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## AGENDA REPORT

**TO:** HENRY L. GARDNER  
INTERIM CITY ADMINISTRATOR

**FROM:** Rachel Flynn

**SUBJECT:** Informational Report on Emeryville-Berkeley-  
Oakland Transit Study

**DATE:** June 24, 2014

City Administrator  
Approval

Date

7/8/14

**COUNCIL DISTRICT #3**

### RECOMMENDATION

Staff recommends that the City Council receive:

**An Informational Report on the Emeryville Berkeley Oakland Transit Study**

### EXECUTIVE SUMMARY

The purpose of the study is to improve transit access in Emeryville, West Oakland and West Berkeley, including connectivity within the study area and "last mile" connections to regional transit and destinations. The study is being managed by the City of Emeryville, working with the cities of Berkeley and Oakland, AC Transit, BART, Capitol Corridor, Emeryville Transportation Management Association and other transit-related entities. Issues being addressed in the study include potential AC Transit route extensions or modifications, connector routes linking to BART stations, mode for connectors (various bus service types or streetcar), features and funding.

### OUTCOME

This is an information report on the Emeryville-Berkeley-Oakland Transit Study (EBOTS) scope and process to date.

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## **BACKGROUND/LEGISLATIVE HISTORY**

Emeryville received a Federal Transit Administration grant through Caltrans in February of last year for an Emeryville-Berkeley-Oakland Transit Study. The Study has identified and evaluated transit options in the areas within the three cities which are west of San Pablo Avenue and Market Street, as shown on the attached maps (*Attachment A* and *Attachment B*). A Technical Advisory Committee was convened including staff members from the three cities, five transit agencies (Emeryville Transportation Management Association which runs the Emery Go-Round, Berkeley Gateway Transportation Management Association, AC Transit, Amtrak Capitol Corridor, and BART), Alameda County Transportation Commission, and the Metropolitan Transportation Commission.

On May 21, 2013, the Emeryville City Council approved a contract with CDM Smith to conduct the study. After reviewing many existing plans and studies and analyzing opportunities and constraints, the consultant-staff team conducted three Community Workshops and a questionnaire. A Policy Advisory Committee was formed, composed of a representative from each city's Mayor, a resident from each city, transit board members, and representatives from the three cities' Chambers of Commerce, the West Oakland Commerce Association, the Center for Independent Living, and the East Bay Housing Organizations. That committee met on October 28, 2013 and April 28, 2014 to discuss ideas for transit in the area.

## **ANALYSIS**

The following information on the vision, study area, existing and potential transit, and funding was presented at first round of meetings listed below under Public Outreach/Interest.

The vision of the Emeryville Berkeley Oakland Transportation study is to help create a place where a car is not required, with access to jobs, education and recreation; to provide transit for job growth; to make near-term improvements such as bus route changes, new shuttle operations and increased reliability and frequency; and to enhance long-term mobility, possibly with a streetcar or bus rapid transit. This study will be coordinated with other plans being conducted by Oakland (Broadway Urban Circulator Study and West Oakland Specific Plan), Berkeley (GoBerkeley Parking Plan) and AC Transit (Line 51 Improvement Study).

The three-city study area now has 33,000 residents, 24 schools and 40,800 jobs. It is projected to have 60,500 residents and 64,000 jobs by 2040. Currently, only 3% of the people who work in the area live in the area. Of area residents, 20% commute by transit. Land uses include 29% public agency lands, 18% major parks, 18% residential, 16% industrial-warehouse-wholesale uses, 11% commercial and office uses, and 8% other uses.

Existing transit includes 18 AC transit lines, the West Oakland and MacArthur BART stations, Amtrak Capitol Corridor trains, and shuttles from Emeryville to MacArthur and from West

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Berkeley to Ashby BART stations. Area residents get to BART by walking (37%), car (32%), transit (19%), bicycle (11%) and taxi (1%).

Transit opportunities in the area include nearby regional transit, a jobs-rich environment, higher transit use by residents than other Bay Area residents, lower car ownership rates than the overall three-city area, and designation of Priority Development Areas (which are eligible for regional transit funding). Constraints include the need for funding; low population and housing density; freeway and railroad barriers; limited right-of-way on streets for transit; and peak hour congestion on San Pablo Avenue and three streets in Berkeley (University Avenue, Gilman Street and Ashby Avenue).

Potential near-term (0 to 3 years) improvements include bus route changes, new or expanded shuttles, improved frequency and hours of existing service, improved station amenities, and last mile solutions such as pedestrian and bicycle improvements and carpooling. Potential mid-term (3 to 10 years) improvements include new bus service, bus lanes, a transit center or hub, bicycle sharing, and street improvements such as bulb-outs, signal priority and real-time arrival signs. Potential long-term (10+ years) improvements include streetcar, automated guide way transit, light rail, full-scale bus rapid transit, grade separations, and Capitol Corridor improvements.

As transit technologies increase in capacity, speed and reliability, they increase in cost per mile and right-of-way requirements. By providing reliable, frequent service, major transit investments expand the commute-shed, move more people, increase foot traffic and potential customers for retail, and demonstrate public investment, which tends to draw private development. Major transit investments require a certain amount of concentrated development, pedestrian-focused design, and land use policies for transit-oriented development. Examples of major transit improvements that have helped to stimulate development include Cleveland's HealthLine bus rapid transit, Eugene's Franklin Emerald Express, and Portland's streetcar. The transit projects process can be one to five years for operational improvements, but are 5 to 10 years for projects involving major capital investment.

Funding can come from local, regional, state and federal sources. Local sources include tax measures, public/private partnerships, privately sponsored systems, and fare box revenue. Regional sources include grants administered by the Metropolitan Transportation Commission and Bay Area Air Quality Management District. State sources include the Transportation Development Act, the Public Transportation Account, and the Modernization, Improvement and Service Enhancement Program. Federal Transit Administration programs include New Starts, Very Small Starts, Small Starts, and TIGER (Transportation Investment Generating Economic Recovery) grants.

## POLICY ALTERNATIVES

The following information on options was presented at the second round of meetings listed below under Public Outreach/Interest.

**Land Use and Future Development:** Bay Area Economics and CDM Smith feel that the projected 2035 jobs and population in the area will support the Circulator options described below.

**Transit Options Evaluation:** The options described below assume that AC Transit service would continue except as changed in the Grid Option, and that Emery Go-Round service would continue unless replaced by one of the new routes.

The Grid Option, shown in Attachment 1, is a set of route changes that AC Transit staff plans to recommend to its board for implementation if funding becomes available. It includes the following changes:

- Line 12 would connect from West Oakland to Downtown Berkeley via Adeline Street and Martin Luther King Jr Way.
- A new Line 13 would connect the Amtrak/Public Market area with Berkeley via Stanford Avenue and would go on to Rockridge, Piedmont, Lake Merritt and Downtown Oakland.
- Line 26 would connect Emeryville Public Market/Amtrak to West Oakland BART via Mandela Parkway.
- Line 49 from Elmwood would extend from West Berkeley via 6<sup>th</sup> Street and Christie Avenue to Emeryville Public Market/Amtrak.
- Line 57 from Oakland would extend from 40<sup>th</sup> Street at San Pablo Avenue to Emeryville Public Market/Amtrak via 40<sup>th</sup> Street and Shellmound Street.

The Trunk Line option was considered but rejected due to low projected ridership because it does not connect to the MacArthur or Ashby BART stations. This option includes a line connecting Hollis Street to North Berkeley BART and a line connecting Shellmound Street to West Oakland BART and Jack London Square.

The Connectors option, which would build on the Grid Option and existing Emery Go-Round, includes four routes as shown in Attachment 2:

- Line A from Ashby BART via Ashby Avenue to 7<sup>th</sup> and 6<sup>th</sup> Streets and to either Downtown Berkeley or North Berkeley BART
- Line B from Ashby BART via Ashby Avenue and 65<sup>th</sup> Street to Christie Avenue and Shellmound Street, and via 40<sup>th</sup> Street to MacArthur BART (west of the railroad tracks)
- Line C from Ashby BART via Ashby Avenue to Hollis Street and via 40<sup>th</sup> Street to MacArthur BART (east of the railroad tracks)



- Line D from Summit Medical Center via Broadway and 40<sup>th</sup> Street to MacArthur BART, then via 40<sup>th</sup> Street and Mandela Parkway to West Oakland BART, and on to Jack London Square via either 7<sup>th</sup> Street and Broadway or 3<sup>rd</sup> Street.

At the first Community Workshop, a variation on the Connectors option arose with overlapping routes to allow travel from West Berkeley or West Oakland to Emeryville without transfers.

**Modes:** The team evaluated four transit modes, described below and compared on the attached chart.

- Shuttle – fold-out lift for boarding disabled and strollers, 30-45 passengers per vehicle, average speed with stops about 6-11 mph, currently supports existing development in Emeryville, less than 10-year life span.
- Conventional Bus – kneeling bus with ramp for boarding disabled and strollers, 60-80 passengers per vehicle, about 8-14 mph, improves mobility for all and access to businesses, about 10-year life span.
- Enhanced bus – curb extensions for level boarding, 60-80 passengers per vehicle, about 10-16 mph, has helped spur development in Cleveland and Eugene, about 10-year life span.
- Streetcar – curb extension for level boarding, 115-150 passengers per vehicle, about 8-14 mph, has helped spur development in Portland and Seattle, at least 30-year life span.

In comparing capital costs, it should be noted that a streetcar system is a long-term investment that can be amortized over 30 years, while buses are shorter-term investments that are typically amortized over 10 years or less. If capital costs are annualized that way, a streetcar might look worthwhile for Emeryville routes.

**Features:** Several kinds of features encourage transit use. Service features include vehicle frequency and timed transfers. Vehicle speed is affected by features such as signal priority and curb extensions for boarding. Safety and security of stops can be improved with visibility, cameras and lighting. Other stop improvements include benches, trash bins, landscaping and shelters. Other features include cleanliness of stops and vehicles, real-time arrival information, and on-board wi-fi.

**Funding:** Improvements would need to be funded by a combination of local, state and federal sources. Local sources could include Property Based Improvement District (PBID) expansion or additional districts, parcel taxes, local gas taxes, developer fees, and/or fares.

## **PUBLIC OUTREACH/INTEREST**

Meeting comments are summarized below. A more detailed description of the outreach process and comments received can be found at <http://www.emeryville.org/ebots>.

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**First round of meetings:** Community Workshops to elicit input on desired trips, problems and ideas were conducted in West Oakland on November 7, 2013 (23 participants), in West Berkeley on November 9, 2013 (14 participants), and in Emeryville on November 12, 2013 (32 participants). The questionnaire received 827 responses. The study was discussed by the Emeryville Transportation Committee on November 26, 2013; the Emeryville Planning Commission on December 12, 2013; and the Emeryville City Council on January 24, 2014.

The EBOTS Policy Advisory Committee's discussion included the following comments:

- The Measure B transportation sales tax measure election should be postponed until 2016 to make time to revise it to give more to North County, to find new financing for the Emery Go-Round, and to include design for transit in development project design review so we can seize opportunities for bus stops and other transit improvements.
- Transit alone does not attract development but coordinated development incentives, marketing and transit can.
- Bicycle improvements such as road diets (reducing motor vehicle lanes to add bike lanes) can interfere with transit improvements if the two are not coordinated.
- Bike sharing would give more people cycling as a transit access option.

Community Workshop participants provided the following input:

- Several locations are difficult to access by transit, including the West Oakland BART station, Frontage Road, shopping and entertainment in Emeryville, waterfront areas, grocery stores, and Mandela Parkway.
- Desired improvements include service in evenings, late nights and weekends; more neighborhood circulators; reliability; lighting at stops; buses that are easier to board; more routes; increased safety, more AC Transit connections to Emeryville, inter-agency coordination, Emery Go-Round service in West Oakland, and complete networks where bicycles and buses are on different streets.
- Long-term wishes include streetcars, non-polluting buses, bus rapid transit on San Pablo Avenue, transit-supportive parking policies, and Wi-Fi on local buses.
- Acceptable trade-offs included removal of parking on some streets and travel lanes on others - negotiated with local businesses - and residents paying for expanded Emery Go-Round service.

Questionnaire responses provided data on the following topics:

- Respondents' relationship to the area
- Trips to, from and within the area for commuting, shopping and other purposes
- Travel methods for various types of trips
- Starting points and travel method for trips to San Francisco, Downtown Berkeley, Downtown Oakland, Emeryville and BART
- Trip difficulty and reasons (infrequent and unreliable service, traffic congestion, limited parking, poor connectivity between modes, limited Emery Go-Round service, and

inadequate access to specific locations including West Oakland BART, Jack London Square, Mandela Parkway, and West Oakland to North Berkeley)

- Desired transit improvements (evening and weekend service, accurate real-time arrival information, additional shuttle service, and safety)

The Emeryville Transportation Committee had these comments:

- Going to San Francisco via West Oakland BART station saves 20 to 30 minutes and some fare money compared to going from the MacArthur station.
- We will need better transit for the density that is planned in Emeryville and West Oakland. AC Transit should restore service to the Marina.

The Emeryville Planning Commission made the following comments:

- We need connections to waterfronts, shopping, entertainment, the West Oakland BART Station, downtown Berkeley, 4<sup>th</sup> Street, and University Avenue.
- For efficiency AC Transit should reduce the number of F bus stops on Market Street, and educate passengers to exit via rear doors.
- The most important features are frequency, longer hours, reliability, clean fuel, and bus stop maintenance, lighting and safety.
- On-street parking could be given up for transit, and we could require bus pullouts, shelters, transit passes, and other forms of transportation demand management in new development.
- Transit generally needs stable funding sources.
- BART should focus on urban rather than suburban extensions.

The Emeryville City Council provided the following direction:

- We need regional solutions and funding; transit should not be a bunch of little agencies.
- Emery Go-Round is not reliable or frequent; it is funded because AC Transit didn't serve us well.
- Funding should be steady and controlled by public entities.
- We need better service to University of California, Berkeley.
- People want service from Emeryville to West Oakland BART.

**Second Round of Meetings:** Community Workshops to elicit responses to draft options (described below under Policy Options) were conducted in Emeryville on May 8, 2014 (14 participants), West Oakland on May 10, 2014 (18 participants), and in West Berkeley on May 13, 2014 (11 participants). The questionnaire on the options received 502 responses. The options were discussed by the Emeryville Transportation Management Association (which runs the Emery Go-Round) on May 15, 2014; the AC Transit Board on June 11, 2014; the Emeryville Planning Commission on May 22, 2014; the Emeryville Transportation Committee on May 27, 2014; the Emeryville City Council on June 17, 2014; and the Berkeley Transportation Commission on June 19, 2014.

Highlights of the April EBOTS Policy Advisory Committee discussion are listed below:

- Connect to downtown Berkeley, 4<sup>th</sup> Street/Amtrak, Emeryville, Jack London Square and downtown Oakland
- Ashby is too slow; Stanford-Powell is fast
- North end should go to North Berkeley BART and south end should go on 3<sup>rd</sup> Street to Jack London Square/Oakland Amtrak
- BART is studying service on Union Pacific railroad corridor from Richmond to West Oakland
- Level boarding is more accessible for disabled and strollers, and improves transit speed
- Establish a bus system first, evaluate ridership, then plan streetcar track locations (side or center of street) and figure out how to deal with bikes and utilities
- Reduced driving would improve air quality and reduce health problems - Emeryville has higher rates of child hospitalization for asthma than West Oakland
- Non-commuters want hub-to-hub service for ages 8 to 80
- Emery Go-Round can go to West Oakland if funding can be figured out; it takes political will in Oakland to allocate resources; if there were a West Oakland PBID we could work it out
- Make EZ Pass a condition of approval for development
- It's hard to get on BART at West Oakland at peak time, so AC Transit is increasing transbay service.

Community Workshop participants expressed the following opinions:

- We need a better connection from Emeryville to Downtown Berkeley and North Berkeley
- We support AC Transit extensions into Emeryville.
- We like the overlapping Connector 2 Concept that emerged from the first workshop.
- A variation on this that emerged at the third workshop would be to have one line extend all the way from Berkeley to West Oakland/Jack London Square via Hollis Street, similar to the Trunk Line concept, with a second route extending from Ashby BART to MacArthur BART via Ashby Avenue, Shellmound, and 40<sup>th</sup> Streets.

Major questionnaire responses are summarized below:

- Wait time could be up to 10 minutes (55%)
- Fewer stops for faster travel (62%)
- Express/Rapid Bus best mode (39%; streetcar 21%, no preference 29%)
- More people would use
  - Emery Go-Round routes
  - Emeryville to West Oakland BART
  - Public Market to Rockridge
  - 57 on 40<sup>th</sup>- Shellmound
- Connect Emeryville to West Oakland, West Berkeley, downtown Berkeley, and San Francisco
- Keep and enhance Emery Go-Round



- Connect Watergate Condos to rest of Emeryville and BART
- Increase speed, frequency, reliability, and safety
- Expand hours to nights and weekends
- Reduce pollution and fares
- Provide shelters, comfortable vehicles and smoother ride

The Emeryville Transportation Management Association (ETMA) made the following recommendations:

- Extend the AC Transit 57 bus up Shellmound
- Connect central Emeryville directly to downtown Berkeley
- Overlapping connectors option is good –
  - North-south connection near the Bay
  - Connecting Emeryville to West Oakland
- Bus pullouts in parking lane with red curb are needed
- Phase modes – buses test routes, plan for future rail
- People take transit to IKEA and take delivery
- Reduce wait time and improve reliability
- Improve security
- Shelters are hard to maintain; cleanliness is important
- Provide benches and trash cans
- Fare collection is hard and slows boarding, especially cash
  - Use Clipper card, honor system and/or kiosks on the street
- Allocate Measure B funding for this

The Emeryville Planning Commissioners' comments are summarized below:

- Watergate residents need service within Emeryville and to BART
- Maps should show all existing and proposed service
- Emery Go-Round should be addressed and integrated
- Provide direct service to downtown Berkeley
- Eliminate two-thirds of the F bus stops on Market Street
- Focus on a north-south route from Jack London Square to North Berkeley BART
- Phasing could be first enhanced bus, then Bus Rapid Transit, then streetcar
- San Pablo Avenue could be the first place for a streetcar
- Work with Oakland, Berkeley, Albany and El Cerrito
- A north-south route connecting North Berkeley BART with Jack London Square and West Oakland BART via Hollis could be combined with a route from MacArthur BART to Ashby BART via Shellmound
- The most important features are short wait times, fast travel, real time arrival information, safety, coordinated arrivals, and cleanliness on buses
- We need 24 hour service to and from San Francisco – BART and/or the F bus
- Paid parking could help fund service

The Emeryville Transportation Committee's comments are summarized below:

- Connect Watergate condominiums to stores, Senior Center, etc. as well as to BART
- Include Peninsula transit on the map; show existing service
- Extending the AC Transit 13 to the Peninsula would not connect Watergate to Emeryville destinations
- Include the Emery Go-Round in the analysis
- Talk with the Emery Go-Round Task Force
- Focus on the original trunk line concept from North Berkeley BART to West Oakland BART
- Adding other routes makes the proposal too complex and could reduce support
- Density in the corridor will increase, and people will want to travel between West Oakland and North Berkeley
- Show ridership projections for San Pablo Avenue
- Connectors to BART come after the main line
- A public-private partnership could fund the service
- Consider BART's effort to put local passenger service on the Union Pacific right-of-way
- Phase in enhanced bus, then Bus Rapid Transit, then streetcar
- Talk with Alameda County Transportation Commission about potential operators

The AC Transit Board had the following comments:

- Streetcar power and way maintenance partly offsets cost savings from fewer drivers.
- Shuttle drivers' compensation is very poor compared to AC Transit drivers' compensation.
- The new service needs to mesh with the West Oakland Specific Plan.
- Emery Go-Round takes riders from AC Transit, but maybe its service is not adequate.

The Emeryville City Council provided the following direction:

- Consider various kinds of riders –commuters, transit dependent people, former drivers, shoppers, people who come home from work late at night.
- Medical destinations are good.
- Transfers between Connectors to go north-south would lose riders.
- Focus on the north-south connection within the study area.
- Increasing AC Transit service would be good in the short term.
- Long-term connecting of the region requires the Alameda County Transportation Commission, the Metropolitan Transportation Commission, and BART to be partners.
- Streetcars would attract more passengers, getting them out of their cars and reducing pollution, which would reduce asthma rates.
- Look at streets that could accommodate streetcar in exclusive right-of-way such as Mandela, or on a low-traffic street such as Horton, or on the Union Pacific Railroad right-of-way.
- Look at the best way to encourage more riders in the long term.

- Bus rapid transit slated for International Boulevard and San Jose include raised platforms similar to Market Street in San Francisco, for level boarding similar to a streetcar.

#### **NEXT STEPS:**

A draft report will be presented to the multi-city Policy Advisory Committee in September 2014, followed by presentations to City of Emeryville, Berkeley and Oakland Councils and Boards in October 2014. The presentation to the Oakland City Council will probably be combined with Oakland staff's presentation on the City of Oakland's current downtown Broadway Corridor transit study. Adoption hearings will be held at the Emeryville Planning Commission level in December 2014 and at the Emeryville Council and Board level in January 2015.

#### **COORDINATION**

The City of Oakland, including staff of Public Works, Planning and Economic Development, has participated in the various Technical Advisory Committees, and has been in contact with the City of Emeryville's staff as well as consultant team, and the Mayor's Office has representation on the Policy Advisory Committee. The Broadway study staff members have met with the project staff and consultants, and are on the EBOTS Technical Advisory Committee email list. The Consultants have been following the recommendations and discussions of the West Oakland Specific Plan, and are furthering the WOSP proposed recommendations to provide more detailed analysis of transit linkages and access for West Oakland residents and employees

This report has been reviewed by the Office of the City Attorney and by the Budget Office.

#### **COST SUMMARY/IMPLICATIONS**

There are no cost implications to the EBOT study at this time.

#### **SUSTAINABLE OPPORTUNITIES**

***Economic:*** This Study includes analysis of linkages to employment destinations and corridors within the subject planning area, thereby providing potential future benefit for access for West Oakland residents and employees.

***Environmental:*** This Study furthers the goals of improving transit access within West Oakland, and linkages to destinations in Emeryville and Berkeley.

**Social Equity:** This Study considers the inequity of access to transit and transportation by low income residents of the EBOT Study area, including West Oakland, and proposes improvements to access to transit.

For questions regarding this report, please contact Margot Lederer, Department of Economic & Workforce Development, 510-238-6766.

Respectfully submitted,



Rachel Flynn, Acting Director  
Economic & Workforce Development Department

Prepared by:  
Margot Lederer Prado, Urban Economic Analyst IV

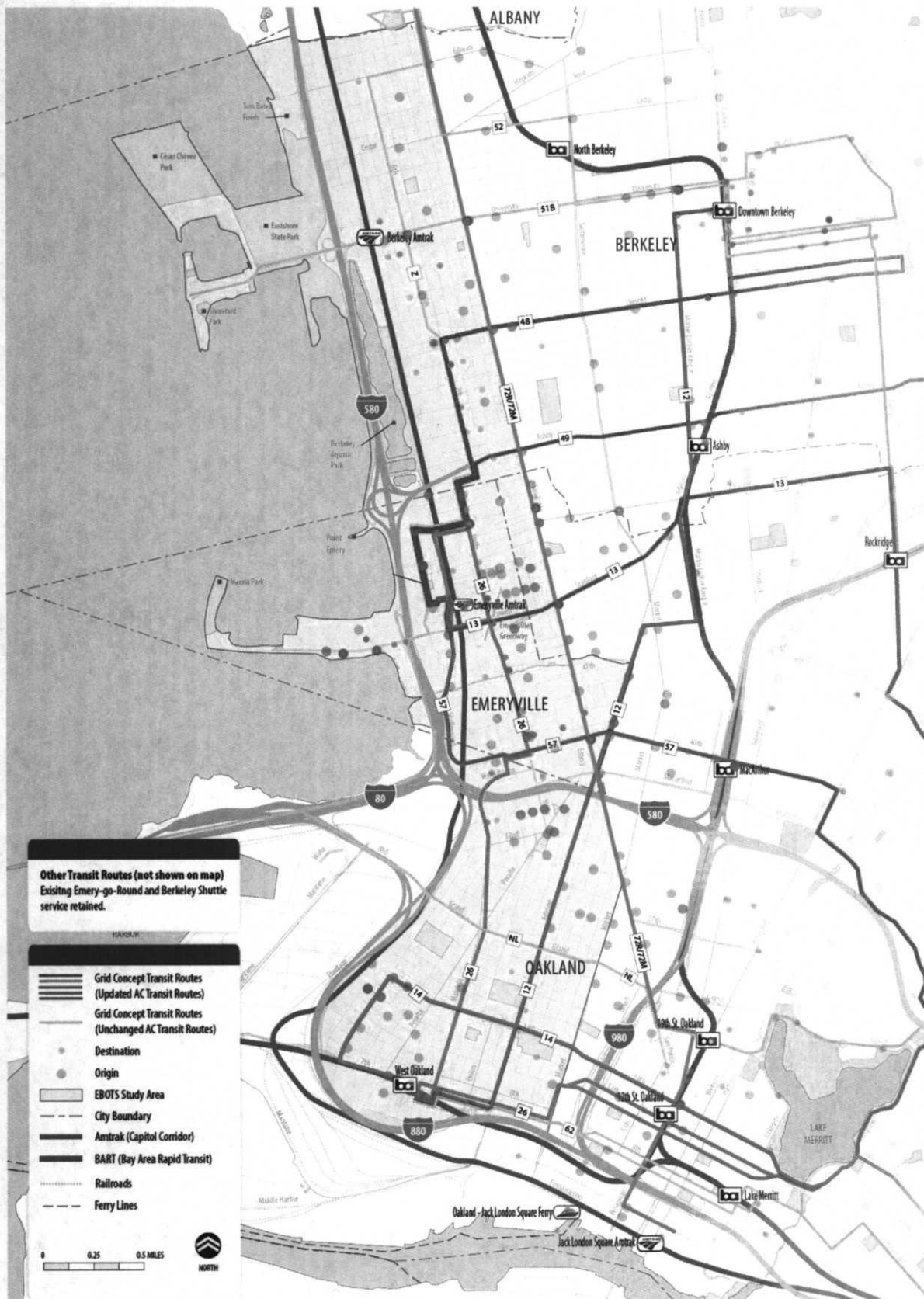
Attachments:

Attachment A: Grid Service Concept

Attachment B: Connector Service Concept



# Emeryville-Berkeley-Oakland-Transit Study



DRAFT - FOR PLANNING AND DISCUSSION PURPOSES ONLY

Updated AC Transit Routes - Grid Service Concept

# Emeryville-Berkeley-Oakland Transit Study

