



North Engineering
4670 Holly Street
Denver, CO 80216

Region 1 ADA Curb Ramp Prioritization Plan

Date: June 22, 2018

FY 2107 and FY 2018 Progress

Region 1 has made strides in the planning and implementation of the ADA Curb Ramp Program over the last year. A project prioritization plan has been built and is shown in the attached spreadsheet. In FY 17 and FY 18, Region 1 has encumbered \$5,088,537.00 and expended \$956,292.88. 289 ramps are scheduled to be constructed beginning this construction season (2018). The majority of this encumbered amount has gone into the initial program start-up, planning, and design of the first five Region 1 projects (22014, 22022, 22023, 22580, and 22581). \$554,767.00 of this encumbered amount is for the construction of project package 1, ESB project, 22014 which is currently constructing 64 ramps. Project 22022 covers 225 ramps and advertised June 21, 2018. Project 22023 covers approximately 220 ramps, and will be ready for advertisement in late 2018. Design has begun on a FY 2019, 50 ramp ESB project. Project 22580 covers over 200 ramps and is currently under design and will be ready to advertise in late 2018.

Region 1 ADA Program - Funded Ramps								
FY Ad Date	Programmed Funding	Estimated Project Cost	Planning Total	Encumbered as of this update	Spent as of this update	Pool of Ramps	Estimated Number of Ramps	# of Program Ramps Built (As of this update)
	\$33,186,000.00		\$32,931,764.48	\$5,088,537.00	\$956,292.88		2702	52
2017	\$600,000.00	\$500,000.00		\$500,000.00	\$363,275.42			
		\$149,407.85		\$149,407.85	\$140,522.60			
		Totals	\$649,407.85	\$649,407.85	\$503,798.02			0
2018	\$4,600,000.00	\$1,484,362.15		\$1,484,362.15	\$452,494.86			
		\$738,994.48		\$554,767.00	\$0.00		64	52
		\$2,430,000.00		\$2,400,000.00	\$0.00		225	0
		Totals	\$4,653,356.63	\$4,439,129.15	\$452,494.86			52
2019	\$7,800,000.00	\$2,200,000.00				364	220	0
		\$2,390,000.00				523	239	0
		\$2,750,000.00				406	275	0
		\$500,000.00					50	0
		Totals	\$7,340,000.00	\$0.00	\$0.00			



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ADA Curb Ramp Prioritization Plan

The information below contributed to the planning of the Region 1 Prioritization Plan, and acts as a guide on which ramps to include into the program of projects. Currently, Region 1 has approximately 8,800 ADA ramps within regional boundaries. The number of ramps and categories these ramps have been placed in are based on a database developed by CDOT's Civil Rights and Business Resource Center. The initial data collection was generated in 2013 and is currently being updated to reflect changes such as, replacements or modifications done after 2013. The Region will continually monitor changes to the database and make appropriate changes to the plan and delivery strategy to make ADA ramps in the region functionally accessible.

Overall Approach to Prioritization

CDOT has identified eight different categories of ramps within three tiers. Due to the uncertainty of current program funding, the identification of additional funding sources will likely be required to address all of the ADA ramps within Region 1. The Region's prioritization approach is a "worst-first" strategy of focusing on the Tier 1 and Tier 2 categories first as shown below and working through the remaining categories as funding is available, combined with scheduling based on the timeframes required for property acquisition and environmental clearances. There are approximately 850 red category ramps in the Region, 360 of which have been identified to be modified or replaced within the next 5 years under current planned projects. The remaining 850 will be addressed within the curb ramp program.



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CDOT R1 ADA Ramps						
		All Ramps	STP Project Ramps	"Program" Ramps	Program Ramps with ROW Issues	Program Ramps with No ROW Issues
CDOT Classification	Definition	Total	Total Within STP Projects Limits	Total Not Within STP Project Limits	Total Not Within STP Project Limits With 10 feet Or Less Of ROW	Total Not Within STP Project Limits With 10 feet Or Greater Of ROW
RED	Urban, Ramp required but not existing, or running slope > 12.5%	1,210	360	850	511	339
ORANGE	Rural, Ramp required but not existing	171	66	105	61	44
GREEN	Urban, Ramp existing, running slope between 9% and 12.5%	1,866	635	1,231	789	442
TURQUOISE	Rural, Ramp existing, running slope between 9% and 12.5%	56	0	56	25	31
MAGENTA	Urban, Ramp existing, running slope between 5% and 9%, no turning space or no turning space data	2,174	574	1,600	921	679
YELLOW	Rural, Ramp existing, running slope between 5% and 9%, no turning space or no turning space data	100	13	87	35	52
GRAY	Urban or Rural, Ramp existing, running slope between 8.33% and 9%, with turning space	342	120	222	142	80
WHITE	Urban or Rural, Ramp existing, otherwise noncompliant	1,941	473	1,468	697	771
Total Ramps in Need of Replacement		7,860	2,241	5,619	3,181	2,438
Compliant	Compliant according to 4 criteria: -Counterslope < 5% -Running Slope < 8.33% -Turning Space is compliant -Flush is compliant	1,543	N/A	N/A	N/A	N/A

Region 1 is advertising projects for construction following the attached prioritization list. The ramps have been tiered based upon proximity to right-of-way and design complexity risk. The program of projects is prioritized such that the "easier" ROW and design Tier 1 and Tier 2 ramps are built in the near term years, and the more complex ramps are built further out in time. This allows for a greater number of Tier 1 and Tier 2 ramps to be built sooner, while at the same time starting the design and ROW acquisition for ramps that can be built in the later years of the program.

The Transportation Commission has approved the piloting of an expedited ROW process. This process is being piloted on the state funded only, 225 ramp, Region 1 project, project 22022. This project was advertised on June 21, 2018, and is on schedule.

Another approach Region 1 is investigating, is to partner with local agencies such as the City and County of Denver to replace ADA ramps on CDOT facilities within city boundaries. Of the 8,800 ramps within Region 1 over 1,100 or 13.7% are in the City and County of Denver. Denver has a robust curb ramp transition program



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which has been approved by the Department of Justice. The structure of the IGA would need to be defined including payment schedules based on the schedule of ramp replacement.

CDOT ADA Ramps Within City and County of Denver					
CDOT Classification	Definition	Total	Total Within STP Project Limits	Total Along Interstates (I-25, I-70, I-225)	Total Not Within STP Project Limits or Along Interstates
RED	Urban, Ramp required but not existing, or running slope > 12.5%	360	135	46	179
ORANGE	Rural, Ramp required but not existing	0	0	0	0
GREEN	Urban, Ramp existing, running slope between 9% and 12.5%	678	246	63	369
TURQUOISE	Rural, Ramp existing, running slope between 9% and 12.5%	0	0	0	0
MAGENTA	Urban, Ramp existing, running slope between 5% and 9%, no turning space or no turning space data	569	213	74	282
YELLOW	Rural, Ramp existing, running slope between 5% and 9%, no turning space or no turning space data	0	0	0	0
GRAY	Urban or Rural, Ramp existing, running slope between 8.33% and 9%, with turning space	128	34	5	89
WHITE	Urban or Rural, Ramp existing, otherwise noncompliant	490	146	81	263
Compliant	Compliant according to 4 criteria: -Counterslope < 5% -Running Slope < 8.33% -Turning Space is compliant -Flush is compliant	622	N/A	N/A	N/A
Total Ramps in Need of Replacement		2,225	774	269	1,182

HDR hired by Region 1, mapped the ramps within Region 1 by ramp classification, current projects programmed in the next 5 years and program areas. Individual corridor maps have been developed to include right-of-way information and historical districts from available GIS information. This information is being used to analyze each location and determine if a new ramp is necessary and/or needs to be replaced. For example, a new ramp may be designated as necessary in the database but upon inspection that ramp is found to be in a location where there is a roadway shoulder without curb or pedestrian access and therefore the ramp would not be required.

Plan to Address Pre-Construction and Project Delivery

In conjunction with HDR, Region 1 has generated a database of ramps, categorized, and prioritized the ramps as previously stated. Currently, the Region 1 North Program is managing the ramp program, and has created the attached project list for fiscal years 2017 to 2022 to construct an estimated 2700 ramps.



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Late in 2017 CDOT selected Stanley Consulting and Short Elliot Hendrickson Inc. (SEH) for ADA curb ramp design and construction NPS contracts. The Region 1 North Program is currently utilizing HDR, Stanley, SEH, and internal staff to design and assemble ADA curb ramp projects. The program has quickly accelerated over the last year, and Region 1 has several hundred ramps designed, and being put into construction packages.

The Region 1 ADA Program management team continues to coordinate with all of the region programs. There are many ramps within Region 1 that fall within planned project limits. Although these ramps cannot be funded by the Region 1 ADA program, those ramps still need to be reconstructed to standard. The Region 1 North Program has been coordinating with the other programs to provide feedback on scoping, and design of those ramps.

The Region's approach is to continue to utilize HDR, Stanley, and SEH to supplement CDOT staff in the delivery of the Region 1 ADA Program ramps.

Plan for Proactively Addressing Clearances

Right-of-Way

Two areas of effort define the critical path of a program such as this: Right-of-Way and historical clearances. Region 1, with the assistance of HDR, spearheaded a project that led to the Transportation Commission enacting TC-18-01-16 in January 2018, authorizing CDOT to implement an innovative ROW process for curb ramp only projects.

A summary of the ROW Pilot Program is as follows: The traditional ROW acquisition process takes too long and costs too much money to purchase pocket easements for curb ramp replacements. The reality of most of these situations is the government pays landowners for relatively inconsequential property interests and upgrade existing pedestrian facilities, which in many cases is beneficial to their property. The Pilot ROW Program allows for a new faster and cheaper process. All landowners within a project are offered the same amount of money for the small property interest needed. The amount offered is more than the land owner would be offered under the traditional ROW process.

The new process is strictly voluntary. If landowners choose to participate, they sign a simple agreement and are paid the offered amount. By signing the agreement, they waive their rights under the traditional ROW process. The streamlined process can be completed in three months or less, as opposed to a year or more for the traditional ROW process, and it can save hundreds of thousands of dollars by eliminating costly administrative process steps, mainly by eliminating the need for a survey and right of way plans.

Region 1 has implemented the process on Project 22022 which is scheduled for advertisement in June 2018. The initial results are encouraging. The Region will expand the application of the ROW Pilot Program to more projects in FY 2019, which will provide a broader sample to evaluate the success of the ROW Pilot Program. The Transportation Commission is very interested in a report on the status of the ROW Pilot Program. Region 1 is currently the only Region actively implementing the ROW Pilot Program for specific projects, so its leadership in the Pilot Program is critically important to its success. If the Pilot ROW Program succeeds, it could serve as a national model for other DOTs with aggressive statewide curb ramp modification programs.

Historic



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CDOT has a Programmatic Agreement with the State Historic Preservation Office (SHPO) which allows the Region historian to sign off administratively on most ADA ramp projects. In the vast majority of cases, this review and sign off can be done without individual SHPO review and coordination (History Colorado).

If an existing sidewalk/ramp is being rebuilt, building a new one, or adding accessibility features, the Region Historian can sign off for the state/federal regulatory process for historic properties providing that a determination has been made that the project has little to no potential to affect historic properties, meaning for the most part that:

- The proposed ramps are located within existing rights-of-way, or only minor easements or additional rights of way are needed, AND
- The work is not within National Register eligible or designated districts (defined for the most part as properties that the SHPO has officially determined eligible previously or National Register designated historic properties)

There would be a few exceptions to this. Also, if the project includes additional scope items, such as resurfacing, bridge repairs, etc. the Region would have to evaluate those work items as well.

Innovative Delivery Approach

Region 1 is working with the HQ Innovative Contracting and the Construction Contracts units to create an IDIQ (Indefinite Delivery Indefinite Quantity) contracting mechanism to deliver curb ramps.

FY 2017 and FY 2018 Achievement Goals and Results - Results are in blue

FY 2017 and FY 2018 Region 1 Goals:

1. Have a minimum of one project under construction during FY-17 replacing over 300 ramps
 - a. Result - 64 Ramp ESB project advertised late 2017. First ramp was built June 6, 2018. As of June 22, 2018 over 50 ramps have been constructed.
 - b. Result - 225 Ramp project advertised June 21, 2018.
2. Have at least one ESB construction project under construction during FY-17 replacing a minimum of 25 to 30 ramps
 - a. Result - 64 Ramp ESB project under construction, time count began May 14, 2018.
3. Address the remainder of over 500 ramps in the red and orange categories for Right-of-Way and historical clearances, define projects, and prepare PS&E packages.
 - a. The overall plan is to address these ramps in the later years.
4. Address over 2,600 ramps in the subsequent categories beginning clearance process to be shelf ready when funding becomes available.
 - a. A program of projects has been built, and is attached.

FY 2019 Region 1 Achievement Goals:

1. Complete Design of and Construct One (1) 50 to 100 ramp ESB project.
2. Encumber the \$7.3 million planned amount as shown.
3. Begin construction of 400+ ramps (projects 22023 and 22580).



Anticipated Budget Expenditures for FY 2019

Our plan is to not only be able to replace and expend the programmed budget, but also be ready if additional funds become available. The North Program R1 ADA Program management team is currently building a “pool” of ramp designs. This allows for projects to be able to be put together quickly, as “extra” ramps are ready to go. The current total planned Region 1 budget remaining for FY 2019 is \$7.8 million. Each ramp is proving to cost between \$10,000 to \$17,500 per ramp for design, ROW, construction, etc. The costs vary depending on ROW acquisition, design complexity, tie-in quantities for curb and gutter, landscaping, etc. This will allow Region 1 to construct between 450 and 780 ramps with FY 19 money.

Proposed FY 2019 Funding:

2019	\$7,800,000.00	\$2,200,000.00				364	220
		\$2,390,000.00				523	239
		\$2,750,000.00				406	275
		\$500,000.00					50
		Totals	\$7,340,000.00	\$0.00	\$0.00		

Emerging Small Business (ESB) Restricted Project Requirements

Region 1 plans to provide opportunities and support the ESB community to have two construction packages awarded during the upcoming years. Project 22014, 64 ramp, ESB project was awarded to NORAA Concrete Construction Corp. for \$435,528.00 in late 2017. The total project cost is estimated at \$554,767.00. Region 1 has programmed another 50 ramp ESB project for advertisement in FY 2019. Region 1 plans to advertise a minimum of 1 ESB project per fiscal year, and is considering adding an additional ESB project in FY 2019.

Region 1 ADA Program - Funded Ramps

FY Ad Date	Programmed Funding	Estimated Project Cost	Planning Total	Encumbered as of this update	Spent as of this update	Pool of Ramps	Estimated Number of Ramps	# of Program Ramps Built (As of this update)	Assumed Design Duration	Target Start Design	Target Ad Date / Shelf	Region 1 Program - Design	Region 1 Program - Construct	Geographic Location / Notes	Project	Sub Account #	Design Team	ROW and Design Risk	Planned Delivery Method	Other Notes
	\$33,186,000.00		\$32,931,764.48	\$5,088,537.00	\$956,292.88		2702	52												
2017	\$600,000.00	\$500,000.00		\$500,000.00	\$363,275.42									21439 - Curb Ramp Program		21439				
		\$149,407.85		\$149,407.85	\$140,522.60										22006 - Curb Ramp Design		22006			
		Totals	\$649,407.85	\$649,407.85	\$503,798.02			0												
2018	\$4,600,000.00	\$1,484,362.15		\$1,484,362.15	\$452,494.86									22006 - Curb Ramp Design		22006				
		\$738,994.48		\$554,767.00	\$0.00		64	52	Complete	Done	Oct-17	Central	North	Region 1 Wide ESB Project	Project 1	22014				Time Count Started May 14, 2018 - 70 Working Days on Project, Contractor has Concrete Scheduled for June 6, 2018 to Pour First R1 ADA Program Ramp at Colfax and Boston. Ad Date - June 21, 2018 - On Schedule - Select Group of Ramps used for TC Approved Expedited ROW process
		\$2,430,000.00		\$2,400,000.00	\$0.00		225	0	8 mo. (No ROW)	Done	Jun-18	North	North	Region 1 Wide	Project 2	22022				
		Totals	\$4,653,356.63	\$4,439,129.15	\$452,494.86			52												
2019	\$7,800,000.00	\$2,200,000.00				364	220	0	8 mo. (No ROW)	Started	Sep-18	North	North	North and Northwest Metro	Project 3	22023		Low Risk	DBB	
		\$2,390,000.00				523	239	0	8 mo. (No ROW)	Started	Nov-18	North	South	Southeast Metro, Southwest Metro, Aurora	Project 4	22580		Low Risk	DBB	
		\$2,750,000.00				406	275	0	8 mo. (No ROW)	Apr-18	Dec-18	Central	Central	Denver (Maria is looking at an IGA w/Denver)	Project 6	TBD		Low Risk	IDIQ/IGA	
		\$500,000.00					50	0	12 mo. (Expedited ROW)	Started	Feb-19	North	North	ESB Project - Locations TBD Will align with Commission ROW locations	Project 5	22581	Myhoa Phan and Tim Wild	Low Design Risk/ Medium ROW Risk	DBB	
		Totals	\$7,340,000.00	\$0.00	\$0.00															
2020	\$8,736,000.00	\$2,700,000.00				541	270	0	18 mo. (Full ROW possible)	Jun-18	Dec-19	South	South	Southeast Metro, Southwest Metro, Aurora	Project 7	TBD	SEH / Stanley / CDOT	Low / Medium	IDIQ	
		\$3,240,000.00				384	270	0	18 mo. (Full ROW possible)	Jun-18	Dec-19	West	West	West and Southwest	Project 8	TBD	Consultant/CDOT	Low / Medium	IDIQ/DBB	
		\$2,820,000.00				253	235	0	18 mo. (Full ROW possible)	Jun-18	Dec-19	North	North	North and Northwest Metro & Bennet, Byers, Strasburg, DeerTrail	Project 9	TBD	Consultant/CDOT	Low / Medium	IDIQ/DBB	
		Totals	\$8,760,000.00	\$0.00	\$0.00															
2021	\$8,450,000.00	\$3,037,500.00				247	225	0	18 mo. (Full ROW possible)	Jun-19	Dec-20	West	West	West and Southwest	Project 10	TBD	Consultant/CDOT	Medium/ High	IDIQ/DBB	
		\$2,700,000.00				485	200	0	18 mo. (Full ROW possible)	Jun-19	Dec-20	Central	Central	Denver	Project 11	TBD	Consultant/CDOT	Medium/ High	IDIQ/DBB	
		\$2,700,000.00				446	200	0	18 mo. (Full ROW possible)	Jun-19	Dec-20	South	South	Southeast Metro, Southwest Metro, Aurora	Project 12	TBD	Consultant/CDOT	Medium/ High	IDIQ/DBB	
		Totals	\$8,437,500.00	\$0.00	\$0.00															
2022	\$3,000,000.00	\$1,066,500.00				354	79	0	18 mo. (Full ROW possible)	Jun-20	Dec-21	Central	Central	Denver	Project 13	TBD	Consultant/CDOT	Medium/ High	IDIQ/DBB	
		\$2,025,000.00				246	150	0	18 mo. (Full ROW possible)	Jun-20	Dec-21	South	South	Southeast Metro, Southwest Metro, Aurora	Project 14	TBD	Consultant/CDOT	Medium/High	IDIQ/DBB	
		Totals	\$3,091,500.00	\$0.00	\$0.00															

Notes: Draft 6-22-2018

- The "Estimated Number of Ramps" column is the estimated number of ramps that we think will expend the "Planning Total". It will be up to the individual project team to scope individual ramps from the "Pool of Ramps" column, and put together a project of the right size to expend the "Planning Total".
- The Region 1 North Program is available to assist with this scoping process, and selection from the, "pool of ramps".
- The ADA Program is Under Development. This is a planning level plan, and is subject to change.
- It is assumed that the Region 1 Programs have the first right of refusal for design of projects within their area and will work with other Region 1 Programs to assess if they would like to take the design, or if a Consultant will be used.
- Low Risk Ramps are estimated at \$12,000 per ramp for Construction, No Design or ROW \$12,000
- Medium Risk Ramps are estimated at \$13,500 per ramp for ROW and Construction, No Design \$13,500
- High Risk Ramps are estimated at \$17,500 per ramp for ROW and Construction, No Design \$17,500
- Cost Estimates are for all costs including Desing, ROW, Utilities, Construction, etc.
- The planned delivery method may change depending on a number of factors (DBB vs. IDIQ).