

# Statement of Special Inspections

Development Services Department 777 B Street Hayward, CA 94541 510.583.4140 Created: 1-10-17 Revised: 4- 12-17

SITE ADDRESS	APN	BP#
Owner	Contractor	
Applicant	Engineer/Architect	
PROJECT DESCRIPTION:		

This "STATEMENT OF SPECIAL INSPECTIONS" is submitted in fulfillment of the requirements of CBC Sections 1704 and 1705. This form is structured after and used by permission from the <u>Structural Engineer Association of Northern California's</u> (SEAONC) mode statement of Special Inspections. Also, included with this form is the following:

- "RECOGNIZED SPECIAL INSPECTION AGENCIES LIST" (separate City of Hayward document). A list of testing agencies and other special inspectors that are certified to work in our jurisdiction and that have been pre-screened for minimum qualifications. The Engineer of Record shall include the agencies form that list on page 2 of this document.
- "SCHEDULE OF SPECIAL INSPECTION" (page 3 11). The Schedule of Special Inspections summarizes the Special Inspections and tests required. Special Inspectors will refer to the approved plans and specifications for detailed special inspection requirements. Any additional tests and inspections required by the approved plans and specifications shall also be performed.

Special Inspections and Testing will be performed in accordance with the approved plans and specifications, this statement and CBC Sections 1704, 1705, 1706, 1707, and 1708. Interim reports will be submitted to the Building Official or designee and the Registered Design Professional in Responsible Charge in accordance with the CBC.

A Final Report of Special Inspections documenting required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy. The Final Report will document:

- · Required special inspections.
- · Correction of discrepancies noted in inspections

The Owner recognizes his or her obligation to ensure that the construction complies with the approved permit documents and to implement this program of special inspections. In partial fulfillment of these obligations, the Owner will retain and directly pay for the Special Inspections as required in CBC Chapter 17.

This plan has been developed with the understanding that the Building Official or designee will:

- Review and approve the qualifications of the Special Inspectors who will perform the inspections.
- Monitor special inspection activities on the job site to assure that the Special Inspectors are qualified and are performing their duties as called for in this Statement of Special Inspection.
- Review submitted inspection reports.
- Perform inspections as required by the local building code.

I have read and agree to comply with the terms and conditions of this statement

Signature	Lic.#	Date:
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Signature		Date:
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		Signature Lic.#

## LIST OF SPECIAL INSPECTION AGENCIES

#### APPROVAL OF SPECIAL INSPECTORS:

Each special inspection agency, testing facility, and special inspector shall be recognized by the Building Official or designee prior to performing any duties. Special Inspection agency's listed on this form must be pre-approved and listed on Hayward's "List of Recognized Special Inspection Agencies". Special inspectors shall carry approved identification when performing the functions of a special inspector. Identification cards shall follow the criteria set by the <u>California Council of Testing and Inspection Agencies</u>. No personnel changes shall be made without first obtaining the approval of the Building Official or designee. Any unauthorized personnel changes may result in a "Stop Work Order" and possible permit revocation. To be pre- approved by the City of Hayward, refer to the SPECIAL INSPECTION CRITERIA handout. Please allow two weeks to complete the application process.

The following are the testing and special inspection agencies that will be retained to conduct tests and inspection on this project:

EXPERTISE  1. Special Inspection (except for geotechnical)	FIRM I INSPECTOR INFORMATION *				
	FirmAdd CityFax	StateZip			
2. Material Testing	FirmAdd City TelephoneFax	StateZip			
3. Geotechnical Inspections	FirmAde City TelephoneFax	StateZip			
4. Other:	FirmAdd City TelephoneFax	Zip			

<sup>\*</sup>All agencies specified on this form must be pre-approved and listed on the City of Hayward's Approved Special Inspector's List.

SEISMIC REQUIREMENTS	(CBC Chapter	17)	)
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escription of seismic-force-resisting system and designated seismic systems subject to special inspections as per Section 1705.3:					
The extent of the seismic-force-resisting system is defined in more detail in the construction documents.					
The extent of the seismic-roice-resisting system is defined in more detail in the construction documents.					

## WIND REQUIREMENTS (CBC Chapter 17)

Description of main wind-force-resisting system and designated wind resisting components subject to special inspections in accordance with	Section
1705 4 2·	

The extent of the main wind-force-resisting system and wind resisting components is defined in more detail in the construction documents.

# **SCHEDULE OF SPECIAL INSPECTION**

SITE ADDRESS	APN	BP#
PROJECT DESCRIPTION:		

## Notation Used in Table:

## Column headers:

C Indicates continuous inspection is required.

P Indicates periodic inspections are required. The notes and/or contract documents should clarify.

## Box entries:

X Is placed in the appropriate column to denote either "C" continuous or "P" periodic inspections.

--- Denotes an activity that is either a one-time activity or one whose frequency is defined in some other

manner.

Additional detail regarding inspections and tests are provided in the project specifications or notes on the drawings.

VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	CBC REFERENCE
INSPECTION OF FABRICATORS				
Inspect fabricator's fabrication and quality control procedures.				

	INSPECTION OF STEEL				
1. Mat	terial verification of high-strength bolts, nuts and washers.				
	Identification marking to conform to ASTM stds specified in the approved construction documents.		х	AISC 360, Section A3.3 and applicable ASTM material standards	
	Inspect fabricator's fabrication and quality control procedures.		Х		
2. Insp	pection of high-strength bolting:				
	Snug-tight joints.		Х		
	Pretensioned and slip-critical joints using turn-of-nut with matchmarking, twist-off bolt or direct tension indicator methods of installation.		Х	AISC 360, Section M2.5	
	Pretensioned and slip-critical joints using turn-of-nut without matchmarking or calibrated wrench methods of installation.	х			
3. Mat	terial verification of structural steel and cold-formed steel	deck.			
	For structural steel, identification markings to conform to AISC 360.		Х	AISC 360, Section M2.5	
	For other steel, identification markings to conform to ASTM standards specified in the approved construction documents.		Х	Applicable ASTM material standards	
	Manufacturer's certified test reports.		Х		

VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	CBC REFERENCE
4. Material verification of weld filler materials:				
□ Identification marking to conform to AWSspecification			AISC 360,	
in the approved construction documents.		Х	Section A3.5 and applicable AWS A5 documents	
☐ Manufacturer's certificate of compliance required.		Х		
5. Inspection of welding:				
a. Structural steel and cold-formed steel deck:				
□ Complete and partial joint penetration groove welds.	Х			
□ Multipass fillet welds.	Х			
□ Single-pass fillet welds > 5/16"	Х		AWS D1.1	
□ Plug and slot welds.	Х			
□ Single-pass fillet welds <= 5/16"		Х		
□ Floor and roof deck welds.		Х	AWS D1.3	
b. Reinforcing steel:				
<ul> <li>Verification of weldability of reinforcing steel otherthan ASTM A 706.</li> </ul>		Х		
<ul> <li>Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special structural walls of concrete and shear reinforcement.</li> </ul>	х		AWS D1.4 ACI 318: Section 3.5.2	
□ Shear reinforcement.	Х			
□ Other reinforcing steel.		Х		
6. Inspection of steel frame joints details for compliance:				
□ Details such as bracing and stiffening.		Х		
□ Member locations.		Х		
□ Application of joint details at each connection.		Х		

VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	CBC REFERENCE
INSPECTION OF	F WELD	ING		
1.   Welded studs when used for structural diaphragms.		Х		
2.   Welding of cold-formed steel framing members.		Х		
3. □ Welding of stairs and railing systems.		Х		

VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	CBC REFERENCE
INSPECTION OF	CONC	RETE		
Inspection of reinforcing steel, including prestressing tendons and placement.		Х	ACI 318: 3.5, 7.1-7.7	
2. □ Inspection of reinforcing steel welding in accordance with CBC Ch. 17			AWS D1.4 ACI 318: 3.5.2	
3.   Inspection of bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased or where strength design is used.	Х		ACI 318: 8.1.3, 21.2.8	
4.   Inspection of anchors installed in hardened concrete.		Х	ACI 318:	
5. □ Verifying use of required design mix.		Х	ACI 318:	
6.   At time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete.	Х		ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	
7.   Inspection of concrete and shotcrete placement for proper application techniques.	Х		ACI 318: 5.9, 5.10	
8.   Inspection for maintenance of specified curing temperature and techniques.		Х	ACI 318: 5.11-5.13	
9. Inspection of prestressed concrete:				
□ Application of prestressing forces.	Х		ACI 318: 18.20	
<ul> <li>Grouting of bonded prestressing tendons in the seismic force-resisting system.</li> </ul>	Х		ACI 318: 18.18.4	
10. □ Erection of precast concrete members.		Х	ACI 318: Ch. 16	
11.   Verification of in-situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to removal of shores and forms from beams and structural slabs.		Х	ACI 318: 6.2	
12.   Inspect formwork for shape, location, and dimensions of the concrete member being formed.		Х	ACI 318: 6.6.1	
13.   Bolts Installed in Existing Masonry or Concrete				
<ul> <li>Direct tension testing of existing anchors.</li> </ul>		Х		
<ul> <li>Direct tension testing of new bolts.</li> </ul>		Х	See ICC ES Repo	
<ul> <li>Torque testing of new bolts.</li> </ul>		Х	inspection requireme	
<ul> <li>Prequalification test for bolts and other types of anchors.</li> </ul>		Х	- products	
14. □ Other:				

					REFERENCE FOR CRITERIA				
	VERIFICATION AND INSPECTION		С	Р	CBC SECTION	TMS 402IACI 530IASCE 5	TMS 402IACI 530IASCE 6		
	INSPECTION OF LEVEL 1 MASONRY								
1.	□ C	Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.		X			Art. 1.5		
2.	□ V	Perification of f'm and f'AAC prior to construction except where specifically exempted by this code.		Х			Art. 1.4B		
3.	□ V	erification of slump flow and VSI as delivered to the site for self consolidating grout.	Х				Art. 1.5B.1.b.3		
4.	As	masonry construction begins, the following shall be	verifie	d to er	sure compliance	э:			
		Proportions of site-prepared mortar.		Х			Art. 2.6A		
		Construction of mortar joints.		Х			Art.3.3B		
		Location of reinforcement, connectors, prestressing tendons, and anchorages.		Х			Art. 3.4, 3.6A		
		Prestressing technique.		Х			Art. 3.6B		
		Grade and size of prestressing tendons and anchorages.		Х			Art. 2.4B, 2.4H		
5.	Du	ring construction the inspection program shall verify:							
		Size and location of structural elements.		Х			Art. 3.3F		
		Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.		Х		Sec. 1.2.2(e), 1.16.1			
		Specified size, grade, and type of reinforcement, anchor bolts, prestressing tendons and anchorages.		Х		Sec. 1.15	Art. 2.4, 3.4		
		Welding of reinforcing bars.	Х						
		Preparation, construction and protection of masonry during cold weather (temperature below 40 degrees F) or hot weather (temperature above 90 degrees F).		Х			Art. 1.8C, 1.8D		
		Application and measurement of prestressing force.	Х				Art. 3.6B		
6.	Pri	or to grouting the following shall be verified to ensure	com	oliance	e:				
		Grout space is clean.		Х			Art. 3.2D		
		Placement of reinforcement and connectors and prestressing tendons and anchorages.		Х		Sec. 1.3	Art. 3.4		
		Proportions of site-prepared grout and prestressing grout for bonded tendons.		Х			Art. 2.6B		
		Construction of mortar joints.		Х			Art. 3.3B		
7.	Gr	out placement:							
		Grout placement shall be verified ensure compliance.	Х				Art. 3.5		
		Observe grouting of prestressing bonded tendons.	Х				Art 3.6C		

	VERIFICATION AND INSPECTION			REFERENCE FOR CRITERIA			
			Р	CBC SECTION	TMS 402IACI 530IASCE 5	TMS 402IACI 530IASCE 6	
8. □ F	Preparation of any required grout specimens, mortar specimens, and/or prisms shall be observed.		Х			Art. 1.4	
	INSPECTION OF	LEVI	EL 2 N	IASONRY			
1. 🗆	Compliance with required inspection provisions of the construction documents and the approved submittals.		Х			Art. 1.5	
2. 🗆	Verification of f' <sub>m</sub> and f' <sub>AAC</sub> prior to construction and for every 5,000 square feet during construction.		Х			Art. 1.4B	
3. 🗆	premixed or preblended mortar and grout as delivered to the site.		Х			Art. 1.5B	
4. 🗆	Verification of slump flow and VSI as delivered to the site for self consolidating grout.	Х				Art. 1.5B.1.b.3	
5. Th	ne following shall be verified to ensure compliance:						
	Proportions of site-prepared mortar, grout, and prestressing grout for bonded tendons.		Х			Art. 2.6A	
	Placement of masonry units and construction of mortar joints.		Х			Art. 3.3B	
	Placement of reinforcement, connectors and prestressing tendons and anchorages.		Х		Sec. 1.15	Art. 3.4, 3.6A	
	Grout space prior to grouting.	Х				Art. 3.2D	
	Placement of grout.	Х				Art. 3.5	
	Placement of prestressing grout.	Х				Art. 3.6C	
	Size and location of structural elements.		Х			Art. 3.3F	
	Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames and other construction.	х			Sec.1.2.2(e)		
	Specified size, grade, and type of reinforcement, anchor bolts, prestressing tendons and anchorages.		Х		Sec. 1.15	Art. 2.4, 3.4	
	Welding of reinforcing bars.	Х			Sec. 2.1.9.7.2, 3.3.3.4 (b)		
	Preparation, construction, and protection of masonry during cold weather (temperature below 40 degrees F) or hot weather (temperature above 90 degrees F).		х			Art. 1.8C, 1.8D	
	Application and measurement of prestressing force.	Х				Art. 3.6B	
6. □ F	Preparation of any required grout specimens, mortar specimens, and/or prisms shall be observed.	х				Art. 1.4	

VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	CBC REFERENCE				
INSPECTION OF WOOD								
Inspect prefabricated wood structural elements and assemblies in accordance with Section 1704.2.								
2.   Inspect site built assemblies.								
3. Inspect high-load diaphragms:								
□ Verify grade and thickness of sheathing.								
<ul> <li>Verify nominal size of framing members atadjoining panel edges.</li> </ul>								
□ Verify nail or staple diameter and length,								
□ Verify number of fastener lines,								
<ul> <li>Verify spacing between fasteners in each line and at edge margins.</li> </ul>								
4.   Metal-plate-connected wood trusses spanning 60 feet or greater: Verify temporary installation restraint/bracing and the permanent individual truss member bracing are installed in accordance with the approved truss submittal package.		Х						
REQUIRED VERIFICATION AN	ID INS	PECTIO	N OF SOIL					
Verify materials below footings are adequate to achieve the desired bearing capacity.		Х						
2.   Verify excavations are extended to proper depth and have reached proper material.		Х						
3.   — Perform classification and testing of compacted fill materials.		Х						
4.   Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	х							
5.   Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.		Х						
REQUIRED VERIFICATION AND INSPECTION OF	DEEP	DRIVE	N FOUNDATION ELEM	ENTS				
Verify element materials, sizes and lengths comply with the requirements.	х							
2.   Determine capacities of test elements and conduct additional load tests, as required.	Х							
3. □ Observe driving operations and maintain complete and accurate records for each element.	Х							
4.   Verify locations of piles and their plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and buttelevations and document any damage to foundation element.	х							
5.   For steel elements, perform additional inspections in accordance with CBC Ch. 17								
6.   For concrete elements and concrete filled elements, perform additional inspections in accordance with CBC Ch. 17								

VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	CBC REFERENCE
7.   For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.				
REQUIRED VERIFICATION AND INSPECTION OF CA	ST-IN-F	PLACE	DEEP FOUNDATION E	EMENTS
Observe drilling operations and maintain complete and accurate records for each element.	Х			
2. Urify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable), and adequate end-bearing strata capacity. Record concrete or grout volumes.	x			
3. □ For concrete elements, perform additional inspections in accordance with CBC Ch. 17				
HELICAL PILE FO	UNDAT	IONS		
1.   Record installation equipment used, pile dimensions, tip elevations, final depth, final installation torque.	Х			
SPRAYED FIRE-RESIST	TANT M	IATERIA	ALS	l
Physical and visual tests				
1. Condition of substrates.				
<ul> <li>Inspect surface for accordance with the approved fire- resistance design and the approved manufacturer's written instructions.</li> </ul>				
<ul> <li>Verify minimum ambient temperature before and after application.</li> </ul>		Х		
□ Verify ventilation of area during and after application.		Х		
2. ☐ Measure average thickness per ASTM E605 and Section 1704.12.4.				
3. □ Verify density of material for conformance with the approved fire-resistant design and ASTM E605. (Ref. Section 1704.12.5)				
4. □ Test cohesive/adhesive bond strength per Section 1704.12.6.				
5.   Condition of finished application.				
MISCELLAN	IEOUS			
Mastic and Intumescent Fire-Resistant Coating.				
Exterior Insulation and Finish Systems (EIFS). Water- resistive barrier coating when installed over a sheathing substrate.				
3. Special Cases				
4. Smoke Control System				
5. Seismic Resistance	•			
<ul> <li>Suspended ceiling systems and their anchorage.</li> </ul>				

		VERIFICATION AND INSPECTION	С	Р	REFERENCED STANDARD	CBC REFERENCE	
6.	Wir	nd Resistance					
		Roof cladding and roof framing connections.					
		Wall connections to roof and floor diaphragms and framing.					
		Roof and floor diaphragm systems, including collectors, drag struts and boundary elements.					
		Vertical wind-force-resisting systems, including braced frames, moment frames, and shear walls.					
		Wind-force-resisting system connections to the foundation.					
		Fabrication and installation of systems or components required to meet the impact resistance requirements of Section 1609.1.2.					
		SPECIAL INSPECTION FOR	WINDF	EQUIR	EMENTS	,	
1.	Str	uctural Wood					
		Inspect field gluing operations of elements of the main wind-force-resisting system.	х				
		Inspect nailing, bolting, anchoring, and otherfastening of components within the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs.		Х			
2.	Со	ld-Formed Steel Framing					
		Welding of elements of the main wind-force-resisting system.		Х			
		Inspection of screw attachments, bolting, anchoring, and other fastening of components within the main wind-force-resisting system including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.		X			
3.	Wir	nd-resisting components					
		Roof cladding.		Х			
		Wall cladding.		Х			
		SPECIAL INSPECTIONS FOR	SEISN	IIC RESI	STANCE		
1. 1	□ Sp	pecial inspection for welding in accordance with the quality assurance plan requirements of AISC 341.	Х				
2.	2. Structural Wood						
		Inspect field gluing operations of elements of the seismic-force-resisting system.	Х				
		Inspect nailing, bolting, anchoring, and otherfastening of components within the seismic-force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold-downs.		Х			
3.	Col	d-Formed steel light-frame construction					
		Welding of elements of the seismic-force-resisting system.		Х			

		Inspection of screw attachments, bolting, anchoring, and other fastening of components within the seismic-force-resisting system including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.		Х				
4.	4. Storage racks and access floors							
		Anchorage of storage racks 8 feet or greater in height and access floors.		Х				
5.	Arc	chitectural components						
		Inspect erection and fastening of exterior cladding weighing more than 5 psf and higher than 30 feet above grade or walking surface.		Х				
		Inspect erection and fastening of veneer weighing more than 5 psf.and higher than 30 feet above grade or walking surface.		Х				
		Inspect erection and fastening of all exterior non- bearing walls higher than 30 feet above grade or walking surface.		Х				
		Inspect erection and fastening of all interior non- bearing walls weighing more than 15 psf and higher than 30 feet above grade or walking surface.		Х				
6.	Ме	chanical and Electrical Components						
		Inspect anchorage of electrical equipment for emergency or stand-by power systems.		Х				
		Inspect anchorage of non-emergency electrical equipment.		X				
		Inspect installation of piping systems and associated mechanical units carrying flammable, combustible, or highly toxic contents.		Х				
		Inspect installation of HVAC ductwork that contains hazardous materials.		Х				
		Inspect installation of vibration isolation systems where required by CBC Ch. 17		Х				
7.	□ V	erify that the equipment label and anchorage or mounting conforms to the certificate of compliance when mechanical and electrical equipment must be seismically qualified.						
8.	□ S	eismic isolation system: Inspection of isolation system per ASCE 7 – Section 17.2.4.8		X				
9.	□ C	Obtain mill certificates for reinforcing steel, verify compliance with approved construction documents, and verify steel supplied corresponds to certificate.						
10	. 🗆	Structural Steel: Invoke the QAP Quality Assurance requirements in AISC 341.						
11	. 🗆	Obtain certificate that equipment has been seismically qualified.						
12	. 🗆 (	Obtain system tests as required by ASCE 7 Section 17.8.						