

Welcome!

Project Goals

- Engage the communities of Proctor and Hermantown, as well as Duluth and other agencies, in a collaborative effort to identify the needs and preferences for this regional trail connection
- Explore and evaluate connector route options from Proctor and Hermantown to the Munger Trail, including the planned Proctor Connector Trail
- Create a community amenity that connects to key destinations in Proctor and Hermantown where possible
- Conduct a physical/cost feasibility analysis of potential challenges for connecting from the ridgetop in Hermantown and Proctor down to the lakeshore, including steep slopes, wetlands, creeks, road/rail crossings, property access, etc.
- Select a preferred connector route for a regional 10-foot wide paved multi-use trail
- Create preliminary designs and cost estimates for complex segments of the selected trail route

People Involved in the Project

Project Partners

City of Hermantown
City of Proctor
Minnesota DNR

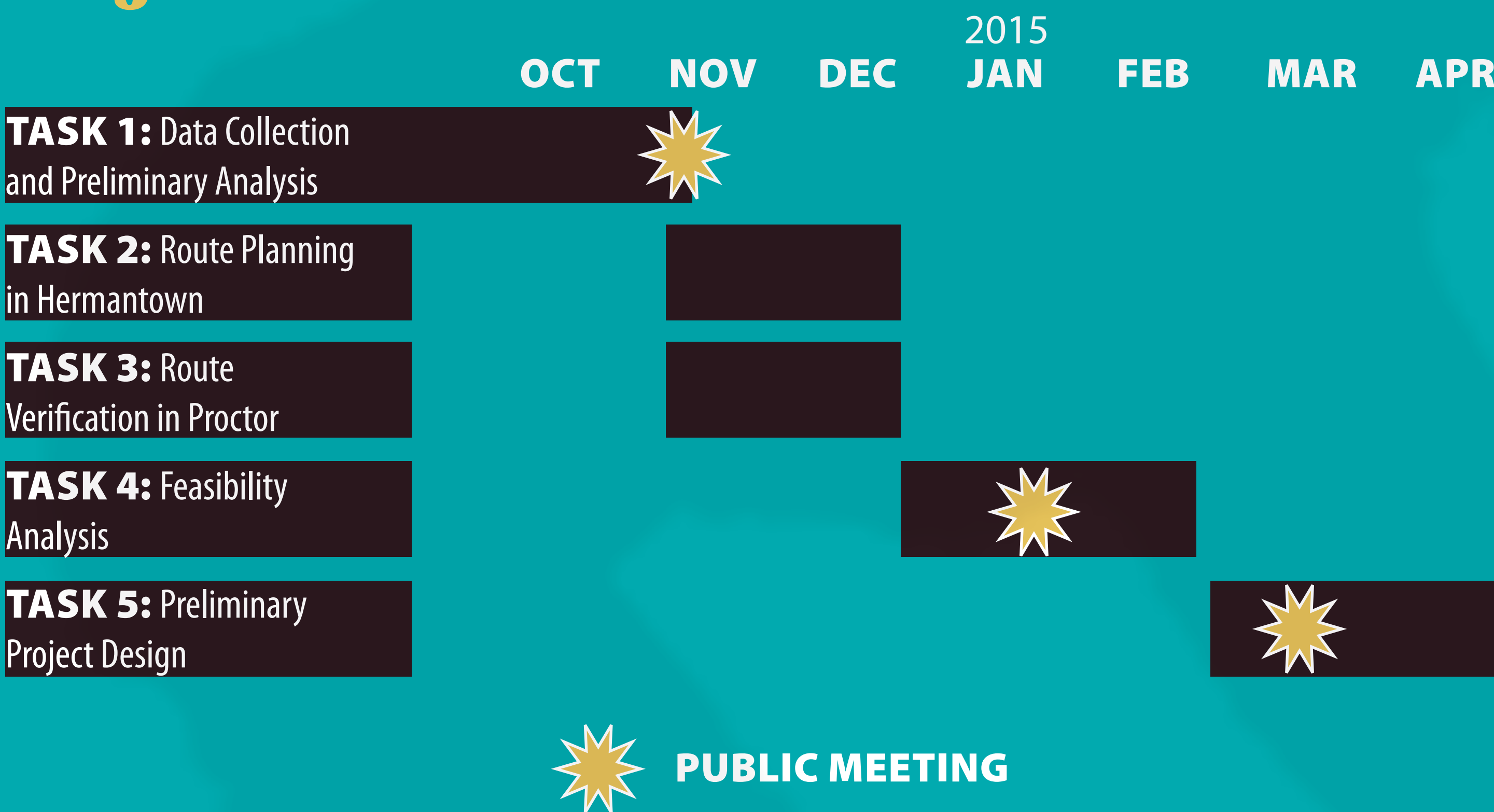
Collaborators/Stakeholders

City of Duluth
Duluth-Superior Metropolitan Interstate Council
Minnesota Power

Consultants

Hoisington Koeigler Group Inc. (HKGi) – Planning/design lead consultant
MSA Professional Services – Engineering sub-consultant

Project Schedule



What We Heard

Below is a summary of comments we heard and received on the input forms at the November 20th Open House.

Preferred Spur Trail Route by number of votes:

Most preferred Route C	2nd preferred Route B	3rd preferred Route A	Least preferred Route D
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Comments regarding the trail routes:

Route C

Combination of segments from routes C, B and A would serve the best purpose for both Hermantown and Proctor
Route C needs to integrate with route B when it enters Proctor
Route C provides access to the highest number of residents and destinations and ties into Keene Creek Park
Route C connects school and city hall
Biggest desire is to connect to Hermantown Schools and stay in the woods
Trails mostly off road
Route C provides a better user experience with more off road trail
More connections to existing destinations
Connect to most residential neighborhoods
Use Duluth's planned Cross City Trail to cross I-35
Route C is the best balanced as far as utilizing off road trail, being accessible to residential areas and to other trails/parks
Final route could be a combination of routes to find connection to the Munger Trail
Inside routes work the best but could connect small segments of outer route to connect to the mall and schools
Like the connection to the parks, not along roads
Prefer to see this trail utilized for recreation and exploring our wilderness areas rather than walking down a street
Like trail that are cut through the woods rather than following a road
Want trails to connect to the various developments in both communities
Needs to connect to all sports complexes if possible in both communities
Route C goes through Hermantown population areas
Need a spur to the mall area and Haines Road (major bike route now), Haines Road could be temporary connection to Cross City Trail in Duluth
I envision a nice, safe hiking/biking trail that stays off of the road and spotlights Hermantown's wilderness
Considering using Beck's Road to connect to the Munger Trail

Route B

Route B connects a lot of destinations including Hermantown, City Hall, Proctor downtown, schools, parks
Important to connect to Bayview School
Like the idea of connecting to the zoo
Main concern is that trail be multi-purpose including equestrian
Final route could be a combination of routes to find connection to the Munger Trail
Inside routes work the best but could connect small segments of outer route to connect to the mall and schools
Route B is most convenient to Proctor residents

Route A

Route A disturbs fewest residents, safe route for traffic concerns, will draw more attention to a part of our city that is invisible, quiet and away from noise of city
Prefer Plan A because I would love for there to be horses allowed on all or part of this new trail system
Route A is the best connection to Pike Lake area
Routes A and D are both too far out and don't really meet objective of connecting Hermantown and Proctor
Route A doesn't serve any Hermantown neighborhoods

Route D

Route C or D but interfere as little as possible with trails thru Keene Creek Park
Don't like the idea of running the trail along Haines Road due to high traffic and lack of scenery; if the trail were to be alongside a road, I would prefer Lavaque Road over Haines Road
Hate using Keene Creek Park as a thru way, since it is a delightful private trail there where many people enjoy the stream, ponds, trails and natural beauty, walk dogs, and just enjoy a quiet visit
Routes A and D are both too far out and don't really meet objective of connecting Hermantown and Proctor

Other comments:

Potential Trailhead Locations

Hermantown Schools
Keene Creek Park
Not Keene Creek Park
Stebner Park
Magie Lake
Proctor
Proctor fairgrounds/dirt floor arena
Spirit Mountain
Existing parks and open areas
Places with existing parking lots, e.g. parks, schools, city government facilities.
Places large enough for multiple trucks and horse trailers.
Not close to roadways, since people can already park there
Close to main roadways, not populations, and develop connector trails to the main trail route
Various sites to allow use of trail sections in case trail users don't want to go all the way down

Potential Trailhead Amenities

Parking
Parking for multiple trucks and horse trailers
Water fountains
Restrooms
Places to sit while getting ready to go or returning
Kiosk with trail map
Allow part of kiosk to be available to local businesses for advertising restaurants, bike shops, motels, etc.
Maps and wayfinding signage, possibly maps to take with you
Signage requiring that pets must be on leash
Bike repair stations
Dog pick-up bags
Garbage cans
Picnic areas for family recreation
Manure pits
Tie lines
Electricity to accommodate a food truck or a concession trailer would be great
Encourage area businesses to provide restrooms, water stops, etc.
Design with vandalism in mind

Other Concerns or Ideas

Concerned mostly about this trail not serving the majority of dense neighborhoods in Hermantown and that it won't be in nature; don't like the idea of it being primarily along a road
That spur trail won't accommodate horses; desire for a non-paved shoulder trail for horses
Connection to Duluth's planned Cross City Trail should be secondary as it will be by far the highest cost and least used due to 600-foot elevation change
Although the main Munger Spur Trail will be a transportation route, include small spur connectors in planning document
Elevation change from on top of the hill to the bottom will be the biggest challenge; consider installation of a cable car system
Need to be aware of environmental impacts caused by any trail development; avoid streams, wetlands, limit and/or consider habitat fragmentation, erosion potential, etc.



Route Evaluation

		A		B		C		D	
Criteria	Measurement Unit/Descriptor								
General Description		Route follows powerline corridor in western Hermantown, connects to Proctor Community Center and Egerdahl Park, over rail line, under I-35, heads east down the ridge through Spirit Mountain Recreation Area along Knowlton Creek to DWP/Cross City Trail		Route follows Lavaque Road through Hermantown, connects to Proctor Community Center, and heads east down the ridge to connect to the DWP/Cross City Trail and cross under I-35		Route follows sewer easement through Hermantown, through Keene Creek Park and follows a powerline corridor down the ridge to the DWP/Cross City Trail and cross under I-35; connection to Proctor would be an east-west spur trail along Vinland St and powerline corridor		Route follows sewer easement and powerline corridor to Hermantown Marketplace and Stebner Park, follows Keene Creek, then along Anderson Rd and Haines Rd through Hermantown, into Duluth to follow powerline easement to follow Keene Creek down to DWP/Cross City Trail; connection to Proctor would be an east-west spur trail along Vinland St and powerline corridor	
Access/Connectivity									
Households served (generally within 3/4 mile of the trail corridor)	number of households	4	3,220 residential parcels within a 3/4 mile buffer area of the proposed trail route (Zenith Terrace mobile home park is within 1/2 mile of Route A)	3	4,090 residential parcels within 3/4 mile buffer area of the proposed trail route (Zenith Terrace mobile home park is within 1/3 mile of Route B)	2	4,460 residential parcels within 3/4 mile buffer area of the proposed trail route	1	4,367 residential parcels within 3/4 mile buffer area of the proposed trail route (several high density housing units in the Hermantown Marketplace area add to the number of people who live within walking distance of Route D)
Connectivity to destinations	number of destinations (primary and secondary)	3	5 primary; 4 secondary; 9 total	2	6 primary; 4 secondary; 10 total	1	7 primary; 2 secondary; 9 total	1	7 primary; 2 secondary; 9 total
Total trail length	length in miles	4	12.84 miles	2	11.71 miles	1	11.45 miles	3	12.68 miles
Distance/directness - above the ridge, Proctor to Hermantown	length in miles from H Schools to P Schools	1	8.48 miles	2	8.66 miles	3	9.97 miles	4	11.12 miles
Distance/directness - to Munger Trail, single/double spur	length in miles from P Comm Cntr to DWP spur	4	3.85 miles	1	3.04 miles	2	3.16 miles	3	3.43 miles
Feasibility									
Environmental - soils, wetlands, creek shorelands, potential disturbance to natural systems	number or length of route crossing wetlands or other environmental impact areas	2	9 wetland/stream crossings	1	4 wetland/stream crossings	4	12 wetland/stream crossings	3	11 wetland/stream crossings
Topography	number or length of route in steep slope areas -- differentiate between somewhat steep, moderate, and very steep	3	25 areas of steep topography (2 very steep grade areas; 14 steep grade areas; 9 moderately steep areas)	2	18 areas of steep topography (2 very steep grade areas; 10 steep grade areas; 3 moderately steep areas; 3 areas of very steep side slopes)	1	15 areas of steep topography (2 very steep grade areas; 10 steep grade areas; 3 moderately steep areas)	4	29 areas of steep topography (7 very steep grade areas; 12 steep grade areas; 6 moderately steep areas; 4 areas of very steep side slopes)
Land use/ownership: private	length in miles and % of total on private land	1	1.28 miles, 10.0%	3	1.47 miles, 12.6%	2	1.24 miles, 10.8%	2	1.37 miles, 10.8%
Land use/ownership: public	length in miles and % of total on public land	3	6.51 miles, 50.7%	2	6.74 miles, 57.6%	4	5.33 miles, 46.6%	1	7.88 miles, 62.1%
Land use/ownership: Road Easement	length in miles and % of total in apparent road easement	4	0.08 miles, 0.6%	1	3.16 miles, 27.0%	2	1.25 miles, 10.9%	3	1.10 miles, 8.7%
Land use/ownership: Utility owned	length in miles and % of total in utility owned land	4	.36 miles, 2.8%	3	0.34 miles, 2.9%	1	1.71 miles, 14.9%	2	1.83 miles, 14.4%
Land use/ownership: private land with utility easement	length in miles and % of total on private land with utility easement	1	4.61 miles, 35.9%	4	none	2	1.92 miles, 16.8%	3	0.50 miles, 3.9%
In Road Corridor	length of trail within road corridor	1	2.24 miles, 17.4%	4	7.26 miles, 62.0%	2	5.01 miles, 43.8%	3	6.91 miles, 54.5%
Out of Road Corridor	length of trail not in road corridor	1	10.60 miles, 82.6%	4	4.45 miles, 38.0%	2	6.44 miles, 56.2%	3	5.77 miles, 45.5%
Existing trail status/surface	Is it an existing trail corridor? If so, what is the surface? (ie. gravel, grass, paved) What use does it serve currently? (ie. snowmobile, skiing, hiking)	3	portion of trail through Hermantown is former snowmobile trail; sidewalks along 2nd St. and 2nd Ave. in Proctor; existing gravel trail through Egerdahl Field; existing gravel trail along Knowlton Creek	4	soft surface trail through Bay View School Forest; sidewalks along 2nd St. and 2nd Ave. in Proctor	2	soft surface trail exists through Keene Creek Park; snowmobile trail from Hermantown border to DWP (1.8 miles)	1	sidewalk along Haines Road, snowmobile trail along the bluff in Duluth; gravel hiking trail along Keene Creek to DWP
Community support (weigh higher)	open house survey responses	4	3rd choice: On the Nov. 20th Open House forms, Route A got the third most votes for best option	2	2nd choice: On the Nov. 20th Open House forms, Route B got the second most votes for best option	0	1st choice: On the Nov. 20th Open House forms, Route C got the most votes for Best option	6	Last choice: On the Nov. 20th Open House forms, Route D got the most votes for worst option
State/County/Busy local road crossings (ADT over 1,000)	number of crossings	2	7 crossings (Maple Grove Rd, Morris Thomas Rd, 2nd St, Hwy 2, 2nd Ave, I-35, West Skyline Pkwy)	1	5 crossings (Maple Grove Rd, 2nd St, Hwy 2, 2nd Ave, Boundary Ave)	2	7 crossings (Lavaque Rd, Maple Grove Rd, Morris Thomas Rd, Getchell Rd, 2nd Ave, Hwy 2, 2nd St)	2	7 crossings (Lavaque Rd, Maple Grove Rd, Highland St, Getchell Rd, 2nd Ave, Hwy 2, 2nd St)
Small/local road crossings (ADT under 1,000)	number of crossings	3	9 crossings (Arrowhead Rd, Ugstad Rd, 3rd Ave, 7th St, 5th St, Kirkus St, Old Hwy 61, Ugstad Rd in Proctor, Thompson Hill Rd)	1	7 crossings (Arrowhead Rd, Ugstad Rd, 3rd Ave, 7th St, 5th St, West Skyline Pkwy, Cody St)	4	11 crossings (Arrowhead Rd, Ugstad Rd, Stebner Rd, Hermantown Rd, St. Louis River Rd, Vinland St, N 77th Ave W, West Skyline Pkwy, West Gate Blvd, Cody St, Vinland/5th St)	2	8 crossings (Arrowhead Rd, Ugstad Rd, Stebner Rd, Anderson Rd, West Skyline Pkwy, West Gate Blvd, Cody St, Vinland/5th St)
Uncontrolled / sight issue intersection crossings	number of crossings	2	6 - Arrowhead Rd, Maple Grove Rd, Hermantown Rd, Morris Thomas Rd, Ugstad Rd, Thompson Hill Rd	1	2 - Ugstad Rd, Arrowhead Rd	4	9 - Ugstad Rd, Arrowhead Rd, Lavaque Rd, Maple Grove Rd, Stebner Rd, Hermantown Rd, Morris Thomas Rd, Stebner Rd, St. Louis River Rd	3	7 - Ugstad Rd, Arrowhead Rd, Lavaque Rd, Getchell Rd, Maple Grove Rd, West Skyline Pkwy, Cody St
Grade-separated crossings	number of crossings (existing and proposed)	3	recommended grade separated crossing of Arrowhead Rd, Maple Grove Rd, Morris Thomas Rd; existing underpass at I-35 on Ugstad Rd	1	none	2	recommended grade separated crossing of Maple Grove Rd	1	none
Railroad crossings	number of crossings	1	1 crossing - grade-separated rail crossing on Kirkus Street	1	1 crossing - at grade crossing	1	1 crossing - at grade crossing	1	1 crossing - at grade crossing
Experience									
Physical setting (e.g. through natural area, within power line corridor, adjacent to road, adjacent to residential lots, diversity of settings)	length in miles of each physical setting	2	along wooded powerline corridor through Hermantown (4.9 miles); through wooded land (1.1 miles); on road through northern and downtown Proctor (1.7 miles); along wooded powerline/park corridors through southern Proctor (1.6 miles); along Ugstad Rd (.3 miles); wooded trail through upper Spirit Mountain land (1.0 mile); follows Knowlton Creek down to DWP (0.9 mile)	3	along wooded sewer easement from Hermantown Schools to City Hall (1.9 miles); along road to downtown Proctor (6.5 miles); along wooded corridor down to DWP (2.8 miles)	1	along wooded sewer easement from Hermantown Schools to Keene Creek Park; along wooded powerline corridor to DWP trail; along road into Proctor	4	along sewer easement to Hermantown City Hall; along powerline corridor to Maple Grove Rd; through Stebner Park; along Haines Rd; along powerline corridor/snowmobile trail; along Keene Creek to DWP trail
Ability/need to accommodate other user groups in the same alignment (ie. horse, single track bicycle, snowmobile, ATV)	length in miles of trail shared with motorized/equestrian users	2	potential to share powerline corridor through Hermantown with snowmobiles	3	Lavaque Rd corridor has limited ROW width which likely prevents horse/motorized trail users	1	most of Route C is within utility easements which may provide plenty of space for shared trail uses	4	Haines Rd corridor has limited width which likely prevents horse/motorized trail users
Scenic and natural features (such as parks, open spaces, and water bodies)	number	2	Hermantown High and Middle Schools; Future North Proctor Park; Egerdahl Field, Knowlton Creek	1	Hermantown High and Middle Schools; Rocky Run Trail; Mogie Lake; Future North Proctor Park; Klang Park; Bay View School Forest	3	Hermantown High and Middle Schools; Rocky Run Trail; Keene Creek Park	2	Hermantown High and Middle Schools; Rocky Run Trail; Stebner Park; Keene Creek

*TOTAL:	60	52	49	65
1	best option	*Lowest total number is the best option overall		
2	2nd best option			
3	3rd best option			
4	worst option			

Factors that will affect the trail construction costs:

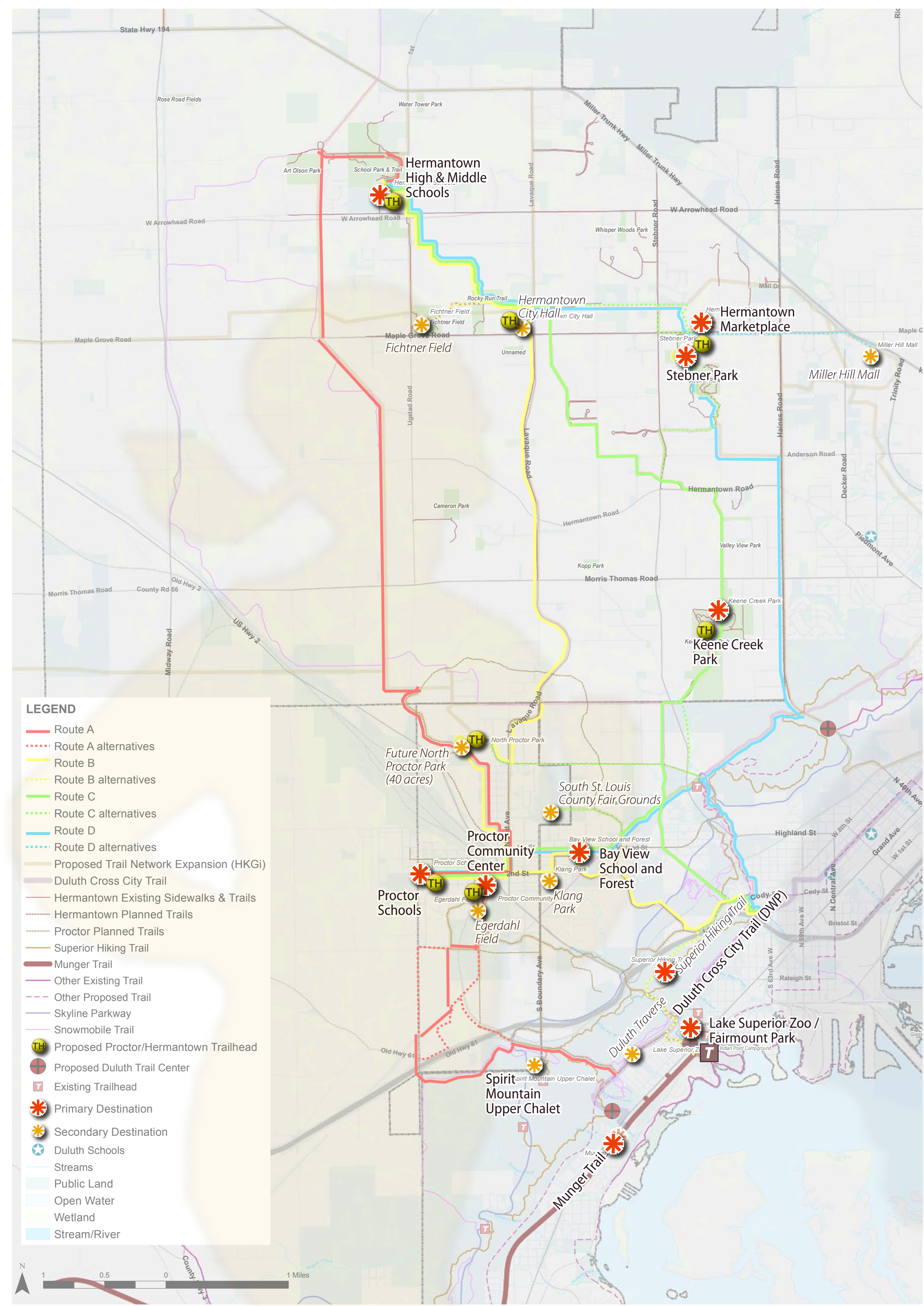
- the more a route follows existing roads and existing trails, the less expensive it will be to build
- the steepest sections will require switchbacks that will add to the cost
- wetlands/stream crossings add to the cost
- high speed road crossings and rail crossings add to the cost
- the more the trail cuts through undeveloped natural areas (forests/ woods), the more expensive it will be

Evaluation results:

- Route C appears to be the most favorable based on the above evaluation criteria, while Route B comes in as the second most favorable option
- Initial community input also favored Route C
- The above evaluation looked at the primary routes only; the alternative routes were not evaluated in the above table



Trailheads & Destinations



TH

Proposed Hermantown/Proctor Trailheads:

Trailheads will have vehicle and bike parking and signage. Where possible to partner with existing facilities, trailheads will have restrooms, water fountains, and food vendors.

Hermantown High & Middle Schools

Hermantown City Hall

Stebner Park / Hermantown Marketplace

Keene Creek Park

Future North Proctor Park

Proctor High & Middle Schools

Proctor Community Center

Community Destinations:

The proposed routes cross various destinations in Hermantown, Proctor, and Duluth. They are categorized below according to regional importance.

	A	B	C	D
PRIMARY DESTINATIONS				
Hermantown Schools TH	x	x	x	x
Keene Creek Park TH			x	
Proctor Schools TH	x	x	x	x
Stebner Park TH			x (alt. route)	x
Hermantown Marketplace TH			x (alt. route)	x (alt. route)
Bay View School & School Forest (Duluth)		x	x	x
Proctor Community Center TH	x	x	x	x
Munger Trail (by way of Duluth Cross City Trail)	x	x	x	x
Lake Superior Zoo / Fairmount Park / Western Waterfront Trail (Duluth) T		x (alt. route)	x (alt. route)	
Superior Hiking Trail (Duluth)	x	x	x	x
SECONDARY DESTINATIONS				
Egerdahl Field	x			
South St. Louis County Fair Grounds			x (alt. route)	
Future North Proctor Park (40 acres) TH	x	x	x (alt. route)	
Miller Hill Mall				x (alt. route)
Hermantown City Hall TH		x	x	x
Klang Park		x		
Fichtner Field		x (alt. route)		
Spirit Mountain - Upper Chalet (Duluth)	x			
Duluth Traverse Trail	x	x	x	x

Typical Trail Section

Natural area / open space

10' wide paved multi-use trail

Lighting, benches, and other amenities at key locations

Natural area / open space

Examples of multi-use paved trails in different contexts

Proctor Hermantown Munger Trail Spur

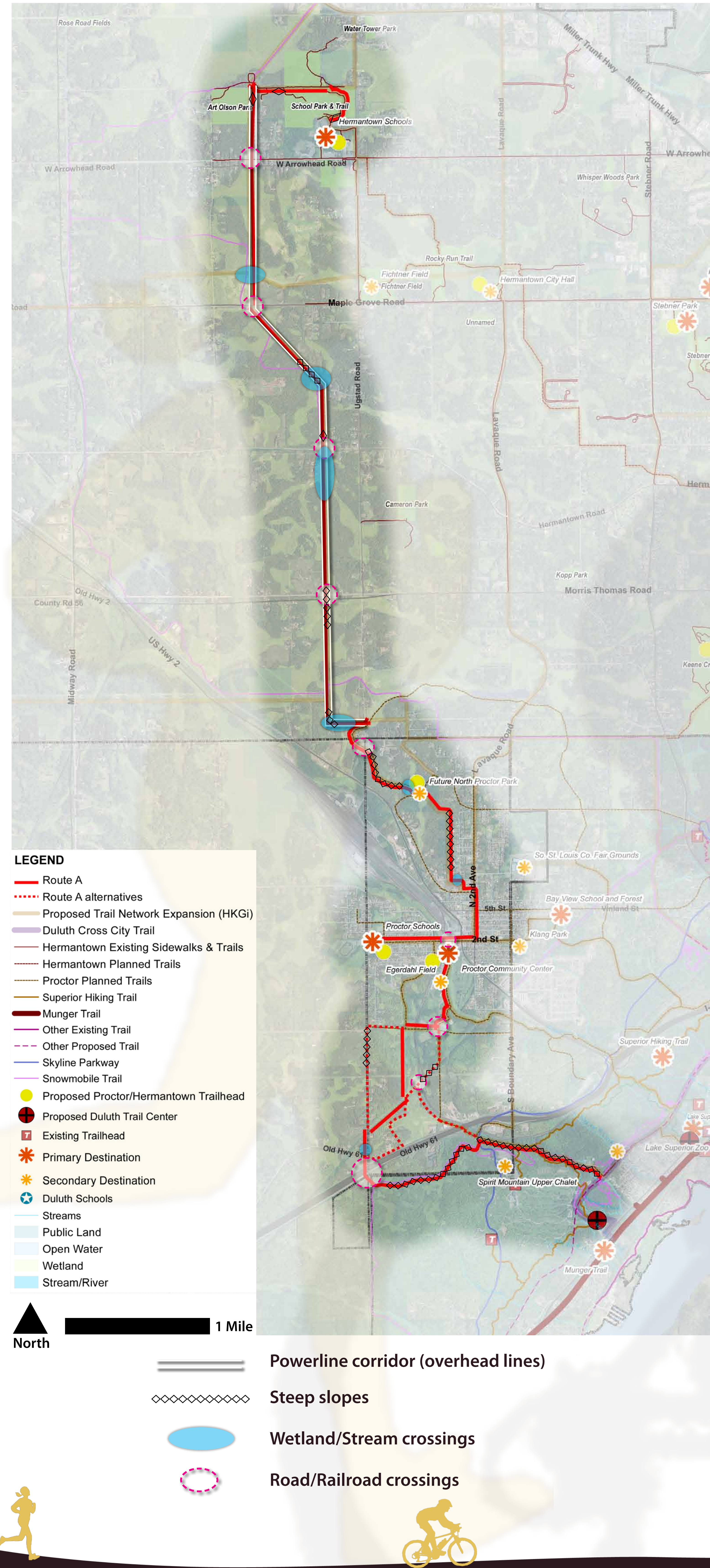
The City of Hermantown MINNESOTA

Hoisington Koegler Group Inc. Planning • Landscape Architecture • Urban Design

MSA PROFESSIONAL SERVICES

CLEAN WATER LAND & LEGACY MINNESOTA

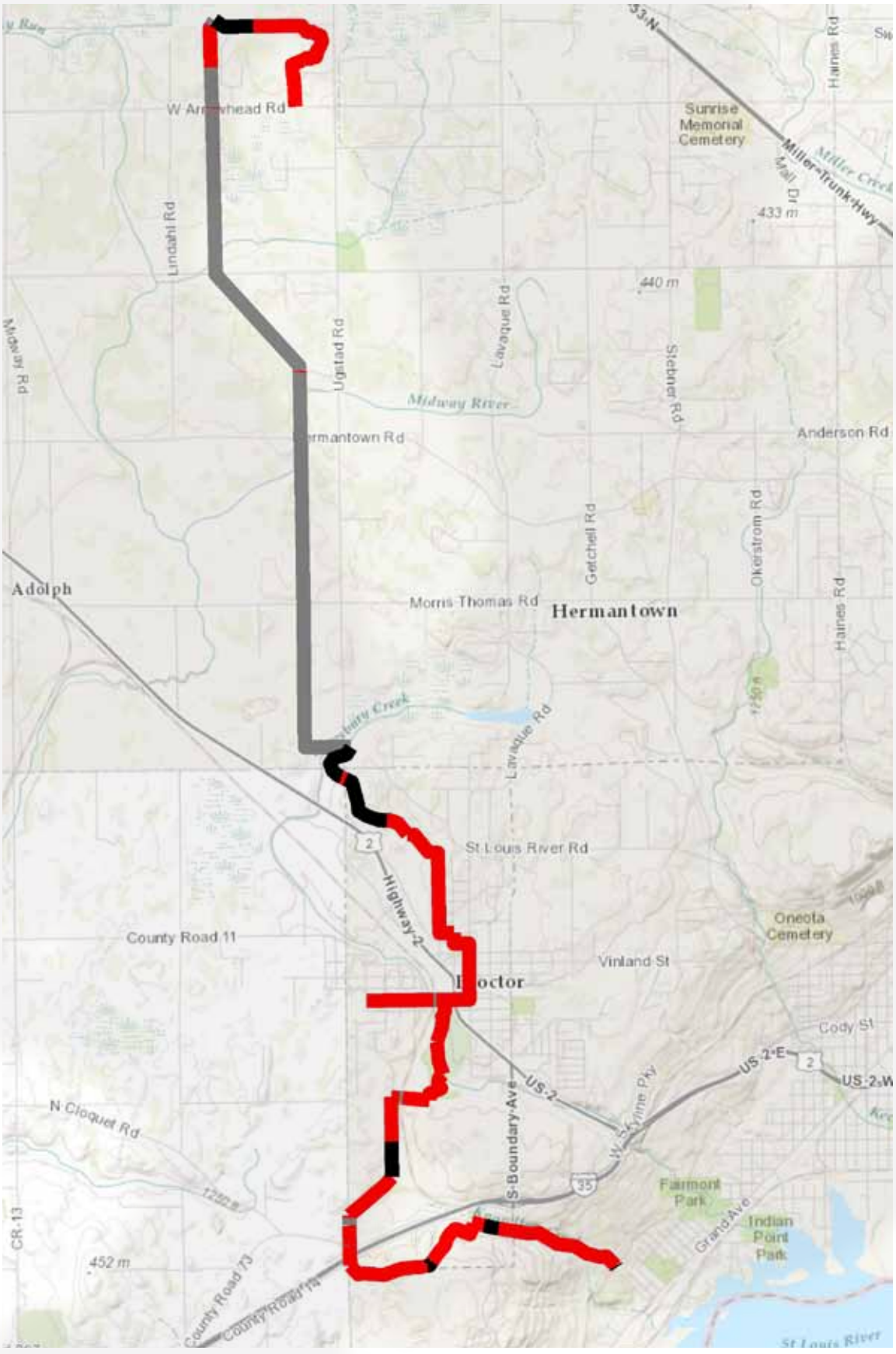
Route A



		A	
CRITERIA	MEASUREMENT UNIT/DESCRIPTOR		
General Description		Route follows powerline corridor in western Hermantown, connects to Proctor Community Center and Egerdahl Park, over rail line, under I-35, heads east down the ridge through Spirit Mountain Recreation Area along Knowlton Creek to DWP/Cross City Trail	
ACCESS/CONNECTIVITY			
Households served (generally within 3/4 mile of the trail corridor)	number of households	4	3,220 residential parcels within a 3/4 mile buffer area of the proposed trail route (Zenith Terrace mobile home park is within 1/2 mile of Route A)
Connectivity to destinations	number of destinations (primary and secondary)	3	5 primary; 4 secondary; 9 total
Total trail length	length in miles	4	12.84 miles
Distance/directness - above the ridge, Proctor to Hermantown	length in miles from H Schools to P Schools	1	8.48 miles
Distance/directness - to Munger Trail, single/double spur	length in miles from P Comm Cntr to DWP	4	3.85 miles
FEASIBILITY			
Environmental - soils, wetlands, creek shorelands, potential disturbance to natural systems	number or length of route crossing wetlands or other environmental impact areas	2	9 wetland/stream crossings
Topography	number or length of route in steep slope areas -- differentiate between somewhat steep, moderate, and very steep	3	25 areas of steep topography (2 very steep grade areas; 14 steep grade areas; 9 moderately steep areas)
Land use/ownership: private	length in miles and % of total on private land	1	1.28 miles, 10.0%
Land use/ownership: public	length in miles and % of total on public land	3	6.51 miles, 50.7%
Land use/ownership: Road Easement	length in miles and % of total in apparent road easement	4	0.08 miles, 0.6%
Land use/ownership: Utility owned	length in miles and % of total in utility owned land	4	.36 miles, 2.8%
Land use/ownership: private land with utility easement	length in miles and % of total on private land with utility easement	1	4.61 miles, 35.9%
In Road Corridor	length of trail within road corridor	1	2.24 miles, 17.4%
Out of Road Corridor	length of trail not in road corridor	1	10.60 miles, 82.6%
Existing trail status/surface	Is it an existing trail corridor? If so, what is the surface? (ie. gravel, grass, paved) What use does it serve currently? (ie. snowmobile, skiing, hiking)	3	portion of trail through Hermantown is former snowmobile trail; sidewalks along 2nd St. and 2nd Ave. in Proctor; existing gravel trail through Egerdahl Field; existing gravel trail along Knowlton Creek
Community support (weigh higher)	open house survey responses	4	3rd choice: On the Nov. 20th Open House forms, Route A got the third most votes for best option
State/County/Busy local road crossings (ADT over 1,000)	number of crossings	2	7 crossings (Maple Grove Rd, Morris Thomas Rd, 2nd St, Hwy 2, 2nd Ave, I-35, West Skyline Pkwy)
Small/local road crossings (ADT under 1,000)	number of crossings	3	9 crossings (Arrowhead Rd, Ugstad Rd, 3rd Ave, 7th St, 5th St, Kirkus St, Old Hwy 61, Ugstad Rd in Proctor, Thompson Hill Rd)
Uncontrolled / sight issue intersection crossings	number of crossings	2	6 - Arrowhead Rd, Maple Grove Rd, Hermantown Rd, Morris Thomas Rd, Ugstad Rd, Thompson Hill Rd
Grade-separated crossings	number of crossings (existing and proposed)	3	recommended grade separated crossing of Arrowhead Rd, Maple Grove Rd, Morris Thomas Rd; existing underpass at I-35 on Ugstad Rd
Railroad crossings	number of crossings	1	1 crossing - grade-separated rail crossing on Kirkus Street
EXPERIENCE			
Physical setting (e.g. through natural area, within power line corridor, adjacent to road, adjacent to residential lots, diversity of settings)	length in miles of each physical setting	2	along wooded powerline corridor through Hermantown (4.9 miles); through wooded land (1.1 miles); on road through northern and downtown Proctor (1.7 miles); along wooded powerline/park corridors through southern Proctor (1.6 miles); along Ugstad Rd (.3 miles); wooded trail through upper Spirit Mountain land (1.0 mile); follows Knowlton Creek down to DWP (0.9 mile)
Ability /need to accommodate other user groups in the same alignment (ie. horse, single track bicycle, snowmobile, ATV)	length in miles of trail shared with motorized/equestrian users	2	potential to share powerline corridor through Hermantown with snowmobiles
Scenic and natural features (such as parks, open spaces, and water bodies)	number	2	Hermantown High and Middle Schools; Future North Proctor Park; Egerdahl Field, Knowlton Creek

*TOTAL: 60

- 1 best option
- 2 2nd best option
- 3 3rd best option
- 4 worst option



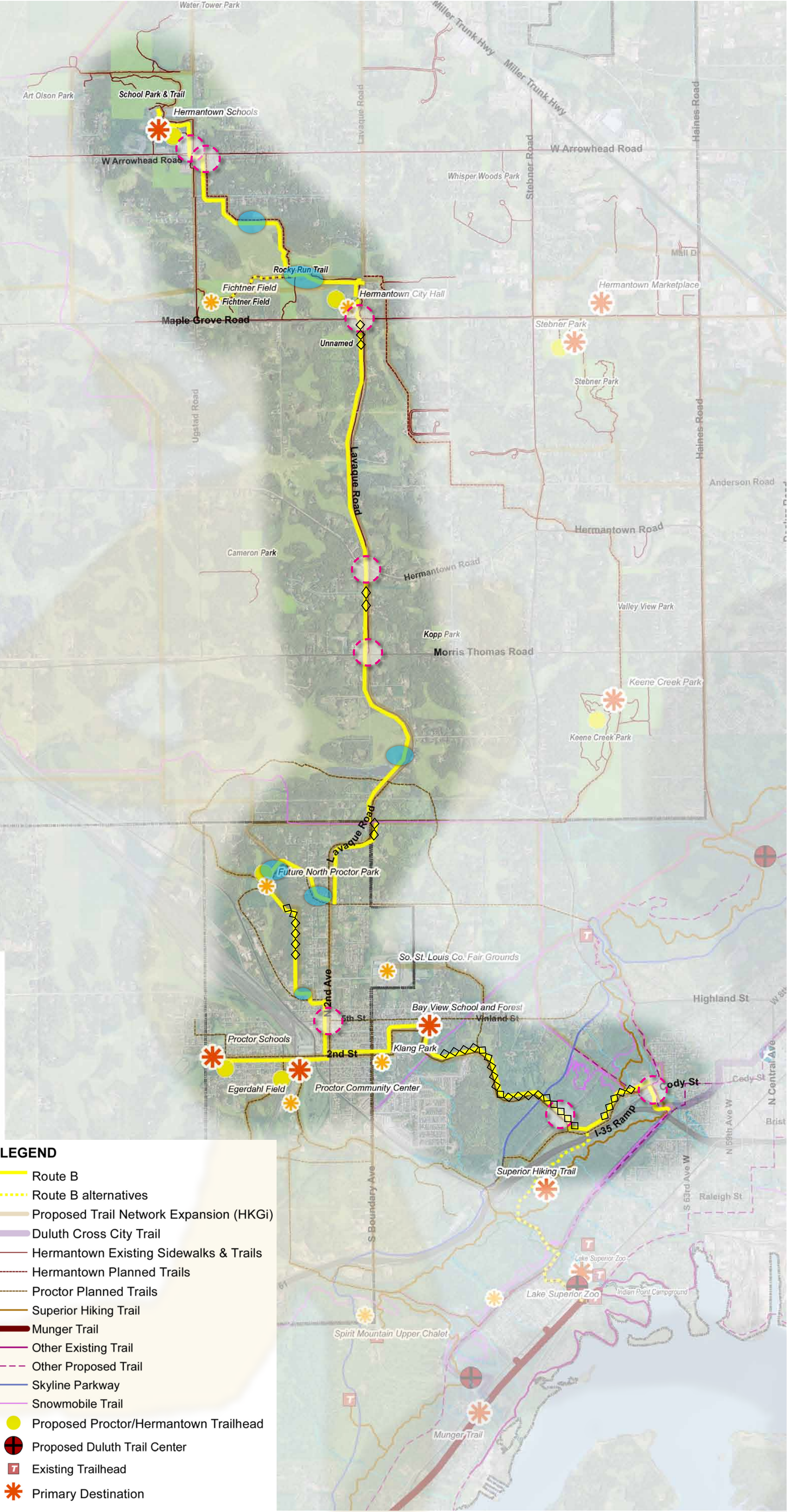
Corridor ownership

- Trail located on public land
- Trail located on private land but within a road or utility easement
- Trail located on private land

Proctor Hermantown Munger Trail Spur



Route B



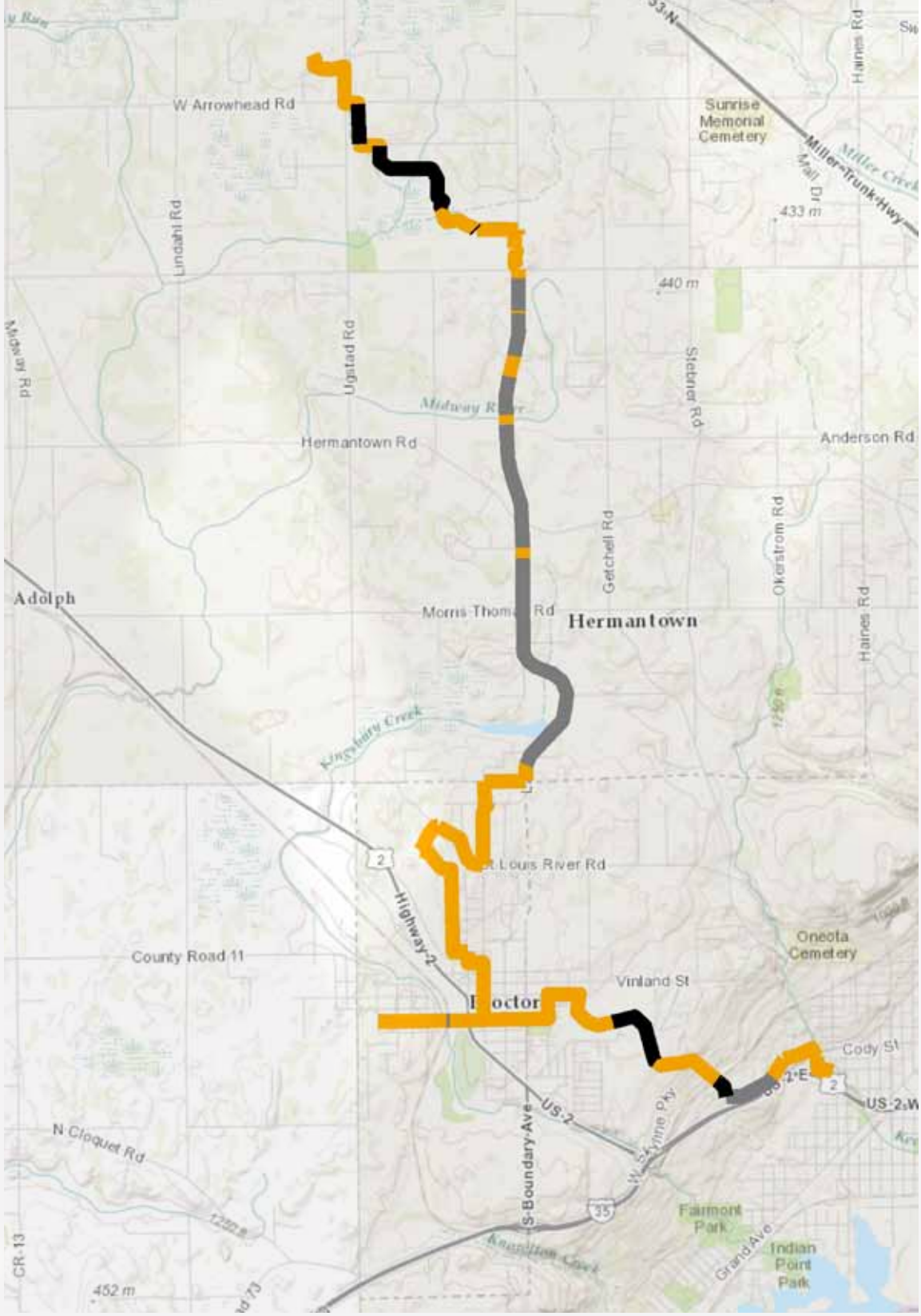
- LEGEND**
- Route B
 - Route B alternatives
 - Proposed Trail Network Expansion (HKGi)
 - Duluth Cross City Trail
 - Hermantown Existing Sidewalks & Trails
 - Hermantown Planned Trails
 - Proctor Planned Trails
 - Superior Hiking Trail
 - Munger Trail
 - Other Existing Trail
 - Other Proposed Trail
 - Skyline Parkway
 - Snowmobile Trail
 - Proposed Proctor/Hermantown Trailhead
 - Proposed Duluth Trail Center
 - Existing Trailhead
 - Primary Destination
 - Secondary Destination
 - Duluth Schools
 - Streams
 - Public Land
 - Open Water
 - Wetland
 - Stream/River

- Powerline corridor (overhead lines)
- Steep slopes
- Wetland/Stream crossings
- Road/Railroad crossings

		B	
CRITERIA	MEASUREMENT UNIT/DESCRIPTOR		
General Description		Route follows Lavaque Road through Hermantown, connects to Proctor Community Center, and heads east down the ridge to connect to the DWP/Cross City Trail and cross under I-35	
ACCESS/CONNECTIVITY			
Households served (generally within 3/4 mile of the trail corridor)	number of households	3	4,090 residential parcels within 3/4 mile buffer area of the proposed trail route (Zenith Terrace mobile home park is within 1/3 mile of Route B)
Connectivity to destinations	number of destinations (primary and secondary)	2	6 primary; 4 secondary; 10 total
Total trail length	length in miles	2	11.71 miles
Distance/directness - above the ridge, Proctor to Hermantown	length in miles from H Schools to P Schools	2	8.66 miles
Distance/directness - to Munger Trail, single/double spur	length in miles from P Comm Cntr to DWP	1	3.04 miles
FEASIBILITY			
Environmental - soils, wetlands, creek shorelands, potential disturbance to natural systems	number or length of route crossing wetlands or other environmental impact areas	1	4 wetland/stream crossings
Topography	number or length of route in steep slope areas -- differentiate between somewhat steep, moderate, and very steep	2	18 areas of steep topography (2 very steep grade areas; 10 steep grade areas; 3 moderately steep areas; 3 areas of very steep side slopes)
Land use/ownership: private	length in miles and % of total on private land	3	1.47 miles, 12.6%
Land use/ownership: public	length in miles and % of total on public land	2	6.74 miles, 57.6%
Land use/ownership: Road Easement	length in miles and % of total in apparent road easement	1	3.16 miles, 27.0%
Land use/ownership: Utility owned	length in miles and % of total in utility owned land	3	0.34 miles, 2.9%
Land use/ownership: private land with utility easement	length in miles and % of total on private land with utility easement	4	none
In Road Corridor	length of trail within road corridor	4	7.26 miles, 62.0%
Out of Road Corridor	length of trail not in road corridor	4	4.45 miles, 38.0%
Existing trail status/surface	Is it an existing trail corridor? If so, what is the surface? (ie. gravel, grass, paved) What use does it serve currently? (ie. snowmobile, skiing, hiking)	4	soft surface trail through Bay View School Forest; sidewalks along 2nd St. and 2nd Ave. in Proctor
Community support (weigh higher)	open house survey responses	2	2nd choice: On the Nov. 20th Open House forms, Route B got the second most votes for best option
State/County/Busy local road crossings (ADT over 1,000)	number of crossings	1	5 crossings (Maple Grove Rd, 2nd St, Hwy 2, 2nd Ave, Boundary Ave)
Small/local road crossings (ADT under 1,000)	number of crossings	1	7 crossings (Arrowhead Rd, Ugstad Rd, 3rd Ave, 7th St, 5th St, West Skyline Pkwy, Cody St)
Uncontrolled / sight issue intersection crossings	number of crossings	1	2 - Ugstad Rd, Arrowhead Rd
Grade-separated crossings	number of crossings (existing and proposed)	1	none
Railroad crossings	number of crossings	1	1 crossing - at grade crossing
EXPERIENCE			
Physical setting (e.g. through natural area, within power line corridor, adjacent to road, adjacent to residential lots, diversity of settings)	length in miles of each physical setting	3	along wooded sewer easement from Hermantown Schools to City Hall (1.9 miles); along road to downtown Proctor (6.5 miles); along wooded corridor down to DWP (2.8 miles)
Ability/need to accommodate other user groups in the same alignment (ie. horse, single track bicycle, snowmobile, ATV)	length in miles of trail shared with motorized/equestrian users	3	Lavaque Rd corridor has limited ROW width which likely prevents horse/motorized trail users
Scenic and natural features (such as parks, open spaces, and water bodies)	number	1	Hermantown High and Middle Schools; Rocky Run Trail; Mogie Lake; Future North Proctor Park; Klang Park; Bay View School Forest

*TOTAL: 52

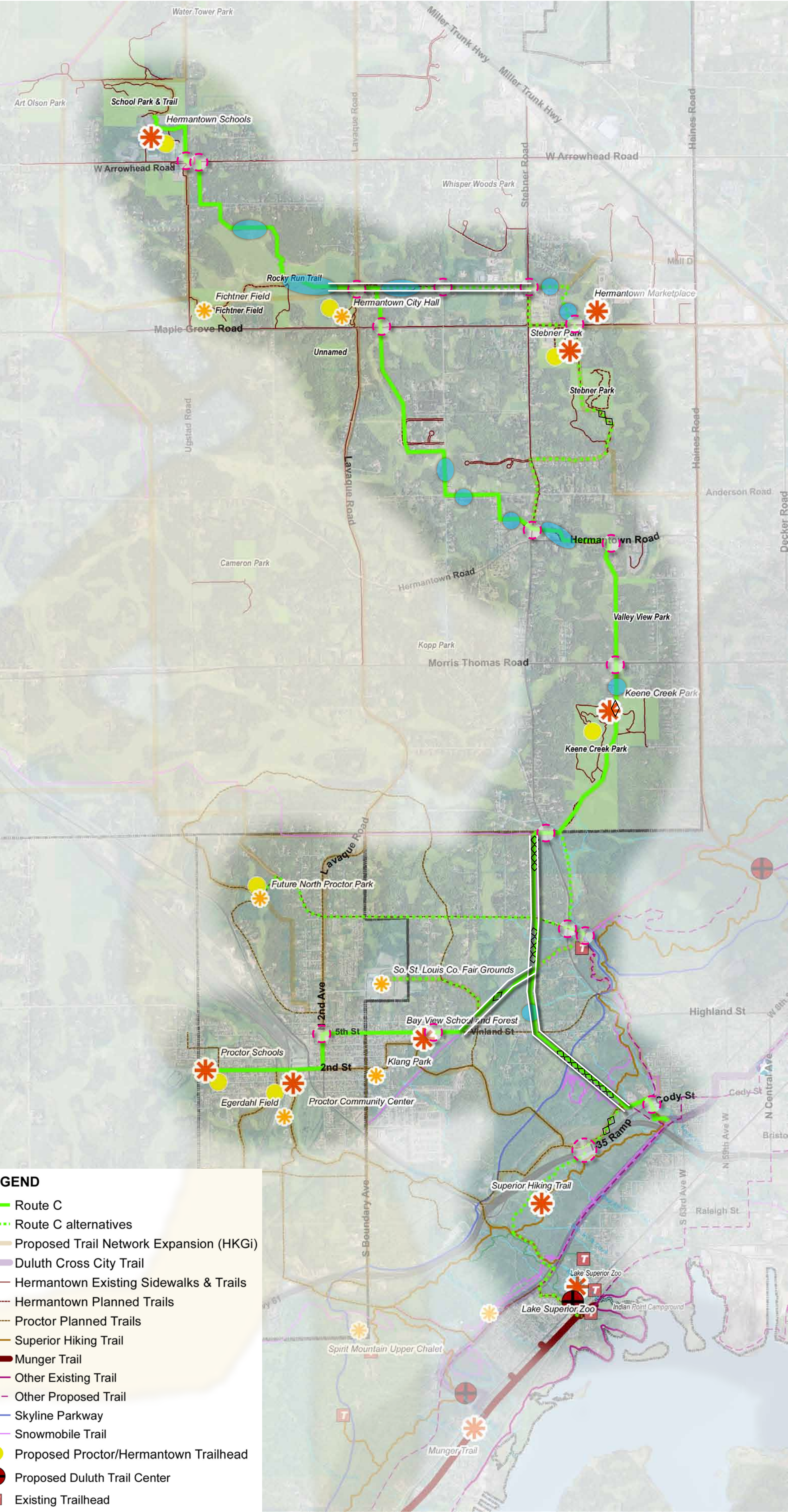
- 1 best option
- 2 2nd best option
- 3 3rd best option
- 4 worst option



- Corridor ownership**
- Trail located on public land
 - Trail located on private land but within a road or utility easement
 - Trail located on private land



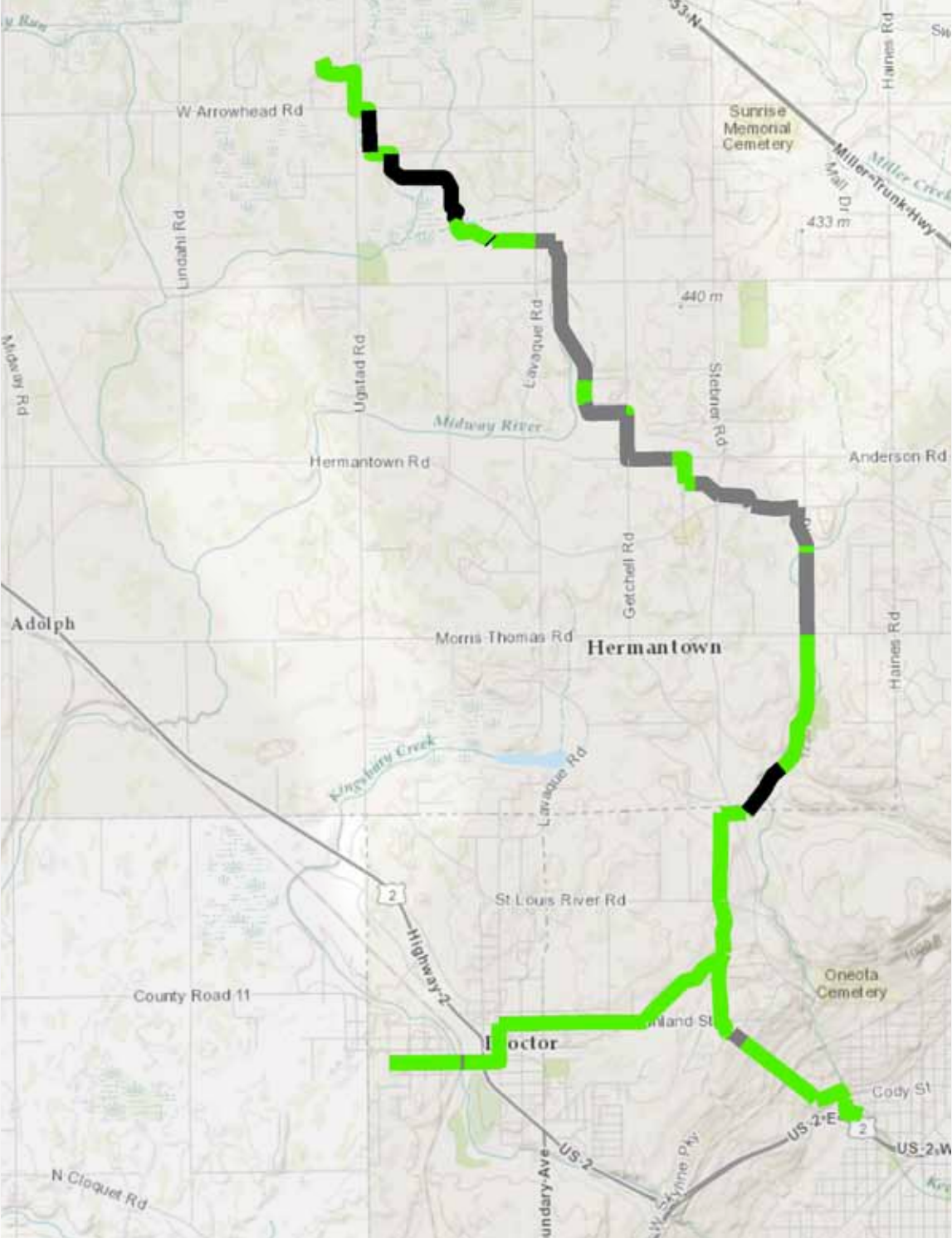
Route C



		C	
CRITERIA	MEASUREMENT UNIT/DESCRIPTOR		
General Description		Route follows sewer easement through Hermantown, through Keene Creek Park and follows a powerline corridor down the ridge to the DWP/Cross City Trail and cross under I-35; connection to Proctor would be an east-west spur trail along Vinland St and powerline corridor	
ACCESS/CONNECTIVITY			
Households served (generally within 3/4 mile of the trail corridor)	number of households	2	4,460 residential parcels within 3/4 mile buffer area of the proposed trail route
Connectivity to destinations	number of destinations (primary and secondary)	1	7 primary; 2 secondary; 9 total
Total trail length	length in miles	1	11.45 miles
Distance/directness - above the ridge, Proctor to Hermantown	length in miles from H Schools to P Schools	3	9.97 miles
Distance/directness - to Munger Trail, single/double spur	length in miles from P Comm Cntr to DWP	2	3.16 miles
FEASIBILITY			
Environmental - soils, wetlands, creek shorelands, potential disturbance to natural systems	number or length of route crossing wetlands or other environmental impact areas	4	12 wetland/stream crossings
Topography	number or length of route in steep slope areas -- differentiate between somewhat steep, moderate, and very steep	1	15 areas of steep topography (2 very steep grade areas; 10 steep grade areas; 3 moderately steep areas)
Land use/ownership: private	length in miles and % of total on private land	2	1.24 miles, 10.8%
Land use/ownership: public	length in miles and % of total on public land	4	5.33 miles, 46.6%
Land use/ownership: Road Easement	length in miles and % of total in apparent road easement	2	1.25 miles, 10.9%
Land use/ownership: Utility owned	length in miles and % of total in utility owned	1	1.71 miles, 14.9%
Land use/ownership: private land with utility easement	length in miles and % of total on private land with utility easement	2	1.92 miles, 16.8%
In Road Corridor	length of trail within road corridor	2	5.01 miles, 43.8%
Out of Road Corridor	length of trail not in road corridor	2	6.44 miles, 56.2%
Existing trail status/surface	Is it an existing trail corridor? If so, what is the surface? (ie. gravel, grass, paved) What use does it serve currently? (ie. snowmobile, skiing, hiking)	2	soft surface trail exists through Keene Creek Park; snowmobile trail from Hermantown border to DWP (1.8 miles)
Community support (weigh higher)	open house survey responses	0	1st choice: On the Nov. 20th Open House forms, Route C got the most votes for Best option
State/County/Busy local road crossings (ADT over 1,000)	number of crossings	2	7 crossings (Lavaque Rd, Maple Grove Rd, Morris Thomas Rd, Getchell Rd, 2nd Ave, Hwy 2, 2nd St)
Small/local road crossings (ADT under 1,000)	number of crossings	4	11 crossings (Arrowhead Rd, Ugstad Rd, Stebner Rd, Hermantown Rd, St. Louis River Rd, Vinland St, N 77th Ave W, West Skyline Pkwy, West Gate Blvd, Cody St, Vinland/5th St)
Uncontrolled / sight issue intersection crossings	number of crossings	4	9 - Ugstad Rd, Arrowhead Rd, Lavaque Rd, Maple Grove Rd, Stebner Rd, Hermantown Rd, Morris Thomas Rd, Stebner Rd, St. Louis River Rd
Grade-separated crossings	number of crossings (existing and proposed)	2	recommended grade separated crossing of Maple Grove Rd
Railroad crossings	number of crossings	1	1 crossing - at grade crossing
EXPERIENCE			
Physical setting (e.g. through natural area, within power line corridor, adjacent to road, adjacent to residential lots, diversity of settings)	length in miles of each physical setting	1	along wooded sewer easement from Hermantown Schools to Keene Creek Park; along wooded powerline corridor to DWP trail; along road into Proctor
Ability /need to accommodate other user groups in the same alignment (ie. horse, single track bicycle, snowmobile, ATV)	length in miles of trail shared with motorized/equestrian users	1	most of Route C is within utility easements which may provide plenty of space for shared trail uses
Scenic and natural features (such as parks, open spaces, and water bodies)	number	3	Hermantown High and Middle Schools; Rocky Run Trail; Keene Creek Park

*TOTAL: 49

- 1 best option
- 2 2nd best option
- 3 3rd best option
- 4 worst option



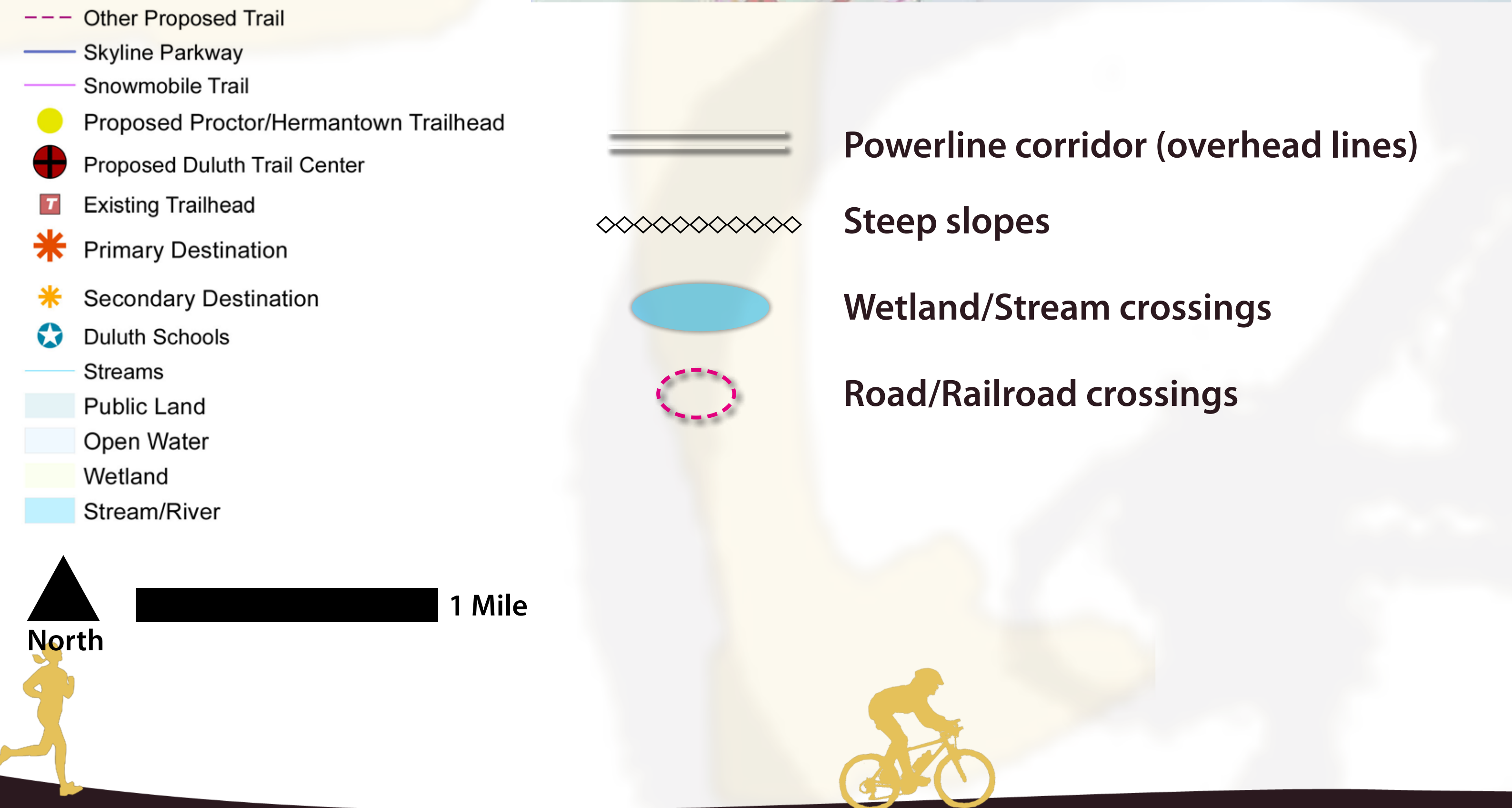
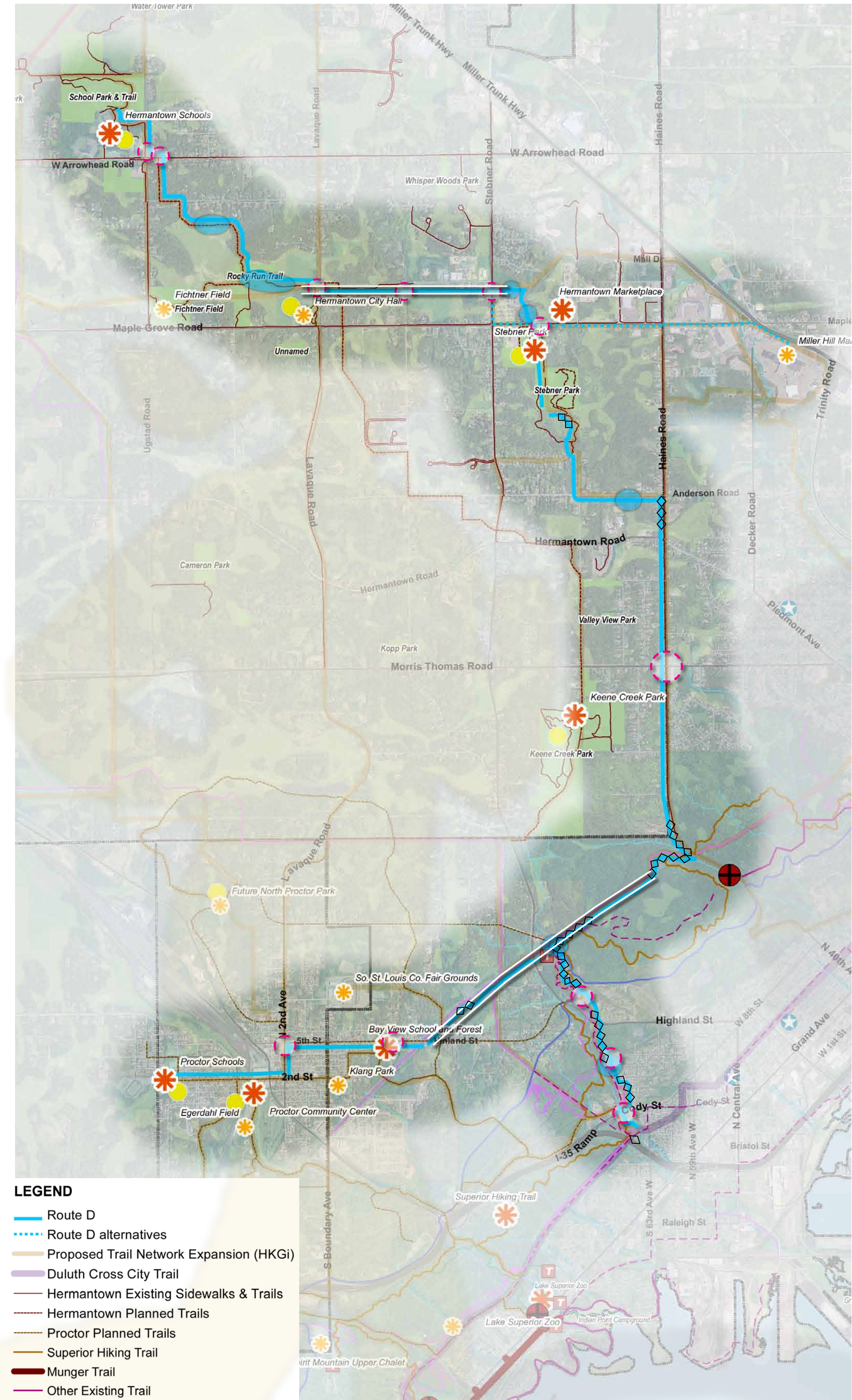
Corridor ownership

- Trail located on public land
- Trail located on private land but within a road or utility easement
- Trail located on private land

Proctor Hermantown Munger Trail Spur



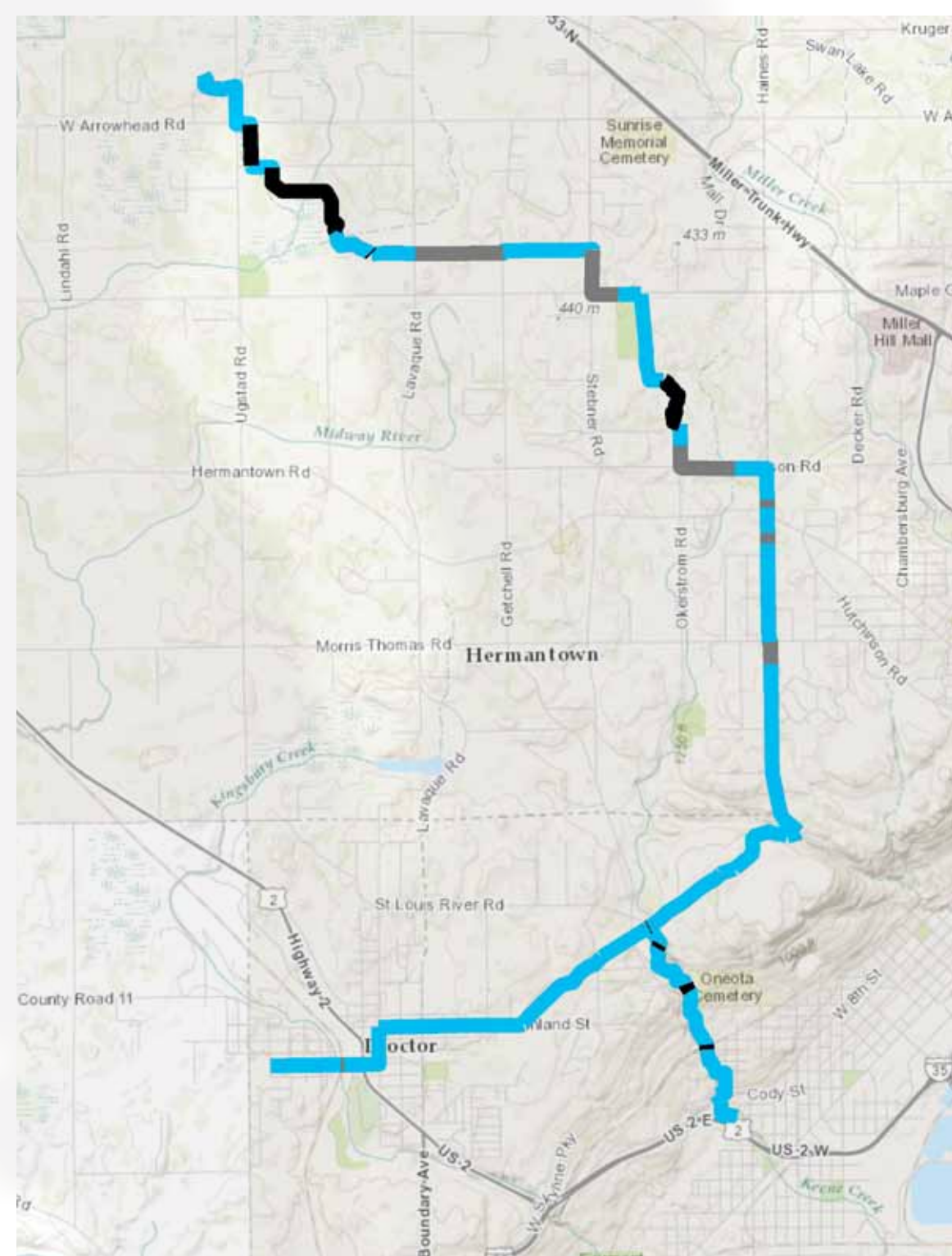
Route D



		D	
CRITERIA	MEASUREMENT UNIT/DESCRIPTOR		
General Description		Route follows sewer easement and powerline corridor to Hermantown Marketplace and Stebner Park, follows Keene Creek, then along Anderson Rd and Haines Rd through Hermantown, into Duluth to follow powerline easement to follow Keene Creek down to DWP/Cross City Trail; connection to Proctor would be an east-west spur trail along Vinland St and powerline corridor	
ACCESS/CONNECTIVITY			
Households served (generally within 3/4 mile of the trail corridor)	number of households	1	4,367 residential parcels within 3/4 mile buffer area of the proposed trail route (several high density housing units in the Hermantown Marketplace area add to the number of people who live within walking distance of Route D)
Connectivity to destinations	number of destinations (primary and secondary)	1	7 primary; 2 secondary; 9 total
Total trail length	length in miles	3	12.68 miles
Distance/directness - above the ridge, Proctor to Hermantown	length in miles from H Schools to P Schools	4	11.12 miles
Distance/directness - to Munger Trail, single/double spur	length in miles from P Comm Cntr to DWP	3	3.43 miles
FEASIBILITY			
Environmental - soils, wetlands, creek shorelands, potential disturbance to natural systems	number or length of route crossing wetlands or other environmental impact areas	3	11 wetland/stream crossings
Topography	number or length of route in steep slope areas -- differentiate between somewhat steep, moderate, and very steep	4	29 areas of steep topography (7 very steep grade areas; 12 steep grade areas; 6 moderately steep areas; 4 areas of very steep side slopes)
Land use/ownership: private	length in miles and % of total on private land	2	1.37 miles, 10.8%
Land use/ownership: public	length in miles and % of total on public land	1	7.88 miles, 62.1%
Land use/ownership: Road Easement	length in miles and % of total in apparent road easement	3	1.10 miles, 8.7%
Land use/ownership: Utility owned	length in miles and % of total in utility owned land	2	1.83 miles, 14.4%
Land use/ownership: private land with utility easement	length in miles and % of total on private land with utility easement	3	0.50 miles, 3.9%
In Road Corridor	length of trail within road corridor	3	6.91 miles, 54.5%
Out of Road Corridor	length of trail not in road corridor	3	5.77 miles, 45.5%
Existing trail status/surface	Is it an existing trail corridor? If so, what is the surface? (ie. gravel, grass, paved) What use does it serve currently? (ie. snowmobile, skiing, hiking)	1	sidewalk along Haines Road, snowmobile trail along the bluff in Duluth; gravel hiking trail along Keene Creek to DWP
Community support (weigh higher)	open house survey responses	6	Last choice: On the Nov. 20th Open House forms, Route D got the most votes for worst option
State/County/Busy local road crossings (ADT over 1,000)	number of crossings	2	7 crossings (Lavaque Rd, Maple Grove Rd, Highland St, Getchell Rd, 2nd Ave, Hwy 2, 2nd St)
Small/local road crossings (ADT under 1,000)	number of crossings	2	8 crossings (Arrowhead Rd, Ugstad Rd, Stebner Rd, Anderson Rd, West Skyline Pkwy, West Gate Blvd, Cody St, Vinland/5th St)
Uncontrolled / sight issue intersection crossings	number of crossings	3	7 - Ugstad Rd, Arrowhead Rd, Lavaque Rd, Getchell Rd, Maple Grove Rd, West Skyline Pkwy, Cody St
Grade-separated crossings	number of crossings (existing and proposed)	1	none
Railroad crossings	number of crossings	1	1 crossing - at grade crossing
EXPERIENCE			
Physical setting (e.g. through natural area, within power line corridor, adjacent to road, adjacent to residential lots, diversity of settings)	length in miles of each physical setting	4	along sewer easement to Hermantown City Hall; along powerline corridor to Maple Grove Rd; through Stebner Park; along Haines Rd; along powerline corridor/snowmobile trail; along Keene Creek to DWP trail
Ability/need to accommodate other user groups in the same alignment (ie. horse, single track bicycle, snowmobile, ATV)	length in miles of trail shared with motorized/equestrian users	4	Haines Rd corridor has limited width which likely prevents horse/motorized trail users
Scenic and natural features (such as parks, open spaces, and water bodies)	number	2	Hermantown High and Middle Schools; Rocky Run Trail; Stebner Park; Keene Creek

*TOTAL: 65

- 1 best option
- 2 2nd best option
- 3 3rd best option
- 4 worst option



Corridor ownership

- Trail located on public land
- Trail located on private land but within a road or utility easement
- Trail located on private land

Proctor Hermantown Munger Trail Spur

