Project Specification

Client

David Reid Homes – Wanaka and Central Otago
56 Anderson Rd
Wanaka

Project

Proposed Laing House
481 Camp Hill Road, Hawea Flat Road
Cromwell

Designers

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PRELIMINARY

Work in this contract
Shall be carried out in a thorough workmanlike manner, in strict accordance with the Manufacturers Specifications, Producers Statements where required, N.Z. Building Code and N.Z. Standards, especially NZS 3604:2011 for meeting the requirements of NZBC Clauses B1, B2 & E2.

These documents
Namely drawings and specification are for the extent of the building only. There is no warranty expressed or implied that it shows each and every minor detail and items required to be included by the builder. Should any material or structural member appear to be inadequately described yet obviously necessary for the neat, strong and satisfactory completion of the work, then the builder shall be expected to include and allow for same. It shall be the contractor's responsibility to set out and supervise digging and levelling out of the site. It shall be his responsibility to correctly position and set the building on site and to check and verify height restrictions are complied with. It shall be the contractor's responsibility to check and verify that he is on the correct building lot. Contractor should visit the site and familiarize himself with all site conditions prior to commencing any work.

There are references within this document and the drawings that are requirements of the building code such as the building wrap is defined as Thermakraft Cover-up, the builder must be aware that not using these products may require an amendment to the consent. Any dispute arising from these documents must be resolved by mutual agreement or arbitration.

Contractor's responsibility
It shall be the responsibility of the Contractor and Subcontractors to be familiar with the materials to be used and their respective life duration in regard to the NZBC, the nature of work to be undertaken, as well as all relevant standards, codes, producer's specifications etc.

Health & safety
Contractor, Subcontractors and all people on site to comply with the Health and safety act of 2015, including having a managed system for site access and safety of all trades, subtrades and public.

Measured work
In all cases figured dimensions shall be used in preference to scaling. It is the contractor's responsibility to ensure that all parts of the work fit and are compatible with each other. Any ambiguities should be immediately referred to the Fat Hippo Design Group Ltd for interpretation.

Consents
Contractor and all sub-contractors shall, on behalf of the owner, apply for and obtain all necessary consents and pay all fees for same.

Insurance
The contractor and sub-contractors shall have adequate insurance cover as

necessary to ensure all workmen and buildings are fully covered against accidents, fire and any other damage. The contractor shall take out adequate Public Liability Insurance to ensure that he is covered against all claims under common law. He is also to comply with the Health and Safety Act.

Durability
Building sites are to be classified as zones 1, 2, 3. or sea spray zone.
Timber and wood based products shall be protected against damage from moisture.
Wood based products, e.g. particle board flooring, subject to water splash shall be protected by an impervious finish or lining with sealed joints.
Underlays and sheathing are to be durable for at least 15 years under claddings. Underlays and sheathings behind veneers are to be durable for 50 years.

Damaged work
All work shall be carried out in accordance with best trade practice. All defective or damaged work shall be removed and made good to the satisfaction of the owner.

Materials
Not specifically mentioned but necessary for the contract must be of the kinds commonly employed for the service they are intending to perform.

Duration period
Verify all materials used on this contract comply with the duration period requirements as specified in the N.Z.B.C. (B2).

Conditions
It shall be left between the builder and the client to arrange matters concerning conditions of contract and contract agreements.

Completion
Upon completion of the building work the builder shall leave the site clean and tidy of all trade debris, etc. and shall thoroughly clean all buildings etc. No builder's rubble is to be buried on the site.

Inspections
The inspections must be booked with the correct TA (Council) with 24 hours notice before the required inspection. Inspections for this project are at 24 hours notice but no work is to be undertaken until the mandatory inspections have been undertaken and passed as acceptable.

Electrical Compliance Certificates
The registered Electrician must provide a copy of the Energy Compliance Certificate to the owner.

EXCAVATION

Clear site
Clean off all rubbish, noxious matter and organic matter under building platforms. Clean off all vegetation and topsoil under concrete slab on ground constructions. Excavation beneath building platforms on sloping sites shall be

dug out in series of stepped level platforms. Excavate out for foundations as detailed and advise Fat Hippo Design Group Ltd and Engineer of the soil strata.

Hardfill
Provide makeup as detailed under all concrete floors - to be a minimum of mixed graded hardfill with a maximum size of 36mm (to be free of fines) well compacted in layers of 150mm maximum thickness. The total thickness of hardfill is to be a minimum of 150mm and a maximum of 600mm (within 3.000 of a foundation) and finished off to a level surface.

Granular fill shall be material approved by Engineer. Lay over a 25mm binding layer of sand also well compacted to prevent damage or puncture of damp proof membrane.

Adjacent finished ground level
The finished ground level adjoining concrete floors shall be formed to slope away from the foundations at a minimum of 1:25 for a distance of 1.000.

CONCRETE AND REINFORCING

Setting out
Extent of this section of the specification comprises the setting out, boxing and placing of concrete in the foundations, floor slabs, and any other concrete work shown on the drawings.

Concrete
Shall be ordinary grade with a minimum strength of 10MPa for unreinforced concrete used in mass foundations, a minimum strength of 17.5MPa for reinforced concrete not exposed to the weather or exposed to the weather in zone B as shown in figure 4.2 of NZS3604:2011, 20MPa for reinforced concrete exposed to the weather in zone c as shown in figure 4.2 of NZS3604:2011, 25MPa for reinforced concrete exposed to weather in Zone D as shown in figure 4.2 of NZS3604:2011 and specially selected from NZS3101 table 5.3 where a direct wearing concrete floor is required.

Finish
All exposed concrete foundations etc. above ground level shall be of a fair face finish.

Reinforcing
Foundations and reinforcing shall be to the drawn slab system details. All reinforcing steel shall be clean, free of loose scale and rust and shall comply with NZS 3402, NZS 3421:1972 or NZS 3423P:1972. All steel shall be neatly tied in place in positions shown. Laps on all steel work shall be in accordance with AS/NZS1170 Reinforcing to foundations shall have a minimum of 75mm cover to bottom of foundation & 50 mm cover on vertical faces.

Vapour barrier
Before pouring concrete floor slab lay 0.25mm polythene continuous vapour barrier on top of fill, with joints lapped a minimum of 150mm taped at all joints and protrusions.

Patio Floor slab
Pour 100 mm thick concrete floor slab reinforced with SE 615-500 XTRA-DUCTILE mesh laid to provide 35 mm cover to top of slab and extended to within 50 mm to the outside edge of the slab. The floor slab shall be as detailed by Fat Hippo Design Group and be specifically laid out for each house.

House Floor slab
Pour 120 mm thick concrete slab reinforced with SE62RES mesh laid to provide 35 mm cover to top of slab and extended to within 50 mm to the outside edge of the slab. The floor slab shall be as detailed by Engineer, Maxslab Manufacturer details and be specifically laid out for each house.

Finished concrete house slab floor levels above finished ground level shall be:
150mm for brick veneer with adjacent permanent paving
150mm for cladding with adjacent permanent paving
150mm for brick veneer without permanent paving
225mm for cladding without permanent paving

Slab finish
All slabs shall be finished to approval with a steel power float finish and be saw cut if sections poured in larger areas than specified above. Shrinkage control joints shall be cut to a depth of one quarter the slab depth and be done within 24 to 48 hours after laying.

CARPENTRY

Materials
All materials shall be the best of their respective class and type specified.

Workmanship
All work shall be carried out in a workmanlike manner in accordance with best trade practice.

Specified work
Any work that is intended or implied but not specifically shown, mentioned or specified as necessary for the proper completion of the building shall be included.

Codes
All work shall comply with the relevant NZS requirements particularly NZS 3604 and NZ Building Code.

Other trades
Attend upon all other trades providing all blockings, fixings, trims, dwangs etc., as necessary for the full completion of their respective works and make good after all trades.

Timber
All timber shall be well seasoned, dried, treated, true and straight. All joints shall be well nailed or bolted, and adequate for their purpose.
All timber shall be the best of their respective kinds, and shall conform to NZS 3631 Classification and grading of NZ timbers.
Timber species, preservative treatment, moisture and end use environment

shall comply with NZS 3602. SG8 timber shall be used unless specified differently. Refer to NZS 3604 table 2.1 for timber framing tolerances.
All timber shall be separated from concrete or masonry by a clear free draining air gap of 12 mm minimum or by damp proof course extending 6mm past each side of the timber. Timber treated to 114 and timber within a building where the concrete is protected or not exposed to moisture may be excluded from the above protection.

Timber Treatment

The building is to be treated H1.2 as noted below and on the plans.

untreated	Radiata pine Douglas fir	Wallframing and roof framing protected from weather in unlined and unoccupied farm buildings and outbuildings, except buildings with high internal humidity, such as saunas, spas etc.
H1.2	Radiata pine Douglas fir	Jackstuds, subfloor braces, wall plates, floor joists to subfloor, blocking, wailings and battens, nogs and diagonal boards
H1.2	Radiata pine Douglas fir	Interior solid wood flooring for ground floors
H1.2	Radiata pine Douglas fir	Sarking and framing not protected from solar driven moisture through absorbent cladding materials
H1.2	Radiata pine Douglas fir	Enclosed flat roof framing and associated roof members
H1.2	Radiata pine Douglas fir	Enclosed skillion roof framing and associated roof members
H1.2	Radiata pine Douglas fir	Valley boards and boards supporting flashings for box gutters, roof penetrations and upstands to roof decks
H1.2	Radiata pine Douglas fir	All roof trusses, including gable end trusses, roof framing, ceiling and eaves framing, purlins and battens
H1.2	Radiata pine Douglas fir	Framing and other members within or beneath a parapet
H1.2	Radiata pine Douglas fir	Framing and other members within enclosed decks or balconies
H1.2	Radiata pine Douglas fir	Framing and other members supporting enclosed decks or balconies (including for cantilevered decks)
H1.2	Radiata pine Douglas fir	All other exterior wall framing and other members including exterior and boundary joists
H1.2	Radiata pine Douglas fir	Internal walls and flooring and All midfloor framing, including boundary joists, ceiling framing and ceiling battens and double top plates
H3.1	Radiata pine	Battens used behind cladding to form a cavity (H3.1 treatments can be either solvent based or boron)
H3.2	Radiata pine	Framing exposed to the weather and above ground
H3.2	Radiata pine	Framing and other members within enclosed cantilevered decks (including joist trimmers, nogs and blocking)
H4	Radiata pine	Framing, such as fence posts and landscape timbers that is exposed to the weather and is in contact with the ground
H5	Radiata pine	Framing, such as house piles, poles and crib wailing, that is exposed to the weather and is in contact with the ground.

DPC
All timber to be protected from dampness with 3-ply bituminous felt or other approved damp proofing material when in contact with concrete or blockwork.

Fixings
Bolt and coach screw fixings shall have their heads and nuts fixed over washers when in contact with timber.
Nails shall be to length and diameter according to manufacturers specifications or nailing schedules included in NZS 3604:2011.

Materials
Construction materials must be dry before final closing in.

Bracing
As detailed on the drawings and to Winstones 'Gib Systems' or James Hardies respective details or as specifically mentioned by Engineer with specific design

Finished work
All finished or partly finished work shall be protected from discolouration, surface injury or other damage. All nails in exposed work shall be punched.

Framing
Wall framing shall generally be 140/90x45 gauged SG8 with studs spaced in accordance with NZS3604:2011 for wall loadings, straight and true. Wall junctions shall be framed up with a minimum of two studs, blocked and nailed. Holes or notches in studs may be made to a depth 25mm which may be increased to 35mm where not more than 3 consecutive studs are drilled or notched. Notches in studs to be spaced vertically not less than 600mm apart. Provide trimming studs to the sides of all openings which shall not be drilled, notched or cut within the middle third of their length. To straighten studs no more than two cuts per stud and not cut further than the centre line. No two adjacent studs shall be cut for straightening nore more than one quarter of studs for any run of wall. Fishplates 25mm thick by same width as studs and extending 225mm each side of the cut and fixed to both sides shall be used to secure the stud after cutting. Lateral support to studs shall be by dwangs, cladding or linings.

Bottom and top plates shall generally be the same width as the studs. Thickness of top and bottom plates in load bearing walls shall be determined by NZS 3604:2011 Section 8 and generally a minimum of 40mm thick in non-load bearing walls.

Wall bottom plates shall be fixed to the slab (foundation wall) with M12 Ramset Ankascrew or equivalent providing 15kN to external walls and set not less than 75mm into the concrete and projecting sufficiently to allow for a washer above the timber as shown in figure 6.16 of NZS 3604:2011. Fixings shall be located not more than 150mm from the end of the timber at corners of foundations and not more than 600mm centres along the wall.

Proprietary fixings as defined by 7.5.12.3 for internal walls and 7.5.12.4 for external walls of NZS 3604:2011 can also be used for fixing of bottom plates.

Wall top plates shall be of the dimensions shown on the drawings but generally being 140/90x45 gauged SG8 H1.2. Fixings to the studs shall be as noted in NZS 3604:2011 Table 8.18 with special note made that further details of top plate fixings are shown on Fig 8.13 – 8.19 (inclusive) of NZS 3604:2011 covering a majority of residential fixing requirements. Situations not covered by these figures should be referred to Fat Hippo Design Group Ltd.

Fixing of the top plate in with walls having a load dimension of 3-6m shall be Fixing type 'B' of 2-90x3.15 end nails + 2 wire dogs (4.7kN Alternate fixing).

In load bearing walls where trusses land more than 150mm away from a stud then support under truss by fixing 100x50 on edge under top plate and fixed

into adjacent two studs. Joints in top plates shall only be made over supports and connected with an alternative fixing of 3kN. Plates shall be straight and true and in long lengths.

Provide dwangs at a maximum spacing of 800 centres (480 for Cedar), or spaced for cladding and same size of studs finished flush with face of studs where wall cladding and linings are being fixed. (800 crs for dwangs are a requirement for support of the building wrap under E2/AS1 RAB or similar is used dwang spacing may be revised by an amendment must be lodged to this specification.

Moisture content shall be 18 - 20% before final closing in as a structural requirement but it must be noted that Gib require the moisture content to be under 18% or less before lining with their products and it is recommended for dwellings with central heating, and heat pumps that this be lower again but this is a recommendation and not a code requirement.

Lintels
Lintels shall be secured against uplift with 25x1mm strap taken over plate and 150 on each side of lintel with 6/30x2.5mm nails into each side of lintel and be fixed at each end to a trimming stud with 25x1mm straps with 6/30x2.5mm nails on one side only into both lintel and stud, trimming stud is in turn fixed to floor framing with 25x1mm strap with 6/30x2.5mm nails on one side only into both blocking and stud.

Building paper
FPS over ply Ecoply RAB

Roof framing
Frame up roof as detailed and as required by proprietary system Truss fabricator/Engineer to provide a neat strong roof. Ensure all main roof beams and rafters are well supported at their ends and securely fixed to wall framing. Ensure trusses and rafters are securely fixed to plates using 2-'Z' nails and 2-100mm nails. Design information shall be obtained from the selected Truss Manufacturer to submit with the building consent. Allow to temporary prop at mid span all beams etc during construction or until the moisture content reaches 12%. Roof framing members shall not exceed 1.200 centres for light roof and 900 mm centres for heavy roof. Joints in framing members shall only be made over supporting framing, except for ridge boards.

Roof bracing
Provide all roof plane and roof space bracing, ridge boards, valley boards, etc as necessary for the due completion of this part of the work.

Purlins
Purlins shall be laid parallel to eave and ridge line and directly over rafters and be continuous over at least 2 spans.

Purlins are to be 75x45 @ 900 in strict Accordance with Table 10.10 of NZS 3604:2011, type T fixing of 1-10gx80mm self-drilling screw over the entire roof. Outriggers forming barges shall be 90x45 on flat @ 600 crs maximum, with 90x45 Boundary/Fly Rafter all joints fixed with 2-90X3.5mm nails.

Ceiling battens
Rondo steel battens at 600 crs on proprietary clips shall be used. All battens in Diaphragm ceiling areas are to be direct fixed to bottom chords of purlins or rafters with a maximum of 15mm solid packing (not GIB).

Ceiling access
Form 600 x 800 opening in ceiling to provide access to roof space. Locate opening away from main traffic areas as noted on the draiwngs

Insulation
Insulation shall consist of **Maxslab 300** slab, **R2.8** ,**R4.0** fibreglass wall batts fitted to framing cavities in all exterior walls, and **R7.0, R5.0, R4.5 Skillion** fibreglass ceiling batts shall be fitted to ceiling and roof spaces The reduced batts are allowed in the outer 600mm only. Note that ensuring ventilation to roof spaces is critical and should be 25mm min maintained, or with clearance of NZ Vent Baffle strip.

Exterior cladding
Refer to cladding section of specification.

Interior linings
Refer to finishes schedules on Fat Hippo Design Group Ltd drawings. All finishes are to be fixed in accordance with the manufacturers specifications.

Gib Stopping
Carry out all stopping work to highest trade standards. To Level 4 paint finish as defined by Winstone Gib Systems.
Plastering materials shall be good quality and as specified by wallboard manufacturer.
Take all reasonable precautions to prevent damage or stain to any woodwork and leave floor free from marks and plaster droppings at completion.

Trim
As detailed on the drawings and finishes schedule.

Windows
Windows shall generally be as shown on the elevations with final layout to be decided by owner. Work with window manufacturer in establishing all final rough opening sizes and wall lining thicknesses. Windows shall be aluminium with colour selection by owner.

Windows to be complete with ex 40mm thick reveals grooved for interior wall linings. Window manufacturer shall be responsible for ensuring that all windows are sufficiently rigid for their particular design and application. Ensure all glass, for the particular situation, complies with the latest standards. The builder is to take particular care when installing windows to ensure full weather tightness, by fitting flashings around windows etc. Proprietary seals and sealants may be used providing sealants are not directly exposed to sunlight and are accessible and replaceable. Install windows using pairs of minimum 75 x 3.15 galvanised jolt head nails or 8 gauge x 65 mm stainless steel screws, through reveals into surrounding *framing* at: a) Maximum 450 mm centres along sills, jambs and heads, and b) Maximum 150 mm from reveal ends. Install packers between reveals and *framing* at all fixing points, except between head reveals and lintels.

Doors
Exterior doors are to be aluminium to match windows or alternately timber doors as selected by owner. Interior doors as indicated on the drawings are to be pre-hung in 40mm grooved frames complete with 50x12 planted stops. Interior doors shall be hollow core flush panel doors or as otherwise specified.

Builder to take particular care when installing exterior doors to ensure full weather tightness by fitting flashings to head and jambs. Proprietary seals and sealants may be used providing sealants are not directly exposed to sunlight and are accessible and replaceable.

Install doors using pairs of minimum 75 x 3.15 galvanised jolt head nails or 8 gauge x 65 mm stainless steel screws, through reveals into surrounding *framing* at: a) Maximum 450 mm centres along sills, jambs and heads, and b) Maximum 150 mm from reveal ends. Install packers between reveals and *framing* at all fixing points, except between head reveals and lintels.

Joinery
Kitchen joinery to be selected and approved by the owner.

Fittings
Install plumbing fittings as required and as shown on the drawings. Work with plumber regarding fixing of fittings.

Garage doors
Garage door to be Ashton sectional with remote opener. Fitting to be carried out by manufacturer.

Hardware
Fit all hardware as necessary to complete the building and make it completely functional.

STRUCTURAL ELEMENTS (SLAB/FRAME/CLADDING)

General
Refer to Engineers details and specification

COLORSTEEL CLADDING

General
Stratco Hiland tray, special care to taken not to place Iron under tension and it should be fitted over a PVC separation layer if on timber battens

CEDAR SHIPLAP

General
Refer to Manufacturers specifications and appraisals

SCHIST VENEER

General
Refer to Engineers details and drawings. Eterpan as backing layer to manufacturers details

ROOFING

General
The roofing profile will be as specified on the drawings. Stratco HI-Five pre painted steel sheet, paint system ColorCote ZR8 (steel). All materials used must be compatible with each other, all work is to be done by a Stratco Installer. For a full specification refer to the Manufacturers manual. All confined roof spaces are to have passive ventilation to the roof space.

Roof Sheets
Roof sheets shall be continuous in length from ridge to gutter. Sheet ends must be stop-ended under flashings and lipped into gutters.

Flashing, ridge, hip material
All flashing, ridge and hip material shall be .55mm BMT pre painted steel sheet. Colorcote ZR8 (Steel) paint system.

Underlay
The underlay shall be Thermkraft 401

Spouting
Spouting shall be as detailed on the drawings.

Downpipes
Downpipes shall be as detailed on the drawings. Seal downpipes and vents into their connections.

PLUMBING AND DRAINAGE

Laundry
Laundry facilities are to be fully compliant with acceptable solution G2/AS1 of the NZBC. Laundry facilities are to be provided with a laundry tub with a capacity to spill-level of no less than 35l and be capable of fully containing a solid cylinder of 400mm diameter and 200mm depth, or space and service connections for a washing machine. Laundry tubs are to be provided with a cold water supply, washing machines to be provided with cold water supply, discharge pipe, water trap and an adjacent 10amp socket outlet.

Kitchen
Kitchen facilities are to be fully compliant with acceptable solution G3/AS1 of the NZBC, paragraph 1 and Figure 1 of G3/AS1. As such utensil and food rinsing facilities shall have a sink with free draining surfaces with continuous falls to the outlet. The sink shall be capable of fully containing a solid cylinder of 300mm diameter and 125mm depth. Food preparation surfaces shall be easily maintained in a hygienic condition, and hot and cold water supply shall be provided to sink as per G12 of the NZBC. Wall and floor linings adjacent to appliances and facilities are to be impermeable.

Drainage
New 100mm uPVC foul water drains to be run at 1:60 gradient from septicconnection to new gully trap positions and branch drains, except where

the size has been noted as an increase for areas of higher load, refer to Fat Hippo Design Group drawings. Drains to be no less than 500mm below finished ground level. Where they are they are to have 100mm concrete cover. New gully traps to have concrete base under trap. Joints to be primed before joining with solvent cement. All drainage to be backfilled with granular fill (compacted).

Stormwater drainage to be done in 100mm uPVC at gradient of 1:100 to soakpit connection. Drains to be no less than 500mm below finished ground level. Where they are they are to have 100mm concrete cover. Allow to run downpipes as shown on the drawings. Drains to be backfilled with compacted granular fill. Drainlayer to arrange for required inspections.

Plumbing
All new hot & cold pipe work to be 20mm “buteline” polybutylene mains run across ceiling cavity and to have 15mm branches dropping down wall cavities to fixture positions. Where the pipe work is run in the roof space the pipes are to be securely fixed to the framing. Plumber to check to ensure even draw-off at fittings and fixtures.

All pipe work in external walls and ceiling cavities to be insulated with climaflex lagging and all hot water pipe work to be insulated as required by H1 of NZBC. Pipes to be seismically restrained.

New pipe work to be tested at 1500kPa (G.12/AS1 NZBC) for 30mins before insulation is applied and to be verified by council inspector.

Plumber to run new uPVC waste pipe from new fixtures under the slab at the maximum practical gradient (no less than 1:40) to discharge over gully traps. Where they exceed 3.5 meters in length they are to be vented (either an open vent or by air admittance valve). Pipes to be sleeved and protected where they pass through concrete.

Pipe work run under slabs shall be sleeved in a uPVC drain of one size larger than.

Wastes are to be of the following sizes and materials:

Kitchen Sink	50mm uPVC
WHB	40mm uPVC
Laundry tub, Shower	50mm uPVC
WC	100mm uPVC

New fixtures and fittings to be supplied by owner. Check with owner regarding type to enable pipe work to be set up accurately. Owner to provide WC type to enable accurate set-up.

Plumber to run new 20mm polybute cold feed to new gas califont and take 20mm hot feed away in polybute. Provide necessary filters, relief drain and isolating valves.

New fixtures and fittings to be supplied by owner. Check with owner

regarding type to enable pipe work to be set up accurately. Owner to provide WC type to enable accurate set-up.

On completion of all drainage work a full height water test is to be conducted in the presence of a suitably qualified representative of the Territorial Authority. A drainage plan must be submitted at the time of this test.

On completion of all water supply pipes they are to be filled with water and all the air is to be purged from the system before pressurising the system to 1500 kPa for 15 minutes. No measureable loss in pressure is allowed over the test period.

ELECTRICAL

Installation
Carry out the whole of the electrical installations in strict accordance with the latest electrical regulations and local Authority's By-laws, and meter wiring diagram.

Materials
All materials used under this contract shall be of approved British or New Zealand Standard Specification. Allow for all materials necessary to complete the contract whether specified or not. All work shall be carried out by a Registered Electrician in accordance with regulations and best trade practice and in a manner which will cause minimum inconvenience to other workmen and the work as a whole. Do all cutting away, drilling etc and with timber cut the minimum only away for the entry of cables *

Cooperation
Co-operate with the Building Contractor and other subcontractors in all phases of work. Give ample notice to enable the contractor to arrange the necessary voids, chases etc.

Completion
Leave work complete, pay all charges and arrange for all inspections and tests and for the connection of power to the works. it is the responsibility of the electrical contractor to ensure that no delay is occasioned to the job once the contract is complete.

Connection
Existing to site

Smart Meter board
Provide and install meter board in the Garage. Confer with builder for trim size.

Switchboard
Provide and install in recess main switchboard complete with all necessary control and auxiliary equipment in the Garage

Water heater
Allow for the permanent connection of the water heater to the electrical system. Connect to thermostat and element.

Fittings

Allow for power points, light switches and light fittings, work with owner in regard to style, design and finish of products and positioning of same. All light fittings shall be supplied by owner.

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