COMMUNITY DESIGN

DESIGN STRATEGIES

ANALYSIS

COMMUNITY WEST END

COMMUNITY CENTER CIVIC SPACE

HWY. 61 STREETSCAPE DESIGN

COMMUNITY EAST END & TRAILHEAD

DESIGN DETAILS
DESIGN STRATEGIES:
The community of Beaver Bay was selected in consultation with the Department of Natural Resources, the Department of Transportation, and community groups. Criteria used for selection included trail construction schedule, community interest, opportunities to enhance and create amenities, and the need to remove trail development challenges.

Making the Gitchi-Gami State Trail a viable asset to Beaver Bay drove the design work. The Gitchi-Gami trail was made more visible by designing a trailhead as a major place in the community of Beaver Bay. Opportunities to link the trail to the other community amenities and the enrichment of the existing community form were pursued simultaneously.

COMMUNITY:
The trail was made more visible by designing a trailhead as a major public place. Opportunities to link the trail to the other community amenities and the enrichment of the existing community form were pursued simultaneously.

IDENTITY & INTERPRETATION:
A design vocabulary of kiosks, signs, fencing, and bicycle racks were created to give the trail a memorable identity. Although different in history and development, all the communities along the Gitchi-Gami trail are linked to the Lake Superior and the regional natural resources. A kiosk strategy was developed to create a rich and diverse interpretative narrative relating natural and culture features of each community and the region.

THE LARGER CONTEXT:
The existing patterns of the North Shore’s natural and cultural resources were studied to identify their intrinsic qualities. Although the North Shore is usually identified as a narrow strip of land immediately adjacent to Lake Superior, the project took a larger view. Drawings of the larger landscape were produced. These drawings are interpretations of the larger landscape and are a key to creating a linked network of recreational systems.

LEVERAGING:
Because of the richness of recreational systems on the North Shore; the Gitchi-Gami trailheads and North Shore Scenic Drive rest stops were co-located in order to strengthen each system, leverage the resources of each system, create a synergy between the systems, and lessen their impact on the natural environment.
BEAVER BAY: OBLIQUE VIEWS

TRAILHEAD SITE FROM LAKE SUPERIOR

MOUTH OF THE BEAVER RIVER
EXISTING HWY. 61 STREETSCAPE IN BEAVER BAY

WEST GATEWAY

BEAVER RIVER FALLS

BEAVER BAY COMMUNITY CENTER

POTENTIAL GITCHI-GAMI TRAILHEAD

EAST GATEWAY
DESIGN OPPORTUNITY ANALYSIS: FOUR KEY AREAS

Beaver Bay has four areas of design opportunity; these include:

- Creating a gateway at the west entrance into the community,
- Configuring a civic space as a setting for the Beaver Bay Community Center,
- Designing the HWY. 61 streetscape which reinforces the community identity of Beaver Bay, and
- Organizing the community’s east end creating a Gitch-Gami Trail Trailhead and a rest stop for the North Shore Scenic Drive as a focal point.
ANALYSIS OF OPPORTUNITIES & CONSTRAINTS:
Located at the mouth of the Beaver River, Beaver Bay has many resources that provide opportunities within the community; these opportunities include:

- First views of Beaver Bay geologic intrusion,
- A potential connection to the Superior Hiking Trail,
- Many Resorts,
- A visitors’ information center,
- Commercial development that includes restaurants, filling stations, small shops, and a museum,
- Community center building and a church,
- Four sites of national historic significance that include the water tower, the old school, and John Beargrease’s grave,
- The scenic Beaver River with its beautiful falls, and
- A vacant parking lot that overlooks the Beaver River and its falls.

The community also has elements that provide design constraints; these constraints include:

- Limited space for changing the alignment of Highway 61,
- A short depth to bedrock,
- Erosion on the banks of the Beaver River,
- High speeds of traffic through town,
- Key pieces of land in private ownership,
- Limited or obscured community signage,
- Circulation conflicts
- Weak connections between the business district and other resources, and
- Poor pedestrian and bicycle circulation patterns.
COMMUNITY WEST END:
Gitchi-Gami Trail and North Shore Scenic Drive (NSSD HWY.61) signs announce the entry into Beaver Bay. These signs:
  
  Are placed where the views of the Beaver Bay intrusion (bedrock and land form) and the entry to the community are first experienced,
  
  Use the regional design vocabulary of the Gtichi-Gami Trail and North Shore Scenic Drive, and
  
  Are constructed of regional materials.
HIGHWAY SIGN

NORTH SHORE SCENIC DRIVE ROCK CAIRN SIGN

NSSD HWY 61 & GITCHI-GAMITRAIL SECTION A-A1: (FROM ANALYSIS PLAN PAGE 27)
COMMUNITY CENTER CIVIC SPACE:

A civic space is designed to announce the eastbound progression to Beaver Bay’s community core by:

- Retrofitting the existing Beaver Bay community sign with a frame to match the gateway signage timbers and relocating it to the intersection of Highway 61 and McDonald Road,

- Making a community civic / gathering space at the corner with seating, interpretive elements, and a rain garden of native plantings, boulders, and a water feature,

- Creating a tree-lined approach with parking and the beaver sculpture as a setting for the Community Center, and

- Connecting this space to the existing park.
HWY. 61 STREETSCAPE DESIGN:
The Community Center Park and the “Main Street” bind the west end and the east end of the community core. Changes to the North Shore Scenic Drive (Hwy. 61) are suggested to give further definition to the community core. Both options create a:

- Defined trail crossing at MacDonald Road,
- Series of well-defined pedestrian crosswalks,
- Street tree plantings that calm traffic and create a pedestrian-scale enclosure,
- New sidewalk on each side of Hwy. 61,
- Pedestrian circulation system in the community core, and
- Design for public open spaces at each end of the community defining the community core.
COMMUNITY CENTER PARK

COMMUNITY WEST END OPEN SPACE

PATH & WATER FEATURE

COMMUNITY SIGN

WELL-DEFINED CROSSWALKS

NEW SIDEWALKS

BEAVER SCULPTURE

NEW TRAIL ALONG LAX LAKE ROAD

SNOWMOBILE TRAILHEAD

KEY INTERSECTION: W/ CROSSWALKS, PLANTINGS, STREET LIGHTS, SIGNS & SEATING

GITCHI - GAMI TRAIL

SNOWMOBILE TRAILHEAD

COMMUNITY EAST END OPEN SPACE

COMMUNITY WEST END OPEN SPACE

EXISTING CONIFERS

GITCHI - GAMI TRAIL

NEW TRAIL ALONG LAX LAKE ROAD

COMMUNITY EAST END OPEN SPACE

COMMUNITY WEST END OPEN SPACE

SECTION B-B1 DEPICTED ON PG.35

SECTION A-A1 DEPICTED ON PG.35

LINDEN STREET TREE PLANTINGS 30' O.C.
HWY. 61 STREETSCAPE DESIGN: SECTIONAL VIEWS

THE OPTION ONE STREETSCAPE DESIGN:

- Adds trees to the existing swale,
- Reduces the shoulder on the north side of the road from 8 feet to 2 feet,
- Moves the highway lanes 6 feet north, and
- Provides a new 6-foot sidewalk along the south edge.

THE OPTION TWO STREETSCAPE DESIGN:

- Adds trees to the existing roadside swale,
- Reduces the vegetated swale from 15 feet to 9 feet,
- Moves the highway lanes 6 feet north, and
- Provides a new 6-foot sidewalk along the south edge.
STREETSCAPE OPTIONS FOR A-A1:

EXISTING CONDITION:

BEAVER BAY FIRE DEPT.

A

GITCHI-GAMI TRAIL

8

15

3 x 12

8

MOBILE GAS STATION

option one:

SHOULDER CHANGE 6' TO 2'

A

NEW SIDEWALK 6' PAVING SURFACE

A1

option two:

VEGETATED SWALE CHANGE 15' TO 9'

A

NEW SIDEWALK 6' PAVING SURFACE

A1

STREETScape OPTIONS FOR B-B1:

EXISTING CONDITION:

GITCHI-GAMI TRAIL

B

TRAFFIC W/ CENTER TURNING LANE

B1

RAISED CONCRETE MEDIAN

WOLF TRACKS

GIFT SHOP

OPTION ONE: (DEPICTED IN PLAN)

STREET TREE & LIGHTING

B

SHOULDER CHANGED TO 2'

B1

NEW 6' SIDEWALK & 4' PLANTING AREA W/ LIGHT

OPTION TWO:

PLANTED EDGE CHANGE TO 12'

B

NEW 6' SIDEWALK & 6' PLANTING AREA W/ LIGHT
COMMUNITY EAST END & TRAILHEAD:

CIRCULATION SYSTEM:
The new pathway system connects the:

- Beaver River Park,
- Superior Hiking Trail Trailhead,
- Historic cemetery,
- Additional parking, and
- Commercial core.

BEAVER RIVER PARK & TRAILHEAD:
The new Beaver River Park is the dominant feature of the east end. It is both a trailhead for the Gitchi-Gami Trail and a rest stop for the North Shore Scenic Drive. Built on vacate land, it features:

- A millstone promontory and shelter that over look the river and the falls,
- An interpretative kiosk
- A North Shore Scenic Drive cairn sculpture,
- Bicycle racks,
- A parking lot for 35 cars that is designed to reduce erosion on the riverbank, and
- Facilities (restrooms and a drinking fountain).

BEAVER BAY VISITORS CENTER & MUSEUM:
The site of the existing Beaver Bay Visitors Center was designed to:

- Provide a visible setting for the John Beargrease Memorial,
- Serve as an important link between the Beaver River Park and the commercial core, and
- Accommodate 20 parked cars.

SNOWMOBILE TRAILHEAD & ADDITIONAL PARKING:
Additional parking is provided on underutilized land along Lax Lake Road. This space:

- Has an information kiosk,
- Accommodates 14 cars and 14 cars with trailers, and
- Serves as a trailhead for the snowmobile trail in winter.
COMMUNITY EAST END & TRAILHEAD:
The site designs of the Visitors Center & Museum and Beaver River Park share a number of things in common. Both were designed to be part of a whole and both compliment each other. Each has:

- A parking lot that collects storm water and channels it into swale system,
- An interconnected swale system that filters storm water before it is infiltrated or carried to the river or the lake,
- Interpretive elements, and
- Native plants and trees.

The building on each site:
- Provides complimentary functions
- Reflects the culture of the region,
- Uses regional materials, and
- Is in scale with each other.
DESIGN DETAILS: MILLSTONE PROMONTORY

The original millstone from the Beaver Bay Grist Mill is still in the community of Beaver Bay and is available to be used as an interpretive amenity. This design creates a promontory dedicated to telling the story of the millstone at a vantage point that overlooks the river and the original location of the mill. The location and the story enrich the concept for the Beaver River Park while capitalizing on the views of the river gorge. The promontory:

- Blends into the Beaver River Park concept using the turf knoll overlook to create a shelter that extends from the land form and continues visually to the river,
- Uses landform, trees, and structures to create an enclosed space with a trail access,
- Provides a resting area with fence, bench, and interpretive panel details,
- Places the millstone on a steel pedestal at the location of the mill site overlook,
- Allows visitors to interact with history by using a rotating mount that allows the stone to be turned, and
- Incorporates the design details of the Gitchi Gami Trail.

The Millstone Promontory overlooks the Beaver River and falls; it features:

- A timber structure with a bench,
- A viewing patio, and
- The millstone from the old mill that was once powered by the Beaver River.

FENCING DETAIL:
Gitchi-Gami Trail timber and steel signature fencing is modified to display the historic millstone.
DESIGN DETAILS: KIOSK & INTERPRETIVE STRATEGY

This signature kiosk is to be placed along the trail to interpret the both the natural and the cultural landscape.

KIOSK:

Each kiosk will have Gitchi-Gami logo and a drawing of the larger landscape that portrays its very spectacular richness. The other three panels on the four-sided kiosk interpret the special place in which it is located. The two panel version includes a small bench designed into the kiosk to provide shelter and a rest spot along the trail while displaying the regional graphic and either a local or historical information. The kiosk’s form recalls the shore’s Scandinavian heritage. Is it made of wood and steel, products that play important roles in the region’s economy. Local rocks are embedded in the kiosk’s concrete base.

THE KIOSK’S INTERPRETATIVE PANELS:

Regional Panel: The regional panel calls out the communities, the state parks, the Boundary Waters Canoe Area, and the region’s major linear recreational systems. These systems are the Gitchi-Gami Trail, the North Shore Trail, the North Shore Scenic Drive, the Superior Hiking Trail, and the Superior Water Trail. It also identifies the community in which the kiosk is placed in order to tell the viewer, “You are here.”

Local Panel: The local panel is a bird’s eye drawing of the local area depicting its landscape and calling out its linear recreational systems. Community resources such as parks, local trails, the central business area, and trailheads are noted.

History & Culture: The history and culture panel presents the community’s natural and cultural history through narrative, maps, drawings, and photographs.

Special Focus: The fourth panel could display a calendar of local events and information about local businesses. It may dispense brochures and maps. Special interpretive information addressing the vegetation, hydrology, geology, and other environmental characteristics may be displayed.
BEAVER RIVER PARK KIOSK DESIGN: (2 PANEL W/ BENCH)

**METAL ROOF**

**2 X 8 FACIA**

**4 X 4 TIMBER**

**STAINLESS SQUARE BAR**

**INTERPRETIVE PANEL**

**BENCH (2 PANEL KIOSK)**

**CONCRETE BASE (CLR)**

**1.5" STAINLESS BAR**

**4 X 4 POSTS**

**CONCRETE BASE**

**BENCH**

**STAINLESS FRAME**

**STONE PAVERS**

**CONCRETE APRON**

**2 X 6 BOARD**

**2" STAINLESS FLASHING**

**1" X 1" PANEL**

**2" STAINLESS BAR**

**30" TO 36" PANEL**

**11/2" GAP**

**6' 6"**

**10' 3"**

**6' 3"**

**5' 6"**

**9' 12"**
DESIGN DETAILS: NSSD CAIRN, HWY & TRAIL SIGNS

NORTH SHORE SCENIC DRIVE SIGNATURE CAIRN:
This cairn is the identifying object for the scenic drive. It reflects the importance of rocks in the North Shore landscape, and can be used to mark important public places along the shore. At Taconite Harbor two cairns flank the entrance road to the village center to mark it. This cairn is:

- The signature sign for the North Shore Scenic Drive,
- Made of regional rock,
- Used to identify important places along the North Shore, and
- Placed at the rest stop/trailhead at Beaver River Park.

GITCHI-GAMI TRAIL & HWY. SIGNS:
Two signs of timber and steel were designed for use along the trail. The larger sign may be used for a map or for interpretative materials at places of special interest. The smaller sign is for the Gitchi-Gami Trail logo and may be used periodically to identify the trail.

DESIGN DEVELOPMENT:
Design development addresses both the Gitchi-Gami Trail and North Shore Scenic Drive. The intent is to create a common “Regional Design Vocabulary” that fosters an identity along the North Shore, and creates connections that will lead to cooperative decision making and potential project funding.
NORTH SHORE SCENIC DRIVE CAIRN SIGN

GITCHI-GAMI TRAIL & HWY SIGNS
DESIGN DETAILS: BICYCLE RACKS & FENCING

A group of signature elements that give identity to the Gitchi-Gami Trail were designed and suggestions for interpretive panels were made. The elements are a kiosk, signs, fencing, and bike racks. They are to be used throughout the trail’s length along the trail segments, in trail communities, and at trailheads. The form of these elements and the materials from which they are made reflect the region’s beauty, culture, and economy. The North Shore is a place of small communities and independent people. Timber residences are tucked away in the north woods, beside the numerous streams, and along the shore of Lake Superior. It was settled in the nineteenth century with settlers from Northern Europe that brought their building styles with them. The North Shore is an area of breathtakingly beautiful forests and rugged rocks. The underlying geology and its picturesque rock outcroppings give the North Shore its special rugged character. The timber industry has been and still is an important part of the region’s economy. Iron ore and taconite have also played an important role in the region’s economy; as evidenced by the mining industry’s large facilities at Silver Bay and Taconite Harbor. The elements are made of timber, steel, and rock. They reflect the vocabulary of things built in the north woods.

BICYCLE RACKS:
The bicycle racks have the same design vocabulary and the same materials as the signs.

HWY. 61 & GRADE SEPARATED FENCING:
The fencing is designed to be durable and not to intrude on the environment. The design is flexible so it can be used in a variety of ways. It can be modified to accept special conditions like to display the millstone in the Beaver Bay promontory or to add a bench. It can have a top rail or not. It is made of rough-cut timber and coated steel cable. The fence posts have a vertical route and routed and mitered tops.
BICYCLE RACKS

45 degree angle

1" STAINLESS STEEL ROD

1.5" pipe bracket

12"DIA. PIPE

41WY. & GRADE SEPARATION FENCING

2 x 12 RODS @ 6" CWT

2 x 6 RODS @ 6" CWT

3/4" RUBBER COATED STEEL CUSHION

HARDWARE DETAILS

SOFTWARE HINGE

1.5" DEEP 5/8" HOLE IN PIPE

2" DIA. ROD

6" DEEP 1/2" HOLE IN PIPE

HIGHTWAY SAFETY FENCE

1.5" DEEP 5/8" HOLE IN PIPE

5/16" #8 x 2 1/4" NUT & WING BOLT

CAGE 54" DEEPE