Project Specific excerpts from FP-24 (not all inclusive)

Table of Contents

156 - Public Traffic 2
156.01 Description……..2
156.02 Material……..……..…2
156.03 Qualifications……..……..……..…2
156.05 Maintaining Roadways During Work……..…2
156.06 Maintaining Roadways During Non-Work Periods……..……3
156.07 Limitations on Construction Operations……..……3
301.05 Compacting……..……4
303 Road Reconditioning……..……..4
303.01 Description……..……..…4
303.02 Material……..……..…4
303.03 Ditch Reconditioning……..……4
303.04 Shoulder Reconditioning……...……..4
303.05 Roadbed Reconditioning……..……..……4
303.06 Aggregate Surface Reconditioning……..…..……..4
311 Stabilized Aggregate Surface Course……..……..……5
311.01 Description……..……..…5
311.02 Material……..……..…5
311.03 Proportioning……..……...……5
311.04 General……..……..……..5
311.05 Mixing and Placing……..……5
311.06 Compacting and Finishing……..……..6
311.07 Acceptance……..……6
635 Temporary Traffic Control ……...……..7
635.01 Description……..……7
635.02 Material……..……..7
635.03 Qualifications……7
635.04 General……..……..7
635.06 Cones and Tubular Markers……..……8
635.07 Construction Signs……8
635.08 Drums……8
635.09 Flaggers……8
635.10 Pilot Cars……..8
635.15 Warning Lights……..8
703.05 Subbase, Base, and Surface Course Aggregate……9
703.06 Crushed Aggregate……...9

Section 156. — PUBLIC TRAFFIC

156.01 Description. This work consists of controlling and protecting public traffic adjacent to and within the project. See FAR Clause 52.236-13 Accident Prevention.

156.02 Material. Conform to Section 635

Construction Requirements

156.03 Qualifications. Provide a traffic control supervisor certified by a state department of transportation, ATSSA, or other acceptable certification programs.

156.04 Accommodating Traffic During Work. Accommodate traffic according to the MUTCD, contract traffic control plan, Section 635, and this Section. An alternate traffic control plan may be submitted for approval according to Subsection 104.03. Submit alternate traffic control plans at least 30 days before intended use.

Perform work in a manner that ensures the safety and convenience of the public and protects the residents and property adjacent to the project. Accommodate public traffic on roads adjacent to and within the project until the project is accepted according to Subsection 106.07(b).

156.05 Maintaining Roadways During Work. Maintain roadways as follows:

(a) Construct and remove diversion roads and bridges as required by the traffic control plan;

(b) Maintain intersections with trails, roads, streets, businesses, parking lots, residences, garages, farms, and other features;

(c) Snow removal to facilitate the work is the Contractor's responsibility. Snow removal to provide public access is the responsibility of the maintaining agency and will be performed at the maintaining agency's discretion. Allow the maintaining agency access to perform snow removal;

(d) Maintain a dust-free traveled way such that visibility and air quality are not affected and a hazardous condition is not created;

(e) Remove accumulations of soil and other material from traveled way;

(f) Do not allow water to pond on the traveled way; and

(g) Maintain the roadway, detours, and diversions in a safe and acceptable condition.

If corrective action is requested and the corrective action is not taken immediately, the condition may be corrected and the cost of the corrective action deducted from monies due the Contractor.

156.06 Maintaining Roadways During Non-Work Periods. Maintain roadways and traffic control for public traffic during periods when work is not in progress. Snow removal to provide public access is the responsibility of the maintaining agency.

156.07 Limitations on Construction Operations. When the roadway is open to public traffic, restrict operations as follows:

(a) Operate equipment in the direction of traffic, where practical;

(b) For shoulder drop-offs of 3 inches (75 millimeters) or less, provide "*Low Shoulder*" warning signs. For shoulder drop-offs in excess of 3 inches (75 millimeters), provide a 1V:3H fillet with "*Shoulder Drop-Off*" warning signs. Complete the construction of shoulders adjacent to traffic lanes to the same elevation within 14 days;

(c) Provide minimum lane widths of 10 feet (3 meters). Use barricades, drums, or other acceptable devices to delineate traffic lanes through areas where the edge of pavement or intended path has been obliterated by construction operations;

(d) Locate staging areas at least 30 feet (9 meters) from the traveled way or behind acceptable traffic barriers. Obtain approval of the location and access to staging areas. Store unused traffic control devices at staging areas;

(e) Park equipment at least 30 feet (9 meters) from the traveled way or behind acceptable traffic barriers;

(f) Provide parking areas for employee's personal vehicles in approved areas;

(g) Provide uninterrupted two-way communications between flaggers and also between flaggers and pilot cars unless flaggers are able to see each other and communicate. Use communications devices approved by the CO. Citizen band radios are unacceptable. Make communication devices available to the CO as necessary;

(h) Where switching traffic to a completed lane, provide adequate personnel and equipment to set or relocate traffic control devices;

(i) Limit construction-caused delays to public traffic to a maximum of 30 minutes per passage through the project; and

(j) Maintain existing guardrails, barriers, and bridge railings until removal is necessary for construction. Use a temporary barrier or appropriate channelizing devices while the guardrails and bridge rails are absent. Install permanent barriers, guardrails, and bridge rails as soon as possible to minimize risk to the public.

301.05 Compacting. Determine the maximum density of the mixture according to AASHTO T 180, Method D.

Compact each layer full width. Roll from the sides to the center, parallel to the centerline of the road. Along curbs, headers, walls, and places not accessible to the roller, compact the material with approved tampers or compactors.

Compact each layer to at least 95.0 percent of maximum density. Determine the in-place density and moisture content according to AASHTO T 310 or other approved test procedures.

Section 303. — ROAD RECONDITIONING

303.01 Description. This work consists of reconditioning ditches, shoulders, roadbeds, aggregate surfaces, or the entire road.

303.02 Material. Water shall meet requirements of Section 725.01(c)

Construction Requirements

303.03 Ditch Reconditioning. Remove slide material, sediment, vegetation, and other debris from existing ditches and culvert inlets/outlets. Reshape ditches and culvert inlets/outlets to achieve positive drainage and uniform ditch width, depth, and grade. Dispose of waste at designated sites or according to Subsection 204.14.

303.04 Shoulder Reconditioning. Remove slide material, vegetation, and other debris from existing shoulders including shoulders in parking areas, turnouts, and other widened areas. Repair soft and unstable areas according to Subsection 204.07. Reshape shoulders to the widths and slopes shown in the plans. Dispose of waste at designated sites or according to Subsection 204.14.

303.05 Roadbed Reconditioning. Remove organic, deleterious, and material larger than 6 inches (150 millimeters) from the top 6 inches (150 millimeters) of subgrade. Dispose of waste according to Subsection 204.14. Repair soft and unstable areas according to Subsection 204.07. Scarify surface to a 6-inch (150-millimeter) depth. Remove irregularities and shape to a uniform surface. Finish earth surfaces to within 0.05 feet (15 millimeters) and rock surfaces to within 0.10 feet (30 millimeters) of required line, grade, and cross-section. Compact according to Subsection 204.11.

303.06 Aggregate Surface Reconditioning. Repair soft and unstable areas to the full aggregate surface depth and according to Subsection 204.07. Scarify the thickness of aggregate surfacing material or to 6 inches (150 millimeters), whichever is less. Remove irregularities and shape to a uniform surface. Finish and compact the surface according to Subsection 302.05.

Project Specific excerpts from FP-24 (not all inclusive)

Section 311. — STABILIZED AGGREGATE SURFACE COURSE

311.01 Description. This work consists of constructing a stabilized aggregate surface course with either imported or in-place aggregate.

Aggregate stabilization is designated as imported aggregate course or in-place aggregate course.

Aggregate grading is designated according to Exhibit 5 – Aggregates for Earthwork

311.02 Material. Conform to the following Subsections:

Surface course aggregate (imported)	Exhibit 5 Gradation G
Water	725.01(c)

Construction Requirements

311.03 Proportioning. Determine the proportioning quantities of aggregate, mag chloride, lignon, and water required. Sample the imported aggregate or aggregate course before beginning stabilization operations. Determine the maximum density and optimum moisture content according AASHTO T 180, Method D. The target for stabilizing agent shall be 1 gallon per square yard of compacted material (4” thickness). Set target water content at the time of mixing between 2 percent below optimum and optimum moisture content.

311.04 General. After a representative quantity of imported aggregate is produced, submit proposed target values for the appropriate sieve sizes to the CO. Set target values for the aggregate within the gradation ranges shown in Exhibit 5 Gradation G. List the percent passing for sieve sizes shown in Exhibit 5 Gradation G.

Store stabilizing agent in closed, weatherproof containers. Begin application or mixing operations only when the ambient air temperature is 40 °F (4 °C) or above and is not expected to fall below 40 °F (4 °C) within 48 hours. Construct stabilized aggregate course when the underlying layer is dry and unfrozen.

(a) Imported aggregate course. Prepare the underlying surface according to Subsection 303.05.

(b) In-place aggregate course. Prepare the surface according to Subsection 303.06.

311.05 Mixing and Placing.

(a) In-place mixing. When imported aggregates are used, spread aggregate on the prepared surface in a uniform layer to the specified width.

For an imported or in-place aggregate course; maintain the quantities of calcium chloride and water content to within the following tolerances:

Water	±0.5 percent by total dry mass

Mix stabilizing agent uniformly through the prepared aggregate surface. Use distributor or rotary mixing equipment capable of metering and applying stabilizing agent and water uniformly across the full width of the surface to be mixed. For distribution equipment, verify the application rate by performing weight yield test panels for the first load of each distributor truck. For rotary mixing equipment, verify the application rate by calculating yields.

Mix the stabilizing agent into the aggregate course with rotary mixing equipment capable of uniformly mixing the material full depth in one pass.

Shape the aggregate course to the required cross-section after mixing is complete. Route hauling equipment uniformly over the full width of the aggregate surface to minimize rutting or uneven compaction.

311.06 Compacting and Finishing. Compact the mixture according to Subsection 301.05.

Finish the aggregate course according to Subsection 301.06 and produce a surface free of loose material.

311.07 Acceptance. See Table 311-1 for sampling, testing, and acceptance requirements; including the acceptance quality characteristic category.

stabilizing agent will be evaluated under Subsections 106.02 and 106.03.

Surface course aggregate (imported) will be evaluated for gradation, fractured faces, liquid limit, and plasticity index under Subsection 106.05. Other aggregate quality properties will be evaluated under Subsections 106.02 and 106.04.

(a) Aggregate gradation. The upper and lower specification limits are equal to the calculated mean of all test results plus or minus the allowable deviations shown in Table 703-3, except as follows:

(1) If the calculated mean value for a tested sieve exceeds the maximum gradation value shown in Exhibit 5, the upper specification is equal to the maximum gradation value plus the allowable deviation, and the lower specification is equal to the maximum gradation value minus the allowable deviation.

(2) If the calculated mean value for a tested sieve is less than the minimum gradation value shown in Exhibit 5, the upper specification is equal to the minimum gradation value plus the allowable deviation and the lower specification is equal to the minimum gradation value minus the allowable deviation.

(b) Fractured faces. When aggregate is produced from a gravel source, use the specification limit shown in Exhibit 5

(c) Liquid limit index. The specification limit is shown in Exhibit 5

(d) Plasticity liquid limit. The specification limit is shown in Exhibit 5

Construction of aggregate stabilization courses will be evaluated under Subsections 106.02 and 106.04.

Reconditioning of the aggregate course for in-place aggregate will be evaluated under Section 303.

Preparation of the surface on which the treated imported aggregate course is placed will be evaluated under Section 303.

Section 635. — TEMPORARY TRAFFIC CONTROL

635.01 Description This work consists of furnishing, installing, maintaining, relocating, and removing temporary traffic control devices and services as ordered for the control and protection of public traffic through the project.

Advance warning arrow board, barricade, and warning light types are designated in the MUTCD.

635.02 Material Conform to the MUTCD

Construction Requirements

635.03 Qualifications. Provide flaggers certified by ATSSA, the National Safety Council, a state department of transportation, or other acceptable organization. Use pilot car operators conforming to the qualifications of a flagger.

635.04 General. Furnish, install, and maintain temporary traffic control devices adjacent to and within the project as required by the MUTCD, traffic control plan, and Section 156. Install and maintain traffic control devices as follows:

(a) Furnish and install traffic control devices before the start of construction operations;
(b) Install only those traffic control devices needed for each stage or phase;
(c) Relocate temporary traffic control devices as necessary;
(d) Remove devices that no longer apply to the existing conditions;
(e) Immediately replace devices that are lost, stolen, destroyed, or inoperative;
(f) Keep temporary traffic control devices clean;
(g) Furnish and maintain traffic control devices that meet the "*acceptable*" standard described in ATSSA, *Quality Standards for Work Zone Traffic Control Devices*. Amend the ATSSA standards as follows:
(1) Repair or remove and replace "*marginal*" devices within 48 hours; and

(2) Repair or remove and replace "*unacceptable*" devices immediately;
(h) Remove temporary traffic control devices upon contract completion or when approved; and
(i) Furnish crashworthy temporary traffic control devices.

635.06 Cones and Tubular Markers. Use cones or tubular markers of the height specified or according to the MUTCD. Use Type III or Type VI retroreflective sheeting.

635.07 Construction Signs. Use Type III, IV, VIII, IX, or XI prismatic retroreflective sheeting. Use fluorescent sheeting for orange signs. For roll-up signs, use florescent Type VI retroreflective sheeting.

Install posts according to MUTCD standards. Portable sign supports may be used instead of sign posts when approved by the CO.

Remove or completely cover unnecessary signs. Use metal, plywood, or other acceptable material to cover signs. Do not use adhesives glues, tapes, or mechanical fasteners that mar the face of the panel of the sign to be covered.

635.08 Drums. Use plastic drums that are at least 36 inches (900 millimeters) high and at least 18 inches (450 millimeters) in diameter. Use Type III or Type VI retroreflective sheeting.

635.09 Flaggers. Use flaggers certified according to Subsection 635.03. Use Type III, IV, VIII, IX, or XI retroreflective sheeting on flagger paddles. Do not use flags.

635.10 Pilot Cars. Use pilot car operators certified according to Subsection 635.03. Mount a "*PILOT CAR FOLLOW ME*" sign on the rear and a high-intensity, rotating, flashing, oscillating, or strobe light on the roof of the pilot car.

635.15 Warning Lights. Use warning lights of the types shown in the plans or according to the MUTCD. Install warning lights with a minimum mounting height of 30 inches (750 millimeter) to the bottom of the lens. Secure lights to the top of the traffic control device they are supplementing. Use batteries recommended by the light manufacturer. Mount large batteries below windshield height and preferably on the ground. Replace batteries when they no longer provide satisfactory performance.

Use Type C steady-burn warning lights for delineation on barricades or drums. Use Type A low-intensity flashing warning lights on the first 2 barricades or drums in the merging or shifting taper series. Use Type B high-intensity flashing warning lights on the first two advance warning signs. Type A and Type C warning lights are intended to warn road users during nighttime hours, while Type B warning lights are intended to warn road users during both daylight and nighttime hours.

Section 725. — MISCELLANEOUS MATERIAL

725.01 Water. Water for earthwork, pavement courses, dust control, and incidental construction shall be free of substances detrimental to the work.

725.05 Mineral Filler. Conform to AASHTO M 17.