

## **AGENDA**

### **TRANSPORTATION ADVISORY COMMITTEE**

**Monday, November 27, 2017**

**1:30 p.m.**

1290 Broadway

Independence Pass Board Room – 1<sup>st</sup> Floor, west side

1. Call to Order
2. Public Comment
3. September 25, 2017 TAC Meeting Summary  
(Attachment A)

### **ACTION ITEMS**

4. Discussion on amendments to the 2018-2021 Transportation Improvement Program (TIP).  
(Attachment B) Todd Cottrell
5. Discussion of air quality conformity modeling for the 2040 Metro Vision Regional Transportation Plan.  
(Attachment C) Jacob Riger

### **INFORMATIONAL ITEMS**

6. Briefing on federally required performance-based planning safety targets.  
(Attachment D) Jacob Riger
7. Briefing on CDOT coordination to develop its FY 2019-2022 Statewide Transportation Improvement Program (STIP).  
(Attachment E) Todd Cottrell, JoAnn Mattson, CDOT Region 1

### **ADMINISTRATIVE ITEMS**

8. Member Comment/Other Matters
  - Nominating Panel for selection of 2018/2019 Transportation Advisory Committee Chair and Vice-Chair.
  - Update on status of TIP Policy Work Group
  - TAC 2018 Meeting Schedule
9. Next Meeting – December 18, 2017
10. Adjournment

Persons in need of auxiliary aids or services, such as interpretation services or assisted listening devices, are asked to contact DRCOG at least 48 hours in advance of the meeting by calling (303) 480-6744.



## ATTACHMENT A

### MEETING SUMMARY TRANSPORTATION ADVISORY COMMITTEE Monday, September 25, 2017

---

#### MEMBERS (OR VOTING ALTERNATES) PRESENT:

Kent Moorman	Adams County-City of Thornton
Bryan Weimer (Alternate)	Arapahoe County
Tom Reed	Aviation
Heather Balsler	Boulder County-City of Louisville
George Gerstle	Boulder County
Tom Schomer	Broomfield, City and County
Jeff Sudmeier (Alternate)	Colorado Dept. of Transportation, DTD
Richard Zamora	Colorado Dept. of Transportation, Reg 1
David Gaspers	Denver, City and County
Janice Finch	Denver, City and County
Douglas Rex	Denver Regional Council of Governments
Art Griffith	Douglas County
John Cotten	Douglas County-City of Lone Tree
Mike Salisbury	Environment
Greg Fischer	Freight
Dave Baskett (Alternate)	Jefferson County-City of Lakewood
Steve Durian	Jefferson County
Dawn Sluder (Alternate)	Non-RTD Transit
Bill Sirois (Alternate)	Regional Transportation District
Ted Heyd	TDM/Non-motor
Kevin Ash (Alternate)	Weld County-Town of Frederick

#### OTHERS PRESENT:

Kathleen Bracke (Alternate)	Boulder County-City of Boulder
Ryan Billings (Alternate)	Denver, City and County
Flo Raitano (Alternate)	Denver Regional Council of Governments
Tom Reiff (Alternate)	Douglas County-Town of Castle Rock
Aaron Bustow (Ex-Officio)	Federal Highway Administration
Debra Baskett (Alternate)	Jefferson County-City of Westminster

Public: Charles Meyer, CDOT Traffic & Safety; Danny Herrmann, JoAnn Mattson, CDOT Region 1; Matt Zitzmann, CRL; Kate Dewey, David Evans & Associates; Justin Begley, Rachel Carr, Kirsten Crawford, City/County of Denver; Hannah Heavrin, Denver South EDP/TMA; Faye Estes, Douglas County; Josie Ortiz, City of Greenwood Village; Steve McCannon, RAQC

DRCOG staff: Jacob Riger, Todd Cottrell, Steve Cook, Robert Spotts, Matthew Helfant, Emily Lindsey, Lawrence Tilong, Mark Northrop, Casey Collins

#### Call to Order

Vice Chair John Cotten called the meeting to order at 1:32 p.m.

#### Public Comments

There were no public comments.

#### Summary of August 28, 2017 Meeting

The meeting summary was accepted.

## ACTION ITEMS

### Discussion on removal of the National Highway System designation for a portion of Peña Boulevard.

Jacob Riger introduced Rachel Carr, federal policy advisor for the City and County of Denver/Denver International Airport (DEN), who presented Denver's request to remove the National Highway System (NHS) designation on the segment of Peña Boulevard from E-470 east to the airport terminal.

She provided an overview of the justification for the request (as detailed in agenda attachments), noting this segment was built by DEN, is maintained/operated by DEN, is on airport property, and has never been a recipient of federal funds. She noted Denver's position that it did not receive notice or an opportunity to meaningfully participate in the process when intermodal connectors were added to the NHS and said the segment was inadvertently added to the NHS map.

Art Griffith MOVED to recommend to the Regional Transportation Committee concurrence with the City and County of Denver's request to FHWA to remove the National Highway System (NHS) designation for the portion of Peña Boulevard east of E-470 to the airport terminal. The motion was seconded and passed unanimously.

### Discussion on eligibility rules, selection process, and evaluation criteria for the selection of FY 2018 and FY 2019 projects to be funded through the DRCOG TDM set-aside of the FY 2018–2021 Transportation Improvement Program (TIP).

Emily Lindsey continued the August TAC discussion on TDM criteria and process. She reviewed that \$3.2 million is available over a two-year period for the overall TDM set-aside, of which:

- \$2.08 million is allocated for the FY 2018-2021 TDM Call for Projects, apportioned as:
  - \$800,000 for small infrastructure projects, and
  - \$1.28 million for non-infrastructure (marketing/outreach) projects.

*(The remaining \$1.12 million of the \$3.2 million is allocated to the Way to Go Regional TDM Partnership, which is not part of this call for projects.)*

An additional carryover amount of approximately \$211,000 in returned funds and savings from prior TDM set-aside non-infrastructure awards.

Ms. Lindsey reviewed revisions made to the TDM eligibility rules and selection process (as detailed in the agenda memo and attachments) based on last month's feedback.

### Comments:

- George Gerstle suggested changing language for transit fare subsidies from "must be targeted", to "must be in effect" (during the high-ozone season) or similar language.
  - Aaron Bustow confirmed that CMAQ funds must be used during the high-ozone season.
  - Jeff Sudmeier summarized that transit fare subsidies are not eligible for CMAQ funding outside of the high-ozone season.
  - Art Griffith suggested language for transit fare subsidies should be clarified to "must be effective or used for the high-ozone season". Mr. Bustow agreed.
- Steve McCannon reiterated Ken Lloyd's suggestion from last month's discussion that 60% of the carryover amount be considered for TDM marketing projects and 40% for small infrastructure projects.
  - Ms. Lindsey said staff is in favor of awarding the carryover monies to the best projects. Staff noted the project review panel will rank and recommend projects, with project recommendations brought to TAC and the Board to decide how to allocate carryover funds.

Debra Baskett MOVED to recommend to the Board of Directors the eligibility rules, selection process, and evaluation criteria for the selection of FY 2018 and FY 2019 projects to be funded through the DRCOG TDM set-aside of the *FY 2018–2021 Transportation Improvement Program (TIP)*. The motion was seconded and passed unanimously.

### **INFORMATIONAL ITEMS**

#### **Briefing on Congestion Management Process and upcoming 2016 Annual Report on Roadway Traffic Congestion in the Denver Region.**

Robert Spotts presented on new methodology for calculating freeway congestion measurements using “big data” obtained from INRIX vehicle probes.

He previewed several subjects to be covered in the forthcoming 2016 annual report. One area is VMT growth, with Mr. Spotts noting the region is experiencing high VMT growth in recent years due to factors such as a booming economy, consistently low fuel costs, and population growth. Another area, which is the focus of the 2016 annual report, is the impacts of traffic crashes/incidents on congestion.

#### **Comments:**

- Mike Salisbury and George Gerstle asked if VMT per capita numbers could be compared to passenger miles traveled in the transit system (such as adjacent to rail lines) and to evaluate congestion for people, not just for cars. Is person miles traveled increasing as well?
- George requested examining US-36 managed lanes separately from the general purpose lanes; Robert responded that the analysis does so.
- Kent Moorman suggested showing transit boardings per capita.
- Kathleen Bracke suggested correlating to fatalities and serious injuries.
- Bryan Weimer suggested showing VMT per registered vehicles.
- Ted Heyd asked if the Board will receive the report, and suggested examining trends for other MPOs. He also expressed the opinion that adding lanes ultimately doesn't work as a strategy to alleviate congestion.
- Bryan Weimer suggested drawing a correlation between level of service and travel time index.
- Art Griffith suggested enlarging graphics (title blocks, legend keys) and including population bars at bottom.

#### **Briefing on the proposed Volkswagen Beneficiary Mitigation Plan for Colorado.**

Steve McCannon, Mobile Sources Program Director, RAQC, presented an overview of the Colorado allocation of funds and program administration for the proposed mitigation plan. Colorado was allocated \$68.7 million (of the \$2 billion Environmental Mitigation Trust Fund established in the Volkswagen settlement) to fund certain mitigation projects reducing NOx emissions and for incentives for light-duty zero emission vehicle supply equipment.

The Colorado Department of Health and Environment (CDPHE) will finalize the proposed Beneficiary Mitigation Plan in late 2017. A public meeting was held September 18. The public comment period continues through October 13.

#### **Comments:**

- George Gerstle asked about diesel retrofits. Mr. McCannon said the funding would apply only towards new vehicles.
- Ted Heyd asked if e-bike shared fleets would be eligible; Mr. McCannon said they would be ineligible.

Doug Rex said DRCOG submitted a letter of support of the proposed Beneficiary Mitigation Plan to CDPHE.

## **ADMINISTRATIVE ITEMS**

### **Member Comments/Other Comments**

#### Update of TIP Policy Work Group

Doug Rex reviewed the progress of the TIP Policy Work Group. The work group is now meeting twice a month and is working on criteria and developing TIP policy recommendations for the Board to consider. He said the call for Regional projects is expected to be in approximately March/April 2018 with the Subregional projects expected in summer 2018.

TIP Policy Work Group recommendations are being discussed at monthly Board Work Sessions. In September, the full Board approved three TIP focus areas:

- Improve mobility infrastructure and services for vulnerable populations (including improved transportation access to health services)
- Increase reliability of existing multimodal transportation network
- Improve transportation safety and security

Discussion at the Board work sessions recommended:

- focus areas should not be a litmus test, but used primarily as a guide for investment decisions
- focus areas should provide opportunity for both quantitative and qualitative evidence
- focus areas should apply to both Regional and Subregional funding calls, but maintain flexibility while retaining tenets of Metro Vision and the Regional Transportation Plan

The Board has discussed the definition/eligibility of a Regional project over three meetings. Mr. Rex reviewed that the TIP Policy Work Group provided a Regional Share definition as the “highest level” facilities on for roadways; the rapid transit system for transit; and regional bicycle corridors and multiuse paths.

Bryan Weimer noted the Board has approved the total DRCOG set-aside amount for \$49 million (as compared to \$40 million in the last TIP).

#### 2040 MVRTP Amendments

Jacob Riger noted the call for amendments to the 2040 MVRTP will be open soon. He asked amendment sponsors to contact him prior to submitting a potential plan amendment.

The meeting was adjourned at 3:01 p.m. The next meeting is scheduled for October 23, 2017.

## ATTACHMENT B

To: Chair and Members of the Transportation Advisory Committee

From: Todd Cottrell, Senior Transportation Planner  
(303) 480-6737 or [tcottrell@drco.org](mailto:tcottrell@drco.org)

Meeting Date	Agenda Category	Agenda Item #
November 27, 2017	Action	4

### SUBJECT

DRCOG's transportation planning process allows for Board-approved amendments to the current Transportation Improvement Program (TIP), taking place on an as-needed basis. Typically, these amendments involve the addition or deletion of projects, or adjustments to existing projects and do not impact funding for other projects in the TIP.

### PROPOSED ACTION/RECOMMENDATIONS

DRCOG staff recommends approval of the proposed amendments because they comply with the current Board-adopted [TIP Amendment Procedures](#).

### ACTION BY OTHERS

N/A

### SUMMARY

The TIP projects to be amended are shown below and listed in Attachment 1. The proposed policy amendments to the [2018-2021 Transportation Improvement Program](#) have been found to conform with the State Implementation Plan for Air Quality.

- **2007-055**      **FasTracks North Metro: DUS to Eastlake/124th Ave**  
Add funding
- **2007-078**      **Region 1 Bridge On-System Pool**  
Add funding
- **2007-096**      **Region 1 Surface Treatment Pool**  
Add funding and pool projects
- **2016-003**      **Central 70**  
Add funding and separate out TIFIA award

### PREVIOUS DISCUSSIONS/ACTIONS

N/A

### PROPOSED MOTION

Move to recommend to the Regional Transportation Committee the attached amendments to the *2018-2021 Transportation Improvement Program* (TIP).

### ATTACHMENT

1. Proposed TIP amendments

### ADDITIONAL INFORMATION

If you need additional information, please contact Todd Cottrell, Senior Transportation Planner, Transportation Planning and Operations at 303-480-6737 or [tcottrell@drco.org](mailto:tcottrell@drco.org).

**2007-055:** Add funding and adjust opening date to reflect revised schedule

**Existing**

Title: **FasTracks North Metro: Denver Union Station to Eastlake / 124th Ave** Project Type: **Rapid Transit**

TIP-ID: **2007-055**

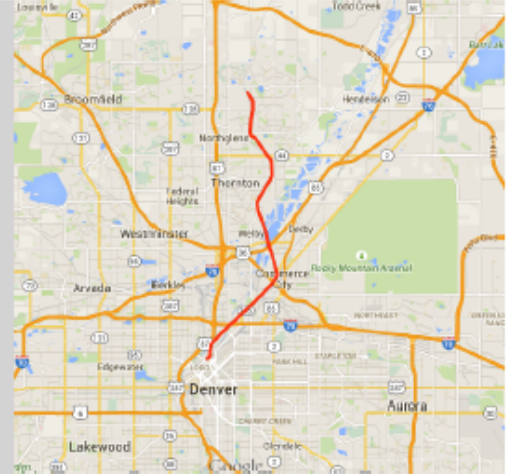
STIP-ID: **SST7015.008**

Open to Public: **2018**

Sponsor: **RTD**

**Project Scope**

Commuter rail corridor from Denver Union Station to the Eastlake / 124th Ave Station in Thornton and generally follows the UP Boulder Branch right-of-way.



Affected Municipality(ies)	Affected County(ies)
Commerce City	Adams
Denver	Denver
Northglenn	
Thornton	
Unincorporated	

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0		
Local (RTD)		\$27,115	\$0	\$0	\$0		
<b>Total</b>	\$683,982	\$27,115	\$0	\$0	\$0	\$0	\$711,097

**Revised**

Title: **FasTracks North Metro: Denver Union Station to Eastlake / 124th Ave** Project Type: **Rapid Transit**

TIP-ID: **2007-055**

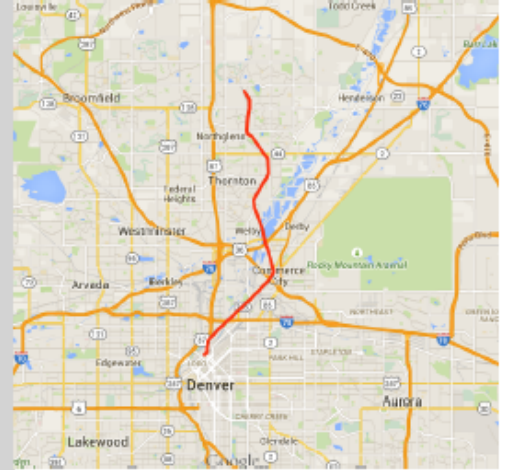
STIP-ID: **SST7015.008**

Open to Public: **2019**

Sponsor: **R T D**

**Project Scope**

Commuter rail corridor from Denver Union Station to the Eastlake / 124th Ave Station in Thornton and generally follows the UP Boulder Branch right-of-way.



Affected Municipality(ies)	Affected County(ies)
Commerce City	Adams
Denver	Denver
Northglenn	
Thornton	
Unincorporated	

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0		
Local (RTD)		\$79,078	\$20,982	\$0	\$0		
<b>Total</b>	<b>\$736,816</b>	<b>\$79,078</b>	<b>\$20,982</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$836,876</b>



**2007-078:** Add funding and provide the latest funding estimates for existing pool projects

**Existing**

Title: **Region 1 Bridge On-System Pool**

Project Type: **Bridge**

TIP-ID: **2007-078**

STIP-ID: **SR16712**

Open to Public:

Sponsor: **CDOT Region 1**

**Project Scope**

The Bridge On-System Pool funds various bridge, culvert and wall projects throughout CDOT Region 1.



**Affected County(ies)**

- Adams
- Arapahoe
- Broomfield
- Denver
- Douglas
- Jefferson

All pool project funding depicts federal and/or state funding only.

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
Essential Culvert Repairs		\$4,800	Preventative Bridge Maintenance	Proactive work, including scour work, fiber wrap	\$3,200	Bridge Essential Repairs	Generally reactive; girder cleanouts	\$5,400
Essential Wall Repairs		\$3,000	Joint Treatments		\$4,300			
Structure Replacement		\$2,200	Deck Treatments	Resurfacing/overlays	\$6,480			

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal (BR)		\$11,092	\$6,838	\$11,461	\$0		
State		\$0	\$0	\$0	\$0		
Local		\$0	\$0	\$0	\$0		
<b>Total</b>	\$0	\$11,092	\$6,838	\$11,461	\$0	\$0	\$29,391

**Revised**

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
Essential Culvert Repairs		\$8,054	Preventative Bridge Maintenance	Proactive work, including scour work, fiber wrap	\$4,280	Bridge Essential Repairs	Generally reactive; girder cleanouts	\$7,131
Essential Wall Repairs		\$5,738	Joint Treatments		\$5,705			
Structure Replacement		\$2,853	Deck Treatments	Resurfacing/overlays	\$8,558			

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal (BR)		\$13,829	\$7,552	\$11,461	\$7,475		
State		\$0	\$0	\$0	\$0		
Local		\$0	\$0	\$0	\$0		
<b>Total</b>	\$0	\$13,829	\$7,552	\$11,461	\$7,475	\$0	\$40,317

**2007-096:** Add funding to FY 2021 and associated funding for eight new pool projects

**Existing**

Title: **Region 1 Surface Treatment Pool**

Project Type: **Roadway Reconstruction**

TIP-ID: **2007-096**

STIP-ID: **SR15215**

Open to Public:

Sponsor: **CDOT Region 1**

**Project Scope**

Projects in CDOT Region 1 to be approved for Pool Funding by Region 1 Director.

Affected County(ies)

- Adams
- Arapahoe
- Broomfield
- Denver
- Douglas
- Jefferson



All pool project funding depicts federal and/or state funding only.

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
University	Arapahoe to Hampden	\$5,000	Hampden	Dahlia to Yosemite	\$4,000	US-85	H. Ranch Pkwy to C-470	\$3,000
Colfax	Galapago to Colorado	\$8,500	US-6	Frei Pit, east of I-70	\$3,000	SH-88	University to I-25	\$4,000
US-85	Hampden to Florida	\$2,500	SH-88 (Federal Blvd)	Alameda Ave to Hampden Ave	\$4,000	US-287	Colfax to I-70	\$4,000
Santa Fe	Florida to I-25	\$3,500	I-70	32nd Ave to 44th Ave	\$2,500	US-6	SH-119 to SH-58/SH-93	\$5,000
US-85	124th to 168th	\$8,000	SH-83 (Leetsdale Dr)	Mississippi Ave to Colorado Blvd	\$3,000	I-25	SH-86 to Castle Pines Pkwy	\$2,500
Wadsworth	Bear Creek to 4th	\$5,500	Preventative Maintenance	Various Locations (\$2M/yr)	\$8,000	I-70 EB	Georgetown to Empire Junction	\$3,000
I-25	County Line Rd to Belleview	\$12,000	I-70	EJMT Tunnel Paving	\$3,000	US-6	Loveland Pass to I-70	\$5,000
I-225	I-25 to Parker Rd	\$7,500	SH-74	I-70 to CR-65	\$2,500	SH-67	MP 125.6 to SH-105	\$750
Colfax	Peoria to Sable	\$2,500	SH-121	35th to I-70	\$3,000	I-25	Greenland to Larkspur	\$5,000

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State (Surface)		\$39,600	\$43,400	\$32,000	\$40,000		
Local		\$0	\$0	\$0	\$0		
<b>Total</b>	<b>\$19,000</b>	<b>\$39,600</b>	<b>\$43,400</b>	<b>\$32,000</b>	<b>\$40,000</b>	<b>\$0</b>	<b>\$174,000</b>

# ATTACHMENT 1

## Revised

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
University	Arapahoe to Hampden	\$5,000	I-70	32nd Ave to 44th Ave	\$2,500	US-6	Loveland Pass to I-70	\$5,000
Colfax	Galapago to Colorado	\$8,500	SH-83 (Leetsdale Dr)	Mississippi Ave to Colorado Blvd	\$3,000	SH-67	MP 125.6 to SH-105	\$750
US-85	Hampden to Florida	\$2,500	Preventative Maintenance	Various Locations (\$2M/yr)	\$8,000	I-25	Greenland to Larkspur	\$5,000
Santa Fe	Florida to I-25	\$3,500	I-70	EJMT Tunnel Paving	\$3,000	I-70	Floyd Hill to Chief Hosa	\$11,000
US-85	124th to 168th	\$8,000	SH-74	I-70 to CR-65	\$2,500	SH-86	Woodlands Blvd to IREA Access	\$8,000
Wadsworth	Bear Creek to 4th	\$5,500	SH-121	35th to I-70	\$3,000	US-85	MP 191.75 to Louviers	\$4,000
I-25	County Line Rd to Belleview	\$12,000	US-85	H. Ranch Pkwy to C-470	\$3,000	US-36	28th St to Table Mesa Dr	\$4,000
I-225	I-25 to Parker Rd	\$7,500	SH-88	University to I-25	\$4,000	US-85 NB	County Line Dr to Aspen Grove	\$2,000
Colfax	Peoria to Sable	\$2,500	US-287	Colfax to I-70	\$4,000	SH-7	I-25 to US-85	\$8,000
Hampden	Dahlia to Yosemite	\$4,000	US-6	SH-119 to SH-58/SH-93	\$5,000	SH-121	I-70 to 65th Ave	\$4,000
US-6	Frei Pit, east of I-70	\$3,000	I-25	SH-86 to Castle Pines Pkwy	\$2,500	US-40	Genesee to CR-93	\$5,000
SH-88 (Federal Blvd)	Alameda Ave to Hampden Ave	\$4,000	I-70 EB	Georgetown to Empire Junction	\$3,000			

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State (Surface)		\$39,600	\$43,400	\$32,000	\$46,000		
Local		\$0	\$0	\$0	\$0		
Total	\$19,000	\$39,600	\$43,400	\$32,000	\$46,000	\$0	\$180,000

# ATTACHMENT 1

Policy Amendments – November 2017

2018-2021 Transportation Improvement Program

**2016-003:** Increase funding due to pre-development costs and update Developer's financial proposal (separating out the TIFIA loan). The TIFIA loan and Private Activity Bonds are being secured by, and the responsibility of, the Developer.

## Existing

Title: **Central 70**

Project Type: **Roadway Reconstruction**

TIP-ID: **2016-003**

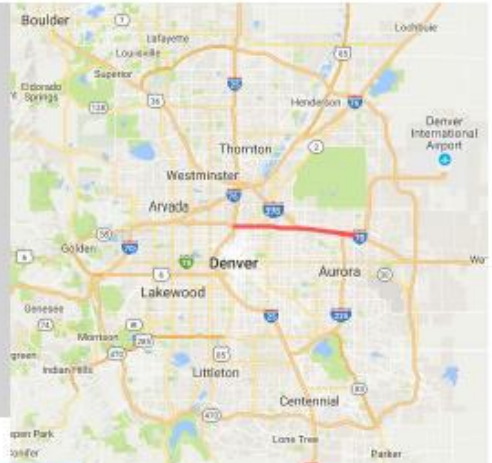
STIP-ID:

Open to Public:

Sponsor: **CDOT Region 1**

### Project Scope

Replace the I-70 Viaduct, including the addition of one managed lane in each direction from I-25 to Chambers Rd.



Affected Municipality(ies)	Affected County(ies)
Denver	Denver

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (CMAQ)		\$3,000	\$16,000	\$12,500	\$12,500		
State		\$0	\$0	\$0	\$0		
State (Bond/Loans)		\$539,645	\$0	\$0	\$0		
State (FASTER-B)		\$0	\$95,000	\$52,000	\$113,845		
State (SB 228)		\$35,466	\$58,155	\$0	\$0		
Local		\$0	\$0	\$0	\$0		
<b>Total</b>	<b>\$233,889</b>	<b>\$578,111</b>	<b>\$169,155</b>	<b>\$64,500</b>	<b>\$126,345</b>	<b>\$0</b>	<b>\$1,172,000</b>

## Revised

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (CMAQ)		\$3,000	\$16,000	\$12,500	\$12,500		
<b>Federal (TIFIA)</b>		<b>\$404,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
State		\$0	\$0	\$0	\$0		
State (Bond/Loans)		<b>\$141,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
State (FASTER-B)		\$0	\$0	\$0	<b>\$158,845</b>		
State (SB 228)		<b>\$51,338</b>	<b>\$7,000</b>	<b>\$35,283</b>	<b>\$0</b>		
Local		\$0	\$0	\$0	\$0		
<b>Total</b>	<b>\$233,889</b>	<b>\$599,338</b>	<b>\$23,000</b>	<b>\$47,783</b>	<b>\$171,345</b>	<b>\$132,000</b>	<b>\$1,207,355</b>

## ATTACHMENT C

To: Chair and Members of the Transportation Advisory Committee

From: Jacob Riger, Long Range Transportation Planning Manager  
303-480-6751 or [jriger@drcog.org](mailto:jriger@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
November 27, 2017	Action	5

### SUBJECT

This item concerns modeling for air quality conformity associated with 2017/2018 amendments the *2040 Metro Vision Regional Transportation Plan (2040 MVRTP)*.

### PROPOSED ACTION/RECOMMENDATIONS

Staff recommends the 2040 MVRTP fiscally constrained roadway capacity and rapid transit networks for air quality conformity modeling, including the proposed project amendments listed below.

### ACTION BY OTHERS

N/A

### SUMMARY

DRCOG issued a call for proposed amendments to the 2040 MVRTP and the Metro Vision Plan in October, with anticipated adoption of the amended plans in early 2018. As part of amending the 2040 MVRTP, DRCOG will conduct transportation and air quality conformity modeling for the plan's regional roadway and rapid transit networks. The roadway and transit model networks will include all projects contained in the 2040 MVRTP as adopted in April 2017, as well as the proposed amendments.

For the 2040 MVRTP, DRCOG received the following proposed amendment requests:

Agency	Project/Segment Description	Current 2040 MVRTP Status	Proposed Model Network Change
CDOT R1	I-25: Castle Rock to DRCOG South Boundary	N/A	<ul style="list-style-type: none"> <li>Add 1 toll express lane in each direction</li> <li>Add to 2020-2029 AQ stage</li> </ul>
CDOT R1	I-25: 84th Avenue to Thornton Parkway: Add 1 NB GP Lane	N/A	<ul style="list-style-type: none"> <li>Add 1 NB general purpose lane</li> <li>Add to 2020-2029 AQ stage</li> </ul>
CDOT R1	US-85: 104th Avenue & 120th Avenue New Interchanges	N/A	<ul style="list-style-type: none"> <li>Add 2 interchanges (104th, 120th)</li> <li>Add to 2020-2029 AQ stage</li> </ul>
CDOT R4	I-25: SH-66 to WCR 38 (DRCOG North Boundary)	2035-2040 AQ stage	Advance to 2020-2029 AQ stage
Denver	Widen 2-4 Lanes: <ul style="list-style-type: none"> <li>35th Avenue: Brighton Boulevard to Walnut Street</li> <li>Washington Street: Elk Place to 52nd Avenue</li> </ul>	2025-2034 AQ stage 2015-2024 AQ stage	Remove from 2040 MVRTP
Denver International Airport	Pena Boulevard: E-470 and Jackson Gap Street: <ul style="list-style-type: none"> <li>Widen 6 to 8 Lanes</li> <li>Relocate Westbound Off-Ramp to Gun Club Road</li> <li>Add Eastbound On-Ramp from Gun Club Road</li> </ul>	N/A	Add new locally-funded projects to 2020-2029 AQ stage
Douglas County	Widen 4 to 6 Lanes: <ul style="list-style-type: none"> <li>US-85: Highlands Ranch Parkway to Blakeland Road</li> <li>US-85: Blakeland Road to County Line Road</li> </ul>	2015-2024 AQ stage 2025-2034 AQ stage	Combine into one project and advance to 2020-2029 AQ stage
Douglas County	New Locally Derived Funded Project: <ul style="list-style-type: none"> <li>Waterton Road: SH-121 to Dante Drive: Widen 2 to 4 Lanes</li> </ul>	N/A	Add to 2020-2029 AQ stage
Jefferson County	Quincy Avenue: C-470 and Simms Street: Widen 2 to 4 Lanes	2015-2024 AQ stage	Remove from 2040 MVRTP

All the fiscally constrained roadway capacity projects in the 2040 MVRTP, including the proposed amendments listed above, are shown in the Attachment 1 map by air quality conformity staging period. Attachment 2 displays the corresponding rapid transit network to be used in the air quality conformity modeling. There are no proposed changes to the rapid transit network.

Attachment 1 also reflects re-categorizing all regionally significant projects into modified air quality conformity staging periods to meet federal requirements. The air quality staging periods are changing from 2015-2024, 2025-2034, and 2035-2040 to 2020-2029 and 2030-2040. DRCOG is transitioning from a base year of 2015 to a new base year of 2020 for air quality modeling. The new 2020 base year is within the maximum of 10 years allowed from the 2011 air quality emissions inventory. With a base year of 2020 and a maximum of 10 year staging periods, the new air quality staging periods become 2020-2029<sup>1</sup> and 2030-2040<sup>2</sup>.

Model results will be presented in conformity determination documents associated with a public hearing for the amended 2040 MVRTP and Metro Vision Plan in early 2018.

Finally, for both plans, staff will propose text, map, and/or other content updates as part of this amendment cycle. Those changes will also be presented as part of the public hearing and adoption process.

#### PREVIOUS DISCUSSIONS/ACTIONS

N/A

#### PROPOSED MOTION

Move to recommend to the Regional Transportation Committee the amended 2040 MVRTP fiscally constrained roadway capacity and rapid transit networks to be modeled for air quality conformity.

#### ATTACHMENTS

1. Staging of Fiscally Constrained Roadway Capacity Projects
2. 2040 Fiscally Constrained Rapid Transit System Guideway Facilities and Stations

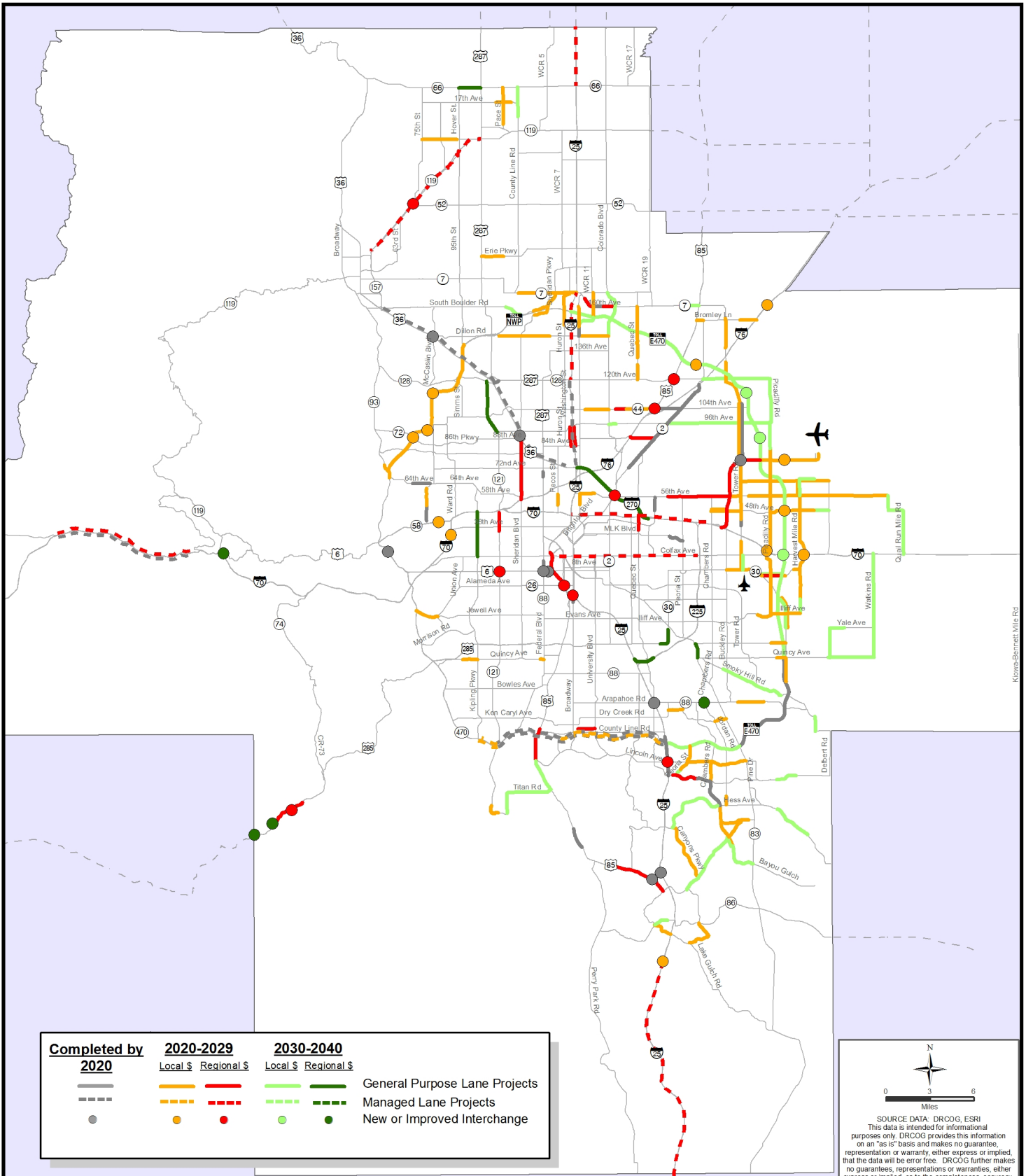
#### ADDITIONAL INFORMATION

If you need additional information, please contact Jacob Riger, Long Range Transportation Planning Manager at 303 480-6751 or [jriger@drcog.org](mailto:jriger@drcog.org)

---

<sup>1</sup> January 1, 2020 to December 31, 2029

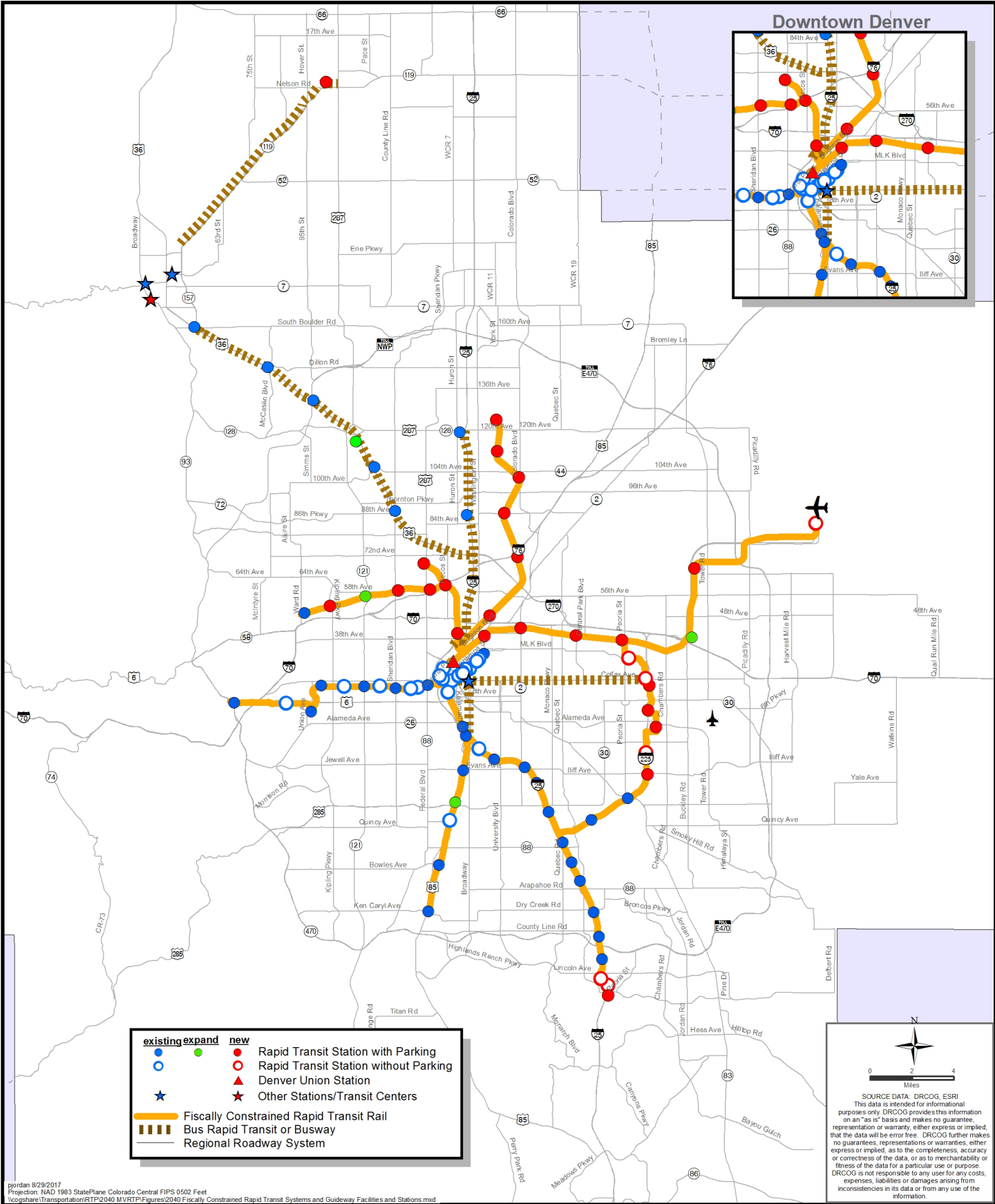
<sup>2</sup> January 1, 2030 to December 31, 2039



Completed by 2020	2020-2029		2030-2040		General Purpose Lane Projects	Managed Lane Projects	New or Improved Interchange
	Local \$	Regional \$	Local \$	Regional \$			
—	—	—	—	—			
•	•	•	•	•			

SOURCE DATA: DRCOG, ESRI  
This data is intended for informational purposes only. DRCOG provides this information on an "as is" basis and makes no guarantee, representation or warranty, either express or implied, that the data will be error free. DRCOG further makes no guarantees, representations or warranties, either express or implied, as to the completeness, accuracy or correctness of the data, or as to merchantability or fitness of the data for a particular use or purpose. DRCOG is not responsible to any user for any costs, expenses, liabilities or damages arising from inconsistencies in its data or from any use of the information.

# 2040 Fiscally Constrained Rapid Transit System Guideway Facilities and Stations



Jordan 9/29/2017  
 Projection: NAD 1983 StatePlane Colorado Central FIPS 5002 Feet  
 \\cogshare\Transportation\RTP\2040 MVRTP\Figures\2040 Fiscally Constrained Rapid Transit Systems and Guideway Facilities and Stations.mxd

**SOURCE DATA:** DRCOG, ESRI  
 This data is intended for informational purposes only. DRCOG provides this information on an "as is" basis and makes no guarantee, representation or warranty, either express or implied, that the data will be error free. DRCOG further makes no guarantees, representations or warranties, either express or implied, as to the completeness, accuracy or correctness of the data, or as to merchantability or fitness of the data for a particular use or purpose. DRCOG is not responsible to any user for any costs, expenses, liabilities or damages arising from inconsistencies in its data or from any use of the information.



## ATTACHMENT D

To: Chair and Members of the Transportation Advisory Committee

From: Jacob Riger, Transportation Planning Manager  
303-480-6751 or [jriger@drcog.org](mailto:jriger@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
November 27, 2017	Information	6

### SUBJECT

Briefing on options for setting performance-based planning safety targets required by the Fixing America's Surface Transportation (FAST Act).

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

N/A

### SUMMARY

The FAST Act requires state DOTs and MPOs to annually set targets and report on progress towards achieving those targets for several topics in support of a performance-based approach to transportation planning and programming. These topics include safety, infrastructure (pavement and bridge condition), system performance, and transit asset management.

Safety is the first topic to be implemented, meaning DRCOG will set targets and report on progress in achieving those targets for five measures. Those five measures, and CDOT's 2018 safety targets for each measure are:

Safety Measures	CDOT 2018 Target
• Number of fatalities	610
• Rate of fatalities ( <i>per million VMT</i> )	1.2
• Number of serious injuries	3,350
• Rate of serious injuries ( <i>per million VMT</i> )	6.79
• Number of combined non-motorized fatalities and serious injuries	586

DRCOG has until February 2018 to set and report its 2018 safety targets. At the November TAC meeting, staff will present three methodology options for setting DRCOG's 2018 safety targets:

- "Proportion of CDOT" – DRCOG TMA's proportion of CDOT's data for each measure
- "Hold the Line" – no increase in annual values for each safety measure
- "Metro Vision" – incremental decrease based on the 2040 safety performance measure in DRCOG's Metro Vision Plan.

PREVIOUS DISCUSSIONS/ACTIONS

[August 28, 2017](#) – TAC

PROPOSED MOTION

N/A

ATTACHMENT

1. Staff presentation

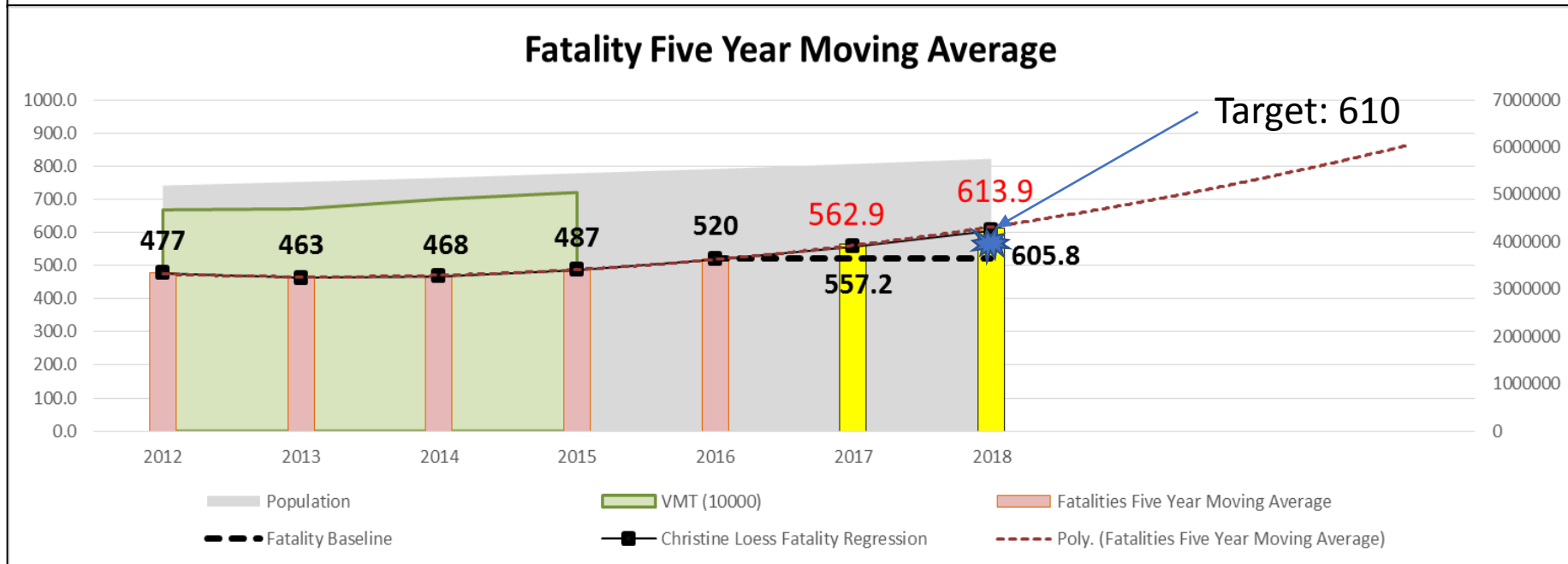
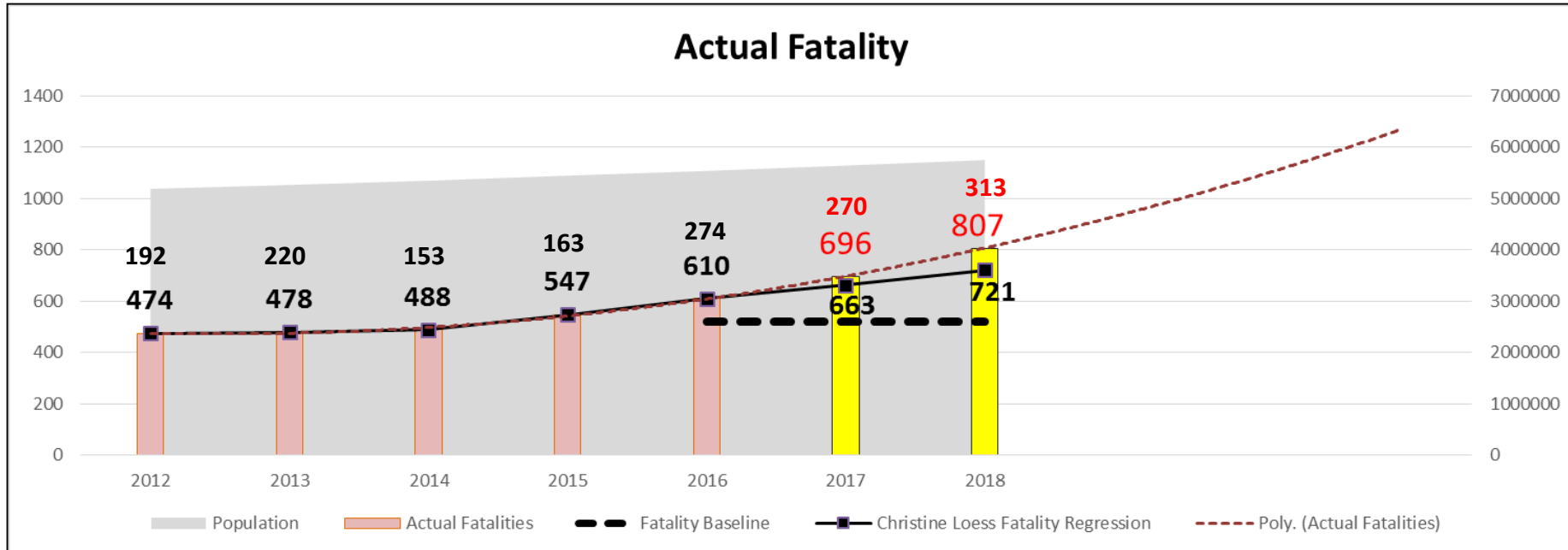
ADDITIONAL INFORMATION

If you need additional information, please contact Jacob Riger, Transportation Planning Manager, at 303-480-6751 or [jriger@drcog.org](mailto:jriger@drcog.org).

# SAFETY TARGET OPTIONS

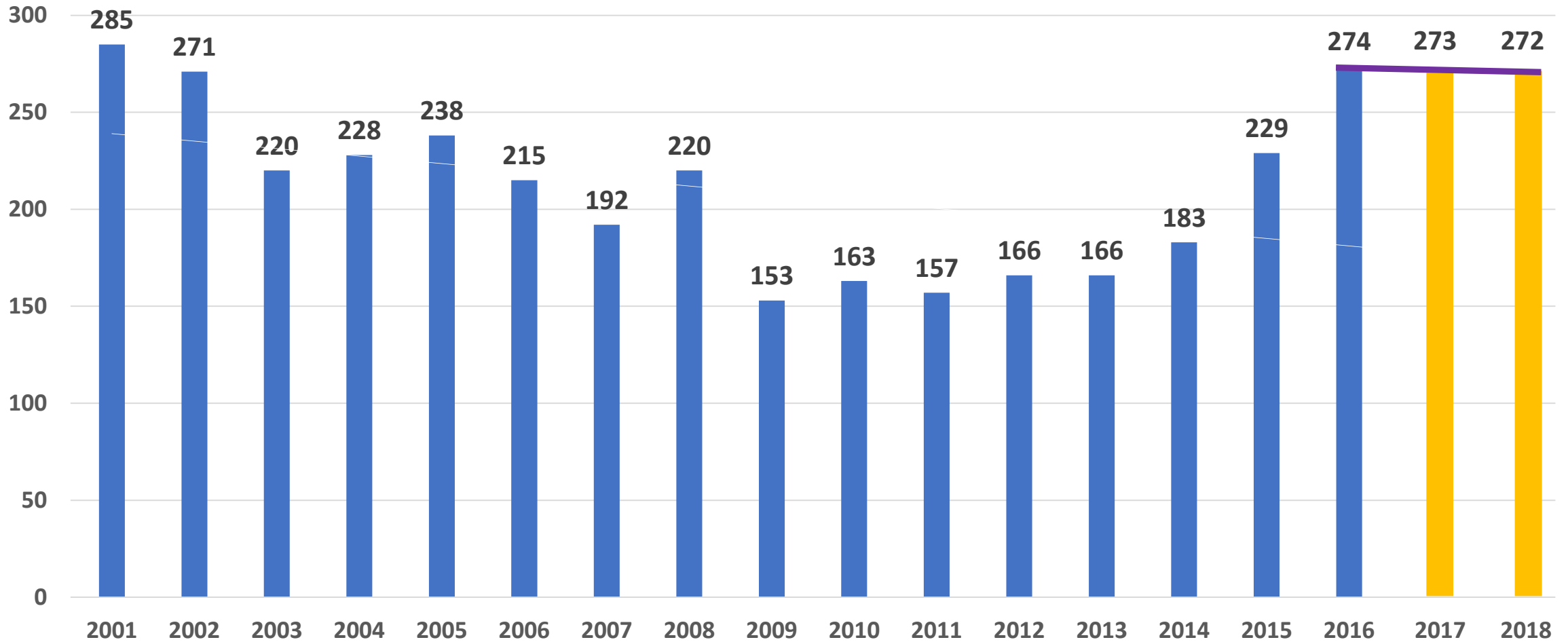
2018 SAFETY TARGETS - 5 Year Moving Averages		PROPORTION OF CDOT	HOLD THE LINE	METRO VISION
1	DRCOG FATALITIES	254	246	242
2	DRCOG FATALITY RATE	0.94	0.92	0.90
3	DRCOG SERIOUS INJURIES	2,115	1,948	N/A
4	DRCOG SERIOUS INJURY RATE	7.80	7.20	N/A
5	NON-MOTORIZED FATALITIES AND SERIOUS INJURIES	373	346	

# CDOT SAFETY TARGET CALCULATIONS WITH DRCOG TMA FATALITY VALUES



# “HOLD THE LINE” SAFETY TARGET SETTING METHOD

DRCOG Fatalities



# METRO VISION SAFETY TARGET SETTING METHOD

**Regional Objective 5:** Operate, manage and maintain a safe and reliable transportation system.

The region will optimize the multimodal transportation system to improve the safe and reliable flow of people and goods. System optimization will include projects and initiatives that make the multimodal transportation system's capacity as productive as possible. The multimodal system will require maintenance to continue safe and sound conditions. Safety projects and other related initiatives will reduce fatalities and serious injuries for all travel modes. The region will also increase the deployment of technology and mobility innovations to improve reliability and optimize capacity.

**Supporting Objectives:**

- Maintain existing and future transportation facilities in good condition.
- Improve transportation system performance and reliability.
- Improve transportation safety and security.

## Performance Measures

Measure	Where are we today? (Baseline)	Where do we want to be? (2040 Target)
Non- single occupant vehicle (Non-SOV) mode share to work	25.1 percent (2014)	35.0 percent
Daily vehicle miles traveled (VMT) per capita	25.5 daily VMT per capita (2010)	10.0 percent decrease from 2010
Average travel time variation (TTV) (peak vs. off-peak)	1.22 (2014)	Less than 1.30
Daily person delay per capita	6 minutes (2014)	Less than 10 minutes
Number of traffic fatalities	185 (2014)	Fewer than 100 annually

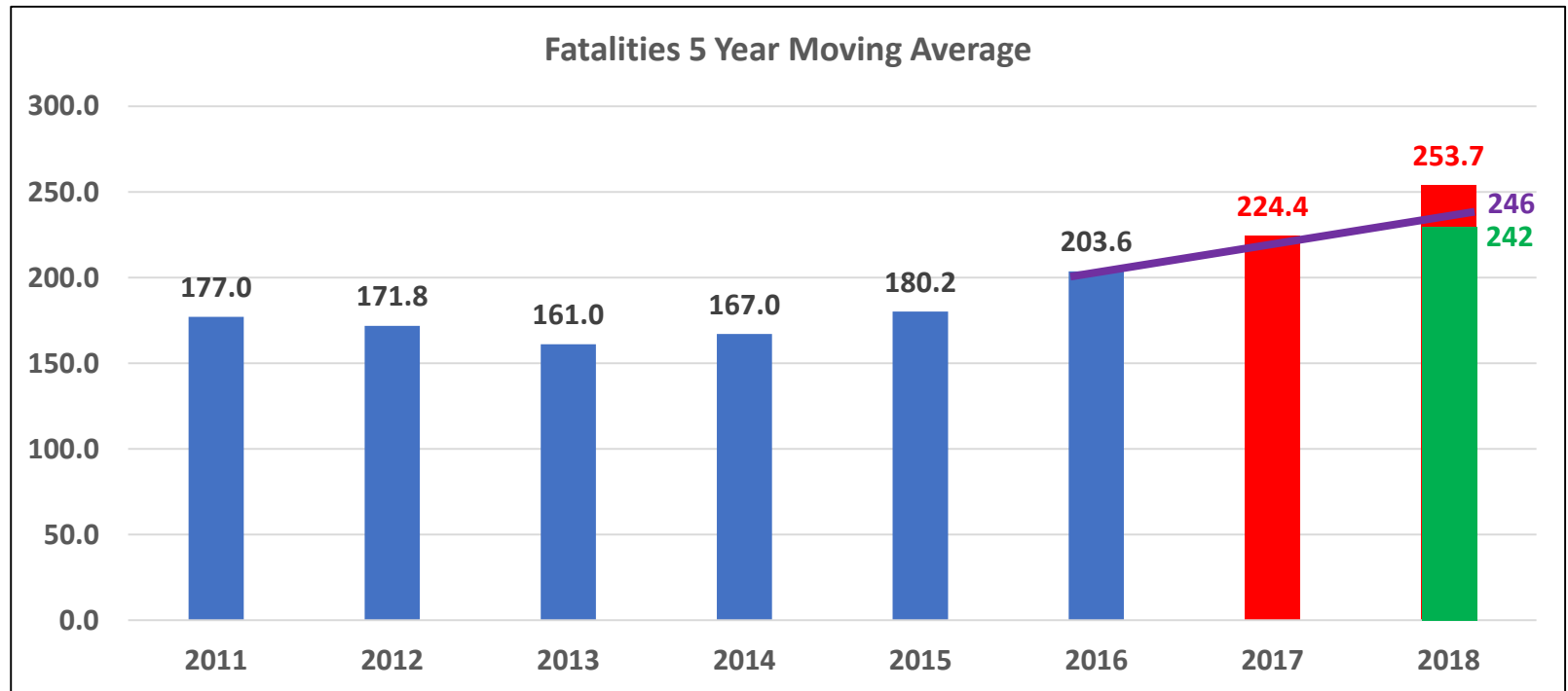
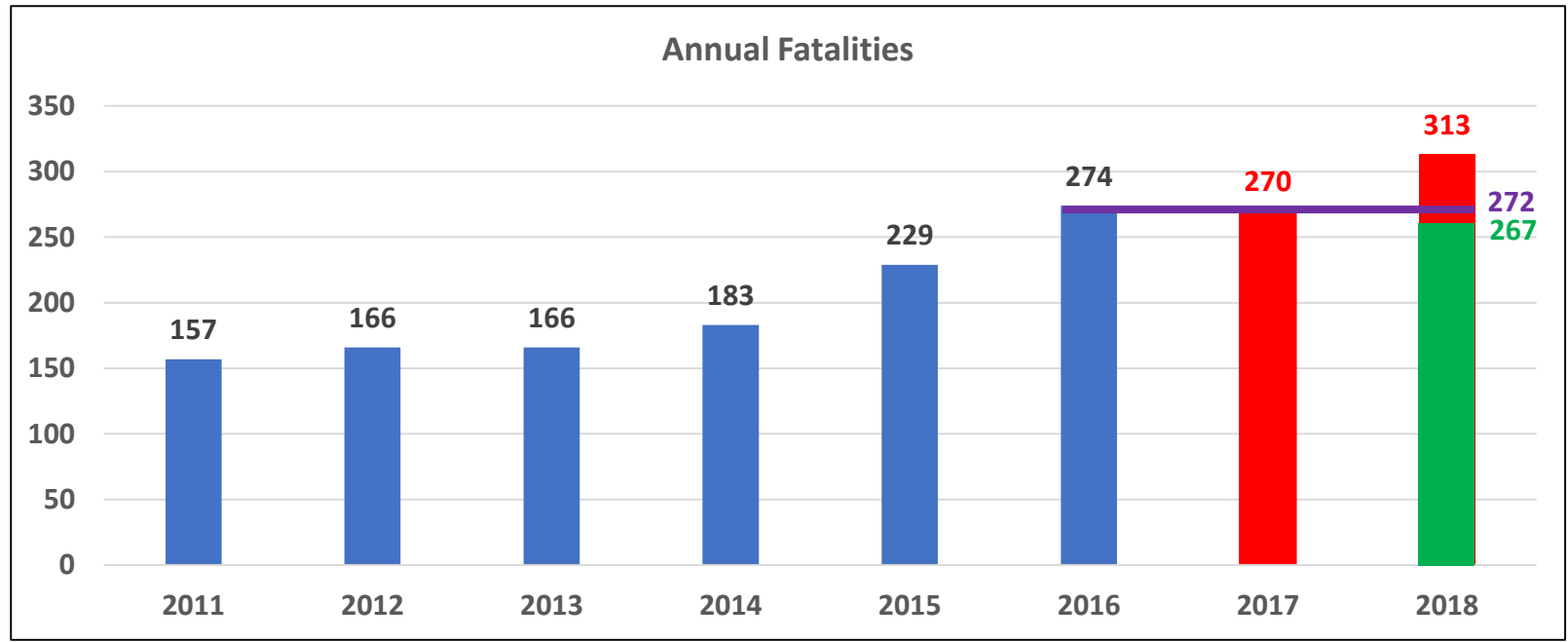
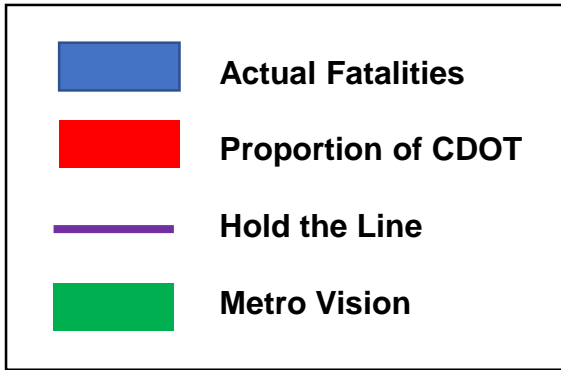
DRCOG Fatalities	DRCOG Fatalities 5 Year Moving Average	Year	DRCOG Fatality Rate	DRCOG Fatality Rate 5 Year Moving Average
192		2007	0.85	
220		2008	0.96	
153		2009	0.67	
163		2010	0.69	
157	177	2011	0.68	0.77
166	172	2012	0.73	0.75
166	161	2013	0.73	0.70
183	167	2014	0.73	0.71
229	180	2015	0.91	0.76
274	204	2016	1.01	0.82

267	224	2017	0.96	0.87
259	242	2018	0.91	0.90
252	256	2019		
245	259	2020		
238	252	2021		
230	245	2022		
223	238	2023		
216	230	2024		
208	223	2025		
201	216	2026		
194	208	2027		
187	201	2028		
179	194	2029		
172	187	2030		
165	179	2031		
157	172	2032		
150	165	2033		
143	157	2034		
135	150	2035		
128	143	2036		
121	135	2037		
114	128	2038		
106	121	2039		
99	114	2040		

64% REDUCTION TO HIT 2040 TARGET

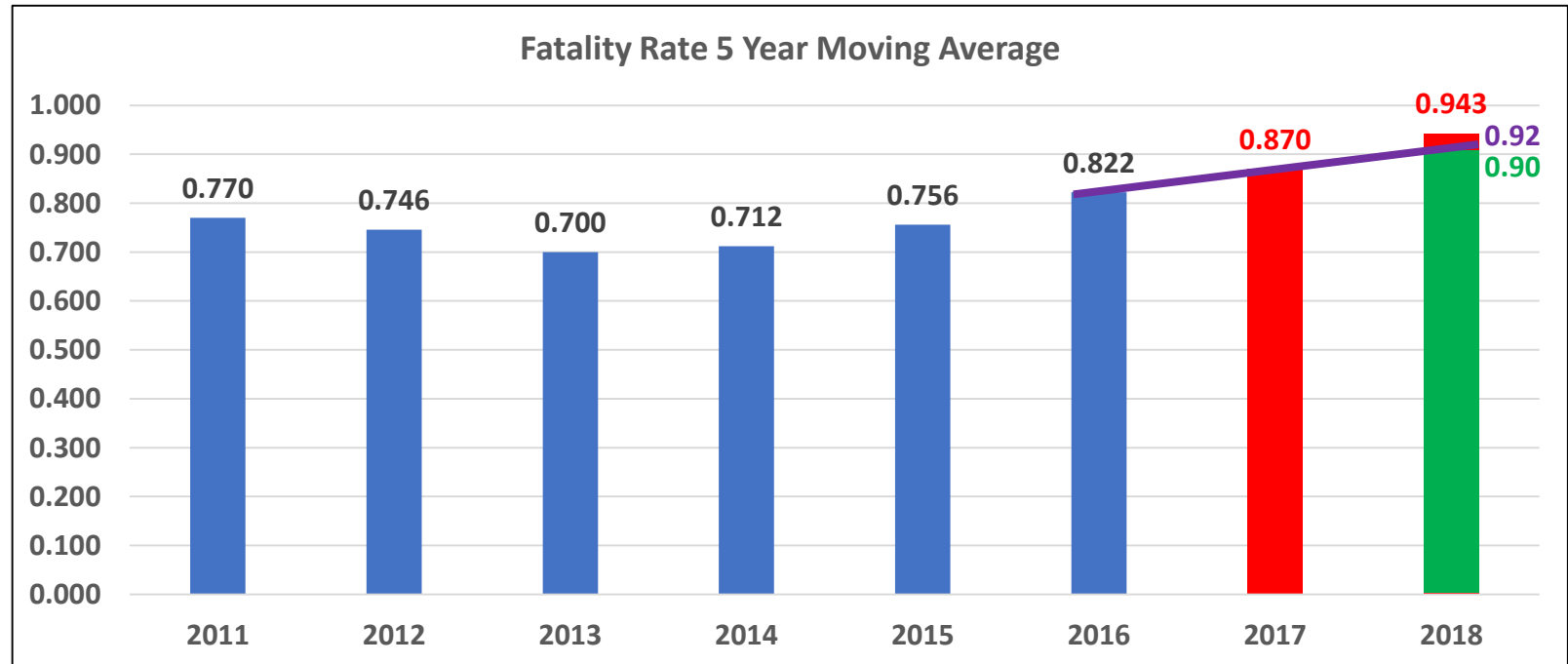
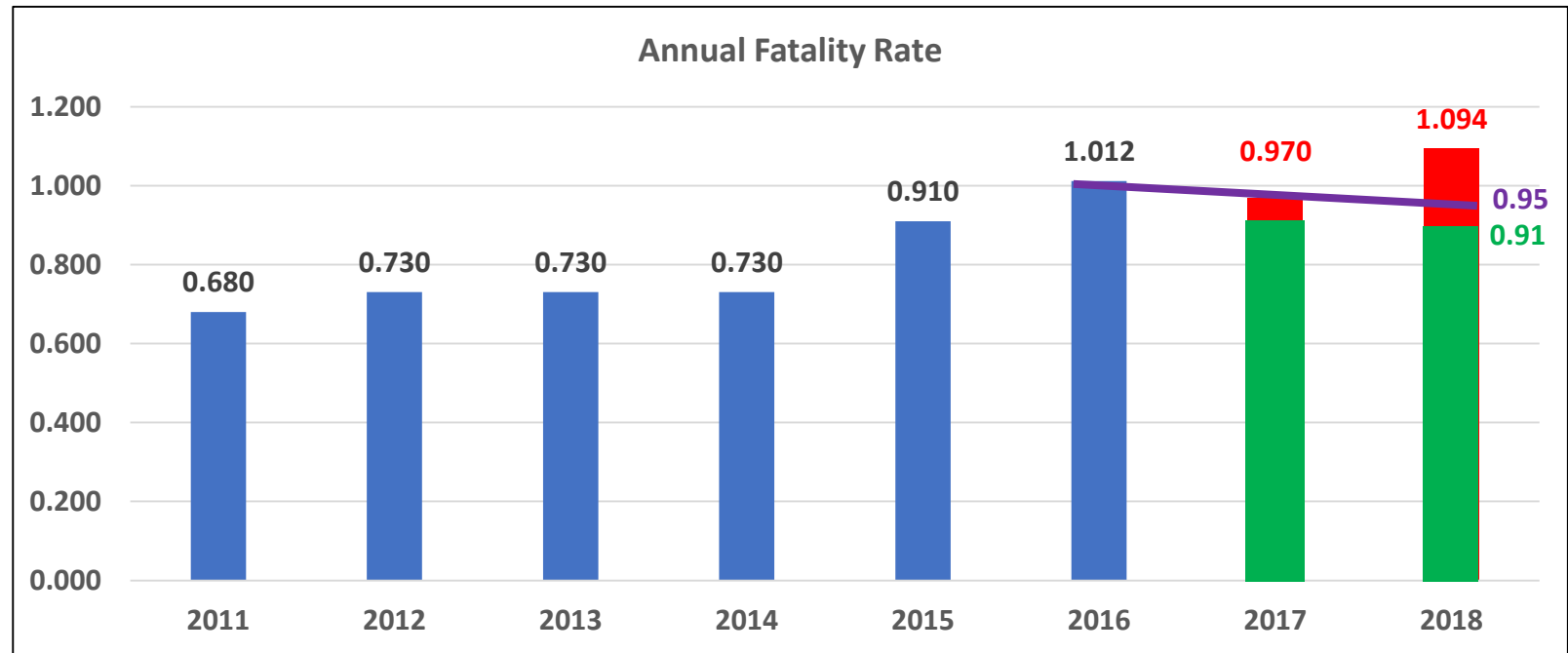
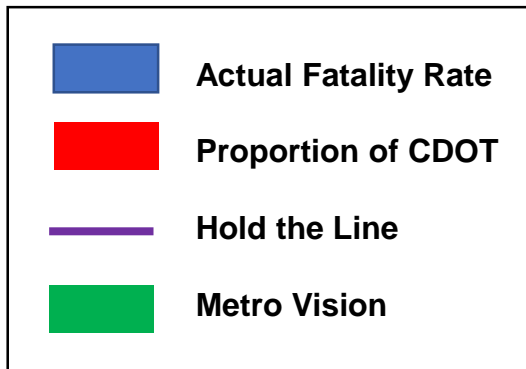
# 1. FATALITIES – 5 Year Moving Average

Year	DRCOG Fatalities	DRCOG Fatalities 5 Year Moving Average	% of State Fatalities in DRCOG TMA
2007	192		35%
2008	220		40%
2009	153		33%
2010	163		36%
2011	157	177.0	35%
2012	166	171.8	35%
2013	166	161.0	35%
2014	183	167.0	38%
2015	229	180.2	42%
2016	274	203.6	45%



## 2. FATALITY RATE - 5 Year Moving Average

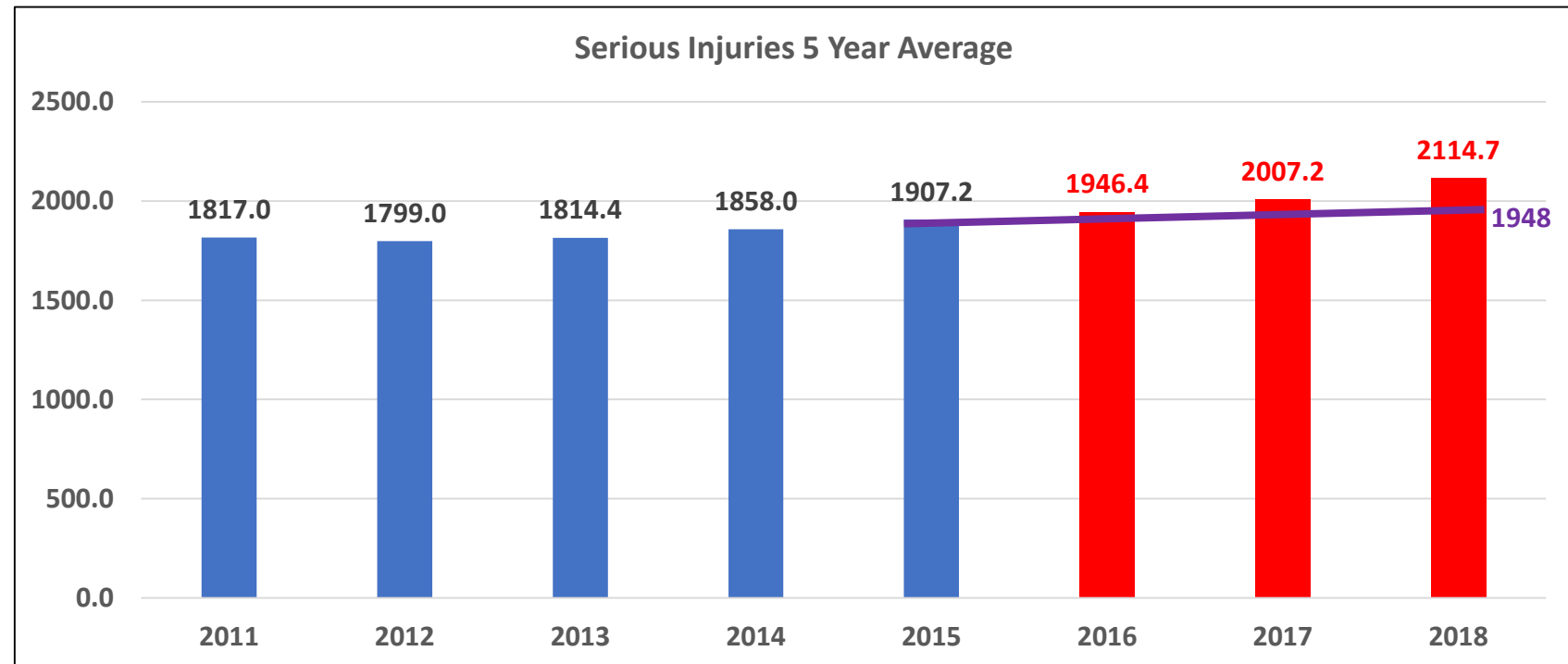
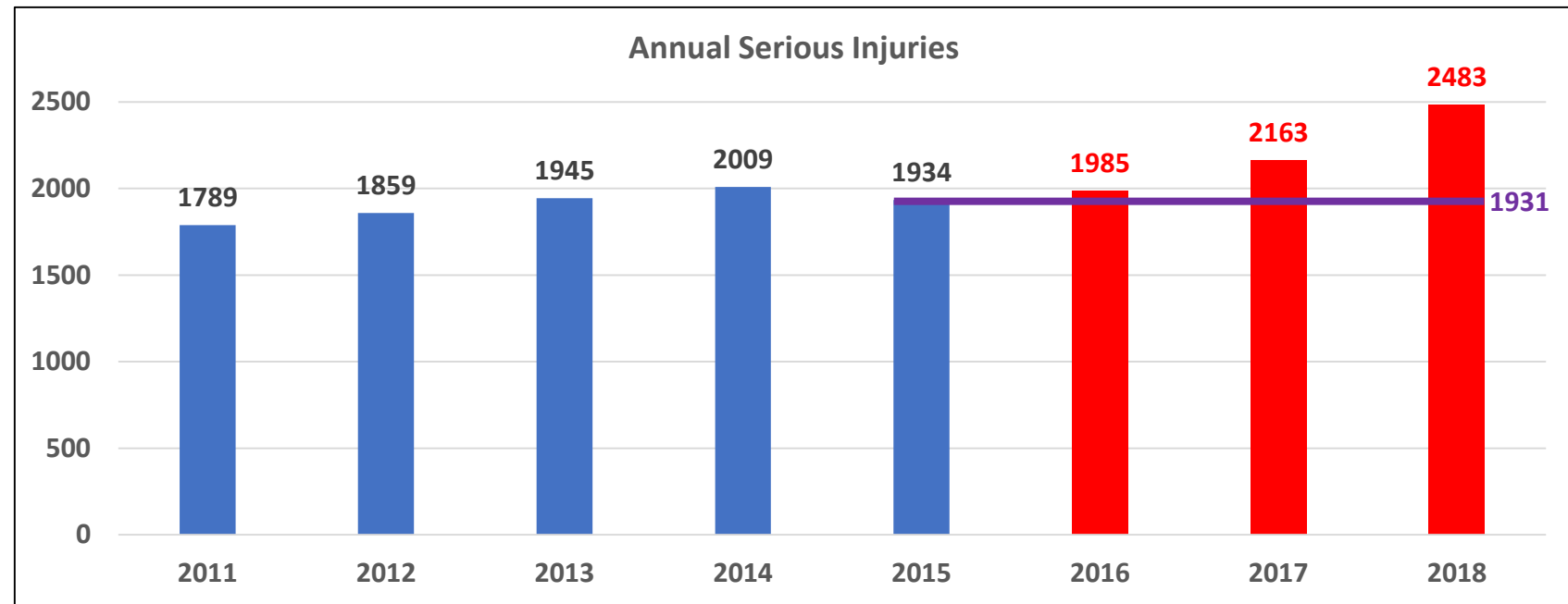
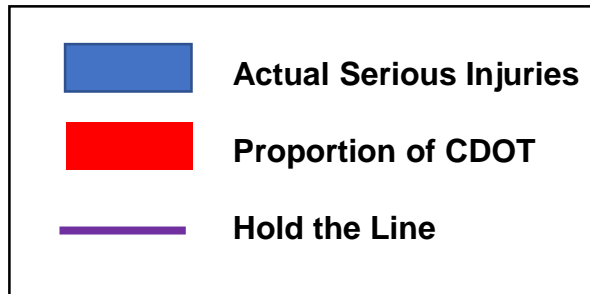
Year	DRCOG Fatality Rate	DRCOG Fatality Rate 5 Year Moving Average
2007	0.850	0.170
2008	0.960	0.362
2009	0.670	0.496
2010	0.690	0.634
2011	0.680	0.770
2012	0.730	0.746
2013	0.730	0.700
2014	0.730	0.712
2015	0.910	0.756
2016	1.012	0.822





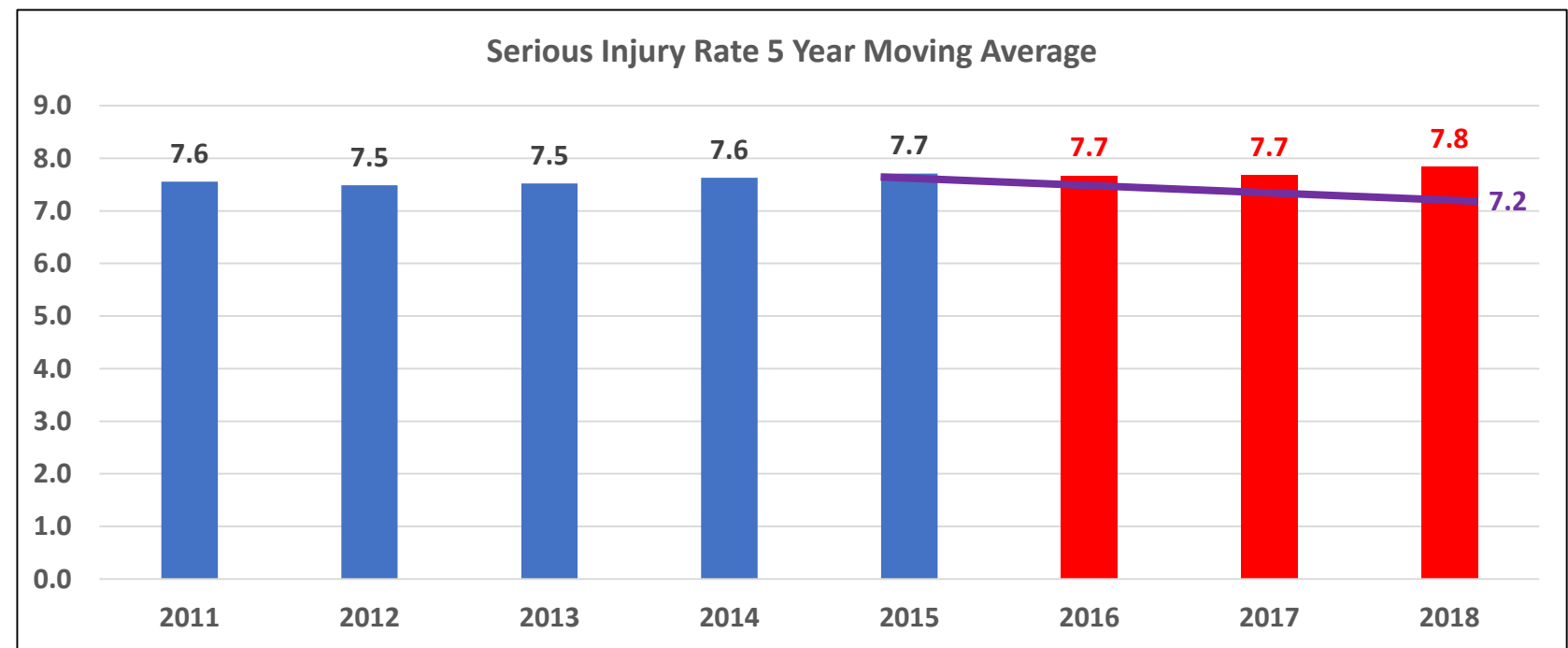
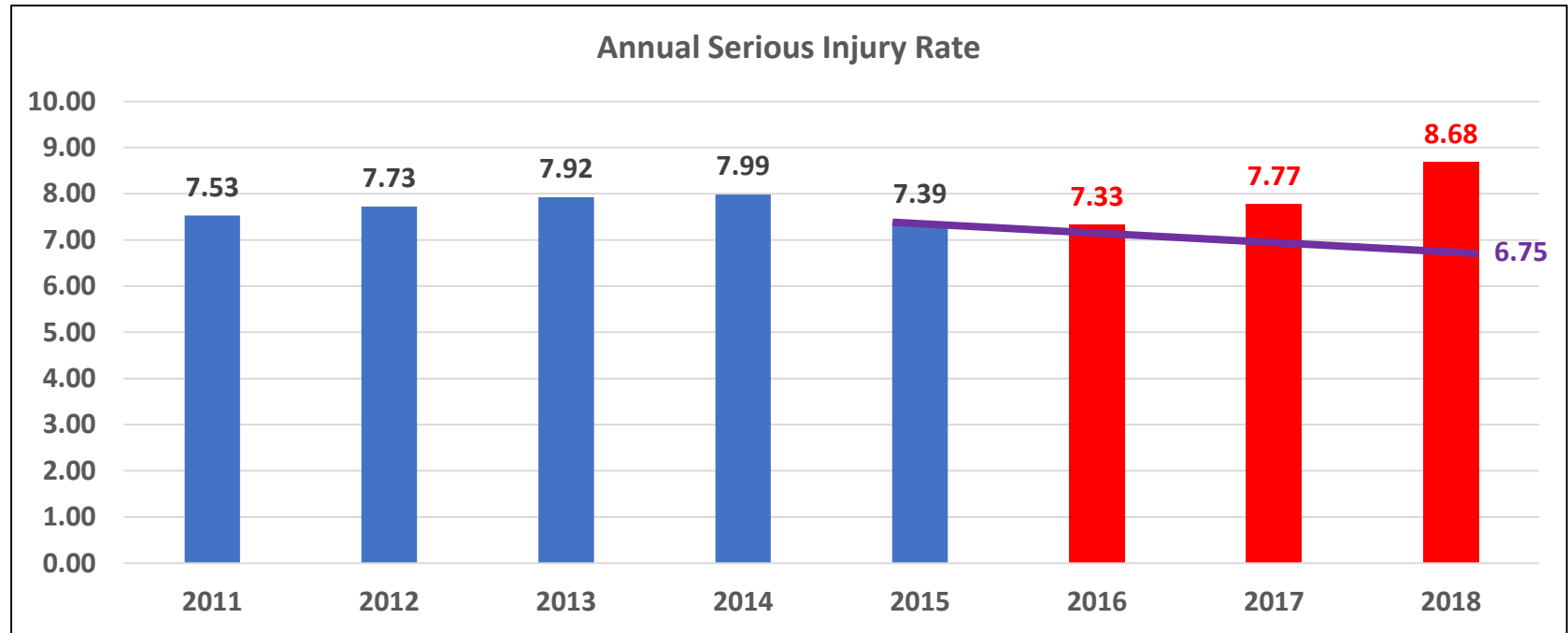
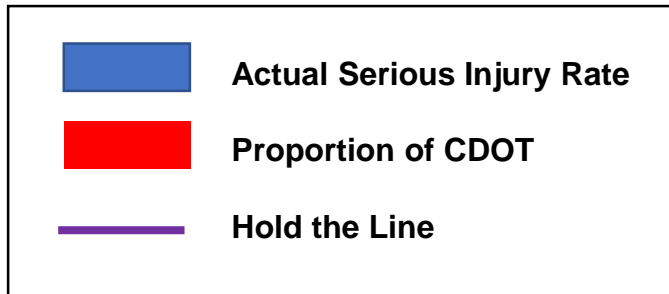
### 3. SERIOUS INJURIES - 5 Year Moving Average

Year	DRCOG Serious Injuries	DRCOG Serious Injuries 5 Year Moving Average	% of State Serious Injuries in DRCOG TMA
2007	1949		49%
2008	1868		52%
2009	1791		53%
2010	1688	1459.2	55%
2011	1789	1817.0	56%
2012	1859	1799.0	57%
2013	1945	1814.4	60%
2014	2009	1858.0	62%
2015	1934	1907.2	60%



# 4. SERIOUS INJURY RATE - 5 Year Moving Average

Year	DRCOG Serious Injury Rate	DRCOG Serious Injury Rate 5 Year Moving Average
2007	8.07	
2008	7.75	
2009	7.43	
2010	7.00	
2011	7.53	7.6
2012	7.73	7.5
2013	7.92	7.5
2014	7.99	7.6
2015	7.39	7.7



# METRO VISION AND "HOLD THE LINE"

Target: Non-motorized Fatalities  
5 Year Moving Average = 59

Non-motorized Serious Injuries  
5 Year Moving Average = 286.6

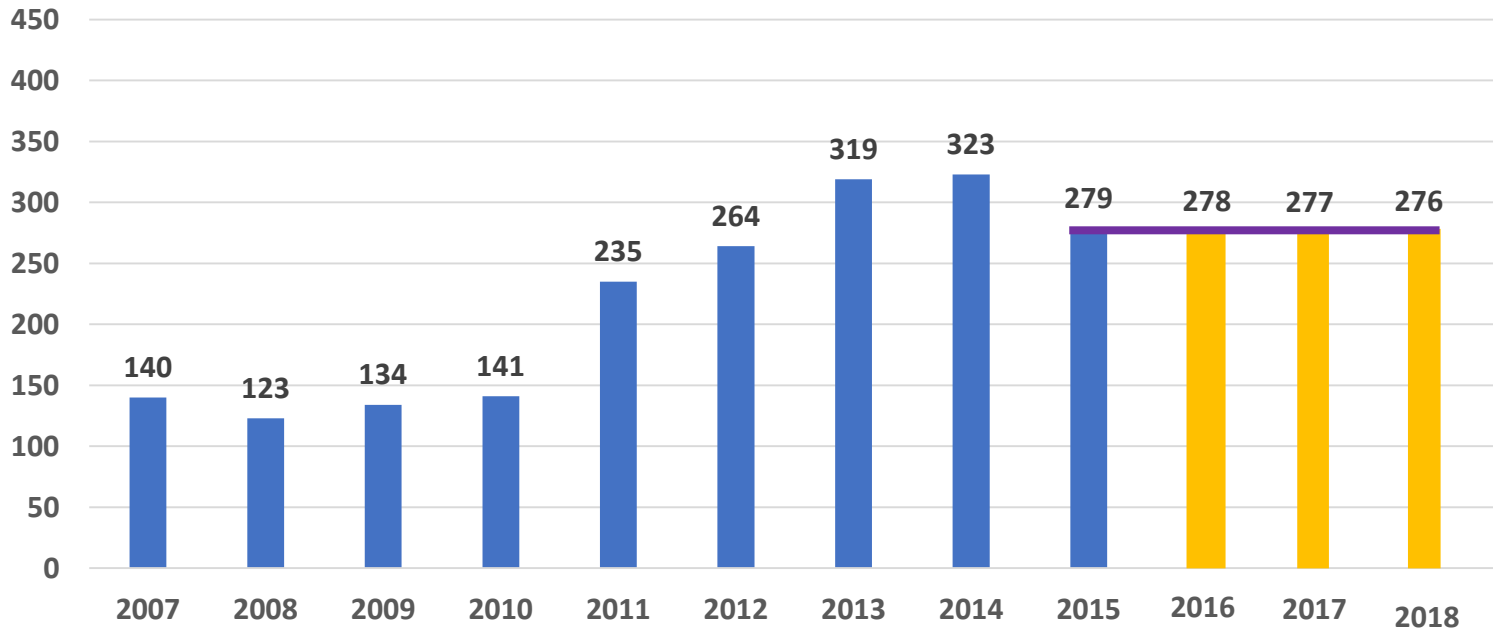
**Total = 346**

Year	DRCOG Bike/Ped Fatalities & Serious Injuries	DRCOG Bike/Ped Fatalities & Serious Injuries 5 Year Average	DRCOG Bike/Ped Fatalities	DRCOG Bike/Ped Serious Injuries
2007	188		48	140
2008	167		44	123
2009	169		35	134
2010	168		27	141
2011	273	193.0	38	235
2012	320	219.4	56	264
2013	359	257.8	40	319
2014	372	298.4	49	323
2015	330	330.8	51	279

Bike/Ped Fatalities	Bike/Ped Fatalities 5 Year Moving Average	Year	Bike/Ped Serious Injuries	Bike/Ped Serious Injuries 5 Year Moving Average
48		2007	140	
44		2008	123	
35		2009	134	
27		2010	141	
38	38	2011	235	154.6
56	40	2012	264	179.4
40	39	2013	319	218.6
49	42	2014	323	256.4
51	47	2015	279	284
67	53	2016	278	292.6
65	54	2017	277	295.2
63	59	2018	276	286.6
62	62	2019	275	277
60	63	2020	274	276
58	62	2021	273	275
56	60	2022	272	274
55	58	2023	271	273
53	56	2024	270	272
51	55	2025	269	271
49	53	2026	268	270
48	51	2027	267	269
46	49	2028	266	268
44	48	2029	265	267
42	46	2030	264	266
40	44	2031	263	265
39	42	2032	262	264
37	40	2033	261	263
35	39	2034	260	262
33	37	2035	259	261
32	35	2036	258	260
30	33	2037	257	259
28	32	2038	256	258
26	30	2039	255	257
24	28	2040	254	256

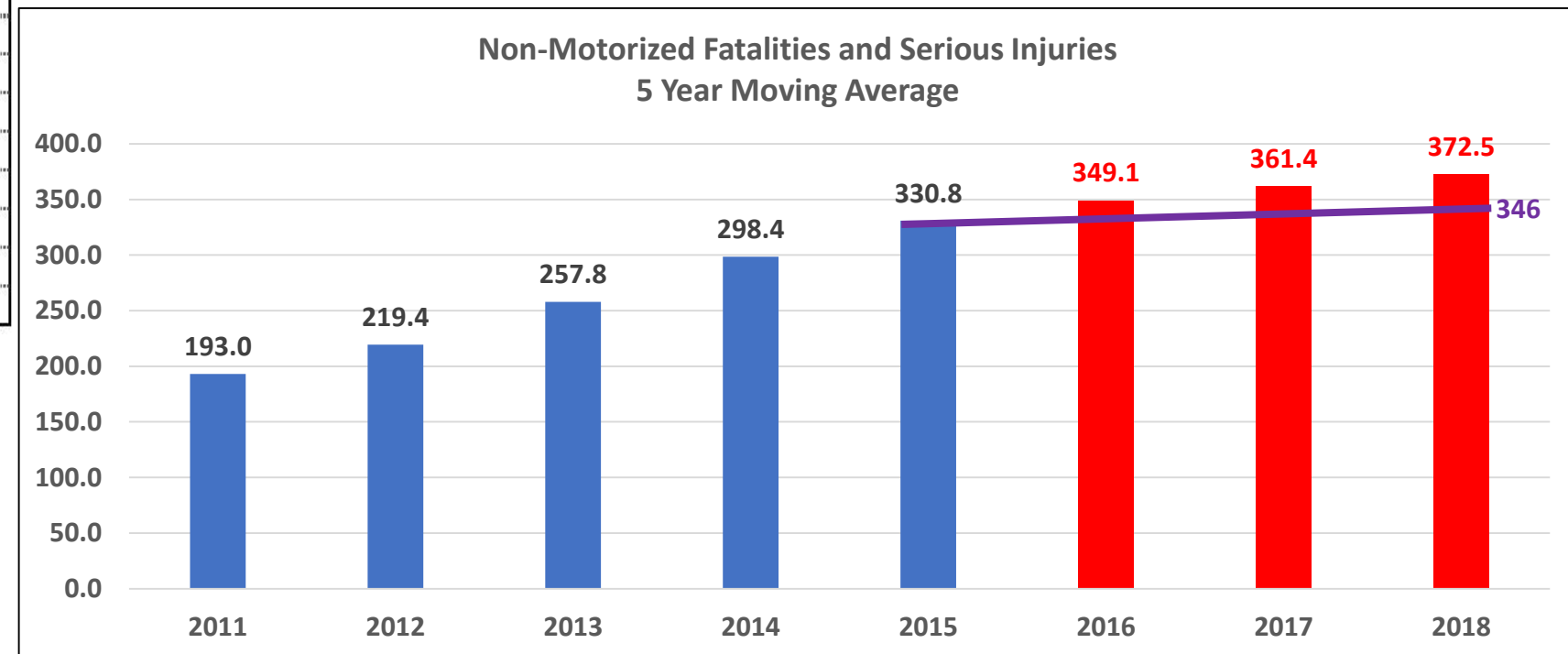
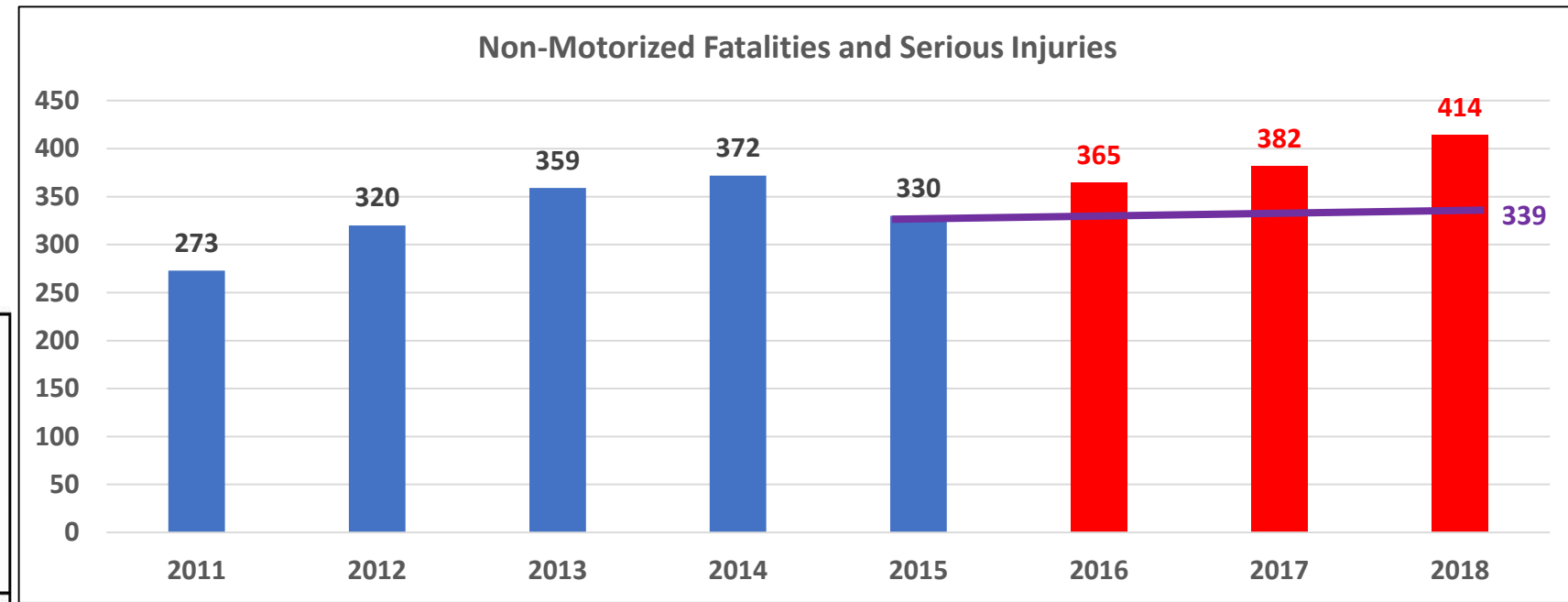
64% REDUCTION TO HIT 2040 TARGET

DRCOG Non-motorized Serious Injuries



# 5. NON-MOTORIZED FATALITIES AND SERIOUS INJURY – 5 Year Moving Average

Year	DRCOG Bike/Ped Fatalities & Serious Injuries	DRCOG Bike/Ped Fatalities & Serious Injuries 5 Year Average	DRCOG Bike/Ped Fatalities	DRCOG Bike/Ped Serious Injuries
2007	188		48	140
2008	167		44	123
2009	169		35	134
2010	168		27	141
2011	273	193.0	38	235
2012	320	219.4	56	264
2013	359	257.8	40	319
2014	372	298.4	49	323
2015	330	330.8	51	279



- Actual Non-Motorized Fatalities and SI's
- Proportion of CDOT
- Hold the Line

# SAFETY TARGET OPTIONS

2018 SAFETY TARGETS - 5 Year Moving Averages		PROPORTION OF CDOT	HOLD THE LINE	METRO VISION
1	DRCOG FATALITIES	254	246	242
2	DRCOG FATALITY RATE	0.94	0.92	0.90
3	DRCOG SERIOUS INJURIES	2,115	1,948	N/A
4	DRCOG SERIOUS INJURY RATE	7.80	7.20	N/A
5	NON-MOTORIZED FATALITIES AND SERIOUS INJURIES	373	346	

## ATTACHMENT E

To: Chair and Members of the Transportation Advisory Committee

From: Todd Cottrell, Senior Transportation Planner  
303-480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
November 27, 2017	Information	7

### SUBJECT

CDOT coordination to develop its new FY 2019-2022 Statewide Transportation Improvement Program (STIP).

### PROPOSED ACTION/RECOMMENDATIONS

No action requested. This item is an informational briefing.

### ACTION BY OTHERS

N/A

### SUMMARY

As part of the development of the FY2019-2022 STIP, and outlined in the [STIP Development Guidance](#) and [4P Process manual](#), CDOT must meet with each Transportation Planning Region (TPR) and MPO to review the projects in the Statewide Transportation Plan, Development Program, and current STIP to consider project priorities for the new STIP.

At the November 27, 2017 TAC meeting, CDOT Region 1 staff will present known state projects for fiscal years 2020 and 2021 and solicit input from TAC members.

### PREVIOUS DISCUSSIONS/ACTIONS

N/A

### PROPOSED MOTION

N/A

### ATTACHMENT

N/A

### ADDITIONAL INFORMATION

If you need additional information, please contact Todd Cottrell, Senior Transportation Planner, Transportation Planning and Operations at 303-480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org)

## Transportation Advisory Committee 2018 Meeting Schedule

Meetings held in 1<sup>st</sup> Floor Independence Pass conference room  
DRCOG, 1290 Broadway, Denver, CO 80203

### 1:30 PM

To add each date to your e-calendars:

- Click on the linked date to bring up the DRCOG online meeting calendar.
- Then choose your calendar platform (Outlook, Google, Yahoo) listed in Event Details, and
- Click to create a meeting appointment that you can open and save to your e-calendar.

(if you keep the URL that is provided in the appointment, you will easily be able to click it to view that date's agenda packet when it's released one week prior to that meeting)

<a href="#"><u>Jan 22</u></a>
<a href="#"><u>Feb 26</u></a>
<a href="#"><u>Mar 26</u></a>
<a href="#"><u>Apr 23</u></a>
<a href="#"><u>May 21*</u></a>
<a href="#"><u>Jun 25</u></a>
<a href="#"><u>Jul 23</u></a>
<a href="#"><u>Aug 27</u></a>
<a href="#"><u>Sep 24</u></a>
<a href="#"><u>Oct 22</u></a>
<a href="#"><u>Nov 19*</u></a>
<a href="#"><u>Dec 17*</u></a>

MEETING TYPICALLY HELD THE 4<sup>TH</sup> MONDAY OF MONTH,  
\*EXCEPT AS NOTED

