

Transit and Intermodal Committee Meeting

**Meeting Agenda
Thursday, October 15, 2015**

**4201 East Arkansas Avenue
Denver, Colorado**

**Mark Imhoff, Director
Division of Transit and Rail**

**Debra Perkins-Smith, Director
Division of Transportation Development**

**Kathy Gilliland, Chair
District 5, Livermore**

**Shannon Gifford
District 1, Denver**

**Bill Thiebaut
District 10, Pueblo**

**Kathy Connell
District 6, Steamboat Springs**

- **Introductions/Approval of July Minutes – Kathy Gilliland**
- **Bustang Quarterly Report – Mike Timlin (5 mins)**
- **PD-1605 – Interregional Express Bus Service Program – Mark Imhoff (5 mins)**
- **Bustang Operation Guidelines – Mark Imhoff & Michael Timlin (10 mins)**
- **Bustang West Route Weekend Service – Mark Imhoff & Mike Timlin (10 mins)**
- **Purchase three New Bustang Buses – Mark Imhoff & Mike Timlin (10 mins)**
- **SB 228 & SB 1 remaining funds – Mark Imhoff, David Krutsinger & David Averill (20 mins)**
- **Other TC Policy considerations; metro fringe area stops**
- **Adjourn**

THE AGENDA MAY BE ALTERED AT THE CHAIR'S DISCRETION.

Transit & Intermodal Committee Meeting Minutes
Wednesday, July 15, 2015

Committee Members Attending: Kathy Gilliland (Chair), Kathy Connell, Shannon Gifford

Additional Commissioners Attending: Ed Peterson, Sidney Zink

Staff Attending: Executive Director Shailen Bhatt, Chief Engineer Josh Laipply, DTR Director Mark Imhoff, DTD Director Debra Perkins-Smith, Acting CFO Maria Sobota, OPRG Director Herman Stockinger, Region 1 Acting Director Paul Jesaitis, Region 2 Director Karen Rowe, Region 3 Director Dave Eller, Region 4 Director Johnny Olson, Region 5 Director Kerrie Neet, Communications Director Amy Ford, Audit Division Director Barb Gold, DTD Transportation Planner Gail Hoffman, Bus Operations Manager Mike Timlin, and DTR Deputy Director David Krutsinger. Ron Papsdorf. Kevin Furman. Mike Lewis. Roxanne. TSM&O Director.

Commissioner Gilliland called the meeting to order at 3:47 pm.

1. **Introductions / Approval of April Minutes:** Additional commissioners attending were noted. The April minutes were approved unanimously.
2. **Bustang:** CDOT is no longer only planning or talking about transit operations. On Monday, July 13th, CDOT became a transit operator. Thank you and appreciation is due to all who participated and supported in reaching this milestone including the CDOT Regions 1-4 and partner divisions like OFMB, Audit, Communications, and others. Thank you to Mike Timlin, the Bustang Operations Manager. On launch day, 190 rides were delivered, and 236 were delivered yesterday, Tuesday, July 14th. Following on the safety presentation, we're pleased to say there were no accidents. CDOT has worked through minor glitches with the website and customer "1-800..." phone line. On social media, CDOT's service has 304 Facebook "likes" and 91 Twitter "followers", being tracked by Amy Ford's group. Most of the comments and messages are positive. A few suggestions have come in about Wi-Fi spottiness in some places along the corridor, the desire for service in the ring of communities around Denver (Castle Rock, Clear Creek County, and SW Weld County), and for weekend service.

Mark noted that the budget is about \$2.4 Million for operations, plus the remainder in support services and expenses. Commissioner Gifford asked what is "engineering & planning services" line item in the FY16 Bustang budget. Mark and Mike responded that it covers contractors for bus inspections, some external I.T. services, and engineering support for shelters and park & rides.

3. **Questions / Discussion of Informational Items:** Two other memos were included in the TC packet, including information on grant programs. The 2016 Administrative and Operating (A&O) grant awards will be announced in August. Requests have increased which will require allocation adjustments to make room for new operators and service expansion requests.

Commissioner Peterson asked about the status of grant processing, both contracts and reimbursements. Mark responded that the reimbursements are in good shape and are going out in a timely manner. CDOT is still in catch-up mode with regard to getting all contracts signed. CDOT prioritizes the administrative & operating contracts to make sure those are complete by January 1st of each year. With announcements on those awards in late August, CDOT has September to December to get contracts executed for A&O. Maria's office (OFMB) has worked hard with DTR to keep the invoice backlog down. On a related note, DTR has staff going to Archuleta County to provide face-to-face training / technical assistance on reimbursements. Commissioner Peterson noted, yes, paperwork can lag with smaller entities who sometimes work on an almost volunteer basis.

Mark followed up that DTR has a consultant on-board looking at invoicing processes, which will conclude late August, after receiving draft recommendations late this month. The consultant is reviewing what

CDOT requires, state statute requires, FTA requires, and what peer states require. If we can streamline the process based on that review, CDOT will. DTR has also been working on an electronic reporting system called COTRAMS. The old (precursor) system was antiquated, and stopped functioning about three years ago. CDOT has been relying heavily on paper transactions and manual spreadsheet tracking in the interim. Every grantee has or will soon have a license to see awards, contract status, and reimbursement status on-line. The system gives DTR the ability to foresee problems when they are starting, to be proactive, before they become a real issue as has been the case in the past.

Commissioner Zink also made a congratulatory statement about the SUCAP-operated Roadrunner Stage. It had its 1 year anniversary yesterday, July 14th serving 1,700 riders in the last year.

Adjourned 4:00 PM.



DATE: October 15, 2015
TO: Transit & Intermodal Committee
FROM: Mark Imhoff, Director - Division of Transit & Rail
SUBJECT: Bustang Quarterly Bustang

Purpose

The purpose of this memo is to provide the Transit & Intermodal Committee the Quarterly Bustang Update on operational and performance measures.

Action

No action is required.

Background

The Bustang interregional express bus service went into operation July 13, 2015. PD 1605 requires the Director of DTR to report operational and performance measures to the Committee on a quarterly basis, by route based on the fiscal year. This Quarterly Update covers the partial month of July, and the full months of August and September.

Details

Quarterly Ridership/Revenue Summary:

- System - Revenue- \$172,660 with 17,576 revenue riders, average fare - \$9.82;
- West Route - Revenue \$44,016 with 2,636 revenue riders, average fare \$16.70;
- North Route - Revenue \$64,628 with 7,699 revenue riders, average fare \$8.39;
- South Route - Revenue \$63,897 with 7,206 revenue riders, average fare \$8.87.

Quarterly Safety/Collisions - Four collisions occurred in the quarter; Accident Frequency per 100,000 miles = 2.75. This is higher than desired, and is being addressed by Ace Express through their driver training program. A breakdown of the quarter's accidents follows:

- 7/13 - bus# 38006 - Denver Bus Center - RTD bus back into Bustang bus; Rated non-preventable.
- 7/23 - bus# 38010 - Colorado Springs - Bustang driver collided with pick up truck while making a right hand turn; rated preventable.
- 8/13 - bus 38000 - Denver Bus Center - Bustang driver backed bus into rear wall - rated preventable.
- 9/17 - 38006 - bus hit a guard rail - rated preventable.

Quarterly Other Incidents - 9/14 - Denver Federal Center - Bus allegedly brushed a pedestrian, no injuries reported. Incident report completed and no further action taken.

Quarterly On-Time Performance -Departures:

- System - 91%;
- West Line - 90%;
- North Line - 92%
- South Line - 91%,



Cummulative Farebox Recovery:

- System 28%;
 - West Route 41%.
 - North Route 30%;
 - South Route 21
-
- *RamsRoute* - This collaboration between CDOT and CSU Parking and Transportation Services features a round trip ticket (Friday - Sunday) at \$19 and a guaranteed seat, and targetes CSU students but the general public is welcome to purchase tickets. It was launched September 11. The RamsRoute adds no additional Bustang Vehicles Operating in Maximum Service (VOMS) as well as no impact on Spare Ratio. 100% Farebox recovery (break even) equates to 30 passengers (round trip tickets). Rideship for the the first four weeks equates to an overall Fare Box Recovery of 59%.
 - September 11&13 - 9 round trips;
 - September 18&20 - 35 round trips;
 - September 25&27 - 19 round trips;
 - October 2&4 - 22 roundtrips

Ticket Sales/Fareboxes Issues: We continue to have a couple of lingering mobile app reading issues, and are diligently working with the farebox manufacturer and e-commerce provider on full integration and resolution. In addition, based on customer comment, we are also working with them to add features for round trip ticket purchases, and allowing multiple ticket purchases with one transaction. We continue to monitor and conduct weekly conference calls with the fare collection contractors to complete the interface and integration of the systems.

Social Media Update:

- Web Page hits for September avaraged 848 hits per day compared to 734 for August;
- Facebook Likes For September improved to 669 from 577 in August;
- Twitter followers improved in September to 166 from 136 in August.
- Facebook “reach” for each post improved to reach 287 people from 104 in August.

Top Customer Suggestions for September is typical of August and July:

- Request weekend service; most for the West Route.
- Extend service to Grand Junction and Pueblo.
- Add stops in Castle Rock, Denver Tech Center, Longmont, Johnstown, Georgetown and Idaho Springs.
- Connections to DIA
- Suggested schedule adjustments.
- Ability to purchase multiple tickets on-line or mobile app.

Customer Complaints:

There are a number of U.S. Government workers using commuter check benefit of up to \$130 per month. Ace Express has worked out a solution to allow multiple forms of payment since \$130 does not fit within the current multi-ride program. One U.S. Government employee has been vocal about not wanting to pay additonal fare up to the 20 ride solution; however our fare policy requires full payment, and the solution Ace has devised accomodates the commuter check recipients with the delta paid by credit card.

Next Steps

Service Enhancements:

- If approved by the T & I Committee in October, increase West Route frequency to daily (7 days/week) effective November 16.
- Execute minor schedule running time adjustments to the West Route to compensate for construction and aniticipated winter weather.



- Call first meeting of the Fare and Route Committee (FRC) and submit recommended January schedule changes followed by public comment the last two weeks of October.
- Collaborate with Ace Express on holiday operating plans for Thanksgiving and Christmas/New Years.

RTD/INIT Intelligent Transportation System Integration:

- Finalize Draft Service Level Agreement with RTD to host the CDOT “division” as well as finalize Draft Scope of Work with INIT.

Attachments

Figures 1 - 5: Average daily rides by week/route



Figure 1

South Route Avg Daily Riders

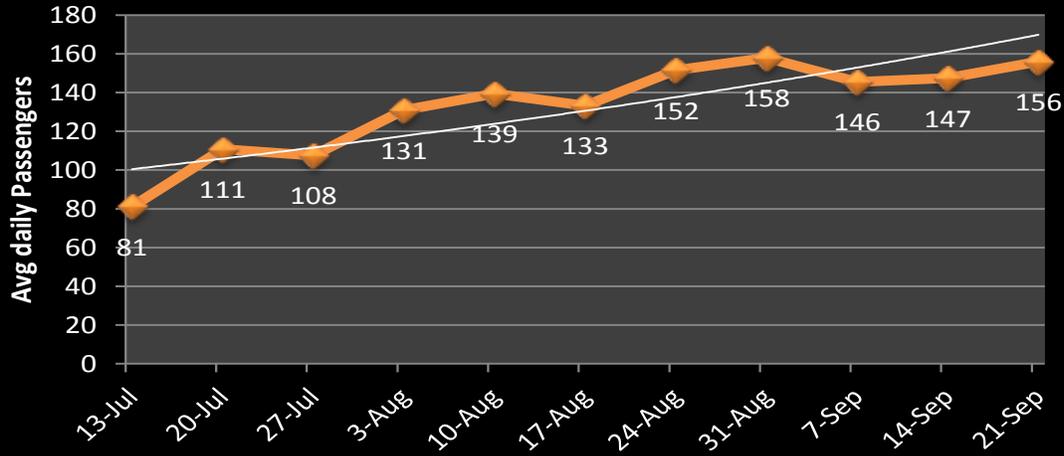


Figure 2

North Route Avg Daily Riders

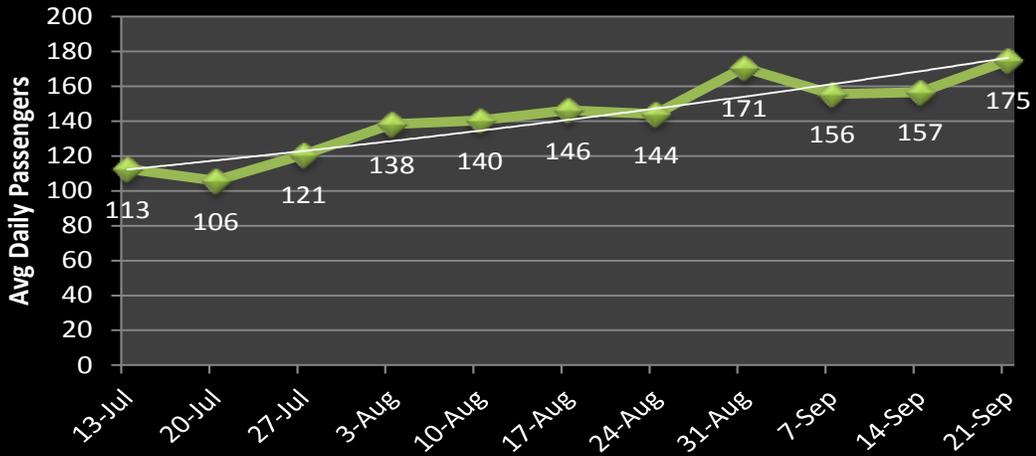


Figure 3

West Route Avg. Daily Riders

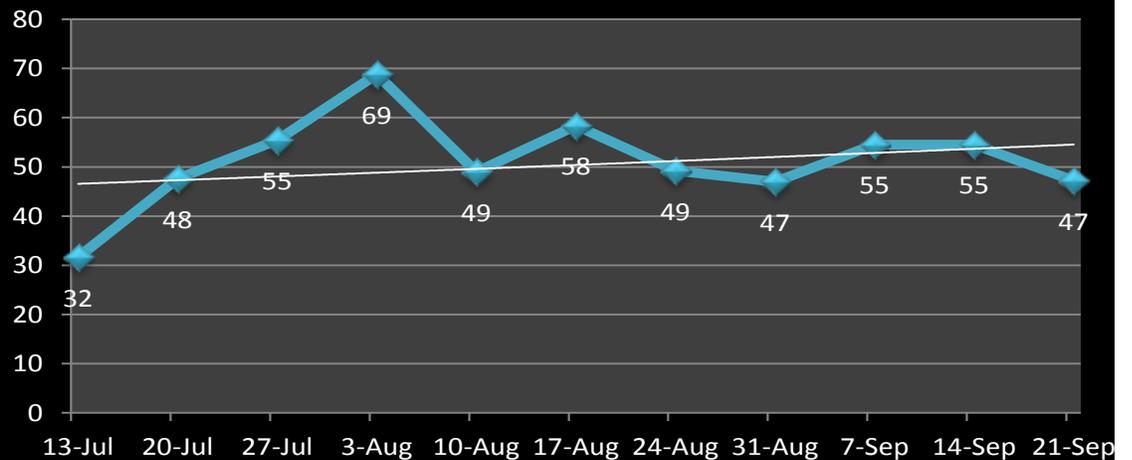


Figure 4

Bustang System Load Factor

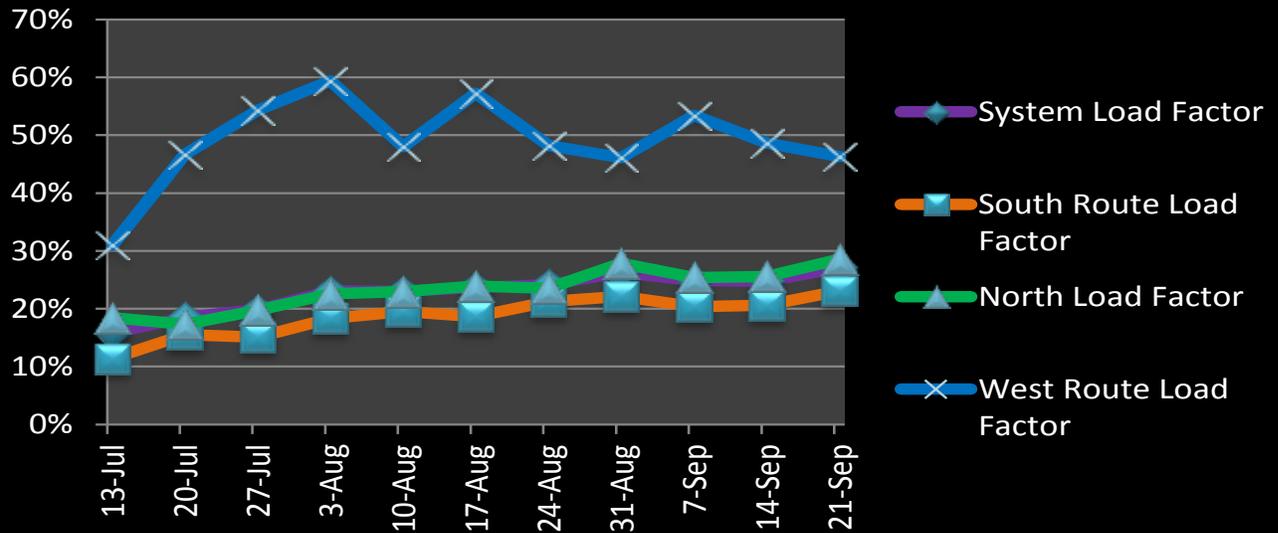
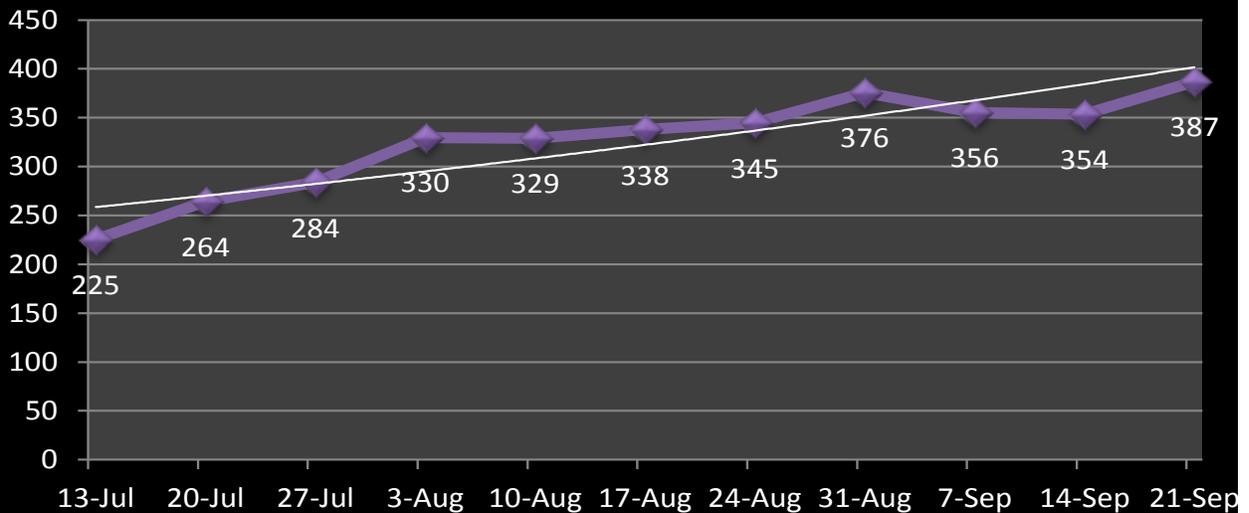


Figure 5

Bustang System Avg Daily Riders





COLORADO
Transportation Commission

4201 E. Arkansas, Room 270
Denver, CO 80222-3406

DATE: October 15, 2015
TO: Transit & Intermodal Committee
FROM: Mark Imhoff, Director, Division of Transit & Rail
SUBJECT: PD-1605 Review

Purpose

To review the duties and responsibilities of the TC, the T&I Committee and Staff as prescribed in PD-1605.

Action

No action is required.

Background

PD-1605 was adopted by the Transportation Commission in August, 2014, and outlines the Transit & Intermodal Committee oversight of the Bustang Program. With new Commissioners, and with Bustang in full operation, a review and refresher is presented.

Attachments

PD-1605





COLORADO

Department of Transportation

Office of Policy and Government Relations

4201 E. Arkansas, Room 275
Denver, CO 80222

RELEASE MEMO

To: All CDOT Employees

From: Herman Stockinger / Mark Imhoff *HS*

Re: New Policy Directive 1605.0 "Interregional Express Bus Service Program"

Date: August 22, 2014

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1. Name of Policy Directive: 1605.0 "Interregional Express Bus Service Program"
 2. Date of PD this Directive Supersedes: None; this is a new Policy Directive
 3. Executive Summary: This new Policy Directive establishes the Division of Transit and Rail (DTR) reporting procedures regarding the Interregional Express Bus Service (IX Bus Program). This Policy Directive further defines roles and responsibilities associated with the newly developed IX Bus Service Program, and provides transparency and accountability for internal processes and external information.
 4. Office to Contact with Questions: Division of Transit and Rail
 5. Procedural Directive will be Implemented by: Division of Transit and Rail
 6. Effective Date: August 22, 2014



COLORADO DEPARTMENT OF TRANSPORTATION		<input checked="" type="checkbox"/> POLICY DIRECTIVE	<input type="checkbox"/> PROCEDURAL DIRECTIVE
Subject			Number
Interregional Express Bus Service (IX Service) Program			1605.0
Effective	Supersedes	Originating Office	
8.22.14	n/a	Division of Transit and Rail (DTR)	

I. Purpose

To establish the Division of Transit and Rail (“DTR”) reporting procedures to the Transit and Intermodal Committee (“Committee”) of the Colorado Transportation Commission (“Commission”) regarding the interregional express bus service (“IX Program”).

The Division of Transit and Rail (“DTR”) IX Program was developed to augment and connect population and employment centers and local bus systems along the I-25 and I-70 Mountain Corridors and connecting routes to better integrate with a statewide transit system.

II. Authority

Transportation Commission, § 43-1-106(8)(a), C.R.S.

§ 43-1-117.5(3)(a)(II), C.R.S.

§ 43-4-811 and 812, C.R.S.

III. Applicability

This Policy Directive applies to the CDOT Division of Transit and Rail (“DTR”).

IV. Procedure

A. General Provisions

1. The IX Program was developed to augment CDOT’s commitment to provide the best multi-modal transportation system in the country. The IX Program fills a critical need by connecting with local bus systems serving populations and employment centers to better integrate a statewide transit system.
2. DTR shall initiate the IX Program on a base budget of \$3 m/yr. (FASTER Transit funds) for operations expenditures. The IX Program will be limited to this annual allocation plus collected fare revenue and shall cover the total annual operating costs of the service using these funds.
3. DTR shall set targets for fare box recovery with the goal of attracting ridership to the IX Program and providing an alternative to driving that entices riders to reduce driving. The IX Program shall thus set a goal of achieving a minimum fare box recovery of 20% of operating costs within two years of service start up.

4. DTR shall manage the IX Program, oversee the service Contractor, monitor performance, and remain flexible to adjust the service in order to maximize performance, increase effectiveness, and achieve farebox recovery goals.

5. DTR, with the Office of Communications, shall develop a public outreach program to regularly solicit input from the public on the service in general, and specifically solicit input before implementing any route, service or fare modifications.

B. Powers, Duties and Responsibilities

1. Transportation Commission Oversight. The Commission shall:

a) Monitor the performance and success of the Program for three years of operation from the service start-up date (see Resolution TC-3133, "Approving the Implementation of the Interregional Express Bus, Service" dated January 16, 2014). The Commission shall determine at this time whether to continue, modify or cancel it.

b) Review and determine whether the need for capital expenditures beyond the approved IX Program (\$3 million plus fare revenue) is warranted.

c) Approve all expenditures from the Cumulative Reserve fund.

2. Transit and Intermodal Committee Oversight. The Committee shall:

a) Meet a minimum of four times a year;

b) Monitor the performance of the Program and serve as the recommending body for any substantial modification, addition or deletion of services, including capital needs;

c) Evaluate reports and monitor the progress of DTR meeting milestones;

d) Recommend the IX Program budget annually to the Commission, including the review of any capital expenditures which vary from those previously approved;

e) Recommend to the Commission allocations from the cumulative reserve beyond the IX Program annual budget; and

f) Provide status updates at least annually to the Commission.

3. DTR Responsibilities.

a) The Director of DTR will manage the Program, monitor performance, remain flexible to adjust to maximize performance, be responsible for all day-to-day decision-making, and oversee all components of the Program, including, but not limited to:

Interregional Express Bus Service (IX Service) Program

1605.0

- (1) Updating the CDOT Chief Engineer and Executive Director on a regular basis by apprising him/her of the status of performance goals and service changes;
 - (2) Overseeing compliance with all applicable federal and state laws and regulations, including those arising from the Americans with Disabilities Act;
 - (3) Implementing Intergovernmental Agreements and Memoranda of Understanding with governmental and partner entities;
 - (4) Setting schedules and fare structures;
 - (5) Conducting an annual IX Program assessment (or twice annually if needed) of service coverage, routes, schedules and fares; and modify the service plan when justified.
 - (6) Preparing an annual budget (fiscal year);
 - (7) Purchasing of buses and other capital infrastructure elements;
 - (8) Negotiating and managing contractual agreements with a private provider for the annual operations and maintenance;
 - (9) Coordinating a communication plan with the Office of Communications;
 - (10) Implementing a public outreach program with the Office of Communications to regularly solicit input from the public on the IX Program in general, and specifically solicit input before implementing any route, service or fare modifications;
 - (11) Implementing a customer service plan with providers;
 - (12) Facilitating Park-n-Ride improvements with regions;
 - (13) Monitoring Contractors' Performance;
 - (14) Monitoring Risk Assessment; and
 - (15) Developing an annual work plan;
- b) Director of DTR Reporting. The Director of DTR shall report to the Committee on a quarterly basis. The quarterly performance reports shall include the following data by corridor and Program total based on the fiscal year:
- (1) Ridership;
 - (2) Fare box revenue;

Subject Interregional Express Bus Service (IX Service) Program	Number 1605.0
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- (3) Fare box recovery ratio;
- (4) On-time performance;
- (5) Safety: collisions per 100,000 miles; and
- (6) Public input received.

V. Implementation Plan

- 1. This Policy Directive will be effective immediately upon signature.
- 2. The Originating Office shall confirm within one week of the effective date that all employees in the DTR have received a copy of this Policy Directive.

VI. Review Date

This Policy Directive shall be reviewed on or before August, 2018.

Norman J. Stocking III
Secretary, Transportation Commission

8-22-14
Effective Date

Resolution # TC-3183

Adoption of Policy Directive 1605.0 “Interregional Express Bus Service (IX Service) Program”

WHEREAS, pursuant to § 43-1-106(8)(a), C.R.S., the Colorado Transportation Commission is charged with formulating general policy with respect to the management, construction, and maintenance of public highways and other transportation systems in the state; and

WHEREAS, in 2009, the General Assembly passed Senate Bill 2009-094, codified at § 43-1-117.5, C.R.S., which created the Division of Transit & Rail; and

WHEREAS, the legislation set forth the powers and duties of the Division under the Executive Director, including the operation of interregional transit service and establishing schedules and fares; and

WHEREAS, at its January 2014 meeting, the Transportation Commission passed Resolution #TC-3133 approving the Implementation of the Interregional Express Bus program (the “IX Program”) within the Division of Transit and Rail ; and

WHEREAS, Resolution # TC-3133 further included a provision to monitor the success of the program for three years of operation, and give the Transportation Commission the option at that time to continue service, modify service or cancel service; and

WHEREAS, the Program’s governance model has been based on DTR administering the program, the Transit & Intermodal Committee providing oversight, and the Transportation Commission retaining ultimate control of critical business decisions; and

WHEREAS; Policy Directive 1605.0 defines the roles and responsibilities of the Program’s implementation and provides transparency and accountability for internal processes and external information.

NOW THEREFORE BE IT RESOLVED, the Commission herein approves Policy Directive 1605.0 “Interregional Express Bus Service (“IX Program)”

Herman J. Stockinger III
Transportation Secretary

8-22-14
Date



DATE: October 15, 2015
TO: Transit & Intermodal Committee
FROM: Mark Imhoff, Director, Division of Transit & Rail
SUBJECT: Bustang Operational Guidelines

Purpose

To inform the Transit & Intermodal Committee of operational guidelines that are in effect for the Bustang service.

Action

No action is required.

Background

PD-1605 outlines the Transit & Intermodal Committee oversight of the Bustang Program. The Committee shall “Monitor the performance of the Program and serve as recommending body for any substantial modification, addition or deletion of services, including capital needs.”

Details

Timeline for Route, Schedule and/or Fare Changes - All public transit entities have timelines for carefully delineated schedule, route and fare changes at fixed dates within the calendar year which correspond to seasonal travel patterns. Public transit entities have a process of researching market / customer trends, developing proposed service changes to best serve that market, providing a period of public comment, refining based on public feedback, and making recommendations to their oversight authority for action. Changes are then implemented on the predetermined date.

Definitions: There are different types of schedule changes. Minor adjustments to the schedule to better reflect the actual timed arrivals of the bus can be made at any time, and do not need to follow a formal process to implement. Additional runs on a given route when justified do not need to follow a formal process to implement. Schedule changes that do require a formal process before implementation are service reductions or significant schedule modifications (e.g. changing the departure by more than 10 minutes). Any route change or fare change requires a formal process prior to implementation.

After review of the local transit agencies interfacing with Bustang, the Front Range agencies (RTD, Mountain Metro and Transfort) make changes to fares, schedules, and routes in January, May and August of each year. In the I-70 Mountain Corridor the transit agencies make more frequent changes as they respond to winter and summer tourism peaks and downsize for the fall and spring travel patterns.

Bustang will make any route, schedule and/or fare changes for the North and South Routes during January, May and August, consistent with the Front Range transit agencies. For the West Route, any changes will be made in coordination with the I-70 Mountain Corridor transit agencies.

Process: The Division of Transit & Rail has formed a Fare and Route Committee (FRC) comprised of the Deputy Division Director, Bus Operations Manager, Transit Grants Unit Manager, Transit Planning & Infrastructure Manager and our Contract Operator General Manager. One quarter in advance of a service change (e.g. October for a January change), The Bus Operations manager will present recommended changes to fares, schedules and route



changes to the FRC. The FRC will review and collaborate on the recommended changes. The draft changes will be advertised during the second and third week of the same month (e.g. October) via Bustang Web Page, Facebook and Twitter. The committee will review the public comment, finalize the new service plan and submit to the Director of Transit & Rail for approval during the last week on the month (e.g. October). Once approved, the service changes will take effect on the first day of month two months later (e.g. January). The T&I Committee and the TC will be informed during the monthly Bustang Update memo.

Spare Ratio Guideline - FTA Circular 9030.1C, "Urbanized Area Formula Program: Grant Application Instructions," chapter V, paragraph 9.a.5, require: "The number of spare buses in the active fleet for grantees operating 50 or more revenue vehicles should not exceed 20 percent of the number of vehicles operated in maximum service."

The American Public Transportation Association (APTA) published a study on May 31, 2009 advising fixed route transit agencies with fleets of 50 - 200 have the flexibility to go to go as high as 25%, fixed route fleet sizes above 200 should set a minimum 25% or higher spare ratio.ⁱ They further recommend fixed route agencies with fewer than 50 vehicles set their own spare ratio based on local conditions.

The Bustang operation has adopted a minimum spare ratio of 20%. The FTA defined spare ratio as the number of spare buses divided by the number of vehicles operated in maximum service. Bustang has a fleet of 13 MCI over-the-road coaches; 6 dedicated to the South Route, 5 dedicated to the North Route, and 2 dedicated to the West Route. Ten (10) buses are in daily use with three (3) buses (one for each corridor) dedicated as spares giving the Bustang fleet a spare ratio was 30%. With the size current Bustang fleet, one additional bus to the vehicles operated in maximum service would lower the Bustang spare ratio to 18%, below the 20% minimum. Therefore, we have no flexibility to add additional service with the existing fleet.

Although the Bustang fleet is new, the geographic spread over 230 miles along I-25 and I-70 presents challenges for the operation, and the ability to deploy a spare when needed is critical. Spares are deployed:

- in case of breakdown
- during accident repair
- allow rotation of buses for routine maintenance
- malfunctioning fare box, wifi, wheelchair lift, etc.
- Loop extra- possible overloads during holidays, special events, etc.

Service level/schedule assessment. The Bustang operations team is monitoring the usage and loads of each route, including directional flows, on a daily basis. The results are being tabulated to track daily, weekly and monthly trends. As a general guideline, when the average load factor trend for any given route reaches 40%, it likely means that some runs are exceeding 50%, and a more in-depth analysis begins to assess whether schedule additions need to be considered. The guideline includes a proposed schedule addition when the route reaches a 60% average load factor, unless the analysis indicates the need in an earlier timeframe. A critical element of the planning is whether the schedule addition can be accommodated with the existing fleet, or whether additional buses are required.

Transit agencies use a number performance factors like passengers hours, passenger miles, load factor, and farebox recovery ratio. The Bustang system has an additional feature of having the ability to gather advance sales data in our planning tool box. This feature helped on Friday, September 4 as sales from Fort Collins Downtown Transit Center was observed to increase significantly. An extra bus was deployed for run 633 at 3:00 PM from the Fort Collins Downtown Transit Center loading 84 people on two buses for the long Labor Day weekend to Denver.

Within the next year through our collaboration with RTD, Bustang will activate the pre-installed INIT Intelligent Transportation. The INIT system features an on-board central processor that will dispatch buses, automatically count passengers by stop, automatically communicate traffic conditions to drivers recommending detours, monitor on-time performance, provide vehicle location service, monitor vehicle health, provide next stop announcements



both verbal and visual and provide granular service data automatically. Once activated, the INIT system will enhance the day-to-day operations management of the Bustang service.

The Bustang West Route experience prior to Labor Day had the Average Load Factor exceeding 60%, and it is expected that that trend will return in December for the winter recreation season. The North and South Routes are currently operating under load factors of 21% and 26% respectively. One run on the South and two on the North exceed 40% load factors. An overload for one of these runs means a 15 -30 minute wait for the next bus.

ⁱ Bus Fleet Management in an Era of Increasing Technical Complexity: Analysis of Bus Fleet Spare Ratios FINAL REPORT, May 31, 2009





DATE: October 15, 2015

TO: Transit & Intermodal Committee

FROM: Mark Imhoff, Director, Division of Transit & Rail

SUBJECT: Bustang West Route Weekend Service

Purpose

To recommend and request the Transit & Intermodal Committee approval to increase the Bustang West Route service level from Monday through Friday to daily service including major Holidays.

Action

T&I approval to increase the Bustang West Route service level from Monday through Friday to daily service including major Holidays.

Background

PD-1605 outlines the Transit and Intermodal Committee oversight of the Bustang Program. The Committee shall “Monitor the performance of the Program and serve as recommending body for any substantial modification, addition or deletion of services, including capital needs.”

The West Route from the beginning has surpassed expectations in ridership, load factor and farebox recovery. The current load factor has settled in at 50%. A significant amount of public comment originating from the communities served by the West Route is requesting seven day a week service.

Details

The Bustang Quarterly Report shows the ridership and load factor trends for the West Corridor. The current average weekly load factor has settled in at 50%, after exceeding 60% prior to Labor Day. In fact, there was a trend during July and August of Denver area recreational travelers riding Bustang to the Mountains on Friday nights returning Monday morning with heavy load factors of 85-90% on certain days. It is expected that the summer trend will return in December for the winter recreation season.

The West Route supports a strong seven (7) day a week economy. While the North and South Routes largely cater to a weekday commuter market, the West Route serves an “essential services” market; i.e. medical, business, shopping, pleasure, etc. Mountain residents do not have a convenient fixed route option to Denver or between Garfield, Eagle, and Summit Counties. For example, in September through September 25, 2015, reported revenue showed 32 passenger trips between Frisco and Vail and 10 passenger trips between Vail/Eagle and Glenwood Springs. A significant amount of public comment originating from the communities served by the West Route is requesting seven day a week service.

It is recommended that the current West Route schedule of one round trip per weekday be extended to seven (7) day a week service; each day departing Glenwood Springs at 7:05AM and arriving at DUS 10:35AM, and departing DUS at 6:00PM and arriving back in Glenwood Springs at 9:45PM. There is no increase to Bustang Vehicles Operating in Maximum Service (VOMS) therefore no loss in Spare Ratio. We believe that adding weekend service gives Mountain Corridor travelers a more flexible schedule, and by adding weekend service the West Route likely will continue to grow and spread some of the Friday and Monday peaks to the weekend. It is further recommended that the daily service begin on November 16, 2015 before the Thanksgiving rush.



Costs:

Increase in operating days - 110
Contract Mileage/day - 340 Miles @ \$3.76 = \$1,278
Fuel 5.0 miles per gallon @ \$2.93/gallon - \$199
Total Costs - \$1,477 per day or \$162,470 annually.

Revenue:

Avg Fare West Route July & August = \$16.62
100% Farebox % (Break Even) - 44 passengers /scheduled run
40% Farebox % - 18 passengers/ run

Forecasted additional revenue @ 40% Farebox % per day - \$598; Annual - \$65,780

The current weekday schedule is not conducive for Denver residents to use Bustang for day use recreational trips, and the weekend addition is also not conducive for day use recreational trips. Denver residents have options for convenient fixed route day trips into the Summit and Eagle County resort areas such as Front Range Ski Bus, Colorado Mountain Express as well as Greyhound's convenient daily 7:00 AM departure from Denver arriving in Frisco & Vail at 8:45 AM & 9:20 AM. The reverse daily return picks up in Vail at 4:00 PM and Frisco at 4:35 PM.

Recommendation

It is recommended that the Transit & Intermodal Committee approve to increase the Bustang West Route service level from Monday through Friday to daily service including major Holidays, effective November 16, 2015.

Next Steps

1. Work with the Communications Office to alert customers through the Bustang social media sites (Facebook and Twitter), the Bustang web site, a press release and local media.
2. Further analyze the possibility of weekend service for the North and South Routes, and present the analysis to the T&I Committee at the January Quarterly Meeting.





DATE: October 15, 2015
TO: Transit & Intermodal Committee
FROM: Mark Imhoff, Director - Division of Transit & Rail
SUBJECT: Purchase Three New Bustang Buses

Purpose

The purpose of this memo is to seek a recommendation from the Transit & Intermodal Committee to the Transportation Commission to purchase three (3) new Bustang buses.

Action

The Division of Transit & Rail requests a recommendation from the T&I Committee to the TC for the purchase of three (3) new Bustang buses; TC action will be requested in November.

Background

The Bustang interregional express bus service went into operation July 13, 2015. The West Route is experiencing loads nearing capacity. As an interim solution, a second bus is being staged in Frisco as needed on the current scheduled run.

A fleet expansion is desired to provide flexibility for all three routes as demand grows. CDOT has a five year price agreement with MCI to purchase additional Bustang buses. Once ordered, and depending on the assembly line availability, delivery of new buses will take 9 to 12 months. FASTER Transit (Bustang) Roll-Forward funds will be used to cover the cost of the three buses.

PD-1605 outlines the Transit & Intermodal Committee oversight of the Bustang Program. The Committee shall “Monitor the performance of the Program and serve as recommending body for any substantial modification, addition or deletion of services, including capital needs.”

Details

The Bustang operations team is monitoring the useage and loads of each route, including directional flows, on a daily basis. The results are being tabulated to track daily, weekly and monthly trends. When the average load factor trend for any given route reaches 40%, it likely means that some runs are exceeding 50%, and a more in-depth analysis begins to assess whether schedule additions need to be considered. The planning includes a schedule addition when the route reaches a 60% average load factor, unless the analysis indicates the need in an earlier timeframe. A critical element of the planning is whether the schedule addition can be accommodated with the existing fleet, or whether additional buses are required.

The Bustang Quarterly Report shows the ridership and load factor trends for the West Corridor. The current average weekly load factor has settled in at 50%, after exceeding 60% prior to Labor Day

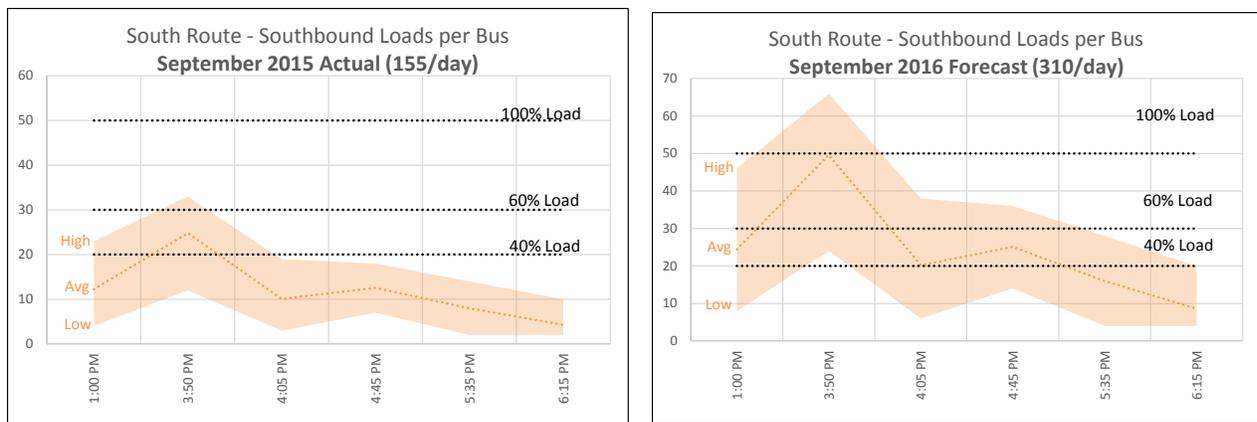
Between July 27 and August 21 the West Route eastbound average weekly load factor reached and maintained 63% in August with instances of the daily load factor reaching 85% on certain runs, indicating the need to make a schedule addition. As an interim solution, a second bus was being staged in Frisco as needed on the current scheduled run. This solution protects against an overload that could not be accommodated, but it added



approximately 70 miles of deadhead at a cost of \$265/day. To better accommodate the West Route demand, a service addition to add a second round trip each day from Vail to DUS should be implemented, and at least one new bus ordered to allow the run addition. The second round trip adds the needed capacity to the West Route, and offers customers a second option for their travel which likely will increase demand. Also, with a bus housed in Vail, the second round trip will eliminate the deadhead miles and costs that are being incurred on the interim solution of a staged bus in Frisco.

After three months of operation, the ridership has increased (July to September) by 34% on the West Route. 51% on the North Route, 54% on the South Route. As a point of reference, the FREX service at its conclusion was carrying 397 passengers/day compared to the Bustang South Route at 155 passengers/day. With the spare ratio requirement of 20% minimum, there is no flexibility to add service if/when we near a capacity threshold in any corridor.

A trend analysis has been conducted for the South Route by run to project daily ridership for September 2016, one year from now. The current South Route trend of ridership increase after three months of operation would project an increased ridership of nearly triple what it is today. While we expect ridership to continue to grow, we do not expect to sustain this level of increase month after month. For analysis purposes, we chose a doubling of ridership as a more obtainable level of demand over the course of the next year, which equates to approximately 80% of the previous FREX ridership from 2012. The graphs below show the ridership levels for the South Route southbound daily runs. The first graph depicts the current condition for September 2015, with the solid line representing the daily average for each run, and the shaded band representing the high and low days for the month. This analysis indicates the need for at least one additional bus by one year from today.

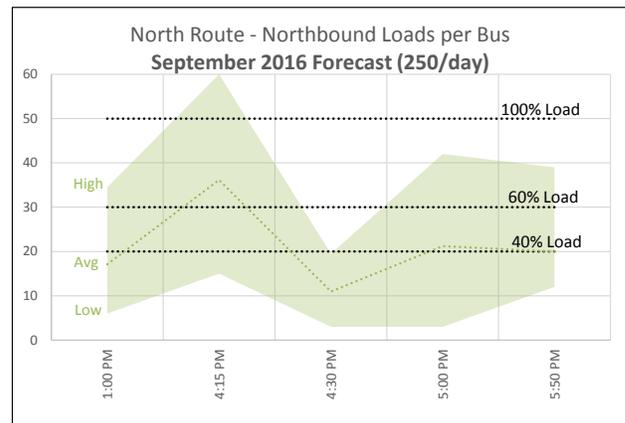
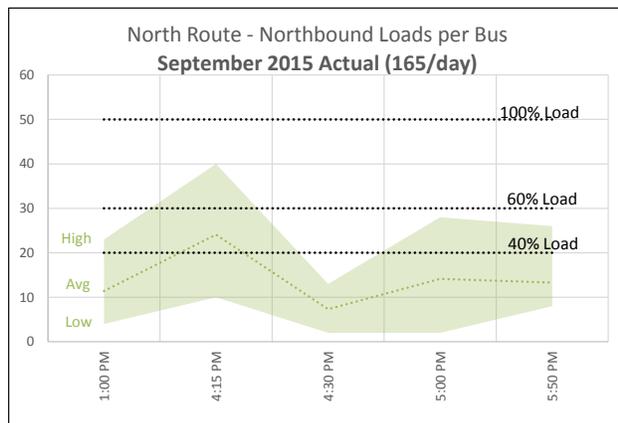


A trend analysis for the North Route was also conducted. A more conservative approach was taken given the smaller market size, the stability of the CSU campus, and lack of comparable past experience (like FREX for the South Route). For projection purposes a ridership increase of 1.5 was utilized, still significantly less than the current three month trend. The graphs below show the ridership levels for the North Route northbound daily runs. The first graph depicts the current condition for September 2015, with the solid line representing the daily average for each run, and the shaded band representing the high and low days for the month. The North Route analysis also indicates the need for one additional bus by one year from today.

Bus delivery is estimated at 9 to 12 months followed by a month of livery wrapping, installation of fare boxes and wifi, and testing. The West Route needs one more run and bus today. The South and North Route forecasting analyses indicate a likelihood of additional runs being needed by a year from now, hence needing two additional buses to accommodate. Ordering three buses now will give us the flexibility to deploy them as needed in 9-12 months when they are delivered. Ridership and operational trends will continue to be monitored and analyzed, and reported to the T&I Committee. Adding three (3) buses would increase the fleet to 16 buses. Assuming all three new buses would be deployed (one in each corridor), the number of vehicles operated in maximum service (VOMS) would be 13, with three spares; yielding a spare ratio of 23%. If the actual ridership growth does not



justify the deployment of all three buses, the spare ratio would be increased until the demand warrants adding service. If, for example, only two of the three new buses were deployed, the VOMS would be 12, with four spares; yielding a spare ratio of 33%.



The cost of three additional buses, based on the MCI price agreement is approximately \$588k/bus, or \$1.76M for three. The FASTER Transit (Bustang) Roll Forward from last year is \$4,097,796; representing unused funds from the Bustang FY2014 start-up budget and the FY2015 operating budget. These funds will be used to purchase the three new buses.

The T&I Committee needs to recommend the purchase to the TC for action. With the T&I recommendation, the TC Action Item will be placed on the November Agenda.

Benefits

Purchasing three new buses will provide for increased service while maintaining an adequate fleet spare ratio. Also, with ridership rising, and the unknowns of where ridership will plateau, an increase in fleet of three buses will allow for a small increase in service, when ridership warrants, by the time the buses are delivered in 9 to 12 months.

Options and Recommendations

1. Approve the purchase of three new Bustang buses—**Staff Recommendation.**
2. Approve the purchase of one or two new Bustang buses. This is not recommended because it does not provide the flexibility to respond to ridership demand on a timely basis.
3. Manage within the existing fleet. This is not recommended because the West Route already justifies an additional run.

Next Steps

- With the T&I recommendation, the TC will be asked for approval in November; an order would immediately be placed for three new buses.
- The Bustang Operations team will present updates to the T&I Committee at each quarterly meeting to keep the Committee apprised of the service options for utilizing the additional three buses.





DATE: October 15, 2015
TO: Transit & Intermodal Committee
FROM: Mark Imhoff, Director - Division of Transit & Rail
SUBJECT: SB 228/SB 1 Transit Funds Conceptual Utilization Plan

Purpose

The purpose of this memo is to present an overview of the concept for the proposed utilization of the combined FY2016 SB 228 and remaining SB 1 dedicated transit funds, and to seek the Transit & Intermodal Committee recommendation to proceed with the Conceptual Plan.

Action

DTR is seeking a recommendation from the T&I Committee to the Transportation Commission for approval of the Conceptual Plan, and permission to spend the winter refining the overall approach, cost estimates, and implementation schedule. With the T&I recommendation, the Conceptual Plan will be included to the November TC agenda for action.

Background

Senate Bill 228 (SB 228) provides for approximately \$200M in new revenue coming to CDOT, with at least 10% (approximately \$20M) dedicated to transit. In addition, the Division of Accounting and Finance (DAF) has identified \$12M of old Senate Bill 1 (SB 1) transit funds that remain unobligated due to project withdrawal and project savings. Both programs are specified to be used for TC approved strategic projects with statewide or regional significance. Staff from several divisions and regions within CDOT went through an exercise last fall to generate a comprehensive list of potential SB 228 projects; this list included transit projects that totaled in excess of \$300M.

In February 2015 the TC adopted PD 14 to guide future allocation of resources and investment decisions. For System Performance, the transit objectives are to increase rural transit ridership (Transit Utilization), and to increase the miles of regional and interregional service (Transit Connectivity). Bustang is CDOT's first attempt to provide regional connectivity by connecting the six largest transit agencies over 230 miles in the I-25 and I-70 corridors. The Statewide Transit Plan was adopted by the TC this past spring, and one of the priority needs of rural communities across the state is for better rural to urban transit connections for essential services; i.e. medical, business, shopping, pleasure, connection to the intercity and interregional transit network, airports, etc. In response to that input, a performance measure was adopted within the Statewide Transit Plan that charges DTR with working to improve the percentage of Colorado's rural population served by public transit.

In addition, the Intercity and Regional Transit Network Study was completed in 2014 and identified an extensive statewide network of rural regional needs and priorities. These efforts all had significant public and stakeholder outreach, which culminated into the Statewide Transit Plan. An Informational Item was provided to the Transportation Commission last November outlining the concept of CDOT operated &/or contracted Rural Regional bus service.

Details

SB 228 and SB 1 funds are not continuing long term, so are not appropriate for operating purposes. They should be utilized only for capital investments. CDOT receives approximately \$1.6M/year in FTA Section 5311(f) funds dedicated to providing rural connections to the intercity transit network, including national commercial bus



operators, such as Greyhound, and rail services provided by Amtrak. Figure 1 depicts the network of intercity bus routes currently funded by or subsidized by 5311(f) funds. These routes are proposed by others through a competitive process for individual routes. CDOT, utilizing the 5311(f) funds, contracts to public and private providers to operate the service. The current practice has benefits, but it is not coordinated into a state network, includes amortized capital in the reimbursed operating costs, and is not branded as an integrated product. The annual FASTER Transit Statewide program also includes up to \$1.0M/year available for rural regional transit operations, of which approximately \$550K/year are currently utilized.

From the Intercity and Regional Bus Network Study, a rural regional bus network has been developed by identifying high priority routes that provide rural to urban connections (see Figure 2). To better compliment and integrate interregional and rural regional routes into a statewide system, it includes an expansion of the Bustang service to Grand Junction, Greeley and Pueblo; also shown in Figure 2. This proposed operating plan has been developed as a sustainable service plan to utilize the combined 5311(f) and unallocated FASTER Statewide Transit operating funds. This proposal would rely on SB 228 and SB 1 funds to provide the capital needs, i.e. buses and Park & Rides. Smaller buses, sized to rural demand levels, would be procured and utilized for the rural regional and Bustang expansion. This proposal optimizes the usage of limited operating funds by leveraging other available sources of capital funding. Similar to Bustang, the rural regional system would be managed by CDOT through packages of operating contracts. With renewed packages of contracts bid in 2017, the revised network of services would begin in 2018.

A final piece of this integrated statewide plan is to further expand the current Bustang Park & Ride facilities, and provide the ability for Bustang service expansion as needed with additional buses. The Bustang annual budget would cover the operating costs, and rely on SB 228 funds for capital needs (buses and Park & Rides). Consideration could be given to additional stops and Park & Rides on the current routes for Castle Rock, SE Weld County and Idaho Springs; pending further policy discussion from the TC.

A consultant is being brought on board to assist in the SB 228/SB 1 program development. The established criteria will be used to focus the Conceptual Plan development and refinement to projects needed for the rural regional system, Bustang expansion, and other strategic transit projects with statewide or regional significance. The consultant will work with DTR and CDOT Regions to generate project cost estimates and an implementation schedule.

Criteria/Rationale for project order and inclusion - Last November staff presented the TC a comprehensive list of both highway and transit projects meeting the criteria established for SB 228 project eligibility: (1) strategic in nature with state/regional significance, (2) standalone project without significant existing funding, and (3) ready to go/begin construction within 5 years. Further evaluation criteria included mobility and economic development measures. SB 1 had similar and consistent eligibility criteria. Refining and scaling the comprehensive transit project list into an implementable program to utilize the available SB 228 funds (\$20M) and the remaining SB 1 funds (\$12M) was undertaken. This process constrained the eligibility criteria to include the priorities and goals of the Statewide Transit Plan and Policy Directive 14. In addition, each CDOT Engineering Region was given the opportunity to propose transit projects that met the broader SB 228 criteria, and were ready for implementation.

Table 1 identifies the draft list of projects for the Conceptual Plan. Detailed cost estimates have not been developed for all the projects in Table 1, and will not be developed until the Conceptual Plan comes closer to finalization over the winter with stakeholder input. Once finalized, projects would be implemented in the order of priority until the available funds are exhausted.

It is proposed that projects would be prioritized in an order that first addresses any outstanding capital needs impacting the effective and efficient provision of the current Bustang system; examples include improvements to the Harmony Road Park & Ride in Fort Collins and the Woodmen Road Park & Ride in Colorado Springs. The next priority category are projects that provide the necessary infrastructure to support the early steps of developing the statewide bus network. CDOT has limited operating resources, but needs to begin the acquisition and development of infrastructure to support the proposed services that can feasibly be provided at this time. Examples are bus



purchases and the development of new Park & Rides to support new or expanded routes in the statewide bus network, possibly including park & rides in Pueblo, Telluride, and other locations.

Table 1

Strategic Transit Capital Plan from SB 1 & SB 228 Sources (\$ Millions)	
Bustang and Rural/Regional PnR needs	\$12.75
Bustang and Rural/Regional rolling stock needs	\$10.00
Other Strategic Transit Projects	<u>\$9.25</u>
	\$32.00
Identified PnR Needs Beyond	<u>\$5.70</u>
	\$37.70

STAC Input - The concept of the Rural/Regional bus network was presented to the STAC at their September 25, 2015 meeting. The general tone of the conversation was positive and supportive. STAC did ask very constructive questions regarding priorities/timing of individual projects, and what kind of metrics would be used to assess those priorities as well as overall system performance. Members would also like to see information on what other State’s experience has been in developing this type of network. STAC also requested further information on proposed service metrics (revenue service hours, for instance) and performance metrics that would be used to set project/route priorities as well as all overall system performance. Given approval by T&I and the Transportation Committee to do so, DTR intends to refine this work over the winter and subsequently report back to the STAC and the T&I Committee on all of these points at future meetings.

Benefits

The transit plan outlined above implements elements of the Statewide Transit / Transportation Plans, further develops the Bustang interregional bus system, and expands the CDOT transit service area to include rural connections to urban centers. It delivers a truly statewide transit system, and furthers the Commission mission of providing the best multimodal system. Other benefits include:

- Utilizing the SB 228 10% for transit and the remaining SB 1 transit funds for strategic capital investments with statewide significance and covering all regions of the state. These projects meet SB228 list criteria in the areas of being strategic, stand-alone, ready-to-go projects with high mobility and economic benefit potential.
- These projects also work to fulfilling the PD 14 investment goal of connecting communities with interregional and regional transit service; including increased revenue miles of service.
- Fulfilling one of the priority goals from the Statewide Transit Plan; providing rural to urban center transit connections for essential services.
- Optimizing the designated rural regional operating funds for a sustainable service plan.
- Compliments and integrates with the Bustang service network.
- Provides for Park & Ride and additional buses (as needed) for the Bustang system.

Next Steps

- Execute task order contract with consulting firm to assist with refining service plans and cost estimates.
- TC Workshop and action to approve the Conceptual Plan in November.
- With TC concurrence in November; begin MPO, TPR and public outreach to refine the plan.
- Finalize the plan over the winter; seek TC approval of the plan in the spring 2016.
- Procure buses and contract operators; summer 2016 - Fall 2017.
- Begin the revised network of services in 2018.

Attachments

Figure 1: Current Intercity & Regional Bus Network
 Figure 2: Conceptual Rural Regional Bus Network



Figure 1: Current Intercity Bus Network

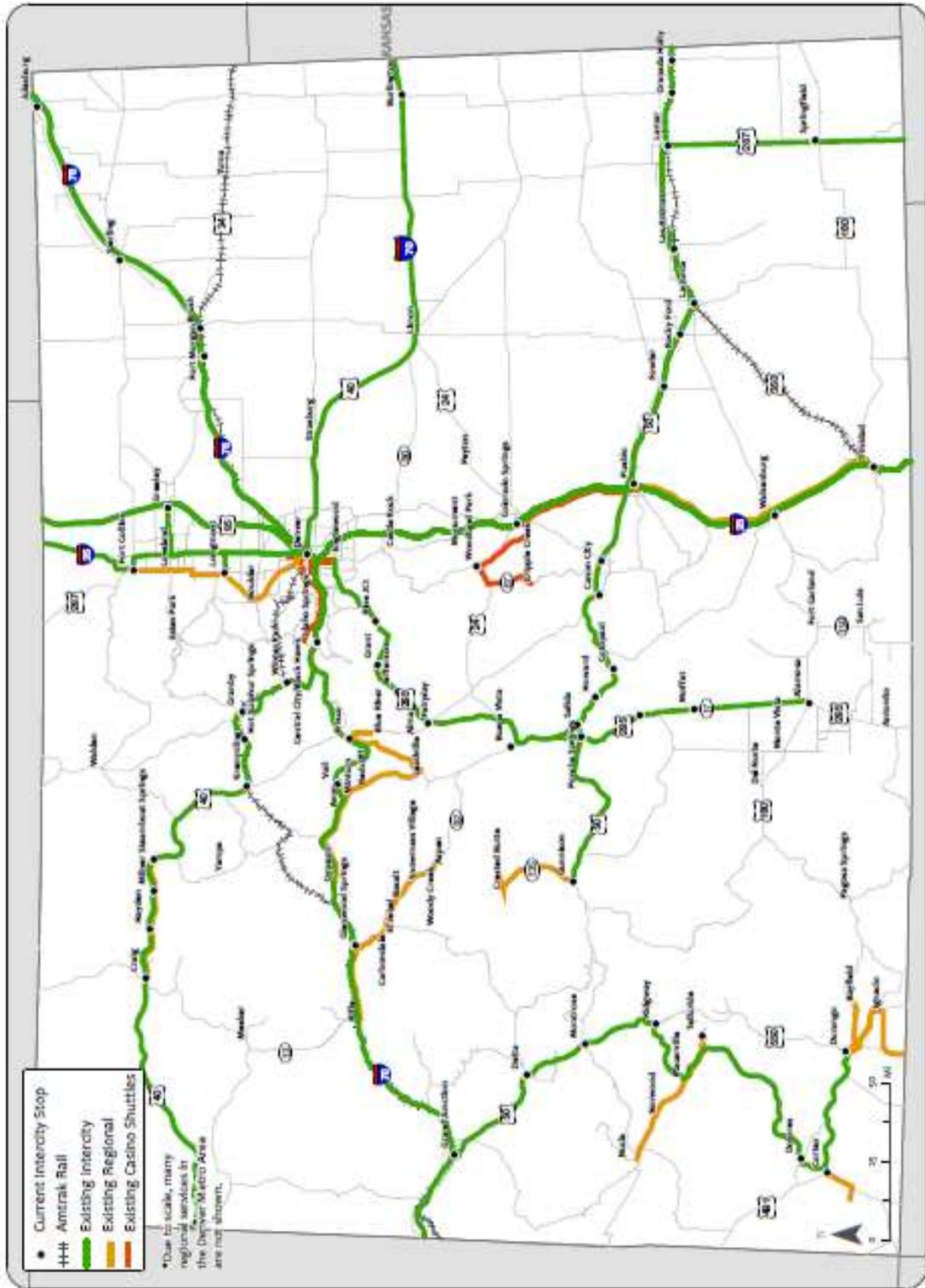
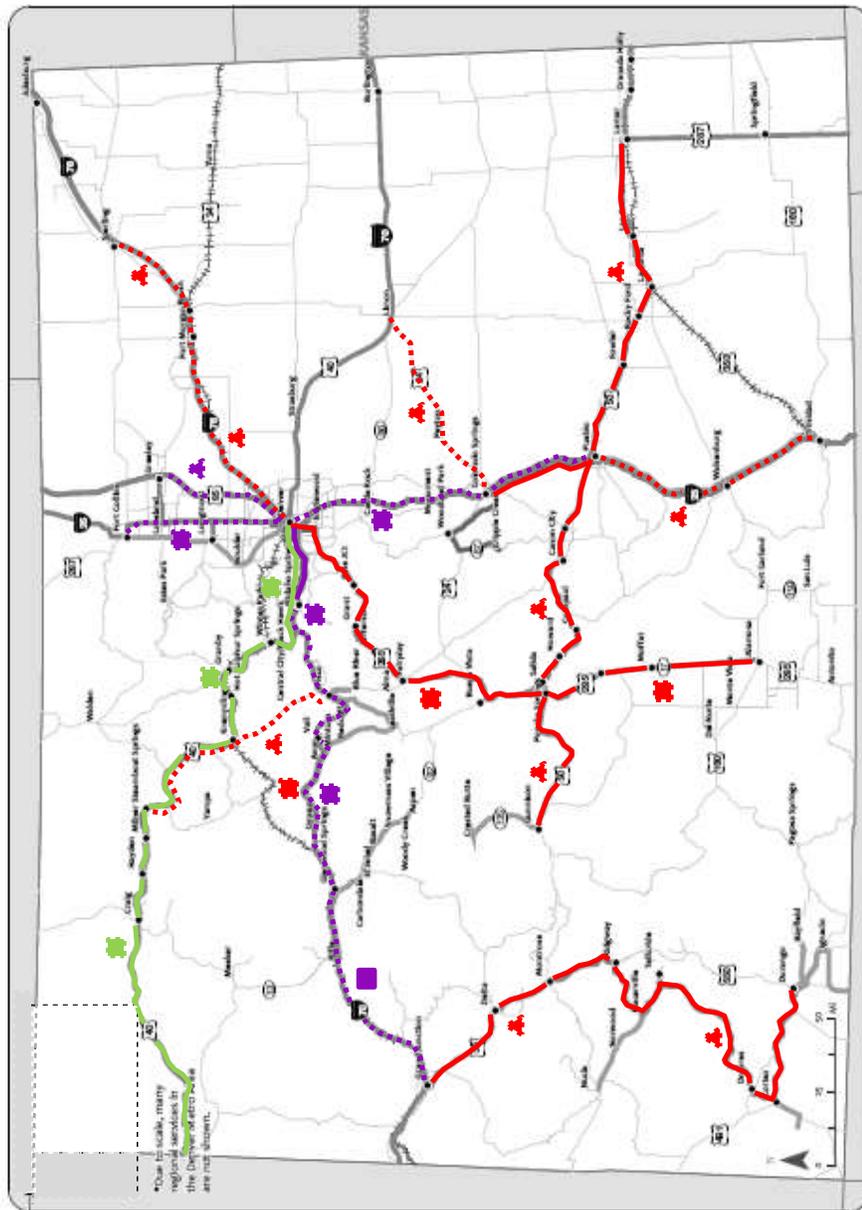


Figure 2: Conceptual Rural Regional Bus Network



LEGEND

- ⋯ Primary Corridors
- ⋯ Bustang
- ⋯ Bustang Expansion
- ⋯ Add'l High Priority Coverage Routes
- Interstate & State Highways
- Connecting Transit Services
- ✿ 50-seat over-the-road coach
- ✿ 30-seat over-the-road coach

