Table of Contents

Preface 3
101 - Terms¸ Format¸ and Definitions 4
101.01 Meaning of Terms. 4
101.03 Abbreviations. 4
101.04 Definitions. 5
102 - Bid¸ Award¸ and Execution of Contract 7
Delete Section 102. 7
103 - Scope of Work 8
Delete Subsections 103.02, 103.03, 103.04, 103.05. 8
103.01 Intent of Contract. 8
104 - Control of Work 9
Delete Subsections 104.01, 104.02, 104.04. 9
104.06 Use of Roads by Contractor. 9
105 - Control of Material 10
105.05 Use of Material Found in the Work. 10
106 - Acceptance of Work 11
106.01 Conformity with Contract Requirements. 11
106.02 Visual Inspection. 12
107 - Legal Relations and Responsibility to the Public 13
Delete Subsection 107.05. 13
108 - Prosecution and Progress 14
Delete Section 108. 14
109 - Measurement and Payment 15
109.01 Measurement of Work. 15
109.02 Measurement Terms and Definitions. 16
Delete Subsections 109.06, 109.07, 109.08, 109.09. 16
153 – Contractor Quality Control 17
153.04 (2) (a) Submittal Log 17
155 - Schedules for Construction Contracts 18
Delete Section 155. 18
201 - Clearing and Grubbing 19
204 - Excavation and Embankment 20
Section 204.06 — Roadway Excavation 20
Section 204.11 – Compaction 20

209 - Structure Excavation and Backfill 27
209.09 Backfill. 27
209.10 Compacting. 27
212 - Linear Grading 31
301 - Untreated Aggregate Courses 32
301.03 General. 32
301.05 Compacting. 32
301.09 Measurement. 33
303 - Road Reconditioning 38
303.01 Work. 38
303.03 Drainage. 38
303.05 Roadbed Reconditioning. 38
303.06 Aggregate Surface Reconditioning. 38
303.07 Roadway Reconditioning. 39
Section 703. — AGGREGATE 40
703.05 Subbase, Base, and Surface Course Aggregate. 40

Preface

<u>Delete all but the first paragraph and add the following:</u>

The Bureau of Land Management, US Department of Interior has adopted FP-14 for construction of Roads.

101 - Terms¸ Format¸ and Definitions

101.01_National_9_15_2016

Add the following paragraph to Subsection 101.01:

101.01 Meaning of Terms.

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.03_National_4_7_2015

Add the following to Subsection 101.03:

101.03 Abbreviations.

(a) Acronyms.

DIAR — Department of the Interior Acquisition Regulations

AFPA — American Forest and Paper Association

MSHA — Mine Safety and Health Administration

NESC — National Electrical Safety Code

WCLIB — West Coast Lumber Inspection Bureau

(f) Miscellaneous unit abbreviations.

MP	—	milepost	location
ppm	—	parts per million	volume
STA		station	location

101.04_National_9_5_2018

Make the following changes to Subsection 101.04:

101.04 Definitions.

Delete these definitions and replace the following:

Bid Schedule — The Schedule of Items.

Bridge — A structure, including supports, erected over a depression or an obstruction such as water along a road, a trail, or a railway and having a deck for carrying traffic or other loads.

Contractor — The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the "Purchaser".

Culvert — Any structure with a bottom, regardless of fill depth, depth of invert burial, or presence of horizontal driving surface, or any bottomless (natural channel) structure with footings that will not have wheel loads in direct contact with the top of the structure.

Drawings — (Public Works Contracts) Design sheets or fabrication, erection, or construction details submitted to the CO by the Contractor according to FAR Clause 52.236-21 Specifications and Drawings for Construction. Also refers to submissions and submittals.

Notice to Proceed — (Public Works Contracts) Written notice to the Contractor to begin the contract work.

Right-of-Way — A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Solicitation—(Public Works Contracts) The complete assembly of documents (whether attached or incorporated by reference) furnished to prospective bidders.

Add the following definitions:

Adjustment in Contract Price — "Equitable adjustment," as used in the Federal Acquisition Regulations, or "construction cost adjustment," as used in the Timber Sale Contract, as applicable.

Change — "Change" means "change order" as used in the Federal Acquisition Regulations, or "design change" as used in the Timber Sale Contract.

Bureau of Land Management — The United States of America, acting through the Bureau of Land Management, U.S. Department of Interior.

Neat Line — A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road — Temporary construction access built along the route of the project.

Purchaser — The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse — A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

Road Order — An order affecting and controlling traffic on roads under Bureau of Land Management jurisdiction. Road Orders are issued by a designated official under the authorities of 43 CFR 8364.1.

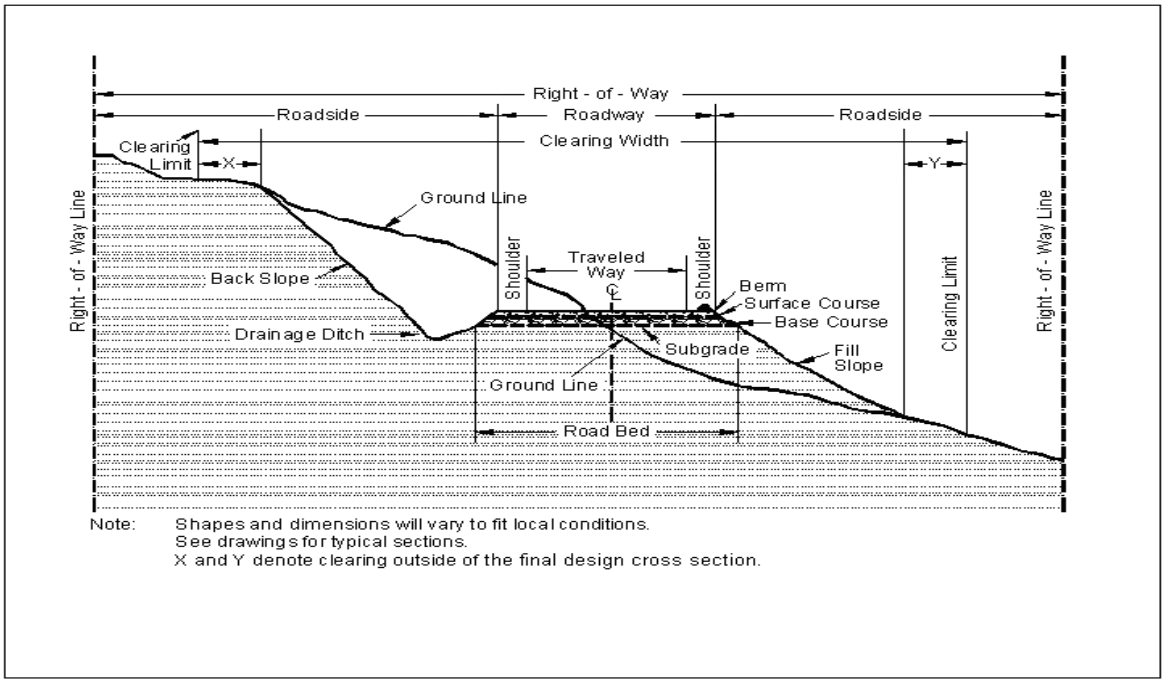
Shop Drawings — (Timber and Stewardship Contracts) Referred to as "Drawings" in FP-14, include drawings, diagrams, layouts, schematics, descriptive literature, illustrations, lists or tables, performance and test data, and similar materials furnished by Purchaser to explain in detail specific portions of the work required by the contract.

Utilization Standards —

The minimum size and percent soundness of trees described in Public Works contract specifications or Timber Sale and IRTC contract provisions to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



102 - Bid¸ Award¸ and Execution of Contract

102.00_National_9_15_2016

Delete Section 102 in its entirety.

Delete Section 102.

103 - Scope of Work

103.00_National_9_15_2016

Delete all of Section 103 except Subsection 103.01 Intent of Contract.

Delete Subsections 103.02, 103.03, 103.04, 103.05.

Add the following to sub section 103.01 Intent of Contract

103.01 Intent of Contract.

The work to be done under this contract includes all labor, supervision, transportation, equipment, tools, supplies, and materials necessary for maintenance/improvements of road to specified dimensions and furnishing, loading, hauling, placing, shaping, watering, compaction, and testing of surfacing aggregate material to follow FP 14 Table 703-2 Gradation B.

Road shall be graded and compacted to the typical sections template (Section 303 Figure 1 Typical Cross Section). Material must be crushed material with a gradation of B (Subbase) according to Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP 14, Table 703-2. Complete approximately 6.7 miles of reshaping and grading of naturally surfaced existing road and surfacing the existing road with material provided by the contractor and approved by the Contracting Officer. Roadway width shall be 12' wide at top of finished subbase and surface course shall be placed with a compacted thickness of at least 6 inches as shown in Figure 1, Typical Cross Section, of Section 303. Prior to placement of road surfacing material, in accordance with the requirements of Section 303, the road prism and ditches shall be reconditioned, and the ditches shall be cleaned. Surfacing shall take place in the quantities shown on the Bid Schedule, at the location shown on the Project Map. Work includes mobilization, traffic signing, site preparation, watering, grading, materials testing, compaction and finish work. There has been one mobilization allocated for this project. The contractor shall be responsible for all costs associated with additional mobilizations. Any repairs or maintenance needed due to damage that occurs to the roads while the contractor is performing the requirements of this contract shall be repaired by the contractor at his own expense.

Project Location

See attached map. Head east from Declo, Idaho on HWY 81 for 6.91 miles. Then take a right onto North Cotterel Road. The project will start immediately after the cattle guard located at Lat. 42.539752, Long. -113.497117. The project is 6.7 miles in length, ending Lat. 42.461952, Long. -113.474897.

Performance Period

60 Calendar Days from the Notice to Proceed (NTP).

Local conditions (weather conditions, road conditions, etc.) that may affect work are included in the performance period. Contractor shall coordinate work hours with the Contracting Officer's Representative (COR) / Contracting Officer 48 hours in advance of beginning work.

104 - Control of Work

104.00_National_9_15_2016

Delete Subsections 104.01, 104.02, and 104.04.

Delete Subsections 104.01, 104.02, 104.04.

104.06_National_9_16_2016

Add the following to Subsection 104.06:

104.06 Use of Roads by Contractor.

The Contractor is authorized to use roads under the jurisdiction of the Bureau of Land Management for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the in the contract, when such use will not damage the roads or national land resources, and when traffic can be accommodated safely.

Designated turnaround areas are indicated on the turnaround map in the Drawings. All turnarounds must be confined to these specified locations. Each turnaround area is limited to a maximum size of 190 feet in width (Perpendicular to the road) and 100 feet in length (parallel to the road).

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands more than the quantities required for performance of this contract are the property of the Government. Place excess material safely at government-approved location, at no additional cost to government.

Delete Subsection 106.01 and replace with the following:

106.01 Conformity with Contract Requirements.

Follow the requirements of FAR Clause 52.246-12 Inspection of Construction.

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown in the drawings or specified in the contract.

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is stricter.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove, repair, or replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted. Removing, repairing, or replacing work; providing temporary traffic control; and any other related work to accomplish conformity will be at no cost to the Government.

(a) Disputing Government test results. If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:

1. Sampling method.
2. Number of samples.
3. Sample transport.
4. Test procedures.

5. Testing laboratories.
6. Reporting.
7. Estimated time and costs; and
8. Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third-party laboratory. Use a third-party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) Alternatives to removing and replacing non-conforming work. As an alternative to removal and replacement, the Contractor may submit a written request to:

1. Have the work accepted at a reduced price; or
2. Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.02_National_10_23_2016

Delete Subsection 106.02 and replace with the following:

106.02 Visual Inspection.

Acceptance is based on visual inspection of the work for compliance with the specific contract requirements. Use prevailing industry standards in the absence of specific contract requirements or tolerances.

Delete Subsection 107.05.

Delete Subsection 107.05.

108 - Prosecution and Progress

108.00_National_9_16_2016

Delete Section 108 in its entirety.

Delete Section 108.

109.01_National_2_22_2019

Delete the third paragraph and Table 109-1 of Subsection 109.01 and replace with the following:

109.01 Measurement of Work.

Take measurements as described in Subsection 109.02 unless otherwise modified by the Measurement Subsection of the section controlling the work being performed. Table 109-1 indicates the accuracy required for quantities of the various pay units used in the Schedule of Items. Use this guide to determine the decimal placement in the final payment.

Table 109-1

Decimal Accuracy of Quantities for Final Payment

Pay Item	Level of Precision
Linear Foot	1
Exception--Timber, Steel, and concrete Piles	0.1
Station	0.1
Mile	0.01
Square Foot	0.1
Square Yard	0.1
Each	1
Acre	0.01
Gallon	1
M-Gals.	0.1
Cubic Yard	1
Exception--Structure Excavation; Sheathing Materials, Bedding, Bed Course, and Backfill Materials; Gabions;	0.1
Exception--Concrete; Masonry	0.01
Pound	1
Ton	0.1
Exception--Calcium Chloride. Sodium Chloride; Hydrated Lime. Bituminous Materials; Pavements. Bed Course Materials	0.01
Hour	0.1
MFBM	0.01
Station Yard	1
Cubic Yard Mile	1
Ton Mile	1

109.02_National_9_16_2016

Add the following sentence to Subsection 109.02(b):

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

109.00_National_9_16_2016

Delete Subsections 109.06, 109.07, 109.08, and 109.09:

Delete Subsections 109.06, 109.07, 109.08, 109.09.

Add the following Subsection:

153.04 (2) (a) Submittal Log

At a minimum the contractor shall provide project submittals as shown on the Submittal Log below. Requirements are listed in the Standard Specifications, Supplemental Specifications, and Plans.

Submittal Log					
Log No.	**Indirect payment to Pay Item(s)**	**Description of Submittal**	**Type of Submittal**	**Requirement found in Specification No.**	**Additional Specification References**
1	15101	FAR Clause 52.236-15 Schedules for Construction Contracts	Schedule		
2	30101	Delivery Tickets	Delivery Records	301.09	109.04
3	30101	Aggregate Sampling, Testing and Acceptance Requirements, Subbase, Grading B.	Material Test Reports	301.08, Table 301-1	703.05, Table 703-2

155 - Schedules for Construction Contracts

155.00_National_9_14_2016

Delete Section 155 in its entirety.

Delete Section 155.

201 - Clearing and Grubbing

201.03_Regional_3_9_2020

Delete the last sentence in the second paragraph of Subsection 201.03.

Add the following to Subsection 204.06:

Section 204.06 — Roadway Excavation

c) Pioneer Roads. Conduct excavation and placement operations so material to be treated under Section 201 will not be incorporated into the roadway unless specified in the slash treatment method. Maintain drainage during pioneering operations.

Remove snow and ice in advance of the work and deposit beyond the roadway limits in a manner that will not waste material or generate sediment. Do not incorporate snow and ice into embankments. Place snow or ice in a manner to prevent resource damage.

(d) Drainage Feature. Drainage feature includes construction of all ditches, minor channel changes, drainage dips, catch basins, surface water deflectors, and other minor drainage structures. Compact the material according to Subsection 204.11. Excavate on a uniform grade between control points.

Do not disturb material and vegetation outside the construction limits. Retrieve material deposited outside the construction limits. Dispose of unsuitable or excess excavation material according to Subsection 204.14. Replace shortage of suitable material caused by premature disposal of roadway excavation.

Shape to drain and compact the work area to a uniform cross-section at the end of each day's operations.

Delete the subsection 204.11 and replace the following:

Section 204.11 – Compaction

204.11 Compaction. Compact the embankment using one of the following methods as specified.

(a) Placement Method 1. Use AASHTO T 27 to determine the quantity of material retained on a No. 4 (4.75-millimeter) sieve. Compact as follows:

(1) More than 80 percent retained on a No. 4 (4.75-millimeter) sieve. Adjust the moisture content to a level suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Use compression-type rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Compact each layer of material full width with one of the following and until there is no visible evidence of further consolidation:

(a) Four roller passes of a vibratory roller having a minimum dynamic force of 40,000 pounds (180 kilonewtons) impact per vibration and a minimum frequency of 1000 vibrations per minute;

(b) Eight roller passes of a 20-ton (20-metric ton) compression-type roller; or

(c) Eight roller passes of a vibratory roller having a minimum dynamic force of 30,000 pounds (130 kilonewtons) impact per vibration and a minimum frequency of 1000 vibrations per minute.

Increase the compactive effort for layers deeper than 12 inches (300 millimeters) as follows:

- For each additional 6 inches (150 millimeters) or fraction thereof, increase the number of roller passes in Subsection 204.11(a)(1)(a), by four passes; or

- For each additional 6 inches (150 millimeters) or fraction thereof, increase the number of roller passes in Subsection 204.11(a)(1)(b) and (c), by eight passes.

(2) 50 to 80 percent retained on a No. 4 (4.75-millimeter) sieve. Classify the material according to AASHTO M 145. Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content. Use AASHTO T 99 to determine the optimum moisture content of the portion of the material passing a No. 4 (4.75-millimeter) sieve. Multiply this number by the percentage of material passing a No. 4 (4.75-millimeter) sieve and add 2 percent to determine the optimum moisture content of the material.

Use nonvibratory rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Compact each layer of material full width according to Subsection 204.11(a)(1).

(3) Less than 50 percent retained on a No. 4 (4.75-millimeter) sieve. Classify the material according to AASHTO M 145. For material classified A-1 or A-2-4, determine the maximum density according to AASHTO T 99, Method C.

Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content.

Use compression-type or vibratory rollers. Compact each layer of material full width to at least 95 percent of the maximum density. Determine the in-place density and moisture content according to AASHTO T 310 or other approved test procedures. When required, use AASHTO T 224 to correct for coarse particles.

(b) Placement Method 2. Adjust the moisture content of the material to a moisture content suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Operate roller compaction equipment over the full width of each layer until there is no visible evidence of further consolidation or, if when a sheepsfoot roller is used, the roller "walks out" of the layer. Make at least three complete passes. Use compression-type rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Ensure rollers meet the following requirements:

(1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch (4.5 kilogram/millimeter) of width of the compression roll or rolls.

(2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum dynamic force of 30,000 pounds (130 kilonewtons) impact per vibration, specifically designed to compact the material on which it is used.

(3) Pneumatic-tired rollers with smooth tread tires of equal size that will provide a uniform compacting pressure for the full width of the roller and capable of exerting a ground pressure of at least 80 psi (550 Kilopascals).

(4) Sheepsfoot, tamping, or grid rollers capable of exerting a force of 250 pounds per inch (4.5 kilogram/millimeter) of width of roller drum.

(c) Placement Method 3. Adjust the moisture content of the material to a moisture content suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Operate hauling and spreading equipment uniformly over the full width of each layer until there is no visible evidence of further consolidation. Make at least three complete passes.

(d) Placement Method 4. Adjust the moisture content of the material to a moisture content suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Operate hauling and spreading equipment uniformly over the full width of each layer.

(e) Placement Method 5. Adjust the moisture content of the material to a moisture content suitable for compaction. Compact the complete surface with a bucket of an excavator larger than 39,000 pounds (18 metric ton) Gross Vehicle Weight using a minimum of three blows. Overlap compaction by ½ width of bucket.

(f) Placement Method 6. Adjust the moisture content of the material to a moisture content suitable for compaction. Compact using an approved mechanical tamper for a minimum of three complete passes.

When compacting with rollers or hauling and spreading equipment is not practical, use approved mechanical tampers for a minimum of three complete passes.

Table 204-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Source								
Topping (704.05)	Measured and tested for conformance (106.04 & 105)	Classification[1]	–	AASHTO M 145	1 per soil type and source of material	Processed material	Yes	Before using in work
Unclassified borrow (704.06)	"	"	–	"	"	"	"	"
Production								
Topping (704.05) and (204.11(a))	Measured and tested for conformance (106.04)	Moisture-density	–	T 99, Method C[2]	1 per soil type, but not less than 1 per each 13,000 yd^3 (10,000 m^3)	Processed material	Yes	Before using in work
		Density	–	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 (3000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Unclassified borrow (704.06) and (204.11(a))	"	Moisture-density	–	T 99, Method C[2]	1 per soil type, but not less than 1 per each 13,000 yd^3 (10,000 m^3)	Processed material	Yes	Before using in work

Table 204-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
		Density	–	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 (3000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Production (continued)								
Earth embankment (204.11(a))	Measured and tested for conformance (106.04)	Classification	–	AASHTO M 145	1 per soil type	Source of material	Yes	Before using in work
		Moisture-density	–	T 99, Method C(2)	1 per soil type, but not less than 1 per each 13,000 yd^3 (10,000 m^3)	"	"	"
		Density	–	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 (3000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Top of subgrade (204.11(a))	"	Density	–	AASHTO T 310 or other approved procedures	1 per 2500 yd^2 (2000 m^2), but not less than 3 per layer	In-place	No	Before placement of next layer
Finished Product								

Table 204-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Roadbed (204.13)	Measured and tested for conformance (106.04)	Final line & grade	–	Field measured	Determined by the CO	Determined by the CO	No	Before placement of next layer

(1) Not required when using Government-provided source.
(2) Minimum 5 points per proctor.

Table 204-2
Construction Tolerances

Location Description	Tolerance Class (a)												
	A	B	C	D	E	F	G	H	I	J	K	L	M
Roadbed width (ft)	+0.5	+0.5	+1.0	+1.0	+1.0	+1.0	+1.5	+1.0	+2.0	+2.0	+2.0	+2.0	+2.0
Subgrade elevation (ft)	±0.1	±0.2	±0.2	±0.5	±0.5	±1.0	±1.0	±1.5	±2.0	±3.0	±2.0	±3.0	(c)
Centerline alignment (ft)	±0.2	±0.2	±0.5	±0.5	±1.0	±1.0	±1.5	±1.5	±2.0	±3.0	±3.0	±5.0	(c)
Slopes, excavation, and embankment (% slope[b])	±3	±5	±5	±5	±5	±5	±10	±10	±10	±10	±20	±20	±20

(a) Maximum allowable deviation from construction stakes and drawings.
(b) Maximum allowable deviation from staked slope measured from slope stakes or hinge points.
(c) Unless otherwise shown the centerline alignment and subgrade elevation, as built, have no horizontal curves with a radius of less than 80 feet, and no vertical curves with a curve length of less than 80 feet when the algebraic difference in the grade change is less than 10 percent, or a curve length of less than 100 feet when the algebraic difference of the grade change is greater than or equal to 10 percent. The centerline grade is not to exceed 20 percent in 100 feet of length.

209 - Structure Excavation and Backfill

209.09_National_3_9_2020

Make the following Changes to Subsection 209.09:

209.09 Backfill.

Add the following to Subsection 209.09(a):

(a) General.

Backfill without damaging or displacing the culvert or structural plate structure. Replace any pipe that is distorted by more than 5 percent of nominal dimensions, or that is ruptured or broken.

Add the following to Subsection 209.09(b)

(b) Pipe culverts.

Do not place or backfill pipe that meets any of the following conditions until the excavation and foundation have been approved in writing by the CO:

- Embankment height greater than 6 feet at subgrade centerline.
- Installation in a protected stream course.
- Round pipe with a diameter of 48 inches or greater.
- Pipe arches with a span of 50 inches or greater.
- Any box culvert or structure other than pipe culverts.

209.10_National_3_9_2020

Delete Subsection 209.10 and replace with the following:

209.10 Compacting.

Compact the embankment using one of the following methods as specified.

(a) Compaction Method 1. Use AASHTO T 27 to determine the quantity of material retained on a No. 4 (4.75-millimeter) sieve. Compact as follows:

(1) More than 80 percent retained on a No. 4 (4.75-millimeter) sieve. Adjust the moisture content to a level suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Use compression-type rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Compact each layer of material full width with one of the following and until there is no visible evidence of further consolidation:

(a) Four roller passes of a vibratory roller having a minimum dynamic force of 40,000 pounds (180 kilonewtons) impact per vibration and a minimum frequency of 1000 vibrations per minute;

(b) Eight roller passes of a 20-ton (20-metric ton) compression-type roller; or

(c) Eight roller passes of a vibratory roller having a minimum dynamic force of 30,000 pounds (130 kilonewtons) impact per vibration and a minimum frequency of 1000 vibrations per minute.

Increase the compactive effort for layers deeper than 12 inches (300 millimeters) as follows:

- For each additional 6 inches (150 millimeters) or fraction thereof, increase the number of roller passes in Subsection 209.10(a)(1)(a), by four passes; or
- For each additional 6 inches (150 millimeters) or fraction thereof, increase the number of roller passes in Subsection 209.10(a)(1)(b) and (c), by eight passes.

(2) 50 to 80 percent retained on a No. 4 (4.75-millimeter) sieve. Classify the material according to AASHTO M 145. Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content. Use AASHTO T 99 to determine the optimum moisture content of the portion of the material passing a No. 4 (4.75-millimeter) sieve. Multiply this number by the percentage of material passing a No. 4 (4.75-millimeter) sieve, and add 2 percent to determine the optimum moisture content of the material.

Use nonvibratory rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet(1 meter) per second. Compact each layer of material full width according to Subsection 209.10(a)(1).

(3) Less than 50 percent retained on a No. 4 (4.75-millimeter) sieve. Classify the material according to AASHTO M 145. For material classified A-1 or A-2-4, determine the maximum density according to AASHTO T 99, Method C..

Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content.

Use compression-type or vibratory rollers. Compact each layer of material full width to at least 95 percent of the maximum density. Determine the in-place density and moisture

content according to AASHTO T 310 or other approved test procedures. When required, use AASHTO T 224 to correct for coarse particles.

(b) Compaction Method 2. Adjust the moisture content of the material to a moisture content suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Operate roller compaction equipment over the full width of each layer until there is no visible evidence of further consolidation or, if when a sheepsfoot roller is used, the roller "walks out" of the layer. Make at least three complete passes. Use compression-type rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Ensure rollers meet the following requirements:

(1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch (4.5 kilogram/millimeter) of width of the compression roll or rolls.

(2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum dynamic force of 30,000 pounds (130 kilonewtons) impact per vibration, specifically designed to compact the material on which it is used.

(3) Pneumatic-tired rollers with smooth tread tires of equal size that will provide a uniform compacting pressure for the full width of the roller and capable of exerting a ground pressure of at least 80 psi (550 Kilopascals).

(4) Sheepsfoot, tamping, or grid rollers capable of exerting a force of 250 pounds per inch (4.5 kilogram/millimeter) of width of roller drum.

(c) Compaction Method 3. Adjust the moisture content of the material to a moisture content suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Operate hauling and spreading equipment uniformly over the full width of each layer until there is no visible evidence of further consolidation. Make at least three complete passes.

(d) Compaction Method 4. Adjust the moisture content of the material to a moisture content suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Operate hauling and spreading equipment uniformly over the full width of each layer.

(e) Compaction Method 5. Adjust the moisture content of the material to a moisture content suitable for compaction. Compact the complete surface with a bucket of an excavator larger than 39,000 pounds (18 metric ton) Gross Vehicle Weight using a minimum of three blows. Overlap compaction by ½ width of bucket.

(f) Compaction Method 6. Adjust the moisture content of the material to a moisture content suitable for compaction. Compact using an approved mechanical tamper for a minimum of three complete passes.

When compacting with rollers or hauling and spreading equipment is not practical, use approved mechanical tampers for a minimum of three complete passes.

212 - Linear Grading

212.03_Regional_3_9_2020

Delete the first and second paragraph of Subsection 212.03 and replace with the following:

212.03 Roadway Excavation and Embankment.

Construct the roadbeds according to the requirements of Section 204, except as modified herein.

Adjust the moisture content of embankment material to a moisture content suitable for compaction. Place embankment material in 12-inch layers and compact each layer according to Subsection 204.11. Where compacting with rollers is not practical, use approved mechanical or vibratory compaction equipment.

301 - Untreated Aggregate Courses

301.03_National_3_9_2020

Add the following to Subsection 301.03:

301.03 General.

Written approval of the roadbed is required before placing aggregate.

Water is not provided by the Government. Material shall be placed to the depth and width as shown on Figure 1 – Typical Cross-Section of Section 303.

If the aggregate is produced and stockpiled before placement, handle and stockpile according to Section 314.

301.04_Regional_6_16_2020

Delete the first paragraph of Subsection 301.04 and replace with the following:

301.04 Mixing and Spreading.

Obtain moisture content in accordance with the compaction method specified. If moisture content is not specified by the compaction method, adjust the moisture content to a level suitable for compaction. Mix the aggregate and adjust the moisture content to obtain a uniform mixture. Spread and shape the mixture on the prepared surface in a uniform layer.

301.05_National_6_16_2020

Delete Subsection 301.05 and replace with the following:

301.05 Compacting.

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

Compact the aggregate using one of the following methods as specified:

(a) **Compaction A.** Operating spreading and hauling equipment over the full width of the travel way.
(b) **Compaction B.** Operate rollers and compact as specified in Subsection 204.11(B).
(c) **Compaction C.** Moisten or dry the aggregate to a uniform moisture content between 5 and 7 percent based on total dry weight of the mixture. Operate rollers and compact as specified in Subsection 204.11(a)(1).
(d) **Compaction D.** Compact to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, method C or D.

(e) **Compaction E**. Compact to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 180, method C or D.

For all compaction methods, blade the surface of each layer during the compaction operations to remove irregularities and produce a smooth, even surface. When a density requirement is specified, determine the in-place density and moisture content according to AASHTO T 310 or other approved test procedures.

Add the following to Subsection 301.09:

301.09 Measurement.

Regardless of the unit of measure in the Schedule of Items, provide delivery tickets and records in accordance with Section 109.04. Weights shall be provided in Tons. These shall be submitted weekly.

Table 301-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Delete Table 301-1 and substitute the
Source									
Aggregate quality (703.05(a) (b) (c))	Measured and tested for conformance (106.04 & 105)	LA abrasion (coarse)	–	AASHTO T 96	1 per type & not less than 5 per source of material[(2)]	Source of material	Yes	Before using in work	Not required when using Government-provided sources
		Soundness using sodium sulfate (coarse & fine)	–	AASHTO T 104	"	"	"	"	"
		Durability index (coarse & fine)	–	AASHTO T 210	"	"	"	"	"
		~~Accelerated Weathering~~	~~=~~	~~WFLHD-DMSO~~	"	"	"	"	"
Surface course aggregate (703.05(c))	Process Control (153.03)	Plasticity index	–	AASHTO R 58, T 89, & T 90	"	Crusher belt or after processing	"	"	"
Subbase, base, or surface course aggregate (703.05(b) (c))	"	Gradation	–	AASHTO T 11 & T27	2 per day per stockpile (minimum)	Crusher belt	No	24 hours	Not required when using a pre-crushed commercial source
		Fractured faces	–	ASTM D5821	"	"	"	"	
Surface course aggregate (703.05(c))	"	Plasticity index	–	AASHTO R 58, T 89, & T 90	"	Crusher belt or after processing	"	"	"

Table 301-1 (continued)
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Production									
Subbase course Grading A & B	Statistical (106.05)	Gradation		AASHTO T 27 & T 11	1 per 1000 CU YD (400 m3)	From windrow or roadbed after processing	Yes	4 hours	–
		No. 4 (4.75 mm)	I						
		No. 200 (75µm)	–						
		Other specified sieves	II						
		Sand Equivalent	–	AASHTO T 176 Alternate Method No. 2, Reference Method	"	"	"	"	–
		SEP	I	See Note (1)	"	"	"	"	–
		Fractured faces	II	ASTM D5821	"	"	"	"	–
Base course Grading C, D, & E	"	Gradation		AASHTO T 27 & T 11	"	"	"	"	–
		⅜ inch (9.5 mm)	I						
		No. 4 (4.75 mm)	I						
		No. 200 (75µm)	–						
		Other specified sieves	II						
		Sand equivalent	–	AASHTO T 176 Alternate Method No. 2, Reference Method	"	"	"	"	–
		SEP	I	See Note (1)	"	"	"	"	–
		Fractured faces	II	ASTM D5821	"	"	"	"	–

Table 301-1 (continued)
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Production (continued)									
Subbase & base course Grading A, B, C, D, & E	Measured and tested for conformance (106.04)	Moisture-density (max density)	–	Humphres Method	1 per type & source of material	Stockpile or production output	Yes	14 days before use	Tested by Government
		Density	–	AASHTO T 310 or other approved procedures	1 per 1500 SQYD per layer	In-place after compaction	No	End of shift	–
		Moisture content (in-place)	–	"	"	"	"	"	–
Surface course aggregate	Statistical (106.05)	Gradation No. 4 (4.75 mm)	I	AASHTO T 27 & T 11	1 per 500 CUYD (400 m3)	From windrow or roadbed after processing	Yes	4 hours	–
		No. 40 (4.75 µm)	I						
		Other specified sieves	II						
		Liquid Limit	II	AASHTO T 89, Method A & T 87	"	"	"	"	–
		Plasticity index	I	AASHTO R 58, T 89, & T 90	"	"	"	"	–

Table 301-1 (continued)
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Production (continued)									
Surface course aggregate	Measured and tested for conformance (106.04)	Moisture-density (max density)	–	AASHTO T 180 Method D [3]	1 per type & source of material	Stockpile or production output	Yes	14 days before use	–
		Density	–	AASHTO T 310 or other approved procedures	1 per 1500 SQYD per layer	In-place after compaction	No	End of shift	–
		Moisture content (in-place)	–		"	"	"	"	–
		Fractured faces	–	ASTM D5821	1 per 500 CUYD (400 m3)	From windrow on roadbed after processing	Yes	4 hours	–
Finished Product									
Subbase, base, and surface course	Measured and tested for conformance (106.04)	Surface tolerance & grade	–	Subsection 301.06	Determined by the CO	Surface of final course	No	Before placement of next layer or as requested	–

[1] SEP (SE/P_{200} (SE/P_{75}) Index) is a measure of a material' s ability to perform based on the quality and quantity of fines present. Quality is represented by the sand equivalent (SE) and quantity is represented by the percent passing the No. 200 (75-µm) sieve ($P_{200\,(75)}$). SEP is computed as follows:

For $SE \geq 29$, $SEP = SE/(P_{200\,(75)} + 25)$ and for $SE < 29$, $SEP = (SE + 4)/(SE + P_{200\,(75)})$.

Where: SE = Plastic fines in graded aggregates and soils by using the sand equivalent test. See AASHTO T 176, Alternate Method No.2, Referee Method.

$P_{200\,(75)}$ = Material finer than the No. 200 (75 µm) sieve in mineral aggregates by washing. See AASHTO T 11.

[2] Furnish a minimum of five reports, but not less than one report per rock type for each source. Reports must be dated within 1 year of intended use. Obtain samples representative of aggregates being furnished. Include rock type and sample location on test reports.

[3] Minimum of 5 points per Proctor.

303 - Road Reconditioning

303_TwinFalls_4_11_2025

Add the following at the end of Section 303.01:

303.01 Work

Existing roads are a combination of aggregate surfaced, natural surfaced, or two-track roads. Work includes shaping two-track or unimproved roads to the section shown in Figure 1 of Section 303.

Add the following to the end of Section 303.03:

303.03 Drainage.

Grade the furrow ditches to the typical section in Figure 2 of this Section. Construct new furrow ditches where required to facilitate ditch drainage or as directed by the Contracting Officer (CO) and to facilitate a maximum spacing of 500 feet between furrow ditches along roadway ditches, where present, along both sides of the road.

Delete Subsection 303.05 and replace with the following:

303.05 Roadbed Reconditioning.

Remove organic, deleterious, and material larger than 6 inches brought to the surface during reconditioning. Scarify potholes, ruts, and areas shown in the plans to a 6-inch depth or the bottom of the pothole, whichever is less. Dispose of waste at designated sites or according to Subsection 204.14. Repair soft and unstable areas according to Subsection 204.07. Remove irregularities and shape the surface as shown on the Typical Cross-Section in Figure 1 of Section 303 according to 204.13(c). Perform the work, including mixing or spreading, when the moisture content is suitable for the specified compaction method and apply water as needed. Compact the surface according to Subsection 204.11(b).

Delete Section 303.06 and replace with the following:

303.06 Aggregate Surface Reconditioning.

Repair soft and unstable areas to the full aggregate surface depth and according to Subsection 204.07. Scarify potholes, ruts, and areas shown in the plans to a 6-inch depth or the bottom of the pothole, whichever is less. Remove irregularities and shape to a uniform surface. Perform the work, including mixing or spreading, when the moisture content is suitable for the specified compaction method and apply water as needed. Compact the surface according to Subsection 204.11(b) and finish the surface in accordance with subsection 301.06.

Replace the last sentence of Section 303.07 with the following:

303.07 Roadway Reconditioning.

Shape the surface slopes as shown on the Typical Cross-Section in Figure 1 of Section 303. This includes maintaining and/or constructing ditches, crown, and furrow. End product shall be in compliance with the following:

a. Shall be reconstructed to achieve positive drainage throughout.
b. Roads shall have a travel way width of 12' at top of aggregate surfacing. Shape roadbed, shoulders and ditches to accommodate this. Any deviation must be approved by the Contracting Officer (CO).

Figure 1. – Typical Cross-Section

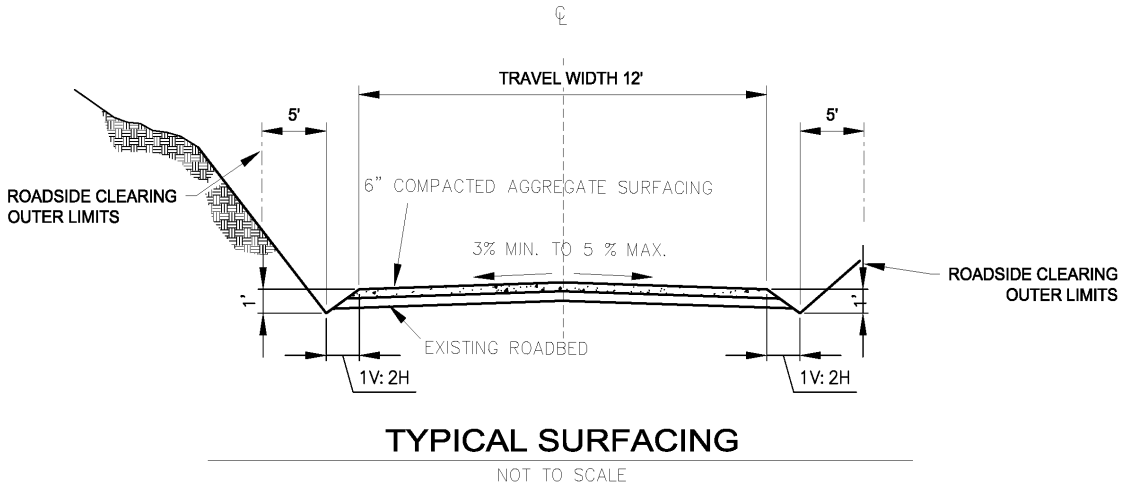
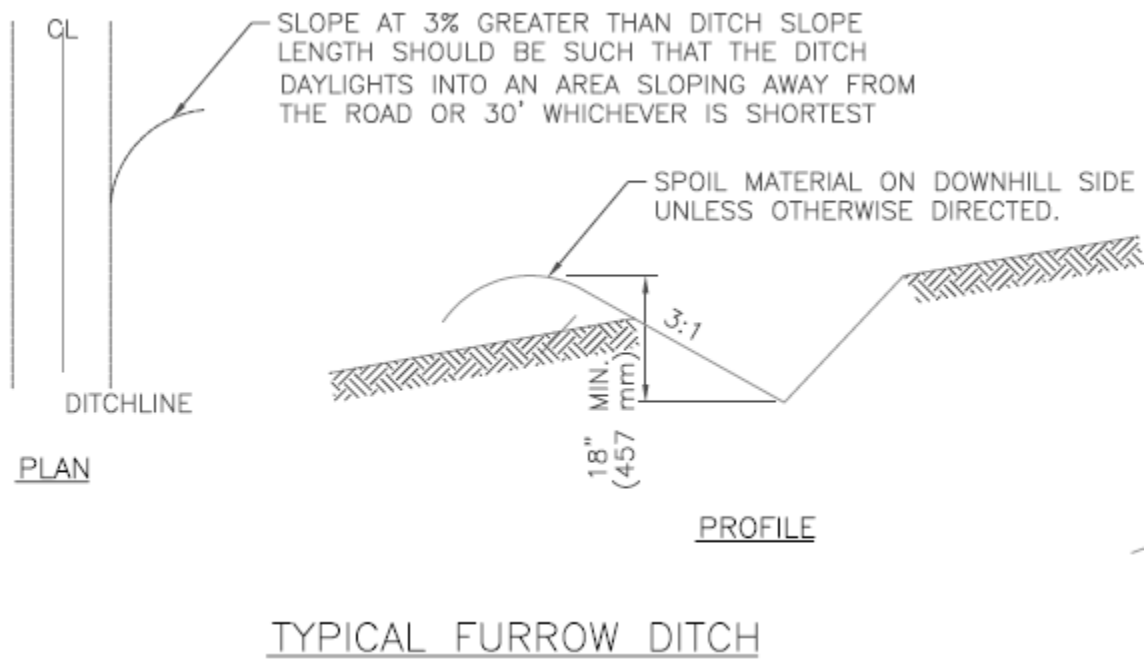


Figure 2 - Typical Furrow Ditch



Section 703. — AGGREGATE

703.05 Subbase, Base, and Surface Course Aggregate. Amend as follows:

Delete text in paragraph (a) and substitute the following:

(a) General. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming to the following:

(1) Los Angeles abrasion, AASHTO T 96	35 percent max.
(2) Soundness of aggregate using sodium sulfate, AASHTO T 104 (course and fine) (5 cycles)	12 percent loss max.

(3) Durability index (coarse), AASHTO T 210 — 35 min.

(4) Durability index (fine), AASHTO T 210 — 35 min.

(5) Fractured faces, ASTM D5821 — 50 percent min.

(6) Without organic matter and lumps or balls of clay.

(7) Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method — 12% max.

Delete the text in paragraph (b) and substitute the following:

(b) Subbase or base aggregate. In addition to paragraph (a) above, conform to the following:

(1) Gradation — Table 703-2

(2) SEP (SE/P200) (SE/P75 Index) — 1.000 min.

Delete Table 703-2 and substitute the following:

Table 703–2
Target Value Ranges for Subbase and Base Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)				
	Grading Designation				
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
2½ inch (63 mm)	100[1]				
2 inch (50 mm)	97 - 100[1]	100[1]	100[1]		
1½ inch (37.5 mm)		97 - 100[1]			
1 inch (25 mm)	65 - 79 (6)		80 – 100 (6)	100[1]	
¾ inch (19 mm)			64 - 94 (6)	86 – 100 (6)	100[1]
½ inch (12.5 mm)	45 - 59 (7)				
⅜ inch (9.5 mm)			40 - 69 (6)	51 – 82 (6)	62 – 90 (6)
No. 4 (4.75 mm)	28 - 42 (6)	40 - 60 (8)	31 - 54 (6)	36 – 64 (6)	46 - 74 (6)
No. 40 (425 µm)	9 - 17 (4)			12 - 26 (4)	12 - 26 (4)
No. 200 (75 µm)	10 max[1]	10 max[1]	10 max[1]	10 max[1]	10 max[1]

[1] Statistical procedures do not apply.
( ) The value in the parentheses is the allowable deviations (±) from the target values.