



GRADING PLAN CHECKLIST

In accordance with Township Ordinance 112-07, any development projects within the Township which involve grading or disturbing of more than 500 square feet of surface dirt shall require the review and approval of a grading plan. Applications shall be accompanied by a Grading Plan, submitted in triplicate, conforming to the standards contained within. Applicants shall be notified if their Grading Plan submission is found deficient and will be required to provide additional information or a revised plan within ten (10) business days of the original submission date. If additional information is not submitted within this timeframe, the application will be considered incomplete and will be denied by the Zoning Officer.

GRADING PLAN REQUIREMENTS

1. Grading Plans must include:

- a title block indicating the address and designated block and lot of the site, as well as the name, address and telephone number of the preparer with the title "GRADING PLAN;"
- be signed and sealed (embossed) by a Professional Engineer or Landscape Architect licensed in the State of New Jersey;
- the name and address of the applicant clearly stated on the plan;
- the vertical datum year, with a conversion equation included on the plan if assumed datum is used;
- be legible and of sufficient scale and quality to be reproducible;
- include contour lines at one (1) foot intervals and spot elevations of high and low points. Contour lines must clearly show existing characteristics of topography, such as existing of lawn swales, ditches, ridgelines, and general pattern of drainage flow. Where grade changes and fill are involved, proposed conditions must be superimposed;
- show existing/proposed spot elevation of all property corners and intermediate points at intervals not exceeding fifty (50) feet along all property lines. Existing topography shall be extended a minimum of fifty (50) feet beyond the property lines in all directions. Spot elevations of adjacent building corners must be shown;
- show lot layout, including all structures and other site improvements with overall dimensions of structures, setback distance from property lines, and location of driveways, fences, pools, decks, retaining wall, trees, etc.;
- be consistent with actual conditions of site, based on site inspection.

2. Property Lines, Easements, and Setbacks must:

- be shown on the plan and abutting properties must be identified by block and lot numbers;
- have bearing and dimensions of property lines, width and purpose of easements, and building setback lines in accordance with the Zoning Ordinance.

3. Right-of-Way Improvements must:

- be shown on the plan including the width of the right-of-way and cartway, the location of existing and proposed curbing, and driveway aprons and sidewalks along the frontage of the property as well as adjacent properties;

- have pertinent information related to the existing and proposed site improvements such as elevation of centerline of roadways, top of curb and gutter, and sideway and driveway aprons. Where no curb exists, pavement edge elevation shall be provided;
- receive the required municipal right-of-way opening permits prior to the commencement of work. The Voorhees Township Department of Engineering shall be notified at least twenty-four (24) hours prior to any construction activity.

4. Where a New Structure or Addition is Proposed:

- The lot shall be graded to direct surface runoff toward the frontage road or other defined drainage paths. Where it is intended for the lot to slope toward the frontage road, finish floor of the proposed dwelling shall be set a minimum of three (3) feet above the maximum pavement gutter elevation occurring along the frontage of the lot. Finish grades at the foundation perimeter shall be a minimum of nine (9) inches below the first floor elevation. In no case shall garage floor or any opening to the dwelling be less than one and one half (1.5) feet above the lowest gutter elevation.
- Elevations of first floor and garage, as well as finished grades at all building openings and corners, must be shown.
- Location of existing/proposed utility service connections (sanitary and water) must be shown. Shuster/clean-out vent for sanitary lateral should be shown in the park strip between the curb and sidewalk, if it exists. Otherwise, the vent shall be shown within six (6) feet of the right-of-way line, and must show proposed invert of clean-out.

5. Where a Swimming Pool Installation is Proposed:

- The lot shall be graded to direct surface runoff toward the frontage road or other defined drainage paths. Finished deck elevations shall be set above the natural grade occurring on the lot to prevent surface water from flowing into the pool.
- Plan must have pertinent information related to the elevations of the existing/proposed site improvements such as proposed pool deck, finish floor of the dwelling, finished grades at all building openings and corners, top of curb and gutter, sidewalk and driveway.
- Plan must show limits of fill and land disturbance. In no case shall fill be placed so as to interrupt existing drainage patterns or within five (5) feet of any property line. In no case shall fill be placed within an easement.
- Swimming pools shall be considered pervious surfaces in accordance with the definitions of Section 150.10. In no case shall an in-ground pool or concrete surface surrounding an in-ground pool or an above-ground pool or pool decking be placed within fifteen (15) feet of a property line or within an easement. The Grading Plan shall ensure that the proposed swimming pool will not cause an increase in runoff to adjacent property owners.

6. Where a Lot Abuts a Stream Corridor, Floodplain, or Wetland:

- Stream encroachment, flood boundary, and/or wetland lines shall be shown and a source of the information shall be noted on the plan. In case where no study is available, that shall be noted on the plan.
- Must have bearing and distances with NJDEP permit number and date of approval for encroachment line, or, if not delineated, must have flood boundary elevation based on a State approved or accepted study.

- All construction and grading activities shall comply with the requirements of applicable NJDEP Regulations. The applicant is responsible for obtaining a jurisdictional determination from the appropriate authorities.

7. Minimum Grading Standards:

- Draining for the total site shall be positive. Lawn areas with gradients of at least two (2%) percent shall be sloped away from building foundations. Grassed lawn swales with a desirable slope of two (2%) percent, but in no case less than one and one half (1.5%) percent shall direct surface runoff toward the frontage road or other defined drainage path(s). Grading shall no impact adjacent properties by diversion of surface runoff.
- Proposed drainage patterns shall be denoted with flow arrows. Spot elevations shall be provided along major drainage paths. Dry wells, vegetated swales, infiltration trenches, French drains, or other best management practices, in accordance with the most recent NJDEP Best Management Manual, are permitted.
- Slopes shall not be steeper than three (3) horizontal to one (1) vertical. Slopes shall be well rounded at top and bottom to reduce the possibility of erosion. Steeper grade changes shall be confined by retaining structures or other acceptable methods. Terracing is permitted.
- Top of an excavation and/or toe of slope of a fill section shall not be closer than five (5') feet to an adjoining property line or structure.
- Proposed grading shall not extent beyond the property lines unless the written consent of the adjacent owner is obtained through a temporary construction easement.
- Driveways shall not have a slope greater than twelve (12%) percent. Where site conditions require a greater slope, a design waiver may be requested.

8. Soil Erosion and Sediment Control:

- All disturbed land within or adjacent to the work area, which is the result of the contractor's operations, shall be stabilized in accordance with the **Standards for Soil Erosion and Sediment Control in New Jersey**. All grading and soil stabilization shall be completed within thirty (30) days from the issuance of the permit. A note to this effect shall be included on the plan.
- Soil erosion and sediment control measures shall be provided and shall include silt fences at down slope perimeters of the disturbed area and a stabilized construction entrance, approximately ten (10') feet wide and twenty (20') feet long, consisting of six (6") inch thick stone apron (2" aggregate – ASTM Size No. 2)
- Stockpiling of material and debris within the right-of-way area is prohibited. The roadway shall be swept clean of all earth and debris at all times.

9. Where Retaining Structures or Other Site Details are Needed:

- Retaining structures which must retain more than four (4') feet of material or for rip-rap bank protection which is steeper than three (3) horizontal to one (1) vertical must have calculations prepared by a Licensed Professional Engineer certifying the stability of the structure.
- Details of all proposed site improvements, such as landscape or retaining structures, drainage facilities, etc., shall be submitted with and become part of the application. All proposed site improvements subject to building codes shall be submitted for review to determine compliance with applicable standards.

10. As-Built Plan:

- Mark up any change in the approved Grading Plan after construction is completed.

§154.006(E) Compensatory planting.

- (1) Removal of trees having a caliper of five inches or greater as measured 36 inches above ground from any lot is prohibited in the process of grading or installing improvements. Where, in the judgment of the reviewing board, such removal is unavoidable and constraints incident to the land itself (including, without limitation, extreme topography, unsuitable soils, rock outcrops and existing uninterrupted dense canopy) render it impractical to locate on the lot the required number of compensatory trees, then, at the election of the reviewing board, the applicant shall either install a portion of the required compensatory trees on other public lands within the Township or make a contribution in lieu thereof in accordance with division (E)(4) of this section, said contribution to be based upon the estimated cost of those trees which cannot practically be installed on the property as determined by the reviewing engineer.
- (2) Notwithstanding the five-inch caliper limitation set forth above, no substantial area of smaller trees or shrub cover shall be removed without the provision of comparable replacement as approved by the reviewing board. The site plan or subdivision plan approval applications shall include a tree removal and replacement plan and statement indicating the trees and/or material to be removed and the plan for compensatory replacement pursuant to this §154.006(E).
- (3) The following shall be exempt from the requirements of this §154.006(E):
 - (a) Managed woodlands and agricultural uses.
 - (b) Trees removed during normal homeowner maintenance. Examples would include trees removed due to storm damage or disease and those removed to prevent damage to roofs, swimming pools, utilities, driveways and landscaping.
 - (c) Trees removed due to clearing for the following:
 1. Road, utility and pedestrian rights-of-way;
 2. Areas within the foundation lines of a proposed building; or
 3. Areas within front yard areas required for the installation of utility service lines, entry walks and driveways.

Plan Signature Requirements per New Jersey Administrative Code Title 13, Chapter 40, Subchapter 7

- Survey showing existing conditions and exact location of physical features including metes and bounds, drainage, waterways, specific utility locations, and easements must be prepared by a Professional Land Surveyor, per N.J.A.C. 13:40-7.2(a).
- Survey information may be transferred to the Site Plan if duly noted as to the date of the survey, by whom, and for whom. A signed and sealed copy of the survey shall be submitted to the reviewing governmental body with the Site Plan submission, per N.J.A.C. 13:40-7.2(a)(1).
- Drainage facilities for site plans of ten (10) acres or more, or involving stormwater detention facilities, or traversed by a water course must be prepared by an engineer only, per N.J.A.C. 13:40-7.3.
- Other drainage facilities must be signed by an architect or engineer, per N.J.A.C. 13:40-7.3(d).



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ESCROW ACCOUNT CERTIFICATION

I understand that the sum of \$500.00 has been deposited into an escrow account, in accordance with Section 156.033 of the Voorhees Township Unified Land Development Ordinance. I further understand that the escrow account is established to cover the cost of any professional personnel, under the direction of the Township, employed by the reviewing board, Township Committee, or Township Engineer to process, review, inspect, study, or make recommendations concerning the nature and substance of the application and/or to pay for the services of any such professional personnel and the costs and expenses incurred by such personnel, the reviewing board, and/or Township Committee to create, amend, or modify the official Tax Map and/or Zoning Map as a result of the approval of this application. Any sums not utilized shall be returned. If additional sums are deemed necessary, I understand that I will be notified of the required additional amount and shall add funds to the escrow account within ten (10) days of receipt of written notice from the Township.

Signature of Applicant

Date

Printed Name of Applicant