

SANITARY SEWER SCHEDULE					
STRUCTURE	STATION	TOP	INVERT	8" PVC	TO STRUCT
SAN MH 1	34+08	948.03	931.74	43'	EX SANMH
SAN MH 2	31+92	947.46	932.71	217'	SAN MH 1
SAN MH 3	30+60	946.87	933.33	129'	SAN MH 2
SAN MH 4	29+46	947.52	933.88	113'	SAN MH 3
SAN MH 5	25+36	951.75	935.62	410'	SAN MH 4
SAN MH 6	23+88	953.28	936.31	148'	SAN MH 5
SAN MH 7	21+82	955.40	937.23	205'	SAN MH 6
SAN MH 8	18+43	951.54	938.69	339'	SAN MH 7
SAN MH 9	15+84	953.65	939.82	258'	SAN MH 8
SAN MH 10	12+81	954.33	941.13	303'	SAN MH 9
SAN MH 11	11+12	957.93	941.90	168'	SAN MH 10
SAN MH 12	8+75	962.49	952.24	237'	SAN MH 11
SAN MH 13	7+00	963.94	953.99	175'	SAN MH 12

- NOTES:
- REMOVAL OF BITUMINOUS CURB SHALL BE INCIDENTAL TO BITUMINOUS REMOVAL.
 - ALL DRIVEWAYS SHALL BE SAW CUT TO PROVIDE A CLEAN SURFACE TO MATCH PRIOR TO PAVING.
 - ADJUST VALVE AND/OR ADJUST FRAME, RING, AND CASTING SHALL BE MEASURED PER EACH, WHICH SHALL INCLUDE AS MANY ADJUSTMENTS AS ARE NEEDED THROUGHOUT THE PROJECT TO EACH VALVE OR STRUCTURE THAT IS NOT NEWLY INSTALLED. ALL ADJUSTMENTS NEEDED FOR NEW STRUCTURES AND VALVES SHALL BE INCIDENTAL TO INSTALLATION.
 - OBTAIN COMPACTION ON THE GRADING AGGREGATE BASE PORTIONS OF PERMANENT CONSTRUCTION IN ACCORDANCE WITH THE "SPECIFIED DENSITY METHOD" REQUIREMENTS.
 - SALVAGE AND REINSTALL ALL MAILBOXES WITHIN THE CONSTRUCTION LIMITS. MAILBOXES SHALL BE REINSTALLED IN LOCATIONS APPROVED BY THE POSTMASTER WITH A NEW POST AT THE REQUEST OF THE ENGINEER. A TEMPORARY MAILBOX BANK SHALL BE INSTALLED IN ACCORDANCE WITH THE POST MASTER (INCIDENTAL).

UTILITIES				
PLAN SYMBOL	ITEM IN PLACE	REMARKS	OWNERSHIP	PHONE
— TELE —	UNDERGROUND TELEPHONE		QWEST, DENNIS GRUENEICH	763-717-5018
— TELE —	UNDERGROUND TELEPHONE		NORTHSTAR ACCESS, RUSS VANCE	763-262-4722
— GAS —	UNDERGROUND GAS		CENTERPOINT ENERGY, RICK PILON	612-321-5426
— CATV —	UNDERGROUND CATV		CHARTER, GEORGE BERKHOLZ	763-682-5982
— ELEC —	UNDERGROUND ELECTRIC		ELK RIVER UTILITIES, BRYAN ADAMS	763-441-2020
— ELEC —	UNDERGROUND ELECTRIC		CONNEXUS ENERGY, MATT HOTZLER	763-506-9541
Q	POWER POLE			

THE SUBSURFACE INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING EXISTING SUBSURFACE UTILITY DATA"

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

MN/DOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
3000 L	REINFORCED CONCRETE PIPE
3006 G	GASKET JOINT FOR REINFORCED CONCRETE PIPE
3007 D	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3100 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3145 F	CONCRETE PIPE TIES
4010 H	CONC. SHORT CONE & ADJUSTING RING (SECTIONAL CONCRETE)
4011 E	PRECAST CONCRETE BASE
4020 J	MANHOLE OR CATCH BASIN COVER (FOR USE UNDER TRAFFIC LOADS)
4180 J	MANHOLE OR CATCH BASIN STEP
7035 M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036 F	PEDESTRIAN CURB RAMP
7111 J	INSTALLATION & REINFORCEMENT OF CATCH BASIN CASTINGS

STORM SEWER SCHEDULE

STRUCTURE	STATION	DESIGN	CASTING	TOP	INVERT	PIPE SLOPE	8" PVC	12" RCP	15" RCP	18" RCP	21" RCP	TO STRUCT
STMH 1	37+08	48" MH	R-3067V	938.15	935.25	0.50%				50'		FES 1
STMH 2	37+08	48" MH	R-3067V	938.15	935.51	0.50%				32'		STMH 1
STMH 2	37+08	48" MH	R-3067V	938.15	935.51	0.40%	122'					CB 2A
CB 2A	38+30	27" MH	R-3067V	939.53	935.02	0.40%	102'					STMH 2B
STMH 2B	-	48" MH	R-3067V	939.16	934.54	-						EX. MAIN
STMH 3	36+10	48" MH	R-3067V	939.39	936.10	0.50%				97'		STMH 2
STMH 4	35+00	48" MH	R-3067V	943.43	939.09	2.63%				110'		STMH 3
CB 5	35+00	2' x 3' CB	R-3067V	943.43	939.83	2.00%		32'				STMH 4
STMH 6	31+93	48" MH	R-3067V	947.04	941.90	0.88%				307'		STMH 4
STMH 7	30+69	48" MH	R-3067V	946.44	942.58	0.50%				131'		STMH 6
CB 8	30+69	2' x 3' CB	R-3067V	946.44	943.40	2.00%		32'				STMH 7
STMH 9	29+80	48" MH	R-3067V	946.78	943.23	0.50%				94'		STMH 7
STMH 10	28+75	48" MH	R-3067V	947.83	943.93	0.56%				108'		STMH 9
CB 10A	28+75	2' x 3' CB	R-3067V	947.83	944.67	2.00%		32'				STMH 10
STMH 11	26+65	48" MH	R-3067V	949.99	946.15	1.01%				210'		STMH 10
CB 12	26+65	2' x 3' CB	R-3067V	949.99	946.89	2.00%		32'				STMH 11
STMH 13	25+00	48" MH	R-3067V	951.69	947.85	0.99%				162'		STMH 11
STMH 14	23+60	48" MH	R-3067V	953.30	949.30	1.02%				133'		STMH 13
CB 15	23+60	2' x 3' CB	R-3067V	953.14	950.20	2.00%		40'				STMH 14
STMH 16	22+25	48" MH	R-3067V	954.53	950.69	0.97%				133'		STMH 14
STMH 17	21+95	48" MH	R-3067V	956.64	952.85	3.12%				66'		STMH 16
CB 18	21+67	2' x 3' CB	R-3067V	956.51	953.51	2.00%				28'		STMH 17
STMH 19	17+90	48" MH	R-3067V	950.85	947.02	1.00%					21'	STMH 19A
STMH 19A	17+90	48" MH	R-1733	951.35	946.71	1.34%					53'	FES 2
STMH 20	17+90	48" MH	R-3067V	950.85	947.76	2.00%				32'		STMH 19
STMH 21	18+19	48" MH	R-3067V	952.36	948.25	0.91%				43'		STMH 20
CB 22	18+50	2' x 3' CB	R-3067V	951.95	948.95	2.00%				30'		STMH 21
STMH 23	15+40	48" MH	R-3067V	953.70	948.39	0.50%				254'		STMH 19
STMH 24	13+87	48" MH	R-3067V	953.01	949.26	0.50%				153'		STMH 23
CB 25	13+87	2' x 3' CB	R-3067V	953.01	950.00	2.00%		32'				STMH 24
STMH 26	12+87	48" MH	R-3067V	953.80	949.85	0.50%				97'		STMH 24
STMH 27	11+28	48" MH	R-1733	957.34	953.34	2.26%				150'		STMH 26
STMH 28	11+32	48" MH	R-3067V	957.31	954.29	2.58%				33'		STMH 27
CB 29	11+02	2' x 3' CB	R-3067V	957.95	954.95	2.00%				28'		STMH 28
STMH 30	11+24	48" MH	R-3067V	957.94	954.49	1.88%				56'		STMH 27
CB 31	10+97	2' x 3' CB	R-3067V	958.19	955.19	2.00%				30'		STMH 30
STMH 32	10+52	48" MH	R-3067V	958.80	954.96	2.05%				74'		STMH 27
CB 33	10+52	2' x 3' CB	R-3067V	958.80	955.70	2.00%		32'				STMH 32
STMH 34	0+45	48" MH	R-3067V	935.07	930.53	6.92%				51'		FES 4
STMH 35	0+45	48" MH	R-3067V	935.07	931.17	2.00%				32'		STMH 34
STMH 36	2+04	48" MH	R-1733	938.46	933.96	1.71%				157'		STMH 35
STMH 37	2+09	48" MH	R-3067V	939.12	935.80	4.70%				37'		STMH 36
CB 38	2+43	2' x 3' CB	R-3067V	939.54	936.54	2.00%				32'		STMH 37
STMH 39	2+62	48" MH	R-3067V	941.00	937.16	5.44%				57'		STMH 36
CB 40	2+62	2' x 3' CB	R-3067V	941.00	937.90	2.00%		32'				STMH 39
STMH 41	3+72	48" MH	R-3067V	947.34	943.50	5.52%				113'		STMH 39
STMH 42	4+91	48" MH	R-1733	954.41	950.41	5.68%				120'		STMH 41
STMH 43	5+00	48" MH	R-3067V	954.74	951.33	2.34%				35'		STMH 42
CB 44	5+28	2' x 3' CB	R-3067V	956.08	953.08	5.00%				29'		STMH 43
STMH 45	5+50	48" MH	R-3067V	957.64	953.80	5.58%				59'		STMH 42
CB 46	5+50	2' x 3' CB	R-3067V	957.64	954.54	2.00%		32'				STMH 45
FES 3	-	-	-	-	943.00	2.18%	142'					EX. CB
FES 5	-	-	-	-	926.93	0.50%		111'				STMH 47
STMH 47	0+46	27" MH	R-1733	935.40	926.27	0.50%		31'				STMH-48
STMH-48	0+42	48" MH	R-4342	928.50	926.01							EX. STORM

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.

NAME: _____ LIC. NO.: 15316
 DATE: 05-02-2006

SAP 204-97-001

RECORD PLAN
 HIGHLAND ROAD IMPROVEMENTS
 TABULATIONS

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