#### TOWNSHIP OF FORKS NORTHAMPTON COUNTY, PENNSYLVANIA

#### **ORDINANCE NO. 399**

AN ORDINANCE OF FORKS TOWNSHIP AMENDING THE CODE OF ORDINANCES OF THE TOWNSHIP OF FORKS BY ADOPTING A NEW "CHAPTER 101 GRADING; EROSION AND CONTROL", CONTROLLING SOIL SEDIMENTATION **EROSION, SEDIMENTATION, AND GRADING; DETERMINING** THE SCOPE, PURPOSE, AND DEFINITIONS THEREOF; ESTABLISHING GENERAL AND SPECIAL REQUIREMENTS REOUIREMENTS FOR **THEREFORE: ESTABLISHING SEDIMENTATION** CONTROL PLANS. **EROSION** AND **FLOOR REVIEW**, FIRST PLANS. PLAN GRADING GRADING AND **GENERAL CERTIFICATION.** PERMIT RE PROVIDING FOR **REOUIREMENTS; OUIREMENTS** AND **EXEMPTIONS THEREFROM:** MANDATING APPLICATION PROCEDURES AND PLAN SUBMISSIONS; ESTABLISHING STANDARDS FOR APPROVAL AND ISSUANCE OF PERMITS; REQUIRING INSPECTIONS AND ALLOCATING THE COST THEREOF; AUTHORIZING PERMIT FEES: PRESCRIBING PENALTIES AND REMEDIES FOR ALL **ORDINANCES VIOLATION;** AND REPEALING **INCONSISTENT THEREWITH.** 

**IT IS HEREBY ORDAINED AND ENACTED** by the Board of Supervisors of Forks Township, Northampton County, Pennsylvania, as follows:

#### SECTION I SHORT TITLE.

This Ordinance shall be known and may be cited as the "Forks Township Soil Erosion, Sedimentation, and Grading Control Ordinance," implementing Act 167 - Stormwater Management Act and under the authority of the Second Class Township Code and the Municipalities Planning Code, Articles V and VI.

#### SECTION II FINDINGS AND PURPOSES.

A. Findings. In Forks Township excessive quantities of soil are eroding from areas undergoing development for nonagricultural uses, such as housing developments, industrial sites, roads, and recreation areas. The washing, blowing and deposition of eroded soil across and upon roadways decreases visibility and reduces the traction of automobiles. This soil erosion necessitates the costly repair of gullies, washed out fills, roads, and embankments and

causes the undermining of trees. The resulting sediment clogs storm sewers and muddies, pollutes, and silts streams, rivers, ponds, and lakes. The sediment is expensive to remove and limits the use of water for most beneficial purposes; promotes the growth of undesirable aquatic weeds; and destroys fish and other desirable aquatic life. The sediment reduces the channel capacity of drainage ditches, streams, and rivers and thus, increases the likelihood of flooding and associated damages. It negatively impacts the quality of wetlands. All of these effects of soil erosion threaten the public health, safety, and welfare of the citizens of Forks Township, as well as the general ecology of the Township.

B. Purposes. The purpose of this Ordinance is to regulate the modification of the natural terrain, the alteration of drainage, and to provide for certain erosion and sediment control measures within Forks Township to assure and safeguard health, safety, ecology and the general welfare in the Township.

## SECTION III SCOPE AND APPLICABILITY

From and after the effective date of this Ordinance, any subdivision and/or land development approved under the Township's Subdivision and Land Development Ordinance and Zoning Ordinance, or any activity requiring a permit under Section V. herein, shall be in conformity with this Ordinance. In the event of a conflict between this Ordinance and any other statute, or regulation, the strictest statute, or regulation shall take precedence. No nonexempt grading not complying with this Ordinance shall be performed.

## SECTION IV DEFINITIONS.

Unless specifically defined below, words and phrases used in this Ordinance shall be interpreted to have common English usage, to give effect to the purposes set forth in Section 11.B. above, and to provide reasonable application of this Ordinance. As used in this Ordinance, the following terms shall have the meanings indicated, unless a different meaning clearly appears from the context:

ALLUVIAL SOILS: Soils, developed from transported and relatively recently deposited material (alluvium), characterized by a weak modification (or none) of the original material by soil-forming processes.

BEDROCK: The solid, undisturbed rock in place either at the ground surface or beneath surface soil deposits.

BEST MANAGEMENT PRACTICES: Procedures and measures pertaining to earth disturbances/construction activities that are intended to minimize water pollution; increase water quality; retain valuable topsoil; prevent erosion and sedimentation; and control rate of runoff from storm events.

BORROW PIT: An open pit from which soil is excavated as a single

incident for use at a single construction site.

CUT: The removal of soil or rock from its natural or predevelopment location.

DEVELOPMENT: Any subdivision or land development or any alteration of land not for agricultural or conservation (as defined by the Northampton County Conservation District) purposes that includes earthmoving, cutting, filling or stripping, including but not limited to road construction, utility installation - public or private, residential, commercial or industrial facility construction, mining and quarrying and water resource management.

EARTHMOVING: Any activity by which soil or bedrock is cut into, quarried, displaced, relocated, or used as fill, but not including garden raking, hoeing, or routine plowing.

EROSION: 1. The wearing away of the soil, bedrock, and/or land surface by running water, wind, ice, chemical or other geological agents.
2. Detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

EROSION AND SEDIMENT CONTROL PLAN: A plan prepared by a Pennsylvania licensed engineer or registered landscape architect indicating the specific measures and sequencing to be used in controlling sediment and erosion on a development site both during and after construction.

EXISTING GRADE: The vertical elevation of the ground surface prior to earthmoving.

FILL: A deposit of soil or other materials placed by people.

FINISHED GRADE: The final vertical elevation of the ground after development.

GRADE: 1. The slope of a road, channel, or natural ground.

- 2. The finished surface of a roadbed, top of embankment, or bottom of excavation; any surface prepared for the support of construction like paving or laying a conduit.
- 3. To finish the surface of a roadbed, top of embankment, or bottom of excavation.

GRADING PERMIT: The permit required to be issued prior to the disturbance of the topography and vegetation of land in connection with the conduct of activities regulated by this Ordinance.

NATURAL GROUND SURFACE: The ground surface in its original state before any earthmoving or stripping of vegetation.

OPEN PIT MINING: The continuing or recurring removal of material from below the ground surface by open excavation.

PARCEL: All contiguous land under single and separate ownership.

PERMANENT VEGETATION: Ground cover establishing a 90% vegetated cover to control soil erosion satisfactorily and to survive severe weather conditions.

PERMIT: A Grading Permit.

PERMITTEE: Any person to whom a Grading Permit is issued or to whom a site plan approval is granted.

PERSON: Any individual, corporation, partnership, joint venture, unincorporated association, municipal corporation or agency within the Commonwealth of Pennsylvania or any combination thereof.

RUNOFF (HYDRAULICS): That portion of irrigation water, rainfall, snowmelt, or other precipitation upon a drainage area or watershed that is discharged from the area in watercourses, sheet flows, absorption, etc. Types of runoff include surface runoff, groundwater runoff, and seepage.

SEDIMENT: Solid material, both mineral and organic, that is in suspension in; is being transported by; or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

SEDIMENTATION: The process by which sediment is deposited.

SITE: Any lot, parcel, or combination of contiguous lots or parcels of land under single and separate ownership where earthmoving, filling or stripping is, was, or will be performed.

SLOPE: Degree of deviation of a surface from the horizontal usually expressed in percent or degrees.

SOIL: All earth material of whatever origin that overlies bedrock.

SOIL DRAINAGE: A condition of the soil, referring to the frequency and duration of periods when the soil is free of saturation.

STRIPPING: Any activity which removes the vegetative surface cover, including tree removal; and the clearing and storage or removal of topsoil.

TEMPORARY STREAM CROSSING: A temporary structural span installed across a flowing watercourse for use by construction traffic. Such structures include, but are not limited to, bridges, round pipes and pipe arches and must meet all local, county, state, and federal requirements.

TOPOGRAPHY: The physical features of a site, place or region.

TOPSOIL: The top six to ten inches of soil or the depth to which the soil is plowed or cultivated. Topsoil quality may be determined by soil testing, and soil composition shall be within the following ranges: Sand - 40% to 60%, Silt - 25% to 60%, Clay - 5% to 20%.

TOWNSHIP: The Township of Forks.

TOWNSHIP CODE OFFICIAL: The person designated by the Township to administer and enforce this Ordinance.

VEGETATION: The plants located on a site or in an area or region.

WATERCOURSE: Any natural or artificial river, stream, swale, channel, gully, ravine, drain or culvert in which waters flow continuously or intermittently after a rain event, having a defined bed and banks.

#### SECTION V GRADING PERMIT.

- **A.** The following activities or conditions require a Grading Permit:
  - 1. Modifying, disturbing, blocking, diverting or otherwise adversely affecting the natural overland or subsurface flow of water.
  - 2. Construction, erection, or installation of any drainage dam, ditch, culvert, drainpipe, bridge or any other structure or obstruction affecting the drainage of any parcel.
  - 3. Paving, cutting, filling, stripping, excavating, grading or regrading of any parcel unless specifically exempted by Subsection B. below.
  - 4. Disturbing the natural ground surface, soil, or vegetation upon any parcel in excess of the following limits:

As determined by the owner, disturbance in excess of each of the following three areas on each site, 0%-3% sloped areas, 3%-8% sloped areas, and areas of 8% slope or greater.

Α	В	С	D	
Area of parcel	Maximum exempt	Proposed area of	Is Column ·"C" more	
(slopes)	disturbance (s.f.)	disturbance (s.f.)	than Column'B'?	
0% to 3%	5,000			
				If the answer for any block of Column "D" is "Yes", then a grading permit is
3% to 8%	2,500			required.
8% or more	1,000			

NOTE: The implementation and maintenance of E&S BMPs are required to minimize the potential for accelerated erosion and sedimentation, including those activities which disturb less than 5,000 square feet, regardless of the need for a grading permit from the Township.

- 5. Any existing, man-made condition, as identified by the Township Code Official, which allows or causes uncontrolled/or unmanaged stormwater runoff creating erosion and deposit of sediment onto adjacent properties, or into downstream stormwater conveyance facilities, watercourses, or bodies of water.
- B. Notwithstanding Section V (A), the following activities require no Grading Permit; however, the applicant should inquire with the Northampton County Conservation District as to whether they require a permit:
  - 1. Minor improvements, such as the erection of fencing; driveway paving; and minor regrading.
  - 2. Gardening for home consumption or personal use on any parcel, or lawn restoration up to one (1) acre on any parcel.
  - 3. Agricultural operations operated in accordance with a conservation plan or erosion and sedimentation control plan found adequate and approved in writing by the Northampton County Conservation District.

- 4. Forest Management operations that (1) follow guidelines established by the Department of Environmental Protection in "Soil Erosion and Sedimentation Control Guidelines for Forestry"; that (2) are operating under an erosion and sedimentation control plan approved by the Northampton County Conservation District; and (3) comply with the Township Zoning Ordinance and Subdivision and Land Development Ordinance.
- 5. Earthmoving or stripping activities incident to construction of individual wells or sewage disposal systems and less than 1,000 square feet in extent.
- 6. Any emergency activity immediately necessary for the protection of life, property, or natural resources.
- C. Application for Grading Permit.
  - 1. Any person proposing to engage in an activity requiring a Grading Permit shall apply by submitting a prepared Grading Permit Application. See Appendix "A" for form.
  - 2. The Grading Permit Application shall be accompanied by a fee established in the Township's Schedule of Fees.
  - 3. All Applications must be accompanied by an Erosion and Sediment Control Plan as described in Section VI below.
  - 4. All Applications filed regarding any grading activities on any commercial, industrial, and/or institutional lot; on any residential lot where earthmoving activities in excess of 1,000 square feet are proposed; or where, in the opinion of the Township Code Official, the lot features such as slope, soils, or other natural resources require special consideration of the earthmoving activities shall be accompanied by a Grading Plan as provided in Section VII below.
  - 5. A separate Application shall be required for each grading project.
- D. Issuance of Permits.

Upon the approval of all of the required plans and/or applications by the appropriate Township official/employee, and receipt of permits and approvals from PA DEP and/or the Northampton County Conservation District, the Township Code Official shall issue the necessary Grading Permit(s). No Grading Permit shall be issued until all the plans and applications, permits and approvals from the PA DEP and/or the Northampton County Conservation District required to be submitted by this Ordinance for all the proposed grading

activities have been reviewed and approved by the appropriate Township official/employee as set forth in this Ordinance.

- E. Standards for Issuance of Grading Permit.
  - 1. Notwithstanding any provision of this Ordinance or any condition of the Grading Permit, the Permittee is responsible for the prevention of damage to other people or property that may be affected by the earthmoving or stripping activity.
  - 2. No permit standards shall modify, cut, fill, excavate, pave, strip, grade, or regrade land in any manner that endangers or damages any adjoining street, alley, or any other public or private property. Any earthmoving activity conducted adjacent to a property or street line shall support and protect the adjoining property from settling, cracking, erosion, sediment, flooding, or any other physical damage or personal injury that might result.
  - 3. No Permittee shall deposit, place, throw, or cause to be deposited, placed or thrown any debris or other material in any drainage structure or watercourse so as to obstruct the free flow of water without the appropriate permits from the PA DEP.
  - 4. No person, firm, or corporation shall fail to adequately maintain, in good operating order, any drainage facility on the site. All drainage ditches, culverts, drain pipes, drainage structures, and watercourses shall be kept open and free-flowing at all times.
  - 5. The owner of any property upon which any work has been done pursuant to a Grading Permit granted under this Ordinance shall continuously maintain and repair all graded surfaces, anti-erosion devices, retaining walls, drainage structures, and other protective devices, plantings and ground cover, installed or completed
  - 6. All graded surfaces shall be permanently seeded, sodded, planted, and/or otherwise protected from erosion immediately upon completion of the earthmoving activities upon that surface, weather permitting, and shall be tended and/or maintained until growth is well established. The disturbed area and duration of exposure shall be kept to a minimum using temporary erosion and sediment control measures immediately, as outlined in the Pennsylvania Department of Environmental Protection "Erosion and Sediment Pollution Control Program Manual", and "Pennsylvania Stormwater Best Management Practices Manual", each as amended. All disturbance should be immediately stabilized (temporarily or permanently) if those areas are not disturbed for four days.

- 7. All trees in an area of extreme grade change, as determined by the Township, shall be protected with suitable tree wells, unless the necessity for removal is established. Precautions shall be taken to prevent the unnecessary removal of trees. Any grading around trees or any removal of trees must comply with the Township's Zoning Ordinance and Subdivision and Land Development Ordinance.
- 8. The Permittee shall provide adequate provisions for dust control measures. Any such measures must be deemed acceptable by the Township Engineer.
- 9. All plans and specifications submitted for a Grading Permit shall include adequate provisions for both interim (temporary) and ultimate (permanent) erosion and sediment control. The design, installation and maintenance of erosion and sediment control measures shall be accomplished in accordance with standards and specifications established 25 Pa. Code Chapter 102 and the PA E&S BMP Manual, as revised.
- 10. In connection with site grading for roads, driveways, building areas or other site improvements, the lateral extent of cut or fill areas shall not be a) more than 30 feet beyond the top of slope in fills or the toe of slope in cuts or b) extend closer than 50 feet to the bank of any watercourse, lake, pond, or wetland, or as permitted within any riparian buffer, as defined in the Township's Stormwater Management Ordinance, or the 25 Pa. Code Chapter 102 regulations.
- 11. Wherever fill material is to be used, the person, firm, or corporation using such fill shall be responsible for testing to determine its dry density as per ASTM D1556. The density of each layer shall be not less than 95% of maximum density as determined by ASTM D1557.
  - a. Inspection procedure shall follow the general procedure as stated in Section X below.
  - b. Compaction test reports shall be kept on file at the site and be subject to review at all times.
  - c. Degree of compaction required shall be determined by the Township Engineer following the guidelines listed in this Section.
- 12. Any person placing clean fill that has been affected by a spill or release of a regulated substance must use the Department of Environmental Protection's Form FP-011 (Certification of Clean Fill) that can be found at

http://www.depgreenport.state.pa.us/elibrary/GetFolder FolderID=3410 to certify the origin of the fill material and the results of the analytical testing to qualify the materials as clean fill.

- 13. If load-bearing fill is proposed to show that stable soil condition and groundwater flow can be maintained, a soils investigation report shall be submitted which shall consist of test borings, laboratory testing and engineering analysis to correlate surface and subsurface conditions with the proposed Grading Plan. The report shall include data regarding the nature, distribution and supporting ability of existing soils and rocks on the site, conclusions and recommendations to ensure stable soil conditions and groundwater control, as applicable. The Township may require such supplemental reports and data as is deemed necessary by the Township Engineer.
- F. All Permits shall require the Permittee to:
  - 1. Notify the Township Code Official at least 48 hours prior to commencing any earthmoving or stripping activity;
  - 2. Notify the Township Code Official of completion of any control measures within three (3) days after their installation;
  - 3. Obtain approval from the Township in accordance with Section XIV of this Ordinance prior to modifying the Erosion and Sedimentation Control Plan;
  - 4. Install all control measures as identified in the approved Erosion and Sedimentation Control Plan prior to starting any earthmoving activities;
  - 5. Maintain all road drainage systems, stormwater drainage systems, control measures and other facilities identified in the Erosion and Sedimentation Control Plan;
  - 6. Repair any siltation or erosion damage to adjoining properties, surfaces, and drainage ways resulting from earthmoving or stripping;
  - 7. Inspect the erosion and sedimentation control measures immediately after each rain of 0.5 inches or more and at least once each week and make needed repairs;
  - 8. Allow the Township Code Official or Township Engineer to enter the site for the purpose of inspecting compliance with the Erosion and Sedimentation Control Plan or for performing any work necessary to bring the site into compliance with the Erosion and Sedimentation Control Plan;
  - 9. Keep a copy of the Erosion and Sedimentation Control Plan on the site;

10. If any problem (s) occurs, provide, until the problem is corrected, additional stabilizing measures to slopes that, in the judgment of the Township Engineer, are found to be eroding excessively within one (1) year of construction. Once such slopes are stabilized by the additional measures, the Permittee is responsible for providing further additional stabilizing measures if the slopes continue to erode excessively within one year of the installation of the additional measures.

## SECTION VI EROSION AND SEDIMENTATION CONTROL PLAN

An Erosion and Sedimentation Control Plan shall be submitted with all Grading Permit Applications. The Erosion and Sedimentation Control Plan shall contain plans which show that the erosion and sediment resulting from the earthmoving and stripping activities will be controlled. Any proposed erosion and sedimentation control measures to be used during construction shall strictly conform to the standards and specifications of 25 Pa. Code Chapter 102 and the PA E&S BMP Manual and Township Ordinances.

- A. An Erosion and Sedimentation Control Plan shall include the following:
  - 1. The extent of site alteration proposed and all proposed erosion and sedimentation control measures.
  - 2. A construction schedule indicating the anticipated starting and completion dates of the development sequence; the expected date of completion of construction of each protective measure provided for in the Erosion and Sediment Control Plan and the Stormwater Management Plan; the sequence of earthmoving activities; and the time of exposure of each area prior to completion of such measures.
  - 3. Provisions for maintenance of control facilities, including operation and maintenance agreements, easements, and estimates of the cost of maintenance.
  - 4. Seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilize application, and kind and quantity of mulching for both temporary and permanent vegetative control measures.
  - 5. Identification of the person(s) or entity(ies) which have legal and/or bonded responsibility (as may be required by Sections XI and/or XII of this Ordinance) for maintenance of the erosion and sedimentation control structures and measures after development is completed.
- B. Any Erosion and Sedimentation Control Plan shall incorporate the following erosion and sediment control practices and principles:

- 1. Development shall reflect the topography and soils of the site so as to create the least potential for erosion. The smallest practical area of land shall be exposed for the shortest practical time during development.
- 2. Stripping of vegetation, regrading, or other earthmoving activities shall be completed in a way that will minimize erosion and resulting sedimentation. Wherever feasible, natural vegetation shall be retained, protected, and supplemented.
- 3. Cut and fill operations shall be kept to a minimum. In the design of cut and fill slopes, consideration must be given to the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions and other applicable factors. Areas of steep slopes where high cuts and fills may be required shall be avoided wherever possible. Where unavoidable, cuts and fills on steep slopes must be immediately seeded, and natural contours must be followed as closely as possible
- 4. The disturbed earthen area and the duration of exposure shall be kept to a practical minimum. All disturbed soils and topsoil stockpile areas shall be stabilized as quickly as possible and, if necessary, seeded and mulched immediately. Any stockpile areas located on sloping ground or near Waters of the Commonwealth shall be enclosed with silt fencing.
- 5. Procedures for protecting soils or geologic structures with water supply potential from contamination by surface water or other disruption by earthmoving activity must be established to the satisfaction of the Township.
- 6. The sale of topsoil and/or removal of topsoil from a project is prohibited unless the Applicant demonstrates sufficient suitable topsoil will remain to cover all disturbed areas to a depth of 6 inches at the conclusion of the project. All plans required under this ordinance shall specify a designated area to receive topsoil for temporary storage which is removed from a project area and which will be returned to site and used to final grade the project area.
- 7. Sediment basins, debris basins, desilting basins, silt traps or filters shall be installed and maintained to remove sediment from runoff waters from land undergoing development. All runoff from the site shall be collected and diverted to these facilities for the removal of sediment. Sedimentation in the runoff water shall be trapped and filtered by these facilities until the disturbed area is stabilized to the satisfaction of the Township.

- 8. All plans, wherein a sump pump or basement drain is proposed to be installed, shall provide for discharge of the sump pump/drain to a natural watercourse, drainage swale, stormwater easement, storm sewer system, or open space area. No sump pump or basement drain discharge shall be permitted to a grassed lawn area of residential or non-residential buildings, where such discharge would cause erosion or runoff issues on adjacent properties.
- 9. Provisions shall be made to minimize any runoff caused by changed soil and surface conditions during and after development. All drainage facilities shall be designed to carry surface water in such a manner as to prevent erosion or overflow. Drainage facilities shall be designed and constructed to withstand the expected velocity of flow from a ten-year frequency storm without erosion. Stabilization adequate to prevent erosion must also be provided at the outlets of all pipes and paved channels.
- 10. Natural vegetation shall be retained, protected, and supplemented wherever possible. Permanent vegetation shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation and related structures shall be installed as soon as practical. Permanent vegetation shall not be considered established until a ground cover is achieved that is mature enough to control the soil erosion satisfactorily and to survive severe weather conditions to the Township Engineer's satisfaction.
- 11. Permanent or temporary soil stabilization must be applied to stripped areas within one day after final grade is reached on any portion of the site. All disturbance should be immediately stabilized (temporarily or permanently) if the area is not to be disturbed for four days.
- 12. Properties adjacent to the site of a land-disturbing activity shall be protected from sediment disposition by preserving a well-vegetated buffer strip around the lower perimeter of the land-disturbing activity; by installing perimeter controls such as sediment barriers; filters, dikes, interceptor drains or sediment basins; or by a combination of such measures.
  - a. Vegetated buffer strips may not be used along except where only runoff in sheet flow is expected.
  - b. Buffer strips shall be at least 20 feet in width and shall contain pre-existing, permanent vegetation, excluding trees and shrubs, that covers 95% of the ground within the buffer strip.
  - c. If at any time, the Township Engineer finds that a

vegetated buffer strip alone is ineffective in preventing sediment movement onto adjacent property, additional perimeter controls must be provided by the Permittee or then owner of the property within a time period specified by the Township Engineer.

- 13. In the design of erosion control facilities and practices, aesthetics and the requirements of continuing maintenance shall be considered.
- C. The selection of erosion and sedimentation control measures shall be based on assessment of the probable frequency of climatic and other events likely to contribute to erosion, on an evaluation of the risks, costs and benefits involved and in accordance with Best Management Practices.

# SECTION VII GRADING PLANS.

All applications filed for permits involving earthmoving and/or stripping activities on any commercial, industrial, and/or institutional lot; or on any residential lot where earthmoving and/or stripping activities in excess of 1,000 square feet are proposed; or where, determined by of the Township Code Official, the lot features such as slope, soils, or other natural resources require special consideration of the on-lot earthmoving and/or stripping activities shall be accompanied by a Grading Plan providing the following information:

- A. Site Plan (plot plan) drawn at a suitable scale of not less than 1 inch equals 50 feet and contour intervals of no more than one (1) foot prepared by a Registered Professional Land Surveyor or Engineer, licensed in the Commonwealth of Pennsylvania showing all of the following:
  - 1. A valid boundary line survey of the site including lot lines, monuments/pins/markers, and setback lines; existing and proposed contours; existing vegetation; soil types and conditions; watercourses; affected watersheds; and other natural features.
  - 2. Erosion and sedimentation control measures, high points, drainage arrows, drainage swales, and the limits of disturbance.
  - 3. Existing and proposed stormwater BMPs and features surrounding the site that are of importance to the proposed development.
  - 4. First floor and garage elevations.
  - 5. Existing and proposed building/structure locations, wells, wastewater treatment systems, sanitary laterals, water supply pipes, storm sewers, inlets, manholes, basement drains, sump pump drains, utility boxes, walls, fences, berms, underground

utilities, and all other man-made structures/features.

- 6. Elevations at lot corners, and exterior grade at each corner of each building.
- 7. All earthmoving and stripping changes to the site, including cuts, fills, structures, paving, utilities, vegetation and top soil proposed to be stripped, and cut/fill balance.
- 8. North arrow.
- 9. Street trees and existing trees to be removed.
- 10. Driveway openings and slopes, driveway turnarounds and parking areas, depressed curb length, and driveway configurations from garage or parking area to street.
- 11. Sidewalk and bikeway locations.
- 12. Easements, covenants, equitable servitudes, and deed restrictions.
- B. A Stormwater Management Plan prepared in accordance with Forks Township Stormwater Management Ordinance.
- C. A statement, signed and sealed by a Registered Professional Land Surveyor or Engineer, licensed in the Commonwealth of Pennsylvania indicating that, to the best of his/her knowledge and belief, the proposed grading activities shall not significantly increase stormwater runoff to, and/or otherwise adversely impact, downstream properties except as may be part of an approved stormwater runoff collection and management plan.

# SECTION VIII GENERAL GRADING REQUIREMENTS.

All earthmoving and/or stripping activities and/or building construction wherein stripping, excavation, placement of fill, and/or grading activities are performed shall conform to the following general requirements:

- A. All erosion and sedimentation control measures shall be installed per the approved plan prior to any earthmoving and/or stripping activities.
  - 1. Earthen structures such as dams, dikes and diversions must be seeded and mulched immediately after installation.
  - 2. All stormwater management basins shall be constructed, functional, and stabilized prior to any additional site activity. Construction of

infiltration BMPs should be placed towards the end of construction to prevent the potential for sedimentation and clogging of the infiltration surface.

- 3. An as-built plan of the facility prepared by a registered professional land surveyor, engineer, or registered landscape architect, licensed in the Commonwealth of Pennsylvania, shall be submitted to the Township for review to verify adequate stage/storage capacity prior to commencement of other site activity.
- 4. All temporary and permanent erosion and sedimentation control measures must be maintained and repaired as needed to assure continued performance of their intended functions.
- 5. Each and every person, corporation, or other entity performing grading and/or building activities shall be responsible for installing and maintaining erosion and sedimentation control measures until the site is stabilized to the satisfaction of the Township.
- B. Slopes greater than 3:1 are allowed but require stabilization with vegetated E&S matting, appropriately sized stone, or other approved stabilization method. Design calculations prepared by a registered professional land surveyor, engineer, or registered landscape architect demonstrating the stability of the stabilization method should be provided along with all applicable details.
- C. Edges of newly created slopes shall be a minimum of five (5) feet from property lines; ultimate/future right-of-way lines of streets; and easements to permit the normal rounding of the edge without encroachment on the abutting property, right-of-way, or easement.
- D. All lots, tracts, or parcels shall be graded to provide positive drainage away from buildings and dispose of it without ponding, except where ponding (detention basins, swales, etc.) is part of the stormwater management plan for the site.
- E. In no case shall grading be completed in such a manner as to divert water onto the property of another landowner unless it is part of a stormwater management plan.
- F. No person, corporation, or other entity shall block, impede the flow of, alter, construct any structure, deposit any material or thing, or perform any work that will affect the normal or flood flow in any watercourse without having obtained prior approval from the Township, FEMA and/or Department of Environmental Protection, whichever is applicable.

- G. Each person, corporation, or other entity that makes any surface changes to the site shall be required to:
  - 1. Collect on-site surface runoff and control it to a point of discharge into the natural drainage area watercourse, stormwater easement, or storm sewer system.
  - 2. Control existing off-site runoff draining through the property by designing it to discharge to the watercourse of the drainage area, stormwater easement, or storm sewer system.
  - 3. Ensure that all on-site and off-site runoff which is substantially altered is collected and diverted to sediment basins, debris basins, desilting basins, silt traps or filters for the removal *of* sediment until all disturbed areas are stabilized to the satisfaction of the Township.
- H. Adequate provision shall be made to prevent surface water from damaging the cut face of excavation and the sloping surfaces of fills.
- I. Concentration of surface water runoff shall be permitted only in watercourses or detention basins. All drainage facilities shall be constructed to carry surface water in such a manner as to prevent erosion or overflow. All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water will not enter the conveyance system without first being filtered or otherwise treated to remove sediment.
- J. Construction vehicles are to be kept out of watercourses, wetlands, and other bodies of water. Where in-channel work is necessary, permits from regulatory agencies must be secured and provided to the Township prior to the Township issuing a grading permit. Precautions must be taken to stabilize the work area during construction to minimize erosion. The channel, including bed and banks, must be restabilized immediately after in-channel work is completed.
- K. Where a watercourse must be crossed by construction vehicles during construction, a temporary stream crossing shall be provided.
- L. Sediment barriers shall be properly installed with silt fencing trenched and hay bales staked.
- M. During all earthmoving and/or stripping operations, necessary measures for dust control shall be exercised.
- N. Wherever construction vehicle access routes intersect paved public streets, provisions shall be made to minimize the transport of sediment (mud) onto the

paved surfaces by runoff or vehicle tracking, including but not limited to, the installation of tire cleaning areas at each point of access to the site. These tire cleaning areas shall be constructed of AASHTO #1 stone, and each shall be at least 50 feet in length. Where sediment is transported onto a public street, the responsible person shall clean the street immediately. Sediment shall be removed from roads by shoveling or sweeping and then transported to a sediment control area.

- O. With the exception of necessary steps required for initial site access to commence work, no grading equipment shall be permitted to be loaded, unloaded, or stored on a public street. No grading equipment shall be permitted to travel on or across a public street unless licensed for operation on public thoroughfares.
- P. Underground utility lines.

(1) The construction of underground utility lines involving installation, maintenance or repair that disturbs more than 1,000 square feet shall be subject to the following criteria:

(a) No more than 500 continuous feet of trench is to be opened at one time.

(b) Where consistent with safety and space considerations, excavated material is to be placed on the uphill side of trenches.

(c) Trench dewatering devices shall discharge in a manner that will not adversely affect flowing streams, drainage systems or off-site property.

(2)Individual service connections, telephone and electric lines and underground public utility lines under existing hard-surfaced roads, streets or sidewalks are exempt from the above requirements, provided that such landdisturbing activity is confined to the area which is hard- surfaced.

- Q. All temporary erosion and sediment control measures shall be disposed of within 30 days after final site stabilization is achieved, unless otherwise authorized by the Township Engineer. Trapped sediment and other disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.
- R. Before granting occupancy permits for buildings, building lots shall be finish graded so that drainage will not be concentrated onto adjacent lots. Building lots must also be seeded or mulched. Unless it is not possible to establish lawns due to the season of the year. If so, or if exposed areas will result in accelerated erosion because of the lack of ground cover, the Township may require additional E&S

BMPs to control excess runoff, in addition to a vegetation escrow to secure establishment of ground cover.

S. First Floor Certifications. Construction of any structure requiring a Grading Plan under this Ordinance shall not continue past the foundation stage until the owner/builder has submitted certification that the first floor and garage floor elevations of the proposed structure conforms to the Plans submitted with the Grading Permit Application. The certification shall be submitted to the Township Code Official on a form approved by the Township and shall be signed and sealed by the responsible Registered Professional Land Surveyor or Engineer, licensed in the Commonwealth of Pennsylvania. See Appendix "B".

## SECTION IX PLAN REVIEW.

- A. All Plans prepared in conjunction with a Grading Permit Application shall conform to the approved subdivision and/or land development plan for the site.
- B. The Plans prepared in conjunction with an application for a Grading Permit for a parcel greater than 100,000 square feet in area; and all commercial, institutional, and industrial applications shall be referred to the Township Engineer for review. For all other applications, the Plans shall be reviewed by the Township Code Official and/or Township Engineer.
- C. If after reviewing an application should the Township Code Official find the proposed grading activities do not conform to previously approved subdivision and/or land development plans, the revised application and Plans shall be referred to the Township Engineer for review.

## SECTION X INSPECTIONS.

- A. The Township Engineer or Code Official shall make inspections as hereinafter required and shall either approve that portion of the work completed or shall notify the Permittee in what manner or manners, if any, the work fails to comply with the Grading Plan or the Erosion and Sedimentation Control Plan, as approved. All plans, reports, and schedules required by and approved under this Ordinance shall be maintained at the site during progress of the work.
  - 1. To obtain inspections, the Permittee shall notify the Township Engineer or Code Official at least three (3) working days before completion of:
    - a. Stripping and clearing.

- b. Rough grading.
- c. Final grading.
- d. Final landscaping.
- 2. If stripping, clearing, grading and/or landscaping are to be done in phases or areas, the Permittee shall give notice and request inspection at the completion of each of the above work stages in each phase or area.
- B. The Permittee shall make regular inspections of all erosion and sedimentation control measures in accordance with the inspection schedule outlined on the approved Erosion and Sedimentation Control Plan. The purpose of such inspection will be to determine the condition and need for replacement or repair of in-place control measures; the overall effectiveness of the Plan; and the need for additional control measures.
  - 1. All inspections shall be documented in written form and submitted to the Township Engineer at the time interval specified in the Erosion and Sedimentation Control Plan.
- C. All applications which are required to prepare a Grading Plan in accordance with Section VII., shall prepare a complete set of "as-built" plans prepared by a licensed surveyor or engineer and submitted to the Township for review and approval prior to issuance of any use or occupancy permits. In the event that site grading does not conform to the approved site plans, no use and occupancy permits for the structure constructed pursuant to the building permit shall be permitted until the final grading is approved by the Township.
- D. A final inspection shall be conducted by the Township Engineer to certify compliance with this Ordinance. Satisfactory compliance with this Ordinance shall be necessary before issuance of a Use and Occupancy Permit.
- E. The Permittee shalt bear all costs of inspections required or permitted hereunder and shall deposit with the Township such sum as the Board of Supervisors shall determine, to guarantee payment of the costs of such inspections. The costs of inspections shall be in accordance with the established schedule of fees and collection procedure for matters pertaining to this Ordinance.

# SECTION XI RESPONSIBILITY.

The Permittee shall not be relieved of responsibility for damage to persons or property otherwise imposed by law, and the Township or its officials will not be made liable for this damage, by:

- A. The issuance of a Grading Permit in accordance with this Ordinance or other applicable laws;
- B. Compliance with the provisions of a Permit or with conditions attached to it;
- C. Failure of Township officials to observe or recognize hazardous or unsightly conditions;
- D. Failure of Township officials to deny or to recommend denial of a Permit; or
- E. Exceptions from the requirements of this Ordinance.

# SECTION XII FINANCIAL SECURITY.

Before the issuance of a Grading Permit for a project that exceeds one (1) acre in area of disturbance, the Applicant shall deposit with the Township financial security in an amount sufficient to cover the cost of all erosion and sedimentation control measures and other conditions specified in the Permit within the time specified by this Ordinance, or within any extension thereof granted by the Township Engineer. The amount of such financial security shall be equal to 110% of the cost of the work for which the security has been provided. The form of financial security, the method of cost calculation and the release of the posted security shall be in conformity with those provisions set forth in the Township Subdivision and Land Development Ordinance with respect to public improvement financial security.

# SECTION XIII PERMIT EXPIRATION AND RENEWAL.

Every Grading Permit issued hereunder shall expire at the end of six (6) months from the date of issuance. Grading permits for areas of disturbance in excess of one acre shall expire at the notice of termination for the NPDES permit. The Permittee shall fully perform and complete all of the work required to be done within the time limit specified in the Permit. If the Permittee shall be unable to complete the work within the specified time, he shall, within 30 days prior to expiration of the Permit, present in writing to the Township, a request for an extension of time, setting forth therein the reasons for the requested extension. If, in the discretion of the Township Engineer, such an extension is warranted, the Engineer may grant additional time for the completion of the work. Where the Township Engineer determines that the extension of time will require a substantial modification of the Erosion and Sedimentation Control Plan and/or Grading Plan, any extension of a Permit shall be subject to approval of such revised plans in accordance with the applicable procedure of this Ordinance.

# SECTION XIV AMENDMENT OF PLANS AND ADDITIONAL CONDITIONS.

A. Amendments to the Erosion and Sedimentation Control Plan or Grading Plan shall be submitted to the Township and shall be processed and approved or

disapproved in the same manner as the original plans. Field modifications of a minor nature may be authorized by the Township Engineer and/or Code Official by written authorization to the Permittee.

- B. If at any stage of the earthmoving and/or stripping activities, the Township determines by inspection that the nature of the site is such that further work authorized by an existing Grading Permit is likely to imperil any property, public way, watercourse or drainage structure, the Township Engineer may require, as a condition of allowing the work to continue, reasonable special precautions be taken to avoid the likelihood of such peril. Special precautions may include, but shall not be limited to, a more level exposed slope; construction of additional drainage facilities; berms; terracing; compaction; cribbing; installation of plant materials for erosion control; and/or recommendations of a registered soils engineer and/or engineering geologist regarding requirements for further work.
- C. Where it appears that storm damage may result from incomplete grading of any site, work may be stopped and the Permittee required to install temporary structures or take such other measures as may be necessary to protect adjoining property or public safety. On a site of at least one (1) acre or where unusual site conditions prevail, and on all stream crossing projects, the Township Engineer may specify the time of start of grading and time of completion or may require that the operations be conducted in specific stages to ensure completion of protective measures prior to the advent of seasonal rains.

## SECTION XV VIOLATIONS AND PENALTIES.

- Penalties. Any person, firm or corporation who shall violate any provision of Α. this Ordinance shall be issued an enforcement notice and fined Fifty Dollars (\$50.00) for the first offense, and One Hundred and Fifty Dollars (\$150.00) for each offense thereafter. If said fine is not paid and the project is not brought in compliance within ten (10) days after the issuance of the enforcement notice, then, upon commencement of an action before a Magisterial District Judge in the same manner provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure, and conviction thereof, the person, firm or corporation violating any provision of this Ordinance shall be sentenced to pay a fine of not more than One Thousand Dollars (\$1,000.00), nor less than Five Hundred Dollars (\$500.00) per violation, plus all court costs, including reasonable attorneys' fees incurred as a result of the prosecution, and in default of payment, be imprisoned to the extent allowed by law for the punishment of summary offenses. Each day that a violation of this Ordinance continues, shall constitute a separate offense.
- B. Remedy of Violation. In addition to the penalties as set forth in SubsectionA. above, any property subjected to earthmoving or stripping activities

performed in violation of this Ordinance shall be restored to its previous condition, including replacement of excavated earth, removal of illegally placed fill, and restoration of grades and planting. In order to enforce this Section, the Township Solicitor may seek injunctive relief in accordance with the rules of civil procedure.

- C. Revocation or Suspension of Permit. Any Permit issued under this Ordinance, including those issued through approval of subdivision and land development plans, may be revoked or suspended by the Board of Supervisors, after notice to the Permittee for:
  - 1. Failure to carry out the erosion and sedimentation control measures described in the Application and/or accompanying plans at the times specified in the Erosion and Sedimentation Control Plan's construction schedule or within any extension that may be granted by the Township.
  - 2. Violation of any other condition of the Grading Permit.
  - 3. Failure to carry out the erosion and sedimentation control measures described in the application and/or accompanying plans in a reasonable and workmanlike manner.
  - 4. Violation of any provision of this Ordinance or any other applicable law, ordinance, rule, or regulation relating to the earthmoving and/or stripping activities.
  - 5. The existence of any condition or the doing of any acts constituting or creating a nuisance, hazard or endangering human life or the property of others, including, without limitation, the discharge of sediments from the site or the failure of the control to prevent accelerated erosion or waterborne sediment from leaving the site of construction.
- D. Nonconforming Work. If at any stage of construction, the earthmoving and/or stripping activities do not conform to the Grading Permit; to the attached conditions; to the accompanying plans and specifications, including modifications thereof; or for any violation of this Ordinance, a written Notice to Comply shall be given to the Permittee. Such notice shall set forth the nature of corrections required and the time within which corrections shall be made.
  - 1. Upon failure to comply within the time specified, the Permittee shall be considered in violation of this Ordinance and shall be subject to the following penalties and sanctions:
    - a. The Township, upon recommendation of the Township Engineer, may revoke or suspend the subdivision and land development approval pursuant to which the work is being done, thereby prohibiting the conveyance of any lot in the

subdivision.

- b. The revocation of any building permit issued to the offending Permittee that has been issued pursuant to the Grading Permit and accompanying plans.
- c. A prohibition on the issuance of any further building permits for any lots.
- d. The financial security, if any, shall be forfeited and penalties shall be imposed under Subsection A. above.
- 2. The above-referenced sanctions shall be specified in the Notice to Comply provided above. Any and all remedies are cumulative, and the exercise of one shall not prohibit the exercise of any other remedies contained in either this Subsection, this Ordinance, or other applicable ordinances.
- In the case of any paving, filling, stripping, grading or regrading; 3. any disturbing, modifying, blocking or diverting the natural overland subsurface flow of stormwater; or any construction, erection and installation of any dam, ditch, culvert, drainpipe, bridge or any other structure or obstruction affecting the drainage of any parcel in violation of this Ordinance or any regulations made pursuant thereto, the proper Township authorities, in addition to other remedies provided by law, may institute any appropriate action or proceedings to prevent such unlawful activity; to restrain, correct or abate such violation; to prevent the use of the applicable premises; or to prevent any illegal act, conduct, business or use in or about such premises. In addition, upon the failure of any Permittee to complete the control measures specified in the Application, the Township may, after revoking such permit, proceed to complete such measures itself and recover the cost thereof from the Permittee or its surety.

## SECTION XVI EXCEPTIONS TO REQUIREMENTS.

If compliance with this Ordinance imposes severe hardship upon the applicant (i.e., the applicant cannot develop the property as zoned), he may apply to the Township for relief, which if granted, shall be the minimum necessary to permit reasonable use of the site. Endeavoring to obtain approval for as many units as possible shall not be considered a determining factor in the Township's evaluation of whether there is a severe hardship. The Board of Supervisors may, in accordance with the following procedures, authorize exceptions to any of the requirements and regulations set forth in this Ordinance:

A. Application for any exception shall be made by a verified petition of the applicant, stating fully the grounds of the petition and the facts relied upon the

applicant. Such petition shall be filed with the Grading Permit Application. In order for the petition to be granted, it shall be necessary that the Board of Supervisors find all the following facts with respect to the land referred to in the petition:

- That the site is of such shape or size or is affected by such 1. physical conditions or is subject to such title limitations of record that is impossible or impractical for the applicant to comply with all the requirements of this Ordinance;
- 2. That the exception is necessary to prevent unreasonable and unnecessary hardship;
- That such unnecessary hardship was not created by applicant; 3.
- That the granting of the exception will not be detrimental to the 4. public welfare or injurious to other property in the vicinity of the subject property; and
- That the exception, if granted, will represent the minimum 5. exception necessary to afford relief to the applicant.

#### SECTION XVII **REPEALER.**

All ordinances or parts of ordinances which are inconsistent herewith are hereby repealed.

#### SECTION XVIII SEVERABILITY.

If any sentence, clause, section or part of this Ordinance fs for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or part of this Ordinance. It is hereby declared as the intent of the Board of Supervisors of Forks Township, that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included therein.

#### SECTION XIX **EFFECTIVE DATE.**

This Ordinance shall become effective five (5) days after its adoption.

ENACTED AND ORDAINED at a regular meeting of the Board of Supervisors of the Township of Forks, County of Northampton on this 21<sup>st</sup> day of March 2024.

ATTEST:

FORKS TOWNSHIP BOARD OF SUPERVISORS

By: <u>Jøhn O'Neil, Chairman</u>