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A Supplemental Program for Corridors of Statewide Economic Significance : A Means of Addressing Transportation Needs on Maine's Regionally Significant Highways and Dealing with Maine's Extraordinary Bridges (1988)

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A SUPPLEMENTAL PROGRAM
FOR CORRIDORS OF STATEWIDE ECONOMIC SIGNIFICANCE

A Means of Addressing Transportation Needs on
Maine's Regionally Significant Highways
And Dealing With
Maine's Extraordinary Bridges

Prepared by:
Maine Department of Transportation
State House Station # 16
Augusta, Maine 04333
January 1988

A SUPPLEMENTAL HIGHWAY PROGRAM
FOR CORRIDORS OF STATEWIDE ECONOMIC SIGNIFICANCE

TABLE OF CONTENTS

Executive Summary	i
Introduction	1
The Highway System Today	2
Economic Development and Maine's Highways	3
MDOT's Response: A Supplemental Program	4
Timing and Funding	7
Funding Supplemental Highway Projects	8
Funding Extraordinary Bridges	9
Benefits to Other Highways	12
Conclusions	14
Supplemental Highways Projects Identified	Appendix A
Extraordinary Bridges Identified	Appendix B
Highways of Regional Significance	Appendix C

January 21, 1988

The Honorable Charles P. Pray, President
The Honorable John L. Martin, Speaker
State House
Augusta, Maine 04333

Dear President Pray and Speaker Martin:

It is with pleasure that I provide you this copy of "A Supplemental Program for Corridors of Statewide Economic Significance."

This Program outlines our proposal to make up losses in federal highway funding, address transportation needs on Maine's regionally significant highways and to deal with our extraordinary bridges, while at the same time respecting the needs on other portions of the state's highway system.

The need for these improvements was clearly identified by the Governor's Economic Development Task Force and is clearly supported by MDOT's own pavement management analyses.

As this Program indicates, we concur with the Task Force recommendation that funding for these projects come from an increase in the motor fuel tax. Our estimates indicate that a 5-cents per gallon increase will be needed if we are to responsibly address the needs identified in this Program.

As you review this Program and consider its recommendations, I or members of my staff, will be happy to discuss any questions or concerns which may arise. We strongly feel that this Program, in concert with MDOT's biennial Transportation Investment Program, offers us an opportunity to make real progress in addressing Maine's transportation needs on the corridors of statewide significance and the extraordinary bridges, along with additional improvements on the remainder of the highway system.

Sincerely,


Dana P. Connors
Commissioner

A SUPPLEMENTAL HIGHWAY PROGRAM
FOR CORRIDORS OF STATEWIDE ECONOMIC SIGNIFICANCE

EXECUTIVE SUMMARY

Maine is highly dependent upon its highway system for the economic well-being of its citizens. Of Maine's 22,000 miles of public roadway, MDOT is responsible for about 8,700, with about 5,800 of that on the federal-aid system. Less than half of Maine's highway pavement is in "good" condition or better.

Governor McKernan's Economic Development Task Force called for creation of a priority system of economic development corridors (existing highways serving present economic activity or as links to emerging markets) and for additional funding for improvements to those corridors. The major intent is to improve capacity and safety on existing highways.

Approximately 1,300 miles of primary highways have been identified as corridors of economic significance. Long term costs for improvements along those corridors have been estimated at about \$600-million.

A Supplemental Program has been developed calling for improvements to this priority system over the next twenty years, including provisions to address problems with extraordinary bridges. The Program would be funded by a five-cents-per-gallon increase in Maine's motor fuel tax, with four cents going to economic development corridor improvements on a pay-as-you-go basis and one cent going toward a program to fund work on extraordinary bridges. The one cent for bridges would be augmented by an added annual contribution from the Maine Turnpike Authority.

At a time when federal funding for highway projects is declining and needs for highway improvements are increasing, a Supplemental Program using only state funds would free federal funds usually committed to work on parts of the corridors of economic significance for use elsewhere on Maine's highway system. The end result is improvements along the corridors of economic significance and additional work on other parts of the system, producing improved highways on a statewide basis.

The cost of this Supplemental Program will be significant. The cost to Maine's economic future if such a Program is not undertaken is even higher.

A SUPPLEMENTAL HIGHWAY PROGRAM
FOR CORRIDORS OF STATEWIDE ECONOMIC SIGNIFICANCE

INTRODUCTION:

As a geographically large, demographically small state, Maine is highly dependent upon its highway system for the economic well-being of its citizens. The importance of that system has been recognized through the substantial investment Maine citizens have made in it over the years.

It's importance was recognized again in 1987 as the Governor's Economic Development Task Force conducted meetings around the state and formulated their recommendations. At every Task Force public hearing, the message was clear: Maine's highways need to be improved to modern standards if economic growth is to be sustained.

As a result of their work, this Supplemental Highway Program for Corridors of Statewide Economic Significance was developed, outlining the means by which Maine can address highway and bridge needs necessary for economic development over the next two decades.

THE HIGHWAY SYSTEM TODAY:

Maine has almost 22,000 miles of public roadway. Slightly over 13,000 miles of that are classified as townways, serving local needs including land and residential access. The remaining 8,700 miles are classified as state or state-aid highways.

About 5,800 of the 8,700 miles also fall into one of four federal highway systems, based on the type of travel over them:

INTERSTATE HIGHWAYS: Maine has about 260 miles of multi-lane controlled access highway in this system, providing safe, efficient, high speed, long distance travel within Maine and between Maine and the rest of the country.

That portion of the Interstate system now under MDOT control is constructed to modern standards and should serve Maine well in the years to come with normal maintenance.

PRIMARY HIGHWAYS: Maine has about 2,000 miles of mostly two-lane highways in this system. It is designed to serve longer distance travel, connecting population centers of significant size and serving major land uses.

The Interstate and Primary systems together carry about 45% traffic on the 5,800 miles of federal-state responsibility (more than double any other State Highway System) and plays a major role in Maine's economy.

SECONDARY HIGHWAYS: Maine has about 2,800 miles of highway in this system. It serves shorter distance travel, provides the linkage between smaller rural areas and serves land use of non-regional significance.

URBAN HIGHWAYS: This system includes about 700 miles of highways in areas with populations greater than 5,000. It is characterized by short travel distance and general land use access.

Today, more than half of the pavement on the state system receives condition ratings lower than "good." Expected future traffic demands will only increase the rate of deterioration unless steps are taken to address the problem.

ECONOMIC DEVELOPMENT AND MAINE'S HIGHWAYS

In April, 1987, Governor McKernan convened an Economic Development Task Force. It was charged with developing an economic development strategy for the State of Maine.

The Task Force listened to experts and citizens from all parts of the state. Wherever they went, one message was clear: Maine needs to improve its highway system if economic growth is to be sustained.

Accordingly, stating that "economic development must rest upon solid foundation," the Task Force recommended the State make investments in its highway capacity. Specifically, the Task Force recommended, "that the State identify a priority system of economic development corridors that require supplemental highway capacity and safety improvements".

The Task Force noted "an economic development corridor is an existing highway serving present patterns of economic activity, and that links Maine to emerging markets."

The Task Force further states that "planning for highway improvements should be based on a careful examination of long-term costs and potential economic benefits. Funding for projects on existing alignments should rely on the expansion of traditional user-based sources. To ensure sufficient progress in improvements to these corridors, increases in fuel taxes will undoubtedly be necessary."

MDOT'S RESPONSE: A SUPPLEMENTAL PROGRAM

The Department of Transportation, in conjunction with the State Planning Office, the Department of Economic and Community Development, and various industry leaders, has developed a prioritized network of approximately 1,300 miles of primary highway. These corridors serve as major traffic generators, link economic centers, provide access to under-utilized resources, or facilitate the free flow of people and goods to and from Maine.

In selecting these corridors, attention was focused on primary highway corridors meeting one or more of the following criteria:

1. Corridors connecting population centers
2. Corridors serving the forest products industry
3. Corridors serving the petroleum industry
4. Corridors providing access to and from Canada
5. Corridors providing access to and from recreational regions
6. Corridors serving Maine port facilities.
7. Corridors on which state-regional study committees were already in place.

To carry out the charge from the Economic Development Task Force, MDOT proposes to upgrade deficient highway sections on the identified corridors to modern day design standards to facilitate travel and enhance economic development and growth management.

This Supplemental Highway Program would be a concentrated effort to improve capacity and safety on existing highways. Typically, the improvements would include widening, adding paved shoulders, constructing passing lanes on hills, straightening curves and lowering grades, and, in selected cases, building by-passes around urban areas.

Because bridges are the Achilles Heel of any highway system, the Supplemental Program also would include construction of several extraordinary bridges. These structures are extraordinary in the sense that, while the need for them can be clearly demonstrated, the mechanism for paying for them does not realistically exist within present funding methods. The funding of any one of these bridges within the traditional highway program would "bust" the capital improvement budget. Taken together, the costs associated with these bridges are of such a magnitude that new funding methods must be developed.

TIMING AND FUNDING

MDOT estimates show that improvements to the 1,300 miles of corridors of economic significance will cost about \$600-million dollars. The Department presently does not have that money and, in fact, as further discussion will show, cannot expect to allocate that amount of money from present revenue in the immediate future. Therefore, it is proposed to undertake a twenty year improvement program based upon a fuel tax increase specifically designated for the Supplemental Program.

There are several reasons why a state-funded program of this nature makes sense. First, every state has had its federal funding for highways dramatically reduced due to federal budget cutting efforts. Traditionally, Maine has funded about 75% of its capital investment program with federal highway funds. The reduction in available federal funds will not enhance our ability to do additional work on economically significant corridors through traditional federal-state matching fund projects.

The fuel tax is the only practical means of raising funds for the Supplemental Program. The fuel tax is, by far, the largest single source of revenue for the highway fund. In addition, fuel taxes are paid by all highway users, resident or non-resident. Similar vehicles pay a similar amount per mile of highway use. And frequent highway users pay more than those who use the highways only infrequently.

A one-cent increase in the state fuel tax is estimated to generate \$7-million, while costing the average motorist about \$7.50, per year. In contrast, a \$5.00 increase in vehicle registration fees would raise only about \$3.5-million and would be paid only by Maine residents.

FUNDING SUPPLEMENTAL HIGHWAY PROJECTS

The Department proposes a four-cent increase in the motor fuel tax to be used exclusively to fund a Supplemental Highway Capital Improvement Program.

This Program would be targeted toward a priority network of highways of economic significance.

At current rates of fuel consumption, a four-cent increase would generate about \$28-million per year which would fund a pay-as-you-go highway improvement program as outlined above.

FUNDING EXTRAORDINARY BRIDGES

Needs studies conducted by MDOT clearly show several locations around Maine where large existing bridges need to be replaced or large new structures should be constructed. These bridges have been termed extraordinary by MDOT officials because, while the need can be clearly demonstrated, the level of funding needed to construct or reconstruct them is far beyond the capabilities of existing funding mechanisms, and would seriously jeopardize the traditional Highway Investment Program.

There are few options available for generating sufficient funds to address these bridges in a timely manner.

The Department is proposing a two-phase program to address the problem of extraordinary bridges.

The first phase of the program would consist of a pay-as-you-go effort to fund the State's share of several projects. These projects include the Million Dollar Bridge between Portland and South Portland, the Brunswick-Topsham Bypass Bridge, a replacement for the Penobscot Bridge between Bangor and Brewer, a new bridge between Waterville and Winslow, and the preliminary engineering necessary to carry out the second phase of the effort.

The State's cost for the first phase is approximately \$55-Million. The Department proposes to raise the necessary funds by setting aside one cent of the proposed five cent fuel tax increase, and by asking for an additional transfer of \$4-Million annually from the Maine Turnpike Authority. This would raise \$11-Million annually, and would allow MDOT to complete the first phase of the extraordinary bridge effort in five years.

While the first phase of this program depends heavily on committed federal funds, at this time the Department expects to fund the second phase primarily from state revenues. The second phase would consist of addressing the needs of the Carlton Bridge or developing an appropriate alternative, a new bridge between Biddeford and Saco, and additional bridges over the Kennebec River in the Augusta area, and in Skowhegan. The total estimated cost for the second phase of the extraordinary bridge program is approximately \$110-Million.

To fund the second phase of the extraordinary bridge program, the Department proposes, in addition to the revenues available for the first phase, that bonding be used. Besides using traditional general obligation bonds, the Department intends to explore the possibility of using revenue bonds to raise the necessary capital to complete the second phase.

This technique has been used successfully in other states to raise large amounts of capital for major projects, while not impairing the State's credit rating. The use of such bonds for high-cost, long-lived capital investments such as major bridges would appear to be both logical and prudent.

Unlike general obligation bonds, revenue bonds do not require that the credit of the state be pledged. Rather, the bonds are guaranteed based on an expected source of revenue, in this case one cent of the fuel tax and the annual transfer from the Maine Turnpike Authority.

The Department would propose to begin the second phase of the extraordinary bridge program early in 1994. This would permit enough time to make the necessary adjustments in law to allow the sale of revenue bonds. It would also permit MDOT to build a capital reserve between the completion of the first phase and the commencement of the second to make the revenue bond process feasible.

BENEFITS TO OTHER HIGHWAYS

While the proposed Supplemental Program will concentrate on highway corridors of economic significance, other Maine highways will benefit as well.

Maine's Interstate and Primary Highway Systems make up about 10.5% of all public highways in Maine, but carry over 45% of all of the traffic in the state.

Traffic on the primary system is increasing at an unprecedented rate with overall growth rates approaching 6% per year. This growth is uneven, with some corridors experiencing much higher rates of growth than others.

In areas of high growth, traffic congestion becomes a legitimate economic development concern. That concern is aggravated by the effect of increased traffic on the physical condition of the highway, as increases in traffic accelerate pavement wear and deterioration.

In the absence of a Supplemental Program, a sizeable portion of traditional Transportation Investment Program funding package would be used for projects on the Primary Highway System. That funding is a mix of federal, state and local dollars. As noted earlier, the amount of available federal funding is declining, reducing the extent of improvements which can be made in this manner.

Today, Maine is barely able to hold the overall condition of the state's highway system at a constant service level. There are few resources for major improvements. Without additional resources to offset the declining federal effort, or to fund additional improvements, the overall condition of Maine's highway system may well decline in the future.

However, with the Supplemental Program in place, funding for improvements to those sections of the Primary System determined to be corridors of economic significance will come from the state-funded Supplemental Program. That will allow the use of federal, state and local funds which would normally go to those highways to be used elsewhere.

While users of the corridors of economic significance clearly will benefit the most from the accelerated Supplemental Program, users of the rest of the state's highway system will also benefit as traditional funds are freed from the economic development corridors for other needed projects.

CONCLUSIONS:

As the Task Force findings clearly demonstrate, Maine needs to put additional emphasis on our highways if we are to promote and sustain economic development.

As the present revenue picture clearly demonstrates, Maine presently does not have the resources necessary to undertake the work necessary to provide that emphasis.

As other states' examples and our own analysis demonstrate, we can establish a Supplemental Program to deal with needs along corridors of economic significance and with extraordinary bridges through additional motor fuel taxes allocated specifically for those purposes.

And as history has shown, it costs a lot to create and maintain an adequate highway system, but it costs a lot more not to. Failure to address the needs identified by the Task Force will not make those needs go away; it only ensures increased costs when we ultimately address them in the future. In the meantime, all highway users and all of Maine's economy pay the costs of increased congestion and delay, decreased safety, increased vehicle maintenance, decreased efficiency, increased costs for goods and services, and decreased ability to do business. To address these problems now is to promote economic progress and opportunity. Failure to do so only ensures economic stagnation and decline.

APPENDIX A

PROPOSED SUPPLEMENTAL PROGRAM - FY89-FY91

JANUARY 1988

#	<u>LOCATION</u>	<u>ROUTE</u>	<u>SCOPE</u>	<u>TOTAL \$</u> <u>MILLIONS</u>	<u>LENGTH</u> <u>MILES</u>
1	YORK	1	REHAB	\$2.20	1.85
2	BATH-BUCKSPORT	1	PE	\$0.50	
3	WOOLWICH	1	RAMPS	\$2.75	
4	WARREN	1	RECON	\$1.35	1.26
5	VERONA	1	REHAB	\$1.00	0.89
6	MILBRIDGE	1	RECON	\$1.30	1.00
7	HANCOCK	1	RECON	\$1.45	1.31
8	MARS HILL BYPASS	1	PE	\$0.10	3.10
9	PRESQUE ISLE	1	RECON	\$2.45	1.98
10	PRESQUE ISLE BYPASS	1	NEW CON	\$3.54	1.51
11	CYR PLT-VAN BUREN	1	REHAB	\$1.50	2.10
12	WINTERPORT	1A	RECON	\$1.35	1.11
13	WILTON-DIXFIELD	2	RECON	\$1.65	1.50
14	FARMINGTON	2	REHAB	\$2.40	1.83
15	TURNER	4	REHAB	\$2.10	2.02
16	LIVERMORE	4	RECON	\$3.20	3.20
17	CLIFTON	9	RECON	\$3.60	3.68
18	T31-MD	9	RECON	\$1.10	1.00
19	ALEXANDER	9	RECON	\$3.10	2.65
20	CORINTH	15	RECON	\$1.25	1.29
21	SANGERVILLE	23	RECON	\$1.40	2.40
22	STANDISH	25	REHAB	\$1.40	1.80
23	NEW GLOUCESTER	26	RECON	\$2.50	2.16
24	MECHANIC FALLS	26	RECON	\$1.10	0.88
25	MECHANIC FALLS-OXFORD	26	RECON	\$1.40	1.75
26	WOODSTOCK-GREENWOOD	26	REHAB	\$1.10	1.44
27	NEW PORTLAND-KINGFIELD	27	RECON	\$1.30	1.60
28	ASHLAND	163	RECON	\$1.55	2.00
29	LISBON FALLS BYPASS	196	PE	\$0.20	2.00
30	LEWISTON	196	REHAB	\$3.45	2.85
31	MOSCOW	201	RECON	\$4.85	4.69
32	THE FORKS PLT.	201	RECON	\$1.25	1.25
33	BRIDGTON	302	RECON	\$1.20	1.12
34	HOLDEN-EDDINGTON CONN	1A TO 9	PE	\$0.10	5.00
				<hr/>	<hr/>
				\$60.70	64.22

APPENDIX B

EXTRAORDINARY BRIDGES IDENTIFIED

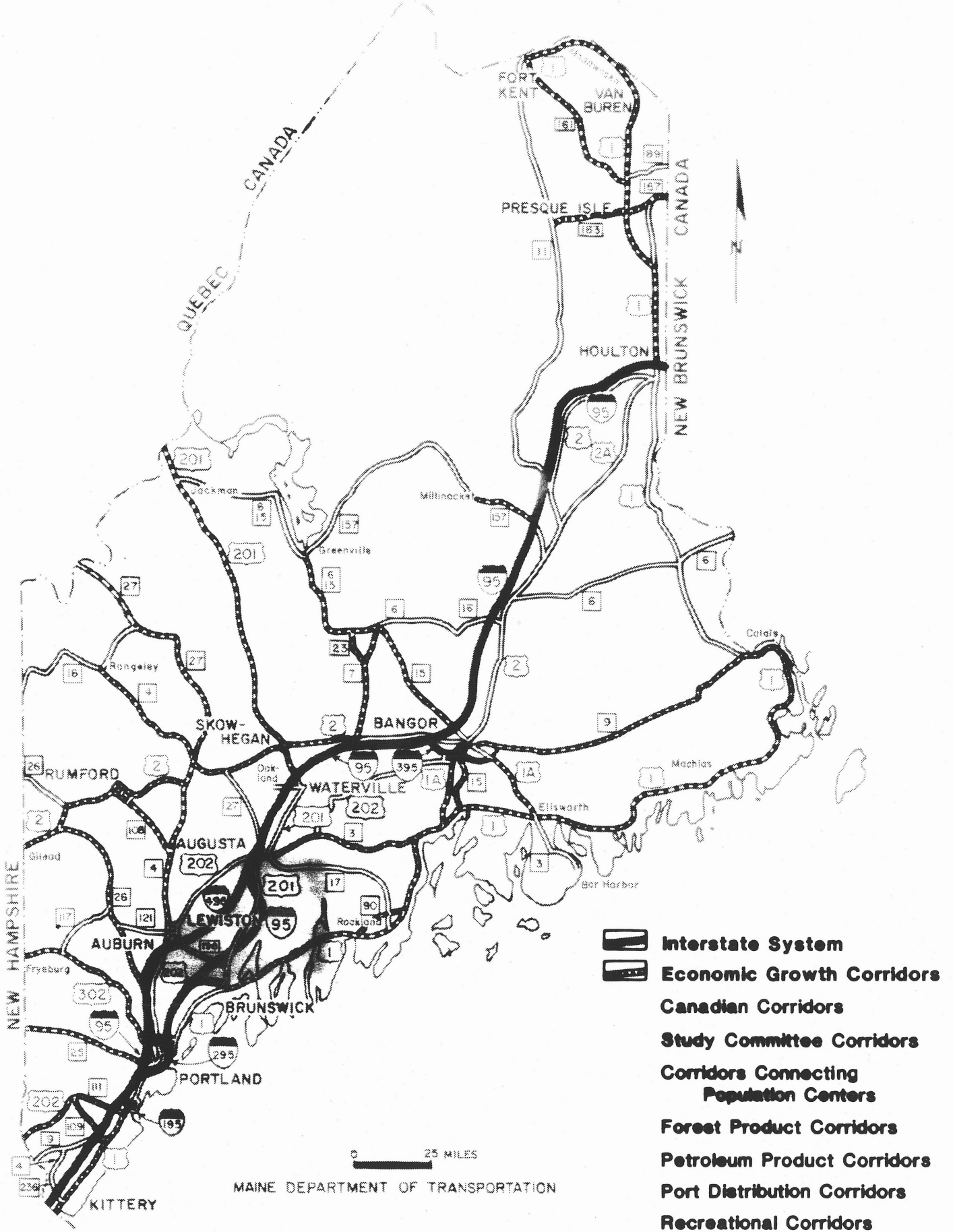
PHASE I

<u>Bridge</u>	<u>Est Total</u>	<u>Est. State Share</u>
Million Dollar Bridge, Portland,-S. Portland	\$ 80M	\$ 18M
Brunswick-Topsham Bypass Bridge	30M	6M
Penobscot Bridge Replacement Bangor-Brewer	15M	3M
Waterville-Winslow Bridge (new)	25M	25M
Preliminary Engineering for Phase II	3M	3M
Total	<u>\$153M</u>	<u>\$ 55M</u>

PHASE II

<u>Bridge</u>	<u>Est. State Share</u>
Carlton Bridge (or alternative)	\$ 40M
Saco-Biddeford Bridge	30M
Augusta Area Bridge	30M
Skowhegan Bridge	10M
Total	<u>\$110M</u>

Corridors of Statewide Significance



CORRIDORS OF STATEWIDE SIGNIFICANCE

ROUTE 1 - KITTERY TO BIDDEFORD
ROUTE 1 - WOOLWICH TO BUCKSPORT
ROUTE 1 - BUCKSPORT TO BAILEYVILLE
ROUTE 1 - HOULTON TO FORT KENT
ROUTE 1 - PRESQUE ISLE BYPASS
ROUTE 1A - ELLSWORTH TO BREWER
ROUTE 1A - STOCKTON SPRINGS TO HAMPDEN
ROUTE 2 - GILEAD TO NEWPORT
ROUTE 3 - AUGUSTA TO BELFAST
ROUTE 4 - TURNER TO RANGELEY
ROUTE 7 - NEWPORT TO DOVER-FOXCROFT
ROUTE 9 - EDDINGTON TO BAILEYVILLE
ROUTE 15 - BUCKSPORT TO BREWER
ROUTE 15 - BANGOR TO GREENVILLE
ROUTE 23 - DEXTER TO GUILFORD
ROUTE 25 - GORHAM TO N.H. BORDER
ROUTE 26 - GRAY TO BETHEL
ROUTE 27 - FARMINGTON TO EUSTIS
ROUTE 90 - WARREN TO ROCKPORT
ROUTE 108 - LIVERMORE TO RUMFORD
ROUTE 109 - WELLS TO SANFORD
ROUTE 111 - SANFORD TO BIDDEFORD
ROUTE 157 - MILLINOCKET TO MEDWAY
ROUTE 161 - CARIBOU TO FT. KENT
ROUTE 163/167 - ASHLAND TO FT. FAIRFIELD
ROUTE 196 - TOPSHAM TO LEWISTON
ROUTE 201 - FAIRFIELD TO CANADIAN BORDER
ROUTE 202 - SANFORD TO N.H. BORDER
ROUTE 302 - WESTBROOK TO FRYEBURG
NEW CONNECTOR - RT 1A TO RT 9 - HOLDEN TO EDDINGTON

