



City of San Clemente Engineering Division

Pre-grade Meeting Handout

To Schedule the Mandatory Pre-grade Meeting:

1. Acquire necessary City permits and pay all applicable fees. Do not attempt to schedule a pre-grade meeting until you have physically acquired the permit(s).
2. Call (949) 361-6131 and leave a message requesting a call back to schedule a pre-grade meeting. Leave your name, telephone number, address of the site, permit number(s) and proposed meeting date.
3. An Engineering Inspector will return your call to discuss meeting time availability and any necessary or additional requirements for the meeting.
4. Leave a confirmation message at (949) 361-6131 the day before the scheduled meeting. Engineering Inspector must confirm any changes of date or time of meeting.

Personnel Required to Attend the Pre-grade Meeting:

1. City Engineering Inspector.
2. Engineer of record or person who drew the grading plans listed on the permit.
3. Owner of the lot.
4. Soils engineer and/or engineering geologist listed on the grading permit.
5. Grading contractor.
6. Archeologist and paleontologist when applicable.
7. Other contractors and/or other utility representatives as designated by the engineering inspector. All subcontractors shall be advised of items reviewed at pre-grade by the owner/general contractor. Please provide copies of this handout to any and all subcontractors retained for work on the subject property.

Information Needed at the Pre-grade Meeting:

1. Original copy of the grading permit (rough or precise) and all applicable permits including Coastal.
2. Original copy of grading plan signed and stamped by the City Engineer.
3. Copy of the original approved and stamped soils report. (Copy given to Inspector).
4. Original copy of any encroachment permit for, but not limited to, sidewalks, driveway approaches, water services, sewer tie-ins, fire services, other utilities, curbs and gutters.
5. Copy of current OSHA permit for project if any vertical cuts of over five feet (5') are proposed. For wall building purposes, measurement is taken from bottom of footing.
6. If any vertical cuts over five feet (5') are proposed, a shoring plan must be presented and approved by the City Engineer prior to the commencement of any excavation where a vertical cut of five feet (5') may be produced.
7. A list of 24-hour emergency phone numbers of responsible parties related to the project and a proposed grading schedule is to be given to the engineering inspector.

Information/Equipment Required Prior to Commencement of Grading Operations:

1. Neighbors are to be advised in writing of the proposed grading operation at least two (2) days prior to the commencement of grading operations.
2. Adjacent properties and/or improvements are to be photographed and/or video documented by owner and/or contractor prior to commencement of grading operations.
3. Port-a-can to be installed on-site with sink or hand-sanitizer as required by Health Code and OSHA.
4. Erosion control devices must be installed on-site between the dates of October 15 and April 15. Any other 40% forecast of rain at anytime of the year will require that adequate erosion control devices be on hand for immediate placement for erosion control and storm water management.
5. Owner/contractor shall take the necessary steps to provide any and all traffic control per current W.A.T.C.H. manual standards or better or as directed by the City Engineer, the approved traffic control plan or the engineering inspector. The engineering inspector and/or law enforcement may require placement of additional traffic control devices and/or utilization of contractor's labor force at their discretion. All costs for traffic control shall be at the owner/contractor's expense.
6. Owner/contractor shall take the necessary steps to maintain the streets and sidewalks in a clean and safe manner per current Greenbook Standards.
7. **OSHA/CAL-OSHA standing safety orders shall be in force at all times.**
8. The job site shall be fenced.
9. **Grading working hours are: Monday through Friday, 7:30 a.m. to 5:30 p.m.** There shall be no Saturday work unless an overtime inspection permit has been acquired from the City will all applicable fees paid at least two (2) days before the overtime work will be commenced. There shall be no work on Sundays. Other permit restrictions may apply.
10. **Any request call for engineering inspection shall be made to (949) 361-6131.** Please call for inspection at least one calendar day prior to the requested inspection. Please request either a morning or afternoon inspection. Do not proceed with work past an inspection point without proper inspection. Any subsequent work is subject to rejection. Photographs and/or Deputy Inspector reports of course-of-construction are not considered a substitute for City inspection.
11. **Owner/contractor shall maintain the current City-stamped approved set of plans and permits on site at all times during the course of construction.** Owner/contractor shall take the necessary steps to ensure that the subject property and any improvements are constructed only from the approved set of plans. **Any proposed changes to approved plans must be approved and stamped by the City prior to implementation in the field.**
12. Correction Notices and Stop Work Notices may be issued from time to time by both the engineering and/or building inspectors. Do not disregard such notices.

Some Items of Concern to Avoid Stoppage of all Work and Inspections:

1. All water used on site shall be from a city-issued metered source.
2. Streets and sidewalks shall be kept clean and safe. They shall not be used for the storage of materials, construction debris, port-a-cans, etc.
3. The use of profanity or loud music on the job site will not be tolerated.
4. A minimum of twenty feet (20') clearance on the street must be maintained. Parking is allowed in the parking lane only. Double-parking and opposite flow parking is not allowed. Special parking requirements must be pre-approved by the engineering inspector and City Engineer.
5. There shall be no alcohol, drugs and/or dogs on-site at anytime during construction.
6. The job site shall be kept clean of debris at all times. Covered trash receptacles shall be provided for and used by workers. Lined wash pits are required to prevent site and groundwater contamination.
7. Equipment transport and maintenance must be conducted within allowable times.

Stop Work Notice may Result from the Following:

1. Failure to maintain a safe work environment. OSHA/CAL-OSHA Safety Orders will be enforced.
2. Failure to comply with designated codes and applicable standards.
3. Failure to comply with wastewater management standards and protection of facilities in place.
4. Failure to obtain utility mark outs and to keep them current during the course of construction.
5. Failure to call for inspections.
6. Failure to obtain required engineering, soils, materials and testing certifications.
7. Failure to provide special inspectors as required.
8. Failure to maintain the current City-approved set of plans and permits on-site.

Information Required Before Rough Grade is Released:

1. A licensed land surveyor depicting property lines and corners, proposed improvements and blue-top elevation(s) shall adequately stake the site. Line and grade certifications shall be furnished only by the Engineer of Record. No structure shall encroach into the Right of Way.
2. Wet stamped original certifications are required from the civil engineer, soil engineer and others under sub-article 14 of the City of San Clemente Grading Manual. Faxes or copies are unacceptable.
3. A written statement from the grading contractor describing the volume of excavation and fill (cut, fill, remedial and total) moved on the project. "Fire Ant Free" certifications are required for imported fill.
4. Inspection of site and submission of items #1, 2, 3 above and #5 below to engineering inspector.
5. Some hillside or unusual lots may require special consideration and/or documentation for a grading release to acquire the building permit. Please review such unique conditions including course of construction issues with the engineering inspector during the pre-grade meeting.

Minimum Items Needed/Completed Prior to Engineering Final Release:

1. Request preliminary engineering inspection at least two weeks prior to project completion. All work on the job site is to be completed per the final approved plans for final release.
2. The owner is responsible for leaving all adjacent improvements in the same or better condition as they were prior to the commencement of grading and construction.
3. All slopes are to be planted with drought resistant plants. A 100-foot buffer zone is required per fire Code. Non-established slopes will require erosion control devices and/or matting per inspector.
4. All excess dirt, trash and construction debris is required to be removed from site.
5. Final grade is to be compacted to minimum ninety percent (90%).
6. Any walls or drop off's more than thirty inches (30") high will require fencing or safety railings.
7. All area drains are to be operational. Roofs must be guttered and downspouted into a private drainage system and/or discharge onto a non-erodible surface carrying to a public drainage device.
8. No water may drain onto an adjoining property.
9. All valves & underground utility markings are to be inscribed in curb face.
10. All utility mark out graffiti is to be eradicated.
11. Submission of a final soil report, final engineering certification and any other reports, letters or certifications and any other work as required by the engineering inspector and/or City Engineer is to be completed.
12. Final engineering inspection and sign-off shall be obtained only after all other departments, except the Building Department, have signed off on the building inspection card.

Some Special Items To Be Aware of:

1. The soil in San Clemente, for the most part, consists of three basic types: Alluvial Clays (highly expansive), Capistrano Formation (fine siltstone), and Monterey Formation (sandy siltstone). It is highly recommended that all owners/contractors thoroughly review the soil report for the subject property. In addition, water-soluble sulfates exist in most areas of the City. Due to such materials, only Type V cement is allowed in concrete where it can, or may potentially, come in contact with native soil or be subjected to groundwater transmission.
2. All copper water lines to be placed underground shall be type "K".
3. Placement of any structural concrete rated in excess of 2500 PSI shall be placed in the presence of a properly certified Deputy Inspector. The Deputy Inspector must be present on-site and allowed to conduct necessary pre-, during and post-placement inspections and samplings as required by the applicable code.

and/or engineering or building inspector requirements. The Deputy Inspector shall not be interfered with in any way, form or fashion in the conduct of their work. Failure of adherence to the Deputy Inspector's direction of correction shall result in rejection of work by the City Inspector. The presence of, and/or inspection by, a Deputy Inspector shall not be considered a substitute for required inspection by a City engineering and/or Building inspector. Deputy Inspectors may be required for various segments of construction; please ensure that a properly certified Deputy Inspector is retained to cover such work. Original copies of all breaks, deputy reports and/or other data shall be furnished directly to the appropriate City Inspector. Mix designs shall also be furnished.

4. A supplemental meeting(s) may be required to be held by the engineering and/or building inspector prior to the commencement of placement of underground utilities, masonry walls, caissons, grade beams, roadways and any other such items pursuant to the discretion of the applicable inspector.
5. Single family residences, residential tracts, multifamily units, commercial and/or industrial projects may have other conditions and/or requirements not included in this handout. Please consult with your engineering and building inspector (and applicable city department) regarding such requirements.
6. Area drain lines are required to be either PVC Schedule 40 (or better) or SDR-35 (or better). Substitution of other products without prior written approval from the City Engineer will result in rejection of the work.
7. City codes, standards and ordinances change from time to time. It is the permittee's responsibility that all parties affecting design and/or construction comply with the most contemporary codes, standards and ordinances as adopted by the City Council and/or applicable Department Head, as applicable. Copies are available at the City Engineering office for a fee.
8. The majority of the soil in San Clemente is highly corrosive. Due to this condition, no ferrous metals shall be placed in contact with native soils or in any underground condition. Only #316 Stainless Steel shall be used for any underground fitting, clamp, bolt and/or, but not limited to, any tapping sleeve connected to any water line. Other conditions may apply in the field. Please consult with your engineer and engineering and/or building inspector.
9. Due to the nature of the marine environment and native soil conditions, it is highly recommended that all reinforcing steel delivered and stored on site shall be properly protected from the elements and not be allowed to come into contact with native soil. Reinforcing steel that is corroded and/or contaminated with other material is subject to correction and/or rejection as determined by the City inspector.
10. Being a coastal, hillside community, lots in San Clemente are subject to a variety of waterline pressures and flow rates. It is extremely important that the water zones and pressures are thoroughly reviewed and the piping system adequately designed. Pipe classifications shall be set forth, depicted and approved by the City Engineer on the plans. Pipe & valve submittals are required.

A Basic Guideline of When to Call for an Engineering Inspection:

Basic Lot:

1. Notify engineering inspector of all grading operations and encroachment work prior to start.
2. When bottom of any over excavation is reached.
3. When grading is completed, prior to grade release (See “Rough Grade Release” section).

Retaining Walls:

1. When footing is excavated, after staking and soil memo is produced.
2. During and after placement of reinforcing steel.
3. Prior and during placement of concrete footing.
4. During lifts of CMUs (concrete masonry units) and placement of reinforcing steel.
5. Prior to placement of grout in cells of block.
6. Placement of waterproofing.
7. Placement of wall sub-drains.
8. Prior to and during back fill operations.

Area and Sub-Drains:

1. Trench excavation.
2. Following placement of approved pipe with established flow line.
3. During and post- back fill.

Grade Beams and/or Caissons:

1. After excavation.
2. Inspection of steel prior to placement including steel certifications and cage certifications.
3. During and post-placement of reinforcing steel.
4. Prior to and during placement of concrete.

Underground Utilities:

1. Trench excavation.
2. Prior to and during installation and connections.
3. During and post-back fill.

Roadways, Driveways and Sidewalks:

1. Prior to, during and after excavation and establishment to sub-grade.
2. Prior to, during and after placement of base material.
3. Prior to, during and after placement of concrete and/or asphalt.

Irrigation Systems and Landscape:

1. Prior to and after trenching.
2. Installation of Backflow Preventor. Certification required to be sent to City Water Department.
3. Pressure testing of Main.
4. Irrigation coverage test.
5. Post-planting.

Project Inspection Check List

GRADING

- 1 ___ Pre-grade meeting, Permits & OSHA Permit
- 2 ___ Clearing & Grubbing
- 3 ___ Excavation Inspections
- 4 ___ Clean out Inspections
- 5 ___ Bench & Key Inspections
- 6 ___ Sub-drain Inspections
- 7 ___ Fill Inspections
- 8 ___ Terrace & Down Drains
- 9 ___ Erosion Control & Wastewater Management
- 10 ___ Soils Engineer R.G. Certification
- 11 ___ Civil Engineer R.G. Certification
- 12 ___ Grading Contractor Certification
- 13 ___ Rough Grade Release
- 14 ___ Onsite Storm Drain
- 15 ___ Onsite Sewer
- 16 ___ Onsite Water
- 17 ___ Onsite Curb & Gutter
- 18 ___ Onsite Subgrade
- 19 ___ Onsite Base Grade
- 20 ___ Onsite Paving
- 21 ___ Onsite Sidewalks
- 22 ___ Irrigation System
- 23 ___ Landscaping
- 24 ___ Soils Engineer Final Report
- 25 ___ Civic Engineer Final Certification
- 26 ___ Easements
- 27 ___ Monumentation
- 28 ___ 3 sets of As-Built bluelines
- 29 ___ As-Built Mylars

Project Inspection Check List

SEWER

- 1 ___ Survey Cut Sheets to Inspector
- 2 ___ Submittals to Engineer
- 3 ___ OSHA Permit, Shoring Plan to Engineer
- 4 ___ Trench Line, Grading
- 5 ___ Shoring
- 6 ___ Pipe Bedding
- 7 ___ Pipe Certification
- 8 ___ Pipe Installation
- 9 ___ Manholes & Structures
- 10 ___ Laterals & Wyes
- 11 ___ Clean Outs & Connections
- 12 ___ Locator Wire & Tape
- 13 ___ Backfill Compaction
- 14 ___ Air Test
- 15 ___ Mandrel
- 16 ___ Channels & Shelves
- 17 ___ Manhole Joint Mortar
- 18 ___ Plugs Removed
- 19 ___ Manhole Frames & Covers
- 20 ___ Manhole Set to Grade & Lined, Cover Coated
- 21 ___ Final Flush
- 22 ___ Video/TV Inspection
- 23 ___ "S" Marked on Curb
- 24 ___ Final Punch List
- 25 ___ Civil Engineer Certification
- 26 ___ 3 Sets of As-Built Bluelines
- 27 ___ As-Built Mylars

Project Inspection Check List

STORM DRAIN

- 1 ___ Survey Cut Sheets to Inspector
- 2 ___ Submittals to Engineer
- 3 ___ OSHA Permit, Shoring Plan to Engineer
- 4 ___ Trench Line, Grading
- 5 ___ Shoring
- 6 ___ Pipe Bedding
- 7 ___ Pipe Certification
- 8 ___ Pipe Installation & Grout (Diaper or Gasket)
- 9 ___ Manholes & Structures
- 10 ___ Catch Basins
- 11 ___ Junction Structures
- 12 ___ Backfill & Compaction
- 13 ___ Local Depressions
- 14 ___ Manhole Frames and Covers
- 15 ___ Manhole Set to grade, Cover Coated
- 16 ___ Bulkheads Removed
- 17 ___ Pipe Cleaned and Flushed
- 18 ___ Video/TV Inspection
- 19 ___ Trench Compaction Report, Soils Engineer
- 20 ___ Inlets Painted
- 21 ___ Easements
- 22 ___ Civil Engineer Certification
- 23 ___ 3 Sets of As-Built Bluelines
- 24 ___ As-Built Mylars

Project Inspection Check List

WATER

- 1 ___ Survey Cut Sheets to Inspector
- 2 ___ Valve Sizing & Submittals to Engineer
- 3 ___ OSHA Permit, Shoring Plan to Engineer
- 4 ___ Trench Line, Grading
- 5 ___ Shoring
- 6 ___ Pipe Bedding
- 7 ___ Pipe Certification
- 8 ___ Pipe Installation with locator wire & tape
- 9 ___ Valves (confirm for Line Pressure) & boxes
- 10 ___ Fittings (confirm for Line Pressure)
- 11 ___ Laterals
- 12 ___ Fire Hydrants
- 13 ___ Blow-Offs
- 14 ___ Air Release Valves
- 15 ___ Thrust Blocks (Type V Cement in Concrete)
- 16 ___ Backfill & compaction
- 17 ___ Trench Compaction Report from Soils Engineer
- 18 ___ Pressure Test with Certification
- 19 ___ Disinfection with Certification
- 20 ___ Flush Lines
- 21 ___ Hydrants and Valve Work
- 22 ___ Backflow Devices with Certification
- 23 ___ Communication Conduit for meters
- 24 ___ Services & meter Boxes (Type "K" copper)
- 25 ___ Valve Cans set to Final Grade
- 26 ___ Pressure Reducing Stations
- 27 ___ Pump Stations
- 28 ___ Services "W" & Valve Ties on Curb Face
- 29 ___ Curbs & Hydrants Painted & Blue Reflectors installed
- 30 ___ Civic Engineer Certification
- 31 ___ Final Punch List
- 32 ___ 3 Sets of As-Built Bluelines
- 33 ___ As-Built Mylars

Project Inspection Check List

STREET IMPROVEMENTS

- 1 ___ Survey Cut Sheets to Inspector
- 2 ___ Submittals to Engineer(s)
- 3 ___ Grading
- 4 ___ Curb & Gutter (“W” & “S” on curbface)
- 5 ___ All Utilities installed & As-Built
- 6 ___ Valve & Manhole Ties
- 7 ___ Line & Grade Certification from Civil Engineer
- 8 ___ Subgrade
- 9 ___ Weed Killer
- 10 ___ Crushed Aggregate Base
- 11 ___ Tack Application
- 12 ___ Asphalt Base Course
- 13 ___ Tack Application
- 14 ___ Asphalt Cap Course
- 15 ___ Raise manholes and valves
- 16 ___ Temporary Striping & Signage
- 17 ___ Ramps
- 18 ___ Driveways
- 19 ___ Cross Gutters
- 20 ___ Parkway Culverts
- 21 ___ Curb Cores
- 22 ___ Sidewalks
- 23 ___ Seal Coat or Slurry (Review with Inspector)
- 24 ___ Street name Signs
- 25 ___ Striping & Signage
- 26 ___ Traffic markers & Hydrant Markers
- 27 ___ Coat Manhole & Valve Lids, Line manholes
- 28 ___ Landscape
- 29 ___ Easements
- 30 ___ Survey Monuments & Survey Ties
- 31 ___ Conditions of Approval
- 32 ___ Final Punch List
- 33 ___ 3 Sets of As-Built Bluelines
- 34 ___ As-Built Mylars

Project Inspection Check List

TRAFFIC SIGNALS

- 1 ___ Submittals to Engineer
- 2 ___ Electrical Permit
- 3 ___ Pole Location including Pedestrian Poles
- 4 ___ Controller Location
- 5 ___ Meter Pedestal Installation
- 6 ___ Pole & Pedestal Foundations with ground
- 7 ___ Conduit including telephone to controller
- 8 ___ Pull Boxes (not allowed in ramps)
- 9 ___ Pull Wire including Interconnect
- 10 ___ Stand Poles
- 11 ___ Install & Adjust Heads & Luminaires
- 12 ___ Address on Pedestal & Energize System
- 13 ___ Install Safety Lighting & Photo Cells
- 14 ___ Burn Test All Lamps
- 15 ___ Coverage Test Safety Lighting
- 16 ___ Field Test & Program Controller
- 17 ___ Install Detectors & Loops, Test Opticom
- 18 ___ Install Street Signs
- 19 ___ Sidewalks & Ramps
- 20 ___ Install Striping & Markers
- 21 ___ Final Punch List
- 22 ___ 3 Sets of As-Built Bluelines
- 23 ___ As-Built Mylars

Project Inspection Check List

RETAINING WALLS

- 1 ___ Survey Cut Sheets to Inspector
- 2 ___ Submittals to Engineer(s)
- 3 ___ OSHA Permit/Shoring Plan to City Engineer
- 4 ___ Grading & Form Placement
- 5 ___ Footing Soils Inspection from PE & City
- 6 ___ Wet Stamped Memo from Soils Engineer
- 7 ___ Steel Placement with OSHA Caps
- 8 ___ Inspection by City Inspector
- 9 ___ Deputy Inspector On-site for 2500+ PSI
- 10 ___ Placement of Type V Concrete with Deputy
- 11 ___ Consolidate Concrete
- 12 ___ Clean Trowel Footing with Keyway
- 13 ___ Install Block with Horizontal Steel Tied
- 14 ___ If Lift is over 4 feet, City Inspection
- 15 ___ Pre-Grout City Inspection including Steel
- 16 ___ Deputy inspection during Grouting
- 17 ___ Clean behind wall
- 18 ___ Install waterproofing with Soils Engineer
- 19 ___ Inspection by City inspector
- 20 ___ Subdrain Inspection from PE & City
- 21 ___ Backfill & Compact
- 22 ___ Wet Stamped memo from Soils Engineer
- 23 ___ Install Surface Drainage as Required
- 24 ___ Final Line & Grade Memo from PE

Project Inspection Check List

CAISSONS & GRADE BEAMS

Caissons

- 1 ___ Survey Cut Sheets to Inspector
- 2 ___ Submittals to Engineer(s)
- 3 ___ OSHA Permit/Shoring Plan to City Engineer
- 4 ___ Drilling with Soils Engineer Present
- 5 ___ Wet Stamped memo from Soils Engineer
- 6 ___ Steel & Cage Certifications
- 7 ___ Inspection by City Inspector
- 8 ___ Deputy Inspector On-site during Placement
- 9 ___ Steel Placement with OSHA Caps
- 10 ___ Inspection by city inspector

Grade Beams

- 1 ___ Grading & Form Placement
- 2 ___ Footing Soils Inspection from PE & City
- 3 ___ Wet Stamped Memo from Soils Engineer
- 4 ___ Deputy inspector On-site for 2500+ PSI
- 5 ___ Placement of Type V Concrete with Deputy
- 6 ___ Consolidate Concrete
- 7 ___ Inspection by city Inspector
- 8 ___ Subdrain Inspection from PE & City
- 9 ___ Backfill & compact
- 10 ___ Wet Stamped Memo from Soils Engineer
- 11 ___ Install Surface Drainage as Required
- 12 ___ Final Line & Grade memo from PE

LANDSCAPING

- 1 ___ Mainline Pressure Test
- 2 ___ Backflow Preventor Certification to the Water Department
- 3 ___ Coverage Test
- 4 ___ Plant Installation
- 5 ___ Erosion Control
- 6 ___ Walk through Inspection & Final Punch list
- 7 ___ Architectural Certification
- 8 ___ Planning Department Review