

Work Zone Safety Has Changed! . . .



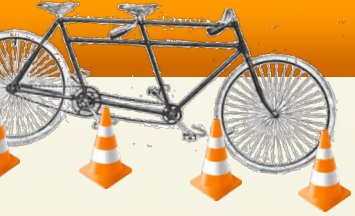
...But We Can't Stop Now.





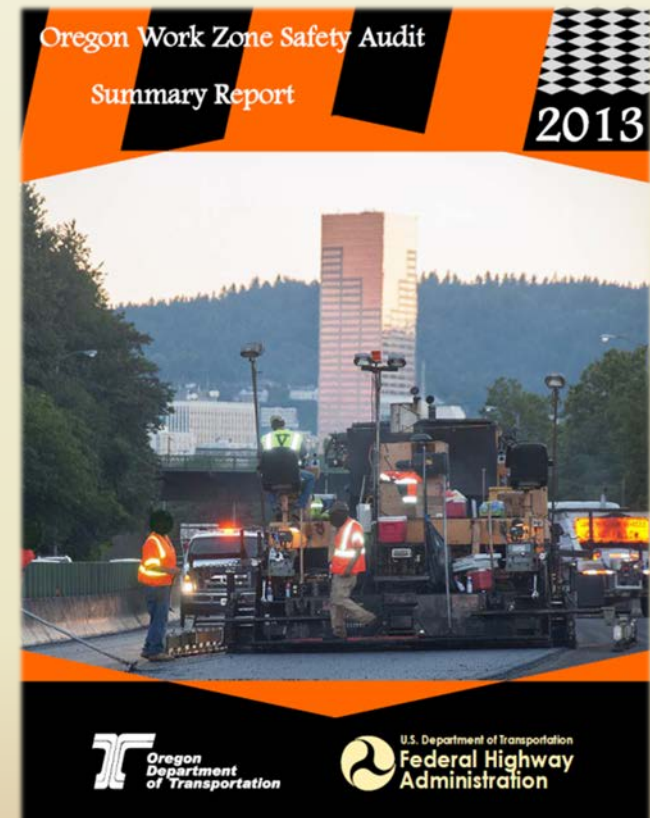
ACCOMMODATING PEDESTRIANS AND ADA USERS





ACCOMMODATION CHALLENGES

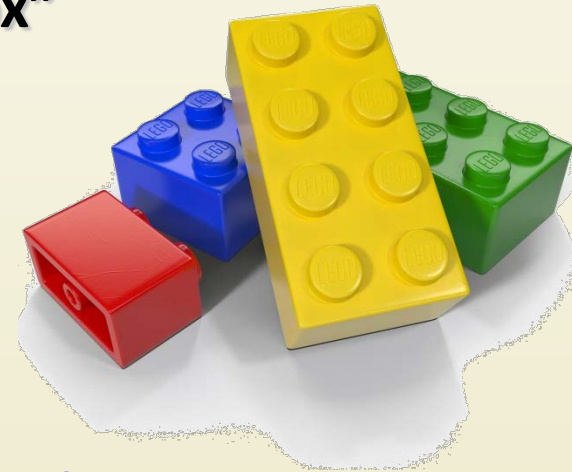
- Two Recurring Work Zone Design Challenges:
 - *ADA/Pedestrian Accommodation*
 - *Bicyclist presence within Work Area*
- Revealed thru Annual Work Zone Reviews & ODOT Region feedback





ACCOMMODATION CHALLENGES

- Enough “Tools in the TCP Toolbox”
- The RIGHT Tools
 - *Safe & Effective*
 - *Practical Project applications*
 - *Cost effective*
- Implementation and Training
 - *Design Manuals, Drawings, Specifications*
- Distribute Information to Customers
- Consistency & Enforcement





ACCOMMODATION CHALLENGES





PEDESTRIAN - ADA CHALLENGES





PEDESTRIAN - ADA CHALLENGES

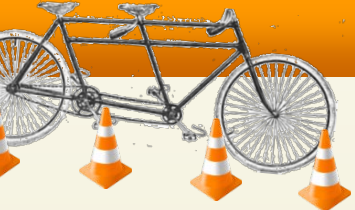




PEDESTRIAN – ADA ACCOMMODATIONS

- 1990 Americans with Disabilities Act
- Public Right of Way Accessibility Guidelines (PROWAG)
 - *“All altered portions of existing facilities located in the public right-of-way shall comply with these requirements to the maximum extent feasible.”*
- ODOT’s focus on Pedestrian & ADA Needs
 - *New Devices, Materials, Technologies*
 - *Increased ODOT TCP Design Manual guidance*
 - *Added details from PROWAG*
 - *Device selection and usage criteria*



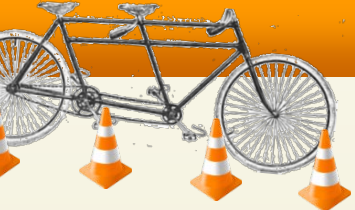


PEDESTRIAN – ADA ACCOMMODATIONS

➤ Pedestrian Channelizing Device (PCD)

- *Pilot Project in 2012 – SUCCESS!*

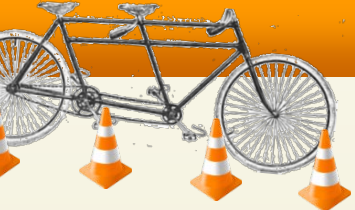




CURRENT PEDESTRIAN MEASURES

- Pedestrian Channelizing Device (PCD)
 - *Multiple products available on ODOT QPL*

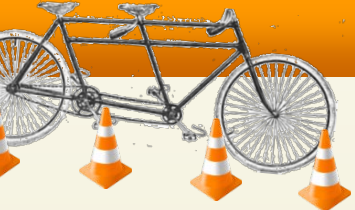




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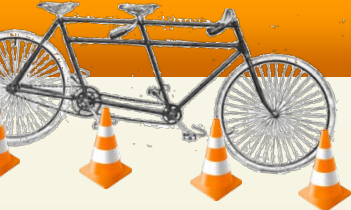




CURRENT PEDESTRIAN MEASURES

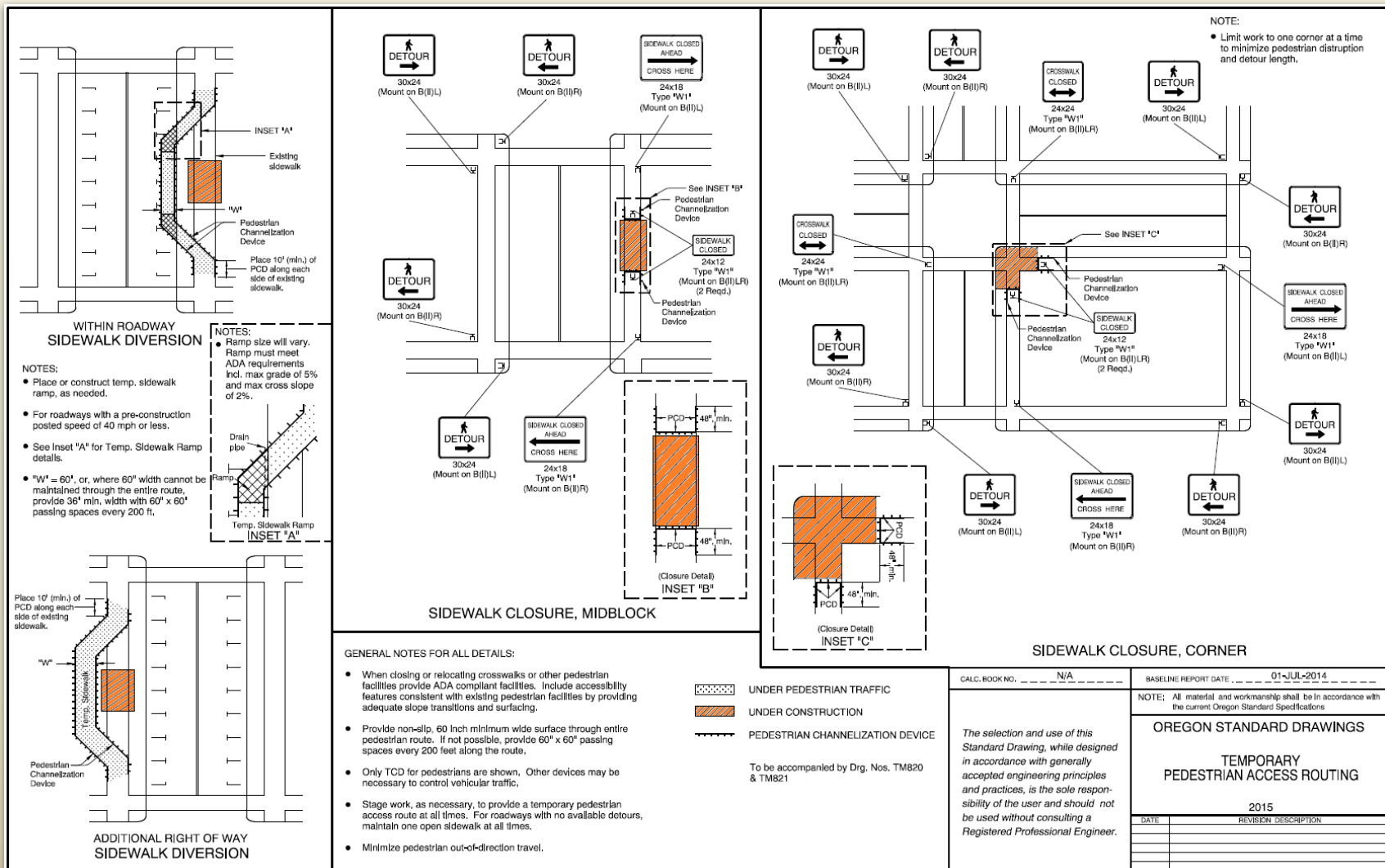
- Pedestrian Channelizing Device (PCD)
 - *Multiple applications for various activities*





CURRENT PEDESTRIAN MEASURES

➤ Standard Drawing TM844 available

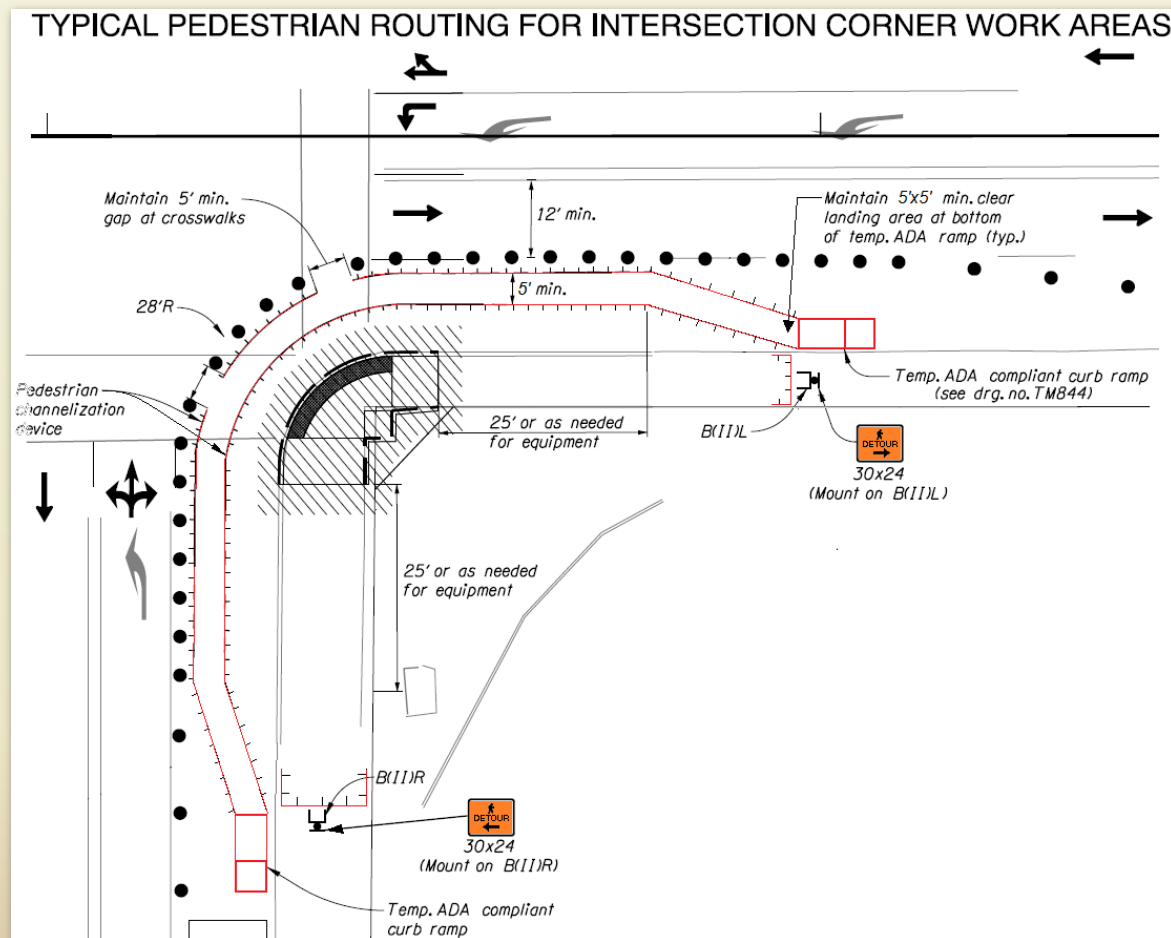


TM844



CURRENT PEDESTRIAN MEASURES

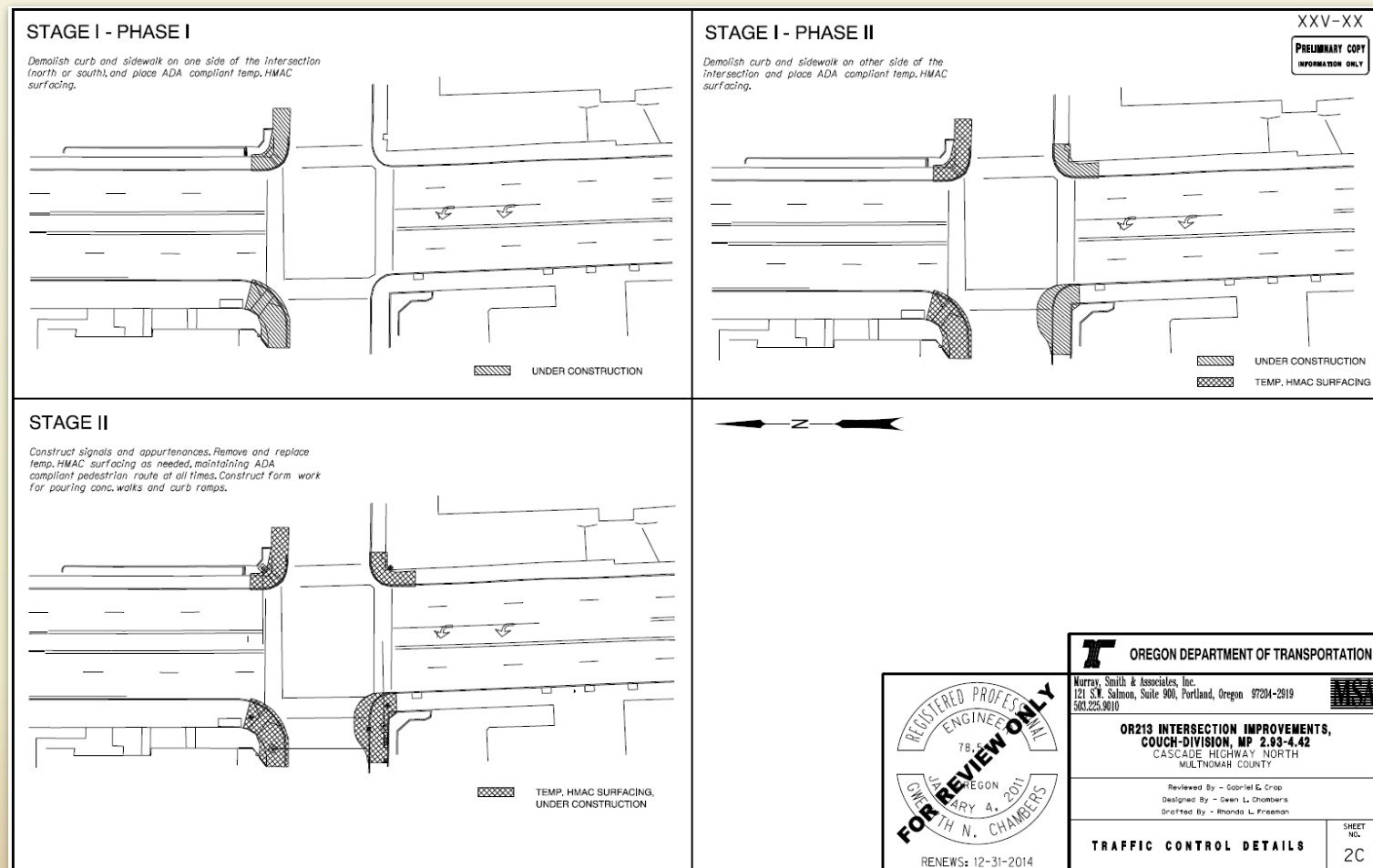
- TCP DESIGN MANUAL – 11th Edition (April, 2015)
- Enhanced Design guidance
 - *Pedestrian-Specific Traffic Control Plans*





CURRENT PEDESTRIAN MEASURES

- TCP DESIGN MANUAL – 11th Edition (April, 2015)
- Enhanced Design guidance
 - *Pedestrian-Specific Traffic Control Plans*





CURRENT PEDESTRIAN MEASURES

- TCP DESIGN MANUAL – 11th Edition (April, 2015)
- Enhanced Design guidance
 - *Pedestrian Channelization Devices (PCD) usage and placement matrix*

POSTED SPEED (mph)	PEDESTRIANS ANTICIPATED		PEDESTRIANS NOT ANTICIPATED ⁽³⁾	
	Between Traffic & Pedestrians	Between Work Area & Pedestrians	Between Traffic & Pedestrians	Between Work Area & Pedestrians
40 or LESS	⁽¹⁾ Pedestrian Channelizing Devices (PCD)	⁽¹⁾ PCD, chain link fence, concrete barrier	⁽²⁾ Channelizing devices, PCD	⁽²⁾ Channelizing devices, PCD, chain link fence, concrete barrier
45 or MORE	Concrete barrier, Pedestrian detours, Separate temp. facility	⁽¹⁾ PCD, chain link fence, concrete barrier	⁽²⁾ Channelizing devices, PCD	⁽²⁾ Channelizing devices, PCD, concrete barrier

⁽¹⁾ Assumes pedestrian traffic shares same surface as vehicular traffic. If pedestrian traffic uses a raised, curbed sidewalk, or sidewalk separated from the roadway, PCD is not needed.

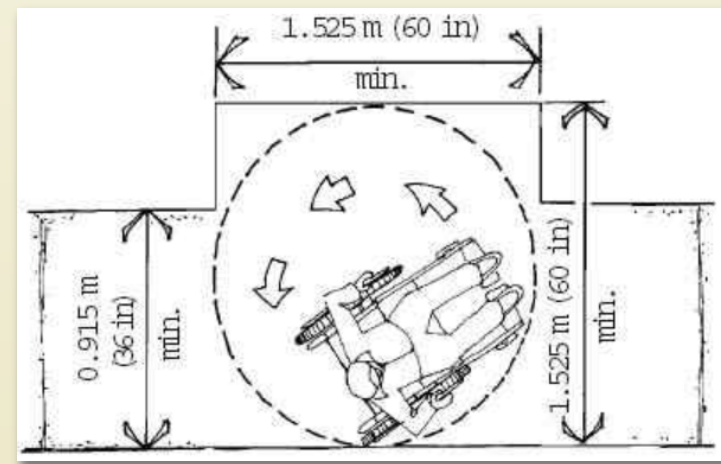
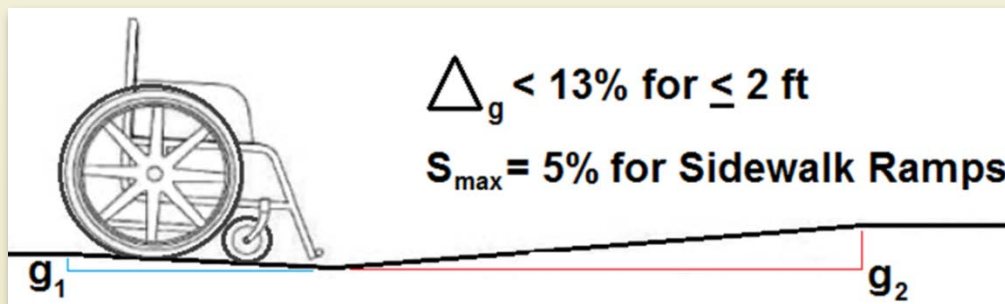
⁽²⁾ Includes cones, tubular markers, plastic drums. Devices should be spaced at 10-ft, maximum. PCD may also be used, but not required. Barrier placement likely based on protection for vehicular traffic. Chain link fence adjacent to high-speed traffic should be avoided.

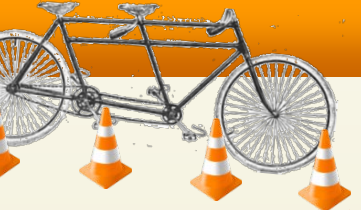
⁽³⁾ Where pedestrian facilities do not exist, indications of pedestrian traffic are not visible, and local resources can confirm immeasurable pedestrian volumes.



CURRENT PEDESTRIAN MEASURES

- TCP DESIGN MANUAL – 11th Edition (April, 2015)
- Enhanced Design guidance
 - *Public Right of Way Accessibility Guidelines (PROWAG) details*

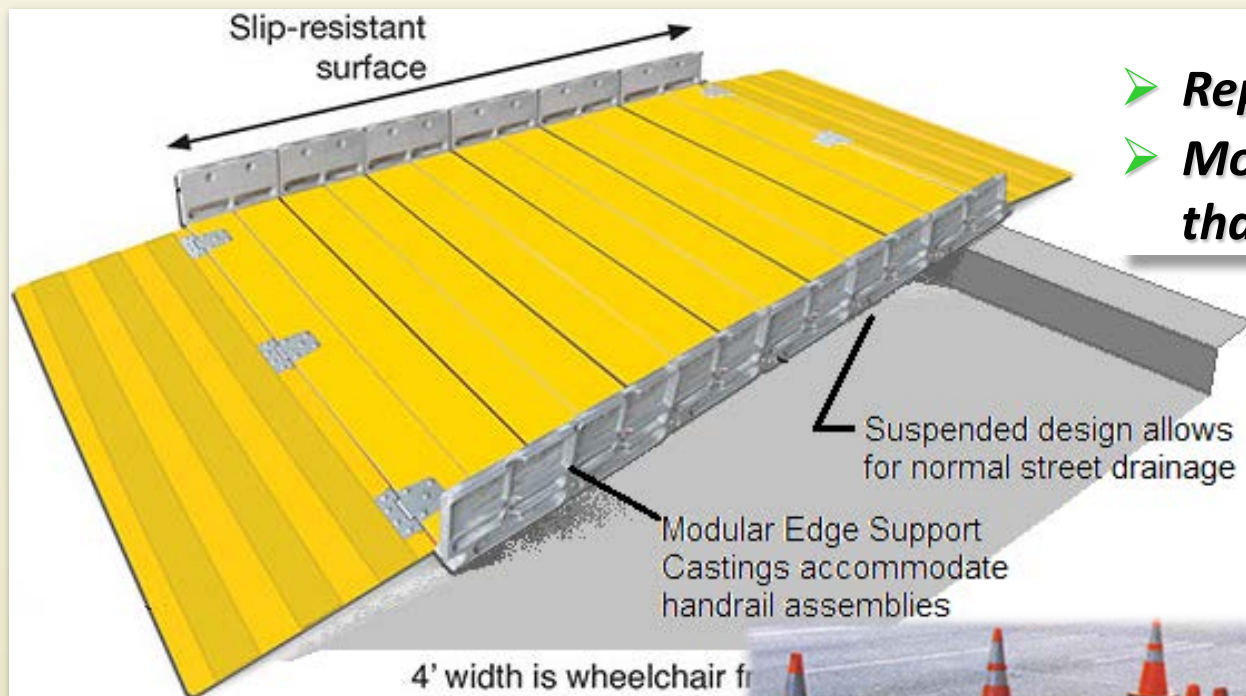




ON THE DRAWING BOARD...

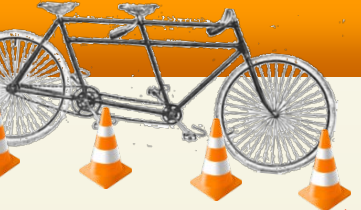
➤ Pedestrian Accessibility Products & Devices

- *Portable, Adjustable Sidewalk Ramps*



- *Replaces non-compliant ramps*
- *More portable and adjustable than AC or PCC ramps*





ON THE DRAWING BOARD...

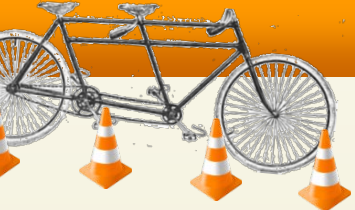


Pedestrian Accessibility Products & Devices

- *Automated Pedestrian Information Stations*



- *Programmable audible messages*
- *Describes alternate routes, conditions, hazards*




ACCOMMODATING BICYCLISTS





Bike Friendly

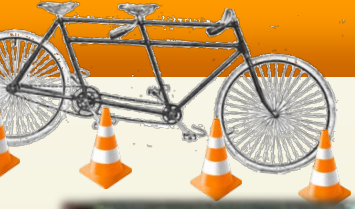


Recognized by Travel Oregon
RideOregonRide.com



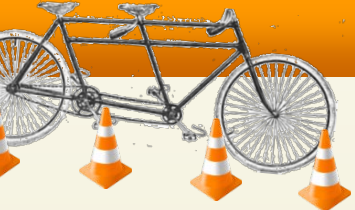


HERAS



BICYCLIST CHALLENGES





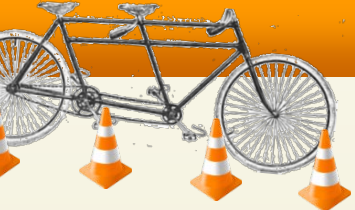
BICYCLIST CHALLENGES





BICYCLIST CHALLENGES

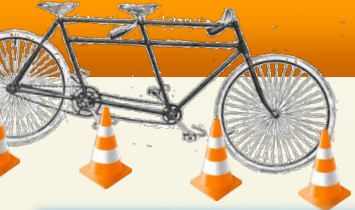




CURRENT BICYCLE ACCOMODATIONS

➤ OPTION 1: Provide Separate Facilities, or Alternate Routes





CURRENT BICYCLE ACCOMODATIONS



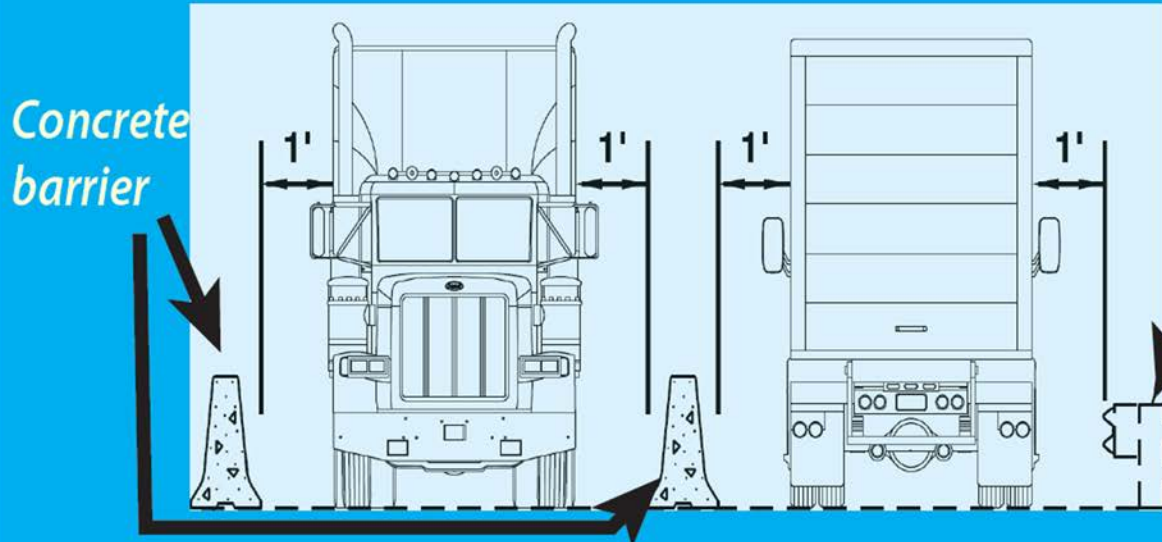
Why can't I ride my bicycle on I-84
between Pendleton and La Grande?

Turn-by-Turn directions for Bicycle
Detour between I-84 Exits 216 & 261

NOTE: Directions are for eastbound travel.

Typical Freeway configuration through work zone.

One-foot shoulders. NO ROOM FOR BICYCLES!



5,000 trucks passing
through work zone
each day.

1 lane Westbound 1 lane Eastbound

1. Take the designated detour along
OR 331, OR 11, OR 204 and OR 82.
(see map and turn by turn directions)

OR

2. Hop on the free shuttle bus at the
Arrowhead Truck Stop near Exit 216 or
the La Grande Transit Center near Exit
261 (see insert map for location).

NOTE: Transit bus space for bikes is
limited, so call 541-429-7519 for details.

Shuttle Bus Schedule Mon. - Fri. only

Leaves Arrowhead Truck Stop

5:26 a.m.

near Exit 216

9:56 a.m.

5:13 p.m.

Leaves Transit Center in La Grande

6:28 a.m.

near Exit 261

10:58 a.m.

6:15 p.m.

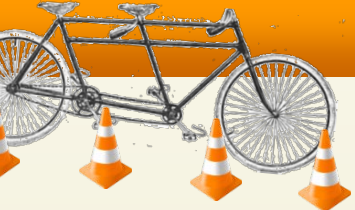
Call 541-429-7519 to confirm bicycle storage space

BICYCLO

I-84

BETWEEN PENDLETON AND LA GRANDE

in Northeast Oregon

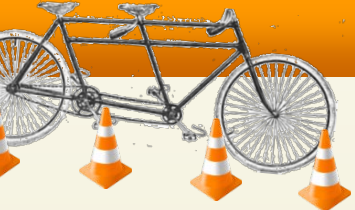


CURRENT BICYCLE ACCOMMODATIONS

➤ OPTION 2: Warn of Bicyclist presence, Mitigate, Enhance

- *"Bicycles ON ROADWAY" sign*
- *Enhanced pavement markings*
- *Decrease Channelizing Device spacing*





CURRENT BICYCLE ACCOMODATIONS

- **OPTION 2:** Warn of Bicyclist presence, Mitigate, Enhance
 - *Shared facilities*



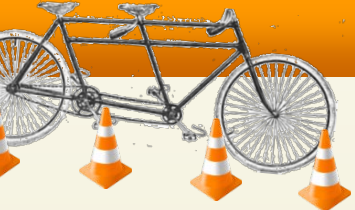
“Shared Roadway”



ON THE DRAWING BOARD...

- **Separate Bicycle Facilities**
 - *During short-duration work zones*
 - *Bicycle-specific pathway delineation*





ON THE DRAWING BOARD...

- **Separate Bicycle Facilities**
 - *Delineation within Lane Closure*





ON THE DRAWING BOARD...

- New “Bicycle Channelizing Devices” (BCD)
 - *For Long-term, stationary work areas*





ON THE DRAWING BOARD...

- **New Bicycle-specific Signing and Markings**
 - *Designate and sign bicycle-specific facilities*

CURRENT EXAMPLES...



ADDITIONAL WORK ZONE USES...



Including Project-specific designs...





ADDITIONAL RESOURCES

- **ODOT Traffic Control Plans Design Manual**
 - www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/pages/tcp_manual.aspx
- **National Work Zone Safety Information Clearinghouse**
 - [Work Zone Safety Grants](#)
 - www.workzonesafety.org/fhwa_wz_grant/atssa
- **American Traffic Safety Services Association (ATSSA)**
 - [“Pedestrian Safety & Accessibility in Work Zones”](#)
 - www.workzonesafety.org/fhwa_wz_grant/atssa/atssa_pedestrian_work_zones
- **ODOT Transportation Safety Division**
 - [“Accommodating Pedestrians in Work Zones”](#)
 - www.oregon.gov/ODOT/TS/docs/workzone/accomodatingpedestrians.pdf
- **ODOT Bicycle & Pedestrian Program**
 - [Sheila Lyons – Program Manager](#)
 - [Rodger Gutierrez – Facilities Specialist, Salem](#)
- **Gary Obery – ODOT Alternate Mode Traffic Engineer**