

Town of Newell  
Americans with Disabilities Act (ADA)  
Program Access Plan  
Public Right-of-Way



**PREPARED BY:**

Brosz Engineering, Inc.  
3561 Whitewood Service Road, Box 636  
Sturgis, SD 57785  
(605) 347-2722  
[www.broszeng.com](http://www.broszeng.com)



## Table of Contents

Background and purpose . . . . .	3
Program Access Plan. . . . .	3
Priorities . . . . .	5
Project Progression. . . . .	5
Comments. . . . .	7
Appendix A . . . . .	8 - 16
Appendix B . . . . .	17 - 23

**Background and Purpose:**

It was brought to the attention of the Town of Newell that their sidewalks and access to the sidewalks are not ADA compliant. In 1990 the US Congress passed the Americans with Disabilities Act (ADA). This sets responsibilities for communities to provide access for persons with disabilities.

The US Access Board, which is responsible for developing ADA standards, issued the original ADA Accessibility Guidelines in 1991 and updates them periodically. The guidelines were updated in 2010 with the “2010 ADA Standards for Accessibility Design”. This has been amended with the “Public Right-of-Way Accessibility Guidelines (PROWAG)”. PROWAG is a guideline, not a standard, which helps with sidewalk and ramp design for ROW accessibility.

**Program Access Plan:**

The Program Access Plan is based on a self-evaluation process. The purpose of the evaluation is to document any physical obstacles that may limit accessibility of facilities to individuals with disabilities. The evaluation involves the collection of data concerning ROW within the Town of Newell, which include curb ramps and sidewalks. Curb ramps will include correct slopes for the ramps and detectable warnings at street crossings. Also to be considered will be inaccessible pedestrian facilities in the plan unless the ADA recognizes an exception to the accessibility requirement.

The Town will work with the Federal Highway Administration (FHWA) to develop a plan for bringing the town facilities into compliance as they are the designated authority for implementation of the ADA. The FHWA responded to the Town of Newell in a letter dated January 23, 2020.

It was decided to use PROWAG to develop a plan to become compliant. PROWAG defines what is required and what is not required. It does not require pedestrian access routes unless pedestrian facilities are provided. If sidewalks are provided, they are required to be accessible to and useable by persons with disabilities.

The Town of Newell hired Brosz Engineering, Inc to conduct a survey of the sidewalks and intersections to determine the areas that would need upgrading to bring the Town into compliance. This survey was initiated in October of 2020. The sidewalks and ramps of

Highway 85 were not surveyed as these are the responsibility of the SDDOT. The results of the survey are as follows:

Of the roads in Newell, about half of the properties have sidewalks. The properties without sidewalks were not measured as properties with existing sidewalks and intersections are of interest.

An inventory of existing sidewalks and ramps was completed. All sidewalks were evaluated and rated by their condition. If a sidewalk would require no work, they were rated as "Good Condition". If a sidewalk was rated as "Update", that means it is in satisfactory condition but would probably need some work in a couple locations to fix joints that are offset by ½ inch or more. These were designated as tripping hazards. PROWAG identifies any offset of over ¼ inch as a problem for wheelchairs. If the sidewalk was deteriorated to a severe condition or if the joints were of a condition that every third joint or worse would be considered a tripping hazard, they were rated as "Replace Sidewalk". Several sidewalks have deteriorated to almost a gravel condition and would not be able to be used with wheelchairs.

There are 18,233 lineal feet of sidewalk that was measured and rated in the Town of Newell. Using the criteria as previously stated, there are 10,065 lineal feet which are recommended for replacement. This leaves 8,168 lineal feet that can be rated as "Update" or "Good Condition".

Also inventoried were the Ramps at the corners. There are 72 locations where sidewalks come into a corner. Of these, there are 28 that have existing ramps. Of these, 13 are of such poor quality or design that they should be replaced. 14 of the ramps should be upgraded with detectable warning plates or other items to make them meet standards. One ramp meets current standards.

The other 44 locations, which have no ramps, would need to be upgraded with ramps to bring them into compliance.

**Priorities:**

The current order of priorities are as listed:

1. Downtown – This is the region of Girard Ave. from 1st St. to 4<sup>th</sup> St.
2. 3<sup>rd</sup> Street – The targeted region would be from HWY 79 to Girard Ave.
3. Schools – This would include intersections around the schools and football field and any locations designated as school crossings.
4. Churches – This would include 4<sup>th</sup> St from Hwy 79 to Girard Ave and 6<sup>th</sup> St from Hwy 79 to Elmira Ave and north on Elmira.
5. Residential areas – any of the additional areas with sidewalks.

These regions are approximate and will be adjusted as per availability of funding. This is a long term plan and will require many construction seasons to complete. It is anticipated to do several small projects to not cause undo tax burden on the citizens of Newell.

**Project Progression:**

**Tentative ADA Ramp/Sidewalk Replacement Schedule**

Year	Street	Description
2022 - 2023	Girard Avenue	5 ADA Ramps and 628' Sidewalk
2024 - 2025	3 <sup>rd</sup> Street	7 ADA Ramps and 975' Sidewalk
2026 - 2027	4 <sup>th</sup> Street	5 ADA Ramps and 911' Sidewalk
2028 - 2029	6 <sup>th</sup> Street	5 ADA Ramps and 1,220' Sidewalk
2030 - 2032	Elmira Street	3 ADA Ramps and 2,518' Sidewalk
2033 - 2035	Fisk Avenue	11 ADA Ramps and 2,674' Sidewalk
2036 - 2037	Girard Avenue	4 ADA Ramps and 1,400' Sidewalk

The first project is projected to be Girard Ave from 1<sup>st</sup> St. to 5<sup>th</sup> Street. Construction could be in 2022-2023 timeframe. It would include upgrading of five curb ramps by installing detectable warning strips. Replacement or installation of six curb ramps. And replacement of 628 lineal feet of sidewalk.

The second project could be done in 2024 - 2025 and would upgrade sidewalks and ramps on 3<sup>rd</sup> street from Highway 79 to Girard Ave. It would include Ramp upgrades of a detectable warning strip on one ramp. Seven ramps would need to be replaced or constructed completely. And it would include replacement of 975 lineal feet of sidewalk.

The next project could be constructed in 2027-2027 and would include 4<sup>th</sup> street from south of the school to Fisk Ave. It would include installation or replacement of five ramps and putting a detectable warning strip on another ramp. It also would include replacement of 911 lineal feet of sidewalk.

The next project which could be in 2028-2029 would be 6<sup>th</sup> St. from Hwy 79 to Girard, 7<sup>th</sup> Street from Hwy 79 to Elmira, and Elmira north of 6<sup>th</sup>. It would include installation of five ramps and upgrading of two ramps with detectable warning plates. It also would include replacement of 1220 lineal feet of sidewalk.

The project for 2030-2032 would be Elmira from 3<sup>rd</sup> St. to 6<sup>th</sup> St. and 5<sup>th</sup> St from Hwy 79 to Fisk Ave. This would include upgrades of two ramps with detectable warning plates and replacement/ installation of two ramps. It also includes replacement of 1137 lineal ft of sidewalk. In addition it would include Elmira from 3<sup>rd</sup> St. to south of 2<sup>nd</sup> Street and 2<sup>nd</sup> street from Hwy 79 to Fisk Ave. It would consist of installation/ replacement of three ramps and updating of one ramp. It also would include replacement of 1381 lineal feet of sidewalk.

The 2033-2035 project would include Fisk Ave from 3<sup>rd</sup> St to 1<sup>st</sup> St., 1<sup>st</sup> St. from Elmira Ave. to Fisk Ave., and 2<sup>nd</sup> St from Fisk Ave to Girard Ave. This project would include construction of six ramps and updating of one ramp and replacement of 1278 lineal feet of sidewalk. In addition the project would include South Fisk from 1<sup>st</sup> St. to south of Ash, Ash St. west of Fisk and 1<sup>st</sup> St. from Fisk Ave to Girard Ave. This project would include construction of 5 ramps and replacement of 1396 ft of sidewalk.

The final project in 2036-2037 would include Girard Ave. south of 1<sup>st</sup> St. and Ash St. from S. Fisk to Girard Ave. This project would include construction of 4 ramps and replacement of 1400 Lineal feet of sidewalk.

This would accomplish the reconstruction and upgrading of ADA ramps and replacement of substandard sidewalks over a 16 year period following the guidelines given to Brosz Engineering. It was assumed all ramps installed or replaced would be diagonal ramps. This

would give a consistency throughout the town. Some additional easements may be needed to fit them into the locations.

**Comments:**

Along with wheelchair considerations are considerations for visually impaired persons. There are areas that trees, bushes, or signs infringe onto sidewalks. These are problems for blind people and should be addressed. The infringement problems may be remedied by City personnel or may be referred to the landowners to fix them. These can be handled on a case-by-case situation.

Following adoption of this plan by the Town of Newell and approval by FHWA, the scheduling of projects may begin. The list of priorities were as directed to Brosz Engineering and may be adjusted as public comment is received.

Public comments will be directed to the Council for the Town of Newell. A list of the Mayor and Council Members may be found on the website for the Town of Newell.

A map and summary of the regions surveyed are displayed in Appendix A. This includes the locations of sidewalks observed, and the locations of the ramps. The condition ratings of both sidewalks and ramps are color coded for reference.

A copy of the SDDOT standard for ramps are displayed in Appendix B. The two most common type of ramps were included, the Type 1 Curb Ramp (Perpendicular Curb Ramp) and the Type 3 Curb Ramp (Parallel Curb Ramp). The standards show the ramps in the radius of the road, but can also be constructed in line with the sidewalks.

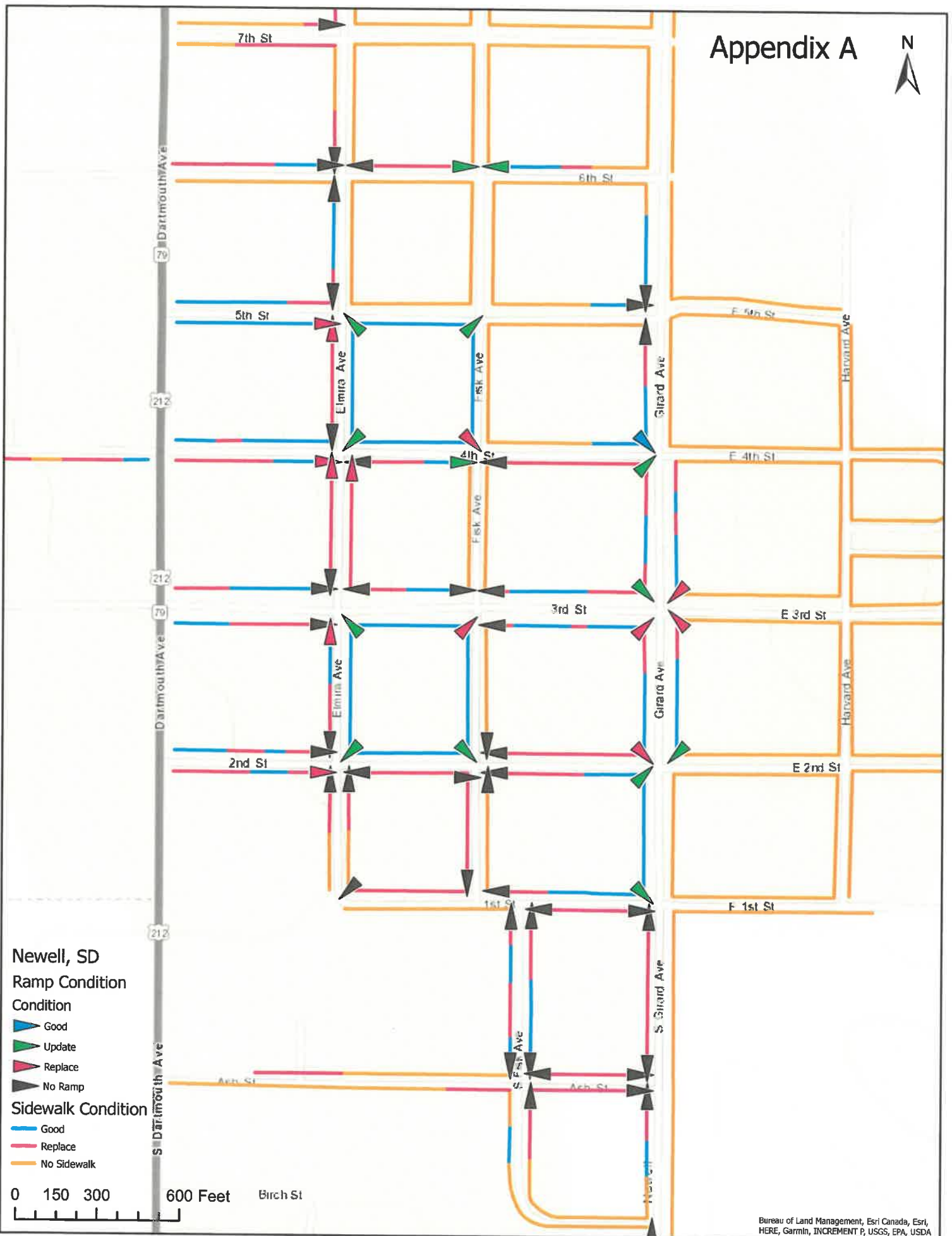
## Appendix A

### Map of Sidewalks and Ramps

#### Documented Locations of Sidewalks and Ramps



# Appendix A



**Town of Newell**  
**Sidewalk and Ramp Survey**  
**Elmira Ave.**

East Side		West Side	
8th St to 7th St.			
No sidewalk		Replace	77
		No ramp @ 7th	
7th St to 6th St			
No sidewalk		No ramp @ 7th	
		Replace	163
		No sidewalk	150
		No ramp @ 6th	
6th St to 5th St			
No Sidewalk		No Ramp @ 6th	
		Good Condition	317
		one section sunk due to ditch	15
		No Ramp @ 5th	
5th St to 4th St.			
Ramp needs plate		Sidewalk Slopes to Road	
Good Condition	320	Trip Hazzards	320
Upgrade Ramp		No Ramp @ 4th	
4th to 3rd			
Sidewalk Slopes to Road		Sidewalk Slopes to Road @ 4th	
Replace due to Trip Hazzards	345	Replace due to Trip Hazzards	300
		Good Condition	45
		No Ramp @3rd	
3rd to 2nd			
Non Standard Ramp Upgrade @ 3rd		Sidewalk Slopes to Road @ 3rd	
Good Condition	350	Good Condition	168
Non Standard Ramp Upgrade @ 2nd		Replace sidewalk	182
2nd to 1st			
No Ramp		No Ramp	
Replace Sidewalk	160	Replace Sidewalk	80
No Sidewalk	160	No Sidewalk	240

**Town of Newell  
Sidewalk and Ramp Survey**

**Fisk Ave.**

<b>East Side</b>		<b>West Side</b>	
5th St to 4th St.			
No Sidewalk		Upgrade Ramp	
		Good Condition	5
		No Sidewalk	320
		E/W sidewalk slopes to roadway	
4th to 3rd			
No Sidewalk		E/W sidewalk slopes to roadway	
		No Sidewalk	
		E/W sidewalk slopes to roadway	
3rd to 2nd			
No Sidewalk		Ramp needs Plate	
		Good Condition	350
		Ramp needs Plate	
2nd to 1st			
No Sidewalk		No Ramp	
		Replace due to trip hazzards	320
		No Ramp	
<b>S Fisk Ave</b>			
1st to Ash			
No Ramp		No Ramp	
Replace Sidewalk	171	Replace due to trip hazzards	105
OK Condition	55	OK condition	107
Replace Sidewalk	214	Replace Sidewalk	131
No Ramp		No Ramp	
Ash to Birch			
No Ramp		No Ramp	
Replace due to trip hazzards	215	No Sidewalk	126
No Sidewalk	100	OK Sidewalk	62
		No Sidewalk	131

**Town of Newell**  
**Sidewalk and Ramp Survey**  
**Girard Ave.**

<b>East Side</b>		<b>West Side</b>	
6th to 5th			
No Sidewalk	313	No Sidewalk	60
		OK Sidewalk	267
		Sidewalk Slopes to East	
5th to 4th			
No Sidewalk		No Ramp	
		Replace Sidewalk	140
		Good Condition	173
		Good Ramp	1
4th to 3rd			
No Ramp		Upgrade Ramp	
Replace Sidewalk	85	Replace Sidewalk	132
Good Condition	72	Good Condition	175
Replace Sidewalk	18	Replace Sidewalk	38
Good Condition	170	Upgrade Ramp	
Upgrade Ramp	1		
3rd to 2nd			
No Ramp		Replace Ramp	
Good Condition	60	Replace Sidewalk	60
Replace Sidewalk	75	Good Condition	285
Good Condition	126	Replace Ramp	
Replace Sidewalk	80		
No Ramp			
2nd to 1st			
No Sidewalk		Good Ramp	1
		Good Condition	315
		Good Ramp	1
1st to Ash			
No Sidewalk		No Ramp	
		Replace Sidewalk	440
		No Ramp	
Ash to Birch			
No Sidewalk		No Ramp	
		Replace Sidewalk	221
		Good Sidewalk	40
		No Ramp	

**Town of Newell  
Sidewalk and Ramp Survey**

**Girard Ave.**

<b>East Side</b>		<b>West Side</b>	
Birch South			
No Sidewalk		No Ramp	
		Replace Sidewalk	105
		No Sidewalk	180

**7th St.**

<b>North Side</b>		<b>South Side</b>	
Dartmouth to Elmira			
No Sidewalk	367	No Sidewalk	164
Replace Sidewalk	63	Replace Sidewalk	266
Sidewalk slopes to road		Sidewalk even with road	

**6th St.**

<b>North Side</b>		<b>South Side</b>	
Dartmouth to Elmira			
Replace Sidewalk	216	No Sidewalk	
Good Condition	139		
Replace Sidewalk	70		
Elmira to Fisk			
Replace Sidewalk	330	No Sidewalk	
Upgrade Ramp			
Fisk to Girard			
Upgrade Ramp			
Good Condition	131	No Sidewalk	
Replace Sidewalk	35		
No Sidewalk	255		

**Town of Newell  
Sidewalk and Ramp Survey**

**5th St.**

<b>North Side</b>		<b>South Side</b>	
Dartmouth to Elmira			
Good Condition	273	Good Condition	430
Replace Sidewalk	157		
Elmira to Fisk			
No Sidewalk		Non Standard Ramp	
		Good Condition	315
		Upgrade Ramp	
Fisk to Girard			
No Sidewalk	282	No Sidewalk	
Good Sidewalk	139		

**4th St.**

<b>North Side</b>		<b>South Side</b>	
Cornell to Dartmouth			
No Ramp		No Ramp	
Good Condition	438	No Sidewalk	60
No Ramp		Replace Sidewalk	73
		No Sidewalk	102
		Replace Sidewalk	163
		Good Condition	40
		No Ramp	
Dartmouth to Elmira			
Good Condition	124	Replace Sidewalk	324
Replace Sidewalk	93	OK Condition	106
OK Condition	214		
Elmira to Fisk			
Good Condition	320	Replace Sidewalk	258
		OK Condition	62
Fisk to Girard			
No Sidewalk	294	Replace Sidewalk	420
Good Condition	126		

**Town of Newell  
Sidewalk and Ramp Survey**

<b>3rd St.</b>			
<b>North Side</b>		<b>South Side</b>	
Dartmouth To Elmira			
Replace Sidewalk	167	OK Condition	134
OK Condition	254	Replace Sidewalk	287
Elmira to Fisk			
OK Condition	178	Good Condition	320
Replace Sidewalk	142		
Fisk to Girard			
Replace Sidewalk	66	Replace Sidewalk	88
OK Condition	253	OK Condition	124
Replace Sidewalk	167	Replace Sidewalk	58
		Good Condition	150
<b>2nd St.</b>			
<b>North Side</b>		<b>South Side</b>	
Dartmouth to Elmira			
Good Condition	137	Replace Sidewalk	212
Replace Sidewalk	146	Good Condition	40
Good Condition	59	Replace Sidewalk	183
Replace Sidewalk	93		
Elmira to Fisk			
Good Condition	325	Replace Sidewalk	325
Fisk to Girard			
Replace Sidewalk	422	Replace Sidewalk	212
		OK Condition	210
<b>1st St.</b>			
<b>North Side</b>		<b>South Side</b>	
Elmira to Fisk			
Replace Sidewalk	324	No Sidewalk	
Fisk to Girard			
Replace Sidewalk	87	No Sidewalk	113
Good Condition	338	Replace Sidewalk	312

**Town of Newell  
Sidewalk and Ramp Survey**

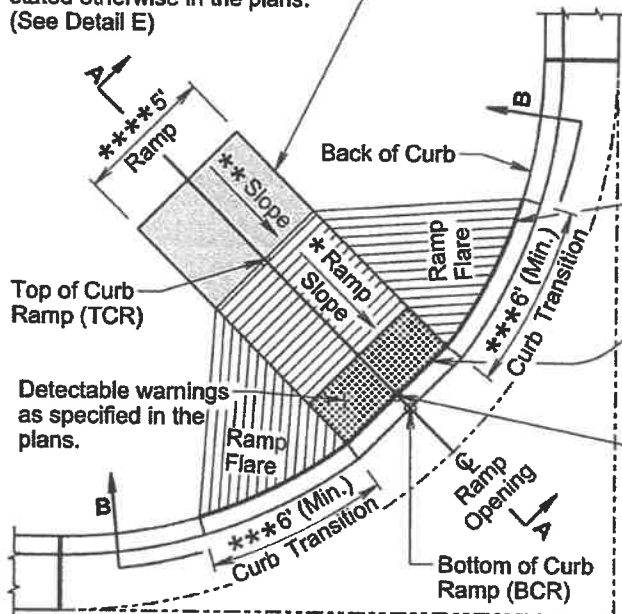
<b>Ash St</b>			
<b>North Side</b>		<b>South Side</b>	
Dartmouth to Elmira			
Gas Station		No Sidewalk	
Replace Sidewalk	87		
Elmira to Fisk			
Replace Sidewalk	87	No Sidewalk	442
No Sidewalk	442	Replace Sidewalk	87
Fisk to Girard			
Replace Sidewalk	317	Replace Sidewalk	317



## Appendix B

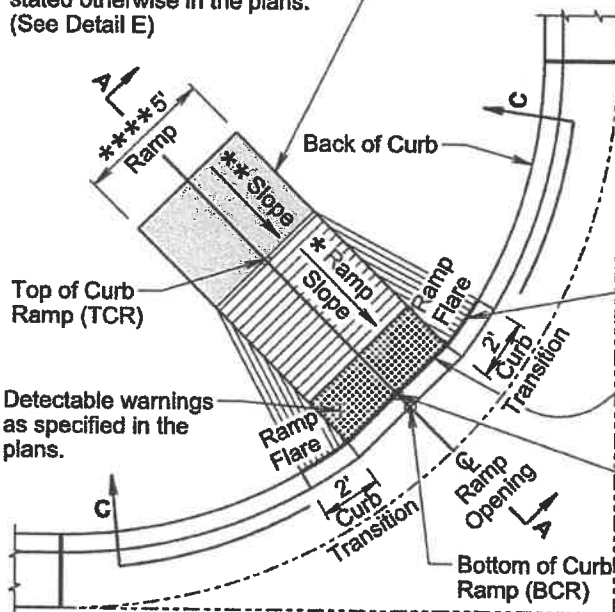
### Standard Plates for Ramps

The turning space is 5'x5' unless stated otherwise in the plans.  
(See Detail E)



**PLAN VIEW**  
(With 6'+ Curb Transition)

The turning space is 5'x5' unless stated otherwise in the plans.  
(See Detail E)

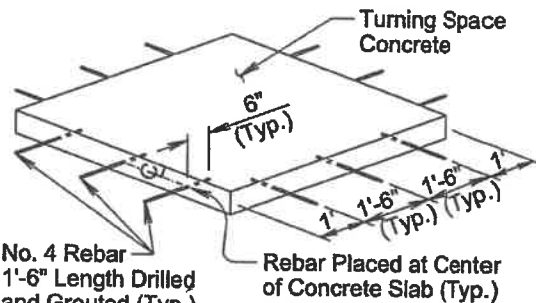


**PLAN VIEW**  
(With 2' Curb Transition)

1/2" Preformed Expansion Joint Filler (See specifications and standard plate 651.75)

The edge of the curb and gutter concrete adjacent to the type 1 detectable warnings will be straight, but may be curved when using type 2 detectable warnings.

Reference point for location of curb ramp as shown in the plans.



### DETAIL E

#### ISOMETRIC VIEW

(If turning space concrete is placed monolithic with surrounding concrete, then this detail is not necessary.)

1/2" Preformed Expansion Joint Filler (See specifications and standard plate 651.75)

The edge of the curb and gutter concrete adjacent to the type 1 detectable warnings will be straight, but may be curved when using type 2 detectable warnings.

Reference point for location of curb ramp as shown in the plans.

February 14, 2020

Published Date: 1st Qtr. 2021

**S  
D  
D  
O  
T**

## TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)

PLATE NUMBER  
**651.01**

Sheet 1 of 3

Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% and will not exceed 15' in length unless stated otherwise in the plans.

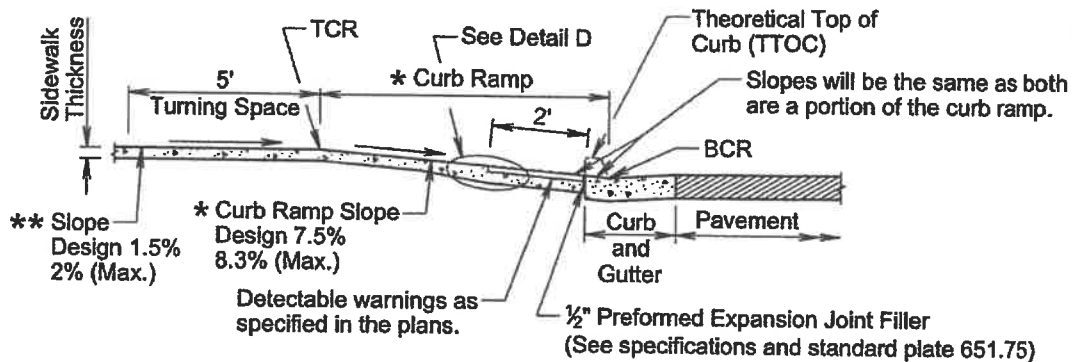
- \* The curb ramp length may be computed based on the intersection of a continuous 1.5% theoretical slope from theoretical top of curb (TTOC) with the curb ramp using a continuous 7.5% curb ramp slope. The elevation of point TCR will always be higher than the elevation of point TTOC unless specified otherwise in the plans. The curb ramp length dimension as shown in the plans will be adjusted as necessary to meet all slope and length requirements based on field geometrics.

The cross slope of the ramp will not be steeper than 2%. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

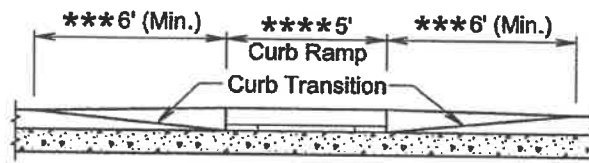
- \*\* The slope in the turning space will not be steeper than 2% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

- \*\*\* The curb transition will be a minimum of 6' long, a maximum of 10' long, and the curb transition slope will not be steeper than 10% unless stated otherwise in the plans. The curb transition length will be adjusted as necessary to meet slope and length requirements based on field geometrics.

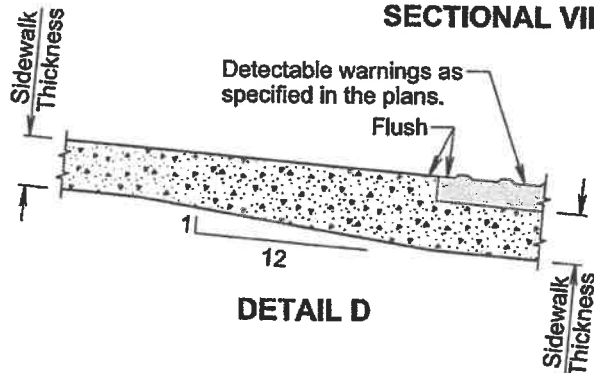
- \*\*\*\* The ramp width is 5' unless stated otherwise in the plans.



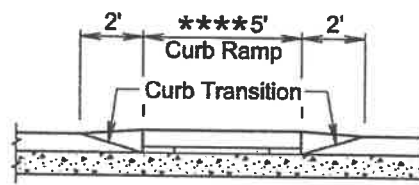
**SECTION A-A**



**SECTIONAL VIEW B-B**



**DETAIL D**



**SECTIONAL VIEW C-C**

February 14, 2020

Published Date: 1st Qtr. 2021

**S  
D  
D  
O  
T**

**TYPE 1 CURB RAMP  
(PERPENDICULAR CURB RAMP)**

**PLATE NUMBER  
651.01**

Sheet 2 of 3

**GENERAL NOTES:**

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, PCC fillet sections are shown in the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or curb and gutter.

For illustrative purpose only, the curb ramp location is shown at the center of a PCC fillet section. The curb ramp will be placed at the location stated in the plans.

Sidewalk will not be placed adjacent to the curb ramp flares when a 2-foot curb transition is used unless shown otherwise in the plans.

- \* Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings will be included in the measured and paid for quantity of sidewalk.

If rebar is placed in the turning space as depicted in detail E, the cost of the materials, labor, and equipment to furnish and install the rebar will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

February 14, 2020

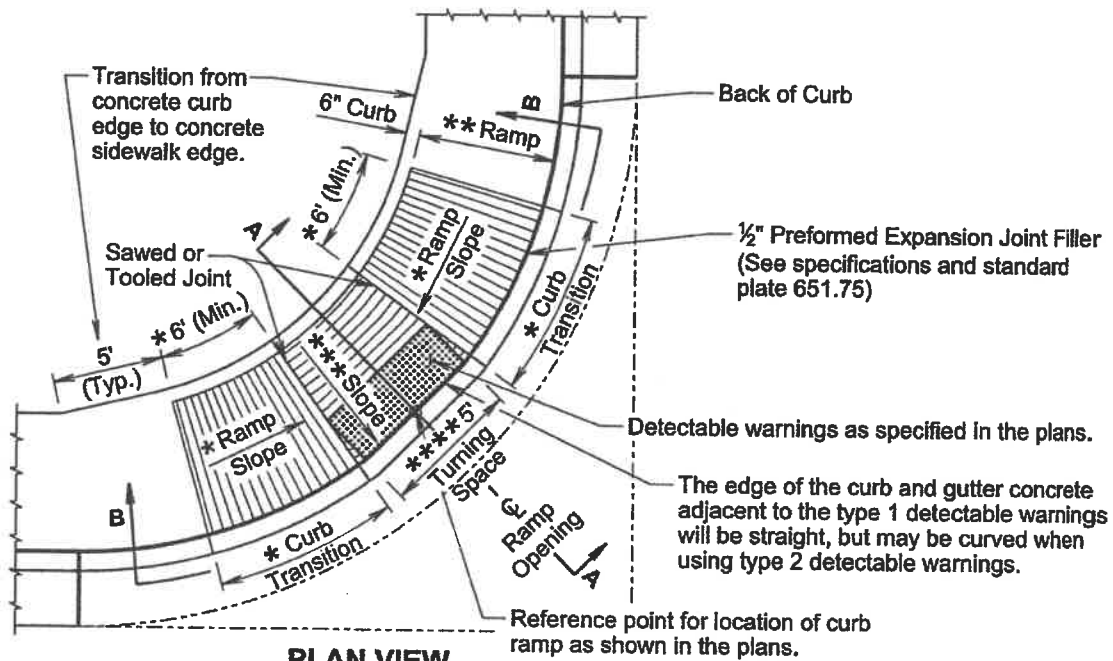
*Published Date: 1st Qtr. 2021*

**S  
D  
D  
O  
T**

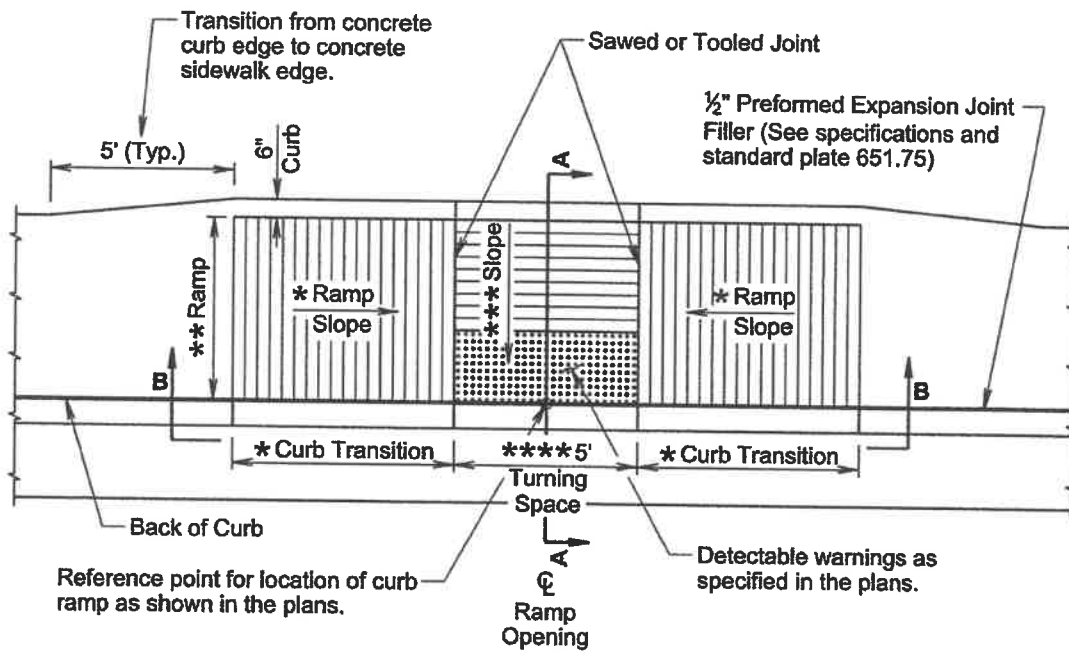
**TYPE 1 CURB RAMP  
(PERPENDICULAR CURB RAMP)**

**PLATE NUMBER  
651.01**

*Sheet 3 of 3*



**PLAN VIEW**  
(With Curved Curb and Gutter)



**PLAN VIEW**  
(With Straight Curb and Gutter)

Published Date: 1st Qtr. 2021

**S  
D  
D  
T**

**TYPE 3 CURB RAMP  
(PARALLEL CURB RAMP)**

February 14, 2020

**PLATE NUMBER  
651.03**

Sheet 1 of 3

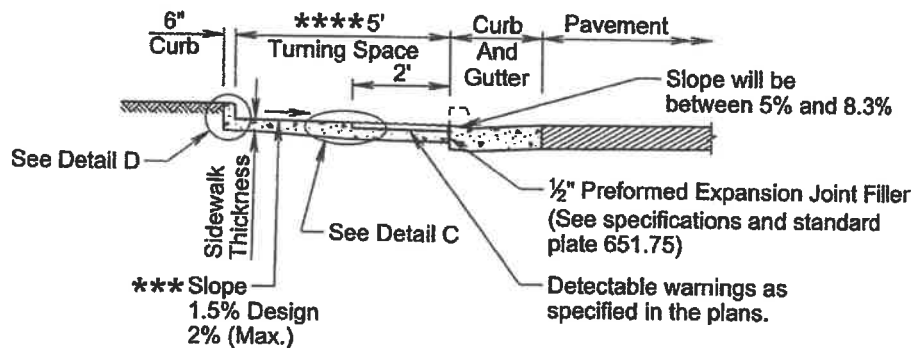
\* The curb transition slope will match the curb ramp slope. Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% at any location of the curb ramp and will not exceed 15' in length unless stated otherwise in the plans. The curb transitions and curb ramp lengths will be adjusted as necessary to meet all slope and length requirements based on field geometrics.

\*\* The cross slope of the ramp will not be steeper than 2% and the ramp width is 5' unless stated otherwise in the plans. Plans are designed using a 1.5% cross slope for the ramp unless stated otherwise in the plans.

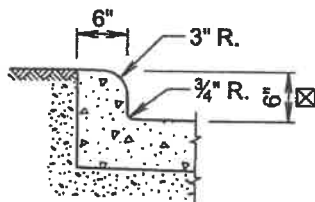
\*\*\* The slope in the turning space will not be steeper than 2% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

\*\*\*\* The turning space is 5'x5' unless stated otherwise in the plans.

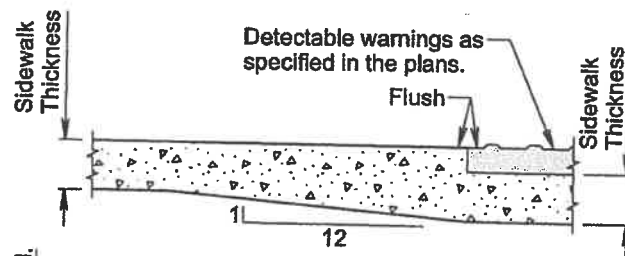
☒ The curb height will be 6" unless stated otherwise in the plans.



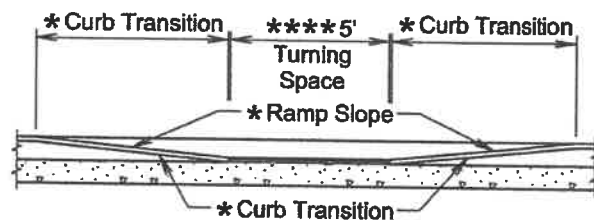
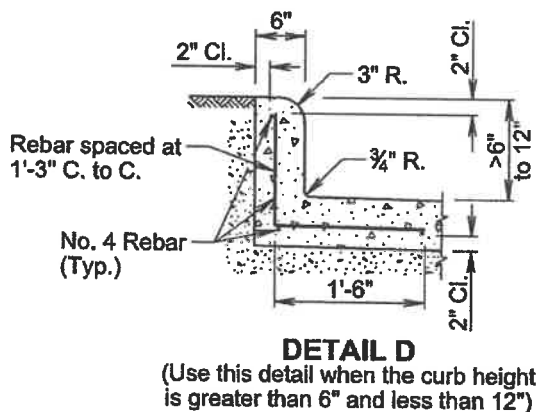
SECTION A-A



DETAIL D



DETAIL C



SECTIONAL VIEW B-B

February 14, 2020

Published Date: 1st Qtr. 2021

S  
D  
O  
T

TYPE 3 CURB RAMP  
(PARALLEL CURB RAMP)

PLATE NUMBER  
651.03

Sheet 2 of 3

**GENERAL NOTES:**

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, a PCC fillet section is shown in one of the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or with curb and gutter.

The curb ramp will be placed at the location stated in the plans.

Sidewalk adjacent to the curb ramp will be as shown in the plans.

Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking (see plan view for joint location).

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

When curb height is greater than 6" and less than 12", reinforcing steel is required in accordance with the detail on sheet 2 of 3. The reinforcing steel will conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings and the curb along the short radius will be included in the measured and paid for quantity of sidewalk.

The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

February 14, 2020

*Published Date: 1st Qtr. 2021*

**S  
D  
D  
O  
T**

**TYPE 3 CURB RAMP  
(PARALLEL CURB RAMP)**

**PLATE NUMBER  
651.03**

*Sheet 3 of 3*