# Kane County Division Of Transportation Permit Regulations And Access Control Regulations

### **SECTION 4**

#### RIGHT-OF-WAY ALTERATION PERMIT

January 1, 2004

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# Kane County Division Of Transportation Permit Regulations And Access Control Regulations

#### RIGHT-OF-WAY ALTERATION PERMIT

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# Kane County Division Of Transportation Permit Regulations And Access Control Regulations

#### RIGHT-OF-WAY ALTERATION PERMIT

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#### I. RIGHT-OF-WAY ALTERATION POLICY

#### A. Purpose

The purpose of these regulations is to establish policies and procedures for accommodating alterations on the right-of-way of the County Highway System, which will provide public benefits consistent with the preservation of the integrity, safe usage, and visual qualities of the County Highway System. These regulations apply to all alterations on a highway right-of-way in which the County has an interest. Because it is impossible to anticipate all future highway needs or proposals, the County Engineer reserves the right to deny any application or modify these regulations without notice.

#### **B.** Definitions

**Illinois Highway Code -** The Illinois Compiled Statutes Road and Bridges Illinois Highway Code, 605 ILCS 5/1-101 *et. seq.* 

**Clear Zone -** The total roadside border area, starting at the edge of the pavement, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and a clear run-out area. The desired width is dependent upon the traffic volumes and speeds, and on the roadside geometry. Distances are specified in the <u>AASHTO Roadside Design Guide</u> (most recent publication).

#### C. Permit Application Requirements

A Right-of-Way Alteration Permit will be required for any proposed change to the County right-of-way, unless the changes are included as part of one of the other permit types issued by the County Engineer. The following is a list of the most common changes to the right-of-way or the area adjacent to the right-of-way.

- 1. Earthen berm
- 2. Detention basins
- 3. Landscaping
- 4. Drainage ditch work or field tile replacement
- 5. Sidewalks and bike paths
- 6. Fences adjacent to the right-of-way
- 7. Noise-abatement barriers or retaining walls
- 8. Mailboxes and mailbox turnouts
- 9. De-watering operations
- 10. Other, within or adjacent to the County right-of-way

A permit is required for the construction or modification of any of the above-listed items or any other alteration to the right-of-way, as determined by the County Engineer. A permit **will not** be required for routine maintenance of any of these items if they exist in the right-of-way.

In addition to the permit application, plans, calculations, and reports may be required to evaluate the permit request. It is recommended that the nature and extent of the work be discussed with the Permit Section Staff prior to submitting an application to determine the submittal requirements.

#### D. General Requirements

#### **Authority of County**

A "permit" from the County Engineer grants permission to only undertake certain activities in accordance with these regulations in a County right-of-way and does not create a property right or grant authority to the Applicant to impinge on the rights of others who may have an interest in the right-of-way. Such others might include an owner of an underlying fee simple interest if the right-of-way is by grant of easement, an owner of an easement, or another Applicant. It is the responsibility of the Applicant to satisfy all owners of property within or adjacent to County right-of-way or highway easements.

#### **Written Consent**

Only a permit issued by the County Engineer under these regulations will satisfy the "written consent" requirements of the Illinois Highway Code.

#### **Compliance**

The Applicant shall comply with all other applicable laws. The issuance of a Right-of-way Alteration Permit by the County Engineer does not excuse the Applicant from complying with other requirements of the County Engineer (e.g., oversize and overweight vehicles) or the requirements of other local, state, or federal agencies.

#### **Compliance by Other Agencies**

State, County, township, municipalities, and other local units of government are subject to all the requirements of these regulations.

#### **Earthen Berm**

Earthen berms are not permitted within the right-of-way. Berms on property adjacent to the right-of-way, in accordance with the Illinois Highway Code, shall not be constructed with the toe of slope closer than 10 feet to the right-of-way line. The berm shall not block the natural drainage paths. The construction of the berms shall be in accordance with State Statutes and the exhibit for "Drainage Facilities and Earthen Berms Constructed Adjacent to Highway Right-of-Way" located at the end of this section.

#### **Detention Basins**

Detention basins, or any part of them, are not permitted within the right-of-way. Detention basins on property adjacent to the County right-of-way, in accordance with the 605 ILCS 5/9-115.1, shall not be constructed within distances shown on the examples of "Drainage Facilities and Earthen Berms Constructed Adjacent to Highway Right-of-Way" included at the end of this section.

#### Landscaping

Landscaping features, including trees, shrubs, plants, decorative walls, accent lighting, and irrigation systems, may be allowed in the right-of-way. Each application will be reviewed on a case-by-case basis. Factors to be included in reviewing an application are: speed limit on the highway for determination of the required clear zone; clear zone; sight lines at intersections; and conflicts with utilities. The proposed landscaping plan must meet all KDOT's requirements or other requirements approved by the County Engineer. The Applicant will be responsible for maintenance of all items and materials installed within the right-of-way. The Applicant will also be responsible for moving or removing any landscape features that interfere with any improvements to the right-of-way to be made by the County.

#### **Drainage Ditch Work or Field Tile Replacement**

Work within the right-of-way for ditches or the replacement or repair of field tiles will be allowed, provided there are no negative impacts to the County right-of-way, or violations of Illinois water law or the Kane County Storm Water Ordinance.

#### Sidewalks and Bike Paths

Sidewalks and bike paths shall be kept out of the County right-of-way whenever possible. Permit applications including the construction of a sidewalk or a bike path within the right-of-way will be reviewed on a case-by-case basis. Factors to be included in reviewing an application are: logical terminus for the sidewalk or bike path; conformance to County standards; and an intergovernmental agreement or license agreement for the future maintenance of the facility. The Kane County Division of Transportation will not be responsible for maintaining any of these facilities.

#### **Fences**

Fences are not allowed within the County right-of-way. Fences on property adjacent to the County right-of-way shall not restrict sight distance at any highway intersection.

#### **Noise-abatement Barriers or Retaining Walls**

Noise-abatement barriers or retaining walls will not be allowed on the County right-ofway, unless they are installed as part of a County sponsored project. If an adjacent property owner or owners desire to construct a noise-abatement barrier or retaining wall, it shall not be constructed on the County right-of-way and shall not be the County's maintenance responsibility. The plans must be submitted to the County Engineer for review if the improvements are within 10 feet of the right-of-way line.

#### **Mailbox Turnout**

Mailbox turnouts shall be constructed to County standards. The County Engineer has adopted the Illinois Department of Transportation, Standard 406201 as the typical detail. A copy of this standard is included at the end of this section. The County Engineer shall approve the location of a mailbox turnout.

#### **Temporary Dewatering for Construction Activities**

The County Engineer will permit the temporary discharge of water from dewatering activities associated with construction activities assuming the following criteria have been met.

- 1. The outlet velocity at the point of discharge must not cause scour or erosion within the right-of-way.
- 2. The downstream drainage systems must have the capacity to convey the dewatering flow as well as the ten-year storm for the tributary area.
- 3. Downstream right-of-way or off-site impacts are the responsibility of the Applicant.
- 4. The Applicant shall indemnify the County from impacts or damages to either the right-of-way or off site areas caused by the dewatering discharge.
- 5. All dewatering discharge shall be contained within a pipe system until discharge at a location approved by the County Engineer. The discharge point may be a significant distance from the dewatering activities due to a lack of a suitable discharge point.
- 6. A regional map will be required, showing the location of all drainage features, including ponds, ditches, storm sewers, etc., affected by the work. This exhibit shall also include sizes and elevations of all relevant features.

The County Engineer may require the assistance of a consultant to review the submittal to insure that there are no adverse impacts to the County right-of-way or off-site areas. The costs of this review shall be the responsibility of the permit Applicant.

At no time will the dewatering discharge system be located within any ditch in the right-of-way. The water will be conveyed off the right-of-way as far as is practical and then allowed to traverse the right-of-way in a manner that will not disrupt the normal use of the right-of-way to a suitable discharge point.

The permit will be revoked at any time should the County Engineer determine that there are any damages or adverse impacts to the County right of way or off-site areas.

#### Damage to County Right-of-Way

Those facilities and highway structures and appurtenances (i.e.: guardrails, street lights, etc.) within the highway right-of-way that are damaged as a result of the permit work shall be immediately reported to KDOT. Damaged items shall be replaced or repaired by the Applicant to the KDOT's satisfaction in a reasonable length of time as established by KDOT. Any signs damaged during emergency, maintenance or construction operations must be immediately repaired and/or replaced and erected. The occurrence shall be immediately reported to KDOT.

#### **Duty to Correct Defects**

The Applicant shall guarantee the restoration of the County right-of-way for twelve (12) months following the issuance of the "Final Completion and Compliance Certificate" (included in Section 8). During the 12-month period, the Applicant shall, upon written notification from the County Engineer, correct all non-complying work using methods and materials required by the County Engineer. The corrective measures shall be completed within fourteen (14) calendar days of the receipt of written notice from the County Engineer, not including days during which work cannot be done due to circumstances constituting force majeure or of unseasonable or inclement weather. If corrective measures are not commenced within the length of time specified, the KDOT will take appropriate action to ensure completion of the work to the County Engineer's satisfaction at the expense of the Applicant.

#### Inspection

All improvements to a County highway shall be inspected by a representative of KDOT or one of the County's Consultants. The level of inspection will be determined by the County Engineer based on the complexity and magnitude of the improvements to the County highway. The level of inspection will be discussed at the Pre-construction Meeting.

#### **Enforcement**

If improvements to the County highway are not constructed in accordance with the approved design or made in accordance with the conditions of the permit, the County Engineer will issue a stop work order or revoke a permit as described below. If the Applicant does not correct any deficiencies or at a minimum contact the County Engineer to discuss the deficiencies within fourteen (14) calendar days after notification, the County Engineer has the right to correct the deficiencies either through the Letter of Credit or other security for the permit or as a bill submitted to the Applicant. In addition, the "Final Completion and Compliance Certificate" and/or "Certificate of Occupancy" will be withheld until the improvement conforms to the approved design.

#### **Stop-Work Order/Revocation of Permit**

The County Engineer may issue a Stop-Work Order or suspend or revoke a permit for the following reasons:

- The work was started without a valid permit. In addition to the permit fee, a fine will be accessed in the amount equal to the appropriate permit fee.
- A material provision or condition of the permit was substantially breached.
- A material misrepresentation has been made in the application for a permit.
- The Applicant failed to maintain the required bonds or other security and insurance.
- The Applicant failed to complete the work within the time specified in the permit, unless the failure to complete the work is due to reasons beyond the Applicant's control.
- The Applicant failed, in a timely manner, to correct work that does not conform to applicable standards, conditions, or federal, state, or local laws, rules or regulations.
- An evasion or attempt to evade any material provision of the permit, or the perpetration or attempt to perpetrate any fraud or deceit upon the County.
- The work poses a hazardous situation or constitutes a public nuisance, public emergency, or other threat to the public health, safety, or welfare.

If the Applicant does not correct any deficiencies or, at a minimum, contact the County Engineer to discuss the deficiencies within fourteen (14) calendar days, the County Engineer has the right to correct the deficiencies either through the bond or other security for the permit or as a bill submitted to the Applicant.

All conditions that pose a hazardous situation or constitute a public nuisance, public emergency, or other threat to the public health, safety, or welfare shall be corrected immediately by the Applicant.

#### **Lifting of Stop-Work Order/Reinstatement of Permit**

The County Engineer may lift a Stop-Work Order or reinstate a permit if:

- A permit application and applicable fees and fines are paid and submitted, and the County Engineer has issued a permit.
- An amended application is submitted correcting any misrepresentations included in the original permit application.
- The Applicant provides proof that the required bonds or other security and insurances have been reinstated.
- After discussions with the County Engineer, the Applicant submits a revised schedule and completion date that is acceptable to the County Engineer.
- The Applicant corrects work that does not conform to applicable standards, conditions, or federal, state, or local laws.
- The Applicant agrees to follow all provisions of the permit and makes any reparations for the perpetration or attempt to perpetrate any fraud or deceit upon the County.

 The conditions posing a hazardous situation or constituting a public nuisance, public emergency, or other threat to the public health, safety, or welfare are corrected or removed.

#### **Advance Public Notification**

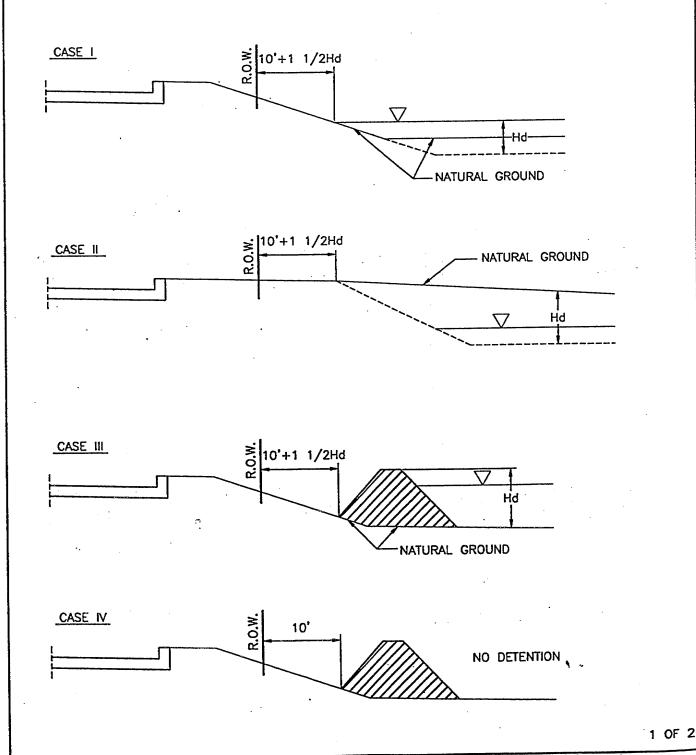
Advance public notification may be required prior to commencing with the work. The advance public notification shall be by use of advance warning signs or message boards placed for each direction of traffic. With the issuance of the Right-of-way Alteration Permit, the advance notification shall be posted at least 72 hours prior to commencing the work. The message will be as specified by the County Engineer.

#### **Permit Working Hours**

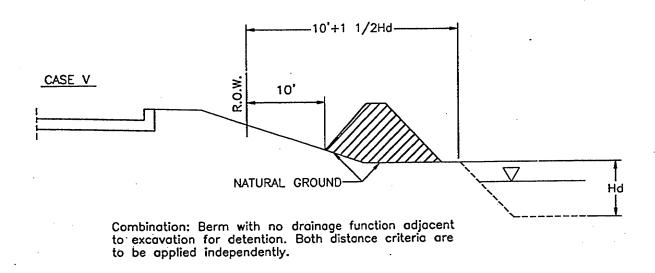
For a highway identified as a County freeway, the permit working hours shall be from 9:00 a.m. to 3:00 p.m., unless extended hours are approved by the County. All other County highways, the working hours shall be as directed by the Permit Section Staff, but generally are considered 8:00 am to 4:00 pm.

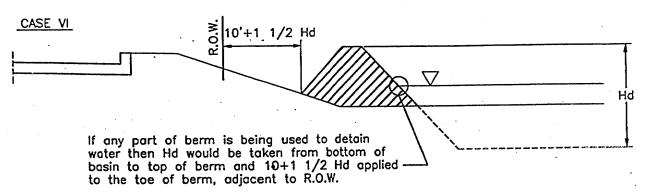
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# DRAINAGE FACILITIES & EARTHEN BERM CONSTRUCTED ADJACENT TO THE HIGHWAY R.O.W.



# DRAINAGE FACILITIES & EARTHEN BERM CONSTRUCTED ADJACENT TO THE HIGHWAY R.O.W.

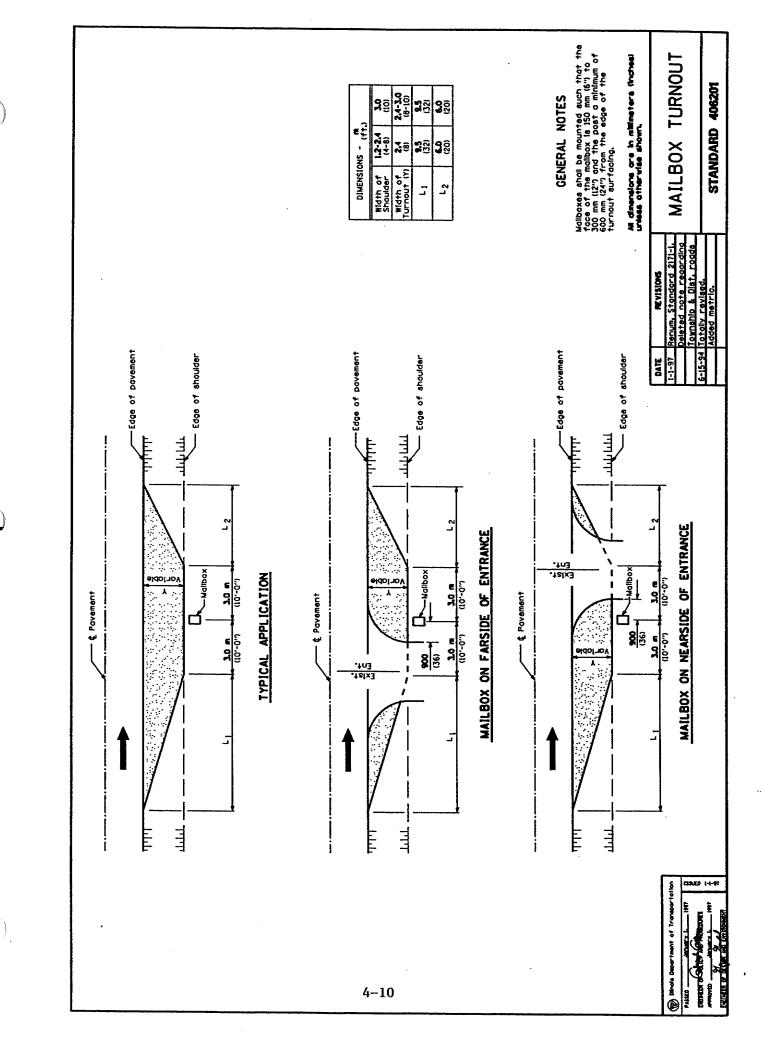




605 ILCS 5/9-115.1 [CONSTRUCTION OF DRAINAGE FACILITIES AND EARTHEN BERMS]

SEC. 9-115.1. IT IS UNLAWFUL FOR ANY PERSON TO CONSTRUCT OR CAUSE TO BE CONSTRUCTED ANY DRAINAGE FACILITY FOR THE PURPOSE OF THE DETENTION OR RETENTION OF WATER WITHIN A DISTANCE OF 10 FEET PLUS ONE AND ONE-HALF TIMES THE DEPTH OF ANY DRAINAGE FACILITY ADJACENT TO THE RIGHT-OF-WAY ANY PUBLIC HIGHWAY WITHOUT THE WRITTEN PERMISSION OF THE HIGHWAY AUTHORITY HAVING JURISDICTION OVER THE PUBLIC HIGHWAY.

IT IS UNLAWFUL FOR ANY PERSON TO CONSTRUCT OR CAUSE TO BE CONSTRUCTED ANY EARTHEN BERM SUCH THAT THE TOE OF SUCH BERM WILL BE NEARER THAN 10 FEET TO THE RIGHT-OF-WAY OF ANY PUBLIC HIGHWAY WITHOUT THE WRITTEN PERMISSION OF THE HIGHWAY AUTHORITY HAVING JURISDICTION OVER THE PUBLIC HIGHWAY.



#### II. PERMIT APPLICATION AND FEES

**Right-of-way Alteration Permit** – The Kane County Division of Transportation will charge an application fee for this work. Standard application fee is \$450.00.

**Permit Renewal or Extension** – The Kane County Department of Transportation **will** charge a fee for the renewal or extension of any permit. The standard fee is \$100.

Fees in the form of a check made payable to the Kane County Division of Transportation shall be included with all application.

<u>Review Cost</u> - This permit may require additional pass-through consultant-review cost. Permit fees that include a base fee plus other costs must be discussed with the Permit Section Staff to determine the total fee.

<u>Fines</u> - In addition to the permit application fee, a fine will be assessed when work, event or activity within the County right-of-way has commenced without a permit. The fine will be assessed in the amount equal to the applicable permit fee.

#### III. RIGHT-OF-WAY ALTERATION PERMIT REVIEW PROCESS

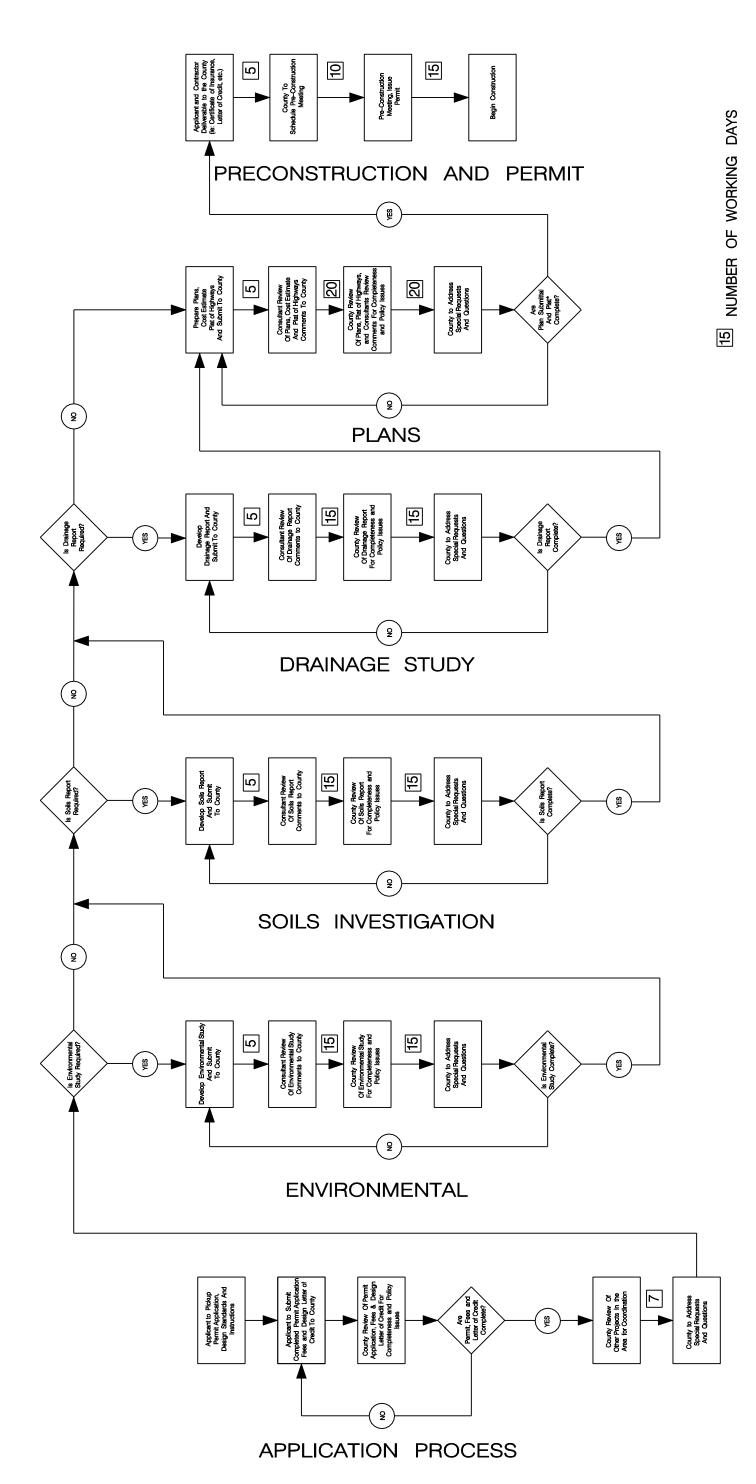
- 1. The process begins with the Applicant submitting the application and fees to the Permit Section Staff. This is illustrated on the flowchart included at the end of this section. The Permit Section Staff shall coordinate with the Planning Division as required.
- 2. The Permit Section Staff reviews the application for completeness and determines if the review is to be performed by in-house staff or a consultant.
- 3. If a consultant is required, the Permit Section Staff will require a Design Review Letter of Credit. The review will not begin until the Letter of Credit is submitted and approved.
- 4. The Permit Section Staff selects the consultant(s) and enters into a contract(s). At this point, the Applicant must also sign an agreement to pay the consultant(s) for the review fees. See exhibits for each of the agreements in Section 8.
- 5. The application will then be logged into a master tracking system to show all stages from the application to the issuance of the Certificate of Compliance and Final Completion for the development. A hard-copy central file system shall also be started at this point.
- 6. The Permit Section Staff shall review other County projects and other permit projects for coordination. The Permit Section Staff will notify the Applicant if coordination with these other projects is required.
- 7. The Applicant shall submit the required items to the Permit Section Staff, including the application form signed by the Applicant and his engineer.
- 8. The Permit Section Staff shall review the submittal for completeness and forward it to all appropriate KDOT departments or the consultant(s) for review.
- 9. KDOT staff or the consultant shall review the submittal and return it with written comments to the Permit Section Staff. The Required Information Checklist will be utilized, but only as a guide. The checklist is included in the packet. The reviewer shall also utilize his/her own knowledge and expertise to ensure a thorough review.
- 10. The Permit Section Staff shall review all the comments and forward them to the Applicant. The Permit Section Staff will also address any questions or special requests from the Applicant.

- 11. The Applicant shall furnish to the Permit Section Staff a revised submittal that includes a written disposition of all comments from KDOT staff and the consultant(s), which is signed by the Applicant and Applicant's engineer.
- 12. The Permit Section Staff shall follow the same procedures outlined above for the revised submittal. The process shall continue until the Applicant has satisfactorily addressed all comments.
- 13. Once the Applicant meets or exceeds the requirements of the KDOT Permit Regulations, the Permit Section Staff shall be responsible for the issuance of a Right-of-Way Alteration Permit.
- 14. Once the permit has been issued, a pre-construction meeting will be required prior to starting construction. A Construction and Observation Compliance Letter of Credit shall be submitted. The Permit Section Staff shall ensure the amount of the Letter of Credit is adequate, including the costs for a consultant for construction observation, if required. Certificates of Insurance for the Applicant, contractor, and any subcontractors shall be provided prior to the start of construction. At the pre-construction meeting the progress schedule and the phone numbers (24-hour) for the Applicant, the contractor, and any subcontractors shall be provided.
- 15. If consultant assistance is required during construction, the Permit Section Staff shall be responsible for contracting with the consultant. The consultant shall attend the pre-construction meeting and any subsequent construction meetings to ensure coordination and compliance of the permit. The Standard Contract For Construction Observation is found in Section 8 of this manual.
- 16. The person performing the site-observation tasks shall ensure that the permitted plans are utilized in the field. This is critical to ensure all the work that went into the review is carried out in the field. The cover sheet of the plans shall be stamped "Approved by KDOT For Construction".

\*NOTE:

**CHART** 

FLOW



### County Route: Permit Application No.: **APPLICANT INFORMATION**. All applicable information shall be completed. 1. **Applicant** a. Contact Person and Firm Name Address Telephone Fax E-mail address b. Attorney Contact Person and Firm Name Address Telephone Fax E-mail address Engineer c. Contact Person and Firm Name Address Telephone Fax E-mail address

RIGHT-OF-WAY ALTERATION PERMIT APPLICATION

IV.

| Contact Person and | Firm Name |                |
|--------------------|-----------|----------------|
| Address            |           |                |
| Telephone          | Fax       | E-mail address |
| Land Planner       |           |                |
| Contact Person and | Firm Name |                |
| Address            |           |                |
| Telephone          | Fax       | E-mail address |
| Soil Scientist     |           |                |
| Contact Person and | Firm Name |                |
| Address            |           |                |
| Telephone          | Fax       | E-mail address |
| Landscape Archite  | ct        |                |
| Contact Person and | Firm Name |                |
| Address            |           |                |
|                    | Fax       | E-mail address |

| h. | Oth        | er (specify)     |                           |                           |
|----|------------|------------------|---------------------------|---------------------------|
|    | Con        | tact Person and  | Firm Name                 |                           |
|    | Add        | ress             |                           |                           |
|    | Tele       | phone            | Fax                       | E-mail address            |
| i. | Oth        | er (specify)     |                           |                           |
|    | Con        | tact Person and  | Firm Name                 |                           |
|    | Add        | ress             |                           |                           |
|    | ——<br>Tele | phone            | Fax                       | E-mail address            |
| AP |            | ΓΙΟΝ FEES        |                           |                           |
|    |            |                  | ount of \$450 are include | ed with this application. |
| -  | -          | S) OF CREDIT     |                           | a with this application.  |
| a. | ·          | Review Letter of |                           |                           |
|    |            |                  | Consultant Name           |                           |
|    | (1)        | Issuing insti    | tution                    |                           |
|    | (2)        | Telephone n      | umber                     |                           |
|    | (3)        | Letter of Cre    |                           |                           |
|    | (4)        |                  |                           |                           |
|    | (5)        | Expiration I     | <b>D</b> ate              |                           |

#### b. Construction Observation and Compliance Letter of Credit

Note: This shall be provided once the permit and the estimate of cost have been approved. It shall be in the amount of the approved estimate of cost x 125%

2.

3.

#### 4. **CERTIFICATE OF INSURANCE**

The undersigned Applicant agrees to submit the required Certificate of Insurance prior to the issuance of this permit.

| 5. | a.  | IEDULE (To be completed by the County)  Construction shall begin within months of the date of issuance of the date of the date of issuance of the date of issuance of the date of th | f |
|----|-----|--|---|
|    | b.  | this permit.  Construction, including cleanup and restoration, shall be completed within months of the date of issuance of this permit.  | n |
|    | c.  | This permit is hereby issued this day o, 20 and shall remain in force fo 12 months from the date of issuance, unless the County Engineer grants at extension.  | r |
| 6. | SIG | NATURES  |   |
|    |     | Applicant (Signature) Date   | _ |
|    |     | Applicant (Print Name)   |   |

## V. REQUIRED INFORMATION CHECKLIST FOR RIGHT-OF-WAY ALTERATION PERMIT

**Required Information.** Answer yes, no, further information required (FIR), or Not Applicable (NA).

| Env | rironmen | ntal study review   |  |
|-----|----------|---|--|
| a.  | Enviro   | onmental study required                                     |  |
| b.  | Which    | of the following environmental issues occurs within         |  |
|     | 300 fe   | et of County right-of-way:                                  |  |
|     | (1)      | Wetlands  |  |
|     | (2)      | Stream crossing   |  |
|     | (3)      | Hazardous materials   |  |
|     | (4)      | Archaeological/historical                                   |  |
|     | (5)      | Parks, land, and water conservation lands                   |  |
|     | (6)      | Other (septic fields, water wells, etc.)                    |  |
| c.  | Was a    | n environmental/archaeological report submitted for:        |  |
|     | (1)      | Wetlands  |  |
|     | (2)      | Hazardous materials   |  |
|     | (3)      | Archaeological/historical                                   |  |
|     | (4)      | Parks, land, and water conservation lands                   |  |
|     | (5)      | Other   |  |
| d.  | The fo   | llowing environmental/archaeological reports were reviewed: |  |
|     | (1)      | Wetlands  |  |
|     | (2)      | Hazardous materials   |  |
|     | (3)      | Archaeological/historical                                   |  |
|     | (4)      | Parks, land, and water conservation, historical properties  |  |
|     | (5)      | Other   |  |
| e.  | Were a   | appropriate permits received and checked for:               |  |
|     | (1)      | Wetlands  |  |
|     | (2)      | Stream crossings (Section 404)                              |  |
|     | (3)      | Hazardous materials   |  |
|     | (4)      | Archaeological  |  |
|     | (5)      | Historical (Section 106)                                    |  |
|     | (6)      | Other   |  |
| f.  |          | e environmental/archaeological issues noted in the reports  |  |
|     |          | the improvement with County right-of-way and were           |  |
|     | they a   | ddressed in the engineering plans and special provisions:   |  |
|     | (1)      | Wetlands  |  |
|     | (2)      | Stream crossings  |  |
|     | (3)      | Hazardous materials   |  |
|     | (4)      | Archaeological  |  |
|     | (5)      | Historical  |  |
|     | (6)      | Parks, land, and water conservation                         |  |
|     | (7)      | Other   |  |

1.

|    | g.   | Coordination with affected regulatory agencies received:  (1) USEPA  (2) USCOE  (3) USF & WS  (4) IDNR  (5) IDOA                      |  |
|----|------|---|--|
| 2. |      | s survey/geotechnical report review   |  |
|    | a.   | Soil survey/geotechnical report required  |  |
|    | b.   | A geotechnical investigation report required for:  (1) County highway to be widened   |  |
|    |      | (2) Bridge, retaining wall, or box culvert  |  |
|    |      | (3) Other   |  |
|    | c.   | Report reviewed   |  |
|    | d.   | Report sealed by a registered Illinois Professional Engineer  |  |
|    | e.   | Were unsuitable materials found   |  |
|    | f.   | Are pavement underdrains required   |  |
|    | g.   | Soil boring logs shall be included in report for new or reconstructed pavements or pavement widening where the widening is 6' or more |  |
|    | h.   | Were the issues noted in the report addressed in the  |  |
|    | i.   | Engineering plans and special provisions  Poyoment Core data shall be included in general for all payoments                           |  |
|    | 1.   | Pavement Core data shall be included in report for all pavements widening projects, regardless of widening width unless waived by the |  |
|    | :    | County Engineer   |  |
|    | j.   | Identify need and criteria for dewatering   |  |
| 3. | Drai | inage study   |  |
|    | a.   | Drainage study required   |  |
|    | b.   | Drainage study completed in accordance with IDOT Drainage Design Manual   |  |
|    | c.   | Drainage study completed in accordance with Kane County   |  |
|    |      | Regulations for County Designated Freeways/Kane County  |  |
|    |      | Storm Water Management Ordinance  |  |
|    | Τ.   |   |  |
|    | Iten | ns to be included in drainage study   |  |
|    | a.   | Study sealed by registered Illinois Professional Engineer   |  |
|    | b.   | Determination as to whether special management (either floodplain   |  |
|    |      | or wetland) areas are impacted by the work  |  |
|    | c.   | Subsurface drainage report  |  |
|    | d.   |   |  |
|    |      | conditions, including off-site areas, and project planning principles considered, including BMP's utilized.                           |  |

| e. |     |     | For the implementation of the stormwater plan   |  |
|----|-----|-----|---|--|
| f. | (1) |     | et/drainage report submittal shall include: icinity topographic map   |  |
|    | (1) | (a) | • 1 6 1   |  |
|    |     | (b) | ·   |  |
|    |     | (c) | - · · · · · · · · · · · · · · · · · · ·   |  |
|    |     | (d) | Soil types, vegetation, and land cover affecting runoff upstream of the site for any area draining through the site |  |
|    |     |     | Location of the project with the major watersheds   |  |
|    | (2) |     | te topographical map consisting of:   |  |
|    |     | (a) | +/- 0.5 feet  |  |
|    |     | (b) | 100 feet of the project   |  |
|    |     | (c) | boundaries  |  |
|    |     | (d) | Delineation of pre-development regulatory floodplain/floodway limits  |  |
|    |     | (e) | features  |  |
|    |     | (f) | Location of drain tiles   |  |
|    |     | (g) | Location of all wetlands, lakes, ponds, etc., with normal water elevations noted.                                   |  |
|    |     | (h) | · ·   |  |
|    |     | (i) | ·   |  |
|    |     | (j) | benchmark   |  |
|    | (3) | _   | eneral plan view drawing (may be more than one drawing  |  |
|    |     |     | clarity) consisting of:   |  |
|    |     | (a) | Map scale at 1 inch – 100 feet (or less) and accurate to +/- 0.5 feet   |  |
|    |     | (b) | Existing and proposed major and minor stormwater systems  |  |
|    |     | (c) | Detention locations including dimensions to illustrate compliance with setback requirements                         |  |
|    |     | (d) | Design details for stormwater facilities including:   |  |
|    |     |     | (i) Existing and proposed drainage facilities (ditches,   |  |
|    |     |     | storm sewers, detention areas, culverts, etc.)  |  |
|    |     |     | showing inverts, types and sizes  |  |

|                            |            | (ii)   | Design flows, velocities and volumes for all facilities |   |
|----------------------------|------------|--------|---|---|
|                            | (e)        | Sched  | uled maintenance program for permanent                  | - |
|                            | (0)        |        | water facilities including BMP measures                 |   |
|                            | (f)        |        | ed maintenance tasks and schedule                       |   |
|                            | (g)        |        | fication of persons responsible for maintenance         | - |
|                            | (g)<br>(h) |        | nent public access maintenance easements granted        |   |
|                            | (11)       |        | icated to, and accepted by, a government entity         |   |
| (4)                        | Λ co       |        | /erosion control plan consisting of:                    |   |
| (4)                        | (a)        |        | ent/erosion control installation measures               |   |
|                            | (a)<br>(b) |        |   |   |
|                            | (0)        |        | ng and proposed roadways, structures, parking lots,     |   |
|                            | (a)        |        | vays, sidewalks, and other impervious surfaces          |   |
|                            | (c)        |        | of clearing and grading                                 |   |
|                            | (d)        |        | nd location(s)  |   |
|                            | (e)        | -      | sed buffer location                                     |   |
|                            | (f)        |        | ng soil types, vegetation and land cover conditions     | - |
|                            | (g)        |        | maintenance tasks and schedule for                      |   |
| <i>(</i> <b>-</b> <i>)</i> | ~          |        | ent/erosion control measures                            | - |
| (5)                        |            | -      | ons to support drainage design including:               | - |
|                            | (a)        |        | ations indexed and pages numbered                       |   |
|                            | (b)        |        | syance system (storm sewer, ditches, and culverts       |   |
|                            |            |        | thin a regulatory floodplain) design criteria and       |   |
|                            |            |        | ations with the following given, at a minimum:          | - |
|                            |            | ` ′    | Sizes and/or cross-sections                             |   |
|                            |            | (ii)   | Hydraulic grade line/water surface elevations for       |   |
|                            |            |        | or 10, 50 and 100-year event                            |   |
|                            |            |        | Capacity  |   |
|                            |            | ` '    | Velocity  |   |
|                            |            | (v)    | •   |   |
|                            | (c)        | Projec | t runoff and storage calculations shall include:        |   |
|                            |            | (i)    | Calculation of hydraulically connected                  |   |
|                            |            |        | impervious area and corresponding retention             |   |
|                            |            |        | volume  |   |
|                            |            | (ii)   | Documentation of the procedures/assumptions,            |   |
|                            |            |        | including choice of model, used to calculate            |   |
|                            |            |        | hydrologic (using Bulletin 70) and hydraulic            |   |
|                            |            |        | conditions for determining the allowable release        |   |
|                            |            |        | rate such as:   | - |
|                            |            |        | 1) Runoff rates for the 2, 10, 50 and 100-year          |   |
|                            |            |        | storms for each subwatershed on the project             |   |
|                            |            |        | and upstream  |   |
|                            |            |        | 2) Critical duration analysis for 10, 50 and 100-       |   |
|                            |            |        | year peak flows   |   |

|     |        | 3) 100-year, 24-hour peak flows                     |  |
|-----|--------|---|--|
|     | (iii)  | Documentation of the procedures/assumptions         |  |
|     | ` ,    | used to calculate on-site depressional storage      |  |
|     | (iv)   | Documentation of the procedures/assumptions         |  |
|     | \ /    | used to calculate hydrologic and hydraulic          |  |
|     |        | conditions for determining storage volume           |  |
|     | (v)    | Elevation-area-storage data                         |  |
|     |        | Elevation-discharge data                            |  |
|     | (vii)  | Locations of all proposed detention                 |  |
| (d) | ` /    | of the work is located within the floodplain, a     |  |
| ()  | •      | blain submittal is required. It may consist of the  |  |
|     | -      | ying as well as additional information as required  |  |
|     |        | County Engineer:                                    |  |
|     | (i)    |   |  |
|     |        | showing the appropriate FEMA map panel(s) for       |  |
|     |        | the project   |  |
|     | (ii)   | Source of flood profile information                 |  |
|     | (iii)  | All hydrologic and hydraulic study information      |  |
|     |        | for all site-specific floodplain studies,           |  |
|     |        | unnumbered Zone A area elevation                    |  |
|     |        | determinations, and floodplain map revisions.       |  |
|     | (iv)   | Floodway hydrologic and hydraulic analyses for      |  |
|     |        | both existing and proposed conditions (land use     |  |
|     |        | and stream system)                                  |  |
|     | (v)    | Tabular summary of 100-year flood elevations        |  |
|     |        | and discharges for existing and proposed            |  |
|     |        | conditions  |  |
|     | (vi)   | Calculations used for the development of any        |  |
|     |        | hydrologic or hydraulic modeling                    |  |
|     | (vii)  | Floodplain fill and compensatory storage            |  |
|     |        | calculations for below and above the 10-year        |  |
|     |        | flood elevation                                     |  |
|     | (viii) | Tabular summary for below and about the 10-         |  |
|     |        | year flood elevation of fill, compensatory storage, |  |
|     |        | and compensatory storage ratios provided in the     |  |
|     |        | proposed design                                     |  |
|     | (ix)   | <u> </u>  |  |
|     |        | the Kane County Stormwater Ordinance                |  |
| (e) | •      | of the work impacts wetlands, as defined by the     |  |
|     |        | County Stormwater Ordinance, a wetland submittal    |  |
|     | _      | aired. It may consist of the following as well as   |  |
|     |        | onal information as required by the County          |  |
|     | Engin  | eer:  |  |

|    | (i)   | Wetland delineation report (COE format)                                    |          |
|----|---|--|----------|
|    | (ii)  | <u> </u>   |          |
|    | · /   | size, and vegetation quality)  |          |
|    | (iii)   |  |          |
|    | · /   | consisting of:   |          |
|    |   | 1) Location of existing and proposed impacted                              |          |
|    |   | or undisturbed wetlands  |          |
|    |   | 2) Location of buffers   |          |
|    |   | 3) Planting plan for buffer area   |          |
|    |   | 4) Identify all required wetland management                                |          |
|    |   | activities   |          |
|    |   | 5) Proof of submittal to ACOE or letter of non-                            |          |
|    |   | jurisdiction   |          |
| 4. | Engineering estimate o                            | of cost for improvements   |          |
|    | 0   | the County right-of-way included   |          |
|    |   | control and protection included  |          |
|    |   | ring/layout/testing included   |          |
|    | C   |  |          |
| 5. | Engineering plans for i                           | improvements in County right-of-way  |          |
|    | sheets and that several<br>The required plan sequ | sheets can be combined together. All units shall be I tence is as follows: | English. |
|    | a. Cover sheet                                    |  |          |
|    |   | isting of applicable Highway Standards,                                    |          |
|    | General notes                                     | some of approvious rings uj z minum us,                                    |          |
|    | c. Summary of quar                                | ntities  |          |
|    | d. Typical sections                               |  |          |
|    | e. Schedules of qua                               | ntities  |          |
|    | f. Alignment, ties, a                             | and bench marks  |          |
|    | g. Suggested stages                               | of construction and traffic control  |          |
|    | h. Plan and profile s                             | sheets   |          |
|    | i. Drainage and util                              | ities sheets   |          |
|    | j. Dewater Plan (if                               | required to construct project.)  |          |
|    | k. Right-of-way she                               |  |          |
|    | <ol> <li>Intersection detail</li> </ol>           | ls   |          |
|    |   | ng and sign sheets   |          |
|    | n. Landscaping deta                               |  |          |
|    |   | heets and Storm Water Pollution  |          |
|    | ~   | (NPDES/SWPPP)  |          |
|    | p. Structural sheets                              |  |          |
|    | q. Wetland details                                |  |          |

|    | r.  | Culvert details              |  |
|----|-----|------------------------------|--|
|    | s.  | IDOT District 1 details      |  |
|    | t.  | Cross-sections               |  |
|    | u.  | Highway Standards            |  |
|    |     |                              |  |
| 6. | Des | sign Review Letter of Credit |  |
|    | a.  | Engineering plan review      |  |
|    | b.  | Drainage review              |  |
|    | c.  | Structural Review            |  |

#### VI. REQUIRED INFORMATION CHECKLIST SUMMARY

|    |  | of County right-of-way           |
|----|--|----------------------------------|
|    | a. Wetland study                       |                                  |
|    | b. Hazardous material investigation    |                                  |
|    | c. Archaeological investigation        |                                  |
|    | d. Other                               |                                  |
| 2. | Soils survey/geotechnical report       |                                  |
| 3. | Drainage study                         |                                  |
| 4. | Engineering cost estimate for improven | nents within County right-of-way |
| 5. | Engineering plans for improvements wi  | thin County right-of-way         |
|    | a. Roadway plans                       |                                  |
|    | b. Drainage plans                      |                                  |
|    | c. Structural plans                    |                                  |
|    | d. Dewatering plan (if required to co  | nstruct project.)                |
|    | e. Erosion Control Plan and SWPPP      | (NPDES)                          |
| 6. | Design Review Letter(s) of Credit      | ·                                |
|    |  |                                  |
|    | Applicant                              | Date                             |
|    | Permit Administrator                   | Date                             |

#### VII. PLAN PREPARATION CHECKLIST FOR RIGHT-OF-WAY ALTERATION PERMIT

The designer is required to include with each submittal a disposition of the review comments.

| Doguino | Required Information. Answer Yes, No, Further Information   |              | Compliance |       |  |
|---------|---|--------------|------------|-------|--|
| Kequire | Required (FIR), or Not Applicable (NA).   | <u>First</u> | Second     | Third |  |
| COVER   | SHEET   |              |            |       |  |
| 1.      | Index of sheets provided.   |              |            |       |  |
| 2.      | Show title information in the top center of the sheet and include:  |              |            |       |  |
|         | <ul> <li>project route number and common name,</li> <li>location of improvement,</li> <li>type of improvement,</li> <li>County, and</li> <li>permit number (if available or applicable)</li> </ul>  |              | <u></u>    |       |  |
| 3.      | Show the graphic scales used on plans, profiles, and cross sections in the lower left-hand side of the sheet.   |              |            |       |  |
| 4.      | Provide address, contact name and phone number for all utilities.   |              |            |       |  |
| 5.      | Provide a project layout map at bottom center of the sheet. Include on the map:   |              |            |       |  |
|         | <ul> <li>location of project, and north arrow,</li> <li>beginning and end stations,</li> <li>all important intermediate stations,</li> <li>prominent features,</li> <li>names for special features</li> <li>route and street names,</li> <li>scale of location map,</li> <li>township and range numbers, and</li> <li>equation stations.</li> </ul> |              |            |       |  |
| 6.      | Provide the project gross and net lengths immediately below the layout map. Only include the mainline distances. Do not include length of intersection improvements. (If applicable)  |              |            |       |  |
| 7.      | Include the project approval block in lower right-hand corner of the sheet and check to ensure the signatures and dates for the following are included:   |              |            |       |  |

| Required Information. Answer Yes, No, Further Information |   |              | Compliand |              |  |
|---|---|--------------|-----------|--------------|--|
|   | Required (FIR), or Not Applicable (NA).   | <u>First</u> | Second    | <u>Third</u> |  |
|   | <ul><li>County Engineer, and</li><li>local officials, where applicable.</li></ul>   |              |           |              |  |
| 8.  | On consultant-designed projects, ensure that the consultant's company name, and the professional engineer's signature, date of their license expiration, and professional stamp are shown below the Clients approval box. |              |           |              |  |
| 9.  | Show the information for "JULIE" somewhere on the cover sheet.  |              |           |              |  |
| 10.   | Include the design designation notation somewhere on the cover sheet.   |              |           |              |  |
| 11.   | Include traffic, road classification, design speed, pavement design, etc. somewhere on the cover sheet.   |              |           |              |  |
| INDEX   | OF SHEETS, HIGHWAY STANDARDS, PLAN NOTES  |              |           |              |  |
| 1.  | Completely fill out the sheet index (On smaller projects this can be placed on the cover sheet).  |              |           |              |  |
| 2.  | Provide a list of all IDOT Highway Standards necessary to construct<br>the project. Also, include the revision number (On smaller projects<br>this can be placed on the cover sheet).                                     |              |           |              |  |
| 3.  | Include all applicable general plan notes. (Design and construction notes should be project specific. On smaller projects this can be placed on the cover or other plan sheet).   |              |           |              |  |
| 4.  | Show legend with applicable items. (On smaller projects this can be placed on the cover or other plan sheet).   |              |           |              |  |
| TYPICA  | AL SECTION SHEETS   |              |           |              |  |
| 1.  | Plot typical section for each change in the project area  |              |           |              |  |
| 2.  | Note the stations range of the typical section  |              |           |              |  |
| 3.  | Use a horizontal scale of 1"=10'. The vertical scale can be 1"=2'. Show the scales used in the lower right-hand corner of each sheet.   |              |           |              |  |

| <b>Required Information.</b> Answer Yes, No, Further Information Required (FIR), or Not Applicable (NA).  | <u>First</u> | Complian Second | ce<br><u>Third</u> |
|---|--------------|-----------------|--------------------|
| 4. Plot the existing conditions using a light, dashed line and show th existing:  | e            |                 |                    |
| <ul> <li>ground lines,</li> <li>pavement structure,</li> <li>drainage structures,</li> <li>major utilities,</li> <li>all affected structures,</li> <li>existing and proposed right-of-way and easement lines,</li> <li>bodies of water near the right-of-way limits</li> </ul>  |              |                 |                    |
| <ul><li>5. Plot the proposed conditions using a dark, solid line and show:</li></ul>  |              |                 |                    |
| <ul> <li>centerline or the profile grade line, if different,</li> <li>proposed pavement structure,</li> <li>curb and gutter or shoulders,</li> <li>sidewalk locations and depth,</li> <li>proposed side slopes,</li> <li>special fill materials,</li> <li>all underground utilities affected by the construction,</li> <li>special ditches and drainage direction,</li> <li>proposed right-of-way and easement lines, and</li> <li>any other special features.</li> </ul> ALIGNMENT, TIE, AND BENCHMARK SHEET <ol> <li>Where necessary for complex projects, include a geometric alignment figure. Also, include a coordinate layout sheet for all</li> </ol> |              |                 |                    |
| alignments, intersections, side roads, radius returns, and parking lots.  |              |                 |                    |
| <ul> <li>Show schematics for reference tie locations which will include:</li> <li>the applicable centerline station,</li> <li>the applicable control ties, and</li> <li>the complete description of the features used to determine the location.</li> <li>All coordinate values for survey points are in Illinois State Plasystem using the North American Datum (NAD83) with a 1997 HARN adjustment, Illinois East Zone 1201.</li> </ul>   |              |                 |                    |

| Required | Information. Answer Yes, No, Further Information Required (FIR), or Not Applicable (NA).   | <u>First</u> | Compliand Second | e<br><u>Third</u> |
|----------|--|--------------|------------------|-------------------|
| 3.       | Show all mainline reference ties first, followed by those for other facilities.  |              |                  |                   |
| 4.       | Round all reference tie dimensions to the nearest 10 <sup>th</sup> of a foot.  |              |                  |                   |
| 5.       | Provide the benchmark data on this sheet and include the following information:  |              |                  |                   |
|          | <ul> <li>centerline station,</li> <li>distance and direction from the centerline,</li> <li>description of location,</li> <li>benchmark elevation,</li> <li>relationship to NAD83, and</li> <li>coordinate information (if available).</li> </ul>   |              |                  |                   |
|          | OF CONSTRUCTION AND TRAFFIC CONTROL SHEETS (If pelosures or pavement open-cuts, Traffic Control Sheets will be required  |              | requires las     | ne or             |
| 1.       | Determine which IDOT Highway Standards and Kane County requirements are applicable for the traffic control on the project.   |              |                  |                   |
| 2.       | Provide plan view sheets showing:  |              |                  |                   |
|          | <ul> <li>temporary roadway horizontal alignment,</li> <li>temporary pavement widths and tapers,</li> <li>temporary traffic lanes,</li> <li>proposed construction staging,</li> <li>location of signing for work zones,</li> <li>temporary pavement markings (types and sizes),</li> <li>roadside safety and layouts, and</li> <li>general notes for construction, closures, time frames, etc.</li> </ul> |              |                  |                   |
| 3.       | Where necessary, provide the temporary roadway profile grade line on the profile sheet(s).   |              |                  |                   |
| 4.       | Utilize and reference applicable IDOT or County Traffic Control Devices Standards.   |              |                  |                   |

| Require  | d Information. Answer Yes, No, Further Information Required (FIR), or Not Applicable (NA).   | <u>First</u> | Compliand<br>Second | ce<br><u>Third</u> |
|----------|--|--------------|---------------------|--------------------|
| PLAN/P   | ROFILE SHEET   |              |                     |                    |
| Plan And | l Profile Views  |              |                     |                    |
| 1.       | Provide the mainline plan and profile sheets first, followed by other plan and profile sheets as they appear along the centerline.   |              |                     |                    |
| 2.       | Plot existing facilities with a light, dashed line and the proposed facilities with a solid, dark line.  |              |                     |                    |
| 3.       | Keep all notes brief, clear, consistent and project specific.  |              |                     |                    |
| 4.       | Desirably, label the applicable plan view stations in the title block at the lower right-hand corner on each sheet.  |              |                     |                    |
| Plan Vie | w  |              |                     |                    |
| 5.       | Show mainline stationing increasing from left to right. Note where the centerline is not coincident with the survey or construction line.                                      |              |                     |                    |
| 6.       | Provide tic marks along the centerline at 50' intervals and note the station on every even 100' intervals and at all intersections.  |              |                     |                    |
| 7.       | Use matchlines with baseline station labeled on the matchline.   |              |                     |                    |
| 8.       | On projects where a coordinate system has been set up, show the coordinates for all control points and other critical points, such as PI's, POT's, etc.                        |              |                     |                    |
| 9.       | For rural facilities use a plan view scale of 1"=50'. For urban facilities, use a plan view scale of 1"=20'.   |              |                     |                    |
| 10.      | Provide a North arrow on each sheet.   |              |                     |                    |
| 11.      | Ensure station call outs are provided at:  |              |                     |                    |
|          | <ul> <li>beginning and end points of the project,</li> <li>matchlines with other projects,</li> <li>100' station increments,</li> <li>construction limit locations,</li> </ul> | <u> </u>     | _                   | <u> </u>           |
|          | <ul> <li>right-of-way alignment breaks,</li> <li>special construction applications,</li> </ul>   |              |                     |                    |

| Required | <b>Information.</b> Answer Yes, No, Further Information Required (FIR), or Not Applicable (NA).   | <u>First</u> | Compliand<br>Second | ce<br><u>Third</u> |
|----------|---|--------------|---------------------|--------------------|
|          | <ul> <li>side street intersections,</li> <li>permanent survey and right-of-way markers(include pay items and provision to have new markers and property pins set in the</li> </ul>  |              |                     |                    |
|          | field as part of the project improvement),  |              |                     |                    |
|          | <ul><li>permanent and temporary easements</li><li>property pins</li></ul>   |              |                     |                    |
|          | <ul><li>property pins</li><li>section lines,</li></ul>  |              |                     |                    |
|          | <ul> <li>show all existing and proposed utilities and drainage information.</li> </ul>  |              |                     |                    |
| 12.      | If separate right-of-way or easement sheets are included with the plans, show the existing and proposed right-or-way and easement limits on the plans. If the right-of-way or easement plans are not included with the plans, also incorporate the following: |              |                     |                    |
|          | • dimensions of the properties to be acquired,  |              |                     |                    |
|          | • station ties to property lines,   |              |                     |                    |
|          | <ul> <li>property ownership lines,</li> </ul>   |              |                     |                    |
|          | • parcel numbers,   |              |                     |                    |
|          | • property owner names,   |              |                     |                    |
|          | station locations of right-of-way alignment breaks  |              | ·                   |                    |
|          | <ul> <li>temporary and permanent easement locations,</li> <li>points where the control of access does not coincide with the right-of-way line,</li> </ul>   |              |                     |                    |
|          | <ul> <li>location of right-of-way markers, and</li> </ul>   |              |                     |                    |
|          | <ul> <li>any pertinent data that will affect right-of-way.</li> </ul>   |              |                     |                    |
|          | • permanent survey and right-of-way markers (include pay items and provision to have new markers and property pins set in the   |              |                     |                    |
|          | field as part of the project improvement)   |              |                     |                    |
| 13.      | Show all approved points of entry or exits across control of access lines.  |              |                     |                    |
| 14.      | For entrances and side road intersections, show the following:  |              |                     |                    |
|          | <ul> <li>the facility with the applicable street name, route number, or entrance type;</li> <li>direction of flow and ditch drainage.</li> </ul>  |              | _                   |                    |
| 15.      | Properly label all additional constructed improvements.   |              |                     |                    |

| Required       | <b>Information.</b> Answer Yes, No, Further Information Required (FIR), or Not Applicable (NA).  | <u>First</u> | Compliance Second | ce<br><u>Third</u> |
|----------------|--|--------------|-------------------|--------------------|
| 16.            | Show and label all existing and proposed utilities.  |              |                   |                    |
| Profile V      | iew  |              |                   |                    |
| 17.            | Show the profile of the finished surface or top of the subgrade along the centerline for the proposed facility.                                      |              |                   |                    |
| 18.            | Use the same horizontal scale as shown for the plan view. The vertical scale is typically 1"=5'. Consider 1" =2' for overlay plans or flat profiles. |              |                   |                    |
| 19.            | Show the existing ground line to the nearest .1' and proposed pavement surfaces to the nearest .01'.   |              |                   |                    |
| 20.            | Show the elevations for the survey line and proposed centerline vertically every 20' for urban and every 50' for rural projects.                     |              |                   |                    |
| 21.            | Provide additional profiles, where necessary, for:   |              |                   |                    |
|                | <ul> <li>pavement edges,</li> <li>drainage structures,</li> <li>special ditches</li> <li>side roads, and</li> <li>other situations.</li> </ul>       |              |                   |                    |
| 22.            | For bridges within the project, show elevations for:   |              |                   |                    |
|                | <ul> <li>abutments,</li> <li>piers,</li> <li>low vertical clearance points,</li> <li>the high water level, and</li> <li>stream bed.</li> </ul>       |              |                   |                    |
| <u>DRAIN</u> A | AGE AND UTILITIES INFORMATION ON PLAN AND PROFIL   | E SHE        | <u>EETS</u>       |                    |
| 1.             | For culverts, note the following on the plan view:   |              |                   |                    |
|                | <ul> <li>centerline station for the ends,</li> <li>direction and distance of the ends from the centerline,</li> <li>culvert type,</li> </ul>         |              |                   |                    |

| Required Information. Answer Yes, No, Further Information Required (FIR), or Not Applicable (NA).  • pipe size and length, • flow direction, • skew angle, • upstream and down stream flow elevations, • end section or headwall type and size, and • all applicable construction notes.  2. For storm drainage pipes, show the following:  Plan View  • each run of pipe between manholes, catch basins, and inlets, • pipe material, (class if applicable), diameter and length, • gradient, and • flow arrow.  Profile View  • diameter of pipe, • type of pipe, • type of pipe, • length, • gradient, and • trench backfill under pavements, walks and driveways and • trench backfill under pavements, walks | Poquired I   | aformation Answer Ves No Further Information                 |              | Compliance |              |
|--|--------------|--|--------------|------------|--------------|
| • flow direction, • skew angle, • upstream and down stream flow elevations, • end section or headwall type and size, and • all applicable construction notes.  2. For storm drainage pipes, show the following:  Plan View  • each run of pipe between manholes, catch basins, and inlets, • pipe material, (class if applicable), diameter and length, • gradient, and • flow arrow.  Profile View  • diameter of pipe, • type of pipe, • length, • gradient, and • trench backfill under pavements, walks and driveways and entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View  • structure number • centerline station and offset, • rim elevation, or grate elevation at edge of pavement, and • invert elevations and direction (N,S,E,W) for all pipes.  Profile View  • centerline station, • direction from centerline,   | Kequii eu 11 |  | <u>First</u> | Second     | <u>Third</u> |
| skew angle,     upstream and down stream flow elevations,     end section or headwall type and size, and     all applicable construction notes.  2. For storm drainage pipes, show the following:  Plan View      each run of pipe between manholes, catch basins, and inlets,     pipe material, (class if applicable), diameter and length,     gradient, and     flow arrow.  Profile View      diameter of pipe,     type of pipe,     length,     gradient, and     trench backfill under pavements, walks and driveways and entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View      structure number     centerline station and offset,     rim elevation, or grate elevation at edge of pavement, and     invert elevations and direction (N,S,E,W) for all pipes.  Profile View      centerline station,     direction from centerline,   | •            | pipe size and length,  |              |            |              |
| upstream and down stream flow elevations, end section or headwall type and size, and all applicable construction notes.  2. For storm drainage pipes, show the following:  Plan View  each run of pipe between manholes, catch basins, and inlets, pipe material, (class if applicable), diameter and length, gradient, and flow arrow.  Profile View  diameter of pipe, type of pipe, length, gradient, and trench backfill under pavements, walks and driveways and entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View  structure number centerline station and offset, rim elevation, or grate elevation at edge of pavement, and invert elevations and direction (N,S,E,W) for all pipes.  Profile View  centerline station, direction from centerline,   | •            | flow direction,  |              |            |              |
| end section or headwall type and size, and     all applicable construction notes.  2. For storm drainage pipes, show the following:  Plan View      each run of pipe between manholes, catch basins, and inlets,     pipe material, (class if applicable), diameter and length,     gradient, and     flow arrow.  Profile View      diameter of pipe,     type of pipe,     length,     gradient, and     trench backfill under pavements, walks and driveways and entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View      structure number     centerline station and offset,     rim elevation, or grate elevation at edge of pavement, and     invert elevations and direction (N,S,E,W) for all pipes.  Profile View      centerline station,     direction from centerline,   | •            | skew angle,  |              |            |              |
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| pipe material, (class if applicable), diameter and length, gradient, and flow arrow.  Profile View  diameter of pipe, type of pipe, length, gradient, and trench backfill under pavements, walks and driveways and entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View  structure number centerline station and offset, rim elevation, or grate elevation at edge of pavement, and invert elevations and direction (N,S,E,W) for all pipes.  Profile View  centerline station, direction from centerline,  | Plan View    |  |              |            |              |
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| Profile View    diameter of pipe,  | •            | <u> </u>   |              |            |              |
| diameter of pipe,     type of pipe,     length,     gradient, and     trench backfill under pavements, walks and driveways and entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View      structure number     centerline station and offset,     rim elevation, or grate elevation at edge of pavement, and     invert elevations and direction (N,S,E,W) for all pipes.  Profile View      centerline station,     direction from centerline,  | •            | flow arrow.  |              |            |              |
| <ul> <li>type of pipe,</li> <li>length,</li> <li>gradient, and</li> <li>trench backfill under pavements, walks and driveways and entrances.</li> </ul> 3. For manholes, catch basins, and inlets, show the following: <ul> <li>entrances.</li> </ul> Plan View <ul> <li>structure number</li> <li>centerline station and offset,</li> <li>rim elevation, or grate elevation at edge of pavement, and</li> <li>invert elevations and direction (N,S,E,W) for all pipes.</li> </ul> Profile View <ul> <li>centerline station,</li> <li>direction from centerline,</li> </ul>   | Profile View | V  |              |            |              |
| <ul> <li>length,</li> <li>gradient, and</li> <li>trench backfill under pavements, walks and driveways and entrances.</li> <li>3. For manholes, catch basins, and inlets, show the following:</li> <li>Plan View</li> <li>structure number</li> <li>centerline station and offset,</li> <li>rim elevation, or grate elevation at edge of pavement, and</li> <li>invert elevations and direction (N,S,E,W) for all pipes.</li> </ul> Profile View <ul> <li>centerline station,</li> <li>direction from centerline,</li> </ul>  | •            | diameter of pipe,  |              |            |              |
| gradient, and trench backfill under pavements, walks and driveways and entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View  structure number centerline station and offset, rim elevation, or grate elevation at edge of pavement, and invert elevations and direction (N,S,E,W) for all pipes.  Profile View  centerline station, direction from centerline,  | •            | type of pipe,  |              |            |              |
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| entrances.  3. For manholes, catch basins, and inlets, show the following:  Plan View  • structure number • centerline station and offset, • rim elevation, or grate elevation at edge of pavement, and • invert elevations and direction (N,S,E,W) for all pipes.  Profile View  • centerline station, • direction from centerline,   | •            | <u> </u>   |              |            |              |
| 3. For manholes, catch basins, and inlets, show the following:  Plan View  • structure number • centerline station and offset, • rim elevation, or grate elevation at edge of pavement, and • invert elevations and direction (N,S,E,W) for all pipes.  Profile View  • centerline station, • direction from centerline,   | •            | ÷  |              |            |              |
| Plan View      structure number     centerline station and offset,     rim elevation, or grate elevation at edge of pavement, and     invert elevations and direction (N,S,E,W) for all pipes.  Profile View      centerline station,     direction from centerline,   |              | entrances.   |              |            |              |
| <ul> <li>structure number</li> <li>centerline station and offset,</li> <li>rim elevation, or grate elevation at edge of pavement, and</li> <li>invert elevations and direction (N,S,E,W) for all pipes.</li> </ul> Profile View <ul> <li>centerline station,</li> <li>direction from centerline,</li> </ul>  | 3. Fo        | r manholes, catch basins, and inlets, show the following:    |              |            |              |
| <ul> <li>centerline station and offset,</li> <li>rim elevation, or grate elevation at edge of pavement, and</li> <li>invert elevations and direction (N,S,E,W) for all pipes.</li> </ul> Profile View <ul> <li>centerline station,</li> <li>direction from centerline,</li> </ul>  | Plan View    |  |              |            |              |
| <ul> <li>rim elevation, or grate elevation at edge of pavement, and</li> <li>invert elevations and direction (N,S,E,W) for all pipes.</li> </ul> Profile View <ul> <li>centerline station,</li> <li>direction from centerline,</li> </ul>  | •            | structure number   |              |            |              |
| <ul> <li>invert elevations and direction (N,S,E,W) for all pipes.</li> <li>Profile View</li> <li>centerline station,</li> <li>direction from centerline,</li> </ul>  | •            | centerline station and offset,                               |              |            |              |
| Profile View  centerline station, direction from centerline,   | •            | <u> </u>   |              |            |              |
| <ul> <li>centerline station,</li> <li>direction from centerline,</li> </ul>  | •            | invert elevations and direction (N,S,E,W) for all pipes.     |              |            |              |
| direction from centerline,   | Profile View | <b>v</b>   |              |            |              |
|  | •            | centerline station,  |              |            |              |
| • device type and size,  | •            | direction from centerline,                                   |              |            |              |
|  | •            | device type and size,  |              |            |              |

| Doguin    | ad Information Angwar Vas No Eurthar Information   |              | Compliance |          |  |
|-----------|--|--------------|------------|----------|--|
| Kequire   | ed Information. Answer Yes, No, Further Information Required (FIR), or Not Applicable (NA).  | <u>First</u> | Second     | Third    |  |
|           | <ul><li>invert elevations for all pipes, and</li><li>rim elevation.</li></ul>  |              |            |          |  |
| 4.        | For end sections, show the following:  |              |            |          |  |
| Plan Vi   | ew   |              |            |          |  |
|           | <ul> <li>centerline station and offset,</li> <li>type,</li> <li>size, and</li> <li>end treatment (rip rap).</li> </ul>   |              |            |          |  |
| Profile ' | View   |              |            |          |  |
|           | <ul> <li>centerline station,</li> <li>direction from centerline,</li> <li>device type and size, and</li> <li>outflow elevation at the bottom of pipe.</li> </ul> |              | _          |          |  |
| 5.        | Note special ditch locations with invert elevations at 50' intervals and breaks in grade on the cross sections. On the profile view note:                        |              |            |          |  |
|           | <ul> <li>gradient percentage,</li> <li>centerline station,</li> <li>beginning and ending elevations, and</li> <li>elevations at gradient changes.</li> </ul>     |              |            | <u> </u> |  |
| 6.        | Note all overhead utilities where they cross the centerline and the type of utility.   |              |            |          |  |
| 7.        | Show all underground utilities within the right-of-way limits affected by the construction in Plan and Profile View.   |              |            |          |  |
| LANDS     | SCAPING (for smaller projects can be shown on plan & profiles)   |              |            |          |  |
| 1.        | All disturbed areas seeded with mulch or blanket or sodded.  |              |            |          |  |
| 2.        | 6" topsoil.  |              |            |          |  |
| 3.        | Sod adjacent to developed property.  |              |            |          |  |
| 4.        | Salt tolerant sod adjacent to roadways.  |              |            |          |  |

| Require  | d Information.                                       | Answer Yes, No, Furth<br>Required (FIR), or No |                                | <u>First</u> | Compliand Second | ce<br><u>Third</u> |
|----------|--|--|--------------------------------|--------------|------------------|--------------------|
| 5.       | Fertilizer.  | • , ,,   |                                |              |                  |                    |
| 6.       | Erosion control                                      | l blanket for all seeded                       | area.                          |              |                  |                    |
| 7.       | Inlet protection                                     | (if applicable)                                |                                |              |                  |                    |
| 8.       | Ditch checks (it                                     | f applicable)                                  |                                |              |                  |                    |
| EROS     | SION CONTRO  | OL (for smaller projects                       | s can be shown on plan & profi | les or laı   | ndscaping s      | heets)             |
| 1.       | Standard notes.                                      |  |                                |              |                  |                    |
| 2.       | Layout of erosi                                      | on control methods (Te                         | emporary and Permanent).       |              |                  |                    |
|          |  | rosion control barrier,                        |                                |              |                  |                    |
|          |  | e protection,                                  |                                |              |                  |                    |
|          | <ul><li>Ditch check</li><li>Siltation base</li></ul> |  |                                |              | <del></del>      |                    |
|          | Sittation bas  | 51115.   |                                |              |                  |                    |
| 3.       | Properties and s                                     | sensitive areas protected                      | d.                             |              |                  |                    |
| 4.       | Erosion control                                      | required as part of dew                        | vatering                       |              |                  |                    |
| 5.       | Storm Water Po                                       | ollution Prevention Plan                       | n (SWPPP)                      |              |                  |                    |
| 6.       | Completed Not  | ice of Intent (NOI)                            |                                |              |                  |                    |
| SIGNAT   | <u>rures</u>   |  |                                |              |                  |                    |
|          | Applicant  |  | Date                           |              |                  |                    |
|          | Developer  |  | Date                           |              |                  |                    |
|          | Design Engine  | <u>eer</u>                                     | Date                           |              |                  |                    |
| Permit N | lumber / Date:                                       |  |                                |              |                  |                    |