



# ADA Lawsuit and Settlement

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2018 Northwest Pavement  
Management Association  
Conference



# Background & Objective

- Background:
  - Lawsuit filed alleging noncompliance with ADA.
  - Settlement Agreement ended Lawsuit
    - easier to talk about the particulars.
- Objective:
  - To help other agencies
    - avoid similar situations; or
    - prepare better if a similar situation occurs;
    - understand how the ADA is enforced.



# Outline

- The Law Itself
  - Requirements & Consequences
  - ADA Legal Cases
- ODOT's Experience
  - Prior to Litigation
  - Allegations
  - Reaching Agreement, Settlement Details
  - Implementation
- Concrete Curb Ramps
- Key Takeaways
  - Tips to reduce likelihood of complaints
  - What do you do if you get a litigation notice?



# The Law

requirements, consequences  
complaint versus litigation  
legal cases





# The Law, its Terminology

**The Americans with Disabilities Act of 1990**

Five Titles

**USC = United States Code**

42 USC Chapter 126  
47 USC Chapter 5

**CFR = Code of Federal Regulations**

28 CFR Part 35  
28 CFR Part 36



- **Title I** Employment

- 42 USC 126 § 12111 – 12117

- **Title II** State & Local Governments

- 42 USC 126 § 12131 – 12165 → 28 CFR Part 35

- **Title III** Accommodations & Services by Private Entities

- 42 USC 126 § 12181 – 12189 → 28 CFR Part 36

- **Title IV** Telecommunications

- 47 USC 5 § 611

- **Title V** Miscellaneous

- 42 USC 126 § 12201 – 12213



# ADA Titles: Public and Private

**ADA Title II**  
**28 CFR Part 35**  
**No discrimination by State**  
**or Local Governments**

**ADA Title III**  
**28 CFR Part 36**  
**No discrimination in**  
**commercial services open**  
**to the public**





# ADA Titles: Public and Private

## ADA Title II 28 CFR Part 35 No discrimination by State or Local Governments

- Govt. Owned Buildings
- Public Right-of-Way (mostly)
  - Public Streets
  - Crosswalks
  - On-street parking
  - Sidewalks
  - Curb Ramps
  - Shared Use Paths
  - Traffic Signals
- PROWAG (or 2010 ADA Standards)

## ADA Title III 28 CFR Part 36 No discrimination in commercial services open to the public

- Buildings & Sites (mostly)
- Private Right-of-Way
  - Private St. & Parking Lots
  - Crosswalks in sites
  - Parking spaces
  - Frontage sidewalks
  - Curb Ramps in sites
  - Building Entrance Ramps
  - Operable parts
- 2010 ADA Standards



# Title II Requirements 28 CFR 35.151

## New Construction & Alterations

- (i) Curb ramps.
  - 1. Newly constructed or altered **streets, roads, and highways** must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway.
  - 2. Newly constructed or altered street level pedestrian **walkways** must contain curb ramps or other sloped areas at intersections to streets, roads, or highways.





# Title II - State & Local Governments

## When do you address ADA needs?

### Triggered by Project

- New Construction
  - Make everything meet current ADA standards;
- Alterations to existing facilities
  - Address what is triggered, not obligated to address everything else while there;
- “You touch it, you fix it.”
- 28 CFR 35.151

### Program Access

- System Wide based on Self-Evaluations;
- Transition Plan Funding and Schedule;
- Discretionary money allows prioritizing
  - (worst first or best use approach.)
- Proactive, Holistic, Programmatic
- 28 CFR 35.150

### Responding to ADA Requests and Complaints

- Can respond incrementally to address request without fixing all non-compliant features;
  - (Responding to Requests for Reasonable Modifications)
- Fixes = maintenance;
  - Specific locations specific solutions
- 28 CFR 35.130(b)(7)



# How is the ADA Enforced? Complaint versus Litigation

- Individuals may file complaints with USDOJ or another fed. agency.
  - USDOT (FHWA) is an enforcement agency for Title II;
  - USDOJ may resolve complaints through settlement agreements, mediation or litigation.
- Individuals may file lawsuits.
  - Consequences for noncompliance may include:
    - Civil penalties & monetary damages (Title III)
    - Legal fees.
    - Injunctive Relief.



## Enforcement = Injunctive Relief (on someone else's terms)

- In the case of violations..., injunctive relief shall include an order to alter facilities to make such facilities readily accessible to and usable by individuals with disabilities... Where appropriate, injunctive relief shall also include requiring ... modification of a policy...  
(42 USC 126 §12188)



# ADA Cases in US District Courts

## ADA cases filed in US District Courts:

- 2017 – 10,733
- 2016 – 9,427
- 2015 – 7,435
- 2014 – 6,881
- 2013 – 5,100

27% of all civil rights cases are ADA cases.

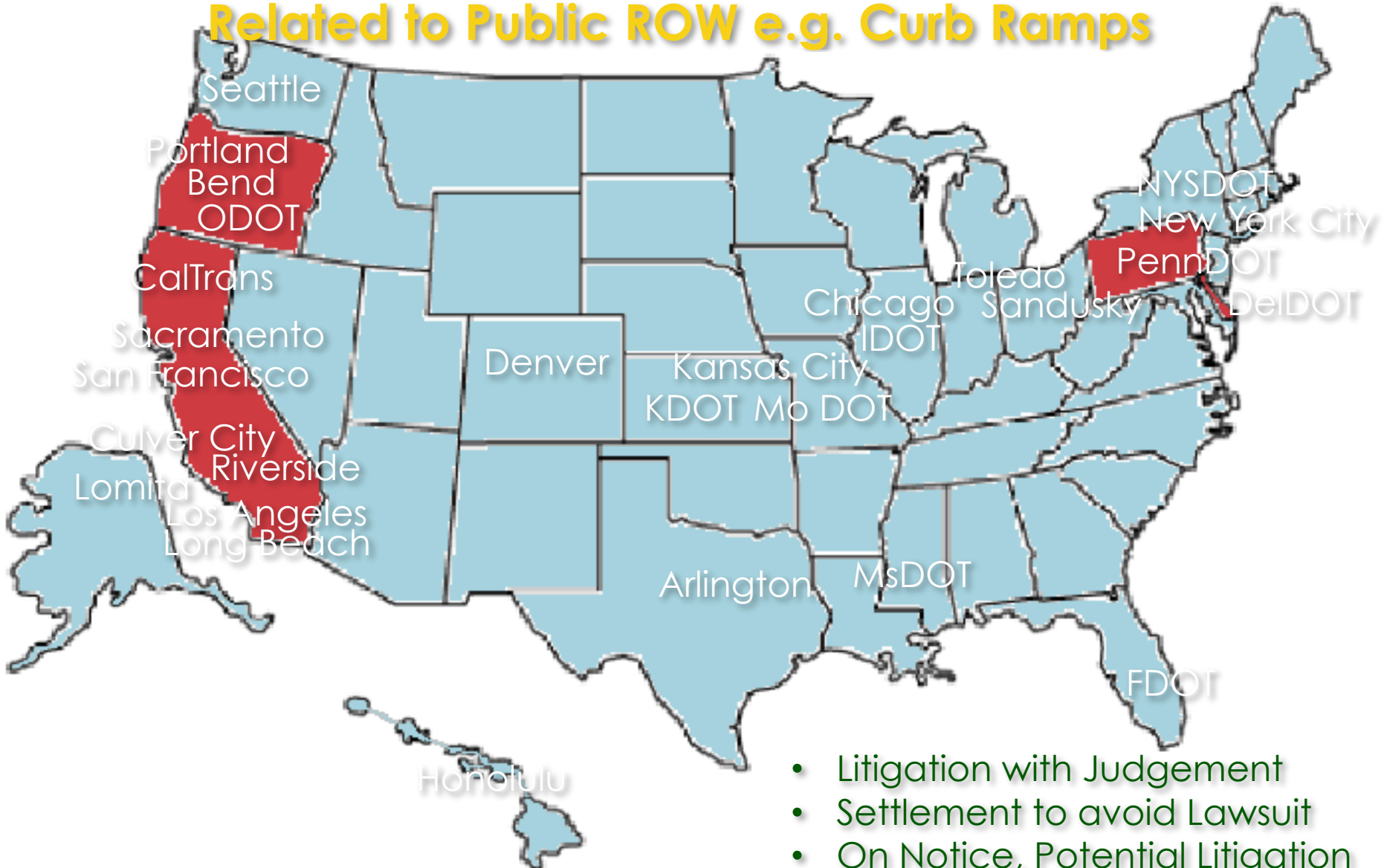
Most ADA cases are employment related.  
Other ADA case types are rising.

## Most common ADA claims in Public ROW 2011-2013:

1. **Parking Areas** (signs, correct number)
  2. Handrail Deficiencies
  3. **Parking Area** (slopes)
  4. Excessive Slopes elsewhere
  5. **Parking Access Aisles** (missing, markings, size)
- Other Issues
    - Vertical elements, steps, bumps, curb ramp edge protection, flare problems, issues with surface (pavers, bricks)



# Title II ADA Lawsuits or DOJ Settlements Related to Public ROW e.g. Curb Ramps



- Litigation with Judgement
- Settlement to avoid Lawsuit
- On Notice, Potential Litigation
- DOJ Civic Access
- ADA Tort Issues

(not a complete list)



# Precedent-Setting ADA Cases:



- Kinney v. Yerusalim (PennDOT), 1993
  - Paving= altering unmarked crosswalks → triggers curb ramps
- Deck v. City of Toledo OH 1999
  - Statute of limitations denied. ADA obligations go back to the 1992.
- Barden v. Sacramento CA, 2002
  - Partial judgement: a sidewalk is a service. City has a duty to maintain sidewalks.
  - Curb ramps are triggered when sidewalks are constructed or altered.
- Fortune v. Lomita CA, 2014
  - Despite the lack of accessibility standards, on-street parking is a “normal function” of a city and therefore must be made accessible.
- Carter v. Los Angeles CA, 2014
  - Settled agreement was not aggressive enough.
- Kirola v. San Francisco CA, 2014, Appeal 2017
  - Budget Audit: you can't ask for more than the City already does.
  - De minimus noncompliance → no order of injunctive relief
    - Appeal: revisit scope of noncompliance with ADAAG versus PROWAG



# Prior to Litigation

ODOT's organization Structure, Transition Plans, Paving Policies, Signals, Work Zones, Grievance Procedure





# ODOT's Presumed ADA Culture Prior to Litigation

- Confident we were doing the right thing.
- Provided ADA Training
- Pedestrian Facility Design = ADA
- Incorporated Best Practices before they are required.
- Let's do it right; we don't want to get sued.
- Responsive to needs of constituents.







# ODOT's Organizational Structure for ADA tasks Prior to Litigation

- Office of Civil Rights in charge of ADA Self-Evaluations, ADA Transition Plans, Grievance Procedure, ADA Policy Statement
- Facilities in charge of building inspections;
- Highway Division in charge of ADA standards (curb ramps, etc.);
- Project teams accountable for including ADA features in project;
- Construction offices approve contractor work & issue payment;



# ODOT's Program Access Experience Prior to Litigation

- Self-Evaluations (1993, 1995, 2003, 2011, 2017)
  - Owned/Leased Buildings
  - Accommodations for Employees with Disabilities
  - Curb Ramps
  - Parking Areas
  - Sidewalks
  - Shared Use Paths
  - Accessible Pedestrian Signals
  - Transit Stops

## 2011 ADA Transition Plan Summary

Table 1 – Curb Ramp Inventory Summary

	Region 1	Region 2	Region 3	Region 4	Region 5	Statewide
Total Number of ADA Ramps Warranted 100%	4,181	8,201	2,281	1,522	2,173	18,938
Total Number of Good ADA Ramps	349	501	208	352	258	1,668
% Good ADA Ramps	7.0%	8.1%	9.2%	23.1%	10.4%	9.0%
Total Number of Fair ADA Ramps	518	816	133	190	543	2,200
% Fair ADA Ramps	11.6%	13.2%	5.9%	12.5%	22.0%	13.0%
Total Number of Poor ADA Ramps & Percent	2,640	3,640	1,491	713	1,104	9,508
% Poor ADA Ramps	58.9%	58.7%	65.0%	46.8%	44.6%	58.6%
Total Number of Missing Ramps where Warranted	974	1,244	429	267	588	3,482
% Missing Ramps where Warranted	21.7%	20.1%	19.0%	17.5%	23.0%	20.6%



# ODOT Guidance regarding ADA Paving Triggers Prior to Litigation

## MAINTENANCE

Actions intended to preserve, retard deterioration & maintain the functional condition of a roadway

e.g. Potholes

(CR not req'd)

Prior to  
2009

## ALTERATION

A change that affects usability

(Upgrading non-functional Curb Ramps required on 3R & 4R projects)



# ODOT Guidance regarding ADA Paving Triggers Prior to Litigation

## **MAINTENANCE**

**Non-structural**

**paving (1R)**

Thin-lift overlays that did not add  
structural capacity, CR not req'd, FHWA approved

2009-20  
13

## **ALTERATION**

**Paving that adds structural capacity**

(Upgrading non-functional Curb Ramps required on 3R & 4R projects)



# ODOT Guidance regarding ADA Paving Triggers Prior to Litigation



U.S. Department of Justice  
Civil Rights Division  
*Disability Rights Section*



U.S. Department of Transportation  
Federal Highway Administration

## Department of Justice/Department of Transportation Joint Technical Assistance<sup>1</sup> on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

Title II of the Americans with Disabilities Act (ADA) requires that state and local governments ensure that persons with disabilities have access to the pedestrian routes in the public right of way. An important part of this requirement is the obligation whenever streets, railways, or highways are *altered* to provide curb ramps where street level pedestrian walkways cross curbs.<sup>2</sup> This requirement is intended to ensure the accessibility and usability of the pedestrian walkway for persons with disabilities.

An alteration is a change that affects or could affect the usability of all or part of a building or facility.<sup>3</sup> Alterations of streets, roads, or highways include activities such as reconstruction, rehabilitation, *resurfacing*, widening, and projects of similar scale and effect.<sup>4</sup> Maintenance activities on streets, roads, or highways, such as filling potholes, are not alterations.

Mid-2013



# ODOT Guidance regarding ADA Paving Triggers Prior to Litigation

## MAINTENANCE

Chip Seals

Crack Filling and Sealing

Diamond Grinding

Dowel Bar Retrofit

Fog Seals

Joint Crack Seals

Joint repairs

Pavement Patching

Scrub Sealing

Slurry Seals

Spot High-Friction Treatments

Surface Sealing

plus

2013-present

## ALTERATION

Addition of New Layer of Asphalt

Cape Seals

Hot In-Place Recycling

Microsurfacing / Thin-Lift Overlay

Mill & Fill / Mill & Overlay

New Construction

Open-graded Surface Course

Rehabilitation and Reconstruction



# ODOT Guidance regarding ADA Paving Triggers Prior to Litigation

		<b>OREGON DEPARTMENT OF TRANSPORTATION</b>		<b>TECHNICAL SERVICES</b>
		<i>Section or Unit Name</i> <b>BULLETIN</b>		
<b>SUBJECT</b> 1R Program -- ADA and other programmatic updates	<b>FINAL NUMBER</b> RD13-02(B)	<b>EFFECTIVE DATE</b> 01/01/2014	<b>VALIDATION DATE</b> NA	<b>SUPERSEDES or RESCINDS</b> New
<b>WEB LINK(S)</b> <a href="http://www.oregon.gov/ODOT/1WY/TECHSERV/Pages/technicalguidance.aspx">http://www.oregon.gov/ODOT/1WY/TECHSERV/Pages/technicalguidance.aspx</a>				
<b>TOPIC/PROGRAM</b> <u>Highway Design Manual</u>	<b>APPROVED SIGNATURE</b> 			

## **PURPOSE**

To update the Highway Design Manual with changes to 1R requirements, including a change based on a USDOJ and USDOT joint technical guidance on implementing the ADA. The 1R program was launched in 2009, and since then, other programmatic changes have come about that are also included here.



# The Complaint Allegations





## The plaintiffs alleged that ODOT:

Did not address curb ramps when we triggered.  
Did not construct them compliantly.



Crossings were inaccessible because pedestrian signal buttons out of reach.

Did not provide adequate accessible routes through work zones.

Did not make it easy to communicate concerns or file a complaint.



# Did not address curb ramps when we triggered.

 OREGON DEPARTMENT OF TRANSPORTATION TECHNICAL SERVICES				
Section or Unit Name <b>BULLETIN</b>				
SUBJECT 1R Program – ADA and other programmatic updates	ISSUE NUMBER RD13-02(B)	EFFECTIVE DATE 01/01/2014	VALIDATION DATE NA	COPY NUMBER or REVISIONS New
WEB LINKS <a href="http://www.oregon.gov/ODOT/WWW/TECHSERV/Pages/technicalguidance.aspx">http://www.oregon.gov/ODOT/WWW/TECHSERV/Pages/technicalguidance.aspx</a>				
APPROVED SIGNATURE 				
TOPIC PROGRAM Highway Design Manual				

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Per ODOT Tech Bulletin





# Did not construct them compliantly.

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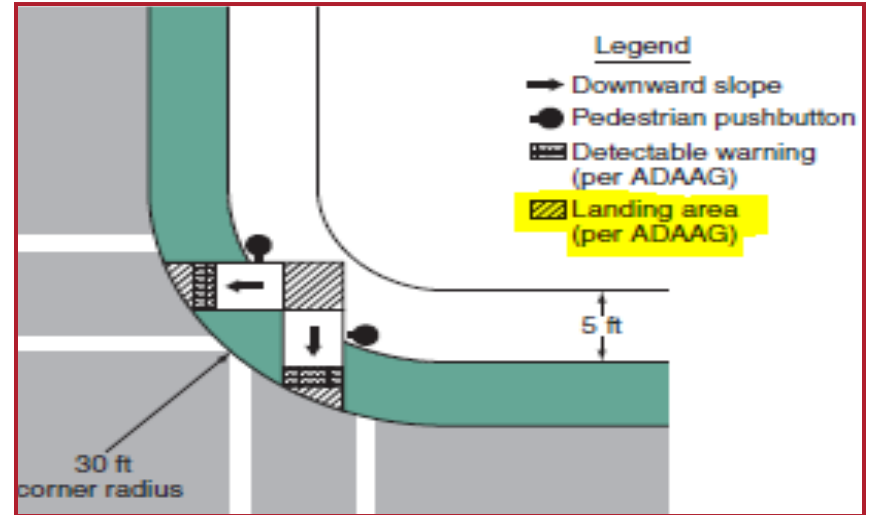


Per ADA Transition Plan Table



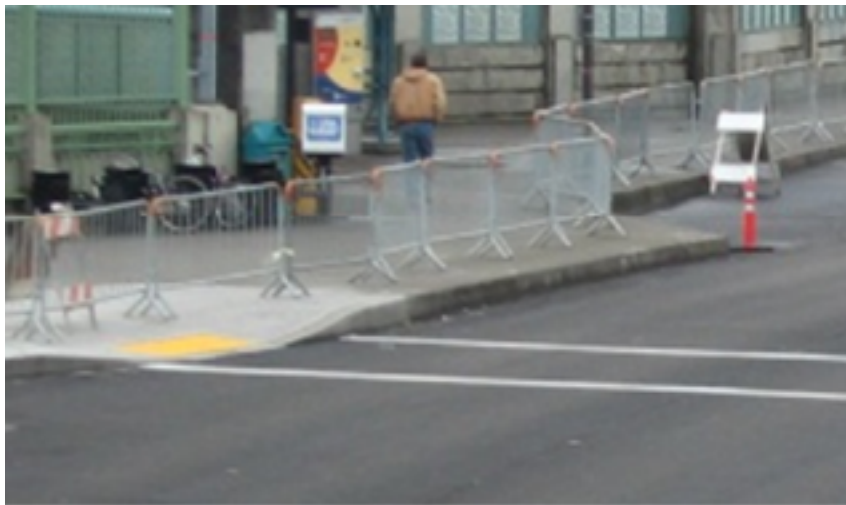


# Had pushbuttons out of reach.





# Lacked adequate pedestrian access through work zones





# Difficult to communicate concerns.



## Not Found

The requested URL /oldpage.html was not found on this server.

Apache/2.2.3 (CentOS) Server at www.example.com Port 80



# Reaching Agreement, Settlement Details



# Litigation Timeline

- **May 2015**
  - Notice of impending lawsuit
  - Records request
- **January 2016**
  - 1<sup>st</sup> Round Mediation
  - Oregon Supreme Court Judge
- **February 2016**
  - Lawsuit Filed
  - Identified plaintiffs
- **May – Nov. 2016**
  - 2<sup>nd</sup> Round Mediation
  - US District Court Judge
- **November 2016**
  - Tentative Agreement Reached
  - Agreement signed, not valid until Fairness Hearing.
- **Nov. 2016 – Mar. 2017**
  - Outreach to Class Members
  - Explain agreement, how to provide input to judge
- **March 27, 2017**
  - Class Action Fairness Hearing
  - Settlement Approved by Judge





# Reaching Agreement

## Injunctive Relief

ODOT's and Plaintiff's goals are the same: make the State accessible.

Better to spend energy and funds on improving accessibility than on attorney fees.

Remediation Schedule

- What needs to be remediated?
- Curb Ramps
- Signals
- What counts as remediated?

Fixes for Priority Locations

Routes during Construction

## Improving the way ODOT does business

Role of a 3rd Party Accessibility Consultant

- Accessibility Standards

Communications

- Informal Process for Complaints/Request
- Public Outreach

Role of ADA Transition Plan

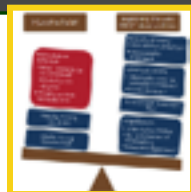
Legal Details

- Class Action Status
- No designation of wrongdoing
- Who pays legal fees?



# Settlement Agreement Specifics: What needs to be remediated?

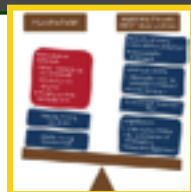
- Re-inventory all curb ramps and pedestrian signal pushbuttons on State Highway System by Dec. 2017
- Remediate all non-compliant & missing curb ramps (25,342):
  - 30% first 5 years (2022) → 7,603
  - 75% first 10 years (2027) → 11,403
  - 100% in 15 years (2032) → 6,336
- Non-compliant = does not pass ODOT ADA Curb Ramp Inspection form.
- Negotiate non-compliant pedestrian signals, address signals while remediating curb ramps.





# Settlement Agreement Specifics: What counts as remediated?

- ‘Remediate’ Curb Ramp means:
  - Install curb ramp where missing;
  - Upgrade existing non-compliant curb ramp;
  - Technical Infeasibility documented by a design exception;
  - Closing crosswalk when appropriate per applicable standards;
  - Other permissible exceptions per ‘applicable standards’
  - Extreme cases where right-of-way acquisition is not possible.





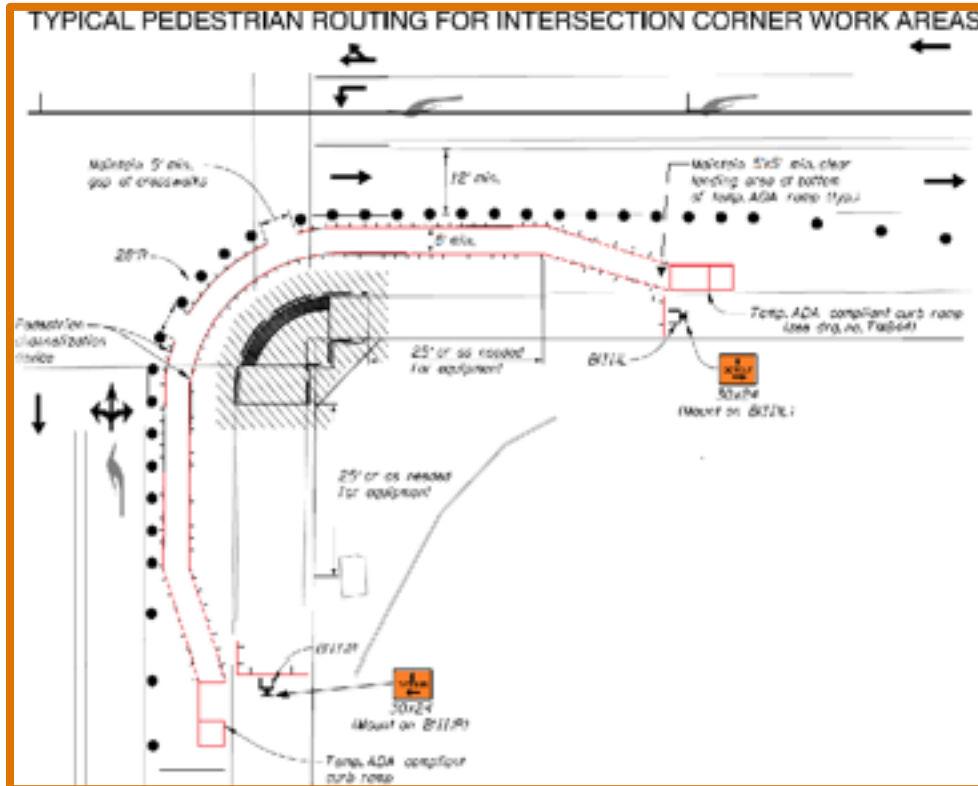
## Settlement Agreement Specifics: Priority Locations

- \$5 million 'quick-start' money to address curb ramps and Ped Signals at locations identified by Plaintiffs as immediately critical





# Settlement Agreement Specifics: Temp. Ped. Access Routes (TPAR)



**Every work zone must have Traffic Control Plan with Pedestrian and ADA Access through or around.**

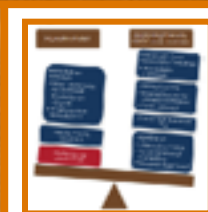
**TPAR must be equal to or better than existing. (same as MUTCD 6D)**

**10-days advance notice, outreach to people with disabilities.**





# Settlement Agreement Specifics: Temp. Ped. Access Routes (TPAR)





# Settlement Agreement Specifics: Role of Accessibility Consultant

- National expert with engineering knowledge & experience in federal standards and national practices.
- Represents & communicates with both parties

**PROWAG**

**ADAAG**

**ODOT Standards**

- Decide which standards apply to fulfill settlement agreement.
- Decide if ODOT standards, policies, etc. are acceptable on behalf of plaintiffs' needs.



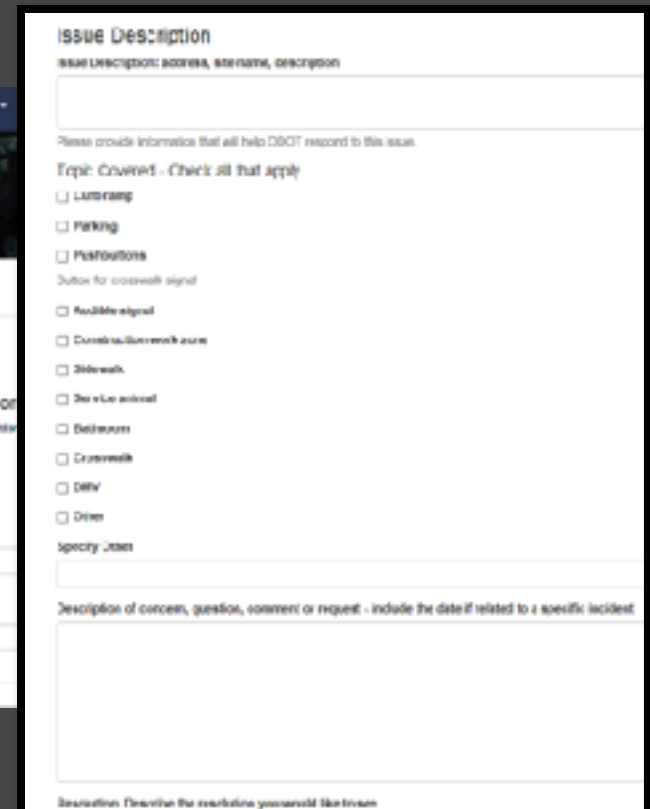
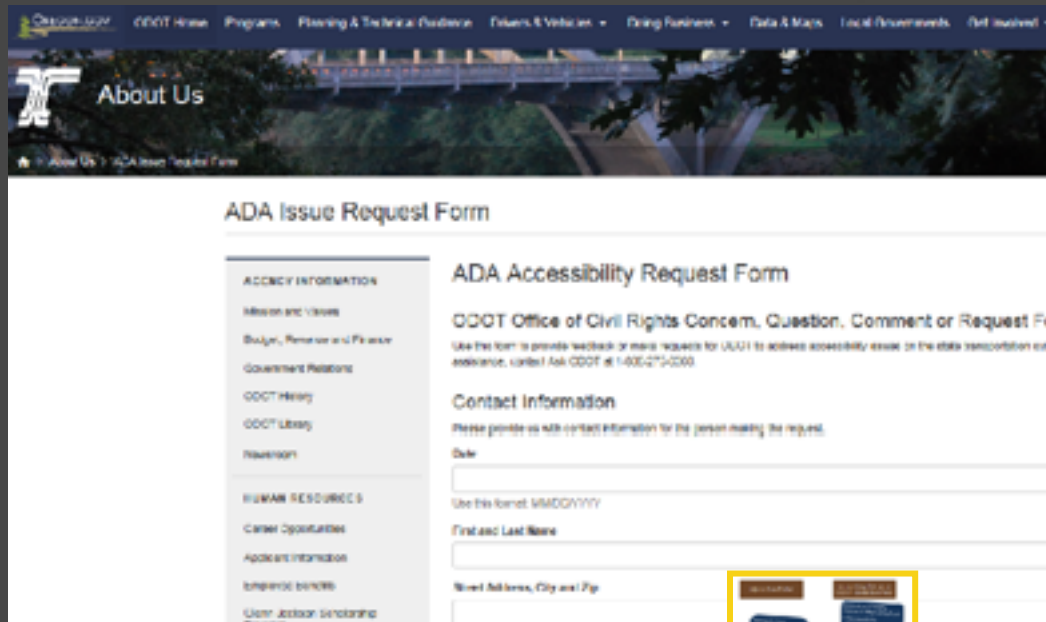


# Settlement Agreement Specifics: The CQCR process

## CQCR:

Process to receive, resolve and  
communicate regarding an  
ADA-related

Concern, Question, Comment or Request



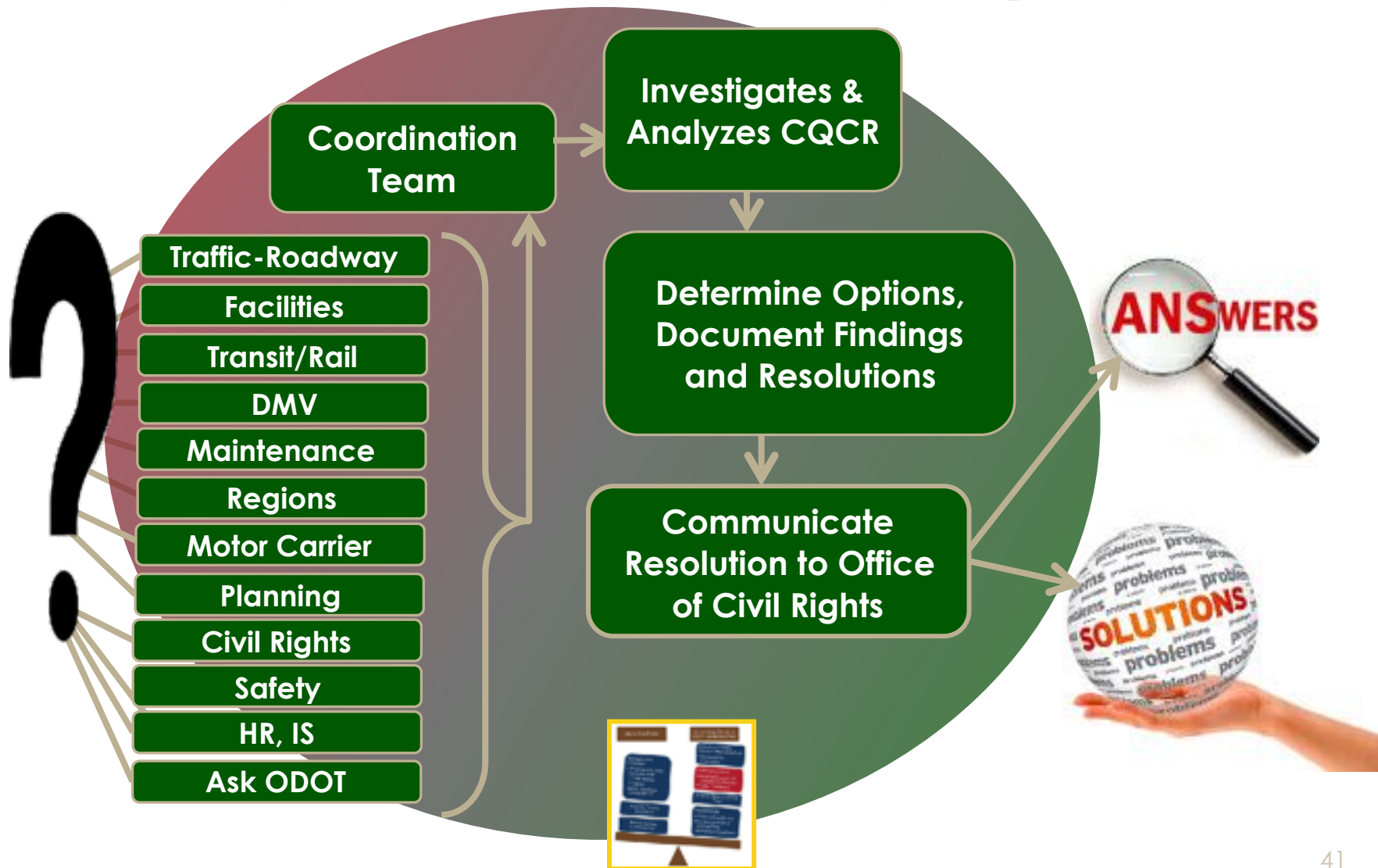
[www.ODOTADArequests.org](http://www.ODOTADArequests.org)







# Settlement Agreement Specifics: What is the CQCR process? Concern, Question, Comment, Request





## Settlement Agreement Specifics: Miscellaneous

- APS requests
- Continuing Outreach to people with disabilities and advocacy groups around state – goal is real improvement
- Transportation remediation – public transportation advisory committee representation for People with Disabilities
- ADA Transition Plan
- Class Action Status
- Positive Press Release (no designation of wrongdoing)
- Reporting – annual reports to plaintiff, posted on Website, Tracks progress on performance of agreement
- Dispute Resolution Process between parties (Accessibility Consultant, Special Master, Federal Judge, Ninth Circuit)
- Legal fees





# Implementation:

## ODOT's ADA Program

ODOT's organization structure, Transition Plans, Paving Policies, Signals, Work Zones, Grievance Procedure



# ODOT is changing how it does:

## Opportunity Statement:

- Each ODOT business line must determine what is required under the ADA and how to deliver on those requirements.
- Because of the complexity of both the law and agency operations, a programmatic approach is required to ensure ADA is addressed in a complete, consistent, compliant, and rigorous manner

Planning/Scoping/Selecting  
Projects

Design

Outreach & Communications

Construction

Maintenance & Operations

Working with Local Agencies





# Tech Bulletins & Changes

- Process

- Curb Ramp  
Milestones during  
project delivery

- Planning/ Scoping/  
Selecting Projects

- Operations Notices
  - Paving
  - Signals
- Bridge Design  
Manual

- Design

- Update ODOT curb ramp  
standard drawings
- Curb ramp checklist and  
design exception request
- Plans to include a 'detail'  
for each curb ramps
- Tech Bulletin released on  
Audible Ped Signal
- Ped push button  
placement direction
- Wheelchair template in  
MicroStation

- Construction

- Updated construction  
specifications
- Curb Ramp Inspection  
Form



# ADA Curb Ramp Process

## Scoping

- ✓ Verify scope of ADA obligations based on project type and work
- ✓ Conduct site visit to assess curb ramps and other pedestrian facilities
- ✓ Obtain curb ramp condition data
- ✓ Request additional survey data at Intersections
- ✓ Begin preliminary curb ramp design

## DAP/30% Plans

- ✓ Draft Curb Ramp Detail Sheets
- ✓ Utilize Curb Ramp Check List to assess any technical infeasibility issues
- ✓ Begin draft Design Exception Request process, if applicable
- ✓ Begin Crosswalk Closure Request process, if applicable
- ✓ Begin draft for Temporary Pedestrian Accessible Route (TPAR) as part of TCP
- ✓ Begin ROW and Easement requests if needed

## Advance/90% Plans

- ✓ Complete Curb Ramp Detail Sheets
- ✓ Complete TPAR in TCP
- ✓ Final submittal of Design Exceptions with signatures, if applicable
- ✓ Obtain Final Crosswalk Closure Approvals, if applicable
- ✓ Finalize ROW and Easement Approvals if needed
- ✓ Complete Construction Specifications for final review

## PS & E/ Final Plans

- ✓ Approved Design Exceptions, if applicable
- ✓ Final Curb Ramp Detail Sheets with DE approval numbers
- ✓ Crosswalk Closure Approval letters, if applicable
- ✓ Final Construction Specifications
- ✓ Final TPAR

## Pre-Closeout, 2<sup>nd</sup> Note

- ✓ Conduct Curb Ramp Inspection with certified inspector
- ✓ Submit completed passing Curb Ramp Inspection Forms to:
  - ✓ 1) Dms link on the ODOT Curb Ramp Inventory Form
  - ✓ 2) State's Project Manager

- Project requirements for projects that receive State or Federal funds or for projects on or along the State Highway
- For use by local agencies that have not received LPA ADA Certification



# Planning/Scoping Projects

- Paving Triggers
  - Which curb ramps are triggered under various paving scenarios?  
MG100-107-1
- Traffic Signal Triggers
  - What ADA work is triggered with various types of signal work?
- Bridge Triggers
  - What ADA work is triggered by various types of bridge work?  
BDDM Chapter 1.16

- Crosswalks
  - Guidance when to close pedestrian crossings & whether curb ramps are required
- Right-of-Way
  - ROW Tech Bulletin on Temp. Easements for construction
  - ROW Appraisal Waiver Valuation process for temp routes
  - ROW Bulletin for Scoping Curb Ramps







# Does this paving job trigger curb ramps?

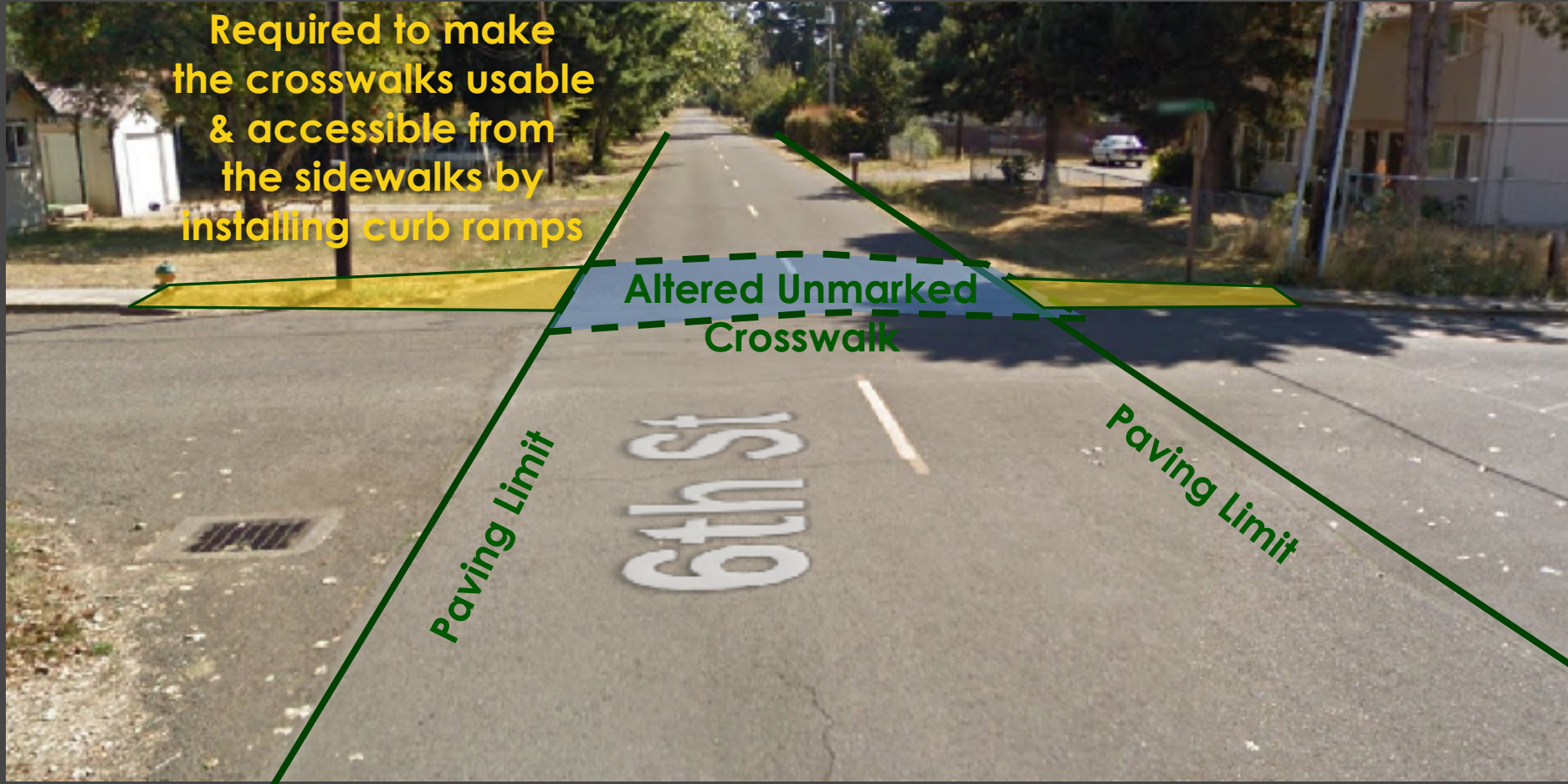


**POP QUIZ:**  
**Are Curb Ramps Triggered?**



# Does this paving job trigger curb ramps?

Required to make the crosswalks usable & accessible from the sidewalks by installing curb ramps

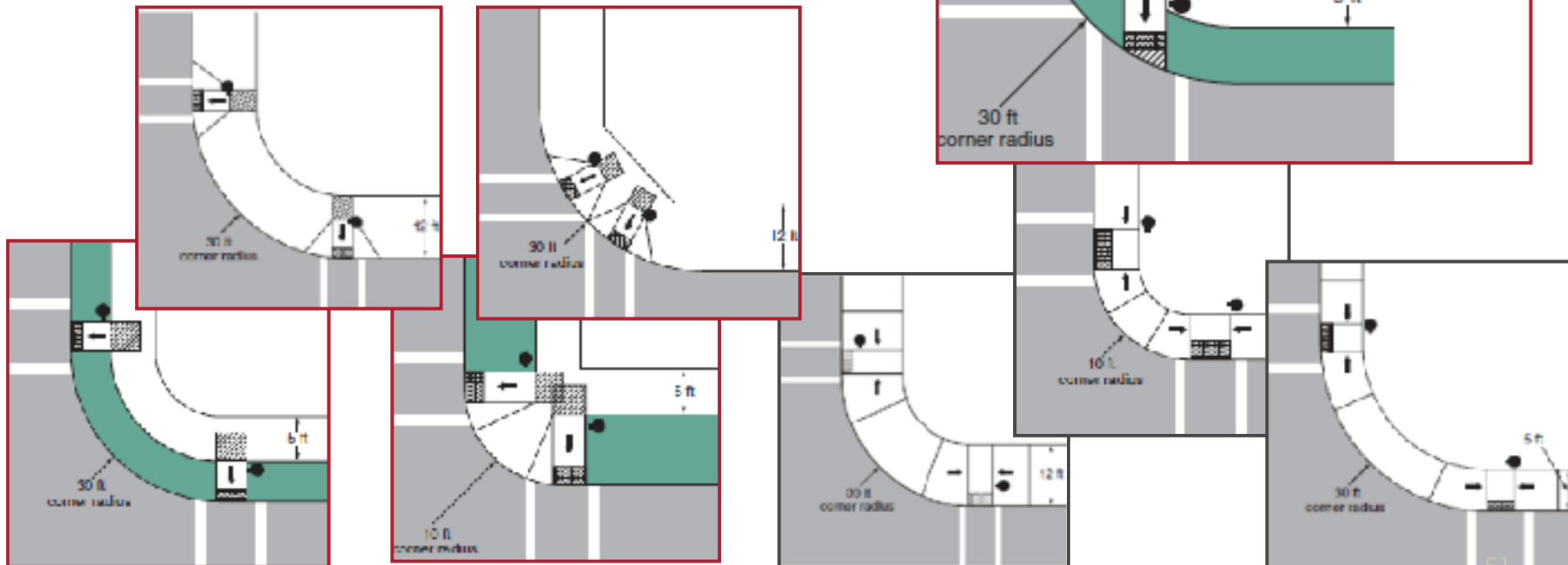
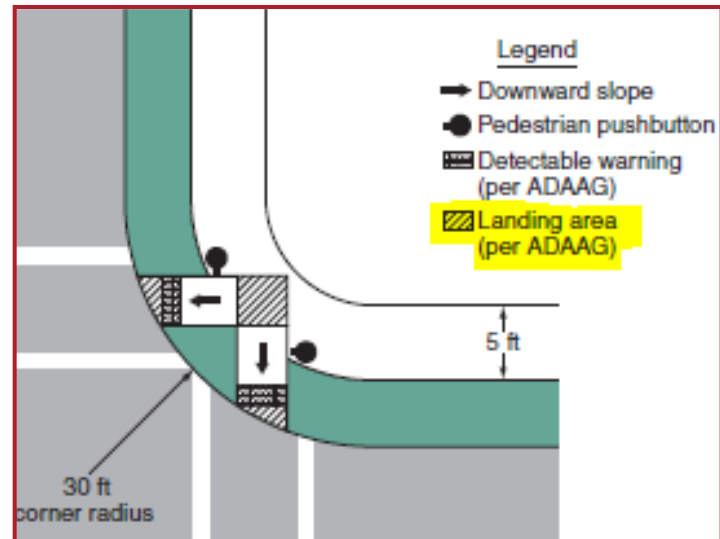


Yes. Paving the road alters the unmarked crosswalk. Sidewalks are not readily accessible & usable without curb ramps.



# Traffic Signal Pushbuttons

- **Criteria for compliance (Applicable Standards)**
  - Side reach = 10" maximum or 24" over an obstruction
    - 2011 PROWAG eliminated 24"
  - MUTCD (5 of 8 on ramp run)
- **Landing Surface**
  - level, all-weather surface





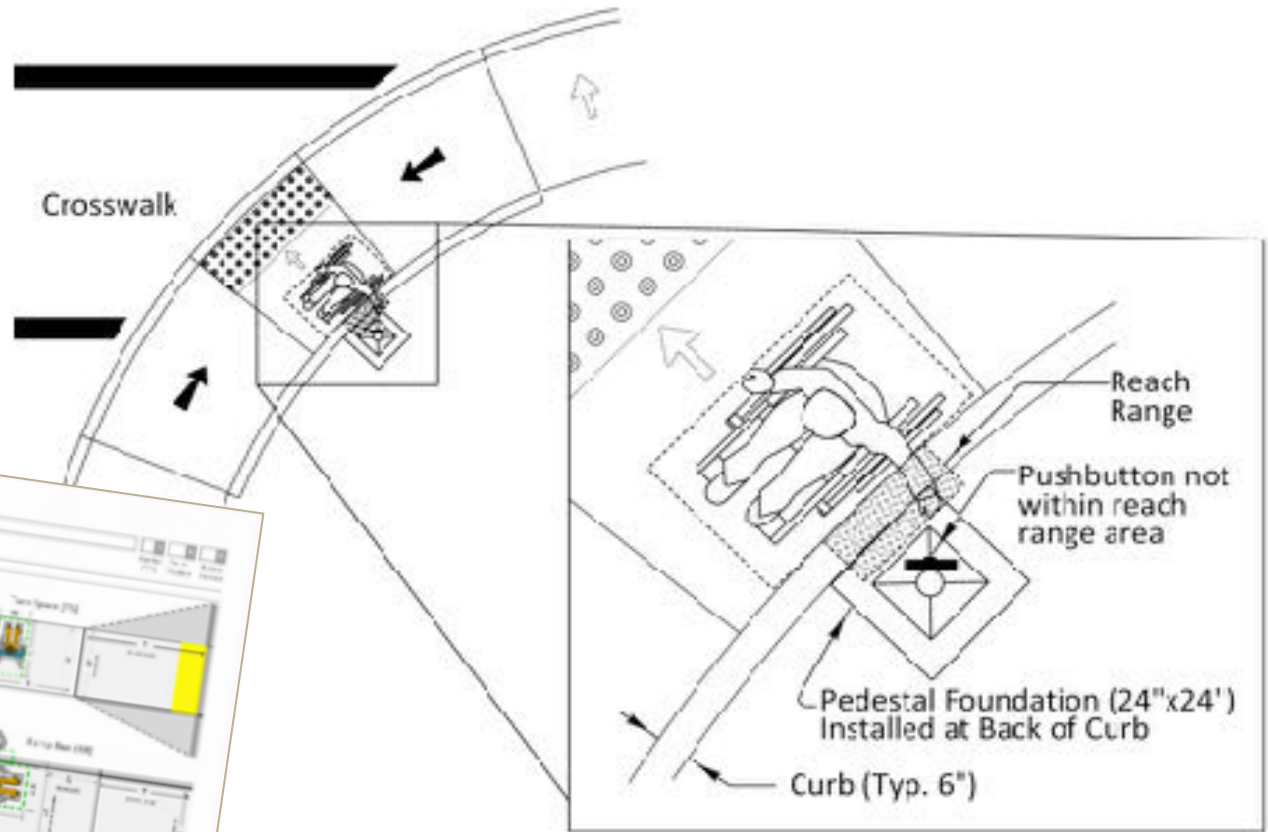
# Traffic Signal Pushbuttons

- **Criteria for compliance (Applicable Standards)**
  - ADAAG: 1:48 in both directions; 10" reach / 24" with obstruction;
  - PROWAG: 2% & match grade of PAR; 10" reach only;
  - ODOT: mix requirements from ADAAG and PROWAG to allow reach range for pushbuttons with obstruction
    - 2% in one direction & 10" reach, OR
    - 2% in both directions & 24" reach, OR
    - Walk phase on recall (pre-timed)





# Designing / Inspecting Traffic Signal Pushbuttons

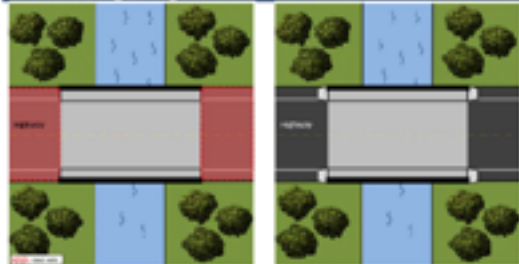


The screenshot shows the 'ADA Push Button Inspection Form'. It includes fields for 'Project Name', 'Inspector', 'Date', and 'Location'. There are also sections for 'Inspection Details' and 'Notes'. The form is designed to be filled out by an inspector to document the condition of traffic signal pushbuttons.



# Bridge Work

## Full width Paving to Bridge



**Project:** Full width paving to edges of concrete bridge deck.

**Required:** ADA ramps to bridge sidewalks.

**Existing Conditions:** Roadway with paved shoulder. Bridge with sidewalks (width > 12").

## Full Retrofit

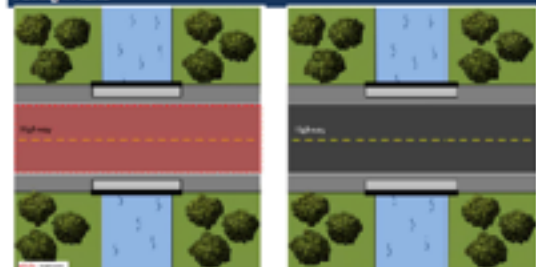


**Project:** Full retrofit that would reduce the clear width of the existing sidewalk to less than 4 feet.

**Required:** Curb ramps installed along full length of sidewalk on shoulders with increased sidewalk clear width to 4 feet min. Lane width decreased to allow for increased sidewalk width. 4 foot by 4 foot sidewalk paving spaces on bridges over 200 feet long. Design Exception may be required for lane work.

**Existing Conditions:** Roadway with paved shoulder. Sidewalk with sufficient to accommodate wheelchair and full retrofit.

## Paving in Lane

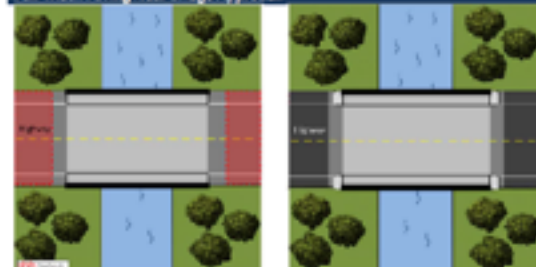


**Project:** Paving between fog lines through intersections.

**Existing Conditions:** Roadway with paved shoulder. Bridge with sidewalks (width > 12").

**Required:** Consistent curb ramp at all street crossings. Curb ramps are not required to be upgraded for the sidewalks on the bridge.

## Full-width Paving Near Bridge Approach

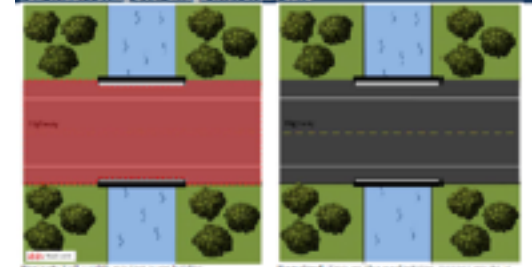


**Project:** Full-width paving on highway, connecting to bridge.

**Required:** Concrete curb ramp to the sidewalk with bridge.

**Existing Conditions:** Roadway with paved shoulder. Bridge with sidewalks (width > 12").

## Full width Paving Over Bridge with Brush Curb

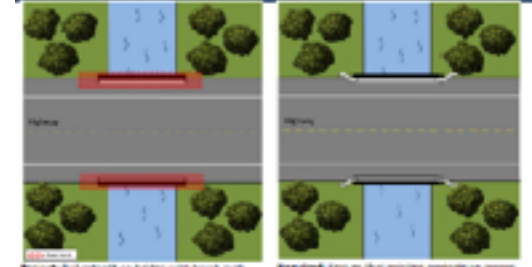


**Project:** Full width paving over bridge.

**Existing Conditions:** Roadway with paved shoulder. Bridge without sidewalks (< 12" wide).

**Required:** Ensure the pedestrian access route is maintained using shoulder.

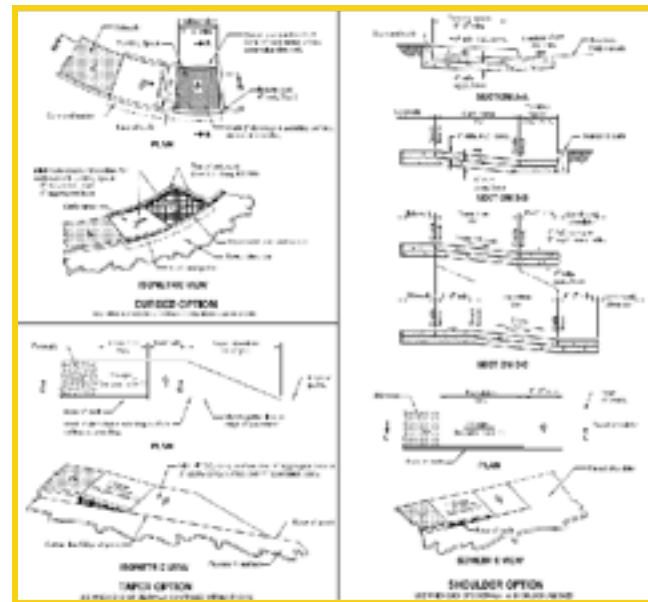
## Full Retrofit - Brush Curb



**Project:** Full retrofit on bridge with brush curb.

**Existing Conditions:** Roadway with paved shoulder. Bridge without sidewalks (< 12" wide).

**Required:** Ensure that existing access route is maintained using shoulder.

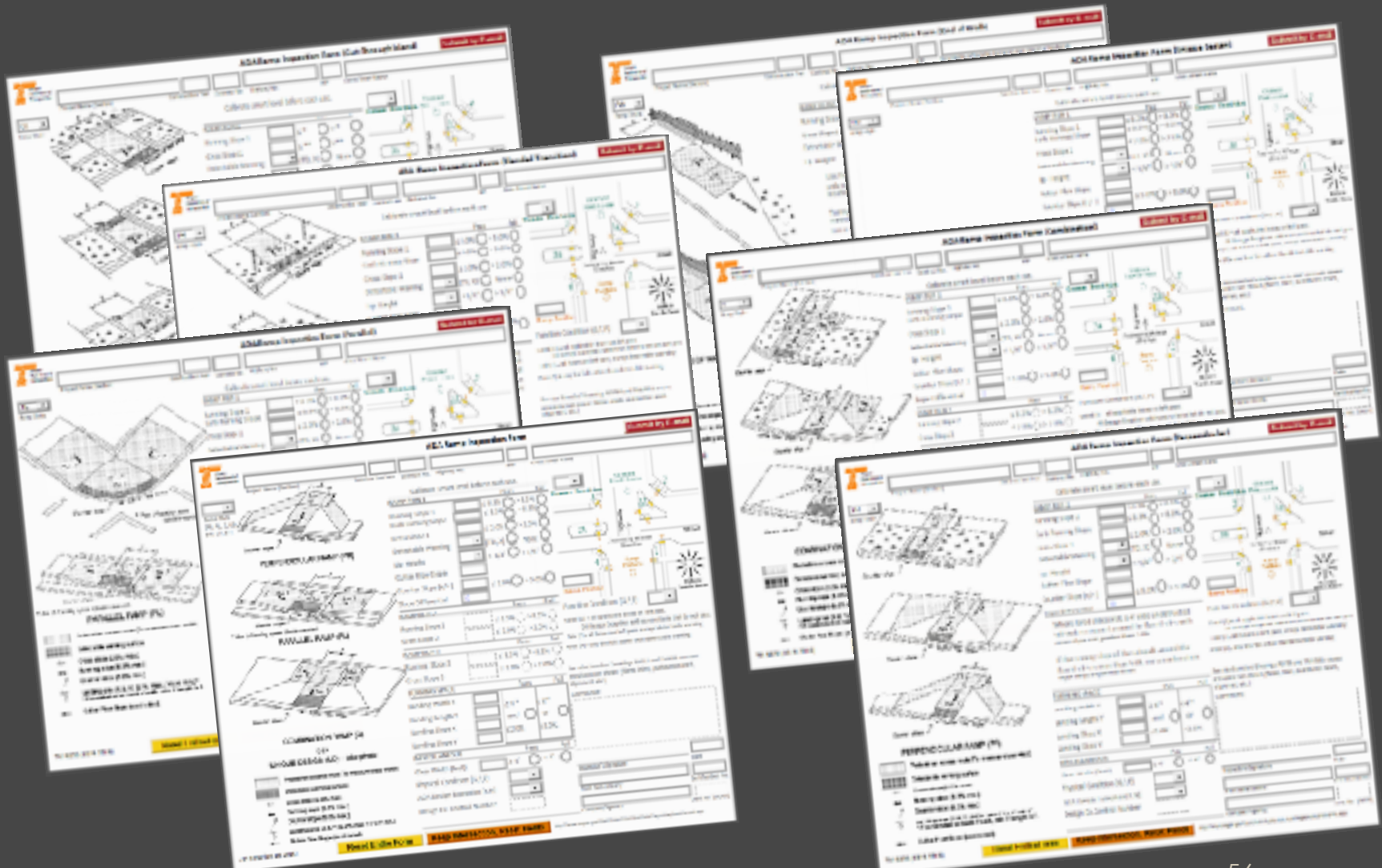




# Curb Ramp Design & Construction



# Curb Ramp Inspection Forms







# Criteria for Good Ramp:

- Inspection Form = Pay Note
- Pass/Fail Criteria

	Pass	Fail
$\leq 8.3\%$	<input type="radio"/>	<input type="radio"/>
$> 8.3\%$	<input type="radio"/>	<input type="radio"/>
$\leq 2.0\%$	<input type="radio"/>	<input type="radio"/>
$> 2.0\%$	<input type="radio"/>	<input type="radio"/>

- If any box fails:
  - Replace curb ramp at contractor's expense...unless...
  - Design Exception justifies condition.

ADA Design Exception (Y,N)

Design Ex. Control Number

RAMP RUN 1		Pass	Fail
Running Slope 1	<input type="text"/>	$\leq 8.3\%$ <input type="radio"/>	$> 8.3\%$ <input type="radio"/>
Curb Running Slope	<input type="text"/>	$\leq 8.3\%$ <input type="radio"/>	$> 8.3\%$ <input type="radio"/>
Cross Slope 1	<input type="text"/>	$< 2.0\%$ <input type="radio"/>	$> 2.0\%$ <input type="radio"/>
Detectable Warning	<input type="text"/>	(TD, X) <input type="radio"/>	None <input type="radio"/>
Lip Height	<input type="text"/>	$\leq 1/4"$ <input type="radio"/>	$> 1/4"$ <input type="radio"/>
Gutter Flow Slope	<input type="text"/>		
Counter Slope (+/-)	<input type="text"/>	$\leq 5.0\%$ <input type="radio"/>	$> 5.0\%$ <input type="radio"/>
Slope Differential	<input type="text"/>		
RAMP RUN 2		Pass	Fail
Running Slope 2	<input type="text"/>	$\leq 8.3\%$ <input type="radio"/>	$> 8.3\%$ <input type="radio"/>
Cross Slope 2	<input type="text"/>	$\leq 2.0\%$ <input type="radio"/>	$> 2.0\%$ <input type="radio"/>
RAMP RUN 3		Pass	Fail
Running Slope 3	<input type="text"/>	$\leq 8.3\%$ <input type="radio"/>	$> 8.3\%$ <input type="radio"/>
Cross Slope 3	<input type="text"/>	$< 2.0\%$ <input type="radio"/>	$> 2.0\%$ <input type="radio"/>
TURNING SPACE		Pass	Fail
Landing Width X	<input type="text"/>	$\geq 4'$ <input type="radio"/>	$< 4'$ <input type="radio"/>
Landing Length Y	<input type="text"/>	and <input type="radio"/>	or <input type="radio"/>
Landing Slope X	<input type="text"/>	$\leq 2.0\%$ <input type="radio"/>	$> 2.0\%$ <input type="radio"/>
Landing Slope Y	<input type="text"/>		
MISCELLANEOUS		Pass	Fail
Clear Width (feet)	<input type="text"/>	$\geq 4'$ <input type="radio"/>	$< 4'$ <input type="radio"/>
Physical Condition (G,F,P)	<input type="text"/>		
ADA Design Exception (Y,N)	<input type="text"/>		
Design Ex. Control Number	<input type="text"/>		



# Categories You Might Expect:



Good



Fair



Poor



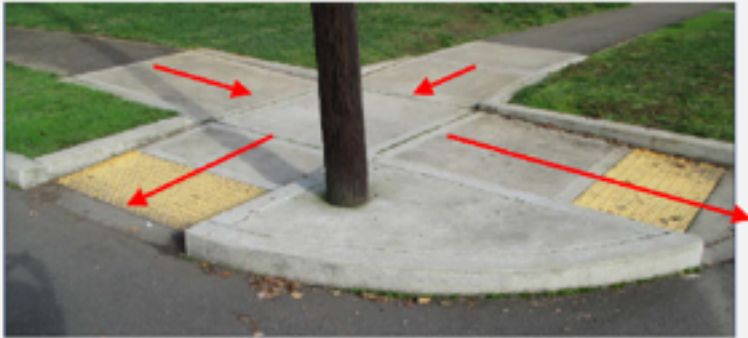
Missing



# Criteria for Good Ramp:

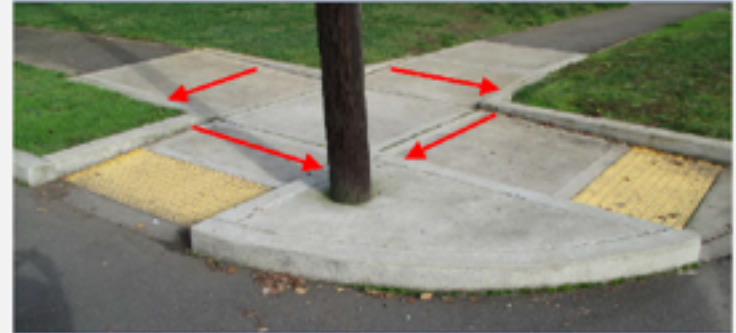
## Running Slope

The ramp running slope is the grade that is parallel to the direction of travel. The example below has four running slopes (red arrows).



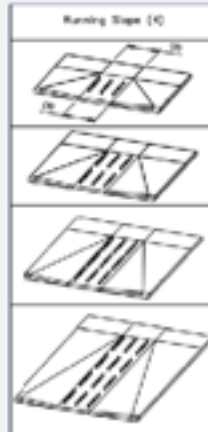
## Cross Slope

The cross slope is the ramp grade that is perpendicular to the direction of pedestrian travel. There are four in this example



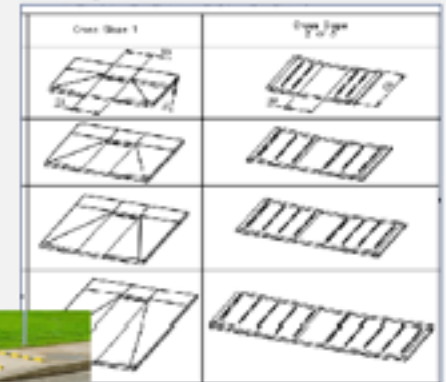
## Measuring Running Slopes

Measure the slope in the direction of travel



## Measuring Cross Slopes

- Slope perpendicular to the direction of travel





# Criteria for Good Ramp:

## Lip Height

The lip height is the vertical difference between two adjacent surfaces, measured within the ramp pay limits. Potential lip locations are noted in the example below.



## Curb Running Slope

The curb running slope is the grade of the top of the curb that is parallel with the ramp run slope.



## Measuring Lip Height

- Lip could be:
  - At Front of gutter when C&G exist
  - At Front/Back of curb
  - At Top of ramp
  - Utility Boxes
  - Anywhere in pay limit
  - Vertical
  - Beveled
- Possible values:
  - 0, 1/4", 1/2", 1", 2", 3" etc.
  - Always round up to one of these values



**TIP:**  
If a lip is beveled 2H:1V or flatter, comment that it is beveled along with the height, and the location. Half inch max upon approval

## Counter Slope

- Standard Curb
  - Counter slope is the street cross slope
- Curb & Gutter
  - Counter slope is the gutter cross slope





# Criteria for Good Ramp:

## Gutter Flow Slope

The gutter flow slope is the grade at the gutter flow line at the bottom of a ramp.



## Detectable Warning

A detectable warning is a standardized feature built in or applied to walking surfaces or other elements to alert users they are entering an area of vehicular travel. Detectable warnings are placed at the bottom of a curb ramp.



## Measuring Turning Space

- The turning space has four elements:
  - Landing Width X
  - Landing Length Y
  - Landing Slope X
  - Landing Slope Y



## Clear Width

The clear width is the narrowest pedestrian access width found within the pay limits of a curb ramp system. See the potential clear width locations shown below.



### TIPS:

- Look up! Potential obstructions that can create clear width limitations include signs, push buttons, signal poles, fire hydrants, mailboxes, and guy wires
- Look for clear width obstructions up to 7' above the walking surface



# Poor





# Poor





# Poor







# Poor





# Poor





# Do Curb Ramps need to be designed?

- “...Plaintiffs contend that the DOJ analysis is inapplicable, because the installation of curb ramps requires no actual "design." They assert that the standards and specifications for curb ramps and slopes are detailed in the UFAS and ADAAG guidelines which are incorporated in the regulations and that the City uses a specific design for curb ramps which is pre-set. This interpretation of the term "design" is unduly restrictive. ...Street resurfacing can require significant planning by the City... Such advance planning and preparation amounts to "design."
- The plaintiffs' motion for summary judgment will be granted and the defendant will be ordered to install curb ramps..."
- (Kinney v. Yerusalim, 1993)



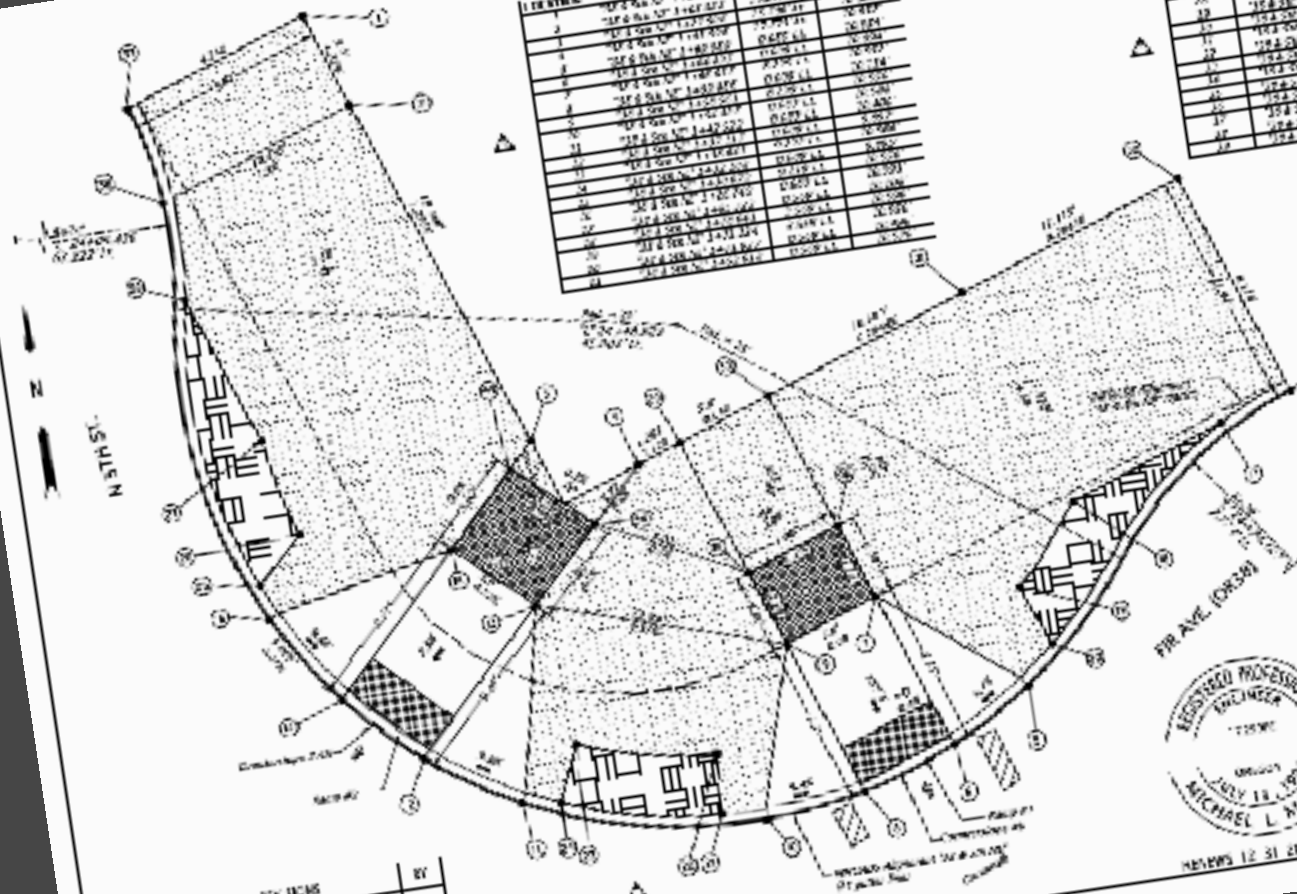
# Plan Set Detail

51V-039

FR. AVE. (OR318) & N 5TH ST. (NORTHEAST CORNER)

LEGEND	STATION	ELEVATION	REMARKS
1	10+00.00	20.000	
2	10+00.00	20.000	
3	10+00.00	20.000	
4	10+00.00	20.000	
5	10+00.00	20.000	
6	10+00.00	20.000	
7	10+00.00	20.000	
8	10+00.00	20.000	
9	10+00.00	20.000	
10	10+00.00	20.000	
11	10+00.00	20.000	
12	10+00.00	20.000	
13	10+00.00	20.000	
14	10+00.00	20.000	
15	10+00.00	20.000	
16	10+00.00	20.000	
17	10+00.00	20.000	
18	10+00.00	20.000	
19	10+00.00	20.000	
20	10+00.00	20.000	
21	10+00.00	20.000	
22	10+00.00	20.000	
23	10+00.00	20.000	
24	10+00.00	20.000	

LEGEND	STATION	ELEVATION	REMARKS
25	10+00.00	20.000	
26	10+00.00	20.000	
27	10+00.00	20.000	
28	10+00.00	20.000	
29	10+00.00	20.000	
30	10+00.00	20.000	
31	10+00.00	20.000	
32	10+00.00	20.000	
33	10+00.00	20.000	
34	10+00.00	20.000	
35	10+00.00	20.000	
36	10+00.00	20.000	
37	10+00.00	20.000	
38	10+00.00	20.000	
39	10+00.00	20.000	
40	10+00.00	20.000	
41	10+00.00	20.000	
42	10+00.00	20.000	
43	10+00.00	20.000	
44	10+00.00	20.000	
45	10+00.00	20.000	
46	10+00.00	20.000	
47	10+00.00	20.000	
48	10+00.00	20.000	
49	10+00.00	20.000	
50	10+00.00	20.000	



SCALE: 1" = 20'  
 DERIVED EXCEPT ON CONTROL; NAD  
 LPM 04/00/00  
 NIP 0 084  
 CORNER POS TYPE 3  
 TRAVEL NUMBER: 1 & 2



REVISED 12 31 2013

OREGON DEPARTMENT OF TRANSPORTATION

OR 318 IS DESIGNATED FOR 50' & 60' WIDENINGS PER 1119 & 1120 OREGON REVISED 11/15/04

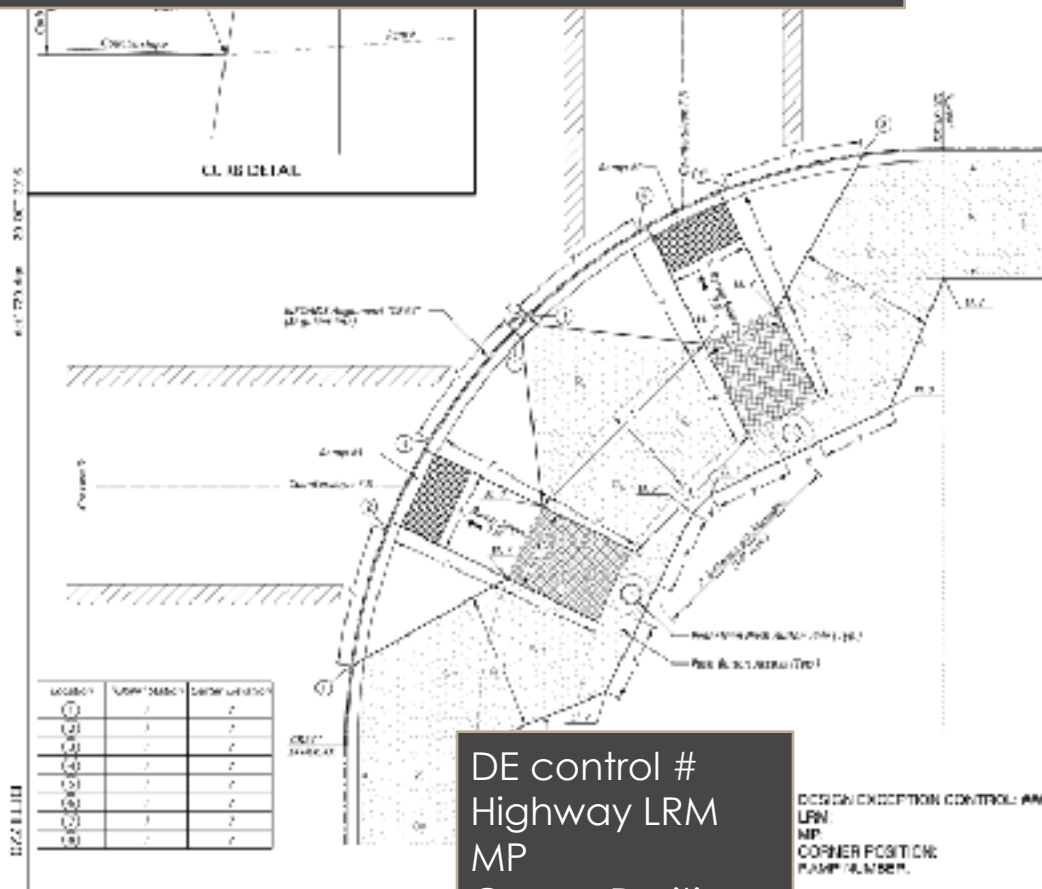
NO.	DATE	BY	REVISIONS
1	06 24 10	Chang	Initial Design



# Plan Set Detail Sheet

- In Roads alignment at gutter: CR##
  - Table STA & Gutter elevations
  - Other Dimensions & Elevations at Grade Breaks

- Template from DET 1720 & DET 1721



**LEGEND**

- Signal pole location
- Pedestrian pole location
- Planting space
- Proposed pavement surface
- Proposed drainage structure
- Proposed utility easement
- Proposed utility line
- Proposed utility structure
- Proposed utility structure

**CONSTRUCTION NOTES**

- Signal pole location
- Planting space
- Proposed pavement surface
- Proposed drainage structure
- Proposed utility easement

- signal pole location
- pedestrian pole & pushbutton

- Drawing Scale
  - 1" = 5' for signalized; (1 corner per sheet)
  - 1" = 10' for non-signalized (2 corners per sheet)

DE control #  
 Highway LRM  
 MP  
 Corner Position  
 Ramp #



# Example:



Calibration Date	10/10/18	(mm/WW)
<b>RAMP RUN 1</b>		Pass Fail
Running Slope 1	2.7	< 2.0% <input type="radio"/> > 2.0% <input checked="" type="radio"/>
Cross Slope 1	2.9	≤ 2.0% <input type="radio"/> > 2.0% <input checked="" type="radio"/>
Detectable Warning	III	(TD, X) <input checked="" type="radio"/> (N) <input type="radio"/>
Lip Height	0.5	≤ 1/4" <input type="radio"/> > 1/4" <input checked="" type="radio"/>
Gutter Flow Slope	2.2	
Curb Running Slope (P)	8.4	≤ 8.3% <input checked="" type="radio"/> > 8.3% <input type="radio"/>
Counter Slope (1/-)	2.6	≤ 5.0% <input checked="" type="radio"/> > 5.0% <input type="radio"/>
Slope Differential	9.0	
<b>RAMP RUN 2</b>		Pass Fail
Running Slope 2	6.5	≤ 8.3% <input checked="" type="radio"/> > 8.3% <input type="radio"/>
Run 2 Length	8.8	≤ 15' <input checked="" type="radio"/> > 15' <input type="radio"/>
Cross Slope 2	1.9	< 2.0% <input checked="" type="radio"/> > 2.0% <input type="radio"/>
<b>RAMP RUN 3</b>		Pass Fail
Running Slope 3	8.7	≤ 8.3% <input type="radio"/> > 8.3% <input checked="" type="radio"/>
Run 3 Length	7.5	≤ 15' <input checked="" type="radio"/> > 15' <input type="radio"/>
Cross Slope 3	2.2	≤ 2.0% <input type="radio"/> > 2.0% <input checked="" type="radio"/>
<b>TURNING SPACE</b>		Pass Fail
Width X	5.5	
Length Y	9.0	> 4' <input type="radio"/> < 4' <input checked="" type="radio"/>
Slope X (Cross Slope 1)	2.9	and <input type="radio"/> or <input checked="" type="radio"/>
Slope Y (Running Slope 1)	2.7	< 2.0% <input type="radio"/> > 2.0% <input checked="" type="radio"/>
<b>MISCELLANEOUS</b>		Pass Fail
Clear Width (feet)	6.2	≥ 4' <input checked="" type="radio"/> < 4' <input type="radio"/>
Physical Condition (G,F,P)	G	
ADA Design Exception (Y,N)	N	
Design Ex. Control Number		



# Curb Ramp Tolerances

## Construction and Manufacturing Tolerances.

All dimensions are subject to *conventional industry tolerances* **except where the requirement is stated as a range with specific minimum and maximum end points.**

ADAAG 104.1.1 / PROWAG R103.1

**Per FHWA email: 2.0%, 8.3% is the max. 2.1%, 8.4% is noncompliant.**



# Curb Ramp Tolerances

2011 Access Board research to set measurement procedures & specific industry slope tolerances for curb ramps, etc.

## Areas for further work:

### Design issues:

- Existing industry tolerances
- Units of measure
- Measurement instruments
- Accuracy of instruments/measurement uncertainty
- Use of significant figures
- Metric conversions or dual unit standards
- Measurement of dimensions that involve two or more trades/materials

### Construction issues:

- How/where to take measurements/precision of measurement
- Accuracy of construction/tolerances for individual materials
- Cost/time implications
- Influence of accepted local practices for construction
- Inspection/measurement protocols
- Effects of weather, such as curing and freeze - and - thaw on outdoor surfaces
- Maintenance/durability of surfaces
- Workforce training

### Usability issues:

- Planarity
- Maneuverability
- Rollability/rolling resistance
- Jointed surfaces/vibration
- Cross slope
- Gaps
- Flatness lippage
- Slip resistance





# Curb Ramp Tolerances

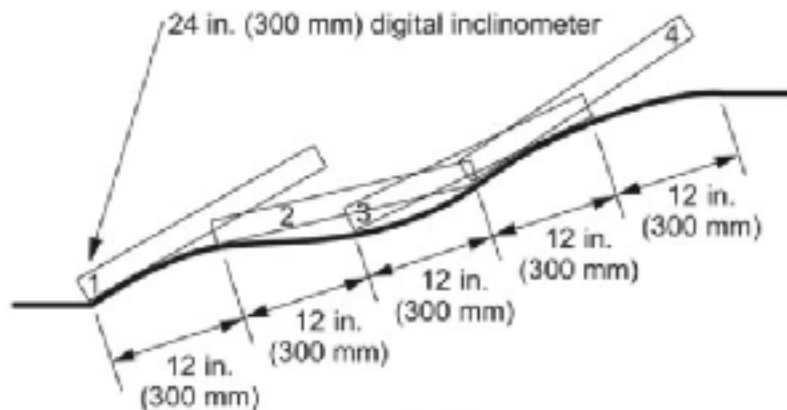


Fig. 4  
Measuring local ramp slope

In the end, most of these issues were not considered by the trade and material organizations that participated in this study or reference was simply made back to the ADA/ABA Guidelines. This may be due the time and effort required to consider them all or to the reluctance of an organization to commit to the development of standards that could have legal consequences

“trade and professional groups may be reluctant to develop standards related to accessibility that could have legal consequences.”



# Curb Ramp Tolerances

Proposed ODOT research:

- to determine how concrete materials and proportions affect stability & compliance
  - which materials & proportions can be used to increase stability & likelihood of slope compliance
- to develop construction guidelines and best practices for the construction of ADA-compliant curb ramps
- to identify or develop measurement methodologies to quantify the
- statistical variability in surface planeness and to determine if the measured curb ramp construction
- slopes represent compliant slopes based on the expected variability in surface planeness

Cancelled. Need to re-evaluate purpose/needs.



# Key Takeaways

How to Reduce the likelihood of a Complaint or Litigation? What are your options if you get a litigation notice? How This Impacts Other Agencies?



# To Reduce Likelihood of a Complaint or Litigation

- Work with your constituents;
- Have an informal CQCR process in addition to the formal complaint process;
- Be responsive to requests;
- ADA Transition Plan with a schedule;
- Documentation, Documentation, Documentation;
- DOJ Civic Access voluntary settlements



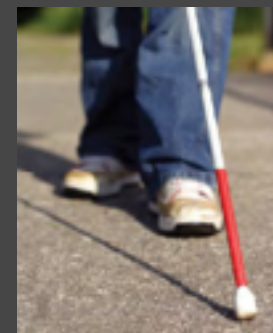
# Options if you get a litigation notice:

**Argue that you've done what the law required.  
Continue business as usual.**

- Needs of plaintiffs likely not met
- Unknown legal outcome
- Lengthy legal process
- Diverts resources into searching old project files rather than working on current business needs.
- Public perception that you're avoiding ADA obligations

**Agree to a more aggressive schedule to make things accessible.**

- Meet plaintiffs' needs
- Better relationship & partnering with constituents.
- Able to agree upon the outcome (rather than having a judge decide)



# Questions?

