# DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

| **Application Number:** | **School Name:** | **School District:** |
|---|---|---|
| 03-123169 | Arroyo High School | El Monte Union High School District |
| **DSA File Number:** | **Increment Number:** | **Date Created:** |
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## 2022 CBC

**IMPORTANT:** This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC).

****NOTE:** Undefined section and table references found in this document are from the CBC, or California Building Code.

### KEY TO COLUMNS

| 1. TYPE | 2. PERFORMED BY |
|---|---|
| **Continuous** – Indicates that a continuous special inspection is required<br><br>**Periodic** – Indicates that a periodic special inspection is required<br><br>**Test** – Indicates that a test is required | **GE (Geotechnical Engineer)** – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.<br><br>**LOR (Laboratory of Record)** – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.<br><br>**PI (Project Inspector) –** Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA.<br><br>**SI (Special Inspection)** – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector. |

# DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

**Table 1705A.6, Table 1705A.7, Table 1705A.8**

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## Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report

| | **S1. GENERAL:** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Verify that:<br>• Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations.<br>• Foundation excavations are extended to proper depth and have reached proper material.<br>• Materials below footings are adequate to achieve the design bearing capacity. | **See Notes** | **PI** | Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth under foundations is not permitted without a geotechnical report. |

| | **S2. SOIL COMPACTION AND FILL:** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Verify use of proper materials, densities and inspect lift thicknesses, placement and compaction during placement of fill. | **Continuous** | **LOR*** | * Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations. |
| ☐ | **b.** Compaction testing. | **Test** | **LOR*** | * Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations. |

| | **S3. DRIVEN DEEP FOUNDATIONS (PILES):** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Verify pile materials, sizes and lengths comply with the requirements. | **Continuous** | **GE*** | * By geotechnical engineer or his or her qualified representative. |
| ☐ | **b.** Determine capacities of test piles and conduct additional load tests as required. | **Test** | **LOR*** | * Under the supervision of the geotechnical engineer. |

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| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| ☐ | **c.** Inspect driving operations and maintain complete and accurate records for each pile. | **Continuous** | **GE*** | * By geotechnical engineer or his or her qualified representative. |
| ☐ | **d.** 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 butt elevations and record any pile damage. | **Continuous** | **GE*** | * By geotechnical engineer or his or her qualified representative. |
| ☐ | **e.** Steel piles. | Provide tests and inspections per STEEL section below. | | |
| ☐ | **f.** Concrete piles and concrete filled piles. | Provide tests and inspections per CONCRETE section below. | | |
| ☐ | **g.** For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge. | * | * | * As defined on drawings or specifications. |

| | **S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Note** |
| ☑ | **a.** Inspect drilling operations and maintain complete and accurate records for each pier. | **Continuous** | **PI** | Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations. |
| ☑ | **b.** Verify pier locations, diameters, plumbness and lengths.Record concrete or grout volumes. | **Continuous** | **PI** | Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations. |
| ☑ | **c.** Concrete piers. | Provide tests and inspections per CONCRETE section below. | | |

# DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

**Table 1705A.6, Table 1705A.7, Table 1705A.8**

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| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
|---|---|---|---|---|
| | **S5. RETAINING WALLS:** | | | |
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Placement, compaction and inspection of backfill. | **Continuous** | **GE*** | **1705A.6.1.** * By geotechnical engineer or his or her qualified representative. (See section S2 above). |
| ☐ | **b.** Placement of soil reinforcement and/or drainage devices. | **Continuous** | **GE*** | * By geotechnical engineer or his or her qualified representative. |
| ☐ | **c.** Segmental retaining walls; inspect placement of units, dowels, connectors, etc. | **Continuous** | **GE*** | * By geotechnical engineer or his or her qualified representative. See DSA IR 18-2. |
| ☐ | **d.** Concrete retaining walls. | Provide tests and inspections per CONCRETE section below. | | |
| ☐ | **e.** Masonry retaining walls. | Provide tests and inspections per MASONRY section below. | | |

| | **S6. OTHER SOILS:** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Soil Improvements | **Test** | **GE*** | Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the confirmation testing and analysis to CGS (California Geological Survey) for final acceptance.<br>* By geotechnical engineer or his or her qualified representative. |
| ☐ | **b.** Inspection of Soil Improvements | **Continuous** | **GE*** | * By geotechnical engineer or his or her qualified representative. |
| ☐ | **c.** | | | |

# DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

**Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13**

| **Application Number:** | **School Name:** | **School District:** |
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| | **C1. CAST-IN-PLACE CONCRETE** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Verify use of required design mix. | **Periodic** | **SI** | **Table 1705A.3 Item 5, 1910A.1.** |
| ☑ | **b.** Identifiy, sample, and test reinforcing steel. | **Test** | **LOR** | **1910A.2;** ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.) |
| ☑ | **c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete. | **Test** | **LOR** | **Table 1705A.3 Item 6**; ACI 318-19 Sections 26.5 & 26.12. |
| ☑ | **d.** Test concrete ($f'_c$). | **Test** | **LOR** | **1905A.1.17;** ACI 318-19 Section 26.12. |
| ☑ | **e.** Batch plant inspection: **Periodic** | **See Notes** | **SI** | Default of **'Continuous'** per **1705A.3.3**. If approved by DSA, batch plant inspection may be reduced to **'Periodic'** subject to requirements in Section **1705A.3.3.1,** or eliminated per **1705A.3.3.2.** See IR 17-13. (See Appendix (end of this form) for exemptions.) |
| ☐ | **f.** Welding of reinforcing steel. | Provide special inspection per STEEL, Category S/A4(d) & (e) and/or S/A5(g) & (h) below. | | |

| | **C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Sample and test prestressing tendons and anchorages. | **Test** | **LOR** | **1705A.3.4, 1910A.3** |
| ☐ | **b.** Inspect placement of prestressing tendons. | **Periodic** | **SI** | **1705A.3.4, Table 1705A.3 Items 1 & 9.** |

| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| ☐ | **c.** Verify in-situ concrete strength prior to stressing of post-tensioning tendons. | **Periodic** | **SI** | **Table 1705A.3 Item 13.** Special inspector to verify specified concrete strength test prior to stressing. |
| ☐ | **d.** Inspect application of post-tensioning or prestressing forces and grouting of bonded prestressing tendons. | **Continuous** | **SI** | **1705A.3.4, Table 1705A.3 Item 9;** ACI 318-14 Section 26.13 |

| | **C3. PRECAST CONCRETE (IN ADDITION TO SECTION C1):** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Inspect fabrication of precast concrete members. | **Continuous** | **SI** | ACI 318-19 Section 26.13. |
| ☐ | **b.** Inspect erection of precast concrete members. | **Periodic** | **SI*** | **Table 1705A.3 Item 10.** * May be performed by PI when specifically approved by DSA. |
| ☐ | **c.** For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category D, E or F, inspect such connections and reinforcement in the field for:<br><br>1. Installation of the embedded parts<br>2. Completion of the continuity of reinforcement across joints.<br>3. Completion of connections in the field. | **Continuous** | **SI** | Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5 |
| ☐ | **d.** Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5. | **Periodic** | **SI** | Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5 |

| | C4. SHOTCRETE (IN ADDITION TO SECTION C1): | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Inspect shotcrete placement for proper application techniques. | **Continuous** | **SI** | **1705A.3.9, Table 1705A.3 Item 7, 1908A.1, 1908A.2, 1908A.3.** See ACI 506.2-13 Section 3.4, ACI 506R-16. |
| ☐ | **b.** Sample and test shotcrete ($f'_c$). | **Test** | **LOR** | **1908A.2, 1705A.3.9** |

| | C5. POST-INSTALLED ANCHORS: | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Inspect installation of post-installed anchors | **See Notes** | **SI*** | **1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13. * May be performed by the project inspector when specifically approved by DSA. |
| ☑ | **b.** Test post-installed anchors. | **Test** | **LOR** | **1910A.5.** (See Appendix (end of this form) for exemptions.) |

| | C6. OTHER CONCRETE: | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** | | | |

# DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

**1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8**

| | | |
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| | **S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Verify identification of all materials and:<br>• Mill certificates indicate material properties that comply with requirements.<br>• Material sizes, types and grades comply with requirements. | **Periodic** | * | **Table 1705A.2.1 Item 3a–3c.** 2202A.1**;** AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site. |
| ☑ | **b.** Test unidentified materials | **Test** | **LOR** | **2202A.1.** |
| ☑ | **c.** Examine seam welds of HSS shapes | **Periodic** | **SI** | DSA IR 17-3. |
| ☑ | **d.** Verify and document steel fabrication per DSA-approved construction documents. | **Periodic** | **SI** | Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**). |
| ☐ | **e.** Buckling restrained braces. | **Test** | **LOR** | Testing and special inspections in accordance with IR 22-4. |

| | **S/A2. HIGH-STRENGTH BOLTS:** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents. | **Periodic** | **SI** | **Table 1705A.2.1 Items 1a & 1b, 2202A.1;** AISC 360-16 Section A3.3, J3.1, and N3.2; RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9. |
| ☐ | **b.** Test high-strength bolts, nuts and washers. | **Test** | **LOR** | **Table 1705A.2.1 Item 1c, 2213A.1**; RCSC 2014 Section 7.2; DSA IR 17-8. |
| ☐ | **c.** Bearing-type ("snug tight") connections. | **Periodic** | **SI** | **Table 1705A.2.1 Item 2a, 1705A.2.6, 2204A.2**; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9. |
| ☐ | **d.** Pretensioned and slip-critical connections. | * | **SI** | **Table 1705A.2.1 Items 2b & 2c, 1705A.2.6, 2204A.2;** AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. *"Continuous" or "Periodic" depends on the tightening method used. |

| | **S/A3. WELDING:** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS. | **Periodic** | **SI** | **1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3. |
| ☑ | **b.** Verify weld filler material manufacturer's certificate of compliance. | **Periodic** | **SI** | DSA IR 17-3. |
| ☑ | **c.** Verify WPS, welder qualifications and equipment. | **Periodic** | **SI** | DSA IR 17-3. |

| | **S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):** | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds. | **Continuous** | **SI** | **Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3. |
| ☑ | **b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds. | **Periodic** | **SI** | **1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3. |
| ☐ | **c.** Inspect welding of stairs and railing systems. | **Periodic** | **SI** | **1705A.2.1**; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. |
| ☐ | **d.** Verification of reinforcing steel weldability other than ASTM A706. | **Periodic** | **SI** | **1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates. |
| ☐ | **e.** Inspect welding of reinforcing steel. | **Continuous** | **SI** | **Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3. |

| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| | **S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):** | | | |
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds. | **Continuous** | **SI** | **Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3. |
| ☑ | **b.** Inspect single-pass fillet welds ≤ 5/16". | **Periodic** | **SI** | **Table 1705A.2.1 Item 5a.5;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3. |
| ☐ | **c.** Inspect end-welded studs (ASTM A-108) installation (including bend test). | **Periodic** | **SI** | **2213A.2**; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3. |
| ☐ | **d.** Inspect floor and roof deck welds. | **Periodic** | **SI** | **1705A.2.2, Table 1705A.2.1 Item 5a.6;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3. |
| ☐ | **e.** Inspect welding of structural cold-formed steel. | **Periodic** | **SI*** | **1705A.2.5; AWS D1.3; DSA IR 17-3.** The quality control provisions of AISI S240-20 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA. |
| ☐ | **f.** Inspect welding of stairs and railing systems. | **Periodic** | **SI*** | **1705A.2.1;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA. |
| ☐ | **g.** Verification of reinforcing steel weldability. | **Periodic** | **SI** | **1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates. |
| ☐ | **h.** Inspect welding of reinforcing steel. | **Continuous** | **SI** | **Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3. |

| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| | **S/A6. NONDESTRUCTIVE TESTING:** | | | |
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☑ | **a.** Ultrasonic | **Test** | **LOR** | **1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2. |
| ☐ | **b.** Magnetic Particle | **Test** | **LOR** | **1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2. |
| ☐ | **c.** | **Test** | **LOR** | |

| | S/A7. STEEL JOISTS AND TRUSSES: | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Verify size, type and grade for all chord and web members as well as connectors and weld filler material; verify joist profile, dimensions and camber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist. | **Continuous** | **SI** | **1705A.2.3, Table 1705A.2.3;** AWS D1.1; DSA IR 22-3 for steel joists only. **1705A.2.4;** AWS D1.3 for cold-formed steel trusses. |

| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| | **S/A8. SPRAYED FIRE-RESISTANT MATERIALS:** | | | |
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA-approved documents. | **Periodic** | **SI** | **1705A.15, 1705A.1, 1705A.2, 1705A.3, 1705A.4.** |
| ☐ | **b.** Test density. | **Test** | **LOR** | **1705A.15.1, 1705A.15.5, ASTM E736** |
| ☐ | **c.** Bond strength adhesion/cohesion. | **Test** | **LOR** | **1705A.15.1, 1705A.15.4, ASTM E605** |

| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| | **S/A9. ANCHOR BOLTS AND ANCHOR RODS:** | | | |
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Anchor Bolts and Anchor Rods | **Test** | **LOR** | Sample and test anchor bolts and anchor rods not readily identifiable per procedures noted in DSA IR 17-11. |
| ☐ | **b.** Threaded rod not used for foundation anchorage. | **Test** | **LOR** | Sample and test threaded rods not readily identifiable per procedures noted in DSA IR 17-11. |

| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| | **S/A10. STORAGE RACK SYSTEMS:** | | | |
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** Materials used, to verify compliance with one or more of the material test reports in accordance with the approved construction documents. | **Periodic** | **SI** | Table 1705A.13.7 |
| ☐ | **b.** Fabricated storage rack elements. | **Periodic** | **SI** | 1704A.2.5; Table 1705A.13.7 |

| | Test or Special Inspection | Type | Performed By | Code References and Notes |
|---|---|---|---|---|
| ☐ | **c.** Storage rack anchorage installation. | **Periodic** | **SI** | ANSI/MH16.1 Section 7.3.2; Table 1705A.13.7 |
| ☐ | **d.** Completed storage rack system to indicate compliance with the approved construction documents. | **Periodic** | **SI*** | Table 1705A.13.7; * May be preformed by the project inspector when specifically approved by DSA. |

| | S/A11. Other Steel | | | |
|---|---|---|---|---|
| | **Test or Special Inspection** | **Type** | **Performed By** | **Code References and Notes** |
| ☐ | **a.** | | | |

# Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

| **Application Number:** | **School Name:** | **School District:** |
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Exempt items given in DSA IR A-22 or the 2019 CBC (including DSA amendments) and those items identified below with a check mark by the design professional are NOT subject to DSA requirements for the structural tests **/** special inspections noted. **Items marked as exempt shall be identified on the approved construction documents**. The project inspector shall verify all construction complies with the approved construction documents.

| | **SOILS:** |
|---|---|
| ☐ | 1. Deep foundations acting as a cantilever footing with a design based on minimum allowable pressures per CBC Table 1806A.2 and without a geotechnical report for the following cases: A) free standing sign or scoreboard, B) cell or antenna towers and poles less than 35'-0" tall (e.g., lighting poles, flag poles, poles supporting open mesh fences, etc.), C) single-story structure with dead load less than 5 psf (e.g., open fabric shade structure), or D) covered walkway structure with an apex height less than 10'-0" above adjacent grade. |
| ☐ | 2. Shallow foundations, etc. are exempt from special inspections and testing by a Geotechnical Engineer for the following cases: A) buildings without a geotechnical report and meeting the exception item #1 criteria in CBC Section 1803A.2 supported by native soil (any excavation depth) or fill soil (not exceeding 12" depth per CBC Section 1804A.6), B) soil scarification/recompaction not exceeding 12" depth, C) native or fill soil supporting exterior non-structural flatwork (e.g., sidewalks, site concrete ramps, site stairs, parking lots, driveways, etc.), D) unpaved landscaping and playground areas, or E) utility trench backfill. |

| | **CONCRETE/MASONRY:** |
|---|---|
| ☐ | 1. Post-installed anchors for the following: A) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see item 7 for "Welding" in the Appendix below) given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) or B) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding" in the Appendix below |
| ☐ | 2. Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section. |
| ☐ | 3. Non-bearing non-shear masonry walls may be exempt from certain DSA masonry testing and special inspection items as allowed per DSA IR 21-1. Refer to construction documents for specific exemptions accordingly for each applicable wall condition. |
| ☐ | 4. Epoxy shear dowels in site flatwork and/or other non-structural concrete. |

# Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

| Application Number: | School Name: | School District: |
|---|---|---|
| 03-123169 | Arroyo High School | El Monte Union High School District |
| **DSA File Number:** | **Increment Number:** | **Date Created:** |
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| | CONCRETE/MASONRY: |
|---|---|
| ☐ | 5. Testing of reinforcing bars is not required for items given in CBC Section 1910A.2 subject to the requirements and limitations in that section. |

| | WELDING: |
|---|---|
| ☐ | 1. Solid-clad and open-mesh fences, gates with maximum leaf span of 10', and gates with a maximum rolling section of 10' all having an apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates/fences are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof. |
| ☐ | 2. Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds shall not be ground flush. |
| ☐ | 3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud. |
| ☐ | 4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections S/A3, S/A4 and/or S/A5 of listing above). |
| ☐ | 5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections S/A3, S/A4 and/or S/A5 of listing above). |
| ☐ | 6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for sections S/A3, S/A4 and/or S/A5 located in the Steel/Aluminum category of listing above). |
| ☐ | 7. Any support for exempt non-structural components given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) meeting the following: A) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) ≤4' above supporting floor/roof, B) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems. |

# DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS(SIGNATURE), 2022 CBC

| | | |
|---|---|---|
| **Application Number:** 03-123169 | **School Name:** Arroyo High School | **School District:** El Monte Union High School District |
| **DSA File Number:** 19-H10 | **Increment Number:** | **Date Created:** 2023-04-03 09:41:16 |

**Name of Architect or Engineer in general responsible charge:**

**Name of Structural Engineer (When structural design has been delegated):** Robert Randall, S.E.

**Signature of Architect or Structural Engineer:** Date: 4/3/2023

**Note:** To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends against using secured electronic or digital signatures.

## DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123169 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 08/22/2023

# DSA 103-22: LIST OF REQUIRED VERIFIED REPORTS, CBC 2022

| Application Number: | School Name: | School District: |
|---|---|---|
| 03-123169 | Arroyo High School | El Monte Union High School District |
| **DSA File Number:** | **Increment Number:** | **Date Created:** |
| 19-H10 | | 2023-04-03 09:41:16 |

1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
2. Concrete Batch Plant Inspection: Laboratory Verified Report Form DSA 291
3. Post-installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
5. Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292