



**DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION**

GRADING PLAN SUBMITTAL/GUIDELINES

GENERAL

All projects shall be approved by Planning Department prior to submitting to the Engineering Department. All grading improvements shall be in accordance with the latest edition of the California Building Code and City of Covina Codes.

WHEN A SEPARATE GRADING AND DRAINAGE PLAN IS REQUIRED

A Separate Grading plan shall be provided for the following scope of work:

1. New Residential and Commercial Buildings
2. Detached Accessory Dwelling Units
3. Detached Garage, Workshop, Storage Building
4. Retaining Walls
5. Swimming Pool Backfill Intended to Support a Structure
6. When a Grading Permit is Required
7. When required by the Building Official

The following items constitute a submittal for grading plan check:

1. Transmittal letter from the Engineering/Owner indicating a submittal grading plan check.
2. Grading/Drainage/Erosion Control Plan.
3. Soils and Geology Report. (If applicable, only in hillside locations)
4. Hydrology/Hydraulic Report. (If applicable)
5. LID Report. (If applicable)
6. Engineer's Construction Estimate, signed and stamped.
7. Retaining wall sections and details.
8. Structural calculation for retaining walls.

PLAN PREPARATION

Grading plans shall be 24" x 36" sheets and drawn to scale. Make sure each of the following are shown:

Title Sheet

- City of Covina grading general notes, drainage general notes, erosion and sediment control general notes attached.
- Title block in the lower right hand corner showing site address, APN, Tract or Parcel Number, existing land use and zoning, owner's name, address and phone number.
- North arrow, scale and Vicinity Map.
- Bench mark.
- Legend.
- Index map (If applicable).
- Project title top center of sheet.
- Provide Civil Engineer's name, address, phone number, signature and stamp.
- Provide Geotechnical Engineer's name, address, phone number, signature and stamp. (If applicable)
- Signed standard statement by soils engineer. (If applicable)
- Topographic Source and Date.
- Estimated earthwork quantities including the amount of export and import in cubic yards (Including total overexcavation and recompaction).
- Oak Tree Permit Number: OTP NO. _____ Expiration Date: _____

Grading Sheet

- Show property line dimensions and bearings shown.
- Provide ground topo, daylights of cut and fills.
- Provide location of Septic Tanks (If applicable).
- Provide location of Sewer Lateral and Clean Out.
- Show existing and propose structures.

- Show natural topography with maximum contour interval of 2 feet and on extremely flat lots 1-foot intervals may be used.
- Clearly indicate runoff pattern on building pads with arrow and slope. Provide rate of grade (slope) on graded swales. Show rate of grade (slope) on concrete swales. Maximum grade on streets is 12% and driveways 20%.
- Show all existing easements for utilities, drainage or right of way.
- Label building set back lines. Dimension from building to right of way/property line.
- Show proposed location of the water meter for the site.
- Provide finish floor and pad elevation for all proposed structures.
- Show and label existing trees.
- Provide details on plan for all drainage structures (i.e. concrete swales, area drains, rip rap devices, etc.)
- Show location of cut/fill contact (daylight line).
- Show all existing structures and improvements (i.e. vaults, hand holes, power poles, driveways, water meter, gas meter, etc.) within the public right of way along the frontage of the property.
- Erosion Control Plan.

LOT DRAINAGE

ROUGH GRADED PADS

- Label sufficient pad finish spot elevations to verify pad area will have a minimum slope of 2% toward the intended drainage outlet. Label rough graded pad slope, 2% minimum.

FINE (PRECISE) GRADED PAD

- Show location of proposed structure(s) on building pad(s). Buildings, foundations, pools and building footings must comply with slope setback requirements and building setback requirements per (the Zoning Code). Define fine drainage around structure by providing flow directional arrows and appropriate flow line elevations of graded swale to verify slope from the high point to the point of

outlet. All graded swales must have a minimum slope of 1% towards street or acceptable outlet and side slopes of 2% minimum and 21% maximum. Paved (concrete) surfaces may drain away from structures at a minimum slope of ½%. Specify graded swales high point elevations and graded swale elevations at building corners.

- Provide a detail of typical side swale between adjacent lots.
- Label the finish floor (FF), finish pad (FP) elevations and adjacent grades to proposed buildings.
- Provide and label a minimum 5% drainage slope away from proposed structures and property lines.
- Show a detail on the plan of paved side swales when a stoop, fireplace, A/C unit, or other obstruction is within five feet of the property line and/or top or toe of slope.

GRADING GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE LATEST EDITION, CITY OF COVINA MUNICIPAL CODE AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
2. ANY MODIFICATIONS OF OR CHANGES TO APPROVED GRADING PLANS MUST BE APPROVED BY THE CITY ENGINEER.
3. MAXIMUM SLOPES SHALL BE 2:1 FOR CUT AND FILL.
4. MINIMUM SLOPES FOR CUT AND FILL SHALL BE AS FOLLOWS: 0.5% ON CONCRETE, 1.0% ON ASPHALT AND 1.5% ON UNPAVED SURFACES.
5. ALL FILL SHALL BE COMPACTED IN 6 INCHES LAYERS TO 90% OF MAXIMUM DENSITY PER ASTM D1557-58T, MODIFIED TO THREE LAYERS AND CERTIFIED BY THE SOIL ENGINEERS.
6. SOIL TEST SHALL BE MADE FOR EACH TWO FEET OF FILL, BUT NOT LESS THAN ONE TEST FOR EACH 500 CUBIC YARD.
7. THE SOIL REPORT PREPARED BY _____ AND DATED _____, AND ALL SUBSEQUENT REPORTS, ADDENDUM, AND RECOMMENDATIONS, ETC. SHALL BECOME A PART OF THIS GRADING PLAN AND ALL COMENDATIONS CONTAINED THEREIN SHALL BE STRICTLY ADHERED TO.
8. NO FILL SHALL BE PLACED UNTIL PREPARATION OF GROUND IS APPROVED BY THE SOIL ENGINEER.
9. THE UNDERSIGNED CIVIL ENGINEER CERTIFIES THAT THE GRADING WORK WILL BE SUPERVISED IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE LATEST EDITION AND APPROVED PLANS AND THAT GRADING DESIGN SHOWN HEREON DOES NOT BLOCK THE NATURAL DRAINAGE FROM ADJACENT PROPERTY NOR INCREASE OR MODIFY THE NATURAL DRAINAGE TO ADJACENT

PROPERTY. REGISTERED CIVIL ENGINEER _____

R.C.E. _____ DATE _____

10. ALL OFF-SITE IMPROVEMENTS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY ENGINEER.
11. NO GRADING SHALL COMMENCE PRIOR TO THE APPROVAL OF THIS GRADING PLAN AND ISSUANCE OF GRADING PERMIT FROM THE ENGINEERING DIVISION OF THE CITY OF COVINA.
12. SEPARATE DEMOLITION PERMIT REQUIRED FOR DEMOLITION OF EXISTING STRUCTURES ON SITE.
13. AN EROSION CONTROL PLAN PREPARED BY THE ENGINEER OF RECORD SHALL BE SUBMITTED TO THE CITY OF COVINA ENGINEERING DEPARTMENT.
14. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE PROVIDED TO PROTECT ADJACENT PROPERTIES FROM DEPOSITION OF MATERIALS OR DIVERTED FLOWS BOTH DURING AND AFTER ALL PHASES OF CONSTRUCTION.
15. THE CONTRACTOR SHALL BE REQUIRED TO WATER THE SITE IN ORDER TO REDUCE DUST DURING CONSTRUCTION AND AT THE END OF THE DAY.
16. THE CONTRACTOR SHALL BE REQUIRED TO SWEEP THE ADJACENT ROADWAYS AT THE END OF EACH WORKING DAY.
17. THE CONTRACTOR SHALL IMMEDIATELY CLEAN UP ANY CHEMICALS AND HAZARDOUS OR NON-HAZARDOUS MATERIALS FROM THE STREET.
18. THE CONTRACTOR SHALL NOT REPAIR ANY EQUIPMENT ON CONSTRUCTION SITE.
19. A REGISTERED CIVIL ENGINEER SHALL SUBMIT A GRADING CERTIFICATE TO THE CITY OF CITY ENGINEER NO MORE THAN 10 WORKING DAYS UPON COMPLETION OF FINAL GRADING OPERATIONS. CERTIFICATE OF OCUPANCY SHALL BE ISSUED

SUBJECT TO THE CITY ENGINEER'S APPROVAL OF SAID ENGINEER'S CERTIFICATE.

20. ANY DAMAGE CAUSED DURING THE GRADING OPERATION MUST BE CORRECTED PRIOR TO THE FINAL CERTIFICATION OF THE GRADING.
21. RETAINING WALLS REQUIRE A SEPARATE BUILDING PERMIT.
22. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA). TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT ISSUED BY THE ENGINEERING DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES WILL BE VALID UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY USA.

<p style="text-align: center;">NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS</p>
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STORM WATER POLLUTION PREVENTION REQUIREMENTS

1. All active grading projects with grading proposed within the rainy season, October 15 to April 15, require a wet weather (Erosion Control) plan. Grading permits will not be issued until wet weather (Erosion Control) plans are approved or details for erosion control are included with the grading plan. Please note: Grading projects with a disturbed (graded) area 1 acre or greater where a Local Storm Water Pollution Prevention Plan or State Storm Water Pollution Prevention Plan is required do not require a separate wet weather (Erosion Control) plan. Wet weather erosion control is a part or element of these plans; however, the erosion control element must be updated annually.
2. The following requirements to control and protect pollutants generated from grading construction activities are based on the project size:
 - a. For small construction sites with a disturbed (graded) area less than one acre, stormwater pollution control measures (BMPs) must be incorporated on the site during construction. Attachment A and B notes must be placed on plans, see enclosed notes.

Attachments A and B to be added to all Grading Plans

ATTACHMENT A NOTES

1. Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.
2. Eroded sediments and other pollutants must be retained on-site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses or wind.
3. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.

4. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
5. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on-site until they can be disposed of as solid waste.
6. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
7. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
8. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.
9. As the project owner or authorized agent of the owner, I have read and understand the requirements listed above, necessary to control storm water pollution from sediments, erosion, and construction materials, and I certify that I will comply with these requirements.

Print Name _____

(Owner or authorized agent of the owner)

Signature _____

Date

(Owner or authorized agent of the owner)

ATTACHMENT B NOTES

The following BMPs as outlined in, but not limited to, the California Stormwater Best Management Practices Handbook, the latest revised edition, may apply during the construction of this project (additional measures may be required if deemed appropriate by the Project Engineer or the Building Official)

EROSION CONTROL

EC1 – SCHEDULING
EC2 – PRESERVATION OF EXISTING VEGETATION
EC3 – HYDRAULIC MULCH
EC4 – HYDROSEEDING
EC5 – SOIL BINDERS
EC6 – STRAW MULCH
EC7 – GEOTEXTILES & MATS
EC8 – WOOD MULCHING
EC9 – EARTH DIKES AND DRAINAGE SWALES
EC10 – VELOCITY DISSIPATION DEVICES
EC11 – SLOPE DRAINS
EC12 – STREAMBANK STABILIZATION
EC13 – POLYACRYLAMIDE
EC 14 – COMPOST BLANKETS
EC 15 – SOILS PREPARATION/ROUGHENING
EC 16 – NON-VEGETATIVE STABILIZATION

TEMPORARY SEDIMENT CONTROL

SE1 – SILT FENCE
SE2 – SEDIMENT BASIN
SE3 – SEDIMENT TRAP
SE4 – CHECK DAM
SE5 – FIBER ROLLS
SE6 – GRAVEL BAG BERM
SE7 – STREET SWEEPING AND VACUUMING
SE8 – SANDBAG BARRIER
SE9 – STRAW BALE BARRIER

SE10 – STORM DRAIN INLET PROTECTION
SE 11 – ACTIVE TREATMENT SYSTEM
SE 12 – TEMPORARY SILT DIKE
SE 13 – COMPOST BLOCKS AND BERMS
SE 14 – BIOFILTER BAGS

WIND EROSION CONTROL

WE1 – WIND EROSION CONTROL

EQUIPMENT TRACKING CONTROL

TC1 – STABILIZED CONSTRUCTION ENTRANCE EXIT
TC2 – STABILIZED CONSTRUCTION ROADWAY
TC3 – ENTRANCE/OUTLET TIRE WASH

NON-STORMWATER MANAGEMENT

NS1 – WATER CONSERVATION PRACTICES
NS2 – DEWATERING OPERATIONS
NS3 – PAVING AND GRINDING OPERATIONS
NS4 – TEMPORARY STREAM CROSSING
NS5 – CLEAR WATER DIVERSION
NS6 – ILLICIT CONNECTION/DISCHARGE
NS7 – POTABLE WATER/IRRIGATION
NS8 – VEHICLE AND EQUIPMENT CLEANING

NS9 – VEHICLE AND EQUIPMENT
FUELING
NS10 – VEHICLE AND EQUIPMENT
MAINTENANCE
NS11 – PILE DRIVING OPERATIONS
NS12 – CONCRETE CURING
NS13 – CONCRETE FINISHING
NS14 – MATERIAL AND
EQUIPMENT USE
NS15 – DEMOLITION ADJACENT
TO WATER
NS16 – TEMPORARY BATCH
PLANTS

WASTE MANAGEMENT &
MATERIAL POLLUTION CONTROL

WM1 – MATERIAL DELIVERY AND
STORAGE
WM2 – MATERIAL USE
WM3 – STOCKPILE MANAGEMENT
WM4 – SPILL PREVENTION AND
CONTROL
WM5 – SOLID WASTE
MANAGEMENT
WM6 – HAZARDOUS WASTE
MANAGEMENT
WM7 – CONTAMINATION SOIL
MANAGEMENT
WM8 – CONCRETE WASTE
MANAGEMENT
WM9 – SANITARY/SEPTIC WASTE
MANAGEMENT
WM10 – LIQUID WASTE
MANAGEMENT

