

059-002

**GENERIC DESIGN OF FIXING ARRANGEMENTS FOR THE STORMBANK TANKS & MULTIPLE
ASSEMBLIES**

FOR DEVAN PLASTICS LTD

*GENERIC - MOST LOCATIONS WITHIN NEW ZEALAND WITHIN A "VERY HIGH" WIND ZONE
SENZ STRUCTURAL PS1*

Sep 2024

Structural Maintenance Schedule

Project: Generic Design Of Fixing Arrangements For The Stormbank Tanks & Multiple Assemblies At Generic - Most Locations Within New Zealand Within A "Very High" Wind Zone.

This schedule of ongoing inspection and maintenance of structural elements shall be included with the Operations and Maintenance manuals and provided to the Owner/Body Corporate and building managers.

| Inspection/maintenance timeframe and item | |
|---|---|
| Half-yearly | <p>Wash down all exposed steelwork that is not in a fully interior environment including:</p> <ul style="list-style-type: none"> • Veranda steelwork • Steel Carpark structure (beams, columns, braces etc) • Deck and balcony steelwork • Exposed façade steelwork, both primary and secondary structure • Plantrooms and plenums with fresh-air intakes • External structural components such as Buckling Restrained Braces, Viscous Dampers, Eccentrically Braced Frames and the like • Sub-ground floor mild-steel structures such as beams, isolation bearings etc. |
| (b) 5 yearly | Inspect and repair sealant that encloses structural mild-steel components and/or timber with mild-steel fixings |
| (c) 10 yearly | Check exposed timber fixings for corrosion, repair as required. |
| | Inspect/replace sealant that encloses structural mild-steel components and/or timber with mild-steel fixings. This will typically include sealants around the perimeter of precast panels. Note that 10 years is the expected useful life for many sealants |
| | Check exposed structural steel within plantrooms and plenums for corrosion. Repair protective coatings as required. |
| | Check all exposed steelwork that is not in a fully interior environment for signs of corrosion. Repair protective coatings as required. |
| | Audit of damage to exposed intumescent coatings. Repair as required. |
| (d) 25 yearly | Inspect samples of structural steel that is hidden from view but not enclosed within a vapour barrier, and repair protective coatings as necessary. A typical example is a veranda with built-in steelwork. (Such steelwork should typically have duplex protective coatings). Inspection may typically require removal of claddings and/or the drilling of holes for borescope access. Repair as required. |
| | Inspect all exposed, external timber. Repair as required. |
| | Inspect all exposed, external reinforced concrete for signs of spalling or cracking. Repair as required. |
| | Audit of damage to enclosed intumescent coatings. Repair as required. |
| Following fit-out or alterations | Audit of damage to intumescent coatings. Repair as required. |
| Following seismic shaking > SLS1 event | Inspections and repair as per b), c) and d) above |

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|---|---------------------|------------------------------|-------------------|-------------------------------|------------------------|-----------------------|
| Project: GENERIC - MOST LOCATIONS WITHIN NEW ZEALAND WITHIN A "VERY HIGH" WIND ZONE | | | | | Job Reference: 059-002 | |
| Section: PS1 | | | | | Revision: B | |
| Calculation by: USER | Date: 13/09/2024 | Checked by: SADEER KATTAN | Date: Sep 2024 | Approved by: SADEER KATTAN | Date: Sep 2024 | Template Rev: 1.05 |

Construction Monitoring Schedule

Schedule of inspections for:

Address: Generic - Most Locations Within New Zealand Within A "Very High" Wind Zone.

The inspections required are also dependant on the conditions of the building consent as per local building authority requirements. We would advise checking with council when in doubt.

We confirm that SENZ have been engaged to undertake construction monitoring of the specific engineering design items to an Engineering New Zealand/ACENZ CM2 level and propose to undertake at least the following site inspections:

Inspections to be completed by:

| Geotechnical Inspections | | Geotech as engaged by the developer/owner | By SENZ |
|-------------------------------------|---|---|--------------------------|
| Site scrape | Inspection to confirm topsoil removal and subgrade/strength and/or sub/base compaction as per the geotechnical report. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Engineered fill or Gravel raft | Site geotextile and/or geogrid as required by design drawings and certify compaction as per design and geotechnical report. | <input type="checkbox"/> | <input type="checkbox"/> |
| Bridging parameters (if applicable) | Site geotextile and/or geogrid as required by design drawings and certify compaction as per design and geotechnical report. | <input type="checkbox"/> | <input type="checkbox"/> |

| No. | Item of inspection | Timeframe |
|-----|---------------------|---------------------------------------|
| 1 | Foundation Footings | Pre-pour but posts to be put in place |

Notes:

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| a) | The above items of inspection are the minimum required to enable STRUCTURAL ENGINEERS NZ LTD to issue a PS4 - Producer Statement Construction Review for the specific engineering design items. |
| b) | The above items of inspection do not cover work constructed in accordance with NZS 3604:2011, for which inspections are to be undertaken by the Building Consent Authority. |
| c) | The Contractor/Builder is to provide STRUCTURAL ENGINEERS NZ LTD at least 24 hours' notice of the requirement for an inspection. The above timeframes are indicative, the Engineer and Contractor are to agree the timing of inspection prior to work commencing on site. |
| d) | A copy of this inspection schedule is to be held on site during the works, and the Contractor/Builder is to provide reasonable and safe access to enable works to be inspected according to the schedule. |
| e) | The above schedule does not necessarily represent the actual number of inspections to be undertaken. The number of inspections will depend on the construction method, sequence of the works and whether or not unforeseen conditions or difficulties are encountered on site. |

Job Number: 059-002 - Construction Monitoring Schedule

August 2021