

## INTER OFFICE MEMO

**To:** Board of Directors

**Date:** 12/11/2018

**From:** Ruby Horta – Director of Planning & Marketing

**Reviewed by:** WC.

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**SUBJECT: Final Service Restructure Proposal and Title VI Analysis**

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### **Background:**

Last summer, County Connection staff started the process to restructure service throughout Central County in an effort to increase productivity. As public transit continues to be redefined, with various new mobility options, County Connection staff strives to align efficient service with demand. Over the last year and a half, staff conducted a data-driven process, which started with a Comprehensive Operational Analysis (COA). The COA provided route by route data, down to the trip and stop level. In addition to the COA, staff also completed a passenger survey, and personally traveled on various routes particularly those proposed to be cut, reduced or realigned to incorporate the human element and communicate the process to the passengers directly.

Throughout the public comment process, staff adjusted the proposal in an effort to minimize the negative impacts. The initial proposal was presented to Board on April 19, 2018. Attachment 1 offers the initial proposal, with revisions highlighted. Staff is confident that the final proposal addresses many of the comments received during the public comment period. Comments were shared with the Board on September 20, 2018 and are included as Attachment 2.

### **Service Restructure:**

The primary goal of the service restructure is to increase productivity by aligning service with demand. Staff recognizes that some communities will no longer have access to public transit, due to low ridership. However, given the new mobility options, the restructure provides an opportunity for staff to evaluate alternative services that would be better suited to serve communities with lower densities and tailor transit needs to the limited demand.

While this proposal reduces overall annual revenue hours, this is not a service cut for most passengers, since many trips will be added to core routes. Major improvements include:

- Route 4 will have better morning service and 12 minute service almost all day, an increase from every 15 minutes all day and every 45 minutes in the early morning.
- Routes 9 and 19 will have faster and simpler service with regular headways all day
- Route 14 will run every 30 minutes from the current 40, and will be extended to Walnut Creek BART, providing coverage to 6,286 more residents and 11,874 more jobs within ¼ mile of the new alignment.

- Route 310 will be extended to Downtown Clayton, providing weekend service for the first time in decades. This also provides service to trailheads in the area, including Mt. Diablo.
- North Concord, including parts of Bates Ave. and Mason Circle, will get all day service for the first time in a decade with the new Route 27.
- Service span, or the start to end time of a route, will increase more than an hour on the following routes: 14, 27 and 320. In addition, several routes will have increased service in the peak hours.
- Peak commute service connecting to BART was increased on Routes 4, 6, 35 (including former parts of Route 36 along Crow Canyon) and 98X.

As mentioned earlier, the primary goal of the service restructure is to increase ridership. However, it should be noted, that the Board will have the opportunity to review the final fare proposal in January. Some of the expected ridership increases may be negated by a fare increase, as fares and ridership are, in general, inversely related.

### **Review of Public Process:**

The initial proposal was presented to the Board in April 2018 and staff received authorization to conduct the public hearing process. Staff scheduled six (6) public hearings from June 25<sup>th</sup> to July 25<sup>th</sup> in the following cities: Martinez, Lafayette, Concord, Pleasant Hill, Walnut Creek and San Ramon. Additionally, comments were encouraged via mail, email, phone, and on our website. The comments received were presented at the September Board meeting. In addition to the public hearing process, the service proposal requires a Title VI review to ensure low income and minority communities are not disproportionately impacted. Legal counsel has reviewed the public hearing process as well as the Title VI analysis.

### **Title VI:**

Staff has completed the Title VI analysis based on the final proposal. The proposed changes amount to over 25% of the miles or hours of each route, which constitutes a major service change under County Connection's board, adopted Major Service Change Policy. According to circular 4702.1B, issued October 1, 2012 of Title VI of the 1964 Civic Rights act, Major Service Changes are required to undergo a Service Equity Analysis. As part of a 2013 Title VI Policy update, the County Connection Board established a threshold of 20% for disparate impacts to minorities and disproportionate burdens on low-income people. This update also indicated that County Connection's service area average low-income percentage was 4.2% (150% federal poverty standard) and 41.6% minority (% of census blocks with over 40% minorities).

Staff used Remix transit planning software to conduct the service equity analysis. The results of the analysis did not indicate any disparate impact to minorities or disproportionate burden on low-income people compared to the area service area average, with an 11.9% low-income delta and a -7.4% minority delta (which is an inverse impact). Both of these deltas are well under 20%.

Weekday Equity Analysis	Low-Income	Minority
Negative Change Borne By	16.1%	34.2%
CCCTA Area Average	4.2%	41.6%
Delta	11.9%	-7.4%

Since County Connection has a different service pattern on weekends with different 300 series route alignments, a separate equity analysis was done for weekends. The results of the analysis indicate that there is no disparate impacts to minorities or a disproportionate burden.

	Low-Income	Minority
Negative Change Borne By	16.1%	30.3%
Area Average	4.2%	41.6%
Delta	11.9%	-10.3%

For more details, and the complete Title VI analysis is included as Attachment 3.

### **Future Service Enhancements**

If approved, this service restructure will serve as the foundation of a new effort towards applying the “right fit” for transit demand throughout our service area. There are communities in our service area that though they may not generate enough ridership to support mass transit, their transit needs may be better served by one of the other emerging mobility options. Given the proliferation of emerging mobility options, staff will continue to work with various stakeholders to develop transit alternatives in areas where mass transit may not be the ideal solution. Staff will develop alternatives and bring those ideas to the Board throughout 2019.

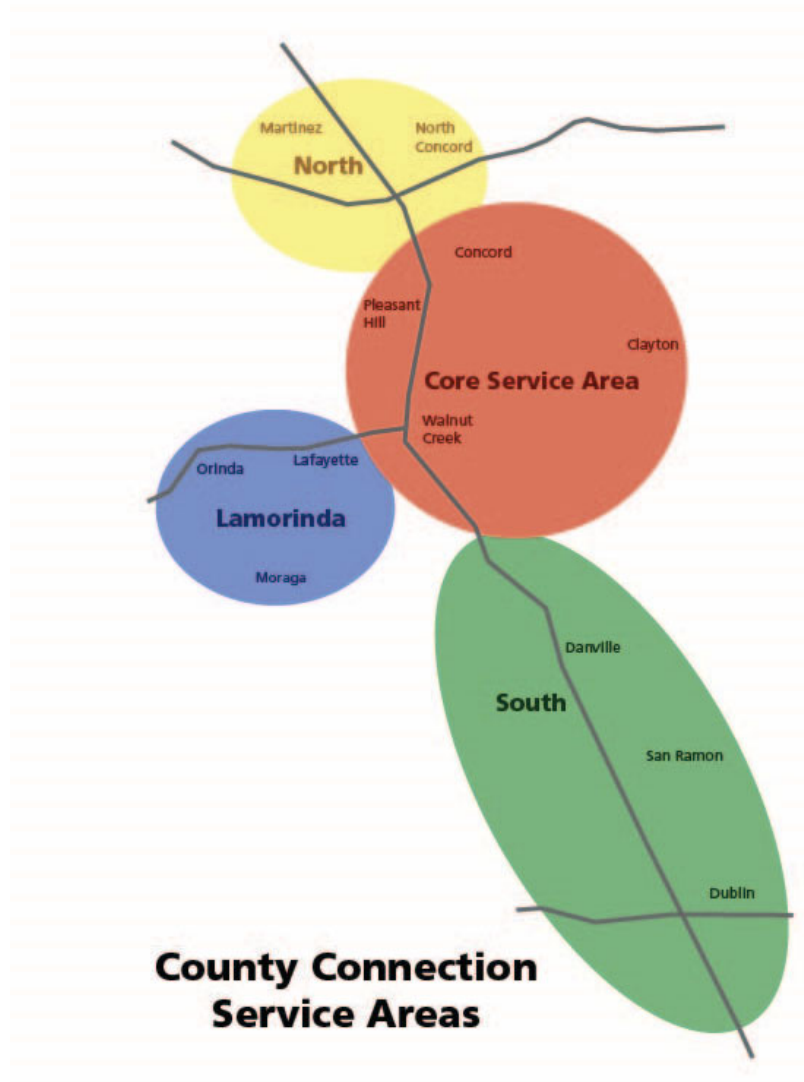
### **Financial Implications:**

Based on initial estimates, the service restructure could reduce costs by approximately \$1M annually. This is an initial projection and will be finalized once the schedules are complete. Staff will be able to report actual savings after the new service is implemented. At this time, the projected savings have not been secured for any project and/or for the reserves. The Board may choose to have that discussion once the new forecast is presented next Spring.

### **Action Requested:**

The O&S Committee requests that the Board approve Resolution 2019-014 which would authorize the General Manager to implement the proposed service restructure in Spring 2019 and submit the required Title VI service equity analysis to the FTA.

## Attachment 1: Proposed Service Restructure



### Core Service Area Restructure Concepts

- Streamline Route 19 to use Concord Ave. instead of going to Concord BART via Sun Valley Mall.
- Streamline Route 9 by eliminating routing to JFK, Patterson Blvd., and Oak Park Blvd.
- Realign Route 18 to service Patterson Blvd., and Oak Park Blvd. and adjust trip times to meet school bell times; consider routing along Taylor Blvd. instead of Viking Dr.
- Create a new alignment for Route 10 to turn around at Washington/Michigan instead of the Ayers Rd./Kirker Pass loop. End 50% of peak trips at this loop that currently continues on to Marsh Creek Rd. in Clayton. Only one quarter of the ridership rides past Kirker Pass
- Extend Route 14 to Walnut Creek BART to expand access to jobs from the Monument Corridor. Increase frequencies to every 30 minutes.
- Terminate Route 15 at Pleasant Hill BART (it will no longer service Walnut Creek BART, this will be covered by Route 14)

- Eliminate Route 1M and Route 2 due to low ridership and poor efficiency
  - Route 2: Passenger with medical concerns was referred to City of Walnut Creek's Lyft program, which is better suited to provide the medical trips required.
- Realign Route 95X to exit Hwy. 680 at S. Main St., to provide direct access to Downtown Walnut Creek from the south and avoid congestion
- Eliminate Route 301 to Rossmoor due to low ridership
- Extend 311 to John Muir Hospital to cover the Ygnacio Valley Rd. portion of 301
- Increase frequency on Route 4 from 15 minutes to 12 minutes
- Adjust times, where possible, on local routes to meet school bell times in the Pleasant Hill area
- ~~Eliminate Route 315 due to low ridership~~
  - Based on customer feedback and increased ridership, Route 315 will remain.

### North Restructure Concepts

The main changes to the north service area include:

- Split Route 28 in half and retain its Martinez-DVC segments
  - Eliminate service to Marsh Rd./Arnold Industrial Way
  - Add service to the Arnold/Morello high ridership corridor
- Create a new Route 27 to serve North Concord
  - Replace current Route 627, with more frequent service
- Add Route 98X peak trips to connect with Amtrak in Martinez

### Lamorinda Restructure Concepts

- Eliminate Route 25 due to low ridership
- Potentially increase peak service on Route 6

### South Restructure Concepts

- Eliminate Route 36, but retain coverage on its productive northern alignment with an extended Route 35. Review alternate transit options for San Ramon
- Extend Route 35 to Crow Canyon Rd., roughly double frequency of service
- Remove Alcosta Blvd. from Route 92X to speed up run times

## Attachment 2: Public Comments

### Core Service Area Restructure Concepts

- Streamline Route 19 to use Concord Ave. instead of going to Concord BART via Sun Valley Mall.
  - No comments.
- Streamline Route 9 by eliminating routing to JFK, Patterson Blvd., and Oak Park Blvd.
  - Support (1 comment): Hoped the change would increase frequency of buses at Pleasant Hill BART.
  - Oppose (2 comments): Two residents in Poet's Corner (Oak Park Blvd. & Patterson Blvd.) lament the loss of more direct service, including to Walnut Creek Bart.
- Realign Route 18 to service Patterson Blvd., and Oak Park Blvd. and adjust trip times to meet school bell times; consider routing along Taylor Blvd. instead of Viking Dr.
  - Support (1 comment): Align the schedule to school bell times.
- Create a new alignment for Route 10 to turn around at Washington/Michigan instead of the Ayers Rd. Kirker Pass loop. End 50% of peak trips at this loop that currently continues on to Marsh Creek Rd. in Clayton. Only one quarter of the ridership rides past Kirker Pass.
  - 1 comment asking if service will continue to Clayton Library.
- Extend Route 14 to Walnut Creek BART to expand access to jobs from the Monument Corridor. Increase frequencies to every 30 minutes.
  - Support (5 comments): The general consensus was that extending the Route 14 would benefit all passengers, "go ahead and do that ASAP to start reaping the anticipated benefits".
- Terminate Route 15 at Pleasant Hill BART (it will no longer service Walnut Creek BART, this will be covered by Route 14).
  - Oppose (1 comment): Do not want to transfer at Pleasant Hill and liked the direct through service of the existing Route 15.

- Eliminate Route 1M due to low ridership and poor efficiency.
  - Support (1 comment): One comment was in support of the necessary cuts, “I would be happy to pay more or wait longer if cuts need to be made”.
- Realign Route 95X to exit Hwy. 680 at S. Main St., to provide direct access to Downtown Walnut Creek from the south and avoid congestion.
  - Oppose (1 comment): Passenger who likes the direct ride down the freeway and thought the route would be slower through downtown.
- Eliminate Route 2 due to low ridership and poor efficiency.
  - Oppose (27 comments): Several comments opposing the elimination of the route, while acknowledging low ridership. Many commented that there are no sidewalks in the area or other bus service.
- Eliminate Route 301 to Rossmoor due to low ridership.
  - Support (2 comments): After we mentioned the 311 will go to John Muir Medical Center, we received two comments in support of eliminating Route 301.
- Extend 311 to John Muir Hospital to cover the Ygnacio Valley Rd. portion of 301.
  - See Route 301 comments.
- Increase frequency on Route 4 from 15 minutes to 12 minutes.
  - Support (1 comment): Indicated its better to have more service instead of attempting to meet BART trains that can have varying schedules midday.
- Eliminate Route 315 due to low ridership.
  - Oppose (3 comments): Desire to retain Route 315 as a lifeline service in the Landana area, which has several rest homes.

### North Restructure Concepts

- Split Route 28 in half and retain its Martinez-DVC segments.
  - Oppose (7 comments): Homeless shelter users would have to make transfers if Route 27 were implemented to access the VA and Contra Costa Blvd. Commenters were misinformed about the location of the new Wal-Mart stop and thought the

travel time from Amtrak to DVC would increase by going via Alhambra. Two comments opposing the elimination of Marsh Rd. and one opposing the elimination of Commercial Circle in North Concord.

- Create a new Route 27 to serve North Concord.
  - Oppose (1 comment): Passengers wants to avoid transfers to get to Contra Costa Blvd.
- Add Route 98X peak trips to connect with Amtrak in Martinez.
  - No comments.

### **Lamorinda Restructure Concepts**

- Eliminate Route 25 due to low ridership.
  - Support (1 comment): No need for Route 25 as BART provides a superior end to end trip, and they support redistributing its resources to Route 6.
  - Oppose (11 comments): Retain Route 25 to get to Walnut Creek BART. Residents and caretakers from Chateau Lafayette came to the public hearing to comment that they like Route 25 and they use it to get to Walnut Creek. (Note: Route 6 stop is closer to Chateau Lafayette than the Route 25, but they would have to transfer to BART to travel to Walnut Creek). Many who opposed the elimination of Route 25 said it doesn't have enough frequency to attract ridership.
- Potentially increase peak service on Route 6.
  - Support (9 comments): Look forward to better connections to BART, reduction in traffic congestion and access to schools.

### **South Restructure Concepts**

- Eliminate Route 36, but retain coverage on its productive northern alignment with an extended Route 35. Review alternate transit options for San Ramon.
  - Support (2 comments): One supporter liked that the new service to the Crow Canyon area will be faster to BART. Another supporter wanted large buses off of Fircrest due to pavement meant for low density areas.
  - Oppose (8 comments & signed petition with 34 signatures): Most of the opposition came from seniors at Valley Vista Housing on San Ramon Valley Blvd. and one came from a rider on Tareyton going to BART. The Valley Vista seniors wanted to retain service to Dublin for groceries and doctor appointments. There



was also one commenter who wanted to retain service to California High School in the mornings. Staff hosted a meeting at the Senior Center in San Ramon which was attended by more than 60 individuals, all against the elimination of Route 36.

- Extend Route 35 to Crow Canyon Rd., roughly double frequency of service.
  - Support (19 comments): Increasing the frequency was very popular with commenters, with peak service requested at 15 or 20 minute frequencies. In addition, supporters wanted service later at night, on weekends, and more service to the Windemere loop.
- Eliminate Route 97X and increase peak Route 35 frequency. Route 35 has similar travel times to the current Route 97X from East Dublin BART and Bishop Ranch. Route 97X has also has low ridership. This proposal requires additional discussion with Bishop Ranch.
  - Oppose (1 comments): Retain Route 97X.
- Remove Alcosta Blvd. from Route 92X to speed up run times.
  - No comments.

# Transit Service Equity Analysis

For County Connection's 2019 Service Restructure Plan

Central Contra Costa Transit Authority

December 2018

***County Connection***

**Submitted by**

Sean Hedgpeth, Manager of Planning

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## Background

In an effort to understand our current ridership trends and changing demographics, County Connection staff prepared a Comprehensive Operational Analysis (COA), which was completed in January 2018. The COA has provided staff with the foundation for a data-driven planning effort to restructure County Connection's service focused on increased productivity. Using the data from the COA, staff prepared the 2019 Service Restructure Plan (Plan), which proposes a series of changes to County Connection routes, including route changes, elimination of routes, and new service. These changes are projected to increase ridership, realign revenue hours to areas with the greatest potential for successful transit, and reduce costs, consistent with current budgetary constraints. The last time our system was significantly overhauled was in Spring 2009 and we acknowledge that a number of factors have changed. Housing developments, traffic patterns, demographic shifts, job centers and increased congestion all contribute to changing transit needs.

In areas where traditional public transit service is currently not productive, staff proposes that County Connection pursue other transit alternatives. Transit agencies across the nation are testing various forms of Microtransit. County Connection has implemented the Microtransit App for the Alamo Creek service, which allows riders to more efficiently book trips, and LAVTA replaced unproductive routes by subsidizing fares for riders using Lyft, Uber, or a Taxi in some areas. These types of transit alternatives will be considered as staff further develops the service restructure plan, with Board feedback, including the preparation of equity analyses for any alternatives that result in major service changes.

In addition to focusing on providing a more productive service, staff also recognizes the agency's projected budgetary constraints. Revenues for transit have not kept up with expenses and our current budget projects a deficit in Fiscal Year (FY) 2023. By making service adjustments that increase productivity and reduce costs, County Connection will be better positioned to address future financial constraints.

Given the scope of the proposed service restructure, staff conducted a thorough public comment period. Staff has also presented the plan to the Board's Operations & Scheduling Committee over the summer, with a final proposal to be presented in December 2018. In addition to the feedback received from the Committee, County Connection staff has met with various stakeholders including the local Amalgamated Transit Union's leadership and staff from various cities in our service area. For the most part, stakeholders have been receptive to the plan and the overarching goal of increased productivity. Should the Board approve the service changes, staff would implement the changes in March 2019.

Title VI of the Civil Rights Act of 1964 (Title VI) prohibits discrimination by recipients of federal financial assistance. The Federal Transit Administration (FTA) further requires that recipients of FTA financial assistance conduct an analysis on all major services changes to assess the impacts of those changes on low-income and minority populations. As the Plan constitutes a major service change, the Board must review and approve this equity analysis prior to approving the Plan.

The equity analysis indicates that the Plan does not impose a disproportionate burden on low-income populations, or have a disparate impact on minority populations. To the contrary, the cumulative effects of the Plan, taking into account both the service reductions and new service, result in a net benefit to low-income populations and minority populations. The amount of benefit expected for each

of these groups satisfies County Connection's disproportionate burden policy and disparate impact policy.

## Title VI Requirements and County Connection Title VI Policies

In October 2012, the Federal Transit Administration released new guidelines for compliance with Title VI (Title VI Circular 4702.1B). Under the Circular, transit operators are required to study proposed fare changes and “major” service changes before the changes are adopted to ensure that they do not have a discriminatory effect based on race, ethnicity, national origin or socio-economic status of affected populations. As a first step, public transit providers must adopt their own “Major Service Change,” “Disparate Impact,” and “Disproportionate Burden,” policies. The three policies, and County Connection's proposals, are described below.

### **Major Service Change Policy**

#### **Description:**

This policy establishes a threshold for when a proposed service increase or decrease is “major,” and thus must be subject to a Title VI Equity Analysis.

County Connection previously defined major service decreases in its adopted “Public Hearing Policy.” The Major Service Change Policy applies this threshold to both increases and decreases, and provides for changes to be measured not just individually, but on a cumulative basis over a 12-month period.

#### **Policy:**

County Connection defines a major service change as:

- An increase or decrease of 25 percent or more to the number of transit route miles of a bus route; or
- An increase or decrease of 25 percent or more to the number of daily transit revenue miles of a bus route for the day of the week for which the change is made; or.
- A change of service that affects 25 percent or more of daily passenger trips of a bus route for the day of the week for which the change is made.
- Changes shall be counted cumulatively, with service changes being “major” if the 25 percent change occurs at one time or in stages, with changes totaling 25 percent over a 12-month period.

The following service changes are exempted from this policy:

- Changes to service on a route with fewer than 10 total trips in a typical service day are not considered “major” unless service on that route is eliminated completely on any such day.
- The introduction or discontinuation of short- or limited-term service (e.g., promotional, demonstration, seasonal or emergency service, or service provided as mitigation or diversions for construction or other similar activities), as long as the service will be/has been operated for no more than twelve months.

- County Connection-operated transit service that is replaced by a different mode or operator providing a service with similar or better headways, fare, transfer options, span of service, and stops.

### **Disparate Impact Policy**

#### **Description:**

The Disparate Impact Policy establishes a threshold for determining whether proposed fare or major service changes have a disproportionately adverse effect on minority populations relative to non-minority populations on the basis of race, ethnicity or national origin.

The threshold is the difference between the burdens borne by, or benefits experienced by, minority populations compared to non-minority populations. Exceeding the threshold means either that a fare or major service change negatively impacts minority populations more than non-minority populations, or that the change benefits non-minority populations more than minority populations. A change with disparate impacts that exceed the threshold can only be adopted (a) if there is substantial legitimate justification for the change, and (b) if no other alternatives exist that would serve the same legitimate objectives but with less disproportionate effects on the basis of race, color or national origin.

#### **Policy:**

County Connection establishes that a fare change, major service change or other policy has a disparate impact if minority populations will experience 20% more of the cumulative burden, or experience 20% less of the cumulative benefit, relative to non-minority populations, unless (a) there is substantial legitimate justification for the change, and (b) no other alternatives exist that would serve the same legitimate objectives but with less disproportionate effects on the basis of race, color or national origin.

### **Disproportionate Burden Policy**

#### **Description:**

The Disproportionate Burden Policy establishes a threshold for determining whether proposed fare or major service changes have a disproportionately adverse effect on low-income populations relative to non-low-income populations.

The threshold is the difference between the burdens borne by, and benefits experienced by, low-income populations compared to non-low income populations. Exceeding the threshold means either that a fare or service change negatively impacts low-income populations more than non-low-income populations, or that the change benefits non-low-income populations more than low-income populations.

If the threshold is exceeded, County Connection must avoid, minimize or mitigate impacts where practicable.

#### **Policy:**

County Connection establishes that a fare change, major service change or other policy has a disproportionate burden if low-income populations will experience 20% more of the cumulative burden,

or experience 20% less of the cumulative benefit, relative to non-low-income populations unless the disproportionate effects are mitigated.

### **Public Outreach:**

In developing these policies, County Connection staff conducted public outreach (detailed below), including three public meetings with language services available, to provide information and get feedback on the draft policies. Staff incorporated public input gathered through this outreach into the policies proposed for Board approval.

#### Meetings:

March 28, 2013 – Monument Corridor Transportation Action Team

*Comments: Include an annual review to ensure that major service change threshold has not been crossed*

April 15, 2013 – Public Meeting at the San Ramon Community Center

*Comments: Consistent with prior comment to include an annual review for major service changes*

May 14, 2013 - Public Meeting at the Walnut Creek Library

*Comments: None*

April 1<sup>st</sup> – June 1<sup>st</sup>, 2013 – Policies available for comments on County Connection Website

June 20, 2013 – Public Hearing and Proposed Adoption at the County Connection Board of Directors Meeting

*Comments: None*

## Proposal & Major Service Change Analysis

The 2019 Service Restructure Plan makes over forty changes to our routes, resulting in both beneficial and adverse impacts. These changes include several route eliminations, extensions, reductions, a new route, and schedule changes that independently constitute major service changes. Many of the remaining changes complement the major service changes to either directly or indirectly mitigate losses of service.

Due to the interconnected nature of the changes in the Plan, this analysis evaluates all of the implementation of the Plan as a single change. While CCCTA's Major Service Change Policy only calls for an evaluation of major service changes, this is consistent with the Major Service Change Policy's principle of evaluating all changes to a given route occurring within a year cumulatively. A list of the changes is attached as Appendix A.

## Service Equity Analysis Methodology

This analysis evaluates the impacts of the Plan by comparing the effects on the number of "people-trips" generated by the affected routes. People-trips is a census block based metric that measures the number of persons living within 1/4 mile of each bus running a route affected by the Plan. In addition to comparing the demographics of the census blocks within 1/4 mile of the changed service, people-trips factors in the number of persons able to access the route, and the headway of the route to more accurately quantify the effects of multiple types of service changes.<sup>1</sup>

County Connection generated this equity analysis using the Remix program, which compares existing service to a set of proposed changes. This page outlines the methodology and data sources we used when generating this report.

### Data sources

- Population data is provided by the US American Community Survey (ACS), 2012-2016. Data is measured on a census block group basis. (ACS data is collected by the Census Bureau in the years between decennial censuses.)
- Population is coded by table B03002, field B03002001.
- Low income status is set at 150% the US poverty level. This is coded by the appropriate fields in table C17002.
- Minority status is coded by table B03002, by subtracting the white, non-Hispanic population (B03002003) from the total population (B03002001).
- Service area is a set of block groups determined by our most recent Title VI Program update.
- Map and routing data is provided through OpenStreetMap, Mapbox, and Valhalla.

### Methodology

1. Quantify the population near a route, including its low-income and minority percentages.
  - For each route, build a shape that represents the area within quarter mile of any of its stops. This is the catchment area.
  - Overlay the catchment area with 2012-2016 ACS data. Get a list of block groups and the percentage overlap with each.
  - For each block group, take the percentage of overlap with the catchment area and multiply it by the block group's population, minority population, and low-income population.
  - Calculate the total population within the catchment area by summing the subtotals from each block group. Calculate the total minority population, total non-minority population, total low-income population, and the total non-low-income population.
  - Repeat for each route subject to a change.

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<sup>1</sup> The Circular specifies that where a transit provider is proposing a major service change that involves both headway changes and new service to a neighborhood, the transit provider may use either census data or ridership data for the entire analysis. The Plan involves both changes in headway and new service, as well as elimination of routes.



2. For each route subject to a change, compare the number of people-trips, before and after the change for minority, non-minority, low-income, and non-low-income populations due to the Plan.
  - Multiply the population in each catchment area by the number of trips the route makes (per year) to get “people-trips”.
  - Repeat for low-income and minority populations to get “low-income people-trips” and “minority people trips”.
  - Repeat for non-low income and non-minority populations to get “non-low-income people-trips” and “non-minority people trips”.
  - Compare these numbers between the before and after versions of the route, to get a set of people-trip differences. We match before and after using routes that have the same name.
3. Calculate the total change in people-trips across all routes for each group due to the Plan.
  - Find the sum of all minority people-trips, non-minority people-trips, low-income people-trips, and non-low-income people-trips for all routes before implementation of the Plan.
  - Find the sum of all minority people-trips, non-minority people-trips, low-income people-trips, and non-low-income people-trips for all routes after implementation of the Plan.
  - For each group, subtract the number of people-trips after implementation of the Plan from the people-trips before implementation of the Plan.
4. Calculate the percentage of the change in people-trips for each group.
  - For each group, divide the total number of people-trips before implementation of the Plan by the total number of people-trips after implementation of the Plan.
5. Compare the percentage change in people-trips borne by low-income populations against non-low-income populations, and minority populations against non-minority populations.
  - Subtract the change in people-trips for non-minority populations from the change in people-trips for minority populations.
  - Subtract the change in people-trips for non-low-income populations from the change in people-trips for low-income populations.
6. Compare the difference to the thresholds set in the disparate impact policy and disproportionate burden policy.
  - Determine whether the delta between low-income population and non-low-income population exceeds 20%.
  - Determine whether the delta between non-minority population and minority population exceeds 20%.

## Service Area Demographics

As part of the update to County Connection’s Title VI Program Update, new analysis was done of our service area demographics. For this analysis, staff used 2015 ACS data. In 2015, the analysis was done on smaller Census Block Groups instead of the larger Census Tracts, which gives us more accurate data.

Based on the data, County Connection serves 375 Census Blocks, with minority populations making up 41.6% of the service area population. The proportion of the service area population living below the poverty level is 4.2%. For poverty status, 150% of the federal poverty guidelines were used, which is currently \$36,450 for a family of four.

## Potential Adverse Impacts

### Weekday Service: Negative Impacts

In addition to the cumulative impacts of all changes from the Plan we also analyzed the difference between the impacts borne by minority and low-income populations compared to the overall percentage of minority and low income populations within the service area. While not required for the Service Equity Analysis, this comparison is useful to understand how the benefits and burdens of the Plan are allocated.

In total, 16.1% of the eliminated people-trips served low-income populations and 33.6% served minorities. The CCCTA service area averages 4.2% low-income (150% of federal poverty guidelines) and 41.6% minority populations, respectively. While over 8 million total person-trips are lost in the service change, over 48 million new low-income trips and over 70 million new minority person trips would be added (see Appendix 1 for details). Some of the larger route level impacts, with the reasoning and possible mitigation, are outlined below.

	Low-Income	Minority
Negative Change Borne By	16.1%	33.6%
CCCTA Area Average	4.2%	41.6%
Delta	11.9%	-8.0%

### Route 1M

Route 1M, which provides more service from John Muir Medical Center at peak travel times, is proposed to be eliminated. This service change will be mitigated by increasing service on Route 1 to every 45 minutes all day, which connects the same area except for a small loop to Marchbanks Rd. A Route 1/93X bus stop at Ygnacio Valley Road and Marchbanks was also moved in Summer 2018, to provide a closer connection for current Route 1M riders. This will allow 1M riders to take either the 1 or the 93X, which operates at peak times. The combined Route 1 frequency increase and Route 1M elimination creates a loss of 1.5 million annual low-income and minority person-trips, as defined by the Remix methodology.

### Route 2

Route 2, which provides eight trips of peak service to Walnut Creek BART from the Rudgear neighborhood. This route has been proposed for elimination several times over the last decade, due to low ridership of only about 16 passengers a day. This change eliminates almost four million low-income and seven million minority person-trips. Almost all of the Title VI population on Route 2 are located on the northern end of the route in multi-family housing along Broadway. Those residents have a much more frequent and free-fare option with Route 4, the Downtown Walnut Creek Trolley, one block away.

In addition, the City of Walnut Creek now has a pilot with Lyft to provide seniors with rides, which partially mitigates some of the feedback we received from our Walnut Creek Public Hearing.

#### Route 9/18

Routes 9 and 18 had alignments swap, with Route 18 adding coverage that Route 9 abandoned for a faster, more streamlined Route 9 trip. The Remix methodology listed this as a negative change, with a loss of 18 million low-income and over 43 million minority trips. While this seems like an obviously negative change, no actual coverage was deleted besides of two Route 9 stops within walking distance in Pleasant Hill. There was only a net loss of six trips in total when comparing the old 9/18 to the new 9/18, mostly by reducing frequency after 7pm, when ridership is only about five passengers a trip. In addition, the travel times will be 12% faster between major activity centers such as Diablo Valley College (DVC), Downtown Pleasant Hill (Crescent Plaza), and Pleasant Hill BART.

<u>Current Travel Times</u>				<u>Proposed Travel Times</u>				
	<u>Rt. 9</u>	<u>Rt. 18</u>	<u>AVG</u>		<u>Rt. 9</u>	<u>Rt. 18</u>	<u>AVG</u>	<u>Savings</u>
<i>Southbound</i>				<i>Southbound</i>				
DVC to PH BART	34	31	32.5	DVC to PH BART	25	36	30.5	6%
Crescent Plaza to PH BART	23	16	19.5	Crescent Plaza to PH BART	11	18	14.5	26%
<i>Northbound</i>				<i>Northbound</i>				
PH BART to Crescent Plaza	20	8	14	PH BART to Crescent Plaza	8	15	11.5	18%
PH BART to DVC	36	28	32	PH BART to DVC	25	34	29.5	8%
<b>Totals</b>	<b>28.3</b>	<b>20.75</b>	<b>24.5</b>	<b>Totals</b>	<b>17.3</b>	<b>25.75</b>	<b>21.5</b>	<b>12%</b>

#### Route 10

Route 10, which connects East Concord to Concord BART, technically is a negative change with the Remix methodology, losing almost 10 million *total* person-trips. However, since the service change creates a shorter pattern with more trips focused on the western portion of the route with more Title VI populations, an additional million low-income and minority person-trips would result from the change.

#### Route 19

Route 19 is proposed to drop some coverage around Sun Valley Mall. While 1.5 million low-income and minority person-trips are lost with the Remix methodology, the streamlined alignment will allow for a frequency enhancement to every 90 minutes instead of the current 2 hours, and during the midday there will be a second bus which will provide a brief period of 60 minute frequencies. Public outreach indicated that this route was largely used to access social services, which have a higher demand during midday. In addition, the loss of Sun Valley Mall coverage is mitigated by much more frequent Route 20 service.

#### Route 25

With the proposed elimination of Route 25, over nine million low-income and almost 15 million minority trips would be lost. Route 25 is a rather new route that started in 2009. The route connects two BART stations, which have far more robust service every 15 minutes on weekdays, with a faster travel time of only four minutes on a BART train as opposed to 23 minutes on the Route 25 bus. According to the COA FY17 data, only about 7% of the boarding activity takes place outside of a half mile of either BART station. In addition, the area near Olympic Blvd and Tice Valley Blvd have Route 1 as a service alternative to Walnut Creek BART, and Route 1 is getting increased frequencies as part of mitigation for the loss of Route 25.

#### Route 28

When comparing the original Route 28 to the new truncated Route 28 and the new 27 that covers the eastern portion, Route 28 lost 9 million low-income and 17 million minority people trips. The new truncated Route 28 mitigates this loss in coverage partly by an increase of service from Amtrak to DVC, and with a net gain of trips on the new Route 27 serving the North Concord business park, which includes the homeless shelter.

#### Route 35/36

The elimination of Route 36, which when accounting for one segment retained in a new extended Route 35, lost over 6 million low-income and 37 million minority trips. However, the service hours that were previously used on Route 36 were shifted to more robust Route 35 service, which has the same terminals as the former Route 36. Over two million low-income and over 24 million minority person-trips were added with the increased service on Route 35. This change was mitigated by extending select trips of Route 35 to the Crow Canyon area of the northern portion of Route 36, which retained a large part of the Route 36 coverage.

#### Route 92X

Route 92X has a very minor change; eliminating Alcosta Blvd. This will remove over 100,000 low-income and over 500,000 minority person-trips. This was done to speed up the very long route.

### Weekday Service: Positive Impacts

Several of the service enhancements in the Plan generated benefits in the form of new people-trips. Many of these benefits would accrue to low-income and minority areas, such as the extension of Route 14 to Walnut Creek, which represents an increase of over 67 million low-income people-trips and over 125 million more minority people-trips when compared to the original Route 14 to Pleasant Hill it was replacing. Other service enhancements, such as changes to Route 20, increased low-income and minority people trips by over 23 million and 39 million respectively. In total, 33.7% of the new people-trips will serve low-income populations and 59.3% of the new people-trips benefit minorities.

	<b>Low-Income</b>	<b>Minority</b>
Positive Change Borne By	33.7%	59.3%
CCCTA Area Average	4.2%	41.6%
<b>Delta</b>	<b>29.5%</b>	<b>17.7%</b>

### Weekend Service: Negative Impacts

County Connection, with the exception of Routes 4 and 6, has a separate service pattern for weekend service. These routes are all in the 300 series, and have different alignments. A separate Remix analysis was done comparing the proposed service change to the weekend service. This analysis for negative impacts showed that reductions in people-trips serving low-income populations account for 16.1% of the service reductions, whereas low-income persons are 4.2% of the population as a whole. Compared to our area average, this creates a delta of 11.9% for low-income populations. People-trips serving minority populations account for 30.3% of reduction, while minorities are 41.6% of the population. The positive weekend changes benefit 70% of low income and minority populations, to help mitigate these negative changes.

	<b>Low- Income</b>	<b>Minority</b>
Negative Change Borne By	16.1%	30.3%
Area Average	4.2%	41.6%
<b>Delta</b>	<b>11.9%</b>	<b>-10.3%</b>

### Route 301

Route 301 is proposed to be deleted. This route carries about 65 boardings on an average Saturday and only 52 on an average Sunday (FY17). Using the Remix methodology, the service deletion accounts for about two million low-income people-trips and over four million minority people-trips. According to the COA, half of those trips are on the Walnut Creek BART to John Muir Medical Center segment. This segment will now be covered by a more frequent Route 311, which has a better morning and evening span as part of the mitigation for half of the riders. The other segment of the route, from Walnut Creek BART to Rossmoor, also has a general public dial-a-ride option through the community of Rossmoor, which was considered when making a difficult decision to cut Route 301.

### Weekend Service: Positive Impacts

Many of the changes to weekend service result in additional people-trips. An extension to Downtown Clayton of the 310, additional 311 service extended to John Muir Medical Center, and additional Route 320 trips round out the positive impacts of the proposed weekend changes. In total, 21.7% of the new people-trips generated will serve low-income populations, which is greater than their share of the population. Similarly, 58.6% of the new people-trips will benefit minority populations, which also exceeds minorities' share of the population. This was due to the fact that Route 310 was extended to Downtown Clayton, which does not contain high levels of minority or low-income populations, yet does provide access to several trailheads for recreational opportunities for low-income populations near Mt. Diablo.

	<b>Low- Income</b>	<b>Minority</b>
Positive Change Borne By	21.7%	58.6%
Area Average	4.2%	41.6%
<b>Delta</b>	<b>17.5%</b>	<b>17.0%</b>

## Cumulative Effects

As previously discussed, CCCTA's disparate impact and disproportionate burden policies require analysis of the cumulative impacts of major service changes. The Plan would implement changes having both positive and negative effects on people-trips generated by its affected routes. The cumulative effect of the Plan is a net loss of 622,977,372 people-trips annually across the affected routes. However, the Plan results in annual net gains for low-income populations and minority populations within County Connection's service area of 140,066,965 and 373,133,180 respectively. Accordingly, the Plan results in no adverse impacts on either minority or low-income populations.

Where a major service change results in benefits, a disproportionate burden can also occur where non-low-income populations receive 20% more of the benefits than low-income populations, and a disparate impact can occur where non-minority riders receive 20% more of the benefits than minority riders. The Plan does not cause either of these scenarios. To the contrary, minority populations and low-income populations experience a net benefit from the changes proposed, while non-minority and non-low-income riders experience a net loss. This analysis was done separately as comparison to impacts borne by a low-income versus non-low-income, and a comparison with minority to non-minority impacts. Each category independently adds up to the total changes to the County Connection service area. Impacts have been broken out by weekday, weekend, and combined cumulative changes.

Weekday Cumulative Changes				
People-Trips (in Millions)	People Trips Before	People Trips After	Net Change	% Change
Low-Income	6,172.6	6,347.2	48.8	2.8%
Non-Low-Income	31,146.2	30,515.8	(504.8)	-2.0%
Minority	16,015.1	16,459.1	70.2	2.8%
Non-Minority	21,303.8	20,403.8	(526.1)	-4.2%
<b>Total</b>	<b>37,318.9</b>	<b>36,862.9</b>	<b>(455.9)</b>	<b>-1.2%</b>

Weekend Cumulative Changes				
People-Trips (in Millions)	People Trips Before	People Trips After	Net Change	% Change
Low-Income	302.2	267.7	34.5	-11.4%
Non-Low-Income	1,211.2	1,078.7	(201.5)	-10.9%
Minority	680.7	609.8	70.9	-10.4%
Non-Minority	832.7	736.5	(237.9)	-11.5%
<b>Total</b>	<b>1,513.4</b>	<b>1,346.4</b>	<b>(167.0)</b>	<b>-11.0%</b>

Total Cumulative Changes (Weekday and Weekend Combined)				
People-Trips (in Millions)	People Trips Before	People Trips After	Net Change	% Change
Low-Income	6,474.8	6,614.9	140.1	2.2%
Non-Low-Income	32,357.5	31,594.4	(763.0)	-2.4%
Minority	16,695.8	17,068.9	373.1	2.2%
Non-Minority	22,136.5	21,140.4	(996.1)	-4.5%
<b>Total</b>	<b>38,832.3</b>	<b>38,209.3</b>	<b>(623.0)</b>	<b>-1.6%</b>

## Public Comment and Outreach

County Connection staff has completed the public comment process associated with the Service Restructure. (The public comment process also addressed Fare Modification proposals, which will be analyzed separately before Board consideration). Staff conducted six (6) public hearings from June 25<sup>th</sup> through July 25<sup>th</sup>, 2018. Attendance at the meetings ranged from four (4) residents in Pleasant Hill to thirteen (13) residents in San Ramon. In most cases, residents submitted formal comments about the proposal with the exception of Pleasant Hill. In addition to the public hearings, staff also conducted a separate meeting at the San Ramon Senior Center, at the request of city staff. Staff monitored correspondence in the customer service email account and on the website. All questions were answered and misinformation clarified. Below is the summary of the meetings and all comments (from emails, letters, website and public hearings).

### Martinez

Martinez residents were mainly concerned about the elimination of Route 3. However, the Route 28 realignment addressed those concerns. During this meeting we learned about Mt. Diablo's Bridge Program, which assists disabled individuals from 18-22 transition to adult life), and the Program's opposition to the elimination of the free midday fare program. Since then, we have been in contact with a number of teachers to ensure that if the midday free fare is eliminated, their program would not be impacted. Comments submitted: 3

### Lafayette

Residents attending the Lafayette meeting opposed the elimination of Route 25. They expressed reservations about using BART, but recognized that their transit use was limited. One commenter lives on Olympic Blvd and wanted to retain Route 25 service. Comments submitted: 3

### Concord

A couple of Concord residents also had ties to the Mt Diablo School District's Bridge Program and spoke about the field trips taken during 10am-2pm. Additionally, one resident opposed terminating Route 15 at Pleasant Hill BART and also the elimination of Route 315. Comments submitted: 6

### Walnut Creek

The elimination of Route 2 was the main concern for those in attendance at the Walnut Creek Public Hearing. Comments submitted: 6

## **Pleasant Hill**

The Pleasant Hill meeting served as an informational workshop. Those in attendance did not express any concerns about the service restructure. Comments submitted:

## **San Ramon**

Those attending the San Ramon Public Hearing did not express any concerns about the service restructure. One resident addressed the vehicle weight of our buses and the damage it is causing to the roads in his neighborhood. Several other comments were in favor of expanding service in the Windemere Loop and adding frequency to Route 35. Comments submitted: 5

The recurring theme throughout most of the public comment process was opposition to the elimination of the free midday fare program, with the exception of San Ramon. Several attendees at the San Ramon meetings had a different position and expressed a willingness to pay more than the proposed rate for more service. This proposed change will be analyzed in a separate equity analysis concerning potential fare changes.

## **Modifications Made to Proposal Based Upon Public Outreach and Stakeholders**

- Route 15: Extend to John Muir Medical Center Concord
- Route 28: Vista Way/Walmart proposed alignment implemented early in August 2018 in response to Martinez public outreach
- Route 35: Additional Windemere Service due to feedback from public hearing, brief period of 15 minute service in the morning
- Route 310: Extend to Downtown Clayton on weekends
- Route 315: Proposal to eliminate route dropped
- Route 95X: Proposal to align route on Main St in Walnut Creek dropped



Route	Description	Proposed Change	Start	Existing Freq. (m)			End	Start	Proposed Freq. (m)			End	Change?
				AM	MID	PM			AM	MID	PM		
1	Rossmoor to Shadelands via Walnut Creek BART	Increase all day frequency	5:55	60	60	60	7:50	5:44	45	45	45	7:59	Yes
1M	Walnut Creek BART to Marchbanks/JMMC	Delete route	6:23	40	-	40	7:34	X	X	X	X	X	Yes
2	Trotter to Walnut Creek BART	Delete route	6:16	2AM, 2 PM trips			7:14	X	X	X	X	X	Yes
4	Walnut Creek BART to Downtown Walnut Creek	Increase frequency to 12 minutes all day	7:10	15-45	15	15-40	9:46	6:58	12	12	12-30	9:47	Yes
5	Walnut Creek BART to Creekside	No changes	5:48	20	45	20	6:43	5:48	20	45	20	6:43	No
6	Orinda BART to Lafayette BART via Moraga	Add peak service	5:40	40	120	40	8:45	5:43	20	120	20-40	8:44	Yes
7	Pleasant Hill BART to Shadelands via Treat Blvd	No changes	6:22	15	-	15	7:40	6:22	15	-	15	7:40	No
9	Walnut Creek BART to DVC via Pleasant Hill	Streamlined route, increased frequency	5:50	30-50	40-80	40-60	10:43	5:45	50	50	50	10:15	Yes
10	Concord BART to Downtown Clayton	Reduce service to Clayton, new short loop	5:06	30	15-30	30-60	11:03	4:54	30	15-30	15-60	11:06	Yes
11	Concord BART to Pleasant Hill BART via Meadow	No changes	6:04	45	90	45	8:04	6:04	45	90	45	8:04	No
14	Concord BART to Pleasant Hill BART via Detroit	Extend to Walnut Creek BART at 30m freq.	5:52	40	40	40	9:31	5:35	30	30	30	9:50	Yes
15	Concord BART to Walnut Creek BART via PHB	Terminate route at Pleasant Hill BART	5:35	65	65	65	8:44	5:07	60	60	60	7:57	Yes
15-J*	Concord BART to JMMC	Extend Route 15 to Concord JMMC		-	-	-		5:53	60	60	60	7:09	New
16	Concord BART to Martinez AMTRAK via Monument	No changes	5:22	40	40	40	10:05	5:22	40	40	40	10:05	No
17	Concord BART to North Concord BART via Olivera	No changes to weekdays, new weekend svc.	6:15	30	60-75	30-45	7:39	6:15	30	60-75	30-45	7:39	No
18	Pleasant Hill BART to Martinez Amtrak via DVC	Rerouted via Patterson/Oak Park (Route 9)	5:45	80	~80	80	9:32	5:50	80	40	80	9:37	Yes
19	Martinez Amtrak to Concord BART via Pacheco	Streamlined route, increased frequency	6:05	120	120	120	7:53	6:12	90	45	90	7:37	Yes
20	Concord BART to DVC via Sun Valley Mall	Increased Frequency, faster travel time	6:00	15-30	15-30	30	10:22	6:05	15-30	15-30	15-30	10:19	Yes
21	Walnut Creek BART to San Ramon Transit Center	No changes (as of Winter 2018)	5:30	30	60	30-60	11:20	5:30	30	60	30-60	11:20	No
25	Lafayette BART to Walnut Creek BART	Delete route	7:30	60	60-120	60	6:53	X	X	X	X	X	Yes
27	North Concord BART to Arnold Industrial/Bates	New loop route to cover North Concord		-	-	-		6:34	~40	~60	~40	6:24	New
28	Martinez Amtrak to North Concord BART via DVC	Delete east portion from DVC to N.C. BART	5:45	75	60-90	60-90	8:56	7:00	110	55	110	7:35	Yes
35	Dublin BART to San Ramon Transit Center (east)	Increase peak frequencies	6:00	30	60	30	8:17	6:03	15-20	30-60	20	8:38	Yes
35-C*	San Ramon Transit Center to Crow Canyon via CC	New loop route to cover Crow Canyon area						7:08	30-60	-	30-60	6:48	New
36	Dublin BART to San Ramon Transit Center (west)	Delete route, partial 35C coverage	6:20	60	60	60	9:00	X	X	X	X	X	Yes
91X	Concord BART to Airport Plaza/UFCW	No changes	6:21	30	-	30	6:15	6:21	30	-	30	6:15	No
92X	Pleasanton ACE Station to Mitchell Park n' Ride	Delete small portion on Alcosta	5:35	6AM, 6PM trips			7:31	5:35	6AM, 6PM trips			7:31	Yes
93X	Antioch eBART to Walnut Cr. BART via Kirker Pass	No changes	4:37	30	-	30	7:50	4:37	30	-	30	7:50	No
95X	Walnut Creek BART to San Ramon TC via Danville	No changes	6:30	40	-	40	7:15	6:30	40	-	40	7:15	No
96X	Walnut Creek BART to Bishop Ranch	No changes	5:37	10-20	1 trip	10-20	7:39	5:37	10-20	1 trip	10-20	7:39	No
97X	Dublin BART to Bishop Ranch	No changes	6:30	30	-	30	6:14	6:30	30	-	30	6:14	No
98X	Martinez AMTRAK to Walnut Creek BART	Two new peak roundtrips	5:38	~60	~60	~60	7:41	5:38	30	~60	30	7:41	Yes
99X	Martinez Amtrak to North Concord BART (Express)	No changes	5:38	15-30	-	~30	6:29	5:38	15-30	-	~30	6:29	No
627	North Concord BART to Mason Circle	Replaced with Route 27	8:30	1AM, 1 PM trip			3:10	X	X	X	X	X	Yes
600s	Supplemental School Day Service	No changes		varies					varies				No

Appendix A: Matrix of Impacts by Route

Route	Description	Proposed Change	Start	Existing Freq. (m)			End	Start	Proposed Freq. (m)			End	Change?
				AM	MID	PM			AM	MID	PM		
4	Walnut Creek BART to Downtown Walnut Creek	Minor schedule changes	9:20	20	20	20	6:51	9:20	20	20	20	6:45	Yes
6	Orinda BART to Lafayette BART via Moraga	No changes	9:24	90	120	80	6:09	9:24	90	120	80	6:09	No
301	Rossmoor to JMMC via Walnut Creek BART	Delete route, 311 will replace to JMMC	9:25	90	90	90	6:19	X	X	X	X	X	Yes
310	Concord BART to Clayton/Kirker via Clayton Rd	New Washington loop, extend to Clayton	7:25	25	40	40	9:26	7:05	20	40	40	9:31	Yes
311	Concord BART to Walnut Creek BART via PH BART	Add JMMC (311J), increase frequency	7:19	90	90	90	6:54	7:31	80	80	80	7:01	Yes
311-J*	Walnut Creek BART to John Muir Med. Ctr.	Extend from WC BART to JMMC (repl. 301)		-	-	-		9:22	80	80	80	7:06	New
314	Concord BART to DVC via Crescent Plaza	Small schedule change	6:50	40	40	40	8:41	6:51	40	40	40	8:35	Yes
315	Concord BART to Clayton/Treat via Landana	Reduce service, increase PM span	8:20	90	90	90	6:15	8:20	80	80	80	7:05	Yes
316	Pleasant Hill BART to Martinez AMTRAK via DVC	No changes	7:15	80	80	80	8:09	7:15	80	80	80	8:09	No
320	Concord BART to DVC via Diamond Blvd	Better span, frequency most of day	9:45	45	15-45	45	6:59	8:50	40	40	40	6:55	Yes
321	Walnut Creek BART to San Ramon TC via Danville	No changes	7:20	30-60	120	120	10:29	7:20	30-60	120	120	10:29	No

Appendix B: Weekday Title VI Analysis

Route	Before				After				Difference				
	Population (within 1/4 mi)	Low Income	Minority	Annual Trips	Population (within 1/4 mi)	Low Income	Minority	Annual Trips	People-Trips (Population * Trips)	Low Income People-Trips	Minority People-Trips	Change Borne By Low Income	Change Borne by Minorities
1 Rossmoor / Shadelands	13,168	13.5%	30.4%	3,556	13,168	13.5%	30.4%	4,826	30,146,752	4,102,715	9,232,646	13.6%	30.6%
1M BART Walnut Creek / John Muir Med Ct	5,660	19.3%	35.3%	2,540	0			0	-31,681,420	-5,619,562	-10,759,440	17.7%	34.0%
Route 1 and 1/M Negative Changes									-1,534,668	-1,516,847	-1,526,794	98.8%	99.5%
2 Rudgear / BART Walnut Creek	8,817	17.9%	31.3%	1,270	0			0	-22,711,410	-3,899,336	-7,031,990	17.2%	31.0%
Route 2 Negative Changes									-22,711,410	-3,899,336	-7,031,990	17.2%	31.0%
4 Broadway Plaza / BART Walnut Creek	0			0	5,827	22.3%	40.2%	16,510	23,693,374	5,272,299	9,526,270	22.3%	40.2%
Route 4 Positive Changes									23,693,374	5,272,299	9,526,270	22.3%	40.2%
6 Lafayette / Moraga / Orinda (A)	8,242	10.3%	29.6%	4,318	8,242	10.3%	29.6%	4,572	15,030,704	1,560,229	4,467,352	10.4%	29.7%
6 Lafayette / Moraga / Orinda (B)	0			0	0			0	-9,066,784	-939,455	-2,727,960	10.4%	30.1%
6 Lafayette / Moraga / Orinda (C)	0			0	0			0	469,392	42,602	168,402	9.1%	35.9%
Route 6 Positive Changes									6,433,312	663,376	1,907,794	10.3%	29.7%
9 DVC / BART Walnut Creek	23,259	17.6%	39.3%	5,842	20,408	18.8%	41.2%	4,826	-83,186,778	-11,946,071	-29,037,026	14.4%	34.9%
18 AMTRAK / BART Pleasant Hill	29,175	15.7%	39.4%	4,064	31,515	15.0%	38.0%	3,302	-29,844,492	-6,101,110	-14,659,610	20.4%	49.1%
Route 9 and 18 Negative Changes									-113,031,270	-18,047,181	-43,696,636	16.0%	38.7%
10 BART Concord / Clayton (A)	20,959	16.3%	42.4%	9,144	20,959	16.3%	42.4%	4,572	-184,658,508	-31,595,966	-80,979,264	17.1%	43.9%
10 BART Concord / Clayton (B)	17,647	18.8%	44.4%	762	17,237	18.5%	46.9%	5,588	174,922,688	32,758,488	81,986,882	18.7%	46.9%
Route 10 Negative Changes									-9,735,820	1,162,522	1,007,618	-11.9%	-10.3%
14 Monument Blvd	33,043	34.2%	66.8%	6,096	0			0	-391,222,992	-135,360,988	-264,109,200	34.6%	67.5%
14-Monument Blvd	0			0	38,682	32.7%	62.7%	8,128	617,890,560	202,814,315	389,217,408	32.8%	63.0%
15 Treat Blvd (A)	33,553	18.9%	40.8%	4,064	27,424	18.3%	41.4%	3,810	-54,577,742	-9,936,487	-20,397,724	18.2%	37.4%
15 Treat Blvd (B)	0			0	4,522	41.7%	57.1%	3,556	16,080,232	6,711,780	9,178,036	41.7%	57.1%
Route 14 and 15 Positive Changes									188,170,058	64,228,620	113,888,520	34.1%	60.5%
19 AMTRAK / BART Concord	15,258	23.8%	47.3%	2,032	11,858	21.5%	45.1%	2,540	-1,556,004	-1,626,444	-1,615,440	104.5%	103.8%
Route 19 Negative Changes									-1,556,004	-1,626,444	-1,615,440	104.5%	103.8%
20 DVC / BART Concord	11,719	43.0%	72.5%	10,668	11,719	43.0%	72.5%	13,462	54,793,642	23,543,891	39,154,608	43.0%	71.5%
Route 20 Positive Change									54,793,642	23,543,891	39,154,608	43.0%	71.5%
25 BART Lafayette / BART Walnut Creek	8,414	21.1%	31.8%	2,794	0			0	-47,235,364	-9,745,112	-14,911,578	20.6%	31.6%
Route 25 Negative Change									-47,235,364	-9,745,112	-14,911,578	20.6%	31.6%

Appendix B: Weekday Title VI Analysis (continued)

Route	Before			After					Difference			Change Borne By Low Income	Change Borne by Minorities
	Population (within 1/4 mi)	Low Income	Minority	Annual Trips	Population (within 1/4 mi)	Low Income	Minority	Annual Trips	People-Trips (Population * Trips)	Low Income People-Trips	Minority People-Trips		
27 North Concord	0			0	2,344	14.5%	45.9%	4,572	10,716,768	1,551,232	4,924,044	14.5%	45.9%
28 BART North Concord / Martinez	18,171	18.2%	39.7%	3,810	0			0	-135,220,710	-24,367,403	-53,393,340	18.0%	39.5%
28 Martinez-DVC	0			0	18,501	16.4%	38.3%	1,778	65,314,830	10,698,960	25,060,910	16.4%	38.4%
627 Mason Circle	769	10.5%	47.5%	254	0			0	-400,050	-44,536	-191,008	11.1%	47.7%
Route 27, 28, and 627 Negative Changes									-59,589,162	-12,161,748	-23,599,394	20.4%	39.6%
35 BART Dublin / San Ramon (A)	10,723	7.8%	65.9%	4,064	9,983	7.8%	67.4%	5,588	19,054,572	1,456,520	14,176,248	7.6%	74.4%
35 BART Dublin / San Ramon (B)	10,966	6.7%	66.7%	1,524	10,226	6.6%	68.3%	2,032	11,199,368	707,914	8,212,074	6.3%	73.3%
35 Crow (New 35 segment)	0			0	7,148	5.6%	43.8%	2,540	18,155,920	1,017,468	7,945,120	5.6%	43.8%
36 San Ramon / BART Dublin	14,260	7.2%	43.4%	3,810	0			0	-103,247,190	-7,539,018	-44,973,240	7.3%	43.6%
Route 35 and 36 Negative Changes									-54,837,330	-4,357,116	-14,639,798	7.9%	26.7%
92X ACE Express	8,210	11.7%	32.2%	3,302	7,727	12.0%	32.3%	3,302	-1,680,718	-115,635	-525,018	6.9%	31.2%
Route 92X Negative Changes									-1,680,718	-115,635	-525,018	6.9%	31.2%
98X Martinez / BART Walnut Creek	11,794	20.9%	38.0%	4,064	11,794	20.9%	38.0%	4,572	12,019,280	2,495,491	4,527,804	20.8%	37.7%
Route 98X Positive Changes									12,019,280	2,495,491	4,527,804	20.8%	37.7%
All Changes NET)	221,272	16.5%	42.9%	168,656	212,800	17.2%	44.6%	172,212	-26,802,080	45,896,778	62,465,966		

	Low Income	Minority
Negative Change Borne By	16.1%	34.2%
CCCTA Area Average	4.2%	41.6%
Delta	11.9%	-7.4%

	Low Income	Minority
Positive Change Borne By	33.7%	59.3%
CCCTA Area Average	4.2%	41.6%
Delta	29.5%	17.7%

Positive Changes	285,109,666	96,203,676	169,004,996	33.7%	59.3%
Negative Changes	-311,911,746	-50,306,898	-106,539,030	16.1%	34.2%

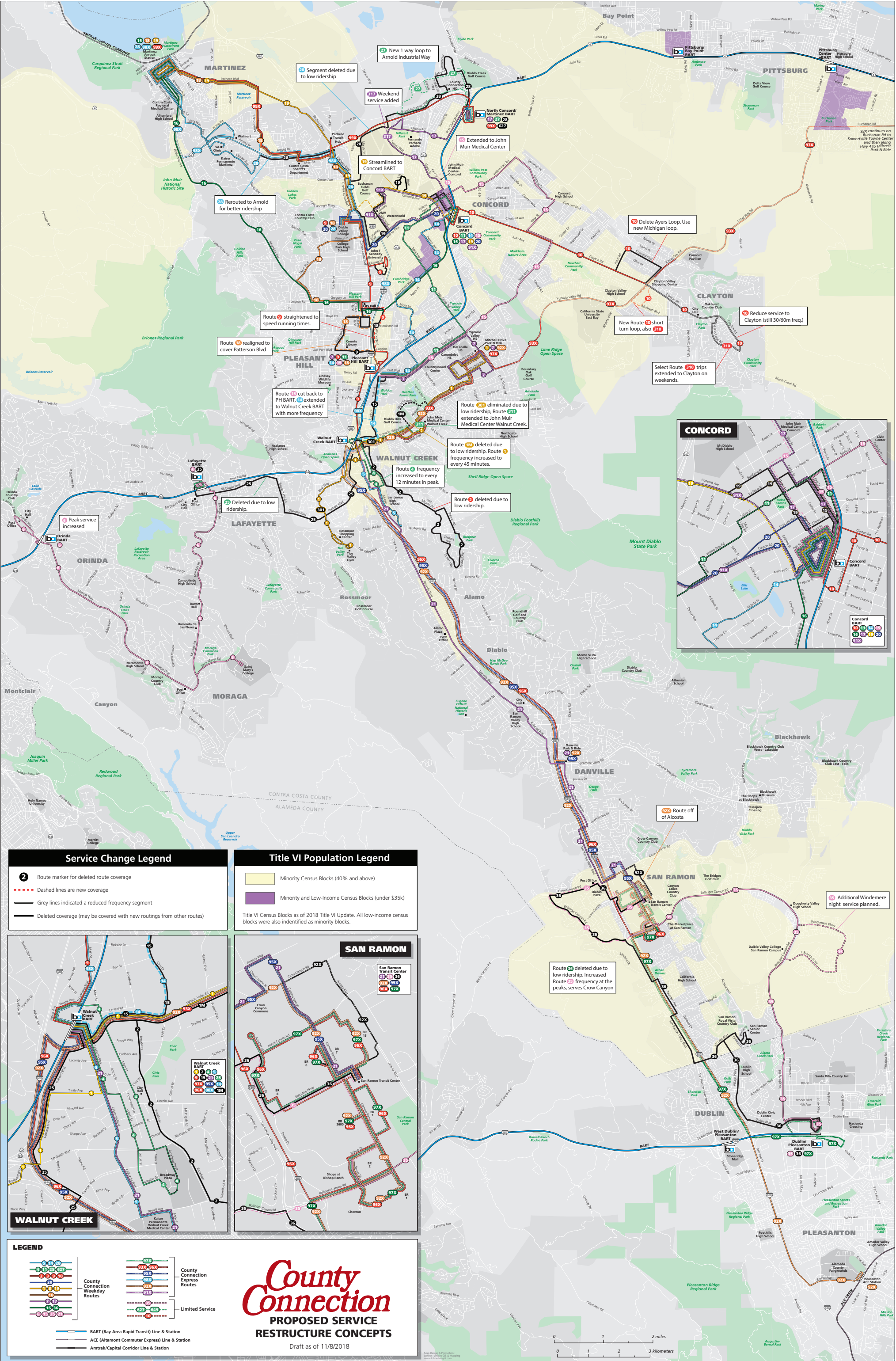
Appendix B: Weekend Title VI Analysis

Route	Before				After				Difference			Borne By Low Income	Change Borne by Minorities
	Population (within 1/4 mi)	Low Income	Minority	Annual Trips	Population (within 1/4 mi)	Low Income	Minority	Annual Trips	People-Trips (Population * Trips)	Low Income People-Trips	Minority People-Trips		
301 Rossmoor / Ygnacio Valley (A)	10,448	14.9%	30.8%	660	0			0	-14,017,080	-2,071,838	-4,334,880	14.8%	30.9%
301 Rossmoor / Ygnacio Valley (B)	6,776	13.9%	30.0%	110	0			0	-745,360	-103,247	-223,410	13.9%	30.0%
311 BART Concord / BART PH / BART WC	31,968	29.5%	56.7%	880	33,989	28.4%	55.1%	880	3,760,460	399,071	1,110,340	10.6%	29.5%
Route 301 and 311 (Negative Change)									-11,001,980	-1,776,014	-3,447,950	16.1%	31.3%
310 Clayton Rd / BART Concord (A)	16,748	19.8%	48.0%	2,420	19,376	19.2%	46.8%	1,980	-10,742,160	-2,414,205	-4,466,440	22.5%	41.6%
310 Clayton Rd / BART Concord (B)	0			0	19,474	18.0%	45.4%	385	15,566,705	2,662,174	6,824,510	17.1%	43.8%
Route 310 (Positive Change)									4,824,545	247,969	2,358,070	5.1%	48.9%
320 DVC / BART Concord	11,379	44.2%	73.6%	1,540	11,379	44.2%	73.6%	1,650	3,565,650	1,570,671	2,559,150	44.1%	71.8%
Route 320 (Positive Change)									3,565,650	1,570,671	2,559,150	44.1%	71.8%
All Changes (both directions)	138,974	20.0%	45.0%	10,890	139,089	19.9%	45.3%	9,680	-2,611,785	42,626	1,469,270	-1.6%	-56.3%

		Low Income		Minority			Positive	8,390,195	1,818,640	4,917,220	21.7%	58.6%
Negative Change Borne By		16.1%	31.3%				Negative	-11,001,980	-1,776,014	-3,447,950	16.1%	31.3%
Area Average		4.2%	41.6%									
Delta		11.9%	-10.3%									

		Low Income		Minority
Positive Change Borne By		21.7%	58.6%	
Area Average		4.2%	41.6%	
Delta		17.5%	17.0%	





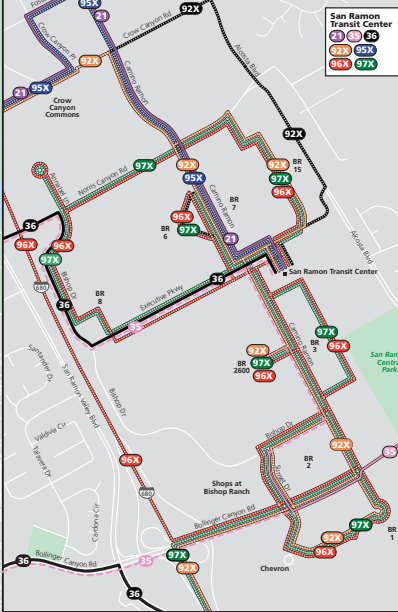
Service Change Legend

- 2 Route marker for deleted route coverage
- Dashed lines are new coverage
- Grey lines indicated a reduced frequency segment
- Deleted coverage (may be covered with new routings from other routes)

Title VI Population Legend

- Minority Census Blocks (40% and above)
  - Minority and Low-Income Census Blocks (under \$35k)
- Title VI Census Blocks as of 2018 Title VI Update. All low-income census blocks were also identified as minority blocks.

SAN RAMON



LEGEND

- County Connection Weekday Routes
- County Connection Express Routes
- Limited Service
- BART (Bay Area Rapid Transit) Line & Station
- ACE (Altamont Commuter Express) Line & Station
- Amtrak/Capital Corridor Line & Station

County Connection PROPOSED SERVICE RESTRUCTURE CONCEPTS

Draft as of 11/8/2018

