

ROAD PLAN 2014



CHEBEAGUE ISLAND
MAINE

1. Introduction

The road plan is updated annually by the town of Chebeague Island Road Committee with the aid of the Road Surface Management System (RSMS). RSMS is software created by the Maine Local Roads Center (MLRC) of the Maine Department of Transportation (MDOT). The goal of the plan is to slowly bring the quality of our road network up to a point where the entire network can be put into a regular, cost effective maintenance program. The Road Plan presents the findings of the committee looking out 10 years and evaluating all of the approximately 10 miles of paved roads on the island.

2. Elements of a Road Plan

a. Repair Strategies

The committee completed a road section condition survey by driving the entire road network and completing survey forms. The results were entered into the RSMS which categorizes each section of surveyed road and provides possible repair/maintenance options for each type. A cost for each maintenance option is based on the length, width and RSMS category. The Committee determined the option to recommend and applied an '*island factor*' of %30 to the RSMS cost.

For planning purposes the committee assumes all road work is done within the existing footprint of the road.

b. Road Status

RSMS places each road segment in one of the following categories:

- Routine
- Preventative
- Rehabilitate
- Reconstruct

One of the goals of the plan is to have all 10 miles of paving in the Routine or Preventative categories (the most cost-effective to maintain) . To accomplish this goal the plan has to improve the worst roads without letting better roads slip into Rehabilitate or Reconstruct.

c. Priorities

Each road section is also characterized in terms of the traffic load and the importance of the road section. The guiding principles used in setting priorities are:

- Public Safety
- Optimal return on dollar investment (timing and preparation)
- Proximity to public services (importance and use)

d. Budget

An important purpose of this report is to give the Selectmen and Capital Plan Committee a target funding level for the next annual Town Meeting. All 10 years are estimated.

To develop the maintenance program for the 2015-2016 fiscal year the road sections were prioritized based on long-term goals, current road status and immediate priorities.

A repair option is selected for the road sections that fall out at the top of the priority list. The committee's philosophy was to select 'middle-of-road' cost options. An "Island Factor" is applied to the RSMS estimates which are mainland based.

Similar options are grouped together to provide sufficient mileage to minimize contractor mobilization costs. These are compared to the projected level of reserve funds in the capital budget and a 2-3 year schedule is created.

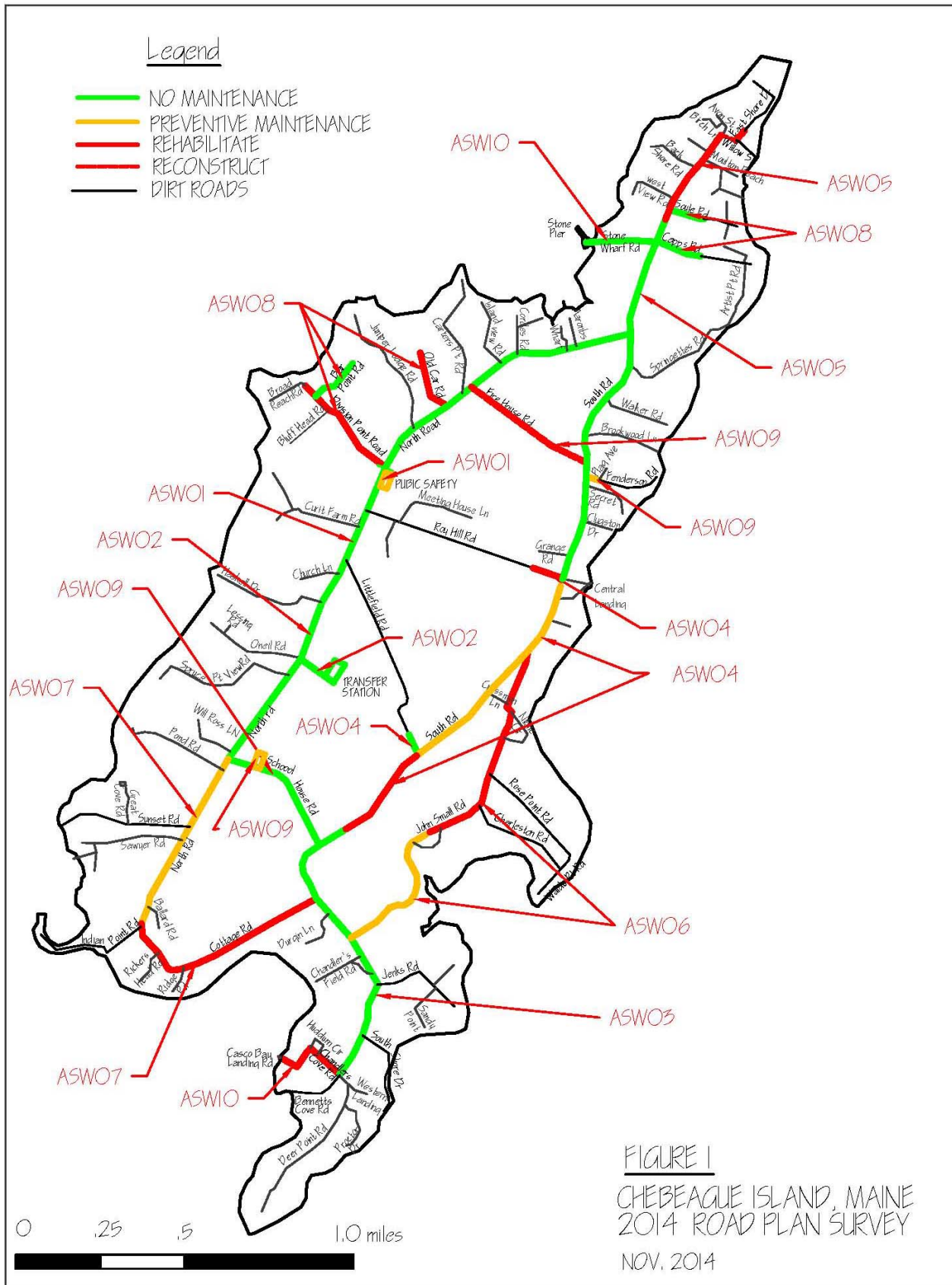
The Public Works department performs culvert replacement, ditching, patching and grading as part of its operating budget and they are not included in the 2010 road plan recommendations. Public Works will also be involved in preparing roads for the work recommended in this document.

e. Annual Surface Work Groups (ASW)

The committee continues to work on the belief that the Town can raise funds in a single year to maintain or repair about one mile of paved road surface. Given the inventory of about 10 miles of paved road surface the committee has developed 10 segments of approximately 1 mile each and labeled them ASW01 - ASW10. The numeric portion does not reflect a priority or expected order it is simply a label.

To identify these work groups in RSMS each road segment name is prefixed with the ASW number. For example ASW07 is made up of the Cottage Road and the end of North Road (they meet approximately at the Indian Point Road). They are given the names "ASW07 Cottage Road" and "ASW07 North Road 03". The "03" indicates that it is third section of North Road subdivided because of its length.

See Figure 1 for a map of the work groups used in this plan and surveyed status for each segment. Note that with the completion of ASW06 and ASW04 main roads between the Stone Wharf and Chandler's Wharf will all be in a condition to accept regular maintenance in the next iteration of the 10-year plan.



3. Financial Status

Part of the RPC’s duties are to recommend financing options for the plan. To that end each year the RPC requests the current estimated balance of the undesignated fund balance and the balance of the paving reserve account (9050) from the treasurer.

On 10/27/2014 the treasurer estimated the fund balance at approximately \$228,500 which is only slightly higher than the minimum 8% of operations allowed by Selectmen’s policy. The paving reserve has a balance of approximately \$175,616.

4. Recommendations to the Board of Selectmen:

a. Capital Repair Projects for Calendar year 2015

- i. ASW06: John Small Road – The Town received a proposal from All States Asphalt, Inc. on 7/31/2014 for \$172,500 to lay ¾” of shim and 2” of Cold Mix Overlay for the entire length of John Small Road. An earlier estimate that included a portion of reclamation was approximately \$201,000.
- ii. ASW04: South Road – RSMS ‘middle-of-road’ options total \$123,565.

b. Gravel Roads

Maintenance of gravel roads should be performed by the Public Works Dept. on an “as needed basis”. Following the implementation of the 10-year plan, gravel roads should be revisited for improvement including but not limited to paving.

c. Gravel Supply

Good quality gravel is important to building proper roadbeds. Many of the road segments that fall at the end of the priority list are in poor shape because the roadbeds are inadequate and will require additional gravel. The best example of this is Firehouse Road. Future plans are also likely to require more gravel to address the 3 miles of gravel roads maintained by the Town. In the recommendations section of this document the RPC requests that the Board of Selectmen direct the RPC to initiate the following steps to address this future need.

1	Estimated the quantity of gravel required for the 10-year plan (including gravel roads).	RPC
2	Inventory Town owned land and estimate the quantity of gravel available for road work. Include extraction plan.	Consultant
3	Compare costs of off-island and on-island gravel	RPC
4	Develop a plan to obtain an adequate supply of gravel for the foreseeable future.	RPC

d. Financing

The committee continues to recommend raising all funds required to implement this plan annually through taxes.

- 1. Plan to allocate \$175,000 each year for the paving capital account (9050) to implement this plan.

2. Continue to raise funds in the operating budget to perform the pre-paving work of replacing culverts and the post-paving work of dressing the road shoulder of all newly paved roadways.
3. Supplement revenue raised through taxes each year with a transfer from the undesignated fund balance to the extent it can be done under the current fund balance policy.

e. 2015-2016 Maintenance, Budget and Administrative Recommendations

1. Request Town Meeting transfer \$0 from the undesignated fund balance to the paving capital account (9050),
2. Request Town Meeting to authorize the Selectmen to raise \$175,000 in fiscal year 2015-2016 for the paving capital account (9050) and authorize spending up to \$350,000 (This includes ASW04, ASW06 plus about a %10 contingency),
3. Direct the RPC to initiate the process of developing a plan to acquire gravel for future road work.
4. Direct the Town Administrator to solicit bids, secure contracts and make any other preparations to accomplish the work described in this plan,
5. Maintain the RSMS software and purchase upgrades as needed,
6. Publish the plan in advance of the budget process

f. Road Sealing Project 2016-2017

The Road Commissioner and the RPC have discussed on several occasions the need to seal the surfaces that have already been laid, especially those where cold-mix was used. The RPC recommends that a single year be dedicated to sealing as much of the road system as possible that is classified as no maintenance or routine.

While this may make the 10 year plan an 11 year plan it seems prudent to protect the investment we have made to date. Next year the RPC will make a more specific recommendation regarding the sealing project. This year's plan calls for the work to be done in the fall of 2016.

5. Chandler's Cove Road

In 2014 this committee recommended that a portion of South road, Chandlers Cove Road and Casco Bay Landing Road be reclaimed and resurfaced. A question arose about the location of part of the road to Casco Bay Landing and the Board of Selectmen voted to delay the project and use the material and funds to continue eastward on South Road. The Committee has included this discussion of Chandlers Cove Road and Casco Bay Landing Road based on its understanding of the Board of Selectmen wishes and not through the process described in this document. No funding is included for this project and should be add by the Selectmen when they determine what they will do.

6. RSMS Road Network Financial Plan

The table below is the result of this year's road survey and analysis. This table was produced by modifying the output of the RSMS options report. The Committee determined that for each section it would choose a repair option in the middle of the option list (ordered by cost).

CHEABGUE ISLAND 2014 TEN-YEAR ROAD PLAN

2014

2014

ASW06	John Small 01	1 Preventive-8	South Road (West	Near Brother Ross	0.41	Shim with 1" overlay (S)	\$25,318
	John Small 02	2 Rehabilitate-8	Near Brother Ross	South Road (East)	0.54	Reclaim incl 6-8" base, 2" binder, 1.5" surface (S)	\$102,600
Group Length (mi)		0.95 cost per mile:	\$175,045	ASW06:	\$127,918	30% Island Factor	\$38,375 Plan Estimate

2015

ASW04	Littlefield Road	1 No Maint-2	South Road	Island Commons	0.06		
	Roy Hill Road	1 Rehabilitate-4	South Road	Summa	0.03	Reclaim incl 6-8" base, 2" binder, 1.5" surface (S)	\$5,100
	South Road	3 Preventive-8	Littlefield Rd	Roy Hill Rd	0.63	Shim with 1" overlay (S)	\$40,950
	South Road	2 Rehabilitate-6	South Road (1)	Littlefield Rd	0.2	Reclaim incl 6-8" base, stabilized, 2" binder, 1.5" surface (S)	\$49,000
Group Length (mi)		0.92 cost per mile:	\$134,310	ASW04:	\$95,050	30% Island Factor	\$28,515 Plan Estimate

2016

ASW11	Seal Existing Surfaces	Sealing			6	Seal (Chip, Sand or other)	\$175,000
Group Length (mi)		6.00 cost per mile:	\$37,917	ASW11:	\$175,000	30% Island Factor	\$52,500 Plan Estimate

2017

ASW08	Bar Point Road	1 No Maint-2	Division Point Rd	Cul du sac	0.16		
	Capps Road	1 No Maint-2	South Road	Past C. Doughty	0.13		
	Soule Road	1 No Maint-2	South Road	Johnson's	0.06	Grade shoulders (S)	\$60
	Old Cart Road	1 Rehabilitate-2	North Road	Cul du sac	0.2	Reclaim incl 6-8" base, stabilized, 2" binder, 1.5" surface (S)	\$51,450
	Division Point Road	1 Rehabilitate-2	North	Division Point	0.36	Reclaim incl 6-8" base, 2" binder, 1.5" surface (S)	\$72,000
Group Length (mi)		0.91 cost per mile:	\$176,443	ASW08:	\$123,510	30% Island Factor	\$37,053 Plan Estimate

2018

ASW07	North Road 03	3 Preventive-4	School House	Cottage Road	0.57	Shim with 1" overlay (S)	\$38,903
	Cottage Road	1 Rehabilitate-5	North Road	South Road	0.6	Reclaim incl 6-8" base, 2" binder, 1.5" surface (S)	\$108,000
Group Length (mi)		1.17 cost per mile:	\$163,225	ASW07:	\$146,903	30% Island Factor	\$44,071 Plan Estimate

2019

ASW05	South Road	4 No Maint-10	Roy Hill Rd	Inn	1.15		
	South Road	5 Reconstruct-4	Inn	East Shore Rd	0.35	18" new 9.5mm gravel, 2" binder, 1" surface (S)	\$78,750

CHEABGUE ISLAND 2014 TEN-YEAR ROAD PLAN

2019

Group Length (mi)	1.50	cost per mile:	\$68,250	ASW05:	\$78,750	30% Island Factor	\$23,625	Plan Estimate	\$102,375
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2020

ASW09	School House Rd	1 No Maint-9	North Road	South Road	0.42				
	Parking Lot School	Routine-7	7000 square feet		0.019				
	Firehouse Road	1 Reconstruct-6	North Road	South Road	0.37		24" new gravel, 2" binder, 2" surface (\$)	\$105,450	

Group Length (mi)	1.00	cost per mile:	\$137,222	ASW09:	\$105,450	30% Island Factor	\$31,635	Plan Estimate	\$137,085
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2021

ASW10	Stone Wharf Road	1 No Maint-10	South Road	Stone Wharf	0.18				
	Stone Wharf	1 Routine-10	Stone Wharf Road	Easterly Extent	0.131			Crack seal (\$)	\$1,965
	Caso Bay Landing	1 Rehabilitate-7	Chandler's Cove R	State Wharf	0.05		Reclaim incl 6-8" base, 2" binder, 1.5" surface (\$)	\$9,500	
	Chandler Cove Road	1 Rehabilitate-7	South Road	Caso Bay Lndg Rd.	0.18		Reclaim incl 6-8" base, 2" binder, 1.5" surface (\$)	\$34,200	

Group Length (mi)	0.54	cost per mile:	\$109,731	ASW10:	\$45,665	30% Island Factor	\$13,700	Plan Estimate	\$59,365
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2022

ASW01	Parking Public Safety Bldg	1 No Maint-6	North Road	Public Safety Bld	0.082				
	North Road 01	1 No Maint-9	South Road (East)	Public Safety Bld	0.87				

Group Length (mi)	0.95	cost per mile:	\$0	ASW01:	\$0	30% Island Factor	\$0	Plan Estimate	\$0
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2023

ASW02	North Road 02	2 No Maint-9	Public Safety Bld	School House	0.99				
	Transfer Station Road	1 No Maint-10	North Road	Transfer Sta.	0.06				

Group Length (mi)	1.05	cost per mile:	\$0	ASW02:	\$0	30% Island Factor	\$0	Plan Estimate	\$0
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2024

ASW03	South Road	1 No Maint-8	Chandler's Cove R	.2 mi p school hse	1				
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Group Length (mi)	1.00	cost per mile:	\$0	ASW03:	\$0	30% Island Factor	\$0	Plan Estimate	\$0
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Estimated cost to do the entire plan = \$1,167,719