

Table of Contents (9-14-12) Draft

<u>Page</u>	<u>Description</u>
i	Foreword (to be written)
ii	Administrative Revision Request Form
iii	Administrative Revision Log
1.1	Chapter 1: Administrative Procedures
2.1	Chapter 2: Preliminary Plat (to be revised by PGM)
3.1	Chapter 3: Final Plat (to be revised by PGM)
4.1	Chapter 4: Minor Plat (to be revised by PGM)
5.1	Chapter 5: Rural Subdivision Plat (to be revised by PGM)
6.1	Chapter 6: Construction Plans and Specifications
7.1	Chapter 7: Subdivision Construction Inspection and Bonding
8.1	Chapter 8: Location and Geometric Requirements for Streets, Sidewalks, Crosswalks, Driveways, and Alleys.
9.1	Chapter 9: Vehicular Access Control Standards
10.1	Chapter 10: Pavement Standards
11.1	Chapter 11: Sidewalk and Trail Standards
12.1	Chapter 12: Traffic Control and Traffic Regulatory Signage
13.1	Chapter 13: Right-of-way Lighting Standards
14.1	Chapter 14: Traffic Signal and Roundabout Standards
15.1	Chapter 15: General Utility Requirements
16.1	Chapter 16: Dedication and Vacation of Easements and Right-of-way
17.1	Chapter 17: Unified Stormwater Ordinance
18.1	Chapter 18: Water and Sanitary Sewer Standards
19.1	Chapter 19: (included in Chapter 17)
20.1	Chapter 20: (Included in Chapter 17)
21.1	Chapter 21: Earthwork Standards
22.1	Chapter 22: (Included in Chapter 17)
23.1	Chapter 23: (Included in Chapter 17)
24.1	Chapter 24: Right-of-way Street Tree Standards
25.1	Chapter 25: Right-of-way and Private Site Design Construction Standards

CHAPTER 1: ADMINISTRATIVE PROCEDURES

- 1.00 Introduction**
- 1.01 Definition of Terms**
- 1.02 Scope**
- 1.03 Pre-Design Conference**
- 1.04 Design Computation Requirements**
- 1.05 Other Permit Applications and Approvals**
- 1.06 Approval Period**
- 1.07 Revisions to Approved Public Improvement Engineering Plans and Specifications**
- 1.08 Record Drawings**
- 1.09 Project Completion and Final Acceptance**
- 1.10 Waiver for Manual Requirements**
- 1.11 Electronic Drafting File Standards**

1.00 INTRODUCTION

A major portion of publicly owned improvements are initially designed and constructed by private interests. This Manual – called the Manual of Practice – has been prepared to ensure that such improvements result in construction meeting City requirements. It is authorized by the City of Peoria Municipal Code, Appendix A Subdivisions.

This chapter explains the processing requirements and procedures required by the Municipal Code. The chapter includes the various documents required prior to, during and after construction in order to accomplish these purposes. The Manual also intends to provide a uniform design criteria for facilities designed for, or directly by, the City.

1.01 DEFINITION OF TERMS

The words and terms, whenever they occur in this Manual, are defined herein. Definitions in the City of Peoria Municipal Code, Appendix A Subdivisions shall also apply to the Manual of Practice.

AASHTO Geometric Design Book: The most recent edition of the book entitled “A Policy on Geometric Design of Highways and Streets,” published by the American Association of State Highway and Transportation Officials.

American National Standard Practice for Roadway Lighting: The “American National Standard Practice for Roadway Lighting” prepared by the American National Standards Institute, published by the Illuminating Engineering Society, most recent edition.

Approved Plant List: The list of trees, shrubs and groundcover acceptable by the City Public Works Department for use as street trees or screening required by the Code, as a condition of waiver or by agreement (refer to Chapter 24 of this Manual).

City Engineer: The person who holds the position of City Engineer for the City of Peoria or employees who work in the City Engineering Division that report to the City Engineer and are designated to perform the duty referred to.

Developer: The person, trust or corporation who develops subdivided land into residential, commercial, industrial, office or recreational development complete with required zoning and infrastructure systems.

Design Engineer: The engineer of record, responsible for the preparation of the project plans, and responsible for certifying the project construction. The experience and credentials of the design engineer relative to the given project shall conform to the State of Illinois Professional Engineer’s Act.

Erosion Control Plan: Plans and specifications prepared by the design engineer, which explain how erosion will be minimized during any soil disturbing process.

FEMA: Federal Emergency Management Agency.

Flood Routing: The area where water flows when in excess of the capacity in the storm drainage system.

Highway Standards: The “Highway Standards” published by IDOT, most recent edition.

IDOT Construction Manual: The “Construction Manual” published by IDOT, most recent edition.

IDOT Design Manual(s): The “Design Manual” published by IDOT, most recent edition. Refer to the Bureau of Design and Environment (BDE) and / or the Bureau of Local Roads (BLR) administration and design manuals as applicable.

IDOT Drainage Manual: The “IDOT Drainage Manual” published by IDOT, most recent edition.

Illinois Plat Act: Act 205 of Chapter 765 of the Illinois Compiled Statutes, which regulates the division of land in the State, unless superseded by a local government.

Internal Circulation System: An internal system of streets or drives which is located in and designed to serve a development.

MUTCD: The “Manual of Uniform Traffic Control Devices” published by the U.S. Department of Transportation, Federal Highway Administration, including the Illinois Supplement, most recent edition.

Director of Planning and Growth Management: The person who holds the position of Director of the Planning and Growth Management Department for the City of Peoria or employees who work in the City Planning and Growth Management Department that report to the Director and are designated to perform the duty referred to.

Standard Specifications for Road and Bridge Construction: The “Standard Specifications for Road and Bridge Construction” published by IDOT, most recent edition.

Standard Specifications for Traffic Control Items: The “Standard Specifications for Traffic Control Items” published by IDOT, most recent edition.

Standard Specifications for Water and Sewer Main Construction in Illinois: The “Standard Specifications for Water and Sewer Main Construction in Illinois” published jointly by the Illinois Society of Professional Engineers, Consulting Engineers Council of Illinois, Illinois Chapter of the American Public Works Association, Illinois Municipal League and the Associated General Contractors of Illinois, most recent edition.

Subdivision Regulations, Municipal Code or Code: Provision or provisions contained in the Peoria Municipal Code, Appendix A Subdivisions, as amended.

Street Tree: Any tree located within a right-of-way that is owned by the City and maintained by the Public Works Department.

Traffic Control Plan: A plan prepared by an engineer which calculates the anticipated on- or off-site traffic impact of a particular development and determines what traffic regulatory improvements, if any, are required to mitigate these impacts.

1.02 SCOPE

The review and approval of plans, specifications and contract documents for certain types of improvements is also the legal responsibility of various other public agencies in addition to the City. This Manual is not intended as a substitute for the requirements of such other public agencies. It shall be the Design Engineer’s responsibility to ensure that the proposed plans, specifications and contract documents meet the legal requirements of all other public agencies and that any permits and bonds required by such agencies are secured.

This Manual shall be reviewed from time to time by the City Engineer and the Director of Planning and Growth Management. Revisions shall be incorporated through the normal process provided for in the City of Peoria Municipal Code, Appendix A Subdivisions.. The City Engineer shall have final administrative authority for all chapters; except that the Director of Planning and Growth Management shall have administrative authority for Chapters 2 through 5.

1.03 PRE-DESIGN CONFERENCE

It is recommended that prior to the preparation of a Preliminary Plat and/or detailed Engineering Plans and Specifications, that the Design Engineer should meet with the City Engineer to review City requirements for the proposed project. The Design Engineer is responsible for requesting this preliminary meeting, if desired.

1.04 DESIGN COMPUTATION REQUIREMENTS

The Design Engineer shall make design computations for all phases of the project when this Manual requires such computations or when requested by the City Engineer. The City Engineer may request design computations to ensure adequacy and stability of the work and conformance with appropriate standards. Said computations shall be neat and legible and in a form required by this Manual. The computations shall be easily followed and prepared following formats of generally accepted practice. Said computations will include (but not necessarily be limited to) the following:

Submitted with Public Improvement Engineering Plans – Detailed Design Calculations for the following:

- A. Detention Basin Design**
- B. Storm Sewer System Design**
- C. Flood Routing and Waterway Design**
- D. Bridge, Culvert or Drainage Way Design**
- E. Structural Design Data for Arterial and Commercial / Industrial Collector Street Pavements**
- F. Traffic Engineering Data and Analysis for non-local street turn lanes and intersection improvements**

1.05 OTHER PERMIT APPLICATIONS AND APPROVALS

Other governmental agencies may review and approve all or certain parts of the work included in a project and may require a permit or application for a permit for such work. They may also require that such a permit or application for a permit be executed by the City. When such a permit or permit application is required, it shall be prepared, ready for signatures and containing all required supporting documentation by the Design Engineer, with sufficient copies for the City to retain one.

1.06 APPROVAL PERIOD

Approval of the Public Improvement Engineering Plans and Specifications by the City Engineer shall be applicable for the period for which there is a valid, preliminary or final plat. Construction shall not begin until the City Engineer has signed the cover sheet of the Engineering Plans as "Approved", and all required permits, from the City and/or other agencies, have been secured. If construction is not commenced within said period, the approval will be void. Reactivation of such voided approvals will require a written request for extension and must include any new requirements that may be established by the City in the interim.

1.07 REVISIONS TO APPROVED PUBLIC IMPROVEMENT ENGINEERING PLANS

Any deviations from approved plans or specifications affecting capacity, stability or operation of the improvements shall be approved in writing by the City Engineer before such changes are made. Minor changes not affecting capacity, stability or operation of the improvements will not require formal approval, but must be verbally approved by the City Engineer and documented on the record drawings. If a change is verbally approved, then a memorandum of record must be sent to the City Engineer by the Design Engineer within one week of the verbal approval. The memo of record shall briefly describe the change, when it was approved and by whom.

1.08 RECORD DRAWINGS

The Design Engineer shall submit to the City Engineer, prior to the City's acceptance for maintenance, record drawings of the entire set of Public Improvement Engineering Plans depicting the improvements as actually constructed. Final acceptance of the public improvements will not be made until the City Engineer has received the record drawings. Record drawings submitted shall consist of one set of photostatic prints and one set of digital computer aided drafting files.

1.09 PROJECT COMPLETION AND FINAL ACCEPTANCE

The City Engineer, in cooperation with the Design Engineer, shall make a jointly attended final inspection of the completed work prior to accepting the project for maintenance. The Design Engineer shall prepare a final punch list, itemizing all items not meeting the requirements of the approved plans. The developer, or Design Engineer, shall notify the City Engineer of the completion of the punch list items. If the City Engineer agrees that the items have been satisfactorily completed, he shall notify the developer or the Design Engineer, in writing, that the project has been accepted. Such acceptance will not be given until receipt of an acceptable certificate by the subdivider's or developer's engineer and final inspection by the city and county if appropriate. The final inspection shall be conducted after receipt of the certificate of the subdivider's or developer's engineer. A guarantee bond may be required at the city engineer's option if the development is within the city limits and at the option of the city engineer or county superintendent of highways if the development is within the mile and one-half jurisdiction.

1.10 WAIVER OF MANUAL REQUIREMENTS

The City Engineer and the Director of Planning and Growth Management, subject to Section 1.02 of this chapter, may administratively waive any of the requirements of this Manual. No waiver is available to a subdivider as a matter of right. The burden of proving that a waiver is justified is on the subdivider.

- A. General Standard for Waiver Approval:** The waiver shall not be approved unless the City Engineer or the Director of Planning and Growth Management (as appropriate) finds that the waiver is justified according to each of the following standards:
1. That there is substantial hardship in complying with these regulations provided that the spirit and intent of these regulations shall be substantially observed, and the public welfare and safety be assured.
 2. That the granting of the waiver will not be detrimental to the public safety, health or welfare or injurious to other property located in the vicinity of the property in question.
 3. That the cost or difficulty of complying with the requirements of these regulations is great compared to the gain such compliance provides to the public health, safety, and welfare.
- B. Specific Considerations.** In deciding whether to approve a waiver of these regulations, the following criteria may be considered:
1. Whether the condition upon which the request for a waiver is based is unique to the property, but not generally applicable to other properties.
 2. Whether the property to be subdivided will be used only for low intensity uses.
 3. Whether conditions may be imposed which mitigate the harm to the public caused by the failure to comply with these regulations.

1.11 ELECTRONIC DRAFTING FILE STANDARDS

- A. Electronic Files:** Electronic files are required when submitting final copies of:
1. Annexation Plats: Parcel boundary information only.
 2. Final Plats: To minimally include a geographical information drawing showing property and tract boundaries and adjacent right-of-way.
 3. Record Drawings of Public Improvement Engineering Plans.
- B. Submittal Media:** Industry standard electronic files currently may be submitted on CD-ROM or via e-mail. Files may be zipped as long as they are self-extracting or the extraction utility is provided. All files and media are to be in an IBM compatible format.
- C. Submittal Format:** Files shall be AutoCAD compatible. Unused blocks, layers, linestyles, etc., shall be purged from AutoCAD files. Reference files used shall be in the same subdirectory as the active design file.
- D. Layer Requirements:** Design elements and symbols on electronically submitted files shall be in accordance with the following list. The minimum requirement shall be that drawing elements not listed in the following table shall be purged from the submitted drawing.

**CITY OF PEORIA
AUTOMATED MAP LAYER SYSTEM**

Revised: 5-2000
File: layerlist.doc

LAYER NAME	COLOR	DESCRIPTION	LINE OR TEXT STYLE	Line Width or Text Height and Width	Miscellaneous Notes
BA-ADD	10	Addressing		Ht.=20 W=0.8	
*BA-BLDG (see misc notes)	Cyan	Building Foundation	Cont.	2.0	Only in Sections 3, 18 & 19
BA-CL	Blue	Centerline	Center		
BA-DRIVE	White	Driveway Approaches	Cont.		Only in Sections 7, 12 & 18
BA-EASE	Red	Easement	Dashed		
BA-GRID1	Red	Mile Grid Section	Dashed		
BA-HATCH	Red	Hatch Boundary for Parks	Cont.		
*BA-LIMITS	Blue	City Limits Line	Limit		
BA-LOTID	Red	Lot Number	Romans	Ht.=15 W=0.8	
*BA-MISC	Yellow	Misc. Landmarks (Malls, Golf Courses)	Romans	Ht.=80 W=0.7	
*BA-ONEWAY	Red	One-way Street			Block Symbol: Arrow
*BA-PARK	Yellow	Parks			Hatch Pattern: Ar-Sand
*BA-PARKNAME	Yellow	Park Name	Romans	Ht=80 W=0.7	
*BA-PAVMT	White	Edge of Pavement	Cont.		
BA-PAVT2	White	Edge of Pavement	Cont.		Under Hwy Signs
*BA-PAVT3	White	Edge of Pavement			Replaces Driveway Approach
*BA-PRIV	White	Private Street	Dashed		
BA-PROP	Green	Property Lines	Cont.		

CHAPTER 1: ADMINISTRATIVE PROCEDURES

LAYER NAME	COLOR	DESCRIPTION	LINE OR TEXT STYLE	Line Width or Text Height and Width	Miscellaneous Notes
*BA-RANGE	White	Block Ranges	Bold	Ht=150 W=1.0	
BA-ROW	Green	Rights-of-Way	Cont.		
BA-ROW2	Green	Rights-of-Way	Cont.		Under Hwy Signs
*BA-RR	Red	Railroad Line	Tracks	0	
*BA-SCHOOL	White	School Name	Romans	Ht=80 W=0.7	
BA-STID	Red	Street Name (Inside ROW)	Romans	Ht=30 W=0.9	
*BA-STID2	White	Street Name (Outside ROW)	Romans	Ht=80 W=0.7	
CO-SW	Red	Sidewalks	Cont.	0	
DR-100YR_FLOOD	Blue	100 Year Flood Boundary		0	
DR-ATTRIBUTE	White	Attributes for Storm manholes & inlets	Romans	Ht.=6 W=0.8	
DR-BASIN	Magenta	Drainage Basin Boundaries	Cont.	100	
DR-INLET	Yellow	Storm Inlet			Block Symbol: Boxit
DR-LINE	Blue	Storm Line	Cont.	0	
DR-MH	Cyan	Storm Manhole			Block Symbol: Mole
DR-SIZE	10	Storm Line Size	Romans	Ht=15 W=0.8	
*DR-WATER	Cyan	Open Water Channels and Lakes	Cont.	0	Channels 10.0 offset Lakes 20.0 offset
EL-HPS	Red	High Pressure Sodium	Cont.		

CHAPTER 1: ADMINISTRATIVE PROCEDURES

LAYER NAME	COLOR	DESCRIPTION	LINE OR TEXT STYLE	Line Width or Text Height and Width	Miscellaneous Notes
EL-INCAN	Cyan	Incandescent	Cont.		
EL-MERC	Red	Mercury	Cont.		
PK-10L	Blue	Parking Lane (10 hour)	Cont.	0	
PK-10NO	Blue	Parking Number (10 hour)	Romans	Ht=6 W=0.8	
PK-15L	Green	Parking Lane (15 min)	Cont.	0	
PK-15NO	Green	Parking Number (15 min)	Romans	Ht=6 W=0.8	
PK-2L	White	Parking Lane (2 hour)	Cont.	0	
PK-2NO	White	Parking Number (2 hour)		Ht=6 W=0.8	
PK-30L	Red	Parking Lane (30 min)	Cont.	0	
PK-30NO	Red	Parking Number (30 min)		Ht=6 W=0.8	
PK-LZL	Magenta	Parking Loading Zone Lane	Cont.	0	
PK-LZNO	Magenta	Parking Loading Zone Number	Romans	Ht=6.0 W=0.8	
SA-INT	Red	Sanitary Interceptor	Cont.	0	
SA-LAT	251	Sanitary Lateral	Cont.		
SA-LINE	Blue	Sanitary Line	Cont.	0	
SA-MHNUM	Magenta	Sanitary Manhole Identifier	Romans	Ht=35 W=1.0	Same Number as attribute attached to Manhole
SA-PRI	Green	Sanitary Private Line	Dashed		
SA-SIZE	10	Sanitary Line Size	Romans	Ht=25 W=0.8	
SA-STA	10	Lateral Stationing	Romans	Ht=13	

LAYER NAME	COLOR	DESCRIPTION	LINE OR TEXT STYLE	Line Width or Text Height and Width	Miscellaneous Notes
				W=1.0	

LEGEND

- BA = Base Layers
- CO = Concrete Layers
- DR = Drainage or Storm Layers
- EL = Electrical Layers
- PK = Parking Layers
- SA = Sanitary Layers

* = Default Settings for City Map (Layers to be "ON" and "THAWED" when exiting a City Section Drawing.
LineType Scale setting for each City Section Drawing is 100.0.

File: LAYERLIST.DOC

CHAPTER 6: CONSTRUCTION PLANS AND SPECIFICATIONS

6.00 Construction Plans and Specifications – Procedures and Requirements

6.01 Construction Plan Set – Format

6.02 Construction Plan Set – Requirements

6.03 Standard Attachments

DRAFT

6.00 CONSTRUCTION PLANS AND SPECIFICATIONS – PROCEDURE AND REQUIREMENTS

- A. Subdivider's Obligation:** The subdivider shall cause engineering plans and specifications to be prepared for all improvements required. Said improvements shall be designed to meet or exceed the minimum standards set forth in this chapter and these regulations. Improvements shall also conform to the minimum standards and requirements of other local, state and federal authorities, which have jurisdiction over the subdivision. Improvements shall also conform to the minimum standards and requirements of other public and private utilities. Construction plans and specifications shall be prepared under the supervision of a licensed engineer pursuant to the laws of the State of Illinois and shall bear the engineer's seal, license number and signature.
- B. Required Submittal:** The subdivider's engineer shall submit construction plans and specifications to the City Engineer for review and written approval, prior to the commencement of construction of any improvements required or regulated by these regulations. Said submittal shall include, but not be limited to:
1. Two sets of plan documents – any combination of full (24 in. x 36 in.) and / or half size (11 in. x 17 in.) for review.
 2. Written requests for waiver of minimum materials and construction standards, describing the degree of deviation, the necessity or advantage of it and the alternate plan.
 3. The signed statement of the subdivider authorizing the subdivider's engineer to provide sufficient inspection to certify that the improvements required, and / or regulated, by this manual are constructed and inspected in accordance with these regulations and other applicable ordinances of the City, and a written understanding by the subdivider's engineer that the engineer shall provide such inspection service.
- C. Flood Prone Areas:** When a subdivision, or part thereof, is located in a flood-prone area, as designated by the Federal Emergency Management Administration (FEMA), at his own expense, the subdivider shall provide such hydrologic design data and calculations and utility and drainage plans as may be required by the City Engineer to assure that the subdivision is consistent with the need to minimize or eliminate flood damage. (See Manual Chapter 19: Hydrologic Design Standards and the City of Peoria Stormwater Regulations – Chapter 9.5 of the City of Peoria Municipal Code.)
- D. Subsidiary Drainage Plat:** The subdivider's engineer shall prepare a drainage study and certificate hereafter called "subsidiary drainage plat" in accordance with 765 ILCS 205/1, as amended and as may hereafter be amended, and shall submit the subsidiary drainage plat as part of the construction plans to the City Engineer for approval.
- E. City Engineer's Responsibility:** The City Engineer shall review engineering plans and specifications for conformance to this chapter and generally accepted good engineering practice.
- F. Approval:**
1. The City Engineer shall notify the subdivider and the Planning Director of approval or disapproval of the construction plans and specifications and the subsidiary drainage plat.

CHAPTER 6: CONSTRUCTION PLANS AND SPECIFICATIONS

2. Such notification, specifying reasons for approval or disapproval, shall be made within approximately 10 working days, excluding holidays, of the date of submission of plans, specifications and plats required by this section. Plans will be reviewed in the order of submission. Written approval may be executed by signing the plans as approved.
 3. Construction of improvements, required or regulated by this chapter, shall not commence until the City Engineer has approved, in writing, engineering plans and specifications for the improvements, hydrologic design data as may be required by these regulations, and the subsidiary drainage plat. Construction shall not commence until the subdivider or his/her agent has obtained a City of Peoria Erosion, Sediment and Stormwater Control permit per Chapter 9.5 of the City of Peoria Municipal Code.
- G. Field Modifications:** As also indicated in Section 7.01B, if in the course of construction the subdivider wishes to modify the size, type, quality, quantity or location of improvements required or regulated by these regulations as shown on the approved construction plans, the subdivider's engineer shall contact the City Engineer for approval prior to proceeding with installation of the modified improvement. Said approval may be verbal or written. In any case, the subdivider's engineer shall submit within one week a brief written memorandum of understanding.
- H. Final Plat Requirements:** Approval of the construction plans and specifications and the subsidiary drainage plat is a prerequisite to submission of the final plat
- I. Construction Specifications:** Shall be submitted and made available to the City Engineer with the submission of the construction plans. Construction specifications shall not deviate from the City of Peoria construction standards as outlined in this Manual. If there is any deviation, a Request for Waiver shall be submitted in writing to the City Engineer.

6.01 CONSTRUCTION PLANS SET – FORMAT

- A. **Sheet Size:** Plan set shall be 24 in. x 36 in. or 11 in. x 17 in. Variations in dimensions may be approved by the City Engineer, if requested prior to submission of plans.
- B. **Plan scale** shall be at a minimum of 1 in. = 100 ft.
- C.
- D. **Final Plan Submittal:** One set of approved, Final Plans shall be submitted to the City, along with an electronic file in .tif format and in the format specified in Chapter 1 of this Manual.

6.02 CONSTRUCTION PLAN SET – REQUIRED SHEETS AND CONTENTS

- A. Cover Sheet**
1. Vicinity map shall be included with the overall size of at least one-fourth section, indicating adjacent arterial streets, and adjacent subdivisions.
 2. Title indicating city, county, and state, with section, township and range.
 3. A list of benchmark location and elevations. Benchmarks shall be of a type and elevation as generally accepted by legal standards and professional land surveying standards in the State of Illinois. Plans shall state benchmark datum

CHAPTER 6: CONSTRUCTION PLANS AND SPECIFICATIONS

being referenced and shall describe vertical and horizontal adjustments relative to adjacent tracts with datum equation.

4. An index of sheets.
5. Signature Blocks for "Design Engineer" and "Approved by City Engineer."

B. General Notes Sheet

1. Traffic Control Notes.
2. Grading and Erosion Control Notes.
3. Legend – listing definitions for all line types and symbols shown in the construction plan set.

C. Infrastructure Inventory Sheet / Table

This table shall also be submitted electronically in Microsoft Excel format—latest version, in the form of a template that is available from the City Engineer's office. Quantities of public infrastructure shall be submitted together with estimates of unit price and total cost (see Attachment 6.01). If quantities change during construction, the Infrastructure Inventory Sheet shall be revised and submitted with the as-built plans.

D. Grading Plan, Subsidiary Drainage Plat, and Erosion Control Plan

Note: These sheets may be shown as separate sheets or combined into a single sheet except that erosion control must be clearly indicated.

The grading plan shall be drawn at a maximum contour interval of 2 ft. showing proposed and existing elevations with discrete elevations shown at lot corners, mid lot lines and for minimum building pad elevations. Discrete elevations shall also be shown on pavement surfaces sufficient to show that all pavement has a minimum drainage slope of 0.4%. Adjacent topography shall be shown to the extent that it impacts the drainage of the current construction area. The grading plan and subsidiary drainage plat are essentially the same, except that the subsidiary drainage plat contains the following statement with signature blocks for design engineer and owner:

Drainage Statement

We hereby state that to the best of our knowledge and belief the drainage of surface waters of this plat will not be changed by the construction of the improvements of this subdivision or any part thereof or that if such surface water drainage will be changed, reasonable provisions have been made for collection and diversion of such surface waters into public areas, or drains which the subdivider has a right to use, and that such surface waters will be planned for in accordance with generally accepted engineering practices so as to reduce the likelihood of damage to the adjoining property because of the construction of the subdivision.

Date: _____

Name of Engineer
Illinois Registered Prof. Eng. No. _____

CHAPTER 6: CONSTRUCTION PLANS AND SPECIFICATIONS

Owner & Subdivider: _____
Name of Developer / Owner _____
Title _____
Corporation _____

E. Utility and Pavement Plan Sheets

1. Utility plan sheets shall be included and show type, size, length and location for storm sewer and underdrain systems, and other private or public utility systems. Determine the type, size, and location of all proposed utility systems. Stationing shall be shown. It is preferred that these utility plan sheets be separate sheets. All planned private utilities shall be shown and indicated as such.
2. Pavement plan sheets shall be included to show all plan dimensions and stationing for streets necessary for construction layout.
 - a. It is preferred that infrastructure systems be shown in their entirety on a single sheet. If it is necessary to break up the systems into multiple sheets, an overall key map must be provided.
 - b. Profile Sheets for proposed and adjacent / existing streets, storm sewers, sanitary sewers, and water mains showing distances, elevations and slopes as required (inverts shall be shown with direction clearly indicated for each). Influent and effluent elevations shown on the plans shall be edge of manhole elevations. Distance between manholes shall be center-to-center and the pipe length shall be also shown as edge to edge of manhole distances.

F. Intersection Detail Sheet showing intersection jointing patterns, radius / curve information and discrete elevations. Typical discrete elevations are as follows:

1. Edge of pavements
2. Center line
3. High and low points
4. Inlet—rim [low point of water entry]
5. Top of curb elevations

G. Pavement Details Sheet showing details for all standard pavements. These details shall include typical sections and jointing patterns. There shall also be details for curb and gutter cross sections, sidewalk ramps, pavement joints adjacent to inlets or manholes and medians in accordance with City of Peoria Pavement Standards as described in this Manual (see Chapter 10: Design and Construction of Streets). Other pavement details shall be shown as needed.

H. Storm Sewer Details Sheets showing manhole and backfill details for storm sewer systems as shown in chapters of this Manual (see Chapter 17: Storm Sewer Systems, and Chapter 18: Sanitary Sewers Systems). This sheet may also show details for other private and public utilities.

6.03 STANDARD ATTACHMENTS

Standard Attachment 6.01—Infrastructure Inventory Sheet

CHAPTER 6: CONSTRUCTION PLANS AND SPECIFICATIONS

CITY OF PEORIA INFRASTRUCTURE INVENTORY SHEET

PROJECT NAME _____
DATE _____

Inventory Item	Unit	Quantity	Unit Price	Total Cost	D*
<u>Pavement System</u> 7 in. x 28 ft. Concrete Pavement w/ c&g complete	LF				
7 in. x 34 ft. Concrete Pavement w/ c&g complete	LF				
9 in. x 28 ft. Asphalt Pavement w/ c&g complete	LF				
9 in. x 34 ft. Asphalt Pavement w/ c&g complete	LF				
6 in. x 5 ft. Concrete Sidewalk	LF				
Other _____					
			Subtotal		
<u>Storm Sewer System</u> Linear feet of 12 in. dia. RCP CI IV-Storm Sewer	LF				
Linear feet of 15 in. dia. RCP CI IV-Storm Sewer	LF				
Linear feet of 18 in. dia. RCP CI IV-Storm Sewer	LF				
Linear feet of 24 in. dia. RCP CI IV-Storm Sewer	LF				
Linear feet of 36 in. dia. RCP CI IV-Storm Sewer	LF				
Linear feet of 12 in. dia. HDPE-Storm Sewer	LF				
Linear feet of 15 in. dia. HDPE-Storm Sewer	LF				
Linear feet of 18 in. dia. HDPE-Storm Sewer	LF				
Linear feet of 24 in. dia. HDPE-Storm Sewer	LF				
Linear feet of 36 in. dia. HDPE-Storm Sewer	LF				
15 in. dia. RCP F.E.S.	EA				
24 in. dia. RCP F.E.S.	EA				
36 in. dia. RCP F.E.S.	EA				
24 in. dia. Concrete Storm Sewer Structures	EA				
36 in. dia. Concrete Storm Sewer Structures	EA				
48 in. dia. Concrete Storm Sewer Structures	EA				
Storm Inlet Casting Assemblies	EA				
Other _____					
			Subtotal		
<u>Permanent Erosion Control Measures</u>					
Seeding	ACRES				
Sodding	SQ YD				
Riprap	CU YD				
			Subtotal		
<u>Traffic Control System</u> Linear ft. of Thermoplastic Pavement Marking	LF				
Linear ft. of 3M Staymark Series 420 Pavement Marking	LF				
Linear ft. of Paint Pavement Marking	LF				
City Standard Street Name Sign Assemblies	EA				
City Standard Stop Signs	EA				
Traffic Signal Complete	EA				
			Subtotal		

CHAPTER 6: CONSTRUCTION PLANS AND SPECIFICATIONS

Miscellaneous Items					
Street Trees	EA				
Street Lights	EA				
Bike Path	LF				
Detention Basins & Inlet/Outlet Structures	EA				
Other					
				Subtotal	
				Grand Total	

D* = Description, to be added if item is unique or non-standard

CHAPTER 7: SUBDIVISION CONSTRUCTION, INSPECTION AND BONDING

7.00 Construction

7.01 Inspection and Testing of Improvements

7.02 Approval of Improvements

7.03 City Engineer's Acceptance of All Improvements

7.04 Duty to Maintain Improvements

7.05 Subdivision Improvement Performance Bond Requirements

7.06 Standard Attachments

DRAFT

7.00 CONSTRUCTION

- A. **General:** Improvements required or regulated by this Manual shall be constructed in accordance with approved engineering plans and specifications, the requirements of this Manual, City regulations and any applicable regulations of outside agencies.
- B. **Plan Modification:** To modify the size, type, quality, quantity or location of improvements required or regulated by these regulations as shown on the approved construction plans, the subdivider's engineer shall contact the City Engineer for approval prior to proceeding with installation of the modified improvement. Said approval may be verbal or written. In any case, the subdivider's engineer shall submit, within one week, a brief written memorandum of understanding that briefly describes the modification and approval.
- C. **Notice of Work:** The developer shall notify the City Engineer at least one day prior to the beginning of any regulated work. If the developer fails to comply with this requirement, the City Engineer may take any steps necessary to ensure that the work performed without the knowledge of the City Engineer complies with approved engineering plans and specifications, these regulations and other applicable ordinances of the City.
- D. **Commencement of Construction:** Construction of subdivision improvements required or regulated by this Manual shall not commence until the City Engineer has approved, in writing, engineering plans and specifications for said improvements, hydrologic design studies, if required and the subsidiary drainage plat together with all permits that require the approval of the City Engineer. Additionally, review of construction plans or start of construction of improvements shall not commence until the formal approval of the Preliminary Plat is complete. The City will not be responsible for extra costs or penalties incurred when construction activity is undertaken after receiving City approval, but prior to obtaining all other permits.
- E. **Time Period for Construction:** The developer shall complete construction of all subdivision improvements in accordance with plans and specifications approved by the City Engineer within two years of the date the City approves the final plat of the subdivision. . At the owner's request, the City Council may consider and approve extension of the time period for an additional two (2) years, if the City Council finds that such an extension is consistent with the public welfare.

7.01 INSPECTION AND TESTING OF IMPROVEMENTS

- A. **Observer Requirements:** An experienced observer, who is approved by the City Engineer, shall observe construction of all public improvements. The construction observer shall have at least one year's experience assisting in the inspection of public improvements. The developer shall provide the name and resume of the project observer to the City Engineer for approval. This observer shall be under the direction of the developer's engineer. The observer shall be present 100% of the time when construction is taking place on major infrastructure items, including but not limited to:
 - 1. All pavements, sidewalks, storm sewers, detention basin inlet and outlet control structures.
 - 2. Any bridge or culvert.

3. Any traffic signal or streetlight system.

- B. Testing Requirements:** Tests required by this Manual shall be performed solely by independent testing laboratories or the developer's engineer, and shall be performed at the developer's expense. Sampling frequencies for material testing and inspection shall be in accordance with the Illinois Department of Transportation Project Procedures Guide, latest edition. The developer shall notify the City Engineer of failing tests immediately. All test results shall be delivered to the City Engineer together with the certification of the completion of public improvements (see Standard Attachment 7.01). No test results shall be withheld from the City Engineer, i.e. all failing tests shall be reported including corrective action taken and follow up passing tests.

7.02 APPROVAL OF IMPROVEMENTS

- A. Approval of Improvements:** Approval of improvements is a written notification by the City Engineer that indicates infrastructure meets the requirements of the City construction standards. The only purpose of a partial *approval* of infrastructure, as in paragraph 2 below, is to allow a reduction in the bond dollar amount. Approval of infrastructure does not mean *acceptance* and transfer of ownership of infrastructure.
1. *Approving All of the Improvements:* If the Developer's Engineer finds that all of the pavements, storm sewer, required grading and drainage improvements and all other required improvements for a subdivision have been constructed in accordance with the requirements of this Manual and all required certifications, test results and as-built plans have been submitted in accordance with the requirements of this Manual, the Developer's Engineer shall certify same to the in writing, and the City Engineer shall issue a written notice of the approval of all these improvements on behalf of the City (see Appendix C).
 2. *Approving Part of the Improvements:* At the request of the developer, if the Developer's Engineer certifies in writing that all the required improvements in a distinct contiguous portion of the subdivision or over a complete infrastructure system have been constructed in accordance with this Manual, and all required certifications, test results and as-built plans have been submitted in accordance with the requirements of this Manual, the City Engineer shall issue a written notice of the approval of all these improvements on behalf of the City (see Appendix C).
- B. Required Submittals:** Prerequisites for approval include delivery of required engineer's certification together with testing results and as-built drawings and the correction of any deficiencies (punch list items) as noted by the City Engineer. Upon completion of construction of improvements regulated by this Manual, the developer's engineer shall deliver to the City Engineer:
1. All required test data, as indicated in Attachment 7.01.
 2. One electronic file in the currently accepted format and one complete paper set of "as-built" plans, each sheet of which is clearly marked "as-built" in the lower right corner. "As-built" plans shall depict actual construction on the date of submittal of the plans.

3. The following signed and sealed "Engineer's Certificate."

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF PEORIA) SS

I, _____, being a Registered Professional Engineer in the State of Illinois, registration number _____, do hereby certify that the _____ (the project) was, to the best of my knowledge, constructed in accordance with the Engineering Plans and Specifications and Change Orders approved by the City Engineer, City of Peoria, Illinois.

(Seal)

I further certify that all construction operations were observed by me or someone under my supervision.

Signed and sealed this _____ day of _____, 20 ____.

Signature

4. With the approval of the City Engineer, said certificate may certify to the completion of a portion of the improvements with specifically stated exceptions for which a bond shall be filed.

- C. Deficient Construction:** The City Engineer is authorized to reject any construction, which fails to conform to the approved plans, specifications or the requirements of this Manual.

7.03 CITY ENGINEER'S ACCEPTANCE OF ALL IMPROVEMENTS

- A. Acceptance of Improvements:** Acceptance of improvements is a written notification by the City Engineer that indicates all required improvements meet the requirements of the City construction standards and that all required certifications, testing results and as-built drawings have been submitted. The **acceptance** of the required improvements results in the start of the one-year maintenance period (see Section 7.06 below). Acceptance of infrastructure means that the ownership of the public infrastructure is transferred from the developer to the City.
- B. Developer's Responsibility:** Upon completion of construction of all subdivision improvements, the developer shall seek final acceptance of the improvements by the City.
- C. City Engineer's Obligation:** The City Engineer shall issue a written notice of the acceptance of the improvements when he finds that all the requirements of this Manual and the Subdivision Regulations have been met. The form of this written notice shall be as approved by the City Attorney (see Appendix C).

7.04 DUTY TO MAINTAIN IMPROVEMENTS

The developer shall maintain the subdivision improvements, free from defects, for a period of one year after acceptance in writing of all the subdivision improvements by the City Engineer or after a later date mutually agreed upon by the City Engineer and the developer. The developer shall promptly correct any defect of which he has notice or which the City discovers, which occurs prior to one year from the date of the acceptance of all improvements. The City Engineer shall notify the owner of any defects discovered by the City, which occurred during this period and the developer shall promptly remedy the same. The time period for maintenance shall be one year in length with the following stipulations.

- A. The developer shall maintain **all subdivision improvements** free from defects for a period of one year after the date the City Engineer issues a written notice of acceptance of all the subdivision improvements, or one year after a date agreed upon by the City Engineer and developer. In addition, the developer shall maintain **all pavements** free from settlement for a period of three years after the date the City Engineer issues a written notice of acceptance of all the subdivision improvements, or three years after a date agreed upon by the City Engineer and developer. Maintenance in the context of "the maintenance period of the subdivision improvement performance bond" does not refer to routine maintenance (e.g. street cleaning, snow plowing, etc.) but rather the owner's obligation to repair defects.
- B. If the City Engineer approves part but not all of the subdivision improvements, the developer must maintain free of defects the part approved, until the expiration of the maintenance period for all subdivision improvements.
- C. A defect which may be required to be repaired is any:
 - 1. Failure of a subdivision improvement to operate in conformance with these regulations during the maintenance period; or
 - 2. Any defect in a subdivision improvement which is discovered during the maintenance period; or
 - 3. Any incomplete and required public improvement.

7.05 SUBDIVISION IMPROVEMENT PERFORMANCE BOND REQUIREMENTS

- A. **General:** The developer shall execute a performance bond in favor of the City, which guarantees that all subdivision improvements required by these regulations be built by the developer shall be constructed and maintained as required in these regulations. The developer shall use the Performance Bond Form approved by the City Attorney (see template in Appendix C). The City Engineer may require payment of penalties, extended bonds or removal and replacement of substandard infrastructure.
- B. **Performance Bond Amount and Allowed Reductions:**
 - 1. The initial amount of the Subdivision Improvement Performance Bond shall be 115% of the estimated cost of construction as determined by the developer's engineer and approved by the City Engineer. Upon approval, the initial amount may be reduced to 15% of the estimated cost of construction of all subdivision improvements approved by the City Engineer plus 115% of incomplete items.
 - 2. The amount of the Subdivision Improvement Performance Bond may be reduced a maximum of three times prior to acceptance of all required improvements.

3. Each allowed reduction will be in the amount of the estimated cost of the part of the subdivision improvements that have been approved and are being considered for the particular reduction. All cost estimates shall be approved in writing by the City Engineer. No reduction shall be less than 25% of the original amount of the bond. In no event shall the total bond value be less than 25% of the total estimated cost of construction of subdivision improvements until all improvements are approved.
4. Upon approval of all improvements, the developer may reduce the amount of the bond to 15% of the estimated cost of construction of all subdivision improvements, subject to the limitations of this chapter.
5. Upon request of the developer, and approval of the City Engineer, all bond reductions shall be accomplished by a written notice from the City Engineer to the developer or the developer's representative. The form of the written notice shall be the same as the notice for **approval** with the addition of a reduction table (see template in Appendix C).

C. Allowable Subdivision Improvement Performance Bond Security: The Subdivision Performance Bond is a legal document agreed to and signed by the developer or owner. The language included in the bond form defines the obligations of the owner. This bond in itself does not have any monetary value. An additional capital security shall be submitted together with the bond. The capital security shall be as required in Section 31-432 of the Subdivision Regulations. Templates forms for these securities are included in Appendix C.

D. Final Release of Performance Bond and Security Upon Acceptance of All Improvements:

1. *General:* Upon satisfactory completion of all required maintenance work on subdivision improvements required by these regulations and expiration of the maintenance period, and the request of the owner, the City Engineer shall release the Subdivision Improvement Performance Bond and its security in its entirety.
2. *Bond Release Process:* After approval of all of the subdivision improvements required in these regulations, the City Engineer together with the developer, and/or developer's engineer shall conduct a final inspection of the improvements regulated by this Manual. The City Engineer shall approve in writing all improvements that conform to the approved engineering plans / specifications and any other requirements of these regulations. The developer shall contact the City Engineer to request final inspection and bond release prior to the end of the one-year maintenance period.
3. *Release Form:* The release of any or all of the bond and its security shall be in writing on forms approved by the City Attorney and signed by the City Engineer (see template in Appendix C).

7.06 STANDARD ATTACHMENTS

Attachment 7.01 – Required Test Data

Required Test Data for Subdivision Certification and Acceptance:

(See individual chapters for testing requirements)

- A. Pavement Subgrade Moisture. Density with proctor results and stability—dynamic cone penetrometer (DCP) tests listing all location results. Failing subgrade tests shall be included, noting the remedial action and subsequent passing test results. Proofroll tests shall be witnessed by the City Engineering and documented by the developer's engineer. Minimum testing for subgrades shall be in accordance with Section 10.02 of this Manual.
- B. Concrete and/or asphalt mix design information together with a packet that includes random sample copies of delivery tickets.
- C. Concrete slump and air content results per IDOT, Project Procedures Guide, latest edition.
- D. Concrete cylinder break strengths per IDOT, Project Procedures Guide, latest edition.
- E. Asphalt mix temperature, lift thicknesses and density tests.
- F. Pavement core thickness results, or documented depth checks.
- G. Compacted trench backfill moisture - density test results with corresponding proctor test.
- H. A statement from the local sanitary and water utilities that their infrastructure has been accepted.
- I. All test data shall include name of individual performing tests together with location, date, time and any other notable environmental conditions.
- J. All tests results shall be initialed as approved by the observer / inspector, printed on letterhead, dated and signed as "Checked by Illinois Professional Engineer _____."
- K. All pavement test procedures shall be in accordance with the IDOT "Procedures Manual for Hot Mix Asphalt & Portland Cement Concrete.

**CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS,
CROSSWALKS, DRIVEWAYS, STREET NAMES AND SIGNAGE,
ALLEYS AND PARKING**

8.00 Streets

8.01 Sidewalks and Crosswalks

8.02 Street Names and Signage

8.03 Alleys (reserved)

8.04 Parking (reserved)

8.05 Standard Attachments

DRAFT

8.00 STREETS

A. Street Location:

1. The following factors shall be considered when determining street layout and location:
 - a. Location of existing and proposed streets.
 - b. Topographical/drainage conditions.
 - c. Public safety and convenience.
 - d. Anticipated land use.
 - e. Conformance with the City of Peoria Comprehensive Plan.
 - f. Peoria Pekin Urbanized Area Transportation Study (PPUATS).
2. No street shall be located less than 250 ft. from the edge of any parallel street, measured from the straight-line portion of the right-of-way for each street.
3. No lot shall have direct access to an arterial roadway. See also Chapter 9: Vehicular Access Control Standards
4. Private streets are discouraged and are only permitted or located in special circumstances, by agreement.

B. Street and Right-of-Way Geometry:

1. *Street and Right-of-Way Geometry General:* The required right-of-way dedication and street geometry is as shown in the attached tables and drawings in Standard Attachments 8.01 (Table A), 8.02, and 8.03.
2. *Horizontal curves* shall be gradual and shall be designed for a minimum speed of 35 mph. Lesser radii shall only be allowed if, in the opinion of the City Engineer and the Fire Chief, a lesser radius is deemed safe and adequate for anticipated conditions. Street curve radii of less than 300 ft. are not permitted and super-elevation is not allowed. Special design criteria may apply for traffic calming systems and will require case-by-case review. When necessary to provide continuity between perpendicular streets in a confined area, 90-degree corners are permitted with a standard centerline radius of 55 ft.
3. *Street intersections* shall be designed to intersect as close to a 90-degree angle as possible, and no two streets shall intersect at an angle of less than 80 degrees.
4. Streets shall have a *minimum longitudinal slope* of 0.4%. Vertical curves shall not be used when the local tangent slope of the curve is less than 0.3% for a length of 20 ft. or more, as this will create a flat portion of the curve that may not be feasible to construct with positive drainage. This is an issue of concern when the incoming tangent gradient and outgoing tangent gradient are of opposite signs, and can generally be avoided in all cases when the absolute value difference between the gradients is three or greater. A detailed check shall be performed on curves when the difference is less than 3%. When vertical curves are not used, the intersection of the two straight-line longitudinal slopes shall be “warped” together over a distance of 15 to 20 ft.
5. Streets shall have a *minimum transverse slope* of 3/16 in. per ft.
6. See also this Manual — Chapter 10: Pavement Standards.

C. Dead End Streets:

1. *Permanent Turnarounds:* When a street in a new subdivision is intended to be a permanent dead end street, the street shall be designed with a permanent turnaround – cul-de-sac bulb, the right-of-way of which shall not be less than 100 ft. in diameter. Turnaround pavement shall not be less than 80 ft. in diameter, unless approved by the City Engineer. Cul-de-sacs shall have a maximum length of 400 ft., measured from the centerline of the intersecting street to the center of the turnaround unless approved by the City Engineer and Fire Chief. Transition between the straight-line portion of the pavement and the curvilinear portion of the pavement turnaround shall be accomplished via a 25 ft. return radius, i.e. transitions shall be smooth and continuous.
2. *Commercial / Industrial Turnarounds:* In the case of cul-de-sacs serving commercial and industrial subdivisions, the developer shall be required to present data to show that the length, radius, pavement and right-of-way of the cul-de-sac street and turnaround are adequate to assure safe access given the type and volume of traffic which may be anticipated when the subdivision is fully developed.
3. *Temporary Dead ends:* When streets temporarily dead end, but are intended to be extended with further development, the following temporary construction requirements shall apply:
 - a. If the dead end street is not planned to be extended within one calendar year, then a temporary turnaround shall be constructed within the existing right-of-way or a temporary easement. A minimum of four end-of-roadway markers shall be installed marking the back of the turnaround. All end of roadway markers shall be manufactured and installed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) (2009 Edition, Section 2C.66 "Object Markers for Ends of Roadways"). As per the MUTCD, the minimum mounting height shall be 4 ft. and appropriate advance warning signs shall be used.
 - b. If the dead end is planned to be extended within one calendar year, then a turnaround is not required, but a minimum of four end-of-roadway markers shall be installed marking the end of the stub street, (as per Section 2C.66 of the 2009 MUTCD).
 - c. In all cases of temporary or permanent dead ends a 'Dead End ' or 'No Outlet', whichever is appropriate, sign shall be installed on the block of the dead end, per City of Peoria sign standards and the MUTCD.
 - d. Use IDOT standard Type III Road Closed Barricades with appropriate advanced warning signs for all dead end streets where construction is ongoing or imminent for the continuation of that street. Type III barricades are not permitted for the medium or long term dead end streets.
 - e. During construction, Type III Road Closed Barricades shall be maintained at all times.
 - f. In all cases when the adjacent tract is developed and the dead end street continued, the temporary dead end construction (including signage) shall be removed and the area landscaped by the developer responsible for the continuation.

8.01 SIDEWALKS

A. Sidewalk Construction Required:

1. Sidewalks shall be constructed, in areas zoned or planned for residential or commercial development, along both sides of every street within the subdivision and along the subdivision side of streets which lie adjacent to the subdivision, except where not required by City of Peoria Code, Appendix A Subdivisions, Article 5-201.
2. Sidewalks shall be constructed in areas zoned and / or planned for industrial development, along one side of every local street within the subdivision and along the subdivision side of streets which lie adjacent to the subdivision, except where not required by City of Peoria Code, Appendix A Subdivisions, Article 5-201.
3. The type, size and location of sidewalks within the parkway shall be as required by this Manual — Chapter 11: Sidewalk Standards.

B. Mid-Block Sidewalks: When the average length of a block exceeds 700 ft. and at locations deemed essential to provide circulation to schools, playgrounds, shopping areas and other community facilities, public sidewalks, within a dedicated right-of-way or permanent easement of at least 10 ft. in width, shall be required at the discretion of the City Engineer and Planning Director. Such walks shall be designed so that the entire walkway is visible from the adjacent street(s). The sidewalk shall be located in the center of the sidewalk right-of-way, and be a minimum of 5' in width.

C. Driveway location and construction shall conform to this Manual - Chapter 9: Vehicular Access Control and Chapter 25: Right-of-Way Design and Construction Standards.

8.02 STREET NAMES AND SIGNAGE

- A. Street names and traffic control system shall be approved by the City Engineer as outlined in this Manual — Chapter 12: Traffic Control and Traffic Regulatory Signage.
- B. Traffic control and traffic regulatory signage information for all new subdivisions shall be submitted as part of the subdivision construction plans in the manner outlined in this Manual — Chapter 12: Traffic Control and Traffic Regulatory Signage.
- C. As outlined in Chapter 12, the developer shall request that the City construct and install the signs per the approval of the Public Works Director. Such City preparation of signage will be subject a fee per intersection as stated in the City's Subdivision Code.

8.03 ALLEYS

(RESERVED)

8.04 PARKING LOTS

A. Required Number of Parking Spaces: Refer to City of Peoria Municipal Code, Appendix B, Zoning Ordinance.

B. Stall and Aisle Dimensions: Parking stall dimensions shall be a minimum of 8.5 feet wide by a minimum of 18.5 feet in length, or as otherwise demonstrated to be in accordance

with Table 2 of the *Guidelines for Parking Facility Location and Design*, published by ITE.

C. Parking Lot Pavement: All parking lots constructed in the City of Peoria must have a durable, dustless surface.

D. Drainage: Storm sewers which serve parking lots shall be designed to accommodate the 10-year storm event without surcharging out of the rim. The maximum depth of ponding in parking lots is 1 foot. This applies where parking lots are used for stormwater detention and for other lots in the event that all storm sewers are blocked and surface overflows must be used to drain the lot. Parking lots may not drain directly across the public right-of-way.

E. Lighting: Parking lot lighting adjacent to residentially zoned property may not exceed one foot-candle measured at the adjoining property line.

F. Pedestrian Access: All commercial sites shall be designed so that sidewalks or other accessible, delineated pedestrian routes are available to provide pedestrian access continuity between the public sidewalk adjacent to the site and the main entrance to the building.

G. Landscaping: Parkway landscaping, perimeter landscaping, parking lot landscaping and refuse area screening shall be required as specified in the City of Peoria Municipal Code, Appendix B, Zoning Ordinance.

H. Barrier-Free Accessibility: All commercial sites shall comply with the accessibility requirements of the Illinois Accessibility Code, as amended, and the City of Peoria Municipal Code, as amended. To ensure compliance with the requirements referenced above, the following guidelines should be considered in the site design for new construction of commercial projects (and may not apply for additions, alterations, or historic preservation):

1. An accessible route should be provided from accessible parking and passenger loading zones to an accessible entrance. Accessible routes shall be constructed with a minimum slope (< 2%) and be free from obstacles.
2. The cross slope of sidewalks should be kept at a minimum (¼":1 foot) as necessary for drainage. This will make it easier for a person utilizing a wheelchair to move forward without veering left or right.
3. Sidewalks should be flush with grass areas on either side to help prevent wheelchairs from overturning should a wheel roll off the sidewalk.
4. Sidewalks should be 5 feet wide, minimum, to allow two wheelchairs to pass. In high pedestrian traffic areas, such as the Central Business District, sidewalks should be 8 feet wide, minimum.
5. Where passenger loading zones are provided, an adjacent access aisle should be provided where the sidewalks are flush with the pavement.
6. Entrance areas near the door should have a nearly flat area (allowing for proper drainage to avoid ponding and icing).

7. All power door pedestals with push plates should be clear of the door swing, typically 5 feet from the door.
8. Accessible entrances should be considered for secondary entrance points in addition to the main entrance.
9. Accessible parking stalls should be close to both the main and auxiliary entrances, to provide maximum access for persons with disabilities.
10. Accessible parking stalls should be constructed with minimal slopes (¼":1 foot) which provides a nearly flat surface for wheelchairs and minimum slopes necessary for drainage.
11. Concrete wheel stops should not be used in accessible parking stall loading areas, which would obstruct the accessible route from accessible parking to an accessible entrance.
12. The sidewalk adjacent to accessible parking stalls should be flush with the pavement to provide an accessible route to an entrance.
13. Accessible parking spaces shall be appropriately designated through signage and striping. Signs shall be vertically mounted on a post or wall at front center of the parking space, no more than 5 feet horizontally from the front of the parking space and set a minimum of 4 feet from finished grade to the bottom of the sign.
14. Speed bumps are discouraged. Speed bumps can create a hazard for low riding wheel chair vans.

8.05 STANDARD ATTACHMENTS

Standard Attachment Number 8.01—Table A (Street and ROW Requirements)

Standard Attachment Number 8.02—Standard Street Cross Sections

Standard Attachment Number 8.03—Additional ROW Dedications

**CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS,
DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING**

Standard Attachment 8.01

Table A

Category	ROW Width (1)	Pavement Width (2)	Return Radius (3)	Design Speed	Minimum Curve R	Sidewalk Width (6)
Divided shoulder / ditch arterial	150'	IDOT	IDOT	55 mph	AASHTO	10' & 5'
5 lane arterial	100'	64'	WB-65	45 mph	AASHTO	10' & 5'
4 lane arterial	90'	52'	WB-65	40 mph	AASHTO	10' & 5'
Collector - Industrial	66'	37'	WB-65	35 mph	450'	5' & 5'
Collector - Commercial	66'	37'	WB-65	35 mph	450'	5' & 5'
Collector - Residential	66'	34'	35'	35 mph	450'	5' & 5'
Commercial Boulevard (4)	72'+ M	2 @ 21'	35'	35 mph	450'	5' & 5'
Local - Industrial	66'	34'	WB-65	35 mph	450'	5' (1 side)
Local - Commercial	66'	34'	35'	35 mph	450'	5' & 5'
Local - Residential	60'	28'	25'	30 mph	300'	5' & 5'
Local Boulevard (4)	66'+ M	2 @ 18'	25'	30 mph	300'	5' & 5'
Cul-de-sac bulb	100'+ dia.	80' dia	25'	N/A	N/A	5'
Alley	24'	20'	25'	20 mph	90'	N/A
Private	(5)	20'	25'	(5)	(5)	(5)

(1) See also Standard Attachments 8.02 & 8.03. Additional reservation of ROW may be required where design or pre-established standards dictate.

(2) Pavement width is measured from back of curb to back of curb.

(3) Return radius is measured to the face of curb. Shall accommodate the vehicle type listed.

(4) Median width may vary. Minimum for green median is 8'. All green (landscaped) medians shall have a maintenance agreement.

(5) As approved by City Engineer.

(6) 10' walk on one side of arterials is for bike-path / walk.

Additional Notes:

> Type of arterial to be determined by Comp. Plan or study. Use 5 lane unless shown otherwise.

> Maximum grade is 5%, minimum grade is 0.4%.

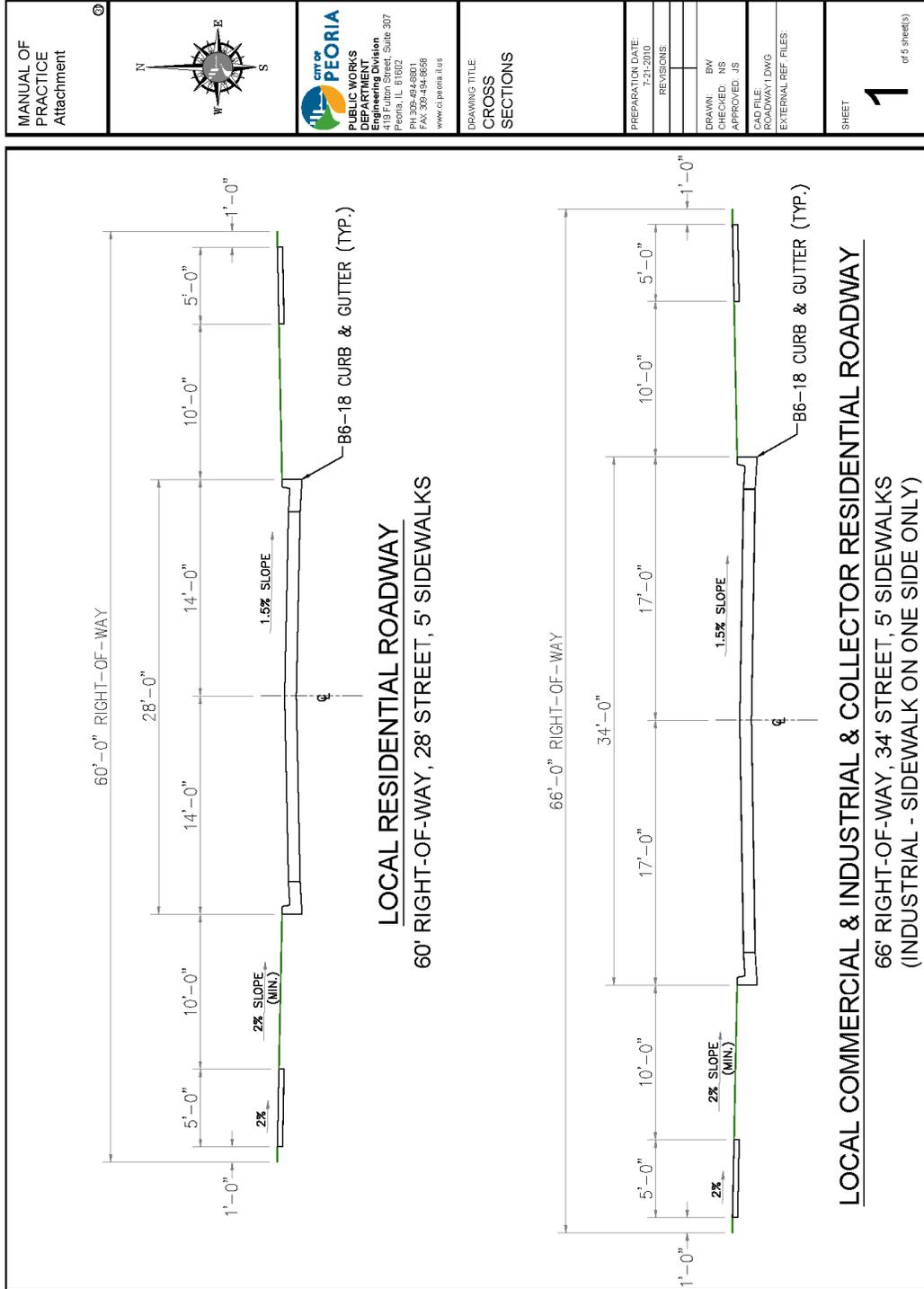
> All curbs shall be IDOT B6-18, except in cul-de-sac bulbs.

> Curves shall be designed so as to not require super-elevation except on arterials.

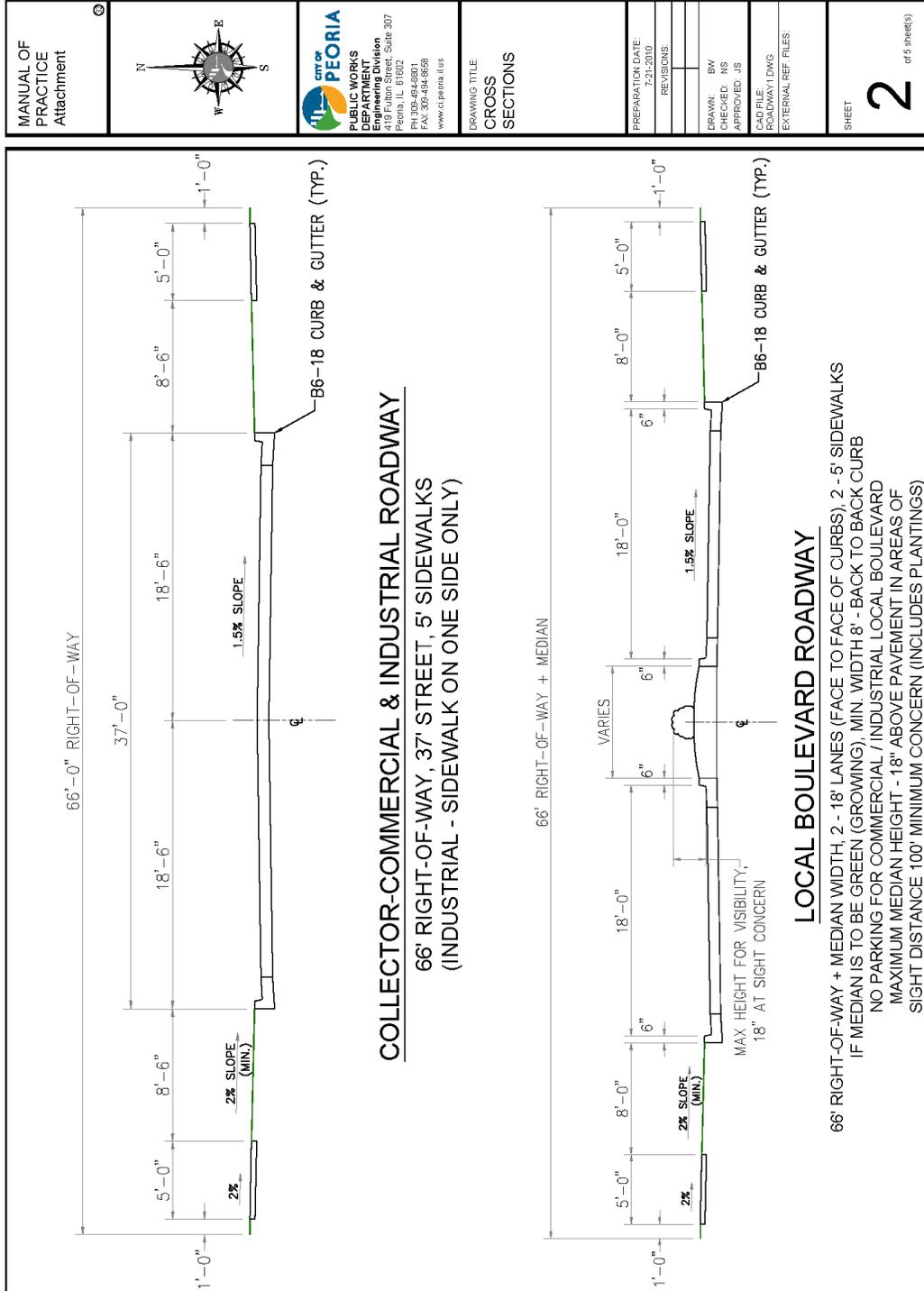
> 2 way intersections (90 degree corners) shall have a 55' centerline radius (local streets).

> City Engineer may authorize changes from these standards.

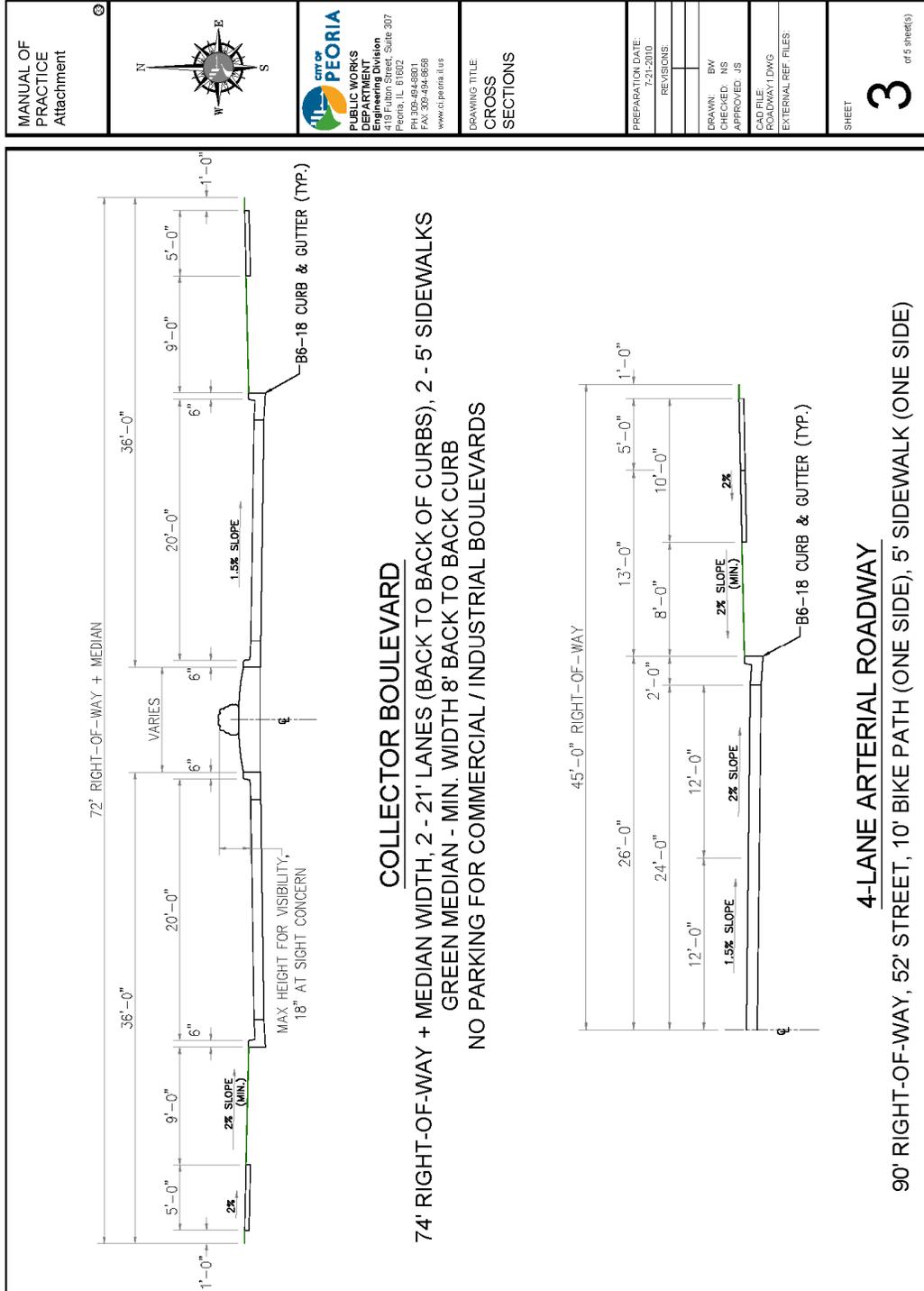
CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS, DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING



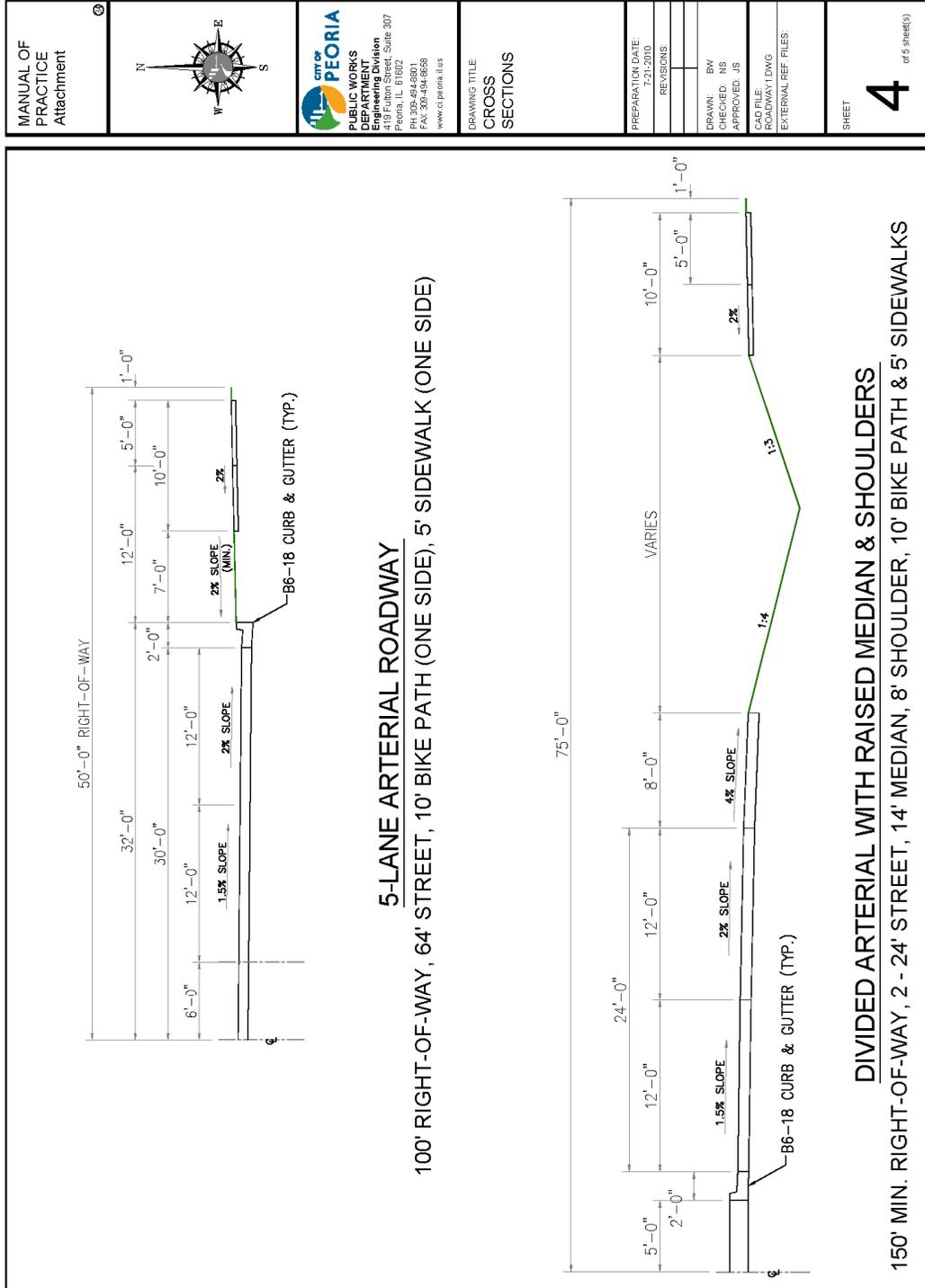
**CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS,
DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING**



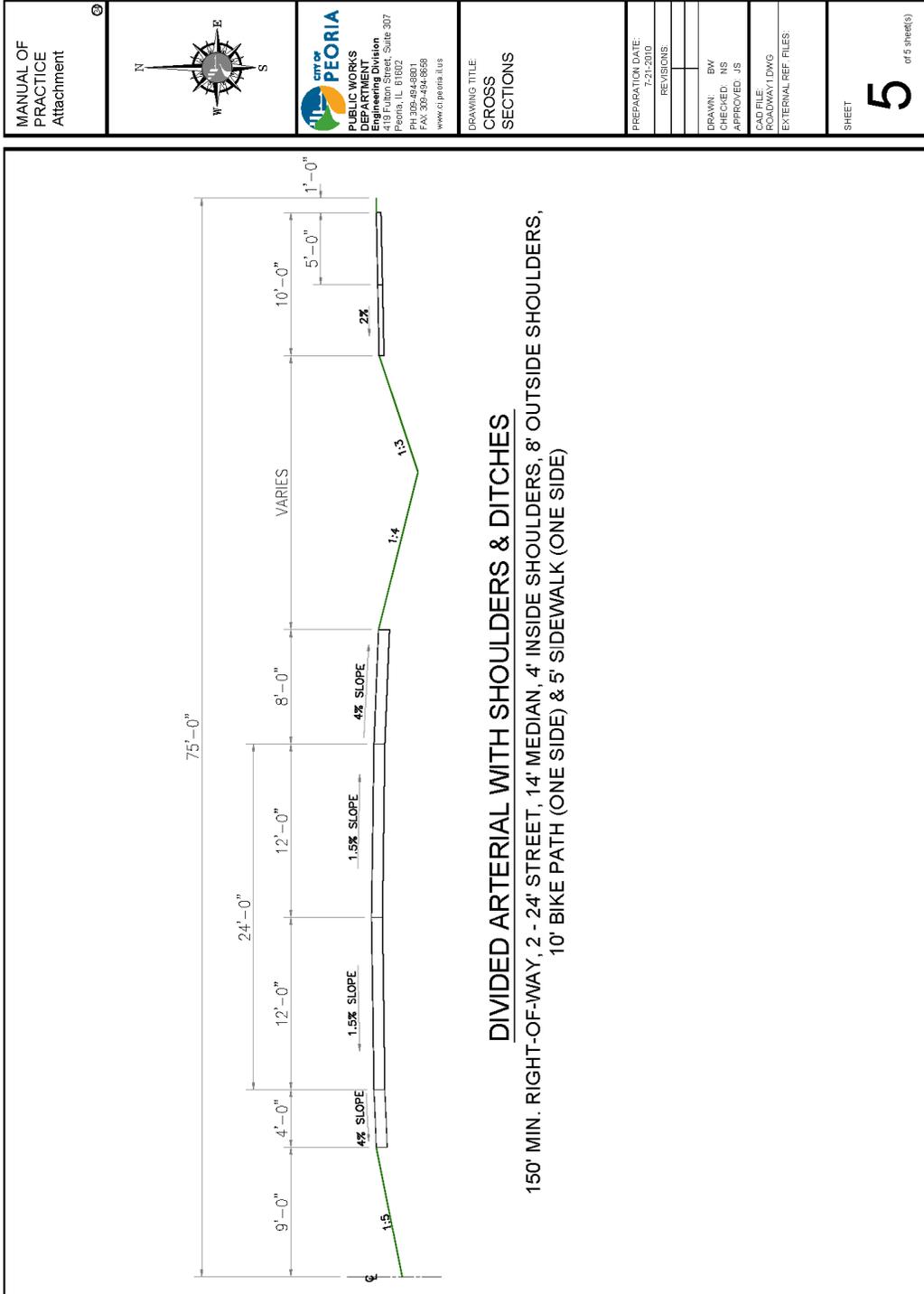
**CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS,
DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING**



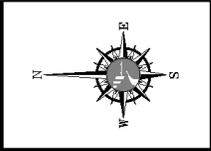
CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS, DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING



CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS, DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING



MANUAL OF PRACTICE
Attachment



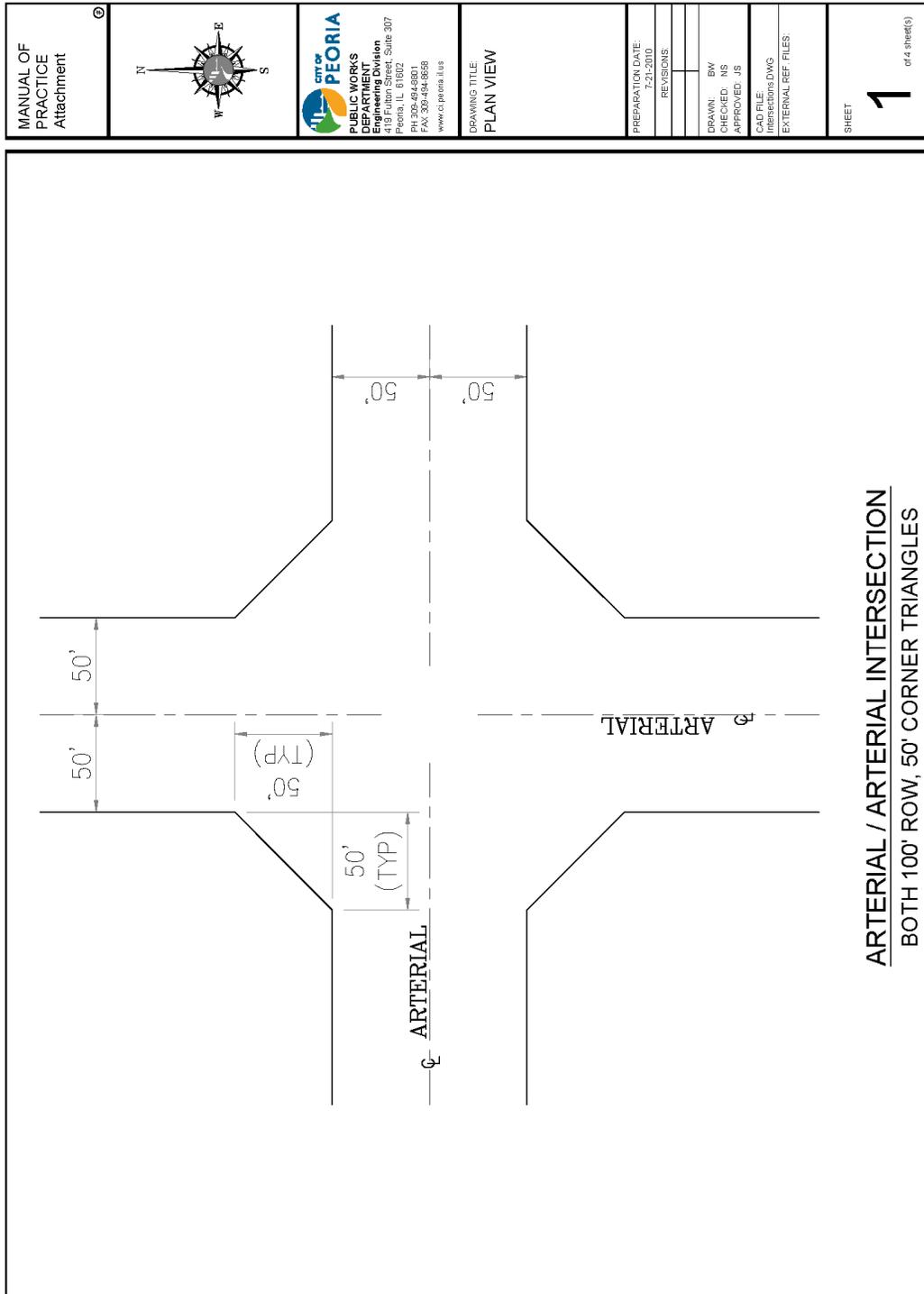
City of PEORIA
PUBLIC WORKS
Engineering Division
419 Fulton Street, Suite 307
Peoria, IL 61602
PH: 305-494-8801
FAX: 305-494-6559
www.ci.peoria.il.us

DRAWING TITLE:
CROSS SECTIONS

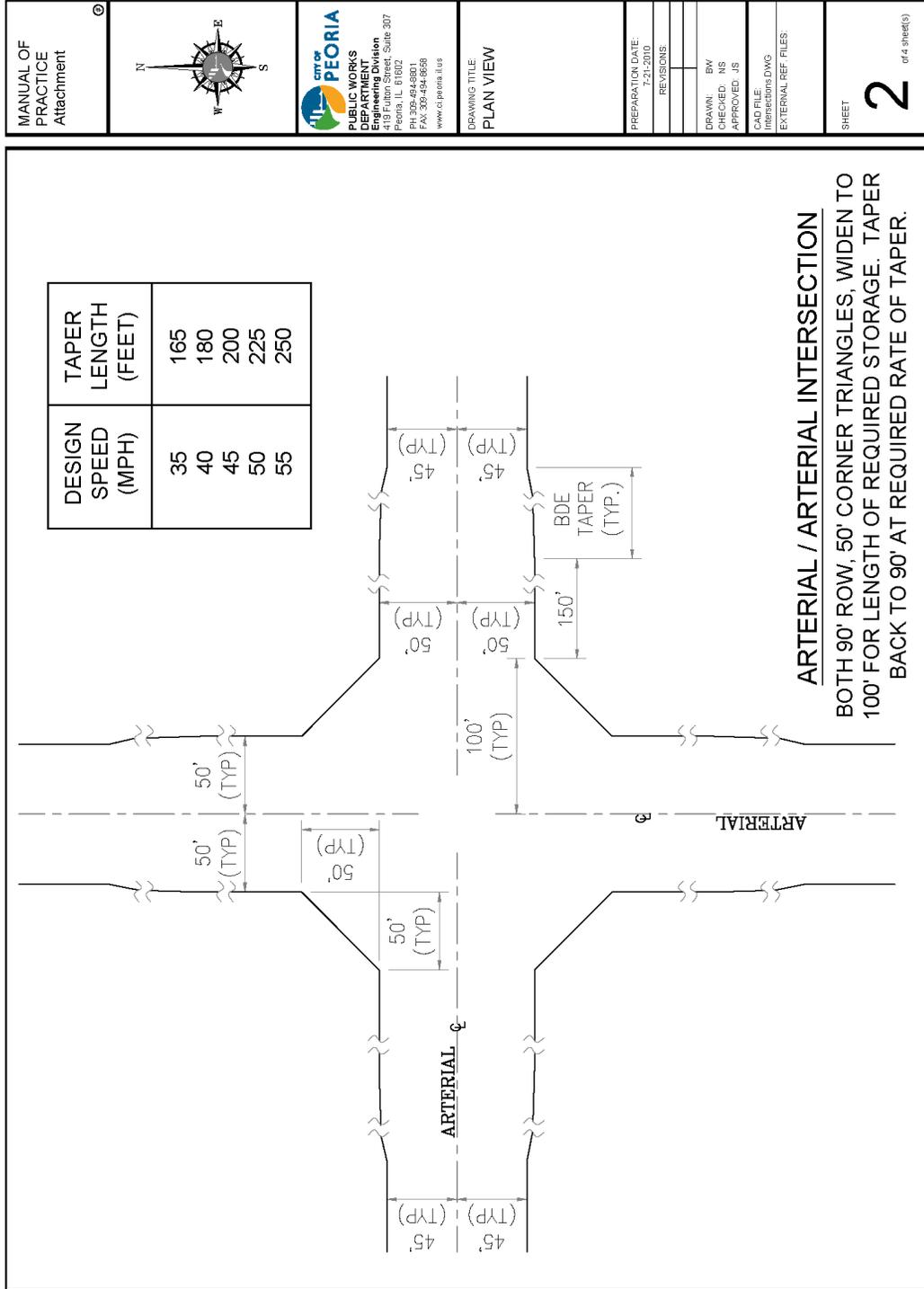
PREPARATION DATE:	7-21-2010
REVISIONS:	
DRAWN BY:	JS
CHECKED BY:	JS
APPROVED BY:	JS
CAD FILE:	ROADWAY1.DWG
EXTERNAL REF. FILES:	

SHEET
5
of 5 sheets(s)

**CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS,
DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING**

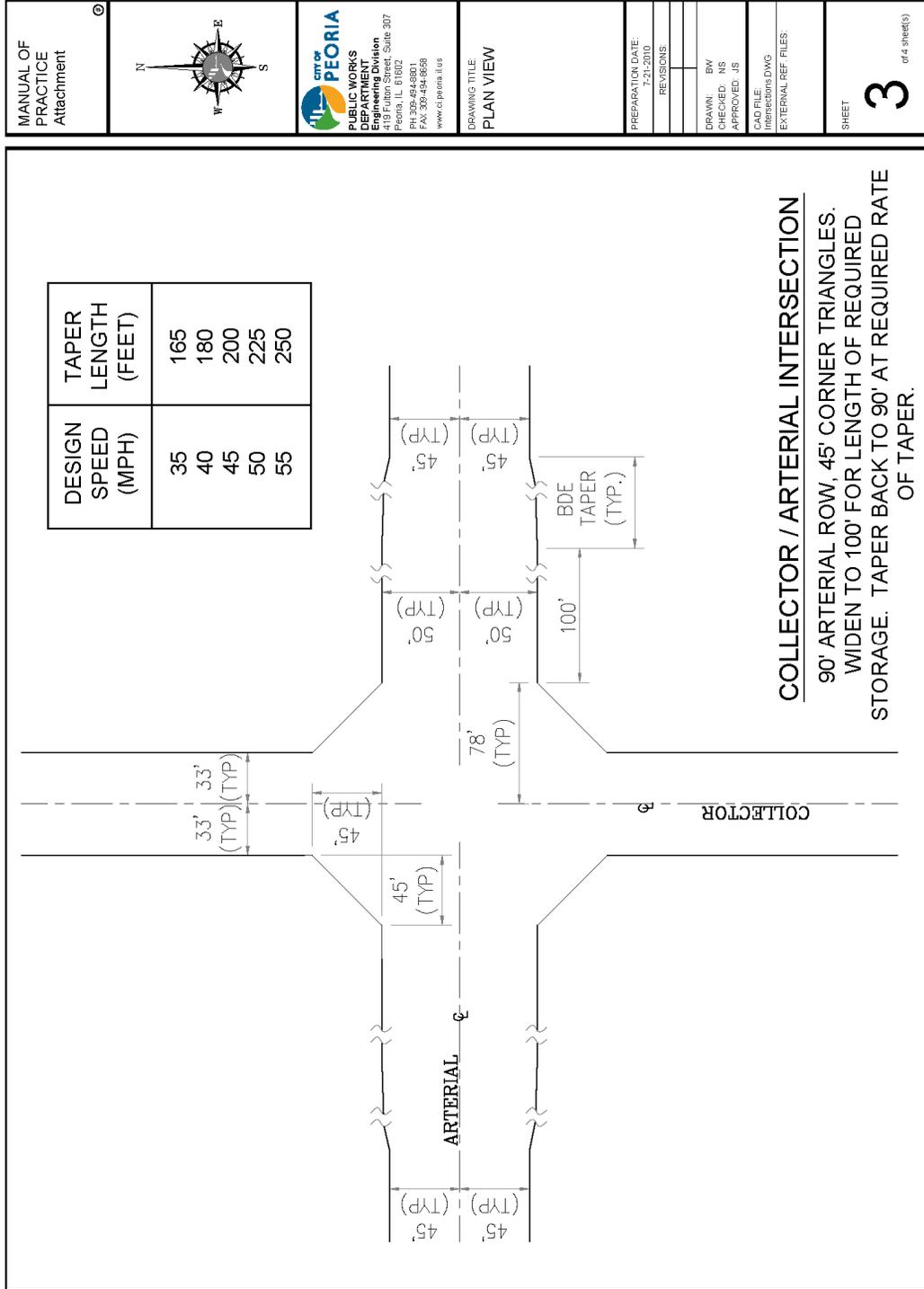


**CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS,
DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING**



MANUAL OF PRACTICE Attachment		 PUBLIC WORKS Engineering Division 419 Fulton Street, Suite 307 Peoria, IL 61602 PH: 305-494-8801 FAX: 305-494-6658 www.ci.peoria.il.us	DRAWING TITLE PLAN VIEW	PREPARATION DATE: 7-21-2010 REVISIONS: DRAWN: BY CHECKED: US APPROVED: JS CAB FILE: INTERSECTIONS.DWG EXTERNAL REF. FILES:	SHEET <h1 align="center">2</h1> of 4 sheets(s)
-------------------------------	---	---	-----------------------------------	--	--

**CHAPTER 8: LOCATION AND GEOMETRY OF STREETS, SIDEWALKS, CROSSWALKS,
DRIVEWAYS, STREET NAMES AND SIGNAGE, ALLEYS AND PARKING**



MANUAL OF PRACTICE Attachment		<p>PUBLIC WORKS Engineering Division 419 Fulton Street, Suite 307 Peoria, IL 61602 PH: 305-494-8801 FAX: 305-494-6559 www.ci.peoria.il.us</p>	DRAWING TITLE PLAN VIEW	PREPARATION DATE 7-21-2010	REVISIONS	DRAWN BY CHECKED BY APPROVED BY	CAD FILE INTERSECTIONS.DWG	EXTERNAL REF. FILES	SHEET <h1 align="center">3</h1> of 4 sheets(s)
-------------------------------	--	--	-----------------------------------	-------------------------------	-----------	---------------------------------------	-------------------------------	---------------------	--

MANUAL OF PRACTICE Attachment

PUBLIC WORKS
 Engineering Division
 419 Fulton Street, Suite 307
 Peoria, IL 61602
 PH: 305-494-8801
 FAX: 305-494-6558
 www.ci.peoria.il.us

DRAWING TITLE
PLAN VIEW

PREPARATION DATE: 7-21-2010

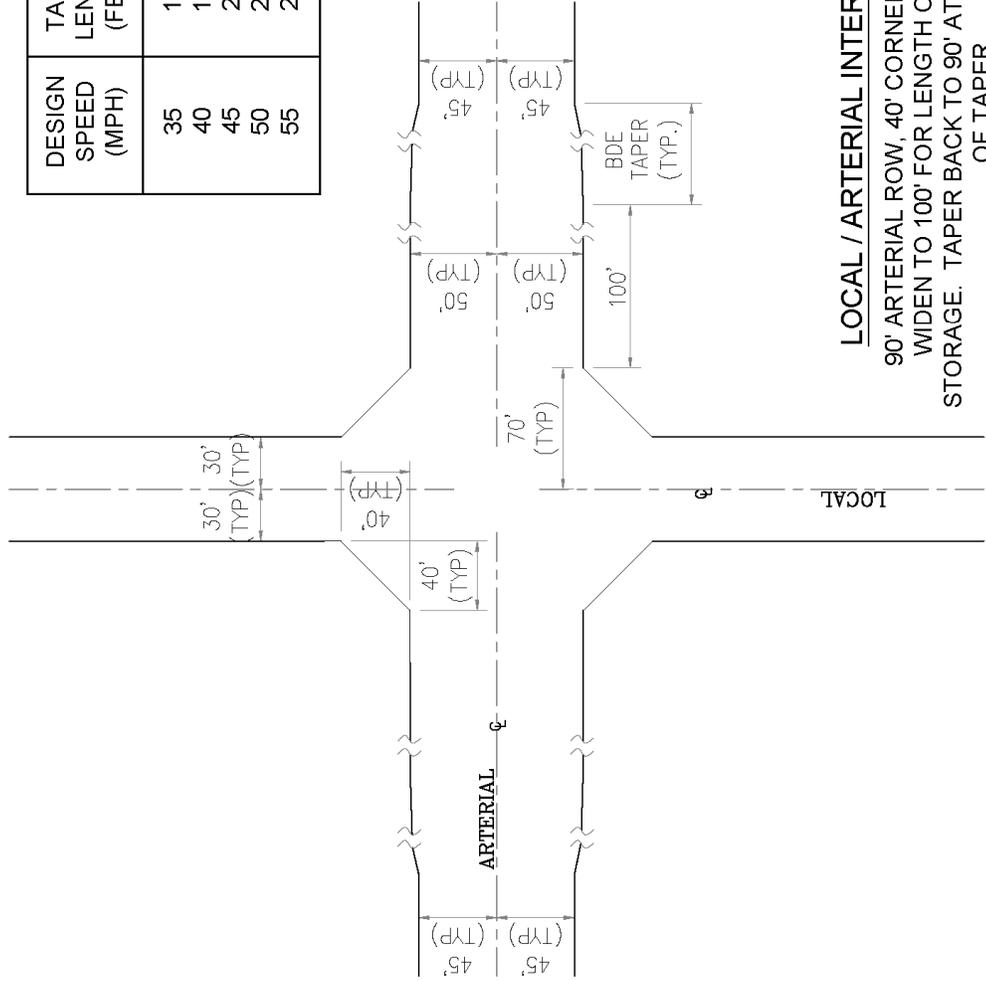
REVISIONS:

DRAWN: BY
CHECKED: JLS
APPROVED: JLS

CAD FILE: INTERSECTIONS.DWG
EXTERNAL REF. FILES:

SHEET
4
of 4 sheets(s)

DESIGN SPEED (MPH)	TAPER LENGTH (FEET)
35	165
40	180
45	200
50	225
55	250



LOCAL / ARTERIAL INTERSECTION
 90' ARTERIAL ROW, 40' CORNER TRIANGLES.
 WIDEN TO 100' FOR LENGTH OF REQUIRED STORAGE. TAPER BACK TO 90' AT REQUIRED RATE OF TAPER.

CHAPTER 9: VEHICULAR ACCESS CONTROL

9.00 Introduction and Goals

9.01 Administration

9.02 Standards

DRAFT

9.00 INTRODUCTION AND GOALS

City streets serve two purposes that are often in conflict – moving traffic and accessing property. The higher the volume and speed of traffic on a street, the more that access to the street reduces safety and traffic flow. On streets where it is important to maintain higher traffic volume and/or speed, the City must regulate access to maintain the function of the street. Lower traffic volume and lower speed streets are less impacted, so less regulation is required. All individual properties need some form of street access, but it must not come at the expense of the travelling public. This chapter's goals are:

- A. To promote and ensure the safety of the motoring public using City streets.
- B. To preserve an acceptable level of service of "C", or better, on City streets, as defined by the Transportation Research Board (TRB) Highway Capacity Manual.
- C. To minimize conflicts between vehicles traveling on City streets and vehicles entering and leaving property.
- D. To regulate safe and reasonable access from City streets to abutting property and to provide sufficient spacing between access points to minimize interference with traffic using adjacent facilities.
- E. To prohibit the use of a City street as a portion of the internal circulation system of abutting properties.
- F. To establish reasonable standards and design specifications for access facility improvements.
- G. To establish reasonable requirements for performance and maintenance guarantees to ensure the proper construction of required improvements and to ensure that required improvements are completed in an expeditious manner in accordance with accepted engineering and geometric standards and specifications.

9.01 ADMINISTRATION

- A. All new subdivisions and construction projects requiring driveway permits in the City and within the 1-1/2 mile extra territorial jurisdiction (ETJ) shall be designed in compliance with these standards.
- B. A permit from the City is required:
 - 1. To construct a new driveway.
 - 2. To reconstruct an existing driveway.
 - 3. To continue to use an existing driveway when the zoning classification of the corresponding property has changed.
 - 4. If internal site reconfiguration substantially changes the volume or intensity of traffic using the driveway.
 - 5. For other changes that substantially change the volume, intensity or type of traffic using the driveway, as determined by the City Engineer.

- C. IDOT permits are required for access to streets within the City of Peoria under IDOT jurisdiction.
- D. Peoria County Highway permits are required for access onto streets w within the City of Peoria under Peoria County jurisdiction.
- E. Traffic signals shall be installed by the developer at private access points that meet warrants for traffic signals, or are projected to meet warrants within two years of the time of occupation or at full buildout, and are approved by the City Engineer. An agreement between the developer and the City for operation, maintenance, rehabilitation and utility payments is required. Note: IDOT or other jurisdictions may have different installation timing requirements or conditions.
- F. The City Engineer may grant exceptions to the standards for reasonable cause, including infill development conditions and other unusual situations.
- G. When a driveway requires work on City right-of-way, all associated costs of that work shall be paid by the developer or person holding the driveway permit.

9.02 STANDARDS

A. Referenced Standards (all latest editions):

1. American Association of State Highway and Transportation Officials (AASHTO) – Policy on Geometric Design of Highways and Streets (green book).
2. Transportation Research Board (TRB) – Highway Capacity Manual.
3. Institute of Traffic Engineers (ITE) – Trip Generation Manual.
4. Institute of Transportation Engineers (ITE) – Traffic Engineering Handbook.
5. Federal Highway Administration (FHA) – Manual on Uniform Traffic Control Devices (MUTCD)
6. Illinois Department of Transportation (IDOT) – Illinois Manual for Uniform Traffic Control Devices.
7. IDOT – Bureau of Design and Environment Manual.
8. City of Peoria Municipal Code.
9. Relevant standards contained elsewhere in this Manual.

B. General Guidelines:

No access to streets in the City or the ETJ shall be constructed without the approval of the City Engineer, or designee. Locations and configurations shall be designed to accepted engineering standards, which shall consider, but not be limited to the following items:

1. *Functional classification of the street being accessed, as defined on the City of Peoria Thoroughfare Map:*

- a. Arterial streets:
 - i. No direct private access except as approved by the City Engineer.
 - ii. Access streets shall be located at 1/4 mile or greater intervals, to achieve only three intermediate access points per mile.
 - iii. Access points on opposite sides of the street shall be aligned with each other, unless approved by the City Engineer. In all cases the driveway access points will be designed to avoid conflicting left turning traffic from the City street.
 - iv. Reasonable consideration will be given to direct access to properties at locations within the older sections of the City.
 - b. Collector streets:
 - i. Access allowed by permit, with some restrictions. In all cases the driveway access points will be designed to avoid conflicting left turning traffic from the City street.
 - ii. On commercial and industrial area streets with 20 year projected ADT's over 10,000, new access points will be allowed only at arterial spacing, or as shown by approved traffic study to have minimal impact on the street being accessed.
 - c. Local streets: Access allowed by permit, with minimal restrictions.
 - d. Alley: Access allowed by permit, with minimal restrictions, except where it is necessary to prevent commercial traffic in residential areas.
- 2. Traffic generation: The amount of traffic being generated by the site taking access shall be estimated by the owner/developer. Trip generation rates shall be taken from the ITE Trip Generation Manual, (most recent edition), or alternate study information, if approved by the City Engineer. Large traffic generators may be required to provide future traffic projections from the Tri-County Travel Demand Model.
 - 3. *Sight distances*: All non-signalized access points, including streets, except those controlled by all-directional stop signs, shall have adequate sight stopping distance. Sight distance measurements shall assume the driver's line of sight is 3.5 ft. high and 15 ft. from the pavement edge and the sighted object is 4.25 ft. high in the center of the nearest traffic lane at the AASHTO sight stopping distance. Additionally, all street intersections shall have at least 25 ft. sight triangles along right-of-way lines as required by City of Peoria Code, through which drivers can see objects in the street. Additional sight triangle distance may be required if conditions warrant. All sight clear zones are to be extended from the minimum needed for the sight stopping distance to 9 ft. above the gutter line.
 - 4. *Throat length*: Driveways shall be designed and constructed with adequate space between the edge of the street and the point on the site where vehicles either park or may encounter cross traffic. Design drawings and calculations shall verify that traffic entering a site is not likely to be forced to wait on the street for space in the driveway to become available. The minimum driveway length is 40 ft., except in residential developments.

5. *Driveway geometry:*

- a. Driveways shall be designed so that vehicles may enter and exit on the paved driveway surface without difficulty.
- b. Driveways onto arterials and non-residential collectors shall be designed so that the design user vehicle can make a right turn entry without swinging into an adjacent lane.
- c. Driveways shall be designed to accommodate internal queued traffic without causing vehicles to wait on the public street to enter the site.
- d. Residential driveways measured at any point on the property line shall not exceed 15 feet for a single driveway, 20 feet for a double or joint driveway, or 30 feet for a triple driveway. The minimum width at the property line shall be ten feet unless waived by the Director of Public Works. (Additional information can be found in City Code Section 26-208).
- e. Commercial / industrial driveways shall not exceed 35 ft. wide at the tangent to the curb radii, (at the throat). Commercial / industrial driveways in excess of 35 ft. wide may be approved by the City Engineer, if the owner can demonstrate the following, as found in City Code Section 26-209:
 - 1. The owner has made efforts to minimize the required driveway widths while meeting code requirements.
 - 2. The requested driveway width is the minimum width necessary as illustrated by the vehicular turning movement of the largest vehicle requiring access to the site.

6. *Driveway spacing:*

- a. Driveways shall be spaced at adequate distances from intersections to mitigate conflicting with traffic using the intersection. Lateral clearance distance shall consider classification and volume of street, and type and volume of the driveway.
- b. Driveways shall be separated far enough from adjacent driveways to prevent interaction with each other being a safety issue to traffic on the street. Specific case shall be made to design driveway access points to avoid conflicting left turning traffic from the City street.
- c. Multiple driveways on single lots are discouraged. They may be permitted if they improve traffic impacts on the street over a single entrance, or if the lot is large enough that they have no impact on street traffic. Shared driveways are encouraged. The following requirements shall be used to determine the number of driveways permitted for single parcels of land, as per City Code Section 26-209:
 - 1 For parcels of land with a frontage of 65 feet or less, one driveway approach will be permitted.
 - 2 For parcels of land with a frontage greater than 65 feet but less than 125 feet, one two-way driveway or two one-way driveways will be permitted.

3 For parcels of land with a frontage greater than 125 feet but less than 200 feet, two two-way driveways will be permitted.

4 For parcels of land with a frontage greater than 200 feet, one additional two-way driveway will be permitted for each additional 300 feet of frontage.

d. Driveways shall be set back from side yard lines so that the flare or end of the radius of the driveway does not overlap the side property line extended to the curb line, except in cul-de-sac bulbs or other short-radius curves. Where driveways are serving separate freestanding buildings, except in short-radius curves, driveways shall be at least 6 ft. away from the side yard line, unless arrangements have been made to handle the side yard stormwater drainage without routing it onto the driveway.

7. *Internal circulation:*

a. Other than for one and two family residential development, all site development plans taking access to a City street shall include design information showing planned traffic circulation patterns on the site. The City Engineer may require changes from the planned site configurations to improve internal circulation that appears to cause problems to traffic on the City street.

b. In commercial zoning, adjacent properties along collector and arterial streets shall provide connections to allow direct movements between properties without re-entering the public street when feasible.

8. *Median opening spacing:*

a. Local streets – openings are allowed wherever accesses are taken, as approved by the City Engineer. Local aesthetics may be taken into consideration.

b. Collector streets – new openings are prohibited in commercial and industrial areas unless the developer proves to the reasonable satisfaction of the City Engineer that they will not adversely impact traffic flow or safety.

c. Arterial streets – openings are not allowed, except at street intersections, and may be restricted at unsignalized street intersections if the City Engineer finds they will adversely impact traffic flow or safety.

9. Acceleration/Deceleration lanes

The City Engineer may require the owner/developer to provide acceleration lanes, deceleration lanes or left turn bays, which are judged necessary to provide for proper traffic flow or safety on City streets.

C. Traffic Impact Analyses (TIA's)

1. *TIA's are required to be prepared by the site developer in the following situations:*

a. Developments that can be expected to generate more than 100 new peak-hour vehicle trips on the adjacent street per ITE Trip Generation Manual.

- b. Developments of less than 100 new peak-hour trips in problem areas such as high accident locations, congested areas or other areas of critical local concern to the City.
 - c. Any changes that will increase the site traffic generation by more than 15% if more than 100 peak-hour trips are involved.
 - d. Any change that will cause the directional distribution of traffic to change by more than 20% where site traffic generation can be expected to ultimately be over 100 peak-hour trips.
 - e. On any incomplete project when the original TIA is more than two years old.
 - f. When an agreement between the developer and the City requires cost sharing contributions to major roadway improvements.
 - g. Any other situation where the City Engineer believes it is important to understand the impact of traffic from the new development on its surrounding area.
 - h. As stated in the City Code Appendix B Zoning Ordinances Article 3.1.f (12) Traffic Generation Managed
2. *The TIA shall be performed by a professional engineer licensed in Illinois who is prequalified for traffic studies by IDOT and approved by the City and shall include the following information:*
- a. Introduction.
 - b. Existing conditions.
 - c. Proposed site use(s), including buildings, parking, internal circulation patterns and other factors that affect traffic on and adjacent to the site.
 - d. Site-generated ADT and design hourly traffic volumes at fully built status.
 - e. Site trip distribution and traffic origin / destination assignments.
 - f. Existing and projected traffic volumes on the adjacent roadway system (at 20-year horizon, unless otherwise approved).
 - g. Traffic accident history on adjacent streets.
 - h. Capacity analysis, consistent with methods identified in the Transportation Research Board's Highway Capacity Manual, on the adjacent street system, including lanage, signals, pedestrian movements and other relevant factors. Analysis shall be performed with and without the development traffic. Commercially available software such as Synchro, HCM, Cinema, etc., may be used with the approval of the City Engineer.
 - i. Traffic improvement recommendations.
 - j. Signalization warrants, if applicable.
 - k. Site plan(s).

- I. Conclusions and summary of findings, which should address:
 - i. The adequacy of site access.
 - ii. The impact of the specific development on the surrounding area.
 - iii. The suitability of on-site circulation and parking.
 - iv. Projected traffic volumes on individual roadway segments.
 - v. Projections of turn movements at individual intersections or access drives.
 - vi. Considerations given to possible alternatives.

- m. The level of detail of items “a” through “l” depends on the nature of the development, but they are intended to:
 - i. Provide developers with recommendations for site selection, site transportation planning, and anticipated traffic impacts.
 - ii. Provide the City with information on which to base decisions about permits and approvals.

CHAPTER 10: PAVEMENT STANDARDS

10.00 Introduction and Goals

10.01 Administration

10.02 Standards

10.03 Standard Attachments

DRAFT

10.00 INTRODUCTION AND GOALS

The purpose of this chapter is to provide guidance for the design and construction of pavements in accordance with criteria and standards established by IDOT and the City of Peoria. The goal is to design and construct pavements that are free from defects and will provide superior long-term performance.

10.01 ADMINISTRATION

This chapter applies to all new and existing public street pavements within the City limits and the 1-1/2 mile extra territorial jurisdiction. The following general guidelines shall apply when designing and constructing pavements:

- A. Pavement thickness for new or reconstructed streets shall meet or exceed minimum thickness requirements established by this Manual.
- B. All pavement designs shall be in general conformance with the City of Peoria Subdivision Regulations and Manual of Practice.

10.02 STANDARDS

- A. **Referenced Standards:** Design and construction standards for pavements shall comply with the requirements of the following standards:
 - 1. IDOT, Bureau of Local Roads and Streets Manual, latest edition.
 - 2. IDOT, Highway Standards Manual, latest edition.
 - 3. IDOT, Standard Specifications for Road and Bridge Construction, latest edition.
 - 4. IDOT, Construction Manual, latest edition.
 - 5. IDOT, Geotechnical Manual, latest edition.
 - 6. City of Peoria Manual of Practice, latest edition. In case of conflict between standards, the City Manual of Practice takes priority over other standards.
- B. **Subgrade:** The subgrade shall be prepared in accordance with IDOT Standard Specifications for Road and Bridge Construction, except as amended or expanded as follows:
 - 1. *Soils Report:* On all new or reconstructed City streets, it may be required that a Soils Report be prepared by an experienced, independent materials testing firm. The Soils Report should at a minimum include the following: Location & Design section which identifies the projects location, length, existing conditions, existing and proposed pavement typical sections, stations of borings; a Soil Geology section which describes existing soil types and profiles and provides a sieve analysis of each soil boring with grain size distribution plots, Liquid Limits, Plastic Limit, % Sand, % Clay, % Silt, and subgrade support rating; copies of actual boring logs; a soil profile plot based on interpretation of boring logs; and a Conclusion and Recommendation section which includes recommendations for subgrade remediation which may include lime stabilization with recommended application rates of lime and water and any other subgrade stabilization alternatives necessary to achieve an Immediate Bearing Value greater than 6.0.

The report must also address the need for underdrains to control groundwater conditions which may be detrimental to the life of the roads.

2. *Testing:* The following minimum subgrade tests shall be performed according to applicable testing standards:
 - a. **Compaction:** The IDOT Standard Specifications for Road and Bridge Construction shall govern subgrade compaction. Moisture density requirements should apply to all embankment construction and to the upper 12 in. of cut sections. Testing should be performed every 100 ft. of roadway with tests alternating between lanes (i.e. 200 ft. intervals in each lane of traffic).
 - b. **Subgrade Stability:** The minimum Immediate Bearing Value (IBV) for the City of Peoria is 6.0. An IBV of 6.0 or less, indicates a poor or weak subgrade strength condition, which must be remediated per Section 10.02 B.3.
 - c. **DCP:** The DCP (Dynamic Cone Penetrometer) is used to estimate the in situ CBR of granular materials and fine-grained soils. The DCP can be used to determine that the required subgrade IMV of 6.0 in the top 12 in. of subgrade is obtained during construction. The DCP used for testing shall comply with the most current ASTM standard. Testing should be performed every 50 ft. of roadway with tests alternating between lanes (i.e. 100 ft. intervals in each lane of traffic).

Prepared subgrades shall be retested after the winter, when significant ponding water has been present, or when the subgrade is significantly saturated with moisture and approved by the City Engineer prior to placement of any paving materials. The City Engineer may require additional testing prior to paving if there are any apparent changes in the subgrade. Refer to Figure 37-7A of the Bureau of Local Roads and Streets Manual for the relationship between DCP and IBV.

- d. **Proof Rolling:** In addition to stability and density testing, the subgrade must be “proof rolled” prior to approval of the subgrade and before the placement of base materials. Trucks shall be loaded as follows: 27,000 lbs. on two axles and 45,000 lbs. on three axles with the tolerance not to exceed 10%. A loaded truck shall make a single pass along each lane of street or parking subgrade at distances as directed by the City Engineer and not to exceed 10 ft. apart. Any areas of the prepared and compacted subgrade which show rutting, cracking, or rolling upon test rolling will be marked as unsuitable and will not be accepted. The unsuitable areas shall be removed and reconstructed as directed in this Chapter. Additional DCP’s may be required to better define the area of deficiency to the satisfaction of the Resident Engineer.
3. *Remediation:* If subgrade compaction and stability requirements cannot be met, then, with the approval of the City Engineer, the following remediation methods shall be executed.
 - a. **Unsuitable Material:** Unsuitable material in **untreated or unstabilized** subgrade shall be removed to a minimum depth of 12 in., with additional material removal as required by the City Engineer. The resultant void shall be backfilled with embankment material and compacted. The use of

additional stability methods, such as coarse aggregate and geofabrics, may be required by the City Engineer.

Unsuitable materials in **treated or stabilized** subgrades shall be removed and replaced with coarse aggregate. After the subgrade has been treated or stabilized, the Engineer will use a DCP to test the compacted subgrade and will determine the locations of unsuitable material that will need to be removed. The contractor shall remove the unsuitable material to a minimum depth of 18 in. with additional material removal as required by the City Engineer. The removed material shall be disposed of in accordance with Article 202.03 of the Standard Specifications. The resultant void will be backfilled with a minimum of 12 in. of coarse aggregate with a gradation of CA-1 and capped off with a minimum of 6 in. of coarse aggregate with a gradation of CA-6. The CA-6 depth should always be placed at a depth of 6 in.; however, the CA-1 depth may increase depending on the depth of unsuitable material removal. The coarse aggregate shall meet the requirements of Section 1004 of the Standard Specifications. Compaction of the coarse aggregate shall be performed to the satisfaction of the Engineer.

The use of additional stability methods, such as geofabrics, may be required by the City Engineer. If fully saturated conditions exist, underdrains may be required to dewater the subgrade.

- b. Lime Stabilization: Lime stabilization is recommended for remediation by the City when the Soils Report indicates that existing roadbed soils are lime reactive. The lime shall be mixed to a minimum depth of 12 in. and shall follow IDOT's Standard Specification for Lime Stabilized Soil Mixture. Laboratory evaluation and design procedures for lime reactive soils shall follow all procedures and guidelines outlined in the latest edition of the IDOT Geotechnical Manual. Specifically, evaluation and design procedures should follow Attachment II-B, Method A of the Geotechnical Manual. The design lime content is the amount used for construction and shall be 1% above the minimum lime content. The minimum lime content is the value which provides a compressive strength gain of 50 psi over that of the untreated soil, and provides a minimum average compressive strength of 100 psi for the treated soil. Soils that do not meet these minimum requirements will not be considered for lime stabilization.
4. Trucks or heavy equipment shall not travel on any pavement subgrade after final testing prior to pavement construction with the exception of proof roll testing.
 5. Pavement subgrade material shall not be removed, placed or disturbed after pavement subgrade compaction and stability testing has been completed prior to pavement construction. Additional testing is required if the pavement subgrade is disturbed and/or material is removed from or placed on the pavement subgrade after approved compaction and stability testing.

C. Pavements

1. *Residential Street Thickness Standard:*

Street Type	Full-Depth Asphalt Minimum Thickness	PCC Minimum Thickness
Local	9 in.	7 in.
Arterial	12 in	10 in *

* Refer to Section 2, "Arterial Class and Industrial / Commercial Streets", below.

Note: As per Standard Attachment 10.01, four legged intersections shall be thickened by 1 in.

2. *Arterial Class and Industrial / Commercial Streets:* These pavements shall be design pavements. Structural design for new pavements shall be in accordance with the IDOT's Bureau of Local Roads and Streets(BLR), Chapter 37, "Pavement Design." All pavement design calculations shall be submitted to the City Engineer for review and approval.
 - a. Rigid Pavements: Structural design of rigid pavements, including joints and joint placement, shall be in accordance with Section 37-2, Rigid Pavement Design of the BLR Manual except modified as follows:
 - i. Use subgrade support rating of "poor".
 - ii. Minimum design period is 30 years.
 - b. Flexible Pavements: Structural design of flexible pavements shall be in accordance with Section 37-4 Full depth HMA Pavement Design of the IDOT BLR Manual except modified as follows:
 - i. Use subgrade support rating of "poor".
 - ii. Full-depth asphalt pavements shall be used exclusively.
 - iii. Minimum design period is 30 years.
3. *Curb & Gutter:* Refer to Chapter 8, Attachment 8.01, Table A. The standard curb and gutter for all new local and collector class street construction is the IDOT B6.18 curb and gutter, except for boulevard median curbs that shall be IDOT B6.12. Curb and gutter for arterial class streets shall be a design option specific to the needs of the project.
4. *Minimum Transverse Slope:* The minimum transverse slope shall be 3/16 in. per ft. The minimum transverse cross slope on the pan of the gutter shall be 6% or 3/4 in. per ft. The minimum thickness of the curb shall be the same as the minimum thickness for the pavement throughout the curb.

D. Materials

1. *Portland Cement Concrete (PCC) Pavement:* Materials for Portland cement concrete shall conform to the IDOT Standard Specifications, except as amended or expanded as follows:
 - a. The maximum slump of PCC shall be 4 in. The slump may exceed four inches with an approved concrete mix design and with prior approval from the City Engineer. The maximum slump for slip forming methods shall not exceed 2 in.

- b. Portland cement concrete must be produced at an IDOT-approved plant using IDOT currently approved materials for the IDOT-approved mix design.
 - c. An IDOT approved mix design specification sheet must be provided to, or on file with and approved by the City Engineer prior to use of the PCC mixture for pavement construction.
2. *Full-Depth Bituminous Concrete Pavement:* Materials for full-depth bituminous concrete pavement shall conform to the Standard Specifications for Bituminous Concrete Pavement (Full-Depth) except as amended or expanded as follows:
- a. All proposed bituminous binder and surface courses shall be designed in accordance with Superpave mix design procedures and be approved by IDOT. Evidence of IDOT approval must be submitted to the City Engineer.
 - b. The bituminous surface course shall not be modified with polymers unless directed otherwise by the City Engineer.
 - c. An IDOT approved Quality Control / Quality Assurance (QC / QA) Plan must be submitted to the City Engineer prior to the use of a Superpave mix for pavement construction.
 - d. QC / QA testing is required for all bituminous mixes on arterial class streets.
 - e. Bituminous materials must be produced at an IDOT approved plant using IDOT approved materials for the IDOT approved mix design.

E. Construction

1. *Portland Cement Concrete (PCC) Pavement:* Construction of PCC pavement shall conform to the Standard Specifications, except as amended or expanded as follows:
- a. The contractor shall protect the pavement against all traffic, including that of their own employees or other workers on the site, until test specimens have attained the flexural or compressive strength as specified.
 - b. The contractor is responsible to guard fresh concrete until it sets and hardens sufficiently to prevent people from writing, walking, riding bicycles or otherwise marking, defacing, or causing depressions of any type in the concrete in a permanent fashion. Any concrete so marked will be removed and replaced by the contractor at the contractor's expense.
 - c. Joints in all residential local and collector streets shall be constructed in accordance with the PCC Pavement Details and Joint Layout Details of this Chapter (See Standard Attachment 10.01), together with the following requirements:
 - i. Joint inserts or dummy joints are expressly prohibited.
 - ii. Sawing of joints shall commence as soon as the concrete has cured and hardened sufficiently to permit sawing without excessive raveling, but no later than eight hours after the concrete has been placed. All joints shall be sawed to the full depth as shown in the standard details at the end of this chapter, and before uncontrolled shrinkage cracking

takes place. If necessary, the sawing operations shall occur during the day or at night, regardless of weekends, holidays, or weather conditions. Contractors should make themselves aware of City noise ordinances and holiday restrictions.

- iii. Joints in all arterials shall be filled with approved Joint Sealer, approved Preformed Joint Filler, or approved 5 cell Preformed Elastomeric Compression Seals, depending on the type of joint.
 - iv. Portland cement concrete curb and gutter shall be constructed in accordance with IDOT Standard Specifications.
 - v. Tie bars may be omitted along longitudinal joints on local streets (≤ 28 ft. wide) except that bars must be used on all "stand alone" tied curb and along all longitudinal "cold" construction joints.
 - vi. Jointing adjacent to manhole casting lid assemblies and curb frame and grate assemblies shall follow Standard Attachment 10.01b.
 - vii. Tie Bars: Epoxy-coated tie bars shall be installed in drilled holes along the vertical edge of the first lane placed as specified on the plans.
- d. When street pavement is constructed by full width or half width slip form paving methods, the contractor shall "box out" around proposed storm inlets that lie within the combination curb and gutter section with concrete forms.
2. *Full-Depth Bituminous Concrete Pavement:* Construction of full-depth bituminous concrete pavement shall conform to the Standard Specifications, except as amended or expanded as follows:
 - a. Portland cement concrete curb and gutter shall be constructed in accordance with IDOT Standard Specifications.
 - b. The bituminous concrete surface course shall have a minimum thickness of 1-1/2 in.
 - c. Refer to Standard Attachment 10.03 for termination detail for bituminous concrete pavement.

F. Testing

1. *Portland Cement Concrete (PCC) Pavement:* Testing of PCC pavement shall conform to the Standard Specifications, except as amended or expanded as follows:
 - a. Compression tests of the concrete are required as described in the IDOT Construction Manual and as specified as follows:
 - i. The testing method shall be AASHTO T23 and AASHTO T22, except that 6 in. by 12 in. cylindrical specimens may be used. Note: 2 cylinders are required for an approval test.
 - ii. The testing frequency is two tests with two cylinders per 250 ft. per lane, or four cylinders per day, whichever is greater.
 - iii. Test specimens shall attain a minimum compressive strength of 3,500 lbs. per square inch (psi) in 14 days or sooner.

- iv. When evaluating deficient concrete strength, the current ACI Building Code Requirements for Structural Concrete (see Evaluation and Acceptance of Concrete—Laboratory-Cured Specimens) shall be followed.
 - b. Flexural strength tests of the concrete shall comply with IDOT, “Manual of Instructions for Concrete Proportioning and Testing”, three point testing method and as follows:
 - i. The testing frequency shall be 2 tests with 2 beams per 250 ft. per lane, or 4 beams per day, whichever is greater.
 - ii. Test specimens shall attain a minimum flexural strength of 650 lbs. per square inch in 14 days or sooner.
 - c. Test specimens must be clearly marked to indicate the following: Name of the Subdivision (if applicable), Engineer, Street Name, Pavement Location, Date and Time, Material Supplier, Air Content, Slump, Air Temperature, Concrete Temperature, Mix Design Number.
 - d. Upon request of the City Engineer, surface smoothness tests may be required. Tests shall be conducted per the most recent IDOT standard spec that includes straight edge (surface smoothness) test procedures.
2. *Full-Depth Asphalt Concrete:* The following tests shall be made when constructing full-depth asphalt concrete pavement:
- a. Density: Compaction tests must be made in accordance with Section 406.16 of the Standard Specifications. If the in-place lift density is found to be deficient, subject to the approval of the City Engineer, the owner shall either:
 - i. Remove and replace the deficient sections to the required pavement strength; or,
 - ii. Post a three year cash bond in the amount of 100% of the estimated cost to remove and replace the deficient pavement. The cost shall be estimated for the end of the review period, i.e. inflate the cost. The bond form shall be approved by the City Attorney.
 - iii. Refer to Section G below for pavements constructed out of specification.
 - b. Thickness: Pavement cores for verification of pavement thickness shall be taken at the rate of 1 per 250 ft. per lane at locations designated by the City Engineer. If pavement thickness is deficient, subject to approval of the City Engineer, the subdivider shall either:
 - i. Remove and replace the deficient pavement section(s) to the planned thickness; or,
 - ii. Pay to the City an amount based upon the amount which would have been deducted from a contractor’s payment for the work, pursuant to

Section 407.10 of the Standard Specifications as now or hereafter amended.

- iii. Refer to Section G below for pavements constructed out of specification.
 - iv. Pavement deficiencies of thickness in excess of 10% shall be removed and replaced to plan thickness.
- c. Upon request of the City Engineer, surface smoothness tests may be required. Tests shall be conducted per the most recent IDOT standard spec that includes straight edge (surface smoothness) test procedures.

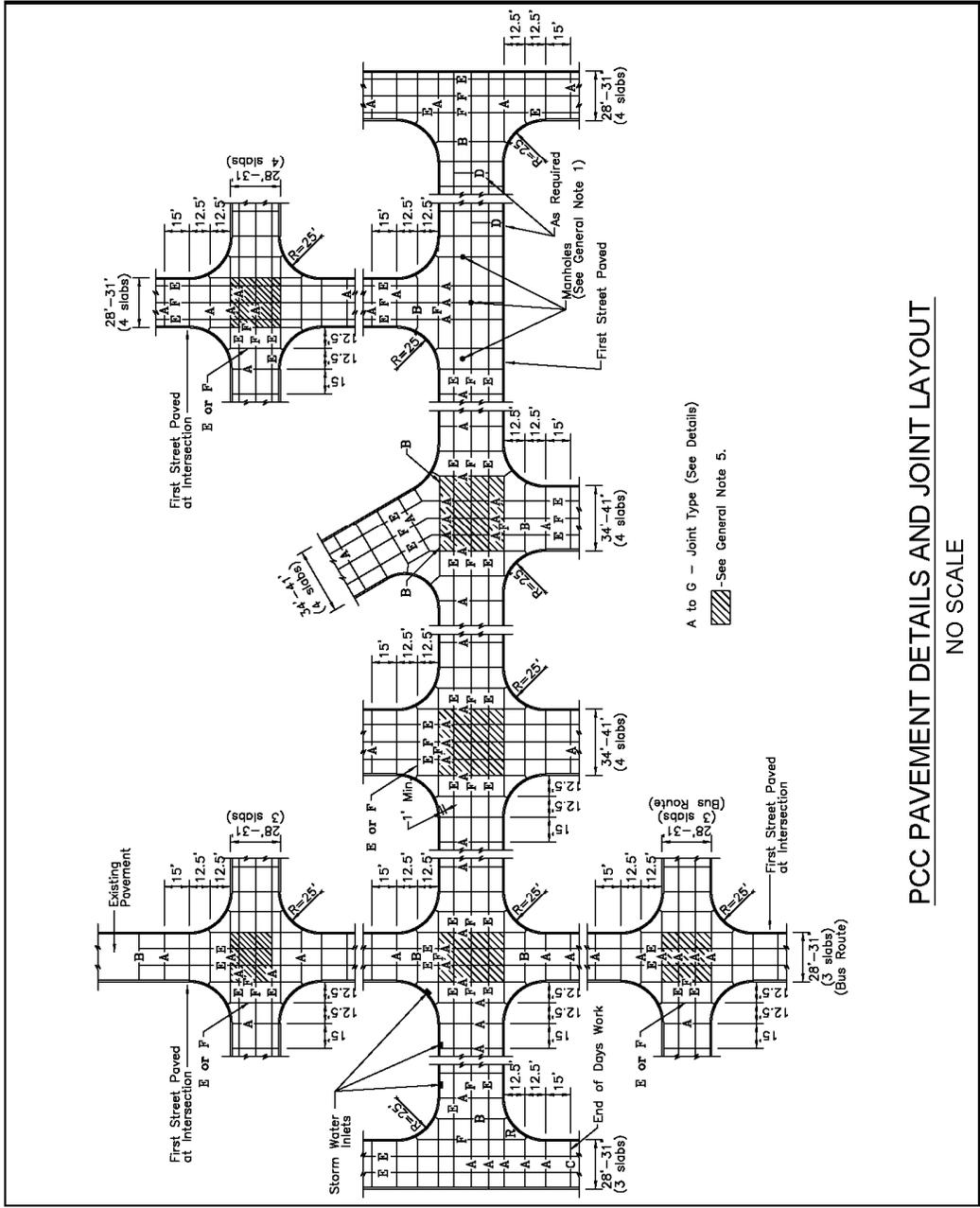
G. Pavement Constructed Out of Specification

1. The City Engineer shall determine if pavement is out of specification by reviewing the materials, testing, strength, appearance, etc. While it is understood that random cracks may appear in concrete pavement, this should be a rare occurrence. Cases of numerous cracks, shrinkage or otherwise, shall be subject to removal and replacement per the direction of the City Engineer. At the discretion of the City Engineer, pavements with moderate defects may be secured by a long-term bond in lieu of removal.
2. Bonds for securing repair and replacement of pavement initially failing to meet standards shall meet the following criteria:
 - a. If the subdivider is allowed to post a bond in lieu of repair and replacement of pavement which does not meet the design and testing criteria set forth in these regulations, the bond shall secure the removal and replacement of the deficient pavement within 60 calendar days of the City's demand to replace the same within a period of three years.
 - b. If at any time within the three year bond period, two or more random cracks, shrinkage cracking, spalling, or durability cracking appear within a panel of Portland cement concrete pavement, that panel shall be removed and replaced.
 - c. If at any time within the three year bond period, two or more cracks, raveling, or stripping appear within a section of full-depth asphalt concrete pavement that entire section shall be removed and replaced to the full thickness of pavement.
3. The bond shall be secured by cash in an amount equal to 115% of the City Engineer's estimate of removal and replacement costs. The bond and security shall be in a form approved by the City Attorney.
4. The bond shall be executed by the subdivider or the subdivider's contractor.

10.03 STANDARD ATTACHMENTS

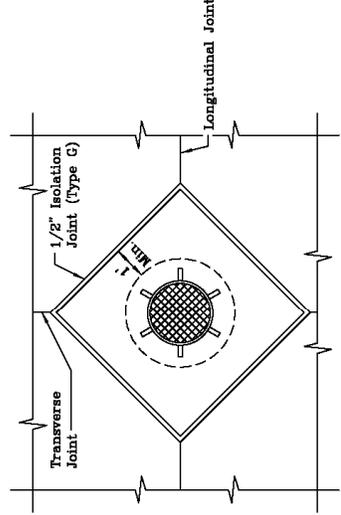
Standard Attachment 10.01 – PCC Pavement Details and Joint Layout (6 pages)
Standard Attachment 10.02 – CBR & Dynamic Cone Penetrometer Relationship
Standard Attachment 10.03 – Asphalt Pavement Termination Detail

<p>MANUAL OF PRACTICE Attachment</p>		<p>CITY OF PEORIA PUBLIC WORKS DEPARTMENT Engineering Division 418 Fulton Street, Suite 307 Peoria, IL 61602 PH: 309-691-8881 FAX: 309-691-8655 www.ci.peoria.il.us</p>	<p>DRAWING TITLE: PCC Pavement Details and Joint Layout</p>
<p>PREPARATION DATE: 8-14-2009</p>		<p>REVISIONS:</p>	
<p>DRAWN: B.M. CHECKED: N.S. APPROVED: J.S.</p>		<p>CAD FILE: SLAB.DWG EXTERNAL REF. FILES:</p>	
<p>SHEET</p>		<p>1 of 1 sheet(s)</p>	

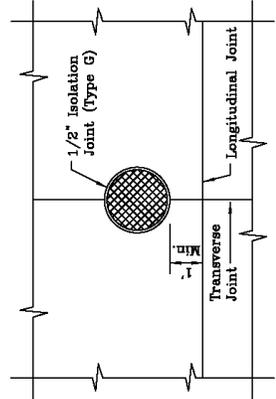


Standard Attachment 10.01a

MANUAL OF PRACTICE Attachment		 CITY OF PEORIA PUBLIC WORKS DEPARTMENT Engineering Division 418 Fulton Street, Suite 307 Peoria, IL 61602 PH: 309-491-6881 FAX: 309-491-8658 www.ci.peoria.il.us	DRAWING TITLE: PCC Pavement Details and Joint Layout	PREPARATION DATE: 8-14-2009 REVISIONS: DRAWN: BM CHECKED: NS APPROVED: JS CAD FILE: MHL.DWG EXTERNAL REF. FILES:
SHEET 1 of 1 sheet(s)				



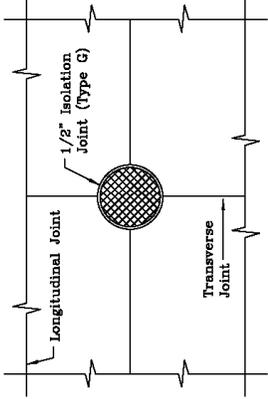
**Detail of Manhole Located
At Intersection of Joints
(Manhole With Flanges)**



**Detail of Manhole Located
At A Transverse Joint**

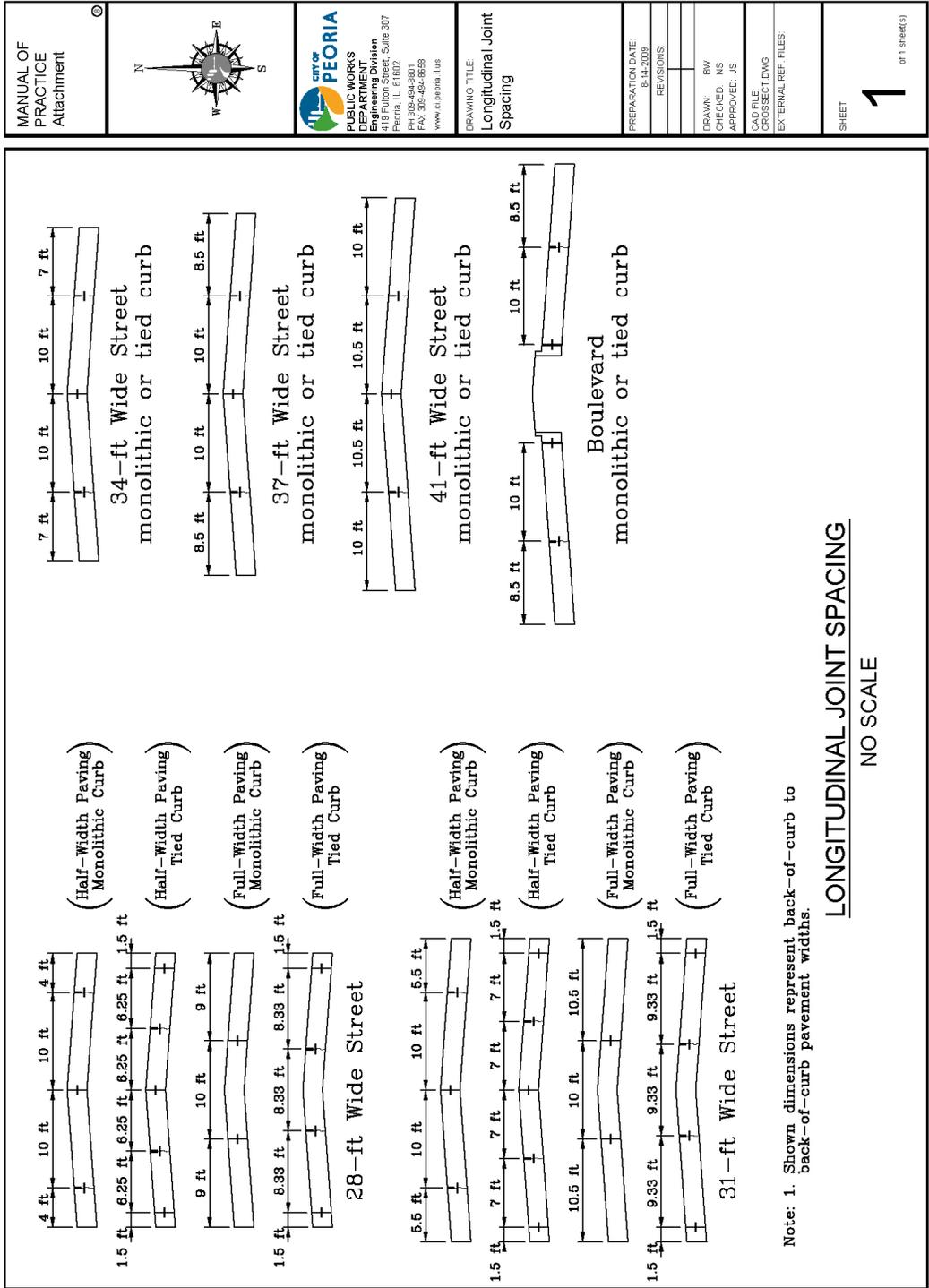
Note: 1. Details for non-telescoping manhole castings.
 2. The transverse joint spacing shall be shortened on one or more slabs on either side of the manhole to permit a transverse joint to fall at the center of the manhole.

**Detail of Manhole Located
At Intersection of Joints
(Manhole Without Flanges)**

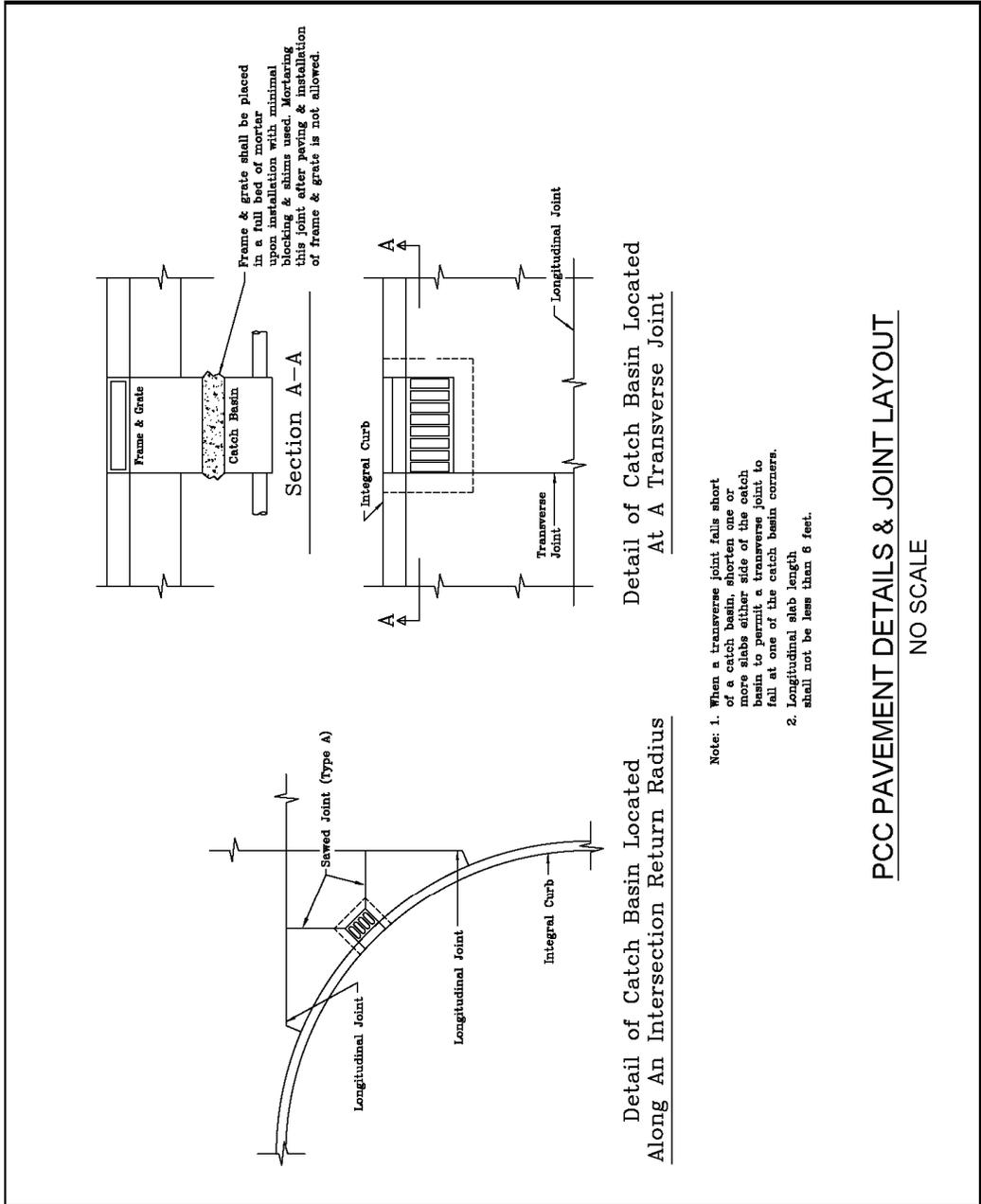


PCC PAVEMENT DETAILS AND JOINT LAYOUT
NO SCALE

Standard Attachment 10.01d

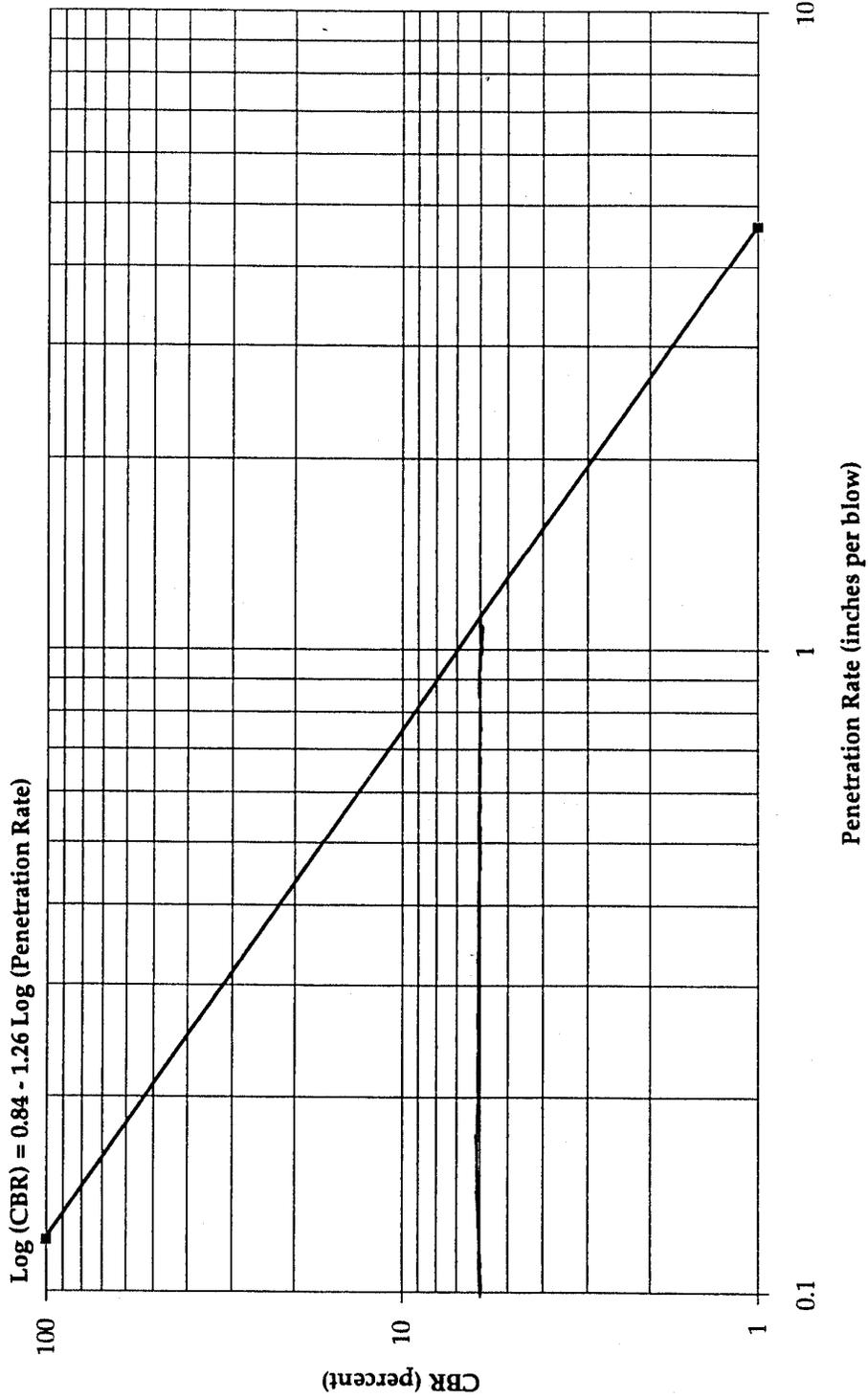


MANUAL OF PRACTICE Attachment		PUBLIC WORKS DEPARTMENT Engineering Division 419 Fulton Street, Suite 307 Peoria, IL 61602 PH: 309-491-4881 FAX: 309-491-8655 www.ci.peoria.il.us	DRAWING TITLE: PCC Pavement Details & Joint Layout	PREPARATION DATE: 8-14-2009 REVISIONS:
DRAWN: BM CHECKED: NS APPROVED: JS CAD FILE: CBT/DWG EXTERNAL REF. FILES:				
SHEET <div style="font-size: 2em; font-weight: bold; display: inline-block;">1</div> of 1 sheet(s)				



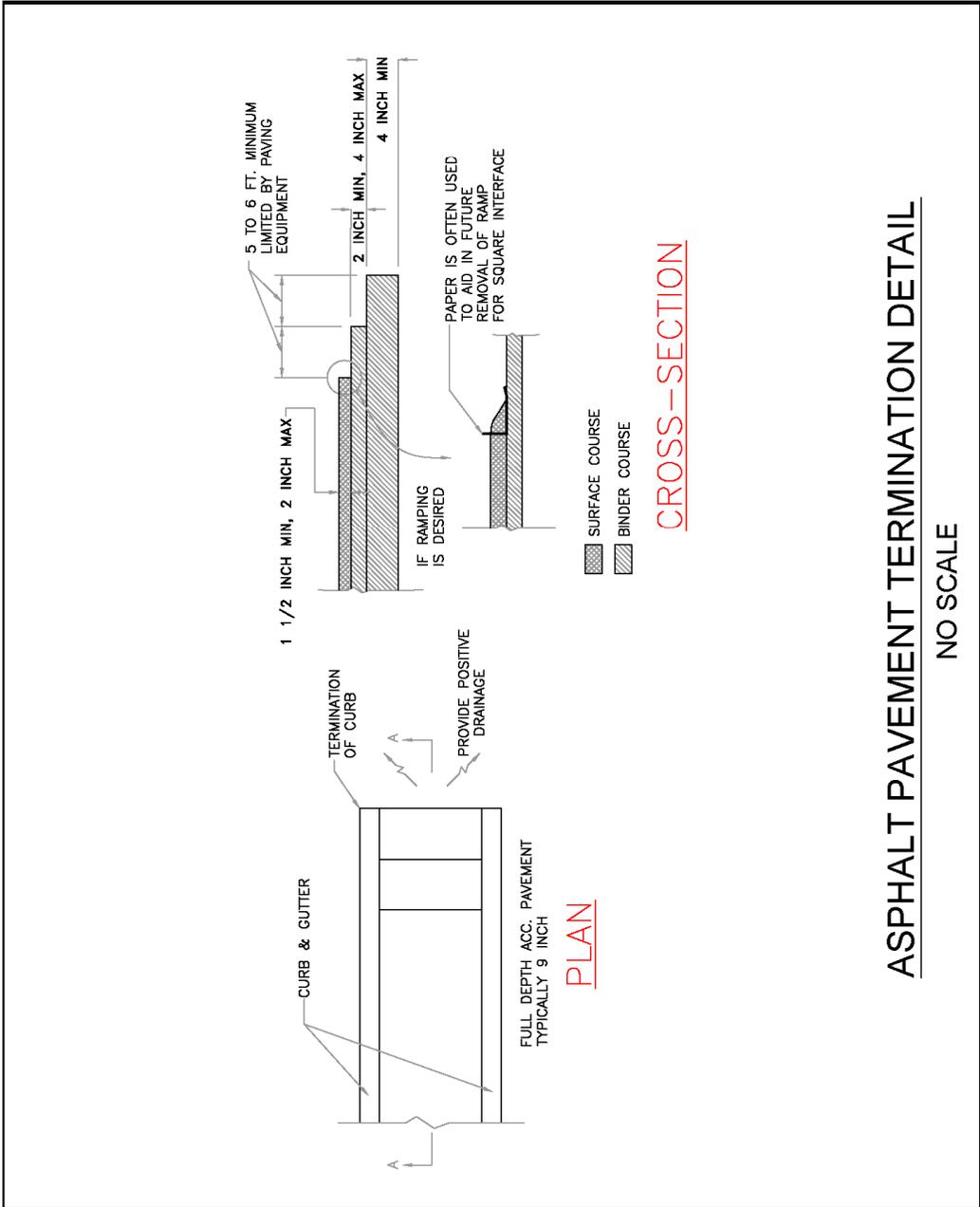
Standard Attachment 10.01e

Figure 3.4. CBR - Dynamic Cone Penetrometer Relationship.



$$\begin{aligned} \text{Log}(6) &= 0.84 - 1.26 \text{Log}(\text{Pn}) \\ .077815 &= 0.84 - 1.26 \text{Pn} \\ \text{Log Pn} &= 0.04909 \\ \text{Pn} &= 10^{0.04909} = 1.12 \text{ in. per blow} = 0.893 \text{ blow per in.} = 10.72 \text{ blow per ft.} \end{aligned}$$

MANUAL OF PRACTICE Attachment		 CITY OF PEORIA PUBLIC WORKS DEPARTMENT Engineering Division 419 Fulton Street, Suite 307 Peoria, IL 61602 PH: 309-491-8881 FAX: 309-491-8655 www.ci.peoria.il.us	DRAWING TITLE: Asphalt Pavement Termination Detail	PREPARATION DATE: 8-14-2009
				REVISIONS:
DRAWN: BM CHECKED: NS APPROVED: JS		CAD FILE: ASPHALDING		EXTERNAL REF. FILES:
SHEET 1 of 1 sheet(s)				



Standard Attachment 10.03

11.00 CHAPTER 11: PEDESTRIAN FACILITIES STANDARDS

11.01 Introduction and Goals

11.02 Administration

11.03 Standards

11.04 Standard Attachments

DRAFT

11.00 INTRODUCTION AND GOALS

It is the goal of this chapter to provide safe and convenient pedestrian access ways to all residential, commercial, office, and industrial developments. Sidewalks or trails shall be installed in all subdivisions unless a waiver has been granted by the City of Peoria. Sidewalk shall be installed, repaired or upgraded, as needed on any individual site development / redevelopment as determined by the City Engineer or designee. [Note to Jeff—this is where we could use a ‘substantial improvement’ description.]

11.01 ADMINISTRATION

A. Repair or reconstruction of existing sidewalks: Per the direction of the City Representative, any sidewalk work shall be done per the following criteria of this chapter:

1. *Traffic Control* shall be provided for all sidewalk and trail construction including the necessary means of keeping both the contractor and pedestrians safe during construction. This may include the use of construction signs, barricades, lighting, and / or directing traffic, (with traffic control flaggers if necessary.)
2. *ROW Permits:* The necessary ROW permits shall be obtained from the City.

B. Construction of sidewalks and trails in new subdivisions: Construction of sidewalks and trails in new subdivisions shall be per the City of Peoria Municipal Code, IDOT Standard Specifications, AASHTO standards, and the standards and requirements of this Manual.

C. Referenced Standards:

1. The City of Peoria Municipal Code.
2. IDOT Standard Specifications for Road and Bridge Construction, latest edition.
3. IDOT Highway Standards, latest edition.
4. IDOT Construction Manual, latest edition.
5. AASHTO Standards.
6. ADA / ADAG / PROWAG requirements.

11.02 STANDARDS

A. Thickness: All sidewalks shall be a minimum of 4 in. thick on a minimum of 2” of compacted CA6 subbase.. Sidewalks at driveway locations shall be thickened to match the thickness of the driveway pavement.

B. Width: Sidewalks shall not be less than 5 ft. in width; sidewalks in high traffic areas, including the commercial, downtown and campus districts, may require a 6 ft. width or greater, as determined by the City Engineer.

C. Subgrade: Sidewalk/trail subgrade material shall be free of debris, organic material, plastic clays, and other material prone to freeze-thaw damage. Subgrade material shall be compacted per IDOT standards to prevent settling.

D. Location: Sidewalks shall be located on both sides of the street within the public right-of-way. There is to be a minimum one foot of space between the outside edge of the sidewalk and the public right-of-way / property line. If excessive distance is between street crossings, mid-block sidewalks shall be located as per Section 8.01 of this Manual. Trails shall be located per the City of Peoria's adopted "Bike Walktrail Plan".

E. Access: In developments where normal street configuration does not provide adequate pedestrian access to schools, parks, commercial centers, or other pedestrian traffic generators, alternate pedestrian access ways shall be provided within a dedicated public right-of-way or permanent easement.

F. ADA: All sidewalks and trails shall conform to current Americans with Disabilities Act (ADA) standards.

G. Minimum Geometry Requirements: Sidewalk and trail geometry shall comply with this manual, IDOT requirements, PROWAG requirements and ADA requirements. Minimum geometry requirements shall include, but not be limited to, the following:

1. *Grade*, (longitudinal slope), shall not exceed 8%, (1 in. per 1 ft.). Landings shall be provided at regular intervals, as per the current ADA guidelines, (see Standard Attachment 11.03).
2. *Cross Slope*, (transverse slope), shall not exceed 2%, (1/4 in. per ft.), downward in the direction of the back of curb.
3. *Ramps:* ADA ramps shall be provided at all necessary locations per IDOT and ADA requirements. Minimum face to face of curb width on sidewalk ramps shall be 3 ft.

G. Material Requirements: Sidewalks shall be constructed of Portland Cement Concrete (PCC) from an IDOT approved plant using IDOT approved mix design and material. Trails shall be constructed of Hot Mix Asphalt (HMA) from an IDOT approved plant using IDOT approved mix design and material.

H. Construction Requirements: Sidewalks shall be constructed per these standards and IDOT, Standard Specifications for Road and Bridge Construction, latest edition.

1. *Forms:* Steel forms shall be used. Lumber forms may be used when constructing sidewalk ramps, curved pavement, or small projects. However, in no case shall sidewalk be less than 4 in. thick.
2. *Expansion Joints:* Expansion joints, 3/4 in. thickness, should be placed only at junctions of pavement and sidewalk, and at the intersection of sidewalks, or as directed by the City standards and Resident Engineer.
3. *Ramp truncated domes:* Truncated domes will be constructed per IDOT and ADA standards, (see Standard Attachment 11.01).
4. *Constructed width:* The minimum sidewalk width shall be 5 ft. The minimum width for trails shall be 10 ft.

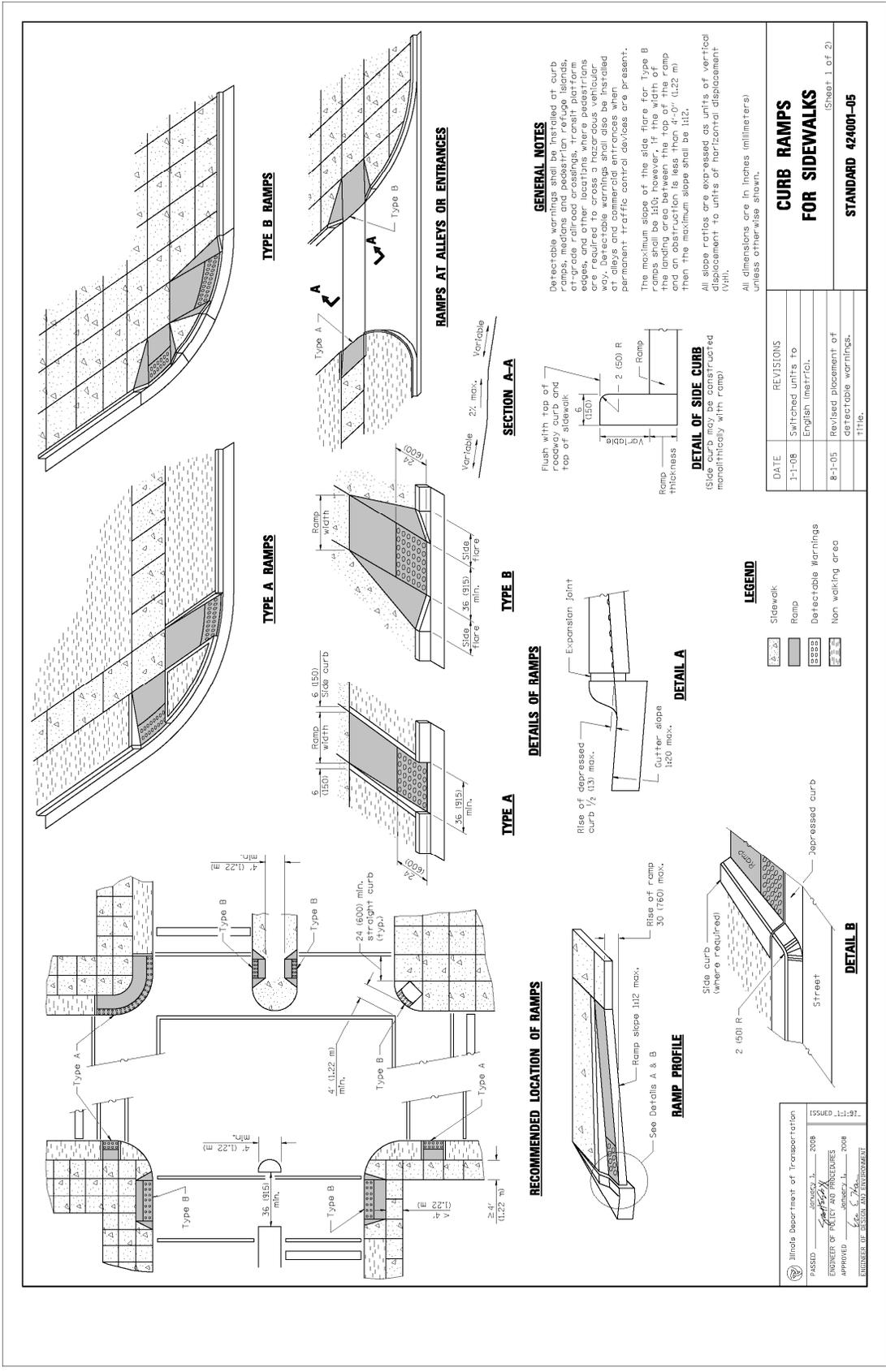
5. *Timing:* Sidewalks and trails should be constructed prior to occupancy of buildings or subdivision. Forms shall be stripped in accordance with the IDOT standard specification and the sidewalk or trail shall be backfilled immediately after the forms are stripped.
6. *Inspection and Testing:* All inspecting and testing procedures shall be followed as stated in the Illinois Department of Transportation Construction Manual.

11.03 STANDARD ATTACHMENTS

Standard Attachment 11.01—Sidewalk Ramps Accessible to the Disabled (This standard is frequently updated.)

Standard Attachment 11.02—Annual Accessibility Program Typical Ramp Details

Standard Attachment 11.03—Landing Requirements



GENERAL NOTES
 Detectable warnings shall be installed at curb ramps, medians and pedestrian refuge islands, crosswalks, and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings shall also be installed along the edges of ramps where permanent traffic control devices are present.
 The maximum slope of the side flare for Type B ramps shall be 1:12; however, if the width of the side flare is less than 4'-0" (1.22 m) and an obstruction is less than 4'-0" (1.22 m) then the maximum slope shall be 1:12.
 All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in inches (millimeters) unless otherwise shown.

DETAIL OF SIDE CURB
 Side curb may be constructed monolithically with ramp

DATE	REVISIONS
1-1-08	Switched units to English/metric.
8-1-05	Revised placement of detectable warnings.
	1 Title.

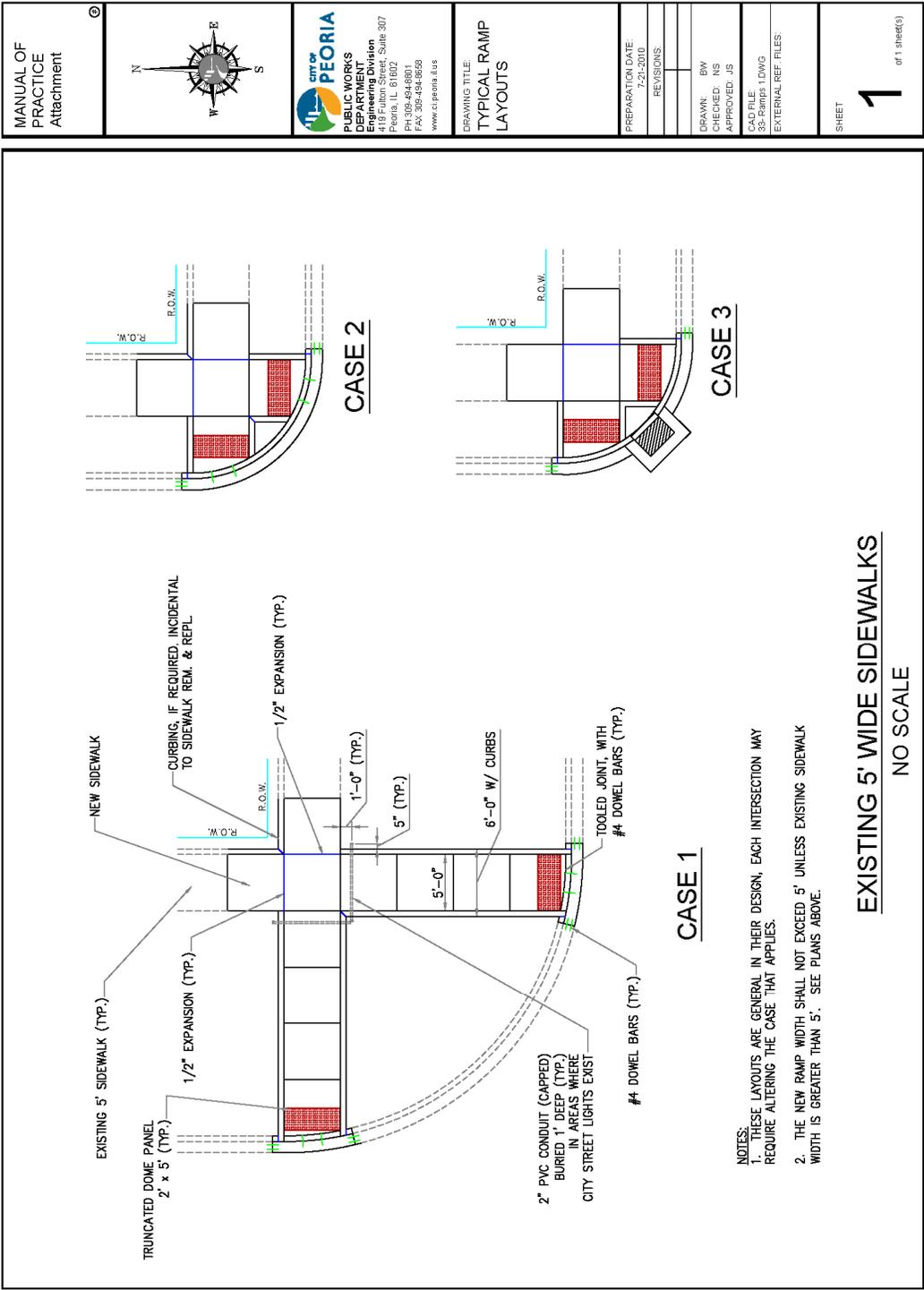
LEGEND

- Sidewalk
- Ramp
- Detectable Warnings
- Non walking area

Illinois Department of Transportation
 PASSED: JANSOZYL 2008
 ENGINEER OF PUBLIC WORKS
 APPROVED: JANSOZYL 2008
 MEMBER OF DESIGN AND ENVIRONMENT

ISSUED: 11-09

CURB RAMPS FOR SIDEWALKS
 STANDARD 424001-05
 (Sheet 1 of 2)



MANUAL OF PRACTICE Attachment



CITY OF PEORIA
PUBLIC WORKS DEPARTMENT
 Engineering Division
 111 W. State Street, Suite 307
 Peoria, IL 61602
 PH: 308-494-8801
 FAX: 308-494-8859
 www.ci.peoria.il.us

DRAWING TITLE:
TYPICAL RAMP LAYOUTS

PREPARATION DATE:	7-27-2010
REVISIONS:	
DRAWN:	BW
CHECKED:	NS
APPROVED:	JS

CAD FILE:
 33-Ramps 1.DWG
 EXTERNAL REF FILES:

SHEET
1
 of 1 sheet(s)

NOTES:
 1. THESE LAYOUTS ARE GENERAL IN THEIR DESIGN. EACH INTERSECTION MAY REQUIRE ALTERING THE CASE THAT APPLIES.
 2. THE NEW RAMP WIDTH SHALL NOT EXCEED 5' UNLESS EXISTING SIDEWALK WIDTH IS GREATER THAN 5'. SEE PLANS ABOVE.

EXISTING 5' WIDE SIDEWALKS
 NO SCALE

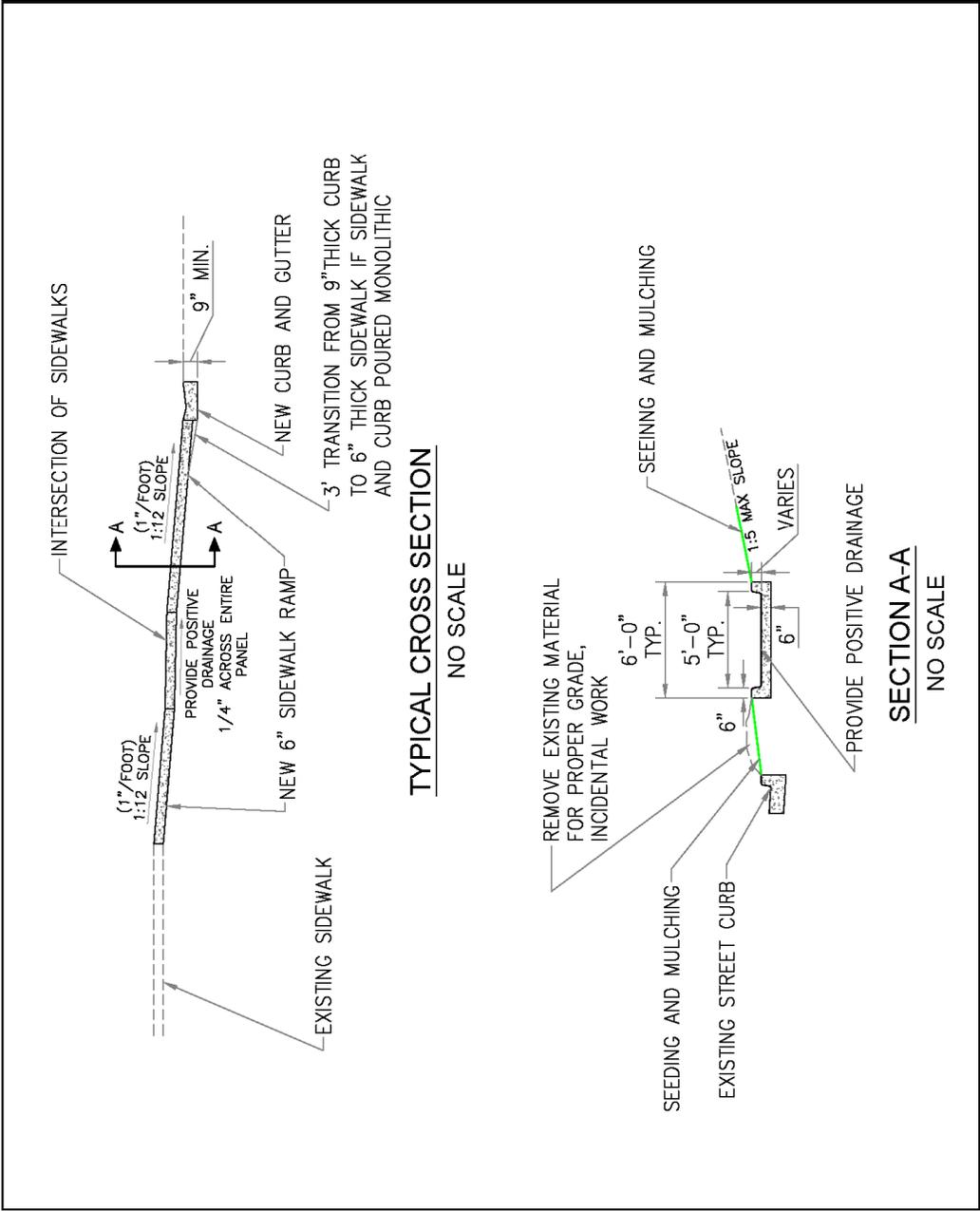
MANUAL OF PRACTICE Attachment

CITY OF PEORIA
 PUBLIC WORKS DEPARTMENT
 Engineering Division
 100 W. State Street, Suite 307
 Peoria, IL 61602
 PH: 308-494-8801
 FAX: 308-494-8858
 www.ci.peoria.il.us

DRAWING TITLE:
TYPICAL CROSS SECTIONS

PREPARATION DATE:	7-2-2010
REVISIONS:	
DRAWN:	BW
CHECKED:	NS
APPROVED:	JS
CAD FILE:	33-RAINFIS 1.DWG
EXTERNAL REF. FILES:	

SHEET **1** of 1 sheet(s)



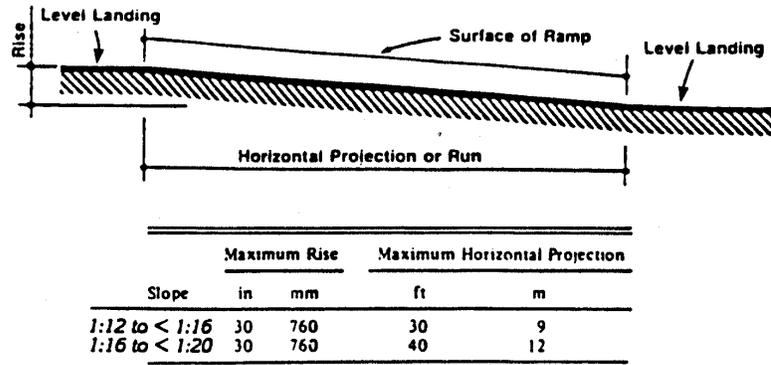


Fig. 16
Components of a Single Ramp Run and Sample Ramp Dimensions

4.8.3 Clear Width. The minimum clear width of a ramp shall be 36 in (915 mm).

4.8.4* Landings. Ramps shall have level landings at bottom and top of *each ramp and each ramp run*. Landings shall have the following features:

- (1) The landing shall be at least as wide as the ramp run leading to it.
- (2) The landing length shall be a minimum of 60 in (1525 mm) clear.
- (3) If ramps change direction at landings, the minimum landing size shall be 60 in by 60 in (1525 mm by 1525 mm).
- (4) If a doorway is located at a landing, then the area in front of the doorway shall comply with 4.13.6.

4.8.5* Handrails. If a ramp run has a rise greater than 6 in (150 mm) or a horizontal projection greater than 72 in (1830 mm), then it shall have handrails on both sides. Handrails are not required on curb ramps or *adjacent to seating in assembly areas*. Handrails shall comply with 4.26 and shall have the following features:

(1) Handrails shall be provided along both sides of ramp segments. The inside handrail on switchback or dogleg ramps shall always be continuous.

(2) If handrails are not continuous, they shall extend at least 12 in (305 mm) beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface (see Fig. 17).

(3) The clear space between the handrail and the wall shall be 1 - 1/2 in (38 mm).

(4) Gripping surfaces shall be continuous.

(5) Top of handrail gripping surfaces shall be mounted between 34 in and 38 in (865 mm and 965 mm) above ramp surfaces.

(6) Ends of handrails shall be either rounded or returned smoothly to floor, wall, or post.

(7) Handrails shall not rotate within their fittings.

4.8.6 Cross Slope and Surfaces. The cross slope of ramp surfaces shall be no greater than 1:50. Ramp surfaces shall comply with 4.5.

CHAPTER 12: TRAFFIC CONTROL AND TRAFFIC REGULATORY SIGNAGE

12.00 Introduction and Goals

Part I: Traffic Signs and Pavement Markings

12.01 Administration

12.02 Standards

Part II: Traffic Control During Construction

12.03 Administration

12.04 Standards

12.05 Standard Attachments

DRAFT

12.00 INTRODUCTION AND GOALS

The purpose of this chapter is to maintain a consistent and appropriate use of signage along City streets, within the City right-of-way. This chapter will outline the City's requirements and procedures for the installation of signs. The chapter is divided into two parts. Part I will outline the process and requirements for the installation of permanent signs and pavement markings. Part II outlines the City's requirements for traffic control during construction that takes place in the City's right-of-way.

PART I: TRAFFIC SIGNS AND PAVEMENT MARKINGS

12.01 ADMINISTRATION

All requests for the installation of traffic signs will be processed through the City's Engineering Division.

A. New Subdivisions:

1. A Traffic Management Plan is required for all new subdivisions within the City limits and the 1-1/2-mile extra territorial jurisdiction. The Traffic Management Plan shall indicate all proposed signage and pavement markings for the subdivision, and is to be submitted with the subdivision plans. Proposed signage shall conform to the Manual on Uniform Traffic Control Devices (MUTCD), the Illinois Supplement to the MUTCD, pertinent City and Departmental Policies, the Illinois Vehicle Code, the City of Peoria Municipal Code, and the requirements outlined in this Chapter. In the case of a conflict, the Municipal Code will prevail. The Traffic Management Plan should be prepared using the following guidelines:
 - a. The typical Traffic Management Plan shall include 24 in. x 36 in. plan sheets or alternatively 11 in. x 17 in. sheets. These sheets may be included as part of the subdivision plan set.
 - b. The sheets will indicate the type and location of all signage and striping proposed for the subdivision, (regulatory signs, warning signs, street name signs and all other signs), details and notes, including the materials proposed for implementing the plan.
 - c. The plans should include a primary approval signature block for the City of Peoria City Engineer and a secondary signature block (or initial block) for any other impacted local units of government (i.e., Township Road Commissioner or County Engineer). An example follows:

City of Peoria	
Approved By:	
_____	_____
City Engineer	Date
Peoria County	
Approved By:	

County Engineer

Date

- d. The City may require additional signage, (such as school related signage), to be installed if those signs are required according to the specifications and conditions outlined in the MUTCD or City Policy.
 - e. If the subdivision is developed in phases, the Traffic Management Plan shall include a timeline or sequence for the installation of the signs and pavement markings outlined in the plan.
2. The City Engineer, or designee, will review the Traffic Management Plan and recommend any changes to the proposed plan.
 3. Once the Traffic Management plan is acceptable to staff, the City Engineer will route a Traffic Regulation Order authorizing the installation of the signage, for approval.
 4. In the case of proposed all-way stops in new subdivisions, the proposed location must satisfy the conditions outlined in the MUTCD, or in the any City policy concerning all-way stops.
 5. After receiving the approved plan sheets, the developer shall transmit copies to any other affected units of government for approval. This may include Peoria County, Townships, and IDOT.
 6. Once approval of the Traffic Regulation Order has been received, a work order will be issued and the signs and pavement markings shall be installed by the City of Peoria. All initial signage and pavement markings will be installed, in accordance with the specifications outlined in this chapter, prior to the occupancy of the subdivision.
 7. The developer is responsible for the cost of fabricating and installing the signage, including labor, on a per intersection basis as stated in the Peoria Municipal Code.
 8. A J.U.L.I.E. locate is required prior to the installation of post mounted signs.
 9. The approval process for the Traffic Management Plan may be considered separately from the subdivision plan approval process at the City's discretion.

B. Existing City Streets:

1. A request for any change in signage for an existing City street is submitted as a Traffic Service Request.
2. City staff collects all necessary background information, which may include traffic data and accident data.
3. City staff reviews all pertinent City and Departmental Policies and provides a recommendation, which is then routed for approval.
4. If the approved recommendation is for no action, a copy of the background information and recommendation are forwarded to the requestor.

5. If a change is recommended in regulatory signage, a Traffic Regulation Order is prepared and routed for approval. A Traffic Regulation Order may also be prepared for major changes to other signage and pavement markings.
6. The Traffic Regulation Order must be approved prior to the implementation of regulatory signage.
7. A J.U.L.I.E. locate is required prior to the installation of post mounted signs.
8. Once implemented, the requestor receives a copy of the Traffic Regulation Order, the recommendation and background information.

12.02 STANDARDS

The following standards apply to the installation of signs and pavement marking:

A. Referenced Standards:

1. The City of Peoria Municipal Code.
2. The Manual on Uniform Traffic Control Devices (MUTCD).
3. The Illinois Manual on Uniform Traffic Control Devices, supplement to the MUTCD.
4. The Illinois Vehicle Code.
5. City of Peoria Public Works Departmental Policies and Practices.

B. Design:

1. *Traffic signs:*
 - a. Regulatory signs: Traffic regulatory signs give notice of traffic laws and regulations. Stop signs, Speed Limit signs and No Parking signs are examples of traffic regulatory signs. All traffic regulatory signs recommended or approved by the Engineering Division must conform to the MUTCD.
 - i. Stop signs: Locations of stop signs must satisfy the warrants outlined in the MUTCD, and be approved by the City Manager through a Traffic Regulation Order.
 - ii. Speed Limit signs: Speed limits and the posting of speed limits shall be in accordance with the MUTCD guidelines for Establishing Speed Limits for City Streets and Alleys and as stated in Sections 28-138 and 139 in the City Code. Urban speed limit is 30 mph unless otherwise posted and alley speed limits are 15 mph unless otherwise posted, as per the Illinois Vehicle Code. Roadways deemed to be 30 mph speed limit are generally not posted. It is the City's practice is to encourage 25 mph speed limits on local residential roadways. Established neighborhoods may petition for this reduction. Approved residential speed limit reductions will be established by Traffic Regulation Order.

The establishment and signing of school speed zones are conducted in accordance with the Illinois Supplement to the National MUTCD.

- iii. **Parking restrictions:** Parking restrictions are posted in conformance with Chapter 26 of the City of Peoria Municipal Code. Requests for parking restrictions in existing residential areas are processed according to Public Works Departmental Policy which requires a neighborhood petition in cases not related to public safety or existing municipal code requirements.
 - b. **Street name signs:** Street name signs are required at all intersections and will be per MUTCD guidelines and City standards. At signalized intersections, the street name signs shall be mounted on the traffic signal mast arms. City standards require block numbering on street name signs. See Standard Attachments at the end of this chapter for guidance. Custom street name signs, to be purchased, installed, and maintained by a neighborhood association, will be considered for approval by the City Engineer.
 - c. **Other traffic signs:** Other types of traffic signs include warning signs, (such as school crosswalk signs), curve warning chevrons and directional guide signs, (such as those for the Interstate system). All such signs shall conform to the specifications and conditions of the MUTCD and the Illinois Supplement to the MUTCD.
 - d. **Prohibited signs:** The City of Peoria does not use or authorize the installation of Slow signs (such as for children playing) because these signs have been proven ineffective and create a false sense of security. Private signs, temporary or permanent, are prohibited on public right-of-ways in the City.
2. **Pavement markings:** Layout of pavement markings shall conform to the specifications outlined in Part 3 of the MUTCD, as modified by Departmental Policies.
 - a. **Crosswalks:** In general, crosswalks are provided at signalized intersections for pedestrian movements controlled by pedestrian indications and in the vicinity of schools along school safe walk route crossings. Other locations are considered depending on the amount of pedestrian traffic. Mid-block crosswalks are discouraged.

C. Construction:

1. **Timing:** An approved Traffic Regulation Order must be received prior to the installation of regulatory signs. For new subdivisions, all initial street name signs and traffic signs shall be installed prior to the occupancy of the subdivision.
2. **Maintenance:** The City maintains all traffic signs in the right-of-way for streets under its jurisdiction. For new subdivisions, the City will not assume maintenance of signs until the subdivision is annexed into the City, is accepted for maintenance, and the maintenance bond is released.
3. **Construction Care:** Prior to the installation of signposts, a J.U.L.I.E. locate is required.

D. Materials and Construction Notes:

1. *Sign Posts:* The City requires the use of 12-gauge steel telspar posts and sleeves complying with ASTM specifications A653, hot dip galvanized conforming to coating designation 6-90. The use of u-channel posts or round posts is not allowed. For sign post and sleeve details see Attachments 12.01 and 12.05.
2. *Stop Signs:* Stop signs shall be a 3M 4080 DG Grade, minimum size of 30 in. x 30 in. sheeting on 0.080 aluminum blank. If supplemental 4-way, 3-way, or All-way is used, it must be DG sheeting as well.
3. *Street Name Signs:* In general, street name signs shall have border and letters 3930 white Prismatic Grade HIP under green (E.C. film) 1177 Scotchlite Electrocut film. For intersections of two secondary streets the signs shall be 6 in. x 30 in. For intersections of a secondary street with an arterial street the arterial street name signs shall be 6 in. x 30 in. and the secondary street name shall be 9 in. x 36 in. unless otherwise approved by the City Engineer. For these configurations see Standard Attachments 12.01 and 12.02. For mast-arm mounted street name signs, the sign shall be 30 in. x 60 in. For other details and configuration, see Standard Attachment 12.03.

Criteria

1. The height of lettering for the street name shall be 6" for upper case and 4-1/2" for lower case letters.
 2. The prefix (N, S, etc.) shall be 4" in height.
 3. The suffix (Pl, Rd, etc.) shall be 2-1/2" in height.
 4. The hundred-block designation shall be 3" in height.
 5. The signs will be of reflectorized (Illinois Department of Transportation Type A specifications for high intensity) face on flat blade type aluminum blank, 80 mil for 36" in length or less, 125 mil for greater than 36" in length.
4. *Pavement Markings*
 - a. Asphalt pavement: Pavement striping material and application shall be in accordance with IDOT Standard Specifications for thermoplastic pavement marking.
 - b. PCC pavement: Pavement striping material and application shall be in accordance with IDOT Standard Specifications for thermoplastic pavement marking. 3M Stamark pavement markings may also be considered for approval by the City Engineer.

PART II: TRAFFIC CONTROL DURING CONSTRUCTION

12.03 ADMINISTRATION

- A. **City Sponsored Projects:** The design engineer shall include traffic control requirements as a part of the plans and specifications for the project. The contractor agrees to adhere to the traffic control requirements outlined in the plans and specifications when they enter into the contract with the City. The Contractor shall furnish the City with the name and phone number of the individual responsible for the implementation and maintenance of traffic control. Prior to the start of construction, the Contractor is required to submit the traffic control plan for the project (unless otherwise specified in the Contract Documents) to the City Engineer for approval. Any subsequent changes in the traffic control plan also require the approval of the City Engineer prior to the implementation of the proposed changes to

traffic control. The requirements for responding to traffic control deficiencies on City sponsored projects are outlined in the City's Standard Contract Documents.

- B. Non-City Projects / Utility Repairs:** For non-City projects in the right-of-way, it is necessary to obtain a ROW permit. The City Engineer will determine if traffic control is required for the project / utility repair. If traffic control is necessary, submittal of a traffic control plan is required as a part of the permit process. The complexity of the traffic control plan depends on the complexity of the situation, as assessed by the City Engineer. Approval of the permit will indicate approval of the proposed traffic control plan. For projects lasting more than one calendar day, the name and phone numbers where the individual responsible for the implementation and maintenance of traffic control can be reached, including after hours, shall be included with the permit application. Deficiencies in traffic control shall be corrected to the satisfaction of the Engineering Division within four hours, as required by the permit.

12.04 STANDARDS

A. Referenced Standards:

1. *Traffic Control:* Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) – Temporary Traffic Control; IDOT Standard 701501-05: Urban Lane Closure 2-Lane, 2-Way Undivided; IDOT Standard 701601-06: Urban Lane Closure Multi-lane 1-Way or 2-Way with Non-traversable Median; IDOT Standard 701606-06: Urban Lane Closure Multi-lane 2-Way with Mountable Median; IDOT Standard 701701-06: Urban Lane Closure Multi-lane Intersection; IDOT Standard 701901-01: Traffic Control Devices; IDOT Standard 704001-06: Temporary Concrete Barrier; other applicable IDOT Highway Standards; IDOT Quality Standard for Work Zone Traffic Control Devices, and pertinent future IDOT Manuals.
2. *Pedestrian Safety:* IDOT Standard 701801-04: Lane Closure Multi-lane 1-Way or 2-Way Crosswalk or Sidewalk Closure; Chapter 6D of the MUTCD – Pedestrian and Worker Safety

B. Design:

1. *General:* Traffic control for all work performed in the right-of-way shall conform to the most recent edition of the MUTCD, appropriate IDOT Highway Standards and the Municipal Code. Some commonly used IDOT Highway Standards were listed in the Referenced Standards section. General guidelines are listed below. Refer to the MUTCD for specifics.
 - a. Whenever possible, the work site on a two-lane street or highway shall be confined to one traffic lane leaving the opposite lane open to traffic.
 - b. Work vehicles shall be parked on the same side of the street as the job site.
 - c. Work vehicles may be used, for work operations less than 30 minutes in duration, as an additional barricade with the flasher light lit, but not as a substitute for any work area protection that may be called for.
 - d. Under certain field conditions such as hills, crossroads, curves, driveways, etc. the spacing of work area protection should be adjusted as necessary.

- e. All employees working on the job site along a roadway shall wear high-visibility vests as required by the OSHA Act.
 - f. Flaggers shall wear high-visibility vests when directing traffic.
 - g. Flaggers shall use the proper traffic control sign when directing traffic.
 - h. When two flaggers are necessary, they shall be in direct communication with each other at all times either by sight or by radio communication.
 - i. When there is not any work in progress and the flagger is not required, the "Flagger Symbol" sign should be removed.
 - j. Remove all signs or traffic control devices that do not apply to existing conditions, i.e. if work is not being performed, the warning signs should either be taken down or covered.
 - k. When openings in or near the sidewalk are necessary, barricades or safety fencing shall be properly placed so that someone passing by would not inadvertently fall into the excavation.
 - l. If barricades will be in place overnight, they shall have a light on them.
 - m. Arrowboards are mandatory for work on all collector- and arterial-class streets and may be required at the discretion of the City Engineer for work on local streets.
 - n. All excavations that present a hazard or that must be left open overnight shall be properly barricaded for the protection of the public.
2. *City Projects:* In addition to the general requirements, traffic control on City construction projects is specified in the City's Standard Contract Documents. For each project, the Technical Specifications section of the Contract Documents may include written specifications for traffic control conforming and / or copies of applicable IDOT Highway Standards regarding traffic control.
3. *Non-City Projects:* Non-City projects are subject to the general requirements outlined above. In addition, overhead pedestrian protection may be required at the discretion of the City Engineer for building projects. The pedestrian protection measures must be approved by the Director of Inspections prior to the start of construction.
- C. Construction:** In all cases, traffic control must be set up according to the guidelines presented in the traffic control plan (which includes applicable IDOT Highway Standards), Section 700 of the IDOT Standard Specifications for Road and Bridge Construction, and Part 6 of the MUTCD prior to the start of work in the roadway. Temporary traffic control devices shall remain in place only as long as needed and shall be removed as soon as practical when directed by the City Engineer. Placement of any of these devices may be adjusted to satisfy field conditions. Signs that do not apply to current conditions shall be removed or covered.

The contractor shall replace any traffic control device that has become ineffective due to its condition. The City Engineer has the right to require changes in the traffic control related to the acceptability of the placement and maintenance of any traffic control device at any time.

- D. Materials and Construction Notes:** The materials for work zone traffic control devices shall adhere to the requirements outlined in the traffic control plan, Part 6 of the MUTCD, Section 700 of the IDOT Standard Specifications for Road and Bridge Construction and applicable IDOT Highway Standards. The quality of the devices utilized on all projects taking place in the right-of-way shall conform to the most recent IDOT Quality Standard for Work Zone Traffic Control Devices.

12.05 STANDARD ATTACHMENTS

The following items are attached as reinforcement or amendments to policies stated above:

Standard Attachment Number 12.01 – 6 in. Street Name Sign and Stop Sign Configuration

Standard Attachment Number 12.02 – 9 in. Street Name Sign and Stop Sign Configuration

Standard Attachment Number 12.03 – Standard Mast Arm with Mounted Street Name Sign Configuration

Standard Attachment Number 12.04 – Street Name Sign Aluminum Specifications

Standard Attachment Number 12.05 – Street Name Sign and Stop Sign Configuration

Standard Attachment Number 12.06 – Typical Sign Post Location

Standard Attachment Number 12.07 – Typical Sign Post Location on Typical Intersections

Standard Attachment Number 12.08 – Block Numbering

Note: All standards are in the process of being revised. 09-14-12

CHAPTER 13: RIGHT-OF-WAY LIGHT DESIGN AND CONSTRUCTION STANDARDS

13.00 Introduction

13.01 Referenced Standards

13.02 Design

13.03 Construction

13.04 Materials

13.05 Testing and Inspection

13.06 Yard Lights

Note: Standards drawings are in the process of revision. 09-14-12

DRAFT

13.00 INTRODUCTION

The purpose of this section is to provide the basis for design and construction of fixed lighting for rights-of-way, including streets, adjacent sidewalks, bikeways and alleyways in Peoria. All Right-of-Way lights owned or leased by the City of Peoria shall be designed and built in accordance with this section.

13.01 REFERENCED STANDARDS

Right-of-Way lights in Peoria shall be designed in accordance with standards contained in this chapter. The illumination standards contained in the City of Peoria Manual of Standard Practice are based on the American National Standard for Roadway Lighting as prepared and approved by the Illuminating Engineering Society of North America on August 8, 1999, and approved by the American National Standards Institute on June 27, 2000. Right-of-Way lights shall be constructed in accordance with Section 800, "Electrical Requirements" and Section 1085, "Electrical Materials," or the latest edition of the Standard Specifications for Road and Bridge Construction prepared by the Illinois Department of Transportation, except as modified herein. Further modifications to the standard specifications may be made by light-design engineers provided the modifications are approved by the City Engineer.

All work and materials shall be fabricated and installed in complete accordance with:

- A. Standard Specifications for Road and Bridge Construction prepared by the Illinois Department of Transportation, latest edition.
- B. National Electric Code (NEC), latest edition.
- C. National Electric Safety Code, (N.E.C.S.), latest edition.
- D. Underwriters Laboratories (UL).
- E. IAmeren
- F. National Electrical Manufacturers Association.

CHAPTER 13: RIGHT-OF-WAY LIGHT DESIGN AND CONSTRUCTION STANDARDS

13.02 DESIGN

City of Peoria Right-of-Way lights shall be designed to meet the following requirements:

- A. Illumination Standards For Right-of-Way Lighting:** Right-of-Way lighting systems shall be designed for each specific location. Standard plans shall not be acceptable. Right-of-Way light systems shall be designed to provide not less than the level of intensity and uniformity defined in Table 13-1. Designers may provide higher levels of intensity (brighter) and lower uniformity ratios (more uniform) on specific projects provided the changes in illumination characteristics are approved by the City Engineer. Reductions in the Right-of-Way Lighting Illumination Standards for specific projects must be approved by resolution of the Peoria City Council.

**Table 13-1
Illumination Standards For Right-of-Way Lighting in
Peoria, Illinois**

Right-of-Way Class	Pedestrian Conflict Range (See Note iv)	Example Rights-of-way	Average Maintained Illumination in Foot-Candles	Uniformity Ratio (Eavg/Emin) (See Note v)
Arterial Class Right-of-Way	High	<ul style="list-style-type: none"> • Jefferson from Kumpf to Spalding • Main from Perry to Washington • Main from Farmington to University 	1.7	3:1
Arterial Class Right-of-Way	Low	<ul style="list-style-type: none"> • Jefferson from Spalding to Abington • University from Forest Hill to Glen • Glen from University to Knoxville 	0.9	3:1
Collector Class Right-of-Way	High	<ul style="list-style-type: none"> • Monroe from Kumpf to Spalding 	1.2	4:1
Collector Class Right-of-Way	Low	<ul style="list-style-type: none"> • North from McClure to Main • Monroe from Spalding to Abington 	0.6	4:1
Local Class Right-of-Way	High	<ul style="list-style-type: none"> • Fulton from Monroe to Jefferson • Madison from Fulton to Fayette 	0.9	6:1
Local Class Right-of-Way	Low	<ul style="list-style-type: none"> • Melbourne from Sheridan to Knoxville • Lynnhurst from Post Oak to Frostwood 	0.4	6:1

CHAPTER 13: RIGHT-OF-WAY LIGHT DESIGN AND CONSTRUCTION STANDARDS

- B. Illumination Standards for Intersection Lighting:** Intersection lighting systems shall be designed for each specific location. Standard plans shall not be acceptable. Intersection light systems shall be designed to provide not less than the level of intensity and uniformity defined in Table 13-2. Designers may provide higher levels of intensity (brighter) and lower uniformity ratios (more uniform) on specific projects provided the changes in illumination characteristics are approved by the City Engineer.

**Table 13-2
Illumination Standards for Intersection Lighting on
Continuously Lighted Rights-of-way in Peoria, Illinois**

Intersection Class	High Ped Conflict Average Maintained Illumination in Foot-candles	Low Ped Conflict Average Maintained Illumination in Foot-candles	Example Intersection	Uniformity Ratio (E_{avg} / E_{min}) (See Note v)
Principle Arterial	3.4	1.8	<ul style="list-style-type: none"> High Ped: University & Main Low Ped: University and Glen 	3.0
Minor Arterial	2.9	1.5	<ul style="list-style-type: none"> High Ped: No example Low Ped: Forrest Hill and Sheridan 	3.0
Collector – Commercial	2.4	1.2	<ul style="list-style-type: none"> High Ped: No Example Low Ped: Townline and University 	4.0
Collector – Residential	2.1	1.0	<ul style="list-style-type: none"> High Ped: No example Low Ped: Teton and Imperial 	4.0
Local – Local	1.8	0.8	<ul style="list-style-type: none"> High Ped: Fulton and Madison Low Ped: Gilbert and Lehman 	6.0

Notes for Tables 13-1 and 13-2:

- i. Reference Table 2: Illuminance Method – Recommended Values, American National Standard Practice for Roadway Lighting, ANSI/IESA RP-8-00, approved June 27, 2000. For other lighting conditions not defined in Table 13-1, please refer to the cited document.
- ii. Illumination standards are based on an asphalt road surface after some months of use identified as Class R2 or R3 by ANSI.
- iii. Refer to the Transportation Element of the Comprehensive Plan for Right-of-Way classification designation.
- iv. Pedestrian Conflict Ranges:
 - High – Areas with significant numbers of pedestrians expected to be on the sidewalks or crossing the rights-of-way during darkness. Examples are in Central Business District.
 - Low – Areas with very low volumes of night pedestrian usage. These can occur in any of the cited roadway classifications but may be typified by suburban single family rights-of-way, very low-density residential developments, or semi-rural areas.
- v. The uniformity ratio is defined as the ratio of the density of the average luminous flux (E_{avg}) incident on a surface to the minimum luminous flux (E_{min}) incident to the surface.

C. Tall Pole Right-of-Way Lights:

CHAPTER 13: RIGHT-OF-WAY LIGHT DESIGN AND CONSTRUCTION STANDARDS

1. *Pole Shape:* Tall Right-of-Way light poles shall be a spun-aluminum davit arm pole. Truss-arm poles shall be of the general shape and dimensions as shown in pole detail, "Tall Pole Right-of-Way Light." Poles shall have a maximum diameter at the base of 8 in., minimum wall thickness of 0.250 in., 8 ft. or 12 ft. truss arm depending upon mounting height, and an internal vibration damper.
2. *Luminaire Mounting Height:* The standard luminaire mounting height for arterial-class rights-of-way located in any zoning district, and collector- or local-class rights-of-way located in commercial/office or commercial/industrial zoning districts¹ shall have a nominal 40-foot mounting height above the top of foundation. The standard luminaire mounting height for collector-class rights-of-way and local rights-of-way located outside commercial/office or commercial/industrial zoning districts shall be 35ft. above the top of foundation.
3. *Luminaire and Light Source:* The standard luminaire shall be of a cobra-head design, shall have full cut-off optics and shall have a distribution pattern and lamp wattage to produce illumination levels required in this chapter. The standard light source shall be high-pressure sodium.
4. *Coating and Color:* All exposed parts shall be spun aluminum.
5. *Decorative Holiday Lighting Receptacle:* An outlet receptacle, GFI protected, shall be installed *only* at those pole locations directed by the City Engineer. The outlet shall be installed 12 ft. above the foundation unless otherwise directed by the City Engineer. The electrical system for the holiday lighting receptacle shall be designed to accommodate a nominal 2-ampere electrical load per pole. The holiday lighting receptacles shall be connected to an electrical supply circuit separate from lighting circuits. The holiday lighting receptacles shall have a separate control switch located inside the lighting controller cabinet. In most installations, outlet receptacles will be required on rights-of-way where decorative holiday lighting may be installed by business associations or neighborhood improvement groups.
6. *Special Event Electrical Supply:* At locations designated by the City Engineer, the Right-of-Way lighting designer shall include special event electrical supply receptacles. The location, number and load capacity of the special event electrical supply receptacles shall be determined by the City Engineer based on the specific uses planned for the site.

¹ Peoria Municipal Code, Appendix B "Zoning Ordinance"

D. Ornamental Pole Right-of-Way Lights (Note—this section under revision):

1. *Pole Shape:* Ornamental Right-of-Way light poles shall be a tapered, octagonal, cast-aluminum pole with architectural details to accentuate the base and capital. The short pole shall be of the general shape and dimensions as shown in Figure 13.2, "Short Pole Right-of-Way Light." Contact the City Engineer for pole manufacturers known to produce this pole design.
2. *Luminaire Mounting Height:* The standard luminaire mounting height shall be 12 ft. A house-side shield may be installed to reduce the amount of light directed towards houses.
3. *Luminaire and Light Source:* The standard luminaire shall be an 18-in. diameter, partially-obscured, non-diffracting (POND), acrylic globe. The standard light source shall be high-pressure sodium mounted inside a refractor cone. The lamp wattage shall be selected to produce illumination levels required in this chapter. Exceptions to this standard may be approved by resolution of the Peoria City Council.
4. *Coating and Color:* All exposed metal parts shall be coated with a long-life coating system such as a polyester-powder coating system or an epoxy-polyurethane gloss paint system. Long-life systems are those with a 15-year useable life before re-coating is necessary. The color shall be standard black on all non-residential rights-of-way, and dark forest green on all residential rights-of-way.
5. *Decorative Holiday Lighting Receptacle:* An outlet receptacle, GFI protected, shall be installed at those pole locations directed by the City Engineer. The outlet shall be installed 11 ft., 6 in. above the foundation unless otherwise directed by the City Engineer. The electrical system for the holiday lighting receptacle shall be designed to accommodate a nominal 2-ampere electrical load per pole. The holiday lighting receptacles shall be connected to an electrical supply circuit separate from lighting circuits. The holiday lighting receptacles shall have a separate control switch located inside the lighting controller cabinet. In most installations, outlet receptacles will be required on rights-of-way where decorative holiday lighting may be installed by business associations or neighborhood improvement groups.
6. *Pole Orientation Relative to Curb:* Note that the octagonal pole shall be installed so one of the eight flat sides of the pole shall be parallel to the curb. The points between the flats shall not be pointed at the curb. To achieve this orientation, care must be exercised during construction or installation of the foundation to assure proper foundation and pole orientation.
7. *Special Event Electrical Supply:* At locations designated by the City Engineer, the Right-of-Way lighting designer shall include special event electrical supply receptacles. The location, number, and load capacity of the special event electrical supply receptacles shall be determined by the City Engineer based on the specific uses planned for the site.

E. Foundation:

1. All Right-of-Way lights shall be installed on cast in place foundations.
2. Prefabricated, galvanized, steel or screw-in foundations may not be used.
3. Refer to Figure 13-3, "Standard Foundation," for general details.
4. *Pole Orientation Relative to Curb:* Note that the octagonal pole shall be installed so one of the eight flat sides of the pole shall be parallel to the curb. The points between the flats shall not be pointed at the curb. To achieve this orientation, care must be exercised during construction or installation of the foundation to assure proper foundation and pole orientation.

F. Junction Boxes:

1. A junction box shall be installed in the parkway or sidewalk near the foundation for each pole.
2. The junction box shall provide a nominal 12 in. x 12 in. opening.
3. Refer to Figure 13-4, "Standard Junction Box," for general details.
4. This standard requires two important details:
 - a. A lip at the base of the box to resist upward motion during freeze-thaw cycles.
 - b. A self-centering corrosion-resistant nut in the cover bolt-down detail.

CHAPTER 13: RIGHT-OF-WAY LIGHT DESIGN AND CONSTRUCTION STANDARDS

- G. Conductors:** All conductors shall be made of copper, #6 AWG XLP USE CU, min. Aluminum conductors shall not be used. The sizes of all conductors shall be determined based on load and distance calculations performed by an electrical engineer licensed in the State of Illinois.
- H. Conduit and Polyduct:** All underground electric conductors shall be protected by conduit. Conduit materials may consist of galvanized rigid conduit, solvent welded schedule 40 PVC conduit or polyduct. The conduit or polyduct shall have a diameter of 2" larger. Larger diameter conduit or polyduct may be required depending upon the number and size of conductors planned to occupy the conduit. In areas covered with pavement, sidewalk or established sod, conduit should be installed by means of directional boring unless otherwise approved by the City Engineer. The size of all conduits or polyduct shall be determined by calculations performed under the direction of an electrical engineer licensed in the State of Illinois.
- I. Ground Rod:** A 5/8-in. diameter by 10-ft. long, copper-clad steel ground rod shall be installed for each Right-of-Way light pole and at each controller. The ground rod should be installed through the junction box.
- J. Controllers:**
1. Right-of-Way lights should generally be controlled with a central controller. The basis of the choice between using a controller or individual photocells may include consideration of operation, maintenance or other economic factors.
 2. Right-of-Way light controllers shall be installed in aluminum, ground-mounted cabinets. All exposed metal parts shall be unfinished aluminum.
- K. Traffic Signal Right-of-Way lights:** Right-of-Way lights shall be installed at selected signalized intersections. Right-of-Way lights shall be mounted on combination mast-arm and luminaire-arm poles, and shall provide a 40-ft. mounting height. The mounting height may be varied at the discretion of the City Engineer to reduce conflicts with overhead electric transmission or distribution lines. The Right-of-Way light arms shall be installed in the same direction as the mast arm for traffic signals. In many cases, the Right-of-Way light arm will be used to support video detection equipment for the traffic signal system. Right-of-Way lights on traffic signals should be controlled by a Right-of-Way light controller mounted inside the traffic signal control cabinet.

13.03 CONSTRUCTION:

Right-of-Way lights shall be constructed in accordance with Section 800 of the latest edition of the Standard Specifications for Road and Bridge Construction prepared by the Illinois Department of Transportation. Site-specific construction requirements may be further defined in the special provisions in the contract documents for each project. Construction specifications shall be prepared by an electrical engineer licensed in the State of Illinois.

CHAPTER 13: RIGHT-OF-WAY LIGHT DESIGN AND CONSTRUCTION STANDARDS

13.04 MATERIALS:

- A. Right-of-Way light poles shall be made of aluminum. Concrete, steel, or fiberglass poles shall not be used.
- B. All conductors shall be #6 AWG XLP USE CU min. Aluminum conductors shall not be permitted.
- C. Right-of-Way lights shall be constructed of materials meeting the requirements of Section 1000 of the latest edition of the Standard Specifications for Road and Bridge Construction prepared by the Illinois Department of Transportation.
- D. Site specific material requirements may be further defined in the special provisions in the contact documents for each project.

13.05 TESTING AND INSPECTION: The construction of all Right-of-Way light systems shall be observed by experienced electrical engineers and/or engineering technicians as may be employed by the City. The amount, frequency, intensity or duration of construction inspection shall be determined by the discretion of the City Engineer to assure that Right-of-Way light systems are installed in accordance with the plans and specifications.

13.06 YARD LIGHTS:

- A. **Goal:** The goal of yard lights is to provide sufficient illumination on the pedestrian walk ways or sidewalks to permit pedestrians to walk safely.
- B. **Location:**
 - 1. Yard lights shall be installed within 10 ft. of the midpoint of the lot width.
 - 2. Yard lights shall be installed within 15 ft. of property lines adjacent to public rights-of-way or easements that may be used for streets, mid-block pedestrian walkways, sidewalks, bikeways, or alleys.
 - 3. Corner lots with two or more frontages shall have two or more yard lights, one adjacent to each side of the lot touching a public right of way or public easement available for public access.
 - 4. Lots that touch a public alley along a back property line shall have a light on both the front and the back property lines.
 - 5. Public utility easements do not require illumination.
- C. **Height:** Yard lights shall be of sufficient height to provide illumination on the sidewalk. Generally, yard lights should not be taller than 8 ft.
- D. **Brightness:** Yard lights shall be equipped with a light source producing 1190 lumens, equivalent to a standard 75-watt incandescent light bulb. Alternative light sources such as high-pressure sodium, or fluorescent lamps that produce more light per watt of electrical energy consumed may be used.
- E. **Style:** No standards are established.
- F. **Operation:** Yard lights shall be photocell controlled to turn on at dusk and off at dawn.

CHAPTER 14: TRAFFIC SIGNAL and ROUNDABOUT STANDARDS

14.00 Introduction and Goals

14.01 Administration

14.02 Traffic Signal Standards

14.03 Traffic Signal Standard Attachments

14.04 Roundabout Standards (to be developed at a later date)

14.05 Roundabout Standard Attachments (to be developed at a later date)

DRAFT

14.00 INTRODUCTION AND GOALS

The purpose of this chapter is to outline the City's review process for traffic signal plans and highlight basic design requirements for traffic signal installations and / or modernizations. This chapter outlines plan and design requirements for the various stages of review and also discusses some basic design elements the City requires on traffic signal projects.

This chapter highlights key points of the City of Peoria Traffic Signal Design Manual and is not intended to be used in its place. The Traffic Signal Design Manual goes into detail regarding the design items discussed in this chapter and includes a list of specifications for traffic signal equipment and related appurtenances in the City of Peoria. For traffic signal projects, design engineers are required to obtain a copy of the City of Peoria Traffic Signal Design Manual prior to the start of the design phase.

Traffic signal technology changes at a rapid pace; the City reserves the right to change the traffic signal standards and specifications at any time without advance notice.

14.01 ADMINISTRATION

A. Requirements for Traffic Signals:

1. *Signal Warrants:* For the installation of traffic signals to be considered, the location must satisfy at least one of the warrants outlined in the most recent edition of the MUTCD. In high growth areas where significant changes in traffic conditions are expected due to the development of the area, hourly volumes for 5 years after full build-out should be estimated and compared with the MUTCD signal warrants. The growth rate utilized to estimate the future traffic volumes is subject to the review and approval of the City Engineer prior to its use. The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic signal. The City Engineer shall make the final recommendation regarding the location of any new traffic signal.
2. *Engineering Study:* An engineering study will be required for all proposed traffic signal installations. The engineering study shall evaluate the effects of the proposed traffic signal on progression. The engineering study shall include the estimation of future volumes and an analysis of the progression of traffic through the signal system, as defined by the City Engineer. The evaluation shall include any planned future traffic signal installations. The analysis shall be submitted to the City Engineer for review and shall include capacity analysis, (using Synchro, HCS, or other software as approved by the City Engineer), as well as time-space diagrams of the signal system.
3. *Signal Spacing:* Signalized intersections shall be located to maintain progression of traffic along arterial streets. This normally entails relatively uniform spacing and sufficient distances between signals to allow vehicles to travel at reasonable speeds.

Optimal spacing of traffic signals is always the desire of the City. The optimal spacing is a function of the cycle length and the progression speed of traffic along the major street as illustrated in Standard Attachment 14.01. New signal locations shall be subject to the spacing requirements depicted in Standard Attachment 14.01. Proposed signal locations not adhering to this spacing will be reviewed on a case by case basis. The spacing requirements may be waived if the City Engineer determines that the proposed traffic signal will not significantly hinder the

progression traffic along the major street. If the proposed location is rejected, the City Engineer may require either the relocation of the proposed signal location, to better accommodate progression, or the evaluation of other alternatives, for management of the traffic generated by the side street / private access.

4. *Private benefit signals:* Private benefit signals provide signalized access to private streets or developments. These signals are generally required when the property owners must improve access from their site onto the major street or facilitate movement between developments on opposite sides of the street. Private benefit signals are subject to the requirements outlined in the previous sections (14.01-A-1-3).
 - a. **Financial Responsibility:** The installations, subsequent modernizations, maintenance and energy costs shall be the responsibility of the property owner(s). The City shall maintain the signals with full reimbursement from the property owner(s). The City may require the removal of the signals for any sufficient reason upon 30 days' written notice. Improper use, failure to reimburse maintenance or energy costs, or failure to modernize the signals when required by the City shall be considered sufficient reason to require removal. Removal may result in the installation of alternative measures to enhance the safe movement of traffic through the intersection.
 - b. **Required Installations:** If the Traffic Impact Study (as required in Chapter 9) for a new development indicates that a traffic signal will be warranted within 10 years of full build-out, the City Engineer may require the inclusion of a traffic signal as a part of the development plan. The financial responsibility for these signals shall be the same as outlined in the previous section. The timeframe for installation is dependent on the traffic projections and subject to the discretion of the City Engineer. The site development plans will not be approved until provisions for the installation of the traffic signal or other alternative measures to enhance the safe movement of traffic through the intersection are included in the plans.
- B. Designer Prequalifications:** The design staff for any firm supplying traffic signal plans to the City Engineering Division must be prequalified with IDOT and shall be familiar with the traffic signal design procedures used by the City. These procedures are outlined in this Chapter and in the Traffic Signal Design Manual. At the request of the City, the design engineer may be required to provide copies of their most recent traffic signal design and / or modification projects to the Engineering Division prior to their being assessed as qualified.
- C. Intersection Design Study (IDS):** An IDS must be prepared for any intersection that is proposed for the installation or modernization of traffic signals. Engineering work associated with the IDS will include topographical surveys, preparation of a base map, roadway geometric design, traffic signal layout and traffic signal phasing. The IDS shall include the traffic signal warrant study, detailed preliminary intersection and signalization design to meet present and future traffic needs, a list of needed rights-of-way, and a total project cost estimate suitable for budgeting purposes.

An IDS that has been reviewed and approved by the City Engineer is required prior to the submittal of traffic signal plans for review. If an IDS does not exist for the intersection, one shall be prepared as part of the project presentation stage of design (described in the following section). If an IDS exists and, at the discretion of the City Engineer, the traffic conditions at the intersection have significantly changed since the preparation of the IDS, an update of the IDS may be required.

D. Project Reviews and Submittals: Traffic signal design work shall be submitted to the City on a staged basis. The City will record the dates of the submittal of each stage. The design requirements of each stage must be met prior to submittal of the next stage and all review comments supplied to the designer shall be addressed prior to the next stage review. The review stages and their requirements are as follows:

1. *Stage I - Project Presentation:* For this stage, the designer shall present the scope of work as they understand it, the alternatives they have considered, and provide their recommendations for the extent and type of improvements. The following items shall be investigated and addressed by the design firm during this stage:

- a. Approved IDS or route design study.
- b. Utility conflicts.
- c. ROW parameters.
- d. Geometric parameters and adjustments.
- e. Drainage restrictions.
- f. Emergency vehicle preemption requirements.
- g. Pedestrian indications.
- h. Combination lighting for the intersection.
- i. Parking impacts and signing agreements.
- j. Ameren Cilco service location and type.
- k. Signal interconnection and impacts to adjacent signals.
- m. Proposed controller location.
- n. Proposed phasing.
- o. Mast arm and signal head locations.
- p. Type of detection.
- q. Signing requirements.
- r. Pavement marking, layout and proposed materials.
- s. Existing equipment – removal or usage.
- t. Temporary signal requirements.
- u. Sight restrictions – horizontal / vertical curves.
- v. Sidewalks including vaults if present.
- w. Abnormal conditions.

2. *Stage II - First Review:* A full-size set of plans shall be submitted approximately 50% complete. The following items, however, shall be included in complete form:

- a. Copy of letter to the Ameren Cilco Area Engineer requesting service on behalf of the City and notifying them of the project.
- b. Temporary signal design, if necessary.
- c. Removal item listing and proposed disposition.
- d. Existing and proposed geometric design.
- e. Proposed pavement marking plan.
- f. Signal layout sheet.
- g. Sequence of operation.
- h. Preemption sequences.
- i. Detection locations and proposed detection strategy.

Depending on the amount of intersection reconstruction involved in the project, the 50% plans should also address major concepts for the following items:

- j. Pavement design.
- k. Storm sewer system size and layout.

- l. Consider the need for sanitary sewer rehabilitation or construction.
 - m. Profile grade line.
 - n. Sidewalk grade and curb ramp locations.
 - o. All other parts of the infrastructure that may be impacted by the project.
- 3. *Stage III - Second Review:* A full size set of plans shall be submitted together with specifications. The project shall be 95% to 100% complete. In addition to those items required in Stage II review, the following items must be included in this review:
 - a. Schedule / Summary of Quantities.
 - b. Standard details and special details.
 - c. Legends.
 - d. Conduit sizes.
 - e. System interconnect plans (as needed).
 - f. Pavement marking details.
 - g. Cover sheet.
 - h. Signing details.
- 4. *Stage IV - Final Acceptance:* The fully complete traffic signal plans shall have incorporated all previous review comments from the City and shall be checked by the designer prior to submittal to the Engineering Division. The plan submittal shall include:
 - a. One full-size plan set.
 - b. Two half-size plan sets.
 - c. Three sets of specifications.
 - d. Cost estimate with pay code item numbers, quantities, units, and item abbreviations.
 - e. The designer shall retain original reproducible plans and shall produce copies of the plans at the request of the City, with the cost of reproduction paid by the City.
 - f. Electronic Copies of plans and specifications on CD-ROM.

14.02 STANDARDS

The latest recent editions following standards apply to the installation of traffic signals:

A. Referenced Standards:

The Manual on Uniform Traffic Control Devices; The State of Illinois Manual on Uniform Control Devices; The IDOT Standard Specifications for Road and Bridge Construction; the Standard Specifications for Traffic Control Items; The National Electric Code; The National Electrical Manufacturers Association's requirements; The Institute of Transportation Engineer's "Technical Report No. 1" (A Standard for Adjustable Face Vehicular Traffic Control Heads); The Supplemental Specifications and Recurring Special Provisions; the Illinois Vehicle Code

B. Design: The basic design requirements are briefly described below:

- 1. *Traffic Signal Requirements:*
 - a. Proposed locations for traffic signal installations must be warranted under current conditions according the Manual on Uniform Traffic Control Devices.

For new development, traffic signals must be warranted upon a 5-10 year build-out. Installations that are not warranted by traffic conditions will not be considered.

- b. Traffic signal layout shall conform to the Manual on Uniform Traffic Control Devices.
 - c. Combination mast arms and other equipment necessary to provide intersection lighting are considered part of a traffic signal installation and may be required at all new traffic signal installations and modernizations.
 - d. Traffic signal local and master controllers are required to be compatible with existing systems.
 - e. Pedestrian signals and ADA compliant pushbuttons shall be provided at the discretion of the City Engineer. The international symbols for 'walk' and 'don't walk' shall be specified for all pedestrian signal indications. All pedestrian signals will be LED countdown type.
 - f. LED indications shall be specified for all red indications and "don't walk" indications. As other LED indications are approved by the FHWA, those will be required as well.
 - g. Video detection shall be required unless otherwise specified by the City Engineer.
 - h. Emergency vehicle gps preemption is required along emergency response routes.
 - i. Lower left or right signal faces are required for all east-west streets.
 - j. Signal indications on mast arms shall line up with the right lane line of the lane the indication is intended for. For example, the left turn indication on the mast arm will be lined up over the right lane line of the left turn lane.
 - k. Flashing yellow left-turn signals will be required at all locations that are appropriate.
 - l. Accessible curb ramps meeting current ADA requirements will be required as part of all intersection improvements, unless waived by the City Engineer.
2. *Traffic Signal System Requirements:*
- a. The installation of a 12sm/12mm fiber optic interconnect is required between signalized intersections that are within 1/2 mile of one another or if analysis indicates that the signals would benefit from signal coordination. When an interconnect is required a master controller must be installed as a part of the project if one does not exist already.
 - b. The City Engineer may require the installation of detection for the purpose of collecting traffic counts.
3. *Electrical Requirements:*
- a. The traffic signal design shall conform to the National Electric Code.

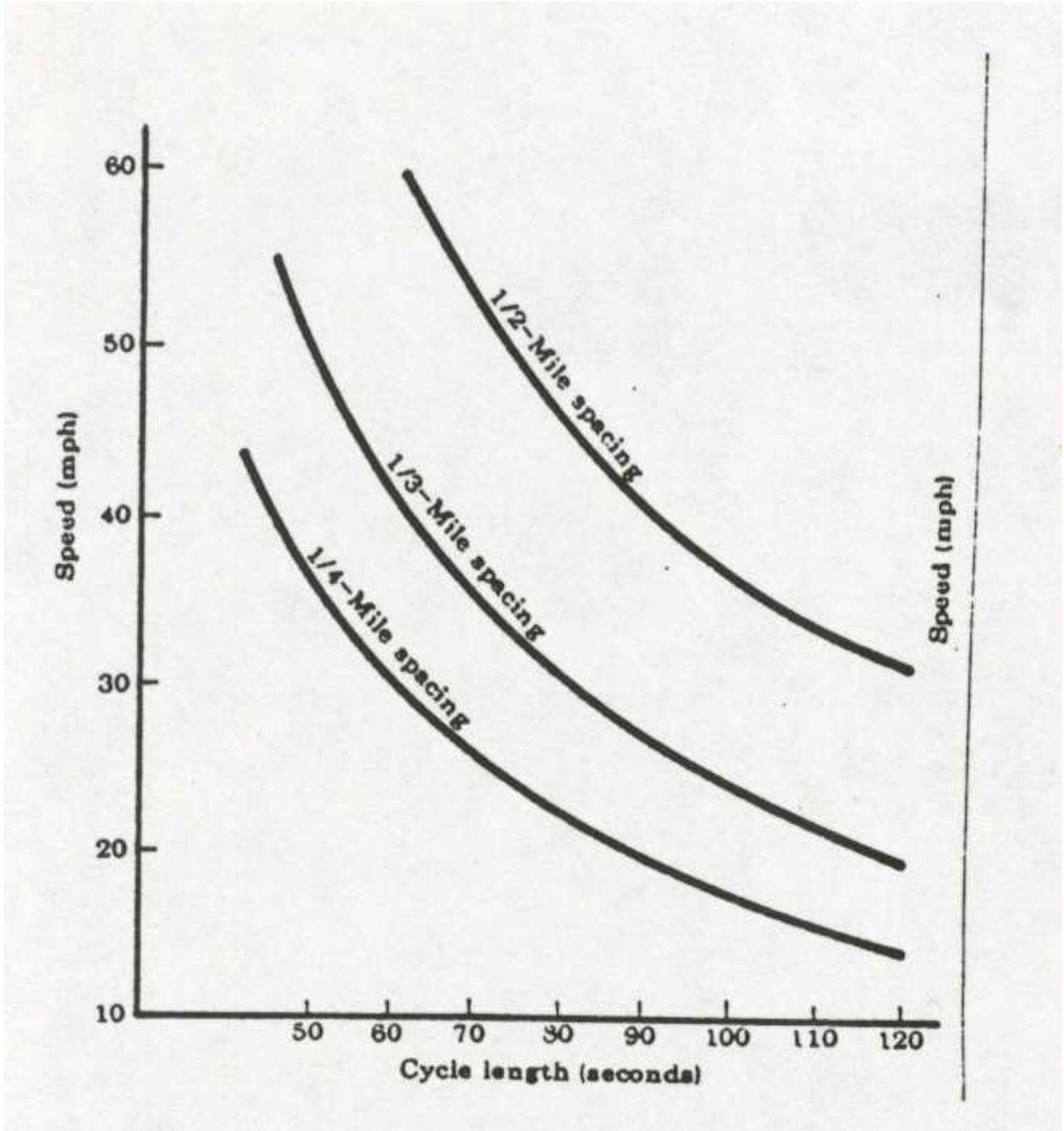
- b. Traffic signal equipment shall conform to NEMA standards.
 - c. Fiber optic interconnect shall include a copper tracer in the conduit for locating purposes and the location of the fiber shall be marked periodically.
 - d. Power back up shall be provided, with the ability to provide flashing red control for up to one hour.
 - e. Combination mast arms may be specified in order to provide intersection lighting. Intersection lighting shall be considered part of a standard traffic signal installation in the City of Peoria.
 - f. The traffic signal plan shall include a continuous grounding plan for the intersection.
 - g. Double handholes are required at all traffic signal cabinet locations.
 - h. Power disconnects shall be provided.
 - i. New power installations shall be metered for one month after activation to ascertain an average monthly cost for electricity at the location.
 - j. The City Engineer may require the installation of traffic signal preemption for the purpose emergency traffic use.
- C. Construction:** Traffic signal installations / modernizations shall be constructed in accordance with applicable sections of the IDOT Standard Specifications for Road and Bridge Construction and the IDOT Standard Specifications for Traffic Control Items.
- D. Materials and Construction Notes:** The specifications for traffic signal equipment and related appurtenances required by the City are contained in the City of Peoria Traffic Design Manual. A copy of this Manual can be obtained from the City of Peoria Engineering Division.

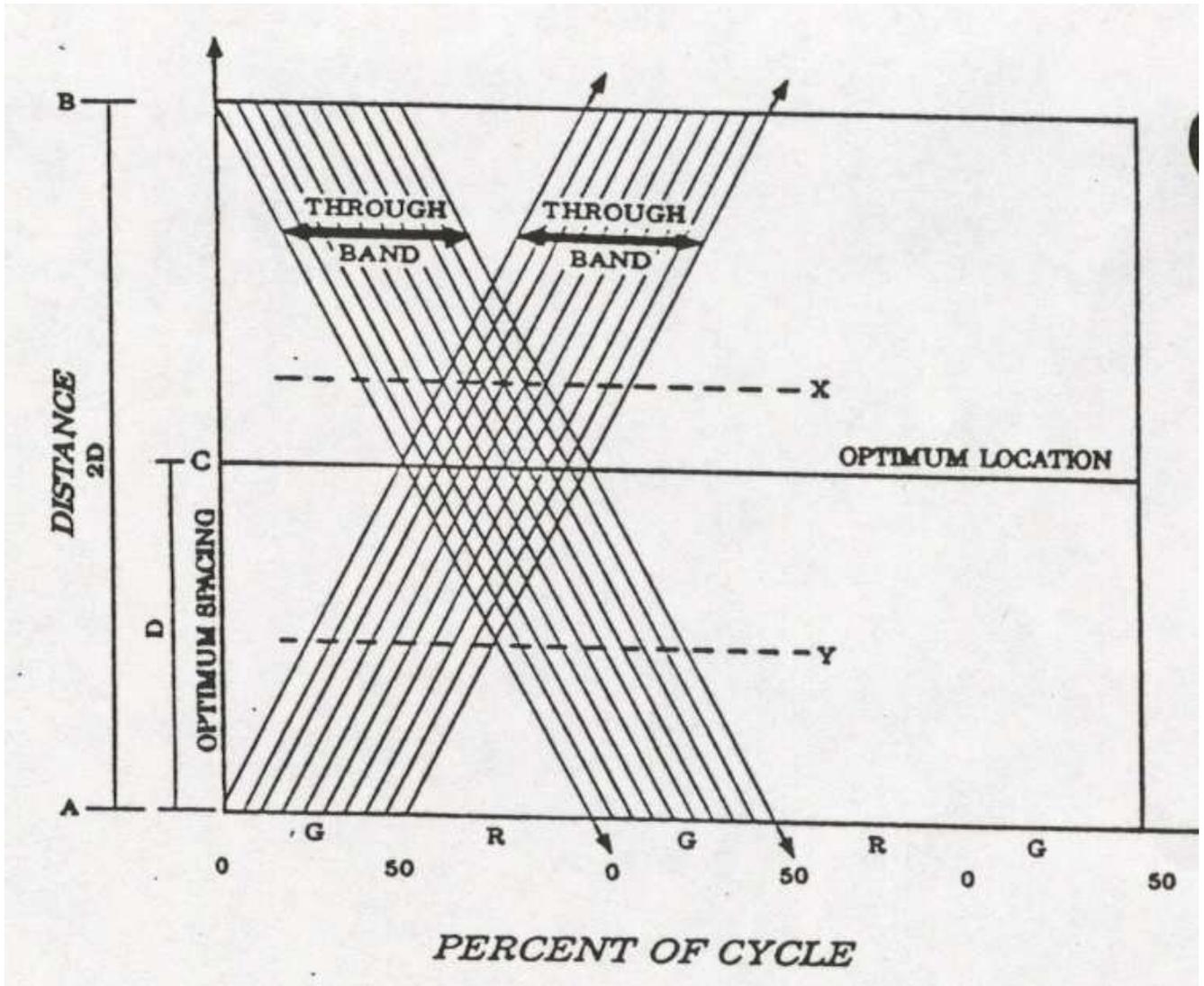
14.03 STANDARD ATTACHMENTS

Standard Attachment Number 14.01 – Signal Spacing Requirements

Most information that could be attached to this chapter is contained in the City of Peoria Traffic Signal Design Manual. A copy of the manual can be obtained by contacting the Engineering Division.

Standard Attachment 14.01 illustrates the relationship between cycle length, speed, and spacing. Cycle lengths for a signal system are typically determined by the largest or busiest intersection in the system. Progression speeds are typically assumed to be the speed limit. Please consult the City for these parameters prior to performing the study.





CHAPTER 15: GENERAL UTILITY REQUIREMENTS

15.00 Introduction and Goals

15.01 Administration

15.02 Standards

15.03 Requirements For Above Ground Facilities On Rights-Of-Way And Easements

15.04 Standard Attachments (revision in progress)

DRAFT

CHAPTER 15: GENERAL UTILITY REQUIREMENTS

15.00 INTRODUCTION AND GOALS

The purpose of this chapter is to provide guidance for management for easement and right-of-way within utility corridors throughout the City and the 1-1/2 mile extra territorial jurisdiction. The goal is to provide corridors for the design, construction and maintenance of utilities that are both public and privately owned providing efficient use of the space available and addressing future maintenance needs.

15.01 ADMINISTRATION

Specific technical aspects of all public utilities shall be designed in accordance with the other chapters within this Manual. Spatial locations of private utilities included but not limited to gas, water, electric, telephone, and cable TV shall be designed in accordance with this standard and accepted standards for each utility and in accordance with the regulatory agencies for each utility. For specific license agreements and right-of-way permits requirements, see Chapter 25 of this Manual and Chapter 26 of the City of Peoria Municipal Code..

15.02 STANDARDS

- A. UTILITY:** A utility shall be defined as any storm sewer or sanitary sewer collection system or any gas, electric, water, video, or telecommunication distribution system.

- B. EASEMENTS:** All public and private utilities located within a subdivision or within 50 feet of the subdivision boundary or within 50 feet of an existing arterial street ROW centerline shall be located on the right-of-way or on public permanent utility easement, which have been dedicated to the City. Utility building service lines are not subject to the requirements of this chapter. All easements shall remain free and clear of all obstructions that may prevent maintenance, repair or reconstruction of public utilities. In order to provide reasonable access to rear yard easements, a minimum of a 5 ft. permanent easement may be required along each side yard property line. Easements in residential developments shall be a minimum of 10 ft. less than the building front and rear yard set back. If a commons area (minimum 15 ft. wide) is located along the side or rear yard and easement are located along the side or rear property line, the City may not require side yard easements. The common areas, that are designed as access to rear yard easements, shall have a minimum of two points of access onto a public right-of-way. The table below assumes that the sewer pipes, manholes and conduits are located in the center of the easement. All trenching shall be in conformance with all local, State and Federal requirements. If the sewer pipes and manholes are not located in the center of the easement, additional easements may be required.

Required Minimum Public Easement

Total Conduit or Pipe Sizes	Depth - Measure to the Flow Line of the Pipe			
	< 5'	5' -10'	10.1' - 15'	> 15'
< 12"	10'	15'	25'	35'
13" - 20"	10'	20'	25'	35'
21" - 70"	15'	20'	25'	35'

- C. SANITARY SEWER:** Sanitary sewer mains and manholes shall be located within street rights-of-way or in easements adjacent to the street right-of-way. Sanitary sewer mains and manholes shall not be located in backyard or sideyard easements, unless unique features of the area require it. A minimum of a 10 ft. horizontal spacing shall be provided between the outside edge of sanitary sewer mains and all other parallel utilities (see section 15.02 L.).

CHAPTER 15: GENERAL UTILITY REQUIREMENTS

Vertical clearances shall conform to the requirements located in the Water and Sewer Main Standard Specifications.

- D. STORM SEWER:** Storm sewers and manholes shall be located within street right-of-way or in public easements adjacent to the street right-of-way. The City Engineer may permit public storm sewers to be constructed in side yard easements, which serve rear yard drainage swales. A minimum of a 5 ft. horizontal spacing shall be provided between the outside edge of storm sewer mains and all other parallel utilities (see section 15.02 L.). Vertical clearances shall conform to the requirements located in the Water and Sewer Main Standard Specifications.
- E. WATER MAINS:** Water mains and fire hydrants shall be located in the street right-of-way or in a public easement. Water mains shall conform to the requirements located in the Standard Specifications for Water and Sewer Main Construction in Illinois. Unless no reasonable alternative exists in which case a waiver can be requested from the City Engineer, water valves, tees and crosses shall not be located in or below the pavement, Fire hydrants and valves shall be located at the property lines extended. Valves shall not be located in sidewalks or ADA ramps.
- F. ELECTRIC DISTRIBUTION LINES:** Electric distribution lines including subtransmission lines, transmission lines and transformers shall be located in the street right-of-way or in public easement. Main electrical feeder lines (generally 4KV or 12KV larger capacity lines that serve many customers that exit substations and extend to load centers) may with the permission of the City Engineer be excluded from this requirement. If the utility is not under a sidewalk, a minimum cover of 4 ft. shall be provided in right-of-way; a minimum cover of 30-inches shall be provided under sidewalks or in public utility easements.

Clarification
Needed

Clarification
Needed

All electric lines shall be constructed underground except where the existing electric lines are overhead or where the proposed lines are to be three-phase feeder, subtransmission or transmission. On a case by case basis the City Engineer may approve the extension of these lines if the extension does not exceed two poles or is less than 250 ft. in distance and are to serve an existing or infill development. Poles shall not be located within existing or planned sidewalks of the right-of-way. All locations for both underground and overhead extension shall be approved by the City Engineer.

- G. GAS MAINS:** Gas mains shall be located within street right-of-way or in public easement. If the utility is not under a sidewalk, a minimum cover of 4 ft. shall be provided in right-of-way; a minimum cover of 30-inches shall be provided under sidewalks or in public utility easements. Gas valves, tees and crosses shall not be located in or below the pavement, unless no reasonable alternative exists. Gas valves shall not be in the sidewalks or ADA ramps.
- H. TELEPHONE:** Telephone distribution lines shall be located within street right-of-way or in public easement located adjacent to the right-of-way and may be located in a public easement along the rear property lines. If the utility is not under a sidewalk, a minimum cover of 4 ft. shall be provided in right-of-way; a minimum cover of 30-inches shall be provided under sidewalks or in public utility easements.

All telephone lines shall be constructed underground except where the existing telephone lines are overhead. On a case by case basis the City Engineer may approve the extension of these lines if the extension does not exceed two poles or is less than 250 ft. in distance and are to serve an existing or infill development. Telephone lines in all developments and subdivision shall be constructed underground. All locations for both underground and overhead extension shall be approved by the City Engineer.

- I. CABLE:** Cable lines shall be located within street right-of-way or in public easement located adjacent to the right-of-way and may be located in a public easement along the rear property

CHAPTER 15: GENERAL UTILITY REQUIREMENTS

lines. If the utility is not under a sidewalk, a minimum cover of 4 ft. shall be provided in right-of-way; a minimum cover of 30-inches shall be provided under sidewalks or in public utility easements. Except during construction of the cable, no cable shall remain on the ground within right-of-way or within easements.

All cable lines shall be constructed underground except where the existing telephone or electric lines are overhead. On a case by case basis the City Engineer may approve the extension of these lines if the extension does not exceed two poles or is less than 250 ft. in distance and are to serve an existing or infill development. Cable lines in all developments and subdivision shall be constructed underground. All locations for both underground and overhead extension shall be approved by the City Engineer.

- J. **UTILITY INSTALLATION BY BORING:** All utilities installed by direct bury (Boring machines, conduits pushed in place, etc.) shall be required to follow the clearances listed above for storm and sanitary sewers. Minimum clearance, both horizontally and vertically, with all other utilities shall be 3 ft in all cases. When boring operations are within the vicinity of existing storm and sanitary sewers, the utility company conducting the construction shall televise all storm and sanitary sewers mains and services adjacent to the construction after the construction has been completed. The utility company shall provide the City with an original recording of the televised lines on media as required by the City. New subdivisions are excluded from this requirement.
- K. **AS-BUILT DRAWINGS:** The utility company shall provide to the City a set of "as-built" drawings (in an electronic format approved by the City) showing the locations of the newly constructed mains. If the constructed locations match the design drawings then the design drawings may be sufficient for record (in an electronic format approved by the City). Any deviation from the design drawings must be submitted to the City Engineer.
- L. **UTILITY COORDINATION MEETINGS:** The spacing recommendations for storm and sanitary sewer require that the utility company participate in the Peoria Utility Coordination (PUC) meetings. One of the main purposes of these meetings will be to coordinate the placement of new utility installations. The utility companies and the City shall work together to coordinated utility installation. Final location of utilities shall be in accordance with the approved subdivision construction plans.

15.03 REQUIREMENTS FOR ABOVE GROUND FACILITIES ON RIGHTS-OF-WAY AND EASEMENTS

- A. **INTRODUCTION:** In order to protect the public safety, the public right-of-way, and property of adjacent owners, the following site design and construction guidelines shall be followed.
- B. **GENERAL REQUIREMENTS:** In addition to location requirements applicable to specific types of utility facilities, all utility facilities, regardless of type, shall be subject to the general location requirements of Peoria Municipal Code Chapter 26 Article III and this section:
 - 1. *No Interference with City Facilities:* No utility facilities shall be placed in any location if the City Engineer or Director of Public Works determines that the proposed location will require the relocation or displacement of any of the City's utility facilities or will otherwise interfere with the operation or maintenance of any of the City's utility facilities.
 - 2. *Minimum Interference and Impact:* The proposed location shall cause only the minimum possible interference with the use of the right-of-way and shall cause only the minimum possible impact upon, and interference with the rights and reasonable convenience of property owners who adjoin said right-of-way.

CHAPTER 15: GENERAL UTILITY REQUIREMENTS

3. *No Interference with Travel:* No utility facility shall be placed in any location that interferes with the usual travel on such right-of-way.
4. *No Limitations on Visibility:* No utility facility shall be placed in any location so as to limit visibility of or by users of the right-of-way.
5. *Size of Utility Facilities:* The proposed installation shall use the smallest suitable vaults, boxes, equipment enclosures, power pedestals, and/or cabinets then in use by the facility owner, regardless of location, for the particular application.
6. *Violation of Utility Easement:* No facility will be placed in violation of the terms of dedication of any utility easement.

C. FREESTANDING FACILITIES.

1. The City may restrict the location and size of any freestanding facility located within a right-of-way.
2. The City may require any freestanding facility located within a right-of-way to be screened from view.

D. FACILITIES INSTALLED ABOVE GROUND: Above ground facilities may be installed only if:

1. No other existing facilities in the area are located underground;
2. New underground installation is not technically feasible; and
3. The proposed installation will be made at a location, and will employ suitable design and materials, to provide the greatest protection of aesthetic qualities of the area being traversed without adversely affecting safety. Suitable designs include, but are not limited to, self-supporting armless, single-pole construction with vertical configuration of conductors and cable. Existing utility poles and light standards shall be used wherever practicable; the installation of additional utility poles is strongly discouraged.
4. No facility will be placed on a public easement on private property, if it is technically feasible to place such facility on public right-of-way.
5. Above ground facilities shall not be constructed above public storm and sanitary sewers.

E. APPEARANCE STANDARDS.

1. The City may prohibit the installation of facilities in particular locations in order to preserve visual quality.
2. A facility may be constructed only if its construction does not require extensive removal or alteration of trees or terrain features visible to the right-of-way user or to adjacent residents and property owners, and if it does not impair the aesthetic quality of the lands being traversed.
3. If two (2) or more dimensions of a proposed above ground facility are equal to or greater than 4-feet in length, those structures shall not be constructed in the public right-of-way without the review and approval of the City Engineer. To initiate the review process, at a minimum, the following documentation must be submitted to the City Engineer:
 - a. Color digital photographs of the proposed facility location that show each facility from four (4) different views (from the left, right, front, and rear).

CHAPTER 15: GENERAL UTILITY REQUIREMENTS

- b. Select the appropriate landscaping plan for the site from standard attachments 25.09 (a), 25.09 (b), 25.09 (c), and 25.09 (d). The utility company will be required to maintain the landscaping around their facilities to ensure that the plants are established, healthy, and properly trimmed. Any dead, dying, or diseased plants should be removed and replaced with mature healthy plants of the same species.
- c. Detailed construction plans meeting the requirements of Chapter 6.
- d. The four (4) property owners adjacent to the proposed location shall be notified 1-2 weeks prior to the start of construction. This notification may consist of a letter or door hanger/flyer. Copies of the notification must be provided to the City Engineer. At a minimum, the notification shall include the following information:
 - i.) The name and contact information for the utility owner.
 - ii.) Explanation of the proposed utility placement
 - iii.) Proposed dates for construction.
 - iv.) The proposed landscaping plan for the location.

15.04 STANDARD ATTACHMENTS

Standard Attachment Number 15.01(a1)—Above Ground Facility Landscaping Plan Alternative for Typical Residential Scheme Option 1

Standard Attachment Number 15.01(a2)—Above Ground Facility Landscaping Plan Alternative for Typical Residential Scheme Option 2

Standard Attachment Number 15.01(b)—Above Ground Facility Landscaping Plan Alternative for Narrow Right-Of-Way Scheme

Standard Attachment Number 15.01(c)—Above Ground Facility Landscaping Plan Alternative for Typical Commercial Scheme

Standard Attachment Number 15.01(d)—Above Ground Facility Landscaping Plan Alternative for Natural Setting Scheme

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

16.00 Introduction

16.01 Administration

16.02 Standards

16.03 Standard Attachments

DRAFT

16.00 INTRODUCTION

The purpose of this chapter is to explain the legal requirements for dedication of right-of-way and easements. The chapter also covers the approval process for such dedications and for vacation of easements and right-of-way.

16.01 ADMINISTRATION

General definitions and descriptions for various types of easements and rights-of-way are describes in the following sections. Methods of dedication and acceptance are also covered.

A. General Background:

1. Right-of-Way. Right-of-way is dedicated through either a statutory or common law process. Statutory dedication occurs through the platting process and results in a fee simple (ownership) interest in the public jurisdiction to which the right-of-way is dedicated. Common law dedication occurs through an ineffective platting process or through public use over a prolonged period of time. Common law of dedication of right-of-way results in an easement, not an ownership, interest on the part of the public jurisdiction to which the right-of-way is dedicated. This chapter covers only statutory dedication of right-of-way.
2. Easements. An easement is a right-of-use by a private party or by the public of a designated portion of private property for a limited purpose. When an easement is dedicated or granted, the owner retains the fee simple ownership while another party receives the right to use the specific area for a specific purpose which is described in the easement. Public easements are dedicated either to the "public" or to a specific governmental unit. Public easements are controlled by the governmental body that has jurisdiction over the land in question for the purpose designated in the easement. Easements are defined by how they are created, to whom they are dedicated, or how they are used. Each of these will be described.
 - a. Categorization by method of creation:
 - Prescriptive easements. Prescriptive easements are easements which have grown up as a result of use by either the public, or a specifically identifiable individual or group over at least twenty years. Prescriptive easements may be created, for example, when the public uses a path as a general means of access between two public areas. A prescriptive easement may be created when one neighbor uses a driveway across another neighbor's property in order to access his buildings. Prescriptive easements, because of their nature, are not regulated or controlled by this chapter.
 - Express easements. Express easements are created by a written document. This can be designation on the face of a plat, together with dedication language in the Owner's Certificate, or in a separate written document. The easement would designate the grantor (owner) and grantee (named private party or the public or the specified public entity), and specify the purpose or use of the easement. Some may be limited in time; others are perpetual.

b. Categorization by user:

- Public v. private easements. Public easements, public right-of-way, and public places are all terms used to describe land area that a governmental body has jurisdiction over. Within the City, unless right-of-way is a state, federal or county highway, the City has authority to control the use of "public" right-of-way or easements dedicated "to the public". This includes the authority to control the placement and relocation of utilities within these public easements. Some easements are granted to a specifically named unit of government. In that case, the unit of government has control over the use of such right-of-way or easement. Such easements cannot be accepted or vacated by the City. The City can declare that public easements are full and no additional utilities may be placed there. Additionally, the City may require that utilities be removed from these public places/easements. Private easements are dedicated to the use of a specifically named individual or entity. Usually, these are neighboring properties. Private easements, such as an ingress/egress easement, may be required by the City in the course of platting as a condition of a waiver from general subdivision regulations, or as a part of its authority to control street access.

c. Easements classified by purpose or use:

- Ingress/Egress Easement. This is a private easement guaranteeing the vehicular and pedestrian access rights to a designated area and access point to one or more private entities. This easement may be dedicated on the face of a plat or by separate easement document.
- Utility or General Utility Easement. This is a public easement that may be used by various public or privately-owned utilities. This type of easement is usually dedicated on the face of the plat, or by separate easement document. This utility easement, depending on the language of dedication in the plat or easement document, may be used for any purpose deemed a utility by the City, or may be limited to some specific kind of infrastructure. This kind of easement may be dedicated to a specific governmental unit other than the City such as a drainage district or the Greater Peoria Sanitary District, in which case control over the easement rests with that body alone.

Utility or General Utility Easements may include or not include, depending on language in the easement document, drainage and stormwater purposes. If the utility easement generically states that it is for any purpose deemed a utility in the City, the easement will cover sanitary sewer, storm sewer, general drainage and stormwater purposes together with other general public and private utilities such as potable water, gas, electric, and communications. These provisions can be superseded by specific easement language that is approved by the City.

- Private Utility Easement. This is an easement obtained by an individual utility company, whose use is restricted to that specific utility company, or its successors.
- Sanitary Sewer Easement. This is a utility easement limited to sanitary sewer use and is usually dedicated on the face of the plat or by separate

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

easement document. This easement may be dedicated to the public, in which case the City controls the easement or may be dedicated to the Greater Peoria Sanitary District, in which case that unit of government controls the easement.

- Drainage or Stormwater Easement. This is a limited utility easement that is for the sole purpose of stormwater detention or overland drainage ways. This type of easement is usually dedicated on the face of the plat or by separate easement document. This easement may be dedicated to the public, in which case the City controls the easement or may be dedicated to a specific drainage district, in which case that unit of government controls the easement.

B. Dedication of an Easement or Right-of-Way: Dedication is a two (2)-step process. Step one (1) involves the mapping, legal description, and transfer of rights as agreed to by the current owners of a property as part of a legal plat of property or by separate document. The step (2) is the public acceptance of the easement or right-of-way. The nature of the acceptance is dependent upon the nature of the dedication and use of the easement or right-of-way.

C. Right-of-Way.

1. Dedication. Right-of-way is designated on a plat and is dedicated in the Owner's Certificate. Property which is within the City must be specifically dedicated to the City of Peoria. Right-of-way located outside the City limits is dedicated "to the public".
2. Right-of-Way Acceptance. For land within the City, right-of-way acceptance involves approval of the plat by the City Council. If construction of infrastructure is required as part of the platting process, acceptance of the right-of-way is not complete until the infrastructure is "accepted" by the Public Works Department. For right-of-way located outside of the City at the time of plat approval, the procedures of the jurisdictional government (township, county, etc.) shall be followed.
3. Vacation of Right-of-Way. The City of Peoria can only vacate right-of-way that is located inside the City limits at the time of vacation. Vacation of right-of-way is governed by state statute (65 ILCS 5/11-91-1) and City municipal ordinance provisions. Please contact the City Engineer to request that right-of-way is to be vacated. Right-of-way located outside the City must follow the procedures of the jurisdictional unit which has authority over that right-of-way. The County can vacate County roads (605 ILCS 5/5-109); the Township can vacate Township roads (605 ILCS 5/6-301 et. seq.).

D. Easements.

1. Dedication. Easements may be designated on a plat and dedicated in the Owner's Certificate. All plats to be approved by the City of Peoria must dedicate public easements to the City of Peoria. State statute gives the City authority to accept easements within its mile and a half (1.5 mile) extraterritorial jurisdiction. (65 ILCS 5/11-105-1).
2. Easement Acceptance. Acceptance of an easement is shown by the City's approval of the plat or via administrative acceptance of separate easement documents.

3. Easement Vacation. The vacation of an easement is a request that an easement which has previously been dedicated and accepted such as with the recording of a plat, be legally removed due to utility reroute, non-use of the easement, or other reasons. The City can vacate only "public" easements dedicated to the City or to the public within the City. In general, the City vacates easements only when the utility companies or other affected governmental units have agreed to the release of the easement. In order to vacate a general utility easement, the City Engineer must receive written confirmation from all utility companies and other governmental units providing infrastructure at that location indicating no objection to the vacation. An easement may be vacated by a replat of the plat which originally dedicated the easement. A replat can vacate an easement within the City limits, or within the mile and a half (1.5 mile) extraterritorial jurisdiction. The City Manager may also vacate an easement that is within the City limits.

16.02 STANDARDS: APPROVAL PROCESS AND REQUIRED DOCUMENTATION FOR EASEMENT VACATION OR DEDICATION OUTSIDE OF THE PLATTING PROCESS (EASEMENTS THAT ARE NOT PART OF A FINAL PLAT)

A.

- B. Easement Dedication/Vacation Approval Process:** The surveyor of record shall submit a written request for acceptance/release of an easement by the City of Peoria together with an easement document, legal description, and plat of easement. Subsequently, the City Engineer shall prepare a Report to the City Council from the City Manager informing the Council of the administrative approval/acceptance/release of the easement.
- C. Easement Dedication Document:** A written request for dedication of easement shall be submitted in writing to the City Engineer together with three (3) original signed Dedication of Easement documents. The easement dedication document shall be prepared using the template shown in Standard Attachment 16.02. Legal Description and Plat of Easement shall be attached as exhibits to the easement dedication document. A five (5)-inch blank space shall be left at the top of the first page of the easement document for use by the County Recorder. Any deviation from the language shown in the template document shall be approved by the City Attorney.
- D. Legal Description of Easement:** A certified standard legal description prepared by an Illinois Registered Land Surveyor describing the limits of the easement(s) shall be submitted to the City Engineer for review.
- E. Plat of Easement:** The Plat of Easement shall be a plan drawing of the legal description of the easement and the boundaries of the subdivision in which it lies and any adjacent subdivisions which clarify the purpose of the easement. See the example "Plat of Easement" as shown by Standard Attachment 16.04.
- F. Release of Easement Document.** A written request for release of easement/vacation shall be submitted in writing to the City Engineer together with three (3) original signed Release of Easement documents and written response from impacted outside agencies or utility companies. The release of easement document shall be prepared using the template shown in Standard Attachment 16.05. Legal description and Plat of Easement shall be attached as exhibits to the Release of Easement document. A five (5)-inch blank space shall be left at the top of the first page of the easement document for use by

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

the County Recorder. Any deviation from the language shown in the template document shall be approved by the City Attorney.

- G. Approval and Recording.** The City Engineer shall review and recommend approval or rejection of the release/dedication of the easement. If the request is approved by the City Engineer, then the City Engineer shall prepare a Report to Council for approval of the request to be approved/signed by the City Manager (see Standard Attachments 16.06 and 16.07). After approval by the City Manager and delivery of Report to Council, the City Clerk shall distribute and record the documents as appropriate.

16.03 STANDARD ATTACHMENTS

Standard Attachment No. 16.02 - Dedication of Easement Document Template

Standard Attachment No. 16.03 - Standard Legal Description

Standard Attachment No. 16.04 - Standard Plat of Easement (Example)

Standard Attachment No. 16.05 - Release of Easement Document Template

Standard Attachment No. 16.06 - Standard Easement Report to Council

Standard Attachment No. 16.07 - Standard Release of Easement Report to Council

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

Standard Attachment 16.01--

Sec. XXXX. Authority to release and accept easements and authority to accept the dedication of property for public purposes.

- (a) The City Manager is authorized to release and accept easements in accordance with section 30-2 of the Code.
- (b) The City Manager is authorized to accept the dedication of property for City purposes in accordance with section XXX of the Code.

(c)

Sec. XXXX. Release and acceptance of easements and property for street, sidewalk, public utility, drainage, sanitary sewer and other public purposes.

Comment [K1]: Change for COP ordinance

- (a) If the owner of property requests in writing the release of a City easement, the City Manager is authorized to release on behalf of the City any easement, including but not limited to an easement for public utilities, drainage, sanitary sewer or any single utility, if the City Manager finds, based on the written recommendation of the City Engineer, that:
 - (1) The easement is not needed to provide City service to any property; and
 - (2) No public utilities or City facilities are located or planned to be located in the area; and
 - (3) The easement is not necessary to any logical extension of public utility service, sanitary sewer service, drainage or other City services to any property in the future or an alternate and equally acceptable easement for such extension has been dedicated to the City.
- (b) If the property owner requests in writing that the City accept the dedication of an easement or property for street, sidewalk or a public way or for public utility, sanitary sewer, drainage or other public purposes, the City Manager is authorized to accept on behalf of the City such offer if the City Manager finds:
 - (1) The easement or property to be dedicated is within the City; and
 - (2) The easement or property to be dedicated may be necessary for the logical extension of public utility service, sanitary sewer or drainage purposes or public street, sidewalk or other public ways of the City in the future.
- (d) The City Manager shall accept or release easements and other property in accordance with this Section in writing in a form approved by the City Attorney. All such acceptances and releases should be accompanied by a drawing showing the location of the easement released or easement or property accepted.
- (e) The City Clerk shall record in the Recorder's Office for Peoria County any acceptance of the dedication of property or easement and any release of easement filed by the City Manager. The acceptance of an easement or dedication of property pursuant to this Section shall be effective upon its being recorded in the Recorder's Office. A release shall be effective pursuant to this Section on the date stated in the release, or if none, the date the City Manager executes the release. The City Clerk shall maintain the original of any such acceptance and distribute copies of the recorded release or acceptance to the City Engineer and the Planning Director.
- (f) The City Manager shall report to the City Council each decision accepting or releasing an easement or dedication of property to the City in accordance with this Section and the action on the request pursuant to this Section within three (3) months of the date the request is received in writing.

(

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

Standard Attachment 16.02—Dedication of Easement Document Template

[RECORDERS SPACE HERE]

**PERMANENT EASEMENT
SANITARY SEWER IMPROVEMENT**

THE GRANTOR(S), _____[Owner]_____, of the City of Peoria, in the County of Peoria and State of Illinois, for and in consideration of ONE DOLLAR (\$1.00) and other good and valuable consideration, in hand paid, and the conditions and agreement hereinafter contained, hereby give, grant, and convey to the GRANTEE, the City of Peoria, Illinois, a municipal corporation, a perpetual easement, privilege, right and authority to erect, construct, install, and/or lay, and thereafter use, operate, inspect, repair, maintain, replace and remove a 8” sanitary sewer (hereafter improvement) over, and through the land of the GRANTOR(S), described as follows:

PART OF THE NE 1/4 OF SECTION 28, T. 19 N., R. 8 E. OF THE 3RD P.M., AS SHOWN ON ATTACHED EXHIBIT A, MORE PARTICULARLY DESCRIBED IN THE ATTACHED EXHIBIT A. All situated in the City of Peoria, County of Peoria, and State of Illinois, together with the right of ingress and egress over the adjacent lands of the GRANTOR(S) for the purposes of this easement.

In consideration of the grant of easement herein contained, the parties hereby agree to the following terms and conditions:

1. That the GRANTOR(S) shall retain all rights not herein granted, to the ownership, use and occupation of the above described easement area, except that the GRANTOR(S) shall place no permanent buildings or structures over the said improvement as finally constructed, nor deny or impair the GRANTEE access thereto for purposes of maintenance, repair or replacement thereof. During the period of construction or maintenance of said improvement, the GRANTEE shall have the exclusive use of the easement area for said construction or maintenance work.
2. That all materials or equipment used in the construction and/or maintenance of said improvement, and all surplus soil and debris excavated in the course thereof, may be transported to or from and be used and stored upon the site of said construction or maintenance work, on and across the easement area, and over the remainder of the GRANTOR(S)'s property immediately adjacent to the work being performed. GRANTOR shall not restrict GRANTEE's access to the work.
3. That the GRANTEE, or its contractor, shall refill the excavations and restore the surfaces within the easement area to the approximate elevations and conditions existing at the place of construction before the commencement thereof and shall remove from the easement area all surplus soil and debris resulting from any such construction work and shall prepare such surface area for resod with grass except as provided herein. The GRANTOR(S) shall be responsible for the watering of the sodded area.

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

- 4. That the GRANTEE, or its contractor, shall refill the excavations so that the surface of the above described real estate shall be restored to the approximate elevations and conditions existing at the place of the construction before the easement thereof and shall remove from the easement area all surplus soil and debris soil and debris resulting from any such construction work and shall prepare such surface area for reseeding with grass. The GRANTEE, or its contractor, shall reseed and fertilize the area disturbed by the construction. The GRANTOR(S) shall be responsible for the watering of the seeded area. The "approximate elevation" shall be interpreted to mean such elevations as will provide drainage and usefulness comparable with that now existing.
- 5. That the GRANTOR(S) shall be privileged to remove small portable structures, sod, trees, bushes, shrubs and plants of any kind which are on any part of the easement area prior to the construction of the said improvements, it being understood that the GRANTEE may remove small portable structures, sod, tress, bushes, shrubs and plants of any kind which are on any part of the easement area, during the construction of the said improvements; and shall not be obligated to replace small portable structures, trees, bushes, shrubs and plants of any kind, or any portion of the easement area which may be removed or damaged, but that the GRANTEE will take reasonable measures for the protection of any shrubbery or trees which may be thereon.
- 6. Consideration herein shall be full payment for any damages to the GRANTOR's land, or successors and assigns, by reason of installation, operation and maintenance of the improvements referred to herein, and that this grant shall constitute a covenant which runs with the land, and shall be binding upon the heirs, executors, administrators, and assigned of the GRANTOR(S), and the terms and conditions herein above set forth shall be binding upon the GRANTOR(S), and the GRANTEE.

WITNESS our hands and seal this ____ day of _____ A.D., 20____.

_____(SEAL)
_____(SEAL)

STATE OF ILLINOIS }
 }ss.
COUNTY OF PEORIA }

I, the undersigned, a Notary Public in and for said County and State aforesaid, DO HEREBY CERTIFY, that

personally known to me to be the same person(s) whose name(s) is/are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his/her/their free and voluntary act, for the uses and purposes therein set forth, including the release and waiver of the right of homestead.

Given under my hand and Notarial Seal this _____ day of _____ A.D., 20____.

Notary Public

My commission expires: _____

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

ACCEPTED: CITY OF PEORIA, ILLINOIS

By: _____
City Manager

Date: _____

ATTEST: _____
City Clerk

RETURN TO:
City Clerk
City of Peoria
419 Fulton Street
Peoria, IL 61602-1277

EASEMENT DOCUMENT PREPARED BY:
City of Peoria Public Works Department
419 Fulton Street Suite 307
Peoria, IL 61602-1277

LEGAL DESCRIPTION PREPARED BY:

Standard Attachment 16.03—Standard Legal Description

**WESTERN STAR LODGE NO. 240
LEGAL DESCRIPTION**

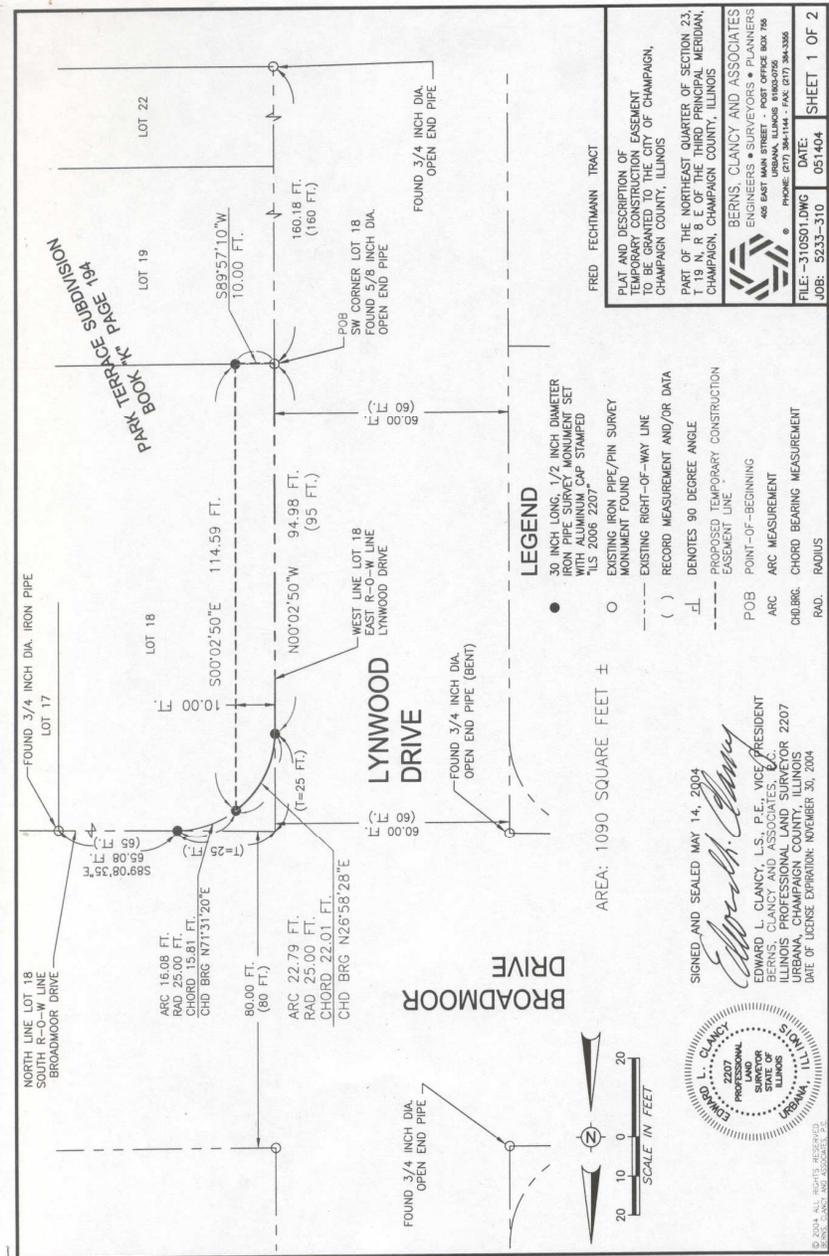
A tract of ground being part of the Southwest Quarter of Section 24, Township 19 North, Range 8 East of the Third Principal Meridian, the Boundary of which is described as follows:

Beginning at a point in the South line of said Section 24, which is 1120.78 feet East of the Southwest Corner thereof, thence South $88^{\circ}, 35' 06''$ East along said South Line 341.48 feet to the West line of the parcel conveyed to Park 'n' Trade, Inc., the deed for which is recorded in Book 492 at page 339 in the Office of the Recorder of Peoria County, Illinois; Thence North $01^{\circ}, 24' 34''$ East, along said West line, 385.00 feet to an iron pin monument set in concrete; thence North $88^{\circ}, 35', 06''$ West 110.16 feet; thence North $67^{\circ}, 05' 20''$ West 64.49 feet; thence South $67^{\circ}, 05', 20''$ West 64.49 feet; thence North $88^{\circ}, 35', 06''$ West 111.64 feet to an iron pin monument set in concrete; thence South $01^{\circ}, 21', 42''$ West 385 feet to the point of beginning, situated in Peoria County, Illinois, encompassing 3.04 acres more or less also described as all of Masonic Subdivision in Peoria County, Illinois; and also a tract of land located in the Southeast Quarter of the Southwest Quarter of Section 24, Township 19 North Range 8 East of the Third Principal Meridian, Peoria County, Illinois, lying immediately north of and adjacent to Masonic Subdivision in Peoria County, Illinois, described as follows:

Commencing at the Northwest corner of Lot 4 of said Masonic Subdivision, thence North 10 feet; thence in an easterly direction along a line of 10 feet north of and parallel to the north line of said Masonic Subdivision to a point 10 feet north of the northeast corner of Lot 5 of said Masonic Subdivision; thence South 10 feet to said Northeast corner of said Lot 5, thence Westerly along the North line of said Masonic Subdivision to the point of beginning.

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

Standard Attachment 16.04—Standard Plat of Easement (Example)



CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

Standard Attachment 16.05—Release of Easement Document Template

[RECORDERS SPACE HERE]

RELEASE OF EASEMENT

KNOW ALL MEN BY THESE PRESENTS, that the City of Peoria, in the County of Peoria and State of Illinois, for said City and behalf of the public, for and in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby confessed, does hereby release and vacate to _____ right, title and interest whatsoever that the City of Peoria, Illinois, for itself and on behalf of the public, may have in and to the Drainage and Public Utility Easement described on Exhibit "A" attached, was granted to the City by the instrument recorded in the Peoria County Recorder's office on _____ as Document No. _____, Book _____ of Plats, Page _____, also known as "_____".

Dated this _____ day of _____, _____

CITY OF PEORIA, ILLINOIS

By: _____
City Manager

ATTEST: _____
City Clerk

STATE OF ILLINOIS }
 }ss.
COUNTY OF PEORIA }

I, the undersigned, a Notary Public in and for said County and State aforesaid, DO HEREBY CERTIFY, that _____ and _____, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act and as the free and voluntary act of said City, for the uses and purposes therein set forth, and that they were duly authorized to execute the same by the City Council of the City of Peoria, Illinois.

Given under my hand and Notarial Seal this _____ day of _____ A.D., _____.

Notary Public

My commission expires: _____

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

RETURN TO:
City Clerk
City of Peoria
419 Fulton Street
Peoria, IL 61602-1277

EASEMENT DOCUMENT PREPARED BY:
City of Peoria Public Works Department
419 Fulton Street Suite 307
Peoria, IL 61602-1277

LEGAL DESCRIPTION PREPARED BY:

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

Standard Attachment 16.06—Standard Easement Report to Council

REPORT TO CITY COUNCIL

FROM: _____, City Manager

DATE: November 6, 1998

SUBJECT: REPORT OF REQUEST TO ACCEPT AN EASEMENT

A. Introduction: This reports the action taken by the City Manager on a request to accept the dedication of easement. Should you have any questions regarding this, please contact the City Engineer.

B. Requested Action: Acceptance of a sanitary sewer easement located _____.

C. Entity Making Request: _____, property owner.

D. Reason for Request: This City sewer is outside of the platted area for the subdivision and therefore was not recorded with the plat for the subdivision.

E. City Engineer's Recommendation: The request is consistent with of the Peoria Municipal Code. The City Engineer recommends approval and the acceptance of the sanitary sewer easement.

F. Action Taken: Easement accepted on _____.

Prepared by: _____ Reviewed by: _____

City Engineer City Engineer

SW/jc

Attachments: Easement Document
 Legal Description
 Easement Plat

Standard Attachment 16.07—Standard Release of Easement Report to Council

CHAPTER 16: DEDICATION & VACATION OF EASEMENTS & RIGHT-OF-WAY

REPORT TO CITY COUNCIL

FROM: _____, City Manager

DATE: November 6, 1998

SUBJECT: REPORT OF REQUEST TO RELEASE (OR VACATE) AN EASEMENT

A. Introduction: This reports the action taken by the City Manager on a request to accept the dedication of easement. Should you have any questions regarding this, please contact the City Engineer.

B. Requested Action: Vacation of utility and drainage easement located _____
_____.

C. Entity Making Request: _____, property owner.

D. Reason for Request: _____
_____.

E. City Engineer's Recommendation: The request is consistent with of the Peoria Municipal Code. No existing or proposed utilities occupy or will occupy the utility and drainage easement. All utility companies have provided written approval to vacate the utility and drainage easement. Engineering staff has evaluated the utility and drainage easement and determined that it is not necessary. The City Engineer recommends vacation of the utility and drainage easement.

F. Action Taken: Easement will be vacated as provided by the change of Municipal Code.

Prepared by:

Reviewed by:

City Engineer

Public Works Director

Attachments: Easement Document
Legal Description
Easement Plat

Chapter 17
4-15-11DRAFT PEORIA,
ILLINOIS UNIFIED
STORMWATER ORDINANCE
Replaces Chapters 17, 19, 20, 22,
and 23 of the First Draft of the
Peoria Manual of Practice

TABLE OF CONTENTS

	Page	SECTION
ONE – GENERAL PROVISIONS	1	
Article I. – Authority, Purpose, Abbreviations & Definitions	1	
A. Authority	1	
B. Purposes	1	
C. Abbreviations	2	
D. Definitions.....	2	
Article II. – Prohibited Actions	14	
A. Surface Water	14	
B. Easements	14	
C. Obstruction of Watercourse	14	
D. Discharge	14	
E. Exempted Discharges	14	
F. Pollutant Discharge	15	
G. Line Connect	15	
H. Interference	15	
Article III. – Requirements for Certain Discharges	16	
A. Private Drainage System Maintenance	16	
B. Minimization of Irrigation Runoff	16	
C. Cleaning of Paved Surfaces Required	16	
D. Mobile Commercial Cosmetic Cleaning Operations	16	
E. Maintenance of Equipment	16	
F. Materials Storage	16	
G. Pet Waste	16	
H. Pesticides, Herbicides and Fertilizers	16	
I. Prohibition on Use of Pesticides and Fungicides Banned from Manufacture	16	
J. Open Drainage Channel Maintenance	17	
K. Release Reporting and Cleanup	17	
L. Authorization to Adopt and Impose Best Management Practices	17	
Article IV. – Inspections and Plan Modifications	18	
A. Inspections	18	
B. Special Precautions	18	
C. Amendment of Plans	19	
Article V. – Responsibility	20	
A. Applicant	20	
B. Jurisdiction	20	
Article VI. – Maintenance of Drainage Facilities	21	

TABLE OF CONTENTS (Continued)

Section	One	Continued	Page	Article	VII.	–
Enforcement						22
A. Procedures for Receipt and Consideration of Information by the Public						
B. 22 B. Right of Entry and Sampling						
22 C. Notice of Violation						
22 D. Action without Prior Notice						
23 E. Enforcement Actions						
23 F. Criminal Penalties						
24 G. Other Legal Action						
24 H. Abrogation and Greater Restrictions						
24 I. Separability						24
Article VIII. – Implementation						25
A. Subdivision Improvements						25
B. Non-Subdivision Improvements Requiring a Building Permit						25
C. Improvements that Previously Did Not Require a Permit						25
Article IX. – Variances and Appeals						26
A. Variances						26
B. Appeals						27
SECTION TWO – CONSTRUCTION SITE RUNOFF CONTROL						28
Article I. – General Requirements for All Construction Sites						28
A. Responsible Entity						28
B. Waste Disposal.....						28
C. Ready-Mixed Concrete						28
D. Erosion and Sediment Control						28
E. Continued Compliance.....						28
F. Rights Reserved						28
Article II. – Grading and Drainage Permit Requirements						30 A.
Permit Exceptions						30 B. Class
1 Grading and Drainage Permit						30 C. Class 1
Grading and Drainage Permit Application Forms.....						31 D. Class 2
Grading and Drainage Permit						31 E. Submittal,
Review, and Approval						34 F. Other Agency
Permits and Reviews						36 G. Permit Limitations
.....						37 H Revocation of Permits
.....						37 I. Retention of Plans
.....						38

TABLE OF CONTENTS (Continued)

	Page	SECTION
THREE – POST CONSTRUCTION RUNOFF CONTROL	39	
Article I. – Best Management Practices Hierarchy	39	
A. Preserving Regulatory Floodplains, Flood Prone and Wetland Areas	39	
B. Minimizing Impervious Surfaces on the Property.....	39	
C. Storm Water Wetlands, Grassed Swales and Vegetated Filter Strips	40	
D. Infiltrating Runoff On-Site	41	
E. Providing Stormwater Retention Structures	41	
F. Providing Wet Bottom or Wetland Detention Structures	42	
G. Providing Dry Detention Structures	42	
H. Constructing Storm Sewers.....	42	
I. Water Quality and Multiple Uses	42	
Article II. – Hydrologic Design Criteria	44	
A. Referenced Standards	44	
B. Release Rates	44	
C. Drainage System Design and Evaluation	44	
D. Design Methodologies	44	
E. Positive Drainage	45	
F. Methods for Generating Runoff Hydrographs	45	
G. Culvert, Road and Driveway Crossings	45	
H. Vegetated Filter Strips and Swales	45	
I. Maintenance Considerations	46	
J. Provisions for Agricultural Drainage	46	
K. Channel Modifications	48	
Article III. – Detention System Design Criteria	49	
A. Referenced Standards	49	
B. Detention Storage Requirements	49	
C. Waiver of Requirements	49	
D. Ownership	50	
E. Maintenance and Repair Responsibilities	50	
F. General Basin Design Requirements	50	
G. Wet Bottom Detention Basin Design	54	
H. Wetland Detention Basin Design	55	
I. Dry Detention Basin Design	56	
J. Detention in Flood Plains is Prohibited	56	
K. Detention on Prime Farmland	57	
L. On-Stream Detention	57	
M. Protection of Wetlands, Rivers, Streams, Lakes, Ponds, and Depressional Storage Areas .	58	
N. Street Detention	58	
O. Parking Lot Detention	59	

TABLE OF CONTENTS (Continued)

Section Three Article III. Continued Page

P. Rooftop Detention	59
Q. Fee in Lieu of Detention	59
R. Cooperative Detention	59

SECTION FOUR – STORMWATER POLLUTION PREVENTION PLAN (SWP3)..... 61

A. General	61
B. Requirements for Utility Construction	61
C. Required Documentation	61
D. Applicability and Guidelines	62
E. Referenced Standards	63
F. General Erosion and Sediment Control Design Features	63
G. Materials and Construction Notes	64
H. Testing and Inspection	64
I. Soil Grading and Drainage Plan Requirements	65
J. Site Development Requirements.....	66

SECTION FIVE – FEES 69

Appendix A	
Sample Letter of Credit	
Sample Performance Bond	
Appendix B	
Stormwater Detention Basin Covenant	
Appendix C	
Sample Operation and Maintenance Checklists	
Appendix D	
Sample Detention Basin Design	

SECTION ONE GENERAL PROVISIONS

Section One, Article I. – Authority, Purpose, Abbreviations & Definitions

A. Authority These Regulations provide for the regulation of matters relative to the management of storm water within the jurisdiction and its extraterritorial jurisdiction. Its provisions include, but are not limited to, regulating drainage installations and improvements, requiring the preservation and enhancement of certain natural environmental features, requiring the installation of drainage improvements in developments, regulating uses, maintenance, and activities in floodplains and flood hazard areas, requiring permits, payment of fees and assurances of completion, and providing for inspections and control of work. The requirements, standards and specifications herein provided are in addition to any other applicable legal requirements.

B. Purposes

1. To maintain and improve the quality of water impacted by the storm drainage system within the jurisdiction.
2. To promote and protect the public health, safety and general welfare of the citizens from the hazards of flooding.
3. To create a set of fair and consistent standards that will facilitate desirable and sustainable development in the Tri-County area.
4. To protect the natural resources of Peoria, Tazewell and Woodford Counties and the Illinois River at Peoria Lakes.
5. To preserve property values by protecting new and existing buildings and improvements to buildings from damage due to stormwater flow.
6. To assure that new developments and redevelopments do not increase flood or drainage hazards to others, or create unstable conditions susceptible to erosion.
7. To preserve the natural characteristics of stream corridors in order to moderate flood and storm water impacts and to protect water quality.
8. To prevent the discharge of contaminated storm water runoff and illicit discharges from industrial, commercial, residential, and construction sites into the storm drainage system within the jurisdiction of the City of Peoria .
9. To promote public awareness of the hazards involved in the improper discharge of trash, yard waste, lawn chemicals, pet waste, wastewater, oil, petroleum products, cleaning

products, paint products, hazardous waste, sediment and other pollutants into the natural and man-made storm drainage system.

10. To encourage recycling of used motor oil and safe disposal of other hazardous consumer products.

11. To facilitate compliance with state and federal standards and permits by owners of construction sites within the jurisdiction.

12. To enable the jurisdiction to comply with all current federal and state laws and regulations applicable to the National Pollutant Discharge Elimination System (NPDES) permitting requirements for storm water discharges and prepare for future requirements (e.g., monitoring Total Maximum Daily Loads).

C. Abbreviations

The following abbreviations when used in this Ordinance shall have the designated meanings:

BMP – Best Management Practices

CFR – Code of Federal Regulations

FEMA – Federal Emergency Management Agency

HHW – Household Hazardous Waste

IDNR – Illinois Department of Natural Resources IDOT – Illinois Department of Transportation

IDPH – Illinois Department of Public Health IEPA – Illinois

Environmental Protection Agency MS4 – Municipal Separate Storm Sewer

System NPDES – National Pollutant Discharge Elimination System NRCS

– Natural Resources Conservation Service (formerly SCS)

OWR – Office of Water Resources (IDNR)

SCS – Soil Conservation Service (now NRCS)

SWCD – Soil and Water Conservation District

SWP3 – Storm Water Pollution Prevention Plan

USACE – US Army Corps of Engineers

USDA – U.S. Department of Agriculture

USEPA – U.S. Environmental Protection Agency

D. Definitions Unless a provision explicitly states otherwise, the following terms and phrases as used in this Ordinance, shall have the meanings hereinafter designated.

1. Adverse Impacts are any negative impact on plant, soil, air or water resources affecting quality and quantity and their beneficial uses including recreation, aesthetics and aquatic habitat.

2. Agricultural Practices are normal farming, silviculture and ranching activities such as gardening, plowing, seeding, cultivating, harvesting for the production of food, fiber, forest products, nursery stock and livestock. Maintenance of agricultural drain tiles, irrigation and drainage ditches, farm roads and other access areas for farm vehicles and equipment use are also included. These practices shall not include grading, filling or draining floodprone areas with greater than 100 acres of tributary area or a regulatory wetland.
3. Applicant is any person, firm, or governmental agency who executes the necessary forms to procure official approval of a development or permit to carry out construction of a new development or re-development from the jurisdiction of .
4. Appropriate Official is the Zoning Administrator or delegated agent.
5. Base Flood Elevation is the elevation delineating the level of flooding resulting from the 100-year frequency flood event, which has a one percent (1%) probability of being equaled or exceeded in any given year.:-
6. Best Management Practices (BMPs) here refers to management practices and methods to control pollutants in stormwater. BMPs are of two types: “source controls” (nonstructural) and “treatment controls” (structural.) Source controls are practices that prevent pollution by reducing potential pollutants at their source, before they come into contact with stormwater. Treatment controls partially remove pollutants from stormwater. The selection, application and maintenance of BMPs must be sufficient to prevent or reduce the likelihood of pollutants entering the storm drainage system. Specific BMPs may be imposed by the jurisdiction and are discussed further in Section 3.
7. Building Official is the officer or other designated authority charged with the administration and enforcement of the International Building Code for the jurisdiction of
8. Building Permit is a permit issued by the jurisdiction of the City of Peoria, for the construction, erection or alteration of a structure or building and the related ground and surface preparation prior to and after completion of construction, erection or alteration of a structure or building.
9. Bypass Flows is Stormwater runoff from upstream properties tributary to a property's drainage system but not under its control.
10. Certify or Certification means formally attesting that the specific inspections and tests were performed, and that such inspections and tests comply with the applicable requirements of this Ordinance.
11. Channel is any defined river, stream, creek, brook, natural or artificial depression, ponded area, on-stream lake or impoundment, abandoned mine, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or manmade drainageway, that has a definite bed and bank or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.

12. Channel Modification is the alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, riprapping (or other armoring), filling, widening, deepening, straightening, relocating, lining, and significant removal of bottom or woody rooted vegetation.
13. Clearing is any activity, which removes the ~~natural-existing~~ vegetative ground cover.
14. Commercial means pertaining to any business, trade, industry, or other activity engaged in for profit.
15. Compensatory Storage is an artificially excavated, hydraulically equivalent volume of storage within the floodplain used to balance the loss of natural flood storage capacity when fill or structures are placed within the floodplain.
16. Conduit is any channel, pipe, sewer or culvert used for the conveyance or movement of water, whether open or closed.
17. Construction Site means any location where clearing, grading, excavation, filling, or other construction activity occurs.
18. Contaminated means containing harmful quantities of pollutants.
19. Contractor means any person or firm performing or managing construction work at a construction site, including any construction manager, general contractor or subcontractor. Also includes, but is not limited to, earthwork, paving, building, plumbing, mechanical, electrical or landscaping contractors, and material suppliers delivering materials to the site.
20. County is the County of Peoria, Illinois.
21. Dam is defined by the Illinois Department of Natural Resources Office of Water Resources.
22. Detention Basin is a facility constructed or modified to provide for the temporary storage of stormwater runoff and the controlled release of this runoff at a prescribed rate during and after a flood or storm.
23. Detention Time is the amount of time stormwater is held within a detention basin after a design storm elevation is reached, or a parameter used extensively for water quality analyses that is equivalent to the volume divided by the average outflow rate.
24. Development is any manmade change to real estate or property, including:
- The division or subdivision of any duly recorded parcel of property.
 - Construction, reconstruction or placement of a building or any addition to a building valued at more than one thousand dollars (\$1000).
 - Installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 days per year.

Construction of roads, bridges, or similar projects.

Redevelopment of a site.

Filling, dredging, grading, clearing, excavating, paving, drilling, mining or other non-agricultural disturbance of a ground surface.

Storage of materials or deposit of solid or liquid waste.

Any other activity that might alter the magnitude, frequency, direction, or velocity of stormwater flows from a property.

25. Discharge means any addition or release of any pollutant, stormwater or any other substance whatsoever into storm drainage system.
26. Discharger means any person who causes, allows, permits, or is otherwise responsible for, a discharge, including, without limitation, any owner of a construction site or industrial facility.
27. Domestic Sewage means untreated sewage originating primarily from kitchen, bathroom and laundry sources, including waste from food preparation, dishwashing, garbage grinding, toilets, baths, showers and sinks.
28. Drainage Plan is a plan, including engineering drawings and supporting calculations, which describes the existing stormwater drainage system and environmental features, including grading, as well as proposed alterations or changes to the drainage system and environment of a property. The jurisdiction may require that a Drainage Plan include upstream and downstream (offsite) drainage features, if it is found that the development would be impacted by these offsite features.
29. Dry Basin is a detention basin designed to drain after temporary storage of stormwater flows and to normally be dry between runoff events.
30. Earthwork means the disturbance of soils on a site associated with clearing, grading, or excavation activities.
31. Erosion is the general process whereby soil or earth is moved by rainfall, flowing water, wind or wave action.
32. Event is a short duration hydrologic occurrence, such as a period of rainfall or elevated streamflow, that is brief in duration allowing certain hydrologic components, such as evaporation and arrival times of rainfall, to be neglected. A storm event is normally limited to ten days or less.
33. Excavation is any act by which organic matter, earth, sand, gravel, rock or any other similar material, is cut into, dug, quarried, uncovered, removed, displaced, re-located or bulldozed and shall include the conditions resulting from such actions.
34. Existing Grade is the vertical location of the existing ground surface prior to excavation or filling.

35. Facility means any building, structure, installation, process, or activity from which there is or may be a discharge of a pollutant.
36. Fertilizer means a substance or compound that contains an essential plant nutrient element in a form available to plants and is used primarily for its essential plant nutrient element content in promoting or stimulating growth of a plant or improving the quality of a crop, or a mixture of two or more fertilizers.
37. Fill is any act by which earth, sand, gravel, rock, or any other material, is deposited, placed, replaced, pushed, dumped, pulled, transported or moved by man to a new location and shall include the conditions resulting therefrom.
38. Final Grade is the vertical location of the ground surface after grading work is completed in accordance with the plans.
39. Fire Protection Water means any water, and any substances or materials contained therein, used by any person to control or extinguish a fire, or to inspect or test fire equipment.
40. Garbage means putrescible animal and vegetable waste materials from the handling, preparation, cooking, or consumption of food, including waste materials from markets, storage facilities, and the handling and sale of produce and other food products.
41. Grading is the excavation or fill or any combination thereof and shall include the conditions resulting from any excavation or fill.
42. Groundwater means any water residing below the surface of the ground or percolating into or out of the ground.
43. Harmful Quantity means the amount of any substance that the appropriate official determines will cause an adverse impact to storm drainage system or will contribute to the failure of the jurisdiction to meet the water quality based requirements of the NPDES permit for discharges from the regulated MS4.
44. Hazardous Substance means any substance listed in Table 302.4 of 40 CFR Part 302.
45. Hazardous Waste means any substance identified or listed as a hazardous waste by the EPA pursuant to 40 CFR Part 261.
46. Household Hazardous Waste (HHW) means any material generated in a household (including single and multiple residences) that would be classified as hazardous pursuant to the Illinois EPA.
47. Hydrograph is a graph or tabulation showing for a given location on a stream or conduit, the flow rate with respect to time.

48. Hydrograph Method This method estimates runoff volume and runoff hydrographs for the points of interest by generating hydrographs for individual subareas, combining them, and routing them through channels, floodplains, and reservoir structures. Factors such as rainfall depth and temporal distribution, rainfall abstractions, time of concentration, land use characteristics, storage volumes and travel time are included.
49. Illegal Discharge See illicit discharge below.
50. Illicit Connection means any drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the storm drainage system.
51. Illicit Discharge means any discharge to the storm drainage system that is prohibited under this Ordinance.
52. Impervious Surface is that area of property that is covered by materials other than soil and vegetation and that has no intended capacity to absorb stormwater, such as parking lots, roadways, driveways, sidewalks, patios, tennis courts, roofs and other structures.
53. Industrial Waste (or commercial waste) means any wastes produced as a by-product of any industrial, institutional or commercial process or operation, other than domestic sewage.
54. Infiltration is the passage or movement of water into the soil.
55. Jurisdiction means the jurisdiction of .
56. Lot is an individual platted parcel in an approved subdivision.
57. Major Drainage System is that portion of a drainage system needed to store and convey flows beyond the capacity of the minor drainage system. Major Drainage System components include, but are not limited to, detention ponds, dams, roadway culverts, bridges, medium or large open channels, large (trunk) storm sewers and natural overland paths. Major Drainage System components are to be designed to safely convey the 100year recurrence interval storm event.
58. Mechanical Fluid means any fluid used in the operation and maintenance of machinery, vehicles and any other equipment, including lubricants, antifreeze, petroleum products, oil and fuel.
59. Minor Drainage System is that portion of a drainage system designed for the convenience of the public. It consists of street gutters, storm sewers, small open channels, and swales and, where manmade, is to be designed to safely convey the 10-year recurrence interval storm discharge.
60. Mitigation is when the prescribed controls are not sufficient and additional measures are required to offset the development, including those measures necessary to minimize the negative effects which stormwater drainage and development activities might have on the

public health, safety and welfare. Examples of mitigation include, but are not limited to compensatory storage, soil erosion and sediment control, channel restoration and wetlands.

61. Mobile Commercial Cosmetic Cleaning (or mobile washing) means power washing, steam cleaning, and any other method of mobile cosmetic cleaning, of vehicles and/or exterior surfaces, engaged in for commercial purposes or related to a commercial activity.
62. Municipal Separate Storm Sewer System (MS4) means the system of conveyances, including roads, streets, curbs, gutters, ditches, inlets, drains, catch basins, pipes, tunnels, culverts, channels, detention basins and ponds owned and operated by the jurisdiction and designed or used for collecting or conveying stormwater, and not used for collecting or conveying sanitary sewage.
63. Natural are conditions existing prior to ~~agricultural~~ development, including agricultural development, resulting from physical, chemical, and biological processes without intervention by man.
64. Natural Drainage consists of channels formed in the existing surface topography of the earth prior to, or after, changes made by unnatural causes.
65. NPDES means the National Pollutant Discharge Elimination System.
66. NPDES Permit means a permit issued by the IEPA that authorizes the discharge of pollutants to Waters of the United States, whether the permit is applicable to an individual, group, or general area-wide basis.
67. Notice of Violation means a written notice detailing any violations of this Ordinance and any action expected of the violators.
68. Oil means any kind of oil in any form, including, but not limited to: petroleum, fuel oil, crude oil, synthetic oil, motor oil, cooking oil, grease, sludge, oil refuse, and oil mixed with waste.
69. One Hundred-Year Event is a rainfall, runoff, or flood event having a one percent (1%) probability of being equaled or exceeded in any given year.
70. One Year Event is a rainfall, runoff, or flood event being met or exceeded on the average in any given year.
71. Owner means the person who owns a facility, part of a facility, or land.
72. Parcel is a contiguous lot or tract of land under one ownership. A lot or tract of land is land intended as a unit for the purpose of development or transfer of ownership.
73. Peak Flow is the maximum rate of stormwater flow, for a given storm event, at a given point in a channel or conduit.

74. Permittee is any person to whom a building permit or a grading and drainage permit is issued.
75. Person means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns, including all federal, state, and local governmental entities.
76. Pesticide means a substance or mixture of substances intended to prevent, destroy, repel, or migrate any pest.
77. Pet Waste (or Animal Waste) means excrement and other waste from domestic animals.
78. Petroleum Product means a product that is obtained from distilling and processing crude oil and that is capable of being used as a fuel or lubricant in a motor vehicle or aircraft, including motor oil, motor gasoline, gasohol, other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, and #1 and #2 diesel.
79. Pollutant means any substance attributable to water pollution, including but not limited to rubbish, garbage, solid waste, litter, debris, yard waste, pesticides, herbicides, fertilizers, pet waste, animal waste, domestic sewage, industrial waste, sanitary sewage, wastewater, septic tank waste, mechanical fluid, oil, motor oil, used oil, grease, petroleum products, antifreeze, surfactants, solvents, detergents, cleaning agents, paint, heavy metals, toxins, household hazardous waste, small quantity generator waste, hazardous substances, hazardous waste, water at temperatures above natural, soil and sediment.
80. Pollution means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water that renders the water harmful, detrimental, or injurious to humans, animal life, plant life, property, or public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.
81. Positive Drainage is provision for overland paths for all areas of a property including depressional areas that may also be drained by storm sewer.
82. Potable Water means water that has been treated to drinking water standards and is safe for human consumption.
83. Private Drainage System means all privately or publicly owned ground, surfaces, structures or systems, excluding the regulated MS4, that contribute to or convey stormwater, including but not limited to, roofs, gutters, downspouts, lawns, driveways, pavement, roads, streets, curbs, gutters, ditches, inlets, drains, catch basins, pipes, tunnels, culverts, channels, detention basins, ponds, draws, swales, streams and any ground surface.
84. Public Improvement Plans means engineering drawings subject to approval by the jurisdiction Engineer for the construction of public improvements.

85. Qualified Person means a person who possesses the required certification, license, or appropriate competence, skills, and ability as demonstrated by sufficient education, training, and/or experience to perform a specific activity in a timely and complete manner consistent with the regulatory requirements and generally accepted industry standards for such activity.
86. Release means to dump, spill, leak, pump, pour, emit, empty, inject, leach, dispose or otherwise introduce into the storm drainage system.
87. Retention Basin is a facility constructed or modified to provide for the storage of stormwater runoff without overland discharge. Retention Basins do not have a positive outlet and therefore discharge only by means of infiltration and evaporation.
88. Rubbish means non-putrescible solid waste, excluding ashes, that consist of: (A) combustible waste materials, including paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials; and (B) noncombustible waste materials, including glass, crockery, tin cans, aluminum cans, metal furniture, and similar materials that do not burn at ordinary incinerator temperatures (1600 to 1800 degrees Fahrenheit).
89. Sanitary Sewage means the domestic sewage and/or industrial waste that is discharged into the jurisdiction sanitary sewer system and passes through the sanitary sewer system to the jurisdiction sewage treatment plant for treatment.
90. Sanitary Sewer means the system of pipes, conduits, and other conveyances which carry industrial waste and domestic sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, to the jurisdiction sewage treatment plant (and to which stormwater, surface water, and groundwater are not intentionally admitted).
91. Sediment means soil (or mud) that has been disturbed or eroded and transported by water, wind, gravity, or tracked by equipment tires.
92. Sedimentation is the process that deposits soils, debris, and other materials either on other ground surfaces or in bodies of water or stormwater drainage systems.
93. Septic Tank Waste means any domestic sewage from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks and aerated tanks.
94. Shall means mandatory; may means discretionary.
95. Site means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.
96. Slope Disturbance Line is the line which delineates relatively level building areas from areas where slopes exceed 7 percent (7%) and where special precautions must be taken.

97. Small Quantity Generator Waste means any hazardous waste generated by a small quantity generator as defined by the IEPA.

98. Solid Waste means any garbage, rubbish, refuse and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, municipal, commercial, construction, mining or agricultural operations, and residential, community and institutional activities.

99. State means the State of Illinois.

100. Storm Drainage System means all surfaces, structures and systems that contribute to or convey stormwater, including private drainage systems, the MS4, surface water, groundwater, Waters of the State and Waters of the United States.

101. Storm Sewer is a closed conduit for conveying collected stormwater.

102. Stormwater means runoff resulting from precipitation and snowmelt.

103. Storm Water Pollution Prevention Plan (SWP3) means a document that describes the Best Management Practices to be implemented at a site, to prevent or reduce the discharge of pollutants.

104. Stream is any river, creek, brook, branch, flowage, ravine, or natural or man-made drainage way which has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.

105. Stripping is any activity which removes the vegetative surface cover including tree removal, by spraying or clearing, and storage or removal of top soil.

106. Subdivision Development includes activities associated with the platting of any parcel of land into two or more lots and includes all construction activity taking place thereon.

107. Surface Water means water bodies and any water temporarily residing on the surface of the ground, including wetlands, lakes, reservoirs, rivers, ponds, streams, puddles, channelized flow and runoff.

108. Ten-Year Event is a runoff, rainfall, or flood event having a ten percent (10%) probability of being equaled or exceeded in any given year.

109. Time of Concentration is the elapsed time for stormwater to flow from the most hydraulically remote point in a drainage basin to a particular point of interest in that watershed.

110. Tributary Watershed is all of the ~~land~~ surface area, pervious and impervious, that contributes runoff to a given point.

111. Two-Year Event is a runoff, rainfall, or flood event having a fifty percent (50%) probability of being equaled or exceeded in any given year.

112. Uncontaminated means not containing harmful quantities of pollutants.

113. Urban runoff pollutants are contaminants found in urban runoff which have been shown to adversely affect uses in receiving waterbodies. Pollutants of concern include sediment, heavy metals, petroleum-based organic compounds, nutrients, oxygen-demanding organics (BOD), pesticides, salt, and pathogens.

114. Used Oil (or Used Motor Oil) means any oil that as a result of use, storage, or handling, has become unsuitable for its original purpose because of impurities or the loss of original properties.

115. Utility Agency means private utility companies, jurisdiction departments or contractors working for private utility companies or jurisdiction departments, engaged in the construction or maintenance of utility distribution lines and services, including water, sanitary sewer, storm sewer, electric, gas, telephone, television and communication services.

116. Vacant land is land on which there are no structures or only structures that are secondary to the use or maintenance of the land itself.

117. Wastewater means any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

118. Water of the State (or water) means any groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, inside the territorial limits of the State, and all other bodies of surface water, natural or artificial, navigable or non-navigable, and including the beds and banks of all water courses and bodies of surface water, that are wholly or partially inside or bordering the State or inside the jurisdiction of the State.

119. Water Quality Standard means the designation of a body or segment of surface water in the State for desirable uses and the narrative and numerical criteria deemed by State or Federal regulatory standards to be necessary to protect those uses.

120. Water Quality Volume means the volume necessary to collect 100 percent of the runoff generated from a specified event. This volume shall be detained for a period not less than 24 hours, as measured from the time the pond water surface elevation reaches its 1-Year high water level for detention or ~~2-2~~-Year high water level for certain best management practices until complete drainage of stored runoff.

121. Waters of the United States means all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and the flow of the tide; all interstate waters, including

interstate wetlands; all other waters the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce; all impoundments of waters otherwise defined as waters of the United States under this definition; all tributaries of waters identified in this definition; all wetlands adjacent to waters identified in this definition; and any waters within the federal definition of “Waters of the United States” at 40 CFR Section 122.2; but not including any waste treatment systems, treatment ponds, or lagoons designed to meet the requirements of the Federal Clean Water Act.

122. Watershed is all land area drained by, or contributing water to, the same channel, lake, marsh, stormwater facility, groundwater or depressional area.

123. Wet Bottom Basin is a detention basin designed to maintain a permanent pool of water after the temporary storage of stormwater runoff.

124. Wetland Basin is a detention basin designed with all or a portion of its bottom area as a wetland (regulated or unregulated).—

125. Wetlands are defined by federal regulation as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs, and similar areas. For general, but not inclusive locations of potential wetlands refer to the most recent mapping prepared jointly by the U.S. Department of Interior, Fish and Wildlife Service and the Illinois Department of Natural Resources, Office of Resource Conservation; National Wetlands Inventory Mapping, and the NRCS “Swampbuster” Wetland Inventory maps. The applicant may be required to provide an on-site delineation, following currently accepted methodology, completed by a qualified wetland delineator to determine boundaries and the presence of regulated wetlands.

126. Yard Waste means leaves, grass clippings, tree limbs, brush, soil, rocks or debris that result from landscaping, gardening, yard maintenance or land clearing operations.

Section One, Article II – Prohibited Actions

A. Surface Water Surface water shall be allowed to travel its pre-regulation course unless changes are allowed by means of a Grading and Drainage Permit or grading and drainage plans approved by the appropriate official. It shall be unlawful for any person to force surface water off that person's property and onto a neighboring property or to prevent surface water which would have entered that person's property prior to site development or redevelopment, from doing so without approval granted by a Grading and Drainage Permit.

B. Easements No buildings or permanent structures, including impervious surfaces, may be placed wholly or in part within an easement that has been granted for access to drainage facilities of any type, including agricultural drainage conduit, without the written approval of the appropriate official; provided, however, streets, sidewalks and driveways may be allowed to cross easements by the shortest possible route, provided that other requirements are met.

C. Obstruction of Watercourse It shall be unlawful for any person to cause or maintain any obstruction within a watercourse or drainage facility of any type, except as may be specifically authorized by this Ordinance.

D. Discharge No person shall release or cause to be released into the storm drainage system any discharge that is not composed entirely of uncontaminated stormwater, except as allowed in listed exemptions of this Ordinance.

E. Exempted Discharges

The following discharges are exempt from the regulations in this Ordinance:

1. Water line and fire hydrant flushing.
2. Landscape and lawn watering.
3. Rising ground waters.
4. Uncontaminated ground water exfiltration, infiltration (except when the infiltration is a component of a stormwater management system infiltration facility), or seepage.
5. Uncontaminated pumped ground water.
6. Discharges from potable water sources (dechlorinated or de minimus discharge only).
7. Uncontaminated foundation drains.
8. Air conditioning condensate.

9. Irrigation water (except for wastewater irrigation).
10. Springs and seeps.
11. Water from crawl space pumps.
12. Footing drains.
13. Water from individual car washing on properties residential zoned.
14. Routine external building wash-down which does not use detergents.
15. Flows from riparian habitats and wetlands.
16. De-chlorinated pH neutral swimming pool discharges.
17. Residual street wash water.
18. Discharges or flows from fire fighting activities.
19. De-chlorinated water reservoir discharges.
20. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed).

F. Pollutant Discharge Notwithstanding the listed exemptions of this section, any discharge shall be prohibited by this Ordinance if the discharge in question has been determined by the appropriate authority to be a source of pollutants to the storm drainage system.

The construction, use, maintenance or continued existence of illicit connections to the storm drainage system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

G. Line Connect No person shall connect a line conveying sanitary sewage, domestic sewage or industrial waste, to the storm drainage system, or allow such a connection to continue, unless that waste stream has been treated and is in compliance with all federal, state and local public health rules and standards.—

H. Interference No person shall interfere with Best Management Practices (BMPs) implemented pursuant to this Ordinance.

Section One, Article III. – Requirements For Certain Discharges

- A. Private Drainage System Maintenance** The owner of any private drainage system shall maintain the system in accordance with applicable regulations and permits to prevent or reduce the discharge of pollutants. This maintenance shall include, but is not limited to, sediment removal, bank erosion repairs, maintenance of vegetative cover, and removal of debris from pipes and structures.
- B. Minimization of Irrigation Runoff**
Irrigation systems shall be managed to reduce the discharge of water from a site.
- C. Cleaning of Paved Surfaces Required** The owner of any paved parking lot, street or drive shall clean the pavement as required to prevent the buildup and discharge of pollutants. The visible buildup of mechanical fluid, waste materials, sediment or debris is a violation of this Ordinance. Paved surfaces shall be cleaned by dry sweeping, wet vacuum sweeping, collection and treatment of wash water or other methods in compliance with this Ordinance. This section does not apply to pollutants discharged from construction activities, which are otherwise specified.
- D. Mobile Commercial Cosmetic Cleaning Operations** Mobile commercial cosmetic cleaning operations shall not discharge to the storm drainage system in violation of this Ordinance.
- E. Maintenance of Equipment** Any leak or spill related to equipment maintenance in an outdoor, uncovered area shall be contained to prevent the potential release of pollutants. Vehicles, machinery and equipment must be maintained to reduce leaking fluids.
- F. Materials Storage** In addition to other requirements of this Ordinance, materials shall be stored to prevent the potential release of pollutants. The uncovered, outdoor storage of unsealed containers of hazardous substances is prohibited.
- G. Pet Waste** Pet waste shall be disposed of as solid waste or sanitary sewage in a timely manner, to prevent discharge to the storm drainage system.
- H. Pesticides, Herbicides and Fertilizers** Pesticides, herbicides and fertilizers shall be applied in accordance with manufacturer recommendations and applicable laws. Excessive application shall be avoided.
- I. Prohibition on Use of Pesticides and Fungicides Banned from Manufacture** Use of any pesticide, herbicide or fungicide, the manufacture of which has been either voluntarily discontinued or prohibited by the U.S. or Illinois Environmental Protection Agency, or any Federal, State or jurisdiction regulation is prohibited.

J. Open Drainage Channel Maintenance Every person owning or occupying property through which an open drainage channel passes shall keep and maintain that part of the drainage channel within the property free of trash, debris, excessive vegetation and other obstacles that would pollute, contaminate, or retard the flow of water through the drainage channel. In addition, the owner or occupant shall maintain existing privately owned structures adjacent to a drainage channel, so that such structures will not become a hazard to the use, function, or physical integrity of the drainage channel. Physical modifications to the drainage channel, other than those necessary to remove debris and other obstacles, are prohibited without a Grading and Drainage Permit.

K. Release Reporting and Cleanup Any person responsible for a known or suspected release of materials which are resulting in or may result in illegal discharges to the storm drainage system shall take all necessary steps to ensure the discovery, containment, abatement and cleanup of such release. In the event of such a release of a hazardous material, said person shall comply with all state, federal, and local laws requiring reporting, cleanup, containment, and any other appropriate remedial action in response to the release. In the event of such a release of non-hazardous materials, said person shall notify the appropriate official no later than the close of the next business day.

L. Authorization to Adopt and Impose Best Management Practices The jurisdiction may adopt and impose requirements identifying Best Management Practices (BMPs) for any activity, operation, or facility, which may cause a discharge of pollutants to the storm drainage system. Where specific BMPs are required, every person undertaking such activity or operation, or owning or operating such facility shall implement and maintain these BMPs at their own expense.

Section One, Article IV. – Inspections and Plan Modifications

A. Inspections The jurisdiction shall make inspections as required and shall notify the Grading and Drainage Permit holder in the event that the work fails to comply with the requirements of this Ordinance. The notification of any deficiencies in the work or violations of this Ordinance shall be posted at the site and mailed to the owner of the site by ordinary mail.

The owner of the site shall notify the appropriate official:

- 1 Two (2) working days prior to the start of any land disturbing activities,
- 2 Upon completion of installation of sediment and runoff control measures (including perimeter controls and diversions), prior to proceeding with any other earth disturbance or grading;
- 3 After stripping and clearing;
- 4 After rough grading;
- 5 After seeding and landscaping deadlines;
- 6 After final stabilization and landscaping and prior to removal of temporary sediment controls.

B. Special Precautions If at any stage of the grading of any development site the jurisdiction determines by inspection that the nature of the site is such that further work authorized by an existing permit is likely to imperil any property, public way, stream, lake, wetland, or drainage structure, the jurisdiction shall require, as a condition of allowing the work to be done, that such reasonable special precautions to be taken as is considered advisable 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, or cribbing, installation of plant materials for erosion control, and recommendations of Certified Professional in Erosion and Sediment Control (CPESC) or registered Professional Engineer which may be made requirements for further work.

Where it appears that storm damage may result because the grading on any development site is not complete, work shall be stopped and the Grading and Drainage Permit holder required to install temporary structures or take such other measures as may be required to protect adjoining property or the public safety. On large developments or where unusual site conditions prevail, the appropriate official shall specify the starting and completion times of required activity or may require that the operations be conducted in specific stages so as to ensure completion of protective measures or devices prior to the advent of seasonal rains.

C. Amendment of Plans Any significant amendments to grading plans or stormwater pollution prevention plans shall be submitted to the appropriate official of the jurisdiction and shall be processed and approved or disapproved in the same manner as the original plans. Any significant field modifications made without prior approval shall be a direct violation of this Ordinance.

DRAFT

Section One, Article V. – Responsibility

A. Applicant The applicant for a Grading and Drainage Permit shall not be relieved of responsibility for damage to persons or property otherwise imposed by law.

B. Jurisdiction The jurisdiction or its officers or agents, will not be made liable for such damage, by (1) the issuance of a Grading and Drainage Permit under this Ordinance, (2) compliance with the provisions of that Grading and Drainage Permit or conditions attached to it by the appropriate official (3) failure of the jurisdiction to observe or recognize hazardous or unsightly conditions, (4) failure of the jurisdiction officials to recommend denial or to deny a Grading and Drainage Permit, or (5) exemptions from Grading and Drainage Permit requirements of this Ordinance.

The jurisdiction shall take into account storm and flood hazards, to the extent they are known or can be determined, in all official actions related to land management, land use and land development or redevelopment as required in the floodplain ordinance of the City of Peoria, IL.

Section One, Article VI. – Maintenance of Drainage Facilities

The jurisdiction will maintain those drainage facilities that are on public land and have been dedicated and accepted for maintenance or stipulated by agreement for maintenance by the jurisdiction. All other drainage facilities, when located on other than public property, shall be the responsibility of the owner of the property on which they exist or the owner of the drainage facility, regardless of whether or not dedicated easements exist over said facilities.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and appropriate quality assurance procedures.

Abandonment and alteration, either structural or operational, of all facilities and systems shall occur only following application and issuance of a permit.

Operation and maintenance checklists in Appendix C shall be used to determine maintenance needs.

DRAFT

Section One, Article VII. – Enforcement

A. Procedures for Receipt and Consideration of Information by the

Public The jurisdiction shall establish and publicize procedures for receipt and consideration of information regarding non-compliance of provisions in this Ordinance.

B. Right of Entry and Sampling

1 Whenever the appropriate official has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of this Ordinance, the appropriate official shall have the right to enter the premises at any reasonable time to determine if the discharger is complying with all requirements of this article. In the event that the owner or occupant refuses entry after a request to enter has been made, the jurisdiction is hereby empowered to seek assistance from a court of competent jurisdiction in obtaining such entry.

2 The appropriate official shall have the right to set up on the property of any discharger to the storm drainage system such devices that are necessary to conduct sampling of discharges.

C. Notice of Violation Whenever an authorized enforcement person determines that a person has violated or failed to meet a requirement of this Ordinance, the enforcement person will order compliance by written Notice of Violation to the responsible person. Posting the written notice on the property will constitute written notice. Whenever possible, a courtesy copy of the Notice of Violation will be mailed by ordinary mail to the address of the property owner according to the records of the Peoria County Assessors Office.

The Notice of Violation shall include:

- 1 The name of the responsible person or property owner.
- 2 The date and location of the violation.
- 3 A description of the violation.
- 4 Actions that must be taken by the responsible person to remedy the violation.
- 5 The deadline within which the required actions must be completed.
- 6 Enforcement actions that may be taken by the jurisdiction.
- 7 Notice date.
- 8 Any person receiving a Notice of Violation may file a written appeal the Notice to the appropriate official within fifteen (15) days of the Notice date. The appropriate official will

affirm, modify or rescind the Notice in writing, within 15 days of the date of the appeal. If the recipient of a Notice of Violation is dissatisfied with the outcome of the appeal to the appropriate official, the appeal process outlined in Section One, Article 9, of this Ordinance will be followed.

D. Action without Prior Notice Any person who violates or fails to meet a requirement of this Ordinance will be subject, without prior notice, to one or more of the enforcement actions identified in this Ordinance when attempts to contact the person have failed and the enforcement actions are necessary to stop an actual or threatened discharge which presents or may present imminent danger to the environment or to the health or welfare of persons or to the storm drainage system.

E. Enforcement Actions Any person who fails to comply with or appeal a Notice of Violation, or fails to comply with an appeal decision of the appropriate authority, will be subject to one or more of the following enforcement actions:

1. Stop Work Order. The appropriate official may issue a stop work order to the owner and contractors on a construction site, by posting the order at the construction site and distributing the order to all jurisdiction departments whose decisions may affect any activity at the site. Unless express written exception is made, the stop work order shall prohibit any further construction activity at the site and shall bar any further inspection or approval necessary to commence or continue construction or to assume occupancy at the site. A Notice of Violation shall accompany the stop work order, and shall define the compliance requirements.
2. Abatement of an Illicit Connection. The appropriate official may order jurisdiction representatives to terminate an illicit connection. Any expense related to such abatement by jurisdiction representatives shall be fully reimbursed by the property owner.
3. Abatement of a Violation on Private Property. When a property owner is not available, not able or not willing to correct a violation, the appropriate official may order jurisdiction representatives to enter private property to take any and all measures necessary to abate the violation. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow jurisdiction representatives to enter upon the premises for these purposes. Any expense related to such abatement by jurisdiction representatives shall be fully reimbursed by the property owner.
4. Recovery of Costs. Within thirty (30) days after abatement by jurisdiction representatives, the appropriate official shall notify the property owner of the costs of abatement, including administrative costs, and the deadline for payment. The property owner may appeal the recovery costs as outlined in Section One, Article 9 of this Ordinance.
5. Termination of Utility Services. After lawful notice to the customer and property owner concerning the proposed disconnection, the appropriate official shall have the authority to order the disconnection of jurisdiction water, sanitary sewer and/or sanitation services, upon a finding by the appropriate official that the disconnection of utility services will

remove a violation of this Ordinance that poses a public health hazard or environmental hazard.

6. **Criminal Prosecution.** Any person who violates or continues to violate a prohibition or requirement of this Ordinance shall be liable to criminal prosecution to the fullest extent of the law, and shall be subject to criminal penalties.

F. Criminal Penalties Any person violating this Ordinance shall, upon an adjudication of guilt or a plea of no contest, be fined a minimum of \$250.00 to a maximum of \$1,500.00. Each separate day on which a violation is committed or continues shall constitute a separate offense.

G. Other Legal Action Notwithstanding any other remedies or procedures available to the jurisdiction, if any person violates this Ordinance, the jurisdiction Attorney may commence an action for appropriate legal and equitable relief including damages and court costs. The jurisdiction Attorney may seek a preliminary or permanent injunction or both which restrains or compels the activities on the part of the discharger.

H. Abrogation and Greater Restrictions This Ordinance is not intended to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. Where this Ordinance and other ordinance, easements, covenants, or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

I. Separability
The provisions and sections of this Ordinance shall be deemed separable and the invalidity of any portion of this Ordinance shall not affect the validity of the remainder.

Section One, Article VIII. – Implementation

This Ordinance is effective upon passage with the following exceptions:

A. Subdivision Improvements The requirements for obtaining a Grading and Drainage Permit are waived for a period of two (2) years after passage of this Ordinance if the preliminary plat of a subdivision was approved by the appropriate authority prior to the passage of this Ordinance. All other requirements of the Ordinance shall remain in effect.

B. Non-Subdivision Improvements Requiring a Building Permit The requirements for obtaining a Grading and Drainage Permit for non-subdivision related improvements requiring a building are waived for the duration of the building permit if the building permit was issued prior to the passage of this Ordinance. All other requirements of the Ordinance shall remain in effect.

C. Improvements that Previously Did Not Require a Permit The requirements for obtaining a Grading and Drainage Permit for construction that did not require a permit prior to passage of this Ordinance are waived for a period of one (1) year if the construction commenced prior to the passage of this Ordinance. All other requirements of the Ordinance shall remain in effect.

DRAFT

Section One, Article IX. – Variances and Appeals

The appropriate entity, after a public hearing and after concurrence by the regional oversight board, if one exists, may: 1) Determine and vary the requirements and regulations of this Ordinance in harmony with their general purpose and intent, where the appropriate entity make written findings of fact in accordance with the standards herein after prescribed and further, find that there are practical difficulties or particular hardships in the way of carrying out the strict letter of requirements and regulations of this Ordinance and 2) Uphold, modify or overrule the decision of the appropriate official.

A written application for a variance from the requirements of this Ordinance or an appeal of a decision by an appropriate official shall be filed within thirty (30) days of the time that the applicant became aware of the need for the variance or the decision of the appropriate official. The application shall fully state the grounds of the request and the facts relied upon by the applicant. Each application shall be filed with the appropriate official. The appropriate officials will review and transmit recommendations to the appropriate entity, which shall review such recommendations prior to granting or denying the variance.

A. Variances

The appropriate entity shall not vary the requirements and regulations of this Ordinance unless evidence is presented that proves that:

- 1 The land in question is of such shape or size or is affected by such physical conditions or is subject to such title limitations or record, that it is impossible or impractical for the applicant to comply with all of the requirements of this Ordinance and
- 2 The granting of the variance will not be detrimental to the public welfare, environment or injurious to other property in the vicinity of the subject property and
- 3 Post construction site peak runoff rate control for sites discharging directly to the Illinois River are unnecessary because: (1) no adverse flooding impacts would potentially be created by increased peak runoff rates along the conveyance between the project site and the River and (2) increased peak runoff rates will not potentially contribute to adverse ecological impacts, including water quality degradation by either artificial or natural mechanisms or by stream erosion. This exemption does not relieve the property owner from constructing and maintaining a sediment trapping BMP following Illinois Urban Manual criteria during construction and a permanent detention facility meeting requirements in this Ordinance.

The appropriate entity shall hold a public hearing on each application for variance within thirty (30) days after the application for a variance is received by the appropriate official. Within thirty (30) days after the public hearing, the appropriate entity shall approve the variance with the conditions it deems necessary, disapprove the variance or take other such action as appropriate.

B. Appeals The appropriate entity shall consider each application for modification to the decision of an appropriate official at a public meeting within thirty (30) days after the appeal application is received by the appropriate official. Within thirty (30) days after the public meeting, the appropriate entity shall uphold, modify or overrule the decision of the appropriate official.

DRAFT

SECTION TWO CONSTRUCTION SITE RUNOFF CONTROL

Section Two, Article I. – General Requirements for All Construction Sites

- A. Responsible Entity** The owner of a site with construction activity meeting the requirements of a Grading and Drainage Permit shall be responsible for compliance with the requirements of this Ordinance.
- B. Waste Disposal** Solid waste, industrial waste, yard waste and any other pollutants or waste on any construction site shall be controlled through the use of BMPs. Waste or recycling containers shall be provided and maintained by the owner or contractor on construction sites where there is the potential for release of waste. Uncontained waste that may blow, wash or otherwise be released from the site is prohibited.
- C. Ready-Mixed Concrete** Ready-mixed concrete, or any materials resulting from the cleaning of vehicles or equipment containing or used in transporting or applying ready-mixed concrete, shall be contained on construction sites for proper disposal. Release of these materials to any elements of the storm drainage system is prohibited.
- D. Soil Erosion and Sediment Control** Appropriate BMPs such as silt fences, diversions, sediment traps, or other appropriate sediment or runoff control measures shall be implemented to prevent the release of sediment from construction sites prior to the commencement of grading activities. Disturbed areas shall be minimized, disturbed soil shall be protected and stabilized and construction entrances shall be managed to prevent sediment tracking onto adjacent roadways. Excessive sediment tracked onto public streets shall be removed immediately. Disturbed areas shall be stabilized with approved vegetative measures within fourteen (14) calendar days following the end of active disturbance or redisturbance. All temporary soil erosion and sediment control BMPs shall remain in place, and be fully maintained, until the establishment of permanent vegetation throughout the construction site at which time they shall be removed within thirty (30) days. Consideration shall be given to environmentally sensitive areas based on slope, soil type, vegetation and proximity to a water body.
- E. Continued Compliance** Upon completion of permitted construction activity on any site, the property owner and subsequent property owners will be responsible for continued compliance with the requirements of this Ordinance, in the course of maintenance, reconstruction or any other construction activity on the site.
- F. Rights Reserved**
The jurisdiction of the City of Peoria, Illinois reserves the right to require any non-agricultural construction development activity, regardless of disturbed area or type of activity, to

comply with this Ordinance if it is determined to be the cause of or a contributor to an existing or potential erosion, sediment, or stormwater impact.

DRAFT

Section Two, Article II. – Grading and Drainage Permit Requirements

A. Permit Exceptions Except as exempted below, no person shall commence construction prior to obtaining the appropriate Grading and Drainage Permit as defined below. The Appropriate Official will issue Grading and Drainage Permits.

In order to preclude inappropriate phasing of developments to circumvent the intent of this Ordinance, when a proposed development activity will occur on a lot or parcel of land that has contiguous lots or parcels of lands owned by the same property owner, then the criteria as defined in this section will be applied to the total land area compiled from aggregate ownership parcels.

A Grading and Drainage Permit shall not be required for the following:

- 1 Any construction activity below the minimum thresholds for a Class 1 Grading and Drainage Permit.
- 2 The agricultural use of land, including the implementation of conservation measures included in a farm conservation plan approved by the Natural Resources Conservation Service, and including the construction of agricultural structures.

B. Class 1 Grading and Drainage Permit Any construction that meets one of the following thresholds shall require a Class 1 grading and Drainage Permit:

- 1 Any construction that will include the addition of an impervious surface area (i.e., streets, roof, patio or parking area or any combination thereof) greater than 500 square feet and less than 10,000 square feet requires a Class 1 Grading and Drainage Permit.
- 2 Any land disturbing activity (i.e., clearing, grading, stripping, excavation, fill, or any combination thereof) that will affect an area greater than or equal to 5,000 square feet and less than one acre (43,560 square feet)
- 3 Any land disturbing activity that will exceed 100 cubic yards, but does not otherwise require a Class 2 Grading and Drainage Permit.
- 4 Any land disturbing activity on the sloping side of the slope disturbance line, but does not otherwise require a Class 2 Grading and Drainage Permit.
- 5 Construction of one or more single-family dwellings that is/are constructed as part of a subdivision development with an approved Storm Water Pollution Prevention Plan.

The issuance of a Grading and Drainage Permit shall constitute an authorization to do only that work which is described on the approved site plan. A Class 1 Grading and Drainage Permit shall be valid for one (1) year after the date of issuance.

C. Class 1 Grading and Drainage Permit Application

Forms A completed application form for Class 1 Grading and Drainage Permit shall include:

- 1 Name(s), address(es) and telephone numbers of the owner and developer of the site, the contractor(s) and of any consulting firm retained by the applicant identifying the principal contractor.
- 2 Certification that all construction covered by the Grading and Drainage Permit will be undertaken in compliance with Section Two, Article I (General requirements for All Construction Sites) of this Ordinance.
- 3 A site plan created with the use of "Erosion Control for Small Projects" worksheet available from the City of Peoria or other suitable methods acceptable to the Appropriate Authority showing the amount of impervious area being created and BMPs to be implemented. For Class 1 Permits, stormwater detention calculations shall be provided with the site plan.
- 4 An application fee as set forth in Section Five of this Ordinance.

D. Class 2 Grading and Drainage Permit Any construction that meets one of the following thresholds shall require a Class 2 Grading and Drainage Permit:

1. Any construction that will include the addition of an impervious surface area (i.e., streets, roof, patio or parking area or any combination thereof) greater than 10,000 square feet.
2. Any land disturbing activity (i.e., clearing, grading, stripping, excavation, fill, or any combination thereof) that will affect an area greater than one acre (43,560 square feet).
3. A completed application form shall include:
 - a. Name(s), address(es) and telephone numbers of the owner and developer of the site, the contractor(s) and of any consulting firm retained by the applicant identifying the principal contractor.
 - b. Certification that any land clearing, construction, or development involving the movement of earth shall be in accordance with the plans approved upon issuance of the permit.
 - c. An application fee as set forth in Section Five of this Ordinance.

d. A faithful performance bond or bonds, letter of credit, or other improvement security satisfactory to the jurisdiction Attorney in an amount deemed sufficient by the appropriate official of the jurisdiction to cover all costs of improvements, landscaping, maintenance of improvements and landscaping, and soil erosion and sediment control measures for such period as specified by the jurisdiction and engineering and inspection costs to cover the cost of failure or repair of improvements installed on the site on a form acceptable to the jurisdiction. (See sample in Appendix A). Upon satisfactory completion of the improvements, the documented security would be void.

e. The following information shall be submitted for both existing and proposed property conditions for all applicable developments: a topographic survey of the property at two-foot (2) contours (or one-foot contours for relatively flat areas where additional detail will be required to review drainage designs) unless otherwise specified or approved by the appropriate jurisdiction official keyed to a consistent vertical datum specified by the jurisdiction; and an existing drainage and proposed drainage plan for the property and one hundred (100) feet surrounding the property at a scale of not more than one hundred

(100) feet to one (1) inch, and including the following (unless otherwise specified by the appropriate jurisdiction official):

- i. Property boundary, dimensions, and approximate acreage
- ii. Building setback lines
- iii. All existing and proposed structures and sizes
Square feet of existing and proposed impervious surface
All existing, or proposed easements
- vi. All existing, abandoned, or proposed water or monitoring well head locations
- vii. All existing, abandoned, or proposed watermains
- viii. All sanitary or combined sewer lines and septic systems
The banks and centerline of streams and channels
Shoreline of lakes, ponds, and detention basins with normal water level elevation
- xi. Farm drains and tiles
- xii. Location, size and slope of stormwater conduits and drainage swales;
- xiii. Detention facilities showing inlet and outlet locations and details

- xiv. Roads, streets and associated stormwater inlets including finished grades
- xv. Base flood elevation, flood fringe, and regulatory floodway
- xvi. A vicinity map showing the relationship of the site to its general surroundings at a scale of not greater than two thousand (2,000) feet to one (1) inch (1:24,000)
- xvii. Title, scale, north arrow, legend, seal of Licensed Professional Engineer, date, and name of person preparing plans
- xviii. Subwatershed boundaries within the property
- xix. Offsite areas draining to property, including entire offsite drainage boundary(ies)
- xx. Soil classifications
- xxi. Depressional storage areas

- f. The following certifications and design statements shall be provided:
 - i. Basis of design for the final drainage system components
 - ii. A statement giving any applicable engineering assumptions and calculations
 - iii. A statement by the design engineer of the drainage system's provision for conveying storm flows exceeding the 100-year magnitude
 - Design calculations and other submittals as required by this Ordinance, including flow rates and velocities at critical points in the drainage system
 - A statement of certification of all drainage plans, calculations, and supporting data by a Professional Engineer Licensed in the state of Illinois
- g. A depiction of environmental features of the property and immediate vicinity including the following:
 - i. The limits of designated regulatory and non-regulatory wetland areas
 - ii. The location of trees greater than eight (8) inches in diameter, taken at 4.5 ft dbh in areas to be disturbed
 - iii. Any designated natural areas or prime farmland
 - Any proposed environmental mitigation features

Location and dimensions of a stream buffer area (if required by local jurisdiction)

- vi. Base flood elevation, flood fringe, and regulatory floodplains
- vii. Abandoned mines

h. Any and all local, state or federal maps marked to reflect any proposed change in the floodway delineation, base flood, or 100-year frequency flood elevation will change due to the proposed project.

i. Conditional approval by FEMA or other regulatory agencies of the proposed changes in the floodway map that have been made if the floodway delineation, base flood, or 100-year frequency flood elevation will change due to the proposed project.

j. Engineering calculations and data supporting all proposed plans. Hydrologic analysis shall be completed in accordance with Section Three, Article II (Hydrologic Design Criteria) of this Ordinance. Detention system design shall be completed in accordance with Section Three, Article III (Detention System Design Criteria) of this Ordinance.

k. If the project involves channel modification, the following information shall be submitted:

- i. A discussion of the purpose and need for the proposed work
- ii. Discussion of the practicability of using alternative locations or methods to accomplish the purpose of the proposed work
- iii. Analysis of the impacts of the proposed project, considering cumulative effects on the physical and biological conditions of the body of water affected
 - Hydraulic analysis of the channel modifications, including pre- and post-project base flood elevations
 - Additional information as required by this Ordinance

4. Storm Water Pollution Prevention Plan (SWP3) prepared in accordance with Section 4 of this Ordinance.

E. Submittal, Review, and Approval If a Building Permit is also required for the development, the Grading and Drainage Permit application shall be submitted to the appropriate department at the time application is made for a Building Permit. Departments of the jurisdiction shall coordinate their activities to prevent additional, unnecessary delays.

1. Each application for an approved Grading and Drainage Permit shall be reviewed and acted upon according to the following procedures. The jurisdiction shall:

Provide a written evaluation to the applicant regarding the adequacy and effectiveness of the proposal to address the provisions of this Ordinance. The jurisdiction may retain the services of an independent professional to perform this evaluation. The jurisdiction may assess a fee for this evaluation service as set forth in Section Five of this Ordinance.

Verify the applicant has filed a Notice of Intent (NOI) with the IEPA for construction site activity and has submitted appropriate permit fees.

Attend a pre-construction meeting with the applicant or designated agent to review implementation of Grading and Drainage Permit.

Conduct onsite inspections during the active construction phases of and development projects to determine whether site development is in compliance with the approved grading and drainage plans, and determine adjustments needed to the approved plans. After construction has been completed, determine whether permanent site stabilization has been achieved and identify operation and maintenance needs.

Prepare correspondence as needed regarding the effectiveness (or corrective measures needed) or adequacy of soil erosion and sediment control measures.

Provide land developers, consultants, and contractors general guidelines and information concerning the design criteria, installation and maintenance procedures and other information regarding best management practices recommended under the provisions of this Ordinance.

After review of the application and required submissions if it is found to be in conformance with the provisions of this Ordinance.

- i. Approve the Grading and Drainage Permit
- ii. Approve the Grading and Drainage Permit subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Ordinance, and issue the approval subject to these conditions
- iii. Disapprove the Grading and Drainage Permit, indicating the deficiencies and the procedure for submitting a revised application and/or submission

2. No approval for a Grading and Drainage Permit shall be issued for an intended development site unless one or more of the following have been obtained as applicable:

Land use regulations that apply to the development has been approved by the jurisdiction where applicable.

Such permit is accompanied by or combined with a valid building permit issued by the jurisdiction building official.

The proposed earth moving is coordinated with any overall development program previously approved by the jurisdiction for the area in which the site is situated.

All relevant federal, state, and local permits.

Applicant is successful in the appeals process.

3. Failure of the appropriate official to act on an original or revised application within sixty (60) days of receipt shall authorize the applicant to proceed in accordance with the plans as filed and in compliance with the regulations contained herein, unless such time is extended by agreement between the appropriate official and the applicant. Pending preparation and approval of a revised plan, development activities may be allowed to proceed in accordance with conditions established by the appropriate official.

F. Other Agency Permits and Reviews

1. The appropriate official shall not issue a Grading and Drainage Permit unless all required federal, state and local permits and reviews have been obtained by the applicant and copies thereof reviewed by the appropriate official. The acquisition of these permits shall be the sole responsibility of the applicant. The granting of a Grading and Drainage Permit under these regulations shall in no way affect the owner's responsibility to obtain the approval required by any other statute, ordinance or code, or to meet the requirements of other jurisdiction ordinances and regulations, including but not limited to: a) Building or other relevant permits of (jurisdiction); b) Permits in accordance with Sections 401 and 404 of the Clean Water Act; 33 U.S.C.

Section 1251, including any joint permit application requirements (e.g., Floodway Construction Permit form IDNR-OWR); c) Permits in accordance with Section 106 of the National Historic Preservation Act; d) Permits required under Section 10 of the Rivers and Harbors Act; e) Permits required by the Illinois Department of Natural Resources, Office of Water

Resources in accordance with the Rivers, Lakes and Streams Act, 615 ILCS 5/18, 23, 23(a) and 29(a), and consistent with any applicable regulations including those found at 17 Ill. Adm. Code Parts 3700, 3702, and 3704;

f) A Natural Resources Information (NRI) report prepared by the Peoria County SWCD under Section 22.02a of the Soil and Water Conservation Districts Act, 70 ILCS Par. 405/1 et.seq.;

g) Any reviews required by the Farmland Preservation Act, 505 ILCS 75/6; h) Any reviews required by the Illinois Groundwater Protection Act, 415 ILCS; i) Any permits that may be required by the Illinois Environmental Protection Act, 415 ILCS

5/12 et.seq. including any permits under National Pollutant Discharge Elimination System (NPDES) Permit and 401 Water Quality Certification through the Illinois Environmental Protection Agency, Division of Water Pollution Control, 415 ILCS 5/12 (f);

j) Any reviews required by the Threatened and Endangered Species Act, 16 USC 1531 et.seq.; k) Any reviews required by the Illinois Endangered Species Protection Act, 520 ILCS 10/11; l) Conditional Letter of Map Revision, 44 CFR 60; and

m) Approval/permit from local Flood Insurance Program community.

1 Any work involving the construction, modification or removal of a dam as defined herein, per 92 Ill. Adm. Code 702 (Rules for Construction of Dams), shall require an IDNR/OWR Dam Safety Permit or a letter stating that a permit is not required, prior to permit being issued by the jurisdiction.

2 Any development involving work in waters of the United States, including wetlands and streams as identified and regulated by the U.S. Army Corps of Engineers, shall require permits or sign-offs from the Corps prior to the issuance of a jurisdiction permit.

3 Confirmation of compliance or exemption from all applicable entities requiring the above permits or reviews shall be provided by the applicant to the jurisdiction.

G. Permit Limitations

1 The issuance of a Grading and Drainage Permit shall constitute an authorization to do only that work which is described or illustrated on the application for the permit or on the plans and specifications approved by the jurisdiction.

2 The issuance of a permit or the approval of drawings and specifications shall not be construed to be a permit for, nor an approval of, any violation of or deviation from the provision of these Regulations or any other ordinance, law, rule, or regulation.

3 The issuance of a permit, based upon drawings and specifications, shall not prevent the jurisdiction from thereafter requiring the correction of errors in said drawings and specifications or from stopping unlawful construction operations being carried on thereunder.

4 The Grading and Drainage Permit shall be valid until the completion date noted in the permit. The appropriate officials may grant an extension if relevant design and construction standards have not changed and if in the appropriate official's opinion, the work approved under the permit does not unduly adversely affect the health, safety and general welfare of the public. Otherwise, a new permit shall be acquired before work is started or continued. The appropriate official may require modification of the soil erosion and sediment control plan to prevent any increase in erosion or off-site sediment runoff resulting from any extension.

H. Revocation of Permits

1. The appropriate official may revoke a permit:

Where there has been any false or inaccurate statement or misrepresentation as to a material fact in the application or plans on which the permit was based.

When work is performed contrary to the provisions of the application or plans on which the permit is based.

1 When a permit is revoked, the appropriate official shall inform the permittee, in writing, of the specific steps the permittee must take in order to have the permit reissued.

2 It shall be unlawful to continue any work authorized by a permit after revocation of that permit until that permit is reissued or until a new permit is issued.

3 In cases where the permittee wishes to appeal the decision of the appropriate official, the appeal process outlined in Section One, Article IX will be followed. An appeal shall stay all proceedings in furtherance of the action appealed from unless the appropriate official certifies to the appropriate authority, after the notice of the appeal has been filed with him, that by reason of facts stated in the certificate a stay would, in his opinion, cause imminent peril to life or property.

I. Retention of Plans Plans, specifications, and reports for all site developments shall be retained as required by Illinois Statute by the appropriate official.

DRAFT

SECTION THREE POST CONSTRUCTION RUNOFF CONTROL

Section Three, Article I. – Best Management Practices Hierarchy

Use of BMPs identified by this Ordinance, or the use of any other BMPs submitted for approval by the permittee as a substitute, will be a requirement of this Ordinance in obtaining approval for Subdivisions, Building Permits, and Grading and Drainage Permits. This list of definitions is not exclusive and Developers are encouraged to submit alternative BMPs for approval by the jurisdiction Engineer.

It should be noted that many of the BMPs listed in this section require regular maintenance in order to function adequately throughout their design life. Design provisions shall be made to minimize long-term maintenance requirements. In some situations, specific BMPs may be rejected if projected maintenance requirements cannot be met by either the property owner or the jurisdiction.

In the preparation of site design and drainage plans for a development, the applicant shall evaluate and implement, where practicable, site design features that minimize the increase in runoff volumes and rates from the site. The applicant's drainage plan submittal shall include site design features that are consistent with the following hierarchy:

A. Preserving Regulatory Floodplains, Flood Prone and Wetland Areas

1 Buffer Zones. An area along a shoreline, wetland, or stream where development is restricted or prohibited. The primary function of aquatic buffers is to physically protect and separate a stream, lake, or wetland from future disturbance or encroachment. The three types of buffers are water pollution hazard setbacks, vegetated buffers, and engineered buffers.

2 Conservation Easements. Voluntary agreements that allow an individual or group to set aside private property to limit the type or amount of development on their property. The conservation easement can cover all or a portion of a property and can either be permanent or last for a specified time. The easement is typically described in terms of the resource it is designed to protect (e.g., agricultural, forest, historic, or open space easements) and explains and mandates the restrictions on the uses of the particular property.

B. Minimizing Impervious Surfaces on the Property

1. Open Space Design, Conservation Development. A better site design technique that concentrates dwelling units in a compact area in one portion of the development site in exchange for providing open space and natural areas elsewhere on the site. The minimum lot sizes, setbacks and frontage distances for the residential zone are relaxed in order to create the open space.

2. Narrower Streets. In many residential settings, streets can be as narrow as twenty-two (22)

3. Eliminating Curbs and Gutters. Elimination of curbs and gutters involves the use of grass swales and ditches as an alternative to convey stormwater runoff, thereby providing natural stormwater filtration and pollution reduction. Eliminating curbs and gutters from public streets will only be allowed by requesting a variance from the jurisdiction's subdivision ordinance.

4. Alternative Turnarounds. Alternative turnarounds are designs for end-of-street vehicle turnaround that replace cul-de-sacs and reduce the amount of impervious cover created in residential neighborhoods. Numerous alternatives create less impervious cover than the traditional forty (40) foot cul-de-sac. These alternatives include reducing cul-de-sacs to a thirty (30) foot radius and creating hammerheads, loop roads, and pervious (grassed) islands in the cul-de-sac center by requesting a variance from the jurisdiction's subdivision ordinance.

5. Alternative Pavers. Alternative pavers are permeable surfaces that can replace asphalt and concrete and can be used for driveways, parking lots, and walkways. Commercially available pavers are used which contain void spaces for grass or clean, washed stone or gravel. Gravel, cobble, or mulch parking lots are prohibited.

C. Storm Water Wetlands, Grassed Swales and Vegetated Filter Strips

1. Storm Water Wetlands. Storm water wetlands (a.k.a. constructed wetlands) are structural practices similar to wet detention ponds that incorporate wetland plants into the design. Storm water wetlands are designed specifically for the purpose of treating storm water runoff and providing enhanced aquatic habitat. A distinction should be made between using a constructed wetland for storm water management and diverting storm water into a natural (existing) wetland. The latter practice is not recommended because altering the hydrology of the existing wetland with additional storm water can degrade the resource and result in plant die-off and the destruction of wildlife habitat. Furthermore, the latter practice may be prohibited by state (IDNR) or federal (USACE) regulations.

2. Grassed Swales. The term swale (a.k.a. grassed channel, dry swale, wet swale, bio-filter) refers to a series of vegetated, open channel management practices designed specifically to treat and attenuate storm water runoff for a specified water quality volume. As storm water runoff flows through these channels, it is treated through filtering by the vegetation in the channel, filtering through a subsoil matrix, and/or infiltration into the underlying soils.

3. Vegetated Filter Strips. Vegetated surfaces that are designed to treat sheet flow from adjacent surfaces. Filter strips function by slowing runoff velocities and filtering out sediment and other pollutants.

D. Infiltrating Runoff

On-Site

1 Sand and Organic Filters. Sand filters are usually two-chambered stormwater devices; the first is a settling chamber, and the second is a filter bed filled with sand or another filtering media. As storm water flows into the first chamber, large particles settle out, and then finer particles and other pollutants are removed as storm water flows through the filtering medium. There are several modifications of the basic sand filter design, including the surface sand filter, underground sand filter, perimeter sand filter, organic media filter, and Multi-Chamber Treatment Train.

2 Infiltration Trenches. An infiltration trench is a rock-filled trench with no outlet that receives storm water runoff. Storm water runoff passes through some combination of pretreatment measures, such as a swale and detention basin, and into the trench. There, runoff is stored in the void space between the stones and infiltrates through the bottom and into the soil matrix.

3 Infiltration Basins. A shallow impoundment that is designed to infiltrate storm water into the ground water. Infiltration Basins should only be used on small drainage areas (less than ten (10) acres), and where soils are highly permeable.

4 Porous Pavements. Porous pavement is a permeable pavement surface with an underlying stone reservoir to temporarily store surface runoff before it infiltrates into the subsoil. This porous surface replaces traditional pavement, allowing parking lot storm water to infiltrate directly and receive water quality treatment. There are a few porous pavement options, including porous asphalt, pervious concrete, and grass pavers.

5 Bioretention. Bioretention areas are landscaping features adapted to provide on-site treatment of storm water runoff. They are commonly located in parking lot islands or within small pockets of residential land uses. Surface runoff is directed into shallow, landscaped depressions. These depressions are designed to incorporate many of the pollutant removal mechanisms that operate in forested ecosystems. During storms, runoff ponds above the mulch and soil in the system. Runoff from larger storms is generally diverted past the facility to the storm drain system. The remaining runoff filters through the mulch and prepared soil mix. Typically, the filtered runoff is collected in a perforated underdrain and returned to the storm drain system.

E. Providing Stormwater Retention Structures

1. On-Lot Treatment. A series of practices that are designed to collect runoff from individual residential or small commercial lots. The primary purpose of most on-lot practices is to manage rooftop runoff and, to a lesser extent, driveway and sidewalk runoff. Although there are a wide variety of on-lot treatment options, they can all be classified into one of three categories: 1) practices that collect and infiltrate rooftop runoff; 2) practices that

divert runoff or soil moisture to a pervious area; and 3) practices that store runoff for later use.

2. **Retention Basins.** Retention basins are designed to collect and hold stormwater runoff, with no outlet pipes or structures. They are not necessarily infiltration basins, and are best designed to rely mostly on evaporation and groundwater infiltration. Retention basins are only feasible when special circumstances of land and soil type are available.

F. Providing Wet Bottom or Wetland Detention Structures Defined and controlled under the subsection of this Ordinance titled Detention System Design Criteria.

G. Providing Dry Detention Structures Defined and controlled under the subsection of this Ordinance titled Detention System Design Criteria. Detention basins shall be designed to remove floatables from stormwater runoff by providing trash grates or special outlet structures that separate floatables.

H. Constructing Storm Sewers

1 **Manufactured Products for Storm Water Inlets.** A variety of products for storm water inlets known as swirl separators, or hydrodynamic structures. Swirl separators are modifications of the traditional oil-grit separator and include an internal component that creates a swirling motion as storm water flows through a cylindrical chamber. The concept behind these designs is that sediments settle out as storm water moves in this swirling path. Additional compartments or chambers are sometimes present to trap oil and other floatables. There are several different types of proprietary separators, each of which incorporates slightly different design variations, such as off-line application.

2 **Catch Basin Inserts.** Catch basin efficiency can be improved using commercially available inserts, which can be designed to remove oil and grease, trash, debris, and sediment. Some inserts are designed to drop directly into existing catch basins, while others may require being installed as part of the construction of the basin.

3 **In-Line Storage Structures.** In-line storage refers to a number of practices designed to use the storage within the storm drainage system to detain flows. Storage is achieved by placing large-volume devices in the storm drainage system to restrict the rate of flow. Devices can slow the rate of flow by storing runoff volume, as in the case of a dam or weir, or through the use of vortex valves, devices that reduce flow rates by creating a helical flow path in the structure.

I. Water Quality and Multiple Uses The storm drainage system shall be designed to minimize adverse surface and groundwater quality impacts off-site and on the property itself. Detention basins shall incorporate design features to capture stormwater runoff pollutants. In particular, designers shall utilize wet bottom and wetland detention basin designs and all stormwater runoff from the development shall be routed through the basin (i.e. flows shall not be bypassed). Detention of stormwater shall be promoted throughout the property's drainage system to reduce the peak rate of

stormwater runoff and to reduce the quantity of runoff pollutants. The storm drainage system should incorporate multiple uses where practicable. Uses considered compatible with stormwater management include open space, aesthetics, aquatic habitat, recreation (boating, fishing, trails, playing fields), wetlands and water quality mitigation.

DRAFT

Section Three, Article II. – Hydrologic Design Criteria

A. Referenced Standards Design standards for hydrologic design shall comply with these regulations and with the applicable provisions of the IDOT Drainage and Design Manuals. Where this Ordinance imposes greater restrictions than those imposed by the IDOT Drainage and Design Manuals or those required by other provisions of law or ordinance, the provisions of this Ordinance shall prevail.

B. Release Rates The drainage system for new developments or redevelopments meeting the requirements of a Class 2 Grading and Drainage Permit shall be designed to control the peak rate of discharge from the total property under development for the one- (1-) year¹, ten- (10-) year, and one hundred- (100-) year, storm events. The allowable release rates for the three design storms are as follows:

<u>Event frequency</u>	<u>Maximum release rate (cfs/acre)</u>
1-year	Varies ²
10-year	0.08
100-year	0.30

¹ Properties discharging directly to the Illinois River are not required to limit 10-year and 100-year post-development peak flow rates as shown above. However, these properties are required to provide 24-hour detention for the 1-year storm to provide water quality protection.

² The 1-year release rate shall be set to provide 24 hour detention time, but shall not be greater than 0.08 cfs/acre. A sample detention calculation may be found in Appendix D.

If it is determined that the downstream (receiving) storm drainage system cannot safely convey the allowable release rate(s), the release rate(s) shall be lowered such that the receiving system can safely handle the detention pond discharge. The applicant shall provide documentation that downstream capacity is adequate and erosion prevention measures will be installed.

C. Drainage System Design and Evaluation The following criteria should be used in evaluating and designing the drainage system. The design will provide capacity to pass the ten (10) year peak flow in the minor drainage system and an overland flow path (major drainage system) for flows in excess of the design capacity. Whenever practicable, the stormwater systems shall not result in cross connections between different storm sewer systems unless no other alternative exists.

D. Design Methodologies Choose an applicable hydrologic design method according to the IDOT Drainage Manual, Figure 4-001, with the following modifications and clarifications. Major and minor conveyance systems for areas up to ten (10) acres, may be designed using the Rational Formula. The Rational Formula may also be used in sizing the minor drainage system for larger sites up to one hundred (100) acres. Runoff hydrograph methods as described in this

Ordinance must be used for major drainage system design for all systems with greater than ten (10) acres of drainage area and for the design of all detention basins.

E. Positive Drainage

All developments must be provided an overland flow path that will pass the one hundred (100) year flow (assuming the minor drainage system is functioning) within designated drainage easements or the public right-of-way with a freeboard of at least one (1) foot. Overland flow paths shall be provided drainage easements unless the flow is contained in the public right-of-way.

F. Methods for Generating Runoff Hydrographs Runoff hydrographs shall be developed incorporating the following assumptions of rainfall amounts and antecedent moisture.

- 1 Rainfall. Unless a continuous simulation approach to drainage system hydrology is used, all design rainfall events shall be based on the NRCS Type II rainfall distributions with a 24-hour rainfall duration.
- 2 Antecedent Moisture. Computations of runoff hydrographs, which do not rely on a continuous accounting of antecedent moisture conditions, shall use Antecedent Moisture Condition II (AMC II).
- 3 Rainfall Recurrence Interval. The design rainfall recurrence interval shall be set by the design application as follows:

Detention	100 year
Emergency Overflow Routing	100 year
Bridges	100 year
Roadway Underpasses*	50 year
Swales, Ditches, and Culverts*	25 year
Storm Sewers	10 year

* Local, IDNR, or IDOT culvert design criteria may govern in special situations.

G. Culvert, Road and Driveway Crossings Sizing of culvert crossings shall consider entrance and exit losses as well as tailwater conditions on the culvert. Furthermore, exit velocity calculations shall also be required for all culvert crossings and erosion protection shall be provided where exit velocities exceed 4 fps.

H. Vegetated Filter Strips and Swales To effectively filter stormwater pollutants and promote infiltration of runoff, sites should be designed to maximize the use of vegetated filter strips and swales. These BMPs shall be designed to follow criteria in the Illinois Urban Manual. Whenever practicable, runoff from impervious surfaces should be directed onto filter strips and swales comprised of native grasses and forbs before being routed to a storm sewer or detention basin.

I. Maintenance Considerations The stormwater drainage system shall be designed to minimize and facilitate maintenance. Use of native vegetation is strongly encouraged to reduce maintenance, increase wildlife habitat, and to provide other benefits. Wet basins shall be provided with alternate outflows, which can be used to completely drain the pool for sediment removal. Pumping may be considered if drainage by gravity is not feasible. Pre-sedimentation basins shall be included, where feasible, for localizing sediment deposition and removal. Site access for heavy equipment shall be provided.

Long-term maintenance also shall include the routine removal of excessive trash and debris and the removal of obstructions from the basin outlet structure. Periodic removal of accumulated sediment (e.g., from swales, forebays, and settling basins) also shall be done to maintain the function and aesthetics of stormwater facilities. At a minimum, sediment shall be removed from forebays and sediment basins whenever one foot or more of sediment has accumulated in the basin bottom. Naturally landscaped areas of detention and drainage facilities shall be maintained via controlled burning every one to three years, as needed to control invasive weeds. Where controlled burning is not feasible, mowing shall be performed as needed. Mowing should be performed on naturally landscaped areas not suitable for burning on an annual basis and on all turfed areas on a regular basis to maintain grass height below 6 inches.

A maintenance plan for the ongoing maintenance of all stormwater management system components including wetlands is required prior to plan approval. The plan shall include:

- 1 Maintenance tasks.
- 2 The party responsible for performing the maintenance tasks.
- 3 A description of all permanent public or private access maintenance easements and overland flow paths, and compensatory storage areas.
- 4 A description of dedicated sources of funding for the required maintenance.

J. Provisions for Agricultural Drainage

The applicant shall submit a subsurface drainage inventory for Class 2 Grading and Drainage Permits. The inventory shall locate existing farm and storm drainage tiles by means of slit trenching and other appropriate methods performed by a qualified subsurface drainage consultant. All existing drain tile lines damaged during the investigation shall be repaired.

1. The applicant shall provide a topographical map of the development site showing:
 - a) Location of each slit trench identified to correspond with the tile investigation report with the tile field staked and surveyed at approximately 50 foot intervals
 - b) Location of each drain tile with a flow direction arrow, tile size and any connection to adjoining properties

- c) A summary of the tile investigation report showing trench identification number, tile size, material and quality, percentage of the tile filled with water, percentage of restrictions caused by silting, depth of ground cover, and working status.
 - d) Name, address and phone number of person or firm conducting tile location investigation.
2. Information collected during the drainage investigation shall be used to design and develop a stormwater management system that is appropriate for the development and connecting tile lines on adjoining properties.
 3. Existing easements for any agricultural drainage systems located underneath areas that will be developed shall be preserved. If no such easement exists, an easement shall be dedicated for access and maintenance as provided for in this Ordinance.
 4. All agricultural drainage systems that serve upstream areas outside of the development and that are located underneath areas that will be developed shall be replaced with non-perforated conduit to prevent root blockage, provided, however, that the existing drainage district system may remain in place with the approval of the appropriate entity.
 5. Agricultural drainage systems that, due to development, will be located underneath streets, driveways, and other paved areas as allowed by this Ordinance, shall be replaced with conduits meeting the jurisdiction's standard specifications, as needed to prevent the collapse of the agricultural drainage conduit.
 6. Agricultural drainage systems may be relocated within the development area upon the approval of the appropriate official of the jurisdiction. Such relocation shall maintain sufficient slope and capacity to prevent sedimentation and to prevent an increase in scouring or structural damage to the conduit. Such relocation shall only be with the consent and approval of the appropriate entity responsible for the system. If the system is not under the authority of a drainage district, the appropriate official of the jurisdiction shall consider the interests of those landowners who are served by the system.
 7. Field tile systems disturbed during the process of development shall be reconnected by those responsible for their disturbance unless the approved drainage plan includes provisions for these.
 8. Where tiles are being connected to stormwater facilities or at points of ingress or egress from the development sites, observation structures or similar maintenance and inspection access structures shall be installed.
 9. The development design shall utilize, when permission is granted from the adjoining downstream property owner and where the existing system has adequate capacity and structural integrity, outflow locations that have an existing tile leaving the development site. A subsurface connection to the tile shall be constructed as the primary low flow outlet. A secondary surface outlet shall be designed for outflows exceeding the tile capacity and as a backup system if the downstream tile ceases to function.

10. Surface outflows onto adjoining properties not into a defined channel shall be designed to release as sheet flow using level spreader trenches or alternative designs as approved by the Appropriate Official.

K. Channel Modifications Channel modification is acceptable if the purpose is to restore natural conditions and improve water quality. If the proposed development activity involves a channel modification, it must be demonstrated that:

1 Water quality and other natural functions would be significantly improved by the modification or the impacts are offset by the replacement of an equivalent degree of natural resource values.

2 The activity has been planned and designed and will be constructed in a way which will minimize its adverse impacts on the natural conditions of the stream or body of water affected.

3 Channel modifications will NOT result in an increase in the base flood elevation or flow velocities. If necessary, hydraulic calculations shall be provided which detail the pre- and post-development 100-year high water elevations and flow velocities.

DRAFT

Section Three, Article III. – Detention System Design Criteria

Developments initiating implementation after the adoption of this Ordinance will use the temporary detention of stormwater runoff from the site to meet release rates as required in this Ordinance and shall follow the following criteria. Implementation is defined by this jurisdiction in Section One, Article VIII of this Ordinance.

A. Referenced Standards

Design standards for detention basin design and construction shall comply with the provisions of the following, unless otherwise stated by this Ordinance.

- 1 IDOT Standard Specifications, latest edition
- 2 IDOT Drainage Manual, latest edition
- 3 Clean Water Act (discharges regulated by the United States EPA through NPDES permits)
- 4 City of Peoria Municipal Code and Manual of Practice
- 5 The Subdivision and Zoning Ordinances
- 6 17 Illinois Administrative Code 3702(Rules for Construction of Dams)
- 7 NRCS/IEPA Illinois Urban Manual

B. Detention Storage Requirements

The design storage to be provided in the detention basin shall be based on the need to restrict the runoff from the 1-year, 10-year and 100-year events to the allowable release rates while providing a minimum of one (1) vertical foot of freeboard for the 100-year event. All detention basin storage shall be computed using Hydrograph Methods utilizing reservoir routing (also called modified puls or level pool) or equivalent method as described by this Ordinance.

C. Waiver of Requirements

1. The requirement for stormwater detention and release rate does not apply when:

The development is in accord with the approved site plan and is on a lot in a new subdivision for which detention is otherwise provided.

The development is on a lot or parcel in a subdivision for which detention was provided and approved prior to the effective date of these Regulations.

2. The requirement for stormwater detention and release rate shall be waived by the appropriate jurisdiction official when he/she determines it is in the best interest of the jurisdiction to require fee in lieu of detention as described in Section Three, Article III, R.

D. Ownership Detention basins are owned and maintained by the property owner (often a Homeowner's Association) unless otherwise described by this Ordinance or indicated by the appropriate jurisdiction official. Property developers shall contact the appropriate jurisdiction official to inquire about the ownership and maintenance responsibility of existing regional detention basins which may affect the development.

E. Maintenance and Repair Responsibilities

1. Detention basins and associated inflow and outflow systems are maintained by the property owner absent any specific legal agreement to the contrary.

2. Maintenance agreements may be required at the option of the appropriate jurisdiction official to define parties responsible for the maintenance of commercial detention basins.

3. The detention basin owner shall be responsible for the following items:

An annual report on the detention basin condition, using the checklist provided in Appendix C, shall be submitted to the appropriate jurisdiction official.

At five (5) year intervals, the basin shall be inspected by a professional engineer registered in the State of Illinois. A report of this inspection shall be submitted to the appropriate jurisdiction official within sixty (60) days of the inspection. The inspection shall include an evaluation of the items in the checklist included in Appendix C. An annual report is not required the year the five-year report is due.

Detention basin owners shall notify subsequent owners of their maintenance responsibilities and transfer basin maintenance records to the party with active maintenance responsibility.

These requirements shall be effective for all detention basins existing in the City of Peoria on the date of adoption of this Ordinance as well as detention basins constructed after the effective date.

F. General Basin Design Requirements

1. Erosion Control. Temporary and permanent erosion control shall be required for all detention basins in accordance with this Ordinance.

2. Verification and Final Approval.

a. Erosion protection shall be inspected throughout the project duration.

b. Detention basin storage volume shall be verified to the satisfaction of the appropriate jurisdiction official through as-built surveys or other means.

- c. Inflow, outflow and emergency overflow elevations and configurations shall be verified through as-built surveys.
- d. Final vegetative cover and permanent erosion control shall be inspected for completeness of cover.
- e. The basin will receive final approval upon fulfillment of b, c, and d above, and the anniversary date of maintenance and repair reporting will be recorded as such.
- f. All basins must receive final approval within ninety (90) days of the substantial completion as determined by the appropriate jurisdiction official of ANY of the following:
 - i. The first phase (as shown on approved plans) of construction of public utilities and roadways in any approved Subdivision project. Detention structures for the ultimate development area must be constructed during the first phase of the project, and approved at its completion. The detention structures must then be maintained and repaired in conformance with this Ordinance, during future construction phases.
 - ii. Parking areas, floor slabs and/or other impervious areas (as shown on approved plans, and not including sidewalks) for work on an individual lot requiring an individual permit under this Ordinance. Phased construction will be treated as in the above case.
 - iii. Mass earthwork or rough grading, if no other phased construction is scheduled to be started within one hundred eighty (180) days.
- g. Failure to receive final approval as required will be considered a violation of this Ordinance.

3. Infiltration Practices. To effectively reduce runoff volumes, infiltration practices including basins, trenches, and porous pavement should be used when practical and shall follow criteria in the Illinois Urban Manual and other relevant permitting. An appropriate sediment control device shall be provided to remove coarse sediment from stormwater flows before they reach infiltration basins or trenches. Stormwater shall not be allowed to stand more than seventy-two (72) hours over eighty (80) percent of the dry basin's bottom area for the maximum design event. The bottom of infiltration basins or trenches shall be a minimum of three (3) feet above the seasonally high groundwater and bedrock level if practicable. Engineering calculations demonstrating infiltration rates shall be included with the application.

4. Side Slopes. The side slopes of all detention basins at one hundred (100) year, 24 hour capacity should be as level as practicable to prevent accidental falls into the basin and for stability and ease of maintenance. Side slopes of detention basins and open channels shall not be steeper than three (3) to one (1) (horizontal to vertical) – certain types of basins have different requirements as defined by this Ordinance. Detention basin side slopes above

normal pool shall be designed with permanent erosion protection consisting of grass, non-grass vegetation, or other permanent finish. At least six (6) inches of topsoil must be provided on side slopes in shoreline planting zones and above normal pool elevation whenever non-structural, permanent erosion control is not being used. Permanent erosion protection shall be aesthetically suitable to the development or existing surrounding land use.

5. Overflow Structures. All stormwater detention basins shall be provided with an overflow structure capable of safely passing excess flows at a stage at least one foot below the lowest foundation grade in the vicinity of the detention basin. The design flow rate of the overflow structure shall be equivalent to the one hundred (100) year peak inflow rate. Weirs, dams and specialized outflows shall be designed by a Professional Engineer registered in the State of Illinois.

6. Detention Basin Outlet Design.

Backwater on the outlet structure from the downstream drainage system shall be addressed when designing the outlet. The downstream boundary condition shall be summarized, including all assumptions and calculations used to determine the boundary condition.

Minimum Detention Outlet Size. Single pipe outlets shall have a minimum inside diameter of 12 inches. If design release rates require a smaller outlet, a design that minimizes clogging shall be used. Minimum outlet restrictor size shall be four (4) inches in diameter provided there is adequate downstream capacity. Smaller restrictors may be considered if adequate protection is provided to prevent clogging at the outlet. Detention volume and corresponding high water level required for a development shall be determined by using the appropriate release rates specified in Section Three, Article II B.

7. Other Design Requirements.

“Bubble up” outlets are prohibited.

Pumped outlets and other active control structures are discouraged and must be pre-approved on a case-by-case basis by the appropriate jurisdiction official.

Temporary erosion techniques shall be used as required to ensure a full stand of cover vegetation in minimum time.

8. Location Requirements.

In subdivisions, detention basins and their one hundred (100) year design high water shall be contained within platted lots dedicated for drainage purposes. In redevelopments, detention basins and their one hundred (100) year design high water shall be contained within a drainage easement.

Detention basin lots shall have a minimum of twenty (20) feet of frontage on a right-of-way for the purpose of providing unrestricted access for maintenance. Exceptions may be made for infill development.

A twenty (20) feet minimum setback shall be required from all property lines to the normal pool elevation which is considered to be the elevation of the water level at the permanent depth of the wet basin pool rather than the temporary depth during drainage events.

Detention basins shall be provided with a minimum of one (1) foot of vertical freeboard above the one hundred (100) year peak design water elevation.

There shall be at least two (2) feet of freeboard between the one hundred (100) year design water elevation and all boundaries of the parcel or easement containing the basin.

9. Accommodating Flows from Upstream Tributary Areas. Stormwater runoff from areas tributary to the property shall be considered in the design of the property's drainage system. Flows from upstream areas that are not to be detained should be routed around the basin being provided for the site being developed.

10. Upstream Areas NOT Meeting Ordinance Requirements. When there are areas not meeting the storage and release rates of this Ordinance, tributary to the applicant's property, the following steps shall be followed:

The applicant shall compute the storage volume needed for his/her property using the release rates and procedures described in this Ordinance.

Areas tributary to the applicant's property, not meeting the storage and release rate requirements of this Ordinance, shall be identified.

Using the areas determined above plus the applicant's property area, total storage and release rates needed for the combined properties shall be computed using the release rates and procedures described in this Ordinance. If tributary areas are not developed, a reasonable fully developed land cover, based on local zoning, shall be used for the purposes of computing storage.

Once the necessary combined storage is computed the jurisdiction may choose to pay for over-sizing the applicant's detention basin to accommodate the regional flows. The applicant's responsibility will be limited to the storage for his property as computed above. If regional storage is selected by the jurisdiction, the jurisdiction will work with the applicant to implement the requirements of this Ordinance. If regional storage is rejected by the jurisdiction, the applicant shall bypass all tributary area flows around the applicant's basin whenever practicable as determined by appropriate jurisdiction official. If the applicant must route upstream flows through his/her basin

and the upstream areas exceed one-square mile in size, the applicant must meet the provisions On-Stream Detention in this Ordinance and applicable IDNR requirements.

11. Upstream Areas Meeting Ordinance Requirements. When there are areas which meet the storage and release rate requirements of this Ordinance, tributary to the applicant's property, the upstream flows shall be bypassed around the applicant's detention basin if this is the only practicable alternative as determined by appropriate jurisdiction official. Storage needed for the applicant's property shall be computed as described in this Ordinance. However, if the jurisdiction decides to route tributary area flows through an applicant's basin, the final design stormwater releases shall be based on the combined total of the applicant's property plus tributary areas. It must be shown that at no time will the runoff rate from the applicant's property exceed the allowable release rate for his/her property alone.

12. Early Completion of Detention Facilities. Where detention or retention are to be used as part of the drainage system for a property, they shall be constructed as the first element of the initial earthwork program. Any eroded sediment captured in these facilities shall be removed by the applicant on a regular basis and before project completion in order to maintain the design volume of the facilities.

G. Wet Bottom Detention Basin Design Wet bottom detention basins shall be designed to remove stormwater pollutants, to be safe, to be aesthetically pleasing, and as much as feasible to be available for recreational use.

1 Wet Bottom Basin Depths. Wet bottom basins shall be at least three feet deep, excluding near-shore zones and safety ledges. If fish habitat is to be provided they shall be at least ten (10) feet deep over twenty-five (25%) percent of the bottom area to prevent winterkill.

2 Wet Bottom Basin Shoreline Slopes. The side slopes of wet bottom basins shall not be steeper than ten to one (10 to 1) horizontal to vertical from one foot above the normal pool stage to at least one foot below the normal pool stage. Slopes below a depth of 8 feet are permitted to be two to one, In accordance with IDOT Standard Specifications Section 204.

Appropriate soil conditions shall be provided in this shoreline zone. First, compaction of both subsoil and topsoil shall be minimized (i.e., to less than 275 psi). Where subsoil compaction cannot be avoided, it should be disked to a depth of 6-8 inches with a chisel plow before spreading topsoil. Second, a suitable uncompacted topsoil, at a minimum thickness of one foot shall be spread to provide a suitable growing medium for aquatic plants. Coarse soils with minimal clay content and a high organic content are recommended.

Upper slopes of detention basins (higher than one foot above normal stage and including the upstream side of the embankment) should be no steeper than 4:1. Flatter slopes (i.e., 5:1) are preferred to enhance plant establishment and to facilitate long-term maintenance.

3. Permanent Pool Volume. The minimum permanent pool volume in a wet bottom basin at normal depth shall be equal to the runoff volume from its watershed for the two (2) year, twenty-four (24) hour event.
4. Wet Bottom Basin Inlet and Outlet Orientation. The distance between detention inlets and outlets shall be maximized. Inlets and outlets shall be at opposite ends of the basin providing that the orientation does not create undue hardship based on topography or other natural constraints. Designers are encouraged to use baffles or berms in the basin bottom to prevent short-circuiting. There shall be no low flow bypass between the inlet and outlet.
5. Safety Ledge. All wet detention basins shall have a level safety ledge at least four feet in width two and one-half to three (2.5 to 3) feet below the normal water depth.
6. Shoreline Vegetation: Water tolerant native vegetation shall be used to landscape the shorelines of wet detention facilities. The selected plants and planting methods shall conform to the soils, hydrology, and water quality conditions present in such facilities, with plants being tolerant of highly variable hydrologic conditions and degraded water quality (e.g., high turbidity and salinity content). Plant selection should conform to the guidance in the *Native Plant Guide for Stream and Stormwater Facilities in Northeastern Illinois* (NRCS et al, 1997) which is hereby adopted by reference.

Native vegetation is recommended, but not required, for side slopes (higher than one foot above normal stage) of all detention facilities.

7. Dewatering. An outlet structure shall be provided to allow dewatering of the pond for maintenance. Gravity dewatering is strongly preferred.
8. Soil Permeability. Wet bottom basin design shall include an evaluation of soil permeability. A basin liner shall be included in the design if needed to ensure water retention to normal pool elevation.

H. Wetland Detention Basin Design In addition to the other requirements of this Ordinance, wetland basins shall be designed to remove stormwater pollutants, to be safe, to be aesthetically pleasing and as much as feasible to be available for multiple uses.

1. Wetland Basin Grading. The side slopes of wetland basins (from one foot above the normal pool stage to at least one foot below the normal pool stage) and the basin bottom shall not be steeper than 10 to 1 (horizontal to vertical). Steeper slopes are permitted in settling basins and open water zones near the basin outlet.

Appropriate soil conditions shall be provided in this shoreline zone. First, compaction of both subsoil and topsoil shall be minimized (i.e., to less than 275 psi). Where subsoil compaction cannot be avoided, it should be disked to a depth of 6-8 inches with a chisel plow before spreading topsoil. Second, a suitable uncompacted topsoil, at a minimum thickness of one foot shall be spread to provide a suitable growing medium for aquatic

plants. Coarse soils with minimal clay content and a high organic content are recommended.

Upper slopes of detention basins (higher than one foot above normal stage) should be no steeper than 4:1. Flatter slopes (i.e., 5:1) are preferred to enhance plant establishment and to facilitate long-term maintenance.

2. **Wetland Vegetation:** Water tolerant native vegetation shall be used to landscape the shorelines and bottoms (non-open water areas) of wetland detention facilities. The selected plants and planting methods shall conform to the soils, hydrology, and water quality conditions present in such facilities, with plants being tolerant of highly variable hydrologic conditions and degraded water quality (e.g., high turbidity and salinity content). Plant selection should conform to the guidance in the *Native Plant Guide for Stream and Stormwater Facilities in Northeastern Illinois* (NRCS et al, 1997) which is hereby adopted by reference.

Native vegetation is recommended, but not required, for side slopes (higher than one foot above normal stage) of all detention facilities.

I. Dry Detention Basin Design In addition to the other requirements of this Ordinance, dry basins shall be designed to remove stormwater pollutants, to be safe, to be aesthetically pleasing and as much as feasible to be available for multiple uses.

1 **Dry Basin Drainage.** Dry basins shall be designed so that eighty percent (80%) of their bottom area shall have standing water no longer than seventy-two (72) hours for any runoff event less than the one hundred (100) year event. Grading plans shall clearly distinguish the wet portion of the basin bottom. Underdrains directed to the outlet may be used to accomplish this requirement.

2 **Minimum Bottom Slope.** Dry bottom basins shall have two percent (2%) minimum bottom slopes or underdrain systems as approved by the jurisdiction Engineer.

3 **Velocity Dissipation.** Velocity dissipation measures shall be incorporated into dry basin designs to minimize erosion at inlets and outlets and to minimize resuspension of pollutants.

4 **Dry Basin Inlet and Outlet Orientation.** Dry basin inlet and outlet orientation shall be the same as for wet bottom basins.

5 **Temporary Sediment Trap.** A sediment trap shall be constructed at each major inlet to a dry basin during construction. The temporary sediment trap shall be designed in accordance with criteria in the Illinois Urban Manual.

J. Detention in Flood Plains is Prohibited The placement of detention basins within the 100-year floodplain is prohibited. In the case where there is no regulatory (FEMA) floodplain, and the receiving stream has a drainage area

greater than or equal to one (1) square mile, a 100-year floodplain delineation shall be performed by a Professional Engineer registered in the state of Illinois. This delineation shall be used to determine the areas where detention is prohibited.

K. Detention on Prime Farmland The placement of detention basins shall avoid the utilization of prime farmland. All detention basin construction shall examine potential impacts to adjacent agricultural land and shall address measures that will be implemented to eliminate such impacts and comply with other relevant permitting.

L. On-Stream Detention On-stream detention basins are discouraged but will be considered if they provide regional public benefits and if they meet the other provisions of this Ordinance with respect to water quality and control of the one (1) year, 10-year, and one-hundred (100) year, twenty-four (24) hour events from the property. IDNR criteria must also be met for on-stream detention basins. Further criteria are presented in this Ordinance. If on-stream detention is used in watersheds larger than one square mile, the applicant will use hydrologic and hydraulic modeling to demonstrate that the design will not increase the flood levels for any properties upstream or downstream of the property.

Impoundment of the stream as part of on-stream detention SHALL:

1. Require the implementation of an effective non-point source management program throughout the upstream watershed which shall include as a minimum:
 - Best Management Practices (BMPs) for runoff reduction consistent with the hierarchy for Minimization of Runoff Volumes and Rates as defined in this Ordinance;
 - and
 - Two year, 24 hour detention/sedimentation basins for all development consistent with the definition of Temporary Sediment Trap.
 - A program to control nonpoint sources at the source for prior developments constructed without appropriate stormwater BMPs.
1. Include a design for appropriate bank stabilization measures, based on flow velocity calculations, and a pre-sedimentation basin.
2. Comply with other relevant permitting and/or ordinances.

Impoundment of the stream as part of on-stream detention SHALL NOT:

1. Prevent the migration of indigenous fish species, which require access to upstream areas as part of their life cycle, such as for spawning.
2. Cause or contribute to the degradation of water quality or stream aquatic habitat.
3. Involve any stream channelization or the filling of wetlands.
4. Occur downstream of a wastewater discharge.

5. Contribute to the duration or flood frequency of any adjacent land.

M. Protection of Wetlands, Rivers, Streams, Lakes, Ponds, and Depressional Storage Areas

Wetlands, rivers, streams, lakes and ponds shall be protected from damaging modifications and adverse changes in runoff quality and quantity associated with land developments. In addition to the other requirements of this Ordinance, the following requirements shall be met for all developments whose drainage flows into wetlands, rivers, lakes or ponds:

- 1 Detention in Wetlands, Rivers, Streams, Lakes or Ponds. Existing wetlands, rivers, lakes, or ponds shall not be modified for the purposes of stormwater detention unless it is demonstrated that the proposed modifications will maintain or improve its habitat and ability to perform beneficial functions and shall comply with other relevant permitting. Existing storage and release rate characteristics of wetlands, rivers, lakes, ponds, or other depressional storage areas shall be maintained and the volume of detention storage provided to meet the requirements of this section shall be in addition to this existing storage.
- 2 Sediment Control. The existing wetlands, rivers, lakes or ponds shall be protected during construction and as further regulated in Section Three, Article IV of this Ordinance.
- 3 Alteration of Drainage Patterns. Site drainage patterns shall not be altered to substantially decrease or increase the existing area tributary to wetlands, rivers, lakes or ponds. Drainage patterns shall not be altered by development to direct runoff offsite to other than natural drainage outlets existing prior to development.
- 4 Detention/Sedimentation. All runoff from the development shall be routed through a preliminary detention/sedimentation basin designed to capture the two (2) year, twenty-four (24) hour event and hold it for at least twenty-four (24) hours, before being discharged to the wetland, river, lake or pond. This basin shall be constructed before property grading begins and shall be maintained throughout the construction process. In addition, the BMP hierarchy defined in Section Three, Article I, D. should be followed to minimize runoff volumes and rates being discharged to the wetland, river, stream, lake or pond, and as further regulated in Article II and Article IV of this Section.
- 5 Vegetated Buffer Strip. A buffer strip of at least twenty-five (25) feet in width, vegetated with native plant species, shall be maintained or restored around the periphery of a wetland, river, stream, lake or pond.

N. Street Detention If streets are to be used as part of the minor or major drainage system, ponding depths shall follow the criteria below:

1. Principal and Minor Arterials

Flow from a ten (10) year storm shall not inundate the center twenty (20) feet of the pavement.

Flow from a fifty (50) year storm shall be carried without damage to any building.

2. Collector Streets

Flow from a ten (10) year storm shall not inundate the center ten (10) feet of the pavement.

Flow from a fifty (50) year storm shall be carried without damage to any building.

3. Local Streets

Flow from a ten (10) year storm shall not top the curb.

Flow from a fifty (50) year storm shall be carried without damage to any building.

O. Parking Lot Detention The maximum stormwater ponding depth in any parking area shall not exceed six (6) inches for more than four (4) hours. Parking layout shall be designed such that handicap parking spaces are outside the design flood limits of the parking lot.

P. Rooftop Detention Rooftop storage of excess stormwater shall be designed and constructed to meet with the jurisdiction building code.

Q. Fee in Lieu of Detention

1 For the purpose of satisfying the requirements for stormwater detention or compensatory storage for a development or redevelopment on a property for which detention or compensatory storage was not previously provided, a fee in lieu of detention or compensatory storage may be assessed against the development prior to the issuance of a permit. Fees shall be calculated to establish the property's fair share of costs to provide detention or compensatory storage for the watershed or drainage basin in which the property exists. The cost figures used for detention shall be actual costs for detention or compensatory storage being provided by contract or estimated costs for planned detention or compensatory storage facilities approved by the appropriate jurisdiction official. All revenues received through such fees shall be used for no purpose other than defraying public costs associated with providing detention or compensatory storage facilities.

2 The jurisdiction also may require a fee for each acre/foot of detention needed in lieu of the applicant building a basin on site, provided the property will discharge stormwater into existing or proposed detention facilities with added capacity for the additional runoff.

R. Cooperative Detention

The jurisdiction will consider joint detention facilities developed through cooperative efforts that comply with all requirements of this Ordinance.

DRAFT

SECTION FOUR STORMWATER POLLUTION PREVENTION PLAN (SWP3)

A. General

1 The area disturbed shall be assumed to include the entire property area unless the applicable plans specifically exclude certain areas from disturbance.

2 The owner bears the responsibility for implementation of the SWP3 and notification of all contractors and utility agencies on the site.

3 SWP3's must be provided for all phases of development, including sanitary sewer construction, storm drainage system construction, waterline, street and sidewalk construction, general grading and the construction of individual homes. The Class 2 Grading and Drainage Permit holder will not be required to provide an SWP3 for the activities of utility agencies.

4 The jurisdiction of the City of Peoria will use the Illinois Department of Transportation (IDOT) system of compliance that is outlined in the Bureau of Design and Environment (BDE) design manual.

5 The subsequent owners of individual lots in a subdivision with an approved SWP3 bears the responsibility for continued implementation of the approved SWP3's for all construction activity within or related to the individual lot, excluding construction managed by utility agencies.

B. Requirements for Utility Construction

1 Utility companies shall be responsible for compliance with the requirements of this Ordinance.

2 Utility companies shall develop and implement Best Management Practices (BMPs) to prevent the discharge of pollutants on any site of utility construction within the jurisdiction. Disturbed areas shall be minimized, disturbed soil shall be managed and construction site entrances shall be managed to prevent sediment tracking. Sediment tracked onto public streets shall be removed immediately by the utility agency.

3 Prior to entering a construction site, utility agencies shall obtain a copy of any SWP3's for the project from the owner. Any disturbance to BMPs resulting from utility construction shall be repaired immediately by the utility company in compliance with the SWP3.

C. Required Documentation

A Class 2 Grading and Drainage Permit requires the execution and record maintenance of the following forms and reports (see also the Erosion Control Plan Action Matrix, NPDES Action Matrix - IDOT). The most current version of the standard forms from the Illinois Department

of Transportation and the Illinois Environmental Protection Agency (IEPA) shall be used. The approved project erosion control documents shall be kept on file at the construction site or at a nearby field office and must be made available to the general public upon request.

1 A Storm Water Pollution Prevention Plan (SWP3) using the IDOT SWP3 Template (form BDE 2342), except that the Illinois Urban Manual, latest amended, shall be referenced in lieu of IDOT Standard Specifications for Road and Bridge Construction.

2 A Contractor Certification Statement (CCS) prepared prior to the start of construction by the contractor responsible for erosion control using the IDOT CCS Template (form BDE 2342a). The Grading and Drainage Permit holder shall provide the contractor responsible for erosion control with a copy of the IEPA NPDES statewide permit ILR10.

3 A Notice of Intent (NOI) shall be filed at least 30 days prior to the start of construction and shall be prepared by the Grading and Drainage Permit holder (the original sent by certified mail to the IEPA with transmittal copy to the appropriate jurisdiction official, and a copy kept in the project erosion control file). Use the IDOT NOI Template (Found in Forms Section of the IDOT Construction Manual WPC 623).

4 A NPDES / Erosion Control Inspection Report (ECIR) shall be prepared by the Grading and Drainage Permit holder on a weekly basis and after any 1/2-inch rainfall (to be kept in project erosion control file). Use current IDOT ECIR template (BC 2259).

5 An Incidence of Non-Compliance (ION) and corrective action shall be filed by the Grading and Drainage Permit holder within five (5) working days of the incident (the original sent by certified mail to the IEPA with transmittal copy to the appropriate jurisdiction official and a copy kept in the project erosion control file). Use current IDOT ION Template (Found in Forms Section of the IDOT Construction Manual WPC 624).

6 A Notice of Termination (NOT) shall be filed upon final stabilization of erosion (minimum 70% viable vegetative growth) by the Grading and Drainage Permit holder (the original sent by certified mail to the IEPA with transmittal copy to the appropriate jurisdiction official and a copy kept in the project erosion-control file). Use current IDOT NOT Template V (found in Forms Section of the IDOT Construction Manual WPC 621).

D. Applicability and Guidelines

1 It is the responsibility of the Grading and Drainage Permit holder to prepare and maintain documentation to meet the NPDES permit requirements for private grading and construction projects.

2 The appropriate jurisdiction official shall be given immediate access to all required project NPDES documents.

3 All notices sent to the IEPA shall be copied to the appropriate jurisdiction official.

E. Referenced Standards Design standards for soil erosion and sediment control shall comply with the most current provisions of the USEPA regulations, IEPA regulations, IDOT Erosion Control/NPDES guidelines and the latest amended “Illinois Urban Manual”, prepared by the United States Department of Agriculture, Natural Resources Conservation Service, unless otherwise stated by this Ordinance.

The preparation of stormwater pollution prevention plans shall follow the requirements of this Ordinance and the procedures outlined in the latest edition of the “Illinois Procedures and Standards for Urban Soil Erosion and Sediment Control” (commonly known as the “Greenbook”), which is hereby incorporated into this Ordinance by reference.

Practice standards and specifications for measures outlined in the stormwater pollution prevention plan shall follow the requirements of this Ordinance and be as least as protective as criteria in the latest edition of the “Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem and Enhancement”, which is hereby incorporated into this Ordinance by reference.

In instances where BMPs are not included in the Illinois Urban Manual, design criteria found in IDOT standard specifications or other reference manuals may be used with the approval of the jurisdiction.

F. General Erosion and Sediment Control Design Features The following principles shall apply to all construction undertaken under the authorization of a Class 2 Grading and Drainage Permit.

1. New development or redevelopment shall be designed to create the least potential for erosion. The disturbance of slopes greater than seven percent (7%) should be avoided wherever possible. Natural contours should be followed as closely as possible.
2. Natural vegetation shall be retained and protected wherever possible. Areas immediately adjacent to natural watercourses, lakes, ponds, and wetlands are to be left undisturbed wherever possible. Temporary crossings of watercourses, when permitted, must include appropriate stabilization measures.
3. Special precautions shall be taken to prevent damages resultant from any necessary development activity within or adjacent to any stream, lake, pond or wetland. Preventive measures shall reflect the sensitivity of these areas to erosion and sedimentation.
4. The smallest practical area of land should be exposed for the shortest practical time during development.
5. Sediment basins or traps, filter barriers, diversions, and any other appropriate sediment or runoff control measures shall be installed prior to site clearing and grading and maintained to remove sediment from run-off waters from land undergoing development.

6. In the design of erosion control facilities and practices, aesthetics and the requirements of continuing maintenance must be considered.

7. Provisions shall be made to accommodate the increased run-off caused by changed soil and surface conditions during and after development. Drainageways should be designed so that their final gradients and the resultant velocities and rates of discharge will not create additional erosion on-site or downstream.

8. Permanent vegetation and structures shall be installed and functional as soon as practical during development. Disturbed areas shall be stabilized with approved permanent measures within seven (7) calendar days following the end of active disturbance or redisturbance consistent with the following criteria:

a) Appropriate permanent stabilization measures shall include seeding, mulching, sodding, with non-vegetative measures as a last resort. b) Areas having slopes greater than twelve percent (12%) shall be stabilized with sod, mat, or blanket in combination with seeding or equivalent.

9. Those areas being converted from agricultural purposes to other land uses shall be vegetated with an appropriate protective cover prior to development.

10. All waste generated as a result of site development activity shall be properly disposed of and shall be prevented from being carried off the site by either wind or water.

11. All construction sites shall provide measures to prevent sediment from being tracked onto public or private roadways.

12. All temporary soil erosion and sediment control practices shall be maintained to function as intended until the contributing drainage area has been permanently stabilized at which time they shall be removed within thirty (30) days after final site stabilization.

G. Materials and Construction Notes Materials and construction notes for BMPs shall be at least as protective as criteria in the Illinois Urban Manual. In instances where BMPs are not included in the Illinois Urban Manual, criteria found in IDOT standard specifications or other reference manuals may be used with approval of the jurisdiction.

H. Testing and Inspection Use the Residents Weekly NPDES / Erosion Control Inspection Report BC 2259 from the Illinois DOT Construction Manual.

I. Soil Grading and Drainage Plan Requirements A soil grading and drainage plan, including a narrative shall be submitted showing all measures necessary to meet the objectives of this Ordinance throughout all phases of construction. The development of a soil grading and drainage plan shall follow the requirements of this Ordinance and the procedures in the latest edition of the "Illinois Urban Manual" which is hereby incorporated into this Ordinance by reference. The jurisdiction may waive specific requirements for the content of submissions upon finding

that the information submitted is sufficient to show that the work will comply with the objectives and principles of this Ordinance. Permanent soil erosion and sediment control features needed at the completion of any development site shall be included in the submittal.

The submitted soil grading and drainage plan shall include:

1. Mapping and Descriptions. The existing and proposed erosion and sediment control features of the property and immediate vicinity including:

Items as required for the Grading and Drainage Plan Submittal.

Location of the slope disturbance line.

Location and description of the soil erosion and sediment control measures to be employed during construction.

For any structures proposed to be located on the slope side of the slope disturbance line, the map shall include the limits of disturbance including: tree removal, soil erosion and sediment control measures during construction, details of method(s) proposed for providing slope stability, permanent stormwater control measures, and permanent erosion and sediment control measures all being certified by a registered Professional Engineer or a "Certified Professional Erosion Control Specialist."

The predominant soil types on the site, their location, and their limitations for the proposed use as defined by the U.S.D.A. Natural Resources Conservation Service (NRCS).

Location and description, including standard details, of all sediment control measures and specifics of sediment basins and traps, including outlet details.

Location and description (specification) of all soil stabilization and erosion control measures, including seeding mixtures and rates, types of sod, method of seedbed preparation (type and extent of tillage, weed control, planting equipment, etc.), expected seeding dates, type, method and rate of lime and fertilizer application (soil fertility testing required), kind and quantity of mulching for both temporary and permanent vegetative control measures, and types of non-vegetative stabilization measures.

Location and description of all runoff control measures, including diversions, waterways, and outlets.

2. Larger sites, at the discretion of the appropriate jurisdiction official, and those requiring a Stormwater Pollution Prevention Plan (SWP3), may also require the following:

Location and description of methods to prevent tracking of sediment off-site including construction entrance details, as appropriate.

Description of dust and traffic control measures.

Provisions for maintenance of control measures, including type and frequency of maintenance, easements, and estimates of the cost of maintenance.

Identification (name, address, and telephone) of the person(s) or entity which will have legal responsibility for maintenance of soil erosion and sediment control structures and measures during development and after development is completed.

J. Site Development Requirements On-site sediment control measures, as specified by the following criteria, shall be constructed as specified in the referenced handbooks, and functional prior to initiating clearing, grading, stripping, excavating or fill activities on the site.

1. For new developments or re-developments of more than one (1) acre but less than five (5) acres, a sediment trap or equivalent control measure shall be constructed at the downslope point of the disturbed area.
2. For new developments or re-developments of greater than five (5) acres, a sediment basin or equivalent control measure shall be constructed at the down slope point of the disturbed area.
3. Sediment basin and sediment trap designs shall provide for both "dry" detention and "wet" detention sediment storage. The detention storage shall be composed of equal volumes of "wet" detention storage and "dry" detention storage and each shall be sized as regulated in this Ordinance. The release rate of the basin shall be that rate as regulated in this Ordinance. The elevation of the outlet structure shall be placed such that it only drains the dry detention storage.
4. The sediment storage shall be sized to store the estimated sediment load generated from the site over the duration of the construction period with a minimum storage equivalent to the volume of sediment generated in one year. For construction periods exceeding one year, the 1-year sediment load and a sediment removal schedule may be substituted.
5. To the extent possible or as otherwise regulated in this Ordinance all desirable trees eight (8) inches in diameter (measured at 4.5 ft. dbh) and larger shall be protected for their present and future value for erosion protection and other environmental benefits. Trees that have been selected for preservation shall be protected following criteria in the Illinois Urban Manual prior to the beginning of any clearing, grading, stripping, excavation, or filling of the site. A "No" construction zone shall be established and marked at the perimeter of the dripline of each tree which is to be preserved.
6. Stormwater conveyance channels, including ditches, swales, and diversions, and the outlets of all channels and pipes shall be designed and constructed as regulated in this Ordinance.

All constructed or modified channels shall be stabilized within forty-eight (48) hours, consistent with the following standards and as required in the referenced handbooks:

For grades up to four percent (4%), seeding in combination with mulch, erosion blanket, or an equivalent control measure shall be applied. Sod or erosion blanket or mat shall be applied to the bottom of the channel.

For grades of four to eight percent (4-8%), sod or an equivalent control measure shall be applied in the channel.

For grades greater than eight percent (8%), rock, riprap, or an equivalent control measure shall be applied over filter fabric or other type of soil protection, or the grade shall be effectively reduced using drop structures.

7. Land disturbance activities in stream channels shall be avoided, where possible, or as regulated this Ordinance. If disturbance activities are unavoidable, the following requirements shall be met.

Construction vehicles shall be kept out of the stream channel to the maximum extent practicable. Where construction crossings are necessary, temporary crossings shall be constructed of non-erosive material, such as riprap or gravel.

The time and area of disturbance of stream channels shall be kept to a minimum. The stream channel, including bed and banks, shall be stabilized within 48 hours after channel disturbance is completed, interrupted, or stopped.

Whenever channel relocation is necessary, the new channel shall be constructed under dry conditions and fully stabilized before flow is diverted, incorporating meanders, pool and riffle sequence, and riparian planting.

8. Storm sewer inlets and culverts shall be protected by sediment traps or filter barriers meeting accepted design standards and specifications.

9. Soil storage piles containing more than ten (10) cubic yards of material shall not be located with a downslope drainage length of less than fifty (50) feet to a roadway, drainage channel, or abandoned mine. Filter barriers, including straw bales, filter fence, or equivalent, shall be installed immediately surrounding the perimeter of the pile.

10. If dewatering devices are used, discharge locations shall be protected from erosion. All pumped discharges shall be routed through appropriately designed sediment traps or basins, or equivalent and shall not be deposited into an abandoned mine.

11. Each site shall have graveled (or equivalent) entrance roads, access drives, and parking areas of sufficient length and width to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by

shoveling or street cleaning (not flushing) before the end of each workday and transported to a controlled sediment disposal area.

DRAFT

**SECTION 5
FEES**

(TO BE
DETERMINED)

DRAFT

DRAFT

**APPENDIX
A**

**SAMPLE LETTER OF
CREDIT**

(name of bank)

(City bank's located) , (State)

Irrevocable Credit No. Date: , 20

City/County of , Illinois All drafts must be marked: , Illinois "Drawn under Credit No. , dated , 20

Gentlemen:

We hereby open an Irrevocable Letter of Credit in the amount of (\$) in your favor for the account of

(Developer), the developer of (name of project) , proposed in the City/County of , Illinois, or within its territorial jurisdiction, for the benefit of the City/County of . Said money hereunder shall be available by your drafts at sight drawn on us drawn in the name

of the City/County of , Illinois. All drafts so drawn must be marked "Drawn under (name of bank) , Credit No. dated , 20 ."

Drafts must be accompanied by a signed statement by the appropriate official of the City/County of , Illinois, that the request is for the installation or construction of improvements required pursuant to the plans, specifications, and cost estimates dated , 20 , and approved by the City/County of , Illinois, and on file with the appropriate official. Further, all requests for disbursements under this Letter of Credit made prior to (must be 2 years after filing), 20 , shall be submitted by developer and accompanied by a certified estimate of units and value of work completed with contractor's sworn statement and waiver of mechanics' liens, all approved by the Developer's engineer and the appropriate official of the City/County of , Illinois. It is understood as to all disbursements that the appropriate official shall approve partial drawings only as long as there remains a sufficient balance to the Credit to cover his then current estimate of costs for the required improvements which at that time remain to be completed but in no case shall his approval exceed ninety percent (90%) of the value of work completed.

In the event that all of the work for the improvements is not completed to the satisfaction of the City/County on or before (1 day short of 2 years after filing), 20 , the funds remaining under this Letter of Credit shall be available to the City/County of , Illinois upon presentation of their draft at sight drawn on us in the name of the City/County of

, Illinois. This draft so drawn must be marked "Drawn under (name of bank) , Credit No. ,

dated , 20 ." Further, such draft shall be accompanied by a signed statement by the appropriate official of the City/County of , Illinois as follows: "I, (name) , appropriate official for the City/County of

, Illinois, do hereby certify that work on required improvements for the

of the City/County of , Illinois. All drafts so drawn must be marked "Drawn under (name of bank) , Credit No.

dated , 20 ."

This Credit shall expire on (2 years after filing), 20; provided however the undersigned shall notify the appropriate official by certified mail, return receipt requested, at least 90 days prior to expiration date that this Letter of Credit is about to expire and provided, however, in no event shall this Credit expire except upon prior written notice, it being expressly agreed by the undersigned that the above expiration date shall be extended as shall be required to comply with this notice provision.

The undersigned further agrees that this Credit shall remain in full force and effect and pertain to any and all amendments or modifications which may be made from time to time to the specifications, and agreements for the project, without notice from the City/County of the amendments or modifications.

All acts, requirements and other preconditions for the issuance of this Irrevocable Letter of Credit have been completed.

We hereby engage with the drawers, endorsers, and bona fide holders of drafts, drawn under and in compliance with the terms of this Credit, that same shall be honored upon presentation to the drawer. This Credit must accompany any draft which exhausts the Credit and must be surrendered concurrently with the presentation of such draft.

We hereby undertake and engage that all demands made in conformity with this Credit will be honored upon presentation. If, within ten (10) days of the date any demand made in conformity with this Credit is presented, we fail to honor same, we agree to pay all attorneys' fees, court costs, and other expenses incurred by the City/County of in enforcing the terms of this Credit.

Dated: , 20 .

(name of bank)

By (title)

Attest:

(title)

**SAMPLE
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS, that , as
PRINCIPAL, , as SURETY, and ,
as ADDITIONAL SURETY, are held and firmly bound unto the City/County of
, Illinois, as OBLIGEE, in the sum of

(\$) lawful money of the United States, for the payment whereof to the
Obligee, the Principal and the Surety, and Additional Surety bind themselves, their heirs, executors,
administrators, successors, and assigns, jointly and severally, firmly to these presents:

SIGNED, SEALED AND DATED, THIS day of , 20 .

WHEREAS, application was made to the Obligee for approval of a project entitled " ", located
in the City/County of
, Illinois, filed with the appropriate official of the City/County of , Illinois, on ,
20 , said project may be approved upon certain conditions, one of which is that a performance bond
in the amount of (\$), to be filed with the City/County Clerk to guarantee certain improvements in
said project.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the above named
Principal shall within two (2) years from the date hereof will and truly make and perform the
required improvements and construction of public improvements in and adjacent to said project in
accordance with the specifications of the City/County of appropriate department and the
Stormwater Regulations of the City/County of
, then this obligation to be void; otherwise to remain in full force and effect.

It is hereby understood and agreed that in the event that any required improvements have not been
installed as provided aforesaid within the term of this Performance Bond, the Governing Body may
thereupon declare this bond to be in default and collect the sum remaining payable thereunder and
upon receipt of the proceeds thereof, the City/County of
shall install such improvements as are covered by this bond and commensurate
with the extent of development that has taken place in said project but not exceeding the amount
of such proceeds.

Principal

By: Principal

Surety

By: Attorney in Fact

Additional Surety

Approved as to Form:

By:

DRAFT

**APPENDIX
B**

Covenant To Be Included In Subdivision Covenants

Stormwater Detention Basin

A stormwater detention basin has been constructed within the subdivision, in accordance with the requirements of the municipal stormwater ordinance, and is so designated as "Detention Basin" on subdivision plat. The detention basin shall provide for the temporary detention of stormwater runoff from the subdivision to meet release rates as required by the municipality.

The real estate upon which the detention basin is located, designated as Outlot A on the Plat, shall be deeded from the Developer to the Homeowner's Association upon the sale of 75% of the lots within the Subdivision.

The Developer as owner, and subsequent to the conveyance of title, the Homeowners Association as owner, shall be responsible for the following:

of the City/County of _____, Illinois. All drafts so drawn must be marked "Drawn under (name of bank) _____, Credit No. _____ dated _____, 20____."

_____ has not been completed to the project named _____ satisfaction of the City/County of _____ on or before _____ (one day short of two years after filing) _____, 20____.

An annual report on the detention basin condition, using the checklist, designated

- a. below, shall be submitted to the appropriate jurisdiction official.
- b. At five (5) year intervals, the basin shall be inspected by a professional engineer registered in the State of Illinois. A report of this inspection shall be submitted to the appropriate jurisdiction official within sixty (60) days of the inspection. The inspection shall include an evaluation of the checklist items in the checklist below.

Each owner of an improved lot within the Subdivision shall be assessed by the Homeowners Association for the cost of maintaining the Detention Basin and for the cost of complying with the requirements of these covenants and the requirements of the municipality. The Declaration regarding the establishment of a Homeowners Association and the procedures for the assessment and collection of dues for the cost of maintaining the detention basin shall be filed and recorded by the Developer as a separate document.

DECLARATION OF RESTRICTIVE AND PROTECTIVE COVENANTS AND CONDITIONS
REGARDING THE ESTABLISHMENT OF A HOMEOWNERS ASSOCIATION FOR THE
STORMWATER DETENTION BASIN SYSTEM AS LOCATED WITHIN

Dated _____

Filed _____

To The

Public

This Declaration, made on the date hereinafter set forth by _____

_____, hereinafter referred to as "Declarant". WITNESSETH: Whereas, Declarant is

the owner of certain property in the City of _____, _____ County, Illinois, which

is more particularly described as :

NOW, THEREFORE, Declarant hereby declares that all of the properties described above shall be held, sold and conveyed subject to the following easements, restrictions, covenants and conditions, all of which are for the purpose of enhancing and protecting the value, desirability and attractiveness of the real property, and for the purpose of complying with stormwater retention requirements of the City of _____ . These covenants, restrictions and conditions shall run with the real property and shall be binding on all parties having or acquiring any right, title or interest in the described property or any part thereof, and shall inure to the benefit of each owner thereof.

ARTICLE I.

DEFINITIONS

1. "Association" shall mean and refer to Homeowners Association of _____, Inc., an Illinois nonprofit corporation, its successors and assigns.
2. "Properties" shall mean and refer to that certain real property hereinbefore described, more particularly described as: Lots _____ through _____ of _____, City of _____, Illinois, and such additions thereto as may hereafter be brought within the jurisdiction of the Association.
3. "Lot" shall mean and refer to any plot of land shown upon any recorded subdivision map or plat of the properties.
4. "Member" shall mean and refer to every person or entity who hold membership in the association.
5. "Owner" shall mean and refer to the record owner, whether one or more persons or entities, of a fee simple title to any lot which is a part of the Properties, including contract sellers, but excluding those having such interest merely as security for the performance of an obligation.
6. "Declarant" shall mean and refer to _____, to successors and assigns, if such successors or assigns should acquire more than one undeveloped lot from the Declarant for the purpose of Development.
7. "Developer" shall mean the same as "Declarant".

DRAFT

ARTICLE II

MEMBERSHIP AND VOTING RIGHTS

Every person or entity who is a record owner of a fee or undivided fee interest in any Lot which is subject by covenants of record to assessment by the Association, including contract Sellers, shall be a member of the Association. The foregoing is not intended to include persons or entities who hold an interest merely as security for the performance of an obligation. No owner shall have more than one membership. Membership shall be appurtenant to and may not be separated from ownership of any lot which is subject to assessment by the Association. Ownership of such lot shall be the sole qualification for membership.

ARTICLE III

ESCROW FUND FOR MAINTENANCE

The primary source of funds for maintenance of the master stormwater detention system shall be an escrow fund. Declarant shall establish the Escrow Fund at some local banking institution at such time as the first lot in The Properties is transferred to an owner other than the Declarant. The Association shall have the power to expend the escrow fund for maintenance authorized in accordance with the provisions of Article V.

ARTICLE IV

COVENANT FOR MAINTENANCE ASSESSMENT

1. Creation of the lien and Personal Obligation of Assessments. The Declarant, for each improved Lot owned within the Properties, hereby covenants, and each Owner of any Lot by acceptance of a Deed therefor, whether or not it shall be so expressed in such Deed, is deemed to covenant and agree to pay to the Association: (1) annual assessments or charges, such assessments to be established and collected from time to time as hereinafter provided. The term "improved Lot" shall mean any Lot having a building erected thereon and ready for occupancy as approved by the City of _____, Illinois. The annual assessments, together with interest, shall be a charge on the land and shall be a continuing lien upon the property against which each such assessment is made. Each assessment together with interest, costs and reasonable attorney's fees for collection, shall also be the personal obligation of the person or entity who was the owner of such property at the time the assessment fell due. The personal obligation for delinquent assessments shall not pass to his successors in title unless expressly assumed by them.

2. Purpose of Assessments. The assessments levied by the Association shall be used exclusively to maintain the stormwater detention basin system, as provided for under the Restrictive and Protective Covenants of _____. The Board of Directors of the Association shall establish a budget by January 1st of each year and shall levy

an assessment upon each improved Lot without the Subdivision by February 1st of each year, payable by the 1st day of May.

3. Notice and Quorum for Any Action Authorized Under Section 3. Written notice of any meeting called for the purpose of establishing the budget and making the assessment shall be sent to all members not less than 15 days nor more than 30 days in advance of the meeting. At the first such meeting called, the presence of Members or of proxies entitled to cast 50% of all votes of each class of membership shall constitute a quorum. If the required quorum is not present, another meeting may be called subject to the same notice requirement, and the required quorum at the subsequent meeting shall be one-half of the

required quorum at the preceding meeting. No such subsequent meeting shall be held more than 60 days following the preceding meeting.

4. Uniform Rate of Assessment. Annual assessments must be fixed at a uniform rate for all improved Lots and shall be collected on an annual installment basis, except as hereinafter provided.

5. Date of Commencement of Annual Assessments; Due Dates. The annual assessments provided for herein shall commence as to all improved Lots on the first day of the month following the conveyance of any such improved Lot. The first annual assessment shall be adjusted according to the number of months remaining in the calendar year. The Board of Directors of the Association shall fix the amount of the annual assessment against each lot at least 30 days in advance of each annual assessment period. Written notice of the annual assessment shall be sent to every Owner subject thereto. The annual assessment shall be paid in one annual payment, and the due dates and delinquency dates shall be uniformly established by the Board of Directors of the Association. The Association shall, upon demand, and for a reasonable charge, furnish a certificate signed by an officer of the Association setting forth whether the assessments on a specified Lot are current or delinquent. Such certificate shall be conclusive evidence of payment of any assessment therein stated to have been paid.

6. Effect of Non-payment of Assessments: Remedies of the Association. Any annual payment not paid within 30 days after the due date shall bear interest from the date of delinquency at the rate of 10% per annum. The Association may bring any action at law against the Owner personally obligated to pay the same, or foreclose the lien against the property by an action in equity. In any such action, interest, costs and reasonable attorneys fees shall be added to the amount of the delinquent assessment and collected as part of said judgment. In the event of such foreclosure, if the Association waives any and all rights to a deficiency judgment against the Owner, the period for redemption as provided by the statutes of the State of Illinois shall be reduced to six months from the date of foreclosure sale. Any lot ultimately acquired by the Association through Judges Deed after such a foreclosure shall be sold by the Association within a reasonable time either at public or private sale, and any surplus remaining after the payment of assessments, interest, costs and attorney's fees shall be paid over to the former Owner of said

Lot. No Owner may waiver or otherwise escape liability for the assessments provided for herein by non-use of the Detention Basin or by abandonment of his Lot.

7. Subordination of the Lien to Mortgages. The lien of the assessments provided for herein shall be subordinate to the lien of any first mortgage placed upon any Lot. Sale or transfer of any Lot shall not affect the assessment lien. However, the sale or transfer of any lot pursuant to Mortgage foreclosure or any assessments as to payments which became due prior to such sale or transfer, provided that such sale or transfer shall not extinguish the personal obligation of the prior Owner or his heirs, successors or assigns, for payment of such assessment. No sale or transfer shall relieve such Lot from liability for any assessments thereafter becoming due or from the lien thereof.

ARTICLE V

GENERAL PROVISIONS

DRAFT

1. Enforcement. The Association, or any Owner shall have the right to enforce by any proceeding at law or in equity all restrictions, conditions, covenants or reservations now or hereafter imposed by the provisions of this Declaration. The Association shall have the sole right to enforce, by proceedings at law or in equity, the liens and charges now or hereafter imposed by the provisions of this Declaration. Failure by the Association or by any Owner to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of the right to do so thereafter.

2. Severability. Invalidation of any one of these covenants or restrictions by judgment or Court Order shall in no wise affect any other provisions which shall remain in full force and effect.

3. Duration. The covenants and restrictions of this Declaration shall run with and bind the land, for a term of 21 years from the date this Declaration is recorded, after which time they shall be automatically extended for successive periods of 10 years each.

4. Amendment. This Declaration may be amended during the first 21 years period by an instrument signed by not less than 75% of the Lot owners and thereafter by an instrument signed by not less than 65% of the Lot Owners, provided, however, that no such amendment shall be valid or effective until it has been, and a certified copy of said resolution, and a certified copy of the amendment adopted by the Lot Owners, having both been recorded in the office of the Recorder of _____, Illinois.

By: OWNER AND DECLARANT

By:

Theresa/Subdivisions/Forms/Stormwaterdetentionbasin

DRAFT

DRAFT

DRAFT

APPENDIX C
O & M Checklist to be
determined

DRAFT

APPENDIX D

Detention Pond Design Example Tri-County Unified Stormwater Ordinance

This design example is intended to provide the design engineer with general guidance for the proper steps in designing a detention pond to meet the requirements in this Ordinance.

40-acre commercial property

Site description:

Existing 40-acre parcel is 1,320 feet by 1,320 feet and has an average land slope ranging from 1% to 2%. The proposed development will consist of several office buildings and a small shopping complex, parking, and roadways. The developer wishes to build a single detention pond to serve the entire site.

Additional site information:

- The site currently drains to an open channel located at the corner of the property along an existing public roadway.
- The open channel has a small drainage area and no associated floodplain.
- No stormwater runoff enters the parcel from other properties.

Suggested Detention Pond Design Analysis Methodology:

- 1) Determine the approximate 100-year storage volume first. This will provide the design engineer with the information necessary to estimate the detention pond footprint and depth.
- 2) Upon establishing the detention pond geometry, develop a stage/storage table for the pond.
- 3) Calculate the 1-year runoff volume and the 1-year peak storage elevation.
- 4) Determine the type/size/elevation of the restriction device necessary to discharge the 1-year storage volume over a 24-hour period.
- 5) Calculate the required 10-year storage volume and 10-year peak storage elevation.
- 6) Determine the type/size/elevation of the restriction device necessary to discharge the 10-year storm at a rate of 0.12 cfs/acre.
- 7) Determine the type/size/elevation of the restriction device necessary to discharge the 100 year storm at a rate of 0.30 cfs/acre.
- 8) Detail the outlet structure.
- 9) Prepare an emergency overflow design.
- 10) Demonstrate adequate freeboard.
- 11) Review downstream hydraulic limitations.
- 12) Review detention pond discharge pipe flow velocity.

Step 1: Calculate Preliminary 100-Year Volume Required

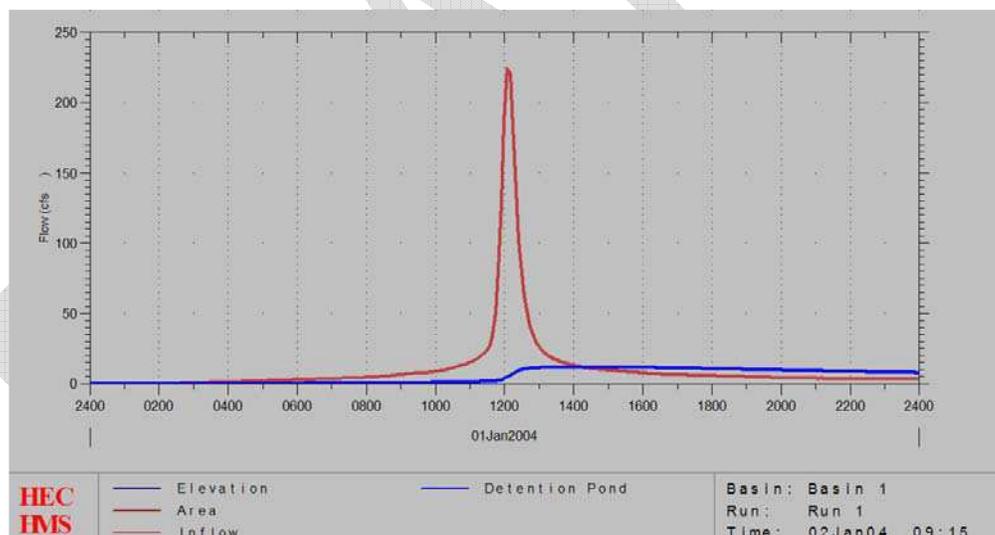
Calculate the volume necessary to detain the 100-year storm event:

Allowable discharge, $Q_a = 0.30 \text{ cfs/acre} \times 40 \text{ acres} = 12 \text{ cfs}$

The Runoff Hydrograph Method must be used, as the site is greater than 10 acres. Using HEC-HMS (public domain hydrologic modeling software), the following variables are used (other software packages, such as PondPack, XP-SWMM, HEC-1, TR-20, and other approved programs, may be used for this analysis):

Time of concentration (T_c): 25 minutes (calculated using TR-55 methodology)
Curve Number (CN): 92 (typical for commercial developments) 100-year 24-hour rainfall depth: 7.4 inches (City of Peoria, Bulletin 70) Rainfall distribution: NRCS Type II, 24-hour

Using the preliminary site plan and HEC-HMS, an approximate 100-year detention volume is determined at **642,500 cubic feet** (14.75 acre-feet). The following hydrograph demonstrates the detention pond adequately detains flow to the *12 cfs allowable discharge rate*.



Note: Upon finalizing the detention pond outlet design, the detention pond routing calculations will need to be modified (fine-tuned) to reflect the final design contours and outlet structure configuration.

Step 2: Stage/Storage Table

The stage/storage table provides a summary of the contour areas for the proposed detention pond and confirms that the appropriate detention volume is being provided for the proposed site. *The stage/storage table may need to be updated (fine-tuned) after the completion of the detention pond design.*

Provide contour elevations at a 1-foot contour interval. *Elevation 650 represents either the bottom (outlet) of a dry detention basin or the permanent (normal) water level of a wet detention basin.*

of the City/County of _____, Illinois. All drafts so drawn must be marked "Drawn under (name of bank) _____, Credit No. _____ dated _____, 20____."

_____ has not been completed to the satisfaction of the City/County of _____ on or before _____ (one day short of two years after filing) _____, 20____.

An annual report on the detention basin condition, using the checklist, designated a. below, shall be submitted to the appropriate jurisdiction official.

b. At five (5) year intervals, the basin shall be inspected by a professional engineer registered in the State of Illinois. A report of this inspection shall be submitted to the appropriate jurisdiction official within sixty (60) days of the inspection. The inspection shall include an evaluation of the checklist items in the checklist below.

An annual report is not required the year the five year report is due.

Volume required: 642,500 cubic feet, shall notify the Homeowners Association of its maintenance
Volume provided: 647,550 cubic feet transfer basin maintenance records to the Homeowners

Note: *Freeboard will be required above the 100-year high water level (see Step 10).*

Step 3: 1-Year Storage Volume/Elevation

Calculate the volume necessary to detain the 1-year storm event:

Using the same HEC-HMS hydrologic model, the total runoff volume from the 1-year, 24-hour duration event (2.5-inch rainfall depth, Bulletin 70) is **245,000 cubic feet**. Interpolating between the stage/storage table volumes, this translates to a 1-year high water level of 652.44.

Step 4: 1-Year Hydraulic Restrictor

The 1-year runoff volume must be detained for a 24-hour period. Assuming an orifice will be used to detain the 1-year storm, use the orifice equation to determine the appropriate orifice area:

$Q = c * a (64.4 * h)^{1/2}$ c = orifice coefficient a = orifice area (square feet) h = head above center of orifice (feet)

Solving for Q: Discharge 245,000 cubic feet during a 24-hour period $Q_{1yr} = 245,000$ cubic feet per day / 86,400 seconds per day
 $Q_{1yr} = 2.84 \text{ cfs}$

To solve for area (a), assume an average head (h) of two-thirds (2/3) the 1-year high water level:
 $h_{1yr} = 642.652.44 - 640.650.00 = 2.44$ feet Average head = $2.44 * 0.67 = 1.64$ feet

Using the orifice equation, solve for area (a): $a = Q / c(64.4 * h)^{1/2}$
(assume orifice coefficient = 0.62) $a = 2.84 / 0.62(64.4 * 1.64)^{1/2}$ a =
0.45 square feet

1-year orifice: 9-inch diameter Recalculate orifice area by adjusting average head. Head should be recalculated to the *center of the orifice*. As the orifice has been calculated at 9 inches (0.75 feet), reduce the average head by 0.38 feet.
 $a = 2.84 / 0.62(64.4 * 1.26)^{1/2}$ a = 0.50 square feet

1-year orifice: 9.5-inch diameter (bottom of orifice at elevation 650.00)

Step 5: 10-Year Storage Volume/Elevation

Calculate the volume necessary to detain the 10-year, 24-hour duration storm event and restrict the peak discharge to 0.12 cfs per acre. The allowable 10-year discharge would be calculated as follows:

$$Q_{10\text{-year allowable}} = 40 \text{ acres} * 0.12 \text{ cfs/acre} = 4.8 \text{ cfs}$$

Using the same HEC-HMS hydrologic model, approximately **375,000 cubic feet** of detention would be required to detain the 10-year storm (4.6 inch rainfall depth, Bulletin 70). Interpolating between the stage/storage table volumes, this translates to a 10-year high water level of 653.68. The 1-year orifice (9.5-inch diameter), will limit the 10-year discharge rate to 4.5 cfs.

Step 6: 10-Year Storage Restrictor

The 1-year orifice can be used as the 10-year storm restrictor, as the 10-year peak storage results in a peak discharge rate of 4.5 cfs (less than the allowable discharge rate of 4.8 cfs).

Step 7: 100-Year Storage Restrictor

The 100-year allowable flow rate, 12 cfs, will be controlled by an orifice plate at the upstream end of the detention pond discharge pipe. Flows exceeding the 10-year event will spill into a manhole and through a detention pond discharge pipe. The configuration of the detention pond discharge structure is illustrated under *Step 8*:

The size of the orifice is calculated below:

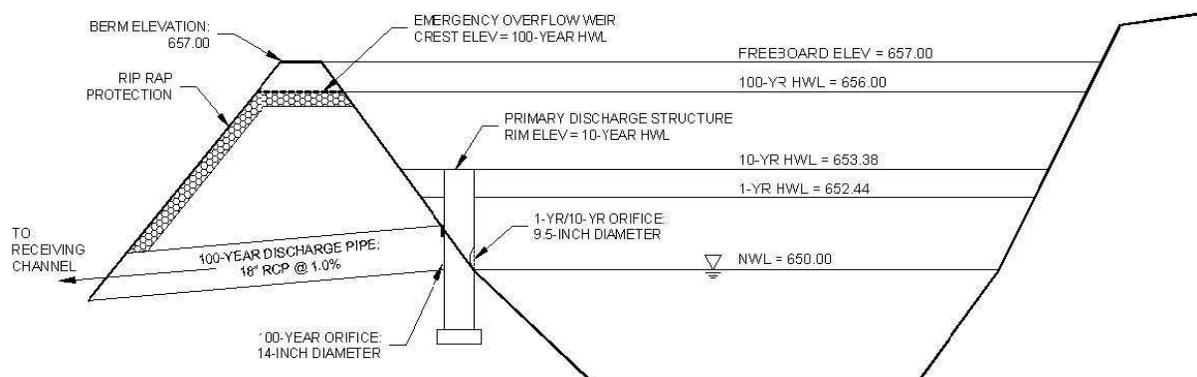
Using the orifice equation, solve for area (a): $a = Q / c(64.4 * h)$

(assume orifice coefficient = 0.62)
 $a = 12 / 0.62(64.4*5.5)$
(adjust head to account for ~12-inch orifice)

$a = 1.03$ square feet (equivalent to 14-inch diameter) **Use an 18-inch discharge pipe with a 14-inch diameter orifice plate.** *Note: Downstream boundary conditions (i.e. floodplain, undersized receiving storm sewer, etc.) may impact the detention pond outlet hydraulics. All above calculations assume that the detention pond will discharge freely with no downstream restrictions. The design engineer must certify the hydraulic capacity of the receiving storm sewer/channel and incorporate any adverse tailwater effects in the detention pond discharge calculations (see Step 11).*

Step 8: Detail the Outlet Structure

Now that the detention pond discharge structure has been designed, provide a detail of the outlet structure and the design storm high water levels.



DETENTION POND DISCHARGE STRUCTURE

Step 9: Emergency Overflow Design

The emergency overflow device must be capable of conveying discharge from the 100-year fully-developed discharge rate. The HEC-HMS model indicates that the developed 40-acre parcel will discharge at a rate of 224 cfs (NRCS Type II 24-hour rainfall). The most practical way of providing an emergency overflow device for this flow rate is to construct a depression in the detention pond berm (overflow weir).

The emergency overflow weir will have a crest elevation of 656.00 (100-year high water level) and will be wide enough to pass 224 cfs (or other peak discharge rate as calculated by the design engineer). The entire weir will be lined with riprap on a geotextile fabric base. The riprap will extend to the toe of the slope on the outside bank of the detention pond.

Step 10: Freeboard Determination

The 100-year high water level is calculated at 656.00. The minimum berm elevation for the detention pond, other than the emergency spillway, is 657.00, thereby providing one foot of freeboard.

Step 11: Downstream Hydraulic Limitations

The receiving channel is a grassed, trapezoidal channel. The receiving channel collects runoff only from the 40-acre development and is adequately sized to convey the 100-year design discharge rate (12 cfs) and the emergency overflow rate (224 cfs). The discharge structure hydraulics are not impacted by the water levels in the receiving channel.

Step 12: Exit Velocity of Detention Pond Discharge Device

The velocity in the proposed 18-inch discharge pipe is approximately 7 feet per second (fps). This velocity is highly erosive to vegetated channels. Riprap will be placed at the downstream end of the

discharge pipe as is appropriate to dissipate the energy of the detention pond discharge. Riprap sizing calculations must be performed to justify riprap gradation and layout.

DRAFT

CHAPTER 18: **WATER AND SANITARY SEWER STANDARDS SYSTEMS**

~~18.00 — Introduction and Goals~~

~~18.01 — Administration~~

~~18.02 — Standards~~

~~18.03 — Standard Attachments~~

For all Water Line and Sanitary Sewer Construction in the City of Peoria:

All water line construction shall meet the standards and requirements of the Illinois American Water Company and all sanitary sewer construction shall meet the standards and requirements of the Greater Peoria Sanitary District.

DRAFT

CHAPTER 21: EARTHWORK STANDARDS

21.00 Introduction and Goals

21.01 Administration

21.02 Standards

DRAFT

21.00 INTRODUCTION AND GOALS

The purpose of this chapter is to provide information on earthwork design and construction other than for road subgrades or underground utility backfill, which are covered in Chapter 10 and Chapter 18 respectively. Earthwork design and construction shall conform also to the Standards in the City of Peoria Stormwater Ordinance .

21.01 ADMINISTRATION

- A. This chapter applies to earthwork design and construction within the City limits and the 1-1/2 mile extra territorial jurisdiction.
- B. Earthwork design shall be reviewed by the City of Peoria through any of the following:
 - 1. Subdivision plan review
 - 2. Grading and drainage plan review
 - 3. Alternate construction plan review (typically public improvements)
 - 4. Single family/duplex lot grading plan, proposed and as-built

21.02 STANDARDS

The following standards apply to earthwork:

- A. **Referenced Standards:** Standards for earthwork shall comply with the provisions of the IDOT Standard Specifications for Road and Bridge Construction, and the City of Peoria Stormwater Ordinance, latest editions, unless otherwise stated by this Manual.
- B. **All Projects:**
 - 1. Coordinate project haul routes with the City Engineer.
 - 2. General grading slope limits are 1% minimum, 2% preferred minimum and 3H:1V maximum, 4H:1V preferred maximum.
 - 3. Overall historical drainage patterns shall be maintained.
 - 4. All drainage facilities and sewer lines which are broken or damaged during construction shall be restored as nearly as possible to their original state by the contractor, except that all field tiles shall be connected to a manhole in the storm sewer system where necessary for protection of improvements or prevention of upstream flood damage.
 - 5. Embankment shall comply with the provisions of IDOT Standard Specifications.
- C. **Underground Utilities:**
 - 1. Prior to acceptance of the right of way trenches shall be compacted per IDOT Standard Specifications, After acceptance of the right of way, trenches shall be backfilled with controlled low strength material when any portion of the trench is within two feet of existing or planned paved surfaces. Any settlement that does occur shall be repaired immediately.
 - 2. Topsoil minimum thickness shall be 6 in.

D. Detention Basins:

1. Berms and basin slopes shall be constructed per IDOT embankment standards.
2. Topsoil minimum thickness shall be 6 in.

E. All Projects with a Disturbed Area of over 5000 sq. ft., except New Single Family Dwellings:

1. Topsoil minimum thickness shall be 1 ft
2. Minimum subgrade densities specified in the plans shall not be less than 95% of standard proctor density under pavement or 85% of standard Proctor density under topsoil.
3. Each building pad elevation shall be a minimum of 1.5ft. and not more than 3 ft. above the highest back of the curb elevation as measured at the property lines. Each building pad elevation shall not exceed 1/2 ft. above or below the adjacent building pad elevation differential to the highest back of curb elevation as measured at the property line.. The grade or slope away from a building pad shall be 10% for the first 5 ft. The grade may continue between a minimum of 1%, 2% preferred, and a maximum of 10% thereafter.
5. Topsoil, organic material, frozen material, and debris shall be removed from under proposed pavement or building locations.
6. A detailed site grading plan shall be submitted to and approved by the City prior to construction, including the following requirement:
 - A. North arrow/scale (minimum scale 1"=50').
 - B. Civil Engineer's seal and signature.
 - C. Project boundary with dimensions.
 - D. Lot lines and numbers with dimensions.
 - E. All adjacent property lines.
 - F. Existing contours and details of terrain. Extend existing contours at least 50' beyond the limits of the site.
 - G. Plot location of all existing structures, buildings, walls, fences, trees, curb & gutters, driveways and sidewalks, etc., to within 25 feet of site.
 - H. Plot all easements within the project site.
 - I. Plot all underground facilities (existing & proposed).
 - J. Show pad and finish floor elevations of all existing and proposed buildings.
 - K. Show details of all surface and subsurface drainage devices.
 - L. Show proposed drainage devices and swales.
 - M. Show proposed curb & gutter, sidewalks, parking, planter areas, etc. Check that grading plan matches site plan.
 - N. Check all edge conditions for offsite grading and cross lot drainage.
 - O. Check all edge conditions for offsite grading and cross lot drainage.
 - P. 3:1 maximum slope allowed
 - Q. Show stations and elevations along adjacent and internal existing and proposed streets.
 - R. Construction notes as applicable.
 - S. Details of non-standard drainage devices, etc.
 - T. Cross-section details as needed
 - U. Proposed contours, dimensions, street widths, existing utilities, proposed structures, buildings, parking lots, walls, drainage facilities, etc.
 - V. No surface drainage allowed over public ROW for commercial sites.

- W. Show flowline grades for all drainage swales and devices.
 - X. Show existing and proposed elevations at each lot corner and any high or low points
 - Y. Existing and proposed retaining walls with elevations. Proposed retaining walls with 3' or more height from grade to top of wall require a separate building permit.
 - Z. Minimum grade for earth swale is 1%; proposed permanent erosion control when slope exceeds 5%.
 - AA. The sides of common swales between houses shall be a minimum of 2% and maximum of 20% grade
 - BB. Flowlines of swales for rear yards of residences shall be a minimum of ten feet (10') from the house; side yard shall be a minimum of a three feet (3'); swales shall have a minimum depth of 3" below pad elevation.CC.
 - DD. Check the designated handicapped access route for pedestrian traffic through site (must meet ADA standards).
- F. New Single Family Dwellings
1. A Lot Grading Plan shall be submitted to and approved by the City prior to construction including the following requirements:
 - A. Site plans showing lot grading must be submitted with the building permit application. This plan must be in accordance with the overall drainage plan described in E. above and approved by Public Works. In the event that previously approved drainage plans do not exist, plans shall be prepared in accordance with lot grading standards described above.
 - B. Construction plans shall provide sufficient grades, ridge lines and directional arrows to define the proposed drainage pattern of the entire lot. A minimum of seven proposed lot grades shall be provided: four at the corners: two at the side yard midpoints; and one grade located at the center of the lot (rear of typical structure location). Intermediate grades will be defined by linear interpolation of lot grades provided.
 - C. Storm water runoff should be directed to adequate drainage structures or large natural drainage features.
 - D. For larger parcels, the entire lot may not require a topographic survey (large wooded areas, agricultural fields, wetlands, etc...). Adequate drainage around the proposed residence, yard, driveways, and other structures must be demonstrated.
 - E. Lots shall be graded to within 0.1 feet of the final grade prior to issuance of a Certificate of Occupancy (CO). In addition, a minimum grade of 1.0% minimum slope must also be provided. A lot grading certification must be submitted by the owner prior to issuance of a Certificate of Occupancy.
 - F. Lot grading which requires considerable fill (greater than 4.0 feet) shall be clearly delineated (shaded, cross-hatched, etc.) on the plan and is the responsibility of the developer.
 - G. Overland flow onto adjacent offsite property is generally unacceptable. When a natural slope of 5.0% or greater exists or more than four feet of fill is required, an area may drain in its natural direction. Easements may be required to drain water across adjacent property when runoff is increased or the direction of flow is altered.
 - H. The size of the plan shall be no larger than legal size paper.
 - I. A Right of Way Permit is required for any construction within the associated Right of Way including installation of driveway, sidewalks, trails, and culverts. A minimum 15-inch pipe diameter is required for driveway culverts.

CHAPTER 24: RIGHT-OF-WAY STREET TREE STANDARDS

24.00 Introduction and Goals

24.01 Administration

24.02 Standards

24.03 Standard Attachments

DRAFT

24.00 INTRODUCTION AND GOALS

The goal of this chapter is to promote the health and development of the Urban Forest in the City of Peoria in a manner that increases the value of real property and improves the quality of life in the City.

24.01 ADMINISTRATION

- A. All new subdivisions within the City limits and within the 1-1/2 mile extra territorial jurisdiction shall have street trees installed on the right-of-way per the requirements within these standards.
- B. Tree planting will be accomplished at developer cost through one of the following means:
 - 1. Developer installation.
 - 2. City installation: The City will require a payment of \$300.00 per tree to contract for new subdivision planting. (This cost will be subject to change to accommodate future price changes.)
- C. A tree-planting permit obtained from the Public Works Department Forestry Supervisor will be required prior to planting (see Standard Attachment 24.01).

24.02 STANDARDS

- A. **Introduction:** The following outlines the permit requirements, standards and procedures for planting trees on the City right-of-way.
- B. **Standards and Procedures:**
 - 1. *Subdivision Planting Standards:*
 - a. Trees shall be planted at least one every 60 ft., with a minimum of one per lot.
 - b. The parkway must be 6 ft. or more in width.
 - c. Trees must be 10 ft. from driveways, alleys and fire hydrants.
 - d. Trees must be 35 ft. from intersection curb line.
 - e. The planting site should be free of overhanging crown growth from trees growing off the right-of-way.
 - f. Trees must be approved species (see Standard Attachment 24.02).
 - g. Trees planted under or next to utility lines must be of species and cultivars whose height at maturity will not interfere with these lines. Large trees planted adjacent to overhead lines should be planted a minimum of 30 ft. from overhead lines.
 - h. Planting trees on the City right-of-way prior to construction will not be permitted with the exception of medians that will not be affected by construction activities. Problems arising from driveway placement and construction disturbances to trees make pre-construction planting a poor choice.

2. *Tree Planting Procedures for all Locations (including Subdivisions):*
 - a. The planting hole should be 24 in. – 36 in. larger in diameter than the diameter of the root ball, and the root balls shall be placed on undisturbed subgrade to prevent settling.
 - b. The root flare, where roots spread at the tree base, should always be at the ground line. Often, nurseries mound soil around the tree base above the root flare. When baled with burlap, the basal flare is hidden. If the tree is planted with the top of the ball at ground line, the tree will have been planted too deeply.
 - c. The twine holding the burlap around the ball must be cut and the burlap loosened from around the top of the ball. Wire baskets shall be removed from the root ball prior to backfilling.
 - d. The hole should be backfilled and gently tamped so that no air pockets are left around the ball. Backfill soil should not be amended unless planting in building rubble, poor or severely disturbed soils.
 - e. The trunks should be vertical after planting.
 - f. Excess soil should be removed from the site and a 3 in. to 4 in. thick layer of wood chip mulch placed around the base of the tree. Avoid placing wood chip mulch directly in contact with the trunk.
 - g. Trees should be watered at the time of planting and regularly thereafter as needed.
 - h. Staking is not typically recommended; however, when necessary, follow current recommendations of City Forester. Wire in a hose is unacceptable.
 - i. Plants should be pruned after planting only to remove broken or dead branches.
3. *Quality of Trees:*
 - a. All trees must be true to species, variety, and/or cultivar, and each plant must be labeled when delivered.
 - b. All trees must have normal trunks, leaders, tops and branches typical of the species, variety, or cultivar, and exhibit evidence of proper nursery pruning practices.
 - c. All trees must be certified free of insect pests and diseases by the Department of Agriculture, Division of Entomology, State of Illinois.
 - d. All trees must be free of mechanical injuries and not show evidence of recent or previous wounds on the trunk.
 - e. All trees must be nursery grown and must have received proper fertilizing, watering, top and root pruning as is normally needed for that particular kind of tree. Plants must have been grown in nursery conditions for the past two years under soil and climate conditions similar to that of Peoria, Illinois.
 - f. All plants must be balled and burlapped. The twine used to tie the burlap must not be plastic. The balls should be of firm earth from the original soil in which

the tree grew in the nursery. No trees with broken, loose or manufactured balls are acceptable.

g. Trees on the list of approved species must have trunks at least 2 in. in diameter measured 6 in. above the ground, and a soil ball of at least 24 in. in diameter.

h. Trees shall be guaranteed for a period of one year following planting.

4. *Approved Species*: Refer to the Approved Species List incorporated herein (see Standard Attachment 24.02).

24.03 STANDARD ATTACHMENTS:

Standard Attachment Number 24.01 – Permit Form

Standard Attachment Number 24.02 – Approved Species List

**CITY OF PEORIA
PUBLIC WORKS / FORESTRY SECTION
3505 N. Dries Ln, Peoria, Il 61604**

TREE PLANTING AND MAINTENANCE PERMIT

Permit or approval to perform tree maintenance or planting of trees on City right-of-way.

APPLICANT ONLY - Please provide the following information:

Name: _____

Address: _____

Telephone Number: _____

Work Site Location: _____

Type of tree work/planting/treatment involved: _____

Proposed species to be planted: _____

For tree planting, please indicate approximate location using dimensions in relation to other lot features (e.g. driveway, existing trees, corner, etc.) A rough sketch to illustrate location is helpful. (Please use the space to the right.)

A J.U.L.I.E. locate is necessary before a permit for planting is granted. J.U.L.I.E. can be reached at (800) 892-0123.

J.U.L.I.E. dig number: _____

Applicant Signature: _____ **Date:** _____

____ Approved ____ Not Approved **Permit No.** _____

Additional comments or conditions: _____

Approved by: _____ Date: _____

City Forester

TREES THAT MAY BE PLANTED ALONG PUBLIC RIGHTS-OF-WAY IN PEORIA

Small Trees:

Note: Small trees only permitted for use where overhead restrictions exist (i.e., utility lines).

Crabapple (cultivars resistant to apple scab)	Hawthorn (thornless)	Laurel magnolia
Corneliancherry dogwood	Hornbeam	Loebner magnolia
Kousa dogwood	Japanese tree lilac	Redbud
Pagoda dogwood	Amur maple	Serviceberry
	Paperbark maple	Carolina silverbell
	Tatarian maple	Tree form viburnum

Medium to Large Trees:

Black alder	Sugar hackberry	Bur oak
London Plain	European hornbeam	Chinkapin oak
Regal Prince oak	Ironwood	Overcup oak
Baldcypress	Katsura	Red oak
Basswood	Crimean linden	Shingle oak
American beech	Littleleaf linden	Swamp white oak
European beech	Silver linden	White oak
Amur corktree	Cucumbertree magnolia	Dawn redwood
Elm (cultivars resistant to Dutch elm disease)	Black maple	Kentucky Coffee
Turkish filbert	Freeman maple	Sassafras
Ginkgo (male)	Hedge maple	Tuliptree
Goldenraintree	Miyabe maple	Black tupelo
Hackberry	Red maple	Yellowood
	Sugar maple	Japanese zelkova

TREES THAT MAY NOT BE PLANTED ALONG PUBLIC RIGHTS-OF-WAY IN PEORIA

Apple	Siberian elm	Russian olive
Arborvitae	Slippery elm	Osage orange
Green ash	Empress tree	Peach
Mountain ash	Fir	Pear
River birch	Hemlock	Callery pear
White birch	Hickory	Pecan
Boxelder		Pine
Ohio buckeye	Horsechestnut	Plum
Butternut	Juniper	Poplar
Catalpa	Black locust	Spruce
Cedar	Norway maple	Sweetgum (Female)
Cherry	Silver maple	Sycamore
Chestnut	Mimosa tree	Tree of Heaven
Cottonwood	Mulberry	Walnut
Flowering dogwood	Pin oak	Willow
American elm	Scarlet oak	

SUBDIVISION IMPROVEMENT PERFORMANCE BOND FORM

ATTACHED IS A FORM OF SUBDIVISION IMPROVEMENT PERFORMANCE BOND (WITH INSTRUCTIONS FOR COMPLETION) TO BE FOLLOWED WHEN SUBMITTING A BOND TO THE CITY OF PEORIA UNDER SECTION APPENDIX A SUBDIVISIONS OF THE PEORIA MUNICIPAL CODE, AS AMENDED. THIS IS THE ACCEPTABLE FORM. THIS FORM HAS BEEN REVIEWED AND APPROVED BY THE CITY ATTORNEY. FOLLOWING THIS FORM WILL EXPEDITE BOND REVIEW REQUIRED UNDER THE CITY'S SUBDIVISION REGULATIONS. PLEASE VERIFY WITH THE ENGINEERING DIVISION (309- 494 8801) THAT YOU HAVE THE MOST RECENT FORM PRIOR TO EXECUTION AND SUBMITTAL.

DRAFT

Appendix A: Bond Template

INSTRUCTIONS FOR PREPARING SUBDIVISION IMPROVEMENT PERFORMANCE BOND

Prepare the Subdivision Improvement Performance Bond by inserting information as indicated by the blank spaces on the Subdivision Improvement Performance Bond and in accordance with the following instructions:

- (A) Insert the official name of the subdivision as it appears within the Owner's Certificate. The name of the subdivision as it appears within the Owner's Certificate is the name to be used in the performance bond. Other names may appear on various other plat documents or correspondence. These other names should be disregarded. An example of language contained within an Owner's Certificate designating the official name of subdivision is as follows:
- “ . . . said subdivision to be known as Lot 3 in Market Street Industrial Park, an Addition to the City of Peoria in Peoria County, Illinois.”
- (In this example, the underlined language would be inserted in space [A].)
- (B) Insert the name of the person(s) or entity (e.g. corporation, partnership, Trust) to be obligated to perform under the bond. If this is not the same as the name of the person(s) or entity owning the platted area, contact the Legal Department (494-8590) (?) before inserting the name.
- (C) Insert the amount of the bond in verbal form, for example: “Nine Thousand Seven Hundred Sixteen and 85/100”. “The subdivision improvement performance bond shall be for the sum of one hundred percent (100%) of the estimated cost of construction as determined by the subdivider's engineer and approved by the City Engineer.” If all improvements have been accepted, fill in “not applicable”. (Section 31-35(a) of the Peoria Municipal Code.) Questions regarding the amount of the Subdivision Improvement Performance Bond should be directed to the Engineering Division (309-494-8801).
- (D) Insert same amount as in (C) in numerical form, for example: \$9,716.85.
- (E) Insert the date which is two (2) years from the date of City Council or City staff administrative approval of the final plat. Questions regarding this date should be directed to the Planning and Growth management Department (309-494-8600). If all improvements have been accepted, fill in “not applicable”.
- (F) Same as (E).
- (G) Same as (A).
- (H) Same as (E) and (F).
- (I) Insert the date appearing on the City Engineer's written approval of plans and specifications. See Chapter 7 of the City of Peoria Manual of Practice. Questions regarding this date should be directed to the Engineering Division (309-494-8801).
- (J) Same as (I).
- (K) Insert a complete, accurate list of the improvements to be covered by the Subdivision Improvement Performance Bond. Questions regarding which improvements are to be covered by the Subdivision Improvement Performance Bond should be directed to the Engineering Division (309-494-8801).

Appendix A: Bond Template

- (L) Insert in verbal form fifteen percent (15%) of the total estimated cost of construction of all the public improvements regardless of whether construction was completed prior to posting the bond, for example: "Four Hundred Five Dollars".
- (M) Insert the same amount as in (L) in numerical form, for example: "\$405.00".
- (N) Insert the date on which the Principal's guarantee would end. This date is determined by either of two (2) methods:
- (1) If all subdivision improvements are to be accepted by the City prior to recording the final plat, then insert the date which is one (1) year from the date of written acceptance by the City Engineer of all improvements preceded by the word "on". Questions about this date should be directed to the Engineering Division (309-494-8801).
 - (2) If the Subdivision Improvement Performance Bond is to be submitted prior to acceptance of all subdivision improvements, then insert the following phrase: "The day one (1) year after written acceptance by the City Engineer of said public improvements required to be constructed by the Principal for this subdivision.

If you have questions, contact the Engineering Division (309-494-8801) before inserting a date.(O) Same as (N).

- (P) Insert a complete, accurate description of the security for the Subdivision Improvement Performance Bond. See Chapter 7 of the City of Peoria Manual of Practice for a list of allowable security devices. Examples of language which would be inserted are as follows: "Irrevocable Letter of Credit No. 301, dated July 6, 1982, established by the Commercial National Bank of Peoria, Illinois"; "cash deposited with the City of Peoria Performance Bond Account, as evidenced by Receipt No. 43707". Questions as to acceptable security devices should be directed to the Engineering Department (309-494-8810).
- (Q) Add proper form of execution and acknowledgement. For example: If (B) above is an individual, then that individual should sign the bond and the signature should be properly acknowledged by a Notary. If (B) above is a general partnership, then all partners should sign with proper acknowledgement. If (B) above is a corporation, then the President should sign and the Secretary attest, with seal and proper acknowledgment. If (B) is a trust, the Trustee or Trust Officer should sign as Trustee with proper acknowledgement. Questions regarding the form of execution should be directed to the (?) Legal Department (494-8590).

Appendix A: Bond Template

SUBDIVISION IMPROVEMENT PERFORMANCE BOND

FOR

(A) _____

I. KNOW ALL PERSONS BY THESE PRESENTS that _____ (B) _____, hereinafter called "Principal", is held and firmly bound unto the City of Peoria, Illinois, hereinafter called "City", in the penal sum of _____ (C) _____ Dollars (\$ _____ (D) _____), lawful money of the United States of America, for the payment of which well and truly to be made to the City, the principal firmly binds itself, its successors and assigns, jointly and severally, by these presents.

NOW, THEREFORE, unless the consideration set out below is satisfied, the Principal shall pay to the City on _____ (E) _____ the full penal sum above written. The condition is that prior to _____ (F) _____, the Principal shall complete or cause to be completed and maintained free from defects in accordance with approved plans and specifications and in the improvements required or regulated by Appendix A, Subdivisions, of the Peoria Municipal Code, as amended, hereinafter called "Regulations", as applicable to

(G) _____

hereinafter called "Subdivision". This condition shall be deemed satisfied only upon the occurrence of each of the following events:

- (1) The Principal has completed or caused to be completed prior to _____ (H) _____ the construction of public improvements required or regulated by the Regulations, as applicable to the Subdivision in accordance with the engineering plans and specification approved in writing by the City Engineer of the City on _____ (I) _____ (the completion of construction includes completion of unconstructed portions of said public improvements and/or removal and replacement of deficient sections thereof and/or removal and replacement of damaged sections thereof);
- (2) The proper completion of all of such construction has been evidenced by the written acceptance of the improvements by the City Engineer of the City.

The public improvements required or regulated by the Regulations as applicable to the Subdivision, as referred to herein, shall be deemed to be each item of all of those improvements or other acts required by the Regulations and each item of all improvements as shown on the approved plans and specifications approved in writing by the City Engineer of the City on _____ (J) _____, except any such improvements as shall have been expressly and specifically waived by resolution or ordinance of the City Council of the City.

The public improvements include, without limitation, the following:

(K) _____

Appendix A: Bond Template

II. Further, the Principal is held and firmly bound unto the City of Peoria, Illinois, in the sum of _____(L)_____ Dollars (\$____(M)____), lawful money of the United States of America, for the payment of which well and truly to be made to the City, the Principal firmly binds itself, its successors and assigns, jointly and severally, by these presents.

NOW, THEREFORE, unless the condition set out below is satisfied, the Principal shall pay to the City on _____(N)_____ the full penal sum above written. The condition is that the Principal shall maintain said public improvements free from defects appearing within one (1) year _____(O)_____. A defect is:

“(c) A defect which must be repaired is any:

- (i) failure of a subdivision improvement to operate in conformance with this Code during the maintenance period; or
- (ii) the appearance of any defect in a subdivision improvement which is discovered during an inspection of the improvement made by City personnel within a reasonable period of time after the Owner's request for the release of the maintenance bond or at any time prior to that inspection; or
- (iii) the failure to design and construct a subdivision improvement required by these Regulations and not previously waived, the need for which is discovered prior to the end of the maintenance period.

‘Free of defects’ means that all subdivision improvements are functioning in accordance with the purpose for which they were designed and that the improvements have not deteriorated other than to the extent of normal wear. Non-designed cracks on pavement or sidewalk may not be considered normal wear.”

The Principal may be released from these obligations in whole or in part only by issuance of a certificate releasing the said Bond by the City Engineer for the City. Said release shall be effective only in the amount of said release. These obligations are secured by

(P) _____
_____.

IN WITNESS WHEREOF, the Principal has caused this Bond to be executed and dated this _____ day of _____, 20____.

(Q)

SUBSCRIBED AND SWORN to before me this _____ day of _____, 20____.

Notary Public

LETTER OF CREDIT AS SECURITY

IRREVOCABLE LETTER OF CREDIT MAY BE AN ACCEPTABLE METHOD OF SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND.

ATTACHED IS A FORM OF IRREVOCABLE LETTER OF CREDIT (WITH INSTRUCTIONS FOR COMPLETION) TO BE FOLLOWED WHEN SUBMITTING A LETTER OF CREDIT AS SECURITY IN CONNECTION WITH A SUBDIVISION IMPROVEMENT PERFORMANCE BOND.

THIS IS THE ACCEPTABLE FORM. THIS FORM HAS BEEN REVIEWED AND APPROVED BY THE CITY ATTORNEY. FOLLOWING THIS FORM WILL EXPEDITE BOND REVIEW REQUIRED UNDER THE CITY'S SUBDIVISION REGULATION. PLEASE VERIFY WITH THE ENGINEERING DIVISION (309-494-8801) THAT YOU HAVE THE MOST RECENT FORM PRIOR TO EXECUTION AND SUBMITTAL.

DRAFT

Appendix A: Bond Template

INSTRUCTIONS FOR COMPLETING THE FORM OF IRREVOCABLE LETTER OF CREDIT TO BE USED AS SECURITY WITH A SUBDIVISION IMPROVEMENT PERFORMANCE BOND

Fill in the blanks in accordance with the following:

- (1) Insert the name of the person(s) or entity (e.g. corporation, partnership, Trust) to be obligated to perform under the bond, i.e. the same as (B) on the Maintenance Performance Bond form.
- (2) Insert the amount of the letter of credit in verbal and numerical form, for example: "Nine Thousand Seven Hundred Sixteen and 85/100 Dollars (\$9,716.85)". This is the same as (C) and (D) on the Maintenance Performance Bond form.
- (3) Insert the number of the Letter of Credit (to be supplied by bank).
- (4) Insert date of the Letter of Credit (to be supplied by bank).
- (5) Insert the date on which the guarantee of maintenance would end. This is the same as (N) on the Subdivision Improvement Performance Bond form.
- (6) Insert the date which is six (6) months after (5).
- (7) Insert same as (5).
- (8) Insert same as (1).
- (9) Insert a complete, accurate list of the improvements to be covered by the Subdivision Improvement Bond, i.e. the same as (K) on the Subdivision Improvement Performance Bond form.
- (10) Insert the official name of the subdivision as it appears within the Owner's Certificate, i.e. the same as (A) on the Subdivision Improvement Performance Bond form.
- (11) Insert same as (6).
- (12) Insert same as (10).
- (13) Insert name of bank issuing Letter of Credit.
- (14) Signature of bank officer authorized to sign Letter of Credit.
- (15) Title of bank officer authorized to sign Letter of Credit.

Appendix A: Bond Template

MUST BE TYPED ON BANK STATIONERY

IRREVOCABLE LETTER OF CREDIT

(DATE)

City of Peoria
Peoria City Building
102 North Neil Street
Peoria, IL 61820

To Whom It May Concern:

We hereby establish our Irrevocable Letter of Credit in your favor at the request of and for the account of _____ (1) _____ up to an aggregate amount of _____ (2) _____ Dollars (\$ _____) available by your drafts drawn at sight on us.

Any such drafts must state that they are drawn under Irrevocable Letter of Credit No. _____ (3) _____ dated _____ (4) _____. Any such drafts must be drawn and negotiated upon the signature of the Director of Public Works of the City of Peoria, and countersigned by the Clerk of the City of Peoria, but not before _____ (5) _____, and not later than _____ (6) _____. Any such drafts may be presented after _____ (7) _____, only in the event that the City Engineer has issued no certificate releasing a certain bond by and between _____ (8) _____ and the City of Peoria, Illinois, concerning the construction and repair of any defects in _____ (9) _____ in a subdivision known as _____ (10) _____, in accordance with the provisions of all applicable laws, ordinances, codes and regulations, including but not limited to Appendix A Subdivisions of the Peoria Municipal Code, 1985, as amended. In the event such a certificate is issued, this Letter of Credit shall be null and void. Certification by the City Engineer that such certificate has, or has not, been issued shall be conclusive evidence of such fact. The City Engineer of the City of Peoria shall release the said bond upon satisfaction of the conditions of the bond, all in accordance with Chapter 31 of the Peoria Municipal Code, 1985, as amended.

This Irrevocable Letter of Credit shall expire on _____ (11) _____; provided, however, the undersigned shall notify the City Engineer for the City of Peoria, by certified mail, return receipt requested, at least forty-five (45) days prior to said expiration date that said Letter of Credit is about to expire. In no event shall this Irrevocable Letter of Credit or the obligations contained herein expire except upon said prior written notice, it being expressly agreed by the undersigned that the above expiration date shall be extended as shall be required to comply with this notice provision.

The undersigned further agrees that this Irrevocable Letter of Credit shall remain in full force and effect and pertain to any and all amendments or modifications which may be made from time to time to the plans, specification or agreements for _____ (12) _____ without notice from said City of such amendments or modifications.

The undersigned agrees and hereby stipulates that all acts, requirements and other preconditions for the issuance of this Irrevocable Letter of Credit will be duly honored upon presentation. If, within ten (10) days of the date of any draft drawn under and in compliance with the terms of this Irrevocable Letter of Credit is presented, we fail to honor same, we agree to pay all attorney fees, court costs and other expenses incurred by the City of Peoria in enforcing the terms of this Letter of Credit.

Sincerely,

(13)

By: _____ (14) _____

Its: _____ (15) _____

DRAFT

ESCROW RECEIPT AGREEMENT AS SECURITY

IRREVOCABLE ESCROW RECEIPT AGREEMENT MAY BE AN ACCEPTABLE METHOD OF SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND. ATTACHED IS A FORM OF IRREVOCABLE ESCROW RECEIPT AGREEMENT (WITH INSTRUCTIONS FOR COMPLETION) TO BE FOLLOWED WHEN SUBMITTING AN ESCROW RECEIPT AGREEMENT AS SECURITY IN CONNECTION WITH A SUBDIVISION IMPROVEMENT PERFORMANCE BOND. THIS IS THE ACCEPTABLE FORM. THIS FORM HAS BEEN REVIEWED AND APPROVED BY THE CITY ATTORNEY. FOLLOWING THIS FORM WILL EXPEDITE BOND REVIEW REQUIRED UNDER THE CITY'S SUBDIVISION REGULATIONS. PLEASE VERIFY WITH THE ENGINEERING DIVISION (309-494-8801) THAT YOU HAVE THE MOST RECENT FORM PRIOR TO SUBMITTAL.

DRAFT

Appendix A: Bond Template

INSTRUCTIONS FOR COMPLETING THE FORM OF IRREVOCABLE ESCROW RECEIPT AGREEMENT TO BE USED AS SECURITY WITH SUBDIVISION IMPROVEMENT PERFORMANCE BOND

Fill in the blanks in accordance with the following:

- (1) Insert the name of the bank or other institution which is acting as escrow agent.
- (2) Insert the name of the person(s) or entity (e.g. corporation, partnership, Trust) to be obligated to perform under the bond, i.e. the same as (B) on Subdivision Improvement Performance Bond form.
- (3) Insert date of the escrow receipt agreement (to be supplied by the bank or other institution acting as escrow agent).
- (4) Insert full address of the escrow agent (to be supplied by the bank or other institution acting as escrow agent).
- (5) Insert the number and/or name of the account (to be supplied by the bank or other institution acting as escrow agent).
- (6) Insert the amount covered by the Escrow Receipt Agreement in verbal and numerical form, for example: "Nine Thousand Seven Hundred Sixteen and 85/100 Dollars (\$9,716.85)". This is the same as (C) and (D) on the Subdivision Improvement Performance Bond form, unless that is not applicable; in which case, insert (L) and (M) from the Subdivision Improvement Performance Bond.
- (7) Insert a complete, accurate list of the improvements to be covered by the Subdivision Improvement Performance bond, i.e. the same as (K) on the Subdivision Improvement Performance Bond form.
- (8) Insert the official name of the subdivision as it appears within the Owner's Certificate, i.e. the same as (A) on the Subdivision Improvement Performance Bond form.
- (9) Insert same as (6).
- (10) Insert same as (3).
- (11) Insert the date which is two (2) years from the date of City Council approval of the final plat, i.e. the same as (E) on the Subdivision Improvement Performance Bond form, unless that is not applicable; in which case insert the same date as (O) from the Subdivision Improvement Performance Bond.
- (12) Insert the date which is six (6) months after (11).
- (13) Insert same as (11).
- (14) Insert same as (12).

Appendix A: Bond Template

IRREVOCABLE ESCROW RECEIPT AGREEMENT

_____ (1) _____ (hereinafter called "Escrow Agent"), by its undersigned duly authorized Officers and Agents, acknowledges, agrees and certifies to the undersigned subdivider, _____ (2) _____ (hereinafter called "Subdivider"), and to the City of Peoria, Illinois, as third-party beneficiary of this Agreement, effective _____ (3) _____, as follows:

1. That it maintains a regular office for the transaction of its business at _____ (4) _____.
2. That it has received, and now holds in an account designated as _____ (5) _____, in the name of the Subdivider, the sum of _____ (6) _____ (\$ _____), which secures and is so designated as security for the Subdivision Improvement Performance Bond given to the City of Peoria by the Subdivider.
3. That this Agreement shall be irrevocable by either the Escrow Agent or the Subdivider or their successors in interest to such funds, account or duties referred to herein.
4. That said funds so held and the execution of this Irrevocable Escrow Receipt Agreement by the undersigned parties is for the purpose of providing security upon the Subdivider's Subdivision Improvement Performance Bond to the City of Peoria for the completion of public improvement, including without limitation, _____ (7) _____ (hereinafter called "Improvements"), in _____ (8) _____ (hereinafter called "Subdivision"), and said sums shall be held and disbursed in accordance with this Irrevocable Escrow Receipt Agreement and the provisions of all applicable laws, ordinances, codes and regulations of the City of Peoria, Illinois, as follows:
 - A. That said escrow account amount shall be held by the undersigned Escrow Agent conditioned upon the satisfactory construction and maintenance of the Improvements as set forth in the approved final plat of the "subdivision, and in accordance with the approved plans and specifications on file with the Engineering Division of the City of Peoria as required by the Subdivision Improvement Performance Bond.
 - B. The City of Peoria is authorized to draw upon the aforementioned account any sum up to a total cumulative amount of _____ (9) _____ (\$ _____) by draft or withdrawal notice. Any such drafts or withdrawal notices must state that they are drawn under the Irrevocable Escrow Receipt Agreement dated _____ (10) _____. Any such drafts or withdrawal notices must be drawn and negotiated upon the signature of the City Engineer of the City of Peoria, and countersigned by the City Clerk of the City of Peoria, but not before _____ (11) _____, and not later than _____ (12) _____. Any such drafts may be presented after _____ (13) _____, only in the event that the City Engineer has issued no certificate releasing all of the certain bond by and between the Subdivider and the City of Peoria, Illinois, concerning the installation and maintenance of the Improvements in the Subdivision, in accordance with the provisions of all applicable laws, ordinances, codes and regulations, including but not limited to Chapter 31 of the Peoria Municipal Code, 1985, as amended. In the event such a certificate is issued, this Irrevocable Escrow Receipt Agreement shall be null and void. Certification by the City

Appendix A: Bond Template

Engineer of the City of Peoria that such a certificate has, or has not, been issued shall be conclusive evidence of such fact. The City Engineer shall release the said bond upon satisfaction of all of the conditions of the bond, all in accordance with the Peoria Municipal Code.

This Irrevocable Escrow Receipt Agreement shall expire on _____ (14) _____; provided, however, the undersigned shall notify the City Clerk of the City of Peoria, by certified mail, return receipt requested, at least forty-five (45) days prior to said expiration date that said Agreement is about to expire. In no event shall this Irrevocable Escrow Receipt Agreement or the obligations contained herein expire except upon said prior written notice, it being expressly agreed by the undersigned that the above expiration date shall be extended as shall be required to comply with this notice provision.

The undersigned further agrees that this Irrevocable Escrow Receipt Agreement shall remain in full force and effect and pertain to any and all amendments or modifications which may be made from time to time to the plans, specifications or agreements for the Subdivision, without notice from said City of such amendments or modifications.

The undersigned agrees and stipulates that all acts, requirements, and other preconditions for the issuance of this Irrevocable Escrow Receipt Agreement have been completed.

We hereby agree with the drawers, endorsers, and bonafide holders that all drafts or notices of withdrawal drawn under and in compliance with the terms of this Irrevocable Escrow Receipt Agreement will be duly honored upon presentation. If, within ten (10) days of the date of any draft or notice of withdrawal drawn under and in compliance with the terms of this Irrevocable Escrow Receipt Agreement is presented, we fail to honor same, we agree to pay all attorney fees, court costs and other expenses incurred by the City of Peoria in enforcing the terms of this Agreement.

C. Upon presentation by the Subdivider to the Escrow Agent of a certificate issued by the City Engineer releasing the whole or a part of said bond for the Improvements in the Subdivision, the aforesaid funds or part thereof certified as released by said certificate and held in escrow by said Escrow Agent may be released in full to the Subdivider.

5. That the subdivider shall not draw or attempt to draw upon the aforementioned account and the Escrow Agent shall not disburse funds from such account except as set forth herein, unless the said City releases that amount of aforementioned bond as provided herein.

ESCROW AGENT

By: _____
Its: _____

ATTEST: _____
Its: _____

SUBDIVIDER

By: _____
Its: _____

ATTEST: _____
Its: _____

CORPORATE SURETY AS SECURITY

CORPORATE SURETY LICENSED AND AUTHORIZED TO DO BUSINESS IN THE STATE OF ILLINOIS AS A SURETY MAY BE AN ACCEPTABLE METHOD OF SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND. THE CITY'S LEGAL DEPARTMENT WILL REVIEW THE FORM OF CORPORATE SURETY TO DETERMINE WHETHER IT IS ACCEPTABLE. IF THE SUBDIVIDER DESIRES TO USE CORPORATE SURETY AS SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND, PLEASE CONTACT THE LEGAL DEPARTMENT (309-494-8590) AT THE EARLIEST POSSIBLE MOMENT SO THAT REVIEW MAY BE EXPEDITED.

DRAFT

CERTIFICATES OF DEPOSIT AS SECURITY

CERTIFICATE(S) OF DEPOSIT PAYABLE TO THE CITY MAY BE AN ACCEPTABLE METHOD OF SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND. WHEN USED AS SECURITY, THE C.D.(S) SHOULD BE PAYABLE TO THE CITY ONLY AND PROVIDE SUFFICIENT FUNDS TO SECURE THE AMOUNT OF THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND. THE C.D.(S) SHALL BE PRESENTED FOR DEPOSIT WITH THE CITY CLERK.

DRAFT

SAVINGS BONDS AS SECURITY

UNITED STATES GOVERNMENT SAVINGS BONDS PAYABLE TO THE CITY MAY BE AN ACCEPTABLE METHOD OF SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND. WHEN USED AS SECURITY, THE SAVINGS BOND SHOULD BE PAYABLE TO THE CITY ONLY AND PROVIDE SUFFICIENT FUNDS TO SECURE THE AMOUNT OF THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND. THE SAVINGS BONDS SHALL BE PRESENTED FOR DEPOSIT WITH THE CITY CLERK.

DRAFT

DEED IN TRUST OR ESCROW AS SECURITY

DEED IN TRUST OR ESCROW CONVEYING REAL ESTATE TO THE CITY MAY BE AN ACCEPTABLE METHOD OF SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND. SUCH REAL ESTATE SHALL BE APPRAISED AT THE SUBDIVIDER'S EXPENSE BY AN INDEPENDENT APPRAISER SELECTED BY THE CITY. IF THE SUBDIVIDER DESIRES TO USE THIS METHOD OF SECURITY IN CONNECTION WITH THE SUBDIVISION IMPROVEMENT PERFORMANCE BOND, PLEASE CONTACT THE LEGAL DEPARTMENT (494-8590) AT THE EARLIEST POSSIBLE MOMENT SO THAT REVIEW MAY BE EXPEDITED.

DRAFT

Appendix A: Bond Template

DATE:

TO:

SUBJECT: Subdivision Performance Bond - Bond Reduction

SUBDIVISION:

In accordance with Appendix A of the Municipal Code and the Chapter 7 of the Manual of Practice, as amended, additional improvements are approved and the Subdivision Performance Bond is hereby reduced:

Original Bond Amount: \$

Type of Security:

BOND REDUCTION AMOUNT	NEW BOND AMOUNT	DATE
1.		
2.		
3.		
4.		

The maintenance period begins _____ and extends for one year from this date.

The current Letter of Credit No. _____ issued by _____ expires and will need to be extended through _____. Alternatively, a replacement letter of credit (written in the amount of \$_____) may be exchanged for the current letter of credit.

The security for this bond is also considered reduced by the total of the bond reduction amounts.

This document is not considered valid if bond reduction amounts are not filled in with an amount or the words "not applicable" and if not signed in blue ink.

If you have any questions concerning the bond, please call.

Sincerely,

(Name)
City Engineer's representative

(Name)
City Engineer

Appendix A: Bond Template

DATE: _____

TO: _____

SUBJECT: Subdivision Performance Bond - Release

SUBDIVISION:_____

In accordance with Appendix A Subdivisions of the Municipal Code, as amended, the Subdivision Performance Bond is hereby released. Enclosed please find the original of the Subdivision Performance Bond with Security for the above subject subdivision in the amount of \$ _____.

If you have any questions concerning the Bond please call.

Sincerely,

(Name)
City Engineer's representative

(Name)
City Engineer

Attachment