

Appendix C

Road Cards

Introduction

The following road cards are organized with new proposed National Forest System (NFS) roads first, followed by reconstructed NFS roads second, and roads with bridge replacements (and/or roads that will be closed through the 2002 ATM decision) last. Road cards in this appendix are for all roads in the Iyouktug project that require construction, reconstruction, or bridge replacement. Other roads within the project area will follow the objectives from the 2002 ATM decision (USDA Forest Service 2002). Numbers found in “Stream Crossings” correspond to stream numbers on road card maps with the exception of reconstructed roads that have Tongass Road Condition Survey (RCS) data; RCS data is not reflected in the current stream map.

General Mitigation Measures

The general measures described in Introduction to Appendix B, Unit Cards, apply to all units and roads in the Iyouktug Timber Sale project. The source(s) of each general measure is listed after the measure in terms of individual Forest-wide Standards and Guidelines (see Chapter 4 of the Forest Plan) or BMPs (see Appendix C of the Forest Plan and Chapter 10 of FSH 2509.22, The Soil and Water Conservation Handbook). Measures with application to a particular road are listed on the individual road cards as Site-specific Design Criteria.

Timing restrictions will be required on all pit and r/w blasting within ½ mile of eagle nests, if any are discovered. Timing restrictions will be required on all pit and r/w blasting within 600 feet of goshawk nests, if any goshawk nests are found within 600 feet of a road or pit.

General Design Criteria and Elements are shown on the Road Management Objectives portion of the road cards and are defined as follows:

- Functional Class: Local (L), Collector (C), and Arterial (A) classifications
- Service Life: Long (L) or Short (S), Constant (C) or Intermittent (I), Intermittent stored service (IS) consistent with NEPA disclosure document
- Traffic Service Level: Traffic Service Level anticipated for the design (A, B, C, or D) that takes into consideration the characteristics of the road and operating conditions. Applicable traffic service levels for the project area are C and D: C-Interrupted traffic flow, limited passing facilities, may not accommodate some vehicles; low design speeds; unstable surface under certain traffic or weather. D-Traffic flow is slow and may be blocked by management activities; two-way traffic is difficult, backing may be required; rough and irregular surface; travel with low clearance vehicles is difficult; single purpose facility.

Operational Maintenance Levels indicate the level of road maintenance, either Maintenance Level 2 or 3, during sale-related activities. Objective Maintenance Levels indicate the long-

term maintenance plan for the roads (after completion of the sale) and incorporate Traffic Service Levels, as described in the following definitions. Applicable maintenance levels for the project area are:

- Maintenance Level 1 - Assigned to intermittent service roads during time they are closed to vehicular traffic. The process/action of closing a road to vehicle traffic and placing it in a condition that requires minimum maintenance to protect the environment and preserve the facility for future use. Roads are closed by barrier, bridge removal or are existing roads that have organic encroachment and are monitored for resource protection. If the closed road is causing resource damage BMP maintenance shall be performed to keep damage to an acceptable level. Closed roads may remove or bypass all drainage structures to restore natural drainage patterns, add water bars as needed to control runoff, and are revegetated. Cross drains and ditch relief culverts may be bypassed with deep water bars but may be left in place to minimize the cost of re-using these roads in the future. They should also include storm proofing: provide water bars, out sloping, etc., to assure controlled runoff and meet BMPs. Each culvert will be evaluated as to where the water would go if the culvert were to fail to carry the high flow. A water bar or out slope at this location will minimize the potential for erosion of long stretches of ditch line or roadway. Roads in storage are left in a self-maintaining state in order to use more road maintenance funds on the open drivable roads. In the Iyouktug project, the intent is to remove all stream crossing structures upon closure of roads
- Maintenance Level 2 - Assigned to roads operated for use by high clearance vehicles. Roads are maintained for high-clearance vehicles and monitored for resource protection. Traffic would be minor, consisting of logging trucks during sale operations, and administrative uses. Provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush to maintain sight distance. Grade as needed to maintain crown and running surface. Provide water bars, rolling dips, out sloping, etc., to assure controlled runoff until any needed maintenance can be performed on the primary drainage system.

AFRPR Status: Alaska Forest Resource Protection Regulations. The application of BMPs during layout, implementation, and maintenance [of roads] will maintain water quality to State of Alaska standards for all alternatives.

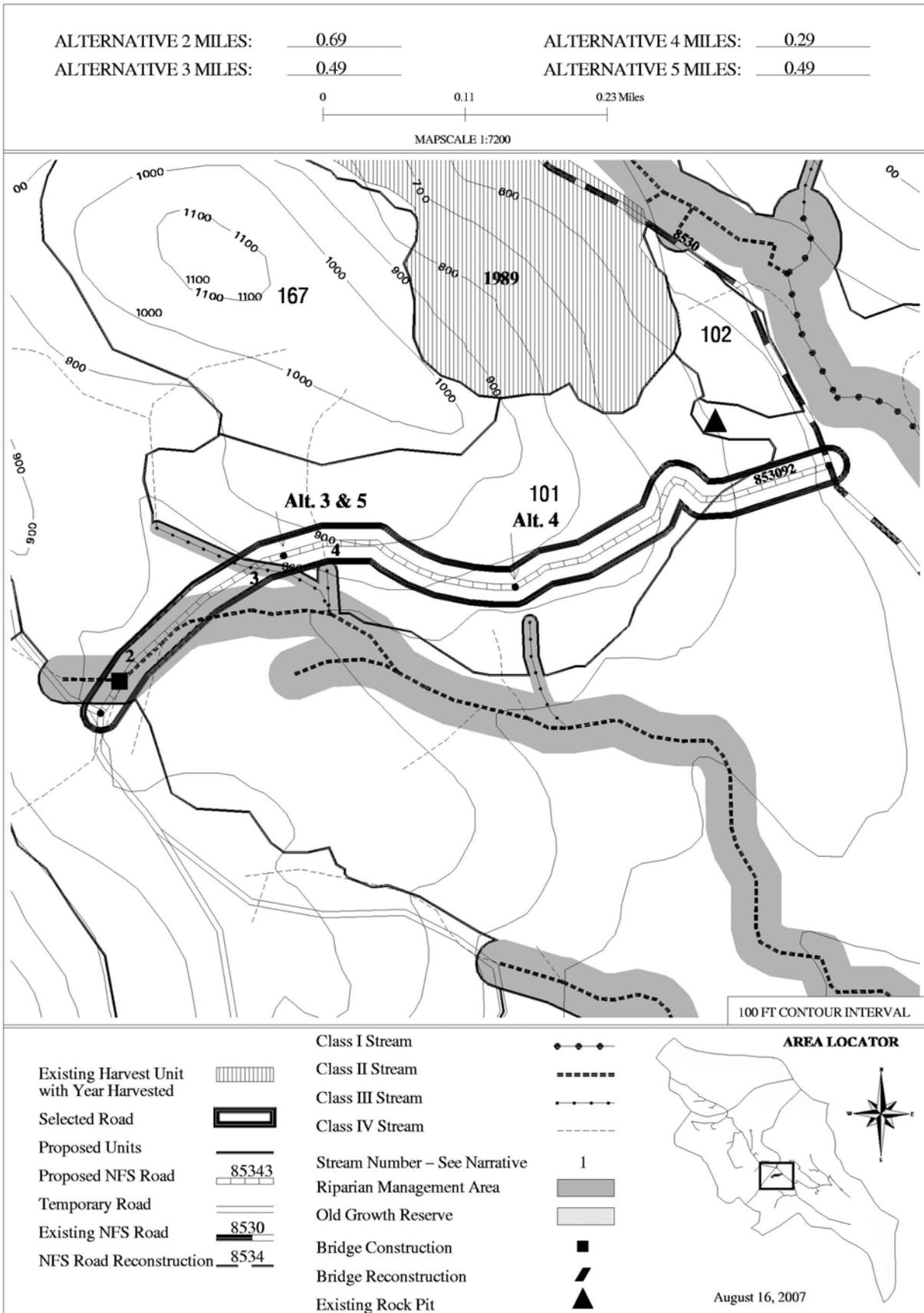
The road segments are described using mileposts as beginning and ending points. Lengths are given in miles (mi). Road width is given in feet (ft).

Road locations and information are generally determined using field surveys and on the ground reconnaissance. In some instances, the best location was determined using aerial photos and GIS. Field data will continue to be gathered, and road locations/construction methods may be refined to minimize or mitigate impacts to resources. Any changes to roads or the effects of roads would be reported in the FEIS.

Map of all NFS roads in Alternative 2

Back of map

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Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 853092 **Route Name:** Greywacke **Status:** Planned
Begin M.P.: 0.00 **Length (miles):** 0.69 **Begin Termini:** 0.00 **End Termini:** 0.69

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	C, IS for Alt. 3	C for Alts. 2, 4, 5, D for Alt. 3	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
2	0.00	0.69	2	2
3	0.00	0.49	2	1
4	0.00	0.29	2	2
5	0.00	0.49	2	2
1	0.00	0.00	N/A	N/A

Maintenance Narrative: Maintenance Level 2, maintain for high clearance vehicles in Alternatives 2, 4, and 5. Upon completion of the sale, the road will be turned to Maintenance Level 1 (closed and put into storage) in Alternative 3.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: 2, 4, 5
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, Motorcycles, Bicycles, Hikers
 Discourage: N/A
 Prohibit: N/A
 Eliminate: Passenger Cars; for Alt. 3 – All motorized vehicles after the sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It will be used as part of the open transportation system upon completion of the timber sale in Alternatives 2, 4, and 5. In Alternative 3, road will be tank trapped and waterbarred with stream crossing structures removed to prevent access upon completion of the sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 853092

Road Location: The road corridor bears westerly from its beginning at road 8530 and ends at the lower reaches of a relatively steeper slope. Grades are favorable, averaging 15 to 18%, side slopes are less than 50% with one segment of full bench construction exceeding 50%. The beginning of the corridor is located through low quality timber and brush which should screen it from road 8530. Road accesses Units 101 and 165. Four drainage structures are required, consisting of one log stringer bridge and 3 cmps. Road is located to accommodate logging systems and have least impact on other resources (BMP14.2)

Wetlands: The proposed road crosses about 1000 feet of wetland. The wetland is both forested wetland and muskeg. Minimize the road footprint through the wetlands and provide adequate hillslope drainage (33 CFR BMPs 1, 3). Road construction through these wetlands is unavoidable (BMP 14.2). Overlay construction is recommended to minimize disturbance to the wetland and ensure hydraulic connectivity of the roaded wetland with the surrounding areas (BMPs 12.5 and 14.17). This road meets silviculture exemption for 404 permitting through Army Corps of Engineers.

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: Use existing pit on 8530. During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns.

Soils/Water: For the 1,000 feet of road that exceeds 50% side slope gradient, do not side cast and end-haul only (BMP 14.12, 14.19). Build the road when the soils are not saturated, generally May through August (BMP 14.6). Involve a soil scientist during design to prevent mass failures/landslides (BMP 14.3, 14.7). For road storage under Alternative 3, treat road to ensure hillslope drainage through ditch blocks, water bars, etc. (BMPs 14.20, 14.22) and remove all three stream crossing structures. Stream crossing data from unit field inventory (2006). Road location along Class II stream has been field reviewed and it is at least 120 feet from the stream, although the map has not been updated to reflect this.

Silviculture: No concerns.

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock found along proposed road location. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

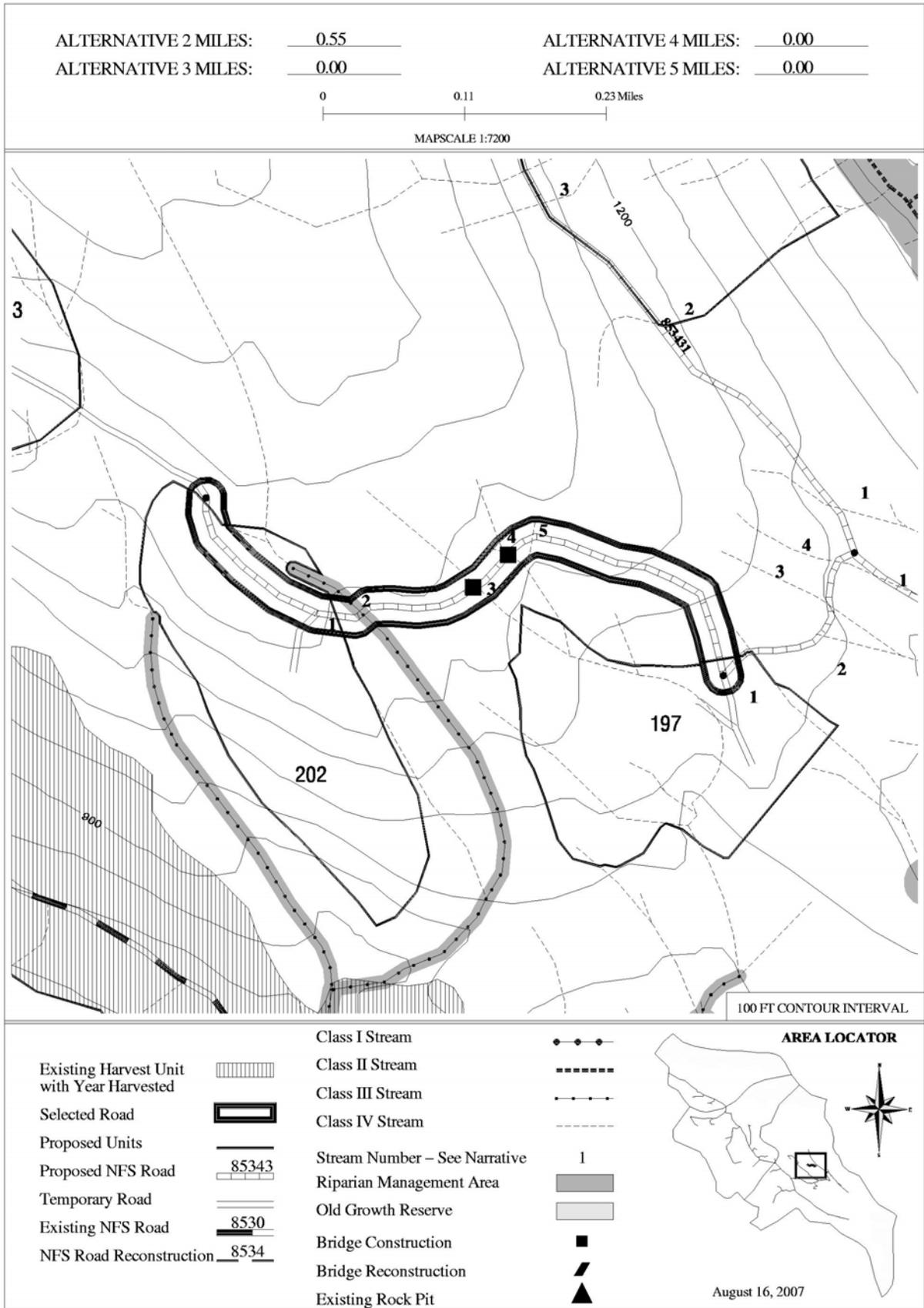
Road No. 853092

4) Mile: 0.46 AHMU: IV Channel Type: HC0 BF Width: 3 BF Depth: Substrate:
 Gradient: Structure: 24" CMP Passage Req'd: No Timing Dates:
 Narrative:

3) Mile: 0.52 AHMU: III Channel Type: BF Width: BF Depth: Substrate:
 HC5
 Gradient: Structure: 36" CMP Passage Req'd: No Timing Dates:
 Narrative:

2) Mile: 0.65 AHMU: II Channel Type: BF Width: 4 BF Depth: Substrate:
 MMO
 Gradient: 3 Structure: LS Bridge Passage Req'd: Y Timing Dates: TBD
 Narrative: The crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for resident trout and concurrence with Alaska DNR will be obtained.

1) Mile: 0.66 AHMU: IV Channel Type: BF Width: 1.5 BF Depth: Substrate:
 MMO
 Gradient: 3 Structure: 18" CMP Passage Req'd: N Timing Dates:
 Narrative:



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85343 **Route Name:** Far Side **Status:** Planned
Begin M.P.: 0.00 **Length (miles):** 0.55 **Begin Termini:** 0.00 **End Termini:** 0.55

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	C	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be possible or needed as determined by the order and timeframe in which the units are harvested. Salvage opportunities may be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
2	0.00	0.55	2	2
1, 3, 4, 5	0.00	0.00	N/A	N/A

Maintenance Narrative: Maintenance Level 2, maintain for high clearance vehicles.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: 2
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, Motorcycles, Bicycles, Hikers
 Discourage: Passenger cars
 Prohibit: N/A
 Eliminate: N/A

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It will be used as part of the open transportation system upon completion of the timber sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85343

Road Location: The road corridor bears westerly from its beginning at planned NFSR road 853431. It climbs generally at a 15% grade and contours its way around to the west side of the mountain. It ends on top of a flat bench. Side slopes are generally less than 50% with some short distances of side slopes up to 60%. The road crosses less than 200 feet of slopes over 50%. Road accesses Units 189 and 192. Five drainage structures are required, consisting of 18 to 36 inch CMPs. Road is located to accommodate logging systems and have least impact on other resources (BMP14.2)

Wetlands: The proposed road crosses about 200 feet of wetland. Minimize the road footprint through the wetlands and provide adequate hillslope drainage (33 CFR BMPs 1, 3). Road construction through these wetlands is unavoidable (BMP 14.2). Overlay construction is recommended to minimize disturbance to the wetland and ensure hydraulic connectivity of the roaded wetland with the surrounding areas (BMPs 12.5 and 14.17). This road meets silviculture exemption for 404 permitting through Army Corps of Engineers.

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMPs 12.17, 14.11, 14.8)

Rock Pits: Use existing pit on 8534. During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: The road crosses less than 200 feet of slopes over 50%. Where the side slopes exceed 50% gradient, do not side cast and end-haul only (BMP 14.12, 14.19). Build the road when the soils are not saturated, generally May through August (BMP 14.6). Involve a soil scientist during design to prevent mass failures/landslides (BMP 14.3, 14.7). Channel type information is from the 2006 unit field survey. Stream crossings are from the GIS layer.

Silviculture: No concerns.

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock found along proposed road location. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85343

1) Mile: 0.15 AHMU: IV Channel Type: HC BF Width: 1 BF Depth: Substrate:
 Gradient: 18 Structure: 18" CMP Passage Req'd: Timing Dates:
 Narrative:

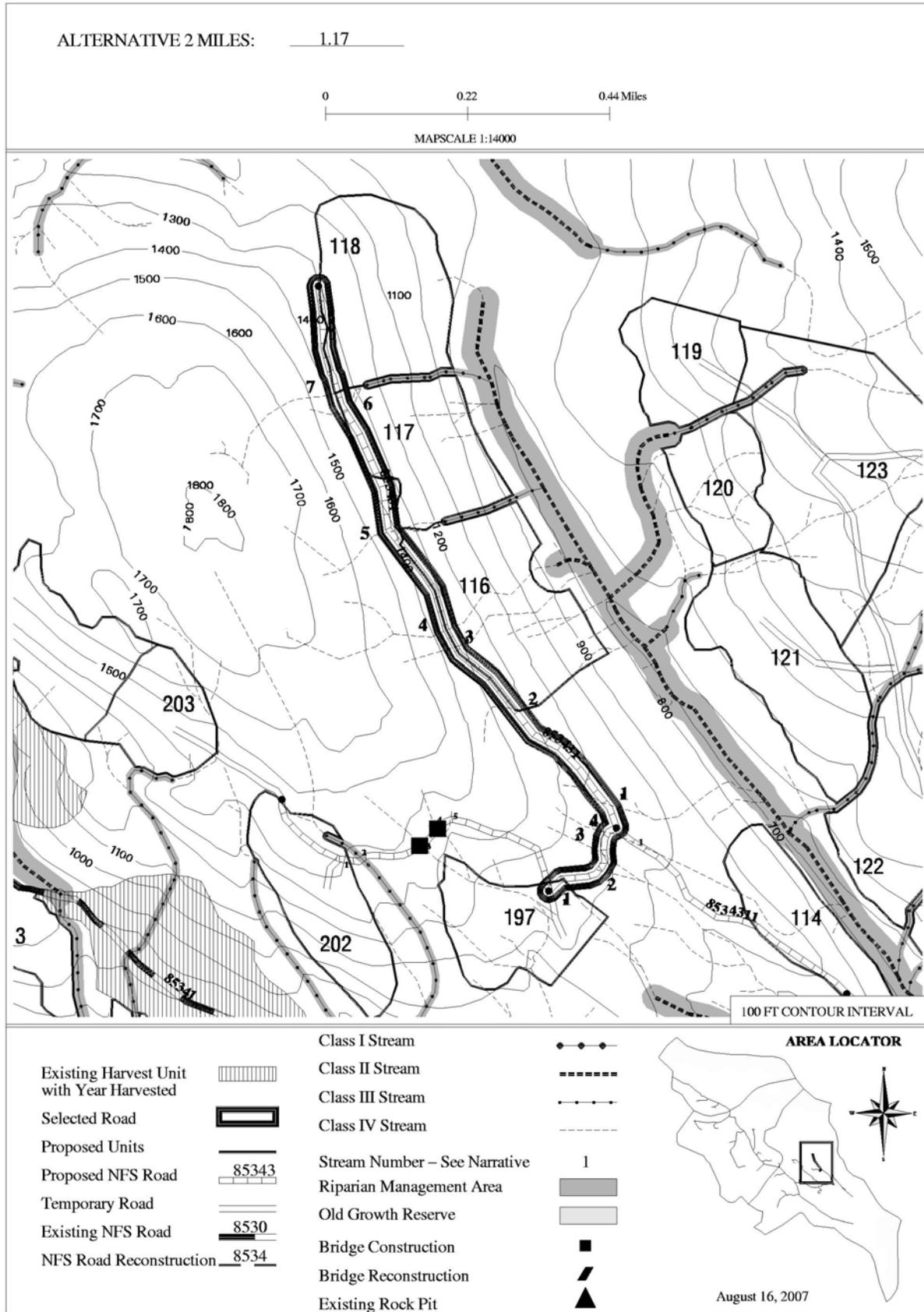
2) Mile: 0.17 AHMU: III Channel Type: BF Width: 5 BF Depth: Substrate:
 HC5
 Gradient: 21 Structure: 36" CMP Passage Req'd: N Timing Dates:
 Narrative:

3) Mile: 0.27 AHMU: IV Channel Type: BF Width: 2 BF Depth: Substrate:
 HC0
 Gradient: 56 Structure: 24" CMP Passage Req'd: N Timing Dates:
 Narrative:

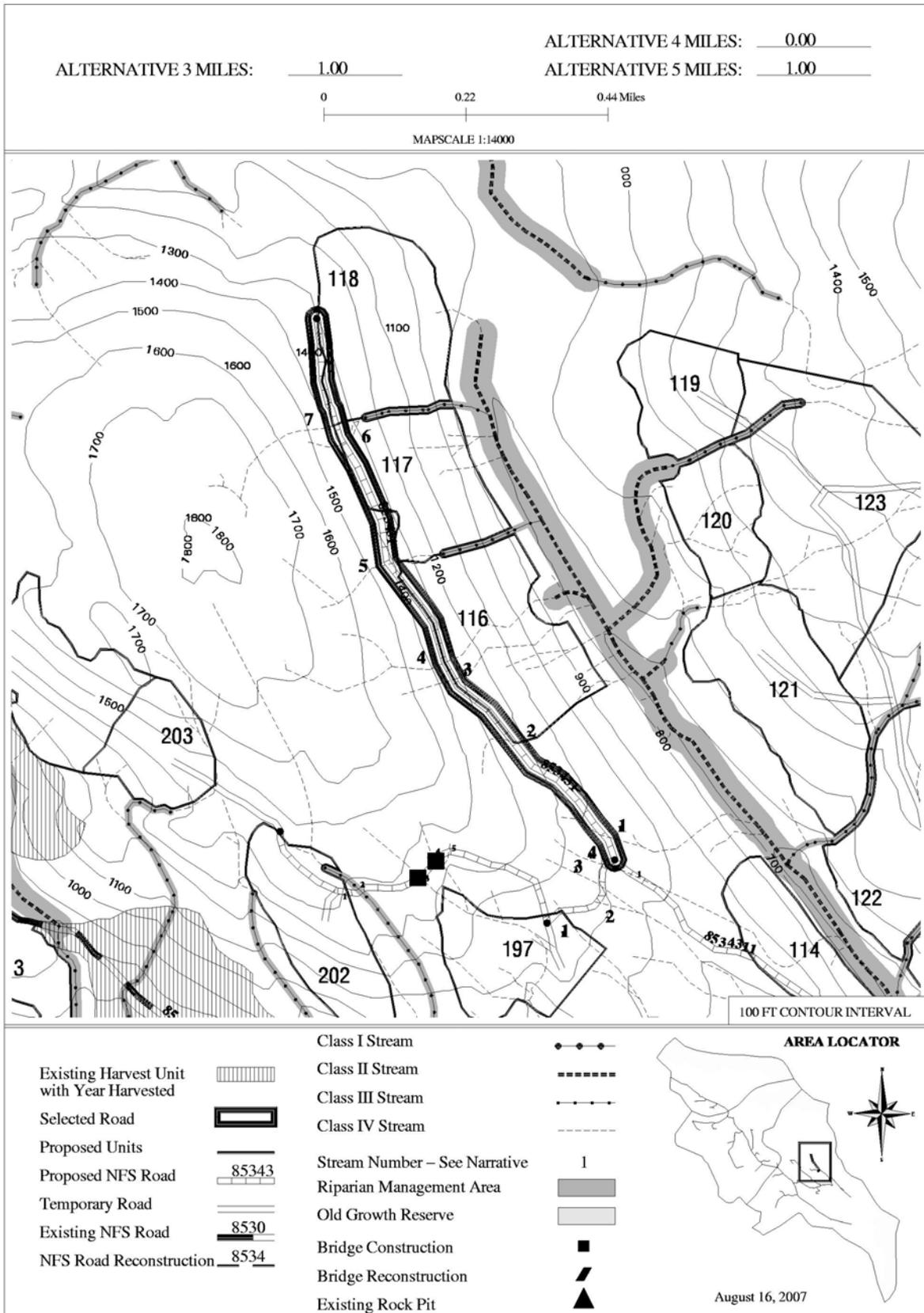
4) Mile: 0.31 AHMU: IV Channel Type: BF Width: 3 BF Depth: Substrate:
 HC0
 Gradient: 31 Structure: 36" CMP Passage Req'd: N Timing Dates:
 Narrative:

5) Mile: 0.33 AHMU: IV Channel Type: BF Width: 1 BF Depth: Substrate:
 HC0
 Gradient: 18 Structure: 18" CMP Passage Req'd: N Timing Dates:
 Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 853431



IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 853431



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 853431 **Route Name:** Area 34 **Status:** Planned
Begin M.P.: 0.00 **Length (miles):** 1.17 **Begin Termini:** 0.00 **End Termini:** 1.17

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	C, IS for Alt. 3	C for Alts. 2, 5, D for Alt. 3	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be possible or needed as determined by the order and timeframe in which the units are harvested. Salvage opportunities may be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
2	0.00	1.17	2	2
3	0.00	1.00	2	1
5	0.00	1.00	2	2
1, 4	0.00	0.00	N/A	N/A

Maintenance Narrative: Maintenance Level 2, maintain for high clearance vehicles in Alternatives 2 and 5. Upon completion of the sale, the road will be turned to Maintenance Level 1 (closed and put into storage) in Alternative 3.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

- Alternatives: 2, 5
- Encourage: N/A
- Accept: High Clearance Vehicles, OHVs, Motorcycles, Bicycles, Hikers
- Discourage: Passenger Cars
- Prohibit: N/A
- Eliminate: N/A; for Alt. 3 – All motorized vehicles after the sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It will be used as part of the open transportation system upon completion of the timber sale in Alternatives 2 and 5. In Alternative 3, road will be tank trapped and waterbarred and drainage structures removed to prevent access upon completion of the sale

District Ranger Approval

(signature) _____ **Date:** _____

Road Management Objectives

Site-specific Design Criteria

Road No. 853431

Road Location: The road corridor bears easterly from its beginning at road 85343 for a short distance before heading predominantly north. Grades are adverse, averaging 10%, side slopes are less than 50% with segments of full bench construction exceeding 60%. Road accesses Units 116 and 117. Six drainage structures are required, consisting of 18 to 36 inch cmps. Road is located to accommodate logging systems and have least impact on other resources (BMP14.2)

Wetlands: The proposed road crosses about 200 feet of wetland. Minimize the road footprint through the wetlands and provide adequate hillslope drainage (33 CFR BMPs 1, 3). Road construction through these wetlands is unavoidable (BMP 14.2). Overlay construction is recommended to minimize disturbance to the wetland and ensure hydraulic connectivity of the roaded wetland with the surrounding areas (BMPs 12.5 and 14.17). This road meets silviculture exemption for 404 permitting through Army Corps of Engineers.

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: Use existing pit on 8534. During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns.

Soils/Water: About 1,100 feet of the road crosses slopes exceeding 50% gradient. The slope ranges from about 55 to 67 % gradient and there is evidence of past landslides along the proposed road. For the 1,100 feet of road exceeds 50% side slope gradient, do not side cast and end-haul only (BMP 14.12, 14.19). Build the road when the soils are not saturated, generally May through August (BMP 14.6). Involve a soil scientist during design to prevent mass failures/landslides (BMP 14.3, 14.7). For road storage under Alternative 3, remove all stream crossing structures after the sale, and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. (BMPs 14.20, 14.22). Channel type information is from the 2006 unit field survey. Stream crossings are from the GIS layer.

Silviculture: No concerns.

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock found along proposed road location. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 853431

1) Mile: 0.04 AHMU: IV Channel Type: BF Width: 1.25 BF Depth: Substrate:
 HC0
 Gradient: 47 Structure: 18" CMP Passage Req'd: N Timing Dates:
 Narrative:

2) Mile: 0.25 AHMU: IV Channel Type: HC0 BF Width: 1.25 BF Depth: Substrate:
 Gradient: 62 Structure: 18" CMP Passage Req'd: N Timing Dates:
 Narrative:

3) Mile: 0.39 AHMU: IV Channel Type: BF Width: 1 BF Depth: Substrate:
 HC0
 Gradient: 33 Structure: 18" CMP Passage Req'd: N Timing Dates:
 Narrative:

4) Mile: 0.41 AHMU: IV Channel Type: BF Width: 5 BF Depth: Substrate:
 HC0
 Gradient: 51 Structure: 24" CMP Passage Req'd: N Timing Dates:
 Narrative:

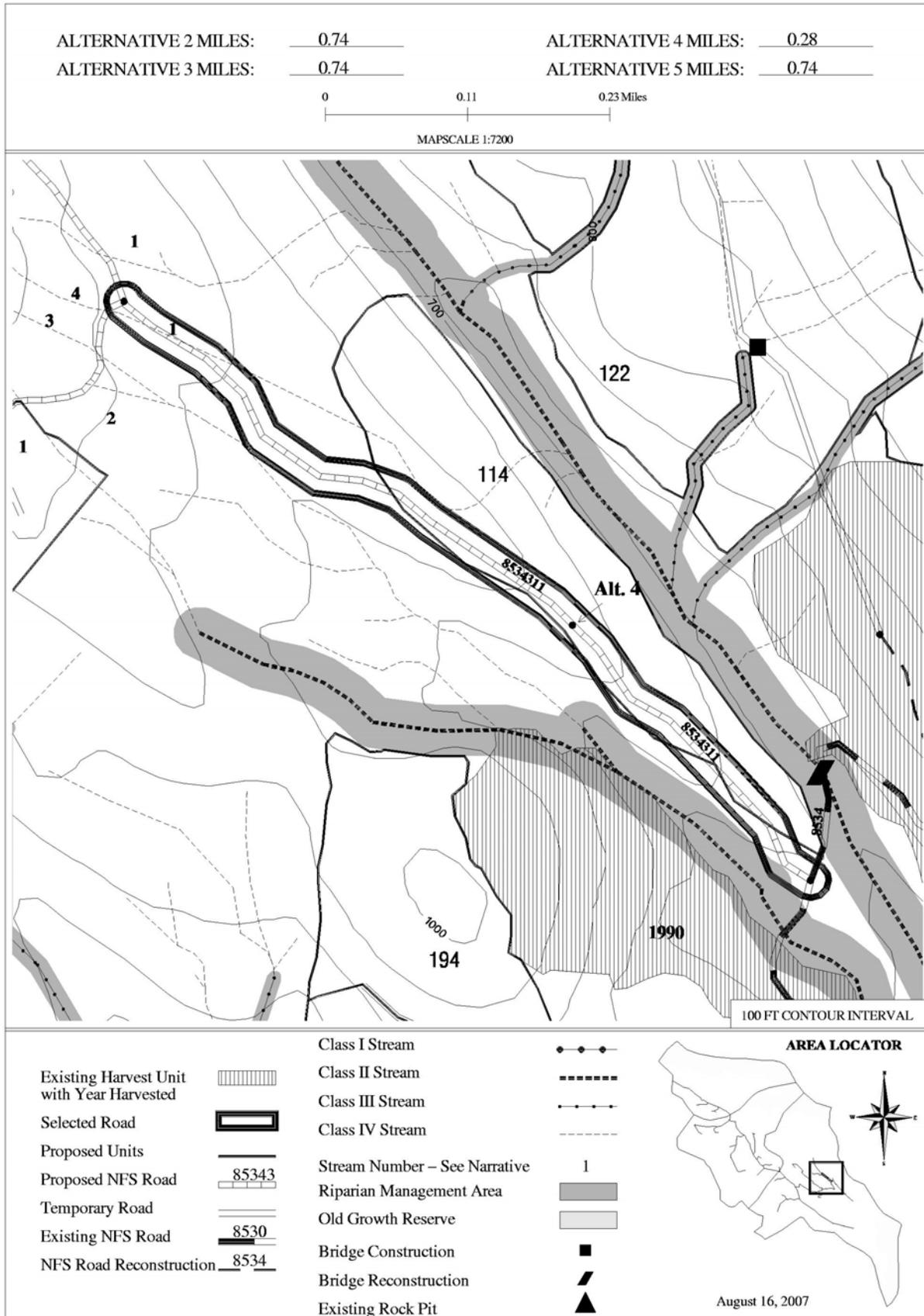
5) Mile: 0.60 AHMU: IV Channel Type: BF Width: 6 BF Depth: Substrate:
 HC0
 Gradient: 80 Structure: 36" CMP Passage Req'd: N Timing Dates:
 Narrative:

6) Mile: 0.80 AHMU: IV Channel Type: HC0 BF Width: 1.5 BF Depth: Substrate:
 Gradient: 52 Structure: 24" CMP Passage Req'd: N Timing Dates:
 Narrative:

7) Mile: 0.83 AHMU: IV Channel Type: BF Width: 4 BF Depth: Substrate:
 HC0
 Gradient: 44 Structure: 36" CMP Passage Req'd: N Timing Dates:
 Narrative:

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IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 8534311



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 8534311 **Route Name:** North Fork Spur **Status:** Planned
Begin M.P.: 0.00 **Length (miles):** 0.74 **Begin Termini:** 0.00 **End Termini:** 0.74

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	C, IS for Alt. 3	C for Alts. 2, 4, 5, D for Alt. 3	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be possible or needed as determined by the order and timeframe in which the units are harvested. Salvage opportunities may be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
2, 5	0.00	0.74	2	2
3	0.00	0.74	2	1
4	0.00	0.28	2	2
1	0.00	0.00	N/A	N/A

Maintenance Narrative: Maintenance Level 2, maintain for high clearance vehicles in Alternatives 2, 4, and 5. Upon completion of the sale, the road will be turned to Maintenance Level 1 (closed and put into storage) in Alternative 3.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: 2, 4, 5
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, Motorcycles, Bicycles, Hikers
 Discourage: Passenger cars
 Prohibit: N/A
 Eliminate: N/A; for Alt. 3 – All motorized vehicles after the sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It will be used as part of the open transportation system upon completion of the timber sale in Alternatives 2, 4, and 5. In Alternative 3, stream crossing structures will be removed, and road will be tank trapped and waterbarred to prevent access upon completion of the sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 8534311

Road Location: The road corridor bears northerly from its beginning at road 8530 and ends at the lower reaches of a relatively steeper slope. Grades are favorable, averaging 12%, side slopes are less than 40% with one 50 foot segment of full bench construction exceeding 50%. Road accesses Unit 114. One drainage structure is required, consisting of one 24" CMP. Road is located to accommodate logging systems and have least impact on other resources (BMP14.2)

Wetlands: The proposed road does not cross any wetlands. This road meets silviculture exemption for 404 permitting through the Army Corps of Engineers.

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: Use existing pit on 8534. During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns.

Soils/Water: There are about 50 feet of road that crosses side slopes greater than 50% gradient. To construct this short section of road on slopes exceeding 50%, do not side cast and end-haul only (BMP 14.12, 14.19). Build the road when the soils are not saturated, generally May through August (BMP 14.6). Involve a soil scientist during design to prevent mass failures/landslides (BMP 14.3, 14.7). For road storage in Alternative 3 after the sale, remove culvert and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. (BMPs 14.20, 14.22). Channel type information is from the 2006 unit field survey. Stream crossings are from the GIS layer.

Silviculture: No concerns.

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock found along proposed road location. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

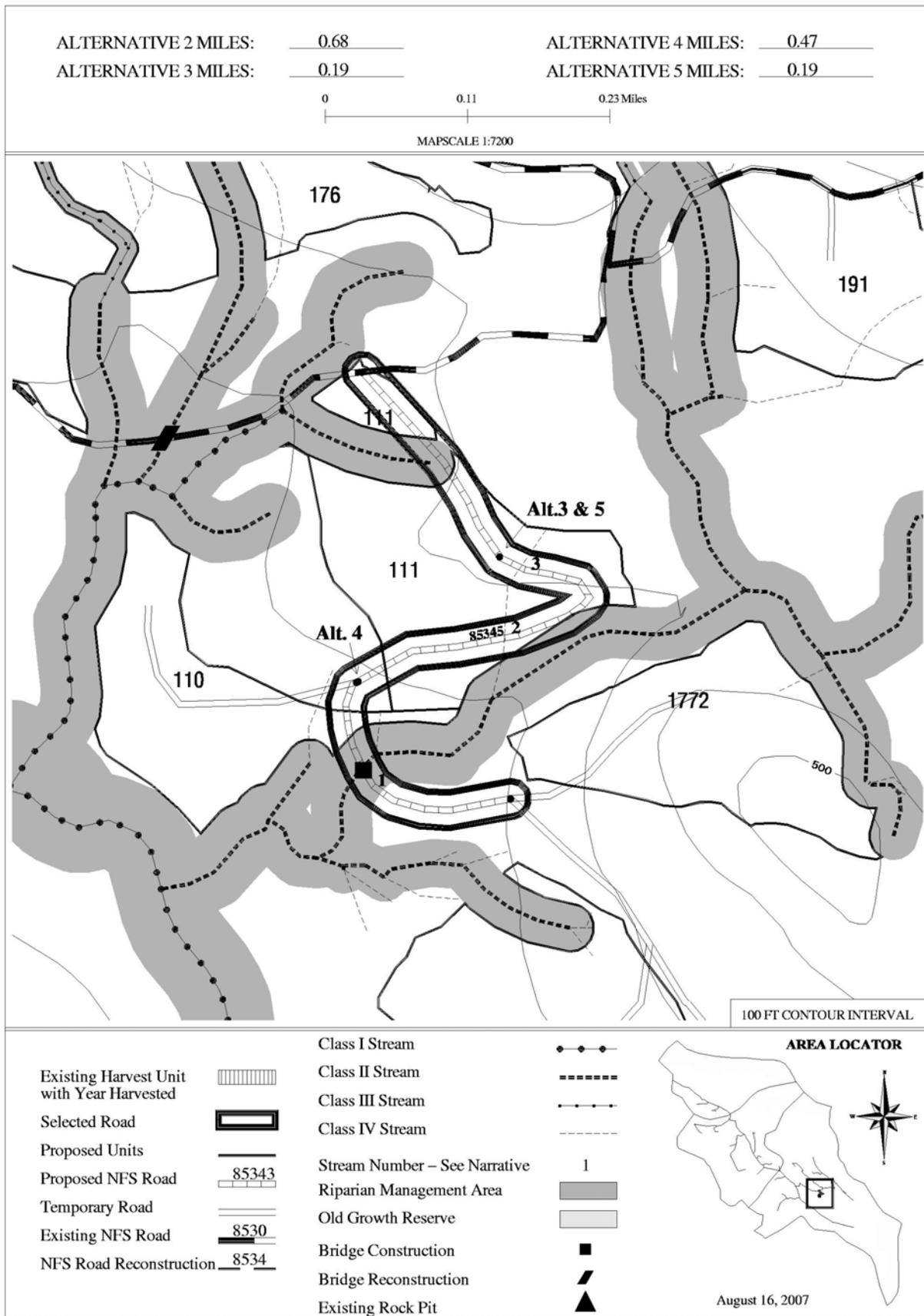
Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 8534311

1) Mile: 0.7 AHMU: IV Channel Type: BF Width: 2 BF Depth: Substrate:
HC0
Gradient: 12 Structure: 24" CMP Passage Req'd: N Timing Dates:
Narrative:



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85345 **Route Name:** Iyouktug 5 **Status:** Planned
Begin M.P.: 0.00 **Length (miles):** 0.68 **Begin Termini:** 0.00 **End Termini:** 0.68

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	C, IS for Alt. 3	C for Alts. 2, 4, 5, D for Alt. 3	Shot Rock	14'	Log Truck	Log Truck	15 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be possible or needed as determined by the order and timeframe in which the units are harvested. Salvage opportunities may be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
2	0.00	0.68	2	2
4	0.00	0.47	2	2
5	0.00	0.19	2	2
3	0.00	0.19	2	1
1	0.00	0.00	N/A	N/A

Maintenance Narrative: Maintenance Level 2, maintain for high clearance vehicles. In Alternative 3, road will be in Maintenance Level 1 (closed and in storage) after the sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: 2, 4, 5
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, Motorcycles, Bicycles, Hikers
 Discourage: Passenger cars
 Prohibit: N/A
 Eliminate: N/A; for Alt. 3 – All motorized vehicles after the sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It will be used as part of the open transportation system upon completion of the timber sale if Alternatives 2, 4, or 5 are chosen. In Alternative 3, road will be tank trapped and waterbarred to prevent access upon completion of the sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85345

Road Location: The road corridor bears southerly from its beginning at road 8530. It executes a reverse “S” shape to drop elevation and cross the creek and ends on the top of the other bank. Side slopes are less than 50%. The beginning of the corridor is located through low quality timber and brush which should screen it from road 8530. Road accesses Units 110, 111 and 1772. Three drainage structures are required, consisting of one log stringer bridge and 2 CMPs. Road is located to accommodate logging systems and have least impact on other resources (BMP14.2)

Wetlands: The entire road is located on wetland. This area is comprised of wetlands so this is unavoidable. Minimize the road footprint through the wetlands and provide adequate hillslope drainage (33 CFR BMPs 1, 3). Road construction through these wetlands is unavoidable (BMP 14.2). Overlay construction is recommended to minimize disturbance to the wetland and ensure hydraulic connectivity of the roaded wetland with the surrounding areas (BMPs 12.5 and 14.17). This road meets silviculture exemption for 404 permitting through Army Corps of Engineers.

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: Use existing pit on 8534. During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns.

Soils/Water: Build the road when the soils are not saturated, generally May through August (BMP 14.6). Involve a soil scientist during design to prevent mass failures/landslides (BMP 14.3, 14.7). For road storage in Alternative 3 after the sale, remove culvert and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. (BMPs 14.20, 14.22). Channel type information is from the 2006 unit field survey. Stream crossings are from the GIS layer.

Silviculture: No concerns.

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock found along proposed road location. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

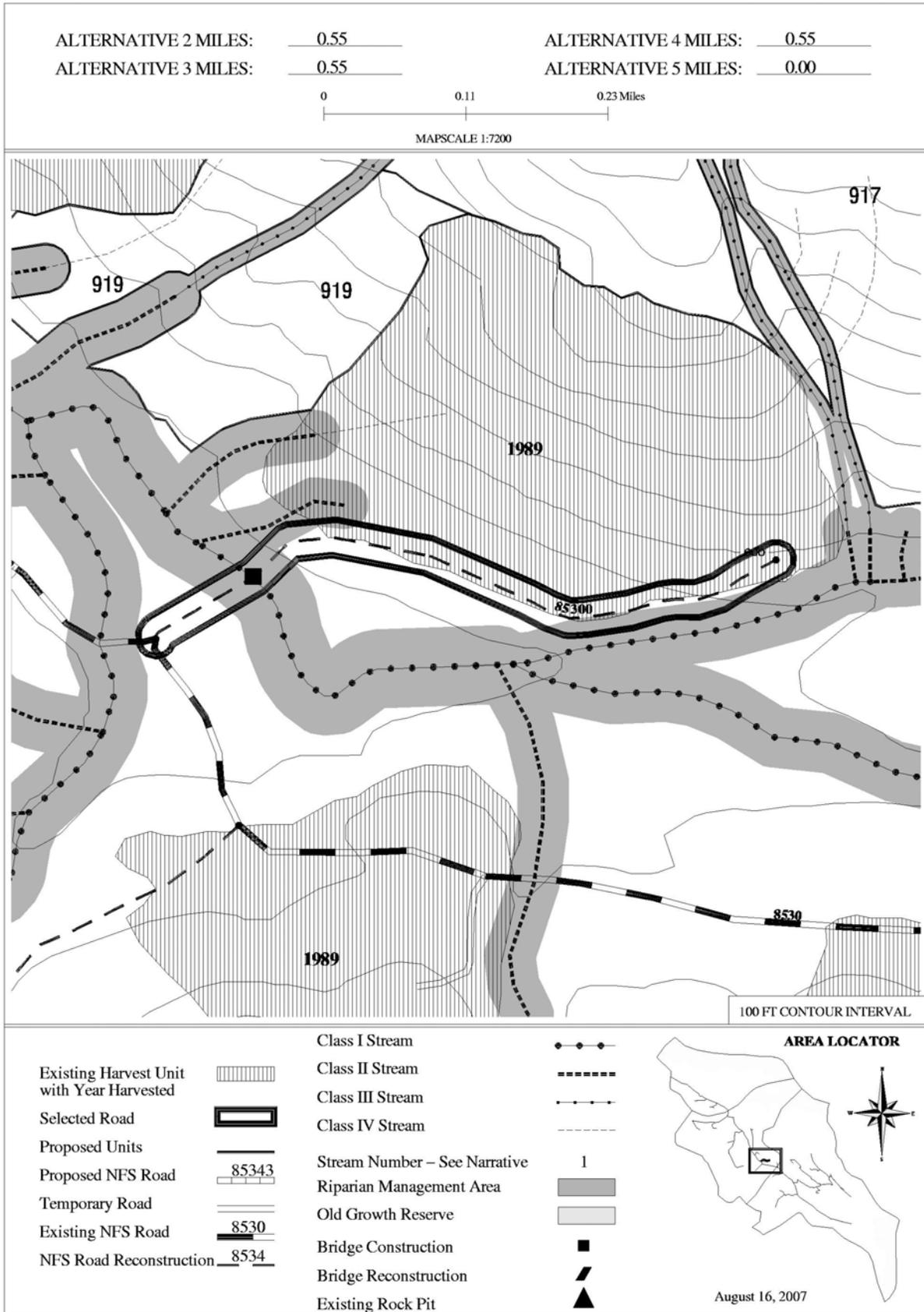
Road No. 85345

3) Mile: 0.20 AHMU: IV Channel Type: BF Width: 2.5 BF Depth: Substrate:
 Gradient: 2 Structure: 24" CMP Passage Req'd: N Timing Dates:
 Narrative:

2) Mile: 0.34 AHMU: IV Channel Type: HC0 BF Width: 2.5 BF Depth: Substrate:
 Gradient: 12 Structure: 24" CMP Passage Req'd: Timing Dates:
 Narrative:

1) Mile: 0.54 AHMU: I Channel Type: BF Width: 21 BF Depth: Substrate:
 Gradient: 3 Structure: Bridge Passage Req'd: Y Timing Dates: TBD
 Narrative: The crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained.

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85300



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85300 **Route Name:** **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.55 **Begin Termini:** 0.00 **End Termini:** 0.55

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	15 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 5	0.00	0.55	1	1
2, 3, 4	0.00	0.55	exist – 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High clearance vehicles, during sale. Bicycles, Hikers
 Discourage: Passenger cars
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85300

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking. Road provides access for helicopter units.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove culverts and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after the harvest (BMPs 14.20, 14.22). Existing crossing structures and concerns are based on RCS surveys from 2000.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85300

A) Mile: AHMU: I **Channel Type:** FP3 **BF Width:** **BF Depth:** **Substrate:**
0.068

Gradient: **Structure:** 44 foot Bridge **Passage Req'd:** Yes **Timing Dates:** TBD

Narrative: Existing 44 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained. The bridge will be removed and the road closed after timber harvest is completed.

B) Mile: 0.097 AHMU: II **Channel Type:** **BF Width:** **BF Depth:** **Substrate:**
MMO

Gradient: **Structure:** 18' CMP **Passage Req'd:** Yes **Timing Dates:** TBD

Narrative: The current culvert is listed as a "gray" fish passage structure for gradient. The crossing will be removed and the road closed after timber harvest is completed.

C) Mile: AHMU: IV **Channel Type:** HC **BF Width:** **BF Depth:** **Substrate:**
0.198

Gradient: **Structure:** 24" CMP **Passage Req'd:** N **Timing Dates:**

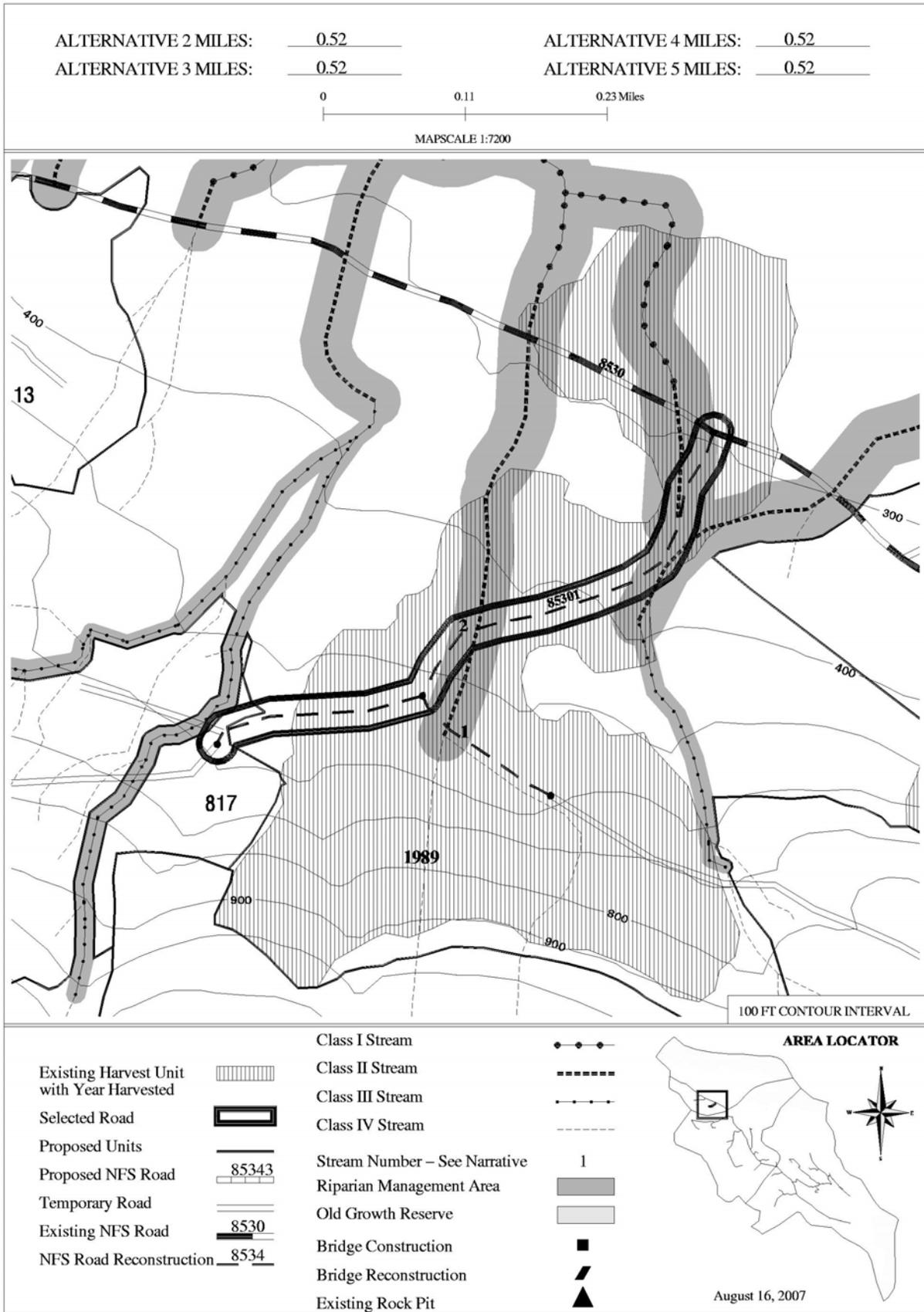
Narrative:

D) Mile: AHMU: IV **Channel Type:** HC **BF Width:** **BF Depth:** **Substrate:**
0.374

Gradient: **Structure:** 18" CMP **Passage Req'd:** N **Timing Dates:**

Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85301



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85301 **Route Name:** Hoonah Gypsum 1 **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.52 **Begin Termini:** 0.00 **End Termini:** 0.52

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1	0.00	0.52	1	1
2, 3, 4, 5	0.00	0.52	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, during sale. Motorcycles, Bicycles, Hikers
 Discourage: Passenger cars during sale
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85301

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove stream crossing structures and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after the harvest (BMPs 14.20, 14.22). Streams are based on the GIS layer.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

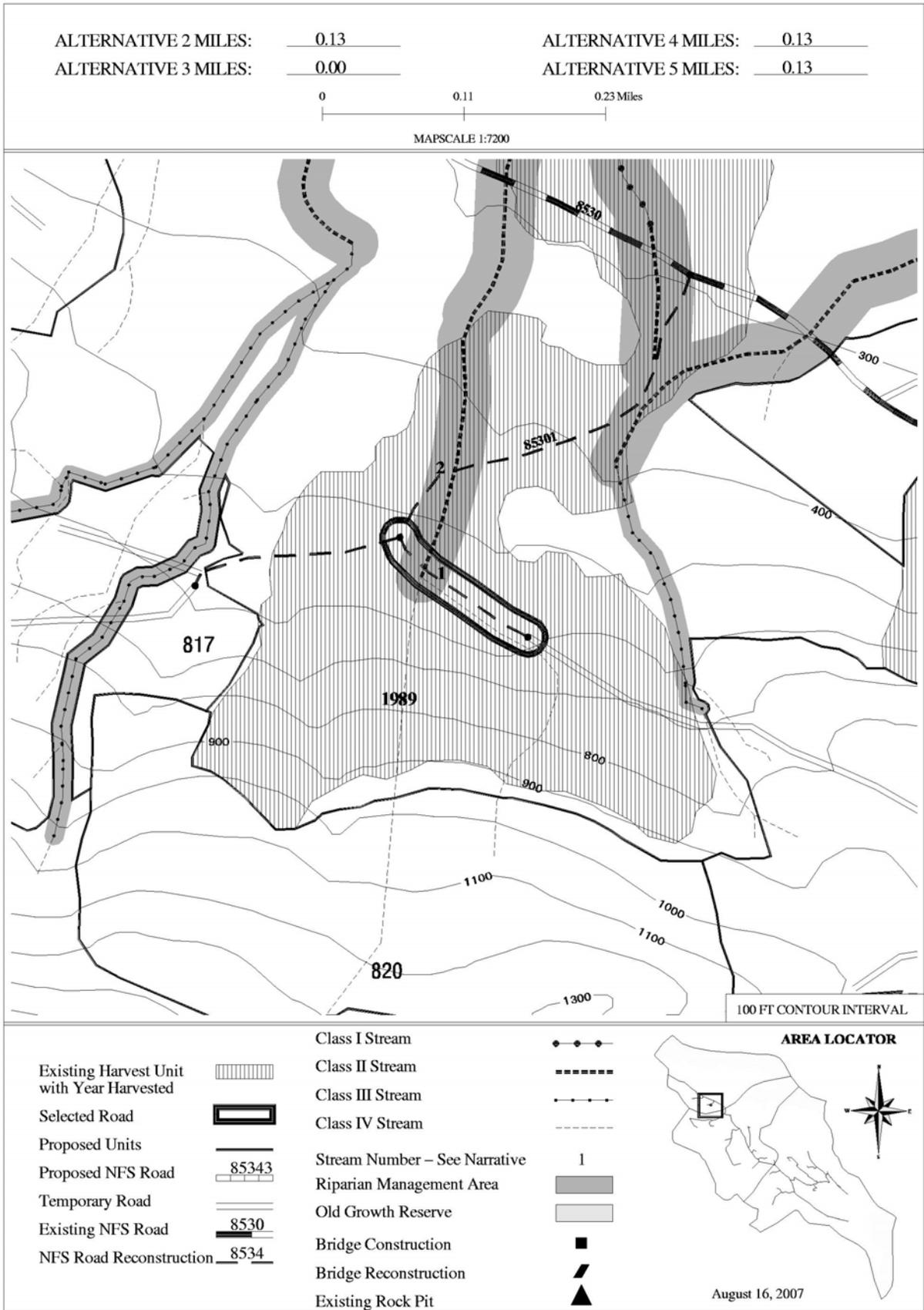
Road Management Objectives

Stream Crossings

Road No. 85301

1) Mile: 0.27 AHMU: II Channel Type: BF Width: BF Depth: Substrate:
HC2
Gradient: Structure: unknown Passage Req'd: Y Timing Dates: TBD
Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 853011



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 853011 **Route Name:** Hoonah Gypsum 11 **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.13 **Begin Termini:** 0.00 **End Termini:** 0.13

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	15 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 3	0.00	0.13	1	1
2, 4, 5	0.00	0.13	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High clearance vehicles, during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 853011

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove stream crossing structures and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after the harvest (BMPs 14.20, 14.22). Streams data is from the GIS layer.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

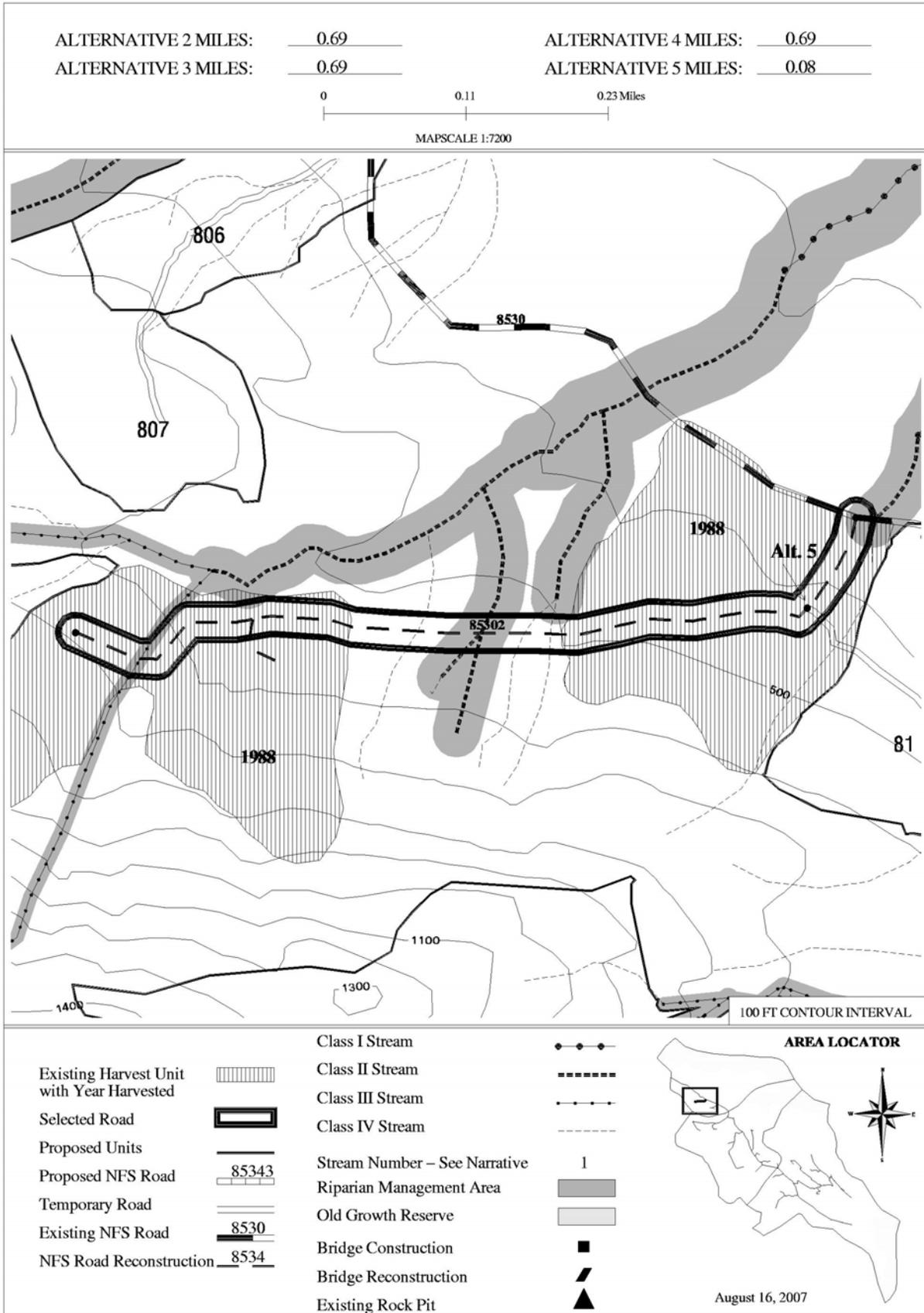
Road Management Objectives

Stream Crossings

Road No. 853011

1) Mile: 0.32 AHMU: II Channel Type: BF Width: BF Depth: Substrate:
HC2
Gradient: Structure: unknown Passage Req'd: Y Timing Dates:
Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85302



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85302 **Route Name:** Hoonah Gypsum 2 **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.69 **Begin Termini:** 0.00 **End Termini:** 0.69

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 5	0.00	0.69	1	1
2, 3, 4	0.00	0.69	exist - 1, during use - 2	1
5	0.00	0.08	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, Motorcycles during sale, Bicycles, Hikers
 Discourage: Passenger cars during sale
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85302

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove culverts and bridge and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after the harvest (BMPs 14.20, 14.22). Stream crossing data is from the 1999 and 2000 RCS surveys.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85302

A) Mile: 0.022 AHMU: III Channel Type: HC BF Width: BF Depth: Substrate:
 Gradient: Structure: 48" CMP Passage Req'd: N Timing Dates:
 Narrative:

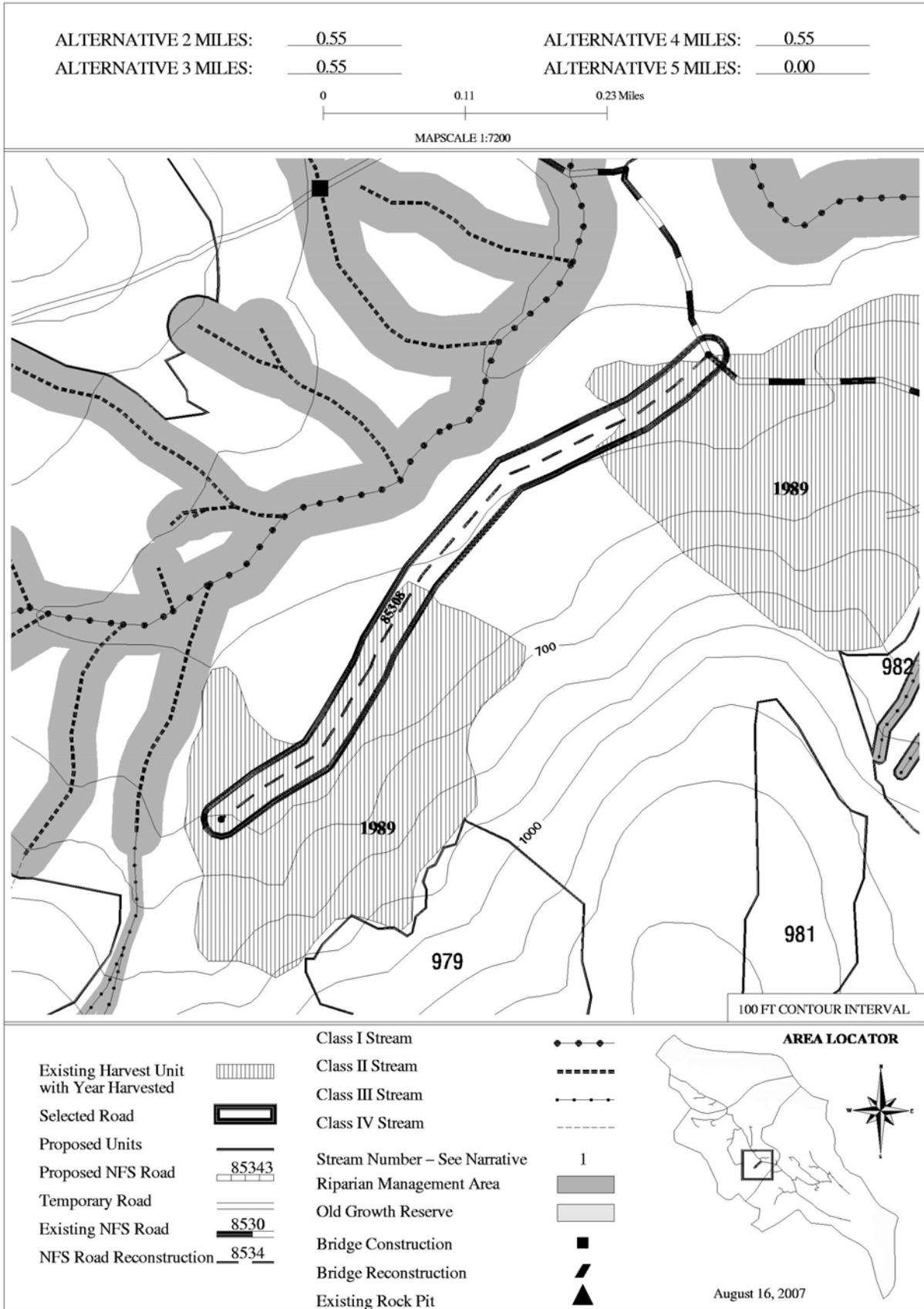
B) Mile: 0.305 AHMU: II Channel Type: HC0 BF Width: BF Depth: Substrate:
 Gradient: Structure: Bridge Passage Req'd: N Timing Dates:
 Narrative: The reconstructed crossing will be designed to accomplish fish passage for trout and concurrence with Alaska DNR will be obtained. The crossing will be removed and the road closed after timber harvest is completed.

C) Mile: 0.513 AHMU: II Channel Type: MM BF Width: BF Depth: Substrate: fine gravel
 Gradient: Structure: 48" CMP Passage Req'd: Y Timing Dates: TBD
 Narrative: Culvert was surveyed as a red pipe in 1999 and resurveyed as a gray pipe in 2001. The crossing will be removed and the road closed after timber harvest is completed.

D) Mile: 0.529 AHMU: II Channel Type: HC BF Width: BF Depth: Substrate:
 Gradient: Structure: Bridge Passage Req'd: Y Timing Dates:
 Narrative: The reconstructed crossing will be designed to accomplish fish passage for trout and concurrence with Alaska DNR will be obtained. The crossing will be removed and the road closed after timber harvest is completed.

E) Mile: 0.624 AHMU: IV Channel Type: HC BF Width: BF Depth: Substrate: fine gravel
 Gradient: Structure: 48" CMP Passage Req'd: N Timing Dates:
 Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85308



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85308 **Route Name:** Hoonah Gypsum 8 **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.55 **Begin Termini:** 0.00 **End Termini:** 0.55

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 5	0.00	0.55	1	1
2, 3, 4	0.00	0.55	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85308

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove culverts and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after sale (BMPs 14.20, 14.22). Stream crossings are from the 2000 RCS database.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

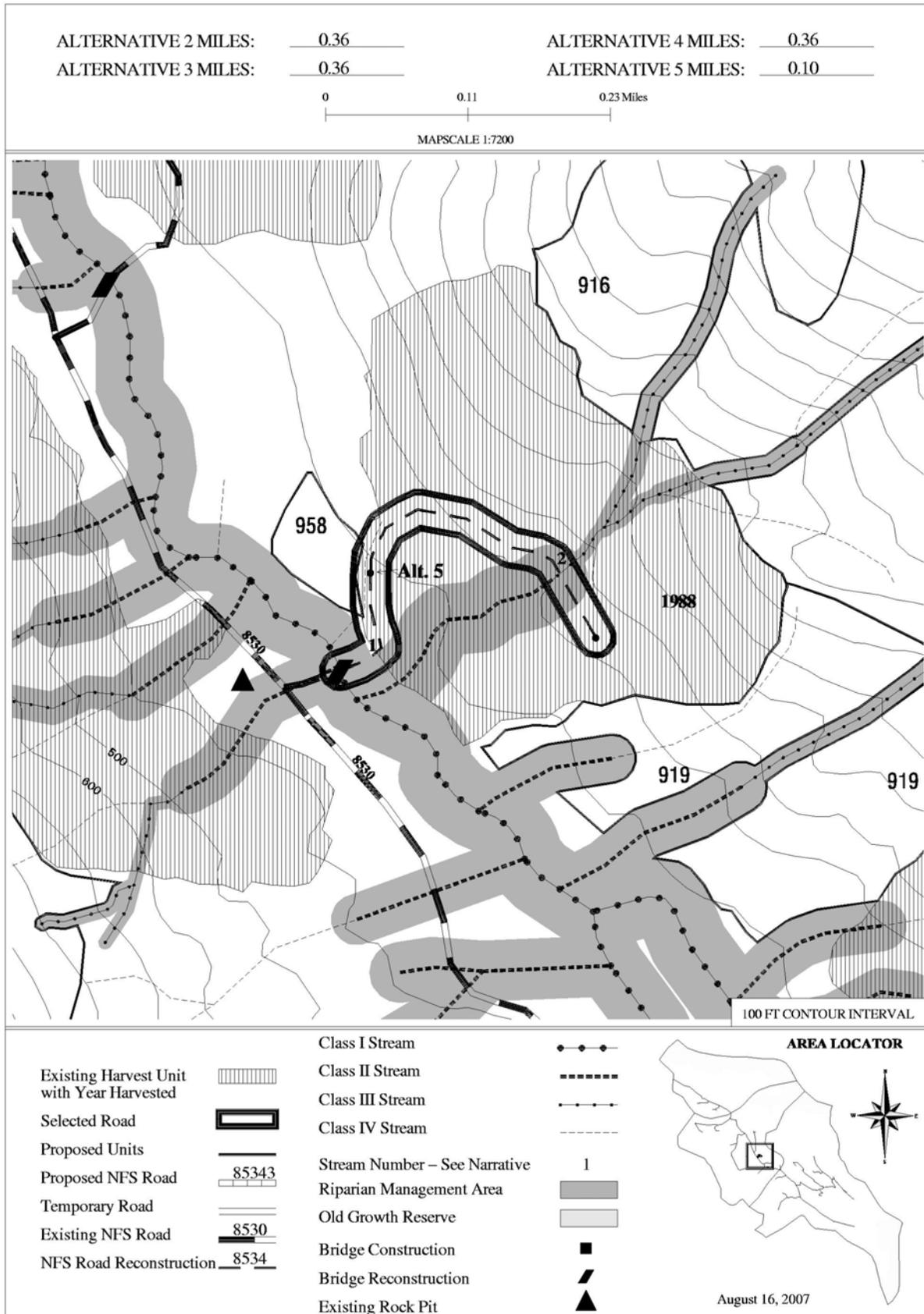
Stream Crossings

Road No. 85308

A) Mile: AHMU: IV Channel Type: MC BF Width: BF Depth: Substrate:
0.217
Gradient: Structure: 18" CMP Passage Req'd: N Timing Dates:
Narrative:

B) Mile: 0.459 AHMU: III Channel Type: HC BF Width: BF Depth: Substrate:
Gradient: Structure: TBD Passage Req'd: N Timing Dates:
Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85309



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85309 **Route Name:** Hoonah Gypsum 9 **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.36 **Begin Termini:** 0.00 **End Termini:** 0.36

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1	0.00	0.36	1*	1
2, 3, 4	0.00	0.36	exist – 1*, during use - 2	1
5	0.00	0.10	exist – 1*, during use - 2	1

*Road is currently open

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be turned to Maintenance Level 1 (closed and put into storage). Road is currently open but maintained as Maintenance Level 1. Road will be closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale.
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is open, but is not maintained at Maintenance Level 2. This road will be closed and placed into storage after timber sale completion as part of the Access Travel Management decision (USDA Forest Service 2002); bridge replacement and removal upon timber sale completion would occur near the beginning of this road. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85309

Road Location: Existing road, log stringer bridges to be installed, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove stream crossing structures and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after the harvest (BMPs 14.20, 14.22). Stream crossing information is from GIS and the 1999 RCS database. In addition to stream crossings, there are 4 ditch relief culverts and two non-streams on this segment of road.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

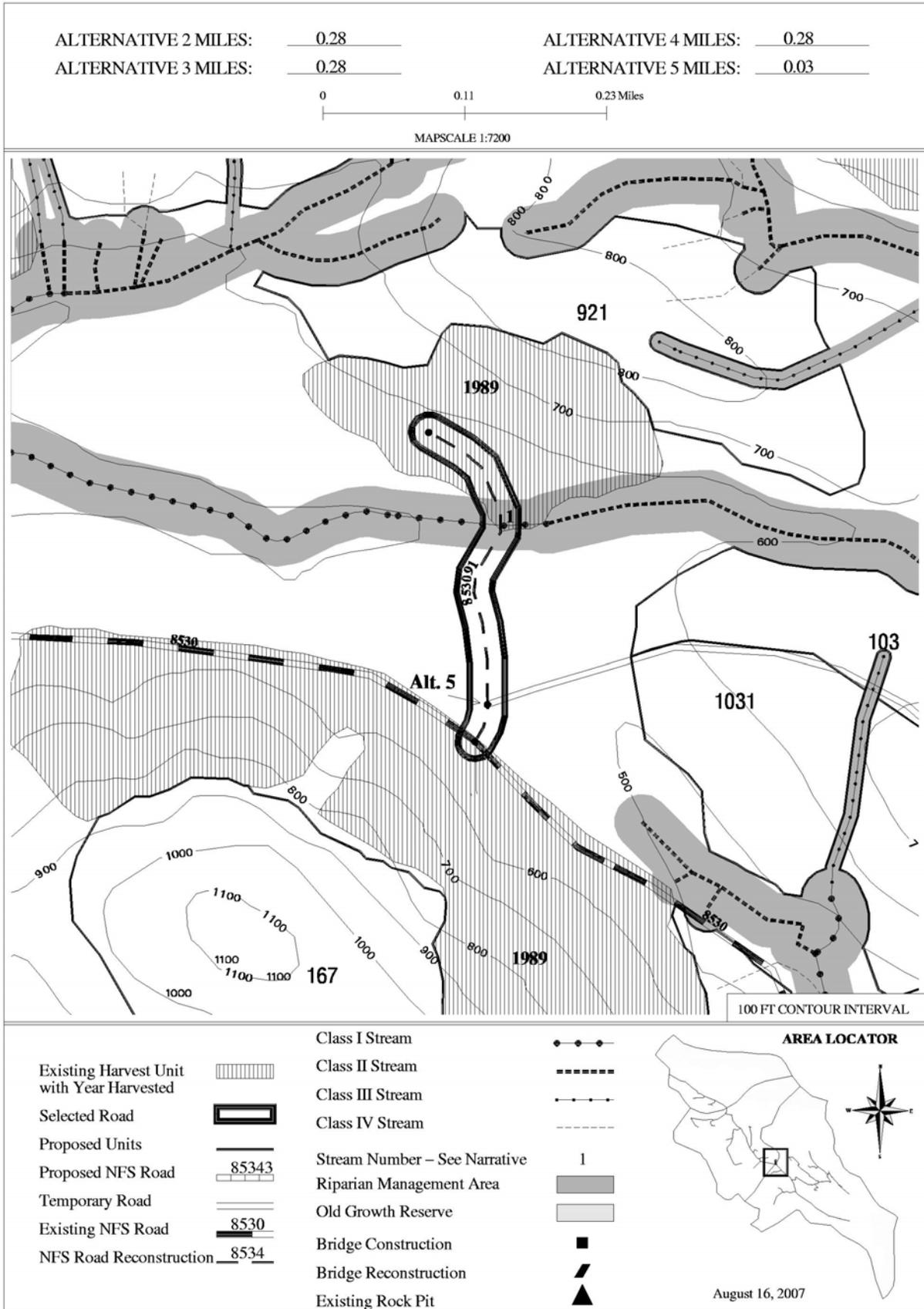
Road No. 85309

1) Mile: 0.02 AHMU: II Channel Type: BF Width: BF Depth: Substrate:
 HC2
 Gradient: Structure: Bridge Passage Req'd: Y Timing Dates: TBD
 Narrative: Bridge length TBD

2) Mile: 0.05 AHMU: I Channel Type: BF Width: BF Depth: Substrate:
 MM2
 Gradient: Structure: Bridge Passage Req'd: Y Timing Dates: TBD
 Narrative: Existing 39 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained.

3) Mile: 0.34 AHMU: III Channel Type: BF Width: BF Depth: Substrate:
 HC5
 Gradient: Structure: Bridge Passage Req'd: N Timing Dates:
 Narrative: Bridge length TBD

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 853091



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 853091 **Route Name:** Hoonah Gypsum 9 **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.28 **Begin Termini:** 0.00 **End Termini:** 0.28

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 5	0.00	0.28	1	1
2, 3, 4	0.00	0.28	exist - 1, during use - 2	1
5	0.00	0.03	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale.
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 853091

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove stream crossing structures and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after the harvest (BMPs 14.20, 14.22) Stream crossings are from GIS.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

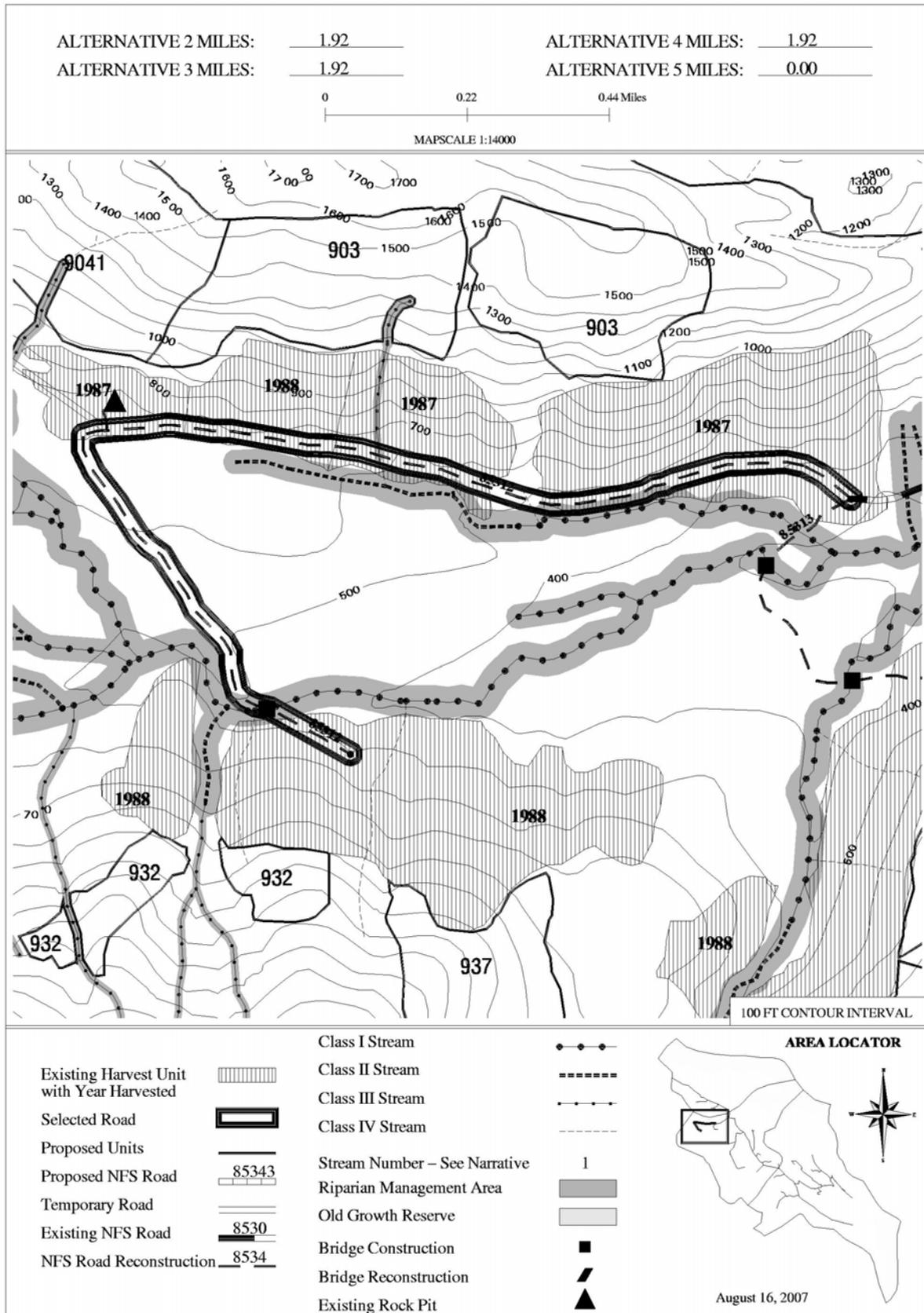
Stream Crossings

Road No. 853091

1) Mile: 0.18 **AHMU: I** **Channel Type: PA1** **BF Width:** **BF Depth:** **Substrate:**
Gradient: **Structure: TBD** **Passage Req'd: Y** **Timing Dates:**

Narrative: The reconstructed crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained. The crossing will be removed and the road closed after timber harvest is completed.

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85312



Road Management Objectives

Project/EIS: Iyouktug Timber Sale	System: Hoonah - Gypsum	Land Use Designation: Timber Production
Route No.: 85312	Route Name: Upper Hippoback	Status: Existing
Begin M.P.: 0.00	Length (miles): 1.92	Begin Termini: 0.00 End Termini: 1.92

General Design Criteria and Elements

Functional Class: Local	Service Life: IS	Traffic Service Level: D	Surface: Shot Rock	Width: 14'	Critical Vehicle: Log Truck	Design Vehicle: Log Truck	Design Speed: 10 mph
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Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 5	0.00	1.92	1	1
2, 3, 4	0.00	1.92	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives:	ALL
Encourage:	N/A
Accept:	High Clearance Vehicles, OHVs, during sale. Bicycles, Hikers
Discourage:	Passenger cars during sale.
Prohibit:	N/A
Eliminate	All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85312

Road Location: Existing road, log stringer bridge will be replaced. Deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove stream crossing structures and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after the harvest (BMPs 14.20, 14.22). Stream crossing data is from the 1999 RCS database.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: Low vulnerability karst present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85312

A) Mile: 0.75 AHMU: III Channel Type: HC BF Width: BF Depth: Substrate:
 Gradient: Structure: 36" CMP Passage Req'd: N Timing Dates:
 Narrative:

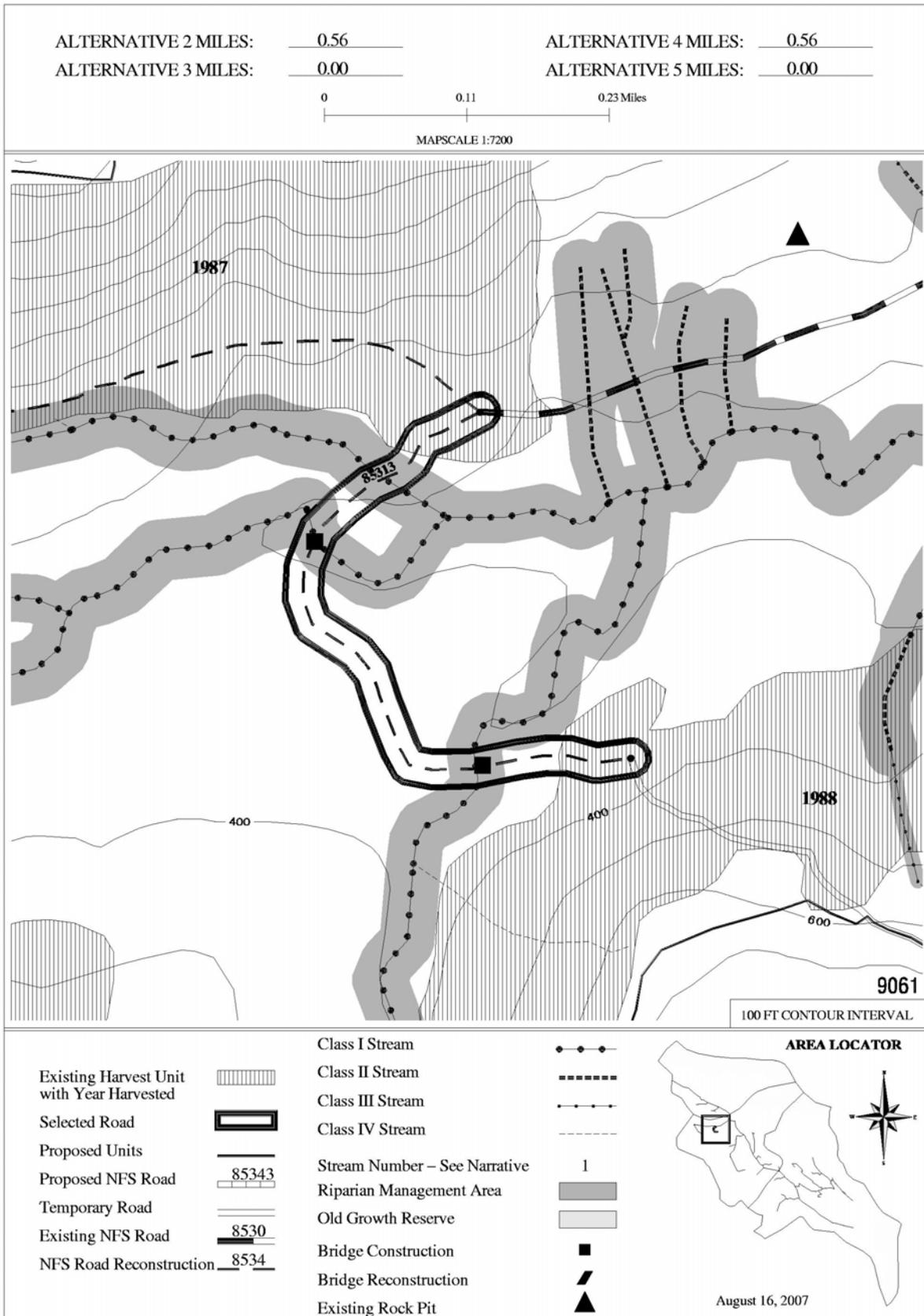
B) Mile: 1.16 AHMU: IV Channel Type: BF Width: BF Depth: Substrate:
 HC0
 Gradient: Structure: 18" CMP Passage Req'd: N Timing Dates:
 Narrative:

C) Mile: 1.32 AHMU: III Channel Type: HC BF Width: BF Depth: Substrate:
 Gradient: Structure: 24" CMP Passage Req'd: N Timing Dates:
 Narrative:

D) Mile: AHMU: I Channel Type: BF Width: BF Depth: Substrate:
 1.753 MM1
 Gradient: Structure: 54' LSB Passage Req'd: Y Timing Dates: TBD
 Narrative: Existing 54 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained.

E) Mile: 1.753 AHMU: IV Channel Type: HC BF Width: BF Depth: Substrate:
 Gradient: Structure: 18" CMP Passage Req'd: N Timing Dates: TBD
 Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85313



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85313 **Route Name:** East Hippoback **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.56 **Begin Termini:** 0.00 **End Termini:** 0.56

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 3, 5	0.00	0.56	1	1
2, 4	0.00	0.56	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale.
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85313

Road Location: Existing road, log stinger bridges to be replaced. Deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Remove stream crossing structures and treat road to ensure hillslope drainage through ditch blocks, water bars, etc. after harvest (BMPs 14.20, 14.22). Stream crossing data is from the 2001 and 2005 RCS database. One red pipe is listed at MP 0.08 and this will be replaced.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85313

A) Mile: 0.09 AHMU: I Channel Type: BF Width: 11 BF Depth: Substrate:
MM1
Gradient: Structure: (currently 48" Passage Req'd: Y Timing Dates: TBD
CMP)

Narrative: This is a "red" culvert that will be replaced. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained. The structure will be removed after the sale.

B) Mile: 0.17 AHMU: I Channel Type: BF Width: BF Depth: Substrate:
MC1
Gradient: Structure: Bridge Passage Req'd: Y Timing Dates: TBD

Narrative: Existing 46 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained.

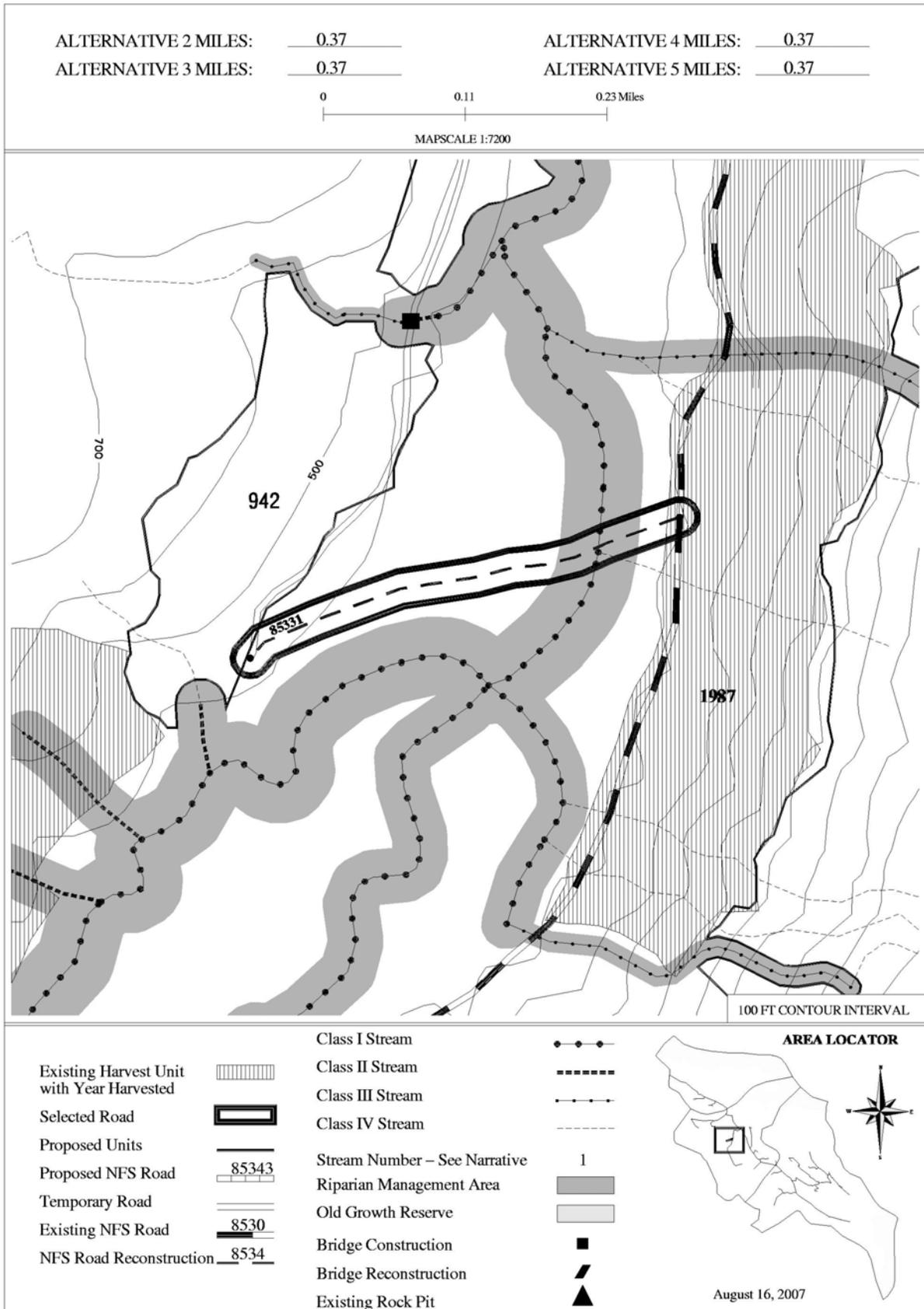
C) Mile: 0.43 AHMU: I Channel Type: BF Width: BF Depth: Substrate:
MC2
Gradient: Structure: Bridge Passage Req'd: Y Timing Dates: TBD

Narrative: Existing 47 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained.

D) Mile: 0.49 AHMU: IV Channel Type: BF Width: BF Depth: Substrate:
Gradient: Structure: 18" CMP Passage Req'd: Timing Dates:
Narrative:

E) Mile: 0.76 AHMU: IV Channel Type: BF Width: BF Depth: Substrate:
Gradient: Structure: 18" CMP Passage Req'd: Timing Dates:
Narrative:

IYOUKTUG TIMBER SALE ROAD CARD
ROAD NUMBER 85331



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85331 **Route Name:** West Suntaheen **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.37 **Begin Termini:** 0.00 **End Termini:** 0.37

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1	0.00	0.37	1	1
2, 3, 4, 5	0.00	0.37	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale.
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85331

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Stream crossings are from the 1999 RCS database.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

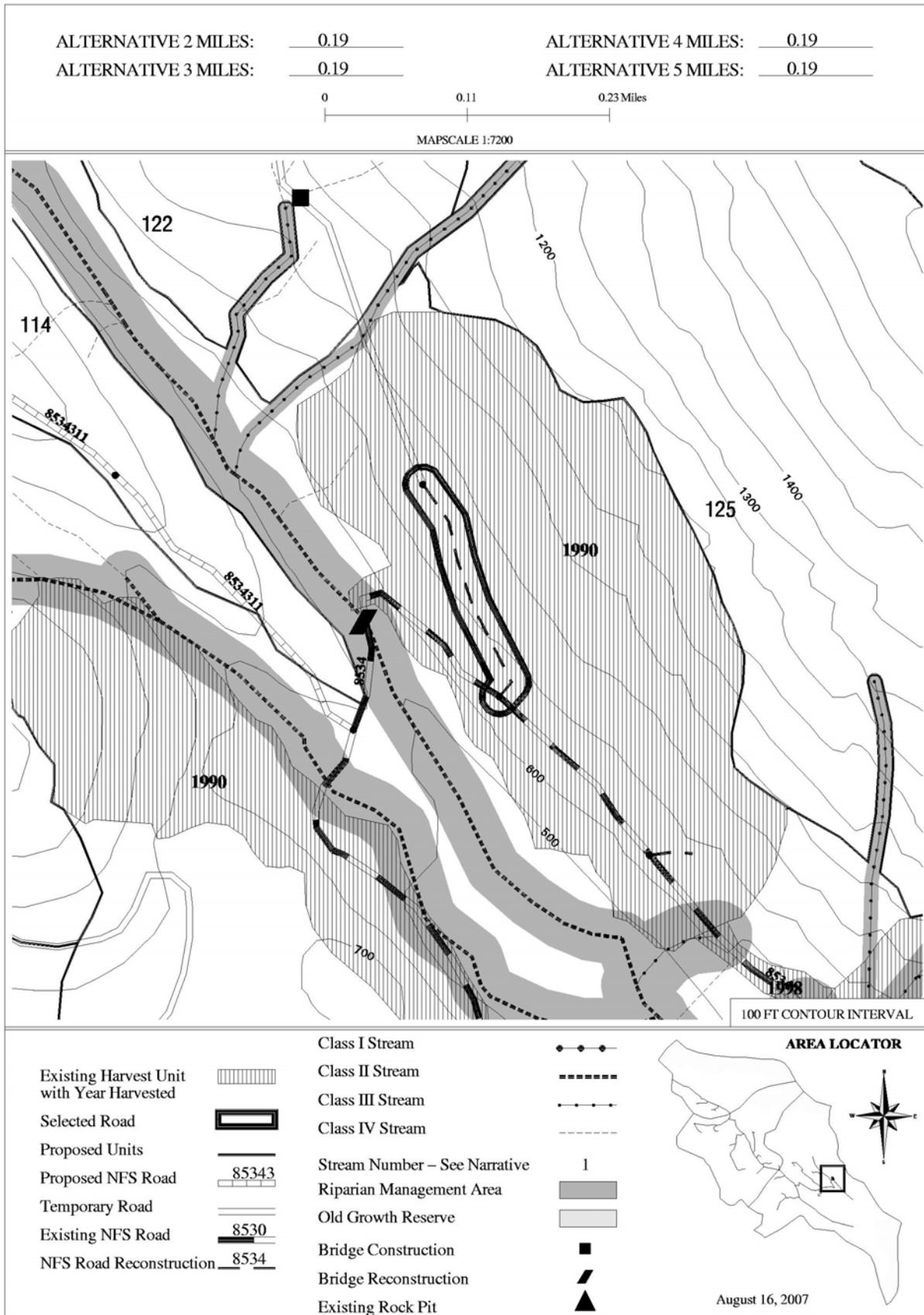
Road Management Objectives

Stream Crossings

Road No. 85331

A) Mile: 0.02 AHMU: I Channel Type: FP3 BF Width: BF Depth: Substrate:
Gradient: Structure: 70' Bridge Passage Req'd: Y Timing Dates: TBD
Narrative: Existing bridge, suitable for haul.

A) Mile: 0.6 AHMU: III Channel Type: HC BF Width: BF Depth: Substrate:
Gradient: Structure: 36" CMP Passage Req'd: N Timing Dates:
Narrative:



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85344 **Route Name:** George **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.19 **Begin Termini:** 0.00 **End Termini:** 0.19

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be possible or needed as determined by the order and timeframe in which the units are harvested. Salvage opportunities may be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
2, 3, 4, 5	0.00	0.19	exist - 1, during use - 2	1
1	0.00	0.00	1	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: 2, 3, 4, 5
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs, during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale.
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85344

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: No stream crossings mapped in GIS.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No plant concerns on the existing portion of Road 85344.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No scenery concerns on the existing portion of Road 85344.

Recreation: No concerns.

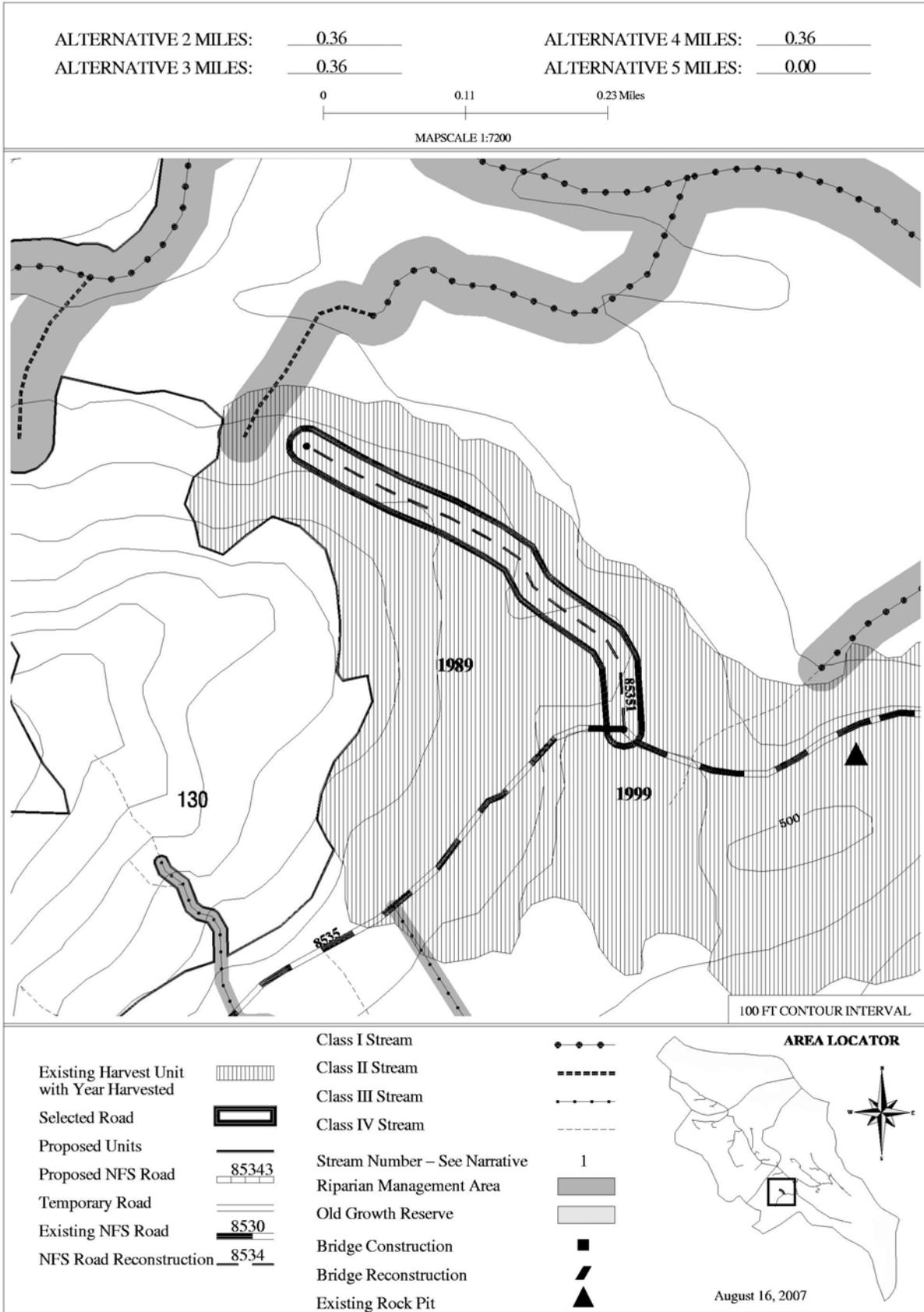
Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85344

No GIS mapped stream crossings.



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85351 **Route Name:** Gopher **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 0.36 **Begin Termini:** 0.00 **End Termini:** 0.36

General Design Criteria and Elements

Functional Class:	Service Life:	Traffic Service Level:	Surface:	Width:	Critical Vehicle:	Design Vehicle:	Design Speed:
Local	IS	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 5	0.00	0.36	1	1
2, 3, 4	0.00	0.36	exist - 1, during use - 2	1

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of the sale, the road will be returned to Maintenance Level 1 (closed and put into storage). Road is currently closed. Road will remain closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High Clearance Vehicles, OHVs during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale.
 Prohibit: N/A
 Eliminate: All motorized vehicles post sale

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, closed to all traffic not associated with the timber sale. Road will be tank trapped and water barred to prevent access upon completion of sale. Road is brushed in.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85351

Road Location: Existing road, deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: No stream crossings mapped in GIS.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

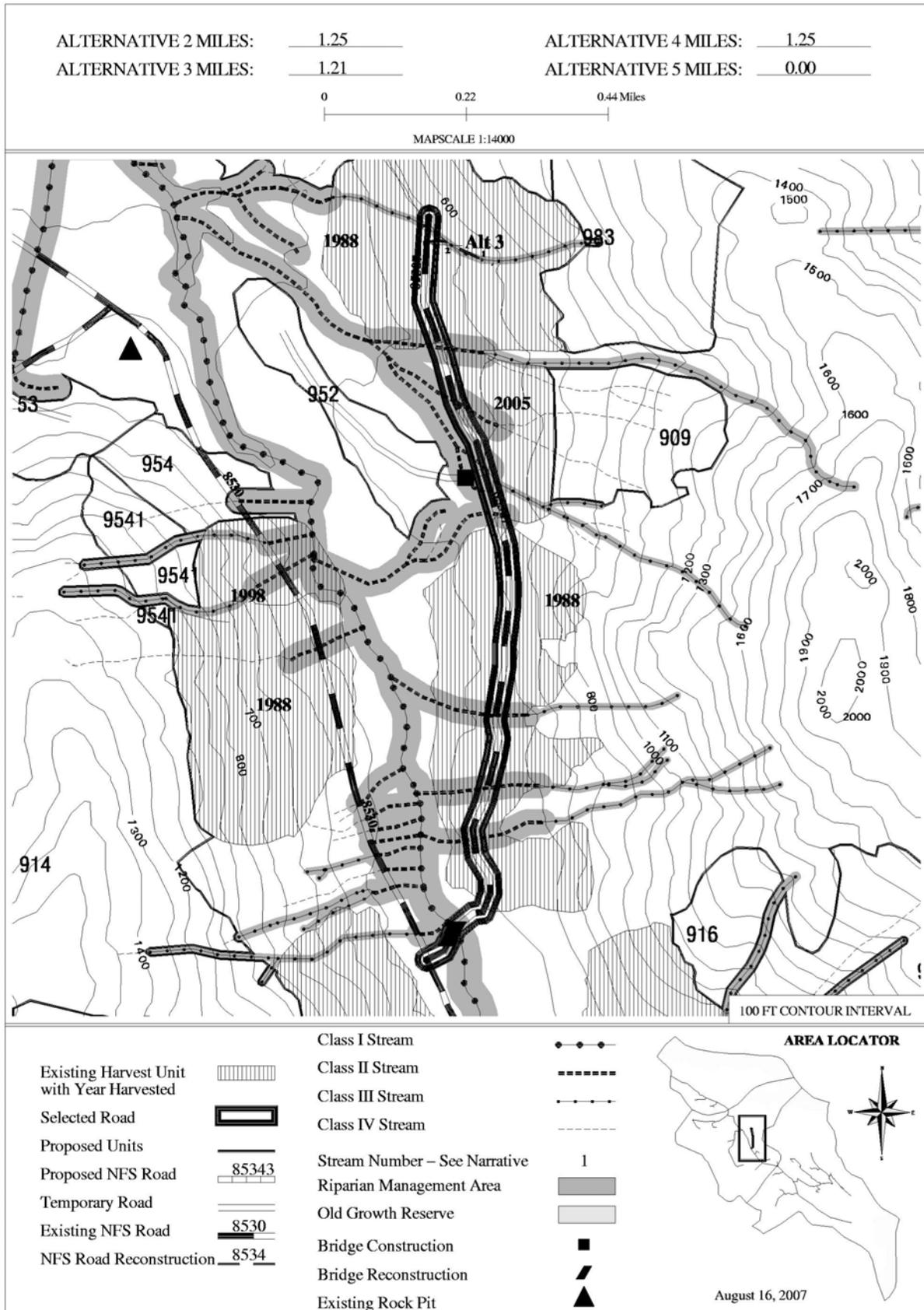
Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85351

No GIS mapped stream crossings.



Road Management Objectives

Project/EIS: Iyouktug Timber Sale **System:** Hoonah - Gypsum **Land Use Designation:** Timber Production
Route No.: 85307 **Route Name:** Hoonah Gypsum 7 **Status:** Existing
Begin M.P.: 0.00 **Length (miles):** 1.34 **Begin Termini:** 0.00 **End Termini:** 1.34

General Design Criteria and Elements

Functiona	Service	Traffic	Surface:	Width:	Critical	Design	Design
1							
Class:	Life:	Service Level:			Vehicle:	Vehicle:	Speed:
Local	C	D	Shot Rock	14'	Log Truck	Log Truck	10 mph

Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1, 5	0.00	1.34	1	1
2, 3, 4	0.00	1.34	exist – 1*, during use - 2	1

*Road is currently open

Maintenance Narrative: Roads used in timber sales will brought up to existing standards incorporating best management practices prior to commercial haul and will be maintained at Maintenance Level 2 during use. Upon completion of silvicultural activities, the road will be turned to Maintenance Level 1 (closed and put into storage). Road is currently open but maintained as Maintenance Level 1. Road will be closed during harvest except for traffic associated with the timber sale.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives: ALL
 Encourage: N/A
 Accept: High clearance vehicles during sale. Bicycles, Hikers
 Discourage: Passenger cars during sale.
 Prohibit: N/A
 Eliminate: N/A

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is open, but is not maintained at Maintenance Level 2. This road will be closed and placed into storage after timber sale completion as part of the Access Travel Management decision (USDA Forest Service 2002); bridge replacement and removal upon timber sale completion would occur near the beginning of this road. Road will be tank trapped and water barred to prevent access upon completion of sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 85307

Road Location: Existing road, existing log stringer will be replaced. Deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Stream information is from the 2000 RCS database. One red pipe is listed at MP 1.03.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 85307

A) Mile: 0.07 AHMU: 1 Channel Type: BF Width: BF Depth: Substrate:
MM2

Gradient: Structure: LSB Passage Req'd: Y Timing Dates:

Narrative: Existing 50-foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for salmon and concurrence with Alaska DNR will be obtained. The bridge will be removed and the road closed after timber harvest is completed.

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Map front

Map back

Road Management Objectives

Project/EIS: Iyouktug Timber Sale	System: Hoonah - Gypsum	Land Use Designation: Timber Production
Route No.: 8534	Route Name: Iyouktug	Status: Existing
Begin M.P.: 0.00	Length (miles): 5.35	Begin Termini: 0.00 End Termini: 5.35

General Design Criteria and Elements

Functional Class: Local	Service Life: C	Traffic Service Level: D	Surface: Shot Rock	Width: 14'	Critical Vehicle: Log Truck	Design Vehicle: Log Truck	Design Speed: 15 mph
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Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
1	0.00	5.35	2	2
2, 3, 4, 5	0.00	3.18	2	2
2, 3, 4, 5	3.18	5.35	2	1

Maintenance Narrative: Maintenance Level 2-maintain for high clearance vehicles in Alternative 1. Upon completion of the sale, the road past milepost 3.18 would be turned to Maintenance Level 1 (closed and put into storage) in Alternatives 2, 3, 4, and 5.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives:	2, 3, 4, 5
Encourage:	N/A
Accept:	High Clearance Vehicles, ORV's, Motorcycles, Bicycles, Hikers
Discourage:	Passenger cars
Prohibit:	N/A
Eliminate	Passenger Cars; Alts. 2, 3, 4, 5-all motorized use past milepost 3.18

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. This road currently is, and part of it will continue to be, used as part of the open transportation system upon completion of the timber sale. However, the last 2.9 miles will be closed after the timber sale. It would be closed and placed into storage after timber sale completion as part of the Access Travel Management decision (USDA Forest Service 2002); bridge replacement and removal upon timber sale completion would occur just northeast of the junction at proposed Road 8534311.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 8534

Road Location: Existing road, log stringer bridges to be replaced. Deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Stream information is from the 1999 and 2006 RCS database. One red pipe and one gray pipe remain.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: No carbonate bedrock present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 8534

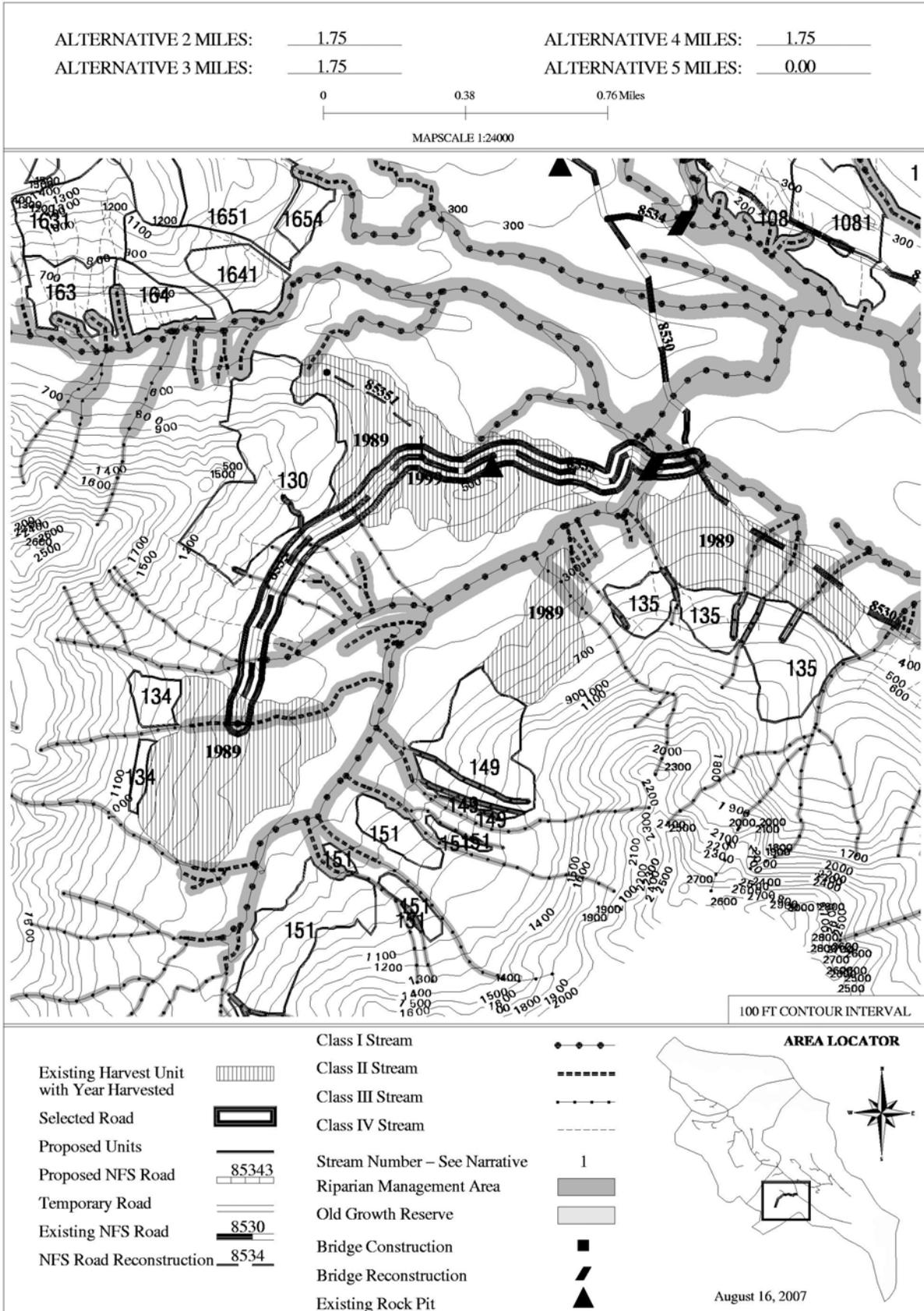
A) Mile: 0.215 **AHMU:** 1 **Channel Type:** MMBF **Width:** **BF Depth:** **Substrate:**
Gradient: **Structure:** Hamilton Bridge **Passage Req'd:** **Timing Dates:**
Narrative: Installed 2006, suitable for haul

B) Mile: 1.215 **AHMU:** 1 **Channel Type:** **BF Width:** **BF Depth:** **Substrate:**
 MM1
Gradient: **Structure:** LSB **Passage Req'd:** **Timing Dates:**
Narrative: Existing 40 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for trout and concurrence with Alaska DNR will be obtained.

C) Mile: 1.402 **AHMU:** 2 **Channel Type:** **BF Width:** **BF Depth:** **Substrate:**
 MM1
Gradient: **Structure:** LSB **Passage Req'd:** **Timing Dates:**
Narrative: Existing 50 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for trout and concurrence with Alaska DNR will be obtained.

D) Mile: 3.18 **AHMU:** 2 **Channel Type:** MMBF **Width:** **BF Depth:** **Substrate:**
Gradient: **Structure:** LSB **Passage Req'd:** **Timing Dates:**
Narrative: Existing 70 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for trout and concurrence with Alaska DNR will be obtained. The bridge will be removed and the road closed after timber sale/s are completed.

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Road Management Objectives

Project/EIS: Iyouktug Timber Sale	System: Hoonah - Gypsum	Land Use Designation: Timber Production
Route No.: 8535	Route Name: Sonya Kay	Status: Existing
Begin M.P.: 0.00	Length (miles): 1.75	Begin Termini: 0.00 End Termini: 1.75

General Design Criteria and Elements

Functional Class: Local	Service Life: C	Traffic Service Level: C	Surface: Shot Rock	Width: 14'	Critical Vehicle: Log Truck	Design Vehicle: Log Truck	Design Speed: 10 mph
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Intended Purpose/Future Use: Silvicultural activities: Multiple entries may be needed. Salvage opportunities will be available.

Maintenance Criteria

Alternatives	Begin Milepost	End Milepost	Operational Maintenance Level:	Objective Maintenance Level: (desired future condition)
ALL	0.00	1.75	3	3

Maintenance Narrative: Maintenance Level 3. Maintain function of all structures during timber harvest.

Operation Criteria

Highway Safety Act: No **Jurisdiction:** National Forest **AFRPR Status:** active

Travel Management Strategies:

Alternatives:	ALL
Encourage:	N/A
Accept:	Passenger Cars, High Clearance Vehicles, ORV's, Motorcycles, Bicycles, Hikers
Discourage:	N/A
Prohibit:	N/A
Eliminate:	N/A

Travel Management Narrative: This road is connected to the Hoonah – Gypsum road system, which is accessed by and connected to the city of Hoonah. It currently is, and will continue to be, used as part of the open transportation system upon completion of the timber sale.

District Ranger Approval

(signature) _____ Date: _____

Road Management Objectives

Site-specific Design Criteria

Road No. 8535

Road Location: Existing road log stringer bridges to be replaced. Deferred maintenance may be needed including brushing, ditch cleaning, drainage maintenance and spot rocking.

Wetlands: All locations where road crosses designated wetlands will have adequate drainage structures installed. To meet silvicultural exemption the road cannot be widened and no excavated fill may be placed in wetland (33CFR BMPs 1, 5).

Erosion Control: An erosion control plan for construction and maintenance will be developed according to standard project specifications (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.11, 14.8)

Rock Pits: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries or r/w construction near potential unstable sites where ground vibration may induce mass movement (BMP 14.6)

Resource Information:

Timber/Logging: No concerns

Soils/Water: Stream information is from the 1999 and 2006 RCS database and, 2006 RCS database for the bridge. One gray culvert was surveyed in 2006 at MP 0.015. It is not currently scheduled for replacement.

Silviculture: No concerns

Wildlife: No concerns.

Botany: No concerns.

Lands/Minerals/Geology/Karst: Moderate vulnerability karst present along existing road. No karst resource concerns identified.

Scenery: No concerns.

Recreation: No concerns.

Heritage: No concerns.

Road Management Objectives

Stream Crossings

Road No. 8535

A) Mile: 0.15 AHMU: 1 Channel Type: FP3 BF Width: BF Depth: Substrate:
Gradient: Gradient: Structure: Bridge Passage Req'd: Y
Narrative: Existing 60 foot log stringer bridge will be replaced, the crossing will be installed under current timing restrictions. The stream crossing will be designed to accomplish fish passage for trout and concurrence with Alaska DNR will be obtained.

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