

SOUND TRANSIT LAKEWOOD-TO-TACOMA COMMUTER RAIL

SEPA ADDENDUM TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE LAKEWOOD-TO-TACOMA COMMUTER RAIL AND SR 512 PARK- AND-RIDE EXPANSION PROJECT

TACOMA SECTION – EAST D STREET TO SOUTH M STREET REALIGNMENT

Purpose of the Addendum

The Lakewood-to-Tacoma Commuter Rail project consists of an approximately 8.2 mile commuter rail system that will provide service between East “D” Street in the City of Tacoma and Lakewood Commuter Rail Station in the City of Lakewood. The project, which will serve the cities of Tacoma and Lakewood, and the surrounding areas, includes associated rail improvements, commuter rail stations in South Tacoma and Lakewood, and the expansion of the SR-512 Park-and Ride in Lakewood. The project also includes the development of a new train storage facility in Lakewood. The Tacoma Section of the Lakewood to Tacoma commuter rail expansion extends approximately 1.2 miles from East “D” Street to South “M” Street. This section of the rail line is entirely within the City of Tacoma. A map of the Tacoma Section in the Lakewood-to-Tacoma corridor is shown in Exhibit A.

The project, including the Tacoma Section, is fully described in the Lakewood-to-Tacoma Commuter Rail and SR 512 Park-and-Ride Expansion Final Environmental Impact Statement, dated May 2002 (Final EIS), and follow-up environmental documentation. The Final EIS was issued by Sound Transit and the Federal Transit Administration (FTA) pursuant to the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA). The Final EIS identified a Preferred Alternative for the project, which included Action Alternative 1 for the Tacoma Section. The Final EIS evaluated two further action alternatives for the Tacoma Section (Action Alternatives 2 and 3), as well as a No Action alternative. FTA issued a NEPA Record of Decision (ROD) for the project in December 2002. In December 2002, Sound Transit selected the Preferred Alternative identified in the Final EIS as the project to be constructed.

Since issuance of the Final EIS, Sound Transit has completed a number of preliminary design activities for the project, as well as additional environmental documentation pursuant to NEPA and SEPA. In June 2005, Sound Transit issued a SEPA addendum, which evaluated the impacts of filling a wetland in the City of Tacoma not previously addressed in the Final EIS. In December 2006, Sound Transit issued a SEPA addendum that evaluated the impacts associated with the development of the Lakewood train storage facility. The Lakewood

layover storage facility replaced the Camp Murray site previously included in the EIS Preferred Alternative, which became unavailable.

During preliminary design and discussions with the City of Tacoma, the Washington State Department of Transportation (WSDOT) Rail Office, Amtrak, Federal Railroad Administration, and railroad owners, several transportation issues were identified that caused Sound Transit to consider modifying the design of a portion of the Tacoma Section of the selected project. The transportation issues identified during this process include:

1. Future ability of Sound Transit to expand the number of train trips in the corridor, associated with at-grade rail crossings of East "D" Street, East "C" Street, "A" Street, Pacific Avenue, and South Tacoma Way;
2. The ability to increase safety associated with increased train traffic at skewed at-grade rail crossings of Pacific Avenue and South Tacoma Way; and
3. Existing Sounder locomotive and train performance descending railway grades in excess of 3 percent under certain conditions.

After extensive discussion with the City of Tacoma, project area businesses, and the community at-large, Sound Transit has identified revisions to a segment of the Tacoma Section extending from approximately East C Street to South Yakima Avenue. These segment revisions are sufficient to address the original purpose and need of the Lakewood-to-Tacoma Commuter Rail project, and satisfy the transportation issues noted above. The revisions would provide for the implementation of a modified version of Action Alternative 3 from the Final EIS for the segment of the Tacoma Section alignment affected. Exhibit B depicts the EIS Preferred Alternative and the revisions under consideration.

SEPA regulations provide that an addendum¹ can be prepared to address changes to a project or new project-related environmental information that do not substantially change the analysis of significant impacts and alternatives in existing environmental documents. Sound Transit has prepared this addendum to the Final EIS in order to assess how the proposed segment revisions affect the analyses completed in the Final EIS. New project-area information developed since issuance of the Final EIS is also considered. This analysis indicates that the revisions and the new information do not substantially change the analyses of impacts and alternatives contained in the Final EIS and the subsequent addenda.

Project Revisions

The proposed revisions provide for the following:

¹ "An addendum...adds analyses or information about a proposal but does not substantially change the analysis of significant impacts and alternatives in the existing environmental document" WAC 197-11-600(4)(c).

- Modification of the track alignment segment located between Pacific Avenue and Tacoma Avenue South from the south side of South Tacoma Way under the EIS Preferred Alternative to an alignment north of the roadway in a more direct connection to the BNSF right-of-way (see section “Track Alignment Modifications”)
- Addition of a new, grade-separated crossing--by railroad bridge--over Pacific Avenue, including elevated-fill approaches to the bridge, rather than at-grade crossings and approaches under the EIS Preferred Alternative (see section “Road and Bridge Crossings”)
- Regrading of Pacific Avenue, South Tacoma Way, and South 26th Street and associated intersections and a decrease in their elevation below the existing grade to accommodate the new grade-separated bridge and approaches (see section “Roadway Elevation Changes”)
- Improvement and reconfiguration of roadways and intersections to support the first three components (see section “Roadway and Intersection Reconfigurations”)

As discussed above, the revisions would implement a modified version of Action Alternative 3 from the Final EIS for the segment of the Tacoma Section alignment affected. The primary difference between the Action Alternative 3 evaluated in the EIS and the modified version is the inclusion of the grade-separated bridge over Pacific Avenue, and associated roadway improvements. The remainder of the EIS Preferred Alternative for the Tacoma Section would not change. The revisions are described in detail in the following sections with comparisons provided to the EIS Preferred Alternative previously selected by the Sound Transit Board as the project to be constructed, as appropriate.

Track Alignment Modifications

The revised segment of the Tacoma Section would begin at the west end of the commuter rail facility at the Tacoma Dome Station at East D Street and continue in a westerly direction parallel to the Tacoma Rail Mountain Division track at a downward grade of 0.4 percent for about 440 feet to East C Street. The proposed revisions are depicted in the attached Exhibit B.

From East C Street, a new single track would continue at a downward grade of approximately 0.3 percent for approximately 25 feet to a point east of the A Street gully. Starting approximately 225 feet east of the A Street gully, the rail alignment would shift north relative to the alignment under the EIS Preferred Alternative and begin to increase in elevation for a total length of approximately 4,950 feet at an average grade of 2.85 percent. The rail line would cross the

proposed extension of an existing 72-inch-diameter culvert in the A Street gully, which would be covered by 15 to 25 feet of new fill. The proposed rail alignment would continue across a City of Tacoma–owned parking lot and under an elevated portion of I-705. Like the EIS Preferred Alternative in this area, the revised segment would follow a southwesterly direction. However, it would be located slightly north of the EIS Preferred Alternative alignment, and traverse the parking lot for the Armour Building, cross A Street, and traverse two properties (the McMacken property – a former automobile storage lot – and the former Texaco station) on South 26th Street between A Street and Pacific Avenue.

The revised segment would continue across Pacific Avenue north of the intersection of Pacific Avenue and East 26th Street on a new, grade-separated bridge and proceed southwesterly across private properties and South C Street until its intersection with the BNSF Lakeview Subdivision track. By contrast, the alignment for the EIS Preferred Alternative crossed Pacific Avenue on a skew directly at the intersection of Pacific Avenue and East 26th Street and continued along the south side of and within portions of the existing South Tacoma Way right-of-way.

The revised rail segment would then continue southwesterly and pass under the Tacoma Avenue South and South Yakima Avenue bridges, rather than crossing from the south side to the north side of South Tacoma Way at the Tacoma Avenue South bridge as in the EIS Preferred Alternative. At approximately South Yakima Avenue, the revised alignment would rejoin the route for the EIS Preferred Alternative. Approximately 1,170 feet west of the South Yakima Avenue bridge, the grade for the revised alignment would be reduced over 100 feet from 2.85 percent to 2.19 percent, although it would continue to proceed along the same route as the EIS Preferred Alternative. In contrast, the EIS Preferred Alternative's grade in this section would reduce from 3.3 percent to 2 percent. There are no further revisions to the EIS Preferred Alternative west of this point.

Road and Bridge Crossings

The revisions would place the rail crossing at Pacific Avenue on an elevated track and bridge, in contrast to the at-grade crossing in the EIS Preferred Alternative. The elevated track (top of rail) would be approximately 20.5 feet above a lowered and regraded Pacific Avenue. The bridge supporting the track would be approximately 160 feet long, 20 feet wide, with side walls of approximately 12 feet in height (approximately 4 feet below the track, and approximately 8 feet above the track). The bottom of the bridge structure would be approximately 16.5 feet above the regraded Pacific Avenue. The bridge width includes a walkway on each side for rail access and maintenance. The total height of the bridge would be approximately 28.5 feet above the regraded roadway level (and approximately 17.5 feet above the existing roadway). Though final design of the bridge may slightly alter the specific measurements

described above, they accurately describe the general elements necessary to implement the revised rail alignment and roadway improvements. Sound Transit will collaborate with the City of Tacoma on the specifics of the bridge and roadway designs in an effort to accommodate the needs of City engineers and the community.

The at-grade crossing at South Tacoma Way included in the EIS Preferred Alternative would also be eliminated and A Street would be closed to through traffic between South 25th Street and South 26th Street. A pedestrian at-grade crossing of A Street with off-setting approaches would be installed. The segment revisions would also provide for the addition of an at-grade crossing of South C Street between South Tacoma Way and South 25th Street, whereas the EIS Preferred Alternative did not cross South C Street. Sound Transit is also considering an option to close South C Street at this location.

As revised, the elevated alignment segment extending from the A Street gully to approximately South J Street would increase in elevation at a constant grade of 2.85 percent over a total length of 4,950 feet. Under the EIS Preferred Alternative, by contrast, the elevated alignment would rise at a grade of 2.55 percent until the rail line passes under I-705; from that point, the grade would increase to 3.3 percent over a total length of 3,100 feet. The revised rail alignment segment would also be approximately 9 feet above the existing A Street roadway surface to provide the distance necessary for the elevated alignment to cross Pacific Avenue at the desired grade of 2.85 percent; under the EIS Preferred Alternative, the rail alignment would cross A Street at grade.

Roadway Elevation Changes

The revised grade-separated rail crossing at Pacific Avenue described above, would require substantial excavation and lowering of the following roadways at the intersection of South 26th Street and Pacific Avenue and the nearby vicinity:

- Pacific Avenue
- South 26th Street
- South Tacoma Way.

The proposed rail deck would be approximately 9.5 feet above the existing grade, which would require Pacific Avenue to be regraded and lowered 11 feet below its existing grade. This would result in the need to regrade and lower South 26th Street and South Tacoma Way in the vicinity of Pacific Avenue in order to allow them to meet the new elevation.

Roadway and Intersection Reconfigurations

The project revisions would include the reconfiguration of a number of roadways and intersections to facilitate the railway realignments and elevated structures needed. The following improvements would be necessary:

- South Tacoma Way would be re-striped east of South C Street to provide two lanes for eastbound traffic (downhill) and two lanes for westbound traffic (uphill). An eastbound right-turn pocket and lane would be constructed at the intersection of Pacific Avenue.
- A Street would be closed to through vehicular traffic between South 25th Street and South 26th Street to provide space for the elevated approaches to the new grade-separated bridge across Pacific Avenue. Egress from the Elephant Car Wash property via A Street, and access to the Armour Building parking lot from South 25th Street via A Street would remain.

The lengths and locations of retaining walls required along the revised segment would increase relative to the EIS Preferred Alternative. Whereas the EIS Preferred Alternative would create 1,500 linear feet of retaining wall within the affected segment; the revisions would require approximately 3,300 feet of retaining wall adjacent to rail, roadways, and/or sidewalks.

The proposed revisions would further provide for the construction of new sidewalks, crosswalks, and pedestrian crossing signals adjacent to the roadways improved due to construction of the rail. In many areas, sidewalks would be installed where none currently exists. The EIS Preferred Alternative would provide only improvements associated with pedestrian and bicycle road-crossings.

A new recreational trail (a segment of the historic Water Ditch Trail) is proposed to be constructed by the City of Tacoma between Pacific Avenue and Pine Street. The City of Tacoma is still reviewing the options and constraints for the trail before beginning trail alignment coordination with Sound Transit. Sound Transit will work with the City of Tacoma to avoid conflicts between the proposed trail and the revised rail alignment.

New Information

Since Sound Transit published the Lakewood-to-Tacoma Final EIS in 2002, changes in the Tacoma Section of the project area have occurred. This new information is considered in the analysis of impacts associated with the proposed revisions discussed above.

First, the Tacoma Rescue Mission completed construction of a new facility in the project area in 2003. Located at 425 South Tacoma Way, the facility is situated just east of the Tacoma Avenue South bridge, between the north side of South Tacoma Way and the south side of the BNSF Lakeview Subdivision tracks. The facility is one of several facilities run by the Tacoma Rescue Mission, a nonprofit, faith-based social services organization that provides meals, overnight shelter, counseling, and job training to low-income or homeless individuals and those recovering from addiction. The facility houses an average of 120 temporary residents per night and employs approximately 75 full- and part-time employees at this location. The mission provides 600 meals a day, with approximately 75 percent provided to walk-in patrons.

Second, in 2003, Sound Transit completed construction of the Tacoma Link Light Rail. The Tacoma Link Light Rail travels west from the Tacoma Dome Station at Freighthouse Square along East 25th Street and then turns north on Pacific Avenue through the intersection of Pacific/South 25th Street and travels in the Pacific Avenue median to downtown Tacoma. While the light rail segment was not yet constructed at publication of the Lakewood to Tacoma Final EIS in 2002, the cumulative effects of the planned light rail operation in the project area were considered in the Final EIS analysis. The analysis of impacts associated with the proposed revisions in this Addendum considers the effects of the actual Link light rail operation in the project area.

Changes in Environmental Effects and Mitigation

Using the elements of the environment discussed in the Final EIS, this section describes the changes in environmental effects and mitigation that would result from the project revisions discussed above when compared to the EIS Preferred Alternative. Only those elements of the environment that would be affected by the project revisions are discussed. Impacts to other elements of the environment discussed in the Final EIS would remain unchanged or reduced, and do not require additional discussion in this Addendum.

As discussed above, the project revisions would implement a modified version of Action Alternative 3 from the Final EIS for the segment of the Tacoma Section alignment affected. Much of the impact analysis set forth below, therefore, is set forth in the Final EIS in its evaluation of Action Alternative 3. The analysis below provides a detailed comparison to the EIS Preferred Alternative and updated impacts analyses, as appropriate.

Transportation

New detailed traffic analysis and modeling was conducted for the project revisions using a 2012 year of opening and a 2030 horizon year. The results are summarized in this section.

1. Construction Effects

The project revisions would require temporary road closures, detours, and reduction of travel lanes for existing travel routes during construction, including:

- South 26th Street
- Pacific Avenue
- South Tacoma Way
- South C Street
- Delin Street South
- South M Street

Under the EIS Preferred Alternative, construction at the grade crossing locations would result in periodic lane and/or access revisions, but over a smaller area and for shorter durations. The impacts due to temporary road closures, detours, and reduction of travel lanes resulting from the project revisions would occur over a longer time period than under the EIS Preferred Alternative (18 to 24 months, compared to 6 to 9 months; see Construction section, below) due to the more extensive grading, and bridge construction.

Measures described in the Final EIS and the ROD would be implemented, as appropriate, in order to mitigate potential construction transportation effects. Measures that will be considered during construction include:

- Development of a detailed construction sequencing plan,
- Establishment of designated truck haul routes,
- Establishment of vehicle and pedestrian detour routes,
- Use of signage for safety of construction workers, park-and-ride lot users, and transit riders,
- Scheduling Pacific Avenue construction for off peak hours to the degree feasible,
- Providing information on construction activities to local businesses and residents, and specifically providing information on recommended alternative routes to Pacific Avenue,
- Posting information at Tacoma City Hall, the Convention Center, and at select major employers (i.e., on bulletin boards of employers with commute trip reduction programs), and on the City of Tacoma web site,
- Collecting traffic volume data at the end of Phase 2 construction to determine the effectiveness of alternative route information and prepare for Phase 3 detouring,

- Maintaining access to all existing businesses during construction and signage to inform customers that business are open during construction,
- Maintaining transit access and coordinating bus stop relocations with Pierce Transit;
- Implementing litter and dust control programs,
- Developing clear and efficient mechanisms for receiving and resolving complaints from neighbors and businesses,
- Designating specific areas within the construction site for worker parking, and
- Designating temporary parking when parking access is limited by construction.
- Construction activities, including haul routes and detours, would be coordinated with the City of Tacoma, Sound Transit, Pierce Transit, and local service providers (i.e., police, fire, emergency services).

The construction of the project revisions would not result in any significant unavoidable adverse impacts on transportation.

2. *Operational Effects*

The project revisions would provide for at-grade commuter rail crossings at East D Street, East C Street, and A Street (A Street would be closed to vehicle crossings but open to pedestrian crossings). The revised segment would be grade-separated at Pacific Avenue, and would not cross South Tacoma Way. As a result, the revised alignment would not affect traffic operations at the Pacific Avenue/South Tacoma Way/South 26th Street intersection or on South Tacoma Way, resulting in less crossing delay at the Pacific Avenue/South Tacoma Way/South 26th Street intersection and at South Tacoma Way, when compared to the EIS Preferred Alternative. In addition, the new grade-separated crossing at Pacific Avenue and the elimination of the at-grade crossing at South Tacoma Way would result in improved safety conditions and decreased potential for train-automobile accidents at these intersections relative to the EIS Preferred Alternative. At the Pacific Avenue / South Tacoma Way / South 26th Street intersection, traffic volumes and the number of conflicting movements would remain at existing levels.

As described above, the revised rail segment would cross South C Street. This crossing may remain open as an at-grade crossing or be closed. If South C Street remains open with an at-grade rail crossing, up to 18 at-grade commuter

rail train crossings through the intersection each day would increase delay at that intersection when compared to the EIS Preferred Alternative and would increase the potential for train-automobile collisions. However, South C Street provides access to South Tacoma Way as a local access alternative to Pacific Avenue and that access would be maintained. If South C Street is closed, traffic would be required to take alternate routes to and from South Tacoma Way (most likely Pacific Avenue), but the potential for train-automobile collisions would be eliminated at this location.

With both the EIS Preferred Alternative and the proposed revisions, Delin Street South would be permanently closed between South 27th Street and Pacific Avenue. Traffic between Delin Street South and Pacific Avenue would distribute a small amount of traffic to South 27th Street or South 28th Street. Unlike the EIS Preferred Alternative, the proposed revisions would require the closure of A Street to vehicle traffic between South 25th and South 26th streets. Access to the Elephant Car Wash via the northern half of A Street would be maintained. The closure would reduce the risk of accidents involving vehicles and trains.

The proposed revisions would not result in significant unavoidable adverse impacts on transportation. If South C Street remains open, the Pacific Avenue/South 25th Street intersection would operate at the same level of service (LOS E) with the project revisions in 2030 as with the EIS Preferred Alternative, albeit with slightly more delay (78.4 seconds compared to 78.2). This would occur as a result of traffic redirected to this intersection with the closure of South A Street and channelization requirements caused by Link light rail through the intersection. Though this intersection would operate at LOS D under the No-Build Alternative, LOS E is within the City of Tacoma's service standards for this area. If implemented by the City of Tacoma, turn restrictions and signal changes could ensure the intersection operates at LOS D or better with the project revisions. At the time of this analysis, the City did not indicate a desire to commit to specific changes with this project. The Pacific Avenue/South Tacoma Way/South 26th Street intersection would operate at a level (LOS D) in 2030, which would be an improvement compared to the No-Build or EIS Preferred Alternative, resulting from the improved intersection channelization as well as the elimination of train crossing delay.

With the closure of South C Street, the Pacific Avenue/South 25th Street intersection would operate with a higher level of delay (LOS F) as compared with the EIS Preferred Alternative (LOS E) and the No-Build Alternative. These conditions are expected to occur some time between 2012 and 2030. If South C Street were closed, measures described in the Final EIS and the ROD would be implemented, as appropriate, in order to mitigate potential Level of Service effects at the Pacific Avenue/South 25th Street intersection. In addition, the City of Tacoma would monitor the intersection and consider turn restrictions and/or other changes to reduce delay, as necessary. The Pacific Avenue/South Tacoma Way/South 26th Street intersection would operate at a level (LOS E) in

2030 with the proposed revisions, which would be an improvement over the No Build and EIS Preferred Alternative levels (LOS F and LOS F respectively).

With the project revisions, all other intersections in the project area would operate at the same level as with the EIS Preferred Alternative.

The impacts associated with pedestrian access and retaining walls would be more pronounced with the project revisions than with the EIS Preferred Alternative. However, the at-grade train crossings of Pacific Avenue and South Tacoma Way would be eliminated. This would enhance the pedestrian environment compared to conditions under the EIS Preferred Alternative. Overall, the proposed revisions would provide for installation of sidewalks, crosswalks, and pedestrian crossing signals adjacent to the roadways improved due to construction of the rail - in many areas, where none currently exists. As a result, no significant unavoidable adverse impacts on non-motorized transportation would result.

Air Quality

As described in the Final EIS, the project area is currently located in a carbon monoxide (CO) and ozone attainment maintenance area and near a particulate matter (PM10) maintenance area, as designated by the U.S. EPA.

1. Construction Effects

Potential short-term air quality impacts associated with the construction of the project revisions could be slightly higher than those resulting from the EIS Preferred Alternative because of the additional grading and excavation required for the reconstruction of Pacific Avenue, South Tacoma Way, and South 26th Street; and the longer duration of expected traffic delays from construction activities. Air quality mitigation measures for potential construction impacts would be implemented in accordance with the ROD for the project and applicable regulations. No unavoidable significant adverse construction impacts would result.

2. Operational Effects

New detailed air quality analysis and modeling was conducted for the project revisions using 2012 as the year of opening and 2030 as the horizon year. CO concentrations near the intersections that would be most affected by the project revisions would not be expected to exceed either the 35-ppm 1-hour or the 9-ppm 8-hour ambient air quality standards in either the year-of-opening or horizon year. Although project-related traffic delays at the Pacific and 25th Street intersection almost double in 2030 over those in 2012 (under both the EIS Preferred Alternative and the project revisions), maximum predicted CO

concentrations decrease in 2030 due to more stringent requirements for vehicle emissions.

As discussed in the Final EIS, the train locomotives associated with the commuter rail project will introduce a new source of fine particulates and diesel particulate matter into the study area. However, these emissions would be unlikely to affect overall ambient air quality in the project area. Diesel particulate matter from locomotives would be small in relation to other nearby diesel sources, particularly the diesel truck traffic on local roads and highways. The proposed project revisions would not affect this analysis.

As with the EIS Preferred Alternative, the project revisions would not be expected to result in significant air quality impacts. No operational or structural air quality mitigation measures are necessary or proposed.

Noise and Vibration

1. Noise

New detailed noise analysis and modeling was conducted for the project revisions using 2030 as the horizon year. The results are summarized in this section. The current version of the FTA Transit Noise and Vibration Manual (May 2006) was used as a methodological resource for the analysis, including the analysis of train horn noise.

Potential short-term noise impacts associated with the construction of the project revisions could be slightly worse than those resulting from the EIS Preferred Alternative because of the additional grading and excavation required for the reconstruction of Pacific Avenue, South Tacoma Way, and South 26th Street, and due to proximity of sensitive receivers to active construction and/or staging areas. The reconstruction activities also would likely result in a longer duration of construction relative to that of the EIS Preferred Alternative, thereby increasing the duration of any construction-related noise impacts. However, minimal impacts would be expected with implementation of basic noise reduction measures during project construction. See Final EIS.

Increase in noise from operations of the revised project would be expected to result in noise impacts to receivers (sleeping quarters) located on the back side (north side) of the Tacoma Rescue Mission that would be considered “severe” under FTA criteria. These operational impacts would not occur with the EIS Preferred Alternative. Using wayside horns instead of train-mounted horns at the South C Street crossing would result in much lower sound levels than anticipated with the use of train-mounted horns, although train noise levels would still be considered a “severe” impact at the Tacoma Rescue Mission. The use of wayside horns would be much less likely to disturb sleep and possibly affect other interior daily operations at the Mission.

Sound Transit is committed to mitigating the potential severe impact on the Tacoma Rescue Mission by substantially reducing the projected noise levels in accordance with FTA Guidance. In addition to committing to install wayside horns at South C Street, potential means for accomplishing such mitigation include using one or more noise barriers or building retrofits (including measures such as improved windows, supplementing the building HVAC system, caulking, etc.), or, potentially, several of the above. Since project design plans are currently at an early stage, Sound Transit commits to further evaluate noise mitigation measures at the Tacoma Rescue Mission during Final Design when more advanced plans are available. At that time, the noise mitigation needed to substantially reduce projected noise levels will be assessed. Appropriate mitigation measures would be constructed prior to operation of the project.

Additionally, FTA guidance notes that if the exterior noise criterion is exceeded for Category 2 buildings with interior use only, no additional sound insulation needs to be provided if the interior maximum noise levels from transit operations does not exceed 65dBA. At the Tacoma Rescue Mission, the concern is interior use related to sleeping quarters since there are no exterior uses on the affected side of this facility. As a result, in Final Design Sound Transit will also undertake further analysis to determine what level of sound insulation is needed for the sleeping quarters at the Tacoma Rescue Mission in accordance with FTA guidance and criteria.

The noise events related to the project would be relatively brief and infrequent. Further, mitigation measures will be implemented to achieve a substantial reduction in accordance with FTA Guidance. The project revisions, therefore, are not expected to result in significant unavoidable adverse noise impacts.

2. *Vibration*

No regulations exist for construction-related vibration. The construction activities that could cause intrusive vibration levels near the project corridor for the revised project are no different than those discussed in relation to the EIS Preferred Alternative, and include soil compaction, use of bulldozers and other heavy equipment, and shoring installation. Like the EIS Preferred Alternative, the revised project could include high-vibration-producing activities, with a potential for settlement of nearby structures. Mitigation measures discussed in the Final EIS would be employed by Sound Transit, and no significant adverse impacts from construction vibration are expected.

The FTA Transit Noise and Vibration Manual (May 2006) was used to evaluate the potential for ground-borne vibration (GVB) impacts due to operation of the proposed rail line with the proposed revisions. Using the General Vibration Assessment provided in the FTA manual, the proposed rail line would result in vibration levels of 75 VdB, or 5 VdB below the 80 VdB limit for Category 2

receivers affected by fewer than 30 train events per day. No significant unavoidable adverse vibration impacts are expected. During final design, Sound Transit will determine if further assessment is needed.

Socioeconomics

Construction impacts on businesses and residents from the proposed project revisions, including temporary access and circulation changes, would be greater than those of the EIS Preferred Alternative. This is due to the longer construction period for the project revisions. Exhibit C shows businesses in the Tacoma Section.

As discussed above, the project revisions would require the full acquisition of the McMacken and Stone properties, rather than the easements required under the EIS Preferred Alternative. In addition, construction of the project revisions would potentially displace the following businesses:

- Start Mart
- King's Inn
- Eagle Tire and Automotive
- Paramount Electric
- American Denture
- Napa Auto Parts
- Standard Auto Electric
- Star Ice and Fuel

Whereas the EIS Preferred Alternative would not require the acquisition of any residential properties, construction of the project revisions would displace residents of four apartment units associated with the Start Mart Property (doing business as Pacific Apartments), requiring relocation assistance.

Construction of the project revisions would further require the acquisition of some property from the following businesses: Tacoma Rescue Mission and Tacoma Self Storage. These acquisitions would not affect business activity, access, or overall business conduct.

As compared with the EIS Preferred Alternative, the project revisions would permanently replace some sidewalks with stairs, and may adversely affect some pedestrians. However, a number of new sidewalks, crosswalks, and pedestrian crossing signals would be constructed within or adjacent to the affected roadways. In these areas, sidewalks, crosswalks, and pedestrian crossing signals would generally be enhanced as compared with the EIS Preferred Alternative.

Sound Transit will mitigate all non-residential and residential acquisitions and displacements in accordance with its Real Property Acquisition and Relocation

Policy, Procedures, and Guidelines, as well as the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act. Sound Transit will work closely with affected owners and users to ensure that it understands their desires, concerns, and special circumstances, and make efforts to relocate affected businesses and residents to the same general vicinity, if desired.

The disruption to the community, workers, and business owners would be further reduced by minimizing the number of businesses and residents that would be affected by construction or displaced. Therefore, the following measures would be implemented:

- Coordination with the City of Tacoma before and during construction to minimize disruption to public facilities and activities;
- Advance notice of street closures, changes in transit service, changes in parking availability, and utility shutoffs;
- Signs showing that businesses/motels are still open and rerouting traffic, as well as the provision of updates to the public regarding construction activities;
- Maintenance of access to affected businesses;
- Scheduling traffic lane closures in off-peak hours to minimize delays during periods of higher traffic volumes as much as possible
- The reduction of construction noise and dust in accordance with applicable regulations and the ROD;
- The use of best management practices to protect air, water, and other resources in accordance with applicable regulations and the ROD; and
- Regular meetings with businesses during construction to identify and resolve access and visibility issues affecting the businesses.

As the Final EIS for the EIS Preferred Alternative concluded, this analysis also demonstrates that the impacts associated with the project revisions, including project benefits (such as increased transit mobility) and mitigations, would not disproportionately affect minority or low-income populations, or the neighborhood in general.

Aesthetics

The primary long-term visual impacts that would result from the proposed revisions are associated with the following: the proposed regrading of Pacific Avenue, South Tacoma Way and South 26th Street; construction of a new grade-

separated bridge and approaches; modification of the rail alignment from the south side of South Tacoma Way to the north side and associated building demolitions; and the intersection and roadway modifications needed to support these components. Generally, the project revisions would result in a greater alteration of views in the project areas as compared to the EIS Preferred Alternative. However, as discussed below, no significant adverse impacts on visual quality would result.

The new rail bridge over Pacific Avenue could form a visual interruption for travelers driving north or south along Pacific Avenue. It would also be a prominent feature in the views of pedestrians in the immediate vicinity. However, because the new rail bridge would have a scale similar to other structures in the same commercial/industrial urban viewshed, and would be part of an existing transportation corridor alterations resulting from the project revisions would not change the overall visual character of the area. In addition, Sound Transit would collaborate with the City of Tacoma to design the bridge in such a way that it would visually fit into the immediate surroundings.

Other components of the proposed project revisions would also alter views in the project area due to the presence of a combination of proposed rail facilities (i.e., rail line, grade-separated bridge and approaches), roadway network changes (including altered roadway elevations), demolition of structures and displacement of existing businesses, and filling and removal of soils for construction of retaining walls. These alterations would also be consistent with the immediate surroundings and would not negatively affect the overall visual character of the area. Further, the revised rail alignment on the north side of South Tacoma Way would require the removal of fewer mature trees compared to the EIS Preferred Alternative.

Earth

Construction of the EIS Preferred Alternative would require a total of approximately 31,000 cubic yards of excavation and 6,000 cubic yards of fill. By contrast, construction of the project revisions would require a total of approximately 192,000 cubic yards of excavation and 21,000 cubic yards of fill, leaving approximately 170,000 cubic yards of material that would need to be removed from the project site.

Excavation and fill volumes associated with the project revisions are greater than the volumes of excavation and fill expected for the EIS Preferred Alternative. The proposed excavation and fill would alter the topography within the project footprint. However, the overall topographic character of the project area would not be substantially changed. In addition, excavations, fills, and all structures would be designed and constructed in accordance with recommendations developed by a geotechnical engineer. These recommendations would ensure the long-term stability of these project features.

Whereas the EIS Preferred Alternative created 1,500 linear feet of retaining wall, the project revisions would create approximately 3,300 feet of retaining wall adjacent to rail, roadways, and/or sidewalks. The additional length of retaining wall is not expected to result in adverse impacts.

During construction of the project revisions, some dewatering may be necessary in areas of substantial excavations associated with road elevation changes, grading and reconstruction.

No significant unavoidable adverse impacts related to soils and geology are expected as a result of the project revisions.

Water

The project revisions would require more extensive excavation, a larger area of construction disturbance, and longer construction period than the EIS Preferred Alternative. This would result in an increased potential for erosion and sedimentation during construction and an increased potential for inadvertent spills or leaks from construction equipment and activities. However, these impacts would be temporary and short-term in nature and would be limited by Sound Transit's incorporation of best management practices for erosion and sedimentation control in accordance with applicable regulations.

The project revisions would result in a rail bed similar in length to the EIS Preferred Alternative; therefore the potential for impacts on ground water quality would be similar. A spill prevention, control, and countermeasures plan or and a stormwater pollution prevention plan would be prepared before construction to ensure proper treatment and disposal of any contaminated ground water encountered during construction; and to prevent groundwater contamination during rail operation.

Compared with the EIS Preferred Alternative, the project revisions would result in a slight reduction in the amount of new impervious surface and associated stormwater runoff with the removal of buildings, parking lots and drives associated with property acquisition for the proposed alignment. In addition, new collection, treatment, and conveyance facilities in the lowered portion of South Tacoma Way, Pacific Avenue, and South 26th Street would be necessary under the project revisions to handle stormwater before discharge to the Thea Foss Waterway. Under the EIS Preferred Alternative, stormwater from this area would continue to be untreated.

With the incorporation of best management practices for controlling stormwater impacts during construction, and the development of new collection and treatment facilities for stormwater during operation, the project revisions would likely result in a net water quality benefit compared to the EIS Preferred

Alternative. No significant unavoidable adverse impacts on water quality, hydrology, floodplains, or stormwater runoff are expected.

Biological Resources (Plants and Animals)

Like the EIS Preferred Alternative, construction activities for the revised project would dislodge urban wildlife from the immediate vicinity of the project area. Common native and invasive species that acclimate easily to urban environments are likely to be present.

Under the project revisions, long-term impacts on biological resources would be similar to the EIS Preferred Alternative, with variations in the location of vegetation removal along South Tacoma Way. The revised alignment would result in the removal of some vegetation from within the project area between South Tacoma Way and Delin Street South, and adjacent to the proposed rail line between South C Street and South Yakima Avenue. However, the revisions would result in the removal of less vegetation along South Tacoma Way between Delin Street South and the proposed rail alignment, relative to the EIS Preferred Alignment. Because these areas include no critical habitat or species, no significant impacts on biological resources are expected.

Since issuance of the Final EIS, Sound Transit has identified four additional wetlands that would be filled by the new rail connection (SEPA Addendum, November 3, 2003). These wetlands are relatively low-quality wetland areas and provide few ecological functions as indicated by their ratings. They also show evidence of being disturbed and degraded in some cases. Each of the wetlands would be permanently filled, under both the EIS Preferred Alternative and the project revisions, to accommodate the new rail connection to existing railroad tracks. Sound Transit developed a wetland mitigation plan in 2006 in accordance with applicable regulations. Mitigation will take place at McKinley Park in the City of Tacoma, which is located within the same affected drainage basin. Wetland functions and area will be replaced at McKinley Park at a one-to-one ratio.

No significant unavoidable adverse impacts on biological resources are expected as a result of the project revisions.

Cultural/Historic

The study area for the previous EIS covered the area of impact for the project revisions. The deeper excavations at Pacific Avenue and greater area of construction disturbance associated with the project revisions could increase the potential disturbance of unknown cultural artifacts. This is of low probability based on the investigations of the project area. Further, only non-historic items such as old sewer pipes and previously disturbed urban fill have been documented for previous projects in the vicinity of the proposed Pacific Avenue excavations at similar depths (12 feet).

Sound Transit is currently coordinating with the City of Tacoma Historic Preservation Officer regarding potential historic characteristics that may be associated with the American Denture Studio (potentially displaced as noted in the Socioeconomics section). If further coordination is needed with other agencies, including the Washington State Department of Archaeology and Historic Preservation (DAHP), and measures implemented to protect or preserve the building, this will be determined as a part of final design and prior to construction. Because the Denture Studio building is not directly within the new track alignment, it is likely the structure could be preserved if that is determined to be necessary or desirable.

Anticipated impacts for the project revisions would remain unchanged from the EIS Preferred Alternative. That is, no adverse impacts are anticipated as per the Section 106 compliance completed for the previous EIS process. Sound Transit will provide appropriate onsite archaeological monitoring during excavation activities, which will be determined as a part of final design. As with all Sound Transit projects, if cultural materials are discovered during construction, activity will be halted and the appropriate agencies, including the State Department of Historic Preservation (DAHP), FTA, and Tribes if the artifacts are Native American in origin, will be immediately notified.

No significant unavoidable adverse impacts on known historic, cultural, and archaeological resources are expected.

Construction

Construction of the track alignment, grade-separated bridge and approaches, and roadway improvements under the project revisions would occur in phases to maximize the flow of traffic through the project area and to minimize disruption to businesses in the area. Construction would occur over approximately 18 to 24 months for the project revisions, in contrast to 6 to 9 months for the EIS Preferred Alternative. The phasing of construction may be unique for each portion of the project due to the specific vehicle and pedestrian circulation patterns, terrain conditions, business access requirements, and specific construction activities.

However, as described in the sections above, construction-related impacts would generally be greater for the project revisions than those resulting from the EIS Preferred Alternative. This would be due to the additional duration of construction activities, potentially greater number of businesses affected, and the wider area of construction disturbance. However, no significant, unavoidable adverse construction impacts are expected.

Secondary and Cumulative

With completion of the Sound Transit commuter rail project, WSDOT-funded Amtrak "Cascades" (Intercity rail) service is planned to move from BNSF's Point

Defiance trackage to the Point Defiance Bypass, which includes the segment of rail from East D Street to South M Street evaluated in this SEPA Addendum.

According to current WSDOT plans, (Amtrak Cascades Draft Plan for Washington State: 2003-2023), this would add up to 8 daily round trip passenger rail trains by year 2013 and up to 13 daily round trip trains by 2023 (the actual number of intercity rail trains operating in the corridor by these dates may be less than this, however). That would equate to 16 trains in 2013 (8 northbound and 8 southbound) and 26 trains (13 northbound and 13 southbound) in 2023 passing through the study area.

WSDOT rail has indicated a desire, in the longer term, to add a second track in the D to M Street segment. The project revisions would be developed with the width to accommodate a future second track through the rail corridor (although design and construction of any second track is not a part of the Sound Transit project being evaluated in this SEPA Addendum). The project revisions would, therefore, provide an opportunity to expand passenger rail service in the corridor, should demand warrant. If implemented, expanded passenger rail service would add train crossings and some delay to automobile traffic using the East D Street, East C Street, and South C Street at-grade crossings. The additional train crossings would also add delay for pedestrians crossing at South A Street. However, based on the increase in delay expected for each passenger train crossing at these locations, and with the grade separation at the Pacific Avenue crossing, the additional Intercity passenger trains would not likely result in significant adverse impacts to the local roadway system operations.

The addition of WSDOT/Amtrak trains through the project area would increase the overall noise levels and potentially increase the number of predicted noise-related impacts. Cumulative impacts were calculated assuming a WSDOT/Amtrak train emits a similar noise spectrum (frequency range) and noise level (intensity), has the same number of engine locomotives, and is approximately as long as a Sounder train (similar number of passenger cars). On average, about a 2-dBA increase over predicted sound levels (L_{dn}) at *all* receivers for either the wayside-horn or train-mounted horn option would occur. Potential mitigation measures discussed in the Noise section for impacts to the Tacoma Rescue Mission would be expected to be adequate for the addition of intercity rail trains in the corridor. When wayside horns are used, as Sound Transit is committing to implement at South C Street, no *additional* sound level impacts per FTA criteria would be expected.

Adverse air quality impacts also would not be anticipated from the addition of intercity rail passenger service in Point Defiance By-Pass corridor based on expected levels of delay at area intersections, as discussed above.

Separate environmental documentation in compliance with NEPA and SEPA for future intercity rail service in the Lakeview Subdivision corridor, and for any

expanded passenger rail service using an additional second track would be conducted as appropriate by the proponents (WSDOT/Amtrak).

Sound Transit is continuing to meet and coordinate with WSDOT on at least a monthly basis in regard to WSDOT planning for future passenger rail service in the Lakeview Subdivision corridor (Pt. Defiance By-Pass), including WSDOT's design and environmental documentation for their Phase 1 Pt. Defiance By-Pass project.

Conclusion

The proposed project revisions would occur on a segment of the Tacoma Section of the Lakewood-to-Tacoma Commuter Rail and SR-512 Park-and-Ride Expansion Project. The proposed revisions include track alignment modifications, road and bridge crossing changes, roadway elevation modifications, and roadway and intersection improvements. The proposed revisions and the new project-area information discussed above do not substantially change the analysis of significant impacts and alternatives in the existing environmental documents, and no new probable significant environmental impacts would result.

Attachments

- Exhibit A: Tacoma Section, Tacoma to Lakewood Corridor Map
- Exhibit B: Tacoma Section, EIS Preferred Alignment and Modified Alternative 3.
- Exhibit C: Businesses in the Tacoma Section



Exhibit A. Vicinity map of the Tacoma section of the Lakewood-to-Tacoma Sounder commuter rail expansion.

Map source: Thomas Brice 2005 and Sound Transit 2006



Exhibit B. Project alignment of the Tacoma section of the Lakewood-to-Tacoma Sounder commuter rail expansion under the EIS Preferred Alternative and Modified Alternative 3.

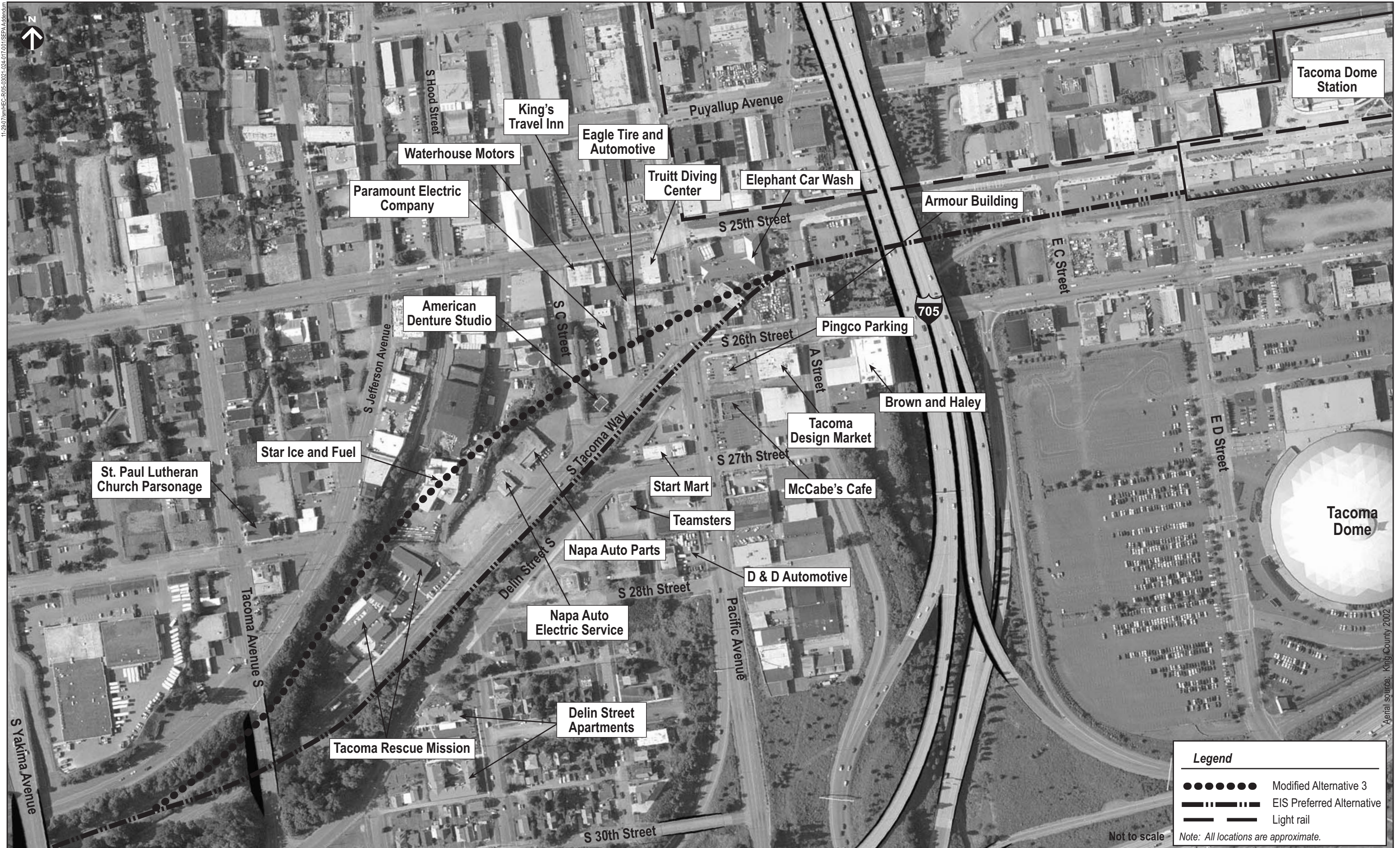


Exhibit C. Businesses in the area of the project revisions in the Tacoma section.