Chapter 5 Cumulative Impacts

5.1 Overview

The National Environmental Policy Act (NEPA) defines cumulative impact as “the impact...which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions.” The California Environmental Quality Act (CEQA) defines cumulative impacts as "two or more individual effects which, when considered together are considerable," and suggests that cumulative impacts can result from “individually minor but collectively significant projects taking place over a period of time" (State CEQA Guidelines Section 15355).

NEPA includes cumulative impacts within the scope of impacts to be considered in an environmental document. CEQA documents are required to include a discussion of cumulative effects when those effects are significant, and the State CEQA Guidelines suggest two possible methods for assessing potential cumulative effects (State CEQA Guidelines Section 15130). The first method is a list based approach, which considers a list of past, present, and reasonably foreseeable future projects producing related or cumulative impact. The second method is projections based, and uses a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions.

While the use of regional projections is one possible method of analyzing cumulative effects under CEQA, it is the required method under NEPA. FTA guidelines require that regional growth projections from the metropolitan planning organization (in this case, the Metropolitan Transportation Commission [MTC]) in conjunction with the Association of Bay Area Governments [ABAG], the regional planning agency for land use forecasts) be used as inputs for the assumed future year conditions.

The Alameda County Congestion Management Agency (ACCMA) Countywide Model was used to develop the travel forecasts for development and growth in the region through the year 2025. The model estimates future traffic and transit travel demand for traffic analysis zones within Alameda County as well as zones representing the other Bay Area counties and external counties. The model was calibrated to year 2000 data and extended to the horizon year of 2025 with information from the ABAG *Projections 2002* series. Growth factors from the model were used to estimate 2025 transit travel and intersection turning movements. The model was used directly to analyze roadway segments designated by the ACCMA and intersections identified jointly with the affected cities of Berkeley, Oakland, and San Leandro.

5.2 Regional Context

Because this document is based on accepted regional land use forecasts for 2025 and assumes transportation improvements programmed within the same time frame, effects evaluated under the Build Alternatives for the East Bay BRT Project include the cumulative effects of development

within the region. Thus, additional analysis of cumulative effects related to specific development and transportation improvement projects within the region is not necessary for impacts such as land use, transportation (including traffic and transit), air quality, and noise.

5.3 Local Context

Cumulative effects are not always regional in scope, and the Build Alternatives were analyzed also to determine whether less than significant environmental effects that would be experienced locally could become significant when considered in combination with other reasonably foreseeable future projects in the project area, here defined as the projects assumed in the 2025 No-Build Alternative described in Chapter 2 and the other related projects described in Section 1.3.3, Related Projects and Planning.

Because the proposed project would use existing paved street right-of-way, there would be no potential for it to contribute to impacts to biological and wetlands resources in the general project corridor. Its primary impacts would be to traffic circulation and parking. Other major projects that might also contribute to these impacts, and the Build Alternatives that could contribute to these impacts or be affected by these other projects, are as follows:

Telegraph Avenue Corridor Projects (Alternatives 1-4)

- *Telegraph Avenue Streetscape Improvements Project* between 16th Street and 20th Street and between 20th Street and 51st Street, focusing on neighborhood-serving retail, façade improvements, streetscape and traffic calming strategies, and community service uses.
- *Telegraph Avenue Bicycle Lane Project* between Aileen Street/SR 24 and 16th Street.

12th Street Reconstruction Project (Alternatives 1-4)

The *12th Street Reconstruction Project* at the south end of Lake Merritt in the City of Oakland would transform the existing 12-lane expressway into a six-lane, tree-lined boulevard with bicycle lanes and signalized intersections. The project would expand the park, renovate buildings, calm traffic, improve water quality and wildlife habitat, and improve pedestrian and bicycle access around the Lake and across the estuary.

International Boulevard Projects (Alternatives 1-4)

- *Fruitvale Transit Village, Phase I*, completed in 2004, installed a median on International Boulevard from 33rd to 35th and semi-circular benches at 33rd, 34th, and 35th Streets. *Phase II*, currently unfunded, would install a median on International Boulevard from Fruitvale Avenue to 33rd and from 35th to 37th streets.
- *International Boulevard Streetscape Project* in the City of Oakland would construct streetscape and pedestrian improvements along International Boulevard between 40th and 89th Avenues. *Phase I*, currently underway, includes undergrounding of utilities; new hardscapes, such as widened sidewalks; intersection bulb-outs with trees; improved bus stops; curbed and planted medians; lighting; and street furniture such as bus shelters, benches and trash cans.

East 14th Street Projects (Alternatives 1 and 3)

- *East 14th North Area Study* in the City of San Leandro would keep the center two-way left-turn lane but add an additional through travel lane in the northbound direction between Hays Street,

just north of Davis Street (State Route 112), and Georgia Way, which is two blocks north of Dutton Avenue. Additionally, raised medians would be added at selected crosswalks at unsignalized intersections that currently serve relatively large numbers of pedestrians.

- *East 14th Street South Area Development Strategy* in the City of San Leandro would implement various streetscape and traffic improvements along East 14th Street between Downtown San Leandro (beginning at Maud Avenue/Thornton Street) and 150th Avenue. Initially, improvements will include adding a landscaped median, from 136th Avenue to 143rd Avenue, bulb-outs at selected street corners and landscaping. The full project will be completed as funding becomes available.

Caldecott Improvement Project (Alternatives 1-4)

The *Caldecott Improvement Project* would alleviate traffic congestion and increase safety along State Route 24 between Alameda and Contra Costa counties by constructing a fourth bore of the Caldecott Tunnel.

5.4 Cumulative Impacts

Each of the projects identified in Section 5.3 was evaluated for the potential to add to impacts of the proposed East Bay BRT Project as described in Chapters 3 and 4. Most of the projects were determined not to contribute substantially to cumulative impacts in any environmental category when combined with the proposed East Bay BRT project. Cumulative impacts to access or circulation would have the potential to occur with the East 14th Street Corridor Projects in San Leandro under Build Alternatives 1 and 3 (Alt 1: Separate BRT and Local Service to BayFair BART and Alt 3: Combined BRT and Local Service to BayFair BART). Cumulative bicycle and parking impacts would have the potential to occur with the proposed *Telegraph Avenue Bicycle Lane Project* under all of the Build Alternatives. The reasons for these determinations are discussed in the following sections.

5.4.1 Access and Circulation Impacts

The *East 14th Street North Area Study* project and the *East 14th Street South Area Development Strategy* in San Leandro both have the potential, when combined with Build Alternatives 1 and 3, which propose a dedicated BRT transitway along most of East 14th Street through San Leandro to BayFair BART, to result in substantial cumulative impacts on access and circulation. The *East 14th Street North Area Study* proposal to add roadway capacity in the northbound direction was recently approved by the San Leandro City Council. However, a second northbound lane, from Hays Street to Georgia Way, would not be compatible with either Alternative 1 or Alternative 3. (A portion of the second northbound traffic lane could be included in the East Bay BRT Project design; see Section 5.5.1.) The lane would be replaced by one of the proposed BRT-only lanes in the street median. Throughput capacity of East 14th Street for regular auto and truck traffic would be reduced as a result.

The second northbound lane to be added under the East 14th Street North Area Study project would not result in decreased roadway capacity when combined with Build Alternatives 2 and 4, which propose BRT operations in mixed-flow lanes along East 14th Street, with a project terminus at San

Leandro BART.. Therefore neither of these alternatives would be affected by, or have an effect on, the *East 14th Street North Area Study* project.

The *East 14th Street South Area Development Strategy*, depending upon the final configuration of streetscape improvements and lane reconfigurations, would result in alternative uses of the street right-of-way in south San Leandro. Streetscape improvements, if implemented, would likely be substantially modified by Build Alternatives 1 and 3. The *East 14th Street South Area Development Strategy* would possibly alter lane capacities and cross street access relative to future year conditions assumed in the traffic analyses conducted for this environmental document. For this reason, in combination with Build Alternatives 1 and 3 it has the potential to contribute to cumulative access and circulation impacts. Since Build Alternatives 2 and 4 do not propose to extend project improvements along this segment of East 14th Street, the *East 14th Street South Area Development Strategy* would not have the potential to contribute to cumulative access and circulation impacts under these alternatives.

5.4.2 Bicycle and Parking Impacts

The proposed *Telegraph Avenue Bicycle Lane Project* along Telegraph Avenue between Aileen Street/SR 24 and 16th Street potentially would contribute to cumulative bicycle impacts of all Build Alternatives under consideration for the East Bay BRT Project, primarily through prohibition of additional left turns. Turn prohibitions would increase out-of-direction travel by some autos and trucks using Telegraph Avenue and certain cross streets. However, the magnitude of potential cumulative impacts is unclear. Originally, the bicycle lanes would have limited left turns at an additional 15 or more intersections along Telegraph Avenue between SR 24 and 20th Street. The city has indicated, however, that the Telegraph Avenue Bicycle Lane Project would be reevaluated should the East Bay BRT Project be approved for construction. Therefore, the bicycle lane project design could be modified or the East Bay BRT Project could be refined in later design phases to reduce any design and operational conflicts between the two projects. One design option might include incorporating a bike lane where practicable on Telegraph Avenue between Aileen Street/SR 14 and 16th Street, as part of the East Bay BRT Project.

A preliminary analysis of the effects of adding a bike lane along this section of Telegraph Avenue was conducted. With the East Bay BRT Project in place, several sections of Telegraph Avenue between SR 24 and 20th Street would require removal of parking and/or additional right-of-way to stripe a Class II bike lane on each side due to the presence of the BRT lanes and the maintenance of curbside parking, whenever possible. These sections would amount to about 22 percent of the feasible length of the striped bikeway after accounting for bike lane drops within and immediately adjacent to intersections.

Removal of parking would not affect the street cross-section, but would further reduce the supply of parking spaces for persons using autos rather than transit to access the numerous small business establishments along Telegraph Avenue. Replacement of parking spaces removed to accommodate the bikeway extension would require the reconfiguration of parking throughout the length of the bikeway.

Some street segments may be too narrow to allow parking even without a bike lane; assumptions regarding potential parking loss with the East Bay BRT Project are based on worse case conditions. Under worse case conditions, up to 280 more parking spaces might be displaced on Telegraph Avenue between SR 24 and 20th Street, for a total loss of 498 spaces, or 26 percent of the total supply before any mitigation.

Street widening would result in the narrowing of sidewalks and possibly right-of-way acquisitions. Sidewalk narrowing and right-of-way acquisitions that would require the displacement of businesses would not be feasible. The measures would conflict with the City of Oakland's efforts to make Telegraph Avenue a more pedestrian-friendly environment.

5.5 Avoidance, Minimization, and/or Mitigation Measures

5.5.1 Access and Circulation

Cumulative impacts to access or circulation anticipated as a result of implementing Alternative 1 or Alternative 3 for the East Bay BRT Project, would potentially occur under the *East 14th Street North Area Study* and the *East 14th Street South Area Development Strategy*. These two alternatives would extend BRT operations along a mostly dedicated transitway through San Leandro to BayFair BART. No impacts are anticipated to occur under Alternative 2 or 4, which propose that BRT buses operate in mixed-flow lanes in San Leandro and terminate at San Leandro BART. Where traffic impacts are anticipated to occur, the East Bay BRT Project would mitigate intersection level of service (LOS) and delay impacts that exceed locally accepted standards. After mitigation, intersection LOS would meet accepted standards in San Leandro (see Section 3.2.4.2).

With respect to the *East 14th Street North Area Study*, the East Bay BRT Project would not fully mitigate the decrease in street capacity that would occur under Build Alternatives 1 and 3 for northbound traffic. The capacity decrease would result from replacing one of the mixed-flow lanes with a dedicated BRT lane between Hays Street and Georgia Way. Under Alternatives 1 and 3, a second northbound lane could be provided from Lorraine Boulevard/Begier Avenue (located three blocks north of Hays Street) to Georgia Way. The design change would require removal of all curbside parking along East 14th Street. To extend the lane farther south to Hays Street would require removal of curbside parking and reconstruction of cross street intersections, including the narrowing of sidewalks, at Haas Avenue, Toler Avenue and Hays Street.

At this time, the final roadway configurations under the *East 14th Street South Area Development Strategy* have not been established. However, the preliminary roadway configurations would potentially result in cumulative impacts under Alternatives 1 and 3, AC Transit would continue to coordinate with the City of San Leandro on designs for the East Bay BRT Project that would provide comparable roadway capacity and local access, if at all possible.

5.5.2 Bicycle and Parking

If the East Bay BRT Project were implemented in combination with the proposed *Telegraph Avenue Bicycle Lane Project*, AC Transit would participate in a planning study with the City of Oakland to

identify in detail the areas of conflict and determine possible measures that would allow both construction of the BRT transitway and implementation of a safe, convenient bicycle connection between Telegraph Avenue at SR 24 and Downtown Oakland. One approach to mitigate conflicts would be to relocate the proposed bicycle lane to other streets where parking and circulation impacts could be avoided and a more continuous bike lane designated. Alternate streets for study would include, but not be limited to, Shattuck Avenue and Martin Luther King, Jr. Way, Webster Street, and Broadway.