Unit 9 Lesson 1: Introduction to Curb Ramp Inspection Forms

Course Navigation Tips:

- **To complete each lesson, you must interact with the audio narration at the top of each section.**
- **You may drag the toggle on the playback bar to the last 5 seconds and let it play. This will allow the system to note it as complete.**
- **You are encouraged to complete the entire unit before closing in case your progress is not saved.**

You must click on all images before moving on to next Lesson.

02:25

Start Audio Narration

When to Use Curb Ramp Inspection Forms

Any time a curb ramp is **CONSTRUCTED ON OR ALONG STATE HIGHWAYS**, including:

- Maintenance projects
- Permitted development (District maintenance projects)
- STIP projects
- Local Agency projects
- Jurisdictional transfers of roadway facilities

The curb ramp inspection form is required for any ramp constructed on or along state highways. It can also be required for ramps constructed elsewhere. If in doubt – complete the form, and coordinate with your Local Public Agency (LPA) Liaison.

An important note about ADA Curb Ramp Inspection

It is imperative that the integrity of the ODOT asset information for curb ramp and push buttons is maintained. ODOT ADA Curb Ramp Inspection forms are special pdf forms designed to collect detailed data for uploading onto ODOT's curb ramp asset inventory platform. For this reason, it is essential that the information that you provide on the form is complete AND accurate. Incomplete or incorrect forms will be returned for re-submittal.

Curb Ramp Inspection Form Criteria versus Contract Plans

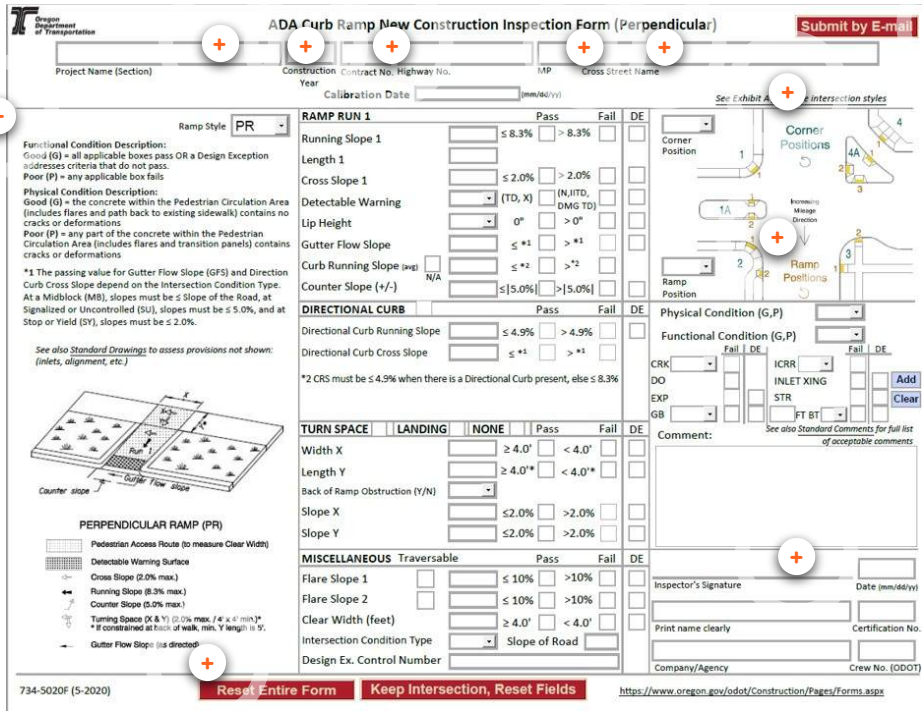
The curb ramp inspection form bases its calculations on minimum ODOT requirements. The contract plans usually provide curb ramp detail sheets with design dimension and slope values for each curb ramp meeting or exceeding minimum standards. The curb ramps are to be built with the values in the contract plans.

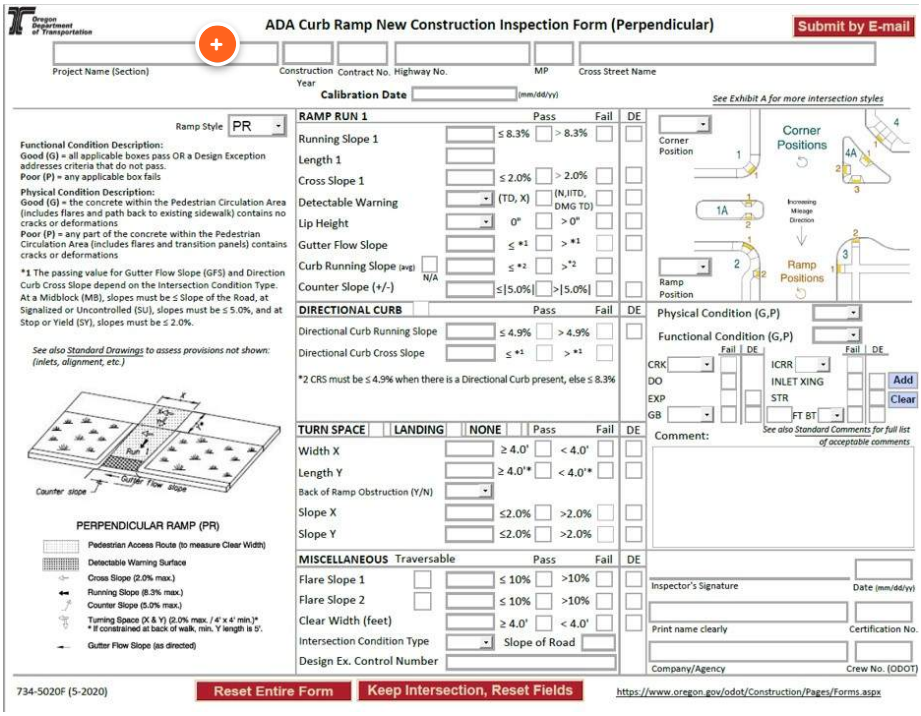
Construction of ramps should always be per the contract plans.

Grades and distances shown in the plans are the controlling criteria for construction and not the maximum allowable criteria shown on the inspection forms.

Inspection Form Activity

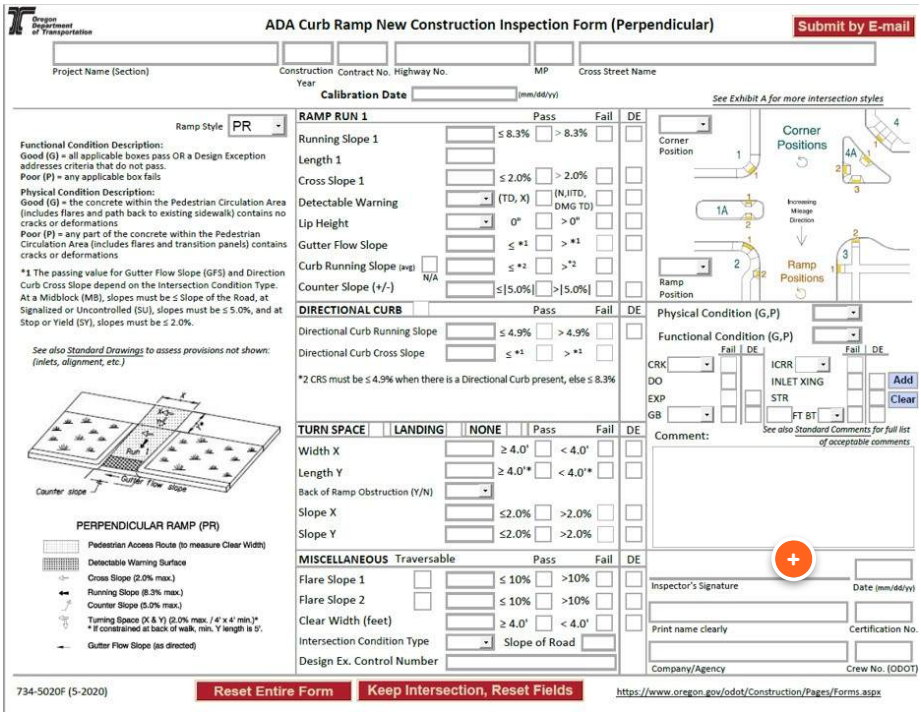
Click on each of the plus signs to become familiar with the Curb Ramp Inspection Forms.





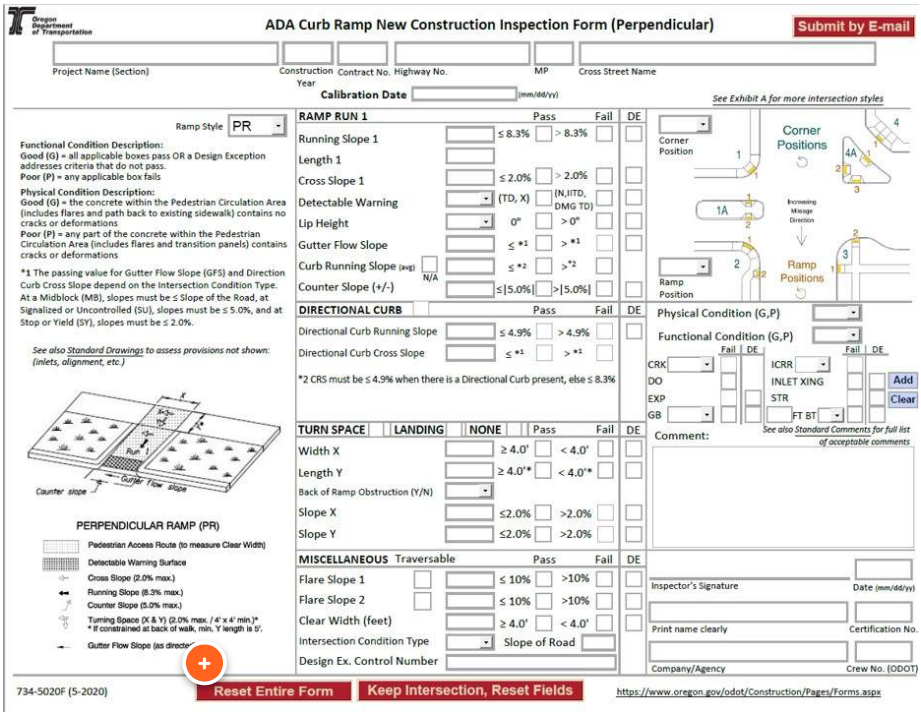
Construction Year

Make sure to review the Special Provisions and the contract plans. Do not put the year you are conducting the inspection, but rather the year the ramp was constructed.

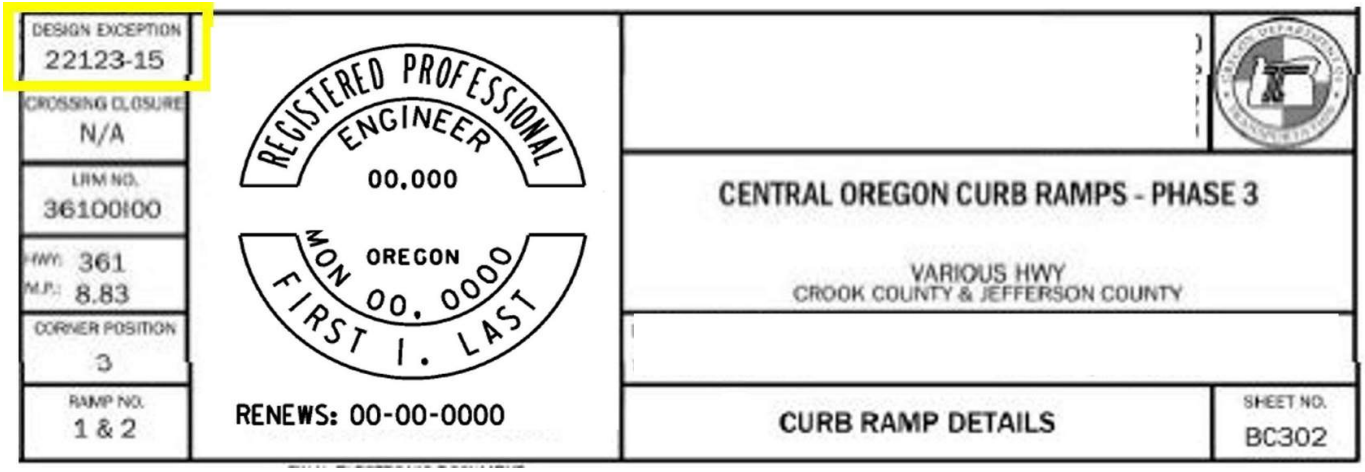


Inspector's Signature

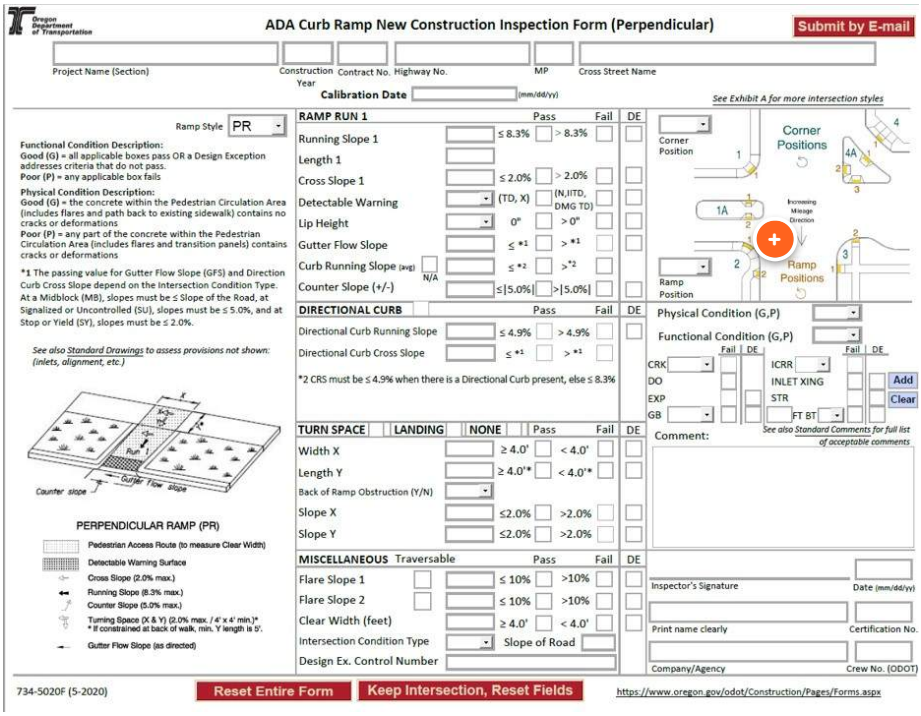
You must be a certified inspector with an active certification to complete and submit the form. An inspector's signature is not needed when the form is submitted electronically. You do need to provide your Certification Number, Company/Agency and name, spelled exactly how you provided it on the certification submittal.



Design Exception (DE) Control Number

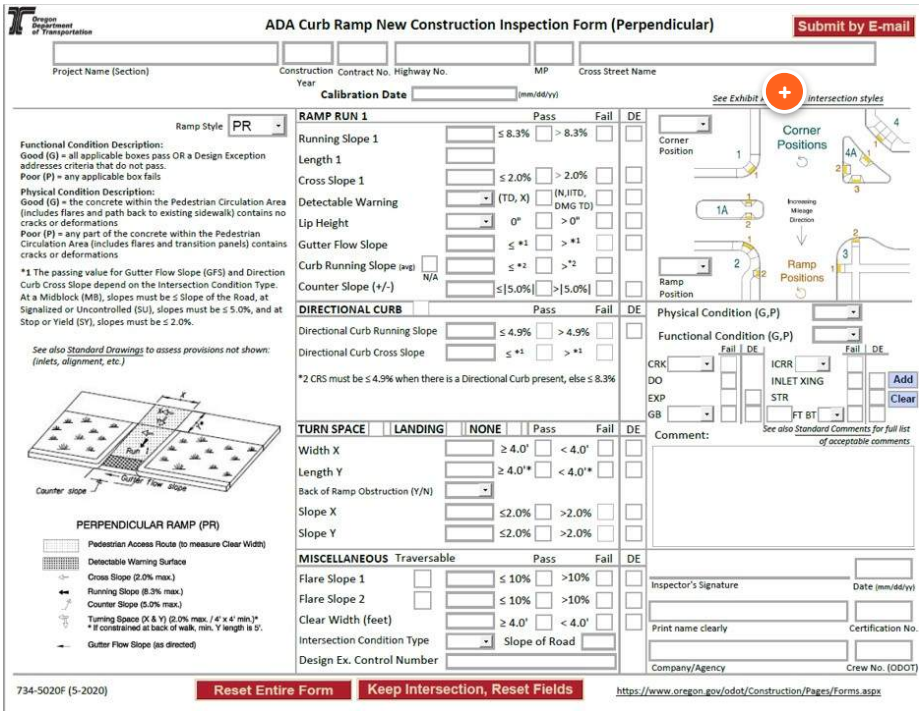


Design Exception (DE) control numbers are found in the title block on the contract plans. Once the Design Exception (DE) box is checked, the form will prompt you for the Design Exception (DE) Control number and Design Value. The form will then update the element's Pass/Fail box based on the design tolerance laid out in RD19-02(B).



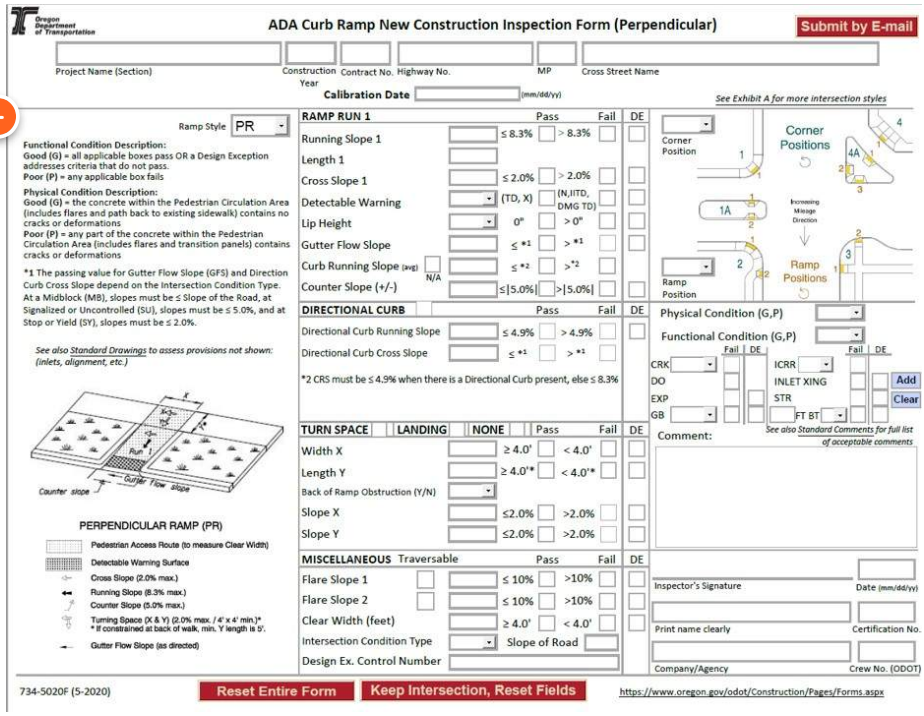
Ramp Position

All curb ramps are assigned a number following a curb ramp numbering assignment convention. Refer to Unit 3.



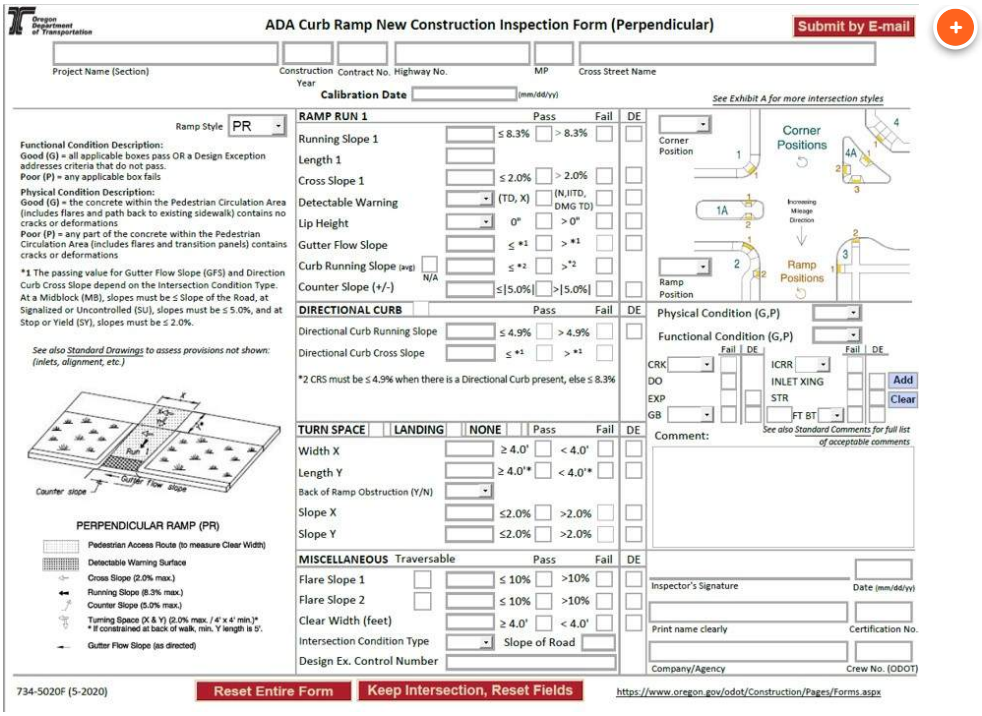
Corner Position

All corners are assigned a number following a corner numbering assignment convention. Refer to Unit 3.



Ramp Style

There are 8 versions of the Curb Ramp Inspection Forms: 7 for each curb ramp style and one for crosswalk closures and ramp removals.

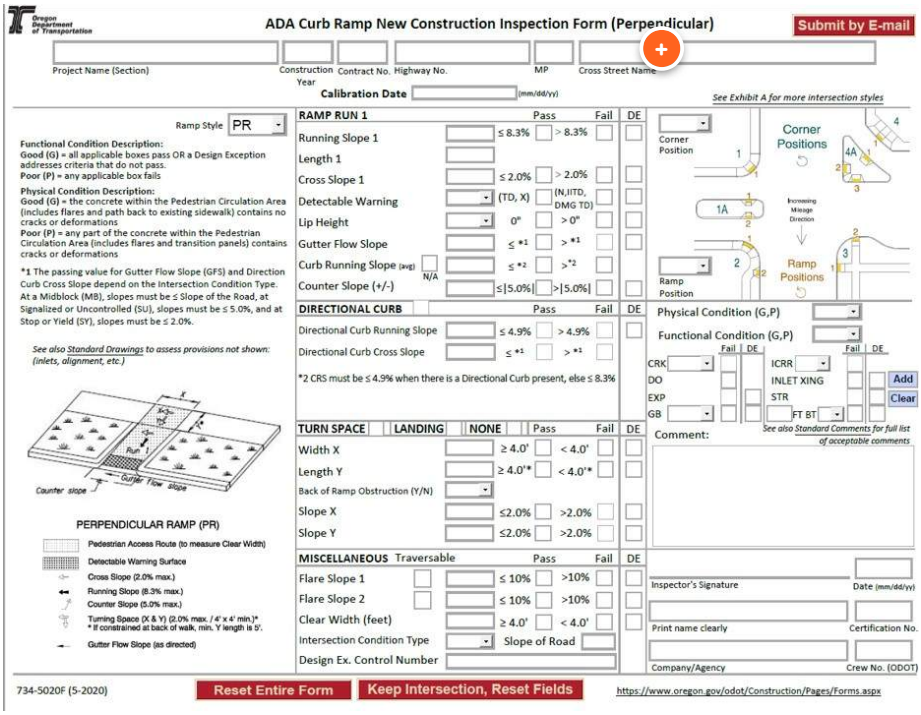


Submit by E-mail

Submit by email button must be used when inspecting on a tablet or when filling out the forms after inspection in the office. Submitting by email sends the inspection form to the ODOT Standard Inbox at ODOTStandards@odot.state.or.us.

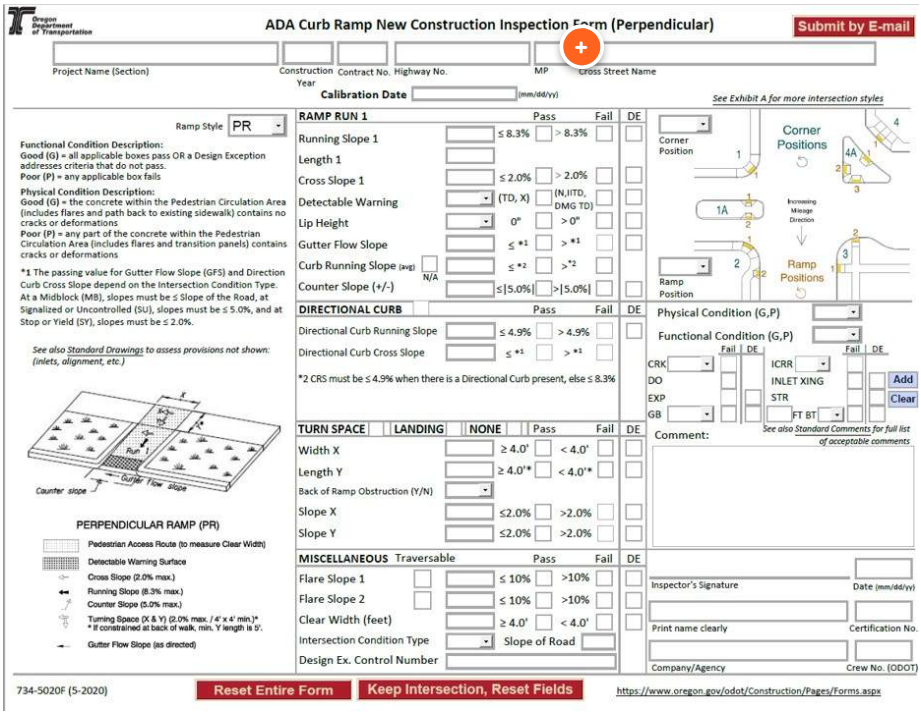
If you are having issues with the submit by email button, you may attach a pdf version of a form in an email to the ODOT Standard Inbox. Only one inspection form per email.

Only submit completed and passing inspection forms.

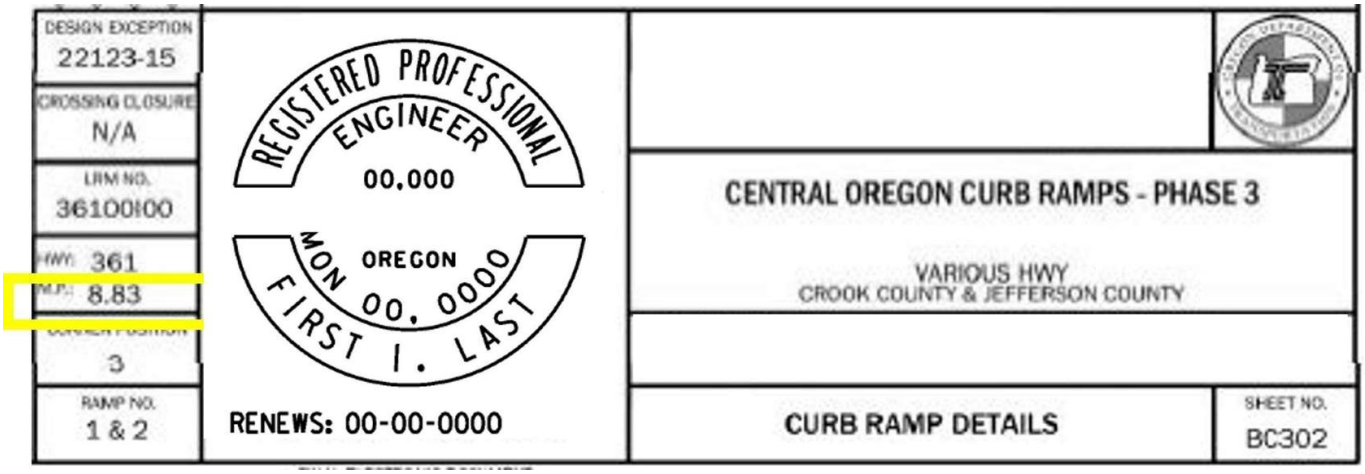


Cross Street Name

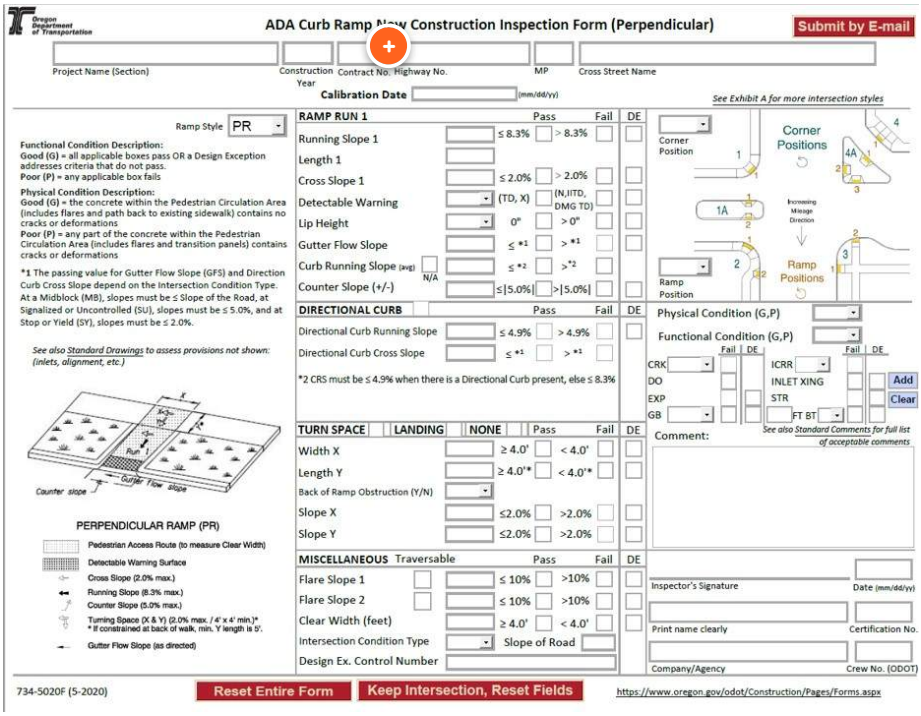
It is important to have the correct spelling of the cross-street name for the inventory. The correct street name is available in FACS-STIP.



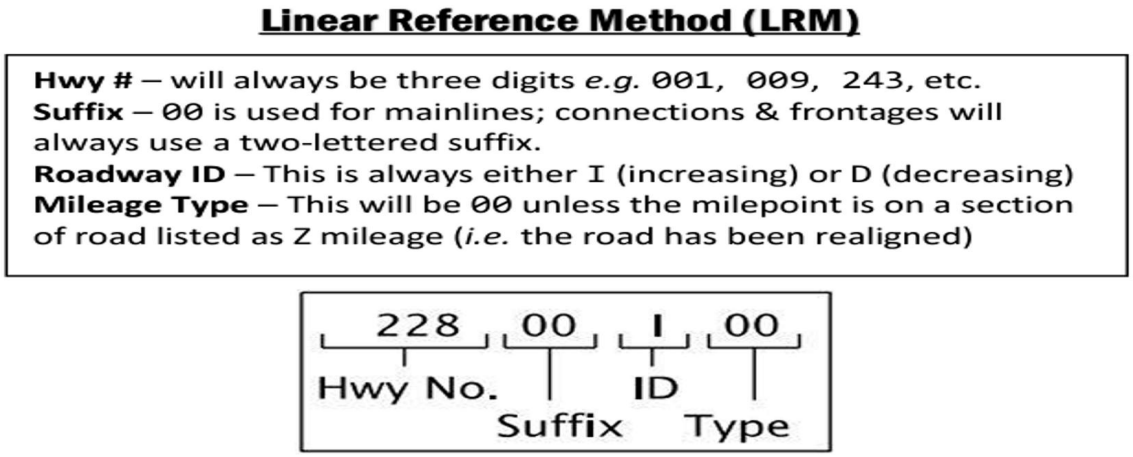
Mile Point (MP)



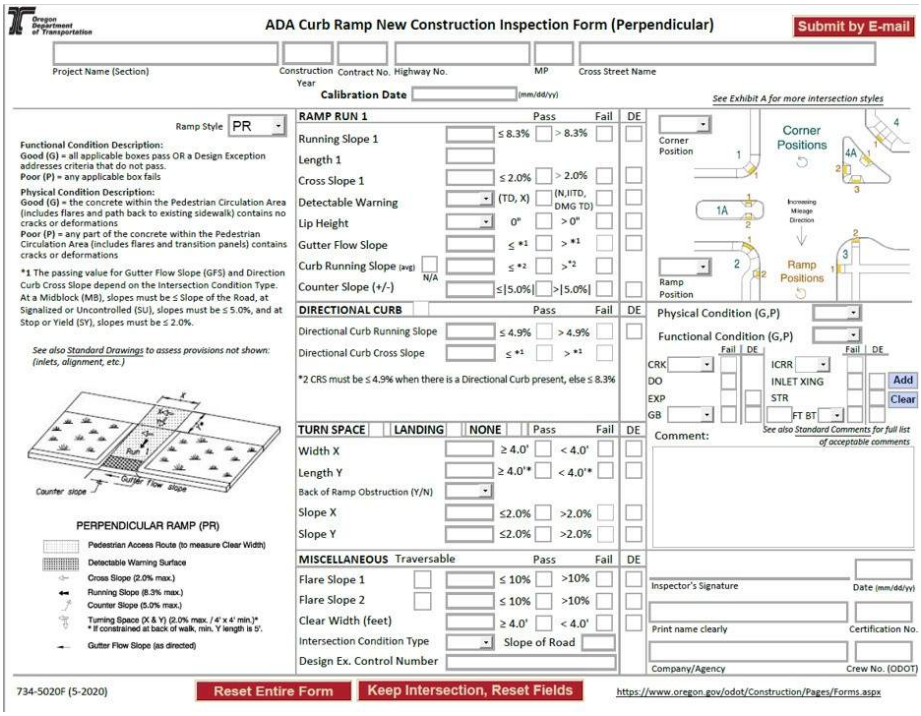
When you are identifying the mile point, report it to the hundredth. For example, 123.45.



Highway Number

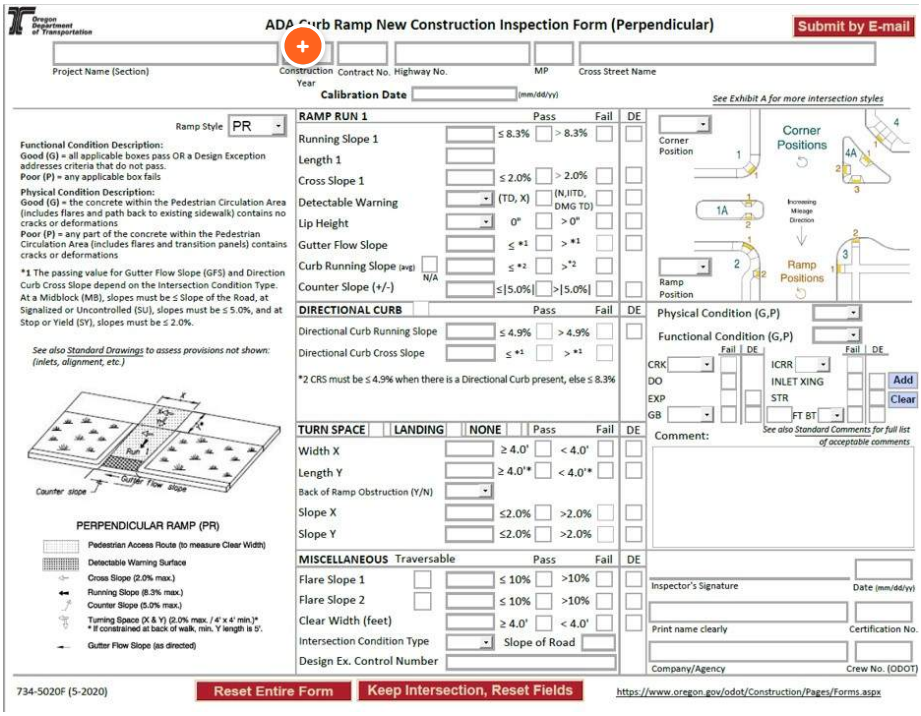


The Highway Number will be in ODOT's Linear Reference Method (LRM) format. The format is ###XXYZZ. For example, 36100I00 includes the ODOT Highway Number, 361, and suffix, 00, because we are on the highway mainline. The roadway ID is either Increasing (I) or Decreasing (D). When both directions of travel are on the same alignment, the default is (I). The mileage type is the default value of (00) because there is no overlapping Z mileage at this location.

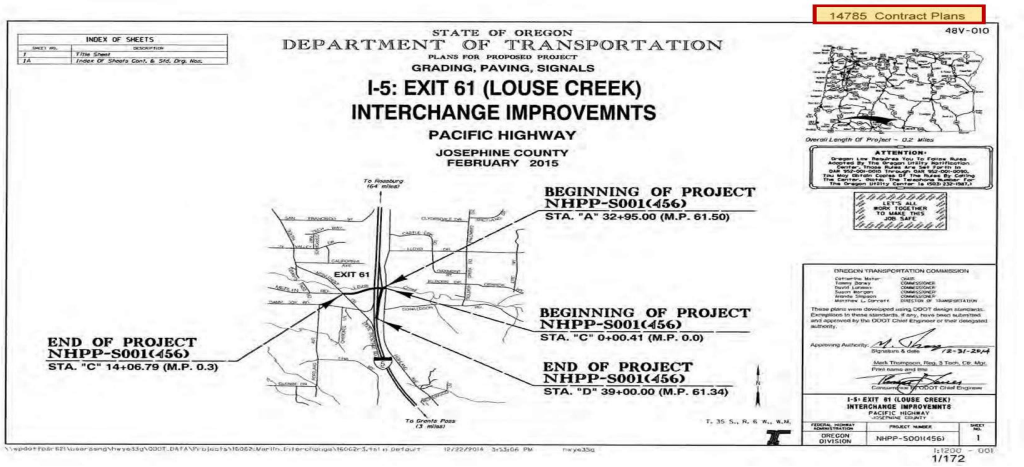


Project Name

This is the project name used on the contract plans and on the cover of the Special Provisions.



Contract Number



The contract number (CXXXXX) should be on the top right-hand corner of each page of the contract plans. It can also be found on the front of the special provisions. For maintenance projects enter the B number and for permit projects enter the P number.

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01:24

Continue Audio Narration

Ramp Styles

There are 8 different Curb Ramp Inspection Forms.

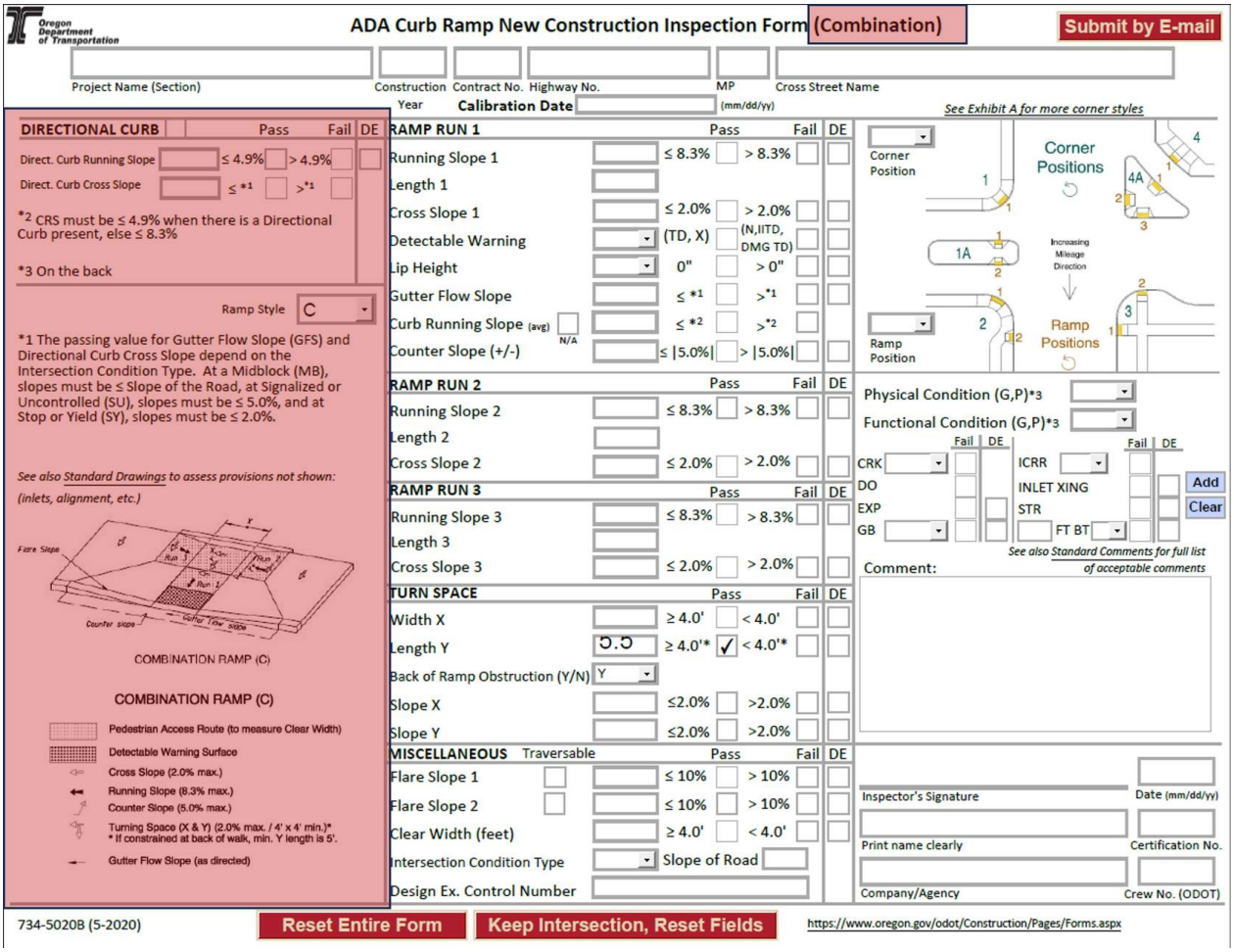
One for each of the seven curb ramp styles:

1. Perpendicular
2. Parallel
3. Combination
4. Cut Through
5. End Of Walk
6. Blended Transition
7. Unique Design

And the 8th is a Curb Ramp Inspection Form for Curb Ramp Closures and Removals.

In addition to the eight curb ramp inspection forms, there are two forms that are used to inspect pedestrian push buttons. These forms will be covered in Unit 10.

Each of the curb ramp inspection forms have a column on the left-hand side unique to each curb ramp style. You can also distinguish which form you are using by checking for the name in the title on the inspection form. The other columns in the form are generally the same for all seven curb ramp inspection forms.



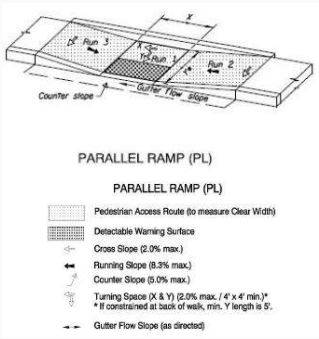
Highlighted sections of Curb Ramp Inspection form that are unique to the 7 types of ramps.

Flashcard Activity

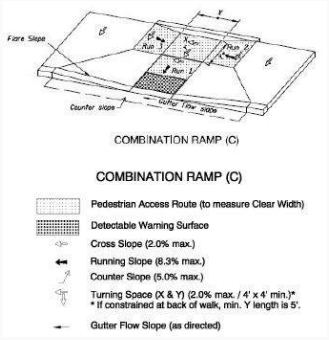
Review the curb ramp styles. Click on the Flashcards to flip them over to see an image that corresponds with each Ramp Style. There are 8 flashcards, one for each type of Curb Ramp Inspection Form. You must view all of them before you can move on.

Perpendicular (PR)

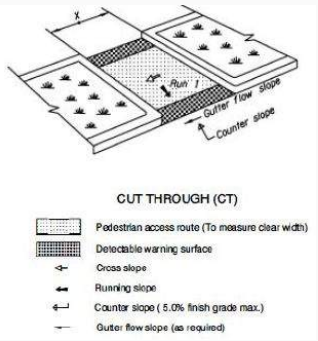
Parallel (PL)



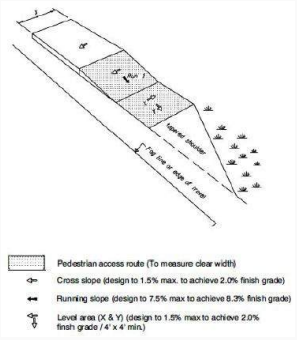
Combination (C)



Cut Through Island (CT)

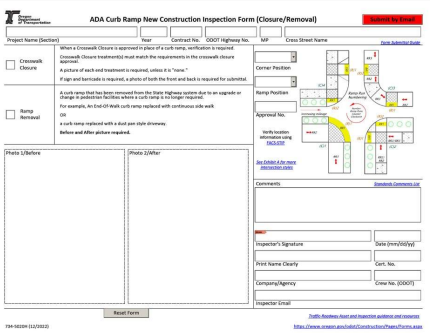


End of Walk (EW)



7 of 8

Closure/Removal


ADA Curb Ramp New Construction Inspection Form (Closure/Removal)

8 of 8

01:14

Continue Audio Narration

Common Sections on the Inspection Forms

Each of the forms have common sections. The sections may have different inputs based on the curb ramp style. They are:

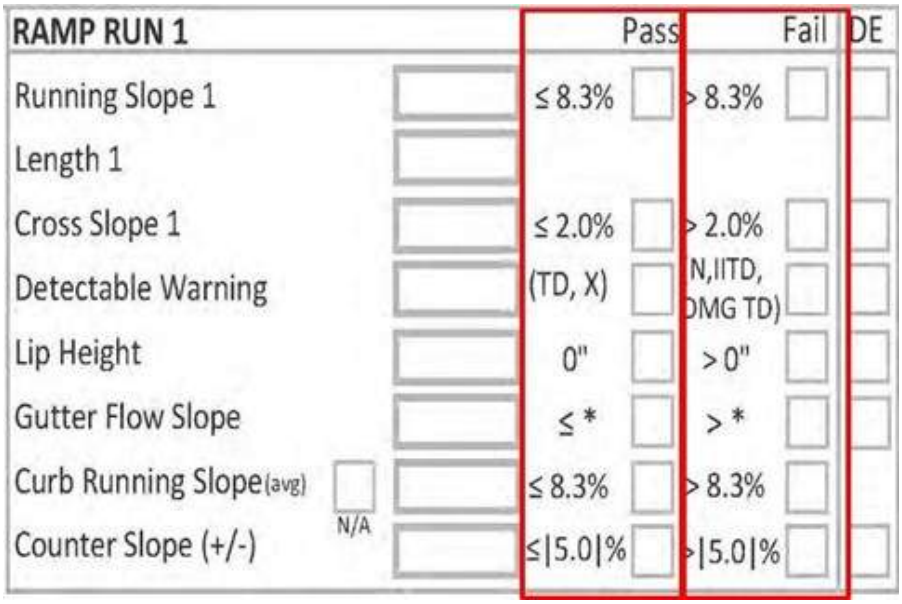
- Contract, Location Information and Calibration
- Corner Positions
- Physical and Functional Condition
- Ramp Runs

- Turn Space and Landings
- Miscellaneous Measurements
- Standard Comments and Inspector Sign-off
- Photos

Each will be discussed in detail in the following lessons.

Pass, Fail and DE Boxes in the Form

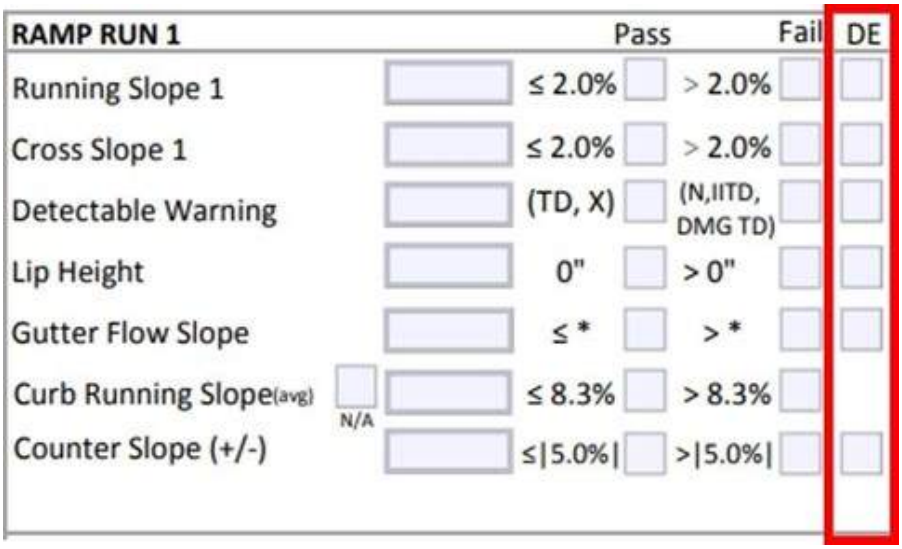
When a measured value is entered into the field in the form, a check will automatically appear in either the pass or fail column.



RAMP RUN 1			Pass		Fail	DE
Running Slope 1			≤ 8.3%		> 8.3%	
Length 1						
Cross Slope 1			≤ 2.0%		> 2.0%	
Detectable Warning			(TD, X)		N,IITD, DMG TD)	
Lip Height			0"		> 0"	
Gutter Flow Slope			≤ *		> *	
Curb Running Slope (avg)		N/A	≤ 8.3%		> 8.3%	
Counter Slope (+/-)			≤ |5.0|%		> |5.0|%	

The Pass and Fail Columns on the Curb Ramp Inspection Forms

Note that this may change if there is a Design Exception. If a Design Exception check box is clicked, you will be prompted to enter a Design Exception Control Number and Value. This will be discussed further in Lesson 4 of this Unit.



Design Exception Check Box

Review all figures, complete all activities and advance audio to the end before moving on.

A lesson quiz is on the next screen.

CONTINUE

Unit 9 Lesson 2: Contract, Location Information and Calibration

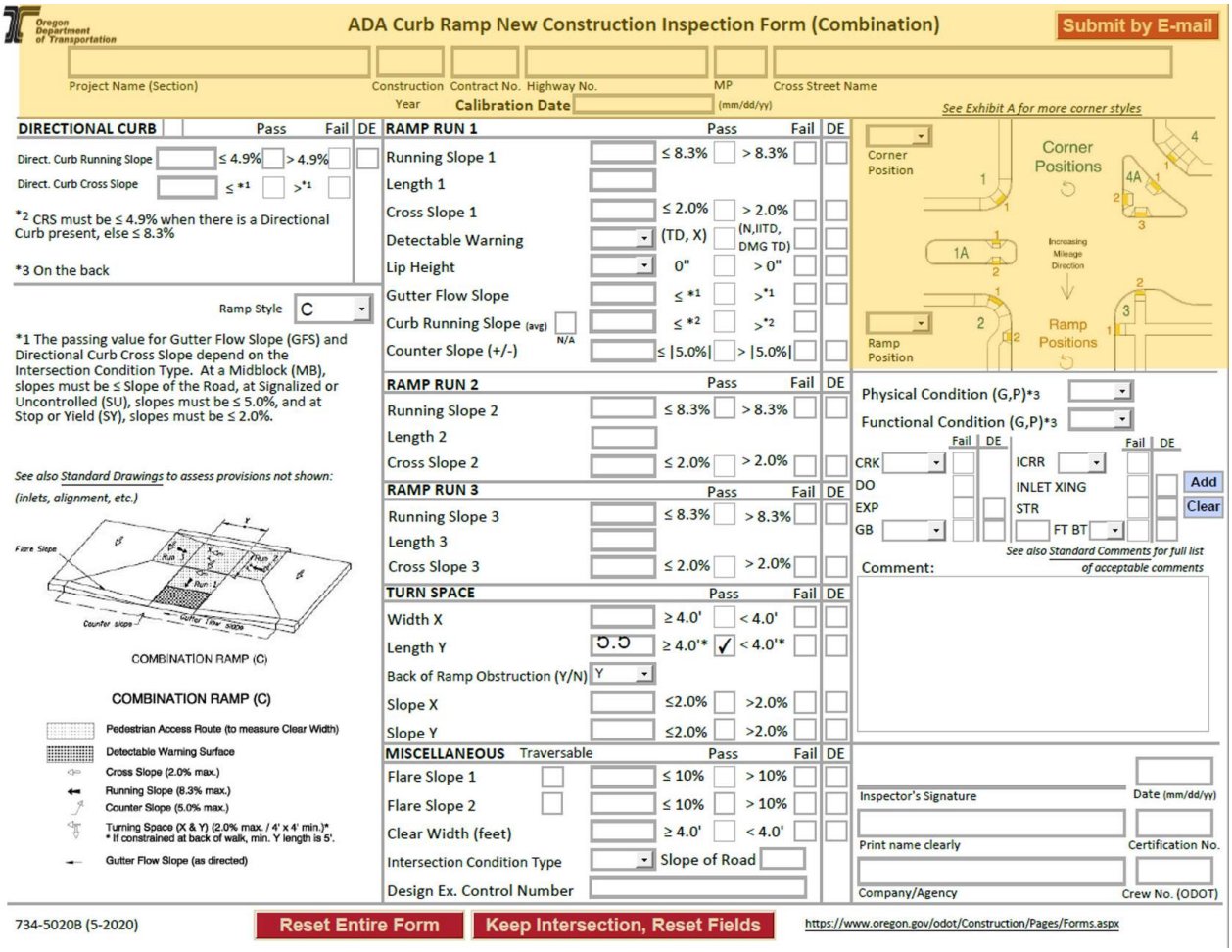
You must click on all images before moving on to next Lesson.

02:59

Start Audio Narration

Contract, Location Information and Calibration

The following information must be complete and accurate on a submitted inspection form. The image below highlights the Contract, Location Information and Calibration sections on the form.



Where Contract, Location Information and Calibration Date are on a Curb Ramp Inspection Form

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Project Name and Contract Information

Project Name (Section), Construction Year and Contract Number Boxes on the Inspection Forms

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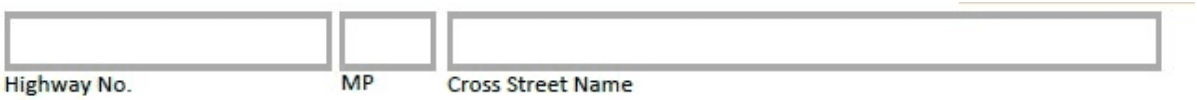
- Project Name: Use the exact spelling of the Project Name as identified on the contract documents.
- Construction Year: Use the year the ramp was constructed, not the year you are conducting the inspection.
- Contract Number: Use the contract number as identified on the contract documents. If the project is not a STIP project, still include the unique project number.

Location Information



Highway Number, Mile Point (MP) and Cross Street Boxes on the Inspection Forms

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- Provide the Highway Number (LRM) located on the contract plans or find in FACS-STIP.
- Provide the Mile Point of the intersection.
- Provide the cross-street name, as given in FACS-STIP

End of Walk Cross Street Name

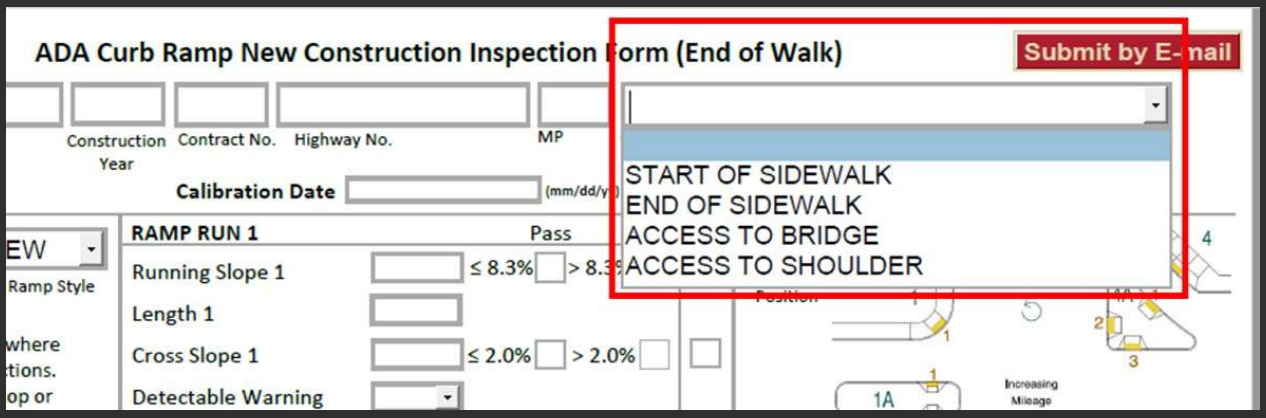
End of Walk Curb Ramp Inspection Forms are used at Midblock Locations. Since there is no cross street, there is a Cross Street Name dropdown list.

The dropdown list has the following condition choices:

- 'Start of Sidewalk'
- 'End of Sidewalk'

- 'Access to Bridge'
- 'Access to shoulder'

Choose the appropriate condition.



Cross Street Name Drop-Down in the End of Walk Curb Ramp Inspection Form

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Smart Level Calibration Date

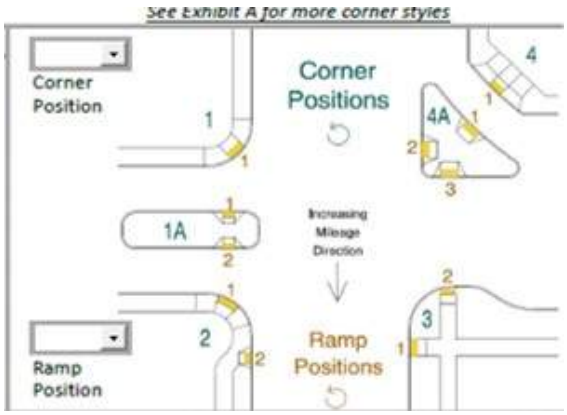
Calibration Date Box on the Inspection Forms

- You must provide the calibration date for the smart level used.
- Levels must be calibrated on the day of inspection, prior to the inspection.
- Recalibrate if the level experiences a significant shock, or if the device temperature changes by more than 20° Fahrenheit.

- **Forms with a missing or incomplete level calibration date will NOT be accepted.**

Corner Position Section

A separate curb ramp inspection must be filled out for each curb ramp. The Corner Position Section of the inspection form has two boxes to complete: Corner Position and the Ramp Position.



Corner number and Ramp Number Section of the Inspection Form

Refer to Unit 3 for information on how to number corner positions and Unit 4 on how to find them on FACS-STIP. You can also click on the link above the Corner Position Section to open Exhibit A. Exhibit A can assist you in finding the correct corner and ramp position values. If you are unsure about what the corner and ramp position numbers are, contact the Roadway Statewide Asset Specialist.

Review all figures and advance audio to the end before moving on. A lesson quiz is on the next screen.

CONTINUE

Unit 9 Lesson 3: Physical Condition, Functional Condition and Comments

You must click on all images before moving on to next Lesson.

04:20

Start Audio Narration

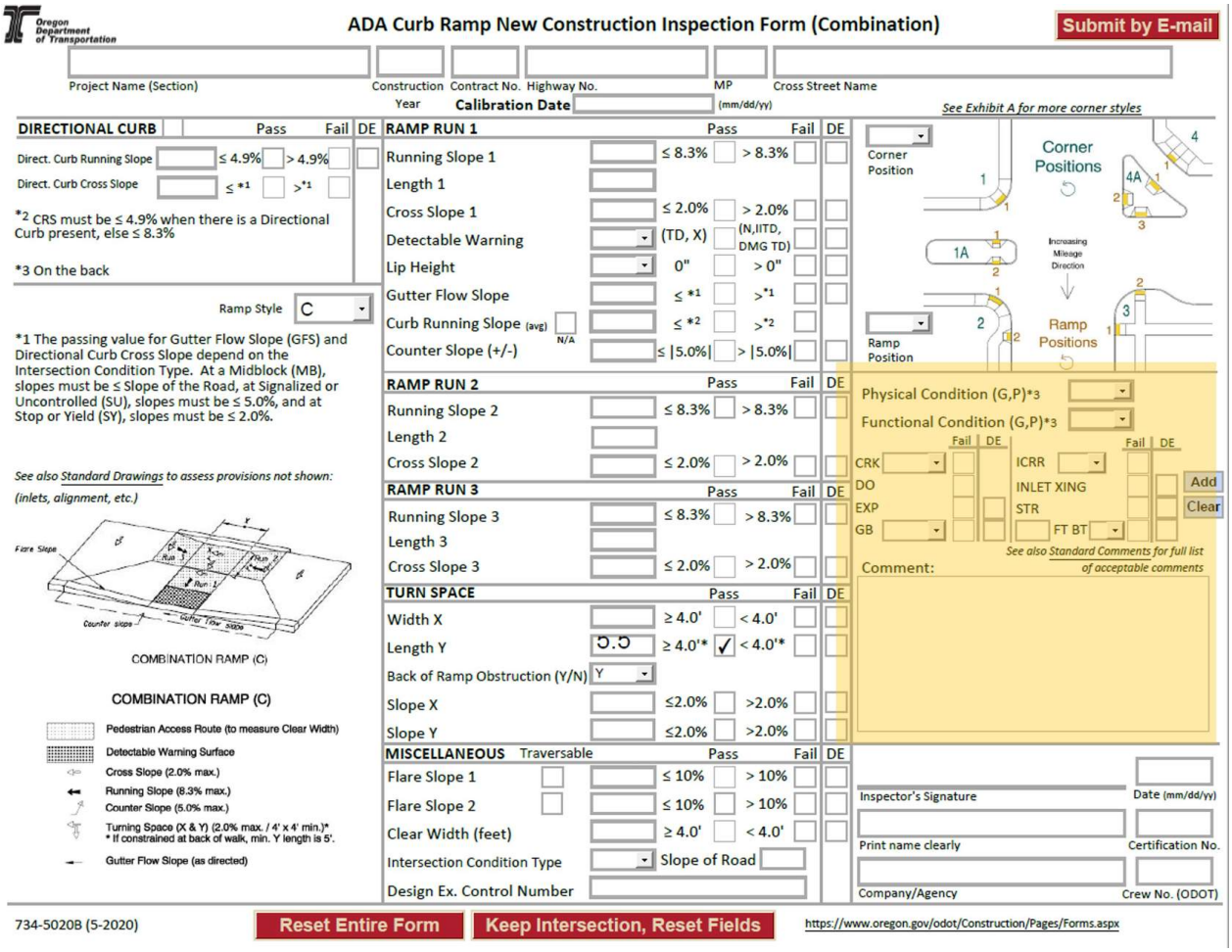
Inspectors must evaluate both the functional and physical condition of constructed ramps as part of the inspection.

Functional Condition

The functional condition of the ramp pertains to the accessibility of the pedestrian access route (PAR) through the curb ramp proximity limits. **Any criteria that are failing on the curb ramp inspection form will result in a poor functional condition.** The functional condition should auto-populate on the curb ramp Inspection form when all applicable fields are entered.

Physical Condition

Evaluate and record the physical condition. The physical condition of ramps relies strictly on the condition of the surfaces, not how it complies with accessibility standards. **Only ramps constructed within the past few years would be eligible for a good rating. Ramps that are badly cracked and spalled, heaved, or are otherwise impassible to a wheelchair or other mobility device should be considered as poor physical condition.**



Physical Condition, Functional Condition and Comments Section of the Form

Condition Definitions

Functional Condition Description:
Good (G) = all applicable boxes pass OR a Design Exception addresses criteria that do not pass.
Poor (P) = any applicable box fails
Physical Condition Description:
Good (G) = the concrete within the Pedestrian Circulation Area (includes flares and path back to existing sidewalk) contains no cracks or deformations
Poor (P) = any part of the concrete within the Pedestrian Circulation Area (includes flares and transition panels) contains cracks or deformations

Condition Definitions

Functional Condition Examples

Good

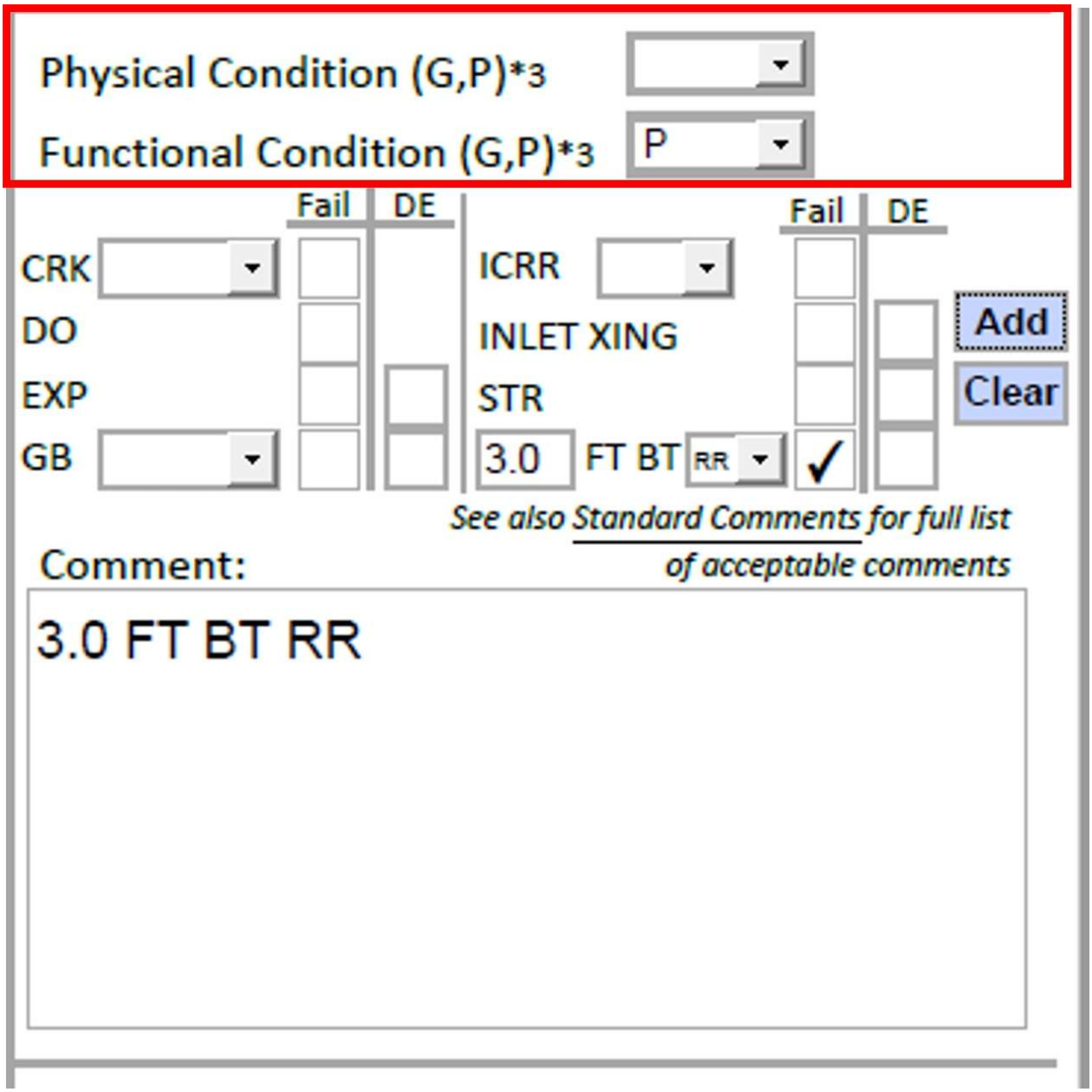
- Only used for recently constructed ramps (within past five years)
- Brand new ramps should be rated Good (unless they have physical condition issues)

Good (G) Functional Condition Ramp Example

Poor (P) Functional Condition Ramp Example

Poor

- Badly cracked, heaved, eroded, difficult to walk on or impassable by a wheelchair or other mobility device.



Physical and Functional Condition on Inspection Forms

Physical Condition, Functional Condition and Comments section of the form.

Physical Condition is populated manually by the inspector.

Functional Condition will auto-populate once the form is completely filled out with collected inspection data.

Concrete Cracking (CRK)

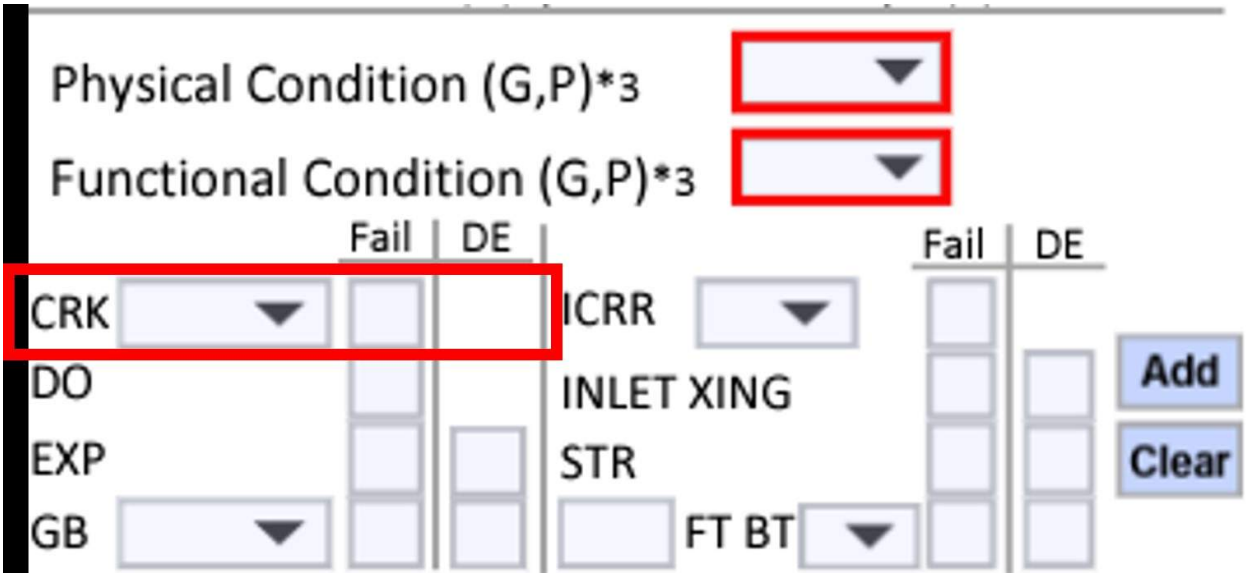


Image of Concrete Crack (CRK) Boxes outlined on the Curb Ramp Inspection Forms

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In the Physical and Functional Condition box in the inspection form there are two boxes for concrete cracking (CRK);

- One is a dropdown for the location of the crack (CRK)
- the other is a check box for failure.

When specifying the location of the crack in the dropdown list, the choices are:

- BT RP = Between ramps
- FLR = Flare
- RR# = Ramp run number
- TS = Turn space
- WPL = Within proximity limits

- RR = Ramp run
- DR = Driveway

This course does not cover the general inspection practices for concrete acceptance. Hairline cracks in the concrete is a workmanship issue and is covered in 00759 of the ODOT Standard Specifications. Hairline cracks are at the discretion of the inspector and office administering the contract.

Cracking can occur during the natural concrete curing process due to the low tensile strength, during normal settlement over a period of time, or during freeze thaw cycles due to expansion and contraction of the material. Cracks that effect the slope of a surface in the curb ramp, results in a lip, or gap greater than ¼ inch is considered an ADA accessibility issue. Cracks impact the functional and physical condition of the curb ramp. It is important to remember that curb ramps are required to remain accessible all year round at all times of the day as it is a public facility.

Below are several pictures of concrete cracking and we will explore the accessibility issues. Scroll through and click on each image for description.

This picture is a small hairline crack that is not likely an accessibility issue. If in doubt, check the slopes of the surrounding concrete and free of lips.

2 of 6

This picture shows cracking that is neither an accessibility issue or physical condition issue. It is outside of the pedestrian access route and is not a issue for the curb ramp system surface.

3 of 6

This could be an accessibility issue as the panel appears to have shifted or settled. Measure the slopes of the concrete panel.

4 of 6

5 of 6

This could be an accessibility issue as the panel appears to have shifted or

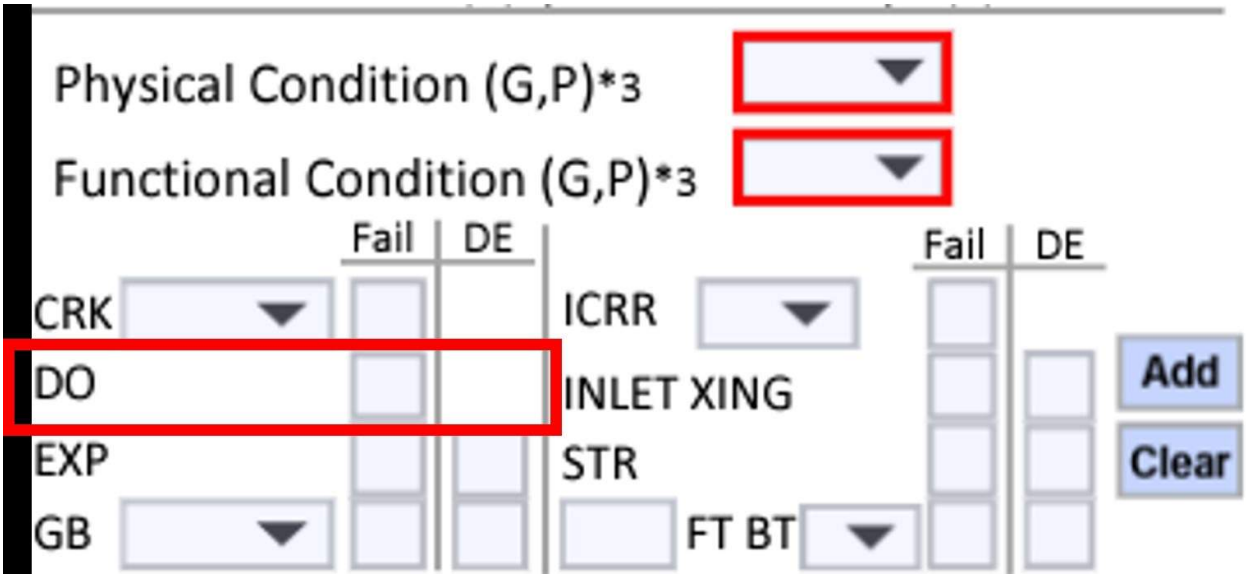
This cracking is larger than 1/4" both horizontally and in depth. This is an ADA accessibility issue.

6 of 6

05:13

Continue Audio Narration

Drop Offs (DO)



Drop Offs (DO) Box Outlined in the Curb Ramp Inspection Form

Inspect the curb ramp proximity limits for vertical grade changes in the Pedestrian Circulation Area.

A vertical grade change that is parallel to the direction of pedestrian travel is noted when it is greater than 9 inches. It is recorded in the appropriate box designated for drop off (DO) failure in the Physical and Functional Condition section on the inspection form.

The 9-inch requirement for drop offs accounts for the typical construction section of sidewalk which usually consists of 4 inches of aggregate base and 4 inches of concrete. The adjacent surface is usually non-traversable, such as landscaping. If the vertical grade change is greater than 9 inches, it is a general inspection issue and physical condition issue of the walkway. The walkway supporting material will erode over time and effect the lifespan of the walkway, requiring additional maintenance.

Visually impaired or distracted pedestrians may not anticipate or sense the vertical grade change in the pedestrian circulation areas. **Vertical grade changes that occur perpendicular to the direction of pedestrian travel are an ADA accessibility issue and are considered lips.** When there is a vertical grade change more than a ¼ inch or more in the pedestrian access route or circulation areas, sloped surfaces are required to be constructed.

Raised curbing with traversable surfaces, such as brick, are considered drop-offs.

Inspect and record surfaces within the proximity limits that have any abrupt grade changes between traversable surfaces that do not have a transitional sloped surface, such as a flare or transition panel. If curb returns are used on either side of the curb ramp opening, verify that they contain some form of detectible feature, such as soft scaping, to ensure users do not accidently walk over the vertical grade change.

Drop Off (DO)

- A Return Curb that has no obstruction preventing pedestrians from stepping off is an example of a Drop Off. There are other situations that could require a Drop Off comment and further discussion with the ADA group may be needed.

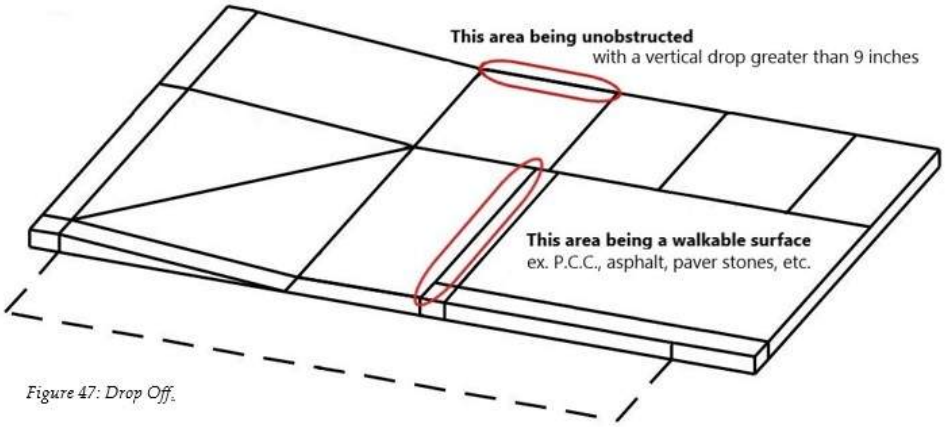


Figure 47: Drop Off.

Note – Drop Off criteria does not apply where there is a continuous curb along a cut-through island.

Drop-offs in the Inspection Field Guide

Design mitigation of drop offs may include pedestrian railing at locations with vertical grade changes for the benefit of pedestrian safety or channelization along a walkway. This might include raised curbs or larger retaining walls.

Curb tight walkways that have curbing adjacent to the road have a curb exposure which creates a vertical grade change. This is not an accessibility failure. The curbing performs functions for the roadway, and is a detectable, perceivable, and a predictable boundary for pedestrians. It is considered parallel to the direction of pedestrian travel.

Curb Exposure (EXP)

The height of the curb between curb ramps is the curb exposure (EXP). **The Standard for curb between two curb ramps is a minimum height of 3 inches and a width of 12 inches**. Refer to

Standard Drawings RD912 (Note 5), RD920 (Note 8), RD932 (Note 6) and RD936 (Note 6).

Minimum Curb Exposure is 3 Inches in height and 12 Inches Wide

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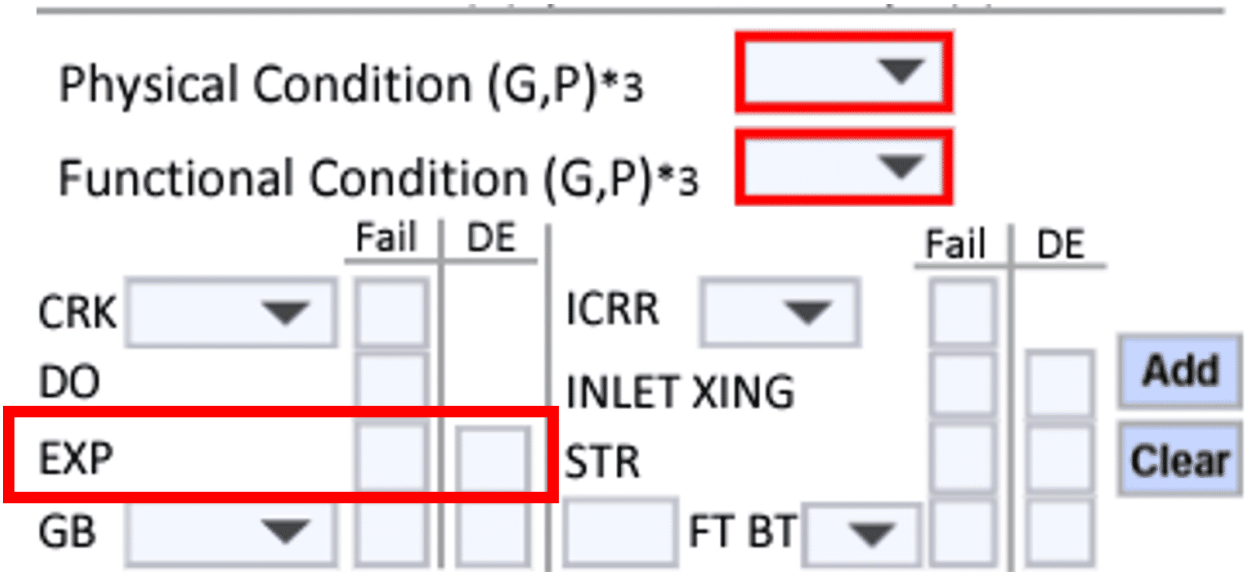

Curb Exposure (EXP) Box Outlined in the Curb Ramp Inspection Form

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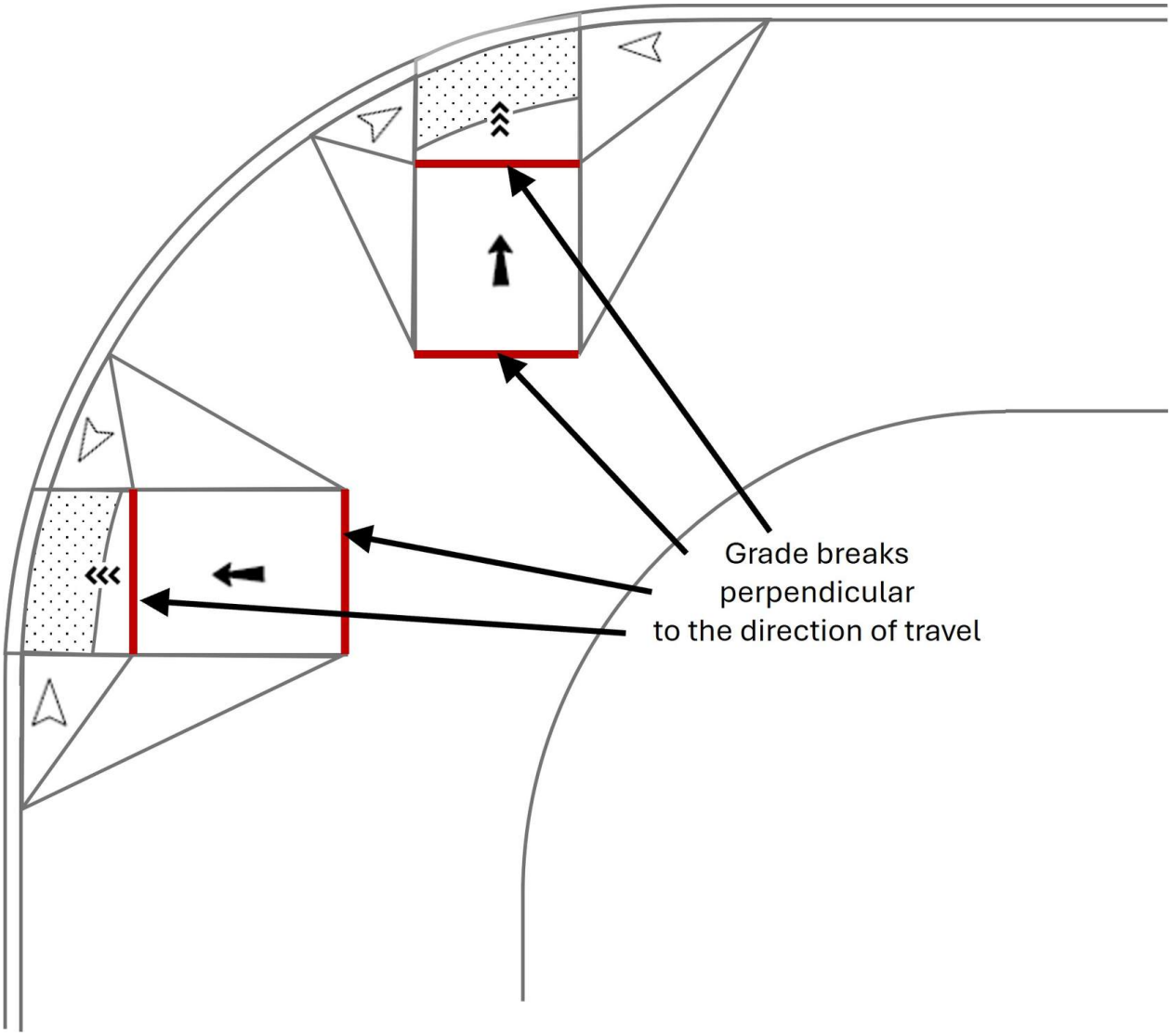
In the Physical and Functional Condition box in the inspection form there are two boxes for curb exposure (EXP). If the curb exposure height is less than 3 inches, check the designated box for curb exposure (EXP) failure and/or Design Exception.

If it has a Design Exception, check the designated box for curb exposure design exception and verify that the curb exposure meets or is greater than the design exception value. If it does not meet the requirements of the design exception, also check the box for curb exposure failure.

Grade Break (GB)

Within the curb ramp system accessible pedestrian route the grade breaks at the top and bottom of ramp runs are to be perpendicular (90 degrees) to the ramp running slope.

All ramp runs must have grade breaks that are perpendicular to the direction of pedestrian travel at the top and bottom of each ramp run. This is confirmed through visual inspection. Curved ramp runs can be difficult to determine if the perpendicular grade break requirements are met depending on the radius, so pay close attention. Perpendicular grade breaks help wheeled mobility devices maintain contact with the finish surface when making the transition between slopes in the pedestrian access route.



Grade Breaks on Ramp Runs.

Grade Break (GB) in the Physical and Functional Condition Section of Inspection Form

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In the Physical and Functional Condition section in the inspection form are three boxes for Grade Breaks.

- one is a drop-down list for location of grade break failure,
- a second is a check box for failing grade break,
- a third box to check for a design exception.

If a grade break in the curb ramp system is not perpendicular to the ramp run slope, check the appropriate boxes designated for grade break failure and/or Design Exception.

When specifying the location in the dropdown list, the choices are:

- BT RP = Between ramps
- FLR = Flare
- RR# = Ramp run number
- TS = Turn space
- WPL = Within proximity limits
- RR = Ramp run

- DR = Driveway

03:50

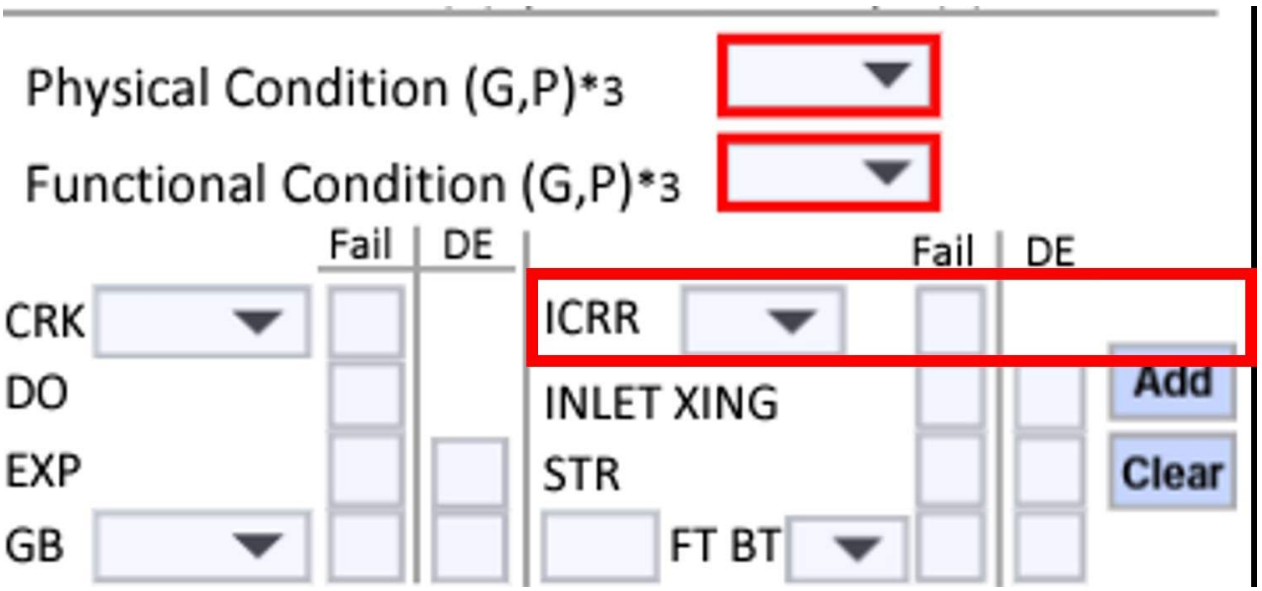
Continue Audio Narration

Inconsistent Ramp Run (ICRR)

An inconsistent ramp run is when the surface of a ramp run is not planar, meaning the surface slopes in a ramp run are uneven or not consistent.

Inconsistent ramp runs in curb ramp inspections are related to Standard Specifications section 00759.50.

a) “The top and face of structures shall be true and straight, free from humps, sags, or other irregularities...”



Inconsistent Ramp Run (ICRR) in the Physical and Functional Condition Section of Inspection Form

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In the Physical and Functional Condition box in the inspection form there are two boxes for inconsistent ramp runs.

- a dropdown for Ramp Run Number
- a check box for failure

If there is an inconsistent ramp run, check the appropriate boxes designated for inconsistent ramp run failure.

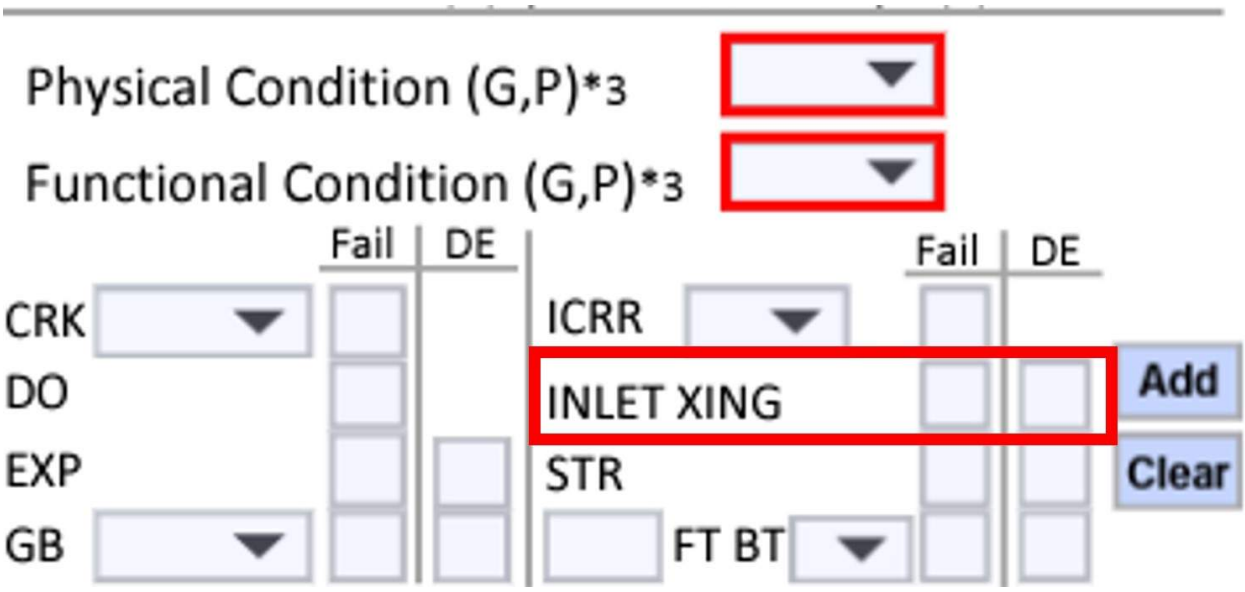
Inlets in Crosswalk (INLET XING)

Storm water inlets are not allowed within the curb ramp opening or pedestrian access route within the crosswalk without a design exception and an ADA accessible grate.

In the Physical and Functional Condition box in the inspection form there are two check boxes for Inlets in crosswalks (INLET XING).

- one is for an Inlet failure and the
- other is for a design exception

If there is an Inlet in the Crosswalk (INLET XING) check the appropriate boxes designated for inlet in the Crosswalk (INLET XING) failure and/or Design Exception (DE).



Inlets in crosswalks (INLET XING) in the Physical and Functional Condition Section of Inspection Form

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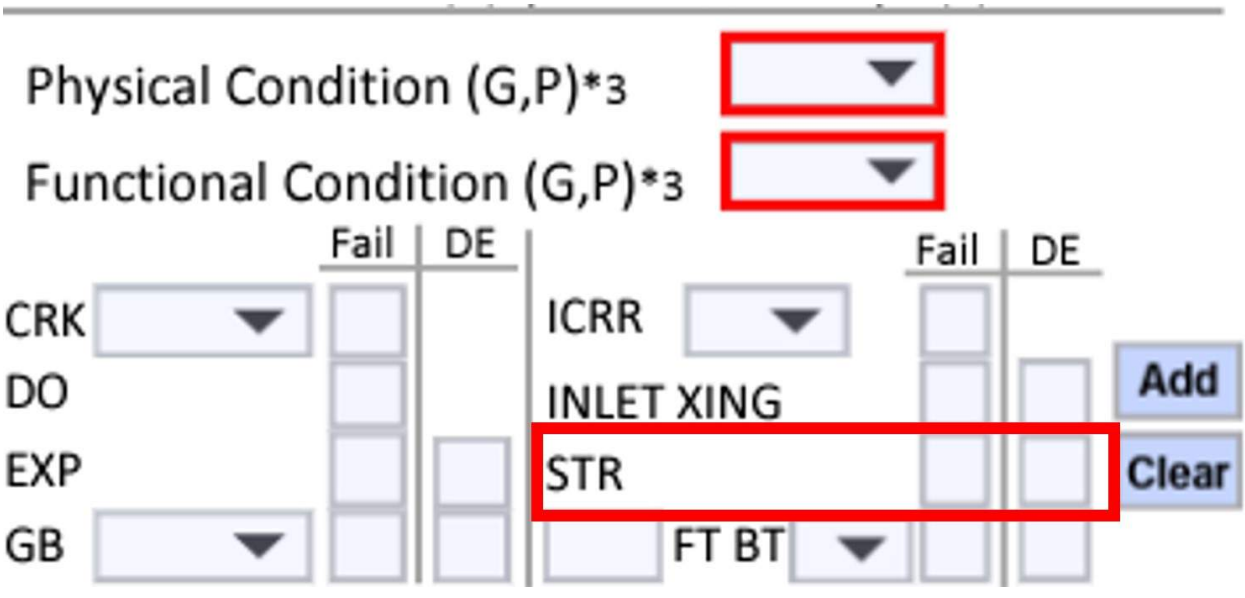
Striping (STR)



Striping (STR) in the Physical and Functional Condition Section of Inspection Form

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If the crosswalk striping (STR) does not encompass the curb ramp opening(s), it is a failure. In the Physical and Functional Condition box in the inspection form there are two check boxes for Striping (STR).

- one is for striping that does not meet current standards
- and the other is for a design exception (DE) for non-standard crosswalk striping

If the crosswalk striping (STR) does not encompass the curb ramp opening, check the appropriate boxes designated for a striping (STR) failure and/or design exception (DE).

Curb Pavement Markings Adjacent to Detectable Warning Surfaces.

Providing contrast around detectable warning surfaces is an ADA requirement. Detectable warnings shall contrast with adjacent walking surfaces. The ODOT Traffic Line Manual provides guidance on increasing visibility and contrast by providing limits for painted markings on the curb when adjacent to a curb ramp.

In the photo below, the yellow painted curb visually blends in with the yellow detectable warning surface. This can make it difficult to find the curb ramp opening for persons with low vision both at the curb ramp or when approaching the curb ramp when crossing. This may be noted as a striping failure for the curb ramp inspection form.

Pedestrian Island with continuous yellow curb adjacent to yellow detectable warning surface (truncated domes) does not provide contrast.

The continuous yellow curb on this island does not meet the requirements of the ODOT Traffic Line Manual. Note how it blends with the detectible warning and may make it difficult for persons with low vision to see the curb ramp opening from the other side of the street.

Striping

Does the painted stop-bar for vehicles have to be behind the ramp crossing? Is this a striping comment (STR) and constitute a ramp failure?

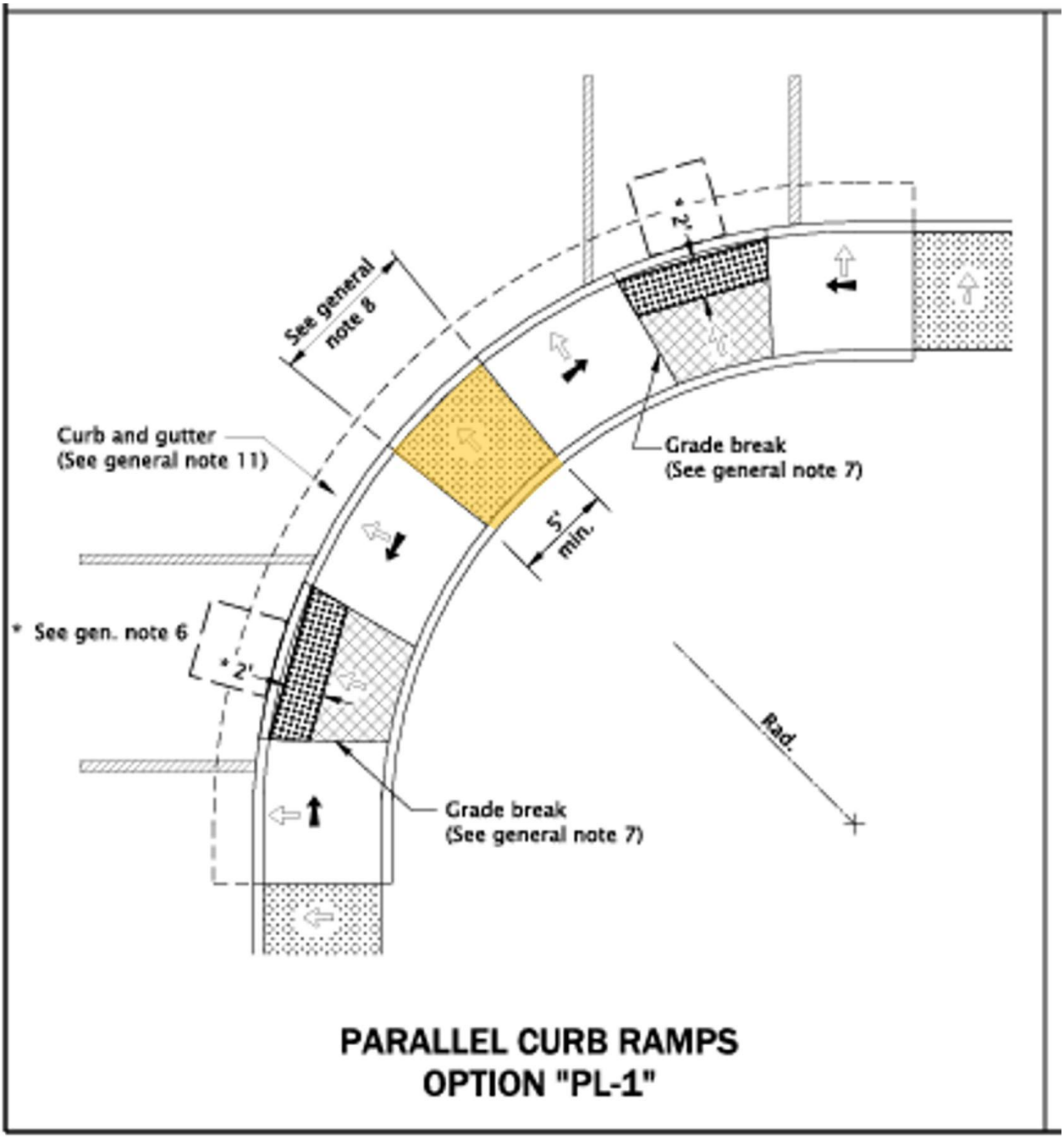
No, this is not a curb ramp failure, but the striping needs to be noted for non-conformance with ODOT standards and corrective measures will need to be determined. The ODOT Traffic Line Manual states that the curb ramp should be located in front of the painted stop bar. The ODOT Traffic Line Manual indicates “In sections with sidewalk, the stop bar should be placed 2 to 3 feet back from the throat of the ADA ramp.”

01:27

Continue Audio Narration

Distance Between Curb Ramps (FT BT)

For two parallel or combination curb ramps at a corner, their ramp runs should be separated by at least five (5) feet of sidewalk, unless the two ramps share a turn space. The distance between curb ramps (FT BT) also refers to the distance between a curb ramp throat and an adjacent driveway throat. Refer to Standard Drawings RD920 (Option “PL-1), RD932 (Option “CC-1) and RD936 (Option “CC-3).



Standard Drawing RD920 (Option "PL-1) Highlighting 5 foot Minimum Between Parallel Ramp Runs

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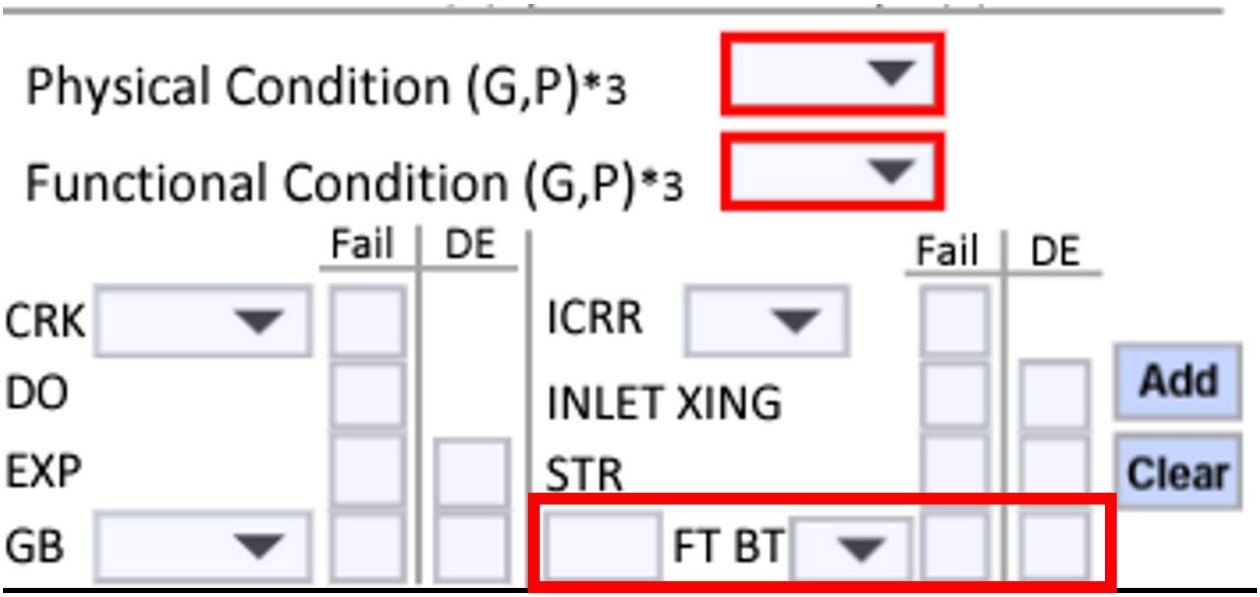
In the Physical and Functional Condition box in the inspection form there are four boxes for Distance between curb ramps (FT BT).

- one is for the distance in feet,
- the second is a dropdown to choose either between two curb ramp runs (RR) or between a curb ramp throat and a driveway throat (DR)
- The third is a check box for Distance between curb ramps (FT BT) failure
- the fourth is a check box for a design exception.

If the Distance between curb ramps is failing, fill in the appropriate boxes designated for a Distance between curb ramps failure and/or design exception.



Distance between curb ramps (FT BT) in the Physical and Functional Condition Section of Inspection Form

02:17

Continue Audio Narration

Physical Condition Examples

Cracks in concrete (CRK) in the pedestrian access route. Cracks greater than 1/4 inch will be noted. Cracks causing lips or impediments to travel will cause failure. Cracks due to improper joints, equipment, or vehicles will also cause failure.

Cracks in concrete (CRK) not in the pedestrian access route of the ramp does NOT = failure

Functional Condition Examples

Drop offs (DO) within proximity limits = failure. A drop off would be any vertical drop greater than 9-inches parallel to the path of travel, usually at the back of a turn space. Note additional drop off (DO) information in Standard Drawings RD910, RD930 & RD940 (Note 8).

Curb exposure (EXP) less than 3 inches = failure. See note 5 on RD912.

Curb exposure (EXP) less than 3 inches in height and less than 12 inches wide = failure. See note 5 on RD912.

Grade breaks (GB) NOT perpendicular to the ramp run = failure.

Inlet within the pedestrian access route (INLET XING) = failure.

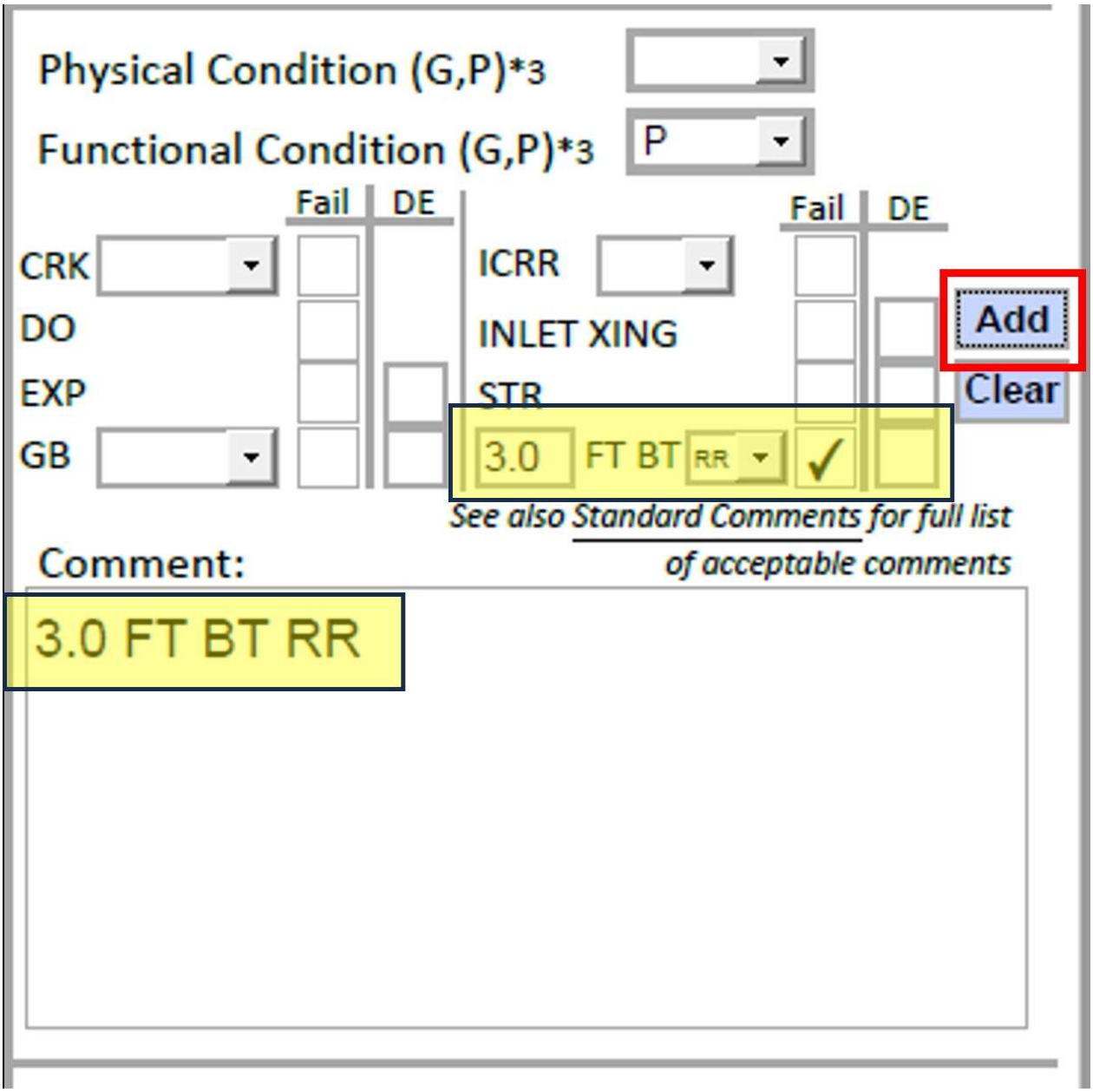
Striping issue (STR). There is not a 4-foot clear space between opening of curb ramp and striping. Note additional information on required cross walk clear spaces in Standard Drawings RD912, RD913, RD916, RD920,

RD922, RD932, RD938, & RD940 in the legend and the illustrations.

Adding Comments to the Standard Comments Box

When criteria in the Physical and Functional Conditions Section are checked as a failure, then they need to be added to the Standard Comments box.

To add Comments to the Standard comments box, Click the “Add” Button in the Physical and Functional Conditions Section. Other comments can be added manually following the Standard Comments Formatting rules. This will be covered in more detail in Unit 9 Lesson 8.



How to Add Comments to the Comments Box Using the Add Button.

02:21

Continue Narrative

Expansion Joint Installation

Expansion joints within the curb ramp system are to be flush and are to be less than ½ inch width along the top finish surface. When not installed correctly in a curb ramp system they become an accessibility issue within the pedestrian circulation area or the pedestrian access route. **Expansion joints that are not flush or that are greater than ½ inch width should be noted in the standard comments section of the curb ramp inspection form.**

Physical and Functional Condition FAQ's

Q: Is it true that inlets are not allowed in front of curb ramp openings? Does ODOT allow inlets elsewhere between the crosswalk stripes?

A: It is true that inlets are not to be placed in front of the curb ramp opening unless there is an approved design exception. Inlets are not to be placed in the pedestrian access route in any new construction of a walkway. In a marked crosswalk, there should be no inlets within the pedestrian access route. When an inlet must remain in the pedestrian access route in a marked crosswalk, the inlet grate shall not exceed the horizontal opening dimension of ½ inch which allows a ½ sphere to pass through in the direction of pedestrian travel. When the direction of pedestrian travel is not well defined, the ½ inch opening shall not be exceeded in any direction.

Q: Can ramp runs from adjacent parallel curb ramps be next to each other with opposing slopes?

A: No. ODOT's practice requires a 5-foot separation between two parallel or combination curb ramps or between a curb ramp throat and a driveway throat. The running slope cannot exceed the

grade of the road. A Design Exception is required if the space is not provided.

Q: What is the minimum curb exposure height between two curb ramps at a corner?

A: Reference Oregon Standard Drawing [RD912, Note 5] or [RD932, Note 6] which requires a minimum curb exposure of 3 inches.

Q: What is the minimum width of curb exposure between the ramps in last question above?

A: Reference Oregon Standard Drawing [RD912 or RD932] which requires a minimum of 12 inches of curb exposure between curb ramp flares.

Review all figures, complete activities and advance audio to the end before moving on. A lesson quiz is on the next screen.

CONTINUE

Unit 9 Lesson 4: Design Exceptions (DE)

You must click on all images before moving on to next Lesson.

02:37

Start Audio Narration

Design Exception (DE)

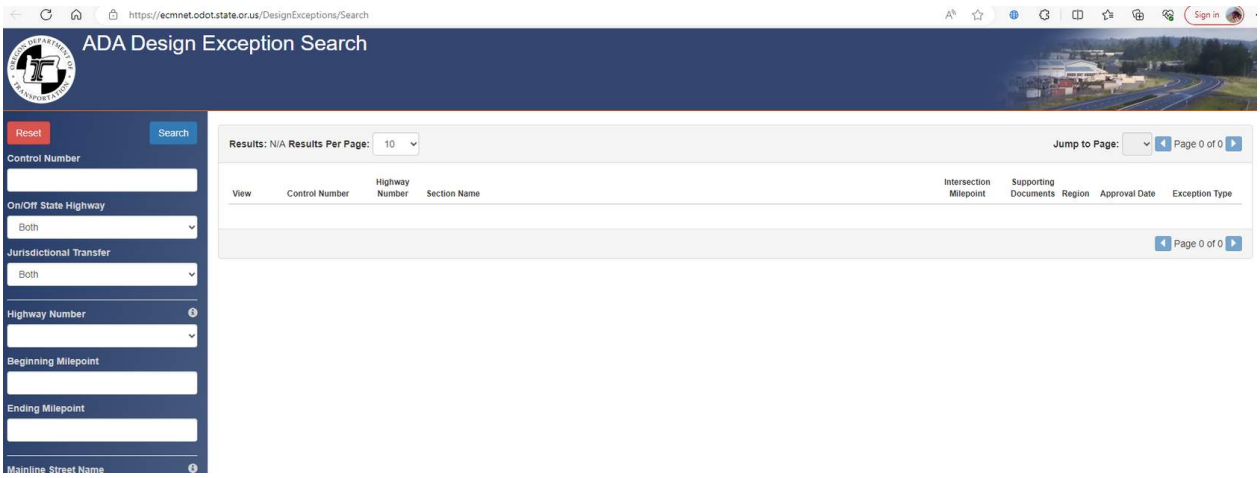
Design Exceptions are formal records to show justification for not attaining ODOT standards due to existing topography, scope of the project, or other constraints. Depending on the type of exception request, either an ADA Curb Ramp Design Exception Request or the General Design Exception Request may be used for curb ramps.

Each ADA Curb Ramp Design Exception form will include design exception requests at a single intersection. When a General Design Exception is used to mitigate design features on curb ramps, in most cases, it will include curb ramps at multiple intersections, or a corridor, within a project.

A common use for a General Design Exception is when a local jurisdiction wants to use a different color detectible warning surface (DWS) from the Standard ODOT Safety Yellow on all or a portion of a project that goes through their jurisdiction.

Each design exception has a unique document control number and should be listed in your contract documents. They are also available in FACS-STIP. Refer to Unit 4, FACS-STIP. You may request copies of the design exception approval letters from the ODOT Design Exceptions Inbox if you have difficultly locating them in the ADA design exception database or project records.

Read through the content of the design exception to ensure that the correct curb ramp element with the exception is identified during inspection. You will need this information to complete the curb ramp inspection form.



ADA Design Exception Database Search

Design Exceptions Website

WEBSITE

ADA Design Exception Search

For Internal ODOT Staff

DESIGN EXCEPTIONS

ADA Design Exception Search

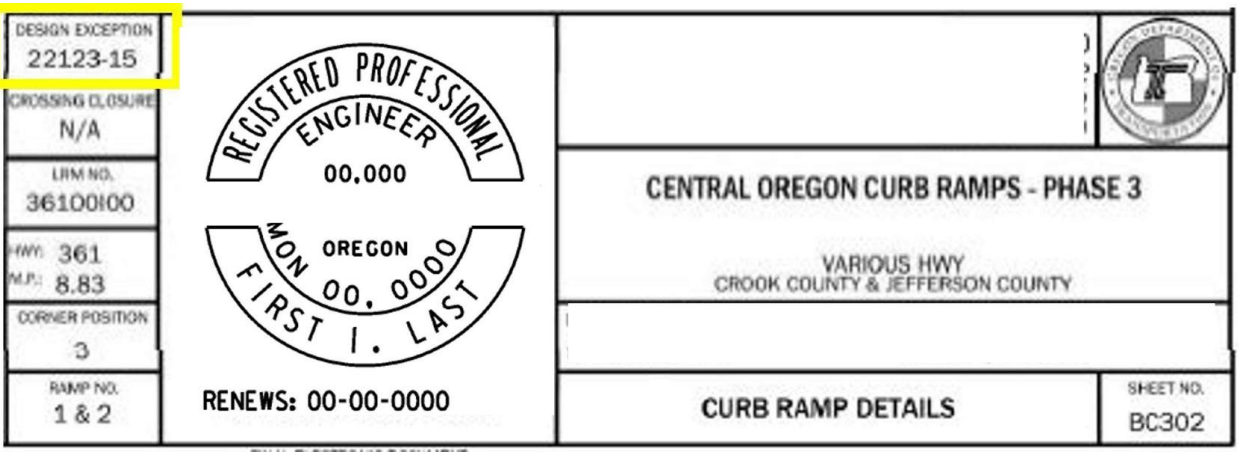
Link for Consultants and Local Jurisdictions

DESIGN EXCEPTIONS

Design Exceptions will change the allowable values during inspection. These need to be understood in advance so that a complete inspection can be performed. Make sure you review the Design Exceptions on the plans in advance. Look up the Design Exception control numbers so you can assess the correct, allowable values for any affected curb ramp elements.

When Design Exceptions are approved, there may be required construction features to mitigate for deviation from the standard. Review construction stipulations in the approved Design Exception. These should be incorporated in the contract plans.

When a Design Exception is approved and incorporated in the curb ramp detail, the approved slopes or distance should be identified in the plan set. Slopes or distances with design exceptions will not be in compliance with ODOT's normal construction values identified in the standard drawings or inspection forms.



Design Exception (DE) Number in the Title Block of a Curb Ramp Detail Sheet in the Contract Plans

02:23

Continue Narrative

Tolerances for Design Exception Values

Inspectors must know and understand the values acceptable for the curb ramp components in contract plans when a Design Exception is approved. ODOT Tech Bulletin RD19-02(B) contains a discussion of approved design slopes and Design Exception allowances to help determine the correct values for inspection in the field.

Curb Ramp Criteria		Approved Design Exception Value Exceeds	Construction Tolerance	**Example** Approved Design Exception Value	**Example** Allowed Inspection Value
Running Slope		7.5%	+0.8 %	7.7%	8.5% max
Curb Running Slope		7.5%	+0.8%	8.0%	8.8% max
Counter Slope		4.0%	+1.0%	4.8%	5.8% max
Cross Slope		1.5%	+0.5%	1.8%	2.3% max
Gutter Slope	Stop/Yield Controlled	1.5%	+0.5%	2.5%	3.0% max
Gutter Slope	Uncontrolled	4.5%	+0.5%	6.0%	6.5% max
Gutter Slope	Midblock	Roadway Profile Grade	+0.5%	5.5%	6.0% max
Flare Slope		10%	+0.8%	11.5%	12.3% max

Allowable tolerances for curb ramp slopes with approved Design Exceptions from ODOT Tech Bulletin RD19-02(B)

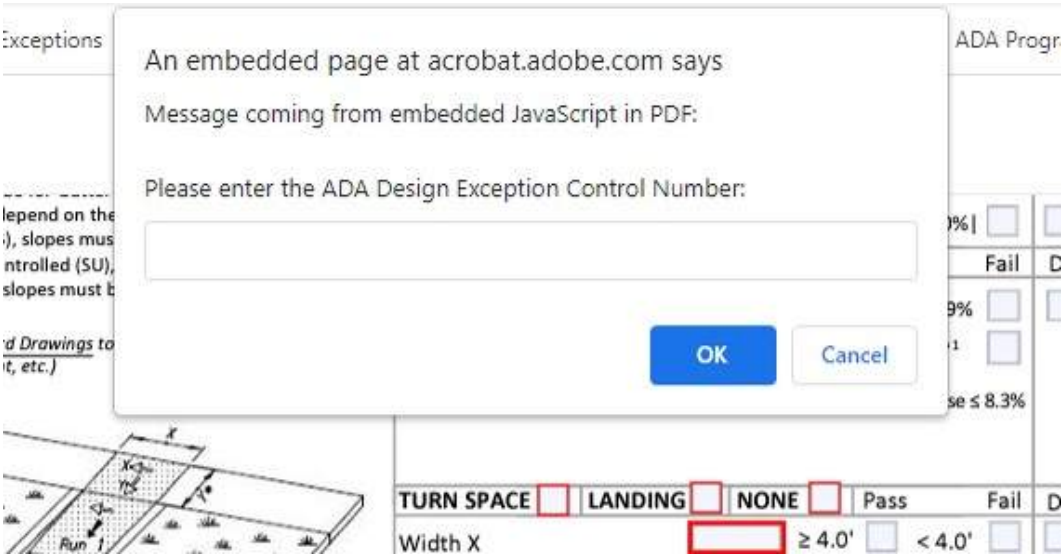
Tech Bulletin RD19-02(B)

RD19-02(B)

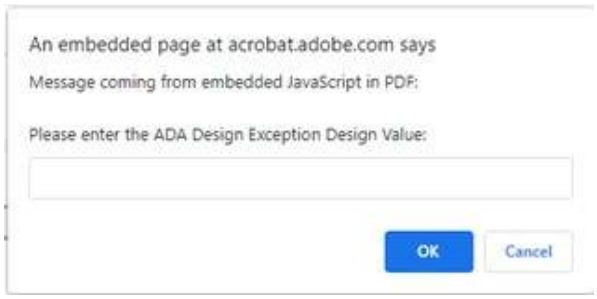
For example, when a Design Exception is noted in the curb ramp detail for a cross slope value of 1.8%, the maximum constructed slope value will be permitted up to 2.3% max. Normally the maximum acceptable value for cross slope is 2.0%.

Design Exceptions in the Curb Ramp Inspection Form

When the inspector checks one of the Design Exception (DE) check boxes on the inspection form, a window will open to enter in the Design Exception Control Number and then another window for the approved design value. The Design Exception control number can be found on the curb ramp detail sheet in the contract plans.



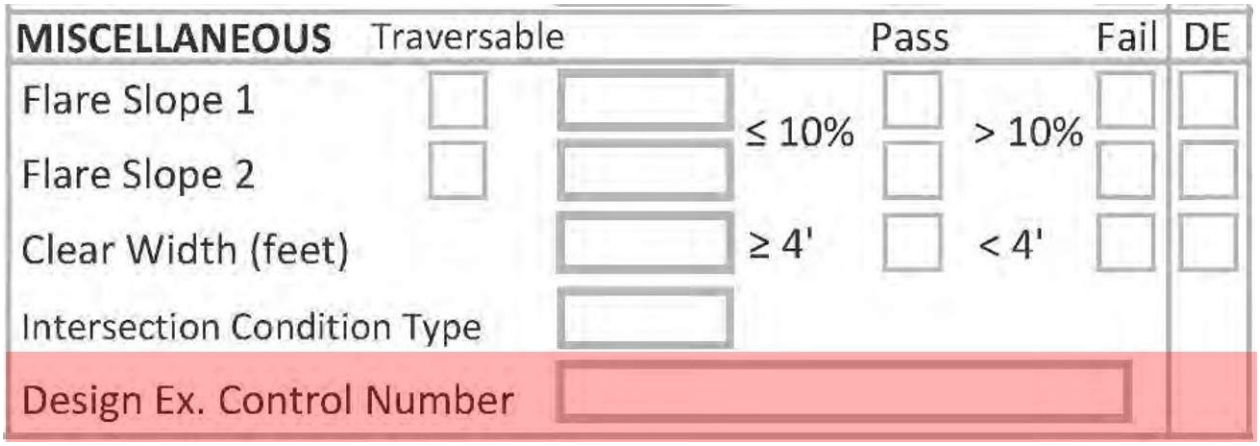
When a DE box is checked a dialogue box will appear requesting the DE Control Number



A second box will appear requesting the approved design exception Value.

Once you inspect and record the constructed cross slope, the calculation for the allowed tolerance is performed by the inspection form. In our example, if the approved Design Exception (DE) slope is of 1.8%, then the form will calculate 1.8% + 0.5% = 2.3% maximum passing value. If your inspected constructed cross slope is 2.1%, the form will automatically check the “Pass” box. If your inspected value is greater than 2.3%, it will automatically check the “fail” box.

If there is a Design Exception for the curb ramp in the inspection form, record it in the Design Exception Control Number box at the bottom of the form, in the Miscellaneous section. If there is no Design Exception, leave it blank.



Design Exception Control Number Box in the Miscellaneous section on the Curb Ramp Inspection Form

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Flashcard Activity

Flip the flashcards below to see some common tolerance acceptance values you may encounter, in addition to approved design exceptions.

Cross Slope	Up to 0.5%

Running Slope	Up to 0.8%
Flares	Up to 0.8%

Counter Slope	Up to 1.0%

Review all figures, complete activities and advance audio to the end before moving on. A lesson quiz is on the next screen.

CONTINUE

Unit 9 Lesson 5: Ramp Runs and Directional Curbs

You must click on all images before moving on to next Lesson.

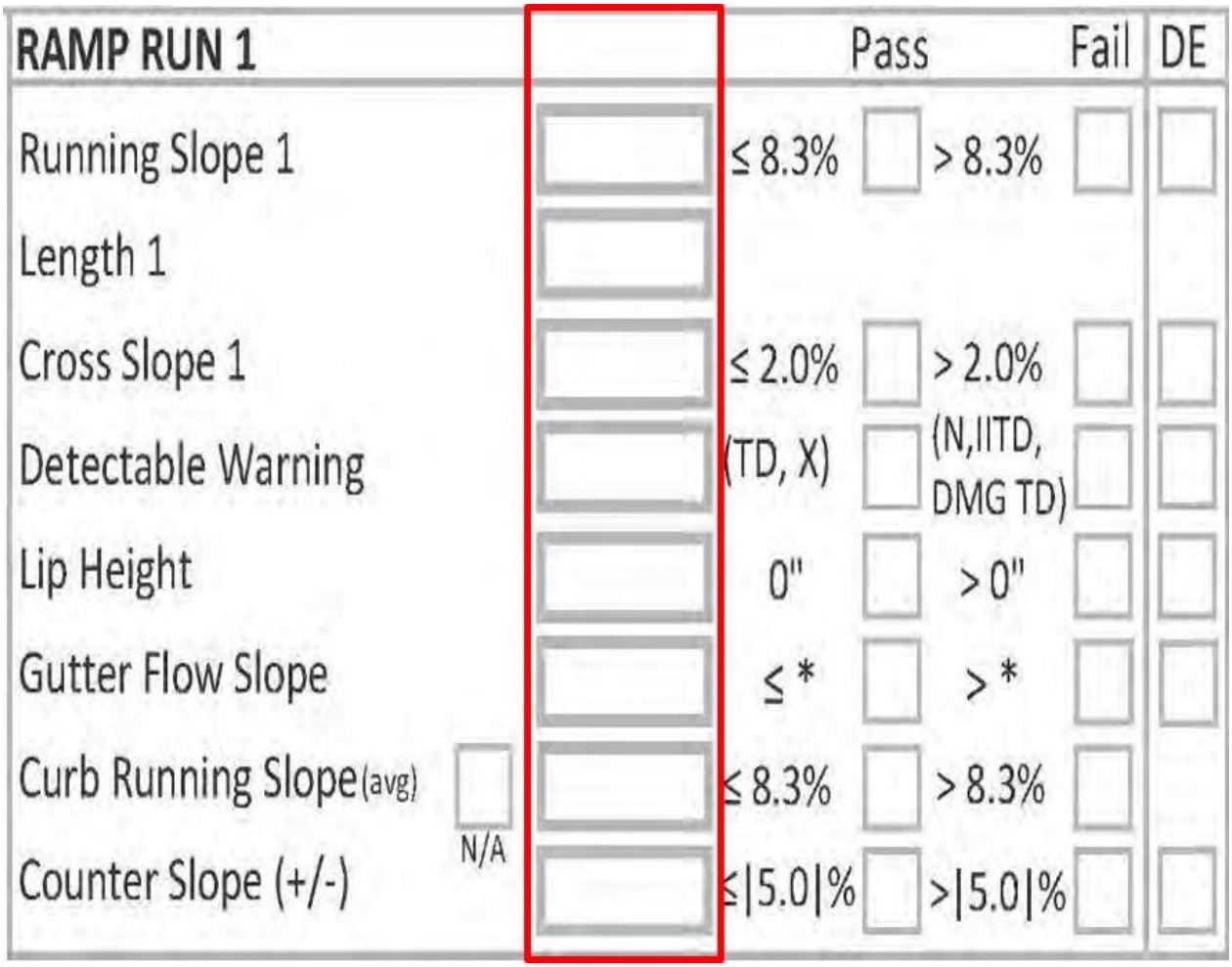
02:52

Start Audio Narration

Ramp Run Sections on the Inspection Form

Ramp Run 1

When the measured value is entered into the fields highlighted to the right, a check will automatically appear in either the pass or fail column based upon the appropriate value. Note that this may change if a Design Exception (DE) is indicated.



Ramp Run 1 box in Curb Ramp Inspection Form

Running Slope 1

Input greatest measured value in percent to the tenth in the box in the first column.

Length 1

Input greatest measured value in feet to the tenth in the box in the first column.

Cross Slope 1

Input greatest measured value in percent to the tenth in the box in the first column.

Detectable Warning (DWS)

Detectable Warning surfaces, also referred to as Truncated Domes (TD) are used to record condition of detectable warning surfaces at curb ramps. Choose the correct description in the drop-down menu-

- TD – Correctly installed Truncated Domes
- X- Exempt
- DMG TD- Damaged Truncated Domes
- IITD- Incorrectly Installed Truncated Domes
- N-None

Lip Height

Check for and record any lips greater than 1/4 of an inch. At grade breaks, the lips need to be flush. **Choose the correct measurement in inches in the drop-down list. Round up.**

If there is more than one location with lips, use greatest value in Lip Height box and record all lips in Comments section of the Form.

Gutter Flow Slope (GFS)

Input greatest measured value in percent to the tenth in the box in the first column.

Curb Running Slope

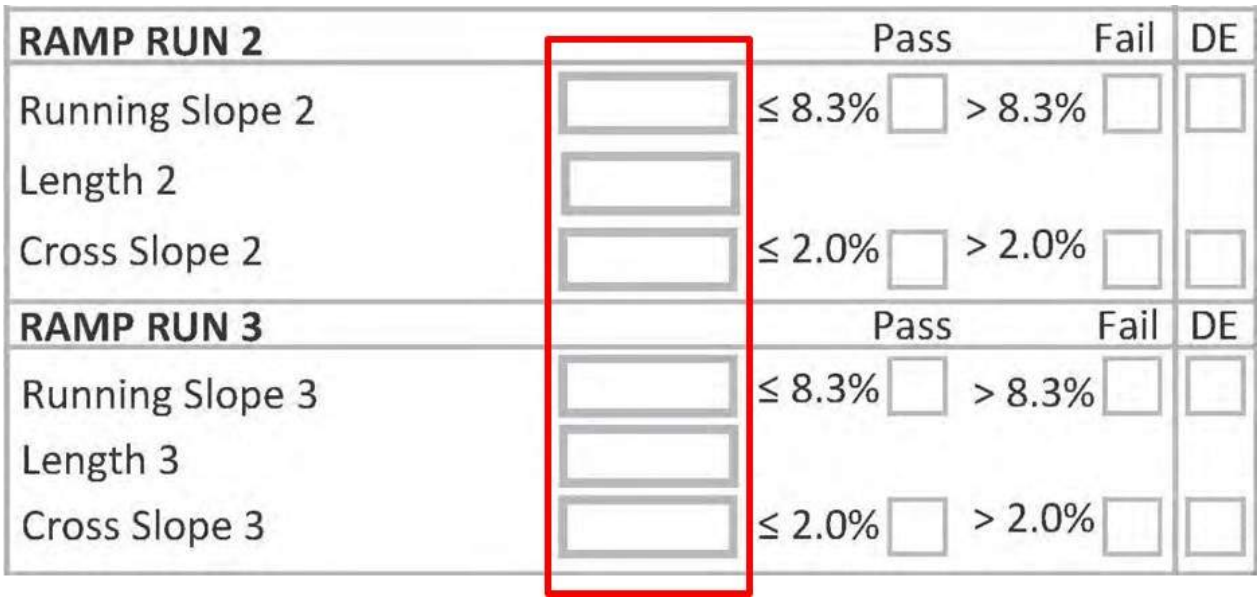
Input AVERAGE measured value in percent to the tenth in the box in the first column. If the Curb Running Slope is negative, add the comment “CRS OPP” in the comment field.

Counter Slope

Input greatest measured value in percent to the tenth in the box in the first column.

Ramp Run 2 and Ramp Run 3

- Ramp Runs 2 and 3 criteria are running slope, ramp run length and cross slope.
- Ramp Runs 2 and 3 apply only on Parallel, Combination, and Unique Design Ramps.



RAMP RUN 2		Pass	Fail	DE
Running Slope 2		≤ 8.3% ☐	> 8.3% ☐	☐
Length 2				
Cross Slope 2		≤ 2.0% ☐	> 2.0% ☐	☐
RAMP RUN 3		Pass	Fail	DE
Running Slope 3		≤ 8.3% ☐	> 8.3% ☐	☐
Length 3				
Cross Slope 3		≤ 2.0% ☐	> 2.0% ☐	☐

Ramp Run 2 and Ramp Run 3 in the Curb Ramp Inspection Form

Ramp Runs 2 and 3 apply only on Parallel, Combination, and Unique Design Ramps.

Running Slope 2 & 3

Input greatest measured value in percent to the tenth in the box in the first column.

Length 2 & 3

Input greatest measured value in feet to the tenth foot in the box in the first column.

Cross Slope 2 & 3

Input greatest measured value in percent to the tenth in the box in the first column.

01:37

Continue Audio Narration

Directional Curb Section of the Inspection Form

Directional curbs are constructed to facilitate a more direct path of travel for pedestrians. They are used when Ramp Run 1 is not oriented perpendicular to the curb at the curb ramp opening. For a perpendicular or combination style ramp, if Ramp Run 1 is perpendicular to the curb, it may not position Ramp Run 1 in the most direct path of travel for a pedestrian. A directional curb provides an accessible transition from the perpendicular grade break at the bottom of Ramp Run 1 to the curb so that the curb ramp may be orientated along a direct path of travel. Refer to Unit 5 Lesson 4 on directional curbs and how to measure them.

A Directional Curb Highlighted in Red

Design Exceptions for Directional Curbs

Design exceptions are required for directional curbs if they do not meet any of the following requirements:

- The running slope is greater than 4.9% constructed.

- the cross slope on the finished surface exceeds the allowable gutter flow slope value based on the intersection control type. The intersection control type should be selected on the inspection form prior to entering in the directional curb measured values.

Directional Curb Sections in Curb Ramp Inspection Forms

The directional curb section of the inspection form is only on 5 of the 8 Curb Ramp Inspection forms. They are

Perpendicular

Combination

Cut through Island

Unique design

Blended Transition

Scroll through the images below to locate the Directional Curb section on each of the Curb Ramp Inspection Forms.

Oregon Department of Transportation

ADA Curb Ramp New Construction Inspection Form (Perpendicular)

Submit by E-mail

Project Name (Section) | Construction Year | Contract No. | Highway No. | MP | Cross Street Name

Calibration Date (mm/dd/yy)

See Exhibit A for more intersection styles

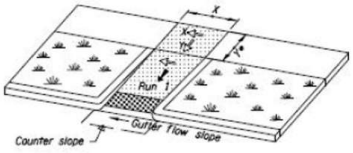
Ramp Style: PR

Functional Condition Description:
Good (G) = all applicable boxes pass OR a Design Exception addresses criteria that do not pass.
Poor (P) = any applicable box fails

Physical Condition Description:
Good (G) = the concrete within the Pedestrian Circulation Area (includes flares and path back to existing sidewalk) contains no cracks or deformations
Poor (P) = any part of the concrete within the Pedestrian Circulation Area (includes flares and transition panels) contains cracks or deformations

*1 The passing value for Gutter Flow Slope (GFS) and Direction Curb Cross Slope depend on the Intersection Condition Type. At a Midblock (MB), slopes must be ≤ Slope of the Road, at Signalized or Uncontrolled (SU), slopes must be ≤ 5.0%, and at Stop or Yield (SY), slopes must be ≤ 2.0%.

See also Standard Drawings to assess provisions not shown: (inlets, alignment, etc.)



PERPENDICULAR RAMP (PR)

- Pedestrian Access Route (to measure Clear Width)
- Detectable Warning Surface
- Cross Slope (2.0% max.)
- Running Slope (8.3% max.)
- Counter Slope (5.0% max.)
- Turning Space (X & Y) (2.0% max. / 4' x 4' min.)* * If constrained at back of walk, min. Y length is 5'.
- Gutter Flow Slope (as directed)

RAMP RUN 1		Pass	Fail	DE
Running Slope 1		≤ 8.3%	> 8.3%	
Length 1				
Cross Slope 1		≤ 2.0%	> 2.0%	
Detectable Warning		(TD, X)	(N,IITD, DMG TD)	
Lip Height		0"	> 0"	
Gutter Flow Slope		≤ *1	> *1	
Curb Running Slope (avg) N/A		≤ *2	> *2	
Counter Slope (+/-)		≤|5.0%|	>|5.0%|	

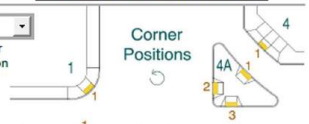
DIRECTIONAL CURB		Pass	Fail	DE
Directional Curb Running Slope		≤ 4.9%	> 4.9%	
Directional Curb Cross Slope		≤ *1	> *1	

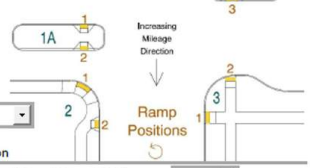
*2 CRS must be ≤ 4.9% when there is a Directional Curb present, else ≤ 8.3%

TURN SPACE / LANDING / NONE		Pass	Fail	DE
Width X		≥ 4.0'	< 4.0'	
Length Y		≥ 4.0'*	< 4.0'*	
Back of Ramp Obstruction (Y/N)				
Slope X		≤2.0%	>2.0%	
Slope Y		≤2.0%	>2.0%	

MISCELLANEOUS Traversable		Pass	Fail	DE
Flare Slope 1		≤ 10%	>10%	
Flare Slope 2		≤ 10%	>10%	
Clear Width (feet)		≥ 4.0'	< 4.0'	
Intersection Condition Type		Slope of Road		
Design Ex. Control Number				

Corner Position





Ramp Position

Physical Condition (G,P)

Functional Condition (G,P)

	Fail	DE		Fail	DE
CRK			ICRR		
DO			INLET XING		
EXP			STR		
GB			FT BT		

Add / Clear

Comment:

See also Standard Comments for full list of acceptable comments

Inspector's Signature | Date (mm/dd/yy)

Print name clearly | Certification No.

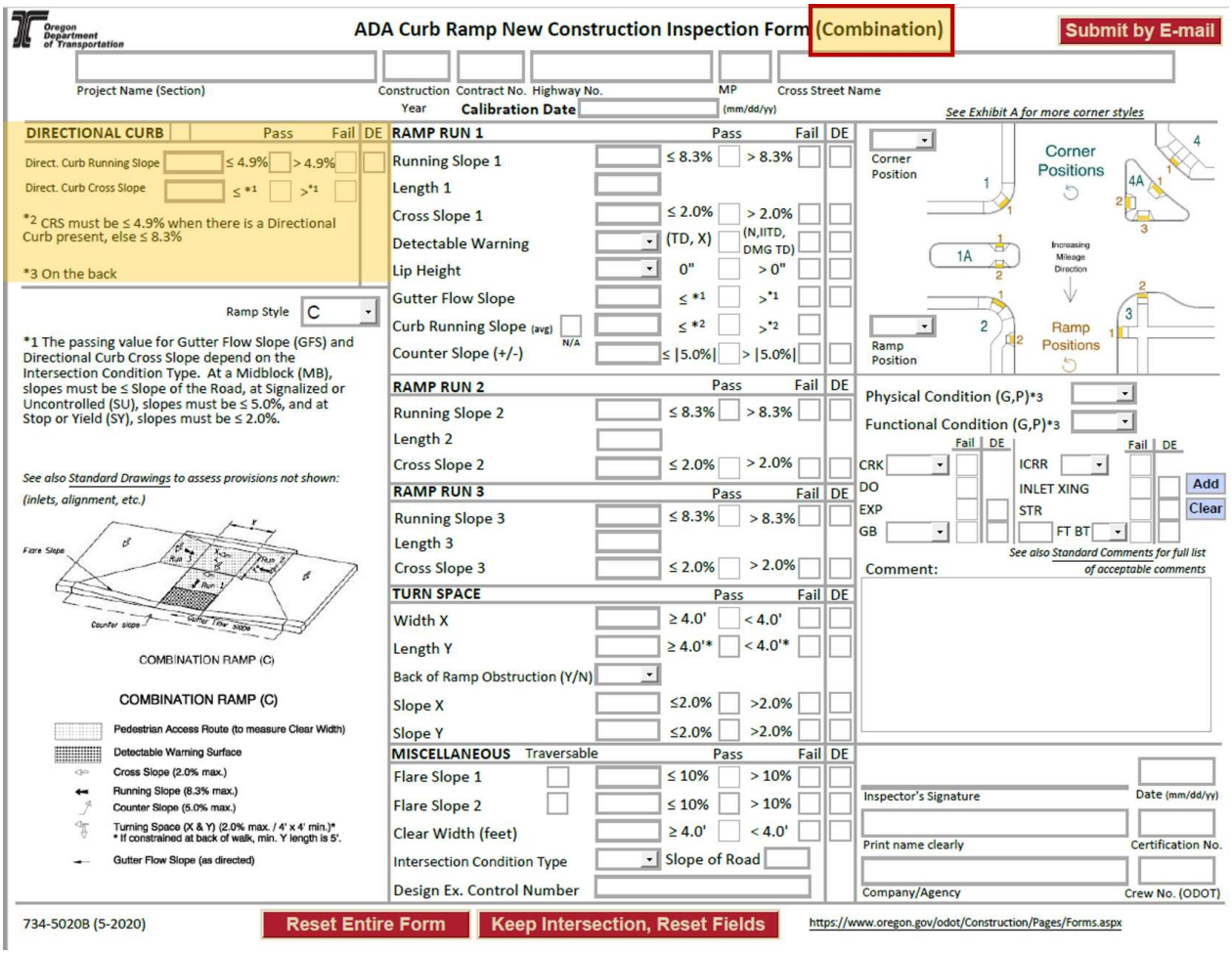
Company/Agency | Crew No. (ODOT)

734-5020F (5-2020)

Reset Entire Form | Keep Intersection, Reset Fields

https://www.oregon.gov/odot/Construction/Pages/Forms.aspx

Perpendicular



Combination

Oregon Department of Transportation

ADA Curb Ramp New Construction Inspection Form (Cut Through Island)

Submit by E-mail

Project Name (Section) | Construction Year | Contract No. | Highway No. | MP | Cross Street Name

Calibration Date (mm/dd/yy)

Ramp Style: CT

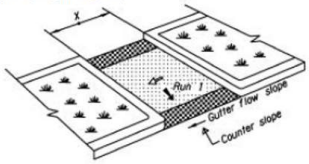
Functional Condition Description:
Good (G) = all applicable boxes pass OR a Design Exception addresses criteria that do not pass.
Poor (P) = any applicable box fails

Physical Condition Description:
Good (G) = the concrete within the Pedestrian Circulation Area (includes flares and path back to existing sidewalk) contains no cracks or deformations
Poor (P) = any part of the concrete within the Pedestrian Circulation Area (includes flares and transition panels) contains cracks or deformations.

*The passing value for Gutter Flow Slope (GFS), Directional Curb Cross Slope and Cross Slope 1 (CS1) depends on the Intersection Condition Type. CS1 follows the listed rules only on a Cut Through with a through movement. At a Midblock (MB), GFS and CS1 must be ≤ Slope of the Road, at Signalized or Uncontrolled (SU), GFS and CS1 must be ≤ 5.0%, and at Stop or Yield (SY), GFS and CS1 must be ≤ 2.0%. If a Turn Space is required, CS1 must be ≤ 2.0%.

NOTE: Use separate inspection form for each opening of cut-through.

See also Standard Drawings to assess provisions not shown: (inlets, alignment, etc.)



CUT THROUGH (CT)

- Pedestrian access route (To measure clear width)
- Detectable warning surface
- Cross slope
- Running slope
- Counter slope (5.0% finish grade max.)
- Gutter flow slope (as required)

RAMP RUN 1		Pass	Fail	DE
Running Slope 1	≤ 8.3%		>8.3	
Cross Slope 1	≤ *		>*	
Detectable Warning	(TD, X)		(N,IITD, DMG TD)	
Lip Height	0"		> 0"	
Gutter Flow Slope	≤ *		> *	
Curb Running Slope(avg) N/A	≤ *1		>*1	
Counter Slope (+/-)	≤|5.0%|		>|5.0%|	

DIRECTIONAL CURB		Pass	Fail	DE
Directional Curb Running Slope	< 5.0%		≥ 5.0%	
Directional Curb Cross Slope	≤ *		> *	

*1 CRS must be ≤ 4.9% when there is a Directional Curb present, else ≤ 8.3%

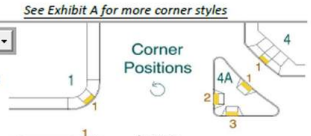
TURN SPACE / NO TURN SPACE		Pass	Fail	DE
Width X	≥ 5.0'		< 5.0'	
Length Y	≥ 5.0'		< 5.0'	
Slope X	≤ 2.0%		> 2.0%	
Slope Y	≤ 2.0%		> 2.0%	

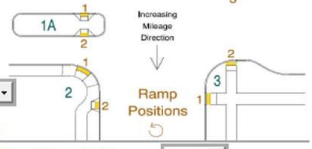
MISCELLANEOUS Traversable		Pass	Fail	DE
Flare Slope 1	≤ 10%		> 10%	
Flare Slope 2	≤ 10%		> 10%	
Clear Width (feet)	≥ 5.0'		< 5.0'	

Intersection Condition Type
Slope of Road
Cut Through Length ≥ 6 FT (Y/N)
Design Ex. Control Number

See Exhibit A for more corner styles

Corner Position





Ramp Position

Physical Condition (G,P)
Functional Condition (G,P)

	Fail	DE		Fail	DE
CRK			ICRR		
DO			INLET XING		
GB			STR		

Add | Clear

Comment:

See also Standard Comments for full list of acceptable comments

Inspector's Signature | Date (mm/dd/yy)

Print name clearly | Certification No.

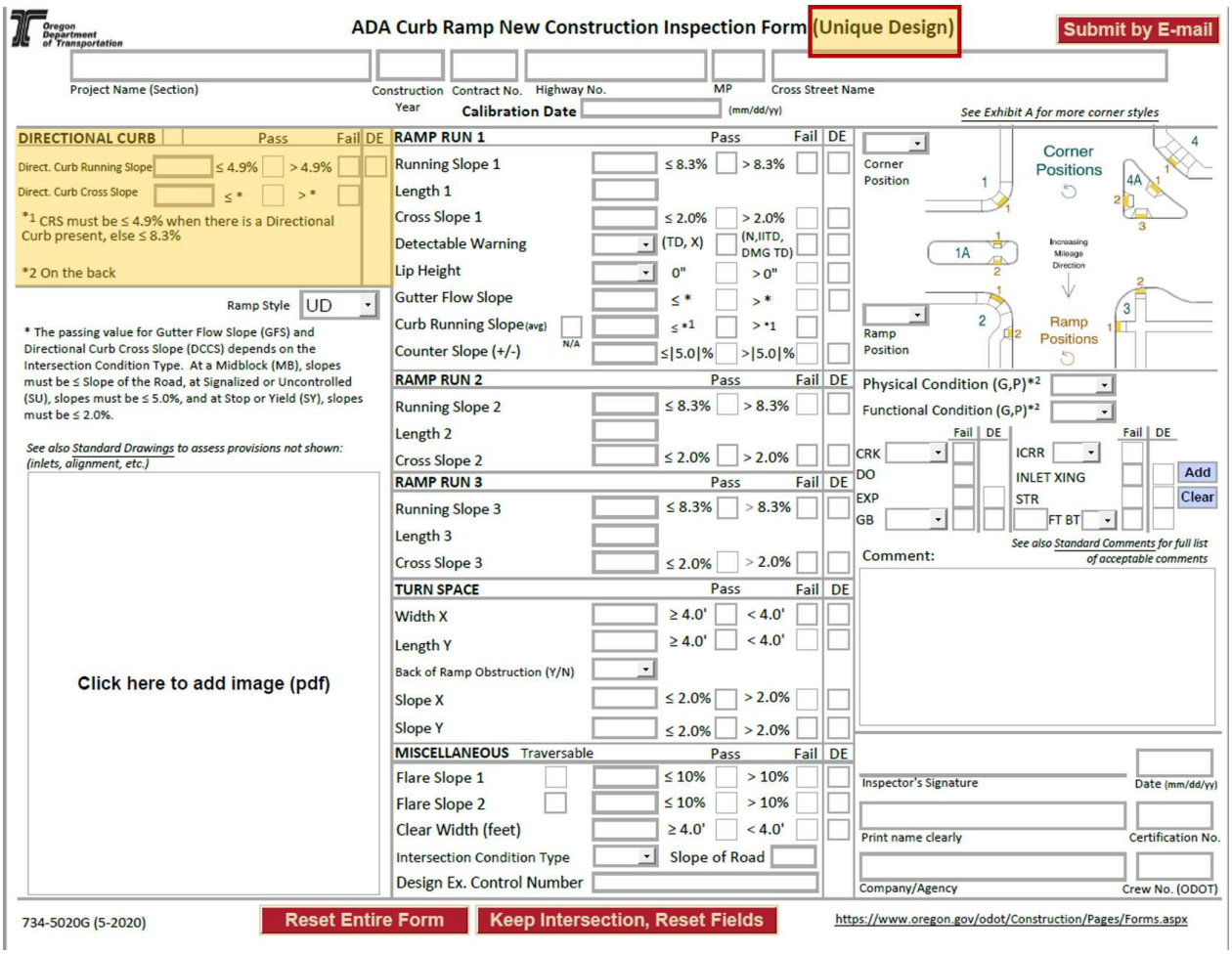
Company/Agency | Crew No. (ODOT)

734-5020C (5-2020)

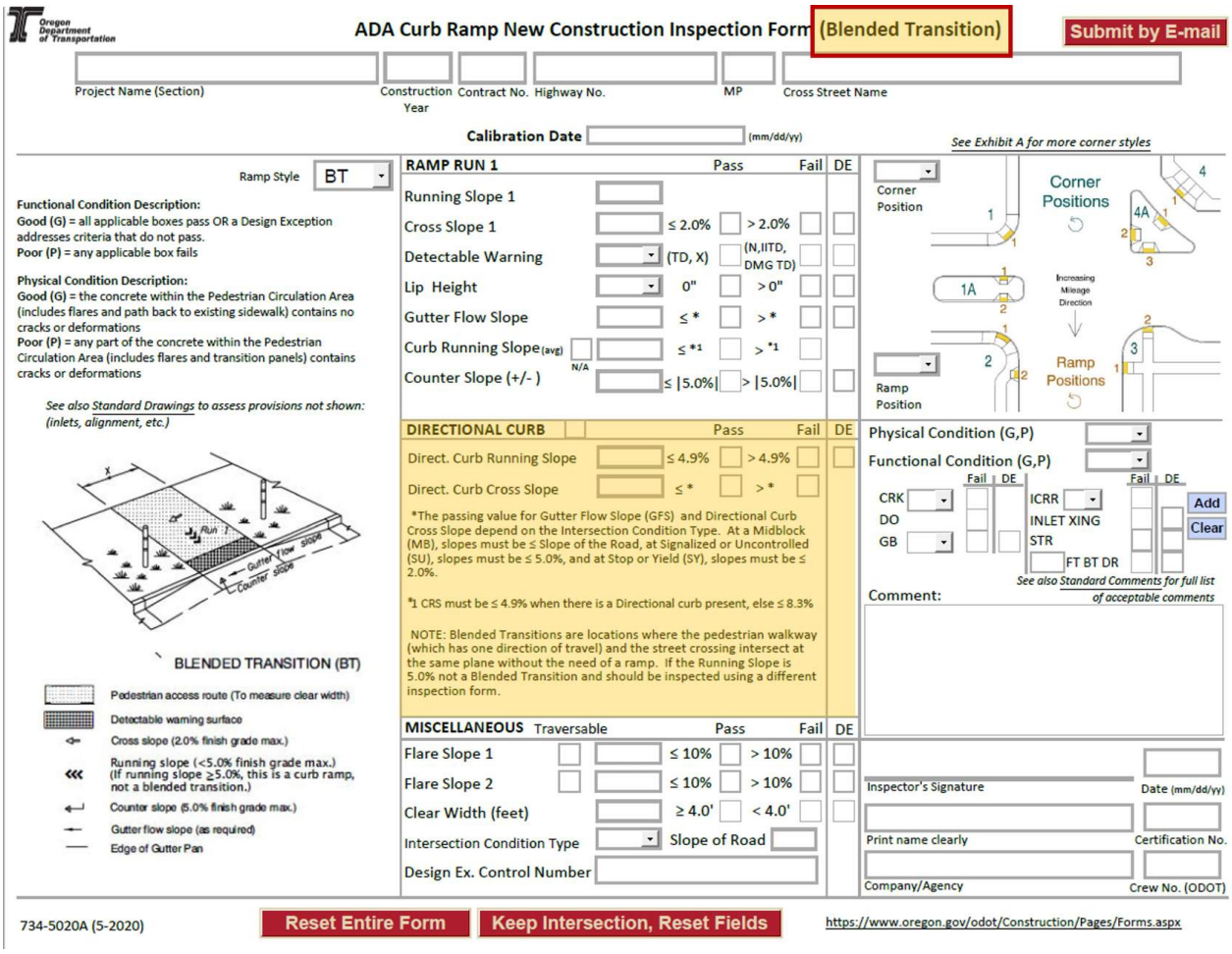
Reset Entire Form | Keep Intersection, Reset Fields

https://www.oregon.gov/odot/Construction/Pages/Forms.aspx

Cut Through Island



Unique Design



Blended Transition

04:33

Continue Audio Narration

When a Grade Break is Missing Between Directional Curb and Ramp Run 1

If there is not a measurable or visible grade break creating a rectangular Ramp Run 1, **slope measurements are still captured for the surface of the polygon and triangular portions of the curb ramp system.** Separate any rectangular section from the "triangle" section of the directional curb. If the detectable warnings are at the back of curb, include entire detectable warnings within the directional curb segment. It is recommended to mark the two components with a crayon and take a photo. Record the rectangle measurements in the Ramp Run 1 section of the inspection form. Record the triangle measurements in the directional curb section of the form. This captures the slope measurements in that portion or component of the curb ramp system. **If the running slope of the directional curb is greater than 4.9%, the curb ramp system fails.**

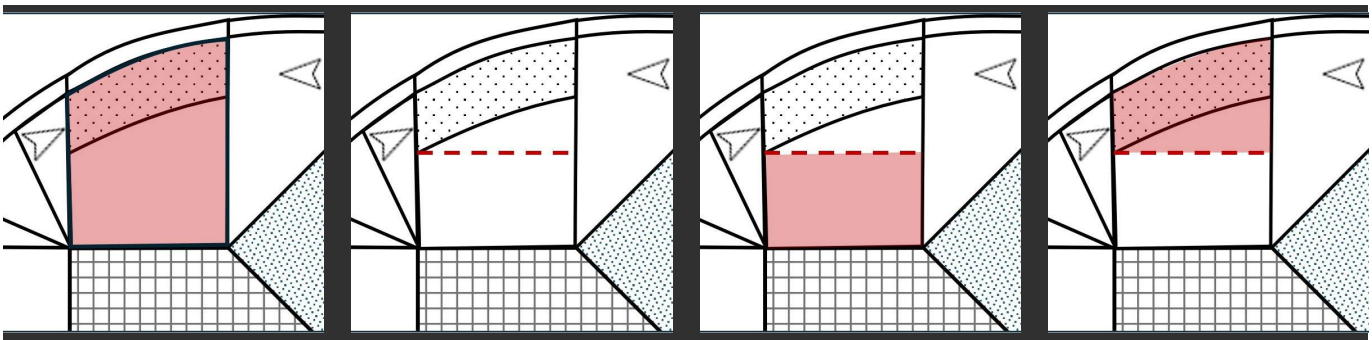
How to Segment with Detectable Warnings on Ramp Run 1

A. Ramp Run 1 and Directional Curb without a Grade Break

B. Measure Rectangle as Ramp Run 1

C. Measure Triangle as Directional Curb

How to Segment a Directional Curb with Detectable Warnings at Back of Curb



1. Ramp Run 1 and Directional Curb without a Grade Break

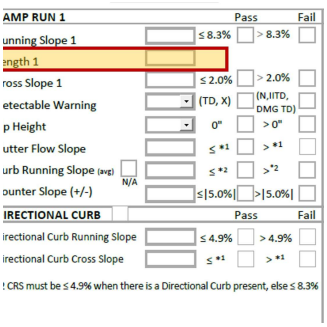
2.Split Ramp Run and Directional Curb into two segments.

3.Measure Rectangle as Ramp Run 1

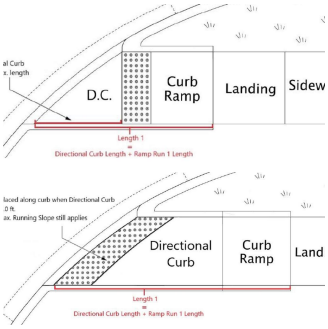
4.Measure highlighted as Directional Curb

Length 1 Calculation with Directional Curb

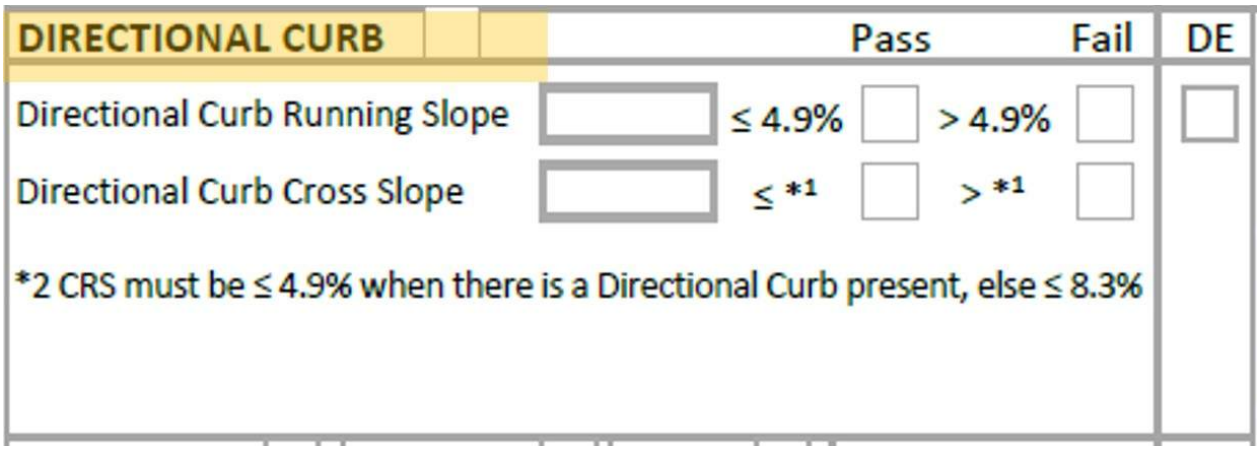
When a directional curb is present, Length 1 in the Ramp Run 1 section of the inspection form, is the sum of the Ramp Run 1 length plus the longest side of the directional curb.



Length 1 in the Ramp Run 1 Section of the Curb Ramp Inspection Form



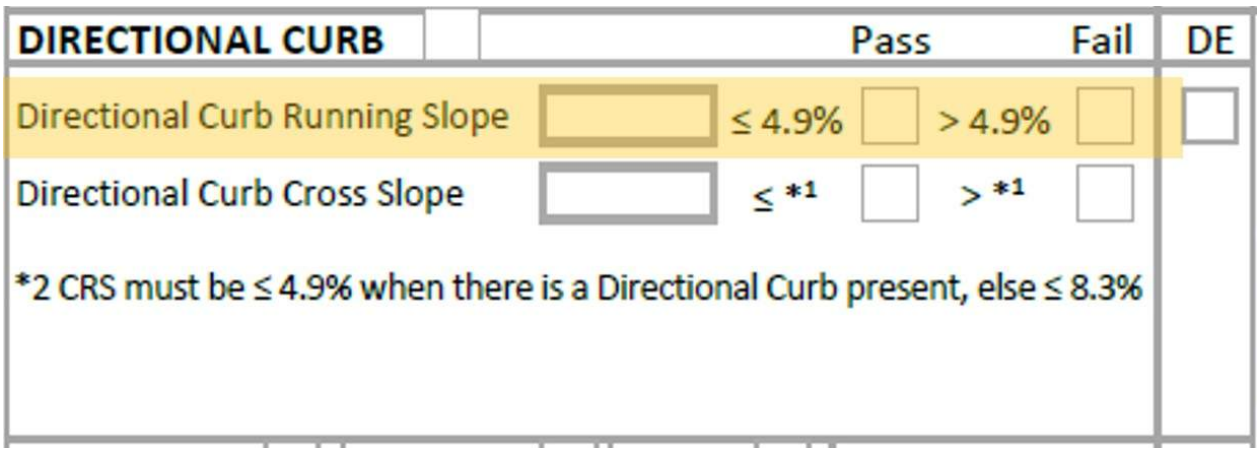
The Length 1 Measurement of a Curb Ramp with a Directional Curb.



Directional Curb Check Box on the Curb Ramp Inspection Form

Directional Curb Check Box

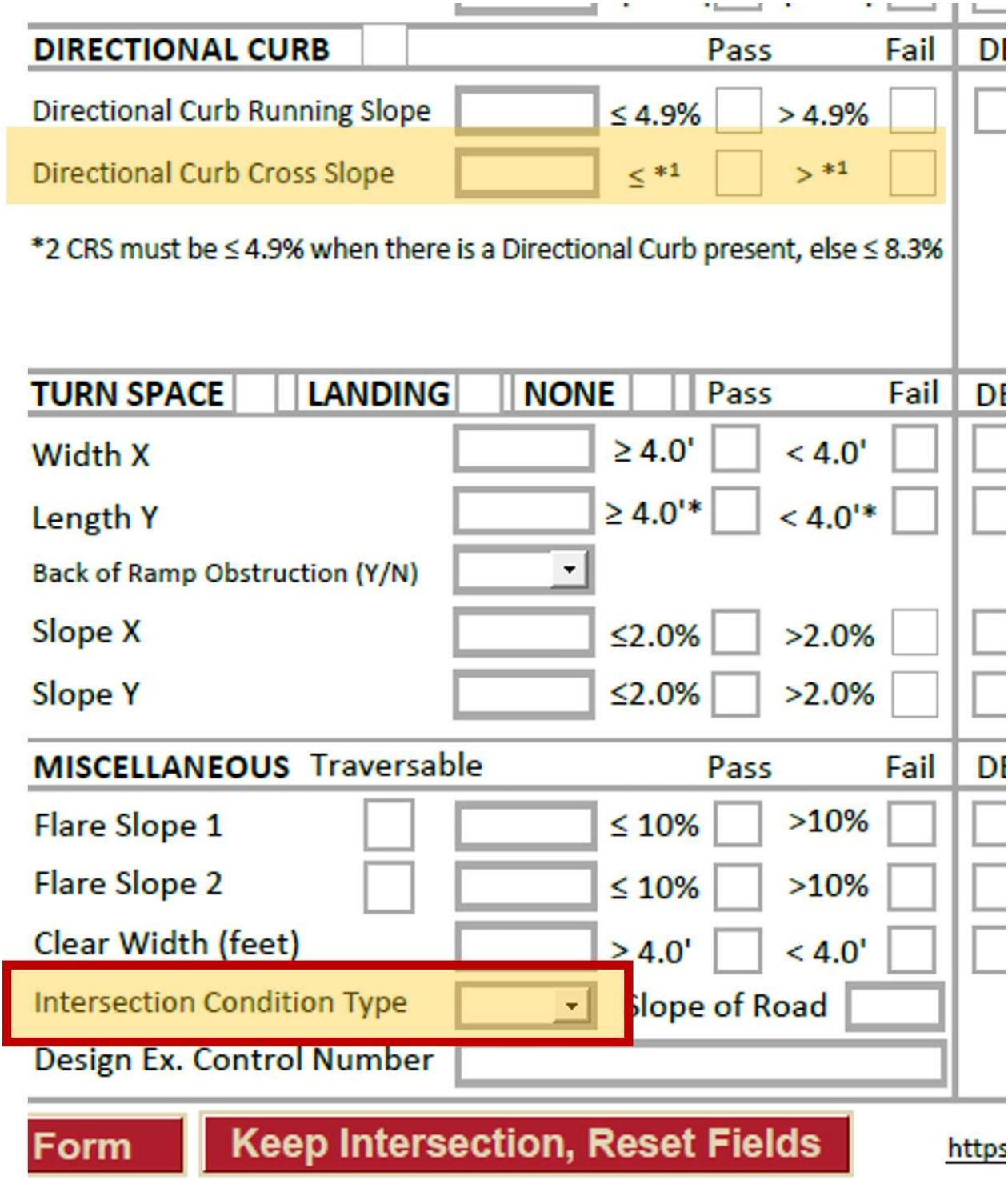
Mark the Directional Curb box at the top of the section when there is a directional curb, triangular shape or any other surface beyond the rectangular ramp run present at the gutter line to connect to the crosswalk (non-perpendicular grade break).



Directional Curb Running Slope Box on the Curb Ramp Inspection Form

Directional Curb Running Slope

Provide the maximum directional curb running slope value to the nearest tenth. Check the design exception (DE) box if applicable. **If the running slope is greater than 4.9%, the curb ramp system fails.**



Intersection Condition Type and the Directional Curb Ramp Cross Slope Boxes in the Curb Ramp Inspection Form

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Directional Curb Cross Slope

Provide the directional curb ramp cross slope. Before entering the value, **Choose the correct Intersection Control Type for the curb ramp location in the drop-down menu before entering the values for directional curb cross slope.**

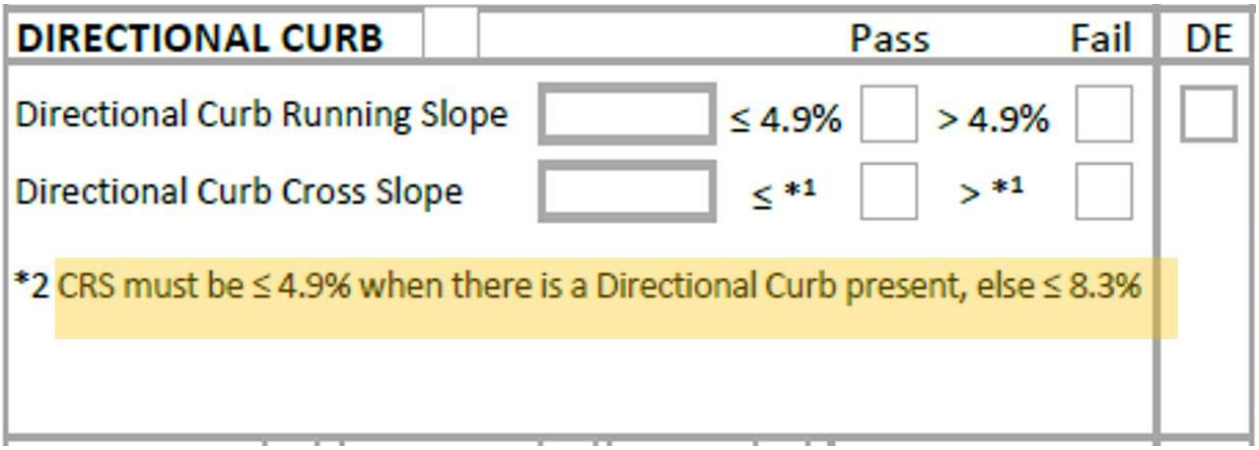

Image of the Curb Running Slope note in the Directional Curb Section of the Curb Ramp Inspection Form

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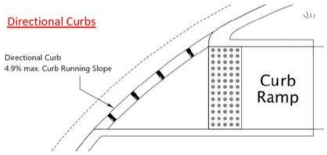
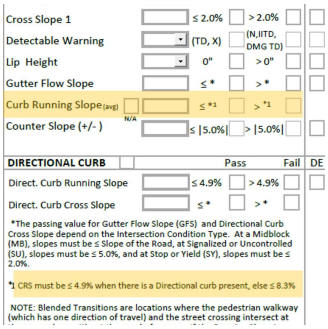
Curb Running Slope for Directional Curb

See the note about the Curb Running Slope (CRS), which is the running slope of the curb in front of the directional curb, must be **less than or equal to 4.9%** to pass inspection. Remember, the **curb running slope is the AVERAGE measured slope.** The Curb Running Slope is recorded in the Ramp Run 1 section of the form.



Curb Running Slope (CRS) on a Directional Curb



Cross Slope 1		≤ 2.0%		> 2.0%		
Detectable Warning		(TD, X)		(N,ITD, DMG TD)		
Lip Height		0"		>0"		
Gutter Flow Slope		≤ *		> *		
Curb Running Slope (avg)	N/A	≤ *1		> *1		
Counter Slope (+/-)		≤ |5.0%|		> |5.0%|		
DIRECTIONAL CURB			Pass		Fail	DE
Direct. Curb Running Slope		≤ 4.9%		> 4.9%		
Direct. Curb Cross Slope		≤ *		> *		

*The passing value for Gutter Flow Slope (GFS) and Directional Curb Cross Slope depend on the Intersection Condition Type. At a Midblock (MB), slopes must be ≤ Slope of the Road, at Signalized or Uncontrolled (SU), slopes must be ≤ 5.0%, and at Stop or Yield (SY), slopes must be ≤ 2.0%.

*1 CRS must be ≤ 4.9% when there is a Directional curb present, else ≤ 8.3%

NOTE: Blended Transitions are locations where the pedestrian walkway (which has one direction of travel) and the street crossing intersect at

Curb Running Slope Box on the Inspection Form

Directional Curbs on Blended Transitions

DIRECTIONAL CURB			Pass		Fail	DE
Direct. Curb Running Slope		≤ 4.9%		> 4.9%		
Direct. Curb Cross Slope		≤ *		> *		

*The passing value for Gutter Flow Slope (GFS) and Directional Curb Cross Slope depend on the Intersection Condition Type. At a Midblock (MB), slopes must be ≤ Slope of the Road, at Signalized or Uncontrolled (SU), slopes must be ≤ 5.0%, and at Stop or Yield (SY), slopes must be ≤ 2.0%.

*1 CRS must be ≤ 4.9% when there is a Directional curb present, else ≤ 8.3%

NOTE: Blended Transitions are locations where the pedestrian walkway (which has one direction of travel) and the street crossing intersect at the same plane without the need of a ramp. If the Running Slope is 5.0% not a Blended Transition and should be inspected using a different inspection form.

Note in the Directional Curb Section of the Blended Transition Curb Ramp Inspection Form.

The Blended Transition Inspection Form has additional information in the Directional Curb section. It clarifies that a blended transition is used when a walkway and the street crossing intersect at the same plane. **If the running slope of the walkway is greater than 4.9% then it is not a blended transition and it is a different style of curb ramp. A different curb ramp inspection form should be used.**

If there is not a perpendicular grade break and/or no change in slope between Ramp Run 1 and the directional curb, the directional curb portion slopes of the component is still recorded. If the slope of this combined planar surface is greater than 4.9% than it will not pass inspection.

03:30

Continue Audio Narration

Three Ramp Runs Rule

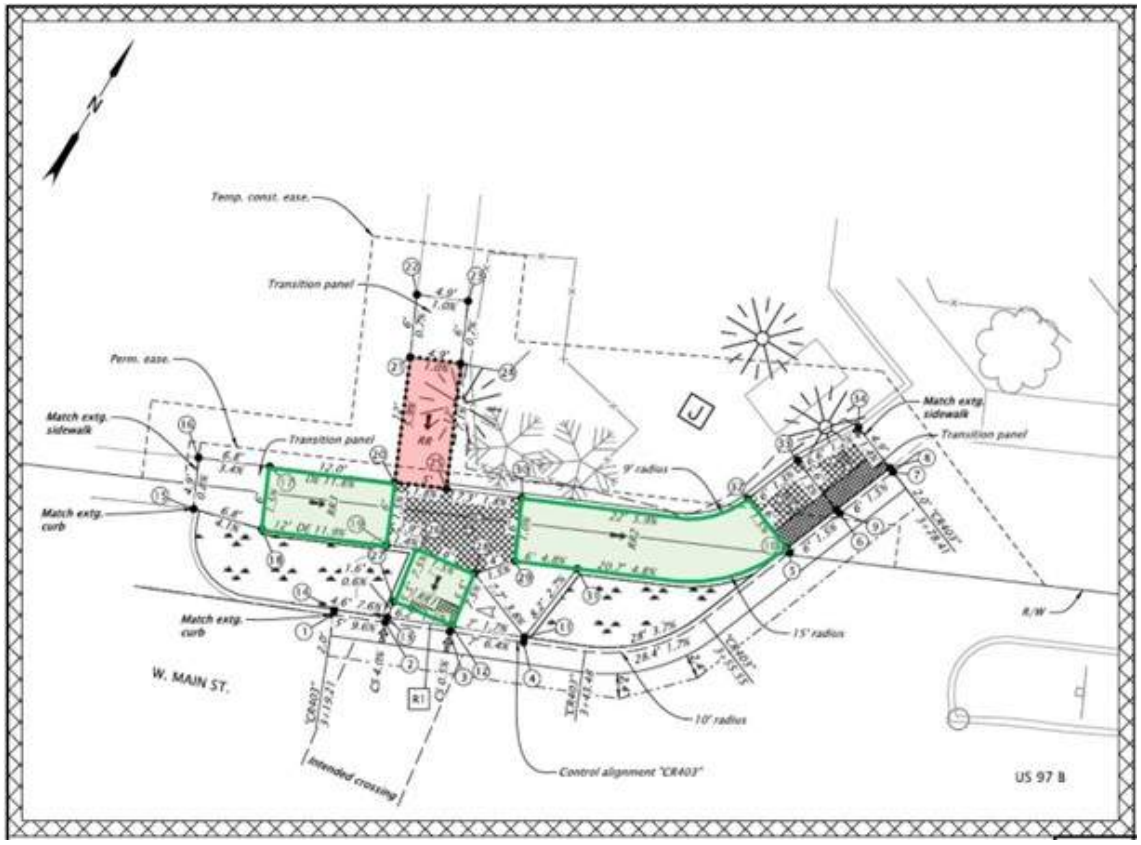
On the Curb Ramp Inspection Forms only 3 Ramp Runs can be recorded for each curb ramp. Sometimes, there are more than 3 Ramp Runs at a location. The Ramp Runs that are retained on the form, generally are:

- Ramp Run 1- it is the curb ramp that connects to the roadway.
- Ramp Run 2- it is connected to the pedestrian route along the roadway, generally to the right of the turn space.

- Ramp Run 3- it is connected to the pedestrian route along the roadway, generally to the left of the turn space.
- Sometimes Ramp Run 2 or 3 are at the back of the turn space.
- Use the counterclockwise convention for numbering ramp runs on a curb ramp.

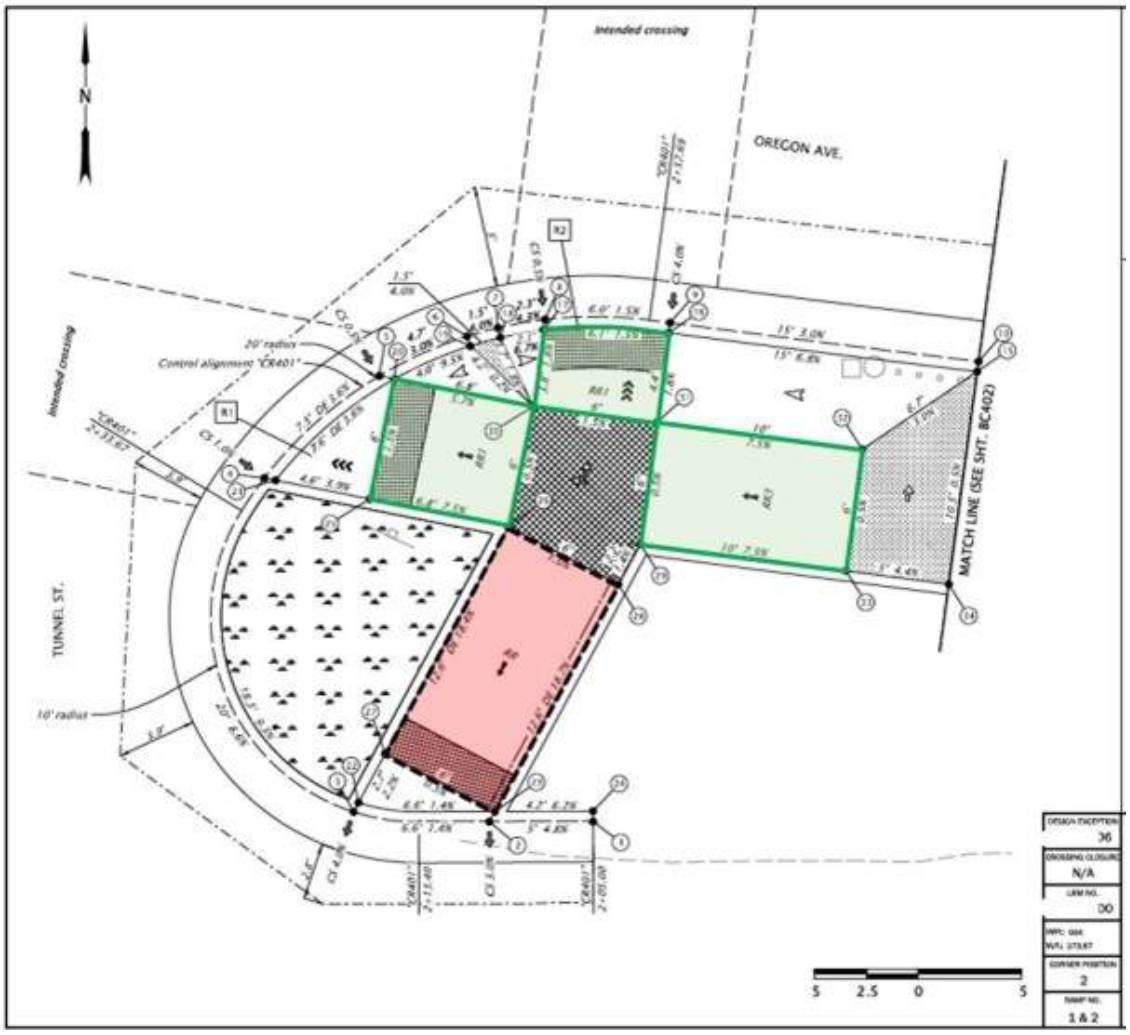
Connections to or on properties or other Rights-of-Way are generally not recorded on the Inspection Forms.

Review the following image for the curb ramp system components designed at a corner. The image shows the ramp runs highlighted in **green** (solid outside line) and labeled on the plans as RR1, RR2 and RR3. The green highlighted ramp runs are to be recorded in the Curb Ramp Inspection Form. The ramp run highlighted in **red** (dotted outside line) is labeled RR and should be inspected for running slopes, cross slopes, clear widths, lips, etc. but the information is not recorded on the Curb Ramp Inspection Form.



More than 3 Ramp Runs Example.

Let's look at another example. Review the following image of the curb ramp system components designed at a corner. In this case, the frontage road along the south of the page is not on ODOT ROW. The ramp labeled RR serves the crosswalk for the non-state frontage road and is off the state system.



Two Curb Ramps on the Highway System and One Off the Highway System

There are three curb ramp openings at the corner and one of the ramp runs is labeled as RR. The ramp runs highlighted in **green** (solid outside line) are called out on the plans as

- RR1 (Curb Ramp 1, Ramp 1)
- RR1 (Curb Ramp 2, Ramp 1) and
- RR3 (it is RR3 for both curb ramps).

These will get recorded on an ODOT Curb Ramp Inspection form for each curb ramp; one for Curb Ramp 1 and another for Curb Ramp 2.

The ramp run highlighted in **red** (dotted outside line) is labeled RR and is inspected and recorded on an ODOT Curb Ramp Inspection form as an off-system curb ramp.

Ramp Run Activity

All ramp styles include at least one ramp run. Ramp Run 1 is always the ramp connected to the street crossing. Ramp Run 2 and Ramp Run 3 apply to Parallel, Combination, and Unique Design style Ramps. Ramp runs are ordered the same as corners and ramp positions - counter-clockwise. Starting from Ramp Run 1, Ramp Run 2 will be the next position in the counter-clockwise direction. For help in determining the ramp run positions, see Exhibit A:

PDF

ADA_ExhibitA.pdf
1.2 MB

The activity below is testing your knowledge of ramp position labeling. You must drag and drop the correct number of ramp run positions to the corresponding location. The label will turn green if you are correct, and red if you are incorrect. Continue until all the boxes are green. Once you have completed the activity, you will be able to move on.

Unit 9 Lesson 6: Turn Space & Landings

You must click on all images before moving on to next Lesson.

02:39

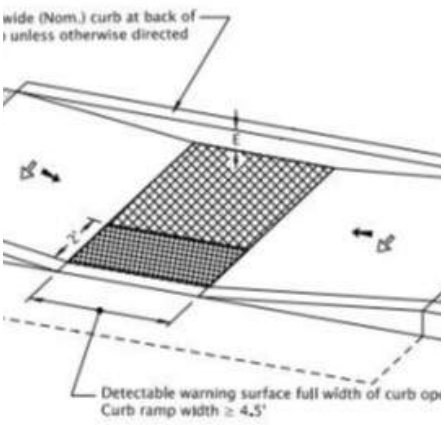
Start Audio Narration

Turn Spaces & Landings Review

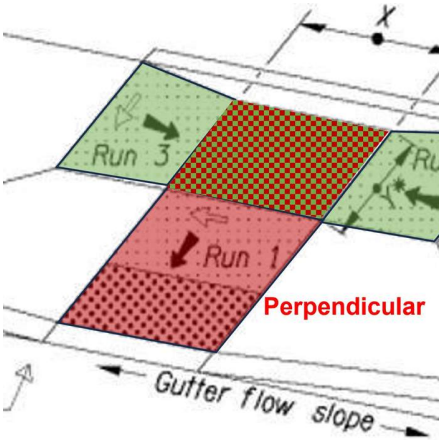
Turn Spaces

- A turn space is a level area where a user can change direction in the curb ramp system.
- The minimum turn space dimension is 4 feet x 4 feet or 4 feet x 5 feet when obstructed at the back of the turn space.
- Perpendicular, Combination, Parallel and Unique Design curb ramps have turn spaces.
- Blended Transitions, Cut Through Islands and End of Walk curb ramps may or may not have a turn space.

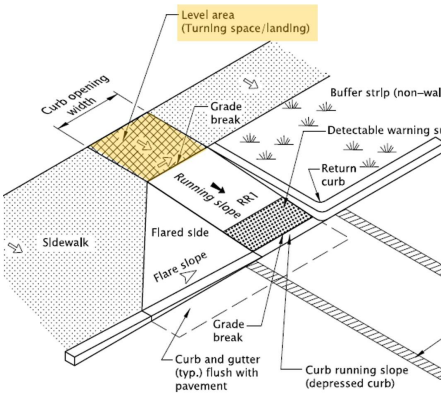
Click on the images below for a full view of turn spaces on different curb ramp styles.



Parallel Turn Space



Combination Turn Space



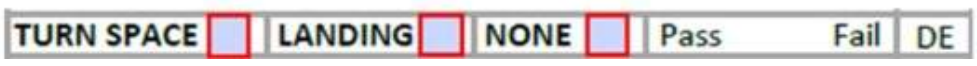
Perpendicular Turn Space

Landings

- Landings provide a level area for resting but is not utilized for a turning movement.
- The minimum Landing dimension is 4 feet x 4 feet.
- Perpendicular and End of Walk curb ramps can have landings instead of turn spaces.

Note: Parallel style ramps will have the same values for Ramp Run 1 and turn space.

Turn Space and Landing Section of the Inspection Form



Turn Space, Landing or None Checkboxes on the Inspection Forms

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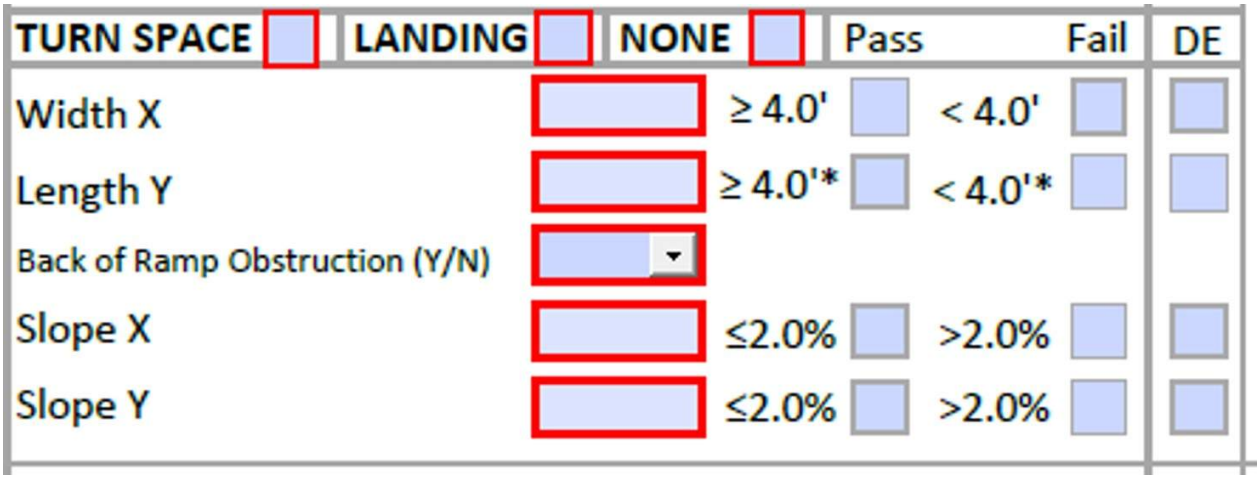
Check appropriate box for

- Turn Space
- Landing
- or None



TURN SPACE ☐	LANDING ☐	NONE ☐	Pass	Fail	DE
Width X		≥ 4.0' ☐	< 4.0' ☐		☐
Length Y		≥ 4.0'* ☐	< 4.0'* ☐		☐
Back of Ramp Obstruction (Y/N)					
Slope X		≤2.0% ☐	>2.0% ☐		☐
Slope Y		≤2.0% ☐	>2.0% ☐		☐

Turn Space and Landing Section on the Curb Ramp Inspection Form

---

- **Width X and Length Y**
  - Record the shortest distances measured in the X and Y Directions.
- **Back of Ramp Obstruction (Y/N)**
  - Choose Yes or No from the drop-down menu.
    - Choose Yes if there is any obstruction within 12-inches beyond the back of a Turn Space.
- **Slope X and Slope Y**

- Record the greatest slopes measured in the X and Y directions.

Turning Spaces & Landings FAQ

Q: Given that the level placement for measuring finished ramps on landings is only to be placed in the X and Y direction. During the course it was mentioned that a ramp can fail based on a measurement anywhere, does this mean in any direction?

A: No. ODOT's level placement and methodology for measuring curb ramps captures the measurements parallel and perpendicular to the pedestrian path of travel on the pedestrian accessible route. If we measure 2.0% x 2.0% passing in the X and Y directions, and then measure the diagonal direction, the mathematical value is 2.8% on a level square area.

Review all figures and advance audio to the end before moving on. A lesson quiz is on the next screen.

CONTINUE

Unit 9 Lesson 7: Miscellaneous Measurements

You must click on all images before moving on to next Lesson.

04:11

Start Audio Narration

Miscellaneous Section of the Inspection Form

MISCELLANEOUS	Traversable		Pass	Fail	DE
Flare Slope 1	☐	☐ ≤ 10%	☐	>10% ☐	☐
Flare Slope 2	☐	☐ ≤ 10%	☐	>10% ☐	☐
Clear Width (feet)		☐ ≥ 4.0'	☐	< 4.0' ☐	☐
Intersection Condition Type		☐ Slope of Road ☐			
Design Ex. Control Number		☐			

Miscellaneous Section of the Inspection Form

Intersection Condition Type

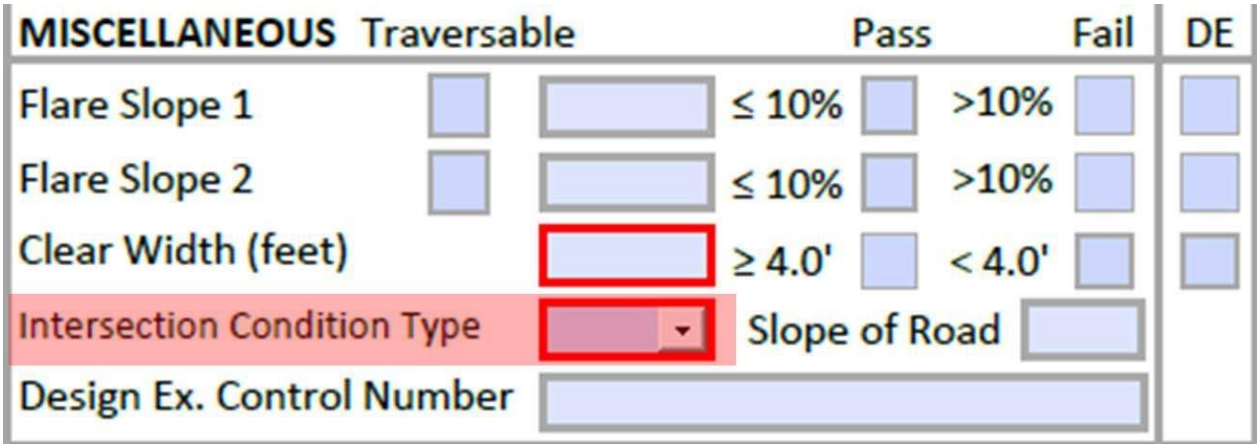
The intersection condition type, also referred to as the intersection control type, determines the acceptable gutter flow slope and other measurements on the inspection form. To complete the curb ramp inspection, the intersection condition type must be selected. This concept was covered in previous units. The three conditions that could be selected are:

1. Stop or Yield (SY)
2. Signalized or Uncontrolled (SU)
3. Midblock (MB)

The intersection condition type should be incorporated in the curb ramp design and identified in the contract plans. Information on how to determine Intersection Control Type is provided in Exhibit D: Intersection Control Type and Design Gutter Flow Slope Conditions. If you are in doubt or unable to locate the information for intersection control type on your project, contact your contract support personnel administering your project.

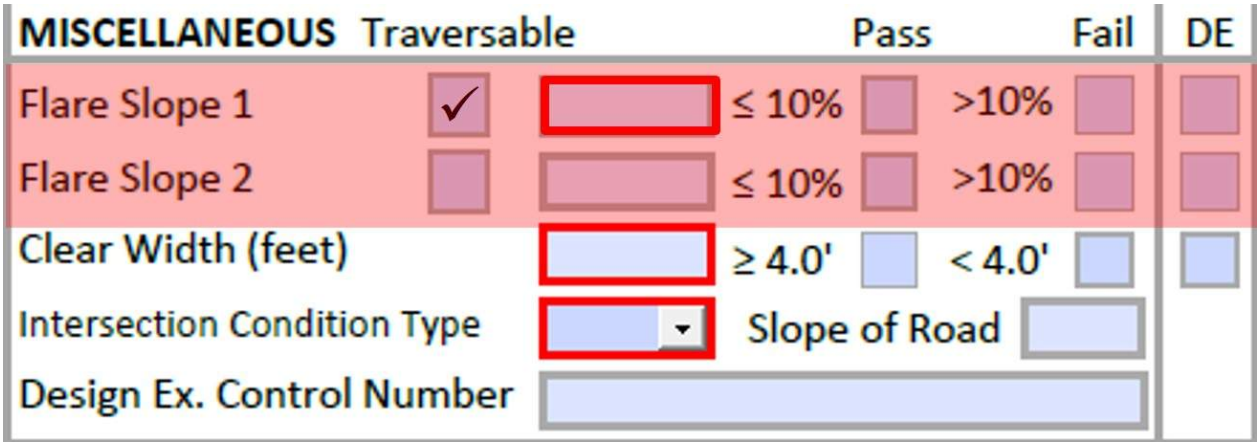
The passing value for gutter flow slope, cross slope 1 and directional curb cross slope (if applicable) will be determined by the intersection condition type.

- At a stop/yield intersection approach, the gutter flow slope must be less than or equal to 2.0%.
- At a signalized/uncontrolled intersection approach, the gutter flow slope must be less than or equal to 5.0%.
- At midblock locations, the gutter flow slope is permitted to be less than or equal to the slope of road or under 2.0% whichever is greater. Slope of road is entered in the box next to this selection.

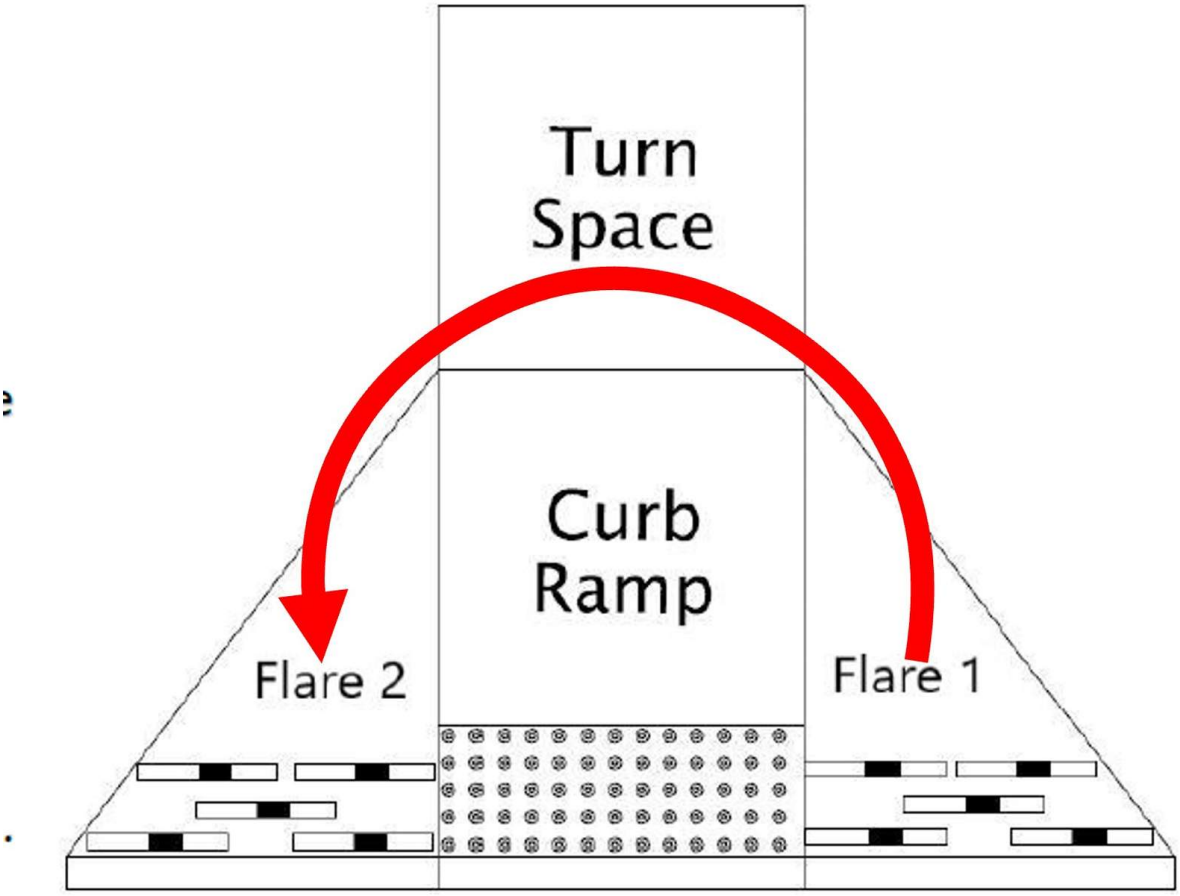


Intersection Condition Type on the Inspection Form.

Flare Slopes 1 and 2



Flare Slopes on the Inspection Form



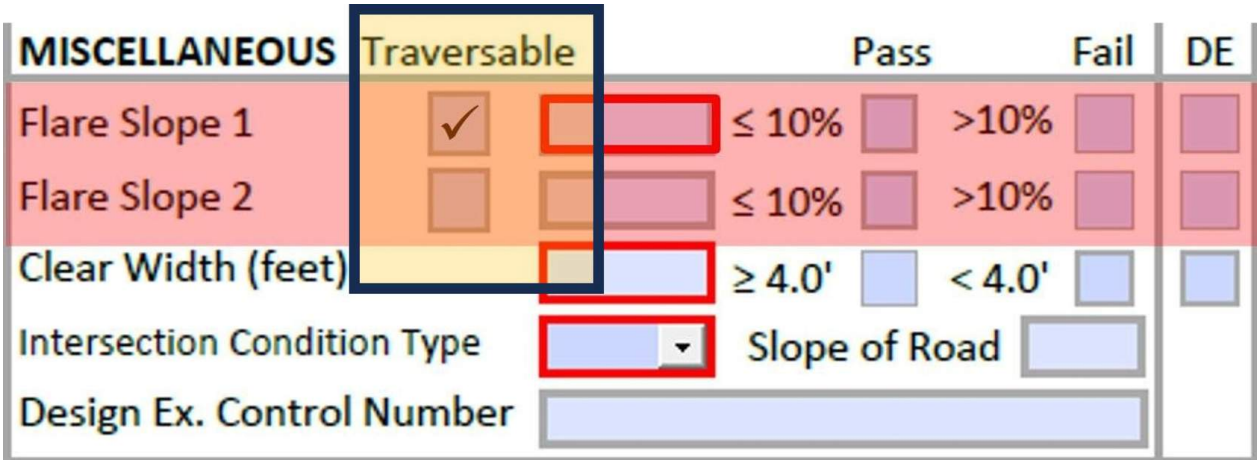
Flare Measurements and Counterclockwise Flare Numbering Convention

As discussed in previous Units, when flares are provided in a curb ramp design, the slopes of the flares are recorded. Following counterclockwise convention in curb ramp numbering, Flare 1 is on the right side of the ramp and Flare 2 is on the left side of the ramp.

Traversable vs. Non-traversable

As discussed in previous Units, when a flare is constructed adjacent to a hard surface that can be walked on by pedestrians it is considered to be a traversable flare. When a flare is adjacent to a surface not designed to be walked on, such as landscaping or grouted durable rock, it is not a traversable flare.

Flare 1 is Traversable and Flare 2 is not Traversable



Traversable Flare Check Box in the Miscellaneous Section of the Inspection Form

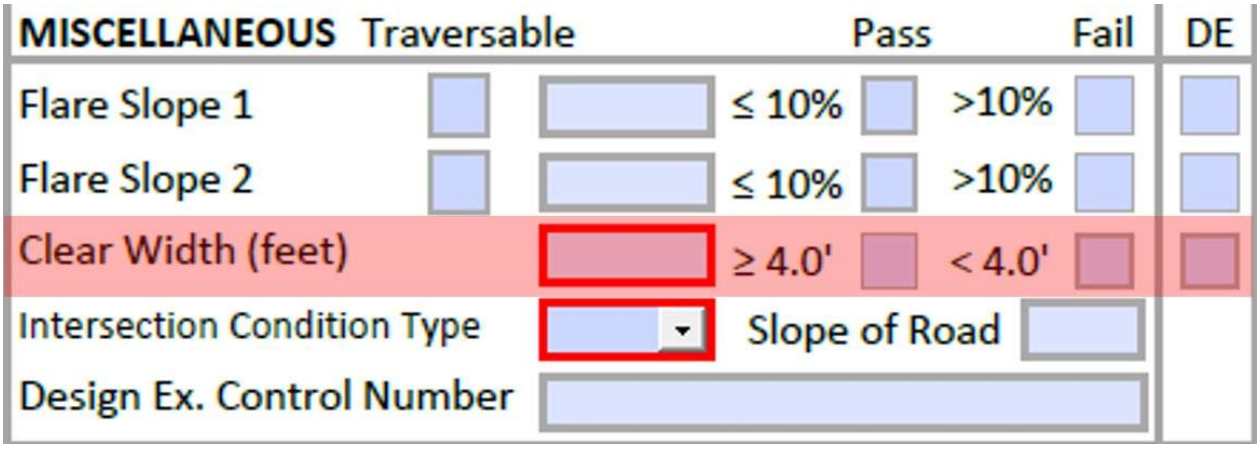
If the surface adjacent to the flare is traversable, check the traversable box next to each Flare Slope entry in the Miscellaneous Section of the curb ramp inspection form. The flare slope box will then outline in red and become a required entry.

Always enter in the highest measured value of the flare slope, even if the box is not highlighted. When a flare is constructed, maximum flare slope is 10%. When design exceptions are approved, remember to check the DE box first. The form will calculate the maximum allowable slope for you.

Leave the flare sections blank if no flares are constructed at the curb ramp.

Clear Width

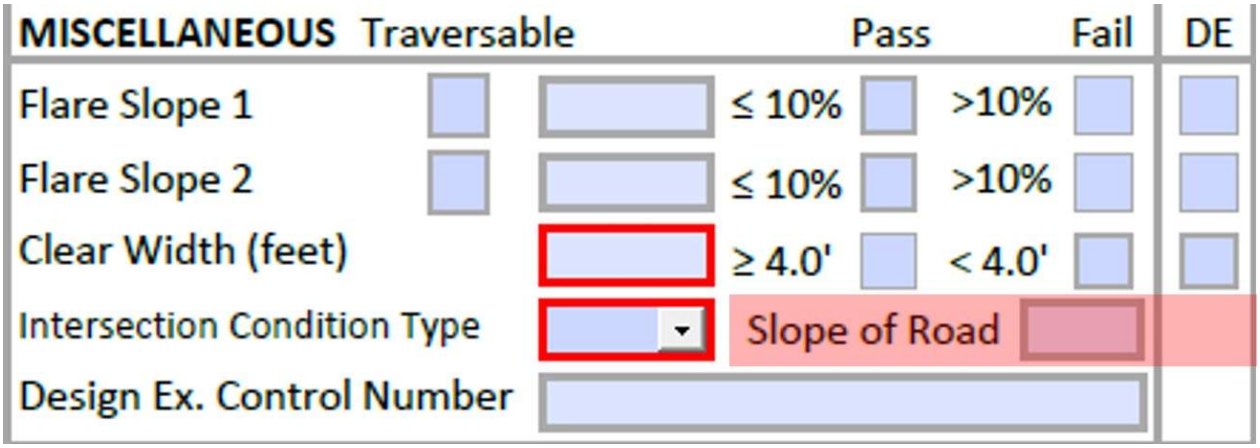
Clear width refers to the width of the accessible pedestrian route through the curb ramp proximity limits. **The minimum clear width for a pedestrian route is 4 feet.** Remember to look around for various objects or features that reduce the accessible path for pedestrians such as traffic and utility poles, fire hydrants, mailboxes and fixed furniture such as planters and benches. **Record the smallest clear width value in feet to the tenth foot.**



Clear Width in the Miscellaneous Section of the Inspection Forms

Look for objects or features up to seven feet above the finish surface of the sidewalk. When an object is within the curb ramp proximity limits, provide a note in the standard comments box.

Slope of the Road



Slope of the Road in the Miscellaneous Section of the Inspection Forms

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Record the nominal value measured for slope of road. This measurement is taken parallel to the curb in front of the curb ramp beyond the gutter pan. Slope of road is the controlling criteria for some elements.

Review all figures and advance audio to the end before moving on. A lesson quiz is on the next screen.

CONTINUE

Unit 9 Lesson 8: Standard Comments, Inspector Sign-Off

You must click on all images before moving on to next Lesson.

03:02

Start Audio Narration

Comments Section of the Inspection Form

The Comments section of the Curb Ramp Inspection Form has two main parts: The Standard Comments Box and the Inspector's sign-off.

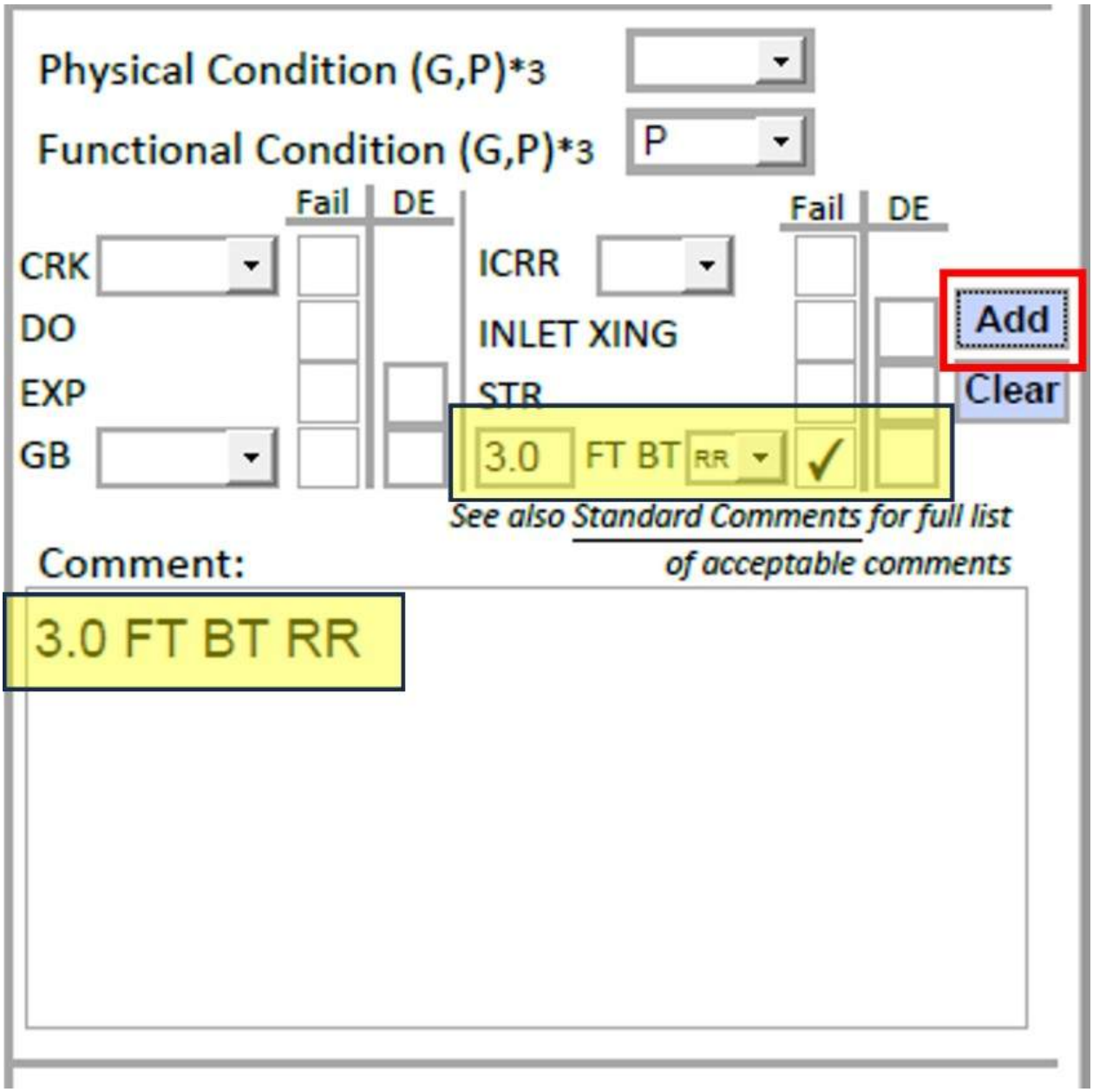
The comments section is an important part of the curb ramp inspection form. It provides a location to record the newly constructed or modified curb ramp features. It is also the location for comments calling out unique elements such as placement of red truncated domes and grouted durable rock, (which require Design Exception approval to be installed). There is a link in the comments section of the forms with a link to Standard Comments.

Additionally, comments are used to describe where some failures occur. For example, if there is a failure due to a lip issue, the comment LIP AT BOC can be used to communicate that there is a lip located at the back of curb. If you have multiple lips occurring at that location, each one must be noted. While only the final passing forms are turned into the ADA Inventory Team, it is

recommended to retain a copy of the inspection form showing comments of failing features and use for remediation and project records.

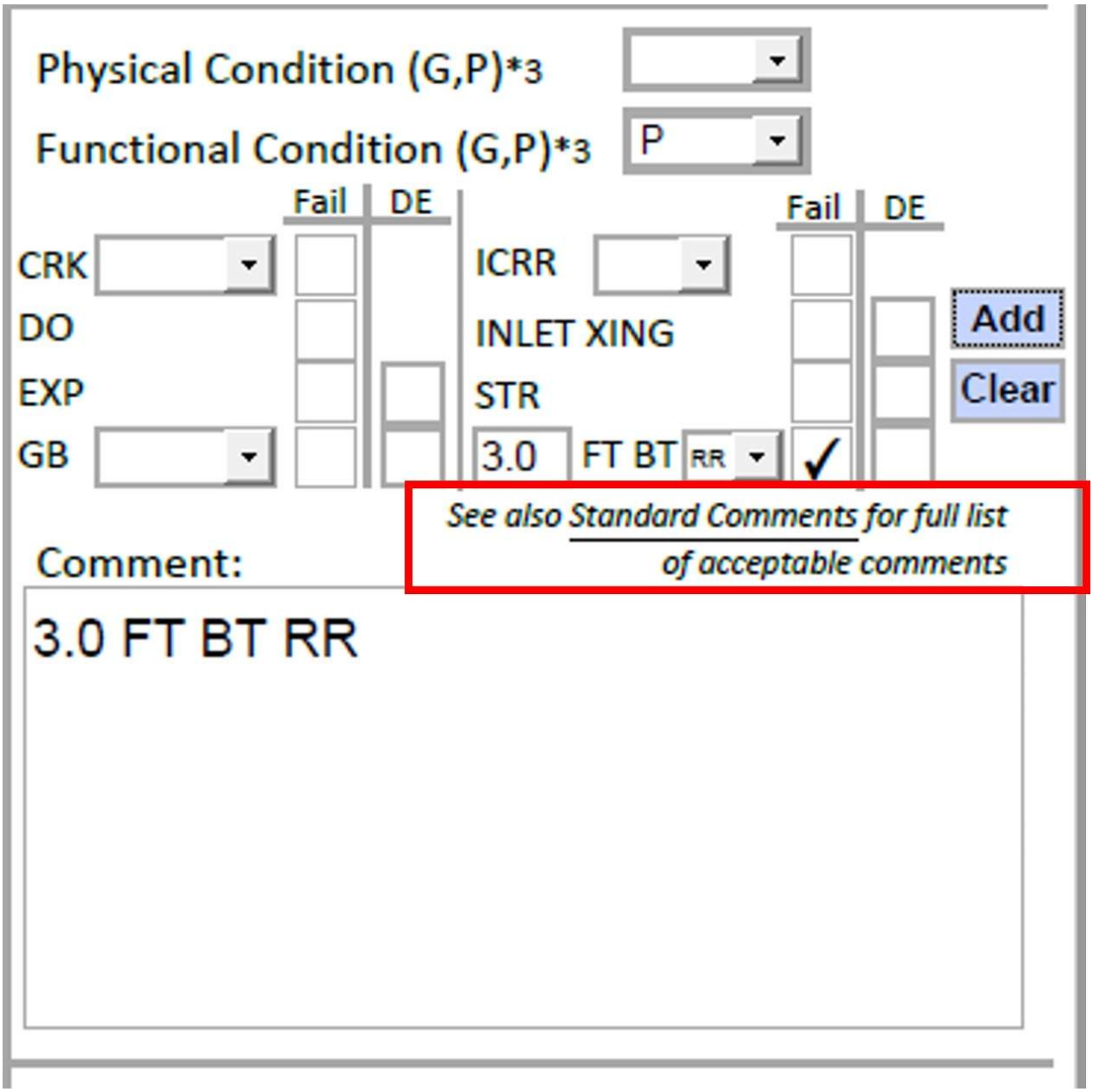
Adding Comments to the Standard Comments Box

When criteria in the Physical and Functional Conditions Section are checked as a failure, they need to be added to the Standard Comments box. The standard comments field will autofill based on other inputs entered on the form. To Add Comments to the Standard comments box, Click the “Add” Button in the Physical and Functional Conditions Section. Other comments must be added manually following the Standard Comments Formatting rules.



Standard Comments Box with Add Button

Comments must be uniform from ramp to ramp. Make a non-standard comment for anything that is not already captured in the standard comments that would be important to know. **Anytime you have to use a non-standard comment you MUST fully spell out the comment**; custom made up comments will not have a definition and will not be understood. Refer to the New Construction Standard Comments Examples document below for standard comments.



Link to the Standard Comments in the Standard Comments box in the Inspection Forms.

There is a link to document in the form above the Standard Comments box.

SGP OPRT = Traffic Signal Pole Obstructing Pedestrian Route

TLP OPRT = Telephone Pole Obstructing Pedestrian Route

SLO = Slope Obstruction

These comments together would look like this on the inspection form:

SGP OPRT; TLP OPRT; SLO

PDF

ADA-Standard-Comments.pdf
311.7 KB

List of New Construction Standard Comments

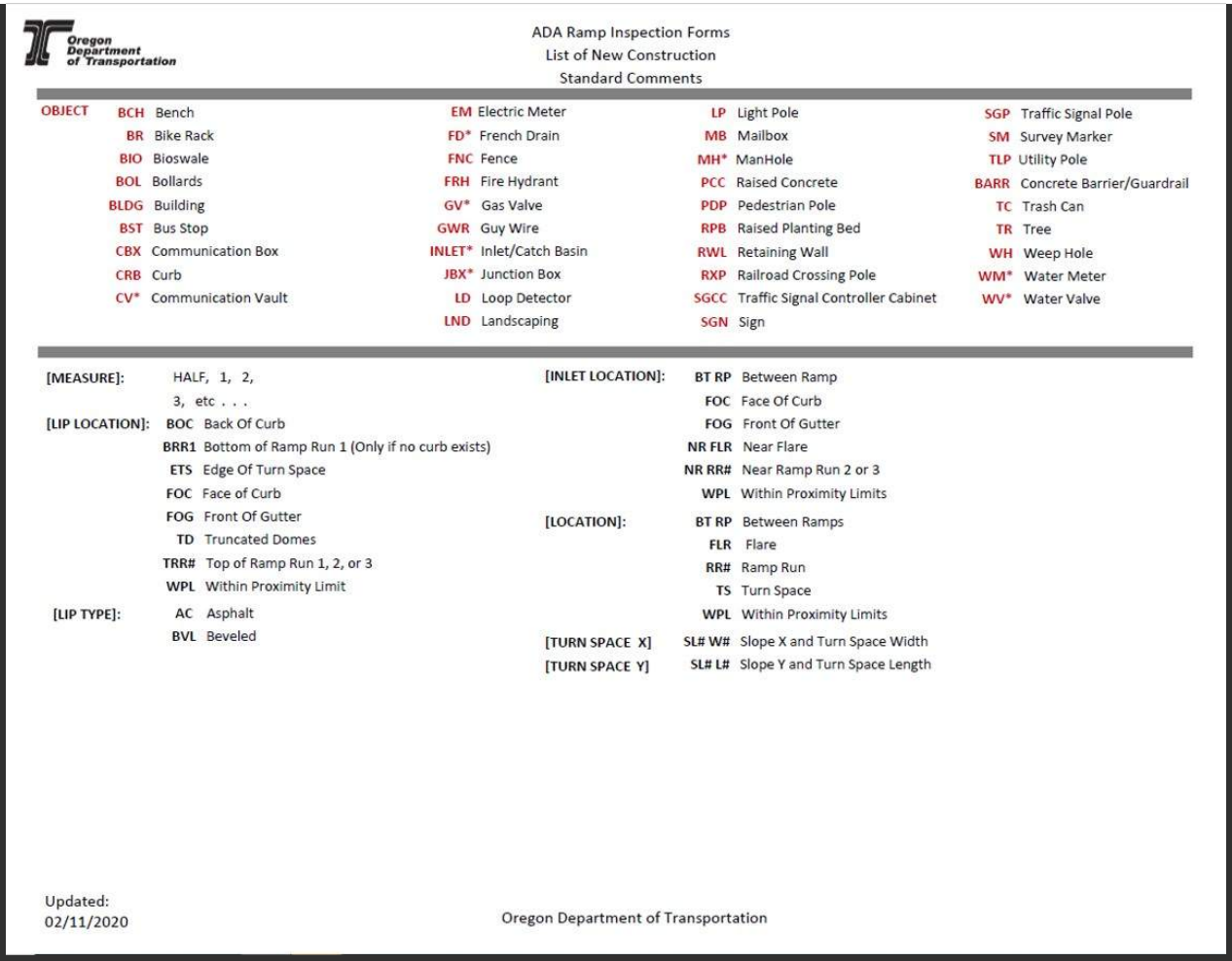
Scroll through the New Construction Standard Comments below. Download the Standard Comments above. You will need them for the lesson quiz.

Oregon Department of Transportation

ADA Ramp Inspection Forms
List of New Construction
Standard Comments

COMMENTS:	FORMAT:	DESCRIPTION:
	CRK [LOCATION]	Crack on a specified location of concrete from the list on the next page
	DO	Drop Off within proximity limits
	EXP	Curb Exposure is less than 3 inches
	GB [LOCATION]	Grade Breaks are NOT perpendicular on specified area from list on the next page
	ICRR#	Inconsistent Ramp Run #
	INLET XING	Inlet is within the Crossing
	STR	Striping Issue
	#FT BT RR/DR	Length of Sidewalk Between Ramp Runs or Driveway
LIPS	[MEASURE] IN LIP AT [LIP LOCATION] /[OBJECT*]	Depth in Inches of Lip at a Location or Object listed on the next page
	[MEASURE] IN [LIP TYPE] LIP	Depth in Inches from certain Lip Type listed on the next page
TRUNCATED DOME	[OBJECT] ON TD	Object, from list on next page, ON Truncated Dome
	CIR TD	Cast Iron Truncated Domes
	RED TD	Red Truncated Domes
BACK OF RAMP OBSTRUCTION	BORO [OBJECT]	Back Of Ramp Obstruction by Object, from list on next page
OBSTRUCTING PEDESTIAN ROUTE	[OBJECT] OPRT	Object, from list on next page, Obstructing Pedestrian Route
OBJECT ON RAMP	[OBJECT] ON [LOCATION]	Object, from list on next page, ON a Location from the next page
OBJECT BETWEEN RAMPS	[OBJECT] BT RP	Object, from list on next page, Between Ramps
WITHIN PROXIMITY LIMITS	[OBJECT] WPL	Object, from list on next page, Within Proximity Limits
INLET/CATCH BASIN	INLET [INLET LOCATION]	Inlet AT Location from list on next page
END OF WALK	BMTS	Bottom Turn Space
	BMTS X [TURN SPACE X] AND Y [TURN SPACE Y]	Bottom Turn Space In Comments when two Turn Spaces exist
SURFACE TYPE	AC RP	Asphalt Ramp
	BRK RP	Brick Ramp
	MST	Mixed Surface Type
OTHER COMMENTS	CRS OPP	Curb Running Slope Sloping Opposite Direction
	NO RR#	No ramp run 2 and/or 3
	RCRB 1	Return Curb on 1 Side
	RCRB 2	Return Curb on Both Sides
	RR# NO SWLK	Ramp Run leads to no where
	RR# OPP	Ramp Run (1, 2, or 3) Sloping Opposite Direction
	SWLK EQL RR#	Sidewalk Consistent With Ramp Run (2 or 3)
Updated: 02/11/2020	#FT SWLK BT RR# TS	Length of Sidewalk Between Ramp Run and Turn Space

List of New Construction Standard Comments Document Page 1 of 2



Oregon Department of Transportation

ADA Ramp Inspection Forms
List of New Construction
Standard Comments

OBJECT

BCH	Bench	EM	Electric Meter	LP	Light Pole	SGP	Traffic Signal Pole
BR	Bike Rack	FD*	French Drain	MB	Mailbox	SM	Survey Marker
BIO	Bioswale	FNC	Fence	MH*	ManHole	TLP	Utility Pole
BOL	Bollards	FRH	Fire Hydrant	PCC	Raised Concrete	BARR	Concrete Barrier/Guardrail
BLDG	Building	GV*	Gas Valve	PDP	Pedestrian Pole	TC	Trash Can
BST	Bus Stop	GWR	Guy Wire	RPB	Raised Planting Bed	TR	Tree
CBX	Communication Box	INLET*	Inlet/Catch Basin	RWL	Retaining Wall	WH	Weep Hole
CRB	Curb	JBX*	Junction Box	RXP	Railroad Crossing Pole	WM*	Water Meter
CV*	Communication Vault	LD	Loop Detector	SGCC	Traffic Signal Controller Cabinet	WV*	Water Valve
		LND	Landscaping	SGN	Sign		

[MEASURE]: HALF, 1, 2, 3, etc . . .

[LIP LOCATION]:

BOC	Back Of Curb
BRR1	Bottom of Ramp Run 1 (Only if no curb exists)
ETS	Edge Of Turn Space
FOC	Face of Curb
FOG	Front Of Gutter
TD	Truncated Domes
TRR#	Top of Ramp Run 1, 2, or 3
WPL	Within Proximity Limit

[LIP TYPE]:

AC	Asphalt
BVL	Beveled

[INLET LOCATION]:

BT RP	Between Ramp
FOC	Face Of Curb
FOG	Front Of Gutter
NR FLR	Near Flare
NR RR#	Near Ramp Run 2 or 3
WPL	Within Proximity Limits

[LOCATION]:

BT RP	Between Ramps
FLR	Flare
RR#	Ramp Run
TS	Turn Space
WPL	Within Proximity Limits

[TURN SPACE X]	SL# W# Slope X and Turn Space Width
[TURN SPACE Y]	SL# L# Slope Y and Turn Space Length

Updated:
02/11/2020

Oregon Department of Transportation

List of New Construction Standard Comments Document Page 2 of 2

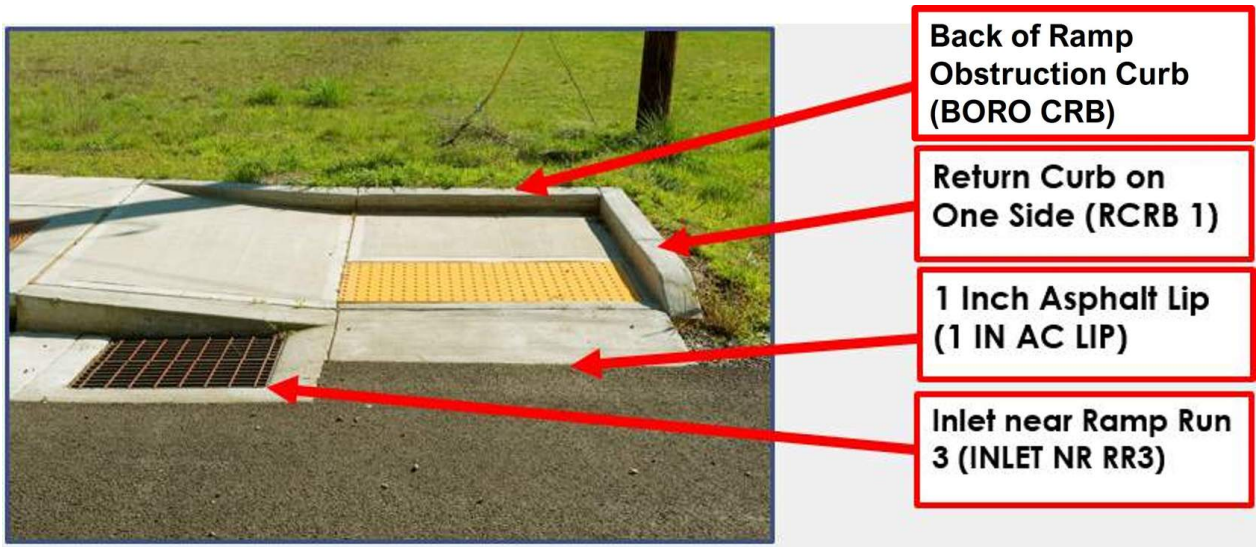
01:04

Continue Narration

The following are examples of Standard Comments on a Unique curb ramp.

- Back of ramp obstruction is **BORO CRB**
- Return curb on one side is **RCRB 1**

- 1 inch asphalt lip is **1 IN AC LIP**
- Inlet near Ramp Run 3 is **INLET NR RR3**



Example of Ramp with Comments

Lips

If there are multiple lips in the curb ramp proximity record the largest lip height; and in the Lip Height section of the form and add the other lips to the comments section using the standard comment: [MEASURE] IN LIP AT [LIP LOCATION] /[OBJECT].

See the ADA Curb Ramp Inspection Standards Comments Resource (opens in a new tab) for more standard comments and codes for objects. This is used for the comments box on the Inspection Forms during inspection.

Flashcard Activity

Scroll through flashcard below. Click on each of the flashcards to flip them over to see an abbreviation that corresponds with that standard comment. There are eight flashcards, you must

view all of them before you can move on.

Cracks in concrete	CRK [Location]

1 of 8

Drop off within proximity limits	DO

2 of 8

Grade breaks are NOT perpendicular	GB [Location]
Inconsistent ramp run #	ICRR#

Striping issue	STR
Length of sidewalk between either driveways or ramp runs (see drop down in this section). The minimum distance between the nearest driveway or ramp run should be 5.0 feet or more.	#FT BT___

01:13

Continue Audio Narration

Inspector Sign-Off

The last items to complete are inspector information and providing the date of inspection.

Upon completion of the inspection:

- Print your name clearly and with the same spelling you used for your certification. Ensure that the name you enter here matches exactly with the name used to obtain your certification so that you can be correctly identified in the certifications data base. If you are certified under Michael Smith, for example, and you enter Mike Smith on the form, the form will be rejected because you will not be found in the database.
- Fill in the date using the calendar drop down or in the mm/dd/yy format.
- Provide your Certification No.
- Type in the Company/Agency that you work for (e.g., ODOT)
- ODOT employees, include your Crew No. (e.g., 7302)

Do not add a digital signature or signature field to the form. Digital signatures can corrupt the data and functionality of the form.

Inspector's Sign Off Section on the inspection form.

Review all figures, complete activities and advance audio to the end before moving on. A lesson quiz is on the next screen.

Unit 9 Lesson 9: Document with Photos

You must click on all images before moving on to next Lesson.

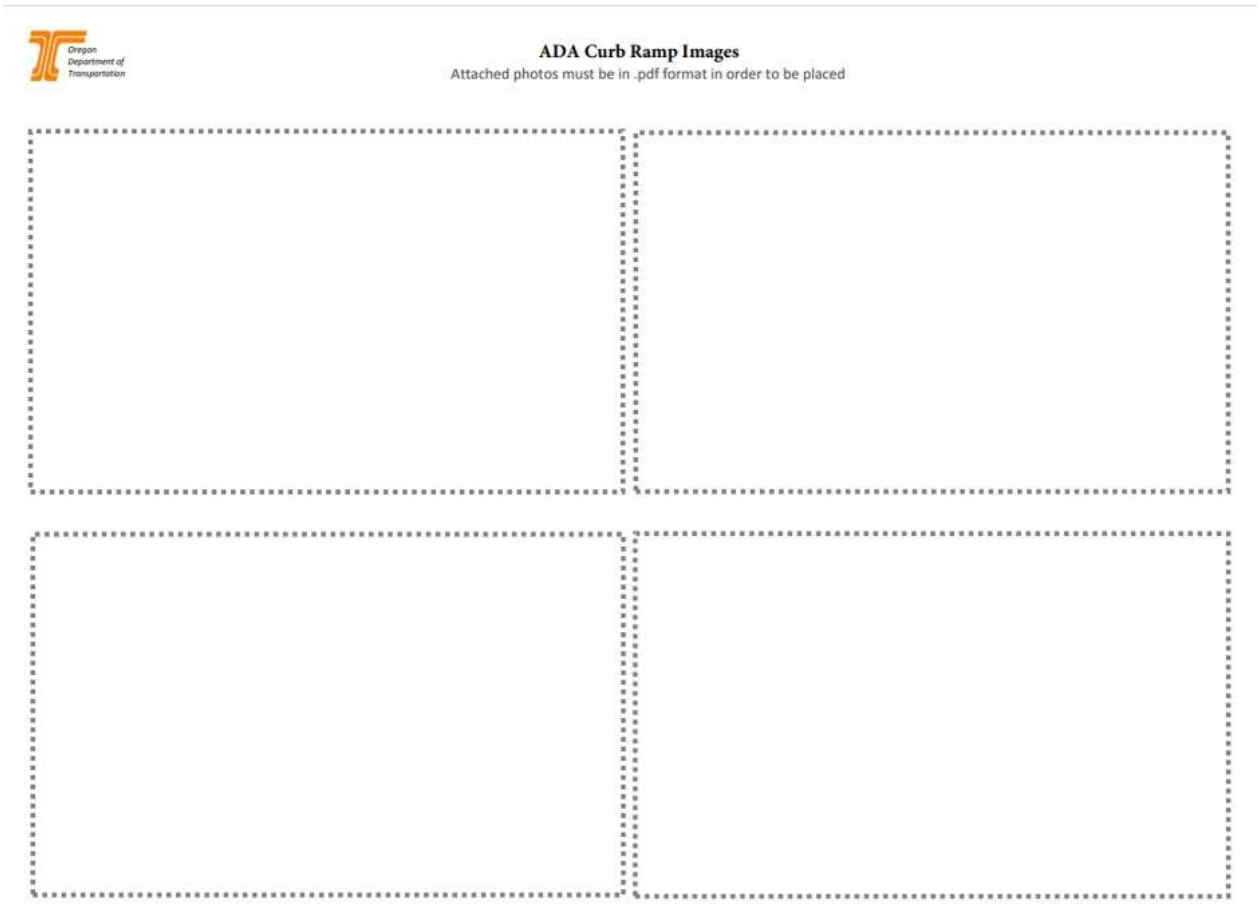
01:34

Start Audio Narration

“A photo is worth a thousand words.”

Fred R. Barnard

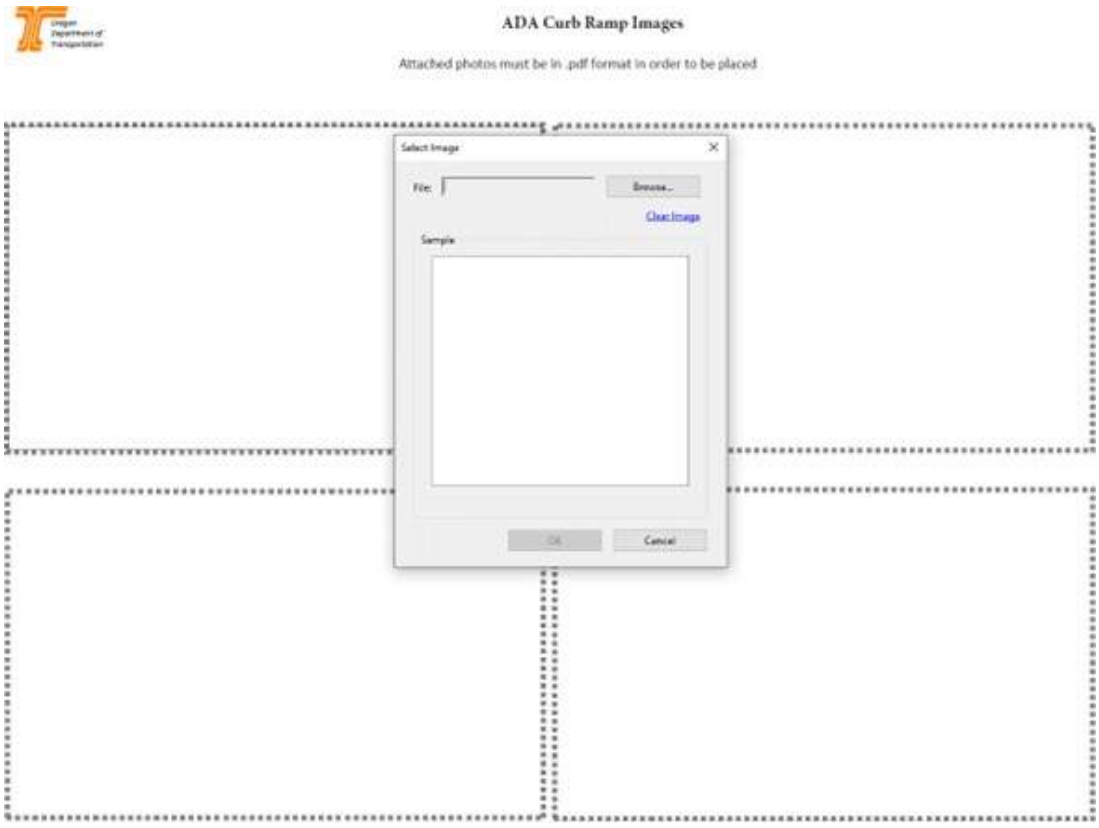
Photos are Required on Curb Ramp Inspection Forms. Photos are helpful to the ADA Inventory Team who are performing data QA/QC, ensuring that the location matches the location in the data inventory and that the data provided in the form is accurate and complete. Take at least one photograph of the entire curb ramp system from the street and additional photos of unique features, if applicable. Up to 4 images can be placed on the inspection form.



Back of the Inspection Forms Where Curb Ramp Photos are Uploaded

Attaching Photos to the Inspection Form

Click in a blank photo space. You should see a dialog box as shown. Browse for photo(s) to upload.



Select Image Box to get a Select Image dialog box on the Photo Section of the Curb Ramp Inspection Form

Curb Ramp Photo Example

Photos are attached on the back of the form. Provide at least one good picture of the ramp being inspected.

Photo Procedure in field

1. Clean the ramp with appropriate tools, removing any debris and construction equipment such as barrels, cones, etc.
2. Ensure no people or cars license plates are in the photo.
3. Take photo from the street showing the whole curb ramp at the corner or other location.
4. **It is recommended to have a spotter while taking photos.**

Unit 9 Lesson 10: Curb Ramp Closure/Removal Inspection Form

You must click on all images before moving on to next Lesson.

00:24

Start Audio Narration

Curb Ramp Closure/Removal Inspection Form

The Curb Ramp Inspection Form for Crosswalk Closures and Ramp Removals was introduced in 2023.

Click on the dots on the Closure/Removal Inspection Form to review its unique features.

Oregon Department of Transportation

ADA Curb Ramp New Construction Inspection Form (Closure/Removal)

Submit by Email

Project Name (Section)	Year	Contract No.	ODOT Highway No.	MP	Cross Street Name

Form Submittal Guide

☐ Crosswalk Closure

When a Crosswalk Closure is approved in place of a curb ramp, verification is required.

Crosswalk Closure treatment(s) must match the requirements in the crosswalk closure approval.

A picture of each end treatment is required, unless it is "none."

If sign and barricade is required, a photo of both the front and back is required for submittal.

☐ Ramp Removal

A curb ramp that has been removed from the State Highway system due to an upgrade or change in pedestrian facilities where a curb ramp is no longer required.

For example, An End-Of-Walk curb ramp replaced with continuous side walk

OR

a curb ramp replaced with a dust pan style driveway.

Before and After picture required.

Corner Position

Ramp Position

Approval No.

Verify location information using FACS-STIP

See Exhibit A for more intersection styles

Photo 1/Before	Photo 2/After

Comments — Standards Comments List

Inspector's Signature	Date (mm/dd/yy)

Print Name Clearly	Cert. No.

Company/Agency	Crew No. (ODOT)

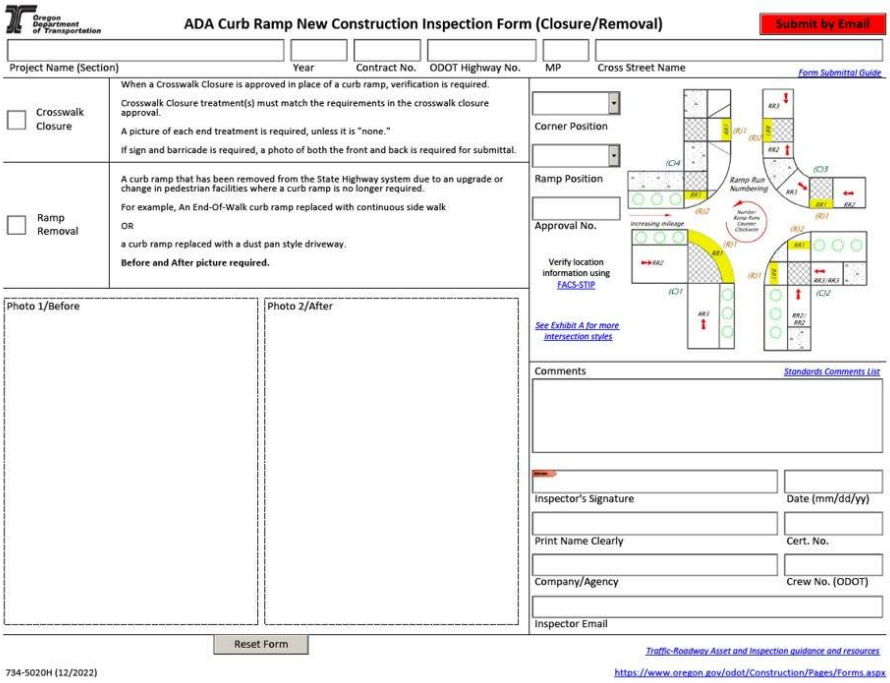
Inspector Email

Reset Form

Traffic-Roadway Asset and Inspection guidance and resources

734-5020H (12/2022)

https://www.oregon.gov/odot/Construction/Pages/Forms.aspx



ADA Curb Ramp New Construction Inspection Form (Closure/Removal)

Submit by Email

Project Name (Section) | Year | Contract No. | ODOT Highway No. | MP | Cross Street Name

Form Submittal Guide

Crosswalk Closure

When a Crosswalk Closure is approved in place of a curb ramp, verification is required.

Crosswalk Closure treatment(s) must match the requirements in the crosswalk closure approval.

A picture of each end treatment is required, unless it is "none."

If sign and barricade is required, a photo of both the front and back is required for submittal.

Ramp Removal

A curb ramp that has been removed from the State Highway system due to an upgrade or change in pedestrian facilities where a curb ramp is no longer required.

For example, An End-Of-Walk curb ramp replaced with continuous side walk

OR

a curb ramp replaced with a dust pan style driveway.

Before and After picture required.

Photo 1/Before

Photo 2/After

Corner Position

Ramp Position

Approval No.

Verify location information using FACS-STIP

See Exhibit A for more intersection styles

Ramp Run Numbering

Comments

Standards Comments List

Inspector's Signature | Date (mm/dd/yy)

Print Name Clearly | Cert. No.

Company/Agency | Crew No. (ODOT)

Inspector Email

Reset Form

Traffic-Roadway Asset and Inspection guidance and resources

734-5020H (12/2022)

https://www.oregon.gov/odot/Construction/Pages/Forms.aspx

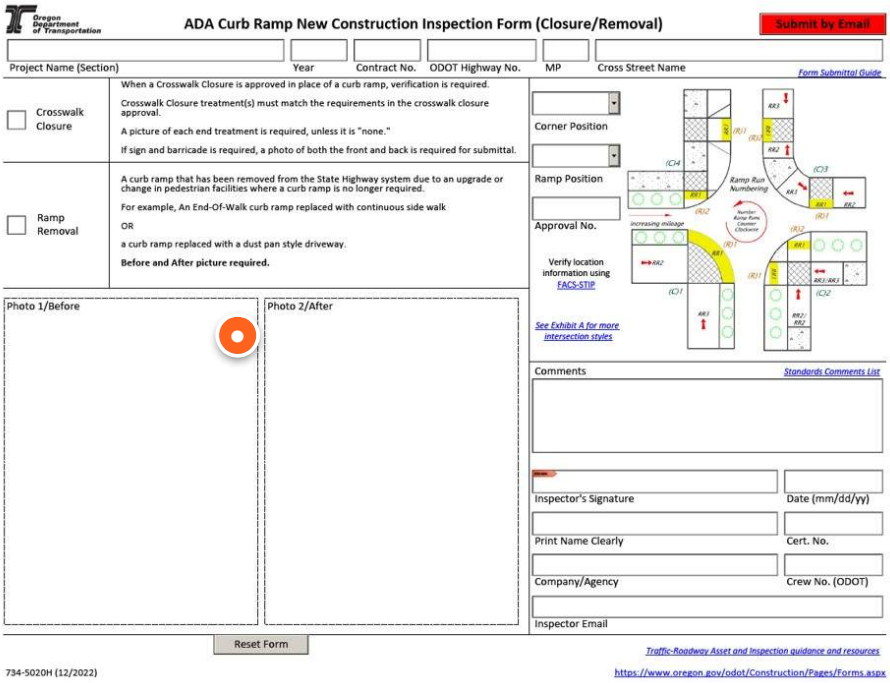
Closure or Removal Check Boxes

Check the correct box for either a

Crosswalk Closure

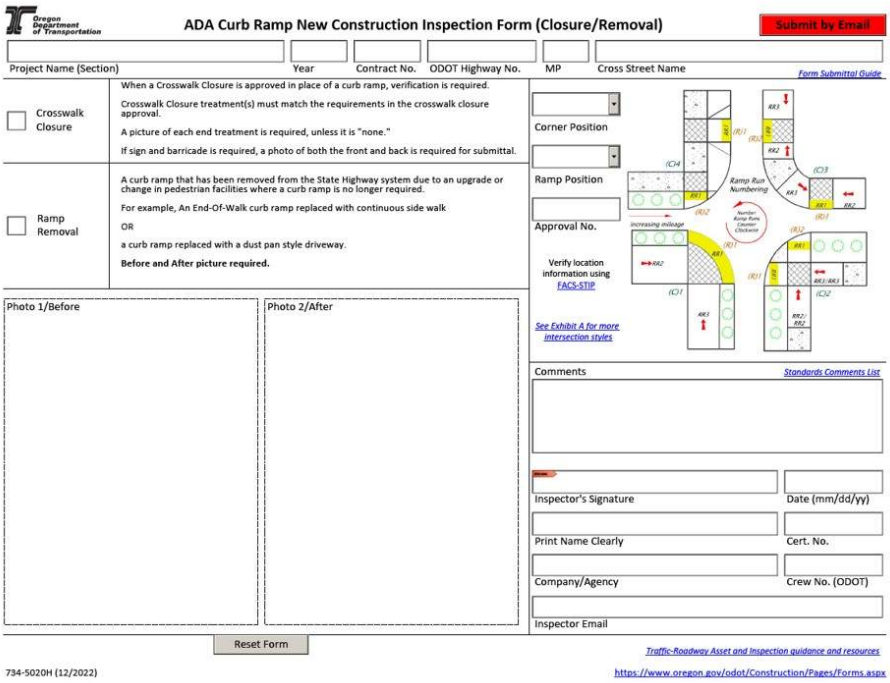
or

Ramp Removal



After Photo

This form requires a photo of completed closure or removal site.



Oregon Department of Transportation

ADA Curb Ramp New Construction Inspection Form (Closure/Removal)

Submit by Email

Project Name (Section) | Year | Contract No. | ODOT Highway No. | MP | Cross Street Name

Form Submittal Guide

Crosswalk Closure

When a Crosswalk Closure is approved in place of a curb ramp, verification is required.

Crosswalk Closure treatment(s) must match the requirements in the crosswalk closure approval.

A picture of each end treatment is required, unless it is "none."

If sign and barricade is required, a photo of both the front and back is required for submittal.

Ramp Removal

A curb ramp that has been removed from the State Highway system due to an upgrade or change in pedestrian facilities where a curb ramp is no longer required.

For example, An End-Of-Walk curb ramp replaced with continuous side walk

OR

a curb ramp replaced with a dust pan style driveway.

Before and After picture required.

Photo 1/Before

Photo 2/After

Corner Position

Ramp Position

Approval No.

Verify location information using FACS-STIP

See Exhibit A for more intersection styles

Ramp Run Numbering

Comments

Standards Comments List

Inspector's Signature | Date (mm/dd/yy)

Print Name Clearly | Cert. No.

Company/Agency | Crew No. (ODOT)

Inspector Email

Reset Form

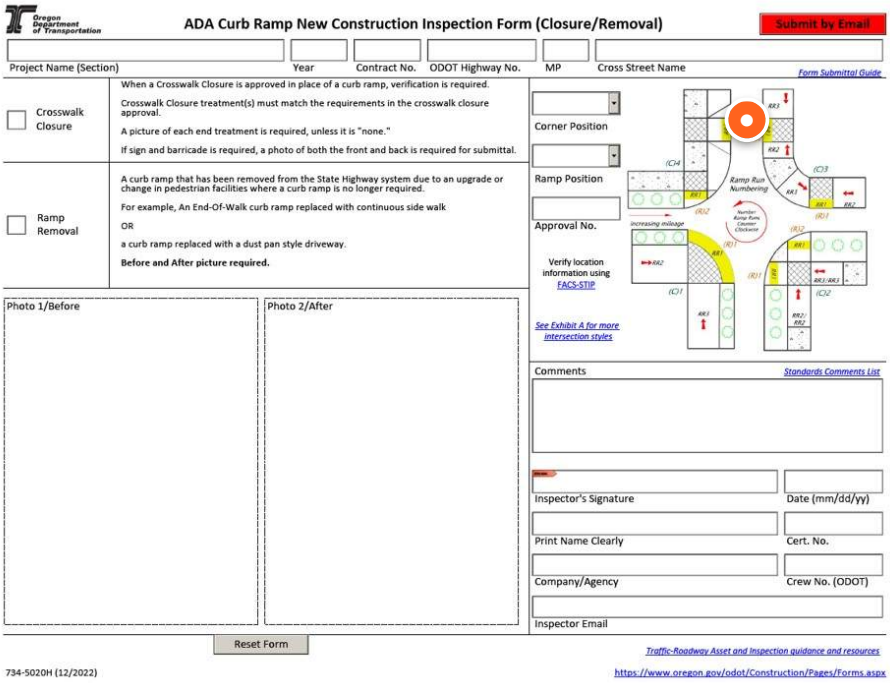
Traffic-Roadway Asset and Inspection guidance and resources

734-5020H (12/2022)

https://www.oregon.gov/odot/Construction/Pages/Forms.aspx

Before Photo

This form requires a photo of the site before the closure or removal was constructed.



Corner and Ramp Position Section

This is similar to the Corner Position Section on the other forms but has an added Approval box for Crosswalk Closure Approval Number

02:03

Continue Audio Narration

This form is required to be completed whenever a Crosswalk Closure is approved in place of a curb ramp or a curb ramp is removed from the State Highway system due to an upgrade or change in pedestrian facilities where a curb ramp is no longer required.

Projects often evaluate pedestrian circulation routes during design and may have approved crosswalk closures. If a crosswalk is closed and removes the need for a curb ramp at a corner, fill out the Closed/Removal Inspection Form.

A common scenario of a curb ramp removal would be when a project extends sidewalk beyond the existing sidewalk and an end of sidewalk curb ramp is removed. Another scenario would be where a full reconstruction project removes or moves a roadway.

Check the correct scenario on the left side of the form. Either Crosswalk Closure or Ramp Removal. Follow the instructions in the appropriate box.

☐ Crosswalk Closure	When a Crosswalk Closure is approved in place of a curb ramp, verification is required. Crosswalk Closure treatment(s) must match the requirements in the crosswalk closure approval. A picture of each end treatment is required, unless it is "none." If sign and barricade is required, a photo of both the front and back is required for submittal.
☐ Ramp Removal	A curb ramp that has been removed from the State Highway system due to an upgrade or change in pedestrian facilities where a curb ramp is no longer required. For example, An End-Of-Walk curb ramp replaced with continuous side walk OR a curb ramp replaced with a dust pan style driveway. **Before and After picture required.**

Check Boxes on the Curb Ramp Inspection Form for Crosswalk Closures and Ramp Removals

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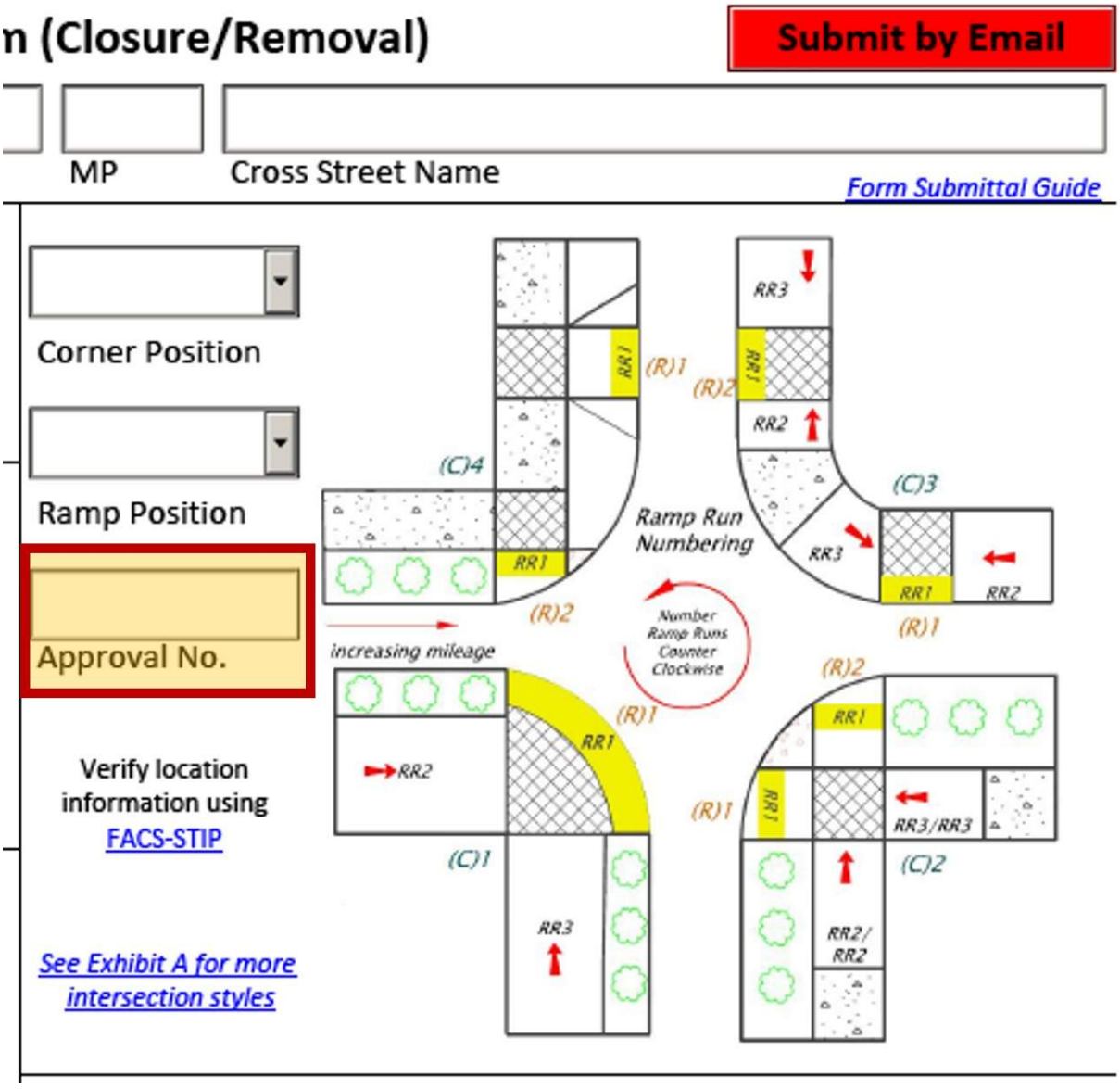
Crosswalk Closure Approval Number



Where the Crosswalk Approval Number goes in the Curb Ramp Inspection Form for Crosswalk Closures and Ramp Removals

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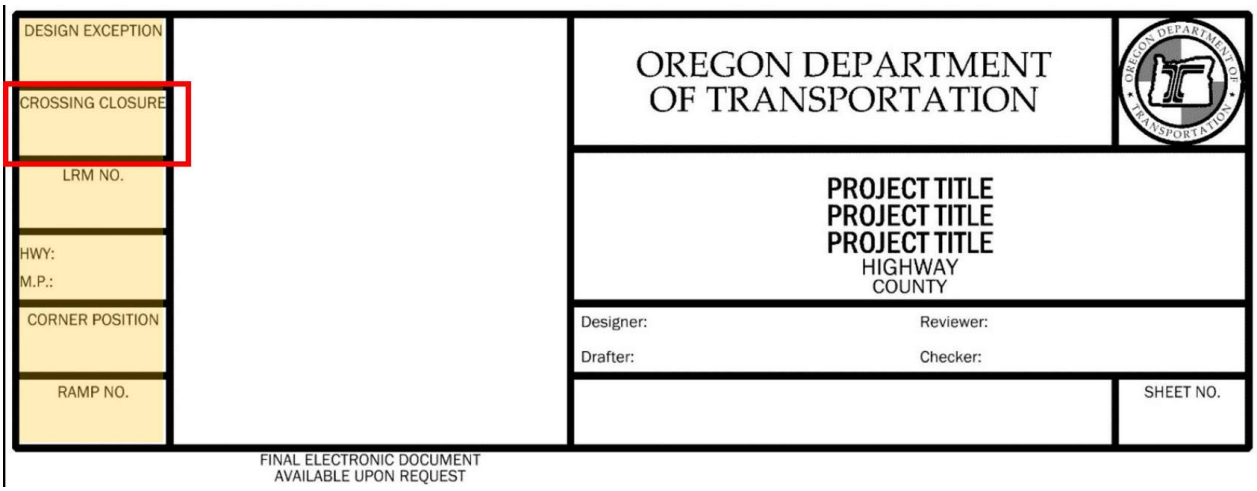
For a crosswalk closure, the Crosswalk Closure Approval Number is needed on the form, below the corner and ramp position entry boxes.

When a crosswalk closure is in place by an official action, the plan set should have the crosswalk closure document number on the curb ramp detail sheet.



Crosswalk Closure Box on the Title Block of the Curb Ramp Detail Sheet in the Contract Plans.

Crosswalk Closure information is also available in FACS-STIP. Refer to Unit 4. Retain the Closed Crossing ID to request crosswalk closure details from ODOT Liaison or Engineering & Technical Services Branch Roadway Section. Crosswalk closure documents are prepared by the approving jurisdictional authority. For crosswalk closures not on our highway, contact ODOT's representative for the contract to assist in obtaining crosswalk closure approval documents from the local jurisdiction.

At driveways with a radial curb, a single curb ramp is allowed when it is not signalized and/or it is not at an intersection. An official crosswalk closure document is not required in this condition.

03:11

Continue Audio Narration

Curb Ramp Inspection Form Crosswalk Closure Treatments

When preparing for a crosswalk closure inspection, review the Crosswalk Closure Approval Letter and construction plans for required crosswalk closure treatments. Curb ramp locations will not be in compliance with ODOT requirements if the treatment is contradictory to what is stated in the crosswalk closure document. ODOT ADA certified inspectors need to verify that the requirements set forth by the State Roadway Engineer are in place and correctly installed. The approval might include signs, landscaping treatments, tubular markers, or other items which are prescribed in the closure document.

INTEROFFICE MEMO

ENGINEERING & TECHNICAL SERVICES
Traffic-Roadway Section, MS#5
4040 Fairview Industrial Drive SE
Salem, Oregon 97302-1142
Office Phone: (503) 986-3568

TO:

File Code: TRA 07-11-06
LRM 13100I00, MP 8.93
Key No. M22051
Approval No. 2023-029.1

FROM: State Traffic-Roadway Engineer

SUBJECT: Request for Crosswalk Closure
Netarts Highway (OR-131) at Grove Avenue
City of Tillamook

I have reviewed your request to close the eastern crosswalk at the subject intersection as shown in the diagram below. Your request notes that the project is addressing a location under existing conditions where pedestrians cannot complete the crossing because of a driveway in conflict at one or more ramp positions of an intersection. The conflicted ramp positions cannot be remedied by skewing the crosswalk up to 15 degrees or by offsetting the ramp up to 10 feet as described in Technical Bulletin RD21-01(B). Closing this crosswalk addresses equal access to these pedestrian facilities until a future project that makes substantial changes to this location can re-evaluate this closure.

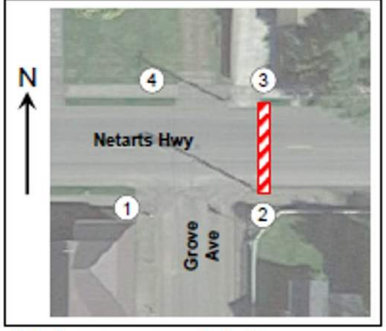
In accordance with Oregon Administrative Rule 734-020-0410, I approve your request with the following conditions:

1. Ensure ADA compliance by following ODOT's ADA-related design standards, design exceptions, and inspection process.
2. Installation shall follow the requirements of Operational Notice MG 100-107.
3. The closure should be implemented by installing the following visual and detectable crosswalk closure treatments:

Crosswalk	Ramp	Approved Closure Treatment	
		Visual	Detectable[1]
Eastern	2.2	Sign OR 22-7 (double sided)	Required
	3.1	None[4]	None[2]

[1] A detectable closure treatment may be a crosswalk closure support (See TM 240), a detectable buffer, railing, or other approved feature.
[2] A detectable crosswalk closure treatment is not needed for this ramp due to the absence of an intersecting street or pedestrian facility which might suggest the presence of a crosswalk to a sight-impaired pedestrian.
[4] The double sided sign on the opposite corner fulfills the requirement for a visual closure treatment for this ramp.

Crosswalk Closures: Ramp 2.2 to Ramp 3.1



4. The crosswalk closure should be re-evaluated if/when substantial changes are made to the intersection's traffic control devices or pedestrian facilities.
5. At the earliest triggering event, the non-compliant ramp in corner 2 shall be reconstructed in a manner that, to the extent practicable, orients crossing pedestrians across Grove Avenue and not across the Netarts Highway.

Example of an ODOT Officially Approved Crosswalk Closure Document

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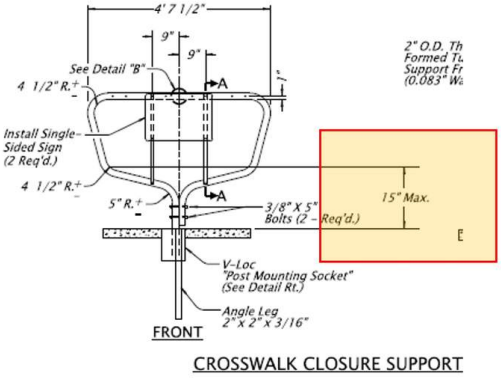
Signs and barricades that are not properly installed need to be corrected before the associated contract is completed. Compliance needs to be confirmed after new construction is completed. Items that need to be checked during the inspection include:

Missing or improperly placed

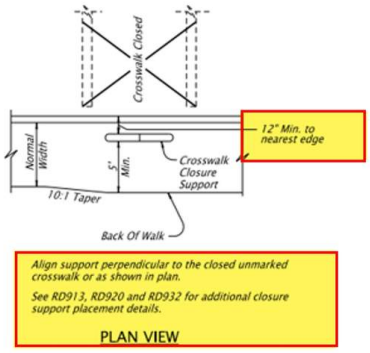
- signs,
- barricades or
- other features or devices called for in the crosswalk closure letter or contract plans.

A common treatment is a crosswalk closure support, often referred to as a barricade. Refer to the TM240 CROSSWALK CLOSURE DETAIL drawing shown below. Inspection of the crosswalk closure support (often referred to as a barricade) includes the location in the Crosswalk Closure Approval Letter. Measure the distance from curb and height of installation. Measure the clear width along the sidewalk to ensure it meets requirements for pedestrian passage along the pedestrian access route.

There is a new requirement for the crosswalk closure support effective December 1, 2024. The bottom rail of the support frame is to be no more than 15 inches above the sidewalk surface. There is also clarification that the crosswalk closure support is to be a minimum of 12 inches from the front edge of the curb. Scroll through the images below to see the TM240 updates.



TM240 Crosswalk Closure Detail Update. Maximum height of bottom of support frame is 15 inches.



TM240 Crosswalk Closure Detail Update. Minimum distance to nearest edge is 12 inches

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TM240

Crosswalk Closure Detail

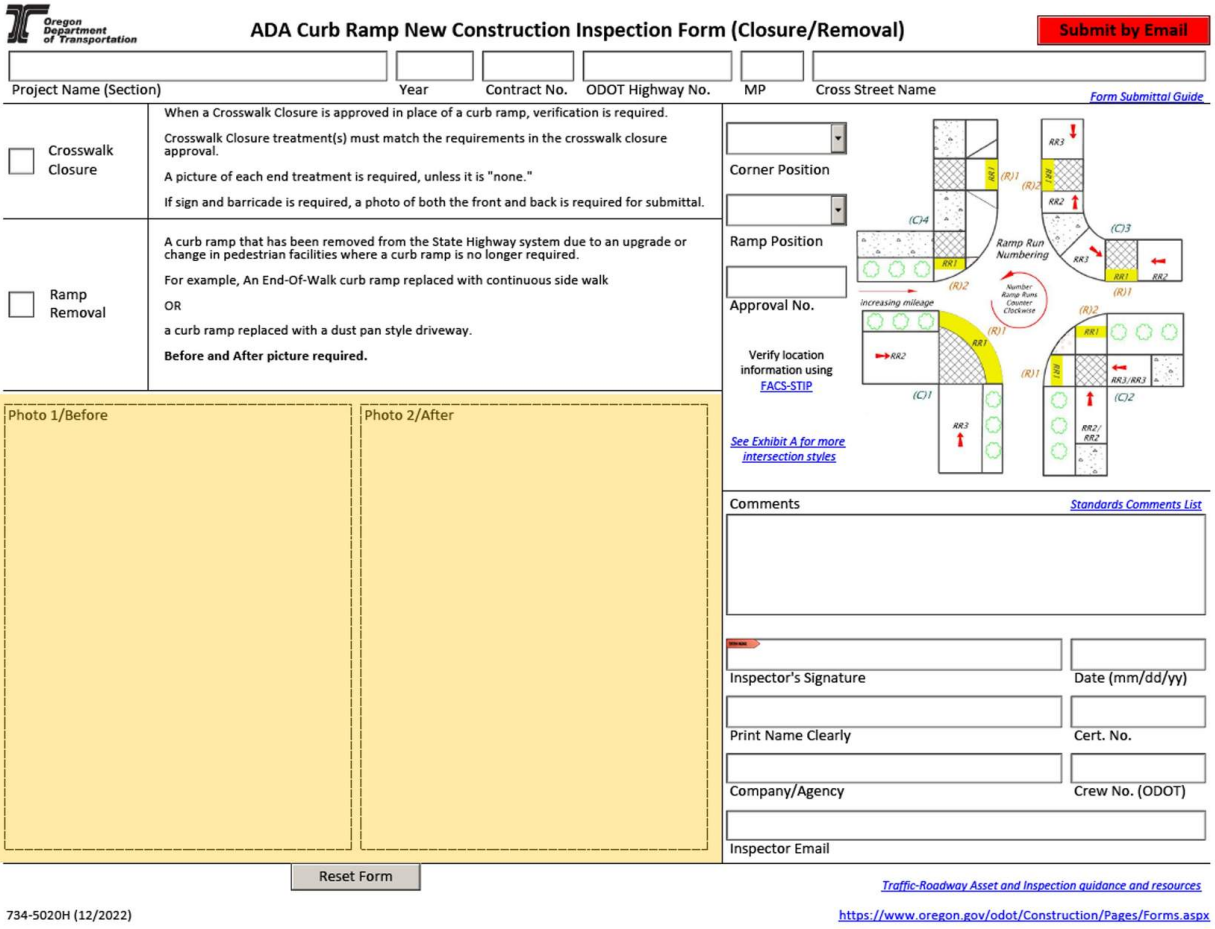
TM240

Proper installation of a Crosswalk Closure Support

Crosswalk closure supports and other approved devices are located to instruct and inform all pedestrians about the street crossing closure. Crosswalk closure supports are usually located in the sidewalk and installed at a location that is effective in communicating to low vision and blind pedestrians. Locations of crosswalk closure supports and signs are shown in the contract documents and plans and must be adhered to.

Photos

Photos are required for Crossing Closures, provide a photo of corner with crosswalk closure and one with any crosswalk closure treatments. For ramp removals, provide a before and after photo of the location of the removal. If before photos are not available, provide a screenshot from google maps or from the ODOT Digital Video Log (DVL).


Oregon Department of Transportation

ADA Curb Ramp New Construction Inspection Form (Closure/Removal)

Submit by Email

Project Name (Section) | Year | Contract No. | ODOT Highway No. | MP | Cross Street Name

Form Submittal Guide

Crosswalk Closure

When a Crosswalk Closure is approved in place of a curb ramp, verification is required.

Crosswalk Closure treatment(s) must match the requirements in the crosswalk closure approval.

A picture of each end treatment is required, unless it is "none."

If sign and barricade is required, a photo of both the front and back is required for submittal.

Ramp Removal

A curb ramp that has been removed from the State Highway system due to an upgrade or change in pedestrian facilities where a curb ramp is no longer required.

For example, An End-Of-Walk curb ramp replaced with continuous side walk

OR

a curb ramp replaced with a dust pan style driveway.

Before and After picture required.

Photo 1/Before

Photo 2/After

Corner Position

Ramp Position

Approval No.

Verify location information using FACS-STIP

See Exhibit A for more intersection styles

Comments

Standards Comments List

Inspector's Signature | Date (mm/dd/yy)

Print Name Clearly | Cert. No.

Company/Agency | Crew No. (ODOT)

Inspector Email

Reset Form

Traffic-Roadway Asset and Inspection guidance and resources

734-5020H (12/2022)

https://www.oregon.gov/odot/Construction/Pages/Forms.aspx

Photo Section of the Curb Ramp Inspection Form for Crosswalk Closures and Ramp Removals

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Review all figures, complete activities and advance audio to the end before moving on.

A lesson quiz is on the next screen.