FULLY GROUTED ROCK SHOULDER IN FILL

NOTES:
1. CONSTRUCTION OF BOAT RAMP shall be in accordance with NTE300.
2. ROCK for the fully gROUTED sections shall be unweathered, clean, hard and durable graded 150 to 200 mm with essentially flat faces.
   Gravel shall be 20 mm cement treated made from a 1:1.5 cement/crushed sand with sufficient water added to give a plastic-like texture that will retain its shape and not flow like a liquid.
3. FOOTINGS: The excavation for footings shall be to the minimum design depth and thickness and fully lined with geotextile. Sufficient extra geotextile shall be allowed so that full separation of footing and existing base material is retained during consolidation.
   The footings shall be full-thickness gROUTed rock to ensure that structural integrity of the core and shoulders is retained if the existing base materials fail.
4. RAMP/MATRESS CONSTRUCTION: The shoulder and shoulder buttress shall be constructed by placing alternate layers of gravel and rock so that the gravel shall extend through the full design thickness of the shoulders. Ramps shall be graded to form symmetrical parts and be covered with smooth, even rock so that there are not any large voids and irregular rocks cannot be easily deposited.
   Shoulders which are constructed by placing rock and then grading or submerging only the outer surface shall be rejected.
   The shoulder buttress shall be fully supported and not extended beyond the edge of the footing.
5. GROUTED ROCK SURFACE FINISH: Exposed surfaces shall have a minimum of 80% of exposed rock with a close fitted expansion mortar much of 3L; Exposed cement mortar shall be removed.
   The finished surface shall have a generally flat, even and neat appearance, and will not leave any sharp or angular points which will be hazardous to moving persons.
6. CONCRETE SLAB: Concrete shall be 250 mm, exposure classification C and cured in accordance with NTE758.
   Footed construction joints are to be placed at 2 m in normal spacing by forming gROUTed 40 mm deep and not more than 20 mm wide. Joints shall be aligned with adjacent gROUTed jointing.
   Vertical surface shall have a medium brown finish at 90° to the boat ramp control line.
7. No geosynthetic, 75 mm crushed rock grading and crushed stone details refer Standard Drawing 4021.
8. DRAWINGS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

ASSOCIATED DEPARTMENTAL DOCUMENTS:
Standard Drawings
Specifications
REFERENCES DOCUMENTS:
Departmental Standard Drawings
4020 Boat Ramps Construction — Percent Pile Inclusion and Anchor Beam Types 1 and 2
4021 Boat Ramps Construction — Earthworks and Crushed Rock Core Details
Departmental Specifications:
NTE758 Concrete
NTE800 Boat Ramps

BOAT RAMP

BOAT RAMP CONSTRUCTION
FULLY GROUTED SHOULDERS AND UNGROUTED SHOULDERS

Department of Transport and Main Roads

4022

TYPICAL DRAWING NO.

STANDARD DRAWING NO.

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STANDARD DRAWING NO.

STANDARD DRAWING NO.

STANDARD DRAWING NO.