North Bayshore Congestion Pricing Feasibility Study

Executive Summary

NOVEMBER 2021

Public Draft

CITY OF MOUNTAIN VIEW

Executive Summary

What is the North Bayshore Congestion Pricing Feasibility Study (NBCPFS)?

The NBCPFS is a **first-phase assessment** of congestion pricing's feasibility to reduce vehicle trips at the district gateways, support economic growth, and incentivize equitable non-auto travel.


Palo Alto
Moffett Field
101
82
85
237
Intuit Campus Area
Shoreline Park
Shoreline Amphitheatre
Garcia Ave
Amphitheatre Pkwy
Charleston Rd
Google Campus Area
N Shoreline Blvd
Microsoft Campus Area
Alma St
San Antonio Rd
San Antonio Station
The Village at San Antonio Center
Middlefield Rd
Rengstorff Ave
Central Expy
Moffett Blvd
Mountain View Station
Legend
Railway
Light Rail Stations
North Bayshore Gateways
Pricing Study Area
Downtown Mountain View Precise Plan Area
City of Mountain View
Miles 0 0.25 0.5
Data Sources: Esri, Microsoft, Mountain View, US Census Bureau. Map created March 2021.

Study Overview

Why do we need to study congestion pricing?

Prior to the COVID-19 pandemic, traffic congestion remained a challenge. Even with significant transportation investments in Mountain View and North Bayshore, many travelers still arrive by single-occupancy vehicle (SOV). The gateways are increasingly congested and traffic volumes are projected to exceed district trip caps.

Substantial growth is coming. In the next 10 to 20 years, roughly 16,000 new employees and 9,850 new housing units are planned for North Bayshore. While the long-term impacts of COVID-19 on commuting remain unknown, this study assumes a "conservative" position, in which employee work patterns approximate pre-pandemic conditions by the end of the next two decades.

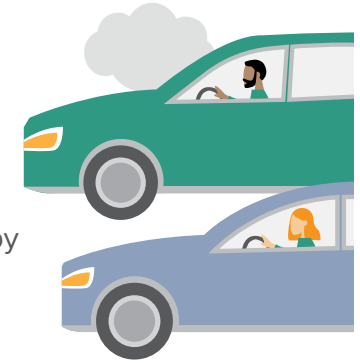
The North Bayshore Precise Plan prioritizes other modal strategies over roadway expansion. North Bayshore must balance roadway expansion with policies that reduce SOV trips and incentivize trips by transit, carpool, biking, and walking.

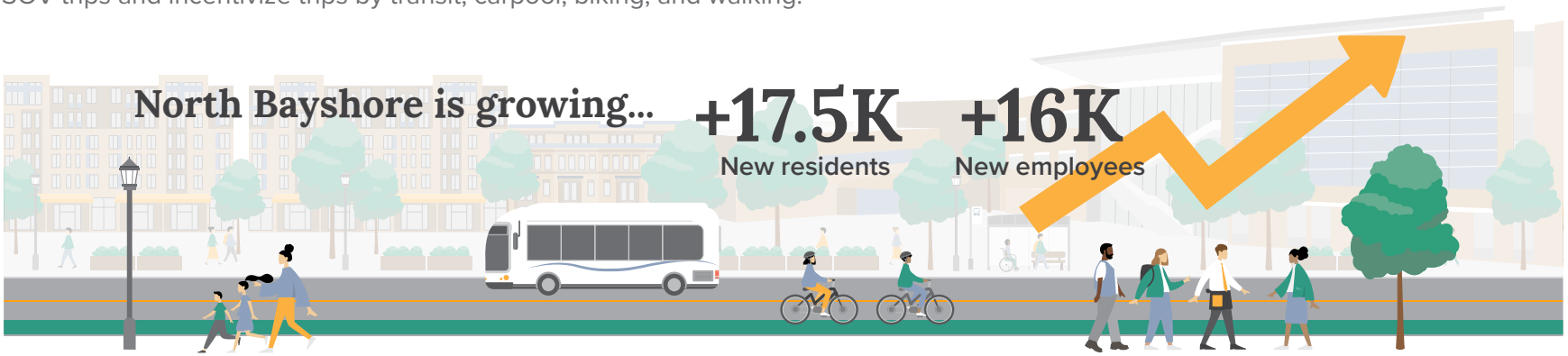
An estimated

57%

arrive by SOV, exceeding the district target by

45%





Congestion Pricing Basics

What is congestion pricing?

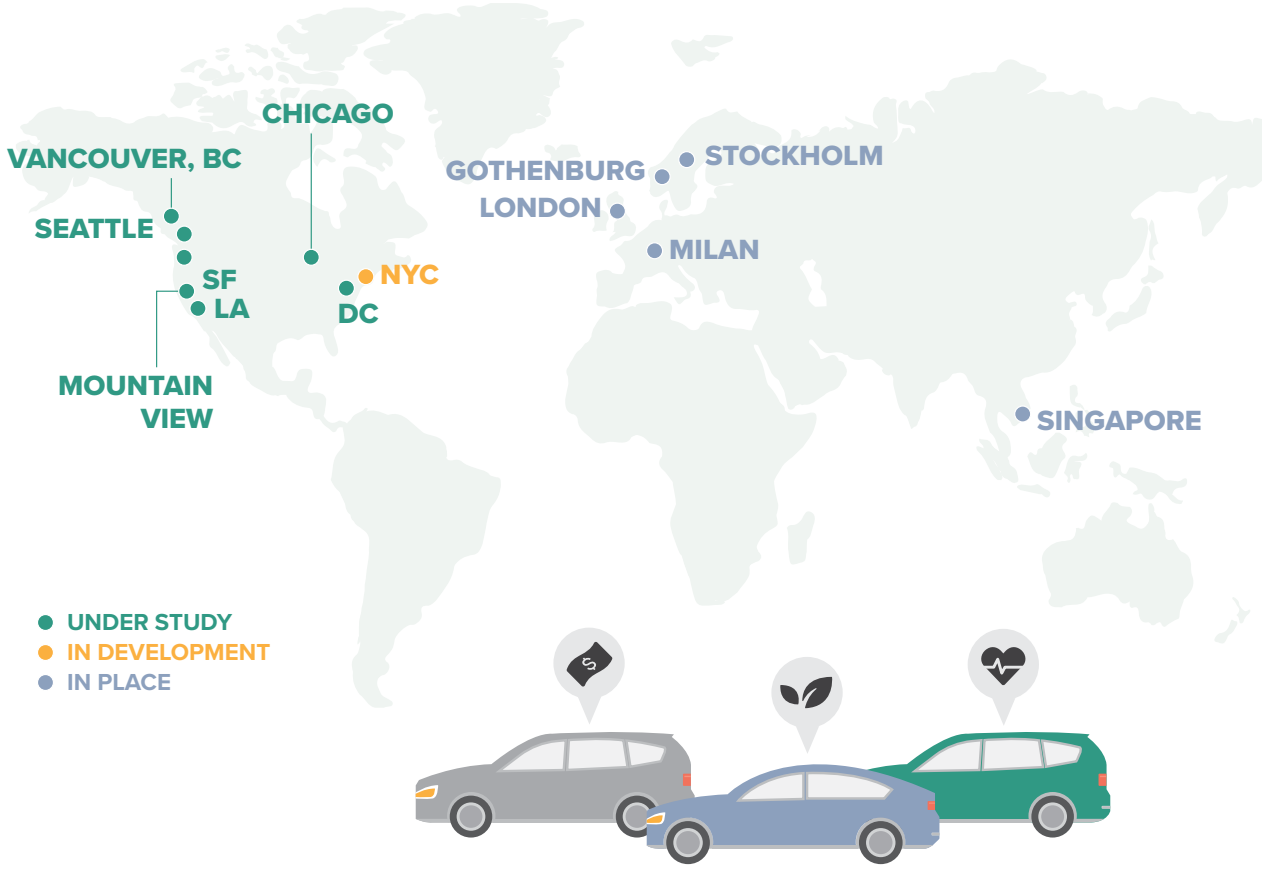
Congestion pricing is a traffic reduction tool that establishes a fee for driving into or within specific areas during the most congested times of day. It has several forms:

Cordon: Vehicles pay a fee when they *cross a boundary* into or out of a specific zone.

Area: Vehicles pay a fee for driving *inside or within* a specific zone.

Corridor/roadway pricing: Vehicles pay a fee to use a *designated segment* of a roadway.

No cordon or area pricing program exists in the U.S., but many studies are underway.



Study Process and Goals

Based on stakeholder input, **four goals** were developed to guide the feasibility study and future phases of work.

Reduce congestion

Prioritize equity

Promote health and environment

Support economic development

The **study had five phases** – the study team assessed baseline conditions, defined program goals and key performance indicators, filtered program ideas, analyzed program scenarios, and identified the most feasible program and implementation approach.

The study team identified and conducted preliminary outreach to stakeholders, including residents, local business owners, parks and recreation representatives, large employers, affordable housing developers, and regional agency staff.

1

Goal-setting

Winter/Spring 2021

Baseline data collection, identification of key stakeholders in North Bayshore, and the development of congestion pricing program goals.

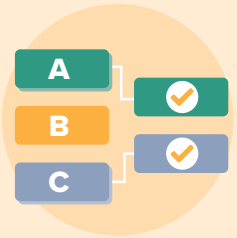
2

Brainstorm

Summer 2021

Review of best practices and lessons learned from peer congestion pricing programs and studies. We also developed four congestion pricing scenarios for North Bayshore, based on a pre-screening of appropriate program elements.

3



Analysis

Fall 2021

Included the technical work to evaluate the four scenarios against study goals, assess the feasibility of congestion pricing in North Bayshore, and identify a recommended scenario.

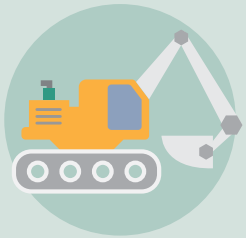
4

Document

Winter 2021

Documentation of the study's work to date, recommendations, and implementation roadmap.

5



Next Steps

2021 & Beyond

If the City of Mountain View decides to implement congestion pricing, additional work will need to be accomplished before a pricing system could become operational.

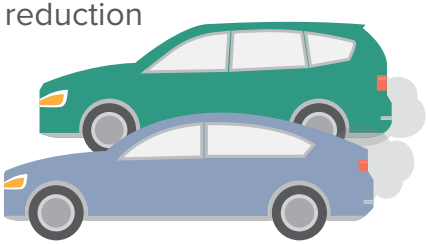
Defining a Suitable Program

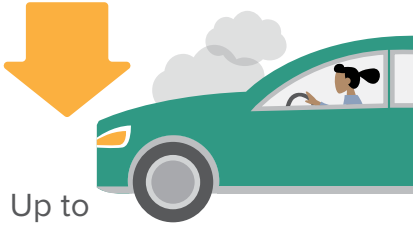
The study team assessed four scenarios for a pricing program, testing different program rules around who, when, where, and how much to charge. Through a mix of quantitative and qualitative analysis, certain policies and program rules were identified as **the most supportive of the study goals and the most feasible to implement.**

What type of pricing program?	**Cordon Pricing**
Where would drivers be charged?	**Driving into North Bayshore, through the three gateways**
What type of pricing program?	**Weekdays, 8 a.m. – 11 a.m.**
How much would the charge be?	**A charge of $5 to $13 has been identified as effective in reducing SOV trips and financially feasible**
What vehicles/users are exempt from the charge?	**Anyone entering or exiting North Bayshore outside of the pricing period** **Vehicles registered to North Bayshore residents, public and private transit vehicles, emergency vehicles, at all times**
How would the charge be paid and enforced?	**FasTrak transponders and license plate cameras, just like tolls on Bay Area bridges and Express Lanes**
Is there a daily cap on charges?	**No, each eligible trip would be charged**

How much traffic would be reduced?

Up to **13%** vehicle trip reduction





Up to **7%** SOV mode share reduction

Discounts, Exemptions, Equity, and Privacy

Will there be other discounts or exemptions?

To be determined. This study evaluated several discounts/exemptions for low-income travelers and high-occupancy vehicles (HOVs), identifying pros and cons to assess further. In general, discounts and exemptions can minimize impacts to key groups and make a program more equitable.

However, more discounts/exemptions will likely result in a higher base charge, higher startup and operating costs, and less net revenue to invest in equity-oriented programs and services.

Any discounts or exemptions would be designed to **maximize compatibility with existing and future regional policies.**

What are the potential impacts to small businesses and their employees, park or museum visitors, and low-income drivers?

The primary goal of congestion pricing for North Bayshore is to reduce traffic at the gateways during peak period. Reduced congestion will have direct and indirect benefits for everyone that lives, works, shops, and plays in North Bayshore.

We heard from district stakeholders that meeting equity, economic development, and health and environment goals are also crucial. By focusing on inbound, peak-period morning commuters, **non-peak period trips will not be charged and impacts to many district users will be minimized.** It is estimated that only 27% to 42% of vehicle trips into and out of North Bayshore would pay the charge.

In addition, the program is expected to generate **net revenue that can be invested in the transportation system to support equity, economic, and health outcomes.**

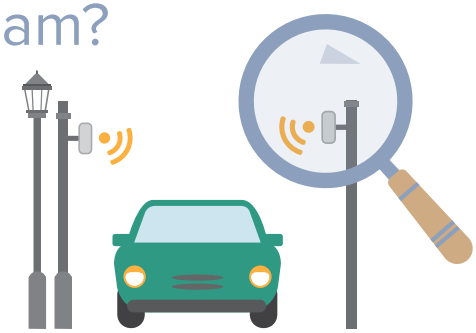
How would this program protect individual privacy?

The program would likely use FasTrak, which supports tolling for over 150 lane-miles of roadway in the Bay Area today. Any pricing program in North Bayshore would be subject to the **same privacy standards, procedures, and protections** as current FasTrak users.

Administration + Operations

Who would implement and operate this program?

Because Mountain View has limited technical capacity and no experience operating toll systems, the City will need to identify a public agency and/or private tolling partner to help administer and operate the toll system, including procurement and oversight of the system contract. Potential public partners include VTA or the Bay Area Infrastructure Financing Authority (BAIFA)/Bay Area Transportation Authority (BATA). **None of these agencies have approved any partnership or agreement with the City as part of this study.**



Would I pay the charge?

I am a...		In which direction?	With how many people?	At what time?	On what day?	Would I pay the charge?
 **Transit rider, bicyclist, or pedestrian**	traveling...	Any	Any	Any	Any	Never
 **North Bayshore resident**	traveling...	Any	Any	Any	Any	Never
 **Mountain View resident driving** *(living outside North Bayshore)*	traveling...	Inbound	Alone	8:30 a.m.	Weekday	✓

I am a...		In which direction?	With how many people?	At what time?	On what day?	Would I pay the charge?
 **Employee driving**	traveling...	Inbound	Alone	8:00 a.m.	Weekday	✓
 **Employee driving**	traveling...	Inbound	Alone	7:00 a.m.	Weekday	⊘
 **Employee driving**	traveling...	Outbound	Alone	10:00 a.m.	Weekday	⊘
 **Low-income person driving**	traveling...	Inbound	Alone	8:00 a.m.	Weekday	TBD *(Potential discount)*
 **Employee driving**	traveling...	Inbound	2 pax	9:00 a.m.	Weekday	TBD *(Potential discount)*
 **Employee, visitor, or customer driving**	traveling...	Within	Alone	10:00 a.m.	Weekday	⊘
 **Visitor or customer driving**	traveling...	Inbound	Alone	12:00 p.m.	Weekday/ Weekend	⊘
 **Lyft/Uber driver**	traveling...	Inbound, multiple times	1 pax each trip	8-11 a.m.	Weekday	✓ *For each trip*
 **Lyft/Uber driver**	traveling...	Inbound, multiple times	2 pax each trip	8-11 a.m.	Weekday	TBD *(Potential discount)*

Financial Assessment

How much will congestion pricing cost to build and operate?

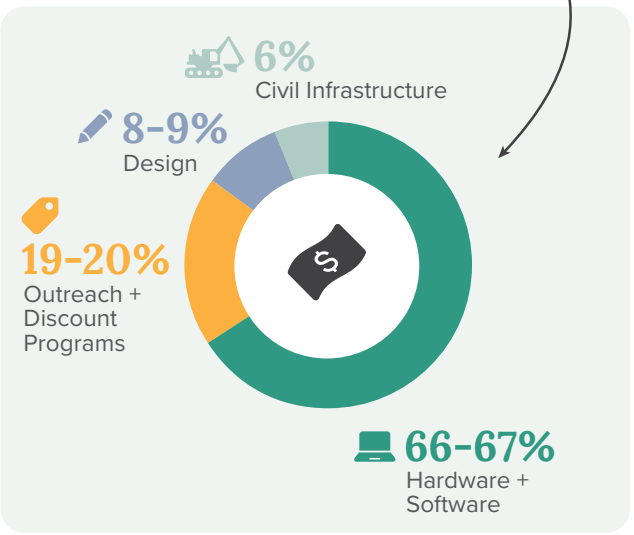
Capital costs include the one-time costs to design and build the system. **Operating costs** are the ongoing costs to administer, maintain, and fund the system – these annual costs will depend on the level and type of discount programs. Financing costs, such as bond payments, **are not included at this time.**

Capital

Estimated range:

$28M-$30M

ONE TIME

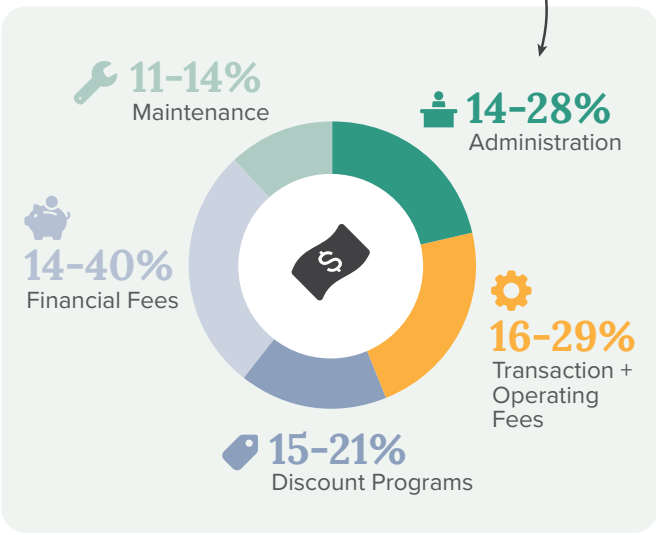


Operating

Estimated range:

$6M-$8M

ANNUAL



Is the most suitable program financially viable?

The financial outcomes of such a program are variable, with gross revenue estimates largely determined by number of trips and the base charge.

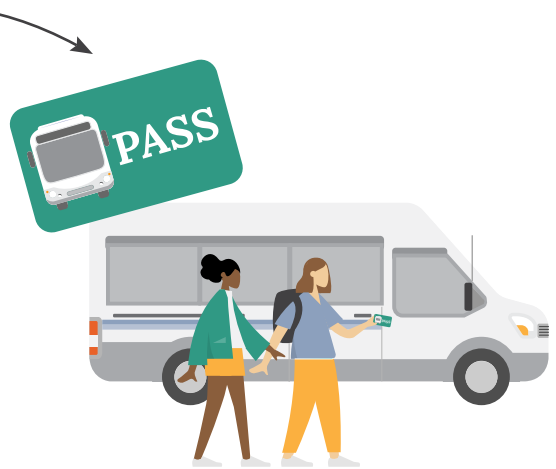
This study estimates the most suitable program would generate enough annual net revenue to be **revenue-positive in three to eight years, indicating long-term financial viability.**

A formal traffic and revenue study with detailed projections of revenue and capital, operating, and financing costs is required to determine if toll revenue bonds or a public-private partnership are viable financing options.

How would net revenue be spent?

To be determined. As part of future phases of work a detailed financial and expenditure plan would need to be developed. **The North Bayshore Precise Plan and the North Bayshore Circulation Study have identified a priority list** of transportation projects, program, and services. The net revenue from a congestion pricing program could be utilized as a funding stream for those priority investments.

One key consideration is the degree to which net revenue is invested in direct subsidies and services to support equity-based outcomes, such as free transit passes or additional shuttle services for low-income travelers.



Next Steps

This study represents a first, small step towards developing a congestion pricing program for North Bayshore. If approved for further consideration, additional study, analysis, and outreach is required to design, build, and launch a program. These steps are estimated to **take four to six years.**

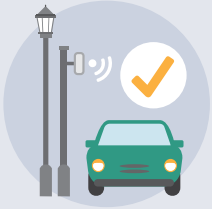
Step 1

Plan

1–1.5 Years

- Finalize core policies and rules
- Select technology and administration
- Create financial plan and procurement strategy
- Continue stakeholder outreach
- Establish program schedule

Step 2



Authorize

1–2 Years

- Develop a Concept of Operations plan
- Develop agreements with tolling partners
- Pursue tolling authorization
- Secure financing

Step 3

Procure, Design & Construct

2–2.5 Years

- Design and implement toll system
- Design and construct civil infrastructure
- Go-live
- Operations and maintenance

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SILICON Transportation Consultants