

## STATEMENT OF ESTIMATED QUANTITIES

FOOT NOTES	SPEC NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITIES	S.P. 7101-56	S.P. 7101-56	100% CITY
					60% STATE/40% CITY EST. QUANTITIES	100% STATE EST. QUANTITIES	EST. QUANTITIES
	2021.501	MOBILIZATION	LS	1	0.46	0.08	0.46
	2101.501	CLEARING	ACRE	0.1	0.1		
	2101.502	CLEARING	TREE	32	32		
	2101.506	GRUBBING	ACRE	0.1	0.1		
	2101.507	GRUBBING	TREE	32	32		
	2104.501	REMOVE SEWER PIPE (STORM)	LF	23	23		
	2104.501	REMOVE SEWER PIPE (SANITARY)	LF	40			40
	2104.501	REMOVE CURB AND GUTTER	LF	1735	1735		
	2104.501	REMOVE FENCE	LF	90	90		
	2104.505	REMOVE BITUMINOUS PAVEMENT (P)	SY	4325	2975	1350	
	2104.505	REMOVE CONCRETE SLAB (P)	SY	25	25		
	2104.506	REMOVE CATCH BASIN	EACH	1	1		
	2104.506	REMOVE BARRICADES	EACH	2	2		
	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	1365	205	1150	
	2104.521	SALVAGE WOODEN FENCE	LF	100	100		
	2104.523	SALVAGE MAIL BOX	EACH	1	1		
	2104.523	SALVAGE COMMERCIAL SIGN	EACH	1	1		
	2104.523	SALVAGE LIGHTING UNIT	EACH	16	16		
	2105.501	COMMON EXCAVATION (P)	CY	2950	2950		
	2105.525	TOPSOIL BORROW (P)	CY	915	915		
1	2105.501	EXCAVATION SPECIAL 1	LS	1		1	
	2211.501	AGGREGATE BASE CLASS 5	TON	1400	1400		
	2232.501	MILL BITUMINOUS SURFACE (1.5") (P)	SY	40	40		
	2350.501	TYPE IV 4 WEARING COURSE MIXTURE (C) (MWE45035C)	TON	380	380		
	2350.502	TYPE IV 3 NON WEARING COURSE MIXTURE (C) (MWN35035C)	TON	370	370		
	2367.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	135	135		
	2503.541	15" RC PIPE SEWER DES 3006 CL V	LF	32			32
	2503.541	15" RC PIPE SEWER DES 3006 CL III	LF	148			148
	2503.602	CONNECT TO EXISTING MANHOLE (STORM)	EACH	1			1
	2503.602	CONNECT TO EXISTING MANHOLES (SAN)	EACH	1			1
	2503.602	8" X 8" PVC WYE	EACH	2			2
	2503.603	8" PVC PIPE SEWER	LF	1077			1077
	2503.603	8" PVC SANITARY SERVICE PIPE	LF	58			58
	2504.602	CONNECT TO EXISTING WATERMAIN	EACH	2			2
	2504.602	HYDRANT & VALVE	EACH	3			3
	2504.602	8" GATE VALVE AND BOX	EACH	2			2
	2504.602	10" GATE VALVE AND BOX	EACH	2			2
	2504.603	8" WATER MAIN-DUCT IRON CL 52	LF	42			42
	2504.603	8" WATER MAIN-DUCT IRON CL 52	LF	305			305
	2504.603	10" WATER MAIN-DUCT IRON CL 52	LF	575			575
	2504.606	DUCTILE IRON FITTINGS	LB	1400			1400
	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	EACH	2			2
	2506.522	ADJUST FRAME & RING CASTING	EACH	1	1		
	2506.602	CONNECT TO EXISTING DRAINAGE STRUCTURE	EACH	1			1
	2506.602	CONSTRUCT SANITARY MANHOLES	EACH	7			7
	2521.501	4" CONCRETE WALK	SF	4350			4350
	2531.501	CONCRETE CURB & GUTTER DESIGN 8618	LF	1700	1700		
2	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SY	10	10		
	2531.602	PEDESTRIAN CURB RAMP	EACH	5	5		
	2563.501	TRAFFIC CONTROL	LS	1	0.46	0.08	0.46
	2540.602	INSTALL MAIL BOX	EACH	1	1		
	2545.602	INSTALL LIGHTING UNIT	EACH	16			16
	2567.603	INSTALL WOODEN FENCE	LF	100	100		
3	2584.602	INSTALL SIGN	EACH	1	1		
	2584.631	SIGN PANELS TYPE C	SF	30	30		
	2584.603	4" SOLID LINE WHITE-EPOXY	LF	380		380	
	2584.603	4" SOLID LINE YELLOW-EPOXY	LF	2225	1525	700	
	2584.603	4" DOUBLE SOLID LINE YELLOW-EPOXY	LF	900	900		
	2584.603	24" SOLID LINE WHITE-EPOXY	LF	16	16		

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	2571.501	CONIFEROUS TREE 6" HT B&B	TREE	48	48		
	2575.501	SEEDING (P)	ACRE	0.5	0.4		0.1
	2575.502	SEED MIXTURE 50 B	LB	25			5
	2575.505	SODDING TYPE LAWN	SY	1060	1060		
	2575.511	MULCH MATERIAL TYPE 1	TON	1.0	0.8		0.2
	2575.519	DISK ANCHORING (P)	ACRE	0.5	0.4		0.1
	2575.532	COMMERCIAL FERTILIZER ANALYSIS 22-5-10	LB	100	80		20
	SPEC	PROCTOR TEST	EACH	2			2
	SPEC	DENSITY TEST, INPLACE	EACH	18			18
	SPEC	GRADATION TEST, CLASS 5	EACH	2			2
	SPEC	PROCTOR TEST, CLASS 5	EACH	2			2
	SPEC	DENSITY TEST, CLASS 5	EACH	10			10
	SPEC	DENSITY TEST, BITUMINOUS	EACH	16			16

### BASIS FOR EST. QUANTITIES

CL 5 AGG BASE: COMPACTED DRY DENSITY - 1.85 TN/CY  
 BITUMINOUS PAVEMENT: TYPE 2350 - 1.98 TN/CY  
 BITUMINOUS TACK COAT: 0.050 GAL/SY  
 SEED: MIXTURE 50B - 50 LBS/ACRE  
 MULCH: TYPE 1 - 2 TONS/ACRE  
 FERTILIZER: TYPE 22/5/10 - 200 LBS/ACRE

### SOIL BALANCE

COMMON EXCAVATION = 2,950 CU. YD. (BM) ①

EMBANKMENT = 115 CU. YD. (CV) ②

115 CU. YD. (CV) x 1.1 SHRINK = 127 CU. YD. (BM) TO BE OBTAINED FROM EXCAVATIONS. ③

REQUIRED TOPSOIL = 1,878 CU. YD. (CV) ②

876 CU. YD. (CV) x 1.1 SHRINK = 964 CU. YD. (BM) TO BE OBTAINED FROM TOPSOIL STRIPPING. ③

- ① (BM) REFERS TO MATERIAL IN ITS ORIGINAL POSITION. A FACTOR OF 1 WAS USED IN THIS COMPUTATION.
- ② ACTUAL QUANTITY WILL DEPEND ON SUITABLE ON-SITE MATERIAL AVAILABLE.
- ③ THE SHRINKAGE FACTORS USED ARE ASSUMED VALUES, USED ONLY FOR THE PURPOSE OF ESTIMATED QUANTITIES. THE EXCESS MATERIAL QUANTITY IS BASED ON ESTIMATED QUANTITIES. NO WARRANTY IS MADE OR IMPLIED AS TO THE ACCURACY, SUFFICIENCY OR RELIABILITY OF THESE FIGURES.

#### CONSTRUCTION NOTES:

- (1) ITEM "EXCAVATION SPECIAL 1" INCLUDES EXCAVATION ON T.H. 10, TURNLANES, AND MEDIAN.
- (2) ITEM "6" CONCRETE DRIVEWAY PAVEMENT" IS FOR DRIVEWAY APRONS.
- (3) ITEM "INSTALL SIGN" IS FOR COMMERCIAL SIGN.

**RECORD PLAN  
DECEMBER 2002**

DESIGNED BY: KJT DRAWN BY: RKM  
 APPROVED: TJM JOB NUMBER 815640J  
 CAD DATE: June 20, 2002 2:46:29 p.m.  
 CAD FILE: 815640\MISC\815640-EQ.DWG (JCUNNIN)

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 DATE: \_\_\_\_\_  
 TERRY J. MAURER LIC. 15316

NO.	DATE	BY	REVISION DESCRIPTION
1	6/20/02	JRC	Quantity Revisions

  
**Howard R Green Company**  
 CONSULTING ENGINEERS

1326 ENERGY PARK DRIVE  
 ST. PAUL, MINNESOTA 55108  
 (651) 644-4389

ZANE AVENUE  
 CITY OF ELK RIVER

ESTIMATED QUANTITIES

S.P. 7101-56

SHEET NO.

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