 12 — 80-165 thick insitu topping on 25 timber infills on 250 deep SG11 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD10 at 200 crs. e.w. with 30 top bars HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

SLAB TYPE 1A — 150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
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CLIENT: HWCP

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CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2319, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9096 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 371, Queenstown Phone: (03) 442 8667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 2
PART PLAN B

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 1123 REV. 2

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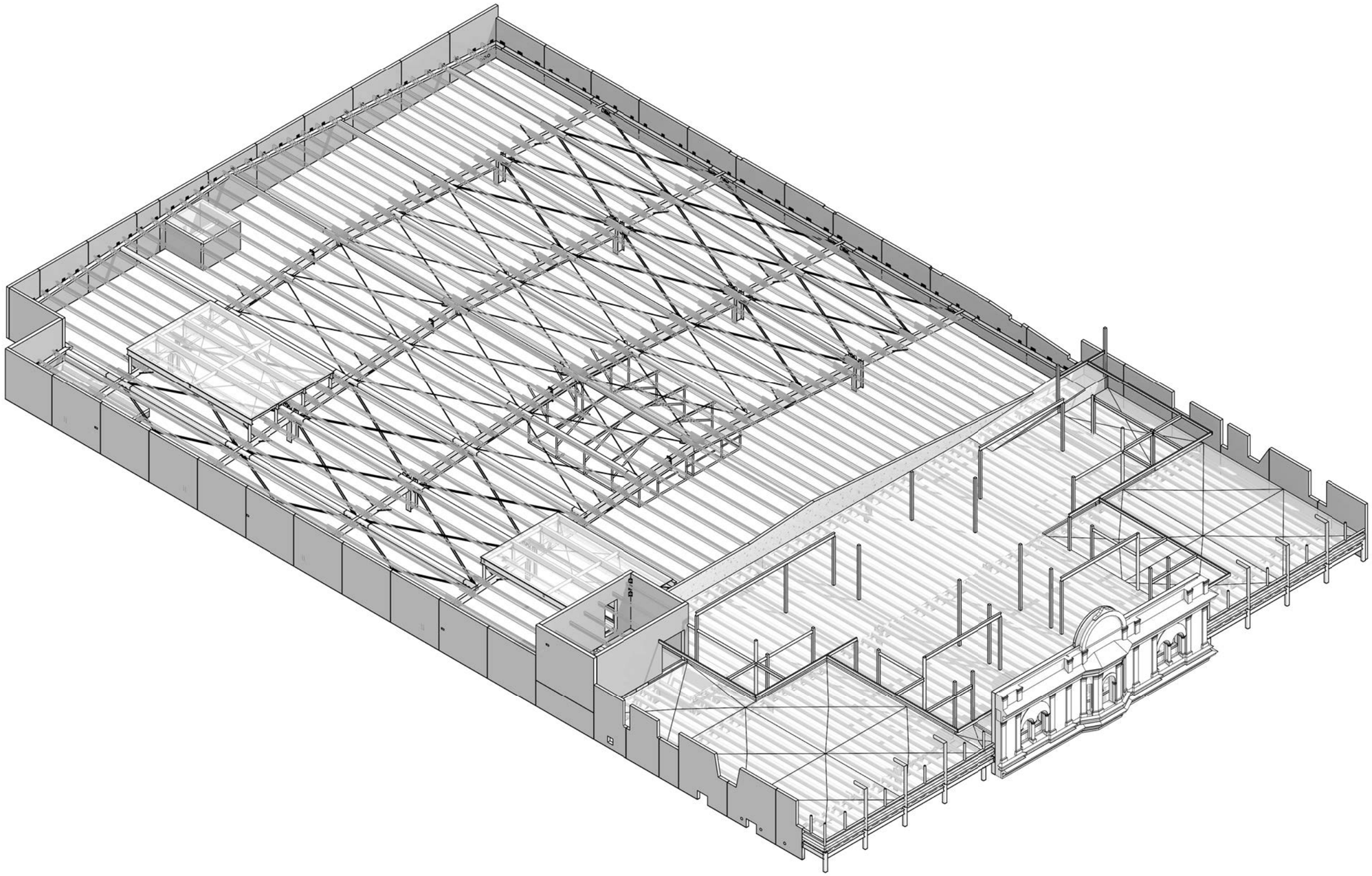
17 Dec 2019

Building Division

BUILDING CONSENT NUMBER

2019/1381



CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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Building Consent Authority
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27/02/2020

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
3D VIEW

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1200	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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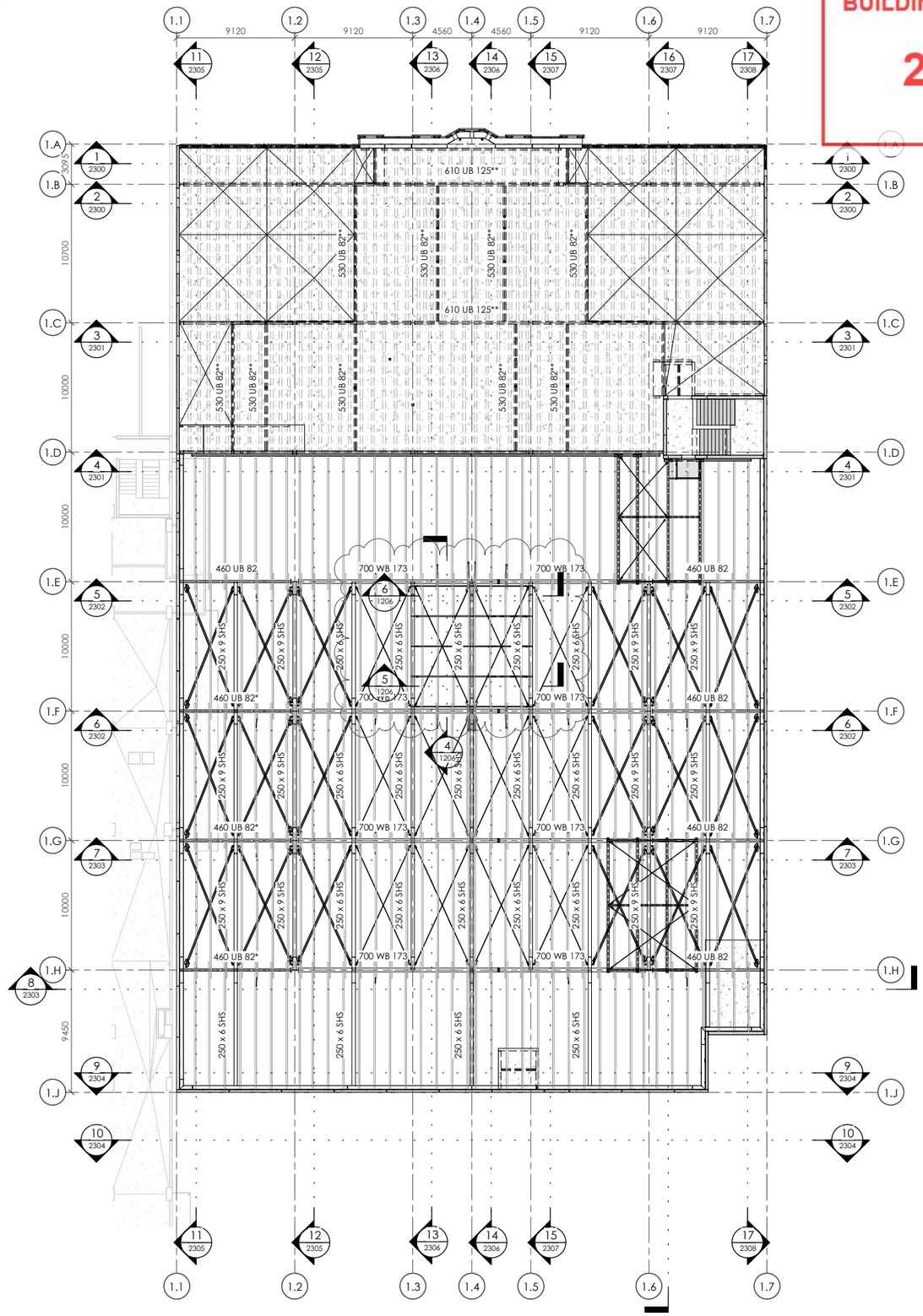
BUILDING CONSENT NUMBER

2019/1381



ROOF - OVERALL PLAN
1 : 200

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND

FLOOR TYPE 11	90 thick insitu topping on 25 timber infills on 250 deep GIB® 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top cover and HD12 trimmer bars to all edges, corners and openings. Refer to Structural Engineer drawings for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infills on 250 deep GIB® 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top cover and HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
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CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
OVERALL PLAN

DRAWN: GPW	SCALE: 1 : 200 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1201	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9086 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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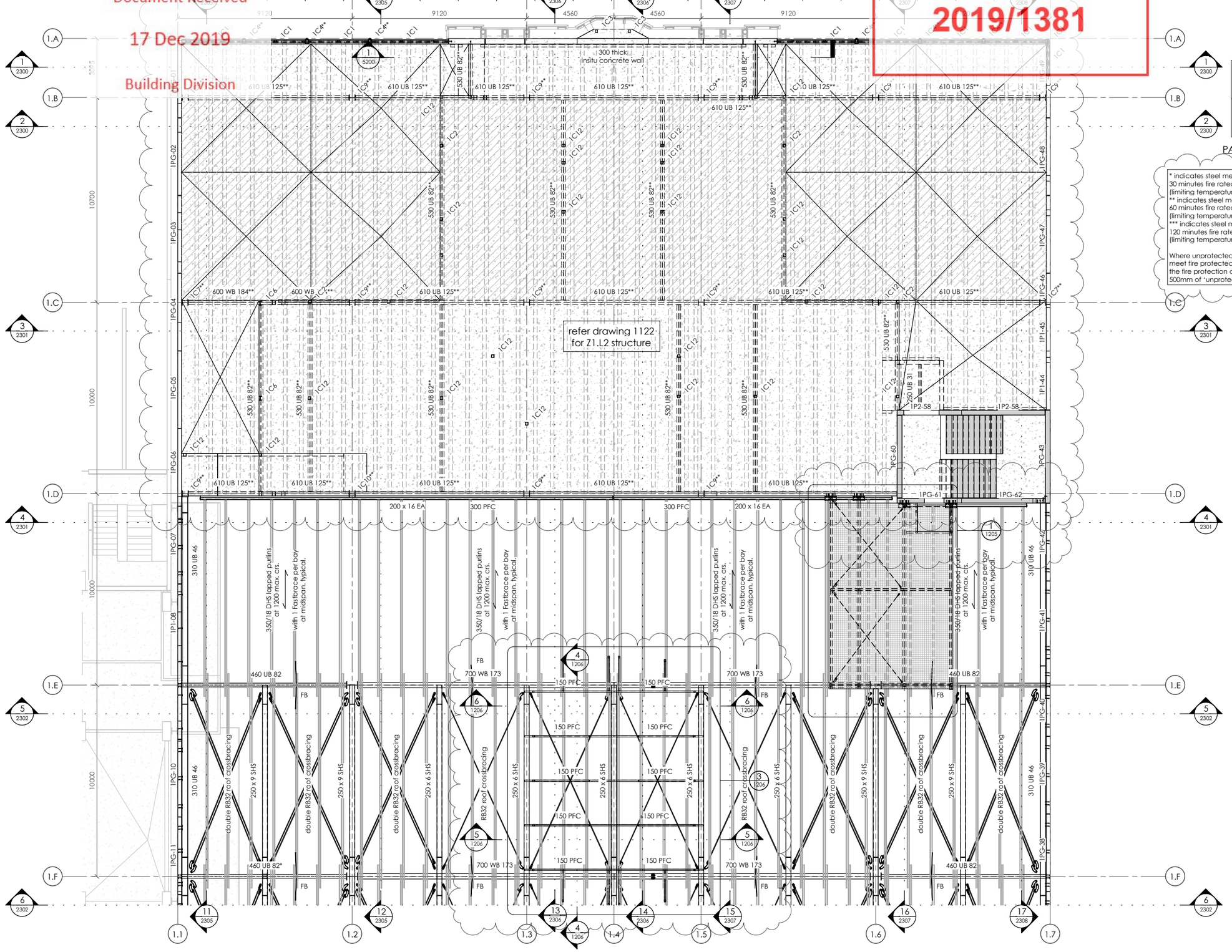
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS



ROOF - PART PLAN A
1 : 100

G
H

PART PLAN KEY

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND

FLOOR TYPE 1: 90 thick insitu topping on 25 timber infills on 250 deep GD15 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 @ 200 crs. e.w. with 30 top cover. Add HD12 trimmer bars to all edges, corners and openings.

FLOOR TYPE 12: 80-165 thick insitu topping on 25 timber infill on 250 deep GD15 at 900 max. crs. [refer drawing 1122 for hatched areas] reinforce with HD12 @ 200 crs. e.w. with 30 top cover. Add HD12 trimmer bars to all edges, corners and openings, refer plans for additional reinforcing.

SLAB TYPE 1A: 150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings, refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
PART PLAN A

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1202	REV. 2

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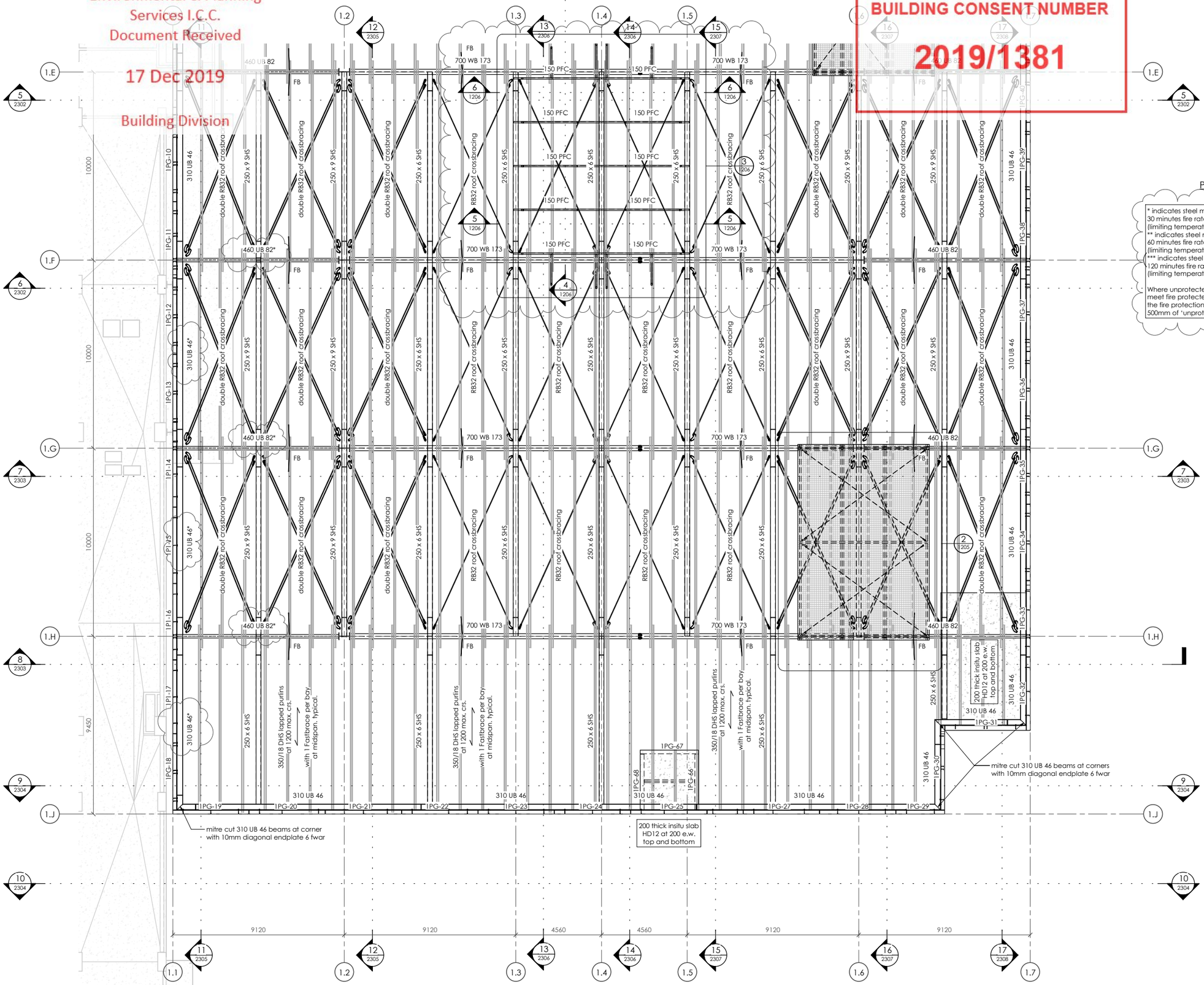

ROOF - PART PLAN B

1 : 100

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

PART PLAN KEY

G
H

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

- Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND

FLOOR TYPE 1: 90 thick insitu topping on 25 timber infills on 250 deep LGS1 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top bars and HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

FLOOR TYPE 12: 80-165 thick insitu topping on 25 timber infills on 250 deep LGS1 900 max. crs. (300 Interspan ribs to hatched areas) reinforce with HD12 at 200 crs. e.w. with 30 top bars and HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

SLAB TYPE 1A: 150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 150mm sand blinding on 150mm min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
PART PLAN B

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 1203 REV. 2

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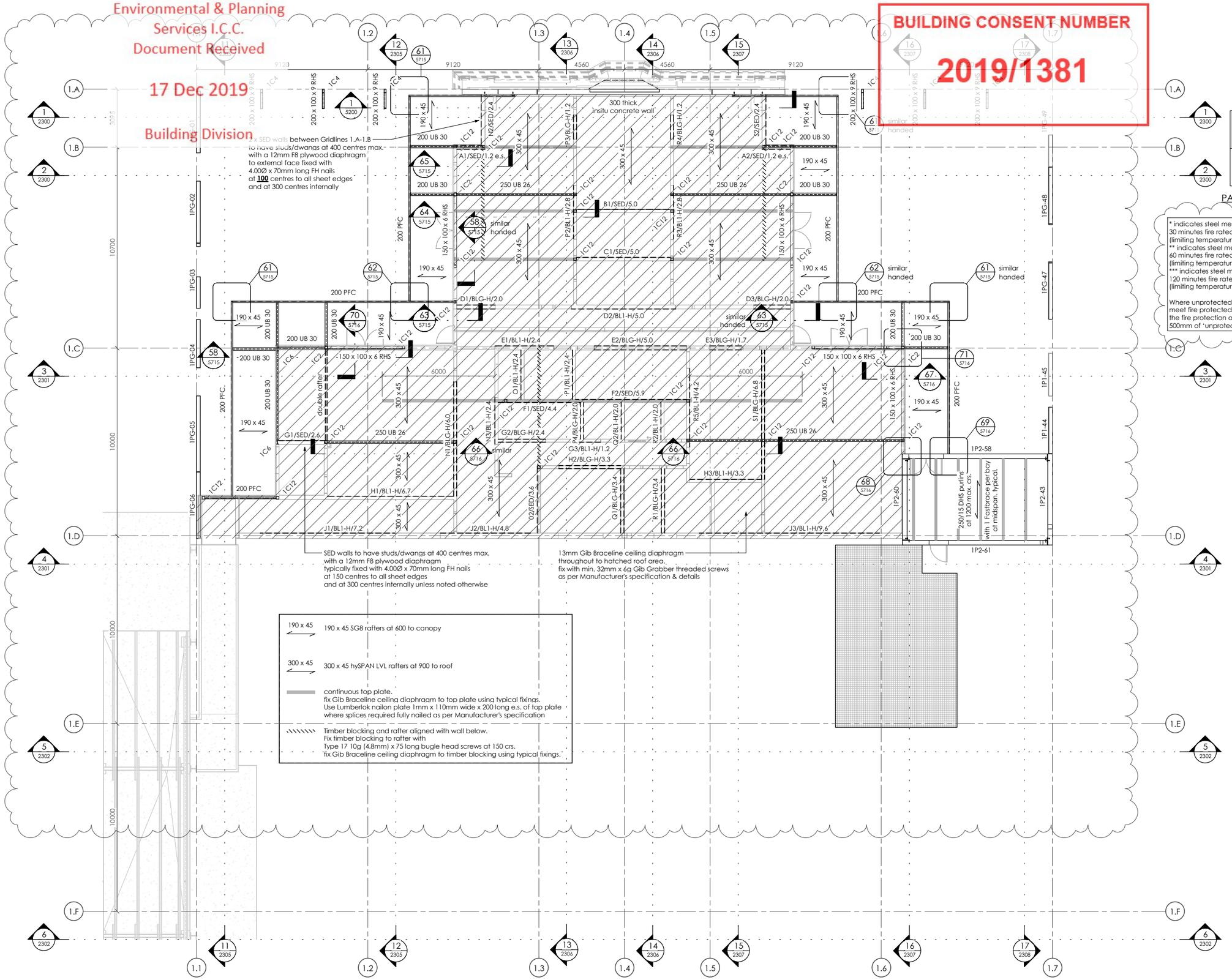

ROOF - CHILDCARE ROOF PLAN

1 : 100

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

PART PLAN KEY

G
H

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

FLOOR LEGEND

FLOOR TYPE 1	90 thick insitu topping on 25 timber infills (300 Interspan ribs to hatched areas) reinforce with HD12 @ 200 crs. e.w. with 30 long HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
FLOOR TYPE 12	80-165 thick insitu topping on 25 timber infill (300 Interspan ribs at 900 max. crs. to hatched areas) reinforce with HD12 @ 200 crs. e.w. with 30 long HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.
SLAB TYPE 1A	150 thick insitu concrete slab reinforced with SE82 mesh 30mm top cover on 100mm sand blinding on 150 min. compacted hardfill. HD12 trimmer bars to all edges, corners and openings. refer plans for additional reinforcing.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
CHILDCARE ROOF PLAN

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 1204 REV. 2

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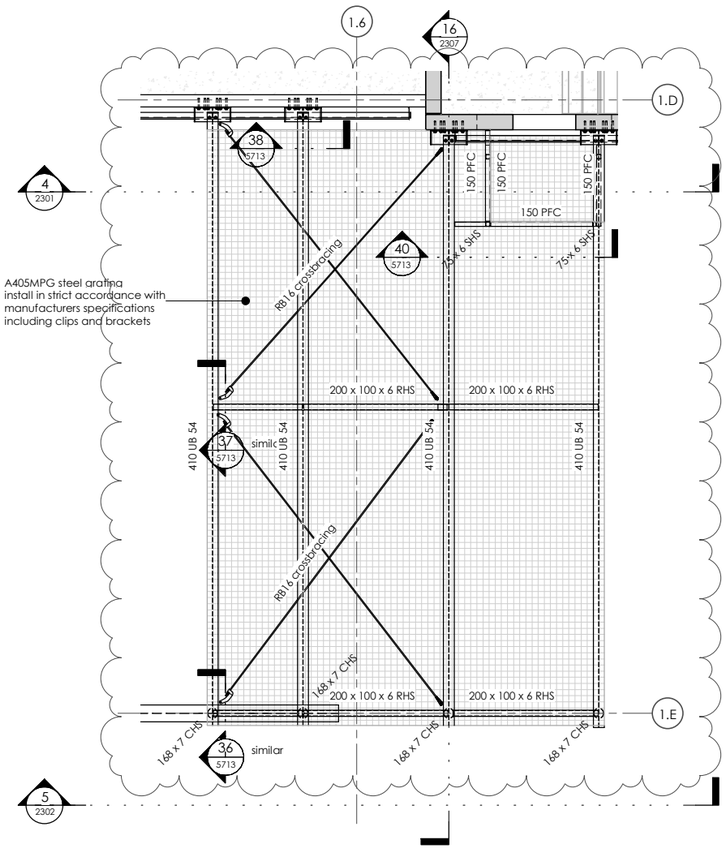
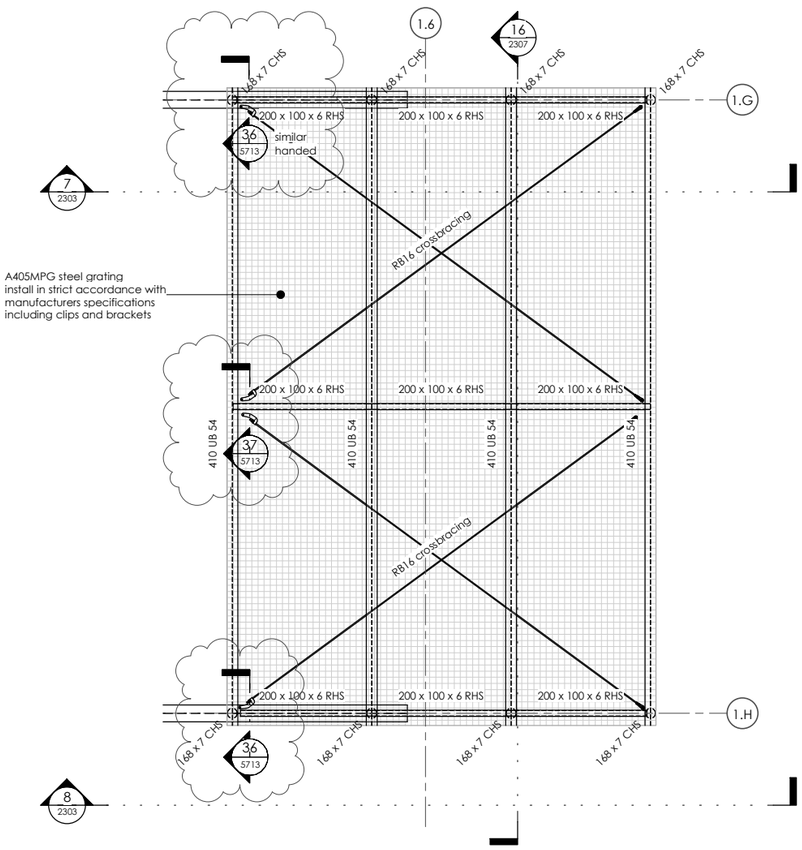
BUILDING CONSENT NUMBER

2019/1381

MAXIMUM LIVE LOAD TO PLANT DECKS IS 250kg/m²



1
1202
1 : 50



2
1203
1 : 50

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
PLANT DECK PLANS

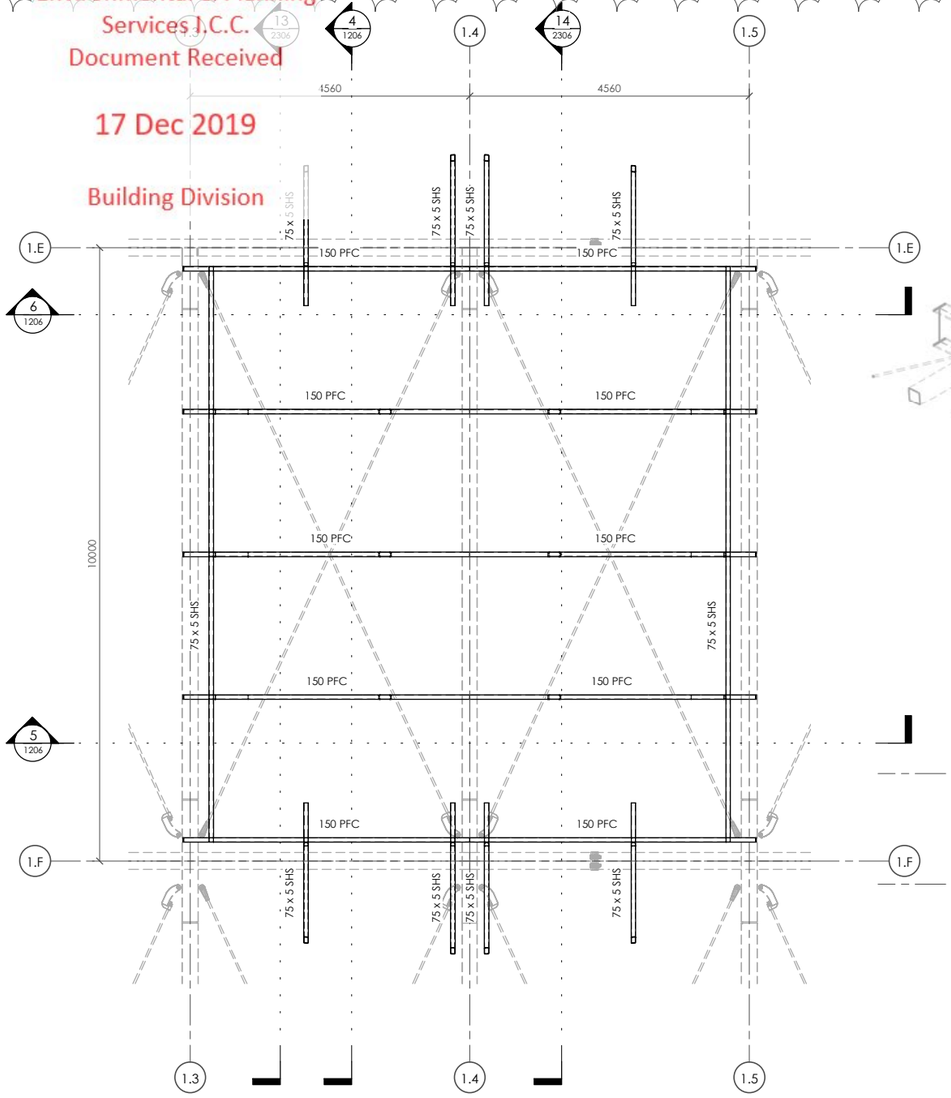
DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 1205	REV. 2

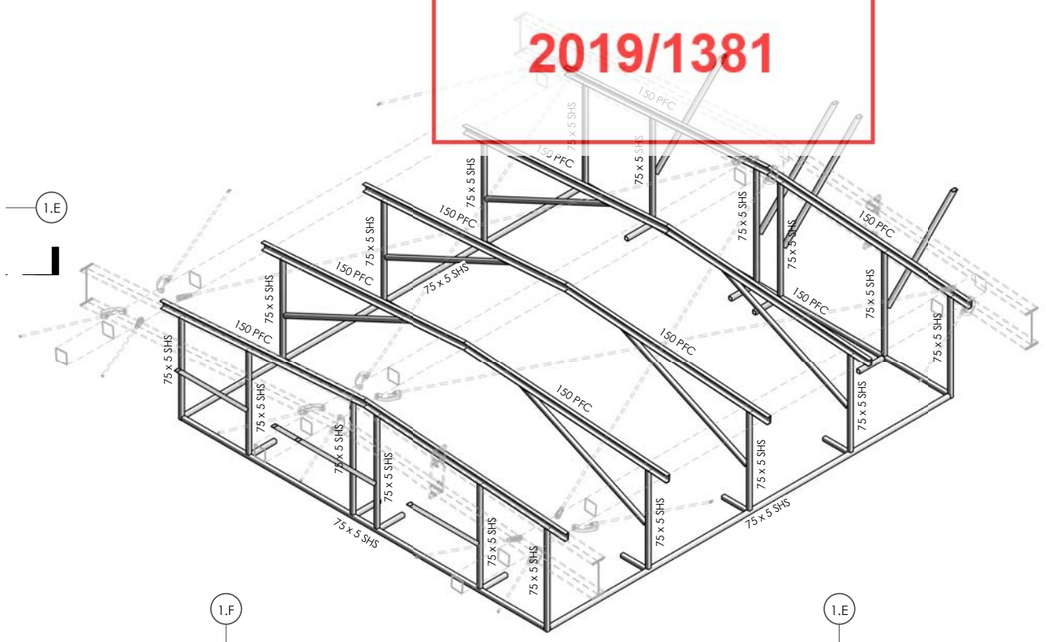
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

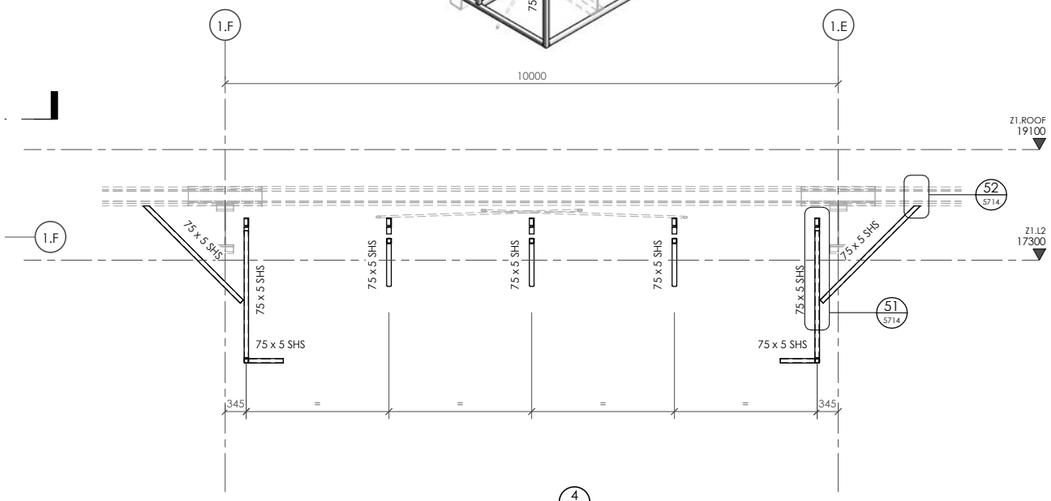
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

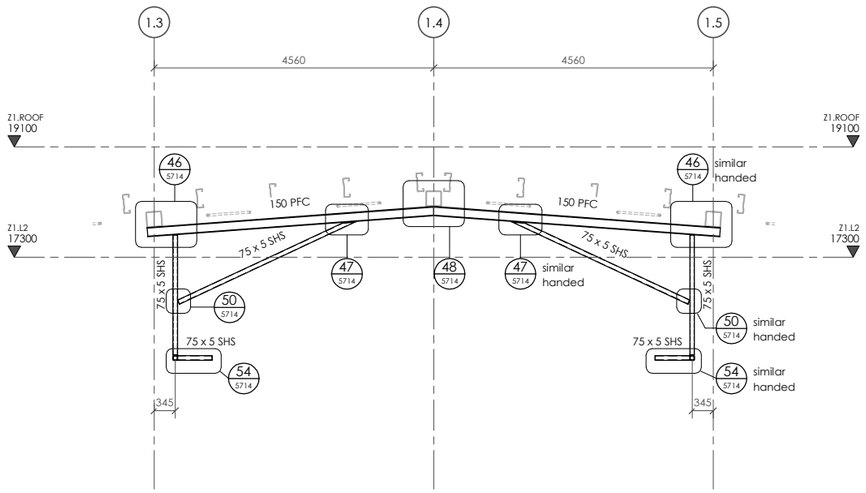
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.





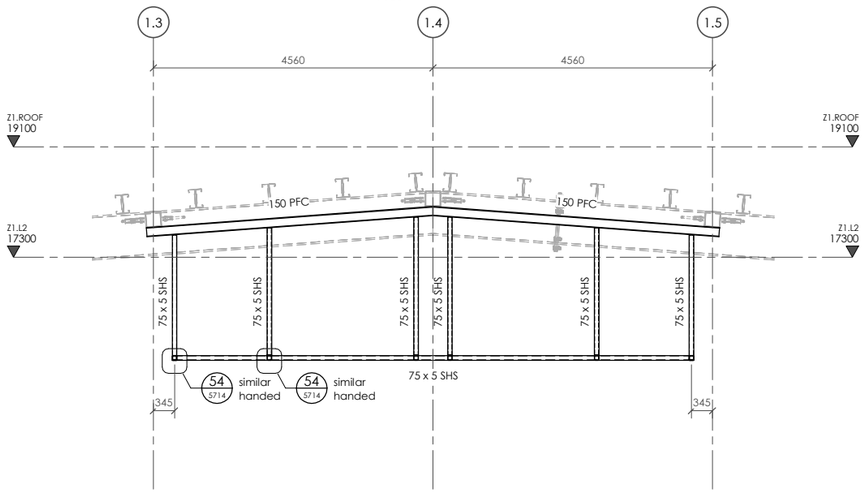


3 1202
1 : 50



5 1122
1 : 50

4 1122
1 : 50



6 1121
1 : 50

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REV	DATE	AMENDMENT	BY
1	25.10.19	CONSENT ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

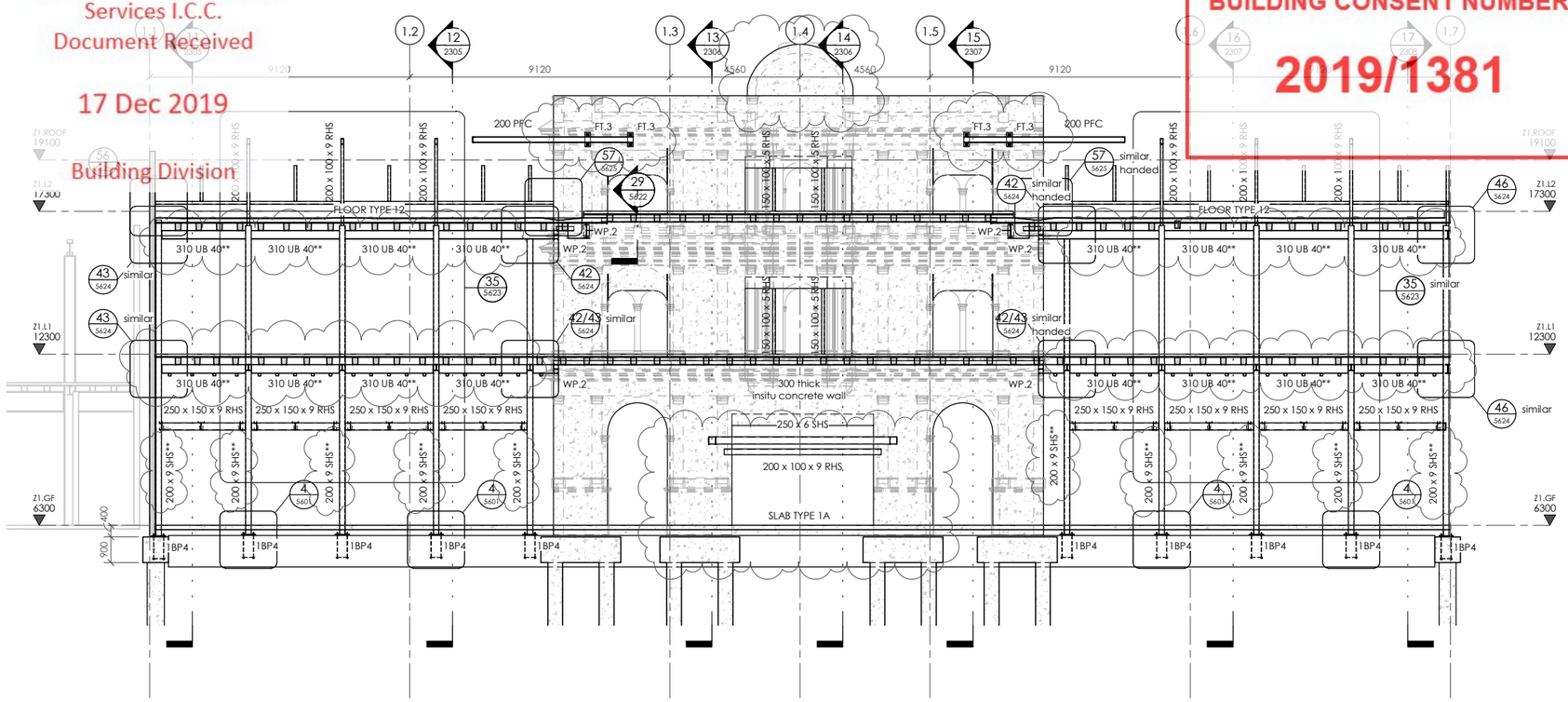
DRAWING TITLE:
ROOF
CENTRAL CEILING
STRUCTURE

DRAWN: GPW	SCALE:
ENGINEER: EL/TSS	1 : 50 at A1
CHECKED: _	

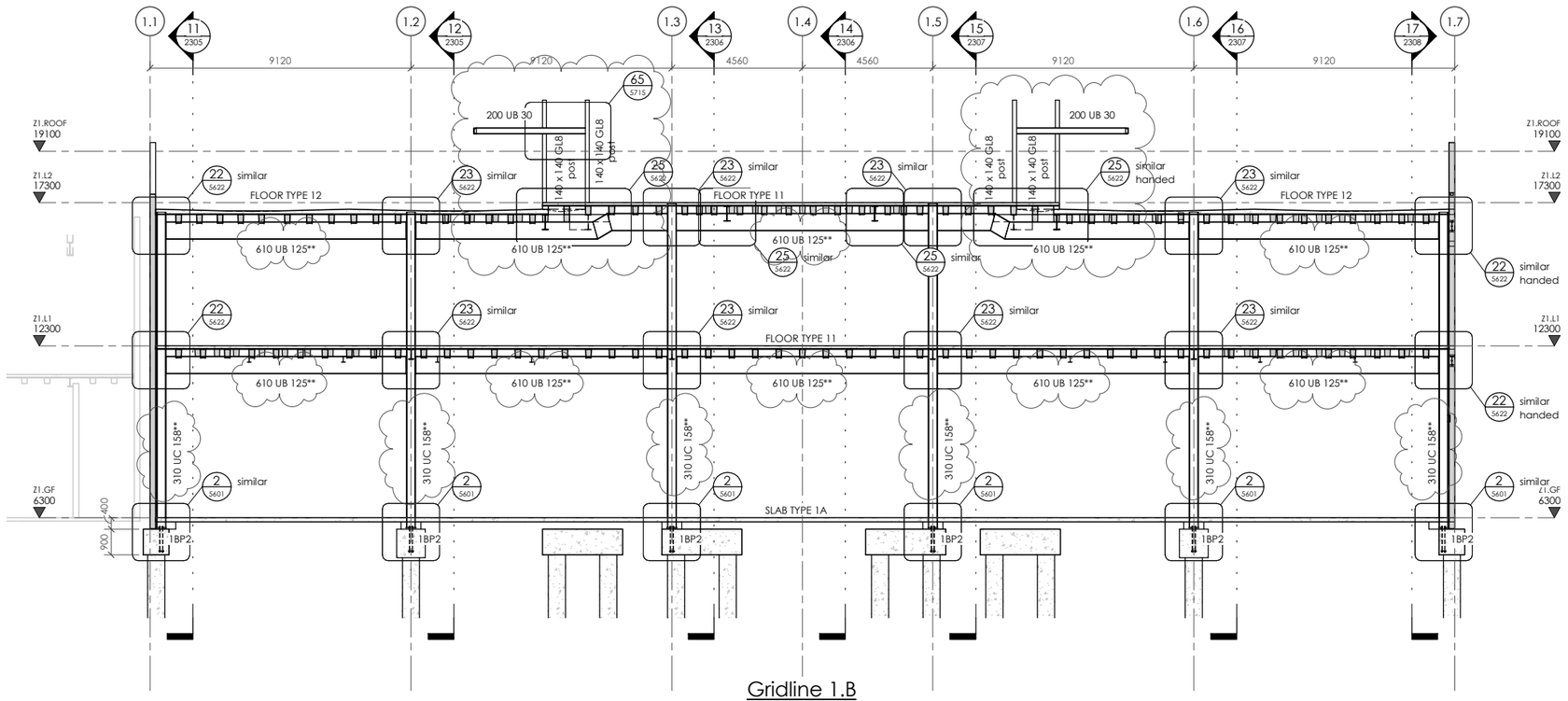
118083-Z1-WD-ST 1206 | REV. 1

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER
2019/1381



Gridline 1.A
1 : 100 at A1
1
1103



Gridline 1.B
1 : 100 at A1
2
1103

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

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27/02/2020

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FRAME ELEVATIONS
GRIDLINES 1.A & 1.B

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2300	REV. 2

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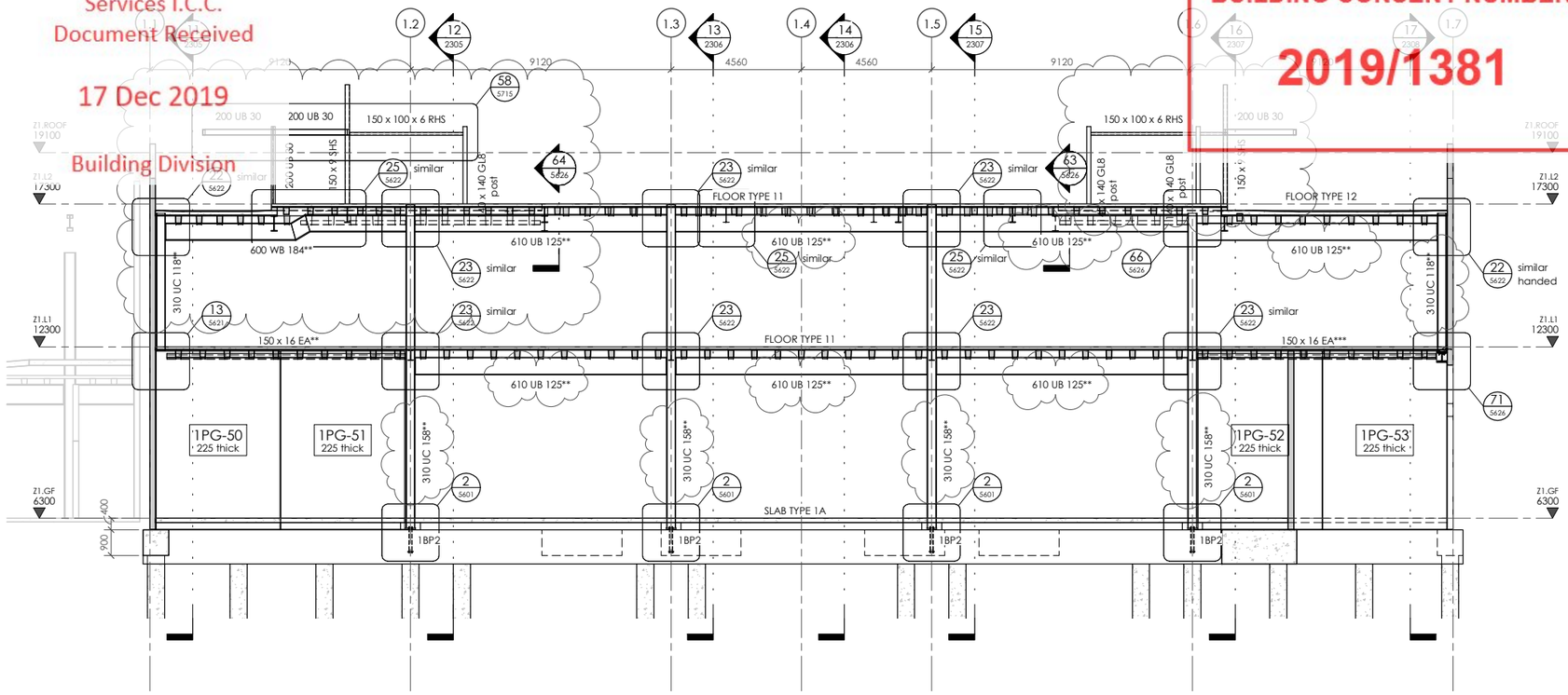
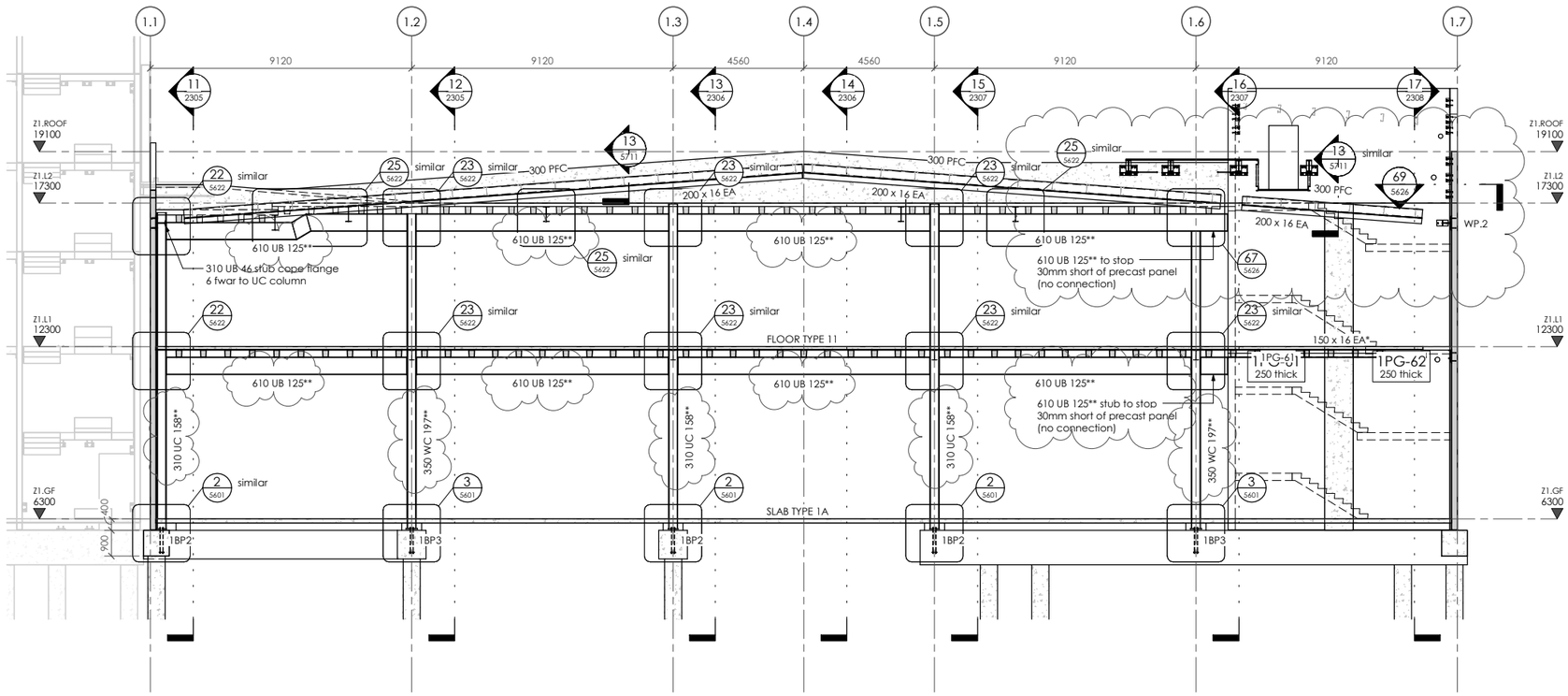


Gridline 1.C
1 : 100 at A1
3 / 1103



Gridline 1.D
1 : 100 at A1
4 / 1103

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
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CLIENT: HWCP

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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FRAME ELEVATIONS
GRIDLINES 1.C & 1.D

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2301 REV. 2

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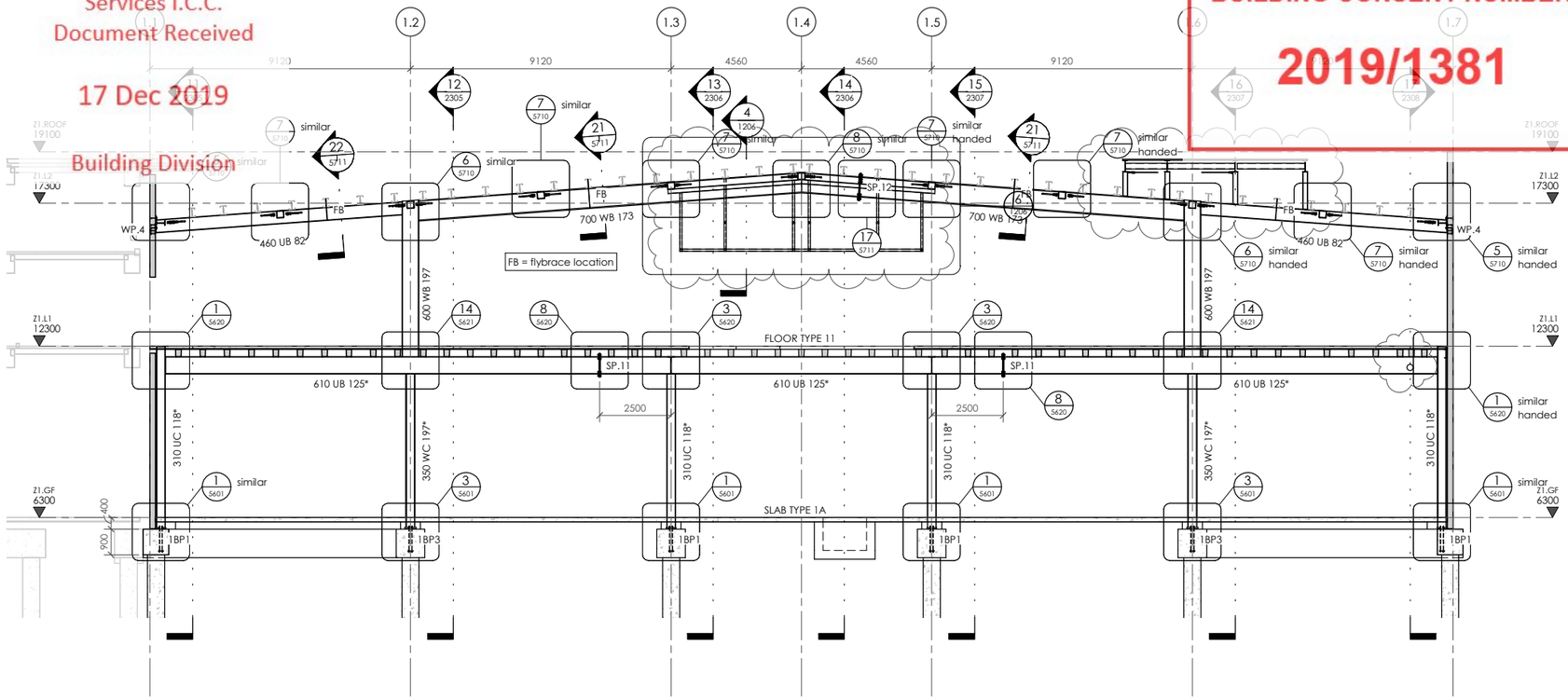
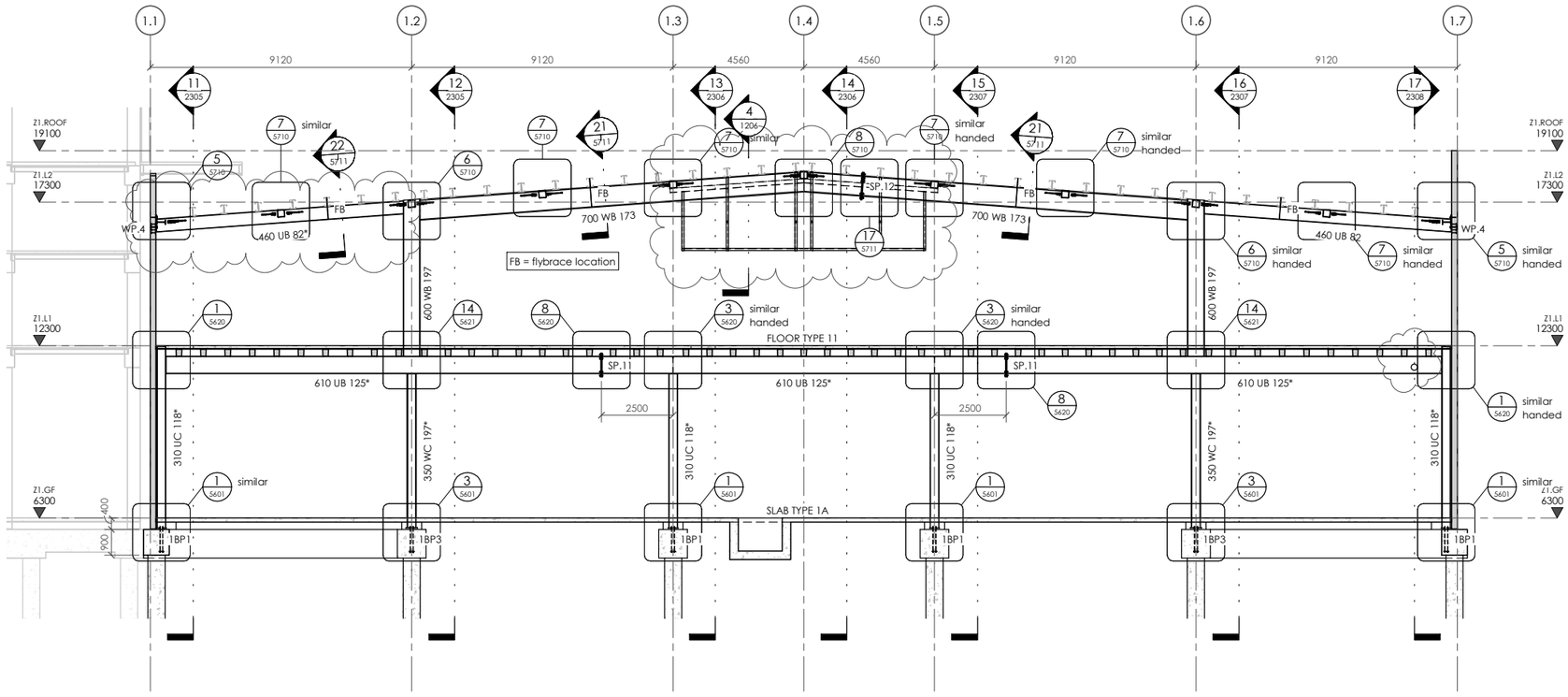


Gridline 1.E

1 : 100 at A1



Gridline 1.F

1 : 100 at A1

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:

INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:

FRAME ELEVATIONS
GRIDLINES 1.E & 1.F

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2302 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9098 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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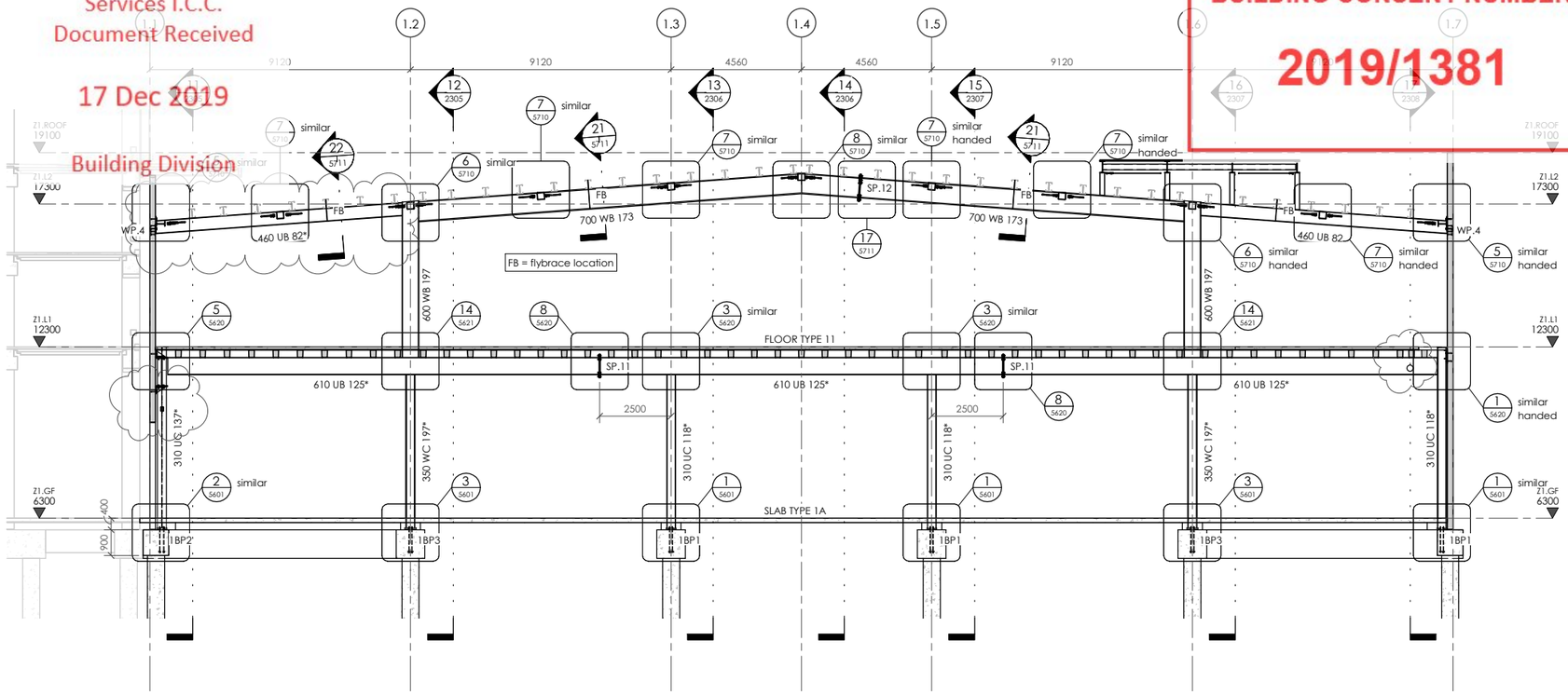
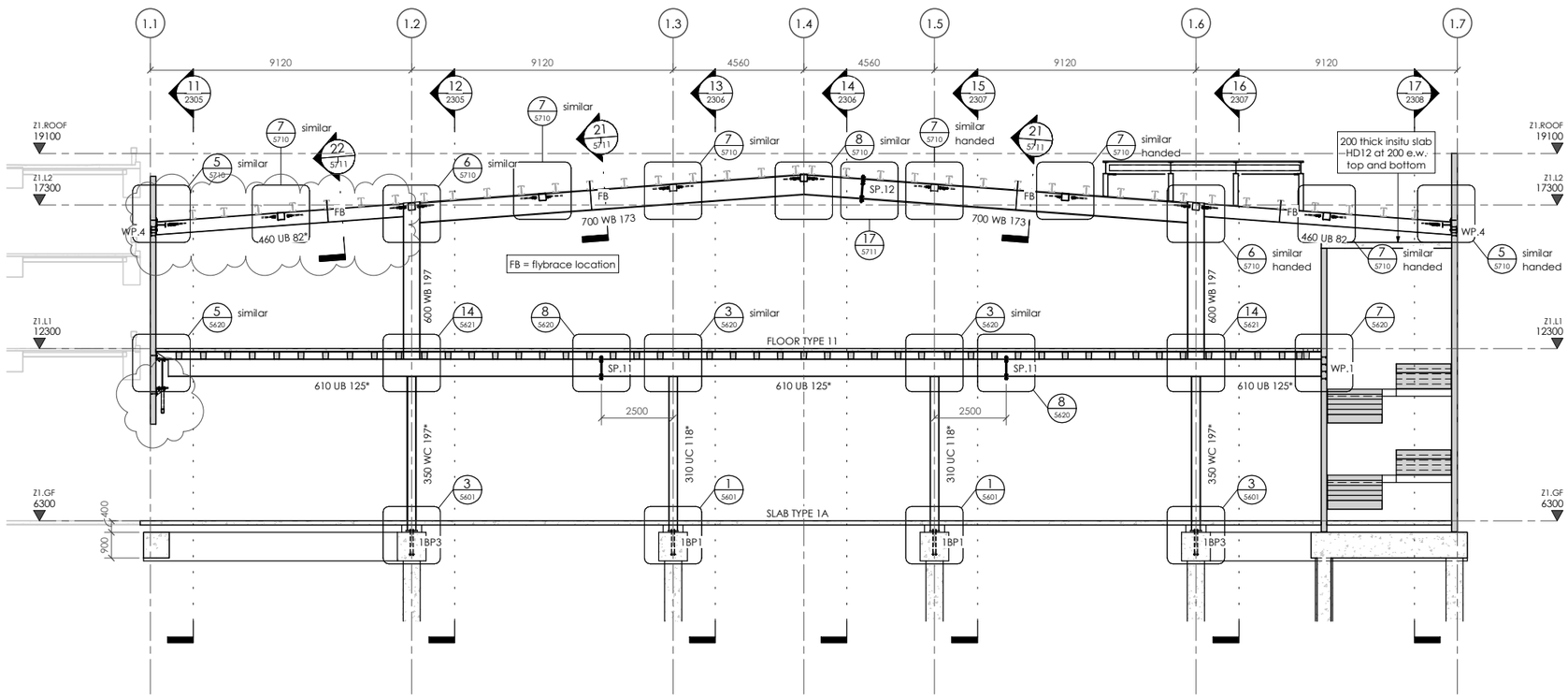


Gridline 1.G
1 : 100 at A1
7 / 1103



Gridline 1.H
1 : 100 at A1
8 / 1103

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

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REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FRAME ELEVATIONS
GRIDLINES 1.G & 1.H

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2303	REV. 2

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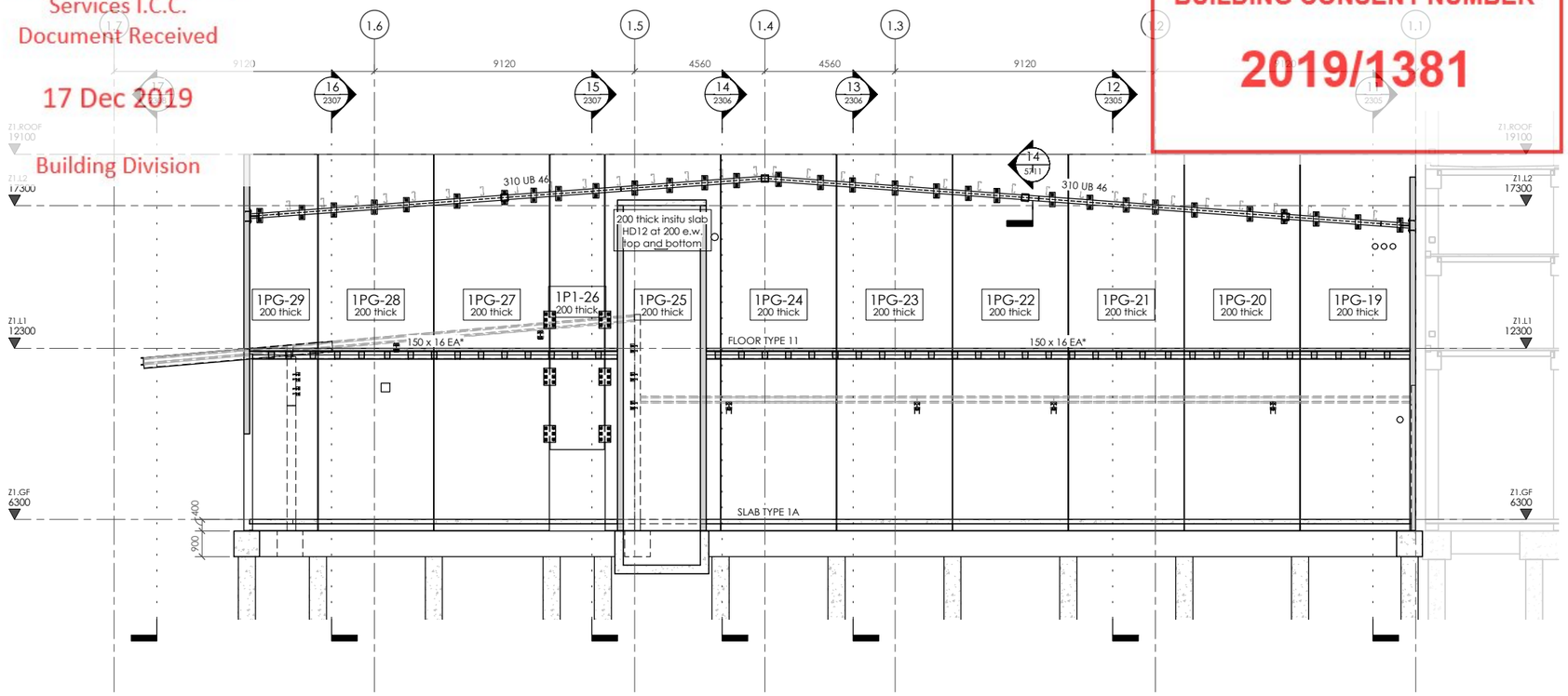
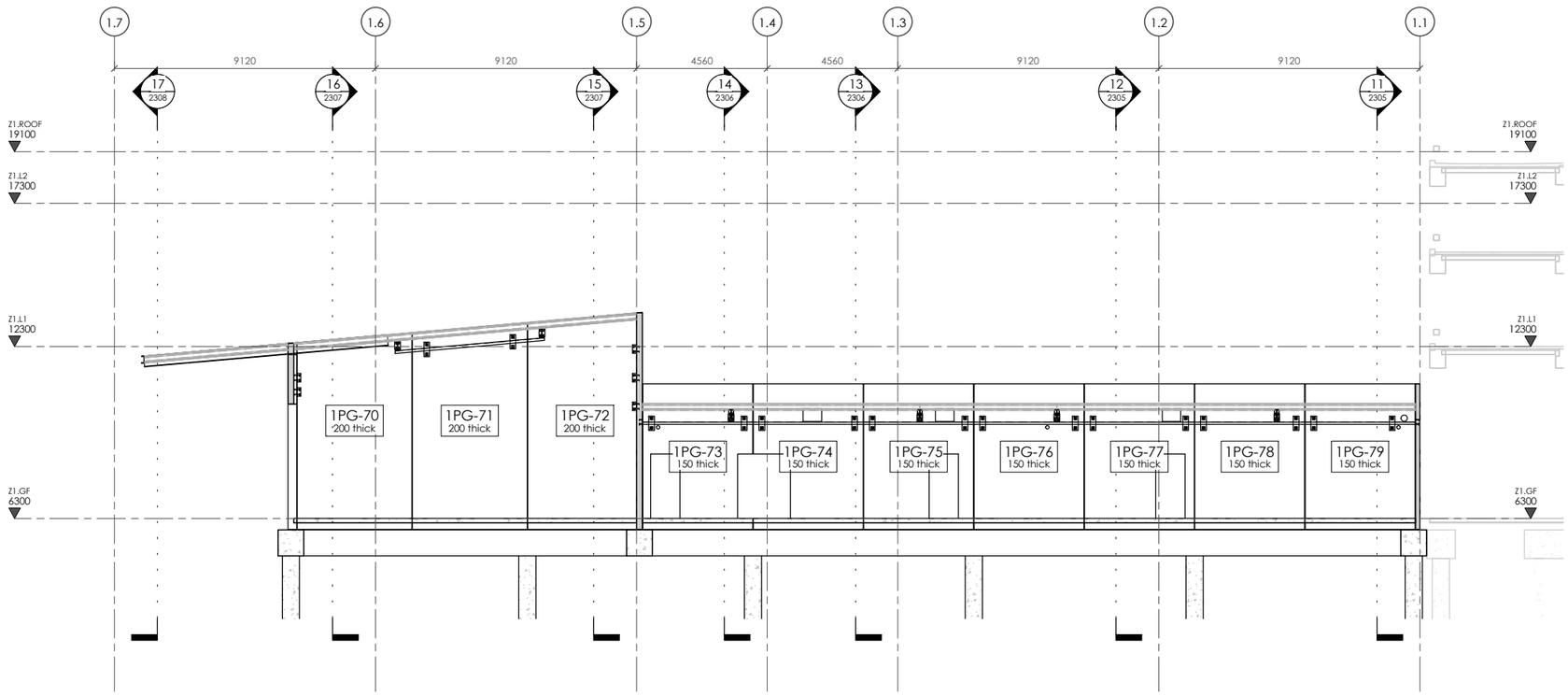


Gridline 1.J

1 : 100 at A1

9 / 1103



Near Gridline 1.J

1 : 100 at A1

10 / 1103

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FRAME ELEVATIONS
GRIDLINE 1.J

DRAWN: GPW	SCALE: 1 : 100 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2304 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2191, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

2019/1381

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
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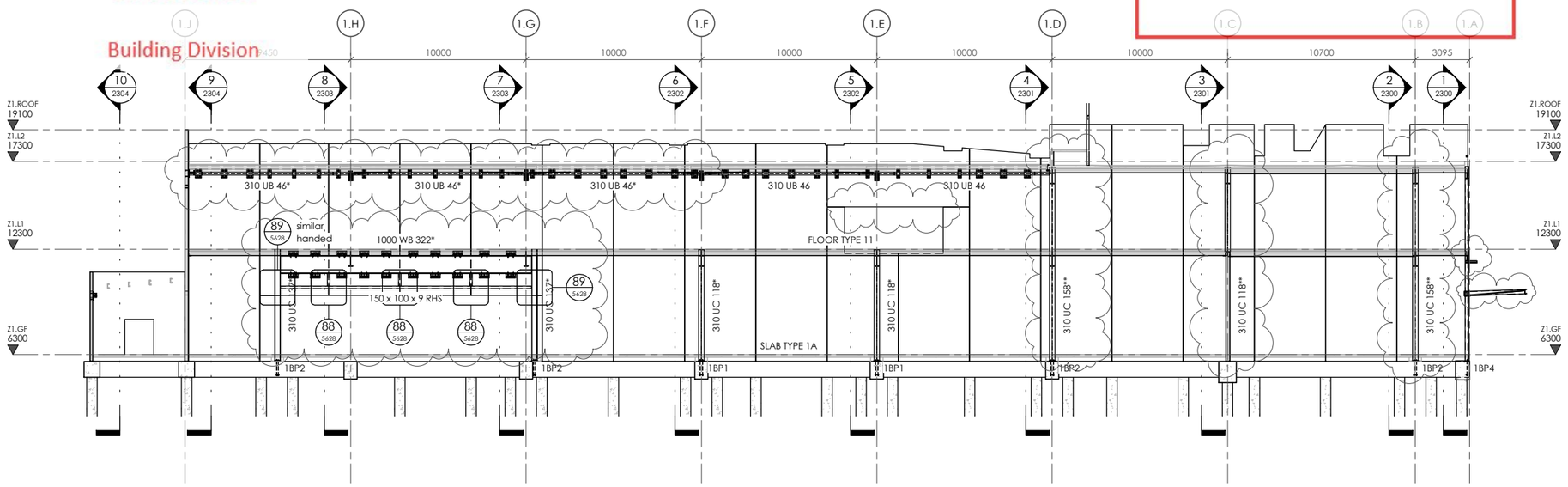
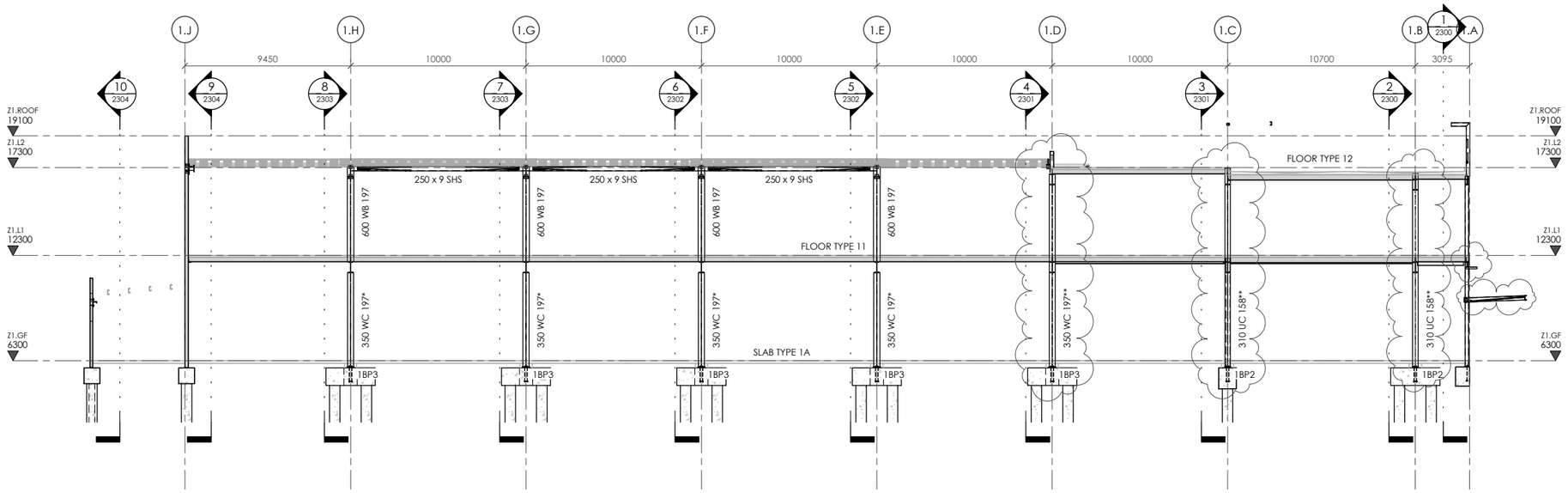
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



Gridline 1.1
1 : 150 at A1
11 1103



Gridline 1.2
1 : 150 at A1
12 1103

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FRAME ELEVATIONS
GRIDLINES 1.1 & 1.2

DRAWN: GPW	SCALE: 1 : 150 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2305 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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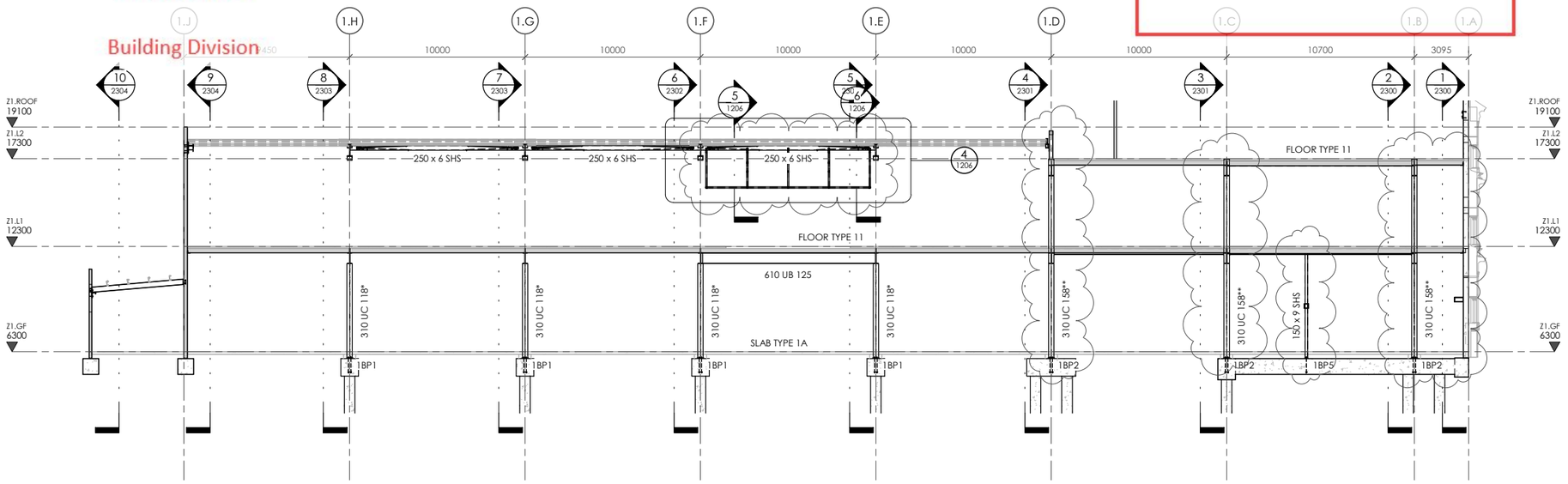
BUILDING CONSENT NUMBER

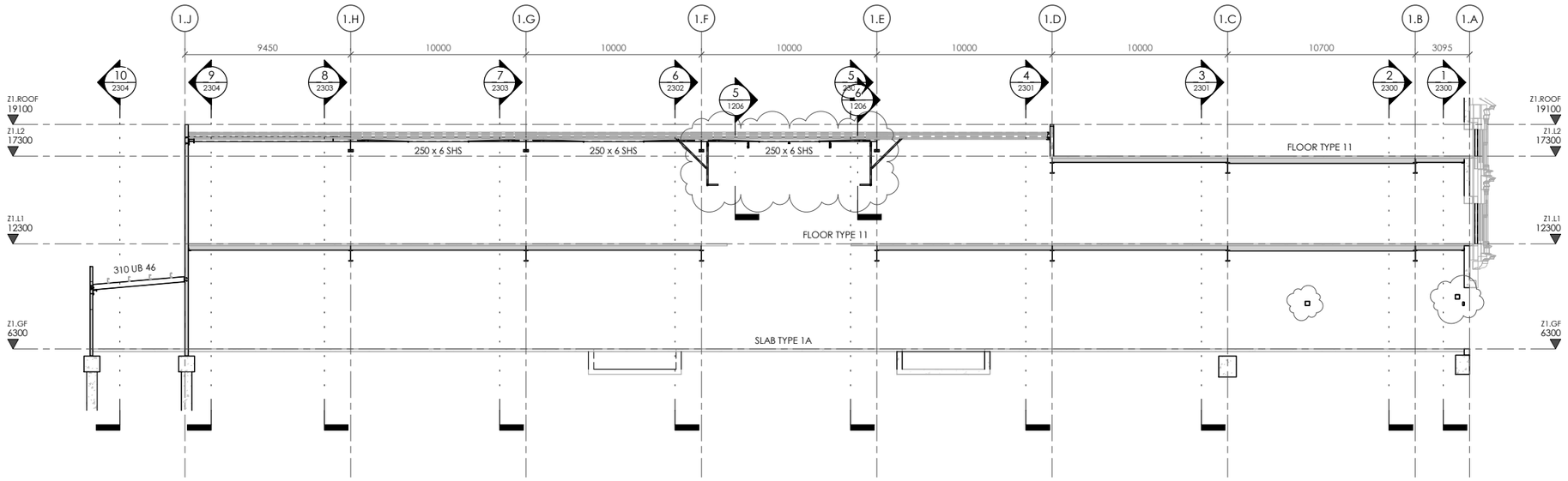
2019/1381



Gridline 1.3

1 : 150 at A1

13 / 1103



Gridline 1.4

1 : 150 at A1

14 / 1103

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:

INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:

FRAME ELEVATIONS
GRIDLINES 1.3 & 1.4

DRAWN: GPW	SCALE: 1 : 150 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2306 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

2019/1381

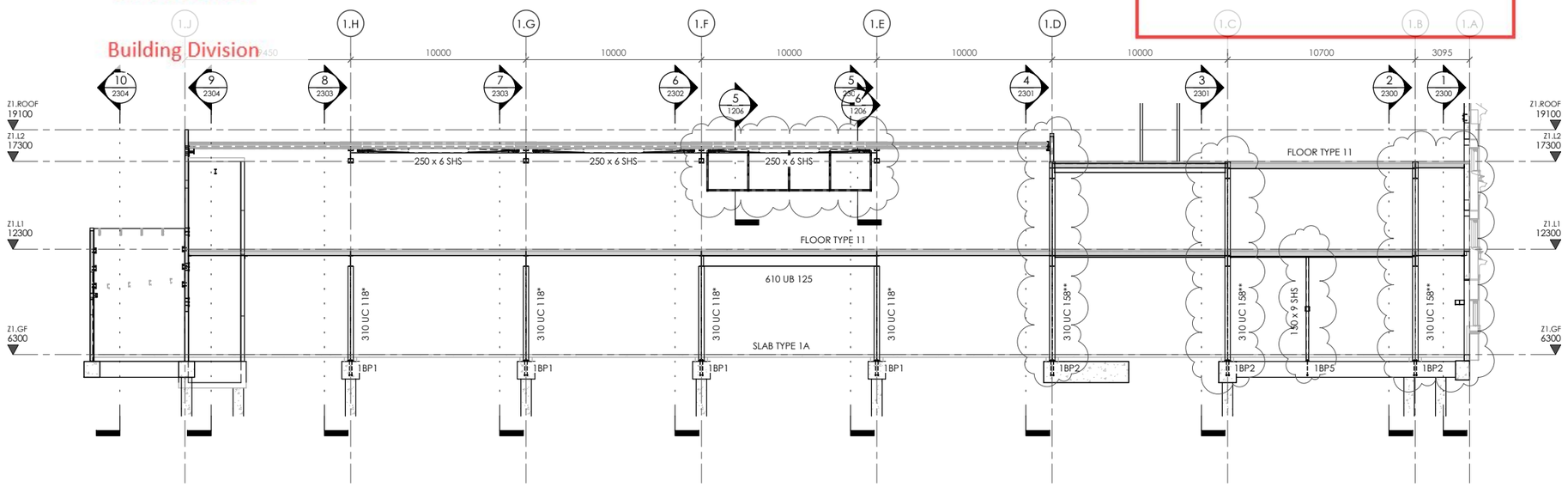
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

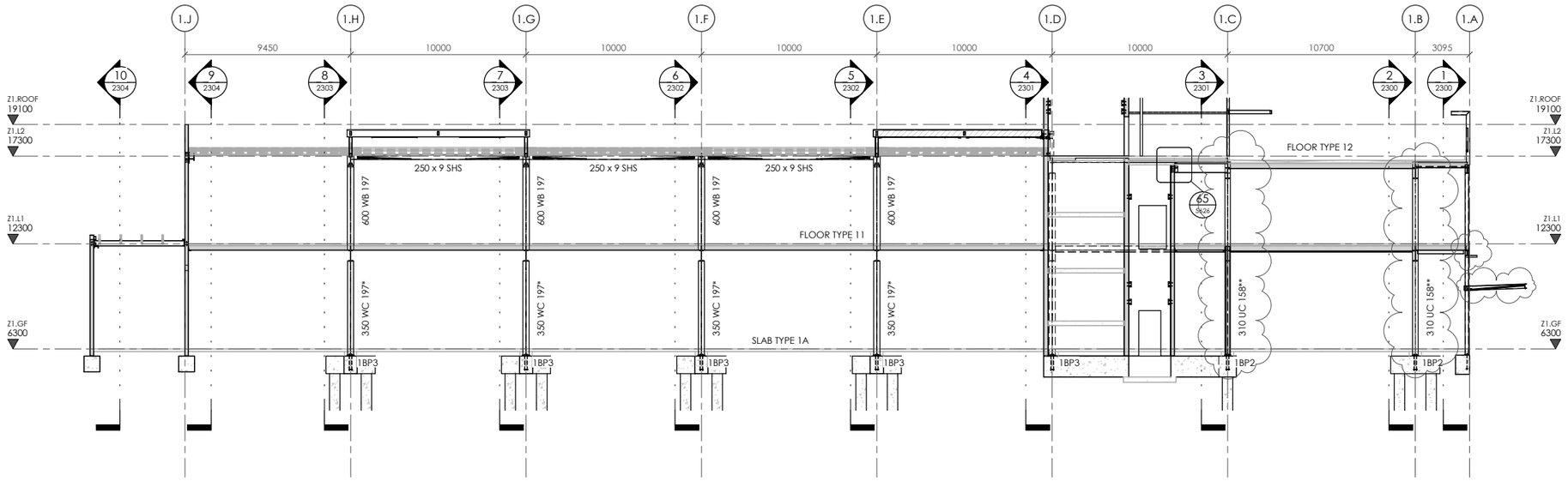
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



Gridline 1.5
1 : 150 at A1
15 / 1103



Gridline 1.6
1 : 150 at A1
16 / 1103

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
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CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FRAME ELEVATIONS
GRIDLINES 1.5 & 1.6

DRAWN: GPW	SCALE: 1 : 150 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2307 REV. 2

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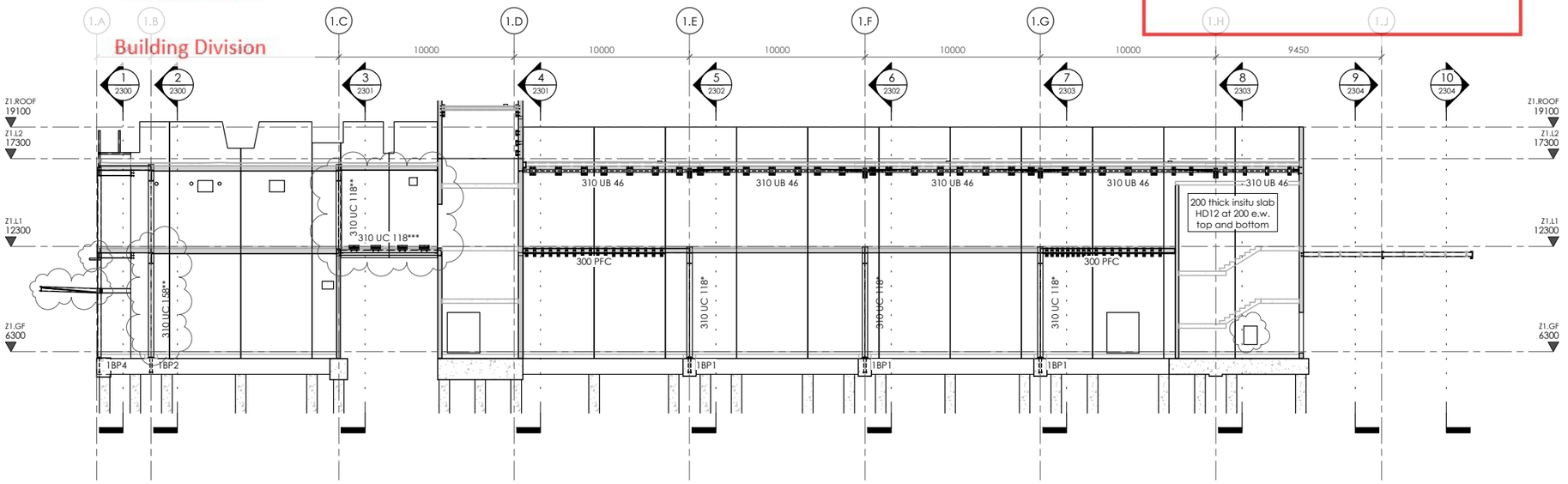
BUILDING CONSENT NUMBER

2019/1381



Gridline 1.7

1 : 150 at A1

17
1103

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

Approved For Issue
27/02/2020

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FRAME ELEVATIONS
GRIDLINE 1.7

DRAWN: GPW	SCALE: 1 : 150 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2308	REV. 2

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Environmental & Planning
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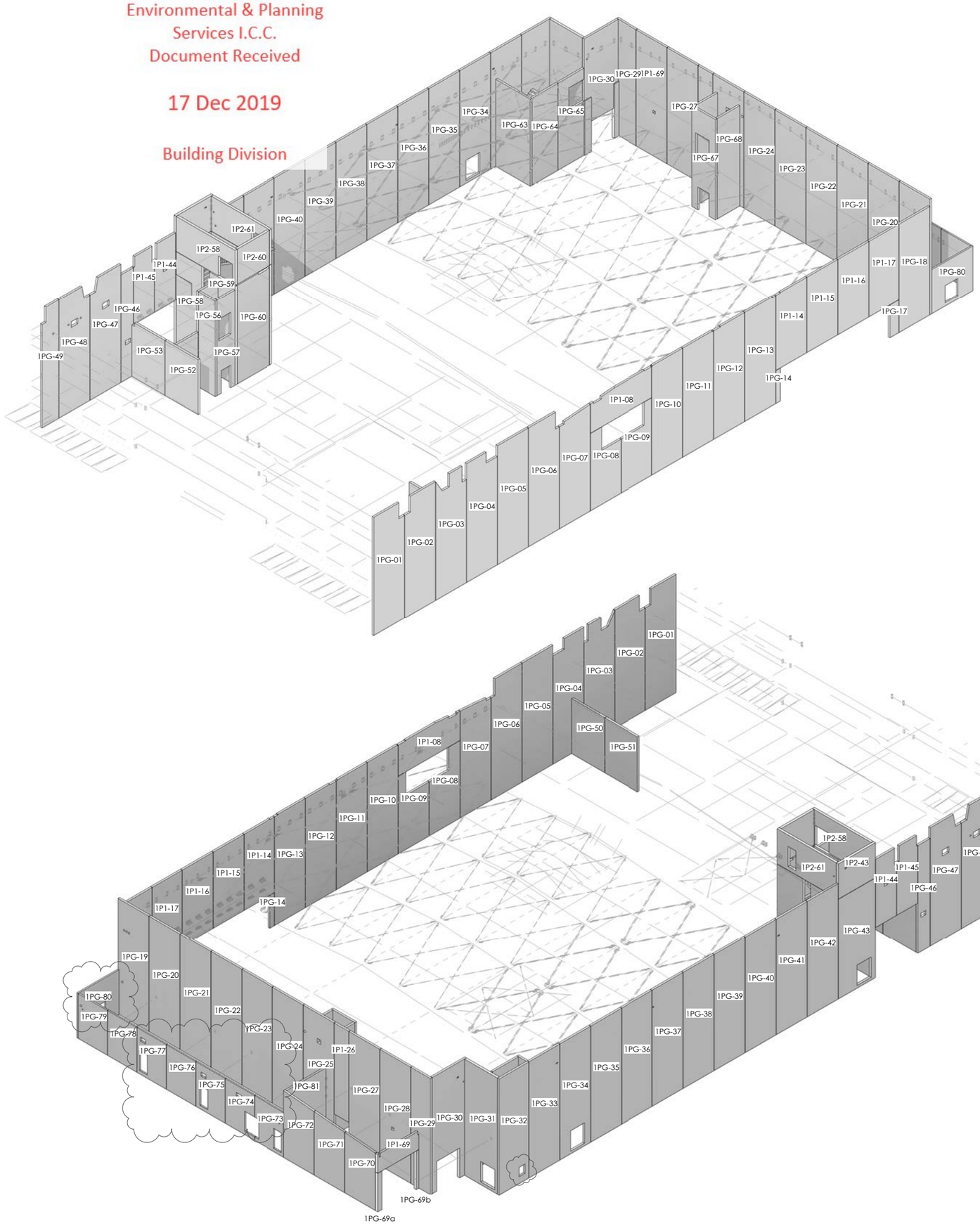
Document Received

17 Dec 2019

Building Division

BUILDING CONSENT NUMBER

2019/1381



PRECAST PANEL SCHEDULE

Panel Reference	Width	Length	Height	Volume	Mass
1PG-01	200	4040	13485	10.63 m³	26042.23 kg
1PG-02	200	4040	13485	10.63 m³	26042.23 kg
1PG-03	200	4040	13485	10.28 m³	25191.26 kg
1PG-04	200	4040	13485	10.54 m³	25824.67 kg
1PG-05	200	4040	13485	10.90 m³	26694.91 kg
1PG-06	200	4040	12385	10.70 m³	26224.32 kg
1PG-07	200	4040	12385	9.62 m³	23580.26 kg
1PG-08	200	4040	8795	5.74 m³	14073.37 kg
1PG-09	200	4040	8795	5.47 m³	13412.38 kg
1PG-10	200	4040	12385	10.01 m³	24514.43 kg
1PG-11	200	4040	12385	10.00 m³	24511.69 kg
1PG-12	200	4040	12385	9.99 m³	24487.68 kg
1PG-13	200	4040	12385	10.00 m³	24502.43 kg
1PG-14	200	592	3734	0.44 m³	1083.07 kg
1PG-17	200	1165	3734	0.87 m³	2131.38 kg
1PG-18	200	4040	12385	10.01 m³	24517.35 kg
1PG-19	200	4040	13185	10.63 m³	26036.22 kg
1PG-20	200	4040	13185	10.65 m³	26101.03 kg
1PG-21	200	4040	13185	10.65 m³	26101.03 kg
1PG-22	200	4040	13185	10.65 m³	26101.03 kg
1PG-23	200	4040	13185	10.65 m³	26101.03 kg
1PG-24	200	4040	13185	10.65 m³	26101.03 kg
1PG-25	200	4040	13185	10.60 m³	25977.75 kg
1PG-27	200	4040	13185	10.65 m³	26101.03 kg
1PG-28	200	4040	13185	10.64 m³	26056.93 kg
1PG-29	200	2582	13185	6.81 m³	16680.75 kg
1PG-30	200	4480	13185	9.78 m³	23950.95 kg
1PG-30	100	4480	6165	0.91 m³	2235.43 kg
1PG-31	250	4310	13185	13.14 m³	32198.85 kg
1PG-32	200	3891	13185	10.10 m³	24743.65 kg
1PG-33	200	4040	13185	10.65 m³	26089.76 kg
1PG-34	200	4040	13185	9.81 m³	24044.06 kg
1PG-35	200	4040	13185	10.65 m³	26101.03 kg
1PG-36	200	4040	13185	10.65 m³	26101.03 kg
1PG-37	200	4040	13185	10.65 m³	26089.76 kg
1PG-38	200	4040	13185	10.65 m³	26101.03 kg
1PG-39	200	4040	13185	10.65 m³	26101.03 kg
1PG-40	200	4040	13185	10.65 m³	26101.03 kg
1PG-41	200	4040	13185	10.65 m³	26089.76 kg
1PG-42	200	4040	13185	10.65 m³	26101.03 kg
1PG-43	250	4850	11385	12.74 m³	31212.67 kg
1PG-46	200	1615	12285	3.91 m³	9578.41 kg
1PG-47	200	4040	13485	10.52 m³	25770.03 kg
1PG-48	200	4040	13485	10.51 m³	25745.09 kg
1PG-49	200	2195	13485	5.74 m³	14057.43 kg
1PG-50	225	4340	6235	6.09 m³	14916.77 kg
1PG-51	225	4340	6235	6.09 m³	14916.77 kg
1PG-52	225	4340	6235	6.09 m³	14916.77 kg
1PG-53	225	4340	6235	6.06 m³	14840.34 kg
1PG-54	200	2899	6235	3.62 m³	8856.88 kg
1PG-55	200	2580	10885	5.58 m³	13661.59 kg
1PG-56	200	2205	10885	4.80 m³	11760.70 kg
1PG-57	200	2360	10885	3.71 m³	9095.49 kg
1PG-58	250	3363	11385	8.27 m³	20268.00 kg
1PG-59	250	3363	11385	9.47 m³	23210.92 kg
1PG-60	250	4310	11385	12.09 m³	29608.98 kg
1PG-61	250	3363	11385	9.57 m³	23447.76 kg
1PG-62	250	3363	11385	9.57 m³	23434.67 kg
1PG-63	200	4530	9885	8.96 m³	21941.73 kg
1PG-64	200	3400	9885	6.72 m³	16468.41 kg
1PG-65	200	3400	9885	5.73 m³	14031.01 kg
1PG-66	200	2960	11385	6.74 m³	16512.80 kg
1PG-67	200	3100	11385	5.42 m³	13282.80 kg
1PG-68	200	2960	11385	6.74 m³	16512.80 kg
1PG-69a	300	550	4370	0.72 m³	1766.57 kg
1PG-69b	300	330	4370	0.43 m³	1059.94 kg
1PG-70	200	4005	7485	5.36 m³	13137.77 kg
1PG-71	200	4005	7485	5.64 m³	13827.38 kg
1PG-72	200	4005	7485	5.93 m³	14527.93 kg
1PG-73	150	3836	5085	2.40 m³	5875.95 kg
1PG-74	150	3836	5085	2.44 m³	5985.85 kg
1PG-75	150	3836	5085	2.54 m³	6212.22 kg
1PG-76	150	3836	5085	2.92 m³	7163.79 kg
1PG-77	150	3836	5085	2.54 m³	6212.22 kg
1PG-78	150	3836	5085	2.93 m³	7167.94 kg
1PG-79	150	3836	5085	2.92 m³	7149.81 kg
1PG-80	150	5380	5085	3.61 m³	8835.18 kg
1PG-81	200	5160	7565	7.81 m³	19127.85 kg
1P1-14	200	4040	8636	6.97 m³	17076.01 kg
1P1-15	200	4040	8636	6.98 m³	17096.42 kg
1P1-16	200	4040	8636	6.98 m³	17096.42 kg
1P1-17	200	3905	8636	6.74 m³	16525.13 kg
1P1-26	200	1908	10346	3.95 m³	9672.51 kg
1P1-44	200	2740	7735	4.10 m³	10045.31 kg
1P1-45	200	2740	7735	4.09 m³	10024.88 kg
1P1-69	200	5380	2115	2.25 m³	5524.41 kg
1P1-69	100	550	2115	0.10 m³	250.57 kg
1P1-69	100	330	1714	0.06 m³	138.54 kg
1P1-08	200	8100	3590	5.67 m³	13892.57 kg
1P2-43	250	4850	3985	4.83 m³	11823.76 kg
1P2-58	250	7725	3985	6.66 m³	16320.80 kg
1P2-60	250	4310	3985	4.29 m³	10519.90 kg
1P2-61	250	7725	3985	7.11 m³	17417.49 kg
Grand total: 93					

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also 5300 & 5310 series drawings for precast panel details

Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner

Invercargill City Council
Building Consent Authority
Approved Site Copy

Approved For Issue 27/02/2020

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

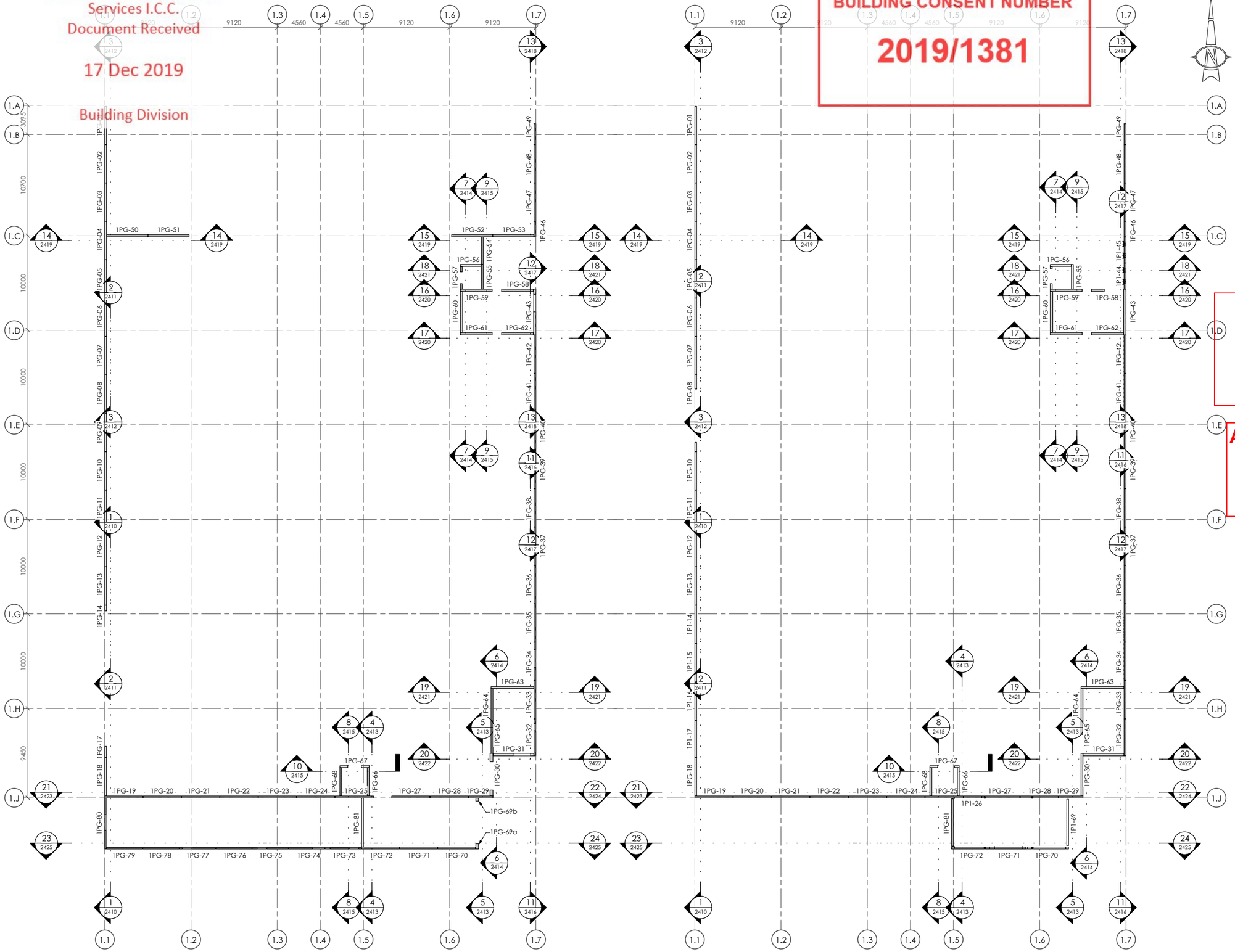
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
3D VIEW

DRAWN: GPW	SCALE: at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2400	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9097 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER
2019/1381



GROUND FLOOR - PRECAST PANEL PLAN
1 : 200

LEVEL 1 - PRECAST PANEL PLAN
1 : 200

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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Refer also to Structural Specification.

Refer also 5300 & 5310 series drawings for precast panel details

Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner

Invercargill City Council
Building Consent Authority
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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL PLANS
GROUND FLOOR
FIRST FLOOR

DRAWN: GPW	SCALE: 1 : 200 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2401	REV. 2

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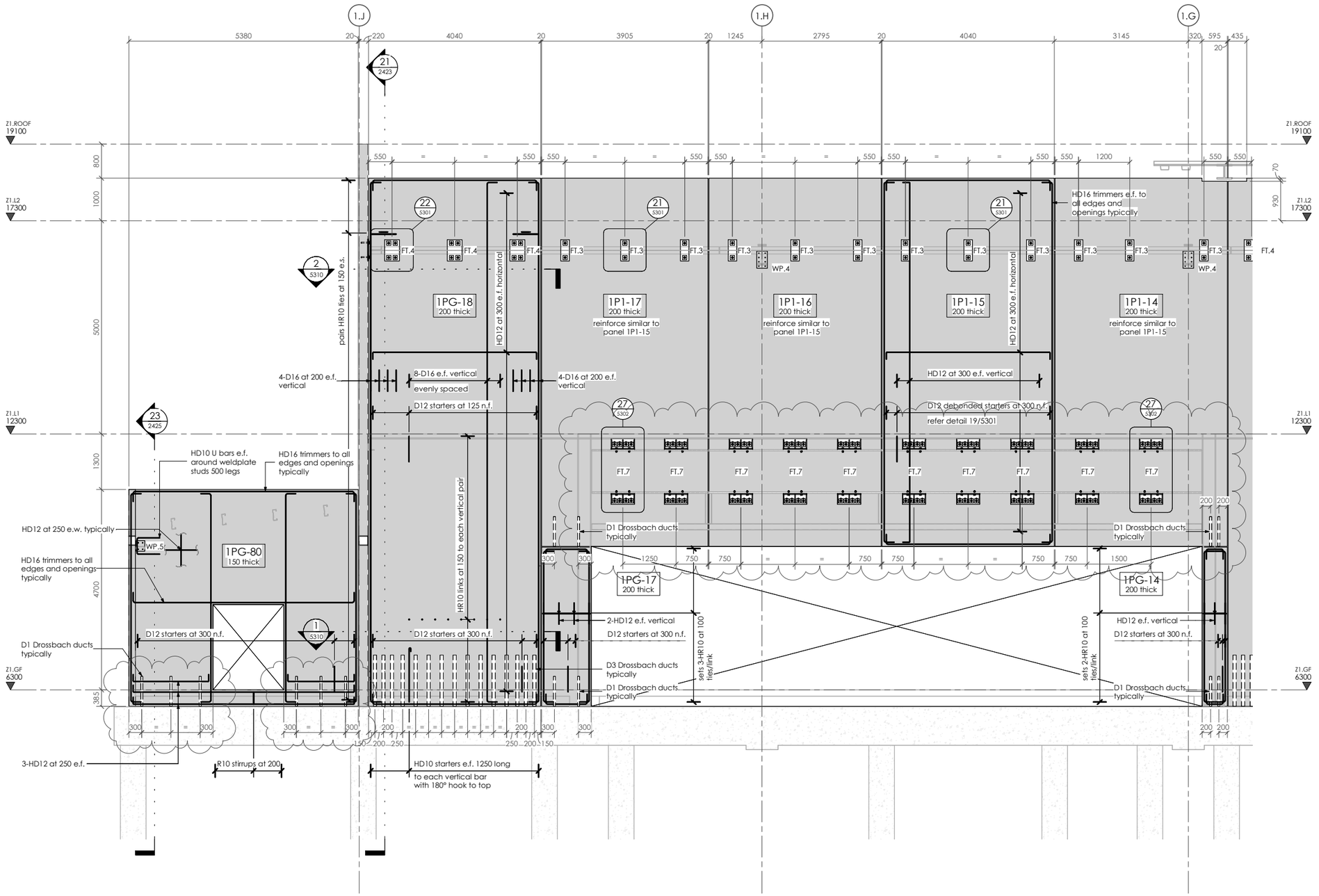

PANEL ELEVATIONS - Gridline 1.1 - Part 1

1 : 50 at A1

(1 / 2401)

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also 5300 & 5310 series drawings for precast panel details

Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner

REV	DATE	AMENDMENT	BY
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PROJECT:

INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:

PRECAST PANEL
ELEVATIONS
GRIDLINE 1.1 – PART 1

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: –	

118083-Z1-WD-ST 2410 REV. 2

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BUILDING CONSENT NUMBER

2019/1381

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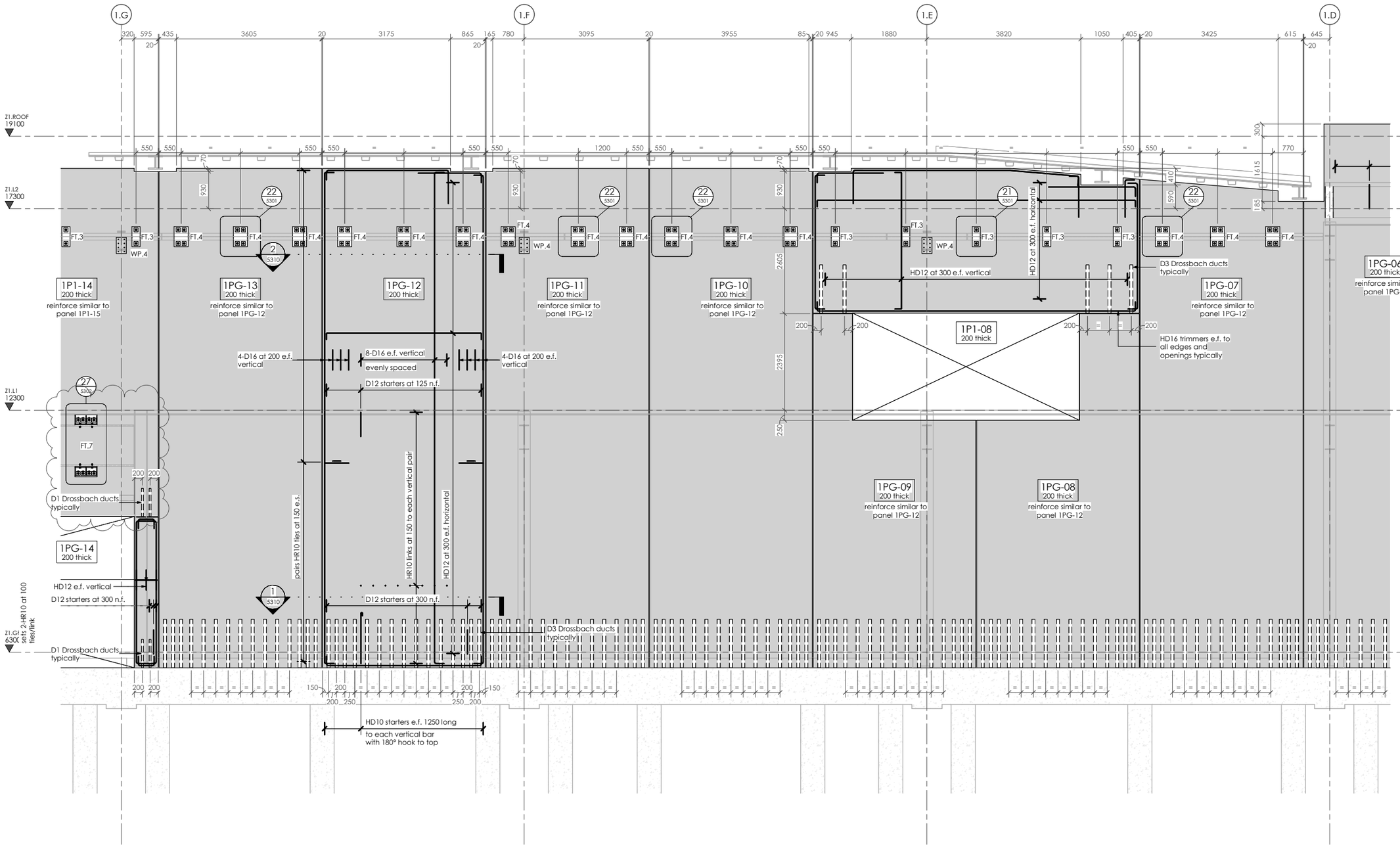
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also 5300 & 5310 series drawings for precast panel details

Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner



PANEL ELEVATIONS - Gridline 1.1 - Part 2

1 : 50 at A1

(2 / 2401)

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REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
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CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL ELEVATIONS
GRIDLINE 1.1 – PART 2

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: –	

118083-Z1-WD-ST 2411 REV. 2

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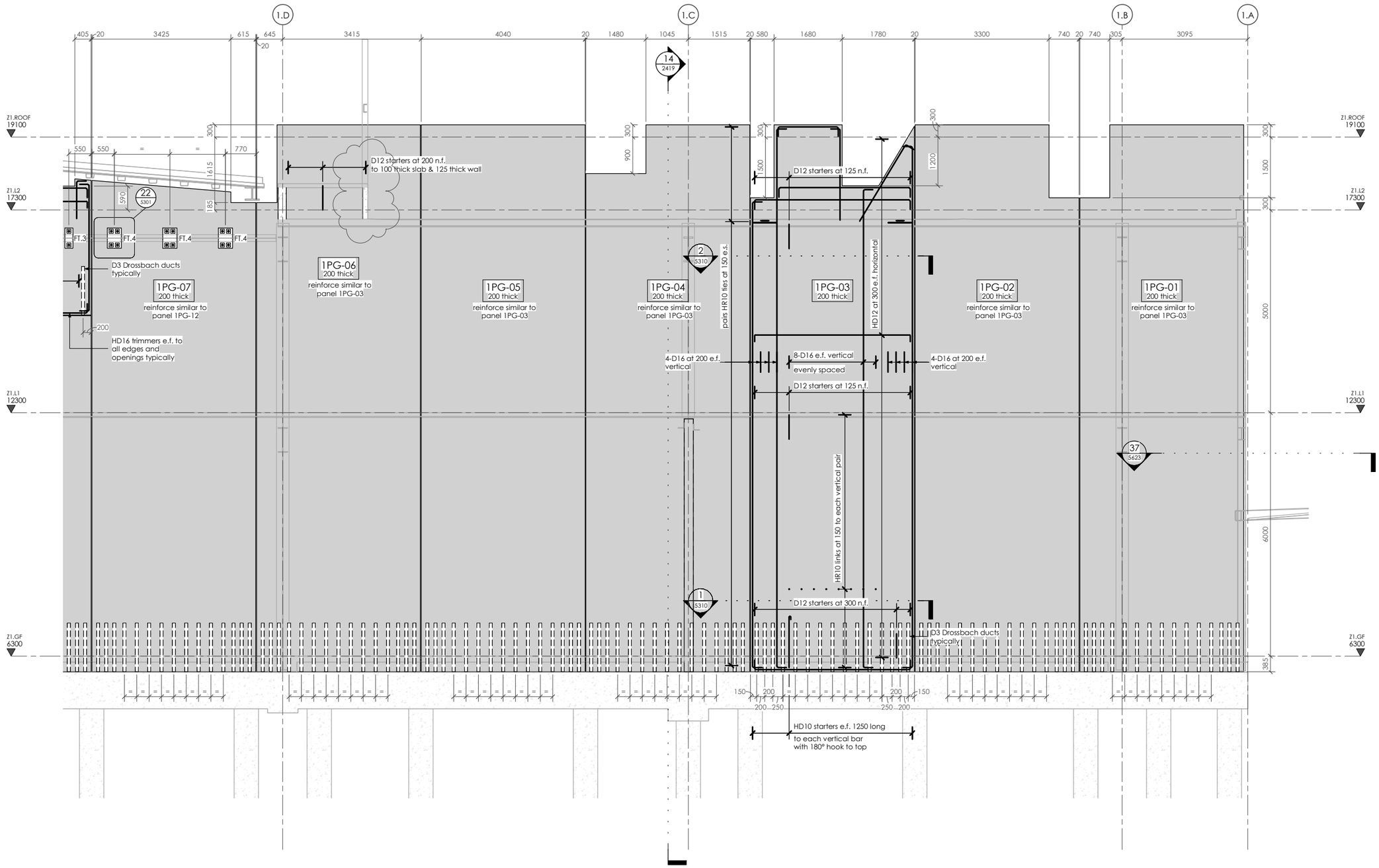
BUILDING CONSENT NUMBER

2019/1381



PANEL ELEVATIONS - Gridline 1.1 - Part 3

1 : 50 at A1

3 2401

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REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also 5300 & 5310 series drawings for precast panel details

Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL ELEVATIONS GRIDLINE 1.1 – PART 3

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2412	REV. 2

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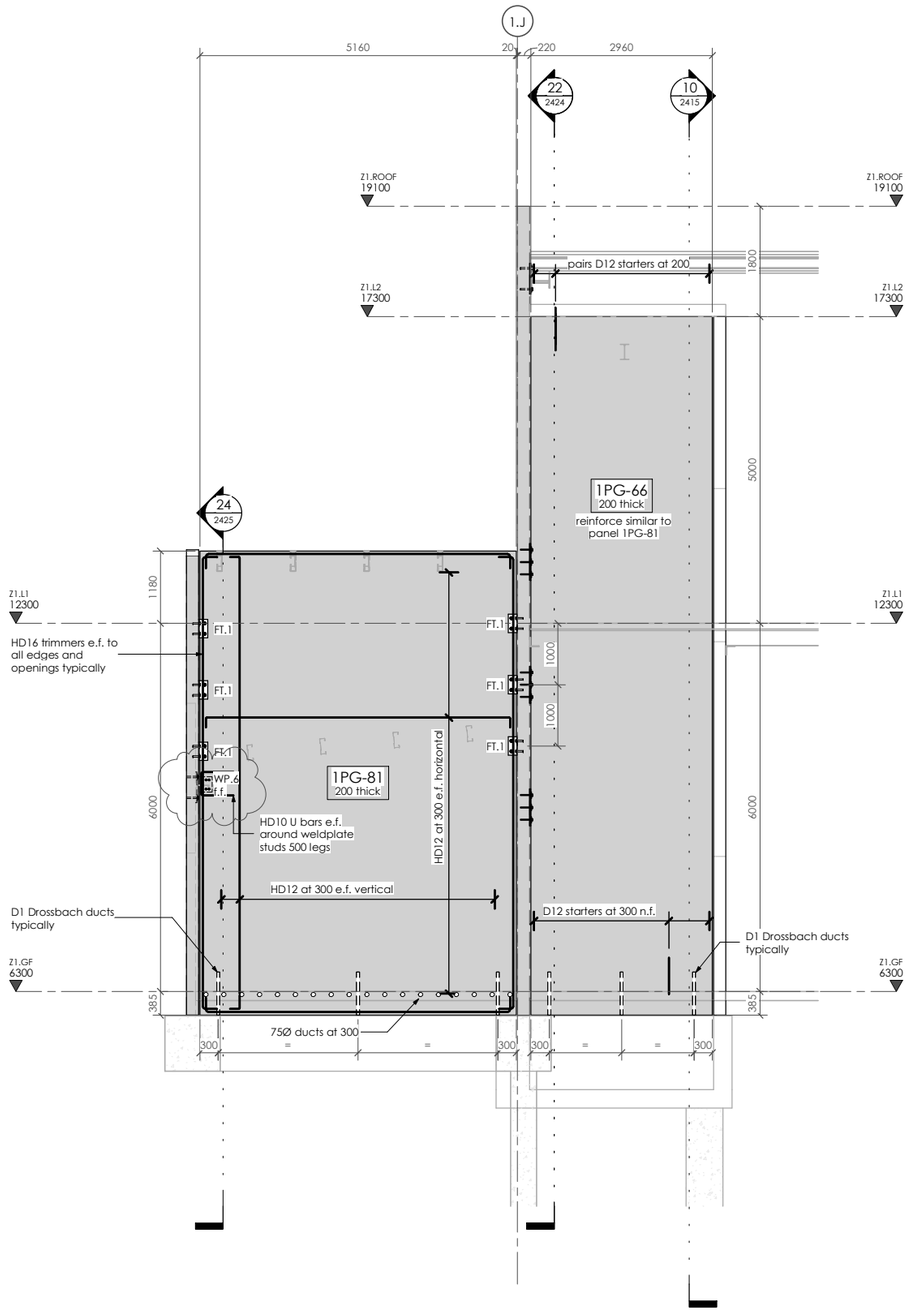
BUILDING CONSENT NUMBER

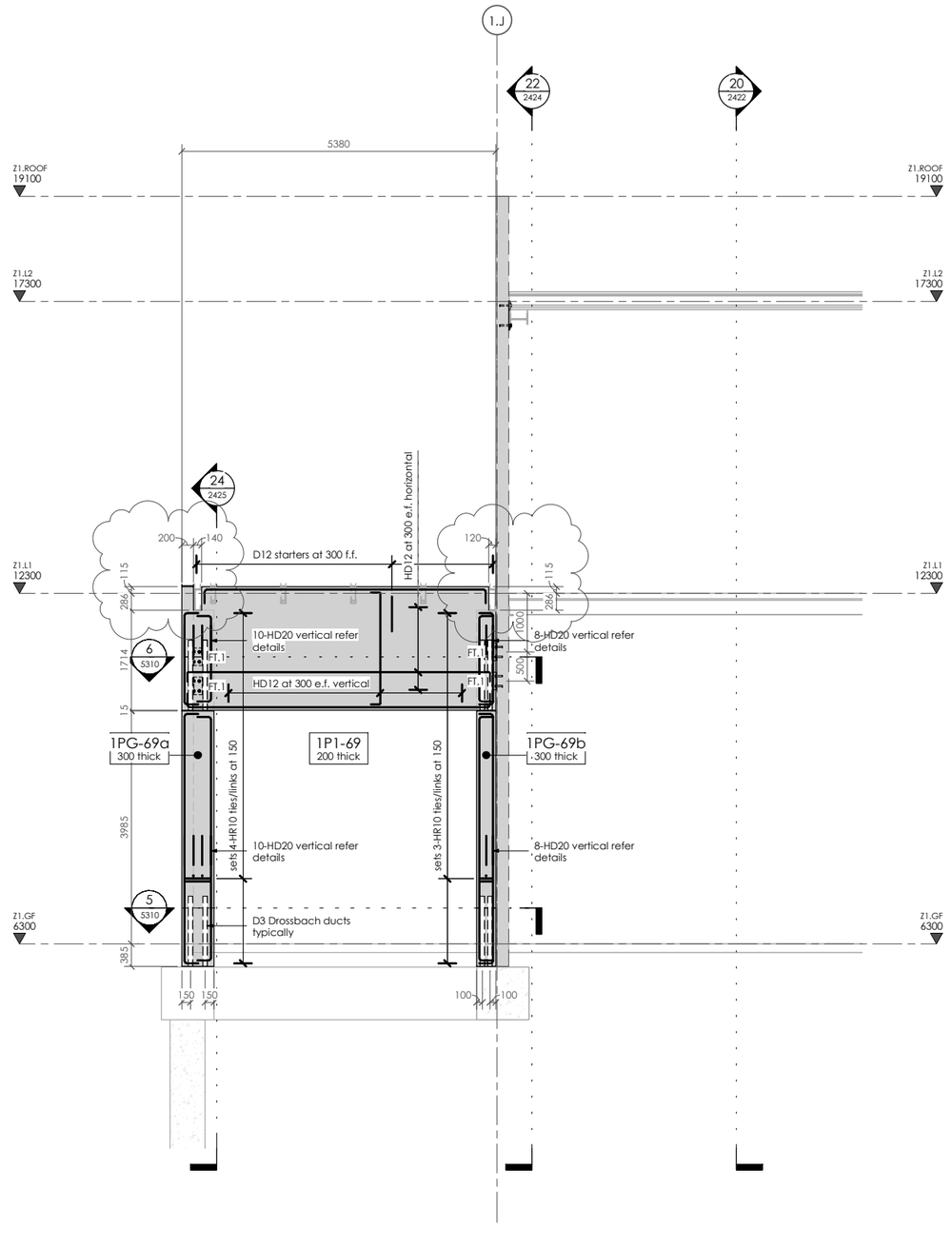
2019/1381



PANEL ELEVATIONS - Near Gridline 1.5

1 : 50 at A1

4 / 2401



PANEL ELEVATIONS - Near Gridline 1.6

1 : 50 at A1

5 / 2401

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also 5300 & 5310 series drawings for precast panel details

Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner

REV	DATE	AMENDMENT	BY
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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
ELEVATIONS
NEAR GRIDLINE 1.5 AND
1.6

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2413	REV. 2

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BUILDING CONSENT NUMBER

2019/1381

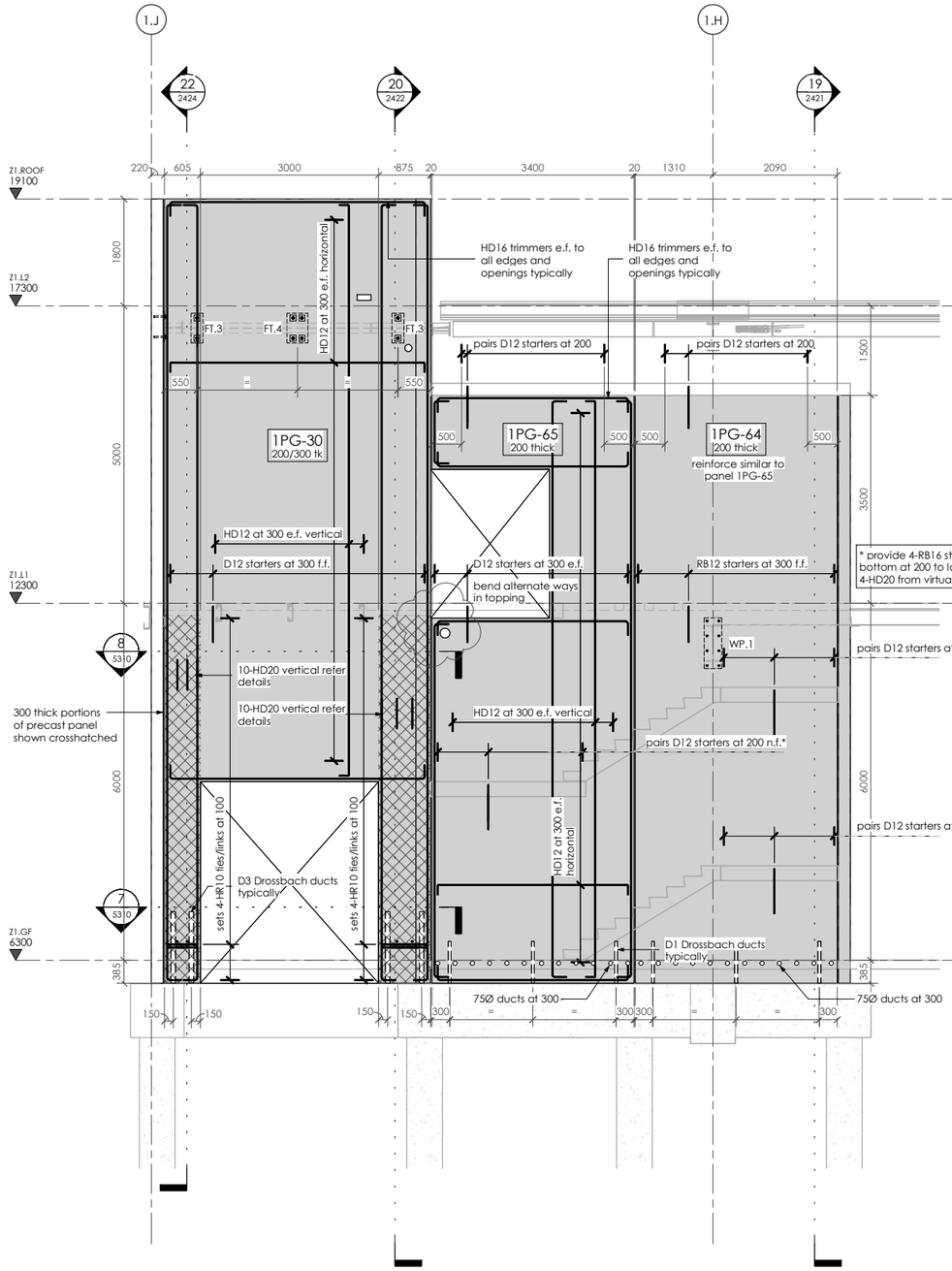
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also 5300 & 5310 series drawings for precast panel details

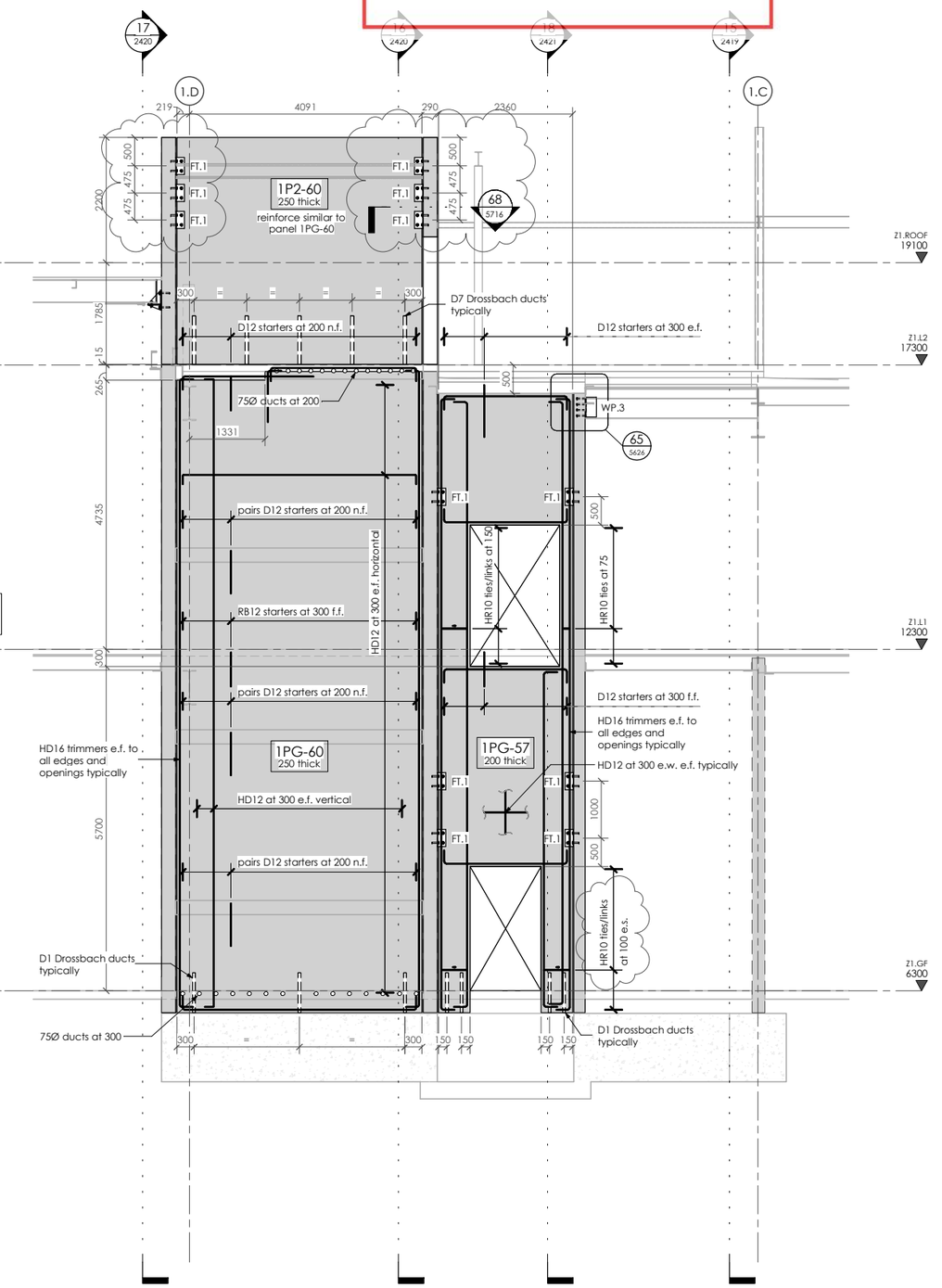
Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner



PANEL ELEVATIONS - Near Gridline 1.6

1 : 50 at A1

6 2401



PANEL ELEVATIONS - Gridline 1.6

1 : 50 at A1

7 2401

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
ELEVATIONS
NEAR GRIDLINE 1.6

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2414 REV. 2

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

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Refer also to Structural Specification.

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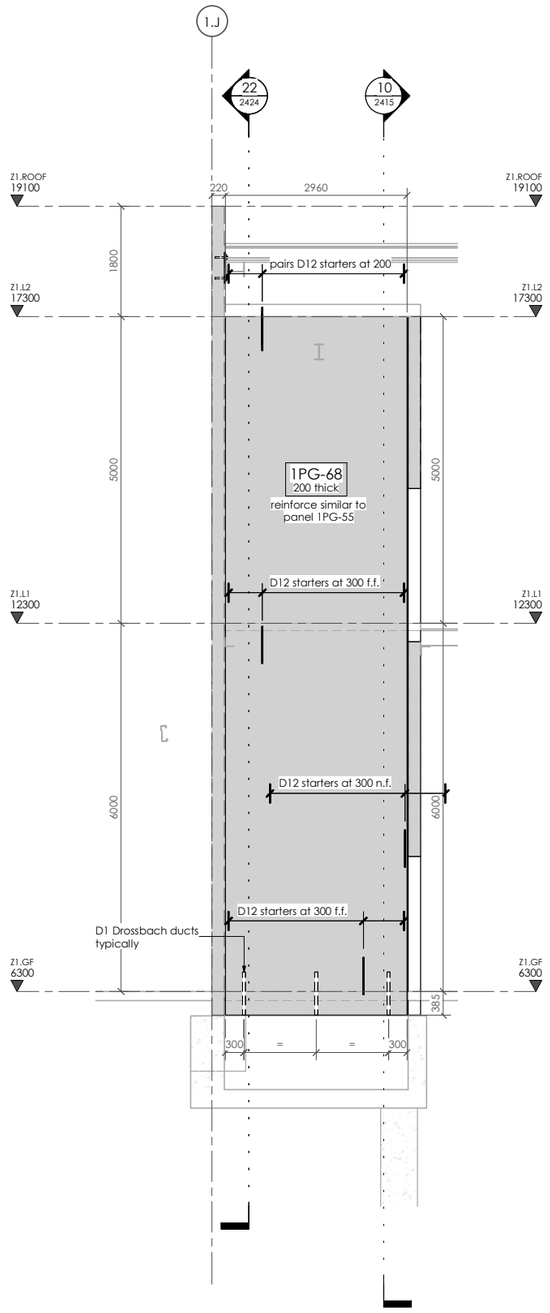
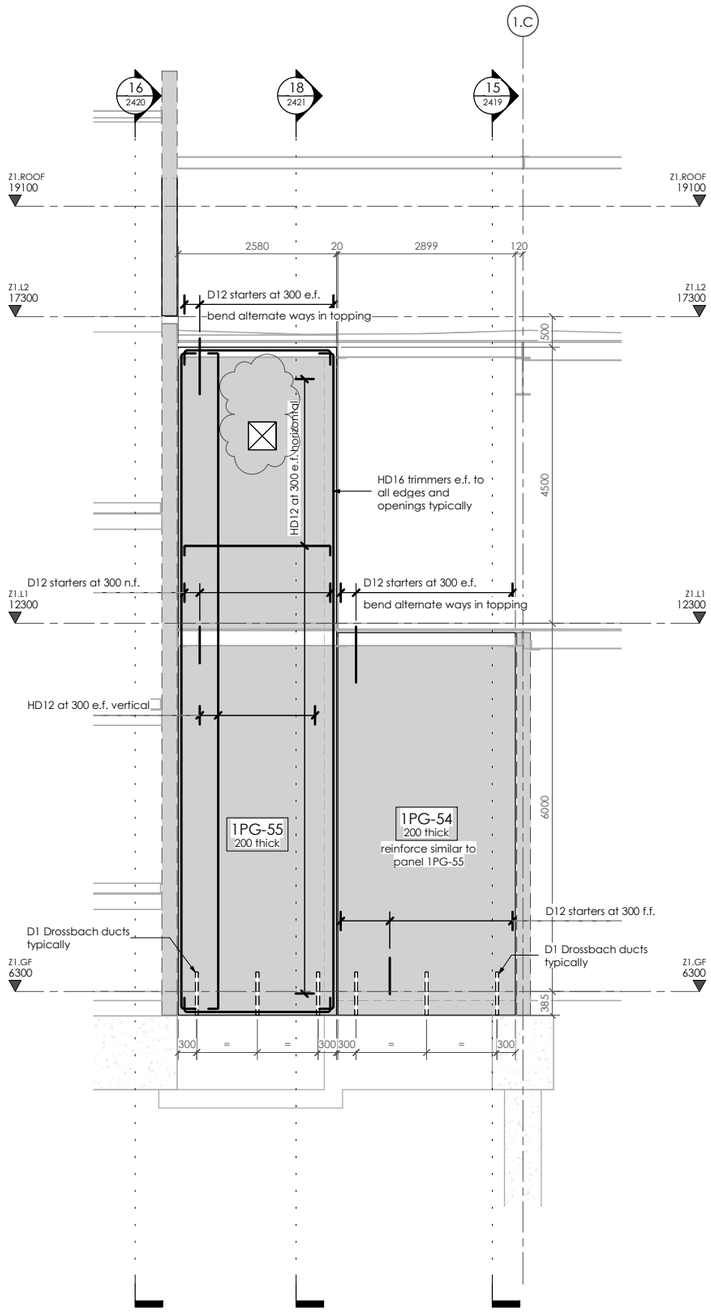
Xypex additive to be added to all precast panels on Gridlines 1.1, 1.7 & 1.J and precast panels 1PG-30 & 1PG31 to southeastern re-entrant corner



PANEL ELEVATIONS - Near Gridline 1.4

1 : 50 at A1

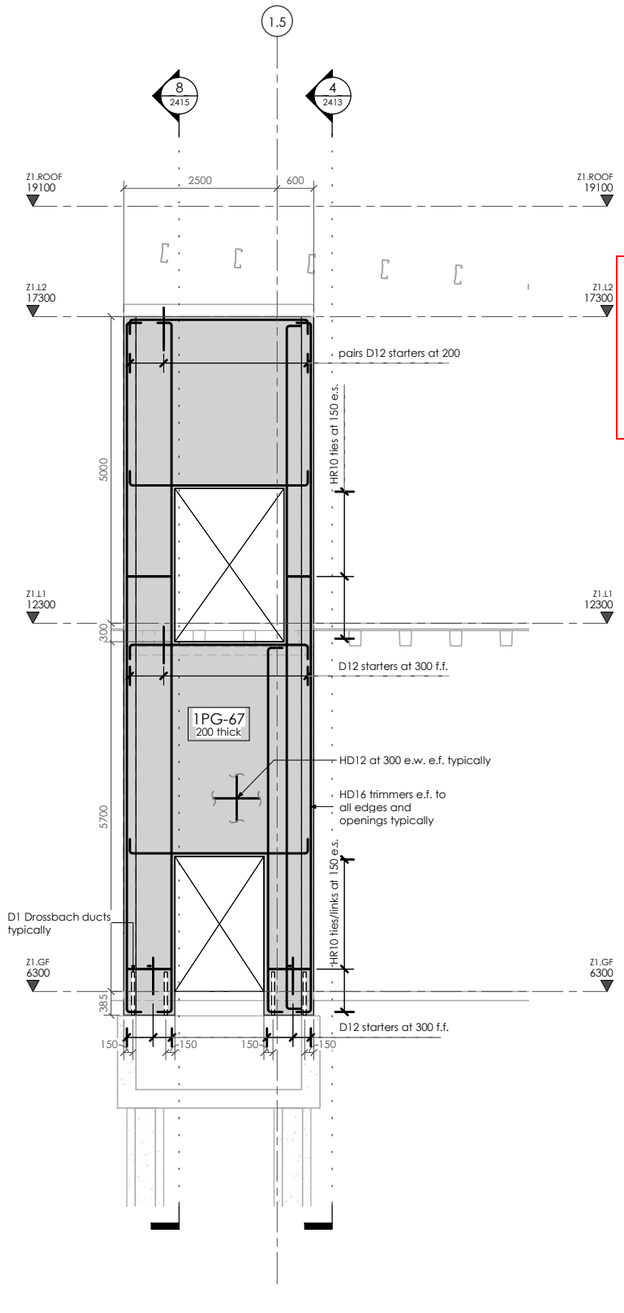
8
2401



PANEL ELEVATIONS - Near Gridline 1.7

1 : 50 at A1

9
2401



PANEL ELEVATIONS - Near Gridline 1.J

1 : 50 at A1

10
2401

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
ELEVATIONS
NEAR GRIDLINE 1.4, 1.7
and 1.J

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2415	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2191, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 371, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

2019/1381

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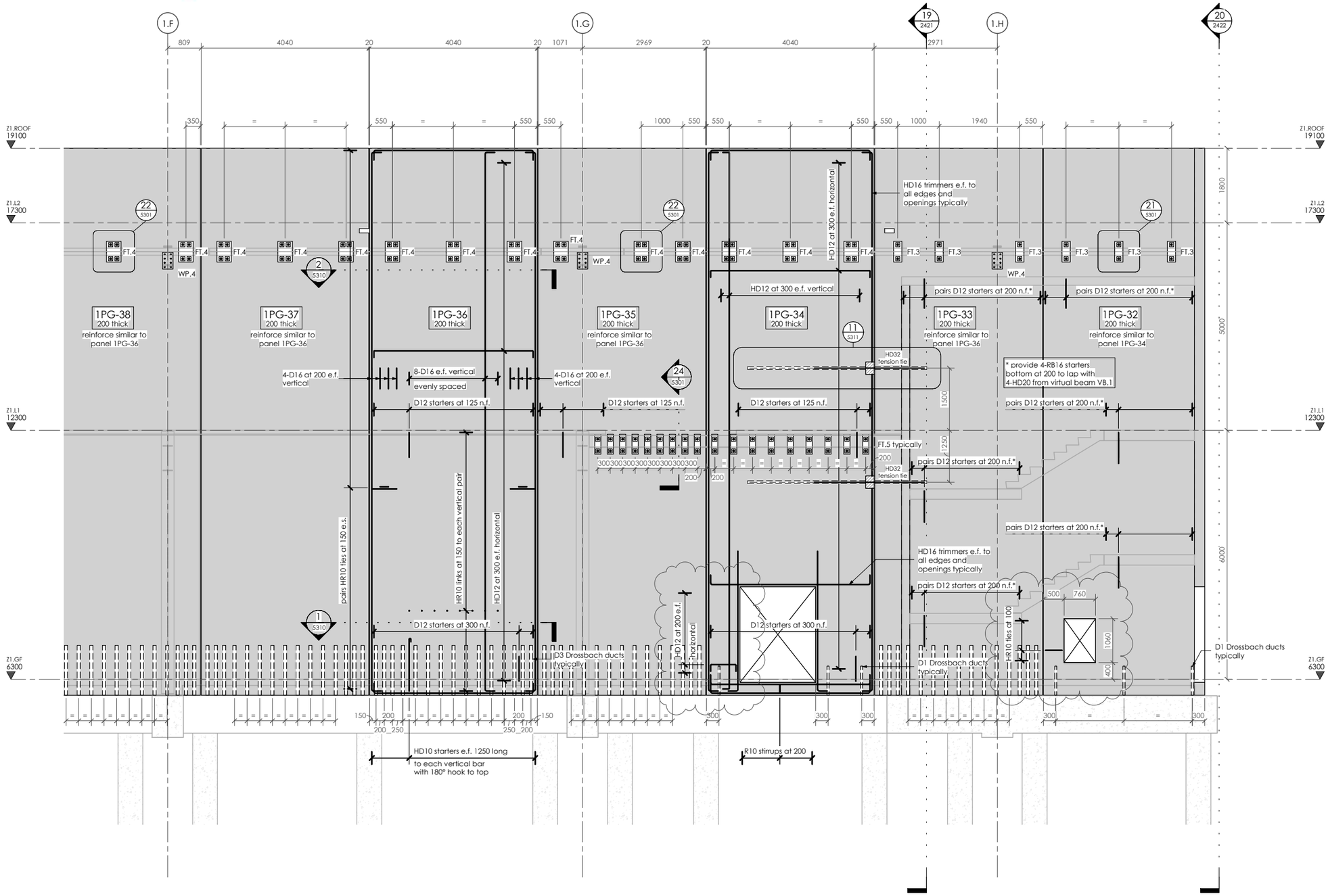

PANEL ELEVATIONS - Gridline 1.7 - Part 1

1 : 50 at A1

11 / 2401

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PROJECT:
INVERCARGILL CENTRAL ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL ELEVATIONS GRIDLINE 1.7 – PART 1

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2416 REV. 2

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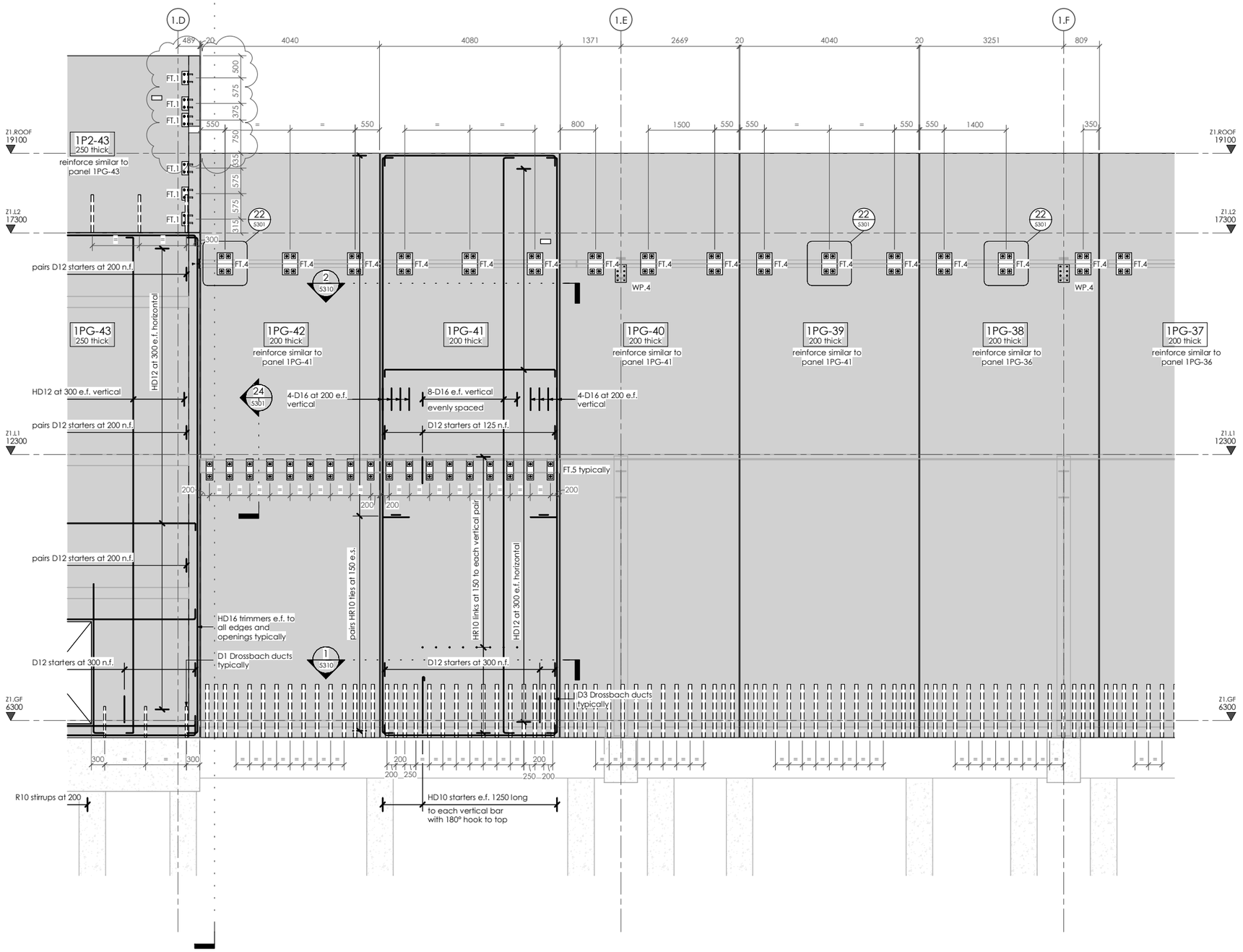
2019/1381



PANEL ELEVATIONS - Gridline 1.7 - Part 2

1 : 50 at A1

(12 / 2401)

NOTES :

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REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL ELEVATIONS
GRIDLINE 1.7 – PART 2

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2417	REV. 2

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BUILDING CONSENT NUMBER

2019/1381

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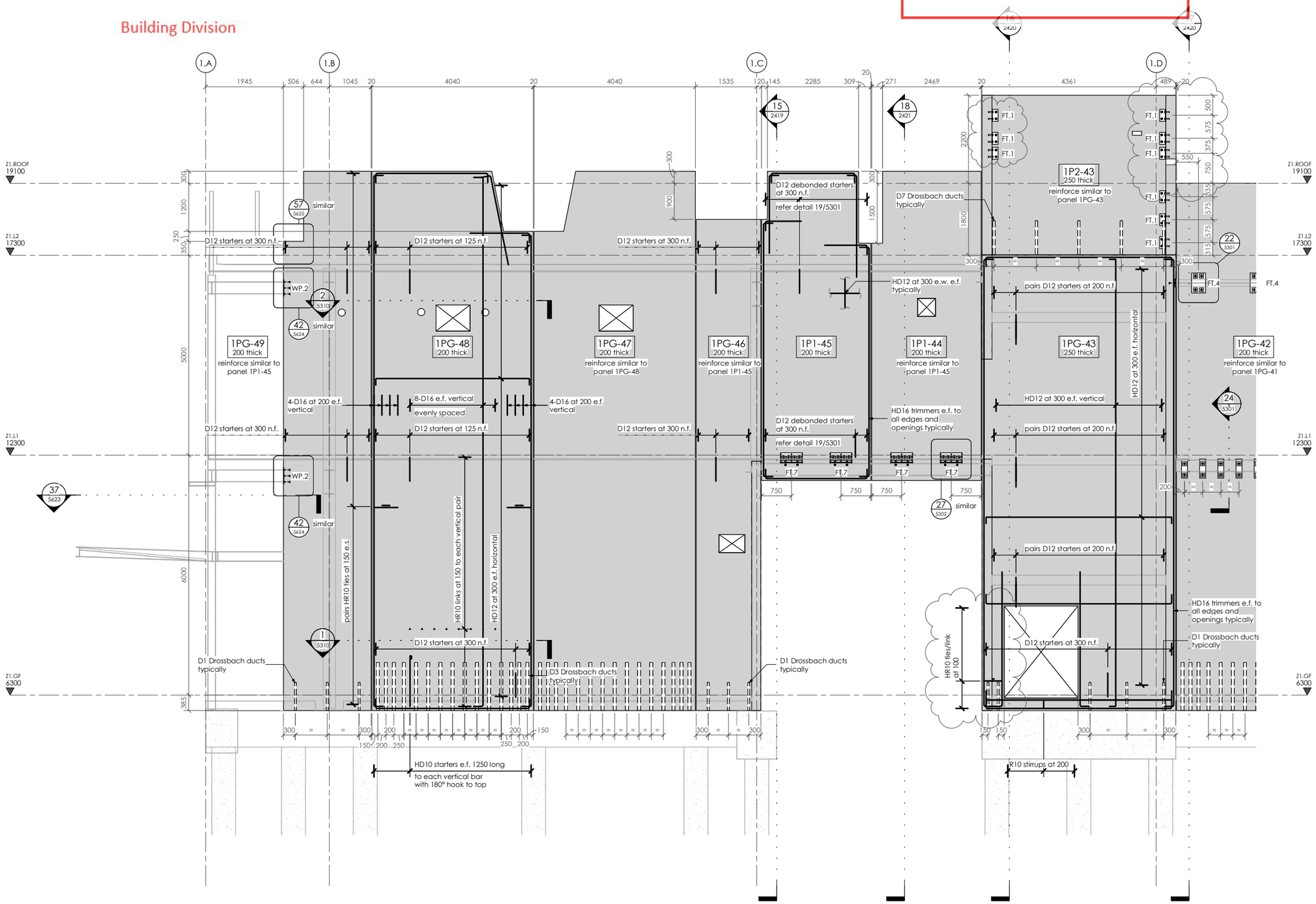

PANEL ELEVATIONS - Gridline 1.7 - Part 3

1 : 50 at A1

13 / 2401

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Building Consent Authority
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PROJECT:

INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:

PRECAST PANEL
ELEVATIONS
GRIDLINE 1.7 – PART 3

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2418	REV. 2

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BUILDING CONSENT NUMBER

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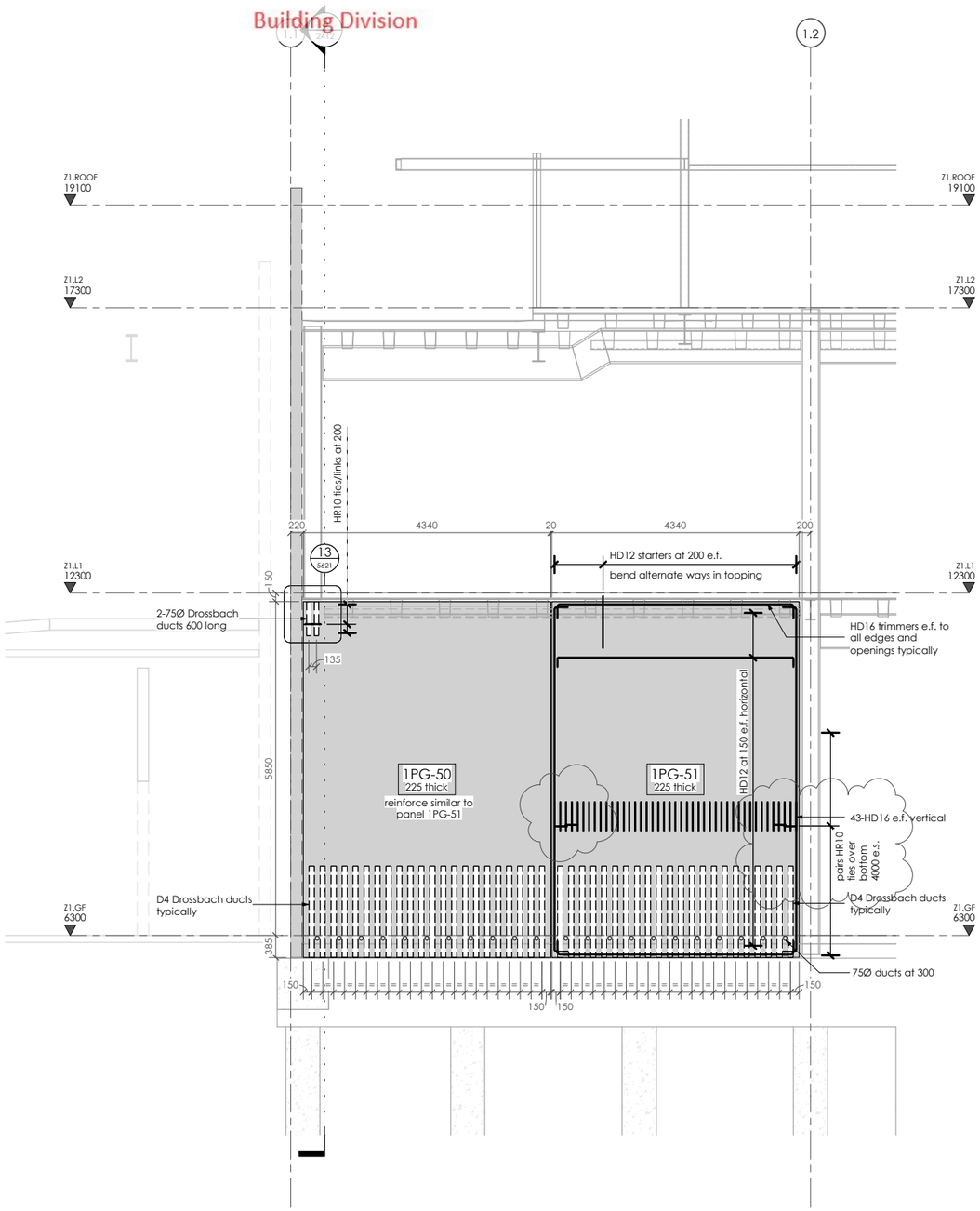
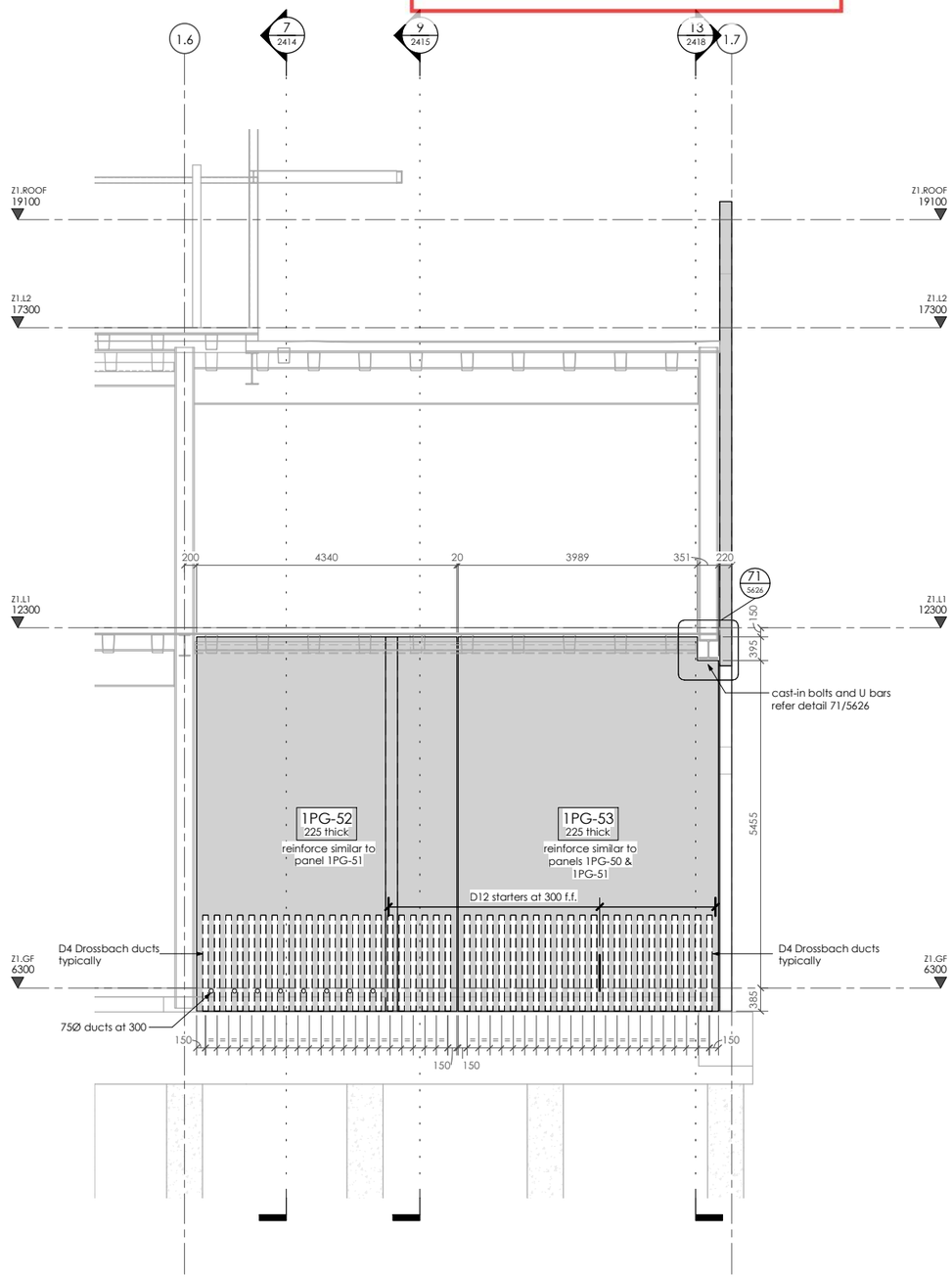


PANEL ELEVATIONS - Gridline 1.C

1 : 50 at A1

14 / 2401



PANEL ELEVATIONS - Gridline 1.C

1 : 50 at A1

15 / 2401

REV	DATE	AMENDMENT	BY
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CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL ELEVATIONS GRIDLINE 1.C

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2419	REV. 2

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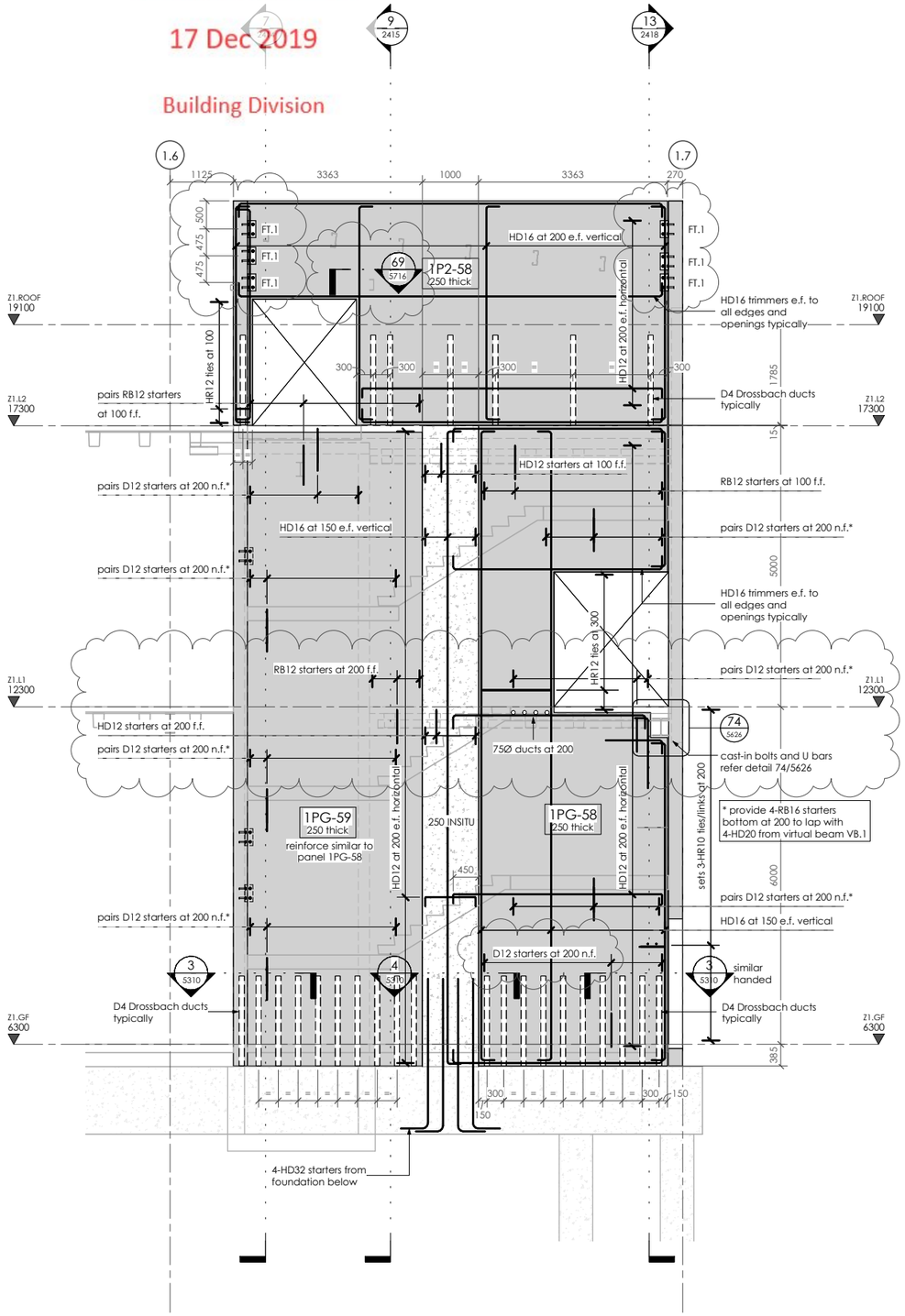
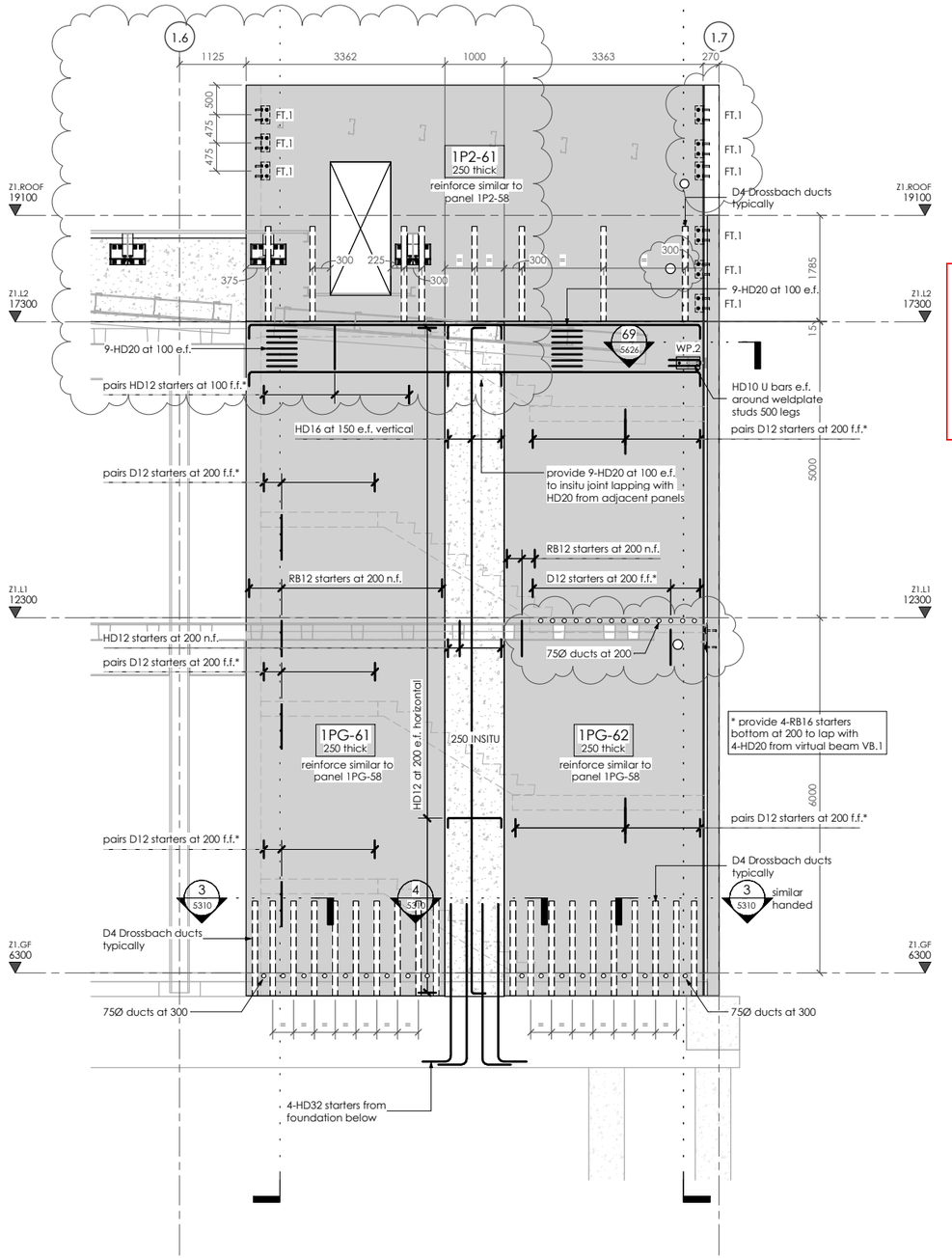


PANEL ELEVATIONS - Near Gridline 1.D

1 : 50 at A1

16
2401



PANEL ELEVATIONS - Gridline 1.D

1 : 50 at A1

17
2401

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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
ELEVATIONS
NEAR GRIDLINE 1.D

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2420	REV. 2

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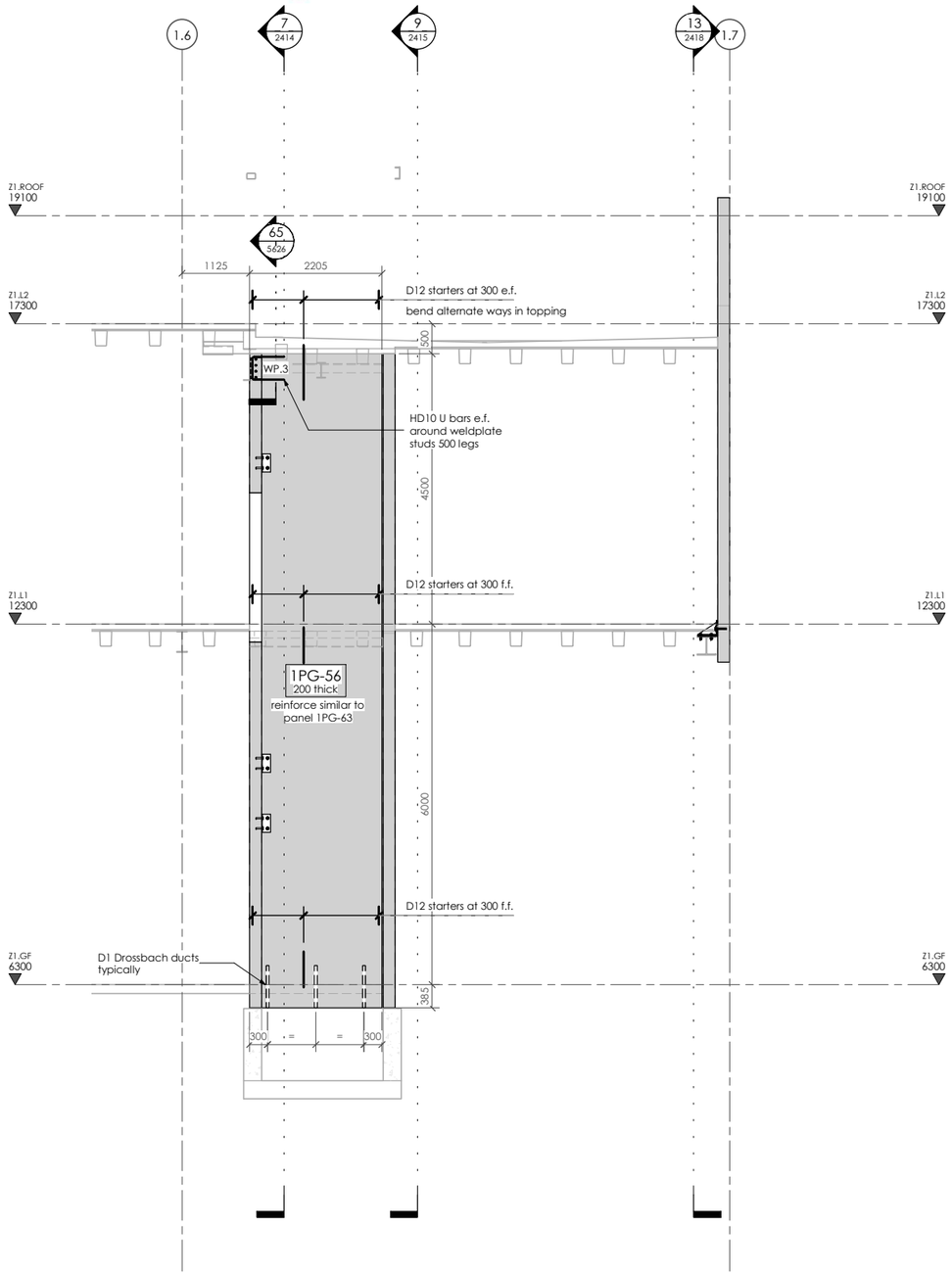
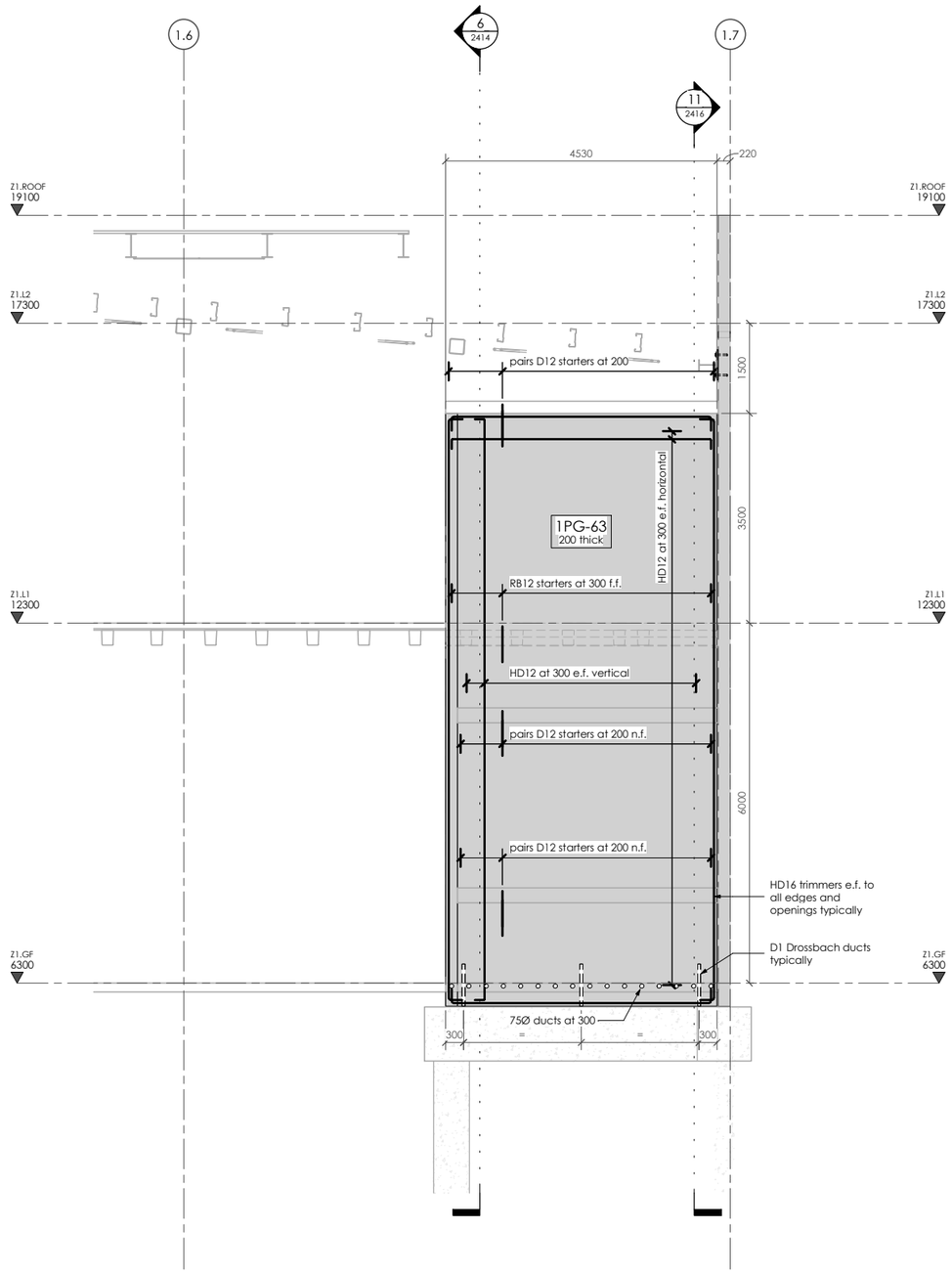


PANEL ELEVATIONS - Near Gridline 1.C

1 : 50 at A1

18 2401



PANEL ELEVATIONS - Near Gridline 1.G

1 : 50 at A1

19 2401

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

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REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
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PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
ELEVATIONS
NEAR GRIDLINE 1.C AND
1.G

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2421	REV. 2

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BUILDING CONSENT NUMBER

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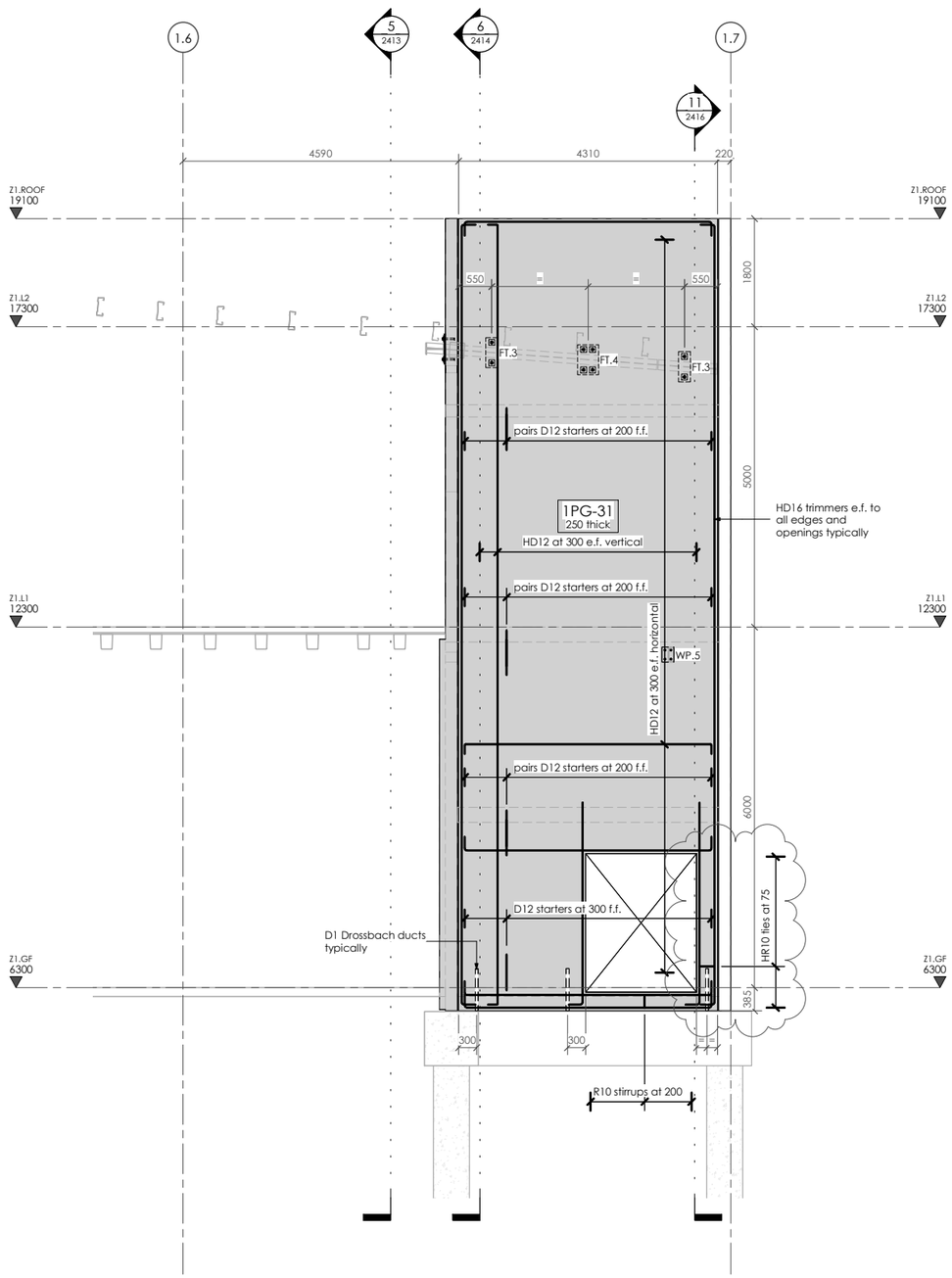

PANEL ELEVATIONS - Near Gridline 1.H

1 : 50 at A1

20
2401

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REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
ELEVATIONS
NEAR GRIDLINE 1.H

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2422 | REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

2019/1381

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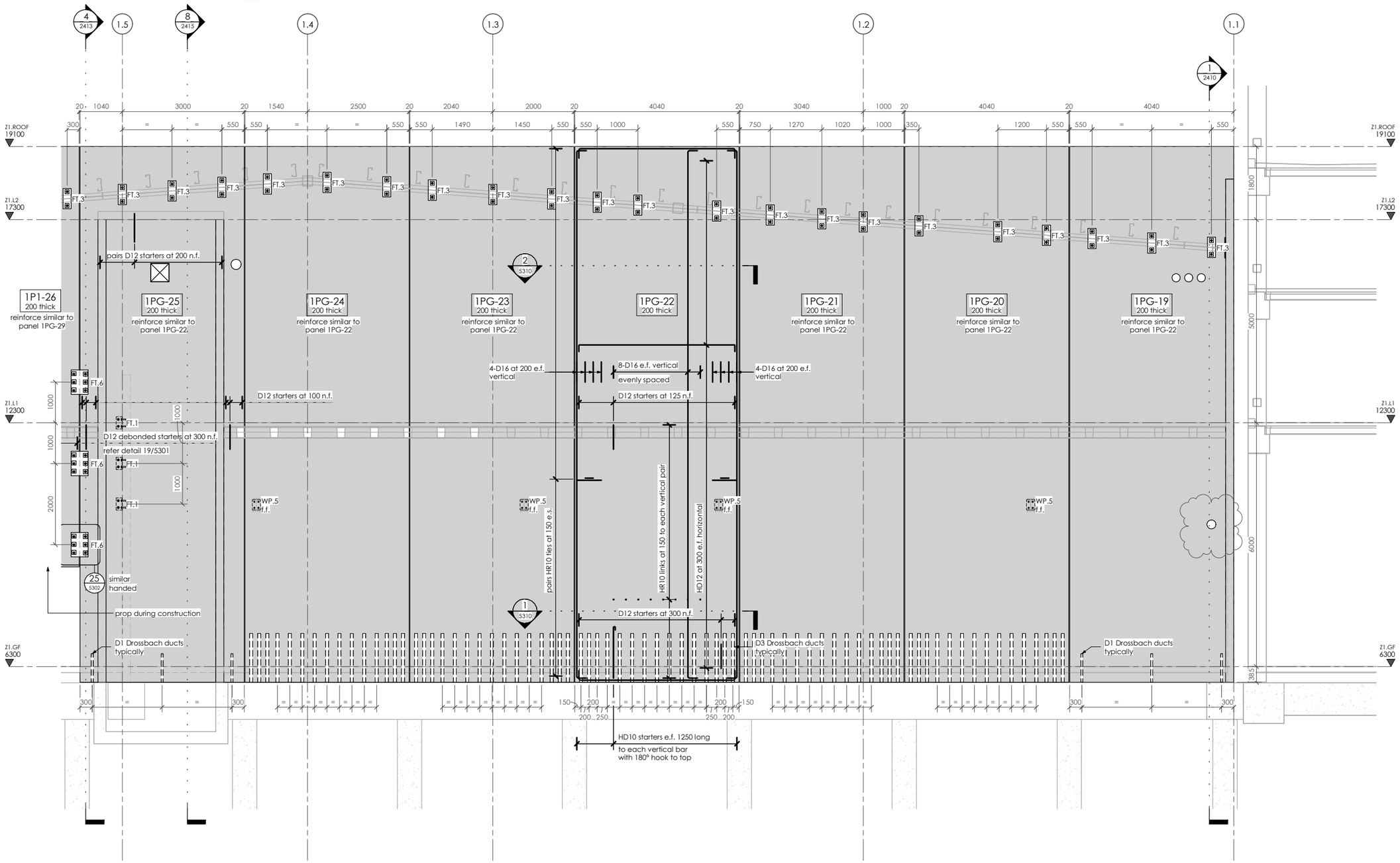

PANEL ELEVATIONS - Gridline 1.J - Part 1

1 : 50 at A1

21 2401

REV	DATE	AMENDMENT	BY
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1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL ELEVATIONS
GRIDLINE 1.J – PART 1

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2423	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

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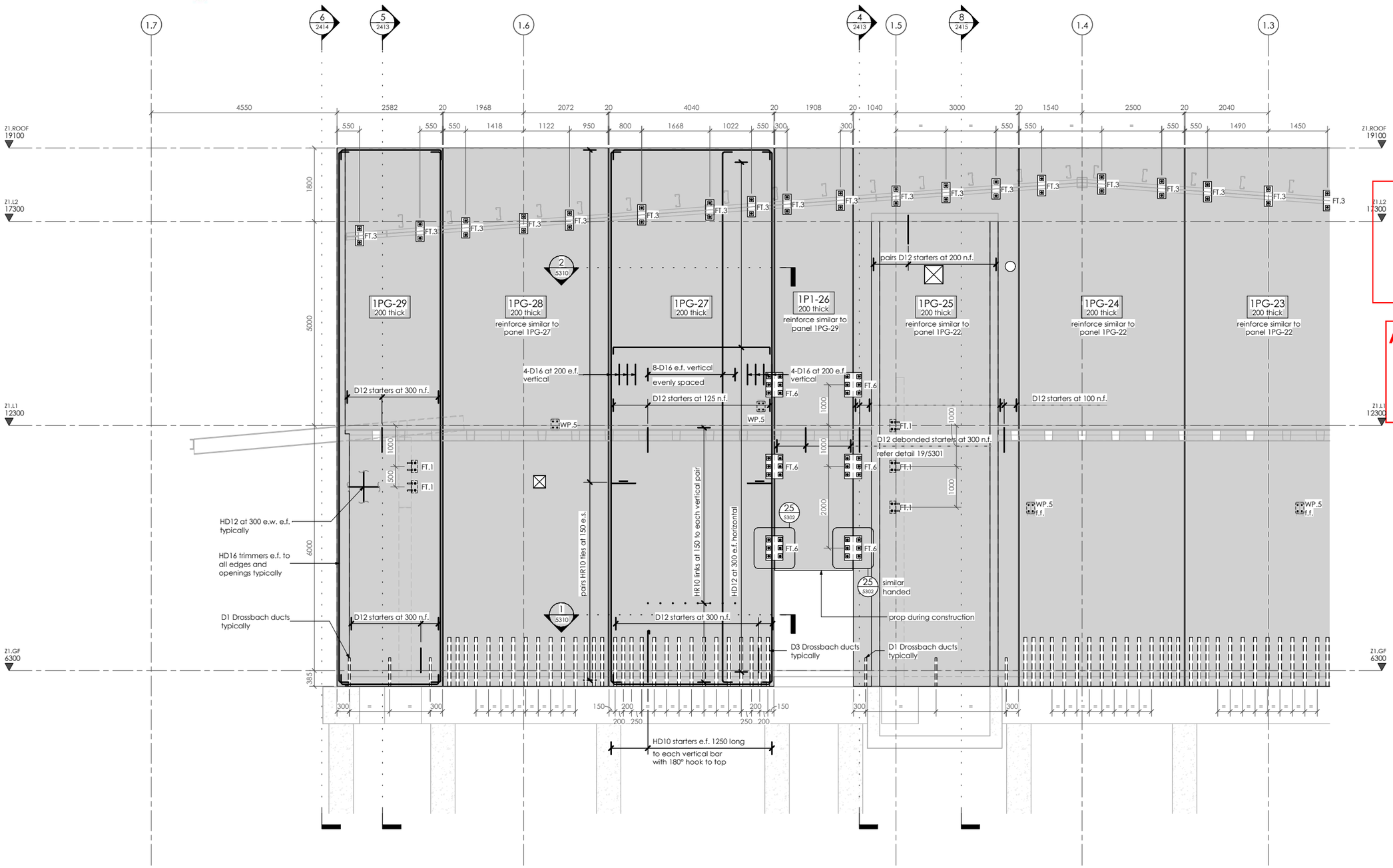

PANEL ELEVATIONS - Gridline 1.J - Part 2

1 : 50 at A1

22 / 2401

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PROJECT:

INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:

PRECAST PANEL ELEVATIONS
GRIDLINE 1.J – PART 2

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 2424 REV. 2

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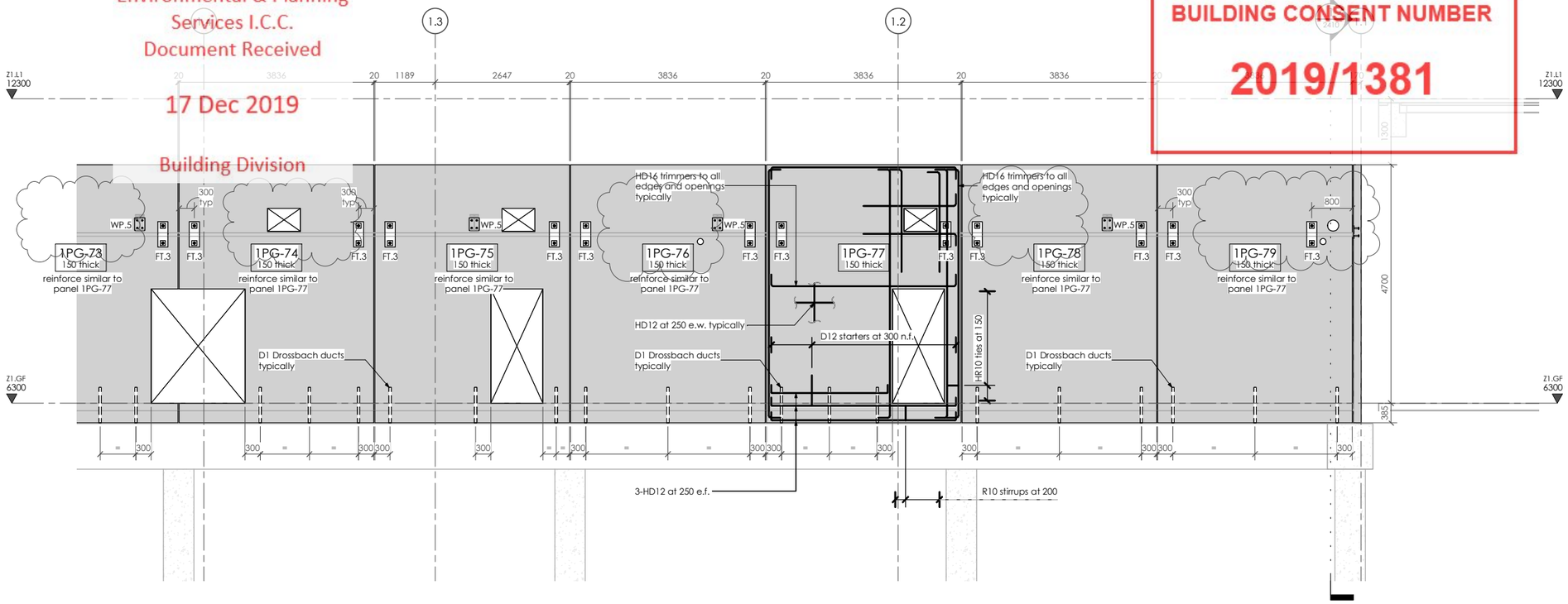
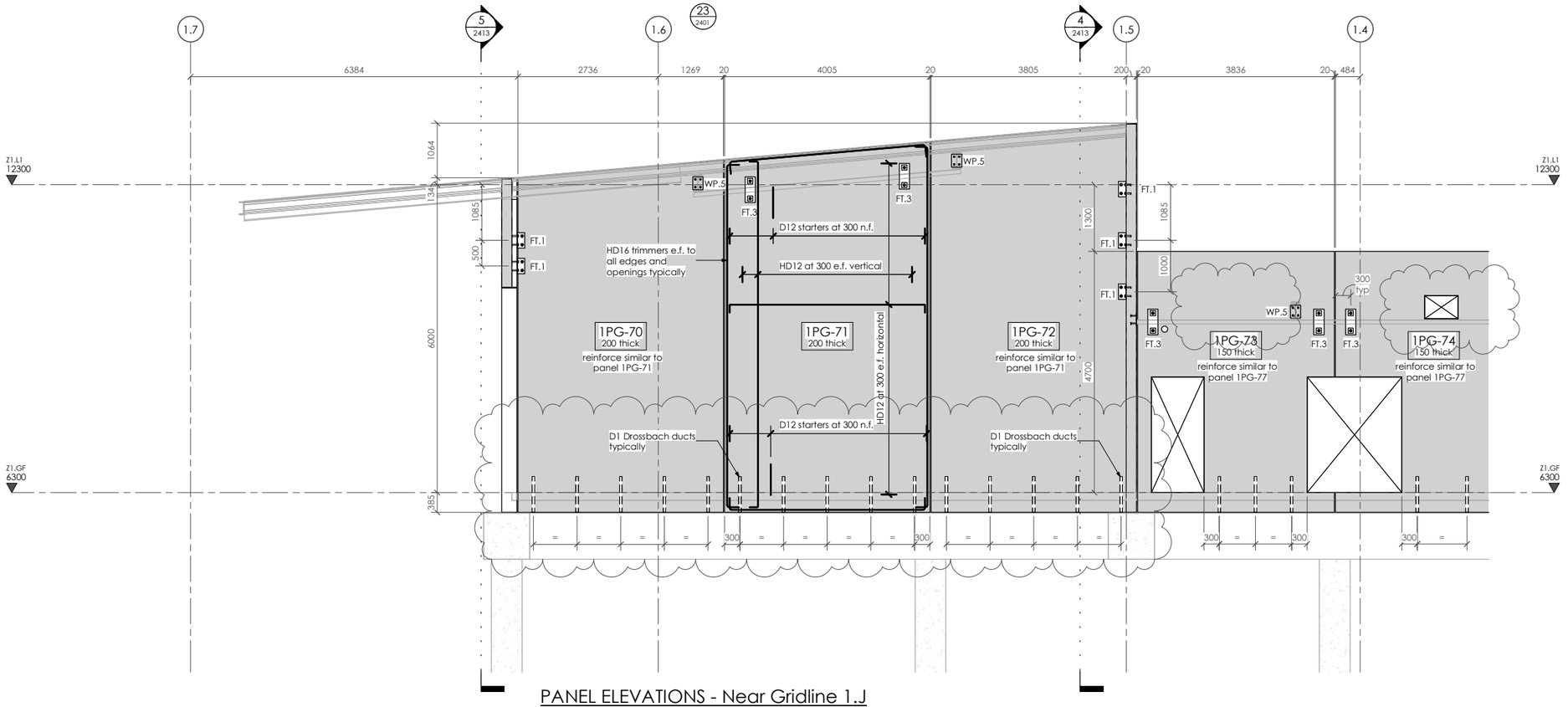


PANEL ELEVATIONS - Near Gridline 1.J

1 : 50 at A1

(23 / 2401)



PANEL ELEVATIONS - Near Gridline 1.J

1 : 50 at A1

(24 / 2401)

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1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
ELEVATIONS
NEAR GRIDLINE 1.J

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 2425	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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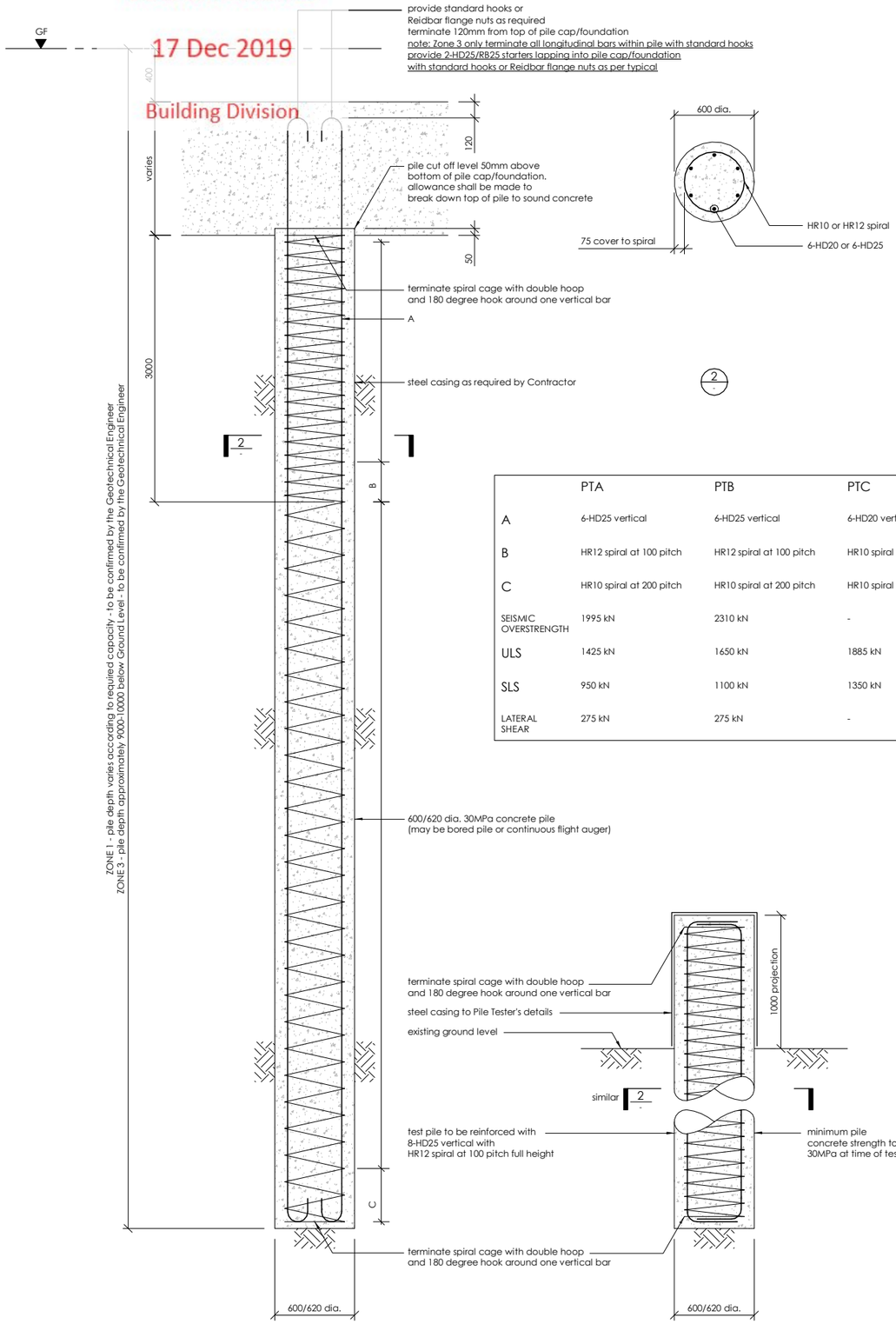
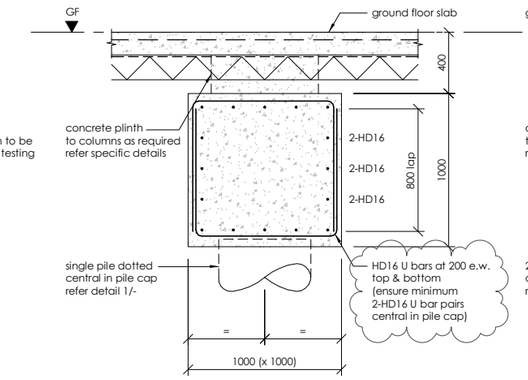


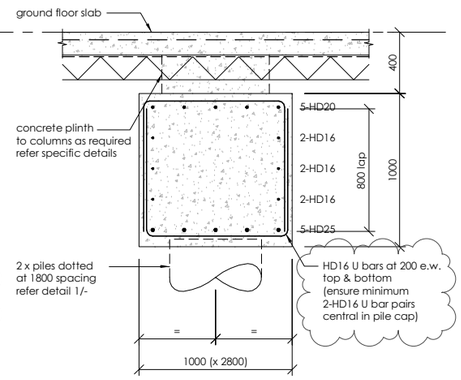
1
TYPICAL PILE ELEVATION

	PTA	PTB	PTC	PTD	PTE
A	6-HD25 vertical	6-HD25 vertical	6-HD20 vertical	6-HD20 vertical	6-HD25 vertical
B	HR12 spiral at 100 pitch	HR12 spiral at 100 pitch	HR10 spiral at 100 pitch	HR12 spiral at 100 pitch	HR12 spiral at 100 pitch
C	HR10 spiral at 200 pitch	HR10 spiral at 200 pitch	HR10 spiral at 200 pitch	HR10 spiral at 200 pitch	HR10 spiral at 200 pitch
SEISMIC OVERSTRENGTH	1995 kN	2310 kN	-	1205 kN	1205 kN
ULS	1425 kN	1650 kN	1885 kN	870 kN	870 kN
SLS	950 kN	1100 kN	1350 kN	575 kN	575 kN
LATERAL SHEAR	275 kN	275 kN	-	275 kN	275 kN

3
PTB TEST PILE (4100kN)



4
PILE CAP TYPE 1 (PC1)
ZONES 1 & 3



5
PILE CAP TYPE 2a (PC2a)
ZONE 1 ONLY

PILING NOTES:

- steel casing: provide temporary steel casing as required to maintain bore hole stability / minimum 500mm steel casing at top to prevent contamination of top of pile
- the pile base shall be clean of loose material and debris to ensure that the Design Strength can be mobilised
- ensure correct cover to spiral cage is maintained with spacers as required to side of excavation
- all pile starters to be cogged inwards as shown to avoid clashes between hooks and hold-down bolts to columns over. use Reidbar flange nuts as required to avoid concrete wall/column reinforcing and/or hold-down bolts to columns over
- concrete shall be placed to avoid formation of voids caused by entrapped air, lack of compaction or segregation
- concrete shall be placed in such a manner that correct position of reinforcing is maintained
- bored piles shall be concreted on the same day they are formed unless the excavation is protected by a temporary liner
- all bored piles shall comply with AS2159
- bored pile depths shown are approximate and shall be verified by the Geotechnical Engineer on site. Contractor to make adequate allowances for variations in bored pile depths
- Contractor to provide Driller's Log of excavated material for review and acceptance by the Geotechnical Engineer for approval prior to the placement of the reinforcing cage unless otherwise agreed in writing
- refer also to Geotechnical Engineer's documentation for further information and details regarding Piling Specification and installation requirements
- refer also to Structural Specification sections: Concrete General, Reinforcement & Piling

REV	DATE	AMENDMENT	BY
2	23.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2019, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR /
FOUNDATION
PILE DETAILS

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5000 REV. 2

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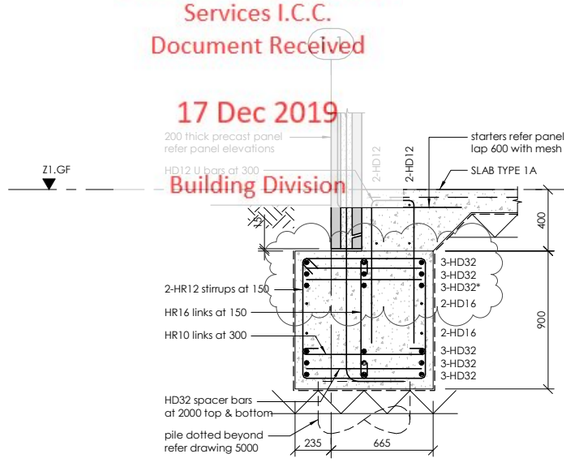
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

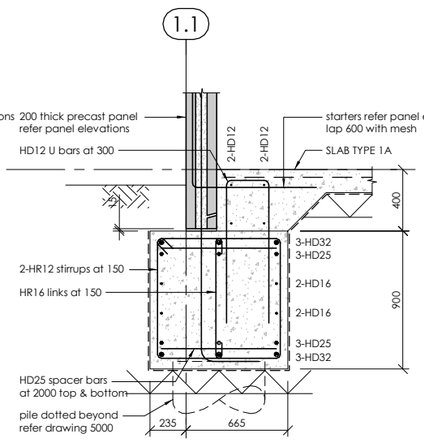


1 1104 / 1 1105

900 x 900 FOUNDATION BEAM - TYPE 1

note: refer drawings 1104 & 1105 for clarification of foundation type extent

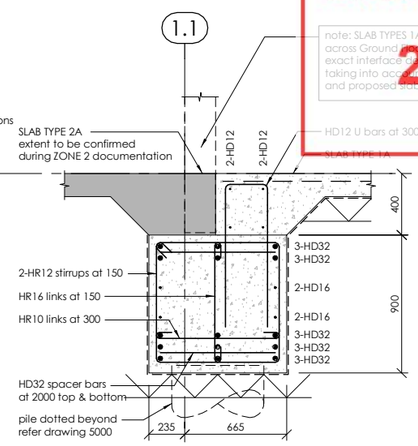
* note: 3-HD32 to only occur on Type 1 foundation to Gridline 1.1 between Gridlines 1.A-1.C



2 1104 / 2 1105

900 x 900 FOUNDATION BEAM - TYPE 3

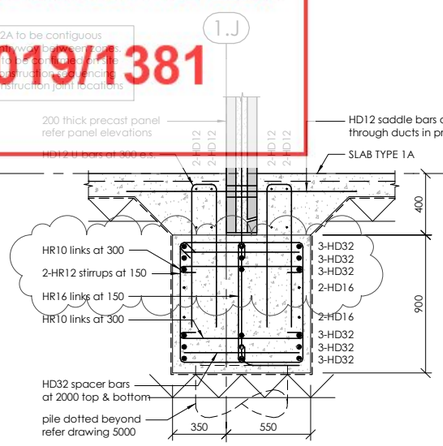
note: refer drawings 1104 & 1105 for clarification of foundation type extent



3 1105

900 x 900 FOUNDATION BEAM - TYPE 1

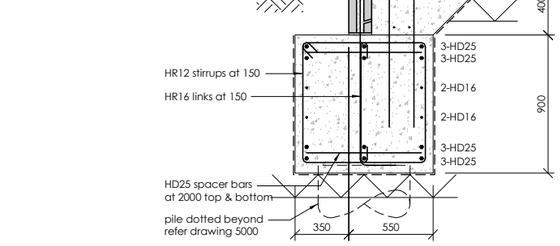
note: refer drawings 1104 & 1105 for clarification of foundation type extent



4 1105

900 x 900 FOUNDATION BEAM - TYPE 6

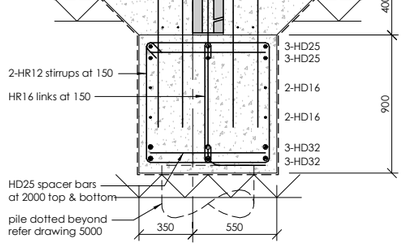
note: refer drawings 1104 & 1105 for clarification of foundation type extent



5 1105

900 x 900 FOUNDATION BEAM - TYPE 5

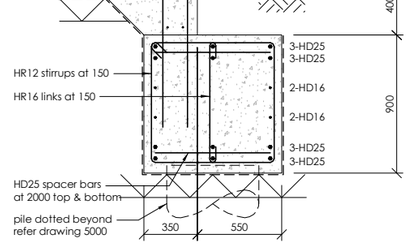
note: refer drawings 1104 & 1105 for clarification of foundation type extent



6 1105

900 x 900 FOUNDATION BEAM - TYPE 2

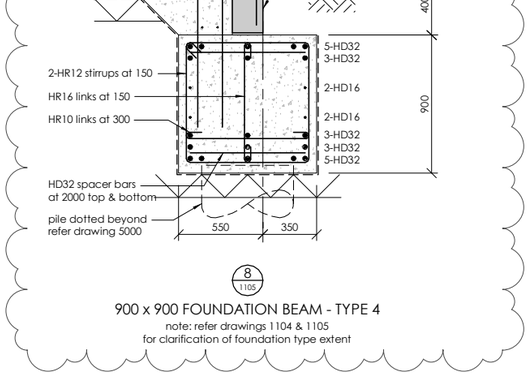
note: refer drawings 1104 & 1105 for clarification of foundation type extent



7 1105

900 x 900 FOUNDATION BEAM - TYPE 5

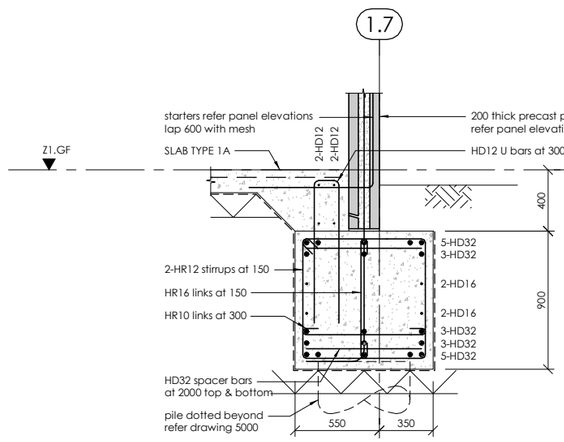
note: refer drawings 1104 & 1105 for clarification of foundation type extent



8 1105

900 x 900 FOUNDATION BEAM - TYPE 4

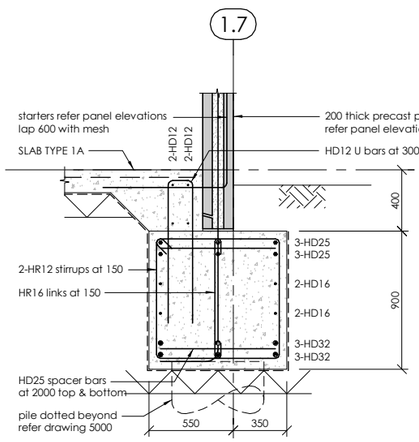
note: refer drawings 1104 & 1105 for clarification of foundation type extent



9 1104

900 x 900 FOUNDATION BEAM - TYPE 4

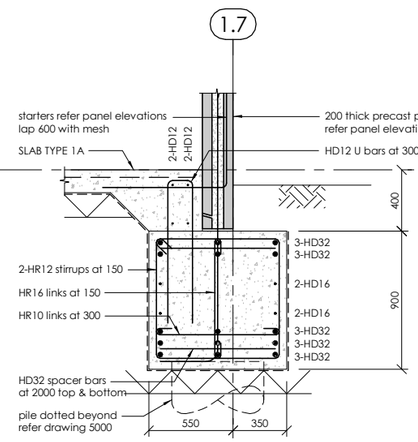
note: refer drawings 1104 & 1105 for clarification of foundation type extent



10 1104 / 10 1105

900 x 900 FOUNDATION BEAM - TYPE 2

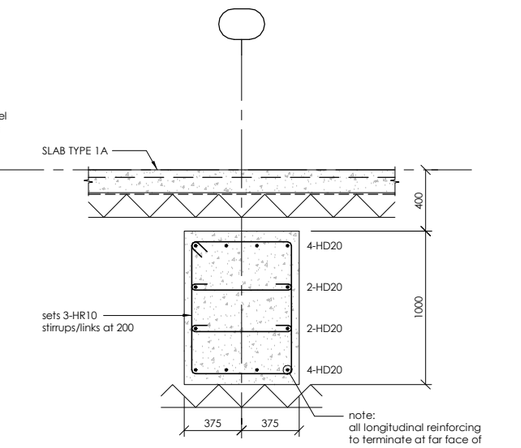
note: refer drawings 1104 & 1105 for clarification of foundation type extent



11 1104

900 x 900 FOUNDATION BEAM - TYPE 1

note: refer drawings 1104 & 1105 for clarification of foundation type extent



12 1104 / 12 1105

TYPICAL 750 x 1000 FOUNDATION TIE BEAM

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR / FOUNDATION DETAILS SHEET 1

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	

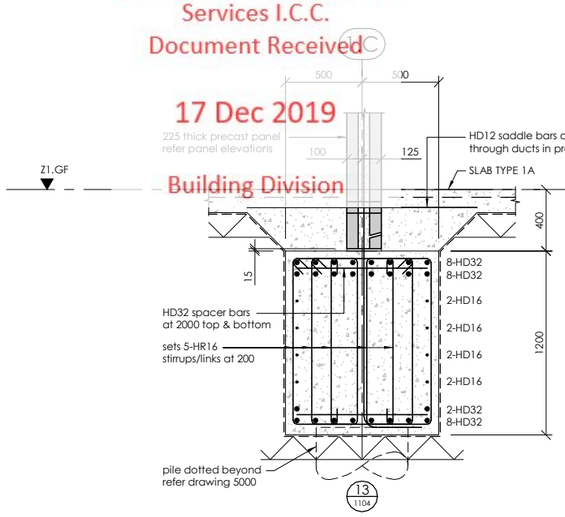
118083-Z1-WD-ST 5010 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

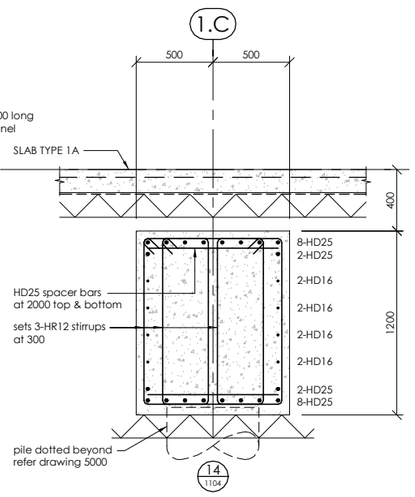
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

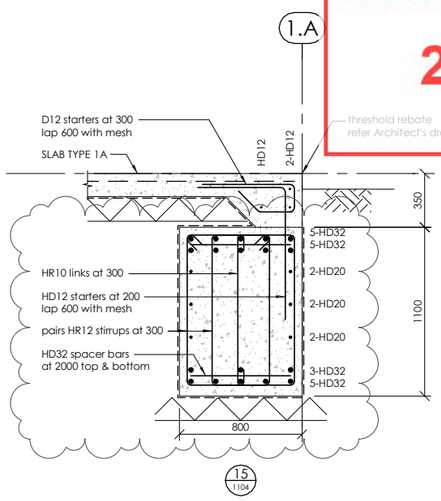
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

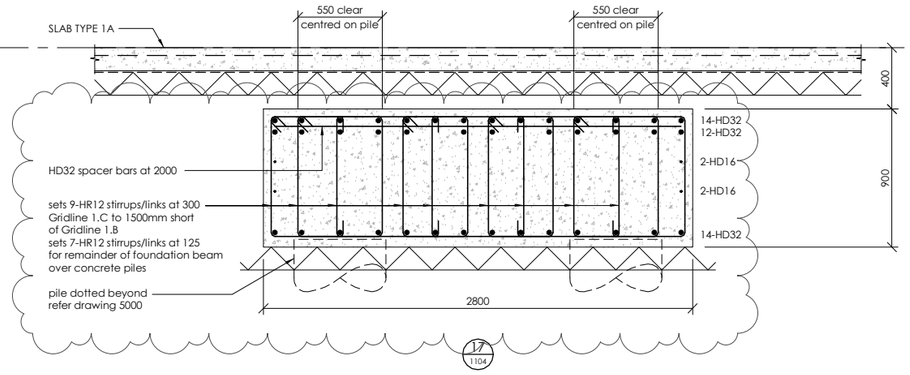


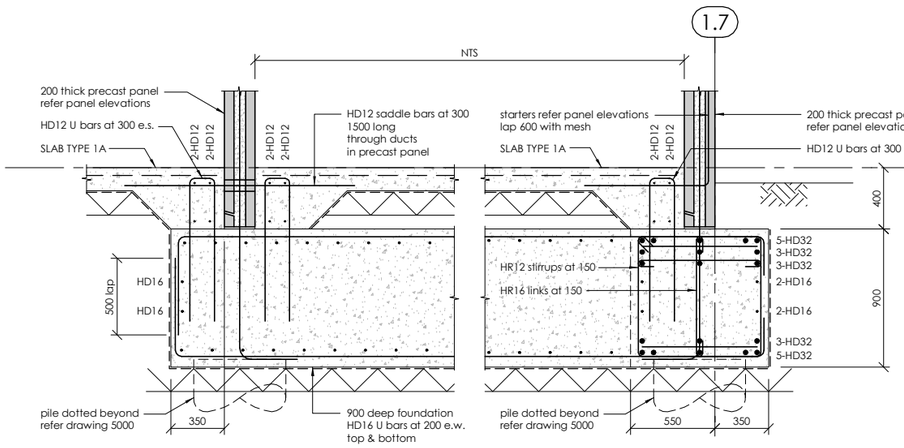
1000 x 1200 FOUNDATION BEAM - TYPE 1
note: refer drawings 1104 & 1105
for clarification of foundation type extent



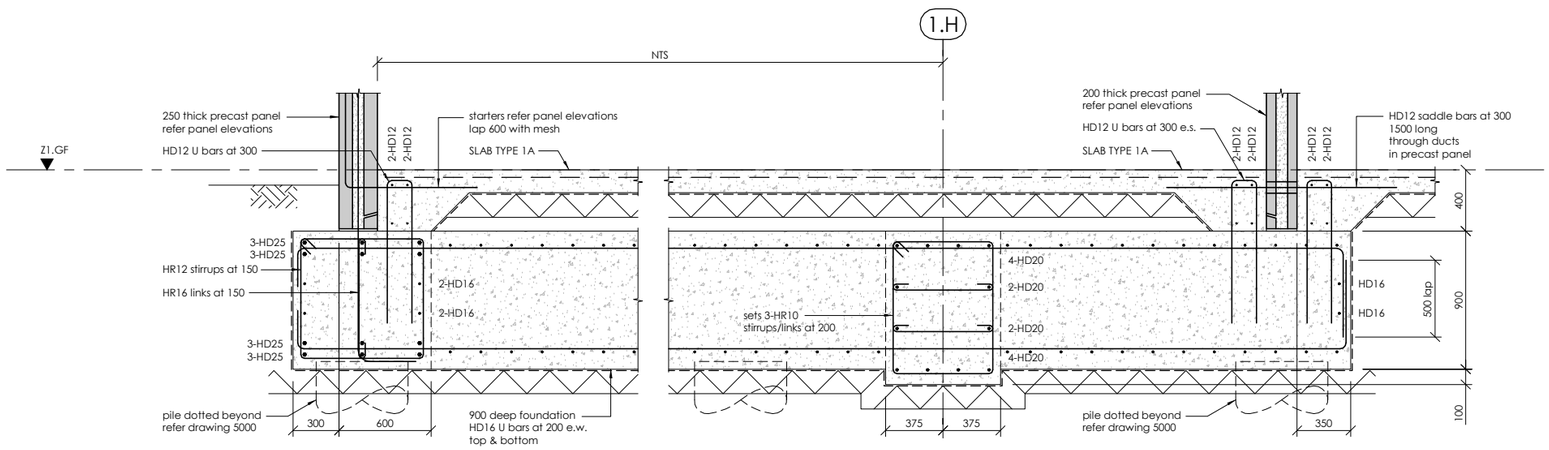
1000 x 1200 FOUNDATION BEAM - TYPE 2
note: refer drawings 1104 & 1105
for clarification of foundation type extent







note: refer also detail 9/5010 similar



note: refer also details 6 & 12/5010 similar

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR /
FOUNDATION
DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	

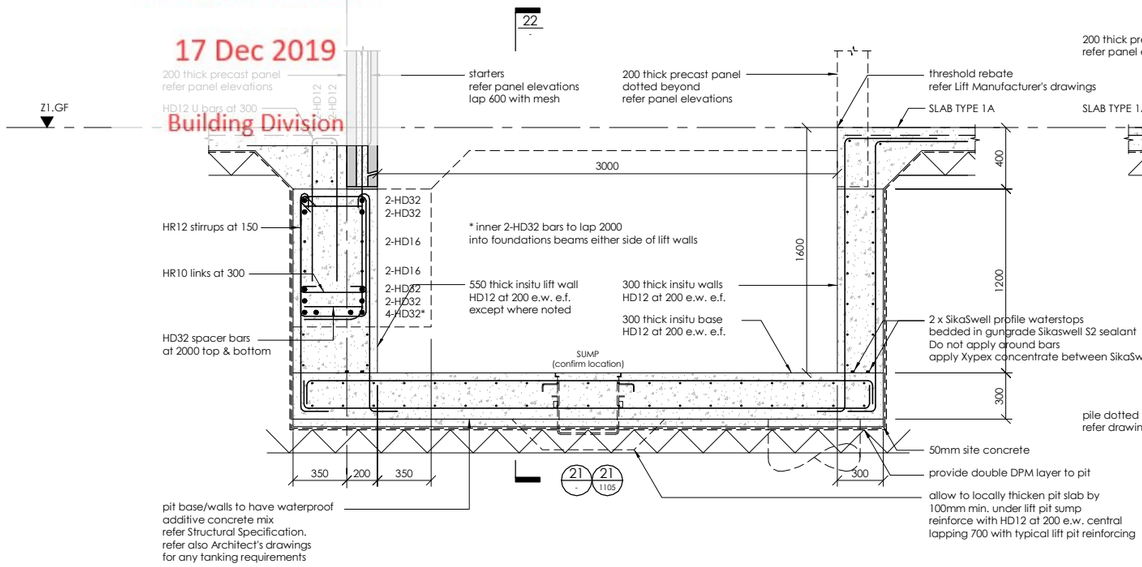
118083-Z1-WD-ST 5011 REV. 2

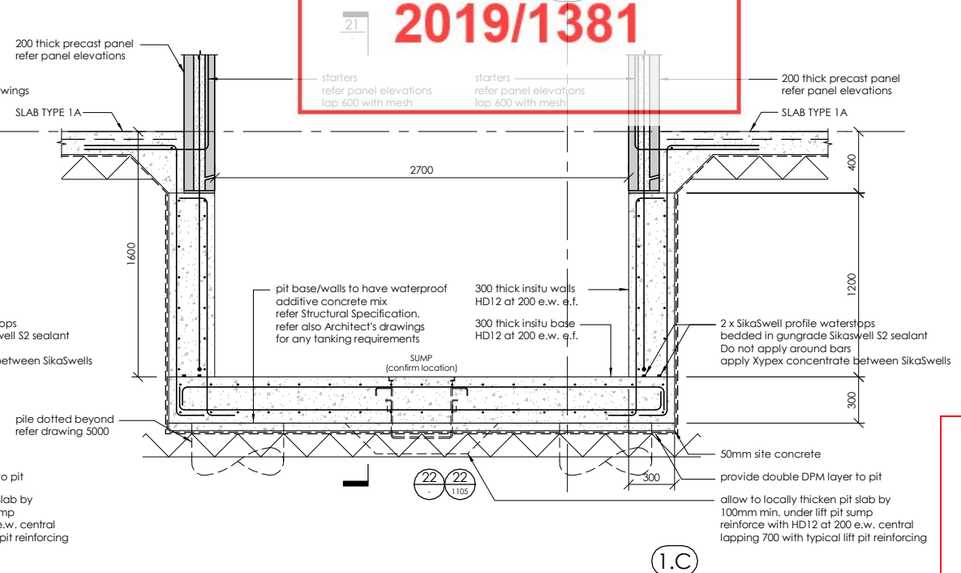
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

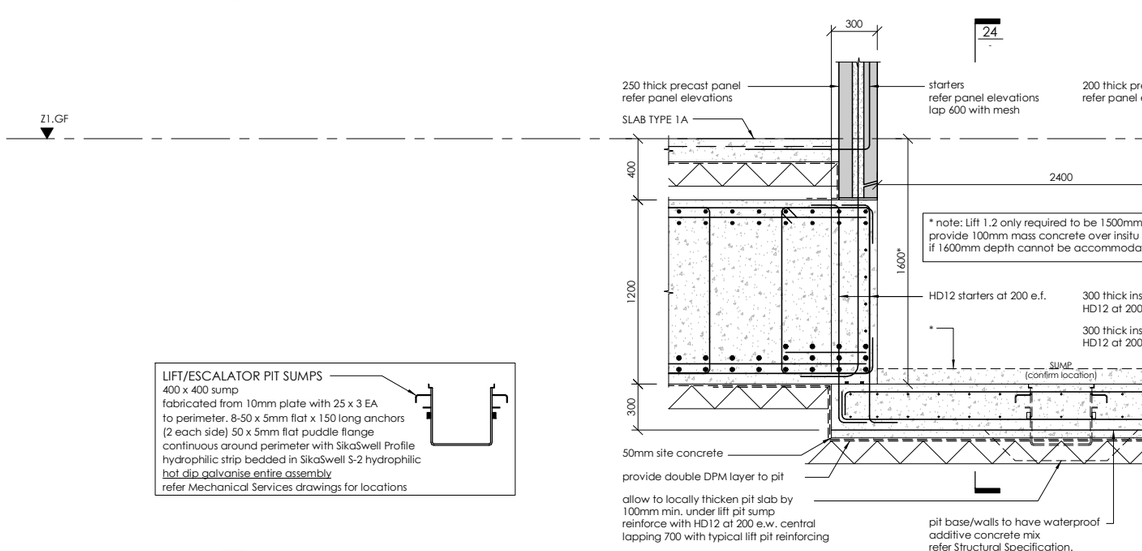
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

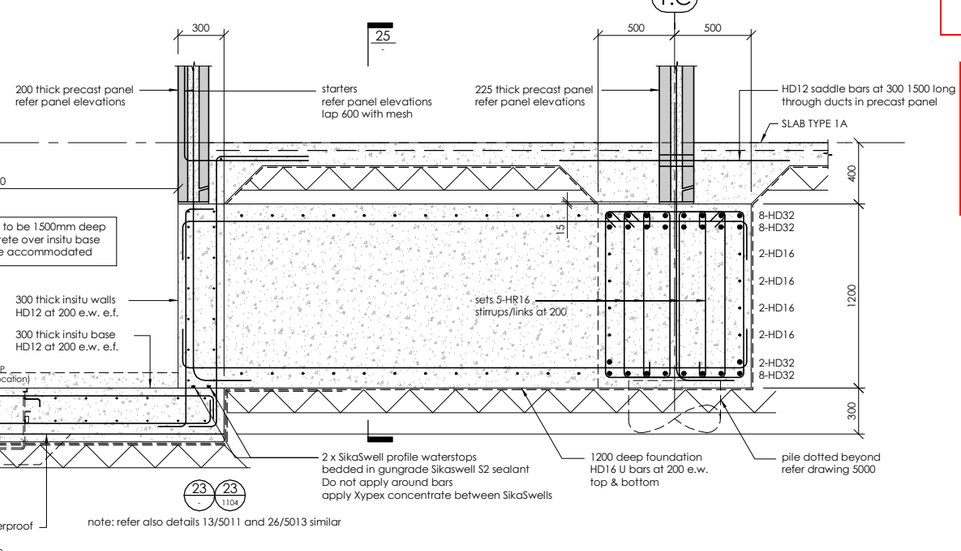
NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

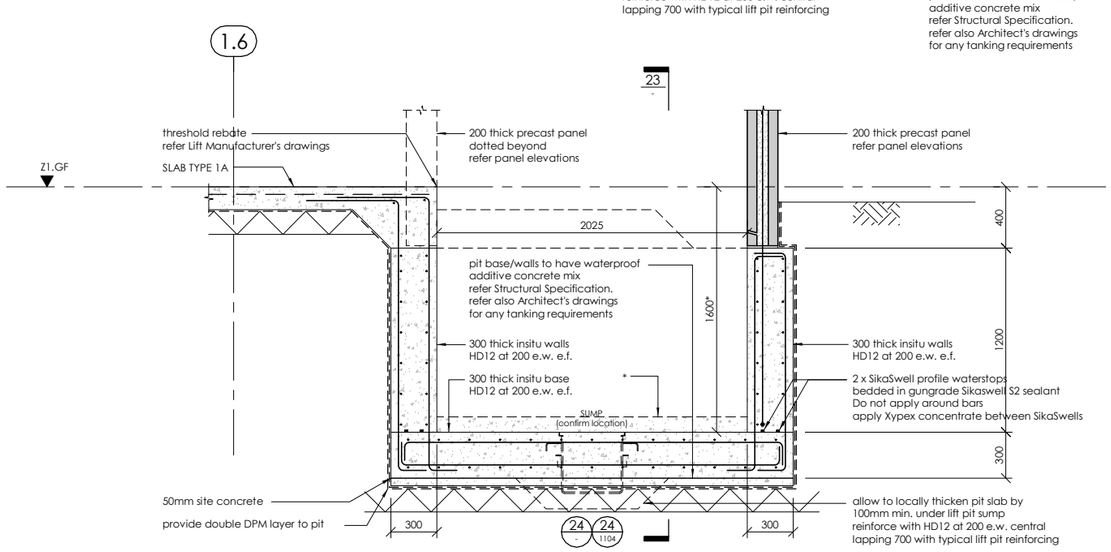


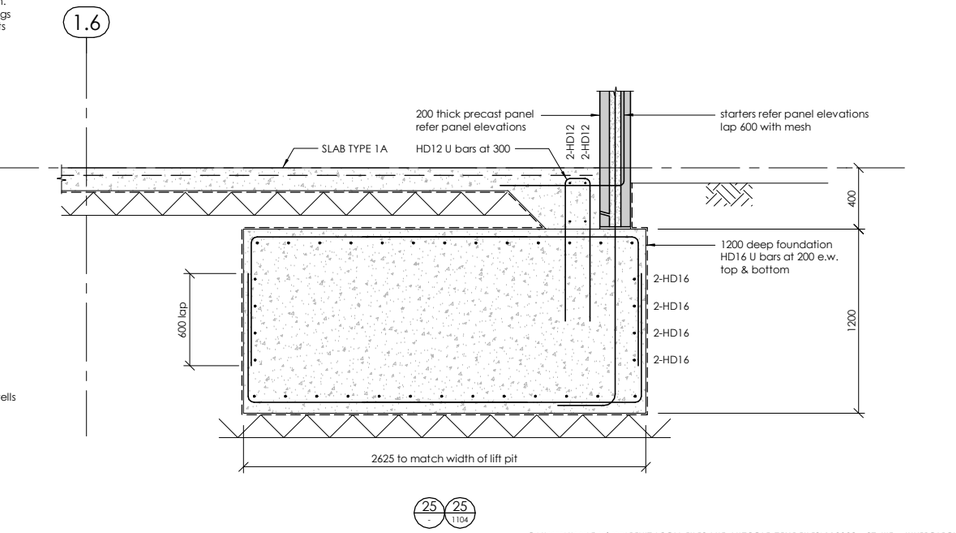






LIFT/ESCALATOR PIT SUMPS
400 x 400 sump
fabricated from 10mm plate with 25 x 3 EA
to perimeter. 8-50 x 5mm flat x 150 long anchors
(2 each side) 50 x 5mm flat puddle flange
continuous around perimeter with SikaSwell Profile
hydrophilic strip bedded in SikaSwell S-2 hydrophilic
hot dip galvanise entire assembly
refer Mechanical Services drawings for locations





REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR / FOUNDATION DETAILS SHEET 3

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5012	REV. 2

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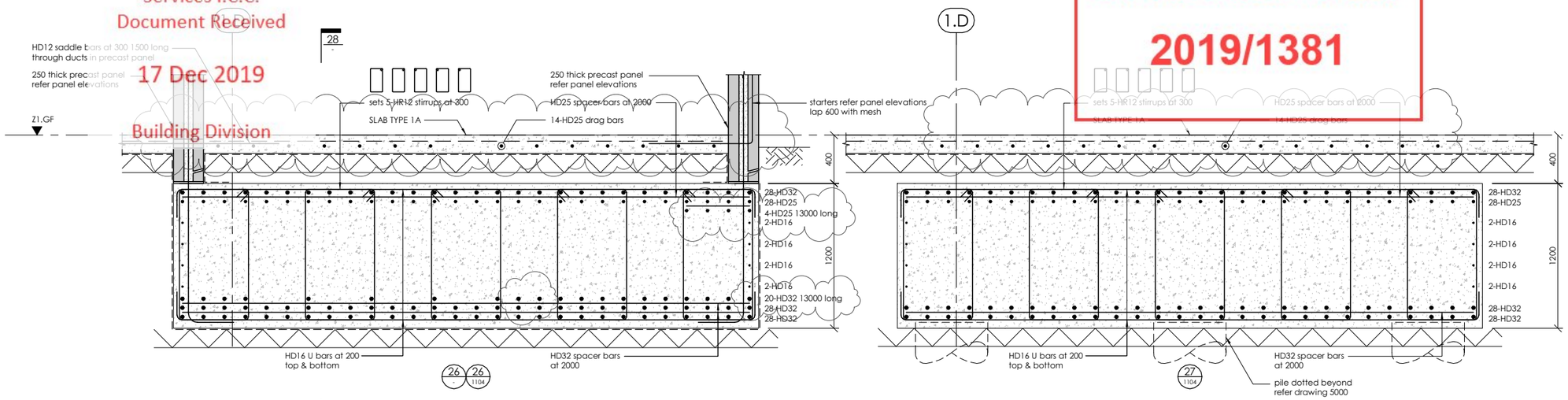
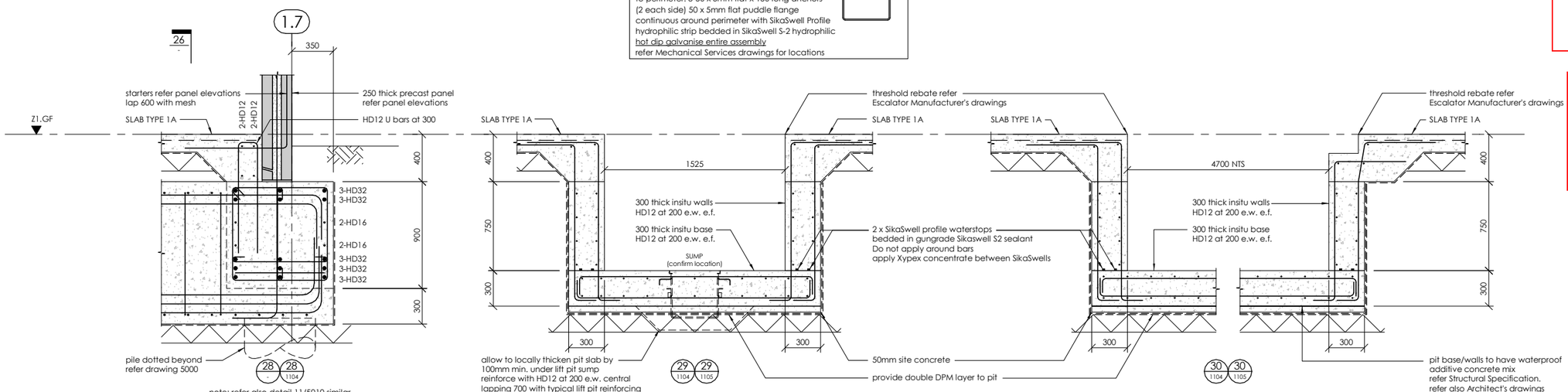
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

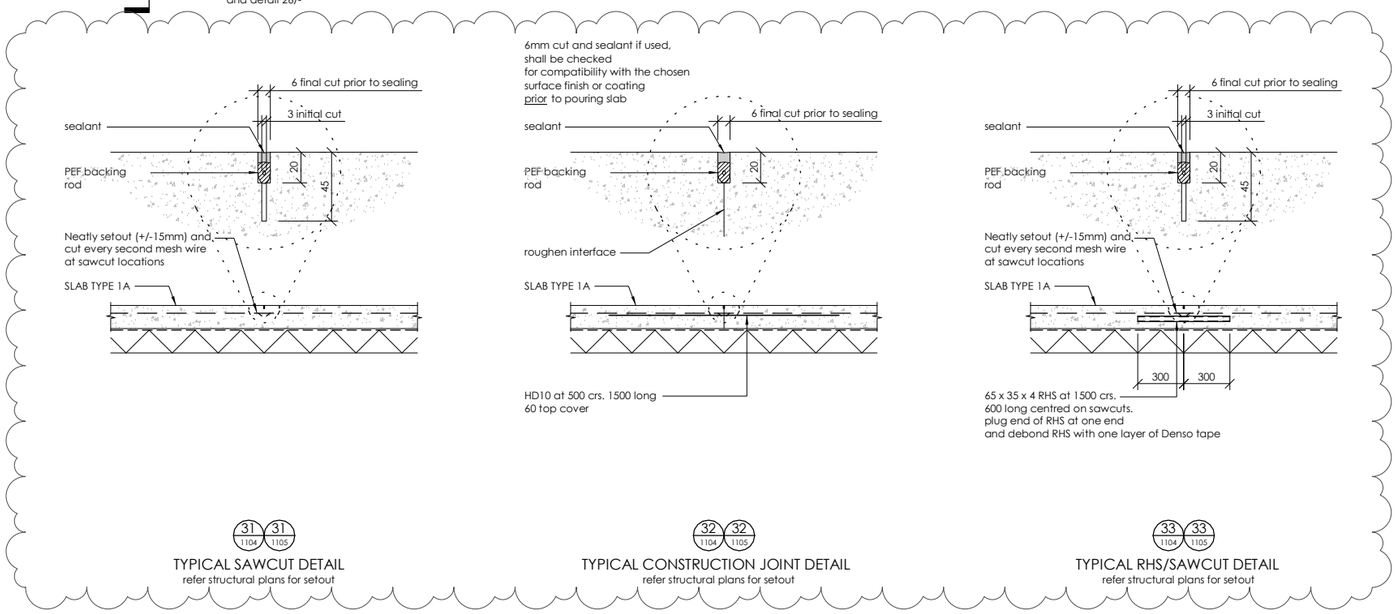
NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.



LIFT/ESCALATOR PIT SUMPS
400 x 400 sump
fabricated from 10mm plate with 25 x 3 EA
to perimeter, 8-50 x 5mm flat x 150 long anchors
(2 each side) 50 x 5mm flat puddle flange
continuous around perimeter with SikaSwell Profile
hydrophilic strip bedded in SikaSwell S-2 hydrophilic
hot dip galvanise entire assembly
refer Mechanical Services drawings for locations





REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
GROUND FLOOR / FOUNDATION DETAILS SHEET 4

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5013 REV. 2

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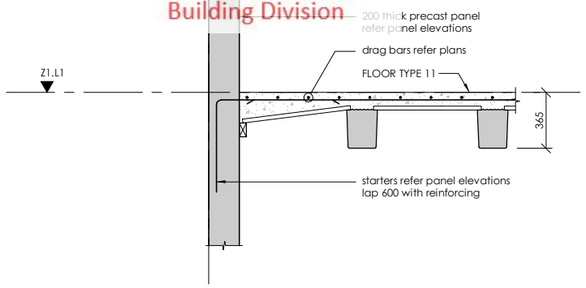
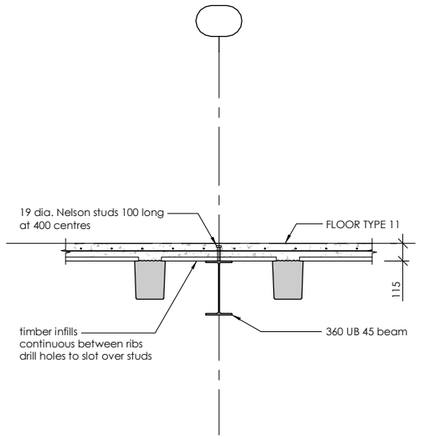
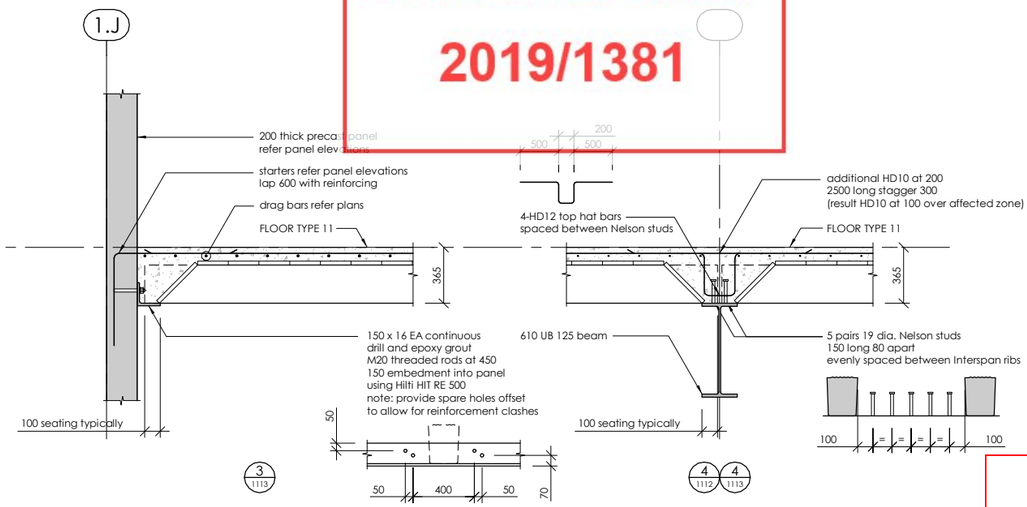
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.







REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 1
DETAILS
SHEET 1

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: _
SCALE: 1 : 20 at A1

118083-Z1-WD-ST 5110
REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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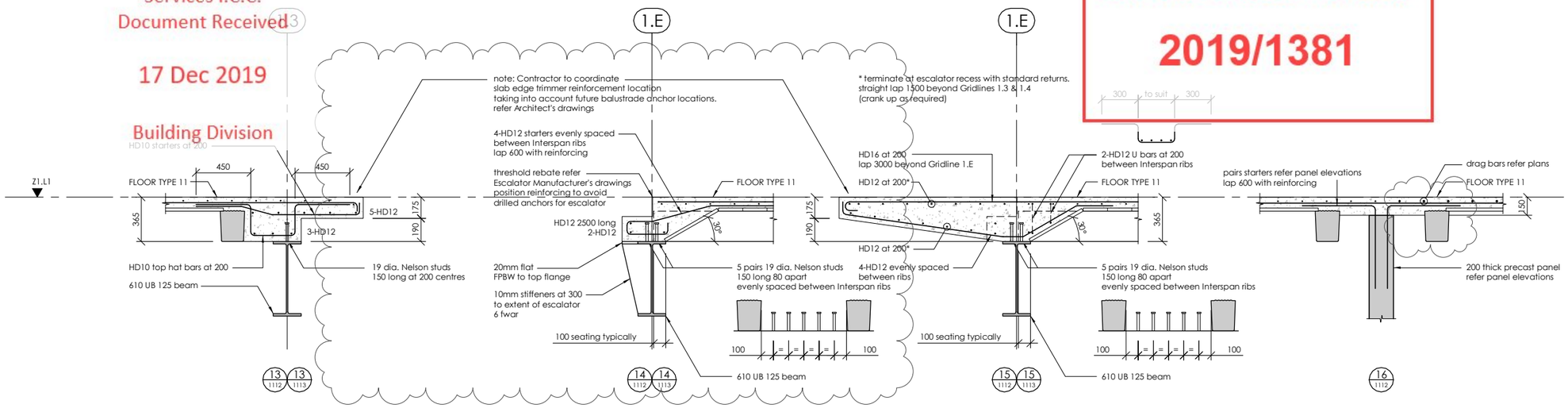
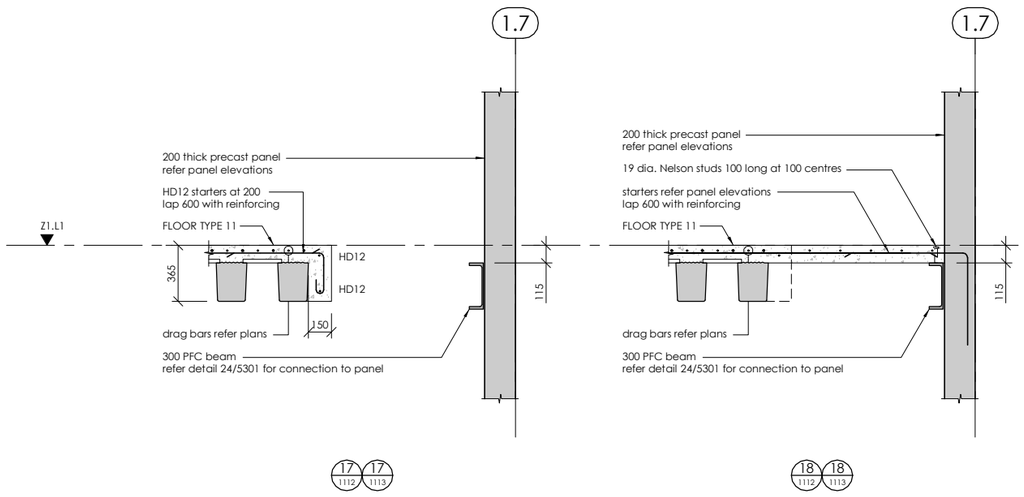
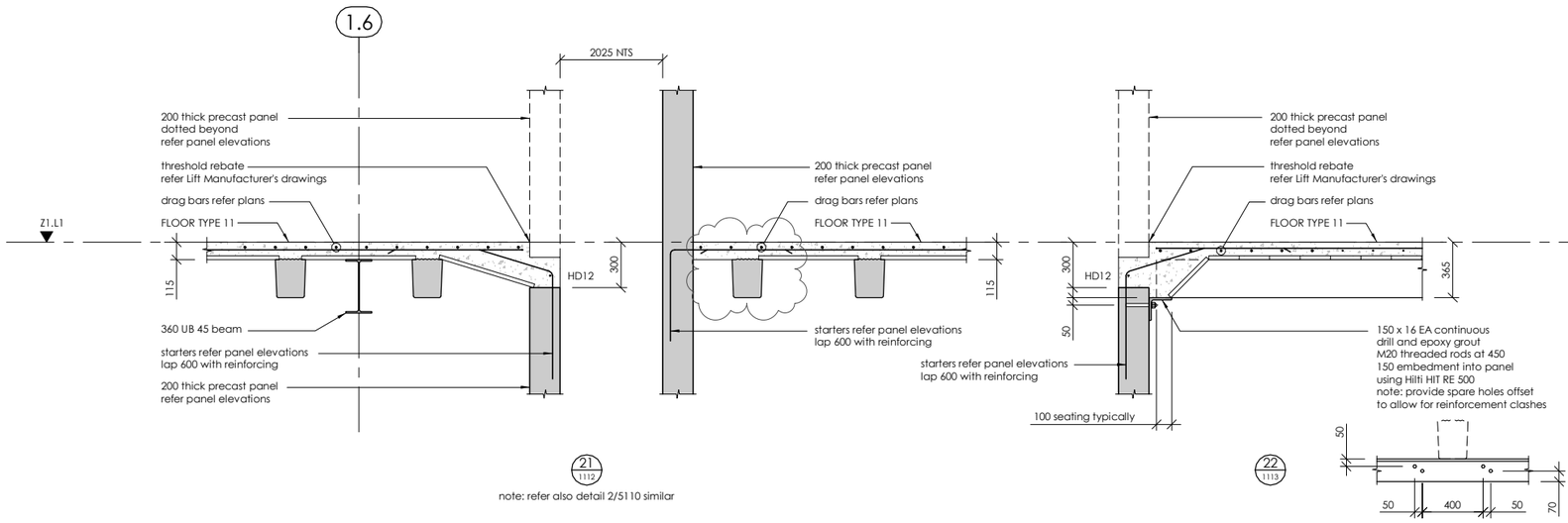
Refer also to Structural Specification.







REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 1
DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5111	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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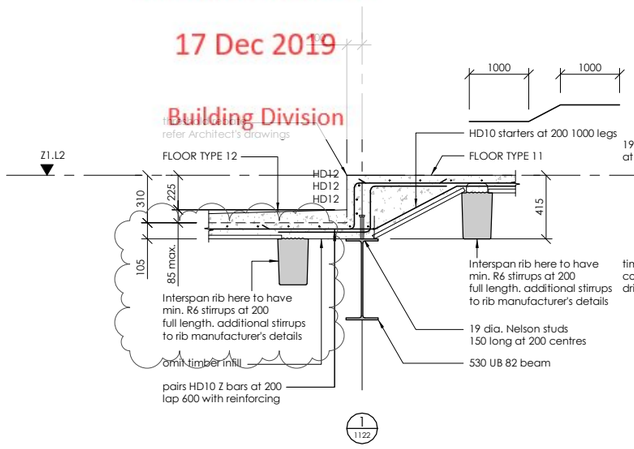
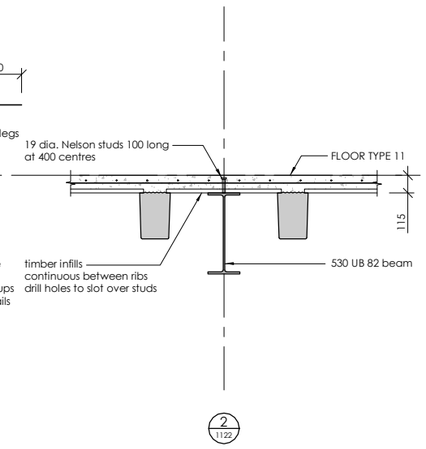
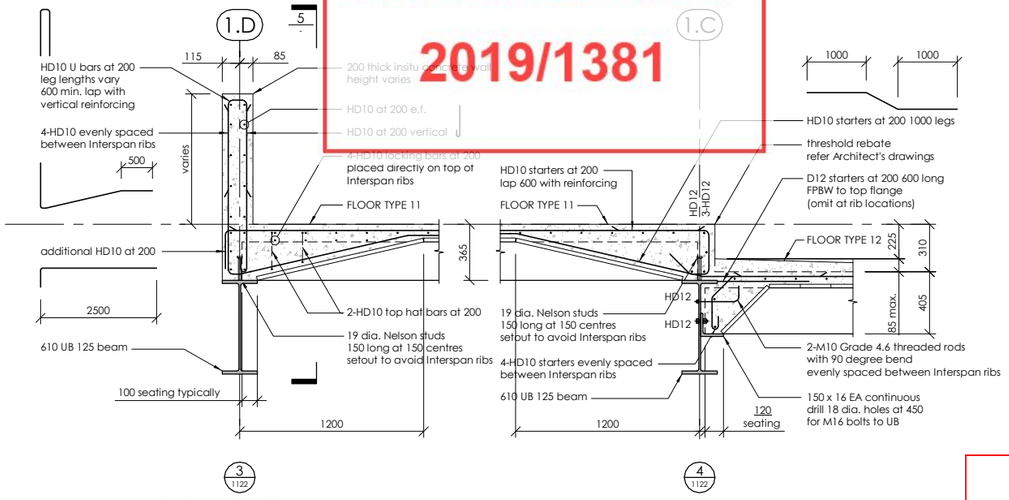


1 / 1122



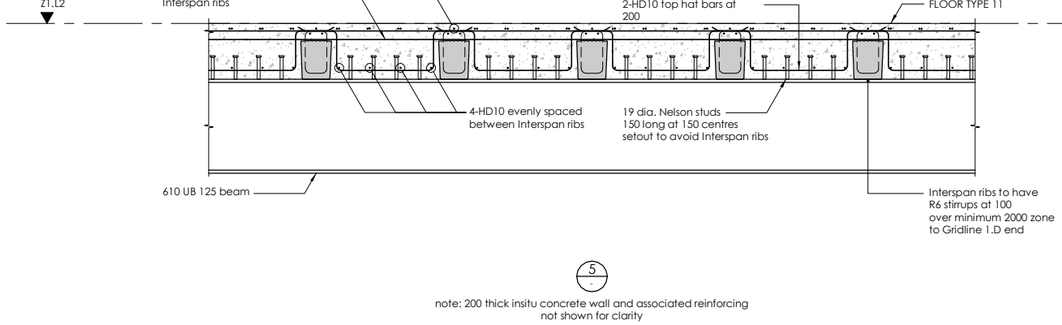
2 / 1122



3 / 1122

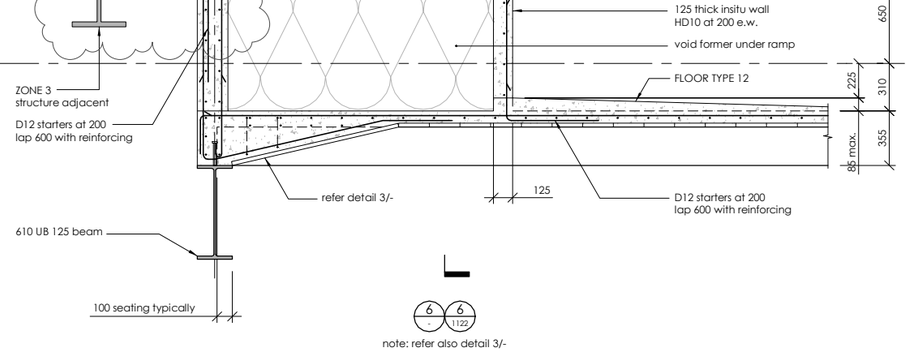
note: PFC roof connection to insitu concrete wall
not shown for clarity. refer detail 13/5711

4 / 1122



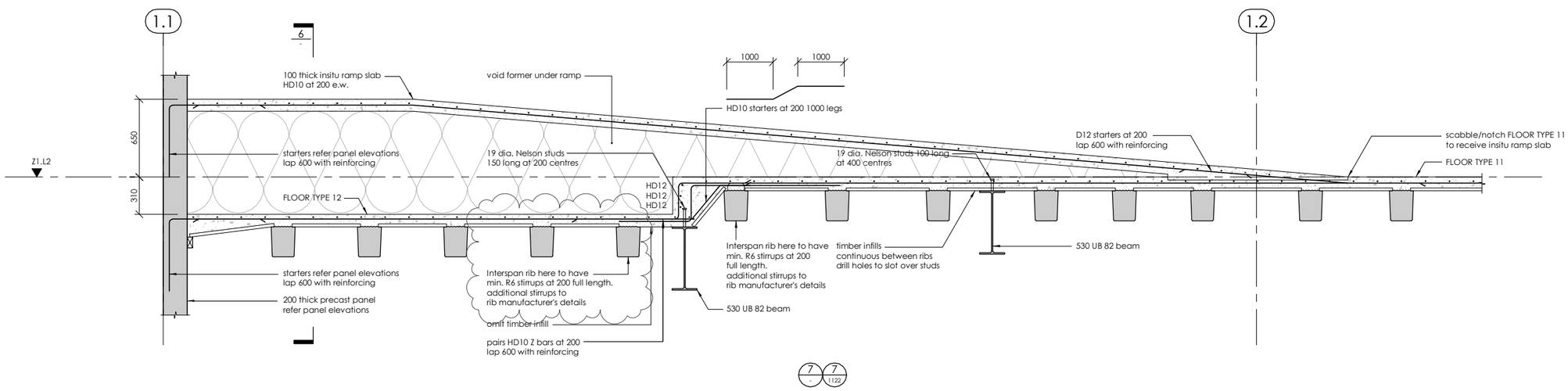
5 / -

note: 200 thick insitu concrete wall and associated reinforcing
not shown for clarity



6 / - 6 / 1122

note: refer also detail 3/-



7 / - 7 / 1122

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 2
DETAILS
SHEET 1

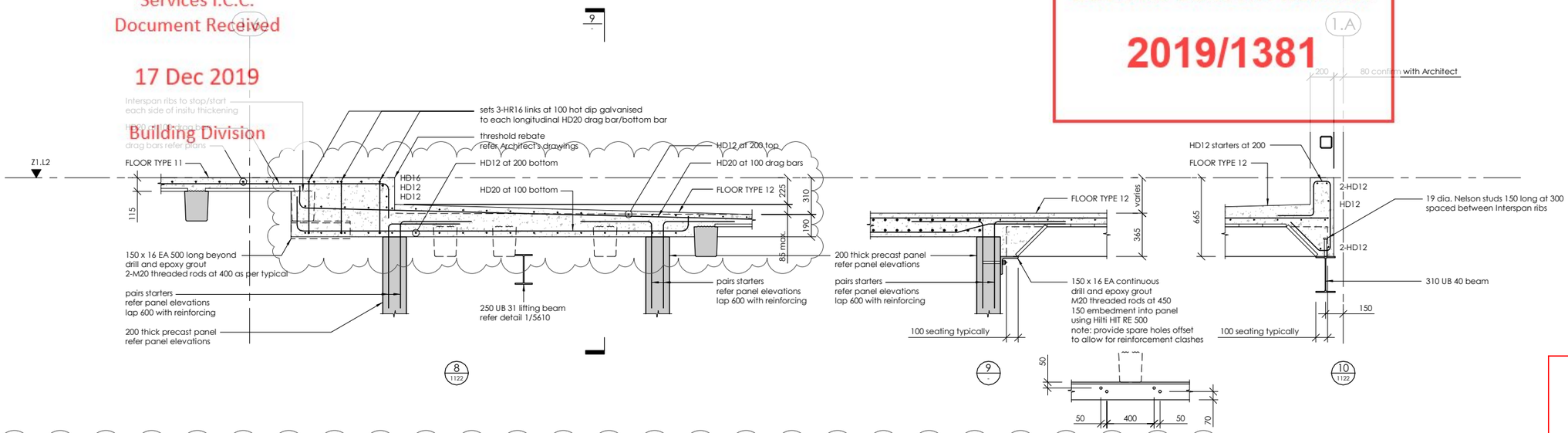
DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5120	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.



REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

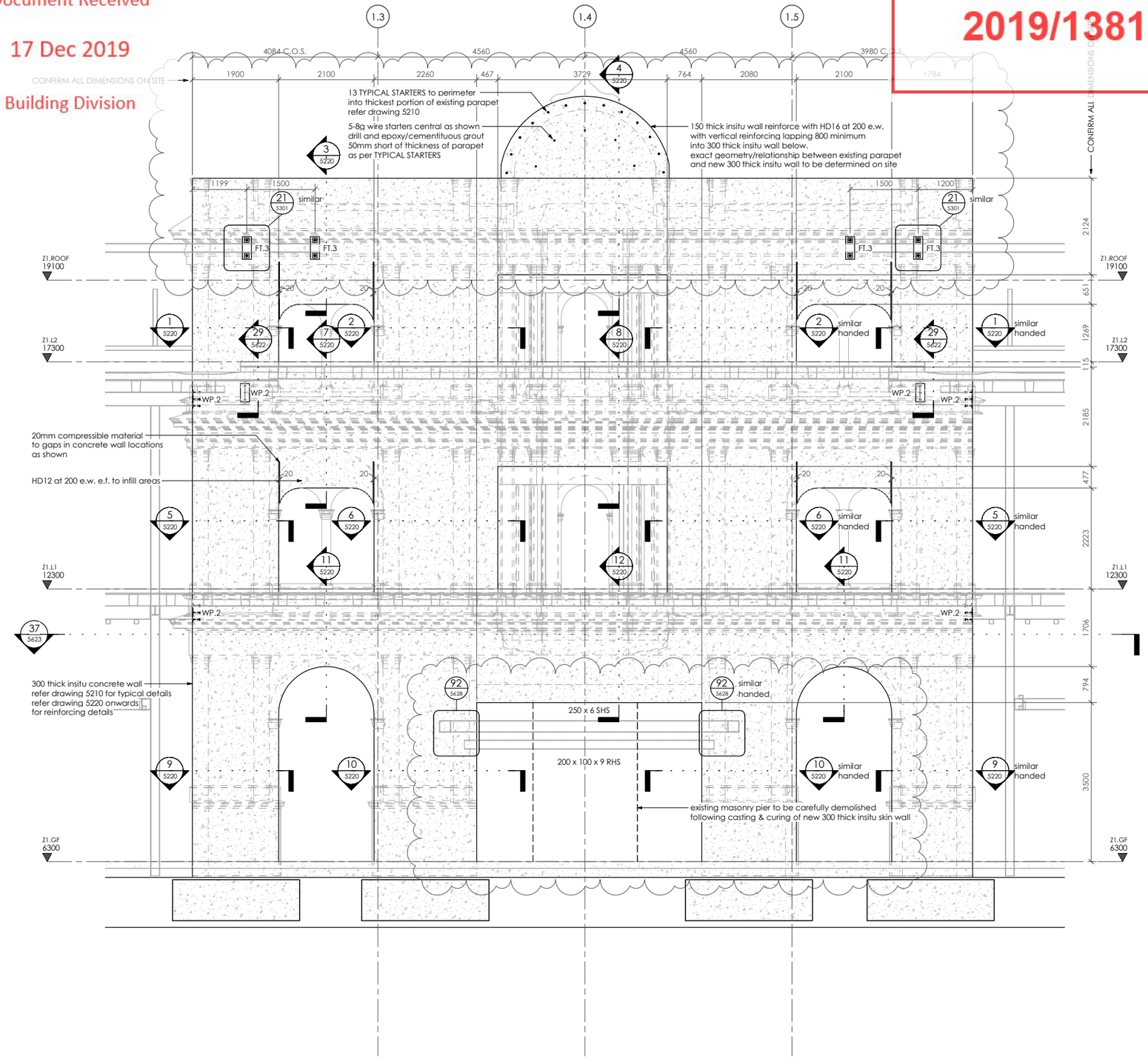
lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
LEVEL 2
DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5121	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



FACADE RETENTION ELEVATION - GRIDLINE 1.A

1 : 50

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also:

Lewis Bradford
Facade Retention Structural Documentation
Job Number 118083.02

Contractor to provide full method statement including sequence of works to Engineer prior to any construction of the new 300 thick insitu skin wall to the inner face of the existing facade.

Key Assumptions:

It has generally been assumed the new 300 thick insitu skin wall will be constructed level by level following the same sequence as the floor slabs (i.e. existing props will not be sufficient to bracethe existing facade and new 300 thick insitu skin wall full height without additional restraint)

The new 300 thick insitu skin wall is to be fully cast and cured prior to carefully demolishing the existing central masonry pier on Gridline 1.4

The new concrete panels supporting the areas of facade removed shall be cast in hit and miss construction

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

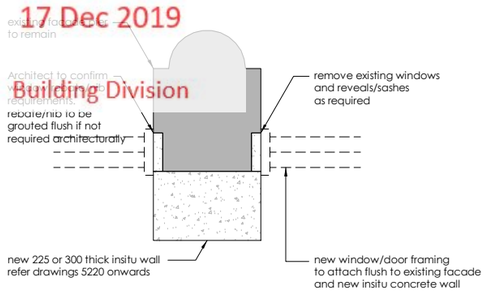
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FACADE RETENTION
ELEVATION
GRIDLINE 1.A

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	

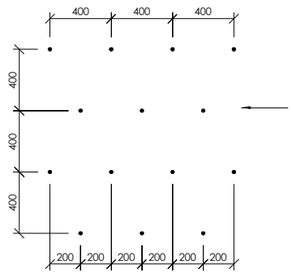
118083-Z1-WD-ST 5200 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2019, Christchurch Phone: (03) 379 3096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



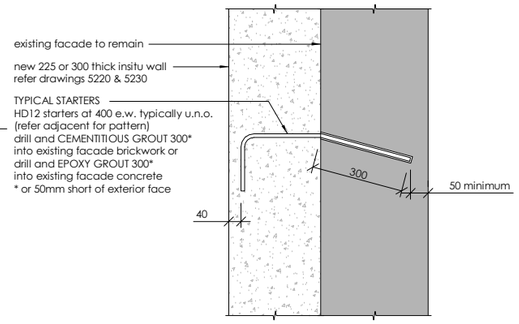
TYPICAL PIER TREATMENT - PLAN VIEW

1



TYPICAL STARTER SETOUT - ELEVATION

2



TYPICAL STARTER DETAIL - SECTION VIEW

3

STEELWORK NOTES

All structural steel shall comply with NZS 3404.

Surface preparation and corrosion protection of steel work shall be in accordance with the Specification.

All exposed ends of RHS members to be capped with ex. 6mm ms plate unless shown otherwise.

All plates shall be 10mm minimum unless noted otherwise.

Unless shown otherwise, all welds are to be 6 fillet weld all round refer to the Specification for type and class of weld.

All bolts and nuts shall be grade 8.8 high strength.

Oversized holes up to 1.33D may be provided for fixing structural steelwork to cast-in items (such as floor seating angle connections to cast-in Reid threaded inserts) if required for construction tolerance.
All oversized holes must be accompanied with a flat square steel washer 6mm min. thick welded all around with 6 fwar min.

All dry pack mortar/grout shall have a compressive strength of at least 30 MPa.

The Contractor shall provide an electronic copy of the shop drawings for the structural steel work to the Engineer. Allow 10 working days for review.

REIDBRACE NOTES

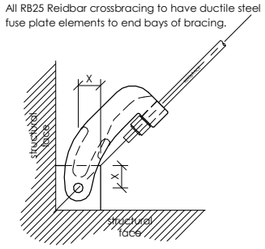
to reduce sag it is permissible to pre-tension unlubricated braces to a maximum of;
100Nm torque for RB16 bracing
250Nm torque for RB20 bracing
400Nm torque for RB25 bracing

Install Reidbrace in strict accordance with Reid's details including site installation of safety clip, tension nut and spring and washers either side of cleats.

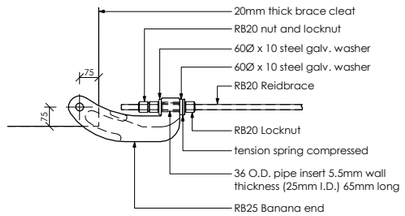
Provide plastic sleeves wired to brace where braces cross

Where splicing of bars is required use Reidbar couplers

All RB25 Reidbar crossbracing to have ductile steel fuse plate elements to end bays of bracing.



Reidbrace Size	Minimum Edge Distance = X	Cleat Plate Thickness	Weld Type U.N.O.
RB12	50mm	12mm	6mm
RB16	50mm	12mm	8mm
RB20	50mm	20mm	8mm
RB25	75mm	25mm	8mm



RB25 BANANA END CONVERSION TO RB20 ROOF BRACING

INSITU CONCRETE NOTES

Refer Architects drawings for all set out dimensions, opening sizes, slab set downs, rebates etc. Should there be any discrepancies between the architectural and engineering drawings advise the engineer.

All reinforcing steel shall be manufactured by Pacific Steel Limited using the microalloy process and shall be Grade 500E or Grade 300E.

All insitu interfaces and construction joints shall be thoroughly roughened to 5mm amplitude.

All reinforcing to be continuous around corners.

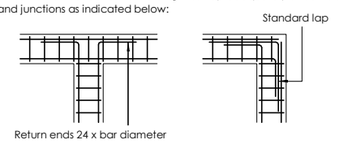
Bar annotations:

HD - denotes grade 500E
D - denotes grade 300E.

Refer to Specification for cover requirements to reinforcement.

Refer specification for minimum concrete compressive strength for all insitu concrete work.

All horizontal foundation reinforcing must lap adequately at corners and junctions as indicated below:



GROUTING OF TYPICAL STARTERS

CEMENTITIOUS GROUT where referenced on drawings refers to either Hilti HIT-HY 170 or Sika Grout 215 to be installed in strict accordance with the Manufacturer's instructions. Refer also Structural Specification Section 7.2

EPOXY GROUT where referenced on drawings refers to Hilti HIT-HY 200 or Hilti HIT-RE 500 V3 (or similar approved) to be installed in strict accordance with the Manufacturer's instructions. Refer also Structural Specification Section 3.1

The Contractor is to submit a detailed method statement for the core drilling and grouting works well in advance of construction. This method statement will be reviewed and approved by the Engineer prior to commencing any core drilling. Refer also to the Structural Specification

BRICK AND STONE MASONRY REPAIRS

An experienced bricklayer is to inspect all brickwork and stonework for damage and deterioration

A detailed repair specification is to be prepared by the Contractor in conjunction with a brick layer experienced in heritage work and submitted to the Engineer for review and approval prior to undertaking any repair works. This specification should include, but not be limited to:

- a method statement for each repair type including the proposed materials to be used
- elevations showing itemised repair locations, types and extent

Damaged masonry units to be carefully removed and replaced with new masonry units to the approval on the Engineer

GENERAL NOTES

This drawing is to be read in conjunction with all relevant Engineers and Architects drawings and the Specification.

These facade strengthening drawings are based on no original drawings and limited on site investigation works. Investigation works are required on site to confirm as built structural details.

These facade strengthening drawings cover the design of the temporary facade retention system only. Additional temporary works will be required between work phases to suit the Contractor's final proposed methodology

Refer Architects drawings for all set out dimensions, opening sizes, slab set downs, rebates, insitu nibs and upstands etc.

All discrepancies shall be referred to the Architect for resolution before proceeding work.

Refer hydraulic drawings for pipe penetrations required through foundations.

Foundation material shall be approved by the Geotechnical Engineer for safe bearing capacity before construction of any footings

The Contractor is responsible for the design, installation and maintenance of all necessary temporary works to ensure the strength and stability of the building throughout the course of the demolition works. Note that significant temporary propping will be required to the existing masonry facade structure during demolition of the ground floor piers.

Contractor to take all measures necessary to prevent damage to the facade during the works.

Contractor to determine positions of all existing services (i.e. including but not limited to electrical and drainage) before excavation for foundations. It is expected that existing water supply and stormwater pipes are located within 6m of the existing facades.

Contractor shall notify the Engineer at least SEVEN DAYS prior to pouring foundation concrete.

All materials and workmanship must comply with the New Zealand Building Code.

Locate, disconnect and/or otherwise make safe all existing services on or adjacent to the site before commencing works.

Allow to comply with all Invercargill City Council requirements and notify the Engineer of any conditions of consent.

Notify the Engineer if any hidden existing defects such as rotten or degraded structural members are uncovered as part of these works.

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

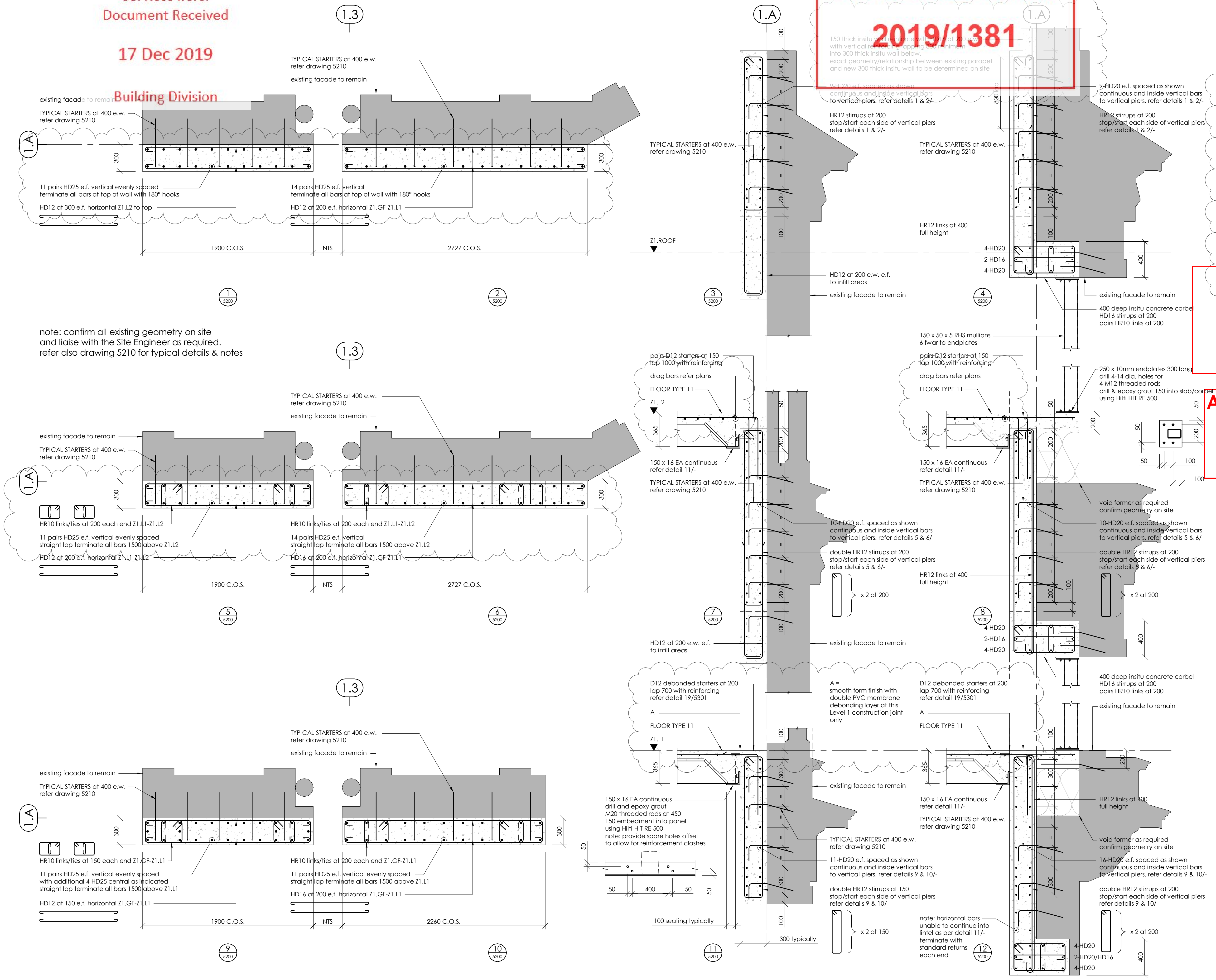
lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FACADE RETENTION
DETAILS
TYPICAL

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5210	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

Refer also:

Lewis Bradford
Facade Retention Structural Documentation
Job Number 118083.02

Contractor to provide full method statement including sequence of works to Engineer prior to any construction of the new 300 thick insitu skin wall to the inner face of the existing facade.

Key Assumptions:

It has generally been assumed the new 300 thick insitu skin wall will be constructed level by level following the same sequence as the floor slabs (i.e. existing props will not be sufficient to bracethe existing facade and new 300 thick insitu skin wall full height without additional restraint)

The new 300 thick insitu skin wall is to be fully cast and cured prior to carefully demolishing the existing central masonry pier on Gridline 1.4

The new concrete corbels supporting the areas of facade between Gridlines 1.3-1.5 shall be hit and miss construction

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
FACADE RETENTION
DETAILS
SOUTHLAND TIMES

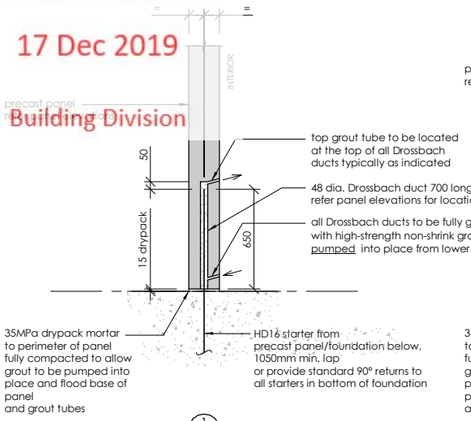
DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: –
SCALE: 1 : 20 at A1

118083-Z1-WD-ST 5220
REV. 2

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

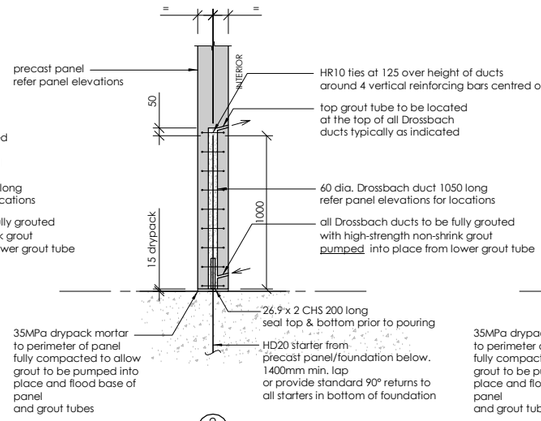
NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.



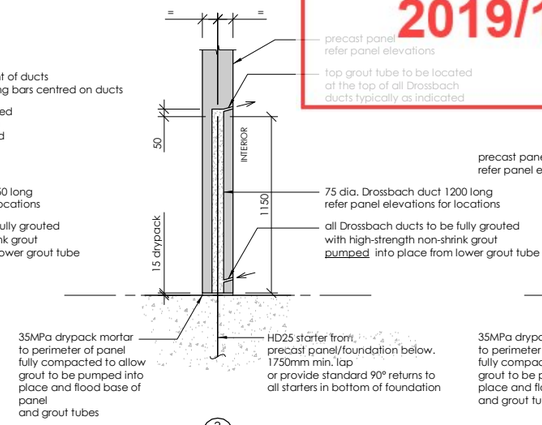
1

D1 DROSSBACH DUCT DETAIL
ZONES 1 & 3



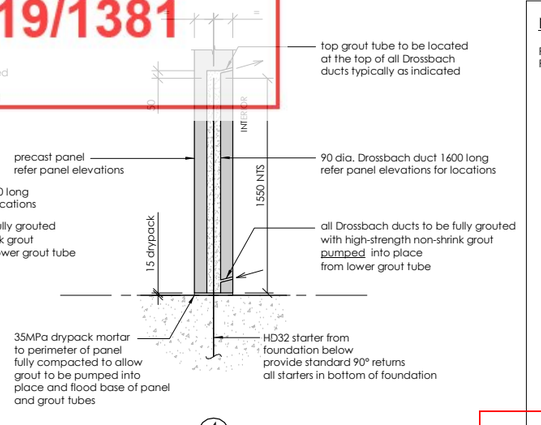
2

D2 DROSSBACH DUCT DETAIL
ZONE 3 ONLY



3

D3 DROSSBACH DUCT DETAIL
ZONES 1 & 3



4

D4 DROSSBACH DUCT DETAIL
ZONE 1 ONLY

5

D5 DROSSBACH DUCT DETAIL
ZONE 3 ONLY

6

D6 DROSSBACH DUCT DETAIL
ZONE 3 ONLY

7

D7 DROSSBACH DUCT DETAIL
ZONES 1 & 3

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
TYPICAL PRECAST PANEL
DETAILS
SHEET 1

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5300	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

2019/1381

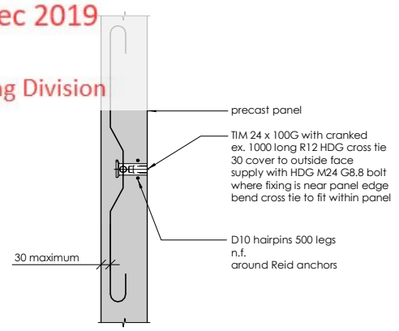
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

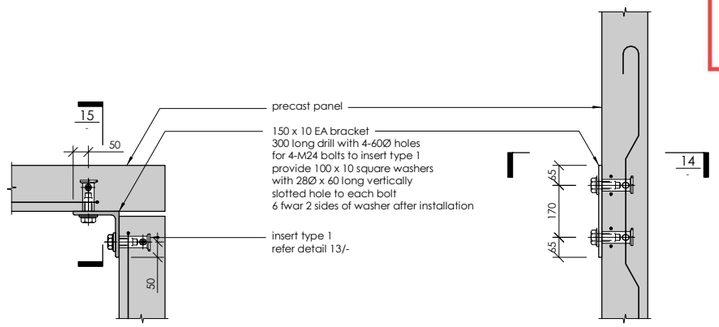
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

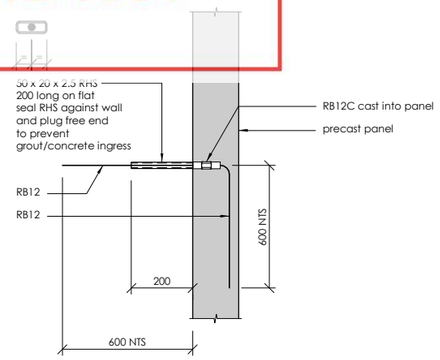


13
INSERT TYPE 1 (IT.1)
scale 1:10

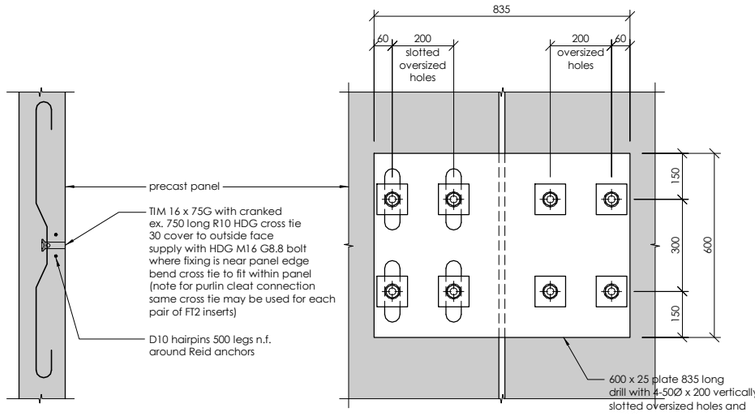


14
FIXING TYPE 1 (FT.1) - ZONES 1 & 3
scale 1:10

15
FIXING TYPE 1 (FT.1) - ZONES 1 & 3
scale 1:10



16
TYPICAL RB12 DEBONDED STARTER - ZONE 3 ONLY
scale 1:10



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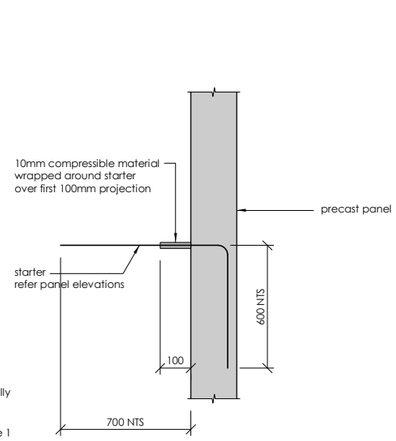
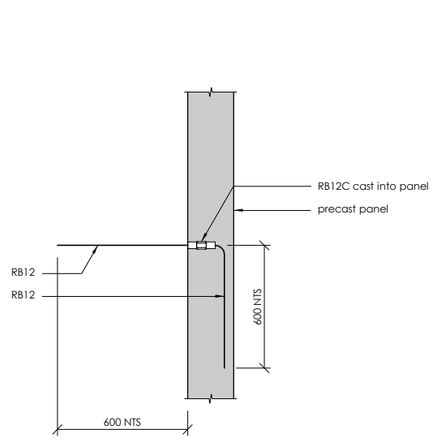
INSERT TYPE 2 (IT.2)
scale 1:10

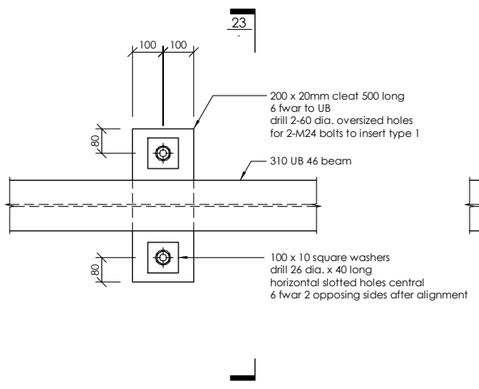
18
FIXING TYPE 2 (FT.2) - ZONE 3 ONLY
scale 1:10



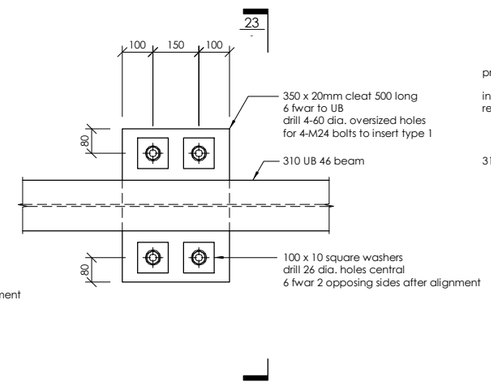
19
TYPICAL DEBONDED STARTER - ZONE 1 ONLY
scale 1:10



20
TYPICAL RB12 BONDED STARTER
scale 1:10



21
FIXING TYPE 3 (FT.3) - ZONE 1 ONLY
scale 1:10



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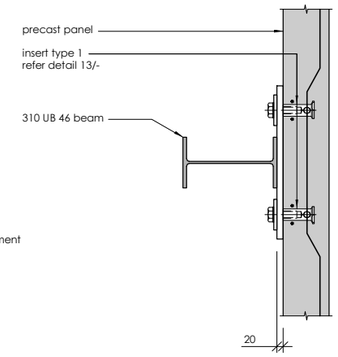
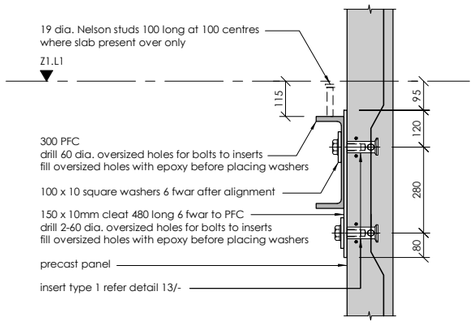
FIXING TYPE 4 (FT.4) - ZONE 1 ONLY
scale 1:10



23



24 2416 24 2417
FIXING TYPE 5 (FT.5) - ZONE 1 ONLY
scale 1:10

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

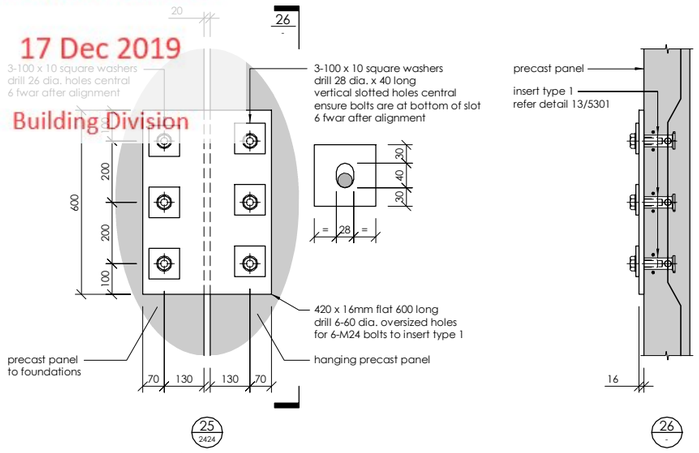
lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

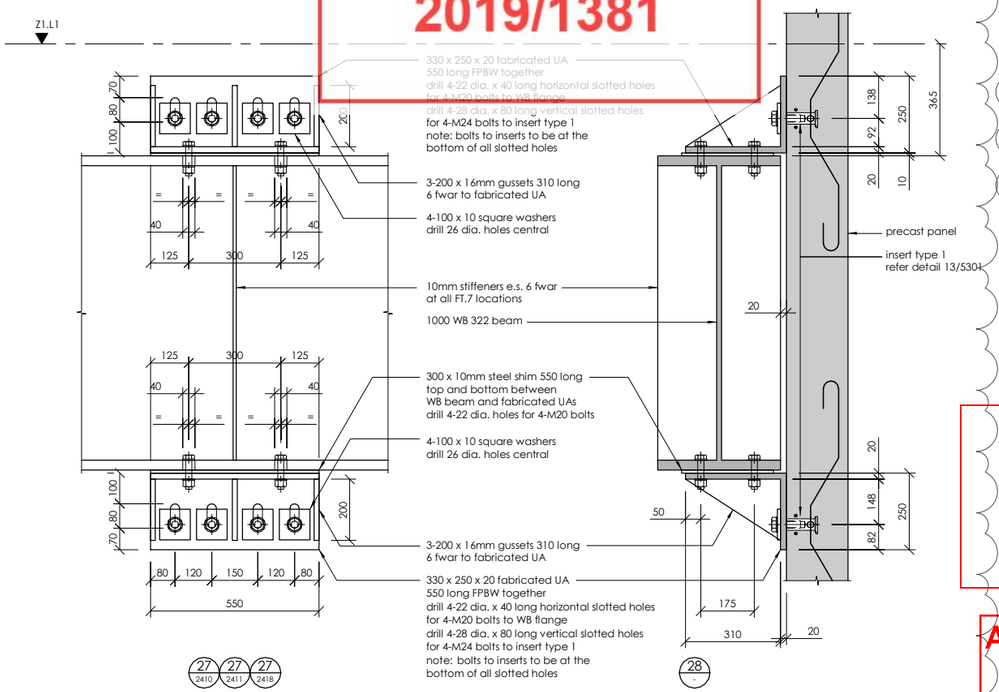
DRAWING TITLE:
TYPICAL PRECAST PANEL DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5301	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



FIXING TYPE 6 (FT.6) - ZONE 1 ONLY
scale 1:10



FIXING TYPE 7 (FT.7) - ZONE 1 ONLY
scale 1:10
note: Gridline 1.7 connection with 310 UC 118 similar
with fabricated UA only required to top flange

BUILDING CONSENT NUMBER

2019/1381

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
TYPICAL PRECAST PANEL
DETAILS
SHEET 3

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5302	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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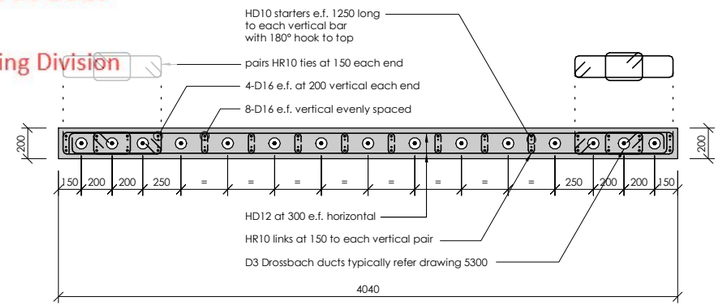
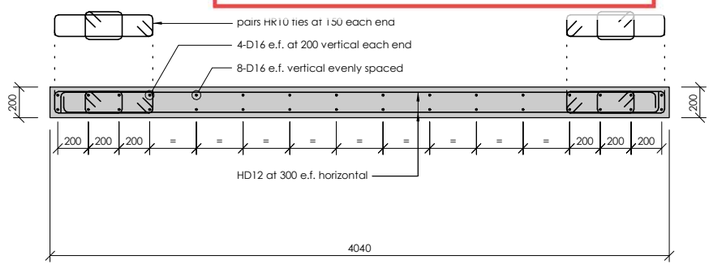
Refer also to Structural Specification.



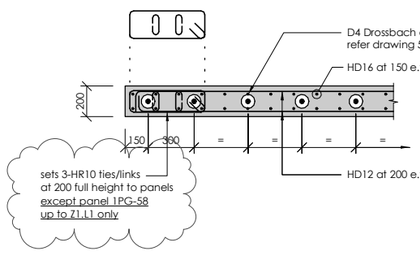
TYPICAL SEISMIC PANEL SECTION - GROUND LEVEL

1 2410 | 1 2411 | 1 2412 | 1 2416 | 1 2417 | 1 2418 | 1 2423 | 1 2424



TYPICAL SEISMIC PANEL SECTION - ABOVE Z1.L1

2 2410 | 2 2411 | 2 2412 | 2 2416 | 2 2417 | 2 2418 | 2 2423 | 2 2424



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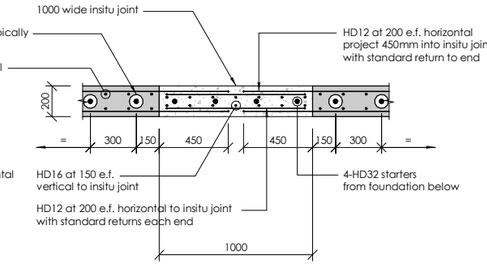

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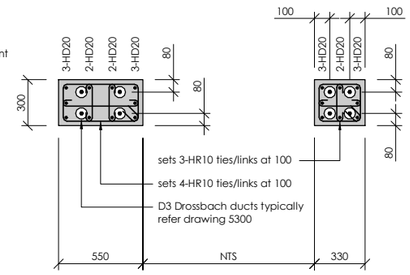
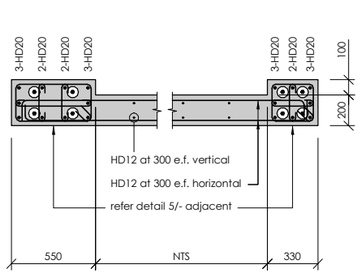
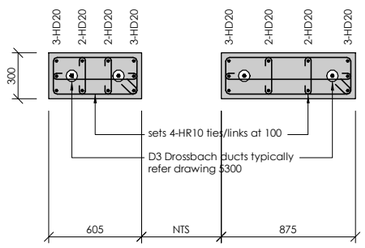


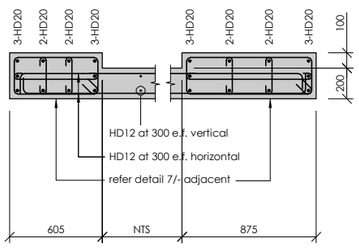
5 2413



6 2413



7 2414



8 2414

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
DETAILS
SHEET 1

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: _
SCALE: 1 : 20 at A1

118083-Z1-WD-ST 5310
REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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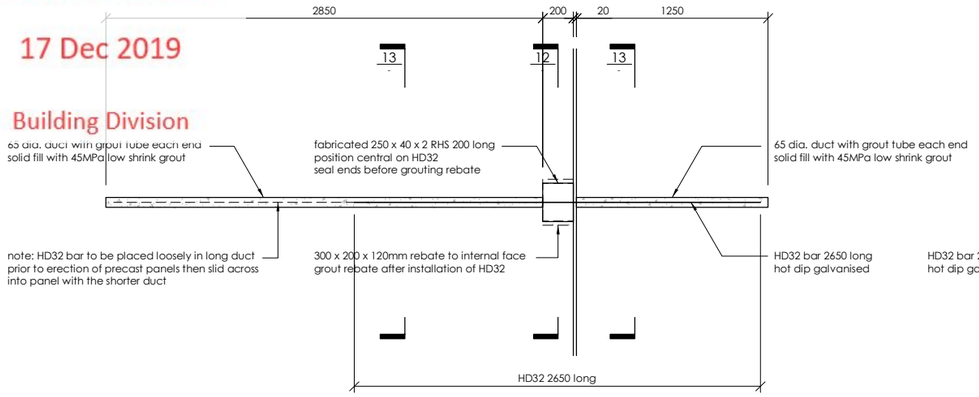
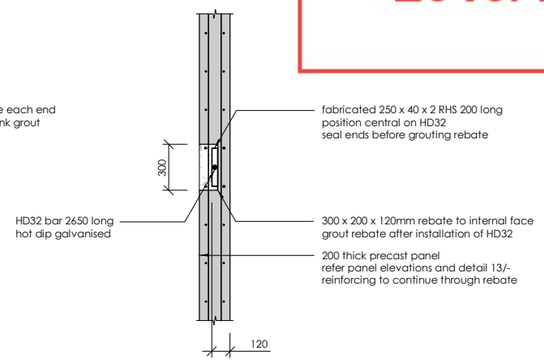
Refer also to Structural Specification.

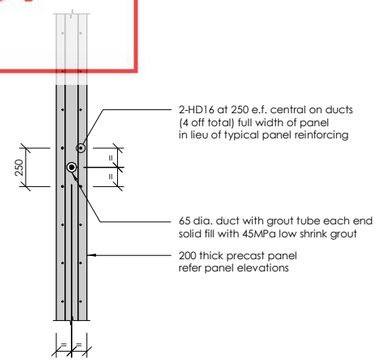


11 / 2416

HD32 TENSION TIE DETAIL



12 / -



13 / -

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

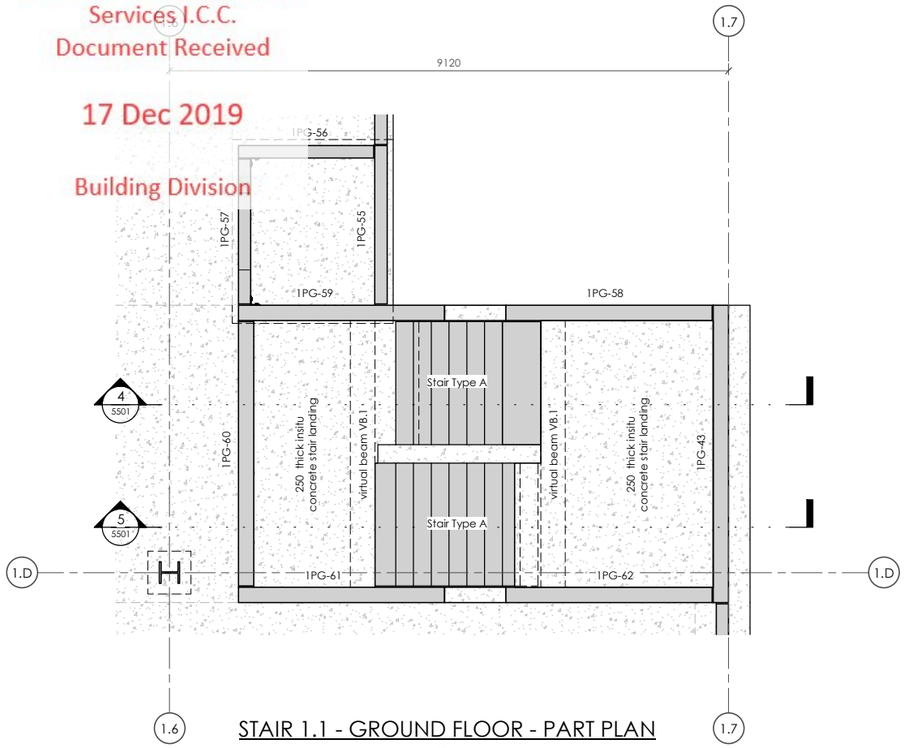
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
PRECAST PANEL
DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5311 REV. 2

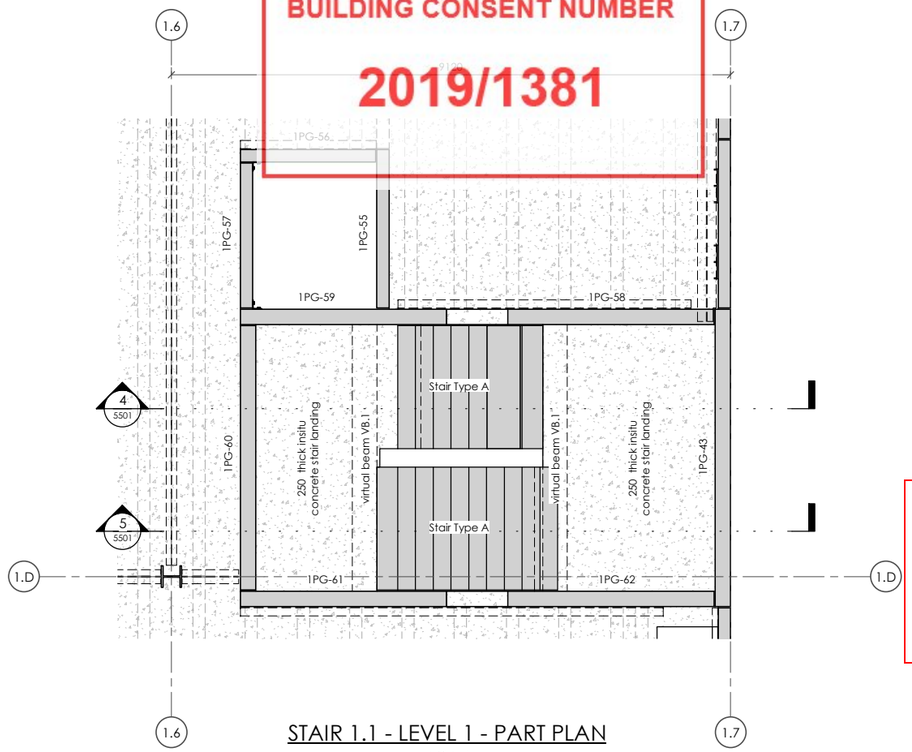
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



STAIR 1.1 - GROUND FLOOR - PART PLAN

1 : 50 at A1

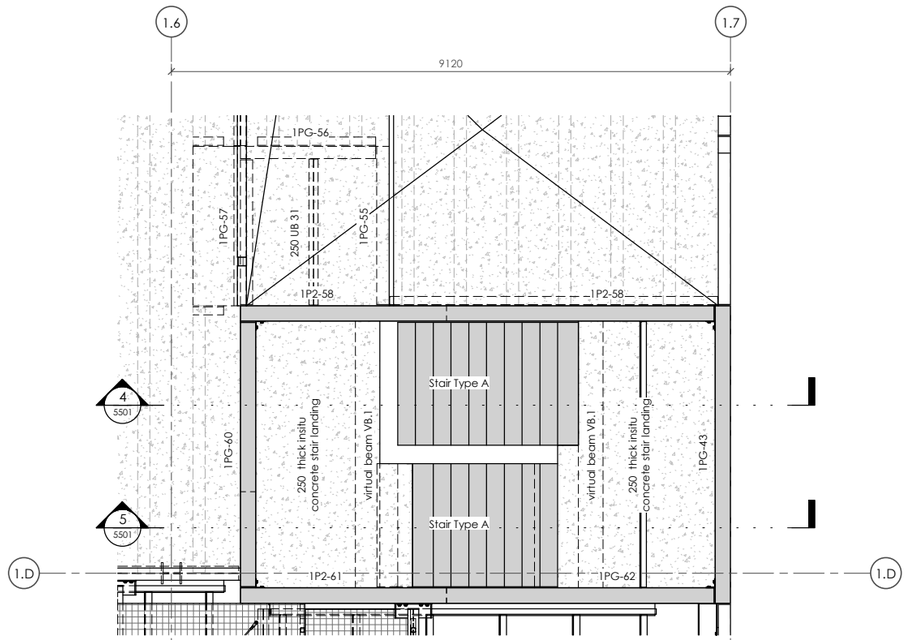
1 / 1104



STAIR 1.1 - LEVEL 1 - PART PLAN

1 : 50 at A1

2 / 1112



STAIR 1.1 - LEVEL 2 - PART PLAN

1 : 50 at A1

3 / 1122

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
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REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
STAIR 1.1
PART PLANS

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5500	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2319, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9096 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 371, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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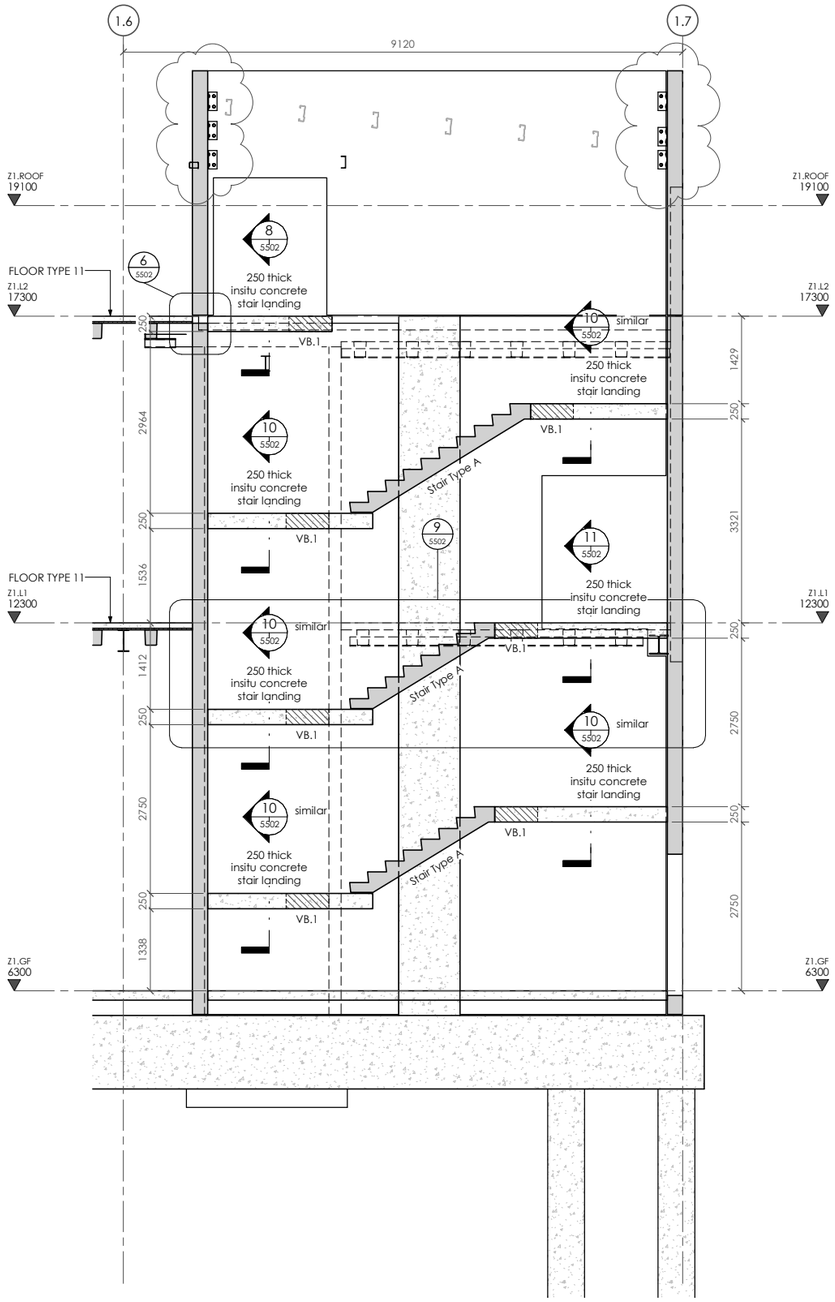
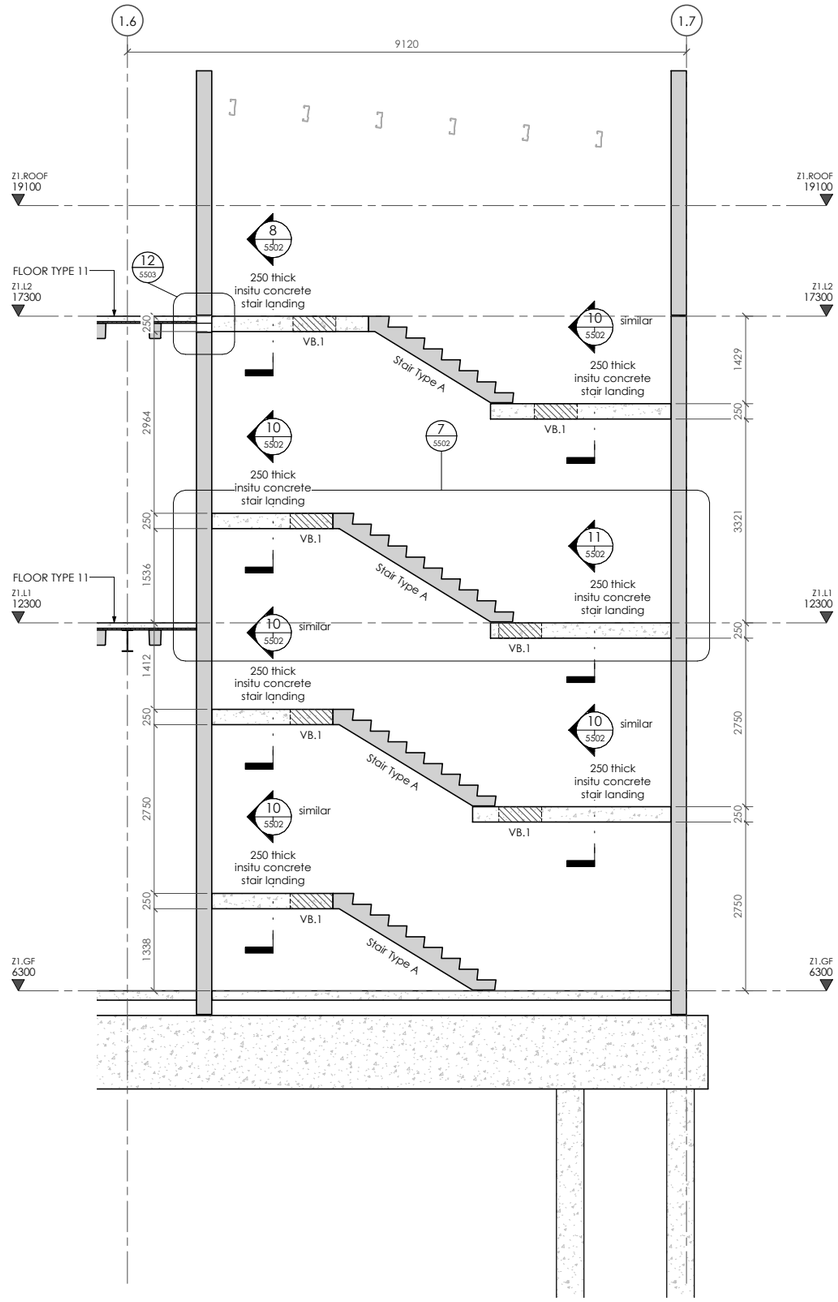


STAIR 1.1 - NORTH ELEVATION

1 : 50 at A1

4 / 5500



STAIR 1.1 - SOUTH ELEVATION

1 : 50 at A1

5 / 5500

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
STAIR 1.1
ELEVATIONS

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5501 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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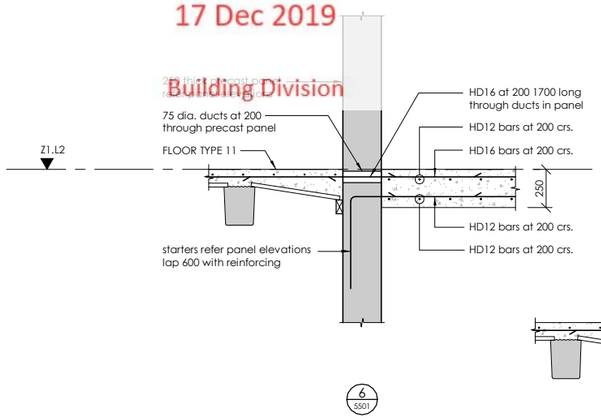
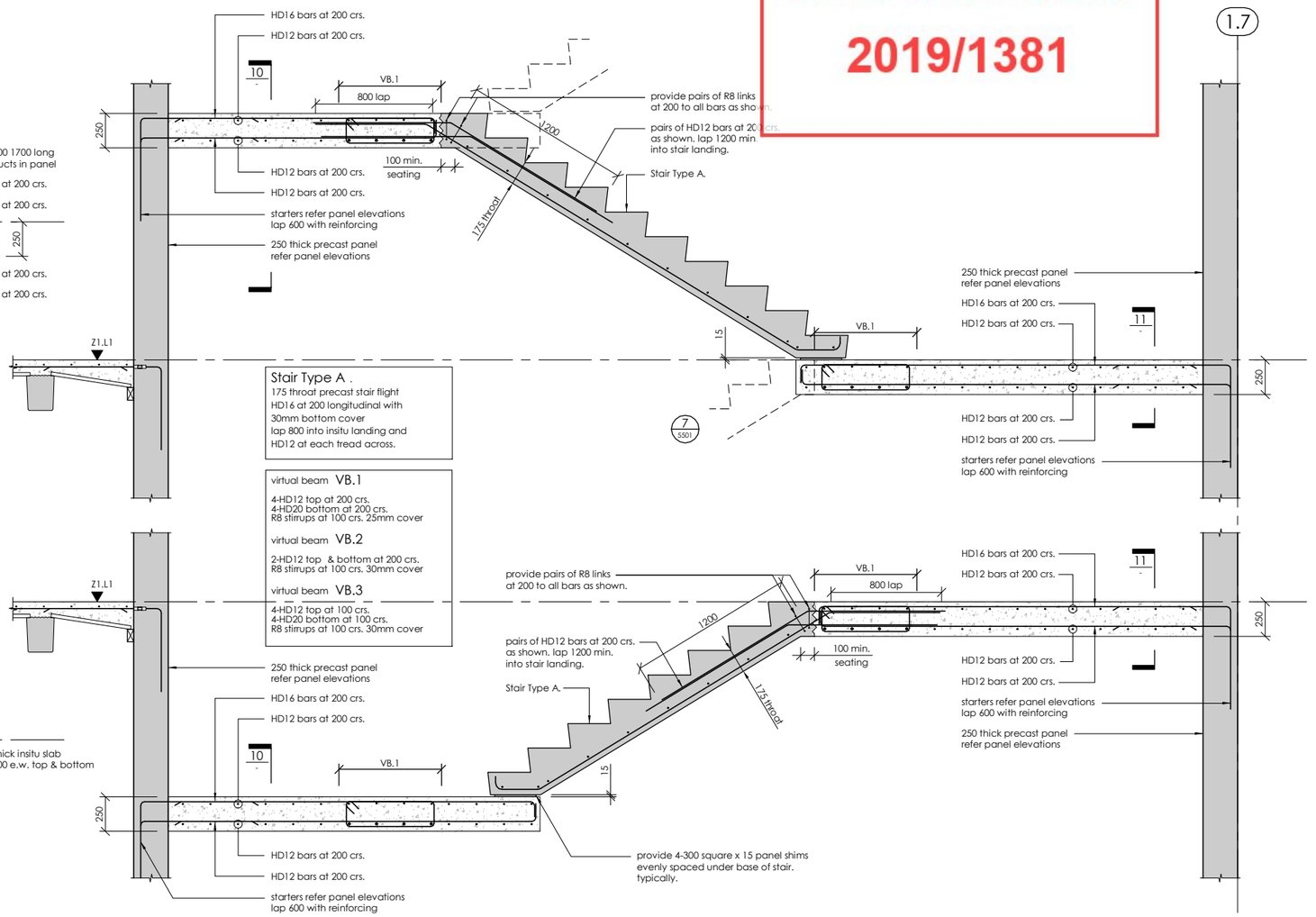


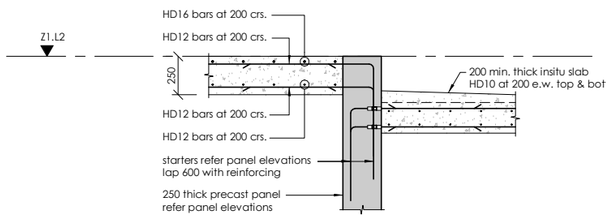


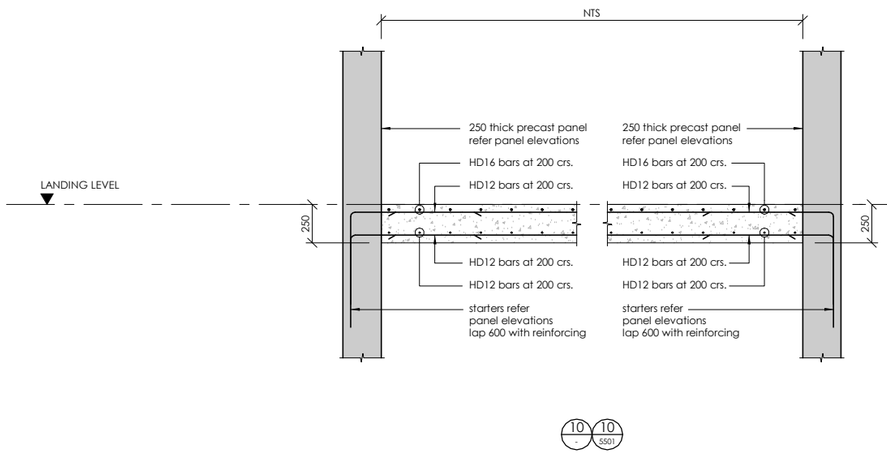
Stair Type A .
175 throat precast stair flight
HD16 at 200 longitudinal with
30mm bottom cover
lap 800 into insitu landing and
HD12 at each tread across.

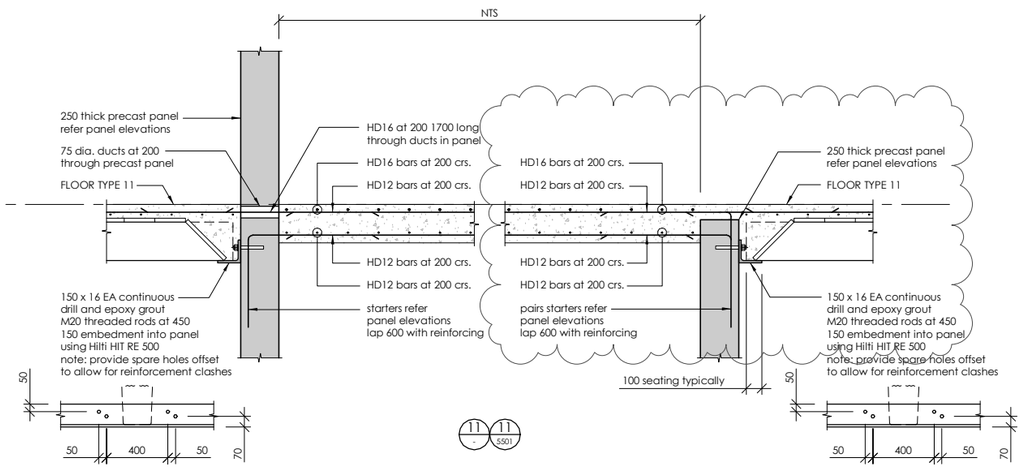
virtual beam VB.1
4-HD12 top at 200 crs.
4-HD20 bottom at 200 crs.
R8 stirrups at 100 crs. 25mm cover

virtual beam VB.2
2-HD12 top & bottom at 200 crs.
R8 stirrups at 100 crs. 30mm cover

virtual beam VB.3
4-HD12 top at 100 crs.
4-HD20 bottom at 100 crs.
R8 stirrups at 100 crs. 30mm cover







REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS

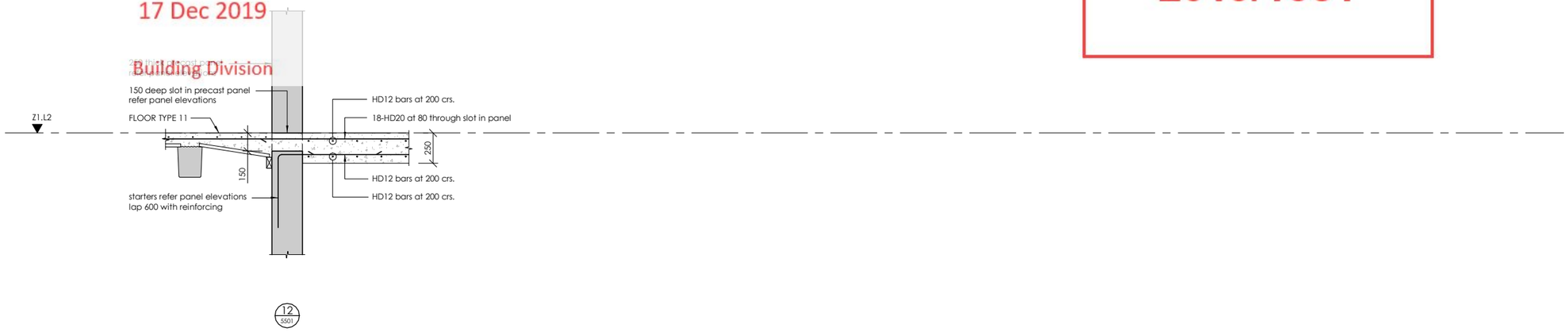
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
STAIR 1.1
DETAILS
SHEET 1

DRAWN: GPW	SCALE:
ENGINEER: EL/TSS	1 : 20 at A1
CHECKED: _	

118083-Z1-WD-ST 5502 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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Refer also to Structural Specification.

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
STAIR 1.1
DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5503	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

Environmental & Planning
Services I.C.C.
Document Received

17 Dec 2019

Building Division

BUILDING CONSENT NUMBER

2019/1381

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
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NOTES :

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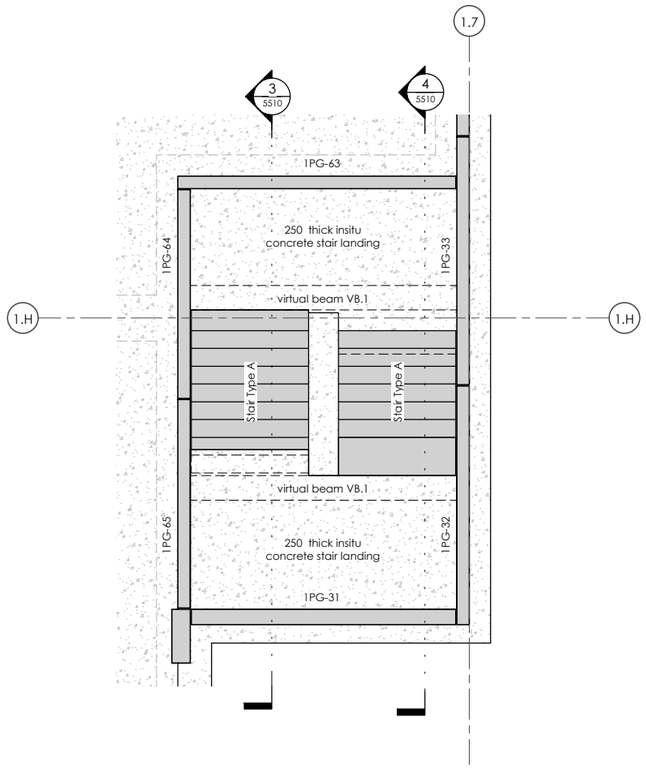
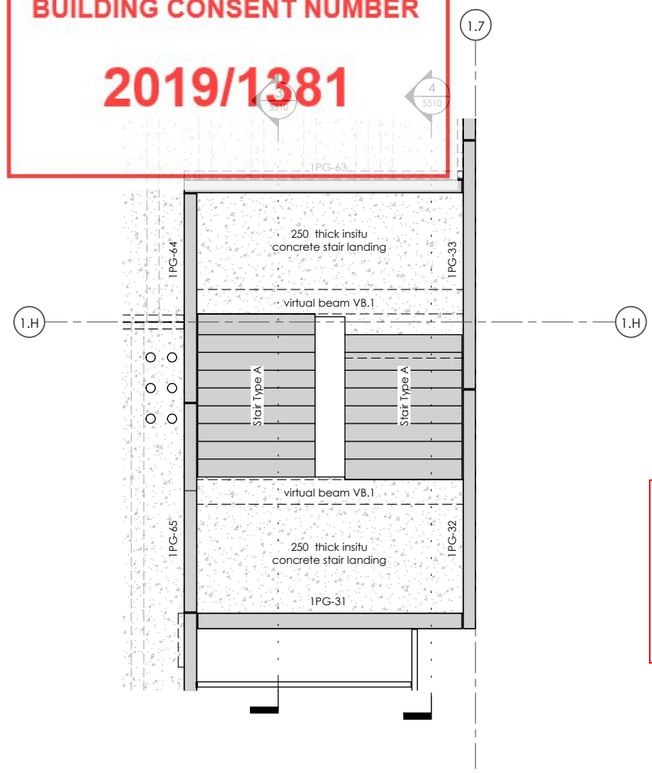


STAIR 1.2 - GROUND FLOOR - PART PLAN

1 : 50 at A1

1 1105



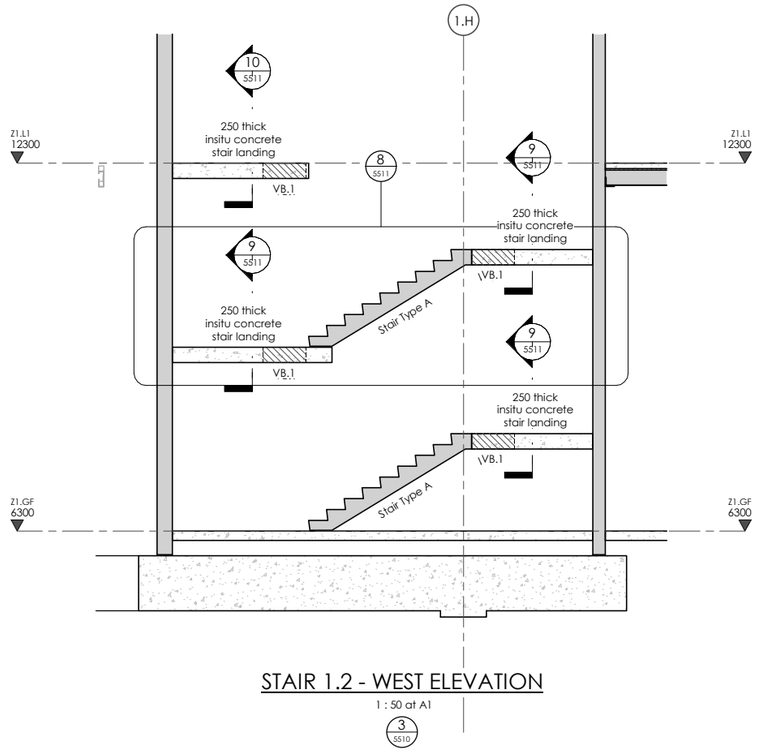
STAIR 1.2 - LEVEL 1 - PART PLAN

1 : 50 at A1

2 1113

Invercargill City
Council
Building Consent
Authority
Approved Site Copy

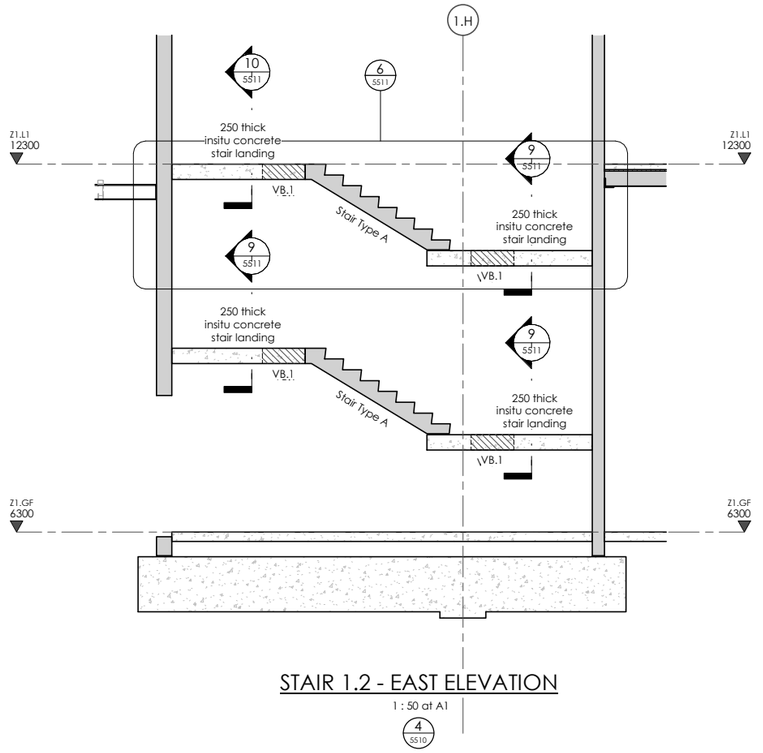
Approved For Issue
27/02/2020



STAIR 1.2 - WEST ELEVATION

1 : 50 at A1

3 5510



STAIR 1.2 - EAST ELEVATION

1 : 50 at A1

4 5510

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
STAIR 1.2
PART PLANS AND
ELEVATIONS

DRAWN: GPW	SCALE: 1 : 50 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5510	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

C:\Users\User\Desktop\REVIT LOCAL FILES AND AUTOCAD TEMP FILES\118083 - ST-WD - INVERCARGILL - ZONE 1 - ANCHOR - 2019_Geof-LBA.rvt 24/10/2019 4:44:08 PM

BUILDING CONSENT NUMBER

1.H

2019/1381

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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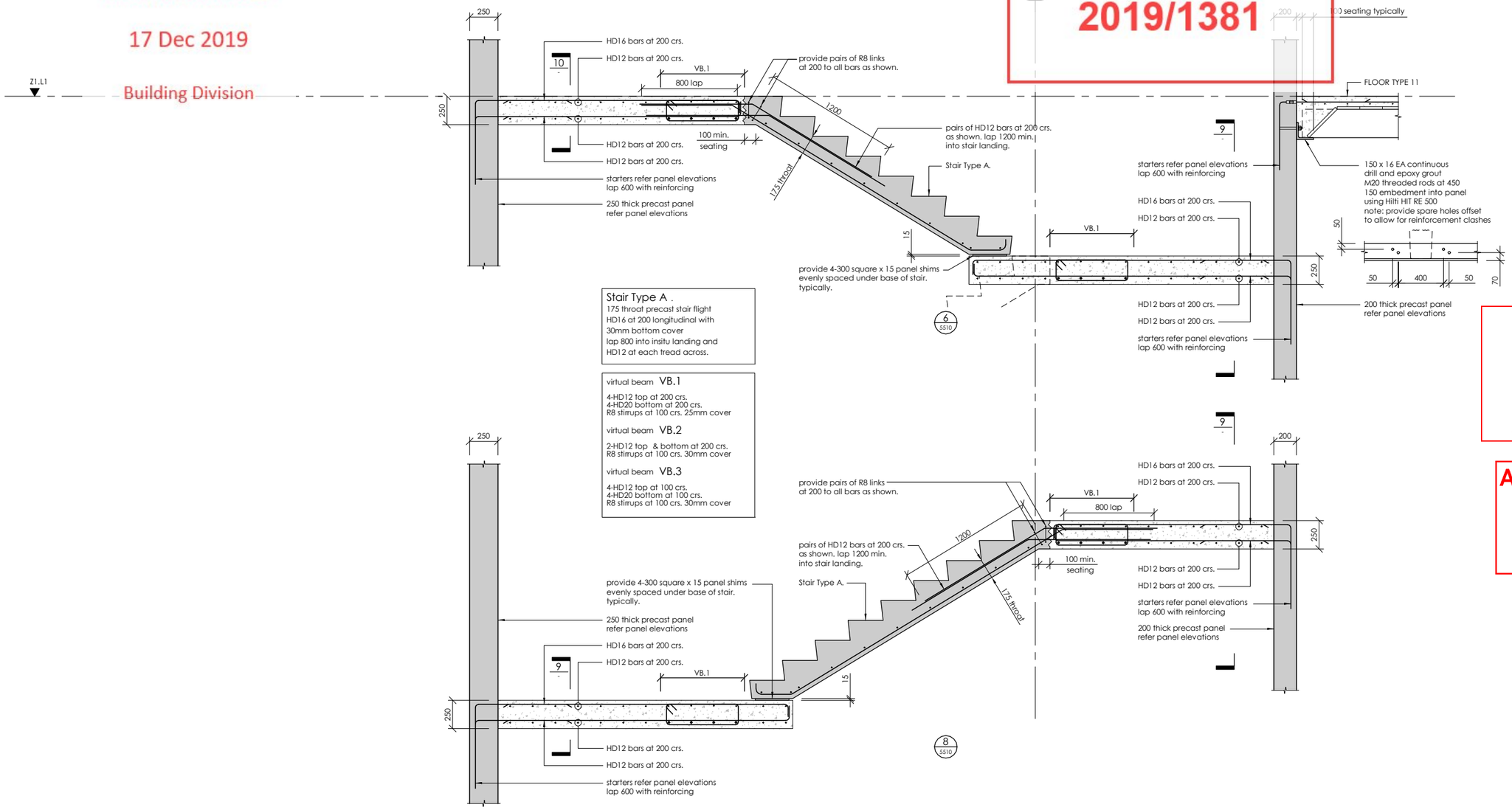

Stair Type A .
175 throat precast stair flight
HD16 at 200 longitudinal with 30mm bottom cover
lap 800 into insitu landing and HD12 at each tread across.

virtual beam **VB.1**
4-HD12 top at 200 crs.
4-HD20 bottom at 200 crs.
R8 stirrups at 100 crs. 25mm cover

virtual beam **VB.2**
2-HD12 top & bottom at 200 crs.
R8 stirrups at 100 crs. 30mm cover

virtual beam **VB.3**
4-HD12 top at 100 crs.
4-HD20 bottom at 100 crs.
R8 stirrups at 100 crs. 30mm cover

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
STAIR 1.2
DETAILS
SHEET 1

DRAWN: GPW	SCALE: 1 : 20 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5511 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2319, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

2019/1381

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NOTES :

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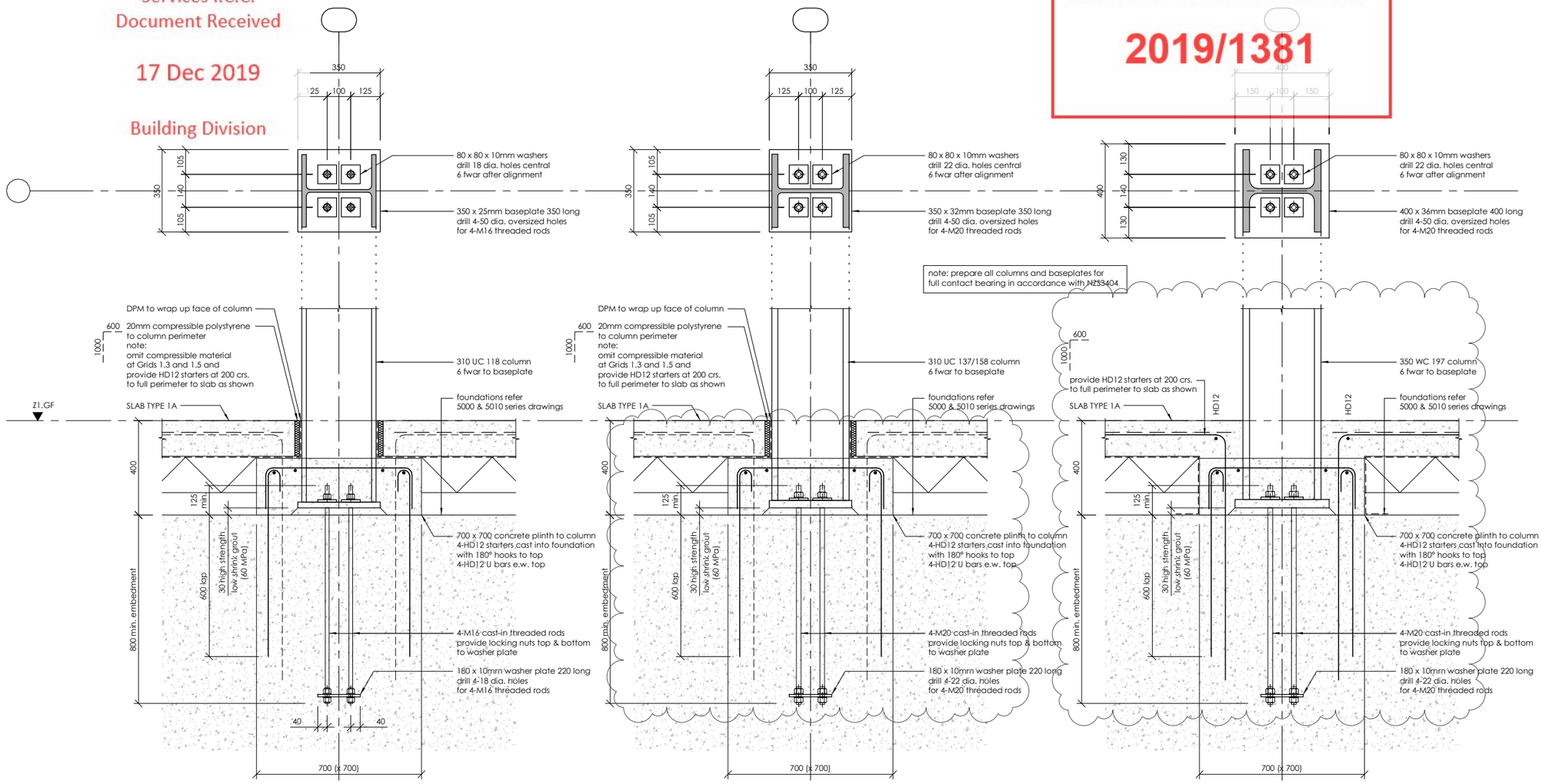


REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

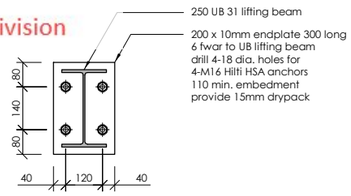
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
BASEPLATE DETAILS
SHEET 1

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5601 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9098 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



1

TYPICAL LIFTING BEAM CONNECTION
TO PRECAST PANEL

BUILDING CONSENT NUMBER

2019/1381

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
TYPICAL
STEELWORK DETAILS
SHEET 1

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5610 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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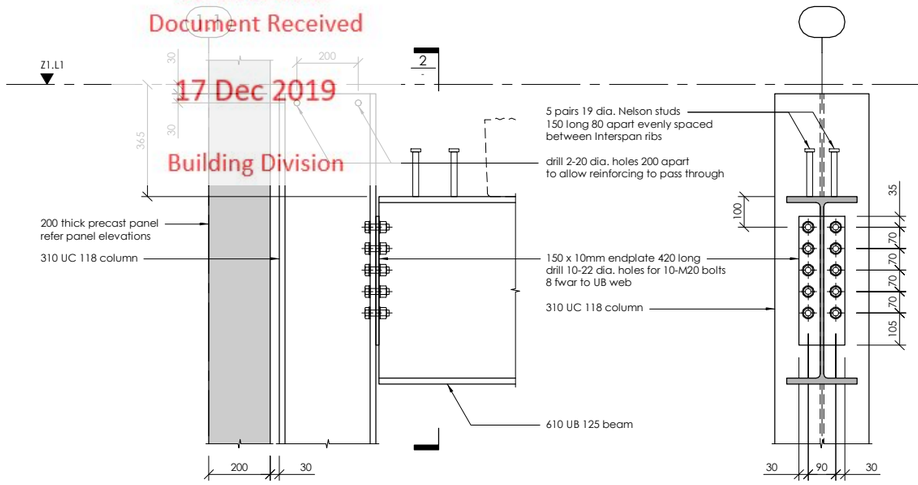
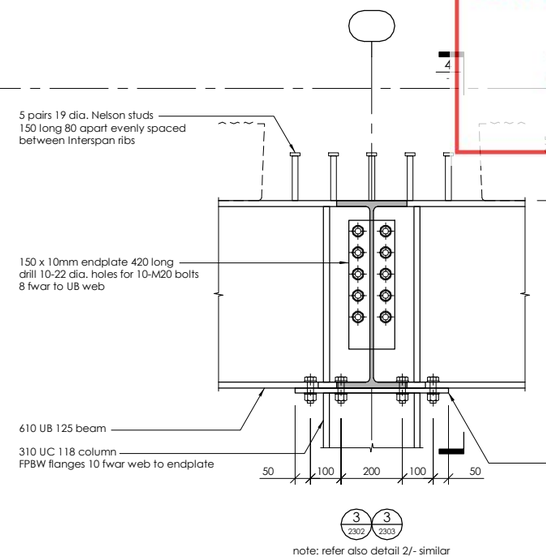
Refer also to Structural Specification.

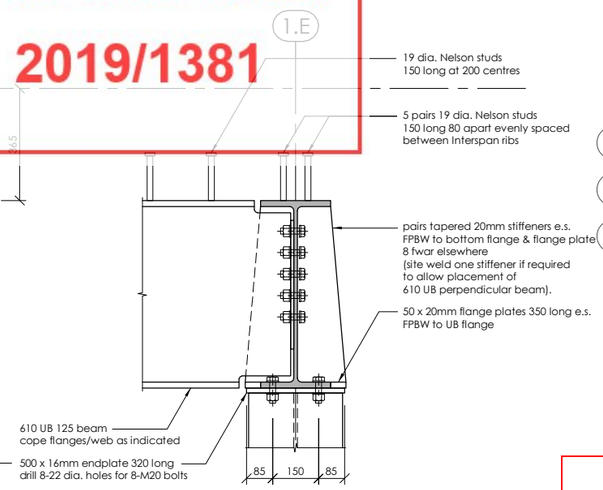
note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

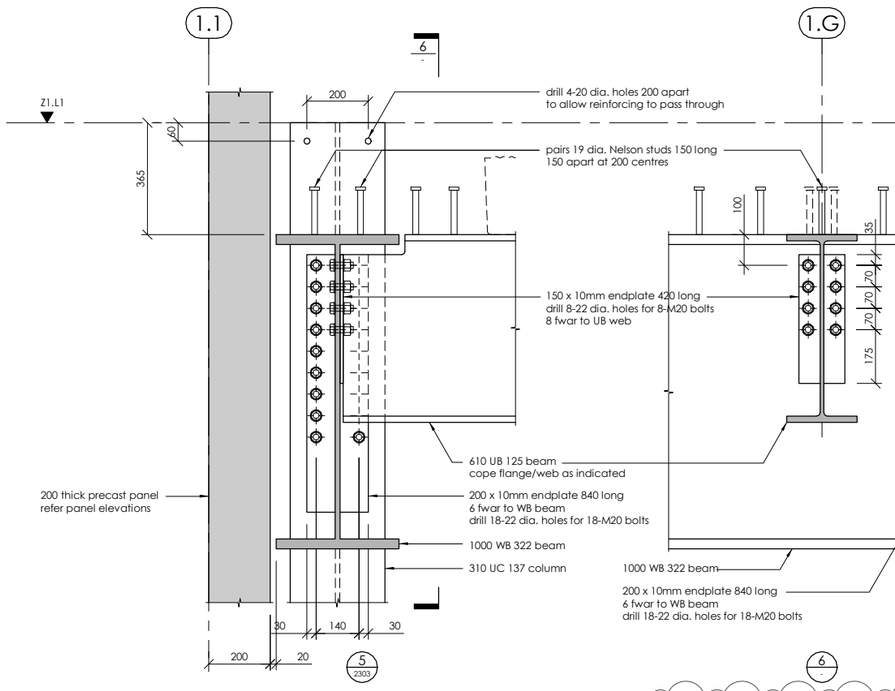
Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

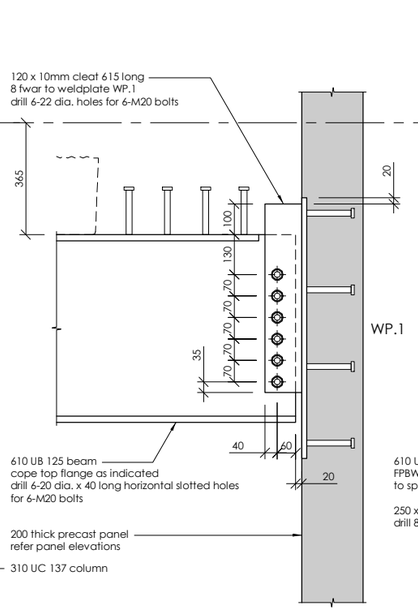


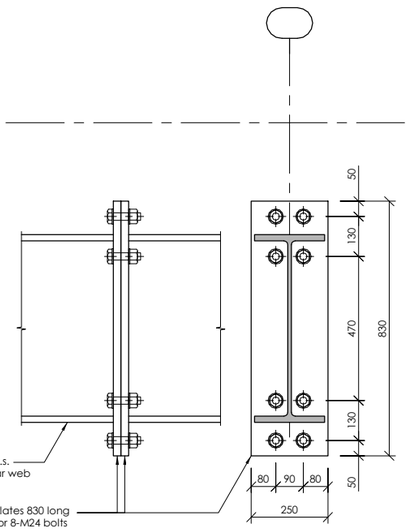


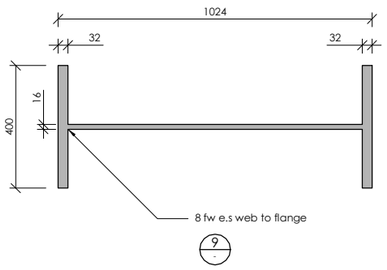
note: refer also detail 2/- similar



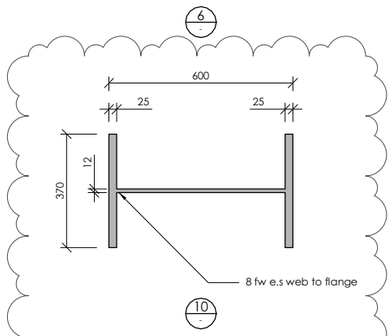




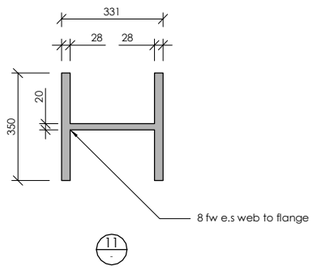




1000 WB 322



600 WB 197



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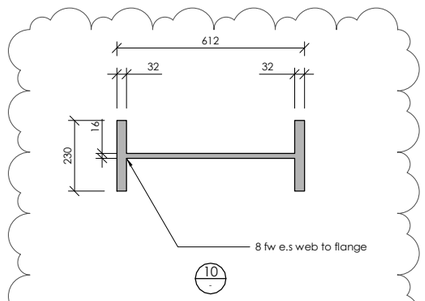


600 WB 184

CUSTOM STEEL BEAMS AND COLUMNS

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 1

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5620	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

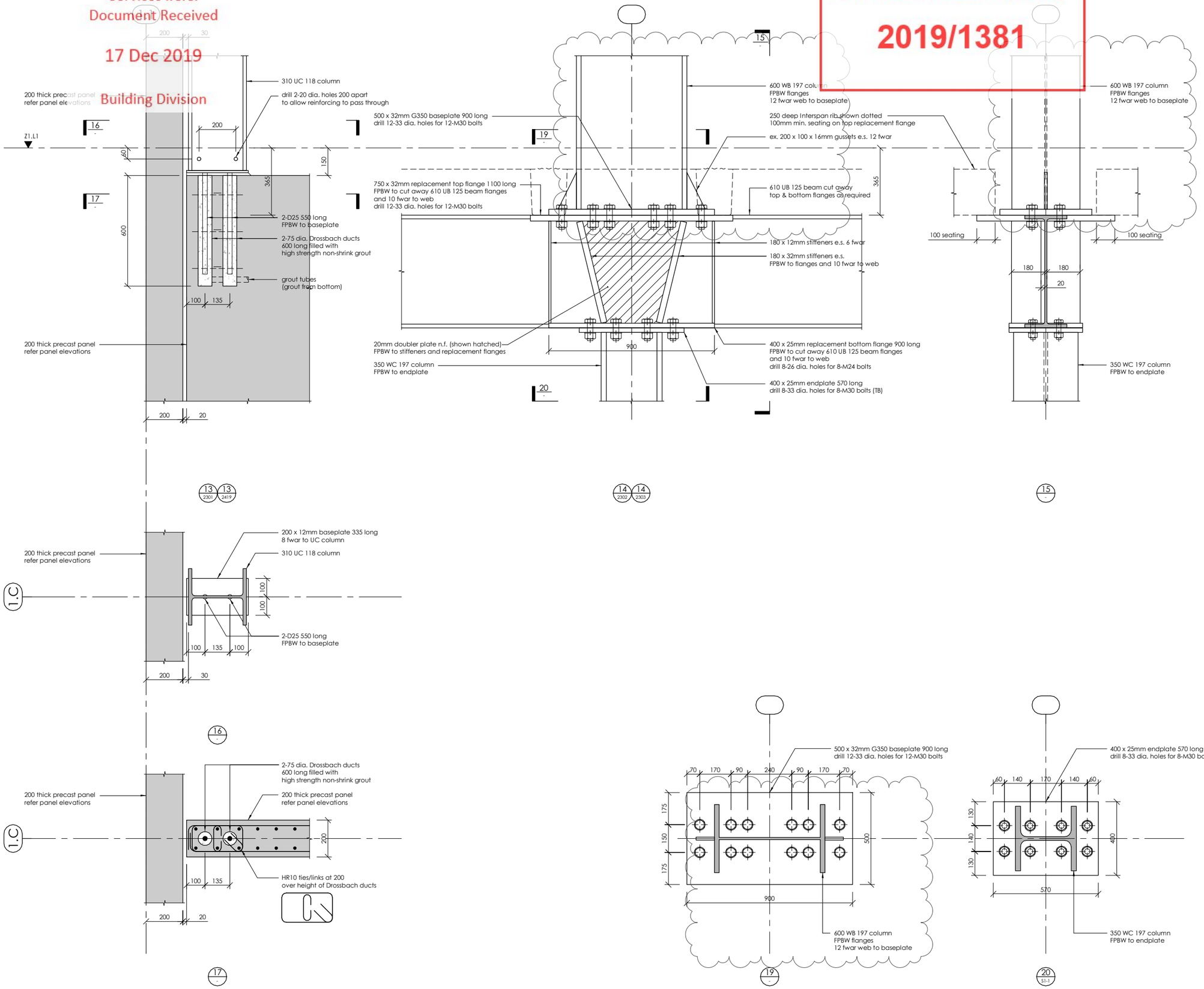
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



Invercargill City Council
Building Consent Authority
Approved Site Copy

**Approved For Issue
27/02/2020**

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

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CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5621 REV. 2

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

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CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 3

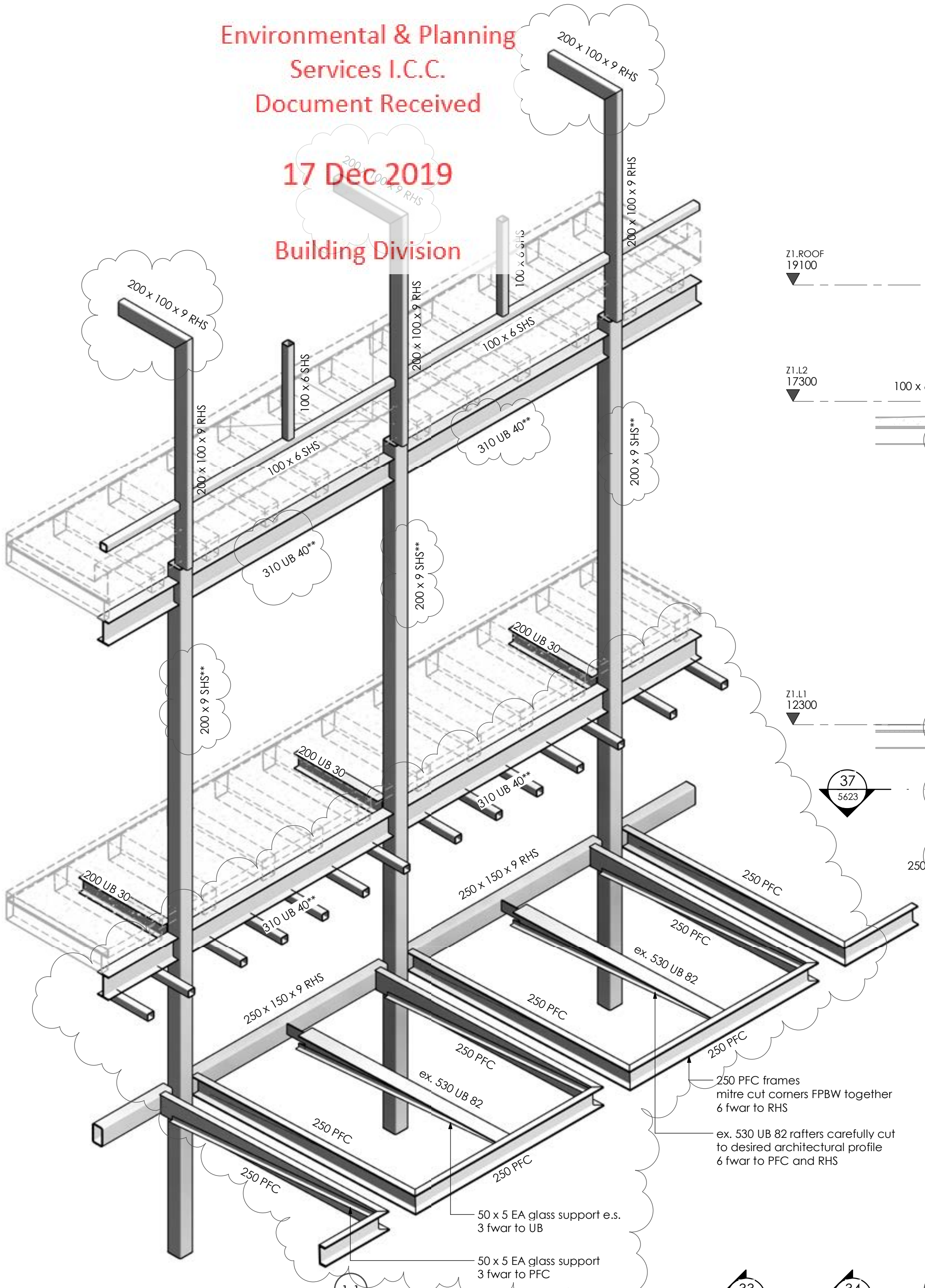
DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

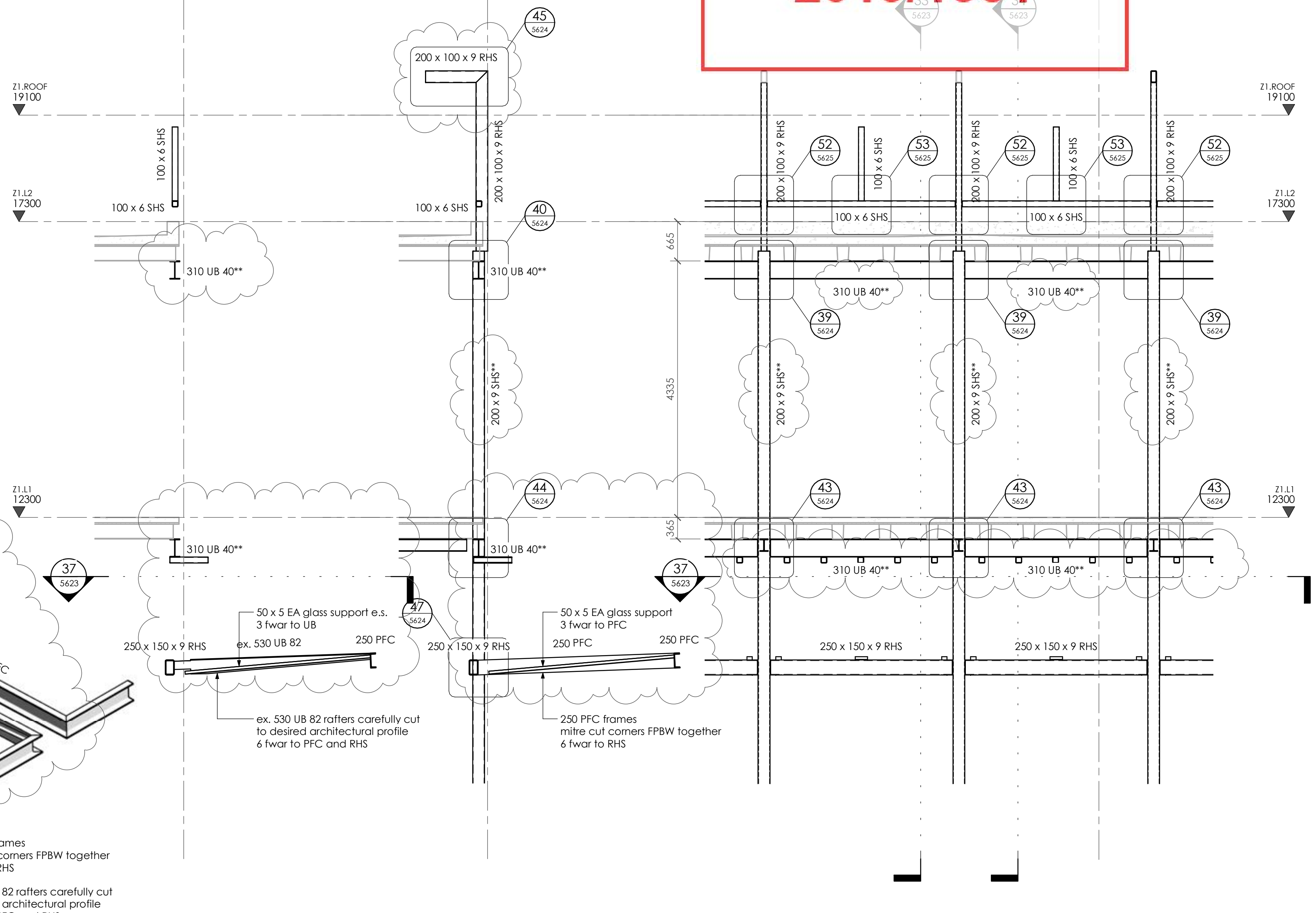
118083-Z1-WD-ST 5622 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2819, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

Environmental & Planning Services I.C.C.
Document Received
17 Dec 2019
Building Division

BUILDING CONSENT NUMBER
2019/1381

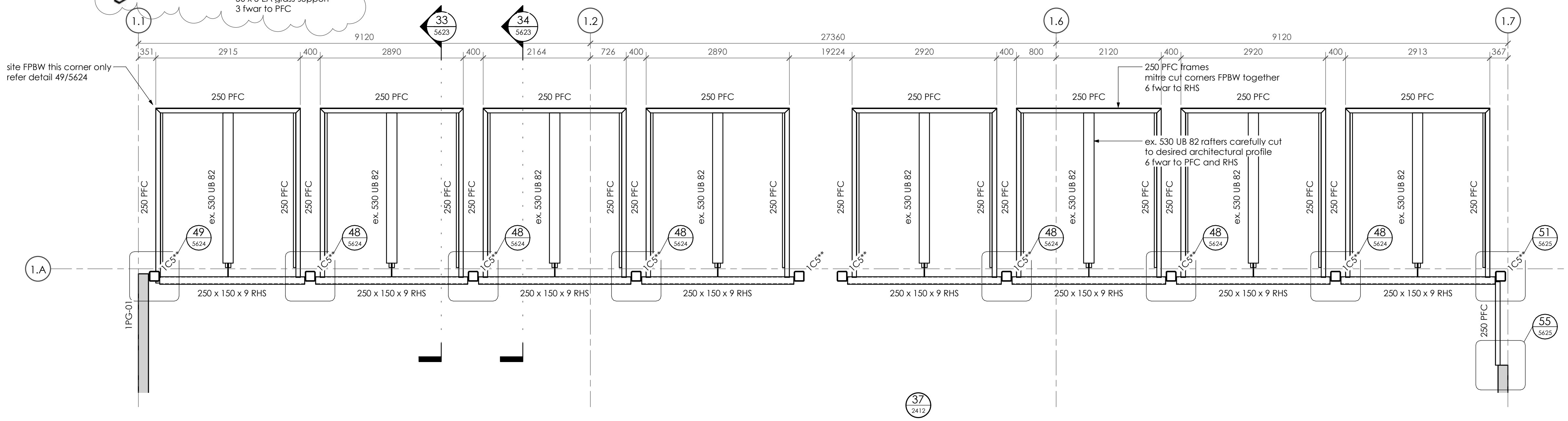




33 5623 1 : 50

34 5623 1 : 50

35 2300 1 : 50



37 2412 1 : 50

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

COLUMN LEGEND

1C1	100 x 6 SHS
1C2	150 x 9 SHS
1C3	150 x 100 x 5 RHS
1C4	200 x 100 x 9 RHS
1C5**	200 x 9 SHS**
1C6	200 UB 30
1C7*	310 UC 118*
1C7**	310 UC 118**
1C8*	310 UC 137*
1C9**	310 UC 158**
1C10*	350 WC 197*
1C10**	350 WC 197**
1C11	600 WB 197
1C12	140 x 140 GL8 post

* indicates steel member to have 30 minutes fire rated paint protection (limiting temperature 550°C)
** indicates steel member to have 60 minutes fire rated paint protection (limiting temperature 550°C)
*** indicates steel member to have 120 minutes fire rated paint protection (limiting temperature 550°C)

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

Invercargill City Council
Building Consent Authority
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Approved For Issue
27/02/2020

REV	DATE	AMENDMENT	BY
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1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 4

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: -
SCALE: 1 : 50 at A1

118083-Z1-WD-ST 5623
REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9006 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

BUILDING CONSENT NUMBER

2019/1381

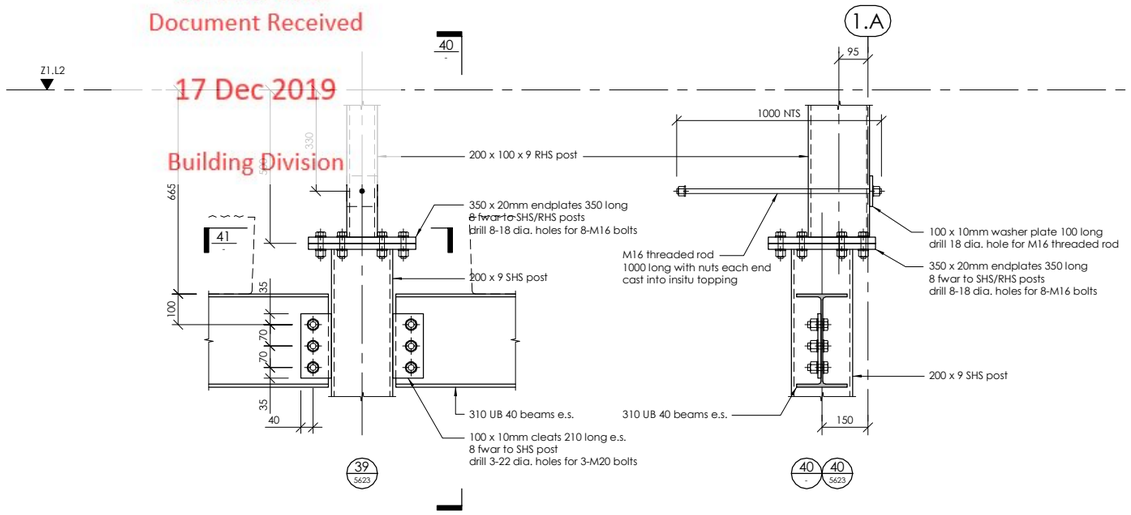
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

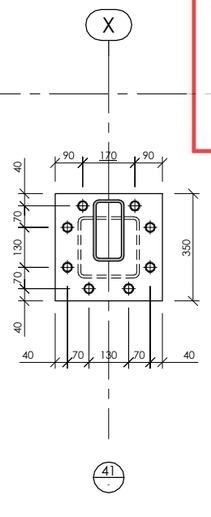
NOTES :

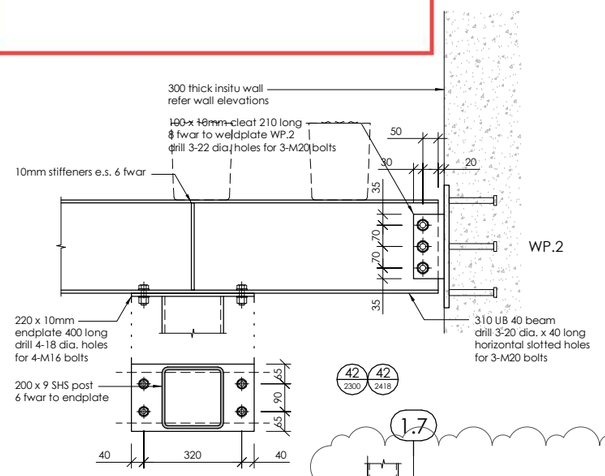
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

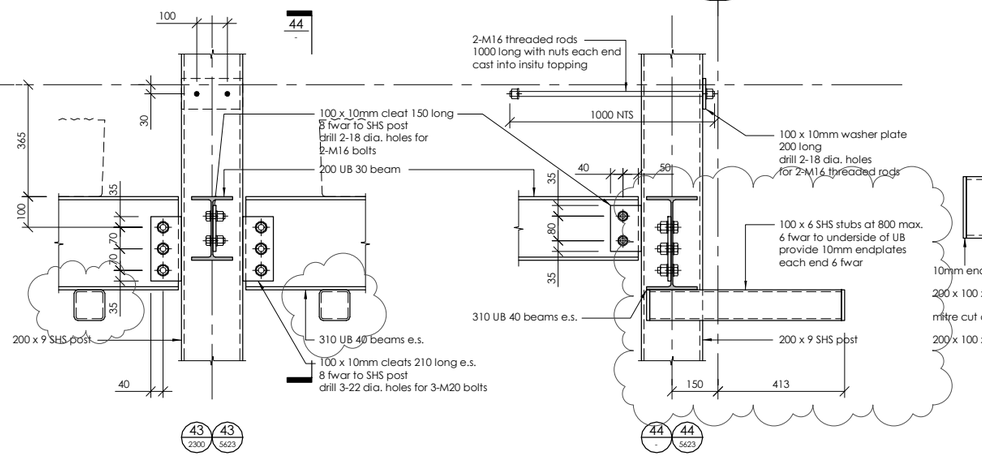
note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

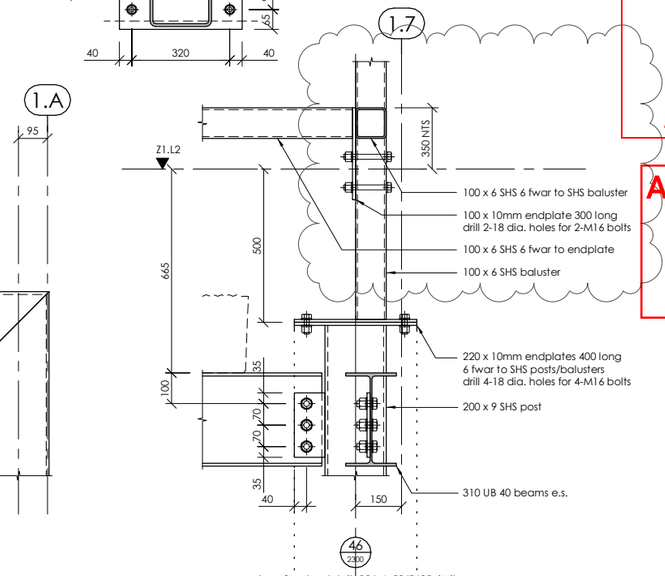
Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



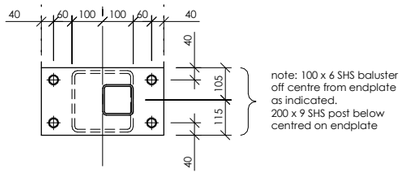




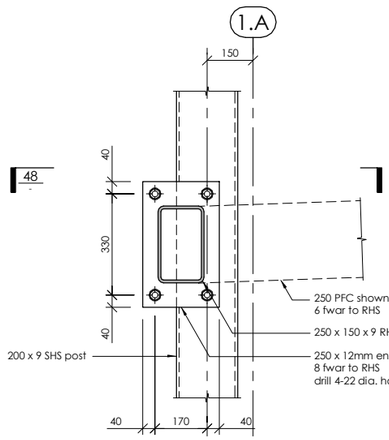


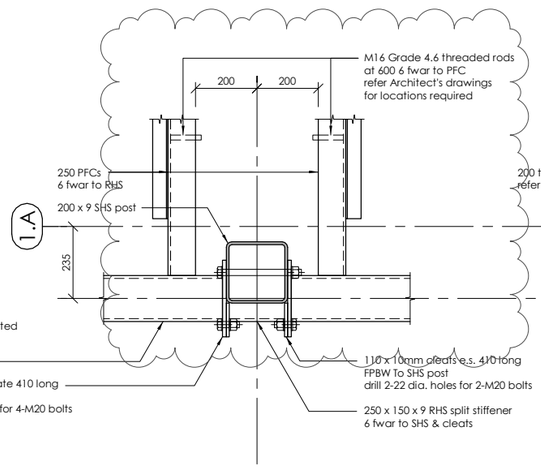


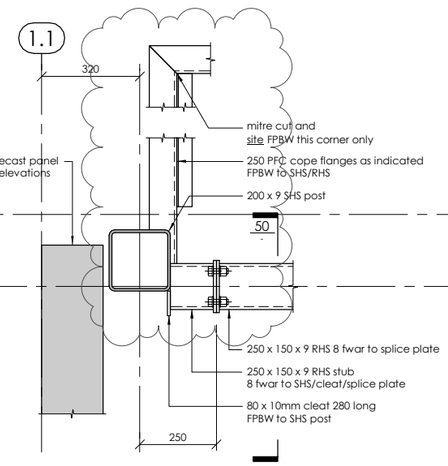
note: refer also details 39/- & 52/5625 similar

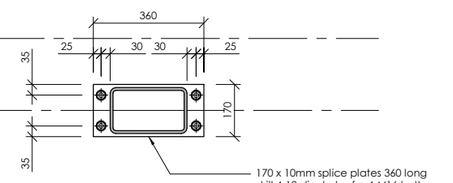


note: 100 x 6 SHS baluster off centre from endplate as indicated.
200 x 9 SHS post below centred on endplate









50 -

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 5

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: _
SCALE: 1 : 10 at A1

118083-Z1-WD-ST 5624
REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

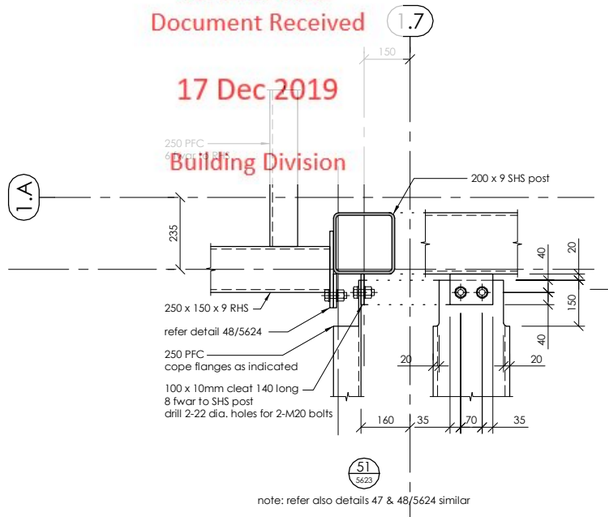
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

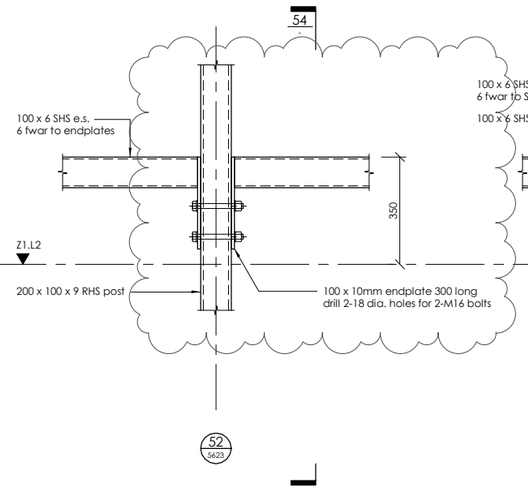
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

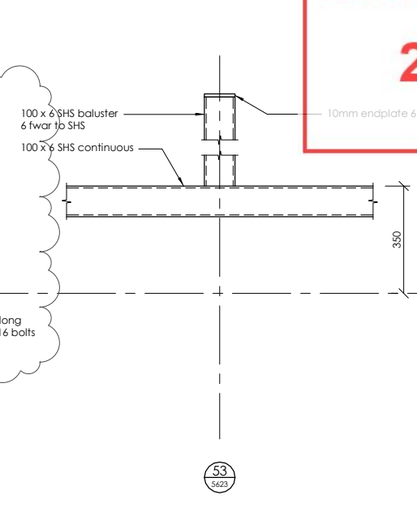
note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

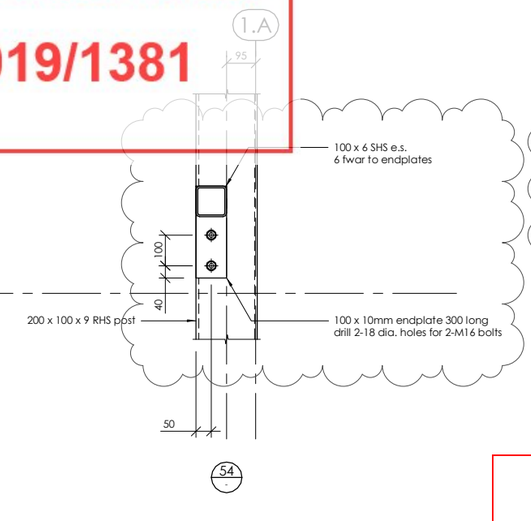
Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



note: refer also details 47 & 48/5624 similar







REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 6

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5625 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

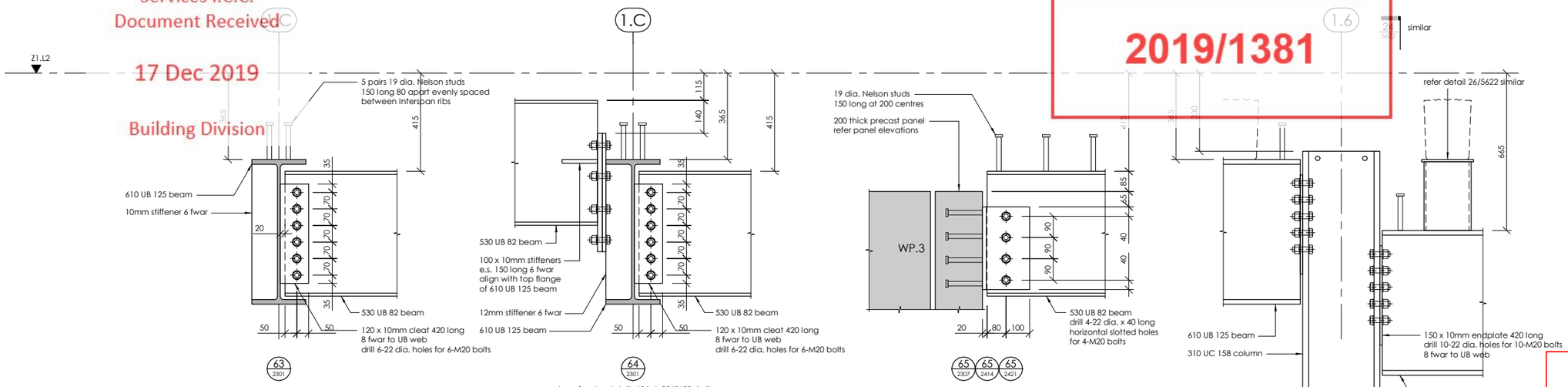
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

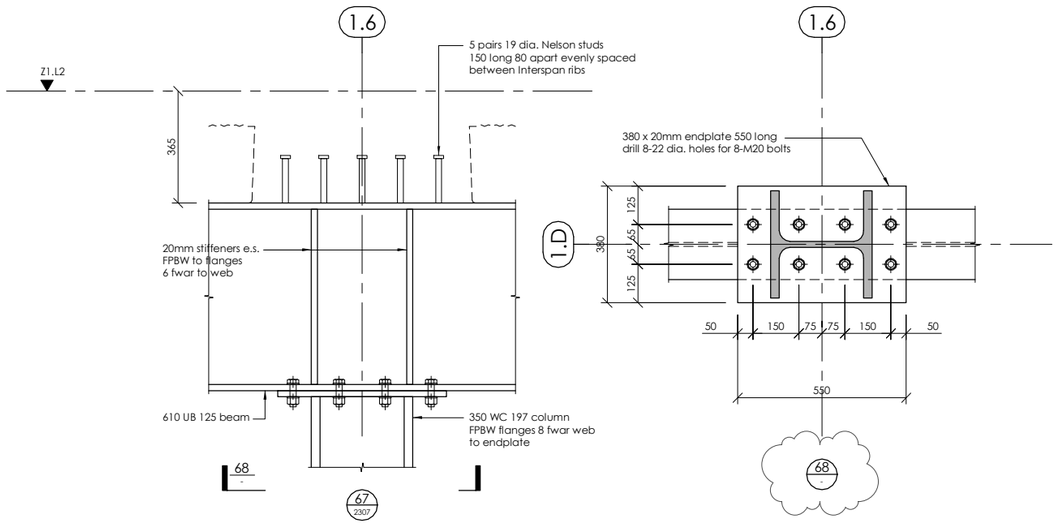
note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

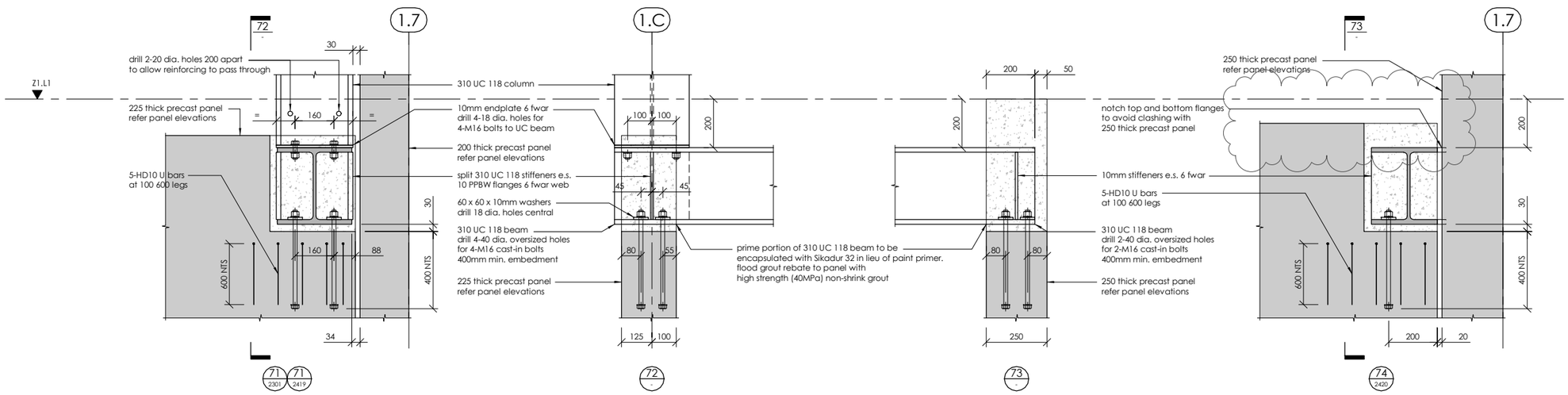
Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



note: refer also details 63/- & 28/5622 similar

note: refer also detail 23/5622 similar





REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 7

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5626	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9097 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

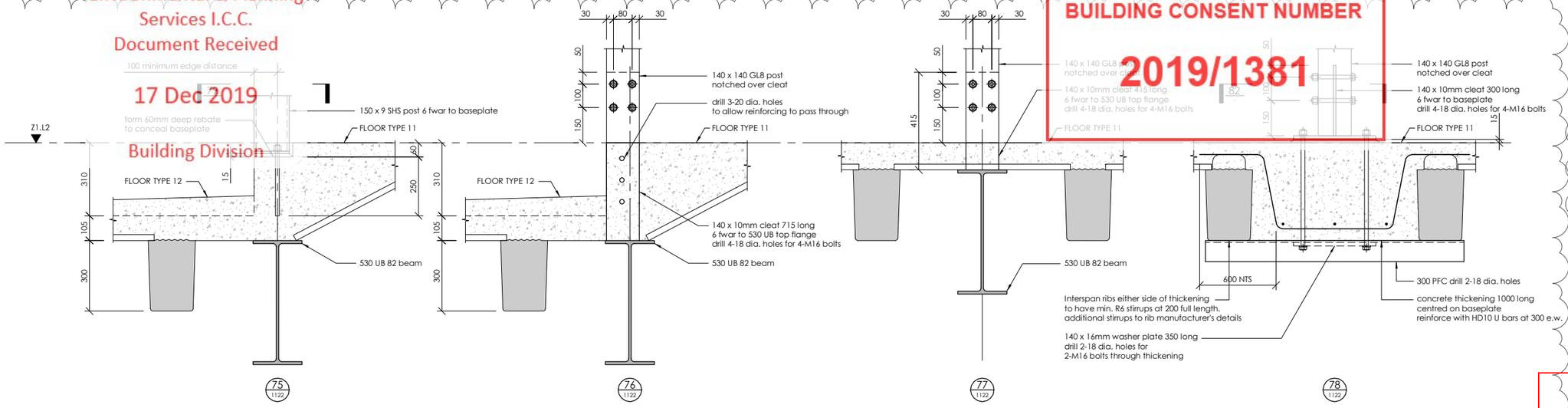
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

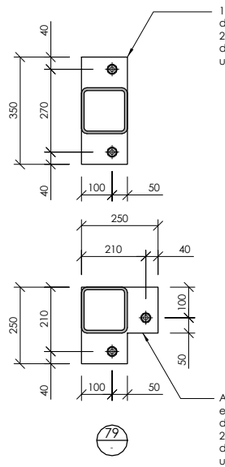
NOTES :

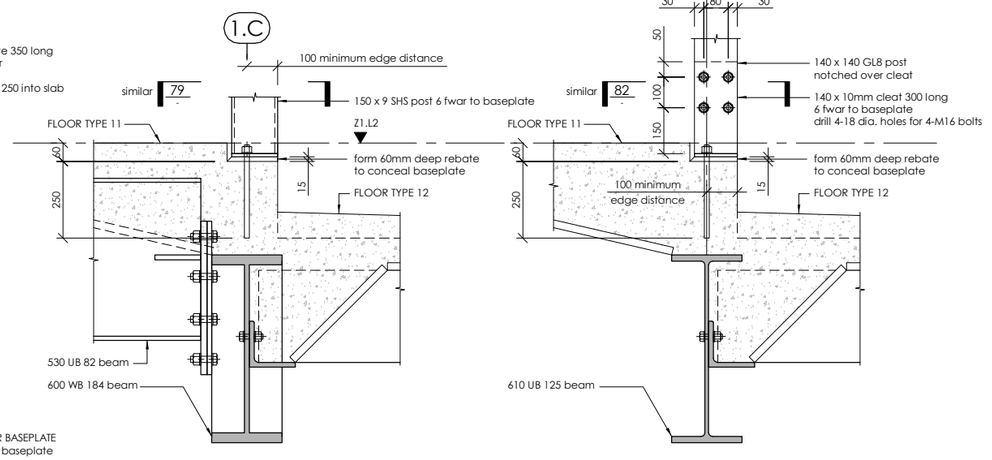
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

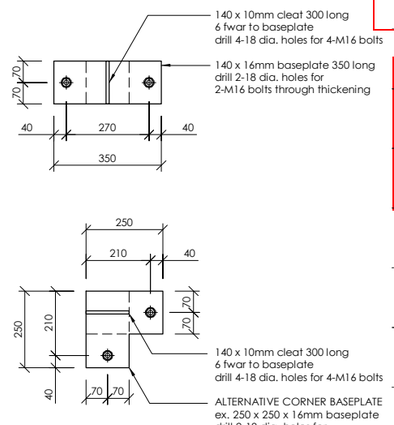




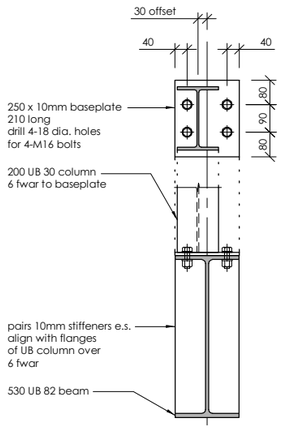


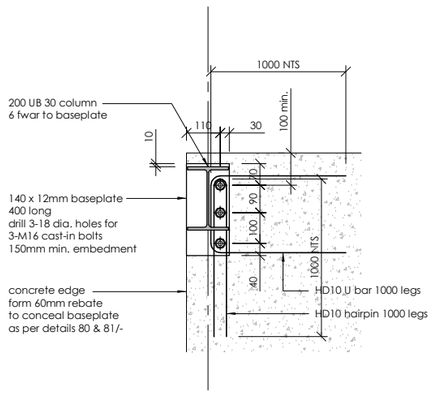
note: refer also details 28/5622 & 4/5120 similar

note: refer also detail 4/5120 similar



note: orientate baseplates to be concealed within timber framed walls





Invercargill City Council
Building Consent Authority
Approved Site Copy

Approved For Issue 27/02/2020

REV	DATE	AMENDMENT	BY
1	25.10.19	CONSENT ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 8

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5627 REV. 1

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

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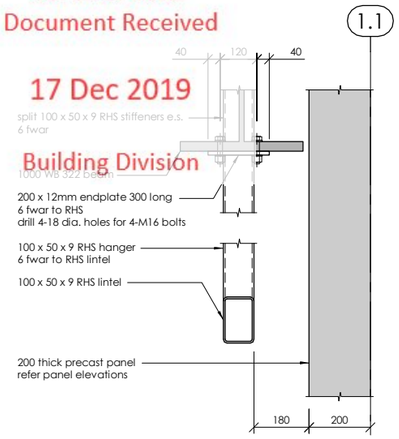
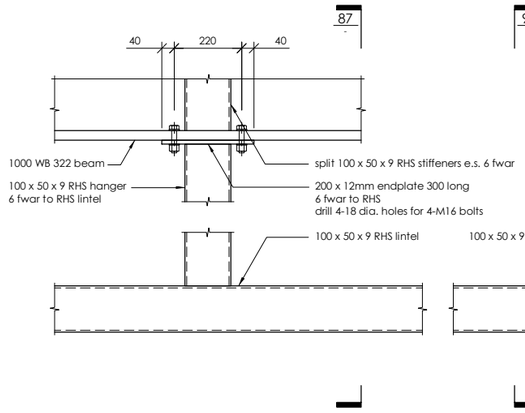


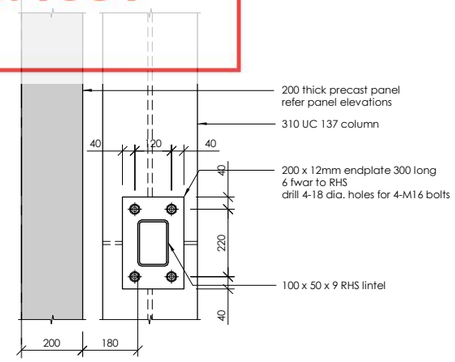
87

note: RHS hanger is not centred on WB beam



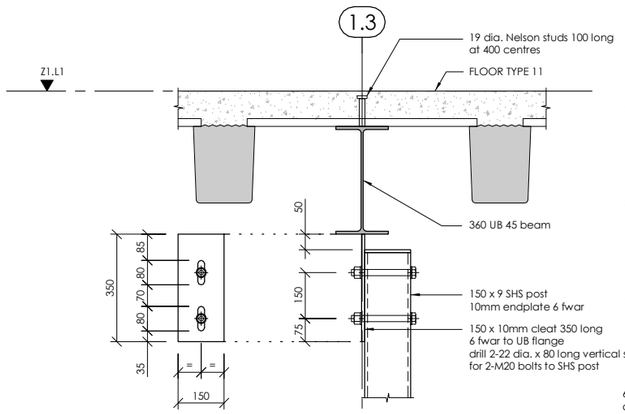
88 2305

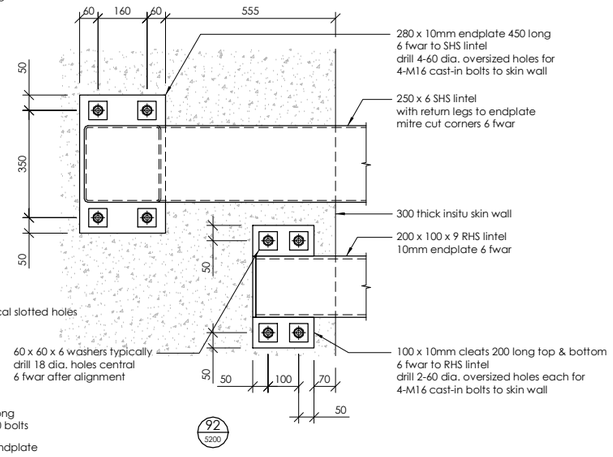
89 2305



90

note: RHS lintel is not centred on UC column





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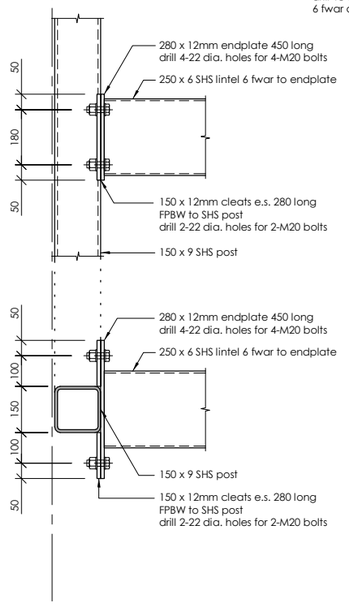


91 1112

REV	DATE	AMENDMENT	BY
1	25.10.19	CONSENT ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

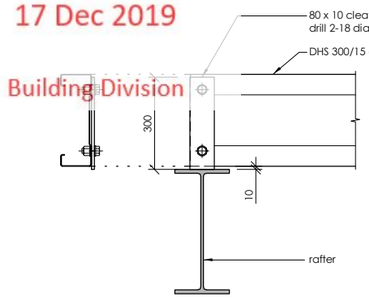
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ZONE 1
STEELWORK DETAILS
SHEET 9

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5628 REV. 1

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



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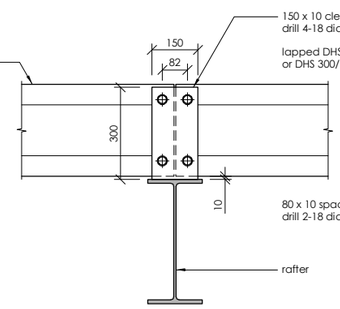
TYPICAL PURLIN END CLEAT
PC.1



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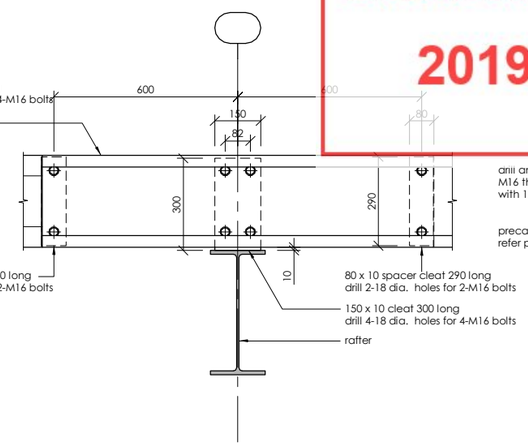
TYPICAL PURLIN JOINT CLEAT
PC.2



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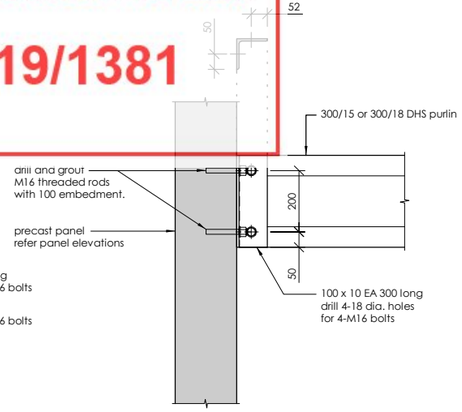
TYPICAL LAPPED PURLIN DETAIL
PC.3



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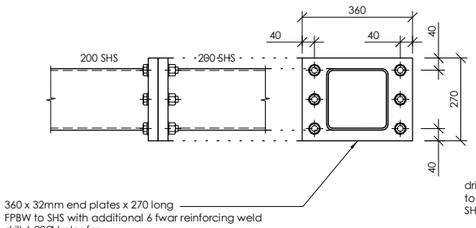
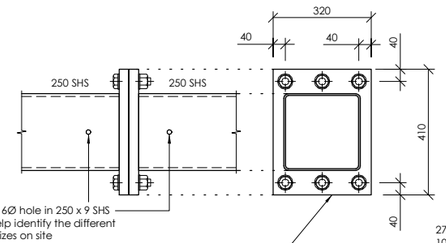
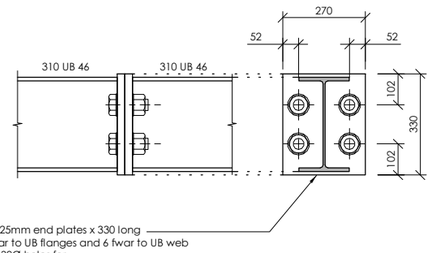
TYPICAL PURLIN TO PANEL CONNECTION
PC.4



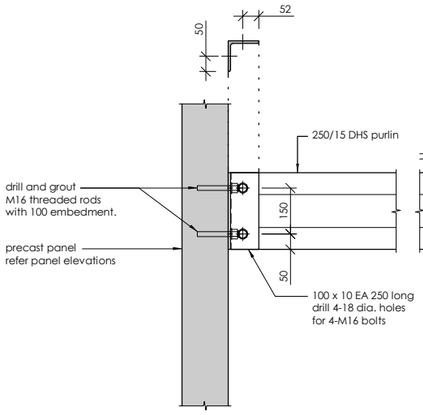
5
200 SHS SPLICE
ZONES 1 & 3
SP.1



6
250 SHS SPLICE
ZONES 1 & 3
SP.2



7
310 UB 46 SPLICE
ZONE 1 ONLY
SP.3



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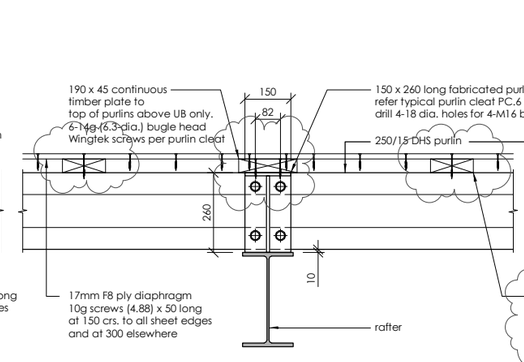
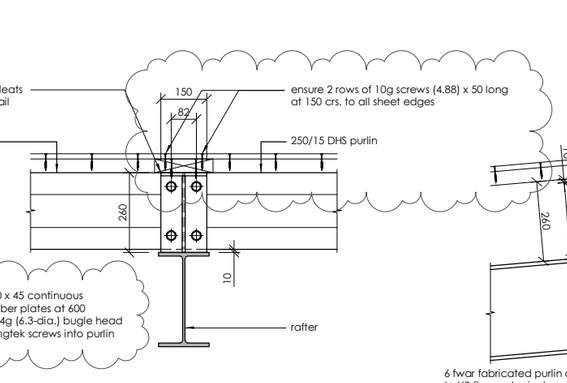
TYPICAL PURLIN TO PANEL CONNECTION
ZONE 1 ONLY
PC.5



14
TYPICAL CONTINUOUS PURLIN TO CLEAT
ZONE 1 ONLY
PC.6



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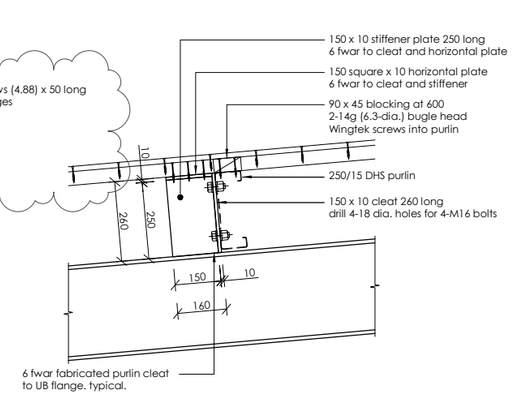
TYPICAL PURLIN JOINT CLEAT
ZONE 1 ONLY
PC.6



16
TYPICAL PURLIN CLEAT PC.6 DETAIL
ZONE 1 ONLY
PC.6

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
TYPICAL ROOF
STEELWORK DETAILS
SHEET 1

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5700	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2319, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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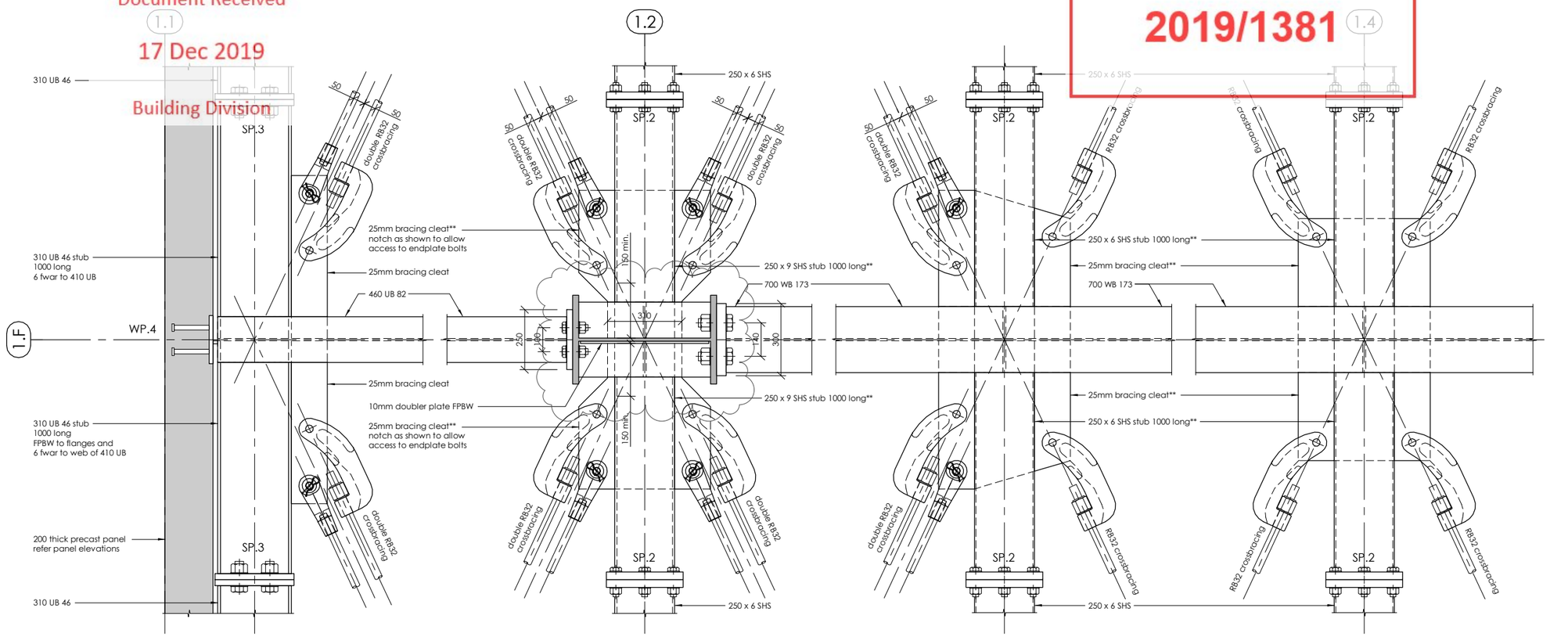
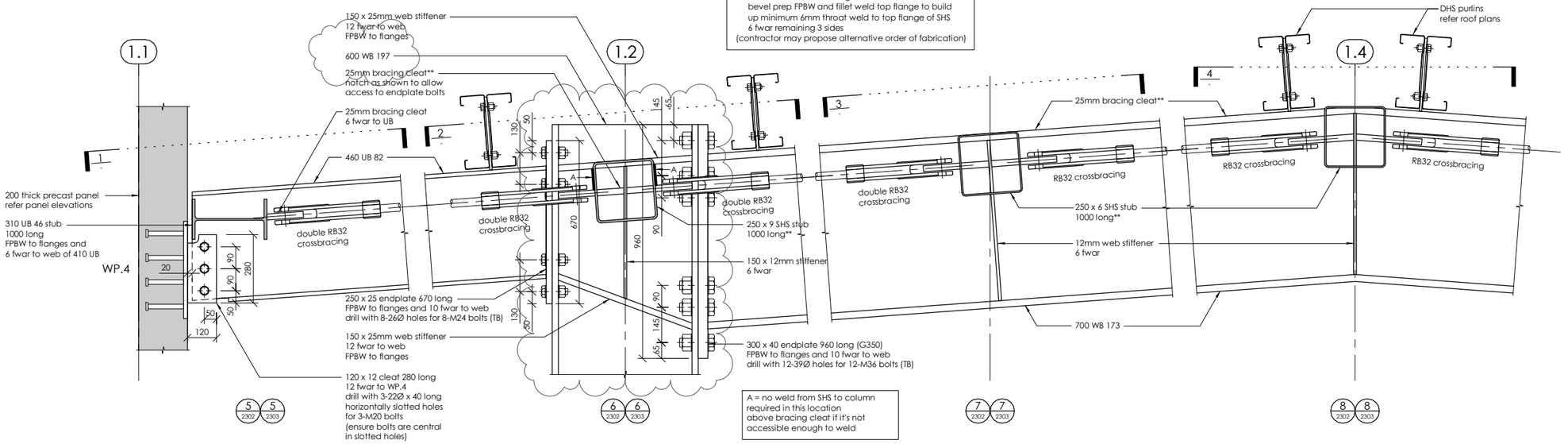




REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

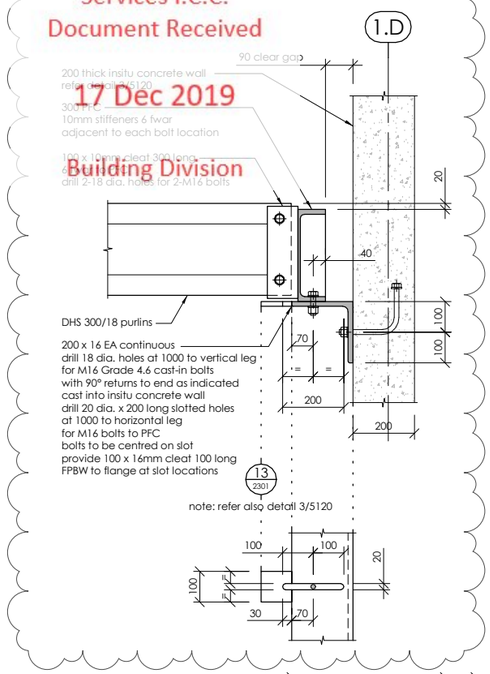
lewis bradford
CONSULTING ENGINEERS

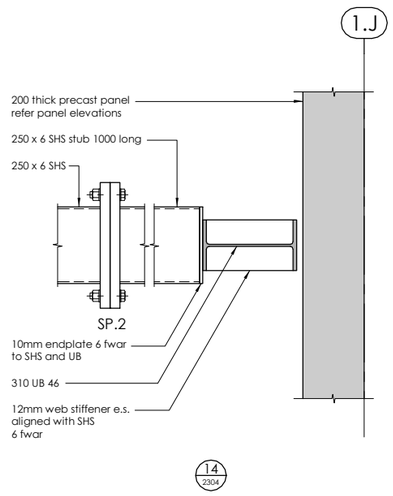
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

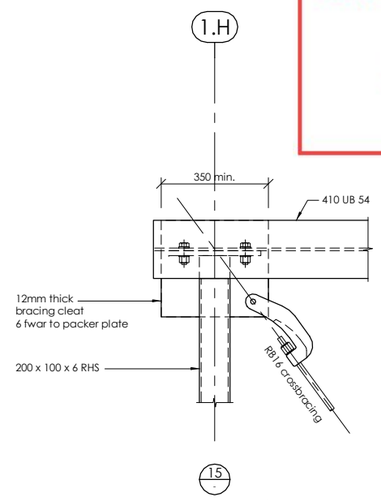
DRAWING TITLE:
ROOF
STEELWORK DETAILS
SHEET 1

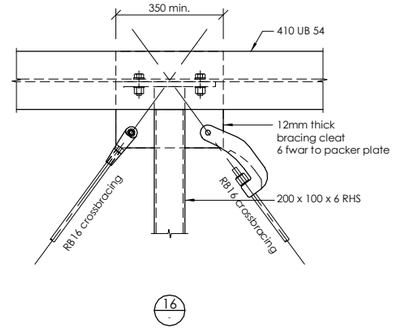
DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5710	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



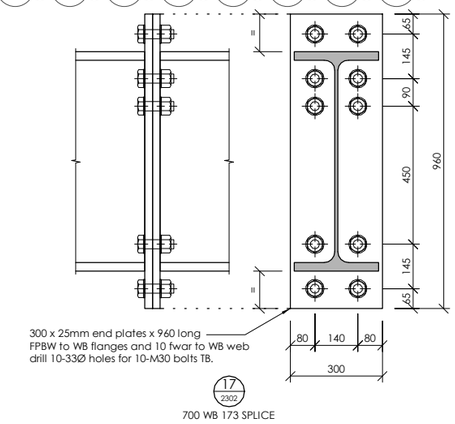




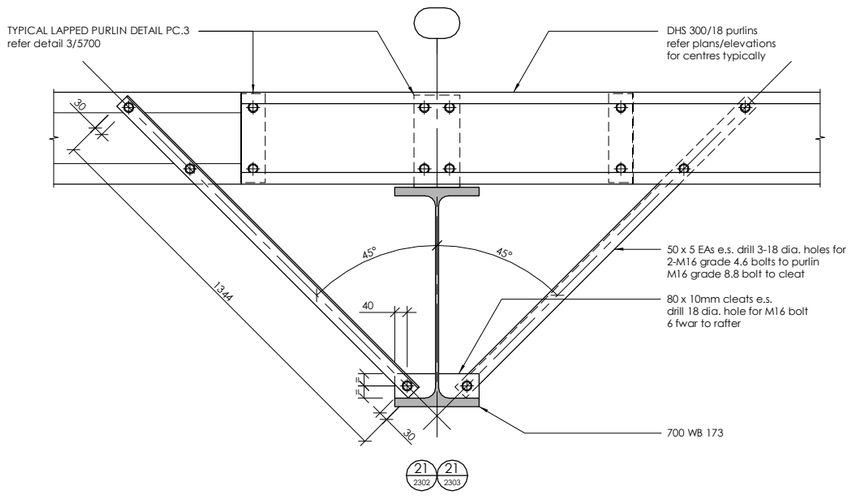


BUILDING CONSENT NUMBER

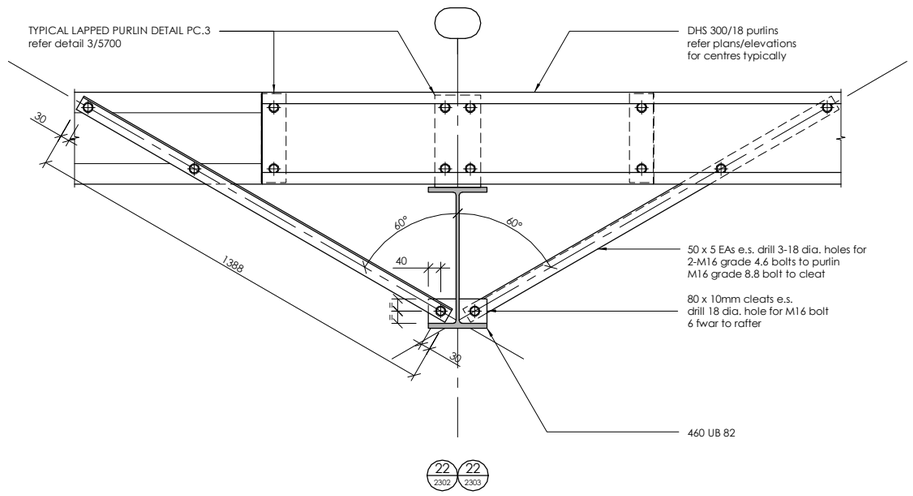
2019/1381



SP.12



TYPICAL 700 WB 173 FLYBRACE DETAIL



TYPICAL 460 UB 82 FLYBRACE DETAIL

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

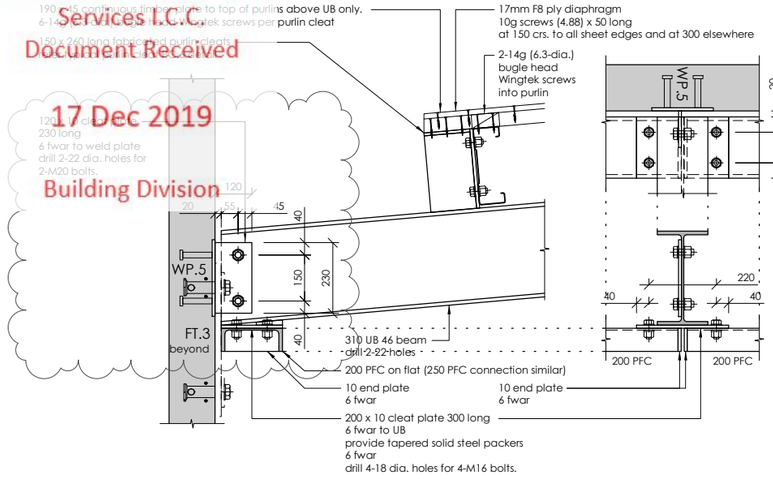
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
STEELWORK DETAILS
SHEET 2

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5711 REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667



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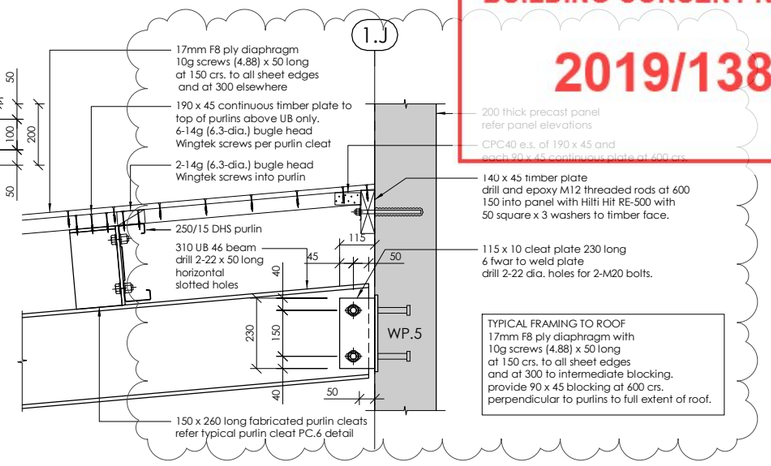

TYPICAL FRAMING TO ROOF
17mm F8 ply diaphragm with
10g screws (4.88) x 50 long
at 150 crs. to all sheet edges
and at 300 to intermediate blocking.
provide 90 x 45 blocking at 600 crs.
perpendicular to purlins to full extent of roof.

27 1113

29 1113

30 1113

31 1113

typical 380 PFC to 250 PFC connection detail

32 1113

typical 250/15 DHS purlin to 250 PFC connection detail

33 1113

34 - 34 1113

35 1113

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
STEELWORK DETAILS
SHEET 3

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5712	REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

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CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

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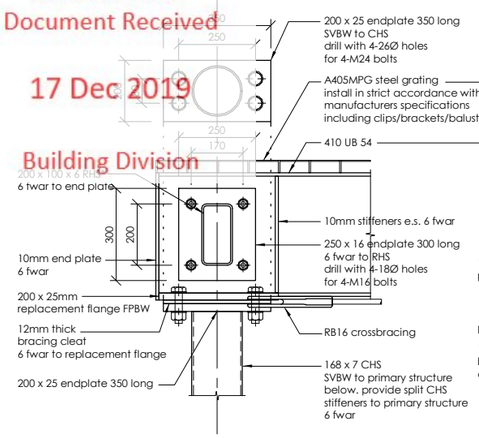

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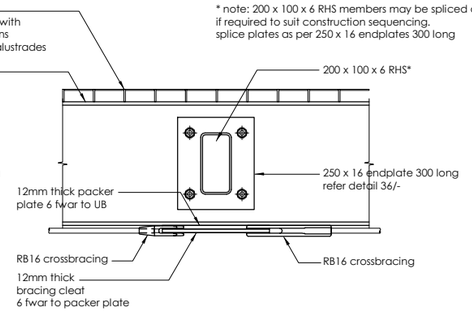
1205



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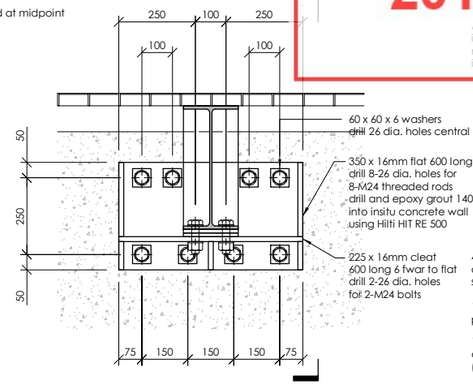
1205



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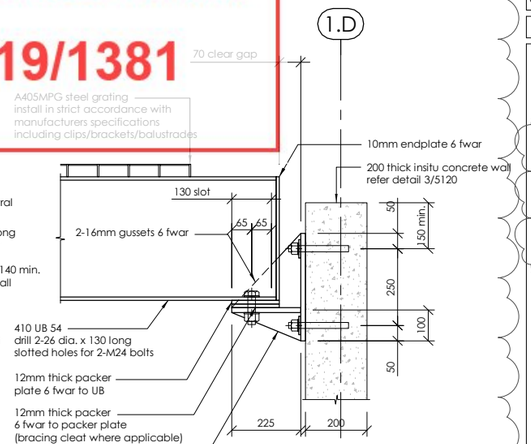

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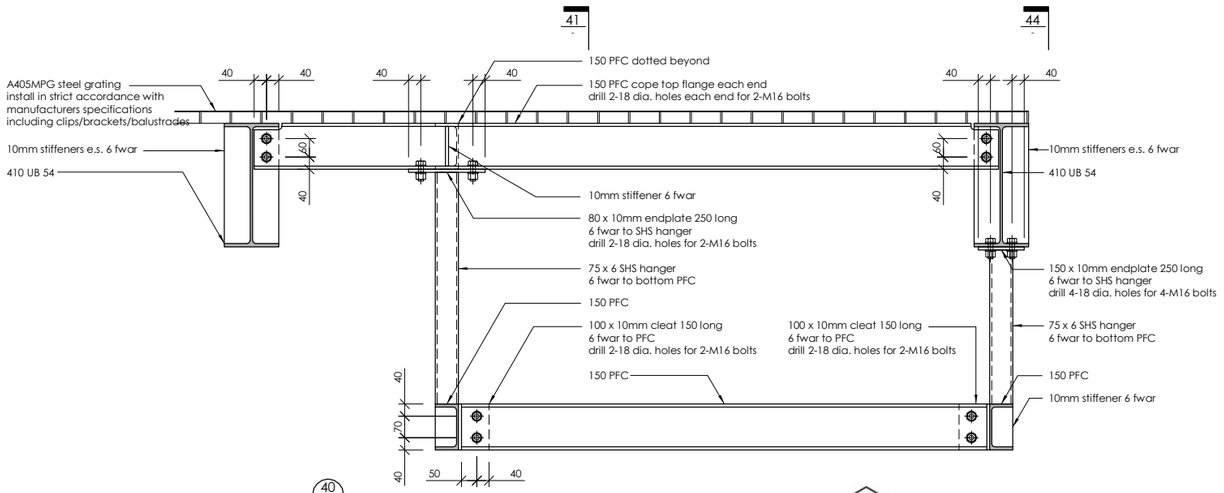

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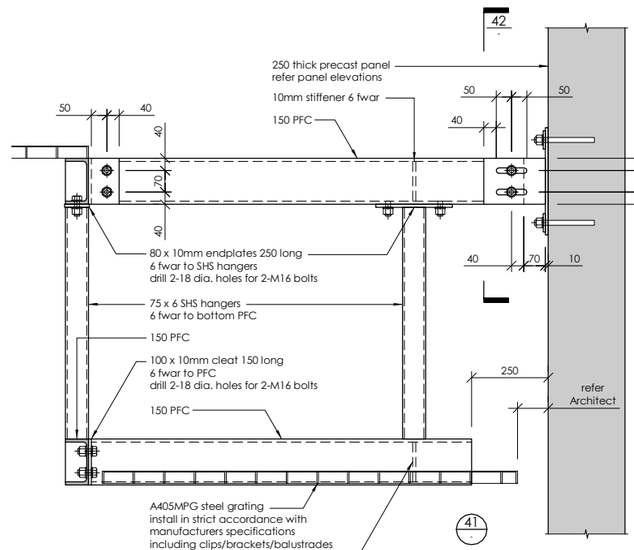
1205



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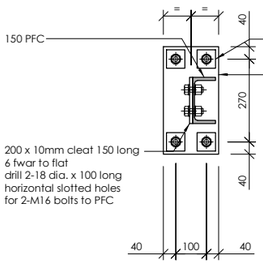

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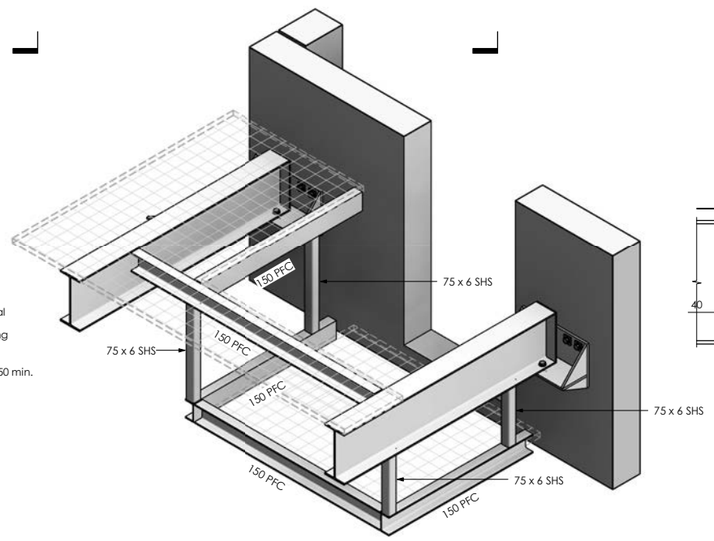

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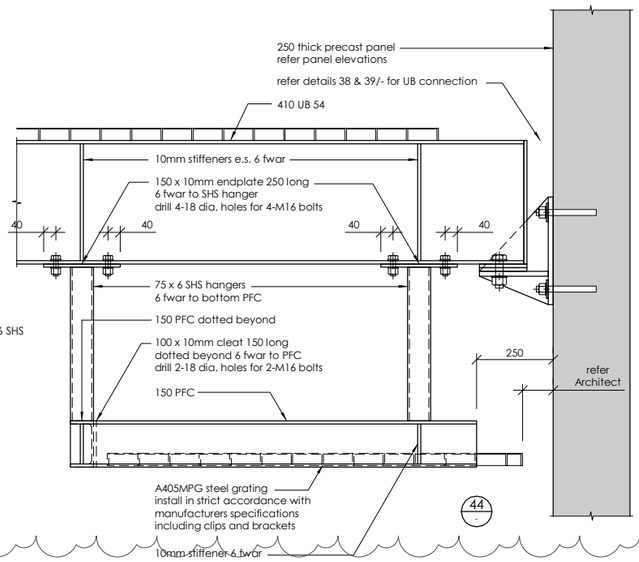

44
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REV	DATE	AMENDMENT	BY
1	25.10.19	CONSENT ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
STEELWORK DETAILS
SHEET 4

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5713 REV. 1

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2319, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9096 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 371, Queenstown Phone: (03) 442 9667

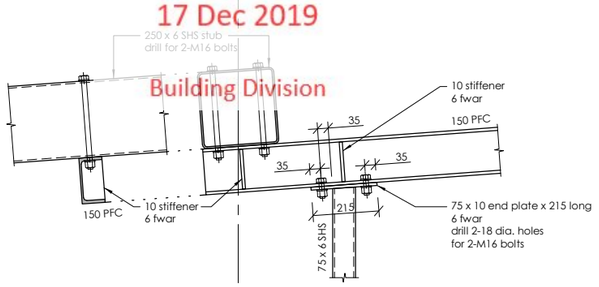
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



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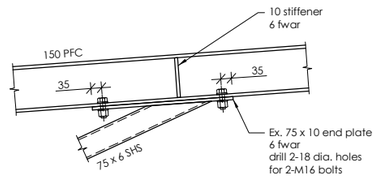

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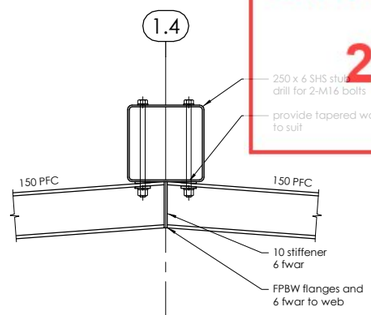

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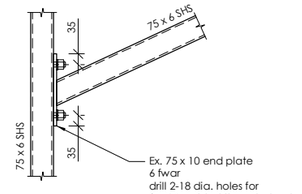
1.3



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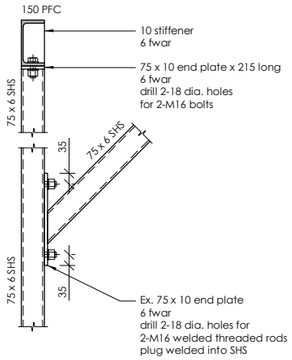

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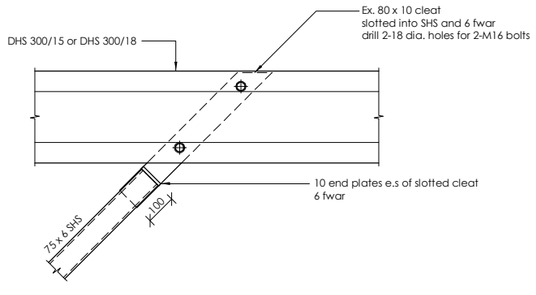

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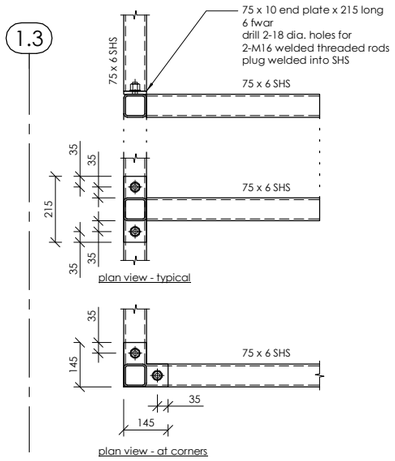

54
1206

REV	DATE	AMENDMENT	BY
1	25.10.19	CONSENT ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS
CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
STEELWORK DETAILS
SHEET 5

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	
118083-Z1-WD-ST 5714	REV. 1

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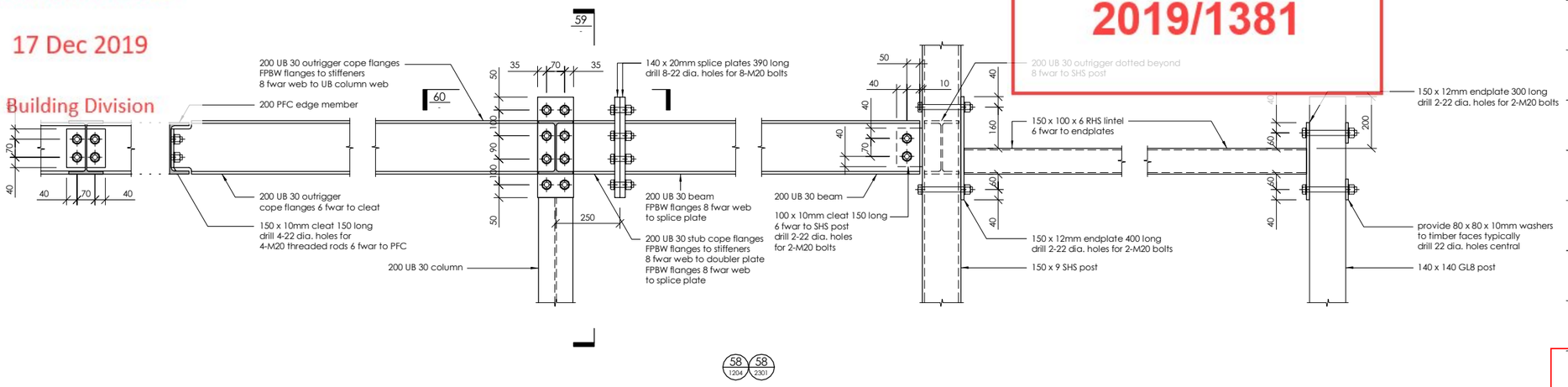
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

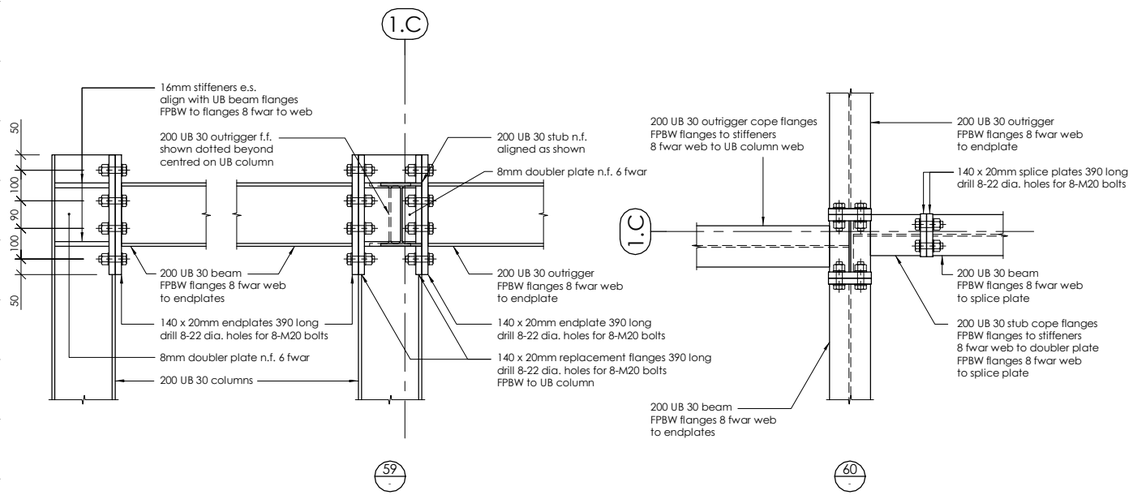
NOTES :

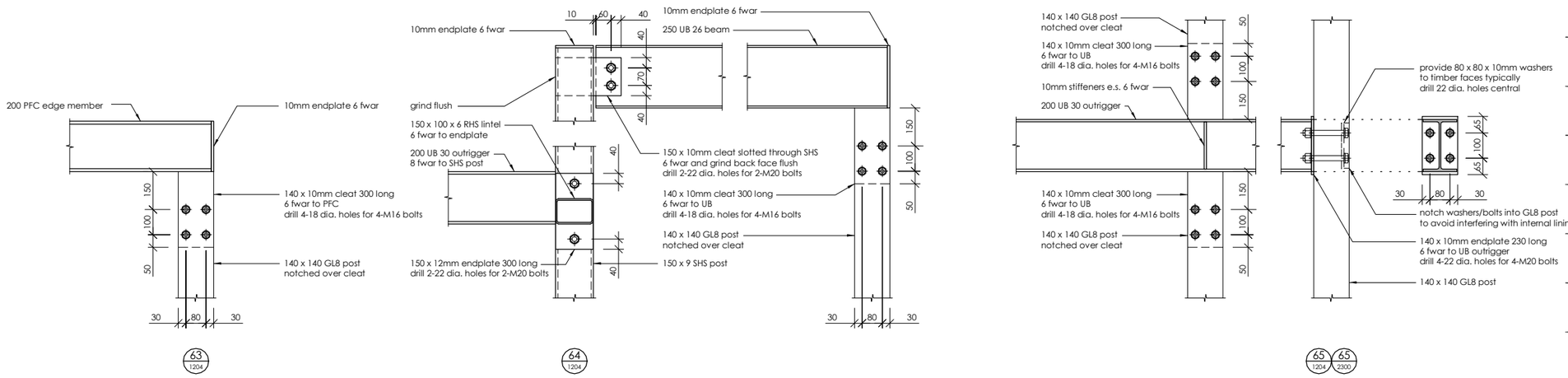
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel







REV	DATE	AMENDMENT	BY
1	25.10.19	CONSENT ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
STEELWORK DETAILS
SHEET 6

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

118083-Z1-WD-ST 5715 | REV. 1

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

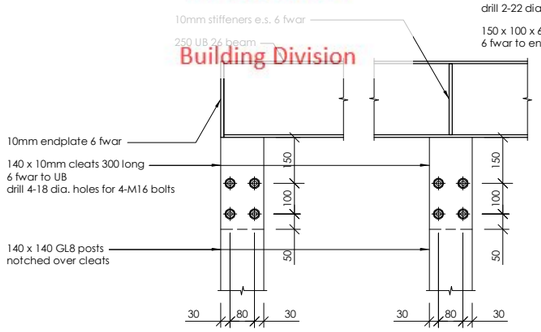
CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

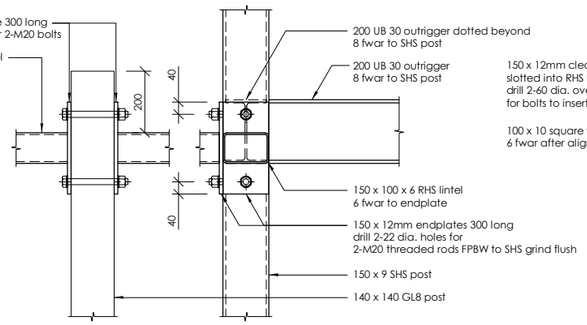
Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

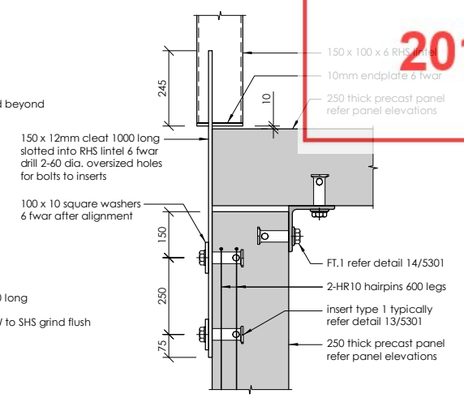
Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel



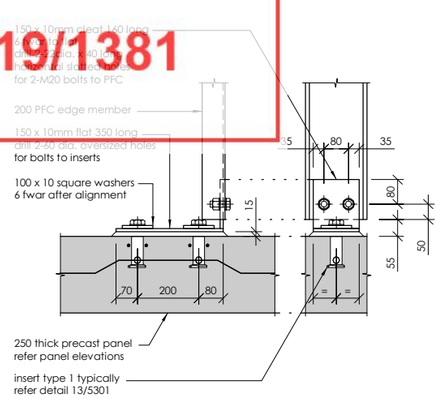
66 / 1204



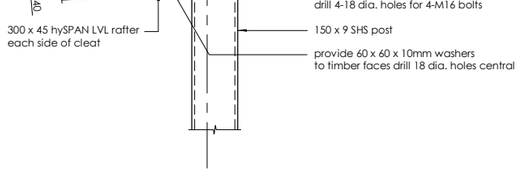
67 / 1204



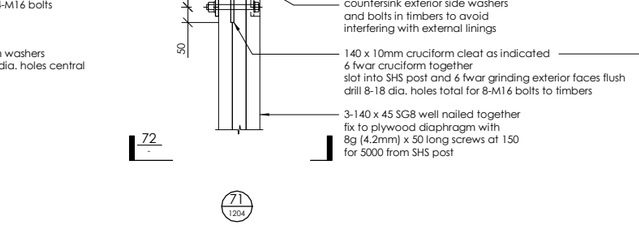
68 / 1204 | 68 / 2414



69 / 1204 | 69 / 2420

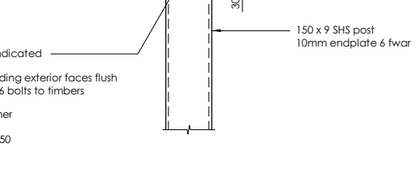


70 / 1204



72 / -

71 / 1204



72 / -

REV	DATE	AMENDMENT	BY
1	25.10.19	CONSENT ISSUE	GPW

CLIENT:
HWCP

lewis bradford
CONSULTING ENGINEERS

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667

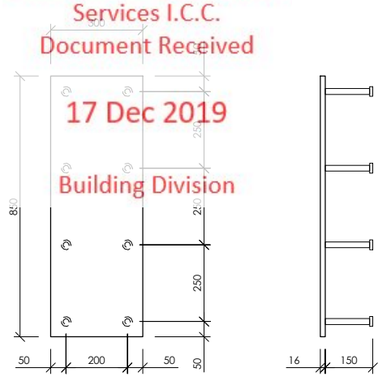
PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
ROOF
STEELWORK DETAILS
SHEET 7

DRAWN: GPW	SCALE: 1 : 10 at A1
ENGINEER: EL/TSS	
CHECKED: _	

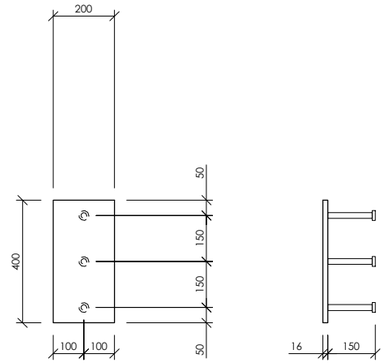
118083-Z1-WD-ST 5716 | REV. 1

C:\Users\User\Desktop\REVIT LOCAL FILES AND AUTOCAD TEMP FILES\118083 - ST-WD - INVERCARGILL - ZONE 1 - ANCHOR - 2019_Geof-LBA.rvt 24/10/2019 4:44:23 PM



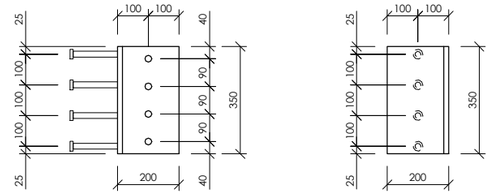
weldplate WP.1 (ZONE 1 only)

300 x 16mm endplate 850 long
8-19 dia. Nelson studs 150 long
FPBW to endplate



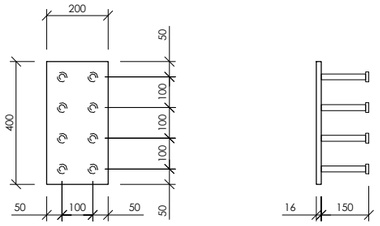
weldplate WP.2 (ZONE 1 only)

200 x 16mm endplate 400 long
3-19 dia. Nelson studs 150 long
FPBW to endplate



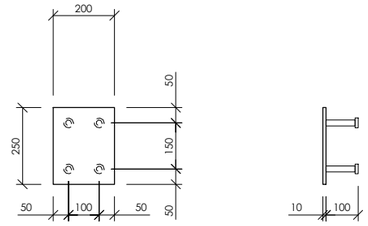
weldplate WP.3 (ZONE 1 only)

200 x 16 EA 350 long
drill 4-22 dia. holes for 4-M20 bolts
4-19 dia. Nelson studs 150 long FPBW to EA



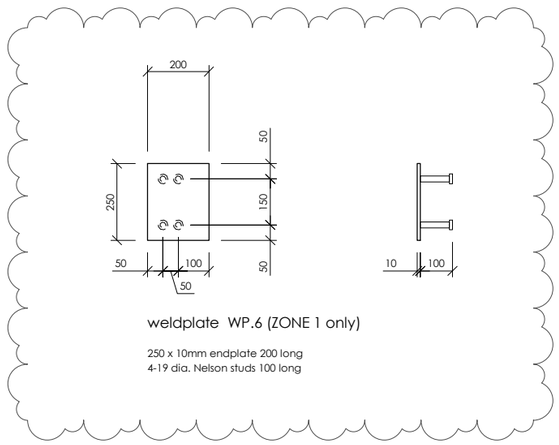
weldplate WP.4 (ZONE 1 only)

250 x 16mm endplate 400 long
8-19 dia. Nelson studs 150 long
FPBW to endplate



weldplate WP.5 (ZONE 1 only)

250 x 10mm endplate 200 long
4-19 dia. Nelson studs 100 long



weldplate WP.6 (ZONE 1 only)

250 x 10mm endplate 200 long
4-19 dia. Nelson studs 100 long

CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
REFER TO ARCHITECT'S DRAWING FOR ALL SETOUTS

NOTES :

Refer drawing 0002 for standard notes.
Refer also to Structural Specification.

note: apply intumescent fire protection with equivalent FRR to connections to all elements shown on plans/elevations designated with a *, ** or ***

Where unprotected areas of steelwork meet fire protected elements overlap the fire protection onto the adjoining 500mm of 'unprotected' structural steel

REV	DATE	AMENDMENT	BY
2	25.10.19	CONSENT ISSUE	GPW
1	27.09.19	PEER REVIEW ISSUE	GPW

CLIENT: HWCP

lewis bradford
CONSULTING ENGINEERS

PROJECT:
INVERCARGILL CENTRAL
ZONE 1 ANCHOR

DRAWING TITLE:
WELDPLATE DETAILS
SHEET 1

DRAWN: GPW
ENGINEER: EL/TSS
CHECKED: _
SCALE: 1 : 10 at A1

118083-Z1-WD-ST 5900
REV. 2

CHRISTCHURCH: Level 2, 70 Gloucester Street, P.O. Box 2919, Christchurch Phone: (03) 379 9096 Facsimile: (03) 379 9095 QUEENSTOWN: Level 3, 11-17 Church Street P.O. Box 571, Queenstown Phone: (03) 442 9667