210 W. 6th Ave ♦ PO Box 6108
Kennewick WA 99336

PROJECT:_____ PERMIT:_____

ADDRESS:_____ DATE:_____

TESTING AGENCY:_____ PHONE:_____

☐ **Structural Observation Required (IBC 1704.6)** _____
Structural Observers Name

☐ **PRE-CONSTRUCTION MEETING REQUIRED.** A City Building Inspector must be contacted in advance of any work noted below. It is the responsibility of the owner or owner's designee to notify the Special Inspection Agency AND schedule a building inspection in a timely manner. Copies of all inspection reports must be posted on site and summary letters submitted to Community Development s Department and the registered design professional. Unresolved non-conformancies must be brought to the immediate attention of the City Building Inspector. Send summary letters and nonconformance reports to permits@westrichland.org

Required Special Inspections per the 2021 International Building Code, Chapter 1705.

- ☐ 2.1. Structural Steel Bolting and Welding
- ☐ 2.2. Cold-formed Steel Deck
- ☐ 2.3. Open-web Steel Joists and Joist Girders
- ☐ 3.0. Structural Concrete
- ☐ 4.0. Structural Masonry
- ☐ 5.1. Wood – High-Load Diaphragms
- ☐ 5.2. Wood – Trusses Spanning 60+ feet
- ☐ 6.0. Soils
- ☐ 7.0. Driven Deep Foundations
- ☐ 8.0. Cast-In-Place Deep Foundations
- ☐ 9.0. Helical Pile Foundations
- ☐ 10.0. Structural integrity of deep foundation element
- ☐ 11.0. Fabricated Items
- ☐ 12.0. Wind Resistance
- ☐ 13.6. Seismic Resistance – MEP Components
- ☐ 13.7. Seismic Resistance – Storage Racks
- ☐ 13.8. Seismic Resistance – Isolation Systems
- ☐ 13.9. Seismic Resistance – Moment Frames
- ☐ 14.0. Testing for Sismic Resistance
- ☐ 15.0. Sprayed Fire-Resistant Materials
- ☐ 16.0. Mastic And Intumescent Fire-Resistant Coatings
- ☐ 17.0. Exterior insulation and Finish Systems
- ☐ 18.0. Fire-Resistant Penetrations and Joints
- ☐ 19.0. Testing for Smoke Control

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Table 1705.2
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

Type	Duration	Refereced Standard	IBC Reference
Inspection Tasks Prior to Welding			
1. Welder qualification records and continuity records	O		
2. WPS available	P		
3. Manufacturer certifications for welding consumables available	P		
4. Material identification (type/grade)	O		
5. Welder identification system [a]	O		
6. Fit-up of groove welds (including joint geometry)	O		
▪ Joint preparations			
▪ Dimensions (alignment, root opening, root face, bevel)			
▪ Cleanliness (condition of steel surfaces) O O			
▪ Tacking (tack weld quality and location)			
▪ Backing type and fit (if applicable)		AISC 360: Table N5.4-1	1705.2.1
7. Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)	O		
▪ Joint preparations			
▪ Dimensions (alignment, root opening, root face, bevel)			
▪ Cleanliness (condition of steel surfaces)			
▪ Tacking (tack weld quality and location)			
8. Configuration and finish of access holes	O		
9. Fit-up of fillet welds	O		
▪ Dimensions (alignment, gaps at root)			
▪ Cleanliness (condition of steel surfaces)			
▪ Tacking (tack weld quality and location)			
10. Check welding equipment	O		
Inspection Tasks During Welding			
1. Control and handling of welding consumables	O		
▪ Packaging			
▪ Exposure control			
2. No welding over cracked tack welds	O		
3. Environmental conditions	O		
▪ Wind speed within limits			
▪ Precipitation and temperature			
4. WPS followed	O		
▪ Settings on welding equipment			
▪ Travel speed		AISC 360: Table N5.4-2	1705.2.1
▪ Selected welding materials			
▪ Shielding gas type/flow rate			
▪ Preheat applied			
▪ Interpass temperature maintained (min./max.)			
▪ Proper position (F, V, H, OH)			
5. Welding techniques	O		
▪ Interpass and final cleaning			
▪ Each pass within profile limitations			
▪ Each pass meets quality requirements			
6. Placement and installation of steel headed stud anchors	P		
Inspection Tasks After Welding			
1. Welds cleaned	O	AISC 360: Table N5.4-3	1705.2.1
2. Size, length and location of welds	P		
Continues on page 4…			

Continued from page 3… 3. Welds meet visual acceptance criteria Crack prohibition Weld/base-metal fusion Crater cross section Weld profiles Weld size Undercut Porosity 4. Arc strikes 5. k-area[b] 6. Weld access holes in rolled heavy shapes and built-up heavy shapes[c] 7. Backing removed and weld tabs removed (if required) 8. Repair activities 9. Document acceptance or rejection of welded joint or member 10. No prohibited welds have been added without the approval of the EOR	P P P P P P O	AISC 360: Table N5.4-3	1705.2.1
Inspection Tasks Prior to Bolting 1. Manufacturer's certifications available for fastener materials 2. Fasteners marked in accordance with ASTM requirements 3. Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane) 4. Correct bolting procedure selected for joint detail 5. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements 6. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used 7. Protected storage provided for bolts, nuts, washers and other fastener components	P O O O O O O	AISC 360: Table N5.6-1	1705.2.1
Inspection Tasks During Bolting 1. Fastener assemblies placed in all holes and washers and nuts are positioned as required 2. Joint brought to the snug-tight condition prior to the pretensioning operation 3. Fastener component not turned by the wrench prevented from rotating 4. Fasteners are pretensioned in accordance with the *RCSC Specification*, progressing systematically from the most rigid point toward the free edges	O O O O	AISC 360: Table N5.6-2	1705.2.1
Inspection Tasks After Bolting 1. Document acceptance or rejection of bolted connections	P	AISC 360: Table N5.6-3	1705.2.1

Observe (O): The inspector shall observe these items on a random basis. Operations need not be delayed pending these inspections.
Perform (P): These tasks shall be performed for each welded joint or member.

[a] The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.
[b] When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75 mm) of the weld.
[c] After rolled heavy shapes (see Section A3.1c) and built-up heavy shapes (see Section A3.1d) are welded, visually inspect the weld access hole for cracks.

Table 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

Type	Duration	Refereced Standard	IBC Reference
1. Inspect reinforcement, including prestressing tendons, and verify placement.	P	ACI 318 Ch. 20, 25.2,25.3, 26.6.1-26.6.3	1908.4
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706; b. Inspect single-pass fillet welds, maximum 5/16″; and c. Inspect all other welds.	 P P C	AWS D1.4 ACI 318: 26.6.4	
3. Inspect anchors cast in concrete.	P	ACI 318: 17.8.2	
4. Inspect anchors post-installed in hardened concrete members.[b] a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4.a.	 C P	 ACI 318: 17.8.2.4 ACI 318: 17.8.2	
5. Verify use of required design mix.	P	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	C	ASTM C172 ASTM C31 ACI 318: 26.4, 26.12	1908.10
7. Inspect concrete and shotcrete placement for proper application techniques.	C	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing tem- perature and techniques.	P	ACI 318: 26.5.3-26.5.5	1908.9
9. Inspect prestressed concrete for: a. Application of prestressing forces; and b. Grouting of bonded prestressing tendons.	 C C	ACI 318: 26.10	
10. Inspect erection of precast concrete members.	P	ACI 318: Ch. 26.8	
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	P	ACI 318: 26.11.2	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	P	ACI 318: 26.11.1.2(b)	

Continuous (C); Periodic (P)

[a] Where applicable, see also Section 1705.12, Special inspections for seismic resistance.
[b] Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

Table 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

Type	Duration
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	C
2. Verify excavations are extended to proper depth and have reached proper material.	C
3. Perform classification and testing of compacted fill materials.	C
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	C
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	P
Continuous (C); Periodic (P)	