

# DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

## Table 1705A.3; ACI 318-14 Sections 26.12 & 26.13

**Application Number:** 03-120869

**School Name:** La Mirada High School

**School District:** Norwalk La Mirada  
Unified School District

**DSA File Number:** 19-H15

**Increment Number:**

**Date Submitted:** 7/15/2020

7. CAST-IN-PLACE CONCRETE				
Material Verification and Testing:				
	Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/>	a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1.
<input checked="" type="checkbox"/>	b. Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2; ACI 318-14 Section 26.6.1.2; DSA IR 17-10. (See Appendix for exemptions.)
<input checked="" type="checkbox"/>	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 318-14 Sections 26.5 & 26.12.
<input checked="" type="checkbox"/>	d. Test concrete ( $f_c$ ).	Test	LOR	1905A.1.15; ACI 318-14 Section 26.12.
Inspection:				
<input checked="" type="checkbox"/>	e. Batch plant inspection: <b>Periodic</b>	See Notes	SI	Default of ' <b>Continuous</b> ' per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to ' <b>Periodic</b> ' subject to requirements in Section 1705A.3.3.1, or eliminated per 1705A.3.3.2. (See Appendix for exemptions.)
<input checked="" type="checkbox"/>	f. Welding of reinforcing steel.	Provide special inspection per STEEL, Category 19.1(d) & (e) and/or 19.2(g) & (h) below.		

8. PRESTRESSED / POST-TENSIONED CONCRETE (in addition to Cast-in-Place Concrete tests and inspections):				
	Test or Special Inspection	Type	Performed By	Code References and Notes
<input type="checkbox"/>	a. Sample and test prestressing tendons and anchorages.	Test	LOR	1705A.3.4, 1910A.3
<input type="checkbox"/>	b. Inspect placement of prestressing tendons.	Periodic	SI	1705A.3.4, Table 1705A.3 Items 1 & 9.

# DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

## Table 1705A.3; ACI 318-14 Sections 26.12 & 26.13

<b>Application Number:</b> 03-120869	<b>School Name:</b> La Mirada High School	<b>School District:</b> Norwalk La Mirada Unified School District
<b>DSA File Number:</b> 19-H15	<b>Increment Number:</b>	<b>Date Submitted:</b> 7/15/2020

<input type="checkbox"/>	<b>c.</b> Verify in-situ concrete strength prior to stressing of post-tensioning tendons.	<b>Periodic</b>	<b>SI</b>	<b>Table 1705A.3 Item 11.</b> Special inspector to verify specified concrete strength test prior to stressing.
<input type="checkbox"/>	<b>d.</b> Inspect application of post-tensioning or prestressing forces and grouting of bonded prestressing tendons.	<b>Continuous</b>	<b>SI</b>	<b>1705A.3.4, Table 1705A.3 Item 9;</b> ACI 318-14 Section 26.13

<b>9. PRECAST CONCRETE (in addition to Cast-in-Place Concrete tests and inspections):</b>				
	<b>Test or Special Inspection</b>	<b>Type</b>	<b>Performed By</b>	<b>Code References and Notes</b>
<input type="checkbox"/>	<b>a.</b> Inspect fabrication of precast concrete members.	<b>Continuous</b>	<b>SI</b>	ACI 318-14 Section 26.13.
<input type="checkbox"/>	<b>b.</b> Inspect erection of precast concrete members.	<b>Periodic</b>	<b>SI*</b>	<b>Table 1705A.3 Item 10.</b> * May be performed by PI when specifically approved by DSA.

<b>10. SHOTCRETE (in addition to Cast-in-Place Concrete tests and inspections):</b>				
	<b>Test or Special Inspection</b>	<b>Type</b>	<b>Performed By</b>	<b>Code References and Notes</b>
<input type="checkbox"/>	<b>a.</b> Inspect shotcrete placement for proper application techniques.	<b>Continuous</b>	<b>SI</b>	<b>1705A.19, Table 1705A.3 Item 7, 1908A.6, 1908A.7, 1908A.8, 1908A.9, 1908A.11, 1908A.12.</b> See ACI 506.2-13 Section 3.4, ACI 506R-16.
<input type="checkbox"/>	<b>b.</b> Sample and test shotcrete ( $f'_c$ ).	<b>Test</b>	<b>LOR</b>	<b>1908A.5, 1908A.10.</b>

<b>11. POST-INSTALLED ANCHORS:</b>				
	<b>Test or Special Inspection</b>	<b>Type</b>	<b>Performed By</b>	<b>Code References and Notes</b>
<input checked="" type="checkbox"/>	<b>a.</b> Inspect installation of post-installed anchors	<b>See Notes</b>	<b>SI*</b>	<b>1617A.1.19, Table 1705A.3 Item 4a (Continuous) &amp; 4b (Periodic), 1705A.3.8</b> (See Appendix for exemptions). ACI 318-14

**DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC**

**Table 1705A.3; ACI 318-14 Sections 26.12 & 26.13**

<b>Application Number:</b> 03-120869	<b>School Name:</b> La Mirada High School	<b>School District:</b> Norwalk La Mirada Unified School District
<b>DSA File Number:</b> 19-H15	<b>Increment Number:</b>	<b>Date Submitted:</b> 7/15/2020

				Sections 17.8 & 26.13. * May be performed by the project inspector when specifically approved by DSA.
<input checked="" type="checkbox"/>	<b>b.</b> Test post-installed anchors.	<b>Test</b>	<b>LOR</b>	<b>1910A.5.</b> (See Appendix for exemptions.)

<b>12. OTHER CONCRETE:</b>				
	<b>Test or Special Inspection</b>	<b>Type</b>	<b>Performed By</b>	<b>Code References and Notes</b>
<input type="checkbox"/>				

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

**Application Number:** 03-120869

**School Name:** La Mirada High School

**School District:** Norwalk La Mirada

Unified School District

**DSA File Number:** 19-H15

**Increment Number:**

**Date Submitted:** 7/15/2020

Exempt items given in DSA IR A-22 or the 2019 CBC (including DSA amendments) and those items identified below with an "X" 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.

	<b>SOILS:</b>
<input type="checkbox"/>	1. Deep foundations acting as a cantilever footing designed based on minimum allowable pressures per CBC Table 1806A.2 and having no 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.
<input type="checkbox"/>	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.

	<b>CONCRETE/MASONRY:</b>
<input type="checkbox"/>	1. Post-installed anchors for the following: A) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see Item 7 for "Welding") 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."
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input type="checkbox"/>	4. Epoxy shear dowels in site flatwork and/or other non-structural concrete.
<input type="checkbox"/>	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.

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

Application Number: 03-120869

School Name: La Mirada High School

School District: Norwalk La Mirada

Unified School District

DSA File Number: 19-H15

Increment Number:

Date Submitted: 7/15/2020

	<b>Welding:</b>
<input type="checkbox"/>	1. Solid-clad and open-mesh gates with maximum leaf span or rolling section for rolling gates of 10' and apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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 19, 19.1 and/or 19.2 of listing above).
<input type="checkbox"/>	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 19, 19.1 and/or 19.2 of listing above).
<input type="checkbox"/>	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 section 19, 19.1 and/or 19.2 located in the Steel/Aluminum category).
<input type="checkbox"/>	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 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SIGNATURE), 2019 CBC

**Application Number:** 03-120869

**School Name:** La Mirada High School

**School District:** Norwalk La Mirada  
Unified School District

**DSA File Number:** 19-H15

**Increment Number:**

**Date Submitted:** 7/15/2020

Name of Architect or Engineer in general responsible charge:

Name of Structural Engineer (When structural design has been delegated):

Signature of Architect or Structural Engineer:

Date:

**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: 03-120869 INC:	
REVIEWED FOR	
SS <input checked="" type="checkbox"/>	FLS <input checked="" type="checkbox"/> ACS <input checked="" type="checkbox"/>
DATE: 11/25/2020	

## DSA 103-19: LIST OF REQUIRED VERIFIED REPORTS, 2019 CBC

---

**Application Number:** 03-120869

**School Name:** La Mirada High School

**School District:** Norwalk La Mirada  
Unified School District

**DSA File Number:** 19-H15

**Increment Number:**

**Date Submitted:** 7/15/2020

---

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
-