Airport Way

Design Toolkit & Site-Specific Recommendations

Final: 09/25/2018

Functional Features Analysis
Program No: NFHWY00268
Federal Project No: 0610008
PSA No: 25-17-1-065

Acknowledgements

Prepared for:

Alaska Department of Transportion & Public Facilities (DOT&PF) in cooperation with Fairbanks Metropolitan Area Transportation Sytem (FMATS)

Prepared by:
PDC Engineers
1028 Aurora Drive
Fairbanks, AK 99709
(907) 452-1414

This document was prepared under the direction of DOT&PF staff and the project Steering Committee.

DOT&PF Contract Manager

Jeff Organek

Steering Committee

Jackson Fox - FMATS
Deb Hickok - Explore Fairbanks
Julie Jones - Festival Fairbanks
Chandra McGee - ADEC
David van den Berg - Downtown Association
Jeff Roach - Fairbanks International Airport
Don Galligan - FNSB
Andrew Ackerman - City of Fairbanks

Consultant Team

PDC Engineers
Earthscape
Kittleson & Associates, Inc.

Executive Summary

Project study area in pink

Project Overview

Beginning in the summer of 2017, the consultant team evaluated functional features (e.g. medians, barriers, fences, etc) within the existing right-of-way (ROW) along the Airport Way corridor against aesthetics, function, and engineering standards, incorporating public and stakeholder outreach. The team developed a long-term vision for the corridor, which lead to a concept toolkit to be used in short-term projects effecting Airport Way, and conceptual designs that can be incorporated into long-term projects. The toolkit and design concepts can also be applied to comparable facilities in Fairbanks.

Members of the steering committee identified several functional changes to how Airport Way operates, including incorporating bicycle, pedestrians and transit in the mainline road prism, increasing direct access to the mainline road and eliminating/ repurposing frontage roads. Additional studies are necessary to ensure these changes are not detrimental to the system and provide a net benefit to the traveling public.

Next steps from this analysis include DOT&PF and FMATS deciding what new studies and projects should be started to address the proposed long term functional changes and site specific recommendations. No specific schedule or funding has been identified at this point for adopting the proposed vision. The recommendations and suggestions in the toolkit will be considered in current DOT&PF and FMATS projects on Airport Way. Implementing the suggestions in the toolkit into current and future projects will require further review that may include additional engineering analysis, further public involvement, addressing of Maintenance & Operations concerns, developing maintenance agreements between agencies, and coordination of funding sources.

Executive Summary

Existing Conditions

Alaska Department of Transportation (DOT&PF) originally built Airport Way as the main thoroughfare connecting Downtown Fairbanks/Fort Wainwright to Fairbanks International Airport. Developed parcels adjacent to Airport Way are restricted from accessing Airport Way directly; instead, they are provided frontage roads which then access Airport Way at signalized intersections.

The frontage roads, being parallel and adjacent to Airport Way, separated by a Jersey barrier, contribute to a roadway field of view populated primarily with concrete, brick & mortar buildings, and with limited landscaping and multi-modal infrastructure. This roadway design influences a popular opinion that Airport Way is "ugly," "difficult to navigate," and "a barrier to multi-modal path networks." The configuration contributes to traffic safety and traffic flow problems throughout the corridor, especially at peak usage periods. The corridor is characterized by large areas of impervious frontage roads and parking areas that contribute significant storm water runoff into the Chena River.

Frontage roads have the following characteristics:

1. "Traffic islands" (i.e., the space left-over when a frontage road meets an intersection)
2. Close intersection spacing between frontage road and Airport Way intersections creates a high density of vehicular conflicts and short side street queue storage that accommodate 2 to 3 vehicles. These issues are improved by a raised median, such as at Cowles Street, at the cost of ending frontage road continuity for vehicles.
3. Jersey barriers
4. Pedestrians routed to uncontrolled intersections

Long-Term Vision

Working with DOT&PF, project steering committee, stakeholders, and the public, the consultant team developed the following vision:

> ***The Airport Way corridor will be an aesthetically pleasing multi-modal environment that supports economic development, public safety, environmental protection, and community needs through development of consistent, compatible, and sustainable facilities.***

The **vision can be further divided** into the following goals:

- Increase direct access to businesses and public facilities
- Provide connective infrastructure for multi-modal users
- Improve landscaping and signage for a "Welcome to Fairbanks"
- Increase greenery and passive environmental services (e.g., permeable surfaces)
- Increase "neighborhood feel" and connectivity
- Implement a consistent "look & feel" in the corridor
- Mitigate traffic safety and traffic flow issues

- Facilitate economic development of underutilized parcels along the corridor
- Increase wayfinding measures for important places nearby the corridor

To fulfill the goals of the Airport Way corridor vision, we recommend making three fundamental changes to the corridor's character:

- **Redesign traffic islands for green infrastructure and gateway features**
- **Redesign medians to implement low-maintenance, green infrastructure designs**
- **Repurpose frontage roads for multimodal pathways and green infrastructure**

Toolkit Concept Recommendations

The following toolkit concept features were selected for modification by the Steering Committee and Consultant Team. Detailed toolkit concept sheets begin at p. TK-1. Implementation suggestions for current projects are in the implementation matrix on p.xii.

Landscape Features

- **Barriers** – Replace barriers with an imprinted "Northern Lights"-style design, or by curb-and-gutter as described in the site-specific recommendations
- **Fences** – Replace fences with an adaptation of the black metal, downtown-style
- **Gateways** – Use site-specific recommendations to implement individual gateway designs to improve neighborhood character and wayfinding
- **Lighting** – Use pedestrian-scale bollard lighting and remove street lights from the median and on repurposed frontage roads
- **Linear Landscaping** – Use linear landscaping in the repurposing of frontage roads to buffer vehicles from multimodal users and increase permeable surfaces, as well as in other appropriate areas
- **Median Treatment** – Replace medians with depressed, curbed, green-infrastructure medians between Parks Highway Interchange and Cowles Street, and a raised median between Cowles Street and the Steese Highway
- **Permeable Pavers** – Use permeable pavers at traffic islands to increase permeable surfaces
- **Planting Palette** – Restrict planting to suitable native vegetation to allow plants to thrive in the local environment; avoid use of plants known to be preferred by moose
- **Traffic Islands** – Redesign traffic islands using green infrastructure and gateway concepts to improve aesthetics and neighborhood character
- **Site Furnishings/Thematic Elements** – Supplement site-specific recommendations with site furnishings and thematic elements that create an aesthetic and enhance neighborhood character
- **Vegetated Swales** – Use repurposed frontage roads and some medians with vegetated swales to increase permeable surfaces and improve environmental quality
- **Tree Wells and Planters** – Add tree wells and planters at intersections where there are large paved areas to provide environmental and aesthetic benefits in areas with impervious surfaces
- **Wayfinding** – Add wayfinding signage per the Downtown Wayfinding Plan, following DOT&PF guidance, in order to improve wayfinding between Airport Way and adjacent areas of interest

Traffic Features

- **Intersection Improvements** – Redesign intersections for curb extensions, median refuge islands, and offset left-turn lanes to improve multimodal safety and reduce crashes

Long-Term Functional Changes

Long-term function changes are worthwhile goals identified by the Steering Committee and Consultant Team. Further studies are needed to determine whether or not these changes are detrimental to the system and provide a net benefit to the traveling public.

- **Urban/Complete Streets** – Reconfigure the roadway to increase safety for all users, and open up space for other uses (e.g. bike lanes, bus stops, etc.)
- **Repurposed Frontage Roads** – Repurpose specific frontage roads with multimodal pathways and green infrastructure to provide various benefits, including traffic safety at intersections, expanded multimodal network, permeable surfaces, and improved environmental quality
- **Increase Direct Access** – Pursue further traffic studies to determine appropriate locations for direct access to Airport Way (such as at Moore Street) to improve traffic circulation

Site-Specific Recommendations Summary

Site-specific recommendations are long-term suggestions of consolidated toolkit features and long-term functional changes. These recommendations are accompanied by preliminary site plan designs located after the toolkit section. A comprehensive view of these recommendations can be found on Map 1. Further studies are needed to determine whether or not these changes are detrimental to the system and provide a net benefit to the traveling public.

Site-specific recommendations include:

- Repurpose the southern frontage road between University Avenue and Washington Drive, and add cul-de-sacs at Kalakaket Street and Bedrock Street
- Redesign the traffic islands at Market Street to create a green infrastructure gateway to the Riverview Neighborhood
- Repurpose the northern frontage road (Avenue of Flags) in front of Pioneer Park
- Add new access to Airport Way at Moore Street (pending further traffic studies)
- Redesign the traffic islands at Wilbur Street to create a green infrastructure gateway to Carlson Center & Growden Park
- Redesign the traffic islands at Lathrop Street
- Repurpose the southern frontage road between Cowles Street and alley behind Shopper's Forum
- Repurpose the southern frontage road between Cowles Street and Lathrop High School parking entrance
- Remove the southern frontage road (14th Avenue) between S. Cushman Street and Eielson Street, and add cul-de-sacs at Lacey Street, Noble Street and Eielson Street

Appended Documents

Additionally, there are several complementary reports (*see appendices*) that summarize Airport Way's history and existing conditions, evaluate the necessity of access controls along the corridor, elucidate long-term planning considerations, and provide funding options:

- **Airport Way Planning Summary** – Background information such as traffic counts, land uses, accident data, ongoing design projects, and historical context
- **Airport Way Access Control Analysis** – Evaluation of the access controls in place and ways and means to remove them
- **Financing Options** – A discussion of options for funding site-specific recommendations
- **Detail Sheets** – Schematic design details for tool concept implementation
- **Title VI Public Involvement Report** – Summarizes the public involvement process and catalogs public commentary gathered during the project

Table of Contents

Concepts Toolkit

Table of Contents

Long-Term Functional Changes

Site-Specific Recommendations

Appendices

Corridor Vision

Long-Term Vision

A vision for the corridor was developed, which is encompassed in the following statement:

> ***The Airport Way corridor will be an aesthetically pleasing multi-modal environment that supports economic development, public safety, environmental protection, and community needs through development of consistent, compatible, and sustainable facilities.***

The **vision can be further divided** into the following goals:

- Increase direct access to businesses and public facilities
- Provide connective infrastructure for multi-modal users
- Improve landscaping and signage for a "Welcome to Fairbanks"
- Increase greenery and passive environmental services
- Increase "neighborhood feel" and connectivity
- Implement a consistent "look & feel" in the corridor
- Facilitate economic development of underutilized parcels along the corridor
- Increase wayfinding measures for important places nearby the corridor

Why do we need a vision?

A vision provides a holistic look at the corridor and gives the DOT&PF, local government, and community groups a roadmap for implementing changes valued by the community. A long-term plan is necessary to ensure projects in the near-term do not interfere with the ability to implement changes in the future. Without a vision, projects are developed in isolation and are unlikely to establish a unified whole.

How did we develop the vision?

The vision for Airport Way was developed through an iterative process with the DOT&PF functional groups, consultant team, project steering committee, stakeholders, and the public at-large. In general, the vision was developed through the following steps:

1. **Identify the issues** – Review traffic, accident data, and traffic forecasts; assess past planning efforts; conduct one-on-one interviews with maintenance and operations staff; convene steering committee; hold public open house; distribute business owner surveys
2. **Review policies and projects** – Identify regulations and policies with implications for the corridor; assess status and scope of ongoing planning and design projects; investigate industry best practices.
3. **Develop alternatives** – Prepare draft concepts to address issues identified in prior tasks
4. **Refine alternatives per feedback** – Collect steering committee, stakeholder, and public comments of draft concepts; reconcile comments and adjust alternative

concepts; develop additional details for recommended alternatives

5. **Recommend near-term implementation** – Identify opportunities to incorporate the recommendations into current projects; propose stand-alone development projects intended to implement the long-term vision

How do we implement the vision?

It will take time to implement all of the vision's elements. There are six projects in development along Airport Way that will include elements of the vision. The community may expect to see incremental changes to elements such as fencing, barriers, traffic islands, and repurposed frontage road pilot projects complemented in these six projects.

Implementation of some aspects of the long-term vision and site-specific recommendations will require formal traffic studies, access control reviews, and environmental documentation before funding, design, and construction may proceed.

How will we pay for vision recommendations?

Vision elements to be included in short-term projects will be added to their scope and design, utilizing funds for each project. Long-term projects can be paid for through a mixture of state and local funds, as well as environmental-improvement grants at the state and federal level.

Who is responsible for implementing the vision?

Fairbanks Metropolitan Area Transportation System (FMATS) plays a central role in coordinating and funding vision implementation. But, the community at-large will need to advocate for implementation of the vision. This document is not intended to be a formal, adopted metropolitan plan, but rather a guide for highway designers.

What if changes make the vision become obsolete?

It's not unusual to revisit a long-term plan, whether for a transportation network, community, or region. It is likely that this plan will be updated or replaced by another plan in the future, particularly if traffic patterns/volumes change significantly or redevelopment occurs along the corridor.

Implementation

The implementation of toolkit elements and the site-specific recommendations can be broken into near-term and long-term time horizons. The near-term includes the next 5-7 years while the long-term is seven years and beyond.

Near-Term

Over the next 5-7 years, there are several opportunities to implement elements of the toolkit. Projects currently in design (see Appendix A, Planning Summary) can use the recommendations and specifications outlined in the toolkit. For example, the Cushman Street – Airport Way intersection improvements project can implement fencing, wayfinding, and median recommendations.

Project managers may determine which toolkit features apply to their project area by consulting the "Applicable Locations" map accompanying each toolkit feature and the implementation matrix on p. xiii.

Long-Term

The site-specific recommendations are intended to be long-term recommendations. These long-term recommendations are more speculative and may require additional studies and public outreach before moving forward. Likewise, these projects do not have funding identified yet, nor have they been added to the State STIP or FMATS TIP. To be included on either of these plans, the recommended projects must be nominated and scored by DOT&PF or FMATS respectively.

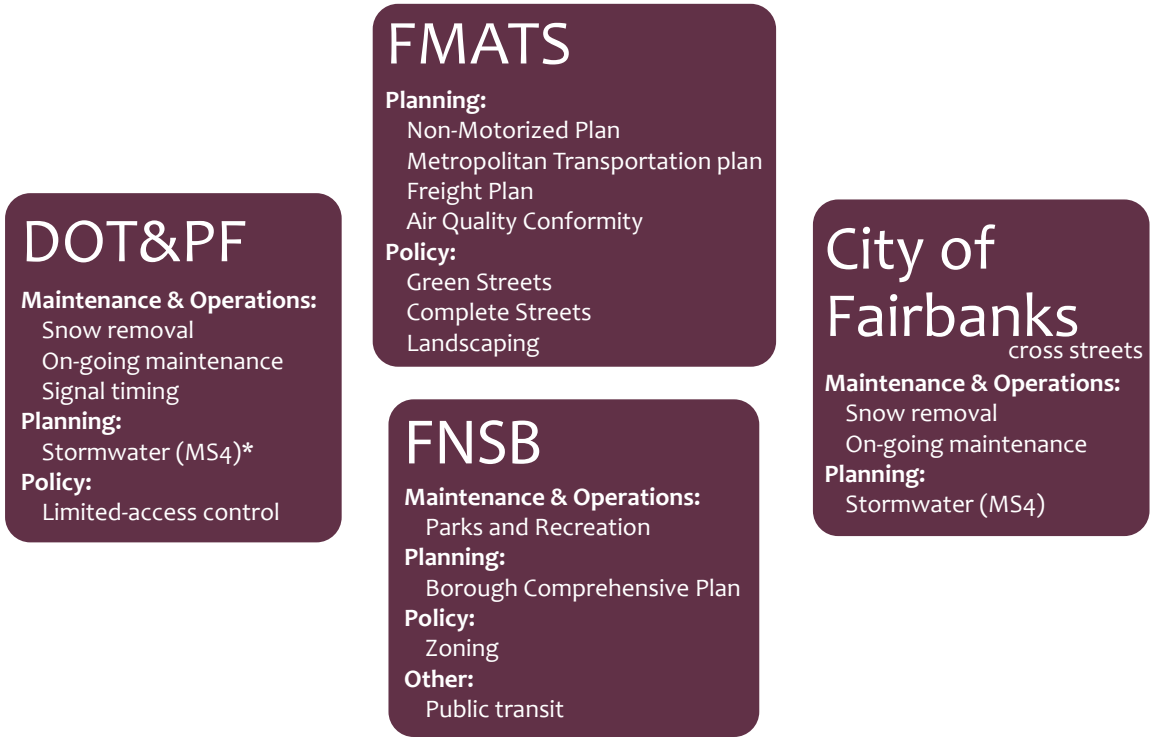
Jurisdictions

The presence of several agencies, each with different and often overlapping jurisdictions make planning for a corridor such as Airport Way challenging. It is important to understand each agency's role to ensure the toolkit elements are implementable and to identify agencies that can move the site-specific recommendations forward.

FMATS plays a central role in coordinating transportation improvements within the Airport Way corridor. As the federally mandated municipal planning organization for the Fairbanks area, FMATS administers the Transportation Improvement Plan (TIP) that funds local transportation projects such as those recommended in this report. Likewise, FMATS can serve as a facilitator in developing maintenance agreements between agencies and third parties.

The figure below summarizes each stakeholders' areas of responsibility. This is intended to be a general list to illustrate the complexity of planning and implementing changes along Airport Way.

Figure 1 - Planning agencies' areas of responsibility



One element of the FNSB to keep in mind is that the Borough does not have road powers. This means that they cannot maintain landscaping within the ROW, remove snow, or maintain streets.

In addition to these agencies, there are several non-governmental agencies and community groups that can undertake elements of maintenance. For example, Festival Fairbanks maintains flower beds and planters in downtown Fairbanks through an agreement with the City of Fairbanks.

* MS4 refers to the Municipal Separate Storm Sewer System

Implementation Matrix

The following matrix is intended to guide designers working on current and planned projects affecting the Airport Way corridor. Landscape features are suggested as supplements to design, designated by an 'x' mark in the matrix.

		Current and Planned Projects Affecting the Airport Way Corridor								
		Airport Way West Improvements	Parks Highway/ Airport Way	University Avenue Widening Stage II	Cowles Street Reconstruction	Cowles Street/ Airport Frontage Road	Barnette Street Reconstruction	Gillam Way Upgrade	Airport Way/ Cushman Street Intersection Reconstruction	Airport Way/Steese Richardson Interchange
Features to Include	Landscape									
	Barriers					x				
	Fences				x	x	x	x	x	x
	Gateways		x		x	x			x	
	Lighting			x	x	x	x	x	x	
	Linear Landscaping			x		x				x
	Median Treatment	x	x		x	x	x	x		x
	Permeable Pavers			x		x		x	x	x
	Planting Palette	x	x	x		x	x	x	x	x
	Traffic Islands			x		x		x	x	x
	Site Furnishings		x	x	x	x	x	x	x	x
	Vegetated Swales		x	x		x			x	x
	Tree Wells & Planters				x	x	x	x		
	Wayfinding			x	x	x	x	x	x	x

Maintenance Considerations

Fairbanks has unique maintenance needs due to significant seasonal changes. Winters are cold, with snow present from October through March. Summers are short but hot and dry. Over the course of a year it's possible to have temperatures range from -50F to +90F.

Due to decreased availability of funds at the state level, DOT&PF Maintenance & Operations' budget is fiscally constrained. All new infrastructure improvements should be designed to reduced long-term maintenance needs, and where possible, form an Agreement of Understanding between DOT&PF and local agencies to ensure special maintenance needs are satisfied.

Any infrastructure project must consider:

- **Snow storage needs** – Adequate room to store snow cleared from the road and sidewalks/paths throughout the winter
- **Snow build-up pressure needs** – All fences and barriers need to be able to withstand snow build-up after plowing.
- **Snow removal effort** – Mechanical clearing is preferable to manual clearing for efficiency and cost reasons; curbs, fences, and barriers must be able to withstand snow loads and the occasional snowplow; multi-use paths should be sized to accommodate plow trucks.
- **Spring "break-up"** – Snowmelt and refreezing on roadways and walkways can be hazardous; likewise, meltwater cannot infiltrate the ground until it thaws and thus requires room to pond or drain.
- **Freeze/thaw cycle** – Cracking and heaving of paved surfaces is common.
- **Landscaping needs** – Maintaining plantings requires maintenance agreements between the roadway owner and third parties; maintaining center median landscaping can be dangerous for maintenance crews and may require traffic control on busy roads; bioswales need periodic cleaning to remove grit and gravel.
- **Amenity upkeep** – Amenities such as benches and trash cans need to be appropriate for the environment; maintenance agreements with third parties are necessary for maintenance.
- **Roadway striping** – Paint markings wear down from traffic and snow plowing and require periodic re-painting.
- **Changes to maintenance operations** – new infrastructure that requires specialized equipment can slow maintenance activities or create new capital costs for equipment.

Maintenance Considerations

Maintenance considerations specific to elements along Airport Way include the following.

Medians and Traffic Islands

Medians

Airport Way's long-term vision is to replace existing medians with a median design that is more aesthetic, easier to maintain, and removes street lighting (median street lights are a long-term maintenance liability and cause light pollution). A depressed median design with curb allows for snow to be stored in the median, and for snowmelt to percolate into the ground rather than drain onto the roadway. By using no-mow grass, hardy native shrubs and trees, and a perimeter paver-buffer that helps traps road sediment, this median design can decrease ongoing maintenance, including requirements for manual watering, sediment clean-up, and snow removal (which are all existing maintenance issues for the median).

Traffic Islands

Existing traffic island designs have considerable maintenance concerns: (1) the traffic islands generally do not include a curb and gutter on the Airport Way side, which allows roadway sediment to drift onto the islands and cause soil erosion; (2) the grass is affected by deposited gravel from the roadway, which makes it difficult to mow and maintain quality; (3) the flower beds are a maintenance liability and interfere with mowing; (4) the design does not accommodate the desires of pedestrians, which leads to "desire paths" that kill the grass (leading to the need for reseeding); and (5) the paved pedestrian paths are edged by an unnecessary raised concrete strip that interferes with snow removal.

The long-term vision for traffic islands is to improve them with a functional rain garden design that is low-maintenance, depressed (so it can be used for snow storage), keeps roadway sediment to the perimeter, removes the need for mowing, and can be designed to incorporate gateway features. In many of the traffic islands there is ample room for a variety of hardy plants, shrubs, and trees. For smaller traffic islands, there is opportunity to use permeable and aesthetic pavers and the addition of vegetative planters that can be removed in the winter.

Repurposed Frontage Roads

The frontage roads targeted for repurposing in the long-term vision are underutilized and represent an unnecessary maintenance liability. DOT maintenance crews clear snow and store it along the barrier, effectively reducing the navigable width of the frontage roads in winter. Repaving is needed every 15-25 years, and sidewalk curbs and frontage road-edged street lights need to be maintained. Barriers are in place to keep motorists from traversing from Airport Way to the frontage road, and these barriers are corroded annually by the pressure of snow storage and other weather damage.

The long-term vision for these select frontage roads is to convert them to linear landscapes with multi-modal paths, rain gardens, street trees, and low-lying baluster lighting for pedestrians. The barriers will be replaced with curb and gutter, and snow

Maintenance Considerations

from Airport Way can be cleared onto the repurposed frontage roads. By following rain garden design best practices, these repurposed frontage roads can reduce ongoing maintenance needs, such as mowing, sediment removal, and watering.

Intersection Improvements

Non-motorized user safety is a major concern for Fairbanks residents and for Airport Way in particular. The long-term vision recommends inclusion of intersection improvements, such as curb extensions and refuge islands. Curb extensions impede continuous linear snow plowing movements, forcing plow trucks to stop and back up, thus increasing time needed to plow. This effect can be diminished by designing curb extensions to have a tapered offset to allow easy lane transition movements and using tapered or rounded curbs to accommodate traversing vehicles.

Policy Considerations

Ensuring long-term maintenance of new infrastructure may require DOT&PF to develop maintenance agreements with city or borough agencies. The DOT&PF cannot enter maintenance agreements with community organizations directly; however, the FNSB or City of Fairbanks can enter those types of agreements after signing a memorandum of agreement with DOT&PF. It is in everyone's best interest to work collaboratively to identify unique and innovative agreements for maintenance. FMATS may be the best entity for coordinating and facilitating these agreements.

An example of this arrangement is the College Road – Margaret Street intersection. When College-Margaret was reconstructed a few years ago, the City of Fairbanks signed a maintenance agreement with the Wedgewood Resort to maintain the landscaping at the intersection.

The College Road - Margaret Street Intersection has a maintenance agreement between the City of Fairbanks and the Wedgewood Resort.

Recommendations & Toolkit Structure

Toolkit Concept Recommendations

Toolkit concepts recommend "Applicable Locations" on the right-hand side of every sheet. Some of these locations are encompassed by site-specific recommendations, but many of them are standalone. For example, expansion and redesign of the Airport Way median is recommended everywhere medians exist between University Avenue and Steese Highway. In contrast, replacement of barriers and fences are recommended at specific locations along the corridor.

The toolkit contains planning, design, and engineering guidelines for Airport Way infrastructure that meet the vision of the corridor and satisfy safety and maintenance needs. Concepts are further divided into Landscape Features and Traffic Features. Supplemental guidance related to planning and land use are located in the appendices. Most of the concepts may be incorporated into site-specific recommendations and placed elsewhere, independently. Some concepts (e.g., median treatment) may be incorporated independent of short-term projects.

Site-Specific Recommendations

Site-specific recommendations are planning-level recommendations that call for the repurposing of some frontage roads and the redesign of traffic islands. In sum, these recommendations help to improve multimodal safety and efficiency by creating long stretches of pathway south of Airport Way, while filling some gaps north of Airport Way.

These recommendations can be included in occurring and future projects in the area, and should be incorporated and preserved at least in terms of allowing for future construction. The recommendations are divided into seven location-specific sections. Repurposing of the frontage roads can be divided into phases, and each phase provides environmental, safety, maintenance, and traffic benefits on its own. Phasing starts with a pilot project that will require the least right-of-way acquisition or conflict with adjacent property owners.

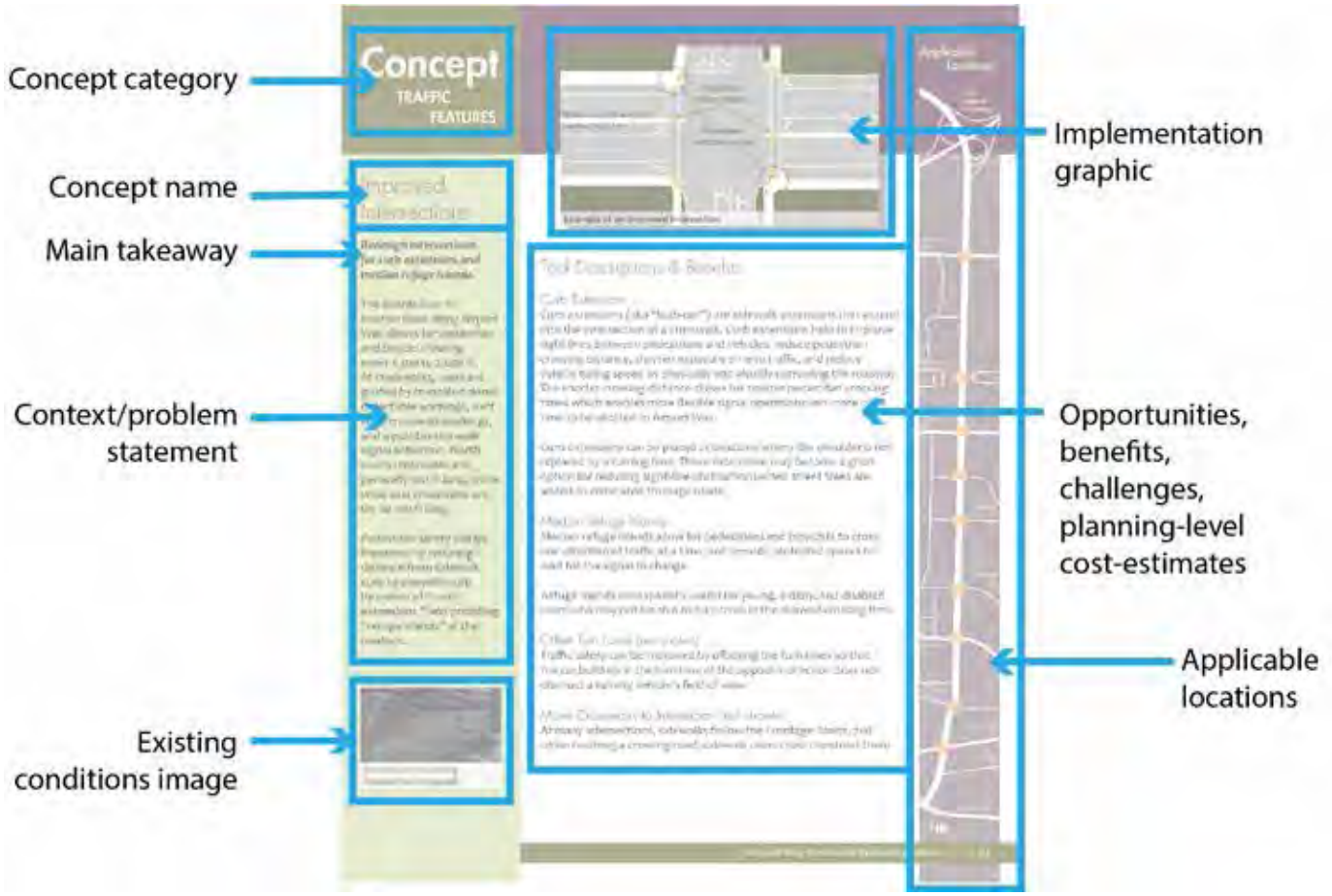
The collection of site-specific recommendations is listed on p.SR-ii and shown on Map 1, followed by 11x17 sheets containing conceptual planning-level designs. Final design and engineering can be retained on a project-by-project basis.

Recommendations & Toolkit Structure

Toolkit Organization

Toolkit concepts are categorized into landscape and traffic features. Landscape features contain the majority of concepts, ranging from use separation (i.e., barriers and fencing), green infrastructure and planting techniques, to site furnishings, wayfinding, and gateways.

Each toolkit concept begins on the left-hand side with a context/problem statement, which describes existing conditions, functional issues, and a path forward. The body text area contains a description of the opportunities, or options, benefits, challenges, and planning-level cost estimates. The right-hand side shows a layout of Airport Way from the Parks Highway Interchange to the Steese Highway, with contrasting-color areas that depict where implementation is recommended.



Concepts Toolkit

Landscape Features

Traffic Features

Landscape Features

Barriers

Fences

Gateways

Lighting

Linear Landscaping

Median Treatment

Permeable Pavers

Planting Palette

Traffic Islands

Site Furnishings

Vegetated Swales

Tree Wells & Planters

Wayfinding

Concept
LANDSCAPE FEATURES

Barriers

Replace barriers with imprinted "Northern Lights" design, or by curb-and-gutter as described in the site-specific recommendations.

Airport Way is considered a limited access roadway, which is why heavy duty concrete barriers were initially placed along Airport Way to improve safety. They provide separation for both pedestrian and vehicles in many locations along either side of the road. However, these are not required from a roadway design standpoint; curb is considered an acceptable option. The existing concrete barriers are massive and have an unfriendly, industrial appearance but also provide a linear visual element, that if improved could actually improve the appearance of the road.

Existing barriers

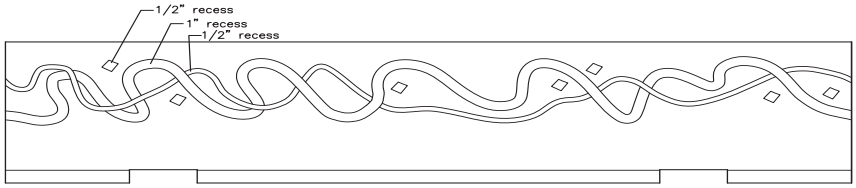
Example of an imprinted Jersey barrier

Implementation

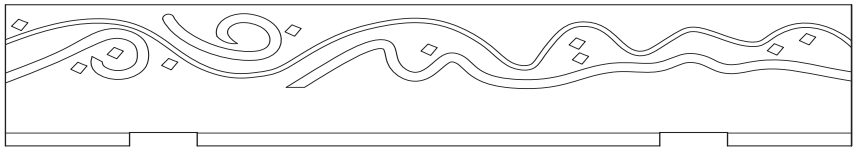
Figure Note: Red denotes barriers to be removed; blue, replaced by curb and gutter if repurposing frontage road; orange, barriers to be replaced with new design.

The majority of residents participating in public outreach desired an imprinted Jersey barrier using a "Northern Lights" theme (poured in-place walls, and modular block walls had fewer votes). Below are two imprinted concrete barrier pattern designs that can be connected, in any pattern, and provide a continous aesthetic treatment to the standard ooncrete barrier type.

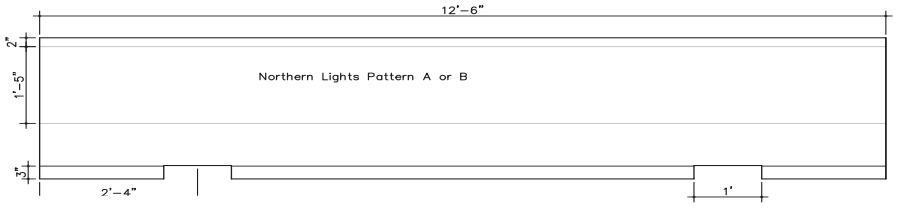
All concrete barriers at present locations should continue, unless a frontage road is repurposed. Previously repurposed frontage roads can have their Jersey barriers replaced with curb and gutter.

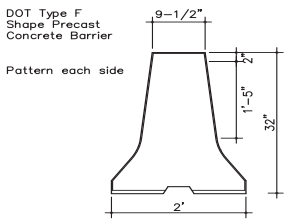


Northern Lights Pattern A

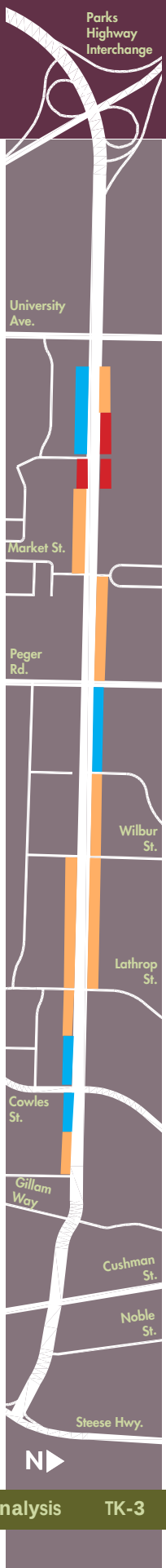


Northern Lights Pattern B

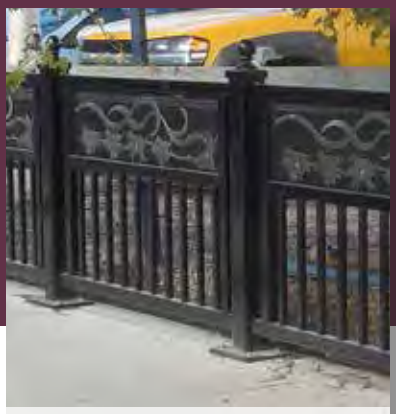




Applicable Locations



Concept
LANDSCAPE FEATURES



Downtown Corridor Fencing

Tall Downtown Corridor Fencing

Fences

Replace or remove fences with alternative options and remove unnecessary fencing.

Airport Way fencing has been criticized as ugly and unnecessary. Existing fencing is 5' tall chain link.

Chain link fences were used along Airport Way as a safety measure. They keep pedestrians from mid-block crossing of Airport Way. However from a roadway design standpoint, they are not required.

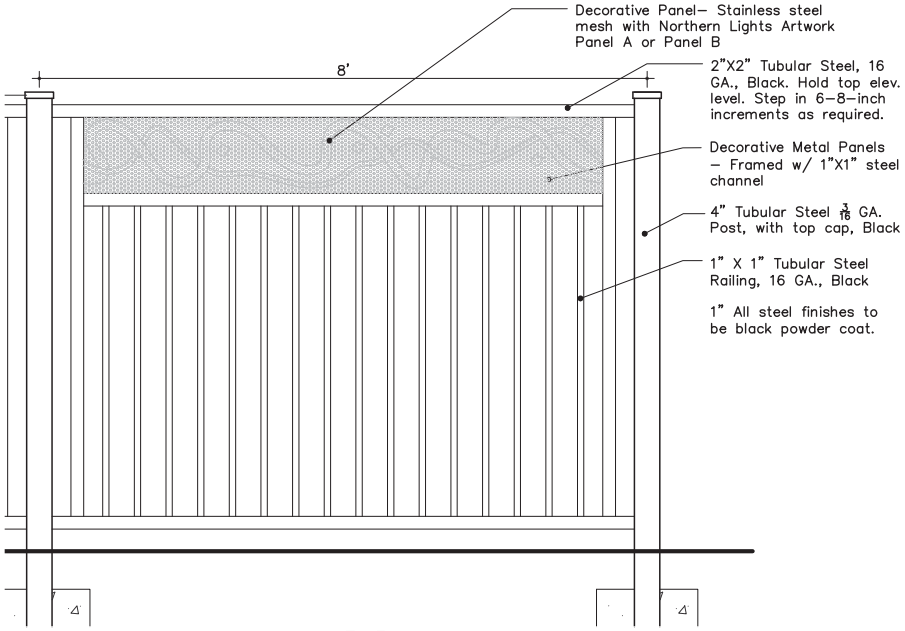
Two options are available to improve the aesthetic of Airport Way as it relates to fences: remove chain link fences completely where they are not needed, or replace chain link fences with more aesthetic fences consistent with the style used in the downtown area.

Existing Fencing

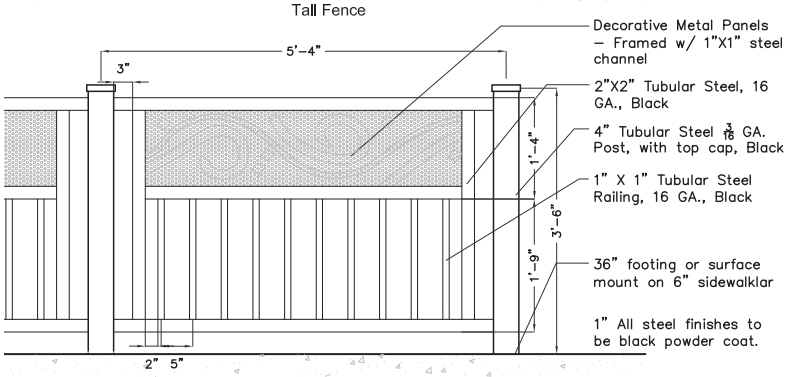
Implementation

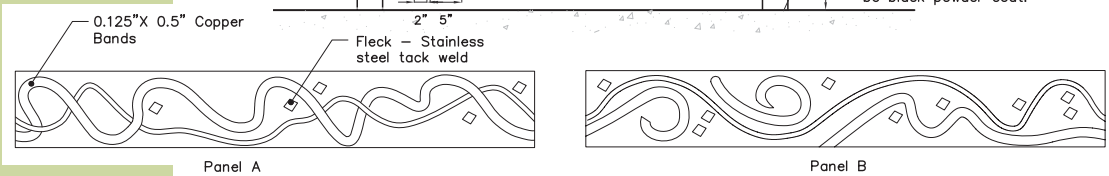
Figure Note: Red denotes fencing to be removed; orange, fencing to be replaced with new design.

Many locations along the alignment where chain link fence is located are narrow and unattractive. In these locations the existing fencing helps to cue drivers as to the road's edge and the adjacency of the frontage roads. Removal of the fence in these locations may not have the desired effect of improving the road's character and a better solution may be to replace the fence with a more aesthetic pleasing barrier.



Tall Fence

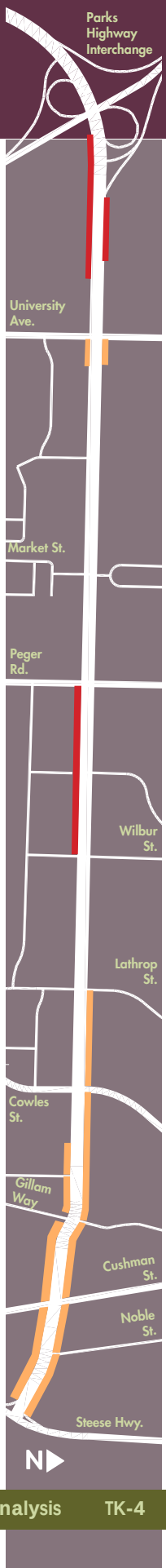




Panel A

Panel B

Applicable Locations



Concept
LANDSCAPE FEATURES

Gateways

Utilize site-specific recommendations to implement individual gateway designs.

Gateways are landscape elements that increase driver awareness in terms of place. Signs, lighting, art pieces, and plantings are tools used to inform roadway users. Gateways are valuable in identifying places along the corridor and are commonly used to announce arrival at neighborhoods, shopping areas, or business districts. Airport Way currently includes two gateway elements: the art pieces at the airport and the heart-shaped planting bed eastbound at the Parks Highway overpass. The airport art pieces function well for the airport, creating a welcoming element when approaching the airport from the west, and a greeting element when leaving the airport heading east on Airport Way.

Opportunities

The existing gateway feature on the south side of the Parks Highway overpass is charming in its character and detail; however, it is small compared to the scale of adjacent overpass and broad grassy areas. It provides a small town feel that welcomes eastbound travelers from the airport, but it is not visible to travellers entering Fairbanks from the Parks Highway.

There are ample opportunities for gateways to inform and welcome roadway users entering Fairbanks both from the airport and from the Parks Highway. Design of gateways must be carefully coordinated to avoid confusion and to avoid distracting drivers.

Designers should incorporate gateway features where the intersection serves as an entrance to the City, departure from the City, a neighborhood, or downtown core area. Design of gateways should be developed through the public process, and be specific to the destination that intersection serves.

All gateways should be lit for winter visibility, especially where there is a sign utilizing text.

Benefits

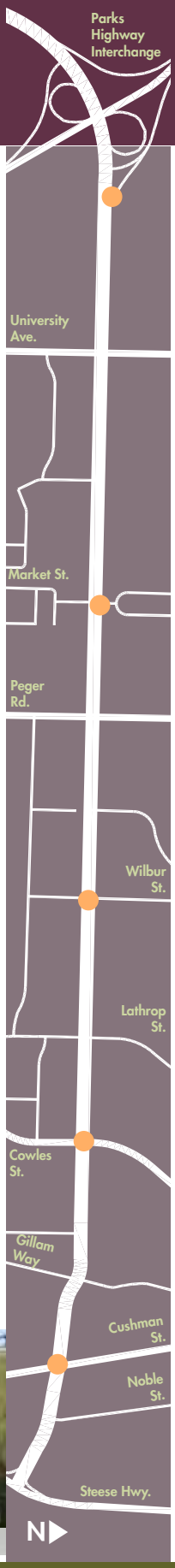
- Creates welcoming element for Fairbanks visitors and residents
- Instills a sense of community pride

Challenges

- Landscape areas require ongoing maintenance
- Sculpture and art elements can require extensive community input to gain public support
- Ideal site may be difficult to find
- Too many gateways can be confusing and add to roadway clutter
- Capital expense can be moderate to high

Fairbanks International Airport gateway pieces and Fairbanks welcome sign gateway

Applicable Locations



Concept
LANDSCAPE FEATURES

Lighting

Use pedestrian-scale bollard lighting in repurposed frontage roads where street lighting is removed.

Remove street lights from the medians.

Light poles along Airport Way provide no less than the minimum light levels for a controlled access roadway. Center island poles are tall with arms in either direction over the roadway. They use standard galvanized poles and typical non-decorative fixtures. Poles on frontage roads and on either side of Airport Way are typical non-descript galvanized light poles with one or two arms.

Existing lighting

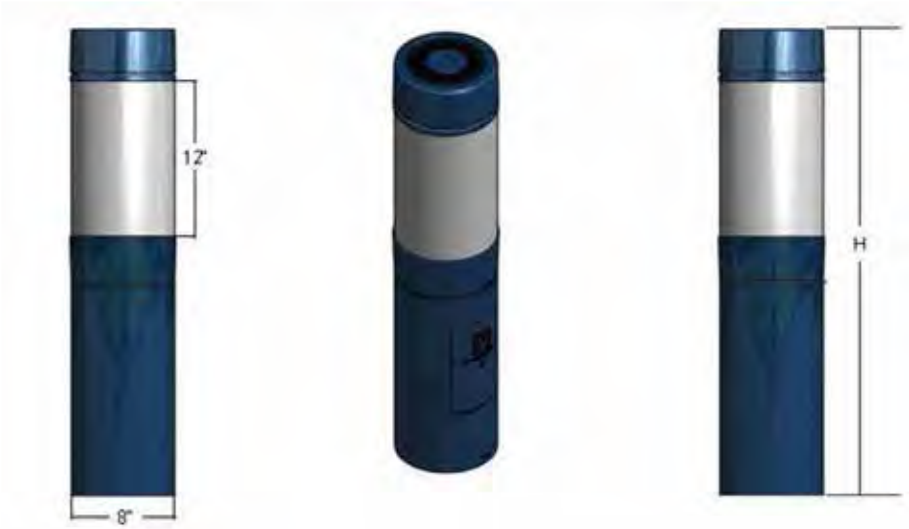
Considerations

In addition to light poles, Airport Way includes intersection control poles and overhead utilities on each side of the road in several locations. West of Market St. there are several large parking lots where light fixtures are numerous and lighting levels are high. East of Market St. large parking areas are discontinuous, but they are well lit. Many business signs add to the vertical elements which, combined with traffic, utility, and light poles, creates a form of visual clutter.

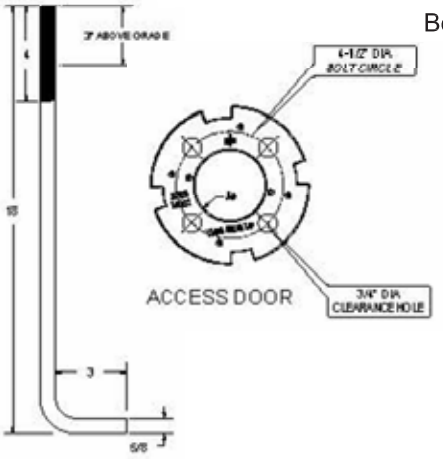
This analysis recommends bollard lighting on repurposed frontage roads, and at intersection locations where there are sitting areas.

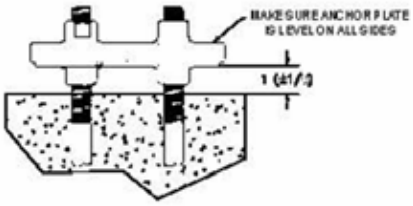
* Proprietary product listed has not been approved

Plan View



Bollard Light





Installation

Notes:

1. Model RIALTA RW4xx by Sternberg Lighting, www.sternberglighting.com
2. Height varies; along commercial areas use 48-inch bollard; adjacent to residential areas use 36-inch bollard.
3. Place 12-inches from edge of pavement.
4. Approximate spacing: 36" bollard at xx feet on center; 48" bollard xx feet on center.
5. Color: Urban Bronze Matte

Concept
LANDSCAPE FEATURES

Linear Landscaping

Utilize linear landscaping in the repurposing of frontage roads to buffer vehicles from multimodal users.

Linear landscaping includes adding planting beds to areas between the roadway and the frontage roads.

Where frontage roads are being repurposed, linear landscaping can be developed as broadly planted spaces that create a parkway effect, improving the environment for motorists and non-motorists alike, in addition to improving air and water quality.

Opportunities

Linear landscaping could include two planting schemes: naturalized and formal. Large masses of trees and low shrubs planted in meandering landscape beds with curvilinear edges creates a forested appearance, whereas rows of trees planted in grids and geometric forms creates a more formal, artistic landscape. Depending on location, naturalized and formal landscapes can be used to improve the corridor's aesthetics.

Landscape beds would include hardy trees and shrubs to reduce maintenance and improve performance.

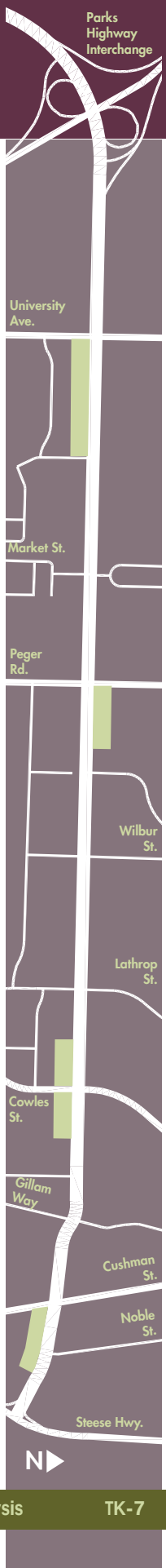
Benefits

- Improve aesthetic character of Airport Way
- Add seasonal interest
- Soften roadway edges
- Improve pedestrian environment
- Improve air quality
- Improve water quality
- Reduce heat island effect in hot summer months
- Improve commercial viability

Challenges

- Requires maintenance crews with technical skills in landscaping
- Commercial properties may be concerned about visibility to their business and associated signage; however, this can be overcome with strategic plantings.

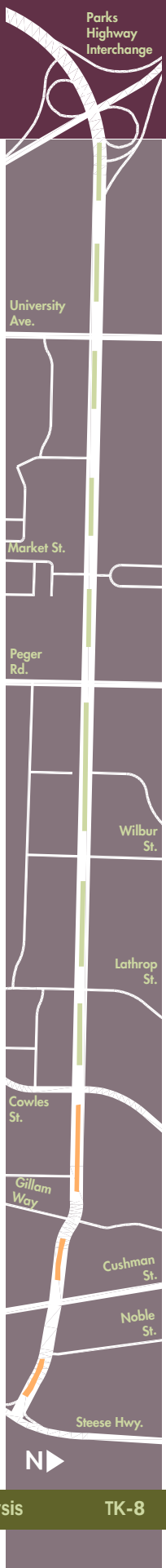
Applicable Locations



Concept
LANDSCAPE FEATURES


Example of median with green infrastructure

Applicable Locations



Median Treatment

Replace medians with a new design, implementing depressed medians between the Parks Highway Interchange and Cowles Street and a raised median between Cowles Street and the Steese Highway.

Remove street lights.

Medians along Airport Way are an opportunity for aesthetic and drainage improvements. Beginning at the Parks Highway interchange, there are eleven grassed medians with an average width of 16 feet. Medians along Airport Way are lawn areas contained by curb and gutter. Beginning at University Avenue, medians have center light poles located approximately 50 feet on center. In terms of drainage, medians along Airport Way are a high point, with roadway drainage going away from medians. Shrubs, located in the center of medians, generally on either side of light poles, at approximately 40 feet apart, are somewhat inconspicuous.


Existing Median Treatment

Considerations

Medians could provide substantial aesthetic improvements to Airport Way if they were landscaped with a mix of large trees and shrubs. Two options include raised medians or depressed medians.

As a rain garden, medians would treat limited areas. However, snow storage within the medians could result in improvements to water quality if snow were allowed to collect and remain on medians. Currently snow is stored on the medians and cleared as necessary to reduce run-off from medians to the traffic lanes.

Benefits

Figure Note: Orange denotes a raised median; green, a depressed median.

- Improve visual character of the road
- Improve permeability of surface areas
- Improve H_2O quality through reduced stormwater runoff
- Reduced snow removal needs

Challenges

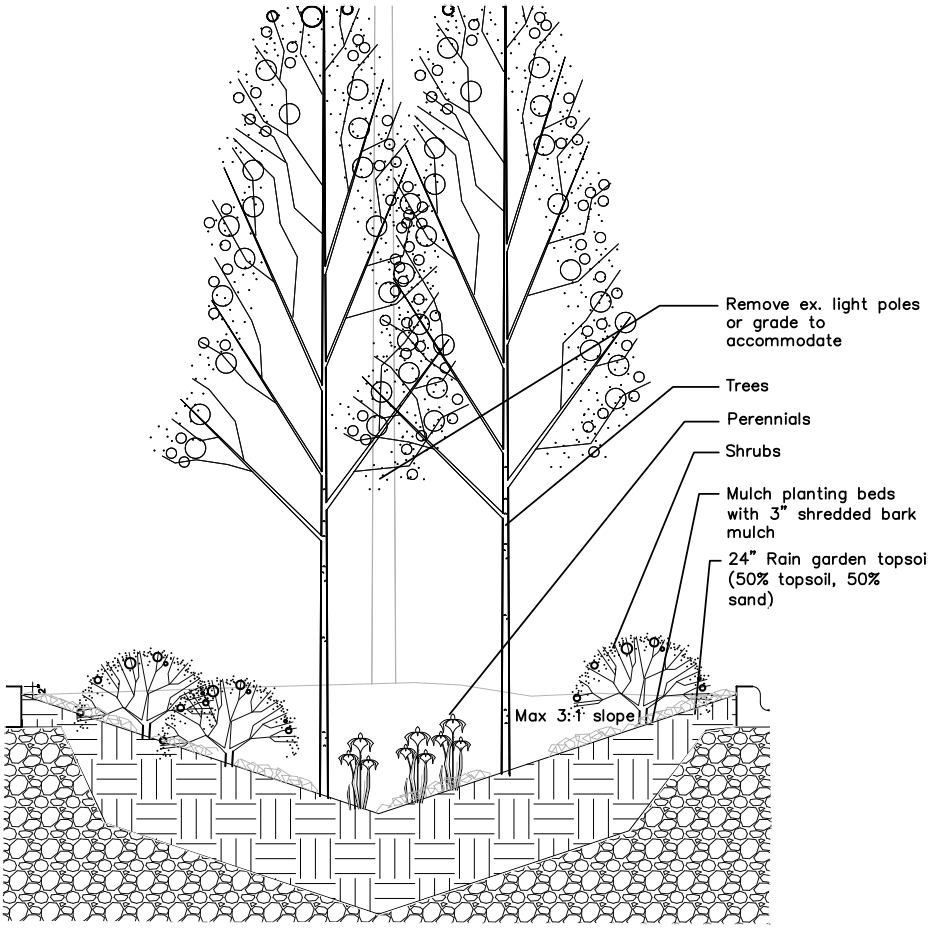
- Maintenance operations could slow traffic on Airport Way
- Commercial properties may be concerned about visibility to their business and associated signage; however, this can be overcome with strategic plantings.


Raised median treatment

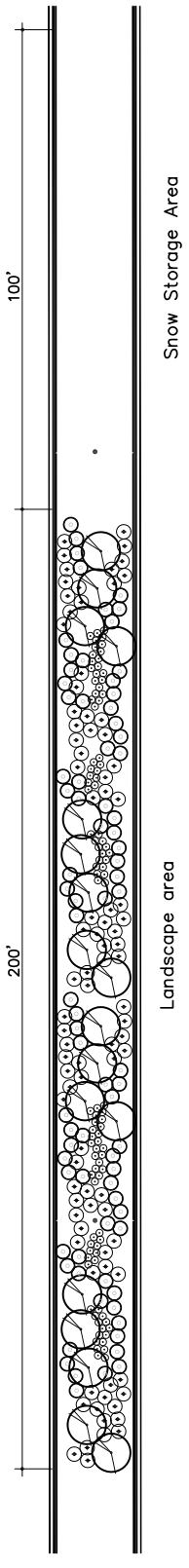

Depressed median treatment

Plant Schedule - Median Plantings

Common Name	Botanical Name	Spacing (min.)	Notes
Trees			
Aspen Birch, (Clump) Larch	Populus tremuloides Betula papyrifera Larix larcinia	8' o.c. 8' o.c. 10' o.c.	Plant trees in masses to create more natural appearance.
Shrubs			
Highbush Cranberry Lilac Native Rose Tundra Rose	Viburnum opulus Syringa vulgaris Rosa acicularis Dasiphora fruticosa	3' o.c. 4' o.c. 4' o.c. 28" o.c.	 Avoid low areas Plant in masses. Ideal in low areas.
Perennials			
Iris Fireweed, Dwf Native Geranium	Iris setosa Chamerion latifolium Geranium erianthum	18" o.c. 24" o.c. 18" o.c.	Plant perennials in masses, ideal in low areas.



Cross Section



Plan View

Notes:

1. With the exception of lilac, median plantings should be native or adapted species.
2. Plant trees and shrubs in tight, contiguous masses for improved aesthetic appearance and reduced maintenance.
3. Plant perennials in low areas and open areas identified for snow storage.
4. Do not mow medians. Use low maintenance seed mix outside of planting beds. May require public education process.
5. Trees in the median must not be more than 4" diameter at breast height.
6. Do not use plant species attractive to moose (e.g., choke cherry).

Concept
LANDSCAPE FEATURES

Permeable Pavers

Use permeable pavers as much as possible, in site-specific recommendations and at other opportunities.

Permeable pavers are concrete pavers or plastic that, when set properly, provide a hard, drivable surface that allows water to flow into an integrated gap system and enter the ground rather than run off the surface into gutters. Pavers come in a variety of shapes and sizes and typically interlock in such a way that they become a stable, smooth surface with the ability to withstand not only vehicles, but snowplow operations as well.

Grass Paver Fire Lane Installation

Grass Pavers

Opportunities

Opportunities for using pavers along Airport Way include:

- Cul-de-sacs where frontage roads are removed
- Intersections where larger plaza areas can be created
- At traffic islands in lieu of gravel areas
- In areas where live vegetative cover is difficult to establish

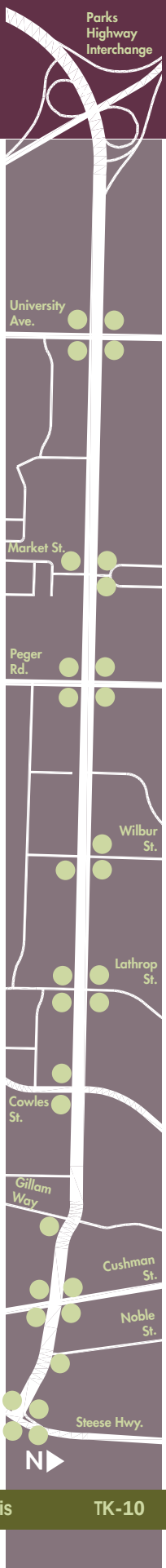
Benefits

Pavers increase the permeable surface area of a hard surface that traditionally sheds water. They can be used to reduce pollutants and sediment entering the storm water system. Pavers can be designed to create an interesting pattern that can be used to improve safety at crosswalks, improve aesthetics by reducing the immensity of large asphalt paved areas, or create urban spaces that alert drivers and bicyclists to a changed condition (e.g., the presence of pedestrians or slower moving traffic). Pavers can create or complement a thematic element within a roadway corridor.

Challenges

Pavers can be prohibitively expensive. Proper installation requires knowledgeable crews and careful engineering to assure pavers do not heave and create an uneven surface. As with pavement, pavers must be maintained including cleaning and removal of debris such as sand and dirt. Pavers should not be placed where blade-driven snow removal activities may occur.

Applicable Locations



Concept

LANDSCAPE FEATURES

Planting Palette

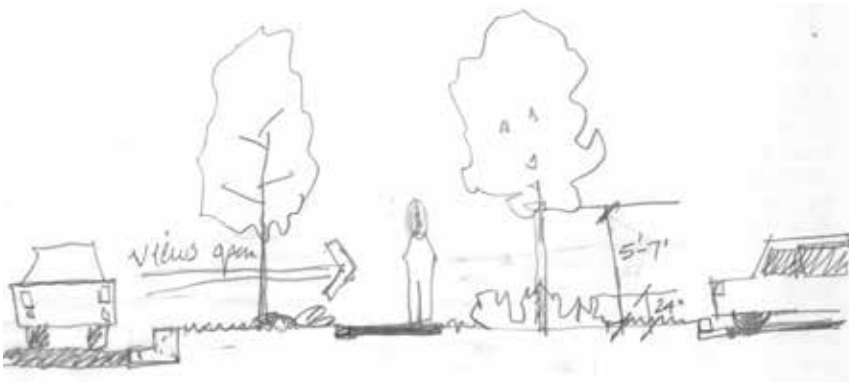
Restrict planting to suitable native vegetation as described in this concept.

As a far north city, Fairbanks has a somewhat limited palette of plants suitable for use as landscape plants. Further limitations include the Airport Way environment, where pollution levels are higher than less urban areas. Pollution from vehicle exhaust, gravel placement to improve road surface conditions in winter, snow removal and storage, and limitations in water availability create a situation that is difficult for many plants to survive, let alone thrive. Selecting plants for survival is critical to long-term project success.

Example of a perennial (iris)

Considerations

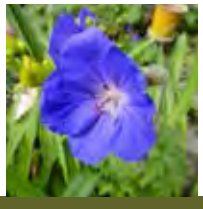
Landscape plantings in commercial areas require coordination with businesses and land owners to obtain support for recommended plantings. Business owners often think plants will block views into businesses and detract attention from the business. Owners may have spent thousands of dollars on signage and lighting they fear will be obstructed by plantings. Educating business owners to the benefits of landscaping as well as developing before- and- after sketches or images to assist them in understanding proposed design will reduce owner anxiety and possibly gain project support to the extent businesses volunteer to assist in maintenance.



Safety related to plant location and selection includes understanding that urban areas are affected by crime. People, particularly pedestrians, need to feel safe. Plantings that hide or reduce visibility of pedestrians should be avoided. In an urban setting such as Airport Way, deciduous trees and low shrubs allow open views and create a safe, comfortable space that is highly visible. Plantings must not be moose attractants to avoid wildlife-vehicle conflicts.

Trees and shrubs need space to grow and thrive. Plants should be given space to assure nutrients and moisture will meet their long-term needs. Increasing planting bed sizes to maximize topsoil quantities helps to improve plant survival and viability. Large continuous planting beds reduce maintenance and provide an environment where soil microorganisms can develop into sustainable ecosystems. Use of subsurface planting cells similar to those used on Noble and Cushman Streets allows better growing conditions for trees by increasing topsoil and reducing impacts of compaction.

The climatic zone of the roadway corridor is generally Zone 2a, as determined by the United States Department of Agriculture (USDA) Plant Hardiness Classification System. At the coldest extreme, Zone 2a temperature ranges are from –50 degrees to –45 degrees Fahrenheit, with a typical growing season from early June to the end of September (85 to 123 days). The project area is affected by temperature inversions and the resulting presence of ice fog in the winter. The temperature range from summer to winter is extreme, with hot dry temperatures in the summer. Fairbanks receives an average of 13 inches of rainfall annually.



Common Name	Botanical Name	Use
Evergreen Trees		
Lodge Pole Pine	Pinus Contorta	Limit evergreen use to keep views open and avoid hiding places
Scotch Pine	Pinus sylvestris	
White Spruce	Picea glauca	
Deciduous Trees		
Amur Choke Cherry	Prunus maackii	Good winter color, short-lived tree (not applicable to median)
Aspen	Populus tremuloides	Best planted in masses
Birch	Betula papyifera	Symbolic Fairbanks tree
Canada Red / Choke Cherry	Prunus Canadensis	Purple leaves June- Fall; good focal point (not applicable to median)
Crabapple	Malus sp.	Short tree good under overhead utilities
Mountain Ash, European	Sorbus acuparia	Red fall/winter berries
Mountain Ash, Showy	Sorbus decora	Red fall/winter berries
Siberian Laarch	Larix siberica	Native
Tamarack/Eastern Larch	Larix laricina	Broader branching than siberian
Shrubs		
Alpine Currant	Ribes alpinum	3' tall, berries
Amur Maple	Acer ginala	5-10' tall, fall color
Black Currant	Ribes nigra	3' tall spreading
Creeping Juniper	Juniperus horizontalis	Less than 18" tall, evergreen
Common Juniper	Juniperus communis	Less than 18" tall, evergreen
Cotoneaster, Peking	Cotoneaster acutifolius	Excellent hedge
False Spirea	Sorbaria sorbifolia	3-4' tall, aggressive and weedy, good for tough spots
Goose berry	Ribes grossularia	3' tall spreading
Honeysuckles	Lonicera sp.	5-15' tall
Lilac, Common	Syringa vulgaris	Spring flowers, colors vary
Lilac, Canadien	Syringa Canadensis	Spring flowers, colors vary
Muhgo pine	Pinus mugo	2'-5' tall spreading
Potentilla	Potentilla fruticosa	2'-3' tall, good in rain gardens
Red-osier Dogwood	Cornus sericea,	4-6' tall bright twig color
Siberian Dogwood	Cornus alba'Siberica'	4-6' tall bright twig color
Roses	Rosa sp.	3-8' tall
Rose Tree of China	Prunus triloba	3' tall early spring blooms
Serviceberry	Amelanchier alnifolia	Native, 4-6' tall
Siberian Pea Shrub	Caragana arborescens	Tall hedge
Spirea, Goldflame	Spiraea japonica 'Goldflame'	2' tall good ground cover
Spirea, Native	Spiraea beauverdiana	3' tall native
Perennials		
Daylily	Hemerocallis	
Geranium	Geranium erianthum	Native
Iris	Iris setosa	Good for rain gardens
Lupine, Artic	Lupinus articus	
Lupine, Nootka	Lupinus nootkatensis	
Ostrich Fern	Matteuccia struthiopteris	Shade tolerant/prefers shade
Yarrow	Achillea millefolium	Drought tolerant
Ground Cover		
Grass		
Boulders		
Mulch-Shredded Bark, Wood Chips, Screed Gravel		

Concept
LANDSCAPE FEATURES

Traffic Islands

Redesign traffic islands using green infrastructure and gateway concepts.

Opportunities for aesthetic and environmental improvements, including rain gardens, along Airport Way include traffic islands. Traffic islands occur at seven of the ten intersections along Airport Way (not including University, which is currently being designed). They are areas of non-paved landscape that include oddly-shaped, left-over spaces created where the frontage road alignment shifts away from Airport Way to provide greater queue depth at intersecting roads.

Existing planters/green space

Opportunities

Traffic Islands vary in size but are approximately 10,000 s.f. each. They are wholly or partially surrounded by curb and gutter, include sections of sidewalks and are up to 80 ft wide tapering to under 3 ft at their narrowest point. Their location at major intersections makes them ideal for improving aesthetic appeal in addition to improving permeability and environmental quality.

Currently many of the areas are landscaped, however the size of planters and landscape areas are dwarfed by the overall square footage of the non-landscape areas. Non-landscape areas have limited amounts of grass and layers of gravel.

Traffic islands exist at the following intersections (see map to the right): **Market Street** (northeast, northwest and southwest islands); **Peger Road** (northeast and northwest islands); **Wilbur Street** (northeast, northwest and southeast islands); **Lathrop Street** (all corners); **Cowles Street** (northeast and northwest islands); **Gillam Way** (southeast island); Noble Street (northeast island); and **Steese Highway** (all corners).

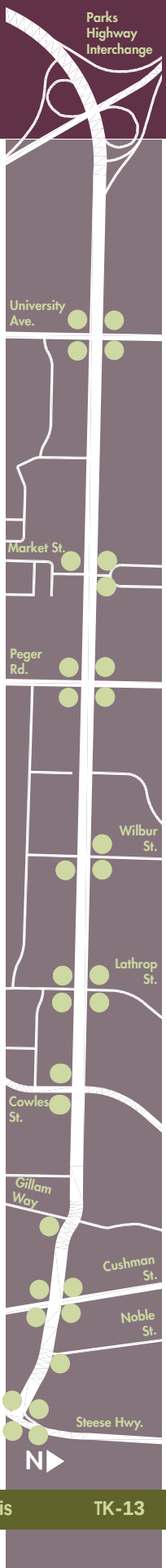
Benefits

- Add large areas of permeable surface that could treat or improve run off
- Improve aesthetic quality of the corridor
- Opportunities for art, lighting and wayfinding at each intersection
- Improve intersection safety by becoming a traffic calming element
- Snow storage
- Low to moderate cost

Challenges

- Need to maintain line-of-sight
- Maintenance could slow traffic along Airport Way or cause temporary closure of frontage roads
- Snow operations including storage, removal, and application of gravel would require additional coordination/effort to protect landscaping
- May require maintenance agreements

Applicable Locations



Concept
LANDSCAPE FEATURES

Site Furnishings/ Thematic Elements

Supplement site-specific recommendations with site furnishings and thematic elements.

Site furnishings include landscape elements that can be used to establish an identity or theme, they can help to create a consistent, cohesive feeling that visually unites an area. In contrast, too many different types of site furnishings can weaken the identity of an area where cohesive design is desirable. Site furnishings include a broad range of elements such as benches, planters, art, bike racks, trash bins, hanging baskets, banners and other similar features.

Existing Bench & Planter

Options

Airport Way includes three overall land use patterns that can be used as a basis for determining thematic elements.

Airport Segment - The airport segment begins at the west end of the project and extends to the Parks Highway interchange. This segment is characterized by broad naturally forested areas with development generally set back from the road. Key to the visual character of this area is the native birch forest, which creates a pleasing identity for visitors and residents leaving and returning to Fairbanks. It reinforces the strength of Fairbanks as a far northern community set in the foothills of some of Alaska's most beautiful terrain. In contrast to the large natural areas would be the loss of the natural forest to development that is open to the roadway. Maintaining the natural character of this segment includes:

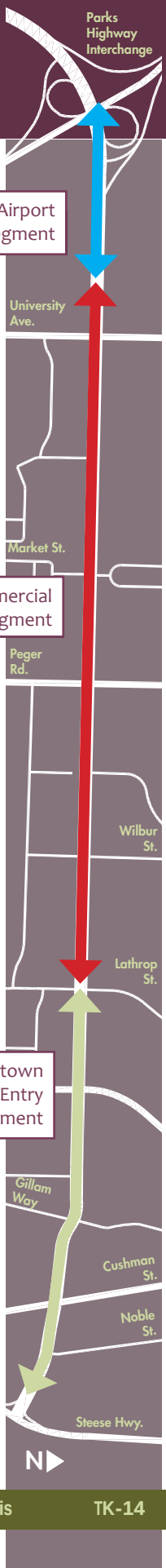
- Educate-work with businesses so they understand the value of vegetation and how they can retain their visual presence
- Save/enhance the natural forest
- Work with FNSB to determine public desire to maintain and enhance the existing area

Commercial Segment – The Commercial segment of Airport way begins at University Avenue and extends to about Lathrop. The commercial area is typical of strip commercial with business signs, lighting, frontage roads and collection of small and large buildings within view of Airport Way users.

Creating a unified commercial theme for this segment could include the following ideas:

- Limit business signage height and size (requires FNSB/City officials to work with businesses)
- Lighting
- Benches, trash bins and planters that create a linked pedestrian space along the frontage roads
- Frontage road fencing with unique character that allows views into business and create a cohesive linear element
- Develop business association or partnership that creates a positive forum for Airport Way businesses to exchange ideas and discuss issues

Applicable Locations



Downtown Fairbanks

Downtown Entry Segment - The eastern most segment begins close to Lathrop Street (between Cowles and Barnette) where public facilities are the predominant land use rather than the commercial businesses. The character of this area includes more green space and fewer parking lots and hard surfaces adjacent to the road. Larger buildings with more architectural character create a more appealing section of roadway. Signage is limited and there is less clutter. There is less clutter with fewer overhead utilities, enhancing the character of the area may be easier due to the public ownership and control of land.

Ideas to improve this segment of Airport Way include improving public spaces:

- Review Lathrop High School circulation to create opportunities for green space between the road and the school. This could benefit the school as well by improving safety and function of the parking lot, increasing permeable surfaces, improving the school environment
- Review the existing pedestrian overpass and determine if it is still needed. If so, identify opportunities for ramps to improve accessibility. The current pedestrian overpass is older, as replacement is considered in the next 10-20 years, a redesign could improve safety and meet the needs of more users including improving connectivity between facilities on the north and south side of the road
- Identify potential for downtown gateway including improvements to the pedestrian overpass, art, signage and lighting

Benefits

- Simplifying site furnishings can ease long-term maintenance by making it easier to repair and replace similar elements
- Similar site elements can unify an area

Challenges

- Planters are not crash-worthy and cannot be used in the clear zone
- Planters should be removed for winter maintenance
- Benches may attract uses that business owners find a nuisance
- Trash receptacles require periodic maintenance
- Vandalism
- Over simplifying site furnishings can create a monotonous unwelcoming appearance

See related elements such as Planting Techniques (rain garden, berms, planting bed), and Paving (options for pavers, colored, textured concrete)

Concept
LANDSCAPE FEATURES

Vegetated Swales

Utilize repurposed frontage roads and some medians with vegetated swales.

Vegetated swales function to slow and capture run-off prior to the run-off entering a waterbody. Swales should be located to capture run-off as close to its source as possible. Swales can have flat or v-shaped bottoms, slope can be gentle or moderate, design depends on the location, amount of water and space available. Plants within swales can be native or non-native as all plants assist in removing sediment and toxins from run-off. Maintenance and aesthetic considerations should be the determining factor in which plants to select.

Considerations

Vegetated swales are one of many Green Infrastructure solutions to improve water quality of local waterways. Airport Way has several opportunities for vegetated swales, including the medians. Roadside locations depend on space and grades. Ideally a vegetated swale is a minimum of 3 feet wide. However, width will vary depending on the amount of water that needs to be conveyed.

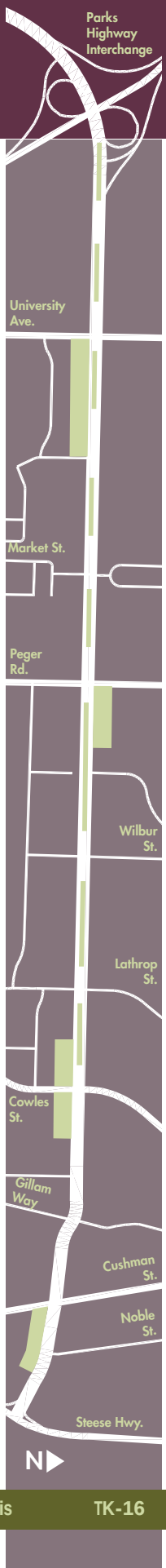
Benefits

Increases permeable surfaces; reduces asphalt and gravel areas that have limited green benefits; less expensive and more effective than many other treatment options including new piping and directing flow into existing storm drains and treatment structures (oil and grit separators). Can result in lower long term maintenance costs. Can improve aesthetics.

Challenges

Maintenance not always recognized as a priority which can result in lack of maintenance. Improper removal and replacement of plants that have died. Public concerns for aesthetics of naturalized appearance ("mow it," and "remove the weeds" can lead to reduced ability of plants to function as intended).

Applicable Locations



Concept
LANDSCAPE FEATURES

Tree Wells & Planters

Add tree wells and planters at intersections where there are large paved areas.

Tree wells and planters allow the growth of trees in urban areas where impermeable surfaces predominate the landscape. They can fill a dual mission of aesthetics and green infrastructure function. Key to installing tree wells and planters is finding appropriate locations.

"Trees are one of the most effective and least expensive way to reduce and filter storm water runoff. Trees intercept and store rain and snow on leaves, branches and trunk bark. Trees also remove pollutants from the air and add seasonal interest to your yard and neighborhood. Planting trees is a beautiful way to help keep our rivers and streams clean and healthy." - (Green Infrastructure Project Guide for Fairbanks, Jan 2015 - Fairbanks GI Group).

Existing planter

Raised Planter Box and Tree Well

Considerations

Along Airport Way space, proximity to the road, and adjacent land uses will play a role in proper location of tree wells. For green infrastructure function placing tree wells and planters in areas that receive drainage is critical.

Benefits

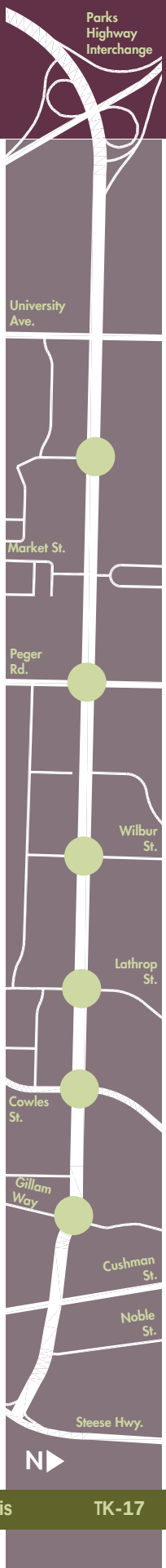
Raised planters protect trees from pollutants and plows. Trees provide a pedestrian scale to automobile oriented spaces, they can be used to calm traffic and break the intensity of large paved areas. Planting trees is a fairly inexpensive solution to treating run-off. See also "Planting Palette" and "Traffic Islands".

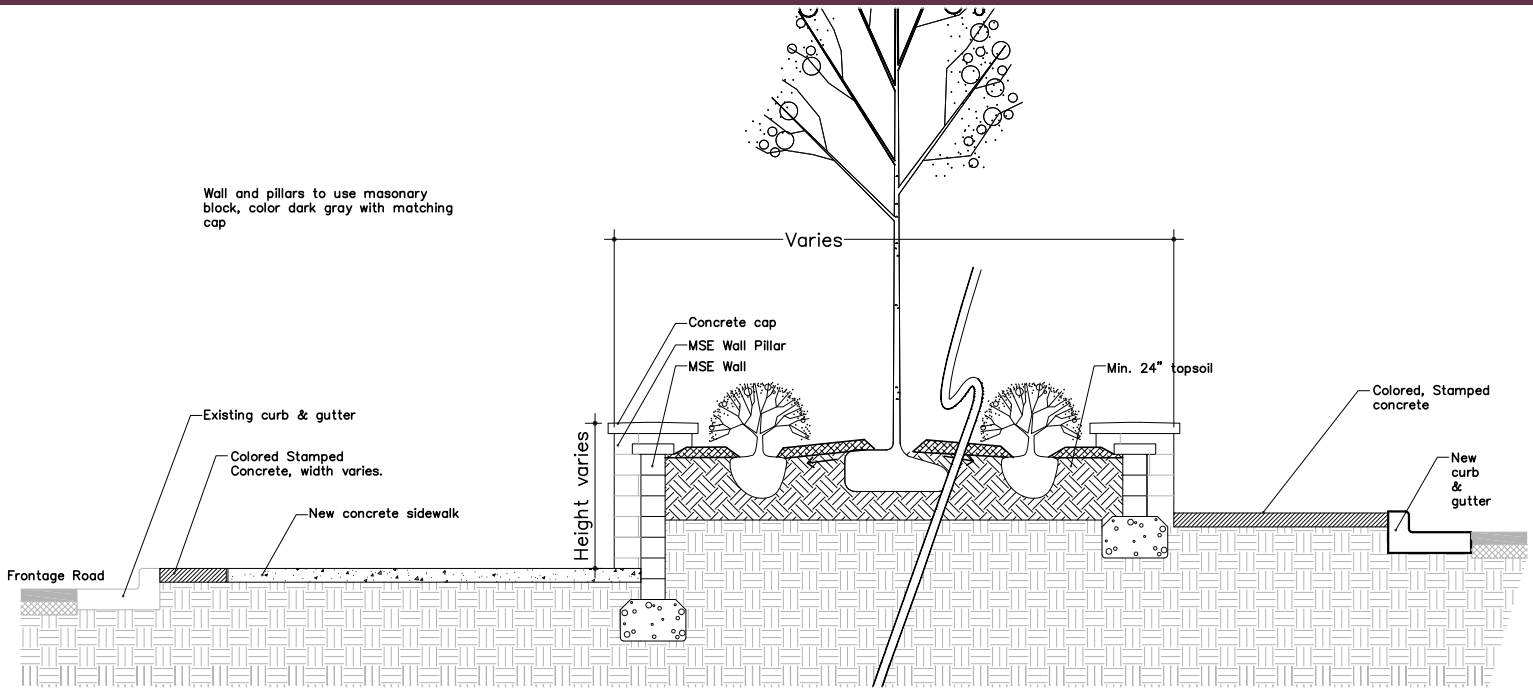
Raised Planter, Built-In-Place

Challenges

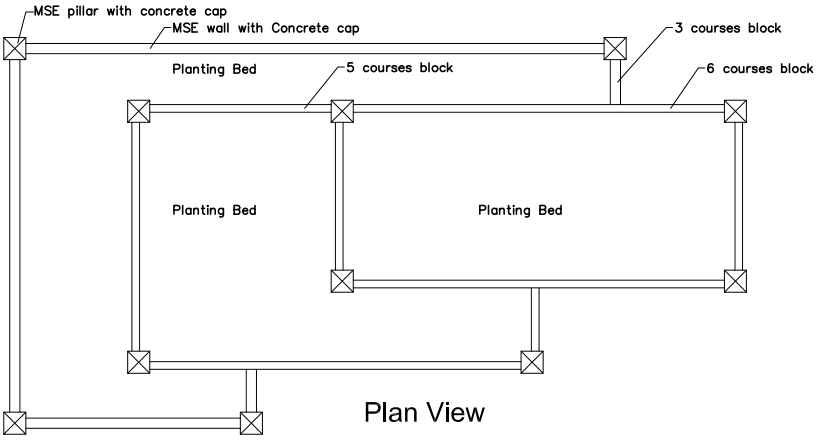
Snowplow operations including pushing and piling of snow can damage trees or inhibit their growth. Providing enough space for trees to obtain moisture and nutrients can be difficult in urban areas. Trees require maintenance. Salt and sediment can be detrimental to at grade planters.

Applicable Locations





Cross Section



Plan View

Notes:

1. Use Allan Block, Model AB Courtyard.
2. Color dark gray with matching concrete cap.
3. Planter configurations are different at each location.
4. Maximize planting area to increase permeable surfaces.

Concept
LANDSCAPE FEATURES

Wayfinding

Add wayfinding signage per the Downtown Wayfinding Plan, following DOT&PF guidance.

Wayfinding includes providing signage and cues to inform roadway users of their relative location. Downtown Fairbanks has adopted a wayfinding system that includes decorative signs and interpretive elements that help to give Downtown an identity as well as assisting roadway and sidewalk users in finding attractions in the downtown and adjacent areas. Tourist attractions, business districts, safety and health services are among the locations listed and shown graphically on the stylized maps and signs.

Pedestrian Kiosk, Downtown

Vehicular Guide, Downtown

Pedestrian Guide, Downtown

Considerations

Elements from the downtown wayfinding system may be suitable along Airport Way particularly around the intersections of Noble and Cushman. Consideration as to the unique character of the downtown wayfinding system to the downtown area should perhaps limit the location of similar elements too far away from downtown.

Benefits

- Strengthens and supports the downtown core area by repeating design elements at key locations

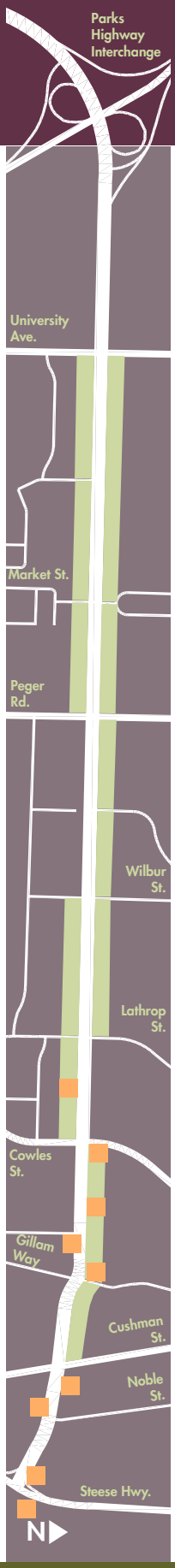
Challenges

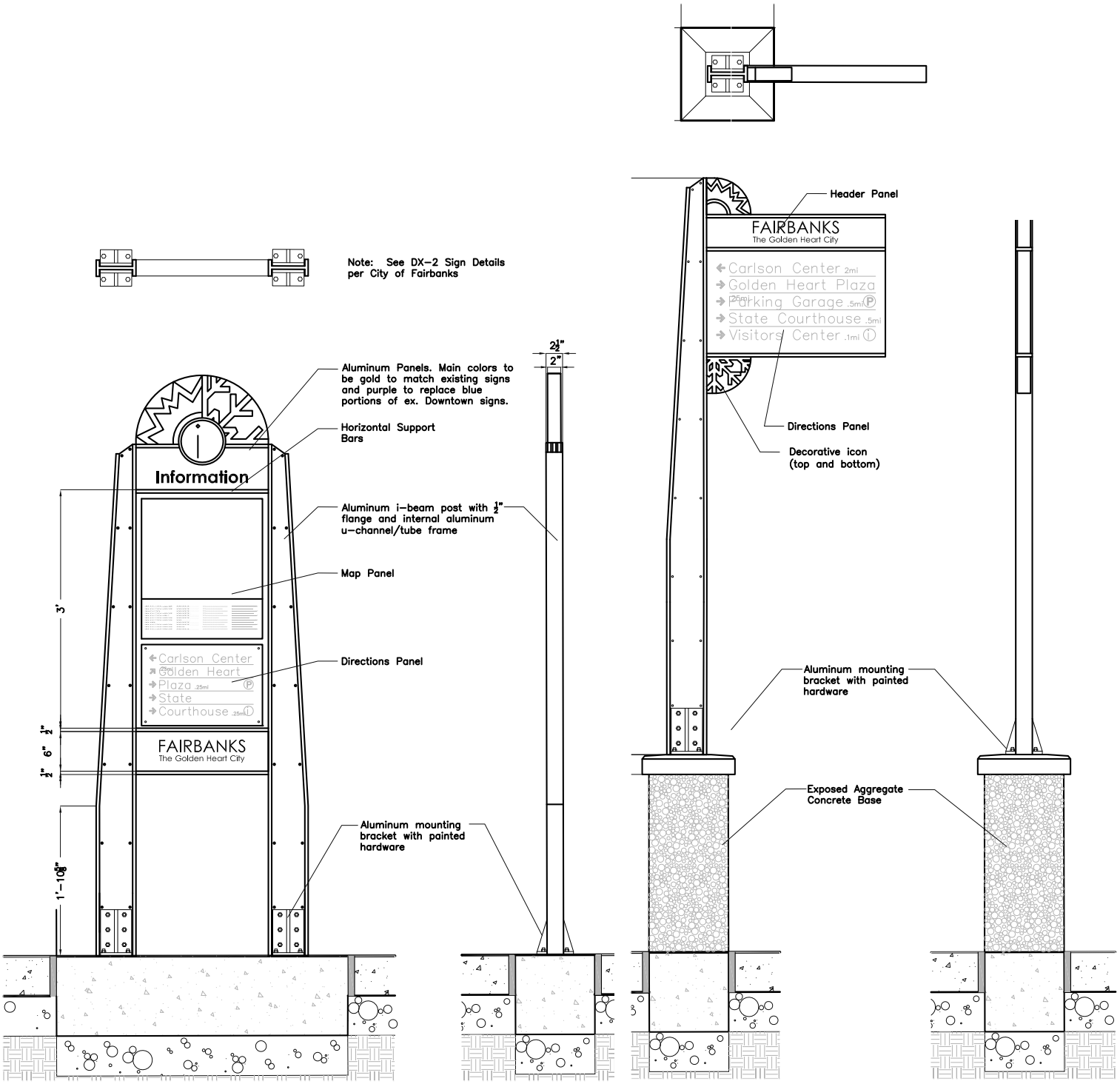
- Overuse of the existing wayfinding system could dilute its intent
- Susceptible to vandalism in areas that are not close to businesses or are less travelled

Downtown Wayfinding

Orange squares (on the right-side map) represent wayfinding locations as recommended by the Downtown Fairbanks Wayfinding Plan. Signage directions can be found in Appendix A, "Planning Summary."

Applicable Locations





Gateway Signage

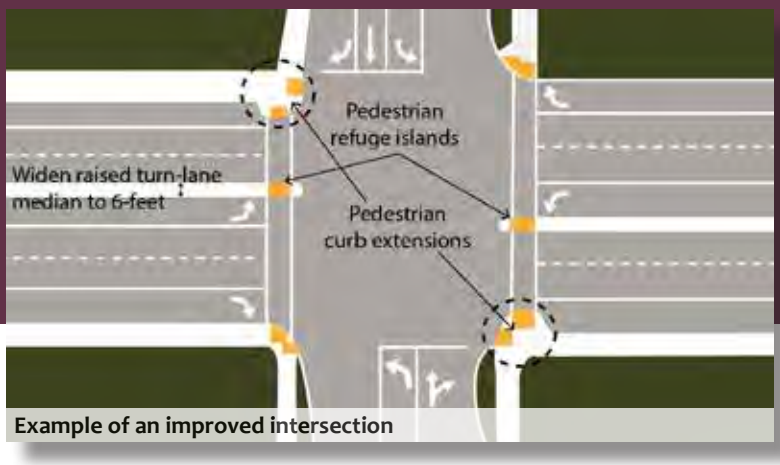
Pathway Signage

Traffic Features

Improved Intersections

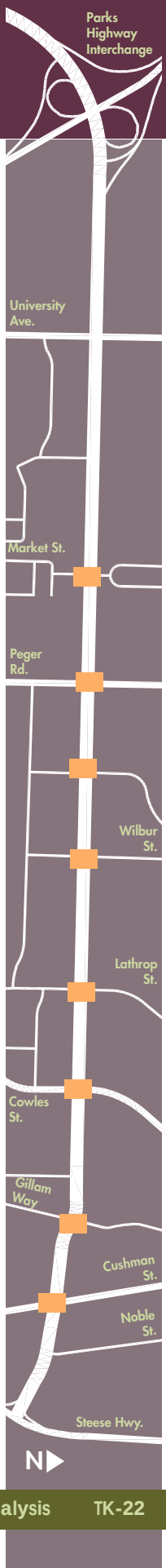
Concept

TRAFFIC FEATURES



Example of an improved intersection

Applicable Locations



Improved Intersections

Redesign intersections for improved safety.

The distribution of intersections along Airport Way allows for pedestrian and bicycle crossing every 1,300 to 2,600 ft. At crosswalks, users are guided by truncated-dome detectable warnings, 10-ft wide crosswalk markings, and a pushbutton walk signal activation. North-south crosswalks are generally 100 ft long, while west-east crosswalks are 60- to 100 ft long.

Pedestrian safety can be improved by reducing the distance from sidewalk curb to sidewalk curb, providing "refuge islands" at the medians, and accommodating crossing pedestrians at controlled locations.


Example of an existing intersection crosswalk

Tool Descriptions & Benefits

Curb Extensions

Curb extensions (aka "bulb-out") are sidewalk extensions that extend into the intersection at a crosswalk. Curb extensions help to improve sight lines between pedestrians and vehicles, reduce pedestrian crossing distance, shorten exposure time to traffic, and reduce vehicle turing speed by physically and visually narrowing the roadway. The shorter crossing distance allows for shorter pedestrian crossing times which enables more flexible signal operations and more cycle time to be allotted to Airport Way.

Curb extensions can be placed at locations where the shoulder is not replaced by a turning lane. These extensions may become a great option for reducing sight-line obstructions when street trees are added to eliminated frontage roads.

Curb extensions impede continuous linear snow plowing movements, forcing plow trucks to stop and back up, thus increasing time needed to plow. This effect can be diminished by designing curb extensions to have a tapered offset to allow easy lane transition movements and using tapered or rounded curbs to accommodate traversing vehicles.

Median Refuge Islands

Median refuge islands allow for pedestrians and bicyclists to cross one direction of traffic at a time, and provide protected spaces to wait for the signal to change.

Refuge islands are especially useful for young, elderly, and disabled users who may not be able to fully cross in the allowed crossing time.

Offset Turn Lanes (not shown)

Traffic safety can be improved by offsetting the turn lanes so that the cars queued in the turn lane of the opposite direction do not obstruct a turning vehicle's field of view.

Move Crosswalks to Intersection (not shown)

At many intersections, sidewalks follow the Frontage Roads, and when reaching a cross-street, sidewalk users cross the street at an uncontrolled crossing instead of at the signalized intersection.

Challenges

Curb Extensions and Median Refuge Islands can reduce the turning radius and speed for vehicles, which provides safety benefits to non-motorized users. This benefit should be balanced with potential challenges to large truck maneuvers where they are common.

Achieving results through Offsetting Turn Lanes requires changes in roadway lane geometry, as well as redesign of traffic islands and perhaps right-of-way acquisition.

Maintenance of refuge islands and curb extensions, particularly snow removal, can be time consuming and may require clearing by hand.

Long-Term Functional Changes

These concepts are functional changes to Airport Way identified by the Steering Committee and Consulant Team to further implement the plan vision. Further studies are needed to determine these changes are not detrimental to the system and provide a net benefit to the travelling public.

Urban/Complete Street

Repurpose Frontage Roads

Increase Direct Access

Concept

LONG-TERM FUNCTIONAL CHANGES

Urban/ Complete Street

Reconfigure the roadway to better accomodate all users and open up space for other uses.

The current Airport Way built environment communicates to drivers through roadway design and visual elements that the corridor is a cross-town through route. However, traffic studies over the past two decades indicate the corridor is increasingly serving local traffic. The eastern portion of the corridor provides access to downtown and includes higher pedestrian volumes and greater signalized intersection density as well as a more urban setting, but the roadway character does not fully reflect this context. Access restrictions and discontinuous frontage roads are a barrier to bicyclists and transit users because they create circuitous routes and limit bus stop locations.

Implementation

A Complete Street, per the FMATS Complete Streets Policy, is one that is context sensitive, connected, and ensures safe access for all modes and users. Applying these principles to the urban section of Airport Way would reduce crashes and provide more flexibility for transit and bicycle facilities.

Urban Complete Street strategies could include reduced travel lane and shoulder widths and reallocation of that space to bicycle lanes and/or bus pullouts and improved pedestrian facilities.

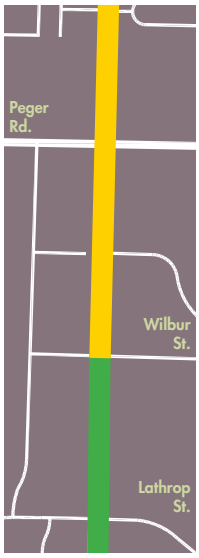
Benefits

1. **Vehicle Crashes**
   Complete streets can help to reduce the severity and frequency of crashes for all travel modes, leading to fewer fatalities, injuries, and property damage.
2. **Walk/Bike-ability**
   Reallocated roadway space could facilitate bicycle lanes on mainline Airport Way. The operational change would reduce the barrier to non-motorized travel between downtown and south Fairbanks. Bicycle lanes would provide more direct and visible bicycle routing along the corridor.
3. **Aesthetics**
   A Complete Streets approach is compatible with the improved intersections, repurposed frontage roads, and other aesthetic features in the toolbox.

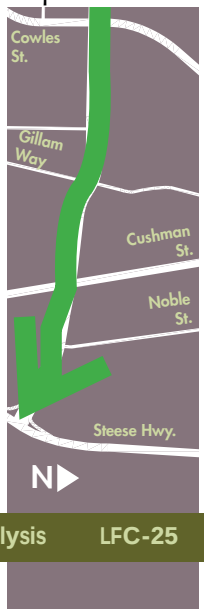
(concept continues on the following page)

Applicable Locations

Urban/Complete Street



(Priority) Urban/ Complete Street



Typical Airport Way Cross Section

Complete Street Alternative: Maintain Frontage Road

Complete Street Alternative: Repurpose Frontage Road

Challenges

Implementing Complete Streets principles can be pursued incrementally or by a complete roadway reconstruction, including frontage road modifications. Any travel time impacts should be weighed against the safety, non-motorized user, and transit benefits.

Concept

LONG-TERM FUNCTIONAL CHANGES

Repurposed Frontage Roads

Repurpose select frontage roads with multimodal pathways and green infrastructure.

Frontage roads run along both sides of Airport Way for much of its length. These roads are meant to provide access to adjacent properties consistent with access control limitations. Frontage roads along Airport Way create challenging, closely-spaced intersections near traffic signals. The incomplete frontage road network hinders efficient and safe bicycle travel along Airport Way. Eliminating frontage roads would allow for a substantial area of space to be reallocated to green infrastructure, street trees, continuous multi-modal pathways, and areas for street furniture.

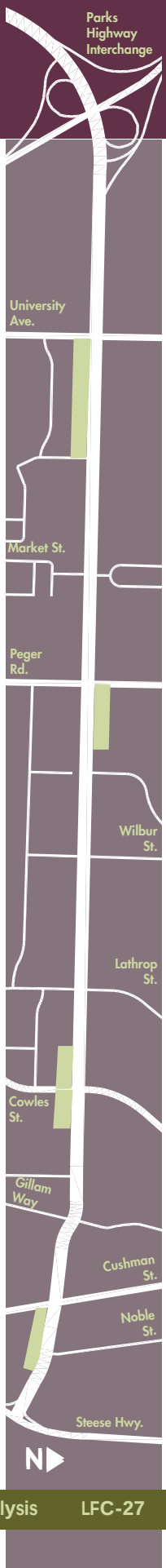
Previously repurposed frontage roads in the project area

Benefits

- **Reduction of safety and circulation concerns** at Airport Way intersections that provide access to frontage roads by eliminating closely spaced intersection conflicts with atypical turning maneuvers and inadequate queuing, which hamper circulation.
- **Improve non-motorized crossings** by bringing the crossing to the signalized intersection
- **Storm water catchment area** for impervious surfaces on Airport Way, instead of draining directly into the Chena River
- **Continuous space** for multi-modal paths
- **Space for street trees**, which can reduce non-vehicular traffic exposure to vehicle noise and air pollution, and improve aesthetics for drivers
- **Areas for rain gardens**, which can capture and filter storm water runoff, reducing strain on the storm-sewer system
- **Areas for 'pocket parks' with street furniture**, which can provide opportunities for building social capital in public spaces and public destination points along a navigable multi-modal path network
- **Encourages use of underutilized roads** which provide access to Airport Way-adjacent properties

(concept continues on the following page)

Applicable Locations



Existing frontage road | Potential repurposed frontage road

Challenges

- Elimated frontage roads that intersect with public streets must be provided with curbed cul-de-sacs in order to allow turn-around capabilities for emergencies. Changes in business and residential access may be opposed by some property owners.

- Closing some frontage roads will require rerouting existing bus service and relocating stops.

An access-break and traffic analysis study are still needed to ensure the overall effect is not detrimental to the system, and that it is a net benefit to the traveling public. The figures on the right provide potential phasing for elimination of frontage roads at four segments of the corridor; phasing would be determined during design.

1. South side of Airport Way between University Avenue and Washington Drive.
2. North side of Airport Way in front of Pioneer Park between Peger Road and Moore Street.
3. South side of Airport Way at the Cowles Street intersection in-between Shopper's Forum Mall and Lathrop High School.
4. South side of Airport Way east of South Cushman Street.

South side of Airport Way between University Avenue and Washington Drive.

North side of Airport Way in front of Pioneer Park between Peger Road and Moore Street.

South side of Airport Way at the Cowles Street intersection in-between former Gottschalks department store and Lathrop High School.

South side of Airport Way east of South Cushman Street.

Concept

LONG-TERM FUNCTIONAL CHANGES

Increase Direct Access

Pursue further traffic studies to determine appropriate locations for direct access to Airport Way to improve traffic circulation and business access

Airport Way is a limited-access control roadway, meaning that properties cannot directly access Airport Way, and several perpendicular streets are fed into frontage roads.

The objectives of limited-access control are to reduce quantity of conflict points and induce free-flowing traffic through the corridor. However, the reduction of conflict points at mid-block areas necessitates access to frontage roads at intersections, and thus increases the density of conflict points at intersections, challenging traffic circulation and increasing traffic crashes.

Creating direct access at certain locations may improve circulation at existing intersections and increase ease of access to adjacent neighborhoods.

Model of mid-block access with right-in, right-out, and left-in turning.

Implementation

Improved access could allow mid-block right-in, right-out movements. Additionally, permitting left-turn movements from Airport Way would increase traffic circulation benefits. Turn-lanes should be provided for right-in and left-in turns. Right-in turn lanes would replace a section of the roadway-shoulder, while, left-in turn lanes will reduce the area of median that could otherwise be used for green infrastructure.

Benefits

Increasing direct access to Airport Way can help to distribute traffic circulation and reduce out-of-direction travel. This treatment will also reduce turn demand at signalized intersections, improving signal operations. It can increase the "neighborhood feel" of the corridor by giving residents direct neighborhood access from and to Airport Way. Permitting mid-block turning movements also simplifies business access along the corridor and may help to spur commercial re-development along the corridor.

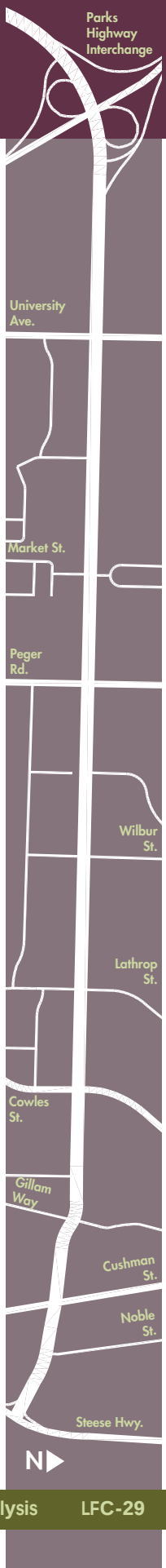
Mid-block access should be considered at public street intersections, in conjunction with frontage road modifications, or as development occurs.

Challenges

Formal traffic studies are needed to determine locations for increasing mid-block access, including the right-in, right-out, left-in suggestion for site-specific recommendation "Avenue of Flags, Pioneer Park."

** Locations to be determined after further traffic studies.*

***Applicable Locations**



Site-Specific Recommendations

These recommendations are functional changes to Airport Way identified by the Steering Committee and Consulant Team to further implement the plan vision. Further studies are needed to determine these changes are not detrimental to the system and provide a net benefit to the travelling public.

Site-Specific Recommendations


Recommendation 1 location area

1. Southern Frontage Road, University Avenue to Washington Drive

The frontage road south of Airport Way between University Avenue and Washington Drive is an underutilized road serving commercial properties that have alternative access routes to the wider road network. This situation opens an opportunity to convert the frontage road into a multimodal greenway for pedestrians and low-speed, non-motorized users, connecting to existing multimodal path greenway segments at the corner of Washington Drive. This opportunity supports the public desire for safe, healthy, and attractive green streets, and reduces storm water volume by replacing impervious areas with landscaped, pervious area. Further, there is opportunity to convert the large turn-around area at the corner of University Avenue into a pathway node that can be utilized as a public meeting and sitting location. Existing perpendicular streets must be designed for turn-around cul-de-sacs, which will break-up the multimodal paths and linear landscaping, calling for designs that would mitigate these effects.

Recommendation 2 location area

2. Market Street Entrance to Riverview Neighborhood

Re-landscaping the traffic islands at the Market Street intersection presents an opportunity to create a distinct character for Riverview neighborhood residents, as well as to utilize the surface area for green infrastructure. Final design must provide space for the maintenance of utility infrastructure (e.g., utility poles, street lights) and protect the landscaped area from gravel deposits from the roadway, but allow storm water to flow into the islands. A design that marks the entrance to the Riverview neighborhood could be as simple as planting distinctive trees alongside the sidewalks, or another type of design which may require coordination and acceptance by neighborhood groups. Due to the design of the path network around "traffic islands," many people choose to walk through the island rather than cross the street, resulting in "desire lines" of exposed soil. These lines present an opportunity to formalize them into trails by including a path of permeable pavers and openings in vegetation.


Recommendation 3 location area

3. Avenue of Flags, at Pioneer Park

This recommendation allows for the elimination of the frontage road entrance from Peger Road up to Entrance 3, leaving over 800 ft of linear space that can be used as pervious green surface and multimodal pathways, provides an opportunity for unique sculptures that complement Pioneer Park's theme, and eliminates a closely spaced intersection.

Pioneer Park currently has four entrances: 1) approximately 500 ft north of Airport Way on Peger Road, 2) 250 ft east of Peger Road on the Avenue of Flags frontage road, 3) 600 ft east of the second entrance on the Avenue of Flags, and 4) farther north on Moore Street at Hilton Avenue. Entrance 1 can be accessed by vehicles traveling both directions on Airport Way. Entrance 2 is only accessible to vehicles that have just crossed the Peger Road/Airport Way intersection going

Site-Specific Recommendations

North on Peger Road. Entrance 3 is located nearest to the Park's entrance and main parking area. Entrance 4 is the least used and is usually blocked from access. This configuration can be improved by increasing direct access to Entrance 3 while closing access to Entrance 2.

By opening up access to Moore Street from Airport Way for right-in, right-out, and left-in turning movements, east- and westbound Airport Way motorists can access Entrance 3 in a more direct way. Furthermore, this increase in access improves the road network by allowing those traveling westbound on 2nd Avenue to turn left onto Moore Street and then right onto Airport Way, instead of needing to drive down he Avenue of Flags to Peger Road through the parking lot and make two more turns to access Airport Way. Likewise, this increase in access allows both directions of Airport Way traffic to access 2nd Avenue through Moore Street as an alternative to turning at the Wilbur Street intersection.

Recommendation 4 location area

4. Wilbur Street Gateway to Carlson Center & Growden Park

Re-landscaping the traffic islands at the Wilbur Street intersection presents an opportunity to create a distinct gateway to the Carlson Center and Growden Memorial Field, as well as utilize the surface area for green infrastructure. Final design must provide space for the maintenance of street lights and street signs and protect the landscaped area from gravel deposits from the roadway, but also allow storm water to flow into the areas. A design that marks the entrance to the entertainment and sports venues to the north could be as simple as terraced concrete planters, or another type of design which may require coordination and acceptance by the surrounding neighborhood.

Recommendation 5 location area

5. Lathrop Street Traffic Islands

Design and engineering should follow the specifications in site-specific recommendations 2 and 4, and general guidelines in the traffic islands toolkit concept. Designers should use the space for multi-height, precast concrete planters and permeable pavers due to the surface area limitations of the islands.


Recommendation 6 location area

6. Southern Frontage Road, West and East of Cowles Street

Both frontage road entrances at the Cowles Street intersection are unnecessary for access, create a complex traffic situation for all modes, and cause congestion from cars and buses lining-up to turn into, or out, of them. For Lathrop High School, alternative access routes exist at the Kennicott Avenue/Cowles Street intersection and to the west on 14th Avenue from Gillam Way. For the commercial properties to the west of the Cowles Street intersection, access points are located mid-block between Airport Way and Kennicott Avenue, and at the Kennicott Avenue/Buttercup Street intersection.

Site-Specific Recommendations

Repurposing the frontage roads provides opportunity for "pocket park" space, as well as improvements to the multimodal path network, and an increase of pervious surface. Due to the proximity to Shopper's Forum and Lathrop High School, the "pocket park" could be designed to include street furniture and paved areas that could function as a small, informal gathering place for students, shoppers, and those traversing the walking route along Airport Way or Cowles Street.

Recommendation 7 location area

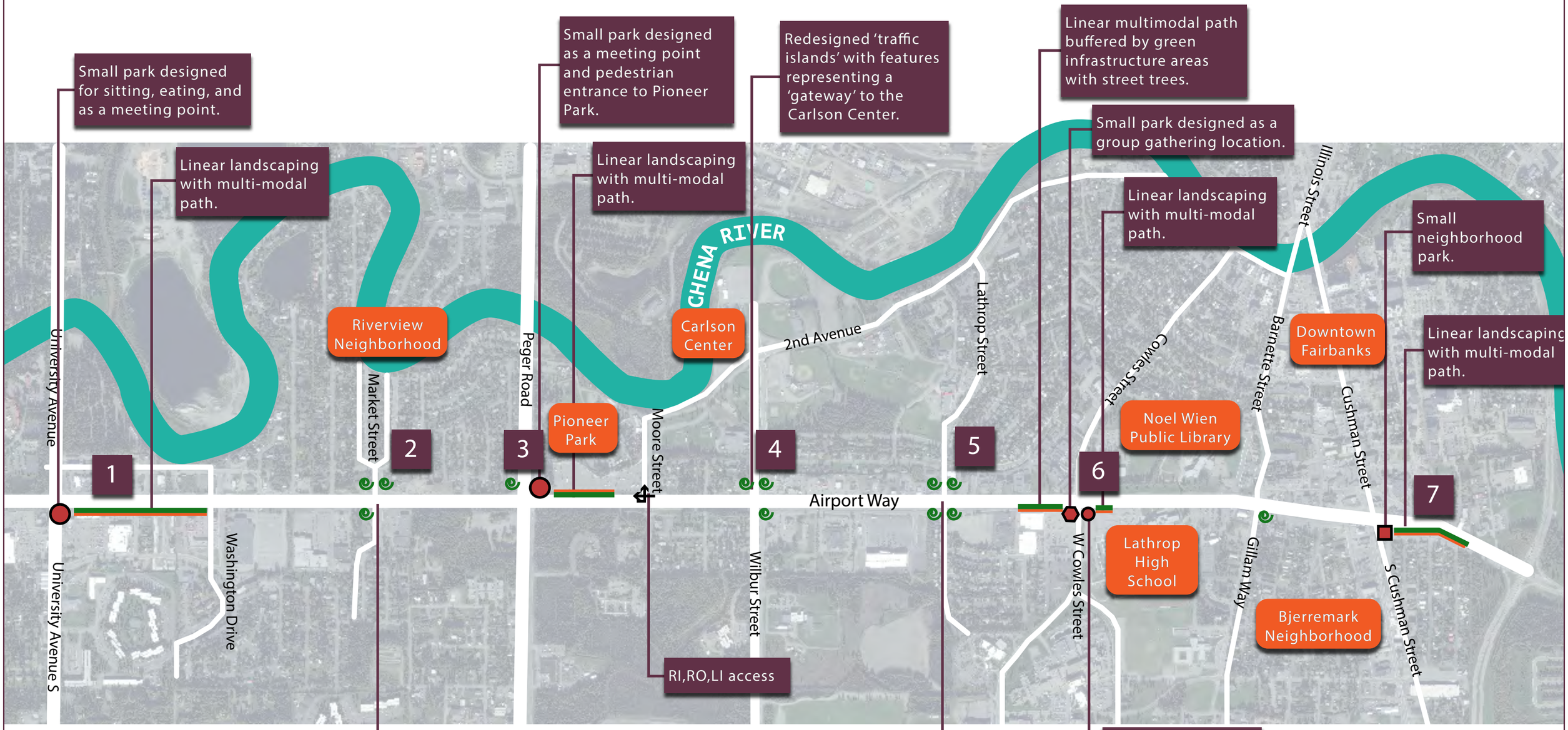
7. 14th Avenue, S. Cushman Street to Eielson Street

Fourteenth Avenue between S. Cushman Street and Eielson Street is unnecessary for access to the wider road network, though a few properties access the avenue either through a driveway or connected to an alley. These properties can also access the road network via the perpendicular residential streets.

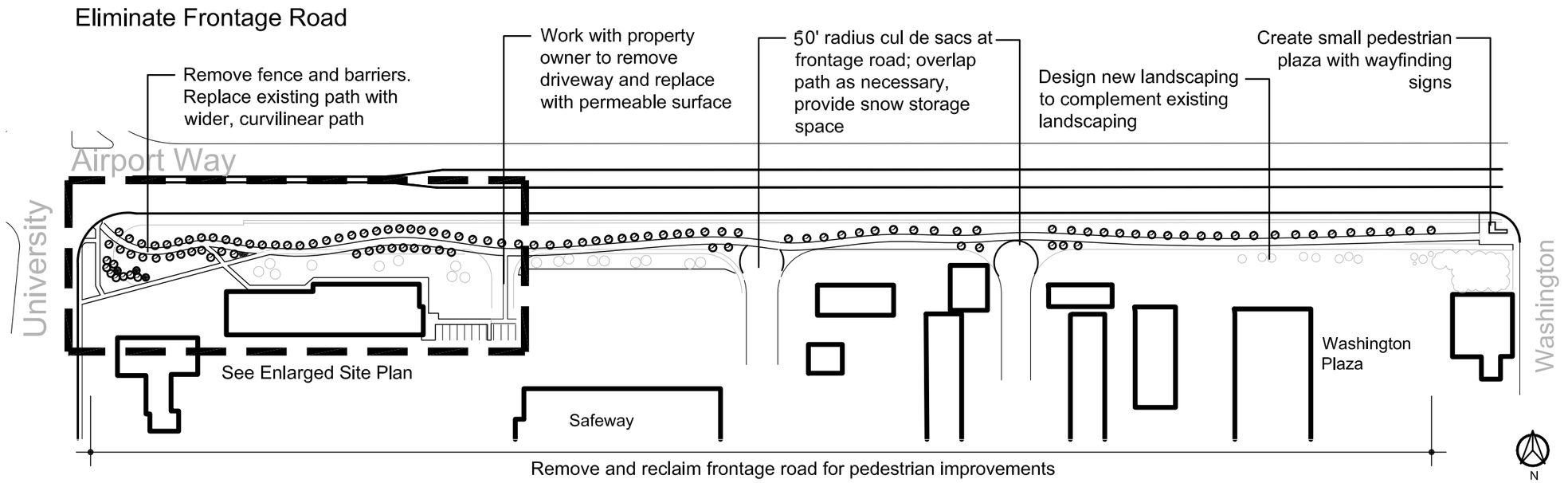
Repurposing the frontage roads and replacing them with multimodal paths and pervious surfaces allows for a significant improvement in environmental quality while creating an opportunity for "pocket park" space to be designed for residential purposes (e.g., an open area for ball play and seating for child supervisors). This kind of design would support the Bjerremark Neighborhood Improvements Plan (2015), which calls for reduction in cut-through traffic, improved pedestrian pathways, neighborhood gateway features, and implementation of defensible space measures, which includes creating a buffer between commercial and residential areas, and creating a sense of ownership in community members, in this case by providing attractive, functional green spaces for families and local residents.

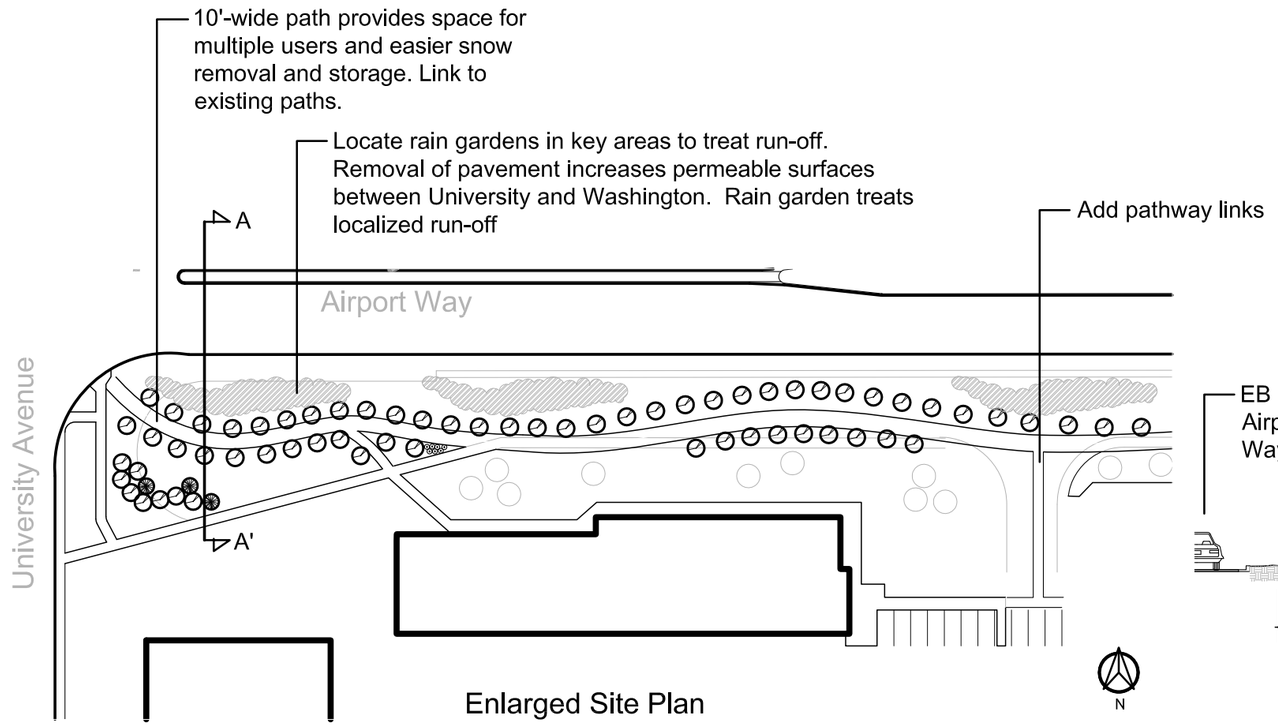
Similar to requirements in site-specific recommendation 1, between University Avenue and Washington Drive, turn-around areas need to be included, which will break up the multimodal pathways and continuity of the linear landscape. Design of features surrounding the turnarounds should incorporate cues for drivers farther down the perpendicular streets that the roads are dead ends, as a supplement to standard "dead end" road signs.

Site-Specific Recommendations Map



1 Southern Frontage Road, University Avenue to Washington Drive

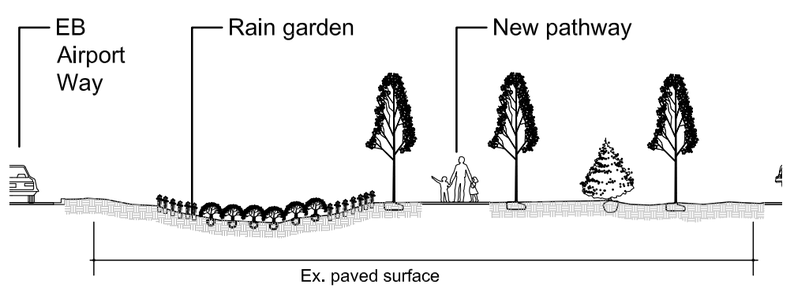




Enlarged Site Plan

Toolkit Concepts

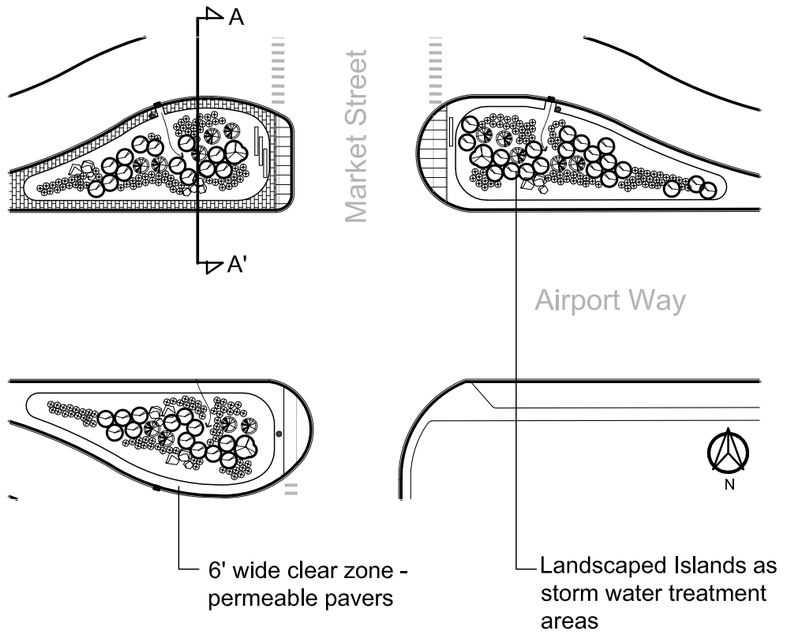
(Remove) Barriers	Planting Palette
Linear Landscape	Site Furnishings
Repurposed Frontage Roads	Wayfinding



Section A-A'

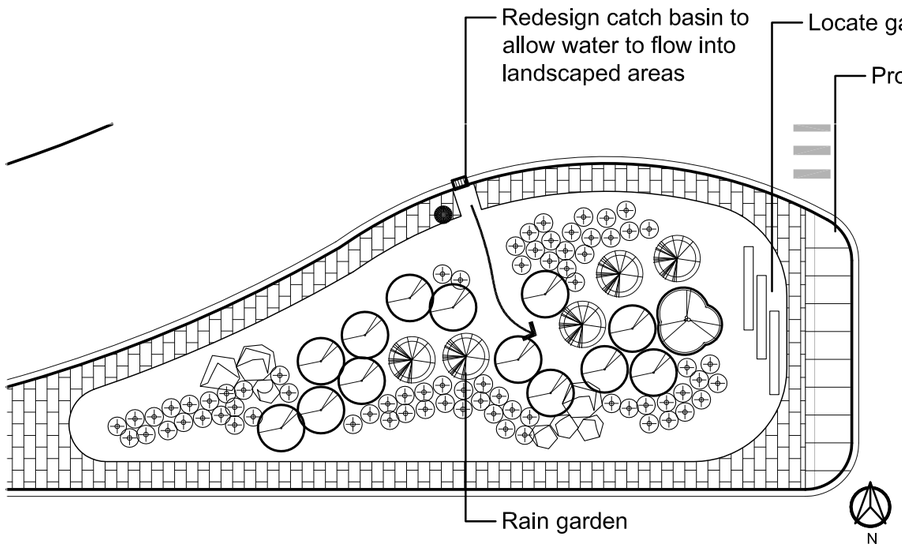
2 Market Street Entrance to Riverview Neighborhood

Develop Landscaped Traffic Islands

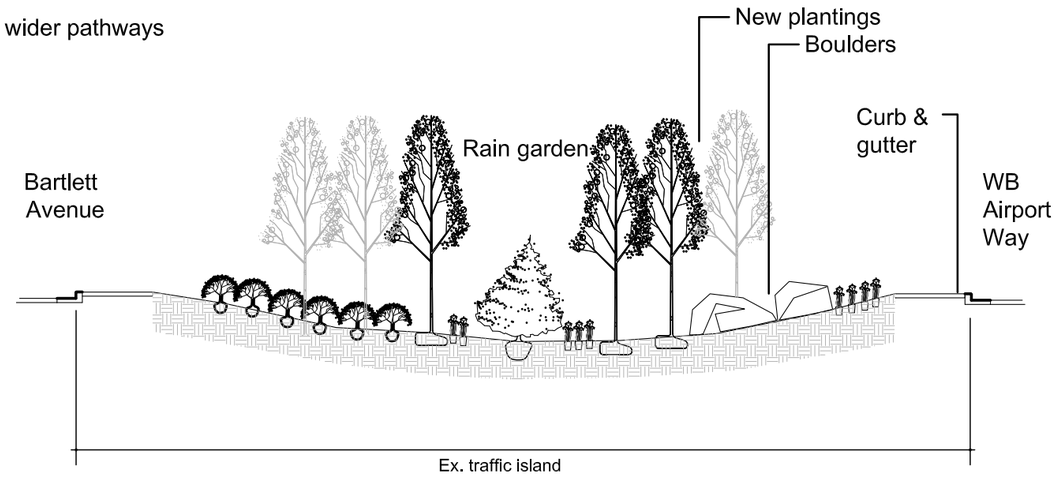


Toolkit Concepts

- Gateways
- Planting Palette
- Traffic Islands
- Wayfinding



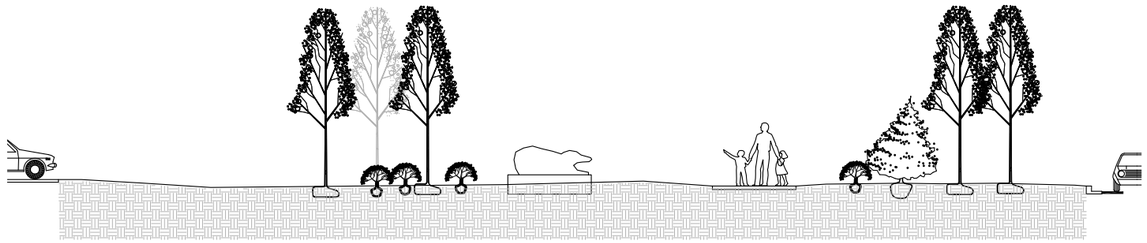
Enlarged Site Plan



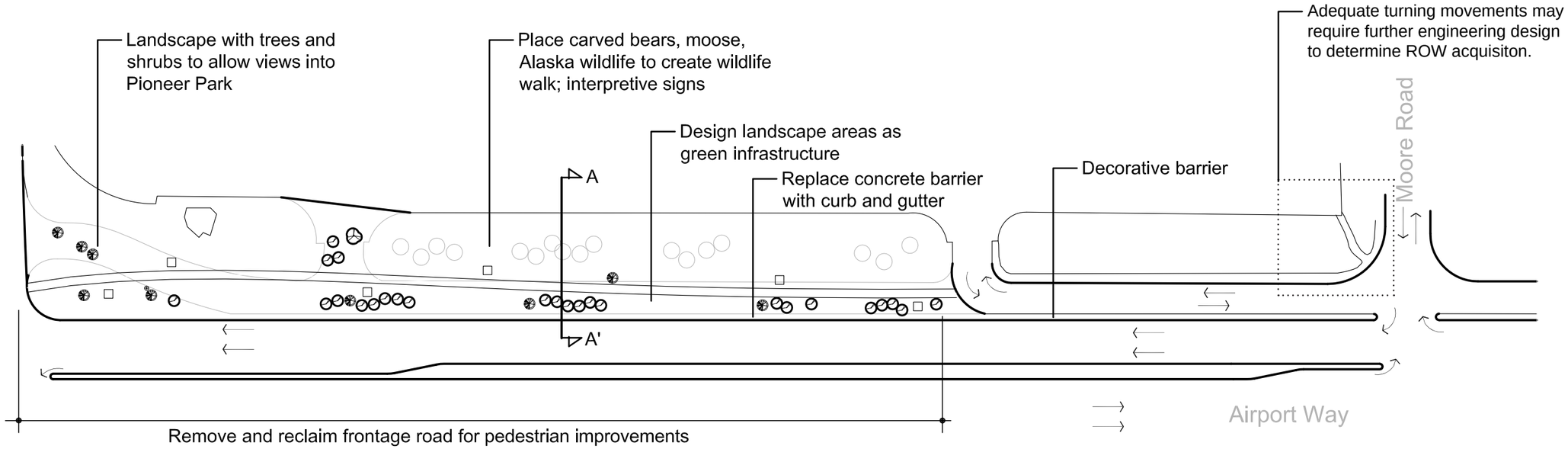
Section A-A'

3 Avenue of Flags, at Pioneer Park

Toolkit Concepts	
(Remove) Barriers	Planting Palette
Linear Landscape	Site Furnishings
Mid-Block Access	Wayfinding
Repurposed Frontage Roads	



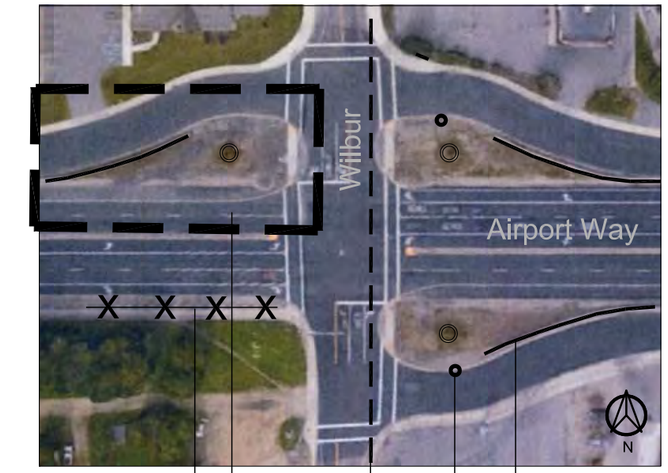
Section A-A'

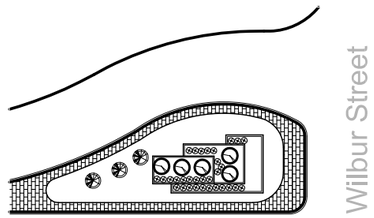


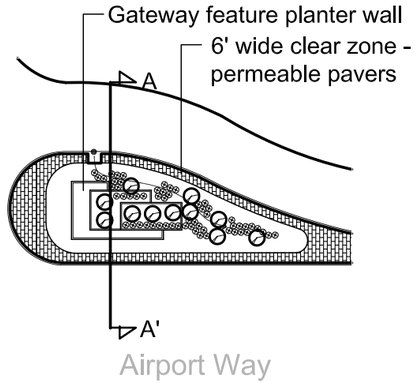
Site Plan

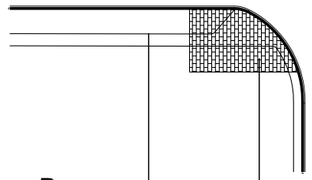
4 Wilbur Street Gateway to Carlson Center & Growden Park

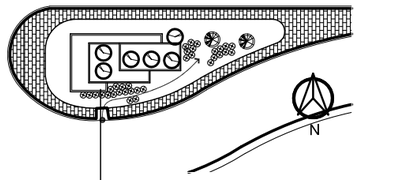
Develop Landscaped Traffic Islands





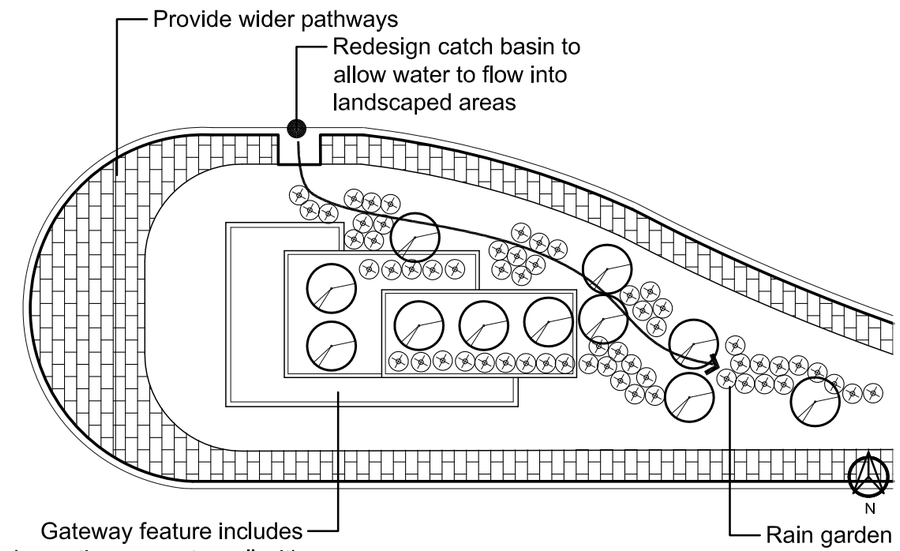




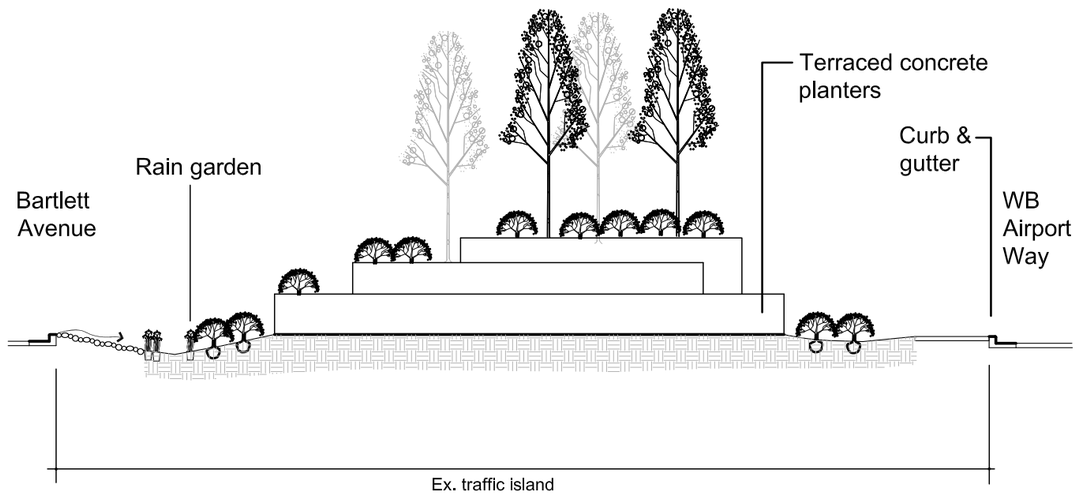


Toolkit Concepts

- Gateways
- Planting Palette
- Traffic Islands
- Wayfinding

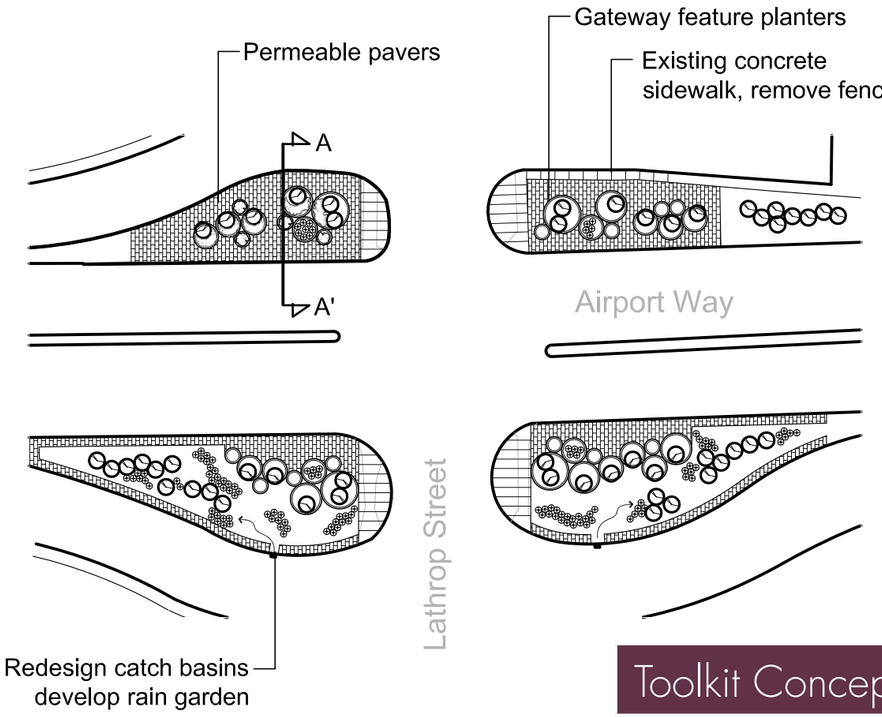


Enlarged Site Plan

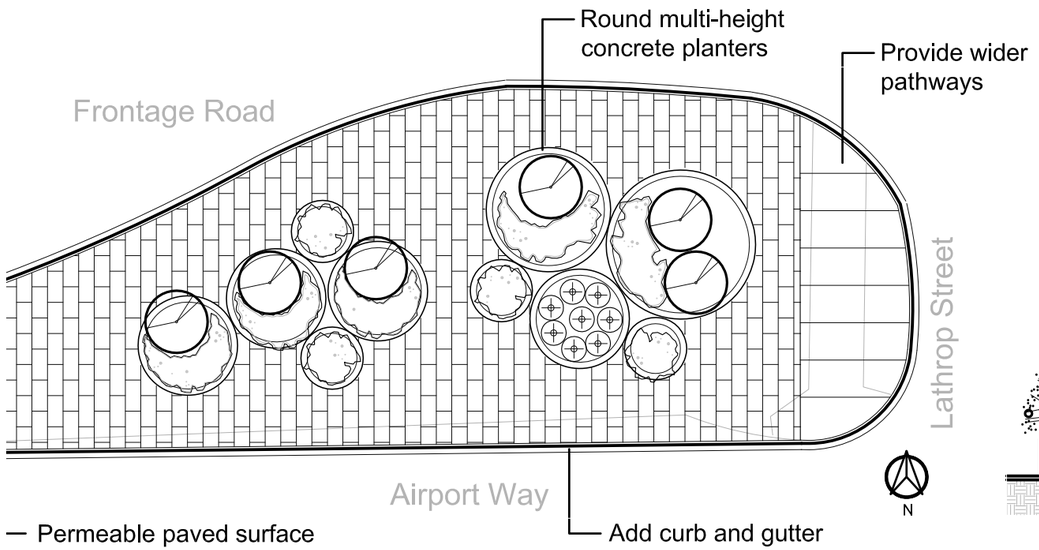


Section A-A'

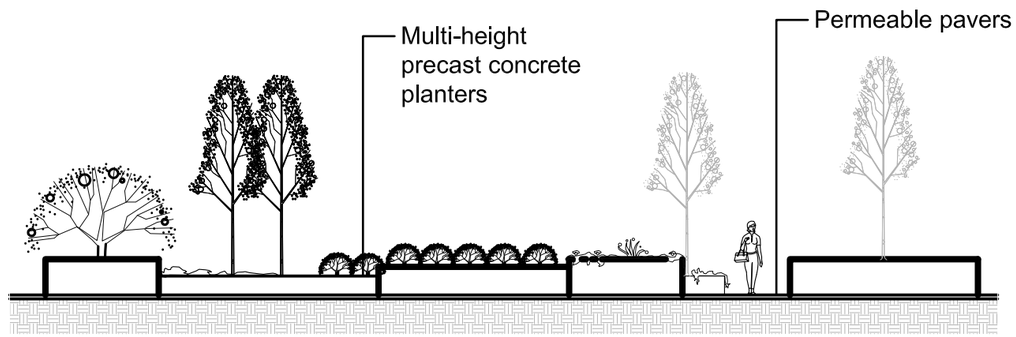
5 Lathrop Street Traffic Islands



Toolkit Concepts
Gateways
Planting Palette
Traffic Islands
Wayfinding



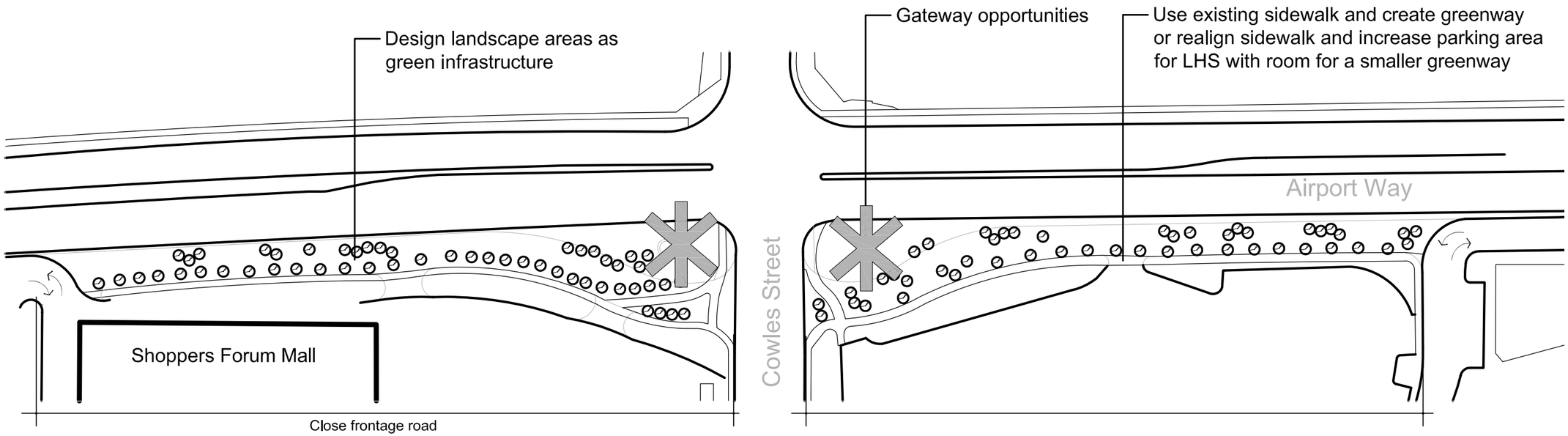
Enlarged Site Plan



Section A-A'

6 Southern Frontage Road, West and East of Cowles Street

Toolkit Concepts	
(Remove) Barriers	Repurposed Frontage Roads
Improved Intersections	Planting Palette
Linear Landscape	Site Furnishings
Mid-Block Access	Wayfinding

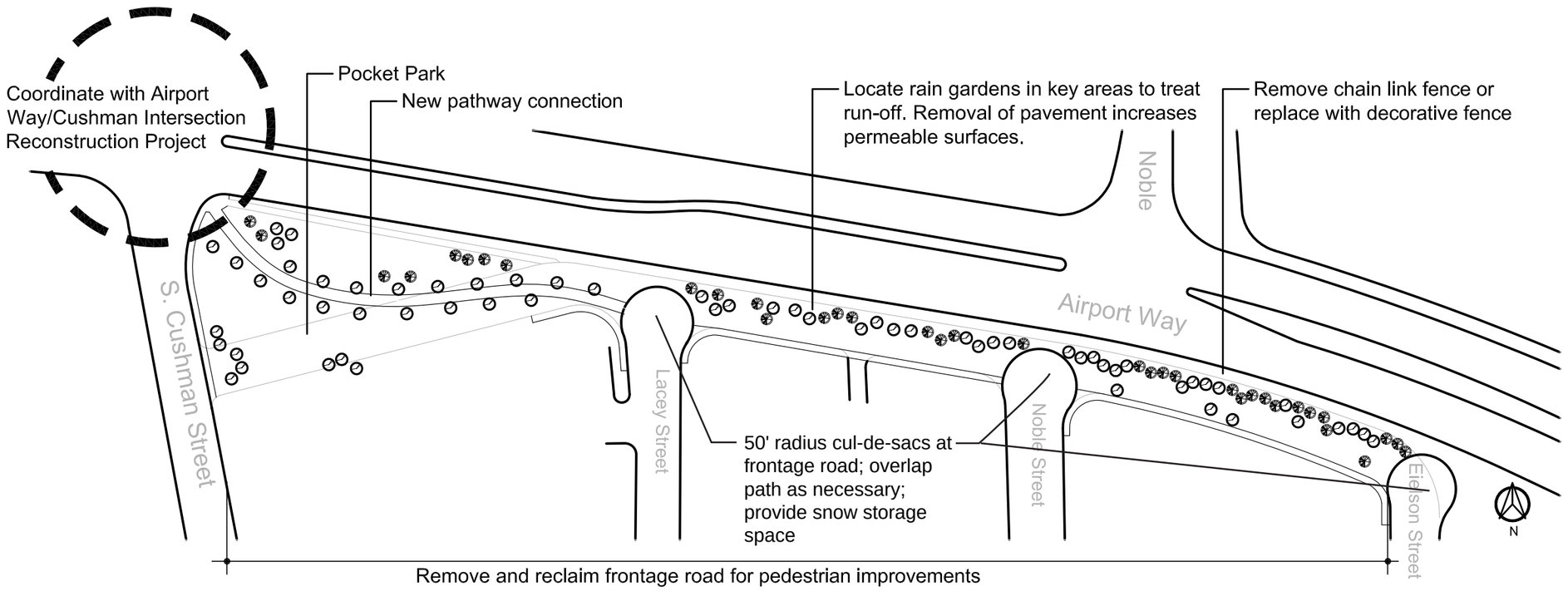


Site Plan

7 14th Avenue, S. Cushman Street to Eielson Street

Toolkit Concepts

- Fencing
- Linear Landscape
- Repurposed Frontage Roads
- Planting Palette
- Site Furnishings
- Wayfinding



Planning-Level Cost Estimates

ITEM NO.	WORK DESCRIPTION	UNIT	Est. Quantity	UNIT PRICE	TOTAL COST
1 - Southern Frontage Road, University Avenue to Washington Drive					
	demolition- remove ac and concrete	ea	1	$30,000	$30,000
	new 10' wide ac path	lf	2,000	$50	$100,000
	curb and gutter	lf	2,100	$100	$210,000
	pathway links 6' wide conc.	lf	500	$40	$20,000
	concrete plazas(2)	sy	280	$90	$25,200
	cul-de-sacs	ea	2	$30,000	$60,000
	grade rain garden	ls	1	$15,000	$15,000
	remove conc barrier (12' long each)	ea	160	$100	$16,000
	trees	ea	120	$750	$90,000
	shrubs	ea	500	$125	$62,500
	perennials	ea	2,500	$80	$200,000
	topsoil and seed	msf	0	$900	$54,000
	20% contingency				$176,540
	sub-total				$1,059,240

ITEM NO.	WORK DESCRIPTION	UNIT	Est. Quantity	UNIT PRICE	TOTAL COST
2 - Market Street Entrance to Riverview Neighborhood					
	demolition- remove ac and concrete	ea	3	$16,000	$48,000
	curb and gutter	lf	700	$100	$70,000
	grade rain garden	ls	3	$6,000	$18,000
	gateway feature	ls	1	$50,000	$50,000
	boulders (lg, med, sm)	ea	15	$400	$6,000
	permeable pavers	sf	10,500	$120	$1,260,000
	trees	ea	60	$750	$45,000
	shrubs	ea	300	$125	$37,500
	perennials	ea	600	$80	$48,000
	topsoil and seed	msf	5	$900	$4,500
	20% contingency				$317,400
	sub-total				$1,587,000

Planning-Level Cost Estimates

ITEM NO.	WORK DESCRIPTION	UNIT	Est. Quantity	UNIT PRICE	TOTAL COST
3 - Avenue of Flags, at Pioneer Park					
	demolition- remove ac and concrete	ea	1	$50,000	$50,000
	new 10' wide ac path	lf	900	$50	$45,000
	curb and gutter	lf	90	$100	$9,000
	decorative conc. barrier	lf	400	$800	$320,000
	grade rain garden	ls	1	$15,000	$15,000
	sculptures, conc pads	ea	6	$80,000	$480,000
	trees	ea	50	$750	$37,500
	shrubs	ea	250	$125	$31,250
	perennials	ea	1,500	$80	$120,000
	topsoil and seed	msf	26	$900	$23,400
	20% contingency				$226,230
	sub-total				$1,131,150

ITEM NO.	WORK DESCRIPTION	UNIT	Est. Quantity	UNIT PRICE	TOTAL COST
4- Wilbur Street Gateway to Carlson Center & Growden Park					
	demolition-excavation and removal of planters	ea	3	$10,000	$30,000
	curb and gutter	lf	800	$100	$80,000
	grade rain garden	ea	3	$6,000	$18,000
	concrete planters	ls	3	$30,000	$90,000
	boulders (lg, med, sm)	ea	12	$400	$4,800
	permeable pavers	sf	10,500	$120	$1,260,000
	trees	ea	40	$750	$30,000
	shrubs	ea	80	$125	$10,000
	perennials	ea	1,500	$20	$30,000
	topsoil and seed	msf	5	$900	$4,050
	20% contingency				$311,370
	sub-total				$1,556,850

Planning-Level Cost Estimates

ITEM NO.	WORK DESCRIPTION	UNIT	Est. Quantity	UNIT PRICE	TOTAL COST
5 - Lathrop Street Traffic Islands					
	demolition-excavation and removal of planters	ea	4	$10,000	$40,000
	curb and gutter	lf	520	$100	$52,000
	replace sidewalks	sy	300	$100	$30,000
	grade rain garden	ls	3	$6,000	$18,000
	precast concrete planters (sm, med, lg)	ls	35	$8,000	$280,000
	boulders (lg, med, sm)	ea	10	$400	$4,000
	permeable pavers	sf	15,400	$120	$1,848,000
	trees	ea	20	$750	$15,000
	shrubs	ea	120	$125	$15,000
	perennials	ea	1,000	$80	$80,000
	topsoil and seed	msf	14	$900	$2,600
	20% contingency				$478,920
	sub-total				$2,394,600

ITEM NO.	WORK DESCRIPTION	UNIT	Est. Quantity	UNIT PRICE	TOTAL COST
6 - Southern Frontage Road, West and East of Cowles Street					
	demolition- remove ac and concrete	ls	1	$60,000	$60,000
	new 10' wide ac path	lf	1,200	$50	$60,000
	curb and gutter	lf	150	$100	$15,000
	pathway links 6' wide conc.	lf	300	$40	$12,000
	grade rain garden	ls	1	$15,000	$15,000
	remove conc barrier (12' long each)	ea	100	$100	$10,000
	gateway features	ea	2	$50,000	$100,000
	trees	ea	100	$750	$75,000
	shrubs	ea	600	$125	$75,000
	perennials	ea	1,200	$80	$96,000
	topsoil and seed	msf	65	$900	$58,500
	20% contingency				$115,300
	sub-total				$576,500

Planning-Level Cost Estimates

ITEM NO.	WORK DESCRIPTION	UNIT	Est. Quantity	UNIT PRICE	TOTAL COST
7 - 4th Avenue, S. Cushman to Eielson Street					
	demolition- remove ac and concrete	ea	1	$80,000	$80,000
	new 10' wide ac path	lf	400	$50	$20,000
	curb and gutter	lf	80	$100	$8,000
	pathway links 6' wide	lf	50	$40	$2,000
	cul-de-sacs	ea	3	$30,000	$90,000
	grade rain garden	ls	1	$15,000	$15,000
	remove and replace fence	lf	1,350	$50	$67,500
	trees	ea	100	$750	$75,000
	shrubs	ea	800	$125	$100,000
	perennials	ea	100	$80	$8,000
	topsoil and seed	msf	35	$900	$31,500
	20% contingency				$99,400
	sub-total				$497,000

Appendices

Appendix A
Planning Summary

Appendix B
Access Control Technical Memorandum

Appendix C
Financing Options

Appendix D
Detail Sheets

Appendix E
Title VI Public Involvement Report

Appendix A

Planning Summary

Planning Summary - Introduction

As part of this analysis, the project team comprehensively reviewed the Airport Way corridor, including characteristics, context, inclusion in other planning documents, traffic considerations, property restrictions & ROW, previous public involvement, and current & planned projects involving the corridor. In December 2017, a Planning Summary document was delivered to project contractors and stakeholders, and subsequently used to support public participations events and presentations to community groups. Key aspects of the Summary are reproduced here to help explain the reasoning behind localized-treatments and design recommendations in the Toolkit. This adapted summary contains the following relevant sections:

- Characteristics of the corridor
  - » Surrounding land uses
  - » Existing landscape character
    - ◊ Fairbanks International Airport to University Avenue
    - ◊ University Avenue to Steese Highway
  - » Landscape analysis
  - » Traffic volumes
  - » Crash data
- Previous and current planning efforts
  - » Goals & objectives of other planning efforts
  - » Key concepts and considerations from:
    - ◊ Airport Way Improvements Reconnaissance Study (2007)
    - ◊ Non-Motorized Transportation Plan (2012)
    - ◊ 2045 Metropolitan Transportation Plan (underway)
    - ◊ FMATS Freight Mobility Plan (underway)
    - ◊ Downtown Fairbanks Wayfinding Plan (2013)
    - ◊ Fairbanks Areas Drainage Improvement Plan (2015)
    - ◊ Bjerremark Neighborhood Improvements Plan (2015)
    - ◊ Other plans reviewed with insignificant relevance to Airport Way
- Policies, guidelines, and standards
  - » Key concepts and considerations from:
    - ◊ *FMATS Green Streets Policy*
    - ◊ *FMATS Complete Streets Policy*
    - ◊ *FMATS Landscape Policy*
  - » Seasonal and event related banners
  - » Interviews with maintenance staff
- Current projects

Appendix A

Planning Summary

Characteristics of the Corridor

Airport Way is a major, controlled-access corridor linking Fairbanks International Airport (FAI) to Downtown Fairbanks and Fort Wainwright. When the corridor developed in the 1960s, it functioned as the only east-west arterial to serve local and regional traffic in the city. Since the development of the parallel Johansen and Mitchell Expressways, less than one mile north and south of the corridor, in the 1980s, Airport Way has come to serve mostly local trips.

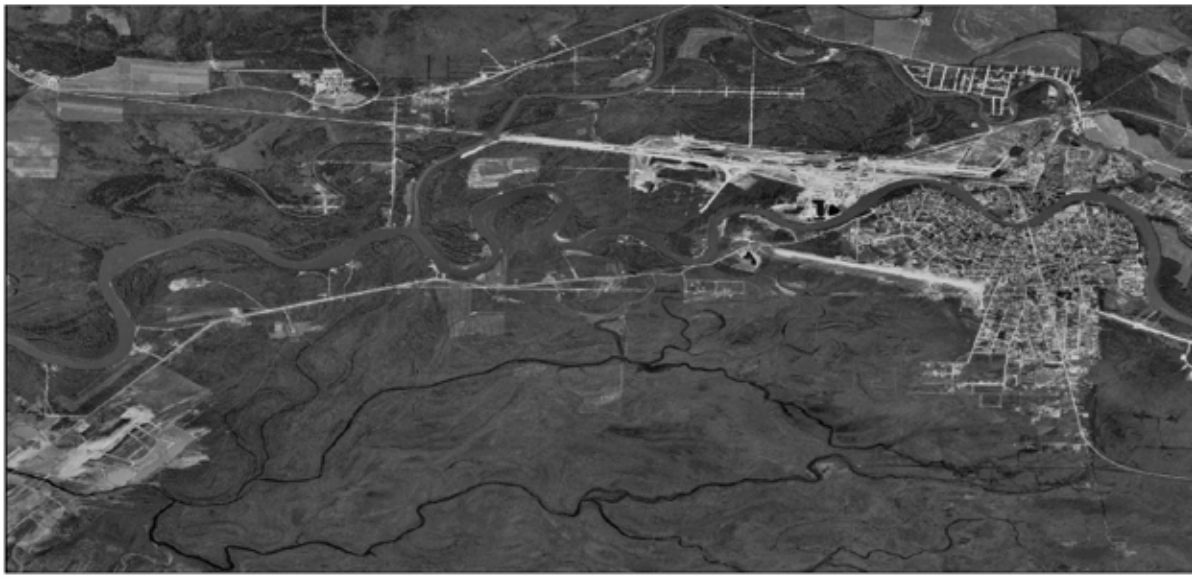


Figure 1 - 1949 Aerial Photograph of Fairbanks Showing the Beginnings of the Airport Way corridor (source: FNSB GIS)

Projects over the past 10 years along the corridor have included reconstructions of intersections, new traffic signals, paving, and minor landscaping. Past plans have recommended increasing access to Airport Way, elimination of frontage roads and replacing them with vegetative buffers and paths, and intersection improvements.

The aesthetic appeal of the corridor has been of interest to Fairbanks residents for over a decade. It is seen by some as a major eyesore with its chain link fences, frontage roads, and bulky concrete barriers. The corridor is loaded with a multitude of user and community needs, including accommodation of vehicles, pedestrians, bicycles, transit users, emergency vehicles, maintenance equipment, and local freight traffic. Designated freight routes cross the corridor at Peger. In addition, there is encouragement from the Tanana Valley Watershed Association, Green Infrastructure Group, Chena Riverfront Commission and City of Fairbanks, for the corridor to function in a more environmentally sound way so that roadway runoff can be reduced, treated, or eliminated to mitigate impacts to the adjacent Chena River.

Airport Way is part of the Fairbanks Metropolitan Area Transportation System (FMATS), which is the local Metropolitan Planning Organization mandated by federal

law. The FMATS Technical Committee and FMATS Policy Board typically review transportation projects within the Airport Way corridor.

Surrounding Land Uses

The Airport Way corridor has two distinct aesthetic segments. Beginning at the west end of the project the first segment extends eastward to commercial properties just west of University Avenue. This segment is classified mainly as Light Industrial (LI) zoning with a few small pockets of Rural Estate-2 (RE) and General Commercial (GC) zoning. Lots are large and land uses are spread apart allowing a greater sense of green space adjacent to the corridor. Views tend to be more open.

The second aesthetic segment begins at University Avenue and extends east to the Steese Highway. This segment of the project is a DOT&PF controlled access corridor and includes four lanes of road with numerous medians and frontage roads on one or both sides of Airport Way. Land uses vary. Overall it is a long stretch of commercially developed land with smaller sections of residential development. Zoning is General Commercial and Multiple-Family Residential; Professional Office (MFO)/Two-Family Residential (TF).

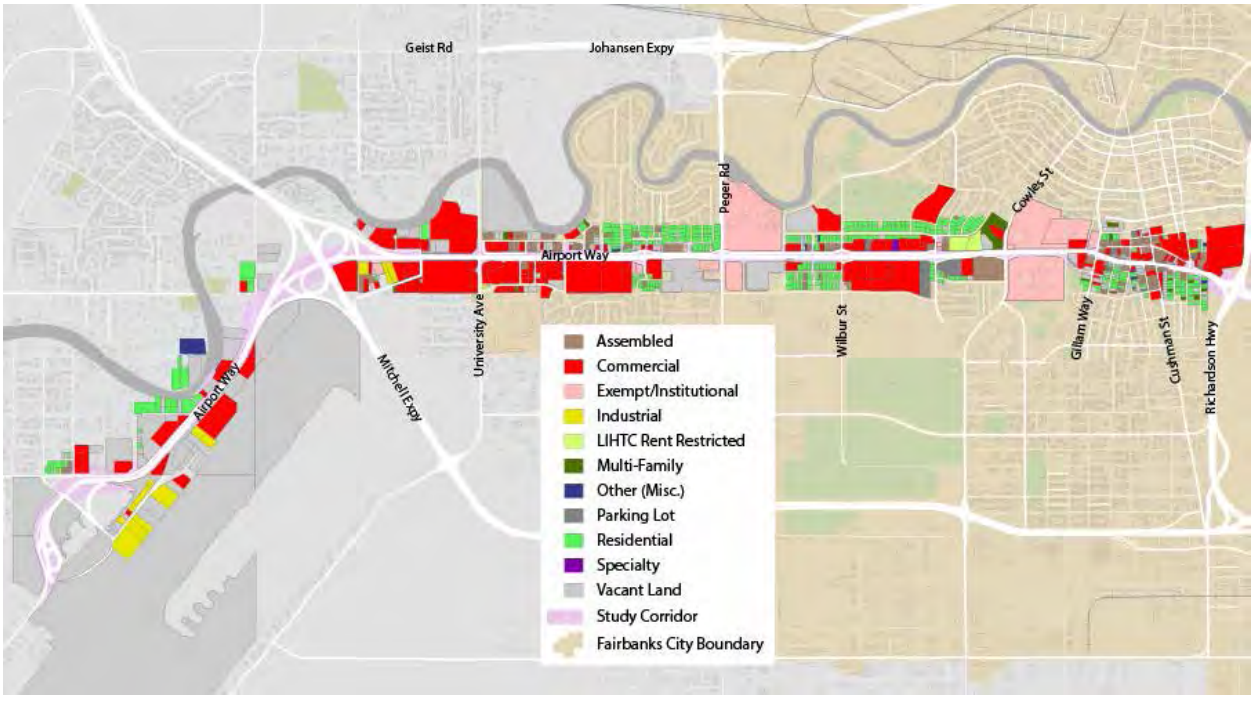


Figure 2 - Zoning Map around Airport Way (map by PDC Engineers; source: FNSB GIS)

Secondarily, there are sections of the corridor devoted to institutional uses (a theme park, public library, schools, etc), and residential uses. The limited access control on Airport Way means that most of the parcels adjacent to the roadway only have access to frontage roads rather than Airport Way itself.

In addition to the varied land uses along the corridor, there are three main commercial areas. Commercial properties include retail, food service, grocery, entertainment, and healthcare, among others.

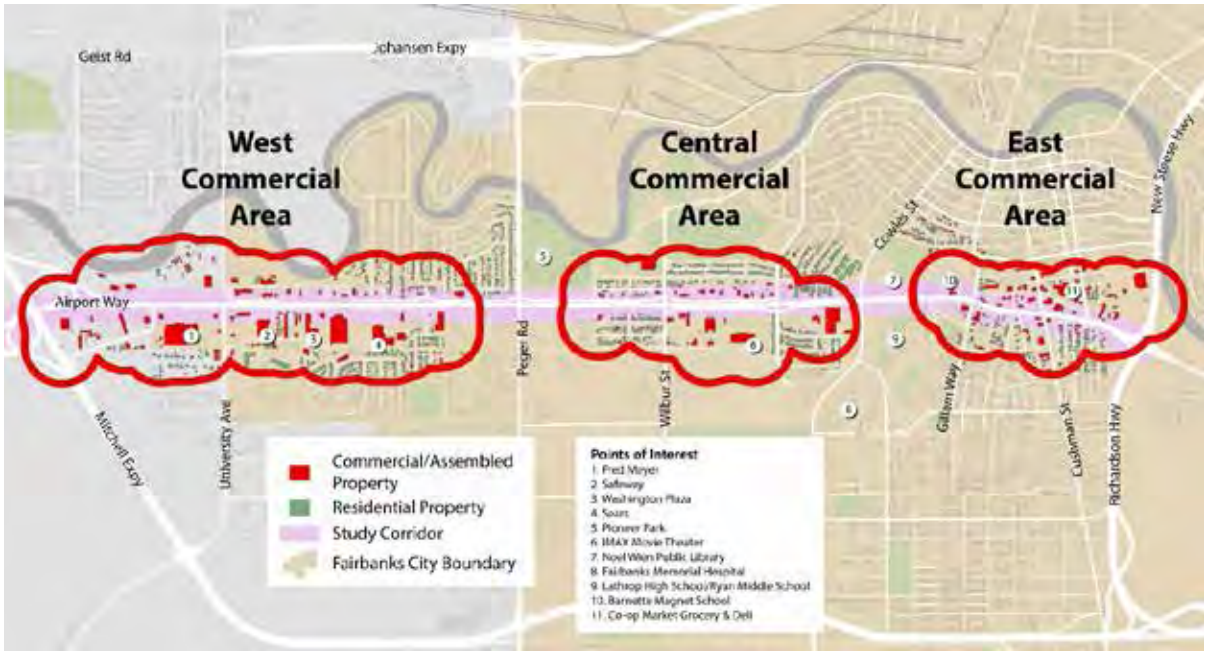


Figure 3 - Commercial Areas along the Airport Way corridor (map by PDC Engineers; data source: FNSB GIS)

Existing Landscape Character

Overall, the roadside aesthetic within the project corridor varies widely. There are areas of natural vegetation, parking lots or hardscape to the edge of right-of-way, and areas of lawn and planted trees that follow the General Commercial 20-foot setback between public ROW and property lines. Public facilities, businesses, and residences each present their own aesthetic; there is no central theme or identifier throughout the corridor, although previously converted frontage roads do share the same design. Overall, sections of roadway have fragments of landscaping and aesthetic improvements.

Fairbanks International Airport (FAI) to University Avenue

The corridor between Fairbanks International Airport and University Avenue is open and appears less developed due to spread-out land uses, the airport, and significant areas of open land. Also, characteristic of this section is the horizontal curvature of the road. Views from vehicles traveling on curved roads are less focused on adjacent land uses and more on the sequential experience or the sequence of views. Large stands of native vegetation buffer and soften the roadway and create an impression of a more rural natural landscape.

The westernmost segment of the corridor serves as the "welcome" and "farewell" to Fairbanks, as it contains the airport and several hotels that service the airport

and cater to tourism. Most businesses are set back from the road at least 20 ft with some green space in the foreground. Forested areas are typically across the road from businesses. Forested areas help to reduce visual impacts of utility poles along the corridor, as well as act as an effective noise barrier for adjacent properties. Large stands of native vegetation include birch, spruce, willow, and alder with a lush understory of herbaceous low shrubs and grasses. Birch has a particularly strong presence in this section of the corridor and even in winter improves views by softening the impacts of adjacent, less aesthetically pleasing land uses.

There are two groupings of formally planted trees. One is located in front of Pike's Waterfront Lodge, which provides a partial screen to the parking lot and includes a row of young Canada Red chokecherry and birch. Non-native planting on the east side of the Parks Highway Interchange includes young Canada Red chokecherry and pine planted in a formal triangular planting bed. The "Fairbanks Welcomes You" sign with background heart-shaped seasonal planting provides a small-town style warmth at the overpass on the south side of the road, though public participation revealed that some drivers don't notice the planting because it is too far in the periphery of their field of view. Most of the roadway ditches and medians within the ROW are mowed grasses with an occasional shrub. A narrow median begins close to Pike's Landing and extends to University Avenue with breaks for turn lanes. The medians are typically low grasses that are mowed; however, several medium height (2-3-foot) shrubs have been planted in the median at 100foot intervals. The size and spacing of the shrubs make them somewhat inconsequential in the landscape.

Topography within the project area is generally flat. Some of the large, naturally vegetated forests contain areas of depression or swales, but most of the corridor does not have a significant elevation difference from that of the roadway.

Views of distant hills are mostly obscured by forests and businesses adjacent to the roadway. A few distant views occur southbound on Airport Way beyond the interchange. The interchange marks the entry to Fairbanks through signage, but also in a dramatic change in character.

University Avenue to Steese Highway

The second segment of the corridor, from University Avenue to the Steese Highway, has limited but intentional landscaping. Raised medians separate eastbound from westbound lanes for most of the length of this segment. There are eight landscaped medians, each 16 ft wide at maximum, tapering to 2 feet wide to accommodate turn lanes. Medians are separated from travel lanes with standard 6-inch curb and gutter. Dual-sided light poles are centered in medians spaced at approximately 160foot intervals. In addition to lawn, landscaped medians include two lilac shrubs, one on either side, next to each light pole for the length of the median. The lilacs are somewhat mature, reaching heights of 6 feet. Narrower medians are surfaced with asphalt.

Landscaping and beautification also exist at many of the intersections. There are ten intersections between University Avenue and Steese Highway. The frontage roads at many of the intersections include traffic islands, which are left over spaces formed from frontage roads curving into perpendicular roads at such spacing to allow adequate turn-radius access to the intersection. Seven of these traffic islands contain low, circular planting beds surrounded by large flat expanses of land that are contained by curb and gutter and utilized by traffic signs, utility poles and boxes, lighting, and traffic signals. The islands contain low, square planting beds which are 15 ft to a side and constructed of a single layer of concrete landscape blocks that act to define the planter and contain topsoil. The landscaped beds are used for annual plantings that are planted and maintained by volunteers. The landscaped beds are typically surrounded by large flat lawn areas. However, many of the grassy areas around the planters have been wholly or partially covered with gravel with signs of soil erosion. Snow storage appears to be the significant contributing factor to the large amount of gravel deposited and the resulting loss of grass. While the planters provide a spot of color during the summer, visually, they are small and disproportionate to their surroundings, so their impact on the overall appearance of the roadway is limited.

One block east of University Avenue, between the east side of Marlin Street and the east end of Geraghty Avenue, the frontage road was converted for non-vehicular use into a two-block section of concrete sidewalk with a slightly curvilinear alignment located between Airport Way and adjacent commercial properties. The sidewalk has three bump out sections, each containing a bench and raised, exposed aggregate concrete planter with a collection of small to medium shrubs. Between the sidewalk and the road several small pockets of landscaping have been installed that include a mix of boulders, potentilla, larger shrubs, and occasionally spruce trees that are less than 6 feet tall. A similar but smaller segment of sidewalk, bump-out, and landscaping is across Airport Way, east and west of Washington Drive. These previously converted frontage roads provide a nice relief to pedestrians and bicyclists, but do little to abate noise pollution from Airport Way, provide cover and shade during summer, or handle storm water coming from the roadway.

Unique landscape improvements exist at both northern corners of the Cowles Street intersection where broader paved areas create small plazas, which have benches, trash receptacles, and planters. The northwest corner includes a round bench planter with annual plantings in the center. Nearby, the block between Cowles Street and Gillam Way on the north side runs adjacent to a significant tree line buffered by a swath of lawn in front of the Noel Wien Public Library, Barnette Magnet School and the Fairbanks Public Health Center.

Ryan Middle School and Lathrop High School border Airport Way to the south, almost directly across from the library. The Mary Siah Recreation Center is located to the east of the high school one-half block off Airport Way. Landscape areas are narrow and less significant than those on the northern side of Airport Way.

Two additional public facilities provide landscape amenities by saving large areas of native forest. The State of Alaska facilities on the northwest corner of the University/ Airport Way intersection includes a mixed stand of spruce, birch, aspen forest. The Parks Highway interchange also includes large areas of open space with masses of native vegetation. On either side of Peger Road on the south side of Airport Way large native forests provides relief form commercial areas. This land is zoned for more intense development including General Commercial and higher density residential (TF), which could result in loss of the forests unless conservation actions are taken.

Landscape Analysis

Landscaping at businesses along the corridor includes small separated pockets of trees and shrubs that provide some, if minimal, visual separation between business parking lots, frontage roads, and Airport Way. There are a few exceptions, including the landscape area at Pioneer Park adjacent to the roadway where there is a broad landscape bed with small trees and display plantings.

Several prominent elements set the aesthetic character of the road and have been noted by Fairbanks residents as negative qualities. Barriers and fencing line most of the road on one or both sides from the Parks Highway on-ramp to the Steese Highway. These are part of DOT&PF's strategy to control access, as Airport Way is designated an access-controlled roadway. From a functional perspective, these barriers and fences also help define the roadway edge for motorists and protect pedestrians and bicyclists from wayward vehicles. Concrete barriers are typically located along the roadway where frontage roads are present. In most other areas, chain-link fence is located along the road, separating the pathway from the road.

Signage concerns are typical of commercial strips such as portions of Airport Way. Pole-mounted signs can create visual clutter and confuse drivers if there are too many signs located too close together. Building-mounted signs can have a similar effect; however, they tend to alter the architectural character of the building versus altering the landscape character of the roadway. Businesses along Airport Way use both pole-mounted and business-mounted signs, though pole-mounted signs tend to be consolidations of businesses or for larger, physically isolated businesses.

Traffic Volumes

Annual Average Daily Traffic Volumes (AADT) as reported by DOT&PF most recently in 2015 for the study corridor, Airport Way frontage roads, and adjoining streets are approximately 18,000 vehicles per day on the east section of the corridor and 10,000 vehicles per day near the airport.

As the regional population of Fairbanks continues to grow, traffic forecasts for the corridor predict that traffic volumes will only grow marginally (0.60% annual growth rate to 2040; source: FNSB MTP 2040). Significant annual growth in traffic volume is

predicted for alternative major arterials: Mitchell Expressway (1.38%), and Johansen Expressway (1.02%). Airport Way is in the category of other local roads with limited expected traffic volume growth, including College Road and S. Cushman Street. These roads have stagnant volume growth because of competition from alternative routes that are more appropriate for traveling long distances, with characteristics such as higher design speeds, fewer traffic lights, fewer access points, and fewer intersections.

Subject Route	Annual Growth Rate (%)	2040 ADT Volume	Alternative Route	Annual Growth Rate (%)	2040 ADT Volume
Airport Way	0.60	26,700	Johansen Expy Mitchell Expy	1.02 1.38	34,400 19,200
College Rd	0.62	17,500	Johansen Expy	1.02	34,400
S Cushman St	0.66	12,500	Richardson Hwy	1.39	34,400

Table 1 - Annual Growth Rates for Routes and Their Alternatives to 2040 (source: FNSB MTP 2040)

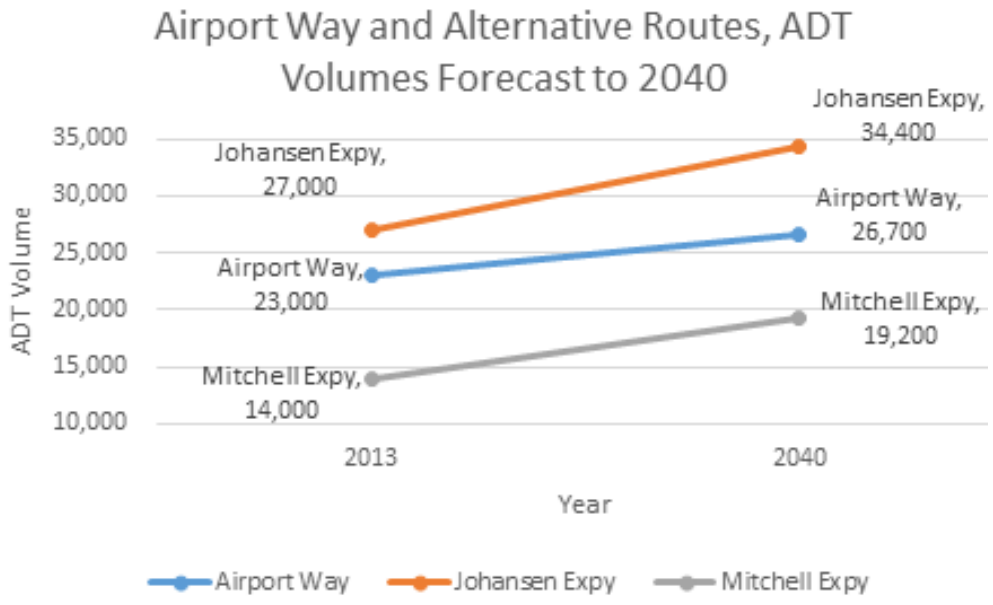


Figure 4 - Airport Way and Alternative Routes, ADT Volumes Forecast to 2040 (source: FNSB MTP 2040)

Crash Data

Airport Way between the Steese Highway and the Parks Highway (except the segments between Cowles Street–Wilbur Street and Steese Highway –Cushman Street) are in the top 20% of crash severity relative to similar facilities in the FMATS area. The Cowles Street-Wilbur Street and Steese Highway-Cushman Street segments are in the top 40% of crash severity. Between 2010 and 2014, there were 3 fatal crashes and 11 crashes with serious injuries along Airport Way. By comparison, Johansen Expressway experienced zero fatal crashes and Mitchell Expressway experienced one fatal crash. Serious crashes tend to occur at traffic intersections, of which Airport Way has many (as well as many conflict points), whereas alternative routes have relatively few. Every intersection along Airport Way between University Avenue and the Steese Highway (approximately 3 miles) are in the top 20% by crash frequency.

Bicycle and pedestrian crashes are similarly high along the corridor. Between 2010 and 2014, there were nine severe bicycle crashes and five severe pedestrian crashes along Airport Way between University Avenue and the Steese Highway.

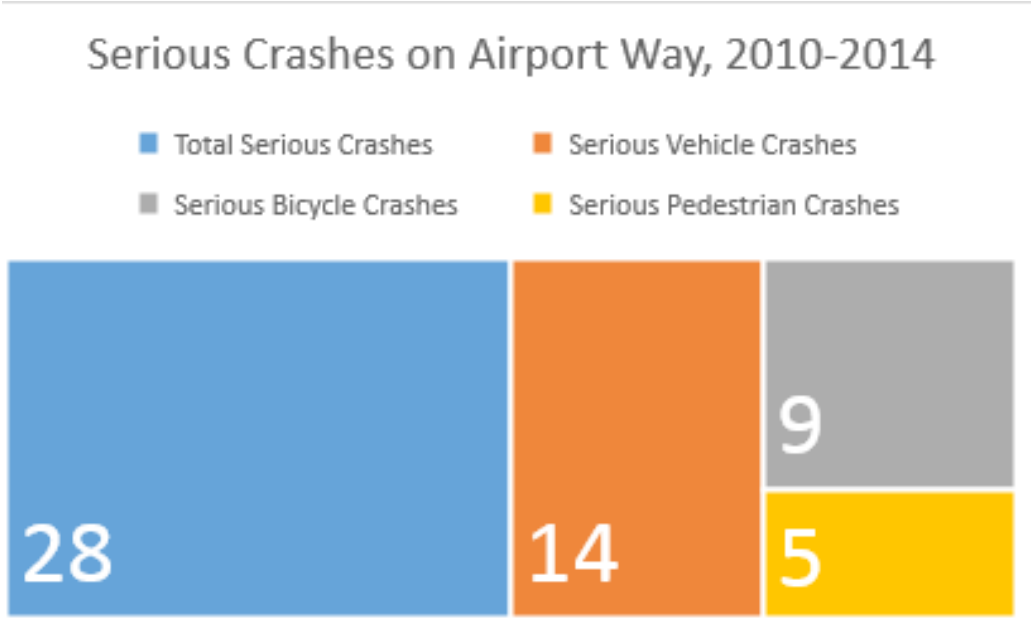


Figure 5 - Serious Crashes on Airport Way, 2010-2014 (source: DOT&PF Motor Vehicle Crash Data)

Previous and Current Planning Efforts

Goals & Objectives of Other Planning Efforts

Appendix A

Planning Summary

The following table summarizes the goals and objectives for several recent and ongoing plans that have implications for Airport Way. More detailed summaries of each plan follow.

Table 2 - Other Recent Planning Efforts

Plan	Goals and Objectives
2007 Airport Way Reconnaissance Study	Improve accessibility and safety, and create a welcoming atmosphere to visitors
2008 Vision Fairbanks	Develop a vision for downtown Fairbanks, including land uses, transportation network, and public areas
2012 Non-motorized Transportation Plan	Identify deficiencies in the bike/ped network, recommend improvements, and provide a toolkit to planners, engineers, and policy makers
2040 Metropolitan Transportation Plan update	Improve regional transportation and comply with state and federal requirements
2045 Metropolitan Transportation Plan update	Improve regional transportation and comply with state and federal requirements
FMATS Freight Mobility Study (underway)	Create a coordinated plan for freight transportation for the metropolitan area
2015 Fairbanks Urban Drainage Study	Map the storm water network in a sub-section of Fairbanks and develop a scalable storm water model for identifying deficiencies in the storm water network
2013 Fairbanks Wayfinding Plan	Develop and implement a wayfinding plan for pedestrians and motorists with a standard look-and-feel, focused on the downtown Fairbanks
2015 Bjerremark Neighborhood Plan	Construct traffic-calming, beautification, pedestrian, and defensible space measures to revitalize the neighborhood, making it more livable, safe, and vibrant
Downtown Fairbanks Vision (underway)	Create a long-term vision for the development of downtown Fairbanks
2015 Richardson/Steese PEL Study	Identify alternatives and recommendations for the Steese/Richardson corridor through Fairbanks that integrates the pre-NEPA process

Appendix A

Planning Summary

Airport Way Improvements Reconnaissance Study (2007)

This study included an extensive public involvement process, the results of which were developed into a list of goals and objectives for the corridor.

Table 3 - Goals and Objectives Defined from the Public Participation Process in the 2007 Airport Way Reconnaissance Study

Goal	Objectives
To create greater accessibility to businesses and public facilities along this corridor while retaining as much mobility as possible.	• To improve pedestrian, bicycle and automobile access to businesses and public facilities • To improve the synchronization of traffic signals • To attempt to preserve current mobility levels
To improve public safety along Airport Way.	• To make the environment safer for automobiles, pedestrians, and cyclists • To provide thoughtfully designed pedestrian and bicycle pathways and crossings to increase use and safety • **To use effective tools to limit speed on this corridor to the posted 45** mph **speed limit**
Create a greater sense of multiple-uses & neighborhood feel along the corridor.	• To design corridor improvements which recognize and appreciate the smaller urban scale of Fairbanks as opposed to larger urban centers • To protect the character of residential neighborhoods along this corridor while improving accessibility
To greet visitors with a colorful, welcoming first impression of Fairbanks.	• To enhance the summer landscape and the winter light-scape along Airport Way • To enhance the night sky in our community by encouraging the use of human scale down lighting along this long corridor • To allow Airport Way to continue to be the backbone of our community while softening its current concrete-and-chain-link character

Conclusions of the visioning process identified two concepts as providing the "greatest benefit with minimal adverse impacts:"

- **Concept III-A:** Maintain traffic signals at the major street intersections and allow access at key mid-block locations. Provide a raised, landscaped median along the length of the corridor without left-out access provided at mid-block access points. Allow left-in movements and/or U-turns at mid-block locations through channelized median breaks. Remove frontage roads. In extra right-of-way, add through lane in each direction, and at intersections, a right lane acceleration/deceleration lane, and two left lanes.

- **Concept III-B**: Similar to Concept III-A, but replace traffic signals with roundabouts. Retain Steese Highway intersection signalization. Provide mid-block access where spacing allows. Provide raised central median along length of the corridor and prohibit left-out turning movements from adjacent properties. All roundabouts are double-lane except for the Peger Road roundabout, which needs three circulatory lanes. Maintain two through lanes each direction. Provide right-turn deceleration lanes where warranted.

Similar vision concepts and evaluations were conducted for the five distinct subareas, which included new roadways connecting to Airport Way.

Alternatives A, B, and C were developed through a combination of Concept III-A, Concept III-B, and the concepts carried forward from the subareas.

Alternatives A, B, and C have the following features in common, of which the following could be implemented in the Airport Way Corridor Improvements projects in the long-term:

- 20foot wide landscaped median (reduced to 8 feet with left-turn lanes)
- Landscape buffers on both sides
- 10foot wide pedestrian and bicycle shared paths on both sides
- Remove, realign, or construct cul-de-sacs on existing frontage roads on both the north and south side of Airport Way

Furthermore, new roadway alignments and removals of frontage roads were common to all alternatives or particular to some, as represented in the map on the following page.

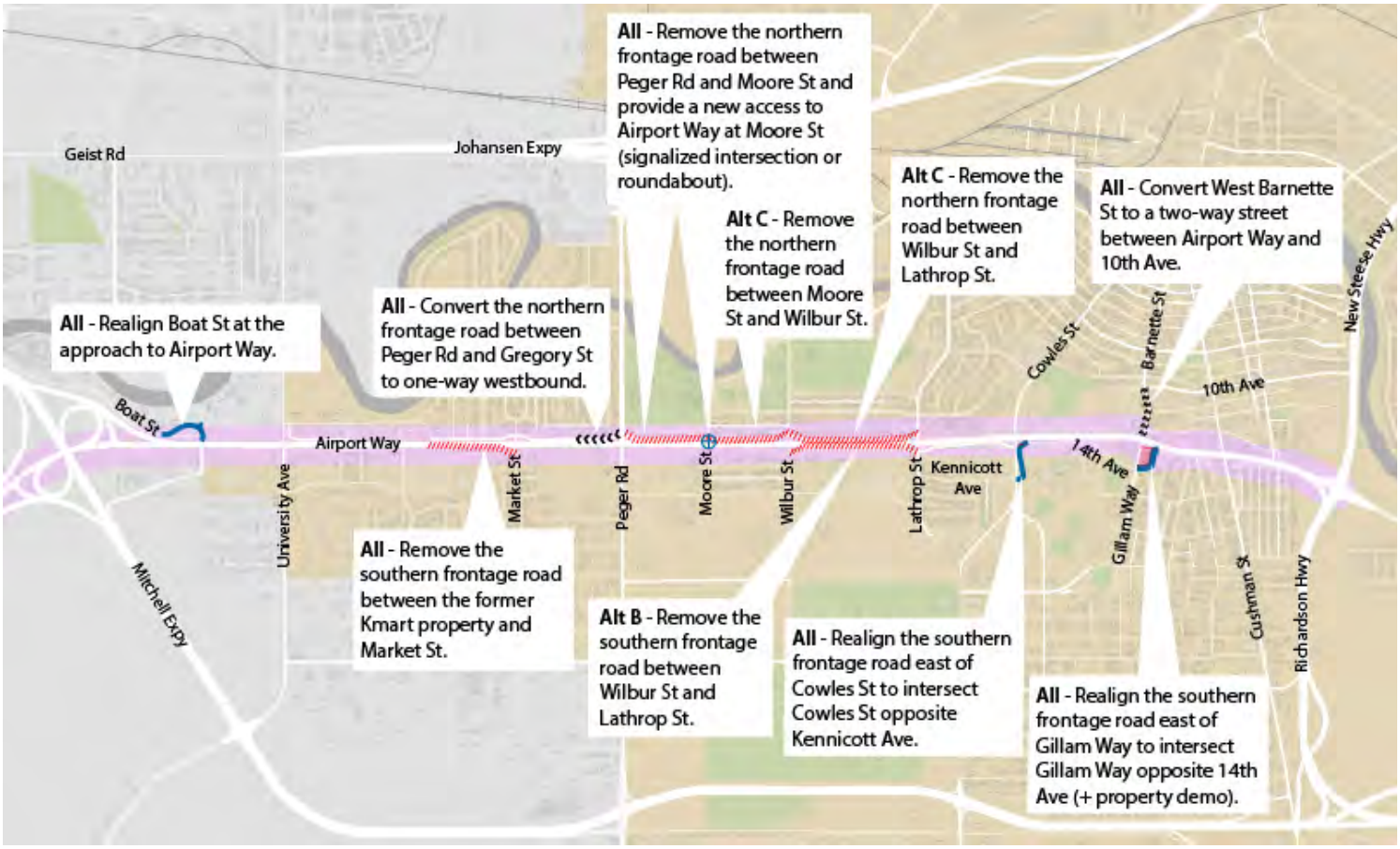


Figure 6 - New Roadway Alignments and Removal of Frontage Roads Common to all Alternatives (map by PDC Engineers; source: 2007 Airport Way Reconnaissance Study)

With the removal of frontage roads and the retention of current streetscape features, the standard Airport Way corridor through section would look like the figure below.

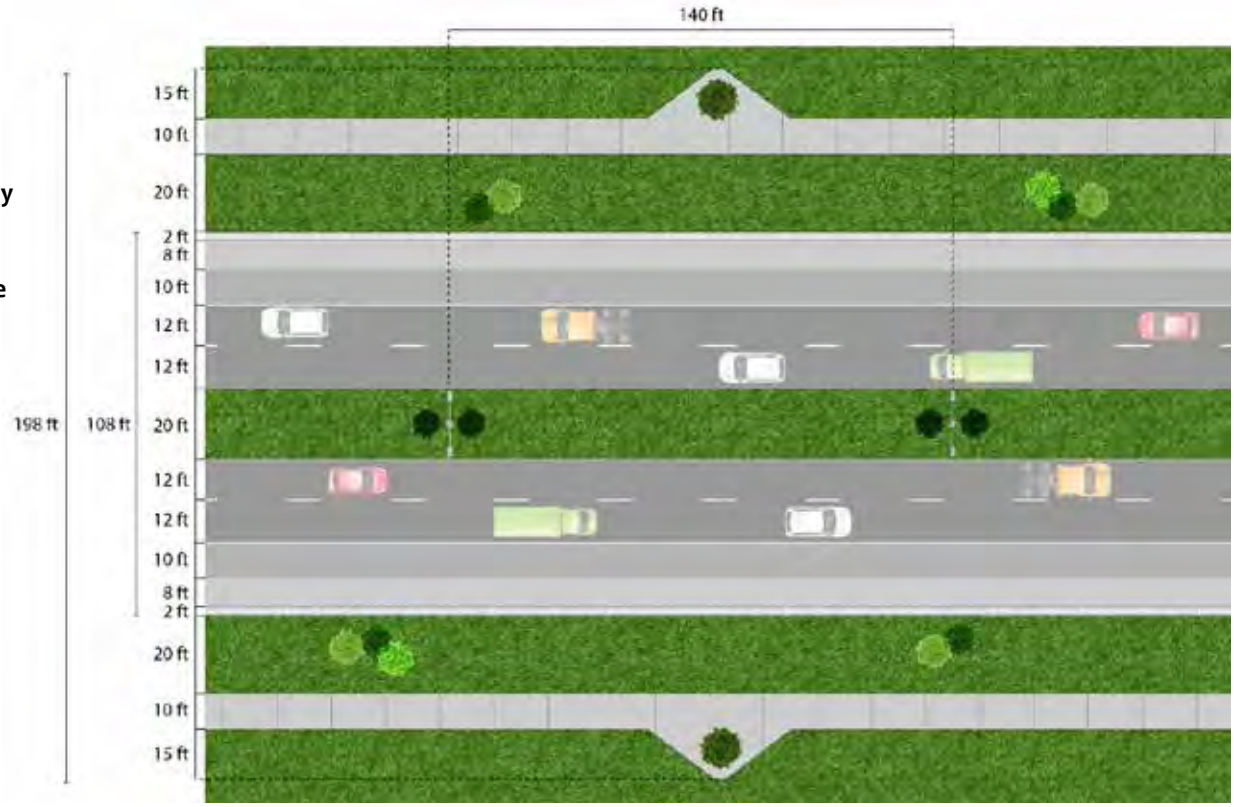


Figure 7 - Plan View of a Standard Airport Way Through Section, Extrapolated from the 2007 Airport Way Study Recommendations Based on Removal of Frontage Roads (figure by PDC Engineers)

Non-Motorized Transportation Plan (2012)

This plan documents the challenges to bicycle connectivity along the corridor and pedestrians crossing the corridor and at major streets along the frontage road as well as conflicts between bicycles and pedestrians on the sidewalk routes. The plan developed several alternatives for the corridor and classified ***creating a parallel bicycle route between the Parks Highway and the Steese Highway as a high priority project***.

According to the Non-Motorized Transportation Plan (NMTP), Airport Way between Parks Highway and Steese Highway is rated High Priority for linear bicycle improvements. Airport Way is considered a Tier 1 corridor, meaning that it is a top priority. The plan identifies that "Airport Way has a shared-use path along certain sections, with frontage roads providing alternative connection along much of the corridor." Airport way is a popular route for bicyclists, despite the discontinuous

bicycle-pedestrian path, lack of bicycle-specific infrastructure, and bicyclist-unfriendly roadway intersections. Airport Way intersects popular bicyclist routes at University Avenue, Peger Road, Cowles Street, and Cushman Street.

From 2004-2008, Airport Way had a high, bicycle/pedestrian crashes-per-mile quotient of 5.3, similar to quotients on Cushman Street (6.4) and University Avenue (5.5), but dissimilar to College Road's relatively low quotient of 2.8.

The NMTP did an in-depth analysis of non-motorized crashes at major intersections on Airport Way. Several of the reported events involved one party being intoxicated (or suspected of being intoxicated) by alcohol. Most involving bicycles, however, were caused by failures to yield by the bicycle or driver or by cyclists disobeying traffic signals.

Specific functional features were identified as priority bicycle network issues:

> ***"Frequent and closely spaced driveways along the strip retail development south of Airport Way [near the University Avenue intersection] create a number of potential conflicts for cyclists, especially since drivers may not expect cyclists riding on the sidewalk."***

> ***"A particular problem occurs at the intersection of Cowles Street and the Airport Way frontage road. This un-signalized intersection features a pedestrian priority crosswalk with an opening in the Cowles Street median to permit bicycle and pedestrian through-movements. The crossing is slightly offset with the intersection which makes it awkward for cyclists. Moreover, the proximity of this intersection to the Cowles Street/Airport Way intersection causes queuing problems in both directions."***

> ***"Bicycling is prohibited on Airport Way, but a separated bike path is provided west of Wilbur Street. East of Wilbur Street cyclists can ride on the Airport Way frontage road, which also provides local access to properties for vehicles. Several issues are noted along these routes, including path continuity, maintenance, crossings, and design. The frontage roads prioritize vehicle access and do not allow for comfortable through movements for cyclists."***

The NMTP identified pedestrian conflicts on Airport Way between University Avenue and Steese Hwy, and bike facilities are needed on Airport Way between Peger Road and Steese Hwy.

Five out of the top ten pedestrian count locations within FMATS are intersections on Airport Way.

Table 4 - Bicycle and Pedestrian Counts at Airport Way Intersections, 2017 (source: FMATS, volunteer counts from 4:30 to 6:30pm on one or more days in a single year)

Airport Way Intersection	Bicycle Counts	Pedestrian Counts
Barnette Street	25	37
Cowles Street	72	51
Cushman Street	59	74
Peger Road	66	23
Richardson/Steese Highway	15	7
University Avenue	97	45

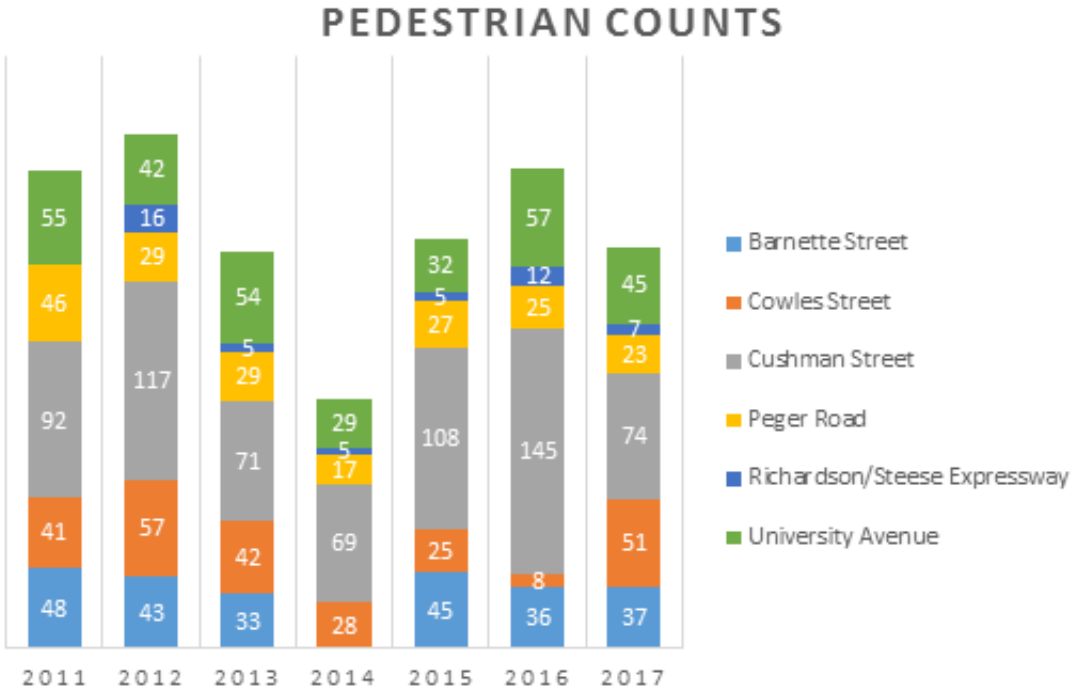
Dangerous pedestrian intersection crossings were identified, including:

- Cowles Street/Airport Way frontage road
- Parks Highway/Airport Way

Signs, markings, or a bicycle boulevard are recommended for the north and south frontage roads on Airport Way, including:

- Intersection crossing treatments at all crossing of major roads
- Pavement marking and signs to indicate a designated bicycle route
- Bicycle guide signs to direct cyclists along the route, especially at locations where the direction of the route is not obvious (e.g., when the route "T's" into another road)
- Bicycle guide signs should be placed at nearby locations on major roads and

Figure 8 - Pedestrian Counts at Airport Way Intersections, 2011-2017 (source: FMATS, volunteer counts from 4:30 to 6:30pm on one or more days in a single year)



other routes indicating where the routes are

The following figure from the NMTP shows the recommended Airport Way bicycle route.

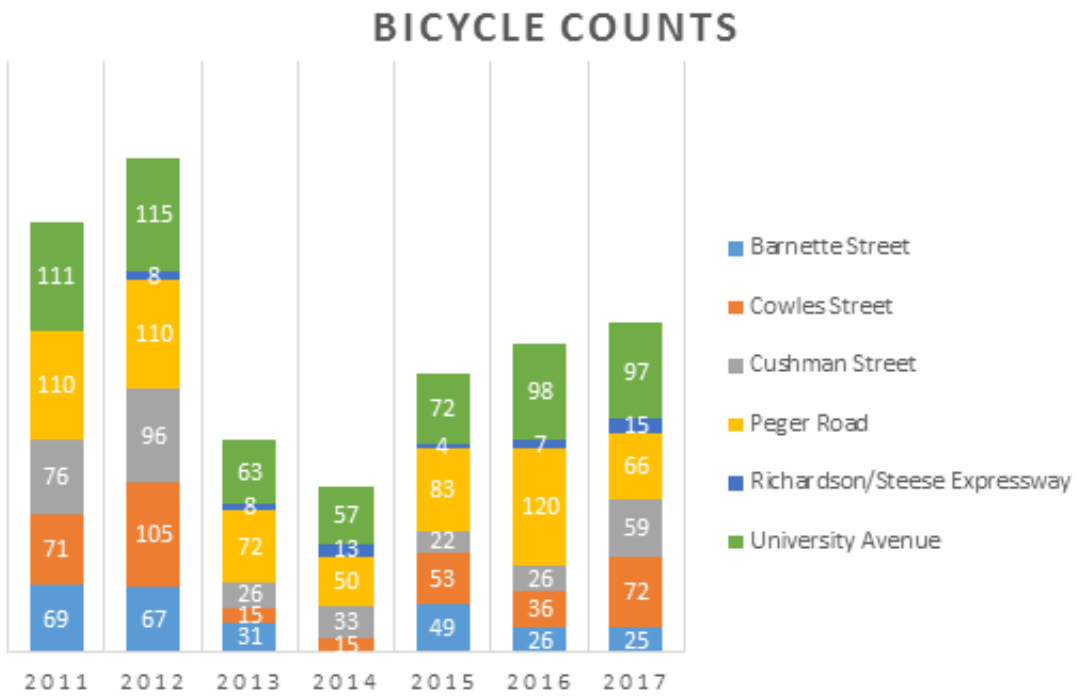


Figure 9 - Bicycle Counts at Airport Way Intersections, 2011-2017 (source: FMATS, volunteer counts from 4:30 to 6:30pm on one or more days in a single year)

2045 Metropolitan Transportation Plan (MTP) (underway)

The 2045 MTP will be an update to the 2040 MTP. It is still in development and not adopted; however, an Existing Conditions Report was finalized in September 2017, and a Draft Needs Assessment Memo became available in January 2018.

- According to the Draft Needs Assessment Memo, there are a number of forecasts and needs applicable to Airport Way, including: Intersections at Cowles Street, Gillam Way, Lathrop Street, and Peger Road will be under capacity in 2045.
- Cushman Street/ Airport Way intersection is an existing freight bottleneck with congestion that is expected to degrade quality as travel demands increase over time.
- Needs better crossing facilities and continuity in non-motorized transportation facilities.
- Intersection improvements are needed at Airport Way's intersections with Cushman Street, Barnette Street, Parks Highway, and Cowles Street/Airport Way frontage road.

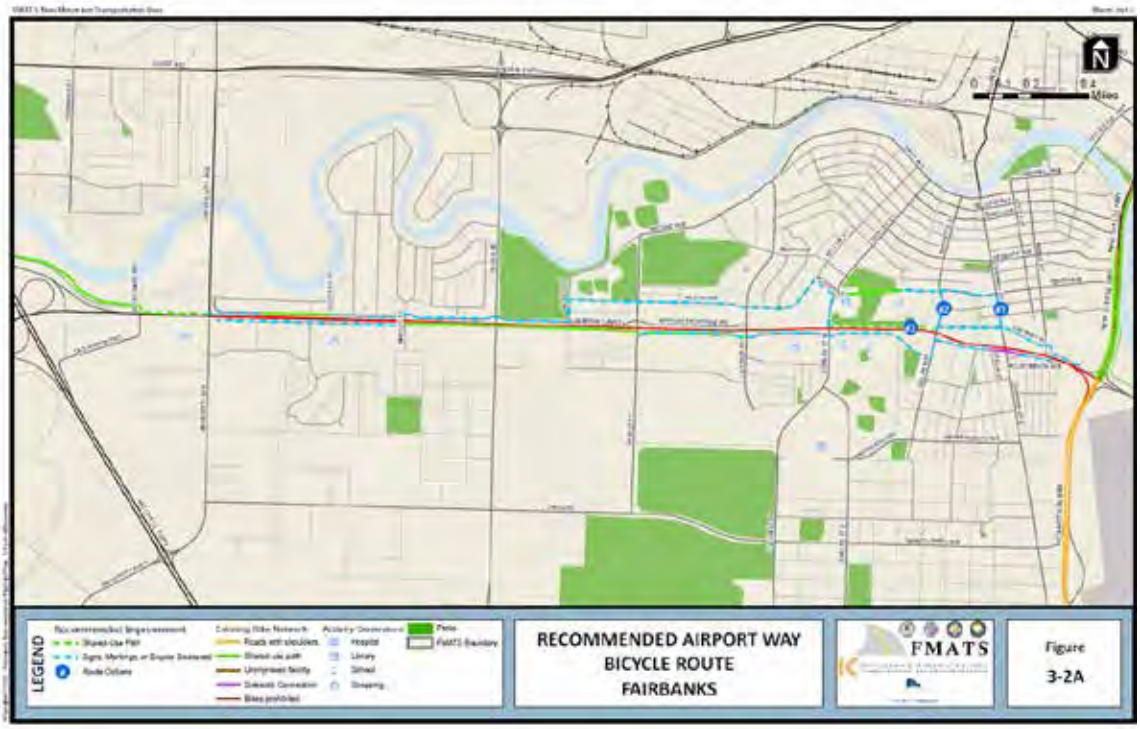


Figure 10 - Recommended Airport Way Bicycle Route (source: 2012 Non-Motorized Transportation Plan)

Based on the 2040 MTP, the NMTP, and recent data, the following pedestrian and bicycle deficiencies were identified in the study corridor:

- Bicycling is prohibited on Airport Way, but a separate bike path is provided west of Wilbur Street. East of Wilbur Street, cyclists can ride on the frontage road. Issues along these routes include path continuity, maintenance, crossings, and design.
- The un-signalized intersection of Cowles Street with the Airport Way frontage road is a particular problem, as there is a pedestrian priority crosswalk with an opening in the Cowles Street median for pedestrians and bicycles. The crossing is slightly offset, which makes it awkward for cyclists. Queuing problems also arise because of the proximity to the Airport Way intersection. A rectangular rapid-flashing beacon was installed for this crossing.
- The Parks Highway/Airport Way interchange is classified as a difficult intersection for pedestrians and bicycles to cross from east to west.
- Airport Way sidewalks are identified as having conflicts between bicyclists and pedestrians.

FMATS Freight Mobility Plan (underway)

The FMATS Freight Mobility Plan is in development; the Existing Conditions Report was finalized in February 2017. The report identifies Airport Way as National Highway System route and portions are included in the National Highway Freight Network and Primary Highway Freight System. Delay, congestion, and safety issues were identified at the Airport Way/Cushman Street intersection.

The following characteristics were identified in the report for Airport Way:

- Airport Way is critical to the region's freight infrastructure.
- Airport Way is DOT&PF Level Two maintenance priority, meaning that it may take up to 36 hours to be cleared following a storm event.

Downtown Fairbanks Wayfinding Plan (2013)

In July 2013, the City of Fairbanks, with consultants Corbin Design and Bettisworth North, completed a Downtown Wayfinding Signage study, which determined location, design, and programming for wayfinding signage leading to downtown and nearby places-of-interest.

The Wayfinding Plan identifies several destinations adjacent to Airport Way, including:

- Noel Wien Public Library
- Weeks Field / Wien Park
- Barnette Magnet K-8 School
- Ryan Middle School
- Lathrop High School

Six DOT&PF Vehicle Guides, listed below, are recommended as additions to existing DOT&PF signs. The State Traffic and Safety Engineer reviewed the wayfinding plan and made several comments regarding the plan's recommendations and their adherence to state standards. Most significant was the disapproval of listing Fairbanks International Airport and Fort Wainwright on the signs; these are considered 'primary' destinations and are signed under a different program.

Table 5 - DOT&PF Vehicle Guides Recommended for Airport Way

Location	Signage
Eastbound, between Lathrop Street and Cowles Street intersections	< Public Library ^ Downtown ^ Fort Wainwright
Westbound, between Cowles Street and Barnette Street/Gillman Way intersections	> Public Library ^ Pioneer Park ^ Fairbanks Airport
Eastbound, between Barnette Street/Gillman Way and Cushman Street intersections	< Downtown < Government Offices < Bus Transit Center
Eastbound, just east of Cushman street intersection	< Parking Garage (P) < Downtown ^ Fort Wainwright < Visitor Center (i)(P)

Westbound, just east of Cushman street intersection	> Downtown > Government Offices > Bus Transit Center
Westbound, between Cushman Street and Richardson Hwy/Steese Hwy intersection	> Parking Garage (P) ^ Fairbanks Airport > Visitor Center (i)(P)

Two Pedestrian Guide Signs are recommended for Airport Way at the following locations.

Table 6 - Pedestrian Guide Signs Recommended for Airport Way

Location	Signage
Southbound (north facing sign), northwest corner of Barnette Street/Gillman Way intersection	> Public Library < Fort Wainwright
Eastbound (west facing) and westbound (east facing), northwest corner of Richardson Hwy/ Steese Hwy intersection	(West facing) < Downtown ^ Fort Wainwright (East facing) ^> Downtown ^ Public Library

Two Pedestrian Kiosk (No Base) Signs are recommended for Airport Way at the following locations.

Table 7 - Pedestrian Kiosk (No Base) Signs Recommended for Airport Way

Location	Signage
Eastbound and westbound, northeast corner of Cowles Street intersection	**(West facing)** < Public Library < Weeks Field/Wien Park < Chena River Walk ^ Downtown **(East facing)** > Public Library > Weeks Field/Wien Park > Chena River Walk

Eastbound and westbound, northeast corner of Richardson Hwy/Steese Hwy intersection	**(West facing)** < Downtown < Visitor Center (i) < Chena River Walk ^ Fort Wainwright **(East facing)** ^> Downtown < Visitor Center (i) ^ Public Library > Chena River Walk

Fairbanks Area Drainage Improvement Plan (2015)

This plan developed a centralized GIS database to assist in asset management and storm water modeling for a portion of the Fairbanks metropolitan Area. Phase I of the project included the area between Peger Road and Cowles Street, while Phase II continued east from Cowles Street to Steese Highway to encompass downtown Fairbanks.

According to the plan, the Phase I segment of Airport Way's storm water system is characterized as:

- A sub-drainage area encompassing 169 acres and including Airport Way, its frontage roads from Peger Road to Cowles Street, and the Arctic Park subdivision residential neighborhood between Lathrop Street and Cowles Street.
- The main Airport Way storm sewers flow east from Peger Road and west from Cowles Street to Moore Street. From there a 36inch wood stave pipe carries the entire flow north to the Chena River.
- The original storm sewer along Airport Way was wood stave, but much of it has been replaced by HDPE. Segments that are still wood stave include:
  - » 265 feet crossing Peger Road
  - » 3,100 feet between the Regal Movie Theater and Cowles Street
  - » 1,100 feet along Moore Street
- Several catchments with high curve numbers (i.e., most businesses' paved parking) along the Airport Way corridor contribute a large amount of flow into the storm sewer system.
- The storm sewer system within the sub-drainage area appears to have sufficient capacity for the 2year and 10year storm events, with the exception of two pipes along the Airport Way frontage road near Wilbur Street that exceed 100% capacity during a 10year storm event. Both of these pipes have almost no slope, and one even has a slight reverse grade. The pipe diameter also decreases from 12 to 8 inches at this junction. This combination of flat slope and reduced pipe diameter causes the capacity issue.
- The only new capacity issue under the 25year storm is a flooded manhole along

Airport Road. The majority of the Airport Way sub-drainage area also appears to have adequate capacity for the 50year storm event. Conduits along Hilton Avenue near Wilbur Street at greater than 100% capacity indicate another reverse-graded section, while the conduit along Kennicott Avenue near Cowles Street has little to no slope. These areas are also the locations of a manhole and catch basin that flood under the 50year storm.

In the concluding sections of the plan, the following relates to Airport Way:

- Aging wood stave pipe in the system is a major concern. The portions of the system where wood stave pipe is present (along Airport Way from west of Lathrop Street to Cowles Street and along Moore Street to the outfall at the Chena River) should be evaluated and the pipe's condition assessed as soon as possible. A video inspection would expose any major problems and determine if a plan for replacement, rehabilitation, or at least a regular inspection schedule is warranted. Considering the cost of earthwork and the impact to traffic of a full replacement, the wood stave portion of the storm sewer on Airport Way may be a good candidate for trench-less rehabilitation.
- The large strain on the storm water system due to impervious surfaces on Airport Way, including asphalt-lined ditches along frontage roads, make it prudent to implement storm water retention features into the landscape designs of the landscape buffers on the sides of the roadway.

Bjerremark Neighborhood Improvements Plan (2015)

The City of Fairbanks Engineering Division is seeking to construct traffic-calming, beautification, pedestrian and defensible space measures to revitalize the neighborhood, making it more livable, safe, and vibrant through improvements to the City's right-of-way.

The Bjerremark Neighborhood Project Area is southerly adjacent to Airport Way between Lathrop Street and S. Cushman Street.

The plan includes a summary of 2013 police calls in the project area. Incidents in the Airport Way corridor study area portion include vandalism, traffic hazards, theft, incapacitated persons, assault, and vehicle collisions.

Local observations were compiled for the project area. Observations include:

- Gillam Way/Airport Way intersection
  - » Left turn arrow needed, northbound at intersection
  - » "No left turn lane causes backlog could be signal timing"
- Cushman Street/Airport Way intersection
  - » Left turn arrow needed, northbound at intersection
  - » Illegal activities observed at corner liquor store
- Illegal activities observed at blocks between Mary Ann Street and Stacia Street

Various concept ideas for traffic calming and reduction in cut-through traffic are introduced in the plan. Gillam Way south of Airport Way is identified as a primary neighborhood road for through traffic and the plan recommends improved pedestrian pathways, neighborhood gateway features, a school zone sign, and chicanes (horizontal deflections used for traffic calming) south of 15th Avenue.

As of the publishing of the plan, the DOT&PF Gillam Way Rehabilitation project is scheduled for construction in 2019.

Policies, Guidelines, and Standards

FMATS Green Streets Policy

FMATS Policy endorses and encourages Green Infrastructure, such as storm water retentive bio-swales, for all projects within the Metropolitan Planning Area. Where practicable, projects should include native and site-adapted vegetation, landscaping and related environmental site design features to capture and filter storm water runoff within the right-of-way.

This policy is consistent with numerous adopted goals of FMATS. Further, the policy helps to meet compliance requirements with Alaska Pollutant Discharge Elimination System (APDES) Municipal Storm Water Permit collectively held by the City of Fairbanks, City of North Pole, University of Alaska Fairbanks, and Alaska Department of Transportation & Public Facilities – Northern Region; and APDES Permit held by the Fairbanks North Star Borough.

The policy points out that green infrastructure is generally more cost effective than traditional drainage approaches.

Storm water pipes from Airport Way outfall into the Chena River, which is currently on Alaska's List of Impaired Water Bodies for sediment, a pollutant sourced from urban runoff. Green Infrastructure along Airport Way would collect sediment and allow public works maintenance staff to dispose of the sediment properly.

Policy requests that all FMATS member jurisdictions and agencies be involved in the implementation of Green Streets through a collaborative process.

FMATS Complete Streets Policy

The FMATS Complete Streets Policy was implemented to promote the consideration of all modes of transportation when developing a project. The policy's goal is to integrate the needs of all users into everyday transportation planning practices so that, gradually, a complete network of roads serves all users.

Appendix A

Planning Summary

FMATS Landscape Policy

Landscaping is closely linked with Green Streets. An ongoing maintenance plan is needed for the landscaping elements.

Specific project planning and design, maintenance, and project and program funding requirements are especially relevant to Airport Way, such as:

- Planting design shall meet jurisdictional requirements (for the Fairbanks North Star Borough, City of Fairbanks, and State of Alaska) in accordance with applicable regulations.
- Opportunities for long-term landscaping sponsors shall be explored.
- Plant selection should include only those that do not attract wildlife that could cause a collision within the right-of-way.
- Plant design should consider safety and not conflict or impact utilities or other infrastructure within or above the right-of-way.
- Landscaping shall only be done where a sponsor for maintenance is identified.
- Low-maintenance solutions are preferred.
- Develop partnerships with municipal jurisdictions, agency representatives, and non-profits to identify innovative financing options for landscaping and maintenance of the landscape.

The policy provides a list of approved and unapproved plant material requirements for all landscaping.

The project corridor is within the Fairbanks North Star Borough and the City of Fairbanks. Both the Borough and the City have a landscape ordinance; both are similar with the intent to improve livability within Fairbanks. The ordinances require landscaping to screen parking lots and improve street frontages where commercial and higher density residential development is proposed. A recommended plant list is referenced by both entities. They each have volunteer landscape review boards; the City's is the Landscape Review and Beautification Commission whereas the Borough uses a Landscape Review Board.

Seasonal and Event-Related Banners

Annually, banners and flags are hung on Airport Way for summer and winter events. Multiple organizations hang banners and flags year-to-year for the Yukon Quest, Arctic Winter Games, arctic research summer events, and state/borough anniversaries.

Maintenance

DOT&PF maintains Airport Way at a priority level 2, which means that the road gets cleared during a snow/ice event after the priority 1 roads are cleared.

Appendix A

Planning Summary

Maintenance challenges along Airport Way include finding enough snow storage space, removing snow from the medians in spring, and mowing the grassy medians in summer. Additionally, the storm drain network is old and requires considerable effort to maintain—from thawing pipes to removing grit. The concrete jersey barriers are also problematic as they are frequently damaged and require upkeep.

An area of concern is the short sidewalk segments at the corner of Airport Way and Market Street. The presence of a short concrete wall and several poles (lighting, electricity) require maintenance staff to hand clear the sidewalk of snow because large equipment can't maneuver in this tight area.

Maintenance funds have been reduced 31% over the past three years. Recommendations for Airport Way should keep this in mind and include elements that reduce the need for hand labor or specialized equipment.

Current Projects

A number of projects concerning Airport Way are in the planning, preliminary design, or design phases, as outlined in the following figure and table.

Figure 11 - Current and planned projects affecting Airport Way corridor (map by PDC Engineers; source: FNSB MTP 2040)

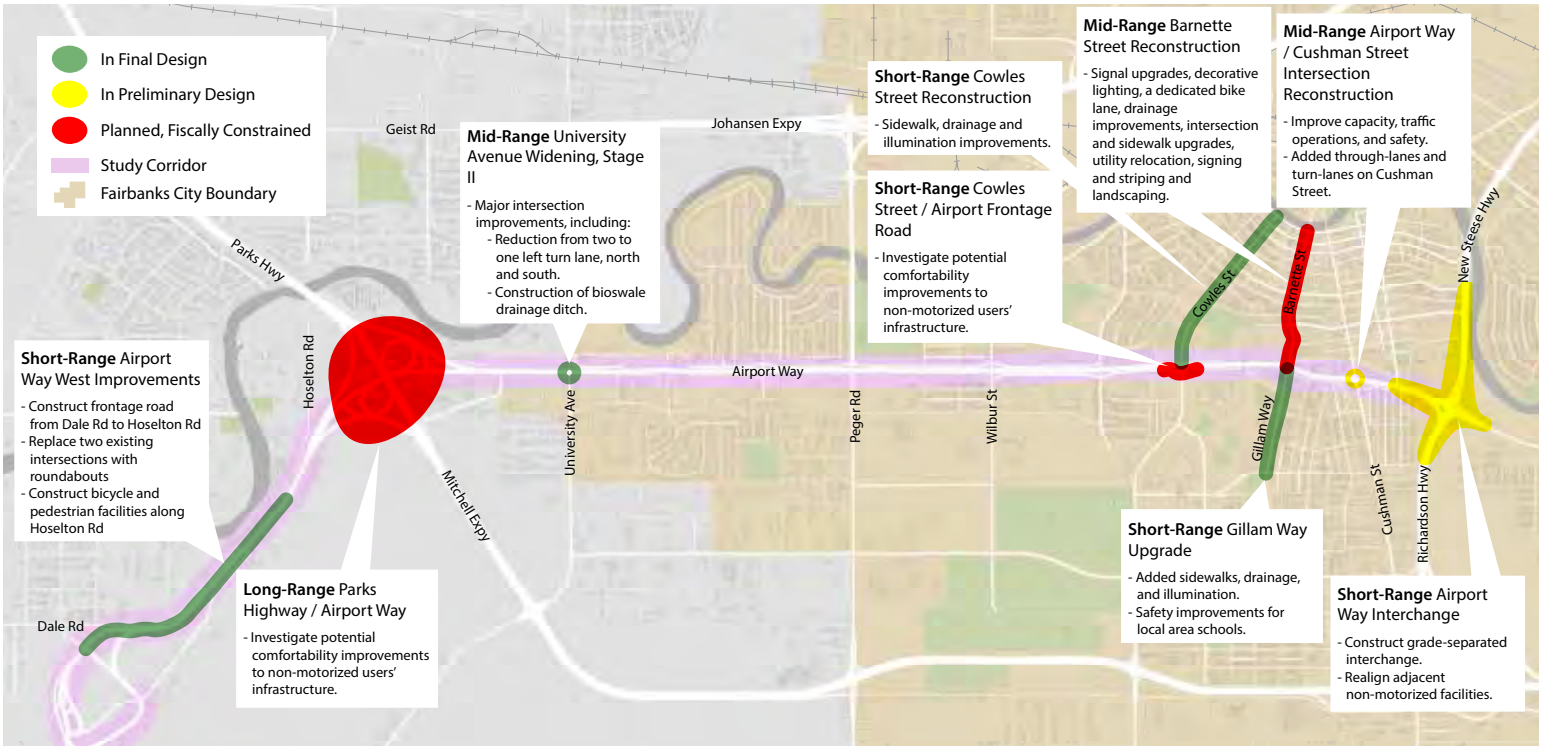


Table 8 - Current and Planned Projects for the Airport Way corridor

Time frame	Name	Description	Status
Short-Term	Gillam Way Upgrade: Airport Way – 17th Avenue	Upgrade Gillam Way to include added sidewalks, drainage, and illumination. Provide needed safety improvements in the area of local schools.	Final Design
Short-Term	Airport Way Beautification	Construct landscape and hardscape improvements on Airport Way.	Planned, fiscally constrained

Short-Term	Airport Way West Improvements	Construct a new frontage road to link Dale Road and Hoselton Roads; construct a roundabout intersection to replace the two existing intersections; construct bicycle and pedestrian facilities along Hoselton Road.	Final Design
Short-Term	Airport Way Study Update	Update 2007 Airport Way Study recommendations and emphasize economic development along the Airport Way corridor.	Planned, fiscally constrained
Short-Term	Cowles Street/ Airport Frontage Road	Investigate potential improvements to make this un-signalized intersection crossing more comfortable for non-motorized users (possibly done in conjunction with the designation of the Airport Way bicycle route described previously).	Planned, fiscally constrained
Short-Term	Cowles Street Reconstruction	Sidewalk, drainage, and illumination improvements	Final Design
Short-Term	HSIP Signal Upgrades	Signal upgrades, including flashing yellow left-hand turn signals and upgraded signal heads	Design
Medium-Term	Airport Way/ Cushman Street Intersection Reconstruction	Major intersection improvements to improve capacity, traffic operations, and safety. Work will include added through-lanes and turn-lanes on Cushman Street.	Preliminary design
Medium-Term	Airport Way Interchange and 10th Avenue Frontage Road	Construct a grade-separated interchange at the intersection of Steese Highway and Airport Way. Realign adjacent non-motorized facilities as necessary to accommodate the selected interchange configuration. Remove the signalized intersection at Steese Highway and 10th Avenue and construct a frontage road providing access to Steese Highway via the Steese Highway/Airport Way interchange.	Preliminary design

Medium-Term	University Avenue Widening, Stage II: Chena River Recreation Site - Swenson Avenue	Major reconstruction of University Avenue from the Chena River Recreation Site to Swenson Avenue. This phase includes major intersection improvements at Airport Way.	Design
Medium-Term	Airport Way: Steese Highway – Parks Highway	Designate and construct improvements to parallel routes on the north and south sides of Airport Way.	Planned, fiscally constrained
Medium-Term	Barnette Street Reconstruction	Signal upgrades, decorative lighting, dedicated bike lane, drainage improvements and sidewalk upgrades	Planned, fiscally constrained
Medium-Term	Preventative Maintenance – lighting upgrades	Retrofit high pressure sodium lights with energy efficient LED lamps along Airport Way	Preliminary design
Long-Term	Airport Way Corridor Improvements, Stage I	This is the first in a series of projects to implement the recommendations of the Airport Way Improvements Reconnaissance Study.	Planned, fiscally constrained
Long-Term	Parks Highway/ Airport Way	Investigate potential improvements to make the crossings of the ramp terminals more comfortable for non-motorized users.	Planned, fiscally constrained
Long-Term	Bike Lane Signing & Striping	Install a network of striped and signed bicycle lanes on City of Fairbanks streets	Nominated
Very Long-Term	Airport Way Corridor Improvements, Stage II	This is the second in a series of projects to implement the recommendations of the Airport Way Improvements Reconnaissance Study.	Planned, fiscally constrained

Appendix B

Access-Control Technical Memorandum

Access-Control Technical Memorandum - Executive Summary

Airport Way is an access-controlled facility that serves east-west traffic in Fairbanks. This tech memo summarizes the history of Airport Way development, importance of access management, access control mechanisms, the necessity of maintaining access controls, and the methodology of relinquishing access control on a case-by-case basis where need-ed.

This memo is a supporting document to the Airport Way Functional Features Analysis. The analysis also includes:

- Title VI public and stakeholder outreach materials
- Toolkit of design concepts specific to Airport Way
- Report outlining the community's vision for Airport Way
- Airport Way vision planning, landscape, and engineering recommendations
- Planning summary technical memo

To accommodate improvements that may be recommended in the final report/ toolkit, modifying access control appears possible.

Removing access controls from the entire corridor is not recommended at this time. In-stead, case-by-case assessments should be used to break access control as needed to meet the needs and desires of the community while maintaining the safety of the traveling public.

History of Airport Way

Airport Way was constructed in 1967 as the primary east-west thoroughfare in Fairbanks. As such, the roadway was designed to maximize mobility and consolidate property access on frontage roads.

The State of Alaska used Federal Highway Administration (FHWA) funding to design and construct the project, as well as to purchase the right to control access.

Airport Way Today

Since 1967, the function of Airport Way has changed. The Johansen Expressway and Mitchell Expressway, which were constructed in the 1980s, provide faster east-west con-nections and have seen increasing traffic volumes, while Airport Way traffic has remained flat. Turnover in businesses along Airport Way is common; in recent years new commer-cial development in Fairbanks has primarily occurred in the

Bentley Trust area, approxi-mately two miles northeast of Airport Way. Meanwhile, development and build-out of neighborhoods, commercial areas, and public facilities along Airport Way over the last 50 years has created more local traffic and more demand for walk/bike-ability, aesthetics, and environmental quality.

Likewise, from a planning and policy perspective, the inclusion of all transportation modes into the design process has become more prevalent. FMATS now has a Complete Streets policy to ensure automobiles, bicycles, pedestrians, and transit are accommodated equally—a policy that was not included in the original design of Airport Way, nor was rel-evant at that time.

Airport Way Tomorrow

Public comments regarding Airport Way have indicated an interest in beautifying the Air-port Way corridor, improving bicycle and pedestrian facilities, incorporating green infra-structure elements, adding wayfinding signage, and accentuating neighborhood character and public gathering areas with gateway features.

Access Management

Access management is

> ***"the coordinated planning, regulation, and design of access between roadways and land development. It encompasses a range of methods that promote the efficient and safe movement of people and goods by reducing conflicts on the roadway system and at its interface with other modes of travel. These methods include improvements to benefit transit, pedestrians, and bicyclists, as well as different treatments for ur-ban, suburban, and rural settings."***

(Access Management Manual, 2nd Edition, TRB 2014)

Key principles of access management include:

- Limit the number of conflict points for all modes
- Separate conflict points for all modes
- Provide reasonable access to each property

Access management involves assessing the trade-offs between increasing mobility and increasing access. Figure 1 shows the relationship between high-mobility and high-access roadways. Airport Way was designed as a high-mobility, low-access arterial. Since then, the function of the road has moved towards a higher-access corridor.

Figure 12 - Trade-offs between mobility and access

Access Control Mechanisms

Maintaining and regulating access management can take several forms. The following are common design and regulatory mechanisms that have been analyzed and implemented by agencies and municipalities across the country. Additional details can be found in the publications listed in the bibliography.

Traffic control devices
- Medians
- Passing/acceleration lanes
- Turn lanes
- Signal timing/spacing

Driveway management
- Consolidation
- Separation from conflict points
- Shared access

Local regulations
- Lot split ordinances
- Subdivision regulations
- Zoning ordinances

The primary access control mechanisms used along Airport Way are traffic control devic-es such as frontage roads, raised medians, jersey barriers, chain-link fencing, and pedestri-an overpasses. Bicycles and pedestrians are restricted from Airport Way and borough buses do not have any stops on Airport Way.

Relinquishing Access Control

Relinquishing access control is necessary to increase access points along the Airport Way corridor. If access control cannot be relinquished, then several alternatives evaluated in the final report would not be viable.

Because the right to control access was purchased with federal money prior to construction, the FHWA must approve any breaks in access control along the corridor. A planning document supporting new access points, as well as DOT&PF support, is likely enough to justify breaking access control on a case-by-case basis. This process has been used by DOT&PF to receive approval from FHWA to break access control on other facilities, such as the Johansen Expressway.

Conclusion

The necessity of access control along Airport Way has decreased for the following reasons:

- **Function of the road has changed** – Airport Way no longer serves as the only east-west connector, but rather serves local trips, thereby emphasizing its use for access rather than mobility.
- **Interest in improving aesthetics** – The community sees potential in beautify-ing Airport Way through the removal and/or improvement of certain access con-trol features such as the jersey barriers and frontage roads.
- **Economic development opportunities** – The prevalence of businesses along the corridor increases the need for improved access.

To accommodate improvements that may be recommended in the final report/ toolkit, modifying access control appears possible.

Removing access controls from the entire corridor is not recommended at this time. In-stead, case-by-case assessments should be used to break access control as-needed to meet the needs and desires of the community while maintaining the safety of the traveling pub-lic.

Bibliography

Community Planning Association of Southwest Idaho. (2008). Access Management Toolkit. Boise, ID: Community Planning Association of Southwest Idaho.

Institute of Transportation Engineers. (2010). Desiging walkable urban thoroughfares: A context sensitive approach. Washington, DC: Institute of Transportation Engineers.

Planning and Zoning Center, Inc. (2001). Reducing traffic congestion and improving traffic safety in Michigan communities: The access management guidebook. Lansing, MI: Michigan Department of Transportation.

Transportation Research Board. (2014). Access management manual, second edition. Washington, DC: The National Academies of Science, Engineering, and Medicine.

Western Cape Government. (2016). Access Management Guidelines. Cape Town, SA: Western Cape Government.

Appendix C

Financing Options

Introduction

The site-specific recommendations and toolkit design concepts in this document, when implemented, will generate benefits to specific sites, adjacent neighborhoods, the city of Fairbanks as a whole, and the Fairbanks North Star Borough as a whole. Some may argue that, the environmental services provided by green infrastructure, benefit beyond the region because of reduction in CO_2 emissions. The variety of specific and general beneficiaries strengthens the case for a diversified financing program beyond general funds. Also, the environmental benefits entailed by these concepts increase the likelihood of securing available State and Federal funding for projects that help enact the Clean Water Act and Clean Air Act.

Financing Options

Clean Water State Revolving Fund (CWSRF)

The CWSRF is a federally-funded and 20 percent state-matched, state administered, environmental infrastructure bank that provides low interest loans to eligible recipients for water infrastructure projects. Each year, Alaska is allocated $8 million through the Alaska Department of Environmental Conservation. Loan repayments are used to repay bond-holders, and the rest of the repayments are returned to the CWSRF. As of 2014, the CWSRF has provided over 34,900 assistance agreements to communities, and project financing of over $105 billion. The CWSRF has a history of funding projects that include rain gardens and other green infrastructure, though the vast majority of funding nation-wide is allocated to publicly-owned treatment works.

Municipal General Obligation Bond

A general obligation bond is an opportunity to borrow money for capital projects and repay bondholders with a fixed-rate and fixed-term. General obligation bonds are based on the expectation that future tax revenue will contribute to debt-service, rather than revenue bonds that are paid by service fees and assessments.

General obligation bonds are a common financing mechanism for large infrastructure projects.

Green Bond

A green bond is an innovative financial instrument that exclusively invests proceeds in green projects that help mitigate climate change and provides other environmental benefits (UNDP). Green bonds are identical to traditional bonds in structure, risk and returns, and like municipal bonds, are tax-exempt. The green bond market is growing rapidly, with an estimated $93 billion mobilized to projects and assets in 2016 (Moody's Investors Service).

Public-Private Partnerships

For projects that directly benefit private entities and supports the public purpose,

a sharing of capital costs, ownership, and maintenance responsibilities can be established in a public-private partnership. While a TIF district targets revenue collection to a range of properties, a partnership engages specific property owners and businesses directly, with the purpose of accessing investment capital, lowering the cost of construction and maintenance, and planning economic development that incorporates a range of public objectives (EPA, "Getting to Green: Paying for Green Infrastructure").

Grants

Grants are available through the Green Project Reserve, which is a 20 percent portion of the $6 billion American Recovery and Reinvestment Act. These grants are highly competitive, do not need to pay repaid, and require at least a 25 percent cash or in-kind contribution (ibid). Winning a grant may reduce the cost-burden of municipalities, but are not to be relied upon for funding.

Taxes/General Funds

Tax revenues generally fund public works, but are used primarily for public services such as public safety and schools. Relying on taxes/general funds for green infrastructure projects is not recommended because of competition with general municipal budgets and the priorities of elected officials (ibid). That being said, there is the possibility of diverting a portion of general funds to service debt with the justification that green infrastructure projects benefit the municipal residents across the board.

Tax-Increment Financing (TIF) *(pending state enabling-legislation)*

A TIF is a geographically-defined district which borrows against expected future increases in real property value and subsequent tax revenue. Essentially, all properties within the TIF district are annually evaluated for fair market value. The increases in value compared to the market value at the start date of the TIF is used for servicing debt for capital investments in the district. Usually a debt-service agreement is made that lasts 20-25 years. Afterwards, the increased market value's tax revenue can supply the general fund. TIF districts are often used for blighted and economically-depressed areas that need infrastructure improvements to attract real estate developers and businesses. This option necessitates an objective analysis of how infrastructure improvements will increase market value and spur development, taking into account real estate price trends, inflation rates, and other economic factors (U.S. PIRG Education Fund).

Balancing Funding Sources

We recommend a mixture of funding sources that uses the principle of "those that benefit pay the price." For intended projects in the Airport Way corridor, four groups of beneficiaries exist: 1) properties adjacent to green infrastructure that benefit from foot-traffic exposure to environmental benefits; 2) neighborhoods within a ¼ mile

of Airport Way that have direct access to new multi-modal paths; 3) all residents of the FNSB that benefit from reduced storm water pollutant loading into the Chena Watershed and improvements to functional features on Airport Way; and, 4) the global community, which benefits from reduced CO_2 emissions.

The majority of funding will likely come from bonds that will need to be paid over the next 20-30 years. Savings in this regard will come from utilizing the Clean Water State Revolving Fund and Green Bonds. A Tax-Increment Financing district should be established for all properties within ¼ mile from the portion of Airport Way between University Avenue and the Richardson Highway. Public-Private Partnerships can be established with property-owners such as Safeway, Washington Plaza, Sears, and Gottschalk's. Grants should be sought through the Green Project Reserve, but are not to be relied-upon.

References

Municipality of Anchorage, "Rain Gardens: A How-To Manual for Homeowners in the Municipality of Anchorage," [PDF file], https://www.scribd.com/document/73758962/Alaska-Rain-Gardens-A-How-To-Manual-for-Homeowners-in-the-Municipality-of-Anchorage

UNDP, "Green Bonds," [website], http://www.undp.org/content/sdfinance/en/home/solutions/green-bonds.html

EPA, "CWSRF 101," [PDF file], https://www.epa.gov/sites/production/files/2015-06/documents/cwsrf_101-033115.pdf

EPA, "MS4 Permit Improvement Guide," [PDF file], https://www3.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf

Center for Neighborhood Technology, "The Value of Green Infrastructure," [PDF file], http://www.cnt.org/sites/default/files/publications/CNT_Value-of-Green-Infrastructure.pdf

EPA, "Getting to Green: Paying for Green Infrastructure," [PDF file], https://www.epa.gov/sites/production/files/2015-02/documents/gi_financing_options_12-2014_4.pdf

City of Portland, "Storm water Management Manual," [PDF file], https://www.portlandoregon.gov/bes/article/582086

U.S. PIRG Education Fund, "Tax-Increment Financing: The Need for Increased Transparency and Accountability in Local Economic Development Subsidies," [PDF file], https://www.smartgrowthamerica.org/app/legacy/documents/Tax-Increment-Financing.pdf

Division of Water, Alaska DEC, "Chena River Watershed Quality Monitoring," [website], http://dec.alaska.gov/water/wnpspc/protection_restoration/ChenaRiverWQ/index.htm

Moody's Investors Service, "Moody's: Global green bond issuance could rise to USD206B in 2017 after record in 2016," [website], https://www.moodys.com/research/Moodys-Global-green-bond-issuance-could-rise-to-USD206B-in--PR_360880?WT.mc_id=AM~WWF0b29fRmluYW5jZV9TQl9SYXRpbmcgTmV3c19BbGxfRW5n~20170118_PR_360880

Appendix D

Detail Sheets

Imprinted Jersey Barrier

Decorative Metal Fence

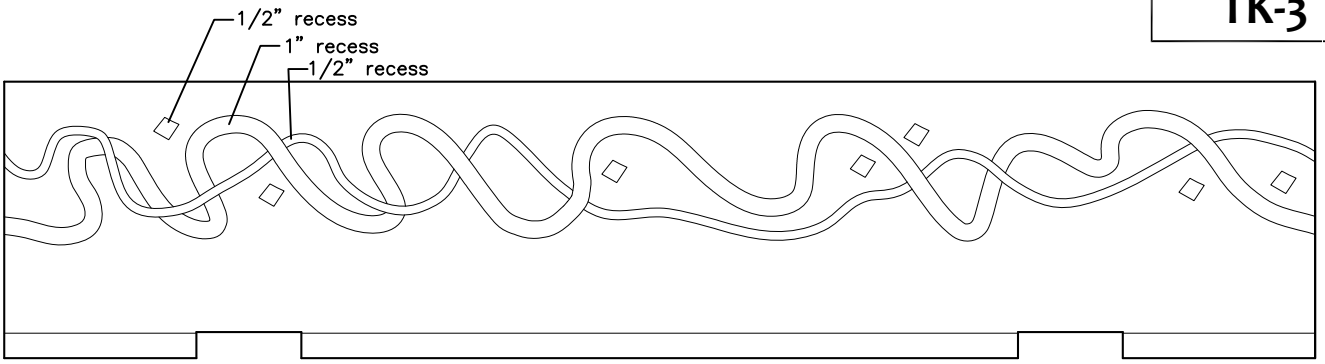
Bollard Light

Median Planting Detail

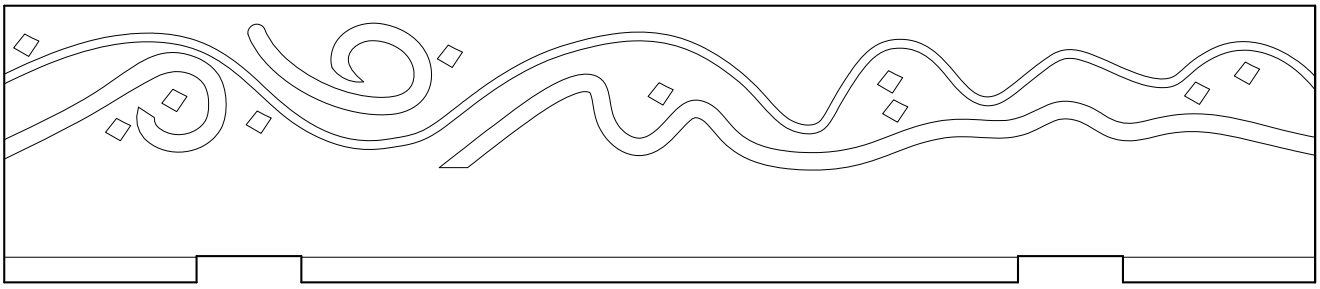
Gateway Planters

Wayfinding Signs

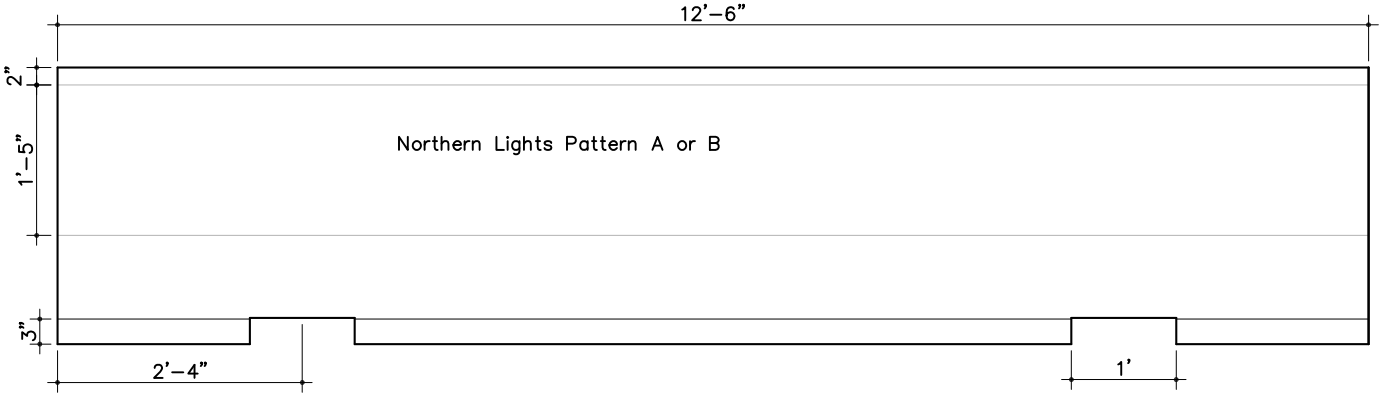
TK-3



Northern Lights Pattern A

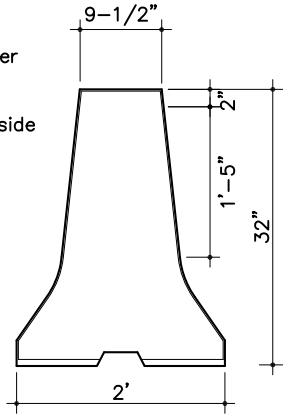


Northern Lights Pattern B



DOT Type F
Shape Precast
Concrete Barrier

Pattern each side



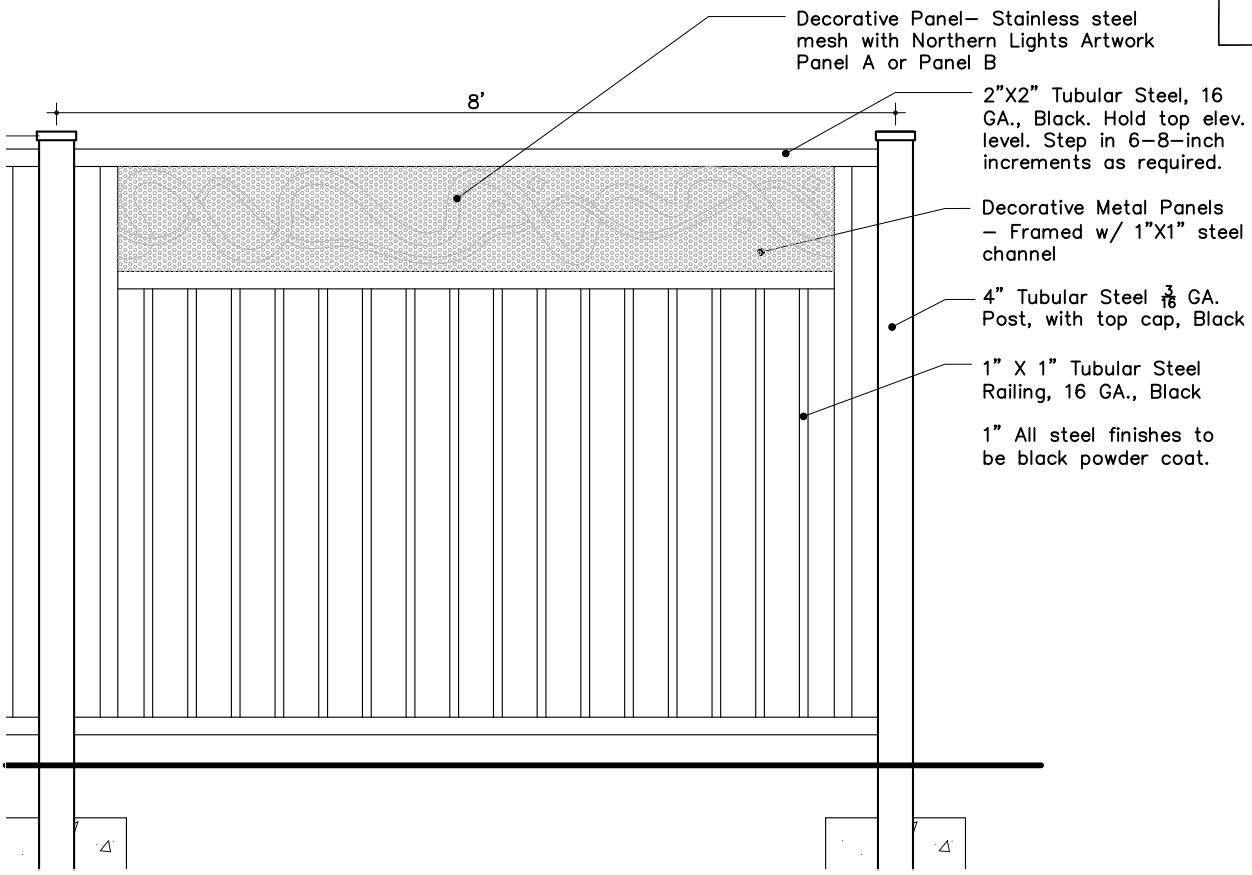
Sheet: 1 of 1

Airport Way Functional Features Analysis

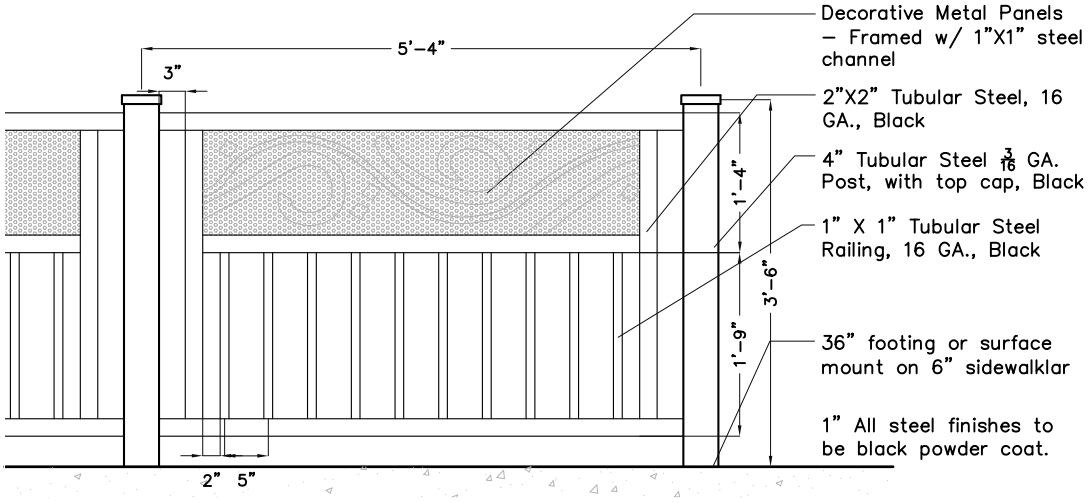
Imprinted Jersey Barrier

Schematic Design Detail

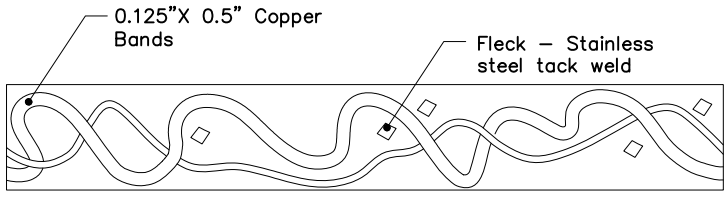
TK-4



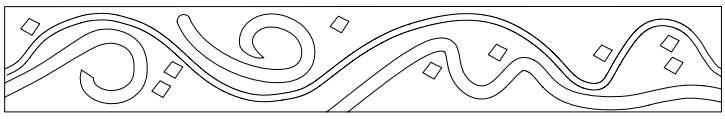
Tall Fence



Low Fence



Panel A



Panel B

Sheet: 1 of 1

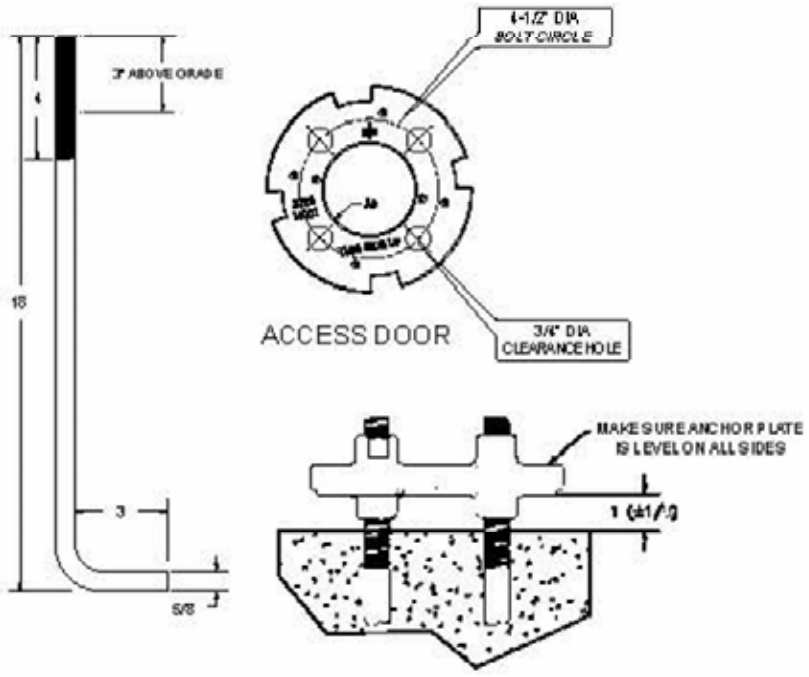
Airport Way Functional Features Analysis

Decorative Metal Fence

Schematic Design Detail

Plan View

Bollard Light



Installation

Notes:

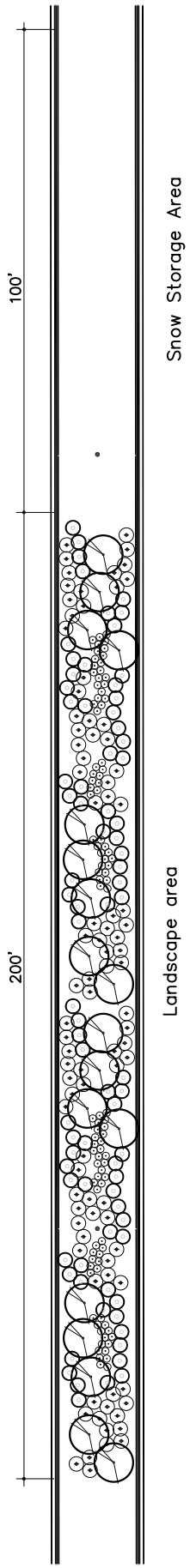
1. Model RIALTA RW4xx by Sternberg Lighting, www.sternberglighting.com
2. Height varies; along commercial areas use 48-inch bollard; adjacent to residential areas use 36-inch bollard.
3. Place 12-inches from edge of pavement.
4. Approximate spacing: 36" bollard at xx feet on center; 48" bollard xx feet on center.
5. Color: Urban Bronze Matte

Sheet: 1 of 1

Airport Way Functional Features Analysis

Bollard Light

Schematic Design Detail



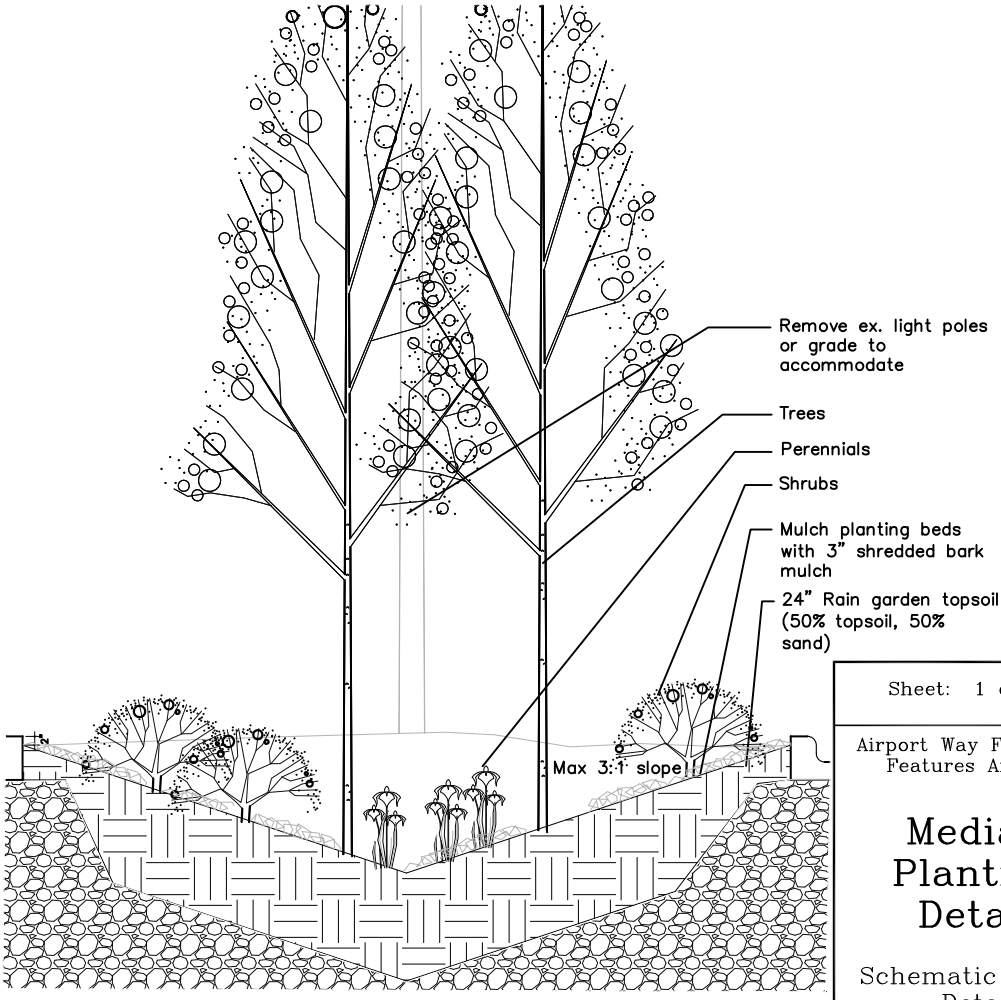
Plan View

Plant Schedule - Median Plantings

Common Name	Botanical Name	Spacing (min.)	Notes
Trees			
Aspen	Populus tremuloides	8' o.c.	Plant trees in masses to create more natural appearance.
Birch, (Clump)	Betula papyrifera	8' o.c.	
Larch	Larix larcinia	10' o.c.	
Shrubs			
Highbush Cranberry	Viburnum opulus	3' o.c.	
Lilac	Syringa vulgaris	4' o.c.	Avoid low areas
Native Rose	Rosa acicularis	4' o.c.	Plant in masses.
Tundra Rose	Dasiphora fruticosa	28" o.c.	Ideal in low areas.
Perennials			
Iris	Iris setosa	18" o.c.	Plant perennials in masses, ideal in low areas.
Fireweed, Dwf	Chamerion latifolium	24" o.c.	
Native Geranium	Geranium erianthum	18" o.c.	

Notes:

1. With the exception of lilac, median plantings should be native plants.
2. Plant trees and shrubs in tight contiguous masses for improved aesthetic appearance and reduced maintenance.
3. Plant perennials in low areas and open areas identified for snow storage.
4. Do not mow medians. Use low maintenance seed mix outside of planting beds. May require public education process.



Cross Section

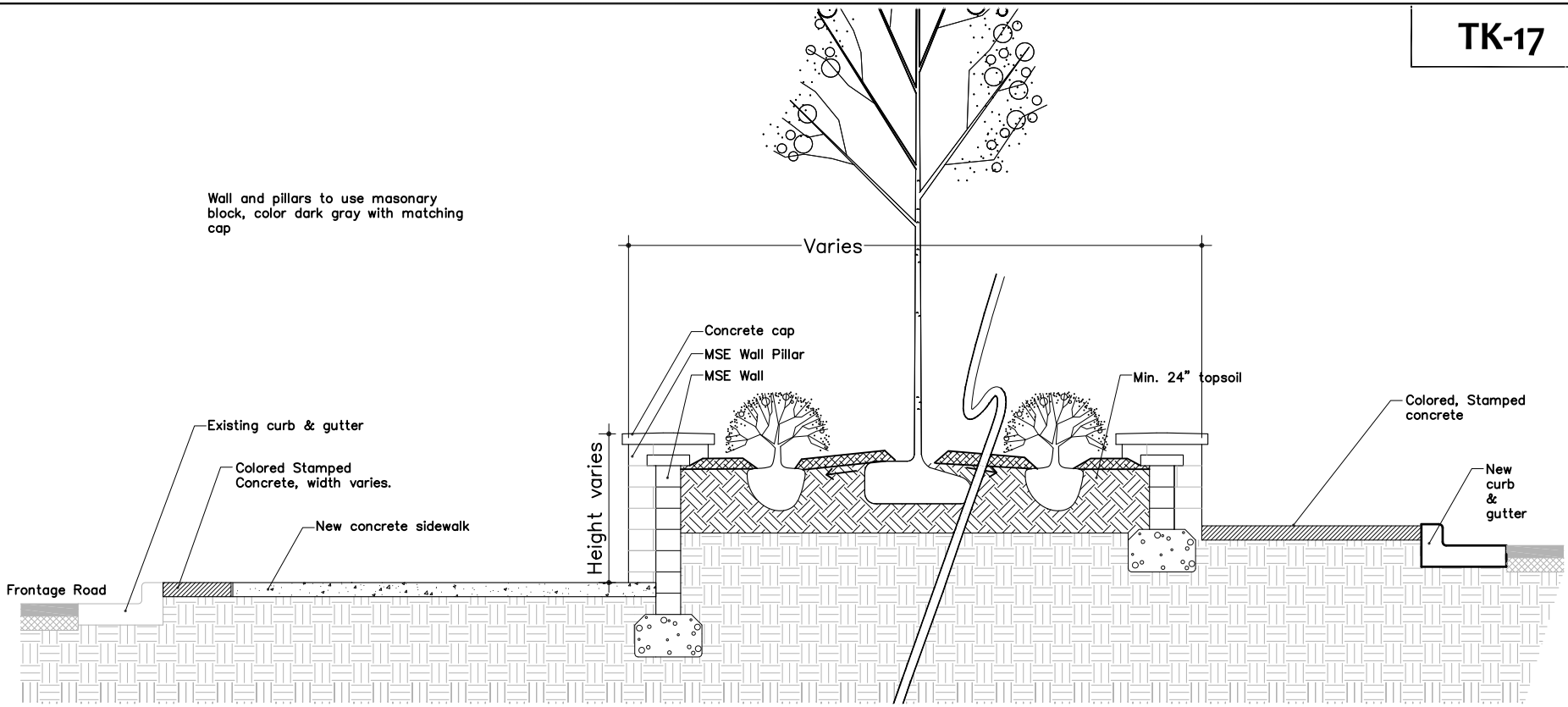
Sheet: 1 of 1

Airport Way Functional Features Analysis

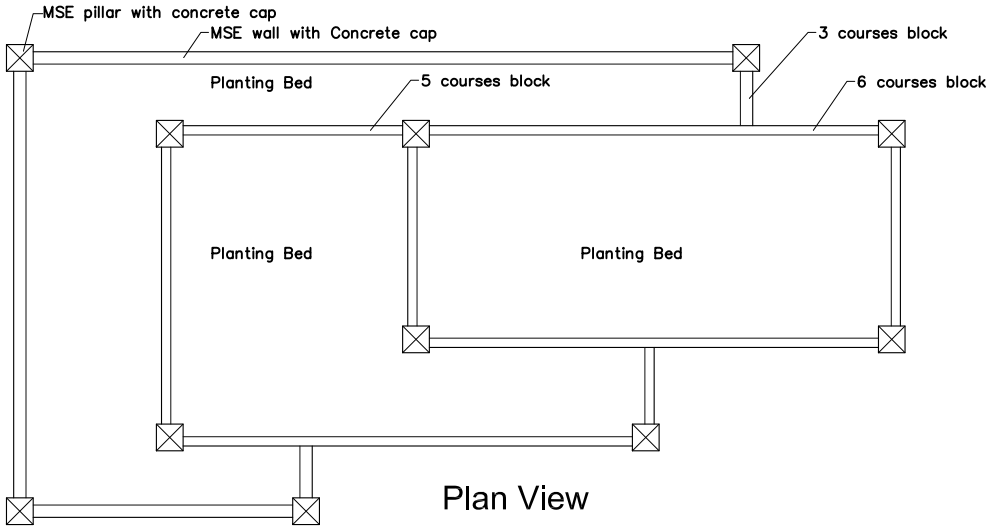
Median Planting Detail

Schematic Design Detail

TK-17



Cross Section



Plan View

Notes:

1. Use Allan Block, Model AB Courtyard.
2. Color dark gray with matching concrete cap;
3. Planter configurations are different at each location.
4. Maximize planting area to increase permeable surfaces.

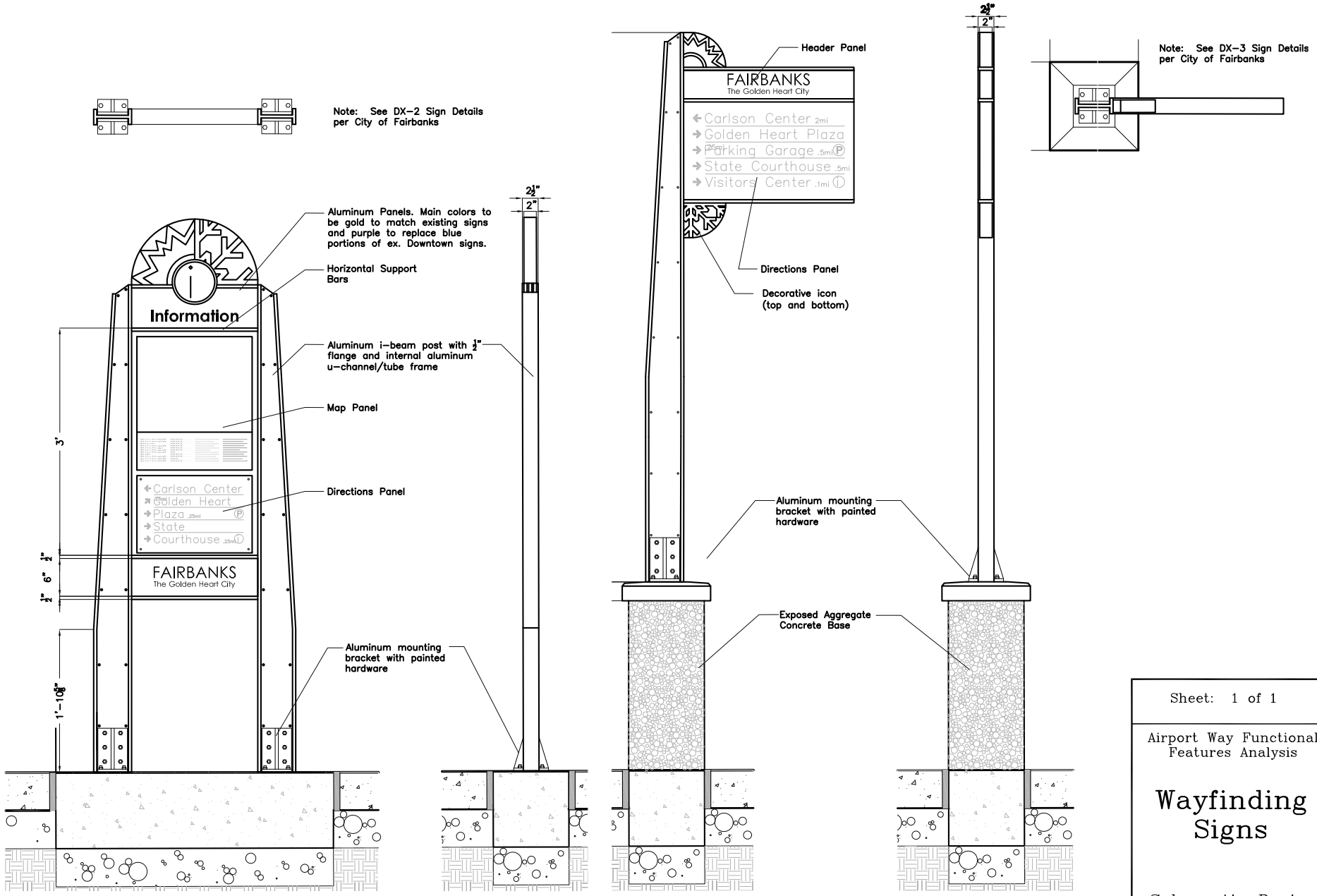
Sheet: 1 of 1

Airport Way Functional Features Analysis

Gateway Planters

Schematic Design Detail

TK-19



Gateway Signage

Pathway Signage

Sheet: 1 of 1

Airport Way Functional Features Analysis

Wayfinding Signs

Schematic Design Detail

Appendix E

Title VI Public Involvement Report

This appendix summarizes the public involvement process and catalogs public commentary gathered during the Airport Way Functional Features Analysis project.

Project staff, after consulting with the project steering committee, reviewing other successful projects, and referencing the FMATS Public Participation Plan, finalized the public involvement plan in December 2017. Means for raising awareness of the project and gathering input included a comprehensive mailing list of stakeholders, a DOT&PF-hosted project website, a business owner survey, two open house public meetings in Fairbanks, and a number of presentations to interested community groups. To facilitate general public awareness of the project, advertisement spots were placed in the *Fairbanks Daily News-Miner*.

Steering Committee

A steering committee was formed at the beginning of the project to provide evaluation and direction at key milestones.

The steering committee kickoff meeting was held on October 26, 2017, during which was discussed the project scope, and perceived issues, opportunities, and constraints related to Airport Way. Issues concerned struggling businesses in the roadway corridor, too much light pollution, maintenance complications, access management issues, unaesthetic fencing, flat traffic volume, lack of character, lack of multi-modal infrastructure, and funding constraints, among others.

The second meeting, on January 25, 2018, coincided with an Access-Control Workshop designed to explain the challenges of access control along Airport Way and methods available to reduce traffic problems caused by access control.

The final steering committee meeting occurred on April 17th, 2018. Steering committee members reviewed and commented on the first draft of the project document. Levels of detail, organization, and other recommendations were made for changes for the final draft document.

In addition to DOT&PF staff, the steering committee was composed of the following stakeholders:

Jackson Fox - *FMATS*
Deb Hickok - *Explore Fairbanks*
Julie Jones - *Festival Fairbanks*
Chandra McGee - *ADEC*
David van den Berg - *Downtown Association*
Jeff Roach - *Fairbanks International Airport*
Don Galligan - *FNSB*
Andrew Ackerman - *City of Fairbanks*

Appendix E

Title VI Public Involvement Report

Website

The project website, shown below, was developed to provide public access to basic project information such as the schedule, documents, meeting notifications, and meeting summaries.

Postcards

Postcards were the primary tool used to inform the public of project developments and meetings. Two postcards were mailed:

- **Postcard #1** (October 2017) announced the beginning of the project and invited people to the public meeting on December 12, 2017. This postcard included a link to the project website and an Internet-based business survey targeting businesses within the Airport Way corridor.
- **Postcard #2** (March 2018) invited Fairbanks residents and stakeholders to the final public meeting on April 25, 2018. The postcard describes the meeting as a "concept review" and a "public screening of design concepts."

The postcards were delivered via U.S. Postal Service to all box holders along Airport Way. The postcards were also delivered to elected officials, agencies, and other interested parties.

Appendix E

Title VI Public Involvement Report

Community Group Presentations

Throughout the project period, the team's project lead made several presentations to community groups in the Fairbanks area, including: Fairbanks International Airport; Fairbanks Chamber of Commerce; FMATS Technical Committee & Policy Board; Rotary Club of Fairbanks; and Fairbanks Green Infrastructure Group.

Public Meetings

Public Meeting #1 - December 12, 2017

The first public meeting, which was attended by 23 people, was held on December 12, 2017, at the La Quinta Inn between 5 and 7 pm. The meeting was organized as a workshop to allow the public to: first, understand the scope of the project; second, identify issues within the Aiport Way corridor; and third, express ideas to help develop a vision for the corridor. The workshop setting had three stations consisting of large maps, graphics, and guiding text, corresponding to the prior three purposes mentioned. Each station was facilitated by project team staff. Location-specific "post-it comments" were collected on large corridor maps, and general comments by participants were collected separately.

The outreach for the meeting included an update to the project website, a Facebook event posting, postcards mailed to the stakeholder mailing list, and displayed advertising in *Fairbanks Daily News-Miner*. See the end of this appendix for complete outreach materials and meeting notes.

Public Meeting #2 - April 25, 2018

The second public meeting, which was attended by 50+ people, was held on April 25, 2018, at the Pioneer Park Exhibit Hall between 4 and 7 pm. The public was invited to review alternative design concepts for aesthetic and functional improvements to Airport Way. A preferences survey was distributed that allowed the team to establish user preferences for designs of fences, barriers, medians, and lighting, and the recommendations of the study that should be prioritized.

The outreach for the meeting included an update to the project website, a Facebook event posting, postcards mailed to the stakeholder mailing list, and displayed advertising in *Fairbanks Daily News-Miner*. See the end of this appendix for complete outreach materials and meeting notes.

Key Comments

Public Meeting #1

- Several people mentioned their dislike of the jersey barriers and fencing.
- Regarding the west portion of Airport Way, several people disliked the lack of pedestrian crossings available for accessing Pike's Landing and La Quinta Inn.
- Several people disliked the frontage roads and recommended turning them into one-ways with landscaping or eliminated entirely.
- Several people commented on the lack of consistent business signs and poor wayfinding for popular locations on Airport Way and the surrounding area.
- Several people lamented the strange lane configurations in the corridor, especially where there is difficult turning or not enough room for build-up in turn lanes.
- Several people commented that the lights are not synched adequately for through traffic.
- Several people were concerned about the lack of accessibility for pedestrians and bicyclists.

Public Meeting #2

Preference Survey Results

Element	Option	Option (2)	Total	Preferred
Barriers	Custom jersey barrier			
		Tree Tops	8	✓
		Northern Lights	8	✓
		Leaves	4	
	Poured in place walls		5	
	Modular block wall		4	
Fences	Downtown style		22	✓
	Open woven mesh		3	
	Wood/mesh		1	

Lighting	Remove all excess roadway lights		12	✓
	Replace all lights with matching		9	
	Add pedestrian lights		11	✓
Landscaping	Appearance: native, natural		10	✓
	Appearance: formal		4	
	Use each depending on location		14	✓
Medians	Depressed		10	✓
	Raised		5	
	At grade		8	
	Natural plantings		15	✓
	Formal plantings		5	
Paving	Permeable		8	
	Stamped concrete		9	✓
	Colored concrete		7	
	River rock		5	
Furnishings	Match downtown benches and receptacles		16	✓
	Modern style benches		6	
	Rustic style benches		2	
	Trash receptacles, dog-scat bagging station		16	✓
Wayfinding	Use existing downtown wayfinding design		20	✓
	Develop new wayfinding unique to Airport Way		7	

Priorities (1- highest; 9 - lowest)				
	Replace street lights with decorative lights		6	✓
	Add landscaping in median		5	✓
	Replace barriers with decorative barriers		3	✓
	Replace chain-link fences with decorative fences		2	✓
	Add gateways		7	✓
	Repurpose frontage roads		1	✓
	Add landscaping along edges of road where space allows		4	✓
	Remove lights along road edges to reduce light pollution and clutter		9	✓
	Remove lights in median to reduce light pollution and clutter		8	✓

12/12/2017, 3pm-7pm – Visioning Session Notes

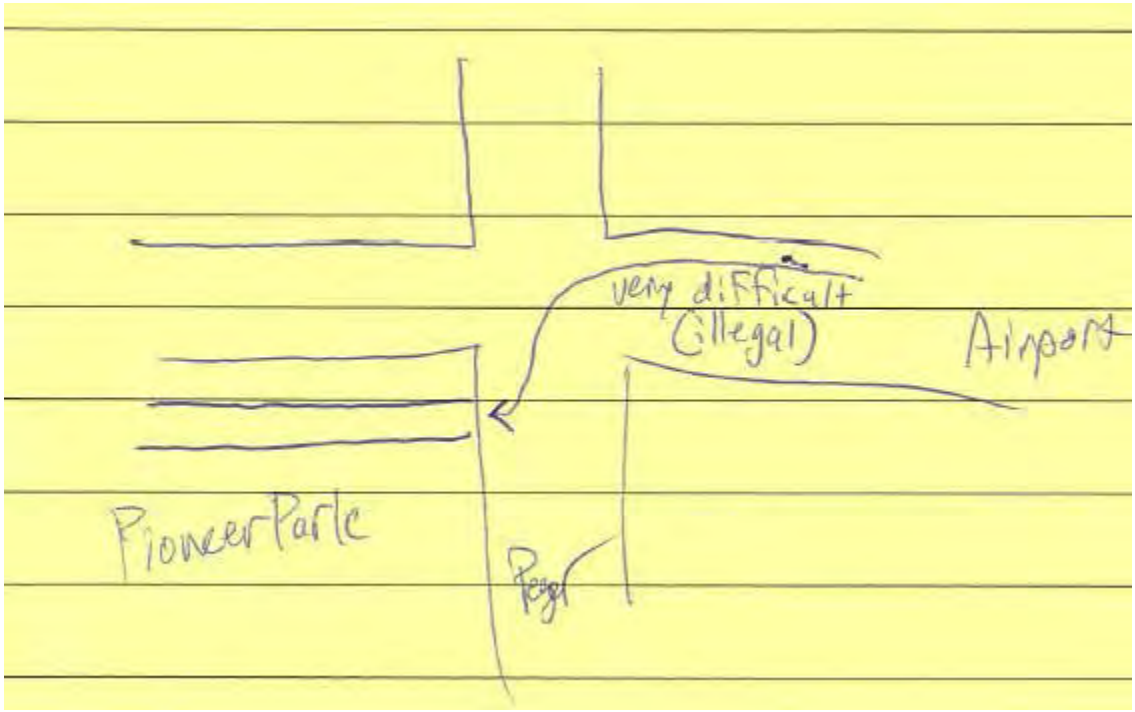
Summary

- Many people do not like the jersey barriers and fencing
- On west portion of Airport Way, people do not like the lack of pedestrian crossings to access hotels and restaurants, such as Pike's Landing and La Quinta Inn
- People do not like the frontage roads – want to see them turned into one-ways with landscaping or eliminated entirely
- People commented on lack of consistent business signs and poor wayfinding for popular locations on Airport Way and surrounding area
- Strange lane configurations throughout corridor – difficulty in turning, not enough room for build-up in turn lanes
- Lights are poorly synced for through traffic
- Lack of being accessible for pedestrians and bicyclists

Public Comments

- Need bike/pedestrian facilities and crossings on west end of Airport Way to access the airport
- Need west end of Airport Way to be a "Gateway to Fairbanks and Interior Alaska"
- Need better signage/markings directing to the Airport
  See: painted airport markings in Tampa, Texas

- Synchronize lights
- [Instantiate] boulevard like feel
- Incorporate feedback from assembly early [on]

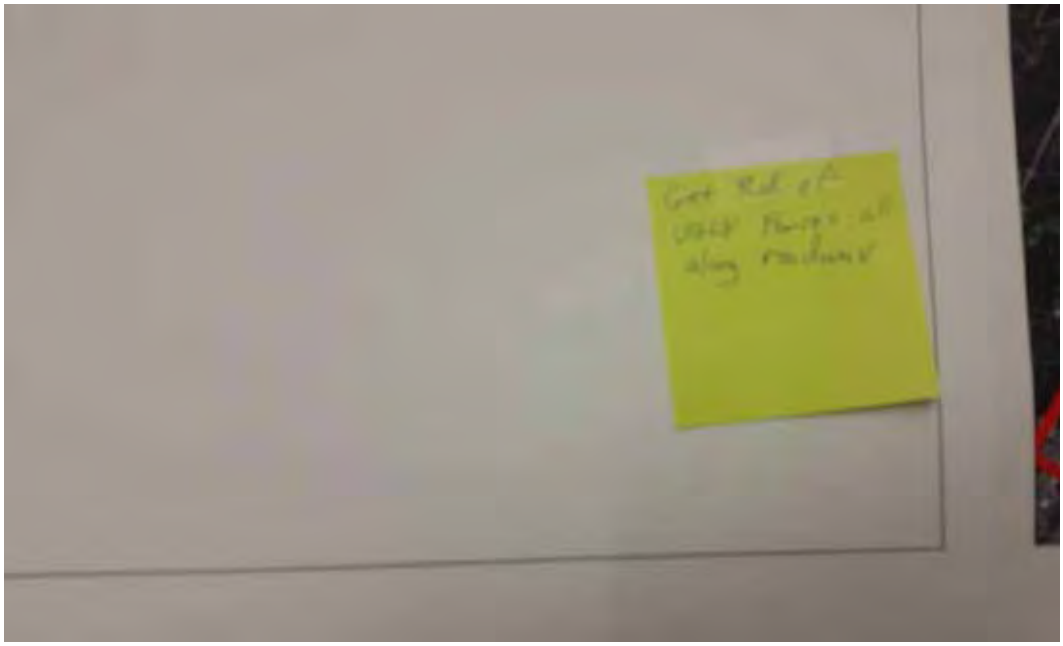


- Convert frontage roads to "one way" like the "boulevards in Europe" & D.C. (K Street in Washington DC?)
- Three people asked about signals. Can they be made more efficient?
- Are they going to put flashing yellow arrows on the signals?
- Problem → pedestrian access on Frontage Roads interrupted by snow storage
- Can Airport Way corridor function as pedestrian through way [sidewalks on Frontage Road]?
- Sidewalks stop… nowhere to go
- Signage… how does someone on Airport Way know how to get to Pioneer park? Confusing
- Peger/Airport… getting onto Frontage Road (in front of Pioneer Park) impossible → confusing intersection
- "Passive landscaping" (boulders) works good
- Use local shrubs for landscaping (they don't require as much maintenance/care)

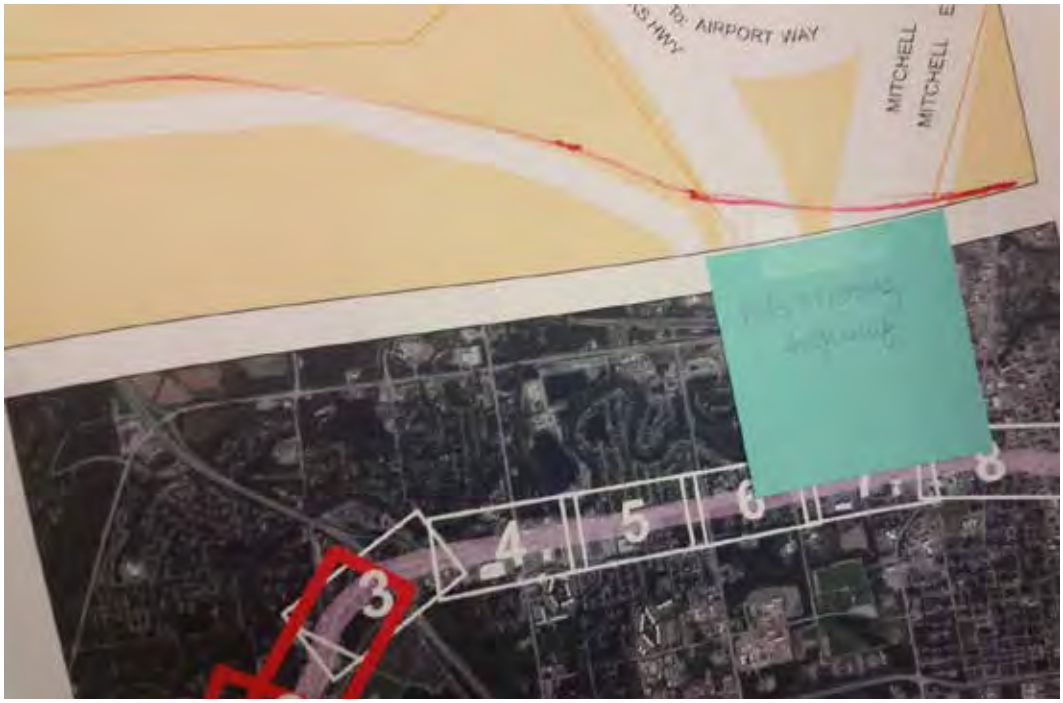
Issues

Written issues: "Storm water into the Chena"; "Traffic light signal timing"

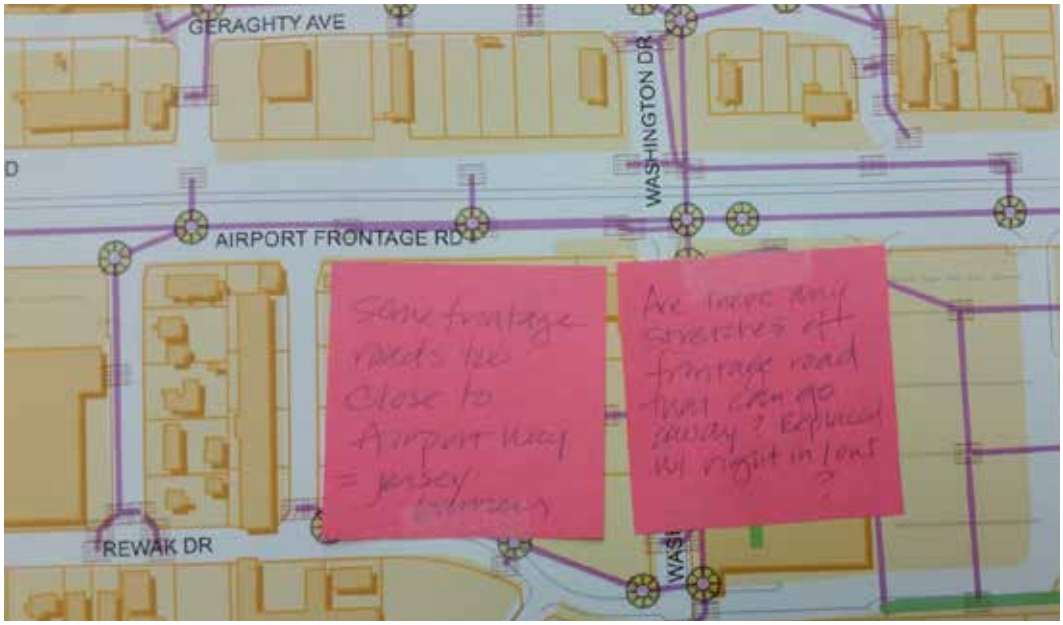
"La Quinta pedestrian crossing"



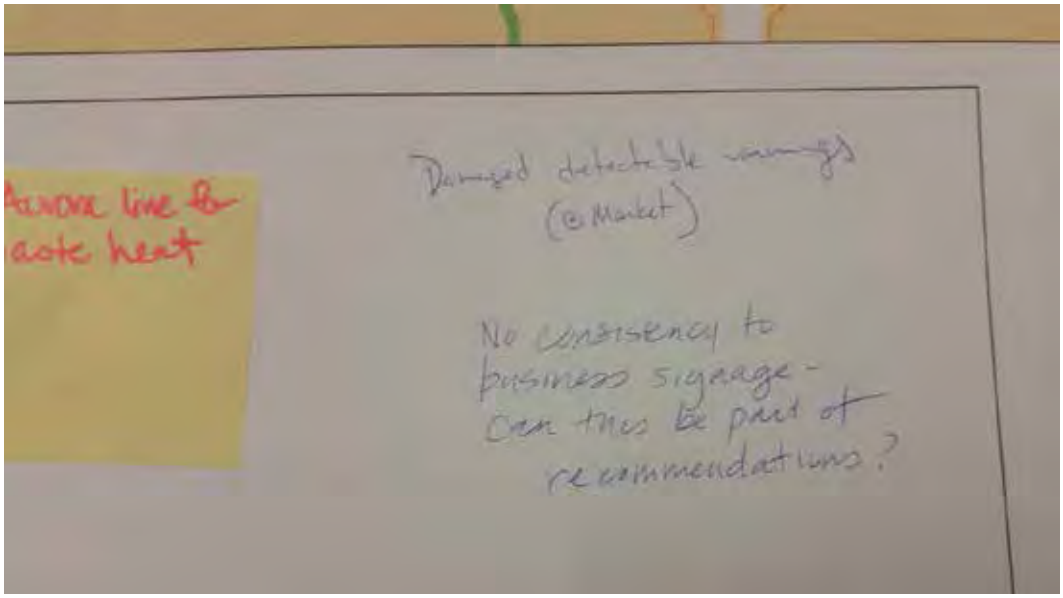
"Get rid of UGLY fences all along roadway"



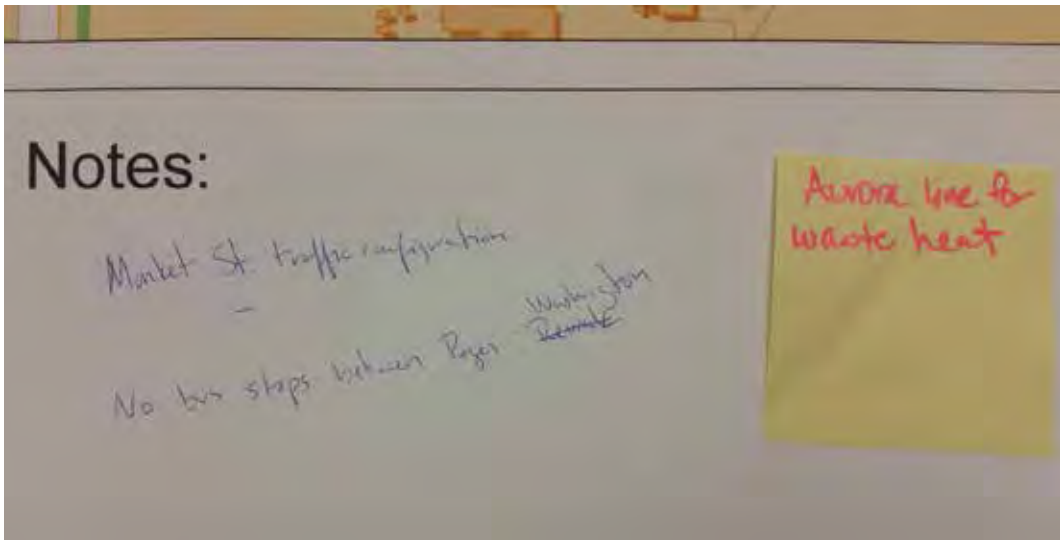
"Pedestrian crossing @ highway"



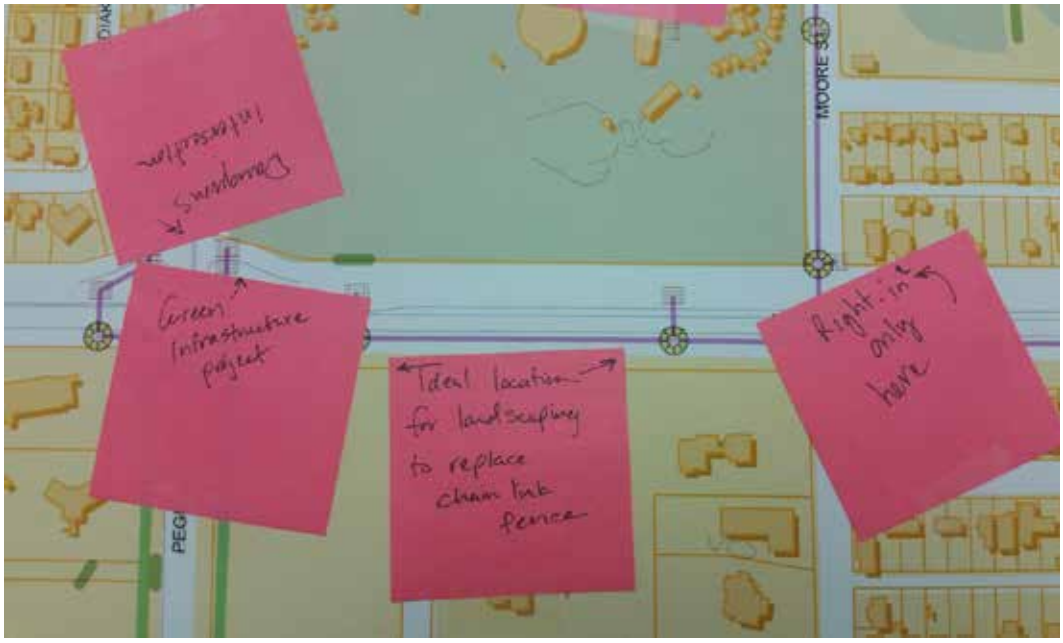
"Some frontage roads too close to Airport Way [causing the need for] jersey barriers"; *"Are there any stretches on Frontage Road that can go away? Replaced with right in/out?"*



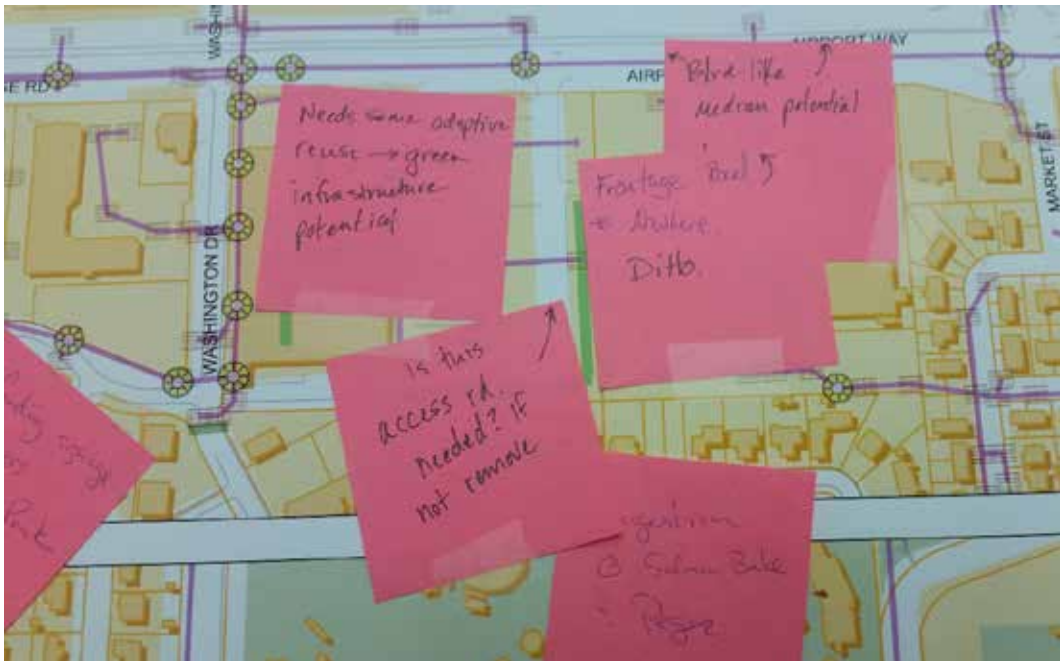
"Damaged detectable warnings @ Market St"; "No consistency to business signage - can this be part of recommendations?"



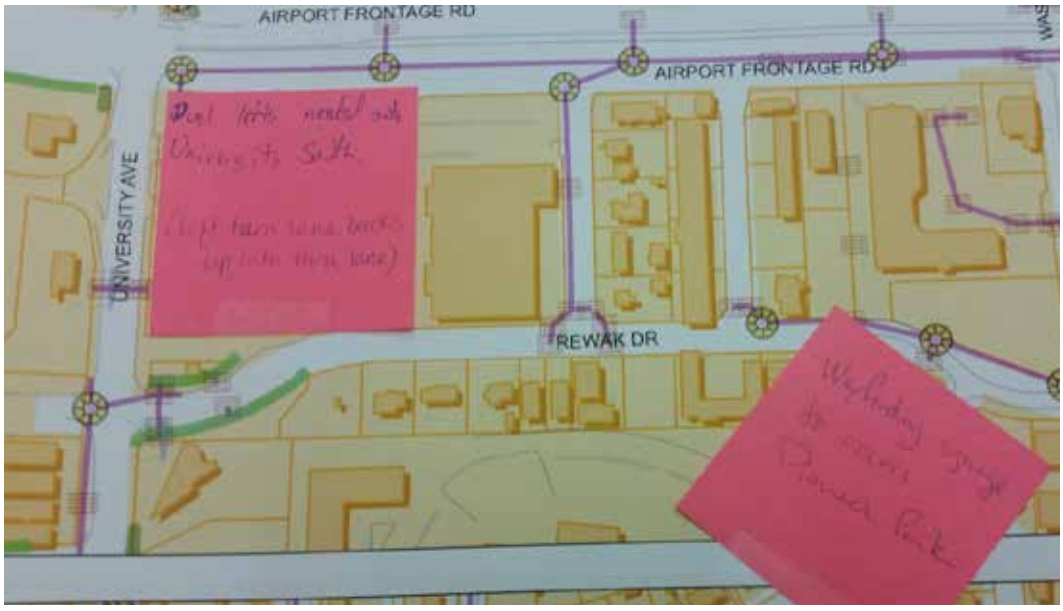
"Market St. traffic configuration"; "No bus stops between Peger & Washington"; "Aurora line for waste heat"



"Green infrastructure project" at north side of Peger intersection; "Ideal location for landscaping to replace chain link fence"; "Right-in only here" at Moore intersection; "Dangerous intersection" at Peger



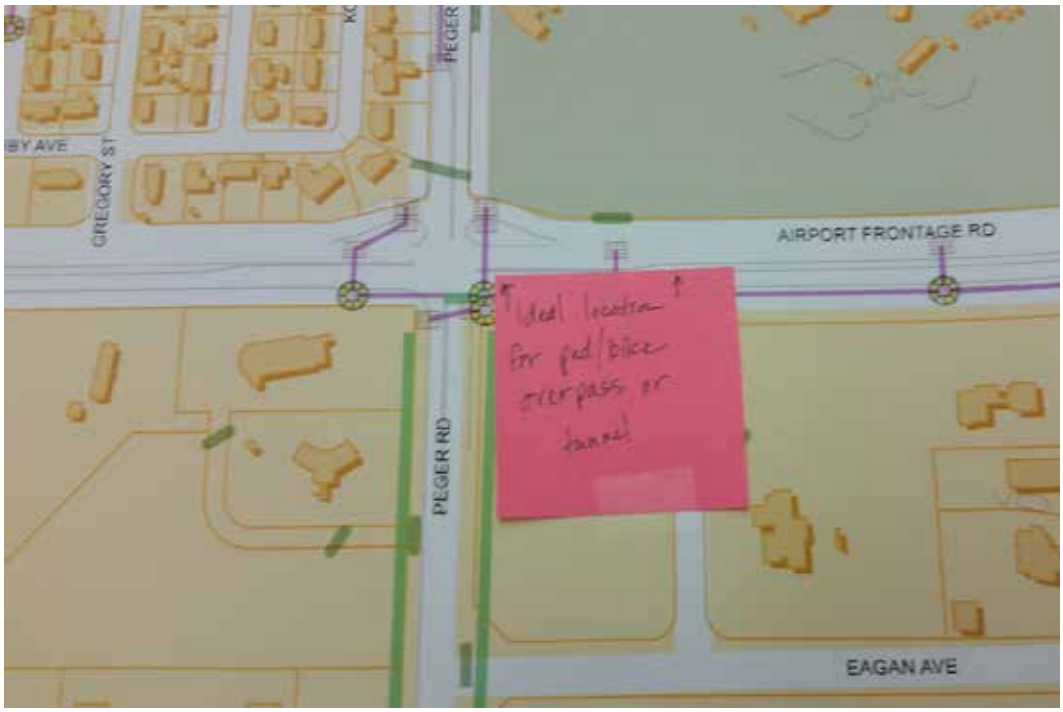
"Needs some adaptive reuse --> green infrastructure potential" at Washington Dr; "Blvd-like median potential"; "Frontage Road to nowhere" between Washington St and Market St; "Is this Access Rd. needed? If not, remove"; "Suggestion @Salmon-bake & Peger"



"Dual lefts needed onto University South (left turn lane backs up into thru lane)"; "Wayfinding signage to Access Pioneer Park"

Appendix E

Title VI Public Involvement Report



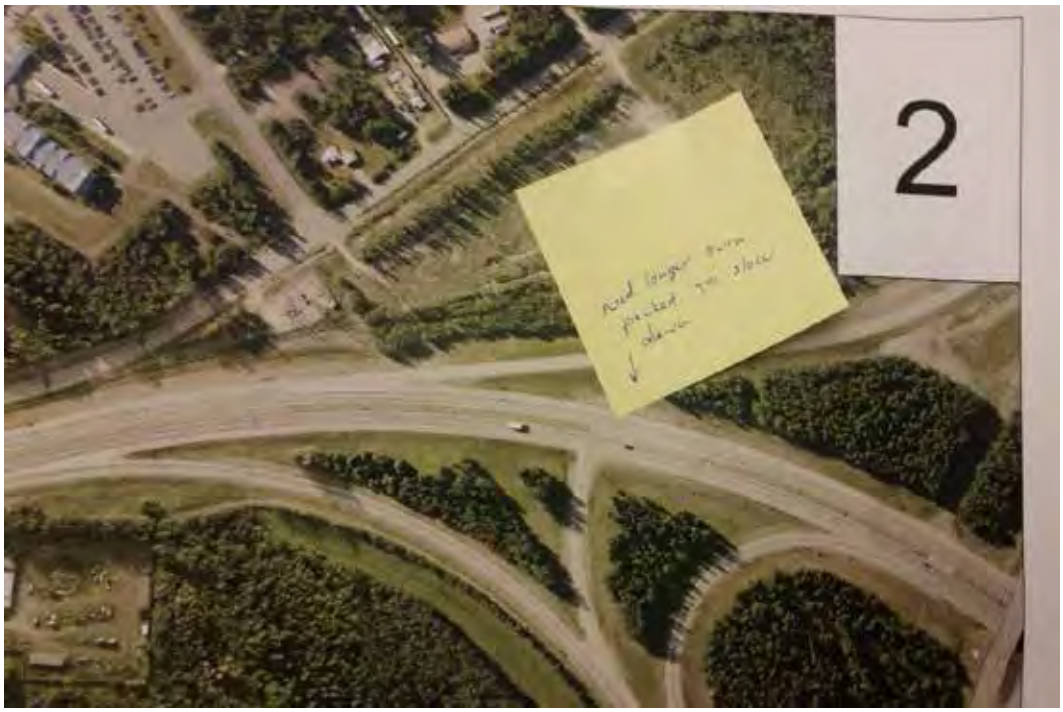
"Ideal location for ped/bike overpass or tunnel"

"Barnette/Gafney Airport intersections [have] strange lane configurations"; "Major gateway area to downtown. Needs landscaping and monuments/public art work on corners" at Cushman St intersection

"Green Infrastructure project" at Cowles intersection; "Remove jersey barrier + replace with landscaping"; "Fencing is ugly; signs too!"; "Needs gateway features/signs introduction to Downtown Core and Historic District" at Barnette St/Gaffney Rd

Ideas

Idea	Like	Responsibility
Trees	☺ yes	State or city
Shrubs	Small + flowering More native plants	
Fences	Decorative only No chain-link Hate chain-link No	
Barriers	No! Hate barrier More decorative? Where needed	
Rain gardens	yes	No maintenance
New business signage	Need sign standards (FNSB) Signs @ pioneer park hard to understand from Airport Way	Follow downtown signs but change color to match corridor (community wayfinding color-coded) FNSB
Wayfinding		
Planters	Yes ☺ yes	Community groups + businesses
Walls	Decorative only Ditto	
Lighting	Is adequate now Do we believe in dark skies? New unshielded lights spill into adjacent streets	Fairbanks economy community & businesses Dark skies improvements
More bus stops	Yes! Turn outs	

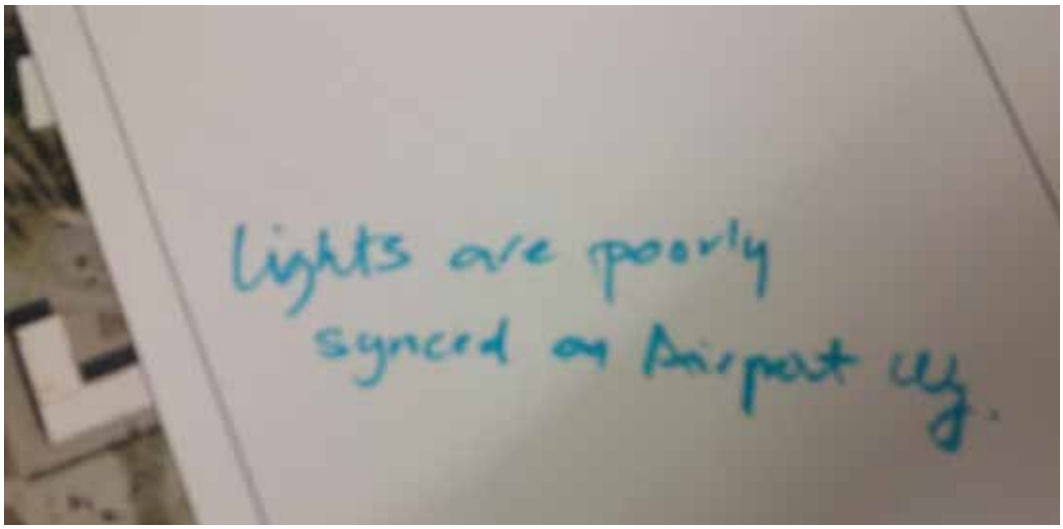


"Need Longer turn pocket to slow down" turning left onto Robert Mitchell Expy

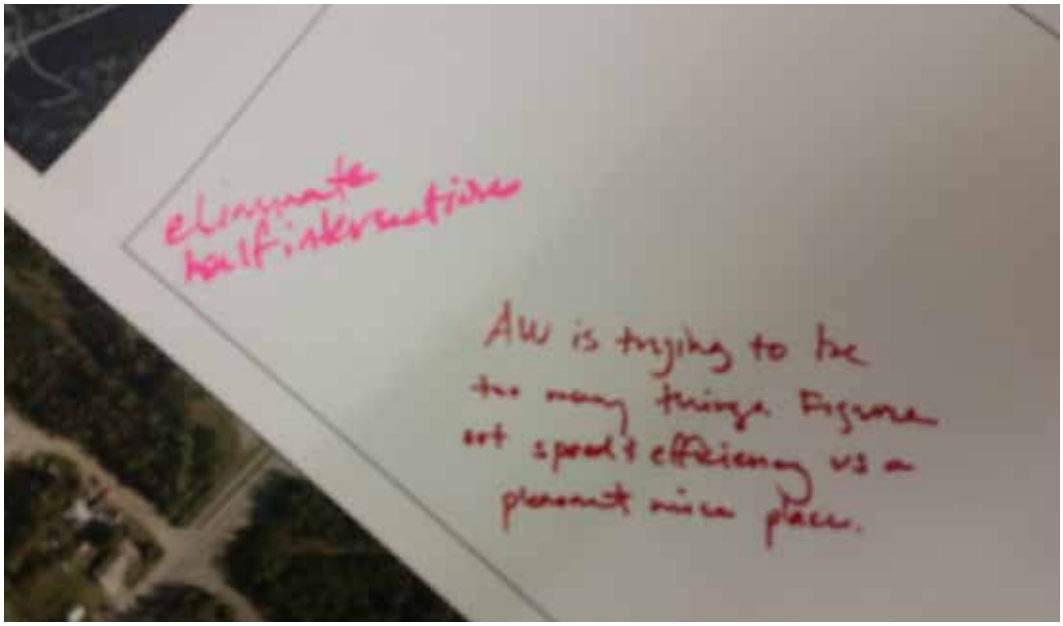
"Potential gateway feature (reasons: accessed controlled; easy for drivers)" on stretch from Old Airport Rd intersection to area close to Dale Rd/King Rd intersection

"Welcome sign (4'x4') too small" at entrance to FAI

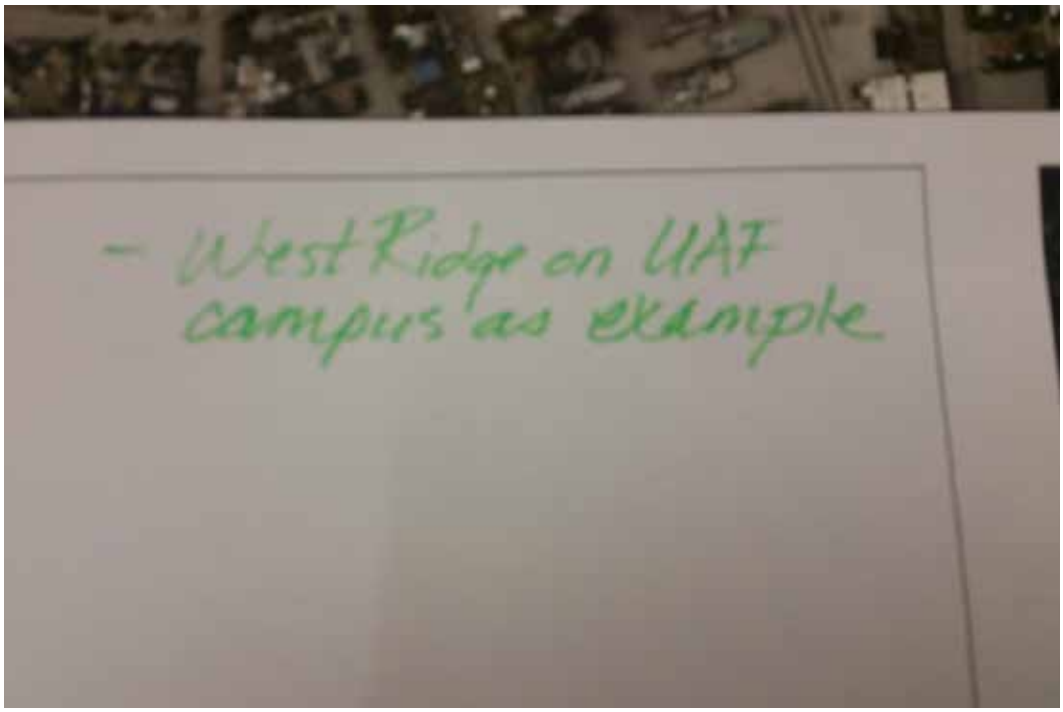
Can the Frontage Rd on the N side of Airport Way between University Ave and Martin St be eliminated? Do the current commercial properties need the road for traffic access?



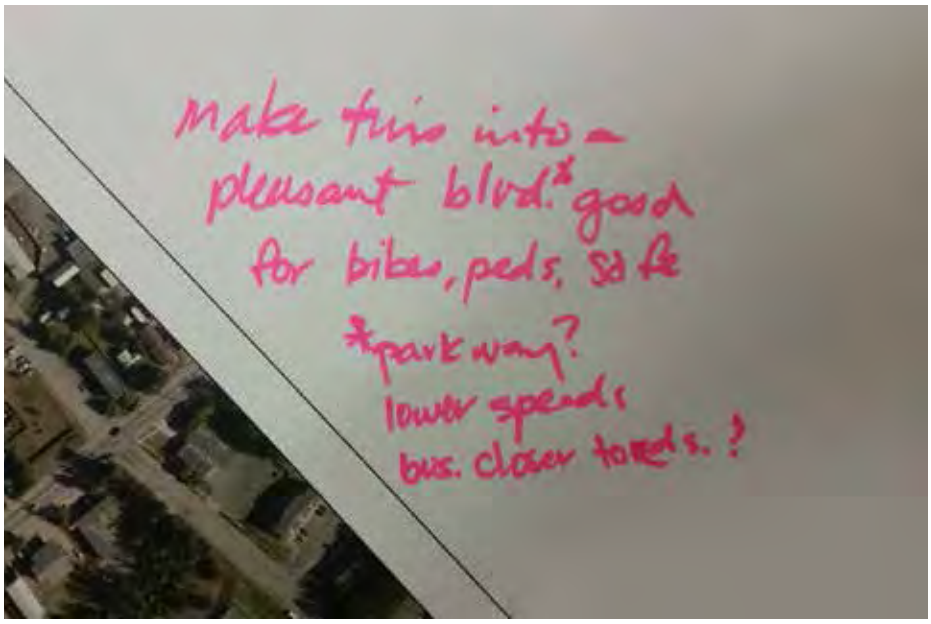
"Lights are poorly synced on Airport Way." This was a common comment concerning the inability to go from hwy to hwy without stopping.



"Eliminate half intersections."; "Airport Way is trying to be too many things. Figure out speed & efficiency vs. a pleasant, nice place."



"West Ridge on UAF campus as example" [unknown context]



"Make this into a pleasant boulevard [to be] good for bikes, pedestrians, safe..."; "*parkway? lower speeds, businesses closer to roads?"

"Tough pedestrian corner" at Barnette St intersection

E-mails

Greetings,

Your name was on the postcard I received for comments on the Airport Way visioning effort.

My initial comment has to do with the Airport Way and Steese Intersection. That location needs something better, as a minimum an Urban style interchange ala College and Johansen interchange. Without significant land acquisition, I doubt you could do a full cloverleaf style.

Another improvement would be signal integration to maximize the green time for moving traffic. Getting all lights green from University Ave to Steese has about the same odds of winning the lottery.

Thanks for listening.

Hi Jeff (and Leah): Thanks for involving the public in planning.

I spoke to you yesterday at the public meeting about the idea of converting frontage roads along Airport Way to one-way traffic. Think of them not as frontage roads at all, but rather as outer, local-traffic lanes separated from the inner, through-traffic lanes by medians.

I don't know that this is the best solution for Airport Way, but I think it worth consideration. Offhand I see two possible advantages: first, by eliminating opposing traffic between what are now the main and the frontage roads, you might eliminate the need for barriers - and gain the possibility for trees or other landscape features in the medians. Second, it might eliminate some of the turning-movement conflicts that exist with the present arrangement.

I spent a bit of time on Google Earth (and Google Earth Street View) this morning and found:

- My memories of Washington DC and Rome were correct; K Street in downtown Washington DC is this sort of roadway, as are many larger streets in Rome (e.g. Via Cristoforo Columbo or Via Ostiense, Via Nomentana, Via della Conciliazione etc.).

- I also found of this sort in Paris, Avenue Charles de Gaulle, and in NYC, Eastern Parkway in Brooklyn.

I'm sure there are other examples, but I figured this was sufficient.

Note some of these use mid-block diagonal slots through the median for vehicles to enter and exit the through lanes from the local ones - sort of mini on- and off-ramps. Buses might be able to use pairs of such things to access bus stops in the local lanes and quickly return to through lanes.

I don't know of any design standards or guidelines specifically for this sort of road: would you like me to look?

Please Jeff, do not put a roundabout at the intersection of Cushman and Airport. That corner is not suitable for that type of traffic control. A plain Jane 4 way intersection may not be sexy but they are practical, relatively cheap and not a pain in the ass to maintain in the winter.

Patrick:

Thanks for telling us about the Airport way renewal.

My input: is the light at the corner of Airport and Gilliam Way. It does not have a left turn signal going north on Gilliam and turning left or west onto Airport Way. At 2:25 every day many school buses are trying to turn here and it's a long delay. Drivers are not paying attention as the southbound drivers who cross Airport and want to turn left or east onto the frontage/ turn into the Credit Union get piled up as the North bound drivers not paying attention to this area block it as they are trying to turn left.

A left turn signal is needed here, desperately.

A dedicated right turn lane on Gillam, turning east onto Airport could be another answer.

My Vision for Airport Way:

Fairbanks Light Rail (FLiR)

I see light rail cars that run between the front gate of Fort Wainwright and the Fairbanks International Airport terminal on a near constant schedule. Maximum 10 minute wait. The cars will have spaces for rolling on bicycles and luggage, will meet or exceed all ADA requirements, and be pet friendly. FLiR will run on its own solar electricity when possible and GVEA electricity when solar is inadequate. There will be

many stops at attractive and comfortable shelters.

FLiR could eventually be expanded to access the box stores by running along the Steese, UAF along the Mitchell/Parks, and the Carlson Center/Growden Park along Wilbur. In the meantime, connect with bus stops that access those areas.

Benefits of FLiR:

- Support the State Court Wellness program in keeping DUI offenders off the roads by providing them with warm, safe alternative transportation.
- Reduce DUI's by providing transportation from Ft. Wainwright and other residences along the corridor to and between bars.
- Provide more frequent and convenient transportation option for our disabled population.
- Improve air quality in the winter by providing a convenient alternative to driving in hazardous conditions and reducing the number of empty vehicles idling in parking lots at the stores and movie theater.
- Promote commercial development of prime real estate along Airport Way.
- Increase property tax revenues by promoting commercial development along the route.
- Reduce or eliminate the need to expand parking lots at the airport.
- Provide access to shopping and entertainment for senior and low-income families that do not have vehicles.
- Replace the current bus routes on Airport Way that have an inadequate number of stops, use fuel, produce exhaust, have inadequate wheelchair accommodation, and require lifting bicycles onto the racks.

All Season Multi-Use Rec Center (ASMU-Rec)

The large empty lot at the Southeast corner of Airport Way and Lathrop will be developed into a facility that promotes healthy active lifestyles. It will include lighted winter ice skating rinks and summer roller skating rinks with year-round basketball courts and ninja warrior-style obstacle course. It will be a modern open structure that will protect the surfaces from rain and snow, allow for some heat retention in the winter, but have open sides or ends for an outdoor experience.

There will be ample seating for spectators. Restrooms playground, and picnic areas on the grounds. Parking areas will be modest in size and attractively landscaped with emphasis on convenient access by FLiR. The Edith Kanaka'ole Tennis Stadium in Hilo, Hawaii comes to mind as an example.

No to Jersey Barriers, Yes to Bike Paths/Sidewalks

- Hardy landscaping that requires little maintenance

    - » survives snow being plowed onto it
    - » Perennials that flower at different times and don't need additional watering
    - » remove weeds from cracks in the pavement and clean out storm drains so trees aren't growing out of them
- Decorative fences and planters similar to downtown, but that don't block pedestrian and bikeways
- Benches
- An open spacious feel to it unlike downtown

1. More bike racks everywhere

Improve Traffic Access

The biggest problems are:

- Access to movie theater at Wilbur Street and Airport Way
- Access to University Ave at Geraghty Ave where Airport Way frontage joins and people try to turn left onto University
- Access to Pioneer Park at Peger.

THANK YOU, THANK YOU, THANK YOU for uplifting our collective spirits by improving the aesthetics of our community.

Mr. Cotter:

I urge ADOTPF to implement elements of green infrastructure, e.g., bioswales and rain gardens, to accommodate storm water runoff and reduce the amount of hardened surface along the route.

Additionally, ADOTPF should adopt soft stream bank restoration approaches, e.g., root wads and spruce tree revetments, in areas that border the Chena River.

Thank you.