Multi-Year Capital Plan and Needs Assessment

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NOVA SCOTIA
Transportation and
Infrastructure Renewal

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A. Our Highway System

Nova Scotia's highway system needs work. Constant work.

With 23,000 km of roads, 4,100 bridges, and nine ferries, it's a daunting task just to keep everything in fighting trim. Naturally, the system requires constant maintenance. It also needs frequent upgrades to ensure roadways meet ever more exacting safety standards. Highways need continual strengthening to stand up to heavy truck traffic. And there's always interest in new construction to bring the benefits of a modern, 100-series highway system to all of the province's major centres.

To carry out this work, the Nova Scotia Department of Transportation and Infrastructure Renewal employs 2,500 men and women. It operates a fleet of 935 cars, trucks, graders, snow plows, loaders, excavators, and dozers. It maintains scores of offices, storage sheds, garages, and maintenance facilities. Everything but feather dusters, you might say.

In recent decades, a new factor has complicated the work of maintaining our highway system. As governments diverted more and more money into critical needs like health care and education, budgets for highway work came under pressure. Too often needed maintenance was deferred. Over the years, the backlog of work that should have been done grew steadily. In effect, we borrowed from the capital budget to pay for operations.

This backlog is now so big that dealing with it forms a new and substantial category of highway work. In 2007, the province changed the name of the Department of Transportation and Public Works to the Department of Transportation and Infrastructure Renewal, partly to recognize the challenge of deferred maintenance.

The purpose of this report is to review the state of the province's highway system, to assess the need for new investment in the system, and to propose a multi-year spending plan to overcome its deficiencies.

B. The Infrastructure Deficit

The department last took a comprehensive look at the needs of our highway system in 2001. The report of that study, "Nova Scotia's Primary and Secondary Highway System: 10-Year Needs," recommended that the province spend $3.4 billion over 10 years to deal with the infrastructure deficit.

Highway funding did increase substantially in the years since 2001, with beneficial effects throughout the province. However, the increased expenditures were not enough to eliminate the accumulated infrastructure deficit, or even, some might say, to keep it from growing.

This report differs from the 2001 study in that it only deals with capital spending. The 2001 report included some operational expenditures, such as rehabilitation of gravel roads and routine pavement preservation and maintenance. The current report assumes that operating budgets will be sufficient to deal with normal year-to-year operations.

The difference is important:

- **Capital funds** are those used to build or acquire new assets, or to extend the life of a major asset. Building new roads, and major upgrades that extend the useful life of existing roads and bridges are considered capital.

- **Operational funds** are those used to operate a system: the salaries, equipment, and materials that maintain an asset. Snow plowing, grading, litter cleanup, administration, pavement maintenance and preservation, and similar activities are considered operational.

C. Capital Funds

Capital funding of our highway system falls into three categories:

- **System Expansion** – Most construction of new roads in Nova Scotia involves the 100-series highway system. These projects require large, one-time expenditures. The department can limit their impact on yearly budgets somewhat by scheduling construction over several years. Unfortunately, this approach often increases overall project costs, and of course it delays public access to safer, more efficient highways.

- **Upgrading to Standards** – These are improvements that enable existing roads or structures to meet current standards. Improvements can include widening lanes or shoulders to enhance safety and increase capacity, or strengthening roads to support industry. (Provincial standards for highway design and construction include a set of evolving guidelines. In general, they reflect the Transportation Association of Canada's Geometric Design Manual for Canadian Roads, adjusted for Nova Scotia conditions).

- **Condition-Based Rehabilitation** – These expenditures include repaving of roadways and mid-life rehabilitation of bridges. The work protects the integrity and safety of these expensive assets. After years of wear and tear, it ensures that roads and bridges achieve their expected lifespans. While it restores them to like-new condition, it does not upgrade them to a higher standard. When condition-based rehabilitation is unduly deferred, highways deteriorate quickly. As a result, catch-up work can often be much more expensive than timely maintenance. The extra cost incurred by deferred maintenance is a major factor in our current infrastructure deficit.

D. Approach and Guiding Principles

Over the last several decades, Nova Scotia has built up a large infrastructure deficit in its highway system. Coping with this deficit poses a significant financial challenge.

Ideally, the province would assign capital funds to eliminate the infrastructure deficit over a short period. This would give us safer, more efficient roads, and it would eliminate the extra costs incurred when maintenance is deferred past the optimal point for maintaining assets. The practical realities of provincial budgeting, however, dictate that we will need time to deal with an infrastructure deficit of the current size.

Budgetary planning to recover from an infrastructure deficit inevitably involves a trade-off between the speed with which we solve the problem and the amount of money we divert from other vital provincial expenditures. How fast we eliminate the infrastructure deficit is a key policy decision for government. This report sets forth some options, and assesses the implication of these choices for our highway system.

It is a key recommendation of this report that, at a minimum, provincial budget planners should not allow our infrastructure deficit to keep growing.

Within that constraint, this report offers the following principles as guidelines for deciding how and where to commit capital funds:

1. *Safe* – The schedule for construction and rehabilitation of provincial highways will enhance highway safety.

2. *Affordable* – Highway budgets should realistically reflect the province's fiscal capacity.

3. *Doable* – Provincial contractors and department staff should be capable of carrying out the proposed construction.

4. *Sustainable* – Capital spending on highways should be reasonably consistent from year to year to promote supplier development, competition, and price stability. Consistent year-to-year spending will help governments budget in a predictable and sustainable manner.

5. *Sensitive to rising costs* – This report uses current data and costs. It expresses costs for long-term plans in 2008 dollars, based on 2008 priorities. Inflation and changing priorities will have an impact on costs as the program unfolds. Therefore, this report recommends that the department update this multi-year plan on a regular basis to reflect changing costs and priorities.

E. Overall Funding Options

To assist government in determining capital spending levels for our highway system, this report sets forth two funding options for capital expenditures, including measures to tackle the infrastructure deficit.

1. **Option A** would deal with most of our capacity and design-standard deficiencies in just 10 years. It requires yearly funding of $438 million, or a 10-year program of $4.38 billion.

2. **Option B** would stretch out efforts to resolve capacity and design standard deficiencies over a 25-year span. For comparison purposes, the report divides Option B into two periods: Years 1 to 10, and Years 11 to 25.

    - Years 1 to 10 would require yearly funding of $362 million, or a 10-year program of $3.62 billion.

    - Years 11 to 25 would require yearly funding of $359 million, or a 15-year program of $5.39 billion.

    While the yearly costs for the two periods are similar, the emphasis would change from the first period to the second:

    - Years 1 to 10 would see an accelerated timber bridge program with an incremental yearly cost of $9 million.

    - Years 11 to 25 would see an accelerated 100-series bridge program with an incremental yearly cost of $13 million

.

    - The completion of Trunk 4 upgrading in years 1 to 10 would free up $2.8 million per year for years 11 to 25.

Capital spending on a system that includes 23,000 km of roads and 4,100 bridges is inevitably complex. The text of this report provides an overview of the problem and proposed solutions. Readers can find the details underlying its conclusions and recommendations in tables located in the report's appendices.

A detailed breakdown of the options for multi-year capital spending appears in *Appendix A, Table 1 – Multi-Year Capital Program*.

F. Funding Options by Category

This section breaks down proposed capital spending on provincial highways by expense category, with options for both 10-year and a 25-year programs.

1. **Highway System Expansion:** The Department of Transportation and Infrastructure Renewal has determined that Nova Scotia's major arterial roadways and freeways should be expanded by building new highways and twinning existing major arterial roadways. This will add about 405 km of 100 Series Highway and add or upgrade associated interchanges.

   Option A would carry out much of this major highway expansion by adding 280 km over 10 years, at a cost of $852 million. (All values are expressed in 2008 dollars).

   Option B would carry out the full expansion program over 25 years, at a total cost of $1.26 billion.

   Readers can find the specific details underlying Option A in *Appendix B, Table 2 – Primary Arterial Highway Expansion Needs, 10-Year Plan*. The details underlying Option B can be found in *Appendix B, Table 3 – Primary Arterial Highway Expansion Needs, 25-Year Plan*.

2. **Upgrading Highways to Standards:** The Department of Transportation and Infrastructure Renewal has determined that the following highways should be upgraded to meet applicable provincial design standards:

   - Trunk 7 from Musquodoboit Harbour to Antigonish – a total of 215 km. at an estimated cost of $156 million. The result would be to upgrade this roadway to the province's Minor Arterial B standard.

   - Trunk 4 from Lynches River to Ben Eoin – 45 km at an estimated cost of $28 million. The result would be to upgrade this roadway to a Minor Arterial B standard.

   - Other Arterial and Collector Roads – Some 1380 km require widening to meet current cross section standards. Work of this kind typically adds about $100,000 per km to the cost of repaving a roadway. This report recommends deferring this work until the roadways in question undergo scheduled repaving. (Readers can find details of the widening required on arterial and collector roads at *Appendix C – Tables 5a to 5d*).

   - Other Arterial Roadways – Some 340 km require strengthening to meet current standards. Strengthening is normally accomplished by adding one or more additional layers (or "lifts") of asphalt when repaving. This will add an estimated $125,000 per km to repaving costs. The report recommends deferring this work until the roadways in question are scheduled for repaving. (Readers can find details of the strengthening required on arterial roads at *Appendix C –Tables 5e to 5h)*.

3. **Condition-Based Highway Rehabilitation:** The department uses a special vehicle known as an automated road analyzer (ARAN) to measure the surface condition of our paved roads. The ARAN has specialized equipment that measures roughness and rutting. An experienced technologist then assigns a value for a road's surface distress. This information, together with traffic volumes and maintenance factors, helps the department assess the overall state of the paved road system, and establish priorities for rehabilitation.

   The ARAN vehicle measures pavement roughness according to an International Roughness Index (IRI) expressed in m/km. or mm/m. A zero IRI rating indicates a smooth profile, with increased values reflecting increasing roughness. The department has established maximum acceptable mean IRI values for various road classes as follows:

   - Freeway, Major Arterial and Minor Arterial A (100 Series Roads) 1.80
   - Minor Arterial B and Major/Minor Collectors (Trunks and Routes) 2.30
   - Local Paved Roads 2.75

   Now the bad news. Testing over the last two years found that 85% of Nova Scotia's numbered routes and trunk roads fail to meet the department's IRI smoothness standards. Although the department has not measured the condition of local roads in any systematic way, they are in even worse shape.

   The province simply does not have the capacity to eliminate a condition gap of this magnitude quickly. Accordingly, this report recommends that the Department of Transportation and Infrastructure Renewal plan to repave its highway system on an acceptable repaving schedule that will eliminate the condition gap over time.

   The report recommends the following industry-standard repaving frequencies:

   - Freeways, Major Arterials, and Minor Arterial A roads, all of which are 100-series highways, should be repaved every 15 years. This will mean repaving 6.7% of this system, or 130 km, per year. Note that system expansion will gradually increase the required yearly repaving.

   - Minor Arterials and Collectors (generally trunks and routes) should be repaved every 20 years. This will require repaving of 5% of these roadways, or 266 km, per year.

   - Local paved roads should be repaved every 25 Years. This will require repaving of 4% of the province's local paved roads, or 264 km, per year.

   This approach is not a quick fix. It will produce systematic improvements to the condition of Nova Scotia's paved roads, and eventually bring our paved road system into an acceptable condition to provide safe transit for motorists.

4. **Highway Pavement Rehabilitation Program:** The first three categories of this section all deal with paving of various road types on various schedules, some of which overlap. For planning purposes, this report recommends the establishment of a Pavement Rehabilitation Program to integrate the various needs identified. These include:

   - Condition-based upgrades to deal with surface defects such as roughness and potholes. This activity should be scheduled on a cyclical basis using the repaving frequencies outlined in Section 3.

   - Widening the roadway surface to meet current standards.

   - Strengthening the roadway to meet established trucking standards.

   In general, the rehabilitation program should be based on a condition-based model, with surface widening and strengthening scheduled to coincide with normal repaving schedules. Exceptions may occur, but the general model should operate on these assumptions. The tables in *Appendix C* provide details on the proposed Pavement Rehabilitation Program:

   - Table 4 – Road Inventory Summary
   - Tables 5a to 5h – Gap Analysis (carried out as part of an earlier study that compared existing roadway width and trucking classifications to established standards)
   - Table 6 – Pavement Rehabilitation Costing Models
   - Table 7 – Paved Road Rehabilitation Costs – 25-Year Plan; and
   - Table 8 – Paved Road Rehabilitation Costs – 10-Year Plan

   Because the rehabilitation of pavement represents such a significant part of the highway budget, an explanation of the method used to come up with these numbers is in order.

   Option A: 25-year plan: *Table 7 – Paved Road Rehabilitation – 25-Year Plan* envisages a planned program based on a uniform repaving frequency (for example, repaving Minor Arterial B roads every 20 years). It would integrate widening and strengthening programs at the time of repaving. The total cost would be $196 million per year. The table has the following components:

   - Program Development. This applies the repaving frequencies to the amount of roadway in each category to establish a yearly repaving program. For example, the repaving of Minor Arterial B roads each year equals the system length divided by repaving frequency (1405 km / 20 Years = 70 km per year).

   - Surface Condition Rehabilitation. Rehabilitation options and costs have been applied to establish the cost to repave a typical road section. For example (using Minor Arterial B), it should be possible to complete 20% of the yearly repaving with a single lift of asphalt. The cost for this 20% is calculated as follows: 20% x 70 km = 14 km. @ $200,000 per km = $2.8 million. (Note that slight differences between this text and the values in the tables results from rounding).

- Strengthening to Meet Standard. The Gap Analysis detailed in Tables 5a to 5h found that portions of the system do not meet current standards. For planning purposes, this analysis assumes that this deficiency is consistent across the highway system. The table calculates additional costs by applying factors from the gap analysis. For example, it assumes that 25% of the regularly scheduled repaving for Minor Arterial B, 1 course rehabilitation will also require strengthening. It calculates the additional costs as follows:
  14 km x 25% = 3.5 km @ $125,000 per km = $437,500.

- Widening to Meet Standards. The table calculates the additional cost of widening in a similar way. For Minor Arterial B, 1 course rehabilitation, the calculation is:
  14 km x 50% = 7 km @ $100,000 per km = $700,000.

- Overall Cost. This column includes the basic repaving (surface condition rehabilitation) plus strengthening and widening to arrive at a yearly program. This portion of the proposed capital funding program has a planned yearly cost of $196 million.

Option B: 10-year plan: *Table 8 – Paved Road Rehabilitation – 10-Year Plan* envisions a program that would follow the repaving frequencies set forth in the 25-Year Plan, with an additional program to deal with most of the width deficiencies and some of the strength deficiencies within just 10 years.

The program starts with the same yearly expenditure as the 25-Year Plan (Table 7), but adds an additional component to see all roads widened and brought up to 3R standard over 10 years, and a significant number strengthened. (The 3R—Resurfacing, Restoration, Rehabilitation—standard is the typical repaving standard. It focuses on preservation and extension of the highways service life and on safety improvements. It is higher than a maintenance standard, but not as high as a new construction or reconstruction standard).

This expands the repaving program by about 10%. The 25-Year Program would repave 661 km per year, while the 10-Year Program would repave an additional 62 km per year, for a yearly total of 723 km per year. The extra cost is $25 million per year for a total annual cost of $221 million ($196 million + $25 million).

5. **Paving Subdivision Streets:** The department has a policy of sharing the cost of initial paving on subdivision (J class) streets. There are approximately 293 km of these streets. The estimated cost to pave them all is $92 million. Option A would fund this work over 10 years; Option B over 25 years.

6. **Targeted Highway Pavement Strengthening:** From time to time, the department invests funds to assist economic development. This usually involves strengthening roadways that lead to specific industries in order to support the trucking of products to or from a plant. Examples have included roads to sawmills, fish plants, and mines. The cost per km. to strengthen a roadway for this purpose may vary from $150,000 per km. to add a single lift of asphalt, to $350,000 per km for a complete rehabilitation and strengthening project. This report recommends that $6 million dollars per year be set aside for this program.

7. **Bridges:** The Department of Transportation and Infrastructure Renewal is responsible for maintenance, repair and replacement of 4,100 bridges across the province. Managing the province's bridge system has several components:

    - Regular inspections ensure that bridges are structurally sound and identify deficiencies that need to be addressed. Nova Scotia has a robust inspection regimen and trained staff to carry out this work.

    - Maintenance or rehabilitation as required during a bridge's service life. This may be regular planned maintenance such as painting, planned upgrading such as strengthening to accommodate heavier trucks, or work to correct deficiencies identified during regular inspections.

    - Planning for bridge replacement reflects bridge condition and includes an assessment of alternatives. Typically, however, replacement coincides with a structure's design life. Bridges deteriorate over time and require attentive maintenance. All will eventually require replacement. Most structures in the province have a design-life of 50 years. Accordingly, on a system-wide basis, replacing 2% of our bridges per year would maintain these critical structures within design-life thresholds. The current rate of replacement falls well below this threshold and should be increased.

    A Bridge Management System would give the department analytical tools and decision-support mechanisms to optimize resource allocation. The department currently has some of the components of a Bridge Management System. This report recommends that the department gradually implement a complete Bridge Management System.

    This report outlines a plan to rehabilitate or replace aging bridges. Appendix D provides details for the program, which has the following components:

    - Bridge Replacement – The program allocates $64 million per year to replace 1,021 bridges over 10 years.

    - Bridge Repair – The program allocates $3 million per year to carry out major rehabilitation of 132 bridges over 10 years. (The department uses its operating budget to fund regular bridge maintenance).

    The department ensures that bridges are safe through a system of bridge inspection. Trained department staff carry out these inspections on a regular basis. The data they assemble helps the department set priorities for major rehabilitation and replacement.

    The Manager of Structural Engineering provided information and analysis used to prepare this long-term planning document. The analysis divides structures into those located on 100-Series Highways and those on secondary roads. This division generally reflects bridge characteristics, and also available information.

- 100 Series Structures: The province's 100-series highway system includes 530 bridges and structures. Of these, 340 are major, girder-type bridges, and 190 are minor drainage structures. Operational funds look after periodic minor maintenance. Major repairs or replacements require capital funding.

Most of our major structures have been designed for a 50-year life-span. A typical schedule for rehabilitation and replacement would look like this:

> Age less than 25 years: minimal rehabilitation.
> Age 25 to 35 years: mid-life rehabilitation.
> Age 35 to 45 Years: rehabilitation as required for expected replacement at 50 years of age.
> Age more than 45 years: replacement is the most economical option.

Minor structures on our 100-series highways are mainly drainage and access structures with spans exceeding 3 metres. They include large pipe culverts, box structures, multi-cell structures, and multi-plate structures. Repairs to these structures are usually carried out with operational funds, while replacement requires capital funding. The department's maintenance program plans for replacement of these structures after 50 years.

- Secondary Road Structures**:** There are 3,550 bridges and other structures on Nova Scotia's secondary roads. The department does not have reliable, readily available information about their age and other characteristics. This information is available for individual bridges, but not in a format planners can query for system-wide characteristics. The department has developed long-term plans for repair and replacement of these structures as follows:

There are 2,080 timber structures on secondary roads in the province.

> They make up 50% of bridge inventory.
> They lie mostly over watercourses.
> Although their age varies, many were built before1960.
> Most have short spans, with piers and abutments in or near water.
> Most are built with creosote-treated timber, which is now a banned substance. Alternative preservatives have not demonstrated the same longevity.
> Normal age of replacement would be 50 years. Due to existing age of the timber bridge inventory, this report recommends a program to replace 30% of these structures over the next 10 years (3% per year). This accelerated program reflects the age and condition of the structures. After year 10, it should be possible to scale back the replacement schedule to 2% per year.

Concrete and Steel Structures: There are 508 concrete and steel structures on secondary roads in Nova Scotia.

> Most of these bridges are replacement structures for timber or truss bridges.
> The oldest structures date from the 1940s and '50s, but most were built after 1960.
> This report recommends replacing 2% of these structures per year.

Other Structures: Our secondary roads have 743 structures described simply as, “other structures.”

- They are primarily drainage and access structures with spans exceeding 3 metres such as large pipe culverts, box structures, multi-cell structures, and multi-plate structures.
- Replacement takes place as required. For this report, replacement frequency is estimated at 2% per year.

Steel Trusses: This category includes some of the oldest bridges in the province, yet they continue to provide good service to motorists.

- Approximately 196 one-lane steel trusses remain in service. Twelve are modern trusses, while184 are older structures scheduled for replacement.
- Many were built early in the 1900s. While regular maintenance has lengthened their service life, their load capacity has generally not increased.
- Most steel trusses are restricted to 40 tonnes and cannot accommodate modern trucking configurations.
- These structures are vulnerable to damage and collapse if a truck hits them.
- A truss replacement program begun by the province has replaced 28 structures at a cost of $40 million over the last five years, or an average cost of $1.5 million. The expected cost of replacing the remaining structures is expected to be lower: about $880,000 each, based on current costs. This reflects the fact that many of the remaining truss bridges are minor structures that will not require the expensive detours and approach realignments experienced in the early part of this program.
- The department plans to continue the truss replacement program at a rate of $5.5 million per year. This should replace the remaining single-lane truss bridges in 29 years.
- In addition, some 20 two-lane steel truss bridges, including major structures like the East River Bridge in Sheet Harbour, will require regular maintenance.

The program outlined here and detailed in Appendix D represents a rational approach to dealing with the province’s aging bridges. Coupled with appropriate regular inspections, it should ensure safe bridges on Nova Scotia’s highways.

8. **Highway Design and Studies:** This report allocates $1.5 million per year for engineering designs and studies to support the capital program.

9. **Rights of Way:** This report allocates $7.5 million per year to purchase properties required for highway construction. Most of these purchases involve property required for construction of major arteries and freeways.

10. **Machinery Purchases:** The Department of Transportation and Infrastructure Renewal operates about 935 pieces of mobile equipment, running the gamut of maintenance equipment such as graders, loaders, excavators, backhoes, plows, salt trucks, and service trucks.

This vehicle fleet is older than it should be. When the average age of a fleet exceeds the optimal replacement age, maintenance costs go up so much that its overall cost of ownership—capital cost plus maintenance—exceeds that of a right-aged fleet.

Department staff have developed funding scenarios for fleet replacement. Readers can find these in *Appendix E – Table 11 Fleet Replacement Options*. To bring the current fleet up to optimal age would cost an estimated $14.5 million in capital costs per year. The estimated capital cost to maintain the fleet at its present age is $7 million per year, but increased maintenance expenditures would result in higher overall costs.

This report recommends setting the fleet budget at $11 million per year. While not bringing the fleet to its optimal level, it would lower the fleet age, improve its reliability, and lower operational costs.

11. **Ferry Replacement:** The Department of Transportation and Infrastructure Renewal owns and operates four cable ferries, three ocean-going ferries, and two spares.

    Cable ferries include the Torquil MacLean at Englishtown, the Caolis Silas at Little Narrows, the Stormont at Country Harbour, and the LaHave II at West LaHave. Ocean-going ferries include the Petit Princess at Petit Passage, the Joe Casey at Grand Passage, and the William G. Ernst at Tancook Island. Two spare ferries provide back up for refits and repairs. The Scotian is the provincial relief ferry, and can replace either cable or ocean going vessels. The Spray serves mainly as a spare for the Joe Casey and Petit Princess.

    The ferry system carries about 700,000 vehicles per year with associated passengers. In addition, the William G. Ernst ferries about 17,000 passengers back and forth from Chester to Big Tancook and Little Tancook Islands.

    Each ferry has an expected life span of 30 years, after which it requires replacement. To maintain operational readiness, each ferry receives regular maintenance and a shipyard refit every seven years.

    Cable ferries cost an estimated $4 million each, while the Ernst would cost an estimated $8 million to replace. Ferries like the Joe Casey would cost about $6 million to replace.

    This plan budgets $12 million over the next 10 years, or $1.2 million per year, to replace the three cable ferries located at LaHave, Country Harbour, and Little Narrows.

12. **Management Systems:** To manage highway, bridge, and equipment inventories as extensive as Nova Scotia's requires modern planning tools and software. Department planners need to develop, upgrade, or acquire such management systems as Bridge Management Systems, Pavement Management Systems, and Project Management Systems. This plan budgets $1 million per year for such systems.

G. Summary

The multi-year plan outlined in this report represents a rational approach to coping with the significant infrastructure deficits facing Nova Scotia's roads and bridges. This report recognizes that it has taken many years of under-funding to create our current infrastructure deficit; likewise, it will take years to eliminate this serious problem. How many years it takes is a decision for government. The report offers scenarios for 10-year and 25-year horizons for catching up with needed capital construction. Inevitably, the final decision will involve a trade-off between the advantages of eliminating the deficit as soon as possible, and the demands of other important and necessary government funding priorities.

The proposed approach uses reasonable rehabilitation and replacement thresholds, and offers long-term plans to upgrade roads and bridges within that framework. The province should be aware that the present deteriorated state of our highways and bridges places great reliance on the department's systems of inspection and remediation to ensure highway safety as the program unfolds.

This report represents a long-range plan. The further one peers into the future, the greater the uncertainties. The estimates and costs set forth here reflect current data supplied by department staff. The department will need to update and revise this plan regularly to reflect changing circumstances, new priorities, and escalating costs.

Appendix A

Multi-Year Capital Program

Table 1 – Multi-Year Capital Program

Table 1 - Multi-year Capital Program

Description	Option A* - 10-Year Program		Option B** - 25-Year Program				
			Years 1 to 10		Years 11 to 25		Overall Total Years 1 to 25 $
	Per Year	10-Year Program	Per Year $	Total $	Per Year $	Total $	
Freeways and Major Arterials (100 Series):							
A. National Highway system	$ 70,350,000	$ 703,500,000	$ 37,500,000	$ 375,000,000	$ 37,500,000	$ 562,500,000	$ 937,500,000
B. Other Major Arterials	$ 9,300,000	$ 93,000,000	$ 5,700,000	$ 57,000,000	$ 5,700,000	$ 85,500,000	$ 142,500,000
C. Other (unforseen major replacements/ interchanges, etc.)	$ 5,500,000	$ 55,000,000	$ 5,500,000	$ 55,000,000	$ 5,500,000	$ 82,500,000	$ 137,500,000
Subtotal:		**$ 851,500,000**		**$ 487,000,000**		**$ 730,500,000**	**$ 1,217,500,000**
Construction Arterial/Collectors:							
Trunk 4 (44.8 kms)	$ 2,800,000	$ 28,000,000	$ 2,800,000	$ 28,000,000		$ 0	$ 28,000,000
Trunk 7 (215 km @ $725K /km = $156,000,000)	$ 15,600,000	$ 156,000,000	$ 6,250,000	$ 62,500,000	$ 6,250,000	$ 93,750,000	$ 156,250,000
Other (intersection upgrades, extra lanes, etc.)	$ 2,750,000	$ 27,500,000	$ 2,750,000	$ 27,500,000	$ 2,750,000	$ 41,250,000	$ 68,750,000
Subtotal:		**$ 211,500,000**		**$ 118,000,000**		**$ 135,000,000**	**$ 253,000,000**
Construction Locals:	$ 1,000,000	$ 10,000,000	$ 1,000,000	$ 10,000,000	$ 1,000,000	$ 15,000,000	$ 25,000,000
Subtotal:		**$ 10,000,000**		**$ 10,000,000**		**$ 15,000,000**	**$ 25,000,000**
Asphalt:							
Paving Subdivision Streets (Gross Funding)	$ 9,200,000	$ 92,000,000	$ 3,680,000	$ 36,800,000	$ 3,680,000	$ 55,200,000	$ 92,000,000
100 series	$ 39,000,000	$ 390,000,000	$ 39,000,000	$ 390,000,000	$ 39,000,000	$ 585,000,000	$ 975,000,000
Arterial/Collectors	$ 107,000,000	$ 1,070,000,000	$ 82,000,000	$ 820,000,000	$ 82,000,000	$ 1,230,000,000	$ 2,050,000,000
Locals	$ 75,000,000	$ 750,000,000	$ 75,000,000	$ 750,000,000	$ 75,000,000	$ 1,125,000,000	$ 1,875,000,000
Pavement Strengthening (economic development)	$ 6,000,000	$ 60,000,000	$ 6,000,000	$ 60,000,000	$ 6,000,000	$ 90,000,000	$ 150,000,000
Subtotal:		**$ 2,362,000,000**		**$ 2,056,800,000**		**$ 3,085,200,000**	**$ 5,142,000,000**
Bridges:							
Truss Bridge Replacement	$ 5,500,000	$ 55,000,000	$ 5,500,000	$ 55,000,000	$ 5,500,000	$ 82,500,000	$ 137,500,000
Bridge Replacement	$ 64,000,000	$ 640,000,000	$ 64,000,000	$ 640,000,000	$ 66,000,000	$ 990,000,000	$ 1,630,000,000
Bridge Repair	$ 3,000,000	$ 30,000,000	$ 3,000,000	$ 30,000,000	$ 3,000,000	$ 45,000,000	$ 75,000,000
Subtotal:		**$ 725,000,000**		**$ 725,000,000**		**$ 1,117,500,000**	**$ 1,842,500,000**
Highway Designs & Studies	$ 1,500,000	**$ 15,000,000**	$ 1,500,000	**$ 15,000,000**	$ 1,500,000	**$ 22,500,000**	**$ 37,500,000**
Right-of-Way	$ 7,500,000	**$ 75,000,000**	$ 7,500,000	**$ 75,000,000**	$ 5,000,000	**$ 75,000,000**	**$ 150,000,000**
Machinery Purchases	$ 11,000,000	**$ 110,000,000**	$ 11,000,000	**$ 110,000,000**	$ 11,000,000	**$ 165,000,000**	**$ 275,000,000**
Ferry Replacement	$ 1,200,000	**$ 12,000,000**	$ 1,200,000	**$ 12,000,000**	$ 1,200,000	**$ 18,000,000**	**$ 30,000,000**
Management Systems	$ 1,000,000	**$ 10,000,000**	$ 1,000,000	**$ 10,000,000**	$ 1,000,000	**$ 15,000,000**	**$ 25,000,000**
TCA Total	**$ 438,200,000**	**$ 4,382,000,000**	**$ 361,880,000**	**$ 3,618,800,000**	**$ 358,580,000**	**$ 5,378,700,000**	**$ 8,997,500,000**

*** Option A - 10-Year Program** - This program accomplishes most of the Capacity Increase projects over a ten-year period. Timelines for rehabilitation to correct condition or standard deficiencies are based on reasonable rehabilitation schedules such as: Repaving - 15 Years for 100 Series Roadways, 20 Years for Trunks and Routes and 25 Years for Local Roads.

****Option B - 25-Year Program -** This program accomplishes the Capacity Increase Program over a twenty-five year period. Timelines for rehabilitation to correct condition or standard deficiencies are based on reasonable rehabilitation schedules such as: Repaving - 15 Years for 100 Series Roadways, 20 Years for Trunks and Routes and 25 Years for Local Roads.

Appendix B

Primary Arterial Highway Expansion Needs

Table 2 – Primary Arterial Highway Expansion Needs – 10-Year Plan
Table 3 – Primary Arterial Highway Expansion Needs – 25-Year Plan

Table 2 - Primary Arterial Highway Expansion Needs - 10 Year Plan

	Segment Description	Type of Work	Length (km)	Cost ($)*
A	**National Highway System (NHS)**			
1	**Highway 101**			
a	St Croix to Three Mile Plains	Twinning	7.4	5,000,000
b	Three Mile Plains to West of Falmouth	Twinning	9.4	40,000,000
d	Hortonville to Coldbrook	Twinning	27.5	68,000,000
e	Berwick to Kingston	Passing Lanes	17.6	12,000,000
g	Digby to Weymouth	New 2-lane highway	26.0	
h	Hectanooga Rd	Intersection replacement	n/a	6,000,000
j	Margeson Drive Interchange	New Interchange	n/a	4,500,000
k	Waterville Interchange	New Interchange	n/a	6,000,000
l	Cornwaliis Interchange	Add Two Ramps	n/a	2,500,000
2	**Highway 102**			
a	Hwy 102/101 Interchange	New Ramps and Strs	n/a	25,000,000
b	Larry Uteck Interchange	New Interchange	n/a	12,000,000
c	Lantz Interchange	New Interchange	n/a	7,500,000
d	Hwy 102/104 Interchange	New Ramps and Str	n/a	9,000,000
3	**Highway 103**			
a	Upper Tantallon to Hubbards	Twinning	21.1	60,000,000
b	Hebbs Cross to Mill Village	New 2-lane highway	22.0	
c	Port Mouton to Sable River	Passing Lanes	4.5	4,000,000
d	Port Mouton to Sable River	New 2-Lane Highway	20.0	
e	Broad River to Port Mouton	New 2-Lane Highway	7.0	24,000,000
f	Birchtown to Barrington	Access management	23.0	
g	Hwy 103/101 Interchange	New Interchange	2.0	12,000,000
4	**Highway 104**			
a	East of New Glasgow to Pine Tree Rd	Twinning	8.0	7,000,000
b	Pine Tree Rd to East of Rte 245	Twinning	3.6	29,000,000
c	East of Rte 245 to Addington Forks Rd	Twinning	40.0	105,000,000
d	Addington Forks Rd to West of Exit 34	New 4-lane highway	15.8	50,000,000
e	West of Exit 34 to Taylor Rd	New 4-lane highway	16.0	50,000,000
f	Taylor Road to Aulds Cove	Twinning + New 4-lane highway	43.0	100,000,000
g	Port Hastings to Port Hawkesbury	New 2-lane highway	6.8	30,000,000
h	Port Hawkwsbury ByPass Phase 2	New Interchange and connector roadway ($8m)	3.0	
i	River Tillard to Lynche River	New 2-lane highway	10.0	
5	**Highway 125**			
a	Balls Creek to Coxheath	Twinning	5.0	5,000,000
b	Hwy 105/125 Interchange	Ramp modifications	n/a	5,000,000
c	Sydney River to Grand Lake Road	Twinning	9.2	25,000,000
	Total A (NHS)		**347.9**	**703,500,000.0**
B	**Other Major Arterial Highways**			
1	**Highway 107**			
a	Burnside to Hwy 102	New 4-lane highway	13.0	55,000,000
b	Loon Lake to Preston	New 2-lane highway	13.0	30,000,000
2	**Highway 113**			
a	Hwy 102 to Hwy 103	New 4-lane highway	19.8	
3	**Highway 105**			
a	Port Hastings to Kelly's Mountain	Passing Lanes	10.5	8,000,000
	Total B (Other Major Arterial Projects)		**56.3**	**93,000,000.0**
C	**Other Arterial Projects**			
1	**Trunk 4**			
a	Lynche River to Chapel Road	Upgrade cross section to Min. Art. B	44.8	28,000,000
2	**Trunk 7**			
a	Musquodoboit Harbour to Antigonish	Upgrade cross section to Min.Art. B Standard	215.0	156,000,000
	Total C (Other Arterial Projects)		**259.8**	**184,000,000**
	Grand Total - All Projects (A+B+C)		**664.0**	**980,500,000**

* Costs are for 2009/2010 fiscal year and onward.

Notes: Projects Highlighted are currently under construction or planned for construction start in 2008/2009

Table 3 - Primary Arterial Highway Expansion Needs - 25 Year Plan

	Segment Description	Type of Work	Length (km)	Cost ($)
A	**National Highway System (NHS)**			
1	**Highway 101**			
a	St Croix to Three Mile Plains	Twinning	7.4	5,000,000
b	Three Mile Plains to West of Falmouth	Twinning	9.4	40,000,000
d	Hortonville to Coldbrook	Twinning	27.5	68,000,000
e	Berwick to Kingston	Passing Lanes	17.6	12,000,000
g	Digby to Weymouth	New 2-lane highway	26.0	55,000,000
h	Hectanooga Rd	Intersection replacement	n/a	6,000,000
j	Margeson Drive Interchange	New Interchange	n/a	4,500,000
k	Waterville Interchange	New Interchange	n/a	6,000,000
l	Cornwaliis Interchange	Add Two Ramps	n/a	2,500,000
2	**Highway 102**			
a	Hwy 102/101 Interchange	New Ramps and Strs	n/a	25,000,000
b	Larry Uteck Interchange	New Interchange	n/a	12,000,000
c	Lantz Interchange	New Interchange	n/a	7,500,000
d	Hwy 102/104 Interchange	New Ramps and Str	n/a	9,000,000
3	**Highway 103**			
a	Upper Tantallon to Hubbards	Twinning	21.1	60,000,000
b	Hebbs Cross to Mill Village	New 2-lane highway	22.0	55,000,000
c	Port Mouton to Sable River	Passing Lanes	4.5	4,000,000
d	Port Mouton to Sable River	New 2-Lane Highway	20.0	46,000,000
e	Broad River to Port Mouton	New 2-Lane Highway	7.0	24,000,000
f	Birchtown to Barrington	Access management	23.0	21,000,000
g	Hwy 103/101 Interchange	New Interchange	2.0	12,000,000
4	**Highway 104**			
a	East of New Glasgow to Pine Tree Rd	Twinning	8.0	7,000,000
b	Pine Tree Rd to East of Rte 245	Twinning	3.6	29,000,000
c	East of Rte 245 to Addington Forks Rd	Twinning	40.0	105,000,000
d	Addington Forks Rd to West of Exit 34	New 4-lane highway	15.8	50,000,000
e	West of Exit 34 to Taylor Rd	New 4-lane highway	16.0	50,000,000
f	Taylor Road to Aulds Cove	Twinning + New 4-lane highway	43.0	100,000,000
g	Port Hastings to Port Hawkesbury	New 2-lane highway	6.8	30,000,000
h	Port Hawkwsbury ByPass Phase 2	New Interchange and connector roadway ($8m)	3.0	8,000,000
i	River Tillard to Lynche River	New 2-lane highway	10.0	49,000,000
5	**Highway 125**			
a	Balls Creek to Coxheath	Twinning	5.0	5,000,000
b	Hwy 105/125 Interchange	Ramp modifications	n/a	5,000,000
c	Sydney River to Grand Lake Road	Twinning	9.2	25,000,000
	Total A (NHS)		**347.9**	**937,500,000.0**
B	**Other Major Arterial Highways**			
1	**Highway 107**			
a	Burnside to Hwy 102	New 4-lane highway	13.0	55,000,000
b	Loon Lake to Preston	New 2-lane highway	13.0	30,000,000
2	**Highway 113**			
a	Hwy 102 to Hwy 103	New 4-lane highway	19.8	50,000,000
3	**Highway 105**			
a	Port Hastings to Kelly's Mountain	Passing Lanes	10.5	8,000,000
	Total B (Other Major Arterial Projects)		**56.3**	**143,000,000.0**
C	**Other Arterial Projects**			
1	**Trunk 4**			
a	Lynche River to Chapel Road	Upgrade cross section to Min. Art. B	44.8	28,000,000
2	**Trunk 7**			
a	Musquodoboit Harbour to Antigonish	Upgrade cross section to Min.Art. B Standard	215.0	156,000,000
	Total C (Other Arterial Projects)		**259.8**	**184,000,000**
	Grand Total - All Projects (A+B+C)		**664.0**	**1,264,500,000**

* Costs are for 2009/2010 and onward.

Note: Projects Highlighted are currently under construction or planned for 2008/2009 construction start

Appendix C

Inventory and Cost Models

Table 4 - Road Inventory Summary

Functional Classification	District				Provincial Total***
	Western	Central	Northern	Eastern	
	km	km	km	km	km
Freeway	13.2	304.8	401.8	25.4	745.3
Major Arterial	428.8	78.4	56.7	255.3	819.1
Minor Arterial A	152.3	103.0	87.9	55.2	398.3
Minor Arterial B	295.7	210.4	260.4	638.9	1405.4
Major Collector	469.3	243.0	115.7	74.5	902.5
Minor Collector	784.5	532.2	897.8	813.5	3027.9
Locals(Paved)*					6596.6
Locals(Unpaved)**					9171.0
Total***	2143.7	1471.8	1820.2	1862.7	23066.0

*Calculated value based on TPW database paved roads less classified paved roads

**From TPW database

*** Variances in totals are due to rounding

Table 5a - Gap Analysis - Pavement and Surface Width
Minor Arterial A

Average Paved Width Standard		Length of Minor Arterial A Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	**< 3.5m**	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets Maintenance Standard	**N/A**	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets 3R Standard	**3.5m - 4.2m**	2.6	0.0	6.1	7.2	15.9	**15.0**
Meets Design Standard	**> 4.2m**	69.5	6.9	0.0	13.8	90.2	**85.0**
	Total Length (km)	**72.1**	**6.9**	**6.1**	**21.0**	**106.1**	**100.0**

Average Surface Width Standard		Length of Minor Arterial A Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	**< 5.0m**	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets Maintenance Standard	**5.0m - 5.2m**	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets 3R Standard	**5.2m - 5.9m**	33.2	0.0	0.0	7.2	40.4	**38.0**
Meets Design Standard	**> 5.9m**	38.9	6.9	6.1	13.8	65.7	**62.0**
	Total Length (km)	**72.1**	**6.9**	**6.1**	**21.0**	**106.1**	**100.0**

Note: The gap analysis does not include 100 Series ramps.

Table 5b - Gap Analysis - Pavement and Surface Width
Minor Arterial B

Average Paved Width Standard		Length of Minor Arterial B Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	**< 3.3m**	100.2	0.0	142.4	368.3	610.8	**43.5**
Meets Maintenance Standard	**N/A**	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets 3R Standard	**3.3m - 3.8m**	195.5	210.4	118.1	60.3	584.3	**41.6**
Meets Design Standard	**> 3.8m**	0.0	0.0	0.0	210.3	210.3	**15.0**
	Total Length (km)	**295.7**	**210.4**	**260.4**	**638.9**	**1405.4**	**100.0**

Average Surface Width Standard		Length of Minor Arterial B Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	**<4.8m**	263.9	0.0	70.4	368.3	702.5	**50.0**
Meets Maintenance Standard	**4.8m - 5.0m**	0.0	0.0	49.5	0.0	49.5	**3.5**
Meets 3R Standard	**5.0m - 5.5m**	31.8	180.9	127.8	133.1	473.6	**33.7**
Meets Design Standard	**> 5.5m**	0.0	29.4	12.8	137.5	179.7	**12.8**
	Total Length (km)	**295.7**	**210.4**	**260.4**	**638.9**	**1405.4**	**100.0**

Table 5c - Gap Analysis - Pavement and Surface Width Major Collector

Average Paved Width Standard		Length of Major Collector Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	< 3.3m	74.5	13.3	80.3	33.8	201.8	**22.4**
Meets Maintenance Standard	N/A	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets 3R Standard	3.3m - 3.5m	311.1	68.0	0.0	0.0	379.1	**42.0**
Meets Design Standard	> 3.5m	83.7	161.7	35.4	40.7	321.5	**35.6**
	Total Length (km)	**469.3**	**243.0**	**115.7**	**74.5**	**902.4**	**100.0**

Average Surface Width Standard		Length of Major Collector Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	<4.8m	384.9	78.3	40.9	31.5	535.7	**59.4**
Meets Maintenance Standard	N/A	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets 3R Standard	4.8m - 5.5m	65.7	139.3	45.6	7.6	258.2	**28.6**
Meets Design Standard	> 5.5m	18.6	25.4	29.1	35.4	108.5	**12.0**
	Total Length (km)	**469.3**	**243.0**	**115.7**	**74.5**	**902.4**	**100.0**

Table 5d - Gap Analysis - Pavement and Surface Width Minor Collector

Average Paved Width Standard		Length of Minor Collector Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	**< 3.0m**	3.3	0.0	0.0	0.0	3.3	**0.1**
Meets Maintenance Standard	**N/A**	0.0	0.0	0.0	0.0	0.0	**0.0**
Meets 3R Standard	**3.0m - 3.3m**	378.6	217.3	734.7	462.1	1792.6	**59.2**
Meets Design Standard	**> 3.3m**	402.6	314.9	163.1	351.4	1232.0	**40.7**
	Total Length (km)	**784.5**	**532.2**	**897.8**	**813.5**	**3027.9**	**100.0**

Average Surface Width Standard		Length of Minor Collector Highways by District (km)					Percent of Total by Standard
		Western	Central	Northern	Eastern	T otal	
Fails	**<4.0m**	3.3	0.0	0.0	0.0	3.3	**0.1**
Meets Maintenance Standard	**4.0m - 4.2m**	0.0	0.0	100.8	0.0	100.8	**3.3**
Meets 3R Standard	**4.2m - 4.8m**	735.6	139.5	334.0	293.2	1502.4	**49.6**
Meets Design Standard	**> 4.8m**	45.5	392.6	463.0	520.3	1421.5	**46.9**
	Total Length (km)	**784.5**	**532.2**	**897.8**	**813.5**	**3027.9**	**100.0**

Table 5e - Gap Analysis - Trucking Designation Minor Arterial A

	Length of Minor Arterial A Highways by Trucking Designation (km)				Totals
	Schedule C	Schedule D ("B" Train)	Spring Weight Exempt	Regular	
Western District	72.1	0.0	0.0	0.0	72.1
Central District	6.9	0.0	0.0	0.0	6.9
Northern District	6.1	0.0	0.0	0.0	6.1
Eastern District	21.0	0.0	0.0	0.0	21.0
Totals	106.1	0.0	0.0	0.0	106.1

Note: The gap analysis does not include 100 Series ramps.

The guideline for Minor Arterial A is Schedule C - 106 km or 100% of the Minor Arterial A system meets this criteria.

Table 5f - Gap Analysis - Trucking Designation Minor Arterial B

	Length of Minor Arterial B Highways by Trucking Designation (km)				Totals
	Schedule C	Schedule D ("B" Train)	Spring Weight Exempt	Regular	
Western District	199.7	95.9	95.9	0.0	**295.7**
Central District	99.9	57.9	110.5	0.0	**210.3**
Northern District	57.2	94.6	70.9	132.3	**260.4**
Eastern District	252.5	160.8	178.2	208.1	**638.8**
Totals	**609.3**	**409.3**	**455.6**	**340.4**	**1405.3**

The guideline for Minor Arterial B is Schedule D and Spring Weight Exempt:

- 1065 km or 76% of the Minor Arterial B system meet the road strength requirement of the Spring Weight Exemption - 340 kms do not meet the strength requirement and will need to be upgraded.

- 1019 km of Minor Arterial B meet or exceed Schedule D requirements, accordingly 387 km will have to be assessed in the future to determine if they meet the requirements for Schedule D or require upgrading.

Table 5g - Gap Analysis - Trucking Designation Major Collector

	Length of Major Collector Highways by Trucking Designation (km)				Totals
	Schedule C	Schedule D ("B" Train)	Spring Weight Exempt	Regular	
Western District	202.1	55.7	247.3	19.8	**469.3**
Central District	29.2	18.9	111.0	102.8	**242.9**
Northern District	57.8	28.8	20.9	36.8	**115.6**
Eastern District	11.2	0.0	0.8	62.5	**74.5**
Totals	**300.4**	**103.4**	**380.0**	**221.9**	**902.3**

The guideline for Major Collectors is Schedule D:

- 404 km or 45% of the Major Collector system meets this criteria.
- The 498 km not currently classified as Schedule C or Schedule D will have to be assessed in the future to determine whether they require upgrading to meet Schedule D requirements.

Table 5h - Gap Analysis - Trucking Designation Minor Collector

	Length of Minor Collector Highways by Trucking Designation (km)				Totals
	Schedule C	Schedule D ("B" Train)	Spring Weight Exempt	Regular	
Western District	137.6	212.4	300.8	346.1	**784.4**
Central District	46.9	276.8	173.5	311.9	**532.3**
Northern District	134.7	464.2	171.8	591.2	**897.7**
Eastern District	66.8	256.0	102.6	644.2	**813.6**
Totals	**385.9**	**1209.4**	**748.7**	**1893.4**	**3028.0**

The guideline for Minor Collectors is Schedule D:

- 1595 km or 53% of the Minor Collector system meets this criteria.
- The 1433 km not currently classified as Schedule C or Schedule D will have to be assessed in the future to determine whether they require upgrading to meet Schedule D requirements.

Table 6 - Pavement Rehabilitation Costing Models

Work Type	100 Series				Arterials/Collectors				Locals			
	2006 Data	2007 Data	2008 Data	Model Data -08	2006 Data	2007 Data	2008 Data	Model Data - 08	2006 Data	2007 Data	2008 Data	Model Data - 08
Cold Planing & AC Repaving - 1 Course	$165,000	$228,000	$249,555	$250,000	$223,000	$192,000	$143,000	$200,000				$180,000
Cold Planing & AC Repaving - 2 Courses	$332,000	$265,000	$305,000	$350,000	$256,000	$224,000	$251,000	$275,000	$337,000	$241,000	N/A	$250,000
AC Patching and Repaving - 1 Course				$250,000	$174,000	$134,000		$200,000	$119,000	$143,000		$180,000
AC Patching and Repaving - 2 Courses	$286,000	$280,000		$350,000	$246,000	$211,000		$275,000	$235,000	$182,000	$289,130	$250,000
Partial Depth Reclamation with Expanded Asphalt Stabilization & AC Repaving - 1 Course					$274,000	$233,000	$284,000	$275,000	n/a	$239,000	$265,000	$250,000
Full Depth Reclamation with Expanded Asphalt Stabilization & AC Repaving - 1 Course					$271,000	$244,000	$319,000	$300,000	$248,000	$206,000	$315,745	$300,000
Pulverization, Gravelling & AC Repaving - 2 Courses			$442,000		$255,000	$225,000	$281,000	$300,000	$262,000	$237,000	$282,500	$300,000
Gravelling & AC Repaving - 2 Courses			$271,000		$314,000	$222,000	$272,000	$300,000	$302,000	$245,000	$325,055	$300,000
Gravel & AC Repaving - 1 Course (subdivision paving)									$302,000	$248,000		$315,000
Reconstruction								$725,000				
Strengthen (1 lift of asphalt)					$125,000			$125,000				$110,000

Table 7 - Paved Road Rehabilitation Costs - 25 Year Plan

Road Classification	Program Development			Surface Condition Rehabilitation					Strengthening to Meet Standard				Widening to Meet Standard				Total Cost
	Length	Repaving Frequency	Repaving Length	Rehabilitation Treatment	Selected %	Rehab. Length	Cost	Total Cost	Unit Cost	% Deficient	Add. Strength	Cost	Unit Cost	% Deficient	Add. Width	Cost	
	km	years	km/year			km	$ / km	$	$ / km		km		$ / km		km		$
100 Series																	
Freeways	745	15	50	1 Course	50	25	$250,000	$6,208,333		0	0			0	0		$6,208,333
				2 Course	50	25	$350,000	$8,691,667		0	0			0	0		$8,691,667
Major Arterials	819	15	55	1 Course	50	27	$250,000	$6,825,000		0	0			0	0		$6,825,000
				2 Course	50	27	$350,000	$9,555,000		0	0			0	0		$9,555,000
Minor Arterial A	398	15	27	1 Course	50	13	$250,000	$3,316,667		0	0			0	0		$3,316,667
				2 Course	50	13	$350,000	$4,643,333		0	0			0	0		$4,643,333
																Sub-total 100 Series	**$39,240,000**
Arterials/ Collectors																	
Minor Arterial B	1406	20	70	1 Course	20	14	$200,000	$2,812,000	$125,000	25	4	$439,375	$100,000	50	7	$703,000	$3,954,375
				2 Course	70	49	$275,000	$13,532,750	$125,000	25	12	$1,537,813	$100,000	50	25	$2,460,500	$17,531,063
				Gravel Sandwich	10	7	$300,000	$2,109,000	$125,000	25	2	$219,688	$100,000	50	4	$351,500	$2,680,188
Major Collectors	903	20	45	1 Course	20	9	$200,000	$1,806,000	$125,000	0	0	$0	$100,000	60	5	$541,800	$2,347,800
				2 Course	70	32	$275,000	$8,691,375	$125,000	0	0	$0	$100,000	60	19	$1,896,300	$10,587,675
				Gravel Sandwich	10	5	$300,000	$1,354,500	$125,000	0	0	$0	$100,000	60	3	$270,900	$1,625,400
Minor Collectors	3028	20	151	1 Course	0	0	$200,000	$0	$125,000	0	0	$0	$100,000	0	0	$0	$0
				2 Course	50	76	$275,000	$20,817,500	$125,000	0	0	$0	$100,000	0	0	$0	$20,817,500
				Gravel Sandwich	50	76	$300,000	$22,710,000	$125,000	0	0	$0	$100,000	0	0	$0	$22,710,000
																Sub-total Arterials/Collectors	**$82,254,000**
Locals																	
Local Roads	6596	25	264	1 Course	0	0	$180,000	$0	$110,000	0	0	$0	$100,000	0	0	$0	$0
				2 Course	35	92	$250,000	$23,086,000	$110,000	0	0	$0	$100,000	0	0	$0	$23,086,000
				Gravel Sandwich	65	171	$300,000	$51,448,800	$110,000	0	0	$0	$100,000	0	0	$0	$51,448,800
																Sub-total Locals	**$74,534,800**
Totals	**13895**		**661**			**661**		**$187,607,925**			**18**	**$2,196,875**			**62**	**$6,224,000**	**$196,028,800**

Table 8 - Paved Road Rehabilitation Costs - 10 Year Plan

Road Classification	Condition Based Program Based on Repaving Frequency and Percent Condition Deficiencies (see Table 7)			Total Cost Based on 25 Year Program (see Table 7)	Maximum Gap* not Addressed by Condition Based Program		Additional Program to Upgrade Standard Over 10 Years (Condition Based Upgrade Plus Major Standard Deficiencies**)													Total Cost of Additional Program	Annual 10-Year Program Cost
							Surface Condition Rehabilitation					Strengthening to Meet Standard				Widening to Meet Standard					
	Length	Repaving Frequency	Repaving Length		Amount	Additional Repaving	Rehabilitation Treatment	Selected %	Rehab. Length	Cost	Total Cost	Unit Cost	% Deficient	Add. Strength	Cost	Unit Cost	% Deficient	Add. Width	Cost		
	km	years	km/year		%	km/year			km	$ / km	$	$ / km		km		$ / km		km		$	$/year
100 Series																					
Freeways	745	15	50	$6,208,333	0	0														$0	**$6,208,333**
				$8,691,667																$0	**$8,691,667**
Major Arterials	819	15	55	$6,825,000	0	0														$0	**$6,825,000**
				$9,555,000																$0	**$9,555,000**
Minor Arterial A	398	15	27	$3,316,667	0	0														$0	**$3,316,667**
				$4,643,333																$0	**$4,643,333**
				$39,240,000															**Sub-total 100 Series**	**$0**	**$39,240,000**
Arterials/ Collectors																					
Minor Arterial B	1406	20	70	$3,954,375	25	35	1 Course	0	0	$200,000	$0	$125,000	25	0	$0	$100,000	50	0	$0	$0	**$3,954,375**
				$17,531,063			2 Course	50	18	$275,000	$4,833,125	$125,000	25	4	$549,219	$100,000	50	18	$1,757,500	$7,139,844	**$24,670,906**
				$2,680,188			Gravel Sandwich	50	18	$300,000	$5,272,500	$125,000	25	4	$549,219	$100,000	50	18	$1,757,500	$7,579,219	**$10,259,406**
Major Collectors	903	20	45	$2,347,800	30	27	1 Course	0	0	$200,000	$0	$125,000	0	0	$0	$100,000	60	0	$0	$0	**$2,347,800**
				$10,587,675			2 Course	50	14	$275,000	$3,724,875	$125,000	0	0	$0	$100,000	60	14	$1,354,500	$5,079,375	**$15,667,050**
				$1,625,400			Gravel Sandwich	50	14	$300,000	$4,063,500	$125,000	0	0	$0	$100,000	60	14	$1,354,500	$5,418,000	**$7,043,400**
Minor Collectors	3028	20	151	$0	0	0														$0	**$0**
				$20,817,500																$0	**$20,817,500**
				$22,710,000																$0	**$22,710,000**
				$82,254,000															**Sub-total Arterials/Collectors**	**$25,216,438**	**$107,470,438**
Locals																					
Local Roads	6596	25	264	$0	0	0														$0	**$0**
				$23,086,000																$0	**$23,086,000**
				$51,448,800																$0	**$51,448,800**
				$74,534,800															**Sub-total Locals**	**$0**	**$74,534,800**
Totals	**13895**		**661**	**$196,028,800**					**62**		**$17,894,000**			**9**	**$1,098,438**			**62**	**$6,224,000**	**$25,216,438**	**$221,245,238**

* Maximum gap is associated with width deficiency.
** Major Standard Deficiency deals with the deficient width roads and the appropriate percentage of strength deficient roads.

Appendix D

Structures Plan

Table 9 – 10-Year Structure Plan
Table 10 – 25-Year Structure Plan

Table 9 - Ten Year Structures Plan

Structure Type/Age	Number of Bridges	Bridge Replacement				Bridge Repair				Total
		Cost Per Bridge Replaced ($ x 1000)	Percent Replaced (%)	Number of Bridges Replaced	Cost ($)	Cost Per Bridge Repair ($ x 1000)	Percent Repaired (%)	Number of Bridges Repaired	Cost ($)	($)
100 Series Major Bridges (girder type bridges)										
< 25 yrs	78	$2,750	0	0	$0	$165	25	20	$3,217,500	$3,217,500
25 - 35 yrs	99	$2,750	0	0	$0	$275	50	50	$13,612,500	$13,612,500
35 - 45 yrs	126	$2,750	0	0	$0	$165	50	63	$10,395,000	$10,395,000
> 45 yrs	37	$2,750	100	37	$101,750,000	N/A	0	0		$101,750,000
Sub-total	**340**		**100**	**37**	**$101,750,000**			**132**	**$27,225,000**	**$128,975,000**
100 Series Minor Bridges (drainage type structures)										
< 25 yrs	44	$275	5	2	$605,000	bridge repairs for minor structures typically operational expenditures			$0	$605,000
25 - 35 yrs	55	$275	10	6	$1,512,500				$0	$1,512,500
35 - 45 yrs	70	$275	25	18	$4,812,500				$0	$4,812,500
> 45 yrs	21	$275	100	21	$5,775,000				$0	$5,775,000
Sub-total	**190**			**46**	**$12,705,000**				**$0**	**$12,705,000**
Total 100 Series Structures	**530**			**83**	**$114,455,000**			**132**	**$27,225,000**	**$141,680,000**
Secondary Road Structures										
Timber	2082	$440	30	625	$274,824,000	bridge repairs for minor structures typically operational expenditures			$0	$274,824,000
Concrete / Steel	508	$1,650	20	102	$167,640,000				$0	$167,640,000
Other	743	$220	20	149	$32,692,000				$0	$32,692,000
Steel Truss **	216	$880	28	63	$55,000,000				$0	$55,000,000
Total Secondary Structures	**3549**			**937**	**$530,156,000**			**0**	**$0**	**$530,156,000**
Total All Structures				**1021**	**$644,611,000**			**132**	**$27,225,000**	**$671,836,000**
Average Annual Program				**102**	**$64,461,100**			**13**	**$2,722,500**	**$67,183,600**
Adjusted Annual Program*					**$64,000,000**				**$3,000,000**	**$67,000,000**

*** The annual program has been adjusted to allow funding for major repair not reflected fully in the model.**

**** Steel Truss - This number includes 184 deficient single lane trusses; 12 modern era single lane trusses; and some 20 two-lane truss bridges**

Table 10 - Twenty-five Year Structures Plan

	YEAR 1 TO YEAR 10								YEAR 11 TO YEAR 25							
		Bridge Replacement				Bridge Repair					Bridge Replacement				Bridge Repair			
Structure Type/Age	Number of Bridges	Cost Per Bridge Replaced	Percent Replaced	Number of Bridges Replaced	Cost	Cost Per Bridge Repair	Percent Repaired	Number of Bridges Repaired	Cost	Structure Type/Age	Number of Bridges	Cost Per Bridge Replaced	Percent Replaced	Number of Bridges Replaced	Cost	Cost Per Bridge Repair	Percent Repaired	Number of Bridges Repaired	Cost
		($ x 1000)	(%)		($)	($ x 1000)	(%)		($)			($ x 1000)	(%)		($)	($ x 1000)	(%)		($)
100 Series Major Bridges (girder type bridges)										<10 yrs	37	$2,750	0	0	$0	N/A	0	0	N/A
< 25 yrs	78	$2,750	0	0	$0	$165	25	20	$3,217,500	10 - 25 yrs	47	$2,750	0	0	$0	$165	25	12	$1,938,750
25 - 35 yrs	99	$2,750	0	0	$0	$275	50	50	$13,612,500	25 - 35 yrs	31	$2,750	0	0	$0	$275	50	16	$4,262,500
35 - 45 yrs	126	$2,750	0	0	$0	$165	50	63	$10,395,000	35 - 45 yrs	99	$2,750	0	0	$0	$165	50	50	$8,167,500
> 45 yrs	37	$2,750	100	37	$101,750,000	N/A	0	0	N/A	> 45 yrs	126	$2,750	100	126	$346,500,000	N/A	0	0	N/A
Sub-total	**340**		**100**	**37**	**$101,750,000**			**132**	**$27,225,000**		**340**		**100**	**126**	**$346,500,000**			**76.75**	**$14,368,750**
100 Series Minor Bridges (drainage type structures)										<10 yrs	21	$275	0	0	$0				$0
< 25 yrs	44	$275	5	2	$605,000				$0	10 - 25 yrs	26	$275	5	1	$357,500				$0
25 - 35 yrs	55	$275	10	6	$1,512,500				$0	25 - 35 yrs	18	$275	10	2	$495,000				$0
35 - 45 yrs	70	$275	25	18	$4,812,500	bridge repairs for minor structures typically operational expenditures			$0	35 - 45 yrs	55	$275	25	14	$3,781,250	bridge repairs for minor structures typically operational expenditures			$0
> 45 yrs	21	$275	100	21	$5,775,000				$0	> 45 yrs	70	$275	100	70	$19,250,000				$0
Sub-total	**190**			**46**	**$12,705,000**				**$0**		**190**			**87**	**$23,883,750**				**$0**
Total 100 Series Structures	**530**			**83**	**$114,455,000**			**132**	**$27,225,000**		**530**			**213**	**$370,383,750**			**77**	**$14,368,750**
Secondary Road Structures																			
Timber	2082	$440	30	625	$274,824,000				$0	Timber	2082	$440	30	625	$274,824,000				$0
Concrete / Steel	508	$1,650	20	102	$167,640,000				$0	Concrete / Steel	508	$1,650	30	152	$251,460,000				$0
Other	743	$220	20	149	$32,692,000	bridge repairs for minor structures typically operational expenditures			$0	Other	743	$220	30	223	$49,038,000	bridge repairs for minor structures typically operational expenditures			$0
Steel Truss **	216	$880	28	63	$55,000,000				$0	Steel Truss **	216	$880	43	94	$82,500,000				$0
Total Sec. Structures	**3549**			**937**	**$530,156,000**			**0**	**$0**		**3549**			**1094**	**$657,822,000**			**0**	**$0**
Total All Structures				**1021**	**$644,611,000**			**132**	**$27,225,000**	**Total All Structures**				**1307**	**$1,028,205,750**			**77**	**$14,368,750**
Average Annual Program				**102**	**$64,461,100**			**13**	**$2,722,500**	**Average Annual Program**				**87**	**$68,547,050**			**5**	**$957,917**
Adjusted Annual Program*					**$64,000,000**				**$3,000,000**	**Adjusted Annual Program***					**$66,000,000**				**$3,000,000**

*** The annual program has been adjusted to allow funding for major repair not reflected fully in the model.**

**** Steel Truss - This number includes 184 deficient single lane trusses; 12 modern era single lane trusses; and some 20 two-lane truss bridges**

25 Year Program Summary	Bridges Replaced	Cost ($)	Number of Bridges Repaired	Cost ($)	Total Cost Replace and Repair ($)
Total 100 Series Structures	296	$484,838,750	209	$41,593,750	**$526,432,500**
Secondary Road Structures	2031	$1,187,978,000	0	$0	**$1,187,978,000**
Total	2327	$1,672,816,750	209	$41,593,750	**$1,714,410,500**
Average Annual Program	**93**	**$66,912,670**	**8**	**$1,663,750**	**$68,576,420**

Appendix E

Fleet Replacement

Table 11 – Fleet Replacement Options

Table 11 - Fleet Replacement Options

Class	Description	Total No. Units	Unit Value	Total Value	Average Age (years)	Present AAR	Repl. Rate to Maintain Present Average Age (units/year)	Annual Cost to Maintain Fleet at Present Average Age	06/07 Budget	1994 Study AAR	Best AAR	Repl. Rate for Best AAR (units/year)	Annual Cost of Best AAR
01	Pick-up	162	$32,000	$5,184,000	6.7	13.4	12.00	$384,000	$483,400	5	6	27.0	$864,000
02	Van	45	$45,000	$2,025,000	8	16	3.00	$135,000	$32,619		6	7.5	$337,500
03	Crewcab Crewman	29	$40,000	$1,160,000	8.7	17.4	2.00	$80,000	$194,730		6	4.8	$193,333
04	Regular Cab Service	31	$60,000	$1,860,000	11.8	23.6	2.00	$120,000	$89,059	6	6	5.2	$310,000
05	Light Truck >4500Kg	50	$60,000	$3,000,000	5.9	11.8	5.00	$300,000	$182,146		7	7.1	$428,571
06	Single Axle Salt Trk	68	$195,000	$13,260,000	11.1	22.2	3.00	$585,000	$888,991	5	7	9.7	$1,894,286
07	Light Tandem / Tractor	16	$110,000	$1,760,000	10.25	20.5	1.00	$110,000	$108,319		7	2.3	$251,429
08	Heavy Tandem	168	$225,000	$37,800,000	8.12	16.24	11.00	$2,475,000	$3,005,132	7	7	24.0	$5,400,000
33	Motor Grader	77	$240,000	$18,480,000	12.6	25.2	3.00	$720,000	$233,066	11	11	7.0	$1,680,000
34	Track Loader	1	$180,000	$180,000									
35	Rubber Tired Loader	70	$180,000	$12,600,000	18	36	1.94	$350,000	$829,952	15	15	4.7	$840,000
41	Backhoe	27	$102,000	$2,754,000	8.8	17.6	2.00	$204,000	$295,998	6	8	3.4	$344,250
42	Utility Tractor	27	$75,000	$2,025,000	9.2	18.4	2.00	$150,000	$388,653	8	8	3.4	$253,125
44	Yard Crane	23	$180,000	$4,140,000	24	48	0.50	$90,000			20	1.2	$207,000
46	Mini Excavator	2	$80,000	$160,000	5	10	0.20	$16,000			10	0.2	$16,000
47	Excavator	14	$150,000	$2,100,000	10	20	0.70	$105,000			10	1.4	$210,000
56	Ride on Dual Drum	10	$60,000	$600,000	10	20	0.50	$30,000			10	1.0	$60,000
59	Ride on Roller drum / tire	6	$50,000	$300,000	10	20	0.30	$15,000	$102,485		10	0.6	$30,000
62	Low Bed Trailer	6	$27,000	$162,000	10	20	0.30	$8,100			10	0.6	$16,200
63	Tilt / Tag Trailer	47	$27,000	$1,269,000	10	20	2.35	$63,450	$37,508		10	4.7	$126,900
67	Dump Trailer	4	$30,000	$120,000	10	20	0.20	$6,000			10	0.4	$12,000
79	Traffic Line Paint Truck	3	$400,000	$1,200,000	6	12	0.25	$100,000	$313,328		12	0.3	$100,000
82	4WD / 6WD Truck	39	$225,000	$8,775,000	12.6	25.2	2.00	$450,000	$445,872	13	13	3.0	$675,000
83	Heavy Snow Blower	4	$15,000	$60,000	14.25	28.5	0.14	$2,105			20	0.2	$3,000
85	Bodies								$111,788				
89	Vacuum Sweeper Truck	4	$166,000	$664,000	9.25	18.5	0.22	$35,892			12	0.3	$55,333
	Misc							$200,000	$80,000				$200,000
	Totals	**933**		**$111,409,000**				**$6,734,547**	**$7,823,045**				**$14,507,927**

Appendix F

Highway Classification Summaries by District

Table 12 - Western District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
					Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0001	001	1.9	Trunk 1	from YARMOUTH TOWN LINE (N) to JCT Lake Darling Rd.	D					1.9		3.3	4.9			1.9	
0001	002	1.0	Trunk 1	from END OF PAVE SHOULDER TO 80 KM ZONE	D					1.0		3.5	5.1			1.0	
0001	002	5.3	Trunk 1	from START OF 80 KM ZONE TO JCT OF LAKE DARLING RD.	D					5.3		3.5	4.7			5.3	
0001	003	2.0	Trunk 1	from START OF JCT LAKE DARLING RD.(0456) TO 50KM ZONE	D					2.0		3.5	4.8	2.0			
0001	003	0.4	Trunk 1	FROM 50KM/HR ZONE TO RICHMOND ROAD	D					0.4		3.5	4.8	0.4			
0001	003	1.2	Trunk 1	from RICHMOND ROAD TO START OF 80KM ZONE	D					1.2		3.5	4.8			1.2	
0001	003	4.3	Trunk 1	from START OF 80 KM ZONE TO DIGBY LINE / YARM. LINE	D					4.3		3.3	4.4			4.3	
0001	001	13.3	Trunk 1	from START OF YARMOUTH CO LINE TO 8 KM WEST OF METEGHAN CONNECTOR	C					13.3		3.3	4.5			13.3	
0001	001	8.0	Trunk 1	from 8 KM WEST OF METEGHAN CONNECTOR TO METEGHAN CONNECTOR	C					8.0		3.3	4.5	8.0			
0001	001	0.2	Trunk 1	fromSTART OF 50 KM ZONE TO START OF PAVED SHOULDER	C					0.2		3.3	4.6	0.2			
0001	001	2.0	Trunk 1	from END OF PAVE SHOULDER TO START 60 KM ZONE	C					2.0		3.5	4.9	2.0			
0001	001	1.6	Trunk 1	from START OF 60 KM ZONE TO METEGHAN RIVER BRIDGE	C					1.6		3.4	4.9	1.6			
0001	002	0.9	Trunk 1	from END OF PAVE SHOULDER TO START OF PAVE SHOULDER	C					0.9		3.4	4.5	0.9			
0001	002	0.3	Trunk 1	from END OF PAVE SHOULDER TO START OF 50 KM ZONE	C					0.3		3.4	4.6	0.3			
0001	002	0.6	Trunk 1	from START OF 50 KM ZONE TO START OF PAVE SHOULDER	C					0.6		3.3	4.5	0.6			
0001	002	2.0	Trunk 1	from END OF PAVE AND START OF 80 KM ZONE TO START OF PAVE SHOULDER (COMEAUVILLE)	C					2.0		3.4	4.7	2.0			
0001	002	2.5	Trunk 1	from END OF PAVE SHOULDER(LITTLE BROOK) TO BEGIN OF PAVE SHOULDER(ISSAC LEBLANC RD.)	C					2.5		3.4	4.5	2.5			
0001	002	5.2	Trunk 1	from END OF PAVE SHOULDER TO 60 KM ZONE (BELLIVEAUS COVE)	C					5.2		3.3	4.8	5.2			
0001	002	1.8	Trunk 1	from START 60KM ZONE TO START OF 70 KM ZONE (ST. BERNARD)	C					1.8		3.3	4.6	1.8			
0001	002	4.3	Trunk 1	from START 70KM ZONE TO HIGHWAY 101 RAMPS	C					4.3		3.3	4.6	4.3			
0001	002	0.5	Trunk 1	from HIGHWAY 101 RAMPS TO JCT. CHEMIN P'TIT PARADIS	C					0.5		3.3	4.6	0.5			
0001	002	0.7	Trunk 1	from START 70KM ZONE TO START OF 60 KM ZONE (WEYMOUTH)	C					0.7		3.3	4.8	0.7			
0001	002	0.1	Trunk 1	from START 60KM ZONE TO DIGBY/CLARE LINE	C					0.1		3.3	4.8	0.1			
0001	140	7.1	Trunk 1	Riverside Rd to Exit 27	C					7.1		3.1	4.6	7.1			
0001	150	7.6	Trunk 1	Exit 23 to Clementsport Rd	C					7.6		3.1	4.6	7.6			
0001	160	7.3	Trunk 1	Clementsport Rd to Upper Clements Provincial Park	C					7.3		3.1	4.6	7.3			
0001	170	5.2	Trunk 1	Upper Clements Provincial Park to Annapolis Royal W Town Line	C					5.2		3.0	4.5	5.2			
0001	180	11.7	Trunk 1	Annapolis Royal North Town Line to Youngs Mtn Rd	C					11.7		3.0	4.5	11.7			

Table 12 - Western District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
					Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0001	190	8.0	Trunk 1	Youngs Mtn Rd to Annapolis East/West Line	C					8.0		3.5	4.7	8.0			
0001	210	10.2	Trunk 1	Bridgetown East Town Line to Lawrencetown Lane	C					10.2		3.4	4.6				10.2
0001	220	8.0	Trunk 1	Lawrencetown Lane to Middleton West Town Line	C					8.0		3.4	4.6	8.0			
0001	230	8.2	Trunk 1	Middleton East Town Line to Annapolis/Kings County Line	C					8.2		3.1	4.6	8.2			
0003	001	1.6	Trunk 3	from YARMOUTH TOWN LINE (E) to START OF 50 KM ZONE (SMALL GAINS RD.)	D					1.6		3.3	6.5			1.6	
0003	001	0.3	Trunk 3	from START 50KM ZONE TO PAVED SHOULDER (ARCADIA)	D					0.3		3.3	6.5			0.3	
0003	001	0.3	Trunk 3	from END OF PAVE SHOULDER TO JCT.334	D					0.3		3.4	4.6			0.3	
0003	002	0.3	Trunk 3	from JCT RTE334 (0334) to START OF 70 KM ZONE	D					0.3		3.4	4.6			0.3	
0003	002	3.5	Trunk 3	from START OF 70 KM ZONE TO START OF 60 KN ZONE (PLEASANT LK.)	D					3.5		3.4	4.6			3.5	
0003	002	2.4	Trunk 3	from START OF 60 KM ZONE TO SALMON RIVER BRIDGE	D					2.4		3.2	4.3			2.4	
0003	003	4.9	Trunk 3	from SALMON RIVER BRIDGE to 80 KM ZONE (TUSKET)	D					4.9		3.0	3.9			4.9	
0003	003	4.5	Trunk 3	from 80 KM ZONE TO BEGINNING OF CHIP SEAL AND START OF 60 KM ZONE	D					4.5		3.3	4.3			4.5	
0003	004	2.1	Trunk 3	from BEGINNING OF CHIP SEAL @ EEL B to 70 KM ZONE	D					2.1		3.1	4.1			2.1	
0003	004	4.6	Trunk 3	from BEGINNING OF 70 KM ZONE TO JCT.103 @ EXIT 32	D					4.6		3.0	4.0			4.6	
0003	012	9.6	Trunk 3	from JCT RTE335 (0335) @ PUBNICO HE to JCT HWY103 (0103) EXIT 32	D					9.6		3.0	4.0			9.6	
0003	013	7.1	Trunk 3	from JCT HWY103 (0103) CONNECTOR to JCT WILLETS RD (0607)	D					7.1		3.4	4.5	7.1			
0003	013	2.7	Trunk 3	from JCT. WILLETTS ROAD TO LAURENCE SWEENEY FISHERIES	D					2.7		3.4	4.5	2.7			
0003	014	3.8	Trunk 3	from LAURENCE SWEENEY FISHERIES to YARMOUTH COUNTY LINE	D					3.8		3.4	4.5		3.8	3.8	
0003	001	4.5	Trunk 3	from SHELBURNE/YARMOUTH COUNTY LINE to FORBES POINT BRIDGE	D					4.5		3.4	4.5		4.5	4.5	
0003	002	9.3	Trunk 3	from FORBES POINT BRIDGE to START OF 60 KM ZONE (SHAG HARBOUR)	D					9.3		3.4	4.5		9.3	9.3	
0003	002	3.4	Trunk 3	from 60 KM ZONE TO START OF 80 KM ZONE	D					3.4		3.2	4.4		3.4	3.4	
0003	002	0.2	Trunk 3	from START OF 80 KM ZONE TO SHAG HARBOUR BRIDGE	D					0.2		3.2	4.3		0.2	0.2	
0003	003	7.7	Trunk 3	from SHAG HARBOUR BRIDGE to START 50 KM ZONE (BARRINGTON PASSAGE)	D					7.7		3.2	4.3		7.7	7.7	
0003	003	0.6	Trunk 3	from START OF 50 KM ZONE TO JCT. 330	D					0.6		3.3	4.5		0.6	0.6	
0003	004	0.8	Trunk 3	from JCT 330 TO START OF PAVE SHOULDER (JCT STATION RD.)	D					0.8		3.3	4.5			0.8	
0003	004	2.1	Trunk 3	from END PAVE SHOULDER TO START 80 KM ZONE	D					2.1		3.2	4.5			2.1	
0003	004	1.0	Trunk 3	from START OF 50 KM ZONE TO JCT OAK PARK ROAD (0531)	D					1.0		3.5	4.7			1.0	
0003	005	3.1	Trunk 3	from JCT OAK PARK RD (0531) to START 70 KM ZONE	C					3.1		3.3	4.4			3.1	

Table 12 - Western District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
					Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0003	005	1.1	Trunk 3	from START OF 70 KM ZONE TO HWY 103, EXIT 29 (BARRINGTON)	C					1.1		3.5	5.0			1.1	
0003	001	1.9	Trunk 3	from JCT HWY103 AT EXIT 14 to JCT BELL AVE (1038)	A					1.9		3.4	4.4	1.9			
0003	002	2.5	Trunk 3	from JCT BELL AVE (1038) to JCT CROSS (0627)	A					2.5		3.4	4.4	2.5			
0003	003	2.0	Trunk 3	from JCT CROSS (0627) to BRIDGEWATER TOWN LINE	A					2.0		3.4	4.4	2.0			
0003	004	2.6	Trunk 3	from BRIDGEWATER TOWN LINE to JCT LEARY FRASER (0491)	A					2.6		3.4	4.4	2.6			
0003	005	1.6	Trunk 3	from JCT LEARY FRASER (0491) to JCT RTE332 (0332)	A					1.6		3.4	4.4	1.6			
0003	006	3.2	Trunk 3	from JCT RTE332 (0332) to JCT MULLOCK (0495)	A					3.2		3.4	4.4	3.2			
0003	007	2.8	Trunk 3	from JCT MULLOCK (0495) to JCT EDGEMONT (1036)	A					2.8		3.4	4.4	2.8			
0003	008	3.0	Trunk 3	from JCT EDGEMONT (1036) to JCT FRONT CENTRE (0407)	A					3.0		3.4	4.4	3.0			
0003	009	2.1	Trunk 3	from JCT FRONT CENTRE (0407) to JCT RTE332 (0332) TRUCK ROUTE	A					2.1		3.4	4.4	2.1			
0003	010	2.4	Trunk 3	from JCT RTE332 (0332) TRUCK ROUTE to JCT SCHNARES CROSSING (0429)	A					2.4		3.4	4.4			2.4	
0003	011	2.1	Trunk 3	from JCT SCHNARES CROSSING (0429) to JCT SMELTZER (0427)	A					2.1		3.4	4.4			2.1	
0003	012	1.9	Trunk 3	from JCT SMELTZER (0427) to JCT MADERS COVE (0459)	A					1.9		3.4	4.4			1.9	
0003	013	2.0	Trunk 3	from JCT MADERS COVE (0459) to MAHONE BAY TOWN LINE	A					2.0		3.4	4.4			2.0	
0003	014	1.8	Trunk 3	from MAHONE BAY TOWN LINE to JCT HWY103 EXIT 10 CONNECTOR	A					1.8		3.4	4.4			1.8	
0003	015	2.4	Trunk 3	from JCT HWY103 EXIT 10 CONNECTOR (to JCT OAKLAND (0450)	A					2.4		3.4	4.4			2.4	
0003	016	1.3	Trunk 3	from JCT OAKLAND (0450) to EAST END OF MARTINS RIVER BRID	A					1.3		3.4	4.4			1.3	
0003	017	1.8	Trunk 3	from EAST END OF MARTINS RIVER BRID to JCT MARTINS POINT (0726)	A					1.8		3.4	4.4			1.8	
0003	018	2.1	Trunk 3	from JCT MARTINS POINT (0726) to EAST END OF VAUGHN RIVER BRIDG	A					2.1		3.4	4.4			2.1	
0003	019	2.0	Trunk 3	from EAST END OF VAUGHN RIVER BRIDG to JCT FRANK SWINIMER (0730)	A					2.0		3.4	4.4			2.0	
0003	020	2.4	Trunk 3	from JCT FRANK SWINIMER (0730) to JCT GOLD RIVER (0735) (WEST EN	A					2.4		3.4	4.4			2.4	
0003	021	2.3	Trunk 3	from JCT GOLD RIVER (0735) (WEST EN to JCT TK12 (0012)	A					2.3		3.4	4.4			2.3	
0003	022	2.1	Trunk 3	from JCT TK12 (0012) to JCT MIDDLE RIVER (0674)	A					2.1		3.4	4.4	2.1			
0003	023	1.8	Trunk 3	from JCT MIDDLE RIVER (0674) to JCT MARRIOTTS COVE (0671)	A					1.8		3.4	4.4	1.8			
0003	024	1.2	Trunk 3	from JCT MARRIOTTS COVE (0671) to JCT TK14 (0014)	A					1.2		3.4	4.4			1.2	
0003	025	1.9	Trunk 3	from JCT TK14 (0014) to JCT VICTORIA ST (1083)	A					1.9		3.4	4.4			1.9	
0003	026	2.2	Trunk 3	from JCT VICTORIA ST (1083) to JCT STEVENS (1067)	A					2.2		3.4	4.4			2.2	
0003	027	1.8	Trunk 3	from JCT STEVENS (1067) to JCT GRAVES ISLAND (0664)	A					1.8		3.4	4.4			1.8	

Table 12 - Western District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
					Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0003	028	2.4	Trunk 3	from JCT GRAVES ISLAND (0664) to JCT BUCANEER (0752)	A					2.4		3.4	4.4			2.4	
0003	029	2.1	Trunk 3	from JCT BUCANEER (0752) to HWY103 EXIT 7 I/C (EAST RIVER)	A					2.1		3.4	4.4			2.1	
0003	030	1.0	Trunk 3	from HWY103 EXIT 7 I/C (EAST RIVER) to JCT RTE329 (0329)	A					1.0		3.4	4.4			1.0	
0003	031	3.5	Trunk 3	from JCT RTE329 (0329) to JCT MERSEY ROAD CONNECTOR (098	A					3.5		3.4	4.4			3.5	
0003	032	2.5	Trunk 3	from JCT MERSEY ROAD CONNECTOR (098 to JCT FOREST DR (1134)	A					2.5		3.4	4.4	2.5			
0003	033	3.0	Trunk 3	from JCT FOREST DR (1134) to JCT MILL LAKE 1 (0708) AT EXI	A					3.0		3.4	4.4	3.0			
0003	034	1.3	Trunk 3	from JCT MILL LAKE 1 (0708) AT EXI to HALIFAX COUNTY LINE @ HUBBARDS	A					1.3		3.4	4.4			1.3	
0003	006	0.8	Trunk 3	from JCT HWY103 WEST CONNECTOR (900 to LIVERPOOL TOWN LINE	D					0.8		3.4	4.4	0.8			
0003	007	1.0	Trunk 3	from LIVERPOOL TOWN LINE to JCT GREAT HILL (0437)	D					1.0		3.4	4.4	1.0			
0003	007	1.8	Trunk 3	from JCT GREAT HILL (0437) to JCT BROOKLYN SHORE (0440)	D					1.8		3.4	4.4	1.8			
0003	009	1.0	Trunk 3	from JCT BROOKLYN SHORE (0440) to JCT EASTERN SHORE (0450)	D					1.0		3.4	4.4	1.0			
0003	010	3.4	Trunk 3	from JCT EASTERN SHORE (0450) to JCT HWY103 (0103) AT EXIT 18	D					3.4		3.4	4.4	3.4			
0008	001	2.6	Trunk 8	from LIVERPOOL TOWN LINE to JCT BRIDGE ST (0430)	C				2.6			3.4	4.6	2.6			
0008	002	2.8	Trunk 8	from JCT BRIDGE ST (0430) to JCT RIVER (0434)	C				2.8			3.4	4.6	2.8			
0008	003	13.1	Trunk 8	from JCT RIVER (0434) to JCT ACCESS RD FOR LANDFILL (PR	C				13.1			3.4	4.6	13.1			
0008	004	2.4	Trunk 8	from JCT ACCESS RD FOR LANDFILL (PR to JCT RTE210 (0210)	C				2.4			3.4	4.6	2.4			
0008	005	1.8	Trunk 8	from JCT RTE210 (0210) to JCT MIDDLEFIELD (0488)	C				1.8			3.4	4.6	1.8			
0008	006	5.0	Trunk 8	from JCT MIDDLEFIELD (0488) to JCT OLD GARDEN (0487)	C				5.0			3.4	4.6	5.0			
0008	007	6.4	Trunk 8	from JCT OLD GARDEN (0487) to JCT PRIVATE RD TO MOOSEHORN ES	C				6.4			3.4	4.6	6.4			
0008	008	4.2	Trunk 8	from JCT PRIVATE RD TO MOOSEHORN ES to JCT HIBERNIA (0515)	C				4.2			3.4	4.6	4.2			
0008	009	3.4	Trunk 8	from JCT HIBERNIA (0515) to JCT ECHO LODGE (0518)	C				3.4			3.4	4.6	3.4			
0008	010	2.5	Trunk 8	from JCT ECHO LODGE (0518) to JCT RTE208 (0208)	C				2.5			3.4	4.6	2.5			
0008	011	4.9	Trunk 8	from JCT RTE208 (0208) to JCT HIBERNIA (0515)	C				4.9			3.4	4.6	4.9			
0008	012	5.4	Trunk 8	from JCT HIBERNIA (0515) to JCT OLD WESTFIELD (0499)	C				5.4			3.4	4.6	5.4			
0008	013	4.8	Trunk 8	from JCT OLD WESTFIELD (0499) to JCT NORTHFIELD (0543)	C				4.8			3.4	4.6	4.8			
0008	014	4.0	Trunk 8	from JCT NORTHFIELD (0543) to ANNAPOLIS COUNTY LINE	C				4.0			3.4	4.6	4.0			
0008	210	3.1	Trunk 8	Queen's-Annapolis Co Line to Northfield Rd	C				3.1			3.1	4.6	3.1			
0008	220	16.0	Trunk 8	Northfield Rd to Lake Torment	C				16.0			3.1	4.6	16.0			

Table 12 - Western District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
					Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0008	230	8.0	Trunk 8	Lake Torment to Virginia Rd	C				8.0			3.1	4.6	8.0			
0008	240	16.0	Trunk 8	Virginia Rd to Exit 22	C				16.0			3.1	4.6	16.0			
0008	250	6.0	Trunk 8	Exit 22 to Route 201	C				6.0			3.1	4.6	6.0			
0010	001	1.3	Trunk 10	from BRIDGEWATER TOWN LINE to JCT PINE GROVE (0487)	C				1.3			3.4	4.6	1.3			
0010	002	2.1	Trunk 10	from JCT PINE GROVE (0487) to JCT RTE331 (0331) (NORTH KING	C				2.1			3.4	4.6	2.1			
0010	003	2.5	Trunk 10	from JCT RTE331 (0331) AT COOKS BRI to JCT RHODENIZER (0520)	C				2.5			3.4	4.6	2.5			
0010	004	2.0	Trunk 10	from JCT RHODENIZER (0520) to JCT MOSSMAN STATION (0521	C				2.0			3.4	4.6	2.0			
0010	005	1.9	Trunk 10	from JCT MOSSMAN STATION (0521) to JCT FEENERS CORNER (0523	C				1.9			3.4	4.6	1.9			
0010	006	3.2	Trunk 10	from JCT FEENERS CORNER (0523) to JCT FIVE POUND (0524)	C				3.2			3.4	4.6	3.2			
0010	007	2.9	Trunk 10	from JCT FIVE POUND (0524) to JCT PENNY (0535)	C				2.9			3.4	4.6	2.9			
0010	008	1.1	Trunk 10	from JCT PENNY (0535) to JCT VEINOT (0527)	C				1.1			3.4	4.6	1.1			
0010	009	3.1	Trunk 10	from JCT VEINOT (0527) to JCT ROSS ST (1024)	C				3.1			3.4	4.6	3.1			
0010	010	2.5	Trunk 10	from JCT ROSS ST (1027) to JCT FAULKENHAM LN (1136)	C				2.5			3.4	4.6	2.5			
0010	011	1.9	Trunk 10	from JCT FAULKENHAM LN (1136) to JCT BARSS CORNER (0501)	C				1.9			3.4	4.6	1.9			
0010	012	2.3	Trunk 10	from JCT BARSS CORNER (0501) to JCT COPELAND (0529)	C				2.3			3.4	4.6	2.3			
0010	013	3.0	Trunk 10	from JCT COPELAND (0529) to SHINGLE MILL BROOK	C				3.0			3.4	4.6		3.0	3.0	
0010	014	1.9	Trunk 10	from SHINGLE MILL BROOK BRIDGE (OFM to JCT NORTH RIVER (0531)	C				1.9			3.4	4.6		1.9	1.9	
0010	015	5.0	Trunk 10	from JCT NORTH RIVER (0531) to JCT CHERRYFIELD (0532)	C				5.0			3.4	4.6		5.0	5.0	
0010	016	1.1	Trunk 10	from JCT CHERRYFIELD (0532) to ANNAPOLIS COUNTY LINE	C				1.1			3.4	4.6		1.1	1.1	
0010	170	10.0	Trunk 10	Lunenburg/Annapolis Co Line to Ridge Rd	C				10.0			3.1	4.6	10.0			
0010	180	17.1	Trunk 10	Ridge Rd to Squirreltown Rd	C				17.1			3.1	4.6	17.1			
0010	190	8.6	Trunk 10	Squirreltown Rd to Crisp Rd	C				8.6			3.1	4.6	8.6			
0010	200	15.3	Trunk 10	Crisp Rd to Middleton South Town Line	C				15.3			3.1	4.6	15.3			
0012	001	1.3	Trunk 12	from JCT TK3 (0003) to JCT HWY103 (0103)	C				1.3			3.4	4.6	1.3			
0012	002	2.5	Trunk 12	from JCT HWY103 (0103) to JCT NORTH LOWER GRANT (1009)	C				2.5			3.4	4.6		2.5	2.5	
0012	003	1.8	Trunk 12	from JCT NORTH LOWER GRANT (1009) to JCT CHESTER GRANT (0678)	C				1.8			3.4	4.6		1.8	1.8	
0012	004	2.6	Trunk 12	from JCT CHESTER GRANT (0679) to JCT WHALEN (0976) (SOUTH END)	C				2.6			3.4	4.6		2.6	2.6	
0012	005	3.5	Trunk 12	from JCT WHALEN (0976) (SOUTH END) to JCT DOCTORS BROOK (0918)	C				3.5			3.4	4.6		3.5	3.5	

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Authority Number	Section	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
					Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0012	006	10.0	Trunk 12	from JCT DOCTORS BROOK (0918) to JCT LAKE LAWSON DR (0756)	C				10.0			3.4	4.6		10.0	10.0	
0012	007	2.6	Trunk 12	from JCT LAKE LAWSON DR (0756) to JCT FORTIES (0694)	C				2.6			3.4	4.6		2.6	2.6	
0012	008	3.6	Trunk 12	from JCT FORTIES (0694) to HUNTS LAKE BROOK BRIDGE (OFMIS	C				3.6			3.4	4.6		3.6	3.6	
0012	009	1.7	Trunk 12	from HUNTS LAKE BROOK BRIDGE (OFMIS to JCT ADAMS (0693)	C				1.7			3.4	4.6		1.7	1.7	
0012	010	1.6	Trunk 12	from JCT ADAMS (0693) to HARRIS LAKE BROOK BRIDGE (OFMI	C				1.6			3.4	4.6		1.6	1.6	
0012	011	2.5	Trunk 12	from Harris Lake Brook Bridge to Sefferns Lake Brook Bridge	C				2.5			3.4	4.6		2.5	2.5	
0012	012	4.2	Trunk 12	from SEFFERNS LAKE BROOK (OFMIS) to KINGS COUNTY LINE @ BLUE MOUNTAIN	C				4.2			3.4	4.6		4.2	4.2	
0014	001	3.0	Trunk 14	from JCT TK3 (0003) to JCT HWY103 (0103)	C				3.0			3.4	4.4	3.0			
0014	002	1.9	Trunk 14	from JCT HWY103 (0103) to JCT MIDDLE RIVER (1128)	C				1.9			3.4	4.4		1.9	1.9	
0014	003	2.5	Trunk 14	from JCT MIDDLE RIVER (1128) to JCT CHESTER GRANT (0678)	C				2.5			3.4	4.4		2.5	2.5	
0014	004	2.3	Trunk 14	from JCT CHESTER GRANT (0678) to JCT ANNIE ARMSTRONG DIVERSION	C				2.3			3.4	4.4		2.3	2.3	
0014	005	1.6	Trunk 14	from JCT ANNIE ARMSTRONG DIVERSION to JCT CANAAN (0670)	C				1.6			3.4	4.4		1.6	1.6	
0014	006	2.6	Trunk 14	from JCT CANAAN (0670) to JCT ARMSTRONG (0703)	C				2.6			3.4	4.4		2.6	2.6	
0014	007	4.1	Trunk 14	from JCT ARMSTRONG (0703) to JCT SHERWOOD (0704)	C				4.1			3.4	4.4		4.1	4.1	
0014	008	6.8	Trunk 14	from JCT SHERWOOD (0704) to HANTS COUNTY LINE @ UPPER VAUGHAN	C				6.8			3.4	4.4		6.8	6.8	
0201	050	6.1	Route 201	Trunk 10 to Annapolis/Kings County Line	D					6.1		3.1	4.6				6.1
0304	001	3.3	Route 304	from BEGINNING OF ROAD @ LIGHTHOUSE to YARMOUTH BAR	E						3.3	2.7	3.6				3.3
0324	001	2.3	Route 324	from JCT RTE325 (0325) to JCT FAUXBURG (0454)	D					2.3		3.4	4.4			2.3	
0324	002	3.0	Route 324	from JCT FAUXBURG (0454) to JCT BIG LOTS (0451)	D					3.0		3.4	4.4			3.0	
0324	003	2.0	Route 324	from JCT BIG LOTS (0451) to JCT SCHNARES CROSSING (0429)	D					2.0		3.4	4.4			2.0	
0324	004	2.1	Route 324	from JCT SCHNARES CROSSING (0429) to JCT RTE332 (0332) (TRUCK ROUTE	D					2.1		3.4	4.4			2.1	
0325	001	7.8	Route 325	from JCT RTE208 (0208) to JCT SAMUEL OICKLE (0623)	F					7.8		3.4	4.5		7.8	7.8	
0325	002	1.8	Route 325	from JCT SAMUEL OICKLE (0623) to JCT EAST CLIFFORD (0622)	F					1.8		3.4	4.5		1.8	1.8	
0325	003	1.9	Route 325	from JCT EAST CLIFFORD (0622) to JCT KNOX (0611)	F					1.9		3.4	4.5		1.9	1.9	
0325	004	1.6	Route 325	from JCT KNOX (0611) to JCT MONK (0618)	F					1.6		3.4	4.5		1.6	1.6	
0325	005	2.5	Route 325	from JCT MONK (0618) to JCT HAINES 2 (0555)	F					2.5		3.4	4.5		2.5	2.5	
0325	006	2.9	Route 325	from JCT HAINES 2 (0555) to JCT RTE210 (0210)	F					2.9		3.4	4.5		2.9	2.9	
0325	007	1.9	Route 325	from JCT RTE210 (0210) to JCT JOE HEBB (0874)	F					1.9		3.4	4.5		1.9	1.9	

Table 12 - Western District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
					Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0325	008	1.7	Route 325	from JCT JOE HEBB (0874) to JCT LAPLAND (0598)	F					1.7		3.4	4.5		1.7	1.7	
0325	009	2.1	Route 325	from JCT LAPLAND (0598) to JCT WILES LAKE (0596)	F					2.1		3.4	4.5		2.1	2.1	
0325	010	1.7	Route 325	from JCT WILES LAKE (0596) to BRIDGEWATER TOWN LINE	F					1.7		3.4	4.5	1.7			
0325	011	1.7	Route 325	from BRIDGEWATER TOWN LINE to JCT NAUGLER 2 (0494)	F					1.7		3.4	4.5	1.7			
0325	012	2.4	Route 325	from JCT NAUGLER 2 (0494) to JCT MULLOCK (0495)	F					2.4		3.4	4.5	2.4			
0325	013	1.9	Route 325	from JCT MULLOCK (0495) to JCT NORTHFIELD (0533)	F					1.9		3.4	4.5			1.9	
0325	014	2.9	Route 325	from JCT NORTHFIELD (0533) to JCT BLOCKHOUSE MINES (0484)	F					2.9		3.4	4.5			2.9	
0325	015	1.5	Route 325	from JCT BLOCKHOUSE MINES (0484) to JCT RTE324 (0324)	F					1.5		3.4	4.5			1.5	
0325	016	1.0	Route 325	from JCT RTE324 (0324) to MAHONE BAY TOWN LINE	F					1.0		3.4	4.5			1.0	
0330	001	4.0	Route 330	from CLARKS HARBOUR to START 80KM ZONE (NEWELLTON)	D					4.0		3.4	4.7			4.0	
0330	001	3.4	Route 330	from START OF 80 KM ZONE TO JCT. TK. 3 (BARRINGTON)	D					3.4		3.3	4.6			3.4	
0334	001	3.2	Route 334	from JCT TK3 (0003) @ ARCADIA to JCT DOMINIQUE RD (0545) (PLYMOUTH)	D					3.2		3.3	4.5			3.2	
0334	002	5.1	Route 334	from JCT DOMINIQUE RD (0545) to JCT BACKLAND (0691)	D					5.1		3.3	4.5			5.1	
0334	002	2.0	Route 334	from JCT BACKLAND (691) to CAPE WHARF ROAD (0661)	E					2.0		3.3	4.5			2.0	
0334	003	0.1	Route 334	from JCT CAPE WHARF RD (0661) to START 60 KM ZONE	E					0.1		3.2	4.3			0.1	
0334	003	2.4	Route 334	from START OF 60 KM ZONE TO START OF PAVE SHOULDER (WEDGEPORT)	E					2.4		3.2	4.3			2.4	
0334	003	2.7	Route 334	from END OF PAVE SHOULDER TO END OF PAVEMENT (LOWER WEDGEPORT)	E					2.7		3.2	4.3			2.7	
0335	001	2.3	Route 335	from JCT. TK 3 @ PUBNICO TO START OF 60 KM ZONE	E					2.3		3.2	4.5			2.3	
0335	001	2.8	Route 335	from START OF 60KM ZONE TO ABBOTTS HARBOUR RD.	E					2.8		3.2	4.5			2.8	
0335	002	2.4	Route 335	from from JCT ABBOTTS HARBOUR RD (0614)END OF PAVE SHOULDER TO JCT D'ENTREMONE ROAD	E					2.4		3.2	4.5			2.4	
0335	002	2.3	Route 335	from D'ENTREMONT ROAD TO END OF PAVEMENT	E					2.3		3.2	4.5				2.3
0530	001	3.7	Llittle Brook Connector	from HWY101 (0101) EXIT 29 to JCT. TRUNK 1 (LITTLE BROOK)	E					3.7		3.3	4.6	3.7			

Table 13 - Central District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0001	0.5	Trunk 1	from Hansport Town boundary easterly to Hansport Connector	D					0.5		3.0	4.9	0.5			
0001	7.8	Trunk 1	from Hansport Connector easterly to 167 m west of Falmouth Dyke Road	D					7.8		2.9	4.2				7.8
0001	0.8	Trunk 1	from 167 m west of Falmouth Dyke Road easterly to Falmouth Back Road	D					0.8		2.9	4.2				0.8
0001	0.2	Trunk 1	from Falmouth Back Road easterly to Falmouth Connetor	D					0.2		2.9	4.2		0.2		0.2
0001	1.5	Trunk 1	from Falmouth Connector easterly to Windsor Town boundary 254 m east of the bridge expansion joint (east end)	D					1.5		2.9	4.2			1.5	
0001	9.8	Trunk 1	from Jct Route 215 at Newport Corner easterly to Jct Route 202 (Lakeland South Rawdon Road)	D					9.8		3.3	4.9				9.8
0001	5.1	Trunk 1	from Jct Route 202 (Lakeland South Rawdon Road) easterly to 463 m east of Uniacke Mines Road	D					5.1		3.3	4.9		5.1		5.1
0001	1.6	Trunk 1	from 463 m east of Uniacke Mines Road easterly to 305 m east of railway crossing	D					1.6		3.3	4.9		1.6		1.6
0002	1.7	Trunk 1	from 566 m south of Coventry Lane to 23 m south of Lacey Rd	D					1.7		3.1	5.0			1.7	
0002	0.8	Trunk 1	from 23 m south of Lacey Rd northerly to Jct Trunk #14 at Milford	D					0.8		3.1	5.0			0.8	
0002	2.9	Trunk 1	from Jct Trunk #14 at Milford northerly to 215 m south of Gibb Road	D					2.9		3.3	5.3	2.9			
0002	2.4	Trunk 1	from 215 m south of Gibb Road to Colchester/Hants County line at Shubenacadie River	D					2.4		3.3	4.5	2.4			
0003	2.1	Trunk 3	from Lunenburg County / HRM Boundary easterly to 42 meters east of Queensland/Hubbards community boundary	D					2.1		3.3	4.7			2.1	
0003	19.6	Trunk 3	from 42 meters east of Queensland/Hubbards community boundary easterly to 233 meters east of Upper Tantallon/Hd St Margarets Bay community	D					19.6		3.3	4.7			19.6	
0003	1.3	Trunk 3	from 233 meters east of Upper Tantallon/Hd St Margarets Bay community boundary easterly to 214 meters east of Superstor entrance	D					1.3		3.3	4.7			1.3	
0003	8.2	Trunk 3	from 214 meters east of Superstore entracce easterly to east side of Sheldrake Lake Interchange at Highway 103 Exit 4	D					8.2		3.3	4.7			8.2	
0306	3.7	Route 306 (Old Sambro	from Jct Route 349 easterly to 570 m east of timber bridge at Sheehan Lake	E					3.7		3.3	4.6				3.7
0306	4.9	Route 306 (Old Sambro	from 570 m east of timber bridge at Sheehan Lake easterly to Fraser Road	E					4.9		3.3	4.6				4.9
0306	2.3	Route 306 (Old Sambro	from Fraser Road easterly to the entrance to RDM Recycling @ Civic #1275	E					2.3		3.3	4.6				2.3
0306	3.7	Route 306 (Old Sambro	from the entrance to RDM Recycling @ Civic #1275 easterly to the HRM Core Boundary at Leiblin Drive	E					3.7		3.3	4.6			3.7	
9011	0.4	Off Ramp	Off Ramp Easterly to East Chezzetcook Road						0.4		3.3	5.5	0.4			

Table 14 - Northern District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0002	0.7	Trunk 2	Fort Lawerence Road to TCH 104 Exit 1	C					0.7		3.2	4.9		0.7		0.7
0002	2.4	Trunk 2	TCH 104 EXIT 1 TO AMHERT TOWN LINE 70 KPH ZONE	C					2.4		3.2	4.9		2.4		2.4
0002	0.3	Trunk 2	TCH 104 EXIT 1 TO AMHERT TOWN LINE 50 KPH ZONE	C					0.3		3.2	4.9		0.3		0.3
0002	0.2	Trunk 2	AMHERST OUTH LINE TO SMITH ROAD 50 KPH ZONE	D				0.2			3.2	4.9	0.2			
0002	1.0	Trunk 2	AMHERST OUTH LINE TO SMITH ROAD 70 KPH ZONE	D				1.0			3.2	4.9	1.0			
0002	0.5	Trunk 2	AMHERST OUTH LINE TO SMITH ROAD 80 KPH ZONE	D				0.5			3.2	4.9	0.5			
0002	1.2	Trunk 2	SMITH ROAD TO ROUTE 302	D				1.2			3.2	4.9				1.2
0002	2.5	Trunk 2	ROUTE 302 TO FENWICH ROAD	D					2.5		3.2	4.9				2.5
0002	7.2	Trunk 2	FENWICK ROAD TO LITTLE FORKS	D					7.2		3.2	4.9		7.2	7.2	
0002	2.8	Trunk 2	LITTLE FORKS ROAD TO SPRINGHILL JCT AT FISHER ROAD 90 KPH ZONE	C					2.8		3.2	4.9			2.8	
0002	0.9	Trunk 2	LITTLE FORKS ROAD TO SPRINGHILL JCT AT FISHER ROAD 60 KPH ZONE	C					0.9		3.2	4.9			0.9	
0002	4.5	Trunk 2	FISHER ROADT TO TOWNLINE (NORTH)	C					4.5		3.2	4.9	4.5			
0002	1.2	Trunk 2	ATHOL ROAD TO RTE 302 AT SOUTH HAMPTON 50 KPH ZONE	C					1.2		3.1	4.8	1.2			
0002	15.4	Trunk 2	ATHOL ROAD TO RTE 302 AT SOUTH HAMPTON 80 KPH ZONE	C					15.4		3.2	4.9	15.4			
0002	1.3	Trunk 2	ATHOL ROAD TO RTE 302 AT SOUTH HAMPTON 50 KPH ZONE	C					1.3		3.2	4.9	1.3			
0002	0.5	Trunk 2	RTE 302 (SOUTH HAMPTON) TO BOAR BACK 80 KPH ZONE	C				0.5			3.2	4.9	0.5			
0002	8.8	Trunk 2	RTE 302 (SOUTH HAMPTON) TO BOAR BACK 90 KPH ZONE	C				8.8			3.2	4.9	8.8			
0002	1.5	Trunk 2	RTE 302 (SOUTH HAMPTON) TO BOAR BACK 80 KPH ZONE	C				1.5			3.2	4.9	1.5			
0002	11.2	Trunk 2	BOARS BACK TO PARRSBORO NORTH TOWN LINE 80 KPH ZONE	C				11.2			3.2	4.9	11.2			
0002	1.3	Trunk 2	BOARS BACK TO PARRSBORO NORTH TOWN LINE 70 KPH ZONE	C				1.3			3.2	4.9	1.3			
0002	0.3	Trunk 2	EAST PARRSBORO TOWN LINE (SWAN CREEK ROAD) TO CUM 234 BRIDGE 50 KPH ZONE	C				0.3			3.2	4.9		0.3	0.3	
0002	0.9	Trunk 2	EAST PARRSBORO TOWN LINE (SWAN CREEK ROAD) TO CUM 234 BRIDGE 80 KPH ZONE	C				0.9			3.2	4.9		0.9	0.9	
0002	5.2	Trunk 2	EAST PARRSBORO TOWN LINE (SWAN CREEK ROAD) TO CUM 234 BRIDGE 900 KPH ZONE	C				5.2			3.2	4.9		5.2	5.2	
0002	1.2	Trunk 2	CUMB 234 BRIDGE TO MOOSE RIVER BRIDGE (CUM 009) 90 KPH ZONE	C				1.2			3.2	4.9				1.2
0002	3.2	Trunk 2	CUMB 234 BRIDGE TO MOOSE RIVER BRIDGE (CUM 009) 80 KPH ZONE	C				3.2			3.2	4.9				3.2
0002	0.9	Trunk 2	CUMB 234 BRIDGE TO MOOSE RIVER BRIDGE (CUM 009) 70 KPH ZONE	C				0.9			3.2	4.9				0.9

Table 14 - Northern District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0002	0.4	Trunk 2	CUMB 234 BRIDGE TO MOOSE RIVER BRIDGE (CUM 009) 80 KPH ZONE	C				0.4			3.2	4.9				0.4
0002	5.4	Trunk 2	MOOSE RIVER BRIDGE (CUM 009) TO COUNTY LINE (LYNN ROAD)	C				5.4			3.2	4.9				5.4
0002	1.1	Trunk 2	CNR Overpass to 100m south of Riverside Road	D					1.1		3.3	4.5	1.1			
0002	0.9	Trunk 2	100m south of Riverside Road to old Highway 102	D					0.9		3.2	4.4	0.9			
0002	12.0	Trunk 2	Old Hwy 102 to Brookfield Golf Course	D					12.0		3.2	4.4				12.0
0002	0.2	Trunk 2	Brookfield Golf Course to 50km/hr zone 200m north of golf course	D					0.2		3.2	4.4			0.2	
0002	0.5	Trunk 2	200m north of Brookfield Golf Course to Route 289	D					0.5		3.2	4.4			0.5	
0002	0.7	Trunk 2	Route 289 to 100m north of Brookfield Loop Road 70km/hr zone	D					0.7		3.2	4.4	0.7			
0002	0.4	Trunk 2	100m north of Brookfield Loop Road to Whidden Road	D					0.4		3.2	4.2	0.4			
0002	0.4	Trunk 2	Whidden Road to 80km/hr zone	D					0.4		3.2	4.2		0.4	0.4	
0002	2.6	Trunk 2	80km/hr zone to start of 70km/hr zone	D					2.6		3.2	4.2		2.6		2.6
0002	4.4	Trunk 2	70km/hr zone to start of Millbrook Native Community	D					4.4		3.2	4.2		4.4		4.4
0002	1.0	Trunk 2	Exit 14A off ramp to 50m east of McWilliam Road	E					1.0		3.3	4.3			1.0	
0002	1.7	Trunk 2	50m east of McWilliam Road to Hoyt's Property	E					1.7		3.3	4.3			1.7	
0002	1.3	Trunk 2	Hoyts Property to Crowe's Mills Road	E					1.3		3.3	4.3				1.3
0002	10.7	Trunk 2	Crowe's Mills Road to Masstown @ 4/2	E					10.7		3.3	4.3		10.7		10.7
0002	1.3	Trunk 2	Glenholm @4 to Millers Pit	C				1.3			3.3	4.4			1.3	
0002	0.4	Trunk 2	Millers Pit westerly 0.35km to 80km/hr zone	C				0.4			3.3	4.4				0.4
0002	3.4	Trunk 2	80km/hr zone to 50km./hr zone 100m east of Balmoral Loop	C				3.4			3.3	4.4				3.4
0002	1.0	Trunk 2	100m east of Balmoral Loop to Great Village Lorneville Road	C				1.0			3.4	4.5				1.0
0002	1.3	Trunk 2	Lorneville Road to start of 80km/hr zone 300m east of Taggert Road	C				1.3			3.4	4.5		1.3		1.3
0002	4.7	Trunk 2	300m east of Taggart Road (80km/hr) to 6km west of Lorneville Road	C				4.7			3.4	4.5		4.7		4.7
0002	8.5	Trunk 2	6km west of Lorneville Road to 60km/hr zone 900m east of Birch Hill Road	C				8.5			3.4	4.5				8.5
0002	2.3	Trunk 2	900m east of Birch Hill Road to 300m west of Wharf Road	C				2.3			3.4	4.5				2.3
0002	9.2	Trunk 2	300m west of Wharf Road to Economy Point Road	C				9.2			3.2	4.4				9.2
0002	1.8	Trunk 2	Economy Point Road to 400m west of River Phillip Road	C				1.8			3.1	4.3				1.8

Table 14 - Northern District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0002	15.7	Trunk 2	400m west of River Phillip Road to Cumberland County Line	C				15.7			3.4	4.4				15.7
0004	3.2	Trunk 4	20m east of Fielding Avenue to Exit 17 WB off ramp	C					3.2		3.3	4.8			3.2	
0006	0.7	Trunk 6	HWY 104 (AMHERST) TO AMHERST TOWN LINE EAST	C				0.7			3.2	5.3	0.7			
0006	1.9	Trunk 6	AMHERST TOWN LINE (EAST) TO ROUTE 366	C				1.9			3.2	5.4				1.9
0006	5.5	Trunk 6	RTE 366 TO RIPLEY RD 80 KPH ZONE	C				5.5			3.2	5.3		5.5	5.5	
0006	2.6	Trunk 6	RTE 366 TO RIPLEY RD 90 KPH ZONE	C				2.6			3.1	5.2		2.6	2.6	
0006	14.8	Trunk 6	RIPLEY RD TO SHINIMICAS BRIDGE	C				14.8			3.2	5.3		14.8	14.8	
0006	7.0	Trunk 6	SHINIMICAS BRIDGE TO TIDNISH LINDEN RD (LINDEN)	C				7.0			3.2	5.5		7.0	7.0	
0006	4.7	Trunk 6	TIDNISH LINDEN RD (LINDEN) TO RTE 321 (PORT PHILIP) 90 KPH ZONE	C				4.7			3.1	5.6		4.7	4.7	
0006	2.5	Trunk 6	TIDNISH LINDEN RD (LINDEN) TO RTE 321 (PORT PHILIP) 70 KPH ZONE	C				2.5			3.2	5.7		2.5	2.5	
0006	0.5	Trunk 6	TIDNISH LINDEN RD (LINDEN) TO RTE 321 (PORT PHILIP) 60 KPH ZONE	C				0.5			3.2	5.6		0.5	0.5	
0006	0.5	Trunk 6	RTE 321 (PORT PHILIP) TO GOLF SHORE RD (PUGWASH) 60 KPH ZONE	C				0.5			3.2	5.6		0.5	0.5	
0006	4.8	Trunk 6	RTE 321 (PORT PHILIP) TO GOLF SHORE RD (PUGWASH) 80 KPH ZONE	C				4.8			3.2	5.6		4.8	4.8	
0006	1.7	Trunk 6	RTE 321 (PORT PHILIP) TO GOLF SHORE RD (PUGWASH) 50 KPH ZONE	C				1.7			3.2	5.5		1.7	1.7	
0006	1.4	Trunk 6	Gulf Shore Road to Crowley Road	C				1.4			3.2	5.5		1.4	1.4	
0006	0.2	Trunk 6	Crowley Road to Rte 368 50 KPH ZONE	C				0.2			3.2	5.6	0.2			
0006	5.6	Trunk 6	Crowley Road to Rte 368 80 KPH ZONE	C				5.6			3.2	5.6	5.6			
0006	5.1	Trunk 6	RTE 368 (WALLACE BAY) TO RTE 307 (WALLACE) 80 KPH ZONE	C				5.1			2.9	5.5	5.1			
0006	2.3	Trunk 6	RTE 368 (WALLACE BAY) TO RTE 307 (WALLACE) 70 KPH ZONE	C				2.3			3.2	5.7	2.3			
0006	1.0	Trunk 6	RTE 368 (WALLACE BAY) TO RTE 307 (WALLACE) 60 KPH ZONE	C				1.0			3.2	5.7	1.0			
0006	0.5	Trunk 6	RTE 368 (WALLACE BAY) TO RTE 307 (WALLACE) 50 KPH ZONE	C				0.5			3.2	5.6	0.5			
0006	0.5	Trunk 6	RTE 307 (WALLACE TO CUMBERLAND-COLCHESTER COUNTY LINE 50 KPH ZONE	C				0.5			3.1	5.5		0.5		0.5
0006	1.0	Trunk 6	RTE 307 (WALLACE TO CUMBERLAND-COLCHESTER COUNTY LINE 60 KPH ZONE	C				1.0			3.2	5.6		1.0		1.0
0006	7.2	Trunk 6	RTE 307 (WALLACE TO CUMBERLAND-COLCHESTER COUNTY LINE 80 KPH ZONE	C				7.2			3.2	5.6		7.2		7.2
0006	4.2	Trunk 6	Cumberland County Line to Slade Road	C				4.2			3.2	4.3				4.2
0006	5.6	Trunk 6	Slade Road to 100m west of Lake road (50km/hr zone)	C				5.6			3.3	4.4		5.6		5.6

Table 14 - Northern District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
0006	0.1	Trunk 6	100m west of Lake Road to Lake Road	C				0.1			3.4	4.6		0.1		0.1
0006	10.9	Trunk 6	250m east of Sand Point Road to Pictou County Line	C				10.9			3.3	4.4			10.9	
0006	2.4	Trunk 6	Colchester/Pictou Co. Line to West River John beginning of 60 zone	C				2.4			3.2	4.8				2.4
0006	6.3	Trunk 6	West River John beginning of 60 zone to West RiverJohn end of 60 sp	C				6.3			3.2	4.8				6.3
0006	0.6	Trunk 6	West River John end of 60 speed zone to beginning of 50 speed zone	C				0.6			3.2	4.8				0.6
0006	2.1	Trunk 6	End of 50 speed zone east of River John to beginning of 80 zone	C				2.1			3.2	4.8				2.1
0006	4.5	Trunk 6	Beginning of Newer Asphalt (MacAullay Rd) to West Toney River Begi	C				4.5			3.3	4.9				4.5
0006	14.1	Trunk 6	West Tony River beginning of 60 zone to End of Regular Schedule Hig	C				14.1			3.3	4.9				14.1
0302	3.0	Route 302	TK 2 (Nappan) to Rte 302 (Fenwick Road(	E				3.0			3.2	4.9				3.0
0302	0.7	Route 302	Rte 302 (Fenwick Road) to South Hampton Road	E				0.7			3.2	4.9		0.7		0.7
0302	0.4	Route 302	SOUTHHAMPTON RD (NAPPAN) TO RTE 242 (MACCAN) 60KPH ZONE	E				0.4			3.2	4.9		0.4		0.4
0302	4.1	Route 302	SOUTHHAMPTON RD (NAPPAN) TO RTE 242 (MACCAN) 80KPH ZONE	E				4.1			3.2	4.9		4.1		4.1
0302	0.5	Route 302	SOUTHHAMPTON RD (NAPPAN) TO RTE 242 (MACCAN) 60KPH ZONE	E				0.5			3.2	4.9		0.5		0.5
0302	1.4	Route 302	RTE 242 (MACCAN) TO ATHOL BRIDGE (LITTLE FORKS RIVER) 50 KPH ZONE	E				1.4			3.2	4.9		1.4		1.4
0302	5.3	Route 302	RTE 242 (MACCAN) TO ATHOL BRIDGE (LITTLE FORKS RIVER) 80 KPH ZONE	E				5.3			3.2	4.9		5.3		5.3
0302	3.8	Route 302	Athol Bridge to Hoeggs Mille	E				3.8			3.2	4.9		3.8	3.8	
0302	5.9	Route 302	Hoegs Mill to TK2 South Hampton	E				5.9			3.2	4.9		5.9		5.9

Table 15 - Eastern District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
4	28.7	Trunk 4	Junction Route 247 to start eastbound climbing lane #1	C				28.7			3.9	5.7				28.7
4	0.3	Trunk 4	Start of eastbound climbing lane #1 to end of westbound climbing lane #2	C				0.3			3.9	5.7				0.3
4	0.2	Trunk 4	End of westbound climbing lane #2 to end of eastbound climbing lane #1	C				0.2			3.9	5.7				0.2
4	1.6	Trunk 4	End of eastbound climbing lane #1 to start of westbound climbing lane #2	C				1.6			3.9	5.7				1.6
4	0.5	Trunk 4	Start of westbound climbing lane #2 to start of eastbound climbing lane #3	C				0.5			3.9	5.7				0.5
4	0.3	Trunk 4	Start of eastbound climbing lane #3 to Cape Breton County Line	C				0.3			3.9	5.7				0.3
4	0.9	Trunk 4	RICH CO LINE to LAKESHORE DR	C				0.9			3.8	4.8				0.9
4	6.4	Trunk 4	LAKESHORE DR to MIDDLE CAPE RD	C				6.4			3.2	4.2				6.4
4	7.9	Trunk 4	MIDDLE CAPE RD to LOCH LOMOND RD	C				7.9			3.2	4.2				7.9
4	8.8	Trunk 4	LOCH LOMOND RD to PROVINCIAL PARK	C				8.8			3.2	4.2				8.8
4	8.3	Trunk 4	PROVINCIAL PARK to CHAPEL RD	C				8.3			3.2	4.2				8.3
4	6.8	Trunk 4	CHAPEL RD to 1999 SIDEWALK	C				6.8			4.8	5.8				6.8
4	0.9	Trunk 4	RIVERSIDE DR to SECTION 010	C				0.9			3.8	3.8				0.9
4	1.0	Trunk 4	SECTION 010 to RIVERSIDE DR	C				1.0			3.8	3.8				1.0
7	58.8	Trunk 7	Intersection Hwy 104 exit 32 to 50 kph zone Sherbrooke	C				58.8			3.2	4.7	58.8			
7	1.4	Trunk 7	50 kph zone Sherbrooke to TPW Base	C				1.4			3.2	4.7	1.4			
7	0.3	Trunk 7	TPW Base to end 50 kph zone Sherbrooke	C				0.3			3.2	4.7		0.3	0.3	
7	30.3	Trunk 7	End 50 kph zone sherbrooke to 60 kph zone Marie Joseph	C				30.3			3.2	4.7		30.3	30.3	
7	2.1	Trunk 7	start 60 kph zone Marie Joseph to end 60 kph zone Marie Joseph	C				2.1			3.2	4.7		2.1	2.1	
7	7.0	Trunk 7	End 60 kph zone Marie Joseph to Halifax County Line	C				7.0			3.2	4.7		7.0	7.0	
19	1.3	Trunk 19	Mabou Bridge Northerly (Mabou)	D				1.3			3.2	4.5	1.3			
19	19.9	Trunk 19	1.3 0 km to 21.17 km	C				19.9			3.2	4.5	19.9			
19	2.2	Trunk 19	21.17 km to 23.37 km (Inverness)	C				2.2			3.2	4.5	2.2			
19	10.6	Trunk 19	23.37 km to 33.99 km (Jct. Route 219)	C				10.6			3.2	4.5	10.6			

Table 15 - Eastern District Deficiency Summary

Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
19	14.2	Trunk 19	33.99 km to 48.22 km	C				14.2			3.2	4.5		14.2		14.2
19	0.9	Trunk 19	48.22 km to 49.12 km (Jct. Cabot Trail)	C				0.9			3.2	4.5		0.9		0.9
28	6.3	Trunk 28	SYDNEY CITY LINE to KILKENNY LAKE RD ROW 20	C				6.3			4.5	6.0				6.3
28	5.0	Trunk 28	KILKENNY LAKE RD to DALEY RD ROW 20 RP 95	C				5.0			3.2	4.7				5.0
28	1.1	Trunk 28	DALEY RD to GILLIS RD	C				1.1			3.2	4.7				1.1
28	1.8	Trunk 28	GILLIS RD to NEW WATERFORD TOWN LINE ROW 20	C				1.8			3.7	5.2				1.8
28	0.8	Trunk 28	EMERALD ST to RATCHFORD ST (UNLISTED)	C				0.8			3.1	4.6				0.8
28	0.3	Trunk 28	RATCHFORD ST to SCHOOL ST	C				0.3			4.6	4.6				0.3
28	1.0	Trunk 28	SCHOOL ST to LINGAN RD	C				1.0			3.2	4.7				1.0
28	2.5	Trunk 28	GARDINER RD to DOMINION LINE	C				2.5			4.8	6.3				2.5
30	5.6	Cabot Trail	Highway 105 (Exit 7) to 5.55 km (Highland Road)	E				5.6			3.2	4.7	5.6			
30	20.2	Cabot Trail	5.55 km to 25.78 km (Victoria -Inverness Co. Line)	E				20.2			3.2	4.7		20.2	20.2	
30	18.1	Cabot Trail	25.78 km to 43.86 km	E				18.1			3.2	4.7		18.1	18.1	
30	1.6	Cabot Trail	43.86 km to 45.46 km (Jct. Trunk 19)	E				1.6			3.2	4.7		1.6	1.6	
30	0.6	Cabot Trail	45.46 km (Jct. Trunk 19) to 46.06 km	E				0.6			3.1	4.6		0.6	0.6	
30	11.4	Cabot Trail	46.06 km to 57.43 km	E				11.4			3.1	4.6		11.4	11.4	
30	0.3	Cabot Trail	57.43 km to 57.73 km (Jct. Route 219)	E				0.3			3.1	4.1		0.3	0.3	
30	1.0	Cabot Trail	57.73 km to 58.73 km	E				1.0			3.1	4.4			1.0	
30	1.4	Cabot Trail	58.83 km to 60.23 km	E				1.4			3.1	4.4			1.4	
30	10.1	Cabot Trail	60.23 km to 70.32 km	E				10.1			3.1	4.4			10.1	
30	2.3	Cabot Trail	70.32 km to 72.62 km	E				2.3			3.1	4.4			2.3	
30	9.2	Cabot Trail	72.62 km to 81.82 km	E				9.2			3.1	4.4			9.2	
30	4.7	Cabot Trail	85.62 km to 90.36 (CBHNP Petit Etang)	E				4.7			3.2	4.5			4.7	
30	2.9	Cabot Trail	CBHNP to CBHNP (Pleasant Bay)	E				2.9			2.9	4.2				2.9

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Deficiencies are shaded.

Authority Number	Section Length (km)	Road Name/ Number	Description	Functional Classification							Paved Surface Width (lane plus paved shoulder)	Total Surface Width (lane plus gravel shoulder)	Truck Classification			
				Existing Classification	Freeway	Major Arterial	Minor Arterial A	Minor Arterial B	Major Collector	Minor Collector			Schedule C	Schedule D	Spring Weight Exempt	Regular Highway Loading
30	27.2	Cabot Trail	Highway 105 (Exit 11) to Route 312	E				27.2			3.1	4.4				27.2
30	31.5	Cabot Trail	Route 312 to Path End Bridge	E				31.5			3.1	4.4				31.5
30	15.2	Cabot Trail	Path End Bridge to start of curb (Ingonish Beach)	E				15.2			3.2	4.5				15.2
30	1.2	Cabot Trail	Start of curb to CBHNP (Ingonish Beach)	E				1.2			3.2	4.5				1.2
30	8.1	Cabot Trail	CBHNP (Ingonish Beach) to CBHNP (North Ingonish)	E				8.1			4.6	5.9				8.1
30	3.4	Cabot Trail	CBHNP (Eiffies Brook) northerly 3.44 km	E				3.4			3.3	4.6				3.4
30	1.8	Cabot Trail	3.44 km to 5.28 km	E				1.8			3.3	4.6				1.8
30	10.2	Cabot Trail	5.28 km to CBHNP (Big Interval)	E				10.2			3.3	4.6				10.2
205	1.0	Route 205	Highway 105 (Exit 8) Easterly 1.00 km	D					1.0		3.2	5.4				1.0
205	1.3	Route 205	1.00 km to Old Margaree Road	D					1.3		3.2	5.4				1.3
205	0.4	Route 205	0.60 Km to 1.00 km	D					0.4		3.1	4.4				0.4
205	8.1	Route 205	1.00 km to Highway 105 (Exit 10)	D					8.1		3.1	4.4				8.1
305	2.7	RTE 305	COXHEATH RD to KELTIC DR CONN	D					2.7		3.2	4.7				2.7
305	4.1	RTE 305	KELTIC DR CONN to FRENCHVALE RD	D					4.1		3.2	4.7				4.1
305	2.3	RTE 305	FRENCHVALE RD to PROPANE BULK PLANT	D					2.3		3.2	4.7				2.3
305	0.3	RTE 305	PROPANE BULK PLANT to LEITCHES CREEK BRIDGE ROW 20 *	D					0.3		3.2	4.7	0.3			
305	2.2	RTE 305	LITTLE POND RD to ALDER PT. RD ROW 20	D					2.2		3.2	4.7				2.2
327	6.1	RTE 327	MARION BRIDGE SCHOOL to WOODBINE RD	E					6.1		3.1	4.6				6.1
327	3.0	RTE 327	WOODBINE RD to FRONT LAKE RD	E					3.0		3.1	4.6				3.0
425	2.4	COXHEATH	BURNSIDE DR to HEATHVIEW DR	G					2.4		3.1	4.6				2.4