

Grading/Excavating

Borough of Dormont
1444 Hillside Ave
Pittsburgh, PA. 15216
412-561-8900



A Grading Permit will be required in any one of the following situations:

- Excavation exceeds four (4) feet in vertical depth at its deepest point measured from the ground surface or covers an area more than 1,000 square feet.
- Fill which exceeds 10 cubic yards of material of any one site.
- Fill which exceeds three (3) feet in vertical depth at its deepest point measured from the ground and covers an area of more than 1,000 square feet.
- When residential construction for single-family house does not fall within the limits of the table below: than a grading permit is required.

| <u>Site Size</u> (square feet) | <u>Gradient</u> | <u>Amount of Excavation or Fill</u> (cubic yards) |
|-----------------------------------|-------------------|--|
| Less than 6,000 | 12 in 100 feet | 75 |
| 6,000 to 10,000 | 15 in 100 feet | 100 |
| 10,000 to 18,000 | 17 in 100 feet | 200 |
| 18,000 to 30,000 | 20 in 100 feet | 300 |
| Over 30,000 | 22 in to 100 feet | 400 |

All applicants for a grading permit shall file a grading application with plans, specifications and a soil conservation report with the Building Inspector. The plans and specifications shall be prepared, signed and sealed by a professional engineer, surveyor or architect and shall accurately describe the site and proposed soil erosion controls, if any. Plans shall be submitted in duplicate.

Plans shall include:

- 1) The name of the applicant.
- 2) The name of the owner of the land.
- 3) The permission and approval of the owner of the property if the applicant is an agent or tenant of the landowner, by affidavit.
- 4) A contour map showing the present contours of the land and the proposed contours of the land after completion of the proposed grading at two-foot intervals where the average slope is 15% or less and at five-foot intervals where the average slope exceeds 15%.

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- 5) Cross sections of the proposed cut or fill on fifty-foot intervals which show the method of benching both cut and/or fill; provided, however, that there shall be not fewer than two cross sections for each site.
- 6) Accurate location by lot, block, tract or street address, survey or location map.
- 7) A plot plan showing the location of the grading boundaries, lot lines, neighboring streets or ways, buildings, surface and subsurface utilities and waterways, drainage patterns and sufficient dimensions and other data to show all work.
- 8) A description of the type and classification of the soil from the soil survey, other standard surveys or other methods.
- 9) Details and location of any proposed drainage, structures and pipes, walls and cribbing.
- 10) Seeding locations and schedules, debris basins and diversion channels.

A soil conservation report shall be required and include existing site description of the topography, drainage, cover and soils; major problems such as soil limitations, erosion and sediment potential and surface runoff changes; and recommendations to minimize soil limitations, erosion and sediment and surface water disposal problems.

If truckloads are to be removed from the site, a description of truck travel routes must be approved by the Borough.

Performance and Maintenance Bonds.

Before issuance of a grading permit, under chapter 117-12 of the Borough of Dormont Code the applicant shall post a cash or performance bond acceptable to the Borough in the amount of 50% of the estimated cost to perform the work. The cost estimate shall include the complete scope of work needed to be performed by the applicant to comply with this chapter and shall be prepared and certified by the applicant's engineer or architect and accepted as reasonable by the Borough Engineer. The Borough Engineer shall be the final arbiter as to the reasonableness of any cost estimates.

Upon completion of the job, a maintenance bond in an amount of 15% of the cost estimated shall be posted (payable to Dormont Borough) for a period of two years.

No bond shall be required if another bond or approved security is posted for construction and/or site improvements which already covers the cost of grading and other control facilities.

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Working Conditions.

The following general working conditions will apply to all grading sites:

- A. **Dust control.** During grading operations, necessary measures for dust control will be Exercised.
- B. **Cleanup.** All soil washed or carried onto public streets during grading operations shall be cleaned up each day. Temporary driveway or road surfaces shall be provided as soon as possible. The owner of the property being graded shall be responsible to protect lower properties by removing any silt and debris which have washed down onto their properties as a result of the grading work on the higher property and to restore to original condition.
- C. **Workdays.** None of the work or activity covered by a grading permit shall be conducted on a Sunday or legal holiday without the approval of Council or the Council's designated Representative.
- D. **Work hours.** All of the work and activity covered by a grading permit shall be conducted between the hours of 7:00 a.m. and 5:00 p.m., unless these time limits are extended, excused or otherwise modified by the Council or it's designated representative.

Inspections.

The Borough Engineer will make the required inspections and shall either approve that portion of the work which has been completed or notify the permit holder wherein the same fails to comply with the provisions of the code. Where it is found by inspection that the soil or other conditions are not as stated or shown in the application, the Borough Engineer may refuse to approve further work until approval is obtained for a revised grading plan conforming to existing conditions.

Plans for grading work bearing the stamp of approval of the Borough Engineer shall be maintained at the site during the progress of the grading work and until the work has been approved.

The permit holder shall notify the Borough Engineer in order to obtain inspections in accordance with the following schedule and at least 48 hours before the inspection is to be made. Before calling for any inspection, the owner shall have the property line stakes set and sufficient grade stakes set by a registered engineer-surveyor to enable the Engineer to verify the grading operation. The following are inspections required by the Borough Engineer, please call (412) 561-8900 to schedule these inspections.

- 1) Initial inspection: when work on the excavation or fill is about to be commenced.
- 2) Rough grading: when all rough grading has been completed.
- 3) Drainage facilities: when drainage facilities which connect to or shall become public facilities are to be installed and inspected before such facilities are backfilled.

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- 4) Special structures: when excavations are complete for retaining and crib walls, when reinforcing Steel is in place and before concrete is poured.
- 5) Final inspection: when all work, including the installation of all drainage and other structures, has been completed.

If, at any stage of the work, the Borough Engineer shall determine by inspection that the nature of the formation is such that further work as authorized by an existing permit is likely to endanger property or streets or alleys or to create hazardous conditions, the Borough may require, as a condition to allowing the work to be done, that such reasonable safety precautions be taken as the Borough Engineer considers advisable to avoid such likelihood of danger. Safety precautions may include, but shall not be limited to, specifying a flatter exposed slope, construction of additional drainage facilities, berms, terracing, compaction or cribbing.

Performance and Design Standards

Excavation.

A. Maximum slope steepness.

- 1) Maximum slope steepness of a cut shall be two feet horizontal to one foot vertical for minimizing erosion and landslide hazards. However, a governmental review agency or a registered soils engineer may determine the types of soil on the site to be graded from the soil survey, other standard surveys, geological surveys or core borings. Maximum slopes can then be determined as follows.
- 2) Landslide-prone soils or unstable rock formations where existing slopes are less than 25% shall have proposed cut slopes no steeper than those that are recommended by a registered soils engineer. A document signed and sealed by said engineer shall be forwarded to the Borough prior to approval of the grading permit. Soil survey map symbols for landslide-prone soils are:
 - a) UGB: Urban Land - Guernsey Complex, gently sloping: 0% to 8% slope.
 - b) UGD: Urban Land - Guernsey Complex, moderately sloping: 8% to 25% slope.

B. Cut slopes which are steeper than those specified above may be allowed under a grading permit, provided that one or both of the following is satisfied:

- 1) The material in which the excavation is made is sufficiently stable to sustain a slope steeper than the slope specified above for recognized soil conditions on the site. A written statement, signed and sealed by a registered soils engineer, stating that the steeper slope will have sufficient stability and that risk of creating a hazard will be slight, must be submitted to the Building Inspector.

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- 2) A retaining wall or other approved support designed, signed and sealed by a professional structural engineer and approved by the administrator is provided to support the face of excavation.
- C. The top or bottom edge of slopes shall be set back from adjacent property lines or street rights-of-way in order to permit the normal rounding of the edge without encroaching on the abutting property or street.
- D. Before commencing any excavation, which will in any way affect an adjoining property or structures thereon, the person making the excavation shall notify, in writing, the owners of the adjacent property or buildings not less than 30 days before such excavation is to be made that the proposed excavation is to be started. Copies of all such notices shall be supplied to the Building Inspector.
- E. The Building Inspector may require an excavation to be made with a cut slope flatter than those specified above if he or she finds that the material in which the excavation is to be made is unusually subject to erosion or if other conditions exist which, under applicable engineering practice, make such flatter cut slope necessary for stability and safety.
- F. Excavations adjacent to any footing, foundation or structure shall not extend below the minimum angle of repose or natural slope of the soil under the nearest point of the same unless such footing, foundation or structure is first properly underpinned or otherwise protected against settlement.

Fill.

- A. No fill shall be made in the Borough which creates a slope steeper than one foot vertical to two feet horizontal. However, the Borough, on the advice and recommendation of a registered soils engineer, may impose conditions requiring that a fill be constructed with an exposed surface flatter than two feet horizontal to one foot vertical if the soils engineer states that, under the particular circumstances involved, such flatter surface is necessary for stability and for the safety of persons and property.
- B. Whenever a fill is to be made of materials other than clean soil or earth, the grading permit shall be subject to the following additional limitations and requirements:
- 1) The fill shall be completed within a reasonable length of time as determined by the Engineer and specified on the grading permit.
 - 2) Clean soil or earth shall be placed over the top and exposed surfaces of the fill to a depth sufficient to effectively conceal all materials used in the fill other than clean soil or earth. If the filling operation is intermittent, the Engineer may require that the top and exposed surfaces of the fill be covered at the completion of each lift.

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- 3) No fill of any kind shall be placed over topsoil, trees, stumps or other material which would create a nuisance, potential fire hazard or sanitary problem such as decomposition which would attract rodents, termites or other pests.
- C. Where fills are located so that earth movement may result in personal injury or damage to adjacent property, streets, alleys or buildings, the bearing value and stability of the material under proposed fills and embankments shall be determined by subsurface investigation performed by a registered soils professional engineer.
 - D. Rock may be incorporated into fills and embankments but only in layers 24 inches thick, maximum, as per the latest edition of the Pennsylvania Department of Transportation Specifications Publication 408, with voids filled and a blanket of compacted fill separating one layer of rock from the next. Rock fill shall not be placed near the bottom of foundations, building caissons and subsurface utility installations. Suitable earth shall be reserved or provided to cover rock fill under proposed seeded or planted areas.
 - E. No unsuitable material, including but not limited to the following: coal, boney, red dog, expansive shale cinders, wood or solid waste decomposable material, shall be placed in fill areas.
 - F. On major fills or embankments, a toe bench shall be constructed below the mantle under the toe of fill. A porous drain and a discharge pipe shall be installed on the bottom and the back wall of the toe bench.
 - G. All fills and embankments shall be installed in accordance with the requirements set forth in the latest edition of the Pennsylvania Department of Transportation Specifications Publication 408 and any special provisions as specified by a registered soils engineer.
 - H. The top or bottom edge of final slopes shall be set back three feet from adjacent property lines or street right-of-way lines in order to permit the normal rounding of the edge without encroaching on the abutting property or street and to allow for location of proper drainage facilities and protective devices.
 - I. For all fills or embankments, a compaction test shall be required at the end of each eight-inch lift prior to the start of the next lift of material.

Retaining Walls.

- A. If a Retaining wall is constructed to satisfy a requirement of this article, a building permit, as provided for by other municipal regulations, shall not be required. The grading permit will apply to the retaining wall, and the requirements for inspections, etc., as stated herein will be complied with.
- B. Retaining walls must be designed and constructed in accordance with sound engineering practice. The plans submitted for approval shall bear the seal of a professional engineer.

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- C. The backfilling of retaining walls and the insertion of subterranean drainage facilities shall be done strictly in accordance with the provisions of this article and the appropriate municipal specifications.
- D. In general, where a wall is replacing an exposed slope, the vertical face of the wall shall be three feet back from the adjoining property.
 - 1) A special exception to this requirement may be applied for and granted by the Building Inspector if it can be satisfactorily demonstrated that such a variance is necessary to ensure normal use of the property, i.e., for a sideline driveway.
 - 2) The requirement of this subsection may also be set aside when the proposed retaining wall is a joint venture between adjacent property owners and appropriate documents so stating are filed with the application for the permit.

Drainage.

- A. Adequate provisions shall be made to prevent surface water from damaging the cut face of excavations and/or the sloping surface of fills and/or adjacent properties. Interception and diversion facilities for storm water and surface water runoff, both above and below the cut area during and after construction, shall be included in the design.
- B. Drainage ditches shall be constructed at the toe and top of cut and fill slopes to divert the surface water to drainage facilities during and after construction.
- C. Drainage ditches with a grade of 5% or greater shall be paved with concrete, bituminous material, brick, half pipe, rubble or other hard-surface material.
- D. The Building Inspector may approve methods and materials recommended by governmental agencies, professional engineers and architects when they are more suitable to the site in preventing damage. Private drainage facilities of any nature shall be at least designed to accommodate the largest size storm that would occur on the average of every 10 years.

Erosion and sedimentation control.

- A. An erosion and sedimentation control plan shall be submitted in accordance with Chapter **101**, Erosion and Sediment Pollution Control, of the Code of the Borough of Dormont.
- B. In order to prevent erosion, the permit holder shall be required to provide adequate ground covering as specified in Chapter **101**, Erosion and Sediment Pollution Control, of the Code of the Borough of Dormont.

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Maintenance Required.

- A. The owner of any property on which an excavation or fill has been made shall maintain in good condition and repair the excavation or fill permitted and also all retaining walls, cribbing, drainage structures, fences, ground cover and any other protective devices as may be a part of the permit requirements.
- B. If, at any time subsequent to the completion of the grading work, the cut face or fill slope shows evident signs of deterioration, erosion or other evidence which might be detrimental to the properties above or below the grading site, the Borough of Dormont, upon the recommendation of its Engineer, may direct the property owner to take whatever necessary remedial steps are deemed necessary to restore the grading area to a safe condition and to do so in a reasonable period of time.
- C. If, after such notification, the property owner has not made the necessary repairs within the allotted time, the Borough Council may direct Borough employees to make the required repairs, and the cost thereof shall be borne by the property owner by a lien filed as provided by law.

Additional Requirements.

- A. The top or bottom edge of slopes shall be at least three feet from adjacent property lines or street right-of-way lines in order to permit the normal rounding of the edge without encroaching on the abutting property or street.
- B. The owner of the property being graded shall be responsible to protect and clean up lower properties of silt and debris which have washed down onto the lower properties as a result of the grading work on the higher property and restore to original condition.
- C. In order to prevent the denuding of the landscape, wherever practicable, large trees and other natural features constituting important physical, aesthetic and economic assets to existing or impending development work shall be preserved.