

TABLE 1 Initial Alternatives Analysis Town Link Trail State Park Road Layout Options

OPTION	DESCRIPTION	DISPOSITION	FINAL DESIGNATION
No Action	Continuation of the current arrangement with walkers and bicyclistst using the shoulders of State Park Road	Kept	
OVERALL TRAIL			
1. Adjacent to the road	Trail located directly next to the road with no separation	Deleted - safety concerns, poor aesthtics, difficult winter use due to plowed snow	
2. Four-foot average separation from the road	Trail located approximately four feet away from the road with a grassed area between the trail and the road	Kept	Option A
3. Ten-foot average separation from the road	Trail located approximately ten feet away from the road with grass, shrubs and trees in the area between the trail and the road	Eliminated - too many trees removed, similar to other options	Option B
4. Outer edge of ROW or available easements	Trail located as far as possible from the road, lying at the outer edges of the right-of-way and the available easements	Deleted - unacceptable wetland and wildlife impcats	
5. Variable separation from the road	Trail located at avariable distances from the road to avoid wetland impacts and create a winding trail	Kept	Option B
WETLAND CROSSING			
a. Boardwalk	Eight- to ten-foot wide oardwalk approximately one foot above the wetland	Kept	Option B
b. Bridge - single span	Prefabricated bridge reaching from one side of the wetland to the other	Deleted - distance too large for single crossing	
c. Bridge - multiple spans in middle of easement	Three prefabricated bridges used to cross the wetland	Kept	Option B1
d. Bridge - multiple spans at edge of wetland	Three prefabricated bridges used to cross the wetland	Kept	Option B2
e. Fill	Solid surface for trail created by adding fill to the wetland ten feet wide	Deleted - unacceptable wildlife impacts; difficult to obtain permit	

TABLE 2a: Alternatives Analysis
Town of Charlotte, Vermont
Town Link Trail: State Park Road Detailed Layout
October 23, 2018

	M&TM Trail to Vineyard View		
	No Action	Option A Closer to Road	Option B Away from Road
Project Description			
Length	0	515 ft	515 ft
Average Width	0	10 ft	10 ft
Length of Boardwalk	0	0	0
Length of Fill	0	0	0
Width of Fill	0	0	0
Area of Wetland Dist.	0	0	0
Area of Buffer Dist.	0	0	0
Avg. Distance from Road	0	4 ft	5ft - 10ft
Number of Trees Removed	0	0	0
Length of Narrow Section	0	0	0
Length of Retaining Wall	0	0	0
Average Height of Retaining Wall	0	0	0
Number of New Culverts	0	0	0
Number of Extended Culverts	0	2	0
Drainage Ditch Modification	0	50 ft	0
Construction Easements	0	0	1
Significant Physical Constraints	None	Driveway crossings with drainage ditch	Driveway crossing and trees
Environmental/Cultural Impacts			
Tree Disturbance	No	Removal of invasive and unhealthy trees	Removal of invasive and unhealthy trees
Visual Impacts to Road	No	Removal of some vegetation close to road	Removal of some vegetation close to the road
Watercourse Impacts	No	No	No
Steep Slope Disturbance	No	No	No
Habitat Impacts	No	No	No
Land Use Impacts	No	No	No
Wildlife Movement Impacts	No	No	No
Rainwater Runoff Modifications	No	Minimal	Minimal
Drainage Ditch & Storm Water Structure Disturbance	No	Drainage ditch covered and placed in culvert	No
Construction Impacts		Minimal	Minimal
Utility Impacts	None	None	None
Easement Impacts	No	No	Requires relocating private fence close to Vineyard View
Project Attributes			
Meets Purpose and Need Statement by Itself	No	Yes	Yes
Types of Users Served	Brave walkers and advance bicyclists	All walkers and bicyclists	All walkers and bicyclists
Safety Considerations	Typical on-road safety for walkers and bicyclists	Four-foot separation from State Park Road - grass and space are barriers between vehicles and users	Five-foot or greater separation from State Park Road - grass, shrubs, trees, and space are barriers between vehicles and users
Users' Experience	Typical on-road safety for walkers and bicyclists	Relative proximity to road reduces enjoyment for users	Greater separation from road for portions increases enjoyment for users
Required Permits	None	Town	Town
Special Maintenance Considerations	Nothing new or different	Close to road - might get covered with plowed snow	Close to road sections might get covered with plowed snow
Order of Magnitude Cost	\$0	\$17,250	\$15,500
Positive Considerations			
Negative Considerations			
Neutral			

TABLE 2b: Alternatives Analysis
Town of Charlotte, Vermont
Town Link Trail: State Park Road Detailed Layout
October 23, 2018

	Vineyard View to Four Meadows Farm			
	No Action	Option A Closer to Road	Option B Away from Road	Option B1 At Edge of Wetland - Boardwalk or Bridge
Project Description				
Length	0	695 ft	715 ft	715 ft
Average Width	0	8 ft	8 ft	8 ft
Length of Boardwalk	0	0	210 ft	190 ft
Length of Fill	0	50 ft	0	0
Width of Fill	0	5 ft	0	0
Area of Wetland Dist.	0	250 sq ft	2,525 sq ft	2,525 sq ft
Area of Buffer Dist.	0	1,035 sq ft	1,500 sq ft	1,500 sq ft
Avg. Distance from Road	0	4 ft	45 ft	45 ft
Number of Trees Removed	0	Up to 5	0	Up to 3
Length of Narrow Section	0	90 ft	0	0
Length of Retaining Wall	0	50 ft	200 ft	200 ft
Average Height of Retaining Wall	0	6 ft	3 ft	3 ft
Number of New Culverts	0	1	0	0
Number of Extended Culverts	0	0	0	0
Drainage Ditch Modification	0	90 ft	0	0
Construction Easements	0	0	1	1
Significant Physical Constraints	None	Narrow shoulder with adjacent slope to wetland	Wetland, Thorpe Brook, and slopes on either side	Wetland, Thorpe Brook and slopes on either side
Environmental/Cultural Impacts				
Tree Disturbance	No	Potential for removal of up to four large willows and one white pine as well as invasive species and unhealthy trees	Removal of invasive and unhealthy trees	Removal of up to three identified trees and invasive and unhealthy trees
Visual Impacts to Road	No	Some removal of trees and shrubs along edge of road, widening the roadway space between trees on either side of the road	Minimal	Some removal of trees close to tree row along edge of road, with slight modification of tree cover at edge of the road; Slightly more impacts with bridge installation
Watercourse Impacts	No	No	Boardwalk covers and shades stream	Boardwalk covers and shades trees; Bridge covers and minimally shades stream from a higher elevation
Steep Slope Disturbance	No	Trail covers existing steep slope at the edge of roadway fill	Path traverses small areas of steep slopes with descent to wetland area	Path cuts across steep slope with descent to wetland area
Habitat Impacts	No	Minimal	Path cuts through wetland area with some loss of habitat area	Path cuts along the edge of the wetland area with minor loss of habitat area
Land Use Impacts	No	No	No	No
Wildlife Movement Impacts	No	Potential blocking of wildlife passage across road by people and pets using trail	Boardwalk, path, and presence of people and pets could block or disturb wildlife movement along Thorpe Brook	Boardwalk or bridge and presence of people and pets could block or disturb wildlife movement along Thorpe Brook
Rainwater Runoff Modifications	No	Minimal	Minimal	Minimal
Drainage Ditch & Storm Water Structure Disturbance	No	Drainage ditch covered and placed in culvert	No	No
Construction Impacts		Some disturbance to slopes adjacent to wetland while constructing retaining walls	Disturbance to wetland while constructing boardwalk and disturbance to slopes in buffer while cutting in trail	Disturbance to wetland while constructing bridge or boardwalk foundation (greater for boardwalk), clearance of trees for bridge installation and disturbance to slopes in buffer while cutting in trail
Utility Impacts	None	None	None	None
Easement Impacts	No	No	No	No
Project Attributes				
Meets Purpose and Need Statement by Itself	No	Yes	Yes	Yes
Types of Users Served	Brave walkers and advance bicyclists	All walkers and bicyclists	All walkers and bicyclists	All walkers and bicyclists
Safety Considerations	Typical on-road safety for walkers and bicyclists	Four-foot separation from State Park Road - grass and space are barriers between vehicles and users	Five-foot or greater separation from State Park Road - grass, shrubs, trees, and space are barriers between vehicles and users	Five-foot or greater separation from State Park Road - grass, shrubs, and trees, and space are barriers between vehicles and users
Users' Experience	Typical on-road safety for walkers and bicyclists	Relative proximity to road reduces enjoyment for users	Greater separation from the road and crossing the wetland increase enjoyment for users	Greater separation from the road and crossing the wetland increase enjoyment for users
Required Permits	None	Town, State Wetland,	Town, State Wetland, Stream Disturbance	Town, State Wetland, Stream Disturbance
Special Maintenance Considerations	Nothing new or different	Close to road - might get covered with plowed snow	Boardwalk will require additional maintenance	Boardwalk or bridge will require additional maintenance
Order of Magnitude Cost	\$0	\$100,000	\$365,000 Boardwalk	\$340,000 Boardwalk
Positive Considerations			\$415,000 Bridge	\$415,000 Bridge
Negative Considerations				
Neutral				

TABLE 2c: Alternatives Analysis
Town of Charlotte, Vermont
Town Link Trail: State Park Road Detailed Layout
October 23, 2018

	Four Meadows Farm to Mt.Philo Road		
	No Action	Option A Closer to Road	Option B Away from Road
Project Description			
Length	0	1,450 ft	1,465 ft
Average Width	0	10	10
Length of Boardwalk	0	0	0
Length of Fill	0	350 ft	60 ft
Width of Fill	0	8	10
Area of Wetland Dist.	0	1,275sq ft	5,550 sq ft
Area of Buffer Dist.	0	7,575 sq ft	6,250 sq ft
Avg. Distance from Road	0	4	25
Number of Trees Removed	0	Up to 6	0
Length of Narrow Section	0	400 ft	210
Length of Retaining Wall	0	360 ft	65 ft
Average Height of Retaining Wall	0	6	4
Number of New Culverts	0	0	6
Number of Extended Culverts	0	4	0
Drainage Ditch Modification	0	15 ft	660 ft
Construction Easements	0	0	0
Significant Physical Constraints	None	Narrow shoulder with adjacent slope to wetland and proposed driveway	Wetland and drainage ditch
Environmental/Cultural Impacts			
Tree Disturbance	No	The need to expand shoulder could remove trees	Removal of invasive and unhealthy trees
Visual Impacts to Road	No	Some removal of trees and shrubs along edge of road, widening the roadway space between trees on either side of the road	Minimal
Watercourse Impacts	No	No	No
Steep Slope Disturbance	No	Trail covers existing steep slope at the edge of roadway fill	No
Habitat Impacts	No	Minimal	Minimal
Land Use Impacts	No	Path near future paddocks	Path near future paddocks
Wildlife Movement Impacts	No	No	No
Rainwater Runoff Modifications	No	Minimal	Minimal
Drainage Ditch & Storm Water Structure Disturbance	No	Culvert extensions	Covers much of drainage ditch, placing rainwater in culverts
Construction Impacts		Disturbance to wetland edges and buffers	Disturbance to wetland and buffers
Utility Impacts	None	None	None
Easement Impacts	No	No	Alignment relies on easement not yet finalized
Project Attributes			
Meets Purpose and Need Statement by Itself	No	Yes	Yes
Types of Users Served	Brave walkers and advance bicyclists	All walkers and bicyclists	All walkers and bicyclists
Safety Considerations	Typical on-road safety for walkers and bicyclists	Four-foot separation from State Park Road - grass and space are barriers between vehicles and users	Eight-foot or greater separation from State Park Road - grass, shrubs, trees and space are barriers between vehicles and users
Users' Experience	Typical on-road safety for walkers and bicyclists	Relative proximity to road reduces enjoyment for users	Greater separation from the road increase enjoyment for users
Required Permits	None	Town, State Wetland,	Town, State Wetland
Special Maintenance Considerations	Nothing new or different	Close to road - might get covered with plowed snow	Close to road sections might get covered with plowed snow
Order of Magnitude Cost	\$0	\$675,000	\$160,000
Positive Considerations			
Negative Considerations			
Neutral			