Toward a Shared Future: Strategies to Manage Travel Demand
Perspective Paper #2
Horizon is exploring how economic, environmental, technological, and political uncertainties may create new challenges - or exacerbate existing ones - for the Bay Area over the coming decades.

For more information, go to: mtc.ca.gov/horizon

Source: https://www.flickr.com/photos/kitkit201/33992723184/
Perspective Papers

1) Autonomous Vehicles
2) Toward a Shared Future
3) Regional Growth Strategies
4) Crossings

5) Future of Jobs
6) Governance

More to Come?
The San Francisco Bay Area aspires to be:

**AFFORDABLE**
All Bay Area residents and workers have sufficient housing options they can afford – households are economically secure.

**CONNECTED**
An expanded, well-functioning transportation system connects the Bay Area - fast, frequent and efficient intercity trips are complemented by a suite of local transportation options, connecting communities and creating a cohesive region.

**DIVERSE**
The Bay Area is an inclusive region where people from all backgrounds, abilities, and ages can remain in place - with access to the region’s assets and resources.

**HEALTHY**
The region’s natural resources, open space, clean water and clean air are conserved - the region actively reduces its environmental footprint and protects residents from environmental impacts.

**VIBRANT**
The Bay Area region is an innovation leader, creating quality job opportunities for all and ample fiscal resources for communities.
Perspective Paper #1: Autonomous Vehicle Priority Strategies

- Affordable
- Connected
- Diverse
- Healthy
- Vibrant

Housing Opportunity Sites
Fair Pricing Autonomous Transit
Equitable Outcomes
Vision Zero 2.0
New Deal for Mobility
Purpose of Perspective Paper 2

Develop “big picture” 2050 strategies for evaluation in Horizon’s Futures

Focus on reducing demand for vehicle travel

Inventory strategies based on worldwide scan and potential to manage travel demand

Create strategies addressing one piece of the “planning puzzle,” recognizing complementary investments and policies are needed to ensure success
Factors Contributing to Bay Area Congestion

- Residential Locations
- Employment Locations
- Transportation Demand
- Transportation Supply

Perspective Paper #2: Towards a Shared Future
Perspective Paper #3: Regional Growth Strategies
Perspective Paper #5: Future of Jobs
Transformative Projects + Crossings

Today’s Presentation
The sales pitch
The reality
Congested delay has grown 25% since 2000
Current Programs

- Bikeshare
- Carshare
- Commuter Benefits Ordinance
- Carpool/Vanpool
- Safe Routes to School
- Transit/Paratransit
- Bike Infrastructure
- Vision Zero
- TNC/TNC Partnerships
- Transit Oriented Development
- Clipper
- Parking Pricing
- Micro-transit Pilots
- Education/Outreach
- Scooter Sharing
- Emerging Mobility Principles
- Privately Provided Commuter Buses
- TDM Ordinances
- Autonomous Shuttle Pilots
- HOV Lanes / Express Lanes
- Mobility Hubs
- Emerging Mobility Principles
- PDA Planning
- Complete Streets
- Trip Planning Apps
- Electric Vehicles
- Clipper
- Safe Routes to School
- TDM Ordinances
- Autonomous Shuttle Pilots
- Electric Vehicles
VMT is expected to continue growing even under Plan Bay Area 2040.
Examples from Around the World
Perspective Paper #2: Travel Demand Reduction Strategies

Affordable
Diverse

Free Feeder Services to High Capacity Transit

Connected

Mobility as a Service
Ridesharing and Teleworking
Tolling All Bridges & Highways
Cordon Pricing

Healthy

Required TDM for New Development
Parking Fee/Tax

Vibrant

Parcel Lockers & Freight Consolidation Centers
Free Feeder Services to High Capacity Transit

Using AVs to provide on-demand feeder service primarily in suburban and rural communities

Examples

- Chapel Hill, North Carolina
- Seattle, Washington
- Tallinn, Estonia

50% reduction in fares could lead to a 15% increase in transit ridership

Not all new riders will be from single-occupant vehicles
Free Feeder Services to High Capacity Transit

Using AVs to provide on-demand feeder service primarily in suburban and rural communities

Couple with added service on high capacity transit lines and expanded active transportation infrastructure

Target service in rural, suburban and disadvantaged communities

Fund service with revenues raised from the Tolling, Cordon Pricing and Parking Fee strategies
Mobility as a Service
A multimodal on-demand service providing regionwide access to travel options and payment via a single platform.

Examples
- Houston, LA Metro, Phoenix *(in development)*
- Helsinki, Finland *(pilot with Whim)*
- Hannover, Germany *(pilot with Mobil)*
- Vienna, Austria *(pilot with SMILE)*

Travel Demand Reduction Potential
Among users, private car use and auto ownership could be halved
Among users, transit ridership could increase by roughly 50%
**Mobility as a Service**

*A multimodal on-demand service providing regionwide access to travel options and payment via a single platform.*

Include access to all high quality mobility options: bike, scooter, transit, shared vehicle services, etc.

Offer fare packages for low-income households across public and private providers.
Ridesharing and Teleworking
Reducing VMT by filling empty seats or by reducing trips all together.

Examples

Carpooling (Bay Area focus):
• MTC 511 ridematching
• San Mateo County (pilot)
• Contra Costa Transportation Authority (pilot)

Telework Tax Credit:
• Virginia

Travel Demand Reduction Potential

Travel demand reduction potential could be 16,000 empty seats (currently crossing Bay Bridge)

A telework tax credit could reduce daily VMT by over 9,000 miles
Ridesharing and Teleworking
Reducing VMT by filling empty seats or by reducing trips all together.

Support carpooling by:
• Complementary infrastructure to support time advantages
• Incentives (potentially through MaaS)

Support teleworking by:
• Fund tax credits with revenues raised from the Tolling, Cordon Pricing and Parking Fee strategies
Tolling of All Bridges and Highways
*Tolls on all bridges and freeways in the Bay Area based on distance traveled or demand.*

**Examples**
- Austria
- France
- Switzerland

**Travel Demand Reduction Potential**
Doubling the cost of driving *could reduce VMT per capita by 10%*
Tolling of All Bridges and Highways
Tolls on all bridges and freeways in the Bay Area based on distance traveled or demand.

Key Implementation Considerations to Support the Guiding Principles

Couple with added service on high capacity transit lines and expanded active transportation infrastructure

Incentivize shared rides and off-peak travel through pricing

Offer toll discounts for low-income households
Cordon Pricing
A fee based on the distances traveled in a car, often in place of fuel taxes.

Examples
London
Milan
Singapore
Stockholm

Travel Demand Reduction Potential
Traffic congestion in central city areas could decrease by 30%
Cordon Pricing
A fee based on the distances traveled in a car, often in place of fuel taxes.

Key Implementation Considerations to Support the Guiding Principles

- Couple with added service on high capacity transit lines and expanded active transportation infrastructure
- Incentivize shared rides and off-peak travel through pricing
Parking Fee/Tax
A fee or tax on off-street parking facility owners or users.

Examples
- San Francisco: 25% tax
- Oakland: 18% tax
- Los Angeles: 10% tax
- Chicago: 18-20% tax
- Pittsburgh: 34% tax

Travel Demand Reduction Potential
A 25% parking tax could reduce parking demand by 7.5%
Free to priced parking typically reduces solo commuting by 10% to 30%
Parking Fee/Tax
A fee or tax on off-street parking facility owners or users.

Couple with added service on high capacity transit lines and expanded active transportation infrastructure

Offer parking fee discounts for low-income households
Healthy

Required TDM for New Development
Reducing VMT with developer provided programs that could include transit passes, bike/carshare on site and real time transportation information displays.

Examples
San Francisco
Oakland
Buffalo, NY
Fairfax County, VA
Arlington County, VA

Potential depends on TDM programs implemented and enforcement

From program research on similar programs, solo commuting could decrease by 34%
Required TDM for New Development
Reducing VMT with developer provided programs that could include transit passes, bike/carshare on site and real time transportation information displays.

Key Implementation Considerations to Support the Guiding Principles

- Couple with added service on high capacity transit lines and expanded active transportation infrastructure
- Offer compliance flexibility or waivers for development of affordable housing
- Provide technical assistance to cities for complementary parking policies
Parcel Lockers and Freight Consolidation Centers

Reduction in delivery VMT by collecting and storing freight at central locations.

Examples

- London
- West Sussex, UK (pilot)

Travel Demand Reduction Potential

Consolidation centers could reduce mileage by 45% to deliver the same amount of goods.

Parcel lockers could reduce emissions per parcel by over 66%.
Parcel Lockers and Freight Consolidation Centers

Reduction in delivery VMT by collecting and storing freight at central locations.

Incentivize use of low emission delivery vehicles (e.g. electric cargo bikes)

Design and site consolidation centers and parcel lockers appropriate to community and to realize VMT savings

Key Implementation Considerations to Support the Guiding Principles

Credit: McKinsey Center for Business and Environment
Next Steps
Paper Release Event - September 26th, 6pm
WeWork Valley Towers, Downtown San Jose
Aligning Specific Strategies with Futures

- **AFFORDABLE**
  - Free Feeder Services

- **DIVERSE**
  - Mobility as a Service
  - Ridesharing and Teleworking
  - Tolling Bridges, Highways
  - Cordon Pricing

- **CONNECTED**

- **HEALTHY**
  - Required TDM Plans
  - Parking Fee/Tax

- **VIBRANT**
  - Parcel Lockers and Freight
  - Consolidation Centers

- **Clean and Green**
- **Rising Tides, Falling Fortunes**
- **Back to the Future**
What’s Next for Strategies Identified?

Strategies will undergo further review and consideration in the months ahead, as we work with stakeholders & the public to consider the benefits of a particular strategy alongside its impacts.

For Example:

- **Free Feeder Services to High Capacity Transit**
  - Reduced inequities for multi-county commuters
  - Potential risk of transit crowding on trunk lines
  - Different fare revenue impacts by operator

Finalize Preferred Plan

Early 2020