WASHINGTON ASSOCIATION OF BUILDING OFFICIALS
SPECIAL INSPECTION REGISTRATION PROGRAM

AGENCY FACILITIES, EQUIPMENT, RECORDS, AND PERSONNEL SURVEY CHECKLIST

(2/24)

Survey Preparations by The Agency

On the day of the agency survey/inspection, the agency should:

- ☐ have a conference room in which the survey/inspection team and the supervising laboratory technician can meet and work
- ☐ have supervising testing personnel available and prepared to participate
- ☐ have samples all applicable equipment available (including any item on the list of field or laboratory equipment needed to perform the test or inspection in each of the categories for which the agency has applied for registration)
- ☐ have testing and project records accessible for review

1. AGENCY AND KEY PERSONNEL

Survey/Inspection Date ___/_____/____

Agency _____ EIN No. _____
(Name)

_____
(City) (State) (Zip Code)

Agency Contact _____
(Name) (Title/Position)

Agency Contact Phone No. _____Fax No. _____

Agency Contact (E-mail) _____

Technical Director _____
(Name)

Supervising Laboratory Technician _____
(Name)

Special Inspection Field Supervisor _____
(Name)

Special Inspection Field Supervisor _____
(Name)

Special Inspection Field Supervisor _____
(Name)

AGENCY SURVEY CHECKLIST

Registration is for the following type(s) of (testing and inspection) work:

___	Reinforced Concrete (RC)*	___	Spray-Applied Fire-Resistive Materials (FP)
___	Prestressed Concrete (PC)**	___	Structural Wood (SWD)
___	Shotcrete (SC)**	___	Mass Timber Endorsement (MT)***
___	Structural Masonry (SM)	___	Cold-Formed Steel Framing (CF)
___	Structural Steel and Bolting (SSB)	___	Post-Installed Anchors (PA)
___	Structural Welding (SW)	___	Fire-Resistant Penetrations and Joints (FS)

* Requires current ACI certification as an ACI Field Technician-Grade 1.
** Reinforced Concrete registration is a prerequisite for obtaining this inspection registration.
*** Structural Wood registration is a prerequisite for obtaining this inspection registration endorsement.

WABO Agency Inspection Team:

_____	_____
(Name)	(Name)
_____	_____
(Name)	(Name)

Agency Survey Explanation-

Registration of an agency is based on an assessment of an Agency Registration Application, and accompanying Applicant Qualification Documentation, and an agency on-site facilities, equipment, and records survey/inspection. Below is a list of the items the survey/inspection team will confirm when inspecting an agency.

Agency Survey Team Directions-

For items below, if an item is confirmed place a check in the space; if an item is deficient, place a number in the space to coincide with the numbered deficiency explanations on the final page of this checklist.

2. QUALITY ASSURANCE

___ Confirmed sample pickup procedures
___ Confirmed sample pickup transportation methods
___ Confirmed sample log-in system
___ Confirmed sample marking methods
___ Confirmed sample sorting/storage methods
___ Confirmed method of correcting logbook entry errors
___ Confirmed records include sample receipt date
___ Confirmed traceability of samples to inspection reports and testing reports issued by the agency

AGENCY SURVEY CHECKLIST

DIRECTIONS: Obtain at least three (3) different commercial construction projects (one large concrete project, a masonry project, and one small to medium concrete project) and select samples received approximately three to six months prior to the audit to ensure all the tests and reports should be in a completed file.

Job/ID Name/No.	Date Cast	Sample ID No.	Sample Type	Break-log Value	Report Value

Section 2 Inspector Notes:

3. EQUIPMENT CALIBRATION AND MAINTENANCE

DIRECTIONS: Copy the ID No., description, and calibration sticker information (e.g. date due) of six different types of equipment surveyed in the lab. Include any and all nonconforming items found. Use this list to complete the checking of the calibration records and equipment lists in the Records Section.

Equipment ID No.	Description	Calibration Sticker	Equipment Log Entry	Calibration Documentation

Section 3 Inspector Notes:

4. REGISTRATION CATEGORIES/TYPES OF WORK

4.1 REINFORCED CONCRETE AND PRESTRESSED CONCRETE

4.1.1 Laboratory Equipment:

___R Confirmed adequate facilities for curing concrete specimens in accordance with ASTM Method C192
(**NOTE:** These facilities may consist either of a thermostatically controlled fog room with required temperature and humidity control or thermostatically controlled tanks containing saturated lime solution.)

___ Confirmed curing room temperatures and humidity are being maintained, or

___ Confirmed curing tank temperature, humidity and water solutions are being maintained

___R Confirmed a screw (or hydraulic) type compressive testing machine with sufficient capacity to test concrete specimens

___R 250,000 lbs. (normal strength concrete)

___ 400,000 lbs. (high strength concrete)
(**NOTE:** The testing machine shall conform to all the requirements of ASTM Practices E4, Load Verification of Testing Machines and ASTM Test Method C39 for Compressive Strength of Cylindrical Concrete Specimens. The machine shall be verified annually in accordance with ASTM Practices E4 and documentation of verification shall be available.)

___R Confirmed adequate equipment/facilities for preparing concrete test specimens in accordance with ASTM Method C192, Making and Curing Concrete Test Specimens in the Laboratory

___R Confirmed that paperwork has been maintained regarding lab verification that equipment conforms to ASTM specifications, i.e. single use molds, reusable molds, flexural beam molds, cube molds

___R Confirmed that physical testing of capping compounds conform to ASTM guidelines and that test records are maintained

___ Confirmed, that equipment prescribed for the following ASTM test methods conforms to ASTM guidelines and that the lab is maintaining equipment maintenance and applicable calibrating records.

___ C142, Test Methods for Clay Lumps and Friable Particles in Aggregate

___ Balance to .1% of weight of test sample

___ Oven (temperature 110 +/- 5 degrees)

___ C123, Test Method for Lightweight Pieces and Aggregate

___ Balance to .1 g

___ # 50/ 4 sieve

___ Hydrometer

*R=minimum requirement

AGENCY SURVEY CHECKLIST

___ C117, Test Method for Materials Finer Than #200 Sieve in Mineral Aggregates by Washing
(**NOTE:** Includes physical inspection of sieves)
___R # 200/ 16 sieve
___R Oven
___R Dispersing agent (i.e. dish washing soap)

___ C40, Test Method for Organic Impurities in Fine Aggregates for Concrete
___R Reference card or color solutions
___R Solution or sodium hydroxide to make solution
___R Graduated glass container

___ C136, Method of Sieve Analysis of Fine and Coarse Aggregates
(**NOTE:** Includes physical inspection of sieves)
___R Balance
___R Sieves

___ C128, Test Method for Specific Gravity and Absorption of Fine Aggregate
___R Cone & Tamper
___R Balance
___R Pycnometer Jar

___ C127, Test Method for Specific Gravity and Absorption of Course Aggregate.
___R Balance
___R Water tank
___R Wire mesh container

___ C566, Test Method for Total Moisture Content of Aggregates by Drying
___R Balance
___R Oven (temperature 110 +/- 5 degrees

___ C29, Test Method for Unit Weight and Voids in Aggregate
___R Balance
___R Tamping rod
___R Unit weight bucket
___R Plate glass

___ Test for flexural strength of concrete in accordance with ASTM Test Methods C31 and C78, for Flexural Strength of Concrete
(**NOTE**: Using Simple Beam and Third-point Loading)

___ ASTM C131, Test Methods for Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact (Los Angeles Machine)
___ In-house
___ External

*R=minimum requirement

___ ASTM C88, Test Method for Soundness of Aggregates (Sodium Sulfate or Magnesium Sulfate & Hydrometer)
- ___ In-house
- ___ External

___ Physical and chemical analysis of cement (Chemistry Laboratory)
- ___ In-house
- ___ External

___ Testing of curing compounds, admixtures and related material (Chemistry Laboratory)
- ___ In-house
- ___ External

___ Determination of modulus of elasticity (Jig with Dial Gauges and Break Machine)
- ___ In-house
- ___ External

___ A screw (or hydraulic) type testing machine of sufficient capacity to test any tendon specimen which may be involved-normally a multiple range machine with at least 200,000 lb. capacity, jaws extensometer
- ___ In-house
- ___ External

4.1.2 Field Inspection:

___ Confirmed that the lab is maintaining calibration logs on the equipment required for the following ASTM test methods and that they are verifying that personnel is performing testing as per guidelines:

___ C231, Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method (air meters)
- ___R Air pot
- ___ C173, Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
- ___ Volume metric type air meter-"roll-o-meter"
- ___ C31, Test Method for Making and Curing Concrete Test Specimens in the Field
- ___R Cylinder molds
- ___R Tamping rods

___ C172, Test Method of Sampling Freshly Mixed Concrete
- ___R Cylinder molds
- ___R Tamping rods

___ C143, Test Method for Slump of Portland Cement Concrete
- ___R Slump cones
- ___R Tamping rods
- ___R Scoop

*R=minimum requirement

___ C138, Test Method for Unit Weight, Yield and Air Content (Gravimetric) of Concrete
___R Air pot
___R Strike-off plate
___R Thermometer
___ C1064, Test Method for Temperature of Freshly Mixed Concrete
___R Thermometer

Category (Reinforced Concrete and Prestressed Concrete) Inspector Notes:

4.2 SHOTCRETE

(Reinforced Concrete registration is a prerequisite for this registration)

4.2.1 Laboratory Equipment:

___ Confirmed coring equipment (or access to equipment) capable of removing samples from shotcrete panels
___R Coring machine
___R Compression machine
___R Confirmed equipment (or access to equipment) for preparing perpendicular core ends
___ Cut-off saw

Category (Shotcrete) Inspector Notes:

4.3 STRUCTURAL MASONRY

4.3.1 Laboratory Equipment:

___R Confirmed a screw (or hydraulic) type compression machine of sufficient capacity to test any specimen which may be involved in masonry construction - normally a multiple range machine with at least 250,000 lb. capacity.
(**NOTE:** A 500,000 lb. capacity machine should be accessible)
(The testing machine shall conform to all the requirements of ASTM E4, "Load Verification Testing Machines." The machine shall be calibrated annually and a report giving details of the calibration shall be readily available.)

*R=minimum requirement

___R Confirmed adequate facilities for curing mortar and grout specimens in accordance with ASTM C192.
- ___ Curing room temperature and humidity are being maintained, or
- ___ Curing tank temperature and water solutions are being maintained

___R Confirmed adequate facilities and equipment for testing mortar in accordance with ASTM C780 & grout in accordance with ~~1~~ ASTM C1019

___R Confirmed adequate procedures and documentation pertaining to verification that equipment conforms to IBC and ASTM specifications, e.g. single use molds, reusable molds, and cube molds

___R Confirmed that physical testing of capping compounds conforms to ASTM guidelines and that test records are maintained

___R Confirmed adequate facilities for curing prisms in accordance with ASTM C1314

___R Confirmed adequate facilities for capping prisms in accordance with ASTM C1314

___R Confirmed use of proper loading platens of thickness and hardness in accordance with ASTM C1314

Category (Structural Masonry) Inspector Notes:

4.4 STRUCTURAL STEEL AND BOLTING

4.4.1 Laboratory Equipment:

___ Confirmed access to facilities for mechanical testing of steel
- ___ In-house
- ___ External

___ Confirmed access to facilities for analysis of constituents and alloying elements of structural steel (Chemistry Laboratory)
- ___ In-house
- ___ External

*R=minimum requirement

4.4.2 Field Inspection:

___ Confirmed the following equipment:

___R Steel tape, rule, calipers and other appropriate measuring equipment

___R Inspector's identification stamp or tags

___R Torque wrench for high strength bolts

___R Tension calibration device (Skidmore or equivalent)

___R Feeler gauges for load indicator washers

Category (Structural Steel & Bolting) Inspector Notes:

4.5 STRUCTURAL WELDING

4.5.1 Laboratory Equipment:

___ Confirmed access to facilities for mechanical testing of welded samples

___ In-house

___ External

4.5.2 Field Inspection:

___ Confirmed the following equipment:

___R Steel tape, rule, calipers and other appropriate measuring equipment

___R Weld dimension gage

___R Weld viewing shield

___R Strong hand light

___R Thermometer or temperature measuring crayons

___R Inspector's identification stamp or tags

*R=minimum requirement

4.5.3 Nondestructive Testing:

___ Confirmed access to nondestructive testing which meets the requirements of ASTM E543, Practice for Determining the Qualifications of Nondestructive Testing Agencies
- ___ In-house
- ___ External

Category (Structural Welding) Inspector Notes:

4.6 SPRAY – APPLIED FIRE – RESISTIVE MATERIALS

4.6.1 Laboratory Equipment:

___R Confirmed oven capable of drying samples to constant weight at 120 degrees F and fifty percent (50%) relative humidity.
___R Confirmed scales of sufficient accuracy for obtaining dry weight
___ Glass Beads
___ Funnel
___ 200 mL container

4.6.2 Field Inspection:

___R Confirmed procedures used for sampling of materials
___ Confirmed the following equipment
- ___R Depth measuring devices
- ___R Template
- ___R Tape
- ___R Adhesion equipment
- ___R Epoxy
- ___R Jar lids
- ___R Calibrated scale

*R=minimum requirement

Category (Spray-applied Fire-resistive Materials) Inspector Notes:

4.7 STRUCTURAL WOOD

4.7.1 Laboratory Equipment (N/A)

4.7.1.1 Laboratory Equipment – Mass Timber (N/A)

4.7.2 Field Inspection

___ Confirmed the following equipment:
- ___R Moisture Meter
- ___R Tape Measure
- ___R Pull Test Assembly

4.7.2.1 Field Inspection – Mass Timber

___ Confirmed the following equipment:
- ___R Wood Moisture Meter
- ___R Tape Measure
- ___R Pull Test Assembly
- ___R Protractor
- ___R Torque Wrench
- ___R Outside Calipers

Category (Structural Wood) Inspector Notes:

4.8 COLD – FORMED STEEL FRAMING

4.8.1 Laboratory Equipment (N/A)

4.8.2 Field Inspection

- ___R Fillet Weld Gauge
- ___R Magnifying Glass
- ___R Flashlight
- ___R Steel Tape, Rule, Caliper
- ___R Weld Viewing Shield

*R=minimum requirement

Category (Cold-Formed Steel Framing) Inspector Notes:

4.9 POST – INSTALLED ANCHORS

4.9.1 Laboratory Equipment (N/A)

4.9.2 Field Inspection

___R Pull Test Assembly
___R Steel Tape, Ruler, Caliper
___R Torque Wrench

Category (Post-Installed Anchors) Inspector Notes:

4.10 FIRE – RESISTANT PENETRATIONS AND JOINTS

4.10.1 Laboratory Equipment:

___R Calibrated scale/balance
___R Thickness Gauge
___R Outside Caliper
___R Mil Thickness Gauge

4.10.2 Field Inspection:

___R Razor Knife
___R Steel tape measure, ruler
___R Thickness Gauge/depth measuring device
___R Outside/Digital Caliper
___ Strong hand light
___ Magnifying glass
___ Inspector identification markers
___ Drill bits
___ Spatula or putty knife
___R Mil Thickness Gauge

Inspection procedure and required forms:

___ Inspection procedure for E 2174
___ Inspection procedure for E 2393
___ Inspection forms for E-2174
___ Inspection forms for E -2393

*R=minimum requirement

Category (Fire-Resistant Penetrations and Joints) Inspector Notes:

5. CODES AND STANDARDS – *current edition per Washington State Building Code*

5.1 BASIC (any and all types of work)

5.1.1 International Building Code
5.1.2 American Society for Testing and Materials (ASTM) Standards (applicable to the types of work performed by the agency)

5.2 REINFORCED CONCRETE

5.2.1 American Concrete Institute (ACI) Standard 318
5.2.2 American Concrete Institute (ACI) Collection of Concrete Codes, Specifications, and Practices 9-Volume Set
5.2.3 American Concrete Institute (ACI) Manual of Concrete Inspection (MNL-2/ACI-311.1R)
5.2.4 Portland Cement Association (PCA) Design & Control of Concrete Mixtures
5.2.6 Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice

5.3 STRUCTURAL MASONRY

5.3.1 Masonry Institute (MI) Inspectors Handbook Reinforced Concrete Masonry Construction
5.3.2 Masonry Institute (MI) Reinforced Grouted Brick Masonry
5.3.3 TMS 402/602 Building Code Requirements and Specifications for Masonry Structures

5.4 PRESTRESSED CONCRETE

5.4.1 Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products (PCI Manual 116)
5.4.2 Field Procedures Manual for Unbonded Single Strand Tendons (PTI)

5.5 STRUCTURAL STEEL AND BOLTING

5.5.1 American Institute for Steel Construction (AISC) Manual of Steel Construction
5.5.2 American Institute for Steel Construction (AISC) 341 – Chapter J "Special Inspection of Seismic Force-resisting Systems"
5.5.3 American Institute for Steel Construction (AISC) 360 - Chapter N "Minimum Requirements for Inspection of Structural Steel Buildings"
5.5.4 Steel Joist Institute (SJI) Code of Standard Practice

5.6 STRUCTURAL WELDING

5.6.1 American Welding Society (AWS) Structural Welding Code - Steel (D1.1)
5.6.2 American Welding Society (AWS) Structural Welding Code - Sheet Steel (D1.3)
5.6.3 American Welding Society (AWS) Structural Welding Code - Reinforced Steel (D1.4)
5.6.4 Structural Welding Code – Seismic Supplement (AWS D1.8)
5.6.5 American Welding Society (AWS) Guide for Visual Inspections of Welds (AWS B1.11)
5.6.6 AWS Standard Symbols for Welding (A2.4)

5.7 SPRAY – APPLIED FIRE – RESISTIVE MATERIALS

5.7.1 Standard Practice for Testing and Inspection of Field Applied Sprayed Fire-Resistive Materials (AWCI 12A)
5.7.2 Standard Practice for the Testing and Inspection of Thin-Film Intumescent Fire-Resistant Materials (AWCI 12B)
5.7.3 ASTM E605 Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Materials (SFRM) Applied to Structural Members
5.7.4 ASTM E736 Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members

5.8 STRUCTURAL WOOD

5.8.1 International Building Code
5.8.2 American Wood Council (AWC) – National Design Specification (NDS) for Wood Construction with Commentary
5.8.3 American Plywood Association Introduction to Lateral Design
5.8.4 American Plywood Association Engineered Wood Construction Guide
5.8.5 American Wood Council Special Design Provision for Wind and Seismic (SDPWS)
5.8.6 ASTM – F1667 Standard Specification for Driven Fasteners: Nails, Spikes and Staples

5.9 MASS TIMBER

5.9.1 International Building Code
5.9.2 ANSI/APA PRG 320 Standard for Performance-Rated Cross-Laminated Timber
5.9.3 CLT Handbook
5.9.4 Nail Laminated Timber US Design Construction Guide
5.9.5 Connectors Design Guide MytiCon (MTC)
5.9.6 American Wood Council (AWC) – National Design Specification (NDS) for Wood Construction with Commentary
5.9.7 Simpson Strong-Tie Fastening Systems Technical Guide – Mass Timber / Cross – Laminated Timber Fastening

5.10 COLD-FORMED STEEL FRAMING

5.10.1 International Building Code (Chapter 2, 17 and 22)
5.10.2 ASTM C955 Standard Specification for Load Bearing Traverse and Axial Steel Studs, Runners, Tracks & Bracing or Bridging, for Screw Application of Gypsum Panel Products & Metal Plaster Bases
5.10.3 ASTM C 1007 – Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories
5.10.4 ASTM C 1513 Standard Specification for Steel Tapping Screws for Cold-Formed Steel Framing Connections
5.10.5 AISI S230 Prescriptive Methods for 1 and 2 Family Dwellings
5.10.6 AISI S240 North America Standard for Cold-Formed Steel Structural Framing
5.10.7 AISI S400 North American Standard for Seismic Design of Cold-formed Steel Structural Systems
5.10.8 AWS D1.3 Structural Welding Code - Sheet Steel
5.10.9 SSMA Product Technical Information from the Steel Stud Manufacturers Association

5.11 SHOTCRETE

5.11.1 International Building Code
5.11.2 Guide to Shotcrete (ACI 506R)
5.11.3 Specification for Shotcrete (core grading standard) 506.2.13
5.11.4 ASTM C1140 Standard Practice for Preparing and Testing Specimens from Shotcrete Test Panels
5.11.5 ASTM C1385 Standard Practice for Sampling Materials for Shotcrete
5.11.6 ASTM C1604 Standard Test Method for Obtaining and Testing Drilled Cores of Shotcrete

5.12 POST – INSTALLED ANCHORS

5.12.1 Building Code Requirements for Structural Concrete (ACI 318)
5.12.2 Qualification of Post-Installed Expansive Anchors in Concrete (ACI 355.2)
5.12.3 Qualification of Post-Installed Adhesive Anchors in Concrete (ACI 355.4)

5.13 FIRE – RESISTANT PENETRATIONS AND JOINTS

5.13.1 International Building Code
5.13.2 ASTM E2174 Standard Practice for On-Site Inspection of Installed Firestop Systems
5.13.3 ASTM E2393 Standard Practice for On-Site Inspection of Installed Fire-Resistive Joint Systems and Perimeter Fire Barriers
5.13.4 ICC Special Inspection Manual

Section 5 Inspector Notes:

6. EQUIPMENT AND PROJECT RECORDS

6.1 EQUIPMENT

___ Confirmed and reviewed equipment calibration procedures, practices and record keeping system
(**NOTE:** All calibrations shall be traceable to the National Bureau of Standards and calibrations shall be performed at frequencies as set forth in national standards. If a standard test method requires equipment calibration for which a frequency is not specified, then the agency shall establish a frequency which is consistent with existing guidelines.)

___ Confirmed equipment maintenance practices and record keeping system

___ Confirmed equipment log being maintained

___ Confirmed maintenance schedule is being adhered to

___ Confirmed procedures for marking equipment are being followed

___ Confirmed that calibration stickers are being placed on the equipment requiring calibration

___ Confirmed lists of field inspection equipment assigned to or provided by inspectors is being maintained

6.2 PROJECT

___ Confirmed a system of dispatching qualified inspectors

___ Confirmed a system of documenting and maintaining training records

___ Confirmed that test results, log book entries, and reports can be correlated

___ Confirmed method of reviewing test and inspection reports

___ Confirmed deficiency identification, reconciliation and reporting tracking system

___ Confirmed method for compiling final letter information

___ Confirmed that project files are being maintained which include

- ___ Description of scope of inspections
- ___ Test and inspection reports
- ___ Meeting notes
- ___ Deficiency records
- ___ Final letter

Section 6 Records Inspector Notes: