

## TECHNICAL MEMORANDUM #5

### *2045 In Motion* – FAST Planning Metropolitan Transportation Plan Update

Policy Review

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Date: October 31, 2022

Project #: 26291

To: Jackson Fox, FAST Planning

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cc: FAST Planning Technical Committee

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## INTRODUCTION

This memorandum updates the Envision 2045 Policy Assessment Appendix for inclusion in the *2045 In Motion* Metropolitan Transportation Plan (MTP). It summarizes existing metropolitan planning organization (MPO) planning requirements, highlights new requirements from the most recent federal transportation legislation, and provides a checklist to ensure compliance with existing and new requirements. Additionally, this document provides an overview of existing MPO policies, and provides recommendations for new policies to help the MPO better align with state and federal transportation planning priorities, while representing local and regional interests.

## FEDERAL PLANNING REQUIREMENTS

Metropolitan planning organizations were created by the Federal-Aid Highway Act of 1962 as a means of directing federal funding towards urbanized areas with a population greater than 50,000.<sup>1</sup> In the past 60 years, the roles that MPOs play in their communities have changed, as have the federal regulations that guide them. This section outlines the three most recent pieces of federal legislation that direct metropolitan planning activities, as well as modifications to the Urban Area criteria that governs MPO designation.

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<sup>1</sup> United States House of Representatives. *H.R. 12135 (85<sup>th</sup>): An act to authorize appropriations for the fiscal years 1964 and 1965 for the construction of certain highways in accordance with title 23 of the United States Code, and for other purposes.* Section 9(a) Transportation Planning in Certain Urban Areas. October 23, 1962 <https://www.govtrack.us/congress/bills/87/hr12135/text>

## Urban Area Criteria Updates

As the threshold that determines designation as an MPO, the US Census Bureau's criteria for quantifying an Urban Area (also known as an urbanized area), is an important topic in metropolitan transportation planning. Every ten (10) years, along with the Decennial Census, the US Census Bureau revisits these criteria to ensure that they accurately determine urban areas. In 2020, the most recent Decennial Census was conducted, and in addition to updated population counts, the US Census Bureau released updated Urban Area criteria. The final 2020 criteria include<sup>2</sup>:

- **Identification of Initial Urban Area Cores:** Aggregation of census blocks with a housing unit density of 425. Use of land cover data to identify territory with a high degree of imperviousness.
- **Minimum Qualifying Threshold:** An area will qualify as urban if it contains at least 2,000 housing units or has a population of at least 5,000.
- **Types of Urban Areas:** Urban areas will no longer be distinguished as either an "urbanized area" or an "urban cluster." All qualifying areas will be designated "urban areas."
- **Inclusion of Group Quarters:** Census blocks containing group quarters and a population density of at least 500 adjacent to already qualified blocks will be included.
- **Inclusion of Noncontiguous Territory via Hops and Jumps:** Maximum hop distance 0.5 miles, maximum jump distance 1.5 miles, and no hops after jumps. Intervening, low density blocks are not included in the urban area.
- **Inclusion of Noncontiguous Territory Separated by Exempted Territory:** Bodies of water and wetlands as identified in the land cover data. The intervening, low density blocks of water or wetlands are not included in the urban area.
- **Low-Density Fill:** Contiguous census blocks added to already qualifying territory with a housing unit density of 200.
- **Inclusion of Airports:** Currently functioning airport within a distance of 0.5 miles to the urban area that is a qualified cargo airport or has an annual enplanement of at least 2,500 passengers.
- **Additional Nonresidential Urban Territory:** Inclusion of groups of census blocks with a high degree of imperviousness and that are within 0.5 miles of an urban area and have a total area of at least 0.15 square miles. Inclusion of groups of census blocks with at least 1,000 jobs (per Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics (LODES) data) and that are within 0.5 miles of an urban area.
- **Inclusion of Enclaves:** Additional census blocks added when surrounded solely by qualifying land territory or by both land that qualified for inclusion in the urban area and water.
- **Inclusion of Indentations:** 3.5 square mile maximum area of the territory within the indentation to be added to the urban area.

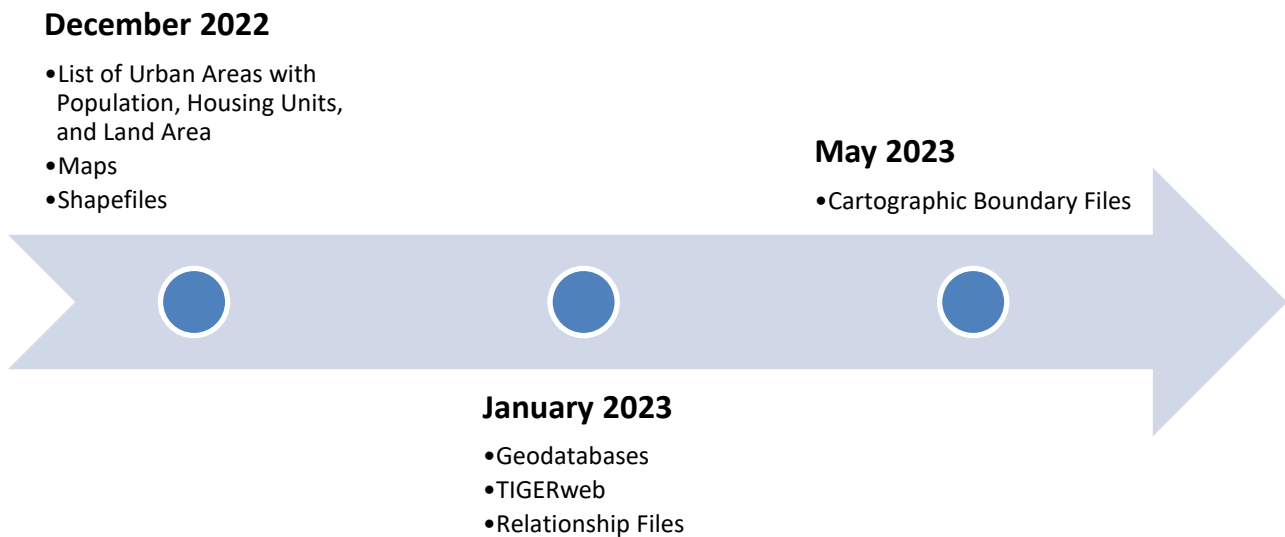
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<sup>2</sup> US Census Bureau. (March 24, 2022). *Urban Area Criteria for the 2020 Census – Final Criteria*. National Archives: Federal Register. 87 FR 16706. <https://www.federalregister.gov/documents/2022/03/24/2022-06180/urban-area-criteria-for-the-2020-census-final-criteria>

- **Merging Block Aggregations:** Merge qualifying territory from separately defined 2020 Census urban areas that do not contain a high-density nucleus and are within 0.25 miles of a qualifying urban area.
- **Identification of Agglomerations:** Identify qualifying areas that contain a high-density nucleus with a housing unit density of 1,275 and at least 2,000 housing units or 5,000 persons.
- **Splitting Large Agglomerations:** Potential splits and merges are identified using Longitudinal Employer-Household Dynamics worker flow data between 2010 Census urban area pairs. If necessary, split location is guided by commuter-based communities.
- **Assigning Urban Area Titles:** Clear, unambiguous title based on commonly recognized names of places within the high-density nuclei, derived from incorporated places, census designated places, minor civil divisions, and the Geographic Names Information System.

These finalized criteria were published in March 2022. The US Census Bureau has released an updated schedule for Urban Area data products, summarized in Figure 1<sup>3</sup>.

**Figure 1. US Census Bureau 2020 Data Products Schedule (Revised July 11, 2022)**



Upon release of the Urban Area list, maps, and shapefiles in December 2022, it is recommended that FAST Planning review the updated Fairbanks Urban Area boundary and adjust the FAST Planning Metropolitan Planning Area (MPA) as necessary.

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<sup>3</sup> US Census Bureau. (July 11, 2022). Urban and Rural Classifications. <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html>

## MAP-21 & Fast Act

The FAST Act was signed into law in December 2015, before the last MTP Update in 2018<sup>4</sup>. It replaced the Moving Ahead for Progress in the 21st Century (MAP-21) Act from 2012. The FAST Act generally continues the metropolitan planning requirements that were in effect under MAP-21 with some notable additions. Per federal requirements outlined in the Fixing America's Surface Transportation (FAST) Act and the Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) Act, the 2045 *In Motion MTP* must incorporate the following planning factors<sup>5</sup>:

- Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety of the transportation system for motorized and nonmotorized users;
- Increase the security of the transportation system for motorized and nonmotorized users;
- Increase the accessibility and mobility of people and freight;
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
- Promote efficient system management and operation;
- Emphasize the preservation of the existing transportation system;
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- Enhance travel and tourism.

These planning factors remain the guiding framework for metropolitan transportation planning.

## Infrastructure Investment & Jobs Act / Bipartisan Infrastructure Law

In November 2021, Congress passed the Bipartisan Infrastructure Law, also known as the Infrastructure Investment and Jobs Act (IIJA). This legislation has authorized and appropriated billions of dollars to invest in modernizing transportation, among other types of, infrastructure in the next five to ten years. As with previous transportation-focused legislation, the IIJA continues where MAP-21 and the FAST Act left off, by perpetuating the federally-required performance measures that the previous MTP reported, in addition to many existing funding programs. The IIJA refocuses the industry on resiliency, equity,

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<sup>4</sup> Federal Highway Administration. (February 2016). *FAST Act: Metropolitan Planning Fact Sheet*. US Department of Transportation. <https://www.fhwa.dot.gov/fastact/factsheets/metropolitanplanningfs.pdf>

<sup>5</sup> Federal Highway Administration. (April 2016). *FAST Act: Statewide and Non-Metropolitan Planning*. US Department of Transportation. <https://www.fhwa.dot.gov/fastact/factsheets/statewideplanningfs.cfm>

accessibility, and multimodal safety through a variety of new funding programs available to states and MPOs, including:

- [Airport Terminal Program](#)
- [Bridge Investment Program](#)
- [Carbon Reduction Program](#)
- [Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation \(PROTECT\) Formula Program](#)
- [National Electric Vehicle Infrastructure Program](#)
- [Railroad Crossing Elimination Program](#)
- [Reconnecting Communities Pilot Program](#)
- [Safe Streets for All Program](#)
- [Transit Oriented Development Planning Pilot Program](#)

Similar to previous legislation, the IIJA also sets out new planning requirements and considerations. Table 1 delineates these MPO planning updates and includes recommendations for FAST Planning Actions.

**Table 1. Metropolitan Transportation Planning Updates**

| Planning Update  | FAST Planning Action  |
|--|---|
| <p>The IIJA establishes the federal Complete Streets Program, which requires that MPOs adopt a Complete Streets policy and apply the policy through the Metropolitan Transportation Plan to receive federally-apportioned program funds. The Program requires a minimum of 2.5% of federal funding allocated under the program (Section 505 of Title 23 USC) be disbursed for the creation of a Complete Streets Plan or on Complete Streets projects, with a federal share of 80%. Further guidance is forthcoming.</p> | <p>As summarized in the ‘Current Policies’ section, FAST Planning already has a Complete Streets Policy in effect. To comply with programmatic funding requirements, the MPO must incorporate Complete Streets elements into its fiscally-constrained project list and ensure that at least 2.5% of PL funds are dedicated to safe and accessible transportation options for people of all ages and abilities. FAST Planning policy already exceeds this requirement.</p> |
| <p>The IIJA amends FAST Act Section 6028(c) to extend the performance management program between FY 2022 – 2026.</p>   | <p>FAST Planning should continue the use and reporting of federal performance measures through 2026.</p>  |
| <p>The IIJA modifies Section 135f of Title 23 USC to permit the use of social media and other web-based tools to collect public feedback during the planning process.</p>  | <p>FAST Planning can continue to incorporate the use of social media as an engagement tool in future planning processes.</p>  |
| <p>The IIJA establishes that for each grant or pilot program established by this Act, USDOT can establish performance measures and require an initial report 4 years after fund disbursement and every 2 years thereafter so long as funds are being disbursed.</p>  | <p>For any competitive federal grant funds received between fiscal years 2022 – 2026, FAST Planning may be required to track additional performance measures.</p>   |

| Planning Update  | FAST Planning Action  |
|--|---|
| <p>The IJA modifies Section 5305 of Title 49 USC to permit more than 80% federal share for planning in lower-density or lower-income portions of metropolitan or adjoining rural areas.</p>  | <p>As FAST Planning encompasses an urbanized area that is still rural in character and feel, some of the lower-density, and/or lower-income communities may benefit from a reduced local match for federal transportation planning funds.</p>                       |
| <p>Consult with affordable housing advocates in the formation of the MTP and consider connections between jobs and housing during metropolitan transportation planning.</p>  | <p>FAST Planning should establish relationship with local and regional housing agencies and organizations. The <i>2045 In Motion</i> MTP includes housing and employment density in non-motorized and transit assessments.</p>                                      |
| <p>Under the Surface Transportation Block Grant (STBG) Program, states are required to create a process by which STBG funds are equitably distributed based on urbanized area population size.</p>                                       | <p>For FAST Planning, this will likely mean a categorization as an MPO with a population between 50,000 – 200,000 people. FAST Planning will work with Alaska DOT&amp;PF as well as the other Alaskan MPO to determine how funds will be equitably distributed.</p> |
| <p>Under the National Highway Freight Program (NHFP), each state is now allowed to add additional Critical Urban Freight Corridor (CUFC) Designations, up to 150 miles or 10% of the state’s Primary Highway Freight System mileage.</p> | <p>For FAST Planning, this will likely mean working with Alaska DOT&amp;PF to determine if any routes in the MPA qualify to designate as a CUFC.</p>  |

## Compliance Checklist

The metropolitan planning requirements of MAP-21, the FAST Act, and the IIJA are summarized in a Compliance Checklist in Table 2, along with their location in *2045 In Motion*. Bold text indicates new requirements per the IIJA.

**Table 2. Federal Planning Requirements Compliance Checklist**

| Requirement Factors   | Plan Response  | Location   |
|---|--|--|
| <p>The MTP carries out a continuing, cooperative, and comprehensive performance-based multimodal metropolitan transportation planning process.</p>  | <p>Performance implications, opportunities and challenges of demographic, environmental, economic and technology trends on Alaskan resources.</p> <p>Continuous engagement with ADOT&amp;PF planning partners throughout 2045 MTP development.</p>   | <p>Existing Conditions;<br/>Needs Assessment</p>       |
| <p>The metropolitan transportation planning process provide for consideration and implementation of projects, strategies, and services that address the 10 federal planning factors.</p>            | <p>Vision, goals and objectives are consistent with federal planning factors and linked to transportation-supportive state economic, environmental, and tourism goals.</p> <p>Strategies and actions enhance multimodal system assets, accessibility, connectivity, safety, resiliency, tourism, operations, and management.</p> | <p>Vision, Goals, and Objectives; Needs Assessment</p> |
| <p>FAST Planning’s transportation planning process use a performance-based approach to transportation decision-making. [23 USC 135 (d)(2)(A)]</p>   | <p>Through the establishment of performance measures related to statewide goals, in addition to those federally required, Fairbanks has enacted a performance-based approach.</p> <p>Resulting strategies prioritize solutions to address system performance gaps.</p>   | <p>Existing Conditions;<br/>Needs Assessment</p>       |
| <p>FAST Planning followed its documented public involvement plan to provide opportunities for public review and comment, provided for the participation of nonmetropolitan local officials, and</p> | <p>To increase participation and diversity of inputs, the public involvement process was carried out in a virtual setting, including an</p>  | <p>Executive Summary;<br/>Existing Conditions</p>      |

| Requirement Factors   | Plan Response  | Location                |
|---|--|-------------------------|
| <p>developed the MTP in consultation with Tribal governments and representatives. [23 CFR 450.216 (l) and 23 USC 135(f)(3)(A)(ii) &amp;(g)(3)]</p>  | <p>online survey, online open houses, and virtual workshop meetings.</p>   |                         |
| <p>FAST Planning incorporated the use of social media as an engagement tool in the transportation planning process. [23 USC 135(f)]</p>   | <p>Flyers, social media posts, and newspaper announcements were posted to facilitate broad involvement.</p>  |                         |
| <p>FAST Planning developed the MTP in cooperation with the state and nonmetropolitan local officials, and in consultation with Tribal governments and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. [23 CFR 450.216 (j) and 23 CFR 450.216 (9)]</p> | <p>Outreach targeted key MPO, rural organizations, advocacy groups, and other stakeholders, including tribal representatives.</p>  |                         |
| <p>The MTP was available for public review. [23 CFR 450.216 (o)]</p>  | <p>A public review draft was available between November 18 and December 18, 2022 on <a href="https://fastplanning.us/">https://fastplanning.us/</a></p>  |                         |
| <p>FAST Planning provided revised copies of the MTP to DOT&amp;PF, FHWA and FTA. [23 CFR 450.216 (q)]</p>   | <p>The Alaska Department of Transportation &amp; Public Facilities, the Federal Highway Administration and the Federal Transit Administration were provided revised copies of the MTP on January 25, 2023.</p> | <p>N/A</p>              |
| <p>The MTP has a minimum 20-year forecast period from the time of adoption. [23 CFR 450.216 (a)<sup>6</sup>]</p>  | <p>2045 In Motion utilizes a 22-year planning horizon (2023 – 2045), which exceeds the minimum requirement of 20 years.</p>  | <p>Needs Assessment</p> |

<sup>6</sup> Statewide and Nonmetropolitan Transportation Planning and Programming, 23 C.F.R. § 450 (2015). <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450>



| Requirement Factors   | Plan Response  | Location   |
|---|--|--|
| FAST Planning has continually evaluated, revised, and periodically updated the MTP. [23 CFR 450.216 (p)]  | <i>2045 In Motion</i> builds from the <i>Envision 2045 MTP</i> completed in 2018.  | Existing Conditions;<br>Needs Assessment                   |
| The MTP includes elements and connections between various modes and addresses intercity travel. [23 CFR 450.216 (2)]  | The MTP details the existing conditions, challenges, and opportunities of roadway infrastructure, non-motorized infrastructure, public transit services. In addition to the unique conditions of remote, rural, and tribal communities that use Fairbanks’ multimodal transportation system. | Existing Conditions;<br>Needs Assessment                   |
| The MTP includes strategies to ensure the preservation and most efficient use of the existing transportation system. [23 CFR 450.216 (b)]   | The MTP includes strategies that prioritize preservation of the existing Fairbanks’ multimodal transportation system.  | Policy Review; Needs Assessment                            |
| <b>FAST Planning must adopt a Complete Streets Policy and implement the policy throughout the MTP and Transportation Improvements Program (TIP) to qualify for federal Complete Streets Program funds. [IIJA, 23 USC 505]</b> | The MTP acknowledges the creation of the Complete Streets Program which stipulates that FAST Planning must incorporate the FAST Complete Streets policy throughout the MTP and the TIP.  | Existing Conditions;<br>Needs Assessment                   |
| <b>The MTP references, summarizes, or contains applicable studies, reports, and plans that were relevant to the development of the MTP. [23 CFR 450.216 (c)]</b>  | The MTP incorporated a summary of the existing plans and policies as part of the initial transportation and freight assessment to reference relevant statewide, metropolitan, and regional efforts.  | Existing Conditions  |
| <b>The integrates the priorities, strategies, or projects contained in the HSIP and the SHSP, as well as relevant asset management plans. [23 CFR 450.206 (c)]</b>  | The MTP includes safety and transit-related strategies and referenced federally required relevant performance measures.  | Existing Conditions; Policy Review;<br>Implementation Plan |
| <b>The MTP includes a security element that incorporates priorities, goals, or projects set forth in other transit safety</b>   | Vision, goals and objectives are consistent with security element that is reflected in   | Vision, Goals, and Objectives                              |

| Requirement Factors  | Plan Response   | Location   |
|--|---|--|
| and security planning programs. [23 CFR 450.216 (e)]   | the strategies that prioritize both motorized and non-motorized user safety.  |  |
| The MTP includes a description of the federal performance measures and targets used in assessing the performance of the transportation system, and a system performance report. [23 CFR 450.216 (f) and 23 USC 135 (f)(7)] | The MTP includes a description of federal performance measures.   | Existing Conditions; Policy Review.                              |
| FAST Planning’s transportation planning process continues to report the federal performance measures. [IIJA]   |   |  |
| The MTP includes a discussion of potential environmental mitigation activities, developed in consultation with Federal, State, regional, local and Tribal agencies. [23 USC 135(d[1], l, j) and 23 CFR 450.216 (k)]        | Vision, goals and objectives consistent with natural environmental protection and mitigation of transportation impacts. Strategies reflect increasing need for climate resiliency throughout the transportation system. | Vision, Goals, and Objectives; Policy Review; Executive summary. |
| The MTP considers the role that transit plays in environmental mitigation of transportation-related emissions and includes strategies to improve transit. [23 USC 135 (f)(8) <sup>7</sup> ]                                | The MTP includes transit-related needs, challenges, and opportunities, as well as strategies for improving transit service.   | Existing Conditions; Needs Assessment                            |
| The MTP includes a financial plan that demonstrates how the adopted MTP can be implemented. [23 CFR 450.216 (m)]   | 2045 In Motion includes a financial plan for the continued development of the Fairbanks region multimodal transportation system.  | Financial Plan   |

<sup>7</sup> Statewide and Nonmetropolitan Transportation Planning, 23 U.S.C. § 135 (2015). <https://www.govinfo.gov/content/pkg/USCODE-2015-title23/html/USCODE-2015-title23-chap1-sec135.htm>

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## FAST PLANNING POLICIES

This section provides an overview of the current FAST Planning policies, as well as recommendations for new policies that address the evolving metropolitan transportation planning practice as well as new planning requirements.

### Current Policies

Since 2015, FAST Planning has adopted and enacted three policies to improve the regional transportation system. These policies are detailed below.

#### ***Complete Streets Policy***<sup>8</sup>

The Complete Streets Policy was adopted in October 2015 and specifies that Complete Streets should be considered at all phases of planning and project development in the establishment and development of a multimodal transportation system. This policy is a commitment that future transportation projects will consider the need of everyone using the road right-of-way as early as practicable and throughout the planning process. FAST Planning recognizes the need for context-sensitive solutions, but the policy does not provide exact requirements for types of facilities that must be included in designing a street. The policy is put forward to be informational for agencies and consultants planning, designing, constructing, and maintaining streets in the FAST Planning area. The Complete Streets Policy is implemented via a checklist and field visit prior to the project kickoff. Local governments, including the Fairbanks North Star Borough, City of North Pole, and City of Fairbanks, passed resolutions of support for the policy.

#### ***Green Streets Policy***<sup>9</sup>

The Green Streets Policy was adopted in June 2016 to encourage the use of Green Infrastructure facilities as part of urban street design to retain, treat, and reduce stormwater runoff. The policy states, "All projects financed and approved by FAST Planning should, where practicable, use native and site-adapted vegetation, landscaping, and related environmental site design features to capture and filter stormwater runoff within the right-of-way in a manner appropriate to the function and context of the facility." The Green Streets Policy is implemented via a checklist and field visit prior to the project kickoff. Local governments, including the Fairbanks North Star Borough, City of North Pole, and City of Fairbanks, passed resolutions of support for the policy.

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<sup>8</sup> FAST Planning. (October 2015). *Complete Streets Policy*. <https://fastplanning.us/wp-content/uploads/2020/01/Complete Streets Policy Update.pdf>

<sup>9</sup> FAST Planning. (June 2016). *Green Streets Policy*. <https://fastplanning.us/wp-content/uploads/2020/01/Green Streets Policy Update.pdf>

## **Landscape Policy<sup>10</sup>**

The Landscape Policy was adopted in 2017 and encourages landscaping with transportation improvement projects to promote quality of life, livable communities, water quality and quantity benefits, long term viability, and maintenance of the project. This policy affects the preferred design approach that provides long-term financial benefits while minimizing environmental impact by focusing on efforts to retain, treat, and eliminate runoff at the source using landscaping elements or green infrastructure applications.

## **Recommended New Policies**

This section outlines the new policies recommended for adoption with the *2045 In Motion* MTP, drawing from recently completed plans, as well as newly required federal funding programs.

## **Existing Plans**

Since the *Envision 2045 MTP*, FAST Planning has engaged in a variety of planning activities, including the *Connect Fairbanks Non-Motorized Plan (2021)*<sup>11</sup>, the *Road Service Area Expansion Plan (2021)*<sup>12</sup>, the *Freight Mobility Plan (2019)*<sup>13</sup>, and the *Green Streets Plan (2019)*<sup>14</sup>. These topical plans suggest a number of policies for consideration and identified priority policies have been included in this section, along with suggested policy language.

### *Connect Fairbanks Non-Motorized Plan Recommended Policies*

- **Public Involvement Policy** – It is the policy of FAST Planning to require public comment on projects nominated to the Transportation Improvement Program (TIP) to ensure that public support exists for publicly funded projects.
- **Stakeholder Involvement Policy** – It is the policy of FAST Planning to present all projects nominated for inclusion in the Transportation Improvement Program (TIP) to the Bicycle & Pedestrian Advisory Committee (BPAC) for input on active transportation facilities and concerns.

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<sup>10</sup> FAST Planning. (September 2017). *Landscape Policy*. [https://fastplanning.us/wp-content/uploads/2020/01/Landscape\\_Policy\\_Update.pdf](https://fastplanning.us/wp-content/uploads/2020/01/Landscape_Policy_Update.pdf)

<sup>11</sup> FAST Planning. (May 2021). *Connect Fairbanks Non-Motorized Plan*. <https://fastplanning.us/wp-content/uploads/2021/05/Connect-Fairbanks-Plan-Final.pdf>

<sup>12</sup> FAST Planning. (November 2021). *Road Service Area Expansion Plan*. [https://fastplanning.us/wp-content/uploads/2022/02/FAST\\_RSA\\_final\\_report.pdf](https://fastplanning.us/wp-content/uploads/2022/02/FAST_RSA_final_report.pdf)

<sup>13</sup> FAST Planning. (January 2019). *FMATS Freight Mobility Plan*. <https://fastplanning.us/wp-content/uploads/2019/07/freight-mobility-plan-for-approval.pdf>

<sup>14</sup> FAST Planning. (June 2019). *Green Streets Plan*. [https://fastplanning.us/wp-content/uploads/2019/07/fast\\_planning\\_greenstreetsplan\\_6-18-19.pdf](https://fastplanning.us/wp-content/uploads/2019/07/fast_planning_greenstreetsplan_6-18-19.pdf)

- **Vision Zero Policy** – It is the policy of FAST Planning to create a Vision Zero Program to develop a data-driven, multidisciplinary approach to addressing serious and fatal crashes, including a focus on non-motorized users, through a safe systems approach to transportation planning, design, and programming.
- **Bicycle Parking Policy** – It is the policy of FAST Planning to require bicycle parking in all new developments. Additionally, it is the policy of FAST Planning to improve the available of bicycle parking through projects included in the Transportation Improvement Program (TIP).
- **On-Street Bicycle Facilities & Temporary Snow Storage Policy** – As permitted by the FHWA, it is the policy of FAST Planning to allow on-street bicycle facilities to be used as temporary snow storage, if a suitable alternative route is available, such as vehicular travel lanes. This policy is intended to provide flexibility in dedicating resources to implement high-value, on-street bicycle infrastructure while also dedicated resources to snow removal equipment and staffing.

#### *Freight Mobility Plan Recommended Policies*

- **Freight Advisory Committee Policy** – It is the policy of FAST Planning to perpetuate the Freight Advisory Committee as a standing committee of the FAST Planning Policy Board to support the planning and project development process for the MTP, FMP, and Capital Improvements.
- **Anti-Idling Policy** – It is the policy of FAST Planning to reduce the amount of idling by heavy vehicles and passenger vehicles, in order to reduce transportation-related emissions and improve air quality throughout the region.
  - The policy should include the identification of best practices so entities that are not subject to the policy may identify ways to voluntarily reduce their idling.
  - The policy should coincide with partner agency and organization efforts, such as the ARRC anti-idling policy implemented through the Locomotive Idle Reduction Program.

#### *Road Service Area Expansion Plan Recommended Policies*

- **Road Service Area / Orphan Road Policy** – It is the policy of FAST Planning to select Alternative 1, 2, or 3 as the official orphan road solution, and implement report recommendations.

#### *Green Streets Plan Recommended Policies*

Beyond the currently in place Green Streets Policy, detailed in the previous section, there are no policies recommended by the Green Streets Plan.

#### *IJA Focus Area Recommended Policies*

As discussed in the *Infrastructure Investment & Jobs Act / Bipartisan Infrastructure Law* section, the IJA includes a number of focus areas.

#### *Housing Coordination Policy*

It is the policy of FAST Planning to coordinate with local, state, and federal housing agencies and organizations to better connect housing and employment throughout the MPA.

Potential agencies and organizations include:

- [Alaska Department of Administration – Office of Public Advocacy – Fairbanks](#)
- [Alaska Coalition on Housing and Homelessness](#)
- [Access Alaska](#)
- [Alaska Housing Finance Corporation](#)
- [Association of Alaska Housing Authorities](#)
- [Fairbanks Housing & Homeless Coalition](#)
- [Interior Alaska Center for Non-Violent Living](#)
- [Fairbanks Pioneer Home](#)
- [Fairbanks Neighborhood Housing Services](#)

This policy is intended to aid FAST Planning in meeting the Housing Coordination requirements for the Metropolitan Planning Program, outlined in the IJA *Metropolitan Planning Program Fact Sheet*.<sup>15</sup>

#### *Electric Vehicle Charging Infrastructure Policy*

It is the policy of FAST Planning to create an Electric Vehicle Infrastructure Plan and Program to develop a data-driven, multidisciplinary approach to the efficient, equitable, and community-based implementation of electric vehicle charging infrastructure throughout the MPA.

This policy is intended to aid FAST Planning in proactively planning for and implementing electric vehicle infrastructure in a manner that meets the guidelines of the National Electric Vehicle Infrastructure Program, outlined in the IJA *National Electric Vehicle Infrastructure Program Fact Sheet*.<sup>16</sup> FAST Planning should engage with federal, state, and local agencies and organizations to ensure that electric vehicle infrastructure planning fulfills federal requirements, aligns with state priorities, and reflects community needs.

#### *Vision Zero Policy*

It is the policy of FAST Planning to create a Safety Action Plan and Program to develop a data-driven, multidisciplinary approach to implementing a safer transportation network for all users throughout the MPA.

This policy is intended to aid FAST Planning in meeting the funding requirements for the Safe Streets and Roads for All Program, outlined in the IJA *Safe Streets and Roads for All Fact Sheet*.<sup>17</sup>

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<sup>15</sup> Federal Highway Administration (February 2022). *Metropolitan Planning Program Fact Sheet*. US Department of Transportation. [https://www.fhwa.dot.gov/bipartisan-infrastructure-law/metro\\_planning.cfm](https://www.fhwa.dot.gov/bipartisan-infrastructure-law/metro_planning.cfm)

<sup>16</sup> Federal Highway Administration. (February 2022). *National Electric Vehicle Infrastructure Program Fact Sheet*. US Department of Transportation. [https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nevi\\_formula\\_program.cfm](https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nevi_formula_program.cfm)

<sup>17</sup> Federal Highway Administration (February 2022). *Safe Streets and Roads for All Program Fact Sheet*. US Department of Transportation. [https://www.fhwa.dot.gov/bipartisan-infrastructure-law/ss4a\\_fact\\_sheet.cfm](https://www.fhwa.dot.gov/bipartisan-infrastructure-law/ss4a_fact_sheet.cfm)

### *Carbon Reduction Policy*

It is the policy of FAST Planning to coordinate with the Alaska Department of Transportation & Public Facilities on the creation of a Carbon Reduction Strategy, to fulfil the requirements of the Carbon Reduction Program, outlined in the IJA *Carbon Reduction Program Fact Sheet*.<sup>18</sup> Additionally, this policy promotes the planning and programming of projects that qualify for Carbon Reduction Program funding as outlined in the *Fact Sheet*.

### *Safe Route to School Policy*

It is the policy of FAST Planning to create a Safe Routes to School Plan and Program to develop a multidisciplinary approach to implementing a safer, child-friendly, multimodal transportation network throughout the MPA. This policy is intended to aid FAST Planning in providing an all ages and abilities accessible transportation system.

### *Dig Smart Policy*

According to the Federal Communications Commission (FCC), the largest cost element for deploying broadband is that of burying fiber optic cables and conduit underground, which is supported by Federal Highway Administration findings.<sup>19</sup> As the Fairbanks region is connected to the Alaska United Fiber Optic Cable System, it is the policy of FAST Planning to increase broadband infrastructure access for residents and businesses by lowering capital costs incurred by internet service providers (ISPs) by aligning Fairbanks area road projects with broadband deployment projects. This is accomplished either by:

- FAST Planning Policy Board Member Agency Installed Conduit: FAST Planning Member Agencies install multiple or segmented conduit during TIP-approved projects and enters into a “cost-basis lease” agreement for use by ISPs. NCDOT lets ISPs use FAST Planning conduit for fiber-optic cables in exchange for FAST Planning access to cables for traffic signaling, smart transportation initiatives, and other purposes.
  - FAST Planning could contract with MCNC or another neutral entity to construct and manage operations, maintenance, and administrative duties.
  - Funding for laying conduit could be covered by lease or sale of conduit to private sector ISPs.
- Project Notification: Notify ISPs of new road projects eligible for ISP facility installation when the project is announced and include standards, locations, and estimated costs. FAST Planning could

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<sup>18</sup> Federal Highway Administration (February 2022). *Carbon Reduction Program Fact Sheet*. US Department of Transportation. [https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp\\_fact\\_sheet.cfm](https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet.cfm)

<sup>19</sup> Federal Highway Administration. (October 2013). Policy Brief: Minimizing Excavation Through Coordination. Office of Transportation Policy Studies. [https://www.fhwa.dot.gov/policy/otps/policy\\_brief\\_dig\\_once.pdf](https://www.fhwa.dot.gov/policy/otps/policy_brief_dig_once.pdf)

provide notifications to all ISPs quarterly. FAST Planning could hold bi-annual meetings with ISPs to review new projects and work through anticipated issues.

Additional information regarding Dig Smart is provided by the Fiber to the Home Council Policy Brief.<sup>20</sup>

### *Smart Growth Policy*

It is the policy of FAST Planning to promote development that increases the livability of the community, enhances economic vitality, and promotes environmental sustainability. Smart growth development is achieved through implementing the following strategies throughout TIP-approved projects and member agency development review<sup>21</sup>:

- Mix land uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Preserve open space, farmland, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost effective.
- Encourage community and stakeholder collaboration in development decisions.

This policy is intended to assist FAST Planning with the prioritization of TIP projects.

## WINTER MAINTENANCE POLICIES

A summary and assessment of City of Fairbanks and Alaska DOT&PF winter maintenance policies is attached.

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<sup>20</sup> Fiber to the Home Council. (2016). *DIG SMART: Best Practices for Cities and States Adopting Dig Once Policies*. <https://www.ncbroadband.gov/media/50/download?attachment>

<sup>21</sup> Smart Growth America. (2022). *Smart Growth Principles*. <https://smartgrowthamerica.org/what-is-smart-growth/>



Attachment  
Winter Maintenance Policies



## EXTERNAL MEMORANDUM

**To:** Andrew Ooms, PE, PTOE, RSP  
Kittelson and Associates

**From:** Patrick Cotter, AICP  
Project Manager  
RESPEC  
1028 Aurora Drive  
Fairbanks, AK 99709

**Date:** November 1, 2022

**Subject:** Winter Maintenance Policies

### INTRODUCTION

The City of Fairbanks Public Works Operations Department along with the Alaska Department of Transportation and Public Facilities attempts to maintain travel-safe walks and roadways for pedestrians and vehicles properly equipped for winter driving conditions. Arterials and major collector streets will generally be free from compacted snow or ice upon snowfall cessation. Bare, dry pavement should not be expected after each storm on residential streets. Streets maintained by the DOT&PF usually aim to have all roads plowed within 30 hours of the end of a snowstorm.

Streets are classified into one of four categories - highest, high, low, and lowest priority. These ratings are determined by such factors as traffic volume, school zones, business district etc. These ratings are reviewed annually by the City of Fairbanks Public Works Operations Department.

Each storm has unique characteristics and factors, such as intensity, duration, wind, temperature, and moisture content. All affect the total amount of snow and ice accumulation, hence influencing the methodology used to combat the resulting snow and/or ice-related conditions.

### MOBILIZATION OF WINTER MAINTENANCE OPERATIONS

Pursuant to the Fairbanks Code of Ordinances, Chapt-70-Section-321.

(a) A person having control of any premise boarded by a graded or paved sidewalk must promptly remove any snow which falls on the sidewalk and must remove or sand any ice which forms on the sidewalk, to the extent that the snow or ice is not an impediment to pedestrians.

(b) It is unlawful for any person to move snow or ice from private property onto any sidewalk, street, avenue, or alley in the city to the extent that the snow or ice is an impediment

1028 AURORA DRIVE  
FAIRBANKS, AK 99709  
907.452.1414



to use of the sidewalk, street, avenue, or alley. It is not a violation to move snow from the sidewalk off the adjacent curb.

Fairbanks City Ordinance 6061 puts the responsibility of snow and ice removal on the City of Fairbanks Public Works Department. The goal for snow removal is to open all arterial and collector roads within 72 hours, followed by clearing of streets in residential neighborhoods and clearing sidewalks and curb ramps throughout the city. City of Fairbanks Public Works maintains 355 lane miles of roadway, 97 miles of storm drain piping, and 30 miles of sidewalks.

The implementation of this policy lies with the Street Maintenance Foreman and Street Maintenance Lead, during off hours. The Street Maintenance Foreman and Street Maintenance Lead will use the National Weather Service daily forecasts to monitor weather conditions. The Street supervisor is responsible for scheduling the snow crews' actions based on these forecasts.

The start of snow and ice operations is determined by the actual snow fall depth of 3 inches, or less than 3 inches if combined with freezing rain or icy road conditions. Snow removal operations continue into April if the snow can be blown into trucks and hauled away. Otherwise, graders are used to continue removing any remaining hard pack or slush.

Less than 3 inches of snow will be allowed to pack down until the street is plowed and picked up in its set rotation for the season. Sand trucks will be dispatched to sand traffic intersections and other slick areas throughout the city. More than 3 inches of snow fall depth will be plowed to the edges or curbs of roads and scheduled for collection and hauled away to a snow storage site. After the priority routes are plowed, equipment will then be dispatched to the neighborhoods to smooth up streets and to start or continue snow collection in the neighborhoods.

When accumulated snow depth reaches 6", as measured at the Fairbanks International Airport, City of Fairbanks Public Works Department will post signage for snow removal in the Fairbanks downtown core area within 72 hours (1st – 5th Avenues, Wickersham to Noble Street). Snow removal operations will begin 24 hours after that. This standard is contingent on a night crew being staffed and emergency routes being cleared first. Hiring of a night crew is dependent on available budget, snow accumulation and the availability of temporary operators. In a typical winter, snow will be removed from the downtown core area 3 to 5 times.

Within the City of Fairbanks Public Works Department, the responsibility for ordering personnel and equipment into service for winter maintenance operation rests primarily with the Street Maintenance Foreman and Street Maintenance Lead, while within the rural areas this responsibility belongs to the Service Area Commissioner. These efforts are supported by the M&O District Superintendent at DOT&PF who is the accountable supervisory position for the Fairbanks District and is on-call all winter 24/7. Shift foremen handle most of the day-to-day decisions, including when and where to start snow removal/ anti icing decisions.

## PRIORITIES

Prioritization of roads for snow plowing are determined using separate factors by the City of Fairbanks and the State Department of Transport and Public Facilities (DOT&PF).

At the city level, the Fairbanks City of Fairbanks Public Works Department's priority is determined by several sources, including budget, availability of temporary operators, equipment and depth of snow fall to provide the greatest level of safety and benefit to the traveling public. In an efficient manor, the necessity of certain high used roads has priority over other less used roads. Therefore, streets with higher intensity use have a higher priority of snow plowing and removal service. Minor streets which require proportionally more time for snow plowing and removal for traffic served have



a low priority. City streets have been divided into the following snow plowing and removal priority categories:

**PRIORITY 1:** These are arterial and major collector streets to include schools, hospital, and emergency services.

**PRIORITY 2:** These are minor collector streets to include the business district and bus routes.

**PRIORITY 3:** All other streets that are not designated as either Priority 1 or 2 streets.

City parking lots are picked up by the night shift and sanding is typically done in the morning or as requested. Additional outside private equipment and personnel may be hired by the Street Maintenance Foreman and Street Maintenance Lead as deemed necessary. It normally takes the City of Fairbanks Public Works snow crew a minimum of 48 hours to plow and sand the Priority 1 routes, including schools and emergency services, after the snow stops falling. Priority 2 routes and residential streets take an additional minimum of 72 hours to plow and sand, assuming there are no unforeseen interruptions and optimal staffing levels. Priority 3 routes tend to get packed down and icy and, in this case, it can take days or even weeks before they can be finished being plowed and sanded.

The City of Fairbanks is divided into seven geographic residential areas/neighborhoods. Depending on funding levels for hiring temporary staff, it takes approximately 4-6 weeks to get through all the residential neighborhoods, before the next round of plowing begins. Depending on snow volumes, removal of snow berms will occur 1-2 times per winter. Once all roads are plowed, City of Fairbanks Public Works starts picking up the berms to widen the roads. Priority 1 routes, Priority 2 routes and City parking lots are picked up on a night shift, while neighborhoods will start to be picked up on the day shift. Neighborhoods that cannot be plowed and must be picked up will be worked into the schedule when staffing and equipment permits to do so. The neighborhoods are on a once-a-year rotation with the first neighborhood falling to the bottom of the list and the rest moving up each year.

At the state level, DOT&PF determines its road snow plowing using five levels. Priority 1 roads receive the most winter maintenance, followed by Priority 2, Priority 3 and, finally, Priority 4. Priority 5 roads do not receive winter maintenance. In communities without Priority 1 roads, staff will begin by clearing the Priority 2 roads or whichever roads are of highest priority within the district. The five priority levels are defined as:

**PRIORITY 1:** These are high-volume, high-speed highways, expressways, minor highways, all safety corridors, and other major urban and community routes.

**PRIORITY 2:** These are routes of lesser priority based on traffic volume, speeds and uses. Typically, these are major highways and arterials connecting communities.

**PRIORITY 3:** These are major local roads or collector roads located in larger urban communities.

**PRIORITY 4:** These are minor local roads that provide residential or recreational access.

**PRIORITY 5:** These are roadways that are designated as "No Winter Maintenance" routes, e.g., Denali Highway or Taylor Highway.

## RESPONSE PLAN

With a snowfall of less than 3 inches of snow, sand trucks are sent out to sand arterial intersections and patrol for slick areas and corners throughout the city. The snow is left to compact down or blow from the driving path and is then plowed up or picked up, depending on the schedule of when the



road was scheduled for snow and ice control or to be picked up. Neighborhoods are left to pack down and graders are dispatched to smooth up roads until their scheduled day for snow and ice maintenance. Sand trucks are sent to check for slick intersections in neighborhoods.

With a snowfall greater than 3 inches of snow, graders are sent out to plow Priority 1 routes until they are determined to be safe for travel. Snow plowing operations then switch to Priority 2 routes and addressing the neighborhoods. Sidewalk machines are also sent out at this time to help residents plow the snow off the sidewalks.

Priority 3 routes will be started as soon as priority 2 routes are determined to be safe, and the sidewalks are complete. If it is determined that the condition of higher priority routes start deteriorating, the focus will shift back to the higher priority routes.

During the plowing process, City of Fairbanks Public Works graders will do what it can to minimize or avoid putting snow or ice in front of driveway and mailboxes. However, in the process of plowing, some of the excess snow will fall around the gate and leave small berms or ice chunks.

It is the responsibility of the property owner to clear this excess snow from in front of their driveway or mailbox. It is not productive for the graders to make multiple passes while trying to open the roads for safe travel. It is against City ordinance to blow, plow or shovel any snow from a driveway or property out into the road or right of way, or on to sidewalks, as per City Code Section 70-321.

City of Fairbanks Public Works does not pick up piles pushed up from the right of way to clear a berm from a parking area alongside the street. Instead to clear a berm from a parking area the berm should be moved to alongside or incorporated into the existing berm in that area. Piles cost the taxpayers 4 times the amount of City of Fairbanks Public Works resources to remove with a loader and trucks then it does with a blower and trucks. There is also no telling the debris in the pile that can damage equipment.

## SIDEWALKS

Laborers hand shovel or use walk-behind blowers to remove snow from bridges downtown, handicap ramps from Barnette Street to Noble Street, and from 1st Avenue to 12th Avenue. Most of Cushman Street including City Hall and the Police Department are addressed, as well as the pedestrian walkway connecting Bridgewater Drive to Aurora Drive and the traffic diverters on 21st Avenue and 27th Avenue.

City of Fairbanks Public Works uses small articulated tractors to plow sidewalks with the current fleet of three tractors. City of Fairbanks Public Works helps property owners with sidewalk snow removal when time permits, and employees are available. As per City Code Section 70-321 a, and 70-321 b, it is the responsibility of the property resident to promptly remove snow and ice from sidewalks adjacent to the property and sand if needed. Its ok for a resident to push the snow off the sidewalk onto the curb edge but not to pile it up.

## DEVIATIONS

Deviations from policies and procedures may occur when, in the judgement of City of Fairbanks Public Works, such deviations will best support meeting established objectives and ensure public safety, owing to unusual or extraordinary circumstances. No two snowfalls are alike, and each has unique challenges and characteristics from intensity, duration, wind, and temperature that influence the response to each snowfall.



## COMMUNICATIONS

Information is a key component in our efforts to inform the public as to what City of Fairbanks Public Works will be doing during the winter snow and ice season. Information will be shared with the public in a few different ways ranging from posting on the city website and Facebook page, flyers with the refuse collection bill, reader boards and “No Parking” cones placed in the streets and around vehicles that have not moved in over 24 hours.

Prior to the winter snow and ice season, a winter maintenance forum is put on by FAST Planning that has the heads of City of Fairbanks Public Works, DOT, UAF and the Fairbanks North Star Borough. Each agency talks about their current snow and ice removal operations.

## CITIZEN INQUIRIES AND REQUESTS

All citizen issues concerning snow and ice control efforts will be routed to the City of Fairbanks Public Works Department via 907-459-6770 or email [pwmail@fairbanks.us](mailto:pwmail@fairbanks.us). Calls are logged and forwarded to the street supervisor for review and follow up. These logs are then used to dispatch the snow removal crew after the goals of this policy have been met. The Street supervisor will be notified of any hazardous conditions on the roads or in neighborhoods that need to be addressed urgently and will determine appropriate follow-up response to citizen inquiries. Complaints pertaining to snow/ice removal should be forwarded to the operations

Superintendent’s office at 715-426-3406. The Street Maintenance Foreman and Street Maintenance Lead will notify the proper staff for action, if necessary.

## SNOW EMERGENCY PROCEDURES

Pursuant to Code of Ordinances, Chapt-70-Section-321 of the Municipal Code, the Street Maintenance Foreman, and Street Maintenance Lead may declare a snow emergency (with public notice), which remains in effect until cancelled by the same.

## INSPECTION AND CALIBRATION

All mounted snow, wing, and under mount plows are inspected annually for structural cracks or breaks, cutting edge wear, hydraulic hose condition and are operationally reviewed. De-icing, spreaders, and other equipment are also inspected, cleaned, lubricated, operationally reviewed, and calibrated prior to the next winter’s operations. Calibration of spreading equipment provides appropriate application rate chemicals. These intensive inspections are completed internally by manufacturer’s trained City mechanics. City of Fairbanks Public Works uses 80 percent of departmental resources during snow operations, reserving 20 percent of equipment as back-up when equipment is taken out of service for repairs. Flashing blue lights on City of Fairbanks Public Works equipment is to alert others and does not pre-empt right of way.

## PERSONNEL AVAILABLE FOR WINTER MAINTENANCE OPERATION

City of Fairbanks Public Works is staffed with nine permanent operators year-round. An additional 25 seasonal operators are hired beginning with the first significant forecasted snowfall usually mid-November to staff a night crew and day crew. For safety reasons, employees should not be assigned shifts longer than twelve hours without eight hours of consecutive rest. Routine winter schedules have been a 4 ten schedule day shift (7:00 AM to 5:30 PM, Monday through Thursday) and nightshift (9:00 PM to 7:00 AM, Monday through Thursday) but recent winters have averaged a



5 ten schedule with several 6 ten schedules. Service levels on residential streets will be reduced if a storm requires around-the-clock staffing. Overtime during snow/ice operations is assigned by the Street Maintenance Foreman or Street Maintenance Lead and determined by the severity and duration of a storm. Minimum preferred staffing for the day and night shift are outlined below. City of Fairbanks Public Works needs to hire 33 temporary operators from the Local 302 to fill the crews on heavy snow falls.

Day Shift

Foreman  
Lead Operator  
1 sidewalk machine  
3 graders  
1 sander  
1 blower  
1 loader  
10 dump trucks/side dumps

Night Shift

Acting Night Foreman  
Acting Night Lead Operator  
1 sidewalk machine  
3 graders  
1 sander  
1 blower  
1 loader  
8-10 dump trucks/side dumps

The Fairbanks DOT&PF M&O district road crews have gone to a week-on, week-off schedule which allows each crew to work 7 days a week, 12 hours a day to provide 24/7 coverage. With 4 crews (a foreman and 9 operators) they provide 24/7 coverage during the winter. The department's minimum staffing requirement has a 25-30 percent vacancy during the snow season when crews may be reduced one foreman and six operators.

**SNOW PLOWING**

Snow Plowing is the removal of snow and ice from the roadway by mechanical means. Plowing operations are directed by Superintendent/ designee and commence after a snowfall greater than one inch or less, if combined with freezing rain and icing conditions making travel difficult. If possible, streets and roadways on arterial routes should have two lanes of traffic open.

There is no plowing of private driveways/roads by City personnel. Snow and ice will be deposited in private driveways/roads during plowing operations and will not be removed by the city (including areas around mailboxes or fire hydrants in private yards). Equipment and operators are assigned routes. Operators are generally familiar with all routes and strive to complete plowing and de-icing efficiently.

The City of Fairbanks Public Works Department plows and removes snow in neighborhoods within the city limits on a rotating schedule as noted below. This is an approximate 4-6-week turn around. If there is significant additional snowfall before the rotation ends, we will address the \*emergency areas and main thoroughfares immediately and then return to the residential rotation where we left off. In a typical winter, snow will be removed and hauled away twice in neighborhoods during the day. In the Spring, as much hard pack will be removed before breakup. The night shift will address the Downtown Core Area (First Avenue-Fifth Avenue between Barnette and Noble Streets).

Below is the projected rotating snow removal schedule for RESIDENTIAL areas (day shift):

- / Aurora, Johnston, Brandt, Slaterville, and Graehl Subdivisions
- / Weeks Field Memorial Park, Mooreland Acres
- / Rickert, Gateway, Bjerremark

- / EM Jones, South Westgate, Executive Park, Hilton Park, Westgate, Taku, and Doyon Estates
- / Lemeta, Royal Court
- / Hamilton Acres, Shannon Park
- / \*\*Island Homes, Walden Estates, Arctic Park, East of Nobel (Townsite Subdivision).

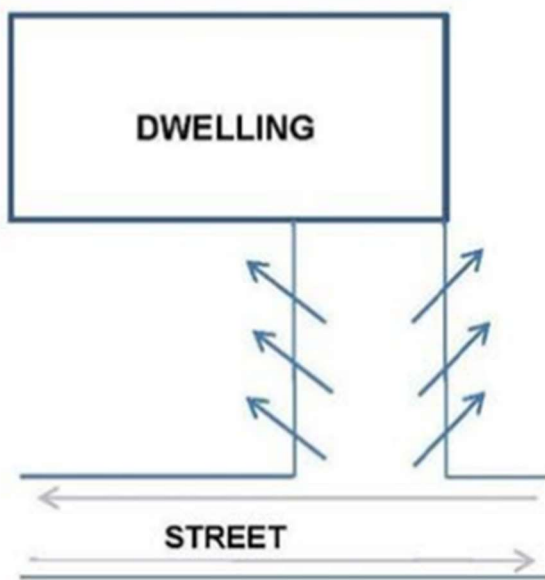
\*\*In these neighborhoods snow is only removed. There will be no plowing due to narrow streets and on-street parking and will be inserted in the rotation above as needed.

### PLOWING AROUND PARKED CARS

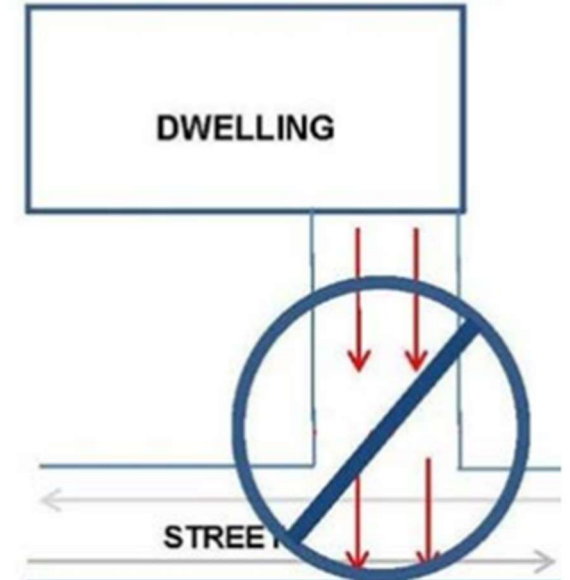
Plowing around parked vehicles and trailers is very time consuming and results in snow being left around the vehicle. Posting should be done a minimum of 12 hours before the snow crews arrive to remove snow from an area, per City Ordinance No. 78-389. For snow removal, vehicles should be moved after posting has been made to notify the residents of an area that snow removal will be done in. It is also against city code and ordinance to leave a car parked on the side of the road for longer than 24 hours. A trailer cannot be parked on city-maintained street or highway for longer than 1 hour at any one time, per City Ordinance No. 78-391 and 78-397.

It is against city ordinance to blow, plow or shovel any snow from a driveway or property out into the road or right-a-way, per City Code Section 70-321, and should be done as shown below.

#### CORRECT SNOW PLOWING



#### INCORRECT SNOW PLOWING



If a vehicle is parked along a plow route, the DOT&PF staff will plow around it. If the position is determined to be a safety hazard, then the Alaska State Troopers are called to assess and tow the vehicle. DOT&PF does have signage available if there was a need to block a lane or if parking became an issue.

### CITY MAINTAINED SIDEWALKS

Fairbanks' City of Fairbanks Public Works Department has created sidewalk routes and maps for the sidewalks in the city that are maintained the City of Fairbanks Public Works Department. Winter maintenance includes plowing sidewalks using an articulated sidewalk tractor, hand shoveling ADA





sidewalk ramps in the downtown core and sidewalks on bridges. Summer maintenance includes sweeping sand and rocks using a small sidewalk broom tractor. Residents and businesses are required by city code to maintain sidewalks adjacent to their property. This private and public partnership sharing of sidewalk maintenance provides for greater public safety for pedestrians and bicyclists.

## ANTI-ICING OPERATIONS

Anti-icing is the application of liquid substances on pavement surfaces prior to the onset of the storm to prevent snow and ice from bonding to the pavement. The Street Maintenance Foreman and/or Street Maintenance Lead will have discretion as to what materials are used, the amount, and when applied. However, the Public Work department does not use anti-icing chemicals, but DOT&PF. Timing plays an important role in the effectiveness of anti-icing measures used by the DOT&PF. A salt brine solution works best when applied before snow and ice accumulate on roadways and at temperatures of 20 F and above. Another key factor in deciding on whether the anti-icing solution will be applied is pavement temperature. To be effective in combating ice, salt brine should be applied on pavement temperatures of +15 F or higher.

## DE-ICING OPERATIONS

Sanding consists of spreading sand to improve traction on packed snow/ice and should be applied only in areas of high traffic movement or unsafe areas as determined by the Street Maintenance Foreman or Street Maintenance Lead. Sand can cause a build-up in storm sewers and points of discharge which could require additional maintenance or environmental concerns. Sanding will only be used when pavement temperatures inhibit the melting action of other available products or conditions are extremely icy. City of Fairbanks Public Works uses a 3/8 crushed gravel for sanding purposes. No salt or brines are used by the Fairbanks City of Fairbanks Public Works in its sanding operation. DOT&PF uses sand and/or, small chips. The use of sand is more commonly used rather than salt because this material stays on the roads better, is more effective for traction, and is less expensive than using chemicals that work in colder temperatures. The dry chips are stored in heated buildings to keep it from moisture and freezing and is applied dry with sand trucks for cold weather.

## BRIDGES

Bridges are often icy before adjacent streets and are monitored for icy conditions and sanded often. Always use caution when crossing bridges during bad weather.

## WINTER DRIVING CONDITIONS

This is the standard used by the Fairbanks DOT&PF to determine road conditions within the surrounding Fairbanks areas.



|                       |   |
|-----------------------|---|
| <b>GOOD</b>           | <ul style="list-style-type: none"><li>• Roads are passable.</li><li>• Mostly bare pavement and/or cleared from shoulder to shoulder.</li><li>• No visibility problems.</li><li>• Sporadic icy patches or packed snow.</li><li>• Snow has been cleared.</li><li>• Traction is generally good for most vehicles properly equipped for winter driving.</li></ul> |
| <b>FAIR</b>           | <ul style="list-style-type: none"><li>• Road are passable with varying conditions.</li><li>• Some standing water, packed snow, icy patches.</li><li>• Limited blowing and drifting snow.</li><li>• Snow has been cleared.</li><li>• Traction is generally adequate for most vehicles properly equipped for winter driving.</li></ul>                          |
| <b>DIFFICULT</b>      | <ul style="list-style-type: none"><li>• Travel is challenging for vehicles properly equipped for winter travel.</li><li>• Snow accumulation of 3" or more.</li><li>• Ice on road and bridge decks, freezing rain, water on snow or ice.</li><li>• Moderate winds, blowing or drifting snow.</li><li>• Low visibility.</li></ul>                               |
| <b>VERY DIFFICULT</b> | <ul style="list-style-type: none"><li>• Travel is not advised.</li><li>• Snow accumulation of 4" or more.</li><li>• Snow drifts, berms, freezing rain, fog.</li><li>• Moderate to high winds, blowing or drifting snow.</li><li>• Low visibility.</li></ul>   |
| <b>HAZARDOUS</b>      | <ul style="list-style-type: none"><li>• Travel is not advised.</li><li>• Conditions are not suitable for travel.</li><li>• Road may be impassable due to considerable snow accumulation, freezing rain, ice glaze, or dense fog.</li><li>• High winds, blowing and drifting snow.</li><li>• Low visibility, blizzard-like conditions.</li></ul>               |
| <b>ROAD CLOSURE</b>   | <ul style="list-style-type: none"><li>• Road is closed.</li><li>• Road will remain closed until safe travel can be resumed.</li><li>• High winds, blowing and drifting snow.</li><li>• Zero visibility.</li></ul>   |

## EQUIPMENT AVAILABLE FOR WINTER MAINTENANCE OPERATIONS

The City of Fairbanks Public Works department and DOT&PF both deploy a variety of equipment to plow and pickup snow:

### CITY OF FAIRBANKS PUBLIC WORKS DEPARTMENT

- / Eight (8) motor graders
- / Fifteen (15) dump trucks (one of which can double as a sander when the box is swapped out)
- / Eight (8) snow loaders
- / Five (5) front-end loaders (one of which can be equipped with a plow)
- / Three (3) sand trucks
- / Three (3) skid steers (these can be fitted with snowplows and snow blowers)
- / Three (3) Holders (these can be fitted with snowplows or 1 with a snow blower)



- / One (1) backhoe
- / One (1) snow raider
- / One (1) small tractor (this can be fitted with a snowplow)

#### DOT&PF

- / Twenty (20) snow/arctic graders
- / Ten (10) sweepers
- / Three (3) snowplow/tractors
- / Twelve (12) sanders
- / Fifteen (15) loaders
- / Two (2) tow plows with tank
- / Two (2) de-icers 1000/2000G
- / Twenty-Seven (27) dump trucks

#### RURAL SNOW PLOWING

Rural snow plowing is usually contracted out to private contractors, which is paid for by each individual Road Service Area (RSA) within the borough. The Borough has 103 RSAs that tax themselves independently of each other to provide funds for road maintenance work performed by a private contractor. Most contractors are responsible for multiple service areas. Each individual service area has its own "level of service" expectation and the commissioner(s) determine what work will be completed based upon requests and when.