



United States
Department of
Agriculture

Forest Service

Pacific
Northwest
Region

Willamette
National Forest



HISTORIC TRAIL SHELTERS
OF THE
WILLAMETTE NATIONAL FOREST
An Inventory and Determination of Eligibility



USDA - FOREST SERVICE
WILLAMETTE NATIONAL FOREST

Addendum to
Historic Trail Shelters
Of the
Willamette National Forest

An Inventory and Determination of Eligibility

A Determination of Eligibility
To the
National Register of Historic Places
For
Ash Swale Shelter



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Pacific Northwest Region
Willamette National Forest
Middle Fork Ranger District

February 1, 2000

Background

This report is an addendum to Cox's 1988 report Historic Trail Shelters of the Willamette National Forest: An Inventory and Determination of Eligibility. The purpose of this addendum is to re-submit an evaluation of Determination of Eligibility for Ash Swale Shelter. Ash Swale Shelter is located on the Middle Fork (formerly Lowell) Ranger District, Willamette National Forest in Township 20S, Range 1E, Section 7. The site has been recorded on the forest as site number 18-06-079. Cox's report recommended that Ash Swale Shelter was not eligible for the National Register of Historic Places.

In the time since that report, the shelter has been rehabilitated. In the summer of 1999, Middle Fork Ranger District personnel, with the assistance of Passport in Time volunteers and a professional historic structure preservationist, rehabilitated Ash Swale shelter. Maintaining original design, location, setting, materials (where possible) and workmanship during the course of restoration, it is recommended that eligibility criteria for this site be re-visited, and a new determination be completed.

Cox's Evaluation and Determination

Cox made his initial determination of all extant trail shelters on the Willamette National Forest in 1988. After introducing these shelters in terms of historic context for evaluation, Cox described each shelter in its current physical condition.

Cox then applied National Register criteria to each described shelter, and proposed eligibility recommendations thereof. In this initial determination, he recommended that Ash Swale Shelter was not eligible for the National Register.

Cox listed evaluation criteria drawn directly from How to Apply the National Register Criteria for Evaluation published by the National Parks Service. These criteria included integrity of location, design, setting, material, workmanship, feeling and association, and applied these criteria to criterion (a) (36CFR60.4). From these criteria, Cox devised a rating system for evaluation. This system, however, is flawed.

The failure of the rating system applied by Cox is that it presumes integrity measurements based on an arbitrary point system. This system is further flawed when considering that each integrity element was then combined to create a total integrity value that compounds the arbitrary nature of each individual element. In particular, Cox's rating system for Ash Swale shelter's materials integrity down-graded the structure, based upon the poor condition of walls and roof cedar shakes. Ash Swale shelter was also graded lower for its setting and feeling elements. These elements are tied together, and a low grade on setting cannot help but produce a low grade for feeling. The above low graded elements will be addressed later in this addendum.

In essence, each item of criteria should have been separately applied to each trail structure. That is the method applied to this re-evaluation.

Ash Swale Shelter Rehabilitation

Ash Swale shelter was rehabilitated during the months of August and September 1999. Pete Cecil of Singletree and Associates, a general contractor specializing in historic structure preservation, directed shelter rehabilitation. Rehabilitation, in this instance, is taken from the definition described in 36CFR68.2(e). Components of the structure that were replaced included all sill logs, rafter plate supports, all shake siding and roofing, beams, and the majority of rafter plate logs and bracing. These components were rotting and were replaced in-kind according to historic plans with peeled cedar logs and shakes. Figures 1 and 2 show the new components in place during rehabilitation. Original hand-split shakes measured 30" in length, and like replacements were not commercially available, so 27" commercial shake was used instead. All other replaced materials were the same as original. Materials re-used or deemed as structurally sound included some beams, bracing, rafters, and nailers.



Figure 1. Shelter with new posts and rafter plate logs.

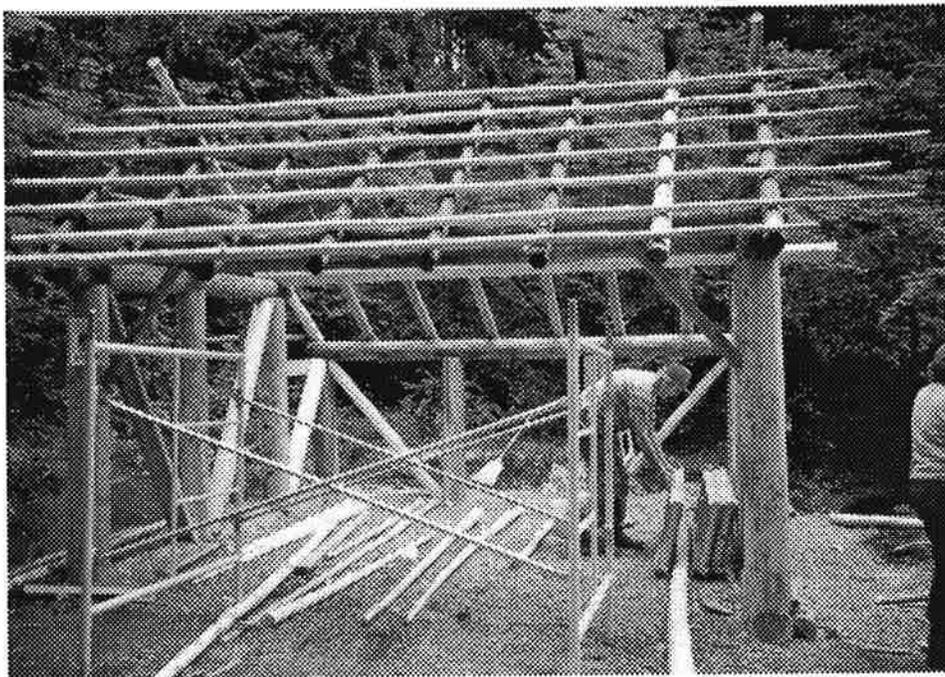


Figure 2. New shelter framing; new sill log lower right.

National Register Criteria for Ash Swale Shelter

Ash Swale Shelter will be evaluated based upon criteria (a) for eligibility to the National Register of Historic Places. Refer to Cox for descriptive information including physical characteristics and its location.

Under 36CFR60.4, the shelter is being evaluated by applying criterion (a) as associated with events that have made a significant contribution to the broad patterns of our history. This shelter was built in 1930 as a trail shelter for use by forest service personnel for lodging in the roadless, remote area along the route from the West Boundary Ranger station to Eagles Rest and Hardesty Mountain lookouts. Figure 3 is a portion of the 1930 Cascade National Forest map, showing the original shelter location. This shelter is categorized as an administrative shelter, used by trail, telephone and fire crews. Ash Swale shelter was developed, along with other shelters, as part of a comprehensive system for fire detection and suppression which included telephone and trail networks. Administrative shelters were integral to the overall system, utilized as base camps for maintenance crews and fire patrols and overnight stops for pack strings that serviced fire lookouts.

Ash Swale shelter is representative of the primary role of fire protection by the Forest Service during the first four decades of its existence. When timber harvesting on public lands increased in scale after World War II, road construction gradually replaced the need for the intricate horse/hiking trail system. Many lookouts, trail shelters, guard stations, and barns fell into disuse. Many were left to deteriorate, and others were simply burned. Of the more than 50 administrative trail shelters constructed on the Willamette National Forest, only 10 survived.

Cox's justification for eligibility of administrative trail shelters on the Willamette National Forest holds true for Ash Swale shelter today:

“[T]he trail shelters constructed for use by Forest Service crews...are associated with the historic development of the USDA Forest Service and its stewardship of National Forest lands. As components of a comprehensive fire detection and suppression system, these shelters represent the primary function of the Forest Service from its inception through the Depression. These shelters are representative of the management philosophy of that period which focused on resource conservation”. (Cox 1988:88)

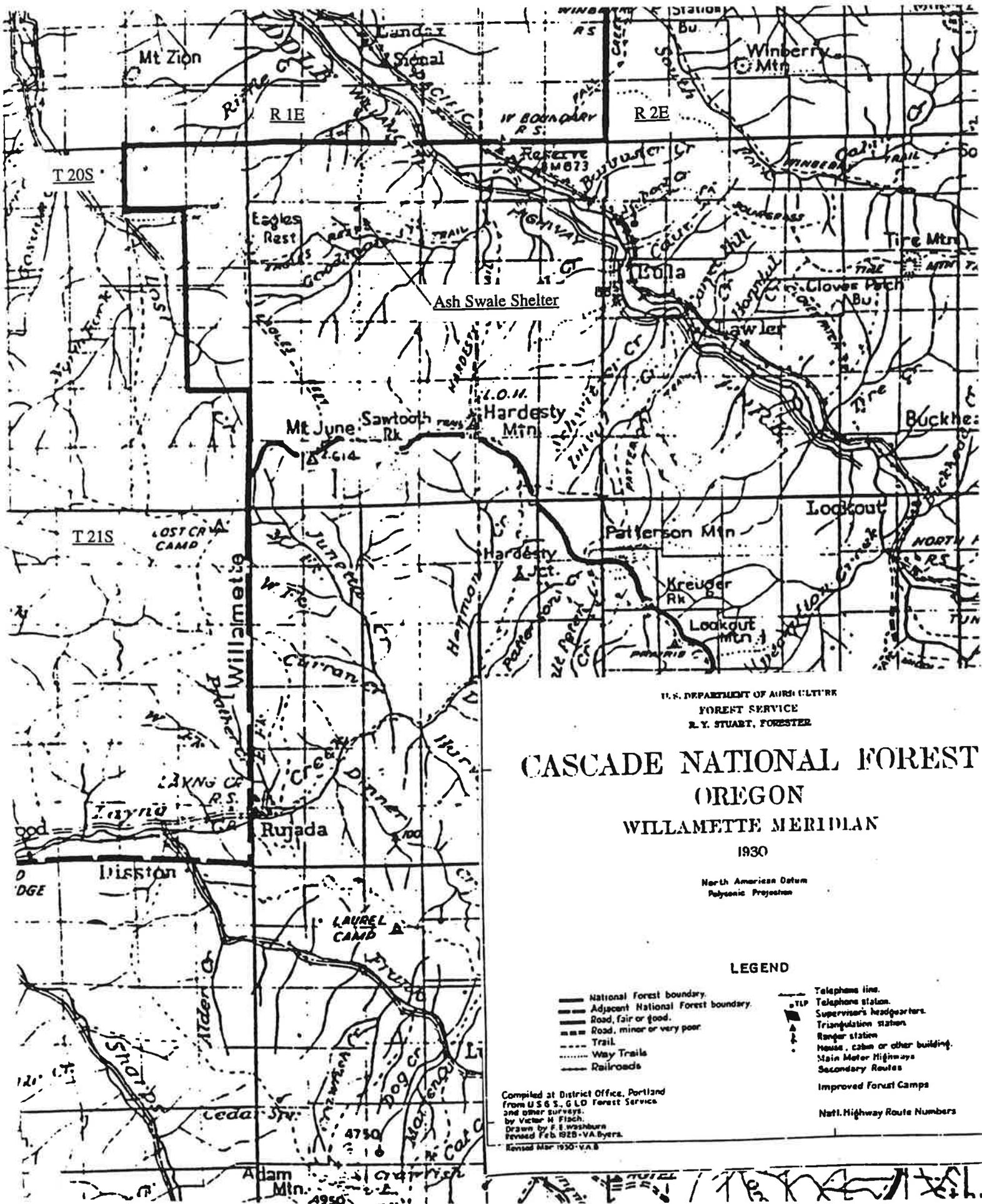


Figure 3. Shelter location; adapted from 1930 Cascade National Forest map.

Elements for Evaluation

Under 36CFR60.4 the quality elements for evaluation of Ash Swale shelter as a structure are integrity of location, design, setting, materials, workmanship, feeling, and association. Each of these elements is addressed herein.

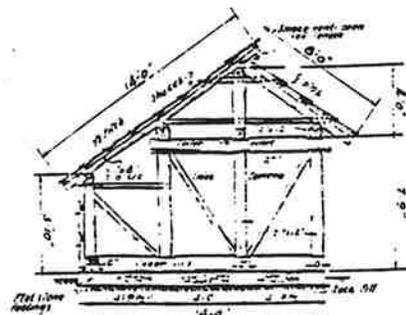
1. **Location.** Ash Swale shelter is found in the same physical location as when constructed. It has not been moved from its current location at any point in time.
2. **Design.** Forest Service Region 6 construction plans for trail shelters of the period are attached in Figure 4. The shelter plan L-F .15M, as shown, was the basic plan for the Ash Swale shelter. Modification type L-F .15M3 illustrates the design of a cedar-shaked shelter. While the perspective drawing for this shelter plan shows no shaking for the sides from 4' 9 ½ " from the front end of the shelter, the drawing labeled 'TYPICAL END FRAMING' directs 'Sides Covered'. Figure 5 illustrates this finished look. This historic photograph shows a typical Willamette National Forest trail shelter being dedicated by Ranger McFarland wherein the shakes are clearly extended to the end of the shelter sides. Figures 6 and 7 show the completed rehabilitation of the shelter. The title page photograph is a photo taken in 1988 of the shelter before repairs were performed. Cox's 1988 description of the interior of the shelter included a five-foot wide sleeping platform at the rear of the structure, and a framed table on the interior right hand side of the structure. It cannot be confirmed if these were part of the original structure or were added at a later period, and are thus excluded from consideration as original design (see attached forest site form.)
3. **Setting.** The original setting of Ash Swale Shelter has not been significantly altered over time. Cox reports the need for the setting to minimally include the 'feel' of remoteness associated with a time when access across the forest was more limited. Cox further reports that setting has been disturbed by timber harvest and associated road building. At Ash Swale shelter, the nearest road lies 480 meters (0.3 miles) away, and the nearest decade-old harvest unit lies approximately 200 meters away. As the shelter is located in a natural bowl along the trail, neither road nor timber harvest unit is within sight. The only public access to the shelter is by hiking one-half to two miles along the historic Eagle's Rest trail, which exists in its original location. In addition, the entire watershed that surrounds the shelter has been designated a late-successional (old-growth) reserve in the Northwest Forest Plan of 1994. This late-successional reserve status means that the area surrounding the shelter is to be managed to protect and enhance old-growth forest conditions. Thus, Ash Swale shelter retains its original 'feel' of remoteness, and this can be expected to increase as the forest regenerates and road closures continue.
4. **Materials.** All material used in rehabilitating the shelter was the same as used in original construction. The replacement materials follow guidelines put forth by 36CFR68.3(f). The only exception to this is the size of shake (from 30" to 27".) Material sizes (lengths and diameters) were duplicated as originally described from the 1931 Region 6 shelter plans. It is unlikely this difference would be recognizable even by the original builders of this structure.
5. **Workmanship.** Where possible, all replaced materials for the shelter were constructed to reflect the same care and craft as the original builders. Original Region 6 shelter plans were followed. Cedar logs were hand peeled; sill logs were hand-notched (Figure 8.) Hand tools were used whenever practical, and a viewer of the shelter today would not

recognize that the shelter displays workmanship any less well done than that of the original structure.

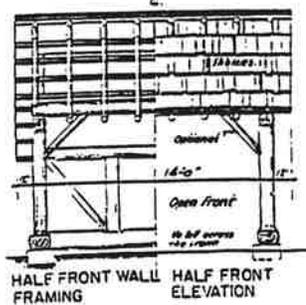
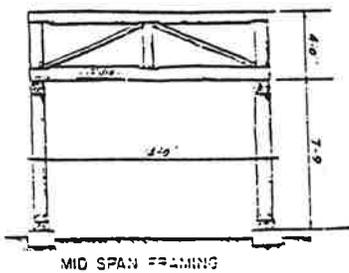
6. Feeling. Cox discussed integrity of feeling by integrating elements of design, workmanship, and setting. As Cox noted, the ability to evoke a particular feeling varies with the individual. Feeling, as associated with the historic nature of the shelter, is evoked by the experience of using the shelter. In the instance of Ash Swale shelter, the integration of original design and workmanship coupled with its setting, provide for an historic feeling of place and time.
7. Association. In the case of Ash Swale shelter, is derived from the above elements along with its historic association to a time when Forest Service trail shelters were integral to the administrative mission of resource conservation through fire detection and suppression.



Sills should be of cedar 10" to 12" dia.
 Posts and beams should be 6" to 10" dia.
 Bracing is better if made of 6" dia. and using
 one end of timber for each brace.
 Shims may be as small as 1 1/2" to 1"
 and may be round, square or some other of cedar.
 All posts to be round, straight and sound.
NOTE: Care must be taken to construct stone foundations
 which will relieve need of permanent
 concrete retaining walls. Framing suitable
 Recreational Shelters, Hikers, etc.



TYPICAL END FRAMING
 For 12'-0" x 14'-0" Shelter



L-F.15M4

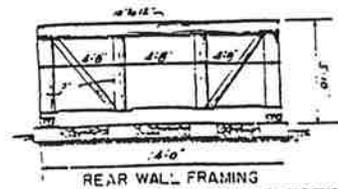


Figure 4. Region 6 Shelter Plans (1931).

Figure 5. Typical Willamette NF shelter being dedicated by Ranger McFarland.

Ranger McFarland nails up sign with criticism from Colwill and Elliott.



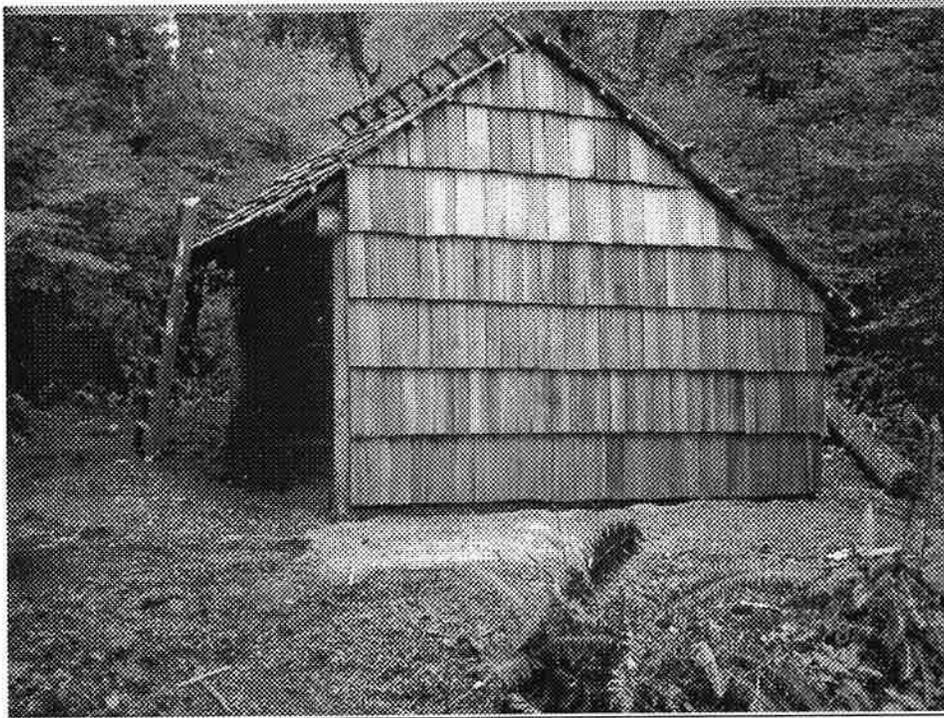


Figure 6. East Elevation

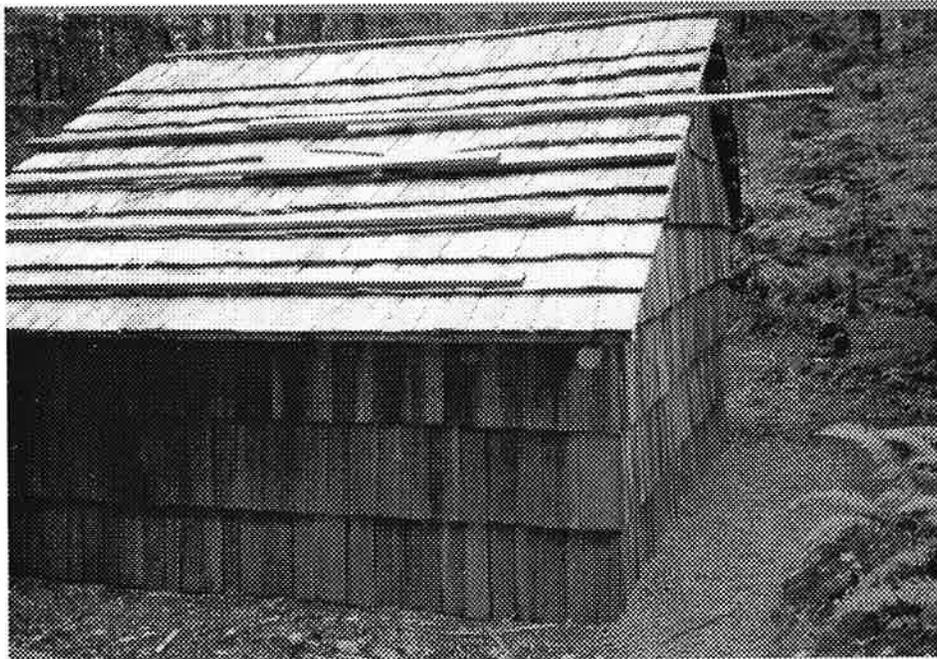


Figure 7. Rear and west elevations.

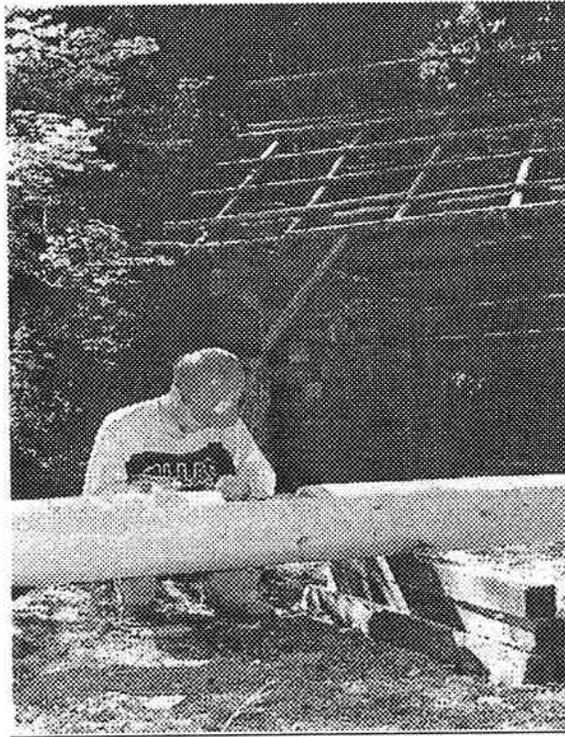


Figure 8. Hand-shaping sill log.

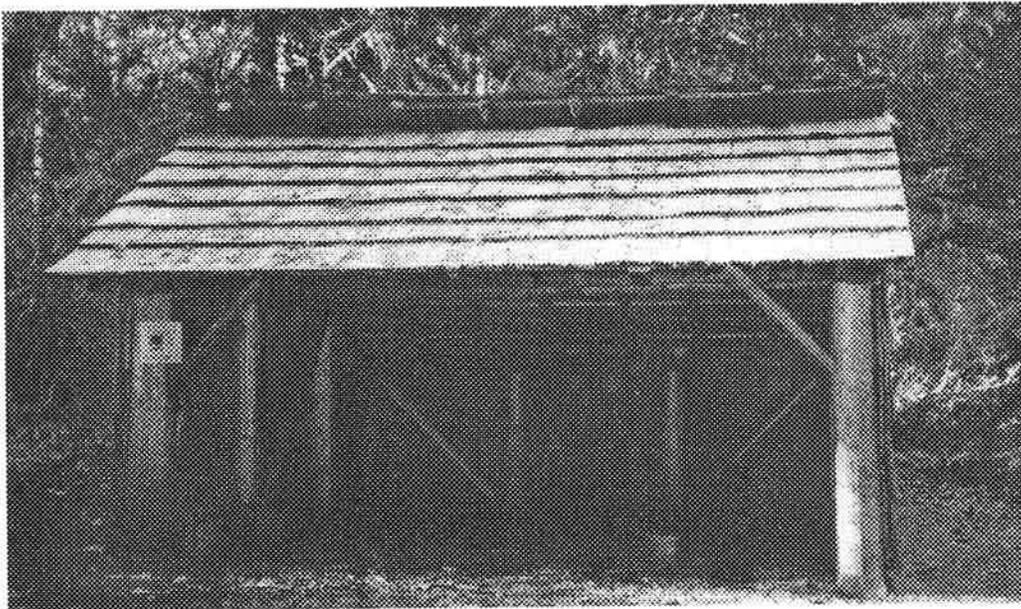


Figure 9. December, 1999 photo of completed shelter.

Conclusion

The rehabilitation of Ash Swale shelter in 1999 has done much to improve the structural integrity and appearance of the shelter. This rehabilitation has also addressed the main element in Cox's evaluation that the shelter did not possess enough integrity of the material element. Ash Swale shelter, in its rehabilitated state, fulfills all necessary integrity elements to list it as eligible to the National Register of Historic Places under criterion (a).

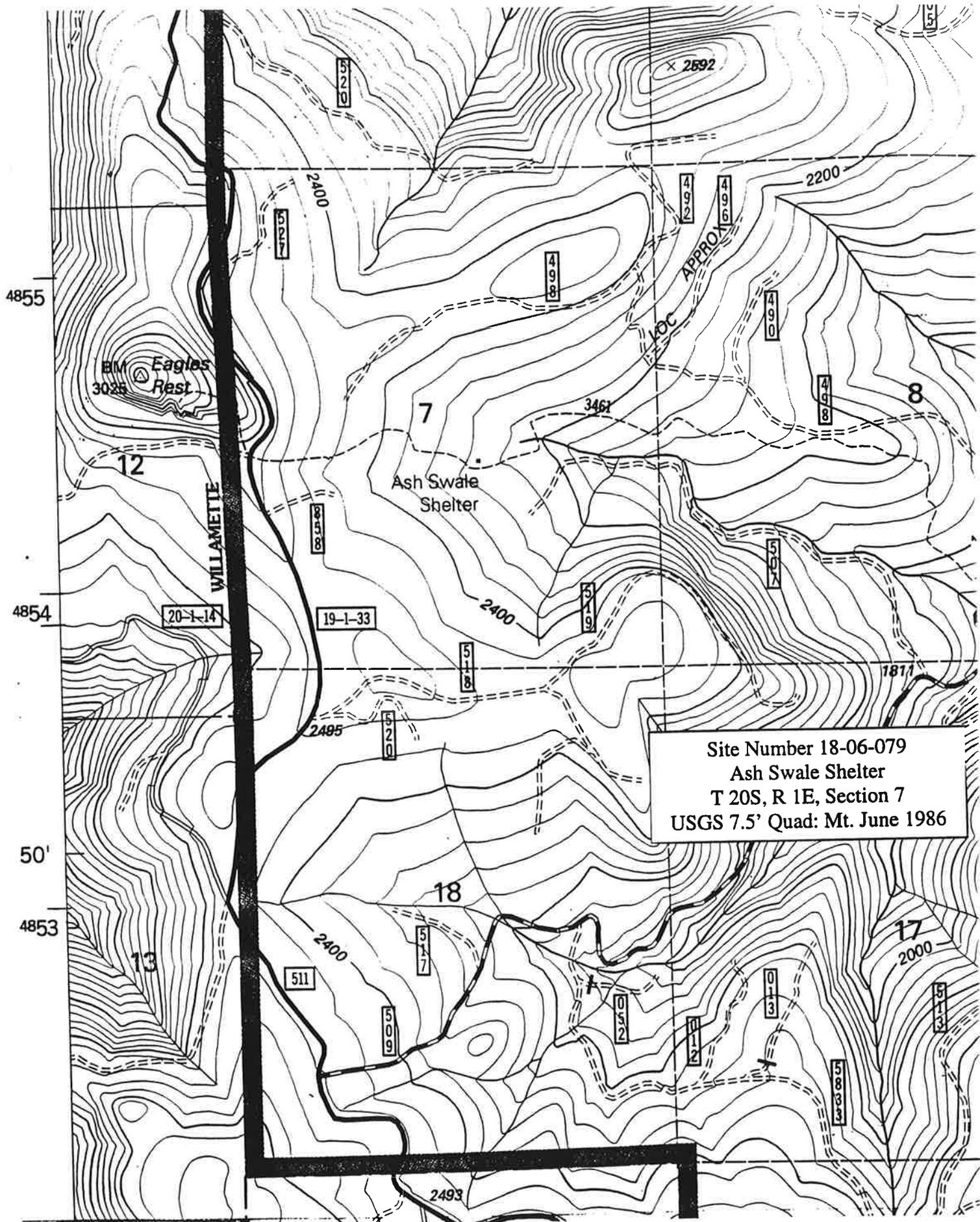


Figure 10. 1986 Quad Map with Shelter Location.

References

Cox, James B. Jr.

1988 Historic Trail Shelters of the Willamette National Forest: An Inventory and Determination of Eligibility to the National Register of Historic Places. USDA Forest Service, Pacific Northwest Region, Willamette National Forest.

USDA, Forest Service

1931 Building Plans, R-6, Plan S-13. Portland, Oregon.

USDI, National Park Service

1982 How to Apply the National Register Criteria for Evaluation. (World Wide Web, updated August 16, 1995.)

Attachment:
Site Form

#06-079 Cultural Resource Site Report
 Forest Service Number Region 6-USDA Forest Service Permanent Number

Forest: Willamette Ranger District: Lowell County: Lane
 Site Name (if any): Ash Swale Trail Shelter

LOCATION DATA: TRI Compartment: Name: Goodman Number: 6001
 B Legal Description: SW 1/4 NE 1/4 NW 1/4 SW 1/4, sec. 7, T.20S R.1E, Will.M.
 l 1/ 1/ 1/ 1/ , sec. , T. R. , M.
 o Aerial Photo: Number 1878-168 Flight USDA 12 616180 Date 8-29-80
 c UTM: Zone 10 Easting 5 20 750 Northing 48 54 250
 k U.S.G.S. Quad.: Name Hardesty Mtn. (S.W.) Series 7.5 min. Date 1955 (Mt. June, 1986)
 Elevation: Feet: 2500 to Meters: 762 to
 1 Describe access to the site and site datum:
 The shelter is located approximately 1/8 mile east of the Ash Swale trailhead on F.S. road #5833-509 on the north side of the trail.

SETTING:

Terrain: General Topography: hummocky, sag ponds Slope: 0-10 %
 Land Form: bench on lower sideslopes Aspect: east
Soils: Surface: S.R.I. landtype #25: loam Depth: 0-48 inches
 Subsurface: clay loam Depth: 4-7 feet average
 B Bedrock: colluvium & residuum; red breccias and tuffs
 l Flora: On-site Surrounding Site
 o Overstory: Douglas-fir, Western hemlock : Ash, Western red cedar
 c Understory: vine maple, red huckleberry : vine maple, red alder
 k Ground Cover: salal, Or. grape, sword fern : skunk cabbage, horsetail, nettle, sedges, grasses, miner's lettuce, stream violet

Water Sources:

Name	Type	Distance	Direction	Drainage Basin
Ash Swale	spring	adjacent	northeast	Goodman Creek
unnamed tributary	Class IV	1/8 mile	northeast	Goodman Creek

Relation to major drainage: Middle Fork of the Willamette River

Other Environmental Features:

The shelter is located in a protected spot, buffered from weather by steeper slopes to the west. Located immediately west of a swale or swamp approximately one acre in size, the site can be "buggy" in the spring.

Site Dimensions: see below and pages 4 & 5 Depth: N/A
 B Date(s) of Use (as specific as possible): built in 1930 and used mainly in the
 l 1930's and 40's.
 o How Date Determined: Forest Service records
 c Site Type/Function/Use: established mainly for administrative use as a stopover
 k for pack trains supplying the fire lookouts on Eagle's Rest and Hardesty Mountain.
 How Determined: F.S. records

3

Physical Data:

The trail shelter is very similar to L-F.15M4 design (p.4) and is nearly identical to the Trail Timber Shelter Plan S-13 (p. 5), according to Region 6 Building Plans. The shelter measures 14 feet across each side, 14 feet on the rear roof, and 8 feet on the front roof. The main differences from the original design seem to be use of slightly smaller (8-9 inch) rather than 10-12 inch diameter cedar logs (cont. page 2)

7000m N
19 S
20

Riffle

Cree

Rolling

Hazel

Lowell R.D. Site (temp.) #06-079
Ash Swale Shelter
T20S, R1E, Section 7
U.S.G.S. 7.5 min. quad: Hardesty Mtn. (S.W.)
Mt. June (1986)



Eagle Rest

VABM
3022

ASH SWALE SHELTER

W I L L

50

13

18

17

16

N A

24

Lost

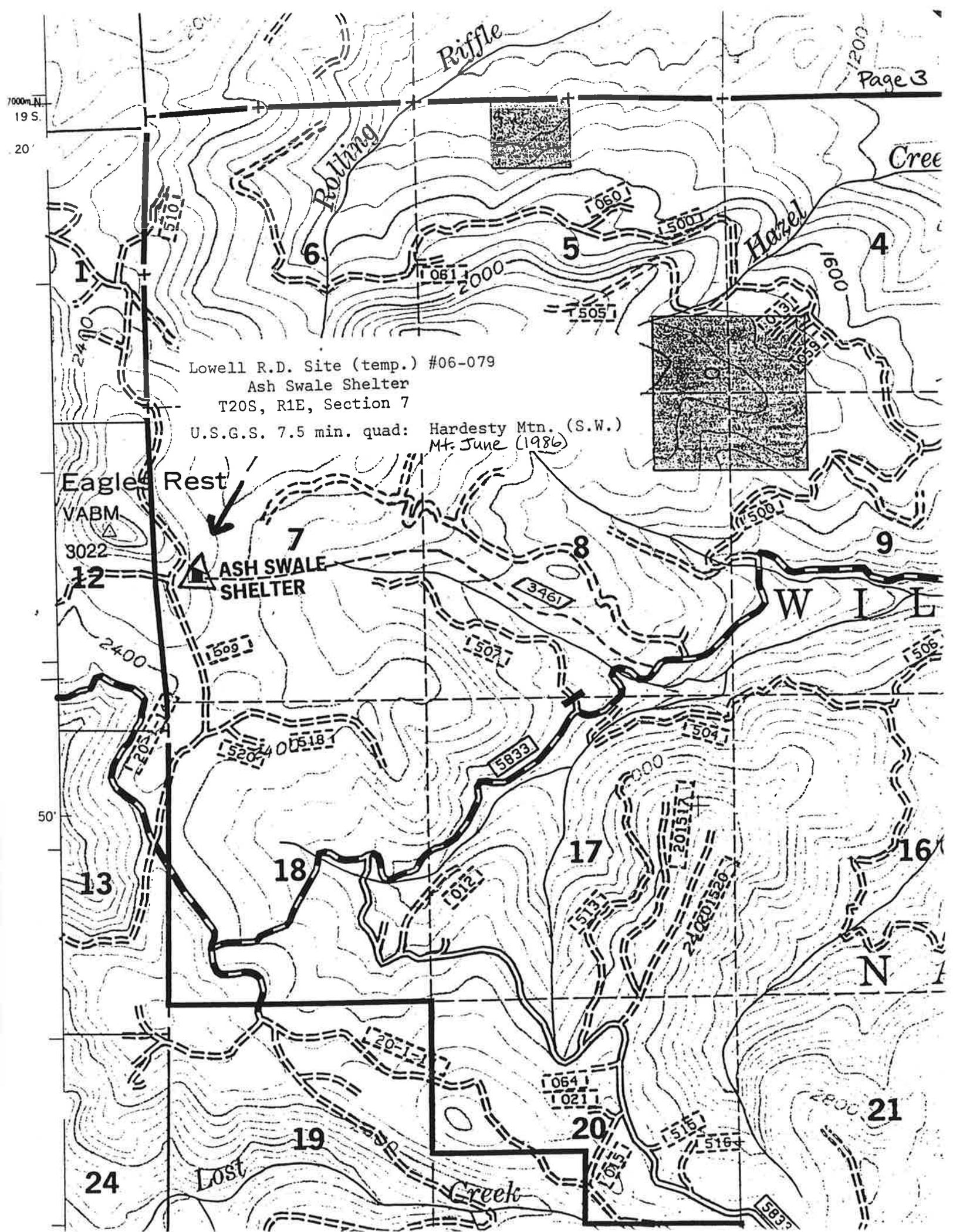
19

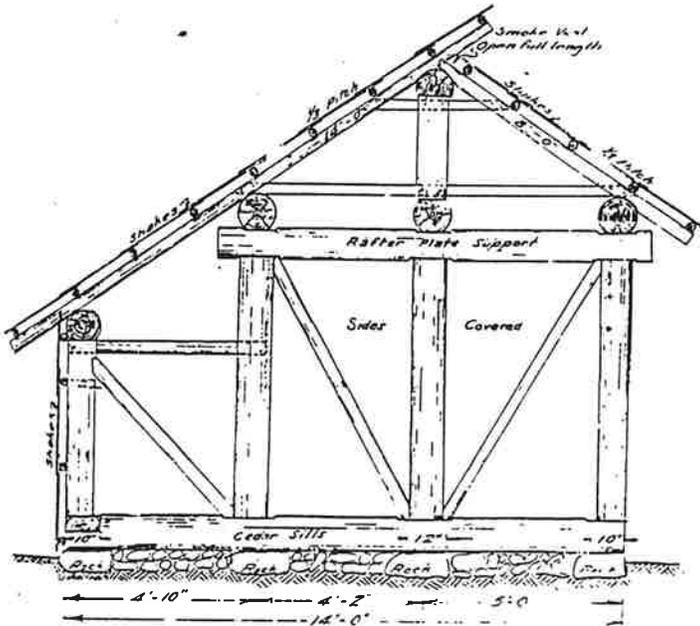
Creek

20

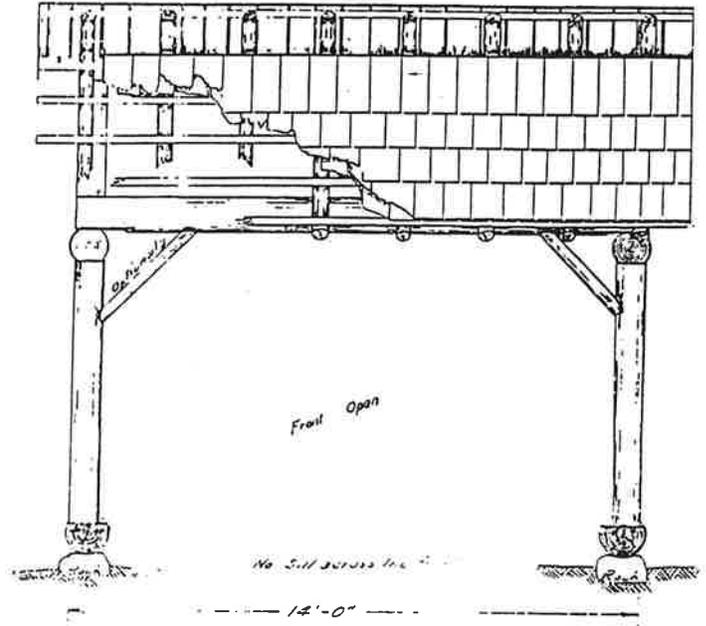
21

5837

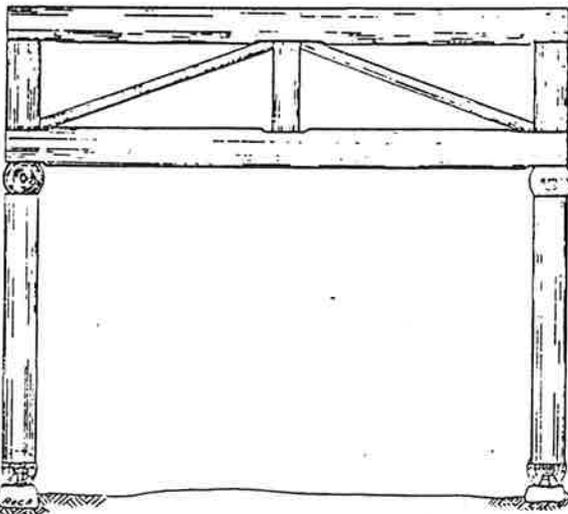




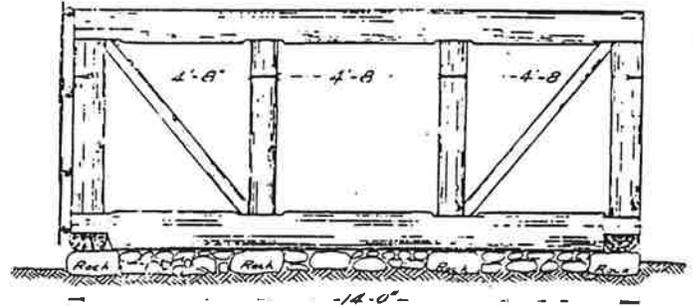
END VIEW INSIDE



FRONT ELEVATION



MID SPAN



REAR ELEVATION

Sills should be of cedar 10" x 12" d
 Posts and beam should be 6" x 10" d
 Bracing is better if made of 6" d split
 using one half of timber for each brace.
 Shake ties may be as small as 1 1/2" x 1" and
 may be round poles or split strips of cedar
 All poles to be peeled, straight and solid
 Note: Desirable to construct along trails when
 use will relieve need of maintenance crews
 packing tentage. 1/2"

U.S. DEPARTMENT OF AGRICULTURE
 FOREST SERVICE

BUILDING PLANS, R-6

PLAN S-13

TRAIL TIMBER SHELTER

Scale 1/2" = 1 ft

SHEET 1 OF 1

Hartland, Ore. March 1931.

IV-17

3-2-31

HISTORIC TRAIL SHELTERS
OF THE
WILLAMETTE NATIONAL FOREST

An Inventory and Determination of Eligibility
to the
National Register of Historic Places

USDA - Forest Service
Pacific Northwest Region
Willamette National Forest

By James B. Cox Jr.
Archaeologist

July 2, 1988

Forward

This report documents an inventory of historic trail shelters located on the Willamette National Forest which are being considered for listing on the National Register of Historic Places. The project was initiated by Forest Service concerns surrounding the future management of four shelters located in the Three Sisters Wilderness Area. The shelters are popular destinations for campers and hikers which has led to overuse of the shelters and their surrounding environment. Therefore, this determination of eligibility statement is an important step in determining future management direction for the shelters.

The project includes all of the surviving historic trail shelters on the Willamette National Forest. By examining the entire population of trail shelters, it was possible to compare the individual shelters as a group which greatly facilitated the evaluation process. This process also provided important data which may be used to make decisions on the future management of the shelters.

In early 1987, each Ranger District on the Forest was asked to submit a list of trail shelters on their District. Five District (McKenzie, Detroit, Lowell, Oakridge, and Sweet Home) indicated that they had historic trail shelters. The Rigdon and Blue River Districts reported that trail shelters no longer existed. Only the trail shelters on Lowell and Oakridge had been previously recorded.

Field work was conducted during the spring and summer of 1987. Each shelter was recorded, photographed, and inspected to determine its current condition.

Information on the history and construction dates of the shelters was provided in a variety of sources and was often contradictory. For example, the construction of the shelters on the McKenzie Ranger District along the Oregon Skyline Trail was announced in an article in the Eugene Register Guard (10/1/34) but no other references to shelters were found, presumably because the other shelters were not built for public use. A 1965 listing of buildings on the Forest includes 25 trail shelters with dates of construction which contradict other evidence.

Historic Forest maps were also an important source of information. Maps of the Cascade and Santiam National Forests, prior to their combination into the Willamette National Forest in 1933, do not differentiate trail shelters from other types of forest camps. The earliest map which identifies trail shelters dates to 1934 and shows only the south half of the Willamette. Other maps that show trail shelters on the Willamette date from 1935, 1937, 1940, 1947 and 1950. A summary of the shelters that appear on these maps is presented in Appendix A.

Valuable information about the shelters was also obtained from several former Forest Service employees. Information about the shelters constructed along the Oregon Skyline Trail was provided in an interview conducted in 1982 with William Parke by Forest Service Historian Gerald Williams. Parke, who was hired in 1933 as the first recreation planner on the Willamette National Forest, was responsible for the location and design of the Skyline Trail shelters. Additional information from Parke was obtained by the author in March 1988. Information about shelters on the Detroit Ranger District was given by Lyle E. Moss who worked on the District in a variety of roles, including packer, from 1923-1940. Information concerning the shelters on the Lowell and Oakridge Ranger Districts was provided by Ed Barney and Ron Johnson, both long time Forest Service employees who are now retired. Additional information on the Lowell and Oakridge shelters was obtained from Helen Smith who, as a volunteer, has been involved in much of the maintenance work on the shelters on both Districts.

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Introduction

By 1940, over 60 trail shelters had been built on the Willamette National Forest. Of these, eight were built along the Oregon Skyline trail for use by hikers. The remainder were built primarily for use by Forest Service work crews. Most were constructed between the late 1920's and 1941 when the Civilian Conservation Corps (CCC) was terminated as the United States entered World War II.

Most of the shelters were variations of the Adirondack style. This style was apparently developed by the early trappers and hunters living in the Adirondack region of the eastern United States. Originally, the shelter was a three sided log building with one open side. It had a "saltbox" roof (a gable roof with one slope extended) with the shorter slope overhanging the open front. Built low in height, the shelter could be heated by a campfire built in front of the open side. Users slept on evergreen boughs laid on the ground. (Goode, 1938 Part II:87-88).

On the Willamette National Forest, trail shelters retained the basic design of the original Adirondack shelter. However, several modifications were made to accommodate local conditions and needs (Figure 1). Rather than being made solely of logs, most shelters were framed with peeled logs and poles, then covered with a variety of materials, especially split cedar shakes. Logs and hand split boards were also used for siding. Native rock was utilized for construction of portions of the walls at some shelters. All of the shelters were built of native materials obtained near the shelter locations.

Roofs were modified in two ways. First, the pitch was increased in response to the heavy snows common in the mountainous areas where most were located. The rear slope was also extended beyond the ridge line approximately one foot forming a comb which created a smoke vent the full length of the ridge.

Inside, many shelters had built-in furniture including sleeping platforms, bunks, tables, shelves, and benches. Toilets, stoves, and feed racks for animals were also added to some shelters.

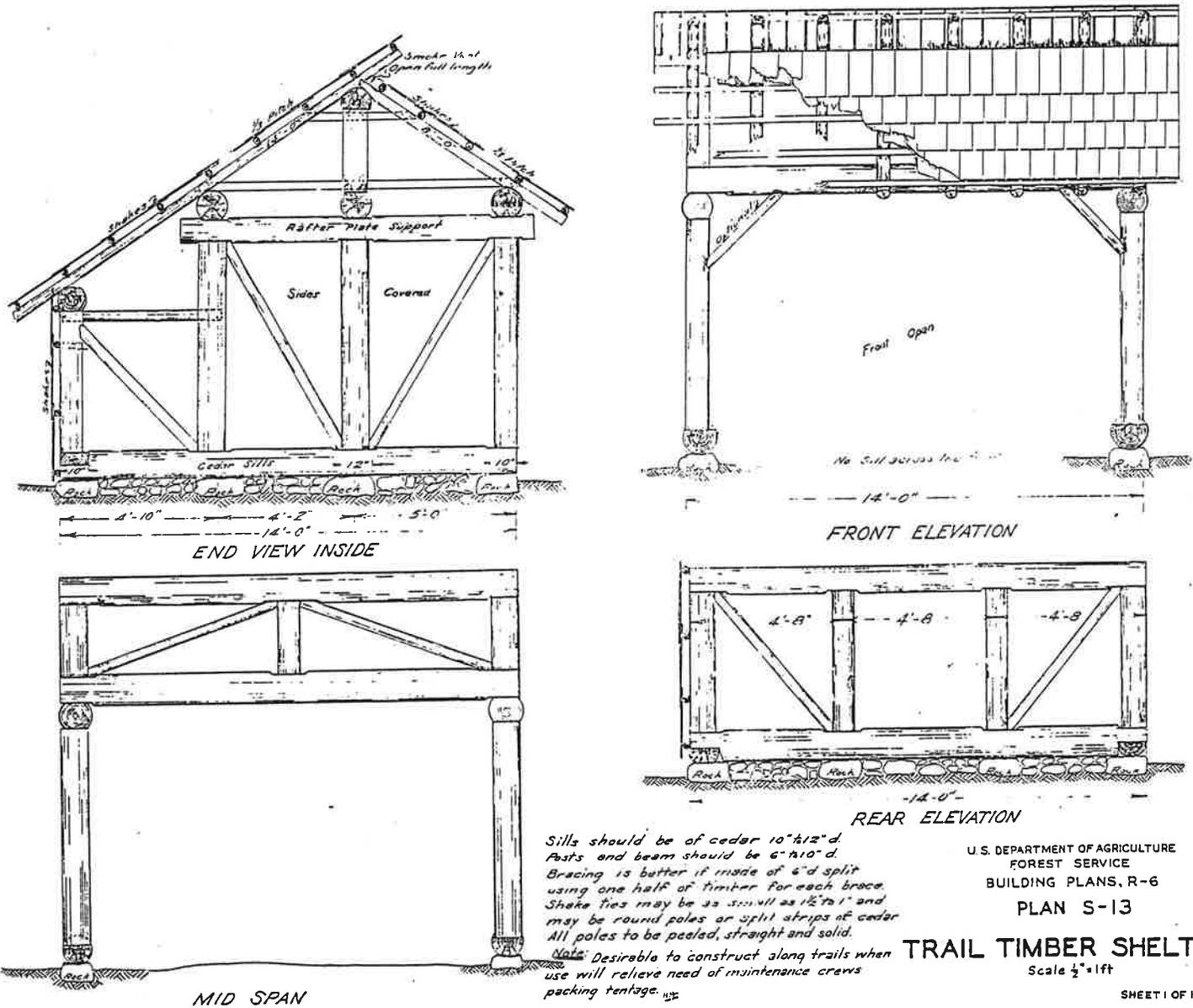


Figure 1

Plan used for trail shelters constructed on the Willamette National Forest.

Today, 13 historic trail shelters exist on the Willamette National Forest. Twelve are of the Adirondack style and one is a rectangular-shaped building with three enclosed sides and a shed roof.

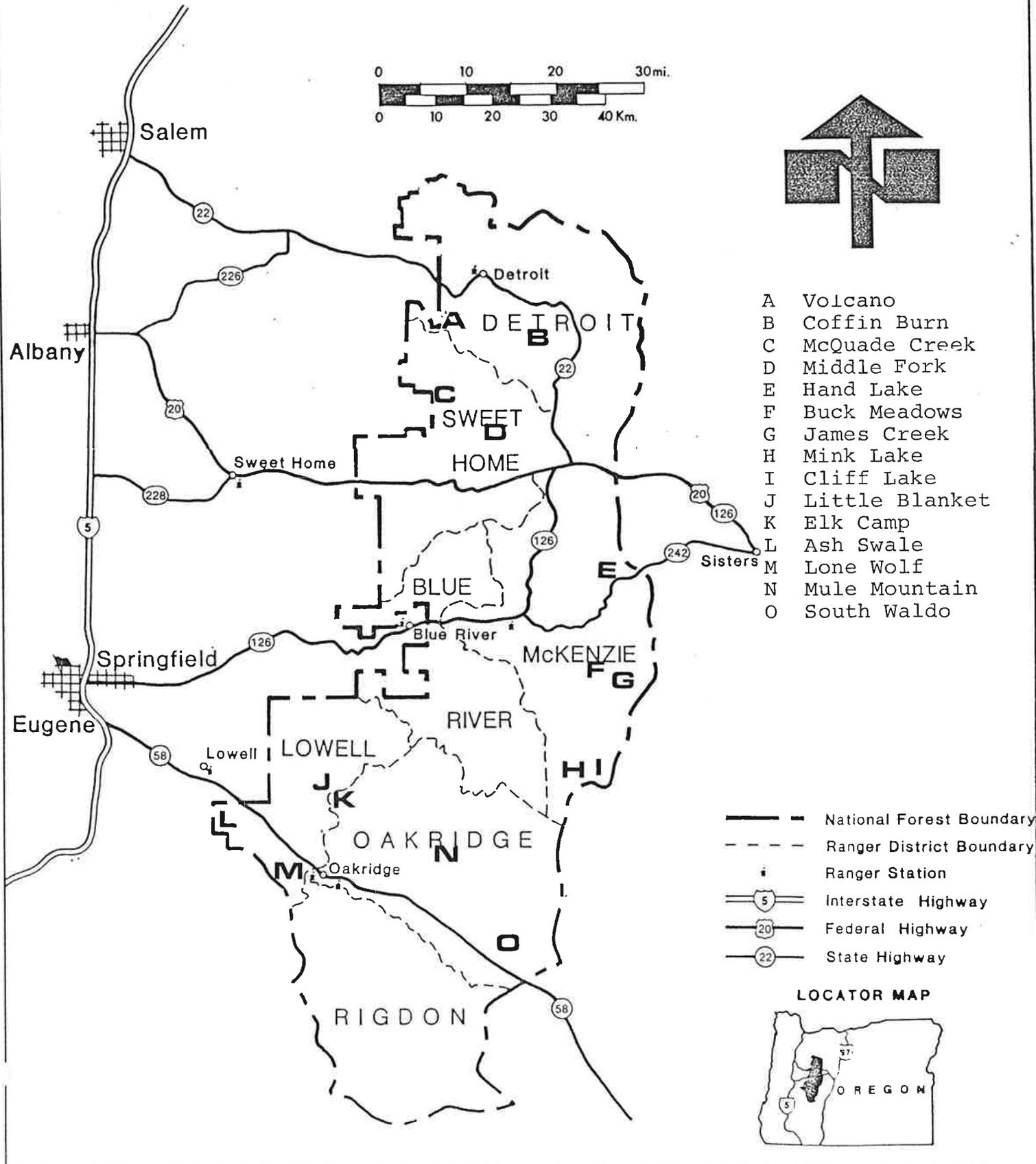
Two other buildings included in this study are currently used as trail shelters but were originally constructed for other purposes. The Hand Lake shelter was built as a warming hut for a ski area. The Mule Mountain shelter was originally a small horse barn built in association with a Forest Service lookout and small cabin.

Administrative Shelters

Most of the trail shelters on the Willamette National Forest were constructed for use by Forest Service trail and telephone line maintenance crews (Williams, 1982:26; Eugene Register Guard, 7/17/83; USDA-FS, 1935b:13). However, the shelters were also used for overnight stops by the District packers and by fire chasers during periods of high fire danger. When not in use by Forest Service personnel the shelters were available to the recreational public.

The construction and use of the trail shelters reflects the way the Willamette National Forest was developed between 1925 and 1945. During that, the role of the Forest Service was largely a custodial one of fire protection (USDA-FS, 1954). Prior to 1928, Forest Service fire patrolmen traveled through their areas looking for fires or contacted forest users to provide information about fire prevention. To maximize public contact, these patrolmen spent much of their time near the more popular lakes and rivers. However, this kept them in locations that had limited views of the surrounding territory and earned them the label of "pot hole patrolmen". In 1927, after a bad fire season in northern Washington, the Regional Office issued an order to move the patrolmen to ridge tops where they could watch over a much larger area. (McCullogh, 1970). This began a period of intensive lookout construction. In 1927, there were six lookouts in the area now administered by the Willamette National Forest. By the time the Willamette National Forest was created in 1933, 25 lookouts were located on the Forest. Between 1933 and 1941, many of the earlier lookouts were rebuilt and 30 new lookouts were added (Kresek, 1985:77-79). Most of this work was done by the CCC.

WILLAMETTE NATIONAL FOREST



- A Volcano
- B Coffin Burn
- C McQuade Creek
- D Middle Fork
- E Hand Lake
- F Buck Meadows
- G James Creek
- H Mink Lake
- I Cliff Lake
- J Little Blanket
- K Elk Camp
- L Ash Swale
- M Lone Wolf
- N Mule Mountain
- O South Waldo

- — National Forest Boundary
- - - Ranger District Boundary
- Ranger Station
- 5 — Interstate Highway
- 20 — Federal Highway
- 22 — State Highway

LOCATOR MAP



Virtually all of the lookouts were in unroaded areas. They were connected to the District offices and each other by a system of trails and telephone lines. Manned between mid-June and the first snows of autumn, they were supplied by the District packer and his string of animals.

In addition to providing access to the lookouts, the trail system was used by fire fighters to get to the "smokes" discovered by the lookouts. The difference between a small fire and a major disaster often depends on how quickly the fire fighters could arrive on the scene. The ability of the fire fighters to travel quickly to any portion of the forest was directly related to the condition of the trails over which they traveled.

Thus, the trail and telephone systems were essential components of fire suppression on the National Forests prior to World War II. In the heavily timbered Cascade Mountains of the Willamette National Forest, trail and telephone maintenance were major jobs. The winter storms common to the area would regularly blow over trees, blocking trails and knocking down phone lines. Further, the spring runoff of the heavy snows would often wash out sections of trail.

Each Ranger District's maintenance crew packed into the forest in the late spring and remained to work on trails and adjacent telephone lines until fall (Silvermoon, 1984: 71). A crew established a base camp along a trail and worked both ways from the camp for a distance of up to 5 miles. Then the base camp was moved with the help of the pack string and the process was repeated.

Since the same trails were annually maintained, the better locations for base camps were discovered and used regularly. When the period of intensive lookout construction began in 1928, trail shelter construction also increased. Most of the earlier shelters were constructed in locations where they could be used not only by trail maintenance crews but also as overnight stops for the packer. Often sites near meadows were selected to take advantage of the available forage. Many were located near trail junctions which allowed the maintenance crews to work more miles of trail and telephone lines from a single location.

With the advent of the Civilian Conservation Corps in 1933, many more shelters were built. A 1934 map of the southern half of the Willamette shows 13 trail

shelters but a 1935 map shows 38 shelters in the same area. This was the period during which most of the trail shelters on the Forest were constructed. A 1937 map shows no new shelters on the forest and a 1940 maps shows only nine additional shelters forest wide.

Thus, the trail shelters were an integral part of the fire protection, detection, and suppression system established by the Forest Service between 1925 and 1945. The shelters were basic support facilities necessary for the construction and maintenance of the trails and telephone lines which were essential for transportation and communication.

After 1945, the fire protection system changed dramatically. Two-way radios had been improved during World War II and these replace the Forest Service telephone system. Timber harvesting increased and the accompanying road construction eventually opened up the Forest and made most of the trail system unnecessary. As timber management assumed a larger role, the Forest Service's work force increased. This expanded work force put many more people in the woods who could watch for fires while performing there regular duties which reduce the role of the lookout in fire detection. Today, there are only four lockouts still in service on the Willamette National Forest.

With the changes in the fire protection system on the Willamette National Forest, trail and telephone maintenance all but stopped and the trail shelters became unnecessary. The shelters were either removed or left to deteriorate naturally. The ten trail shelters built as part of the fire detection system on the Willamette National Forest are now used primarily for recreation and have survived largely through the efforts of volunteers who have done maintenance.

Recreation Shelters

Nine trail shelters on the Willamette National Forest were built specifically for recreational use. The Hand Lake Shelter was constructed as part of the development of the Hand Lake Ski Area. Another eight shelters were built as part of a system of trail shelters associated with the Oregon Skyline Trail.

Hand Lake was the first high elevation ski area developed on the Willamette National Forest. Previous developments at White Branch and Idanha were at

elevations too low to assure an adequate snowpack during the ski season. Hand Lake had been used for winter sports on an intermittent basis during the early 1930's. In 1932, the Obsidians Outdoor Club of Eugene had cleared and graded a ski run 40 feet wide and 100 feet long (Eugene Register Guard, 10/17/32). However, access to the Hand Lake area over the winter was uncertain since the State Highway Department did not keep the nearby McKenzie Highway open. However, in 1937, in response to continued lobbying from the Obsidians, they agreed to plow the highway to Hand Lake on a trial basis (The Obsidian, Nov. 1937). Over the next 4 years the site was developed through a cooperative effort of the Obsidians and the Forest Service. The Obsidians, under the direction of McKenzie District Ranger, Ray Engles, and using tools supplied by the Forest Service, cleared ski runs. The Obsidians also constructed a ski jump and installed a rope tow. The Forest Service constructed the large Adirondack style shelter in the fall of 1939 (The Obsidian, Dec. 1939-Jan. 1940).

The Hand Lake Ski Area was popular with skiers from the Eugene area and experienced heavy use. However, in early 1941 the Highway Department refused to continue to plow the road. This was probably related to the completion of the all weather North Santiam Highway and the development of the Hoodoo Ski Bowl, both located 15 miles to the north of Hand Lake.

The other trail shelters constructed for recreation purposes on the Willamette National Forest were part of the development of the Oregon Skyline Trail. In 1919, the Forest Service began considering the development of a trail that would run the length of the Cascade Mountains from Canada to the Oregon-California border. Existing trails would be used where possible with new trail constructed where necessary. In the summer of 1920, Fred W. Cleator, who was responsible for recreation planning and development for the Forest Service's Pacific Northwest Region, inspected the area between Crater Lake and Minto Pass, just north of Three Finger Jack. Cleator took four companions including an engineer, a grazing expert, and a cook in addition to a string of 9 pack horses. He also had a large number of trail markers and signs which he used to mark his route. This was the beginning of the Oregon Skyline Trail, now part of the Pacific Crest National Scenic Trail. (Rakestraw, 1988(Draft):V-7).

Cleator's plans for the Skyline Trail included the construction of trail side shelters. He envisioned hikers spending the night at a shelter, breaking camp

the next morning, hiking 6-8 miles to the next shelter, and setting up camp by mid-afternoon. This would allow them to enjoy the recreational opportunities around the shelter before traveling on the next day. (Williams, 1982:22). However, funding for recreation on National Forest lands was marginal and plans for trail side shelters were shelved.

It was not until the creation of the CCC in 1933 and the simultaneous increase in recreation funding to the Forest Service that Cleator's plans were realized. On the Willamette National Forest, the responsibility for the location and design of the trail shelters was given to William Parke. Parke, the first recreation planner hired by the Forest, was charged with planning CCC recreation projects.

Parke and Detroit District Ranger, Roy Elliot, traveled the Skyline Trail in May 1934, selecting locations for shelters at Marion, Jorn, Duffy, and Santiam Lakes. On the McKenzie Ranger District, Parke and District Ranger, Ray Engles, worked their way south from the McKenzie Highway. They selected shelter sites at Sunshine, James Creek, Horse Lake, Cliff Lake, Mink Lake, and Charlton Lake. (Williams, 1987: 22-23; Parke personal communication, 1988). The shelters at Marion, Duffy, Horse, Cliff, Mink, and Charlton Lakes and at James Creek and Sunshine were built in 1934. (Eugene Register Guard, 10/1/34:3; 1935 Willamette National Forest Map). A shelter was not built at Santiam Lake until the late 1940's. The Jorn Lake site was never developed.

All of these shelters, with the exception of those at Sunshine and Horse Lake, were three-sided Adirondack style shelters constructed by CCC crews with local materials. (Williams, 1987: 22; Parke personal communication, 1988). Most were simply constructed with peeled logs taken from the site for framing. Split cedar shakes covered the walls and roof. Some shelters, such as the one at Cliff Lake, also incorporated native rock into their design. Other developments at the trail shelters included rustic tables, stoves, toilets, and garbage pits (USDA-FS, 1935b:14).

Like the other shelters along the Skyline Trail, Sunshine was constructed of native materials including peeled log/pole framing and split shake walls and roof. It was rectangular with three enclosed sides and a gable roof. Sunshine was built near timberline at the junction of the Skyline Trail and the climbers'

route to the North and Middle Sisters. The Obsidians had lobbied for a shelter in the area since 1927 when two young men were killed when caught in a Labor Day storm while descending the Middle Sister. Rescue efforts were hampered by the lack of a suitable base camp near the mountain. The closest base camp was located at Frog Camp, 4 miles away and 3000 feet below Sunshine. Thus, Parke had located Sunshine for dual use as a trail shelter and a base camp for mountain rescue in the popular climbing area. (Williams, 1982:23-24).

The Horse Lake Shelter was also larger than other shelters along the Skyline Trail. It was a three sided building made of horizontal logs with a gable roof. An intersecting gable projected several feet over the open side forming a covered veranda. The roof and gable ends were covered with split shakes. This shelter was 200 feet from the Horse Lake Guard Station, the main Forest Service administrative site in the Three Sisters Primitive Area. The shelter may have served a dual role, accommodating both hikers and Forest Service personnel which may account for its larger size.

Thus, the Oregon Skyline Trail and associated shelters were conceived and developed as a unit. The trail/shelters system was planned and built during an era when camping equipment was heavy and cumbersome. The placement of the shelters a days hike apart eliminated the need to pack tentage and made the High Cascades accessible to many more people.

The development of modern, lightweight camping equipment reduced the need for the shelters. In the last 20 years, wilderness areas have been created that include most of the Oregon Skyline Trail on the Willamette National Forest and many of the shelters were removed under the belief that they did not conform with wilderness values. Today, three of the shelters built along the route of the Oregon Skyline Trail are still present on the Willamette National Forest. These are located at James Creek, Cliff Lake and Mink Lake.

Extant Trail Shelters

Currently, 15 historic trail shelters are located on the Willamette National Forest. While these shelters are now primarily used by recreational campers, they were originally built for a variety of purposes. The majority of the shelters were constructed for use by Forest Service trail and telephone maintenance crews. Others were built for recreation use by the public. The Hand Lake Shelter was constructed as part of a ski area and the Mule Mountain Shelter was a horse barn at a Forest Service lookout and fireman's camp.

Thirteen of the shelters are Adirondack style with three enclosed sides and a saltbox roof. The remaining two are both rectangular, one with a shed roof and the other gabled. All of the shelters were constructed with native materials obtained at the site. The one exception is the Hand Lake shelter where sawn lumber was used as wall sheathing.

Coffin Burn Trail Shelter

Detroit Ranger District
Willamette National Forest
Linn County, Oregon

NW 1/4, Sec 2, T.11 S., R.5 E., WM

Elevation: 3700 feet

Site Number: 18-04-198

The Coffin Burn Trail Shelter is one of two shelters on the Willamette National Forest which was not based on a modification of the Adirondack style. It is rectangular (10 X 14.5 feet) with one open side facing southeast toward the hillside. It has a shed roof sloping toward the rear of the shelter. The shelter is framed with split cedar beams. The sill logs rest on native rock piers except for the eastern sill which rests on a pressure treated 4 X 4. Siding is split cedar boards and battens. The roof is shake. A 5 X 7 foot bunk bed with split cedar board decking is attached to the eastern wall. A table of split cedar boards is attached to the western wall near the rear of the shelter. The table is hinged and can be swung up against the wall when not in use.

The exact date of construction is unknown. The shelter appears on the 1935 Willamette National Forest map which is the earliest available map of the Forest that specifically identifies trail shelter locations.

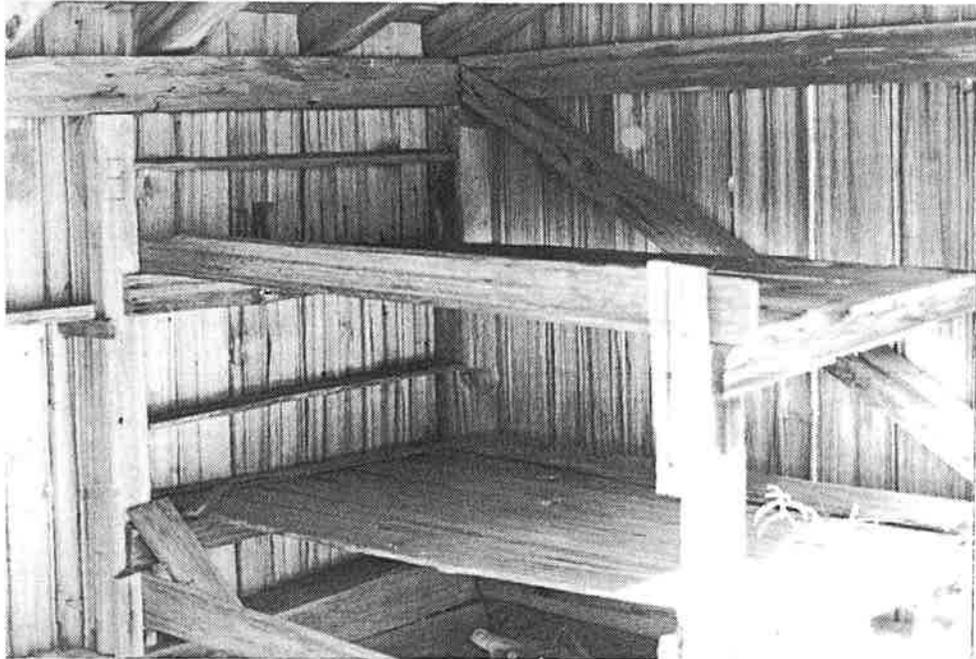
The shelter currently is in good condition. The framing siding and roofing are sound. The shelter was blown over in the mid-1970's but was rebuilt using the original materials. Since then, the roof was replaced in kind. The surrounding timber was harvested several years ago and the shelter now stands in a clear cut.



Coffin Burn Trail Shelter
Looking North



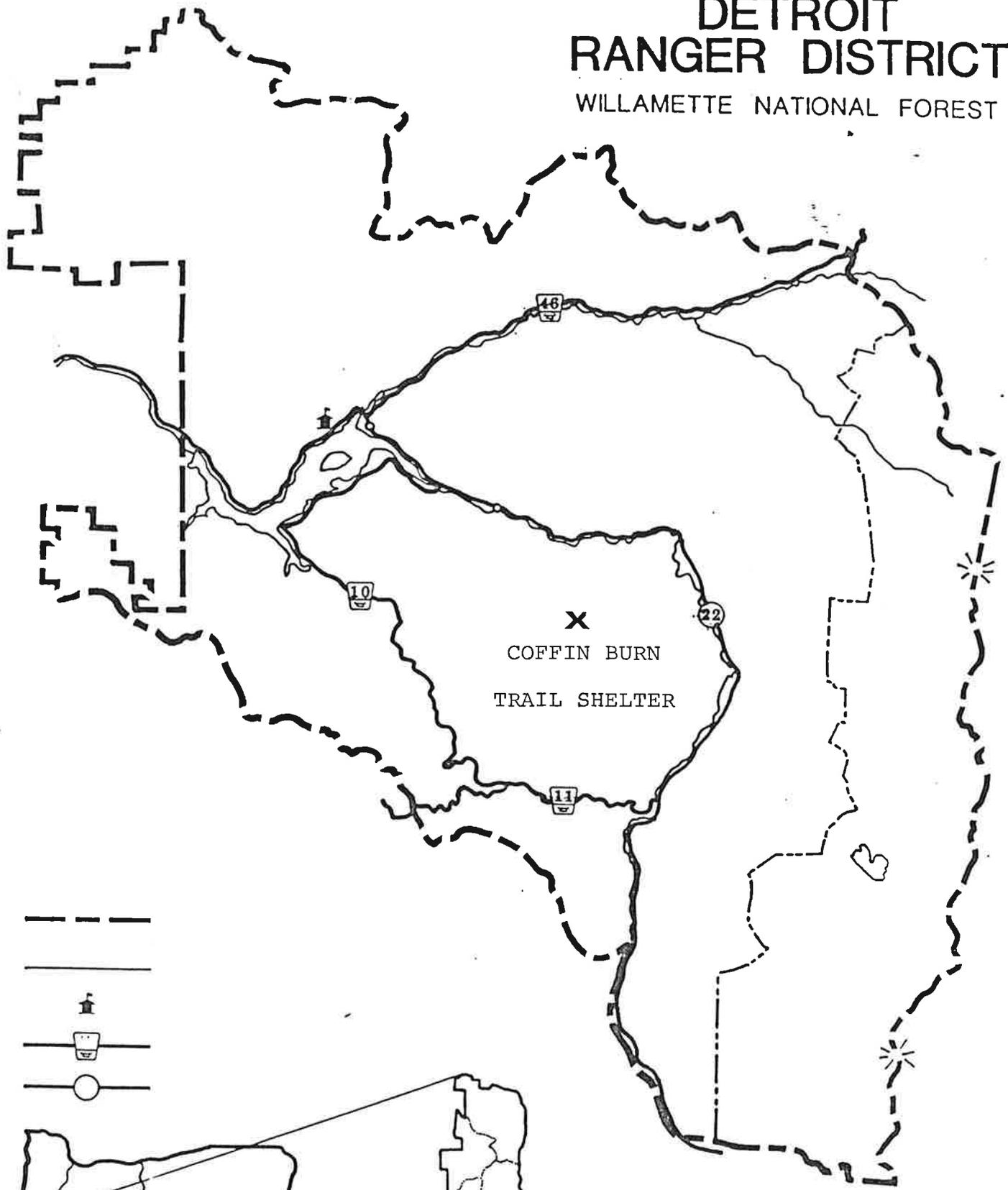
Coffin Burn Trail Shelter
Looking South

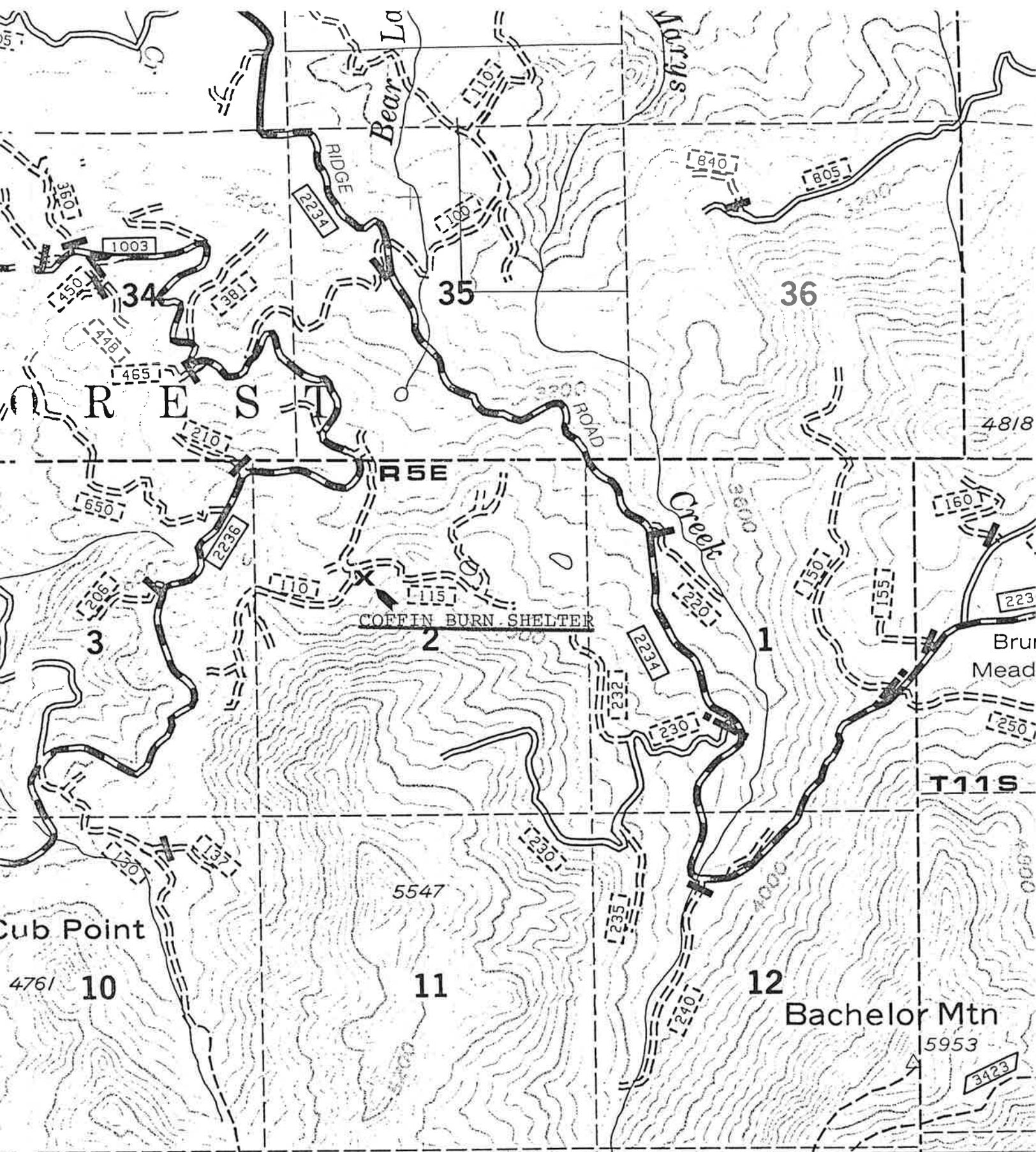


Coffin Burn Trail Shelter
Interior View Showing Bunk Beds

DETROIT RANGER DISTRICT

WILLAMETTE NATIONAL FOREST





Volcano Trail Shelter

Detroit Ranger District
Willamette National Forest
Linn County, Oregon

SE 1/4, SE 1/4, SE 1/4, Sec 31, T.11 S., R.5 E., WM

Elevation: 4000 feet

Site Number: 18-04-197

Volcano Trail Shelter is located along the old Volcano Trail in Douglas-fir forest on the eastern edge of a clearcut. The Volcano Trail was abandoned several years ago and the shelter appears to receive little use.

The shelter is a square (14 X 14 feet) Adirondack style with framing of peeled logs and split cedar posts. The sill logs rest on cedar log rounds at the rear of the shelter and on the ground near the open front. Siding is split cedar boards. The saltbox roof with comb is also covered with split cedar boards measuring 7 feet in length. A 4 foot wide sleeping platform with split log frame and split cedar board decking runs the length of the rear wall. A table and bench are attached to the western wall. The table top and bench are made of single split cedar planks measuring 68 inches long and 1 inch thick, 28 inches and 13 inches wide, respectively. The tops of both the table and bench are smooth. The framing for the table and bench is split cedar. A shelf made of 2 split cedar boards is attached to the eastern wall.

The construction date of this shelter is unknown. It does not appear in any of the sources used to date the other shelters on the Forest. The shelter was unknown to Lyle E. Moss who worked on the Detroit Ranger District from 1923 until 1940. He served as packer for the district during the mid-1930's and was familiar with all of the shelters. (Moss, 1988).

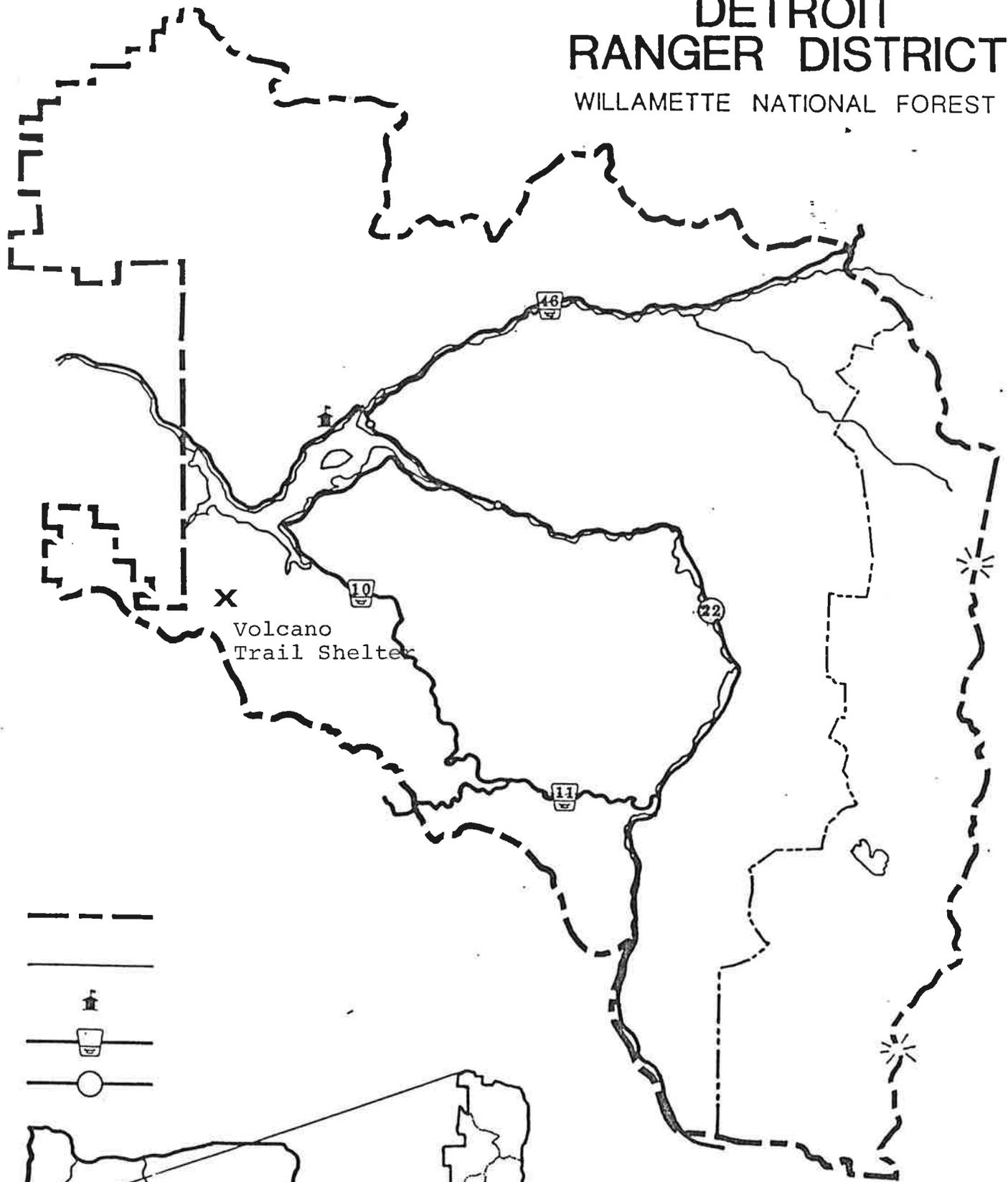
The shelter was apparently constructed for administrative use. Since it is located at the junction of the Volcano Trail and the trail to the Kinney Ridge

Lookout, it would have been a good location for a base camp for maintenance crews for the trails and telephone line along the Volcano Trail.

The shelter is in generally good condition. The cedar boards used for siding and roofing are sound. The framing elements are also sound with the exception of the east and west sill logs which are decayed at their southern ends.

DETROIT RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



McQuade Creek/Chimney Peak Trail Shelter

Sweet Home Ranger District
Willamette National Forest
Linn County, Oregon

NW 1/4, Sec 8, T.12 S., R.5 E., WM

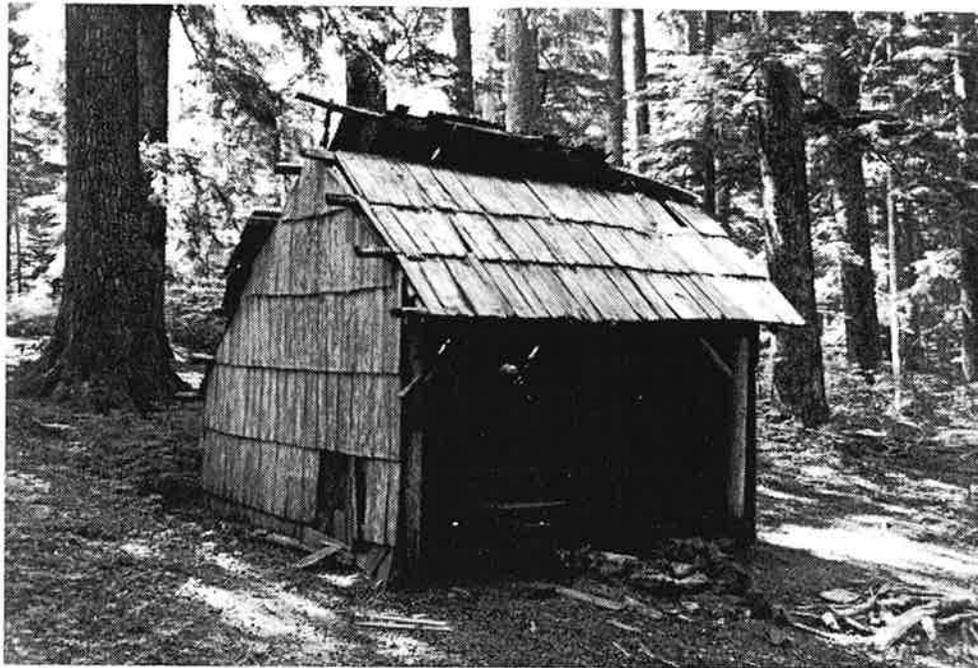
Elevation: 4000 feet

Site Number: 18-03-18

The McQuade Creek Shelter, also known as the Chimney Peak Shelter, is located on a mid slope bench below Chimney Peak. The surrounding vegetation is primarily mature Douglas-fir, hemlock, and cedar. The shelter is a rectangular (12 X 14.5 feet) Adirondack style with an open front. Construction is peeled log/pole framing covered with split shakes on the three enclosed sides. The saltbox roof with comb is also covered with shakes. Two bunks with pole supports and split shake decking run the length of the rear of the shelter. A small table of split cedar boards with a shake top is attached to the west wall near the front of the shelter. The remains of a rock and cement fire place are centered in front of the shelter.

The shelter was constructed in 1938 for the Forest Service by a crew lead by Reese Watkins. A feed rack and a "Wallowa toilet", both no longer present, were also part of the original development. (Improvement Card for Chimney Peak Shelter, n.d.).

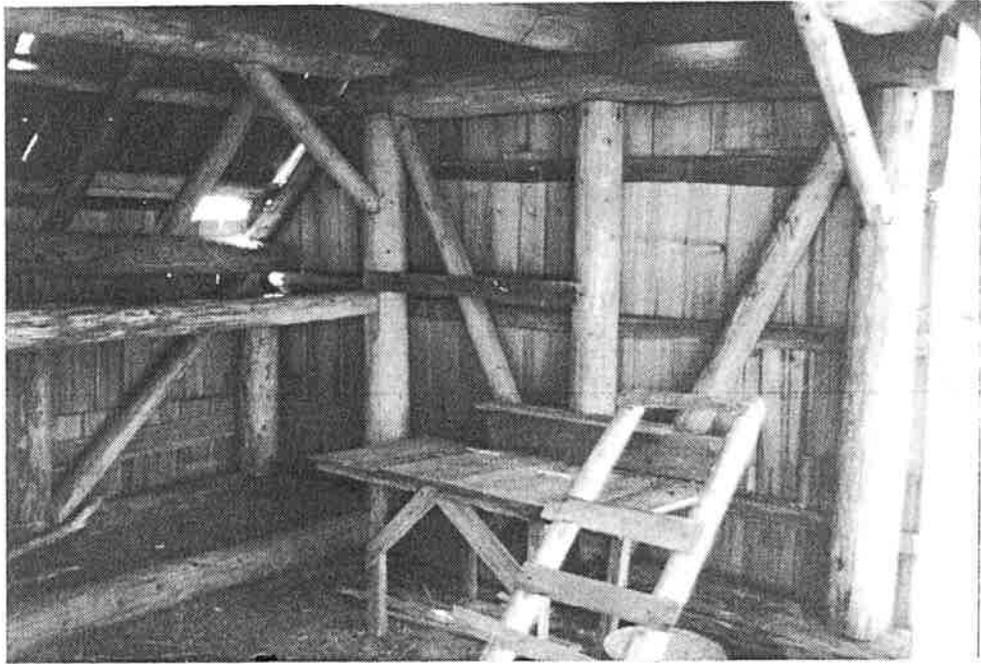
The current condition of the shelter is fair. Shakes are missing from the walls and roof and those still in place show signs of decay. The framing is in good condition with the exception of the badly decayed sill log located on the east wall. The ends of the rafters and the nailer which form the comb are also deteriorated, especially on the west end where it has collapsed.



McQuade Creek Trail Shelter
East and North Elevations



McQuade Creek Trail Shelter
South and West Elevations

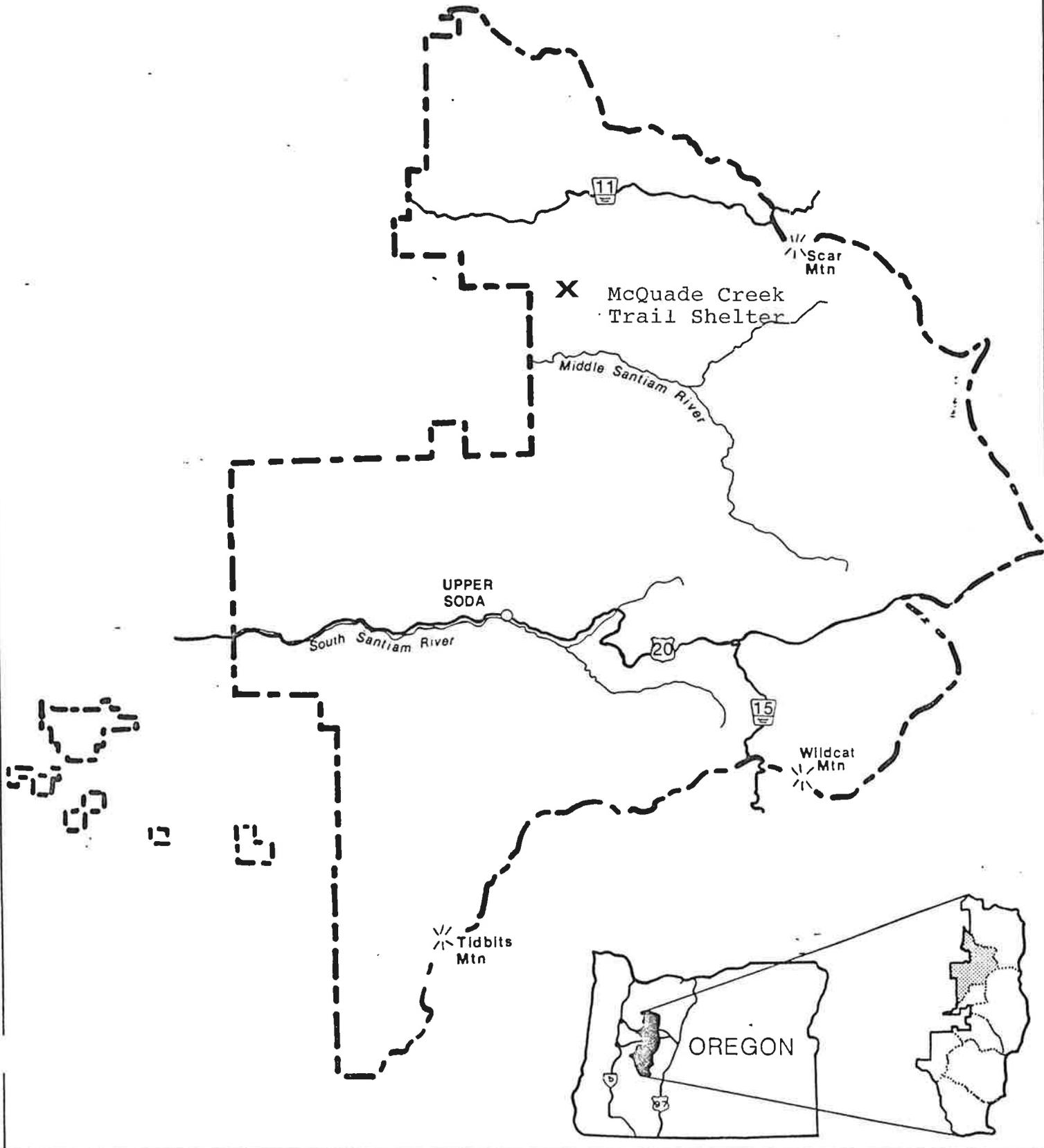


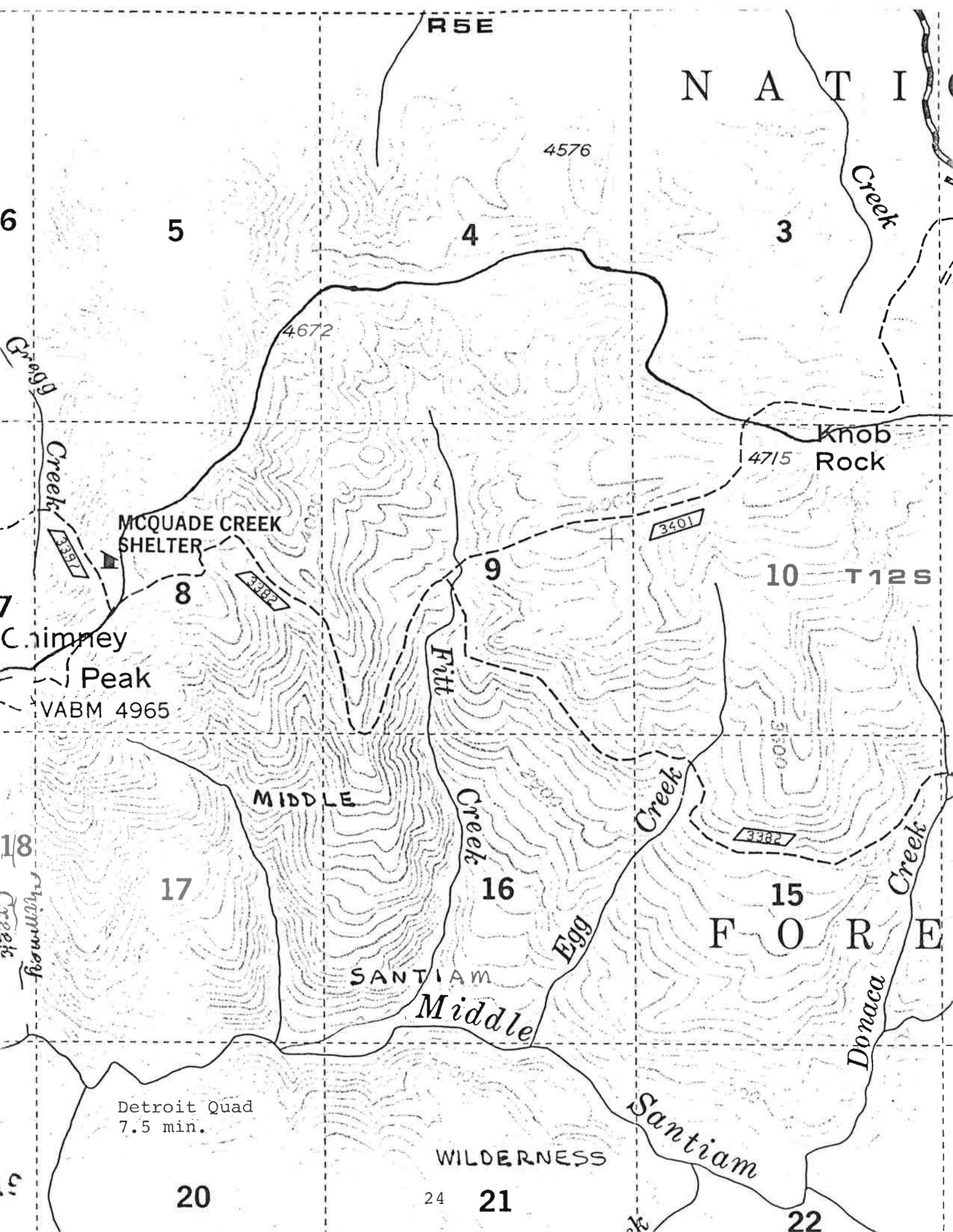
McQuade Creek Trail Shelter
Interior View Showing Bunks and Table in Southwest Corner

SWEETHOME RANGER DISTRICT

WILLAMETTE NATIONAL FOREST

- RANGER DISTRICT BOUNDARY
- [Shield] — US ROUTE
- [Shield] — NATIONAL FOREST ROUTE





R5E

N A T I O N A L

4576

5

4

3

Creek

4672

Knob Rock
4715

MCQUADE CREEK
SHELTER

3401

8

9

10 T12S

Chimney Peak
VABM 4965

Fitt
Creek

MIDDLE

Creek

Creek

3500

3382

Chimney
Creek

17

16

15

F O R E S T

SANTIAM

Middle

Egg
Creek

Donaca
Creek

Detroit Quad
7.5 min.

WILDERNESS

20

24

21

23

22

Middle Fork Trail Shelter

Sweet Home Ranger District
Willamette National Forest
Linn County, Oregon

N 1/2, Sec 36, T.12 S., R.5 E., WM

Elevation: 2000 feet

Site Number: 18-03-22

The Middle Fork Shelter, also known as Shed Camp, is located on a terrace along the west bank of the Middle Santiam River. The surrounding closed canopy forest is primarily Douglas-fir, hemlock, and cedar. It is a rectangular (12 X 15 feet) Adirondack style shelter with split cedar post and peeled log framing, split shakes on the three enclosed sides and roof, and has native rock piers. A pair of 32" wide bunks with split shake decking run the length of the rear wall. A split cedar board ladder attached to the center front of the bunks provides access to a storage/sleeping loft with pole decking in the north end of the shelter. Two shelves constructed of split cedar boards and shakes are suspended from the roof framing along the southeast wall. A table of similar construction is attached to the northeast wall. Also present is a free standing bench constructed of a 2" X 15" X 56" cedar slab with slab legs. The remains of a horseshoe shaped rock and concrete fireplace are centered just outside the open, southeast facing front.

The shelter was constructed in 1938 by a crew led by Reese Watkins. It replaced a pole framed, shake covered building constructed at the site in 1915. Watkins and his crew also constructed a feed rack for stock and a "Wallowa toilet" at the site. (Improvement Card for Middle Fork Shed, n.d.).

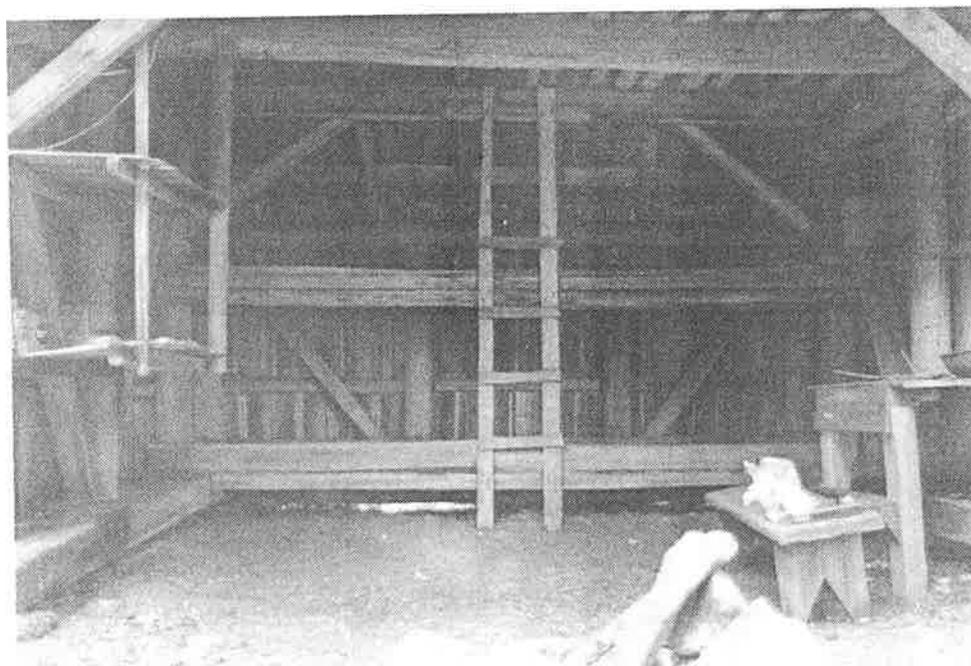
The shelter was reshaked in 1981 as an Eagle Scout project by Bryan Shilts. Several members of Boy Scout Troop 101, Cascade Area Counsel, along with adult volunteers felled a large cedar tree and from it hand split approximately 360 shakes that were 32" X 8", the same size as the original shakes. The

deteriorated shakes were then removed and burned and the new shakes were applied over the original framing.

The shelter is currently in excellent condition. The framing is sound with the only decay noted in the sill logs at the extreme ends near the open side. The replacement of the original shakes was well executed and the roof and walls are in good condition. The removal of shakes, presumably for fire wood, which is common at many of the shelters, is not apparent here.



Middle Santiam Trail Shelter
South and East Elevations

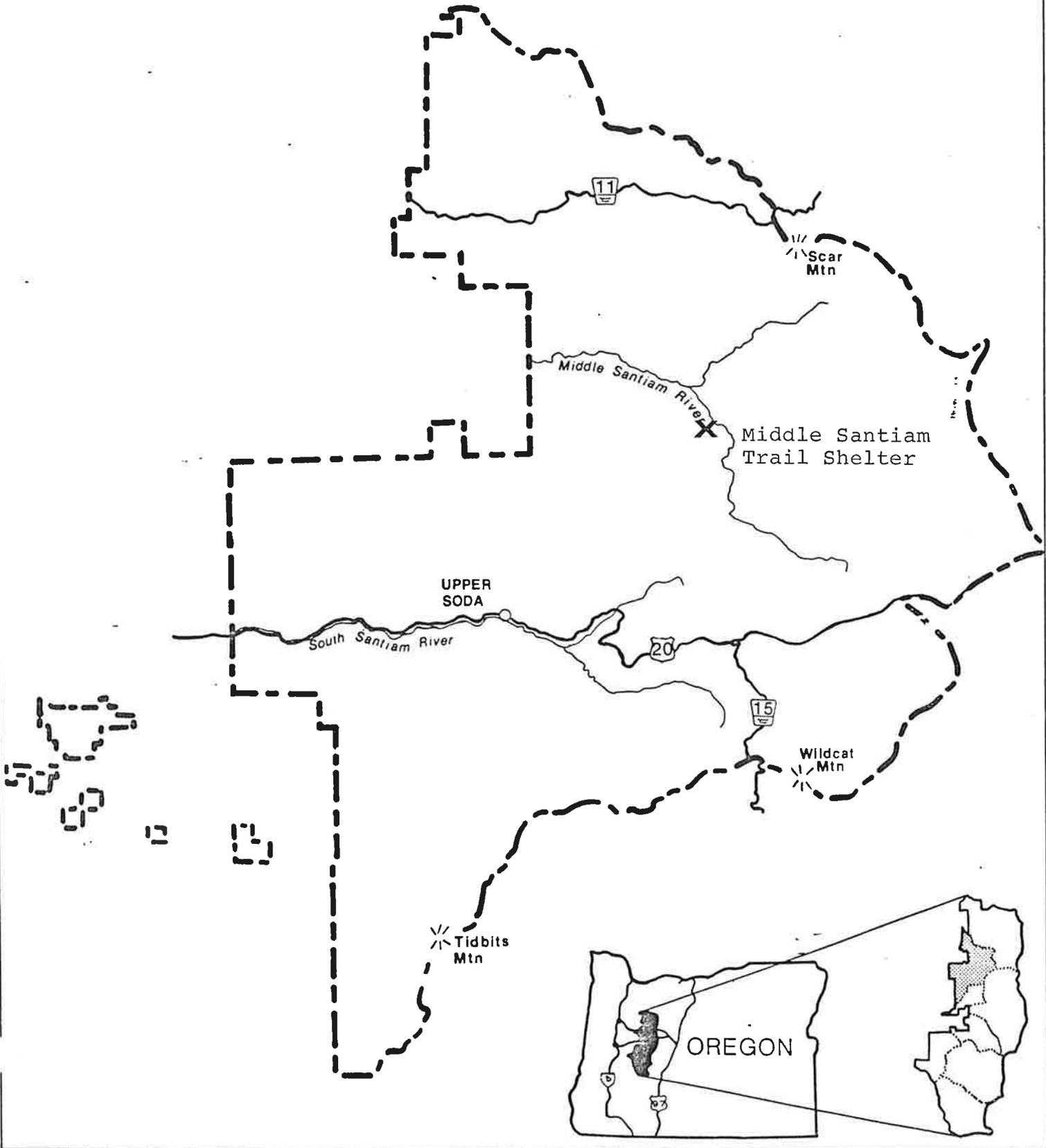


Middle Santiam Trail Shelter
Interior

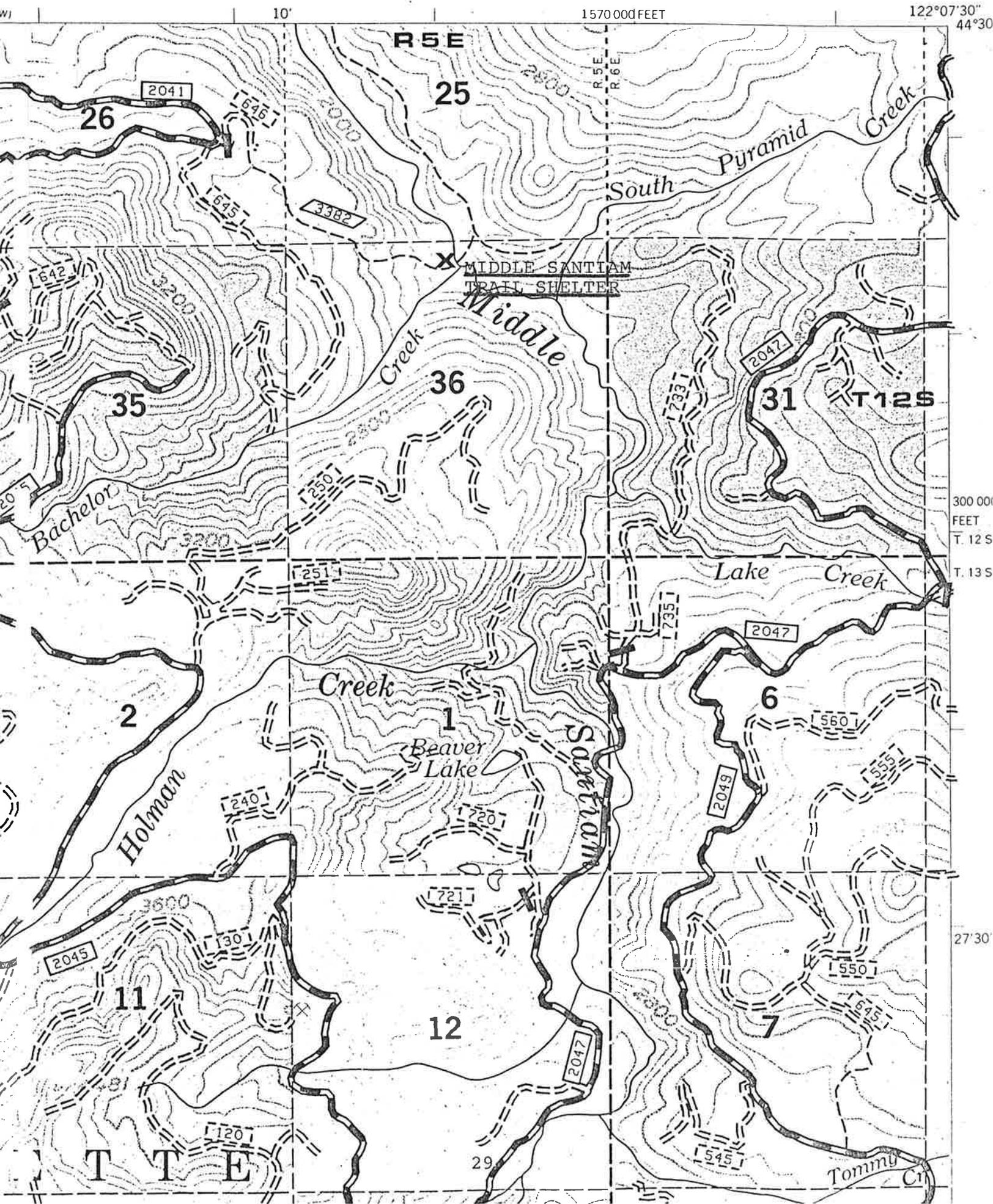
SWEETHOME RANGER DISTRICT

WILLAMETTE NATIONAL FOREST

- RANGER DISTRICT BOUNDARY
- US ROUTE
- NATIONAL FOREST ROUTE



ECHO MTN NW QUADRANGLE
LINN COUNTY, OREGON
7.5 MINUTE SERIES



Buck Meadows Trail Shelter

McKenzie Ranger District
Willamette National Forest
Lane County, Oregon

NW 1/4, NW 1/4, Sec 15, T.17 S., R.7 E., WM

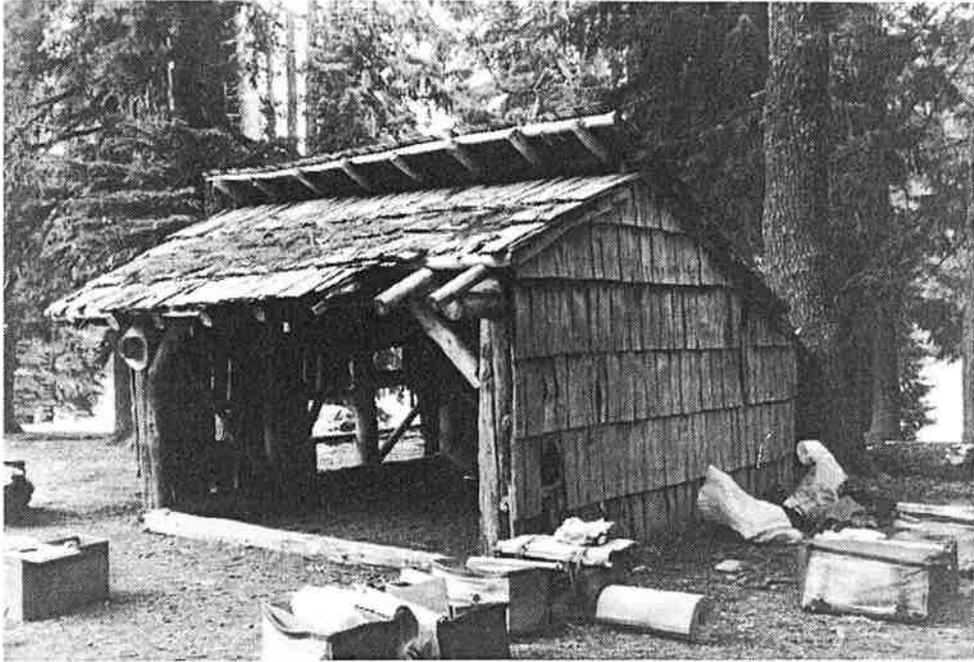
Elevation: 5300 feet

Site Number: 18-07-16H

The Buck Meadows Shelter is located in the Three Sisters Wilderness Area. The shelter stands on a low, timbered ridge which projects into the upper eastern end of Buck Meadows. The meadow is nearly 500 feet wide and 1/3 mile long. Several small springs are located just to the east of the shelter.

The shelter was constructed in 1934 for use by trail maintenance crews (USDA-FS, 1935b:13). It is a square (14 X 14 feet), three sided Adirondack style shelter with peeled log/pole frame and wall shakes. The saltbox roof with comb is also shake covered. Unlike most of the other extant shelters, the Buck Meadows Shelter has no built-in sleeping area or other furniture.

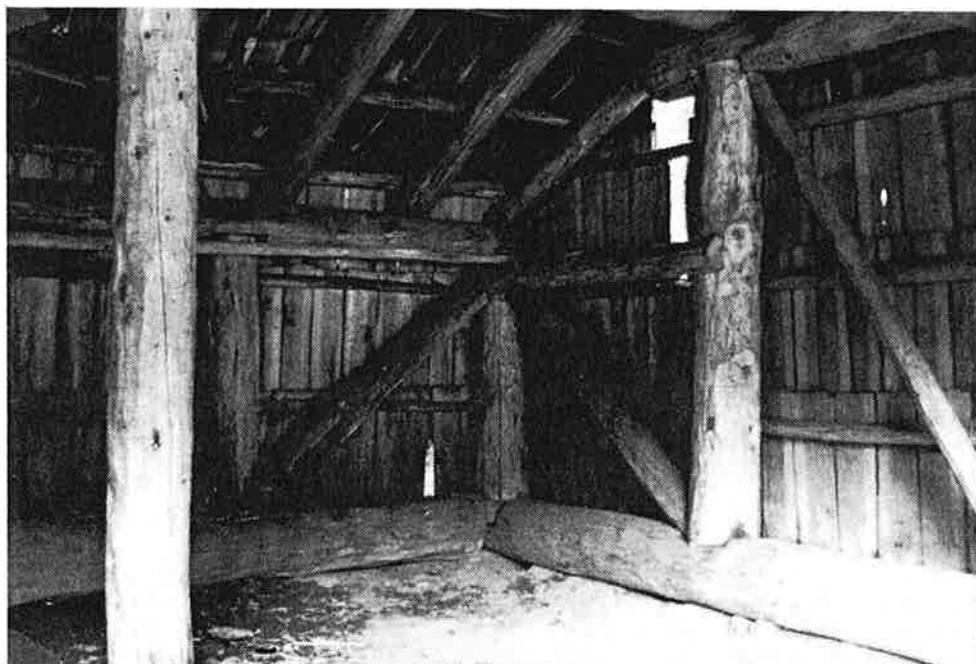
The shelter is structurally sound. With the exception of decay in two rafter ends which have been exposed due to the removal of roof shakes, the framing is in good condition. A substantial number of shakes are missing, especially on the south elevation. Those shakes still in place show signs of decay. The shelter is unstable, probably due to the missing shakes and the poor condition of those present.



Buck Meadows Trail Shelter
East and North Elevations



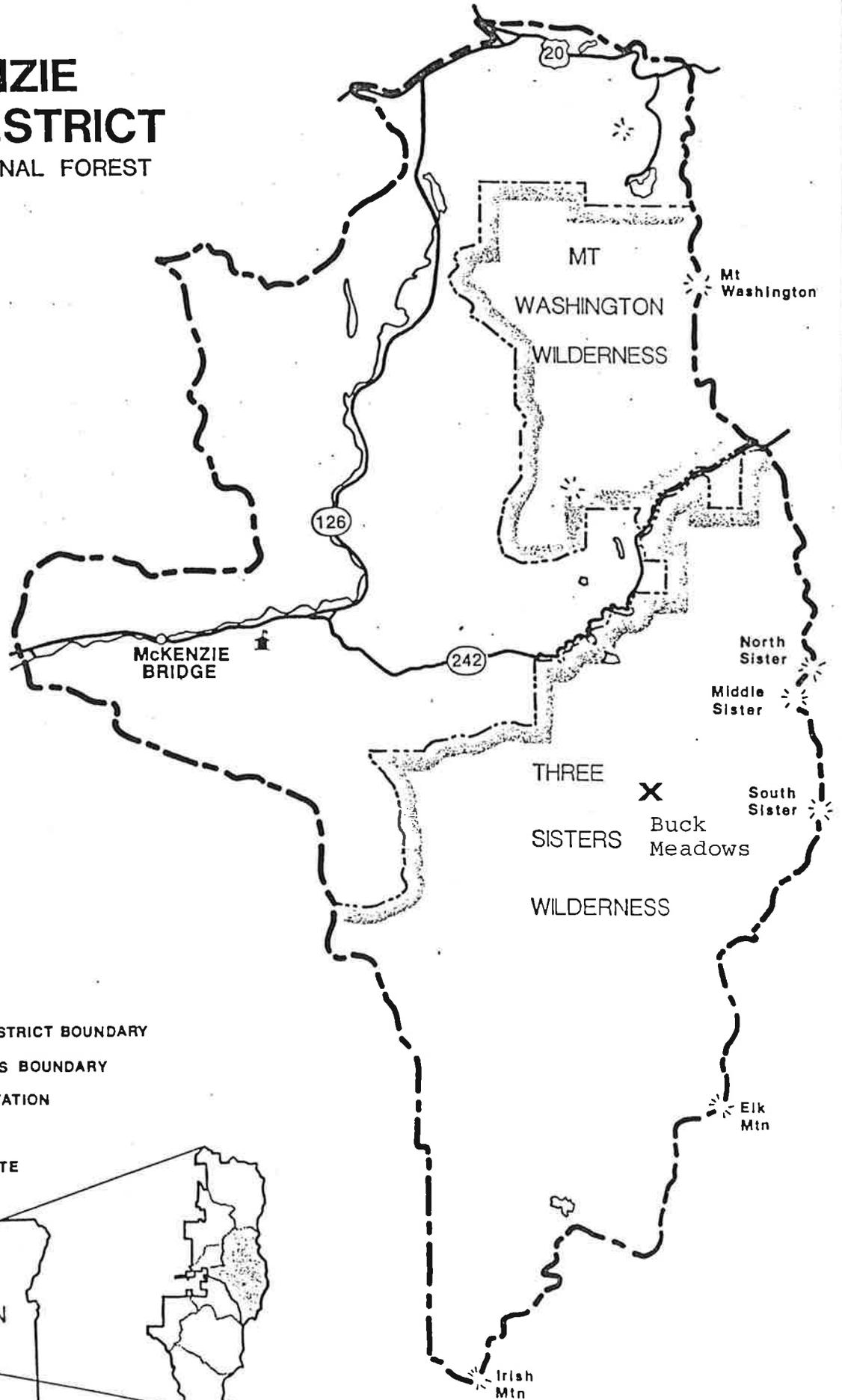
Buck Meadows Trail Shelter
South and West Elevations



Buck Meadows Trail Shelter
Interior View Showing Framing in Northwest Corner

McKENZIE RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



- RANGER DISTRICT BOUNDARY
- ▨ WILDERNESS BOUNDARY
- 🏠 RANGER STATION
- 🛣️ US ROUTE
- 📍 STATE ROUTE



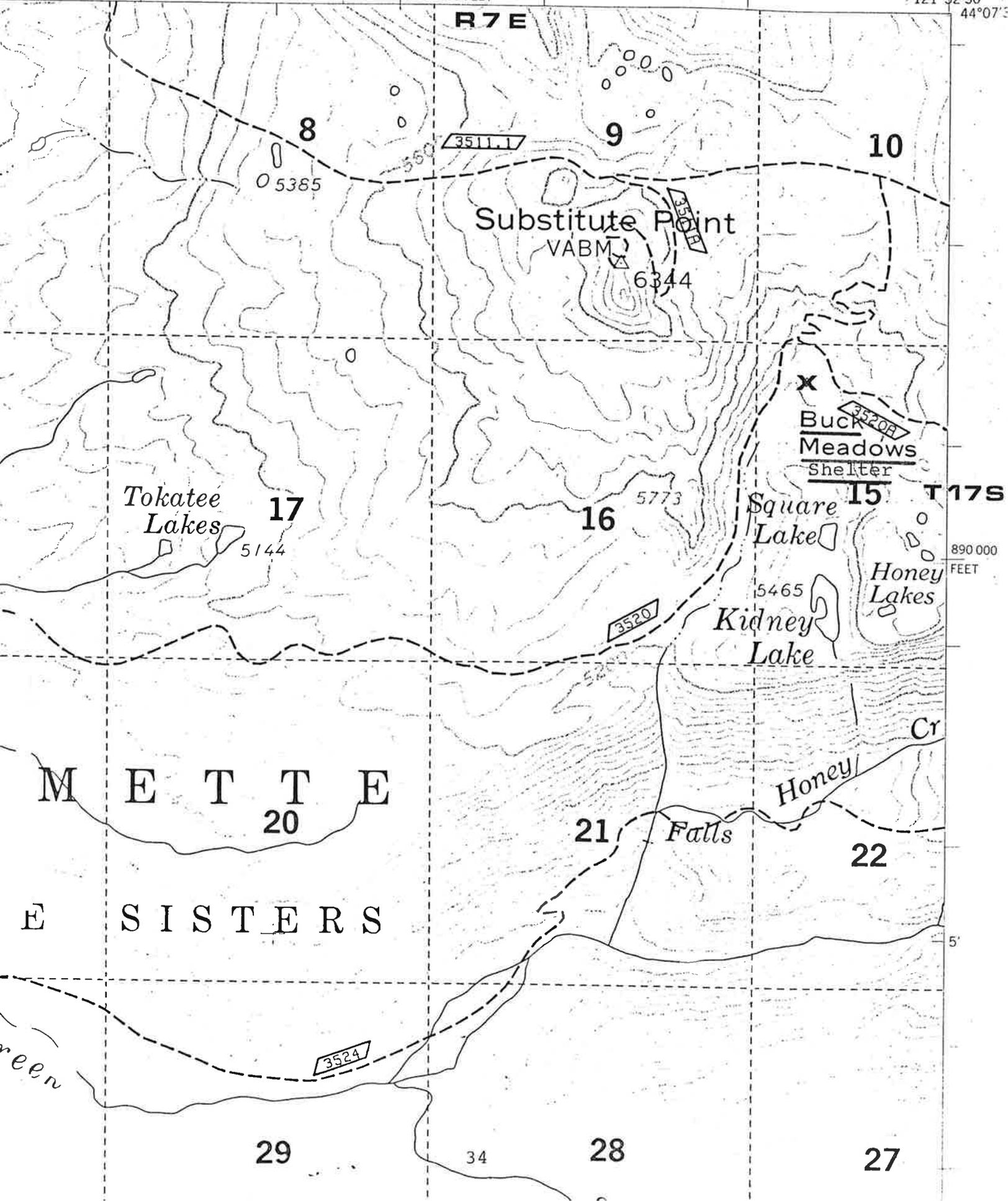
THREE SISTERS SW QUADRANGLE
LANE COUNTY, OREGON
7.5 MINUTE SERIES

(THREE SISTERS (W))

55'

1 630 000 FEET

121°52'30"
44°07'3"



James Creek Trail Shelter

McKenzie Ranger District
Willamette National Forest
Lane County, Oregon

NE 1/4, NE 1/4, Sec 24, T.17 S., R.7 E., WM

Elevation: 5820 feet

Site Number: 18-07-19H

The James Creek Shelter is located in the Three Sisters Wilderness Area at the western edge of a meadow at the headwaters of a branch of James Creek. It is adjacent to a section of the old Oregon Skyline Trail. The Skyline Trail was incorporated into the Pacific Crest National Scenic Trail when the later was created in 1968 by the passage of the National Trails System Act (Public Law 90-543). Since then, the alignment of the Pacific Crest Trail near the James Creek Shelter was moved one mile east and the section of the Oregon Skyline Trail is now part of the general Forest trail system. The shelter is a rectangular (14 X 16 feet) peeled log/pole framed Adirondack style shelter with vertical pole and split pole siding on the three enclosed sides. The saltbox roof with comb is covered with a double layer of 32" split shakes. A low sleeping platform of 1 X 12 boards runs the length of the rear wall. A rock fire ring is located in front of the shelter.

The James Creek Shelter was constructed in 1934 by a CCC crew (Eugene Register Guard, 10-1-34). It was one of a series of shelters along the Skyline Trail that were located and designed by Bill Parke, Willamette National Forest Recreation Planner, and Ray Engles, McKenzie District Ranger. (Williams, 1982)

The rustic table, toilet, and garbage pit which were part of the original development at the shelter site (USDA-FS, 1935a:14) are no longer present.

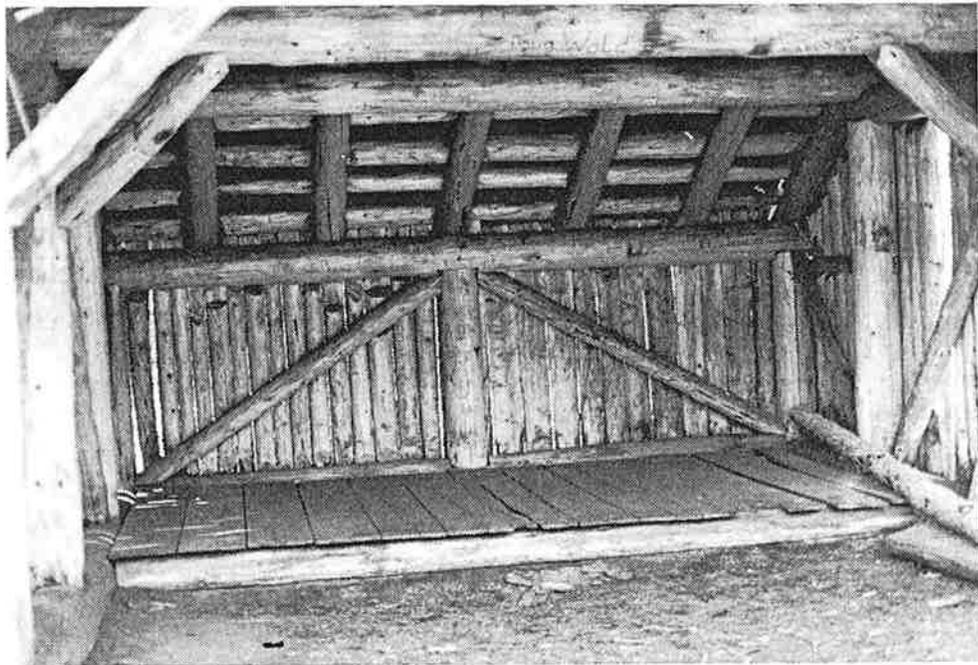
The shelter is in good condition, is structurally solid, and the roof is sound. The lower 8-12 inches of the wall logs exhibit moderate to severe decay. Some decay is also noticeable in the the sill logs, especially near the open front.



James Creek Trail Shelter
East and North Elevations



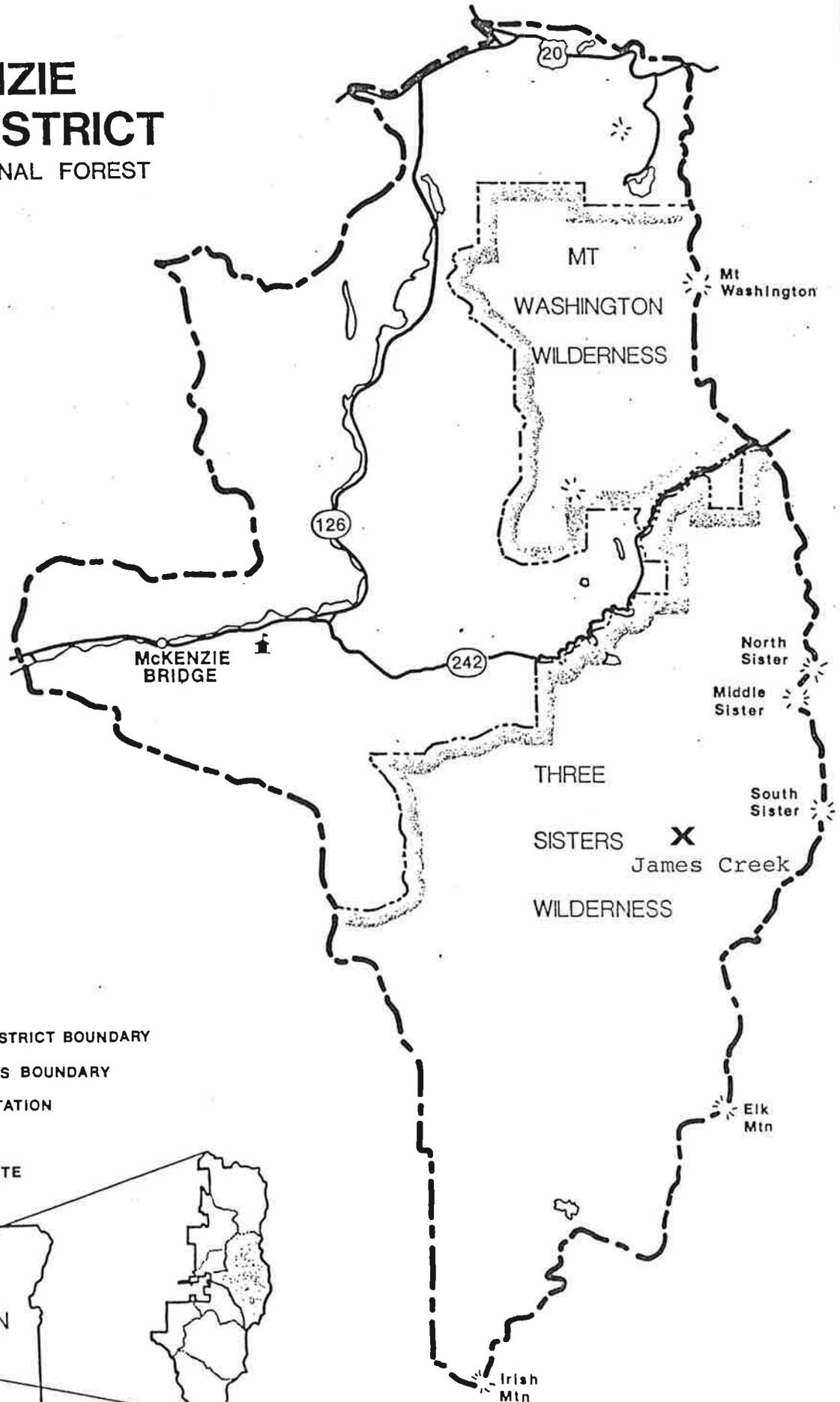
James Creek Trail Shelter
West and South Elevations



James Creek Trail Shelter
Interior View Showing Sleeping Platform

McKENZIE RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



- RANGER DISTRICT BOUNDARY
- ▨ WILDERNESS BOUNDARY
- ↑ RANGER STATION
- ⊕ US ROUTE
- STATE ROUTE





12 R7E

Separation Creek Meadow

14 Cole Chuck Meadow

13 Hinton

Creek

18

Springs

James Creek Shelter

T17S

Separation Creek

3524

24

Dew Lake

19

SCENIC

THREE

Falls

Mesa

Creek

Butte

25

Springs

30

SISTERS

Three Sisters Quad
7.5 min.

Rock

The Wife

NATIONAL

35

36

31

Le Conte

Hand Lake Shelter

McKenzie Ranger District
Willamette National Forest
Lane County, Oregon

NE 1/4, Sec 34, T.17 S., R.7 1/2 E., WM

Elevation: 4520 feet

Site Number: 18-07-18H

The Hand Lake Shelter is located on the edge of a meadow surrounding Hand Lake and lies just outside the boundary of the Mt. Washington Wilderness Area. It is a rectangular (16 X 18 feet), Adirondack style shelter with a peeled log/pole frame. The sill logs rest on native rock piers. The shelter is open on the northwest side with the remaining three sides covered with wall shakes, in both 24" and 30" lengths, over horizontal 1 X 12 board sheathing. The saltbox roof with comb is also shake covered.

The Hand Lake Shelter was constructed in the fall of 1939 under the direction of Ray Engles, McKenzie District Ranger. The shelter was constructed by the Forest Service as part of the development of the Hand Lake Ski Area and was used as a warming and first aid shelter.

The ski area was first developed in 1932 when the Obsidians cleared and graded a ski run near the lake (Eugene Register Guard, 10/17/32). More intensive development was undertaken beginning in 1937 as a coordinated effort by the Forest Service, the Obsidian Outdoor Club, and the Ski Lauferers, a winter sports group associated with the Obsidians. This later development of Hand Lake was made possible when the State Highway Department agreed to plow the normally snowed-in McKenzie Highway. In 1937, Engles led a group of ski enthusiasts to Hand Lake where they used axes to clear a ski run on the west side of the lake (Frear, 1977). The following summer the Obsidians and Ski Lauferers again joined forces to construct a ski jump on the east side of the lake (Eugene Register Guard, 1/1/39).

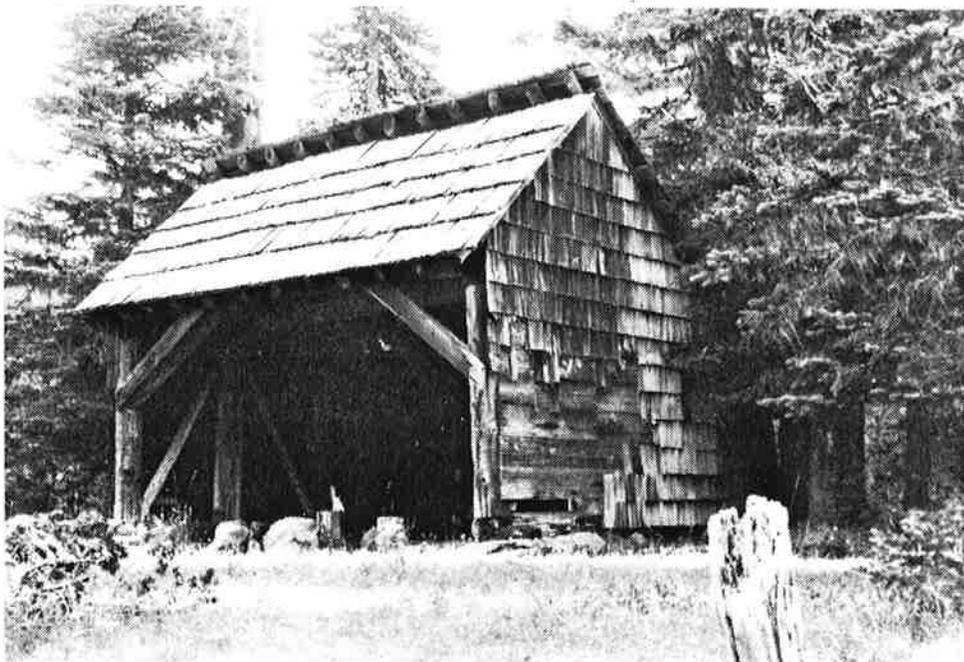
Further work was performed at Hand Lake in 1939, when Engles again led groups of the Obsidians, the Ski Laufers, and the Willamette Ski Patrol to clear three more ski runs, an up hill run for a rope tow, and a connecting trail. Ed Thurston, a member of the Obsidians and the developer of the Hoodoo Ski Bowl, installed a rope tow for use during the 1939-40 ski season. (The Obsidian, 12/39-1/40).

In early 1940, the Greyhound Bus Company announced that it would run a weekly ski bus from Eugene to Hand Lake. The bus left Eugene in the morning and spent the day at Hand Lake where it was used as a warming shelter. It then returned to Eugene in the evening, stopping at Belknap Hot Springs resort where the skiers used the mineral pool.

The Hand Lake Ski Area was closed in early 1941 when the State Highway Department announced that it would no longer plow the McKenzie Highway to the upper elevations (The Obsidian, 2/41). Since then the primary use of the building has been as a trail shelter.

The Hand Lake Ski Area was one of several areas of this type that were developed on National Forest lands prior to 1940. The surge of recreation development that accompanied the creation of the CCC included winter sports facilities that varied in complexity from the massive Timberline Lodge to a cleared hillside with no other improvements. Among these were facilities like Hand Lake that included ski runs, jumps, rope tows, toilets, and a warming shelter. The facility at Hand Lake was one of at least six such sites developed in Oregon by 1939 (USDA Forest Service, 1939). The Hand Lake shelter is the only surviving example of this level of ski area development in the state of Oregon.

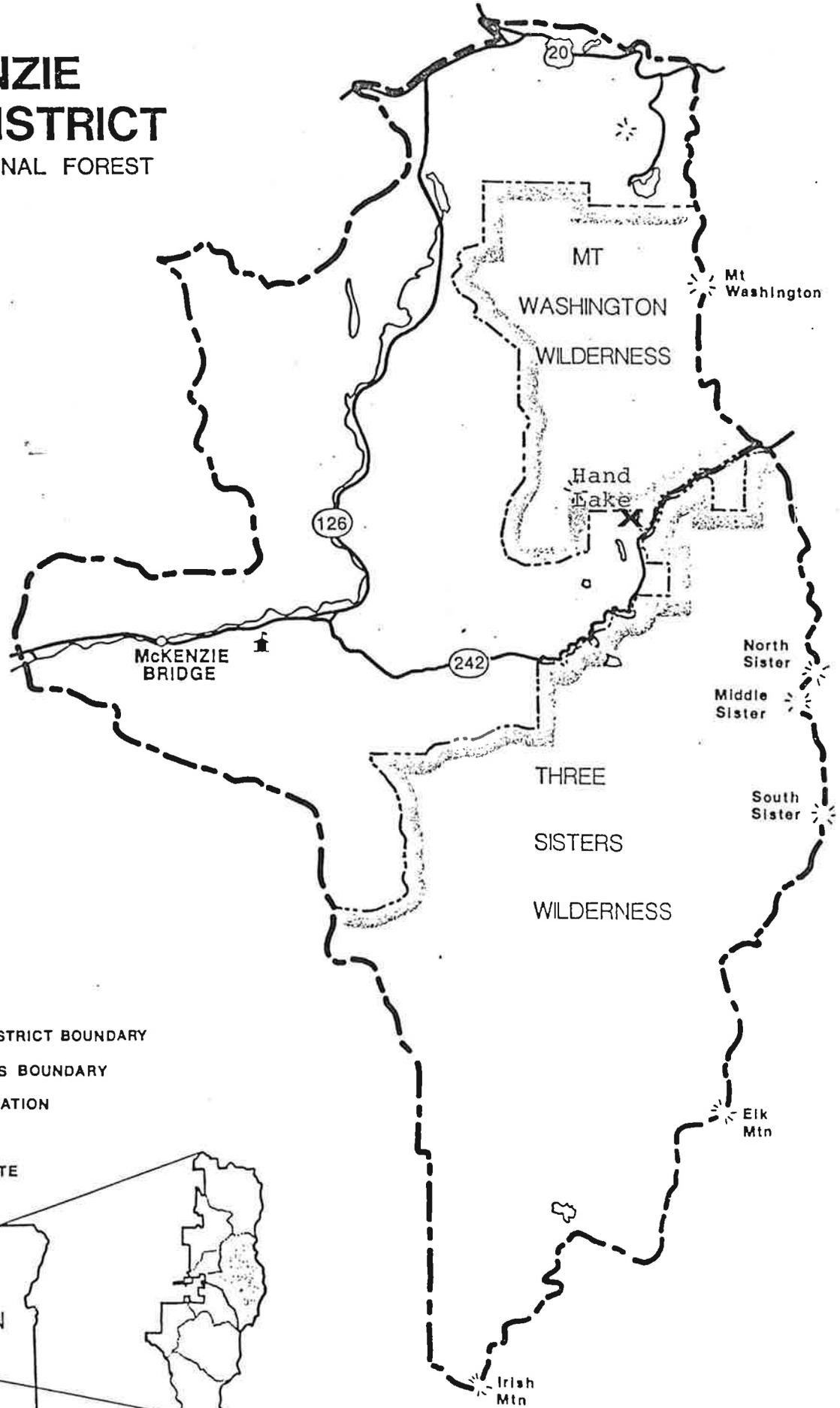
The shelter currently is in good condition. The log/pole framing and board sheathing is sound. The rock piers supporting the sill logs continue to keep the shelter well above grade, preventing any significant deterioration. A substantial number of wall shakes have been removed and there is a small hole in the roof at the north corner. Neither have affected the structural integrity of the shelter.



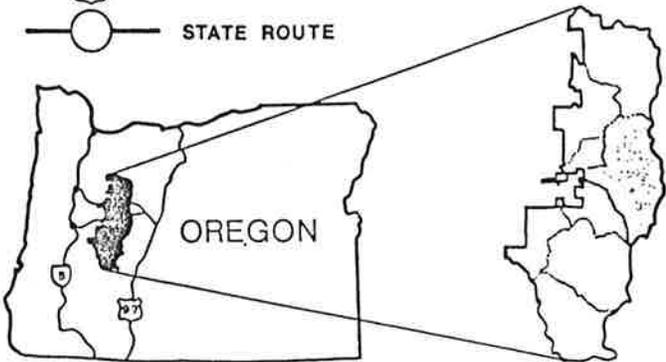
Hand Lake Shelter
South and West Elevations

McKENZIE RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



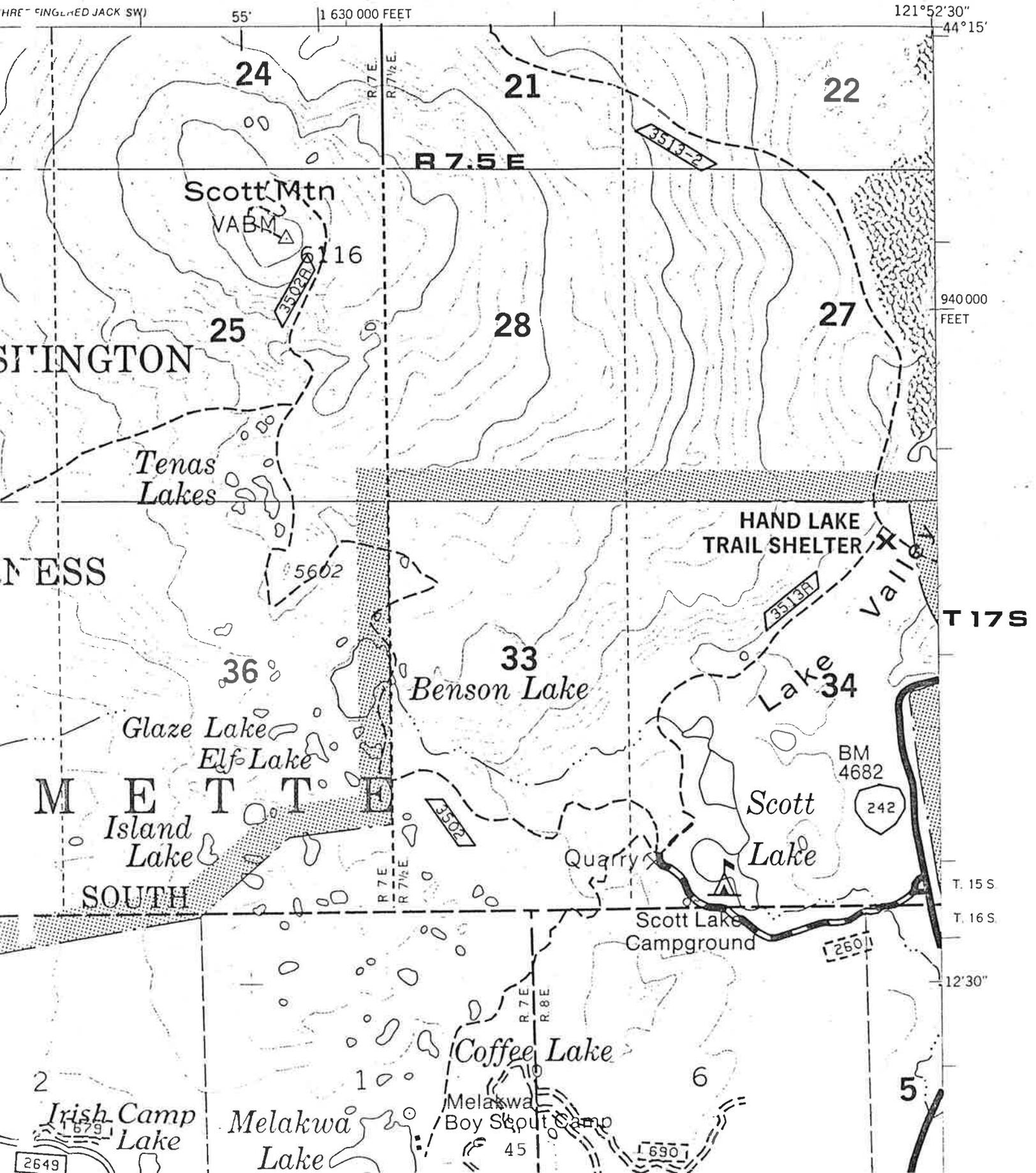
-  RANGER DISTRICT BOUNDARY
-  WILDERNESS BOUNDARY
-  RANGER STATION
-  US ROUTE
-  STATE ROUTE



THREE SISTERS NW QUADRANGLE
LANE COUNTY, OREGON
7.5 MINUTE SERIES

THREE FINGERED JACK SW

THREE FINGERED



94000
FEET

T 17 S

T. 15 S

T. 16 S

12'30"

5

2649

45

6

5

Cliff Lake Trail Shelter

McKenzie Ranger District
Willamette National Forest
Lane County, Oregon

NE 1/4, Sec 16, T.19 S., R.7 E., WM

Elevation: 5150 feet

Site Number: 18-07-17H

The Cliff Lake Shelter is located in the Three Sisters Wilderness Area on the northwest shore of Cliff Lake near its outlet. The forest surrounding the lake is dominated by trees of the Pacific Silver Fir zone.

The structure is a rectangular (14 X 16 feet) Adirondack style shelter with three enclosed sides. The open south elevation faces the lake. It has a peeled log/pole frame. The lower 4 feet of the walls are dry stacked tabular rock and split shake above. The saltbox roof with comb is shake covered. The sleeping area, located across the length of the rear of the shelter, is a slightly raised dirt platform surrounded by 6" peeled logs. A small table with pole frame and 3 tabular rocks forming the top is attached to the north wall near the front of the shelter. A rock fire ring is located in front of the shelter.

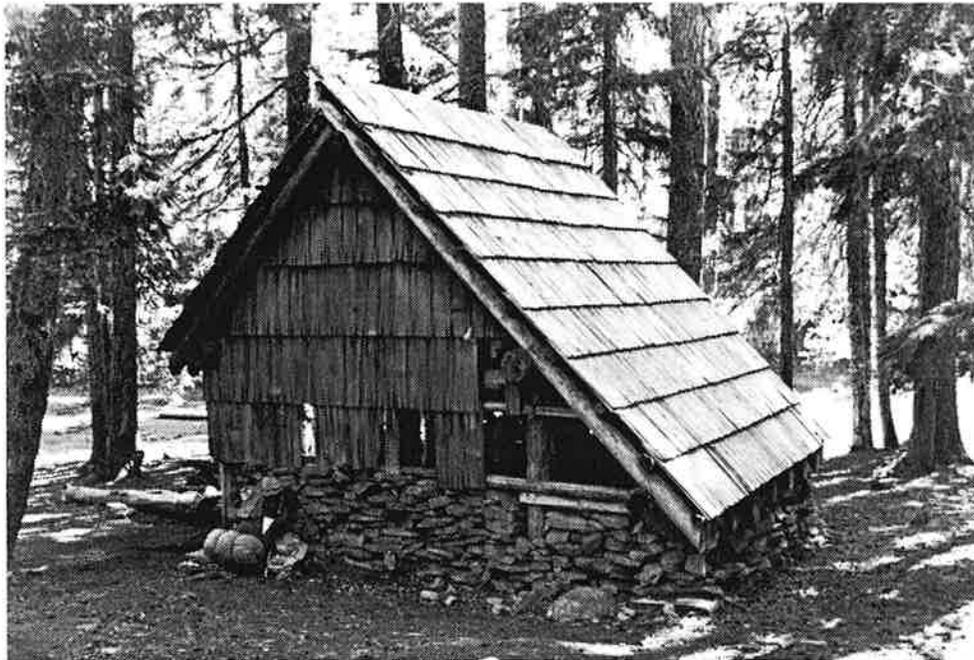
The Cliff Lake Shelter was constructed in 1934 by a CCC crew (Eugene Register Guard, 10-1-34). The site had been selected earlier that year by Bill Parke and Ray Engles (Williams, 1982:22; Parke, personal communication, 1988) and was constructed as part of the trail shelter development associated with the Oregon Skyline Trail, which is now known as the Pacific Crest National Scenic trail, located 200 yards to the west. The rustic table, toilet, and garbage pit which were part of the original development at the shelter site (USDA-FS, 1935a:14) are no longer present.

The shelter is in very good condition. The only apparent decay is in the east sill log near the open front. The remainder of the framing is sound. The rock

work forming the lower portion of the walls is intact and stable. The roof is sound. Shakes have been removed from the bottom course on both sides, probably for use as fire wood.



Cliff Lake Trail Shelter
South and East Elevations



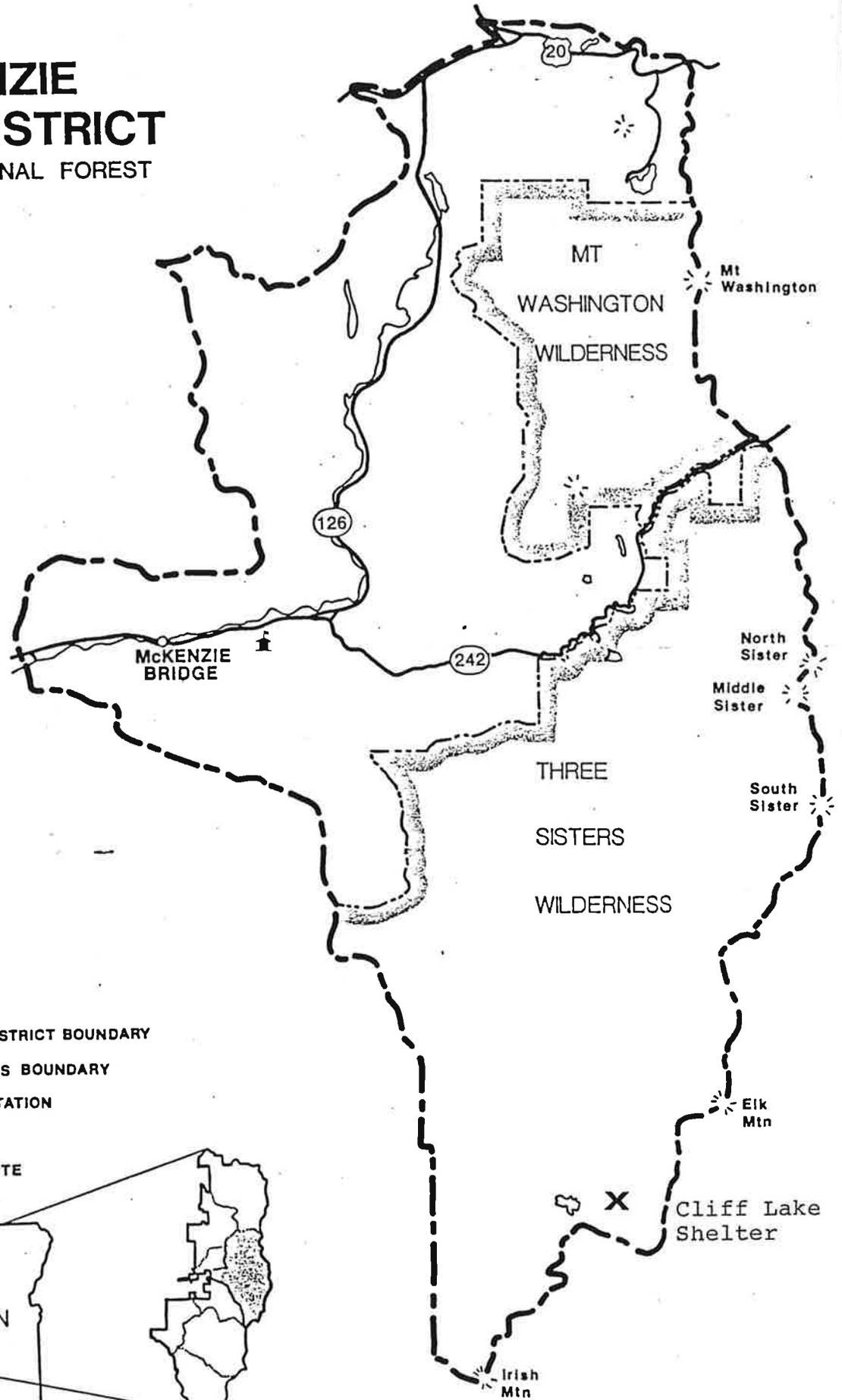
Cliff Lake Trail Shelter
East and North Elevations



Cliff Lake Trail Shelter
Interior View

McKENZIE RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



- RANGER DISTRICT BOUNDARY
- ▨ WILDERNESS BOUNDARY
- 🏠 RANGER STATION
- 🛣️ US ROUTE
- 📍 STATE ROUTE





Mink Lake Trail Shelter

McKenzie Ranger District
Willamette National Forest
Lane County, Oregon

SW 1/4, NE 1/4, Sec 17, T.19 S., R.7 E., WM

Elevation: 5100 feet

Site Number: 18-08-20H

The Mink Lake Shelter is located in the Three Sisters Wilderness Area. The shelter faces the lake from a level area on its north shore near the eastern end. Mink Lake is the largest lake in the Three Sisters Wilderness Area and is second in size on the Forest to Waldo Lake. The forest surrounding the lake is dominated by trees of the Pacific Silver Fir zone.

The shelter was constructed in 1934 by a Civilian Conservation Corps crew. The site had been selected earlier that year by Forest Recreation Planner Bill Parke and McKenzie District Ranger Ray Engles. It was constructed as part of the trail shelter development associated with the Oregon Skyline Trail which is located approximately 1/2 mile east of the lake. (Eugene Register Guard, 10-1-34; Williams, 1982: 22; Parke personal communication, 1988).

The shelter is a modification of the Adirondack style. It has the characteristic saltbox roof with comb but, rather than having the open side under a projecting eave, its opening is in the south gable end. The shelter is rectangular (14 X 19 feet) with peeled log/pole framing and vertical log siding. The sill logs rest on native rock piers. The roof framing is much more intricate than that of the other extant shelters. In addition to the standard king truss, each rafter is supported by a knee brace. Each pair of rafters is connected by a collar tie near the ridge and by a tie beam. The king truss is supported by a central peeled log post approximately the same size as the sill logs. Framing for two sets of bunks runs the length of the west wall. The decking is no longer in place. The roof is covered with doubled 3/2" split

shakes. The bottom rows of shakes above the west elevation have been carved with dates and the names of visitors to the shelter. The rustic table, toilet, and garbage pit which were part of the original development at the shelter site (USDA-FS, 1935a:14) are no longer present.

The overall condition of the shelter is good. While some deterioration has occurred, the structural elements are sound. An exception is the central post supporting the king truss which is sound but no longer bears any weight. There is significant decay in the ends of 3 rafters at the northwest corner of the shelter where roof shakes have been removed. The lower foot of the log siding has moderate to severe decay, the result of a buildup of soil and organic debris. A number of roof shakes have been removed from the northwest corner. The remaining shakes are in an advanced stage of decay.



Mink Lake Trail Shelter
South Elevation



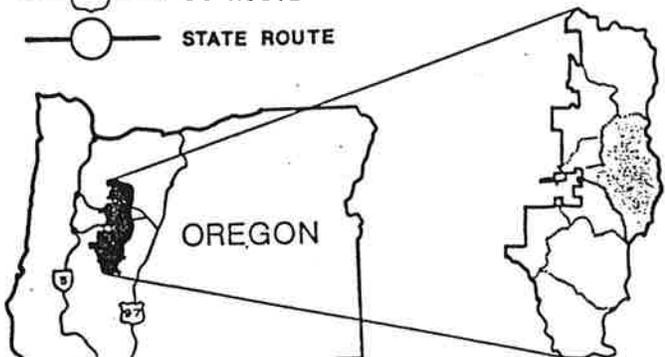
Mink Lake Trail Shelter
North and West Elevations

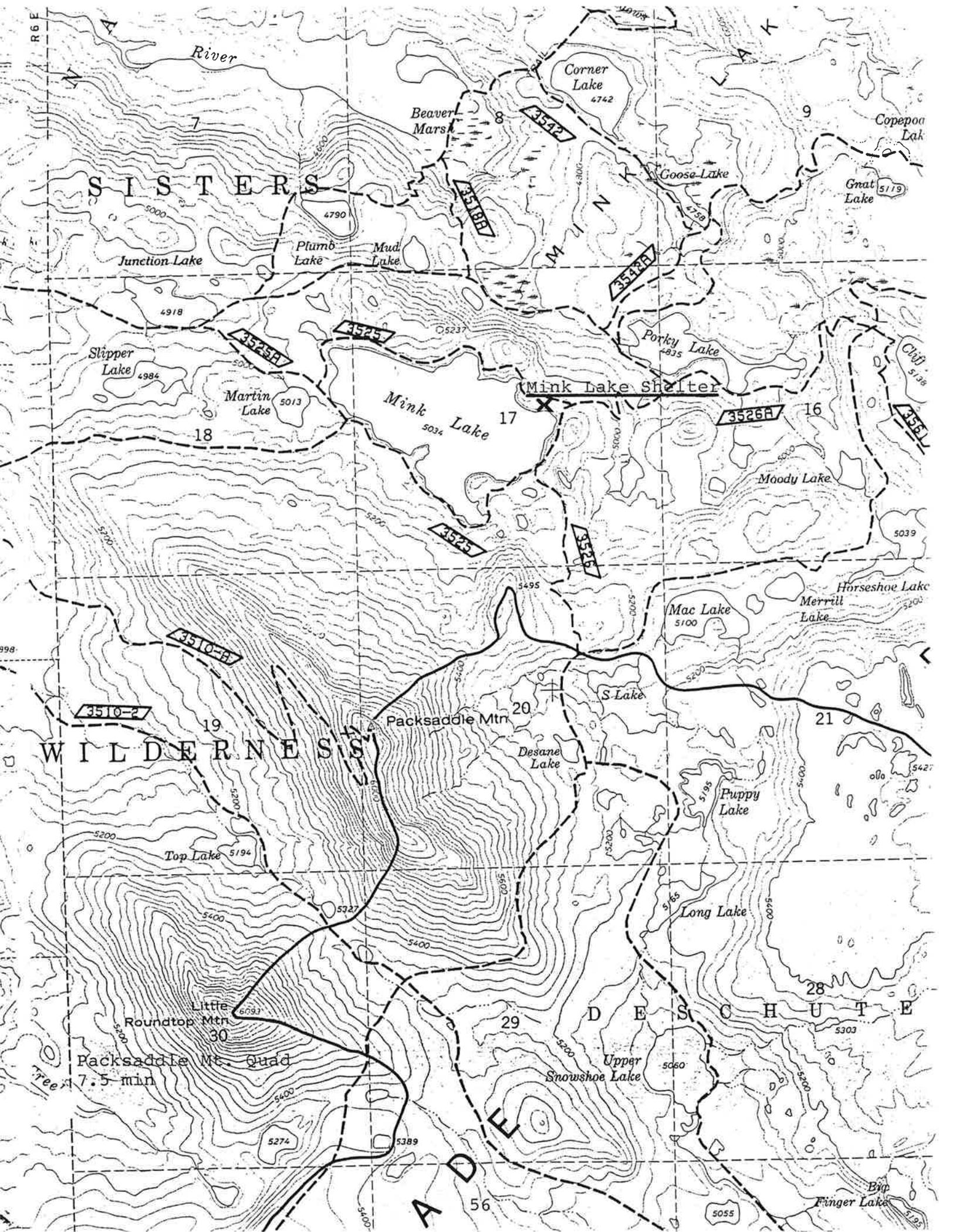
McKENZIE RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



- RANGER DISTRICT BOUNDARY
- ▨ WILDERNESS BOUNDARY
- 🏠 RANGER STATION
- 🛡️ US ROUTE
- 🕒 STATE ROUTE





S I S T E R S

W I L D E R N E S S

D E S C H U T E

A D W E

Packsaddle Mt. Quad
7.5 min

Upper Snowshoe Lake

Big Finger Lake

South Waldo Trail Shelter

Oakridge Ranger District
Willamette National Forest
Lane County, Oregon

SW 1/4, Sec 7, T.22 S., R.6 E., WM

Elevation: 5440 feet

Site Number: 18-08-14

The South Waldo Trail Shelter is located just outside the boundary of the Three Sisters Wilderness Area near the south end of Waldo Lake at the junction of the Waldo Lake Trail and the South Waldo Trail,. The shelter faces north toward a large, partially timbered marshy area at the south end of Waldo Lake. Behind the shelter is the old growth Pacific Silver Fir forest which covers the mountains surrounding Waldo Lake.

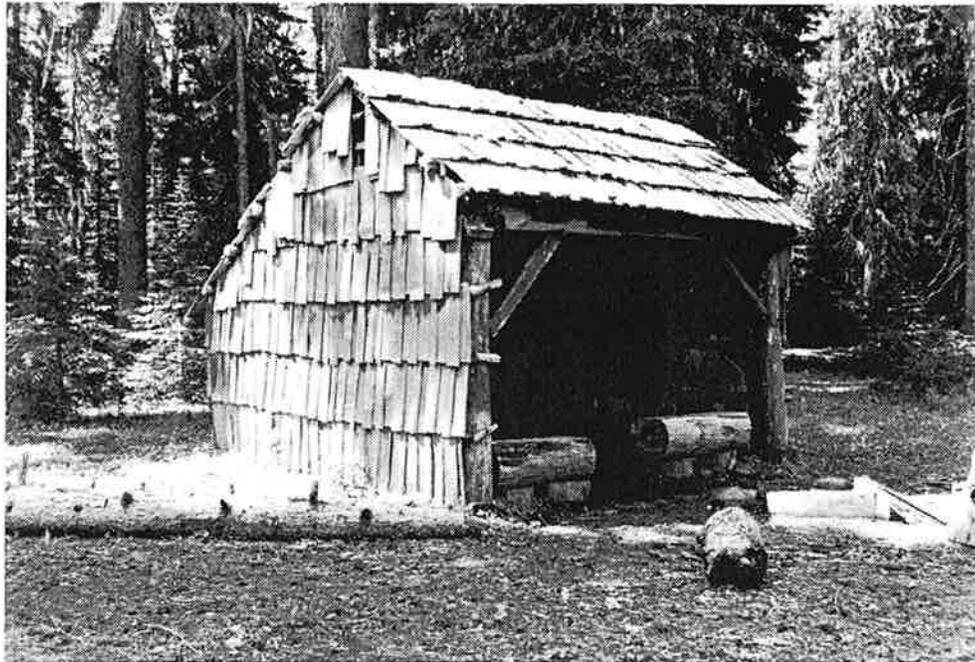
The shelter was constructed by the CCC in 1935 for administrative use (Ed Barney, personal communication, 4/19/88; USDA-FS, 1965). Its location at a trail junction made it a good base camp for maintenance crews and the adjacent marshy area provided feed for stock, making it a good stop-over for the packer and his string of animals.

The structure is a square (14 X 14 feet), three sided Adirondack style shelter which has peeled log/pole framing and native rock piers. The saltbox roof, as well as the walls, are shake covered. Two benches, 4 feet in length and made of a large peeled log, which was flattened on both side and rest on 2 log rounds, are located at the front of the shelter. A concrete V-shaped fire pit with an iron grate is centered in front of the shelter.

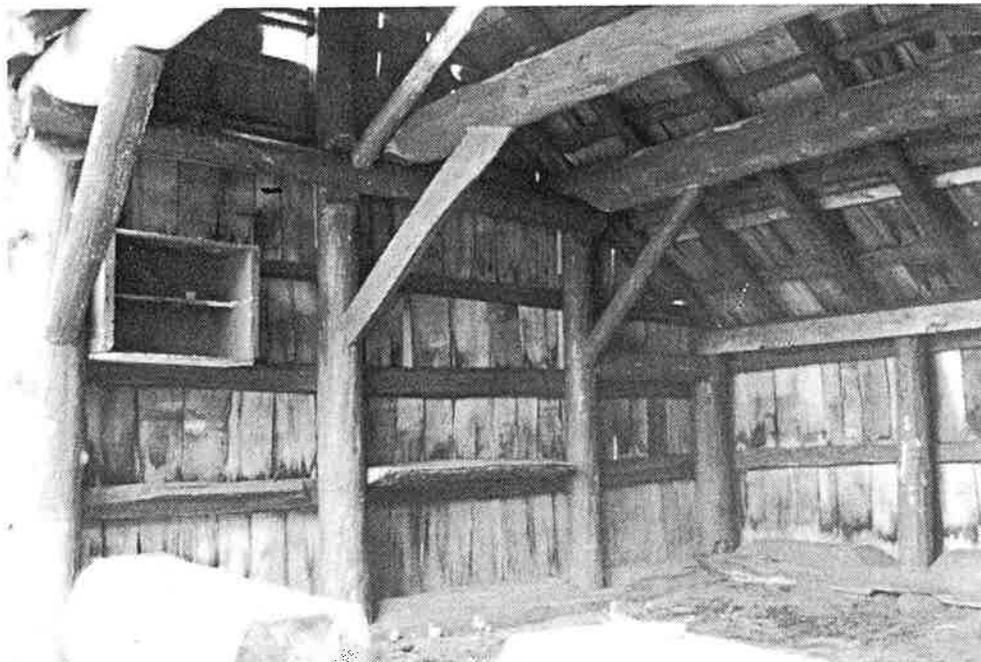
The shelter is in good condition. The only deterioration noted is in the sill logs and post in the southeast corner. The walls and roof have been reshaked using 24" shakes which are split on one side and sawn on the other. They were applied with the split side exposed. Additional dimension lumber nailers have

been inserted between the original peeled pole nailers indicating that the original shakes were longer. Most of the originally bare frame has been painted a reddish brown.

This is the only Adirondack style shelter on the Forest that does not have the roof comb shown in all of the trail shelter designs approved by the Regional Office. However, it is likely that this shelter also had a comb and that it was removed when it was reshaked.



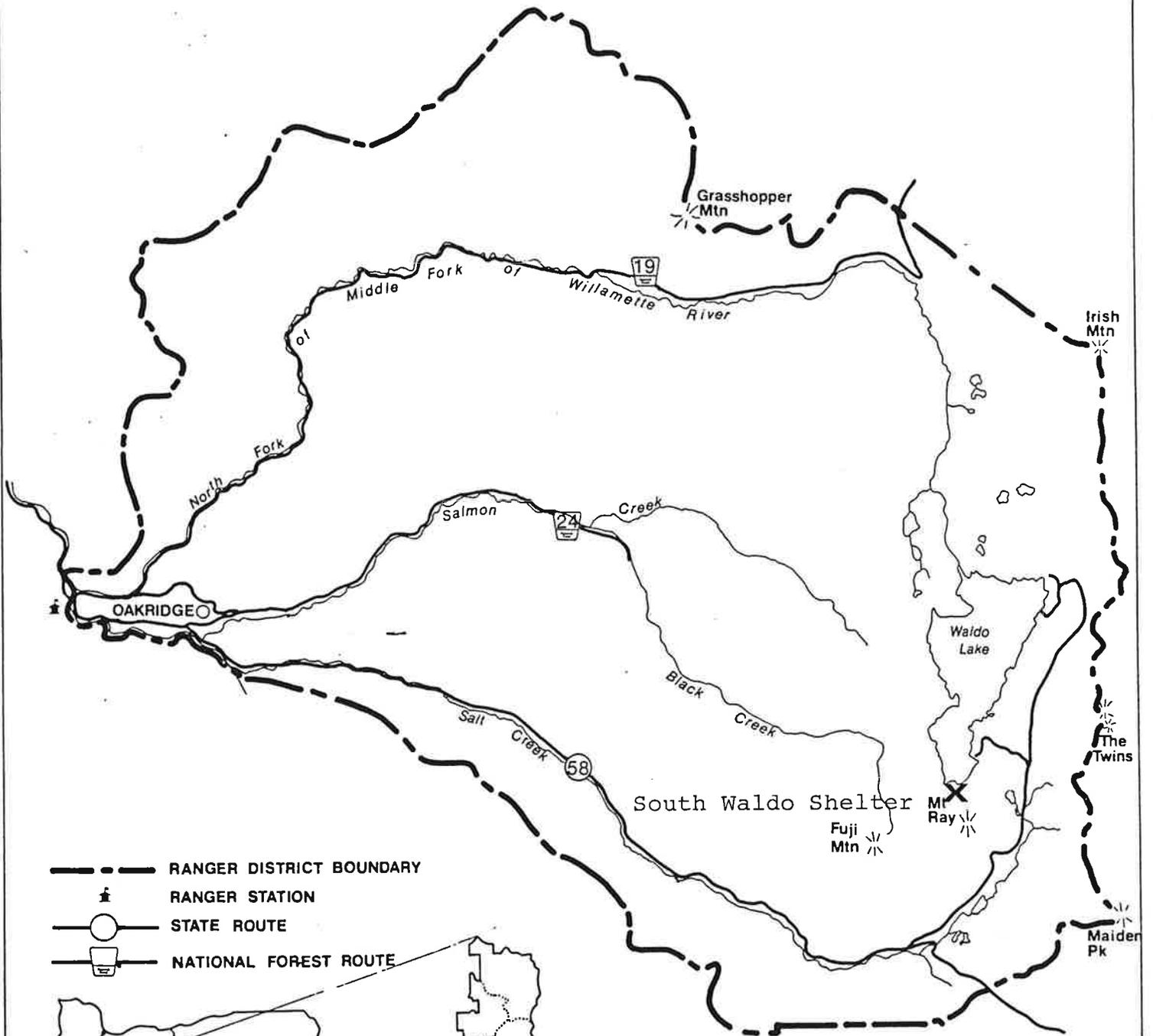
South Waldo Trail Shelter
East and North Elevations



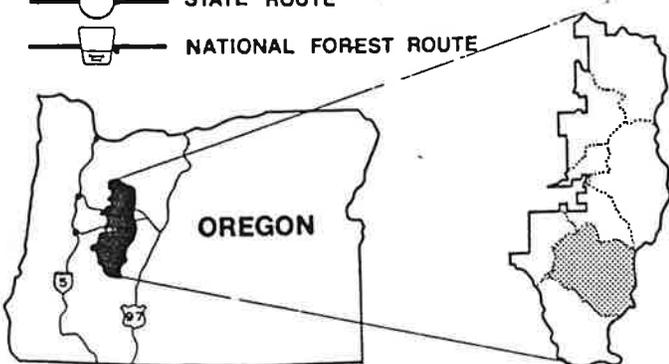
South Waldo Trail Shelter
Interior Showing East Wall Framing

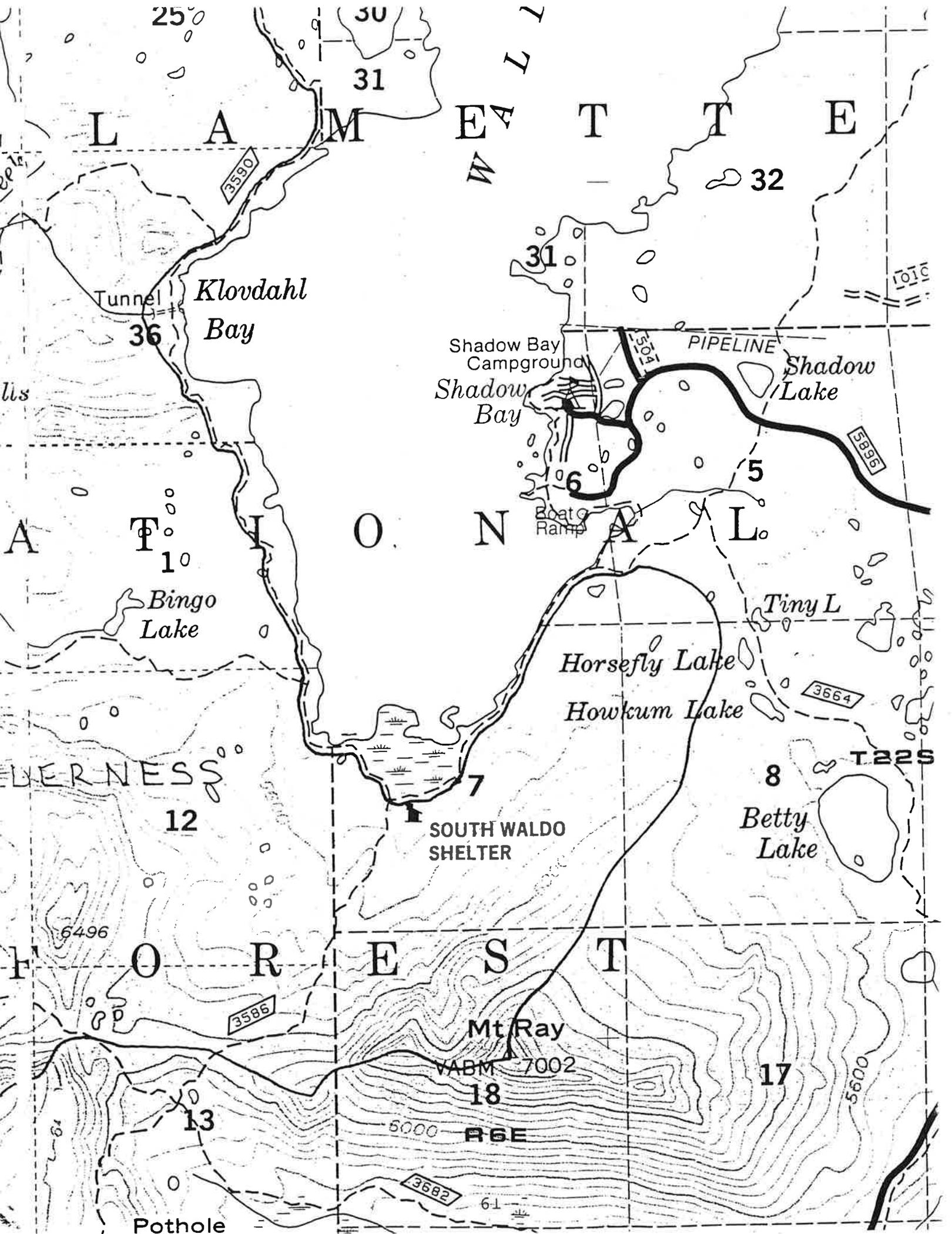
OAKRIDGE RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



- RANGER DISTRICT BOUNDARY
- ★ RANGER STATION
- STATE ROUTE
- ☐ NATIONAL FOREST ROUTE





Elk Camp Trail Shelter

Oakridge Ranger District
Willamette National Forest
Lane County, Oregon

SW 1/4, NW 1/4, Sec 29, T.19 S., R.3 E., WM

Elevation: 4350

Site Number: 18-08-86H

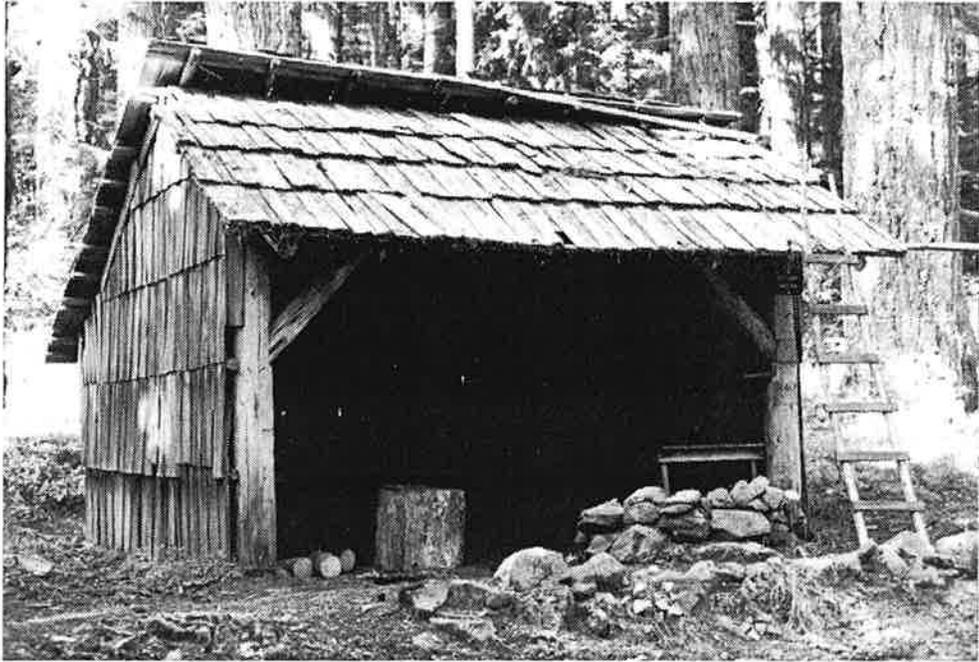
The Elk Camp Trail Shelter is located adjacent to the Alpine Trail. The Old growth Douglas-fir forest in which it was constructed still stands in the immediate vicinity of the shelter. However, clear cuts are located near the shelter including one near Elk Meadows located several hundred feet southwest of the shelter.

The Alpine Trail was one of the primary administrative routes on the West Boundary Ranger District of the old Cascade National Forest. The shelter site, located near the junction of the Alpine Trail and the North Winberry trail, was selected by West Boundary Ranger, Ray Engles, in July, 1930. The site had been a popular hunters camp prior to its use by the Forest Service (Briem, 1937:26). During July and August, 1930, Engles made several entries in his daily work diary relating to the construction of this shelter. An entry dated July 7 states that he worked on the shelter that day with "Erdley". On July 16, Engles helped move the sill logs into place. On August 9 he inspected the shelter while under construction and on August 23, he inspected the finished shelter. (Engles, 1930).

The shelter is a rectangular (13.5 X 14.5 feet), three-sided Adirondack style shelter with peeled log/pole framing covered with 30 inch hand split wall shakes. The saltbox roof with comb is also shake covered. A rock fire ring and low rock wall are located in front of the open east elevation. A modern outdoor toilet with low screen is located across the Alpine Trail. Water is available 150 feet south of the shelter in a small stream tributary of Chalk Creek.

The shelter was constructed for administrative use by the Forest Service. It was used by the lookout fireman from Station Butte in times of heavy thunderstorm activity (Briem, 1937:62). Being located at a trail junction, it was also a good base camp for trail and telephone maintenance crews. The nearby meadow provided feed for stock making it useful as an overnight stop for the pack string.

The shelter is in good condition. The framing elements are generally sound as are the wall and roof shakes. Noticeable decay is present in the rafter ends at the north end of the comb. The roof was reshakes in-kind about 15 years ago (Helen Smith, personal communication, 4-29-88).



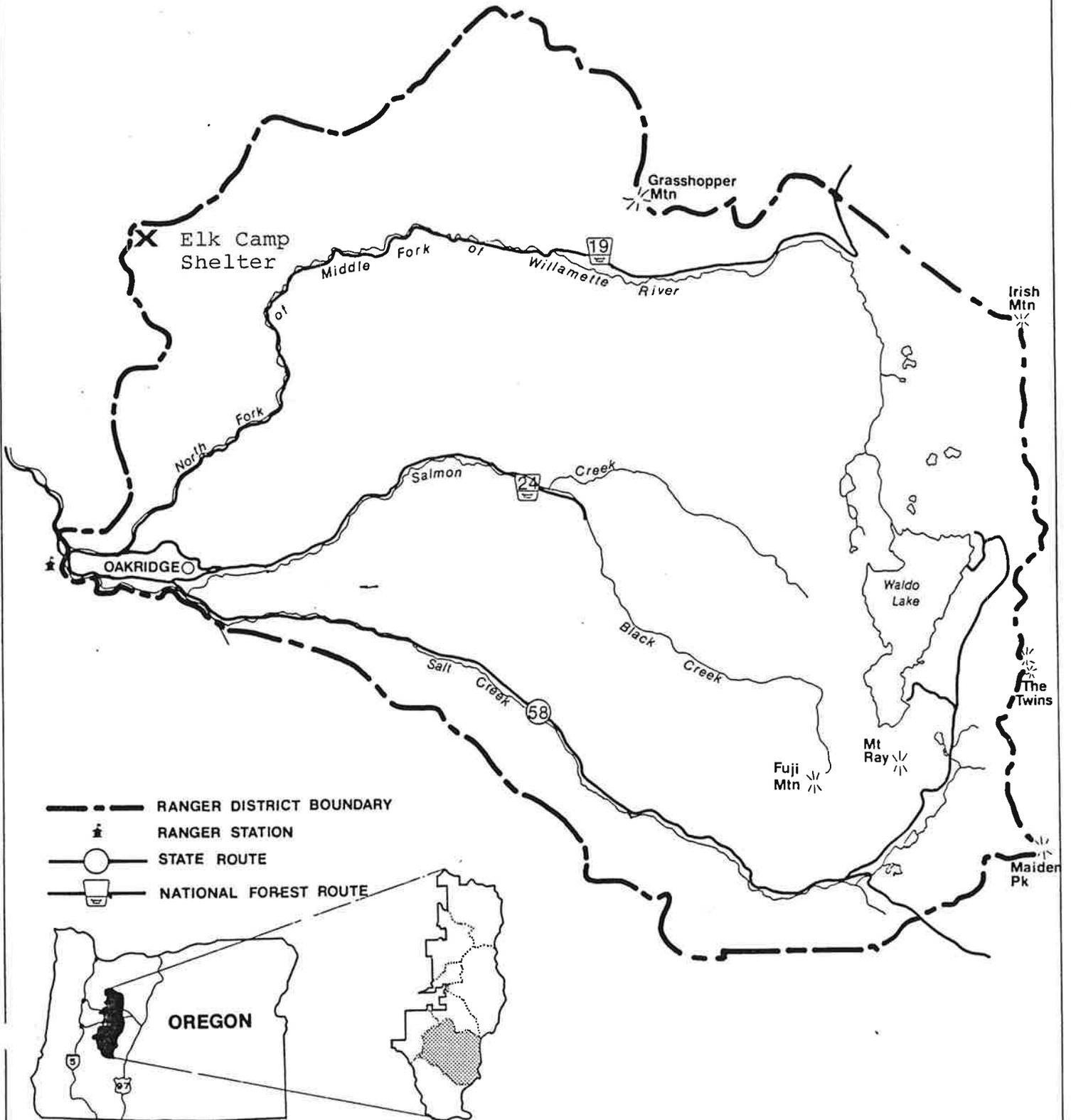
Elk Camp Trail Shelter
East and South Elevations



Elk Camp Trail Shelter
North and West Elevations

OAKRIDGE RANGER DISTRICT

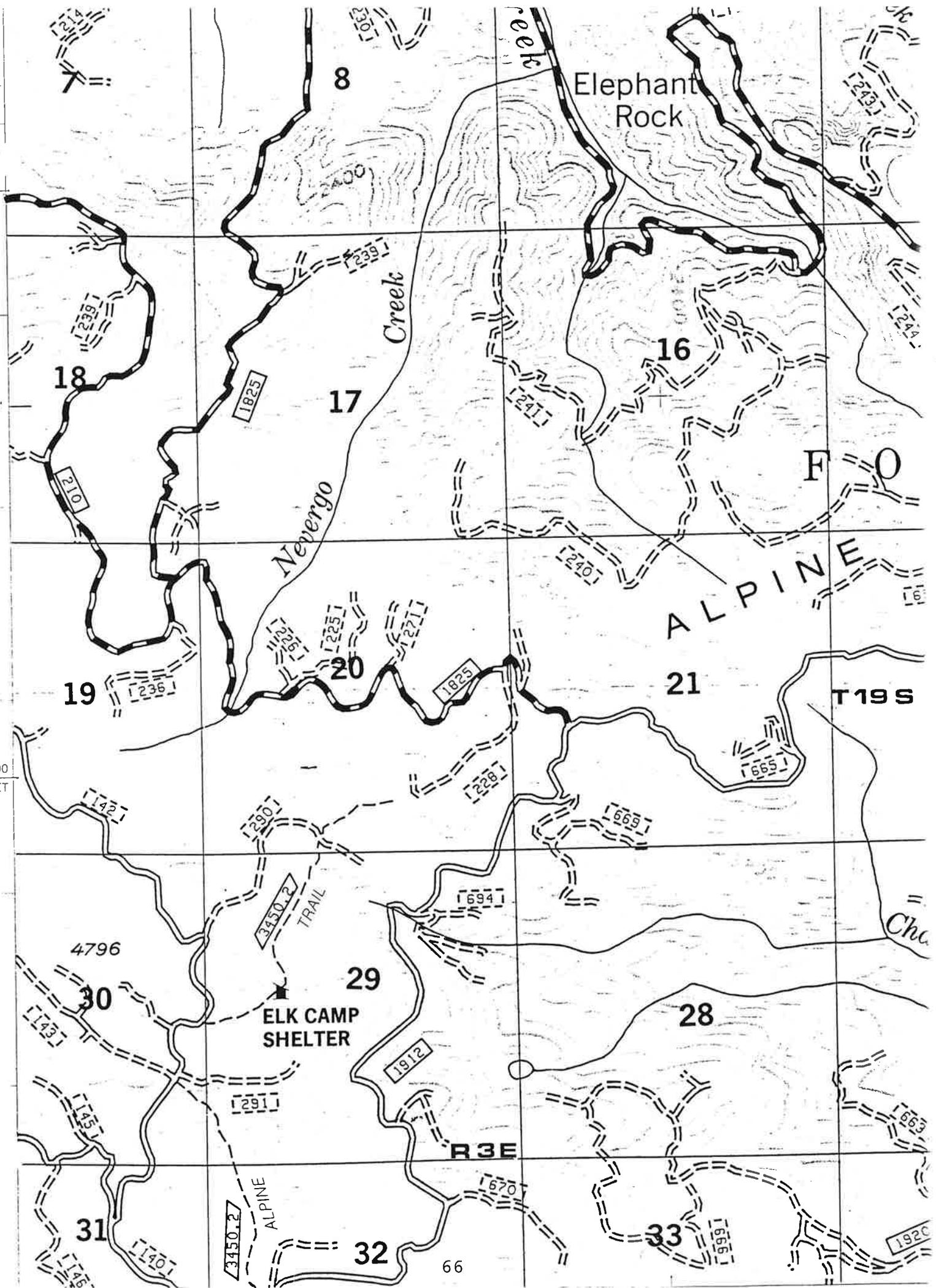
WILLAMETTE NATIONAL FOREST



HARDESTY, MT.

55'

200 000 FEET



Mule Mountain "Shelter"

Oakridge Ranger District
Willamette National Forest
Lane County, Oregon

NW 1/4, NW 1/4, Sec 21, T.20 S., R.5 E., WM

Elevation: 5550 feet

Site Number: 18-08-80H

The Mule Mountain Barn, also called the Spring Prairie Shelter, is located at the intersection of Forest Service road # 1934-730 and the Blair Lake Trail. A large meadow is located just south of the shelter.

The structure is a square (12 X 12 feet), log frame building with a gable roof. Enclosed on three sides, the west gable end is open. The walls and roof are covered with cedar shakes. A pole feed rack runs the length of the rear wall.

The area was first developed by the Forest Service in 1930 as a lookout site (Kresek, 1985:78) which included a cabin, a corral, and the extant "shelter" which was actually constructed for use as a barn (Ed Barney, personal communication, 4/19/88). The lookout was moved one mile south in 1953 (Kresek, 1985:78). The cabin and barn continued to be used into the 1960's when road access and removal of the lookout made it unnecessary. The cabin has since collapsed. The structure is currently used primarily by the public as a hunting camp.

Prior to 1940, when the horse was the common mode of transportation for the Forest Service, a number of similar sites were developed on the Willamette National Forest and its predecessors. The road development that took place after 1940 resulted in a shift to the automobile as the primary transportation and, like the trail shelters, the packer's cabins and associated barns were no longer needed. Most of these small administrative sites were either removed or

allowed to deteriorate. Today, the Mule Mountain Shelter/Barn is the only facility of its kind left on the Willamette National Forest.

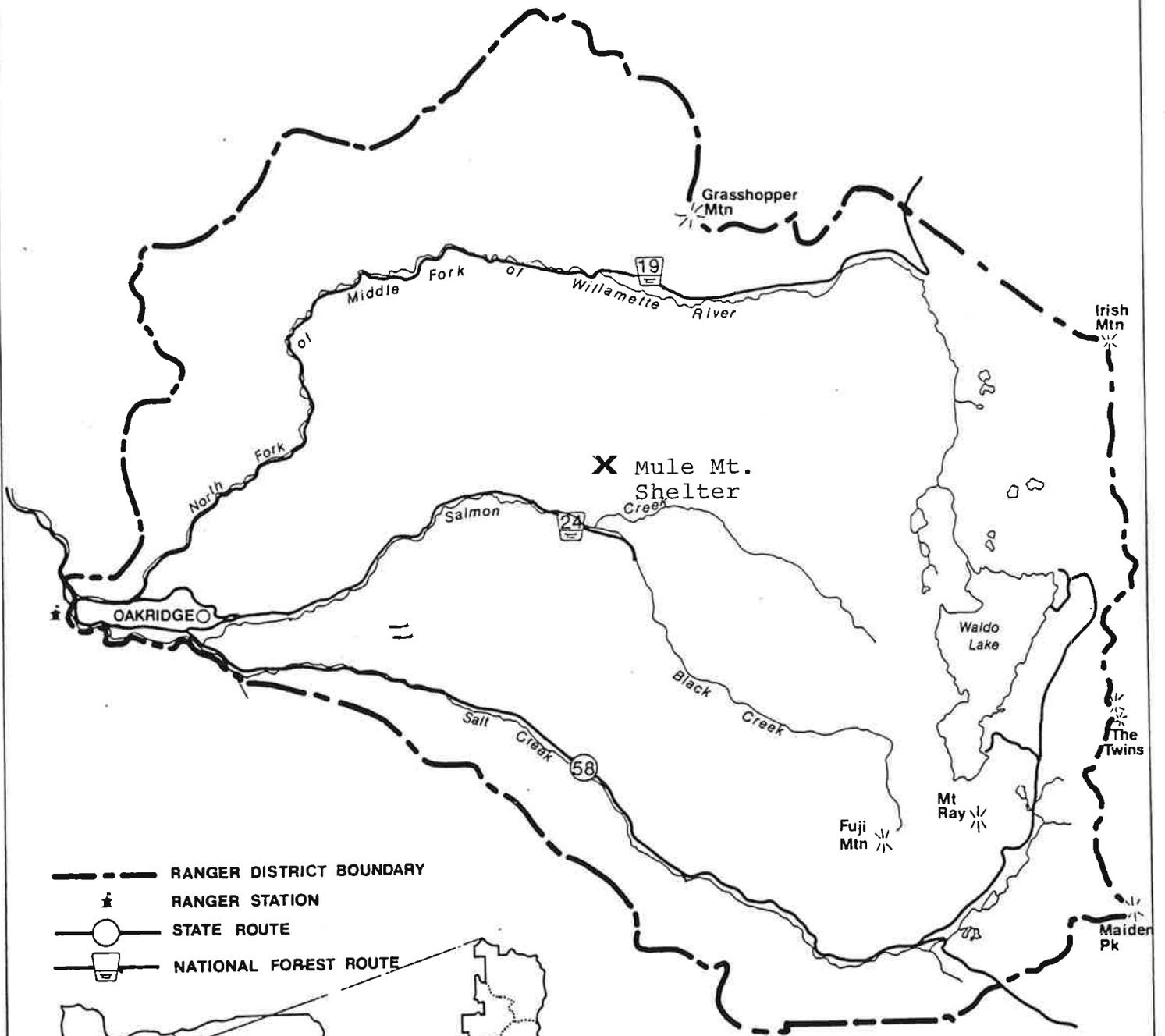
The shelter is currently in excellent condition. The log frame is sound, primarily due to the rock piers which keep it out of contact with the ground. There are two areas on the rear wall where shakes are missing although these may have been left open intentionally to serve as windows.



Mule Mountain Barn
West and North Elevations

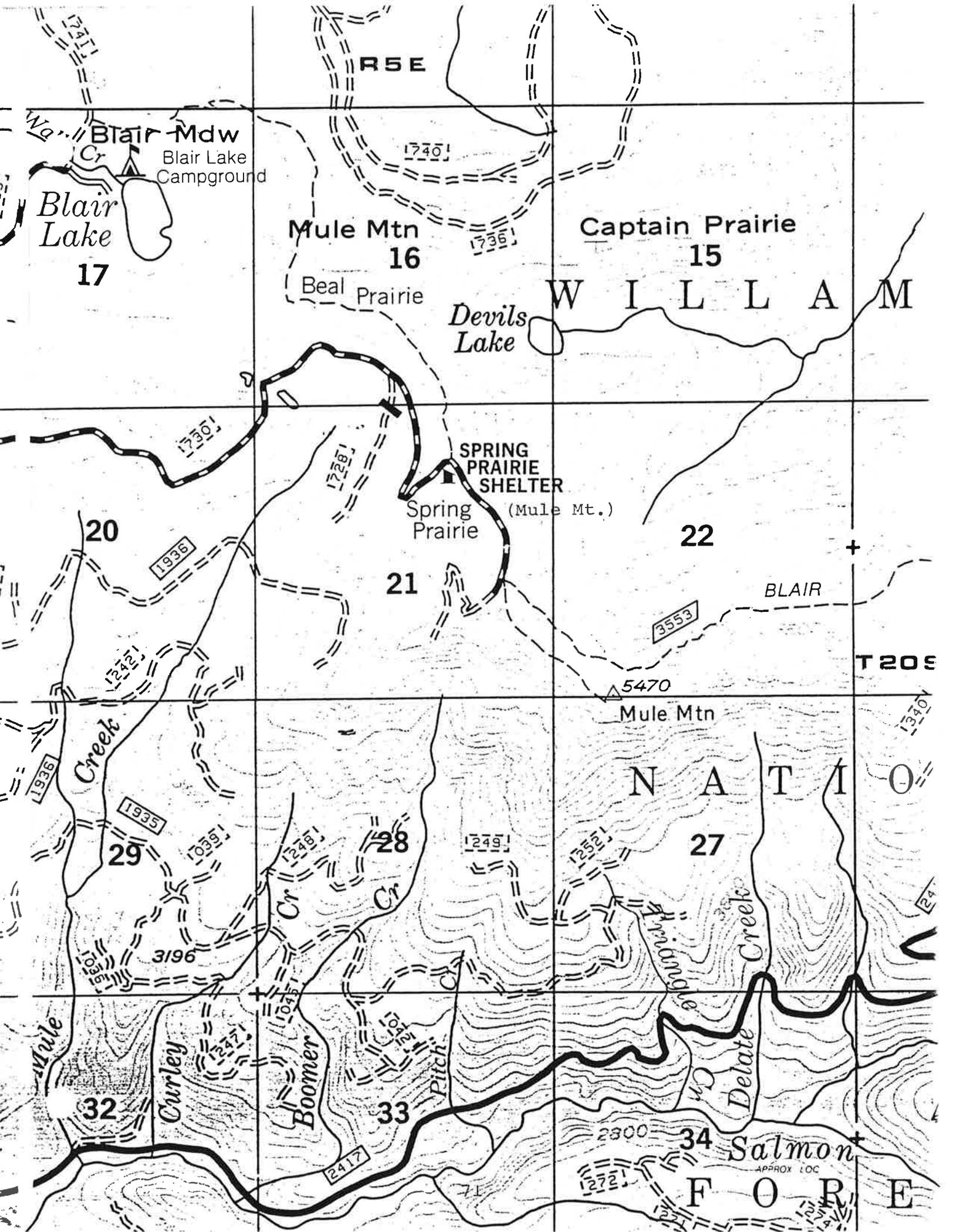
OAKRIDGE RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



-  RANGER DISTRICT BOUNDARY
-  RANGER STATION
-  STATE ROUTE
-  NATIONAL FOREST ROUTE





Little Blanket Trail Shelter

Lowell Ranger District
Willamette National Forest
Lane County, Oregon

Center, NE 1/4, Sec 24, T.19 S., R.2 E., WM

Elevation: 4300 feet

Site Number: 18-06-51

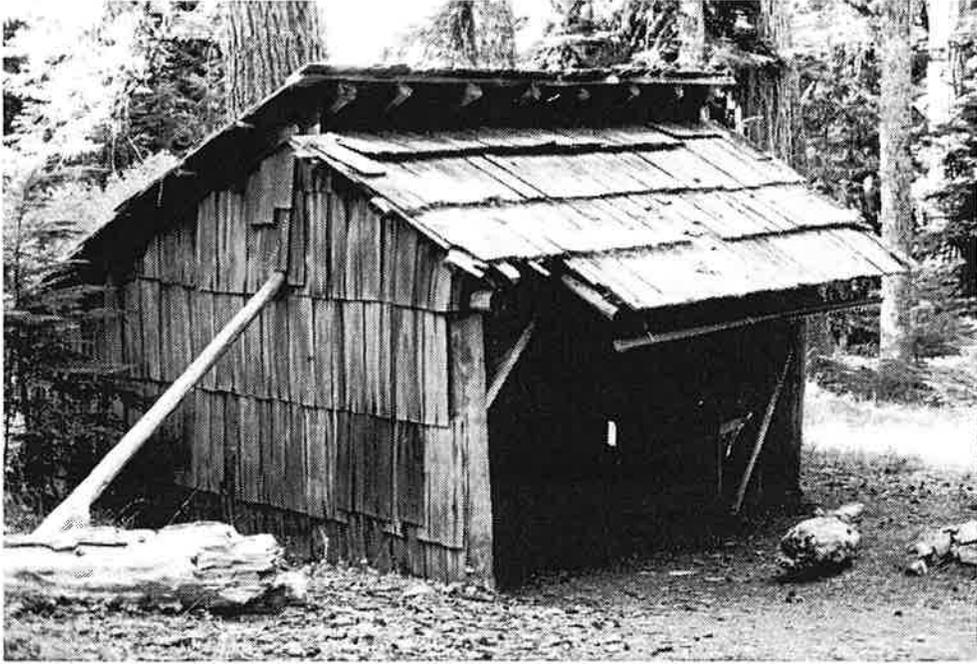
The Little Blanket Trail Shelter is located at the end of Forest Service road #1824-144 adjacent to the Saddleblanket Trail trailhead. The area surrounding the shelter is forested. Water is available at an adjacent spring.

The structure is a square (14 X 14 feet), Adirondack style shelter with peeled log/pole framing covered with split shakes. The saltbox roof with comb is also covered with shakes. A board sleeping platform approximately 5 feet wide occupies the length of the rear wall. A table is attached to the west wall near the open front of the shelter. A rock fire ring is centered in front of the open north elevation.

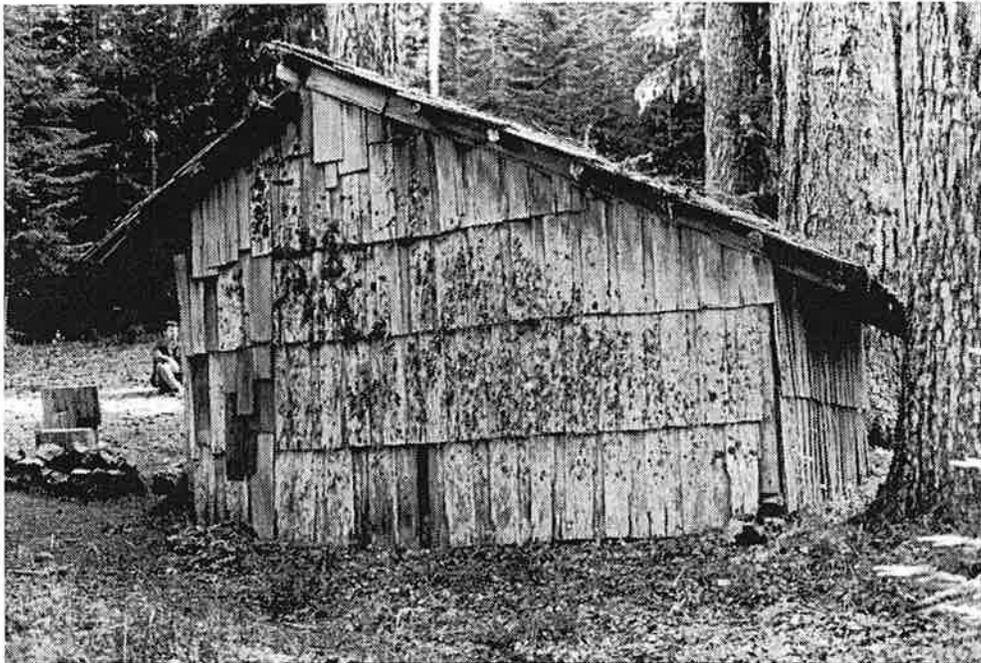
The shelter was constructed by the CCC in 1934 for administrative use. Located at the junction of the North Winberry and Andy Creek trails, the shelter was well suited for use by crews doing maintenance on the trails and the telephone line running along the North Winberry Trail from the Winberry Guard Station to Saddleblanked Lookout. Although the site was less desirable for use by the pack string due to the lack of animal feed, it was used by the packer since it was the first shelter along the North Winberry trail, nine miles from the trailhead. (Ed Barney, personal communication, 4/19/88)

The shelter is in fair condition. The sill logs, especially near the open front, are decaying. A pole four inches in diameter, one end set in the ground and the other against the rafter plate support, has been added as support. Another similar brace has been added to support the corner post at the west

front of the shelter. The lower end of the rafter at the eastern front of the shelter is gone. Some of the shakes on the side walls have been replaced with shorter shakes in an uneven manner. A section of plastic rain gutter is suspended by wire under the eave overhanging the open front.



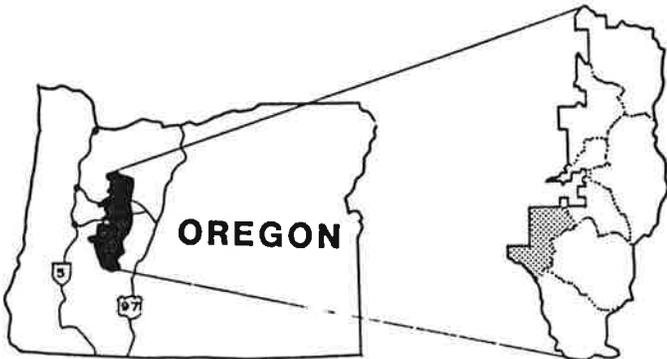
Little Blanket Trail Shelter
East and North Elevations



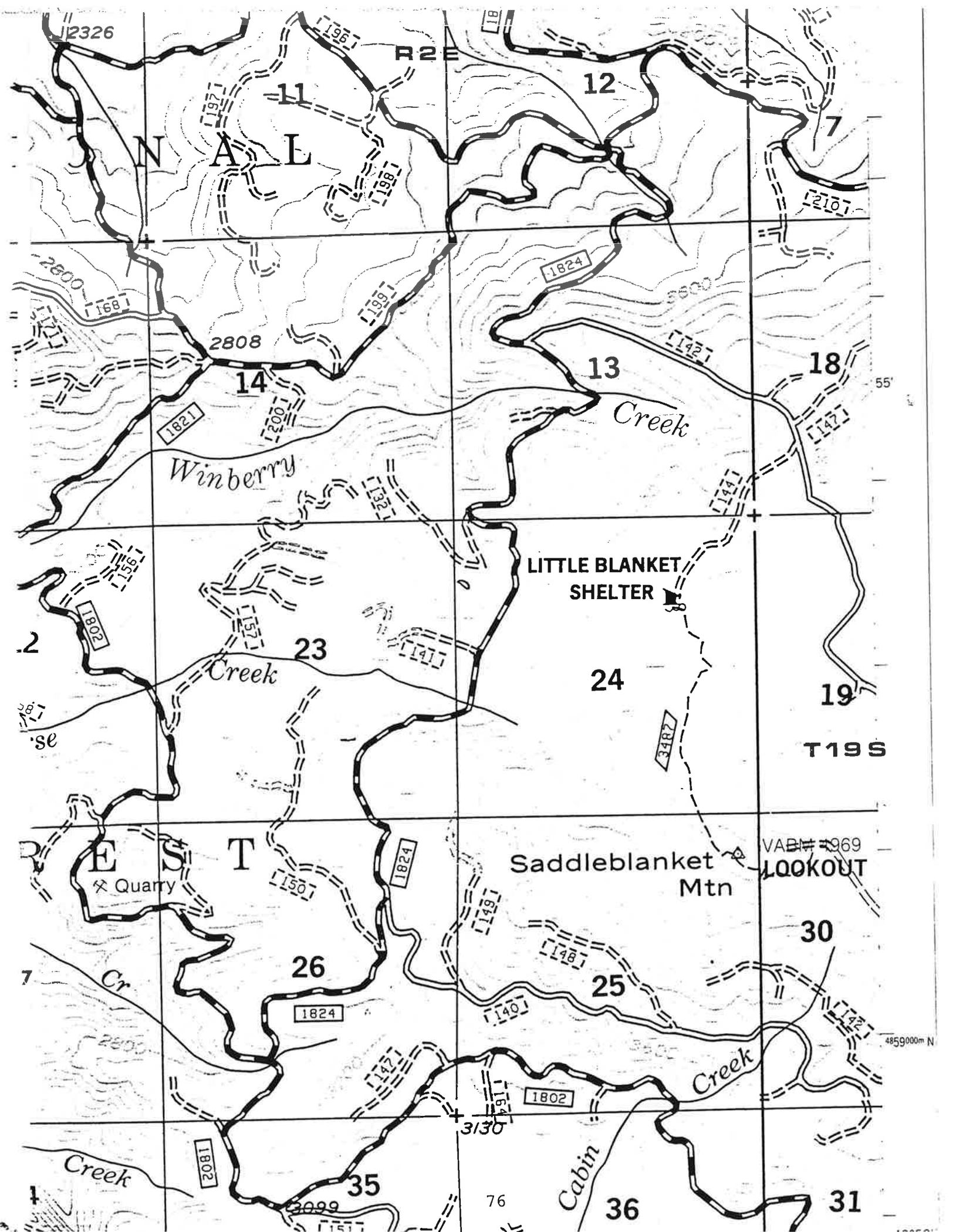
Little Blanket Trail Shelter
West and South Elevations

LOWELL RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



-  RANGER DISTRICT BOUNDARY
-  RANGER STATION
-  STATE ROUTE
-  NATIONAL FOREST ROUTE



Lone Wolf Trail Shelter

Lowell Ranger District
Willamette National Forest
Lane County, Oregon

SE 1/4, SW 1/4, Sec 24, T.19 S., R.2 E., WM

Elevation: 4240 feet

Site Number: 18-06-57

The Lone Wolf Trail Shelter is located on a broad, level, spur ridge in old growth Douglas-fir and western hemlock 200 feet north of a 20 acre meadow. Water is available at a spring in the meadow and from a creek 100 feet east of the shelter.

It is a square (14 X 14 feet), Adirondack style shelter with peeled log/pole framing and split shake siding. The saltbox roof with comb is also shake covered. Tables are attached to both the east and west side walls. A board sleeping platform runs the length of the rear wall. A rock fire ring is centered just outside the open north elevation.

The shelter was constructed by the CCC in 1937-38 for use by pack teams (Ed Barney, personal communication. 4/19/88). Its location made it ideal for that use since the nearby meadow would have provided feed for the animals and the shelter is located just off of the Willamette Divide Trail, a major transportation route along the southwest Forest boundary.

The shelter is currently in good condition. The only decay noted was in the rafter ends and a slight amount in the sill logs. The shakes on the rear slope have been replaced in-kind (Helen Smith, personal communication, 4-29-88).



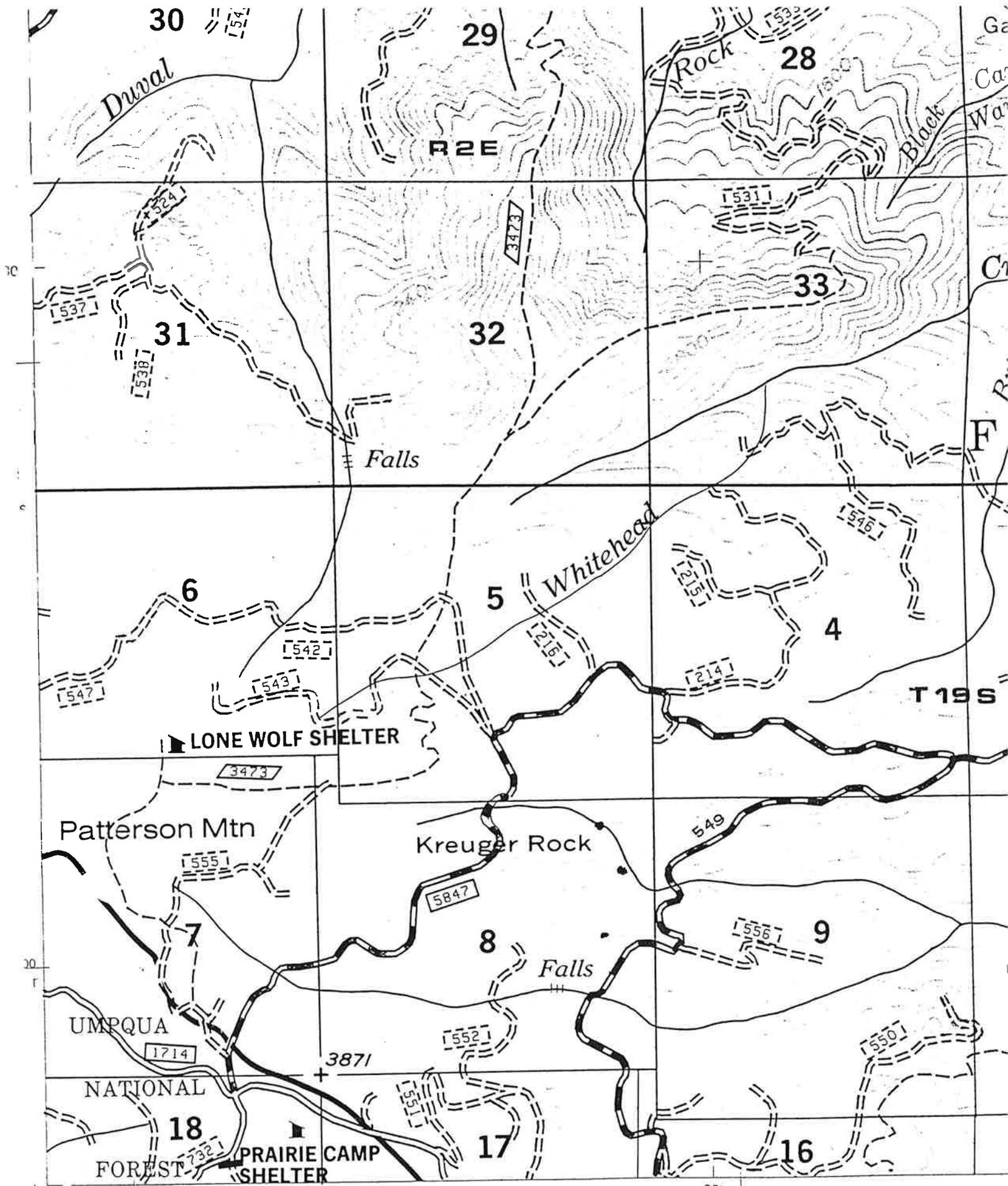
Lone Wolf Trail Shelter
South and West Elevations

LOWELL RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



-  RANGER DISTRICT BOUNDARY
-  RANGER STATION
-  STATE ROUTE
-  NATIONAL FOREST ROUTE



37°30" 1:440,000 FEET

Base map prepared by U.S. Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1953. Field check 1955.

80



Ash Swale Trail Shelter

Lowell Ranger District
Willamette National Forest
Lane County, Oregon

SW 1/4, NE 1/4, NW 1/4, SW 1/4, Sec 7, T.20 S., R.1 E., WM

Elevation: 2500 feet

Site Number: 18-06-79

The Ash Swale Trail Shelter is located adjacent to the Ash Swale Trail 1/3 mile east of the trailhead on Forest Service road #5833-509. The shelter stands on the western margin of a spring fed marshy area approximately one acre in size. The forest surrounding the shelter and marsh is dominated by Douglas-fir and western hemlock. The understory is dense. Recent clearcuts are located both to the south and west of the shelter at a distance of about 500 feet.

It is a square (14 X 14 feet), Adirondack style shelter with peeled log/pole framing covered with shakes. The saltbox roof with comb is also covered with shakes. The open south elevation faces the trail. A five feet wide sleeping platform framed with unpeeled poles and dimension lumber with 1 X 6 lap board siding for decking occupies the length of the rear wall. A table framed with poles and 2 X 4's with a plywood top is attached to the east wall near the open front. The sleeping platform and the table are not original. The original furnishings were constructed of split cedar boards made at the site (Ed Barney, personal communication). An open air toilet of aluminum and plastic is located 75 feet behind the shelter. A low screen built of dimension lumber shields the toilet from the shelter.

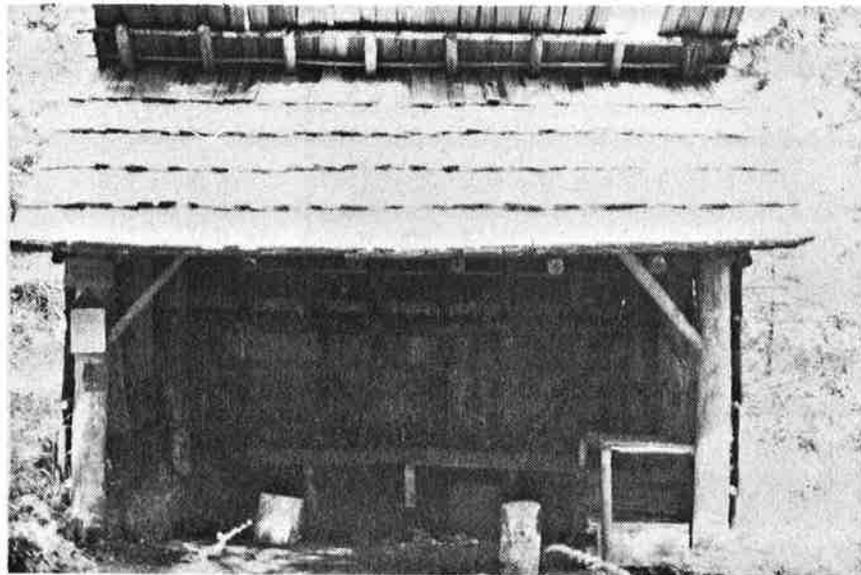
The shelter was constructed in 1930 (USDA-FS, 1965) for use by Forest Service personnel. It lies near a trail junction, making it a good location for maintenance crews. It was also on the route used by the pack trains which supplied the lookouts at Eagles Rest and Hardesty Mountain.

The shelter is in fair condition. A significant amount of decay has occurred. Eight feet of the sill log on the western side near the front is completely gone and the remainder is badly decayed. The lower 12-18" of the posts which were originally supported by this sill are also decayed and the two nearest the front of the shelter rest on the ground. The rear sill log is badly decayed along its western half. The bottom half of the eastern sill log is completely decayed.

The shakes on the front slope of the roof have been replaced. The replacements are the same length as the original shakes but have split faces and sawn backs. Other shakes have been replaced on all elevations using shakes similar to those on the roof.



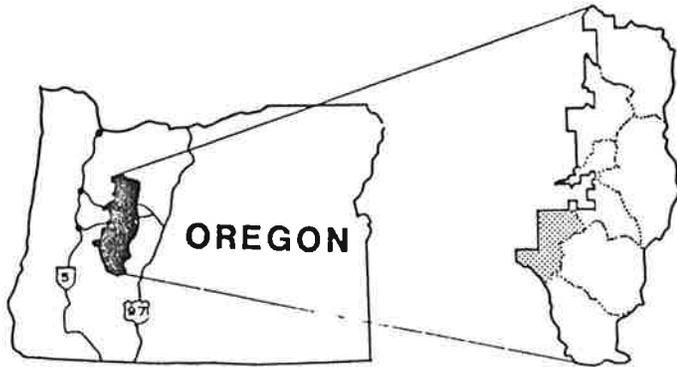
Ash Swale Trail Shelter
East Elevation



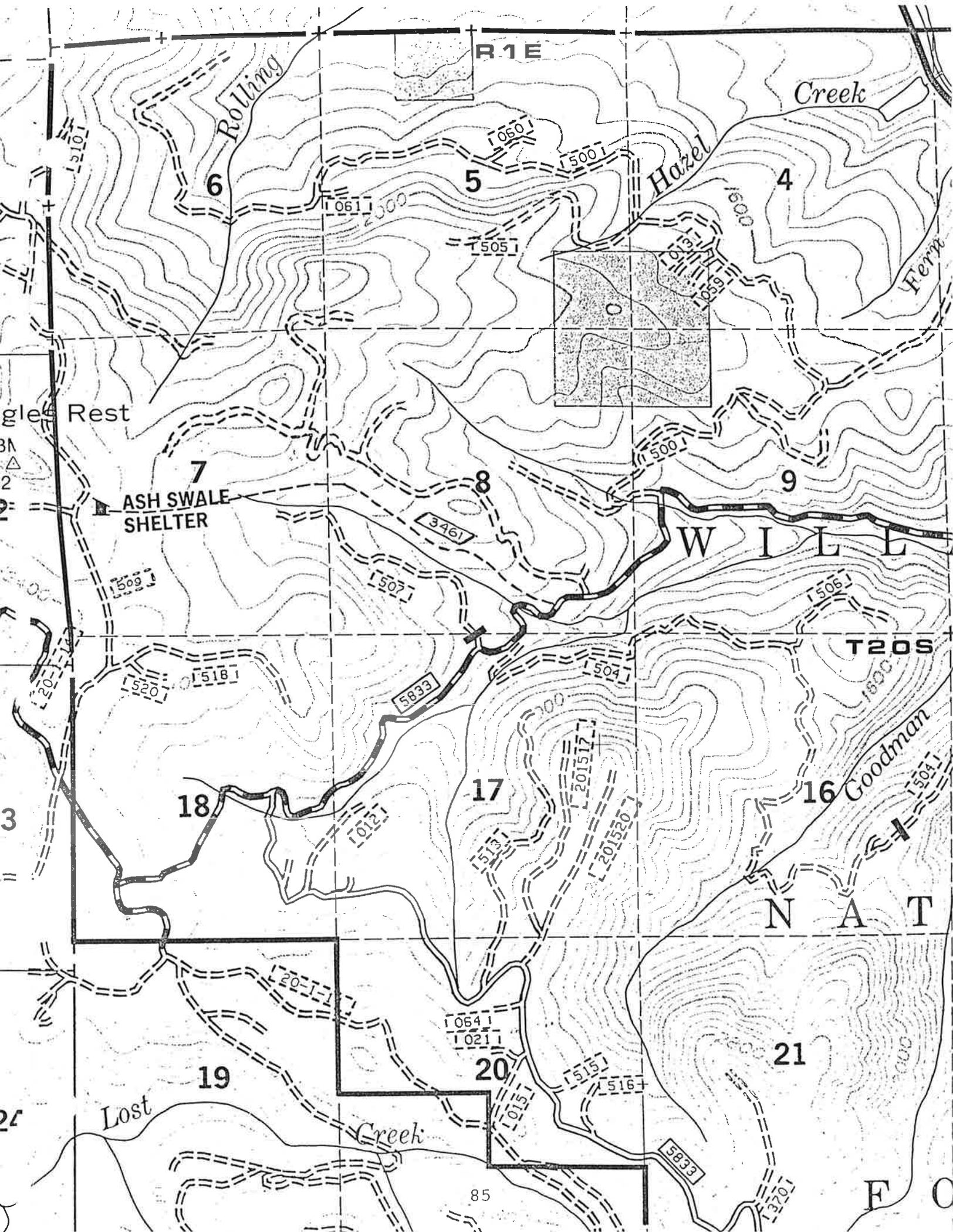
Ash Swale Trail Shelter
South Elevation

LOWELL RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



-  RANGER DISTRICT BOUNDARY
-  RANGER STATION
-  STATE ROUTE
-  NATIONAL FOREST ROUTE



R 1 E

Creek

Rolling

Hazel

Fern

ASH SWALE SHELTER

WILLE

T 20 S

Goodman

NAT

Lost

Creek

F O

85

Evaluation

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of National, State, and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association and

- (a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) That are associated with the lives of persons significant in our past; or
- (c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) That have yielded, or may be likely to yield, information important in prehistory or history.

The evaluation of the eligibility of the historic trail shelters located on the Willamette National Forest was conducted through the application of the above criteria as described in How to Apply the National Register Criteria for Evaluation (USDI, National Parks Service, 1982).

The fifteen structures on the Willamette National Forest that now serve as trail shelters were originally constructed for a variety of purposes. Ten of the shelters were constructed as lodging for Forest Service crews working in remote, unroaded areas of the Forest. The Mule Mountain "Shelter" was originally a barn constructed as part of a Forest Service development that included a small cabin and a lookout. Three of the shelters were constructed by the Civilian Conservation Corps along the route of the old Oregon Skyline Trail for use by recreational hikers. The Hand Lake Shelter was a warming hut built as part of the development of the Hand Lake Ski Area. The ten crew shelters and Mule Mountain Barn were evaluated as a group as were the Oregon Skyline Trail Shelters. The Hand Lake Shelter was evaluated separately.

Administrative Shelters

Ten of the historic trail shelters on the Willamette National Forest were constructed for use by Forest Service trail, telephone, and fire crews.

Ash Swale	Buck Meadows
McQuade Creek	Coffin Burn
Elk Camp	Little Blanket
Lone Wolf	Middle Fork
South Waldo	Volcano

The shelters were developed as part of a comprehensive system for fire detection and suppression which included a network of trails and telephone lines and various types of structures. The shelters were an important part of the overall system, serving as base camps for maintenance crews and fire patrolmen, as well as overnight stops for the District pack strings.

The shelters are representative of the primary role of fire protection by the Forest Service during the first 40 years of its existence. Since timber harvesting was concentrated on private lands and recreation funding for National Forests low, fire protection assumed a position of major importance. With the acceleration of timber harvesting and the associated road construction following World War II, the horse was replaced by the truck as the preferred mode of transportation. Airplanes were increasingly used to search for fires, largely replacing the lookouts, and suppression crews were trucked to fires.

One building constructed as part of the fire detection system was the Mule Mountain Barn. Barns were often built in association with Ranger Stations, Guard Stations, and, as at Mule Mountain, lookouts since horses were the primary mode of transportation.

With the opening up of the forest to motorized transportation, access became easier and many of the earlier buildings became unnecessary. Lookouts, trails shelters, guard stations, and barns fell into disuse. As a result, many of the buildings deteriorated naturally and collapsed. Others were simply burned. Although over 50 administrative trail shelters were constructed on the Willamette National Forest, only 10 now survive. The number of barns

constructed on the Forest is unknown. However, the Mule Mountain Barn appears to be the only structure of its kind remaining.

Criteria A: The trail shelters constructed for use by Forest Service crews and the Mule Mountain Barn are associated with the historic development of the USDA Forest Service and its stewardship of National Forest lands. As components of a comprehensive fire detection and suppression system, these shelters represent the primary function of the Forest Service from its inception through the Depression. These shelters are representative of the management philosophy of that period which focused on resource conservation.

Recreation Shelters

Criteria A: The Oregon Skyline Trail Shelters are associated with events that have made a significant contribution to the broad patterns of 20th Century American history. The Great Depression had an extraordinary impact on the economic, political, and social make-up of the Nation. The passage of the Emergency Conservation Work Act on March 31, 1933, which authorized the establishment of a "civilian conservation corps", constituted an important Federal response to the Depression. (Throop, 1982). All of shelters along the Oregon Skyline Trail were constructed by the Civilian Conservation Corps. The Oregon Skyline Trail Shelters are representative of the achievements of an unprecedented Federal work-relief program and, as such, have a clear and direct association with a significant historic event and are illustrative of it.

The creation of the Civilian Conservation Corps and the simultaneous increase in recreation funding produced changes in the magnitude and scope of the Forest Service recreation program. This resulted in significant and far-reaching changes in its recreation policy. Previous recreation development had been restricted to the simplest of facilities, primarily picnic tables and toilets in popular roadside camping locations. After 1933, recreation development greatly expanded to include a wide variety of facilities ranging from simple shelters to more complex and elaborate facilities that frequently included substantial structural improvements. Under the direction of Robert Marshall, Chief of the Division of Recreation and Lands in the Washington Office, the Forest Service also moved to develop new and different types of recreation facilities. (Throop, 1982). One of the first types of facilities to be developed on the Willamette National Forest were trail shelters for use by back country hikers. The Oregon Skyline Trails Shelters are important examples of the development of recreation and, more specifically, of back country hiking facilities, on the Willamette National Forest.

Another new type of facility to be developed was associated with winter sports. The Hand Lake Ski Area is characteristic of a particular level of the recreation development program for winter sports. As it now exists, the Hand Lake Shelter is an important example of the development of recreation and, more specifically, of winter sports facilities, on the Willamette National Forest.

INTEGRITY

The primary test of historical integrity is to determine whether or not the property retains the identity or character for which it is important. Because the structures currently in use as shelters had different origins and are significant for different reasons, how integrity applies to them varies.

The majority of the structures were built as trail shelters. Ten were constructed for use by Forest Service personnel while working in remote areas of the Forest. Another three were built along the route of the old Oregon Skyline Trail for use by recreational campers. While these two types of shelters are significant for different reasons, the characteristics that make them good representatives of their historic themes are similar. All of these shelters were built in remote areas, far from the nearest road, to provide a minimal degree of protection from the elements. To be a good example a shelter should possess integrity of 1) design, 2) materials, 3) setting, and 4) feeling. Integrity of design and materials is necessary to have an authentic historic building which retains the characteristics it possessed at the time of construction. Because the shelters were built for use in the backcountry, integrity of setting is also important and combines with integrity of design and materials to convey the original feeling.

1. All shelters possess integrity of design. Most modifications present are the addition of built-in furniture constructed of manufactured wood products. These obviously modern intrusions detract from the historic character of a shelter and might affect its integrity of feeling. However, these additions are easily removed and the modifications are reversible.

2. The integrity of materials in the shelters varies. All of the shelters have a preponderance of intact original material though many also exhibit some decay. Some shelters have had material, primarily shakes, replaced with both in-kind or with different, but compatible, materials. Replacement of original elements with material not-in-kind generally involved the application of shorter, machine made shakes in place of the original hand split shakes. This replacement also involved the placement of additional nailers which tended to be of dimension lumber. Original materials are noticeably missing at some of the shelters. Again, the missing materials are primarily shakes.

3. Integrity of setting is an important factor in the overall integrity of these shelters. As structures representative of forest management and recreation in a period when access was much more limited, it is essential that at least the illusion of remoteness be retained for a shelter to convey its historic identity. The setting of the shelters has primarily been altered by timber harvesting and road construction. The determination of how these major landscape modifications have effected the setting of the shelters focused on their proximity. A shelter adjacent to a road or timber harvest unit was considered to have lost its integrity of setting. A road or harvest unit within five hundred feet was considered to have a moderate effect on a shelter's setting. A road or harvest unit further from a shelter was considered to have little or no effect on its setting.

4. Integrity of feeling was determined by taking into account the integrity of design, material, and setting. Since the ability of a property to evoke a particular feeling is, like beauty, in the eye of the beholder, the degree to which each shelter retains integrity of feeling is somewhat subjective. It should be noted that the type of feeling being evaluated here is one of the historic nature of the shelter. In general, shelters that retained the greatest integrity of setting, material, and design were considered to retain the greatest integrity of feeling. The reverse was also true.

To better compare and analyze the integrity of the shelters, a scheme was devised to rate the shelters in each of the four categories described above. Points values were assigned to each of the categories. Material integrity was considered the most important and was assigned a maximum value of 30 points while design, setting, and feeling were each assigned maximum values of 15 points. Thus, each shelter had a maximum overall integrity rating of 75 points. The scores for each of the four categories were then totaled to arrive at an overall score for each shelter. These scores were used to rate the overall integrity of each shelter. A shelter with a total score of sixty or more points was considered to retain sufficient integrity to be eligible for listing on the National Register of Historic Places. A shelter with a total score below sixty points was considered to have lost its original character and, therefore, not eligible for listing on the National Register of Historic Places. The scores are presented in Table II.

Design

The score for integrity of design was based on a count of the number of alterations noted during the inventory phase of this project. A table or sleeping platform made of dimension lumber were each counted as one alteration. Two or fewer such alterations were considered to be a minor modification. Three or more alterations were considered to be a major modification. No shelters were considered to have had a complete loss of integrity of design.

TABLE I

Rating Scheme for Integrity of Design

<u>Setting Integrity</u>	<u>Fixed Score</u>
Unmodified	15
Minor Modification	10
Major Modification	5
Complete Modification	0

Materials

The material integrity of the shelters was determined by identifying the percentage of the original, historic fabric still present. The original framing was present at all shelters except Coffin Burn where one rafter had been replaced. Two of the shelters, Volcano and James Creek, also retained all of their original wall and roof materials. At the other eleven shelters, wall and/or roof shakes had been either removed or replaced. Estimates of both the remaining historic framing and remaining wall/roof material were made and percentage values were assigned for each. The two percentages were then averaged to arrive at a percentage representing the overall integrity of the materials in each shelter. Point values were assigned by multiplying the overall percentage by the maximum point value of 30.

TABLE II

Rating for Integrity of Materials

SHELTER	Framing	Wall/Roof	Total	Points
Ash Swale	100%	70%	85%	25.5
Buck Meadows	100%	85%	92.5%	28
Cliff Lake	100%	90%	95%	28.5
Coffin Burn	95%	75%	85%	25.5
Elk Camp	100%	75%	87.5%	26
James Creek	100%	100%	100%	30
Little Blanket	100%	90%	95%	28.5
Lone Wolf	100%	75%	87.5%	26
McQuade Creek	100%	80%	90%	27
Middle Fork	100%	0%	50%	15
Mink Lake	100%	95%	97.5%	29
South Waldo	100%	0%	50%	15
Volcano	100%	100%	100%	30

Setting

Setting is important in conveying the feeling of the historic use of these shelters. They were constructed to provide a small degree of comfort to Forest Service personnel and recreational hikers in remote forested areas. In order to convey the historic feeling of a shelter, a sense of remoteness is necessary. The primary way in which the setting of the shelters has been modified is by timber harvest activities and associated road building. The integrity of the setting of each shelter was evaluated by examining the major landscape modifications in the vicinity and placing the degree of modification in one of four categories: unmodified (no major landscape modification within 500 feet or along access route within 1/2 mile of shelter), minor (major landscape modification along access route within 1/2 mile of the shelter), major (major landscaped modification within 500 feet of the shelter), complete (major landscape modification adjacent to shelter). Numerical values were assigned based on the severity of the modification and how it affected the sense of remoteness at the shelter.

TABLE III

Rating Scheme for Integrity of Setting

<u>Setting Integrity</u>	<u>Fixed Score</u>
Unmodified	15
Minor Modification	10
Major Modification	5
Complete Modification	0

Based on the rating scheme shown in Table IV, seven of the thirteen shelters are considered to be eligible for listing on the National Register of Historic Places. These include:

Buck Meadows	McQuade Creek
Cliff Lake	James Creek
Lone Wolf	Middle Fork
Mink Lake	

All are associated with historically significant events and retain sufficient integrity to be good representatives of those events.

TABLE

Rating of Trail Shelter Integrity

SHELTER	Design	Setting	Material	Feeling	Total
Ash Swale	10	5	25.5	10	50.5
Buck Meadows	15	15	28	15	73
Cliff Lake	15	15	28.5	15	73.5
Coffin Burn	10	0	25.5	5	40.5
Elk Camp	10	10	26	10	56
James Creek	10	15	30	15	70
Little Blanket	5	5	28.5	5	43.5
Lone Wolf	15	15	26	15	71
McQuade Creek	15	15	27	15	72
Middle Fork	15	15	15	15	60
Mink Lake	15	15	29	15	74
South Waldo	5	15	15	10	45
Volcano	5	0	30	10	45

The remaining six shelters considered to be not eligible for listing include:

Ash Swale	Coffin Burn
Little Blanket	South Waldo
Volcano	Elk Camp

All six have had significant losses of integrity and no longer convey their historic nature. Further, the Volcano Trail Shelter could not be shown to be a historic structure.

The Mule Mountain Barn is associated with the early development of fire control on Willamette National Forest. It possesses high integrity of design, materials, and workmanship. It has lost some integrity of setting due to the construction of an adjacent road. However, it is the sole remaining example of this type of structure on the Willamette National Forest. It is determined to be eligible for listing on the National Register of Historic Places.

The Hand Lake Shelter is associated with the early development of recreation, specifically skiing, on National Forest Lands. It retains integrity of design, setting, materials, and workmanship and is determined to be eligible for listing on the National Register of Historic Places.

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APPENDIX

Trail Shelters on Willamette National Forest Maps

Shelter	'34*	'35	'37	'40	'47	'50	Comments
Alder Cove		X	X	X	X	X	
Andy Creek	N	X	X	X	X	X	Moo Camp on 1940/47/50 maps
Ash Swale	N	X	X	X	X	X	
Battle Creek				X	X	X	Mt Hood NF Admin by WNF
Bear Pass				X	X	X	
Big Lake					X	X	
Box Canyon		X	X	X	X	X	
Breitenbush Burn		X	X	X	X	X	
Buck Meadows	Y	X		X	X	X	
Buckhead	N	X	X	X	X	X	
Carpenter Saddle					X	X	
Castle Creek	N	X	X	X	X	X	
Cedar Camp	N	X	X				
Charlton	N	X	X	X	X	X	Recreation
Chimney Peak				X	X	X	
Cliff Lake	N	X	X	X	X	X	Recreation
Coffin Burn		X	X	X	X		
Coffin Mountain					X	X	
Cold Spring					X	X	
Cool Camp		X	X	X	X	X	
Cottonwood	N	X	X		X	X	
Cowhorn	Y	X	X	X	X	X	Cedar Camp on 1940/47/50 maps
Dead Mountain	N	X	X	X	X	X	
Delp Creek					X	X	
Duffy Lake		X	X	X	X	X	Recreation
Elk Camp	Y	X	X	X	X	X	
Elk Creek	Y	X	X	X	X	X	
Five Mile	Y	X	X	X	X	X	
French Creek					X	X	
Frissel Crossing	Y	X	X	X	X	X	
Gertrude Lake		X	X	X	X	X	
Gold Creek		X	X	X	X	X	
Haitt & Gordon					X	X	Black Creek on 1950 map
Hardtack Camp	N	X	X	X	X	X	Sardine Camp on 1935 map
Hayrick Butte				X	X	X	
He He Creek	N	X	X	X	X	X	
Hemlock Butte	N	X	X	X	X	X	
Hills Peak	Y	X	X			X	
Hoodoo Butte				X	X	X	
Hula		X	X	X	X	X	
James Creek		X	X	X	X	X	Recreation
Little Blanket	N	X	X	X	X	X	
Little Bunchgrass		X	X	X	X	X	
Little Fall Creek	N	X	X	X	X	X	
Little Meadows						X	Former Guard Station
Lone Wolf					X	X	Symbol but no name
Marion Lake		X	X	X	X	X	Recreation
McGowan	Y	X	X	X	X	X	
Mink Lake	N	X	X	X	X	X	Recreation
Moon Lake	N	X	X	X	X	X	
Mosquito				X	X	X	
Nine Mile	Y	X	X	X	X	X	
Packsaddle	Y	X	X	X	X	X	Starwano on 1940/47/50 maps

Trail Shelters on Willamette National Forest Maps

Shelter	'34*	'35	'37	'40	'47	'50	Comments
Bernot	Y	X	X	X	X	X	
Rocky Top					X	X	
Saddle Camp	N	X	X	X	X	X	
Santiam Lake						X	Recreation
Sardine Creek		X	X	X	X	X	
Shed Camp		X	X	X	X	X	Middle Fork
Sinker Mountain	N	X	X	X	X	X	
Smith River				X	X	X	Former Guard Station
Smoky Cabin	Y	X	X			X	
South Breitenbush					X	X	
South Fork	Y	X	X	X	X	X	
South Maxwell					X	X	
South Waldo	N	X	X	X	X	X	
Stag	N	X	X		X	X	
Staley Ridge	N	X	X	X	X	X	
Sunshine	N	X	X	X	X	X	Recreation
Swamp Creek		X	X	X	X	X	
Tall Timber	N	X	X			X	
Tidbits				X	X	X	
Tire Mountain	N	X	X	X	X	X	
Unnamed				X	X	X	NE1/4, Sec 15, T19S, R4E
Waldo Lake Meadows					X	X	
West Side					X	X	
Wolf	N	X	X	X	X	X	

* The 1934 map covers only the south half of the Forest. Those shelters that are/would be located in the south half have a Y if present and an N if not. Those shelters with no entry and that appear on the 1935 map are located in the north half and would not appear on this map.