

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 31 23 33.01 - Excavating, Trenching and Backfilling.

1.2 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM D 698-12, Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12400 ft - 1bf/ft³ (600 KN-m/m³

1.3 EXISTING CONDITIONS

- .1 Known underground and surface utility lines and buried objects are as indicated on site plan.
- .2 Refer to dewatering in Section 31 23 33.01 - Excavating Trenching and Backfilling.

1.4 PROTECTION

- .1 Protect existing fencing, trees, landscaping, natural features, bench marks, buildings, pavement, surface or underground utility lines which are to remain. If damaged, restore to original or better condition unless directed otherwise by Departmental Representative.
- .2 Maintain access roads to prevent accumulation of construction related debris on roads.

1.5 MEASUREMENT FOR PAYMENT

- .1 No separate measurement for payment shall be made for items under this section. Include costs incidental in the Lump Sum Amount of work on the Combined Price Form.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Fill material: in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.
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PART 3 - EXECUTION

3.1 STRIPPING OF TOPSOIL

- .1 Do not handle topsoil while in wet or frozen condition or in any manner in which soil structure is adversely affected as determined by Departmental Representative.
- .2 Commence topsoil stripping of areas as indicated or as directed by Departmental Representative after area has been cleared of brush, weeds and grasses and removed from site.
- .3 Strip topsoil to depths as directed by Departmental Representative. Avoid mixing topsoil with subsoil.
- .4 Stockpile in locations as directed by Departmental Representative. Stockpile height not to exceed 2 m.
- .5 Dispose of unused topsoil off site.

3.2 GRADING

- .1 Rough grade to levels, profiles, and contours allowing for surface treatment as indicated.
- .2 Rough grade to depths as indicated. Proof roll exposed subgrade.
- .3 Slope rough grade away from building as indicated.
- .4 Grade ditches to depth required for maximum run-off as indicated.
- .5 Prior to placing fill over existing ground, scarify surface to depth of 150 mm. Maintain fill and existing surface at approximately same moisture content to facilitate bonding.
- .6 Compact filled and disturbed areas in accordance with the geotechnical Report.
- .7 Do not disturb soil within branch spread of trees or shrubs to remain.

3.3 PROOF ROLLING

- .1 For proof rolling use standard roller of 45400 kg gross mass with four pneumatic tires each carrying 11350 kg and inflated to 620 kPa. Four tires arranged abreast with centre to centre spacing of 730 mm maximum.
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- .2 Obtain approval from Departmental Representative to use non standard proof rolling equipment.
- .3 Proof roll at level in subgrade as indicated. If non standard proof rolling equipment is approved, Departmental Representative to determine level of proof rolling.
- .4 Make sufficient passes with proof roller to subject every point on surface to three separate passes of loaded tire.
- .5 Where proof rolling reveals areas of defective subgrade:
 - .1 Remove subgrade material to depth and extent as directed by Departmental Representative.
 - .2 Backfill excavated subgrade in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.
- .6 Where proof rolling reveals areas of defective subgrade remove and replace in accordance with this section at no extra cost.

3.4 STOCKPILING

- .1 Pile excavated fill, suitable for re-use as approved by Departmental Representative, in locations as directed by Departmental Representative.
 - .1 Stockpile height not to exceed 2 m.
- .2 Protect stockpiles from contamination and compaction.
- .3 Cover fill that has been piled for long term storage with anchored water proof and insulated tarps, as required, to resist wind, water and winter conditions. Place straw bales around the stockpile to filter sediment entering or exiting the pile.

3.5 TESTING

- .1 Quality control testing shall be conducted and paid for by Contractor. Submit results of quality control testing to Departmental Representative for review when requested. Quality assurance inspection and testing will be carried out by a third party designated by the Departmental Representative. Costs of these tests will be paid by Departmental Representative.

3.6 SURPLUS MATERIAL

- .1 Remove surplus material and material unsuitable for fill, grading or landscaping off site to satisfaction of Departmental Representative.