

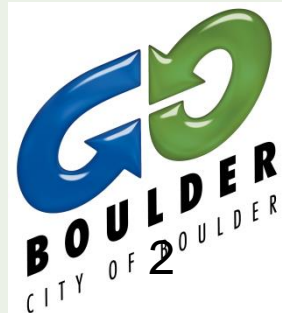


City of Boulder Railroad Quiet Zones

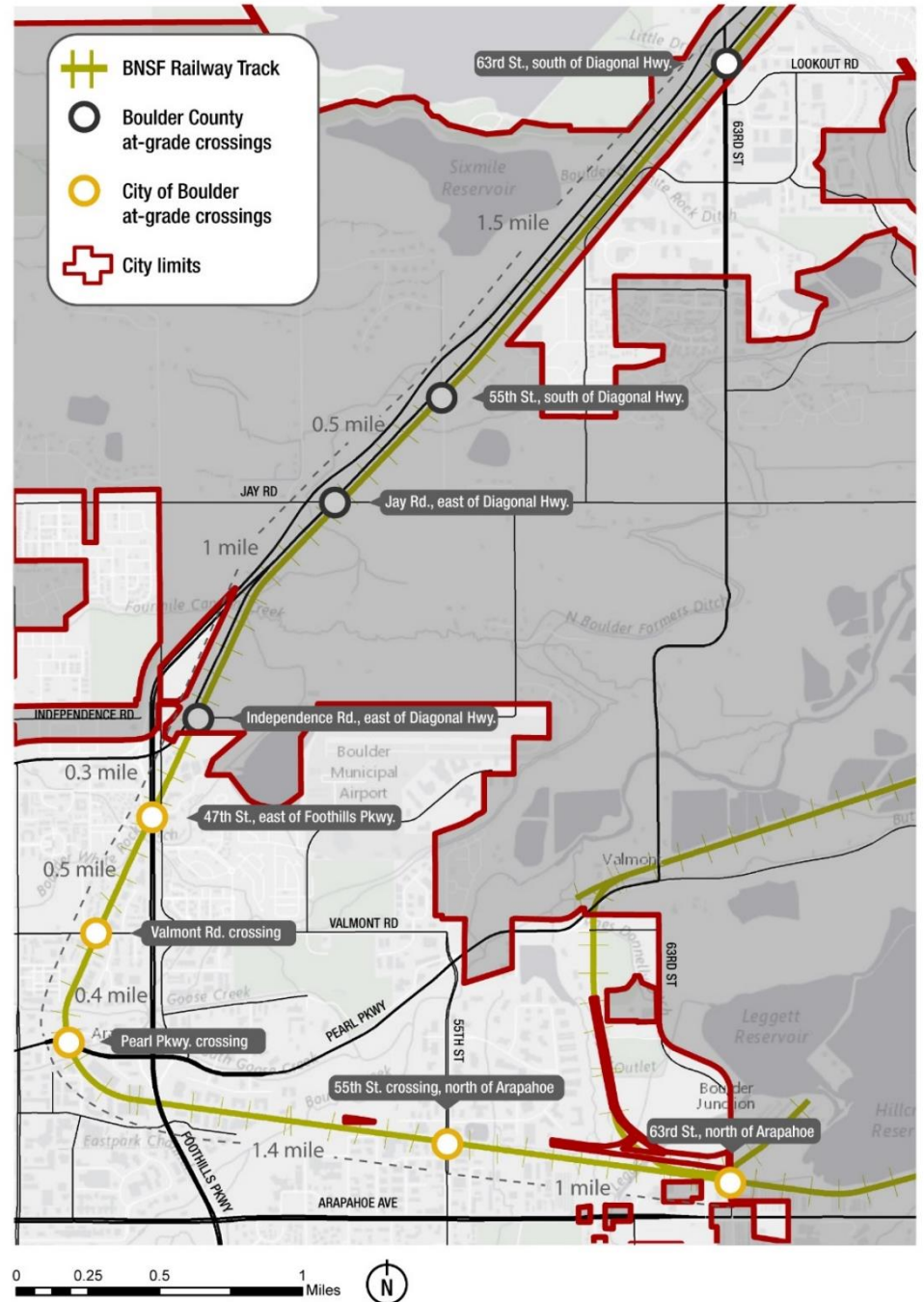
February 23, 2017

WHY RAILROAD QUIET ZONES?

- Purpose to address impacts of train horn noise
- “Quiet Zones” are regulated by the Federal Railroad Administration
- Review by Colorado Public Utilities Commission
- Coordination with BNSF, Boulder County, and CDOT



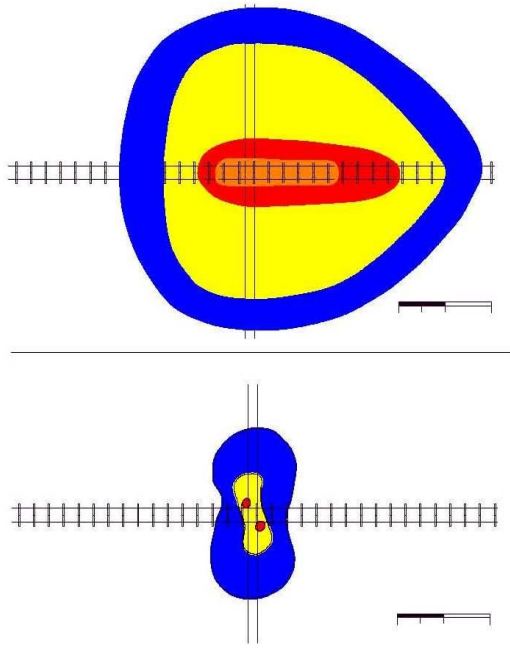
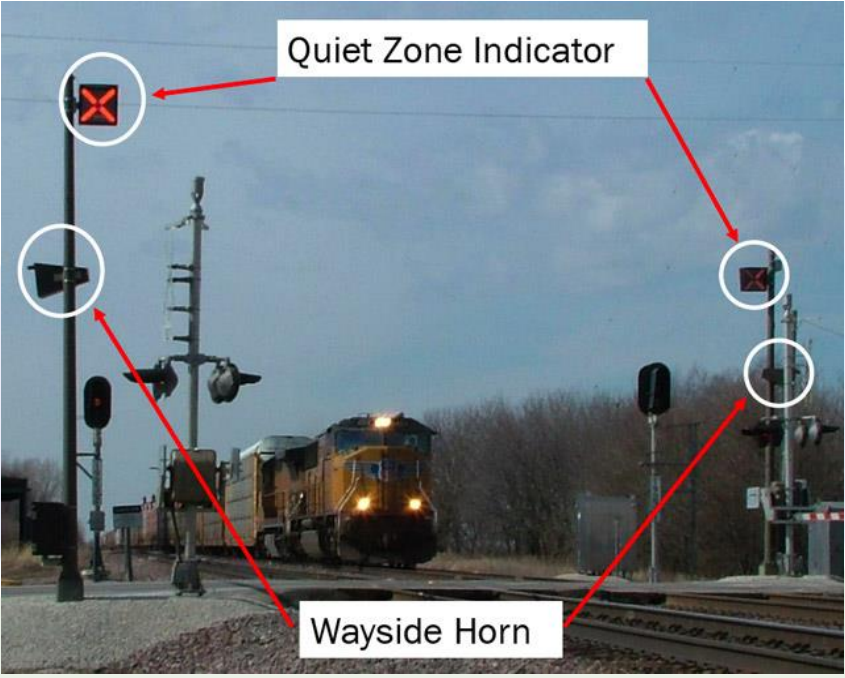
City of Boulder Area Railroad Crossings



What are Quiet Zones?



Wayside Horns



How much do they cost?

- Varies by type and location
- Initial estimate for 9 Boulder area crossings approx. \$5 M
 - Updated conceptual cost estimates developed for prioritization process
 - Will be refined during engineering phase
- Initial \$1.3 M funding from regional grant + city funds
- Developing prioritization plan
- Continue to seek additional funding

How to prioritize list?

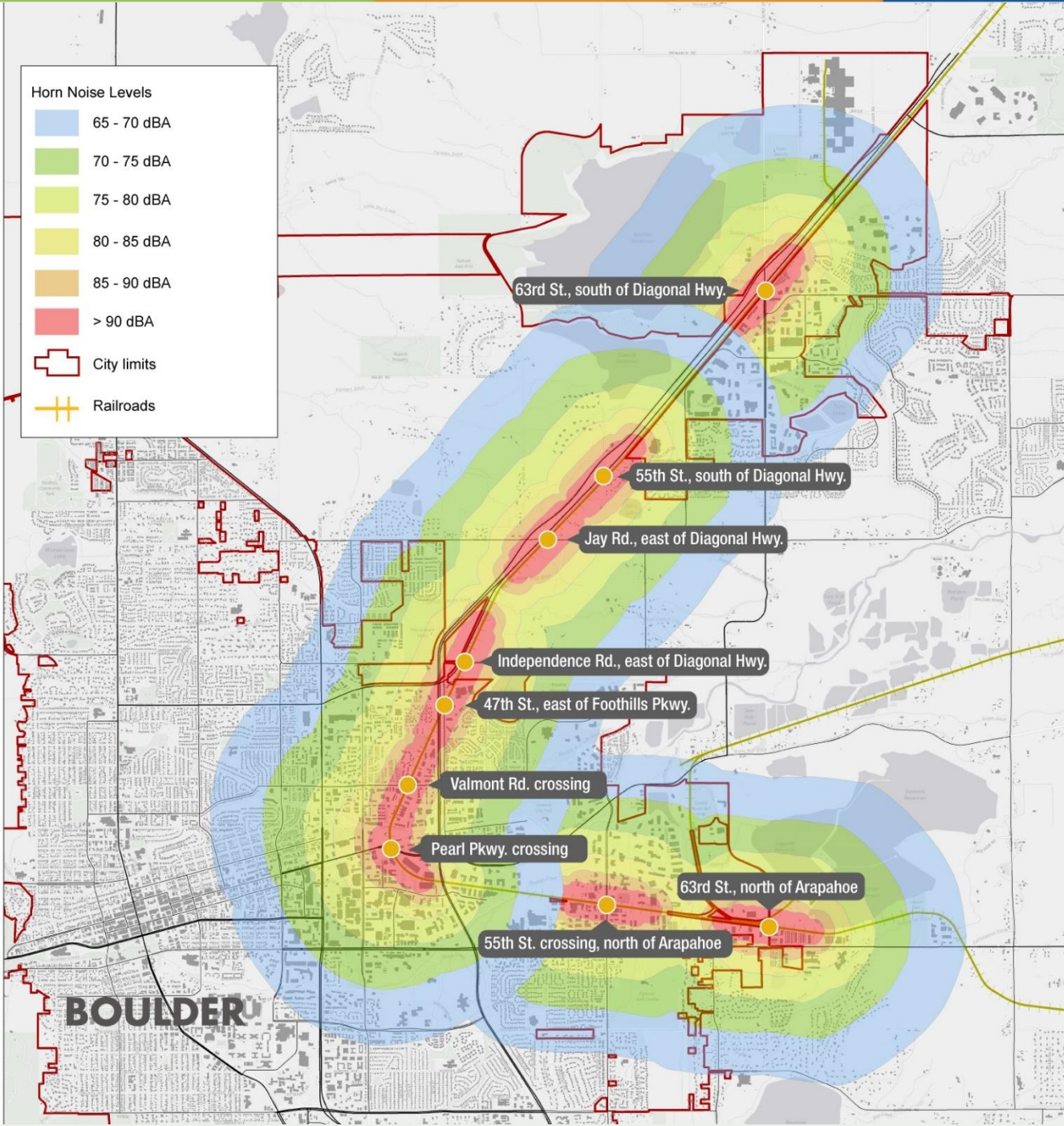
- Evaluation criteria:
 - Safety
 - # of people living/working near the crossings
 - Sound cloud analysis
 - Costs & Implementability
 - Street and railroad crossing characteristics
 - Complexities/unique conditions
 - Opportunities to leverage resources & benefits
 - Coordination with city & county locations
 - Public/private partnerships

City of Boulder Sound Cloud Analysis

- Use GIS mapping to identify number of people and jobs within the sound cloud

Horn Noise Levels

- 65 - 70 dBA
- 70 - 75 dBA
- 75 - 80 dBA
- 80 - 85 dBA
- 85 - 90 dBA
- > 90 dBA
- City limits
- Railroads



CITY OF BOULDER RAILROAD CROSSINGS INFORMATION OVERVIEW

Crossing	Agency	Cost Estimates <small>Conceptual construction cost + contingency</small>	Recommended Treatment Type	# of Residents Affected by Sound	# of Jobs Affected by Sound	Implementability
N. 63RD ST	City of Boulder/ Boulder County	\$440,000 - \$575,000	4 Quad-Gates	5,800****	9,000*****	
N. 55TH ST	Boulder County	\$160,000 - \$440,000*	TBD***	1,500****	N/A	
JAY RD	Boulder County	\$240,000 - \$500,000*	TBD***	2,100****	N/A	
INDEPENDENCE RD	Boulder County	\$160,000 - \$520,000*	TBD***	4,378****	N/A	
47TH ST	City of Boulder	\$75,000 - \$100,000	Raised Median Extension	13,800****	13,200*****	
VALMONT RD	City of Boulder	\$216,000**	Raised Median Extension	16,200****	23,300*****	
PEARL PKWY	City of Boulder	\$175,000 - \$230,000	4 Quad-Gates	23,200****	28,000*****	
S. 55TH ST	City of Boulder	\$220,000 - \$300,000	Raised Median Extension	3,700****	17,000*****	
S. 63RD ST	City of Boulder	\$150,000 - \$200,000	Raised Median Extension	1,500****	8,400*****	

Notes:

* Draft cost estimates and crossing types under review by Boulder County.

** Cost estimate for quiet zone is anticipated to be covered in the Valmont Road corridor improvements and require no additional improvements or anticipated cost.

*** Crossing improvements under review by Boulder County.

**** Boulder County source. These figures represent total residential properties and not actual number of people (Boulder County analysis method differs slightly from that of City of Boulder).

***** # of residents are City of Boulder and Boulder County residents inside the sound cloud analysis. Residents are likely to be double counted in this figure where there is overlapping of sound clouds.

***** # of jobs are jobs located in the City of Boulder and Boulder County. Jobs are likely to be double counted in this figure where there is overlapping of sound clouds.

IMPLEMENTATION SCENARIO BASED ON # OF RESIDENTS IN SOUND CLOUD ANALYSIS

GROUP 1

	# of Residents	# of Jobs
INDEPENDENCE RD	4,378**	N/A
47TH ST		
VALMONT RD	27,000	33,000
PEARL PKWY		

GROUP 2

	# of Residents	# of Jobs
N. 63RD ST	5,800	9,000
N. 55TH ST	1,500**	N/A
JAY RD	2,100**	N/A

GROUP 3

	# of Residents	# of Jobs
S. 55TH ST*		
	5,200	25,400
S. 63RD ST*		

* Crossing improvements at these location are more complex due to adjacent private crossings and will require extensive coordination with BNSF, PUC, and FRA, likely increasing risks, costs, and timelines required to get QZs approved and constructed

** Boulder County source. These figures represent total residential properties and not actual number of people (Boulder County analysis method differs slightly from that of City of Boulder)

IMPLEMENTATION SCENARIO BASED ON COST ESTIMATES

GROUP 1

	Boulder County	City of Boulder
INDEPENDENCE RD	TBD	
47TH ST		\$75,000 - \$100,000
VALMONT RD		N/A
PEARL PKWY		\$175,000 - \$230,000
TOTAL GROUP COST ESTIMATE		\$250,000 - \$330,000

GROUP 2

	Boulder County	City of Boulder
S. 55TH ST*		\$220,000 - \$300,000
S. 63RD ST*		\$150,000 - \$200,000
TOTAL GROUP COST ESTIMATE		\$370,000 - \$500,000

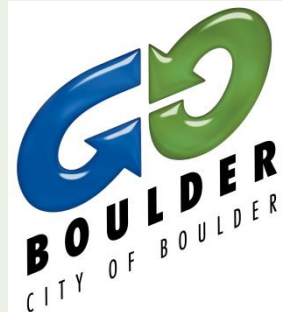
GROUP 3

	Boulder County	City of Boulder
N. 63RD ST	TBD	\$440,000 - \$575,000
N. 55TH ST	TBD	
JRY RD	TBD	
TOTAL GROUP COST ESTIMATE		\$440,000 - \$575,000

* Crossing improvements at these location are more complex due to adjacent private crossings and will require extensive coordination with BNSF, PUC, and FRA, likely increasing risks, costs, and timelines required to get QZs approved and constructed

Total cost estimate for all City of Boulder railroad crossings	\$1,100,000 - \$1,400,000+
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Current City of Boulder available grant funding	\$1,320,000
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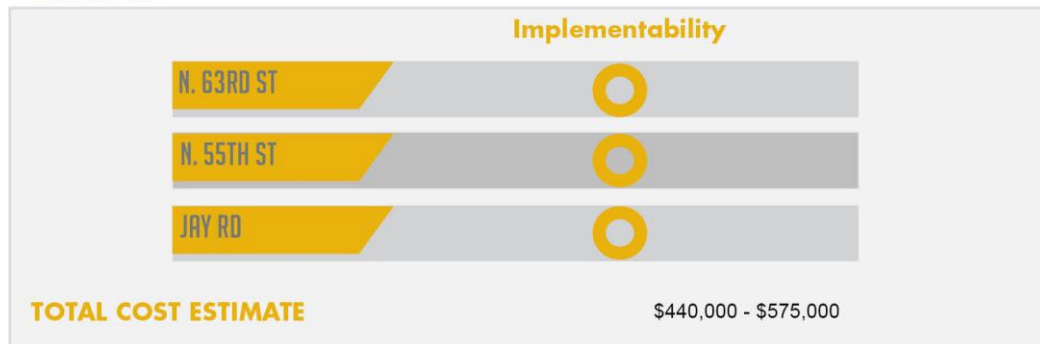


IMPLEMENTATION SCENARIO BASED ON IMPLEMENTABILITY

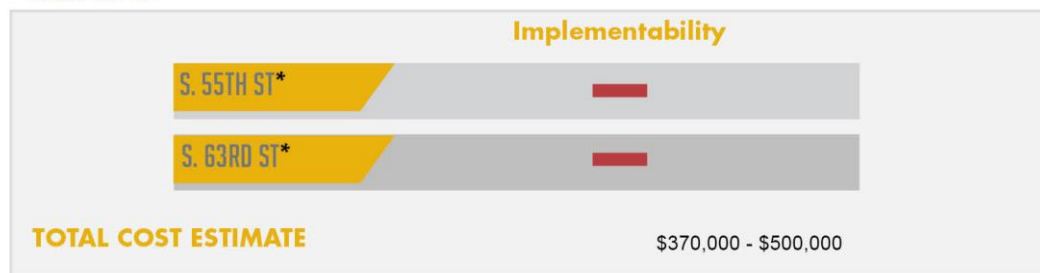
GROUP 1



GROUP 2



GROUP 3



What is process and timeline to create Quiet Zones?

- Fall/Winter 2016- Spring 2017:
 - Update technical report, cost estimates, & sound cloud analysis
 - Community engagement to evaluate and prioritize crossings
 - Develop prioritized phasing plan
 - Updates to Transportation Advisory Board and City Council (March/April)
- Mid-2017 - 2018:
 - Select initial crossing locations
 - Conduct detailed design/engineering for selected crossings
 - Review/approval process with FRA
 - Coordination with BNSF, PUC, County, CDOT
 - Coordination with Operation Lifesaver Safety Education Programs
 - Continue to seek funding for remaining crossings
- 2018-19:
 - Construction of selected quiet zones

How to stay involved?

- On-line info updated:
 - www.bouldertransportation.net
- On-going city & county coordination
- Additional community outreach events 2017+

Thank You

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