

# 2023 – ODOT Construction Update

Justin Moderie, P.E., G.E.  
State Construction and  
Materials Engineer

## I-205 IMPROVEMENTS

*Stafford Road to OR 213*



**Oregon Concrete & Aggregate Producers Association**

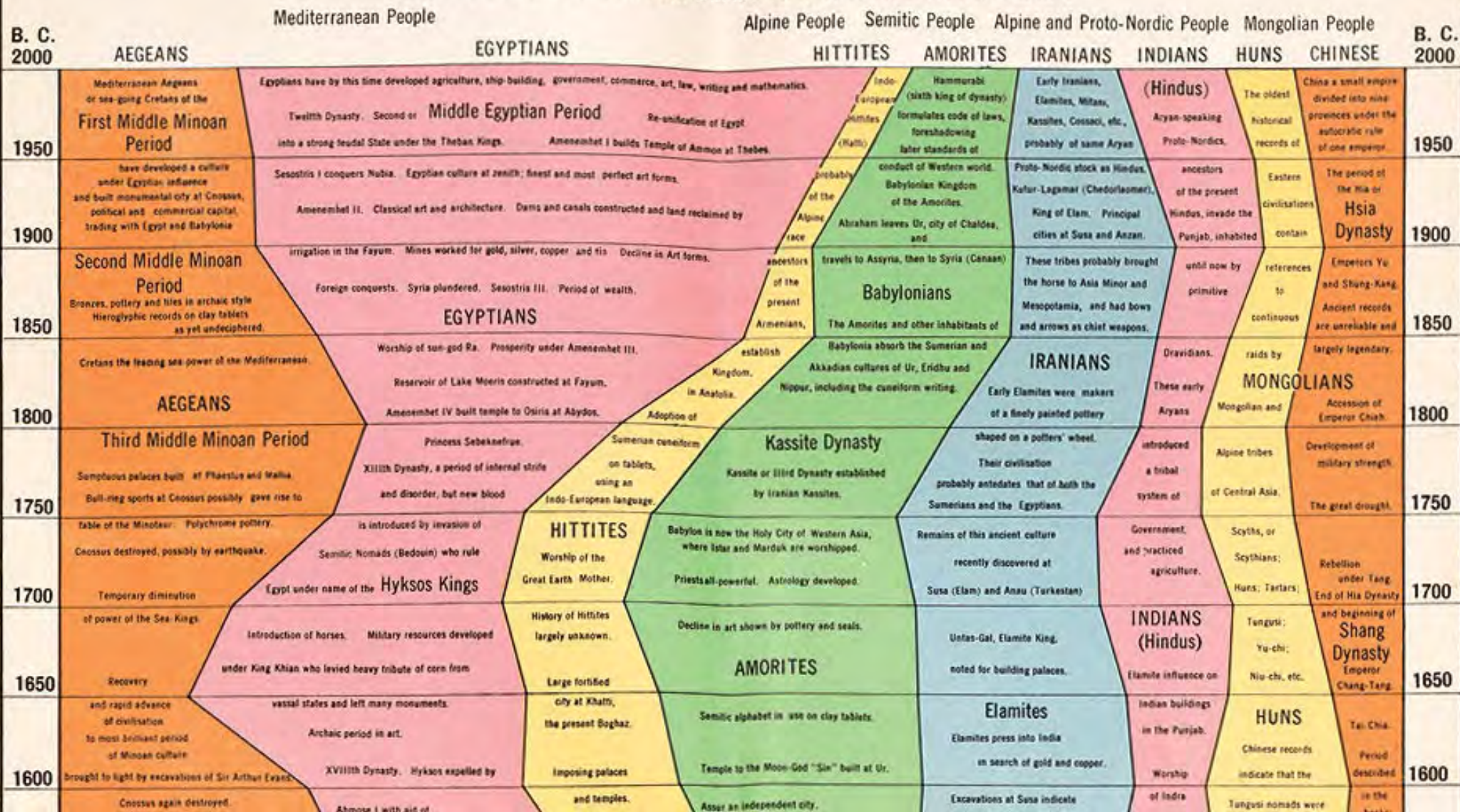
January 12, 2023



# The HISTOMAP

## FOUR THOUSAND YEARS OF WORLD HISTORY

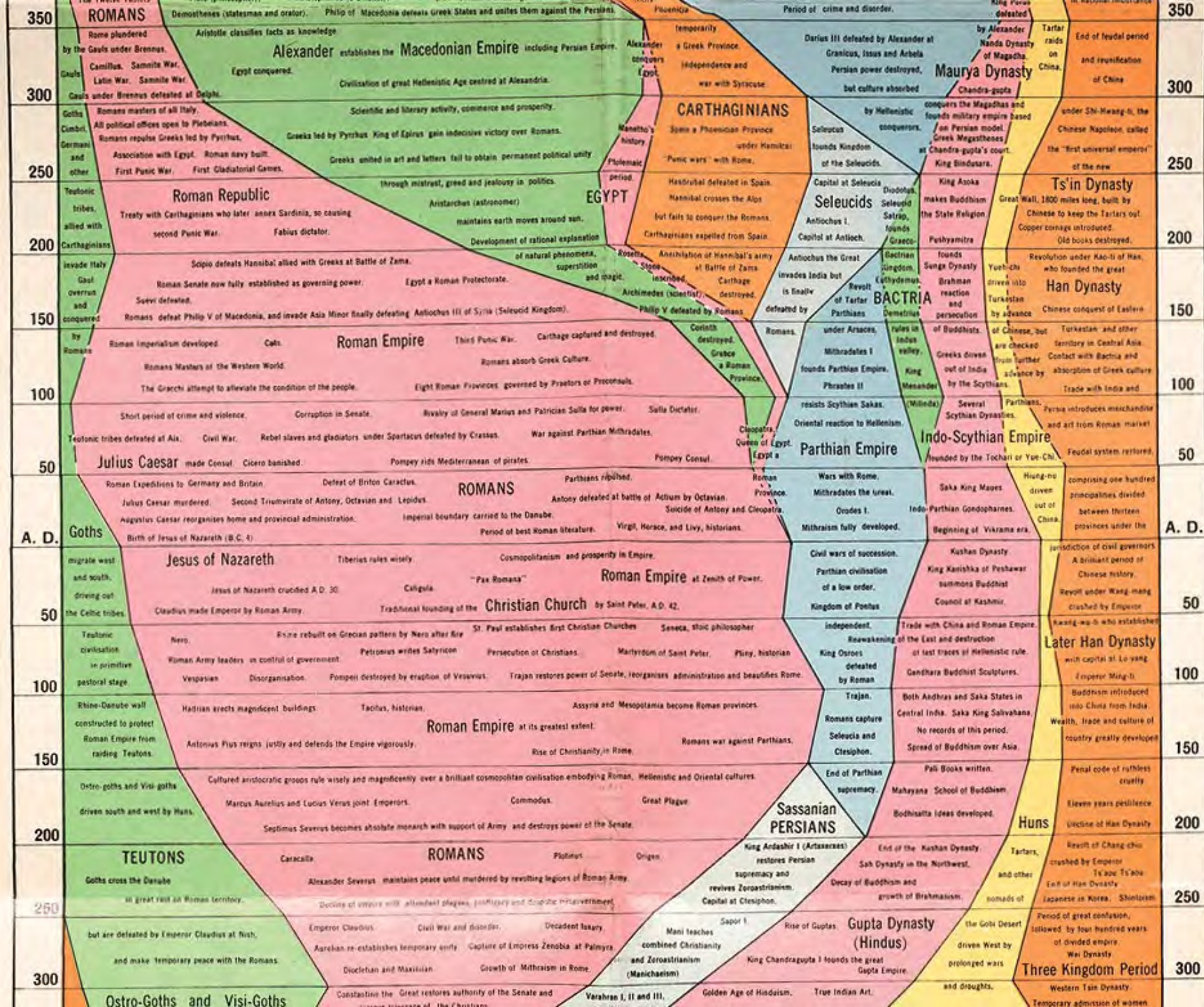
### RELATIVE POWER OF CONTEMPORARY STATES, NATIONS AND EMPIRES

























# Staffing







## Community Benefit Contracts (CBCs)

- Apprenticeship goals by trade and subgoals
- Goals and aspirational targets for economically distressed zip codes, and BIPOC and women workers
- Dispatch protocols to support goals/targets
- Respectful worksites training
- Responsible contractor
- Trust fund payments tied to quality healthcare & pension benefits



# Projects Planned for CBCs

Project Labor  
Agreements

Newberg Dundee Project

Community  
Workforce  
Agreement Pilot  
Program

8 Pilot Projects

Community Benefit  
Agreements

Interstate Bridge  
Portland Harbor





# Build America, Buy America (BABA)

---

- Requirements for federally funded transportation projects
- Buy America –Steel
- With BABA, Buy America expands to:
  - non-ferrous metals;
  - plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
  - glass;
  - lumber;
  - Drywall
- Effective on Projects bidding 1/2023
- Note that Cement and Asphalt are not included



# Programmatic Permits – 1200-CA Stormwater





# Aggregate Source Permits

---





# Strategic Action Plan

## → GHG Inventory

- **Strategic Action Plan:**
  - Set climate change emission baseline
  - Phase in low-carbon materials, fuels & practices
  - Monitor and adjust
- **Reduce GHG from construction and maintenance operations**
  - Fuels
  - Materials



**Oregon Department of Transportation**  
Operational Greenhouse Gas Reductions:  
Best Practices & Recommendations

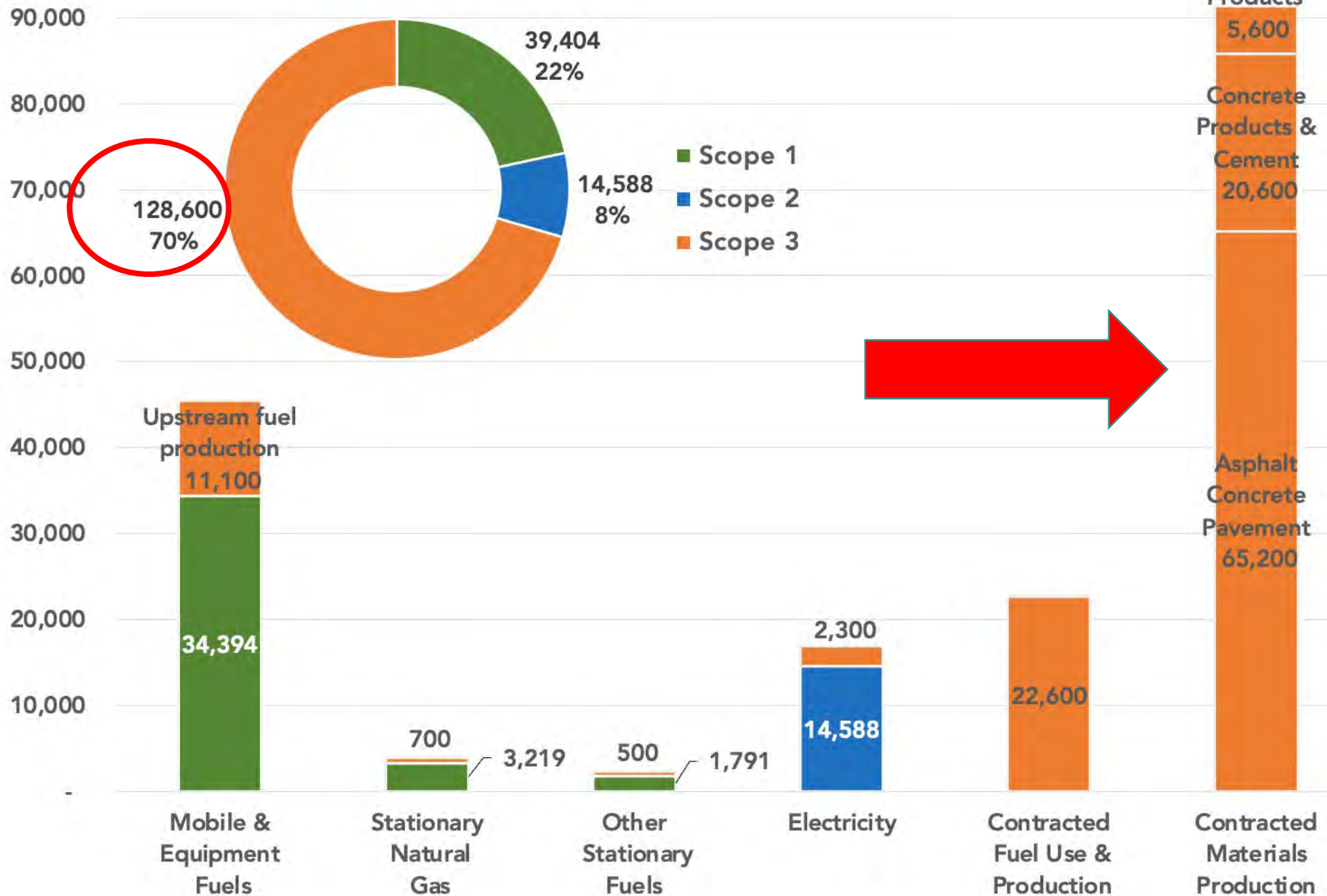
# STRATEGIC ACTION PLAN

Presented by:  
Oregon Transportation Commission &  
The Oregon Department of Transportation

OCTOBER 2020



# ODOT GHG Inventory, Annual Average (FY 2016-19)





## Recommendations... *over 40 total*

---

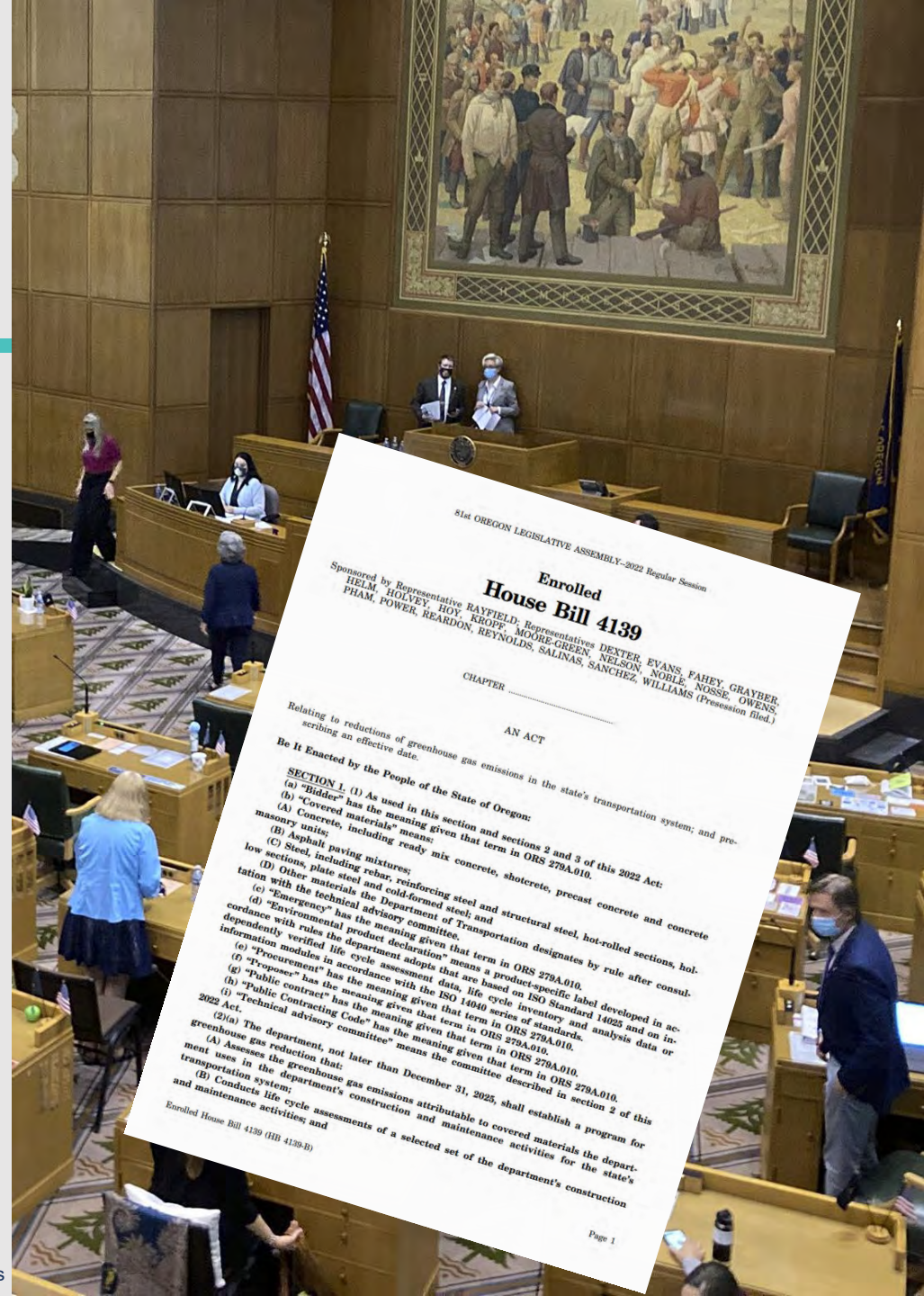
- Maximize use of Substitute Cementitious Materials (SCMs)
- Develop Environmental Product Declaration (EPD) program
- Support contractor and materials industry transitions





# Oregon House Bill 4139

- Requires ODOT to set-up a “program for GHG reductions”
- The agency to collect EPDs on asphalt, concrete and steel
- ODOT to devise strategies for reducing GHG emissions
- Allows for regional variability and prioritization of quality / performance







## Innovation is part of ODOT's daily operations...

- 20% SCM replacement in mix designs and approved >30 SCM sources and natural pozzolans
- Internal team meeting regularly to share information
- Research and test low-carbon materials
- Engagement with other DOTs and industries





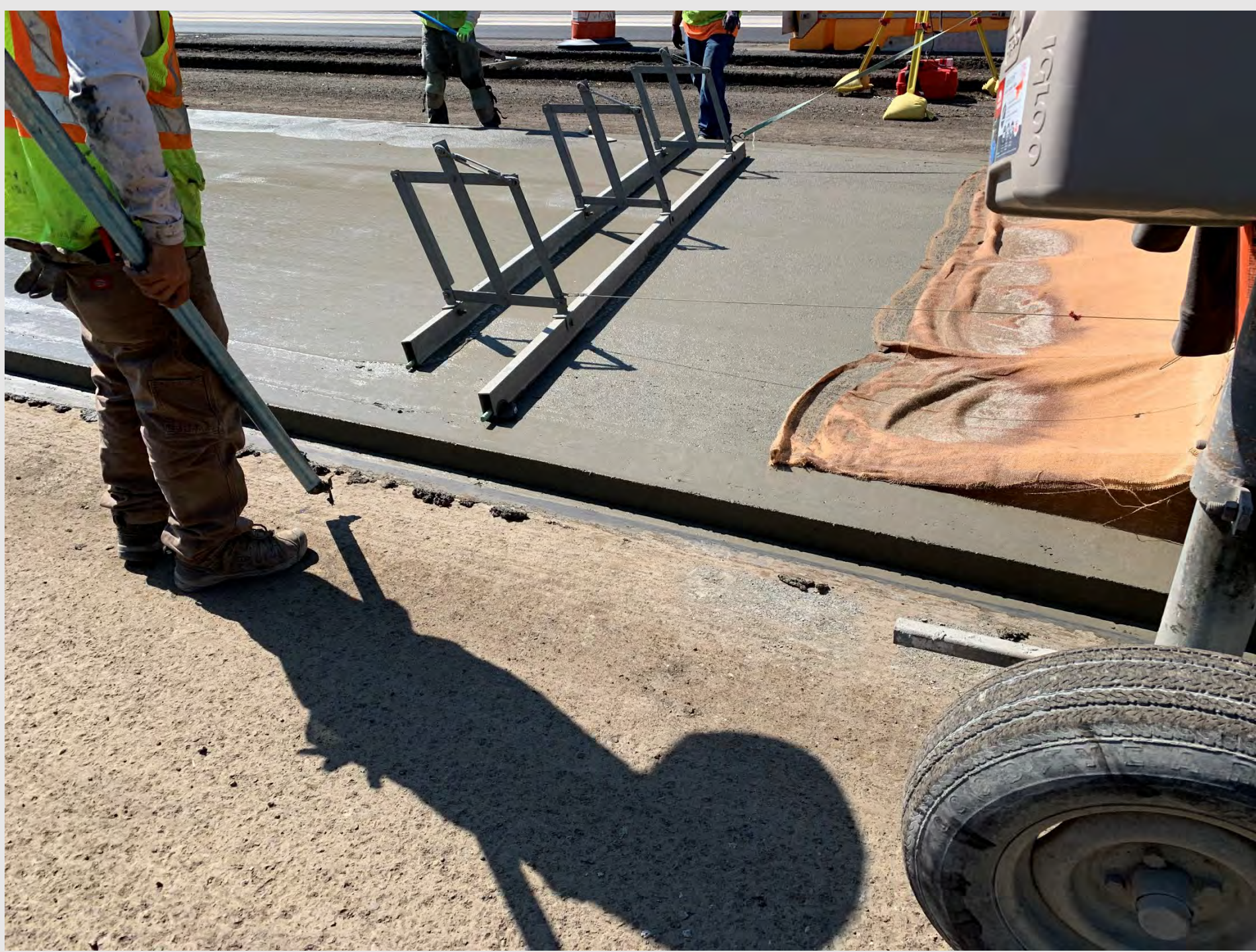
# Concrete Mix Optimization













# AASHTOWare for Construction – What are we changing?

---

- **Qualified Products List (QPL):** currently paper to Access database
- **Contract Payment System (CPS):** currently paper to mainframe
- **Lab Information Management System (LIMS):** currently paper to COBAL
- **C-Service:** database created and run by one staff
- **CRCT:** Civil Rights Compliance Tracking which has reached expiration of support
- Processes
- Tools
- Ability to run reports
- Construction contract data in one unified database



# ODOT Materials - Acceptance

Oregon  
Standard  
Specifications  
for Construction

2021

OREGON DEPARTMENT OF TRANSPORTATION  
CONSTRUCTION SECTION  
**NONFIELD-TESTED MATERIALS ACCEPTANCE GUIDE**  
2021 STANDARD SPECIFICATIONS  
January 2022 UPDATE



Updated versions of this guide are available by printing from the web address listed below. This document is to be used as a guide for documentation required for acceptance of Materials on ODOT Construction projects and does not relieve the user of requirements specified in the Construction Section of the ODOT Materials Laboratory, of any changes in Unit, in the Construction Section at the ODOT Materials Laboratory, which would require Standard Drawings, Special Provisions, or Standard Specifications, etc., which would require additions, deletions from, or changes to this listing.

[www.oregon.gov/ODOT/Construction/Pages/Structure-Services.aspx](https://www.oregon.gov/ODOT/Construction/Pages/Structure-Services.aspx)

OREGON DEPARTMENT OF TRANSPORTATION  
CONSTRUCTION SECTION  
**QUALIFIED PRODUCTS LIST**

PUBLISHING DATE:  
JULY 2021



The Qualified Products List is updated every six months or amended

**ODOT Internet Construction Section**

**Oregon Department of Transportation**

**Quality Assurance Certification Program**

To find all individuals with a specific Inspection or Technician certification, scroll through list and click "Find Them"

01 Certified Aggregate Technician (CAGT) Find Them

To find a Technician or Inspector, click the first letter of the last name:

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Retrieve Certifications for: Retrieve (enter Technician's ID no.)

**MANUAL  
OF FIELD  
TEST  
PROCEDURES**

**FIELD WORKSHEET FOR AGGREGATE**

CONTRACT NO. (OPTIONAL) PROJECT NUMBER SOURCE NUMBER

DATE (MM/DD/YYYY) TIME (HH:MM) TESTER (NAME) CHECKED BY (NAME)

SIEVE ANALYSIS AASHTO T 27.1.1

SIEVE	SIZE	MASS 1	MASS 2	MASS 3	TOTAL MASS	% RET. IN PAN	FM
NO. 10	2.0						
NO. 20	0.85						
NO. 40	0.425						
NO. 60	0.25						
NO. 80	0.18						
NO. 100	0.15						
NO. 120	0.125						
NO. 150	0.106						
NO. 200	0.075						
NO. 250	0.06						
NO. 300	0.05						
NO. 350	0.0425						
NO. 425	0.0375						
NO. 475	0.033						
NO. 530	0.028						
NO. 600	0.025						
NO. 675	0.022						
NO. 750	0.019						
NO. 850	0.016						
NO. 950	0.014						
NO. 1050	0.0125						
NO. 1180	0.0106						
NO. 1320	0.009						
NO. 1475	0.0078						
NO. 1650	0.0067						
NO. 1850	0.0058						
NO. 2000	0.005						
NO. 2250	0.0043						
NO. 2500	0.0037						
NO. 2800	0.0032						
NO. 3150	0.0028						
NO. 3550	0.0024						
NO. 4000	0.002						
NO. 4500	0.0017						
NO. 5000	0.0015						
NO. 5600	0.0013						
NO. 6300	0.0011						
NO. 7100	0.0009						
NO. 8000	0.0008						
NO. 9000	0.0007						
NO. 10000	0.0006						
NO. 11200	0.0005						
NO. 12500	0.0004						
NO. 14000	0.0003						
NO. 15750	0.0002						
NO. 17750	0.0001						
NO. 20000	0.0001						
NO. 22500	0.0001						
NO. 25000	0.0001						
NO. 28000	0.0001						
NO. 31500	0.0001						
NO. 35500	0.0001						
NO. 40000	0.0001						
NO. 45000	0.0001						
NO. 50000	0.0001						
NO. 56000	0.0001						
NO. 63000	0.0001						
NO. 71000	0.0001						
NO. 80000	0.0001						
NO. 90000	0.0001						
NO. 100000	0.0001						
NO. 112000	0.0001						
NO. 125000	0.0001						
NO. 140000	0.0001						
NO. 157500	0.0001						
NO. 177500	0.0001						
NO. 200000	0.0001						
NO. 225000	0.0001						
NO. 250000	0.0001						
NO. 280000	0.0001						
NO. 315000	0.0001						
NO. 355000	0.0001						
NO. 400000	0.0001						
NO. 450000	0.0001						
NO. 500000	0.0001						
NO. 560000	0.0001						
NO. 630000	0.0001						
NO. 710000	0.0001						
NO. 800000	0.0001						
NO. 900000	0.0001						
NO. 1000000	0.0001						
NO. 1120000	0.0001						
NO. 1250000	0.0001						
NO. 1400000	0.0001						
NO. 1575000	0.0001						
NO. 1775000	0.0001						
NO. 2000000	0.0001						
NO. 2250000	0.0001						
NO. 2500000	0.0001						
NO. 2800000	0.0001						
NO. 3150000	0.0001						
NO. 3550000	0.0001						
NO. 4000000	0.0001						
NO. 4500000	0.0001						
NO. 5000000	0.0001						
NO. 5600000	0.0001						
NO. 6300000	0.0001						
NO. 7100000	0.0001						
NO. 8000000	0.0001						
NO. 9000000	0.0001						
NO. 10000000	0.0001						
NO. 11200000	0.0001						
NO. 12500000	0.0001						
NO. 14000000	0.0001						
NO. 15750000	0.0001						
NO. 17750000	0.0001						
NO. 20000000	0.0001						
NO. 22500000	0.0001						
NO. 25000000	0.0001						
NO. 28000000	0.0001						
NO. 31500000	0.0001						
NO. 35500000	0.0001						
NO. 40000000	0.0001						
NO. 45000000	0.0001						
NO. 50000000	0.0001						
NO. 56000000	0.0001						
NO. 63000000	0.0001						
NO. 71000000	0.0001						
NO. 80000000	0.0001						
NO. 90000000	0.0001						
NO. 100000000	0.0001						
NO. 112000000	0.0001						
NO. 125000000	0.0001						
NO. 140000000	0.0001						
NO. 157500000	0.0001						
NO. 177500000	0.0001						
NO. 200000000	0.0001						
NO. 225000000	0.0001						
NO. 250000000	0.0001						
NO. 280000000	0.0001						
NO. 315000000	0.0001						
NO. 355000000	0.0001						
NO. 400000000	0.0001						
NO. 450000000	0.0001						
NO. 500000000	0.0001						
NO. 560000000	0.0001						
NO. 630000000	0.0001						
NO. 710000000	0.0001						
NO. 800000000	0.0001						
NO. 900000000	0.0001						
NO. 1000000000	0.0001						
NO. 1120000000	0.0001						
NO. 1250000000	0.0001						
NO. 1400000000	0.0001						
NO. 1575000000	0.0001						
NO. 1775000000	0.0001						
NO. 2000000000	0.0001						
NO. 2250000000	0.0001						
NO. 2500000000	0.0001						
NO. 2800000000	0.0001						
NO. 3150000000	0.0001						
NO. 3550000000	0.0001						
NO. 4000000000	0.0001						
NO. 4500000000	0.0001						
NO. 5000000000	0.0001						
NO. 5600000000	0.0001						
NO. 6300000000	0.0001						
NO. 7100000000	0.0001						
NO. 8000000000	0.0001						
NO. 9000000000	0.0001						
NO. 10000000000	0.0001						
NO. 11200000000	0.0001						
NO. 12500000000	0.0001						
NO. 14000000000	0.0001						
NO. 15750000000	0.0001						
NO. 17750000000	0.0001						
NO. 20000000000	0.0001						
NO. 22500000000	0.0001						
NO. 25000000000	0.0001						
NO. 28000000000	0.0001						
NO. 31500000000	0.0001						
NO. 35500000000	0.0001						
NO. 40000000000	0.0001						
NO. 45000000000	0.0001						
NO. 50000000000	0.0001						
NO. 56000000000	0.0001						
NO. 63000000000	0.0001						
NO. 71000000000	0.0001						
NO. 80000000000	0.0001						
NO. 90000000000	0.0001						
NO. 100000000000	0.0001						
NO. 112000000000	0.0001						
NO. 125000000000	0.0001						
NO. 140000000000	0.0001						
NO. 157500000000	0.0001						
NO. 177500000000	0.0001						
NO. 200000000000	0.0001						
NO. 225000000000	0.0001						
NO. 250000000000	0.0001						
NO. 280000000000	0.0001						
NO. 315000000000	0.0001						
NO. 355000000000	0.0001						
NO. 400000000000	0.0001						
NO. 450000000000	0.0001						
NO. 500000000000	0.0001						
NO. 560000000000	0.0001						
NO. 630000000000	0.0001						
NO. 710000000000	0.0001						
NO. 800000000000	0.0001						
NO. 900000000000	0.0001						
NO. 1000000000000	0.0001						
NO. 1120000000000	0.0001						
NO. 1250000000000	0.0001						
NO. 1400000000000	0.0001						
NO. 1575000000000	0.0001						
NO. 1775000000000	0.0001						
NO. 2000000000000	0.0001						
NO. 2250000000000	0.0001						
NO							



# AASHTOWare - Example

## Source Summary

Source: 27-032-2 - Riverbend Site - Walling S&G West Salem

Save ?

General

Addresses

Source Authority

Materials

Mix Designs

Q Type search criteria or press Enter

Advanced Showing 6 of 6

Select Source Materials

0 marked for deletion | 0 changed

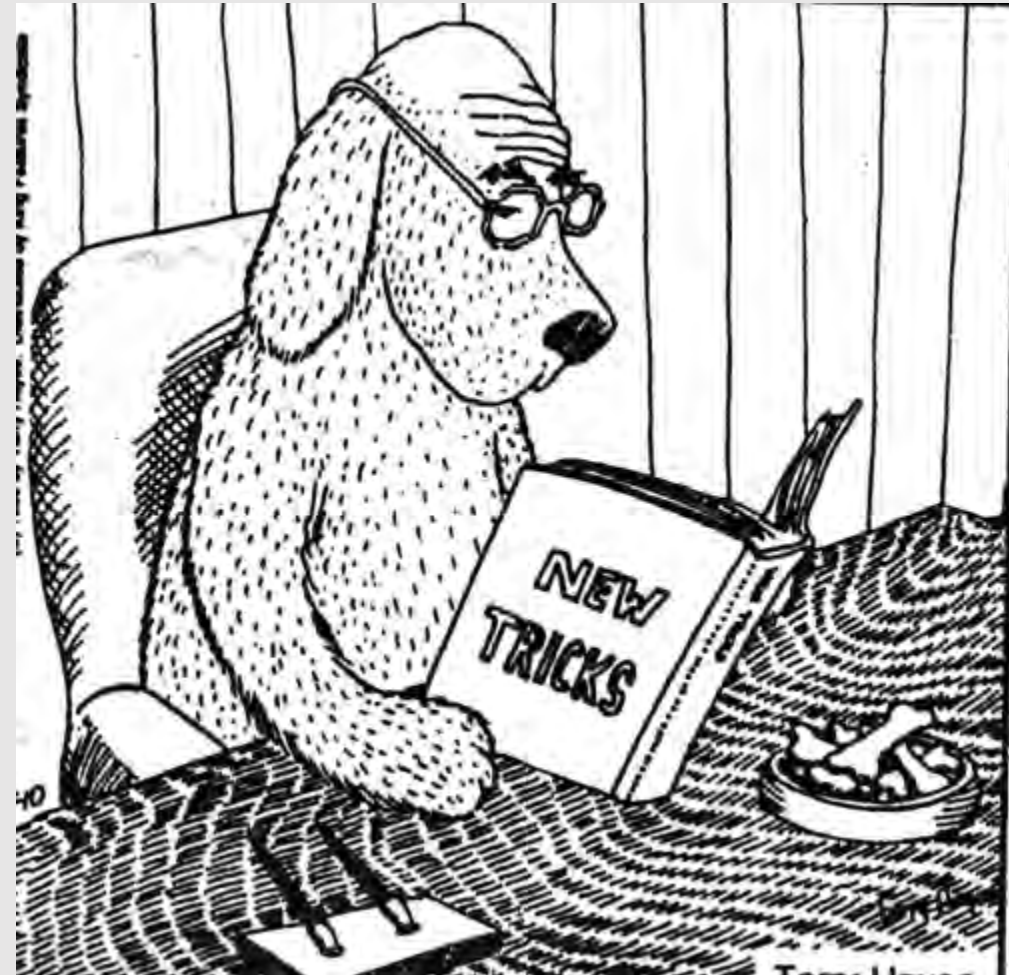
Material Code	Material Name	Material Category Code	Material Category Name	Remarks
00745.10.a2.c3	ACP, Coarse Aggregate (1/2" - No. 4)	00745.10	ACP Coarse and Fine Aggregate	0
Effective Date	Expiration Date	Status	Active	
12/03/2021	08/24/2022	ACTIVE - Active	Yes	
00745.10.a2.c1	ACP, Coarse Aggregate (3/4" - No. 4)	00745	Asphalt Concrete Pavement - Statistical	0
12/03/2021		ACTIVE - Active	Yes	
00745.10.a3.c2	ACP, Fine Aggregate (No. 8 - 0)	00745.10	ACP Coarse and Fine Aggregate	0
12/03/2021		ACTIVE - Active	Yes	
00745.13.a.09	Level - 4 (1/2")	00745	Asphalt Concrete Pavement - Statistical	0
12/20/2021		ACTIVE - Active	Yes	
00745.10.a3.c1	ACP, Fine Aggregate (No. 4 - No. 8)	00745.10	ACP Coarse and Fine Aggregate	0
12/20/2021		ACTIVE - Active	Yes	
00745.10.a3.c1	ACP, Fine Aggregate (No. 4 - No. 8)	00745.10	ACP Coarse and Fine Aggregate	0
11/27/2021		ACTIVE - Active	Yes	



# AASHTOWare for Construction – Important Dates

---

- Pilot Projects – Training: 2023
- Roll-Out for Construction: 2023 - 2024





# Work Zone Safety





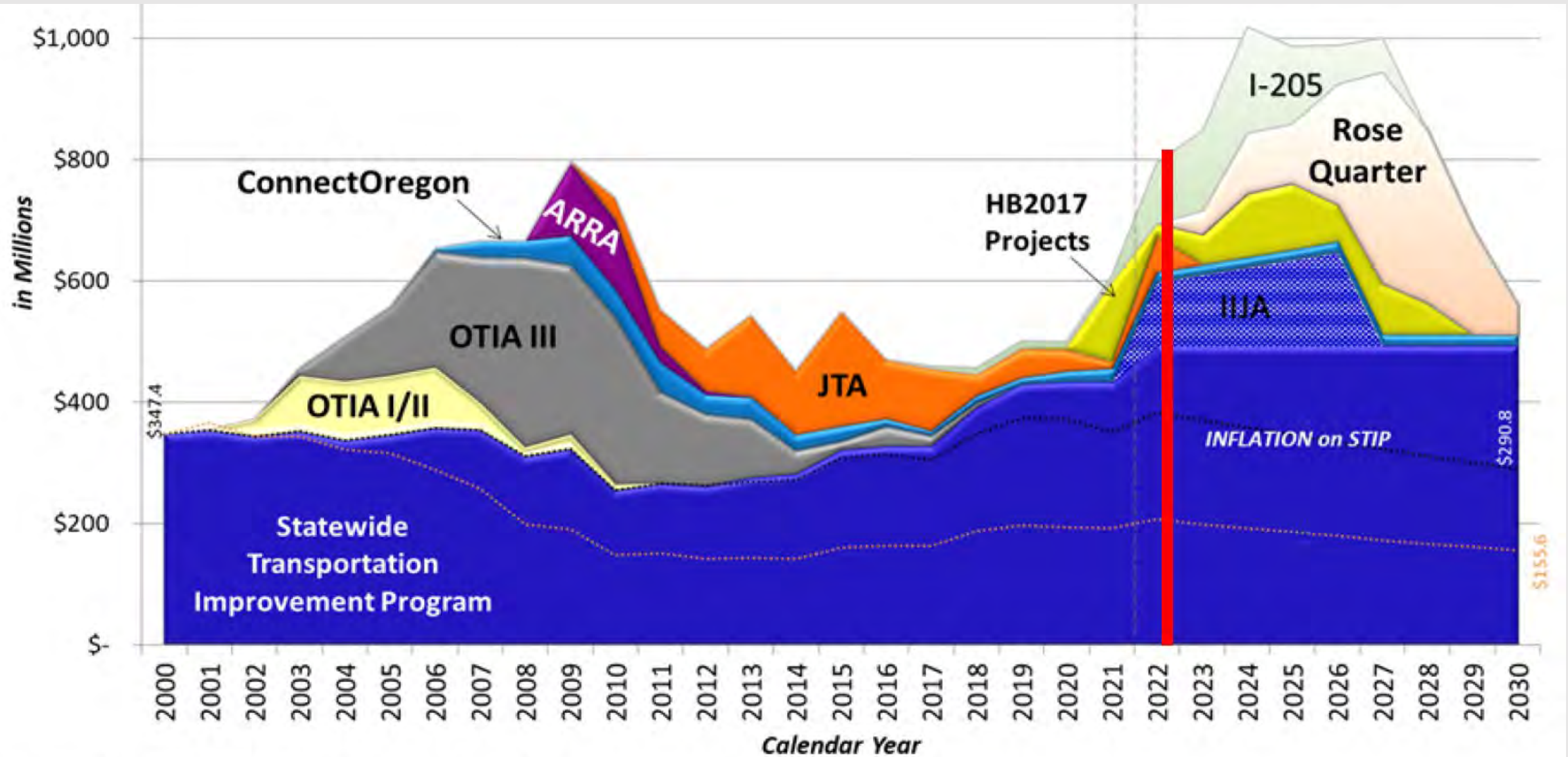
# ADA Curb Ramps

---

- September 2022 – Bond to Fund Required Ramp Replacements
- Additional \$700M, Now to December 2027
- 2017 – 2023 = \$1.4B
- Structural ODOT Changes to Consolidate & Streamline ADA Work

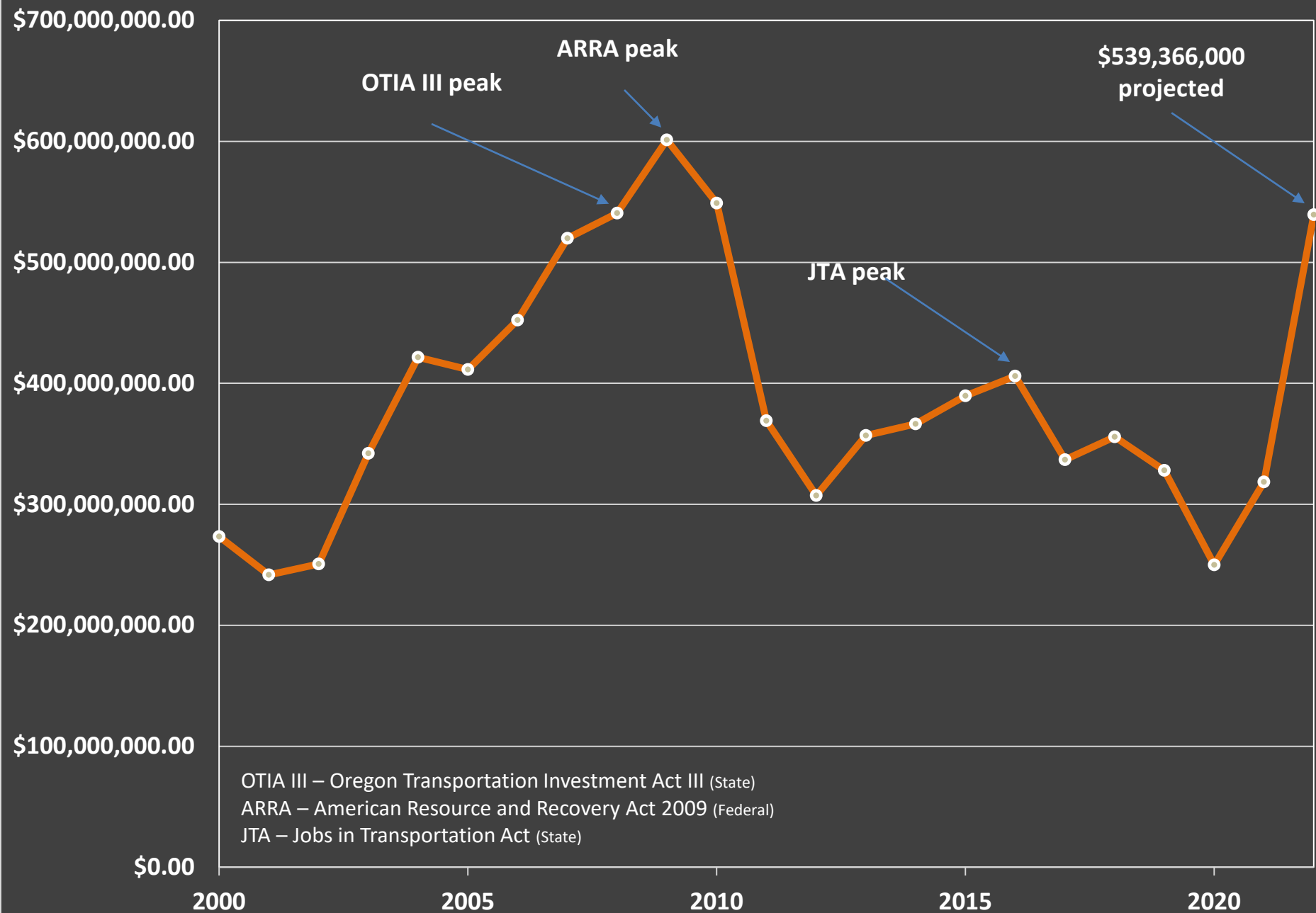


# Funding Outlook





# Contractor Payments





# What is the STIP?

## Capital Program Funds

Federal and State Funds

Construction projects for the highway system

Public and active transportation projects

## What is NOT in the STIP

**State-Funded  
Multimodal  
Grant Programs**

**Maintaining  
and Operating  
the System**

**Revenue/  
Administrative  
Functions**



# Three Phases of '24-'27 STIP Development



**Funding  
Allocation**  
2020



**Project Selection**  
2021-2022



**Public Review/  
Approval**  
2023





# 2024 – 2027 STIP Program Funding Categories

## **FIX-IT**

Projects that preserve or fix the state highway system— bridges, pavement, culverts, etc.

## **SAFETY**

Projects focused on reducing fatal and serious injury crashes on Oregon's roads

## **ENHANCE HIGHWAY**

Highway projects that expand or enhance the state highway system

## **PUBLIC AND ACTIVE TRANSPORTATION**

Bicycle, pedestrian, public transportation and transportation options projects & programs

## **LOCAL GOVERNMENT PROGRAMS**

Funding to cities, counties, and others for priority projects

## **ADA CURB RAMPS**

Construction of curb ramps to make sidewalks accessible for people experiencing a disability

## **OTHER FUNCTIONS**

 Workforce development, planning, data collection and other programs using federal money

# Investments in the '24-'27 STIP

- More than \$3.3 billion in total state and federal resources
- Significant infusions from both HB 2017 and federal infrastructure bill
- Major investment of federal and state funding in bridges
- Significant increase in funding for public and active transportation
- Increased funding for safety
- Greater investments in local government programs
- Major investment in ADA curb ramps





## After 2027

---

- What next?
- 2027-2030 STIP planning process over next year



Climate-Mitigation



Climate Adaptation/  
Resilience



Congestion



Social Equity



Multi-Modal Mobility

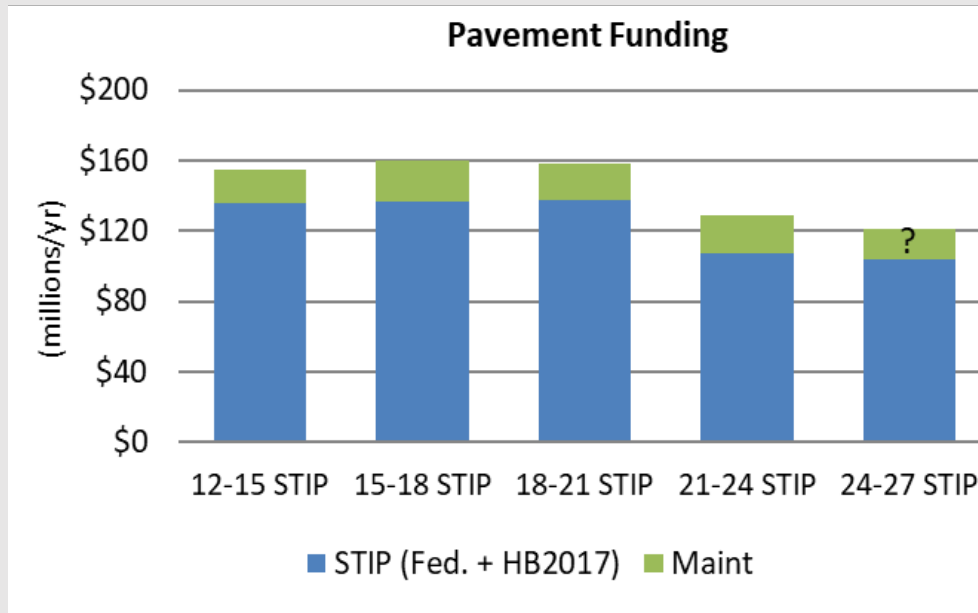


Safety



State of Good Repair  
(SOGR)

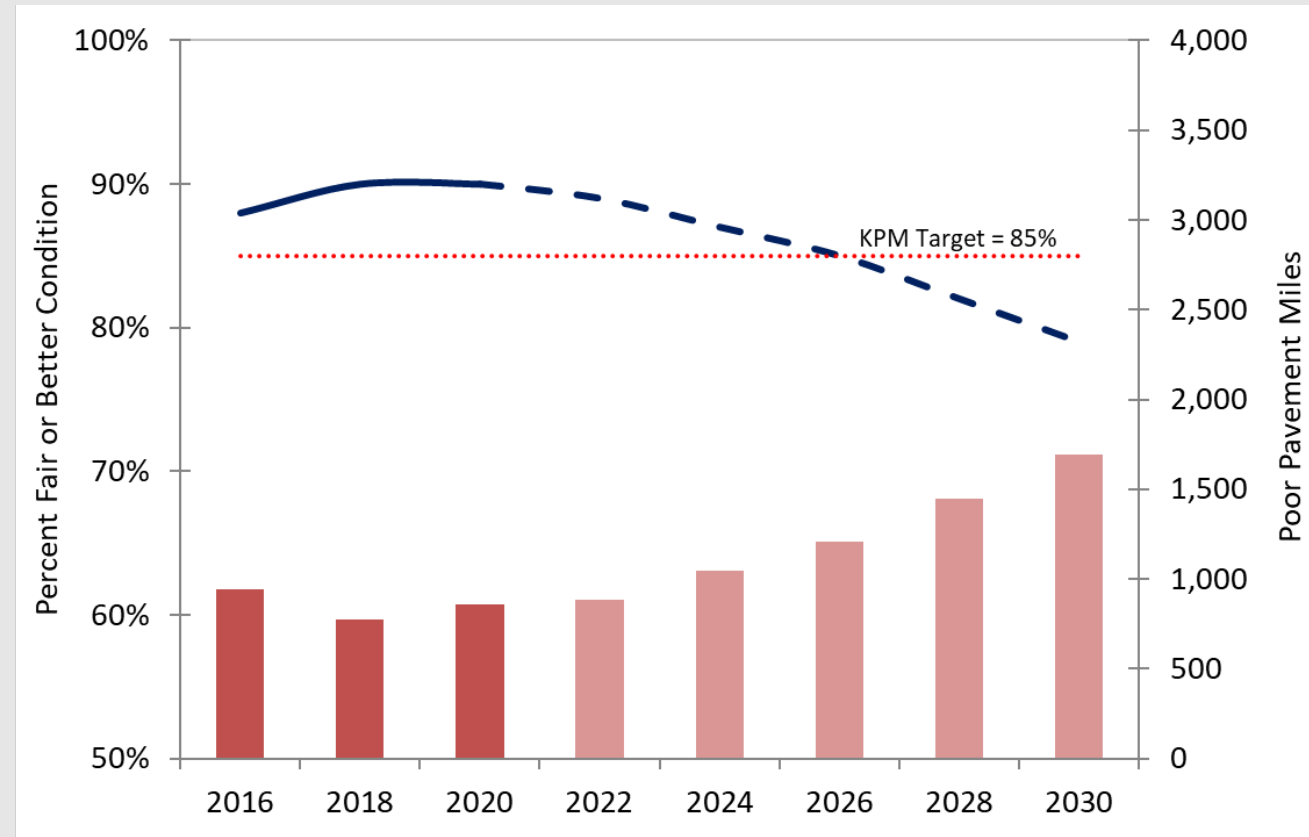
# Pavement Condition and Funding Trend



## Notable Facts

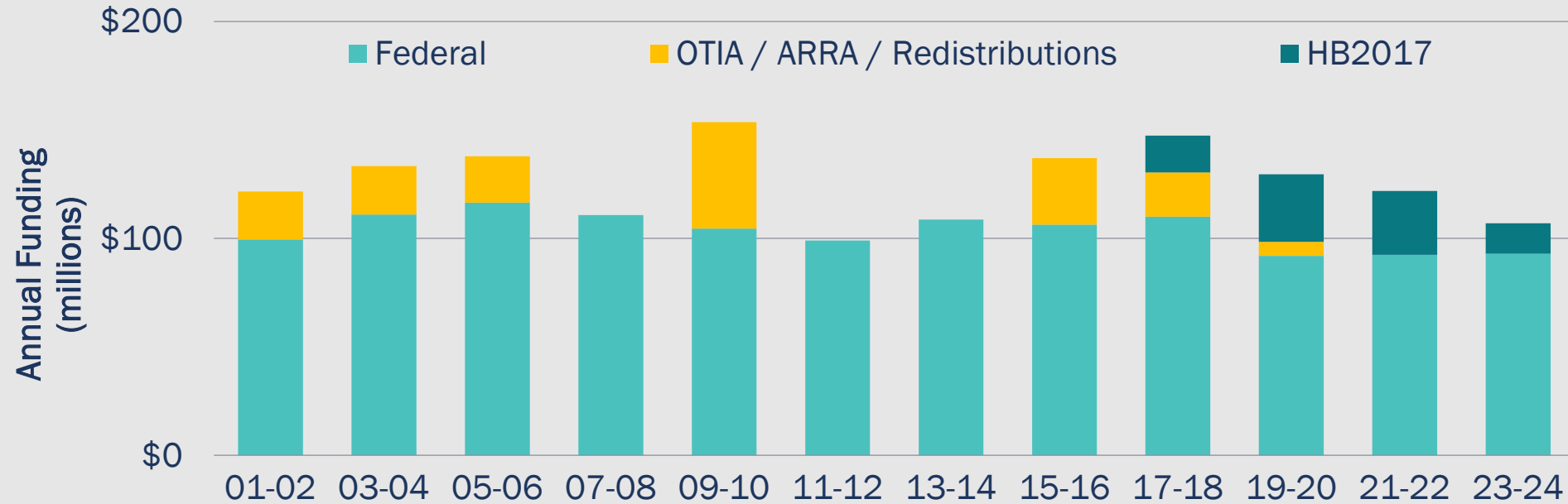
Poor mileage (and demand for patching) doubles in next 10 years!

Maintenance plays a vital role in ODOT's ability to react to the consequences of the decline.

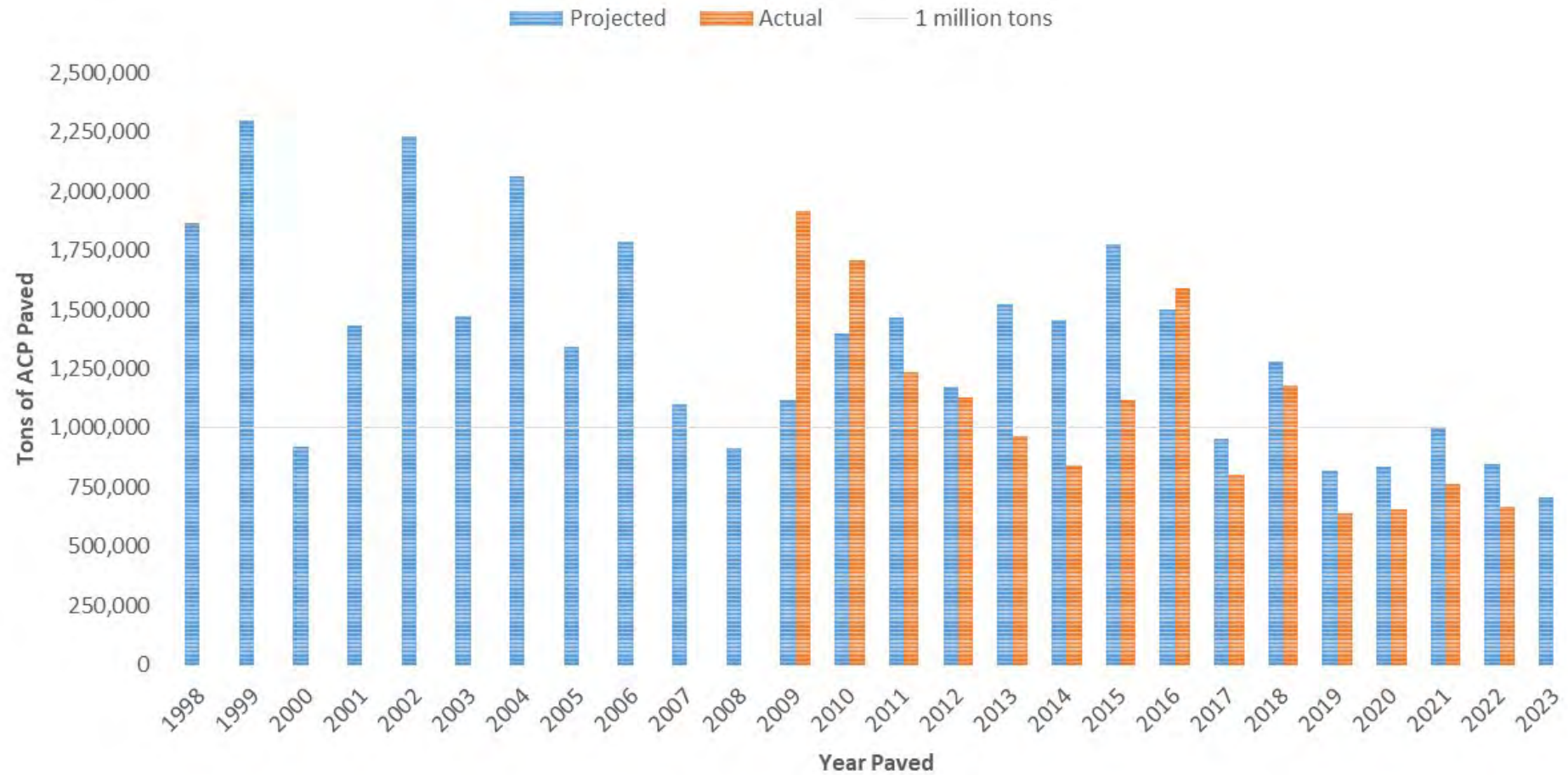




# Pavement STIP Funding

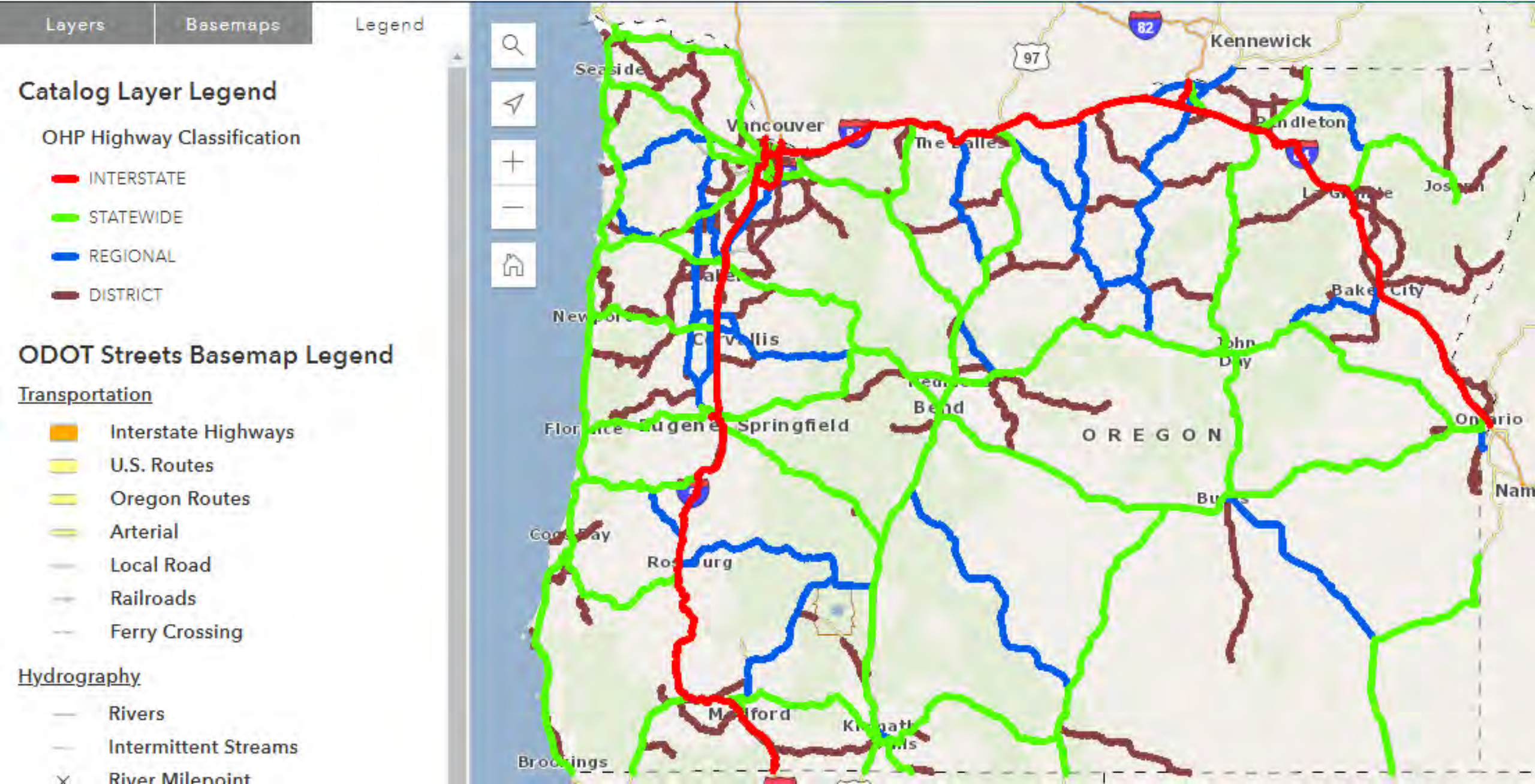


## HISTORIC QTY'S PAVED





# What Highway Classifications Can We Maintain and Preserve?



# Leveraging Washington's Experiences – WSDOT Data

Preservation (Millions of dollars)	Replacement Value	Average Annual Need	Current plan Annual Average spending	Average annual funding shortfall
Pavement	\$24,805	\$305	\$155	\$150
Bridge	\$61,660	\$305	\$150	\$155
Other Highway Assets	\$36,960	\$120	\$45	\$75
TOTAL	\$123,425	\$730	\$350	\$380

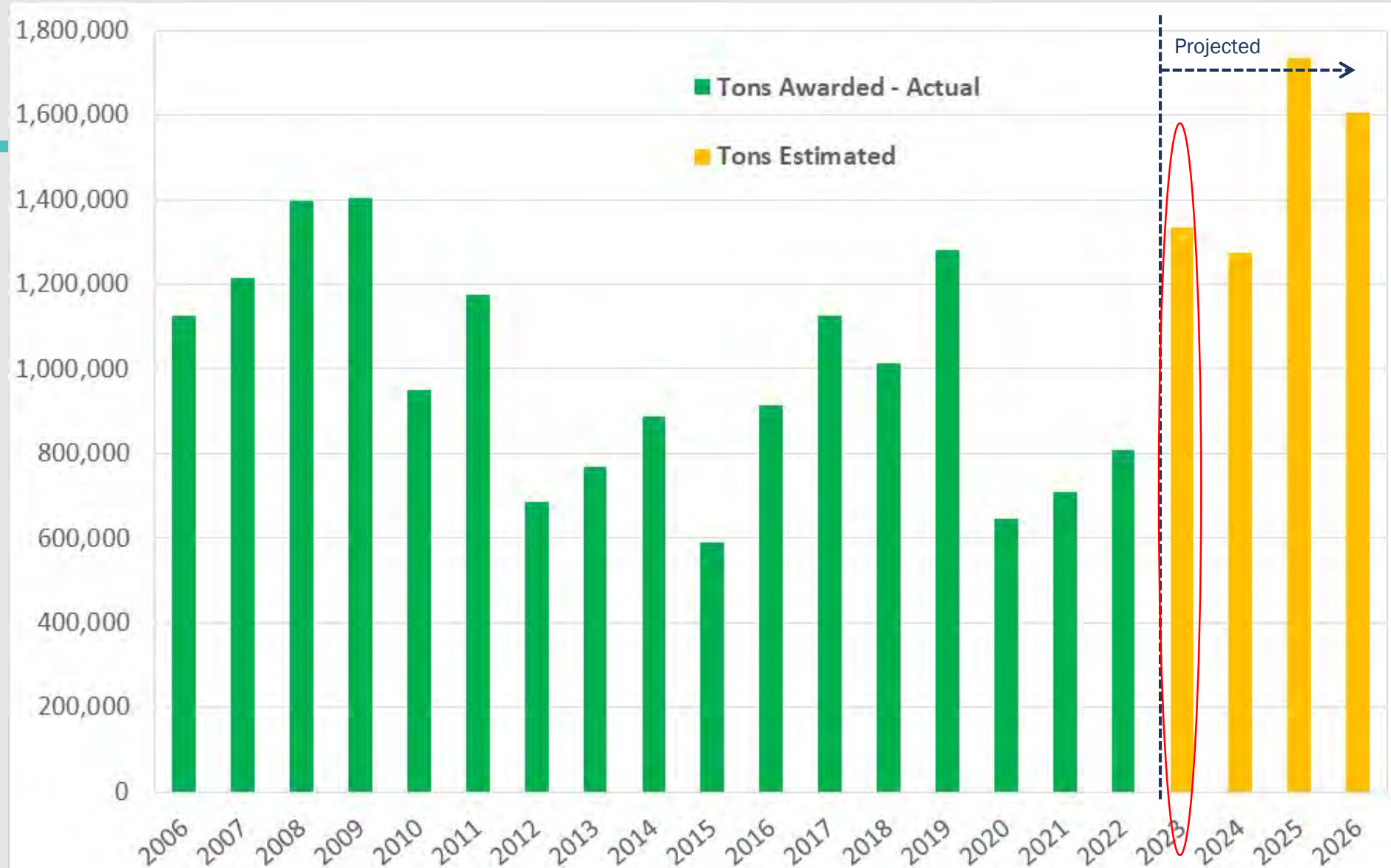
**Notes:**

***Rounded to the nearest \$5 million***



# HMA Tons Awarded: Actual and Estimated

WSDOT



*Assuming 2025 and 2026 design-built tons are similar to the year of 2023 and 2024.*