A large, light teal watermark of the Boulder County logo is centered in the background. It features a circular border, a mountain range silhouette, and the text 'Boulder County' in a stylized font.

Boulder County Transportation Department
2016 Capital Improvements Program (CIP)

Presented to The Boulder County Board of
Commissioners

Resolution #2016-21

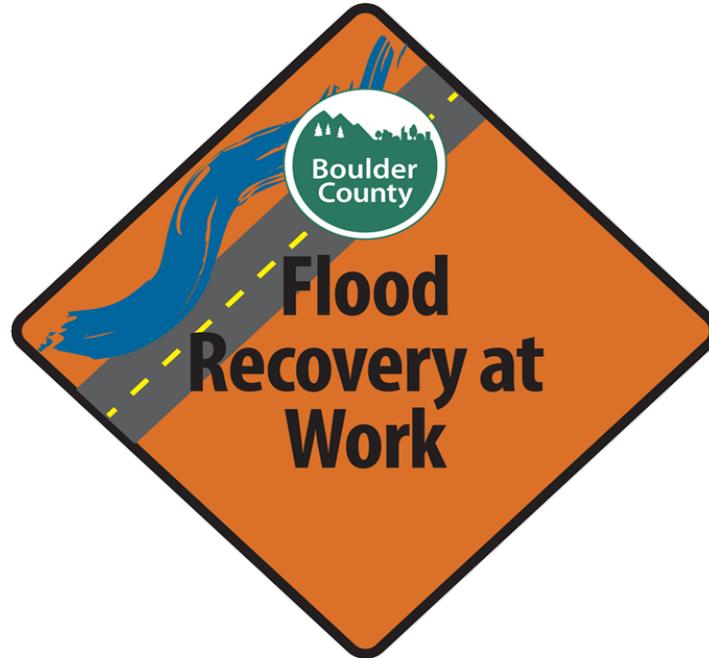
April 7, 2016

Included in this Presentation:

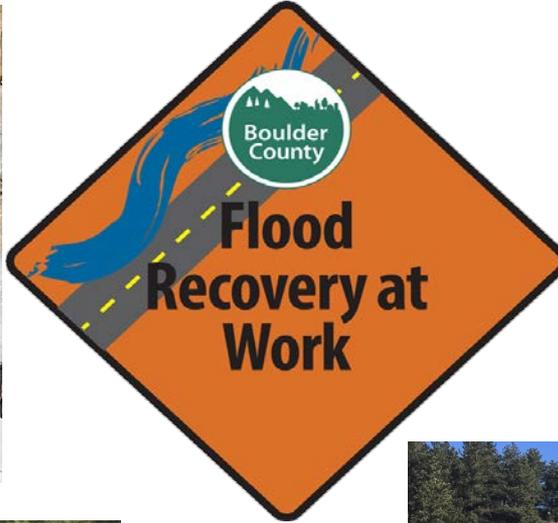
Purpose: Public Comment/Action on proposed Capital Improvements Program

- Summary of 2015 CIP Projects
- Background
- 2016 Estimated Revenues/Sources
- 2016 Proposed Expenditures
- 2016 Proposed CIP Projects and Programs

2015 Transportation Department Flood Recovery Projects



2015 Flood Recovery Accomplishments



2015 & Q1 2016 Flood Recovery Construction Projects

- North Skinner - Complete
- Sunset Bridge – May Completion
- Longmont Dam Road – In Construction
- North County Line Road @ Little Thompson - Complete
- Streamcrest Drive Permanent Repair - Complete
- Lefthand Canyon Drive – In Construction
- Emerson Gulch Debris Rack - Complete
- Bow Mountain Drive - Complete
- Pinebrook and Timber Lane - Complete
- Hawthorne Drive - Complete
- Salina Junction – In Construction
- Upper Wagonwheel Gap Road - Complete
- Topaz Road Permanent Repair – Complete
- Highland Drive – Complete
- North 83rd Street – In Construction
- Geer Canyon Drive – In Construction

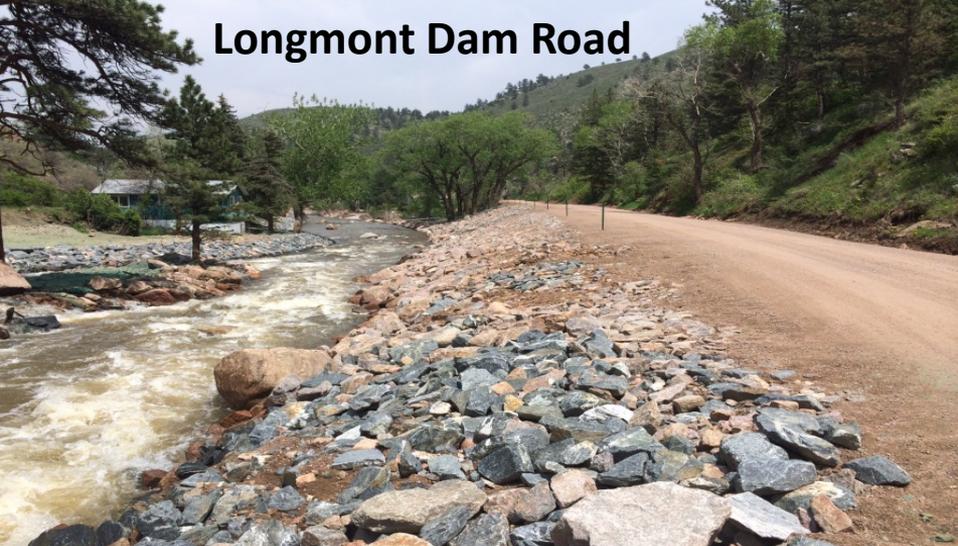




North Skinner



Topaz



Longmont Dam Road



Emerson Gulch



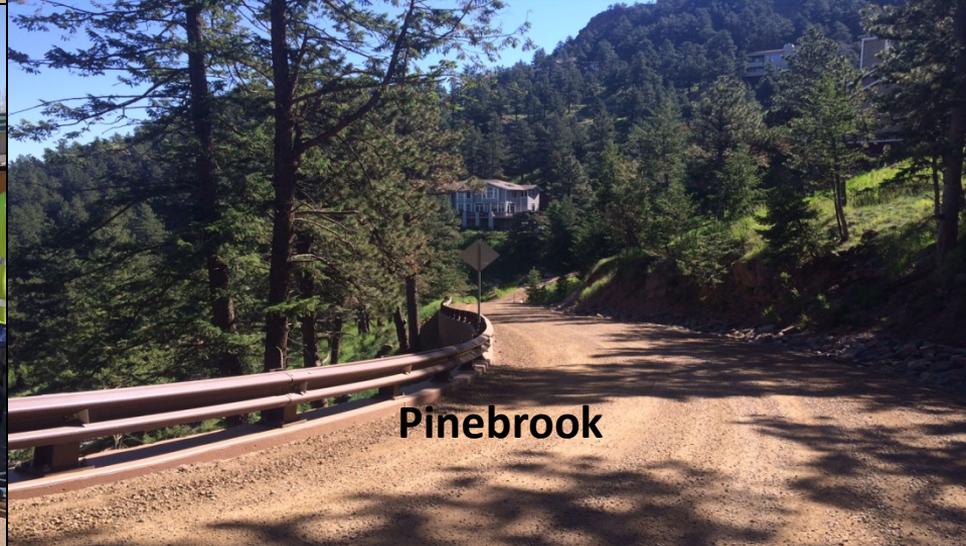
Hawthorne Avenue



Timber Lane



Highland Drive



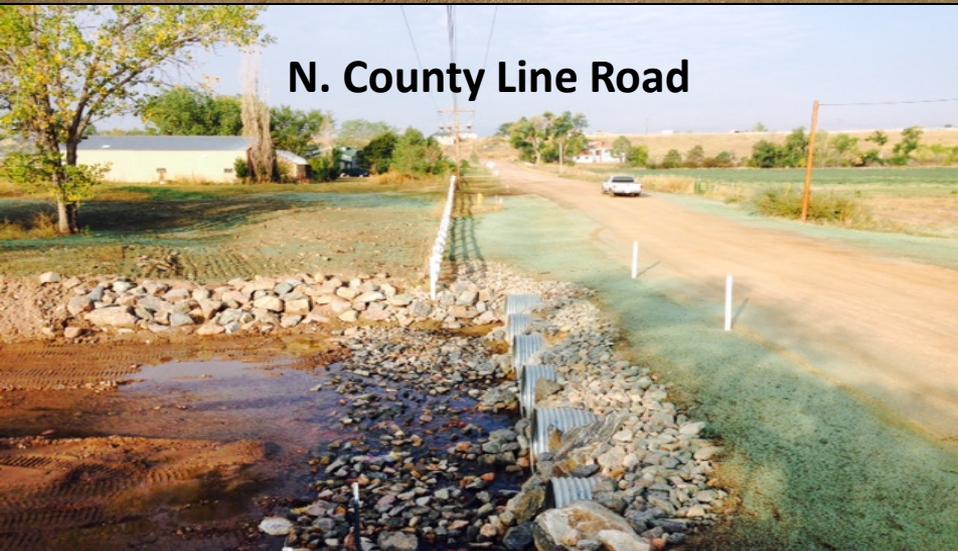
Pinebrook



Streamcrest



Bow Mountain



N. County Line Road



Upper Wagonwheel Gap

2015 CIP Accomplishments



Capital Improvements Program (CIP)

Proposed CIP includes projects/expenditures on:

- ROAD & BRIDGE FLOOD REPAIR PROJECTS
- ROAD & BRIDGE LONG TERM REHABILITATION PROJECTS
- ROAD/SHOULDER SAFETY PROJECTS
- REGIONAL TRAILS PROJECTS
- PROJECT PLANNING/PRELIM. ENGINEERING
- MULTIMODAL PROJECTS
- CAPITAL EQUIPMENT/REPLACEMENT (VEHICLES/EQUIPMENT)

Does not include:

- GENERAL FUND/ADMINISTRATIVE EXPENDITURES
- GENERAL FUND/GRANT FLOOD RELATED EXPENDITURES
- CDBG-DR PRIVATE ACCESS GRANT PROGRAM
- WATERSHED RECOVERY PROGRAM (GENERAL FUND/GRANTS)
- ROAD AND BRIDGE OPERATIONS (ROAD MAINTENANCE)

Consistent with adopted 2016 Budget

2016 Revenue Forecasts

Transportation Revenue Sources

Road and Bridge Fund

- State Gas Tax/FASTER Fee (HUTF)
- State Specific Ownership Tax
- General Fund (R&B Mill Levy)
- Miscellaneous (permit fees, tobacco, PILT, etc)

Transp. Infrastructure Rehab.

- Maintenance & Operations

General Fund

Administration

- GF Flood Exp./Grants
- Development Review
- Floodplain Permitting
- Planning/Eng. Admin Salaries
- Operating

Other – Dedicated Uses

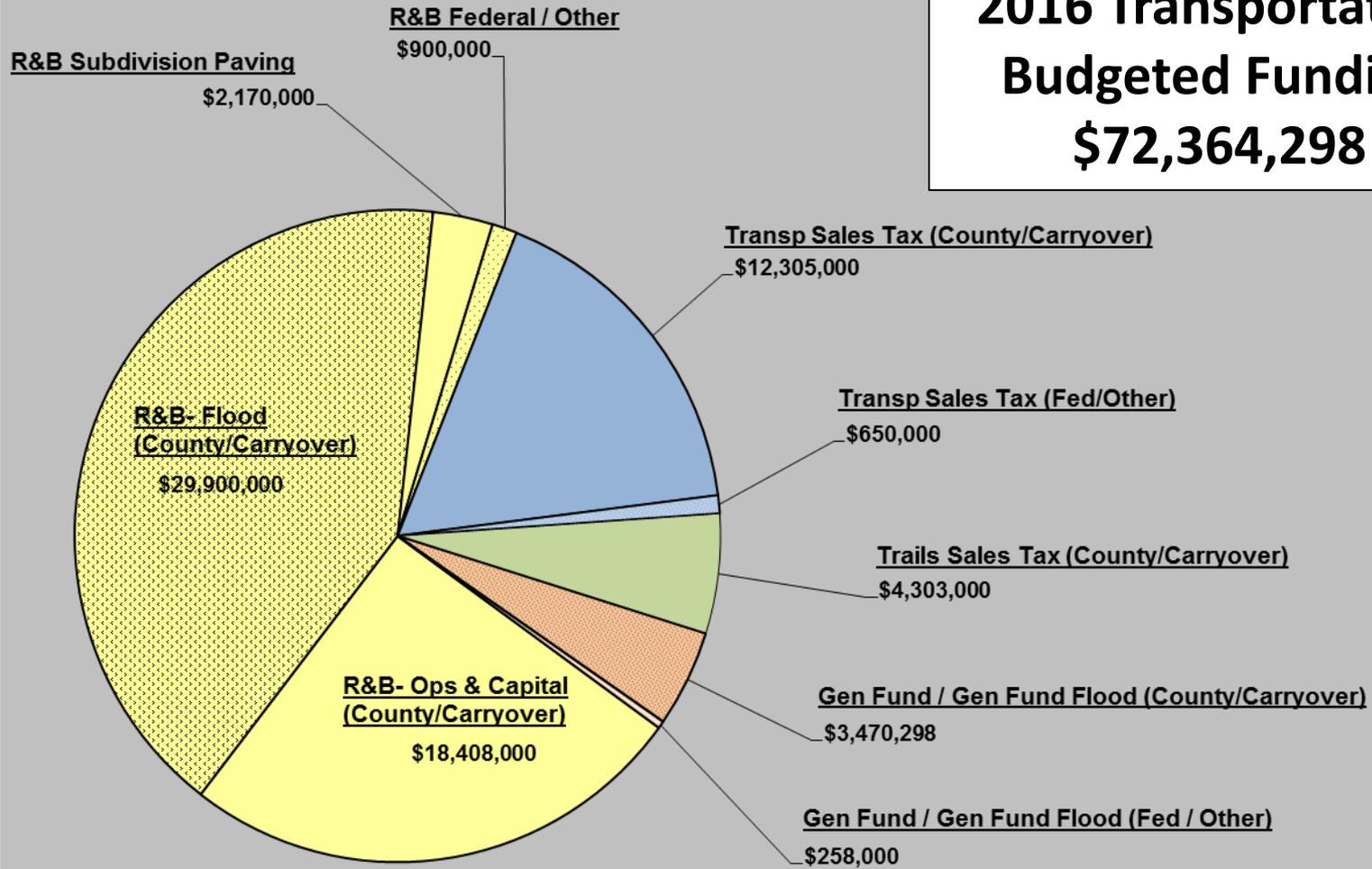
- R&B Flood Recovery Funds
 - Road/Bridge Repair-----
- Trans. Sales Tax
 - 15% for Regional Trails
 - Specific Projects/Programs-----
- State/Federal Grants
 - Specific Projects/Programs

Included in CIP

2016 Transportation Budgeted Revenues

	Category	2016 Adopted Budget *	Carryover from 2015 / Flood Supplement*	Federal /Other Funds Exp.	Total Funding
	General Fund	\$ 3,370,850	\$ 99,448	\$ --	\$ 3,470,298
	General Fund – Flood	\$ --	\$ 258,000	\$ --	\$ 258,000
	Road and Bridge - Operations	\$ 8,931,000	\$ --	\$ --	\$ 8,931,000
C I P F U N D	Road and Bridge - Capital	\$ 4,277,000	\$ 5,200,000	\$ 900,000	\$ 10,377,000
	R&B – Sub-Division Paving	\$ 1,340,000	\$ 830,000	\$ --	\$ 2,170,000
	Road and Bridge – Flood	\$ 13,100,000	\$16,800,000	\$ --	\$ 29,900,000
	Transportation Sales Tax	\$ 4,425,000	\$ 7,880,000	\$ 650,000	\$ 12,955,000
	Trails Sales Tax (GenFund)	\$ 743,000	\$ 3,110,000	\$ 450,000	\$ 4,303,000
	Total CIP Revenues	\$ 23,885,000	\$33,820,000	\$ 2,000,000	\$ 59,705,000
	Total Transportation Revenues	\$ 36,186,850	\$34,177,448	\$ 2,000,000	\$ 72,364,298

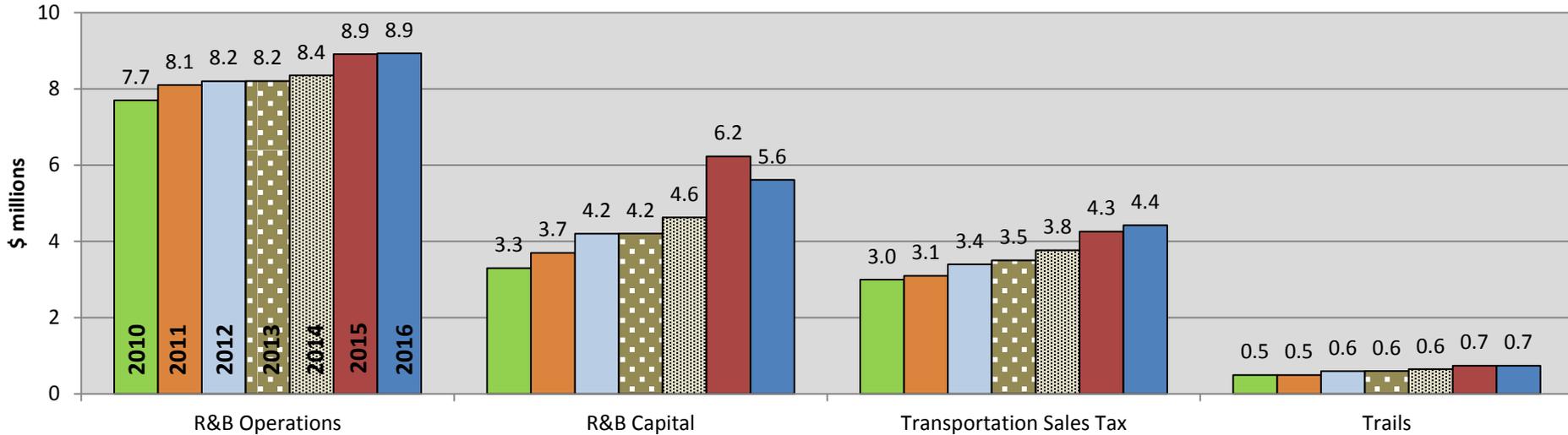
2016 Transportation Budgeted Funding \$72,364,298



Transportation Revenues

Road & Bridge, Transportation Sales Tax, and Trails Fund

2010 - 2016



Total Annual Revenue (not including grants/carryover/flood allocation):

2010 = \$14.5 million

2011 = \$15.4 million

2012 = \$16.4 million

2013 = \$16.5 million

2014 = \$17.4 million

2015 = \$18.2 million*

2016 = \$19.7 million

** 2015 R&B Capital includes one-time incentive fund for subdivision paving*

Transportation Priorities

Flood Recovery/Reconstruction Program

Flood Recovery Goals

- Safe Connections to Communities for all users
- Incorporate Natural Resource, Environmental & Scenic Values
- Resilient – Withstand future flooding/debris slides
- Affordability

Phasing Criteria

- Funding Availability
- Regulatory Approval
- Costs
- Safety
- Access/ Connections
- Build-ability
- Safety /Usage
- Private Access

Transportation Priorities

Regular Programs

Road & Bridge Revenue

1. On-going Maintenance
2. Long-term Rehabilitation
 - Safety
 - Long term costs/benefits
 - Community Connections
 - # of Users
3. Initiate planning/design for future projects

Sales Tax & Trails Fund

1. Complete on-going Projects/Programs
2. Fulfill IGA Commitments
3. Initiate new projects as \$ allows
4. Leverage Grant Funding
5. Initiate planning/design for future projects

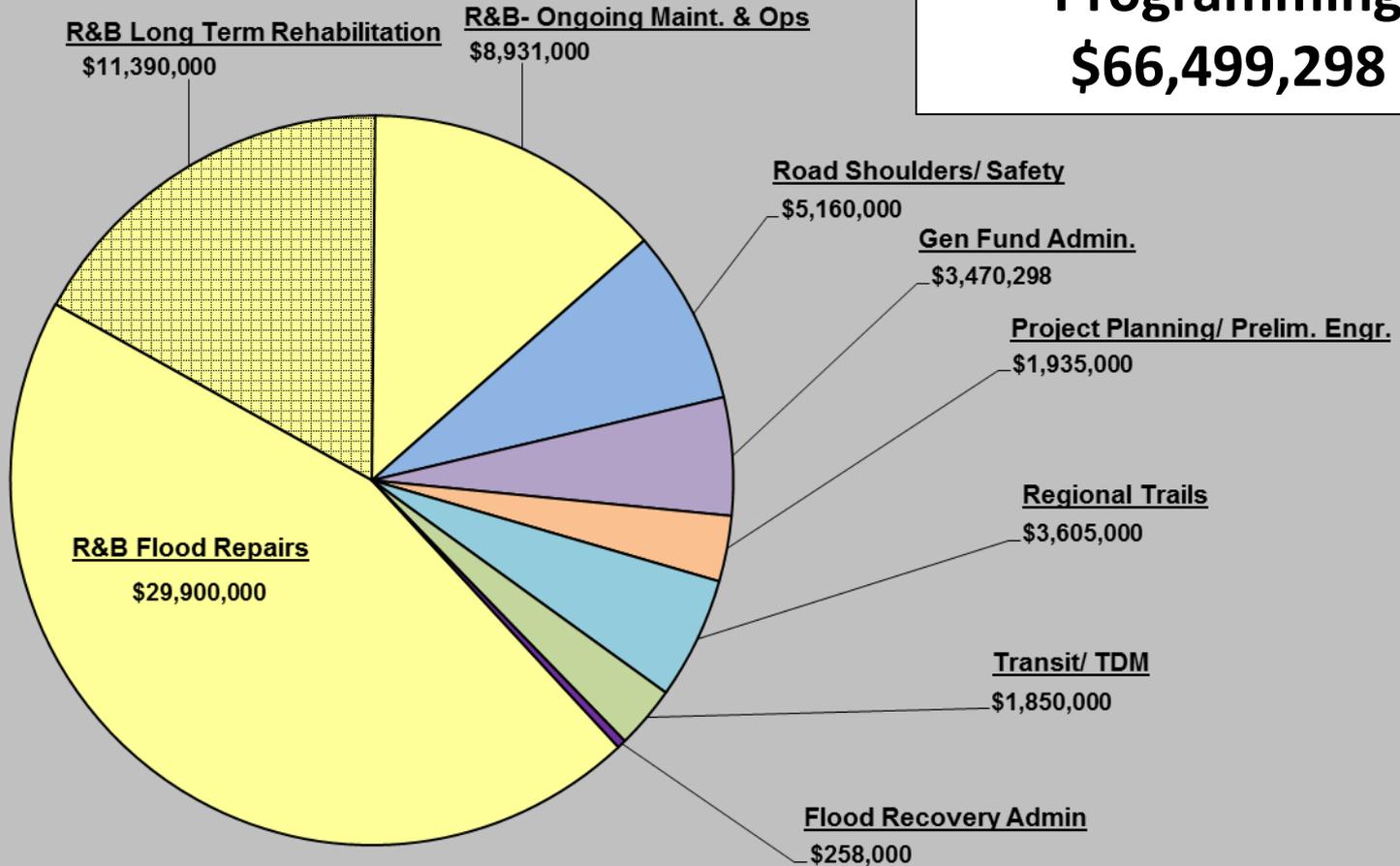
**Consistent with
2007 Ballot**

2016 Transportation Budget by Investment Category

Investment Categories	Amount	% of Budget	% of CIP
1. Road & Bridge Ongoing Maint. & Operations	\$ 8,931,000	13%	-
2. General Fund Administration	\$ 3,470,298	5%	-
3. Flood Recovery Admin	\$ 258,000	0.4%	-
4. Road & Bridge Flood Repairs	\$ 29,900,000	45%	56%
5. Road & Bridge Long-Term Rehabilitation	\$ 11,390,000	17%	21%
6. Roadway Shoulder / Safety	\$ 5,160,000	8%	10%
7. Regional Trails	\$ 3,605,000	5%	7%
8. Early Project Planning/Preliminary Engineering	\$ 1,935,000	3%	4%
9. Transit/TDM	\$ 1,850,000	3%	3%
Total 2016 Transportation CIP	\$ 53,840,000	73%	100%
Total 2016 Transportation Investments	\$ 66,499,298	100%	

2016 Transportation Programming

\$66,499,298



Boulder County's Federal & State Transportation Grants

Project	Grant Amount	Local Match*	Funds Expended (1/1/16)	Remaining in Fund (1/1/16)
<u>General Fund Grants</u>				
Trip Tracker (CM/AQ)	\$ 187,880	\$ 46,970	\$ 197,000	\$ 37,850
Lafayette Walk 'n' Wheel	\$ 19,500	\$ --	\$ 15,700	\$ 3,800
Mobility 4 All (JARC)	\$ 397,000	\$ 84,000	\$ 102,000	\$ 379,000
Trip Tracker (Safe Routes)	\$ 145,000	\$ --	\$ 27,500	\$ 117,200
IBM Connector (LOBO)	\$ 451,000	\$ 445,000	\$ --	\$ 896,000
Williams Fork Multi-use Path	\$ 632,000	\$ 132,000	\$ --	\$ 764,000
Total Grants Fund	\$ 1,832,380	\$ 707,970	\$ 342,200	\$ 2,882,550

Boulder County's Federal & State Transportation Grants

Project	Grant Amount	Local Match*	Funds Expended (1/1/16)	Remaining in Fund (1/1/16)
<u>Road and Bridge Grants</u>				
Match from Non-sales tax R&B Funding				
Niwot Connectivity w/ LID	\$ 100,000	\$ 250,000	\$ 332,000	\$ 18,000
Brainard Lake Road Const.	\$ 3,440,000	\$ 860,000	\$ 360,000	\$ 3,940,000
Boulder Canyon Trail	\$ 4,400,000	\$ 550,000	\$ 112,000	\$ 4,838,000
51 st St. Bridge Replacement	\$ 830,000	\$ 210,000	\$ --	\$ 1,040,000
Baseline Sidewalks	\$ 239,000	\$ 121,000	\$ --	\$ 360,000

Boulder County's Federal & State Transportation Grants

Project	Grant Amount	Local Match*	Funds Expended (1/1/16)	Remaining in Fund (1/1/16)
<u>Road and Bridge Grants</u>				
Match from Sales Tax R&B Funding (Roads & Transit)				
Airport Rd Underpass	\$ 1,447,000	\$ 690,000	\$ 2,097,000	\$ 40,000
95 th Street Intersections	\$ 950,000	\$ 105,000	\$ --	\$ 1,055,000
71 st Street Multi-use Path	\$ 860,000	\$ 215,000	\$ --	\$ 1,075,000
BOLT Transit Service	\$ 51,000	\$ 13,000	\$ 64,000	\$ --
Countywide Bus Stops	\$ 129,000	\$ 32,000	\$ 100,100	\$ 60,900
"L" Transit Service	\$ 1,664,000	\$ 416,000	\$ --	\$ 2,080,000
"FLEX" Extension to Boulder	\$ 1,156,000	\$ 289,000	\$ --	\$ 1,445,000
SH7 BRT Study	\$ 200,000	\$ 50,000	\$ --	\$ 250,000
Public Information Displays	\$ 258,000	\$ 54,000	\$ --	\$ 312,000
Bus-then-Bike US 36 BRT	\$ 157,000	\$ 39,000	\$ --	\$ 196,000
Bus-then-Bike Larimer County	\$ 294,000	\$ 74,000	\$ --	\$ 368,000
Total R&B Grants	\$ 16,175,000	\$ 3,968,000	\$ 3,065,100	\$ 17,077,900
Total Grants	\$ 18,070,380	\$ 4,675,970	\$ 3,407,300	\$ 19,960,450

Road and Bridge – Long Term Rehabilitation

Road Maintenance / Equipment Replacement

Road Maintenance Equipment Replacement	\$	1,870,000
Subdivision Sidewalk Repairs - ADA	\$	447,000
Epoxy Striping Program (annual)	\$	400,000
Baseline Road Sidewalk Improvements - Platt MS to Lawn St.	\$	390,000
Railroad Crossing Replacements (x4)	\$	175,000
South Boulder Road curb repair (remaining)	\$	70,000
Olde Stage Rockfall, Valmont / Butte Mill Intersection Design	\$	70,000
Alt Modes Facilities Maintenance (R&B)	\$	65,000
Niwot Road Intersections (Niwot LID)	\$	18,000
Subtotal - Maintenance/Equip. Replacement	\$	3,505,000

Minor Structures/ Bridge Rehabilitation

83rd Street Bridge over Dry Creek #2	\$	1,005,000
Monarch Road over Dry Creek #2	\$	270,000
51 st Street Bridge Replacement Design	\$	195,000
N. 53 rd over Supply Ditch / James Ditch	\$	140,000
Minor Structures Inventory	\$	100,000
Lee Hill over Six Mile Creek Design	\$	80,000
Bridge Maintenance Program (Magnolia over Boulder Creek)	\$	60,000
Subtotal - Bridge Rehabilitation	\$	1,850,000

2016 Overlays/ Resurfacing

Recycle In-Place Program - 8 total miles (East County Line Road, Valmont Road, 75 th Street, 76 th Street)	\$	1,685,000
Brainard Lake Road Reconstruction (local match to CFL)	\$	870,000
2016 Overlays - 2 miles (Arapahoe Ave, Flagg Drive)	\$	525,000
Design for Lee Hill, North 83 rd , Neva Road Reconstruction	\$	210,000
Annual Chip Seal – addition to Operations fund	\$	110,000
Subtotal – Overlays / Resurfacing	\$	3,400,000

2016 Community Use Road Reconditioning

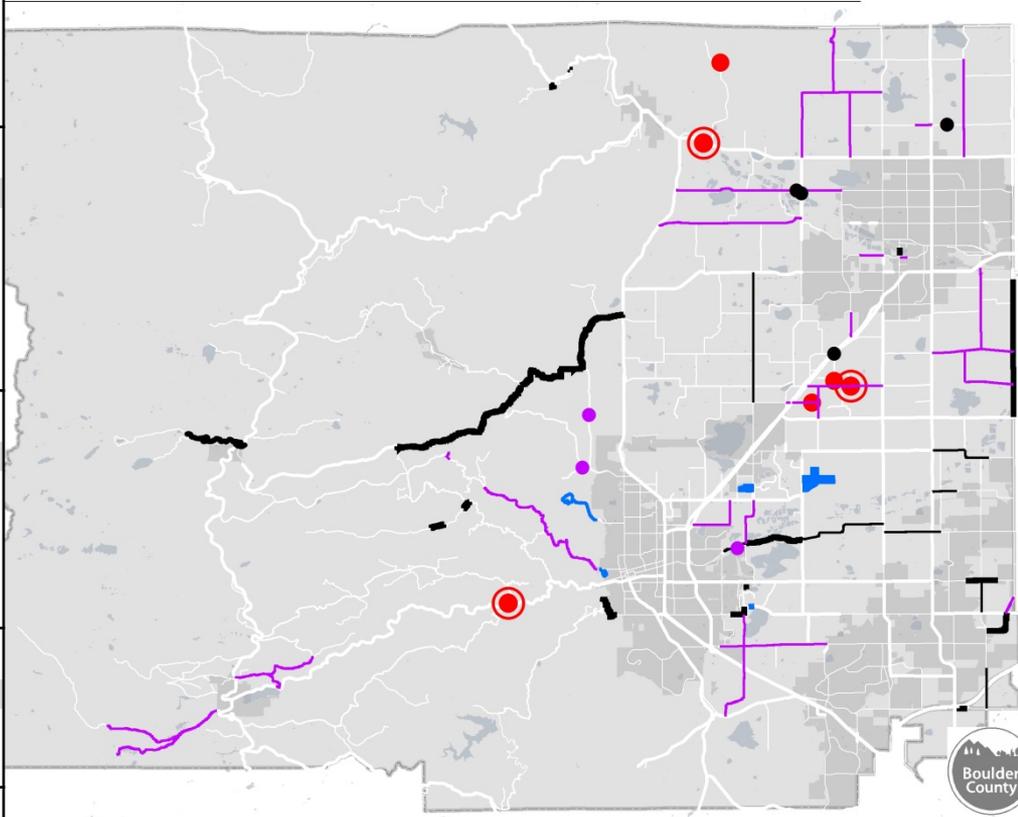
Linden Ave (Pinebrook Hills)	\$	1,300,000
Incentive Match - Knollwood Metro Dist. contribution	\$	105,000
Incentive Fund for Subdivision Roads (Remaining)	\$	715,000
Subtotal – Community Use Road Reconditioning	\$	2,120,000

Contingency / Reserves

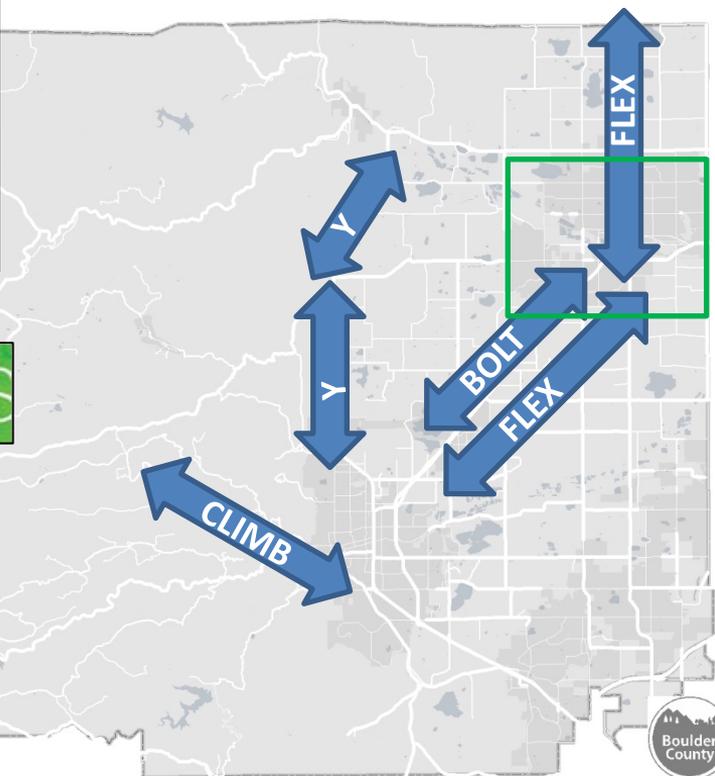
\$ 515,000

TOTAL LONG-TERM MAINT. PROGRAMMED EXPENDITURES \$ 11,390,000

2016 CIP Projects & Estimated Costs



2016 Transit Projects

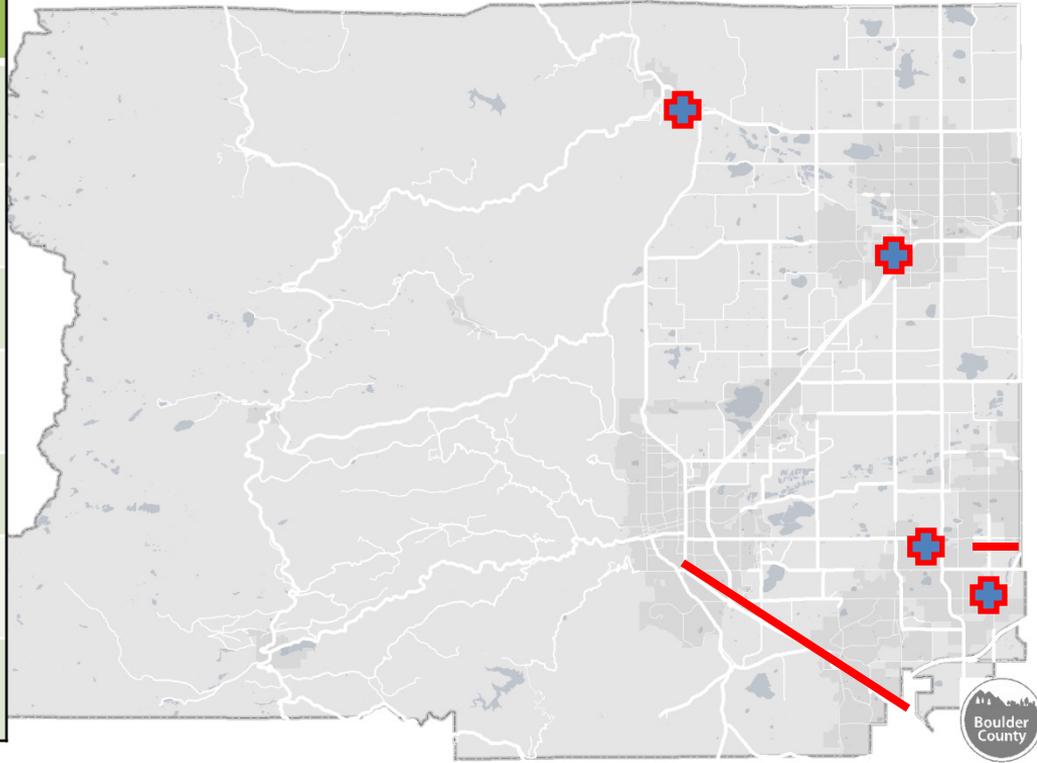


Subtotal = \$1,850,000

Project/Program	Cost
“Final Mile” Stop Improvements (includes federal funds)	\$410K
TDM & Transit Administration	\$265K
SH 7 BRT Study – Brighton to Boulder	\$250K
CTEPS / TDM Program (Transit Education and Past Support)	\$210K
“L” Route Service Buy-up	\$140K
FLEX – Boulder to Fort Collins	\$135K
Ride Free Longmont Program	\$130K
Regional Transit Stop Improvements (includes FASTER funds)	\$110K
“Y” Route Buy-up	\$90K
Countywide Eco Pass Study (2015)	\$60K
Lyons Eco Pass Support	\$25K
CLIMB – Gold Hill	\$25K

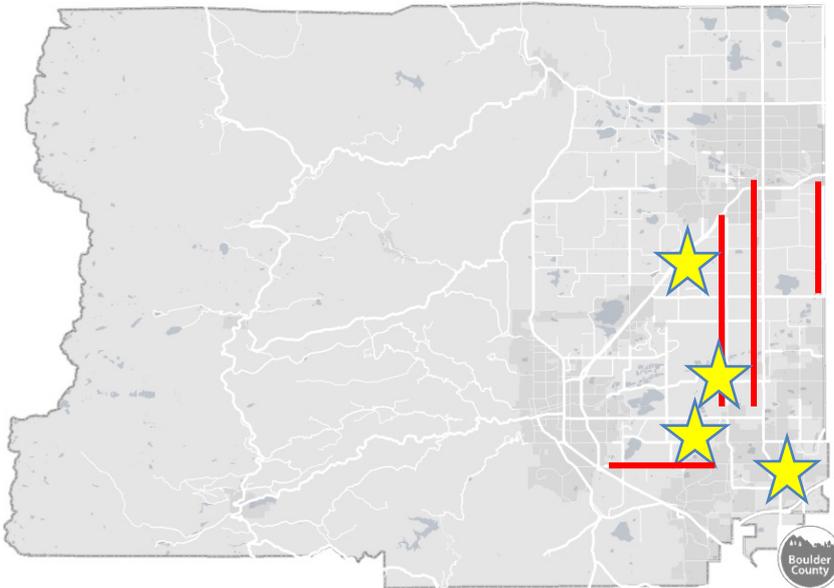
2016 Road/Bikeway Safety Projects

Project	Cost
US36 Bikeway/Davidson Mesa Underpass (County's share)	\$1.4M
Stone Canyon/US 36 Intersection Construction	\$980K
Boulder Canyon Trail Design	\$650K
SH 119 Underpass – South of Hover (County's share)	\$630K
Arapahoe Road Shoulders – 119 th to Erie	\$520K
SH 42 / South Street Intersection (County's share)	\$500K
120 th Street Bridge over Coal Creek (County's share)	\$480K



Subtotal = \$5,160,000

2016 Planning & Engineering Projects



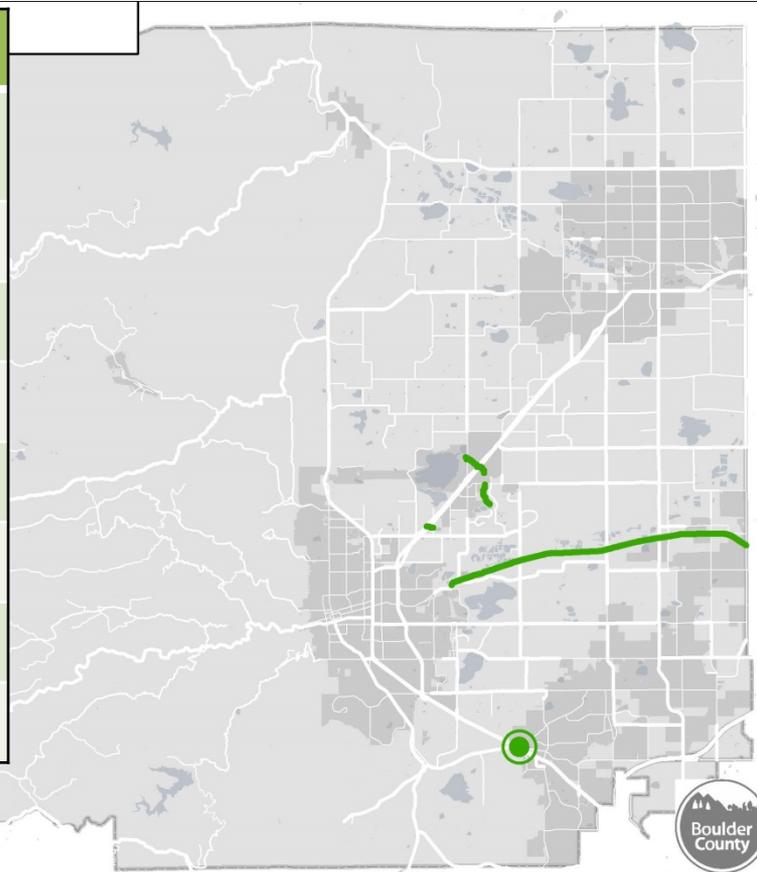
Subtotal = \$1,935,000

Project Name	Cost
95 th Street Reconstruction – Longmont to Lafayette Design	\$410K
71 st Street Shoulders Design	\$350K
Project Planning / Coordination	\$310K
Pavement Engineer for Road Project Implementation	\$165K
South Boulder Road / 120 th Street Design (County's share)	\$140K
East County Line Road Master Plan	\$140K
Niwot Shoulders – 95 th Street to US 287	\$100K
95 th Street Intersections – Valmont to Isabelle Design	\$100K
Neighborhood Quick Response	\$60K
SH 42 / South of Pascal Ped Underpass Design (County's share)	\$60K
Stormwater Drainage Criteria Manual Update	\$60K
South Boulder Road Concrete Replacement Study	\$40K

2016 Regional Trails Projects

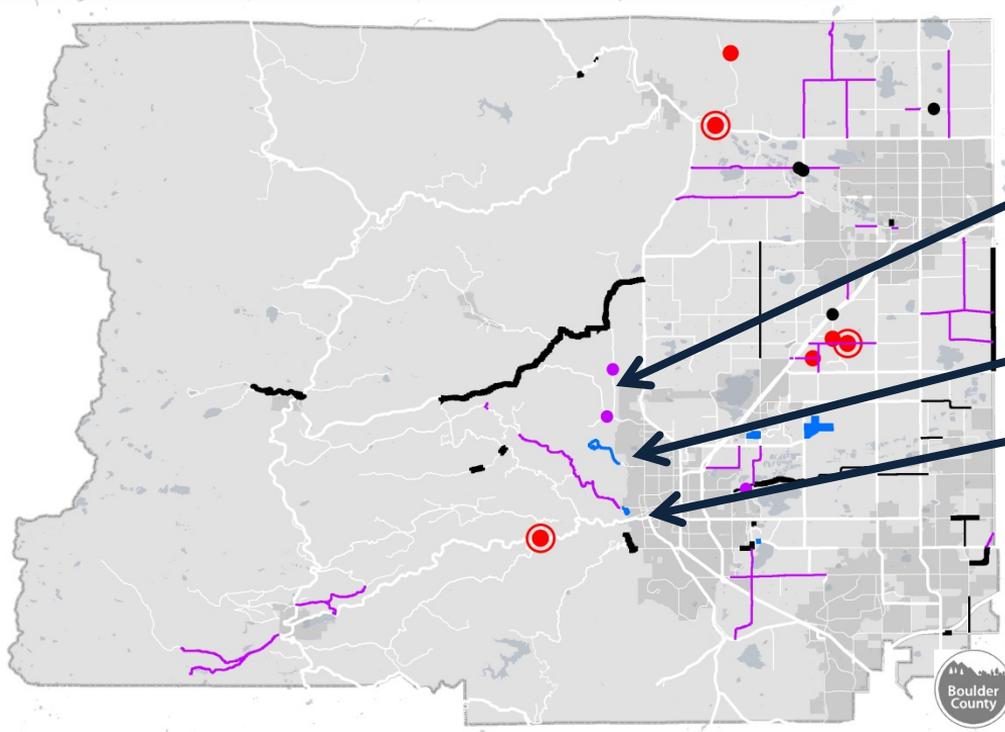
Project	Cost
LOBO Trail (IBM Connection & R/R Bridge) Design & Construction	\$1.94M
LOBO Trail (Four Mile) Design & Construction	\$815K
William's Fork Trail Multi-Use Path Design	\$305K
St. Vrain Greenway Planning & Design	\$200K
Union Pacific Rail Trail Master Plan	\$160K
Trails Planning & General Repairs	\$95K
US 36 Bikeway Dyer Road Connection Design	\$50K
LOBO Trail – Trailhead Restrooms	\$40K

Subtotal = \$3,605,000



2016 Community-Use Roads in County Subdivisions | Reconditioning Plan – Year 3

Community Use Roads = \$1,300,000 (Linden/Linden Loop)
Subdivision Incentive Fund = \$820,000



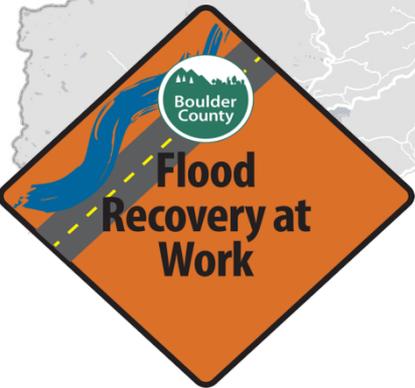
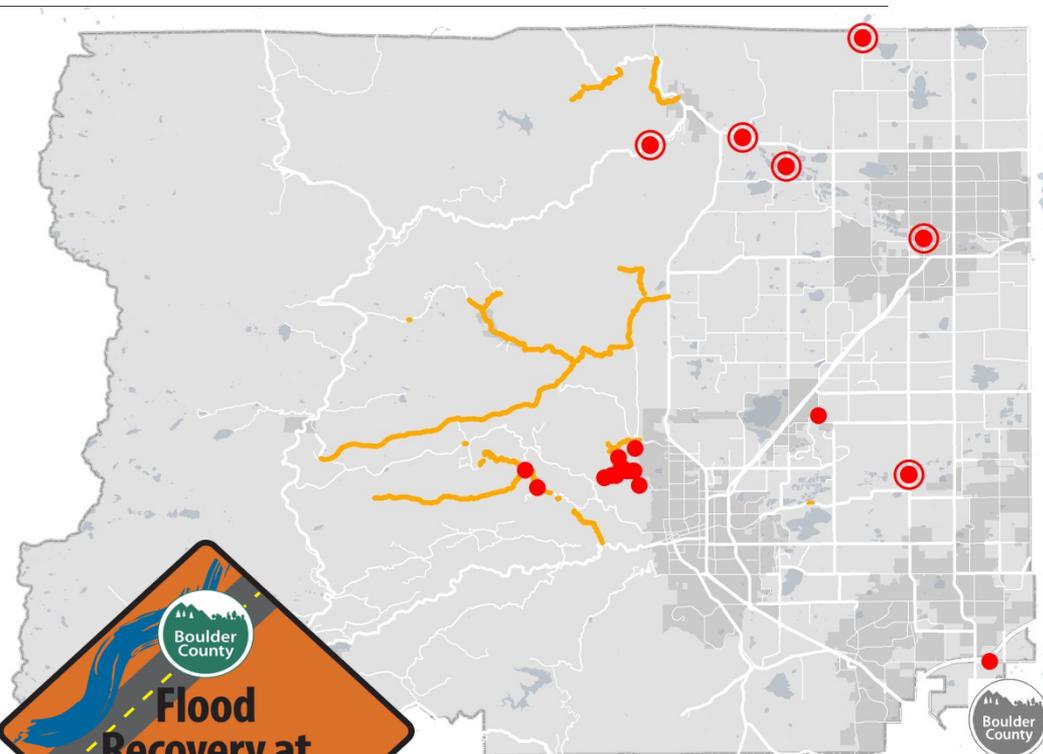
Roads Included in 2016 Plan

Geotech/Design of Lake Valley C.U. Rds.

Paving Linden/Linden Loop

Geotech/Design of Knollwood

2016 Road & Bridge Flood Recovery Projects



Road and Bridge Flood Recovery Projects	
Complete Construction of Contracted Projects	
83rd Bridge over Little Thompson Creek	\$ 3,950,000
Salina Junction Culvert Repairs (remaining)	\$ 2,660,000
Longmont Dam Road Repairs	\$ 1,770,000
Pinebrook Hills Drainage and Culvert Repairs (remaining)	\$ 1,500,000
Geer Canyon Drive Final Road Repairs	\$ 720,000
Valmont Road Embankment Repairs	\$ 330,000
Sunset Bridge - local match to City of Longmont (remaining)	\$ 270,000
Lefthand Canyon Drive ROW (const. by FHWA) (remaining)	\$ 200,000
Subtotal - Under Construction	\$ 11,400,000
Start Construction of 2016 Projects	
Four Mile Canyon thru Wall Street	\$ 8,740,000
Logan Mill Bridge Replacement	\$ 3,300,000
Dillon Road Culvert over Rock Creek	\$ 1,825,000
51 st Street Bridge (ROW and CMEX in lieu of replacement)	\$ 500,000
71 st Street Culvert over Boulder / Lefthand Ditch	\$ 285,000
Apple Valley Road Final Repairs	\$ 240,000
63 rd Street Bridge over St. Vrain Creek	\$ 100,000
Ingram Gulch Debris Racks	\$ 90,000
Oxford / 41 st / Nimbus Road / CR 69 / 109th	\$ 40,000
Subtotal - 2016 Construction	\$ 15,120,000
Design / Permitting / ROW Acquisition of Remaining Projects	
Gold Run Road through Salina	\$ 980,000
James Canyon / Balarat	\$ 860,000
Wagonwheel Gap / Pinto Drive	\$ 620,000
Four Mile Canyon Drive	\$ 390,000
Old South St Vrain Bridge	\$ 240,000
James Canyon Drive through Jamestown	\$ 190,000
95 th Street / Boulder Creek Flood Improvements	\$ 100,000
Subtotal - Design / Permitting / Acquisition	\$ 3,380,000
TOTAL FLOOD RECOVERY PROGRAMMED EXPENDITURES	\$ 29,900,000
Contract Construction for Remaining Projects	
Wagonwheel Gap / Pinto Drive	\$ 15,000,000
James Canyon Drive (includes Jamestown Section)	\$ 14,000,000
Lower Four Mile Canyon Drive	\$ 12,000,000
Gold Run Road through Salina	\$ 7,300,000
Old South St Vrain Bridge	\$ 4,700,000
Sugarloaf Wall Repairs	\$ 1,400,000
East County Line Road over Boulder Creek	\$ 1,100,000
TOTAL ADDITIONAL FLOOD RECOVERY (POTENTIAL)	\$ 55,500,000

2016 Flood Recovery Construction



Lefthand Canyon Drive Post 2013 Flood Event



Flood Damage & Repairs:

- Structure and roadway washed out
- Replaced with temporary culvert



83rd Street at Little Thompson River Post Flood



To-Do:

- Replace culverts with new bridge to increase flow capacity
- Repave surrounding roadway
- **In Construction**



83rd Street at Little Thompson River Today



Flood Damage & Repairs:

- Numerous structures damaged and significant roadway washouts
- “Winter” road created
- Structures replaced
- Streambank stabilized

Longmont Dam Road Post Flood



To-Do:

- Raise road several feet in places to accommodate for increased stream flows
- Additional stream & streambank work
- Additional structure repairs
- **In Construction**

Longmont Dam Road Today



Flood Damage & Repairs:

- Located on Lefthand Canyon Drive
- Culvert & roadway destroyed
- Temporary culvert installed
- Temporary roadway built
- Stream bank stabilized



Glendale Gulch Post Flood



To-Do:

- Replace temporary culvert
- Additional stream bank stabilization
- Guardrail replacement
- **Will be completed as part of Lefthand reconstruction effort**

Glendale Gulch Today





Flood Damage & Repairs:

- Located on St. Vrain Creek
- Bridge and roadway destroyed

Sunset Bridge Post Flood





To-Do:

- Replace bridge and roadway
- Additional stream bank stabilization
- Guardrail replacement

Sunset Bridge Today





Flood Damage & Repairs:

- Culvert & roadway damaged
- Culvert cleaned, but needs replacement
- Drainage temporarily repaired
- Roadway repaired

Salina Junction Post Flood





To-Do:

- Replace culvert
- Permanent repairs to roadway
- Stabilize drainage channel
- **In construction**



Salina Junction Today



To-Do:

- Shift road to the south
- Permanent repairs to roadway
- **Est. Start Date = Starts Monday**



6700 Valmont Road



Dillon Road at Rock Creek Today

Flood Damage:

- Culvert destroyed
- Roadway destroyed

To-Do:

- Replace culvert
- Reconstruct roadway
- **Est. Start Date = July**



Flood Repair Projects Currently in Planning & Design	Description	Construction Start Date (est.)
Lower Fourmile Canyon Drive Permanent Repairs	Permanent repairs of washed out sections of roadway/shoulders/stream bank stabilization	December 2016
Wall Street Permanent Repairs	Permanent repairs of washed out sections of roadway/shoulders /stream bank stabilization	July/August 2016
Gold Run Permanent Repairs	Permanent repairs of washed out sections of roadway/shoulders/stream bank stabilization	July/August 2016
Apple Valley Rd. Permanent Repairs	Repair of culverts and roadway	November 2016
James Canyon Drive Permanent Repairs	Permanent repairs of washed out sections of roadway/shoulders/stream bank stabilization	November/December 2016
Wagonwheel Gap Road Permanent Repairs	Repair damaged road and culverts	September 2016
Logan Mill Bridge	Construction of bridge to replace temporary box culverts	August 2016
Dillon Road at Rock Creek	Replace culvert and reconstruct roadway	July 2016
East County Line Road at Boulder Creek	Repair bridge and guardrail and stabilize streambank	December 2016
Old South St. Vrain Road and Bridge	Repair road, replace bridge, install drainage	February 2017
63rd Street over the St. Vrain	Bridge and drainage repairs	September 2016

2016 Road Maintenance Fleet Replacement Requests

Priority	Year	Make	Model	Age
1	1997	Volvo	Water/Jet Truck	19
2	2003	Freightliner	Tandem Dump/Plow	12
3	1995	Caterpillar	Wheel Loader	19
4	1988	Mack	Snow Plow	26
5	1994	Caterpillar	Wheel Loader	20
6	1998	Ford	Cargo	16
7	2000	Ford	F150	14
8	1966	Beall	Water Tank Trailer	48

Purchase: \$1,197,000

Lease Payments: \$336,000

**Total Fleet Request:
\$1,533,000**



Questions and Direction

Requested Action

**Motion Approving 2016 CIP
Resolution #2016-21
(for approval at
Business Meeting)**