

Specification Suggestion Plaza & Podium Deck "Vehicle - Conventional" with Protectodrain® PD250

SPEC NOTE:

This guide specification gives general information about the ZinCo driveway assembly. It has to be clear, that the information that is shown must be understood as guide and recommendations.

It is possible that your driveway project need special technical requirements. Please contact us for further information regarding technical advice, specifications and budget cost.

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PART 1 – GENERAL

TECHNICAL DATA

Depth:

>170 mm (>7")

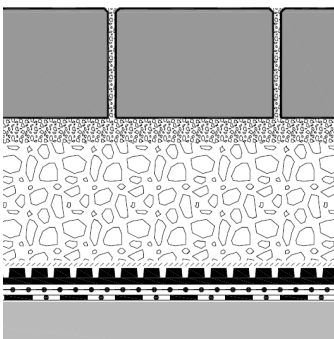
Saturated weight:

>350 kg/m² (>72 lbs/ft²)

Slope:

2-5 degrees

SECTION



Section includes:

1. Hard Surfacing. Thickness: > 100 mm. (> 4")
2. Leveling layer. High Performance Bedding (HPB). Depth: 30-50 mm (1-2")
3. Gravel bedding of Crusher Run Gravel ¾". Depth: > 120 mm (> 5")
4. Drainage Element ZinCo Protectodrain® PD250
5. ZinCo Separation and Slip Sheet TGF 20.
6. Related Materials:
 - ZinCo heavy duty drain-inspection chamber BES.

REFERENCES

- The ZinCo "Driveways" Hard Land-scape System meets or exceeds the requirements of the FLL-Recommendation for Walk-and Driveways (Release 2006).

DEFINITIONS

- Walkways and Driveways on top of roofs and decks that allow heavy live loads. Heavy live loads demand high quality protection and drainage mats.

SUBMITTALS

- Submit signed shop drawings showing that the roofing system, drive way assembly, materials, perimeter and penetration details and fall protection are accepted by the drive way manufacturer to ensure that the drive way assembly the necessary performance requirements.
- Submit a certification showing that all the components of the driveway assembly are supplied and warranted by the driveway manufacturer.
- Submit an inspection report, signed by the roof contractor and the drive way contractor, resulting from the quality control of the roofing system installation prior to the installation of the driveway

assembly indicating that the roofing system is installed correctly.

- Submit references which indicate that the driveway manufacturer as well as the green roof contractor has recently successfully completed projects of similar scope and nature.

QUALITY ASSURANCE

- **Installers Qualifications:** Work of this section shall be installed by a recognized green roof or landscape contractor, approved by ZinCo Canada Inc. The contractor shall have adequate equipment, skilled workers with extensive practical experience, skills and knowledge of plants horticulture techniques and overall landscape design requirements.
- Roof details such as flashing, roof edges, roof penetrations, outlets, roof fall and type of insulation must be adjusted to the Driveway assembly used. ZinCo Canada Inc. provides consultation and engineering to (landscape) architects, roof contractors and green roof contractors to finalize these adjustments before construction of the roof commences, if requested.
- Prior to the installation of the drive way assembly, test the water tightness of the roofing system by flood testing for at least a 48 hour period or an electronic leak detection process performed by a qualified testing agency.
- Submit documentation certifying that the load bearing capacity of the roof and building construction is tested and approved by an structural engineer, with regard to the extra weight of the Driveway assembly.
- Provide a temporary fall protection (safety railing or fall arrest) during the installation to ensure a safe and healthy work environment.



- Provide a permanent fall protection (safety railing or fall arrest) for maintenance to ensure a safe and healthy work environment.

DELIVERY, STORAGE & HANDLING

- By storage on the roof makes sure that the load of the materials does not exceed the load bearing capacity of the roof and building construction
- Store the materials in a dry area, out of direct sunlight, protected from freezing, staining or damage.

WARRANTY

- Submit a 5-year product manufacturing warranty according to the specifications of the drive way manufacturer which warrants all the components of the driveway assembly.
- Submit a 2-year workmanship warranty which warrants the installation of the driveway assembly according to the specifications.

MAINTENANCE

- Provide a maintenance program for the duration of two years as per following maintenance measures:
 - Six visits in the first year.
 - Six visits in the second year.
 - The removal of unwanted plants from borders, edges or joints;
 - The removal of litter;
 - Infilling of joint material which is washed out during the time;
 - Replacing damaged pavers or relaying paver with excessive settlement;
 - Checking the drains, including cleaning of sand traps;
 - Cleaning.

Submit maintenance report to the owner at the end of the growing season.

PART 2 - PRODUCTS

Specified green roof assembly:
ZinCo Protectodrain® PD250: Plaza & Podium dEck

Supplier:

ZinCo Canada Inc.
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Website: www.zinco.ca

1. SEPARATION & SLIP SHEET

- **ZinCo Separation and Slip Sheet TGF 20** made of high pressure polyethylene sheet to separate the heavy duty rubber drainage element from the waterproofing membrane. Bitumen and Polystyrol resistant - Without plasticizer - UV-stabilized. Thickness: 0.20 mm. Weight approx. 190 g/m².

2. HEAVY DUTY DRAINAGE LAYER

- **ZinCo Heavy duty drainage and protection element Protectodrain PD250** made of ABS (Acrylonitrile Butadiene Styrene) plastic with attached (recycled) rubber mat on the underside. Resistant to heavy loads and spade damage. Including lateral step joint. Weight: approx. 5 kg/m². Dimensions: 1,00 x 2.00 x 0.025 m. Stud height: 20 mm. Minimum bedding material height required: 150 mm.

3. FILTER FABRIC

- **ZinCo Filter Sheet TG** made of non-rotting thermal consolidated Polypropylene / Polyethylene. Water flow rate: 60 l/(m²s) if there is a water column

of 100 mm. Apparent Opening size: d90%= 130 µm. Weight: 190 g/m².

4. BEDDING MATERIAL

- For load distribution reasons and for creating fall in the paved surface a compacted **Base Layer** must be installed. Depth: >150 mm (6"). The material has to be suitable for the use on roofs and must comply with the local regulations and standards. The material must be frost resistant, stable and permeable after compaction. Grain sizes and the grading must comply with the local standards. Delivery and installation on top of the filter sheet.

Recommendation: Crusher Run Gravel ¾".

- The paving, must be laid in a suitable **Leveling Layer**. Depth: 30-50 mm (1.2–2.0") The material has to be suitable for the use on roofs and must comply with the local standards and regulations. The grading must be suited to the base layer as well as to the paving. Delivery and installation on top of the compacted base layer.

Recommendation: High Performance Bedding Material (HPB)

5. HARD SURFACING

- Paving, thickness depending on the live load and sub structure. A minimum thickness of 100 mm (4") is recommended to allow for good load distribution. The material, dimensions and installation must comply with the local standards and regulations. Delivery and installation on the bedding layer.
- To infill the joints of the paving a suitable Joint Infill Material has to be used. Grading adapted to bedding layer. The material must comply with the local standards and regulations. Delivery and installation in the paving.



6. RELATED PRODUCTS

- **ZinCo heavy duty drain-inspection chamber BES** made of galvanized steel. Designed for traffic. Chamber size: 30 cm x 30 cm. Flange size: 40 cm x 40 cm. Including grill (mesh size 11 mm x 41 mm) and sand catcher. Weight: approx. 30 kg. Heights: 125 mm, 200 mm or 300 mm. Including extension piece of 25 mm.

PART 3 – EXECUTION

1. INSPECTION

- Clean up the waterproofing membrane carefully (well-swept)
- Careful inspection of the waterproofing membrane including seams, penetrations and details after flood testing or electronic leak detection. If the waterproofing system and the Driveway assembly are not carried out by the same company, the acceptance of the method used for waterproofing quality should be agreed by all the parties. Identified defects are to be reported in written form. Do not proceed until corrected.

2. SEPARATION & SLIP SHEET

- Deliver and install the **ZinCo Separation and Slip Sheet ZinCo TGF 20** directly on the top of waterproofing membrane with a minimum overlap of 100 mm, according to the manufacturer's instructions. The separation and slip sheet has to be taken above the pavement along the edges and roof penetrations. Cut the separation and slip sheet in place at the roof penetrations

3. HEAVY DUTY DRAINAGE LAYER

- Deliver and install the **ZinCo Drainage and protection element Fixodrive FX 50** directly on the Separation and Slip Sheet according to the manufacturer's instructions. Install the Fixodrive elements side by side with the studs facing up and connect them with the lateral step joint..

Cut the drain elements in place along the edges and at roof penetrations.

4. FILTER SHEET

- Deliver and install the **ZinCo filter sheet TG** on the drainage layer with a minimum overlap of 200 mm according to the manufacturer's instructions. The filter must be installed above the bedding material along the edges and roof penetrations. Cut the filter sheet in place along the edges and at roof penetrations.

5. BEDDING LAYER

- Deliver and install the **gravel bedding and appropriate bedding** on the filter sheet. Spread out the bedding material equally in layers of 100 mm. Check the depth on several places to ensure the right thickness. A tolerance of 1 cm is acceptable. Compact each layer after installation.

6. HARD SURFACING

- Deliver and install the **pavement** following the manufacturer's instructions.

7. RELATED PRODUCTS

- **ZinCo heavy duty drain-inspection chamber BES + Extension pieces**
Deliver and install the ZinCo Inspection Chamber on top of the drainage layer above the roof outlets. Take of the lid and install the extension piece on top of the Inspection Chamber. Place lid on top of the extension piece. Install the ZinCo filter sheet TG on the flange of the inspection chamber.

8. COMPLETION

- Upon completion leave the site in a neat, clean and workmanlike condition.

9. MAINTENANCE

- Execute the maintenance program as described on page 2.

END OF SECTION

