



**ORANGE COUNTY PUBLIC WORKS DEPARTMENT
DEVELOPMENT ENGINEERING DIVISION
PLAN REVIEW SECTION**

**RESIDENTIAL LOT GRADING POLICY FOR
NEW HOME CONSTRUCTION AND
ACCESSORY DWELLING UNITS
LOCATED IN IN-FILL AND RE-DEVELOPMENT LOTS.**

DEFINITION

Lot grading is the reshaping or sloping of the land in such a way that surface drainage from rain runoff is directed away from the buildings and is controlled in a manner that eliminates or minimizes the impact on adjacent properties and county rights-of-way.

LOT GRADING REQUIREMENTS

The following lot grading requirements shall come into effect on April 1st, 2023:

1. An individual lot-grading plan, signed and sealed by an engineer registered in the State of Florida, shall be submitted.
2. A current topographic survey with one-foot contour intervals, extending a minimum of 25' beyond property line, shall be required. Surveys are to be signed and sealed by a registered surveyor in the State of Florida.
3. If the proposed improvements are to be within 20' of the property line, details must provide assurance that runoff will not be directed towards adjacent properties.
4. To the fullest extent possible, stormwater runoff shall be directed to the street (Type "A" Grading). Methods may include a 6" to 12" minimum depth for swales, stem walls, retaining walls, gutters and downspouts, French drains, etc.
5. Show the existing elevation of the centerline of the roadway, based on an Orange County datum.
6. Provide the proposed finished floor elevation and building envelope, based on Orange County datum (Orange County Code 34-132). The Final Floor Elevation (FFE) shall be a Minimum of 18 inches (1.5 ft.) above the elevation of the center of the road or as approved by Orange County Engineer.
7. Show the proposed lot-grading FHA type "A", "B", or "C". Although to the fullest extent possible, stormwater runoff shall be directed to the street (Type "A" Grading).
8. Show the existing and proposed elevation at all lot corners and at other significant locations, based on Orange County datum (Four corners, grade break points along side of property, swale, crown of street, and finished floor elevation).

9. A desired minimum slope of 1% shall be maintained for grading (Orange County Code 34-230).
10. The minimum Final Floor Elevation shall be one foot (1') above the determined 100-year flood elevation (Orange County Code 32-279).
11. Provide the location and cross-sections of any proposed swales.
12. Provide arrows indicating the anticipated directions of surface drainage flow.
13. Show all private and public easements.
14. All structures including swimming pools and associated structures, sheds, walls etc. must be located outside any easements, including drainage and utility easements.
15. Show if foundation is "Slab on Grade" or "Stem Wall" construction.
16. If the lot is located adjacent to a lake or conservation area, a min. 12" deep environmental swale shall be required to be shown including a typical section plus elevations, depth, and width.
17. The FFE shall be no more than one-tenth (1/10) of one foot (1') below the approved design elevation.
18. The FFE shall be no more than one-half (1/2) of one foot (1') above the approved design elevation.
19. Driveways shall be constructed of a minimum 6" thick - 3,000 psi concrete. Use 6" of non-steel reinforced concrete in Right-of-Way (including sidewalk section).
20. Driveways must be a minimum of 3' from the property line.
21. Provide and show on the plans the required (5') five-foot concrete sidewalks along all street frontages.
22. A maximum of one driveway shall be allowed when the lot frontage is less than one hundred feet in width.
23. Pavers in the Right-of-Way are acceptable but cannot be used on crosswalk or sidewalk.
24. Drainage must not be negatively affected by the driveway. For ditch fronts, install culvert with mitered ends under driveway. For small swales it might be required to invert the driveway to allow for positive flow.
25. Culverts shall be 15" RCP minimum.
26. Provide and show on plans the dimensioned septic tank and drain field location, associated grading, maintenance berms, setbacks from structures, and tie down slopes and cross sections.
27. If any fill is placed in the 100-year flood basin, compensating storage shall be provided. Show the 100-year base flood elevation and contour line on the plan. Provide the flood zone type of the site.
28. Submit a copy of a Flood Plain Permit if the project is located adjacent to a lake or wetland.

29. AS-BUILT CERTIFICATION:

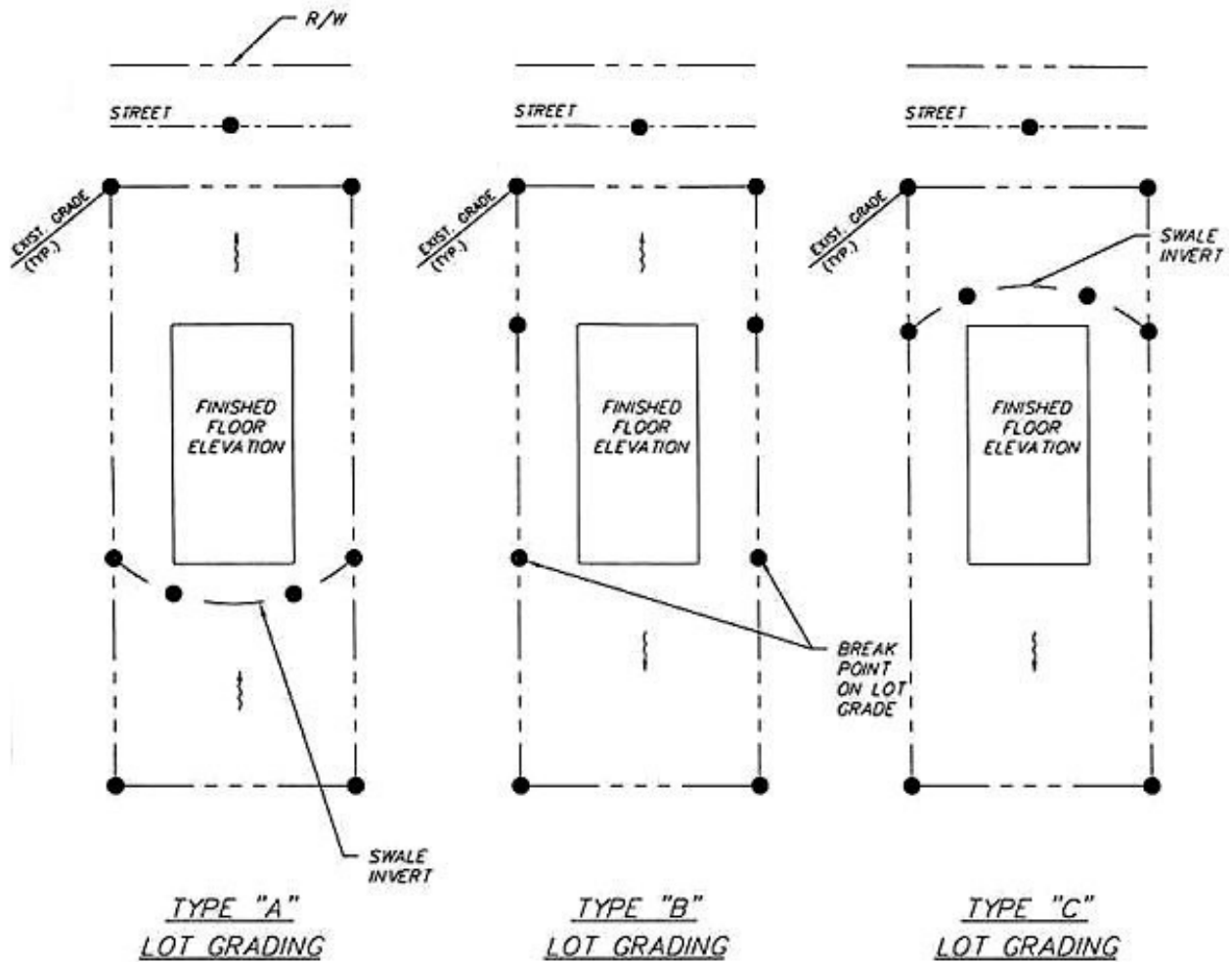
After the grading of the lot is completed, the Engineer of Record shall inspect the grading and provide a signed and sealed Engineer's Certification of Completion stating exactly the following:

"In the professional opinion of _____, P.E., as a registered engineer in the State of Florida, I certify that the improvements for grading for the project _____, (permit number) have been completed substantially in compliance with the engineering plans approved by Orange County. This determination is based on a construction site observations and review of inspection reports by me or a representative under my direction. Enclosed are record drawings, which I have reviewed prior to this certification.

NOTE: Once the lot grading has been inspected, certified, and approved, it is the property owner's responsibility to maintain the surface grading in perpetuity.

EXHIBIT 1

SPOT GRADE PATTERN FOR FINAL LOT GRADING APPROVAL



NOTE:

- SPOT GRADES: Four corners, grade break points along side of property, swale, crown of street, and finished floor elevation.

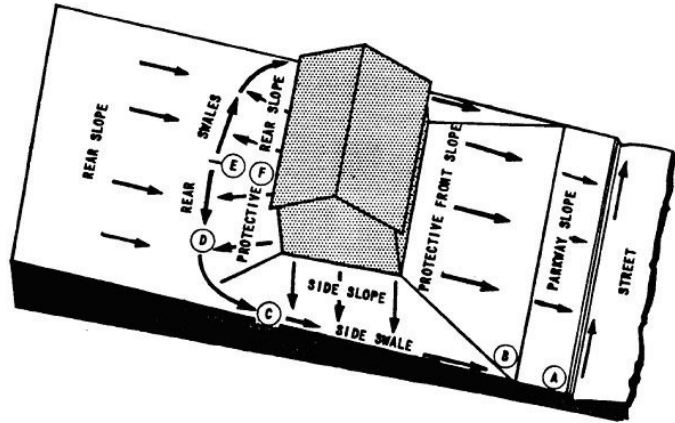
EXHIBIT 2 TYPICAL FHA-HUD LOT GRADING

TYPE "A" LOT GRADING

ALL DRAINAGE TO STREET

Rear yard swales behind the house carry surface water from rear yard to side yard swales (1% minimum) which carry it to street for disposal through the street gutters and the public storm drainage system.

- A Curb-top on lot line extension at highest lot corner.
- A-B Parkway slope
- B-C Side yard swale
- C-D Swale turn with 10' radius
- D-E Rear swale
- E-F Protective rear slope up from high point of swales

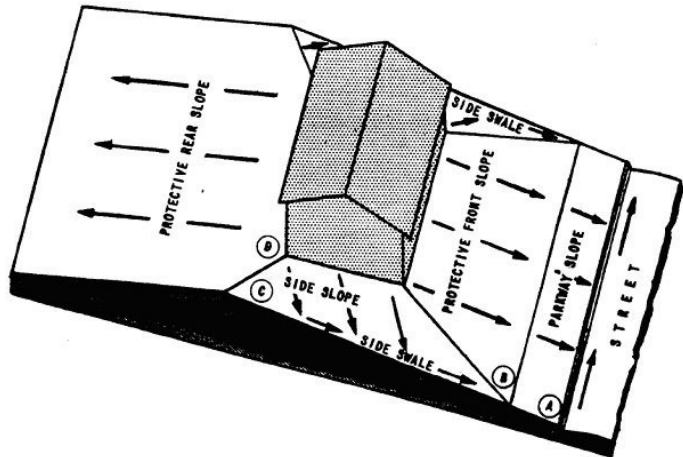


TYPE "B" LOT GRADING

DRAINAGE BOTH TO STREET & TO REAR LOT LINE

Only side swales are needed to drain both to the street and to the rear lot line. They should extend back of the line of the rear building wall; then splash blocks from rear roof downspouts should be placed to direct roof water to the side swales for drainage directly to the abutting street. Thus the amount of water carried on the rear slope to easements or other properties is kept as small as possible. This reduces erosion and disposal problems.

- A Curb-top on lot line extension at highest lot corner
- A-B Parkway slope
- B-C Side swale
- C-D Protective side slope at extension of rear wall



TYPE "C" LOT GRADING

ALL DRAINAGE TO REAR LOT LINE

Front swales are essential to carry surface water from the front yard to side-yard swales which carry it to the rear for disposal in easements or across other properties. Proper cross-section of the street gutter, curb and parkway strip are essential to stop street water from flowing onto the lot.

- A Curb-top at high side of driveway near low lot corner
- A-B Parkway slope
- B Driveway grade change from upgrade drive in street to downgrade drive on lot
- C-D Driveway downgrade point out from front of building
- D-E Front swale
- E-F Protective front slope from highpoint of swales

