

**AN ORDINANCE AMENDING THE CITY OF ANGOLA, INDIANA CODE OF  
ORDINANCES REGULATING SITE IMPROVEMENT, STORM WATER, AND  
EROSION AND SEDIMENT CONTROL FROM SITE DEVELOPMENT**

Be it hereby ORDAINED by the Common Council of the City of Angola, Steuben County, Indiana that Title V. Public Works, Chapter 54. Stormwater Management be repealed in its entirety and amended by the addition hereof:

**Section 1. PURPOSE.**

- (A) It is recognized that storm sewers and their respective receiving drainage ditches, tiles, streams, channels, wetlands, lakes, and other drainage ways serving the City of Angola may not have sufficient capacity to receive and convey storm water run-off resulting when land use changes from agricultural or other open uses to a more urbanized use covering previous uncovered or undeveloped land. It is further recognized that deposits of sediment from developments during and after construction can reduce capacities of storm sewers and drainage systems and result in damages to receiving streams and lakes.
- (B) Storm water runoff from lands modified by human activities threatens public health and safety by causing decreased infiltration of rainwater and increased runoff flows and velocities, which overtax the carrying capacity of existing streams and storm sewers, and greatly increases the cost to the public to manage storm water.
- (C) Inadequate planning and management of storm water runoff resulting from land development and redevelopment throughout a watershed can also harm surface water resources by changing the natural hydrologic patterns, accelerating stream flows (which increase scour and erosion of stream-beds and stream-banks thereby elevating sedimentation), destroying aquatic habitat and elevating aquatic pollutant concentrations and loadings such as sediments, nutrients, heavy metals and pathogens. Groundwater resources are also impacted through loss of recharge.
- (D) A program of storm water management, including reasonable regulation of land development and redevelopment causing loss of natural infiltration, is fundamental to the public health, safety, welfare, and the protection of the people of the City of Angola and all the people of the State of Indiana, their resources, and the environment.
- (E) Storm water can be an important water resource by providing groundwater recharge for water supplies and base flow of streams, which also protects and maintains surface water quality.
- (F) Public education on the control of pollution from storm water is an essential component in successfully addressing storm water.
- (G) Federal and state regulations require certain municipalities to implement a program of storm water controls. These municipalities are required to obtain a permit for storm water discharges from their Municipal Separate Storm Sewer Systems (MS4) under the National Pollutant Discharge Elimination System (NPDES).
- (H) Non-storm water discharges to municipal separate storm sewer systems can contribute to pollution of waters of the State of Indiana by the City of Angola.
- (I) Therefore, it shall be the policy of the City of Angola adopted by the Common Council and administered by the Board of Public Works and Safety (The Board) that the storage and controlled release of storm water run-off and the control of erosion and sediment shall be required of all new development, any re-development, and other new construction in the city, including residential subdivisions and planned unit developments and the paving of areas that were previously undeveloped or stone/gravel materials. Because topography and the availability and adequacy of outlets for storm run-off vary with almost every site, the requirements for storm drainage tend to be an individual matter for any project. It is recommended that each project be discussed with the City Engineer's office or the MS4 Operator at the earliest practical time in the in the planning stage.

**Section 2. CONFLICTING ORDINANCES.**

The provisions of this ordinance shall be deemed as additional requirements to minimum standards required by other ordinances of the city. In the case of conflicting requirements, the most restrictive shall apply. When storm water run-off from proposed developments, re-developments, and other new construction will outlet directly to a Steuben County legal drain, or other natural drainage way, the proposed development, redevelopment and other new construction may also need to comply with the Steuben County Ordinance for Storm Drainage and Erosion Control. The Board may therefore also require a letter from the Steuben County Drainage Board indicating that the Stormwater and Erosion and Sediment Control Plans have been submitted to and approved by the Steuben County Drainage Board.

**Section 3. COMPLIANCE WITH OTHER ORDINANCES.**

In addition to the requirements of this ordinance, compliance with the requirements set forth in other applicable ordinances with respect to submission and approval of preliminary and final subdivision plats, improvements plans, building and zoning permits, construction inspections, appeals and similar matters, and compliance with applicable State of Indiana statutes and regulations shall be required. No building permit shall be issued for the construction, extension, remodeling, alteration or repair of any proposed or existing building in the city or within the city's jurisdictional area, until a SITE IMPROVEMENT PERMIT has been issued for the proposed site of the regulated building activity by the MS4 Operator, or the MS4 Operator has determined that the proposed regulated building activity is exempt.

**Section 4. SITE IMPROVEMENT PERMITS.**

- (A) No construction activity of any type, including clearing, grubbing, earthmoving, excavating, grading, filling, concrete paving, bituminous paving, or other impervious surfacing, utility installation, and any and all other land disturbing or land altering activity or building construction or erection activity of any type may begin until the owner of record (owner of the land upon which the activities described above are taking place) for the project, or the owner's designee by written document, has obtained a SITE IMPROVEMENT PERMIT from the City of Angola's Municipal Separate Storm Sewer (MS4) Operator. In new subdivisions, the owner(s) of the subdivision must obtain the SITE IMPROVEMENT PERMIT(S) for all new utility main line construction, including, sanitary sewers, storm sewers, water supply, natural gas, electric, telephone, cable television, and any other utility providing service. On commercial and industrial projects the owner(s) must obtain the SITE IMPROVEMENT PERMIT for all new utility main line and lateral construction, including, sanitary sewers, storm sewers, water supply, natural gas, electric, telephone, cable television, and any other utility providing service. On residential projects the owner(s) must obtain the SITE IMPROVEMENT PERMIT for all new utility lateral construction, including, sanitary sewers, storm sewers, water supply, natural gas, electric, telephone, cable television, and any other utility laterals.
- (B) Speculative builders that have an arrangement with the land owner(s) regarding transfer of the building site when the building or home is sold will be the person(s) responsible for obtaining the SITE IMPROVEMENT PERMIT. In all other areas, than those described above, where utilities are being installed, whether it be private property, public roadways, or public or private easements, the SITE IMPROVEMENT PERMIT must be obtained by an authorized employee of the utility and not a contract representative or sub-contractor.
- (C) Storm water control systems, erosion, and sediment control systems are required for all new construction and whenever lots and other parcels of land are being cleared, graded, paved, or improved.
- (D) No Site Improvement Permit is required for the following activities:
  - (1) Any emergency activity, which is immediately necessary for the protection of life, property, or natural resources.

- (2) Existing nursery and agricultural operations.
  - (3) State, Municipal, or County public works projects and road or street construction or maintenance activities. However, the storm water control and erosion and sediment control requirements must still be complied with.
- (E) Site improvement plan requirements:
- (1) Boundary, dimensions, and bearings of the subject tract or parcel.
  - (2) North arrow and scale, (scale between 1 inch = 20 feet and 1 inch = 100 feet), title block, legend, and location and elevations of benchmark(s).
  - (3) Adjacent streets, roads, highways, railroads, streams, lakes, ditches, tiles, storm sewers, manholes, catch basins, inlets, culverts, wetlands, flood hazard areas, and other notable features.
  - (4) All existing buildings, drives, parking areas, loading docks, concrete pads, and all other developed features. Gravel or stone parking areas or drives shall be distinguished from paved parking areas and drives.
  - (5) All undeveloped areas shall be shown and depicted as grass, crops, woodland, wetland, or other undeveloped use.
  - (6) All proposed demolition.
  - (7) All proposed building construction.
  - (8) All proposed parking area and driveway construction.
  - (9) All proposed storm drainage features, including details of the detention system and outlet control or release structure(s).
  - (10) All proposed landscaping, sodding, and seeding. Include temporary and permanent seeding with rates and dates.
  - (11) Existing spot elevations or contours. Note: The Board may require all contours.
  - (12) Proposed spot elevations or contours. Note: The Board may require all contours.
  - (13) Proposed erosion and sediment control features.
    - (a) Details of the areas to be cleared and details of the area where natural vegetation and natural vegetated buffer strips will be retained.
    - (b) A detailed schedule of the proposed construction phasing. Phasing is the clearing and grading of a parcel of land in distinct phases, with the stabilization of each phase before beginning the next phase.
    - (c) Temporary erosion control measures, necessary during the initial construction and establishment phases up to final site grading and seeding.
    - (d) A permanent erosion control plan of all the graded and non-hard surface areas within the proposed development, as planned for completion, up to and including seeding of the final lot on which business or residential dwellings are to be placed.
    - (e) Details concerning removal of temporary erosion control devices after the initial establishment of adequate vegetative cover.
    - (f) Maintenance procedures and responsible parties, as part of the continuing plan to keep all of the land under adequate cover and erosion at an acceptable minimum. Upon receipt of the erosion and sediment control plan, the MS4 Operator, or his/her designated assignee, may *at his/her discretion*, submit a copy to the local Soil and Water Conservation District (SWCD) for review and concurrence.
    - (g) Modification to the plan:
      - 1. Major amendments to the Erosion and Sediment Control Plan shall be submitted to the MS4 Operator and shall be processed and approved, or disapproved, in the same manner as the original plans.
      - 2. Field modifications of a minor nature may be authorized in writing by the MS4 Operator to the permittee.

- (h) For sites where the disturbance is equal to or greater than one acre (43,560 square feet), the owner must submit a NOTICE OF INTENT (NOI) to the Indiana Department of Environmental Management (IDEM) and follow the Rule 5 requirements pursuant to 327 IAC 15-5.
- (14) All existing and proposed utilities.
- (15) Plans for commercial sites and sites equal to or greater than 1.0 acre (43,560 square feet) must be prepared by an Indiana licensed professional engineer, land surveyor, architect, or designer certified by the American Institute of Building or a CPESC (Certified Professional in Erosion and Sediment Control) or CPSWQ (Certified Professional in Storm Water Quality).
- (16) The Board reserves the right to require plans prepared by the professionals listed in (15) above on any class project. This may be due to the complexity of the project or the inability of the applicant to furnish the required information.
- (17) The Board reserves the right to require additional data not listed above in order to evaluate specific sites.
- (F) SITE IMPROVEMENT PERMITS will be issued in the following classes at rates approved by the Board.
  - (1) Class I – EXEMPT- Less than 5,000 sq. ft. of land area disturbed or paved. The owner(s) or other responsible party described at (A) above must still complete a form prescribed by the Board.
  - (2) Class II– Minimal Disturbance-5001 sq. ft. – 8712 sq. ft. of land area disturbed or paved.
  - (3) Class III - NEW R1 and R2 CONSTRUCTION – Any lot size where less than one acre (43,560 sq. ft.) of land area is disturbed.
  - (4) Class IV – Intermediate Disturbance- 8713 sq. ft. – 43,559 sq. ft. of land area disturbed or paved.
  - (5) Class V – Rule 5 – 43,560 sq. ft. or more of land area disturbed or multi-lot project sites regulated by Rule 5 Requirements
- (G) Failure to apply for and obtains site improvement permit or failure to properly describe scope of project:
  - (1) Immediate STOP WORK ORDER for all work in progress.
  - (2) \$500.00 fine.
  - (3) The City may order that the site be returned to the pre-construction condition if the proper permits are not applied for and obtained.
  - (4) If the City must perform or contract the site restoration due to the failure of the responsible land owner, or developer, or on-site contractor to do so, or due to the existence of an emergency situation caused by runoff, sediment, or other debris from the site, the responsible land owner, developer or contractor will be billed the actual costs of the clean-up plus \$500.00.

## **Section 5. STORM WATER CONTROL INFORMATION & DESIGN REQUIREMENTS.**

- (A) *Exceptions.* The Central Business District is exempt from the storm water provisions of this chapter. Single family (R-1) and two-family or duplex (R-2) construction or development that is not included within a platted subdivision is exempt from the storm water provisions of this chapter unless the maximum ground coverage for the proposed construction exceeds the maximum ground coverage specified in the Angola Zoning Ordinance, Chapter 153 of this code, for the respective R-1 or R-2 Zoning. In that case the storm water run-off from the area exceeding the maximum ground coverage specified is subject to the provisions of this chapter. The Central Business District and the R-1 and R-2 Zoning areas are not exempt from the requirement to apply for and obtain a SITE IMPROVEMENT PERMIT.
- (B) *Existing impervious area.*
  - (1) The designer shall show on the site plan, in tabular form, the total existing or preconstruction impervious area, in square feet or acres

- (43,560 square feet/acre), that exists on the site in its present or preconstruction or predevelopment condition.
- (2) For the purpose of this chapter, any building, bituminous or concrete paved area, and other hard surface areas are assumed impervious.
  - (3) For the purpose of this chapter, areas comprised of stone, gravel, cinder, brick, compacted aggregate, or other ornamental, natural or unnatural aggregates, will be reduced by 25%, or calculated to be 75% impervious. For example, 100 square foot area of gravel parking area will be considered to consist of 75 square feet of impervious area.
  - (4) When other areas and other materials exist that are less than 100% impervious, the designer may propose other reductions to the impervious area based upon values from Table 3.2.3 for the Rational Method, as presented in the HERPICC Stormwater Drainage Manual, July 1994. The Board will make the final determination in all matters regarding calculations of the impervious area.
- (C) *Proposed impervious area.* The designer shall show on the site plan, in tabular form, the proposed post construction impervious area in square feet or acres (43,560 square feet/acre), for the site in its proposed post-construction or post-development condition
- (D) *Required storm water storage area.* The proposed impervious area minus the existing impervious area equals the required storm water storage area.
- (E) *Required storm water storage volume.*
- (1) The required storm water storage area (in square feet) times 0.125 feet (1½") equals the required storm water storage volume in cubic feet.
  - (2) The Board reserves the right to require additional storm water storage volume if the capacity of the receiving downstream channel or storm sewer system is limited or inadequate.
  - (3) Required storm water storage volume in cubic feet divided by 43,560 equals required storm water volume in acre-feet.
- (F) *Storm water storage methods.*
- (1) The required storm water storage volume must be detained on-site by the provisions of appropriate wet or dry bottom reservoirs, by underground tanks or pipes, by storage on flat roofs, parking areas, lawns or other acceptable techniques.
  - (2) Measures, which retard the rate of overland flow and the velocity in runoff channels, shall also be used to partially control run-off rates.
- (G) *Storm water release rate.*
- (1) The allowable release rate varies for each site because the allowable release rate is dependent upon the capacity of the receiving downstream channel or storm sewer system.
  - (2) If the required storm water storage volume is being detained in an area used by the public, for example in a parking lot, it will generally be the policy of the Board to allow a release rate, which empties a full detention area in two to four hours.
  - (3) If the required storm water storage volume is being detained in an area not critical to public use, for example a dry bottom reservoir, it will generally be the policy of the Board to allow a release rate, which empties a full detention area in eight to twelve hours.
  - (4) It will generally be the policy of the Board that the storm water release rate shall not result in storage duration in excess of forty-eight (48) hours unless additional storms occur within the same forty-eight hour period.
  - (5) The Board will make the final determination in all matters regarding allowable release rates.
- (H) *General detention basin design requirements.*
- (1) The maximum planned depth of storm water stored (without a permanent pool) shall not exceed four feet unless a six-foot high fence protects the basin.
  - (2) All storm water detention facilities shall be separated by not less than 25 feet from any occupied building or structure.

- (3) Safety screens having a maximum opening of four inches shall be provided for any pipe or opening to prevent children or large animals from crawling into the structures.
  - (4) Danger signs shall be mounted at appropriate locations to warn of deep water, possible flood conditions during storm periods and other dangers that exist. Fencing shall be provided if deemed necessary by the Board.
  - (5) Outlet control structures shall be designed to operate as simply as possible and shall require little or no maintenance and/or attention for proper operation. They shall limit discharges into existing or planned downstream channels or conduits so as not to exceed the storm water release rate.
  - (6) Emergency overflow facilities such as a weir or spillway shall be provided in case the normal discharge devices become totally or partially in-operative. The overflow facility shall have a stable outlet structure and be of such design that its operation is automatic and does not require manual attention.
  - (7) Grass or other suitable vegetative cover shall be provided throughout the entire detention storage basin area. Grass shall be cut regularly at approximately monthly intervals during the growing season or as required to maintain the facility.
  - (8) Debris and trash removal and other necessary maintenance shall be performed on a regular basis to assure continued operation in conformance to design.
  - (9) No detention facility or other water storage area, permanent or temporary, shall be constructed under or within ten feet of any pole or high voltage electric line. Likewise, poles or high voltage electric lines shall not be placed within ten feet of any detention facility or other water storage facility.
  - (10) Detention facilities must maintain setbacks from private and public water supply facilities as prescribed by Indiana State Board of Health and the Recommended Standards For Water Works by the Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers.
  - (11) The top of all banks (the point where the pond's back slope meets finished grade) and the toe of all fill slopes shall be a minimum of ten (10) feet from all property lines.
  - (12) Detention/retention basins shall be designed with an additional 6% of available capacity to allow for sediment accumulation resulting from development and to permit the pond to function for reasonable periods between cleanings. Basins should be designed to collect sediment and debris in specific locations so that removal costs are kept to a minimum.
- (I) *Dry bottom facility design requirements.* Detention facilities, which will not contain a permanent pool of water, shall comply with the following requirements:
- (1) Provisions shall be incorporated into facilities for complete interior drainage of dry bottom facilities, including the provisions of natural grades to outlet structures, longitudinal and transverse grades to perimeter drainage facility, paved gutters, or the installation of subsurface drains.
  - (2) The detention facility shall, whenever possible, be designed to serve as a secondary or multipurpose function.
  - (3) In excavated detention facilities, side slopes of 3:1 or flatter shall be provided for stability. In the event of valley storage, natural slopes may be considered stable.
- (J) *Wet bottom facility design requirements.* Where part of a detention facility will contain a permanent pool of water, all the items required for general and dry bottom detention storage shall apply except that the system of drains required to maintain a dry bottom facility will not be required. A controlled positive outlet will be required to maintain the design water level in the wet

bottom facility and provide required detention storage above the design water level. However, the following additional conditions shall apply.

- (1) Facilities designed with permanent pools or containing permanent lakes shall have a water area of at least one-half acre. If fish are to be used to keep the pond clean, a minimum depth of approximately 10 feet shall be maintained over at least 25% of the pond area. The remaining lake area shall have no extensive shallow areas, except as required by subsection (3) below.
  - (2) In excavated lakes, the underwater side slopes in the lake shall be stable. In the event of valley storage, natural slopes may be considered stable.
  - (3) A safety ledge 4 to 6 feet in width is required and shall be installed in all lakes approximately 30 to 36 inches below the permanent water level. In addition, a similar maintenance ledge 12 to 18 inches above the permanent water line shall be provided. The slope between the two ledges shall be stable and of a material such as stone or riprap which will prevent erosion due to wave action.
  - (4) A safety ramp exit from the lake will be required in all cases and shall have a minimum width of 20 feet and exit slope of six horizontal to one vertical (6:1). The ramp shall be of a material that will prevent its deterioration due to vehicle use or wave action.
  - (5) Periodic maintenance is required in lakes to control weed and larval growth. The facility shall also be designed to provide for the easy removal of sediment, which will accumulate during periods of reservoir operation. A means of maintaining the designed water level of the lake during prolonged periods of dry weather is also required.
  - (6) For emergency use, facility cleaning or shoreline maintenance, additional facilities may have to be provided or plans prepared for auxiliary equipment to permit emptying and drainage.
  - (7) Aeration facilities to prevent pond stagnation shall be provided, if required. Design calculations to substantiate the effectiveness of these aeration facilities shall be submitted with final engineering plans. Agreements for the perpetual operation and maintenance of aeration facilities shall be prepared to the satisfaction of the Board.
- (K) *Roof top storage.* Detention storage requirements may be met in total or in part by detention on flat roofs. Details of such design to be included in the building permit application shall include the depth and volume of storage, details of outlet devices and downdrains, elevations of emergency overflow provisions and certification of the structural portion of the building design plans by a professional engineer or architect.
- (L) *Parking lot storage.* Paved parking lots may be designed to provide temporary detention storage of storm waters on all or a portion of their surfaces. Outlets will be designed so as to empty the stored waters slowly. Depths of storage shall be limited to a maximum of eight inches in vehicle parking areas so as to limit damage to parked vehicles and so that access to parked vehicles is not impaired.
- (M) *Underground tanks or pipes.* Detention storage requirements may be met in total or in part by detention in underground tank(s) or in a network of underground pipes. Tanks must be of reinforced concrete construction unless otherwise approved by the Board. Pipes must be reinforced concrete or dual wall (corrugated exterior/smooth interior) high-density polyethylene (HDPE) materials unless otherwise approved by the Board. Details of the underground storage system and the outlet or release structure(s) to be included in the building permit application.
- (N) *Retention basins.* Retention basins (no outlet) are considered a last resort system. The Board may require the construction of a suitable outlet to prevent the use of retention basins. A retention basin will not be considered unless infiltration wells, dry wells, or other sub-surface absorption system is proposed in conjunction with the retention well.
- (O) *Facility financial responsibilities.* The construction cost of storm water control systems and required facilities shall be accepted as part of the cost of land development.

- (P) *Facility maintenance responsibilities.* Maintenance of detention/retention facilities during construction and thereafter shall be the responsibility of the land developer/owner. Assignment of responsibility for maintaining facilities serving more than one lot or holding shall be documented by appropriate covenants to property deeds, unless responsibility is formally accepted by a public body, and shall be determined before the final drainage plans are approved. No building permits will be issued until the documents accepting or assigning maintenance responsibilities has been approved by the City Attorney.
- (Q) *Inspections.* All public and privately owned detention storage facilities may be inspected by representatives of the city.
- (R) *Corrective measures.* If deficiencies are found by the inspector, the owner of the detention/retention facility will be required to take the necessary measures to correct such deficiencies. If the owner fails to do so, the city will undertake the work and collect the cost of maintenance or repair from the owner using lien rights if necessary.
- (S) *Joint development of control systems.* Stormwater control systems may be planned and constructed jointly by two or more developers as long as compliance with this chapter is maintained.
- (T) *Installation of erosion control systems.* No construction may start until the owner and/or developer and/or contractor and/or other designated representative for the project has obtained a SITE IMPROVEMENT PERMIT. Run-off and erosion control systems shall be installed as soon as possible during the course of site development. The city will require an erosion control plan to be submitted as part of the construction plans and specifications
- (U) *Detention facilities in floodplains.* If detention storage is provided within a 100-year floodplain, only the net increase in storage volume above that which naturally existed on the floodplain shall be credited to the development. No credit will be granted for volumes below the elevation of the regulatory flood at the location unless compensatory storage is also provided.
- (V) *Off-site drainage provisions.* When the allowable run-off is released in an area that is susceptible to flooding, the developer may be required to construct appropriate storm drains through such area to avert increased flood hazard caused by the concentration of allowable run-off at one point instead of the natural overland distribution. The requirement of off-site drains shall be at the discretion of the Board.
- (W) *As-built plans.* Whenever the Board has agreed to consider accepting facilities constructed by developers, a professionally prepared (by professional engineer or registered land surveyor), and certified "As-Built" set of prints or plans shall be submitted to the Board for review.

## **Section 6. EROSION AND SEDIMENT CONTROL: REQUIRED PRACTICES.**

- (A) Minimum practices are required at all sites. The following practices, alone or in combination with other practices and dependent upon existing conditions at the site must be implemented in order to comply with this chapter.
  - (1) Temporary stone/gravel construction entrance/exit drive. Drive to be constructed twelve (12) feet wide by fifty (50) feet long with adequate radii for one-way traffic. Two-way traffic requires a minimum width of twenty (20) feet. Stone/gravel to be added and maintained as necessary to maintain six (6) inches of clean depth.
  - (2) Perimeter barriers, for example, silt fence or straw bales are required to protect all down slope project perimeters. Straw bales shall be properly entrenched (bottom of straw bale below the adjacent ground level) and backfilled, with ends of adjacent bales abutting each other, and be securely anchored by at least two wooden stakes or steel rebars driven through each bale into the ground below. Silt fence shall be provided with wooden or steel rebar stakes at a minimum spacing of six (6) feet for reinforced barriers and four (4) feet for non-reinforced barriers. Install silt fence with stakes on the down slope side. Twelve

- (12) inches of fabric should be installed in an excavated trench four (4) inches wide by eight (8) inches deep. Earth barriers may be used if the down slope sides have temporary seeding installed in accordance with the requirements at (6) below.
- (3) Protection of existing facilities, e.g. protecting inlets, culverts, or storm drains with straw bales, fabrics, slotted barrels, aggregates, silt-sacks, gutter buddies or other accepted practices outlined in the handbook.
  - (4) Slope protection, e.g. protecting slopes with temporary seeding or sodding, permanent seeding or sodding, aggregates, fabrics, or erosion control blankets, or turf reinforcement mats.
  - (5) Installation of non-perforated flexible drainage tile to be used as temporary downspout extenders until seeding is established.
  - (6) Installation of temporary seeding and timely application or installation of the permanent seeding or sodding. Temporary seeding shall consist of annual ryegrass, perennial ryegrass, oats, wheat, or a mix of the various seeds. Steuben County Surveyor's Mix is an example of an acceptable temporary seed mixture. Seeding shall be applied at the rate of sixty (60) pounds per acre. Temporary seeding shall be applied whenever unvegetated areas are scheduled to be left inactive for 15 (fifteen) days or more. Temporary or permanent seeding shall be considered adequate when the vegetative cover is greater than 70% of the seeded area.
  - (7) Soil stockpiles must be stabilized, covered, or protected by perimeter barriers at the end of each workday.
  - (8) Techniques shall be employed to prevent the blowing of dust or sediment from the site. For example, water trucks may be required to settle dust and sediment from earth-moving operations.
  - (9) After October 30, the entire site must be stabilized using a heavy mulch layer, or another Board approved method, that does not require germination to control erosion.
- (B) Failure to implement minimum required practices or the Best Management Practices (BMPs) on the plan approved by the MS4 Operator may result in:
- (1) Stop Work Order by the MS4 Operator for all work at that site in accordance with the SITE IMPROVEMENT PERMIT until the required practices or the approved Best Management Practices (BMPs) are implemented.
  - (2) Stop Work Order by the MS4 Operator for all work at that site in accordance with the SITE IMPROVEMENT PERMIT until cleanup required by failure to implement minimum expected practices or the approved Best Management Practices (BMPs) is completed. Note: If the city must perform or contract the cleanup due to the failure of the responsible land owner, or developer, or on-site contractor to do so, or due to the existence of an emergency situation caused by runoff, sediment, or other debris from the site, the responsible land owner, developer or contractor will be billed the actual costs of the cleanup plus \$500 per occurrence.
  - (3) Revocation of Site Improvement Permit, Building Permits, or both. The Board reserves the right to revoke either or both permits when the actions of the landowner, developer, or contractor are in total disregard of the provisions of this chapter.

## **Section 7. RULE 5 SITES.**

For sites where the disturbance is equal to or greater than one acre (43,560 square feet), the owner must submit a NOTICE OF INTENT (NOI) to the Indiana Department of Environmental Management (IDEM) and follow Rule 5 requirements listed 327 IAC 15-5.

## **Section 8. DISCLAIMER OF LIABILITY.**

The degree of protection required by this chapter is considered reasonable for regulatory purposes and is based on historical records, engineering, and scientific methods of study. Larger storms may occur or storm water runoff depths may be increased by man-made

or natural causes. This chapter does not imply that land uses permitted will be free from storm water damage. This chapter shall not create liability on the part of the city or any official or employee thereof for any damage, which may result from reliance on this chapter, or any administrative decision lawfully made thereunder.

**Section 9. CORRECTIVE ACTION.**

Nothing herein contained shall prevent the city from taking such other lawful action as may be necessary to prevent or remedy any violation. All costs connected therewith shall accrue to the person or persons responsible.

**Section 10. CONFLICTS.**

327 IAC 15-13-15 requires the City of Angola to adopt this ordinance and the ordinance must contain, at a minimum, the requirements of 327 IAC 15-5. Where any conflicts arise, the latest version of 327 IAC 15-5 will prevail.

**Section 11. PENALTY.**

Any person violating any provision of this chapter for which no other penalty is set forth shall be subject to the penalty as stated in § 10.99.

**Section 12. EFFECTIVE DATE.**

This ordinance shall be in full force and effect effective January 1, 2005 and after its passage by the Common Council, approval by the Mayor, and publication according to law.

Passed and adopted by the Common Council of the City of Angola, Indiana, this 18<sup>th</sup> day of October 2004.

\_\_\_\_\_  
Richard M. Hickman, Mayor

Attest:

\_\_\_\_\_  
Debra A. Twitchell, IAMC/CMC/CPFA  
Clerk-Treasurer

Presented by me to the Mayor of the City of Angola, Indiana this 18<sup>th</sup> day of October 2004.

\_\_\_\_\_  
Debra A. Twitchell, IAMC/CMC/CPFA  
Clerk-Treasurer

Signed and approved by me this 18<sup>th</sup> day of October 2004.

\_\_\_\_\_  
Richard M. Hickman, Mayor  
City of Angola, Indiana

Public Notice:\_\_\_\_\_