

ROAD COMMISSION FOR OAKLAND COUNTY

SPECIAL PROVISION  
FOR  
**SUBGRADE UNDERCUTTING**

RCOC/DESIGN:KS/JO

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RCOC20SP205C  
ORG:01-17-2023

**a. Description**

This work shall be done in accordance with section 205 of the *Michigan Department of Transportation (MDOT) 2020 Standard Specifications for Construction*, except as herein provided.

The work shall consist of removing and replacing soft or unsuitable base/subbase materials with materials specified as directed by the Engineer.

**b. Materials**

The following materials shall be used when indicated.

1. Aggregate

The use of crushed/broken concrete is prohibited on the project within 100 feet of any water course (stream, river, county drain, etc.) and lake, regardless of the application or location of the water course or lake relative to the project limits.

- A. Coarse aggregate 21AA, as specified in Special Provision for Aggregate Base Course
- B. Coarse Aggregate 3 by 1, as specified in section 916.
- C. Coarse Aggregate 6A, as specified in section 902.

2. Fabric

- A. Geotextile, Stabilization, Non-woven, as specified in the *MDOT 2020 Standard Specifications for Construction*, except as provided elsewhere within this Proposal.
- B. Road Grade Biaxial Geogrid as specified in *MDOT 2020 Standard Specifications for Construction*, except as provided elsewhere within this Proposal.

**c. Construction**

Undercutting shall be performed where unsuitable soil is encountered as determined by the Engineer. The vertical and horizontal limits shall be determined in the field by the Engineer. The backfill material, as directed by the Engineer shall be one of the following cases.

1. **Case A** – Improvements Made by Aggregate Material.

Backfill undercut with Aggregate Base, 21AA, RCOC or Coarse Aggregate 3 by 1, as directed by the Engineer. Compact aggregate material in place in no more than 1-foot lifts, or as directed by the Engineer.

2. **Case B** – Improvements Made by Aggregate Material and Geo-synthetic Materials.

Backfill undercut with Aggregate Base, 21AA, RCOC, Coarse Aggregate 3 by 1 or Coarse Aggregate 6A, **and** Geotextile, Stabilization, Non-Woven or Road Grade Biaxial Geogrid, as directed by the Engineer. Compact aggregate geo-synthetic system in place, in no more than 1-foot lifts, or as directed by the Engineer. The cost of providing and installing geosynthetics are included in their respective pay items.

Disposal of unsuitable and/or surplus material is the responsibility of the Contractor and shall follow subsection 205.03.P at no additional cost to the RCOC.

**d. Measurement and Payment**

The costs of materials, labor, and equipment and will be paid for at the contract unit price for the following pay items:

<b>Pay Item</b>	<b>Pay Unit</b>
Subgrade Undercutting, 21AA .....	Cubic Yard
Subgrade Undercutting, 3 by 1 .....	Cubic Yard
Subgrade Undercutting, 6A.....	Cubic Yard

**Subgrade Undercutting, 21AA** includes the cost of removal and disposal of unsuitable materials, and replacement with Dense-Graded Aggregate, 21AA.

**Subgrade Undercutting, 3 by 1** includes the cost of removal and disposal of unsuitable materials, and replacement with Coarse Aggregate 3 by 1.

**Subgrade Undercutting, 6A** includes the cost of removal and disposal of unsuitable materials, and replacement with Coarse Aggregate 6A.

When required by the Engineer, **Geotextile, Separator, Non-Woven, RCOC** or **Geotextile, Stabilization, Non-Woven, RCOC** or **Road Grade Biaxial Geogrid, RCOC** shall be paid for separately as specified elsewhere in this proposal.