Forest Health North Integrated Resources Timber Contract

(IRTC)

SCHEDULE OF ITEMS AND SPECIFICATIONS

Schedule of Items
(Complete table to include the project items.)

SCHEDULE OF ITEMS:

Item #	Description	Unit of Measure	Quantity
Mandatory Work			
1	Hemlock Woolly Adelgid Treatment	Tree DBH Inches	24547
2	Non-Native Invasive Species Control	Acres	121.2
3	Gates	Gate	3
4	FSR 816 Rd Mainenance	Miles	1.9
5	FSR 332 Rd Maintenance	Miles	1.38
Optional Work			
6	FSR 119 Rd Maintenance	Miles	1.6

Item 1: Hemlock Woolly Adelgid Control

General Specification
The purpose of the project is to retreat selected hemlocks in 12 locations the Blue Ridge Ranger District for control of Hemlock Woolly Adelgid. A soil injection method will be used to treat approximately 1812 trees with a cumulative diameter of 24,547 inches (the sum of the DBHs for all trees). Purchaser credit will be established at the unit bid price for total number of diameter inches treated and accepted.

SCOPE OF PROJECT

Contractor shall furnish all labor, transportation, supervision, supplies (chemical, tree tags and nails) and equipment and perform all work necessary to treat the designated hemlock trees in accordance with specifications described below.

The purpose of this project item is to perform insecticide treatments on hemlock trees in order to ensure their ability to survive infestation by the hemlock woolly adelgid (HWA). The project areas are located in Hemlock Conservation Areas (HCA's) and Developed Recreation Areas on the Blue Ridge Ranger District. The contractor will be required to inject designated trees with Imidacloprid insecticide (soil injection only). These trees were previously treated in 2010-2011 and now require retreatment. The contractor will identify the tree, place a new, numbered aluminum tag on the tree using aluminum nails, measure, record the tree's DBH and then treat the tree according to insecticide labeling and the dosing instructions listed below. Upon completion of the work, the contractor will provide the Contracting Officer's Representative with the completed data sheet including date of treatment, the new tag number, current DBH, tree condition (healthy, declining, or dead) and quantity of chemical used.

LOCATION AND DESCRIPTION

The Hemlock Wooly Adelgid treatments are located within the boundaries of:

National Forest:	Chattahoochee
District:	Blue Ridge
County:	Union, Lumpkin, Gilmer, and Fannin
State:	Georgia

The project areas are located in Hemlock Conservation Areas (HCA's) and Developed Recreation Areas on the Blue Ridge Ranger District (see attached Service Work maps). All of the Developed Recreation Areas are accessible by vehicle although trees will need to be accessed by walking from the recreation area parking lot. Access to some of the sites in the Hemlock Conservation Areas will require a short hike of ½ mile or less.

The following table list the numbers of trees and inches to be treated by the soil injection method for each of the 12 treatment sites. The estimated number of treatment inches is based on the

actual diameter measurements at the time of the original treatment plus 10 percent to account for 5-6 years of growth.

Treatment Sites

SITE	Total # of TREES	Estimated Number of Treatment Inches	Average DBH
Recreation Areas			
Desoto Falls	484	5170	10.7
Cooper's Creek	124	1674	13.5
Byron Herbert Reese	46	700	15.2
Deep Hole	51	700	13.7
Mulky	114	1572	13.8
Sandy Bottoms	32	502	15.7
Hemlock Conservation Areas			
Cold Mountain	164	2307	14.1
Stanley Creek	70	947	13.5
Toccoa River	182	2762	15.2
Mill Creek	100	2278	22.8
Flat Creek	209	2646	12.7
Jones Creek	236	3289	13.9
TOTALS	**1812**	**24,547**	**13.5**

TECHNICAL SPECIFICATIONS

The soil injection method will be used for treating all the trees in this contract. Imidacloprid insecticide labelled for use on adelgids in forested areas will be used. The Contractor will provide the Forest Service with a sample label of the insecticide prior to treatment.

The contractor will adhere to all Pesticide Standards, Requirements for Pesticide Use, Storage, and Transportation and Emergency Spill Plan as provided in Appendix A. The Forest Service will provide signs for the contractor to post in treatment areas prior to insecticide treatments. The sign will inform the public that insecticides are being used in the area and the date of the application.

For each site, the contractor will be provided with a data sheet containing the tag numbers and tree DBH as measured at the time of the original treatment as well as an approximately GPS location of the site. The contractor will identify the tree and place a new, numbered aluminum tag on the tree using aluminum nails (2-2 ½"). The new tags shall be placed adjacent to the existing tags. Approximately ½" of the nail shall be left out beyond the tag to allow for growth.

The contractor shall, before beginning any treatment, calibrate the soil injector using water to determine how many ounces of solution are delivered with each handpush on the injector handle. The Contractor shall measure and record the tree's DBH and then treat the tree according to

insecticide labeling and the dosing instructions listed below. For each tree, the injector will be used to make one injection hole per inch of trunk diameter, 3-4" deep within 12" of the base, evenly distributed around the tree. If present, excess litter shall be remove around the base of the tree to ensure the chemical is injected into the root zone. Dead trees shall not be treated.

Upon completion of the work the contractor will provide the Contracting Officer's Representative with the completed data sheet including date of treatment, the new tag number, current DBH, tree condition (healthy, declining, or dead) and quantity of chemical used.

Treatments in the Recreation Areas shall occur on Mondays through Thursdays from November 1 through the March 15 to avoid the period of heavy recreation use. The contractor shall, before treating any trees in the developed recreation site post a pesticide use sign provided by the Forest Service. If a campsite has trees designated for treatment and the site is occupied, the contractor shall notify the COR, who shall work with him and the campsite occupants to schedule a time for treatment of that site. The other sites may be treated at any time of the year. However, treatments shall not occur if the ground is frozen, excessively wet or excessively dry. All treatments must be completed by December 1, 2016.

Dosing Guidelines

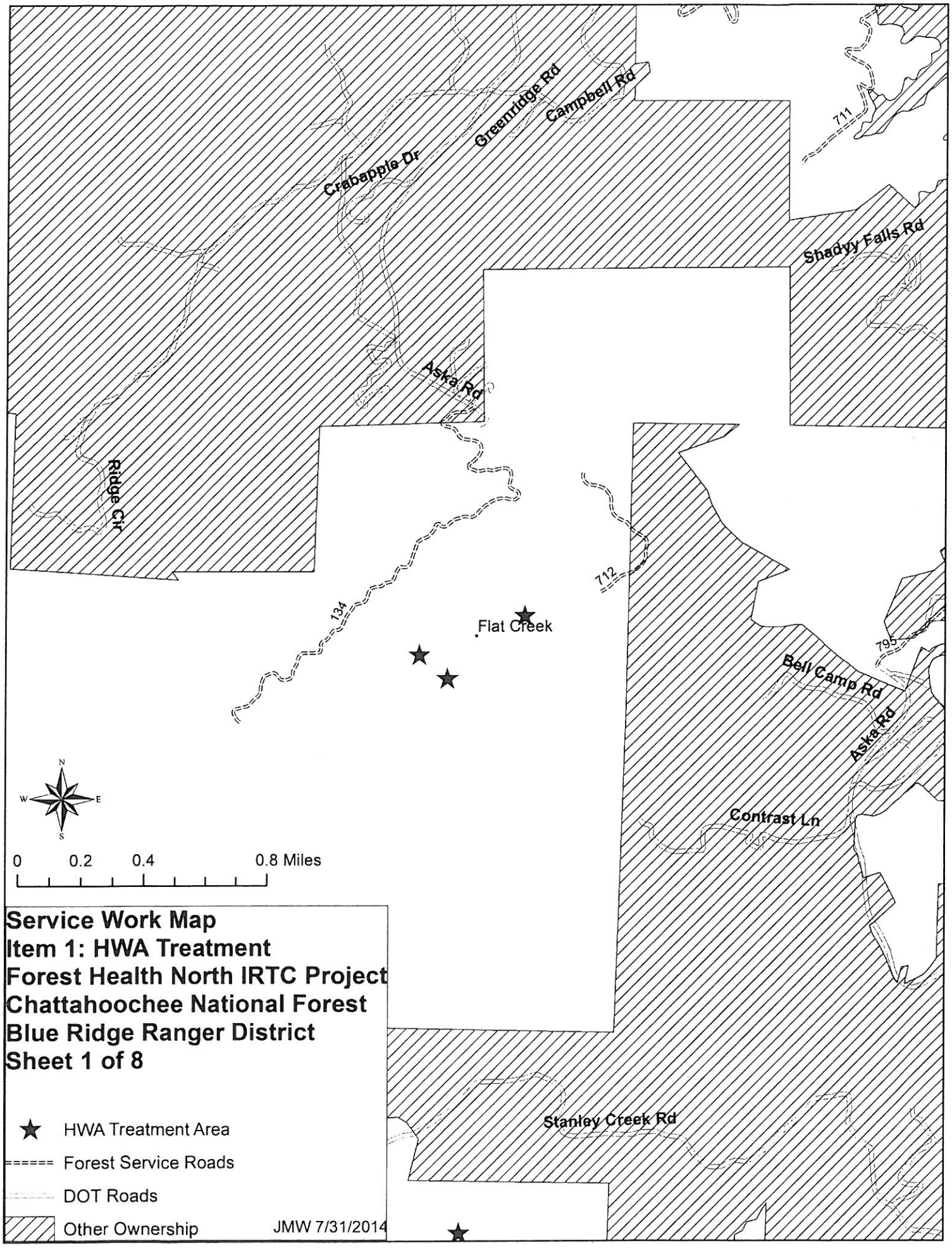
The contractor shall be responsible for mixing the insecticide solution on the job site. The insecticide shall be mixed with water according to label direction for normal to wet soils. The quantity Imidacloprid per inch DBH (grams of active ingredient) applied will be based on the following table.

Treatment Diameter (DBH inches)	**Imidacloprid per inch DBH (grams of active ingredient)**
1-11 inches	**0.5 grams**
12-18 inches	**0.75 grams**
19-22 inches	**1.0 grams**
>22 inches	**1.5 grams**

INSPECTION and ACCEPTANCE

The Forest Service shall have periodic inspections during operations to observe treatments to ensure all trees are being treated with the appropriate dosage. The contractor shall provide the Forest Service with the completed data sheets upon completion of each treatment area. The Forest Service will verify that new tree tags have been installed and the DBHs assigned to each tree are within the appropriate range, the nearest inch. The Forest Service will calculate the amount of insecticide needed to treat the area and compare to the data sheet recorded amount of insecticide used. The contractors recorded amount of insecticide used must be within 10% of the Forest Service calculated amount.

Acceptance will be made by the COR once the above inspection process completed and shown to meet the outlined specifications.



Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 1 of 8

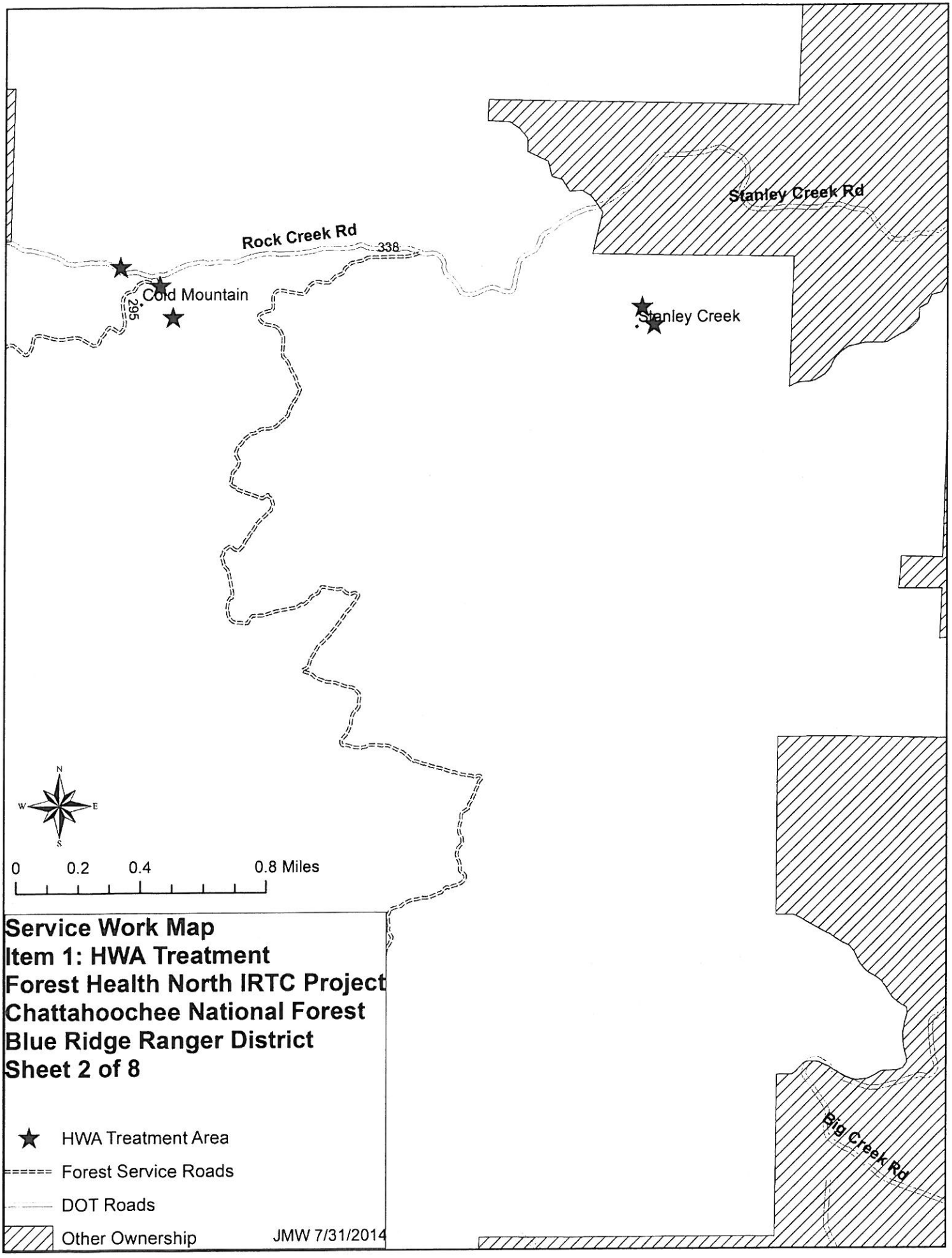
★ HWA Treatment Area

====== Forest Service Roads

DOT Roads

Other Ownership

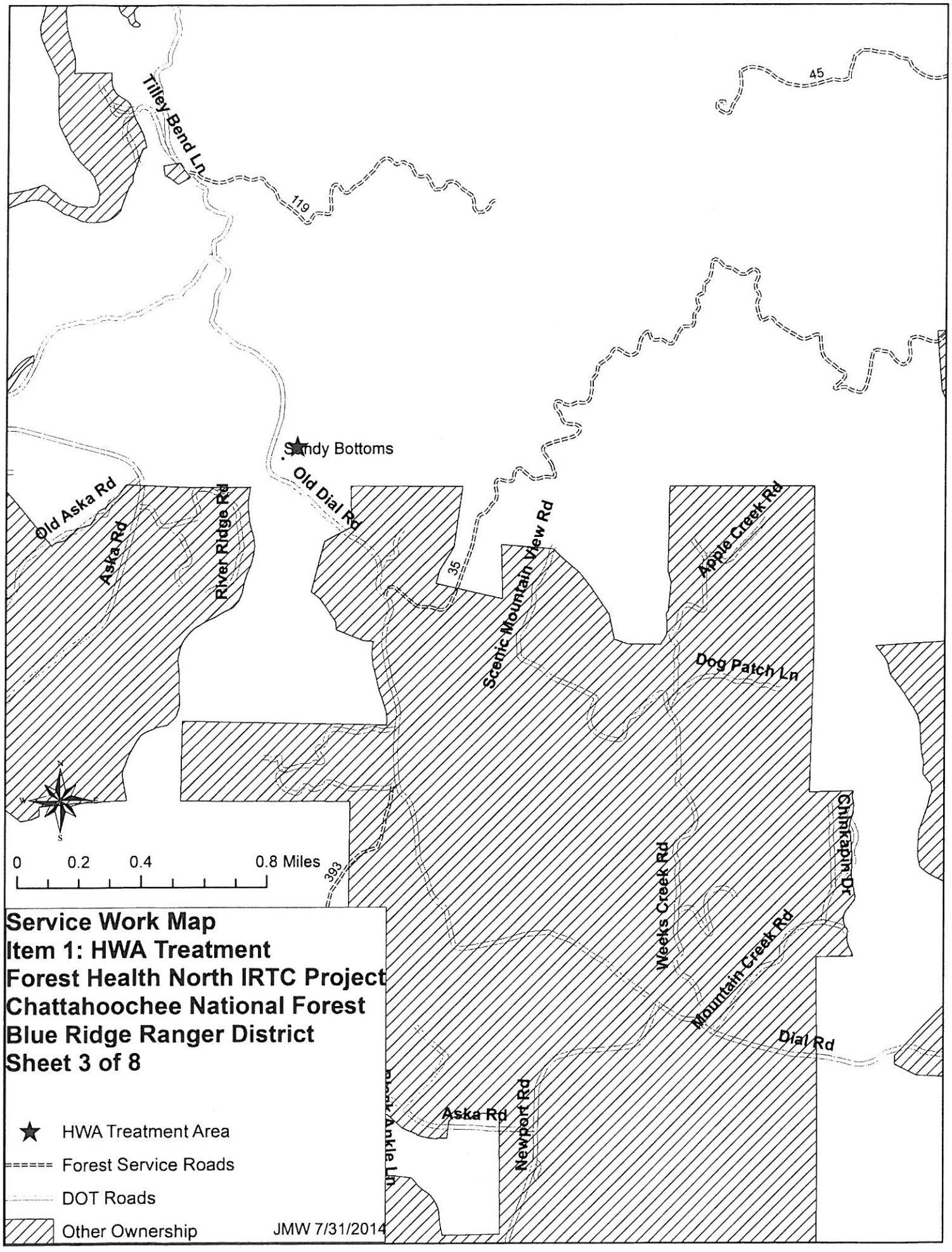
JMW 7/31/2014

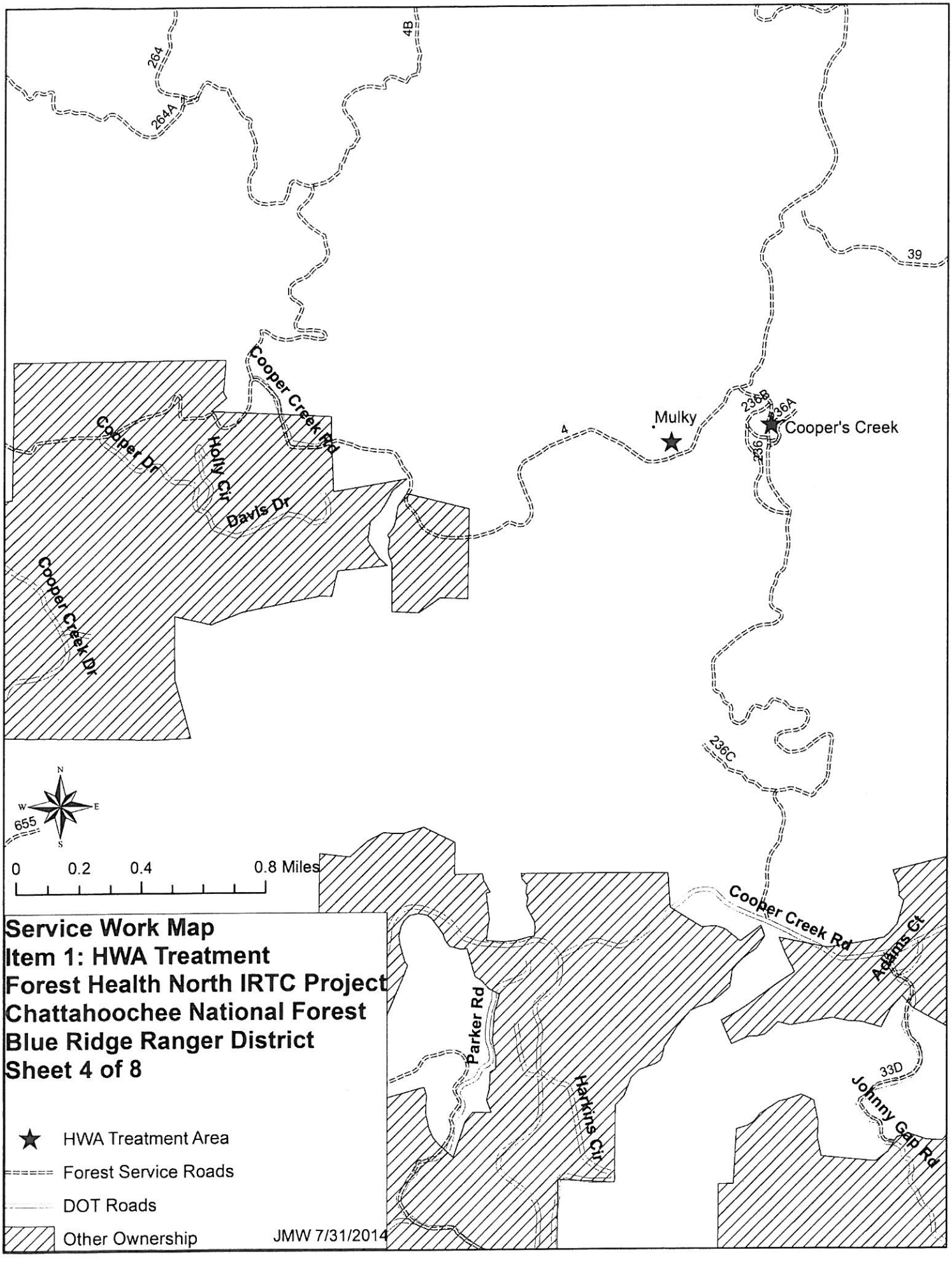


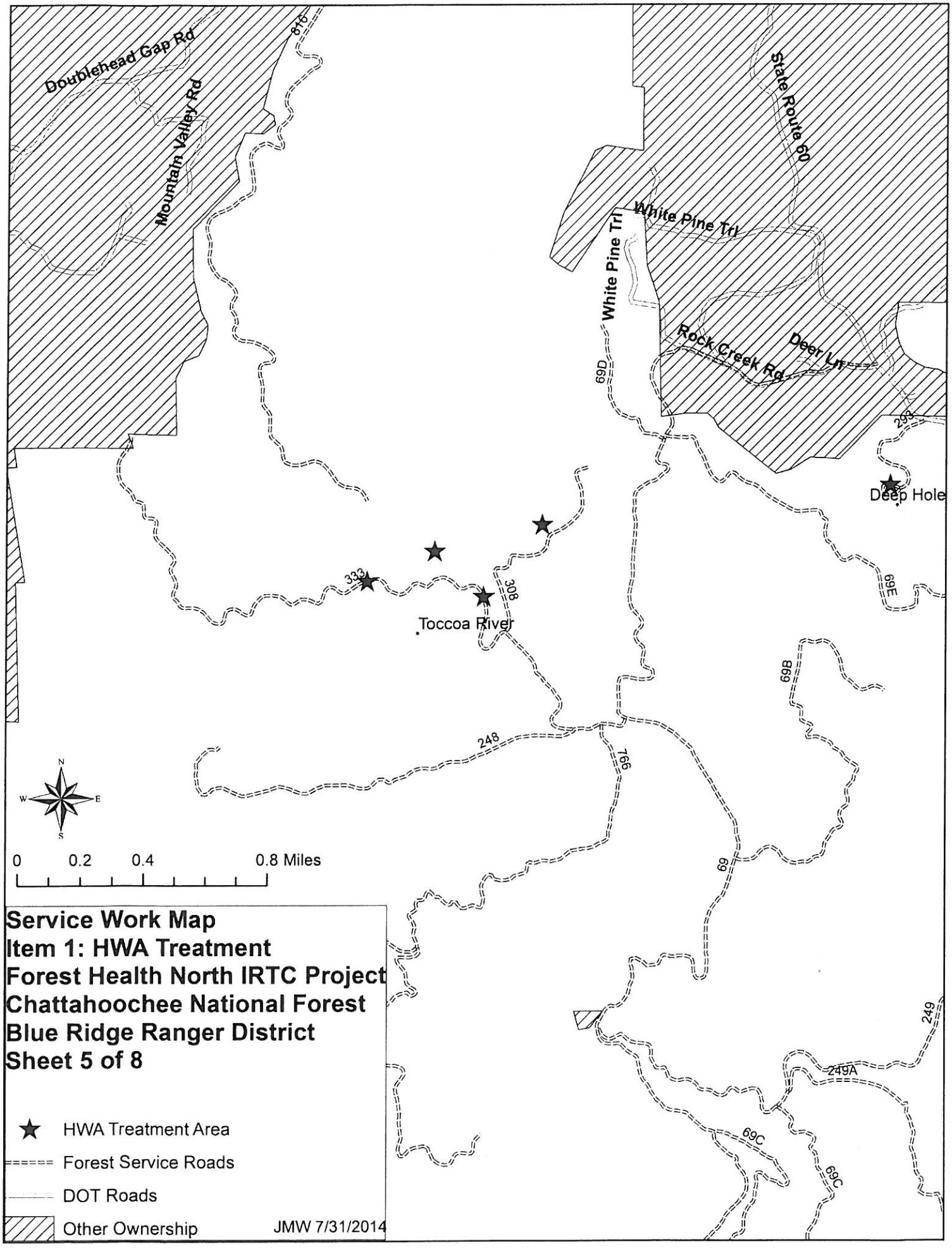
Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 2 of 8

★ HWA Treatment Area
====== Forest Service Roads
——— DOT Roads
Other Ownership

JMW 7/31/2014


Tilley Bend Ln
119
45
Sandy Bottoms
Old Dial Rd
Old Aska Rd
Aska Rd
River Ridge Rd
35
Scenic Mountain View Rd
Apple Creek Rd
Dog Patch Ln
Chinkapin Dr
Weeks Creek Rd
Mountain Creek Rd
Dial Rd
Aska Rd
Newport Rd
Bear Ankle Ln
393
N
W
E
S
0 0.2 0.4 0.8 Miles
Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 3 of 8
HWA Treatment Area
Forest Service Roads
DOT Roads
Other Ownership
JMW 7/31/2014

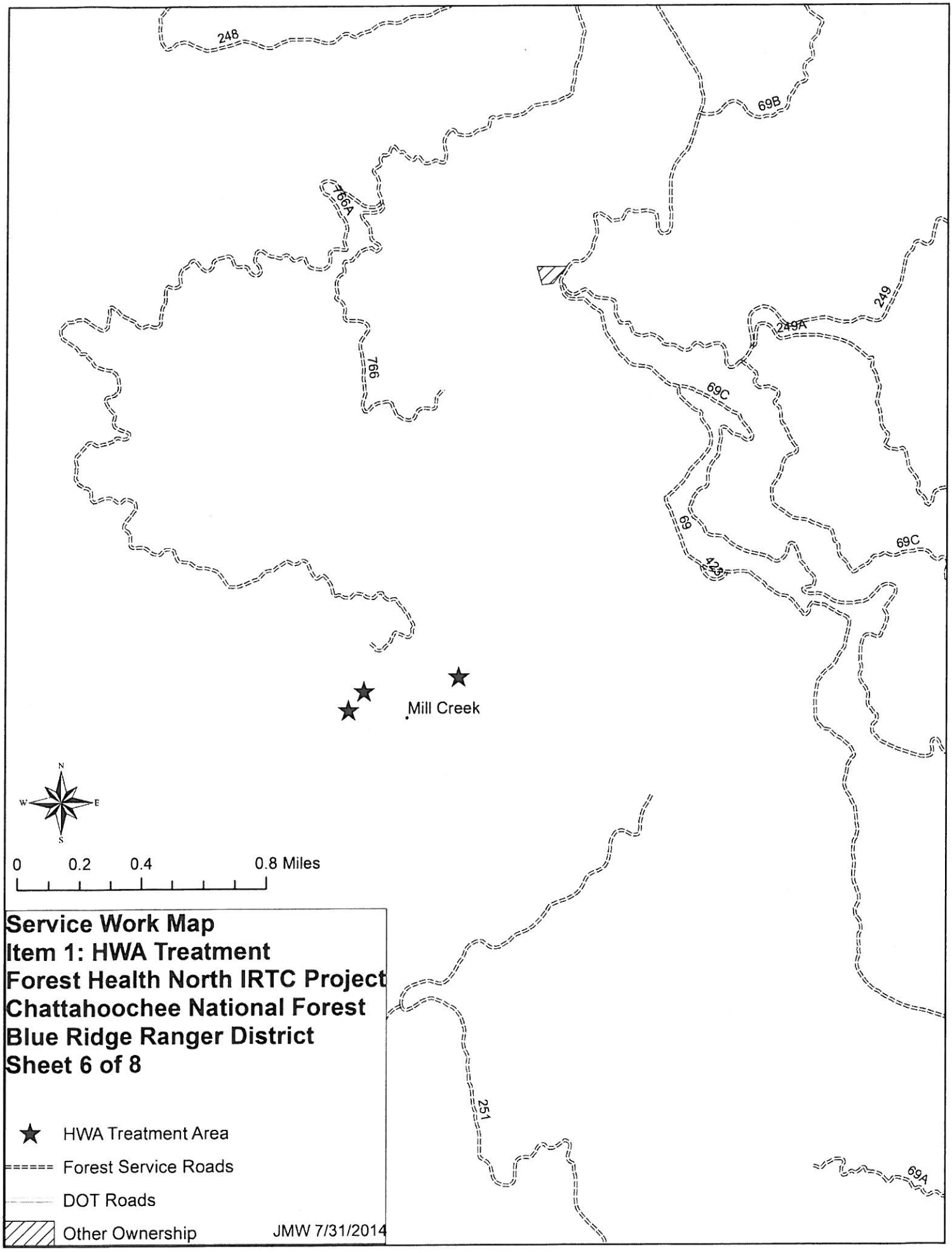

264
264A
4B
39
Cooper Creek Rd
Cooper Dr
Holly Cir
Davis Dr
Cooper Creek Dr
Mulky
4
236B
236A
Cooper's Creek
236
236C
655
N
W
E
S
0 0.2 0.4 0.8 Miles
Cooper Creek Rd
Adams Ct
Parker Rd
Harkins Cir
33D
Johnny Gap Rd
Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 4 of 8
HWA Treatment Area
Forest Service Roads
DOT Roads
Other Ownership
JMW 7/31/2014

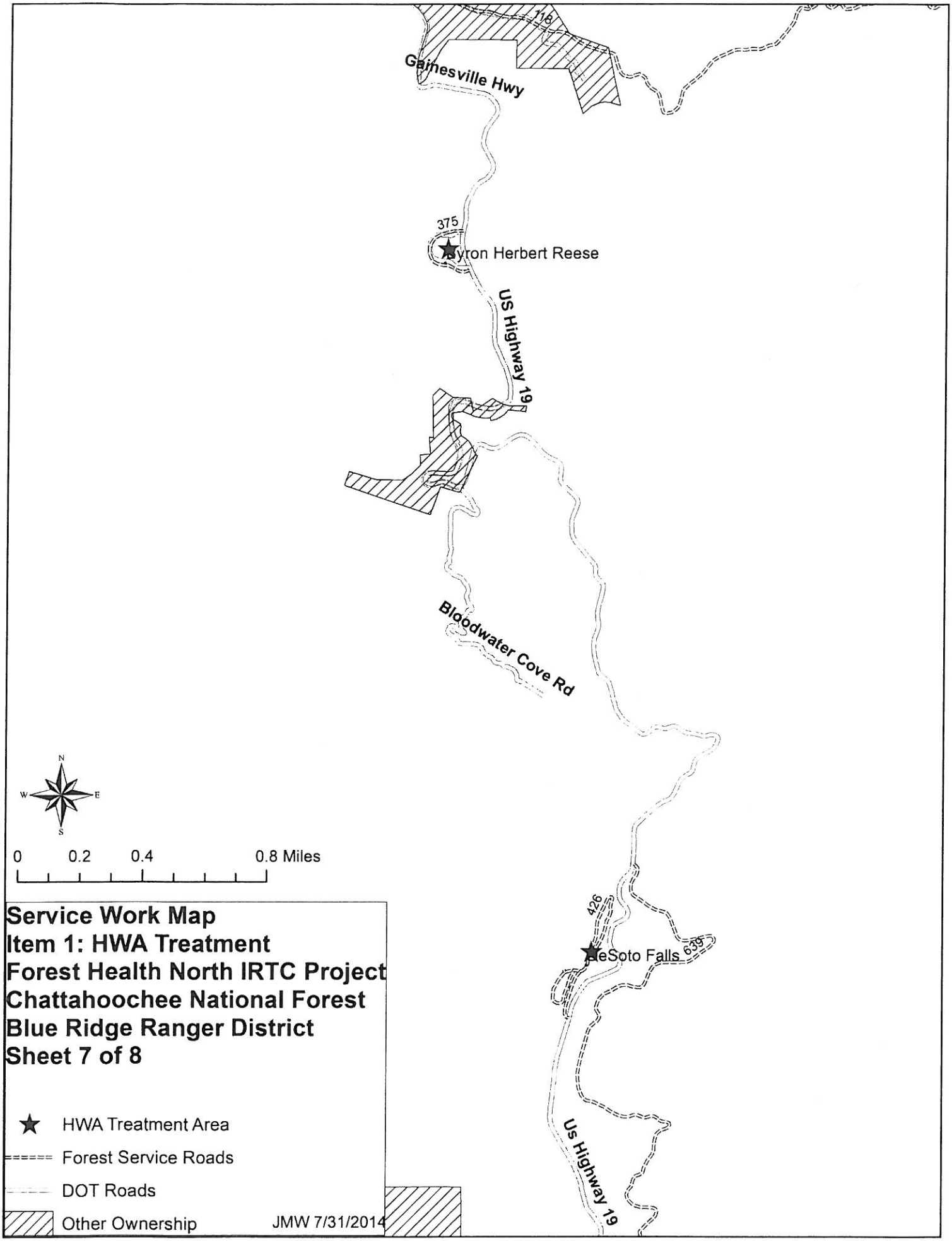


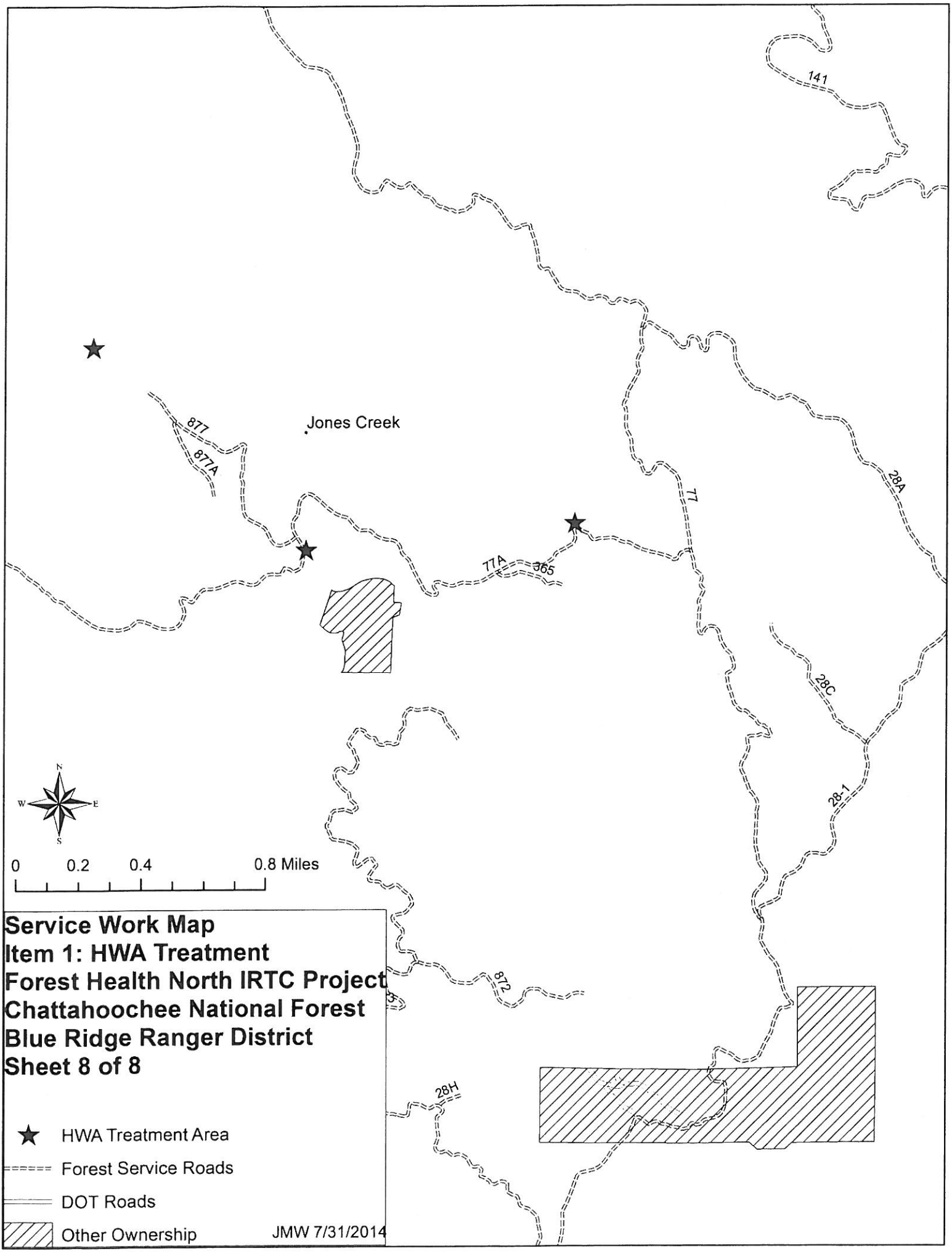
Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 5 of 8

★ HWA Treatment Area
Forest Service Roads
DOT Roads
Other Ownership

JMW 7/31/2014


248
69B
766A
766
249
249A
69C
69
423
69C
Mill Creek
N
W
E
S
0
0.2
0.4
0.8 Miles
Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 6 of 8
HWA Treatment Area
Forest Service Roads
DOT Roads
Other Ownership
JMW 7/31/2014
251
69A


118
Gainesville Hwy
375
Byron Herbert Reese
US Highway 19
Bloodwater Cove Rd
N
W
E
S
0
0.2
0.4
0.8 Miles
426
DeSoto Falls
639
Us Highway 19
Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 7 of 8
HWA Treatment Area
Forest Service Roads
DOT Roads
Other Ownership
JMW 7/31/2014



Service Work Map
Item 1: HWA Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 8 of 8

★ HWA Treatment Area

Forest Service Roads

DOT Roads

Other Ownership

JMW 7/31/2014

Item 2: Roadside NNIS vegetation Control (Herbicide)

General Specifications

The purpose of the project is to control non-native invasive plant species (NNIS) on the Blue Ridge Ranger District roadside and to prevent any further spread. A combination of foliar and cut-stem treatments on NNIS will be used.

SCOPE OF PROJECT

Contractor shall furnish all equipment with operator, equipment, materials, supplies (herbicides, adjuvants, dye, and water), supervision, and all work incidental services necessary to treat **121.2 acres** of NNIS in accordance with specifications described below. **Contractor must be able to identify targeted NNIS species.**

LOCATION AND DESCRIPTION

NNIS treatments are located within the boundaries of:

National Forest:	Chattahoochee
District:	Blue Ridge
County:	Union, Lumpkin, and Fannin
State:	Georgia

The treatment sites are described below and are shown on attached Service Work maps.

FSR 28-1 From approximately 0.2 miles east of in the intersection with FSR 144, west to the property line approximately 0.9 miles west of FSR 77. (2.9 miles). Treat 20 feet either side of road. Primarily Autumn Olive (10% of area) with widely scattered patches of mimosa and Japanese honeysuckle. **14.1 acres.**

FSR 141 – From intersection with FSR 28-1 to approximately 100 yards past 1st large wildlife opening (0.8 miles). Treat 20 feet either side of road. Primarily Autumn Olive (5% of area) with widely scattered patches of mimosa and Japanese honeysuckle. **4.5 acres.**

FSR 28-B - From approximately 100 yards north of the intersection with FSR 28-F, south approximately 1.7 miles. Treat 20 feet either side of road. Widely scattered patches of Autumn Olive (5% of area) and Japanese Spirea (5% of area). **8.0 acres**.

FSR 69 - Begins at FSR 656 and extends past the Frank Gross Campground to the pink painted boundary (4.2 miles). Treat 20 feet either side of road. Primary autumn olive (25% of area) with isolated patches of multiflora rose. **20.5 acres**.

Adjacent to FSR 69

- **Gated road along DNR check station that leads to wildlife opening**. From intersection with FSR 69, to wildlife opening (entire length) (0.2 miles). **Treat road bed and 20 feet either side of road.** Primarily Autumn Olive (90% of area) with isolated

patches of privet, and periwinkle. **Approximately 1.1 acres.**

- **Wildlife opening near DNR check station.** Treat from edge of opening to interior of tree line 20 feet. Primarily autumn olive (40% of area) **0.3 acres.**

FSR 34 - Section 1- Begins at pavement end and ends at road to wildlife opening just past camp site across from FS property corner. 1.96 miles. Treat 20 feet both sides of road bed. Primarily autumn olive (20% of area) with occasional privet. **9.5 acres**

Adjacent to FSR 34 Segment 1

- **Wildlife opening and parking area on southwest side of road.** Treat 20 feet of perimeter of opening and parking area. Primarily Autumn Olive (80% of area). **0.6 acres**
- **Group campsite A B and wildlife opening.** Treat 20 feet of perimeter of road leading to site, campsite, and wildlife opening. Primarily autumn olive (70% of area) with scattered Chinese privet, oriental bittersweet, English ivy, and periwinkle. **0.45 acres**
- **Campsite and wildlife opening at the northern end of Section 1** - Treat entire area. Primarily autumn olive (30% of area) **1.2 acres**

FSR 34 - Section 2. In vicinity of concrete ford. Treat 20 feet on both sides of road bed. Primarily autumn olive (20% of area). **0.2 acres**

FSR 34 Section 3. Includes road edge and perimeter of dispersed camp site G. Treat 20 feet both sides of road and 20 feet of dispersed site perimeter. Primarily Autumn Olive (30 % of area) **0.6 acres**

Highway 129 - West side of Highway. Begins at painted boundary near Chattahoochee N.F. sign and ends at painted boundary near the Mountain Crossings site. Treat entire west side of road for **100 feet** from road edge. Primarily Oriental Bittersweet and Japanese Spirea (10% of area). **29.9 acres**

Highway 129 - East side of Highway. Treat entire east side of road for **100 feet** from road edge except area from Helton Creek (not painted) to painted boundary just north of Helton Creek Rd. Primarily Oriental Bittersweet and Japanese Spirea (10% of area). **25.6 acres**

Jones Creek – Wildlife Opening and 3 dispersed sites at intersection of FSR 77A and 877. Treatment area is bounded by painted boundaries and streams. Primarily Autumn Olive (60% of area). **4.4 acres**

Jones Creek - Campsite across bridge. Treat outside perimeter 20 feet including road edge from bridge. Primarily Autumn Olive (60% of area). **0.2 acres**

Area	Width of treatment Area *	Acres

FSR 28-1	20 feet	14.1
FSR 141	20 feet	4.5
FSR 28-B	20 feet	8.0
FSR 69	20 feet	20.5
Gated Access Road	20 feet	1.1
Wildlife opening	20 feet	0.3
FSR 34 Section 1	20 feet	9.5
Parking area and Wildlife opening	20 feet	0.6
Group Camp A B	20 feet	0.5
Campsite and Wildlife opening	n/a	1.2
FSR 34 Section 2	20 feet	0.2
FRS 34 Section 3	20 feet	0.6
Highway 129 West of Highway	100 feet	29.9
Highway 129 East of Highway	100 feet	25.6
Jones Creek – Wildlife opening and campsites	n/a	4.4
Jones Creek - Campsite across bridge	20	0.2
Total		**121.2**

* Unless otherwise specified, the width of treatment area is measured from the inner edge of the grassy road shoulder on both sides of the road and around the perimeter of the wildlife openings and dispersed campsites.

TECHNICAL SPECIFICATIONS

The contractor will adhere to all Pesticide Standards, Requirements for Pesticide Use, Storage, and Transportation and Emergency Spill Plan as provided in Appendix A. The Forest Service will provide signs for the contractor to post in treatment areas prior to herbicide treatments. The sign will inform the public that herbicides are being used in the area and the date of the application.

Treatment will be applied to targeted vegetation at designated locations along both sides of the listed roads and the perimeter associated wildlife openings and dispersed camp sites. Unless otherwise specified in writing, the area to be treated includes a 20 foot-wide strip (as measured from the inner edge of the grassy road shoulder) either side of the road. A 100 foot-wide strip will be used for the sites on Highway 129. The starting and ending points on the roads are marked in pink paint. The primary species to be treated along these roads are listed above for each road. However, isolated individuals of other target species may be present and should be treated if encountered. These include: Autumn Olive, Oriental Bittersweet, Japanese Spirea, Chinese or Japanese Privet, Mimosa, Multiflora Rose, Tree of Heaven, Princess Tree, Periwinkle, and Japanese Honeysuckle.

Treatment Methods:

- An inert dye (blue) provided by the contractor shall be added into all herbicide mixes for ease of inspection. Appropriate surfactants will also be required to maximize effectiveness.

- Only aquatic label herbicides and surfactants should be used

- Vegetation less than 6 feet tall shall be treated by foliar spraying with backpack sprayers or other hand-held spray equipment.

- Vegetation greater than 6 feet shall be cut within 6 inches of the ground and sprayed immediately with the appropriate herbicide solution by backpack sprayer or other hand-held spray equipment.

- Treatment shall be done during the months of July- August.

- Dated signs shall be posted in the project area during herbicide treatments, advising forest users to avoid the area for at least 24 hours following application.

- All cut stems will be removed from within 10 feet road edge, wildlife openings, or dispersed campsites. Cut stems may be scattered or piled. Piles will not exceed 4 feet in height, 4 feet wide, and 4 feet long. All piles will be spaced at least 10 feet apart.

Foliar Treatments	**Vegetation < 6 feet in height**				
Herbicide*	**Species**	**lb ai/gal**	**% fraction in solution**	**gal spray/acre**	**lb ai/acre**
Triclopyr (amine) (AQUATIC LABEL)	Autumn Olive, Oriental Bittersweet, Japanese Spirea, Mimosa, Princess Tree, Tree of Heaven, English Ivy, Japanese Honeysuckle	3	2	10	0.6
Glyphosate (AQUATIC LABEL)	Chinese Privet, Multiflora Rose, Periwinkle	4	4	10	1.6
Cut Stem Treatments	**Vegetation > 6 feet in height**				
Herbicide*	**Species**	**lb ai/gal**	**% fraction in solution**	**gal spray/acre**	**lb ai/acre**
Glyphosate (AQUATIC LABEL)	Autumn Olive, Multiflora Rose	4	20	0.5	0.4
Triclopyr (amine) (AQUATIC LABEL)	Oriental Bittersweet, Japanese Spirea, Mimosa, Princess Tree, Tree of Heaven, English Ivy, Japanese Honeysuckle, Chinese Privet	3	25	0.5	0.3

*** the labeled rate (about 1 quart to 100 gallon solution) of a non-ionic surfactant (aquatic-label) must be added to each chemical solution.**

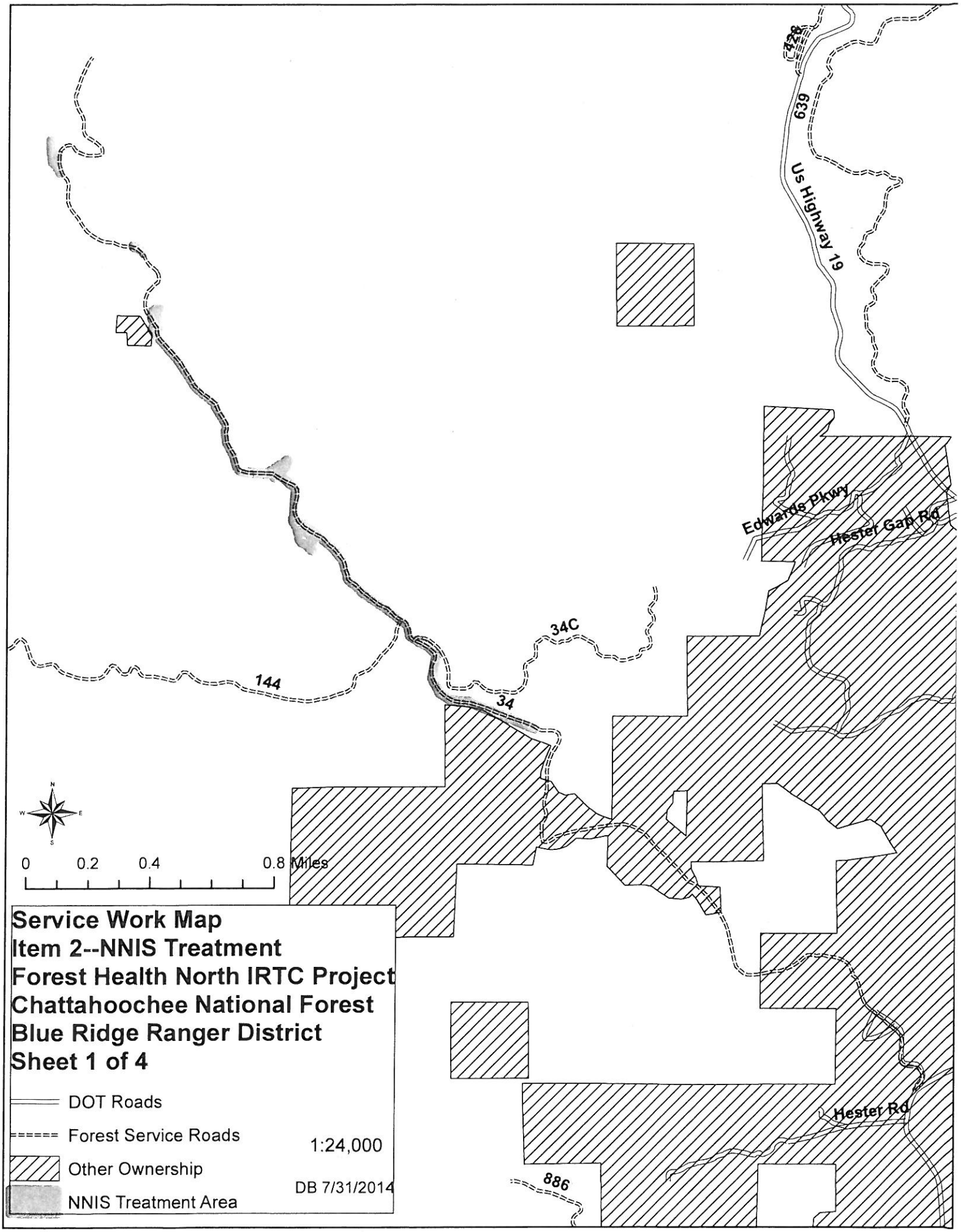
INSPECTION and ACCEPTANCE

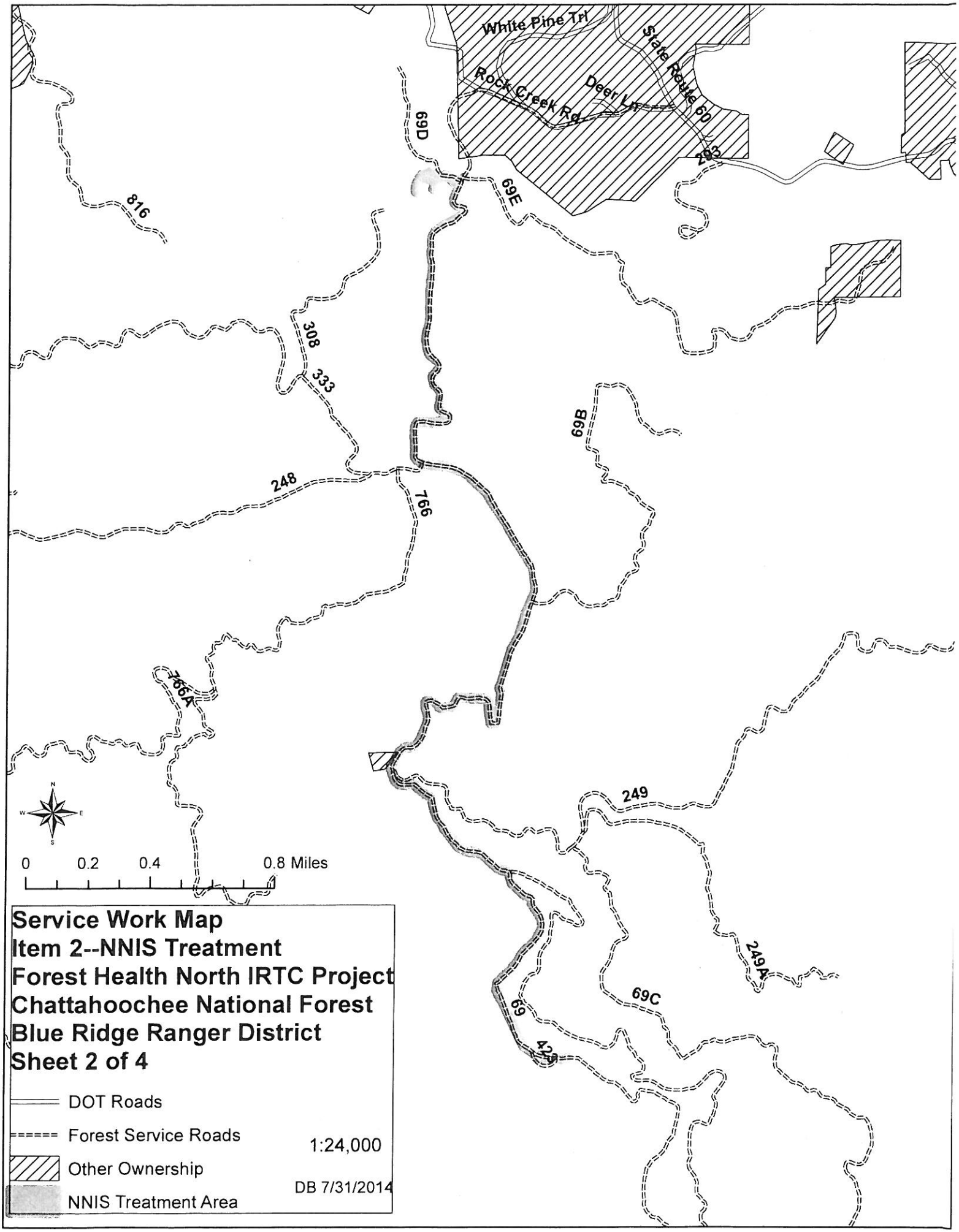
Contractor will maintain an accurate daily treatment log of work activities and chemicals applied in treatment sites, with a copy made available to FS at billing or upon request. The daily log will be maintained for each product (if applied separately) for each site. A sample pesticide use log form will be supplied to the contractor by the Forest Service.

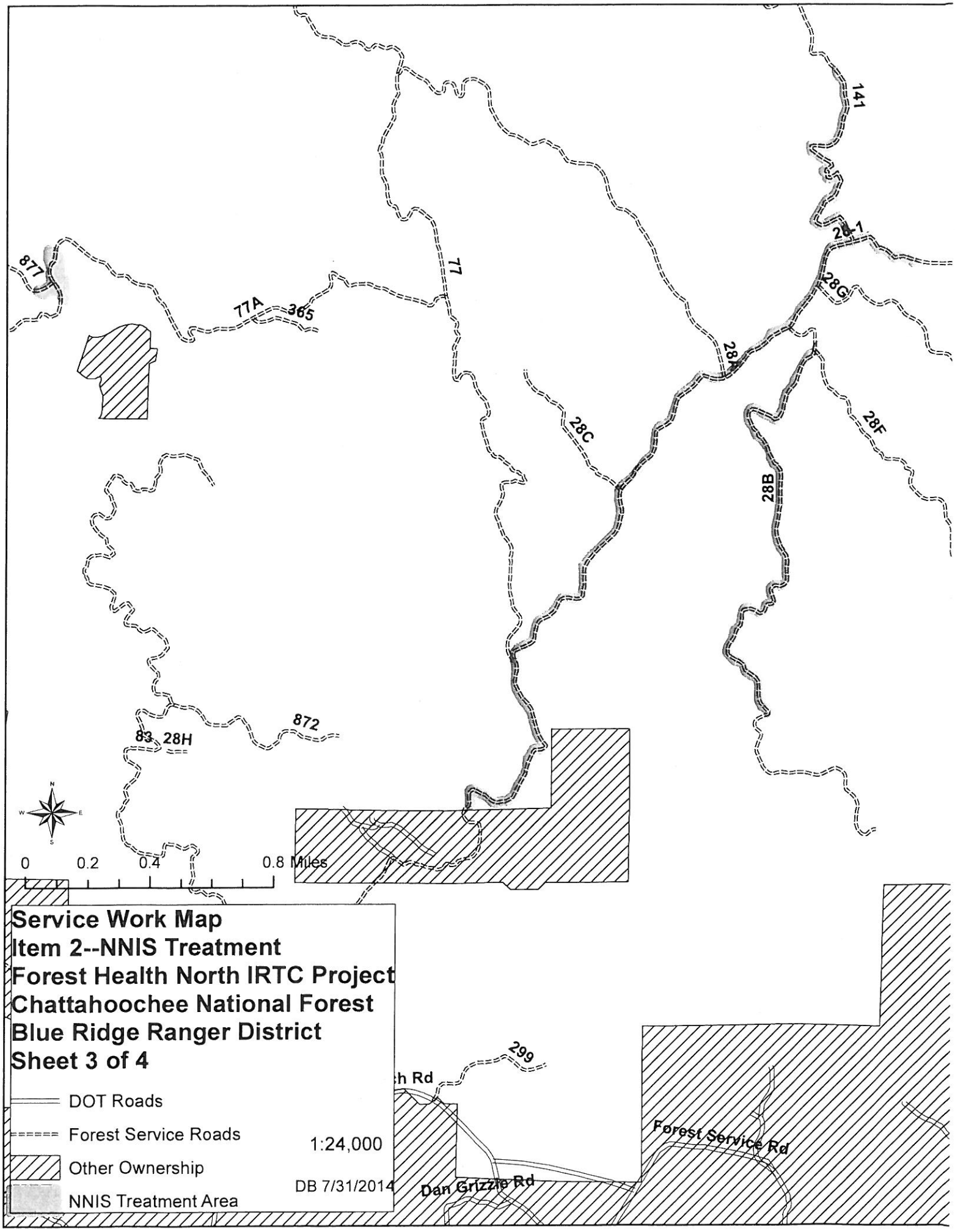
The Forest Service Contracting Officer's Representative or Inspector shall inspect the herbicide application within 30 days of application. This should generally provide time for the effects of the herbicide to become evident. Indications of herbicide application and incipient mortality shall be evident by visual deterioration of the treated plants, including drooping, wilting, chlorosis, interrupted seed maturation, and drying of plant parts (stem, leaves, reproductive parts), beyond recovery. Inspections shall determine both the adequacy of coverage of the project area and the efficacy of the application to the target species.

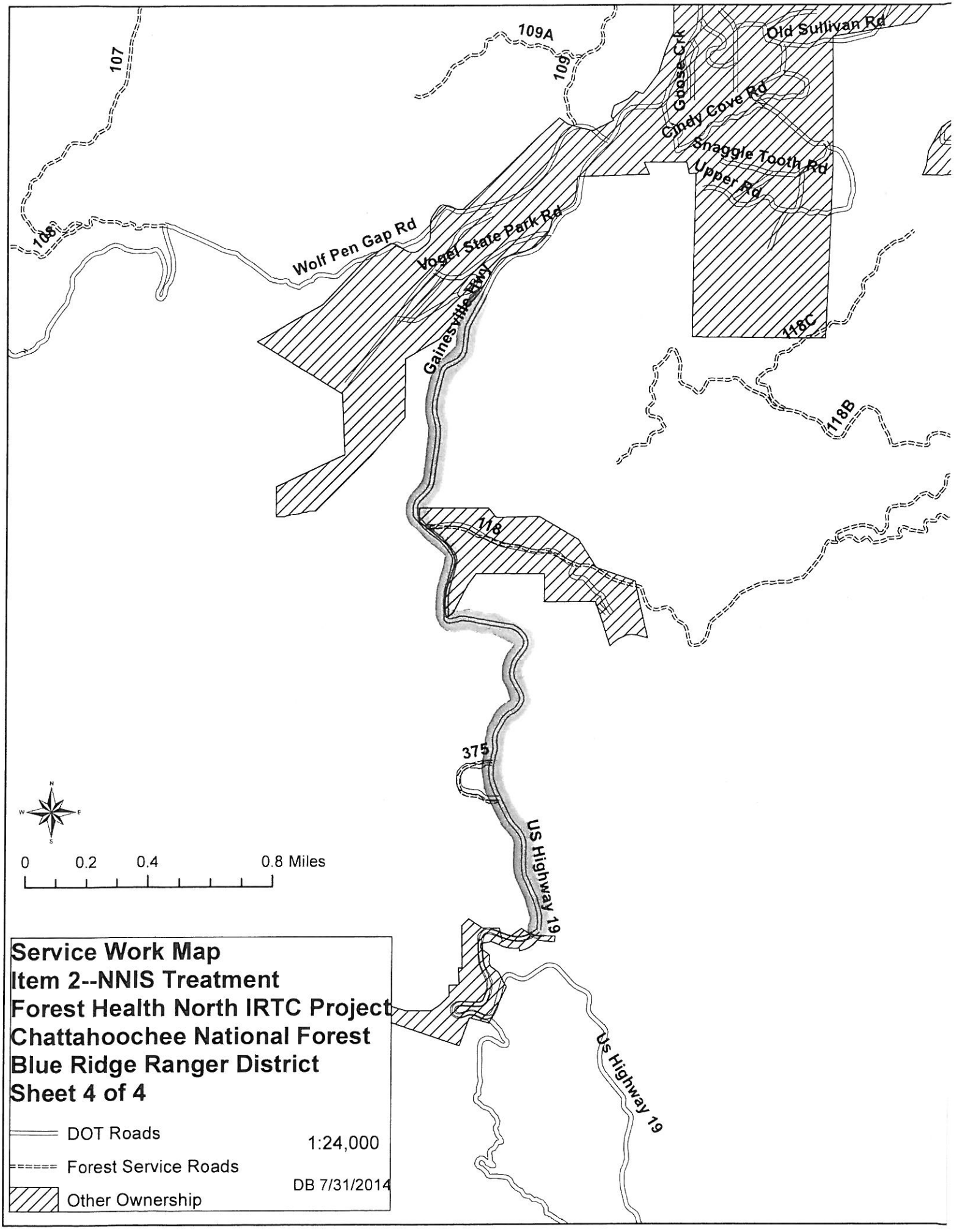
PERFORMANCE ASSESSMENT METHODS AND ACCEPTABLE QUALITY LEVELS (AQL)

Task	Quality/Performance Standards	AQL	Method of Assessment	Penalty for Not Meeting AQL
Foliar spray	At least 90 % of targeted NNIS vegetation treated; at least 85% mortality of target NNIS infestation and with no more than 10 % inadvertent treatment to non-target vegetation.	Minimum of 90 % of targeted vegetation treated; minimum of 85% mortality of target NNIS infestation; and no more than 10 % inadvertent treatment to non-target vegetation.	Visual inspections by COR or COI of random locations or transect or the entire area if possible performed 30 days after application.	Contractors not meeting the minimum 85% kill rate at the final inspection of treated vegetation may be required to reapply herbicide at their expense.
Cut surface herbicide application	At least 95 % of targeted NNIS vegetation treated with no more than 10 % inadvertent treatment to non-target vegetation.	Minimum or 95 % of trees, shrubs and vines 6 feet tall or greater cut within 6 inches of ground level and treated with herbicide; and no more than 10% inadvertent treatment to non-target vegetation	Visual inspections by COR or COI of random locations or transect or the entire area if possible performed 30 days after application.	Contractors not meeting the minimum 95% treatment rate at the final inspection of treated vegetation may be required to reapply herbicide at their expense.
Proper disposal of cut invasive plants	At least 99% of Target NNIS vegetation disposed of as specified in the scope of work.	Disposal of a minimum of 99% of cut vegetation .	Visual inspections by COR or COI of random locations or transect or the entire area is possible performed 30 days after application.	Contractors not meeting the minimum 99% disposal at the final inspection, will be required to revisit site and dispose of plants as specified, at their expense.
Daily log of work activities	All daily logs are completed and submitted to the COR.	100% of the daily logs are completed and submitted.	Acceptance of daily log by COR or COI prior to payment.	All daily logs must be completed and submitted for final payment.


428
639
Us Highway 19
Edwards Pkwy
Hester Gap Rd
34C
144
34
Hester Rd
886
0 0.2 0.4 0.8 Miles
Service Work Map
Item 2--NNIS Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 1 of 4
DOT Roads
Forest Service Roads
Other Ownership
NNIS Treatment Area
1:24,000
DB 7/31/2014


White Pine Trl
Rock Creek Rd
Deer Ln
State Route 60
69D
69E
816
308
333
69B
248
766
766A
249
249A
69C
69
42
0
0.2
0.4
0.8 Miles
Service Work Map
Item 2--NNIS Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 2 of 4
DOT Roads
Forest Service Roads
Other Ownership
NNIS Treatment Area
1:24,000
DB 7/31/2014


141
877
77
77A
365
28
28G
28A
28C
28F
28B
872
83
28H
0
0.2
0.4
0.8 Miles
299
Dan Grizzle Rd
Forest Service Rd
Service Work Map
Item 2--NNIS Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 3 of 4
DOT Roads
Forest Service Roads
Other Ownership
NNIS Treatment Area
1:24,000
DB 7/31/2014


107
109A
109
Goose Crk
Old Sullivan Rd
Cindy Cove Rd
Snaggle Tooth Rd
Upper Rd
108
Wolf Pen Gap Rd
Vogel State Park Rd
Gainesville Hwy
118C
118B
118
375
US Highway 19
0 0.2 0.4 0.8 Miles
Service Work Map
Item 2--NNIS Treatment
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 4 of 4
DOT Roads
Forest Service Roads
Other Ownership
1:24,000
DB 7/31/2014

Item 3: Gate Installation

GENERAL SPECIFICATIONS

3 gates will be replaced on Forest Service system roads. The existing gates are in poor functional condition through damage or deterioration. The existing gates will be removed and returned to the Forest Service. Gate replacement will improve protection from unauthorized activity, which causes erosion and damage to soil and water resources.

SCOPE OF PROJECT

The contractor shall furnish all equipment, labor, transportation, supervision, and perform all work required for **the Gate Replacement/Installation** on the Chattahoochee-Oconee National Forest in accordance with the specifications and provisions of the contract.

DESCRIPTION AND LOCATION

The project consists of replacing 2 existing gates, 1 each on FSRs 816 and 119, and the new installation of 1 gate on FSR 332. If locations change, they will be agreed upon in writing by the Forest Service and contactor to ensure similar work exists.

TECHNICAL SPECIFICATIONS

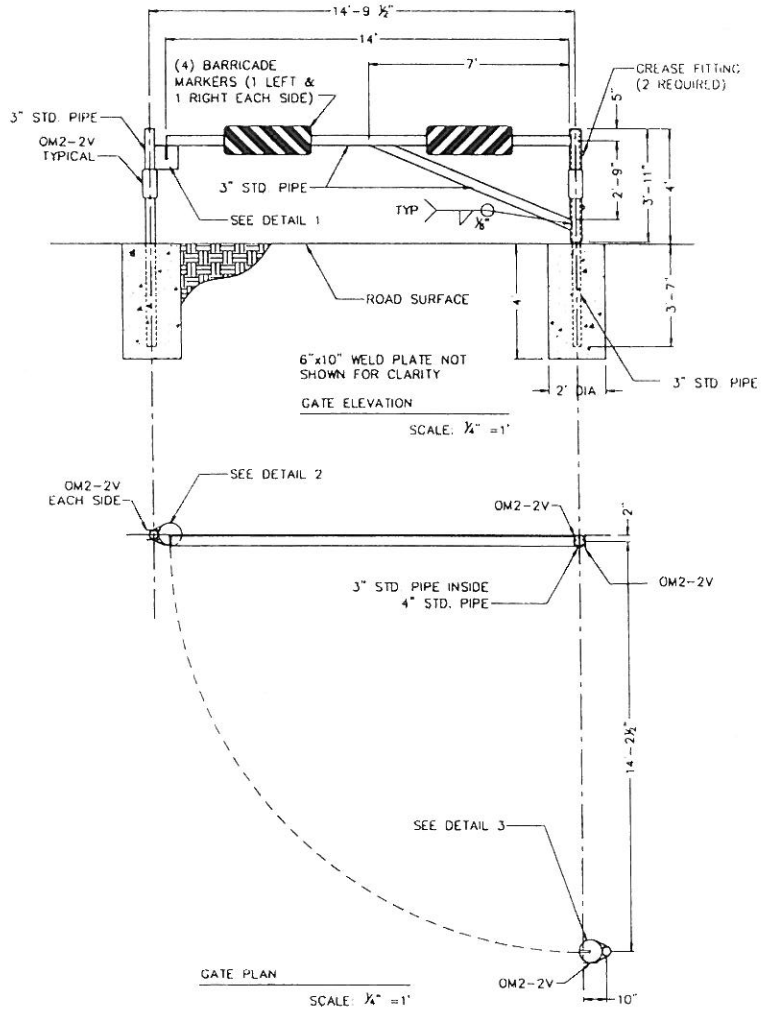
Each Gate will be installed with the specifications as diagramed in the images below.

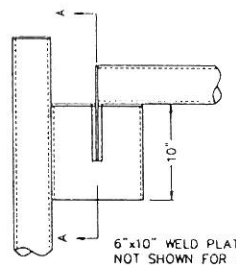
GOVERNMENT FURNISHED PROPERTY

NONE

INSPECTION AND ACCEPTANCE

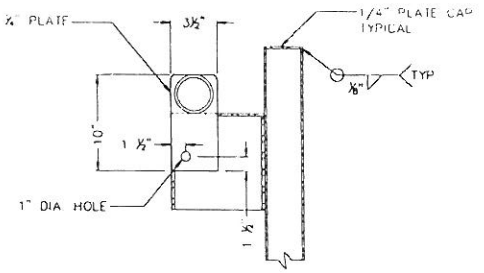
Work will be accepted when the work is completed according to the project item specifications. If the work completed is accepted, the contractor shall proceed according to the Work Progress Schedule. If the work is not accepted, the contractor shall not receive project item credit until completing any remedial work required for acceptance. If the area cannot be brought up to specifications, credits or payments will be reduced or not be awarded.





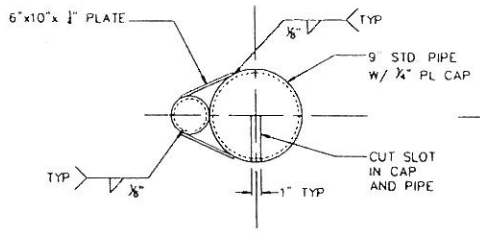
DETAIL 1, ELEVATION

SCALE 1"=1'



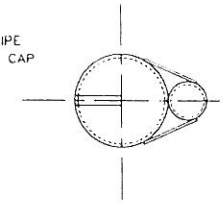
SECTION A-A

SCALE 1"=1'



DETAIL 2. PLAN VIEW

SCALE 1"=1'



NOTE ORIENTATION.
FOR OTHER INFO SEE DETAIL 2

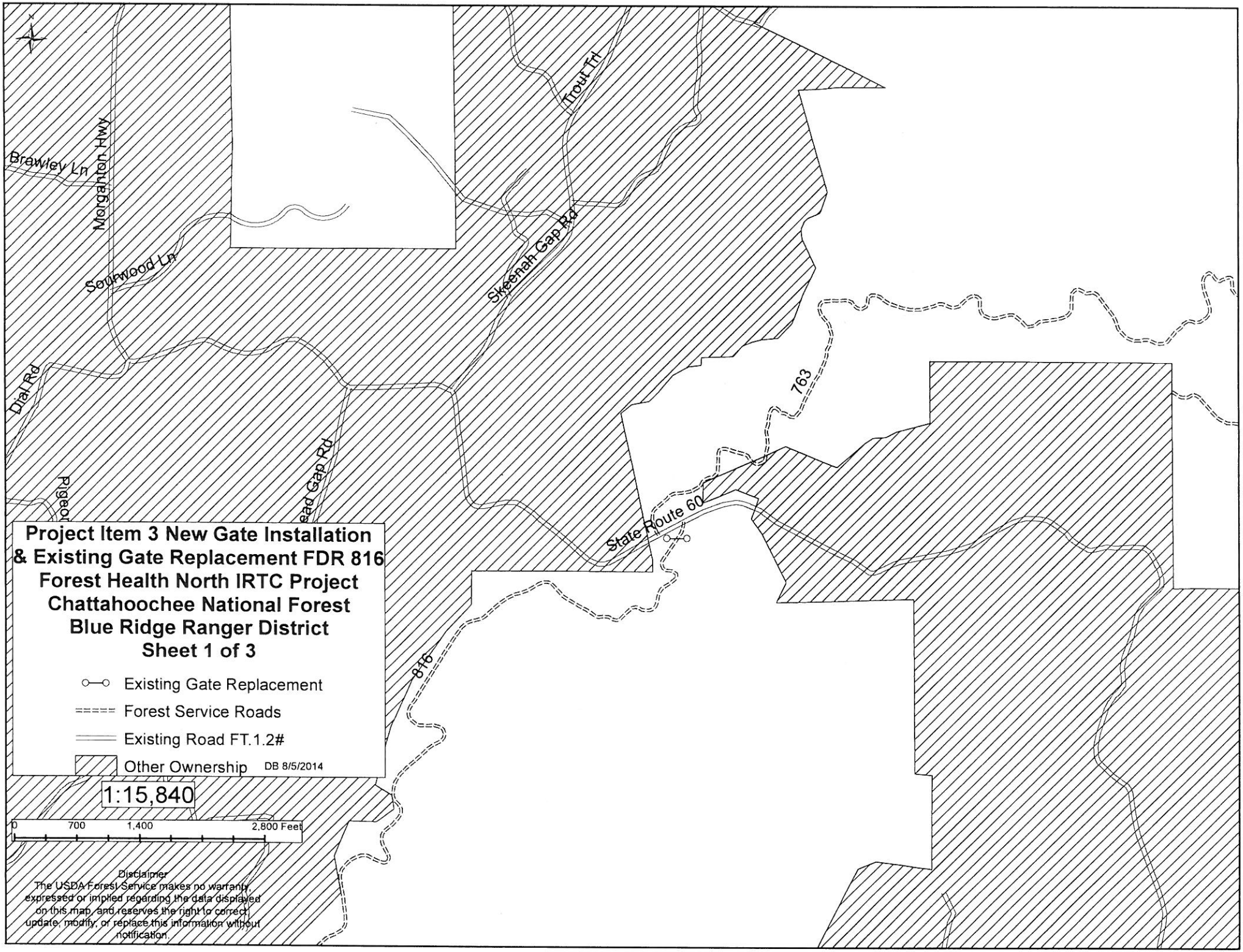
DETAIL 3. PLAN VIEW

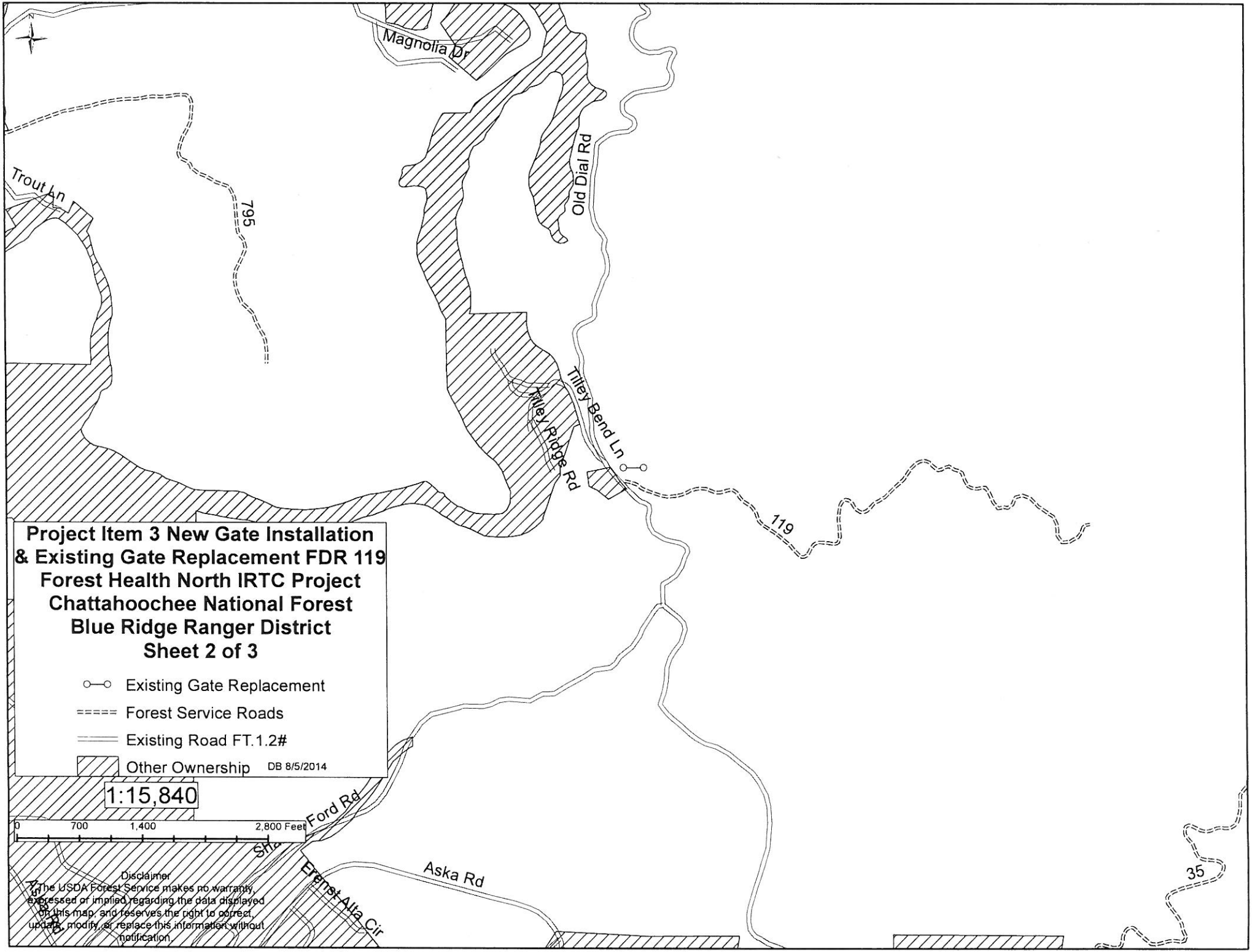
SCALE 1"=1'

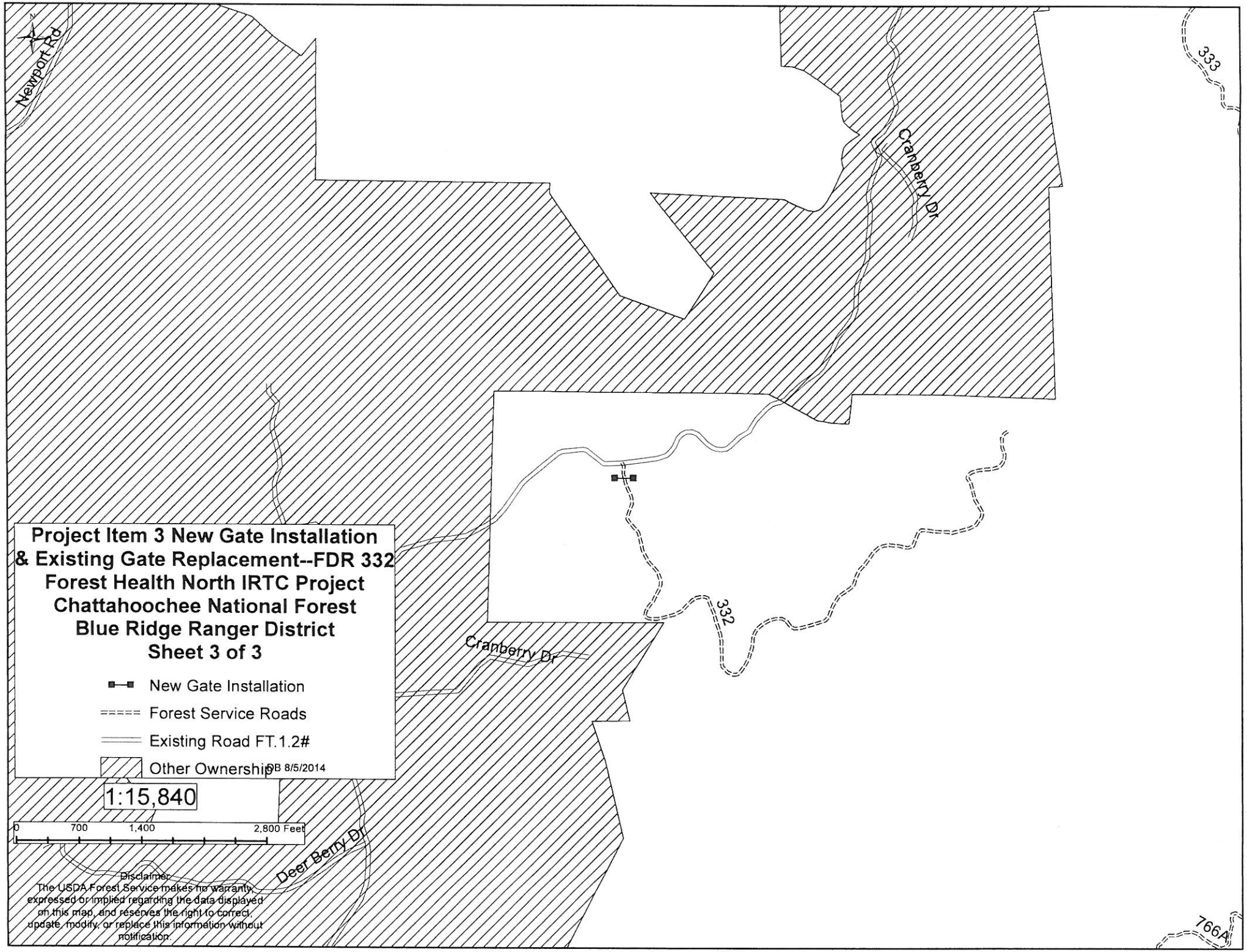
NOTES

1. ALL PIPE SHALL BE ASTM A53 GRADE B STEEL PIPE.
2. ENTIRE STRUCTURE SHALL RECEIVE A STEEL COATING SYSTEM 5 FROM FP-03 TABLE 563-1 OR SYSTEM 7 FROM TABLE 563-2 AS APPLICABLE. SURFACE PREPARATION SHALL CONFORM TO FP-03 563.07(b). ALL COATS WILL BE SHOP APPLIED. PAINT SHALL COMPLY WITH FP-03 708. COLOR SHALL BE BROWN AS APPROVED BY THE CO.
3. GRIND ALL CORNERS AND WELDS SMOOTH.
4. ALL MATERIALS SHALL BE FREE OF RUST.
5. CONCRETE SHALL BE 3000 PSI AND MAY BE BLENDED PRE-APPROVED BAG MIX CONFORMING TO ASTM C-387.
6. CLOSURE GATE PAY ITEM INCLUDES ALL REQUIRED ATTACHED SIGNS.
7. ATTACH ALL SIGNS WITH VANDAL-PROOF FITTINGS TO BE APPROVED BY THE CO.
8. "OM2-2V" AND BARRICADE MARKERS SHALL HAVE RETROREFLECTIVE SHEETING OF ASTM D 4956 TYPE II "SUPER ENGINEERING GRADE".
9. FIELD VERIFY POST LENGTH FOR FILL SLOPE SIDE.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE REGION 8	CHATTAHOOCHEE NATIONAL FOREST BLUE RIDGE RANGER DISTRICT NFSR #	TYPE 1 CLOSURE GATE	1 1


Brawley Ln
Morganton Hwy
Trout Trl
Sourwood Ln
Skeenah Gap Rd
Dial Rd
763
State Route 60
816
Project Item 3 New Gate Installation
& Existing Gate Replacement FDR 816
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 1 of 3
Existing Gate Replacement
Forest Service Roads
Existing Road FT.1.2#
Other Ownership
DB 8/5/2014
1:15,840
0
700
1,400
2,800 Feet
Disclaimer
The USDA Forest Service makes no warranty, expressed or implied regarding the data displayed on this map, and reserves the right to correct, update, modify, or replace this information without notification.


Magnolia Dr
Trout Ln
795
Old Dial Rd
Tilley Ridge Rd
Tilley Bend Ln
119
Project Item 3 New Gate Installation
& Existing Gate Replacement FDR 119
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 2 of 3
Existing Gate Replacement
Forest Service Roads
Existing Road FT.1.2#
Other Ownership
DB 8/5/2014
1:15,840
0
700
1,400
2,800 Feet
Ford Rd
Aska Rd
Ernest Alta Cir
35
Disclaimer
The USDA Forest Service makes no warranty, expressed or implied, regarding the data displayed on this map, and reserves the right to correct, update, modify, or replace this information without notification.


Newport Rd
Cranberry Dr
333
332
Cranberry Dr
Deer Berry Dr
766A
Project Item 3 New Gate Installation
& Existing Gate Replacement--FDR 332
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Sheet 3 of 3
New Gate Installation
Forest Service Roads
Existing Road FT.1.2#
Other Ownership
DB 8/5/2014
1:15,840
0 700 1,400 2,800 Feet
Disclaimer:
The USDA Forest Service makes no warranty, expressed or implied regarding the data displayed on this map, and reserves the right to correct, update, modify, or replace this information without notification.

Item 4: FSR 816 Road Maintenance

General Specifications

FSR 816 will be maintained beyond the timber harvest units to return the road to a more stable condition by improving the drainage and provide for a safer travel way for the visiting public. FSR 816 receives a high level of public travel with visitors to the "Swinging Bridge" and the trail head for the Benton Mackaye Hiking Trail. Road maintenance work will include surface blading, spot surfacing, grade dip installation and maintenance, cleaning and reconditioning of culverts, and drainage structure armoring, and mowing of roadside vegetation.

SCOPE OF PROJECT

The contractor shall furnish all equipment, labor, transportation, supervision, and perform all work required for the road maintenance of NFS 816 on the Chattahoochee-Oconee National Forest in accordance with the specifications and provisions of the project item.

DESCRIPTION AND LOCATION

The project for road maintenance of FSR 816 begins at station 89+85, the end of road maintenance requirements under the timber removal of Harvest Unit 13, and continues south 1.9 miles to the trailhead at the end of the road, the EOP.

TECHNICAL SPECIFICATIONS

Road maintenance will be performed in accordance with the project specifications provided in Appendix B.

GOVERNMENT FURNISHED PROPERTY

NONE

INSPECTION AND ACCEPTANCE

Project Item 4 will be accepted when the work is completed according to the project specifications. If the work completed is accepted, the contractor shall proceed according to the Work Progress Schedule. If the work is not accepted, the contractor shall not receive project credit until completing any remedial work required for acceptance. If the area cannot be brought up to specifications, credits will be reduced or not be awarded.

Chattahoochee National Forest
Blue Ridge Ranger District

Description of Work Items

Forest Health North Thinning
Item 4, FSR 816 Road Maintenance

Schedule of Items FSR 816, 3.6 miles

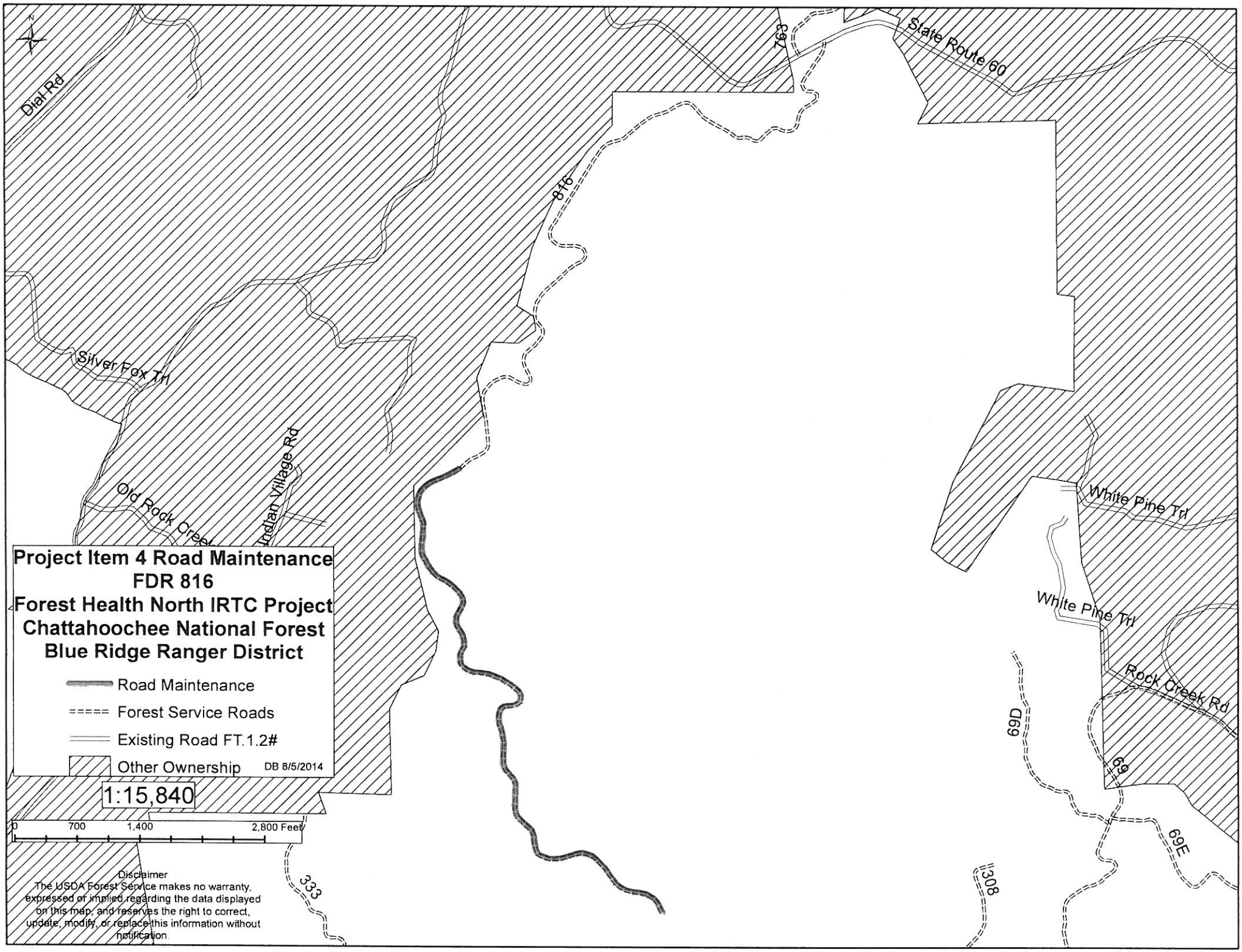
County	**Road Name**
Fannin	Tooni Gap

Station	**Description of Work Items**
0+00	Beginning of Stationing @ Intersection of NFSR # 816 Tooni Gap and GA State Highway 60
0+50	Route Marker RT 4"x4" post with National Forest Route Marker
89+85	End of Timber Sale Road Maintenance Begin Stewardship Project Road Maintenance
89+90	CMP, wet
91+05	Existing Dip, Reshape
92+55	Construct Turnout
96+04	Construct Turnout
102+30	Construct Drivable Grade Dip
104+04	CMP, Dry, Ephemeral, Recondition
105+36	Construct Drivable Grade Dip
108+73	Construct Drivable Grade Dip
110+33	Construct Drivable Grade Dip
111+83	Construct Drivable Grade Dip
113+80	CMP, wet, Recondition

115+22	Turnout
118+38	Existing Dip, Reshape
120+12	CMP, Dry, Ephemeral, Recondition
120+52	Turnout
122+05	Existing Dip, Reshape
125+25	Turnout
127+14	Construct Drivable Grade Dip
129+88	Turnout
130+60	CMP, Wet, Recondition
131+42	Construct Drivable Grade Dip Harden Dip
133+49	Existing Dip, Reshape
134+79	Existing Dip, Reshape
135+84	Existing Dip, Reshape
139+25	Construct Turnout Reshape Road Template to Drain
141+54	Turnout
142+74	Construct Drivable Grade Dip
144+20	Construct Drivable Grade Dip
146+26	Existing Dip, Reshape
147+33	Existing Dip, Reshape
150+50	Construct Turnout
153+03	Existing Dip, Reshape
154+93	Existing Dip, Reshape
157+09	CMP, Dry, Ephemeral, Recondition

158+33	CMP, Dry, Ephemeral, Recondition
159+82	Existing Dip, Reshape
161+03	Construct Drivable Grade Dip
162+40	Turnout Reshape Road Template to Drain RT
164+48	Existing Dip, Reshape
166+07	Existing Dip, Reshape
169+18	End of Stationing/End of NFSR # 816 Earthen Berm Closure Devices

County	Road Name	NFSR #	Miles	Estimate of Quantities	
Fannin	Tooni Gap	816	3.6		
Credit Items	Name	Measurement	Unit Price	Quantity	Total Price
811 (1)	Surface Maintenance Level 2 Roads	Mile	$ 375.00	1.9	$ 712.50
813 (1)	Spot Surfacing, Gradation **GDOT GAB**	Ton	$ 20.00	270	$ 5,400.00
813 (2)	Spot Surfacing, Gradation **# 4 Stone**	Ton	$ 24.00	450	$ 10,800.00
813 (3)	Spot Surfacing, Gradation **# 3 Stone**	Ton	$ 25.00	36	$ 900.00
833 (1)	Drivable Grade Dip Installation	Each	$ 150.00	19	$ 2,850.00
834 (1)	Clean and Recondition Culverts 24 inch Diameter and Under	Each	$ 150.00	13	$ 1,950.00
842 (1)	Mowing Maintenance Level 2 Roads	Mile	$ 350.00	1.9	$ 665.00
B	Drainage Structure Armoring (Class 1 Rip Rap) Surge	Ton	$ 26.00	36	$ 936.00
Grand Total					**$ 24,213.50**


Dial Rd
State Route 60
816
Silver Fox Trl
Old Rock Creek
Indian Village Rd
White Pine Trl
White Pine Trl
Rock Creek Rd
69D
69
69E
308
333
Project Item 4 Road Maintenance
FDR 816
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Road Maintenance
Forest Service Roads
Existing Road FT.1.2#
Other Ownership
DB 8/5/2014
1:15,840
0
700
1,400
2,800 Feet
Disclaimer
The USDA Forest Service makes no warranty, expressed or implied regarding the data displayed on this map, and reserves the right to correct, update, modify, or replace this information without notification.

Item 5: FSR 332 Road Maintenance

General Specifications

FSR 332 will be maintained beyond the timber harvest units to return the road to a more stable condition by improving the drainage and provide for a safer travel way for the visiting public. This road has had very little maintenance in several years and this work will help prevent any further erosion and sedimentation loss. Road maintenance work will include surface blading, spot surfacing, grade dip installation and maintenance, cleaning and reconditioning of culverts, and drainage structure armoring, and mowing of roadside vegetation.

SCOPE OF PROJECT

The contractor shall furnish all equipment, labor, transportation, supervision, and perform all work required for the road maintenance of NFS 332 on the Chattahoochee-Oconee National Forest in accordance with the specifications and provisions of the contract.

DESCRIPTION AND LOCATION

The project for road maintenance of FSR 332 begins at station 6+54, the end of road maintenance requirements under the timber removal of Harvest Unit 8, and continues south 1.38 miles to the end of the road, the EOP.

TECHNICAL SPECIFICATIONS

Road maintenance will be performed in accordance with the project specifications provided in Appendix B.

GOVERNMENT FURNISHED PROPERTY

NONE

INSPECTION AND ACCEPTANCE

Project Item 5 will be accepted when the work is completed according to the project specifications. If the work completed is accepted, the contractor shall proceed according to the Work Progress Schedule. If the work is not accepted, the contractor shall not receive purchaser credit until completing any remedial work required for acceptance. If the area cannot be brought up to specifications, credits will be reduced or not be awarded.

Chattahoochee National Forest
Blue Ridge Ranger District

Description of Work Items

Forest Health North Thinning
Optional Project Item #5, FSR 332 Road Maintenance

Schedule of Items FSR 332, 1.5 miles

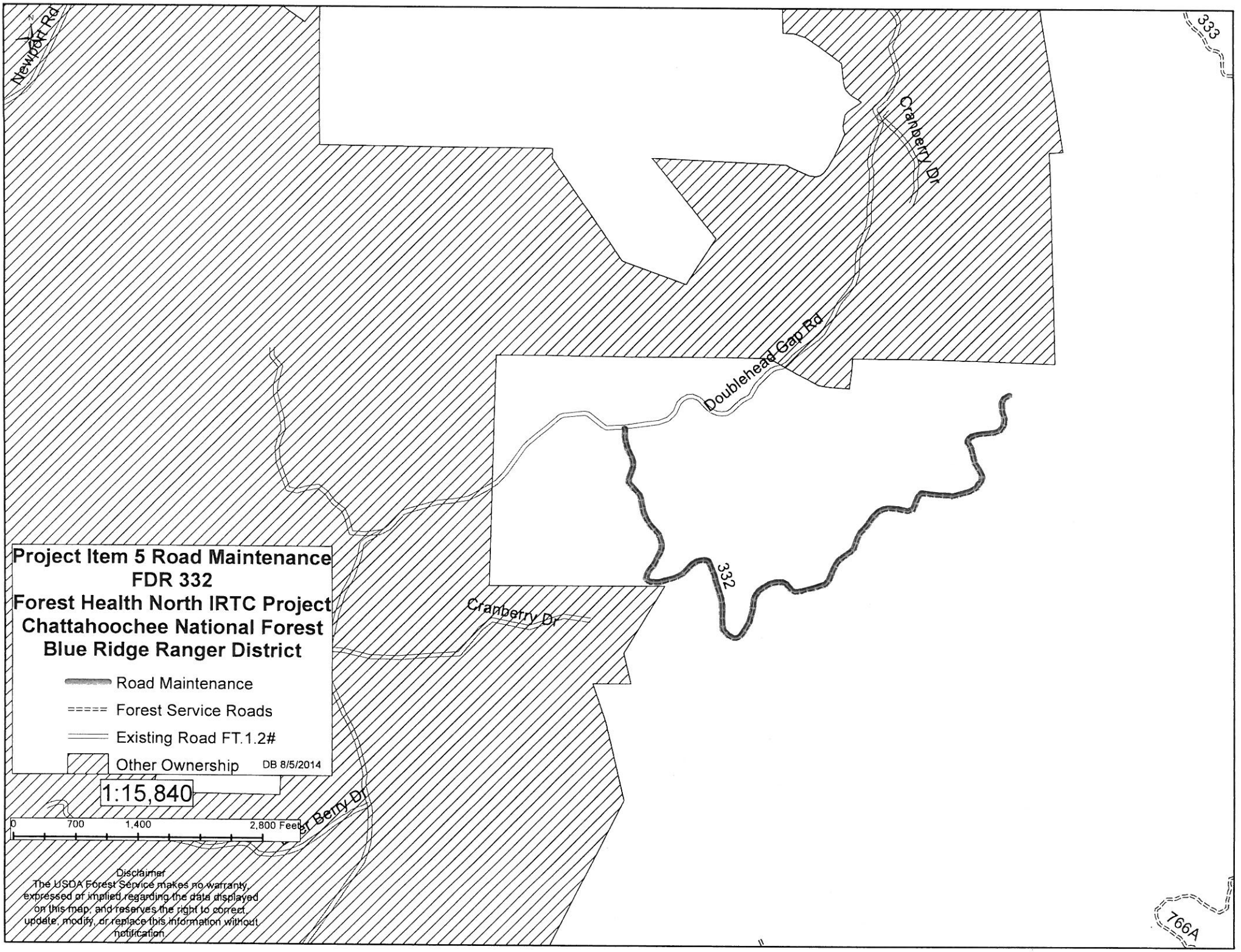
County	Road Name
Fannin	Laurel Branch

Station	Description of Work Items
0+00	Beginning of Stationing @ Intersection of NFSR # 332 with Double Head Gap Rd (Co. Rd. 218)
6+54	Timber Sale Unit Boundary End of Timber Sale Road Maintenance Begin Stewardship Project
9+00	Turnout Shape road template to drain LT.
11+74	Turnout
12+90	Construct Drivable Grade Dip
15+94	Existing Dip, Reshape
16+98	Construct Drivable Grade Dip
18+30	Construct Drivable Grade Dip
19+38	CMP 18" with Native Rock Headwall Dry, ephemeral, recondition
20+32	Turnout LT
22+40	Consturct Turnout LT
24+69	Existing Dip, Reshape
26+18	Constuct Drivable Grade Dip

29+00	Existing Dip, Reshape
31+00	Construct Drivable Grade Dip
32+83	Existing Dip Reshape Armor Dip Outlet with Surge Stone
34+75	Existing Dip Reshape Armor Dip Outlet with Surge Stone
36+00	Old Skid Road RT.
37+73	CMP 24", wet
38+74	Existing Dip Reshape, Armor Dip Out with Surge Stone
40+74	Construct Drivable Grade Dip Armor Dip Outlet LT with Surge Stone
42+32	Construct Drivable Grade Dip
44+17	Construct Drivable Grade Dip
46+22	Turnout LT
49+19	T urnout LT Consturct Hardened Dip with # 3 Stone
50+60	Constuct Drivable Grade Dip
52+03	Constuct Drivable Grade Dip
52+88	CMP 18", wet, recondition
53+62	Turnout LT
56+87	Existing Dip, Reshape
57+83	Construct Drivable Grade Dip
58+27	CMP 24", wet
59+33	Existing Dip, Reshape
60+00	Turnout LT.

61+73	CMP 18" Dry, ephemeral, recondition
63+50	Turnout LT. Reshape road template to drain
64+05	Construct Drivable Grade Dip
66+25	Existing Dip, Reshape
67+68	CMP 18" with native rock headwall Wet, recondition
68+66	Construct Drivable Grade Dip
69+65	Construct Drivable Grade Dip
71+62	Turnout Reshape road template to drain
72+81	Existing Dip, Reshape
73+43	Turnout
74+28	Construct Drivable Grade Dip
75+50	Construct Drivable Grade Dip
77+09	CMP 18", wet, recondition
78+60	CMP 18", wet, recondition
79+25	Construct Drivable Grade Dip
80+84	Turnout Outslope and De-berm
83+00	End of Stationing/End of NFSR # 332 Road Closure Devices, Earthen Berms.

County	Road Name	NFSR #	Miles	Estimate of Quantities	
Fannin	Laurel Branch	332	1.5		
Credit Items	Name	Measurement	Unit Price	Quantity	Total Price
811 (1)	Surface Maintenance Level 2 Roads	Mile	$ 375.00	1.4	$ 525.00
813 (1)	Spot Surfacing, Gradation **GDOT GAB**	Ton	$ 20.00	180	$ 3,600.00
813 (2)	Spot Surfacing, Gradation **# 4 Stone**	Ton	$ 24.00	360	$ 8,640.00
813 (3)	Spot Surfacing, Gradation **# 3 Stone**	Ton	$ 25.00	36	$ 900.00
833 (1)	Drivable Grade Dip Installation	Each	$ 150.00	16	$ 2,400.00
834 (1)	Clean and Recondition Culverts 24 inch Diameter and Under	Each	$ 150.00	8	$ 1,200.00
842 (1)	Mowing Maintenance Level 2 Roads	Mile	$ 350.00	1.4	$ 490.00
B	Drainage Structure Armoring (Class 1 Rip Rap) Surge Stone	Ton	$ 26.00	36	$ 936.00
Grand Total					**$ 18,691.00**


Newport Rd
333
Cranberry Dr
Doublehead Gap Rd
332
Cranberry Dr
Project Item 5 Road Maintenance
FDR 332
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Road Maintenance
Forest Service Roads
Existing Road FT.1.2#
Other Ownership
DB 8/5/2014
1:15,840
0
700
1,400
2,800 Feet
Disclaimer
The USDA Forest Service makes no warranty, expressed or implied regarding the data displayed on this map, and reserves the right to correct, update, modify, or replace this information without notification.
766A

Item 6 (OPTIONAL): FSR 119 Road Maintenance

General Specifications

FSR 119 will be maintained to return the road to a more stable condition by improving the drainage and provide for a safer travel way for the visiting public. This road has had very little maintenance in several years and this work will help prevent any further erosion and sedimentation loss. Road maintenance work will include surface blading, spot surfacing, grade dip installation and maintenance, cleaning and reconditioning of culverts, and drainage structure armoring, and mowing of roadside vegetation.

SCOPE OF PROJECT

The contractor shall furnish all equipment, labor, transportation, supervision, and perform all work required for the road maintenance of NFS 119 on the Chattahoochee-Oconee National Forest in accordance with the specifications and provisions of the contract.

DESCRIPTION AND LOCATION

The project for road maintenance of FSR 119 begins at the junction of FSR 119 and Old Dial Road, and continues east to the end of the road, the EOP.

TECHNICAL SPECIFICATIONS

Road maintenance will be performed in accordance with the project specifications provided in Appendix B.

GOVERNMENT FURNISHED PROPERTY

NONE

INSPECTION AND ACCEPTANCE

Project Item 6 will be accepted when the work is completed according to the project specifications. If the work completed is accepted, the contractor shall proceed according to the Work Progress Schedule. If the work is not accepted, the contractor shall not receive purchaser credit until completing any remedial work required for acceptance. If the area cannot be brought up to specifications, credits will be reduced or not be awarded.

Chattahoochee National Forest
Blue Ridge Ranger District

Description of Work Items

Forest Health North Thinning
Optional Project Item #6, FSR 119 Road Maintenance

Schedule of Items FSR 119, 1.6 miles

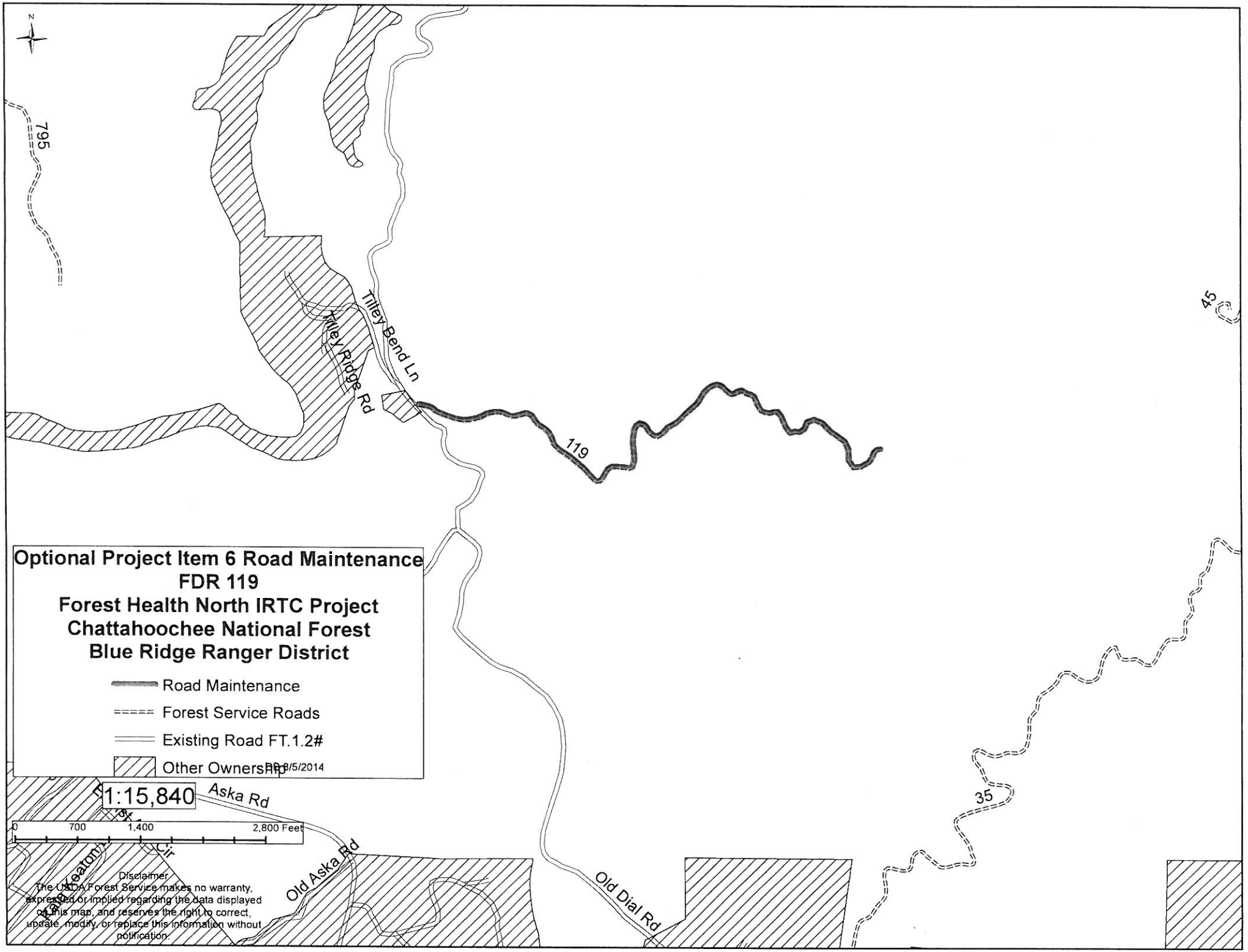
County	Road Name
Fannin	Persimmon Creek

Station	Description of Work Items
0+00	Intersection of Old Dial Rd (Co. Rd 4) and NFSR # 119 Persimmon Creek
0+87	Turnout/Small Dip
1+00	Route Marker - RT Carsonite Post with Vertical Rd Number
2+25	Existing Dip, Reshape
3+93	CMP 18" diameter, Dry, Recondition
6+85	Existing Dip, Reshape
8+00	Existing Dip, Reshape
9+36	Turnout
9+84	Turnout
11+46	Timber Sale Unit Boundary Begin TS Unit
11+76	Turnout
13+91	Existing Dip, Reshape
15+27	Existing Water Bar/Dip

18+32	Existing Dip, Reshape
19+58	Construct a Drivable Grade Dip
22+55	Turnout
23+75	Existing Dip Reshape and Armor Dip Outlet with Surge Stone
26+16	CMP 18" with Rock Headwall Wet, Recondition
27+15	Turnout
29+98	Consturct Drivable Grade Dip Armor Dip Outlet with Surge Stone
30+90	CMP 18" with Rock Headwall Wet, Recondition
32+20	Existing Dip, Reshape
33+60	Existing Dip, Reshape
35+74	Existing Dip, Reshape
37+51	Existing Dip, Reshape
40+00	Existing Dip, Reshape
41+81	Turnout
43+12	Existing Dip, Reshape
44+89	Construct Drivable Grade Dip
46+70	Construct Drivable Grade Dip
48+19	Existing Dip, Reshape
50+00	Construct Drivable Grade Dip
51+17	CMP 18" with Rock Headwall Recondition
53+48	Turnout
54+05	Intersection with old skid road LT.

55+56	Existing Dip, Reshape
56+47	CMP 18" with Rock Headwall Dry, emphemeral, Recondition
58+33	Turnout
58+85	Construct Drivable Grade Dip
61+00	Construct Drivable Grade Dip
61+68	CMP 18" with Rock Headwall Dry, Recondition
62+17	CMP 18" with Rock Headwall Wet, Recondition
63+16	Construct Drivable Grade Dip
64+27	Existing Dip, Reshape
67+11	CMP 18" with Rock Headwall Dry, Recondition
70+53	Construct Drivable Grade Dip
71+57	CMP 18" with Rock Headwall Wet, Recondition
73+82	CMP 18" with Rock Headwall Dry, Recondition
80+71	CMP 24" , wet
81+58	Turn Around/Old Log Landing
81+80	End of Stationing/End of NFSR # 119 Existing Earthen Berms Re-Establish Closure Devices

County	Road Name	NFSR #	Miles	Estimate of Quantities	
Fannin	Persimmon Creek	119	1.6		
Pay Items	**Name**	**Measurement**	**Unit Price**	**Quantity**	**Total Price**
811 (1)	Surface Maintenance Level 2 Roads	Mile	$ 375.00	1.6	$ 600.00
813 (1)	Spot Surfacing, Gradation **GDOT GAB**	Ton	$ 20.00	180	$ 3,600.00
813 (2)	Spot Surfacing, Gradation **# 4 Stone**	Ton	$ 24.00	360	$ 8,640.00
813 (3)	Spot Surfacing, Gradation **# 3 Stone**	Ton	$ 25.00	36	$ 900.00
833 (1)	Drivable Grade Dip Installation	Each	$ 150.00	9	$ 1,350.00
834 (1)	Clean and Recondition Culverts 24 inch Diameter and Under	Each	$ 150.00	12	$ 1,800.00
842 (1)	Mowing Maintenance Level 2 Roads	Mile	$ 350.00	1.6	$ 560.00
B	Drainage Structure Armoring (Class 1 Rip Rap) Surge	Ton	$ 26.00	36	$ 936.00
Grand Total					**$ 18,386.00**


N
795
Tilley Bend Ln
Tilley Ridge Rd
119
45
35
Aska Rd
Old Aska Rd
Old Dial Rd
Optional Project Item 6 Road Maintenance
FDR 119
Forest Health North IRTC Project
Chattahoochee National Forest
Blue Ridge Ranger District
Road Maintenance
Forest Service Roads
Existing Road FT.1.2#
Other Ownership
8/5/2014
1:15,840
0
700
1,400
2,800 Feet
Disclaimer
The USDA Forest Service makes no warranty, expressed or implied regarding the data displayed on this map, and reserves the right to correct, update, modify, or replace this information without notification.

APPENDIX A

PESTICIDE STANDARDS

Contractor shall adhere to the following standards associated with treatment with herbicides:

- Herbicides shall be applied at the specified rates described above;
- The Contractor shall ensure that their workers or sub-contractors use proper protective clothing and safety equipment required by labeling for the herbicide and application method;
- Application equipment, empty herbicide containers, clothes worn during treatment, and skin are not cleaned in open water or wells. Mixing and cleaning water must come from a public water supply and be transported in separate labeled containers;
- Herbicide mixing, loading, or cleaning areas in the field are not located within 200 feet of private lands, open water or wells, or other sensitive areas identified by the Forest Service;
- Empty herbicide containers, trash, rubbish, and debris generated by the Contractor's operation will be properly disposed of by the Contractor off Forest Service property. All actions by Contractor in disposal of pesticide containers must be in accordance with the pesticide label. No herbicides are to be left overnight on Forest Service property.
- Equipment used for storage, mixing, transporting, or applying herbicides is inspected daily for leaks;
- Herbicides shall not be applied when weather conditions are outside of the parameters described in the table below:

Application Method	Temperatures Higher Than	Humidity Less Than	Wind (at target) Greater Than
Ground:			
Hand (cut surface)	N.A.	N.A.	N.A.
Hand (other)	98°F	20%	15 mph
Mechanical:			
Liquid	95°F	30%	10 mph
Granular	N.A.	N.A.	10 mph
Aerial:			
Liquid	90°F	50%	5 mph
Granular	N.A.	N.A.	8 mph

- Herbicides are not applied when there is a high probability of rain or after rainfall events when vegetation to be treated is still wet;
- Herbicide mixing, loading, or cleaning areas in the field are located at least 50 feet from ephemeral streams.

PESTICIDE USE, STORAGE, AND TRANSPORTATION

(a) Permits and Responsibility for the Work

Contractors shall, without additional expense to the Forest Service, be responsible for obtaining any necessary licenses certifications and permits, including a valid GA Commercial Pesticide Applicator License, and adhering to municipal laws, codes, and regulations in connection with the use of pesticides under this contract. **The Contractor will be responsible for full compliance with all applicable provisions of the EPA Agricultural Worker Protection Standard (WPS), 40 CFR Part 170.**

(b) Training

Contractor will instruct each applicator crew member in the safe use of the pesticide(s) to be applied so as to protect themselves and the environment. The suggested areas to be covered are safe handling and proper application, transportation, storage, and disposal of the containers as shown herein. Techniques of eye wash and personal hygiene should also be part of the training.

(c) Transportation of Pesticides

Contractor is legally responsible for the safe transportation of pesticides.

Contractor shall follow travel routes designated by the Forest Service when transporting pesticides from the public road system to the treatment sites. Transport vehicles shall be parked inside the treatment site or in an area designated by the Forest Service.

Transportation of pesticides used on this contract shall be in accordance with label instructions and the general approved and accepted procedures for safe transportation of pesticides. The following precautions should be taken by the contractor to prevent spills, accidents, injury or theft:

1. Transport pesticides in the cargo compartment of a truck or other vehicle away from the passenger compartment.

2. No personnel should ride in the back of a vehicle with the pesticide.

3. All pesticide containers should be tied down or otherwise constrained to prevent breakage or spillage.

4. Pesticides should not be transported in the same compartment with food or clothing.

5. If any pesticide is spilled in-or-from the vehicle it should be cleaned up at once.

6. Unlocked pesticides should not be left unattended.

(d) Handling and Application of Pesticides

Personnel handling pesticides should wear protective clothing and/or equipment as recommended by the pesticide manufacturer. Pesticide shall not be applied or equipment cleaned outside of areas designated by Forest Service.

Following these simple rules will help make the use of the Pesticide safer for everyone:

1. Read the safety information on the label.

2. Wear the proper protective clothing.

3. Keep first aid equipment and supply of clean water readily available, including soap and eye wash equipment meeting OSHA regulations.

4. Don`t work alone.

5. Keep the container below eye level when pouring to avoid splashing or spilling any pesticide on the face or into the eyes.

6. If pesticides are spilled, stop immediately, wash out eyes if contaminated and remove contamined clothing. Wash the skin thoroughly with soap and water. Speed is essential. Once clean, put on clean protective clothing and equipment and clean up the spill. See a physician as appropriate.

7. Keep measuring cups and other equipment clean and properly stored when not in use.

8. Wash hands carefully before relieving yourself, eating, or smoking.

(e) Pesticide Spills

Contractor shall be responsible for all costs of damages, clean-up, and decontamination should a Pesticide spill occur. An Emergency Spill Plan is attached. Contractor is responsible for providing a spill kit for project work. The spill kit shall be carried to project work areas daily.

If a spill occurs, every effort will be made to keep it from contaminating water and other off-site areas. The spill shall be cleaned-up as quickly as possible. Appropriate Federal, State and local officials will be notified. Pesticide spills shall be handled in accordance with the standard procedures for spill clean-up. (40 CFR 117) **Forest Service representatives delegated for the project shall be notified immediately of any pesticide spill or accident.**

(f) Disposal of Pesticide Containers

Empty Pesticide containers, trash, rubbish, and debris generated by the operation will be properly disposed of off Forest Service property. All actions by contractor in disposal of pesticide containers must be in accordance with the pesticide label. No pesticides are to be left overnight on Forest Service property. No empty containers will be left at the worksite.

Emergency Spill Plan

1. PREVENTION AND READINESS

In their vehicles, crew leaders will carry copies of this spill plan, the herbicide labels and MSDSs for the herbicides, surfactants and dyes being used. They will also carry a vehicle spill kit having the contents specified at the end of this appendix.

2. PROVIDE FOR CARE OF INJURED OR CONTAMINATED PERSONNEL

Immediately determine if any personnel are injured or contaminated. Assist with first aid of injured or contaminated personnel. Remove injured or contaminated personnel from the spill site to an area safe and free of pesticides.

If eyes are contaminated with pesticide, give first priority to washing them out, using portable eyewash bottles, or if these are unavailable, wash with any clean water. Remove contaminated clothing from affected individuals, and wash pesticides off skin with detergent and clean water. If any pesticides have been ingested, see the Material Safety Data Sheet for specific first aid measures.

Immediately seek medical assistance for injured and contaminated personnel. Do not leave contaminated individuals alone unless essential to secure aid. If necessary, direct a third person to stay with the injured until a physician takes charge and has been advised of the actual or possible pesticide exposure.

Watch for the following symptoms of pesticide poisoning: Eye irritation, skin irritation, discomfort or pain in stomach or intestinal area, dizziness, headache, nausea, vomiting, diarrhea, slurred speech, muscle twitching or convulsions, or difficulty in breathing.

3. SPILL IDENTIFICATION

Determine product name for chemical or chemicals spilled and check the label and Material Safety Data Sheet for immediate hazards.

Extinguish all flames and possible ignition sources and stop any smoking by personnel in case chemicals are flammable.

Isolate the contaminated area and keep unnecessary persons away from the spill site.

4. NOTIFY AND INFORM

District Pesticide Coordinator:

Jim Wentworth at (706) 745-6928 ext. 107

Forest Pesticide Coordinator:

Brian Jackson, telephone: (770) 297-3020

District Safety Officer:

Teressa Brown, telephone (706) 745-6928 ext. 114

Forest Safety Officer

David Manson, telephone (770) 297-3077

Speak directly with at least one of the above personnel, in order or priority, and inform as to:

a. Chemical Name and Brand Name
b. Location of Spill
c. Compartment and Stand Number
d. Nearest Road Name and Number
e. Size or Volume of Chemical Spilled

5. CONTAIN THE SPILL

Contain the spilled pesticide. Keep spill from entering streams, drains, wells, ditches, or other water systems.

Wear appropriate and approved protective clothing, including rubber or nitrile gloves, safety glasses, or goggles, overalls or rain suit, rubber boots or overshoes, or a respirator if extra protection is needed.

Prevent further leakage from containers by repositioning them so that the damaged part of the container is above the level of the containers, or by applying rags, tape, or other materials at hand to temporarily seal the leak.

Separate leaking containers from undamaged containers. Flag off the area and post warning signs to keep unprotected personnel from entering.

Confine the spill to prevent it from spreading. Encircle the spill area with a dike of sand or other absorbent material. Rags or similar material may be used if necessary. If spilled material may flow toward sensitive areas, divert it by ditching.

If the soil involves a small watercourse, dam it to confine the spill if possible. If available, activated charcoal may be used to filter contaminated water. For larger waterways, a log boom or baled straw may used to contain the spill. Dam or divert the flow of clean water around the spill if possible. Some pesticides (such as glyphosate) may be inactivated by muddying the water.

If a liquid pesticide is spilled on land, cover the spill with absorbent material (kitty litter). If the spilled pesticide is in a dry formulation, cover it with a secured plastic tarpaulin to prevent it from becoming wet or being blown away. Contained materials must be reused if possible, or disposed of as toxic waste.

Do not flush contained or spilled pesticides into ditches, sewers, drains, or off of a road, since

this will further spread the chemical.

Small spills require use of vehicle spill kits. Large spills may require the use of a dozer and or additional items from the storage facility spill kit.

SUMMARY OF CLEAN UP STEPS

DRY SPILLS

1. Cover powder or dust chemicals with a tarpaulin to prevent it from becoming airborne. A fine mist may also dampen the chemical to reduce spreading. Too much water may dissolve the chemical. Use caution.
2. Sweep the material together as the tarp is rolled slowly back.
3. Shovel the material into plastic bags or drums.
4. Seal the bags and label them, identifying the pesticide and other contents.
5. Store the containers of material in the pesticide storage building until the content can be evaluated for disposal or re-used in a manner consistent with labeling.

LIQUID SPILLS

1. Pump or bail as much of the spilled liquid as possible into containers.
2. Use absorbent material, such as commercially bagged clay, kitty litter, or sawdust to soak up the spill. Use only enough material to absorb the spill. Begin spreading the absorbent material around the edge of the spill, and work toward the center.
3. Shovel the absorbent material and pesticide, along with any contaminated soil, into leak proof containers.
4. Label all containers.
5. Store the containers in the pesticide storage building until the contents can be evaluated for disposal or re-use in a manner consistent with labeling.

LIST OF OTHER KEY PERSONNEL AND AGENCIES

Georgia Emergency Services: 1-800-338-6745

Union General Hospital (Blairsville): (706) 745-2111

Fannin Regional Hospital (Blue Ridge): (706) 632-3711

Chestatee Regional Hospital (Dahlonega): (706) 864-6136

North Georgia Medical Center (Ellijay): (706-276-4741

Poison Control Center (800) 222-1222

Local Fire Departments	911
Local County Sheriff	911

RECOMMENDED PESTICIDE SPILL KIT CONTENTS

Storage Facility Kit	Vehicle Kit
4 pairs of nitrile gloves	2 pairs of nitrile gloves
2 pairs non-vented goggles	1 pair of non-vented goggles
1 respirator and cartridge (chemical resistant)	1 pair of rubber or neoprene boots
2 pairs of rubber or neoprene boots or overshoes	1 shop brush or whisk broom
2 pairs of overalls or rain suits	6 polyethylene bags with ties
1 roll of flagging or engineers tape	1 pint liquid detergent
1 dust pan	1 polyethylene or plastic tarp
1 shop brush or whisk broom	10 blank labels
1 dozen polyethylene bags with ties	1 ABC type fire extinguisher
1 quart liquid detergent	30 lbs. absorbent material(kitty litter)
1 polyethylene or plastic tarp	2 eyewash bottles (filled)
10 blank labels	1 round point shovel
1 ABC type fire extinguisher	1 roll of flagging
80 lbs. absorbent material (kitty litter)	1 roll of duct tape
1 30-gallon plastic garbage can with lid (use for cleanup, and transport)	1 30-gallon plastic garbage can with lid (use for cleanup, and transport)
1 roll of duct tape	
1 square point D handle shovel	

Appendix B
Road Maintenance Specifications

811 SURFACE MAINTENANCE

813 SPOT SURFACING

832 LOAD, HAUL, AND PLACE MATERIALS

834 ROADWAY DRAINAGE SYSTEM MAINTENANCE

842 Roadway Vegetation Control, mowing

811 SURFACE MAINTENANCE

811.01
Service Required

Smooth and shape native or aggregate surfaced roads including traveled way, shoulders, turnouts, and intersections. Reshape or recondition ditches, water bars, and drain dips.

811.02
Performance Standards

A. Maintenance Level 4 and 5 Roads

A road surface is maintained to standard when the travel way is free of washboards, potholes, or other irregularities. The surface is smooth, compact, crowned or sloped to drain, without segregation of the surfacing materials. Suitable materials have been recovered and incorporated. Unsuitable materials have been removed. Ditches and road surface drainage structures function efficiently. Unpaved shoulders are shaped to provide a smooth transition from the paved surface and drain efficiently.

B. Maintenance Level 3 Roads

A road surface is maintained to standard when the surface is compact, crowned, or sloped to drain, without segregation of the surfacing materials. The road surface has no ruts or rills, suitable materials have been recovered and incorporated. Unsuitable materials have been removed. Ditches and road surface drainage structures function efficiently.

C. Maintenance Level 2 Roads

A road surface is maintained to standard when the surface is shaped to drain, and where ditches and road surface drainage structures function efficiently. The road surface has no continuous ruts or rills, and no large concentrations of unsuitable materials remain.

D. All Roads

When ordered by the Contracting Officer to work in a weed infested area the contractor will be required to prevent spreading the infestation into un-infested areas by cleaning vehicles and equipment. The contractor will use wash stations approved by the Contracting Officer.

811.03
Location of Work

As specified on roads listed on the task order road listing, shown on the plans, marked on the ground, or as ordered by the Contracting Officer. Locations of weed infested areas are marked on the ground. Do not operate in the weed infested areas unless ordered to do so by the Contracting Officer.

811.04
Measurement

Measurement under this Section will be made by the total number of units for each item listed in the SCHEDULE OF ITEMS completed and accepted.

A. Single Lane Roads: Surface maintenance will be measured along the centerline of the roadway. Turnouts are incidental. Measurement will be to the nearest one-tenth (0.1) mile.

B. Double Lane Roads: Surface maintenance will be measured along the centerline of the roadway. Measurement will be to the nearest one-tenth (0.1) mile.

C. Road Mile: Work activity will be measured along the centerline of the road regardless of the number of lanes.

811.6 Surface Maintenance Acceptable Quality Levels

Description	Major Defect	Minor Defect	Allowable Defects		Required Action	
			Major	Minor	Major	Minor
Surface Irregularities (Level 4&5)	Potholes greater than 2" deep and wider than 1 foot	Potholes 2" or less deep and 1 foot or less wide	2 per 200 ft	5 per 200 ft	Rework if greater than 2 major defects *	Rework if greater than 5 minor defects *
	Washboards greater than 1" deep	Washboards 1" or less deep and not exceeding 20 feet long	5 per 200 ft	3 per 200 ft	Rework if greater than 5 major defects *	Rework if greater than 3 minor defects *
Surface Irregularities (Level 3)	Potholes greater than 2" deep and wider than 1 foot	Potholes 2" or less deep and 1 foot or less wide	5 per 500	5 per 500 feet	Rework if greater than 4 major defects *	Rework if greater than 4 minor defects *
	Washboards greater than 1" deep	Washboards less than 1" deep and not exceeding 20 feet long	5 per 500 feet	5 per 500 feet	Rework if greater than 4 major defects *	Rework if greater than 4 minor defects *
Road Cross Section (Level 4&5)	Crown or Cross Slope is not uniform and does not drain as specified on more than 250' of surface per mile	Crown or Cross Slope is not uniform and does not drain as specified on less than 250' of surface per mile	0	2 per miles	Rework	Rework if greater than 2 minor defects *
Road Cross Section (Level 3)	Crown or Cross Slope is not uniform and does not drain as specified on more than 250' of surface per mile	Crown or Cross Slope is not uniform and does not drain as specified on less than 250' of surface per mile	0	3 per mile	Rework	Rework if greater than 3 minor defects *
Road Cross Section (Level 2)	Road surface does not drain properly and causes erosion, or obstructs high clearance vehicles	Road surface does not drain properly, but does not cause erosion	0	5 per mile	Rework	Rework if greater than 5 minor defects
Oversized Material (Level 3&4 aggregate surfaced roads)	Material greater than 3" diameter remaining on the road surface	Material less than 3" diameter remaining on the road surface and traffic safety is not compromised	0	3 mile	Rework	Rework if greater than 3 minor defects

Oversized Material (Level 2)	Objects in traveled way that obstruct high clearance vehicles	Debris in traveled way that may impede high clearance vehicles	0	1 per mile	Rework	Rework if greater than 1 minor defects

Description	Major Defect	Minor Defect	Allowable Defects		Required Action	
			Major	Minor	Major	Minor
Aggregate Surface Quality	Gradation of surface aggregate is degraded by more than 10 %	Gradation of surface aggregate is degraded by less than 10 %	0	1 per miles	Rework	Rework if greater than 1 minor defects
	A loss of more than 10 CY/mile	A loss of less than 10 CY/mile	0	1 per mile	Replace or recover lost material	Accept the loss of material
	surfacing is segregated over more than a 100 square yard area per 1000 linear feet of road and traffic safety is compromised	surfacing is segregated over less than a 100 square yard area per 1000 linear feet of road and traffic safety is not compromised	0	N/A	Rework	Accept the loss of surface quality
Backslopes	Undercut backslope will result in destabilization of slope	Undercut backslope will not result in destabilization of slope	0	100 ' per mile	Repair and Stabilize	Revegetate if greater than 5 minor defects *
Compaction	Visible displacement occurs under hauling or spreading equipment	N/A	0	N/A	Rework	N/A
Ditches and Road Drainage Structures	Impeded flow or water diverted out of drainage structures	< 20% impeded, but water will stay in the channel	0	0	Rework	Rework
Unpaved Shoulders (Level 3, 4, & 5)	Elevation difference between pavement and shoulder is greater than 1"	Elevation difference between pavement and shoulder is less than 1"	0	100' per 1000'	Rework	Rework if greater than 1 minor defects *
	Material greater than 1/4" diameter remaining on the road surface	Material 1/4" diameter or less remaining on the road surface and traffic safety is not compromised	0	100' per 1000'	Rework if greater than 0 major defects *	Rework if greater than 0 minor defects *
	Does not drain away from pavement	Does not drain away from pavement	0	0	Rework	Rework
Working outside of project limits	Area contains invasive weeds	N/A	0	N/A	Repair and treat affected areas as directed by the Contracting Officer	N/A

813 SPOT SURFACING

813.01
Service Required

Load, haul, and place surface material to repair or stabilize road surfaces.

813.02
Performance Standard

A. Spot surfacing is complete when the designated quantity of the ordered material has been placed.

B. All materials transported onto National Forest System land will be weed-free. Written documentation of methods used to determine the weed-free status of any and all materials furnished by the contractor will be furnished to the Contracting Officer before transport of any materials onto National Forest System land.

813.03
Location of Work

As specified on roads listed on the TASK ORDER ROAD LISTING, SHOWN ON THE PLANS, or as ordered by the Contracting Officer.

813.04
Measurement

Measurement under this Section will be made by the total number of units for each item listed in the SCHEDULE OF ITEMS completed and accepted.

A. The quantity will be the number of cubic yards measured in the vehicles, or square yards of aggregate placed.

B. Material measured by the ton shall be verified by certified weight tickets.

813.4 Spot Surfacing
Acceptable Quality Levels

Description	Major Defect	Minor Defect	Allowable Defects		n	
			Major	Minor	Major	Minor
Depth of Aggregate	Dimension of spot surfacing deviates by more than 1" from depth specified. Or less than 1" from dimension specified but is consistently high or low.	Dimension of spot surfacing deviates by 1" or less than from depth specified and not consistently high or low.	0	N/A	If depth is low, correct placement of aggregate to specified dimensions. If depth is high only pay for ordered amount	Accept aggregate as placed, pay only for delivered quantities.
Width of Aggregate	Dimension of spot surfacing is less than specified width or more than 1' wider than specified.	Dimension of spot surfacing is up to 1' wider than specified but not consistently wide.	0	N/A	If width is narrow, correct placement of aggregate to specified dimensions. If width is too wide reshape.	Accept aggregate as placed, pay only for delivered quantities.
Length	Dimension of spot surfacing is shorter than specified length or more than 100' longer than specified.	Dimension of spot surfacing is shorter than specified length or up to 100' longer than specified.	0	N/A	If length is shorter than specified, correct placement of aggregate to specified dimensions. If too long pay only for ordered amount.	Accept aggregate as placed, pay only for delivered quantities.
Compaction	Visible displacement occurs under heady spreading equipment	N/A	0	N/A	Rework	N/A
Aggregate Quality	Does not meet specified gradation or durability requirements and is not suitable for intended use	Does not meet specified gradation or durability requirements and is suitable for intended use	0	N/A	Reject and replace	Accept but may reduce payment.
	Material source does not meet weed free requirement	N/A	0	N/A	Reject source	N/A
Finish Quality	Spot surfacing doesn't conform to the adjacent road segments and traffic is impeded.	Spot surfacing generally conforms to the adjacent road segments, but traffic may be slowed.	0	5 per miles	Reshape or recompact surfacing as needed.	Accept but may reduce payment.

832 LOAD, HAUL, AND PLACE MATERIALS

832.01
Service Required

Load, haul, and place material at designated sites.

832.02
Performance Standard

Loading, hauling, and placing is complete when no obstruction remains in or adjacent to the roadway or in ditches which would have the potential to interfere with traffic use, block or divert water from structures or channels. This includes relocation, repositioning, stabilization, and revegetation as ordered by the Contracting Officer.

832.03
Location of Work

As specified on roads listed on the TASK ORDER ROAD LISTING, SHOWN ON THE PLANS, or as ordered by the Contracting Officer.

832.04
Measurement

Measurement under this Section will be made by the total number of units for each item listed in the SCHEDULE OF ITEMS completed and accepted.

A. Cubic Yard: The quantity will be the number of cubic yards measured in the vehicles.

B. Mile: Work activity will be measured along the centerline of the road regardless of the number of lanes.

832.6 Load, Haul, and Place Material
Acceptable Quality Levels

escription	Major Defect	Minor Defect	Allowable Defects		on	
			Major	Minor	Major	Minor
Slopes	Unstable material left on slopes	Material left on slopes that can be stabilized and won't block drainages	0	0	Remove	Remove or stabilize in place
Backslopes	Undercut backslope will result in destabilization of slope	Undercut backslope will not result in destabilization of slope	0	0	Repair and Stabilize	Revegetate if greater than X minor defects *
Ditches, inlet/outlet channels, streams and catch basins	water will be diverted out of the drainage structure or soil enters system	< 20% impeded, but water will stay in the channel.	0	0	Rework	Rework if greater than X minor defects *
Debris on Road (ML 4-5)	Any debris in traveled way	Debris in traveled way that may slow or impede traffic.	0	0	Rework	Rework if greater than 1 minor defects *
Debris on Road (ML 3)	Debris in traveled way that may impede traffic.	Debris in traveled way that may slow traffic.	0	0	Rework	Rework if greater than 1 minor defects *
Debris on Road (ML 2)	Objects in traveled way that obstruct high clearance vehicles	Debris in traveled way that may impede high clearance vehicles	0	0	Rework	Rework if greater than 0 minor defects *
Placed Material (Disposal Sites)	Unstable material on designated sites.	N/A	0	N/A	Stabilize	N/A
Revegetation	No revegetation work done	Revegetation work incomplete	0	0	Rework	Rework
Work Area Management	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	0	0	Suspend work until in compliance	Suspend work until in compliance

833 DRAINAGE STRUCTURE INSTALLATION OR REMOVAL

833.01
Service Required

Install or remove drainage structures including culverts, water-bars, drivable drain dips, and cross ditches.

833.02
Performance Standard

Drainage structure installation is complete when culverts, water-bars, drivable drain dips and cross ditches have been installed to the lines and grades specified, and drainage structure removal is complete when designated culverts, water-bars and cross ditches have been removed and culverts have been properly disposed of.

833.03
Location of Work

As specified on roads listed on the TASK ORDER ROAD LISTING, SHOWN ON THE PLANS, or as ordered by the Contracting Officer.

833.04
Measurement

Measurement under this Section will be made by the total number of units for each item listed in the SCHEDULE OF ITEMS completed and accepted.

A. Mile: Work activity will be measured along the centerline of the road regardless of the number of lanes.

B. Linear Foot: Work activities by the linear foot will be measured using standard survey methods rounded to the nearest one (1) foot. Culvert bands are incidental to the installation.

832 LOAD, HAUL, AND PLACE MATERIALS

832.01
Service Required

Load, haul, and place material at designated sites.

832.02
Performance Standard

Loading, hauling, and placing is complete when no obstruction remains in or adjacent to the roadway or in ditches which would have the potential to interfere with traffic use, block or divert water from structures or channels. This includes relocation, repositioning, stabilization, and revegetation as ordered by the Contracting Officer.

832.03
Location of Work

As specified on roads listed on the TASK ORDER ROAD LISTING, SHOWN ON THE PLANS, or as ordered by the Contracting Officer.

832.04
Measurement

Measurement under this Section will be made by the total number of units for each item listed in the SCHEDULE OF ITEMS completed and accepted.

A. Cubic Yard: The quantity will be the number of cubic yards measured in the vehicles.

B. Mile: Work activity will be measured along the centerline of the road regardless of the number of lanes.

833.6 Drainage Structure Installation or Removal
Acceptable Quality Levels

Description	Major Defect	Minor Defect	Allowable Defects		Required Action	
			Major	Minor	Major	Minor
Culvert size	Culvert is smaller than the designated diameter shown on the drawings.	Culvert is larger than the designated diameter shown on the drawings.	0	N/A	Remove culvert and replace with designated size	Accept if culvert fits the geometry of the road but pay at designated size otherwise replace
	Culvert is shorter than the designated length shown on the drawings.	Culvert is longer than the designated length shown on the drawings.	0	0	Replace or add section to fit geometry of road.	Remove excess culvert and treat cut end, or harden fill slope to prevent erosion and pay for ordered length
Grade and alignment of culvert	More than 10% deviation from original lines and grades.	10% or less deviation from original lines and grades.	0	0	Remove and replace culvert	Remove and replace culvert
Sag or depression in road after placement of culvert and backfill material	Greater than 2 inch depression in traveled way	2 inch or less depression in traveled way	0	N/A	Furnish, place and compact designated material to repair depression.	N/A
Removed culvert or pieces left on National Forest System Lands	Culverts or pieces of culvert left on National Forest System Lands	N/A	0	N/A	Remove from National Forest System Lands	N/A
Water-bars and cross ditches	More than 10% deviation from original lines and grades.	10% or less deviation from original lines and grades.	0	0	Rework	Rework
Drivable grade dip	More than 10% deviation from specified lines and grades	10% or less deviation from specified lines and grades	0	0	Rework	Rework
Sedimentation	Operations cause or allow sediment to leave site.	N/A	0	N/A	Cease operations until sediment is controlled	N/A
Work Area Management	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	0	0	Suspend work until in compliance	Suspend work until in compliance

834 ROADWAY DRAINAGE SYSTEM MAINTENANCE

834.01
Service Required

Clean and recondition roadway drainage systems including culverts, ditches, inlet and outlet channels, catch basins, and appurtenances.

834.02
Performance Standard

Drainage system maintenance is complete when no obstruction remains in the defined area adjacent to the structure or in ditches which would have the potential to block water from entering the structure, back water into the structure (except for structures designed to function in a back-flooded manner), or divert water outside the defined channel. Equipment operation in live streams or hydraulic flushing of drainage structures is not permitted.

When ordered by the Contracting Officer to work in a weed infested area the contractor will be required to prevent spreading the infestation into un-infested areas by cleaning vehicles and equipment. The contractor will use wash stations approved by the Contracting Officer.

834.03
Location of Work

As specified on roads listed on the task order road listing, shown on the plans, marked on the ground and/or ordered by the Contracting Officer and;

1. Drainage structures including inlet structures, culverts, catch basins, inlet/outlet channels, and ditches within the area shown on the plans or in the supplemental specifications.

2. Culverts - a minimum external horizontal distance of 10 feet in any direction from the inlet and outlet end and a minimum internal distance of 3 feet from the inlet and outlet ends.

3. Ditches adjacent to the roadbed.

4. This work does not include bridges, cattleguards, drain dips, or water bars.

5. Do not operate in the weed infested areas marked on the ground unless ordered to do so by the Contracting Officer.

834.04
Measurement

Measurement under this Section will be made by the total number of units for each item listed in the SCHEDULE OF ITEMS completed and accepted.

Mile: Work activity will be measured along the centerline of the road regardless of the number of lanes.

834.6 Drainage Structure Maintenance
Acceptable Quality Levels

Description	Major Defect	Minor Defect	Allowable Defects		ction	
			Major	Minor	Major	Minor
Blocked Culverts	Greater than 20 % of end area blocked	20% or less of end area blocked	0	0	Rework	Rework
Damaged Culvert Inlet/outlets	Greater than 20 % of end area blocked	20% or less of end area blocked	0	0	Rework	Rework
Impeded flow for ditches, inlet/outlet channels, and catch basins	water will be diverted out of the drainage structure or system	< 20% impeded, but water will stay in the channel.	0	5' per 1000 ft	Rework	Rework if greater than 1 min or defects *
Debris on Road (ML 4-5) produced by Service Provider operations.	Any debris in traveled way	N/A	0	N/A	Rework	N/A
Debris on Road (ML 3) produced by Service Provider operations.	Debris in traveled way that may impede traffic.	Debris in traveled way that may slow traffic.	0	0	Rework	Rework
Debris on Road (ML 2) produced by Service Provider operations.	Objects in traveled way that obstruct high clearance vehicles	Debris in traveled way that may impede high clearance vehicles	0	0	Rework	Rework
Aggregate Surface Quality	Gradation of surface aggregate is degraded by more than 10 %	Gradation of surface aggregate is degraded by 10 % or less	0	100' per 1000	Rework	Rework if greater than 1 min or defects *
Backslopes	Undercut backslope will result in destabilization of slope	Undercut backslope will not result in destabilization of slope	0	10' per 100'	Repair and Stabilize	Revegetate if greater than1 minor defects *
Vegetation	woody vegetation within 5 feet of the inlet end of drainage structures or in ditches that interferes with flow	low growing vegetation within 5 feet or more of inlet end of drainage structures or in ditches that does not interfere with flow	0	N/A	Remove	Leave in place
Work Area Management	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	0	0	Suspend work until in compliance	Suspend work until in compliance
Working outside project limits	Area contains invasive weeds	N/A	0	N/A	Repair and treat affected areas as directed by the Contracting Officer	N/A

Acceptable Quality Levels

Description	Major Defect	Minor Defect	Allowable Defects		Required Action	
			Major	Minor	Major	Minor
Tree damage	Damage to more than 30% of the tree bole	Damage to 30% or less of the tree bole	2 per unit	4 per unit	Remove or Treat	Treat
Horizontal Clearance	More than 20% not cleared to limits	20% or less not cleared to limits	0	1 per unit	Rework	Rework if greater than X minor defects *
Vertical Clearance	More than 20% not cleared to limits	20% or less not cleared to limits	0	1 per unit	Rework	Rework if greater than X minor defects *
Height above ground surface	More than 20% not cleared to limits	20% or less not cleared to limits	0	1 per unit	Rework	Rework if greater than X minor defects *
Drainage	Impeded flow or water diverted out of drainage structures.	20% or less impeded, but water will stay in the channel.	0	1 per unit	Rework	Rework if greater than 4 minor defects *
Oversized Material (Level 4&5)	Material greater than 3" diameter remaining on the road surface	Material 1" – 3" in diameter remaining on the road surface	2	4	Rework	Rework

Description	Major Defect	Minor Defect	Allowable Defects		Required Action	
			Major	Minor	Major	Minor
	Material greater than 3" diameter and 36" in length remaining on the roadway drainages or has the potential to move into drainages.	Material 1" - 3" in diameter and greater 36" in length remaining on the roadway slopes and drainages or has the potential to move into drainages.	2 per unit	4 per unit	Rework if greater than 2 minor defects *	Rework if greater than 4 minor defects *
Oversized Material (Level 3)	Material greater than 3" diameter and 12" in length remaining on the road surface	Material 1" - 3" in diameter and 36" in length remaining on the road surface	0	2 per unit	Rework	Rework if greater than 2 minor defects *
	Material greater than 3" diameter and 36" in length remaining on the roadway drainages or has the potential to move into drainages.	Material 1" - 3" in diameter and greater 36" in length remaining on the roadway slopes and drainages or has the potential to move into drainages.	4 per unit	2 per unit	Rework if greater than 4 minor defects *	Rework if greater than 2 minor defects *
Oversized Material (Level 2)	Concentrations of material greater than 6" diameter and 3 feet in length remaining on the	Material less than 6" diameter and 3 feet in length remaining on the road surface	0	2 per unit	Rework	Rework if greater than 4 minor defects *

Description	Major Defect	Minor Defect	Allowable Defects		Required Action	
			Major	Minor	Major	Minor
	road surface					
	Unstable concentrations of material less than 6" diameter and 3 feet in length remaining on the roadway slopes.	N/A	0	2 per unit	Rework	N/A
	Material greater than 3" diameter and 36" in length remaining on the roadway drainages or has the potential to move into drainages.	Material 1" - 3" in diameter and greater 36" in length remaining on the roadway slopes and drainages or has the potential to move into drainages. .	0	2 per unit	Rework	Rework if greater than 2 minor defects *
Concentrations (Level 3-5)	Any concentrations that affect sight distance	N/A	0	0	Rework	N/A

Description	Major Defect	Minor Defect	Allowable Defects		Required Action	
			Major	Minor	Major	Minor
Work Area Management	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	Not following approved safety plan which may include signs, flaggers, and other temporary traffic control measures	0	0	Suspend work until in compliance	Suspend work until in compliance
Working outside of project limits	Area contains invasive weeds	N/A	0	N/A	Repair and treat affected areas as directed by the Contracting Officer	N/A