

2017 & Beyond ODOT Construction



Hamilton, Newberg Dundee new alignment

Joe Squire, P.E.
State Construction & Materials Engineer

Oregon Concrete & Aggregate Producers Association
December 7, 2017





Hwy 62 Bypass, Medford, OR

eConstruction

Curb Ramp
Program

QC & QA
Audits

02001
Specs

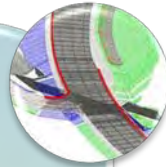
Bidding
Volumes

HB2017

ODOT's Integrated Approach



Engineering
Technology
Advancement



3D Design



Mobile LiDAR Survey

- Design Survey, Assets, Vertical Clearance
- Maintenance, i.e., Landslides



e-Construction



Inspector Positioning Tools



Automated Machine Guidance

- 3D Milling
- Machine generated as-Built - **Future**



Intelligent Compaction

[Hyperlink to ODOT ETA Section](#)



ODOT's e-Construction Vision



Remain secure



One source of collaborative truth



Accessible to all – Internal & External



Capture & leverage geospatial data



Demonstrated return on investment



Think modularity & beyond the next potential use





Paperless contracting

Filter and sort electronic documents quickly and get your hands on what you need. All stakeholders will always know the status of a document without the hassle of a VPN or FTP.



Route documents with ease

Configure the document workflow so that you determine who gets what document and when. Built-in security provides read-only access for stakeholders.



Email notifications

Get email notifications instantly or daily with a status change of a document and when it's your turn to sign.



Mobile accessibility

Check the status of a document on any device at any time. Use your smartphone, tablet or laptop - whatever is handy.



Electronic signatures

Get the added security that comes with an electronic signature on all applicable documents.



Sign-up and go

Intuitive service means little to no training is required. Just sign-up and get to work today.



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Route and store the construction docs you need. Know the status from any device, at any time.

Internet Login on any desktop, laptop, or smart phone by hardline or Wi Fi

Stop searching for lost or damaged paper.

The Doc Express service can improve your processes as part of your e-construction initiative.

See how it is helping Iowa DOT reach its paperless contracting goals.



Paperless contracting

Filter and sort electronic documents quickly and get your hands on what you need. All stakeholders will always know the status of a document without the hassle of a VPN or FTP.



CONTRACTS

Search for contracts

Search

Advanced search criteria applied. [Reset search?](#)

Contracts



New Contract

C14759 OR34/US20: South Bypass - Riverside DR

[edit](#)

Corvallis-Lebanon, OR-34



Drawer Structure



01 Prime Submittals

9

07 Subcontracts

13 Inspection and Lab Reports

02 Agency Submittals

08 Payments



14 Correspondence

03 Request for Information

09 Certified Payrolls

15 Quality Documents

04 Award

10 Civil Rights

16 Quantity Documents

05 Plans and Specs

11 Change Orders

17 Scale Diary

06 Contract Documents

12 Field Tested Materials
Certifications

18 Contract Closeout

Support Hours: 7:00 AM - 8:00 PM Eastern

Phone: [888 352 2439](tel:888-352-2439) / Email: support@docexpress.com

Displaying 1 contract

DOCUMENTS



DASHBOARD



TEMPLATE GROUPS



TEMPLATE DRAWERS



TEMPLATE ACCESS



NOTIFICATIONS



CONTRACTS



DOCUMENTS



DASHBOARD



TEMPLATE GROUPS



TEMPLATE DRAWERS



TEMPLATE ACCESS



NOTIFICATIONS



EMAIL USERS



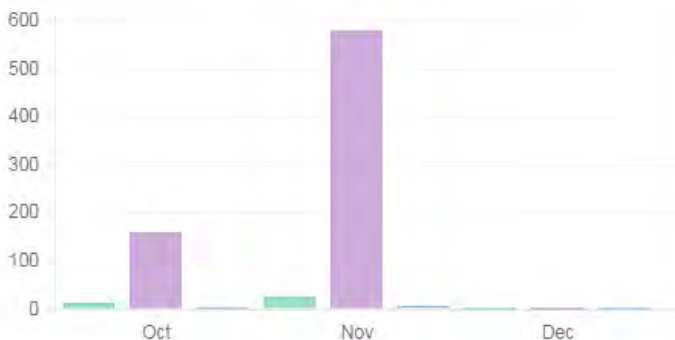
HELP

Overview

35 total contracts | 737 total documents | 8 total supporting documents

Last: 3 Months

35 contracts | 737 documents | 8 supporting documents



Documents Past Due



Inspection #1 PM Shoblom / 14 Inspection and Lab Reports
Thursday, Nov 16

Paynote #1500000001231 PM Shoblom / 17 Quantity Documents
Thursday, Nov 16

Field Worksheet - QA BI1260 Truck 20150911 PM Remily / 13 Field Tested Materials Certifications
Tuesday, Nov 21

FIR#BI040 PM Remily / 13 Field Tested Materials Certifications
Tuesday, Nov 21

A-T Monthly Progress Report Rene Miller 201505 PM Ottosen / 01 Prime Submittals
Friday, Nov 24

SC04 AndersonsErosionControl PM Ottosen / 01 Prime Submittals
Friday, Nov 24

Contracts Ending Soon



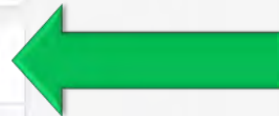
Ending within: 3 Months

PM - Larson
Sunday, Dec 31

PM Markell
Sunday, Dec 31

PM Duey
Sunday, Dec 31

Documents Ready To Be Transitioned



Contracts: All

Drawers: All

Example Steel Drawing Demo Contract / Contractor Inbox / **Status: Submitted**

Gravel Demo Contract / Contractor Inbox / **Status: Submitted**

Material Cert Demo Contract / Contractor Inbox /



Base Schedule 20140825

Schedules

update

PM Office

Oregon Department of Transportation

Publish Transition Actions

0 comments 0 supporting documents

Nov 08:35 AM PDT **Pm Office**
03 Document transitioned from Received to PM Office.
 2017 **Oregon Department of Transportation** - Lori Butler Electronically Signed (Confirm and type name)

Oct 04:37 PM PDT **Received**
31 Document transitioned from Submitted to Received.
 2017 **Oregon Department of Transportation** - Lori Butler

Oct 04:37 PM PDT **Submitted**
31 [Version 1 \(current\)](#)
 2017 **Oregon Department of Transportation** - Lori Butler Electronically Signed (Confirm)



Tourist-Oriented Directional Plan

Plans

update

PM Office

Oregon Department of Transportation

Publish Transition Actions

0 comments 0 supporting documents

Oct 04:23 PM PDT **Pm Office**
31 Document transitioned from Received to PM Office.
 2017 **Oregon Department of Transportation** - Lori Butler Electronically Signed (Confirm and type name)

Oct 04:23 PM PDT **Received**
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 Phone: 888 352 2439 / Email: support@docexpress.com



Beltline, Eugene, OR

Moving Ahead

- **Contractors viewed & tested demo site**
- **Completed ODOT staff training**
- **Finalizing updates to the spec language**
 - To be added to pilot contracts by no cost change order
- **Live site open November 27th**
- **Live Project Pilots Begin Region 1 and 3**
 - Training for PM office & Contractor
 - Monitor Live Pilots for a few weeks – ensure all is working
- **Load November & December bid projects**
- **Effective January 1st, all new projects in Doc Express**

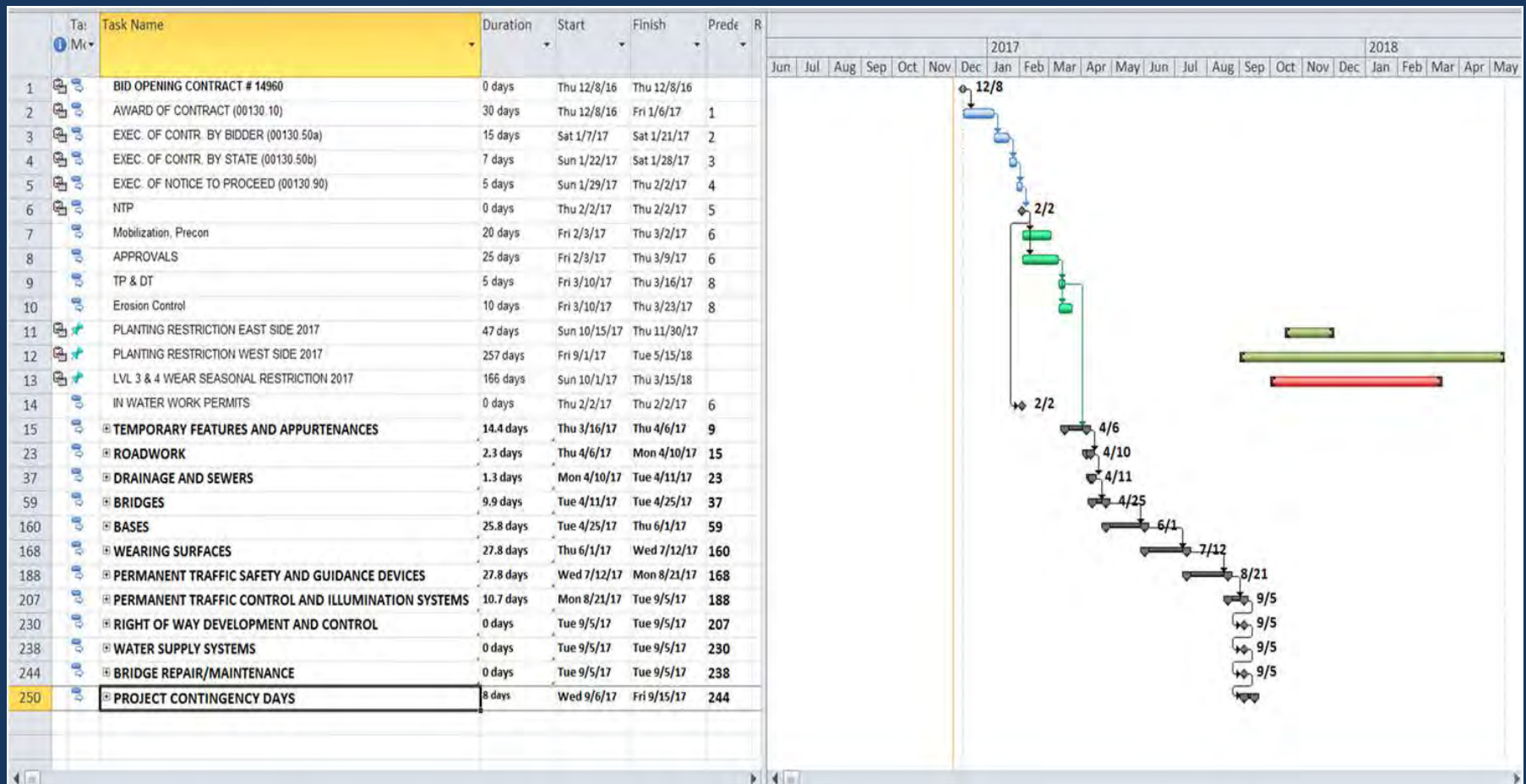


Doc Express does not replace communication between ODOT & Contractor



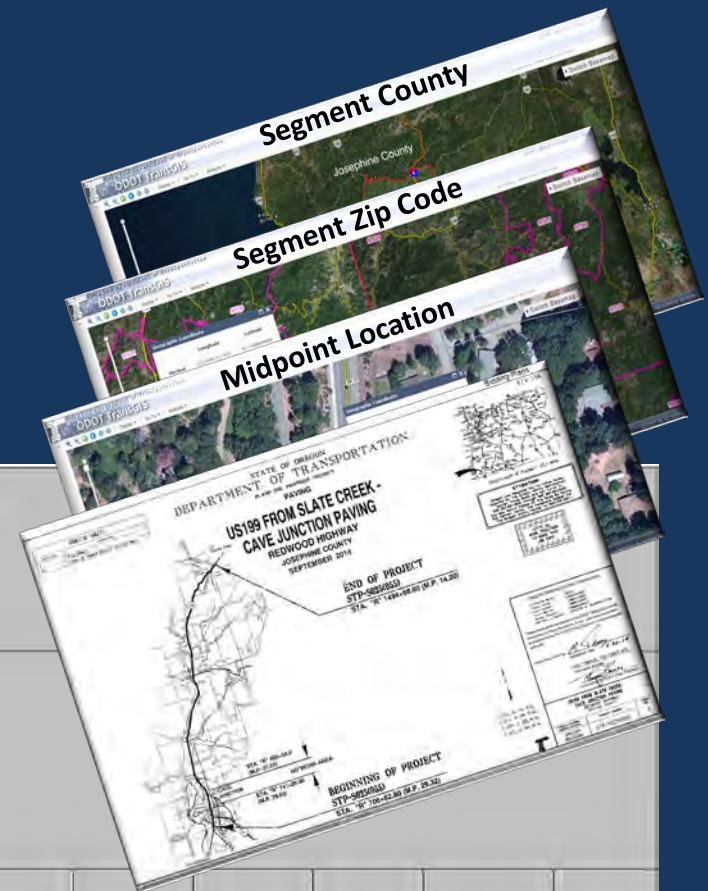
ODOT Pilot - Work Windows Schedule

- Beta testing now
- Provided at Bid Advertisement
- Bidders should consider comment interim and final completion date(s)



ODOT - Wage Zone Determination Calculator

- Takes 10 minutes versus hours or days
- Provided during Bid Advertisement
- Bidders may use at their risk
- DOJ guidance provided
- Reduces ODOT & potentially contractor/subcontractor calculation time



Contract Information

Project Name: US199 FROM SLATE CREEK - CAVE JUNCTION PAVING SOUTH
Contract Number: 14732
Key Number: 18094
Bid Let Date: 9/25/14
Project Counties: Josephine
Project Manager: Tim Fletcher, P.E., PM

Wage Determination Information

Determination Status: REVISED
Davis Bacon Date: 9/19/14
BOLI Date: 7/1/14
Segment MP: 29.23
Segment County: Josephine
ZIP Code: 97523
Longitude: -123.6481
Latitude: 42.1589

CRAFT	GROUP	BASE RATE	ZONE	ZONE PAY	FRINGE	Straight (Base + Zone)	Overtime (Base + Zone) * 1.5	ST + FRINGE	OT + FRINGE	Source	City	Miles
Laborer	1	\$26.09	zone 1	\$0.00	\$12.85	\$26.09	\$39.14	\$38.94	\$51.99	D-B	Grants Pass	25.68
	2	\$27.09	zone 1	\$0.00	\$12.85	\$27.09	\$40.64	\$39.94	\$53.49	D-B	Grants Pass	25.68
	3	\$22.57	zone 1	\$0.00	\$12.85	\$22.57	\$33.86	\$35.42	\$46.71	D-B	Grants Pass	25.68
GROUP ELIMINATED 2013	NA	\$0.00	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	NA	NA	-
Flagger	3	\$22.57	zone 1	\$0.00	\$12.85	\$22.57	\$33.86	\$35.42	\$46.71	D-B	Grants Pass	25.68

ODOT - Curb Ramp Program

**ODOT Reaches ADA Settlement
November 3, 2016**

\$5M quick-start commitment

\$18M programed in 2018 STIP

Goals:

30% by 2022

75% by 2027

Completed by Dec. 31, 2032

Expert assistance for ODOT

[ADA Settlement Hyperlink](#)



ODOT - Curb Ramp Program



- About 15,000 Curb Ramps
- Inventory underway
- Ramps to be constructed:
 - 4,500 by 2022 (30%)
 - 6,750 during 2023 to 2027 (75%)
 - 3,750 during 2028 to 2032 (100%)

- Programmatic Bio, Archy, R/W
- Exploring delivery means:
 - Design Bid Build
 - Design Build
 - CMGC
 - Hybrid, IDIQ

IDIQ – indefinite delivery indefinite quantity



ODOT - Curb Ramp Program

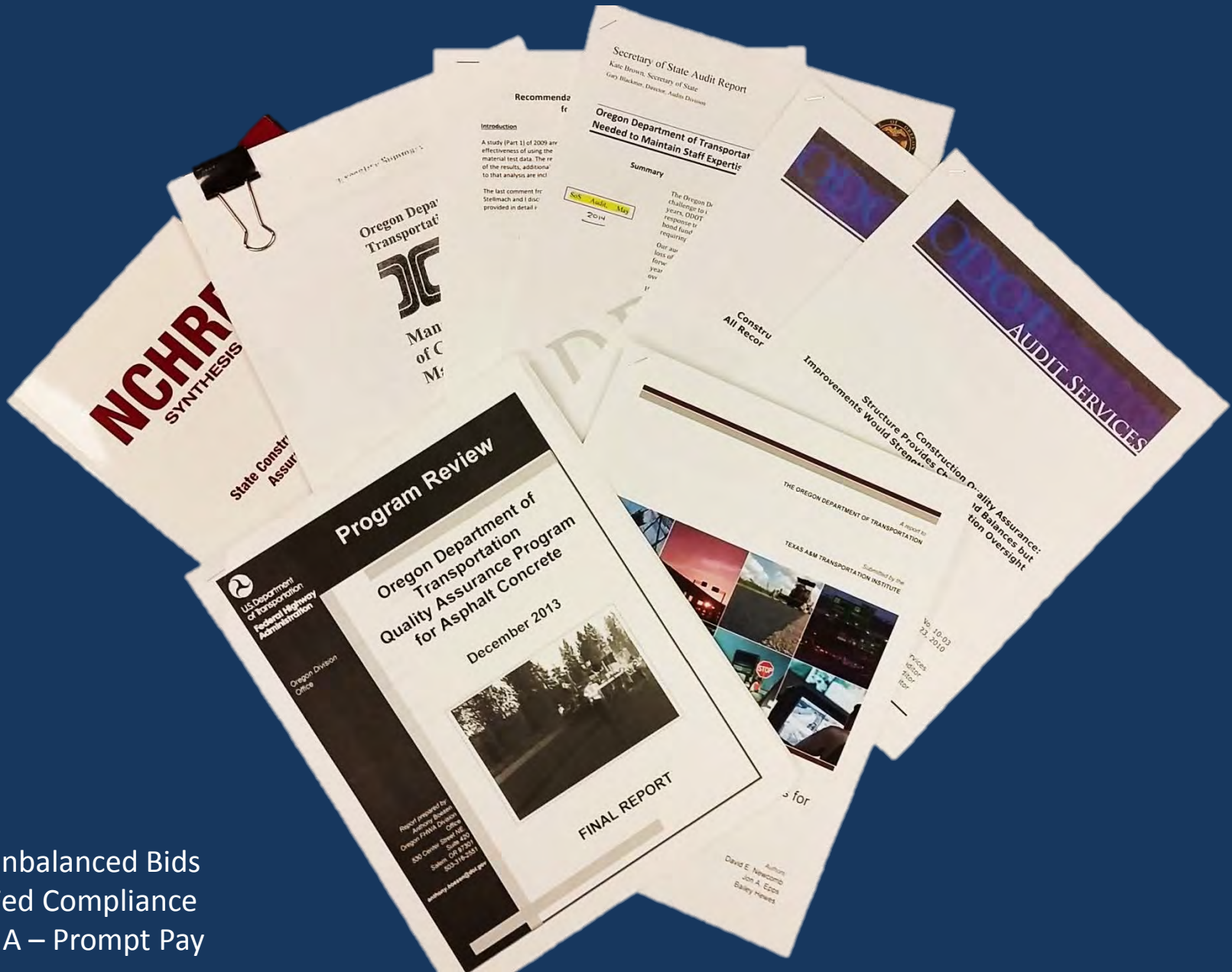
Risks & Opportunities

- Trained contractors & others effective January 1, 2018
- Inspector consistency – fail ramps that should pass & vice versa



- Year-round work
- 3 to 6 pilots:
 - Test contracting concepts
 - DOJ exemptions
 - Field design then build
 - Urban & Rural

ODOT's Quality Assurance Program



SoS - Unbalanced Bids
SoS - Fed Compliance
ODOT IA - Prompt Pay

Specifications

Bridge deck concrete, cracking, studs, & increased salt usage

Traditional bridge deck concrete requirements

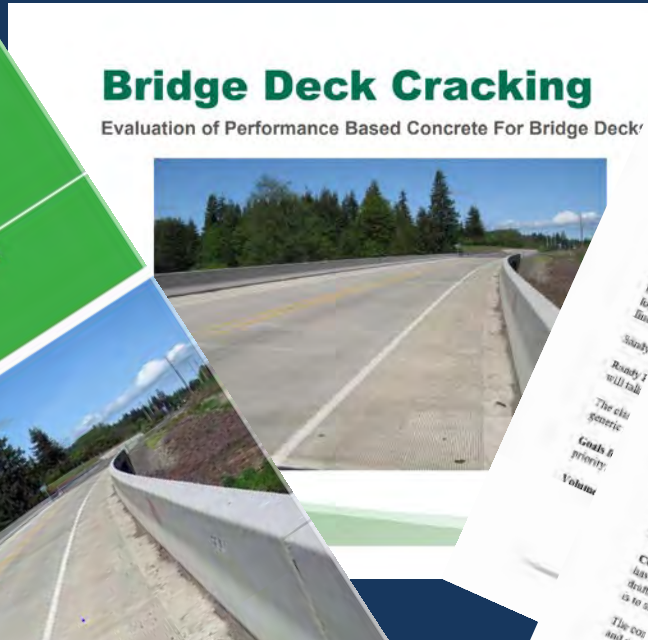
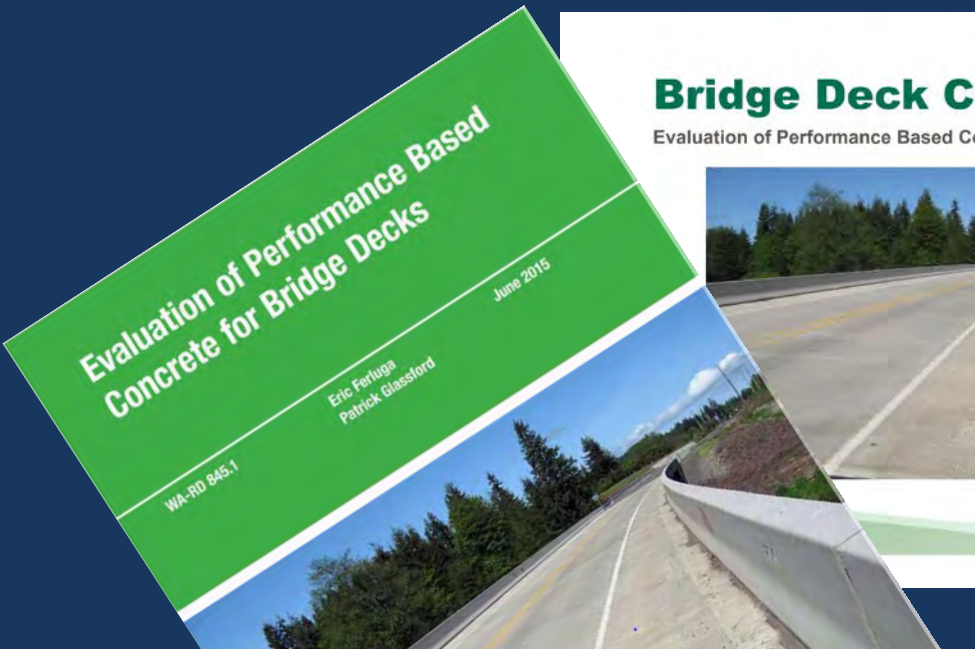


Both bridges 2011 construction

Performance based bridge deck concrete requirements



Specifications



- 2001.31 Aggregate** – Requiring 1 ½” for all bridge decks. This will create problems for some producers and issues for all QCT’s in the field. There will also be pumpability issues. There is already a shrinkage spec. This also creates a safety concern regarding the use of ½ cu. Ft. buckets. It will generate more testing.

Oldcastle is doing a .46 mix trial. It is having a pumpability issue and can’t be lowered because of a combined blend of 1 ½ to 4.

Specifications

WsDOT Spec Summary

Placing, Curing and Finishing Requirements

	Traditional	Performance Based
Temperature During Placement	Between 55°F and 90°F	Between 55°F and 75°F

Performance Mix Design Requirements

	Traditional	Performance Based
Air Content	4.5% to 7.5%	4.5% to 7.5%
Freeze-Thaw		3.0% min. air content

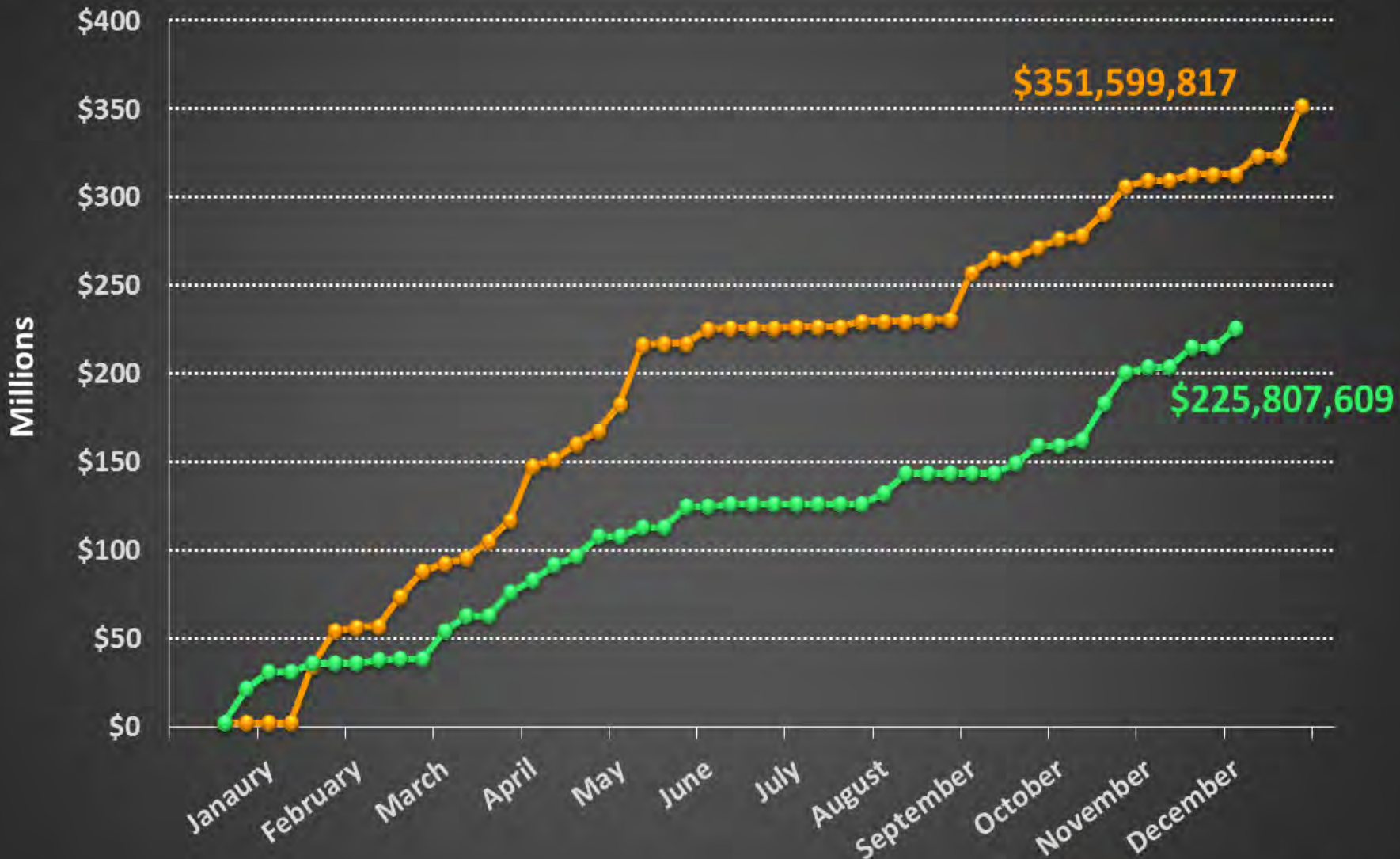
Performance Mix Design Requirements

	Traditional	Performance Based
Minimum 28-day Compressive Strength	4,000 psi	4,000 psi
Cement	Type I or II Portland	Type I or II Portland
Cementitious Content	735lbs minimum (660lbs cement & 75lbs fly ash)	No set limits (565lbs - 610lbs)
Fly Ash	Required	Optional
Nominal Max. Size Aggregate	1-inch	1½-inch
Water Reducing Admixture	Required	Optional

Selected DOT Concrete Specs

	ODOT	WsDOT
Shrinkage	0.045%	0.032%
Uniformity	None	Required (when issues arise)
Min. Cement	None	Required
Max Cement	None	None
Min. Coarse Agg	Required	None
HPC Agg Size	1.5"	1.5"
ASR Mitigation	None	Required (depending on Agg Source)
Soluble Chloride Ions	None	Required
DOT Form	None	Required
Cement Testing	None	Required
Combined Gradation	None	Required
Max W/CM Ratio	Required	None
Test Slab Requirement	None	Required
Permeability	Optional	Required
Freeze Thaw Testing	None	Required
Scaling	None	Required
Modulus of Elasticity	None	Required
Coefficient of Thermal Exp	None	None
Submittal Time (days)	21	30

2016 versus 2017 Bidding Volume



2017 – 66 Projects + 5 to bid with an estimated value of \$33M to \$55M

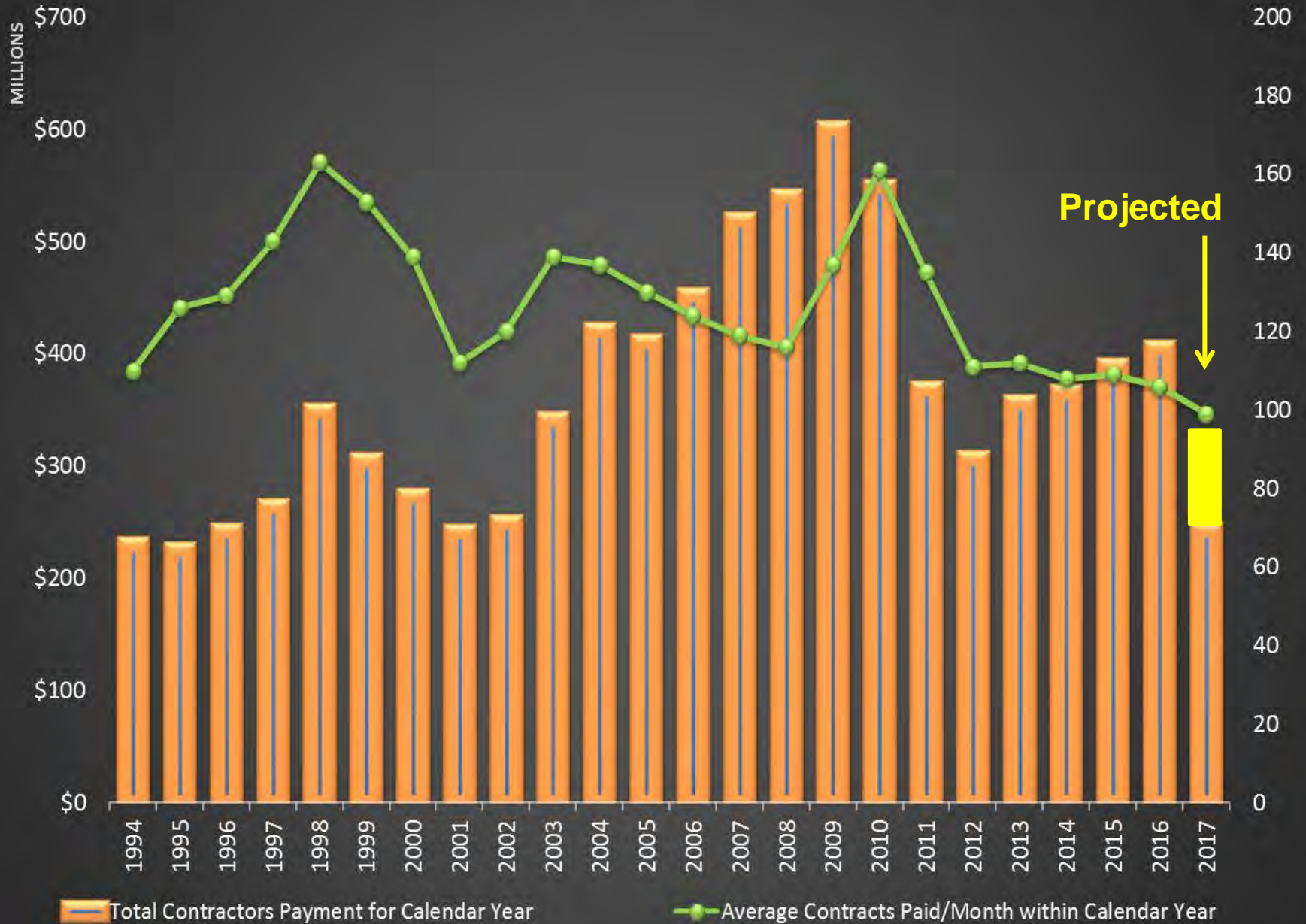
2016 – 91 Projects

2015 – 90 Projects, \$259M

—●— 2016 Cumulative Totals

—●— 2017 Cumulative Totals

Contrator Payments & Average Contracts Paid/Month/Calendar Year



Transportation Investments

Roads & Bridges



Most of ODOT's funding will go to road maintenance and preservation for lasting fixes that keep Oregon's roads and bridges in good condition today and for future generations.

Local Control



Half of road funding will go to cities and counties to complete local communities' top priority road maintenance and improvements.

Reducing Congestion



Better Public Transportation



Electric Vehicle Incentives



Moving Freight



Safe Biking & Walking Options



Transportation Investments

Accountability & Transparency

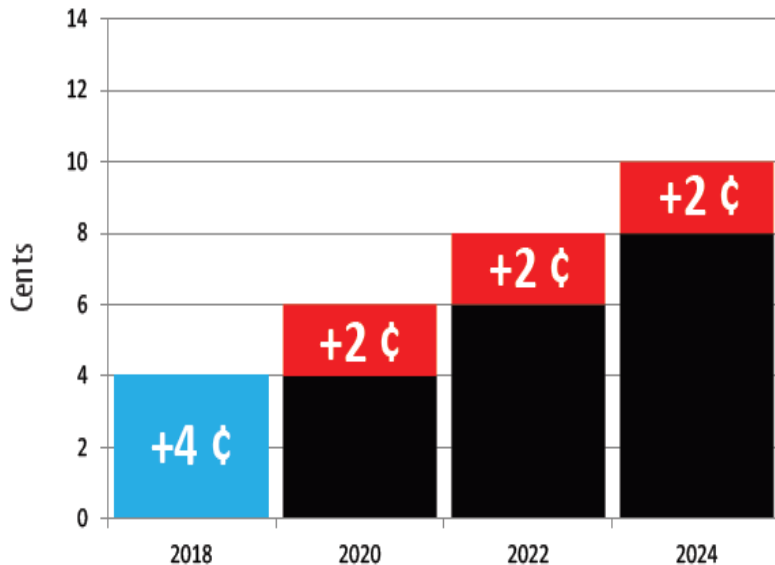
1. Gas tax tied to ODOT meeting accountabilities
2. Project status, cost, and timeliness website
3. ODOT and Locals road & bridge conditions report
4. Gas tax funds protected in Highway Trust Fund
5. Clean Fuel consumer protection cost measures
6. Other – value pricing, salt use, jurisdictional transfers



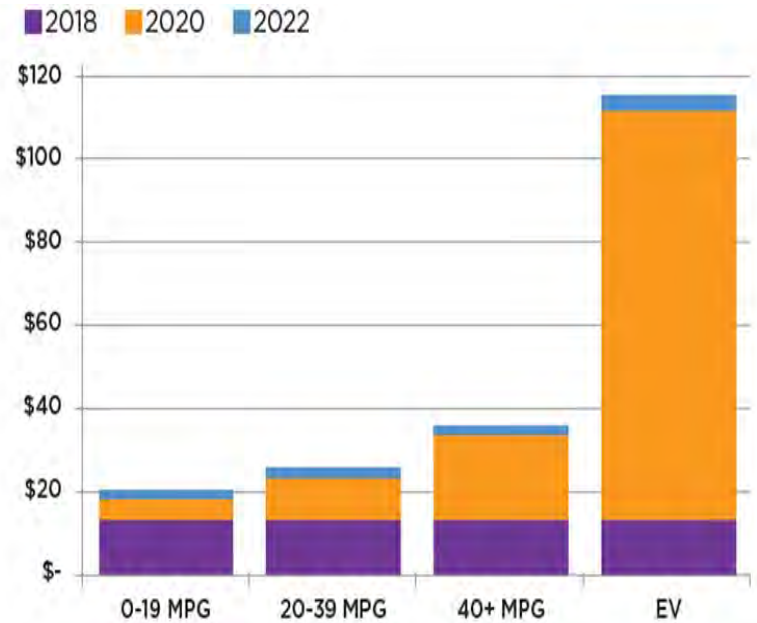
Transportation Investments

Gas tax, vehicle registrations, & title fees

Equates to about 0.8 cents/mile



Accountability & Tie to Trigger Projects

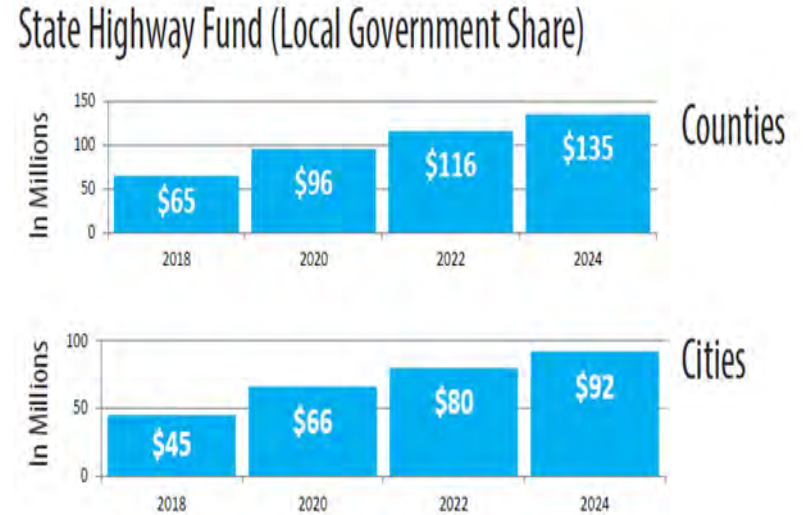
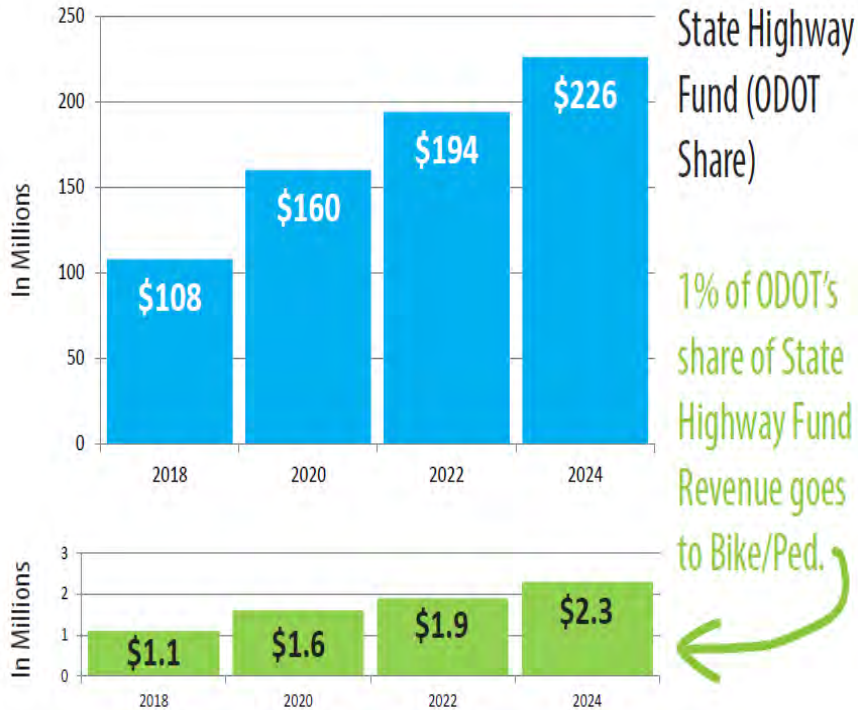


- Payroll tax 1/10 of 1% for transit
- Bicycle Tax - \$15/Bicycle, 26" wheel, >\$200
- Light vehicle privilege tax ½% for EV rebates and multimodal

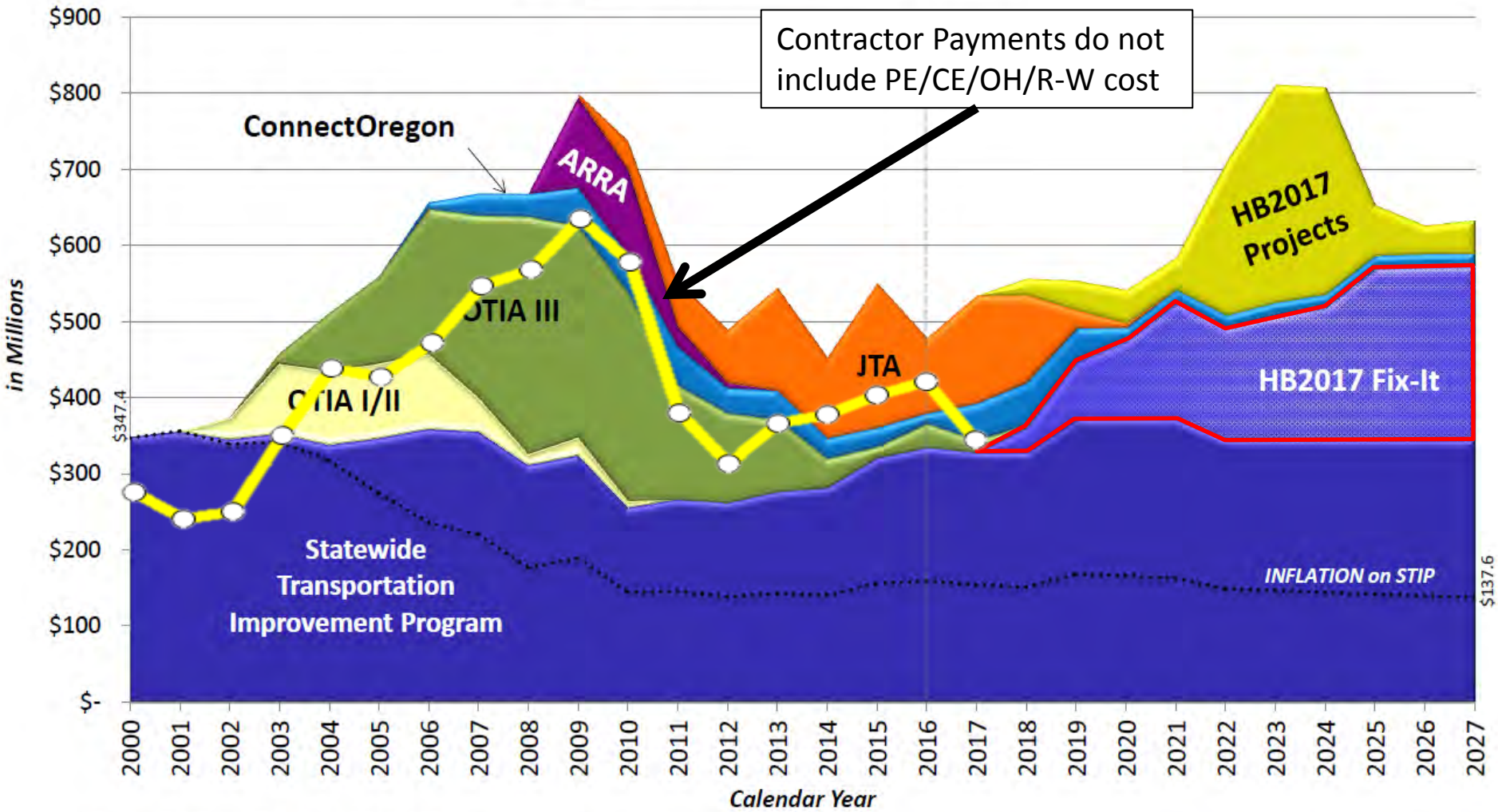


Transportation Investments

Annual New Revenue Estimate Gas tax, vehicle registrations, & title fees



ODOT Construction Programs



Highway Budget Office - Revised 07/12/17 (actuals through December 31, 2016)



Transportation Investments

Grants ODOT positions

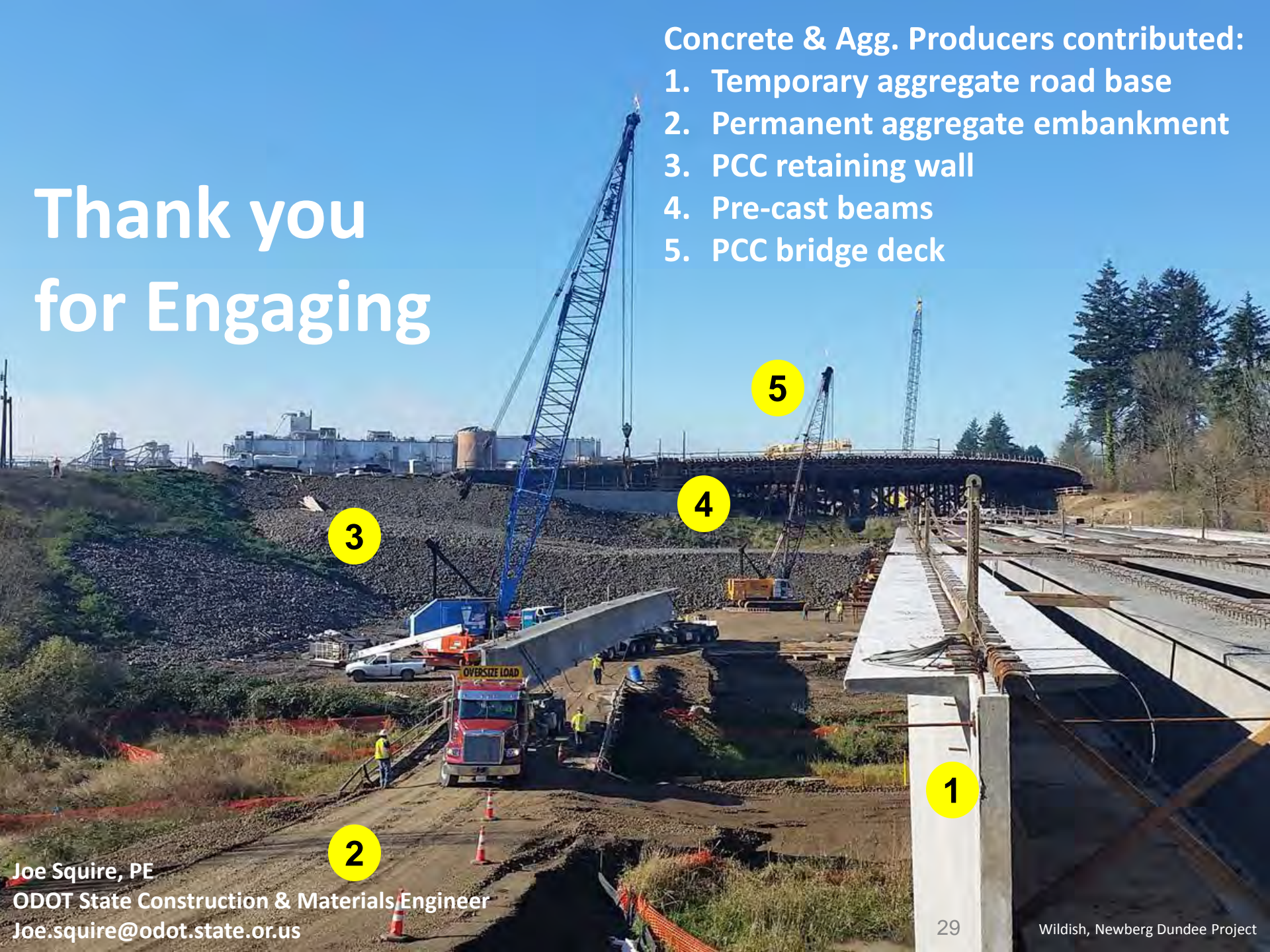
- Strong owner role
- Adds Consultant Project Managers
- Adds 2nd Assistant PM to crews
- Adds PM & HQ construction support
- Adds design, OPO, & IT staff
- Phased approach
 - 2017 – 39 positions
 - 2018 – 111 positions
 - 2019 – 42 positions
- Recruitments underway



Thank you for Engaging

Concrete & Agg. Producers contributed:

1. Temporary aggregate road base
2. Permanent aggregate embankment
3. PCC retaining wall
4. Pre-cast beams
5. PCC bridge deck



3

4

5

1

2

Joe Squire, PE
ODOT State Construction & Materials Engineer
Joe.squire@odot.state.or.us