DIVISION8.GR8 Miscellaneous Construction

8-01.GR8 Erosion Control and Water Pollution Control

8-01.3.GR8 Construction Requirements

8-01.3(1).GR8 General

8-01.3(INST1.GR8 (The tenth paragraph of Section 8-01.3(1) is revised to read)

Must use once preceding any of the following:

8-01.3(OPT1.GR8 (Erodible Soil Eastern Washington)
(January 25, 2010)
Use for projects east of the Cascade range in areas receiving 12 inches or less annual precipitation. Do not use if any portion of the project lies in areas that receive more than 12 inches of annual precipitation. See https://www.wsdot.wa.gov/publications/fulltext/Hydraulics/Wa_MeanAnnualPrecip.pdf for precipitation map.

8-01.3(INST2.GR8 (Section 8-01.3(1) is supplemented with the following)

Must use once preceding any of the following:

8-01.3(OPT8.FR8 (Side Slope Treatment)
(April 1, 2002)
Use on projects where erodible soils are anticipated and it is desired to have the newly exposed slopes walked before final erosion control can be accomplished, in accordance with recommendation from environmental office.
(1 fill-in)

8-01.3(C.GR8 Water Management

8-01.3(1)C4.GR8 Management of Off-Site Water

8-01.3(C4.INST1.GR8 (Section 8-01.3(1)C4 is supplemented with the following)

Must use once preceding any of the following:

8-01.3(C4(OPT1.FR8 (Off-site stormwater routed through or around Project site)
(August 6, 2012)
Use when there are known locations where stormwater enters the project site and it is desired to prevent this stormwater from flowing uncontrolled through the project site.
(1 fill-in)

8-01.3(2).GR8 Temporary Seeding and Mulching

8-01.3(2)B.GR8 Temporary Seeding
8-01.3(2)B.INST1.GR8 (Section 8-01.3(2)B is supplemented with the following)
Must use once preceding any of the following:

8-01.3(2)B.OPT1.FR8 (Composition, proportion, quality and application rate of grass seed)
(August 4, 2014)
Use on projects where a common, non-native or non-source-identified seed can be used. This mix will generally be used within urban areas on small areas of disturbance. The fill-ins for the seed should be provided by the Region Landscape Architect or Headquarters Roadside and Site Development for regions without a Landscape Architect.
(2 fill-ins) (Fill-ins with dollar signs only are to be used as required)

8-01.3(2)B.OPT2.FR8 (Composition, proportion, quality and application rate of grass seed)
(August 4, 2014)
Use in projects where the Region Landscape Architect recommends source identified (local genetics) native seed. The fill-ins should be provided by the Region Landscape Architect or Headquarters Roadside and Site Development for regions without a Landscape Architect.
(3 fill-ins) (Fill-ins with dollar signs only are to be used as required.)

8-01.3(2)B.OPT3.GR8 (Seeding by hand)
(September 3, 2019)
Use in projects with seeding and fertilizing of less than 1 acre, the use of mechanical equipment would not be cost effective, or on remote projects with many small areas.

8-01.3(2)B.OPT4.FR8 (One application of fertilizer)
(January 3, 2006)
Use in projects requiring only one application of fertilizer.
(4 fill-ins) (The fill-ins for the fertilizer itself should be by consulting the State Horticulturist, the Region Landscape Architect, or Headquarters Roadside and Site Development. Fill-in $$4$$ should be 2/3 the amount of nitrogen in fill-in $$1$$$.)

8-01.3(2)B.OPT8.FR8 (Composition, proportion, quality and application rate of grass seed)
(August 4, 2014)
Use in projects where the Region Landscape Architect recommends native seed that is not source identified. The fill-ins should be provided
by the Region Landscape Architect or
Headquarters Roadside and Site Development
for regions without a Landscape Architect.
(3 fill-ins)

**8-01.3(2)D**  
**Temporary Mulching**

*8-01.3(2)D.INST1*  
(Section 8-01.3(2)D is supplemented with the
following)

Must use once preceding any of the following:

*8-01.3(2)D.OPT1*  
(Type and rate of application of mulch)

(January 5, 2015)

Use in projects requiring the application of mulch
when the application rate per acre or the
allowable pounds in any single lift are revised
from the Standard Specifications.
(3 fill-ins)

**8-02**  
**Roadside Restoration**

**8-02.1**  
**Description**

*8-02.1.INST1*  
(Section 8-02.1 is supplemented with the following)

Must use once preceding any of the following:

*8-02.1.OPT1*  
(Removal of Buried Man-Made Debris)

(August 4, 2014)

Use on projects that include soil amendment, and/or
irrigation systems, and where man-made construction
debris is known or suspected to exist. Requires the
approval of the Region Construction Manager. Must
include 8-02.3(5).OPT4 and 8-02.5.OPT2.

*8-02.1.OPT2*  
(Biotic Soil Amendments)

(April 1, 2019)

Use on projects to amend poor quality soils (which have a
lack of organic matter and little to no bioactivity) using
Biotic Soil Amendments (BSAs). Should only be used if
the soil is determined to be deficient from the results of a
soil organic matter test or the soil analysis and the
application of compost or topsoil is not possible due to
steepness or access. Use requires the approval of the
Region Landscape Architect or the HQ Region Liaison
Landscape Architect.

Must also use 8-02.2.OPT2, 8-02.3.OPT1, 8-02.4.OPT2, and 8-02.5.OPT4.

**8-02.2**  
**Materials**

*8-02.2.INST1*  
(Section 8-02.2 is supplemented with the following)

Must use once preceding the following:

*8-02.2.OPT1*  
(Conservation Grade Plant Material)
(January 3, 2011)
Use in projects that include “conservation grade” plant material in the plant list. Use requires approval of the Region Landscape Architect or HQ Region Liaison Landscape Architect.

8-02.2.OPT2.GR8 (Biotic Soil Amendments)
(April 1, 2019)
Use on projects to amend poor quality soils (which have a lack of organic matter and little to no bioactivity) using Biotic Soil Amendments (BSAs). Should only be used if the soil is determined to be deficient from the results of a soil organic matter test or the soil analysis and the application of compost or topsoil is not possible due to steepness or access. Use requires the approval of the Region Landscape Architect or the HQ Region Liaison Landscape Architect.
Must also use 8-02.1.OPT2.GR8, 8-02.3.OPT1.GR8, 8-02.4.OPT2.GR8, and 8-02.5.OPT4.FR8.

8-02.2(9-14).GR8 (Erosion Control and Roadside Planting)
8-02.2(9-14).INST1.GR8 (Section 9-14 is supplemented with the following)
Must use once preceding the following:

8-02.2(9-14).OPT1.FR8 (Weed Barrier Mats)
(January 3, 2011)
Use in projects requiring weed barrier mats.
(1 fill-in) Fill-in is the staple length.
Contact the Region Landscape Architect or HQ Region Liaison Landscape Architect for fill-in information.

8-02.2(9-14.2).GR8 (Topsoil)
8-02.2(9-14.2(1)).GR8 (Topsoil Type A)
(Section 9-14.1(1) is supplemented with the following)
Must use once preceding any of the following:

8-02.2(9-14.2(1)).OPT1.FR8 (August 7, 2017)
For use on projects where Topsoil Type A is needed for stormwater BMPs and for plant growth and establishment. Contact the Landscape Architect for fill-ins and depth of application.
(4 fill-ins)

8-02.2(9-14.5).GR8 (Mulch and Amendments)
8-02.2(9-14.5(8)).GR8 (Compost)
(Section 9-14.4(8) is supplemented with the following)
Must use once preceding any of the following:
8-02.3(INST1).GR8 (January 3, 2010)
Use when the contract has less than 100
yards of compost, or less than 30 working
days and 100 yards of compost or greater.

8-02.2(9-14.5(8)).OPT1.GR8 (January 3, 2010)
May be used to allow biosolids compost on
projects that do not use compost on
stormwater BMPs. Use with concurrence
of the Hydraulics Engineer.

8-02.3.GR8 Construction Requirements

8-02.3(INST1).GR8 (Section 8-02.3 is supplemented with the following)
Must use once preceding any of the following:

8-02.3.OPT1.GR8 (Biotic Soil Amendments)
(April 1, 2019)
Use on projects to amend poor quality soils (which have a
lack of organic matter and little to no bioactivity) using
Biotic Soil Amendments (BSAs). Should only be used if
the soil is determined to be deficient from the results of a
soil organic matter test or the soil analysis and the
application of compost or topsoil is not possible due to
steepness or access. Use requires the approval of the
Region Landscape Architect or the HQ Region Liaison
Landscape Architect.
Must also use 8-02.1.OPT2.GR8, 8-02.2.OPT2.GR8, 8-
02.4.OPT2.GR8, and 8-02.5.OPT4.FR8.

8-02.3(4).GR8 Topsoil

8-02.3(4)A.GR8 Topsoil Type A

8-02.3(4)A.INST1.GR8 (Section 8-02.3(4) is supplemented with the following)
Must use once preceding any of the following:

8-02.3(4)A.OPT1.FR8 (Topsoil Type A)
(August 3, 2015)
Must include with 8-02.2(9-14.2(1)).OPT1.FR8.
(1 fill-in)

8-02.3(5).GR8 Roadside Seeding, Lawn and Planting Area Preparation

8-02.3(5).INST1.GR8 (Section 8-02.3(5) is supplemented with the following)
Must use once preceding any of the following:

8-02.3(5).OPT1.FR8 (Application of Compost)
(August 5, 2013)
Include when no incorporation of compost is required.
(1 fill-in)

8-02.3(5).OPT2.FR8 (Application of Compost)
Include when compost is to be incorporated into the soil and irrigation lines are included in the Contract.

(Application of Compost)

Include when compost is to be incorporated onto the soil and there are no irrigation lines included in the Contract.

(Removal of Buried Man-Made Debris)

Must include with 8-02.1.OPT1.GR8 and 8-02.5.OPT2.GR8.

Soil Amendments

Fertilizers

Must use once preceding any of the following:

(One application of fertilizer)

Use in projects requiring only one application of fertilizer.

(More than one application of fertilizer)

Use in projects when the Region Landscape Arch. recommends more than one fertilizer application.

(Fertilizing by hand)

Use in projects with seeding and fertilizing of less than 1 acre, the use of mechanical equipment would not be cost effective, or on remote projects with many small areas.
Use this GSP for projects in eastern Washington where soils tests show excess potassium and phosphorous and high pH.

### Planting

- **8-02.3(8).GR8** (Section 8-02.3(8) is supplemented with the following)
  - **8-02.3(8).INST1.GR8**
    - Must use once preceding any of the following:
      - **8-02.3(8).OPT1.FR8** (February 25, 2013)
        - Must use when the project requires a U.S. Army Corps of Engineers Nationwide Permit. Use the Environmental Commitment Meeting to determine applicability of this provision for the project.
        - (1 fill-in)

### Seeding and Fertilizing

- **8-02.3(9).B.GR8** (Section 8-02.3(9)B is supplemented with the following)
  - **8-02.3(9).INST1.GR8**
    - Must use once preceding any of the following:
      - **8-02.3(9).OPT1.FR8** (Composition, proportion, quality and application rate of grass seed) (September 3, 2019)
        - Use in projects where the Region Landscape Architect recommends source identified (local genetics) native seed. The fill-ins should be provided by the Region Landscape Architect or Headquarters Roadside and Site Development for regions without a Landscape Architect.
        - (3 fill-ins) (Fill-ins with dollar signs only are to be used as required.)
      - **8-02.3(9).OPT2.GR8** (Seeding by hand) (September 3, 2019)
        - Use in projects with seeding and fertilizing of less than 1 acre, the use of mechanical equipment would not be cost effective, or on remote projects with many small areas.
      - **8-02.3(9).OPT3.FR8** (Composition, proportion, quality and application rate of grass seed) (September 3, 2019)
        - Use in projects where the Region Landscape Architect recommends native seed that is not source identified. The fill-ins should be provided by the Region Landscape Architect or Headquarters Roadside and Site Development for regions without a Landscape Architect.
        - (3 fill-ins)
8-02.3(11).GR8 Mulch

8-02.3(11).INST1.GR8 (Section 8-02.3(11) is supplemented with the following)
Must use once preceding any of the following:

8-02.3(11).OPT1.FR8 (Placement of Bark or Wood Chip)
(April 2, 2012)
Use in projects requiring bark and wood chip mulch.
Use requires approval of the Region Landscape Architect or HQ Region Liaison Landscape Architect.

8-02.3(11)A.GR8 Mulch for Seeding Areas

8-02.3(11)A.INST1.GR8 (Section 8-02.3(11)A is supplemented with the following)
Must use once preceding any of the following:

8-02.3(11)A.OPT1.FR8 (Type and rate of application of mulch)
(September 3, 2019)
Use in projects requiring the application of mulch when the application rate per acre or the allowable pounds in any single lift are revised from the Standard Specifications.
(3 fill-ins)

8-02.3(13).GR8 Plant Establishment

8-02.3(13).INST1.GR8 (Section 8-02.3(13) is supplemented with the following)
Must use once preceding any of the following:

8-02.3(13).OPT1.FR8 (January 5, 2015)
Use in projects with multiple year plant establishment.
Must include with 8-02.5.OPT1.GR8.

8-02.4.GR8 Measurement

8-02.4.INST1.GR8 (Section 8-02.4 is supplemented with the following)
Must use once preceding any of the following:

8-02.4.OPT1.GR8 (January 5, 2015)
Use in projects where Topsoil, Compost, Soil Amendments, or Bark or Wood Chip Mulch is applied around trees or shrub beds, or in areas of less than one acre. Must include with 8-02.5.OPT3.GR8.

8-02.4.OPT2.GR8 (Biotic Soil Amendments)
(April 1, 2019)
Use on projects to amend poor quality soils (which have a lack of organic matter and little to no bioactivity) using Biotic Soil Amendments (BSAs). Should only be used if the soil is determined to be deficient from the results of a soil organic matter test or the soil analysis and the application of compost or topsoil is not possible due to
steepness or access. Use requires the approval of the Region Landscape Architect or the HQ Region Liaison Landscape Architect. Must also use 8-02.1.OPT2.GR8, 8-02.2.OPT2.GR8, 8-02.3.OPT1.GR8, and 8-02.5.OPT4.FR8.

### Payment

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<th>Section</th>
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<td>8-02.5</td>
<td>(Section 8-02.5 is supplemented with the following) Must use once preceding any of the following:</td>
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<tr>
<td>8-02.5.OPT1.GR8</td>
<td>(January 5, 2015) Must include with 8-02.3(13).OPT1.GR8.</td>
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<tr>
<td>8-02.5.OPT2.GR8</td>
<td>(Removal of Buried Man-Made Debris) (August 4, 2014) Must include with 8-02.1.OPT1.GR8 and 8-02.3(5).OPT4.GR8.</td>
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<tr>
<td>8-02.5.OPT3.GR8</td>
<td>(January 5, 2015) Use in projects where Topsoil, Compost, Soil Amendments, or Bark or Wood Chip Mulch is applied around trees or shrub beds, or in areas of less than one acre. Must include with 8-02.4.OPT1.GR8.</td>
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<tr>
<td>8-02.5.OPT4.FR8</td>
<td>(Biotic Soil Amendments) (April 1, 2019) Use on projects to amend poor quality soils (which have a lack of organic matter and little to no bioactivity) using Biotic Soil Amendments (BSAs). Should only be used if the soil is determined to be deficient from the results of a soil organic matter test or the soil analysis and the application of compost or topsoil is not possible due to steepness or access. Use requires the approval of the Region Landscape Architect or the HQ Region Liaison Landscape Architect. (1 fill-in) (Fill-in #1 indicates which seed item will be used in conjunction with the BSA. Consult with the Region Landscape Architect to determine which permanent seeding item to use.) Must also use 8-02.1.OPT2.GR8, 8-02.2.OPT2.GR8, 8-02.3.OPT1.GR8, and 8-02.4.OPT2.GR8.</td>
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### GUIDE POSTS

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<tr>
<th>Section</th>
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<tr>
<td>8-10</td>
<td>(Section 8-10 is supplemented with the following) Must use once preceding any of the following:</td>
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<td>8-10.1</td>
<td>(Barrier Delineators) (April 1, 2002)</td>
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</table>
Must also use 8-10.2.OPT1.GR8, 8-10.3.OPT1.GR8 or 8-10.3.OPT2.GR8, 8-10.4.OPT1.GR8, and 8-10.5.OPT1.GR8.

8-10.2.GR8  Materials

8-10.2.INST1.GR8  (Section 8-10.2 is supplemented with the following)
Must use once preceding any of the following:
8-10.2.OPT1.GR8  (Barrier Delineators)
(August 6, 2018)
Must also use 8-10.1.OPT1.GR8, 8-10.3.OPT1.GR8 or 8-10.3.OPT2.GR8, 8-10.4.OPT1.GR8, and 8-10.5.OPT1.GR8.

8-10.3.GR8  Construction Requirements

8-10.3.INST1.GR8  (Section 8-10.3 is supplemented with the following)
Must use once preceding any of the following:
8-10.3.OPT1.GR8  (Barrier Delineators)
(April 1, 2002)
Delineators placed 6" down from top.
Must also use 8-10.1.OPT1.GR8, 8-10.2.OPT1.GR8 8-10.4.OPT1.GR8, and 8-10.5.OPT1.GR8.
8-10.3.OPT2.GR8  (Barrier Delineators)
(April 1, 2002)
Delineators placed on top of barrier.
Must also use 8-10.1.OPT1.GR8, 8-10.2.OPT1.GR8 8-10.4.OPT1.GR8, and 8-10.5.OPT1.GR8.

8-10.4.GR8  Measurement

8-10.4.INST1.GR8  (Section 8-10.4 is supplemented with the following)
Must use once preceding any of the following:
8-10.4.OPT1.GR8  (Barrier Delineators)
(April 1, 2002)
Must also use 8-10.1.OPT1.GR8, 8-10.2.OPT1.GR8 8-10.3.OPT1.GR8, or 8-10.3.OPT2.GR8, and 8-10.5.OPT1.GR8.

8-10.5.GR8  Payment

8-10.5.INST1.GR8  (Section 8-10.5 is supplemented with the following)
Must use once preceding any of the following:
8-10.5.OPT1.GR8  (Barrier Delineators)
(April 1, 2002)
Must also use 8-10.1.OPT1.GR8, 8-10.2.OPT1.GR8 8-10.3.OPT1.GR8, or 8-10.3.OPT2.GR8, and 8-10.4.OPT1.GR8.
Guardrail

Description

8-11.1.INST1.GR8  (Section 8-11.1 is supplemented with the following)
Must use once preceding any of the following:

8-11.1.OPT1.GR8  (High-Tension Cable Barrier System 3 and 4 Cable)
(April 6, 2009)
Must also use 8-11.2.OPT1.GR8 or 8-11.2.OPT2.GR8 (or both), 8-11.3.OPT2.FR8, 8-11.4.OPT2.GR8, 8-11.5.OPT7.GR8, and 8-11.5.OPT8.GR8.

8-11.1.OPT2.GR8  (Aesthetic Treatment for Beam Guardrail)
(January 7, 2019)
Use in all projects that require Aesthetic Treatment for Beam Guardrail. This replaces the use of Weathering Steel Beam Guardrail.
Must also use 8-11.2.OPT4.GR8, 8-11.3.OPT4.GR8, 8-11.4.OPT4.GR8, and 8-11.5.OPT1.GR8.

8-11.2.GR8  Materials

8-11.2.INST1.GR8  (Section 8-11.2 is supplemented with the following)
Must use once preceding any of the following:

8-11.2.OPT1.GR8  (High-Tension Cable Barrier System 3 Cable)
(April 6, 2009)
Must also use 8-11.1.OPT1.GR8, 8-11.3.OPT2.FR8, 8-11.4.OPT2.GR8, 8-11.5.OPT7.GR8, and 8-11.5.OPT8.GR8.

8-11.2.OPT2.GR8  (High-Tension Cable Barrier System 4 Cable)
(September 3, 2019)
Must also use 8-11.1.OPT1.GR8, 8-11.3.OPT2.FR8, 8-11.4.OPT2.GR8, 8-11.5.OPT7.GR8, and 8-11.5.OPT8.GR8.

8-11.2.OPT4.GR8  (Aesthetic Treatment for Beam Guardrail)
(January 2, 2018)
Use in all projects that require Aesthetic Treatment for Beam Guardrail. This replaces the use of Weathering Steel Beam Guardrail.
Must also use 8-11.1.OPT2.GR8, 8-11.3.OPT4.GR8, 8-11.4.OPT4.GR8, and 8-11.5.OPT1.GR8.

8-11.2(9-16.3).GR8  (Beam Guardrail)

8-11.2(9-16.3).INST1.GR8  (Section 9-16.3 is supplemented with the following)
8-11.2(9-16.3(2)).OPT1.GB8 (Steel shear plates and backing plates)
(April 6, 2015)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam using timber blockouts wedged between openings in existing concrete baluster rails. Include with 6-02.2.OPT1.GR6, 6-02.3(18).OPT1.GR6, 8-11.2(9-16.3(4)).OPT1.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, 8-11.3(1)A.OPT1.GB8, and 8-11.3(1)B.OPT7.GB8.

8-11.2(9-16.3(2)).OPT2.GB8 (Grout)
(April 6, 2015)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam using a steel post connection to the existing concrete curb or railbase. Include with 6-02.2.OPT1.GR6, 6-02.3(18).OPT1.GR6, 8-11.2(9-16.3(4)).OPT1.GB8, and 8-11.3(1)A.OPT2.GB8.

8-11.2(9-16.3(2)).OPT3.GB8 (Steel Angles for Timber Blockout Connection to Truss)
(April 6, 2015)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam requiring timber blockout connection to existing steel truss members. Include with 8-11.2(9-16.3(4)).OPT2.GB8 and other appropriate BSP’s supplementing Sections 8-11.2 and 8-11.3(1).

8-11.2(9-16.3(2)).OPT4.GB8 (Beam Guardrail Type WP Thrie Beam)
(April 6, 2015)
Use in thrie beam retrofit projects with weak post thrie beam guardrail retrofit (beam guardrail Type WP Thrie Beam). Include with 1-07.1.OPT2.FR1, 8-11.2(9-16.3(4)).OPT2.GB8, 8-11.3(1)A.OPT3.GB8, 8-11.3(1)B.OPT9.GB8, 8-11.3(1)H.OPT1.GB8, 8-11.3(1)D.OPT1.GB8.

8-11.2(9-16.3(4)).GB8 (Hardware)
(Supplement 9-16.3(4) is supplemented with the following)
Must use once preceding any of the following:

8-11.2(9-16.3(4)).OPT1.GB8 (Resin bonded anchors)
(April 6, 2015)
Use in thrie beam retrofit projects requiring resin bonded anchors for connection to concrete baluster railing end posts, and concrete curbs and railbases. Include with 6-02.2.OPT1.GR6, 6-02.3(18).OPT1.GR6, and either 8-11.2(9-16.3(2)).OPT1.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, 8-11.3(1)A.OPT1.GB8, and 8-11.3(1)B.OPT7.GB8, or 8-11.2(9-16.3(2)).OPT2.GB8 and 8-11.3(1)A.OPT2.GB8.
8-11.2(9-16.3(4)).OPT2.GB8 (Lag screws)
(April 6, 2015)
Use in thrie beam retrofit projects requiring
connections with lag screws to timber members and
blockouts.

8-11.3.GR8

**Construction Requirements**

8-11.3.INST1.GR8 (Section 8-11.3 is supplemented with the following)
Must use once preceding any of the following:

8-11.3.OPT1.GR8 (Box Culvert Guardrail Steel Posts)
(August 6, 2018)
Must also use 8-11.4.OPT1.GR8 and 8-11.5.OPT6.GR8.
Use in projects requiring the construction of steel guardrail
posts on top of existing concrete box culverts.

8-11.3.OPT2.FR8 (High-Tension Cable Barrier System 3 and 4 Cable)
(September 3, 2019)
Must also use 8-11.1.OPT1.GR8, 8-11.2.OPT1.GR8 or 8-
11.2.OPT2.GR8 (or both), 8-11.4.OPT2.GR8, 8-
11.5.OPT7.GR8, and 8-11.5.OPT8.GR8.
Fill-in is the location(s) of Contracting Agency sites to
deliver complete sets of Additional High-Tension Cable
Barrier Components.
(1 fill-in)

8-11.3.OPT4.GR8 (Aesthetic Treatment for Beam Guardrail)
(January 7, 2019)
Use in all projects that require Aesthetic Treatment for
Beam Guardrail. This replaces the use of Weathering
Steel Beam Guardrail.
Must also use 8-11.1.OPT2.GR8, 8-11.2.OPT4.GR8, 8-
11.4.OPT4.GR8, and 8-11.5.OPT1.GR8.

8-11.3(1).GR8

**Beam Guardrail**

8-11.3(1).INST1.GR8 (Section 8-11.3(1) is supplemented with the following)
Must use once preceding any of the following:

8-11.3(1).OPT1.GR8 Post Selection
(April 5, 2010)
Use in projects that specifically require wood guardrail
posts or specifically require steel guardrail posts.

8-11.3(1)A.GR8

**Erection of Posts**

8-11.3(1)A.INST1.GR8 (Section 8-11.3(1)A is supplemented with
the following)
Must use once preceding any of the following:

8-11.3(1)A.OPT1.GB8 (Timber Blockouts for Beam Guardrail
Type Thrie Beam)
(April 6, 2015)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam using timber blockouts wedged between openings in existing concrete baluster rails. Include with 6-02.2.OPT1.GR6, 6-02.3(18).OPT1.GR6, 8-11.2(9-16.3(2)).OPT1.GB8, 8-11.2(9-16.3(4)).OPT1.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, and 8-11.3(1)B.OPT7.GB8.

8-11.3(1)A.OPT2.GB8

(Steel Posts for Beam Guardrail Type Thrie Beam)
(Steel Posts for Beam Guardrail Type Thrie Beam)
(January 4, 2016)
(January 4, 2016)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam using a steel post connection to the existing concrete curb or railbase. Include with 6-02.2.OPT1.GR6, 6-02.3(18).OPT1.GR6, 8-11.2(9-16.3(2)).OPT1.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, and 8-11.3(1)A.OPT2.GB8.

8-11.3(1)A.OPT3.GB8

(Beam Guardrail Type WP Thrie Beam)
(January 4, 2016)
Include in thrie beam retrofit projects with weak post thrie beam guardrail retrofit (beam guardrail Type WP Thrie Beam). Include with 1-07.1.OPT2.FR1, 8-11.2(9-16.3(2)).OPT4.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, 8-11.3(1)B.OPT9.GB8, 8-11.3(1)H.OPT1.GB8, 8-11.3(1)D.OPT1.GB8.

8-11.3(1)B.GR8

Erection of Rail

8-11.3(1)B.INST1.GR8

(Section 8-11.3(1)B is supplemented with the following)
(Must use once preceding any of the following):

8-11.3(1)B.OPT6.GB8

(Field Measuring to Existing Type 3 Anchors)
(April 6, 2015)
Include in thrie beam retrofit projects when existing Type 3 anchors are being salvaged for reuse as part of the retrofitted guardrail system.

8-11.3(1)B.OPT7.GB8

(Attaching Beam Guardrail Type Thrie Beam to Timber Blockouts)
(April 6, 2015)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam using timber blockouts wedged between openings in existing concrete baluster rails. Include with 6-02.2.OPT1.GR6, 6-02.3(18).OPT1.GR6, 8-11.2(9-16.3(2)).OPT1.GB8, and 8-11.3(1)B.OPT7.GB8.
16.3(4)).OPT1.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, and 8-11.3(1)A.OPT1.GB8.

8-11.3(1)B.OPT8.GB8  (Thrie Beam Expansion Joint Element)
(April 6, 2015)
Use in thrie beam retrofit projects where the beam guardrail elements are continuous across interior bridge expansion joints.

8-11.3(1)B.OPT9.GB8  (Beam Guardrail Type WP Thrie Beam)
(BSP August 3, 2009)
Include in thrie beam retrofit projects with weak post thrie beam guardrail retrofit (beam guardrail Type WP Thrie Beam). Include with 1-07.1.OPT2.FR1, 8-11.2(9-16.3(2)).OPT4.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, 8-11.3(1)A.OPT3.GB8, 8-11.3(1)H.OPT1.GB8, 8-11.3(1)D.OPT1.GB8.

8-11.3(1)D.GR8  Removing Guardrail
8-11.3(1)D.INST1.GR8  (Section 8-11.3(1)D is supplemented with the following)
Must use once preceding any of the following:

8-11.3(1)D.OPT1.GB8  (Beam Guardrail Type WP Thrie Beam)
(April 6, 2015)
Include in thrie beam retrofit projects with weak post thrie beam guardrail retrofit (beam guardrail Type WP Thrie Beam). Include with 1-07.1.OPT2.FR1, 8-11.2(9-16.3(2)).OPT4.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, 8-11.3(1)A.OPT3.GB8, 8-11.3(1)H.OPT1.GB8, 8-11.3(1)D.OPT1.GB8.

8-11.3(1)H.GR8  Guardrail Construction Exposed to Traffic
8-11.3(1)H.INST1.GR8  (Section 8-11.3(1)H is supplemented with the following)
Must use once preceding any of the following:

8-11.3(1)H.OPT1.GB8  (Beam Guardrail Type WP Thrie Beam)
(April 6, 2015)
Include in thrie beam retrofit projects with weak post thrie beam guardrail retrofit (beam guardrail Type WP Thrie Beam). Include with 1-07.1.OPT2.FR1, 8-11.2(9-16.3(2)).OPT4.GB8, 8-11.2(9-16.3(4)).OPT2.GB8, 8-11.3(1)A.OPT3.GB8, 8-11.3(1)B.OPT9.GB8, and 8-11.3(1)D.OPT1.GB8.

8-11.4.GR8  Measurement
8-11.4.INST1.GR8  (Section 8-11.4 is supplemented with the following)
Must use once preceding any of the following:
8-11.4.OPT1.GR8 (Box Culvert Guardrail Steel Posts)  
(March 13, 1995)  
Must include with 8-11.3.OPT1.GR8 and 8-11.5.OPT6.GR8.  
Use in projects requiring the construction of steel guardrail posts on top of concrete box culverts.

8-11.4.OPT2.GR8 (High-Tension Cable Barrier System 3 and 4 Cable)  
(August 6, 2012)  
Must also use 8-11.1.OPT1.GR8, 8-11.2.OPT1.GR8 or 8-11.2.OPT2.GR8 (or both), 8-11.3.OPT2.FR8, 8-11.5.OPT7.GR8, and 8-11.5.OPT8.GR8.

8-11.4.OPT4.GR8 (Aesthetic Treatment for Beam Guardrail)  
(April 2, 2018)  
Use in all projects that require Aesthetic Treatment for Beam Guardrail.  
Must also use 8-11.1.OPT2.GR8, 8-11.2.OPT4.GR8, 8-11.3.OPT4.GR8, and 8-11.5.OPT1.GR8.

8-11.5.GR8 Payment  
8-11.5.INST2.GR8 (Section 8-11.5 is supplemented with the following)  
Must use once preceding any of the following:

8-11.5.OPT1.GR8 (Aesthetic Treatment for Beam Guardrail)  
(April 2, 2018)  
Use in all projects that require Aesthetic Treatment for Beam Guardrail.  
Must also use 8-11.1.OPT2.GR8, 8-11.2.OPT4.GR8, 8-11.3.OPT4.GR8, and 8-11.5.OPT4.GR8.

8-11.5.OPT6.GR8 (Box Culvert Guardrail Steel Posts)  
(August 6, 2018)  
Must include with 8-11.3.OPT1.GR8 and 8-11.4.OPT1.GR8.  
Use in projects requiring the construction of steel guardrail posts on top of concrete box culverts.

8-11.5.OPT7.GR8 (High-Tension Cable Barrier)  
(April 6, 2009)  
Must also use 8-11.1.OPT1.GR8, 8-11.2.OPT1.GR8, 8-11.3.OPT2.FR8, 8-11.4.OPT2.GR8 and 8-11.5.OPT8.GR8.

8-11.5.OPT8.GR8 (Additional High-Tension Cable Barrier Components)  
(April 6, 2009)  
Must also use 8-11.1.OPT1.GR8, 8-11.2.OPT1.GR8, 8-11.3.OPT2.FR8, 8-11.4.OPT2.GR8 and 8-11.5.OPT7.GR8.  No Federal funding participation. Must be in state funds group.

8-12.GR8 Chain Link Fence and Wire Fence  
8-12.2.GR8 Materials
8-12.2.INST1.GR8 (Section 8-12.2 is supplemented with the following)
Must use once preceding any of the following:

8-12.2.OPT1.FR8 (Coated chain link fence)
(January 2, 2018)
Use in projects requiring the construction of coated chain
link fence. Must include 8-12.5.OPT1.GR8.
(1 fill-in)

8-12.2.OPT6.GB8 (Cable Fence)
(September 3, 2019)
Use in projects with cable fence. Include with 8-
12.3.OPT1(B).GB8, 8-12.4.OPT1.GB8, and 8-
12.5.OPT6.GB8. Include with 8-12.3.OPT1(A).GB8 when
anchoring the cable fence posts to existing concrete
structures. Include with 8-12.3.OPT1(C).GB8 when
painting of the galvanized fence posts is required.

8-12.3.GR8 Construction Requirements

8-12.3.INST1.GR8 (Section 8-12.3 is supplemented with the following)
Must use once preceding any of the following:

8-12.3.OPT1.GB8 (Cable Fence)
Use once preceding the following:

8-12.3.OPT1(A).GB8 (Field Measuring For Cable Fence)
(April 6, 2015)
Use in projects with cable fence when anchoring the
cable fence posts to existing concrete structures.
Include with 8-12.2.OPT6.GB8, 8-12.3.OPT1(B).GB8,
8-12.4.OPT1.GB8, and 8-12.5.OPT6.GB8. Include
with 8-12.3.OPT1(C).GB8 when painting of the
galvanized fence posts is required.

8-12.3.OPT1(B).GB8 (Cable Fence)
(April 6, 2015)
Use in projects with cable fence. Include with 8-
12.2.OPT6.GB8, 8-12.4.OPT1.GB8, and 8-
12.5.OPT6.GB8. Include with 8-12.3.OPT1(A).GB8
when anchoring the cable fence posts to existing
concrete structures. Include with 8-12.3.OPT1(C).GB8
when painting of the galvanized fence posts is
required.

8-12.3.OPT1(C).GB8 (Cable Fence)
(January 2, 2018)
Use in projects with cable fence. Include with 8-
12.2.OPT6.GB8, 8-12.4.OPT1.GB8, and 8-
12.5.OPT6.GB8. Include with 8-12.3.OPT1(A).GB8
when anchoring the cable fence posts to existing
concrete structures.
8-12.4.GR8 Measurement

8-12.4.INST1.GR8 (Section 8-12.4 is supplemented with the following)
Must use once preceding any of the following:

8-12.4.OPT1.GB8 (Cable Fence)
(April 6, 2015)
Use in projects with cable fence. Include with 8-12.2.OPT6.GB8, 8-12.3.OPT1(B).GB8, and 8-12.5.OPT6.GB8. Include with 8-12.3.OPT1(A).GB8 when anchoring the cable fence posts to existing concrete structures. Include with 8-12.3.OPT1(C).GB8 when painting of the galvanized fence posts is required.

8-12.5.GR8 Payment

8-12.5.INST1.GR8 (Section 8-12.5 is supplemented with the following)
Must use once preceding any of the following:

8-12.5.OPT1.GR8 (Coated chain link fence)
(April 1, 2002)
Use in projects requiring the construction of coated chain link fence.

8-12.5.OPT6.GB8 (Cable Fence)
(April 6, 2015)
Use in projects with cable fence. Include with 8-12.2.OPT6.GB8, 8-12.3.OPT1(B).GB8, and 8-12.4.OPT1.GB8. Include with 8-12.3.OPT1(A).GB8 when anchoring the cable fence posts to existing concrete structures. Include with 8-12.3.OPT1(C).GB8 when painting of the galvanized fence posts is required.

8-13.GR8 Monument Cases

8-13.1.GR8 Description

8-13.1.INST1.GR8 (Section 8-13.1 is deleted and replaced by the following)
Must use once preceding any of the following:

8-13.1.OPT1.GR8 (Monument pipes included in work)
(March 13, 1995)
Must also use 8-13.2.OPT1.GR8, 8-13.3.OPT1.GR8, 8-13.4.OPT1.GR8 and 8-13.5.OPT1.GR8.
Use in projects requiring that the monument pipes be installed by the Contractor.

8-13.2.GR8 Materials

8-13.2.INST1.GR8 (Section 8-13.2 is supplemented with the following)
Must use once preceding any of the following:
8-13.2.OPT1.GR8  (Monument pipes included in work)
(March 13, 1995)
Must include with 8-13.1.OPT1.GR8.
Use in projects requiring that the monument pipes be
installed by the Contractor.

8-13.3.GR8  Construction Requirements

8-13.3.INST1.GR8  (The last paragraph of Section 8-13.3 is revised to read)
Must use once preceding any of the following:

8-13.3.OPT1.GR8  (Monument pipes included in work)
(March 13, 1995)
Must include with 8-13.1.OPT1.GR8.
Use in projects requiring that the monument pipes be
installed by the Contractor.

8-13.4.GR8  Measurement

8-13.4.INST1.GR8  (Section 8-13.4 is deleted and replaced by the following)
Must use once preceding any of the following:

8-13.4.OPT1.GR8  (Monument pipes included in work)
(March 13, 1995)
Must include with 8-13.1.OPT1.GR8.
Use in projects requiring that the monument pipes be
installed by the Contractor.

8-13.5.GR8  Payment

8-13.5.INST1.GR8  (Section 8-13.5 is supplemented with the following)
Must use once preceding any of the following:

8-13.5.OPT1.GR8  (Monument pipes included in work)
(April 28, 1997)
Must include with 8-13.1.OPT1.GR8.
Use in projects requiring that the monument pipes be
installed by the Contractor.

8-14.GR8  Cement Concrete Sidewalks

8-14.1.GR8  Description

8-14.1.INST1.GR8  (Section 8-14.1 is revised to read)
Must use once preceding any of the following:

8-14.1.OPT1.GR8  (ADA Feature work)
(April 3, 2017)
Use in all projects that require any ADA Feature work.
Must use with 1-05.4.OPT4.GR1, 8-14.3.OPT2.GR8, and
8-14.3.OPT3.GR8.

8-14.3.GR8  Construction Requirements
8-14.3.INST1.GR8 (Section 8-14.3 is supplemented with the following)
Must use once preceding any of the following:

8-14.3 OPT1.GR8 (Pre-construction meeting for cement concrete sidewalks, curb ramps or other pedestrian access routes to discuss ADA issues before Work begins)
(April 3, 2017)
Use in projects where pedestrian access route Work (cement concrete sidewalks, curb ramps or other pedestrian access) is proposed and it is felt that a pre-construction meeting is needed by Region Construction Office to discuss ADA compliance.

8-14.3 OPT2.GR8 (Timing Restrictions)
(January 7, 2019)
Use in all projects that require any ADA Feature work where sidewalk, curb ramp, or bus stop closures are required to perform the work.
Must use with 1-05.4 OPT4.GR8, 8-14.1 OPT1.GR8, and 8-14.3 OPT3.GR8.

8-14.3 OPT3.GR8 (Layout and Conformance to Grades)
(January 7, 2019)
Use in all projects that require any ADA Feature work.
Must use with 1-05.4 OPT4.GR8, 8-14.1 OPT1.GR8, and 8-14.3 OPT2.GR8.

8-15.GR8 Riprap

8-15.4.GR8 Measurement

8-15.4 INST1.GR8 (Section 8-15.4 is supplemented with the following)
Must use once preceding any of the following:

8-15.4 OPT3.GR8 (Special excavation)
(March 13, 1995)
Must also use 8-15.5 OPT8.GR8.
Use in projects requiring excavation outside the limits of structure excavation for riprap at bridge piers located within streams.

8-15.4 OPT5.GR8 (Excavation for riprap is included in cost of riprap)
(The last paragraph of Section 8-15.4 is deleted)
(February 5, 2001)
Must also use 8-15.5 OPT1.GR8.
Use in projects with small quantities of riprap or upon recommendation of the Construction and Materials Division:

8-15.5.GR8 Payment

8-15.5 INST1.GR8 (The first sentence of the second paragraph of Section 8-15.5 is revised to read)
Must use once preceding any of the following:
8-15.5.OPT1.GR8  (Excavation for riprap is included in cost of riprap)  
(March 13, 1995)  
Must include with 8-15.4.OPT5.GR8.  
Use in projects with small quantities of riprap or upon recommendation of the Construction and Materials Division.

8-15.5.INST2.GR8  (Section 8-15.5 is supplemented with the following)  
Must use once preceding the following:

8-15.5.OPT8.GR8  (Special excavation)  
(September 30, 1996)  
Must include with 8-15.4.OPT3.GR8.  
Use in projects requiring excavation outside the limits of structure excavation for riprap at bridge piers located within streams.

8-16.GR8  Concrete Slope Protection

8-16.3.GR8  Construction Requirements

8-16.3(2).GR8  Placing Semi-Open Concrete Masonry Units

8-16.3(2).INST1.GR8  (Section 8-16.3(2) is supplemented with the following)  
Must use once preceding any of the following:

8-16.3(2).OPT1.GR8  (Requirements for semi-open precast masonry units)  
(December 19, 2005)  
Must include with 8-16.5.OPT1.GR8.  
Use in projects requiring semi-open concrete masonry slope protection.

8-16.5.GR8  Payment

8-16.5.INST1.GR8  (Section 8-16.5 is supplemented with the following)  
Must use once preceding any of the following:

8-16.5.OPT1.GR8  (Semi-open Conc. Masonry Slope Protection)  
(September 30, 1996)  
Must include with 8-16.3(2).OPT1.GR8.  
Use in projects requiring semi-open concrete masonry slope protection.

8-20.GR8  Illumination, Traffic Signal Systems, Intelligent Transportation Systems, and Electrical

8-20.2.GR8  Materials

8-20.2.INST1.GR8  (Section 8-20.2 is supplemented with the following)  
Must use once preceding any of the following:

8-20.2.OPT1.GB8  (Traffic Signal Shaft Foundation Shaft Casing and
Slurry)  
(April 6, 2015)  
Use in traffic signal projects with shaft foundations in weak  
soils, with the concurrence of the Materials Laboratory  
Geotechnical Branch. Include with 8-20.3(4).OPT1.FB8  
and 8-20.5.OPT1.GB8.

8-20.2(9-29.1).GR8 (Conduit, Innerduct, and Outerduct)  

8-20.2(9-29.1(11)).GR8 (Foam Conduit Sealant)  
(Section 9-29.1(11) is supplemented with the  
following)  
Must use once preceding any of the following:

8-20.2(9-29.1(11)).OPT1.GR8 (January 7, 2019)  
Use in projects where new conduit is installed,  
wiring is added to existing conduit, or wiring is  
removed from existing conduit.

8-20.2(9-29.2).GR8 (Junction Boxes, Cable Vaults, and Pull Boxes)  
(Section 9-29.2 is supplemented with the following:)  
Must use once preceding any of the following:

8-20.2(9-29.2).OPT1.GR8 (Slip-Resistant Surfacing)  
(September 3, 2019)  
Use in projects where junction boxes, cable vaults, pull  
boxes, or Structure mounted boxes require slip-  
resistant surfacing.

8-20.2(9-29.6).GR8 (Light and Signal Standards)  
(Section 9-29.6 is supplemented with the following)  
Must use once preceding any of the following:

8-20.2(9-29.6).OPT1.GR8 Light Standards With Type 1 Luminaire Arms  
(January 7, 2019)  
Use in projects requiring Type 1 luminaire arms and  
The Engineer is not required to verify the H1 distances  
shown in the Plans.

8-20.2(9-29.6).OPT2.GR8 Light Standards With Type 1 Luminaire Arms  
(January 7, 2019)  
Use in projects requiring Type 1 luminaire arms and  
H1 distances are not shown in the Plans or the  
Engineer is required to verify the H1 distances shown  
in the Plans.

8-20.2(9-29.6).OPT5.GR8 Traffic Signal Standards  
(April 1, 2019)  
Use in projects requiring traffic signal standards, or  
combination traffic signal/light standards with Type 1  
luminaire arms, or both.

8-20.2(9-29.13).GR8 (Control Cabinet Assemblies)  
(Section 9-29.13 is supplemented with the following)
Must use once preceding any of the following:

- **8-20.2(9-29.13).OPT1.FR8** Uninterruptible Power Supply (UPS)
  (January 2, 2018)
  With Region Traffic Engineer approval, use in projects where Uninterruptible Power Supply (UPS) cabinets are required. Include with **8-20.3(14).OPT1.GR8**.

- **8-20.2(9-29.15).GR8** (Flashing Beacon Control)
  (Section 9-29.15 is supplemented with the following)
  Must use once preceding any of the following:

- **8-20.2(9-29.15).OPT1.GR8** Rapid Flashing Beacons (RFB)
  (January 7, 2019)
  Use in projects where Rectangular Rapid Flashing Beacons (RRFBs) are required.

- **8-20.2(9-29.19).GR8** (Pedestrian Push Buttons)
  (Section 9-29.19 is supplemented with the following)
  Must use once preceding any of the following:

- **8-20.2(9-29.19).OPT1.FR8** Accessible Pedestrian Signal (APS) Pushbuttons
  (August 6, 2018)
  Use in projects requiring accessible pedestrian signal (APS) pushbuttons.
  
  For the first fill-in, enter “do” or “do not” in regards to including a Polara Configurator in the Contract if Polara equipment is selected.
  
  For the second fill-in, enter one of the following:
  
  “See Contract Plans for table.”
  
  or
  
  Copy and paste in the following table (insert additional lines as necessary):

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(2 fill-ins)
8-20.2(1).GR8 Equipment List and Drawings

8-20.2(1).INST1.GR8 (Section 8-20.2(1) is supplemented with the following)
Must use once preceding any of the following:

8-20.2(1).OPT1.GR8 (Light standards when H1 dimension is shown on the Plans)
(March 13, 1995)
Use in projects with illumination systems and the lighting standard H1 dimension is shown in the Plans and verification by the Engineer is not required prior to fabrication.

8-20.2(1).OPT2.GR8 (Light standards when H1 dimension is not shown on the Plans or must be verified prior to fabrication)
(March 13, 1995)
Use in projects with illumination systems and the lighting standard H1 dimension is not shown in the Plans or the dimension shown in the Plans must be verified by the Engineer prior to fabrication.

8-20.2(1).OPT3.GR8 (Traffic signal standards, strain pole standards or combination traffic signal/lighting standards)
(March 13, 1995)
Use in projects with traffic signal systems when standards are to be installed.

8-20.3.GR8 Construction Requirements

8-20.3(4).GR8 Foundations

8-20.3(4).INST1.GR8 (Section 8-20.3(4) is supplemented with the following)
Must use once preceding any of the following:

8-20.3(4).OPT1.FB8 (Shafts for Signal Standard Foundations)
(August 7, 2017)
Use in traffic signal projects with shaft foundations in weak soils, with the concurrence of the Materials Laboratory Geotechnical Branch. The fill-in specifies the location(s) of the shaft(s) requiring construction under these construction requirements. Include with 8-20.2.OPT1.GB8 and 8-20.5.OPT1.GB8. (1 fill-in).

8-20.3(8).GR8 Wiring

8-20.3(8).INST1.GR8 (Section 8-20.3(8) is supplemented with the following)
Must use once preceding any of the following:

8-20.3(8).OPT1.GR8 Field Wiring Chart
(March 13, 1995)
Use in projects with traffic signal systems.

8-20.3(14).GR8 Signal Systems

8-20.3(14).INST1.GR8 (Section 8-20.3(14) is supplemented with the following)
Must use once preceding any of the following:

8-20.3(14).OPT1.GR8 Uninterruptible Power Supply (UPS)
(January 2, 2018)
With Region Traffic Engineer approval use in projects
where Uninterruptible Power Supply (UPS) cabinets
are required. Include with 8-20.2(9-29.13).OPT1.GR8.

8-20.3(14)A.GR8 Signal Controllers

8-20.3(14)A.INST1.GR8 (Supplemental Instructions)
Must use once preceding any of the following:

8-20.3(14)A.OPT1.GR8 Testing
(August 2, 2010)
Use in projects with Contractor furnished signal controllers.

8-20.5.GR8 Payment

8-20.5.INST1.GR8 (Section 8-20.5 is supplemented with the following)
Must use once preceding any of the following:

8-20.5.OPT1.GB8 (Removing Traffic Signal Shaft Obstructions)
(April 6, 2015)
Use in traffic signal projects with shaft foundations in weak
soils, with the concurrence of the Materials Laboratory
Geotechnical Branch. Include with 8-20.2.OPT1.GB8 and
8-20.3(4).OPT1.FB8.

8-21.GR8 Permanent Signing

8-21.2.GR8 Materials

8-21.2(9-06.16).GR8 (Roadside Sign Structures)
(Section 9-06.16 is supplemented with the following)
Must use once preceding the following:

8-21.2(9-06.16).OPT1.GR8 (January 3, 2011)
Use in projects with perforated steel square sign posts.

8-21.2(9-28.11).GR8 (Hardware)
(Section 9-28.11 is supplemented with the following)
Must use once preceding any of the following:

8-21.2(9-28.11).OPT1.GB8 (Overhead Sign Structure Locknuts)
(August 3, 2015)
Use in all projects with overhead sign structures (sign bridge, cantilever sign structure, bridge mounted sign bracket).

**8-21.2(9-28.14).GR8**
(Sign Support Structures)
(Section 9-28.14 is supplemented with the following)
Must use once preceding any of the following:

**8-21.2(9-28.14).OPT1.GB8**
(Shafts for Sign Structure Foundations)
(August 7, 2017)
Use in sign structure projects with shaft foundations where the shaft diameter is 48 inches or greater, or where the shaft depth is 15 feet or greater, or where the Materials Laboratory Geotechnical Branch identifies the foundation soils as sufficiently weak to require use of this specification. Include with **8-21.3(9)F.OPT2.FB8** and **8-21.5.OPT1.GB8**.

**8-21.2(9-28.14).OPT6.GR8**
(Roadside Signing Material and Fabrication)
(January 3, 2011)
Use in all projects that have steel sign support structures

**8-21.2(9-28.14(2)).GR8**
(Steel Structures and Posts)
(Section 9-28.14(2) is supplemented with the following)
Must use once preceding any of the following:

**8-21.2(9-28.14(2)).OPT1.GB8**
(Monotube Sign Structures)
(January 2, 2018)
Use in projects with monotube sign bridges and/or monotube cantilever sign structures. Include with either **8-21.3(9)A.OPT1.GB8** or **8-21.3(9)A.OPT2.FB8**, and **8-21.4.OPT1.FB8**. Include with **8-21.2(9-28.14(2)).OPT2.GB8** when sign structures are constructed with round tube or pipe.

**8-21.2(9-28.14(2)).OPT2.GB8**
(Monotube Sign Structures of round tube or pipe)
(April 6, 2015)
Use in projects with monotube sign bridges and/or monotube cantilever sign structures, constructed with round tube or pipe. Include with **8-21.2(9-28.14(2)).OPT1.GB8**, either **8-21.3(9)A.OPT1.GB8** or **8-21.3(9)A.OPT2.FB8**, and **8-21.4.OPT1.FB8**.

**8-21.3.GR8**
Construction Requirements

**8-21.3(9).GR8**
Sign Structures

**8-21.3(9)A.GR8**
Fabrication of Sign Structures
8-21.3(9)A.INST1.GR8  (Section 8-21.3(9)A is supplemented with the following)
Must use once preceding any of the following:

8-21.3(9)A.OPT1.GB8  (Monotube Sign Structures)
(January 2, 2018)
Use in projects with monotube sign bridges and/or monotube cantilever sign structures painted with the conventional gray color (Federal Standard 595B No. 35247). Include with 8-21.2(9-28.14(2)).OPT1.GB8 and 8-21.4.OPT1.FB8. Include with 8-21.2(9-28.14(2)).OPT2.GB8 when sign structures are constructed with round tube or pipe.

8-21.3(9)A.OPT2.FB8  (Monotube Sign Structures)
(January 5, 2015)
Use in projects with monotube sign bridges and/or monotube cantilever sign structures painted a color other than the conventionally specified gray color. Include with 8-21.2(9-28.14(2)).OPT1.GB8 and 8-21.4.OPT1.FB8. Include with 8-21.2(9-28.14(2)).OPT2.GB8 when sign structures are constructed with round tube or pipe. The fill-in specifies the Federal Standard 595B color number, or the color name if no number.
(1 fill-in)

8-21.3(9)E.GR8  Bridge Mounted Sign Brackets

8-21.3(9)E.INST1.GR8  (Section 8-21.3(9)E is supplemented with the following)
Must use once preceding any of the following:

8-21.3(9)E.OPT1.FB8  (Bridge Mounted Sign Brackets)
(April 6, 2015)
Use in projects with bridge mounted sign brackets. The first and third fill-ins specify the sign bracket number(s). The second fill-in itemizes the structural carbon steel quantity for each sign bracket. The fourth fill-in specifies the quantity of hole drilling required for the resin bonded anchors for each sign bracket.
(4 fill-ins)

8-21.3(9)F.GR8  Foundations

8-21.3(9)F.INST1.GR8  (Section 8-21.3(9)F is supplemented with the following)
Must use once preceding any of the following:
8-21.3(9).OPT2.FB8  (Shafts for Sign Structure Foundations)  
(August 7, 2017)  
Use in sign structure projects with shaft foundations where the shaft diameter is 48 inches or greater, or where the shaft depth is 15 feet or greater, or where the Materials Laboratory Geotechnical Branch identifies the foundation soils as sufficiently weak to require use of this specification. The fill-in specifies the location(s) of the shaft(s) requiring construction under these construction requirements. Include with 8-21.2(9-28.14).OPT1.GB8 and 8-21.5.OPT1.GB8 (1 fill-in)

8-21.4.GR8  Measurement

8-21.4.INST1.GR8  (Section 8-21.4 is supplemented with the following)  
Must use once preceding any of the following:

8-21.4.OPT1.FB8  (Monotube Sign Structures)  
(April 6, 2015)  
Use in projects with monotube sign bridges and/or monotube cantilever sign structures. The first fill in specifies the type of sign structure work included (sign bridge or cantilever sign structure or both). The second fill-in itemizes the quantities and work involved with each sign structure. Include with 8-21.2(9-28.14).OPT1.GB8, either 8-21.3(9).A.OPT1.GB8 or 8-21.3(9).A.OPT2.FB8. Include with 8-21.2(9-28.14(2)).OPT2.GB8 when sign structures are constructed with round tube or pipe.  
(2 fill-ins)

8-21.5.GR8  Payment

8-21.5.INST1.GR8  (Section 8-21.5 is supplemented with the following)  
Must use once preceding any of the following:

8-21.5.OPT1.GB8  (Shafts for Sign Structure Foundation)  
(BSP August 4, 2008)  
Use in sign structure projects with shaft foundations where the shaft diameter is 48 inches or greater, or where the shaft depth is 15 feet or greater, or where the Materials Laboratory Geotechnical Branch identifies the foundation soils as sufficiently weak to require use of this specification. Include with 8-21.2(9-28.14).OPT1.GB8 and 8-21.3(9).F.OPT2.FB8.

8-24.GR8  Rock and Gravity Block Wall, and Gabion Cribbing

8-24.2.GR8  Materials
8-24.2.INST1.GR8  (Section 8-24.2 is supplemented with the following)
Must use once preceding any of the following:

8-24.2.OPT1.GR8  (Gravity Block Wall)
(January 7, 2002)
Use in projects constructing gravity block walls. Include with 8-24.3(2).OPT1.GR8

8-24.3.GR8  Construction Requirements

8-24.3(2).GR8  Gravity Block Wall

8-24.3(2).INST1.GR8  (Section 8-24.3(2) is supplemented with the following)
Must use once preceding any of the following:

8-24.3(2).OPT1.GR8  (Gravity Block Wall)
(January 7, 2002)
Use in projects constructing gravity block walls. Include with 8-24.2.OPT1.GR8.

8-25.GR8  Glare Screen

8-25.1.GR8  Description

8-25.1.INST1.GR8  (Section 8-25.1 is supplemented with the following)
Must use once preceding any of the following:

8-25.1.OPT1.GR8  (April 1, 2002)
Use in projects when the work zone analysis determines
the need for temporary barrier screening.
8-25.2.OPT1.GR8, 8-25.3.OPT1.GR8, 8-25.4.OPT1.GR8, 8-25.5.OPT1.GR8.

8-25.2.GR8  Materials

8-25.2.INST1.GR8  (Section 8-25.2 is supplemented with the following)
Must use once preceding any of the following:

8-25.2.OPT1.GR8  (April 1, 2002)
Use in projects when the work zone analysis determines
the need for temporary barrier screening.
Must use with 8-25.1.OPT1.GR8, 8-25.3.OPT1.GR8, 8-25.4.OPT1.GR8, and 8-25.5.OPT1.GR8.

8-25.3.GR8  Construction Requirements

8-25.3.INST1.GR8  (Section 8-25.3 is supplemented with the following)
Must use once preceding any of the following:

8-25.3.OPT1.GR8  (April 1, 2002)
Use in projects when the work zone analysis determines
the need for temporary barrier screening.
8-25.4.GR8 Measurement

8-25.4.INST1.GR8 (Section 8-25 is supplemented with the following)
Must use once preceding any of the following:

8-25.4.OPT1.GR8 (April 1, 2002)
Use in projects when the work zone analysis determines
the need for temporary barrier screening.
8-25.1.OPT1.GR8, 8-25.2.OPT1.GR8, 8-25.3.OPT1.GR8,
and 8-25.5.OPT1.GR8.

8-25.5.GR8 Payment

8-25.5.INST1.GR8 (Section 8-25 is supplemented with the following)
Must use once preceding any of the following:

8-25.5.OPT1.GR8 (April 1, 2002)
Use in projects when the work zone analysis determines
the need for temporary barrier screening.
8-25.1.OPT1.GR8, 8-25.2.OPT1.GR8, 8-25.3.OPT1.GR8,
and 8-25.4.OPT1.GR8.

8-29.GR8 Wire Mesh Slope Protection

8-29.1.GR8 Description

8-29.1.INST1.GR8 (Section 8-29.1 is supplemented with the following)
Must use once preceding any of the following:

8-29.1.OPT1.GR8 (Cable Net Slope Protection)
(April 5, 2010)
Use in projects with cable net slope protection. Include
with 8-29.2.OPT1.GR8, 8-29.3.OPT1.GR8, 8-29.4.OPT1.GR8
and 8-29.5.OPT1.GR8.

8-29.2.GR8 Materials

8-29.2.INST1.GR8 (Section 8-29.2 is supplemented with the following)
Must use once preceding any of the following:

8-29.2.OPT1.GR8 (Cable Net Slope Protection Materials)
(January 2, 2018)
Use in projects with cable net slope protection. Include
with 8-29.1.OPT1.GR8, 8-29.3.OPT1.GR8, 8-29.4.OPT1.GR8
and 8-29.5.OPT1.GR8.

8-29.3.GR8 Construction Requirements

8-29.3.INST1.GR8 (Section 8-29.3 is supplemented with the following)
Must use once preceding any of the following:
8-29.3.OPT1.GR8  (Cable Net Slope Protection Construction Requirements)  
(January 3, 2011)  
Use in projects with cable net slope protection. Include with 8-29.1.OPT1.GR8, 8-29.2.OPT1.GR8, 8-29.4.OPT1.GR8 and 8-29.5.OPT1.GR8.

8-29.4.GR8  Measurement  
8-29.4.INST1.GR8  (Section 8-29.4 is supplemented with the following)  
Must use once preceding any of the following:

8-29.4.OPT1.GR8  (Cable Net Slope Protection)  
(April 5, 2010)  
Use in projects with cable net slope protection. Include with 8-29.1.OPT1.GR8, 8-29.2.OPT1.GR8, 8-29.3.OPT1.GR8, and 8-29.5.OPT1.GR8.

8-29.5.GR8  Payment  
8-29.5.INST1.GR8  (Section 8-29.5 is supplemented with the following)  
Must use once preceding any of the following:

8-29.5.OPT1.GR8  (Cable Net Slope Protection)  
(January 3, 2011)  
Use in projects with cable net slope protection. Include with 8-29.1.OPT1.GR8, 8-29.2.OPT1.GR8, 8-29.3.OPT1.GR8, and 8-29.4.OPT1.GR8.

8-SA1.GR8  Field Office Building  
(August 7, 2017)  
Use in projects when a field office building is required.

8-SA2.GR8  Bollards  
(January 2, 2018)  
Use in projects requiring bollards.  
Contact Headquarters Design Standard Plans Office for plan details on Type 3 Bollards.

8-SA3.GR8  (Environmental Compliance)  
(August 6, 2018)  
For use on projects where the project has a high risk of soil erosion due to soil type, slope gradient and work in or has proximity to waters of the State (Temporary Erosion and Sediment Control Manual (TESC) defines projects susceptible for high risk soil erosion). Also for use on projects where there is extensive monitoring of environmental permit compliance.  
The Region Construction Engineer and Region Environmental Office should be consulted for use as the provision introduces an Environmental Compliance Lead person that incorporates, expands and replaces the duties of the ESC Lead person.