



## NAPA VALLEY TRANSPORTATION AUTHORITY TAC Agenda Letter

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**TO:** Technical Advisory Committee (TAC)  
**FROM** Kate Miller, Executive Director  
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**SUBJECT:** Measure T 6.67% Equivalent Funds Project List Review and Definition of Maintenance

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### **RECOMMENDATION**

That the TAC acknowledge recommended guidelines that would qualify the 6.67% Measure T Equivalent Funds for Class I facilities to be used for minor and major maintenance tasks; and not routine maintenance, as defined by the NVTA Trail Maintenance Guidelines.

### **EXECUTIVE SUMMARY**

Measure T is a ½ cent sales tax approved by Napa County voters in 2012 to fund local streets and road rehabilitation. Among other things, the Ordinance created an Independent Taxpayer Oversight Committee (ITOC) appointed by the NVTA-TA board. Measure T Ordinance mandates that the ITOC review each jurisdiction's minimum maintenance of effort, and 5-year project list.

The ITOC's official first meeting will be on Wednesday, April 4<sup>th</sup> at 2:00 p.m. The 5-year project list will include proposed projects for each jurisdiction funded by Measure T. At the ITOC meeting, NVTA staff recommends that the jurisdictions provide a draft Measure T Equivalent project list to demonstrate how they will collectively meet the 6.67% Class 1 equivalent requirement of the Ordinance.

### **FISCAL IMPACT**

Is there a fiscal impact? No

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## **BACKGROUND AND DISCUSSION**

On November 6, 2012, the voters in Napa County approved Measure T, the Napa Countywide Road Maintenance Act. Measure T is a ½% sales tax expected to generate over \$400 million over a 25-year period beginning July 1, 2018, when the Measure A Flood Tax expires. Measure T is to be used for the rehabilitation of local streets and roads.

In order for jurisdictions to receive Measure T revenues, jurisdictions collectively must demonstrate that at least 6.67% of the amount (henceforth referred to as “Measure T Equivalent”) of Measure T revenues received each year is being committed to Class I facilities identified in the adopted Countywide Bicycle Plan/Active Transportation Plan, using funds not derived from the Measure T Ordinance.

Specifically, the Ordinance states:

*Once this measure becomes operative, in order to receive annual allocations under this measure, the Agencies (collectively) must demonstrate that at least six and sixty-seven one-hundredths percent (6.67%) of the value of the allocations each year under Section 3(A) has been committed to Class I Bike lane project(s) identified in the adopted Countywide Bicycle Plan, as the Plan may be amended from time to time, through funding not derived from this Ordinance.*

This can be accomplished by jurisdictions showing that they have collectively set aside funds in their budgets to meet the requirement and/or NVTa has programmed eligible funding sources towards Class 1 facilities or by stipulating specific projects. Since Measure T projects will be approved on a five-year rolling basis it is proposed that the Measure T Equivalent projects also be identified on a five-year basis to simplify the process.

For the first five years of the ordinance, July 1, 2018 through July 1, 2023, the approximate dollar amount for Measure T Equivalent Projects would be \$5,336,000. This estimate is based on a \$16 million per year revenue projection. It should be noted that this amount may vary from year to year and adjustments to the Measure T Equivalent may result in additional obligations by the jurisdictions. Staff has determined that Measure T Equivalent commitments can be any capital improvement to Class I facilities identified in the Countywide Bike Plan/Pedestrian Plan including maintenance and rehabilitation of a facility.

Under Section 26 the Ordinance also states:

*Maintenance means repair, reconstruction or rehabilitation, and/or replacement of streets, roadways, and other infrastructure within the public right-of-way.*

It is by this definition of *Maintenance* that NVTa staff considers routine maintenance not to be an eligible use of Measure T and Equivalent Funds.

Staff has identified a draft list of projects that can be counted toward meeting this commitment as follows:

<b>Project Title</b>	<b>Agency</b>	<b>Measure T Equivalent Amount</b>	<b>Year</b>	<b>Fund Source</b>	<b>Total Project Amount</b>
SR 29 Undercrossing	City of Napa	\$161,000	18/19	TFCA	\$742,000
Devlin Road Segment E	County of Napa	\$1,200,000	18/19	Local funds	\$5,000,000
Devlin Road Segment H	American Canyon	\$570,000	18/19	STIP	\$5,368,000
Vine Trail Soscol Gap Closure	City of Napa	\$750,000	19/20	PCA- STP	\$750,000
Green Island Road Vine Trail Segment	American Canyon	\$1,000,000	19/20	OBAG 2 - STP	\$1,250,000
Vine Trail Calistoga to St. Helena	County of Napa/ St. Helena/ Calistoga	\$450,000	20/21	Local Funds	\$9,917,000
Bothe Park segment of Vine Trail Calistoga to St. Helena.	NVTA	\$711,000	20/21	PCA STP	\$9,917,000
Vine Trail Calistoga to St. Helena	NVTA	\$200,000	20/21	TFCA	\$9,917,000
Vine Trail Crack-Seal and Micro Surface	Yountville	\$100,000	20/21	Local funds	\$100,000
Sierra Avenue Extension	City of Napa	\$50,000	18/19	Local Funds	\$900,000
Main St. Exchange Pedestrian Bridge	City of Napa	\$258,000	18/19	Local Funds	\$425,000
Kohl's Parking Lot Multi-use Path	City of Napa	\$50,000	18/19	Local Funds	\$550,000
<b>Total</b>		<b>\$5,500,000</b>			

\*In addition to the above list of projects the City of Napa has set-aside \$2,401,200 in Measure T equivalent funds in their budget for FY 18/19 and 19/20 if needed. These additional funds should bring the jurisdictions in compliance with the Measure T equivalent requirement for the first five years if other projects are not brought forward by the jurisdictions.

It will be required under the semi-annual Measure T Progress Report that jurisdictions provide updates on their Measure T Equivalent Projects. NVTA will also provide

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Measure T equivalent project updates in the Annual Report and the Monthly Project Reports that go to the TAC to ensure the jurisdictions are in compliance with the requirement.

Next steps:

Municipalities are to review the above project list and ensure that projects are compliant to meet the Measure T Equivalent requirement, meaning the projects are Class I facilities identified in the Countywide Bicycle Plan/Pedestrian Plan (or will be included in the upcoming iteration of the Countywide Bicycle Plan). Jurisdictions should also review Capital Improvement Programs and project lists (including maintenance and rehabilitation of class I facilities) and continue to submit potential projects to NVTa.

### **SUPPORTING DOCUMENTS**

Attachment(s): (1) NVTa Class I Maintenance Guidelines  
(2) Multi-Use Path Class I Definition in Napa County Bicycle Plan Toolkit

## Trail Operation, Maintenance and Management

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### Maintenance

The maintenance of a Class 1 path or trail includes the various activities involved in keeping the trail in a safe, usable condition. This includes numerous efforts ranging from mowing and brush removal to replacement of damaged signs or benches to reconstruction of the trail. Lifetime trail maintenance will place ongoing costs on the operating agency, and this should be considered during the trail planning and funding process.

These maintenance guidelines outline specific tasks that need to be performed for the trail operation and maintenance. The guidelines should be updated as needed and should be used as a guide to administer the trail as an on-going process. The trail maintenance guidelines should address the uniqueness of each route relative to its particular surfacing, signage, railings, trash removal, tree and shrub pruning, mowing of vegetation and edging, drainage control and re-vegetation needs. Several of the issues that need to be addressed on a scheduled or as-needed basis include the following:

#### *Performed on a Scheduled Basis*

**Trail user safety.** Safety is essential to all maintenance operations and is the single most important trail maintenance concern. Items for consideration include scheduling and documentation of inspections, the condition of railings, bridges and trail surfaces, proper and adequate signage, removal of debris, and coordination with others who may be associated with trail maintenance.

**Trail inspection.** Trail inspections are also an integral task to all trail maintenance operations. Inspections should occur on a regularly scheduled basis, the frequency of which will depend on the amount of trail use, location, age, and the type of construction. It is recommended that all trail inspections be documented.

**Trail sweeping.** Trail sweeping is one of the most important aspects of trail maintenance, helping ensure trail user safety. The type of sweeping to be performed depends on trail design and location. Sweeping should be performed on a regular schedule.

**Trash removal.** Trash removal from trail corridors is important from both a safety and an aesthetic viewpoint and includes the removal of ground debris and emptying of trash containers. Trash removal should take place on a regularly scheduled basis, the frequency of which will depend on trail use and location.

**Tree and shrub pruning.** Tree and shrub pruning should be performed for the safety of trail users. Pruning should be performed to established specifications on a scheduled and as-needed basis.

**Mowing of vegetation.** Trail maintenance personnel should mow vegetation along trail corridors on a scheduled basis.

**Scheduling maintenance tasks.** Inspections, maintenance and repair of trail-related concerns should be regularly scheduled. Inspection and repair priorities should be dictated by trail use, location, and design. Scheduling maintenance tasks is a key item towards the goal of consistently clean and safe trails.

### *Performed on an As-Needed Basis*

**Trail Repair.** Repair of asphalt or concrete should be closely tied to the inspection schedule. Setting priorities for repairs is part of the process. The time between observation and repair of a trail will depend on whether the needed repair is deemed a hazard, to what degree the needed repair will affect the safety of the trail user, and whether the needed repair can be performed by the a maintenance crew or if it is so extensive that it needs to be repaired by contracted services.

**Trail Replacement.** The decision to replace a trail and the type of replacement depends on many factors. These factors include the age of the trail and the money available for replacement. Replacement involves an asphalt overlay or replacement of an asphalt trail with a concrete trail.

**Weed Control.** Weed control along trails can be limited to areas in which certain weeds create a hazard to users. Environmentally safe weed removal methods should be used, especially along waterways.

**Trail Edging.** Trail edging maintains trail width and improves drainage. Problem areas include trail edges where berms tend to build up and where uphill slopes erode onto the trails. Removal of this material will allow proper draining of the trail surface, allow the flowing action of the water to clean the trail and limit standing water on trail surfaces.

**Trail Drainage Control.** In places where low spots on the trail catch water, trail surfaces should be raised, or drains built, to carry water away. Some trail drainage control can be achieved through the proper edging of trails. If trail drainage is corrected near steep slopes, the possibility of erosion must be considered.

**Trail Signage.** Trail signs fall into two categories: safety and information. Trail users should be informed of their location, where they are going, and how to safely use trails. Signs related to safety are most important, thus they should receive the highest priority. Information signage can enhance the trail users experience. A system of trail information signage should also be a high priority.

**Re-vegetation.** Areas adjacent to trails that have been disturbed for any reason should be re-vegetated to minimize erosion.

**Habitat Enhancement and Control.** Habitat enhancement is achieved by planting vegetation along trails - mainly trees and shrubs. This can improve the aesthetics of the trail, help prevent erosion and provide habitat for wildlife. Habitat control also involves mitigation of damage caused by wildlife.

## Maintenance Types

Maintenance can be viewed as three different types:

- *Routine maintenance* includes all the general activities stated earlier -- such as brush clearing, trash collection, and sweeping — that may take place on a regular basis throughout a season.
- *Minor Repairs* refer to activities that can be expected every five years or so, such as amenity replacement, trail seal-coating, repainting, or restriping.
- *Major Reconstruction* refers to significant expenditures involving resurfacing or reconstruction. These activities are the most costly trail maintenance activities and should be planned for in advance.

### *Routine Maintenance*

An existing agency or a volunteer group should perform most of the routine maintenance procedures of a trail facility. Local trail owners should be well equipped to include trail maintenance into their parks or public works maintenance budgets and activities. Activities that should be considered as routine maintenance include:

- Yearly facility evaluation to determine the need for minor repairs
- Tree/brush clearing
- Mowing
- Trash removal/litter clean-up
- Planting, pruning, and general beautification
- Installation and removal of seasonal signage

The yearly cost for routine maintenance depends on the maintenance capabilities already in place.

### *Minor Repairs*

The need for minor repairs should be determined by a yearly facility evaluation (see routine maintenance above). Minor repairs may include the following activities:

- Replacement, repair, or repainting of trail support amenities, such as restrooms, signage, benches, trash receptacles, or hitching posts
- Replacement of a portion of the trail
- Restriping of trails
- Sealcoating of asphalt
- Repair flood damage: silt clean-up, culvert clean-out, etc.
- Map/signage updates
- Patching, minor regrading, or concrete panel replacement
- Tree Removal

The cost for replacement, repair, or repainting of trail amenities is based on the initial cost of those amenities. Trail operators should maintain records of the general costs of trail amenities as a means of estimating future repair and replacement costs. If custom elements, such as lighting, decorative railings, or benches, are used in trail design, the trail owner should consider ordering extra elements at the time of construction and storing them for future use, thereby defraying the cost of single-runs later.

Replacement of a portion of a trail may be necessary if severe flooding, continual erosion, or weak soils cause periodic difficulties with trail maintenance.

The trail owner should keep a record of the original bid to determine the price of restriping a trail using contracted labor. In many cases, it is cost effective to perform restriping along with other trail or highway maintenance. In such instances, the trail owner itself will be the best source of costing information.

Sealcoating of asphalt trails should take place approximately every five years. This will increase the longevity of the trail and provide a quality riding surface. A periodic cost such as this should be included in the trail owner's Capital Improvement Program, in order to ensure that adequate funding is available.

### *Major Reconstruction*

There are essentially two activities that are considered to be major reconstructions:

- Resurfacing of asphalt trails
- Complete replacement, regrading, and resurfacing of all trails

Asphalt trails will need to be resurfaced approximately every 10 years, depending on how well they have been maintained. A resurfacing typically involves placing an asphalt overlay on an existing asphalt surface in order to erase cracks and bumps. It is not a perfect solution, as weak underlying soils or tree root penetration will eventually affect this top layer, but it does offer a lower cost means of extending a trail's life.

Complete replacement of a trail involves removing the existing trail, regrading the trail base, and resurfacing the facility. This kind of comprehensive maintenance will be necessary approximately every 20 years, regardless of trail type. Even natural surface trails may need to be fully regraded after 20 years of use. Trail costs for reconstructions are the same as the cost of a new trail plus the cost of demolishing the existing trail. As with any major trail project, however, a detailed cost estimate should be performed during the project planning stages. The best guide for estimating the replacement cost of a trail is to consider the original construction cost.

A major cost such as trail replacement should be considered well in advance. It may be more difficult to secure large state or federal grants for trail reconstruction. Therefore, a trail owner should consider the eventual cost of trail replacement and work to "save up" for that significant maintenance activity.

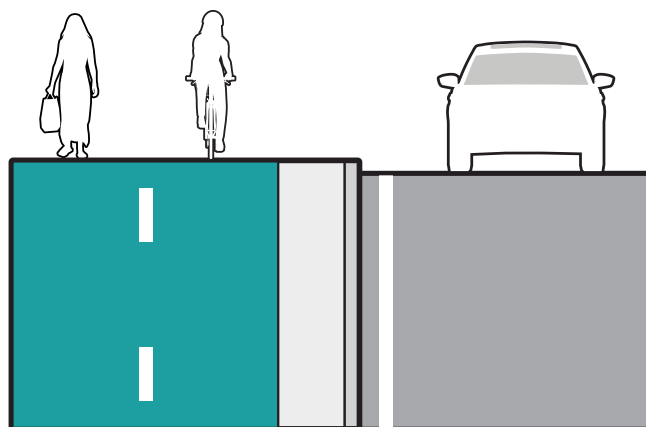


# MULTI-USE PATHS (CLASS I)

A multi-use path is a two-way facility physically separated from motor vehicle traffic and used by bicyclists, pedestrians, and other non-motorized users. Multi-use paths are often located in an independent alignment, such as a greenbelt or abandoned railroad. However, they are also regularly constructed along roadways; often bicyclists and pedestrians will have increased interactions with motor vehicles at driveways and intersections on these “multi-use paths.”

## CONSIDERATIONS

- + According to the AASHTO, “multi-use paths should not be used to preclude on-road bicycle facilities, but rather to supplement a network of on-road bike lanes, shared roadways, bicycle boulevards, and paved shoulders.” In other words, in some situations it may be appropriate to provide an on-road bikeway in addition to a multi-use path along the same roadway.
- + Many people express a strong preference for the separation between bicycle and motor vehicle traffic provided by paths when compared to on-street bikeways. Multi-use paths may be desirable along high-volume or high-speed roadways, where accommodating the targeted type of bicyclist within the roadway in a safe and comfortable way is impractical. However, multi-use paths may present increased conflicts between path users and motor vehicles at intersections and driveway crossings. Conflicts can be reduced by minimizing the number of driveway and street crossings present along a path and otherwise providing high-visibility crossing treatments.
- + Paths typically have a lower design speed for bicyclists than on-street facilities and may not provide appropriate accommodation for more confident bicyclists who desire to travel at greater speeds. Therefore, paths should not be considered a substitute to accommodating more confident bicyclists within the roadway.



## REFERENCES

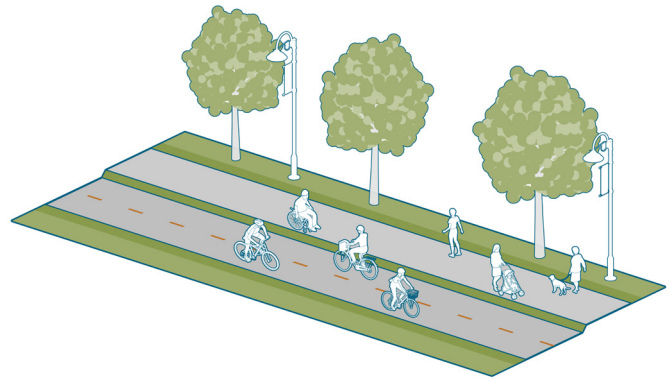
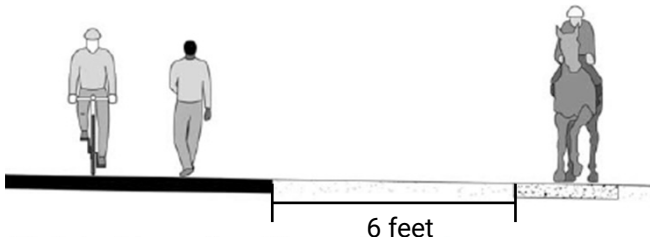
- AASHTO Guide for the Development of Bicycle Facilities (2012)*
- FHWA Shared-Use Path Level of Service Calculator (2006)*
- Manual on Uniform Traffic Control Devices (2009)*

# PATH WIDTH CONSIDERATIONS

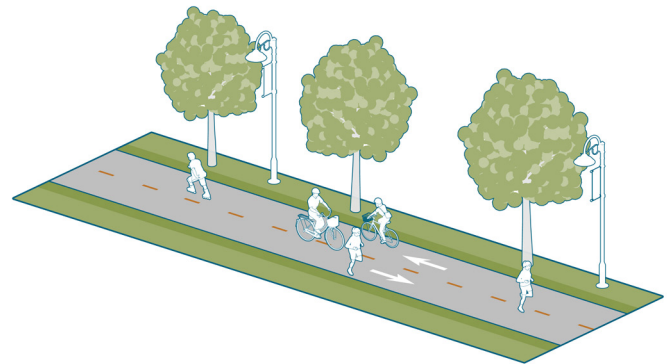
Path width should be determined based on three main characteristics: the number of users, the types of users, and the differences in their speeds. For example, a path that is used by higher-speed bicyclists and children walking to school may experience conflicts due to their difference in speeds. Another example would be when the path is shared by multiple user types such as roller bladers, skateboarders, or dogs on leashes. By widening the path to provide space to accommodate passing movements, conflicts can be reduced.

## CONSIDERATIONS

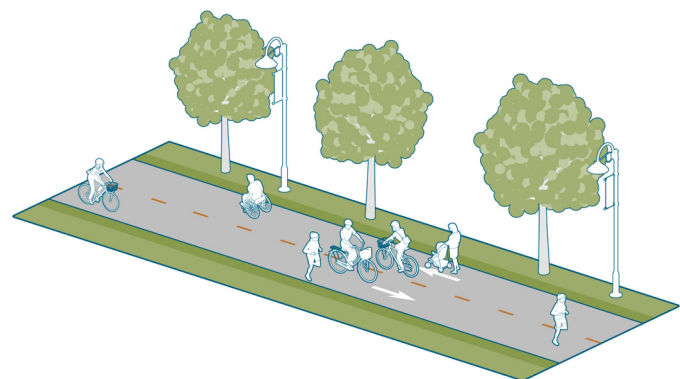
- + The desired width for a path is 15 feet with separate space for pedestrians and bicyclists. The bicycle side of the path should be no less than 10 feet wide and the pedestrian side should be no less than 5 feet wide. This allows for comfortable two way operations and passing.
- + Widths as narrow as 8 feet are acceptable for short distances under physical constraint. Warning signs should be considered at these locations.
- + In locations with heavy volumes or a high proportion of pedestrians, widths exceeding 10 feet are recommended. A minimum of 11 feet is required for users to pass with a user traveling in the other direction. It may be beneficial to separate bicyclists from pedestrians by constructing parallel paths for each mode.
- + Paths must be designed according to state and national standards. This includes establishing a design speed (typically 18 mph) and designing path geometry accordingly. Consult the AASHTO Guide for the Development of Bicycle Facilities for guidance on geometry, clearances, traffic control, railings, drainage, and pavement design.
- + On hard surfaces it can be useful to include soft surface parallel paths which are preferred by some users, such as runners.
- + Path clearances are an important element in path design and reducing user conflicts. Vertical objects close to the path edge can endanger users and reduce the comfortable usable width of the path. Along the path, vertical objects should be set back at least two feet from the edge of the path. Path shoulders may also reduce conflicts by providing space for users who step off the path to rest, allowing users to pass one another, or providing space for viewpoints.
- + When accommodating moderate to high volumes of horse back riders, it is recommended to provide a separated unpaved equestrian/jogger path. Six feet of clearance and separation is recommended between the multi-use path and the bridle path. Elevation change between the multi-use path and the bridle path can also be considered.



*Multi-use path physical separation*



*Path width for one-way passing: minimum 11 feet*



*Path width for two-way passing: minimum 12 feet*

## REFERENCES

- AASHTO Guide for the Development of Bicycle Facilities (2012)
- FHWA Shared-Use Path Level of Service Calculator (2006)
- Manual on Uniform Traffic Control Devices (2009)