



Appendix

Social, Technical & Economic Assessment Methodology

The following methodology explains how the findings of the social, technical, and economic assessments were generated when not otherwise apparent.

Social Assessment

Service Area Population

Service area population data is a measurement of population within three-fourths mile of the trail route. The population data was obtained using 2006 US Census data and is approximate due to the geography of US Census blocks.

Adjacent Properties

Adjacent residential yards include all adjacent residential parcels. Residential yards were identified and inventoried by means of Hennepin County parcel data and 2006 aerial photography. Residential properties that were not immediately adjacent the proposed trail route including residential parcels across the street or railroad tracks were not inventoried.

Proximity of adjacent residential properties is an average measurement of the estimated distance between the adjacent residences and proposed trail route and the estimated distance between the adjacent residences and corresponding property line. The measurements were completed using Hennepin County parcel data and 2006 aerial photography. The closest point of the adjacent residence to trail route and property line was used.

Viewshed data quantifies the elevation of the trail compared to the adjacent properties. Viewshed data was classified as above grade, at grade, or below grade and was compiled using two foot contour lines provided by the City of Edina and the estimated trail elevation.

Access to Trail

Access to trail identifies potential trail access locations including sidewalks, roads, trails or similar infrastructure. Access locations were identified during field visits preformed in 2009 and 2010, in the City of Edina 2030 Comprehensive Plan, and through 2006 aerial photography.

Parking

Parking measured the available parking capacity of the various trail routes and estimated the potential parking impact as a result of trail construction and associated road reconstruction. Parking capacity and potential parking impacts were identified and inventoried through field visits in 2009 and 2010, 2006 aerial photography, and City of Edina as-built drawings for road-based routes. Parking locations document legal and reasonable parking locations with a minimum length of 22' in accordance with *The Engineering Handbook 6th Edition*. Areas within 30 feet of any intersection and 5 feet from any driveway were excluded from consideration as the City of Edina Ordinance restricts parking in these locations.

Consistency

Potential implementation and funding partnerships identify opportunities to implement and possibly fund the regional trail in conjunction with other proposed or planned improvement projects. Included opportunities are limited to those already of public record and/or plans. Since the cost estimates and details of the opportunities are generally unknown at this time, a cost savings could not be reasonably established at this time.

Comprehensive planning identifies areas where the trail routes complement existing pedestrian and bicycle plans. Areas of consistency were classified as a primary, secondary, or regional trail route and reflect the route's proposed level of service. The routes were obtained from the City of Edina 2030 Comprehensive Plan and corresponding 2007 Comprehensive Bike Transportation Plan.

Trees

Potential impacts to woodland/forest identify the estimated acreage of woodland/forest for each trail route which would be converted to trail as a result of trail development. This data was compiled as part of the Environmental Assessment Worksheet (EAW) by Bonestroo. The potential impact acreage was calculated using a 16' trail corridor and the Minnesota Land Cover Classification System data.

Trees in public right-of-way that appeared to have been planted by adjacent property owners and may be significantly impacted by trail construction were individually identified and inventoried. Trees located within the estimated construction limits were identified during field visits performed in 2009 and 2010, Hennepin County parcel data, and by using 2006 aerial photography.

Trail User Preference

The number of trail stop locations quantifies stop conditions, such as a road crossing, along each route. Stop conditions were identified and inventoried during field visits conducted in 2009 and 2010 as well as by using 2006 aerial photography.

Trail length measures the approximate length of each trail route. Trail length was generated by ArcMap.

Walking and Bike Access to Destinations

Access to destination identifies the number of regionally significant destinations within walking (1/4 mile) and bicycling (3/4 mile) of the trail routes and associated access points. Destinations were primarily identified by the Community Assessment Team (CAT). Park District staff cross referenced the destinations identified by the CAT with Hennepin County parcel data and the City of Edina Parks and Facilities map. For routes without representation or routes that CAT members did not submit destination maps, Park District staff marked all known destinations.

Technical Assessment

Space Requirements

Available right-of-way is an indicator of how much land is available for trail construction and is the measurement from back of curb to the public right-of-way boundary. Available right-of-way was measured from as-built drawings provided by the City of Edina when available. In locations without as-built drawings, right-of-way was estimated using field work in 2009 and 2010, Hennepin County parcel data, and 2006 aerial photography.

Physical Obstacles

Utility locations identify the type and frequency of existing utilities which may be located within the trail corridor. Utilities were identified and inventoried during 2009 and 2010 field work and from City of Edina GIS data. Data includes electric poles, electric boxes, communication boxes, fire hydrants, light poles, gas line junctions, storm sewers, and sanitary sewers. Underground utility data includes only storm and water sewers and is not inclusive of all buried utilities.

Safety

Emergency access points identify the locations where emergency vehicles could access the trail. Emergency access points were identified using existing street maps and generally include all locations where the trail route intersects a road, significant trail, or other similar access point.

Driveway crossings identify each location where the trail is proposed to cross a driveway. Driveway crossings were identified and classified based on type using a combination of 2006 aerial photography and Hennepin County parcel data. Driveways were classified into one of four sub-groups: single family, multi-family, low-turnover commercial, and high-turnover commercial based on Park District staff's best judgment. Private roads were considered multi-family driveways due to their primary function.

Road crossings identify each location where the trail is proposed to cross a road. Road crossings were identified and inventoried using existing street maps, 2006 aerial photography, and Hennepin County parcel data.

Speed limit identifies the speed of the road in which the trail route is proposed to cross or run parallel. Speed limit data was obtained from Mn/DOT and 2009 Metropolitan Council Data: "TLG Street Centerline and Address Range."

Average annual daily traffic (AADT) identifies the average traffic frequency of the roads the trail is proposed to cross or run parallel. AADT was obtained from Mn/DOT and Metropolitan Council data and represents data collected in 2006 and 2007. AADT was classified into logical divisions which complement engineering design standards.

Road functional classification identifies the type of road the trail route is proposed to cross or run parallel. Road functional classification data was obtained from the City of Edina 2030 Comprehensive Plan.

Economic Assessment

The economic assessment includes a preliminary planning estimate for construction of each trail route. All quantities were estimated from field collection data and all unit prices are based on similar Park District projects and industry standards. All trail construction related expenses including paving, grading, clearing and grubbing, bridges, boardwalks, tunnels, restoration, signage, and associated consulting services are included in the estimates. Costs for land acquisition were not included in the preliminary planning estimate.

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