



# LOVERS LANE RECONSTRUCTION

TOWN OF NANTUCKET – SELECT BOARD PROJECT UPDATE  
JULY 20, 2022



Engineering | Design | Planning | Construction Management



- **Scope of Work**
- **Existing Conditions**
- **Project Goals**
- **Project Status**
- **Next Steps**

# Scope of Work

## Original Scope of Work

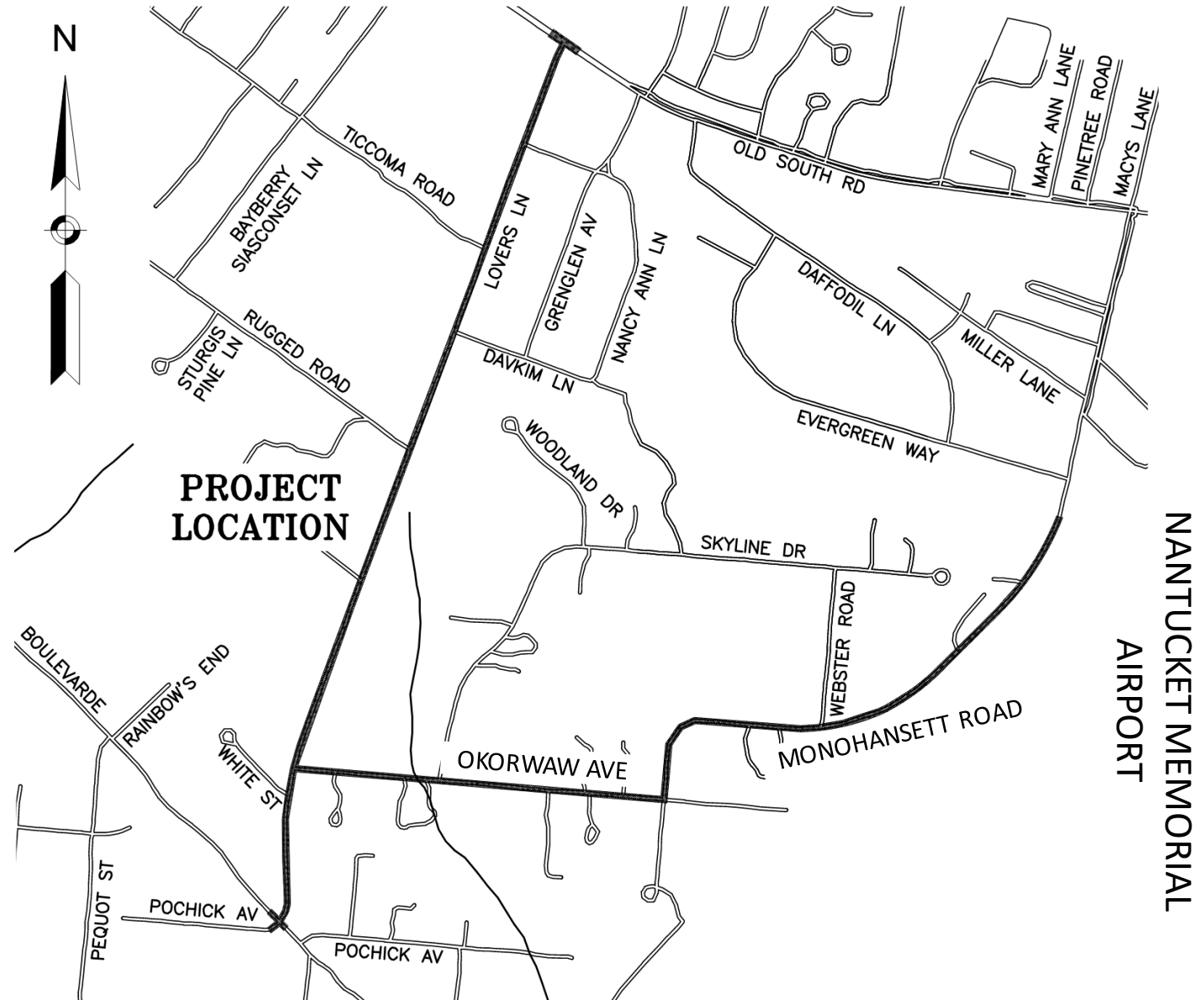
Lovers Lane, Okorwaw Ave, Monohansett Road

- Topographic Existing Ground Survey
- Conceptual Design
- Public Outreach

## Current Scope of Work

Lovers Lane

- Final Design
- Permitting
- Construction Administration





Lovers Lane



Okorwaw Ave

## Deficiencies

- Roadway Surface
- Roadway Width
- Pavement Striping/Signing
- Stormwater Management
- Lack of Trail Connectivity



Monohansett Road

## STORMWATER MANAGEMENT



Davkim Lane



Okorwaw Ave



Lovers Lane  
(north end)



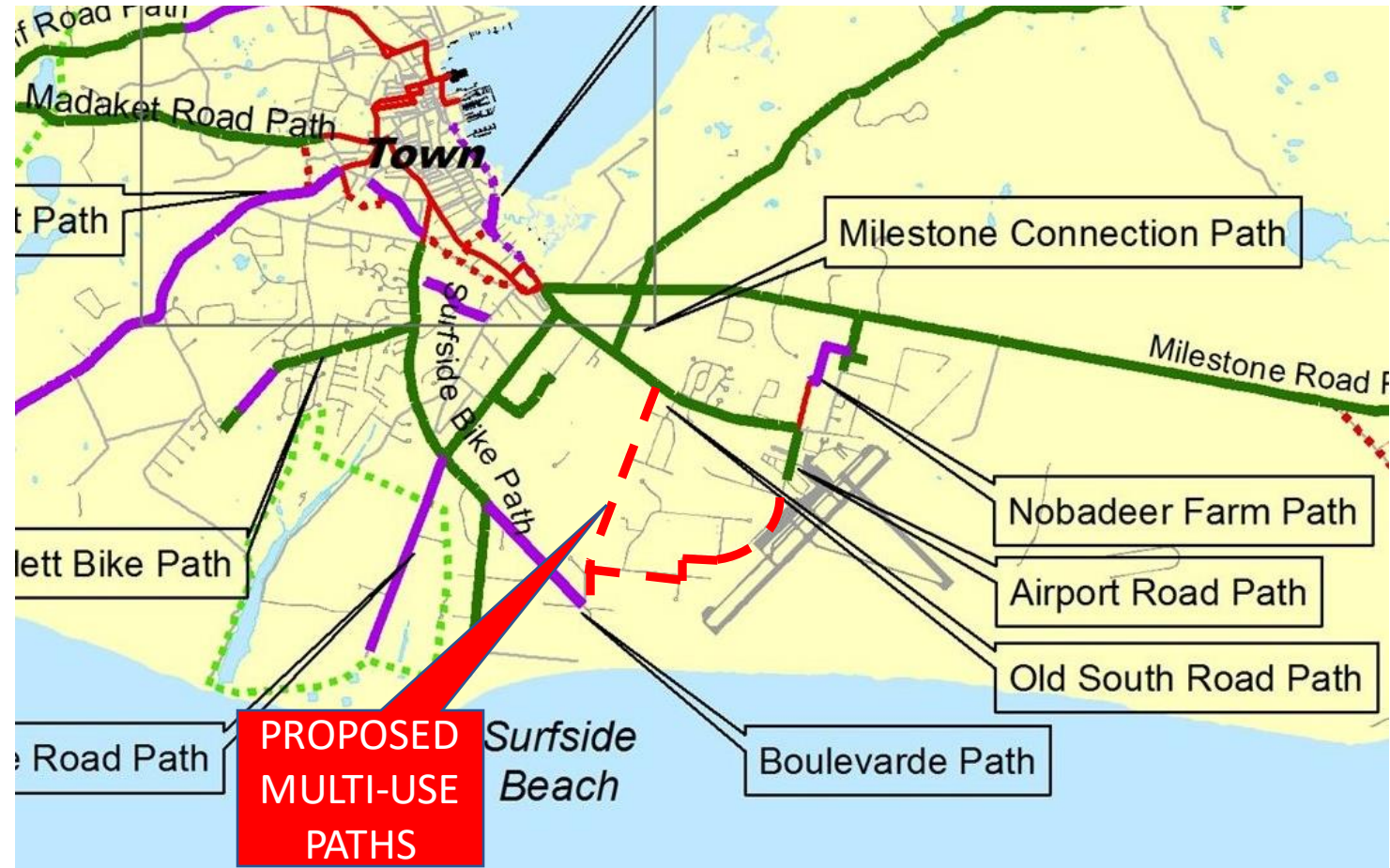
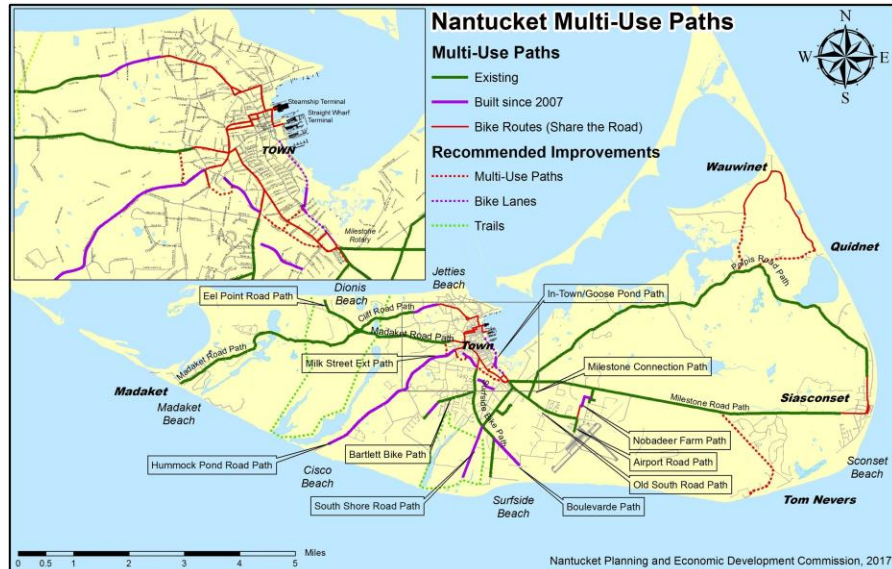
Lovers Lane  
(south end)

## STORMWATER MANAGEMENT



## Temporary Stormwater Management Measures

## LACK OF TRAIL CONNECTIVITY



## **Improved Roadway Surface**

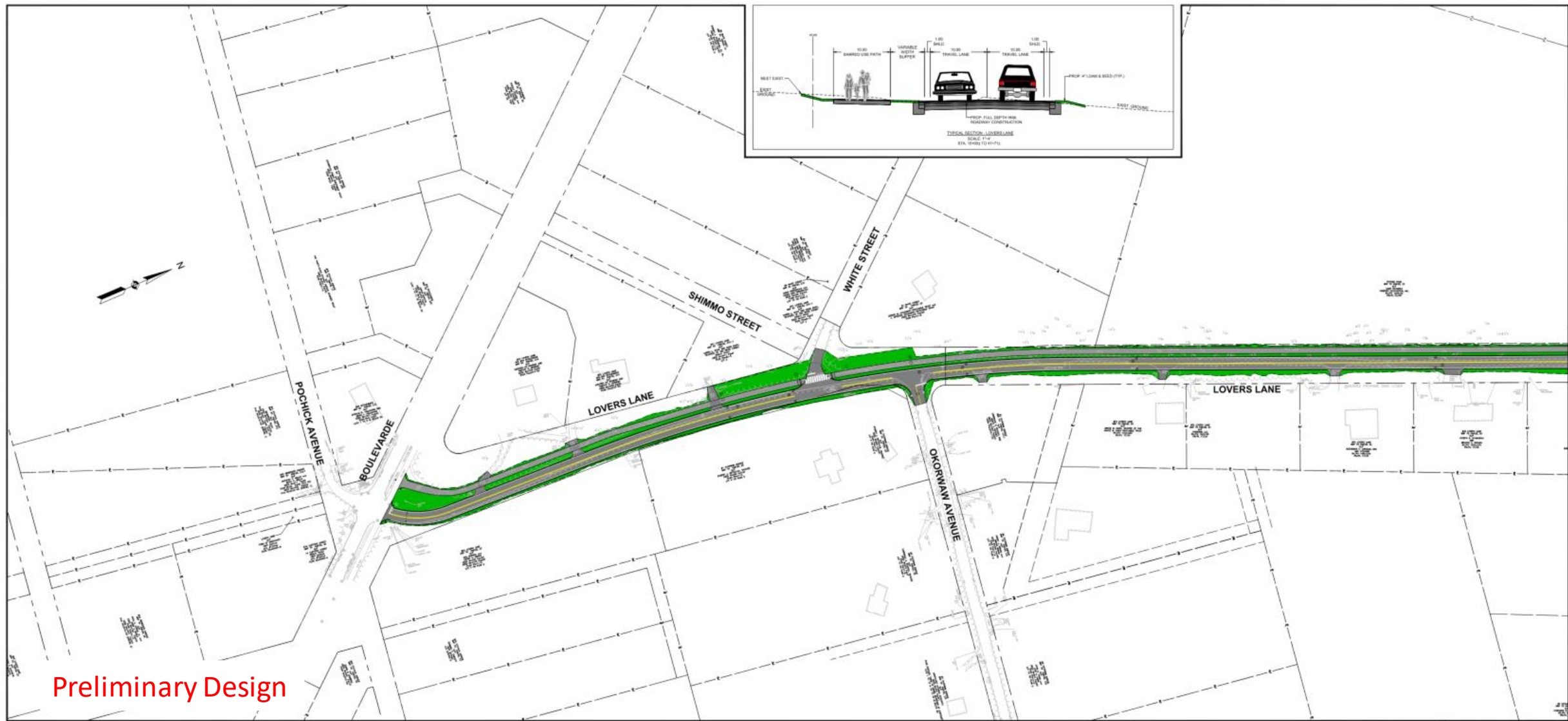
- **Full Depth Roadway Construction**
- **Hot Mix Asphalt Pavement**
- **Asphalt Berm**

## **Stormwater Management Improvements**

- **Closed Stormwater Drainage System**
- **Deep Sump Catch Basins**
- **Infiltration Chambers**

## **Improved Multi-Use Path Connectivity**

# PROJECT STATUS

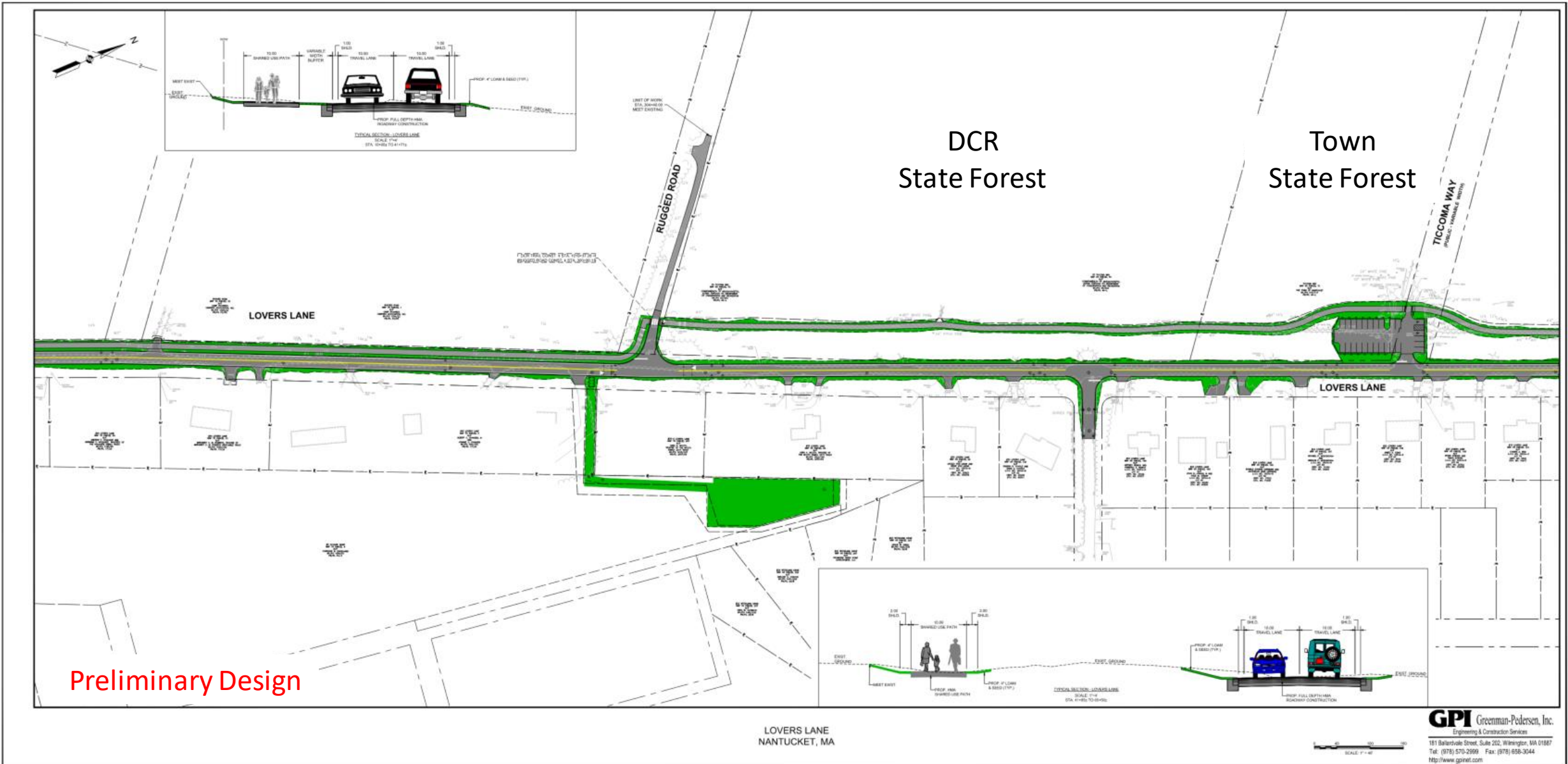


Preliminary Design

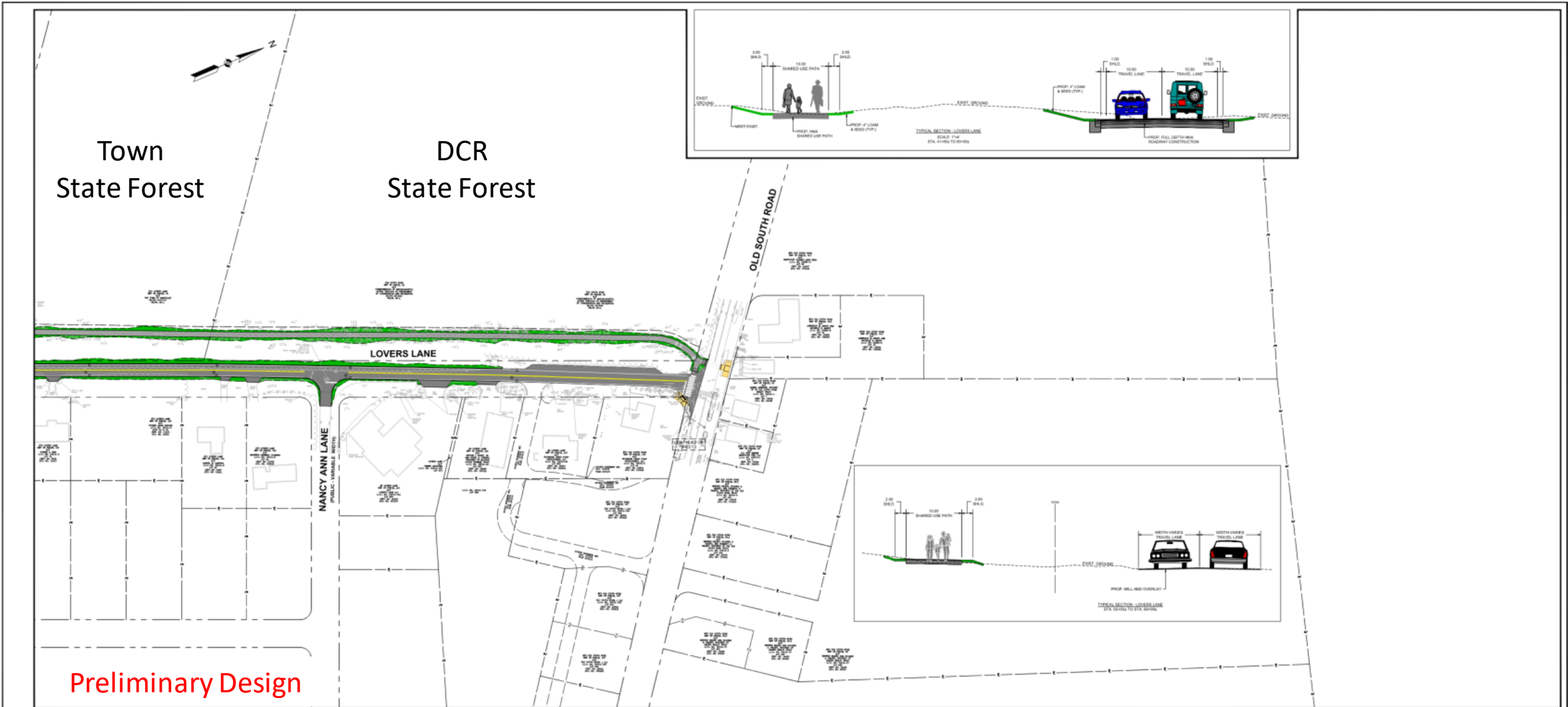
LOVERS LANE  
NANTUCKET, MA

SCALE: 1" = 40'

# PROJECT STATUS



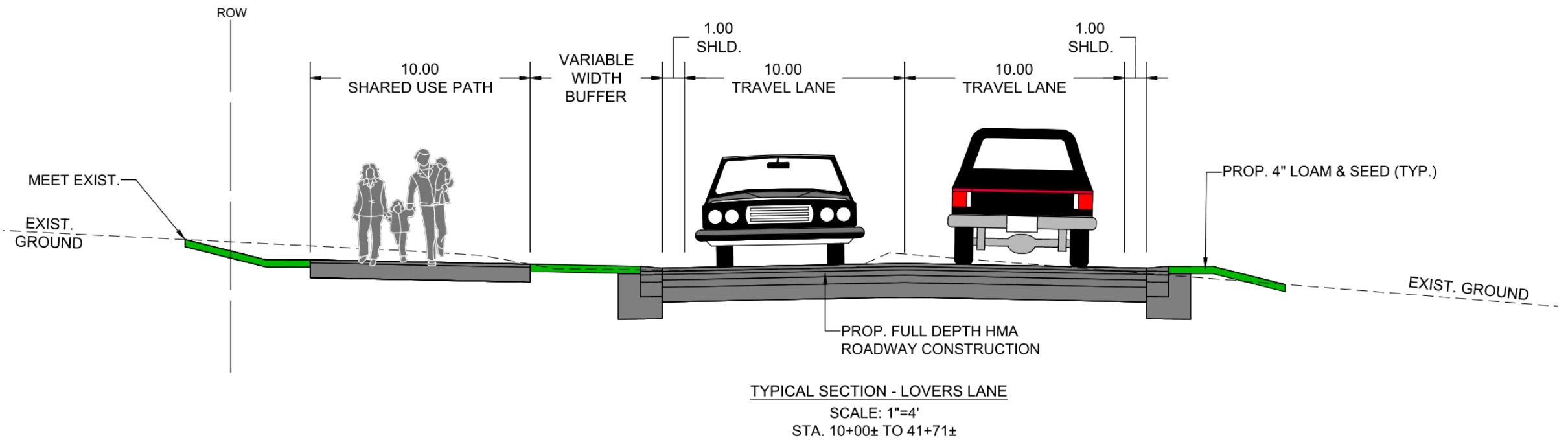
# PROJECT STATUS



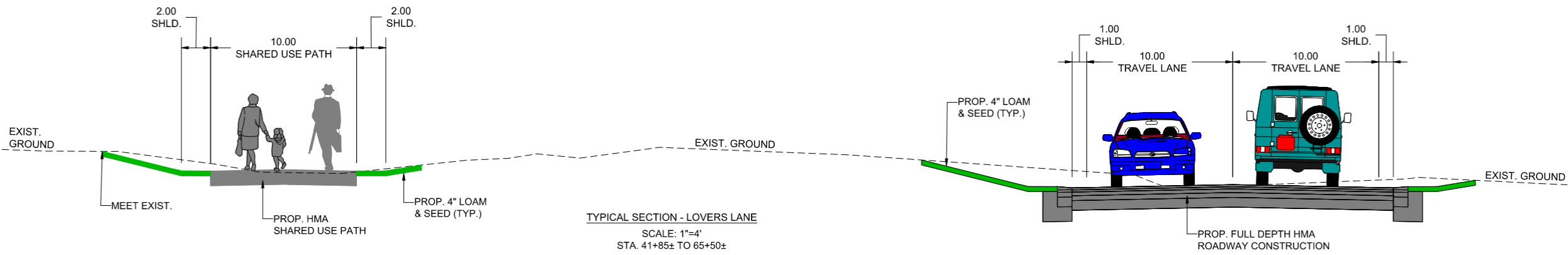
Preliminary Design

LOVERS LANE  
NANTUCKET, MA





# PROJECT STATUS



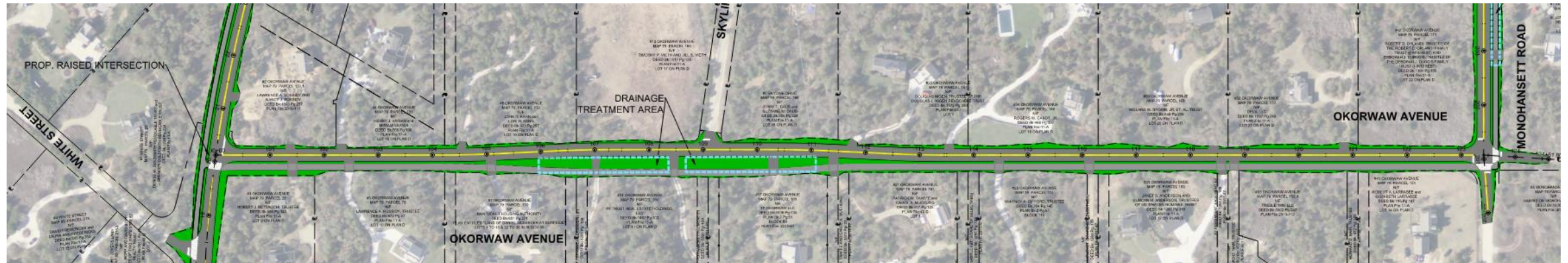


Lovers Lane - Before



Lovers Lane - After

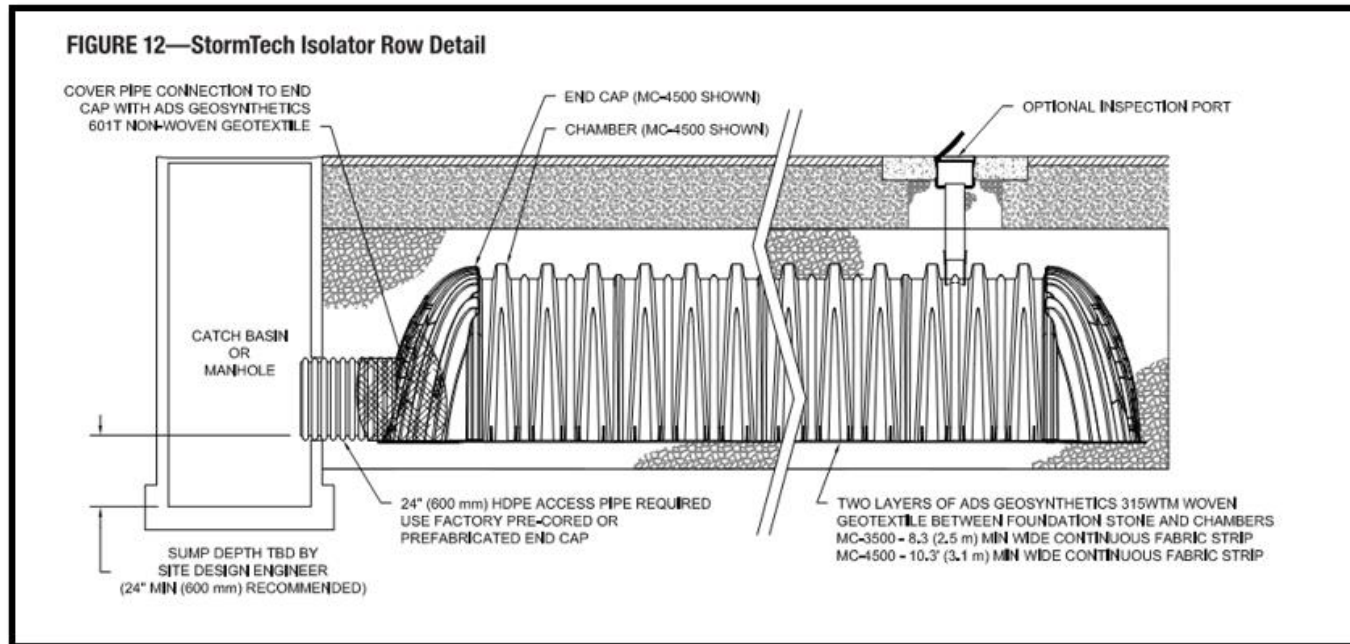
## Conceptual Design of Okorwaw Ave



## Conceptual Design of Monohansett Road



## Drainage — Infiltration Chamber System



## Drainage – Infiltration Chamber System



### Drainage – Infiltration Chamber System



## Utilities

- Verizon
- National Grid
- Comcast

## Utility Relocation Estimates

<i>Utility</i>	<i>Total</i>	<i>Notes</i>
Verizon	?	Awaiting Response
National Grid	?	Awaiting Response
Comcast	\$ 90,510.00	\$48,860 if trench shared work with Ngrid



## Permitting

- **DCR Construction Access Permit**
  - **Requires a Maintenance Agreement between the Town and DCR**
- **MESA — Massachusetts Endangered Species Act**
- **MHC — Massachusetts Historical Commission**

## Right of Way Impacts

- **Temporary Easements for Construction — 3**
- **Permanent Easements — 5**
- **DCR Construction Access Permit**

## Construction Cost Estimates

### Okorwaw Ave

<b>Conceptual Estimate</b>	<b>\$2,350,000.00 - \$2,875,000.00</b>
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### Monohansett Road

<b>Conceptual Estimate</b>	<b>\$4,000,000.00 - \$4,830,000.00</b>
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### Lovers Lane

<b>Preliminary Design Estimate</b>	<b>\$6,000,000.00 - \$6,500,000.00</b>
<b>Utilities</b>	<b>\$140,000.00 - \$280,000.00</b>
<b>Design Contingency</b>	<b>\$600,000.00 - \$1,300,000.00</b>
	<b>\$6,740,000.00 - \$8,080,000.00</b>

## Escalation Factor 2018 - 2022

Escalation Factor 2018 - 2022														
Item			Annual Cost					Annual Growth Factor						
No.	Name	Unit	2018	2019	2020	2021	2022	2018 Growth Factor	2019 Growth Factor	2020 Growth Factor	2021 Growth Factor	2022 Growth Factor	Average Growth Factor	Total Growth Factor (5yrs)
120	Earth Excavation	CY	\$30.00	\$35.00	\$35.00	\$40.00	\$42.50	2%	17%	0%	14%	6%	8%	42%
120.1	Unclassified Excavation	CY	\$32.00	\$35.47	\$42.00	\$49.00	\$90.00	0%	11%	18%	17%	84%	26%	181%
151	Gravel Borrow	CY	\$45.00	\$45.00	\$46.00	\$50.00	\$56.00	16%	0%	2%	9%	12%	8%	24%
156	Crushed Stone	TON	\$45.00	\$50.00	\$50.00	\$52.00	\$54.00	13%	11%	0%	4%	4%	6%	20%
201	Catch Basin	EA	\$3,500.00	\$3,900.00	\$4,250.00	\$4,500.00	\$4,950.00	0%	11%	9%	6%	10%	7%	41%
202	Manhole	EA	\$3,800.00	\$4,200.00	\$4,750.00	\$5,000.00	\$5,900.00	3%	11%	13%	5%	18%	10%	55%
221	Frame and Cover	EA	\$800.00	\$875.00	\$900.00	\$925.00	\$1,000.00	5%	9%	3%	3%	8%	6%	25%
222.1	Frame and Grate - MassDot Cascade Type	EA	\$876.00	\$950.00	\$987.50	\$1,000.00	\$1,165.00	3%	8%	4%	1%	17%	7%	33%
241.12	12 Inch Reinforced Concrete Pipe Class III	FT	\$85.00	\$100.00	\$100.00	\$100.00	\$117.50	13%	18%	0%	0%	18%	10%	38%
302.12	12 Inch Ductile Iron Water Pipe (Rubber Gasket)	FT	\$100.00	\$120.00	\$166.00	\$175.00	\$210.00	0%	20%	38%	5%	20%	17%	110%
376	Hydrant	EA	\$4,778.00	\$5,600.00	\$5,600.00	\$5,600.00	\$6,500.00	19%	17%	0%	0%	16%	11%	36%
450.231	Superpave Surface Course - 12.5 Polymer (SSC - 12.5)	TON	\$100.00	\$115.00	\$115.00	\$130.00	\$135.00	0%	15%	0%	13%	4%	6%	35%
450.31	Superpave Intermediate Course - 19.0 (SIC - 19.0)	TON	\$100.00	\$128.00	\$129.00	\$130.00	\$130.00	0%	28%	1%	1%	0%	6%	30%
506	Granite Curb Type VB - Straight	FT	\$40.00	\$40.00	\$45.00	\$47.00	\$53.00	5%	0%	13%	4%	13%	7%	33%
620.13	Guardrail, TL-3 (Single Faced)	FT	\$34.00	\$34.00	\$39.00	\$39.00	\$40.50	N/A	0%	15%	0%	4%	5%	19%
701	Cement Concrete Sidewalk	SY	\$65.00	\$65.00	\$70.00	\$75.00	\$78.00	8%	0%	8%	7%	4%	5%	20%
751	Loam for Roadsides	CY	\$55.00	\$55.00	\$60.00	\$60.00	\$72.00	10%	0%	9%	0%	20%	8%	31%
910	Steel Reinforcement for Structures	LB	\$4.00	\$4.00	\$4.60	\$9.50	\$5.50	0%	0%	15%	107%	-42%	16%	38%
983.1	Riprap	TON	\$62.50	\$80.00	\$80.00	\$100.00	\$125.00	0%	28%	0%	25%	25%	16%	100%

Red = Decrease

Green = Increase

## Overall Growth Factor 2018 - 2022

Average Growth Factor per year	Total Growth Factor (5yrs)
8%	42%
26%	181%
8%	24%
6%	20%
7%	41%
10%	55%
6%	25%
7%	33%
10%	38%
17%	110%
11%	36%
6%	35%
6%	30%
7%	33%
5%	19%
5%	20%
8%	31%
16%	38%
16%	100%

<b>MassDOT Itemized Average Growth Factor (5 yrs)</b>	<b>30% - 40%</b>
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**A phased approach to the construction of Lovers Lane.**

**Three phases of construction could be advertised as individual projects.**

- **DCR Trail**
- **Stormwater Infiltration System**
- **Roadway Reconstruction**

<b>Lovers Lane Construction Phasing</b>	
<b>Construction of DCR Trail</b>	<b>\$500,000 - \$600,000</b>
<b>Installation of Three Stormwater Infiltration Systems</b>	<b>\$1,250,000 - \$1,500,000</b>
<b>Roadway Reconstruction, Multi-Use Path, Storm Drain Structures &amp; Pipes, Utility Relocation</b>	<b>\$5,000,000 - \$6,000,000</b>

## **Lovers Lane Preliminary Design**

- **Submitted November 2021**
- **Awaiting Comments and Direction**

## **DCR Permitting**

- **Awaiting approved Maintenance Agreement**
- **Finalize Access Permit Process**

## **Environmental Permitting**

- **Finalize submission to MESA and MHC**