DIVISION2.GR2  Earthwork

2-01.GR2  Clearing, Grubbing, and Roadside Cleanup

2-01.1.GR2  Description

2-01.1.INST1.GR2  (Section 2-01.1 is supplemented with the following)
Must use once preceding any of the following:

2-01.1.OPT1.FR2  (Clearing and Grubbing)
(March 13, 1995)
Use when the payment for clearing and grubbing is either lump sum or included in other work.
(1 fill-in) (Fill-in describes the longitudinal and lateral limits of clearing and grubbing)

2-01.3.GR2  Construction Requirements

2-01.3(1).GR2  Clearing

2-01.3(1).INST1.GR2  (Item number 1 of Section 2-01.3(1) is revised to read)
Must use once preceding any of the following:

2-01.3(1).OPT1.GR2  (April 2, 2018)
Use in projects applying Programmatic Biological Assessment Minimization Measure #88.

2-01.3(4).GR2  Roadside Cleanup

2-01.3(4).INST1.GR2  (Section 2-01.3(4) is supplemented with the following)
Must use once preceding any of the following:

2-01.3(4).OPT1.FR2  (Roadside Cleanup)
(January 5, 1998)
Use if additional work is required under the item "Roadside Cleanup".
(fill-ins)

2-01.5.GR2  Payment

2-01.5.INST1.GR2  (The first and second paragraphs of Section 2-01.5 are revised to read)
Must use once preceding any of the following:

2-01.5.OPT1.FR2  (Clearing and Grubbing)
(August 7, 2017)
Must be used with 2-01.1.OPT1.FR2 when the payment for clearing and grubbing is included in other work.
(1 fill-in)

2-02.GR2  Removal of Structures and Obstructions

2-02.1.GR2  Description
2-02.1.INST1.GR2  (Section 2-02.1 is supplemented with the following)
Must use once preceding any of the following:

2-02.1.OPT1.GR2  (Removal of Misc. Traffic Items)
(March 13, 1995)
Must also use 2-02.3.OPT2.FR2 and 2-02.5.OPT8.GR2
Use in projects requiring the removal of minor quantities of
miscellaneous traffic items such as traffic islands, traffic
curb, lane markers, plastic traffic buttons, guide posts, etc.
when there is no pay item for Removal of Structures and
Obstructions and the cost of removing each type of item is
under $10,000.

2-02.1.OPT2.GR2  (Removal and Disposal of Asbestos Material)
(October 4, 2021)
Must also use 1-07.5(4).OPT1.FR1, 2-02.3.OPT4.GR2
and 2-02.5.OPT11.GR2.
Use in projects when asbestos removal is required.
(1 fill-in)

2-02.1.OPT3.GR2  (Removing Portions of Existing Box Culvert)
(March 13, 1995)
Use in projects requiring removal of portions of existing
box culverts prior to extending or widening the structure.
Include with 2-02.3(2).OPT12.GR2, 6-02.2.OPT2.GB6, 6-
02.3(24).C.OPT1.GB6, 6-02.3(24).C.OPT2.GR6, 6-
02.5.OPT5.GR6, and 2-02.5.OPT12.GR2.

2-02.1.OPT5.GR2  (Decommissioning Wells)
(February 25, 2021)
Include in projects when wells will not be removed prior to
advertisement and will be removed as part of the Contract.
Use with 2-02.2.OPT1.GR2, 2-02.3.OPT7.GR2, and 2-
02.5.OPT2.GR2.

2-02.2.GR2  Materials
2-02.2.INST1.GR2  (Section 2-02.2 is supplemented with the following)
Must use once preceding any of the following:

2-02.2.OPT1.GR2  (Decommissioning Wells)
(February 25, 2021)
Include in projects when wells will not be removed prior to
advertisement and will be removed as part of the Contract.
Use with 2-02.1.OPT5.GR2, 2-02.3.OPT7.GR2, and 2-
02.5.OPT2.GR2.

2-02.3.GR2  Construction Requirements
2-02.3.INST1.GR2  (Section 2-02.3 is supplemented with the following)
Must use once preceding any of the following:
2-02.3.OPT1.FR2 (Removal of Obstructions)
(September 7, 2021)
Use except when the combined cost of all obstruction removal is $5,000 or less and payment is to be included in other payment items.

Removal of obstructions that are readily measurable and for which the cost of removal is $5,000 or less per obstruction may be included in this pay item.

Removal of obstructions that are not readily measurable, such as foundations, may be included in this item regardless of the removal cost.

List all items and approximate quantities to be removed under "Removal of Structure and Obstruction".
(1 fill-in)

2-02.3.OPT2.FR2 (Removing Miscellaneous Traffic Items)
(March 13, 1995)
Must include with 2-02.1.OPT1.GR2.

2-02.3.OPT3.FR2 (Removal and Disposal of Hazardous Material)
(June 6, 2022)
Must also use 2-02.4.OPT1.GR2 and 2-02.5.OPT7.GR2. Use only for subsurface removal of known or suspected hazardous or contaminated material. Fill-in is for type of material, depth of contamination in soil, and depth of contamination in water. Fill-in information is to be provided by the Region Environmental Staff.
(1 fill-in)

2-02.3.OPT4.GR2 (Removal and Disposal of Asbestos Material)
(October 4, 2021)
Must include with 1-07.5(4).OPT1.FR1, 2-02.1.OPT2.GR2, and 2-02.5.OPT11.GR2.

2-02.3.OPT5.GR2 (Removal and Disposal of Asbestos Material)
(October 4, 2021)
Must include with 1-07.5(4).OPT2.FR1.

2-02.3.OPT6.FB2 (Salvage of Removed Structure Items)
(June 26, 2000)
Use when removal items are to remain the property of the Contracting Agency. The first fill-in specifies the salvaged items. The second fill-in specifies the name and address (street address or highway milepost) of the material storage site. Include with either 2-02.3(2).OPT1.FB2, 2-02.3(2).OPT2.FB2, or 2-02.3(2).OPT3.FB2, and 2-02.3(2).OPT10(B).FB2.
(2 fill-ins)

2-02.3.OPT7.GR2 (Well Decommissioning)
Include in projects when wells will not be removed prior to
advertisement and will be removed as part of the Contract.
Use with 2-02.1.OPT5.GR2, 2-02.2.OPT1.GR2, and 2-
02.5.OPT2.GR2.

2-02.3(2).GB2  Removal of Bridges, Box Culverts, and other Drainage
Structures

2-02.3(2).INST1.GB2  (Section 2-02.3(2) is supplemented with the following)
Must use once preceding any of the following:

2-02.3(2).OPT1.fb2  (Removing Existing Bridge)
(June 26, 2000)
Use in projects requiring the removal of existing
bridge(s) in one stage. The first fill-in specifies the
bridge(s). The second fill-in specifies where traffic is
directed (onto the detour route or bridge, onto the new
bridge, etc.). Include with 2-02.3(2).OPT10(fb2).
Include with 1-07.1.OPT2.FR1 if the bridge being
removed has steel members with lead paint.
(2 fill-ins)

2-02.3(2).OPT2.fb2  (Removing Existing Bridge)
(June 26, 2000)
Use in projects requiring the removal of existing
bridge(s) in two or more stages. The fill-in specifies the
bridge(s). Include with 1-07.1.OPT2.FR1 if the bridge
being removed has steel members with lead paint.
(1 fill-in)

2-02.3(2).OPT3.fb2  (Removing Portion of Existing Bridge)
(June 26, 2000)
Use in projects requiring the removal of portions of
existing bridge(s). The first fill-in specifies the
bridge(s). The second fill-in specifies the portions
being removed. Include with 1-07.1.OPT2.FR1 if the
bridge being partially removed has steel members with
lead paint.
(2 fill-ins)

2-02.3(2).OPT7.fb2  (Removal in Water)
(June 26, 2000)
Use in projects requiring the removal of existing
bridge(s) when removal involves piers within the
wetted perimeter of a stream, lake or bay. The first fill-
in specifies the bridge(s). The second and fourth fill-ins
specify the body of water. The third fill-in specifies the
elevation of the removal level. Include with either 2-
02.3(2).OPT1.fb2, 2-02.3(2).OPT2.fb2, or 2-
02.3(2).OPT3.fb2, and 2-02.3(2).OPT10(fb).fb2.

2-02.3(2).OPT10.gb2  (Use of Explosives)
Must use once preceding any of the following:

2-02.3(OPT10(B)).FB2 (Structure Removal By Explosives)
(January 2, 2018)
Use in projects requiring removal of existing bridges only if explosives may be used. The fill-in specifies the bridge where the use of explosives is permitted for removal operations. Include with 2-02.3(OPT1).FB2. Include with 1-07.1.OPT2.FR1 if the bridge involved has steel members with lead paint.
(1 fill-in)

2-02.3(OPT11).GB2 (Requirements for Closing Bridge Prior to Removal)
(January 2, 2018)
Use in projects requiring removal of existing bridges when it is necessary to close the bridge to traffic in order to complete removal as soon as possible. Include with 2-02.3(OPT1).FB2 and 2-02.3(OPT10(B)).FB2. Include with 1-07.1.OPT2.FR1 if the bridge involved has steel members with lead paint.

2-02.3(OPT12).GR2 (Removing Portions of Existing Box Culvert)
(June 26, 2000)
Use in projects requiring removal of portions of existing box culverts prior to extending or widening the structure. Include with 2-02.1.OPT3.GR2, 6-02.2.OPT2.GB6, 6-02.3(24)C.OPT1.GB6, 6-02.3(24)C.OPT2.GR6, and 6-02.5.OPT5.GB6, and either 2-02.5.OPT12.GR2 or 2-02.5.OPT15.GR2.

2-02.3(3).GR2 Removal of Pavement, Sidewalks, Curbs, and Gutters

2-02.3(OPT1).FR2 (September 8, 1997)
Include in projects when removal of pavement is outside the limits of roadway excavation, and the removal is to be paid by the square yard. Must also use 2-02.4.OPT2.GR2 and 2-02.5.OPT13.FR2.
(2 fill-ins)

2-02.4.GR2 Measurement

2-02.4(OPT1).GR2 (Removal and Disposal of Hazardous Material)
(December 4, 2006)
Must include with 2-02.3.OPT3.FR2 and
2-02.5.OPT7.GR2.

2-02.4.OPT2.GR2 (Pavement Removal)
(September 8, 1997)
Must include with 2-02.3(3).OPT1.FR2..

2-02.4.OPT3.GR2 (Sidewalk Removal)
(October 25, 1999)
Include in projects when removal of sidewalk is outside the
limits of roadway excavation, and the removal is to be paid
by the square yard.
Must include with 2-02.5.OPT16.FR2.

2-02.4.OPT4.GR2 (Curb Removal)
(September 8, 1997)
Include in projects when removal of curb is outside the
limits of roadway excavation, and the removal is to be paid
by the linear foot.
Must include with 2-02.5.OPT17.FR2.

2-02.5.GR2 Payment

2-02.5.INST1.GR2 (Section 2-02.5 is revised by the following)
Must use once preceding any of the following:

2-02.5.OPT1.FR2 (Removal of structures and obstructions included in other
work)
(August 7, 2017)
(1 fill-in)

2-02.5.OPT2.GR2 (Well Decommissioning)
(February 25, 2021)
Include in projects when wells will not be removed prior to
advertisement and will be removed as part of the Contract.
Use with 2-02.1.OPT5.GR2, 2-02.2.OPT1.GR2, and 2-02.3.OPT7.GR2.

2-02.5.INST2.GR2 (Section 2-02.5 is supplemented with the following)
Must use once preceding any of the following:

2-02.5.OPT7.GR2 (Removal and Disposal of Hazardous Material)
(December 4, 2006)
Must include with 2-02.3.OPT3.FR2 and
2-02.4.OPT1.GR2.

2-02.5.OPT8.GR2 (Removing Miscellaneous Traffic Items)
(September 30, 1996)
Must include with 2-02.1.OPT1.GR2.

2-02.5.OPT11.GR2 (Removal and Disposal of Asbestos Material)
(September 30, 1996)
Must include with 1-07.5(4).OPT1.FR1, 2-02.1.OPT.GR2,
and 2-02.3.OPT4.GR2.
2-02.5.OPT12.GR2 (Removing Portion of Conc. Box Culvert)
(June 26, 2000)
Use in projects requiring removal of portions of existing
box culverts prior to extending or widening the structure.
 Include with 2-02.1.OPT3.GR2, 2-02.3(2).OPT12.GR2, 6-
02.2.OPT2.GB6, 6-02.3(24)C.OPT1.GB6, 6-
02.3(24)C.OPT2.GR6, and 6-02.5.OPT5.GB6.

2-02.5.OPT13.FR2 (Pavement Removal)
(September 30, 1996)
Must include with 2-02.3(3).OPT1.FR2.
(1 fill-in)

2-02.5.OPT15.GR2 (Removal of portions of box culvert)
(June 26, 2000)
Use in projects requiring removal of portions of existing
box culverts prior to extending or widening the structure.
 Include with 2-02.1.OPT3.GR2, 2-02.3(2).OPT12.GR2, 6-
02.2.OPT2.GB6, 6-02.3(24)C.OPT1.GB6, 6-
02.3(24)C.OPT2.GR6, and 6-02.5.OPT5.GB6.

2-02.5.OPT16.FR2 (Sidewalk Removal)
(November 3, 1999)
Must include with 2-02.4.OPT3.GR2
(1 fill-in)

2-02.5.OPT17.FR2 (Removal of portions of Curb)
(September 8, 1997)
Must include with 2-02.4.OPT4.GR2.
(1 fill-in)

2-03.GR2 Roadway Excavation and Embankment

2-03.3.GR2 Construction Requirements

2-03.3(2).GR2 Rock Cuts
2-03.3(2).INST1.GR2 (Section 2-03.3(2) is supplemented with the following)
Must use once preceding any of the following:

2-03.3(2).OPT1.GR2 (Rock Slope Scaling and Removal and Disposal
of Rock Slope Scaling Debris)
(September 7, 2021)
Use in projects with rock slope scaling. Include with 2-
03.4.OPT4.GR2 and 2-03.5.OPT3.GR2.

2-03.3(7).GR2 Disposal of Surplus Material
2-03.3(7).INST1.GR2 (Section 2-03.3(7) is supplemented with the following)
Must use once preceding any of the following:

2-03.3(7).OPT1.FR2 (Contracting Agency furnished waste site)
(March 13, 1995)
Use in projects with Contracting Agency provided waste sites.
(1 fill-in)

2-03.3(7).OPT2.FR2  (Waste material by embankment widening)
(March 13, 1995)
Use in projects where the Contracting Agency specifies embankments to be widened.
(2 fill-ins)

2-03.3(7).OPT3.GR2  (Contracting Agency provided sites are not mandatory)
(March 13, 1995)
Use, when applicable, with 2-03.3(7).OPT1.FR2 or 2-03.3(7).OPT2.FR2.

2-03.3(7).OPT4.GR2  (Contracting Agency provided sites are not of sufficient size)
(March 13, 1995)
Use, when applicable, with 2-03.3(7).OPT1.FR2 or 2-03.3(7).OPT2.FR2.

2-03.3(14).GR2  Embankment Construction

2-03.3(14)C.GR2  Compacting Earth Embankments

2-03.3(14)C.INST1.GR2  (Section 2-03.3(14)C is supplemented with the following)
Must use once preceding any of the following:

2-03.3(14)C.OPT1.GR2  (March 13, 1995)
Use in projects when no payment for embankment compaction (Method A) is included.

2-03.3(14)I.GR2  Embankments At Bridge And Trestle Ends.

2-03.3(14)I.INST1.GR2  (Section 2-03.3(14)I is supplemented with the following)
Must use once preceding any of the following:

2-03.3(14)I.OPT1.FB2  (March 13, 1995)
Use in projects when the bridge approach embankments must be constructed before the end piers.
(2 fill-ins)

2-03.4.GR2  Measurement

2-03.4.INST1.GR2  (Section 2-03.4 is supplemented with the following)
Must use once preceding any of the following:

2-03.4.OPT1.GR2  (Embankment In Place)
(March 13, 1995)
Must also include **2-03.5.OPT1.GR2**.

Use in projects that require embankment widening for beam guardrail and no other grading pay items are included in the contract to construct the widening.

**2-03.4.OPT2.GR2** (Measurement of roadway excavation and embankment)
(March 13, 1995)
Must include with **1-05.4.OPT2.GR1**, Contractor surveying - roadway. May be used without Contractor surveying.

**2-03.4.OPT3.GR2** (Measurement of roadway excavation and embankment)
(March 13, 1995)
Use in minor grading projects when the original cross-sections are satisfactory for construction payment.

**2-03.4.OPT4.GR2** (Rock Slope Scaling and Rock Slope Scaling Debris Removal Including Haul)
(April 5, 2010)
Use in projects with rock slope scaling. Include with **2-03.3(2).OPT1.GR2 and 2-03.5.OPT3.GR2**.

**2-03.5.GR2**

**2-03.5.INST1.GR2**

Pay on (Section 2-03.5 is supplemented with the following)

Must use once preceding any of the following:

**2-03.5.OPT1.GR2** (Embankment In Place)
(September 30, 1996)
Must include with **2-03.4.OPT1.GR2**.

**2-03.5.OPT2.FR2** (Preparation of waste sites)
(March 13, 1995)
Use in projects when the preparation of waste sites is included in other work.
(1 fill-in)

**2-03.5.OPT3.GR2** (Rock Slope Scaling and Rock Slope Scaling Debris Removal Including Haul)
(April 5, 2010)
Use in projects with rock slope scaling. Include with **2-03.3(2).OPT1.GR2 and 2-03.4.OPT4.GR2**.

**2-06.GR2**

**2-06.3.GR2**

Construction Requirements

**2-06.3(1).GR2**

Subgrade For Surfacing

**2-06.3(1).INST1.GR2**

(Section 2-06.3(1) is supplemented with the following)

Must use once preceding any of the following:

**2-06.3(1).OPT1.GR2** (Subgrade trimmer required)
(March 13, 1995)
Use in projects where a treated base or pavement will be placed directly on the subgrade.

The project should include a bid item for “Gravel Borrow Including Haul” or “Borrow Excavation Including Haul” to ensure that sufficient fine material is available for trimming.

2-06.3(1).OPT2.GR2 (Subgrade trimmer not required)
(March 13, 1995)

Use in grading-only projects where a treated base is planned for construction on a future project.

The project should include a bid item for “Gravel Borrow Including Haul” or “Borrow Excavation Including Haul” to ensure that sufficient fine material is available for trimming. The position of the future treated base is to shown on the plans.

2-09.GR2 Structure Excavation

2-09.3.GR2 Construction Requirements

2-09.3(1).GR2 General Requirements

2-09.3(1)C.GR2 Removal Of Unstable Base Material

2-09.3(1)C.INST1.GR2 (Section 2-09.3(1)C is supplemented with the following)
Must use once preceding any of the following:

2-09.3(1)C.OPT1.FB2 (Soils Prone to Disturbance)
(September 8, 2020)
Use in bridge projects in where soil in the bottom of footing excavation is susceptible to disturbance and may become unsuitable. Use at the recommendation of the Geotechnical office.
(1 fill-in)
Fill-in #1 is the location of the soils prone to disturbance.

2-09.3(3).GR2 Construction Requirements, Structure Excavation, Class A

2-09.3(3)B.GR2 Excavation Using Open Pits – Extra Excavation

2-09.3(3)B.INST1.GR2 (Section 2-09.3(3)B is supplemented with the following)
Must use once preceding any of the following:

2-09.3(3)B.OPT1.FB2 (Extra Excavation and Open Pit Excavation Not Allowed)
(September 7, 2021)
Use in projects where extra excavation and open pit excavation is not allowed at specific
The fill-in specifies the location(s) where extra excavation and open pit excavation is not allowed.

(1 fill-in)

2-09.3(3)B.OPT2.FR2 (Extra Excavation and Open Pit Excavation) (April 1, 2019)
Use in projects where temporary excavation slopes are located beneath structures, critical facilities, or where recommended by the Geotechnical Office. The fill-in specifies the location(s) where extra excavation and open pit excavation is allowed.

(1 fill-in)

2-09.3(3)D GR2 Shoring And Cofferdams

2-09.3(3)D.INST1.GR2 (Section 2-09.3(3)D is supplemented with the following)
    Must use once preceding any of the following:

2-09.3(3)D.OPT1.GB2 (Protecting existing pavement) (March 13, 1995)
Use in projects when bridges are over or adjacent to existing highways.

2-09.3(3)D.OPT2.GB2 (Protecting RR tracks) (August 2, 2010)
Use in projects when bridges are over or adjacent to existing railroad tracks.

2-09.3(3)D.OPT3.FB2 (March 13, 1995)
Use with 2-09.3(3)D.OPT2.GB2 when construction is required near railroad tracks, or structures which require extensive shoring.
(3 fill-ins)

2-09.4 GR2 Measurement

2-09.4.INST1.GR2 (The subsection Lower Limits of Section 2-09.4 is supplemented with the following)
    Must use once preceding any of the following:

2-09.4.OPT1.GB2 (January 4, 2010)
(Additional structure excavation under girders at end piers)
Use in projects where excavation is required outside of normal structure excavation limits for end pier footings.

2-12 GR2 Construction Geosynthetic

2-12.1 GR2 Description

2-12.1.INST1.GR2 (Section 2-12.1 is supplemented with the following)
Must use once preceding any of the following:

**2-12.1.OPT1.GR2**  
Geosynthetic Reinforced Slope  
(November 17, 1997)  
Use in projects requiring geosynthetic reinforced slopes.  
Slope design should be performed by the Olympia Service  
Center Materials Laboratory or a geotechnical consultant.  
Use details from DETAILS.CEL Library; D225, D229,  
D230, and D230A or D230B.

**2-12.2.GR2**  
**Materials**

**2-12.2(9-03.14).GR2**  
(Borrow)  
(Section 9-03.14 is supplemented with the following)  
Must use once preceding any of the following:

**2-12.2(9-03.14).OPT1.FR2**  
(Borrow for Geosynthetic Reinforced Slopes)  
(November 17, 1997)  
Use in projects requiring geosynthetic reinforced  
slopes.  
(1 fill-in)

**2-12.2(9-07.9).GR2**  
(Cold Drawn Wire)  
(Section 9-07.9 is supplemented with the following)  
Must use once preceding any of the following:

**2-12.2(9-07.9).OPT1.GR2**  
(Cold Drawn Wire)  
(November 17, 1997)  
Use in projects where welded wire faced geosynthetic  
reinforced slopes are specified.

**2-12.2(9-33.2(2)).GR2**  
(Geosynthetic Properties for Retaining Walls and  
Reinforced Slopes)  
(Section 9-33.2(2) is supplemented with the following)  
Must use once preceding any of the following:

**2-12.2(9-33.2(2)).OPT1.FR2**  
(Geosynthetic Properties for Reinforced  
Slopes)  
(January 2, 2012)  
Use in projects requiring geosynthetic reinforced  
slopes. The slope class must be identified in fill-in 6  
based on the following: Class 1 is typically reinforced  
slopes which support bridge abutments, buildings,  
critical utilities, or other facilities which the  
consequences of poor performance or failure would be  
severe. In general, slopes greater than 30 feet in  
height. Class 2 is all reinforced slopes not categorized  
as Class 1.  
(6 fill-ins)

**2-12.2(9-33.2(2)).OPT2.GR2**  
(Geosynthetic Properties for Turf  
Reinforcement Mat)  
(August 4, 2014)
Use in projects where geosynthetic reinforced slopes with a turf reinforcement mat facing are specified.

2-12.2(9-33.4(1)).GR2 (Source Approval)
(Source 9-33.4(1) is supplemented with the following)
Must use once preceding any of the following:

2-12.2(9-33.4(1)).OPT1.GR2 (Geosynthetic Reinforced Slope)
Primary Reinforcement
(April 5, 2004)
Use in projects requiring geosynthetic reinforced slopes.

2-12.2(9-33.4(1)).OPT2.GR2 (Geosynthetic Reinforced Slope)
Secondary Reinforcement
(April 5, 2004)
Use in projects where geosynthetic reinforced slopes with secondary reinforcement are specified.

2-12.2(9-33.4(1)).OPT3.GR2 (Geosynthetic Reinforced Slope)
Turf Reinforcement Mat
(November 17, 1997)
Use in projects where geosynthetic reinforced slopes with turf reinforcement mat facing are specified.

2-12.2(9-33.4(3)).GR2 (Acceptance Samples)
(Section 9-33.4(3) is supplemented with the following)
Must use once preceding any of the following:

2-12.2(9-33.4(3)).OPT1.GR2 (Geosynthetic Reinforced)
Slope Primary Reinforcement
(November 17, 1997)
Use in projects requiring geosynthetic reinforced slopes.

2-12.2(9-33.4(3)).OPT2.GR2 (Geosynthetic Reinforced Slope)
Secondary Reinforcement
(April 5, 2004)
Use in projects where geosynthetic reinforced slopes with secondary reinforcement are specified.

2-12.2(9-33.4(3)).OPT3.GR2 (Geosynthetic Reinforced Slope Turf)
Reinforcement Mat
(November 17, 1997)
Use in projects where geosynthetic reinforced slopes with turf reinforcement mat facing are specified.

2-12.2(9-33.4(4)).GR2 (Acceptance by Certificate of Compliance)
(Section 9-33.4(4) is supplemented with the following)
Must use once preceding any of the following:

2-12.2(9-33.4(4)).OPT1.GR2 (Reinforced Slope)
**2-12.3.GR2**

**Construction Requirements**

2-12.3.INST1.GR2 (Supplemental Instructions)
(Section 2-12.3 is supplemented with the following)
Must use once preceding any of the following:

2-12.3.OPT1.GR2 (Geosynthetic Reinforced Slope Construction Requirements)
(November 17, 1997)
Use in projects requiring geosynthetic reinforced slopes.
Slope facing options which include vegetative cover should only be used at sites where the average annual precipitation is 20 inches or more.

2-12.3.OPT2.FR2 (Turf Reinforced Mat Facing Construction)
(August 2, 2010)
Use in projects requiring geosynthetic reinforced slopes with turf reinforcement mat facing. In general, use for slopes no steeper than 1.2H:1V.
(2 fill-ins)

2-12.3.OPT3.GR2 (Geosynthetic Wrapped Slope Facing Construction)
(November 17, 1997)
Use in projects requiring geosynthetic reinforced slopes with geosynthetic wrapped facing. Because of planting requirements, do not use this option for sites where the elevation is over 1500 feet. In general, use for slopes no steeper than 1H:1V.

2-12.3.OPT4.GR2 (Welded Wire Facing Construction)
(November 17, 1997)
Use in projects requiring geosynthetic reinforced slopes with welded wire facing. In general, use for slopes no steeper than 1H:2V.

2-12.3.OPT5.GR2 (Installing Guardrail Posts in Geosynthetic Reinforced Slopes)
(November 17, 1997)
Use in projects requiring guardrail on geosynthetic reinforced slopes.

**2-12.4.GR2**

**Measurement**

2-12.4.INST1.GR2 (Supplemental Instructions)
(Section 2-12.4 is supplemented with the following)
Must use once preceding any of the following:

2-12.4.OPT1.FR2 (Geosynthetic Reinforced Slope)
(January 5, 1998)
Use in projects requiring geosynthetic reinforced slopes.
(1 fill-in)

**2-12.5.GR2**

**Payment**

**2-12.5.INST1.GR2**
(Supplemental Instructions)
(Section 2-12.5 is supplemented with the following)
Must use once preceding any of the following:

**2-12.5.OPT1.FR2**
(Geosynthetic Reinforced Slope)
(November 17, 1997)
Use in projects requiring geosynthetic reinforced slopes.
(1 fill-in)