

City of GlendoraENGINEERING DIVISION



GRADING PLAN SUMBITTAL/PREPARATION GUIDELINES

Required: 2 complete sets of plans (1 to Planning, 1 to Engineering), 1 Copy of the geotech report, 1 copy of the LID Report (if applicable), 1 copy of the title report including copies of all easements of record. If the grading plan is a commercial project, a third set of grading plans is required which is routed to the Building & Safety Division to review ADA compliance only. *Guidelines:*

GENERAL:

All grading improvements shall be in accordance with the latest edition of the California Building Code and the City of Glendora Codes.

PLAN PREPARATION:

1	Grading plans shall be on 24" x 36" sheets and drawn to scale. Make sure each of the following are on the Title Sheet and are correct:
	a. Site address/APN/Tract or parcel #, vicinity mapb. Boundary of disturbed area and its total square footagec. Total area of property – Square Feetd. Name, address, and phone number of: Owner/Engineer/Soils Engineere. North arrow and Vicinity Map 1"=200' scale top right corner of sheetf. Legend right side of sheetg. Project title top center of sheeth. Standard Construction Notes right side of sheeti. Site plan at reduced scale center of sheeti. Signed standard statement by soils engineer (Appendix A)k. Basis of bearing and bench mark information entered in correct location on City standard title street
	I. Engineer/Contractor Notice note (City of Glendora Standard No. 6.02)m.Utility contacts listn.Sheet indexo.WDID #p.Legal descriptionq.Topography Source: Topography Date:r. Property Area sq. ft.
	s.Disturbed Area sq. ftt. Standard Grading Notes (Appendix B) left side of sheetu. Cuts/Fills earth work in Cubic Yards. (Including total over-ex and re-compaction)

2.)	Property line dimensions and bearings shown.	
3.)	Ground topo, daylights of cuts and fills.	
4.)	Lot drainage pattern – flow line directions & slopes. (City Staff to field visit site du	ring review)
5.)	Location and slopes of driveway (15% max). Show ADA path of travel to site and	on site.
6.)	Berms, swales, area drains, roof drains and any other drainage devices.	
7.)	Label building set-back lines. Dimension from building to right-of-way/property lin	e.
8.)	Over-excavation and re-compaction quantities (these quantities are both a cut an	d fill quantity)
9.)	Show and label limits of over-excavation and re-compaction on the plan view.	
10.)	For Tracts and Commercial Projects: The grading plan must be consistent with the approved storm drain plans, approve approved tentative tract map. BEFORE the grading plans can be approved, the cobtain Flood Control District's approval for the connection. If developer intends to County FCD Facility, obtain Engineering Division's approval for street plans and the Planning Department. Then provide a note on grading plan stating:	developer must drain directly to an L.A. ract map approval from
	"The engineer who prepared and signed this grading plan has verified that all info drawings is consistent with the storm drain plans approved or cleared to grade by County Flood Control District (approval date); the street plans approved or cleare Public Works Department (approval date) and approved Tentative Tract Map incl approval."	the Los Angeles d to grade by the
11.)	Cut and fill slopes must be set back from the property lines in accordance with the Section 1808.7 and Appendix J108.1.	e CBC Chapter 18
12.)	Review the conditions of approval and ensure any conditions related to grading a	re implemented.
13.)	Any recommendations made by the Soils Engineer, i.e. over excavation limits or section, etc., must be implemented on the plans.	structural pavement
14.)	Show the removal depth of all unsuitable soil with horizontal extent including probper the soils report recommendation.	olematic collapsible soil
15.)	Final plan title sheet must be stamped and wet signed by the soils engineer of rec	cord.
16.)	If the plan is for a temporary stockpile permit, the City has separate Stockpile Pla Requirements for submittals; it is a separate review/fee.	n
17.)	If the job is not balanced, a signed/wet stamped letter will be required from the so stating the location of import and its suitability for use on the project. Location of to the City when known.	
18.)	If required, confirm Glendora's standard paving notes are on plan.	
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19.)	Show all street names, edge of pavement, right-of-way dimension, direction of flow and grades of streets and TC/FL elevations on plans.
20.)	Topo a minimum of 15' into all adjoining properties.
21.)	If grading plan requires grading on neighboring property submit a letter from the adjoining property owner allowing for work on their property. Developer must obtain a temporary construction easement. The easement must reference the grading plan which shows the proposed work to be done.
22.)	Show the proposed location of the water meter for the site.
23.)	Show all structural BMP's per the LID Report that are located on the site and provide details. The LID Report must be reviewed and signed by the soils engineer.
24.)	Provide a minimum of two sections in North/South and East/West direction. Sections need to clearly show all proposed and existing improvements, minimum slope away from meet CBC 1804.3, all structures, easement boundaries, property lines, over-ex limits, property lines, etc.
25.)	Show all proposed street improvements (i.e., curb/gutter, sidewalk or driveway improvements), reference City of Glendora Standards on the plan. If a separate street improvement plan is required reference the street improvement plan in the notes. If the street on which the new driveway will be constructed is a moratorium street, inform the applicant they must grind/repave from curb to curb per the City's street cut moratorium policy and must indicate so on the plan.
26.)	Note: Grading on any property zoned "hillside" requires an on-site grading inspector at the during grading operations. Fees associated with the on-site grading inspector are incurred by the property owner/developer.
27.)	If demolition of existing structures is required prior to grading all structures should be shown on the plan view and the demolition plan should be referenced. A separate demolition permit will be required from the Building & Safety Division.
28.)	Show all existing and proposed walls. Label types of walls and provide top of wall and finish grade elevations. If there are several types of walls provide a different symbol on the plan view and add to legend indicating type of wall. Show a detail for wall knockouts to facilitate emergency overflow.
29.)	Provide elevations (i.e. top of grate, invert, etc.) on all proposed drainage devices. Indicate size and type of drainage device on plan (i.e. area drain, box drain, trench drain, PVC pipe, etc.), add information to construction notes.
30.)	Provide a letter of update from the soils engineer if preliminary soils report is a year or older at time of submittal.
31.)	Provide a letter of update from the soils engineer if soils report states that the grading plan was not submitted at the time of the preliminary soils report preparation by the soils engineer.
32.)	Provide a letter of update from the soils engineer if the proposed LID devices have not been reviewed by the soils engineer.
33.)	Show all easements on the plan. Easements should be labeled with dimensions, purpose of the easement and ownership information. If work is proposed within the easement a letter from the easement C:\Users\greg morton\Desktop\Grading Plan Checklist 04-2015.doc 3 of 10

	holder is required stating that they have reviewed the grading plan and have no objection of the improvements with their easement.
34.)	The SWPPP must be reviewed/approved prior to the approval of the grading plan.
35.)	All surface types (i.e. concrete, AC, impervious concrete, dirt, etc.) must be shown on the plan. Use construction notes to provide information.
36.)	Provide finish surface elevations at all doorways on the plan.
37.)	Provide finish floor and pad elevation for all proposed structures.
38.)	Provide details on plan for all drainage structures (i.e. concrete swales, area drains, rip-rap devices, etc.).
39.)	Show and label all planter areas and provide planter curb detail.
40.)	Show and label all existing trees on the site. Label size, type and "to be removed" or "to be protected" on the plan following GMC 20.08.130 (a)(b).
41.)	Show all existing structures and improvements (i.e. vaults, hand holes, power poles, driveways, water meter, etc.) within the public right-of-way along the frontage of the property.
42.)	Verify parking stall widths/lengths and internal driveways comply with GMC 21.08.020 and L.A. County Fire Department stds.

	"ADDENIDIX A"	
	"APPENDIX A"	
"THIS PLAN HAS BEEN REVIEW ENGINEERING/GEOLOGIC REP		
SIGNATURE AND DATE:		"

"ADDENIDIX D"	
"APPENDIX B"	
"Standard Grading Notes"	
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CITY OF GLENDORA STANDARD GRADING NOTES

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE GRADING ORDINACE AND REGULATIONS OF THE CITY OF GLENDORA, THE CALIFORNIA BUILDING CODE LATEST EDITION AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
- 2. AN APPROVED SET OF PLANS SHALL BE ON THE JOB AT ALL TIMES.
- 3. NO WORK SHALL BE STARTED WITHOUT FIRST IMPLEMENTING THE APPROVED SWPPP THEN CONTACTING THE DEPARTMENT OF PUBLIC WORKS AT (626) 914-8246 AND REQUESTING AND CONDUCTING A PRE GRADE MEETING.
- 4. PRIOR TO COMMENCING ANY SITE CLEARANCE OR GRADING, THE CONTRACTOR SHALL OBTAIN A FIRE HYDRANT WATER METER FROM THE CITY OF GLENDORA AND THE METER SHALL BE USED AT ALL TIMES WHEN WATER IS BEING OBTAINED FROM A CITY OF GLENDORA FIRE HYDRANT.
- 5. ADEQUATE BARRICADES, LIGHTS, FLAGMEN, SIGNS AND OTHER SAFETY DEVICES SHALL BE PROVIDED AS SPECIFIED IN THE TRAFFIC MANUAL PUBLISHED BY THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION AND APPROVED BY THE CITY OF GLENDORA WHEN ANY PORTION OF THE GRADING IS IN THE PUBLIC RIGHT OF WAY.
- 6. EXISTING CITY STREETS SHALL BE KEPT CLEAN OF ALL MATERIALS RESULTING FROM THE GRADING OPERATIONS. THE STREET RIGHT OF WAY SHALL BE CLEANED UP DAILY, AS NECESSARY, TO MAINTAIN SAFE PEDESTRIAN AND VEHICULAR PASSAGE AT ALL TIMES.
- 7. EXCEPT AS SHOWN ON THIS PLAN, TREES WHICH HAVE A SIX INCH OR GREATER DIAMETER TRUNK SIZE, AT A POINT THREE FEET ABOVE GRADES, SHALL NOT BE REMOVED, AND SHALL BE PROTECTED FROM DAMAGE DURING ALL GRADING OPERATIONS.
- 8. THE PERMITTEE OR HIS AGENT SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS AT LEAST 24 HOURS BEFORE THE GRADING OPERATION IS READY FOR EACH OF THE FOLLOWING:
 - a. PREGRADING MEETING: WHEN THE PERMITTEE IS READY TO BEGIN WORK AND BEFORE ANY GRADING OR BRUSHING IS STARTED. THE FOLLOWING PEOPLE MUST BE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, GEOLOGIST, DIRECTOR OF PUBLIC WORKS OR HIS REPRESENTATIVE(S).
 - b. TOE INSPECTION: AFTER THE NATURAL GROUND IS EXPOSED AND PREPARED TO RECEIVE FILL AND BEFORE ANY FILL IS PLACED.
 - c. EXCAVATION INSPECTION: AFTER THE EXCAVATION IS STARTED AND BEFORE THE DEPTH OF EXCAVATION EXCEEDS 10 FEET.
 - d. FILL INSPECTION: AFTER THE AREA TO RECEIVE FILL HAS BEEN PREPARED AND INSPECTED BY THE SOILS ENGINEER.
 - e. DRAINAGE DEVICE INSPECTION: AFTER FORMS, STEEL, AND PIPE ARE IN PLACE AND BEFORE ANY CONCRETE IS POURED
 - f. ROUGH GRADING: WHEN ALL ROUGH GRADING HAS BEEN COMPLETED.
 - g. FINAL INSPECTION: WHEN ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE STRUCTURES AND OTHER PROTECTIVE DEVICES, HAS BEEN COMPLETED AND THE "ASGRADED" PLAN AND REQUIRED REPORTS HAVE BEEN SUBMITTED AND APPROVED.

THE PERMITTEE SHALL WAIT FOR APPROVAL BY THE INSPECTOR BEFORE PROCEEDING WITH THE WORK.

9. SUFFICIENT TESTS OF SOIL PROPERTIES, INCLUDING SOIL TYPES AND SHEAR STRENGTH, SHALL BE MADE DURING GRADING OPERATIONS TO VERIFY COMPLIANCE WITH DESIGN CRITERIA. THE RESULTS OF SUCH

TESTING SHALL BE FURNISHED TO THE DEPARTMENT OF PUBLIC WORKS UPON COMPLETION OF GRADING OPERATIONS, OR WHEN NECESSITATED BY FIELD CONDITIONS UPON REQUEST OF THE DEPARTMENT OF PUBLIC WORKS.

- 10. THE GRADING CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT VERIFYING THAT WORK DONE UNDER HIS DIRECTION WAS PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND REQUIREMENTS OF APPENDIX J OF THE CALIFORNIA BUILDING CODE OR DESCRIBING ALL VARIANCES FROM THE APPROVED PANS AND REQUIREMENTS OF THE CODE.
- 11. ALL STORM DRAIN WORK IS TO BE DONE UNDER CONTINUOUS INSPECTION BY THE SUPERVISING GRADING ENGINEER. WEEKLY STATUS REPORTS SHALL BE SUBMITTED BY THE SUPERVISING GRADING ENGINEER TO THE DIRECTOR OF PUBLIC WORKS.
- 12. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
- 13. DUST SHALL BE CONTROLLED BY WATERING.
- 14. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE FROM BEGINNING TO COMPLETION OF GRADING OPERATIONS.

15.	ALL GRADING SHALL CONFORM TO THE RECOMMENDATIONS IN THE GEOTI	ECHNICAL REPORT BY
	, DATED	

- 16. THE CONTRACTOR SHALL INCORPORATE EROSION CONTROL MEASURES WHEN DEEMED NECESSARY BY THE DIRECTOR OF PUBLIC WORKS, OR HIS APPROVED OR DESIGNATED REPRESENTATIVE. SEPARATE PLANS FOR TEMPORARY DRAINAGE AND EROSION CONTROL MEASURES TO BE USED DURING THE RAINY SEASON WILL BE SUBMITTED PRIOR TO OCTOBER 1. THE CONTROL DEVICES, SHOWN ON SAID PLANS, WILL BE INSTALLED NO LATER THAN OCTOBER 1, AND MAINTAINED IN OPERABLE CONDITION UNTIL APRIL 15.
- 17. THE ENGINEERING GEOLOGIST SHALL INSPECT AND APPROVE ALL CUT SLOPES.
- 18. PRIOR TO ISSUANCE OF THE BUILDING PERMITS, A SOIL EXPANSION TEST PERFORMED IN ACCORDANCE WITH THE PROCEDURES OF CALIFORNIA BUILDING CODE STANDARD NO. 29-2 IS REQUIRED.
- 19. PRIOR TO PLACING COMPACTED FILL, THE SURFACE SHALL BE STRIPPED OF VEGETATION AND THE SURFACE SCARIFIED TO A DEPTH OF 12 INCHES OR AS SPECIFIED BY THE SOILS ENGINEER AND APPROVED BY THE GRADING INSPECTOR, BROUGHT TO OPTIMUM MOISTURE CONTENT, RECOMPACTED TO 90% MAXIMUM DENSITY AND INSPECTED BY THE GRADING INSPECTOR AND THE SOIL TESTING AGENCY.
- 20. CUT SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.
- 21. FILLS SHALL BE COMPACTED THROUGHOUT TO 90% OF MAXIMUM DENSITY AS DETERMINED BY CALIFORNIA BUILDING CODE LATEST EDITION, AND CERTIFIED BY THE SOILS ENGINEER. NOT LESS THAN ONE FIELD DENSITY TEST WILL BE MADE FOR EACH 2 FEET VERTICAL LIFT OF FILL NOR LESS THAN ONE SUCH TEST FOR EACH 1000 CUBIC YARDS OF MATERIAL PLACED. AT LEAST ONE-HALF OF THE REQUIRED TESTS SAHLL BE MADE AT THE LOCATION OF THE FINAL FILL SLOPE.
- 22. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL AND SHALL BE COMPACTED TO NO LESS THAN 90% OF MAXIMUM DENSITY OUT TO THE FINISHED SURFACE. ALL FILL SLOPES GREATER THAN 5 FEET IN VERTICAL HEIGHT SHALL BE GRID ROLLED TO COMPACT THE OUTER 6" TO 8" TO AT LEAST 90% MAXIMUM DENSITY.
- 23. NO ROCK OR SIMILAR MATERIAL GREATER THAN 12 INCHES IN GREATEST DIMENSION WILL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE SOILS ENGINEER IN ADVANCE AND APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
- 24. NO FILL SHALL BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS AND INSTALLATION OF SUBDRAINS (IF REQUIRED) HAVE BEEN INSPECTED AND APPROVED BY THE SOILS ENGINEER.

- 25. CONTINUOUS INSPECTION BY THE SOILS ENGINEER OR HIS RESPONSIBLE REPRESENTATIVE WILL BE PROVIDED DURING ALL FILL PLACEMENT AND COMPACT OPERATIONS.
- 26. ALL EXISTING FILLS SHALL BE APPROVED BY THE SOILS ENGINEER AND THE DIRECTOR OF PUBLIC WORKS OR HIS APPROVED OR DESIGNATED REPRESENTATIVE BEFORE ANY ADDITIONAL FILL ARE ADDED.
- 27. ALL TRENCH BACKFILLS SHALL BE TESTED AND CERTIFIED BY THE SOILS ENGINEER.
- 28. LEVELED AREAS SHALL HAVE MINIMUM GRADES FOR DRAINAGE OF 2%.
- 29. ALL CONCRETE STRUCTURES THAT COME IN CONTACT WITH THE ON-SITE SOILS SHALL BE CONSTRUCTED WITH TYPE V SIX (6) SACK CEMENT UNLESS SULFATE-CONTENT TESTS CONDUCTED BY THE SOILS ENGINEER SHOW IT TO BE UNNECESSARY.
- 30. THE SOILS ENGINEER AND ENGINEERING GEOLOGIST SHALL PERFORM SUFFICIENT OBSERVATION AND TESTING TO CERTIFY THE CONTRACTOR'S COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND CODE WITHIN THEIR PURVIEW. THE SOILS ENGINEER AND/OR ENGINEERING GEOLOGIST SHALL BRING TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR, OWNER AND CITY REPRESENTATIVES RECOGNIZED DEFICIENCIES IN THE CONTRACTOR'S WORK FROM A GEOTECHNICAL STANDPOINT.
- 31. THE DESIGN CIVIL ENGINEER OF RECORD SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING AND CONSTRUCTION TO CONFIRM COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE WITHIN THEIR PURVIEW. THE CIVIL ENGINEER SHALL BRING TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR, OWNER AND CITY REPRESENTATIVES RECOGNIZED DEFICIENCIES IN THE CONTRACTOR'S WORK FROM A CIVIL ENGINEERING STANDPOINT.
- 32. ANY REVISIONS MADE IN THE APPROVED GRADING AS SHOWN ON THE GRADING PLAN MUST BE SPECIFICALLY APPROVED BY THE DIRECTOR OF PULBIC WORKS OR HIS DESIGNATED REPRESENTATIVE.
- 33. PRIOR TO THE FINAL APPROVAL OF ROUGH GRADING, THE CIVIL ENGINEER SHALL SUBMIT AN "AS GRADED" GRADING PLAN FOR APPROVAL BY THE DIRECTOR OF PUBLIC WORKS. THIS PLAN SHALL SHOW ORIGINAL GROUND SURFACE AND AS-GRADED GROUND SURFACE ELEVATIONS, ALL FEATURES SHOWN ON THE APPROVED GRADING PLAN, FINAL PAD GRADES, THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL SUB-DRAINS, ROCK DISPOSAL SITES, KEYWAYS, BUTTRESS OR STABILITY FILLS AND ANY OTHER REMEDIAL GRADING, ANY VARIANCES BETWEEN THE FINISHED WORK AND THE APPROVED PLANS, ACTUAL YARDAGE MOVED (INCLUDING REMEDIAL GRADING) AND A CERTIFICATION THAT THE "ASGRADED" PLAN SHOWS THE ABOVE ITEMS. ROUGH GRADING WILL NOT BE APPROVED UNTIL AFTER APPROVAL OF THE "AS-GRADED" GRADING PLAN.
- 34. ALL CONDITIONS OF APPROVAL FOR TENTATIVE TRACT NO._____ APPLICABLE TO THE FINAL MAP SHALL BE MET BY THE APPLICANT.
- 35. NO WORK SHALL BE DONE BEFORE 7:00 A.M. OR AFTER 6:00 P.M. AND NO WORK SHALL BE DONE ON WEEKENDS OR FEDERAL HOLIDAYS.
- 36. FOR ROUGH GRADING THE CONTRACTOR SHALL CONSTRUCT BERMS AT THE TOP OF ALL MANUFACTURED SLOPES AS SHOWN PER DETAIL ON THIS PLAN.
- 37. FINISH GRADING WILL BE COMPLETED AND APPROVED AND SLOPE PLANTING AND IRRIGATION SYSTEMS INSTALLED BEFORE OCCUPANCY OF ANY BUILDING AND BEFORE RELEASE OF GRADING BONDS.
- 38. ALL CUT AND FILL SLOPES OVER 5 FEET IN VERTICAL HEIGHT SHALL BE PLANTED AND PROVIDED WITH AN IRRIGATION SYSTEM IN ACCORDANCE WITH AN APPROVED LANDSCAPE PLAN.
- 39. CUBIC YARDS OF CUT______, CUBIC YARDS OF FILL ______
- 40. EXCEPT FOR THE RETAINING WALLS IN CONJUNCTION WITH THIS GRADING, ALL INFORMATION ASSOCIATED WITH BUILDINGS (INCLUDING SETBACKS AND FF ELEVATIONS) IS FOR REFERENCE ONLY AND THE APPROVAL OF THIS GRADING PLANS DO NOT INCLUDE ANY PROVISIONS ASSOCIATED WITH BUILDINGS.

41.	ALL RETAINING WALLS TO BE REVIEWED AND APPROVED BY THE BUILDING & SAFETY DIVISION. A SEPARATE SUBMITTAL AND PERMIT IS REQUIRED.
42.	ALL PUBLIC IMPROVEMENTS SHOWN ON THIS PLANY MUST BE REVIEWED/APPROVED BY THE ENGINEERING DIVISION OF THE PUBLIC WORKS DEPARTMENT. A SEPARATE SUBMITTAL TO THE ENGINEERING DIVISION IS REQUIRED.
43.	ALL IMPROVEMENTS IN THE PUBLIC RIGHT-OF-WAY REQUIRE A PERMIT FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF WORK.
44.	THE CIVIL ENGINEER OF RECORD UNDERSTANDS THAT THEY ARE THE GRADING INSPECTOR OF RECORD FOR THE ONSITE GRADING WORK AND ARE RESPONSIBLE FOR LINE, GRADE AND SUBMITTING WEEKLY INSPECTION REPORTS DURING GRADING TO THE CITY ENGINEER.
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