



# Illinois Department of Transportation

## Memorandum

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To: Studies & Plans Squads PPM 10-04  
From: Jeff Birch Revised: Tim Brandenburg  
Subject: Working Day Computations  
Date: November 26, 1997 Revision Date: December 4, 2006

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### PLAN PREPARATION MEMORANDUM 10-04

#### BACKGROUND

Working day computations should be performed in accordance with Section 66-2.03, Construction Time Estimates of the BDE Manual.

In addition to the guidelines given in Chapter 66 of the BDE Manual, all Working Day computations shall be supported by a Time Bar Chart.

#### PROCEDURE

The "Estimate of Time Required" Form BD 220 and the Time Bar Chart should be reviewed by the applicable District Bureaus at the same time they are reviewing the proposed plans. The reviewed documents should become part of the squads permanent files.

As with all contracts, the designer must use their best judgment in determining what the appropriate rate of production is for any particular item. The following is a suggested list of resources to be used when computing working days:

- Chapter 66 of the BDE Manual; Section 66-2.03 Construction Time Estimates
- Section 108 of the Standard Specifications
- District 5 Production Rates (Use in conjunction with BDE Chapter 66)
- Number of Accumulated Working Days for Conversion To a Completion Date and Calendar Days (work days "year")
- Consultant's Estimate/Time Bar Chart
- Bridge Office Estimate/Time Bar Chart
- Project Implementation Field Engineer's judgment
- Program Development Project Engineer's judgment
- Designer's engineering judgment
- Example "Estimate of Time Required", "Time Bar Chart" and "Working Days 200?" may be found at Studies and Plans (s:)/Phase II Plans /Forms

## DISTRICT FIVE PRODUCTION RATES

(Based on research of two typical resurfacing projects. One on FAI-72 west of Monticello, the other on IL 16 from Ashmore to Paris.)

<u>Major Worktype</u>	<u>Sub Worktype</u>	<u>Description</u>	<u>Unit</u>	<u>Low</u>	<u>High</u>
Roadway	Aggregate	Gravel or Crushed Stone Shoulders (wedge)	Ton	900	1200
Roadway	Excavation	Channel Excavation	Cu. Yd.	500	800
Roadway	Excavation	Earth Excavation (Shoulders & Widening)	Cu. Yd.	1000	1600
Roadway	Patching	Class A	Sq. Yd.	100	150
Roadway	Patching	Class B	Sq. Yd.	100	150
Roadway	Patching	Class C & D	Sq. Yd.	100	250
Roadway	Patching	Partial depth	Sq. Yd.	240	360
Roadway	Patching	Bituminous Mixture for Patch	Ton	40	60
Roadway	Paving	Bituminous Concrete Bind. & Surf. Course(Urban)	Ton	500	1500
Roadway	Paving	Bituminous Concrete Surface (Rural)	Ton	1500	1800
Roadway	Paving	Bituminous Concrete Binder Course (Rural)	Ton	1600	2000
Roadway	Paving	Bituminous Shoulders	Sq. Yd.	10000	15000
Roadway	Paving	Level Binder (Urban)	Ton	1000	1500
Roadway	Paving	Leveling Binder (Rural)	Ton	1300	1500

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<u>Major Worktype</u>	<u>Sub Worktype</u>	<u>Description</u>	<u>Unit</u>	<u>Low</u>	<u>High</u>
Roadway	Paving	Strip Reflective Crack Control	Ft.	20000	30000
Roadway	Pvt. Mk.	Raised Reflective Pavement Markers	Each	350	500
Roadway	Pvt. Mk.	Thermoplastic Pavement Marking (Truck)	Ft.	50000	60000
Roadway	Removal	Bituminous Surface Removal (Urban)	Sq. Yd.	2000	10000
Roadway	Removal	Bituminous Surface Removal (Rural profile milling)	Sq. Yd.	30000	45000