AASHTOWare Materials Acceptance

David Dobson, PE
Statewide Structural Materials Engineer | ODOT Structure Services

ODOT Material Supplier Workshop
April 14th, 2025

Oregon Department of Transportation

AASHTOWare Project

What is in AWP Materials

- Material Codes and Definitions
- Material Sample Records and Tests
- Acceptance
- Sources
- Source Materials and QPL
- Mix Designs

Oregon Department of Transportation

AASHTOWare Project AASHTO

ODOT Materials

.10's

Materials

00557.10 Resin Primer - Furnish a wax-free, low odor, high molecular weight methacrylate resin prime coat that has a maximum volatile content of 30 percent before adding an initiator, when tested according to ASTM D2369, and meeting the following requirements:

00735.11 Emulsified Asphalt - Furnish CMS-2, CMS-2S, or HFMS-2 Emulsified Asphalt meeting the requirements of ODOT's publication *Standard Specifications for Asphalt Materials*. Copies of the publication are available from the ODOT Pavement Services Engineer. The applicable Specifications are those contained in the current publication on the date the Project is advertised. The materials may be conditionally accepted at the source or point of loading for transport to the Project. Acceptance of the selected Emulsified Asphalt is subject to the production of a suitable JMF.

02000's

02510.00

Structures

Section 02510 - Reinforcement

Description

02510.00 Scope - This Section includes the requirements for bars, dowels, and strand reinforcement and tendon ducts.

Materials

02510.10 Deformed Bar Reinforcement - Furnish deformed bar reinforcement from the QPL and conforming to the requirements of ASTM A706, AASHTO M 31 (ASTM A615), AASHTO M 334, or ASTM A1035. Unless otherwise specified or shown, all reinforcing bars shall be Grade 60.

02510.11 Epoxy Coated Reinforcement:

(a) Plant Certification - Epoxy coating shall be applied in a coating plant certified by the Concrete Reinforcing Steel Institute (CRSI).

Oregon Department of Transportation

AASHTOWare Project AASHTO

Section 00165 – Quality of Materials

02690.12 Acceptance of Aggregate - Acceptance of Aggregate will be according to Section 00165 and based on the Contractor's quality control testing, if verified, according to Section 00165.

(a) Aggregate Gradation - A stockpile contains specification Aggregate gradation when the quality level for each sieve size calculated according to 00165.40 is equal to or greater than the quality level in Table 00165-2 for a PF of 1.00. Each required sample represents a sublot. When the quality level in Table 00165-2 yields a PF of less than 1.00 for any constituent, the material is non-specification.

(b) Non-specification Aggregate Gradation - Stockpiled Aggregates that contain non-specification Aggregate gradation will be rejected by the Engineer unless non specification material is removed from the stockpile. Do not add additional material to the stockpile until enough non-specification material is removed so that the quality level for each constituent is equal to or greater than the quality level in Table 00165-2 for a 1.00 PF.

Provisions and Requirements

00165.10 Materials Acceptance Guides - Unless otherwise specified elsewhere in the Contract, Materials will be accepted according to the following guides:

(a) Field-Tested Materials - Field-tested Materials will be accepted according to the MFTP. The MFTP is published once per year and is available from the ODOT Construction Section; 800 Airport Road SE; Salem, OR 97301-4798; phone 503-986-3000. The MFTP is also available on the ODOT Construction Section website (see 00110.05(e)). The most current version of the MFTP on the date of Advertisement is the version in effect for the Project.

55

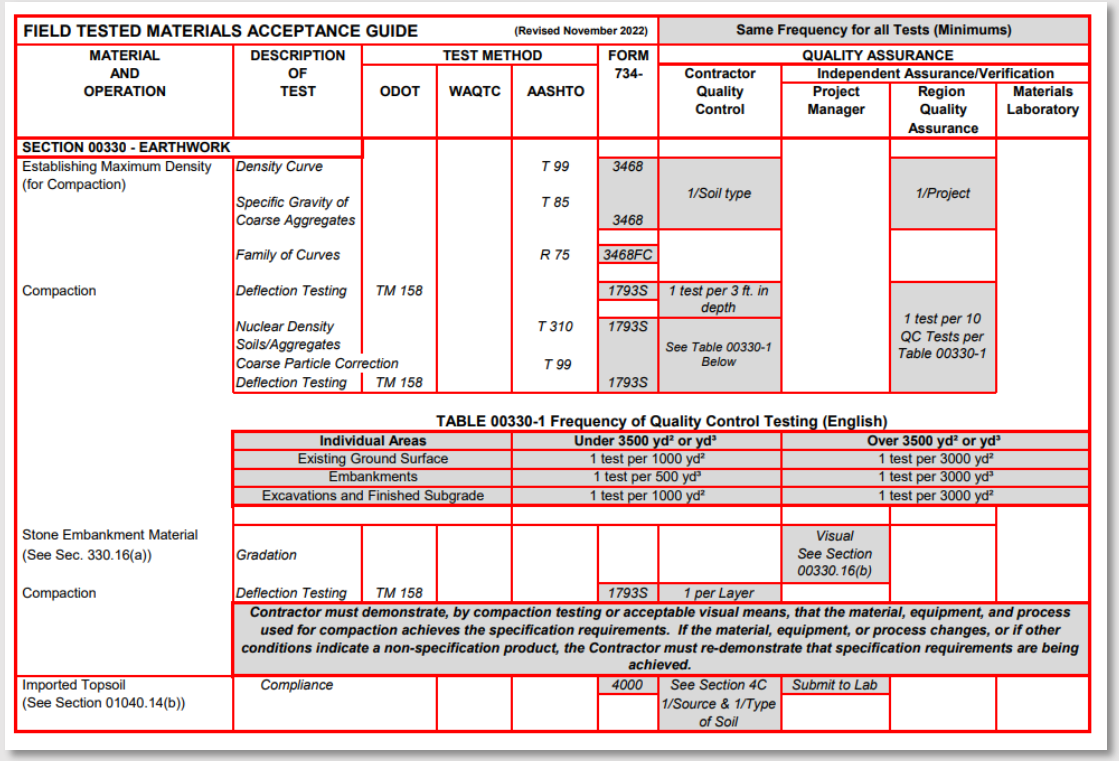
00165.20

(b) Nonfield-Tested Materials - Nonfield-tested Materials will be accepted according to the ODOT *Nonfield Tested Materials Acceptance Guide* (NTMAG), unless otherwise specified in the Contract. The NTMAG is available on the ODOT Construction Section website (see 00110.05(e)). The most current version of the NTMAG on the date of Advertisement is the version in effect for the Project.

Oregon Department of Transportation

AASHTOWare Project AASHTO

MFTP and NTMAG



FIELD TESTED MATERIALS ACCEPTANCE GUIDE (Revised November 2022)

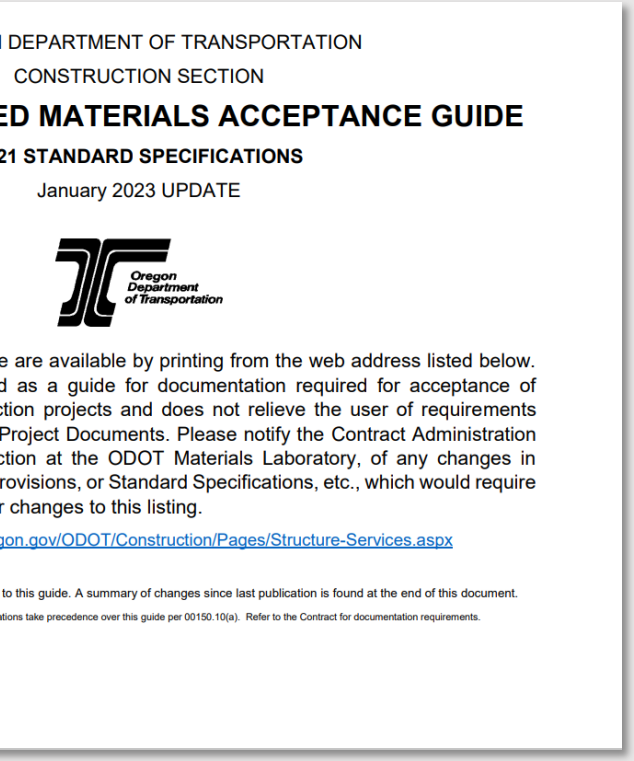
Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD ODOT	TEST METHOD WAQTC	TEST METHOD AASHTO	FORM 734-	QUALITY ASSURANCE: Contractor Quality Control	QA: Independent Assurance/Verification: Project Manager	QA: Independent Assurance/Verification: Region Quality Assurance	QA: Independent Assurance/Verification: Materials Laboratory
SECTION 00330 - EARTHWORK									
Establishing Maximum Density (for Compaction)	*Density Curve*			*T 99*	*3468*	*1/Soil type*		*1/Project*	
	Specific Gravity of Coarse Aggregates			*T 85*	*3468*				
	Family of Curves			*R 75*	*3468FC*				
Compaction	*Deflection Testing*	*TM 158*			*1793S*	*1 test per 3 ft. in depth*		*1 test per 10 QC Tests per Table 00330-1*	
	Nuclear Density Soils/Aggregates			*T 310*	*1793S*	*See Table 00330-1 Below*			
	Coarse Particle Correction			*T 99*					
	Deflection Testing	*TM 158*			*1793S*				

TABLE 00330-1 Frequency of Quality Control Testing (English)

Individual Areas	Under 3500 yd² or yd³	Over 3500 yd² or yd³
Existing Ground Surface	1 test per 1000 yd²	1 test per 3000 yd²
Embankments	1 test per 500 yd³	1 test per 3000 yd³
Excavations and Finished Subgrade	1 test per 1000 yd²	1 test per 3000 yd²

Stone Embankment Material (See Sec. 330.16(a))	*Gradation*						*Visual See Section 00330.16(b)*		
Compaction	*Deflection Testing*	*TM 158*			*1793S*	*1 per Layer*			
	Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.								
Imported Topsoil (See Section 01040.14(b))	*Compliance*				*4000*	*See Section 4C 1/Source & 1/Type of Soil*	*Submit to Lab*		



OREGON DEPARTMENT OF TRANSPORTATION

CONSTRUCTION SECTION

NONFIELD-TESTED MATERIALS ACCEPTANCE GUIDE

2021 STANDARD SPECIFICATIONS

January 2023 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 Project Documents. Please notify the Contract Administration Unit, in the Construction Section at the ODOT Materials Laboratory, of any changes in Standard Drawings, Special Provisions, or Standard Specifications, etc., which would require additions to, deletions from, or changes to this listing.

Internet Address: https://www.oregon.gov/ODOT/Construction/Pages/Structure-Services.aspx

Contact 503-986-3029 to have correction made to this guide. A summary of changes since last publication is found at the end of this document.

*Special Provisions, Contract Plans, and Standard Specifications take precedence over this guide per 00150.10(a). Refer to the Contract for documentation requirements.

Oregon Department of Transportation

AASHTOWare Project

Material Code – Material Name

00557.12.d.00 – PPC Aggregate

00557.12 Concrete - Furnish premixed polymer concrete consisting of polyester resin binder and dry Aggregate.

(d) Aggregate - Furnish washed, clean, and dry 3/8" - 0 size Aggregate meeting the following requirements:

- Meets the following combined gradation according to AASHTO T 27 and AASHTO T 11:

Sieve Size	Percent Passing (by Weight)
3/8"	100
No. 4	62 - 85
No. 8	45 - 67
No. 16	29 - 50
No. 30	16 - 36
No. 50	5 - 20
No. 100	0 - 7
No. 200	0 - 3

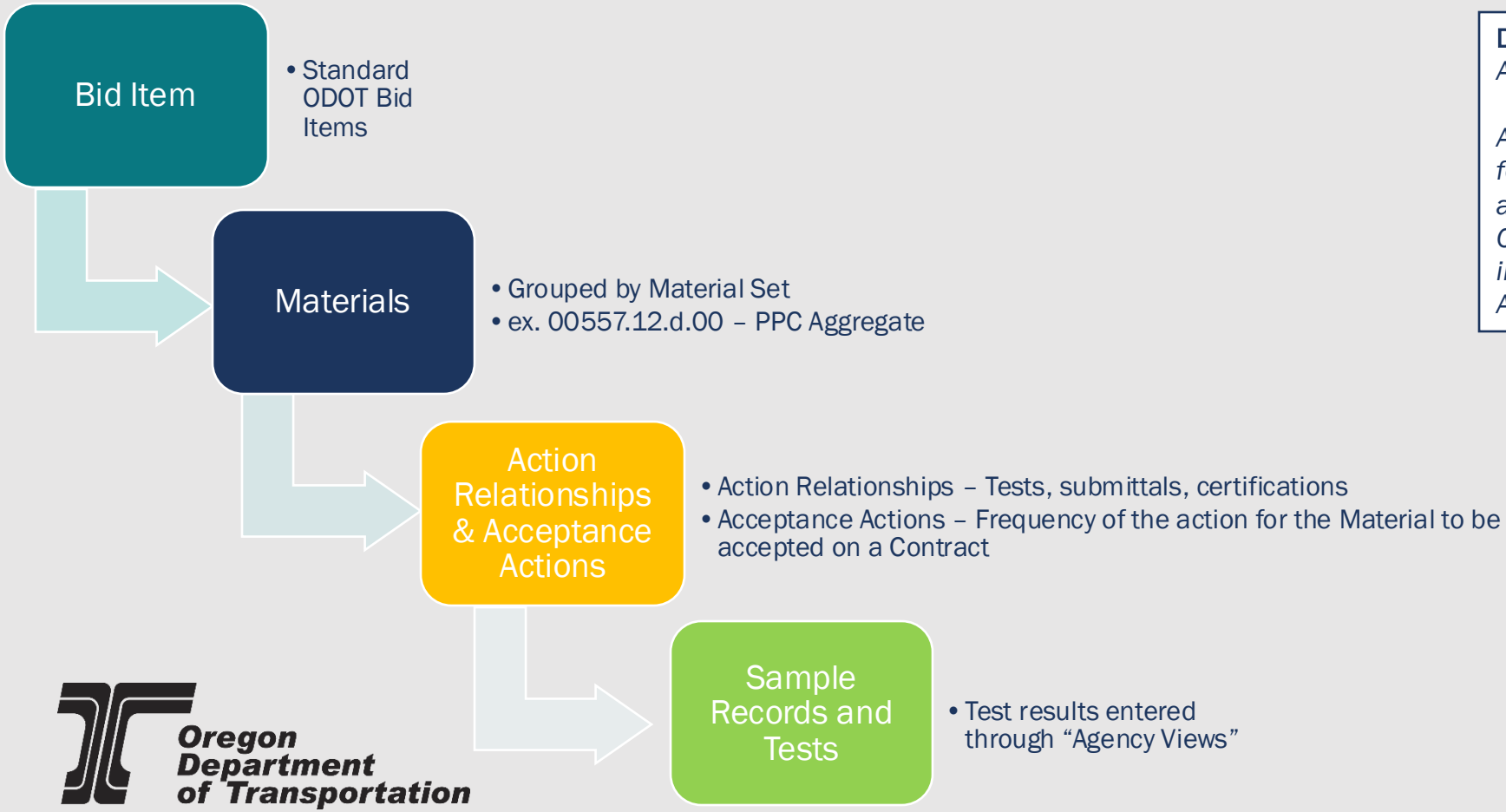
- Combined Aggregate absorption does not exceed 1 percent according to AASHTO T 84 and AASHTO T 85.
- Moisture content does not exceed 0.2 percent at the time of Aggregate production according to AASHTO T 255.
- Field tested moisture content does not exceed 1.00 percent according to AASHTO T 255. Test field moisture content prior to production Work, during the trial overlay strip. Perform additional field moisture tests, as directed by the Engineer.
- The largest size Aggregate does not exceed one-half the minimum depth of the overlay.
- Aggregate retained on the No. 8 to No. 200 sieves only consists of natural Sand.
- When Aggregate retained on the No. 4 and No. 8 sieves is combined, the Aggregate shall have a maximum of 45 percent crushed particles with at least one fractured face when tested according to AASHTO T 335.

Deliver Aggregate to the mixer in containers that maintain the specified moisture content.

FIELD TESTED MATERIALS ACCEPTANCE GUIDE (Revised November 2022)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD ODOT	TEST METHOD WAQTC	TEST METHOD AASHTO	FORM 734-	Same Frequency for all Tests (Minimums) QUALITY ASSURANCE Contractor Quality Control	Independent Assurance/Verification Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00557 - PREMIXED POLYMER CONCRETE OVERLAYS									
Resin Primer	*Material must meet the requirements of section 00557.10*								
Polyester Resin Binder Including (Initiator, Accelerators & Inhibitors)	*Material must meet the requirements of section 00557.12 (a-c)*								
Aggregate Production									
Product Compliance	*Specific Gravity of Coarse Aggregate*			*T 85*					
	Specific Gravity of Fine Aggregate			*T 84*					
(Submitt 2- 50 lb. samples of blended aggregate (00557.02)during the trial overlay)	*Sieve Analysis*			*T 27/11*	*4000*	*1/Project and Source*	*Submit to Lab*		*See Section 00557.12(d)*
	Moisture Content of Aggregate & Soil			*T 255/265*					
	Fracture (Method 1)			*T 335*					
	Moisture Content of Aggregate & Soils			*T 255/265*	*1792*	*During the Trial Overlay Strip*			
	Sieve Analysis			*T 27/11*					
(1) See Section 00557.12(d)	*(1) Moisture Content of Aggregate & Soils*			*T 255/265*		*During Production*			
Surface Texture Sand (see section 00557.12(e))	*Sieve Analysis*			*T 27/11*	*1792*	*1/Project and Source*			
Premixed Polymer Concrete									
	Density (Unit Weight) of Concrete			*T 121*	*3573WS*	*(B) 1/Batch*			
	Static Modulus of Elasticity	*TM 759*			*4000C*	*(M) Minimum 1 set/batch*			
(M) 1 set Represents a minimum of 3 (4"x8") cylinders cast per 00557.44(e)						*1 set per 10 batches placed or minimum 1 set/day*	*Submit to Lab*		*See section 00557.44(e)*
(B) Batch is defined "Per Mixer or Portion placed".									

AWP Materials - Framework



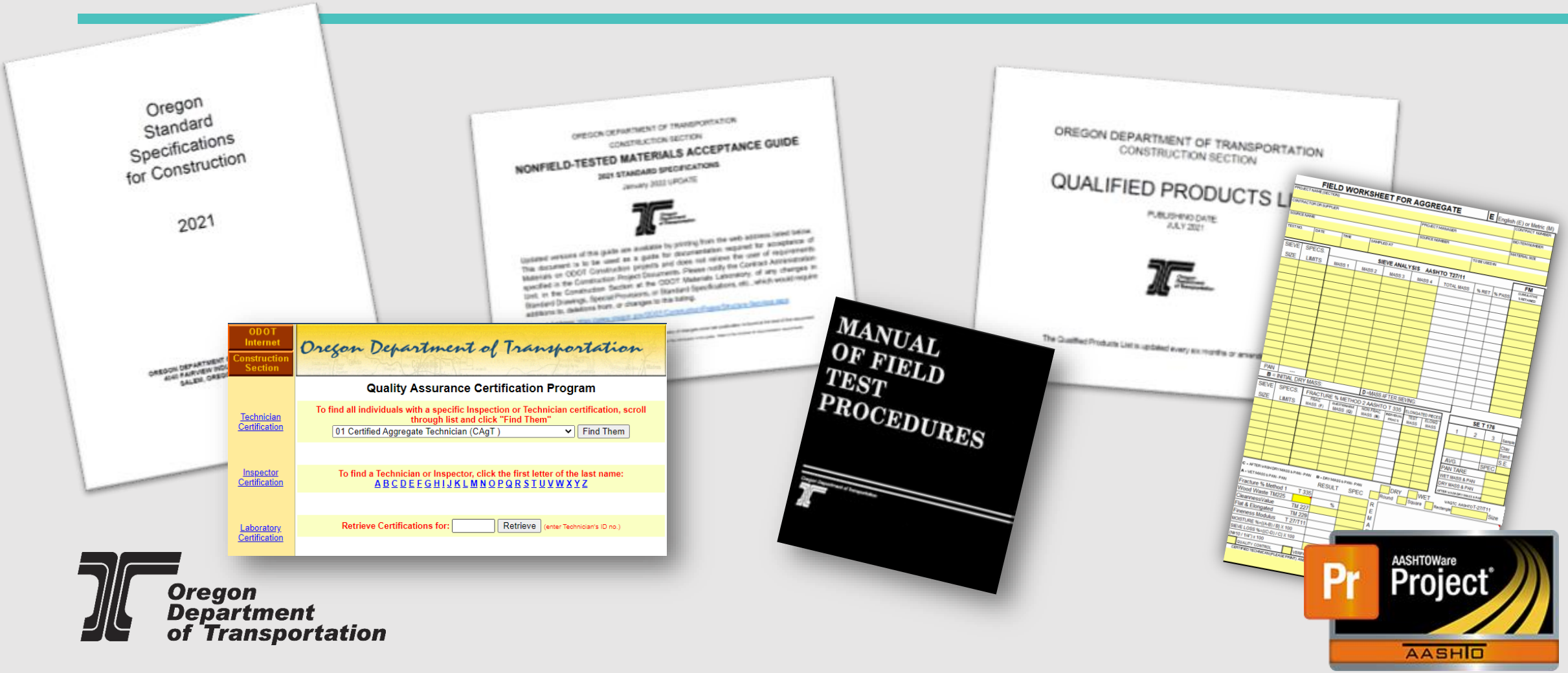
Definition
Agency View-

An ODOT designed website/interface for data entry. Standard ODOT forms are being recreated as Agency Views. Can be located within most AWP interface locations. Data entered in an Agency View is stored in the database.

Oregon Department of Transportation

AASHTOWare Project AASHTO

ODOT Materials - Acceptance



Oregon Department of Transportation

Material Acceptance

Action Relationships

- An **action** we want to perform on a material – ex. Testing or certification

Acceptance Actions

- How often that test is performed on a material to **accept** it on a contract
- Can have 1 or more **Options**

Source – Material - SMFMI

Source

- Material Producer and Location

Material

- A material that the source is producing (specific aggregate gradation, QPL material, etc.)

SMFMI

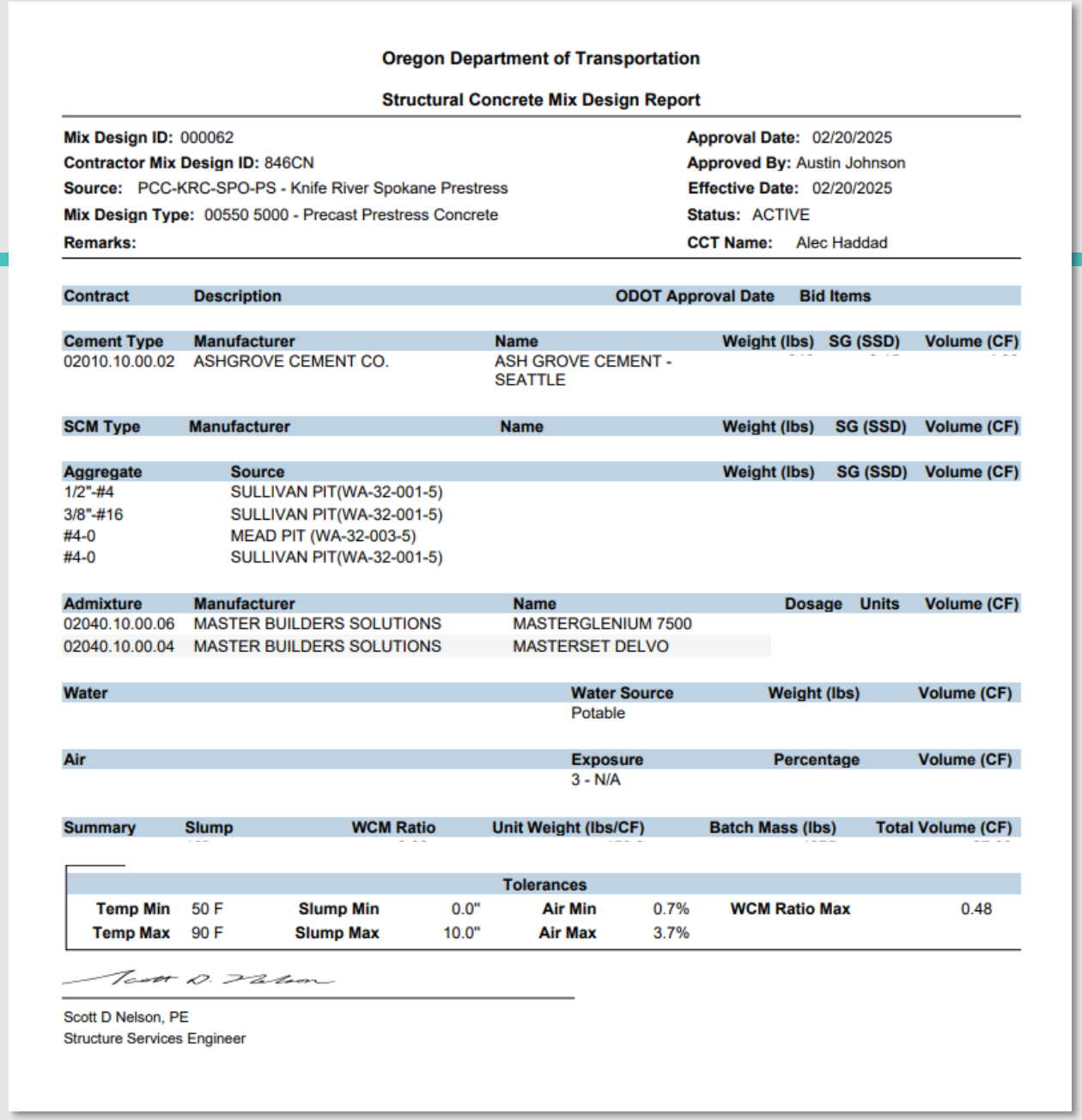
- Specific stockpile of material
- Used for tracking acceptance

Oregon Department of Transportation

AASHTOWare Project AASHTO

Mix Designs

- All concrete and ACP mix designs will be routed through AWP
- Utilizes QPL materials and SMFMI's for aggregates



Oregon Department of Transportation

Structural Concrete Mix Design Report

Mix Design ID: 000062
Contractor Mix Design ID: 846CN
Source: PCC-KRC-SPO-PS - Knife River Spokane Prestress
Mix Design Type: 00550 5000 - Precast Prestress Concrete
Remarks:

Approval Date: 02/20/2025
Approved By: Austin Johnson
Effective Date: 02/20/2025
Status: ACTIVE
CCT Name: Alec Haddad

Contract	Description	ODOT Approval Date	Bid Items

Cement Type	Manufacturer	Name	Weight (lbs)	SG (SSD)	Volume (CF)
02010.10.00.02	ASHGROVE CEMENT CO.	ASH GROVE CEMENT - SEATTLE			

SCM Type	Manufacturer	Name	Weight (lbs)	SG (SSD)	Volume (CF)

Aggregate	Source	Weight (lbs)	SG (SSD)	Volume (CF)
1/2"-#4	SULLIVAN PIT(WA-32-001-5)			
3/8"-#16	SULLIVAN PIT(WA-32-001-5)			
#4-0	MEAD PIT (WA-32-003-5)			
#4-0	SULLIVAN PIT(WA-32-001-5)			

Admixture	Manufacturer	Name	Dosage	Units	Volume (CF)
02040.10.00.06	MASTER BUILDERS SOLUTIONS	MASTERGLENIUM 7500			
02040.10.00.04	MASTER BUILDERS SOLUTIONS	MASTERSET DELVO			

Water	Water Source	Weight (lbs)	Volume (CF)
	Potable		

Air	Exposure	Percentage	Volume (CF)
	3 - N/A		

Summary	Slump	WCM Ratio	Unit Weight (lbs/CF)	Batch Mass (lbs)	Total Volume (CF)

Tolerances

Temp Min	50 F	**Slump Min**	0.0"	**Air Min**	0.7%	**WCM Ratio Max**	0.48
Temp Max	90 F	**Slump Max**	10.0"	**Air Max**	3.7%		

Scott D Nelson, PE
Structure Services Engineer

Oregon Department of Transportation

Questions

Construction and Materials

Oregon Department of Transportation