



TOWN of NEW SHOREHAM
OFFICE of the TOWN MANAGER

TELEPHONE (401) 466-3210

FAX (401) 466-3219

TTY 711

EMAIL: townmanager@new-shoreham.com

October 26, 2011

RI Statewide Planning Program

Attn: Linsey Cameron, Supervising Planner

One Capitol Hill

Providence, RI 02908

RE: 2013-2016 TIPS Submissions

Dear Ms. Cameron:

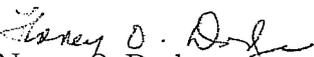
Enclosed please find the Town of New Shoreham TIP Project Prioritization Cover Sheet, listing our one recurring project and three new submissions.

Completed applications for the three new applications are also enclosed.

Due to a scheduling conflict, our Engineer, Jim Geremia, will represent us at the November 7, 2011 meeting at the South Kingstown Town Hall.

If you have any questions, please don't hesitate to contact me.

Very truly yours,


Nancy O. Dodge

Town Manager

Enclosure

cc: Town Council

Transportation Improvement Program

Project Prioritization Cover Sheet

State Planning Council
 One Capitol Hill
 Providence, RI 02908
 www.planning.ri.gov



CONTACT

Contact Information

Entity/Organization Town of New Shoreham

Contact Person Nancy O. Dodge, Town Manager

Address P.O. Box 220

City Block Island Rhode Island Zip Code 02807

Phone 466-3210 Email townmanager@new-shoreham.com

PROJECT PRIORITIZATION

Project Prioritization

Priority	Listed in TIP 2009 - 2012		Regional Project		Project Name
	Yes	No	Yes	No	
1	X			X	Southeast Light Museum Rehab Enhancement Program
2		X		X	Overlay (2") of Ocean Avenue from Bridgegate Square to Beach Avenue: 3150 ft.
3		X		X	Sidewalk on West Side Road (from intersection with Ocean Avenue) to Champlin's Marina: 1800 ft.
4		X		X	Bike Path-Signed Shared Roadway

Please use an additional sheet if necessary.

CERTIFICATION

Applicant Certification

The information provided on this application is in accordance with local regulations and ordinances.

Nancy O. Dodge Applicant Town Manager Title

Nancy O. Dodge Signature October 26, 2011 Date

Official Certification - For Statewide Planning Use Only

Submission Date _____ Accepted by _____

Transportation Improvement Program

Application - New Projects Only

State Planning Council
One Capitol Hill
Providence, RI 02908
www.planning.ri.gov



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Address P.O. Box 220

City Block Island Rhode Island Zip Code 02807

Phone 466-3210 Email townmanager@new-shoreham.com

PROJECT INFORMATION

Project Information

Project Title sidewalk

Location by Street Name West Side Road

Project Limits - From intersection of Ocean Ave To Champlin Marina entrance

Location Maps - 8 1/2" x 11" Attach Map of Site Indicating Project Limits

Priority Proposal Number 3 of a Total of 4 Proposals

Regional Submission - Yes No Communities _____

Brief Description of Proposed Project

This stretch of road has heavy foot traffic during the summer season, stretching between the New Harbor restaurant area and two marinas located off Ocean Ave. In addition, Ball-O'Brien park is located along this stretch and attracts children with its playground and young adults with its skateboard area and tennis and basketball courts.

Describe Need for Proposed Project

There have been several serious accidents along this stretch-no sidewalks put everyone walking in the road. Much of our tourism dollars are generated from the two marinas along this stretch of road and the patrons who then walk along this road towards restaurants and shops.

Enterprise Zone - Yes No Details _____

Located Within State Land Use Plan 2025 Map's Designated Growth Center - Yes No } *N/A*

Located Within State Land Use Plan 2025 Map's Urban Services Boundary - Yes No }

Consistent with Local Comprehensive Plan - Yes No

Consistent with State Guide Plan Transportation 2030 - Yes No

INFORMATION

Additional Information

Information addressing the following categories of review criteria as described in the Transportation Improvement Program, Guidance on Applying Criteria for Evaluation of Project Proposals should be provided separately. Submission must **not exceed** 2 pages, single spaced, 12-point font:

- 1. Mobility Benefits
- 2. Cost-Effectiveness
- 3. Economic Development Impact
- 4. Environmental Impact
- 5. Degree of Support to Local and State Goals and Plan
- 6. Safety, Security, and Technology

PROJECT ESTIMATES

Project Estimates

	ROW	Study	Design	Construction	Total
Estimated Project Costs				\$1,215,000	\$1,215,000
Total Cost					
Amount Requested Through TIP Process					1,215,000

Funding from other sources committed to this project - Yes No

Source	Amount
Total	

NOTIFICATION / CERTIFICATION

Notification / Certification

Date of Local Public Hearing Town Council meeting on October 19, 2011
Municipal & Regional Planning Agency Projects Only

Preferred TAC Public Hearing

- November 7 at 6:00 pm - South Kingstown Town Hall
- November 8 at 9:00 am - Department of Administration
- November 9 at 6:00 pm - Blackstone Valley Corridor
- November 10 at 6:00 pm - Middletown Town Hall

Attest: The information provided on this application is true and accurate

Applicant's Signature Stanley O. DeLuca Date 10/26/11

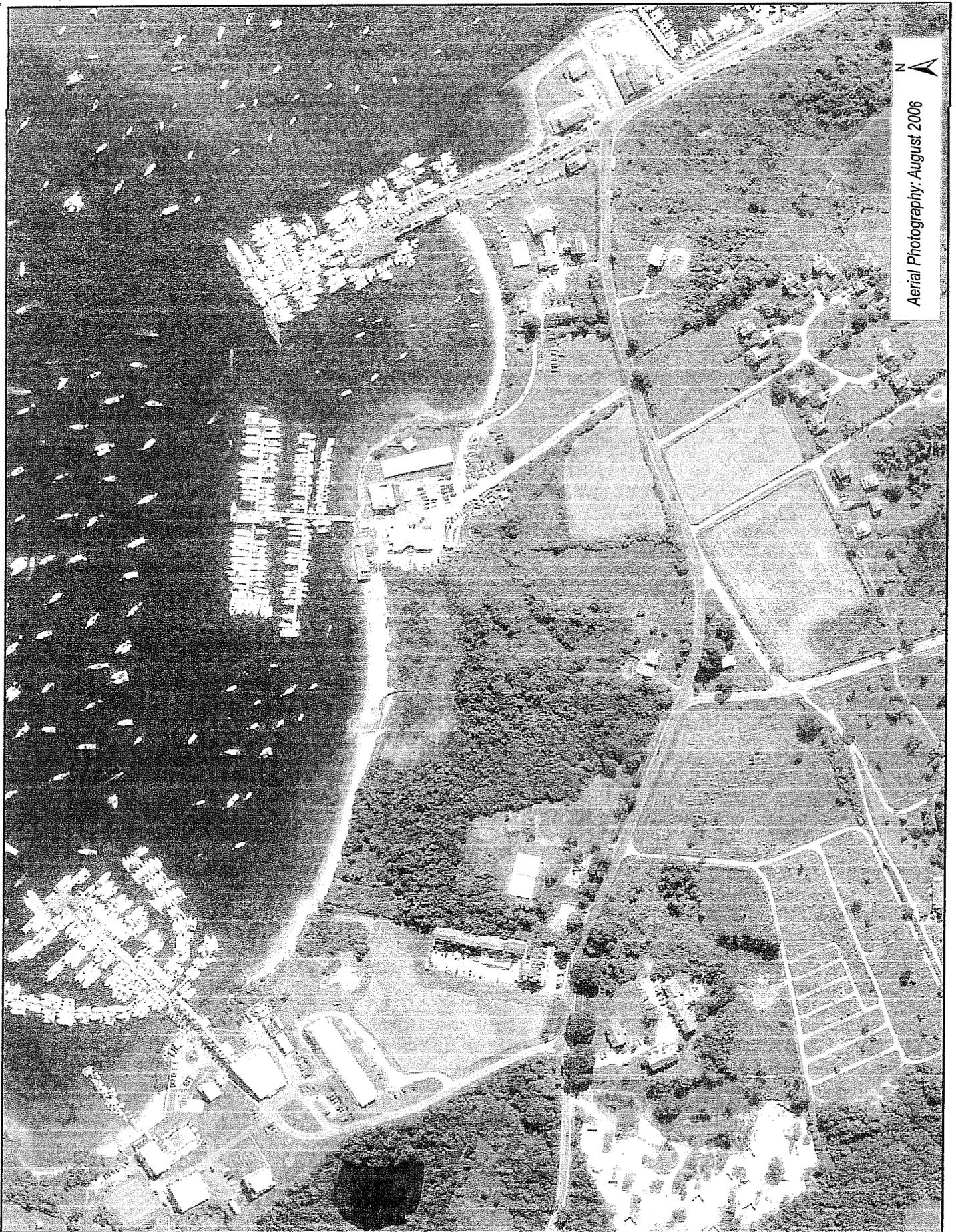
Chief Executive Official's Signature Stanley O. DeLuca Date 10/26/11
Town Manager

ADMINISTRATIVE

Application Checklist - Submitted by October 28, 2011 at 3:00 p.m.

- 8 Collated Copies of Completed Application
 - Forms - Project Prioritization & Application
 - Attached 2-page narrative
 - Location Maps as PDF files
- Email a copy of completed application to linsey.cameron@doa.ri.gov or provide on a CD
- Mail to:

Rhode Island Statewide Planning Program	Statewide Planning Official Use Only
ATTN: Linsey Cameron, Supervising Planner	Submission Date _____
One Capitol Hill	Accepted by _____
Providence, RI 02908	



Aerial Photography: August 2006

Sidewalk

Transportation Improvement Program

Application - New Projects Only

State Planning Council
One Capitol Hill
Providence, RI 02908
www.planning.ri.gov



CONTACT

Contact Information

Entity / Organization Town of New Shoreham

Contact Person Nancy O. Dodge, Town Manager

Address P.O. Box 220

City Block Island Rhode Island Zip Code 02807

Phone 466-3210 Email townmanager@new-shoreham.com

PROJECT INFORMATION

Project Information

Project Title Overlay of main road

Location by Street Name Ocean Avenue

Project Limits - From Bridgeway Square To Beach Avenue

Location Maps - 8 1/2" x 11" Attach Map of Site Indicating Project Limits

Priority Proposal Number 2 of a Total of 4 Proposals

Regional Submission - Yes No Communities _____

Brief Description of Proposed Project

Ocean Avenue has been subjected to several road cuts and the surface is cracking. It is one of the busiest roads as it connects the town's two harbors.

Describe Need for Proposed Project

Heavily travelled road all twelve months of year but particularly in summer tourism season. This is both a safety issue and an acknowledgement that the infrastructure most travelled by our visitors needs to be kept in good condition.

Enterprise Zone - Yes No Details _____

Located Within State Land Use Plan 2025 Map's Designated Growth Center - Yes No } *N/A*

Located Within State Land Use Plan 2025 Map's Urban Services Boundary - Yes No

Consistent with Local Comprehensive Plan - Yes No

Consistent with State Guide Plan Transportation 2030 - Yes No

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- | | |
|--------------------------------|--|
| 1. Mobility Benefits | 4. Environmental Impact |
| 2. Cost-Effectiveness | 5. Degree of Support to Local and State Goals and Plan |
| 3. Economic Development Impact | 6. Safety, Security, and Technology |

PROJECT ESTIMATES

Project Estimates

	ROW	Study	Design	Construction	Total
Estimated Project Costs				\$236,250	\$236,250
Total Cost					
Amount Requested Through TIP Process					\$236,250

Funding from other sources committed to this project - Yes No

Source	Amount
Total	

NOTIFICATION / CERTIFICATION

Notification / Certification

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Municipal & Regional Planning Agency Projects Only

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Attest: The information provided on this application is true and accurate

Applicant's Signature Staney O. Dodge Date 10/26/11

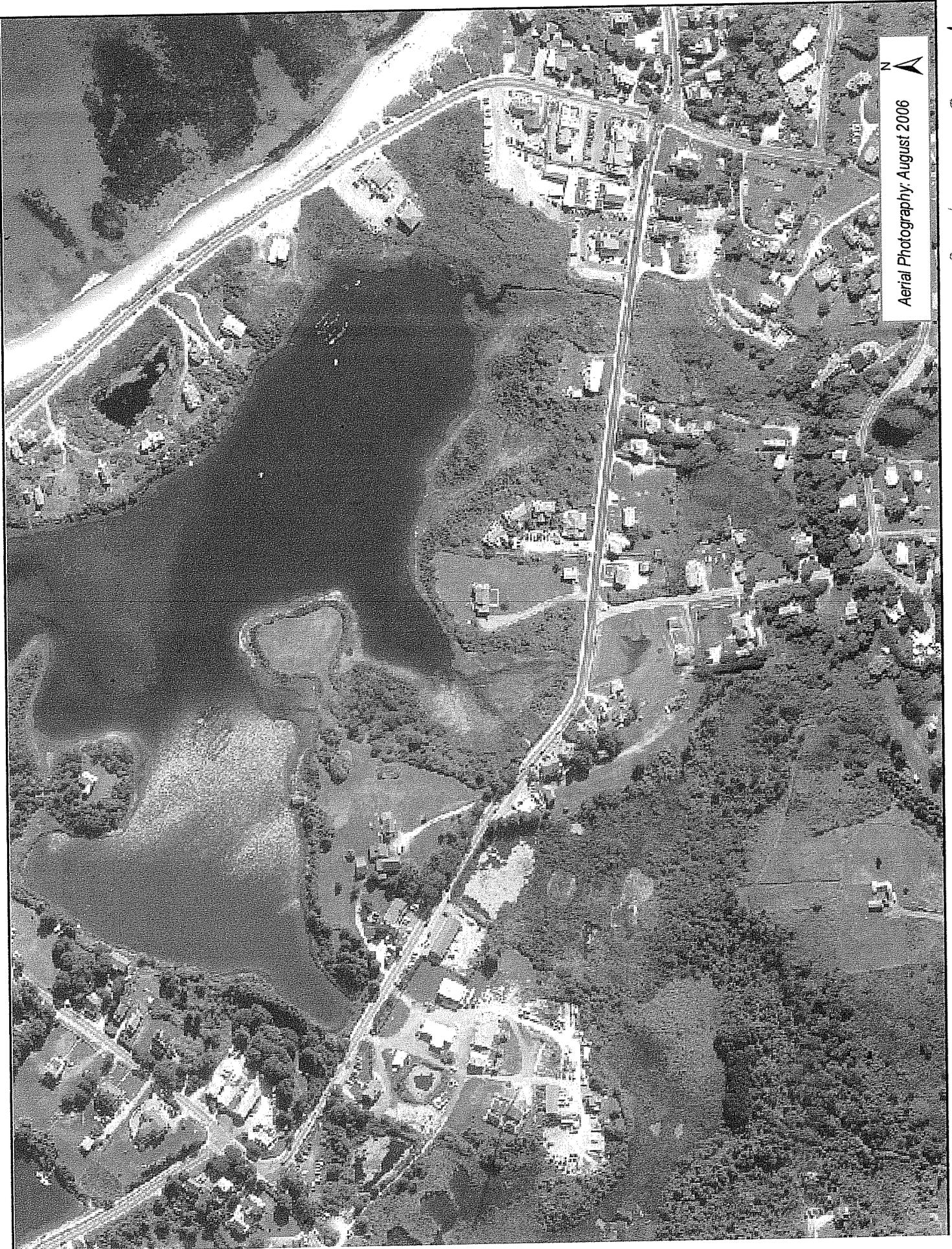
Chief Executive Official's Signature Staney D. Dodge Date 10/26/11
TOWN MANAGER

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One Capitol Hill	Accepted by _____
Providence, RI 02908	



Aerial Photography: August 2006

Overlay on Ocean Ave

Transportation Improvement Program

Application - New Projects Only

State Planning Council
One Capitol Hill
Providence, RI 02908
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Contact Information

Entity / Organization Town of New Shoreham

Contact Person Nancy O. Dodge

Address P.O. Box 220

City Block Island Rhode Island Zip Code 02807

Phone 466-3210 Email townmanager@new-shoreham.com

PROJECT INFORMATION

Project Information

Project Title Bike Path-Signed Shared Roadway

Location by Street Name Corn Neck Road

Project Limits - From Bridgegate Square To Settlor's Rock

Location Maps - 8 1/2" x 11" Attach Map of Site Indicating Project Limits

Priority Proposal Number 4 of a Total of 4 Proposals

Regional Submission - Yes No Communities _____

Brief Description of Proposed Project

Please see attached breakdown of Segments 1, 2 and 3 of Feasibility Design Study Report prepared by Pare Corporation in March 2007.

Describe Need for Proposed Project

Corn Neck Road is heavily traveled by residents and visitors as it connects the center of Town out to beaches and Settlor's Rock. To improve the safety of pedestrians and bicyclists along this 3.78 mile road.

Enterprise Zone - Yes No Details _____

Located Within State Land Use Plan 2025 Map's Designated Growth Center - Yes No

Located Within State Land Use Plan 2025 Map's Urban Services Boundary - Yes No } *N/A*

Consistent with Local Comprehensive Plan - Yes No

Consistent with State Guide Plan Transportation 2030 - Yes No

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|--------------------------------|--|
| 1. Mobility Benefits | 4. Environmental Impact |
| 2. Cost-Effectiveness | 5. Degree of Support to Local and State Goals and Plan |
| 3. Economic Development Impact | 6. Safety, Security, and Technology |

PROJECT ESTIMATES

Project Estimates

	ROW	Study	Design	Construction	Total
Estimated Project Costs					4,535,570
Total Cost					4,535,570
Amount Requested Through TIP Process					4,535,570

Funding from other sources committed to this project - Yes No

Source	Amount
Total	

NOTIFICATION / CERTIFICATION

Notification / Certification

Date of Local Public Hearing Town Council meeting on October 19, 2011
Municipal & Regional Planning Agency Projects Only

Preferred TAC Public Hearing

- | | |
|--|--|
| <input checked="" type="radio"/> November 7 at 6:00 pm - South Kingstown Town Hall | <input type="radio"/> November 8 at 9:00 am - Department of Administration |
| <input type="radio"/> November 9 at 6:00 pm - Blackstone Valley Corridor | <input type="radio"/> November 10 at 6:00 pm - Middletown Town Hall |

Attest: The information provided on this application is true and accurate

Applicant's Signature _____ Date October 26, 2011

Chief Executive Official's Signature _____ Date October 26, 2011

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Table 6 OPINION OF PROBABLE COST - ALTERNATIVE #1 SIGNED SHARED ROADWAY(ALL SEGMENTS)

ITEM CODE	SEGMENT #	SEGMENT LENGTH (75% of Total Length)	ITEM	UNIT	UNIT PRICE	Segment Lengths			Total Project (all segments)
						Segment 1 3,675 LF	Segment 2 5,069 LF	Segment 3 6,811 LF	
202.0100		Earth Excavation		CY	\$14.00	\$ 6,104	\$ 16,828	\$ 28,252	\$ 51,184
204.0100		Trimming and Fine Grading		SY	\$5.00	\$ 4,085	\$ 11,265	\$ 18,920	\$ 34,270
206.0201		Baled Hay Erosion Check Snd. 9.1.0		LF	\$9.00	\$ 66,150	\$ 91,242	\$ 122,598	\$ 279,990
206.0208		Removal of Baled Hay Erosion Checks		LF	\$5.00	\$ 36,750	\$ 50,690	\$ 68,110	\$ 155,550
302.0100		Gravel Borrow Subbase Course		CY	\$50.00	\$ 13,600	\$ 37,550	\$ 63,050	\$ 114,200
401.0100		Bituminous Base Course		TON	\$160.00	\$ 37,600	\$ 103,680	\$ 174,080	\$ 315,360
401.0200		Bituminous Surface Course Type I-1		TON	\$160.00	\$ 180,320	\$ 248,800	\$ 334,240	\$ 763,360
403.0300		Asphalt Emulsion Tack Coat		SY	\$1.00	\$ 9,800	\$ 13,517	\$ 18,163	\$ 41,480
707.2000		Adjust Frame and Grate to Grade		EACH	\$300.00	\$	\$ 1,200	\$	\$ 1,200
932.0200		Full Depth Saw Cut of Bituminous Pavement		LF	\$3.00	\$ 22,050	\$ 30,414	\$ 40,866	\$ 93,330
935.0500		Removing Bituminous Surface - Cold Planning		SY	\$5.00	\$ 44,915	\$ 56,320	\$ 71,895	\$ 173,130
936.0110		Mobilization				\$ 58,555	\$ 80,513	\$ 104,911	\$ 243,979
937.0200		Maintenance and Movement Traffic Protection				\$ 12,000	\$ 16,500	\$ 21,500	\$ 50,000
L01.0104		Plantable Soil (4" Depth)		SY	\$10.00	\$ 40,830	\$ 56,320	\$ 75,680	\$ 172,830
L02.0102		Residential Seeding (Type 2)		SY	\$2.00	\$ 8,166	\$ 107,250	\$ 15,136	\$ 130,552
T15.0100		Directional, Regulatory and Warning Signs		SF	\$27.00	\$ 392	\$ 338	\$ 405	\$ 1,134
T20.0006		6" White Fast-Drying Waterborne Pavement Marking		LF	\$0.50	\$ 3,675	\$ 5,069	\$ 6,811	\$ 15,555
T20.0104		4" Yellow Fast-Drying Waterborne Pavement Marking		LF	\$0.50	\$ 3,675	\$ 5,069	\$ 6,811	\$ 15,555
T20.2014		4" Epoxy Resin Pavement Marking Yellow		LF	\$0.50	\$ 3,675	\$ 5,069	\$ 6,811	\$ 15,555
T20.2006		6" Epoxy Resin Pavement Marking White		LF	\$0.50	\$ 3,675	\$ 5,069	\$ 6,811	\$ 15,555
Segment Subtotal						\$ 556,016	\$ 942,703	\$ 1,185,050	\$ 2,683,769
30% Contingency						\$ 166,805	\$ 282,811	\$ 355,515	\$ 805,131
2006 Segment Total						\$ 722,821	\$ 1,225,513	\$ 1,540,565	\$ 3,488,900
2011 Projected Segment Cost						\$ 831,245	\$ 1,409,340	\$ 1,771,650	\$ 4,012,235
2016 Projected Segment Cost						\$ 939,668	\$ 1,593,167	\$ 2,002,734	\$ 4,535,570
Utility Relocation						\$ 840,000	\$ 560,000	\$ 800,000	\$ 2,200,000

SEGMENT 1

Description:

This section of Corn Neck Road (Segment 1) is approximately 4,900 linear feet in length. It extends north from the commercial area (Photo 1) at Bridge Gate Square, and terminates at Indian Neck Road.



Photo 1. Intersection of Ocean Avenue and Corn Neck Road.



Photo 2. Corn Neck Road heading north.

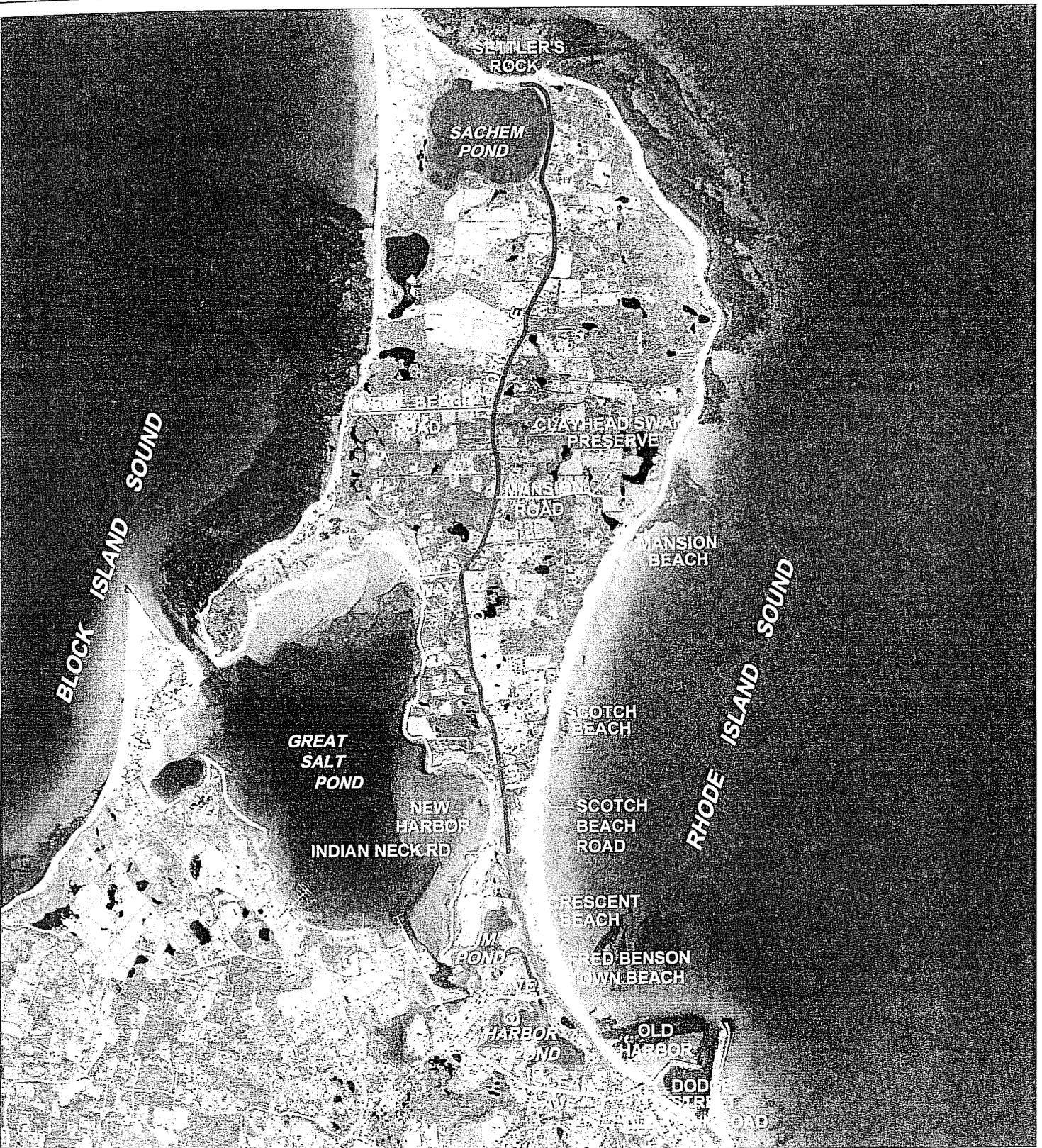
The Proposed Segment 1 Roadway Plan shows the roadway's location and its project limits (Figure 6). The Rhode Island Department of Administration, Division of Planning Technical Paper No. 155, has classified the roadway as a rural major collector. Corn Neck Road is a State-owned and Town-maintained roadway, as referenced in the October 25, 2004 Memorandum of Agreement between the Town of New Shoreham and the State of Rhode Island Department of Transportation (Appendix B).



Photo 3. State Bath House.

Commercial development is concentrated along Corn Neck Road within a few minutes walk in the vicinity of the Ocean Avenue/Corn Neck Road intersection (Photo 2). The Block Island Post Office, several restaurants and retail shops make up the majority of the commercial development.

Destinations along this segment include Fred Benson Town Beach, Crescent Beach, the State Bath House (Photo 3) and access to Harbor and Trim's Ponds. The Trustom Dodge Monument (Photo 4) is



References:
 1. RIGIS Orthophoto #3006, #2904V2, #2300050R6/ 2003-2004.

FIGURE 1

**CORN NECK ROAD
 BICYCLE FACILITY PROJECT**
 New Shoreham, Rhode Island



LEGEND

-  Segment 1
-  Segment 2
-  Segment 3



PROPOSED OVERALL SITE PLAN

Scale: NTS
 Date: March, 2007

located along the easterly side of the roadway, just north of the commercial area. Beach access points for pedestrians and bicyclists exist along the easterly side of Corn Neck Road, several with bicycle storage facilities (Photo 5). Segment 1 of the proposed bicycle network borders the Old Harbor Historic District to the east, and traverses through the Great Salt Pond Archeological Site to the north as well as through non-community wellhead protection areas.

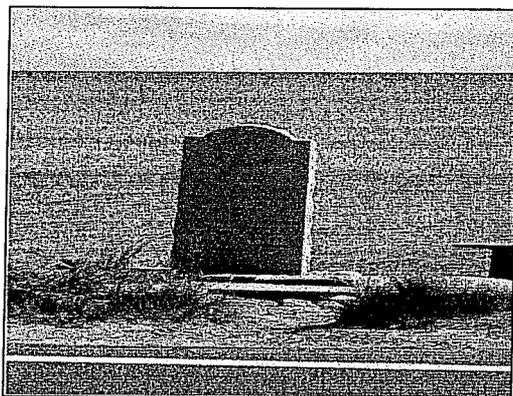


Photo 4. Trustom Dodge Monument.

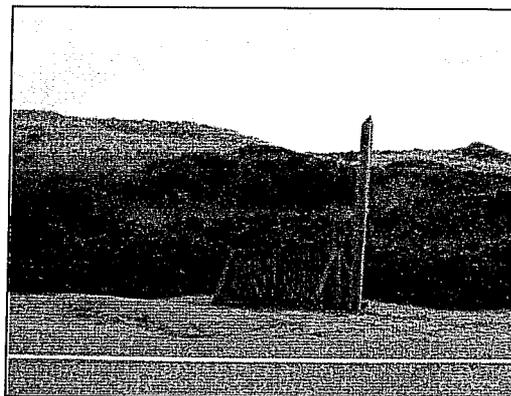


Photo 5. Bicycle racks along beach access areas.

Existing Conditions:

The attached Design Policy Memo (DPM – Corn Neck Road – Segment 1) included at the end of this section, summarizes existing conditions in a formal setting.

Corn Neck Road – Segment 1 is moderately flat and straight (Photo 6), except in the vicinity of the commercial area. Commercial development is concentrated along Corn Neck Road within a few minutes walk of the Ocean Avenue/Corn Neck Road intersection, while the remainder of the segment consists of predominantly shoreline and pond access areas (Fred Benson Town Beach, Crescent Beach, Harbor Pond and Trim’s Pond). Utility poles crossover east to west along this segment of Corn



Photo 6. Corn Neck Road north.

Neck Road, and are approximately nine-feet off the edge of pavement. There is one travel lane each on the northbound and southbound sides of Corn Neck Road. Typical lane widths vary from 11 to 12 feet with shoulder widths varying from 0.5 to 4 feet. The centerline and shoulders are striped,

with no curbing, except for the small amount of sidewalk existing in front of AP 5/Lot 9. Several on-street parking spaces are provided in front of the commercial businesses along the west side of Corn Neck Road. Within this same area, several parking spaces have been worn into the grassed shoulder along the eastern side of Corn Neck Road (Photo 7).



Photo 7. Parking on Corn Neck Road.

There are several short segments of timber guardrails at the State Bath House, separating the roadway from the parking areas. The studied roadway segment terminates at the intersection of Indian Neck Road, north of Trim's Pond.

Corn Neck Road – Segment 1 has many areas of obvious erosion and washout along the shoulder's edge (Photo 8), the majority of which is sand that has eroded from the dunes edge along the easterly side of the roadway. Horizontal sight distance is a concern in the vicinity of utility pole No. 10 (shown on Figure 6).



Photo 8. Eroded areas of the shoulder.

The posted speed limit on Corn Neck Road is 25 mph. The general condition of the pavement is good with very minimal cracking and a few potholes. The vegetation along the route has been maintained with no overhanging tree limbs. Mailboxes, utility poles and signage are all located within 2 to 9 feet off the edge of pavement. There are 2 streets that intersect this

segment of the proposed bicycle network, Ocean Avenue and Beach Avenue.

An analysis of the reported crashes in this segment for three years, including 2002, 2003 and 2004 indicated twelve crashes. There were nine single-vehicle crashes and three multi-vehicle crashes. Three crashes involved hitting a moped and one rollover crash resulted in a fatality. Based on the written vehicle operator statements that were part of the reports and the other report crash data, none of the accidents indicated problem intersections or areas, although the largest percentage of

accidents occurred in the vicinity of the commercial development in and around Ocean Avenue. This data has been tabulated in Table 1, at the end of this section.

Studied Alternatives

Alternative #1- Signed Shared Roadway

The first alternative is that this segment of Corn Neck Road be designated as a Signed Shared Roadway. Improvements to the road necessary for this designation are as follows according to AASHTO and the State DPM:

- Increase roadway width from 22-feet to a minimum of 24-feet throughout.

Referring to the *Bicycle Route Sign Criteria* chart in DPM 920.06 (Appendix D), this roadway does not meet the criteria to sign it as a Signed Shared roadway. This is based on an AADT volume of less than 2,000 vpd and speed limit of 25 mph. The existing minimum roadway width of eleven (11) feet does not meet the minimum usable roadway width of twelve (12) feet, as recommended in the 1999 AASHTO '*Guide for the Development of Bicycle Facilities*' design criteria for a Signed Shared route. The areas where roadway width is less than twelve (12) feet will require widening.

This recommendation was compared to the AASHTO '*A Policy on Geometric Design of Highways and Streets, 2004*' recommendations for roadway width. In Exhibit 6-5 Minimum Width of Traveled Way and Shoulders, the recommended minimum width of traveled way for a road with the above parameters is 22 feet. The width of shoulder on each side of the road is 6 feet. On existing roadways, it is quite common to seek a design exception documenting the lack of a need for shoulders. A review of available crash data indicates that there were not a significant number of crashes that could be decreased with the addition of a shoulder. A proposed roadway width of 24 feet combined with a design exception for eliminating the shoulders will meet the recommendations in AASHTO '*A Policy on Geometric Design of Highways and Streets, 2004*'.

Upon the completion of the proposed widening, Segment I – Corn Neck Road is recommended to be designated as a Signed Shared roadway. The roadway would be identified, by signing, as a preferred route. Signs shall be installed at approximate 1/2 mile locations on both sides, opposite from each, of the roadway (Appendix E).

If Segment 1 – Corn Neck Road is designated as a Signed Shared Roadway it is advised that the Town provide regular maintenance of the route to ensure that it continues to be an acceptable route for bicyclists. Regular maintenance includes sweeping the pavement to prevent accumulation of debris, providing a smooth surface, removing edge of pavement obstructions, and trimming trees. Immediate improvements include the reconstruction of approximately 3,675 linear feet (75% of total segment length) of pavement, as well as the relocation of some off-road obstacles (mailboxes, signage, and utility poles). This segment is subject to receiving the required environmental permits from State and Federal agencies.

A preliminary opinion of probable cost estimate for this segment is approximately \$725,000. Cost estimates for engineering, permitting, and necessary right-of-way easements/land acquisitions are not part of the opinion of probable cost estimate for this study. This estimate is for 2006, with a thirty-percent contingency added, given the remote location of the project. A breakdown of the relevant items/costs associated with constructing the proposed bicycle facility and five (5) year projections for 2011/2016, utilizing a three-percent inflation rate (Source: Engineering News Record, November 13, 2006) for Segment 1 is provided in Appendix F. A ‘ballpark estimate’ for utility pole relocation (\$40,000/pole) for this alternative of Segment 1 is approximately \$840,000.

Alternative #2 - Shared Use Path

The second alternative considers the design and ultimate construction of a 10-foot wide bituminous-shared use path. It would be located along the west side of Corn Neck Road from the Ocean Avenue/Corn Neck Road intersection, running north to the Beach Avenue crossroad. Placement of the path along the west side of the roadway would avoid impacting the narrow dune areas and steep grade changes associated with Fred Benson Town Beach.

At Beach Avenue, this new, shared use path would crossover to the east side of the roadway to minimize impacts to Trim’s Pond and associated wetland areas. A cedar post rail fence is recommended to act as a physical barrier between the roadway and the shared use path. Marked crosswalks would be installed at the roadway crossovers, as well as at driveways. It is acknowledged that right-of-way issues arise with this alternative, as the shared use path crosses in and outside the roadway’s existing right-of-way, and onto private property. Necessary wetland and other associated permits required to perform work in this area would be required from CRMC and

DEM as well as other state and federal agencies as discussed in detail in the Environmental Permitting section of this report.

With the designation of this shared use path, it is advised that the Town provide regular maintenance of the path to ensure that it continues to be an acceptable route for bicyclists. Regular maintenance includes sweeping the pavement to prevent accumulation of sand and debris.

A preliminary opinion of probable cost estimate for this segment is approximately \$900,000. Cost estimates for engineering, permitting, and necessary right-of-way easements/land acquisitions are not part of the opinion of probable cost estimate for this study. This estimate is for 2006, with a thirty-percent contingency added, given the remote location of the project. A breakdown of the associated items/costs associated with constructing the proposed bicycle facility and five (5) year projections for 2011/2016, utilizing a three-percent inflation rate (Source: Engineering News Record, November 13, 2006) for Segment 1 is provided in Appendix H. A 'ballpark estimate' for utility pole relocation (\$40,000/pole) for this alternative of Segment 1 is approximately \$520,000.

STATE OF RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
BICYCLE ROUTE SUITABILITY REPORT

PROJECT: Corn Neck Road Bicycle Facility Project

CONSULTANT: Pare Corporation REVIEW DATE: September 12, 2006

ROUTE NAME & NUMBER: Corn Neck Road CITY/TOWN: New Shoreham

ROADWAY LIMITS: Dodge Street to Indian Neck Road – Segment 1

Technical Paper No. 155 Roadway Classification Major Collector (Rural)

"Guide to Cycling in the Ocean State 2003" Roadway Designation Suitable Road

The State Highway noted above is being considered for signage as a "Signed Shared Roadway" in accordance with the criteria set forth in RIDOT DPM No. 920.06. The following information is to be provided to the Deputy Chief Engineer of the Design Section for consideration:

ITEM NO.	DESCRIPTION	COMMENTS NO. (SEE ENDNOTES)
1	Posted Speed Limit	25 mph
2	85 th Percentile Speed (Radar speed study)	
3	Average Annual Daily Traffic (AADT) Volume	
4	Percent Truck Traffic Volume	
5	Number of Travel Lanes	2; one in each direction
6	Width of Travel Lanes	Varies; 11 – 12 feet
7	Width of Shoulders	Varies; 0 – 4 feet
8	Delineation of Centerline & Shoulders	YES
9	Sidewalk	In vicinity of AP5 /Lot 9
10	Curbing	In vicinity of AP5 /Lot 9
11	On-Street Parking	Minimal on approach (west side) to Ocean Ave./Dodge St. intersection
12	Frequency of Curb Cuts	Moderate

ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
		Heavy	
		Commercial	Commercial
		Residential	Residential
13	Horizontal Alignment Constraints		Vicinity of Utility Pole #10
14	Vertical Alignment Constraints		None
15	Intersections & Corresponding Stopping Sight Distances		Okay
16	Stop Controls Along Roadway		None
17	General Roadway Conditions	Surface	Good
		Potholes	Moderate
		Cracking	Moderate
		Catch Basin Types	None
		Sand & Debris	Moderate/Frequent
18	Are all grates bicycle-safe? (If no, please indicate which ones)	Yes: _____ No: _____	
18A	Total Number of Grates: _____ N/A _____		
18B	Location of Grates (list): _____ N/A _____		
19	Off-Road Obstacles	Mailboxes, signs	Both; 1 – 4 feet off edge of pavement
		Poles	1 – 9 feet off edge of pavement
		Outcrops	None
		Hanging Limbs	None
20	Facilities List on Roadway	Parks	None
		Schools	None
		Recreational Fields	None

ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
		Historical Districts	Old Harbor Historic District, Great Salt Pond Archeological Site
		Commercial Establishments	Concentrated at the approach to Ocean Ave./Dodge St. intersection
21	Expected Bike User Type	A – Advanced	A – Advanced
		B – Basic	B – Basic
		C – Children	C – Children
22	Location of nearest Bike Route/Path as potential link		
23	Additional Observations		
24	Accident History (Provide Crash Data for the previous three years according to type, location, injury, roadway surface and time)		See Table 1 attached

Based on the information contained in the above "Bicycle Route Suitability Report", the reviewing engineer:

Recommends (X)

Does not recommend ()

designation of this roadway as a Signed Shared Roadway, following the implementation of the recommended improvements including widening of all areas where the total roadway width is less than 24-feet (requiring full-depth reconstruction of approximately 2 to 5 feet of roadway, as well as cold-planing and overlay to the remainder of pavement), as well as the relocation of some off-road obstacles (mailboxes, signage, and utility poles).

Reviewing Engineer: 	Date: 2-28-07
Approved Deputy Chief Engineer:	Date:
Approved Chief Engineer:	Date:

Table 1. Crash Data - Corn Neck Road, Segment 1

Report No.	Date	No. of Vehicles	No. of Injuries	No. of Fatalities	Road Surface Conditions	Type of Accident	Lighting	Location
02-0077*	6.3.02	1	1	0	DRY	ANGLE	DAYLIGHT	CORN NECK RD., W/ 1 MILE N BEACH AVE.
02-9991-AC	10.25.02	1	2	1	DRY	ROLLOVER	NIGHT (NOT LIGHTED)	CORN NECK RD., W/ 500' N BEACH AVE.
03-0092*	6.27.03	1	2	0	DRY	RAN OFF ROAD	DAYLIGHT	BEACH AVE. W CORN NECK RD.
03-0170	7.19.03	1	0	0	DRY	REAR-END	DAYLIGHT	CORN NECK RD. N BEACH AVE.
03-0334	9.20.03	1	0	0	DRY	HEAD-ON	NIGHT (NOT LIGHTED)	CORN NECK RD. N BEACH AVE.
04-0138*	7.10.04	2	2	0	CONTAMINANT	SIDESWIPE	DAYLIGHT	BEACH AVE.
02-0180	7.2.02	1	0	0	DRY	ANGLE	DAYLIGHT	CORN NECK RD., W/ 300' N OCEAN AVE.
02-0192	7.8.02	1	0	0	DRY	SIDESWIPE	DAYLIGHT	CORN NECK RD., W/ 10' S OCEAN AVE.
03-0017**	3.1.03	1	0	0	DRY	HEAD-ON	NIGHT (NOT LIGHTED)	CORN NECK RD., W/ 1000' S OCEAN AVE.
03-0054	6.6.03	2	0	0	DRY	ANGLE	DAYLIGHT	OCEAN AVE., W/ 150' W CORN NECK RD.
04-0246	8.13.04	2	0	0	DRY	ANGLE	NIGHT (NOT LIGHTED)	CORN NECK RD., W/ 500' N OCEAN AVE.
04-0281	8.23.04	1	1	0	DRY	LOST CONTROL	DAYLIGHT	CORN NECK RD., S DODGE ST.

* Denotes accident involving a moped.

** Denotes accident involving an animal.

SEGMENT 2

Description:

The second segment of the proposed bicycle network begins at Indian Neck Road and continues north to Mansion Road. This section of Corn Neck Road (Segment 2) is approximately 1.28 miles in length. It extends north from Indian Neck Road, and terminates at Mansion Road. The Proposed Segment 2 Roadway Plan shows the roadway's location and its project limits (Figure 7). The Rhode Island Department of Administration, Division of Planning Technical Paper No. 155, has classified the roadway as a rural major collector. Corn Neck Road is a State-owned and Town-maintained roadway, as referenced in the October 25, 2004 Memorandum of Agreement between the Town of New Shoreham and the State of Rhode Island Department of Transportation (Appendix B).

Residential development dominates this segment of the proposed bicycle network, beginning north of Scotch Beach Road. Stonewalls (both sides of the roadway) that line the frontage of most properties along this segment also begin north of Scotch Beach Road.

Destinations along this segment include dunes associated with Crescent Beach, New Harbor (within Great Salt Pond), Scotch Beach, the Block Island Club and the wildlife sanctuary just south of Mansion Road.



Photo 9. Stonewalls begin north of Scotch Beach Road.

This segment of the proposed bicycle network traverses through non-community wellhead protection areas, as well as the Great Salt Pond Archeological Site.

Existing Conditions:

The attached Design Policy Memo (DPM – Corn Neck Road – Segment 2) included at the end of this section, summarizes existing conditions in a formal setting.



References:
 1. RIGIS Orthophoto #3006, #2904V2, #2300050R6/ 2003-2004.

FIGURE 7

**CORN NECK ROAD
 BICYCLE FACILITY PROJECT**
 New Shoreham, Rhode Island



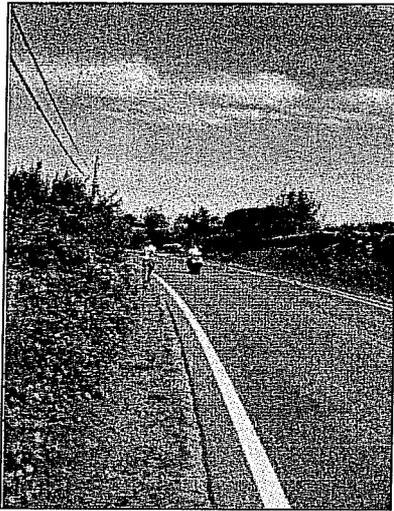
LEGEND

Segment 2



PROPOSED SEGMENT 2 SITE PLAN

Scale: NTS
 Date: March, 2007



Corn Neck Road – Segment 2 becomes quite winding in several areas (Photo 10), but is generally straight with a consistent increase in elevation heading north. Again, utility poles crossover east to west along this segment of Corn Neck Road, and are approximately four-feet from the edge of pavement. There is one travel lane each on the northbound and southbound sides of Corn Neck Road. Typical lane widths vary from 10 to 11-feet with shoulder widths varying from 0.5 to 2-feet. The centerline and shoulders are striped. Curbing does not exist along this stretch of roadway.

Photo 10. Increase in grade.

On-street parking is apparent with worn areas into the shoulder along the easterly side of the roadway in the vicinity of the dunes associated with Crescent Beach. A crosswalk and public access/parking area to New Harbor are located along the westerly side of the roadway, just north of utility pole no. 4C. Horizontal sight distance is a concern in the vicinity of utility poles no. 66, 96 and S104 (shown on Figure 7). Vertical sight distance is a concern in the vicinity of utility pole no. 76.

A grass drainage swale is located north of utility pole no. 66, along the easterly side of the roadway. Steep grade changes and a very narrow right-of-way exist in the vicinity of utility pole No. 96. There is a short segment of metal guardrail along the westerly side of the roadway, north of Andy's Way. The extremely narrow roadway width and minimal shoulder at this curve inhibits safe usage by vehicles, pedestrians and bicyclists (Photos 11 and 12). Signage warning vehicles and bicyclists of the curve ahead is obscured by vegetation, and no longer visible.

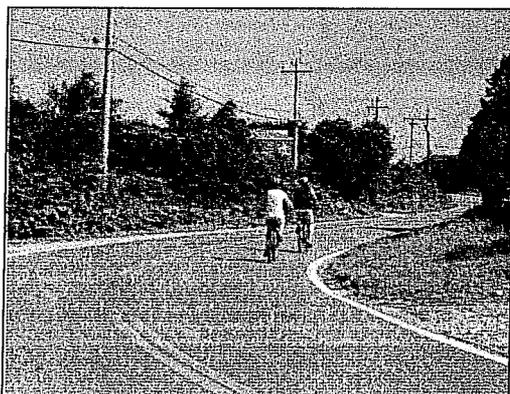


Photo 11. Narrow curve at Andy's Way.

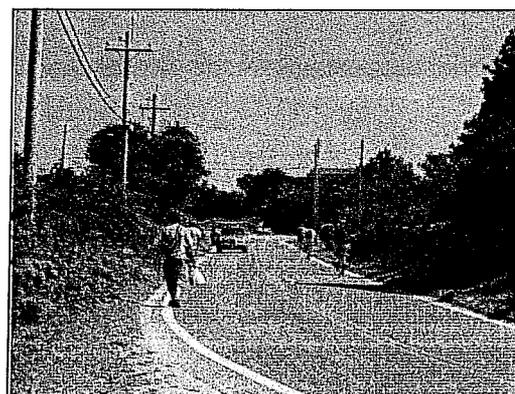


Photo 12. North of Andy's Way.

The posted speed limit on Corn Neck Road is 25 mph. The general condition of the pavement is good with very minimal cracking and a few potholes. The vegetation along the route has been maintained with no overhanging tree limbs. Of particular note is the area of encroaching hedges along the parcel in front of the Block Island Club on the westerly side of the roadway (Photo 13). Although these hedges have been maintained, they occupy the shoulder, leaving no refuge area for pedestrians or bicyclists. Mailboxes, utility poles and signage are all located within 2 to 4 feet off the edge of pavement. There are 4 streets and nine ROW access roads that intersect this segment of the proposed bicycle network.



Photo 13. Overgrown hedges.

There are four bicycle-safe catch basins along this segment of the proposed bicycle network. Catch basin location, type, and recommended action to be taken are included in Table 2, attached at the end of this section.

An analysis of the reported crashes for three years, including 2002, 2003 and 2004 indicated seven crashes. There were six single-vehicle crashes and one multi-vehicle crash. Of the reported crashes, none resulted in any fatalities. Based on the written vehicle operator statements that were part of the reports and the other report crash data, none of the accidents indicated problem intersections or areas. This data has been tabulated in Table 3, at the end of this section.

Studied Alternatives

Alternative #1- Signed Shared Roadway

The first alternative is that this segment of Corn Neck Road be designated as a Signed Shared Roadway. Improvements to the road necessary for this designation are as follows according to AASHTO and the State DPM:

- Increase roadway width from 20-feet to a minimum of 24-feet throughout.

Referring to the *Bicycle Route Sign Criteria* chart in DPM 920.06 (Appendix D), this roadway does not meet the criteria to sign it as a Signed Shared roadway. This is based on an AADT volume of

less than 2,000 vpd and speed limit of 25 mph. Its existing minimum roadway width of 10-feet does not meet the minimum usable roadway width of 12-feet, as recommended in the 1999 AASHTO *'Guide for the Development of Bicycle Facilities'* design criteria for a Signed Shared route. The areas where roadway width is less than 12-feet will require widening.

This recommendation was compared to the AASHTO *'A Policy on Geometric Design of Highways and Streets, 2004'* recommendations for roadway width. In Exhibit 6-5 Minimum Width of Traveled Way and Shoulders, the recommended minimum width of traveled way for a road with the above parameters is 22 feet. The width of shoulder on each side of the road is 6 feet. On existing roadways, it is quite common to seek a design exception documenting the lack of a need for shoulders. A review of available crash data indicates that there were not a significant number of crashes that could be decreased with the addition of a shoulder. A proposed roadway width of 24 feet combined with a design exception for eliminating the shoulders will meet the recommendations in AASHTO *'A Policy on Geometric Design of Highways and Streets, 2004'*.

Upon the completion of the proposed widening, Segment 2 – Corn Neck Road is recommended to be designated as a Signed Shared roadway. The roadway could be identified, by signing, as a preferred route. Signs shall be installed at approximate 1/2 mile locations on both sides, opposite from each, of the roadway (Appendix E).

If Segment 2 – Corn Neck Road is designated as a Signed Shared Roadway it is advised that the Town provide regular maintenance of the route to ensure that it continues to be an acceptable route for bicyclists. Regular maintenance includes sweeping the pavement to prevent accumulation of debris, providing a smooth surface, removing edge of pavement obstructions, and trimming trees. Immediate improvements include the reconstruction of approximately 5,069 linear feet (75% of total segment length) of pavement, as well as the relocation of some off-road obstacles (mailboxes, signage, and utility poles). This segment is subject to receiving the required environmental permits from State and Federal agencies.

A preliminary opinion of probable cost estimate for this segment is approximately \$1,225,000. Cost estimates for engineering, permitting, and necessary right-of-way easements/land acquisitions are not part of the opinion of probable cost estimate for this study. This estimate is for 2006, with a thirty-percent contingency added, given the remote location of the project. A breakdown of the

associated items/costs associated with constructing the proposed bicycle facility and five (5) year projections for 2011/2016, utilizing a three-percent inflation rate (Source: Engineering News Record, November 13, 2006) for Segment 2 is provided in Appendix F. A 'ballpark estimate' for utility pole relocation (\$40,000/pole) for this alternative of Segment 2 is approximately \$560,000.

Alternative #2 Shared Use Path

The second alternative considers the design and ultimate construction of a 10-foot wide bituminous, shared use path. This new, shared use path would remain on the east side of the roadway the entire length of the segment. A cedar post rail fence is recommended to act as a physical barrier between the roadway and the shared use path. The cedar post rail fence is only recommended from the end of Segment 1 (Indian Neck Road) to utility pole no. 60, where stonewalls begin and run the majority of the segment.

From utility pole no. 60, north, it is recommended to obtain right-of-way easements from the abutters, and construct the shared use path east of the stonewalls, utilizing the stonewalls as the physical barrier between the roadway and the shared use path. Crosswalks would be used to facilitate crossings at driveways. It is acknowledged that right-of-way issues arise with this alternative, as the shared use path crosses in and outside the roadway's existing right-of-way, and onto private property. Necessary wetland and other associated permits required to perform work in this area would be required from CRMC and DEM as well as other state and federal agencies as discussed in detail in the Environmental Permitting section of this report.

With the designation of this shared use path, it is advised that the Town provide regular maintenance of the path to ensure that it continues to be an acceptable route for bicyclists. Regular maintenance includes sweeping the pavement to prevent accumulation of sand and debris.

A preliminary opinion of probable cost estimate for this segment is approximately \$1,100,000. Cost estimates for engineering, permitting, and necessary right-of-way easements/land acquisitions are not part of the opinion of probable cost estimate for this study. This estimate is for 2006, with a thirty-percent contingency added, given the remote location of the project. A breakdown of the associated items/costs associated with constructing the proposed bicycle facility and five (5) year projections for 2011/2016, utilizing a three-percent inflation rate (Source: Engineering News

Record, November 13, 2006) for Segment 2 is provided in Appendix H. A 'ballpark estimate' for utility pole relocation (\$40,000/pole) for this alternative of Segment 2 is approximately \$400,000.

STATE OF RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
BICYCLE ROUTE SUITABILITY REPORT

PROJECT: Corn Neck Road Bicycle Facility Project

CONSULTANT: Pare Corporation REVIEW DATE: September 12, 2006

ROUTE NAME & NUMBER: Corn Neck Road CITY/TOWN: New Shoreham

ROADWAY LIMITS: Indian Neck Road to Mansion Road – Segment 2

Technical Paper No. 155 Roadway Classification Major Collector (Rural)

"Guide to Cycling in the Ocean State 2003" Roadway Designation Suitable Road

The State Highway noted above is being considered for signage as a "Signed Shared Roadway" in accordance with the criteria set forth in RIDOT DPM No. 920.06. The following information is to be provided to the Deputy Chief Engineer of the Design Section for consideration:

ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
1	Posted Speed Limit		25 mph
2	85 th Percentile Speed (Radar speed study)		
3	Average Annual Daily Traffic (AADT) Volume		
4	Percent Truck Traffic Volume		
5	Number of Travel Lanes		2; one in each direction
6	Width of Travel Lanes		Varies; 10 – 11 feet
7	Width of Shoulders		Varies; 0 – 2 feet
8	Delineation of Centerline & Shoulders		YES
9	Sidewalk		None
10	Curbing		None
11	On-Street Parking		None
12	Frequency of Curb Cuts	Moderate	Moderate

ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
		Heavy	
		Commercial	
		Residential	Residential
13	Horizontal Alignment Constraints		Vicinity of Utility Pole #66,96, S104
14	Vertical Alignment Constraints		Vicinity of Utility Pole 66, 76
15	Intersections & Corresponding Stopping Sight Distances		Okay
16	Stop Controls Along Roadway		None
17	General Roadway Conditions	Surface	Good
		Potholes	Moderate
		Cracking	Moderate
		Catch Basin Types	RI Std. 6.3.2 Square Frame and Grate
		Sand & Debris	Moderate/Frequent
18	Are all grates bicycle-safe? (if no, please indicate which ones)	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	
18A	Total Number of Grates: <u>4</u>		
18B	Location of Grates (list): <u>see Table 2 attached</u>		
19	Off-Road Obstacles	Mailboxes, signs	Both; 1 – 4 feet off edge of pavement
		Poles	1 – 9 feet off edge of pavement
		Outcrops	None
		Hanging Limbs	None
20	Facilities List on Roadway	Parks	None
		Schools	None
		Recreational Fields	None

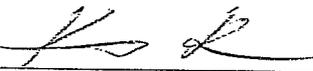
ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
		Historical Districts	Great Salt Pond Archeological Site
		Commercial Establishments	
21	Expected Bike User Type	A – Advanced	A – Advanced
		B – Basic	B – Basic
		C – Children	C – Children
22	Location of nearest Bike Route/Path as potential link		
23	Additional Observations		
24	Accident History (Provide Crash Data for the previous three years according to type, location, injury, roadway surface and time)		See Table 1 attached

Based on the information contained in the above "Bicycle Route Suitability Report", the reviewing engineer:

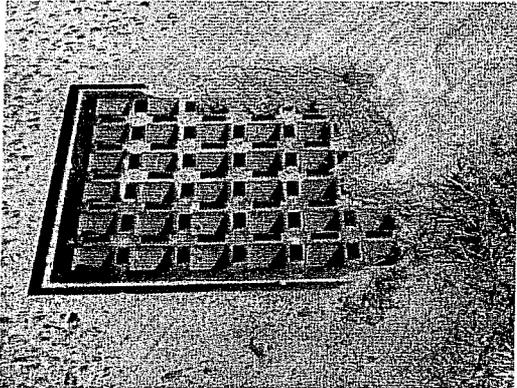
Recommends (X)

Does not recommend ()

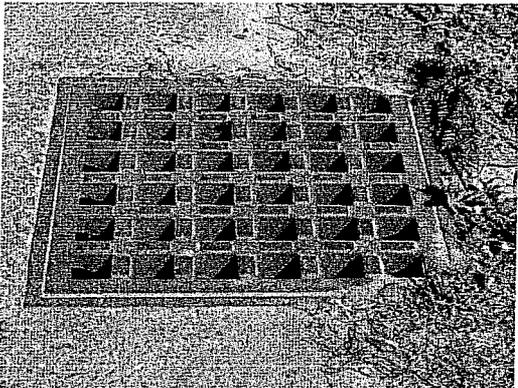
designation of this roadway as a Signed Shared Roadway, following the implementation of the recommended improvements including widening of all areas where the total roadway width is less than 24-feet (requiring full-depth reconstruction of approximately 2 to 5 feet of roadway, as well as cold-planing and overlay to the remainder of pavement), as well as the relocation of some off-road obstacles (mailboxes, signage, and utility poles).

Reviewing Engineer: 	Date: 2-28-07
Approved Deputy Chief Engineer:	Date:
Approved Chief Engineer:	Date:

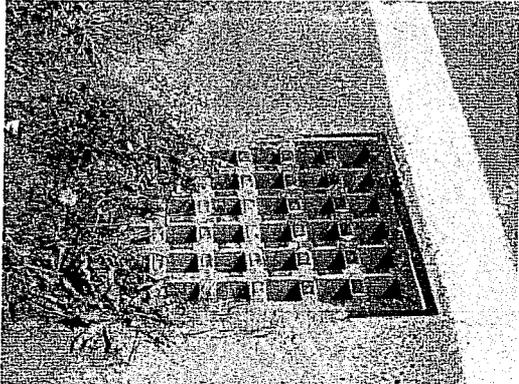
Existing Catch Basin Photos



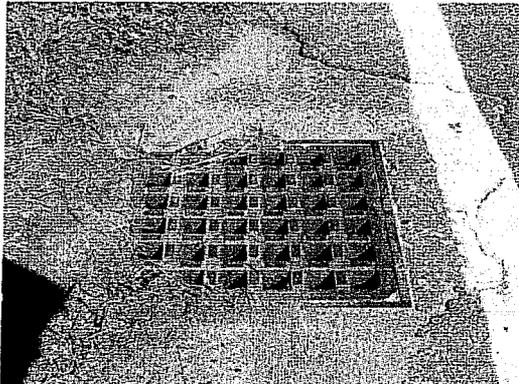
Corn Neck Road 1



Corn Neck Road 2



Corn Neck Road 3



Corn Neck Road 4

TABLE 2. CORN NECK ROAD - CATCH BASINS

<u>PHOTO NO.</u>	<u>LOCATION</u>	<u>TYPE (R.I. Standard Detail)</u>	<u>Notes</u>	<u>ACTION</u>
1	Southbound on Corn Neck Road 8.5' south of Utility Pole No. 76 Same side as the Pole	RI Std. 6.3.2 Square Frame and Grate (Bicycle Safe)		To Remain, remove debris
2	Southbound on Corn Neck Road 74.5' south of Utility Pole No. 76 Same side as the Pole	RI Std. 6.3.2 Square Frame and Grate (Bicycle Safe)		To Remain, remove debris
3	Northbound on Corn Neck Road 8.5' south of Utility Pole No.76, then 22.5' east Opposite side as the Pole	RI Std. 6.3.2 Square Frame and Grate (Bicycle Safe)		To Remain, remove debris
4	Northbound on Corn Neck Road 74.5' south of Utility Pole No.76, then 22.5' east Opposite side as the Pole	RI Std. 6.3.2 Square Frame and Grate (Bicycle Safe)		To Remain, remove debris

Table 3. Crash Data - Corn Neck Road, Segment 2

Report No.	Date	No. of Vehicles	No. of Injuries	No. of Fatalities	Road Surface Conditions	Type of Accident	Lighting	Location
03-0159	7.15.03	1	0	0	DRY	BROADSIDE	DAYLIGHT	SCOTCH BEACH RD., W/ 100' E CORN NECK RD.
03-0168	7.19.03	1	2	0	DRY	REAR-END	DAYLIGHT	CORN NECK RD.
02-0272	8.7.02	1	0	0	DRY	REAR-END	DAYLIGHT	SCOTCH BEACH RD., W/ 20' E CORN NECK RD.
03-0243	8.13.03	2	0	0	DRY	SIDESWIPE	DAYLIGHT	CORN NECK RD.
04-0252	8.14.04	1	0	0	DRY	SIDESWIPE	DAYLIGHT	CORN NECK RD.
03-0315	9.4.03	1	1	0	WET	ANGLE	NIGHT (NOT LIGHTED)	CORN NECK RD., W/ 500' S ANDY'S WAY
03-0336**	9.24.03	1	0	0	DRY	BROADSIDE	DAYLIGHT	CORN NECK RD., W/ 100' NMANSION RD.

* Denotes accident involving a moped.

** Denotes accident involving an animal.

SEGMENT 3

Description:

The last segment of the proposed bicycle network begins at Mansion Road, continues north (Photo 14), and terminates in the parking area for Settler's Rock. The section of Corn Neck Road (Segment 3) that has been studied is approximately 1.72 miles in length. It extends north from Mansion Road, runs along the easterly edge of Sachem Pond and terminates at Settler's Rock. The Proposed Segment 3 Roadway Plan shows the roadway's location and its project limits (Figure 8). The Rhode Island Department of Administration, Division of Planning Technical Paper No. 155, has classified the roadway as a rural major collector. Corn Neck Road is a State-owned and Town-maintained roadway, as referenced in the October 25, 2004 Memorandum of Agreement between the Town of New Shoreham and the State of Rhode Island Department of Transportation (Appendix B).



Photo 14. Activity Corn Neck Road.

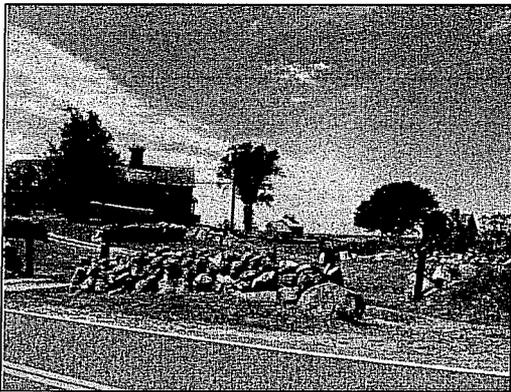


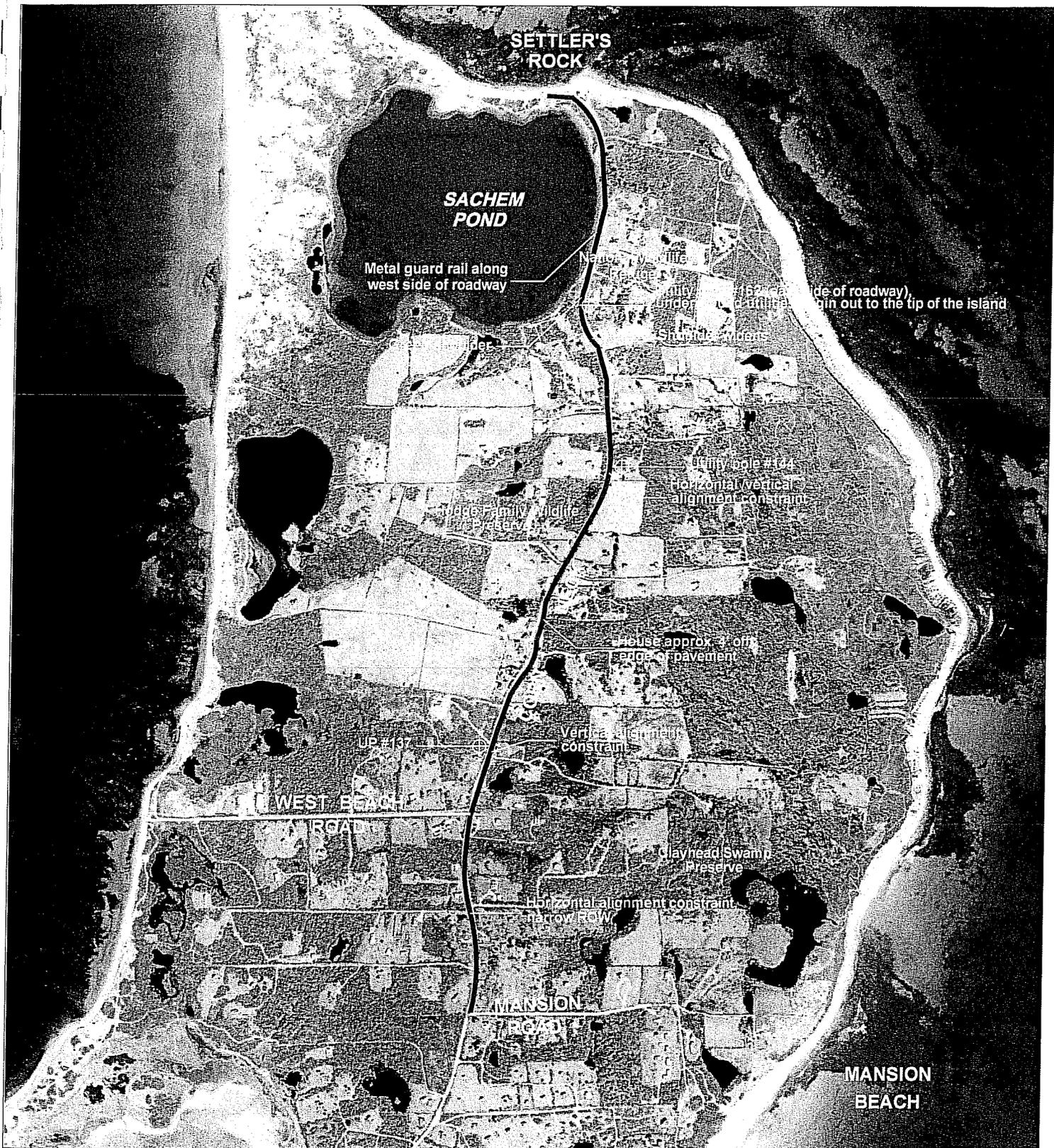
Photo 15. Typical view along Corn Neck Road.



Photo 16. Hodge Family Wildlife preserve.

Residential development also dominates this segment of the proposed bicycle network, beginning north of Mansion Road (Photo 15). Destinations along this segment include Mansion Beach, Clayhead Swamp Preserve, the Hodge Family Wildlife Preserve, National Wildlife Refuge, Sachem Pond and Settler's Rock.

The southerly section of this segment traverses through non-community wellhead protection areas, as well as the Great Salt Pond Archeological Site to the west.



References:
 1. RIGIS Orthophoto #3006, #2904V2, #2300050R6/ 2003-2004.

FIGURE 8

**CORN NECK ROAD
 BICYCLE FACILITY PROJECT**

New Shoreham, Rhode Island

PROPOSED SEGMENT 3 SITE PLAN



Scale: NTS
 Date: March, 2007

LEGEND

Segment 3



**PARE
 CORPORATION**

Existing Conditions:

The attached Design Policy Memo (DPM – Corn Neck Road – Segment 3) included at the end of this section, summarizes existing conditions in a formal setting. Corn Neck Road – Segment 3 is generally winding with several straight, linear sections. The grade varies from high to low points along the route. Utility poles crossover east to west along this segment of Corn Neck Road, and are approximately four-feet from the edge of pavement. There is one travel lane each on the northbound and southbound sides of Corn Neck Road. Typical lane widths vary from 10 to 11-feet with shoulder widths varying from 0.5 to 2 feet. The centerline and shoulders are striped. No curbing exists along this segment roadway.

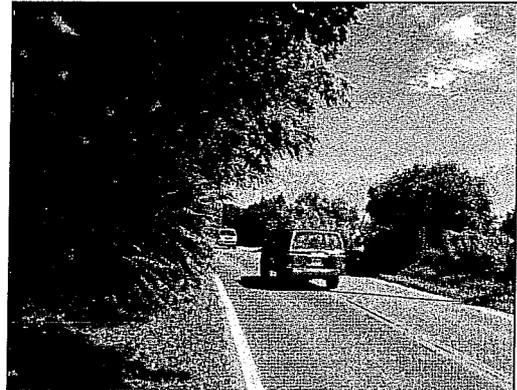


Photo 17. Narrow roadway.

The extremely narrow roadway width and minimal shoulder in the area south of West Beach Road inhibits safe passage by vehicles, pedestrians and bicyclists, occasionally requiring vehicles to crossover into the on-coming lane to avoid a conflict with a bicyclist (Photo 17).

Horizontal sight distance is a concern in the vicinity of AP 3/Lot 93-1 and utility pole no. 144 (shown on Figure 8). Vertical sight distance is a concern in the vicinity of utility pole no. 137 (Photo 18).

North of the Hodge Family Wildlife Preserve, the shoulder widens out considerably before the approach to Sachem Pond. The roadway flattens out in the vicinity of utility pole no. 162, also the last above-ground utility pole, to the end of the roadway. Along the easterly side of the roadway, a grass shoulder and culvert exists south of utility pole no. 162.



Photo 18. Steep grade change.

There is a section of metal guardrail along the westerly side of the roadway, adjacent to Sachem Pond (Photo 19).

The posted speed limit on Corn Neck Road is 25 mph. The general condition of the pavement is good with very minimal cracking and a few potholes. The vegetation along the route has been maintained with no overhanging tree limbs. Mailboxes, utility poles and signage are all located within 2 to 4 feet from the edge of pavement. There are 2 streets and eleven ROW access roads that intersect this segment of the proposed bicycle network.

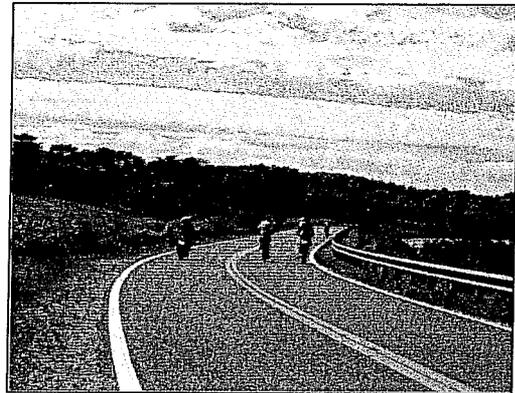


Photo 19. Corn Neck Road east of Sachem pond.

An analysis of the reported crashes for three years, including 2002, 2003 and 2004 indicated six crashes. There were four single-vehicle crashes and two multi-vehicle crashes. Of the reported crashes, none resulted in any fatalities. Based on the written vehicle operator statements that were part of the reports and the other report crash data, none of the accidents indicated problem intersections or areas. This data has been tabulated in Table 4, at the end of this section.

Studied Alternatives

Alternative #1- Signed Shared Roadway

The first alternative is that this segment of Corn Neck Road be designated as a Signed Shared Roadway. Improvements to the road necessary for this designation are as follows according to AASHTO and the State DPM:

- Increase roadway width from 19-feet to a minimum of 24-feet throughout.

Referring to the *Bicycle Route Sign Criteria* chart in DPM 920.06 (Appendix D), this roadway does not meet the criteria to sign it as a Signed Shared roadway. This is based on an AADT volume of less than 2,000 vpd and speed limit of 25 mph. Its existing minimum lane width of 9.5-feet does not meet the minimum usable lane width of 12-feet, as recommended in the 1999 AASHTO *Guide for*

the Development of Bicycle Facilities' design criteria for a Signed Shared route. The areas where the lane width is less than 12-feet will require widening.

This recommendation was compared to the AASHTO 'A Policy on Geometric Design of Highways and Streets, 2004' recommendations for roadway width. In Exhibit 6-5 Minimum Width of Traveled Way and Shoulders, the recommended minimum width of traveled way for a road with the above parameters is 22 feet. The width of shoulder on each side of the road is 6 feet. On existing roadways, it is quite common to seek a design exception documenting the lack of a need for shoulders. A review of available crash data indicates that there were not a significant number of crashes that could be decreased with the addition of a shoulder. A proposed roadway width of 24 feet combined with a design exception for eliminating the shoulders will meet the recommendations in AASHTO 'A Policy on Geometric Design of Highways and Streets, 2004'.

Upon the completion of the proposed widening, Segment 3 – Corn Neck Road is recommended to be designated as a Signed Shared roadway. The roadway would be identified, by signing, as a preferred route. Signs shall be installed at approximate 1/2 mile locations on both sides, opposite from each, of the roadway (Appendix E).

If Segment 3 – Corn Neck Road is designated as a Signed Shared Roadway it is advised that the Town provide regular maintenance of the route to ensure that it continues to be an acceptable route for bicyclists. Regular maintenance includes sweeping the pavement to prevent accumulation of debris, providing a smooth surface, removing edge of pavement obstructions, and trimming trees. Immediate improvements include the reconstruction of approximately 6,811 linear feet (75% of total segment length) of pavement, as well as the relocation of some off-road obstacles (mailboxes, signage, and utility poles). This segment is subject to receiving the required environmental permits from State and Federal agencies.

A preliminary opinion of probable cost estimate for this segment is approximately \$1,540,000. Cost estimates for engineering, permitting, and necessary right-of-way easements/land acquisitions are not part of the opinion of probable cost estimate for this study. This estimate is for 2006, with a thirty-percent contingency added, given the remote location of the project. A breakdown of the associated items/costs associated with constructing the proposed bicycle facility and five (5) year projections for 2011/2016, utilizing a three-percent inflation rate (Source: Engineering News

Record, November 13, 2006) for Segment 3 is provided in Appendix F. A 'ballpark estimate' for utility pole relocation (\$40,000/pole) for this alternative of Segment 3 is approximately \$800,000.

Alternative #2 Shared Use Path

The second alternative considers the design and ultimate construction of a 10-foot wide bituminous, shared use path. This new, shared use path would remain on the east side of the roadway, continuing on the east side of the stonewalls, from the end of Segment 2, north, to utility pole no. 162. From this point, a cedar post rail fence is recommended to act as a physical barrier between the roadway and the shared use path, terminating at the entrance to Settler's Rock parking area. As with Segment 2, crosswalks would be utilized across driveways and the same right-of-way easement issues arise, as the shared use path crosses in and outside the roadway's existing right-of-way, and onto private property. It is also noted that a private home appears to break up a contiguous path due to its close proximity to the roadway in this location. Alternatives would need to be explored in greater detail to avoid the house and facilitate the alternative of a shared use path.

Necessary wetland and other associated permits required to perform work in this area would be required from CRMC and DEM as well as other state and federal agencies as discussed in detail in the Environmental Permitting section of this report.

With the designation of this shared use path, it is advised that the Town provide regular maintenance of the path to ensure that it continues to be an acceptable route for bicyclists. Regular maintenance includes sweeping the pavement to prevent accumulation of sand and debris.

A preliminary opinion of probable cost estimate for this segment is approximately \$1,470,000. Cost estimates for engineering, permitting, and necessary right-of-way easements/land acquisitions are not part of the opinion of probable cost estimate for this study. This estimate is for 2006, with a thirty-percent contingency added, given the remote location of the project. A breakdown of the associated items/costs associated with constructing the proposed bicycle facility and five (5) year projections for 2011/2016, utilizing a three-percent inflation rate (Source: Engineering News Record, November 13, 2006) for Segment 3 is provided in Appendix H. A 'ballpark estimate' for utility pole relocation (\$40,000/pole) for this alternative of Segment 3 is approximately \$240,000.

STATE OF RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
BICYCLE ROUTE SUITABILITY REPORT

PROJECT: Corn Neck Road Bicycle Facility Project

CONSULTANT: Pare Corporation REVIEW DATE: September 12, 2006

ROUTE NAME & NUMBER: Corn Neck Road CITY/TOWN: New Shoreham

ROADWAY LIMITS: Mansion Road to Settler's Rock parking area – Segment 3

Technical Paper No. 155 Roadway Classification Major Collector (Rural)

"Guide to Cycling in the Ocean State 2003" Roadway Designation Suitable Road

The State Highway noted above is being considered for signage as a "Signed Shared Roadway" in accordance with the criteria set forth in RIDOT DPM No. 920.06. The following information is to be provided to the Deputy Chief Engineer of the Design Section for consideration:

ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
1	Posted Speed Limit		25 mph
2	85 th Percentile Speed (Radar speed study)		
3	Average Annual Daily Traffic (AADT) Volume		
4	Percent Truck Traffic Volume		
5	Number of Travel Lanes		2; one in each direction
6	Width of Travel Lanes		Varies; 9.5 – 11 feet
7	Width of Shoulders		Varies; 0 – 1 feet
8	Delineation of Centerline & Shoulders		YES
9	Sidewalk		None
10	Curbing		None
11	On-Street Parking		None
12	Frequency of Curb Cuts	Moderate	Moderate

ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
		Heavy	
		Commercial	
		Residential	Residential
13	Horizontal Alignment Constraints		Vicinity of Utility Pole 144
14	Vertical Alignment Constraints		Vicinity of Utility Pole 137, 144
15	Intersections & Corresponding Stopping Sight Distances		Okay
16	Stop Controls Along Roadway		None
17	General Roadway Conditions	Surface	Good
		Potholes	Moderate
		Cracking	Moderate
		Catch Basin Types	None
		Sand & Debris	Moderate/Frequent
18	Are all grates bicycle-safe? (If no, please indicate which ones)	Yes: ____	No: ____
18A	Total Number of Grates: _____		
18B	Location of Grates (list): _____		
19	Off-Road Obstacles	Mailboxes, signs	Both; 1 – 4 feet off edge of pavement
		Poles	1 – 6 feet off edge of pavement
		Outcrops	None
		Hanging Limbs	None
20	Facilities List on Roadway	Parks	None
		Schools	None
		Recreational Fields	None

ITEM NO.	DESCRIPTION		COMMENTS NO. (SEE ENDNOTES)
		Historical Districts	None
		Commercial Establishments	
21	Expected Bike User Type	A – Advanced	A – Advanced
		B – Basic	B – Basic
		C – Children	C – Children
22	Location of nearest Bike Route/Path as potential link		
23	Additional Observations		
24	Accident History (Provide Crash Data for the previous three years according to type, location, injury, roadway surface and time		See Table 4 attached

Based on the information contained in the above "Bicycle Route Suitability Report", the reviewing engineer:

Recommends (X)

Does not recommend ()

designation of this roadway as a Signed Shared Roadway, following the implementation of the recommended improvements including widening of all areas where the total roadway width is less than 24-feet (requiring full-depth reconstruction of approximately 2 to 5 feet of roadway, as well as cold-planing and overlay to the remainder of pavement), as well as the relocation of some off-road obstacles (mailboxes, signage, and utility poles).

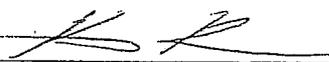
Reviewing Engineer: 	Date: 2-28-07
Approved Deputy Chief Engineer:	Date:
Approved Chief Engineer:	Date:

Table 4. Crash Data - Corn Neck Road, Segment 3

Report No.	Date	No. of Vehicles	No. of Injuries	No. of Fatalities	Road Surface Conditions	Type of Accident	Lighting	Location
03-0064	6.15.03	1	0	0	DRY	HEAD-ON	DAYLIGHT	CORN NECK RD., E WEST BEACH RD.
03-0288*	8.25.03	2	0	0	DRY	HEAD-ON	DAYLIGHT	CORN NECK RD., S WEST BEACH RD.
04-0053*	6.5.04	1	1	0	DRY	ANGLE	DUSK	CORN NECK RD., N WEST BEACH RD.
02-0195	7.9.02	1	0	0	DRY	ROLLOVER	NIGHT (NOT LIGHTED)	CORN NECK RD., W/ 1500' S SETTLER'S ROCK
04-0191	7.27.04	2	0	0	DRY	BROADSIDE	NIGHT (NOT LIGHTED)	CORN NECK RD. (BEACH PARKING LOT)
04-0280	8.23.04	1	0	0	DRY	ANGLE	DAYLIGHT	CORN NECK RD. (BEACH PARKING LOT)

* Denotes accident involving a moped.

** Denotes accident involving an animal.