



MINNESOTA DEPARTMENT OF TRANSPORTATION
ESTIMATED PRODUCTION RATES FOR COMPUTING CONTRACT TIME

SET-UP AND MOBILIZATION		UNIT	RANGE
	MOBILIZATION	LS	1 - 3 Days
	CONTRACTOR SURVEY	LS	1 - 3 Days

REMOVALS		UNIT	RANGE Unit/8 HourWork Day
	CONCRETE PAVEMENT	SQ YD	1000-4000
	BITUMINOUS SURFACE	SQ YD	8000-12000
	CLEAR AND GRUBBING	ACRE/DAY	2-4
	CLEAR AND GRUBBING	TREE/DAY	15-30
	CURB AND GUTTER	LF	1000-2000
	BRIDGE (OVER LAND)	SPAN/DAY	
	BRIDGE (OVER WATER)	SPAN/DAY	
	HOUSE (5-8 DAYS PER HOUSE)		5-8 DAYS PER HOUSE

EARTHWORK		UNIT	RANGE Unit/8 HourWork Day
	<i>COMMON & BORROW EXCAVATION**</i>		
	* PLASTIC (truck)	CU YD	2000-6000
	* PLASTIC (scraper)	CU YD	6000-8000
	* GRANULAR (truck)	CU YD	3000-8000
	* GRANULAR (scraper)	CU YD	6000-10000
	* RECONSTRUCTION	CU YD	2,500
	<i>SUBGRADE EXCAVATION</i>		
	* NEW CONSTRUCTION	CU YD	4000-6000
	* RECONSTRUCTION	CU YD	2000-3000
	MUCK EXCAVATION	CU YD	3500-5000
	ROCK EXCAVATION (BLASTING)	CU YD	1500-2500
	** Crew Size = 9 (includes operators, trucking)		

BASE MATERIALS (includes blue-tops)		UNIT	RANGE Unit/8 HourWork Day
	RURAL BASE COURSE	CU YD	1000-2000
	URBAN BASE COURSE	CU YD	500-1000
	SHOULDERING	CU YD	500-1000
	OPEN GRADED BASE	CU YD	1000-2000

Date: 7/2005

TABLE 2 (1 OF 4)



MINNESOTA DEPARTMENT OF TRANSPORTATION

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CONCRETE PAVEMENT		UNIT	RANGE Unit/8 HourWork Day
SLIPFORM PAVING (24' WIDE)		MILE	0.75 - 1.50
SLIPFORM PAVING (24' WIDE)		SQ YD	10000-20000
HAND POUR		SQ YD	2000-2500
CURE TIME (HIGH EARLY)		3 DAYS	
CURE TIME (STANDARD MIX)		7 DAYS	
CLEAN AND SEAL JOINTS		MILE/DAY	
PIPE UNDERDRAIN & OUTLETS		LF	7500-9000
REPAIRS			
TYPE A		LF	2000-2500
TYPE B		LF	500-600
TYPE C		LF	200-450
TYPE D		SY	250
DIAMOND GRINDING		SY	2000
DRIVEWAYS		SY	100-200

Concrete Pavement Crew size is 18 (includes operators, laborers, and trucking, but not plant)

BITUMINOUS PAVEMENT		UNIT	RANGE Unit/8 HourWork Day
<i>SMALL PRODUCTION OR URBAN JOBS</i>			
MILL BIT SURFACE		SQ YD IN	10000-15000
NON-WEARING COURSE		TONS	2000-3000
NON-WEARING COURSE		SQ YD IN	35000-55000
WEARING COURSE		TONS	2000-2500
WEARING COURSE		SQ YD IN	35000-45000
MICRO-SURFACING		TON	450
<i>LARGE PRODUCTION OR RURAL JOBS</i>			
MILL BIT SURFACE		SQ YD IN	25000-35000
NON-WEARING COURSE		TONS	3000-4000
NON-WEARING COURSE		SQ YD IN	55000-70000
WEARING COURSE		TONS	2500-3500
WEARING COURSE		SQ YD IN	45000-60000
MICRO-SURFACING		TON	600
COLD INPLACE RECYCLING		2 LANE MILES PER DAY	
RECLAMATION (8' MILL)		1 LANE MILE PER DAY PER MILL	
CHIP SEALING		2 LANE MILES PER HOUR	
ROUTE AND SEAL		1000 LBS / HOUR	

DRAINAGE		UNIT	RANGE Unit/8 HourWork Day
STORM SEWER & CULVERTS <=24"		LF	200-400
STORM SEWER & CULVERTS >24"		LF	75-200
RIP-RAP		SQ YD	100-200
BOX CULVERTS		POUR	5
JACKED IN PLACE PIPE		LF	20-40
INLET AND CATCH BASINS		3-8 PER DAY	
MANHOLES		3-5 PER DAY	
JACKING PIT		3-6 DAYS PER SET-UP	

Date: 7/2005



MINNESOTA DEPARTMENT OF TRANSPORTATION

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BRIDGE		UNIT	RANGE Unit/8 HourWork Day
<i>NEW CONSTRUCTION</i>			
	2 SPAN OVER LAND (includes all work)		90-120 DAYS
	3 SPAN OVER LAND (includes all work)		120-150 DAYS
	4 SPAN OVER LAND (includes all work)		120-150 DAYS
	SUBSTRUCTURE EXCAVATION		1-2 DAYS PER SUBSTRUCTURE
	PILE DRIVING (per hammer)	LF	200-800
	TEST PILE		1-2 TEST PILE PER DAY
	FOOTING (with forming and cure)		2-4 DAYS PER FOOTING
	COLUMNS, CAPS, ABUTMENTS (with form & cure)		3-5 DAYS EACH
	BEAM ERECTION		6-12 BEAMS PER DAY
	SUPERSTRUCTURE (form, pour and cure)	SQ YD	
	SPAN (form, pour and cure)		9-12 DAYS PER SPAN
	PARAPET BARRIER	LF	
	FINISHING & PAINTING	SY	
	LOW SLUMP OVERLAY		
	DECK PREPARATION	SPAN	2-3
	LOW SLUMP POUR	SF	8000
	TEMPORARY SHEET PILING	SF	300-800
	COFFERDAM EXCAVATION	CY	75-150
	COFFERDAM		2-5 DAYS EACH
<i>REHABILITATION</i>			
	MILL DECK (1/4")	SF	8000
	MILL DECK (TYPE 1A)	SF	2000
	TYPE 1 & 3 REPAIRS	SF	250
	EXPANSION JOINT REPLACEMENT (w/cure)	LF	5-10
	REMOVE BRIDGE DECK	SF	2000
	REPLACE/WIDEN BRIDGE DECK	SF	200
	RAILING RECONSTRUCTION	LF	30
	APPROACH PANELS	SQ YD	50-100

LANDSCAPING & FINISHING		UNIT	RANGE Unit/8 HourWork Day
	SEEDING AND MULCHING	ACRES	8-12
	SODDING	SQ YD	2500-3000
	TREES		20-40 PER DAY

TABLE 2 (3 OF 4)

Date: 7/2005



MINNESOTA DEPARTMENT OF TRANSPORTATION
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NOISE & RETAINING WALLS		UNIT	RANGE Unit/8 HourWork Day
	CAST-IN-PLACE (PANEL ONLY)	PANEL	0.5-1
	MSE WALL (BLOCK PLACEMENT)	SQ FT	
	PRE-CAST POST AND PANEL	PANEL	0.5-1
	AESTHETIC PAINTING	PANEL	

MISCELLANEOUS		UNIT	RANGE Unit/8 HourWork Day
	CURB AND GUTTER	LF	1500-2000
	SIDEWALK (5')	LF	2000-3000
	CHAIN LINK FENCE	LF	1000-1500
	WOVEN WIRE FENCE	LF	1200-1700
	GUARDRAIL (PLATE BEAM)	LF	500-750
	CRACK SEALING	LF	15000-20000
	SET TEMPORARY BARRIER	LF	1500-2500
	CAST-IN-PLACE MEDIAN BARRIER	LF	1000-1500
	WATERMAIN (6-8' DEEP)	LF	500
	Testing and Chlorination	DAY	3-5
	SANITARY SEWER (8-12")	LF	350
	STRIPING (TRUCK)	LF	10000-20000
	SIGNING (TYPE A)	SF	
	SIGNING (TYPE C & D)	SF	
	OVERHEAD SIGNS (w/ footing, mast, & install)	XX DAYS PER LOCATION	

ELECTRICAL		UNIT	RANGE Unit/8 HourWork Day
	CONDUIT (TRENCH)	LF	
	CONDUIT (PUSHED)	LF	400
	RUN ELECTRICAL WIRE IN CONDUIT	LF	500-750
	TRENCH ELECTRICAL WIRE	LF	1000-1500
	TRAFFIC SIGNALS	15 DAYS PER INTERSECTION	
	BASES (FORMED)	4 - 6 PER DAY	
	HANDHOLES/JCT BOXES	3 - 6 PER DAY	
	DETECTOR LOOPS	2 - 5 PER DAY	
	SET POLE/LUMINAIRE	6-10 PER DAY	
	RELOCATE POLES	2-4 PER DAY	
	INSTALL TEMPORARY SYSTEM	5-10 DAYS PER SYSTEM	
	INSTALL SIGNAL HEADS	5 -10 PER DAY	

TABLE 2 (4 OF 4)

Date: 7/2005



MINNESOTA DEPARTMENT OF TRANSPORTATION

PROBABLE WORKING DAY EFFICIENCY BASED ON WEATHER

MONTH	Estimated Days
January	15
February	15
March	18
April	18
May	18
June	18
July	20
August	20
September	17
October	17
November	15
December	15

Note: The days may change slightly based on the yearly calendar. Use discretion.

Date: 7/2005

TABLE 3