Significant Travel-Time, Reliability Improvements

Longer Subway and Bridge saves 5 minutes from SF State to Downtown by avoiding stop lights and streamlining stops, expands light-rail capacity in the area, and provides operational benefits for 19th Ave buses.

Average Travel Time to Downtown

**From 19th/Holloway**
- **Baseline**: 26 minutes
  - with changes currently planned, a 1-minute increase over today
- **With Project**:
  - 21 minutes with Longer Subway and Bridge
  - 24 minutes with Shorter Subway and Tunnel

**From Randolph/Arch**
- **Baseline**: 28 minutes
  - with changes currently planned, a 3-minute increase over today
- **With Project**:
  - 36 minutes with Longer Subway and Bridge
  - 31 minutes with Shorter Subway and Tunnel

Reliability

When planning a ride on transit, we all plan for the worst while hoping for the best. The proposed project would reduce the difference between the worst and best trips, allowing more certainty that you will be able to get where you need to go on-time.

Capacity

The project would include longer light-rail platforms in the corridor, allowing 3-car trains to serve stations between Downtown and Parkmerced. The project also has identified station area locations that could ultimately enable 4-car trains through Parkmerced and 3-car trains along Randolph, providing future flexibility to increase capacity if stations outside the Study corridor were also upgraded.

Bus Operations

The Longer Subway and Bridge alternative would allow southbound buses to use the light rail travel-way at a key 19th Avenue bottleneck, saving a projected 3 minutes.
Safer Transit Access

Moving light-rail stations to the west side of 19th Avenue would allow most riders to avoid crossing the busy highway to catch the train. Walk distances to light rail stations would stay about the same from all parts of the corridor.

Fewer Lanes to Cross

At Winston Drive, 93% of M-Ocean View riders come from or head toward the west side of 19th Avenue. In both Longer and Shorter Subway alternatives, riders would not have to cross any lanes of traffic, as station portals will bring them to the surface on both sides of the street.

At Holloway, 97% of M-Ocean View riders come from or head toward the west side of 19th Avenue. With Parkmerced plans to relocate stops to Crespi plaza, riders destined for the west side would not have to cross any lanes of traffic. Riders heading east would cross more lanes of traffic but benefit from a landscaped median with pedestrian refuge and fewer conflicts with turning vehicles.

Change in Walking Access

Minor changes in walk time between proposed M-Ocean View stations and popular destinations

<table>
<thead>
<tr>
<th>Walking Time to Light Rail*</th>
<th>Longer Subway and Bridge**</th>
<th>Shorter Subway and Tunnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 minutes</td>
<td>10 minutes</td>
<td>9 minutes</td>
</tr>
</tbody>
</table>

*Hypothetical average walk speed of 3.1 mph
**With the Long Subway Alternative, riders would walk west near the Science Building and Mission Lane; this option could include a station portal between the sidewalks. Location and the location planned through the Parkmerced Development Agreement, in a plaza between Crespi Park and Rayas.
Non-Motorized

Major Improvements in Safety and Comfort for Pedestrians and Cyclists

With wider sidewalks, shorter crossing distances, and medians that act as pedestrian refuges, 19th Avenue will become a dramatically safer, more pleasant road to walk and bike across and alongside.

Improved Pedestrian Crossings

The Longer Subway and Bridge alternative would reduce crossing distance from 120 feet to less than 80 feet.

New Landscaped Medians that Serve As Pedestrian Refuges

Repurposed Space

Space currently used for light-rail tracks provides an opportunity to improve conditions for walking/cycling. This conceptual drawing shows the space re-purposed as bike/pedestrian space and a planted median, although more conceptual design options will be explored in partnership with the community in the next phase.

New Pedestrian Crossings

The average distance between crossings shortens from a 5-minute walk to a 3-minute walk.

Bicycle Network

Shorter distance across 19th Avenue; no light rail tracks to cross

Shorter distance across 19th Avenue; one less light rail tracks to cross; turning movement conflicts minimized with through traffic routed to Crespi

New protected bike/pedestrian route on both sides of street

Upgraded, calmed bikeway with light rail tracks relocated

New protected bike connection to east side of Junipero Serra via new bridge
Quality of Life

Opportunities to Make 19th Avenue a More Inviting, Distinctive Place

The Longer Subway and Bridge alternative provides an opportunity to improve neighborhood quality of life and create an iconic gateway into San Francisco.

Opportunity to Eliminate Graffiti/Vandalism

Bringing the light-rail line underground just south of St. Francis Circle would allow for the repurposing of a space that is a frequent target of graffiti and vandalism. Decisions about how to re-purpose the space would happen in a future phase of the study through a community process.

Changes in Noise

A thorough noise analysis will be conducted during the environmental review process, including identifying mitigations for any significant impacts. Some potential changes are described below.

Creating an Iconic Gateway

The proposed bridge over Junipero Serra for light rail, bikes, and pedestrians could be designed to create a pleasant and distinctive southern gateway entrance into San Francisco. Bridges shown here illustrate the potential. The design of the bridge would be determined through a community process during a later phase of the project.
**Private Vehicle Conditions**

**Traffic Stays About the Same as in Approved Plans**

By removing light rail crossings, 19th Avenue no longer needs additional lanes to accommodate projected future traffic. Total auto delay throughout the corridor stays about the same or is reduced relative to Parkmerced Development Agreement transportation plans that add lanes.

**Reduced Conflicts with Light Rail**

Moving the light rail alignment above or below 19th Avenue and Junipero Serra Boulevard frees up more green-light time for private vehicles and buses on a busy corridor.

**Forecast Private Vehicle Travel Time**

<table>
<thead>
<tr>
<th>Route</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southbound</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Southbound</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Southbound</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Southbound</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

**Changes in Parking Supply**

While the project would require reducing the number of on-street parking spaces, current excess parking supply is expected to allow existing demand to be accommodated. The improvement should be complemented by stronger parking management to address SF State spillover parking demand in neighborhoods.

*Includes SF State garages, which have excess capacity at peak hours*
Plans for the area call for increases in the number of residents, students, and jobs in the area. The 19th Avenue Transit Study provides the opportunity to advance a major transportation investment that will improve transportation conditions from today, while also serving the needs of this growing community.

The Parkmerced Vision Plan calls for a significant densification and diversification of the site, including a net addition of 5,679 housing units, a new retail corridor along Crespi and Gonzales drives, and new streets and circulation patterns. The plan also calls for bringing the M-Ocean View onto the site to provide residents direct access to transit.

The SF State campus master plan, adopted in 2007, supports an increase in student enrollment from 20,000 to 25,000 full-time students. It calls for rebuilding the HSS and Science buildings along 19th Avenue and the addition of approximately 1 million square feet of new facilities. The plan would add 660 new dwelling units and approximately 700 new employees.

The Stonestown Galleria is a regional shopping center with approximately 900,000 square feet of gross leasable area. The mall’s owners, General Growth Properties, may consider additional development at the site.
Implementation

A Feasible, Cost-Effective Project for a Busy Corridor

While it will be critical to craft a thoughtful funding strategy, project costs are reasonable given the project’s potential to reduce annual operating costs and leverage private and institutional funds.

Capital Cost Estimates

The project needs significant additional engineering and design work, but the project team has estimated the range of potential project costs. The best-performing alternative, Longer Subway and Bridge, has the second-lowest potential costs but would offer the most projected operating savings (see right).

<table>
<thead>
<tr>
<th>Southern Part of Corridor</th>
<th>Northern Part of Corridor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Most Likely Cost: $520 million</td>
</tr>
<tr>
<td></td>
<td>Most Likely Cost: $680 million</td>
</tr>
</tbody>
</table>

Operating Cost Savings

Travel-time savings and reliability improvements translate directly into operational cost savings for Muni because the same amount of service can be run in less time. The best-performing option holds the potential for the largest annual operating savings, while also providing a better customer experience.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Cost-Effectiveness Rating</th>
<th>Mobility Benefit Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longer Subway and Bridge</td>
<td>Medium-High to High</td>
<td>Medium to Medium-High</td>
</tr>
<tr>
<td>Shorter Subway and Tunnel</td>
<td>Medium-High to High</td>
<td>Medium to Medium-High</td>
</tr>
</tbody>
</table>

Potential Implementation Schedule

After completion of the current feasibility study, there are several steps before the project would begin construction. A more detailed schedule will be prepared as the project advances, but construction is not expected before 2020.

Complete Feasibility Study: This study will be finished by Winter 2014.

Conceptual Design: Because 19th Avenue is a state highway, it must go through a design process with the California Department of Transportation. This stage would also do more detailed planning work to draw conceptual plans for the entire corridor in partnership with the community.

Environmental Review and Design: All major projects must undergo environmental review to understand potential project impacts on the environment. This stage will answer common questions about what the visual, noise, vibration or other impacts of the project might be, as well as identify ways to mitigate any impacts. During this stage of the process, the project will create a Community Advisory Committee to advise on the project’s development. Engineers and planners will also continue with more detailed design.

Environmental Review and Preliminary Design (3-3.5 years)

Open for Service

Beginning of Service: Trains begin to roll through new alignment.
Potential Future Projects

Early Exploration of Other Transit Improvements

Community members suggested several additional project ideas during outreach and in past studies. While some that fall within the project study area should continue to be studied in the next phase, others would require their own separate planning processes to advance.

For Potential Study in Next Phase

Because this is just an initial Feasibility Study, it will not make final decisions about project alignments. Ideas that will continue to be studied in the next phase are shown in this chart. During the next phase, the project team will, in partnership with the community, determine whether these should be carried through environmental review or dropped.

<table>
<thead>
<tr>
<th></th>
<th>St. Francis Circle Grade Separation</th>
<th>Ocean Avenue Underground Station</th>
<th>Continue Subway through Parkmerced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough Cost</td>
<td>$50-80 million</td>
<td>$50-70 million</td>
<td>$120-240 million</td>
</tr>
<tr>
<td>Travel-Time Implications</td>
<td>Savings: 1:40</td>
<td>Addition: 0:25</td>
<td>Savings: 0:25 – 1:50</td>
</tr>
</tbody>
</table>

Potential Future Projects

Connection to Daly City

The neighborhoods along 19th Avenue have long expressed a desire for stronger connections to the Daly City BART station. This Study considered the benefits and costs of two different investment packages: an extension of the M-Ocean View vs. a package of bus and shuttle improvements. The M-Ocean View extension would cost more and provide a faster trip. The bus/shuttle improvement package would cost less and save less travel time.

Muni Connection to Daly City

The M-Ocean View to Daly City would continue down the middle of Junipero Serra and climb over northbound I-280 just north of John Daly Boulevard, entering the Daly City BART station through the parking lot on the northeast side of the station. The Alemany flyover ramp would be removed or replaced.

Enhanced Bus Connection to Daly City

Some potential ways to improve the speed of existing bus and shuttle service include routing through Parkmerced to avoid congestion on Junipero Serra and adding a bus-only lane on John Daly Boulevard. To accommodate more frequent service in the future, Daly City BART will need to expand bus bays and station infrastructure.

Some potential ways to improve the speed of existing bus and shuttle service include routing through Parkmerced to avoid congestion on Junipero Serra and adding a bus-only lane on John Daly Boulevard. To accommodate more frequent service in the future, Daly City BART will need to expand bus bays and station infrastructure.

Potential Travel-Time Savings

- M-Line Extension to Daly City: 1-8 minutes
- Enhanced Bus Connection to Daly City: 0-2 minutes
- Subway through West Portal: 2:25 to 2:50 minutes

Capital Cost

- M-Line Extension to Daly City: $200-300 million
- Enhanced Bus Connection to Daly City: $30-40 million
- Subway through West Portal: $400-800 million

Operating Cost

- Increase in M-Ocean View operating cost of $300,000/year; Potential decrease in SF State and future Parkmerced shuttle costs of ~$800,000/year
- Potential savings of $400,000/year in operating costs

*Notes: Does not include change/increase in fare revenue, reduction in capital cost if fewer train sets are needed, systemwide average maintenance/station staffing costs included in operating cost changes.

Students of history may know that when BART built the Muni Metro subway it was initially going to build a subway in West Portal through to St. Francis Circle. The idea was suggested during outreach by some West Portal residents. Because it is outside the scope of the Study, such a project would require its own feasibility study and community process.