Processing Check Sheet Help Page

Form Ck 14

Version 2006/07

Basement:

Construction:

1. Specific design audited by Accredited Consultant.
2. Can be designed to Acceptable Solution NZS 4229.
3. Obtain manufactures technical information for tank and protection.
4. Recommend Nexus Highway drainage not Novaflow.
5. Drainage to be below floor slab at footing level.
6. Provide flushing/cleaning access at head of drain.
7. Drain to be laid in and covered with no-fines free draining aggregate.
8. Filter fabric over free draining aggregate
9. Discharge drain to silt sump before going into stormwater discharge.
10. General backfill to be no-fines free draining aggregate.

Concrete Floor

Footings:

1. Min 160mm wide 1 storey.
2. Min 200mm wide 2 storey.
3. Min 240mm wide masonry veneer.

Floor Slab:

1. Min 75mm top soil removed.
2. Min 100mm slab thickness.
3. > 600mm slab fill subject to specific design by CP Registered Engineer.
4. 668 mesh max 12m/665 mesh max 24m
5. 30mm top cover for mesh.
6. Polythene min 0.250 mm taped joins.

Reinforcing in ground:

1. 2/12mm single storey.
2. 3/12mm two storey/masonry veneer.
3. 10mm starters at 600mm centres.
4. 75mm min cover in ground.
5. 50mm min cover above ground.
6. 30mm top cover for mesh.

Reinforcing above ground:

7. 60mm / 25MPa in sea spray zone.
8. 50mm / 17.5 MPa in zone 1.
9. 45mm / 17.5 MPa in zone 2 & 3.
10. 35mm / 17.5 MPa interior conditions.

Timber Floor

Poured Foundation:

1. Footing min 160mm wide 1 storey.
2. 1/12mm footing reinforcing single storey.
3. Footing min 200mm wide 2 storey.
4. Min 240mm wide masonry veneer.
5. 2/12mm footing reinforcing two storey/masonry veneer.
6. Foundation wall min 125mm 1 storey.
7. Foundation wall min 150mm 2 storey.
8. 1/12mm reinforcing to top.
9. 75mm min reinforcing cover in ground.

Driven Timber Piles:

1. H5 treated
2. Min 140mm diameter.
3. Maximum height 3.0m above GL.
4. Driven min 900mm gravel/1200mm clay
5. Maximum 1200mm above GL as cantilever un-braced.
6. 6 kN (4/Znails) bear/pile connection.
7. Vents 750mm corners/1800mm centres or 20mm gaps horizontal baseboards.

10. 50mm min reinforcing cover above ground. 11. Max 600mm spacing vertical reinforcing 12. Vents 750mm corners/1800mm centres. 13. Brace maximum 6.0m grid unless floor diaphragm.	
Poured Concrete Piles: 1. Min 200mm diameter 2. Reinforce D10 bar over 750mm high or braced/cantilever piles. 3. Maximum 1.5m height above GL. 4. Brace maximum 6.0m grid either anchor piles of braced piles. 5. 12 kN connection from bearer to anchor piles/braced piles. 6. Vents 750mm corners/1800mm centres or 20mm gaps horizontal baseboards.	**Floor Framing:** 1. Min H1.2 treatment for sub-floor and 1st floor boundary joists. 2. Min 550mm chipboard to GL clearance. 3. Flood zones confirm min required FL. 4. 12 kN connection from bearer to anchor piles/braced piles. 5. Stainless steel fixings < 500m of breaking surf. 6. Joists 200mm depth or greater solid blocked. 7. Double joist under load bear walls. 8. Single or dwanged under non-load bearing internal walls. 9. Sizilation sagged min 100mm.
Wall Framing:	
Construction: 1. DPC between external plate & concrete. 2. Plate fixings 12mm max 1.4m centres 3. Plate fixings 10mm max 0.9m centres 4. Lintels to comply with snow zone tables 5. 2/U nails top plate/stud spans > 6.0m 6. 3/U nails top plate/stud VH wind zone spans > 8.0m. 7. Trusses having an uplift reaction greater than 4.7 kN on the top plate/stud connection (3/Znails) shall have fixings specified as part of the truss design. 8. Absorbent building wrap for: - Metal cladding - PVC cladding - Primed weatherboards - Desirable for Polystyrene 9. Non-absorbent building wrap for: - Masonry veneer (temp weather) - Hardies type sheet produces - Stucco plaster - Uncoated timber	**Durability:** <u>Timber Treatment: H1.2</u> 1. Sub-floor and 1st floor boundary joists. 2. Exterior framing except low risk masonry veneer. 3. Skillion roof > 10 degrees pitch. <u>Timber Treatment: H3.1</u> 1. Enclosed flat roof < 10 degrees pitch. 2. Enclosed decks/balustrades. 3. Internal gutter/valley boards. 4. Cavity battens. 5. Weatherboards. <u>Timber Treatment: H3.2</u> 1. Exposed to weather. 2. Rafter ends exposed at eave. 3. Weatherboards.
Truss Roof	
Trusses: 1. Wind zones: - Low 32 m/s	**Durability:** <u>Timber Treatment: H1.2</u> 1. Skillion roof > 10 degrees pitch.

- Medium 37 m/s - High 44 m/s - V High 50 m/s 2. Snow zones: - 0.5 kPa up to 140m - 1.0 kPa 140 - 440m - >1.0 kPa Specific Design 3. Girder, hip and other truss types forming point loads onto stud framing, beams or lintels, shall have their supports and fixings specified by the fabricator. 4. Gable end trusses, giving lateral support to claddings, shall have vertical strutting designed to accommodate lateral loads. 5. Trusses having a loaded dimension of greater than 6.0m (12.0m total span) are to be subject to specific design by a C P Registered Engineer.	<u>Timber Treatment: H3.1</u> 1. Enclosed flat roof < 10 degrees pitch. 2. Enclosed decks/balustrades. 3. Internal gutter/valley boards. . <u>Timber Treatment: H3.2</u> 4. Exposed to weather. 5. Rafter ends exposed at eave.
Purlins: 1.	
Pitched Roof	
Roof Framing: 1. Wind zones: - Low 32 m/s - Medium 37 m/s - High 44 m/s - V High 50 m/s 2. Snow zones: - 0.5 kPa up to 140m - 1.0 kPa 140 - 440m - >1.0 kPa Specific Design 3. Framing to tables NZS3604 section 15 for appropriate wind, snow and framing grade.	**Durability:** <u>Timber Treatment: H1.2</u> 2. Skillion roof > 10 degrees pitch. <u>Timber Treatment: H3.1</u> 4. Enclosed flat roof < 10 degrees pitch. 5. Enclosed decks/balustrades. 6. Internal gutter/valley boards. . <u>Timber Treatment: H3.2</u> 6. Exposed to weather. 7. Rafter ends exposed at eave.
Purlins:	
Roof Cladding:	
Underlay: 1. Absorbent type underlay only. 2. Heavy weight underlay only < 8 degrees pitch. 3. Self supporting or supported at max 300mm centres. 4. Run horizontally or vertically. 5. Horizontally only < 8 degrees pitch.	**Durability:** 1. < 500m breaking surf or < 100m estuary cladding specified to manufacturers requirements.

6. Min 150mm lap.	
Brick Veneer:	
Construction: 1. > 20 risk matrix score specific design. 2. 40 - 75mm cavity width. 3. Min 50mm cavity step down. 4. Ventilation/drainage joints omitted max 800mm centres. 5. Max 4.0m height from foundation. 6. Max 5.5m half height of gable ends. 7. Max 7.0m from ground level when supported on raised foundation.	**Durability:** 1. < 500m breaking surf or < 100m estuary stainless steel brick ties/lintel bars or galvanizing at 600g/m2 plus coating.
Stucco Plaster:	
Construction: 1. > 20 risk matrix score specific design. 2. Non-absorbent type underlay. 3. Must have vented/drained cavity. 4. Min 50x20mm battens. 5. Vermin proofing to base allowing venting and drainage. 6. No venting at top of cavity. 7. Jointing/flashing systems to technical information or NZBC E2 details. 8. Minimum 2 coats high build Latex paint. 9. Control joints at maximum 4.0 m centres, sides of windows and inter-storey junctions.	**Durability:** <u>Timber Treatment: H3.1</u> 1. Cavity battens.
Weatherboard:	
Construction: 1. > 20 risk matrix score specific design. 2. Absorbent type underlay for primed/non-absorbent for uncoated timber. 3. Refer NZBC E2 various profiles allow face fixing/cavity construction depending on risk matrix score. 4. Min 50x20mm battens. 5. Vermin proofing to base allowing venting and drainage. 6. No venting at top of cavity. 7. Lap min 35mm for no rebate bevel-back. 8. Rebate min 25mm for rebated bevel-back and rusticated. 9. Junctions soakers or splayed join. 10. Flashed to NZBC E2 details. 11. Board and batten min 5-8mm gap. 12. Weather grooves to be aligned.	**Durability:** (Refer NZS 3602 other than Pine) <u>Timber Treatment: H3.1</u> 1. Cavity battens. 2. Weatherboards. <u>Timber Treatment: H3.2</u> 1. Weatherboards (no or stain finish)

Profiled Metal:	
Construction: 1. > 20 risk matrix score specific design. 2. Absorbent type underlay only. 3. Vertical run profile can be face fixed. 4. Horizontal run profile must have vented/drained cavity. 5. Min 50x20mm battens. 6. Vermin proofing to base allowing venting and drainage. 7. No venting at top of cavity. 8. Flashed to NZBC E2 details or refer alternative solution register.	**Durability:** 1. < 500m breaking surf or < 100m estuary cladding specified to manufacturers requirements. 2. Cavity battens H3.1 treated. 3. Underlay strips between cavity battens and back of cladding.
Fibre Cement:	
Construction: 1. < 7 risk matrix score direct fixing. 2. > 7 vented/drained cavity only. 3. > 20 risk matrix score specific design. 4. Non-absorbent type underlay only. 5. Min 50x20mm battens. 6. Vermin proofing to base allowing venting and drainage. 7. No venting at top of cavity. 8. Flashed to NZBC E2 details. 9. Min 7.5mm thick flush finish system. 10. Min 6.0mm thick PVC/batten jointing. 11. Jointing/flashing systems to technical information or NZBC E2 details. 12. Control joints internal corners, maximum 5.4m centres and inter-storey junctions. 13. Control joints can be maximum 6.0m to external corners.	**Durability:** 1. < 500m breaking surf or < 100m estuary flashing durability specified to technical information requirements. 2. Embedded flashings to be PVC. 3. Cavity battens H3.1 treated.
Ply Cladding:	
Construction: 1. < 7 risk matrix score direct fixing. 2. > 7 vented/drained cavity only. 3. > 20 risk matrix score specific design. 4. Non-absorbent type underlay only. 5. Min 50x20mm battens. 6. Vermin proofing to base allowing venting and drainage. 7. No venting at top of cavity. 8. Flashed to NZBC E2 details. 9. Vertical joints lapped/weather-groove or 8mm gap over Butynol strip to NZBC E2 details.	**Durability:** 1. < 500m breaking surf or < 100m estuary flashing durability specified to technical information requirements. 2. Cavity battens H3.1 treated. 3. Ply cladding H3.2 treated.

10. Horizontal Z flashed to NZBC E2 detail.	
Polystyrene EIFS	
Construction: 1. < 7 risk matrix score direct fixing. 2. > 7 vented/drained cavity only. 3. > 20 risk matrix score specific design. 4. Absorbent type underlay desirable. 5. Min 50x20mm battens. 6. Vermin proofing to base allowing venting and drainage. 7. No venting at top of cavity. 8. Jointing/flashing systems to technical information or NZBC E2 details. 9. Designed/tested system for horizontal surfaces or locations normally roofed. 10. Control joints to systems technical information or 20m long/6.0m high walls. 11. Control joints where abutting other claddings.	**Durability:** 1. < 500m breaking surf or < 100m estuary flashing durability specified to technical information requirements. 2. Embedded flashings to be PVC. 3. Cavity battens H3.1 treated.
Plumbing/Drainage:	
Construction: 1. Water supply from Council services or onsite supply/storage. 2. Sanitary plumbing includes in slab, under floor, and stack work. 3. Foul and stormwater to be detailed in consent documents. 4. For buildings other housing a grease trap shall be provided where wastewater is likely to contain grease. 5. Water supply to be detailed in specification. 6. On site effluent disposal provisions must be supported by site/soil assessment. 7. < 2.25 hectares land area effluent disposal to be specifically designed. 8. Effluent field from septic tank to be a minimum of 50m from a bore. 9. Effluent field from septic tank to be a minimum of 20 from a water course whether running or dry. 10. Capacity for pump chambers calculated at 200 lt/per person for one day storage in case of pump failure. Also allow additional 0.5 days storage for twice daily pumping cycle.	**Spa/Swimming Pools:** 1. Provisions for drainage of spa/swimming pools need to be considered for urban areas and adjacent rural properties. 2. Hose tap backflow fitting where hosed used to fill spa pool. 3. Pools excavated into the ground in areas subject to high ground water tables need specific design to anchor them into the for when emptied. **Durability:** 1. 5 years sanitary fixtures and surface mounted supply. 2. 15 years concealed behind wall linings or installed in ducting. 3. 50 years cast in concrete, under floor slab or installed in masonry cavity.

Backflow Devices:

1. Backflow RPZ device where dairy shed has stock dosing system.
   - Water supply is not isolated from rest of dairy farm supply.
   - Dairy shed has sanitary fixtures as part of dairy shed.

Heating:

Installation:

1. Wood burning appliances installed on properties of less than 2 hectares are to be test/approved for omissions less than 1.5gr/kg of dry wood burnt and a thermal efficiency of not less than 65%.
2. To be installed to manufacturers specifications.
3. New wetback install tempering valve.
4. Wetback connected to open vented cylinder unless is a closed circulating system.
5. Exhaust pipe to be lagged to prevent freezing obstructing cylinder expansion.
6. Diesel storage maximum 1000 litres without bunding and DG licensing.
7. Diesel storage vent minimum 1.0m from fixed/opening window.
8. Diesel storage minimum 620mm boundary separation.
9. Gas heating consents are not mandatory but where applied for CCC can not be issued unless Energy Certificate is provided from Craftsmen Gasfitter.

Durability:

1. 5 years minimum for freestanding units.
2. 15 years minimum for inbuilt units.

Access/Barriers:

General Construction:

1. Interior exterior stairs:
   - Accessible stair max 180 R/min 320 G
   - Main private exterior, living, kitchen and garage max 190 R/min 280 G.
   - Secondary stair bed and /bathrooms max 190 R/min 250 G.
   - Single bed and storage max 220 R/min 220 G.
2. Residential greater 1.0m fall external balustrade min 1.0m high/internal min 0.9m high.
3. Commercial & other greater 1.0m fall external balustrade min 1.1m high.
4. 100mm max gap between verticals.
5. Horizontal rails not within 150 - 750mm of floor level.
6. Max 35mm square or 50mm diameter trellis option.
7. Upstairs windows min 760mm sill height unless 100mm maximum opening restrictors fitted.

Spa/Swimming Pools:

1. Enclosure fence to be min 1.2m high.
2. Verticals maximum 100mm gap.
3. Horizontals not accessible from outside or to be maximum 900mm spacings.
4. Netting maximum 50mm squares acceptable for barrier.
5. Maximum 100m gap under fence.
6. Decks, trees etc including neighbouring to property to min 1.2m clear of fence.
7. Boundary fence forming part of pool enclosure to comply with above.
8. Gate construction to comply with the same height/spacing requirements.
9. Gate must open outwards with automatic closing and latching from 150mm and 90 degree open position.
10. Latching device to be on inside and accessed over the top or access hole 1.2m high or 1.5m outside or ontop of gate.
11. Doors/windows accessing enclosure needn't comply with above provided:
    - Doors are lockable.
    - Consider lock at 1.2m height.

	- Window sill min 760mm high or max 100mm opening restrictors fitted.
Handrails: 1. Handrails required for all stairs other than 2-3 riser isolated steps. 2. Handrail to be 0.9m to 1.0m height range vertically from nosing line of stair. 3. Accessible stair must have handrail both sides. 4. Handrail to extend 300mm past top and bottom stair riser. 5. Handrail to have infill under with max 100mm gap between verticals where fall > 1.0m. 6. Max 50mm square trellis option.	**Low Risk Barriers:** 1. Generally includes rural bridges and stock underpasses away from urban areas and remote DOC structures (greater 0.5 days walk). 2. Greater 1.0m fall external balustrade min 1.1m high. 3. Barriers are not to be incompatible with intend use ie; Woolshed bale load out/storage areas. 4. Low risk barriers with either horizontal rails max 460mm spacing or verticals max 300mm spacing are an option where children are not likely to be present.
Internal/External Decks:	
Construction: 1. Enclosed deck has a solid top and does not necessarily have a solid balustrade. 2. Enclosed deck the only acceptable solution for moisture proofing is Butynol or EPDM. 3. Enclosed deck min 100mm step-down from internal floor level with drain and overflow provisions. 4. Cantilever slated deck min 50mm step-down with 12mm gap against building. 5. Non-cantilever slated deck level access with 12mm gap against building. 6. Flash to drain out with drip edge.	**Durability:** <u>Timber Treatment: H3.1</u> 1. Enclosed decks/balustrades. <u>Timber Treatment: H3.2</u> 1. Exposed to weather.
Other Considerations:	
Ventilation/Light: 1. Internal habitable spaces vented to exterior. 2. Windows/doors min opening area 5% of floor of floor area of room. Doors used for ventilation calculation to have hold open device. 3. Mechanical ventilation is an option. 4. Natural light minimum window area 10% of floor area of room.	**Certification Fire Detection/Alarm Systems:** <u>Council policy</u> shall be to require certification from the installer and an accredited inspection body that the system satisfies the relevant installation standards. **Note:** Under NZS 4512 "Fire Detection and Fire Alarm Systems in Buildings" alarm systems are to be subject to a peer review/audit by an accredited inspection body (i.e. Hudson Fire Inspection Ltd, Fire Protection Inspection Services, Building and Fire Safety Ltd or similar IANZ Accredited auditors). Systems
Safety Glass: 1. Glazing within standing area (500mm)	

of bath/shower. 2. Glazing > 0.5 m2 in area on hinged doors. 3. Sliding doors without transom rails. 4. Side panels > 0.5m width. 5. Sills < 0.5m above floor level. 6. Overhead glazing. 7. Glazing in spa/swimming pool enclosure less than 1.5 above floor level.	could include: 1. Manual fire alarm systems 2. Automatic fire alarm systems with heat detectors and manual call points 3. Automatic fire alarm systems with smoke detectors and manual call points 4. Automatic fire alarm systems with modified smoke/heat detectors and manual call points 5. Automatic fire sprinkler systems with manual call points 6. Automatic fire sprinkler systems with smoke detectors and manual call points 7. Smoke control in air handling systems.
Energy Works Certificates: Council policy shall be to require energy certificates relating to electrical and gas work for the following work types: 1. New dwellings. 2. New commercial & industrial buildings. 3. Major alterations to either of the above.	
Fire Spread/Egress: (Residential)	**Fire Spread/Egress: (Commercial)**
Fire Spread: 1. 30min FRR where min 1.0m boundary separation compromised. 2. Street boundary/reserves do not require FRR. Refer definitions of Relevant Boundary in NZBC. 3. Other house-hold units on the same property require separation by either distance or FRR with the exception of attached granny flat type accommodation.	**Fire Spread:** 1. Fire separate where specified boundary separation allowing 100% un-protected area is compromised. 2. Determine fire hazard category and % of wall area requiring rating for available separation distance 3. Fire separate between sleeping and other purpose groups. 4. Fire separate between fire cells on the same or separate floor levels.
Fire Egress: 1. SH (residential house-hold: - Max dead end length 24m. - Max open path length 60m. 2. Smoke alarms (hush type) each bedroom or hallway within 3.0m of bedrooms. Also in alternative exitways necessary where 24m dead end length is exceeded.	
Accessible Facilities:	
Timber Pole Footings:	
Footings: 1. 6.0m x 4.8m bays footing sizes to be min 0.324 m2 volume. 2. Square footings min 0.6 x 0.6 x 0.9m. 3. Round footings min 0.6 dia x 1.150m.	**Poles:** 1. Poles H4/H5 treatment. 2. 150 x 150mm up to 3.6m high. 3. 200 x 150mm over 3.6m to 5.1m high. 4. 150mm min small end diameter.

Timber Pole Framing:

Construction:

1. Beams for 4.8m wide bays:
   - 2/300mm x 50mm max 6.0m span.
   - 2/250mm x 50mm max 4.5m span.
   - 2/200mm x 50mm max 3.6m span.

2. Purlins max 1.0m spacing:
   - 200mm x 50mm max 4.8m span.
   - 150mm x 50mm max 3.6m span.
   - 125mm x 50mm max 3.0m span.
   - 100mm x 50mm max 2.4m span.

3. Girts max 1.4m spacing:
   - 150mm x 50mm max 4.8m span.
   - 125mm x 50mm max 4.2m span.
   - 100mm x 75mm max 4.2m span.
   - 100mm x 50mm max 3.3m span.

4. Bracing to be min 1 in 3 bays to roof and walls.
5. Bracing can be cut between min 100 x 50mm or crossed 25 x .07mm strap bracing.
6. Strap bracing must be fixed in opposing pairs crossed within the same bay.
7. Min 2/12mm galv bolts per beam/pole connection for beams up to 6.0m span.
8. 50 x 50 mm galv washers to be fitted to coach bolts.
9. Purlins to be secured to purlin hangers or purlin blocks.

Durability:

1. H1.1 treated or NZO/Macrocapa untreated for unlined framing protected from weather.
2. H1.2 treated for lined framing
3. H3.2 treated where exposed to weather.

Specific Design:

Specific Design Review:

1. Specific design is referred to Council's accredited consultant (MWH) for review.
2. On sign-off from accredited consultant undertake general review of components.
3. Inconsistencies or variation noted from past experience referred back to consultant for clarification.

Policy regarding Producer Statements:

1. PS1 Design Statements are only approved where provided by a Chartered Professional Engineer (CP Eng)
2. PS1 Design Statements are to be subject to review by Council's Accredited Consultant
3. Calculations submitted on the basis of meeting the Verification Method to B1 "Structure" provided by other then a Chartered Professional Engineer (CP Eng) shall be supported by a PS2 Design Review Statement from a CP Eng
5. PS1 Design Statements relating to timber truss and beam designs from fabricators will be assessed for approval by the Building Control - Consent Processing Officer responsible for the area of the District. Assessment will include determining signing of the producer statement, correct snow and wind zoning and provision of the truss/beam layout and fixing requirements prior to consideration of issuing the building consent
6. PS2 Design Review Statements to be subject to review by Council's Accredited Consultant
7. PS3 and similar type Construction Confirmation Statement approval shall be determined by the Building Control - Consent Processing Officer responsible for the area of the District in consultation the Manager Building Control
8. PS4 Construction Review Statements are only approved where provided by a Chartered Professional Engineer (CP

4. Where generic specific design and supporting PS1 Design Statements have been through the Accredited Consultant review process once, subsequent applications specifying the same generic design need not be subject to design review again. Generic design documents must be number code and date referenced for recording approval. Any subsequent variation from the original documents must be subject to another review by Council's Accredited Consultant and be re-referenced in terms of code and date	Eng) 9. PS4 Construction Review Statements may be subject to review by Council's Accredited Consultant depending in circumstances. This will be determined on a case by case basis by the Building Control - Consent Processing Officer responsible for the area of the District in consultation the Manager Building Control