# SPECIAL INSPECTIONS AND TESTING STRUCTURAL OBSERVATION AGREEMENT

Community Development
701 Laurel St., Menlo Park, CA 94025
tel 650-330-6704

CITY OF MENLO PARK

| **Information** | |
|---|---|
| Project name: | Building permit #: |
| Project address: | |

The owner, engineer or architect of record acting as the owner's agent, shall complete two copies of this agreement and the attached structural tests and inspections schedule including the required acknowledgements. A preconstruction conference with the parties involved may be required to review the special inspection requirements and procedures.

Each special inspector must be approved before performing any duties and submit their qualifications to the building department. The special inspector will be subject to a personal interview for prequalification and display approved identification, as stipulated by the building department, when performing the function of a special inspector.

Special inspection and testing shall meet the minimum requirements of Cal. Code Regs. Tit. 17, (2021).

**Special inspector duties and responsibilities**

1. Observe work and report nonconforming items
   - The special inspector shall observe all work for conformance with the building department approved (stamped) design drawings and specifications and applicable workmanship provisions of the 2022 California Building Code.
   - The special inspector must be on-site at all times observing the work requiring special inspection.
   - Periodic inspections must have prior approval by the building department based on a separate written plan that is reviewed and approved by the building department and the project engineer or architect.
   - The special inspector shall bring nonconforming items to the immediate attention of the contractor and note all such items in the daily report. If any item is not resolved in a timely manner or is about to be incorporated in the work, the special inspector shall immediately notify the building department by telephone or in person, notify the engineer or architect, and post a discrepancy notice.
2. Reports
   - On request, each special inspector shall complete and sign both the special inspection record and the daily report form for each day's inspections to remain at the jobsite with the contractor for review by the building department's inspector.
   - The special inspector of inspection agency shall furnish weekly reports of tests and inspections directly to the building department instead, project engineer or architect, and others as designated. These reports must include the following:
     - Description of daily inspections and tests made with applicable locations
     - Listing of all nonconforming items
     - Report on how nonconforming items were resolved or unresolved as applicable
     - Itemized changes authorized by the architect, engineer and building department if not included in nonconformance items
   - The special inspector or inspection agency shall submit a final signed report to the building department stating that all items were fulfilled and reported and, to the best of his/her knowledge, in conformance with the approved design drawings, specifications, approved change orders and the applicable workmanship provisions of the 20 California Building Code. Items not in conformance, unresolved items, or any discrepancies in inspection coverage (i.e. missed inspections, periodic inspections when continuous was required, etc.) shall be specifically itemized in this report.

| **Contractor responsibilities** |
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| 1. Notify the special inspector or agency regarding individual inspections for items listed on the attached schedule and as noted on the building department approved plan. Adequate notice shall be provided so that the special inspector has time to become familiar with the project.<br>2. Provide the special inspector access to approved plans at the jobsite.<br>3. Retain the special inspection records and provide for review by the building department's inspector upon request. |
| **Building Division** |
| 1. Approve special inspection: The building department shall approve all special inspectors and special inspection requirements.<br>2. Monitor special inspection: Work requiring special inspection and the performance of special inspectors shall be monitored by the building department's inspector. His/her approval must be obtained before placement of concrete or other similar activities in addition to that of the special inspector.<br>3. Issue certificate of occupancy: The building department may issue a Certificate of Occupancy after all special inspection reports and the final report have been submitted and accepted. |
| **Acknowledgements** |
| I have read and agree to comply with the terms and conditions of this agreement. |

| | |
|---|---|
| Owner name | Owner signature |
| Contractor name | Contractor signature |
| Special inspector/Inspection agency name | Special inspector signature |
| Architect or Project Engineer name | Architect or Project Engineer signature |

| **OFFICE USE ONLY:** | |
|---|---|
| Staff name: | Date: |
| Approval recommended: | Not recommended: |

**Special inspection tasks**

The below are the special inspection tasks, use this key to interpret the following:
C: Indicates continuous inspection required
P: Indicates periodic inspections are required. The notes and or contract documents should clearly clarify
I: Required inspection to be performed under this permit per the registered design professional
X: Is placed in the appropriate column to denote either “C” continuous or “P” periodic inspections
R: Review and approve document
G: In accordance with the Geotechnical report or document approved by the Building Official

| TASK | C | P | I |
|---|---|---|---|
| **Steel** | | | |
| 1. Material verification of high-strength bolts, nuts and washers | | | |
| Identification markings to conform to ASTM standards specified in the approved construction documents | | X | |
| Manufacturer’s certificate of compliance required | | X | |
| 2. Inspection of high-strength bolting | | | |
| Bearing-type connections | | X | |
| Slip-critical connections: Turn of the nut or twist-off | | X | |
| Slip-critical connections: Calibrated wrench | X | | |
| 3. Material verification of structural steel | | | |
| Identification markings to conform to ASTM standards specified in the approved construction documents | | R | |
| Manufacturer’s certified mill test reports | | R | |
| 4. Material verification or weld filler materials | | | |
| Identification markings to conform to AWS designation listed in the WPS | | R | |
| Manufacturer’s certificate of compliance required | | R | |
| 5. Inspection of welding (Shop or Field) | | | |
| Structural steel: Complete and partial penetration groove welds | X | | |
| Structural steel: Multipass fillet welds | X | | |
| Structural steel: Single-pass fillet welds > 5/16” | X | | |
| Structural steel: Single-pass fillet welds < 5/16” | | X | |
| Structural steel: Floor and roof deck welds | | X | |
| Structural steel: Welded studs when used for structural diaphragms | | X | |
| Structural steel: Welding of cold-formed sheet steel framing members (studs and joists) | | X | |
| Structural steel: Welding of stairs and railing systems | | X | |

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| | Reinforcing Steel: Verification of weldability of reinforcing of reinforcing steel other than ASTM A706 | | X | |
| | Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and Boundary elements of special reinforced concrete shear walls, and shear reinforcement | X | | |
| | Reinforcing steel: Shear reinforcement | X | | |
| | Other reinforcing steel | | X | |
| | Inspection of steel frame joint details for compliance with approved construction documents: Bracing and stiffening | | X | |
| | Inspection of steel frame joint details for compliance with approved construction documents: Member locations | | X | |
| | Inspection of steel frame joint details for compliance with approved construction documents: Application of joint details at each connection | | X | |
| | Post installed with concrete anchors: Mechanical anchor bolts | X | | |
| | Post installed with concrete anchors: Adhesive anchor bolts | X | | |
| **Concrete** | | | | |
| 1. | Inspection of reinforcing steel, including prestressing tendons and placement | | X | |
| 2. | Inspection of reinforcing steel welding | | | |
| | Complete and partial penetration of groove welds | X | | |
| | Multipass fillet welds | X | | |
| | Single-pass fillet welds > 5/16” | X | | |
| | Single-pass fillet welds < 5/16” | | X | |
| 3. | Inspect bolts to be installed in concrete before and during placement of concrete where allowable loads have been increased | X | | |
| 4. | Verifying use of required design mix | | X | |
| 5. | Concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete | X | | |
| 6. | Inspection of concrete and shotcrete placement for proper application techniques | X | | |
| 7. | Inspection for maintenance of specified curing temperature and techniques | | X | |
| 8. | Inspection of prestressed concrete | | | |
| | Application of prestressing forces | X | | |
| | Grouting of bonded prestressing tendons in the seismic force-resisting system | X | | |
| | Application of prestressing forces | X | | |
| | Grouting of bonded prestressing tendons in the seismic force-resisting system | X | | |
| 9. | Erection of precast concrete members | | X | |

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|---|---|---|---|
| 10. Verification of in-situ concrete strength, before stressing of tendons in posttensioned concrete and before removal of shores and forms from beams and structural slabs | | X | |
| 11. Erection of precast concrete members | | X | |
| 12. Verification of in-situ concrete strength, before stressing of tendons in posttensioned concrete and before removal of shores and forms from beams and structural slabs | | X | |
| 13. Inspect formwork for shape, location, and dimensions of the concrete member being formed | | X | |
| **Masonry level 1 inspections** | | | |
| 1. At the start of masonry construction verify the following to ensure compliance | | | |
| Proportions of site-prepared mortar | | X | |
| Construction of mortar joints | | X | |
| Location of reinforcement, connectors, prestressing tendons and anchorages | | X | |
| Prestressing technique | | X | |
| Grade and size of prestressing tendons and anchorages | | X | |
| 2. Verify | | | |
| Size and location of structural elements | | X | |
| Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction | | X | |
| Specified size, grade and type of reinforcement | | X | |
| Welding of reinforcing bars | X | | |
| Protection of masonry during cold weather (temperature below 40 degrees F) or hot weather (temperature above 90 degrees F) | | X | |
| Application and measurement of prestressing force | | X | |
| 3. Before grouting verify the following to verify compliance | | | |
| Grout space is clean | | X | |
| Placement of reinforcement and connectors and prestressing tendons and anchorages | | X | |
| Proportions of site-prepared grout and prestressing grout for bonded tendons | | X | |
| Construction of mortar joints | | X | |
| 4. Verify | | | |
| Grout placement to ensure compliance with code and construction documents | X | | |
| Observe grouting of prestressing bonded tendons | X | | |
| 5. Observe preparation of required grout specimens, mortar specimens, and/or prisms | X | | |
| 6. Verify compliance with required inspection provisions of the construction documents and the approved submittals | | X | |

| **Masonry level 2 inspections** | | | |
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| 1. From the beginning of masonry construction the following shall be verified to ensure compliance | | | |
| Proportions of site-prepared mortar, grout, and prestressing grout for bonded tendons | | X | |
| Placement of masonry units and construction of mortar joints | | X | |
| Placement of reinforcement, connectors and prestressing tendons and anchorages | | X | |
| Grout space prior to grouting | X | | |
| Placement of grout | X | | |
| Placement of prestressing grout | X | | |
| 2. Verify | | | |
| Size and location of structural elements | | X | |
| Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames and other construction | X | | |
| Specified size, grade and type of reinforcement | | X | |
| Welding of reinforcing bars | X | | |
| Protection of masonry during cold weather (temperature below 40 degrees F) or hot weather (temperature above 90 degrees F) | | X | |
| Application of measurement of prestressing force | X | | |
| 3. Preparation of any required grout specimens, mortar specimens, and/or prisms shall be observed | X | | |
| 4. Compliance with required provisions of construction documents and the approved submittals shall be verified | | X | |
| **Wood (blocked diaphragms)** | | | |
| 1. Verify grade and thickness of sheathing | | X | |
| 2. Verify nominal size of framing members at adjoining panel edges | | X | |
| 3. Verify nail or staple diameter and length | | X | |
| 4. Verify number of fastener lines | | X | |
| 5. Verify spacing between fasteners in each line and at edge margins | | X | |
| **Soils** | | | |
| 1. Verify materials below footings are adequate to achieve the desired bearing capacity | | X | |
| 2. Verify excavations are extended to proper depth and have reached proper material | | X | |
| 3. Perform classification and testing of controlled fill materials | | X | |
| 4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill | X | | |

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| 5. Before placement of controlled fill, observe subgrade and verify that site has been prepared properly | | X | |
| **Pile foundations** | | | |
| 1. Verify pile materials, sizes and lengths comply with the requirements | X | | |
| 2. Determine capacities of test piles and conduct additional load tests, as required | X | | |
| 3. Observe driving operations and maintain complete and accurate records for each pile | X | | |
| 4. Verify locations of piles and their plumbness | G | | |
| Confirm type and size of hammer | G | | |
| Record number of blows per foot of penetration | G | | |
| Determine required penetrations to achieve design capacity | G | | |
| Record tip and butt elevations and record any pile damage | G | | |
| **Pier foundations** | | | |
| 1. Observe drilling operations and maintain complete and accurate records for each pier | X | | |
| 2. Verify locations of piers and their plumbness - confirm | X | | |
| Pier diameters | X | | |
| Bell diameters (if applicable) | X | | |
| Lengths, embedment into bedrock (if applicable) | X | | |
| Adequate end strait bearing capacity | X | | |
| **Sprayed fire resistant materials 1705.14** | | | |
| 1. Inspect surface for accordance with the approved fire-resistance design before application | | X | |
| 2. Approved manufacturer’s written instructions | R | | |
| 3. Verify minimum ambient temperature before and after application | | X | |
| 4. Verify ventilation of area during and after application | | X | |
| 5. Measure average thickness per ASTM E605 and Section 1705.14.4.1 | | X | |
| 6. Verify density of material for conformance with the approved fire-resistant design and ASTM E605 1705.14.5 | | X | |
| 7. Test cohesive/adhesive bond strength per Section 1705.14.6 | | X | |
| **Seismic resistance 1705.12.1.1** | | | |
| 1. Exterior wall panel and their anchorage | | X | |
| 2. Suspended ceiling system and their anchorage | | X | |
| 3. Special inspection for welding in accordance with AISC 341 | X | | |

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|---|---|---|---|
| 4. Exterior wall panel and their anchorage | | X | |
| 5. Suspended ceiling system and their anchorage | | X | |
| 6. Special inspection for welding in accordance with AISC 341 | X | | |
| 7. Structural wood – 1705.11.1 (fasteners ≤ 4" O.C) | | | |
| Field gluing operations of elements of the seismic-force-resisting system | X | | |
| Nailing, bolting, anchoring, and other fastening of components within the seismic forceresisting system including wood shear walls, wood diaphragms, drag struts and braces, shear panels, hold downs | | X | |
| 8. Cold-formed steel framing – 1705.11.2 | | | |
| Welding of elements of the seismic-force resisting system | | X | |
| Inspection of screw attachments, bolting, anchoring, and other fastening of components within the seismic-force-resisting system including struts, braces and hold-downs | | X | |
| 9. Pier foundations – 1705.8 | | | |
| Welding of elements of the seismic-force resisting system | | X | |
| Inspection of screw attachments, bolting, anchoring, and other fastening of components within the seismic-force-resisting system including struts, braces and hold-downs | X | | |
| 10. Steel storage racks 8 ft or greater in height – 1705.12.7 | | X | |
| 11. Access floor and their anchorage – 1705.12.5.1 | | X | |
| 12. Architectural components – 1705.12.5 | | | |
| Inspect erection and fastening of exterior cladding weighing more than 5 psf. | | X | |
| Inspect erection and fastening of interior non-bearing walls weighing more than 15 psf. | | X | |
| Inspect erection and fastening of interior and exterior veneer at seismic category D.E.F. | | X | |
| 13. Mechanical and electrical components – 1705.12.6 | | | |
| Inspect anchorage of electrical equipment for emergency or stand-by power systems | | X | |
| Inspect anchorage of non-emergency electrical equipment | | X | |
| Inspect installation of piping systems and associated mechanical units carrying flammable, combustible or highly toxic contents | | X | |
| Inspect installation of HVAC ductwork that contains hazardous materials | | X | |
| Inspect installation of vibration isolation systems where required | | X | |
| 14. Seismic isolation system per section 1705.12.8 | R | | |
| 15. Masonry seismic – 1705.4 | | X | |
| **Other inspection tasks** | | | |
| 1. Inspect fabricator's fabrication and quality control procedures | R | R | |

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|---|---|---|---|
| 2. Mastic and intumescent fire-resistant coating 1705.15 | | X | |
| 3. Exterior insulation and finish systems (eifs) 1705.16 | | X | |
| 4. Smoke control system 1705.18 | | X | |
| 5. Seismic resistance -1705.12.1.1 | | X | |
| 6. Epoxy anchors in tension (ESR 2508, 2322) | | X | |
| 7. Mechanical expansion anchors (ESR 1917) | | X | |
| | | | |

# RECOGNIZED SPECIAL INSPECTION AND TESTING AGENCIES

Community Development
701 Laurel St., Menlo Park, CA 94025
tel 650-330-6704

CITY OF MENLO PARK

| Name | Address | Phone/fax | Reinforced concrete | Prestressed/ posttensioned concrete | Structural masonry | Structural steel welding/ bolting | Spray-applied fireproofing | Unreinforced masonry push/torque tests only |
|---|---|---|---|---|---|---|---|---|
| Abstract Engineering Inc. | 19072 Taylor Avenue Morgan Hill, CA 950372719 USA | 408-726-1863 | Special electrical inspector for unlisted equipment only | | | | | |
| Achievement Engineering Corp | 1145 S Third Street San Jose, CA 95112 | 408-217-9174 408-217-9632 | X | X | X | X | X | X |
| Advanced Testing & Inspection.LLC* | 540 Brunken Avenue, Suite B Salinas, CA 93901 | 888-499-9979 831-597-2004 | X | X | X | X | X | X |
| Alta Vista Solutions | 3260 Blume Drive, Ste. 500 Richmond, CA 94806 | 510-594-0510 510-594-0511 | X | X | X | X | | X |
| Applied Materials & Engineering, Inc. | 980 41st Oakland, CA 94608 | 510-420-8190 510-420-8186 | X | X | X | X | X | |
| Aries Engineering, Inc. | PO Box 23742, San Jose, CA 95153 | 408-634-0087 | X | | | x | | |
| Berlogar Geotechnical Consultants | 5587 Sunol Blvd. Pleasanton, CA 94566 | 925-484-0220 925-846-9645 | X | X | | | | |
| Biggs Cardosa Associates, Inc.* | 1871 The Alameda, Ste. 200 San Jose, CA 95126 | 408-296-5515 408-296-8114 | X | X | X | X | | X |

| Name | Address | Phone/fax | Reinforced concrete | Prestressed/ posttensioned concrete | Structural masonry | Structural steel welding/ bolting | Spray-applied fireproofing | Unreinforced masonry push/torque tests only |
|---|---|---|---|---|---|---|---|---|
| B.S.K. Associates | 324 Earhart Way<br>Livermore, CA 94551 | 925-315-3151<br>925-315-3152 | X | | X | X | X | X |
| Capex Engineering, Inc. | 74 Shanico Common<br>Fremont, CA 94538 | 510-668-1815<br>510-490-8690 | X | X | X | X | X | X |
| Consolidated Engineering Labs | 7060 Koll Center Parkway #300<br>Pleasanton, CA 94566-3108 | 925-485-5000<br>925-485-5018 | X | X | X | X | X | X |
| Construction Materials Testing, Inc. | 2278-F Pike Court<br>Concord, CA 94520-1252 | 925-825-2840<br>925-682-7953 | X | X | X | X | X | X |
| Construction Testing Services | 2142 Rheem Drive, Ste. E<br>Pleasanton, CA 94566 | 925-462-5151<br>925-462-5183 | X | X | X | X | X | X |
| Construction Testing & Engineering, Inc. | 46716 Fremont Blvd.<br>Fremont, CA 94538 | 510-573-6362<br>510-573-6684 | X | X | X | X | X | X |
| Earth Systems Consultants | 47853 Warm Springs Blvd.<br>Fremont, CA 94539-7400 | 510-353-0320<br>510-353-0344 | X | X | X | X | X | X |
| ENGEO Incorporated | 2401 Crow Canyon Road, Ste 200<br>San Ramon, CA 94583-1545 | 925-838-1600<br>925-838-7425 | X | X | X | X | X | X |
| Forsythe Engineering Consultants* | 1760 Industrial Way, Ste. 1<br>Napa, CA 94558 | 707-259-1292<br>707-259-1393 | | | | X | X | X |
| HP Inspections | 690 Sunol St., Bld H<br>San Jose, CA 95126 | 408-287-7722<br>408-271-0902 | X | X | X | X | X | X |
| Inspection Services Inc. | 1798 University Ave.<br>Berkeley, CA 94703 | 510-900-2100<br>510-900-2101 | X | X | X | X | X | X |

| Name | Address | Phone/fax | Reinforced concrete | Prestressed/ posttensioned concrete | Structural masonry | Structural steel welding/ bolting | Spray-applied fireproofing | Unreinforced masonry push/torque tests only |
|---|---|---|---|---|---|---|---|---|
| KC Engineering Co. | 865 Cotting Lane, Suite A<br>Vacaville, CA 95688 | 707-447-4025<br>707-447-4143 | X | X | X | X | | X |
| Kleinfelder Inc. | 7133 Koll Ctr. Pkwy #100<br>Pleasanton, CA 94566 | 925-484-1700<br>925-484-5838 | X | X | X | X | X | X |
| Korbmacher Engineering Inc. | 480 Preston Court, Suite B<br>Livermore, CA 94551 | 925-454-9033<br>925-454-9564 | X | X | X | X | X | |
| Krazan and Associates Inc. | 545 Parrott St.<br>San Jose, CA 95112 | 408-271-2200<br>408-271-2201 | X | X | X | X | X | X |
| Nicholas Engineering Consultants* | 6743 Dublin Blvd. #15<br>Dublin, CA 94568 | 925-829-8090<br>925-829-0235 | X | X | X | X | X | X |
| Ninyo & Moore | 675 Hegenberger Rd., Ste. 220<br>Oakland, CA 94621 | 510-633-5640<br>510-633-5646 | X | X | X | X | X | |
| Norcon | 470 3rd St. Suite 105<br>San Francisco, CA 94107 | 415-692-0519<br>833-667-2661 | X | X | X | X | X | |
| PSC Associates Inc. | 1185 Terra Bella<br>Mountain View, CA 94043 | 650-969-1144<br>650-969-5523 | X | X | X | X | X | X |
| PSI | 365 Victor St., Ste. C<br>Salinas, CA 93907 | 831-757-3536<br>831-757-6265 | X | X | X | X | X | X |
| RES Engineers, Inc. | 150 N. Wiget Lane, Ste. 204<br>Walnut Creek, CA 94598-2434 | 925-932-4600<br>925-932-4625 | X | X | X | X | X | X |
| Signet Testing Laboratories Inc. | 3526 Breakwater Ct.<br>Hayward, CA 94545 | 510-887-8484<br>510-880-8090 | X | X | X | X | X | X |
| Smith-Emery San Francisco | 1940 Oakdale Avenue<br>San Francisco, CA 94124 | 415-642-7326<br>415-642-7055 | X | X | X | X | X | X |

| Name | Address | Phone/fax | Reinforced concrete | Prestressed/ posttensioned concrete | Structural masonry | Structural steel welding/ bolting | Spray-applied fireproofing | Unreinforced masonry push/torque tests only |
|---|---|---|---|---|---|---|---|---|
| Sina Hooshdar | 10566 S. De Anza Blvd<br>Cupertino, CA 95014 | 408-366-1000<br>408-366-1100 | Special soils inspections only | | | | | |
| Terrasearch Inc. | 6840 Via Del Oro, #110<br>San Jose, CA 95119 | 408-362-4920<br>408-362-4926 | X | X | X | X | X | X |
| Testing Engineers Inc. | 2811 Teagarden St.<br>San Leandro, CA 94577 | 510-835-3142<br>510-834-3777 | X | X | X | X | X | X |
| Twining Laboratories, Inc. | 2527 Fresno St.<br>Fresno, CA 93721 | 559-268-7021<br>559-268-7126 | X | X | X | X | X | X |
| *Agency subcontracts laboratory services.<br><br>Agencies have not been evaluated for geotechnical special inspection or for nondestructive testing.<br>Agencies may not be qualified to perform all aspects of special inspection. Agencies may have offices in more than one location. Other agencies may be approved by local jurisdictions. | | | | | | | | |