



2021 Project Prioritization and Selection Policy

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Background

As the regions Metropolitan Planning Organization (MPO), the Bangor Area Comprehensive Transportation System (BACTS) is responsible for programming projects funded with Federal Highway Administration (FHWA) funds in the BACTS Capital Funding Area. As required by 23U.S.C 134, BACTS annually develops a Transportation Improvement Program (TIP) for the BACTS region. The TIP must be consistent with the BACTS Metropolitan Transportation Plan and strive to achieve performance measures (Attachment A) set by the MPO in cooperation with the Maine Department of Transportation (MaineDOT).

In 2013, BACTS revised their current process for selecting projects to be programmed through the TIP. Historically, the TIP project selection process has been data driven, with complex formulas and data sets. The selection process has changed several times over the past ten years, to ensure BACTS is appropriately prioritizing project funding.

Purpose

The purpose of the new funding prioritization and selection process is to develop a consistent, equitable, multimodal evaluation process that can be used to prioritize, select, and ultimately fund transportation projects in the BACTS region. Currently BACTS funding is focused on asset management and safety, therefore BACTS will largely fund projects addressing those priorities. The BACTS Policy Committee does have the authority to fund regional transportation projects that do not address asset management or safety.

Eligibility, Roles, and Responsibilities

The BACTS region includes 11 municipalities, including Penobscot Indian Island. The chief elected or administrative official from a BACTS region municipality may propose projects to be considered for TIP prioritization and selection. BACTS will only consider projects which are endorsed and submitted, in writing, by municipal officials for inclusion in the TIP.

The BACTS Policy Committee will assign a subset of members to the TIP Subcommittee on a biannual basis. The TIP subcommittee will review project proposals and proposed project limits. Once staff has completed the data collection on the proposals the committee will review, prioritize, and select projects to recommend to the BACTS Policy Committee for TIP Funding. The BACTS Policy Committee will review, comment, and approve all projects to be funded through the BACTS TIP. The BACTS Policy Committee will approve the final TIP.

Current Funding Allocation

BACTS currently receives annual funding from FHWA and from MaineDOT for capital projects in the BACTS region. Projects selected to be included in the TIP are funded with 80% federal funds, 10% state (MaineDOT) funds, and 10% local funds.

BACTS is neither a direct nor a designated recipient of Federal Transit Administration (FTA) funding. The City of Bangor Community Connector is a direct recipient of FTA funding, and the only recipient in the Greater Bangor urbanized area of Section 5307 funding; therefore, there are no suballocations. They determine how funding will be allocated and prepare and submit an annual Program of Projects (POP) to BACTS for inclusion in the TIP.

Project Contingency

BACTS MPO Allocation projects are allowed to have a 10% contingency added to the project's construction cost estimate at the time of construction programming by the BACTS Policy Committee. The "110%" amount is the upper limit on what BACTS will contribute to a BACTS-funded project; – with any expenses above that limit are to be covered 100% by the municipality. The municipality can request the extra funds from the BACTS Policy Committee.

Project Proposal Requirements

In order for a project to be considered for funding prioritization in the BACTS TIP, proposals must meet the following criteria:

- A. Proposals must be consistent with the BACTS Metropolitan Transportation Plan.
- B. Proposals must be consistent with the comprehensive plan or municipal policy document of the city/town in which it is located.
- C. Proposed projects that begin or end at a town or city boundary line must be appropriately connected with the existing or programmed transportation infrastructure in the adjacent community.
- D. Municipalities will coordinate with any necessary utilities located within the project's limits in order to coordinate utility work plans with possible projects. Proposals shall be scoped to include all necessary utilities work in the cost estimates.
- E. Proposals submitted after the deadline will not be considered.
- F. Only complete project proposals with detailed scopes of work will be considered for funding. Municipal officials will sign off on the final scope of the proposed project prior to being considered for funding prioritization. BACTS staff can provide assistance with project scoping, if requested.
- G. Proposals for roadway improvements must be located on the Federal Functional classified highways in the BACTS region and must be for either a collector or arterial roadway.
- H. Highway reconstruction project proposals that add capacity to the system (including turning lane construction) must be based on a thorough engineering analysis, such as a study sponsored by BACTS. Projects that are deemed "reasonably significant" per Maine's Sensible Transportation Policy Act will also require a full alternatives analysis before they can be considered for funding (pursuant to MaineDOT Rule 17-229-103).

Project Scoring

MaineDOT evaluates Surface Transportation Program (STP) Safety and STP Enhancement project proposals in advance of the remaining highway and transit program. MaineDOT notifies

BACTS of projects selected for inclusion in the TIP with funding from one of the previously mentioned sources.

The TIP subcommittee will review and prioritize project proposals for the following types of projects: Reconstruction, Rehabilitation, Preservation, and Operational and Safety Improvements. Only Federally Functional Classified roads will be considered for funding. Local roads are not eligible.

The following is the scoring criteria for the TIP subcommittee to prioritize projects for selection:

Scoring Criteria	Roadway	Intersection
Traffic Volume	20	20
Preferred Trucking Route	5	5
Pavement Condition	15	0
Safety	30	30
Congestion	0	15
Bus Routes	5	5
Pedestrian Improvements	10	10
Bicycle improvements	10	10
Project Phasing	5	5
Maximum Score	100	100

The following defines each of the criteria and how the points value is awarded

Traffic Volume

The volume of traffic that a roadway serves is indicative of its importance in serving the transportation system. Roads which serve more vehicles will be given more importance than roads that do not serve as many vehicles. Intersection volumes will be measured by the greatest of the crossing roads. i.e Main Street has 2500 AADT and Union Street has 2800 AADT, the intersection project will use the higher of the crossing roads or 2800 AADT.

Volume (AADT) in thousands	Roadway Project	Intersection Project
< 2	0	0
2 - 5	5	5

5 - 8	10	10
8 - 11	13	13
11 - 15	17	17
> 15	20	20

Preferred Trucking Route

Projects which will facilitate the efficient transport of goods in the BACTS area will be prioritized. The selection committee will use the 2007 Truck Route Study by Gorrell Palmer (See Appendix B), as a determining factor for identifying a truck route. The committee may also consider other factors as presented by the applicant.

Pavement Condition

The pavement condition score is based upon MaineDOT's latest customer service level for pavement condition. This rating incorporates the Pavement Condition Rating (PCR) and the strength and ride quality of the road as measured by MaineDOT's Automatic Road Analyzer (ARAN) vehicle. If the local municipality has data which is more recent than what is available from MaineDOT, the local data may be used for analysis.

Pavement Condition Service Level (MaineDOT System)

CSL Condition	Rating	Roadway	Intersection
A	Good	0	0
B	Satisfactory	0	0
C	Fair	5	0
D	Poor	10	0
F	Very Poor/Fail	15	0

Safety

The safety score is based upon MaineDOT's latest customer service levels (CSL) for safety, list of high crash locations (HCL) for the preceding three years and the list of fatal and severe injury crash locations for the preceding three years. The safety CSL incorporates lane departure rate, rut depth, and roadway width. A project will receive points if it seeks to address safety issues resulting in lowered CSL ratings. MaineDOT classifies a roadway link or node as a high crash location if it has had eight or more crashes in a three-year period, and if it has a critical rate factor (CRF) greater than 1.0. Fatal and severe injury crash locations will be identified from the latest MaineDOT Public Crash Query Tool data. Projects that have roads with a lower Safety CSL rating will be given more points.

Pavement Customer Service Level (MaineDOT System)

CSL Safety	Roadway	Intersection
A	0	0
B	0	0
C	5	5
D	10	10
F	15	15

A project that includes a HCL and seeks to correct any safety deficiencies, as previously identified through a transportation study, analysis or Maine Department of Transportation crash data, at that location will receive an additional:

HCL	Roadway	Intersection
Points	10	10

A project that includes a location with at least one fatal or serious injury (A rated) crash in the past three years and seeks to correct any previously identified safety deficiencies through a transportation study, analysis or Maine Department of Transportation crash data, at that location will receive an additional:

Fatal / Severe Crashes	Roadway	Intersection
Points	5	5

Congestion

Highway reconstruction projects that add capacity to the road network can improve flow on a roadway link or at an intersection. This might include turning lanes and wider shoulders. Increasing the existing capacity of a roadway is desired as it would improve congestion without additional pavement area which can be expensive. This may include traffic signals or other ITS improvements. If a project will increase the capacity or LOS of a roadway as measured and recommended by an engineering study it will receive:

Congestion	Roadway	Intersection
Points	0	15

Bus Routes

Projects which will facilitate the efficient transport of people in the BACTS area by improving conditions for transit will be prioritized. A project which resides on a designated Community Connector bus route will receive 5 points.

Pedestrian Improvements

Projects may receive up to 10 points for including improvements to the pedestrian network as part of highway reconstruction, rehabilitation, or intersection improvements. These points may be awarded as shown below.

Points	Criteria
10	The project will replace existing pedestrian facilities where such facilities have excessively deteriorated or the project will replace existing pedestrian facilities, such as ADA sidewalk modifications, etc. within a pedestrian district. A pedestrian district is a dense mixed use area where a high volume of “people” traffic is both expected and encouraged, such as schools, downtown/village areas, shopping complexes /malls.
8	The project will include NEW pedestrian facilities where none exist but are recommended by the BACTS 2019 Long-Range Pedestrian and Bicycle Plan by TYLIN International, within a pedestrian district.
6	The project will replace existing pedestrian facilities where such facilities have excessively deteriorated or the project will replace existing pedestrian facilities, such as for ADA sidewalk modifications etc. outside of a pedestrian district.
4	The project will include NEW pedestrian facilities where none exist but are recommended by the BACTS Long-Range Pedestrian and Bicycle Plan by TYLIN International, outside of a pedestrian district.
0	No facilities planned.

Bicycle Improvements

Projects may receive up to 10 points for including improvements to the bicycle network as part of highway reconstruction, rehabilitation or intersection improvements. These points may be awarded as shown below.

Points	Criteria
10	The project will replace existing bicycle facilities where such facilities have excessively deteriorated or the project will replace existing bicycle facilities, such as for restriping of existing shoulders, paving gravel shoulders etc.
5	The project will include NEW bicycle facilities where non exist but are recommended by the BACTS Long-Range Pedestrian and Bicycle Plan
0	No facilities are planned

Project Phasing

The connectivity of a project is based on whether the proposed project is a “continuation” of another project. The prior project must have been completed within the last 5 years.

A roadway project will receive 5 points if at least one end of the project is part of another recent project. An intersection project will receive 5 points if it is at either end of a recent project, within the limits of a recent project or has been identified as a subsequent intersection to continue the connectivity of the BACTS signal network. If the proposed project does not begin or end at another project no points are awarded.

Sidewalk Scoring Formula

- Only sidewalks along Federal Functional Classified roads will be considered for projects.
- Sidewalks on local roads will not be considered for projects.
- Sidewalks will be evaluated on the same scale as Roadway projects. Points shall be awarded based on adjacent roadway characteristics except:
 1. Safety - Sidewalk project will be eligible for HCL and Fatality/Serious Injury safety points if the project will address contributing factors to crashes involving pedestrians. Sidewalk projects are not eligible for CSL points.
 2. Condition - Projects on existing sidewalks will receive condition points based on the table below. Projects construction new sidewalk facilities are not eligible for condition points.

Severity Level Score	Description	Notes
0	Low Severity	Sidewalk in good condition, was new or recently built
5	Medium - Low Severity	Low distress, some cracking, with little if any problems for mobility
10	Medium - High Severity	Mild distress; sidewalk may be broken in areas or showing wear in various areas, may be difficult for some pedestrian use.
15	High Severity	High distress; sidewalk in extremely poor condition, and may be impassable with possible large cracks, potholes, and missing sidewalk sections.

Financial Constraint

Federal rules require MPOs to financially constrain their TIPs to funding levels that can reasonably be expected to exist in the funding years covered by the program. The rules also require the MPOs to program four years of projects rather than two years, but only the first two years are formally programmed with federal, state, and local funding. In the event that additional funds become available, the third or fourth year projects would advance to development. Third and fourth year projects that are not considered in the biennium will be considered for funding in the next TIP process.

Appendix A

Performance Based Planning and Programming Requirements and Performance Measures

To accomplish the goals and objectives of a continuing, cooperative, and comprehensive performance-based multi-modal transportation planning process, BACTS, in cooperation with the MaineDOT and the City of Bangor - Community Connector, is required to develop a TIP through a performance-driven, outcome-based approach to planning for the metropolitan area.

Under the performance-based approach to transportation decision making, the metropolitan transportation planning process must include the establishment of performance targets that address the performance measures or standards established by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to use in tracking progress toward attainment of critical outcomes for the region in support of the following seven national transportation goals.

1. Safety
2. Infrastructure Condition
3. Congestion Reduction
4. System Reliability
5. Freight Mobility and Economic Vitality
6. Environmental Sustainability
7. Reduced Project Delivery Delays

The TIP is designed such that once it is implemented, it makes progress toward achieving the performance targets established.

The Performance Based Planning and Programming rule requires that an MPO integrate (directly or by reference) the goals, objectives, performance measures, and targets described in state transportation plans and transportation processes, as well as any plans developed by providers of public transportation, required as part of a performance based-program. These plans include:

1. The State Asset Management Plan for the NHS (as defined in 23 U.S.C. 119(e))
2. Transit Asset Management Plan (49 U.S.C. 5326)
3. Applicable portions of the HSIP, including the SHSP (23 U.S.C. 148)
4. The Public Transportation Agency Safety Plan (49 U.S.C. 5329(d))
5. Other safety and security planning and review processes, plans, and programs, as appropriate
6. The Congestion Mitigation and Air Quality Improvement Program performance plan, as applicable (23 U.S.C. 149(l))
7. Appropriate (metropolitan) portions of the State Freight Plan (MAP-21 § 1118)
8. The congestion management process, if applicable (23 CFR 450.322)
9. Other State transportation plans and transportation processes required as part of a performance-based program.

FHWA Safety Performance Measures

The Moving Ahead for Progress in the 21st Century Act (MAP-21, P.L. 112-141) and subsequent federal rulemaking established five performance measures related to Safety. The measures are:

1. Number of fatalities;
2. Number of serious injuries;
3. Rate of fatalities per 100 million vehicle miles traveled;
4. Rate of serious injuries per 100 million vehicle miles traveled; and
5. Number of non-motorized fatalities and serious injuries.

Federal regulations require BACTS to establish safety targets (expressed as five-year rolling averages and compared with a five-year rolling average base period comprising of the five calendar years ending prior to the year the targets are due) each year by either:

1. Agreeing to plan and program projects so that they contribute toward the accomplishment of the State DOT safety target for that performance measure; **OR**
2. Committing to a quantifiable target for that performance measure for their metropolitan planning area.

The BACTS Policy Committee has committed to support the performance targets for all five safety performance measures developed by MaineDOT and plan and program projects so that they contribute toward the accomplishment of these targets as shown below.

MAINE STATEWIDE PM-1 SAFETY PERFORMANCE TARGETS				
	2021	2020	2019	2018
Number of Fatalities	158.0	161.0	165.0	153.4
Number of Serious Injuries	725.0	737.0	737.6	736
Rate of Fatalities	1.12	1.07	1.1	1.03
Rate of Serious Injuries	5.02	4.90	4.90	5.12
Number of Non-Motorized Fatalities and Serious Injuries	89.0	90.0	91.0	90.0

Source: MaineDOT Office of Safety

The MaineDOT Office of Safety has developed BACTS metropolitan planning area specific calculations applying the same assumptions and methodology used to develop the Statewide performance targets as shown below.

BACTS PLANNING AREA PM-1 SAFETY PERFORMANCE TARGETS				
	2021	2020	2019	2018
Number of Fatalities	6.0	5.6	6.0	7.4
Number of Serious Injuries	36.0	38.0	39.0	43.6
Rate of Fatalities	0.66	0.66	0.71	0.87
Rate of Serious Injuries	4.23	4.50	4.64	5.08
Number of Non-Motorized Fatalities and Serious Injuries	9.0	9.0	9.8	11.4

Source: MaineDOT Office of Safety

In supporting the MaineDOT developed safety performance targets, BACTS will continue to work with the State and safety stakeholders to address areas of concern for fatalities and serious injuries within the metropolitan planning area. These local, regional and state-wide efforts are aimed at decreasing crashes and serious injuries through better crash investigation and reporting that can reveal existing hazardous areas, stricter enforcement of existing laws and regulations, physical reconfigurations of hazardous conditions, more local regulations that encourage good bicycling and walking environments, and greater awareness of other users of the transportation system.

Many stakeholders across the State are working together to improve these results and the 2017 MaineDOT Strategic Highway Safety Plan outlines action plans related to Enforcement, Education, Engineering and Emergency/Incident Response that are necessary to affect safety improvements. The Plan defines the crash focus areas and outlines the strategies that the various stakeholders can employ together in a coordinated, comprehensive program. BACTS supports the State's efforts and coordinates and cooperates with MaineDOT to the maximum extent possible in implementation of programs, plans and projects which improve the safety of the transportation network of the region, and the State.

This TIP incorporates the goals and objectives of the Maine Highway Safety Improvement Program and the Maine Strategic Highway Safety Plan.

Maine FY2020 Highway Safety Plan:

https://www.maine.gov/dps/bhs/publications/documents/Maine-HighwaySafetyplan-FY2020_Submitted_2.pdf

Maine's 2017 Strategic Highway Safety Plan:

https://www.maine.gov/dps/bhs/publications/documents/Strategic-Highway-Safety-Plan_2017.pdf

Maine Highway Safety Improvement Program 2017 Annual Report:

<https://safety.fhwa.dot.gov/hsip/reports/pdf/2017/me.pdf>

FHWA Pavement and Bridge Performance Measures

The Moving Ahead for Progress in the 21st Century Act (MAP-21, P.L. 112-141) and subsequent federal rulemaking established six performance measures related to Bridge and Pavement Condition. The measures are:

1. Percentage of Interstate pavements in Good condition
2. Percentage of Interstate pavements in Poor condition
3. Percentage of non-Interstate NHS pavements in Good condition
4. Percentage of non-Interstate NHS pavements in Poor condition
5. Percentage of NHS bridges by deck area in Good condition
6. Percentage of NHS bridges by deck area in Poor condition

Federal regulations required BACTS to establish initial bridge and pavement condition performance targets on or before November 16, 2018, and requires targets to be established every four years thereafter, related to each of these six performance measures by either:

1. Agreeing to plan and program projects so that they contribute toward the accomplishment of the State DOT target for that performance measure; or
2. Committing to a quantifiable target for that performance measure for the metropolitan planning area.

MaineDOT owns the entire NHS system in Maine except for the Maine Turnpike. MaineDOT collects 100% of the pavement data for the NHS system (including the Turnpike) and inspects all non-Turnpike bridges. Maine NHS pavement data is collected annually by a single collection vehicle and a single MaineDOT crew; therefore, maximizing the potential for consistent data

collection. MaineDOT inspects NHS bridges on a 24-month cycle using both above and underwater inspection teams.

As MaineDOT has responsibility and authority for planning and programming all projects for the Interstate and major bridge planning activities, the BACTS Policy Committee has agreed to support the relevant MaineDOT established 4-year pavement and bridge condition performance targets and support the planning and programming of projects that contribute to MaineDOT's performance targets as shown below.

Maine PM2 Targets					
<i>Asset</i>		<i>Existing Conditions</i>	<i>2-Year Target</i>	<i>4-Year Target</i>	<i>SOG</i>
Interstate Pavement					
	Good	36.3%	38.0%	40.0%	40.0%
	Fair	62.5%			57.0%
	Poor	1.2%	1.5%	1.5%	3.0%
Non-Interstate Pavement					
	Good	31.2%	32.0%	34.0%	35.0%
	Fair	63.3%			55.0%
	Poor	5.5%	5.0%	5.0%	10.0%
NHS Bridges					
	Good	30.0%	32.0%	34.0%	40.0%
	Fair	66.3%			53.0%
	Poor	3.8%	4.0%	4.0%	7.0%

The MaineDOT Results and Information Office has provided BACTS with region specific pavement and bridge condition data as shown below.

BACTS Region NHS Pavement Existing Conditions			
Asset	Condition	Lanes Miles	Percent Lane Miles
Interstate Pavement	Good	22.27	36.0%
	Fair	39.36	63.7%
	Poor	0.2	0.3%
	Total	61.83	
Non-Interstate Pavement	Good	11.48	17.4%
	Fair	46.08	69.8%
	Poor	8.47	12.8%
	Total	66.03	
BACTS Region NHS Bridge Existing Conditions			
Asset	Condition	Deck Area	Percent Deck Area
NHS Bridge	Good	58,101	10.9%
	Poor	31,847	6.0%
	Total	534,955	

Minimum acceptable pavement conditions require that not more than five percent of Interstate pavements be in poor condition. FHWA will make yearly determinations of minimum pavement conditions and if it is determined that the Interstate pavement condition falls below the minimum level for any given year, MaineDOT will be required to obligate the NHPP and transfer a portion of its STP funds to adequately address pavement conditions.

Minimum acceptable conditions for NHS bridges that require that not more than ten percent of the total deck area of a State's NHS bridges are classified as structurally deficient for three consecutive years. FHWA will make a yearly determination for the minimum bridge condition

and if that minimum is not met for three consecutive years, MaineDOT will be required to obligate NHPP funds and reserve funds for eligible bridge projects.

This TIP incorporates the goals and objectives of the Maine DOT Transportation Asset Management Plan for the NHS.

MaineDOT Transportation Asset Management Plan:

<https://www.maine.gov/mdot/publications/docs/plansreports/MaineDOT-Transportation-Asset-Management-Plan-final.pdf>

FHWA System Performance and Freight Performance Measures

The Moving Ahead for Progress in the 21st Century Act (MAP-21, P.L. 112-141) and subsequent federal rulemaking established six performance measures to carry out the NHPP; the National Highway Freight Program (NHFP); and the CMAQ. The measures are:

1. Two measures to assess reliability of system performance:
 - a. Percent of reliable person-miles traveled on the Interstate.
 - b. Percent of reliable person-miles traveled on the non-Interstate NHS.
2. A measure that will assess freight movement on the Interstate by the percentage of Interstate system mileage providing for reliable truck travel time (Truck Travel Time Reliability Index).
3. A measure that will assess total emissions reductions by applicable pollutants under the CMAQ program.
4. Two measures that will assess traffic congestion under the CMAQ program:
 - a. A measure that will assess annual hours of peak hour excessive delay per capita.
 - b. A measure that will assess modal share; specifically, the percent of non-single occupancy vehicle travel which includes travel avoided by telecommuting.

The BACTS area does not contain any part of a nonattainment or maintenance area for any of the criteria pollutants, as provided in 23 CFR 490.105(f)(6); and is therefore not subject to the CMAQ traffic congestion measure (23 CFR 490.703), or on-road mobile source emissions measures (23 CFR 490.707 and 23 CFR 490.807) as identified in the measures described in 3 and 4 above.

Federal regulations required BACTS to establish initial System Performance and Freight reliability performance targets on or before November 16th, 2018, and every four years thereafter, related to each of these performance measures by either:

1. Agreeing to plan and program projects so that they contribute toward the accomplishment of the State DOT targets for system performance and freight reliability performance measure; or
2. Committing to a quantifiable target for that performance measure for their metropolitan planning area.

The BACTS Policy Committee agreed to support the MaineDOT developed performance targets and plan and program projects to contribute toward the accomplishment of the relevant MaineDOT established 4-year System Performance and Freight Reliability performance targets as shown below. The MaineDOT Results and Information Office also provided BACTS with region specific system performance and freight reliability condition data as shown below.

Maine PM3 System Performance and Freight Reliability on NHS				
Performance Measure		2017 Data	2018 Performance	MaineDOT Target
Truck Travel Time Reliability Index (TTTR)	Statewide	1.23	1.24	< 1.50
	BACTS	1.26	1.29	
% PMT Reliable on Interstate	Statewide	100.00%	100.00%	>= 95%
	BACTS	100.00%	100.00%	
% PMT Reliable on Non-Interstate NHS	Statewide	91.30%	91.50%	>= 90%
	BACTS	92.00%	85.50%	

BACTS will track and monitor non-interstate NHS performance to determine if decline in performance is related to any specific area, related to weather events, construction events or other non-traffic related issues. BACTS will continue to support local, regional and state-wide efforts to improve system performance and reliability.

This TIP incorporates the goals and objectives of the Maine Integrated Freight Strategy.

Maine Integrated Freight Strategy:

<https://www.maine.gov/mdot/ofbs/docs/MaineDOT-FreightStrategy-Updt20171114.pdf>

FTA Transit Asset Management Performance Measures

The Moving Ahead for Progress in the 21st Century Act and subsequent federal rulemaking established four state of good repair performance measures under the transit asset management (TAM) rule for a strategic and systematic process of operating, maintaining, and improving public capital assets effectively through their entire life cycle.

The purpose of TAM is to help achieve and maintain a state of good repair (SGR) for the nation's public transportation assets. The TAM rule develops a framework to monitor and manage public transportation assets, improve safety, increase reliability and performance, and establish performance measures.

The performance measures are:

1. **Rolling Stock** - The percentage of revenue vehicles (by type) that exceed the useful life benchmark (ULB).
2. **Equipment** - The percentage of non-revenue service vehicles (by type) that exceed the ULB.
3. **Facilities** - The percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirements Model (TERM) Scale.
4. **Infrastructure** - The percentage of track segments (by mode) that have performance restrictions. Track segments are measured to the nearest 0.01 of a mile.

Although public transit agencies are required to set and report transit state of good repair targets annually, MPOs are not required to set planning area targets annually. MPOs may choose to set targets more often, however, state of good repair targets are required to be revisited and updated when updating the MTP.

In January 2019, the BACTS Policy Committee adopted State of Good Repair performance targets from 2020 – 2023, when the next MTP will be updated.

In November 2019, the Policy Committee adjusted the rolling stock asset class useful life definitions and benchmarks to better align the BACTS Metropolitan Planning Area performance metrics with those being used by the City of Bangor - Community Connector. The definitions and benchmarks are shown in the table below and performance targets from 2020 on have been calculated using the adjusted ULB definitions and benchmarks. Because the last Cutaway bus will be retired and there are no plans to include that type of vehicle in the fleet, that asset class has been removed from the definitions.

BACTS METROPOLITAN PLANNING AREA TRANSIT ASSET CATEGORY: ROLLING STOCK DEFINITIONS AND BENCHMARKS						
Subcategory		Class		Definition	ULB (Years)	
BU	Bus	S	Standard	Rubber-tired passenger vehicles 29 feet or greater in length, powered by diesel fuel engine.	12	From date of manufacture
		E	Extended Life	Rubber-tired passenger vehicles 29 feet or greater in length, powered by diesel fuel engine, with significant and purposeful investments made to rebuild mechanical systems with the intent of enhancing reliability and extending the vehicle's life.	16	From date of manufacture
MV	Minivan			Light-duty vehicle having a typical seating capacity of up to seven passengers plus a driver.	8	From date of manufacture
RT	Rubber Tire Trolley			Rubber-tire bus designed to resemble an old-style Trolleybus	14	From date of manufacture

Performance targets for rolling stock for fiscal years 2020 through 2023 are calculated based on the following assumptions:

- 7 new Standard Buses will be added to the fleet, and 4 will be retired in 2020
- 1 Cutaway Bus will be retired; and that class of asset will be eliminated from the fleet in 2020
- 3 new Minivans will be added to the fleet, and 1 will be retired in 2020
- 3 new Standard Buses will be added to the fleet, and 1 will be retired in 2021
- 2 Extended Life Buses will be retired in 2021
- 2 Standard Buses will be added to the fleet, and 1 will be retired in 2022
- 2 Extended Life Buses will be retired in 2022
- 2 Standard Buses will be added to the fleet, and 3 will be retired in 2023

BACTS METROPOLITAN PLANNING AREA FY 2020 - 2023 PERFORMANCE TARGETS ASSET CATEGORY: ROLLING STOCK										
Rolling Stock		Performance Targets - Assets that Meet or Exceed ULB								
Sub-Category	Class	ULB*	FY20		FY21		FY22		FY23	
			# in Fleet	Target	# in Fleet	Target	# in Fleet	Target	# in Fleet	Target
Bus (BU)	(S) Standard	12	17	11.76%	19	5.26%	20	0.00%	19	0.00%
Bus (BU)	(E) Extended Life	16	6	66.67%	4	50.00%	2	0.00%	2	0.00%
BU Subcategory Total			23	26.09%	23	13.04%	22	0.00%	21	0.00%
Trolley (RT)		14	1	100.00%	1	100.00%	1	100.00%	1	100.00%
Minivan (MV)		8	3	0.00%	3	0.00%	3	0.00%	3	0.00%
Total			27	25.93%	27	14.81%	26	3.85%	25	4.00%

During the City of Bangor 2019 fiscal year (July 1st, 2018 to June 30th, 2019), renovations to the Pickering Square Parking Garage began. The Bus Hub waiting area was dislocated as well during the construction. Temporary waiting areas, shelters and restrooms were used during the construction. The construction was not completed during the fiscal year.

Performance targets for facilities for fiscal years 2020 through 2023 are calculated based on the following assumptions:

- Construction on the Pickering Square Parking Garage completed during calendar year 2020.
- Construction of the new Transit Facility will be completed in calendar year 2022.
- No other facility construction/renovation projects are planned.

BACTS METROPOLITAN PLANNING AREA FY 2020-2023 PERFORMANCE TARGETS: ASSET CATEGORY: ADMINISTRATIVE AND MAINTENANCE FACILITIES										
Category Sub-Category Class			2020 Target		2021 Target		2022 Target		2023 Target	
			Condition	Exceeding Benchmark	Condition	Exceeding Benchmark	Condition	Exceeding Benchmark	Condition	Exceeding Benchmark
Facilities	Administrative Facility	Administrative Office	5.00	50.00%	5.00	50.00%	5.00	50.00%	5.00	50.00%
		City of Bangor Motor Pool Garage	2.00		2.00		2.00		2.00	
	Maintenance Facility	Bus Barn	4.00		4.00		4.00		4.00	
		Bus Wash	4.00	33.30%	4.00	33.30%	4.00	33.30%	4.00	33.30%
		Bus Barn - Cold Storage	2.00		2.00		2.00		2.00	
Total Administrative and Maintenance Facilities			3.40	40.00%	3.40	40.00%	3.40	40.00%	3.40	40.00%

BACTS METROPOLITAN PLANNING AREA FY 2020-2023 PERFORMANCE TARGETS: ASSET CATEGORY: PASSENGER AND PARKING FACILITIES										
Category Sub-Category Class			2020 Target		2021 Target		2022 Target		2023 Target	
			Condition	Exceeding Benchmark	Condition	Exceeding Benchmark	Condition	Exceeding Benchmark	Condition	Exceeding Benchmark
Facilities	Passenger Facility	Pickering Square Bus Hub	1	100.00%	1	100.00%	1	100.00%	5	0.00%
	Parking Facility	Pickering Square Parking Garage	4	0.00%	4	0.00%	4	0.00%	4	0.00%
Total Passenger and Parking Facilities			2.5	50.00%	2.5	50.00%	2.5	50.00%	4.5	0.00%

This TIP incorporates the City of Bangor - Community Connector's goals and objectives in the most recently modified Transit Asset Management Plan as of September 20, 2020.

City of Bangor - Community Connector TAM Plan:

<https://bactsmmpo.org/wp-content/uploads/2021/01/2020-Community-Connector-TAM-PLAN-1.pdf>

FTA Transit Safety Performance Measures

The National Transit Safety Plan (NSP) outlines four categories of safety measures, whereby seven safety performance targets must be established by mode:

1. Fatalities - **Total number** of fatalities reported to NTD and **rate per total vehicle revenue miles (VRM)** by mode.
2. Injuries - **Total number** of injuries reported to NTD and **rate per total VRM** by mode.
3. Safety Events - **Total number** of safety events reported to NTD and **rate per total VRM by mode**.
4. System Reliability - **Mean distance** between major mechanical failures by mode.

Transit agencies are required to review their Public Transportation Agency Safety Plans, and performance targets, annually. Just as with TAM SGR performance targets, MPOs are not required to set new transit safety targets each year, but can revisit the regional safety performance targets based on the schedule for preparation of its system performance report that is part of the MTP.

The initial BACTS metropolitan planning area transit safety performance targets were calculated using the peer benchmarking strategy using data obtained from the National Transit Database. The BACTS Policy Committee adopted the initial transit safety performance targets on January 19th, 2021.

SAFETY PERFORMANCE TARGETS BENCHMARKING							
Mode	Fatalities		Injuries		Safety Events		System Reliability
	Total Number	Rate per 100,000 VRM	Total Number	Rate per 100,000 VRM	Total Number	Rate per 100,000 VRM	VRM/Major Mechanical Failures
MB	0	0.00	2.40	0.37	2.30	0.36	(641,002 / 42.65) 15,029.35
DR	0	0.00	0.20	0.35	0.20	0.35	(57,593 / 2.52) 22,854.50

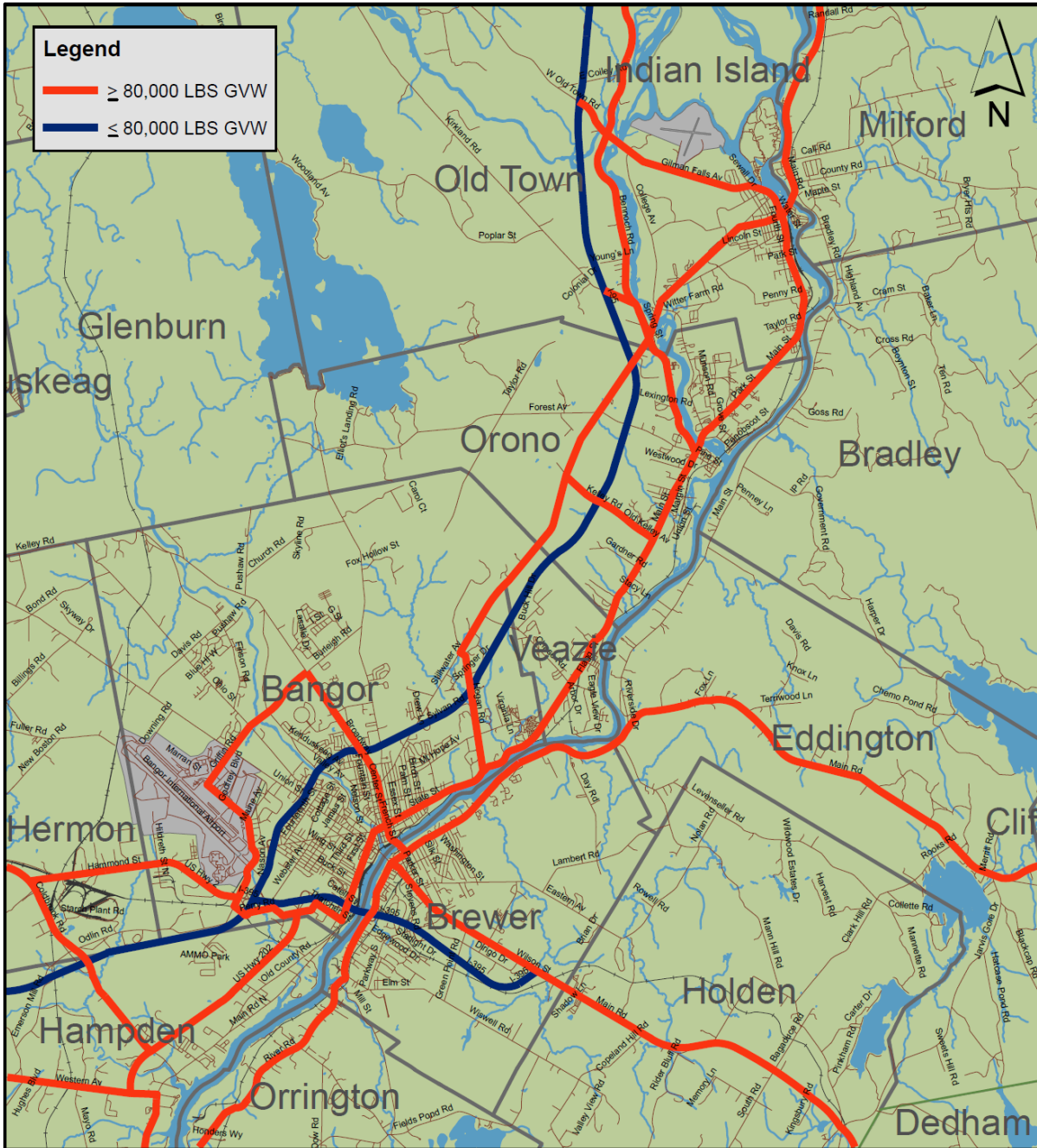
This TIP incorporates the City of Bangor Community Connector's goals and objectives in the most recently submitted Public Transportation Agency Safety Plan issued October 30, 2020.

City of Bangor - Community Connector Public Transportation Agency Safety Plan:

<https://bactsmmpo.org/wp-content/uploads/2021/01/2020-City-of-Bangor-Community-Connector-P-TASP-1.pdf>

Appendix B - Designated Truck Routes Map

Designated Truck Routes Map - Overall Figure No. 3



BACTS TRUCK ROUTE STUDY

GP Gorrill-Palmer Consulting Engineers, Inc.

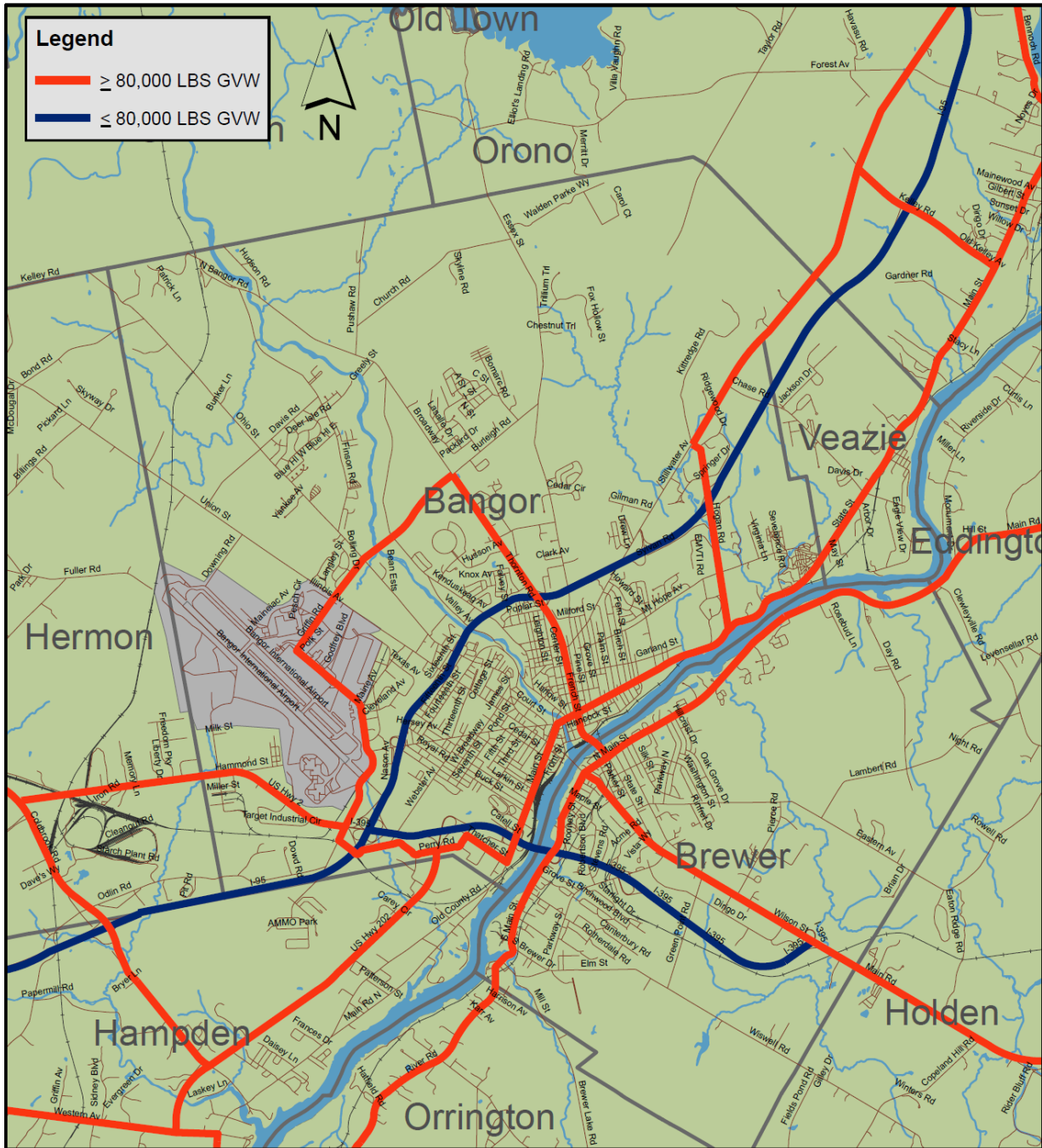
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1 0 1 2

JN: 1700
DATE: SEP 2007
FILE: 1700-TRUCK ROUTES_3.MXD
SOURCE: MAINE GIS WEBSITE

Designated Truck Routes Map - South Figure No. 3A

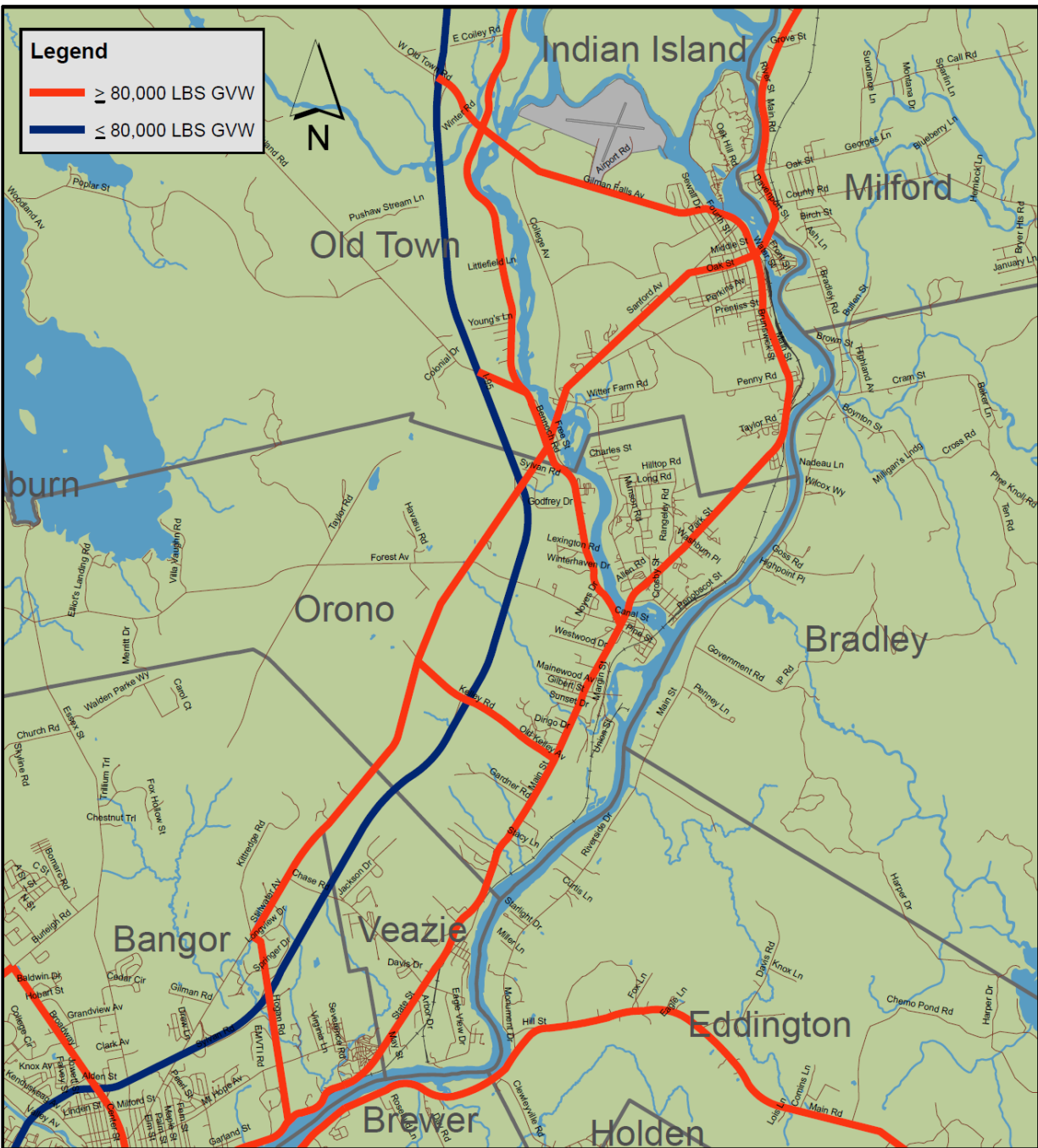


BACTS TRUCK ROUTE STUDY

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 JN: 1700
 DATE: SEP 2007
 FILE: 1700-TRUCK ROUTES_3A.MXD
 SOURCE: MAINE GIS WEBSITE

Designated Truck Routes Map - North Figure No. 3B



BACTS TRUCK ROUTE STUDY

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JN: 1700
 DATE: SEP 2007
 FILE: 1700-TRUCK ROUTES_3B.MXD
 SOURCE: MAINE GIS WEBSITE