APPENDIX C

C5.31# – ROAD MAINTENANCE REQUIREMENTS. (9/04) Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary. Contractor will be responsible for all pre-, during, and post-haul maintenance, unless otherwise noted below, with no compensation from the Forest Service.

PRE HAUL											
NFSR	TERMINI		MILES	ROAD MAINTENACE T-SPECIFICATIONS							
	FROM	TO		T-802	T-803	T-804	T-805	T-807	T-809	T-810	T-817
383	CO-67	Unit 4	4.26								C
385	NFSR 383	Unit 2C	1.2								C

DURING HAUL											
NFSR	TERMINI		MILES	ROAD MAINTENACE T-SPECIFICATIONS							
	FROM	TO		T-802	T-803	T-804	T-805	T-807	T-809	T-810	T-817
383	CO-67	Unit 4	4.26								C
385	NFSR 383	Unit 2C	1.2								C

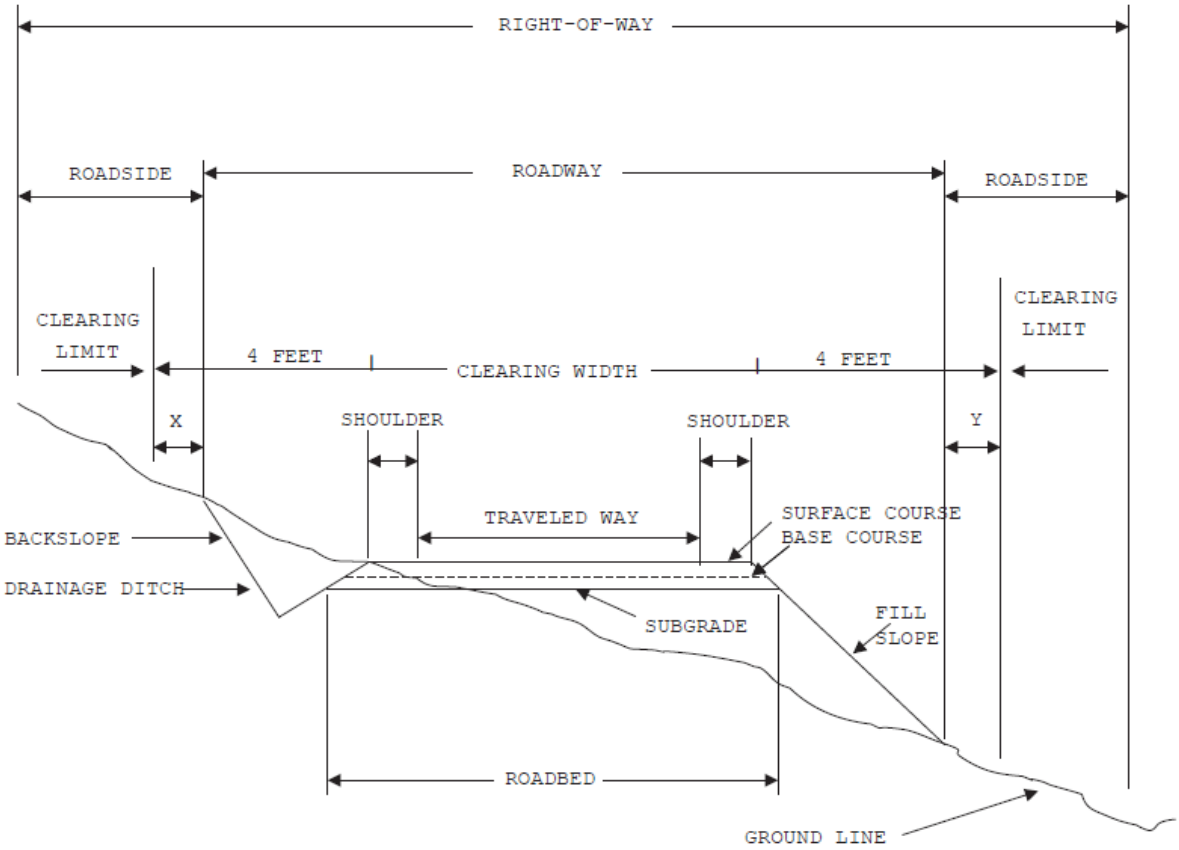
POST HAUL											
NFSR	TERMINI		MILES	ROAD MAINTENACE T-SPECIFICATIONS							
	FROM	TO		T-802	T-803	T-804	T-805	T-807	T-809	T-810	T-817
383	CO-67	Unit 4	4.26		C						C
385	NFSR 383	Unit 2C	1.2		C						C

NFSR = National Forest Service Road CR = County Road MP= Milepost
P = Purchaser Performance Requirement D = Deposit to Forest Service D3 = Deposit to Third Party
C = Contractor Performance Requirement

ROAD MAINTENANCE T-SPECIFICATIONS

T-SPECIFICATIONS	
T-SPEC NUMBER	**SPECIFICATION TITLE**
T-800	Definitions
~~T-801~~	~~Slide and Slump Repair~~
~~T-802~~	~~Ditch Cleaning~~
T-803	Surfacing Blading
~~T-804~~	~~Surfacing Repair~~
~~T-805~~	~~Drainage Structures~~
~~T-806~~	~~Dust Abatement~~
~~T-807~~	~~Roadway Vegetation~~
~~T-808~~	~~Miscellaneous Structures~~
~~T-809~~	~~Waterbars~~
~~T-810~~	~~Barriers~~
~~T-811~~	~~Surface Treatment~~
~~T-814~~	~~Drainage Excavation~~
~~T-815~~	~~Culvert Installation~~
~~T-816~~	~~Maintenance for Project Use~~
T-817	Maintenance for Limited Use

ILLUSTRATION OF ROAD STRUCTURE TERMS



SPECIFICATION T-800 DEFINITIONS

Wherever the following terms or pronouns are used, the intent and meaning shall be interpreted as follows:

800-1.1—Agreement—Maintenance projects require a mutually acceptable method to resolve the problems which arise when incompatible situations arise between drawings and specifications and actual conditions on the ground to allow orderly and satisfactory progress of the maintenance.

These specifications have been developed in anticipation of those problem areas and have provided that such changes will be by Agreement.

It is intended that drawings and specifications will govern unless "on-the-ground" conditions warrant otherwise, when specifications call for "Agreement", "agreed", or "approval" such Agreement or approval shall be promptly confirmed in writing.

800-1.2—Annual Road Maintenance Plan—A plan prepared by various users of one or several roads. The plan is an Agreement on maintenance responsibilities to be performed for the coming year.

800-1.3—Base Course—Material used to reinforce Subgrade or, as shown on drawings, placed on Subgrade to distribute wheel loads.

800-1.4—Berm—Curb or dike constructed to prevent Roadway runoff water from discharging onto embankment slope.

800-1.5—Borrow—Select Material taken from designated borrow sites.

800-1.6—Clearing Limits—The limits of clearing as designated on the ground or on the drawings.

800-1.7—Crown, Inslope, and Outslope—The cross slope of the Traveled Way to aid in drainage and traffic maneuverability.

800-1.8—Culverts—A conduit or passageway under a road, trail, or other obstruction. A culvert differs from a bridge in that it is usually entirely below the elevation of the Traveled Way.

800-1.9—Drainage Dip—A dip in the Traveled Way which intercepts surface runoff and diverts the water off the Traveled Way. A Drainage Dip does not block the movement of traffic.

800-1.10—Drainage Structures—Manufactured structures which control the runoff of water from the Roadway including Inslope, overside drains, aprons, flumes, downdrains, downpipes, culverts and the like.

800-1.11—Dust Abatement Plan—A table which lists the road, dust palliative, application rates, and estimated number of subsequent applications.

800-1.12—Lead-off Ditches—A ditch used to transmit water from a Drainage Structure or Drainage Dip outlet to the natural drainage area.

800-1.13 —Material—Any substances specified for use in the performance of the work.

800-1.14—Prehaul Maintenance—Road maintenance work which must be accomplished to maintain the roads to a satisfactory condition commensurate with the Contractor's use, provided Contractor's operations do not damage improvements in Section H.21 of the contract/solicitation or National Forest resources and hauling can be done safely. This work will be shown in the above Road Maintenance Requirements.

Prehaul Maintenance work the Contractor elects to perform will be in compliance with the Road Maintenance T-Specifications.

800-1.15—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) Land, appurtenances thereto, or interest therein, usually in a strip, acquired for public or private passageway.

800-1.16—Roadbed—The portion of a road between the intersection of Subgrade and sideslopes, excluding that portion of the ditch below Subgrade.

800-1.17—Road Maintenance Requirements—A table which shows applicable road maintenance specifications to be performed by Contractor on specific roads.

800-1.18—Roadside—A general term denoting the area adjoining the outer edge of the Roadway.

800-1.19—Roadway—The portion of a road within the limits of excavation and embankment.

800-1.20—Shoulder—That portion of Roadway contiguous with Traveled Way for accommodation of stopped vehicles, for emergency use, and lateral support of base and Surface Course, if any.

800-1.21—Slide—A concentrated deposit of Materials from above or on backslope extending onto the Traveled Way or Shoulders, whether caused by mass land movements or accumulated raveling.

800-1.22—Slough—Material eroded from the backslope which partially or completely blocks the ditch, but does not encroach on the Traveled Way so as to block passage of traffic.

800-1.23—Slump—A localized portion of the Roadbed which has slipped or otherwise become lower than that of the adjacent Roadbed and constitutes a hazard to traffic.

800-1.24—Special Project Specifications—Specifications which detail conditions and requirements peculiar to the individual project.

800-1.25—Subgrade—Top surface of Roadbed upon which Base Course or Surface Course is constructed. For roads without Base Course or Surface Course, that portion of Roadbed prepared as the finished wearing surface.

800-1.26—Surface Course—The Material placed on Base Course or Subgrade primarily to resist abrasion and the effects of climate. Surface Course may be referred to as surfacing.

800-1.27—Surface Treatment Plan—A table which lists the roads and surface treatments to be applied.

800-1.28—Traveled Way—That portion of Roadway, excluding Shoulders, used for the movement of vehicles.

800-1.29—Turnouts—That portion of the Traveled Way constructed as additional width on single lane roads to allow for safe passing of vehicles.

800-1.30—Water Source—A place designated on the Road Maintenance Map for acquiring water for road maintenance purposes.

800-1.31—Waterbar—A dip in the Roadbed which intercepts surface runoff and diverts the water off the Roadway. A Waterbar is not designed to be traversable by logging trucks.

SPECIFICATION T-803 SURFACE BLADING

DESCRIPTION T-803:

1.1—Surface blading is keeping a native or aggregate Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the Crown, Inslope or Outslope of the Traveled Way, Turnouts, and Shoulder; repairing Berms; blending approach road intersections; and cleaning bridge decks, Drainage Dips, and Lead-off Ditches.

REQUIREMENTS:

3.1—Surface blading shall be performed before, during, and after Contractor's use as often as necessary to facilitate traffic and proper drainage.

3.2—The surface blading shall preserve the existing cross-section. Surface irregularities shall be eliminated and the surface left in a free-draining state and to a smoothness needed to facilitate traffic. Surface Material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to prevent the loss of surface Material and to provide for a thorough mixing of the Material being worked.

3.3—Water, taken from Water Sources designated on Contract Area Map shall be applied during blading if sufficient moisture is not present to cut, mix, or compact the surface Material.

3.4—On native surfaced roads, Material generated from backslope sloughing, and ditch cleaning may be blended with the surface Material being worked. On aggregate surfaced roads, this Material shall not be blended with Surface or Base Course Material unless agreed otherwise.

3.5—Roadway backslopes or Berms shall not be undercut, nor shall new Berms be established unless agreed otherwise.

Berms shall be repaired by placing Material, as needed to restore the Berm, to reasonably blend with existing line, grade, and cross-section.

3.6—Drainage Dips and Lead-off Ditches shall be cleaned and maintained to reasonably blend with existing line, grade, and cross-section.

3.7—Intersecting roads shall be bladed for a distance of 50 feet to assure proper blending of the two riding surfaces.

3.8 —Rocks or other Material remaining on the Traveled Way after the final pass that are larger than 4 inches in diameter or are larger than the maximum size of imported surfacing shall be removed from the Traveled Way. Unless otherwise designated by the Forest Service, the oversized Material shall be disposed of by sidecasting. Sidecasting into streams, lakes, or water courses will not be permitted.

3.9—Material resulting from work under this specification shall not remain on or in structures, such as Culverts, overside drains, cattleguards, ditches, Drainage Dips, and the like.

3.10—Material resulting from work under this specification, plus any other accumulated debris, shall be removed from bridge decks and the deck drains opened. This includes existing debris under pre haul maintenance.

MEASUREMENT:

4.1—Surface blading will be measured to the nearest one-tenth (0.1) mile as measured by calibrated vehicle odometer along the road centerline.

SPECIFICATION T-817 MAINTENANCE FOR LIMITED USE

DESCRIPTION T-817:

1.1—This work consists of making limited use roads passable for both project use and public traffic and providing drainage from the traveled way and roadbed. Intent of use is for high clearance or other minimally improved roads where limited maintenance is required for project access and product removal. No long-term improvements are required or desired and road should be returned to its pre-existing character after project use as applicable.

REQUIREMENTS:

3.1—Pre-Haul Maintenance Authorizations

(a) Traveled Way
   a. Improve existing road entrances and junctions as needed to enable safe and efficient travel.
   b. Smooth or fill existing cross ditches and water bars which prevent travel by project vehicles or equipment. Locations of any filled drainage features shall be marked or recorded for subsequent reinstallation. Drainage features which do not unduly inhibit project traffic shall be left in place.
   c. Corners may be cleared and widened for travel as permitted by the Contracting Officer where existing ground is suitable for traffic without cutting the existing shoulder by more than 6 inches or where importing additional material would be otherwise required.
   d. Fill any mudholes or low spots holding water with mineral material and/or provide drainage to prevent saturation of the road and subsequent surface damage from equipment and vehicle traffic.
   e. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance or traffic.
   f. No object extending over 4 inches above the road shall remain within the usable traveled way.
   g. Cut and remove standing or down trees, logs, brush, and limbs. Remove encroaching limbs to a height of 14 feet above the traveled way surface. Limb and remove timber that meets utilization standards or deck at locations approved by the Contracting Officer.
   h. Place all removed or disturbed materials away from drainages and drainage features.
   i. During use, maintain all retained drainage structures including waterbars, dips, ditches, and culverts in a fully functional condition.

(b) Turnouts
   a. Turnout locations may be cleared and widened for use as permitted by the Contracting Officer where existing ground is suitable for traffic without cutting the existing shoulder by more than 6 inches or where importing additional material would be otherwise required.
   b. Drainage on the road surface shall not be impacted by the grading and use of turnouts.

(c) Slough and Slides and Washouts
   a. Slough and slides may be left in place, provided surface drainage is provided and at least 12 feet of width is available for vehicle and equipment passage.
   b. Reposition or ramp over slides and slough when the traveled way width is less than 12 feet providing the material is capable of supporting vehicles. Limit out-slope to no more than six percent.
   c. Reposition slough or slide materials, which are not capable of supporting a vehicle, on the roadbed to provide the 12 feet width.
   d. Washouts may be filled with mineral material or shaped to provide drainage and allow traffic.

3.2— Post-Haul Requirements — At the end of project use or prior to entering seasonal shutdowns or periods of extended inactivity:

   a. Shape the traveled way and disturbed roadbed to provide functional drainage.
   b. Remove and recompact any bermed material left on road edges due to surface blading.
   c. Reinstall waterbars, dips, and cross ditches and provide any additional drainage structures necessary to offset changes caused through project use and maintenance.
   d. Obliterate any created turnouts and restore functional road drainage through the impacted area.
   e. Leave roads useable for high clearance vehicles.