



PLAN REVIEW AND SPECIFICATIONS WORKSHOP

Hosted by
M Squared Engineering, LLC
on behalf of
**The Illinois Department of Transportation –
Office of Business and Workforce Diversity**
April 3, 2012



M Squared Engineering

- TECHNICAL SUPPORTIVE SERVICES IN IDOT DISTRICTS 2 & 3 FOR CERTIFIED DBEs
- ONE ON ONE TECHNICAL ASSISTANCE
- TRAINING THROUGH SEMINARS ON VARIOUS ASPECTS OF THE HIGHWAY CONSTRUCTION PROCESS.
- TECHNICAL SUPPORTIVE SERVICES IN IDOT DISTRICTS 2 & 3 FOR CERTIFIED DBE CONTRACTORS AND FIRMS FOR IDOT PROJECTS ONLY
- ASSIST IN RESOLVING DBE ISSUES ON IDOT CONSTRUCTION PROJECTS





Plan Review & Specification Workshop

- This WORKSHOP is for IDOT projects.
- Our goal is to understand the Contract Documents and the intent of the Design Engineer and Construction
- The following are important steps for achieving the Goal and understanding of the project





IDOT Transportation Letting

1. IDOT publishes their lettings 7 times a year plus additional special letting(s).
2. Review the Item description.
3. Select the project.
4. Review the item description or scope of work described.
5. Review the DBE Goal Percentage established by IDOT
6. Select the items in the DBE category for which your company has been certified (such as landscaping, misc. concrete, electrical, etc).
7. Check the location of the project on plan cover sheet.
8. Check the project limits from the plan cover sheet.
9. Check the General Notes and Note Incidental Items



Incidental Items



- Certain items & materials included in the work unit cost.
- Example: Combination Curb & Gutter Removal & Replacement
- Check specifications and notes in plans



IDOT Transportation Letting


10. Know the project scope of work, including the Prime's work.
11. Check the limits of the project (for site visit).
12. Compare the existing condition to the proposed condition.
13. Review the typical sections and legends
10. (e.g. Pavement Thickness and type of Curb & Gutter)
14. Make note of existing utilities.
15. Note if there are any conflicts (such as with sanitary sewer, water main, gas lines, etc).
16. Visit the site before you start preparing your bid.

Note: Don't consider the line item quantity given to you by the Prime Contractor as factual when preparing your unit cost.



What every Contractor working on IDOT projects should know!


- Conversion factors for length, area, volume, & weight.
- Document hierarchy
 - What documents trump other documents and who has the final say.
- IDOT abbreviations and symbol nomenclature.
- Understanding the IDOT Pay Item Code.
- Components of Contract Documents




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Conversion Factors



- 12 inches = 1 foot
- 3 feet = 1 yard
- 5,280 feet = 1 mile
- 1 Station = 100 feet
- 1 Sq. Yd. = 9 Sq. Ft.
- 1 Acre = 43,560 Sq. Ft.
- 1 Acre = 4,840 Sq. Yd.
- 1 Cu. Yd. = 27 Cu. Ft.
- 2,000 lbs = 1 Ton




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Document Hierarchy

Section 105.5 – IDOT Standard Specifications for Road & Bridge Construction

| Hierarchy of the Contract Documents | | |
|-------------------------------------|------------|---|
| Special Provisions | Hold over: | Plans, Recurring Special Provisions, Supplemental Specifications, and Standard Specifications |
| Plans ^{1/, 2/, 3/} | Hold over: | Recurring Special Provisions, Supplemental Specifications, and Standard Specifications |
| Recurring Special Provisions | Hold over: | Supplemental Specifications, and Standard Specifications |
| Supplemental Specifications | Hold over: | Standard Specifications |




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Document Hierarchy

1. Detailed plans hold hierarchy over Highway Standards
2. Calculated dimensions hold over scaled dimensions
3. The Highway Standards indicated by the revision number listed in the Index of Highway Standards on the plans shall hold over Highway Standards listed anywhere else.

[Article 105.5 of the IDOT Standard Specifications for Road & Bridge Construction](#)




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IDOT Abbreviations and Symbol Nomenclature

From IDOT Standard 000001-06

| DRAINAGE ITEMS | EX | PR |
|---------------------------|-----|-----|
| Culvert Line | --- | --- |
| Ditch Profile Line | --- | --- |
| Grading & Shaping Ditches | --- | --- |
| Drainage Boundary Line | --- | --- |
| Paved Ditch | --- | --- |
| Aggregate Ditch | --- | --- |
| Flowline | ⊥ | ⊥ |
| Ditch Check | ⊥ | ⊥ |
| Headwall | ⊥ | ⊥ |
| Inlet | ⊥ | ⊥ |



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Understanding the Pay Item Code


| | | | | | |
|----|----------|--|-----|----------|-------|
| 25 | 35500000 | PORTLAND CEMENT CONCRETE BASE COURSE, 9" | SY | 1,464.40 | 1,464 |
| 26 | 35501303 | HEFT-MIX ASPHALT BASE COURSE, 4.5" | SY | 799.10 | 799 |
| 27 | 35501312 | HEFT-MIX ASPHALT BASE COURSE, 7" | SY | 956.00 | 956 |
| 28 | 35501316 | HEFT-MIX ASPHALT BASE COURSE, 8" | SY | 6,474.00 | 6,474 |
| 29 | 40201000 | AGGREGATE FOR TEMPORARY ACCESS | TON | 1,098.50 | 1,098 |

SECTION 353. PORTLAND CEMENT CONCRETE BASE COURSE

353.01 Description. This work shall consist of constructing a portland cement concrete base with or without reinforcement as specified.

353.02 Materials. Materials shall be according to the following.

| Item | Article/Section |
|---|-----------------|
| (a) Portland Cement Concrete | 1020 |
| (b) Reinforcement Bars | 1006.10 |
| (c) Longitudinal Metal Joints, Pins, and Bar Supports | 1006.11(a) |



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From IDOT Std. 212-353001-04

ALTERNATE SECTION A-A
TYPICAL 12' LONG WITH SLOPES

PLAN
A-A

GENERAL NOTES
The longitudinal speed joint shall be as detailed on Standard 50000 except the speed groove does not require depth.
All dimensions are in inches (millimeter) unless otherwise shown.

| DATE | REVISIONS |
|--------|---|
| 1-2-08 | Switched units to English metrics |
| 1-2-07 | Switched to Metric English Size terminology |

PCC BASE COURSE WITH HMA BINDER AND SURFACE COURSES
STANDARD 353001-04

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Components of Contract Documents

- Plans (construction plans & details)
- Specifications (standard specifications & special provisions)
- Plans consist of the following:
 - General Notes, Index of Sheets, and State Standards
 - Typical Sections
 - Alignment & Ties
 - Right of Way (plats, highway plats)
 - Traffic Signals (details)
 - Lighting (street lighting)
 - Drainage & Utilities (Existing & Proposed)
 - Plan & Profile (Existing & Proposed)
 - Pavement Markings
 - Landscaping
 - Structures (bridges, culverts, & retaining walls)
 - Signing
 - Traffic Control (Staged Construction)
 - Special Details
 - Cross Sections (Existing & Proposed)

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Specifications

- Standard Specifications for Road and Bridge Construction (Adopted January 1, 2012).
- Supplemental Specifications (check sheet)
- Recurring Special Provisions (check sheet)
- Local Road (check sheet)
- Bureau of Design & Environment (BDE) Special Provisions - for related items.
- Special Provisions – for special item construction which does not cover the above list.

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Cover Sheet – Critical Information

- Index of Sheets – Helps you quickly navigate through the entire plan set.
- Location Map – Informs you where the project is so you know how far material needs to be shipped (Is it one location or various locations?). Also shows you the limits work (“project begins” & “project ends”)
- Project Information – who designed the project?

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Index of Sheets

- Summary of sheets in plan set and aids in locating information faster.

| SHEET NO. | SHEET NAME |
|-----------|---|
| 1 | COVER SHEET |
| 2 | STANDARDS & GENERAL NOTES |
| 3 - 4 | SUMMARY OF QUANTITIES |
| 5 - 10 | TYPICAL SECTIONS |
| 11 - 17 | SCHEDULE OF QUANTITIES |
| 18 - 55 | PLAN & PROFILE |
| 56 - 60 | DETOUR & STAGING PLAN |
| 61 - 66 | EROSION CONTROL PLAN |
| 67 - 75 | INTERSECTION DETAILS |
| 76 - 77 | SIGNAGE DETAILS |
| 78 - 89 | PAVEMENT MARKING PLAN |
| 90 - 92 | SIGNAL PLAN |
| 93 - 96 | HIGHWAY LIGHTING PLAN |
| 96 - 98 | BOX CULVERT EXTENSION DETAIL |
| 99 - 106 | DETAILS - DISTRICT 2 AND COUNTY STANDARDS |
| 107 - 165 | CROSS SECTIONS |

Existing & Proposed
Traffic Control
Structure
District and State Standards

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State Standards, General Notes


- Standards – these are detail drawings that describe the construction of an item.
 - Note: The State Standards have a number in the bottom right corner which corresponds to the pay item code and the revision number for the standard.
- General Notes – Related to Project specific (such as Drainage, Landscaping, Electrical, Erosion Control, etc). Watch for the notes within a box!!
 - EXAMPLE: PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.

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More Examples

SAW CUTTING WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEMS, UNLESS OTHERWISE NOTED. (E.G. SIDEWALK REMOVAL & REPLACEMENT, CURB & GUTTER REMOVAL & REPLACEMENT)

THE COST OF MAKING SEWER CONNECTIONS TO EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED SEWER PIPE BEING INSTALLED.



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State Highway Standards

000001-06 thru 886006-01

Note: "06" indicates the number of times that the standard has been revised.

- District Standard Details
 - BD → Bureau of Design
 - BE → Bureau of Electrical
 - TC → Traffic Control related standard detail




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Summary of Quantities

- Your Work Category covers a certain range of Pay Item Codes
 - Division 200 – Landscaping, Earthwork, Erosion Control
 - Division 300 – Sub-grades, Sub-bases, and Base Courses
 - Division 400 – Surface Courses, Pavements (HMA, PCC) Rehabilitation and Shoulders.
 - Division 500 – Structures
 - Division 600 – Miscellaneous / Incidental Construction (drainage items, conc. C & G, paved ditch)
 - Division 700 – Work Zone Traffic Control (state standards & county standards)
 - Division 800 – Electrical - traffic signals, highway lighting, street lighting, raceway (underground).
 - Division 1000 – This section covers the material specification for various items which are not covered elsewhere.
 - Special Work Items which are not covered in the Standard Specifications.




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Item Description

- Will tell you specific information about the Pay Item.
 - Class D Patches, Type II, 14 inch (verify w/ typ. sections)
 - Combination Concrete Curb & Gutter, Type B-6.24
- Units – make sure you know, especially if it is Metric or English units (English units is most common)
- Construction Type Codes
 - Sometimes provide more of a break down of the quantities.
 - Can also be related to Funding (State, Federal, Municipalities, and Private)
 - Some plans will have a Schedule of Quantities for the pay items (such as curb & gutter removal, sidewalk, tree removal).




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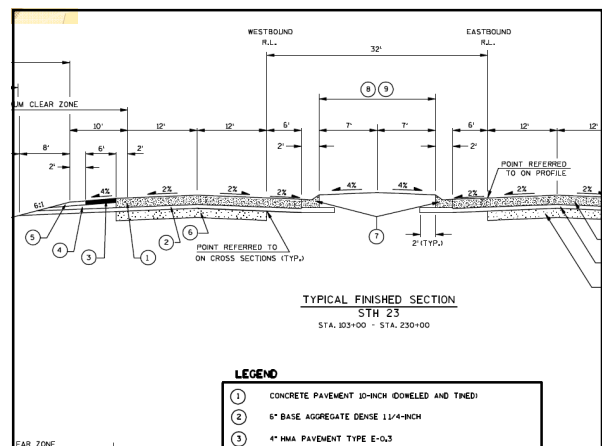
Typical Sections

- Shows the difference between existing and proposed.
- Provides widths and depths of proposed components for construction items.
- Shows where & what pay items are being used (by station limits)
- For Hot-Mix Asphalt pavement, it provides mixture requirements & various asphalt layers to construct with.
- Shows the limits of the section by stations (Sta. ___ to Sta. ___).
- Provides the legends used for the various components of construction items.




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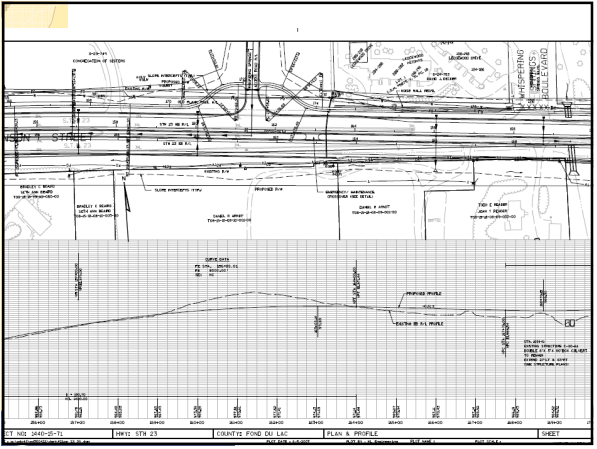
Plan & Profile Sheets

- Profile view along the centerline of the entire length of the project indicating vertical dimensions of the horizontal and longitudinal roadway components.
- Plan views provide view from above the project, which shows Removal Items, Construction Items, Topographic Features, Pavement Items, Landscaping Items, Utility Structures, Drainage Structures, Right-of-Way, Electrical Items, and other miscellaneous items.




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Lettings

- 7 Lettings per Year (more if there are special Lettings)
- Letting Schedule is published through year 2013
- Plans are posted on website
- Deadlines
 - Prequalification (3 to 4 Weeks before letting date),
 - Joint Ventures (1 to 2 weeks before letting date), and
 - Bid Authorization (3-4 days before letting date)
 - Letting Date (bid submittal/bid opening date)
- Bids are announced and televised live on IDOT's website on day of letting.




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IDOT Letting Schedule

<http://www.dot.state.il.us/desenv/LettingSchedule.pdf>


| Transportation Bulletin | Pre-qualification "Cut Off" | Joint Venture "Cut Off" | Bid Authorization "Cut Off" | Letting Day | DBE Utilization Plan (SBC 2013 and SBC 2016) |
|-------------------------|-----------------------------|-------------------------|-----------------------------|-------------|--|
| 12/9/2011 | 12/30/2011 | 1/13/2012 | 1/17/2012 | 1/20/2012 | Submit With Bid |
| 12/20/2011 | 12/30/2011 | 1/13/2012 | 1/17/2012 | 1/20/2012 | Submit With Bid |
| 2/3/2012 | 2/17/2012 | 3/2/2012 | 3/6/2012 | 3/9/2012 | Submit With Bid |
| 3/23/2012 | 4/6/2012 | 4/20/2012 | 4/24/2012 | 4/27/2012 | Submit With Bid |
| 5/11/2012 | 5/25/2012 | 6/8/2012 | 6/12/2012 | 6/15/2012 | Submit With Bid |
| 6/29/2012 | 7/13/2012 | 7/27/2012 | 7/31/2012 | 8/3/2012 | Submit With Bid |
| 8/17/2012 | 8/31/2012 | 9/14/2012 | 9/18/2012 | 9/21/2012 | Submit With Bid |
| 10/5/2012 | 10/19/2012 | 11/2/2012 | 11/7/2012 | 11/9/2012 | Submit With Bid |
| 12/7/2012 | 12/28/2012 | 1/11/2013 | 1/15/2013 | 1/18/2013 | Submit With Bid |
| 2/1/2013 | 2/15/2013 | 3/1/2013 | 3/5/2013 | 3/8/2013 | Submit With Bid |
| 3/22/2013 | 4/5/2013 | 4/19/2013 | 4/23/2013 | 4/26/2013 | Submit With Bid |
| 5/10/2013 | 5/24/2013 | 6/7/2013 | 6/11/2013 | 6/14/2013 | Submit With Bid |



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Identifying IDOT Projects for Bidding

- IDOT Web site:
- <http://www.dot.state.il.us/ifa/default.asp>



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Letting and Bidding Web Page



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Letting and Bidding Web Page

PROJECTS | ROAD CLOSURES | NEWS | DOING BUSINESS | LETTING & BIDDING | CAREERS @ IDOT | GENERAL INFO

LETTING AND BIDDING INFORMATION

2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012

2012
 April 27, 2012 Letting
 March 09, 2012 Letting
 January 20, 2012 Letting

2011
 November 18, 2011 Letting
 September 23, 2011 Letting
 August 5, 2011 Letting
 June 17, 2011 Letting
 April 29, 2011 Letting
 April 1, 2011 Special Letting
 March 11, 2011 Letting
 February 25, 2011 Special Letting
 January 21, 2011 Letting

Archived Notice of Letting Bulletins
 Contractor's Marketplace
 Letting Schedule
 Pay Item Reports With Awarded Prices
 Price Indices for Bituminous, Steel and Fuel
 Project Labor Agreements – Official Document

** "HOW TO" PROCEDURES AND FREQUENTLY ASKED QUESTIONS **

<http://www.dot.state.il.us/desenv/delett.html>

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Notice of Letting

<http://www.dot.state.il.us/desenv/042712/042712letg.html>

TRAVELING PUBLIC | MAPS | PROJECTS | ROAD CLOSURES | NEWS | DOING BUSINESS | LETTING & BIDDING | CAREERS @ IDOT | GENERAL INFO

April 27, 2012 Letting

*If You Plan To Submit A Bid Directly To IDOT
 Bid Submittal Guidelines and Checklist * NEW *

The contractor or bidder certifies that all relevant addenda have been incorporated into the appropriate contract. Failure to do so may cause the bid to be declared unacceptably.

HOW TO: PROCEDURES AND FREQUENTLY ASKED QUESTIONS

- Notice of Letting
- Addendum / Revision Checklist revised 3/26/12 3:38 p.m.
- CBDS
- BDC Goals

- Plans and Proposals
- BDC Manuals, Memoranda and Specifications
- Federal Wage Rates
- Guide To Working with Railroads
- Highway Standards - Rec 213
- Procurement Return Vias Site
- Special Provision for Disadvantaged Business Enterprise Participation
- State Board of Elections Business Preparation
- Steel, Bituminous and Fuel Price Indices
- Submitting Electronic Good Faith Offers

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Notice of Letting Sections

View each section on-line.
Use "File/Print" to print a copy

- [Award / Reject Report](#)
- [Bulletin Revisions](#)
- [Federal Fraud Hotline](#)
- [Forms](#)
- [IDOT's Electronic Subscription Service](#)
- [Important Dates for Bidders](#)
- [Invitation for Bids](#)
- [Item Descriptions](#)
- [Letting Index](#)

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Item Descriptions

April 27, 2012 Letting
Index Listing

PAVEMENT **By Items**

| | | | |
|-----------------------------|------------------------|---------------------|-----------------------|
| 102. Brown | 6R3-4 | FAD 317 | US 24 |
| 95. Champaign | 10-34, HB-5, 106/RS-1 | FAD 513 | MARKET STREET |
| 97. Champaign | (4)3R3 | FAD 522 | SENECA-LANUVIEN RD |
| 112. Clay-Effingham-Fayette | 07 PACTORING 2012-E | VAR1008 | VARIOUS |
| 109. Clay | 10-00054-00-PV | FAD 0526 | WORTHEN STREET |
| 107. Coles | (3)R671R-1 | FAD 7423 | HAMILTON ST |
| 44. Coles | 15(22,23,24,25,26)R3-4 | FAD 57 | I-57 |
| 154. Cook | 02-00055-00-RR | FAD 1507 | WICKBERRY ROAD |
| 156. Cook | 06-00175-00-TL | FAD 344 | 127TH STREET |
| 78. Cook | 10-00055-00-RP | VAR1009 | |
| 76. Cook | 11-00053-00-RS | FAD 1071 | MINERVA AVENUE |
| 82. Cook | 11-00053-00-RS | FAD 1062 | POPLAR AVENUE |
| 29. Cook | 11-00054-00-RS | FAD 1072 | DATE AVENUE |
| 162. Cook | 11-00093-00-RS | FAD 1411 | WASHINGTON BOULEVARD |
| 81. Cook | 11-00093-00-RS | FAD 1056 & FAD 1055 | INDIANWOOD & LARKWOOD |
| 71. Cook | 11-00111-00-RR | FAD 1406 | 147TH STREET |

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Special Thanks

- River Valley Metro Centre
- IDOT District 3
 - Marco Maury
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Upcoming Workshops

- **District 2**
 - April 19, 2012 – Trucking
 - May 17, 2012 – Documentation and Surveying
 - June 14, 2012 – Patching – Asphalt & Concrete
 - July 19, 2012 – Force Account
 - August 16, 2012 – Concrete – Flat & Vertical
- **District 3**
 - May 3, 2012 – Trucking
 - May 22, 2012 – Certified Payroll

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Questions???

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