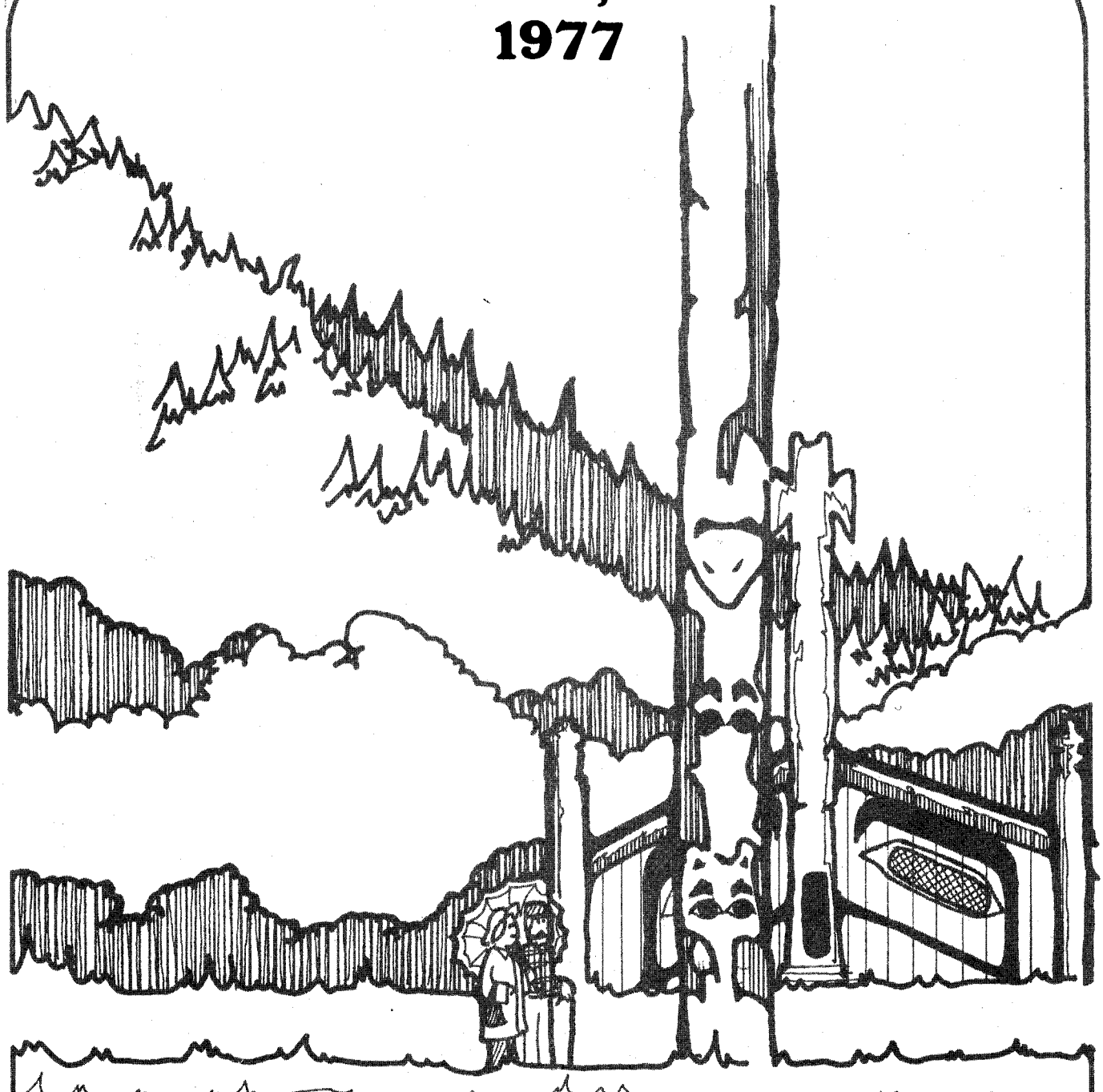
General Development Plan
For

TOTEM BIGHT
STATE HISTORICAL PARK

Ketchikan, Alaska
1977



Alaska State Parks

GENERAL DEVELOPMENT PLAN
FOR
TOTEM BIGHT STATE HISTORIC PARK

Prepared By:

DIVISION OF PARKS
DEPARTMENT OF NATURAL RESOURCES
STATE OF ALASKA
1977

General Development Plan
for
TOTEM BIGHT STATE HISTORICAL PARK

Division of Parks
Department of Natural Resources
State of Alaska

1977

This plan is the result of a multiple-discipline and agency team composed of the following:

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STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS
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To The Reader:

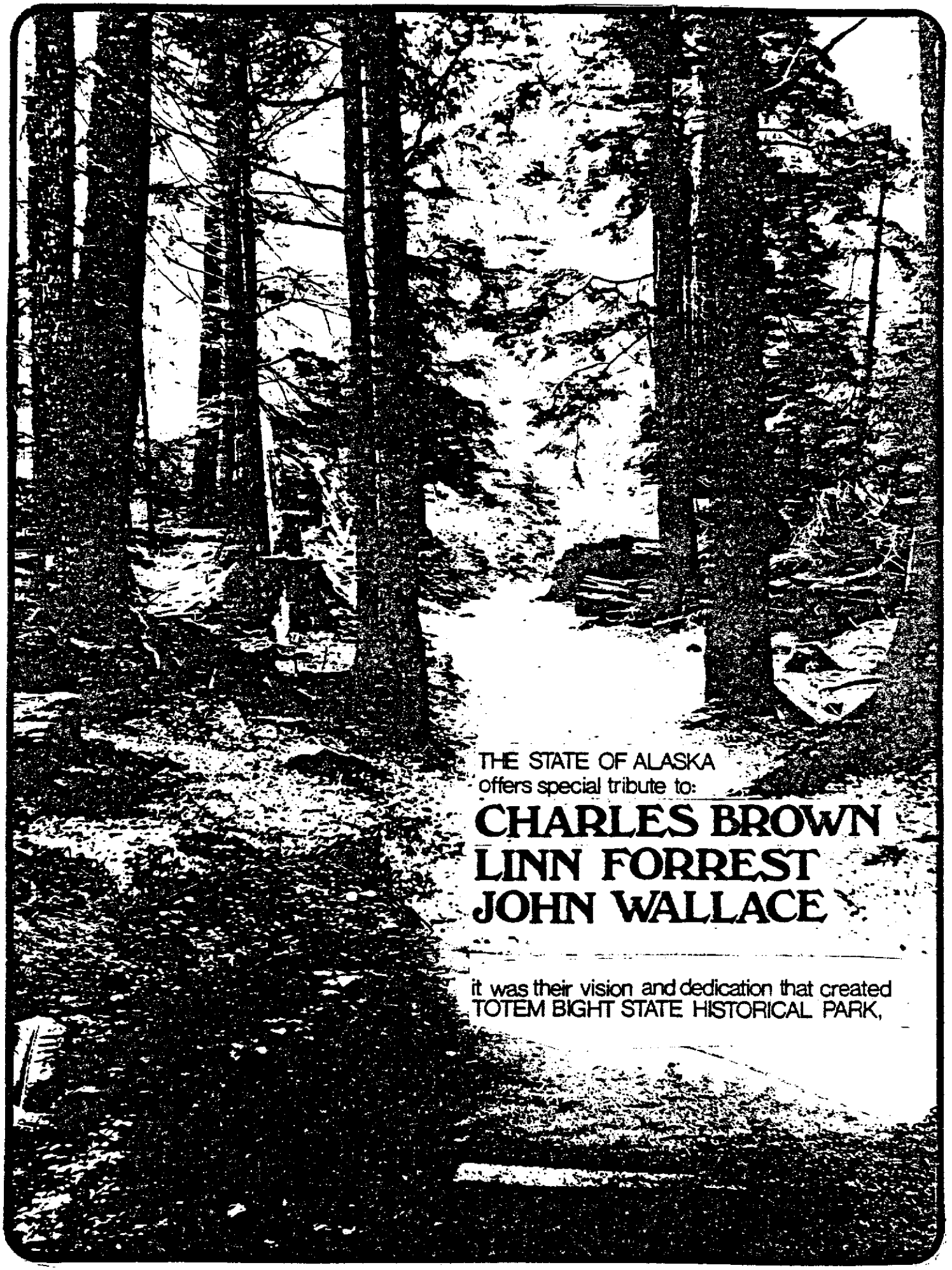
Totem Bight State Historical Park, near Ketchikan, is the only area in the sixty member Alaska State Park System whose theme is exclusively aboriginal native history and culture. Also, it's the most heavily visited of all state parks in Southeast Alaska. As such, it's a special place of dual distinction, a park deserving careful planning, development and management. Though its totem poles and clan house are replicas constructed by the Civilian Conservation Corps in the 1930's, the park has definite historical and cultural value-which will surely increase in the future.

And the future is what this plan is about: to shape the protection and use of the park in such a manner as to be assured that this valuable area provides a high quality recreation and education experience for future generations.

Sincerely,

Terry McWilliams

Terry A. McWilliams, Director
Alaska State Park System


THE STATE OF ALASKA
offers special tribute to:
CHARLES BROWN
LINN FORREST
JOHN WALLACE
it was their vision and dedication that created
TOTEM BIGHT STATE HISTORICAL PARK,

CONTENTS

SECTION I:

INTRODUCTION

To many, the striking beauty of Southeast Alaska's fiords, verdent forests, rugged mountains, glaciers and interesting, friendly communities are without rival. Added to these is another feature of great human attraction - one receiving ever increasing interest - for embraced in this unique land of rain forest and sea are the Tlingit and Haida Indian people. These are the aboriginal Alaskans of Southeast Alaska. People whose culture evolved into a veritable art form of sophistication. Though only vestiges of cultural objects remain of the early days - moss-covered, rotting totem poles and buildings hidden in misty wooded coves and headlands, the culture was of such power that even today it permeates the very fabric of modern life in Alaska's Panhandle.

Near one of Southeast's largest communities, Ketchikan, a replica collection of Tlingit and Haida Indian totem poles and one example of a clan house exist in Totem Bight State Historical Park.* This State Park is the only member of the 60 area, 1.5 million acre Alaska State Park System exclusively dedicated to our largest State's Native culture. Located approximately 10 miles north of Ketchikan, just off the North Tongass Highway, the area fronts on the protected ocean coast of the Tongass Narrows. This historic site has experienced rapidly accelerating visitor use in recent years, due primarily to increasing

* Currently called Totem Bight Historic Site; "State Historical Park" is a proposed name change used throughout this plan.

cruise ship traffic. It is the most heavily visited of the thirteen State Park units in Southeast Alaska.

Due to increasing visitor use and the damp climate of the area, the park is in need of additional visitor parking, expanded and imaginative interpretive programs, improved visitor pathways and general structural restoration work, particularly on the deteriorating foundation and floor timers of the clan house.

THE PLANNING PROCESS USED

Put simply, planning is a process of imagining and evaluating possible futures. Most importantly, it requires a rationale basis for selecting the best future. The overall basis for selecting a plan of action rests upon information, and the implications of that information.

The planning process applied to Totem Bight involved an interdisciplinary team following these steps:

1. Identification of problems

2. Defining goals

3. Gathering information about resources.

4. Designing, assessing and selecting strategies.

This process requires that formulation of certain goals and purposes, which serve as policy. These policies then provide a basis for later actions and decisions.

STATEMENTS FOR MANAGEMENT (POLICY)

Statements for management must be of cornerstone strength, for their purpose is to determine both the nature and extent of the planning required to meet stated objectives. Further, such statements provide a general framework for facility development and park operations, including interpreting park objectives to visitors.

For Totem Bight State Historical Park, three policy statements were composed, as stated below:

Significance of Totem Bight State Historical Park

TOTEM BIGHT STATE HISTORICAL PARK IS ONE OF THE FEW CULTURAL AND ARCHITECTURAL REMNANTS, ALBEIT A REPLICA, OF THE TLINGIT AND HAIDA CULTURES OF SOUTHEAST ALASKA. IT ALSO STANDS AS A MEMORIAL TO THE EFFORTS OF CERTAIN INDIVIDUALS TO PRESERVE AND REVIVE SUCH CULTURAL REMNANTS.

Purpose Of Totem Bight State Historical Park

THE PURPOSE OF TOTEM BIGHT STATE HISTORICAL PARK IS TO PRESERVE AND DISPLAY REPLICAS OF LATE NINETEENTH CENTURY HAIDA AND TLINGIT INDIAN TOTEM POLES AND A CLAN HOUSE.

Visitor Use Objectives

TO PROVIDE INTERPRETATION OF TLINGIT AND HAIDA INDIAN CULTURES IN A NATURAL SOUTHEAST ALASKA COASTAL ENVIRONMENT. VISITOR ACTIVITIES OTHER THAN THOSE ORIENTED TOWARDS SUCH INTERPRETIVE PROGRAMS ARE NOT CONSIDERED COMPATIBLE TO THE PURPOSES OF THE PARK.

REGIONAL SETTING

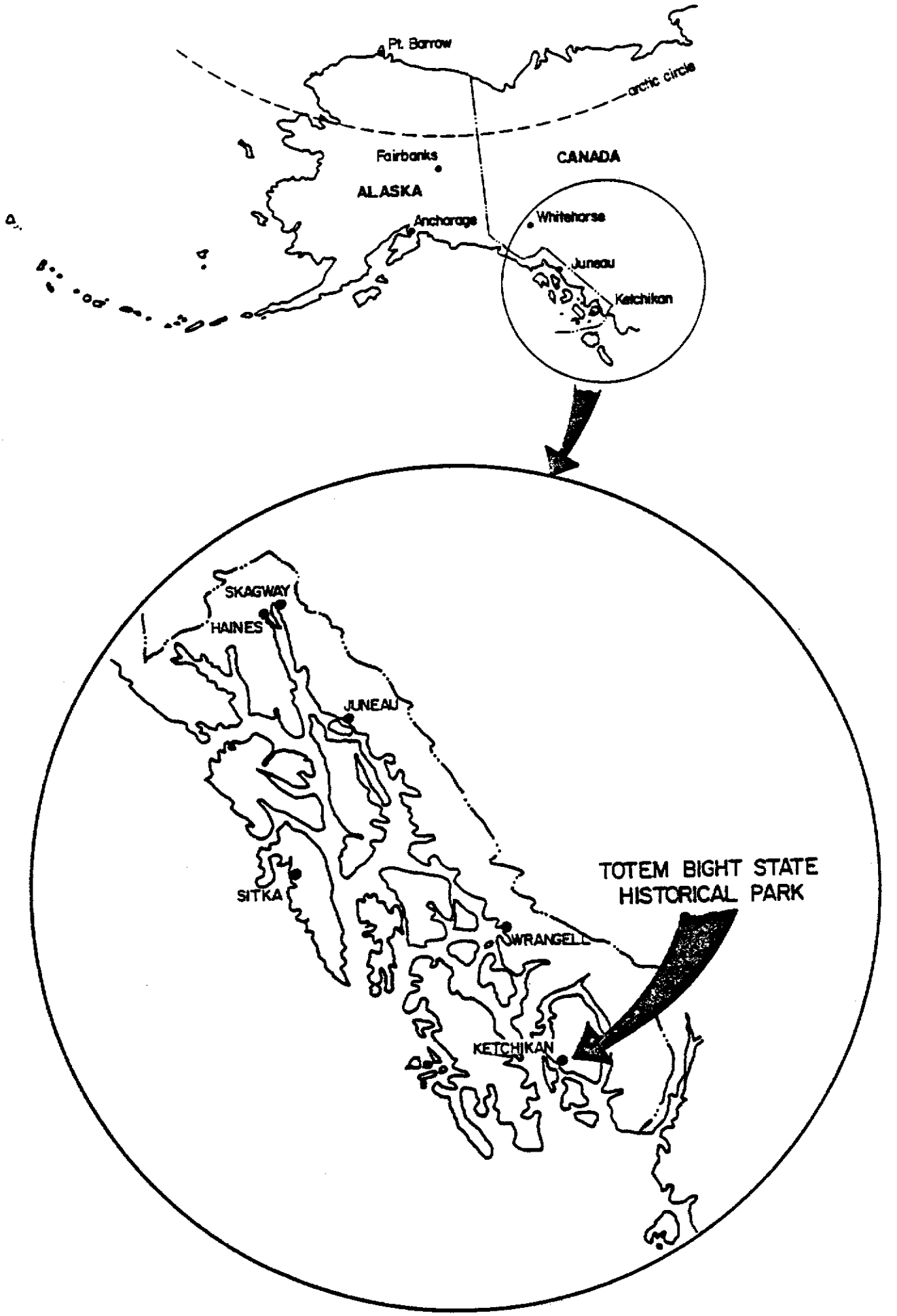
Totem Bight State Historical Park is located on the west central coast of Revillagigedo Island, 9.9 miles north of Ketchikan, at 55° 25' 23" N. Latitude, 131° 46' 17" E. Longitude. The city of Ketchikan is in lower Southeastern Alaska and is the southernmost larger city in the State of Alaska.

Alaska's Southeast region covers 42,000 square miles and about fourteen percent of all resident Alaskans live in this narrow island-dappled strip of land. The islands of Southeast, which characterize the home of Tlingit and Haida Indian people, are known as the Alexander Archipelago.

NATURAL ENVIRONMENT

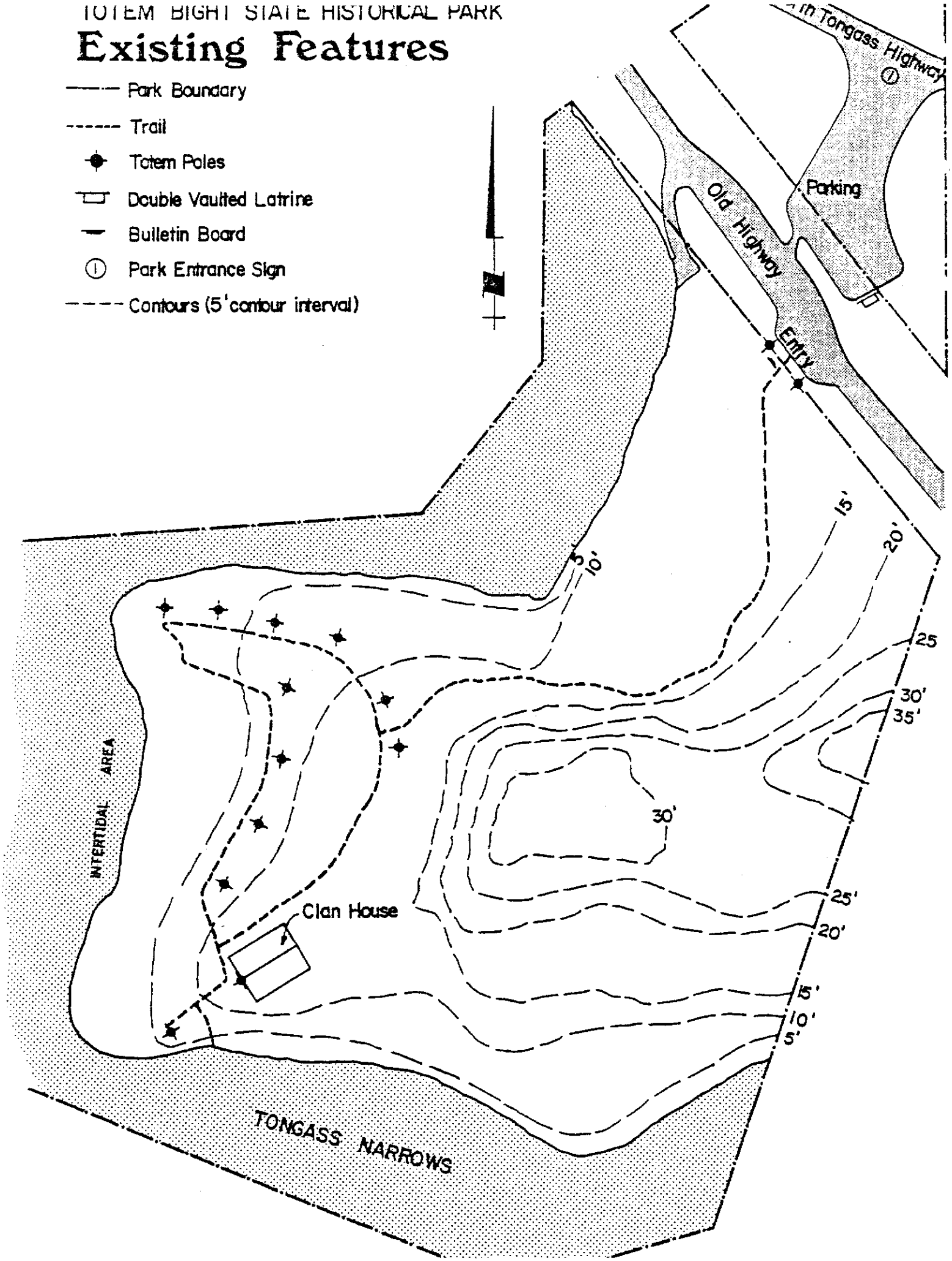
Climate

The National Weather Service has defined four climatic zones in Alaska. They are: Arctic, Continental, Transitional and Maritime. Totem Bight State Historical Park lies in the Maritime zone which, although wet and


Pt. Barrow
arctic circle
Fairbanks
CANADA
ALASKA
Anchorage
Whitehorse
Juneau
Ketchikan
SKAGWAY
HAINES
JUNEAU
SITKA
WRANGELL
KETCHIKAN
TOTEM BIGHT STATE
HISTORICAL PARK

TOTEM BIGHT STATE HISTORICAL PARK

Existing Features



rainy, is mild in temperature compared to other Alaska zones. The climate influencing this historic park is rainy, with an average annual precipitation of over 150 inches of rain and snow (melted equivalent) each year. Warm summers and mild winters are indicated by the fact that Ketchikan has recorded temperatures of 60°F, or more, for every month of the year. Record high temperatures: 96°F; low: -8°F. Winds prevail out of the southeast year-round.

The following table summarizes temperatures and precipitation for the Ketchikan area.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Temperature	35	36	43	43	50	55	58	59	55	48	36	46
Precipitation	15	12	12	12	8	7	8	10	15	21	15	152

All sunlight is received at oblique angles. In Ketchikan, during summer, the maximum angle is about 62 degrees; in winter it drops to about 15 degrees. Through reflectance, solar energy escapes in increasing amounts as the sun angle decreases and when the earth's surface is shrouded by cloud cover - a common occurance for the Ketchikan area. However, the loss of direct sunshine during summer at Totem Bight is offset, in part, by long summer days. Thus, even though the park area is cloudy much of the time during the summer visitor season, the long summer days are mild and warm.

What the above information means, is that the average visitor to Totem Bight State Historical Park, in mid-summer, can expect temperatures of

about 60° F and light rain, intermixed with broken cloud cover, some blue sky and a light breeze blowing northward up Tongass Narrows. For mid-winter, the visitor can expect a temperature in the mid to high thirties, slushy snow cover and a brisker wind, also out of the south and light to heavy rain or mixed rain and snow.

Vegetation

Totem Bight State Historical Park is located in a dense evergreen rain forest ecosystem of primarily western hemlock and Sitka spruce.

The forest understory has blueberry, huckleberry, copperbrush, Sitka alder, devils club, skunk cabbage and ferns of several species.

Vegetation is further dilineated, by basic zones, below:

Beach Communities

Approximately 1,800 linear feet of Totem Bight lands are situated along Tongass Narrows and constitutes ocean shoreline. This area, affected by saltwater, is referenced as the "beach community".

That portion below mean high water is primarily rock out-croppings and gravel beaches, and hosts a variety of marine aquatic plant life, such as kelps and seaweed. In areas of gravel acretion various grasses, such as beach rye, fescue and bent, are evident. This grouping of plant life ordinarily initiates the colonization of the beach community.

A variety of grass life and small herbaceous plants dominate those areas of the beach community not immediately affected by tidal action. A few examples which can be found within this grouping are willow species, Nootka rose, western buttercup and beach pea.

Species Common to Beach Communities:

Common Name	Latin Name	Tlingit Name
Wild celery		xaana.eit
Wild rhubarb		tl'aakwach'
Horsetail	'Equisetum'	
Tree fungus-bracket fungus		aas daagaadli
Beach rye grass	'Elymus arenarius'	
Moss		s'ix'gaa
Sedges	'Carex' var.	
Nettle		t'ook'
Fescue grass	'Festuca'	
Bluejoint grass	'Calamagrostis canadensis'	
Reed bent grass	'Calamagrostis nutkaensis'	
Bent grass	'Agrostis'	
Manna grass	'Clyceria pauciflora	
Beach pea	'Lathyrus maritimus'	

Common Name	Latin Name	Tlingit Name
Beach lovage	'Ligusticum scoticum'	
Nootka lupine	'Lupinus nootkatensis'	
Goose tongue	'Plantago maritima'	sukt'eitl'
Arrow grass	'Triglochin maritimum'	
Seabeach sandwort	'Honckenya peploides'	
Sea minkwort	'Glaux maritima'	
Small bedstraw	'Galium trifidum'	
Seaside crowfoot	'Ranunculus occidentalis'	
Western buttercup	'Mimulus guttatus'	

Shrub and Mixed Hardwood Communities

This vegetative community lies immediately upland of the shoreline and in certain areas along the forest fringe. It is considered the next order of plant succession as these species generally follow (sequentially) the pioneering grasses and other lesser plants. This community is generally composed of a variety of woody shrubs and small trees. These species gain dominance over grasses and other ground covers where there is sufficient moisture, and usually remain for long periods of time. Species common to this community are listed below:

Common Name	Latin Name	Tlingit Name
Red alder	'Alnus rubra'	sh'eix'w
Sitka alder	'Alnus sitchensis'	keish'ish
Crab apple	'Malus diversifolia'	x'us'
Gray currant	'Ribes bracteosum'	shaax
Lyall nettle	'Urtica lyallii'	

Common Name	Latin Name	Tlingit Name
Highbush cranberry	'Viburnum edule'	kaxw'eix
Serviceberry	'Ameliancher florida'	gaawak
Fireweed	'Epilobium angusti folium'	lool
Cow parsnip	'Heracleum lanatum	
Goatsbeard	'Aruncus sylvester'	
Western columbine	'Aquilegia formosa	
Baneberry	'Actaea rubra'	
Rusty menziesia	'Meziesia ferruginea'	
Devils club	'Oplopanax horridus'	s'axt'
Black currant	'Ribes laxiflorum'	kaneilts'akw
Nootka rose	'Rosa nutkana'	
Thimbleberry	'Rubus paryiflorus'	ch'eix'
Salmonberry	'Rubus spectabilis'	was'x'aan tleigu
Willow	'Salix barclayi'	
Willow	'Salix scouleriana'	
Pacific re elder	'Sambucus callicarpa'	
Mountain ash	'Sorbus sitchensis'	kalchaneit
Blueberry	'Vaccinium ovalifolium'	kanat'a
Red huckleberry	'Vaccinium parviflorum'	tleikatank
Sitka willow	'Salix sitchensis'	ch'aal'
Hudson Bay tea		s'ikshaldeen

Coastal Coniferous Forest Community

The third descriptive community of this inventory is that of the "coastal coniferous forest". This community is the oldest successional stage of plant growth common to Southeast Alaska. Dominated by evergreens, this community's canopy reduces a great deal of the available sunlight and enables only the shade tolerant species of smaller plants to grow on the forest floor. Coastal coniferous forest is composed primarily of hemlock and spruce, with a scattering of deciduous trees, small shrubs and ground cover.

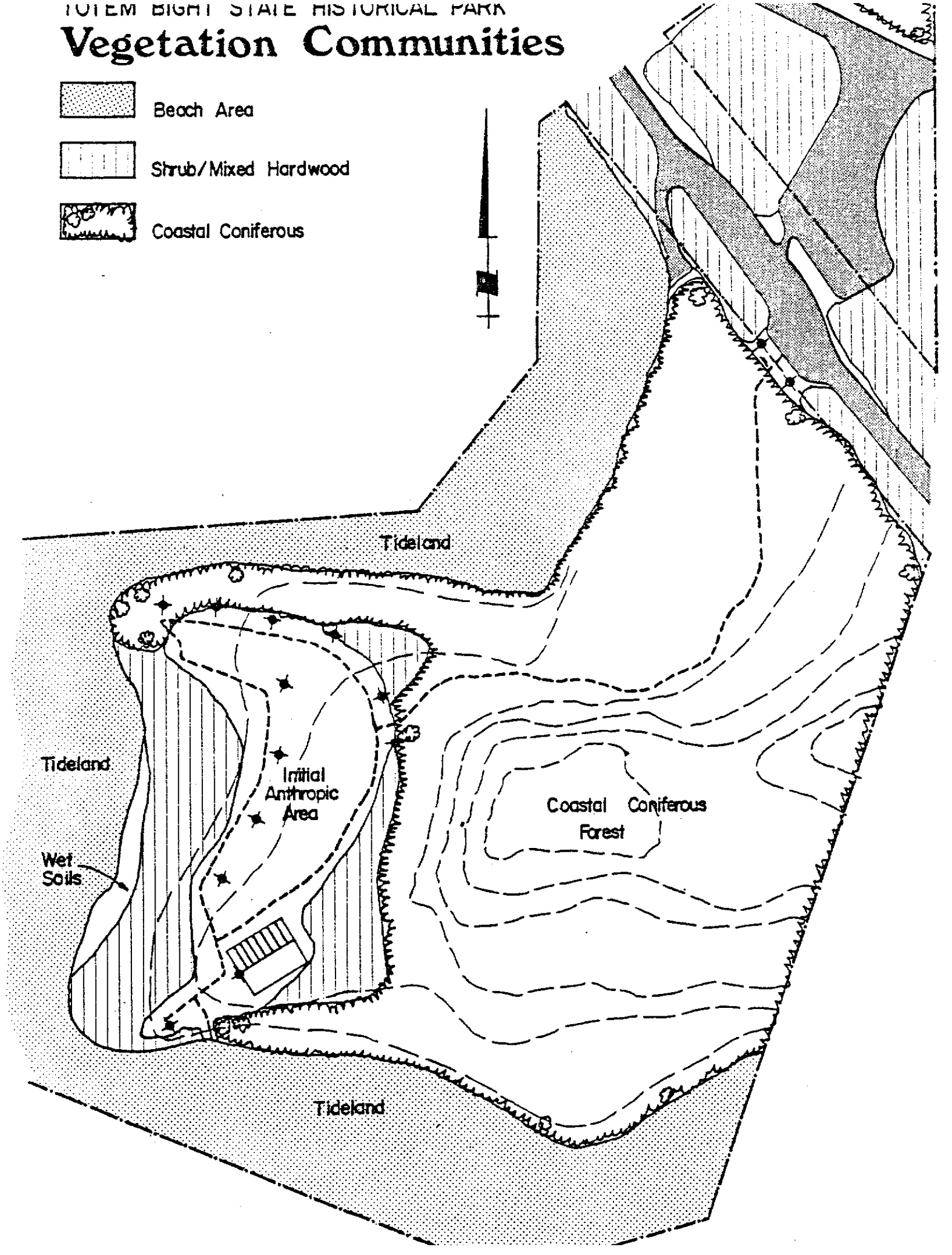
Species Common to Coastal Coniferous Forests:

Common Name	Latin Name	Tlingit Name
Sitka spruce	'Picea sitchensis'	seet
Hemlock	'Tsuga heterophylla'	yan
Mountain hemlock	'Tsuga mertensiana'	
Swamp hemlock		s'ex
Alaska cedar	'Chamaecyparis nootkatensis'	
Red cedar	'Thuja plicata'	laax
Red alder	'Alnus rubra'	sheix'w
Cottonwood	'Populus trichocarpa'	duk
Alder	'Alnus sitchensis'	seishish
Salal	'Gaultheria shallon'	
Rusty menziesia	'Menziesia ferruginea'	
Devils club	'Oplopanax horridus'	s'axt'

Common Name	Latin Name	Tlingit Name
Bunchberry	'Cornus canadensis'	
Club moss	'Lycopodium'	
Cucumber root	'Streptopus amplexi-folius'	
Skunk cabbage	'Lysichiton americanum'	x'aal'
Deerberry/Lily of the Valley	'Maianthemum dilitatum'	
Currant	'Ribes bracteosum'	shaax
Trailing black currant	'Ribes laxifolium'	
Oak fern	'Cymnocarpium dryopteris'	
Common fern		s'aach
Dagger/sword fern	'Polystichum munitum'	
Fern with edible roots		k'walx
Lady fern	'Athyrium filix-femina'	
Coral root	'Corallorrhiza maculata'	
Pacific red elder	'Sambucus callicarpa'	
Early blueberry	'Vaccinium alaskaense'	kanat'a
Big blueberry	'Vaccinium ovalifolium'	naanxaa
Red huckleberry	'Vaccinium parvifolium'	kanat'aaxi tleikatank
Western thimbleberry	'Rubus parviflorus'	ch'eix'
Salmonberry	'Rubus spectabilis'	was'x'aan tleigu

TOTEM BIGHT STATE HISTORICAL PARK

Vegetation Communities



Initial Anthropic Area

One final area of vegetation at Totem Bight State Historical Park has been delineated on the accompanying map, and has been called "initial anthropic." Initial anthropic is an area of the site which has been slightly altered by man's influence, while the natural community still remains effective. At Totem Bight, initial anthropic is the central open space for the display of the totem carvings and the potlatch house. An example of natural influence here is the presence of buttercups and other native flowering species. Additional evidence is reflected in the presence of Sitka spruce, which is scattered throughout the display area.

Vegetation Analysis

Left undisturbed by natural or man-made forces, the coastal coniferous forest can be expected to remain constant in species types. Generally, the predominate species of spruce and hemlock will continue to regenerate compatibly and replace the conifers that are now over mature and will eventually fall to the forest floor. Spruce will most likely inhabit the open spaces as it is less shade tolerant, while those areas covered by a dense canopy will predominately support shade-tolerant hemlock. Species such as blueberry, false huckleberry, devils club, ferns and mosses will remain in this shaded community.

Any area disturbed, such as the clearing of vegetation and not controlled or managed by man, can be expected to follow a natural successional

process as previously suggested by the categorization of plant communities. Such species as 'Equisetum' and various grasses will pioneer the disturbed area. Shortly after, shrub species, such as Lyall nettle and fireweed will begin to grow. This stage will eventually be followed by the larger varieties of mixed hardwoods such as Sitka alder.

The "Beach Community" and the "Shrub/Mixed Hardwood Community" will, over time and proper development of soil conditions, mature into a coastal coniferous forest. The evergreens will dominate available sunlight and starve out the shrub and grass species intolerant to shade. (A later chapter details how native plant species were utilized in the culture of Tlingit and Haida Indian peoples.)

Wildlife and Fish

The following provides information on the Totem Bight area's fishes and wildlife. This list only reflects those species which inhabit Southeast Alaska's land and waters. On site recordings were <u>not</u> made for Totem Bight exclusively. However, it is assumed that these species are "associated" with the area, and in most instances had some affect on Tlingit and Haida Indian cultures in the past. For purposes of this report, three seperate categories of animal life have been listed. They

are, 1) Terrestrial Wildlife, 2) Local Marine Life, and 3) Common Bird Life.

Terrestrial Wildlife

Common Name	Latin Name	Tlingit Name
Deer	'Odocoileus hemionus sitkensis'	guwakaan
Black bear	'Ursus americanus'	s'eek
Wolf	'Canis lupus'	gooch
Coyote	'Canis latrans'	
Brown bear	'Ursus arctos'	xoot's
Mountain goat	'Oreamnos americanus'	tawei
Moose	'Alces alces'	d'zisk'w
Lynx	'Lynx canadensis'	
Wolverine	'Gulo luscus'	nooskw
Land otter	'Lutra canadensis'	kooshdaa
Mink	'Mustela vison'	nuk shiyaan
Marten	'Martes americana'	k'oox
Beaver	'Castor canadensis'	s'igeidi
Porcupine	'Erethizon dorsatum'	xalak'ach'
Snowshoe hare	'Lepus americanus'	
Squirrel	'Tamiasciurus hudsonicus'	kanals'aak
Flying squirrels	'Glaucomys sabrinus'	tsalk
Mice and voles	'Cricetidae' (several kinds)	
Shrews	'Sorex' (several kinds)	

Local Marine Life:

Five species of Pacific salmon are common to the inland waters of the Southeast Archipelago. These fishes are as important (or nearly so) to the economic and social well being of the local communities today as they were to the Tlingit and Haida Indian cultures of the past, and were major factors in site selection for camps similar to Totem Bight. The five salmon species occuring in the Totem Bight area are:

Common Name	Latin Name	Tlingit Name
King Salmon	'Ornorhynchus tshawy-tscha	t'a
Coho/Silver	'Onorhynchus kisutch'	l'ook
Sockeye/Red	'Onorhynchus nerka'	gaat
Humpback/Pink	'Onorhynchus gorbuscha'	chaas'
Dog/Chum	'Onorhynchus keta'	teel

Other species of local marine life can be found in the Tongass Narrows and associated waterways. In part, they are:

Common Name	Latin Name	Tlingit Name
Porpoise	'Tursiops truncatus'	cheech
Sea lion	'Otariidae'	taan
Sea otter	'Enhydra lutris'	yaxwch'
Fur seal	'Phoca vitulina'	x'oon
Hair seal		tsaa
Killer whale	'Orcinus orca'	keet
Herring	'Clupea pallasii'	yaaw

Common Name	Latin Name	Tlingit Name
Devil fish		naakw
Sable fish	'Anoplopoma fimbria'	
Red snapper	'Sebastodes ruberrimus'	leikw
Halibut	'Hippoglossus stenolepis'	chaatl
Black sea bass	'Cynoscion nobilis'	litisduk
Cod, black	'Gadus macrocephalus'	ishkeen
Cod, gray		s'aax'
Cod, tom		chudei
Cod, ling		x'aax'w

Common Shell Fishes

King crab	'Paralithodes camtschatica'	x'eix
Dungeness crab	'Cancer magister'	s'aaw
Abalone	'Haliotis kamschatkana'	gunxaa
Clams	(several varieties)	gaal'
Horse clams		yeis
Shrimp		s'eex'at
Gumboot		shaaw
Cockles		yalooleit
Mussels		yaak

Common Fresh Water/Salt Water Fishes:

Rainbow trout	'Salmo gairdneri'	
Dolly Varden trout	'Salvelinus malma'	x'waat'

Common Name	Latin Name	Tlingit Name
Cutthroat trout-minnow	'Salmo clarki'	s'eitaa
Steelhead		aashat

Local Bird Life:

A variety of bird life may be seen from time to time. In the case of waterfowl, heavy concentrations can be recorded in the region as they make their annual migration to wintering grounds. Species resident or migratory in the area include:

Common Name	Latin Name	Tlingit Name
Ptarmigan	'Lagopus lagopus'	x'eish'awaa
Rock ptarmigan	'Lagopus mutus'	
White-tailed ptarmigan	'Lagopus leurcurus'	
Blue grouse	'Dendragapus obscuris'	nukt
Spruce grouse-female	'Canachites canadensis'	kaax
Bald eagle	'Haliaeetus leucocephalus'	ch'aak'
Golden eagle	'Aquila chrysaetos'	
Pergrine falcon	'Falco peregrinis'	
Osprey	'Pandion haliaetus'	
Hawks	'Buteo lagopus' (several kinds)	shaayaa 1
Sea gulls and terns (various)	'Larus' (several kinds)	keidladi
Common loon	'Gavia immer'	kageet
Crow		ts'axweil
Raven		yeil
Mallard	'Anas platyrhynchos'	kindachooneit

Common Name	Latin Name	Tlingit Name
Canada goose	'Branta canadensis'	t'aawak
Northwestern great blue heron	'Ardea herdias fannini'	
Crane or heron		lax

Tlingit-Haida Indian utilization of indigenous plant and animal species in Totem Bight vicinity

Plants

SITKA SPRUCE: Uses: 1) Material for plank houses; 2) Canoes; 3) Totem poles; 4) Fishing poles (trolling); 5) Sap: pulp and gum for eating; 6) Firewood.

WESTERN HEMLOCK: Uses: 1) Crushed needles for preserving and seasoning food; 2) Firewood. (The wood is very heavy.)

ALASKA YELLOW CEDAR: Uses: 1) Wood carving material for items such as small canoes (utility); 2) Potlach bowls; 3) Boxes; 4) Potlatch staffs; 5) Paddles; 6) Totem poles.

WESTERN RED CEDAR: Uses: 1) Large canoes; 2) Shakes; 3) Lumber; 4) Totem poles; 5) Fish trap material; 6) Mats, baskets, rope from the bark, clothing, including rain shawls and hats.

RED ALDER: Uses: Refer to Shrub and Mixed Hardwood Communities.

SITKA ALDER: Uses: Refer to Shrub and Mixed Hardwood Communities.

SALAL: Uses: 1) Edible berries; 2) Decorative leaf.

DEVILS CLUB: Uses: 1) Tonic; 2) Medicine.

SKUNK CABBAGE: Uses: The leaves were used as container lining in food preservation and preparation.

GRAY CURRANT: Uses: An edible berry.

OAK FERN: Uses: The root was used as a vegetable.

DAGGER/SWORD FERN: Uses: Basket decoration. (Spruce root baskets.)

LADY FERN: Uses: The root was used as a vegetable.

ALASKA BLUEBERRY: Uses: Edible fruit.

RED HUCKLEBERRY: Uses: Edible fruit.

SALMONBERRY: Uses: Edible fruit.

Terrestrial Wildlife

SITKA BLACK TAILED DEER: Uses: 1) Food; 2) Garments.

BLACK BEAR: Uses: 1) Food; 2) Floor mats.

TIMBER WOLF: Uses: Garment material.

COYOTE: Uses: Garment material.

BROWN BEAR: Uses: 1) Food; 2) Floor mats; 3) Trade item. 4) Teeth used for decoration and in basket weaving.

MOUNTAIN GOAT: Uses: 1) Food; 2) Garment material. 3) Wood used for weaving blankets.

MOOSE: Uses: 1) Food; 2) Garment material.

LYNX: Uses: Garment material.

WOLVERINE: Uses: 1) Garments; 2) Trade item.

LAND OTTER: Uses: 1) Garments; 2) Trade item 3) Occasional religious significance.

MINK: Uses: 1) Garments; 2) Trade item.

MARTEN: Uses: 1) Garments; 2) Trade item.

BEAVER: Uses: 1) Garments; 2) Trade item.

PORCUPINE: Uses: Mainland wildlife (not commonly utilized).

RED SQUIRRELS: Uses: Garment trim.

FLYING SQUIRRELS: Uses: Garment trim.

Local Marine Life

CHINOOK/KING: Uses: 1) Food; 2) Trade.

COHO/SILVER: Uses: 1) Food; 2) Trade.

SOCKEYE/RED: Uses: 1) Food; 2) Trade.

HUMPBACK/PINK: Uses: 1) Food; 2) Trade.

SEA LION: Uses: 1) Hide for armor; 2) Whiskers for costume decoration; 3) Food.

SEA OTTER: Uses: Fur for costumes.

HARBOR SEAL: Uses: 1) Food; 2) Costumes.

PACIFIC HERRING: Uses: 1) Food; 2) Oil.

SABLE FISH: Uses: Food.

RED SNAPPER: Uses: Food.

HALIBUT: Uses: Food.

SEA BASS: Uses: Food.

COD: Uses: Food.

Common Shell Fishes

DUNGENESS CRAB: Uses: Food.

PINTO CRAB: Uses: Food.

CLAMS: Uses: Food. White paint pigment.

Common Fresh Water Fishes

RAINBOW TROUT: Uses: Food.

DOLLY VARDEN TROUT: Uses: Food.

CUTTHROAT TROUT: Uses: Food.

Local and Common Bird Life

(Feathers for bedding material)

WILLOW PTARMIGAN: Uses: Food.

BLUE GROUSE: Uses: Food.

SPRUCE GROUSE: Uses: Food.

SEA GULLS: Uses: Eggs in the spring.

Local and Common Bird Life

COMMON MALLARD: Uses: Food.

CANADA GOOSE: Uses: 1) Food; 2) Down.

Beach Communities

GOOSE TONGUE: Uses: Vegetable.

WESTERN BUTTERCUP: Uses: Root vegetable.

Shrub and Mixed Hardwood Communities

RED ALDER: Uses: 1) Wood for smoking fish; 2) Material for carving bowls, masks, spoons, halibut hooks.

SITKA ALDER: Uses: 1) Wood for smoking fish; 2) Material for carving bowls, masks, spoons.

OREGON CRABAPPLE: Uses: Food. Edible fruit.

HIGHBUSH CRANBERRY: Uses: Food. Edible fruit.

Shrub and Mixed Hardwood Communities

TRAILING BLACK CURRANT: Uses: Edible fruit.

WESTERN THIMBLEBERRY: Uses: Edible fruit.

SALMONBERRY: Uses: Edible fruit.

PACIFIC RE ELDER (BERRY): Uses: Edible fruit.

EARLY BLUEBERRY: Uses: Edible fruit.

RED HUCKLEBERRY: Uses: Edible fruit.

Geology

Southeast Alaska is situated in a zone of active volcanism and other mountain building processes which form the North Pacific Basin. The area is characterized by deep valleys, steep slopes and narrow inter valley ridges. Glaciation and mountain buildings processes are still active today.

Early geologic history taken from available scientific data reveals that the area now known as Ketchikan and Revillagigedo Island, were formed in the period of time known as the Mesozoic era, occuring about 65 to 225 million years ago. Specifically, this area was probably formed upon the intrusion of the Coast Mountains, a major Batholithic intrusion belt located along the mainland of North America. This major geologic intrusion was formed by volcanic eruption and folding and faulting of the earth's surface. Present information shows Revillagigedo and adjacent islands to be composed of Mesozoic intrusive rocks similar to the mainland.

Southeast Alaska underwent continental glaciation during the Pleistocene epoch some two million to 10,000 years ago, with an ice mass flowing from the interior of Canada, through the principal valleys of the Coast Mountains. This ice mass entended seaward to the outer islands of the Alexander Archipelago.

In more recent times, approximately 6,000 to 7,000 years ago, there occured a warming of the climate, causing the retreat of glaciers.

Glaciers in Southeast Alaska were thus reduced to approximately their present size. During this warming period, there occured a rising of sea level, due to the melting of the ice. This rise in sea level left marine terraces at various levels above the present tide line. This terracing occurs intermittently throughout Southeast at about 50 feet in elevation.

The most recent volcanic activity in the vicinity of Totem Bight is the evidence of a basalt flow which partially dammed the Blue River, a tributary of the Unuk River, northeast of Ketchikan. This flow originated on the Canadian side of the Alaska-Canada border. Active hot springs throughout Southeast indicate the presence of hot igneous rocks below the earth's surface, one example being Bell Island hot springs adjacent to Revillagigedo Island.

Because of dramatic geologic influences, valley walls in much of Southeast Alaska are extremely steep, relatively unstable, and subject to natural shifting and alteration. Due to the lack of extensive weathering of bedrock and glacial deposits, soils are shallow, poorly developed and often low in available nutrients. Moderately well developed soil types occur on the fine silt and clay areas of the marine terraces. Similar in character to Totem Bight, they are generally forested with conifers and other such vegetation.

Realizing the past history of the present landscape formation, the comparatively recent evolvement of this activity and the existing physiographic character, changes and natural alterations can be expected to

continue at a similar rate as today.

Soils and Drainage

The topography of the area contained within the boundaries of the Totem Bight State Historical Park is mostly gently sloping terrain rarely exceeding a 10 per cent gradient. Minor exceptions to this include a knob located at the approximate center of the area and discontinuous sections along the shoreline. With the exception of a small rock outcrop along the central knob, the area is generally overlayed with a shallow layer of dark soil, black to reddish brown in color, containing clay mixed with some sand and gravel. The substratum consists of a well compacted surface, at depths ranging from one to four feet, typically hardpan or bedrock. Drainage throughout the area is generally fair to good. However, in the vicinity of the totem display yard, a high water table often causes muddy trails. There are no major drainages courses in the area and due to the uniform, shallow, sloping topography, surface runoff should pose no serious problems when designing or siting facilities.

Rot and Insect Damage To The Totem Poles and Clan House

In general, the totem poles situated along the trail at Totem Bight State Historical Park appear to be fairly free of rot and wood-boring insects; however, it appears that additional preservation treatment will be necessary to prevent future rotting and damage from wood boring insects. The poles are particularly susceptible to damage from rotting at their tops and along the bases.

However, to treat the bases, the poles will have to be removed from the ground and dried thoroughly. No insect activity was noted on any of the poles along the path at the site.

The floor boards were removed from the north corner of the clan house and together with the floor support members, were inspected for rot and damage. More than 50% of the floor and seat planks were rotted halfway through their 4" normal thicknesses. The undersides of some of the boards evidenced the extensive growth of fungus. Sill and other floor support members were generally in poor condition with one of the 12" members rotted about halfway through. Other members were not as severly rotted, but all showed some evidence of fungus damage.

Boring insect damage and activity appeared to be limited to the south corner of the building at the eave location. The insects present have previously been identified as carpenter ants. Some rotting was pro-

nounced at the ends of the roof support beams at the eaves. In 1976, the clan house was fumigated with insecticide.

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*See legal environment chapter, Historic Preservation Fund Grant report

NATIVE HISTORY

The Tlingit and Haida Indians of the Southeastern Alaska coast developed a very sophisticated and highly stratified society which prospered, in large part, because of the biological richness of the lush forests and ocean coast of this region. Only the civilizations of the Andes and Central America are considered to have developed a more complex technology and social order (in the western Hemisphere) than the Tlingit and Haida people. The commemorative totem poles and large timber houses are an indication of the permanance and high level of sophistication of these southeastern aboriginal people. These coastal tribes possessed highly developed clan systems and their art was highly connected with inter-family ritual.

Clan heraldy and religious and historical personifications were largely dominated by animal symbols. Even though the Tlingit, Haida and other coastal Indians had many differing beliefs, all considered the intelligent and bold raven as a symbol of the Creator. Other species very prominant in religion and art were the eagle, wolf, salmon, frog, shark, killer whale, otter, beaver, bear, seagull, and the hawk. Art objects were immersed in sophisticated formality, recalling social hierarchy. Nature was usually modified into complex stylizations (art). Blank areas in Tlingit and Haida art were seldom seen. Overall pattern and symmetrical regularity are readily apparent in relief carving, weaving and painting. Three-dimensional wood and ivory statues, masks, and in particular, totem poles, show a similar complexity resulting from interlocking of figures and general overlapping of objects and animals.

The villages were located in an environment characterized by a moist, mild climate resulting in many edible berries and greens and timber suitable for totems and buildings. Rivers and streams teemed with salmon, which were caught and stored in great quanities for winter consumption. Deep-sea fishes such as halibut were easily caught and sea mammal hunting was usually very productive. Sitka black-tail deer was the primary land mammal hunted. Life was good, generally with such a rich food supply that leisure time was available to be devoted to social activities and the arts.

A ceremony - well known and dramatic - was the "Potlatch", a continous gift giving among groups of people. Potlatches usually centered around the construction or dedication of a house or the erecting of a new totem pole. Often a potlatch involved the exchange of status - or the gaining of status of an important member of a community or the settling of adelot between clans. Guests often traveled great distances to exchange or receive valuable gifts of blankets, furs and food. Gift giving commonly lasted several days. Such a lavishing of gifts usually involved an effort to impress others with an individual or family's wealth and status. Guests would in the future hold their own potlatches - often to attempt to outdo other's potlatch efforts. Some great potlatches took virtually years to prepare for and in some cases lasted for months.

ORIGIN AND ANTIQUITY OF TOTEM POLES

Literature on totem poles offer two differing opinions on the origin and antiquity of this dramatic art form: that poles are prehistoric and/or they are of post-European influence. Generally, it is believed

by scholars that the Haida Indians of the Queen Charlotte Islands, British Columbia, brought totem poles to their fullest sophistication and devleopment. It is also believed that the Haida people carved the first poles. The first heraldic pole recorded for science was observed on Lagara Island (Queen Charlotte Islands) in 1791. A sketch of carved interior house pillars in Nootka Sound appeared in Cook's published journals of his third world voyage. Also, Malaspina observed on his 1789-94 voyage, monumental sculptured mortuaries at Yakutat Bay. Due to these wide geographic sightings of totemic art at a period of initial, if not very early European exploration, it would appear unlikely that such carving was post-European. Evidence also indicates that totems originated where they were found - the Pacific Northwestern coast of North America. Here, the tall, easily carved western red cedar trees provided a rather unique and readily worked source of raw material. also.

Inspiration for carving the poles was probably derived from tall trees, tall mountains, and the raven, eagle, sea lion, and other species which tend to perch on tall vantage points to overlook their surroundings for food, danger, or to rest.

Due to the rather early primitive carving instruments of sharpened bone and stone, the "finest" totem poles weren't carved until after the wide introduction of metal. Thus, it could be said that the more deeply carved, more elaborate totem poles are post-European. According to some sources, the larger houses and finest totem poles were constructed between 1830-1880.

TYPES OF TOTEM POLES

Totem poles (also referred to in the literature as "posts, pillars and sticks") are generally described as momuments of red cedar carved and erected for specific purposes. The totem poles erected in the open air served the purpose of "validating", or recording, in public view, an event or act much as written language also records history.

Edward L. Keithahn, in MOMUMENTS IN CEDAR*, described six types of sculptured cedar monuments, in order of their probable development:

1. House pillar and false house pillar.
2. Mortuary pole.
3. Memorial pole.
4. Heraldic portal pole.
5. Potlatch pole.
6. Ridicule or shame pole.

Summarized, the specific purposes and types of poles is below:

House pillars and false house pillars were in use earlier than other "poles" and were used to support massive community houses - such as the replica at Totem Bight.

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*Bonanza Books, Crown Publishers, N.Y., N.Y., 1963.

Haida Indians generally used four house pillars, then carved detail illustrating Haida mythology. Tlingits usually did not actually carve supporting house pillars. Instead, they carved a "false pillar" to be placed against the actual supporting timber. The false pillars possessed the ability to be moved to other houses at a later date.

Being inside the community houses, house pillars received protection from the wet Northwest climate, and are thus among the oldest examples of Tlingit and Haida Indian sculpture surviving today.

Mortuary poles, considered the most common in Alaska, were first observed by early explorers in Tlingit country as plain (but sometimes painted) poles on top of which was placed a box containing ashes of cremated dead. Later, ashes were deposited in a crypt at a pole's base - the pole being topped with a totem figure. Still later, poles were carved to tell a story such as heraldic or potlatch poles. Mortuary poles fell from common use as Christian influence increased, changing burial customs.

Memorial poles varied in function and included (when mortuary poles fell from common use) the purpose of tomb stones, but generally were located some distance from grave sites. Memorial poles were also erected to honor certain living, as well.

Heraldic poles, first observed in 1790 on Langara Island, Queen Charlotte Islands, were placed against the middle front of a house, a hole at its base serving as the entrance to the house. The carving on the pole portrayed the mythological history of the family dwelling within. The community house at Totem Bight has such a heraldic pole.

Potlatch poles are generally considered of recent Haida origin. The first potlatch poles were carved not more than 170 years ago and were the result of the accumulation of wealth and social standing and stature. Potlatch poles recorded and validated potlatches and were often of great height, color and elaborate carved detail. These poles occasionally were eightly feet, or more, in height.

The carvings on Haida Indian poles usually depict different information than the sculpture on Tlingit poles and one must have a knowledge of local religion, art, and mythology to possess an understanding of the stories protrayed on the poles. Even the style of art varies somewhat.

The poles at Totem Bight - generally considered Tlingit country - are basically Haida in style.

Clan houses, such as the example at Totem Bight, were the residence of a particular clan. The clan was presided over by the head man or patriarch of the group. If the size of the clan residing in a single village was large, additi onal houses were built. Each house had a name and house chief. Names were derived from clan emblems, such as eagle's nest house, sun house, iron house, shark, wolf, etc.

Houses were often large, sometimes virtually housing an entire village. The center of the houses were dominated by a communal cooking-warming fire. A smoke outlet in the center of the roof provided virtually the only ventilation for the structure.

TOTEM POLES AND CLAN HOUSE AT TOTEM BIGHT

The U.S. Forest Service served as the administering agency for 1930's depression era Civilian Conservation Corp (CCC) activities in Alaska, and it was the CCC program which played a major role in both salvaging and carving replica totem poles and construction of clan houses. It was a historic preservation project of the first order, summarized by Lawrence Rakestraw in the monograph "A History of the Forest Service In Totem Pole Restoration and Preservation,"* excerpts below:

The CCC program in Alaska was unique in many ways. It was managed entirely by the Forest Service, unlike the pattern in the States where the Army shared responsibility for the program with the resource agencies. Puerto Rico was like Alaska in this respect. In the States, young men 18-21 were signed up for a period of two years. In Alaska there was no age limit; some of CCC "boys" were seventy or over. In Alaska also, men were permitted to resign from the CCC to accept seasonal work (usually in the fishing industry) and then to re-enroll.

The first thing that the Forest Service had to do was to obtain title to the totem poles. This preliminary action was necessary before the projects could start or money be spent. In this, the Forest Service worked through the clans, getting permission to move or to restore the poles as a community project. They worked through the old men in the villages, and generally gave these men charge of the project. At times the titles were hard to trace; but in no case did the Service fail to trace through the title.

Linn Forrest was put in charge of the project, and remained in charge as long as the project lasted. He was educated at the University of Oregon and at Massachusetts Institute of Technology, majoring in architecture, and later had a traveling fellowship in Europe. As architect for the Regional Office in the Pacific Northwest Region of the Forest Service, he had charge of the construction of Timberline Lodge. This alpine lodge, designed to give work to artisans, was built with WPA funds, and was a showplace of alpine architecture. The lodge had a great deal of hand carving and hand wrought iron work on it, and building it was a good training ground for the totem pole project. Linn Forrest came to Alaska in 1935, when plans were made to build alpine lodges at Sitka and in the Kenai. Instead he was given charge of the totem pole project.

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*Contract No. 01-154, Alaska Region, USFS, March 1972, 59 pages.

The work was set up as a year round project. At each of the sites selected for totem poles, large open sheds were built to serve as workshopes and later as sheds in which to store the old totems. These were built near the school play grounds so that they could better be used by the schools as shelters for children and recreation centers. The workers were chosen from the local villages, so that there would be no problems of transportation. Carvers were chosen, generally from the old men who had retained old skills; and the carvers in turn trained the younger men.

The tools for carving were hand made, modeled on the older tools used before the coming of the white man. The Indians showed much skill in making these, using car springs and old files, and showed an astonishing knowledge of metalurgy. Samples of the native paints were made, using ancestral techniques. Black was made from veins of graphite; white from clam shells; yellow from lichen and yellow stones, and green from copper pebbles. The Indians knew where the veins of rock from which the colors came were located. These were ground up in mortars with pestles. Then salmon eggs were wrapped in cedar bark and were chewed. The saliva was then spit out, and ground up with the coloring. The paint made was authentic and permanent, but for a project of this proportion, larger quantities were needed; so Forrest duplicated the colors with commercial pigments. Following is the estimate of material necessary to preserve and point 40 totems:

Dutch Boy white lead soft paste	750 lbs.
Boiled linseed oil	20 gal.
Turpentine	16 gal.
Pale Japanese drier	45 gal.
Chrome yellow light color in oil	1 gal.
Italian burnt sienna in oil	5 gal.
Chrome green medium color in oil	2 gal.
Prussian blue color in oil	2 gal.
Bullentin Stay Red color in oil	2 gal.
Refined Lamp Black color in oil	12 gal.

This would make 10 gallons of white, 10 yellow, 10 blue green, 20 frog green, 20 red, 20 bear brown, 20 beaver red, and 20 gallons of black paint. In addition to this, 40 gallons pentrared, 120 gallons permatox, and 20 gallons avenarious carbolienum were needed for the preservative work. Permatox B was a preservative developed by the Forest Products Laboratory in Madison, Wisconsin.

The poles were carried into the sheds to be worked on. They were transported whole--none were ever dismembered, except the Seattle pole, of which more later--and placed within the shed on skids. If the pole were to be restored, it was worked on there. If the old pole were badly deteriorated, a new pole would be carved. Careful measurements, with calipers, were taken of parts to be replaced. Indians felled cedar trees of suitable size for new totems, and these were rafted to the totem work site. The Forest Service vessell, the Ranger 7, was used in this work. The new log would be laid alongside the old pole to be copied. The old men themselves knew the stories of the totems. They

took great pride in their work, and made every effort to strive for authenticity. They inspired the younger men, too, with much of their own pride in craftsmanship, and the communities became devoted to the project. As one carver, Charles Brown said:

> "The story of our fathers' totems is nearly dead, but now once again is being brought to life. Once more our old familiar totems will proudly face the world with new war paints. The makers of these old totems will not have died in vain. May these old poles help bring about prosperity to our people."

Both the Smithsonian Institution and the National Park Service had suggested that the work be directed by a trained ethnologist. Heintzleman sought one, but no agency could provide him with one. He finally hired Dr. Viola Garfield (Mrs. Charles Garfield) as a part time collaborator. Mrs. Garfield was well acquainted with Alaska. She had traveled in Alaska with her husband, and had done research among the Tsimshians along the coast of British Columbia. As a member of the Department of Anthropology of the University of Washington, she had for eight years been taking a dozen or more students to Alaska on field trips for university credit. Heintzleman hired her to collect stories of the totems and Indian folklore as she went around the area. She traveled to each of the areas--Klawock, Hydaburg, Ketchikan--taking with people, taking photographs of old totems, and getting their stories, collecting 27 volumes of notes and pictures.

Forrest, meantime, collected stories on his own. Like Garfield, he found the Indians to be great story tellers. he collected the stories dealing with the totems located in the totem parks, and mailed them to Mrs. Garfield for editing. They were collected in the book published by the University of Washington Press, The Wolf and the Raven. Some of Linn Forrest's stories appeared in the Alaskan, the official publication of the Alaskan CCC; others still remain in manuscript form.

Once the poles were completed, they were placed, for the most part, in totem parks. The parks were laid out by Forrest in a harmonious setting. Some poles were set in the ground, with the bases buried about six feet deep, and the poles raised by block and tackle apparatus. Others, especially the small poles, were set on blocks.

This is the general story of the way the project was operated. Each of the totem parks and locations had its own history, however, and we may here look into the history of each separate project.

In the vicinity of Ketchikan, the Forest Service decided to establish two totem sites. One was designed as a primitive Indian village, fulfilling a plan Charles Flory had suggested some years before. A suitable site was found for it at Mud Bight, about seventeen miles from Ketchikan, at an old Tlingit campsite. It had a gravel beach and salmon steam, with the forest in the background, and a headland on which the village would be in full sight of steamers. Mud Bight was thought to be an inappropriate term for the site, so the name was changed to Totem Bight. A second site was chosen near Ketchikan, at Saxman, a native village at Tongass Narrows, which was both accessible to Ketchikan and within view of the steamers.

At Saxman, Forrest laid out a rectangular plot with an approach to be bordered with poles, and a square bordered with hand adzed logs ornamented with frog heads. Two stairways were planned to lead to the area, one flanked by raven figrues, the other by bear figures, in token of the two phratries of the Tlingit. An obstacle of the establishment of the park occurred in the shape of a much delapidated Presbyterian church with stood on a part of the approach. The Pastor, David Christensen, was willing to have the church moved to a new site, but the building was so shaky that there was doubt that it could stand the moving. Meantime, the moved had to be approved by the Presbyterian Mission Board in New York; and the Board had difficulty getting a clear picture, through correspondence, of just what was wanted. The matter was finally settled through a fire, which burned the church. The building was insured; the CCC cleared up the debris, and the church was rebuilt on a new site.

Agreements were made in 1935 with the owners of poles at Cape Fox, Pennock Island, Metlakatla, Old Tongass, Cat, and Dog Island for transfer of poles to public totem parks. The poles were brought in from these outlying areas and a totem shed built for carving. The community house at Totem Bight was designed by Linn Forrest, and modeled on those built in the beginning of the 19th century. The inside was one large room with a central, square fireplace around which was a planked platform. The smoke hole was protected by a movable frame for keeping out wind and rain. Charles Brown, the chief carver, designed a house front painting of a stylized raven with each eye elaborated into a face. On each of the four corner posts sat a man wearing a spruce root hat. The carved posts within symbolized the exploits of a man of the raven phratry. The house was beautifully done in its framing design, and joinery workmanship. It was put together with wooden pegs; no metal work went into its construction.

The poles brought to Totem Bight were mostly in poor condition, and were duplicated. The majority were carved by Charles Brown, though some were carved at Hydaburg by John Wallace and shipped to Totem Bight. In all, twenty-seven poles were erected on the site,* all copies of originals. At Saxman, thirteen of the original poles were repaired, and ten original poles copied; three new poles were carved.

In addition, other work was done. The Seattle totem, which stood in Pioneer Square for many years, had originally been stolen from Tongass Island. The totem was in poor repair, and the City of Seattle asked that a duplicate be carved. The totem was cut into ten foort sections for shipping and was duplicated at Totem Bight. The duplicate was a better pole than the original. In Ketchikan, near the junction of Mission and Stedman Streets stood the Chief Johnson Pole, the only pole in town in its original position. It stood on a campsite of the Kadjuk House of the Raven Clan on land owned by the clan. It was erected in 1901. The title to the pole and land was clouded; but the citizens of

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*Including the seven posts associated with the clan house, there are a total of twenty poles at Totem Bight State Historical Park. The above figure, twenty-seven, has not been verified and may very likely be an error.

Ketchikan thought it appropriate that the pole be restored. They managed to get title to the land and then to convey the land to the U.S. Government. The pole was repaired. In addition, a number of poles in the city ball park, owned by the American Legion and brought to the city from Old Kasaan and Tongass Island, were repaired at city expense.

Some other work was undertaken. North of Juneau, Auke Bay Village had been occupied by Indians at the beginning of the century. They had abandoned their village and garden site. The Juneau Chamber of Commerce suggested that the village be reconstructed, and Forrest made studies. Funds were lacking for a village reconstruction on the scale of the Totem Bight project, so eventually plans were made to erect a single pole, in a simple setting, to the north of the highway near Auke Village recreational site. The legend involved in the pole was collected by Linn Forrest, and the actual carving was done by an Indian named St. Clair, who came from Hoonah, and two assistants.

In all, forty-eight old poles were restored, another fifty-four, beyond restoration, were duplicated, and nineteen new totems were carved. In addition, eighteen poles at Sitka were restored or duplicated. In 1941 because of the construction of the Annette Air Field, which took away many of the younger workers, the work on the totems began to slow down, particularly in the Ketchikan area. After December 7, 1941, work came virtually to a stop, though the program did not officially terminate until June 30, 1942.

The work was a marvelous achievement. It was particularly noteworthy in that the Forest Service, as an organization, was no professionally prepared to engage in creation and restoration of native art, and relied on experience guided by judgment rather than on professional training. They were able to duplicate or to repiar the best of the totems that were left rotting in the woods, and to recover, at close to the last possible moment, the Indian legends connected with the totems. The quality of the work varied, as was natural in a project of this type. Some of the work was outstanding; in general it was good. Both as a relief project and as an artistic project, the CCC totem pole program was a great success.

EXISTING INTERPRETATION AT TOTEM BIGHT

The poles located at Totem Bight State Historical Park are presently interpreted via routed plastic signs attached to the actual poles themselves. In several cases, signs are missing or damaged and doubts exist as to the accuracy of the interpretive messages. Reproduced below are the interpretive messages which were originally composed for the poles at Totem Bight (numbers are keyed to the accompanying map).

#1 Pole on the Point

At the top of this pole is a shaman dressed in ceremonial garb. He is wearing a headdress of bear claws, a painted and fringed leather apron, and in his hands is a carved symbol of one of his spirit powers. Below him are a halibut, two land otters, an eagle with outspread wings, a man holding a salmon by the tail, and a woman and two frogs. Below the frog are, in order, Cormorant, Raven, Halibut, and Grizzly Bear, symbolizing the adventures of the Raven.

#2 Potlatch House Entrance Pole

The pole against the front of the house is called Wandering Raven, from the legendary Raven carved as the top figure. At his feet is the box containing daylight. Mink is below Raven, followed by a frog and a standing figure of a man who holds the tail of a blackfish (killer whale). Next on the pole is Raven at the Head of Mass, the grandfather of Raven and below Mass is Raven's mother with a large labret in her lower lip--the mark of a high-class woman.

#3 Blackfish Pole

This pole symbolized the story of the origin of blackfish. The raven, carved with the dorsal fin of the blackfish extending above him, is a special crest. The tiny face on each blackfish represents the blowhole.

#4 Land Otter Pole

At the top of the pole is the hero of the story, wearing a dog-skin headdress. In one hand he holds the tail of a land otter, in the other the carved club with which he killed it. Below is a drowned man, holding onto two logs. A human figure is below the logs. Between the knees of the cave-being is another drowned person. The next figure is another cave-being, holding a stingray. At the base of the pole is a devilfish, identified by the beaked face and tenacles.

#5 Master Carpenter Pole

At the top is the eagle, main crest of the Haida Eagle Clan, followed by the beaver and bullhead, also clan symbols. Next is the raven followed by the bear and blackfish. Under the bear's feet is carved representations of two copper shields. The human figure, second from the base is the Master Carpenter, who taught the Haida woodworking. The last figure is a hoot owl.

#6 Sea Monster Pole

A village watchman stands guard at the tope of the pole. Below are two eagles followed by painted faces representing mountains and clouds, habitat of the eagles. The large figure below them is a blackfish in supernatural form, holding a seal. Above the blackfish is a small, carved face; a personification of the undersea house of the creature. The mythical sea monster, with a peculiar duck-like beak next on the pole appears on a number of Haida poles. The small face under the beak of the sea monster is the monster's spirit power. Tenacles with a face beneath represent a devilfish in the act of devouring the human being at the base of the pole.

#7 Raven at the Head of Mass

A chief in a spruce root dance hat tops this pole. At the base is the chief, Raven at the Head of Nass. The small human figure represents ancestors of the Raven clan.

#8 Kat's Bear Wife

This carving of the bear and tracks symbolizes the story of Kats who lived for a time with a female grizzly bear.

#9 Kadjuk Bird Pole

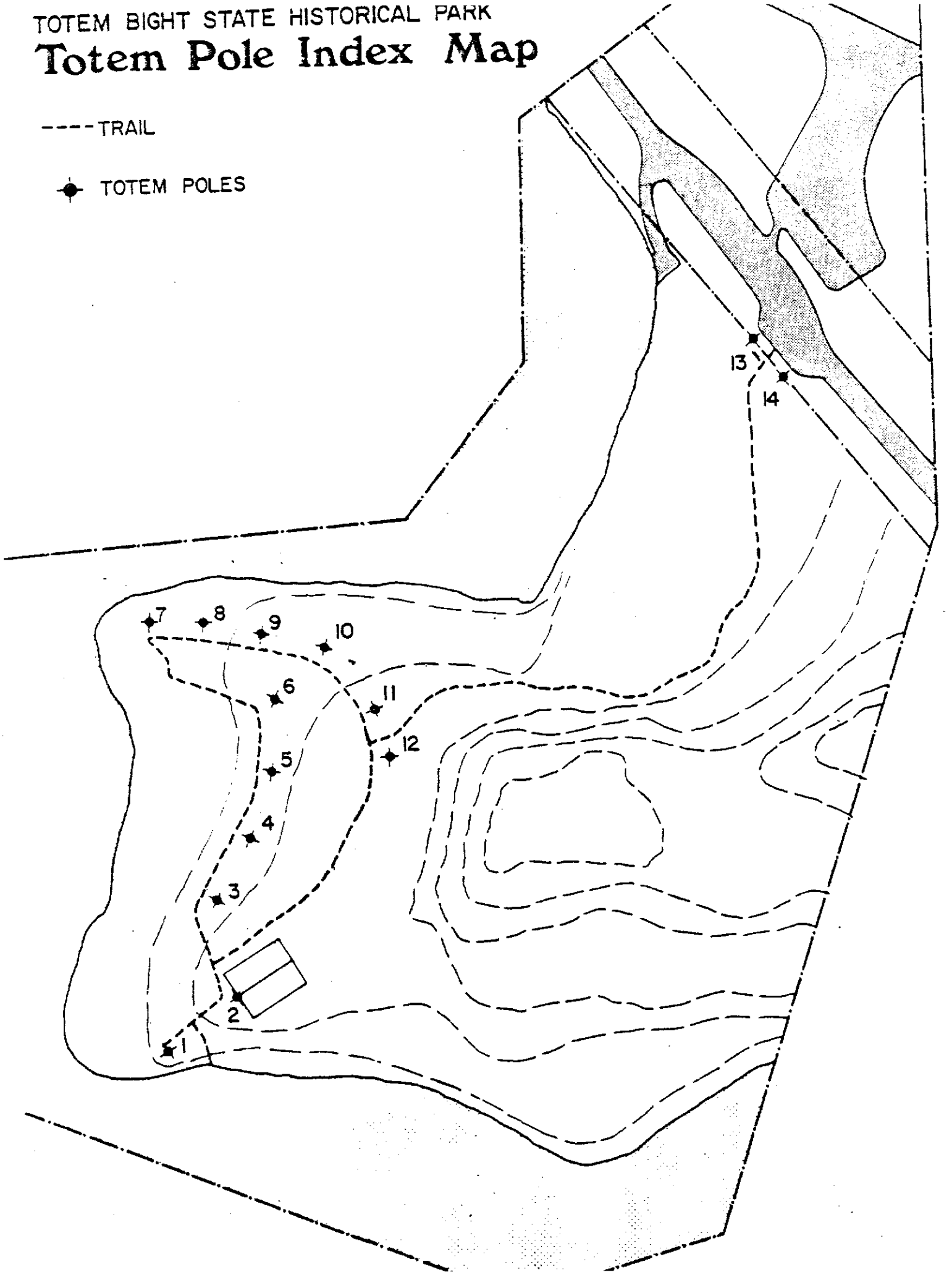
On top of the pole is the fabled bird called Kadjuk. It is the special crest of the head of Kadjuk House. The undecorated space separating the bird from the other figures symbolizes the lofty habitat of the bird and the high regard in which the crest is held. The Raven is next, with the breast of the Raven forming the headdress of his wife below him, and his wings extended on either side of her head. The woman wears in her lower lip one of the immense plugs that marked a woman of rank and in her hands, she holds two salmon. The two faces above the tails represent wealth and the two large faces at the base represent two slaves of Raven.

#10 The Halibut Pole

This pole honors the Halibut House people of the Nexodi clan. Unlike most of the poles here at Totem Bight this pole is not a copy, **but is an original.** NOTE: Since this sign was placed, the original halibut carving was replaced with a replica. The original is in the State Museum, Juneau.

TOTEM BIGHT STATE HISTORICAL PARK

Totem Pole Index Map



#11 The Thunderers

This pole symbolizes thunder, and belongs to the Thunder House people. According to legend, four brothers belonging to the clan were changed into Thunderers. When they move their wings, thunder is heard; and lightening flashes when they wink their eyes. They live in the sky and are very powerful beings.

#12 Man with Bear Fat

This is a grave marker from Cat Island representing a man wearing a large carved wooden hat, surmounted by a bear's head. Such a hat was worn at a potlatch or other important occasion, during which the stories it symbolizes were told or dramatized.

#13 Eagle Grave Marker

This pole is a copy that only remotely resembles the original which stood in the old village of Howkan. The reproduction of the Chilkat blanket design on the front is out of keeping with wood-carving traditions as it would never be used except on a woven blanket or as a pointed design on a skin garment. The design is symbolic of mountains, clouds, and creatures that live in the mountains. The face in the center section, with very large eyes, round nostrils, and prominent teet is the mountain itself, and above it are three faces symbolizing clouds. The center one is a fair-weather cloud, those on either side with darkened upper half are light rain clouds on the mountain top. Below the mountain face is another symbolizing the homes of animals living on the slopes. On either side of the lowr face are whale tails, symbolizing the whales brought to the mountains by thunderbirds.

Except for a small cloud face in the center of either side of the blanket, the designs are formal patterns filling space which must be decorated. The painted border and the fringe across the bottom complete the representation of a Chilkat blanket.

#14 The Thunderbird & Whale

This pole illustrates the mythological conception of thunder as a huge bird that lives on the tops of the highest mountains. Thunder comes from the beating of its mighty wings. The beak with turned-down tip, symbolizes eagles and thunderbirds. The whale lies over the top of the short shaft, symbolizing the mountain top where the bird rests after this trip from the sea before devouring his prey. It is said that whale bones may be found on the tops of many mountains, where they have been carried in ages past.

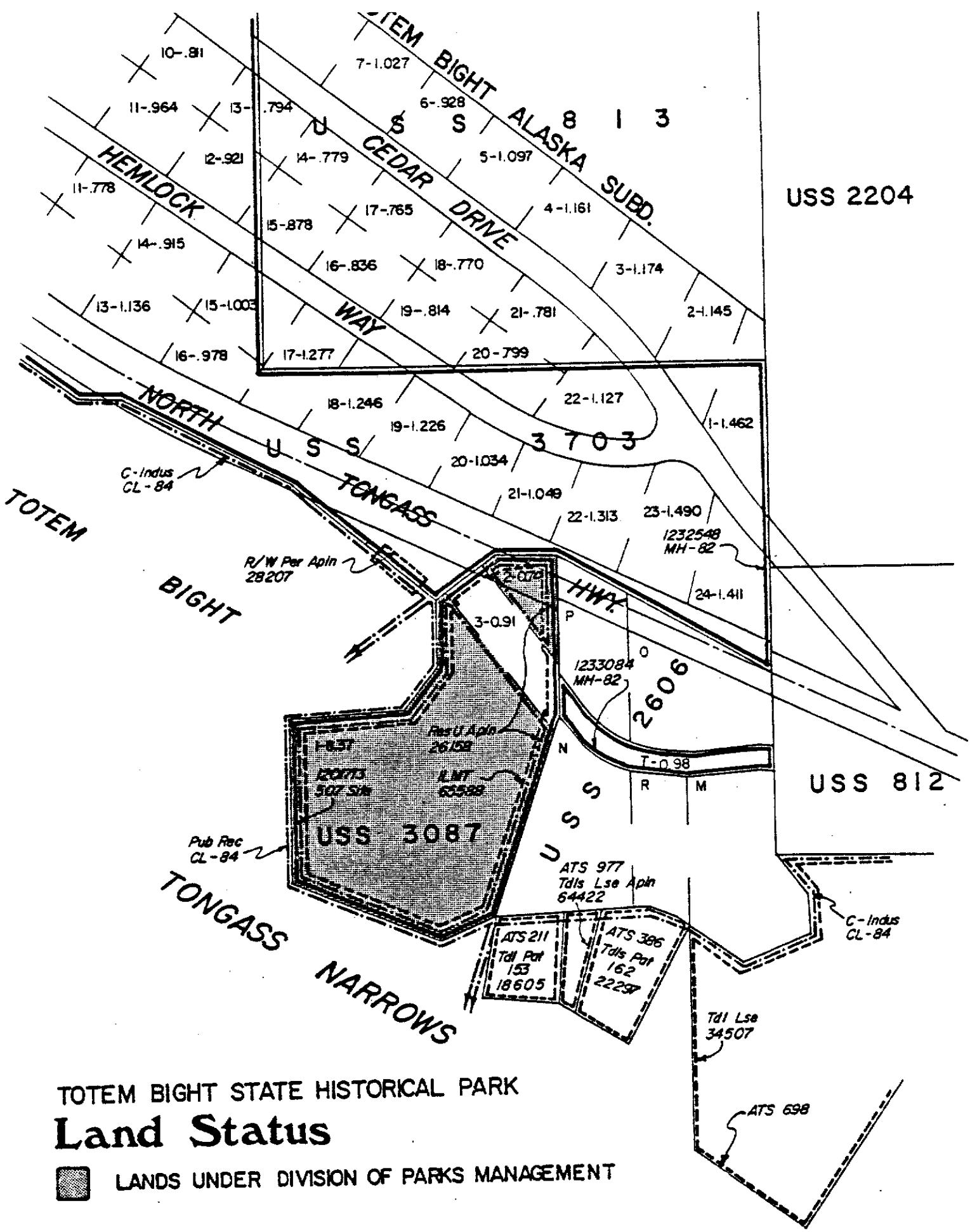
LAND STATUS OF TOTEM BIGHT STATE HISTORICAL PARK

Totem Bight State Historical Park consists of Lots 1 and 2 of US Survey 3087, which contains 9.11 acres. The area was patented to the State of Alaska on November 9, 1959, under Patent No. 1201713, with the stipulations listed in the patent agreement. Lot 3, which was also under the same patent, is a highway right-of-way and therefore not part of the historical site.

On February 10, 1965, the then Forestry, Parks and Recreation Section of the Division of Lands, State of Alaska, applied for a Reserve Use Permit for Lots 1 and 2 for the purpose of managing the area.

On January 6, 1975, the Division of Parks received jurisdiction over lots 1 and 2 (of USS 3087) through an Interagency Land Management Transfer (ADL No. 65588). The Division of Parks had also applied for Lot 3 but this was refused due to the fact that this parcel, though no longer the North Tongass Highway's R.O.W. (since this route was realigned) is still being used for access to private lands beyond the historical park, in US Survey 2606.

Most recently, on January 7, 1976, the Division of Parks applied for an Interagency Land Management Transfer of those tidelands classified as Public Recreation (C1-84) out to a water depth of 20 feet.



TOTEM BIGHT STATE HISTORICAL PARK

Land Status

LANDS UNDER DIVISION OF PARKS MANAGEMENT

As of July 1, 1976, the Division of Parks has jurisdiction over Lots 1 and 2 of USS 3087, containing 9.11 acres, referred to as the "Totem Bight Historical Site." This site lies within Section 29, T74S, R90E, CRM.

SURROUNDING LAND USES

The land status of the property surrounding the Totem Bight Historical Site is as follows:

To the north and northwest, the park is bordered by the North Tongass Highway right-of-way, which also cuts through the northeast corner of Lot 2 of USS 3087. To the east, it is bordered by Lots "P", "N" and "T" of USS 2606; Lots "P" and "N" being privately owned and Lot "T" being a highway ROW belonging to the State under Patent No. 1233084. To the south and west of the site are tidelands belonging to the state and classified Public Recreation (C1-84) and Industrial (C1-84).

The one "inholding" at Totem Bight is Lot 3 of USS 3087, the old North Tongass Highway ROW, which bisects the Historical Park.

LEGAL ENVIRONMENT OF TOTEM BIGHT

The "legal environment" of Totem Bight could be described as the compendium of all laws and regulations and legally binding contracts which provide for the management and protection of this State park area. This

section will not list all applicable laws; rather, it will provide some detail on particularly important laws affecting this planning effort.

Two federal actions - resulting from State initiated efforts - have particularly important influence over Totem Bight. These actions are:

1. The placement of Totem Bight State Historical Park on the National Register of Historic Places.

2. The acceptance and use of matching grant funds provided by the federal government under provisions of the National Historic Preservation Act (P.L. 89-665).

Through listing on the National Register of Historic Places, Totem Bight is provided protection through comment by the Advisory Council on Historic Preservation on the effect of federally financed, assisted, or licensed undertakings on (such) historic properties, as stated in Section 106 of the National Historic Preservation Act of 1966 and Executive Order 11593. Totem Bight was entered on the National Register on October 27, 1970. It was a concensus nomination approved unanimously by Alaska's Historic Preservation Advisory Board.

The above referenced review and comment responsibility of the Advisory Council on Historic Preservation is provided for in Section 106 of the Historic Preservation Act, which states:

> The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation...a reasonable opportunity to comment with regard to such undertaking.

In addition to the Register, the Historic Preservation Act of 1966 authorizes 50 percent matching grants in aid for historic preservation projects. Such grants can be used for numerous "qualifying" projects, including development funds for the "...protection, rehabilitation, restoration, and reconstruction of historic properties." Totem Bight Historic Park, received such a grant, specifically for $42,224.92 for a grant period of November 1, 1970 to December 31, 1971.

The project was funded to a total $92,097.48 which included the State's $49,872.56 conribution. The project description, as stated in the agreement between the Division of Parks and National Park Service:

> This rehabilitation conforms to the First Edition (1970) of the Statewide Plan (p. C-2) by preserving a three dimensional record of 19th Century aboriginal culture as interpreted in the early 20th Century. The replica of a community house and totems, in geographic conjunction with an Alaska State Museum project preserving original totem poles and the practice of totem carving, will permit interpretation of European impact on original occupants' culture in an aura of living history."

The specific work accomplished, as reported in a Division of Parks report (Park Development Section, undated) follows:

> The purpose of this project was preservation of a Native Community House and totem poles representing aboriginal culture by rehabilitation, preservative treatment and upgrading the environment.
>
> The specific work accomplished included replacing rotten support timbers, floor boards, entrance steps and cedar shingles on the community house. Hidden indirect lighting and hidden outlet fixtures for lighting of the interior totem support poles and aboriginal dancers were provided. The entire community house was given three coats of pentachloraphenol preservative treatment and all art work repainted.
>
> Thirteen totem poles were restored by careful patching of wood splits and broken appurtenances and straightening of leaning poles. Recarving of broken wings, noses, beaks, etc. was accomplished by native artists as was the new 7 foot halibut carved for the top of the halibut pole. The old original halibut was removed to the Ketchikan Museum to prevent further deterioration and loss. All poles were also given three coats of preservative treatment. The repainting of all poles was accomplished by using special totem pole paint developed at the request of the British Columbia Provincial Museum by B.A.P. Co. Paint Co., Ltd. of British Columbia, Canada. All art work was duplication of the originals.
>
> The grounds surrounding the community house and totems were regraded and reseeded and new benches were provided. The existing walkways and observation area was resurfaced and widened using crushed gravel. Stone bases were placed around the totem poles for protection of the bases.
>
> The parking lot was enlarged, regraded and resurfaced and new sanitary facilities provided.
>
> The non-participating State expenditures included the parking lot, sanitary facilities and new rest benches.
>
> The most significant accomplishment of this project was the preservation of many facets of the aboriginal culture in an environment the same as existed when the original culture flourished. Through upgrading, this historic site was protected, yet made accessible and useable to the public for viewing and further understanding of the original civilization which existed in this area.

When Historic Preservation Grant assistance is accepted, it is done so with signed agreement by the grantee that certain legal conditions are imposed related to the construction, restoration, operation, maintenance, and public use of the project area.

Any change or additional restoration work done at Totem Bight State Historical Park must be done within the contract specifications of the document: "Historic Preservation Grants-in-Aid: Policies and Procedures." The sections of this document which are particularly applicable to any work accomplished at Totem Bight are below:

1. Grantees are responsible for the maintenance and administration of historic properties acquired and developed with Federal assistance. Satisfactory maintenance requires that the historical integrity of features, materials, appearance, workmanship, and environment of assisted properties be protected and preserved.

2. The responsibility to maintain and administer an historic property acquired or developed by the state itself or by a political subdivision of the state shall be in perpetuity.

3. Properties owned by a state or subdivision of a state that have received grant assistance shall be administered so that the public can view and otherwise enjoy the historic values.

4. Natural accretions of time, such as forest growth, may be retained except where they hamper understanding. Supporting elements of the historic scene may be restored to the extent necessary for public appreciation. Such elements may include man-made features, vegetative growth, and historic land uses.

5. Adaptive Use

   An historic property is improved or restored for adaptive use when all or a portion (facade, for example) of the exterior is restored, with interior adapted to a contemporary functional use. Adaptive restoration is the appropriate treatment for structures that are visually important in the historic scene but do not otherwise qualify for exhibition purposes. In such

cases, the facade or so much of the exterior as necessary, should be authentically restored to achieve the management purpose so that it will be properly understood from the public view. The interior, in these circumstances, is usually converted to a contemporary use. The restored portion of the exterior should be faithfully preserved in its restored form and detail.

The National Park Service recognizes adaptive use of historic properties as a useful means of preservation. The preservability of architectural elements of an historic property is a matter of professional judgement. Such evaluations should be made by person competent, through training and experience, in the fields of architecture and architectural history. Preservability is a matter of degree insofar as not all structures or sites are of equal value. The following criteria shall be applied when a grantee considers using an historic property for contemporary purposes.

a. Those attributes for which the property was placed on the National Register are the ultimate consideration when restoration or improvement is to occur, and any change due to modernization shall be consistent with the retention of those values.

b. The integrity of a property, as evidenced in its existing original fabric and in its inclusion in the National Register, places a restraint on adaptation. Modifications shall be in harmony with, and preserve the integrity of, the extant features to the maximum extent possible.

c. Any use of an historic structure should be adapted to the structure: it is the prospective user that will most likely be transient--not the historic property.

d. Since the ultimate goal of a preservation undertaking is to save significant historic and cultural values, it is imperative that valued elements shall not be destroyed in the process. This applies to the interior as well as to the exterior of a structure being restored or improved for a contemporary function.

e. Basic utilities and safety measures are examples of new construction considered allowable expenditure items for grant assistance.

In conclusion, the legal environment of Totem Bight also includes public use governed by administratively established park regulations, not summarized here due to space and the fact that they are currently undergoing revision.

VISITOR PROFILE

Cruise Ship Visitors

The visitor-use pattern for Totem Bight State Historical Park is rapidly changing because of the sharp increase in cruise ship landings in Ketchikan. In 1976, 125 cruise ships carrying approximately 66,000 to 70,000 passengers will visit Ketchikan. Of this number between 55 and 60 per cent, or some 36,000 to 40,000 visitors, will take the 2 1/2 hour Ketchikan Sightseeing "Rain Forest, Totem Bight, Ketchikan City Tour." The Totem Bight stop is the high point of this tour. Of the total tour time of 2 1/2 hours, between 40 and 60 minutes are spent at Totem Bight.

The profile of the average cruise ship visitor suggests a person who is in his or her mid-sixties and traveling either alone or with one other person (average group size is 1.6). Visitors are generally either retired, widowed or working as a professional or in a well-paid management position. There are, of course, many variations from the average. For example, in the visitor information survey prepared by the State Division of Tourism in 1971, it was pointed out that the cruise lines are virtually the only mode of transportation that carries a substantial portion of the seventy and older group. O.W. Hanger, General Manager for Ketchikan Sightseeing, suggests that about 20% of his clients fall into the 70 plus age group. The average age is brought down by frequent younger traveling companions, often younger relatives, who accompany several of the more aged passengers. Mr. Hanger has also indicated that there are over 200 wheel chair visitors on his trips each season, as well as many others who are dependent upon crutches or canes.

The short period which most cruise ships stay in Ketchikan (4 to 6 hours) allows only a limited time for all passengers to visit the Totem Bight site. Even though the bus drivers try to keep somewhat spread out, the buses still tend to group up at Totem Bight. During the cruise ship season, the site receives extremely heavy use for short periods of time. Heaviest traffic occurs when occasionally two large cruise ships are in Ketchikan at the same time. On one particular day there were 13 buses with 44 passengers each, for a total of 572 tourists and 13 guides at Totem Bight at the same time! As many as 800 visitors from cruise ships have visited Totem Bight during one four-hour period.

Although the cruise ship lines vary their schedules and stops somewhat, the majority of them makes stops at Juneau and Sitka where the tourists have opportunities for additional exposure to totemic work and interpretation. A growing number of the ships are now stopping at Wrangell (56 this year) where the tourists have the opportunity to visit Shakes Island and see the community house and totem poles which were a part of the same Civilian Conservation Corps project which developed Totem Bight. This year only four cruise ships are stopping in Haines where visitors have still another opportunity to see carvers at work. Although some of the very best totemic work in the Northwest may be seen in Vancouver, which is a port of call for many cruise ships, no effort is made by the cruise lines to bring the visitors into contact with the totems on display there. How many of the tourists visit the totem sites on their own is not known, but the percentage seems low.

The basic flow pattern for Alaskan cruise ship traffic is from Ketchikan north, with ports of call at Juneau and Skagway, then Sitka on the way south. However, depending on traffic load, there are some ships which bypass Ketchikan going north, then stop on the south bound leg. Ketchikan as the first port of call is the preferred pattern.

CRUISESHIP PORTS OF CALL 1975-1976

Port	Calls ('75)	Calls ('76)	Passengers ('75)	Passengers ('76)
Ketchikan 2/3	90	125	31,976	52,819
Wrangell 1/2	40		7,956	8,750
Juneau 1/2/3	107	138	38,856	62,000
Haines 1/2/3	4	4	1,440	n/a
Skagway	94	114	32,376	60,000
Sitka 1/2/3	71	90	28,740	n/a

1/ Ports where totem poles have been preserved, restored, or copied.

2/ Ports with interpretative program on Indian culture.

3/ Ports where Indian crafts are actively practiced.

NOTE:

1975 information from McDonell Report: Tourism in Alaska's Coastal Zones, An Economic Study.

1976 information: Direct source, Southeast Stevedoring Corp. and Ketchikan Chamber of Commerce.

Local and Other Visitors

The cruise ship passengers make up approximately 70-80% of the total use pattern of the Totem Bight Historical Park. Other users are visitors from the Marine Highway, friends and relatives of Ketchikan residents who are visiting the area and a variety of other tourists. In 1977, this group will probably amount to about 13,000 to 15,000.

This is a very mixed group, ranging from young people on bicycles to parents of mature families, family groups from the ferry system, etc. There are certain groups within this larger group which merit some special consideration. Now and then an occasional ferry passenger or group of passengers will hire a taxi so that they might visit Totem Bight within the time limitation of ferry tie-up. Mr. Hanger of Ketchikan Sightseeing estimates that there might be as many as 500 taxi visits this season (1977). Ketchikan Sightseeing also runs regular bus trips from the ferries. However, since there is a definite time constraint (one-hour tie-up time) there is not enough time to take these tourists to Totem Bight. Consequently these tours go through the Saxman Park. Mr. Hanger indicates that he would much rather use the Totem Bight Site if time allowed, and he is working toward this end. If the scheduled ferry tie-up time could be extended by 30 minutes, Ketchikan Sightseeing would anticipate bringing an additional 10,000 visitors to Totem Bight.

Ketchikan Sightseeing also runs daily tours of various sizes to the site. These groups vary in size from two or three interested individuals

to larger groups such as scouts, church groups, travel clubs, etc. High count year for these groups exceeded 4,000 visitors. This year the total will be in the neighborhood of 3,000. Visitors who travel on the ferry system are a very mixed lot. Some are basically passing through, others make stops at all or nearly all the ports and spend a day to several days before going on to the next port. A good percentage of these visitors spend time at Totem Bight. They are on a basically relaxed schedule and will take advantage of whatever information souces are available. Likewise, a high percentage of these visitors are students or young professionals who are visiting Alaska for the first time and are anxious to learn as much as they can about the land, history, Native culture, local customs, etc. These visitors show a high degree of personal motivation to manage to visit the site which is ten miles out of town, and would greatly appreciate a high quality interpretive program if one were available. They are also likely to avail themselves of the opportunities to visit active Totemic work and historic preservation programs in the other communites which they may visit: Juneau, Haines, Wrangell and in some cases, Sitka.

Still another group that merits special consideration is made up of resident (Ketchikan) users and their guests. The majority of Ketchikan residents have visited Totem Bight on one or more occasions. After the initial visit, many residents use the site repeatedly as a place to bring visiting relatives and friends. This is a year around use of the site, and the visits come at nearly all daylight hours. The site is

often visited by these persons as part of a north road auto tour which may include Ward Lake, Ketchikan Pulp Mill, Clover Pass and perhaps Smugglers Cove. For the most part, these visits are fairly short, 30 minutes or less, and the only source of information is the resident's knowledge of the poles and site history and limited on-site interpretation. Here again, a quality interpretive program would greatly enhance the visitor's experience.

Visitor Counts and Projected Growth

With only one part-time ranger who makes his weekday checks after regular visitation hours, one cannot expect to have highly accurate and dependable visitor count figures. The figures, however, show some basic trends, such as high use months, low use months, and peak use periods. Fortunately, the figures supplied by Ketchikan Sightseeing are ticket count figures and are highly dependable.

Growth in visitation to Totem Bight will probably continue, but not at the same high rate that it has for the past three years. Two additional cruise ships will begin calls at Ketchikan in 1977; one cruise ship with a passenger capacity of 600 will make 14 calls, the other with a passenger capacity of 800 will make 10 calls. This means a potential of 16,400 more passengers in 1977, over 1976 figures. If one uses the formula of 80% capacity of the ships multiplied by 60% of the passengers taking the Ketchikan Bus Tour, this will mean about 7,872 more Totem Bight visitors from these two ships alone! Pertinent questions for projecting future use for Totem Bight are:

1. Will the cruise ship industry continue to grow at the anticipated 15% per year?

2. How many years may we logically expect this rate of growth to take place?

3. What can we consider the saturation point for cruise ships using the port of Ketchikan? Is it 150-200 landings per season, as is currently estimated, or will means be provided for additional landings?

4. What is the actual carrying capacity of Totem Bight? Should facilities be expanded to accomodate the growth of the cruise ship industry?

Only as these questions are answered will it be possible to get an accurate fix on the number of cruise ship visitors to Totem Bight in future years. At this point, it might be reasonable to assume that the industry will grow at about 15% for the next three to five years if there are facilities to accomodate this growth.

Visitors from the ferry system will probably continue at the approximate 5% level of ferry traffic increase. However, if Ketchikan Sightseeing is successful in getting the ferry schedule changed, Totem Bight may expect a very rapid increase in visitors (10,000-12,000 during the 1st year) and then an additional 5% growth in succeeding years.

It is reasonable to assume that local use of the Totem Bight site will remain about the same as it has been. This, of course, will depend somewhat on the upgrading of site facilities and the possible growth or recession of the Ketchikan population.

POPULATION AND ECONOMY OF THE KETCHIKAN AREA

> By comparison with many Alaska communities, Ketchikan's economy has been stable for many years. Ketchikan never has been a classic "boom or bust" town. It has grown at a slow and relatively steady pace since its inception and has been underpinned by the fishing, lumber, and tourist industries.

So states the "Economy and Growth" chapter of the "Ketchikan Comprehensive Plan Policies" document, dated 1976. The report's chapter continues on, describing population trends utilizing both U.S. Bureau of the Census and Alaska Department of Labor Statistics. Figures, summarized below, indicate that Ketchikan can expect a continuing growth in population of approximately 1.4 percent per year.

Employment in the Ketchikan area increased at an average annual rate of 7.6 percent between 1970 and 1974. Twenty-five percent of this growth is attributable to increases in manufacturing - mostly in the wood products industry. Fishing, as an employer, is <u>believed</u> to have declined (poor statistics available) as did federal employment (marginally). State employees in the Ketchikan area increased substantially, constituting 21 percent of total increases, much of this was related to the State Marine Ferry System.

KETCHIKAN AREA POPULATION

1970 - 1974

PROJECTIONS TO 1980

		U.S. Bureau of The Census			Alaska Department of Labor		
	Year	Ketchikan	Outer Ketchikan	Total	Ketchikan	Outer Ketchikan	Total
	1970	10041	1676	11717	10041	1676	11717
	1971				10106	1632	11738
Record	1972				10558	1660	12218
	1973	10400	1700	12100	10587	1641	12228
	1974	10700	1700	12400	11552	1703	13225
Rate of Change	1970 - 1974	1.6%	0.4%	1.4%	3.6%	0.4%	3.0%
	1975	10870	1710	12580	11970	1710	13680
	1976	11050	1715	12765	12400	1715	14110
Projection at	1977	11220	1720	12940	12850	1725	14575
1970 - 1974	1978	11400	1730	13130	13310	1730	15050
Growth Rates	1979	11590	1735	13325	13790	1740	15530
	1980	11770	1740	13510	14280	1745	16030
			Projections to 1995				
	1985	12740	1780	14520	17050	1780	18830
	1990	13800	1815	15615	20350	1815	22165
	1995	14930	1850	16780	24280	1850	26130

SECTION II:

DEVELOPMENT AND MANAGEMENT CONCEPTS

Development and management programs focusing upon Totem Bight must be accomplished within the framework of the "Statements for Management", set forth in the introduction to this planning document. Further, the fore-stated compendium of information on the natural and cultural resources of this historical park (and the demands upon them) must justify all development and management actions. This is not to say this plan is rigid to future trends, for no plan should be inflexable to change. Yet, divirgences from the principles and recommendations set forth in this document should be solidly based upon data (new or existing) justifying such change.

The balance of this planning document is subdivided into the following:

1. Visitor Management
2. Resource Management and Protection
3. Interpretive Guidelines
4. Maintenance and Operations

VISITOR MANAGEMENT

This section, contains major recommendations on the following elements:

1. Recommendations on carrying capacity of the park

2. Recommendations on vehicle access, flow patterns and parking, including a conceptual site plan for the parking lot.

3. Trail locations and recommendations on trail surfacing and pedestrian flow patterns.

4. A general signing plan, excluding interpretive signs, but including directional and regulatory signs and bulletin board.

5. Litter disposal sites and container style recommendations.

6. Latrine recommendations.

The above elements are explained below:

Carrying Capacity of Totem Bight State Historical Park

In 1977, one hundred and forty-three (143) cruise ships are scheduled to call at Ketchikan. These ships have a total berth capacity of 72,000 and on the average, 90 percent of all berths are sold. This computes to 64,800 cruise ship passengers visiting Ketchikan, of which 60 percent (average) visit Totem Bight, or an anticipated 38,880 cruise ship passengers touring this park in 1977. There are, of course, several thousand

visitors using the area each year from the local populace as well as other travelers from airplanes, state ferries and private yachts.

Carrying capacity, for the purposes of this document, is defined as the level of visitor use that Totem Bight can withstand while providing recreational quality; included here are both elements of physical, or site carrying capacity, as well as social factors or resistance (or dissatisfaction) with "crowding" conditions.

Personal observations indicate that there are rarely more than five private passenger automobiles at the area at any one time. For motor coaches, which have a capacity of 44 passengers, there are, at times, as many as ten or even fourteen buses present at one time. This computes to a possible 636 persons on site at one time. It was the concensus of the authors of this document that the carrying capacity of the area would be "saturation level" with 16 buses and ten cars present at one time.

Thus, with the above limitations suggested on the capacity of the parking lot at Totem Bight, theoretically the park could accomodate 744 persons at one time. This figure assumes certain other actions, such as visitor dispersal through the park, hard surfacing of trails, additional trail construction (which will also disperse visitors) and personal interpretive message delivery by facility guides, to avoid the crowding of visitors around signed interpretive stations.

Management of Motorized Vehicles

Motorized verhicles - mostly cars and tour buses - are the primary means of access to Totem Bight. This is expected to continue, though the need to provide parking could be effected through use of a scheduled public transportation system geared to visitors other then tour ship passengers.

The primary elements of managing motor vehicles focus upon the flow pattern of vehicles and the provision of parking for vehicles.

Vehicle flow

Three basic vehicle flow pattern possibilities exist at Totem Bight State Historical Park. They are:

1. Maintain the Old Tongass Highway ROW as is, with this road essentially paralleling the newer highway and serving as a limited access fare providing access to private parcels south of the park. This ROW now dead ends at these private parcels. The implication of this possible policy is the passage of non-park traffic between the existing parking lot and the trails leading to the totem pole and clan house display area.

2. The second possibility is to close the Old Tongass Highway ROW at a point just to the south of the park boundary and to construct a new road to join the old ROW, providing access to private lands to the south of the park. The implication of this would be the

favorable impact of having no non-park traffic driving between the parking lot and the trails to the display area. The negative impact would be the environmental and monetary expense of purchasing a ROW and constructing a new access road to the Old Tongass ROW.

3. The third alternative is to reopen the Old Tongass Highway ROW further south (where this ROW is now abandoned) to rejoin the new highway corridor.

At present, non-park access traffic on the Old Tongass ROW is not considered a serious problem, though the situation is far from ideal. Further, it is thought that the possibilities of reopening a section of the Old Tongass ROW south of the historical park may be monetarily prohibitive. Thus, the recommendations are as follows:

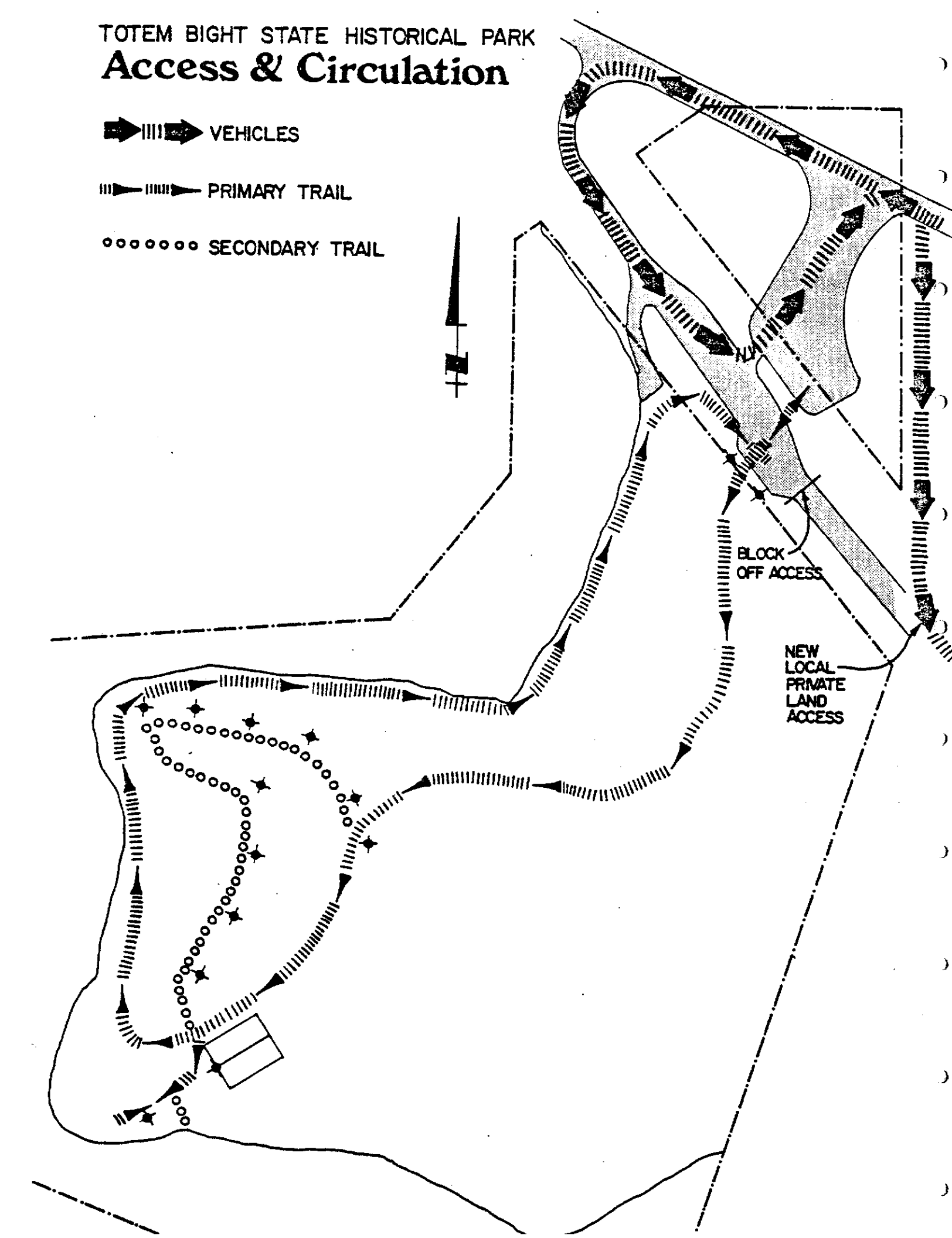
1. The ideal to be worked for is to <u>separate</u> local vehicle access from park access traffic via the construction of a new road to provide a route to private parcels south of Totem Bight. This proposal will necessitate land acquisition for the new road.

2. The more practical (but short-term) solution is to encourage a circular flow pattern of traffic from the (New) North Tongass Highway onto the Old Tongass Highway, with park user traffic <u>exiting</u> through the parking lot directly onto the new highway.

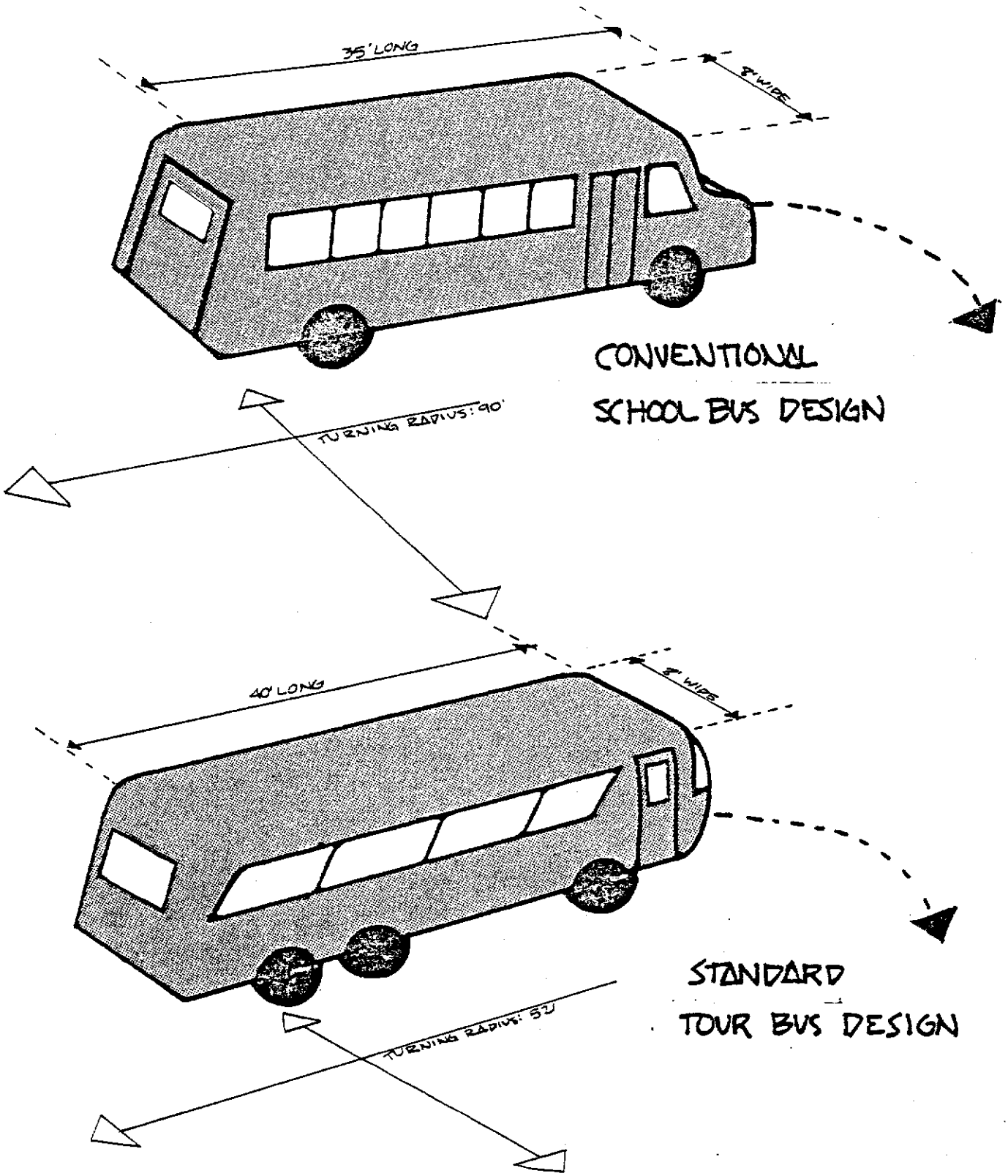
NOTE: See graphics, next page, on above proposals

TOTEM BIGHT STATE HISTORICAL PARK

Access & Circulation



BUS TURNING RADIUS AND SPACE REQUIREMENTS



In addition to the above, the following management recommendations have been formulated.

Parking, Access, Circulation

1. To provide an asphalt-surfaced parking area to accomodate a maximum of 16 buses and 10 standard automobiles, the parking lot defined with bumper logs on the edge and painted vehicle dividers. No standard verticle bumper posts should be placed around the edge of the parking lot. Instead, bumper logs should be used.

2. Vehicle parking should be eliminated along the road and in front of the access and exit trails to the totem display area. Parking of vehicles should be restricted to the parking lot only.

3. All bus parking should be provided in such a manner as to prevent buses from having to back-up any appreciable distances, preferably not at all. Large vehicles moving in reverse are considered a hazard to visitors on foot.

4. Pedestrian lanes, separate from driving surfaces, should be strived for.

5. Existing overhead utility lines should be placed underground, via a cooperative effort with local utility companies.

6. One additional vaulted latrine should be placed near the parking lot.

7. No major construction work should commence until a park boundary survey is completed, estimated to cost $6,000 in 1977.

8. Refuse containers should be provided at the parking lot, at a point near to the clan house and at the northwest point of the park. The container near the clan house should be located in such a manner as to not impact the view (or photographic view) of the structure.

9. The primary existing access trail should be surfaced with asphalt, to a width of 7 feet. The bearing strength of the asphalt walkway should be sufficient to accomodate maintenance vehicles.

10. A new trail, of boardwalk construction, should be built from a point between the Blackfish Pole and the clan house, to skirt the edge of the western bluff, then along the coastal bluff to the north, ending at the parking lot. This boardwalk, where it fronts the Totem pole display yard, should be expanded in width, providing a viewing platform large enough to simultaneously accomodate approximately 50 people. Interpretive signs should be placed at this viewing platform (see interpretation section).

11. Both the asphalt and boardwalk trails should be designed to accommodate occasional interpretive "stations". These stations should be of timber construction and wide enough to accomodate approximately 20 persons.

TOTEM BIGHT STATE HISTORICAL PARK

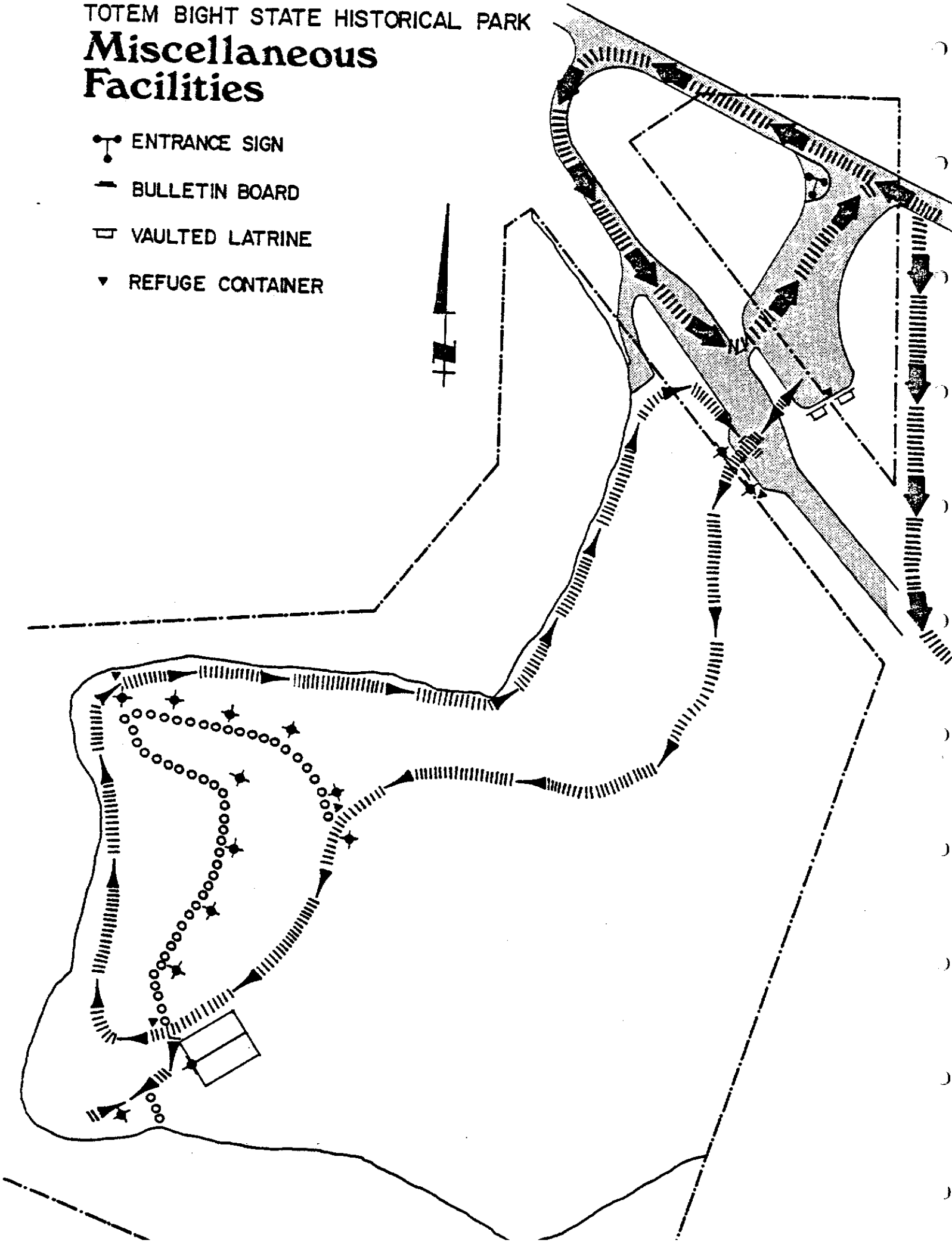
Miscellaneous Facilities

ENTRANCE SIGN

BULLETIN BOARD

VAULTED LATRINE

REFUGE CONTAINER



12. A new park entrance sign, incorporating a totemic design should be placed on the west side of the North Tongass Highway, near the parking lot.

13. General directional signing should be placed at appropriate locations.

NOTE: Conceptual drawings of the above elements follow.

RESOURCE MANAGEMENT AND PROTECTION

Resource management and protection, as a topic, is closely related to park maintenance and operations. The subjects overlap and the manager of Totem Bight should be well versed in both subjects. As in the last chapter, the recommendations of this element are listed:

1. The shrubs/hardwoods encroaching around the totem poles, clan house and western bluff of the park area (between the totem display yard and the Tongass Narrows) should be removed or thinned. This action will serve to increase the visibility of the totems and clan house from both the park site as well as from boats traveling the Tongass Narrows. It will also open a vista of the Tongass Narrows to park visitors. Most of the vegetation to be trimmed is alder.

2. Should hazard trees occur, and are leaning in such a manner and are so located as to produce a safety threat to park visitors, totems, the clan house, and other park structures, should be carefully

removed, during periods of slack visitation. Once felled, the trees should be bucked into sections and be removed from the park, or be carefully hidden from the visitor's view. Stumps should be cut flush (or nearly so) to ground level.

3. Drift logs deposited upon the ocean frontage of Totem Bight should be left in place. On-site observations indicate such logs are readily used by visitors as seats and "natural" picnic tables. Also, to remove such logs would be a major and continuing expense.

4. Fires of all types should be prohibited at Totem Bight, the only exception being occasional small fires in the clan house to introduce a wood smoke odor in this structure (this is elaborated on in the interpretation chapter). The rationale for this recommendation is to discourage uses of the park other then those presented in the "statements for management". Also, beach fires during drier periods could cause driftwood/log fires of serious consequence.

5. Public safety and park area protection should be the primary responsibility of Division of Park's rangers. Cooperative arrangements with the Alaska State Troopers should be maintained towards the goal of protecting visitors and the park's structures and natural environment.

6. Private and government-managed lands surrounding Totem Bight State Historical Park have been zoned, or are proposed for zoning by the Ketchikan Gateway Borough to generally compatible land uses. The

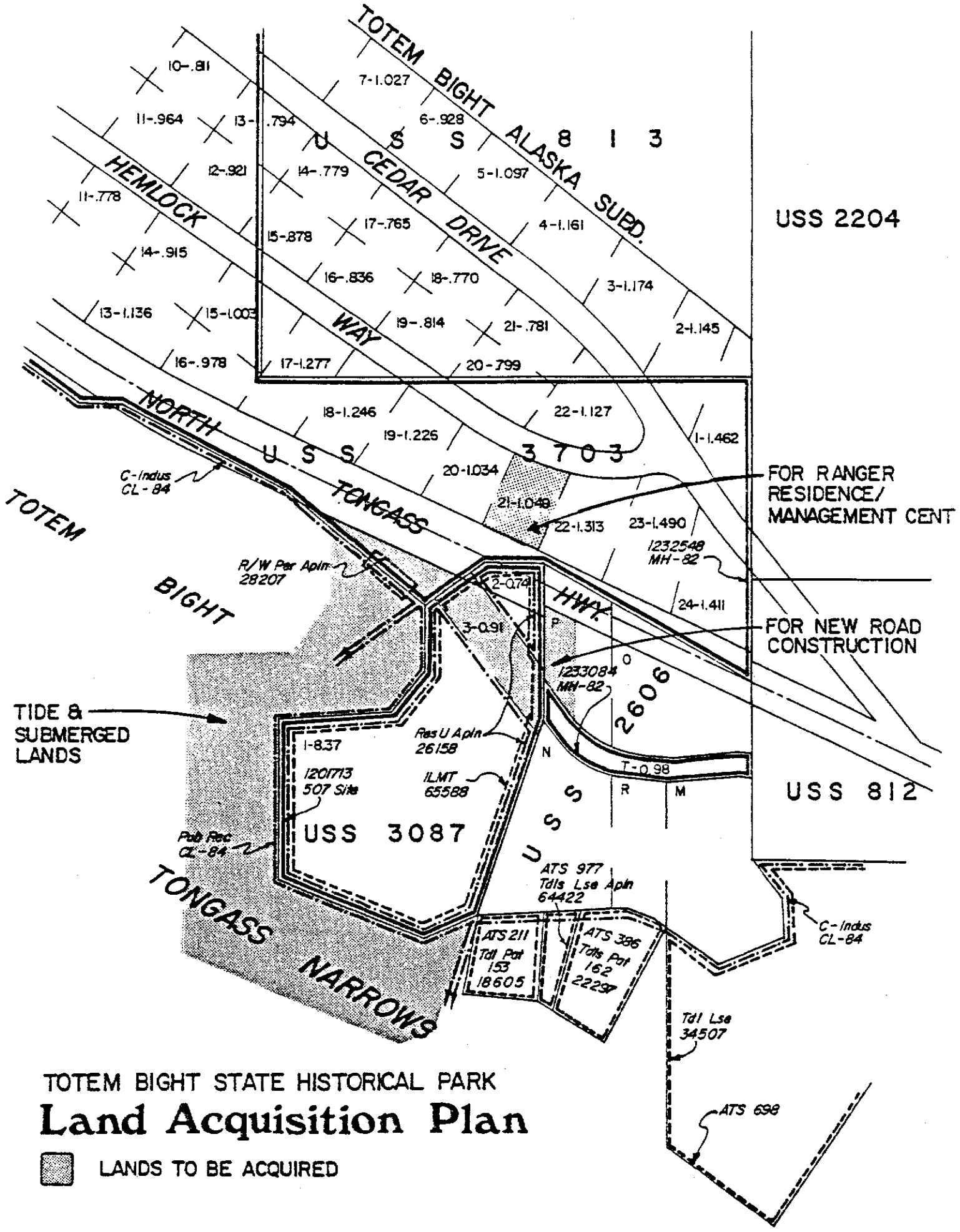
exception are lands to the south of the park site which are zoned "heavy industrial". The definition of heavy industrial is, "This zone provides for a broad range of industrial uses and compatible commerical uses." Industrial and most commercial land uses are considered incompatible (in direct proximity) to Totem Bight State Historical Park. It is recommended that the Division of Parks pursue a change in this zone to a residential, preferably large lot residential category. In addition, the State Division of Lands has classified surrounding tide lands "Industrial" (CL-94). Instead of pursuing a more compatible State classification, the Division of Parks should request that adjacent tidelands be transferred to the management of the Division of Parks. This recommendation is expanded below.

7. One of the key elements of this plan is land acquisition - both tidelands, submerged lands and uplands. All lands proposed for acquistion are in State title. In the case of submerged and tidal lands, acquisition should be possible via simple Interagency Land Management Transfer (ILMT). For uplands recommended for acquisition, purchase will be necessary since these lands, though owned by the State, are Mental Health Grant properties (MH-82 grant). Tide and submerged lands should be acquired for the purposes of gaining legal control of ocean beach and to prohibit offshore uses such as log rafts, house boats and possible incompatible leases. The foregoing mentioned Mental Health lands are in the form of a State subdivision, the parcels of which have not yet been disposed of. It is recommended

that the Division of Parks acquire one lot, directly across the New Tongass Highway, for the purposes of locating both a park maintenance and storage building and a ranger residence/office. The ranger residence and office should be located in such a manner as to provide a view of the Totem Bight parking lot, thereby providing an additional element of park protection.

A final land acquisition recommendation involves a section of the Old Tongass Highway Right-of-Way and a portion of lot "P", U.S. Survey 2606, a parcel bounding the northeast edge of Totem Bight lands. This recommendation is related to the earlier stated proposal, under "Management of Motorized Vehicles", which urges that the section of the Old Tongass Highway which bisects Totem Bight lands be closed and a new access road be built. The proposed new road, to provide access to private lands southeast of Totem Bight, could cross the above mentioned "Lot P", U.S.S. 2606.

The following map portrays land acquisition recommendations.



TOTEM BIGHT STATE HISTORICAL PARK

Land Acquisition Plan

LANDS TO BE ACQUIRED

INTERPRETIVE GUIDELINES

> "Not having an interpreter in a park is like inviting a guest to your house, opening the door, and then disappearing."
>
> William H. Carr

A good interpretive program at Totem Bight, utilizing a variety of media, can assist visitors in truly discovering, understanding, appreciating and forming a desire to protect this historical park. Interpretations can provide a richer, more enjoyable experience for those visiting the park, and is thus a key feature of this plan.

The various interpretive media suggested for use at Totem Bight State Historical Park are:

1. A selfguiding brochure providing an overview of Tlingit-Haida Indian Culture, with specific information on the history of Totem Bight, and the natural and cultural features found at this historical park.

2. Interpretive signing, placed on site, preferably adjacent to the feature interpreted.

3. Personal or attended interpretive services, where the visitor has direct contact with an interpreter who provides either one or all of:

a. Conducted tours

b. Talks to formal groups

c. Living interpretation and/or actual cultural demonstrations

Included in this media catagory are both on-site and off-site talks, possibly illustrated with slides.

The above media recommendations are now expanded upon below:

Self-Guiding Brochure

At present, these is no printed brochure of any type on Totem Bight. Though interpretive brochures have certain disadvantages ("coldness", unresponsive to changes unless revised, one-way communication, etc) the advantages at Totem Bight are substantial, including:

1. Greater interpretive depth and detail.

2. Take-home "souvenir" value, reference and "reminder" of a trip or, if received before an on-site visit, the publication prepares a visitor for what they will view at the park.

3. Possibility and potential of wide distribution.

4. Savings in staff time from personal message delivery, letter writing, etc.

5. Inexpensive on a per-reader basis.

6. Lack of park environmental impact, when compared to signing, the exception being the potential for littering with the brochure itself!

The text, graphics and design of an interpretive brochure is not provided as part of this plan. But, certain specific recommendations are provided to guide the preparation of a self-guiding publication, stated below:

1. The park features and history/prehistory to be interpreted should include all totems and the clan house, as well as key elements of local natural history, the messages forcusing upon Tlingit and Haida Indian use of selected plants, animals and geophysical objects such as land forms, rocks, etc.

2. The careful selection of an author of the brochure is very important. For Totem Bight, it is recommended that the Ketchikan community be "searched" for a prospective author of the manuscript. It may be necessary to credit the writer in print, but it is often possible to find a public-spirited writer who will provide interpretive copy, gratis. If not, a professional services contract is a suitable alternative. Design, graphics, paste-up and arrangement for the actual press-run of a publication should be the direct responsiblity of the Division of Parks.

3. Based upon demand and current use estimates, a press run of 100,000 brochures will be necessary to supply a minimum 2 year supply.

4. The production of a brochure is the responsibility of the operations staff, Southeast District, Division of Parks. Technical assistance in editing and publication design, as well as graphics is available from the State Office.

Interpretive Signing

The interpretive signs presently in use at Totem Bight are small plastic plates, the messages routed onto their wood-grain finish. The signs are attached directly to the backs (or sides) of the totem poles.

Though the actual signs are not overtly objectionable, the attachment of them to the "interpretive feature", namely the poles, is unacceptable. The signs because of placement location, go largely unread by visitors. They simply do not see them attached to the backs of the poles!

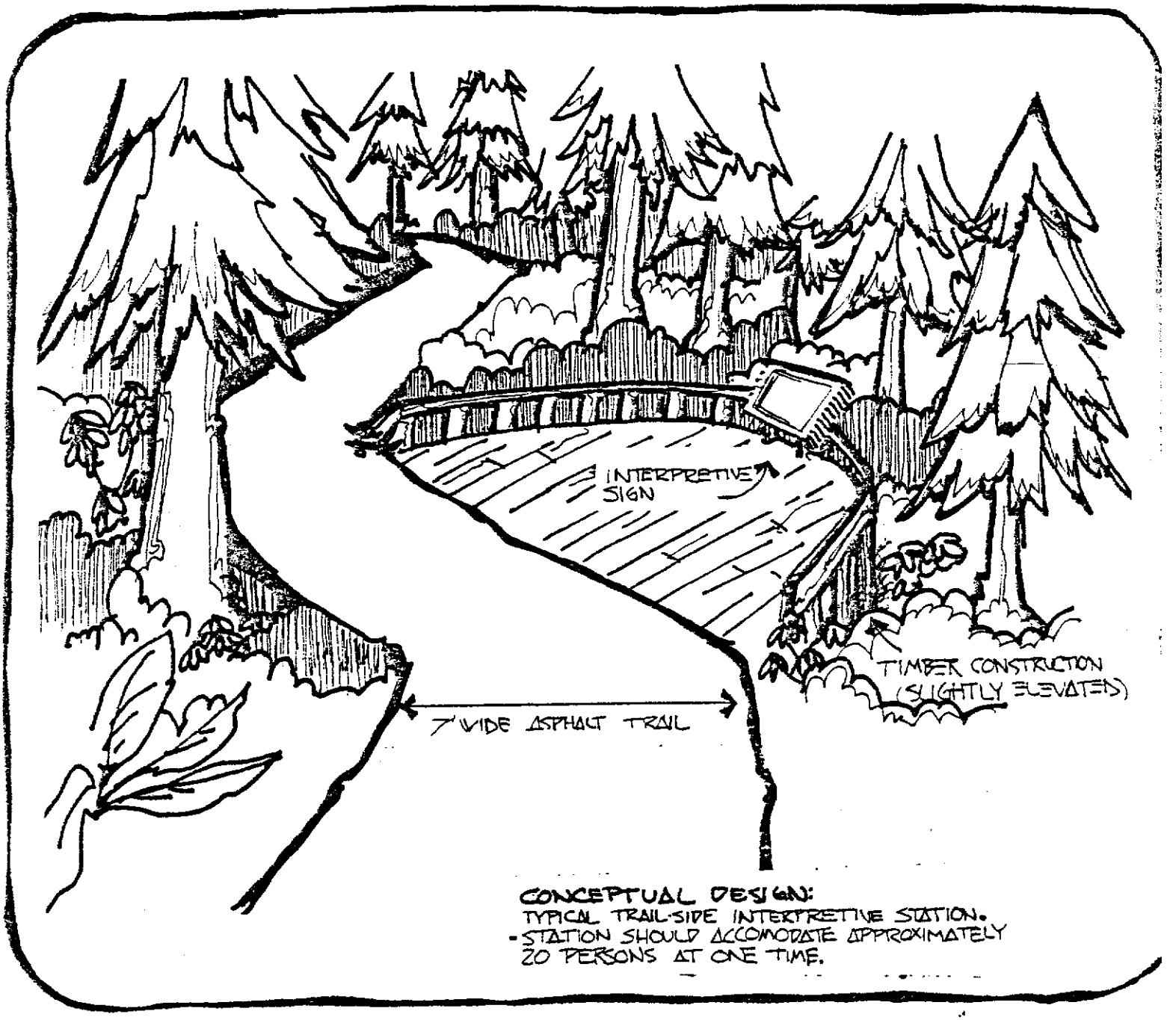
Thus, a totally new interpretive signing plan is needed at Totem Bight, the framework of which is provided below:

1. Signing should be kept at a minimun and should provide a basic interpretive program exclusive of other media.

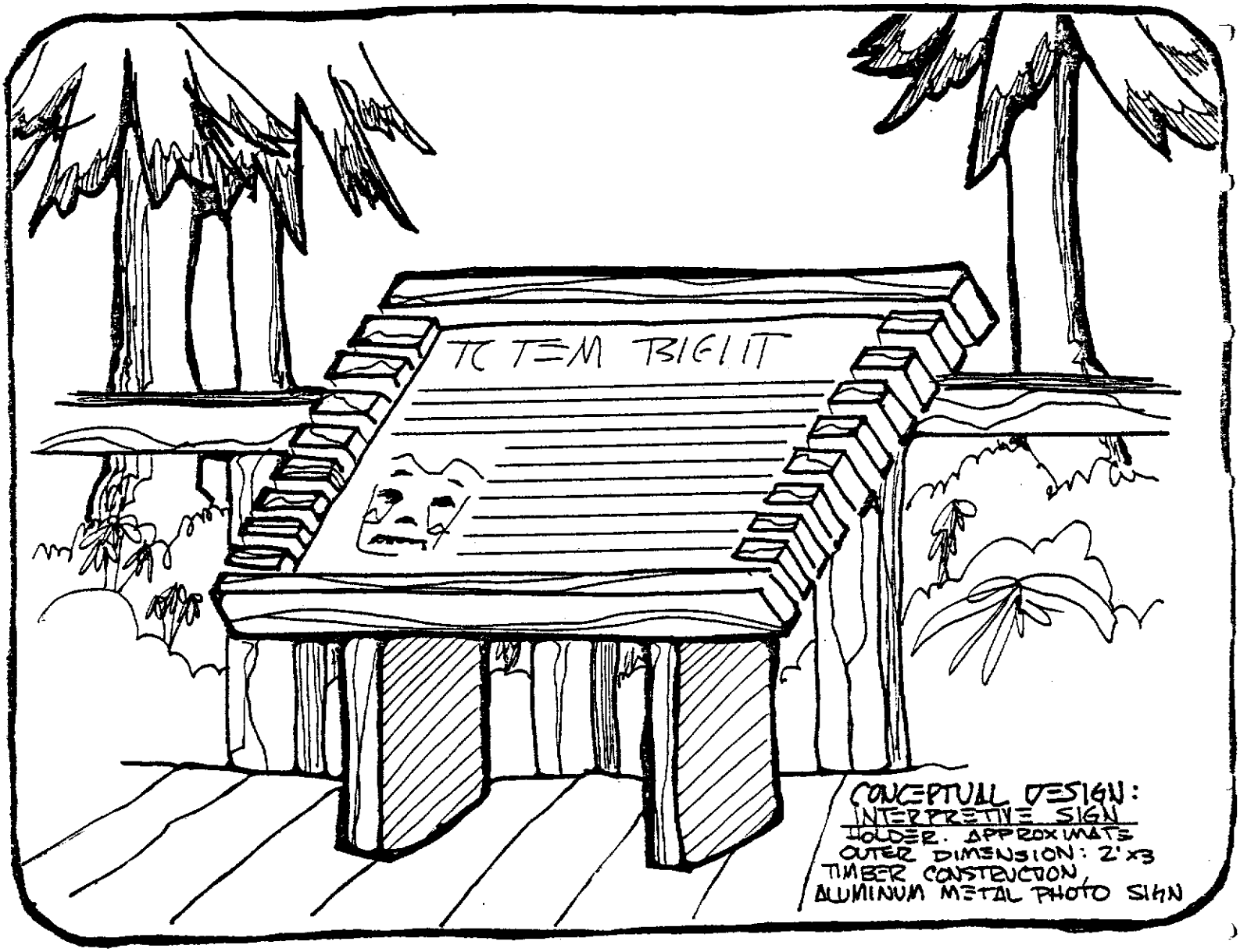
2. Anodized aluminum (metalphoto) sign plates, covered with a sheet of protective lexan, and mounted on timber signboards should be the standard materials for interpretive signing at Totem Bight. Illustrations (including photographs and line drawings) reproduce very well onto metalphotos. The signs are unaffected by insects, rot and weather, though the lexan coversheets should be sealed on the outer edges (to the sign-plates) to prevent moisture buildup. Initial cost of metal-photo signs is expensive, but once a negative is made, additional signs are quickly and cheaply produced.

3. Interpretive messages (sign text) should be kept interesting and short. A rule-of-thumb for length is 50 words. The copy should be capable of grasping the visitor's attention, holding that attention, and providing information. Spelling, word choice and grammar should be accurate, concise and appealing. Of particular importance in interpretive signing is the use of "headlines". A headline captures attention, hints at the message content and induces further reading. Short and catchy (preferably with verbs or verb forms), the headline should be in larger letters then the message which follows.

4. Signs should be illustrated to increase visitor interest. Also, sign design is important, as is general appearance. Sign color should be subdued; a good color for Totem Bight would be brown with black lettering and illustrations.



CONCEPTUAL DESIGN:
TYPICAL TRAIL-SIDE INTERPRETIVE STATION.
- STATION SHOULD ACCOMODATE APPROXIMATELY 20 PERSONS AT ONE TIME.


TOTEM TRAIL
CONCEPTUAL DESIGN:
INTERPRETIVE SIGN
HOLDER. APPROXIMATE
OUTER DIMENSION: 2'x3'
TIMBER CONSTRUCTION
ALUMINUM METAL PHOTO SIGN

the history of this historical park, covering such subjects as recovery of old, original poles used as models to carve Totem Bight's replica poles, etc. In addition, the original pole fragment (behind the clan house) which, though badly decomposed, still retains recognizable features, could possibly be moved and put on protected display at a place near this sign. The interpretive sign should reference and explain this old pole fragment. (A suggested design for displaying the pole fragment follows.)

5. An interpretive station located near the front of the clan house, but offset enough to not mar the view of the structure, particularly through a camera lens, should be placed. Text for the sign should cover the construction and use of clan houses in Tlingit and Haida Indian lifestyle.

6.7.8. The boardwalk trail to be built on the west edge of the Totem Bright Peninsula will provide a sweeping view of the Totem display yard and clan house. The expanded viewing platform recommended earlier is ideal for the placement of three interpretive signs describing the historic structure of the poles and clan house. The signs should be placed in a slight arc, as indicated in the following sketch.

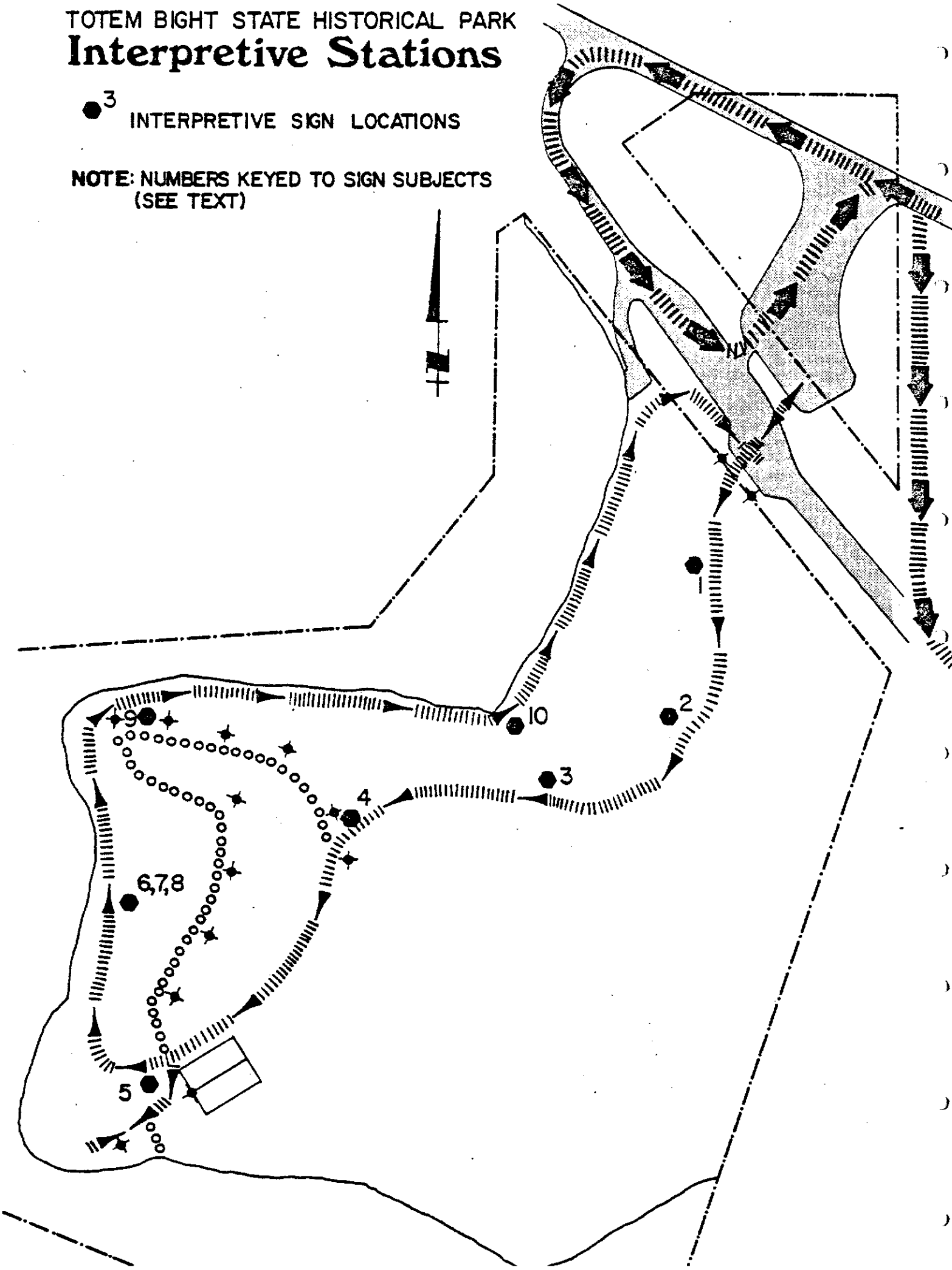
9. Also along the boardwalk trail, near the northern beach coast of the "Totem Bight" embayment itself, an interpretive station should be placed to explain Tlingit and Haida Indian use of marine life, and the sea's value to these people as a natural highway for travel.

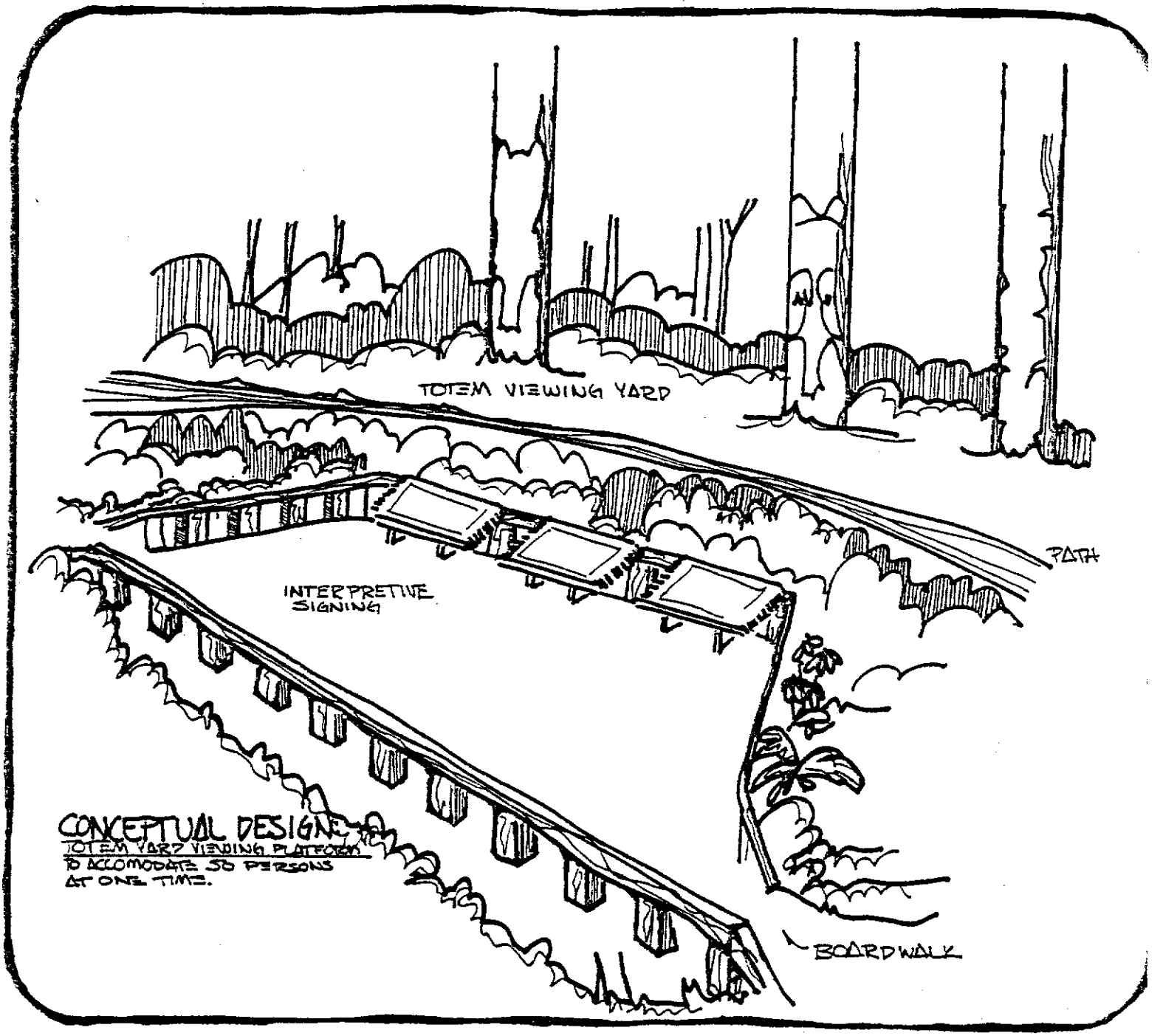
TOTEM BIGHT STATE HISTORICAL PARK

Interpretive Stations

●3 INTERPRETIVE SIGN LOCATIONS

NOTE: NUMBERS KEYED TO SIGN SUBJECTS (SEE TEXT)





CONCEPTUAL DESIGN

TOTEM YARD VIEWING PLATFORM TO ACCOMODATE 50 PERSONS AT ONE TIME.

10. A final interpretive sign, placed near the end of the trail, should point out additional opportunities to view Tlingit and Haida Indian cultural objects and programs in Southeast Alaska.

Personal or Attended Interpretive Services

When carefully planned and performed, personal and/or attended interpretive programs are usually the most rewarding service available to park visitors. It provides for direct contract between the interpreter and the audience and allows for conversational exchange. Personal talks or guided interpretive tours are adjustable in level of information, duration of tour or talk and, of course, allow for question and answer sessions. Perhaps more than any other form of interpretation, a trained, knowledgeable and professional speaker can develop audience sensitivity, awareness, understanding, appreciation and commitment to park values.

At Totem Bight, a verbal interpretive tour and/or talk should be developed by the park operations staff in cooperation with the Division of Park's Office of History and Arch eology. Other sources for aid in developing such a personal interpretive program include the National Park Service, local Native, historical and cultural groups.

A capable park interpreter can also train tour bus drivers and assemble a slide program for presentation both off-site and in the clan house. The low light level in the clan house, plus the fact that electrical power is available in this structure, produces an ideal environment for slide talks.

SPECIAL CONSIDERATIONS

The use of wood preservatives in the clan house could introduce an objectionable odor in the structure. To partially eleviate this odor, occasional small wood fires should be kindled in the central fire pit in this building.

A key feature of Tlingit and Haida Indian cultures were the dramatic, seaworthy canoes used for transportation. A particularly attractive addition at Totem Bight State Historical Park would be to contract for the on-site production and display of a Haida or Tlingit style canoe. The construction of a canoe on site would provide an element of living history as well as a new cultural feature for interpretation. After construction and placement of such a craft, an additional interpretive station (sign) should be constructed.

REPAIR AND MAINTENANCE OF THE CLAN HOUSE AND TOTEM POLES

As pointed out in the earlier section of this report detailing rot and insect damage to both the totem poles and the clan house, certain steps must be given high priority to restore and stabilize these important structures and objects.

Totem Poles

Research indicates that the only wood preservation treatment applied to the poles (subsequent to installation) was three coats of pentachlorophenol

in 1973. In addition, it appears that the tops of the poles were varnished to seal the pole end grain.

Given modest capital available for totem pole preservation, the following treatment is recommended.

1. The poles should be treated (spray or paint application) with two coats of clear pentachlorophenal preservative. The application should be a 5 percent pentachlorophenol solution in mineral spirits, with fungacide and water repellant preservatives added. Such treatment should take place every four to five years.

2. Care must be taken to insure sufficient treatment and solution penetration in pole splits and checks. Patching of splits and checks should not be undertaken.

3. To treat the subsurfaces of the poles (bases) will be very expensive and difficult to treat. Given sufficient funds the following treatment is recommended:

   The first step would be to remove all totem poles from the ground and allow the pole bases to thoroughly dry. The extent of rot damage can then be assessed. If rot is limited to the outer 3 inches of the pole diameters, then the base end of the poles should be sealed and the subsurface portions treated with a generous coating of coal tar creosote. A polyethylene film should then be wrapped around the sides and bottom of the

pole bases and be sealed on with coal tar asphalt or pitch. The poles should then be re-erected and the holes backfilled with gravel. If extensive rot exists, support posts of treated timber, steel or fiberglass will be necessary to support the poles. If such support members are necessary they should be imbeded into the pole and encassed in a poured concrete footing below the ground surface. Such methods have been successfully used in totem pole restoration/ stabilization in Alaska (Sitka) and British Columbia. The costs (1976) for pole preservation range from $75,000 to $125,000.

Clan House

After assessing the rot damage to the clan house (visual inspection) it is recommended that the entire floor be replaced with new members. One corner of the house was excavated utilizing hand tools, and some floor support members proved to be severely rotted. All members inspected showed signs of rotting. Floor and seat planks, in general, were in poor condition.

To restore the floor in the clan house, a trench around the perimeter of the building should be excavated and the wall sill allowed to dry thoroughly. The wall sill should then be treated with coal tar creosote or, if this significantly detracts from visual aesthetics, pentachlorophenol. All floor support members which are not visible should be replaced with pressure treated Douglas fir or spruce lumber impregnated with coal tar creosote. All visible floor and seat planks and riser beams should be

replaced with western red cedar lumber, hand treated with two or three coats of pentachlorophenol. Visible floor members should be adzed prior to preservation treatment. A continuous polyethylene vapor barrier should be installed under the entire floor system and placed on ground graded to drain away from floor support members. The polyethylene vapor barrier should be perforated at low points to allow any surface moisture accumulation to drain. A layer of fine sand (approximately two inches in thickness) should be spread uniformly over the vapor barrier. Any fastening devices on floor framing should be concealed.

The clan house should be fumigated to alleviate destruction by wood-boring insects. Spaces between wall boards should be caulked to eliminate the intrusion of water due to rainfall. The entire house and totems should be coated with two coats of clear pentachlorophenol preservative every four to five years. It is estimated that the total cost of restoring and preserving the clan house will be close to $75,000 (1977 estimate).

Summary

Totem Bight State Historical Park, Ketchikan, is the only member of the Alaska State Park System to exclusively focus upon aboriginal peoples of the State, specifically Tlingit and Haida Indians and their totemic art and clan houses.

Though the cultural objects at Totem Bight are replica carvings produced by the Civilian Conservation Corps, the area is on the National Register of Historic Places, and offers visitors a fine opportunity to view and understand the art and lifestyle of a highly evolved, sophisticated native people.

This state historical park offers a good opportunity to interpret and protect totem poles, a clan house and Indian use of natural objects.

The deteriorated condition of the floor and foundation timbers of the clan house dictate immediate and priority reconstruction work. The trails and parking also require redefinition and expansion, to accommodate more visitors while at the same time preserving a high quality recreational experience.

An interpretive program, drawing upon personal message, signing and a brochure should receive immediate attention.

A ranger residence/management center should be located across the North Tongass Highway from Totem Bight to provide storage and shop space for the operation and maintenance of Totem Bight (and Portage Cove) park areas. Land acquisition costs will be a part of this project.

Implementation

The steps to follow this plan are:

1. Locating site specific interpretive stations, drafting of interpretive text and design of signs/sign holders.

2. A site plan for reconstruction of the parking lot and for construction of the new boardwalk trail, to include regulatory signing.

3. Production of the brochure.

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