FED PROJ. NO. STPX 8808(141)

RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PLAN FOR: GRADING, AGGREGATE BASE, CONCRETE CURB & GUTTER, BITUMINOUS SURFACING, CONCRETE MEDIAN, CONCRETE SIDEWALK, BITUMINOUS TRAIL, STORM SEWER, RIGHT TURN AND LEFT TURN LANE CONSTRUCTION, TRAFFIC CONTROL SIGNAL SYSTEM AND INTERCONNECT.

CENTURY AVENUE
S.P. No. 62-672-04 CTB (CSAH 72)
S.P. No. 82-625-02 CTB (CSAH 25)
S.P. No. 192-020-17
S.P. No. 138-020-34

BETWEEN: LAKE ROAD AND BROOKVIEW DRIVE/WOODBINE AVENUE

BEGINNING: AT A POINT 345.03 FEET EAST AND 261.12 FEET SOUTH OF THE SOUTHEAST CORNER OF SEC 12, T28N, R22W

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VALLEY CREEK ROAD
S.A.P. No. 82-616-16 CTB (CSAH 16)
S.A.P. No. 192-020-18

BETWEEN: CENTURY AVENUE AND WEIR DRIVE

BEGINNING: AT A POINT 2.53 FEET WEST AND 315.31 FEET NORTH OF THE WEST QUARTER CORNER OF SEC 7, T28N, R21W

ENDING: AT A POINT 460.26 FEET EAST AND 196.42 FEET SOUTH OF THE CENTER OF SEC 7, T28N, R21W

I HEREBY CERTIFY THAT THIS PLAN 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.

DONALD J AUGE — REG. NO. 26511 — DATE MAY 13, 2008

RECOMMENDED FOR APPROVAL — RAMSEY COUNTY ENGINEER — DATE 5-13-08

RECOMMENDED FOR APPROVAL — WASHINGTON COUNTY ENGINEER — DATE 5-13-08

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MINNESOTA DEPARTMENT OF TRANSPORTATION

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PLAN SYMBOLS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
TEMPORARY EASEMENT LINE
PROPERTY LINE
CORPORATE OR CITY LIMITS
RAILROAD
RAILROAD RIGHT-OF-WAY
RIVER OF CREEK
CULVERT
GUARDRAIL
WOOD FENCE
BARBED WIRE FENCE
CHAIN LINK FENCE
TIMBER WALL
STONE WALL
HEDGE
RAILROAD CROSSING SIGN
CROSSING GATE
MEANDER CORNER
SLOPE EASEMENT (CONST. LIMITS)
MARSH
DECIDUOUS TREE
CONIFEROUS TREE
BUSH OR SHRUB
WOODS
CATCH BASIN
BRIDGE
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE OR METAL)
WOODEN HUB

UTILITY SYMBOLS

UTILITY POLE
GUY OR ANCHOR
STREET LIGHT
GAS MAIN — G
WATER MAIN — W
TELEPHONE VAULT
ELECTRIC VAULT
TELEPHONE CABLE — T
TELEPHONE CONDUIT — TC
ELECTRIC CABLE — E
STORM SEWER — SS
SANITARY SEWER — S
SEWER MANHOLE
GATE VALVE
CONTROLLER CABINET
EXISTING HYDRANT
CABLE TELEVISION-BURIED — CATV
FIBER OPTIC CABLE — FO
TRAFFIC SIGNAL LINE — SIG
TRAFFIC SIGNAL HAND HOLE — HH

FOR PLANS AND UTILITIES SYMBOLS SEE MN/DOT TECHNICAL MANUAL.

SCALES IN FEET

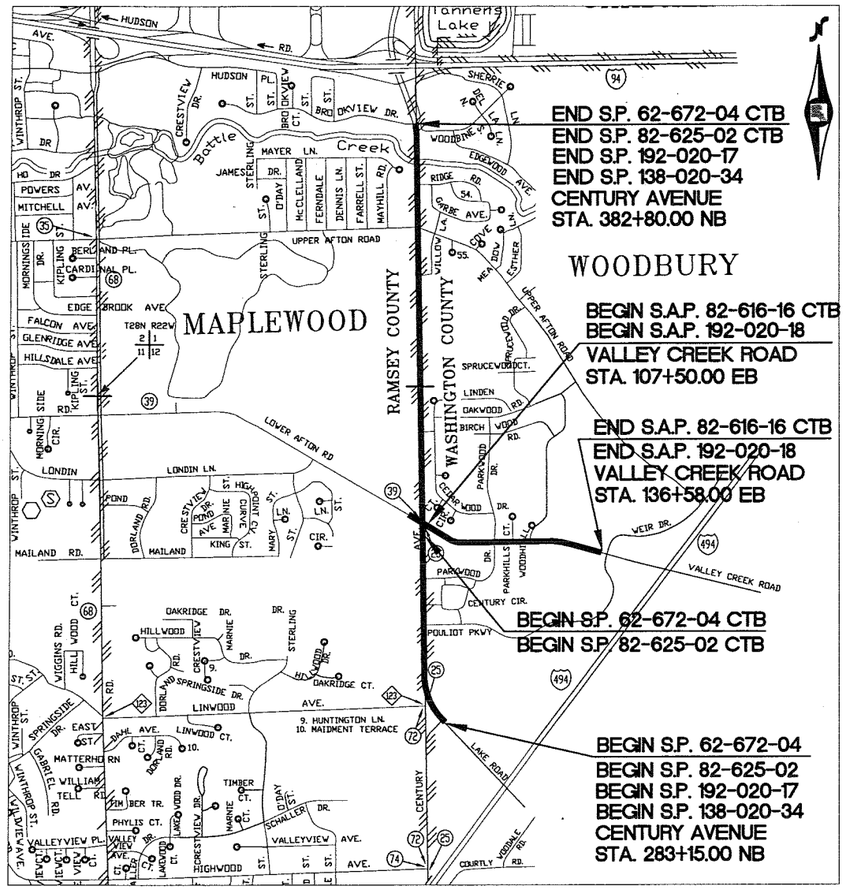
PLAN: 0 40 80 / 20 60 100
PROFILE HORIZ.: 0 100 200 / 50 150
PROFILE VERT.: 0 10 20 / 5 15
INDEX MAP: 0 2500 / 1250

CENTURY AVENUE

GROSS LENGTH	9965.00 FEET	1.887 MILES
BRIDGE LENGTH	----	----
EXCEPTIONS	----	----
NET LENGTH	9965.00 FEET	1.887 MILES

VALLEY CREEK ROAD

GROSS LENGTH	2908.00 FEET	0.551 MILES
BRIDGE LENGTH	----	----
EXCEPTIONS	----	----
NET LENGTH	2908.00 FEET	0.551 MILES



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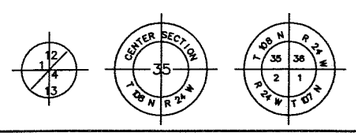
THIS PLAN CONTAINS 315 SHEETS

–GOVERNING SPECIFICATIONS–

THE 2005 MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL APPLY.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING FIELD MANUAL. FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, SEE HTTP://WWW.DOT.STATE.MN.US/TRAFFICENG/

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.



DESIGN DESIGNATION

	CENTURY AVENUE LAKE ROAD TO LOWER AFTON RD.	CENTURY AVENUE LOWER AFTON RD. TO BROOKVIEW DR.	LOWER AFTON RD. LONDIN LANE TO CENTURY AVE.	VALLEY CREEK RD. CENTURY AVE. TO WEIR DRIVE
PRESENT ADT (2008)	8,300	14,000	9,100	10,300
PROJECTED ADT (2028)	13,280	22,400	14,560	16,480
FUNCTIONAL CLASS	MINOR ARTERIAL	MINOR ARTERIAL	MINOR ARTERIAL	MINOR ARTERIAL
TRAFFIC LANES	4	4	4	4
PARKING LANES	0	0	0	0
DESIGN SPEED	40 MPH	40 MPH	50 MPH	40 MPH
STABILOMETER R VALUE (240 psi)	20	20	20	20
TON DESIGN	10	10	10	10
BESALS	2,117,590	4,887,588	2,976,093	2,976,093

BASED ON STOPPING DISTANCE
HEIGHT OF EYE: 3.50 FEET
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DESIGN DESIGNATION – BIKE PATH

DESIGN SPEED – 20 MPH
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CHECKED BY SB — DATE 5-13-08

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Land Projects 3\P3187-Century Avenue\Drawings\Construction\Construction Plan Sheets\Title.dwg

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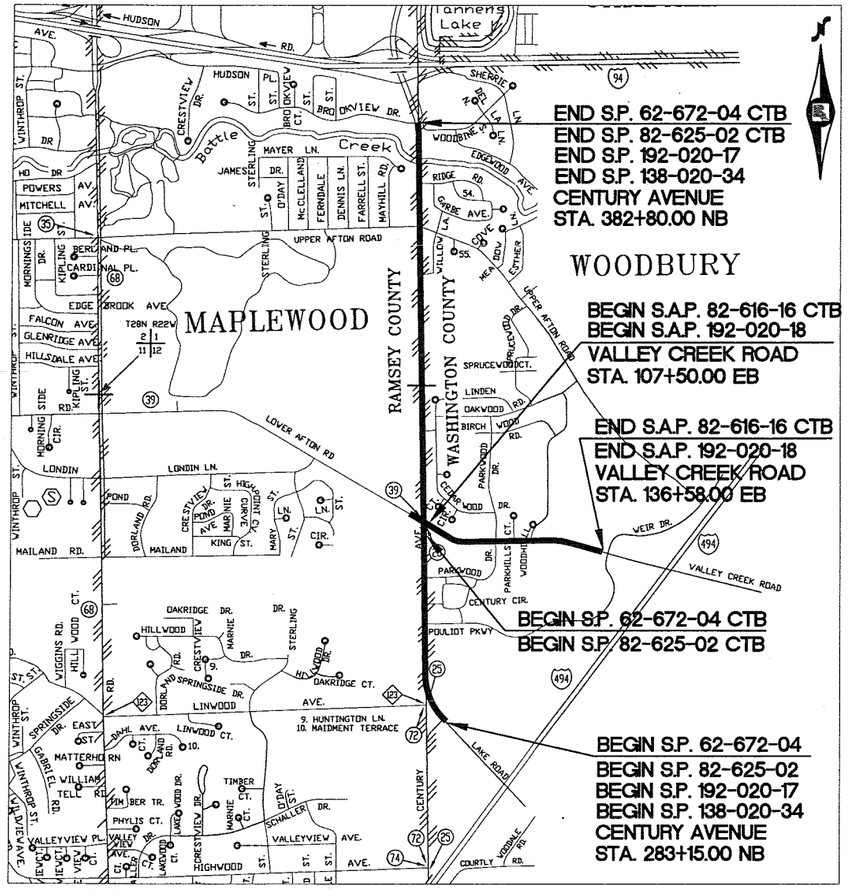

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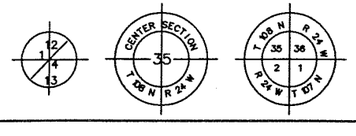

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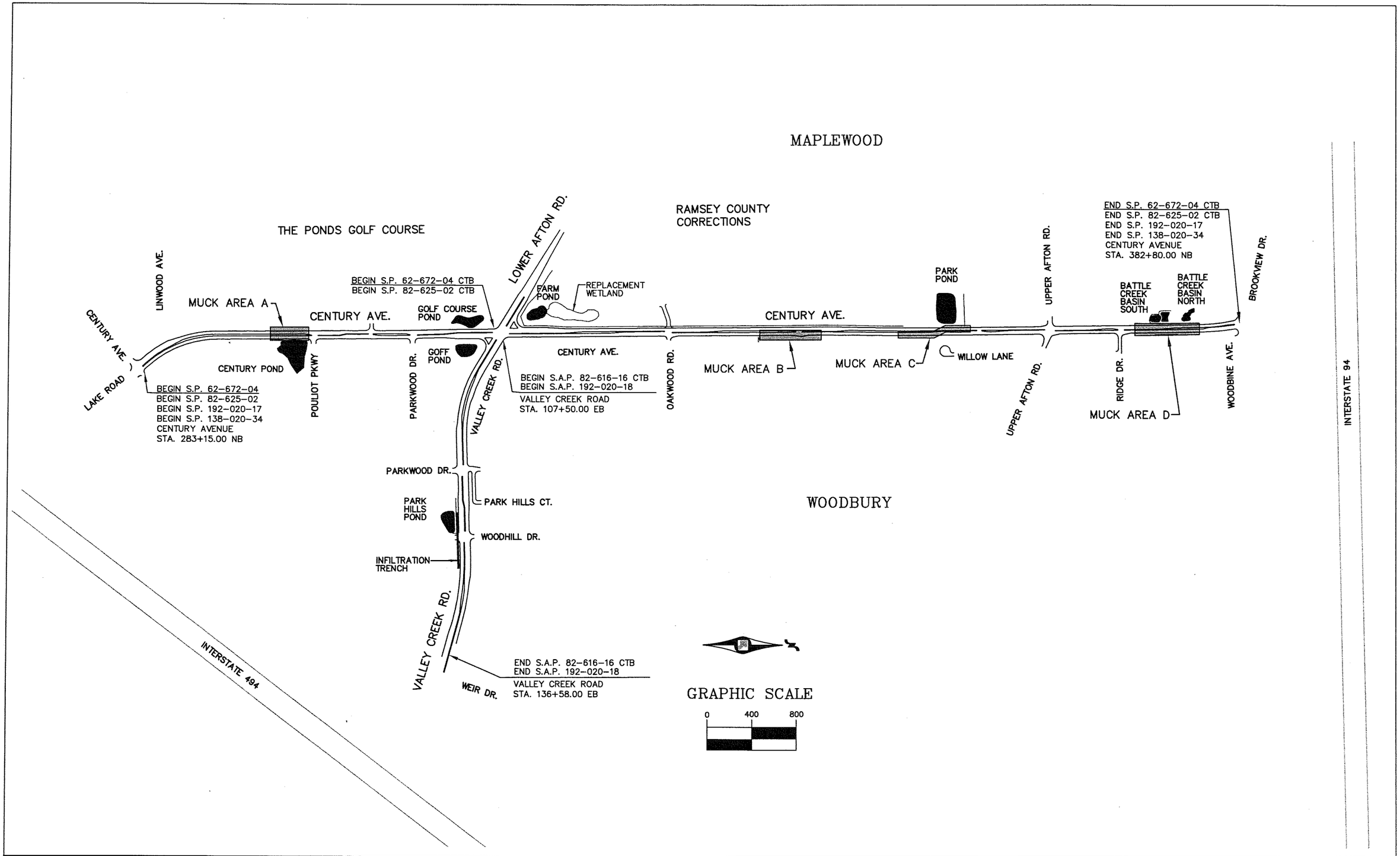
Sheet No. 1 of 315 Sheets

Land Projects 3\P3187-Century Avenue\Drawings\Construction\Construction Plan Sheets\Title.dwg



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

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SIGNED:

REG NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 82-616-16 CTB

RAMSEY COUNTY

PROJECT LAYOUT

Sheet No. 2 of 315 Sheets

STATEMENT OF ESTIMATED QUANTITIES - GROUPS SUMMARY

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL QNTY	A CENTURY NORTH	B CENTURY SOUTH	C VALLEY CREEK RD
				S.P.62-672-04 CTB, S.P.82-625-02 CTB, S.A.P.82-616-16 CTB				
		2021.501	MOBILIZATION	LUMP SUM	1	0.58	0.22	0.20
	6	2031.501	FIELD OFFICE, TYPE SPECIAL-D	EACH	1	0.58	0.22	0.20
	6	2041.610	TRAINEES	HOUR	3,000	1,740	660	600
C		2101.501	CLEARING	ACRE	4.75	3.75	0.70	0.30
C		2101.502	CLEARING	TREE	399	278	43	78
C		2101.506	GRUBBING	ACRE	5.35	4.05	1.00	0.30
C		2101.507	GRUBBING	TREE	363	259	43	61
		2102.501	PAVEMENT MARKING REMOVAL	SQ FT	100			100
		2102.502	4" PAVEMENT MARKING REMOVAL	LIN FT	2,700			2,700
	6,32	2103.501	BUILDING REMOVAL A	LUMP SUM	1	1		
	6,32	2103.501	BUILDING REMOVAL B	LUMP SUM	1	1		
	6,32	2103.501	BUILDING REMOVAL C	LUMP SUM	1	1		
	6,32	2103.501	BUILDING REMOVAL D	LUMP SUM	1	1		
	6,32	2103.501	BUILDING REMOVAL E	LUMP SUM	1	1		
	6,32	2103.501	BUILDING REMOVAL F	LUMP SUM	1	1		
	6,32	2103.501	BUILDING REMOVAL G	LUMP SUM	1	1		
A	21	2104.501	REMOVE PIPE CULVERTS	LIN FT	1,559	1,070	117	372
A	21	2104.501	REMOVE RC PIPE SEWERS	LIN FT	5,953	4,893	787	273
G,H		2104.501	REMOVE CONCRETE CURB & GUTTER	LIN FT	7,722	4,046	2,486	1,190
I,J	6	2104.501	REMOVE FENCE	LIN FT	8,306	6,707	1,586	13
K		2104.501	REMOVE CABLE GUARD RAIL	LIN FT	440	440		
	17	2104.501	REMOVE 6" WATERMAIN	LIN FT	118	118		
	17	2104.501	REMOVE 12" WATERMAIN	LIN FT	35		35	
L		2104.503	REMOVE RETAINING WALL	SQ FT	64	64		
G,H	12	2104.503	REMOVE CONCRETE SIDEWALK	SQ FT	11,219	3,067	5,687	2,465
G,H	25	2104.503	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ FT	4,852	1,832	1,696	1,324
G,H	10	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	83,712	47,979	17,117	18,616
	6,8	2104.507	REMOVE DEBRIS (LV)	CU YD	100	50	25	25
A	5	2104.509	REMOVE CATCH BASIN	EACH	49	34	6	9
A	5	2104.509	REMOVE MANHOLE	EACH	12	10	2	
N		2104.509	REMOVE HYDRANT	EACH	3	2		1
	17	2104.509	REMOVE 12" BUTTERFLY VALVE	EACH	1		1	
	17	2104.509	REMOVE 12" X 8" TEE	EACH	1		1	
N		2104.509	REMOVE 6" GATE VALVE AND BOX	EACH	2	2		
L		2104.509	REMOVE SIGN	EACH	1	1		
	11	2104.509	REMOVE ARC LIGHT BASE	EACH	1	1		
	11	2104.509	REMOVE SIGN BASE	EACH	5	4	1	
	13	2104.509	REMOVE BRICK PILLARS	EACH	4	4		
	6	2104.509	REMOVE SIGNAL SYSTEM C	EACH	1	1		
	6,22	2104.509	REMOVE SEPTIC TANK	EACH	1		1	
G,H	1	2104.511	SAWING CONCRETE PAVEMEMT	LIN FT	277	148	93	36
G,H	1	2104.513	SAWING BITUMINOUS PAVEMENT	LIN FT	2,166	1,104	686	376
A	6	2104.523	SALVAGE CASTING	EACH	39	26	4	9
CC		2104.523	SALVAGE MAILBOX	EACH	22	15	3	4
	6	2104.601	RELOCATE VEHICLE GATE	LUMP SUM	1		1	
M		2105.501	COMMON EXCAVATION (EV) (P)	CU YD	178,208	101,148	35,589	41,471
M	37	2105.505	MUCK EXCAVATION (EV)	CU YD	69,806	44,078	25,728	
M		2105.515	UNCLASSIFIED EXCAVATION (EV)(P)	CU YD	27,512	25,187		2,325
E		2105.522	SELECT GRANULAR BORROW (CV)(P)	CU YD	122,700	70,016	25,036	27,648
M	31	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	108,898	68,762	40,136	
	6,34	2105.522	SELECT GRANULAR BORROW MOD 3149.2J (CV)(P)	CU YD	873	873		
M		2105.523	COMMON BORROW (CV) (P)	CU YD	36,264	24,208	5,669	6,387
P		2105.525	TOPSOIL BORROW (LV)	CU YD	10,508	6,952	1,853	1,703

SEE SHEET 23 FOR QUANTITY NOTES
SEE SHEET 24 FOR TABULATIONS INDEX

GROUP A – CENTURY NORTH

CENTURY AVE STA. 311+75 TO STA. 382+80

LOWER AFTON ROAD/ VALLEY CREEK ROAD STA. 95+00 TO STA. 109+25

GROUP B – CENTURY SOUTH

CENTURY AVE STA. 283+15 TO STA. 311+75

GROUP C – VALLEY CREEK ROAD

CENTURY AVE STA. 109+25 TO STA. 136+58

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SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE & VALLEY CREEK ROAD

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

GROUPS SUMMARY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES - GROUPS SUMMARY

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL QNTY	A CENTURY NORTH	B CENTURY SOUTH	C VALLEY CREEK RD
				S.P.62-672-04 CTB, S.P.82-625-02 CTB, S.A.P.82-616-16 CTB				
	6,8	2105.600	CONTAMINATED SOIL EXCAVATION (EV)	CU YD	200	200		
	17	2105.601	EXCAVATION SPECIAL	LUMP SUM	1		1	
	8	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	300	150	75	75
	8	2123.610	TRACTOR BACKHOE	HOUR	250	125	63	63
	2,8,28	2130.501	WATER	MGAL	1,000	500	250	250
	2,8	2131.502	CALCIUM CHLORIDE SOLUTION	GAL	1,500	750	375	375
E		2211.501	AGG. BASE, CLASS 7	TON	1,390	1,121	245	24
E	36	2211.501	AGG. BASE, CLASS 5	TON	120	64	56	
E		2211.503	AGG. BASE, CLASS 7 (CV)(P)	CU YD	35,530	20,679	6,889	7,962
	23	2232.501	MILL BITUMINOUS SURFACE (2")	SQ YD	1,620			1,620
E		2350.501	LVWE45030B WEAR COURSE MIXTURE (TRAIL)	TON	1,911	1,227	173	511
E		2350.501	LVWE 45030B WEAR COURSE MIXTURE	TON	244	168	57	19
E		2350.502	LVNW 45030B NONWEAR COURSE MIX.	TON	244	168	57	19
E		2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	10,197	5,931	1,968	2,298
	4,8	2360.501	BITUMINOUS PATCH MIX TYPE LV NON WEAR	TON	100	50	25	25
E		2360.501	SPWEB440F WEAR COURSE MIX.	TON	22,141	12,796	4,250	5,095
E		2360.502	SPNWB430B NONWEAR COURSE MIX.	TON	20,151	12,487	3,851	3,813
	6,29	2402.583	ORNAMENTAL METAL RAILING	LF	1,628	696	932	
	7	2402.585	PIPE RAILING	LF	558	558		
	29	2411.618	WET CAST WALL NO. 1 (LIMESTONE)	SQ FT	2,532		2,532	
	29	2411.618	WET CAST WALL NO. 2 (LIMESTONE)	SQ FT	1,560		1,560	
	29	2411.618	WET CAST WALL NO. 3 (LIMESTONE)	SQ FT	1,310		1,310	
	29	2411.618	WET CAST WALL NO. 4 (LIMESTONE)	SQ FT	2,068	2,068		
	29	2411.618	WET CAST WALL NO. 5 (LIMESTONE)	SQ FT	1,055	1,055		
	29	2411.618	WET CAST WALL NO. 6 (LIMESTONE)	SQ FT	1,304	1,304		
	29	2411.618	WET CAST WALL NO. 1 (FIELDSTONE) ALT BID NO. 1	SQ FT	2,532		2,532	
	29	2411.618	WET CAST WALL NO. 2 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,560		1,560	
	29	2411.618	WET CAST WALL NO. 3 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,310		1,310	
	16	2451.603	PIPE BEDDING	LF	895	114	781	
	14,15	2451.603	IMPROVED PIPE FOUNDATION	LF	1,700	1,040	660	
B		2501.511	96" PERFORATED CM PIPE CULVERT	LIN FT	490			490
Q		2501.515	12" RC PIPE APRON	EACH	1	1		
Q		2501.515	15" RC PIPE APRON	EACH	6	3	2	1
Q		2501.515	18" RC PIPE APRON	EACH	1	1		
Q		2501.515	21" RC PIPE APRON	EACH	3	1	2	
Q		2501.515	24" RC PIPE APRON	EACH	5	2	2	1
Q		2501.515	27" RC PIPE APRON	EACH	1		1	
Q		2501.515	33" RC PIPE APRON	EACH	2	2		
Q		2501.515	36" RC PIPE APRON	EACH	3	2		1
Q		2501.515	42" RC PIPE APRON	EACH	2	1		1
Q		2501.515	48" RC PIPE APRON	EACH	1			1
Q		2501.515	78" RC PIPE APRON	EACH	1	1		
	18	2501.573	48" TO 60" RC PIPE INCREASER	EACH	1	1		
	18	2501.573	60" TO 66" RC PIPE INCREASER	EACH	1	1		
	18	2501.573	66" TO 72" RC PIPE INCREASER	EACH	1	1		
	18	2501.573	84" TO 78" RC PIPE DECREASER	EACH	1	1		
	30	2501.602	15" OUTLET STRUCTURE	EACH	1		1	
	30	2501.602	18" OUTLET STRUCTURE	EACH	1			1
	30	2501.602	24" OUTLET STRUCTURE	EACH	1			1
Q		2501.602	TRASH GUARD FOR 12" PIPE APRON	EACH	1	1		
Q		2501.602	TRASH GUARD FOR 15" PIPE APRON	EACH	6	3	2	1
Q		2501.602	TRASH GUARD FOR 18" PIPE APRON	EACH	1	1		
Q		2501.602	TRASH GUARD FOR 21" PIPE APRON	EACH	3	1	2	

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GROUPS SUMMARY

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CENTURY AVENUE & VALLEY CREEK ROAD

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES - GROUPS SUMMARY

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL QNTY	A CENTURY NORTH	B CENTURY SOUTH	C VALLEY CREEK RD
				S.P.62-672-04 CTB, S.P.82-625-02 CTB, S.A.P.82-616-16 CTB				
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 66-4020	LIN FT	56.1	40.6	4.0	11.5
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 72-4020	LIN FT	85.0	33.2		51.8
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 78-4020	LIN FT	40.8			40.8
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 90-4020	LIN FT	9.5		9.5	
B	26	2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 102-4022	LIN FT	9.4			9.4
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-1	EACH	1	1		
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-2	EACH	1	1		
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-3	EACH	1	1		
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-4	EACH	1	1		
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-5	EACH	1	1		
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-6	EACH	1	1		
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-7	EACH	1	1		
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-8	EACH	1			1
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-9	EACH	1			1
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-10	EACH	1			1
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-11	EACH	1			1
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-12	EACH	1			1
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-13	EACH	1	1		
	17	2506.502	4' DIAMETER SANITARY MH, 8" DEEP, INCL. R-1642-B CSTG & HDPE ADJ RINGS	EACH	6	2	4	
	17	2506.502	CONSTRUCT OUTSIDE DROP MANHOLE	EACH	1	1		
A		2506.503	RECONSTRUCT MANHOLE	LIN FT	107.2	73.8	1.0	32.4
B		2506.516	CASTING ASSEMBLY	EACH	250	153	39	58
A		2506.521	INSTALL CASTINGS	EACH	3		1	2
A	6	2506.522	ADJUST FRAME & RING CASTING	EACH	16	12	4	0
	19	2506.602	CONSTRUCT SURVEY MONUMENT MANHOLE	EACH	3	3		
BB	33	2506.602	CONSTRUCT TEMPORARY OUTLET STRUCTURE	EACH	2	2		
	17	2506.603	4' DIAMETER SANITARY MANHOLE OVERDEPTH	LIN FT	40.0	9.0	31.0	
Q		2511.501	RANDOM RIPRAP CLASS III	CU YD	201.9	71.7	37.9	92.3
BB		2511.502	TEMPORARY RIPRAP (SPECIAL)	TON	41	41		
F		2521.501	4" CONCRETE WALK	SQ FT	123,502	78,133	25,766	19,603
F		2521.501	6" CONCRETE WALK	SQ FT	2,926	1,850	560	516
F		2531.501	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	285	45	240	
F		2531.501	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	1,416	610	60	746
F		2531.501	CONCRETE CURB & GUTTER DESIGN B424	LIN FT	1,209	1,209		
F		2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	50,725	28,965	11,629	10,131
F		2531.501	CONCRETE CURB & GUTTER DESIGN D412	LIN FT	100			100
F	6	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	154	120	34	
F	6	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	817	601		216
F		2531.602	CONCRETE MEDIAN NOSE DESIGN 7113	EACH	30	17	9	4
	3,6	2531.618	DETECTABLE WARNING PLATES	SQ FT	300	190	57	53
CC		2540.602	MAIL BOX SUPPORT	EACH	22	15	3	4
AA	6	2557.501	WIRE FENCE DESIGN 60V-9322	LIN FT	900	560		340
O	6	2557.603	WOOD FENCE	LIN FT	3,883	3,883		
	6	2563.601	TRAFFIC CONTROL	LUMP SUM	1	0.58	0.22	0.20
		2563.602	TUBE DELINEATOR	EACH	50			50
		2563.602	REPLACE TUBE DELINEATOR	EACH	3			3
S		2564.531	F & I SIGN PANELS TYPE C	SQ FT	805	450	151	204
U,V		2564.531	SIGN PANELS TYPE D	SQ FT	259	142	77	40
W		2564.552	HAZARD MARKER X4-2	EACH	27	7	15	5
W		2564.553	CLEARANCE MARKER X4-4L	EACH	7	4	3	
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM A	SIG SYS	1		1	
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM B	SIG SYS	1	1		
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM C	SIG SYS	1	1		

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RAMSEY COUNTY

GROUPS SUMMARY
ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES - GROUPS SUMMARY

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL QNTY	A CENTURY NORTH	B CENTURY SOUTH	C VALLEY CREEK RD
				S.P.62-672-04 CTB, S.P.82-625-02 CTB, S.A.P.82-616-16 CTB				
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM A	LUMP SUM	1		1	
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM B	LUMP SUM	1	1		
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM C	LUMP SUM	1	1		
		2565.601	TRAFFIC CONTROL INTERCONNECTION	LUMP SUM	1	0.60	0.40	
Y	6	2572.501	TEMPORARY FENCE DESIGN 60-9322	LIN FT	457	457		
	8,9,27	2572.501	TEMPORARY FENCE (48" HIGH ORANGE PLASTIC)	LIN FT	1,500	250	1,125	125
BB	8	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	7,836	3,573	1,418	2,845
BB	8	2573.502	SILT FENCE, TYPE SUPER DUTY	LIN FT	62	25		37
BB		2573.505	FLOATATION SILT CURTAIN TYPE - STILL WATER	LIN FT	743	297	446	
BB	8,33	2573.509	DIVERSION MOUND (LV)	CU YD	43	43		
BB	8,33	2573.513	TEMPORARY ROCK WEEPER	CU YD	8	8		
BB	8,33	2573.513	TEMPORARY ROCK WEEPER FOREBAY SYSTEM	CU YD	43	31		12
BB	8	2573.513	TEMPORARY DITCH CHECK TYPE 5	CU YD	18	18		
	6,8	2573.541	LIQUID FLOC TREATMENT (SPECIAL)	GAL	20	15		5
BB	8,33,35	2573.542	FLOC SOCK	EACH	56	43		13
	6	2573.601	EROSION CONTROL SUPERVISOR	LUMP SUM	1	0.58	0.22	0.20
A,B,BB		2573.602	INLET PROTECTION	EACH	186	104	43	39
BB	8,33	2573.602	GRAVITY DEWATERING	EACH	6	5		1
BB	6	2573.602	FILTER LOG TYPE VEGETATED COIR LOG	EACH	3	3		
BB	8	2573.603	BIOROLL - 12"	LIN FT	4,418	3,395	501	522
	8,33	2573.610	MECH CLARIFICATION PUMPING	HOUR	100	50	25	25
P	8	2575.501	SEEDING	ACRE	13.00	9.37	2.04	1.59
P	8	2575.502	SEED MIXTURE 250	POUND	378	270	18	90
P	8	2575.502	SEED MIXTURE 325	POUND	116	116		
P	8	2575.502	SEED MIXTURE 328	POUND	579	479	32	68
P	28	2575.505	SODDING TYPE LAWN	SQ YD	29,804	15,145	7,551	7,108
P	8	2575.523	EROSION CONTROL BLANKET CATEGORY 3	SQ YD	4,635	4,136	16	483
P	8	2575.525	EROSION STABILIZATION MAT (ScourStop)	SQ YD	119	60		59
P	8	2575.525	EROSION STABILIZATION MAT CLASS 4	SQ YD	1,681	1,077		604
P		2575.532	SLOW RELEASE COMM. FERT. ANALYSIS 23-0-30	POUND	3,168	1,895	520	753
P	8	2575.560	HYDRAULIC SOIL STABILIZER TYPE 6	POUND	35,160	25,908	4,890	4,362
	8	2575.570	RAPID STABILIZATION METHOD 1	ACRE	12.6	6.4	3.1	3.1
P	6,8	2575.571	RAPID STABILIZATION METHOD 3	M GAL	29	26		3
P	6,8	2575.572	RAPID STABILIZATION METHOD 4	SQ YD	6,617	5,346		1,271
P	8	2575.608	SEED MIXTURE SPECIAL	POUND	184	77	107	
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) PAINT	EACH	30	16	4	10
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) PAINT	EACH	15	4	1	10
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) EPOXY	EACH	1		1	
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) EPOXY	EACH	1		1	
R		2582.501	PVMT MESSAGE (LEFT ARROW) - POLY-PRE	EACH	37	22	5	10
R		2582.501	PVMT MESSAGE (RIGHT ARROW) - POLY-PRE	EACH	18	4	2	12
R		2582.502	4" SOLID LINE WHITE - PAINT	LIN FT	11,685	5,120	1,020	5,545
R		2582.502	4" BROKEN LINE WHITE - PAINT	LIN FT	4,812	2,680	1,092	1,040
R		2582.502	4" SOLID LINE YELLOW - PAINT	LIN FT	24,224	16,244	2,780	5,200
R		2582.502	4" DOUBLE LINE YELLOW - PAINT	LIN FT	1,200		1,200	
R		2582.502	4" SOLID LINE WHITE - EPOXY	LIN FT	11,685	5,120	1,020	5,545
R		2582.502	4" BROKEN LINE WHITE - EPOXY	LIN FT	4,812	2,680	1,092	1,040
R		2582.502	4" SOLID LINE YELLOW - EPOXY	LIN FT	24,224	16,244	2,780	5,200
R		2582.502	4" DOUBLE SOLID LINE YELLOW- EPOXY	LIN FT	1,200		1,200	
R		2582.502	24" SOLID LINE YELLOW - EPOXY	LIN FT	94	94		
R		2582.502	12" SOLID LINE WHITE- POLY.PREF.	LIN FT	60	60		
R		2582.502	24" SOLID LINE WHITE- POLY.PREF.	LIN FT	171	74	85	12
R		2582.618	ZEBRA CROSSWALK WHITE - POLY PREF.	SQ FT	1,560	1,005	330	225

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RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP A

S.P.62-672-04 CTB, S.P.82-625-02 CTB

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL QNTY	TOTAL GROUP A QNTY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
		2021.501	MOBILIZATION	LUMP SUM	1	0.58										0.58		
	6	2031.501	FIELD OFFICE, TYPE SPECIAL-D	EACH	1	0.58										0.58		
	6	2041.610	TRAINEES	HOUR	3,000	1,740										1,740		
C		2101.501	CLEARING	ACRE	4.75	3.75	3.75											
C		2101.502	CLEARING	TREE	399	278	278											
C		2101.506	GRUBBING	ACRE	5.35	4.05	4.05											
C		2101.507	GRUBBING	TREE	363	259	259											
		2102.501	PAVEMENT MARKING REMOVAL	SQ FT	100													
		2102.502	4" PAVEMENT MARKING REMOVAL	LIN FT	2,700													
	6,32	2103.501	BUILDING REMOVAL A	LUMP SUM	1	1				1								
	6,32	2103.501	BUILDING REMOVAL B	LUMP SUM	1	1				1								
	6,32	2103.501	BUILDING REMOVAL C	LUMP SUM	1	1				1								
	6,32	2103.501	BUILDING REMOVAL D	LUMP SUM	1	1				1								
	6,32	2103.501	BUILDING REMOVAL E	LUMP SUM	1	1				1								
	6,32	2103.501	BUILDING REMOVAL F	LUMP SUM	1	1				1								
	6,32	2103.501	BUILDING REMOVAL G	LUMP SUM	1	1				1								
A	21	2104.501	REMOVE PIPE CULVERTS	LIN FT	1,559	1,070	1,070											
A	21	2104.501	REMOVE RC PIPE SEWERS	LIN FT	5,953	4,893				90					4,803			
G,H		2104.501	REMOVE CONCRETE CURB & GUTTER	LIN FT	7,722	4,046	4,046											
I,J	6	2104.501	REMOVE FENCE	LIN FT	8,306	6,707	6,707											
K		2104.501	REMOVE CABLE GUARD RAIL	LIN FT	440	440	440											
	17	2104.501	REMOVE 6" WATERMAIN	LIN FT	118	118								118				
	17	2104.501	REMOVE 12" WATERMAIN	LIN FT	35													
L		2104.503	REMOVE RETAINING WALL	SQ FT	64	64	64											
G,H	12	2104.503	REMOVE CONCRETE SIDEWALK	SQ FT	11,219	3,067	3,067											
G,H	25	2104.503	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ FT	4,852	1,832	1,832											
G,H	10	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	83,712	47,979	47,979											
	6,8	2104.507	REMOVE DEBRIS (LV)	CU YD	100	50	50											
A	5	2104.509	REMOVE CATCH BASIN	EACH	49	34									34			
A	5	2104.509	REMOVE MANHOLE	EACH	12	10				1					9			
N		2104.509	REMOVE HYDRANT	EACH	3	2								2				
	17	2104.509	REMOVE 12" BUTTERFLY VALVE	EACH	1													
	17	2104.509	REMOVE 12" X 8" TEE	EACH	1													
N		2104.509	REMOVE 6" GATE VALVE AND BOX	EACH	2	2								2				
L		2104.509	REMOVE SIGN	EACH	1	1	1											
	11	2104.509	REMOVE ARC LIGHT BASE	EACH	1	1	1											
	11	2104.509	REMOVE SIGN BASE	EACH	5	4	4											
	13	2104.509	REMOVE BRICK PILLARS	EACH	4	4	4											
	6	2104.509	REMOVE SIGNAL SYSTEM C	EACH	1	1							1					
	6,22	2104.509	REMOVE SEPTIC TANK	EACH	1													
G,H	1	2104.511	SAWING CONCRETE PAVEMEMT	LIN FT	277	148	148											
G,H	1	2104.513	SAWING BITUMINOUS PAVEMENT	LIN FT	2,166	1,104	1,104											
A	6	2104.523	SALVAGE CASTING	EACH	39	26								26				
CC		2104.523	SALVAGE MAILBOX	EACH	22	15	15											
	6	2104.601	RELOCATE VEHICLE GATE	LUMP SUM	1													
M		2105.501	COMMON EXCAVATION (EV) (P)	CU YD	178,208	101,148	101,148											
M	37	2105.505	MUCK EXCAVATION (EV)	CU YD	69,806	44,078	44,078											
M		2105.515	UNCLASSIFIED EXCAVATION (EV)(P)	CU YD	27,512	25,187									25,187			
E		2105.522	SELECT GRANULAR BORROW (CV)(P)	CU YD	122,700	70,016	70,016											
M	31	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	108,898	68,762	68,762											
	6,34	2105.522	SELECT GRANULAR BORROW MOD 3149.2J (CV)(P)	CU YD	873	873									873			
M		2105.523	COMMON BORROW (CV) (P)	CU YD	36,264	24,208	21,052								3,156			
P		2105.525	TOPSOIL BORROW (LV)	CU YD	10,508	6,952	6,952											

SEE SHEET 23 FOR QUANTITY NOTES
SEE SHEET 24 FOR TABULATIONS INDEX

GROUP A

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SIGNED:
REG. NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP A

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL QNTY	TOTAL GROUP A QNTY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
				S.P.62-672-04 CTB, S.P.82-625-02 CTB														
	6,8	2105.600	CONTAMINATED SOIL EXCAVATION (EV)	CU YD	200	200	200											
	17	2105.601	EXCAVATION SPECIAL	LUMP SUM	1													
	8	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	300	150	150											
	8	2123.610	TRACTOR BACKHOE	HOUR	250	125	125											
	2,8,28	2130.501	WATER	MGAL	1,000	500	500											
	2,8	2131.502	CALCIUM CHLORIDE SOLUTION	GAL	1,500	750	750											
E		2211.501	AGG. BASE, CLASS 7	TON	1,390	1,121	1,121											
E	36	2211.501	AGG. BASE, CLASS 5	TON	120	64	64											
E		2211.503	AGG. BASE, CLASS 7 (CV)(P)	CU YD	35,530	20,679	19,260	748	671									
	23	2232.501	MILL BITUMINOUS SURFACE (2")	SQ YD	1,620													
E		2350.501	LVWE45030B WEAR COURSE MIXTURE (TRAIL)	TON	1,911	1,227		1,227										
E		2350.501	LVWE 45030B WEAR COURSE MIXTURE	TON	244	168	168											
E		2350.502	LVNW 45030B NONWEAR COURSE MIX.	TON	244	168	168											
E		2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	10,197	5,931	5,931											
	4,8	2360.501	BITUMINOUS PATCH MIX TYPE LV NON WEAR	TON	100	50	50											
E		2360.501	SPWEB440F WEAR COURSE MIX.	TON	22,141	12,796	12,796											
E		2360.502	SPNWB430B NONWEAR COURSE MIX.	TON	20,151	12,487	12,487											
	6,29	2402.583	ORNAMENTAL METAL RAILING	LF	1,628	696				512	184							
	7	2402.585	PIPE RAILING	LF	558	558			558									
	29	2411.618	WET CAST WALL NO. 1 (LIMESTONE)	SQ FT	2,532													
	29	2411.618	WET CAST WALL NO. 2 (LIMESTONE)	SQ FT	1,560													
	29	2411.618	WET CAST WALL NO. 3 (LIMESTONE)	SQ FT	1,310													
	29	2411.618	WET CAST WALL NO. 4 (LIMESTONE)	SQ FT	2,068	2,068				2,068								
	29	2411.618	WET CAST WALL NO. 5 (LIMESTONE)	SQ FT	1,055	1,055					1,055							
	29	2411.618	WET CAST WALL NO. 6 (LIMESTONE)	SQ FT	1,304	1,304				1,304								
	29	2411.618	WET CAST WALL NO. 1 (FIELDSTONE) ALT BID NO. 1	SQ FT	2,532													
	29	2411.618	WET CAST WALL NO. 2 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,560													
	29	2411.618	WET CAST WALL NO. 3 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,310													
	16	2451.603	PIPE BEDDING	LF	895	114								114				
	14,15	2451.603	IMPROVED PIPE FOUNDATION	LF	1,700	1,040								1,040				
B		2501.511	96" PERFORATED CM PIPE CULVERT	LIN FT	490													
Q		2501.515	12" RC PIPE APRON	EACH	1	1									1			
Q		2501.515	15" RC PIPE APRON	EACH	6	3									3			
Q		2501.515	18" RC PIPE APRON	EACH	1	1									1			
Q		2501.515	21" RC PIPE APRON	EACH	3	1									1			
Q		2501.515	24" RC PIPE APRON	EACH	5	2									2			
Q		2501.515	27" RC PIPE APRON	EACH	1													
Q		2501.515	33" RC PIPE APRON	EACH	2	2									2			
Q		2501.515	36" RC PIPE APRON	EACH	3	2									2			
Q		2501.515	42" RC PIPE APRON	EACH	2	1									1			
Q		2501.515	48" RC PIPE APRON	EACH	1													
Q		2501.515	78" RC PIPE APRON	EACH	1	1									1			
	18	2501.573	48" TO 60" RC PIPE INCREASER	EACH	1	1									1			
	18	2501.573	60" TO 66" RC PIPE INCREASER	EACH	1	1									1			
	18	2501.573	66" TO 72" RC PIPE INCREASER	EACH	1	1									1			
	18	2501.573	84" TO 78" RC PIPE DECREASER	EACH	1	1									1			
	30	2501.602	15" OUTLET STRUCTURE	EACH	1													
	30	2501.602	18" OUTLET STRUCTURE	EACH	1													
	30	2501.602	24" OUTLET STRUCTURE	EACH	1													
Q		2501.602	TRASH GUARD FOR 12" PIPE APRON	EACH	1	1									1			
Q		2501.602	TRASH GUARD FOR 15" PIPE APRON	EACH	6	3									3			
Q		2501.602	TRASH GUARD FOR 18" PIPE APRON	EACH	1	1									1			
Q		2501.602	TRASH GUARD FOR 21" PIPE APRON	EACH	3	1									1			

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GROUP A

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CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP A

S.P.62-672-04 CTB, S.P.82-625-02 CTB

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL QNTY	TOTAL GROUP A QNTY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 66-4020	LIN FT	56.1	40.6									40.6			
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 72-4020	LIN FT	85.0	33.2									33.2			
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 78-4020	LIN FT	40.8													
B		2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 90-4020	LIN FT	9.5													
B	26	2506.501	CONSTRUCT DRAINAGE STRUCT. DESIGN 102-4022	LIN FT	9.4													
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-1	EACH	1	1									1			
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-2	EACH	1	1									1			
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-3	EACH	1	1									1			
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-4	EACH	1	1									1			
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-5	EACH	1	1									1			
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-6	EACH	1	1									1			
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-7	EACH	1	1									1			
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-8	EACH	1													
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-9	EACH	1													
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-10	EACH	1													
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-11	EACH	1													
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-12	EACH	1													
B	20	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SP-13	EACH	1	1									1			
	17	2506.502	4' DIAMETER SANITARY MH, 8" DEEP, INCL. R-1642-B CSTG	EACH	6	2				1				1				
	17	2506.502	CONSTRUCT OUTSIDE DROP MANHOLE	EACH	1	1				1								
A		2506.503	RECONSTRUCT MANHOLE	LIN FT	107.2	73.8	71.3								2.5			
B		2506.516	CASTING ASSEMBLY	EACH	250	153									153			
A		2506.521	INSTALL CASTINGS	EACH	3													
A	6	2506.522	ADJUST FRAME & RING CASTING	EACH	16	12	8								4			
	19	2506.602	CONSTRUCT SURVEY MONUMENT MANHOLE	EACH	3	3									3			
BB	33	2506.602	CONSTRUCT TEMPORARY OUTLET STRUCTURE	EACH	2	2	2											
	17	2506.603	4' DIAMETER SANITARY MANHOLE OVERDEPTH	LIN FT	40.0	9.0				3.0				6.0				
Q		2511.501	RANDOM RIPRAP CLASS III	CU YD	201.9	71.7									71.7			
BB		2511.502	TEMPORARY RIPRAP (SPECIAL)	TON	41	41	41											
F		2521.501	4" CONCRETE WALK	SQ FT	123,502	78,133	39,129		39,004									
F		2521.501	6" CONCRETE WALK	SQ FT	2,926	1,850			1,850									
F		2531.501	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	285	45	45											
F		2531.501	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	1,416	610	610											
F		2531.501	CONCRETE CURB & GUTTER DESIGN B424	LIN FT	1,209	1,209	1,209											
F		2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	50,725	28,965	28,965											
F		2531.501	CONCRETE CURB & GUTTER DESIGN D412	LIN FT	100													
F	6	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	154	120	120											
F	6	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	817	601	601											
F		2531.602	CONCRETE MEDIAN NOSE DESIGN 7113	EACH	30	17	17											
	3,6	2531.618	DETECTABLE WARNING PLATES	SQ FT	300	190			190									
CC		2540.602	MAIL BOX SUPPORT	EACH	22	15	15											
AA	6	2557.501	WIRE FENCE DESIGN 60V-9322	LIN FT	900	560	560											
O	6	2557.603	WOOD FENCE	LIN FT	3,883	3,883					3,883							
	6	2563.601	TRAFFIC CONTROL	LUMP SUM	1	0.58										0.58		
		2563.602	TUBE DELINEATOR	EACH	50													
		2563.602	REPLACE TUBE DELINEATOR	EACH	3													
S		2564.531	F & I SIGN PANELS TYPE C	SQ FT	805	450	450											
U,V		2564.531	SIGN PANELS TYPE D	SQ FT	259	142	142											
W		2564.552	HAZARD MARKER X4-2	EACH	27	7	7											
W		2564.553	CLEARANCE MARKER X4-4L	EACH	7	4	4											
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM A	SIG SYS	1													
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM B	SIG SYS	1	1						1						
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM C	SIG SYS	1	1							1					

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RAMSEY COUNTY

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S.P.62-672-04 CTB, S.P.82-625-02 CTB

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		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM A	LUMP SUM	1													
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM B	LUMP SUM	1	1											1	
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM C	LUMP SUM	1	1												1
		2565.601	TRAFFIC CONTROL INTERCONNECTION	LUMP SUM	1	0.60	0.60											
Y	6	2572.501	TEMPORARY FENCE DESIGN 60-9322	LIN FT	457	457	457											
	8,9,27	2572.501	TEMPORARY FENCE (48" HIGH ORANGE PLASTIC)	LIN FT	1,500	250	250											
BB	8	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	7,836	3,573	3,573											
BB	8	2573.502	SILT FENCE, TYPE SUPER DUTY	LIN FT	62	25	25											
BB		2573.505	FLOATATION SILT CURTAIN TYPE - STILL WATER	LIN FT	743	297	297											
BB	8,33	2573.509	DIVERSION MOUND (LV)	CU YD	43	43	43											
BB	8,33	2573.513	TEMPORARY ROCK WEEPER	CU YD	8	8	8											
BB	8,33	2573.513	TEMPORARY ROCK WEEPER FOREBAY SYSTEM	CU YD	43	31	31											
BB	8	2573.513	TEMPORARY DITCH CHECK TYPE 5	CU YD	18	18	18											
	6,8	2573.541	LIQUID FLOC TREATMENT (SPECIAL)	GAL	20	15	15											
BB	8,33,35	2573.542	FLOC SOCK	EACH	56	43	43											
	6	2573.601	EROSION CONTROL SUPERVISOR	LUMP SUM	1	0.58	0.58											
A,B,BB		2573.602	INLET PROTECTION	EACH	186	104	104											
BB	8,33	2573.602	GRAVITY DEWATERING	EACH	6	5	5											
BB	6	2573.602	FILTER LOG TYPE VEGETATED COIR LOG	EACH	3	3	3											
BB	8	2573.603	BIOROLL - 12"	LIN FT	4,418	3,395	3,395											
	8,33	2573.610	MECH CLARIFICATION PUMPING	HOUR	100	50	50											
P	8	2575.501	SEEDING	ACRE	13.00	9.37	9.37											
P	8	2575.502	SEED MIXTURE 250	POUND	378	270	270											
P	8	2575.502	SEED MIXTURE 325	POUND	116	116	116											
P	8	2575.502	SEED MIXTURE 328	POUND	579	479	479											
P	28	2575.505	SODDING TYPE LAWN	SQ YD	29,804	15,145	15,145											
P	8	2575.523	EROSION CONTROL BLANKET CATEGORY 3	SQ YD	4,635	4,136	4,136											
P	8	2575.525	EROSION STABILIZATION MAT (ScourStop)	SQ YD	119	60	60											
P	8	2575.525	EROSION STABILIZATION MAT CLASS 4	SQ YD	1,681	1,077	1,077											
P		2575.532	SLOW RELEASE COMM. FERT. ANALYSIS 23-0-30	POUND	3,168	1,895	1,895											
P	8	2575.560	HYDRAULIC SOIL STABILIZER TYPE 6	POUND	35,160	25,908	25,908											
	8	2575.570	RAPID STABILIZATION METHOD 1	ACRE	12.6	6.4	6.4											
P	6,8	2575.571	RAPID STABILIZATION METHOD 3	M GAL	29	26	26											
P	6,8	2575.572	RAPID STABILIZATION METHOD 4	SQ YD	6,617	5,346	5,346											
P	8	2575.608	SEED MIXTURE SPECIAL	POUND	184	77	77											
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) PAINT	EACH	30	16	16											
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) PAINT	EACH	15	4	4											
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) EPOXY	EACH	1													
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) EPOXY	EACH	1													
R		2582.501	PVMT MESSAGE (LEFT ARROW) - POLY-PRE	EACH	37	22	22											
R		2582.501	PVMT MESSAGE (RIGHT ARROW) - POLY-PRE	EACH	18	4	4											
R		2582.502	4" SOLID LINE WHITE - PAINT	LIN FT	11,685	5,120	5,120											
R		2582.502	4" BROKEN LINE WHITE - PAINT	LIN FT	4,812	2,680	2,680											
R		2582.502	4" SOLID LINE YELLOW - PAINT	LIN FT	24,224	16,244	16,244											
R		2582.502	4" DOUBLE LINE YELLOW - PAINT	LIN FT	1,200													
R		2582.502	4" SOLID LINE WHITE - EPOXY	LIN FT	11,685	5,120	5,120											
R		2582.502	4" BROKEN LINE WHITE - EPOXY	LIN FT	4,812	2,680	2,680											
R		2582.502	4" SOLID LINE YELLOW - EPOXY	LIN FT	24,224	16,244	16,244											
R		2582.502	4" DOUBLE SOLID LINE YELLOW- EPOXY	LIN FT	1,200													
R		2582.502	24" SOLID LINE YELLOW - EPOXY	LIN FT	94	94	94											
R		2582.502	12" SOLID LINE WHITE- POLY.PREF.	LIN FT	60	60	60											
R		2582.502	24" SOLID LINE WHITE- POLY.PREF.	LIN FT	171	74	74											
R		2582.618	ZEBRA CROSSWALK WHITE - POLY PREF.	SQ FT	1,560	1,005	1,005											

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RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP B

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	S.P.62-672-04, S.P.82-625-02												
					TOTAL QNTY	TOTAL GROUP B QNTY	B1	B2A	B2B	B2C	B3A	B3B	B4	B5	B6	B7	B8
		2021.501	MOBILIZATION	LUMP SUM	1	0.22										0.22	
	6	2031.501	FIELD OFFICE, TYPE SPECIAL-D	EACH	1	0.22										0.22	
	6	2041.610	TRAINEES	HOUR	3,000	660										660	
C		2101.501	CLEARING	ACRE	4.75	0.70	0.70										
C		2101.502	CLEARING	TREE	399	43	43										
C		2101.506	GRUBBING	ACRE	5.35	1.00	1.00										
C		2101.507	GRUBBING	TREE	363	43	43										
		2102.501	PAVEMENT MARKING REMOVAL	SQ FT	100												
		2102.502	4" PAVEMENT MARKING REMOVAL	LIN FT	2,700												
	6,32	2103.501	BUILDING REMOVAL A	LUMP SUM	1												
	6,32	2103.501	BUILDING REMOVAL B	LUMP SUM	1												
	6,32	2103.501	BUILDING REMOVAL C	LUMP SUM	1												
	6,32	2103.501	BUILDING REMOVAL D	LUMP SUM	1												
	6,32	2103.501	BUILDING REMOVAL E	LUMP SUM	1												
	6,32	2103.501	BUILDING REMOVAL F	LUMP SUM	1												
	6,32	2103.501	BUILDING REMOVAL G	LUMP SUM	1												
A	21	2104.501	REMOVE PIPE CULVERTS	LIN FT	1,559	117	117										
A	21	2104.501	REMOVE RC PIPE SEWERS	LIN FT	5,953	787									787		
G,H		2104.501	REMOVE CONCRETE CURB & GUTTER	LIN FT	7,722	2,486	2,426							60			
I,J	6	2104.501	REMOVE FENCE	LIN FT	8,306	1,586	1,586										
K		2104.501	REMOVE CABLE GUARD RAIL	LIN FT	440												
	17	2104.501	REMOVE 6" WATERMAIN	LIN FT	118												
	17	2104.501	REMOVE 12" WATERMAIN	LIN FT	35	35								35			
L		2104.503	REMOVE RETAINING WALL	SQ FT	64												
G,H	12	2104.503	REMOVE CONCRETE SIDEWALK	SQ FT	11,219	5,687	5,687										
G,H	25	2104.503	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ FT	4,852	1,696	1,696										
G,H	10	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	83,712	17,117	17,047							70			
	6,8	2104.507	REMOVE DEBRIS (LV)	CU YD	100	25	25										
A	5	2104.509	REMOVE CATCH BASIN	EACH	49	6									6		
A	5	2104.509	REMOVE MANHOLE	EACH	12	2									2		
N		2104.509	REMOVE HYDRANT	EACH	3												
	17	2104.509	REMOVE 12" BUTTERFLY VALVE	EACH	1	1								1			
	17	2104.509	REMOVE 12" X 8" TEE	EACH	1	1								1			
N		2104.509	REMOVE 6" GATE VALVE AND BOX	EACH	2												
L		2104.509	REMOVE SIGN	EACH	1												
	11	2104.509	REMOVE ARC LIGHT BASE	EACH	1												
	11	2104.509	REMOVE SIGN BASE	EACH	5	1	1										
	13	2104.509	REMOVE BRICK PILLARS	EACH	4												
	6	2104.509	REMOVE SIGNAL SYSTEM C	EACH	1												
	6,22	2104.509	REMOVE SEPTIC TANK	EACH	1	1	1										
G,H	1	2104.511	SAWING CONCRETE PAVEMEMT	LIN FT	277	93	93										
G,H	1	2104.513	SAWING BITUMINOUS PAVEMENT	LIN FT	2,166	686	606							80			
A	6	2104.523	SALVAGE CASTING	EACH	39	4								4			
CC		2104.523	SALVAGE MAILBOX	EACH	22	3	3										
	6	2104.601	RELOCATE VEHICLE GATE	LUMP SUM	1	1	1										
M		2105.501	COMMON EXCAVATION (EV) (P)	CU YD	178,208	35,589	35,589										
M	37	2105.505	MUCK EXCAVATION (EV)	CU YD	69,806	25,728	25,728										
M		2105.515	UNCLASSIFIED EXCAVATION (EV)(P)	CU YD	27,512												
E		2105.522	SELECT GRANULAR BORROW (CV)(P)	CU YD	122,700	25,036	25,036										
M	31	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	108,898	40,136	40,136										
	6,34	2105.522	SELECT GRANULAR BORROW MOD 3149.2J (CV)(P)	CU YD	873												
M		2105.523	COMMON BORROW (CV) (P)	CU YD	36,264	5,669	5,669										
P		2105.525	TOPSOIL BORROW (LV)	CU YD	10,508	1,853	1,823							30			

SEE SHEET 23 FOR QUANTITY NOTES
SEE SHEET 24 FOR TABULATIONS INDEX

GROUP B

NO.	REV-DATE	BY:	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN 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.
SIGNED:
REG. NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P.62-672-04
S.P.82-625-02

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP B

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	S.P.62-672-04, S.P.82-625-02 TOTAL QNTY	TOTAL GROUP B QNTY	B1	B2A	B2B	B2C	B3A	B3B	B4	B5	B6	B7	B8
	6,8	2105.600	CONTAMINATED SOIL EXCAVATION (EV)	CU YD	200												
	17	2105.601	EXCAVATION SPECIAL	LUMP SUM	1	1								1			
	8	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	300	75	75										
	8	2123.610	TRACTOR BACKHOE	HOUR	250	63	63										
	2,8,28	2130.501	WATER	MGAL	1,000	250	250										
	2,8	2131.502	CALCIUM CHLORIDE SOLUTION	GAL	1,500	375	375										
E		2211.501	AGG. BASE, CLASS 7	TON	1,390	245	245										
E	36	2211.501	AGG. BASE, CLASS 5	TON	120	56	28							28			
E		2211.503	AGG. BASE, CLASS 7 (CV)(P)	CU YD	35,530	6,889		286	201	6,116		286					
	23	2232.501	MILL BITUMINOUS SURFACE (2")	SQ YD	1,620												
E		2350.501	LVWE45030B WEAR COURSE MIXTURE (TRAIL)	TON	1,911	173			173								
E		2350.501	LVWE 45030B WEAR COURSE MIXTURE	TON	244	57				50				7			
E		2350.502	LVNW 45030B NONWEAR COURSE MIX.	TON	244	57				50				7			
E		2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	10,197	1,968	1,958							10			
	4,8	2360.501	BITUMINOUS PATCH MIX TYPE LV NON WEAR	TON	100	25	25										
E		2360.501	SPWEB440F WEAR COURSE MIX.	TON	22,141	4,250				4,250							
E		2360.502	SPNWB430B NONWEAR COURSE MIX.	TON	20,151	3,851				3,851							
	6,29	2402.583	ORNAMENTAL METAL RAILING	LF	1,628	932					932						
	7	2402.585	PIPE RAILING	LF	558												
	29	2411.618	WET CAST WALL NO. 1 (LIMESTONE)	SQ FT	2,532	2,532					2,532						
	29	2411.618	WET CAST WALL NO. 2 (LIMESTONE)	SQ FT	1,560	1,560					1,560						
	29	2411.618	WET CAST WALL NO. 3 (LIMESTONE)	SQ FT	1,310	1,310					1,310						
	29	2411.618	WET CAST WALL NO. 4 (LIMESTONE)	SQ FT	2,068												
	29	2411.618	WET CAST WALL NO. 5 (LIMESTONE)	SQ FT	1,055												
	29	2411.618	WET CAST WALL NO. 6 (LIMESTONE)	SQ FT	1,304												
	29	2411.618	WET CAST WALL NO. 1 (FIELDSTONE) ALT BID NO. 1	SQ FT	2,532	2,532					2,532						
	29	2411.618	WET CAST WALL NO. 2 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,560	1,560					1,560						
	29	2411.618	WET CAST WALL NO. 3 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,310	1,310					1,310						
	16	2451.603	PIPE BEDDING	LF	895	781								781			
	14,15	2451.603	IMPROVED PIPE FOUNDATION	LF	1,700	660								660			
B		2501.511	96" PERFORATED CM PIPE CULVERT	LIN FT	490												
Q		2501.515	12" RC PIPE APRON	EACH	1												
Q		2501.515	15" RC PIPE APRON	EACH	6	2									2		
Q		2501.515	18" RC PIPE APRON	EACH	1												
Q		2501.515	21" RC PIPE APRON	EACH	3	2									2		
Q		2501.515	24" RC PIPE APRON	EACH	5	2									2		
Q		2501.515	27" RC PIPE APRON	EACH	1	1									1		
Q		2501.515	33" RC PIPE APRON	EACH	2												
Q		2501.515	36" RC PIPE APRON	EACH	3												
Q		2501.515	42" RC PIPE APRON	EACH	2												
Q		2501.515	48" RC PIPE APRON	EACH	1												
Q		2501.515	78" RC PIPE APRON	EACH	1												
	18	2501.573	48" TO 60" RC PIPE INCREASER	EACH	1												
	18	2501.573	60" TO 66" RC PIPE INCREASER	EACH	1												
	18	2501.573	66" TO 72" RC PIPE INCREASER	EACH	1												
	18	2501.573	84" TO 78" RC PIPE DECREASER	EACH	1												
	30	2501.602	15" OUTLET STRUCTURE	EACH	1	1									1		
	30	2501.602	18" OUTLET STRUCTURE	EACH	1												
	30	2501.602	24" OUTLET STRUCTURE	EACH	1												
Q		2501.602	TRASH GUARD FOR 12" PIPE APRON	EACH	1												
Q		2501.602	TRASH GUARD FOR 15" PIPE APRON	EACH	6	2									2		
Q		2501.602	TRASH GUARD FOR 18" PIPE APRON	EACH	1												
Q		2501.602	TRASH GUARD FOR 21" PIPE APRON	EACH	3	2									2		

SEE SHEET 23 FOR QUANTITY NOTES
SEE SHEET 24 FOR TABULATIONS INDEX

GROUP B

NO.	REV-DATE	BY:	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN 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.
SIGNED:
REG. NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P.62-672-04
S.P.82-625-02

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP B

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	S.P.62-672-04, S.P.82-625-02												
					TOTAL QNTY	TOTAL GROUP B QNTY	B1	B2A	B2B	B2C	B3A	B3B	B4	B5	B6	B7	B8
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM A	LUMP SUM	1	1											1
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM B	LUMP SUM	1												
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM C	LUMP SUM	1												
		2565.601	TRAFFIC CONTROL INTERCONNECTION	LUMP SUM	1	0.40	0.40										
Y	6	2572.501	TEMPORARY FENCE DESIGN 60-9322	LIN FT	457												
	8,9,27	2572.501	TEMPORARY FENCE (48" HIGH ORANGE PLASTIC)	LIN FT	1,500	1,125	1,125										
BB	8	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	7,836	1,418				1,418							
BB	8	2573.502	SILT FENCE, TYPE SUPER DUTY	LIN FT	62												
BB		2573.505	FLOATATION SILT CURTAIN TYPE - STILL WATER	LIN FT	743	446				446							
BB	8,33	2573.509	DIVERSION MOUND (LV)	CU YD	43												
BB	8,33	2573.513	TEMPORARY ROCK WEEPER	CU YD	8												
BB	8,33	2573.513	TEMPORARY ROCK WEEPER FOREBAY SYSTEM	CU YD	43												
BB	8	2573.513	TEMPORARY DITCH CHECK TYPE 5	CU YD	18												
	6,8	2573.541	LIQUID FLOC TREATMENT (SPECIAL)	GAL	20												
BB	8,33,35	2573.542	FLOC SOCK	EACH	56												
	6	2573.601	EROSION CONTROL SUPERVISOR	LUMP SUM	1	0.22				0.22							
A,B,BB		2573.602	INLET PROTECTION	EACH	186	43				43							
BB	8,33	2573.602	GRAVITY DEWATERING	EACH	6												
BB	6	2573.602	FILTER LOG TYPE VEGETATED COIR LOG	EACH	3												
BB	8	2573.603	BIOROLL - 12"	LIN FT	4,418	501				501							
	8,33	2573.610	MECH CLARIFICATION PUMPING	HOUR	100	25				25							
P	8	2575.501	SEEDING	ACRE	13.00	2.04				2.04							
P	8	2575.502	SEED MIXTURE 250	POUND	378	18				18							
P	8	2575.502	SEED MIXTURE 325	POUND	116												
P	8	2575.502	SEED MIXTURE 328	POUND	579	32				32							
P	28	2575.505	SODDING TYPE LAWN	SQ YD	29,804	7,551				7,351				200			
P	8	2575.523	EROSION CONTROL BLANKET CATEGORY 3	SQ YD	4,635	16				16							
P	8	2575.525	EROSION STABILIZATION MAT (ScourStop)	SQ YD	119												
P	8	2575.525	EROSION STABILIZATION MAT CLASS 4	SQ YD	1,681												
P		2575.532	SLOW RELEASE COMM. FERT. ANALYSIS 23-0-30	POUND	3,168	520				520							
P	8	2575.560	HYDRAULIC SOIL STABILIZER TYPE 6	POUND	35,160	4,890				4,890							
	8	2575.570	RAPID STABILIZATION METHOD 1	ACRE	12.6	3.1				3.1							
P	6,8	2575.571	RAPID STABILIZATION METHOD 3	M GAL	29												
P	6,8	2575.572	RAPID STABILIZATION METHOD 4	SQ YD	6,617												
P	8	2575.608	SEED MIXTURE SPECIAL	POUND	184	107				107							
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) PAINT	EACH	30	4	4										
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) PAINT	EACH	15	1	1										
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) EPOXY	EACH	1	1	1										
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) EPOXY	EACH	1	1	1										
R		2582.501	PVMT MESSAGE (LEFT ARROW) - POLY-PRE	EACH	37	5	5										
R		2582.501	PVMT MESSAGE (RIGHT ARROW) - POLY-PRE	EACH	18	2	2										
R		2582.502	4" SOLID LINE WHITE - PAINT	LIN FT	11,685	1,020	1,020										
R		2582.502	4" BROKEN LINE WHITE - PAINT	LIN FT	4,812	1,092	1,092										
R		2582.502	4" SOLID LINE YELLOW - PAINT	LIN FT	24,224	2,780	2,780										
R		2582.502	4" DOUBLE LINE YELLOW - PAINT	LIN FT	1,200	1,200	1,200										
R		2582.502	4" SOLID LINE WHITE - EPOXY	LIN FT	11,685	1,020	1,020										
R		2582.502	4" BROKEN LINE WHITE - EPOXY	LIN FT	4,812	1,092	1,092										
R		2582.502	4" SOLID LINE YELLOW - EPOXY	LIN FT	24,224	2,780	2,780										
R		2582.502	4" DOUBLE SOLID LINE YELLOW- EPOXY	LIN FT	1,200	1,200	1,200										
R		2582.502	24" SOLID LINE YELLOW - EPOXY	LIN FT	94												
R		2582.502	12" SOLID LINE WHITE- POLY.PREF.	LIN FT	60												
R		2582.502	24" SOLID LINE WHITE- POLY.PREF.	LIN FT	171	85	85										
R		2582.618	ZEBRA CROSSWALK WHITE - POLY PREF.	SQ FT	1,560	330	330										

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GROUP B

NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:
REG. NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P.62-672-04
S.P.82-625-02

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP C

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	S.A.P. 82-616-16 CTB									
					TOTAL QNTY	TOTAL GROUP C QNTY	C1	C2A	C2B	C3	C4	C5	C6	C7
		2021.501	MOBILIZATION	LUMP SUM	1	0.20								0.20
	6	2031.501	FIELD OFFICE, TYPE SPECIAL-D	EACH	1	0.20								0.20
	6	2041.610	TRAINEES	HOUR	3,000	600								600
C		2101.501	CLEARING	ACRE	4.75	0.30	0.30							
C		2101.502	CLEARING	TREE	399	78	78							
C		2101.506	GRUBBING	ACRE	5.35	0.30	0.30							
C		2101.507	GRUBBING	TREE	363	61	61							
		2102.501	PAVEMENT MARKING REMOVAL	SQ FT	100	100		100						
		2102.502	4" PAVEMENT MARKING REMOVAL	LIN FT	2,700	2,700		2,700						
	6,32	2103.501	BUILDING REMOVAL A	LUMP SUM	1									
	6,32	2103.501	BUILDING REMOVAL B	LUMP SUM	1									
	6,32	2103.501	BUILDING REMOVAL C	LUMP SUM	1									
	6,32	2103.501	BUILDING REMOVAL D	LUMP SUM	1									
	6,32	2103.501	BUILDING REMOVAL E	LUMP SUM	1									
	6,32	2103.501	BUILDING REMOVAL F	LUMP SUM	1									
	6,32	2103.501	BUILDING REMOVAL G	LUMP SUM	1									
A	21	2104.501	REMOVE PIPE CULVERTS	LIN FT	1,559	372	372							
A	21	2104.501	REMOVE RC PIPE SEWERS	LIN FT	5,953	273						273		
G,H		2104.501	REMOVE CONCRETE CURB & GUTTER	LIN FT	7,722	1,190	1,190							
I,J	6	2104.501	REMOVE FENCE	LIN FT	8,306	13	13							
K		2104.501	REMOVE CABLE GUARD RAIL	LIN FT	440									
	17	2104.501	REMOVE 6" WATERMAIN	LIN FT	118									
	17	2104.501	REMOVE 12" WATERMAIN	LIN FT	35									
L		2104.503	REMOVE RETAINING WALL	SQ FT	64									
G,H	12	2104.503	REMOVE CONCRETE SIDEWALK	SQ FT	11,219	2,465	2,465							
G,H	25	2104.503	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ FT	4,852	1,324	1,324							
G,H	10	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	83,712	18,616	18,616							
	6,8	2104.507	REMOVE DEBRIS (LV)	CU YD	100	25	25							
A	5	2104.509	REMOVE CATCH BASIN	EACH	49	9						9		
A	5	2104.509	REMOVE MANHOLE	EACH	12									
N		2104.509	REMOVE HYDRANT	EACH	3	1	1							
	17	2104.509	REMOVE 12" BUTTERFLY VALVE	EACH	1									
	17	2104.509	REMOVE 12" X 8" TEE	EACH	1									
N		2104.509	REMOVE 6" GATE VALVE AND BOX	EACH	2									
L		2104.509	REMOVE SIGN	EACH	1									
	11	2104.509	REMOVE ARC LIGHT BASE	EACH	1									
	11	2104.509	REMOVE SIGN BASE	EACH	5									
	13	2104.509	REMOVE BRICK PILLARS	EACH	4									
	6	2104.509	REMOVE SIGNAL SYSTEM C	EACH	1									
	6,22	2104.509	REMOVE SEPTIC TANK	EACH	1									
G,H	1	2104.511	SAWING CONCRETE PAVEMEMT	LIN FT	277	36	36							
G,H	1	2104.513	SAWING BITUMINOUS PAVEMENT	LIN FT	2,166	376	376							
A	6	2104.523	SALVAGE CASTING	EACH	39	9					9			
CC		2104.523	SALVAGE MAILBOX	EACH	22	4	4							
	6	2104.601	RELOCATE VEHICLE GATE	LUMP SUM	1									
M		2105.501	COMMON EXCAVATION (EV) (P)	CU YD	178,208	41,471	41,471							
M	37	2105.505	MUCK EXCAVATION (EV)	CU YD	69,806									
M		2105.515	UNCLASSIFIED EXCAVATION (EV)(P)	CU YD	27,512	2,325						2,325		
E		2105.522	SELECT GRANULAR BORROW (CV)(P)	CU YD	122,700	27,648	27,648							
M	31	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	108,898									
	6,34	2105.522	SELECT GRANULAR BORROW MOD 3149.2J (CV)(P)	CU YD	873									
M		2105.523	COMMON BORROW (CV) (P)	CU YD	36,264	6,387	5,739					648		
P		2105.525	TOPSOIL BORROW (LV)	CU YD	10,508	1,703	1,703							

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GROUP C

NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:
REG. NO: 26511 DATE: MAY 13, 2008

VALLEY CREEK ROAD

S.A.P.82-616-16 CTB

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP C

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	S.A.P. 82-616-16 CTB TOTAL QNTY	TOTAL GROUP C QNTY	C1	C2A	C2B	C3	C4	C5	C6	C7
	6,8	2105.600	CONTAMINATED SOIL EXCAVATION (EV)	CU YD	200									
	17	2105.601	EXCAVATION SPECIAL	LUMP SUM	1									
	8	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	300	75	75							
	8	2123.610	TRACTOR BACKHOE	HOUR	250	63	63							
	2,8,28	2130.501	WATER	MGAL	1,000	250	250							
	2,8	2131.502	CALCIUM CHLORIDE SOLUTION	GAL	1,500	375	375							
E		2211.501	AGG. BASE, CLASS 7	TON	1,390	24		24						
E	36	2211.501	AGG. BASE, CLASS 5	TON	120									
E		2211.503	AGG. BASE, CLASS 7 (CV)(P)	CU YD	35,530	7,962	557	6,987		381			37	
	23	2232.501	MILL BITUMINOUS SURFACE (2")	SQ YD	1,620	1,620	1,620							
E		2350.501	LVWE45030B WEAR COURSE MIXTURE (TRAIL)	TON	1,911	511				506			5	
E		2350.501	LVWE 45030B WEAR COURSE MIXTURE	TON	244	19		19						
E		2350.502	LVNW 45030B NONWEAR COURSE MIX.	TON	244	19		19						
E		2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	10,197	2,298		2,298						
	4,8	2360.501	BITUMINOUS PATCH MIX TYPE LV NON WEAR	TON	100	25		25						
E		2360.501	SPWEB440F WEAR COURSE MIX.	TON	22,141	5,095		5,095						
E		2360.502	SPNWB430B NONWEAR COURSE MIX.	TON	20,151	3,813		3,813						
	6,29	2402.583	ORNAMENTAL METAL RAILING	LF	1,628									
	7	2402.585	PIPE RAILING	LF	558									
	29	2411.618	WET CAST WALL NO. 1 (LIMESTONE)	SQ FT	2,532									
	29	2411.618	WET CAST WALL NO. 2 (LIMESTONE)	SQ FT	1,560									
	29	2411.618	WET CAST WALL NO. 3 (LIMESTONE)	SQ FT	1,310									
	29	2411.618	WET CAST WALL NO. 4 (LIMESTONE)	SQ FT	2,068									
	29	2411.618	WET CAST WALL NO. 5 (LIMESTONE)	SQ FT	1,055									
	29	2411.618	WET CAST WALL NO. 6 (LIMESTONE)	SQ FT	1,304									
	29	2411.618	WET CAST WALL NO. 1 (FIELDSTONE) ALT BID NO. 1	SQ FT	2,532									
	29	2411.618	WET CAST WALL NO. 2 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,560									
	29	2411.618	WET CAST WALL NO. 3 (FIELDSTONE) ALT BID NO. 1	SQ FT	1,310									
	16	2451.603	PIPE BEDDING	LF	895									
	14,15	2451.603	IMPROVED PIPE FOUNDATION	LF	1,700									
B		2501.511	96" PERFORATED CM PIPE CULVERT	LIN FT	490	490						490		
Q		2501.515	12" RC PIPE APRON	EACH	1									
Q		2501.515	15" RC PIPE APRON	EACH	6	1						1		
Q		2501.515	18" RC PIPE APRON	EACH	1									
Q		2501.515	21" RC PIPE APRON	EACH	3									
Q		2501.515	24" RC PIPE APRON	EACH	5	1						1		
Q		2501.515	27" RC PIPE APRON	EACH	1									
Q		2501.515	33" RC PIPE APRON	EACH	2									
Q		2501.515	36" RC PIPE APRON	EACH	3	1						1		
Q		2501.515	42" RC PIPE APRON	EACH	2	1						1		
Q		2501.515	48" RC PIPE APRON	EACH	1	1						1		
Q		2501.515	78" RC PIPE APRON	EACH	1									
	18	2501.573	48" TO 60" RC PIPE INCREASER	EACH	1									
	18	2501.573	60" TO 66" RC PIPE INCREASER	EACH	1									
	18	2501.573	66" TO 72" RC PIPE INCREASER	EACH	1									
	18	2501.573	84" TO 78" RC PIPE DECREASER	EACH	1									
	30	2501.602	15" OUTLET STRUCTURE	EACH	1									
	30	2501.602	18" OUTLET STRUCTURE	EACH	1	1						1		
	30	2501.602	24" OUTLET STRUCTURE	EACH	1	1						1		
Q		2501.602	TRASH GUARD FOR 12" PIPE APRON	EACH	1									
Q		2501.602	TRASH GUARD FOR 15" PIPE APRON	EACH	6	1						1		
Q		2501.602	TRASH GUARD FOR 18" PIPE APRON	EACH	1									
Q		2501.602	TRASH GUARD FOR 21" PIPE APRON	EACH	3									

SEE SHEET 23 FOR QUANTITY NOTES
SEE SHEET 24 FOR TABULATIONS INDEX

GROUP C

NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:
REG. NO: 26511 DATE: MAY 13, 2008

VALLEY CREEK ROAD

S.A.P.82-616-16 CTB

RAMSEY COUNTY

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES- GROUP C

TAB	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	S.A.P. 82-616-16 CTB TOTAL QNTY	TOTAL GROUP C QNTY	C1	C2A	C2B	C3	C4	C5	C6	C7
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM A	LUMP SUM	1									
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM B	LUMP SUM	1									
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM C	LUMP SUM	1									
		2565.601	TRAFFIC CONTROL INTERCONNECTION	LUMP SUM	1									
Y	6	2572.501	TEMPORARY FENCE DESIGN 60-9322	LIN FT	457									
	8,9,27	2572.501	TEMPORARY FENCE (48" HIGH ORANGE PLASTIC)	LIN FT	1,500	125	125							
BB	8	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	7,836	2,845		2,845						
BB	8	2573.502	SILT FENCE, TYPE SUPER DUTY	LIN FT	62	37		37						
BB		2573.505	FLOATATION SILT CURTAIN TYPE - STILL WATER	LIN FT	743									
BB	8,33	2573.509	DIVERSION MOUND (LV)	CU YD	43									
BB	8,33	2573.513	TEMPORARY ROCK WEEPER	CU YD	8									
BB	8,33	2573.513	TEMPORARY ROCK WEEPER FOREBAY SYSTEM	CU YD	43	12		12						
BB	8	2573.513	TEMPORARY DITCH CHECK TYPE 5	CU YD	18									
	6,8	2573.541	LIQUID FLOC TREATMENT (SPECIAL)	GAL	20	5		5						
BB	8,33,35	2573.542	FLOC SOCK	EACH	56	13		13						
	6	2573.601	EROSION CONTROL SUPERVISOR	LUMP SUM	1	0.20	0.20							
A,B,BB		2573.602	INLET PROTECTION	EACH	186	39		39						
BB	8,33	2573.602	GRAVITY DEWATERING	EACH	6	1		1						
BB	6	2573.602	FILTER LOG TYPE VEGETATED COIR LOG	EACH	3									
BB	8	2573.603	BIOROLL - 12"	LIN FT	4,418	522		522						
	8,33	2573.610	MECH CLARIFICATION PUMPING	HOUR	100	25		25						
P	8	2575.501	SEEDING	ACRE	13.00	1.59	1.59							
P	8	2575.502	SEED MIXTURE 250	POUND	378	90	90							
P	8	2575.502	SEED MIXTURE 325	POUND	116									
P	8	2575.502	SEED MIXTURE 328	POUND	579	68	68							
P	28	2575.505	SODDING TYPE LAWN	SQ YD	29,804	7,108	7,108							
P	8	2575.523	EROSION CONTROL BLANKET CATEGORY 3	SQ YD	4,635	483		483						
P	8	2575.525	EROSION STABILIZATION MAT (ScourStop)	SQ YD	119	59		59						
P	8	2575.525	EROSION STABILIZATION MAT CLASS 4	SQ YD	1,681	604		604						
P		2575.532	SLOW RELEASE COMM. FERT. ANALYSIS 23-0-30	POUND	3,168	753	753							
P	8	2575.560	HYDRAULIC SOIL STABILIZER TYPE 6	POUND	35,160	4,362	4,362							
	8	2575.570	RAPID STABILIZATION METHOD 1	ACRE	12.6	3.1		3.1						
P	6,8	2575.571	RAPID STABILIZATION METHOD 3	M GAL	29	3	3							
P	6,8	2575.572	RAPID STABILIZATION METHOD 4	SQ YD	6,617	1,271		1,271						
P	8	2575.608	SEED MIXTURE SPECIAL	POUND	184									
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) PAINT	EACH	30	10		10						
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) PAINT	EACH	15	10		10						
R		2582.501	PAVEMENT MESSAGE (LEFT ARROW) EPOXY	EACH	1									
R		2582.501	PAVEMENT MESSAGE (RIGHT ARROW) EPOXY	EACH	1									
R		2582.501	PVMT MESSAGE (LEFT ARROW) - POLY-PRE	EACH	37	10		10						
R		2582.501	PVMT MESSAGE (RIGHT ARROW) - POLY-PRE	EACH	18	12		12						
R		2582.502	4" SOLID LINE WHITE - PAINT	LIN FT	11,685	5,545		5,545						
R		2582.502	4" BROKEN LINE WHITE - PAINT	LIN FT	4,812	1,040		1,040						
R		2582.502	4" SOLID LINE YELLOW - PAINT	LIN FT	24,224	5,200		5,200						
R		2582.502	4" DOUBLE LINE YELLOW - PAINT	LIN FT	1,200									
R		2582.502	4" SOLID LINE WHITE - EPOXY	LIN FT	11,685	5,545		5,545						
R		2582.502	4" BROKEN LINE WHITE - EPOXY	LIN FT	4,812	1,040		1,040						
R		2582.502	4" SOLID LINE YELLOW - EPOXY	LIN FT	24,224	5,200		5,200						
R		2582.502	4" DOUBLE SOLID LINE YELLOW- EPOXY	LIN FT	1,200									
R		2582.502	24" SOLID LINE YELLOW - EPOXY	LIN FT	94									
R		2582.502	12" SOLID LINE WHITE- POLY.PREF.	LIN FT	60									
R		2582.502	24" SOLID LINE WHITE- POLY.PREF.	LIN FT	171	12		12						
R		2582.618	ZEBRA CROSSWALK WHITE - POLY PREF.	SQ FT	1,560	225		225						

SEE SHEET 23 FOR QUANTITY NOTES
SEE SHEET 24 FOR TABULATIONS INDEX

GROUP C

NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:
REG. NO: 26511 DATE: MAY 13, 2008

VALLEY CREEK ROAD

S.A.P.82-616-16 CTB

RAMSEY COUNTY

ESTIMATED QUANTITIES

D MN/DOT STANDARD PLATES

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

PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE
3006G	GASKET JOINT FOR R.C. PIPE
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133C	RIPRAP AT RCP OUTLET
4000J	MANHOLE OR CATCH BASIN (DESIGN A)
4002F	MANHOLE OR CATCH BASIN (DESIGN C)
4005L	MANHOLE OR CATCH BASIN (DESIGN F)
4006L	MANHOLE OR CATCH BASIN (DESIGN G)
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4010H	CONCRETE SHORT CONE & ADJUSTING RING
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN
4022A	MANHOLE OR CATCH BASIN COVER
4024A	48" DIA. PRECAST SHALLOW DEPTH CATCH BASIN
4110F	COVER CASTING FOR MANHOLE
4129G	CATCH BASIN FRAME CASTING
4160D	CURB BOX CASTING FOR CATCH BASIN
4180J	MANHOLE OR CATCH BASIN STEP
7035M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036F	PEDESTRIAN CURB RAMP
7100H	CONCRETE CURB & GUTTERS
7109C	MEDIAN NOSE AND ISLAND
7111J	INSTALLATION OF CATCH BASIN CASTINGS
8000I	STANDARD BARRICADE
8110D	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
8114A	P.V.C. HANDHOLE / PULLBOX
8115D	PEDESTRIAN PUSH BUTTON INSTALLATION
8120L	POLE FOUNDATION (PA85)
8122D	PEDESTAL AND PEDESTAL BASE
8123E	POLE & MAST ARM
8124E	MAST ARM SIGNAL HEAD MOUNTS
8126G	POLE FOUNDATION (PA90 & PA100)
9322J	CHAIN LINK FENCE
9350A	MAILBOX SUPPORT

QUANTITY NOTES

1. SAWCUT SHALL BE FULL DEPTH
2. FOR DUST CONTROL
3. ALL PEDESTRIAN RAMPS SHALL HAVE DETECTABLE WARNING PLATES. SEE DETAIL SHEET 52.
4. BITUMINOUS PATCHING MIX TO BE USED AS DIRECTED BY THE ENGINEER.
5. INCLUDES CASTING ASSEMBLY WHICH BECOMES THE PROPERTY OF THE CONTRACTOR.
6. SEE SPECIAL PROVISIONS.
7. PIPE RAILING TO BE INSTALLED ON CENTURY AVENUE LEFT STATION 374+92 TO 378+50 AND RIGHT STATION 375+25 TO 377+25 TWO FEET FROM OUTSIDE EDGE OF SIDEWALK OR BITUMINOUS TRAIL. SEE DETAIL SHEET 54 AND PLAN SHEET 122.
8. THIS PAY ITEM IS TO BE USED IN LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD. THE REQUIREMENTS OF SPECIFICATION 1903 ARE HEREBY DELETED FOR THIS ITEM.
9. THIS PAY ITEM IS NOT FOR TRENCH PROTECTION. TRENCH PROTECTION IS THE CONTRACTOR'S EXPENSE.
10. BITUMINOUS PAVEMENT REMOVAL INCLUDES BITUMINOUS ENTRANCES, BITUMINOUS WALKS, BITUMINOUS CURBS, AND TEMPORARY PAVEMENT. SEE EXISTING TYPICAL SECTIONS FOR AVERAGE THICKNESS OF EXISTING ROAD PAVEMENTS. TEMPORARY PAVEMENT THICKNESS IS 5".
11. SEE REMOVALS PLAN FOR LOCATIONS. SIGNS AND/OR ARC LIGHTS WILL REMOVED OR RELOCATED BY OTHERS.
12. INCLUDES CONCRETE MEDIANS.
13. AT SUPERAMERICA – STATION 364+75 TO 365+50 LEFT.
14. FOR THE ENTIRE WATER MAIN ON THE EAST SIDE OF CENTURY AVE. FROM STATION 353+00 TO 357+00.
15. FOR CONTINGENCY PURPOSES HALF THE WATER MAIN AND SANITARY SEWER LENGTH.
16. FOR PVC SANITARY SEWER MAIN AND SERVICES..
17. SEE WOODBURY UTILITY PLAN – SHEETS 206–213.
18. SEE SHEET 150.
19. SEE DETAIL – SHEET 53.
20. SEE DETAILS – SHEETS 146–150.
21. APRONS ARE INCLUDED IN LINEAL FEET OF PIPE REMOVAL.
22. STATION 292+43 RIGHT 46'. SEE SPECIAL PROVISIONS.
23. VALLEY CREEK ROAD AT WEIR DRIVE SEE REMOVAL PLAN.
24. CONNECT TO EXISTING 72" RCP. SEE SHEET 150.
25. INCLUDES CONCRETE OVER LOWERED TELEPHONE VAULTS.
26. INCLUDES 4022 STRUCTURES.
27. 1000 LF ± ALONG GOLF COURSE WITH THE REMAINDER IN OTHER LOCATIONS AS DIRECTED.
28. THE PAY ITEM FOR WATER WILL ALSO BE USED TO WATER SOD AFTER THE 30 DAY GROWING PERIOD.
29. SEE WALL PLAN SHEETS 198–205.
30. SEE WOODBURY STANDARD PLATE STO–25 SHEET 213.
31. THIS PAY ITEM IS FOR BACKFILL IN THE MUCK EXCAVATION AREAS.
32. SEE REMOVALS PLAN SHEETS 107–109.
33. SEE DETAILS SHEETS 248–252.
34. THIS ITEM IS FOR THE BATTLE CREEK INFILTRATION BASINS. SEE SHEET 155.
35. 10 OF THIS QUANTITY IS ESTIMATED FOR MECHANICAL CLARIFICATION PUMPING.
36. 28 CY IS FOR ROAD RESTORATION DUE TO UTILITY WORK. 96 CY IS FOR RESTORATION OF GRAVEL DRIVEWAYS.
37. REFER TO SECTION 1404 IN DIVISION S OF THE SPECIAL PROVISIONS FOR PROJECT PHASING INSTRUCTIONS AS THEY PERTAIN TO THE TIMING AND WORKING DAYS ALLOWED FOR EACH OF THE FOUR MUCK AREAS.

CONSTRUCTION NOTES

WATER, GAS, ELECTRIC,TELEPHONE, SEWER, FIBER OPTIC AND TV CABLE LINES SHOWN ON THE DRAWINGS AND CROSS-SECTIONS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE PROPERTIES, OR BEGINNING EXCAVATION IN THE VICINITY OF THOSE PROPERTIES. THE CONTRACTORS ATTENTION IS DIRECTED TO SECTION 1507 IN THE STANDARD SPECIFICATIONS.

UTILITY COMPANIES WILL RELOCATE THEIR FACILITIES CONCURRENTLY WITH THE CONSTRUCTION OPERATIONS UNDER THIS CONTRACT. CONTRACTOR SHALL SCHEDULE CONSTRUCTION IN COOPERATION WITH UTILITY RELOCATION.

PROVIDE FOR REMOVAL AND DISPOSAL (OUTSIDE THE CONSTRUCTION ZONE) OF ALL INPLACE STRUCTURES THAT WILL INTERFERE WITH CONSTRUCTION. DISPOSAL OF ITEMS REMOVED UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF 2104.3C3.

EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF 2104.3C3 AND 2105.3D

SODDING QUANTITIES ALONG ROADWAY SLOPES ARE BASED ON SODDING LIMITS FROM THE BACK OF THE CURB TO THE CONSTRUCTION LIMITS.

COMPACTION IN GRADING ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPEC. 2105.3F2 " QUALITY COMPACTION METHOD".

COMPACTION OF BITUMINOUS SURFACE ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPEC. 2360.6B " MAXIMUM DENSITY METHOD."

WHEN EXCAVATING ADJACENT TO INPLACE PAVEMENT, NO MATERIAL SHALL BE REMOVED FROM INSIDE AN APPROXIMATE 2:1 SLOPED LINE DRAWN DOWNWARD AND OUTWARD FROM THE BOTTOM OF THE INPLACE PAVEMENT.

WHEN CONNECTION TO EXISTING BITUMINOUS PAVEMENT IS REQUIRED, THE EDGE OF EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE PRIOR TO CONSTRUCTING ASPHALT SURFACING.

STABILIZING AGGREGATE SHALL BE APPLIED IF NECESSARY TO ACHIEVE SATISFACTORY SURFACE STABILITY AS DETERMINED BY THE ENGINEER. THE MATERIAL SHALL SATISFY THE REQUIREMENTS OF SECTION 3149.2C AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 2105.3G OF THE STANDARD SPECIFICATIONS.

USE TACK COAT BETWEEN ALL BITUMINOUS LIFTS.

ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS SHALL BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.

ALL DRAINAGE STRUCTURES TYPE MH & CB SHALL HAVE A MINIMUM 6" OF CONCRETE ADJUSTING RINGS.

THERE IS NO PAY ITEM FOR CONNECTING TO EXISTING STORM MANHOLES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF RC PIPE BY THE LINEAL FOOT.

ANY CONNECTING OF NEW STORM SEWER PIPE TO EXISTING STORM SEWER PIPE IS CONSIDERED TO BE INCIDENTAL TO THE COST OF THE NEW STORM SEWER PIPE BY THE LINEAL FOOT. THE EXCEPTION IS THE 72" PIPE CONNECTION AS PART OF THE EXTENDED BATTLE CREEK INLET.

EXCESS COMMON EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE COST FOR DISPOSAL SHALL BE THE CONTRACTOR'S RESPONSIBILTY AND NO ADDITIONAL COMPENSATION WILL BE PAID OUTSIDE THE PRICE BID FOR COMMON EXCAVATION.

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BASIS FOR ESTIMATED QUANTITIES

2350 & 2360 MIXES	– BITUMINOUS MIXTURES – 110 LBS PER 1" THICKNESS PER SQUARE YARD.
2357.502	– BITUMINOUS MATERIAL FOR TACK COAT ESTIMATED AT 0.05 GALLONS PER SQUARE YARD PER APPLICATION.
2575.532	– FERTILIZER APPLICATION RATE 300 LBS/ACRE
2575.502	– SEED MIXTURE 250 70 LBS PER ACRE (+20%)
2575.502	– SEED MIXTURE 325 84 LBS PER ACRE (+20%)
2575.502	– SEED MIXTURE 328 88 LBS PER ACRE (+20%)
2575.608	– SEED MIXTURE SPECIAL 80 LBS PER ACRE (+20%)
2575.560	– HYDRAULIC SOIL STABILIZER TYPE 6 ESTIMATED AT 3000 LBS PER ACRE

NOTE: NO FERTILIZER WITH THE NATIVE SEED MIXES 325, 328, AND SPECIAL.

CONSTRUCTION NOTES
TABULATIONS INDEX

CONSTRUCTION PLAN SHEETS/QUANTITY & CONST NOTES.DWG

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S.P.82-625-02 CTB
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RAMSEY COUNTY

BASIS FOR ESTIMATED QUANTITIES

P

EROSION CONTROL AND TURF ESTABLISHMENT

ROAD	STATION	LOC	SODDING TYPE LAWN	SEEDING	TOPSOIL	SEED MIX 250	SEED MIX 328	SEED MIX 325	SEED MIX SPECIAL	FERTILIZER TYPE 2*	HYDRAULIC SOIL STABILIZER TYPE 6	EROSION CONTROL BLANKETS CATEGORY 3	EROSION STABILIZATION MAT (ScourStop)	EROSION STABILIZATION MAT CLASS 4	RAPID STABILIZATION METHOD 3	RAPID STABILIZATION METHOD 4
			SQ YD	ACRE	CU YD	POUND	POUND	POUND	POUND	POUND	POUND	SQ YD	SQ YD	SQ YD	M GAL	SQ YD
CENTURY AVE NB	283+50 - 297+18	LT	2525	0.68	646		5		61	156	2040	8				
	283+52 - 288+13	RT	554		59					33						
	288+23 - 290+92	RT	713		81					45						
	291+08 - 292+70	RT	557		65					36						
	292+80 - 299+80	RT	707	0.36	269	18	14			111	1080	8				
	297+18 - 304+89	LT	102	0.59	328		13		46	6	1770					
	300+20 - 303+18	RT	599		65					36						
	303+48 - 308+58	RT	1033		113					63						
	305+29 - 316+92	LT	161	0.94	523		62		35	9	2820	8				
	309+02 - 315+58	RT	887	0.65	452		68			54	1950	10			7	
	317+06 - 331+60	RT	1492	0.27	307	23				171	810					
	318+11 - 331+60	LT	1064	2.81	1630	42	120	116		216	8430	103	39	134	13	288
	331+47 - 354+30	LT	1831	0.69	576	55	5			309	2070					
	331+91 -339+63	RT	894	0.18	199	16				111	540					
	339+75 - 345+28	RT	442	0.28	199	16	8			87	840					
	345+40 - 351+33	RT	745	0.05	108	5				60	150					
	351+42 - 356+91	RT	1059	0.4	328	30	5			171	1200					
	354+40 - 359+55	LT	594	0.97	586		102			36	2850	74			6	
	356+91 - 365+32	RT	1354		151					84						
	359+78 - 365+61	LT	485		54					30						
	365+51 - 371+97	RT	453	0.11	108	10				60	330					
	366+56 -373+82	LT	877		97					54						
	372+23 - 377+90	RT	627	0.62	404	29	30			141	1020	704		636		
	374+14 - 380+16	LT	735	0.7	457		74			45		3039	21	307		5058
	378+01 - 382+65	RT	1287		140					78						
	380+43 - 383+54	LT	213		231					12						
LOWER AFTON RD EB/	95+00 - 105+08	RT		0.44	237				42		1320					
VALLEY CREEK RD EB	95+00 - 102+46	LT		0.52	280	41	5			156	1440	198				
	105+83 - 112+51	LT	575	0.14	140	12				78	420					
	107+02 - 118+40	RT	1042	0.2	226	17				126	600					
	112+67 - 118+42	LT	476	0.1	102	8				57	300					
	118+72 - 124+30	LT	1318	0.11	204	10				114	330					
	118+84 - 136+57	RT	2988	0.93	839	24	68			270	2070	475	59	604	3	1271
	124+64 - 136+90	LT	1215	0.26	274	22				153	780	8				
TOTALS			29604	13.00	10478	378	579	116	184	3168	35160	4635	119	1681	29	6617

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CENTURY AVENUE & VALLEY CREEK ROAD

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

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REMOVAL LEGEND

- X CLEAR & GRUB TREE
- ① SAWCUT BITUMINOUS
- ② SAWCUT CONCRETE
- ③ REMOVE FENCE
- ④ REMOVE CULVERT
- ⑤ REMOVE STORM SEWER
- ⑥ REMOVE WALL
- ⑦ REMOVE SIGN BASE OR LIGHT BASE
- ⑧ FURNISH & INSTALL TEMPORARY FENCE
- REMOVE BIT. PAVEMENT
- REMOVE CONC. PAVEMENT
- CLEAR & GRUB – ACRE

SCALE IN FEET
0 50 100

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CENTURY AVENUE

S.P.62–672–04 CTB
S.P.82–625–02 CTB
S.A.P.82–616–16 CTB

RAMSEY COUNTY

REMOVALS & SAWCUTS PLAN

Sheet No. 108 of 315 Sheets

REMOVAL LEGEND

X CLEAR & GRUB TREE	⑥ REMOVE WALL
① SAWCUT BITUMINOUS	⑦ REMOVE SIGN BASE OR LIGHT BASE
② SAWCUT CONCRETE	⑧ FURNISH & INSTALL TEMPORARY FENCE
③ REMOVE FENCE	REMOVE BIT. PAVEMENT
④ REMOVE CULVERT	REMOVE CONC. PAVEMENT
⑤ REMOVE STORM SEWER	CLEAR & GRUB – ACRE

BATTLE CREEK

DE

BATTLE CREEK BASINS
SEE SHEET 155
CLEAR & GRUB – 0.35 ACRE

RW

BROOKVIEW MANOR

MINNESOTA MOTORS
135

RW

CONST. LIMITS

CB211

BIT ① TE BIT ① BIT

BIT ①

BROOKVIEW

CB216

CB217

384+61.56

384+00

383+00

382+00

381+00

380+00

379+00

378+00

CENTURY AVE.

CB202

SECTION LINE

CB210

CB199

SD220

SCALE IN FEET
0 50 100

AP221

WOODBINE

CONST. LIMITS

CB212

AP203

RW

MH208

BIT

TE

REMOVE BUILDING F

REMOVE BUILDING G

6001

CONST. LIMITS

CB207

RW

NO.	REV–DATE	BY:	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN 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.
SIGNED:
REG. NO: 26511 DATE: May 13, 2008

CENTURY AVENUE

S.P.62–672–04 CTB
S.P.82–625–02 CTB
S.A.P.82–616–16 CTB

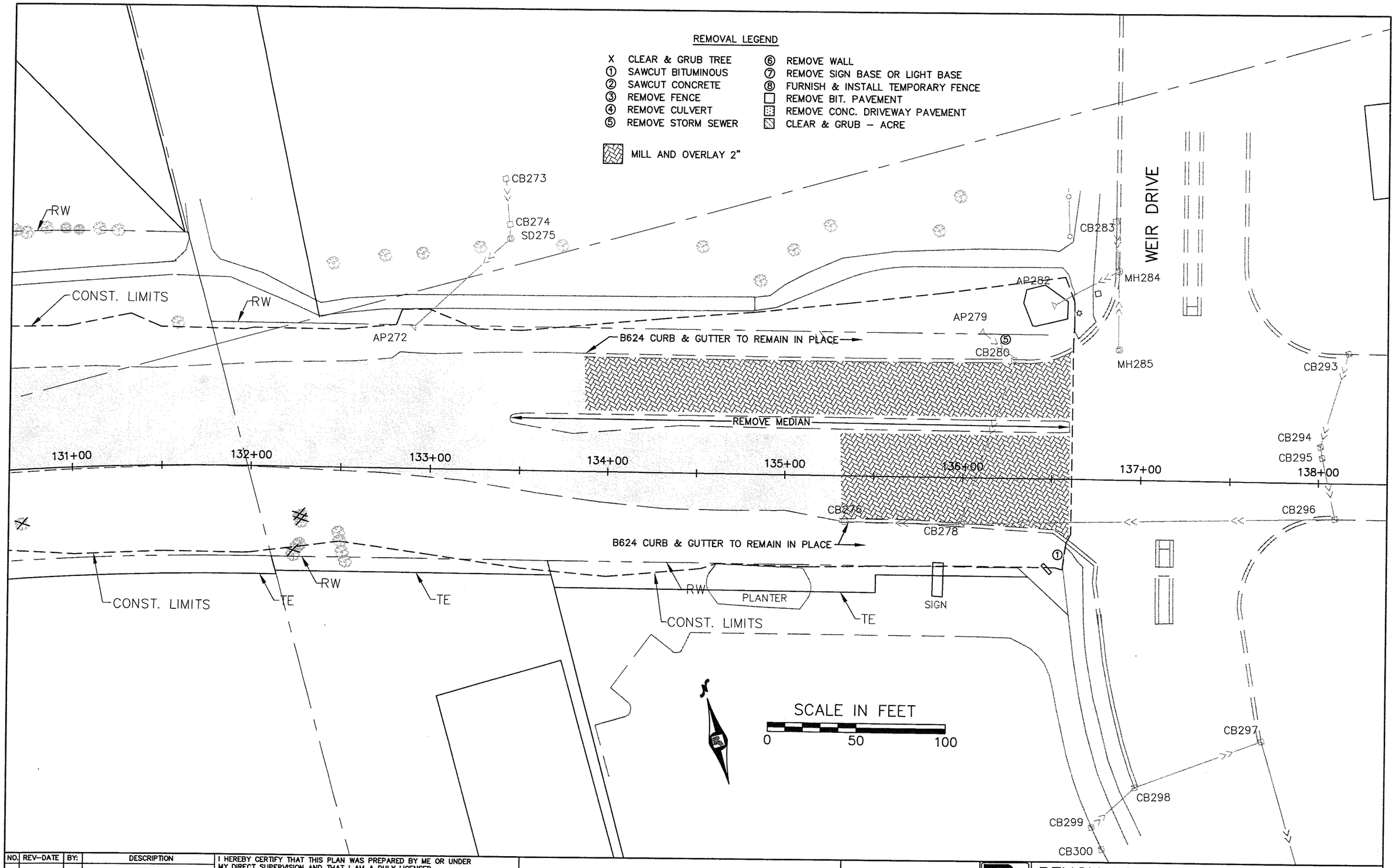
RAMSEY COUNTY

REMOVALS & SAWCUTS PLAN

Sheet No. 109 of 315 Sheets

REMOVAL LEGEND

- X CLEAR & GRUB TREE
- ① SAWCUT BITUMINOUS
- ② SAWCUT CONCRETE
- ③ REMOVE FENCE
- ④ REMOVE CULVERT
- ⑤ REMOVE STORM SEWER
- ⑥ REMOVE WALL
- ⑦ REMOVE SIGN BASE OR LIGHT BASE
- ⑧ FURNISH & INSTALL TEMPORARY FENCE
- REMOVE BIT. PAVEMENT
- REMOVE CONC. DRIVEWAY PAVEMENT
- CLEAR & GRUB – ACRE
- MILL AND OVERLAY 2"



NO.	REV–DATE	BY:	DESCRIPTION

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REG. NO: 26511 DATE: MAY 13, 2008

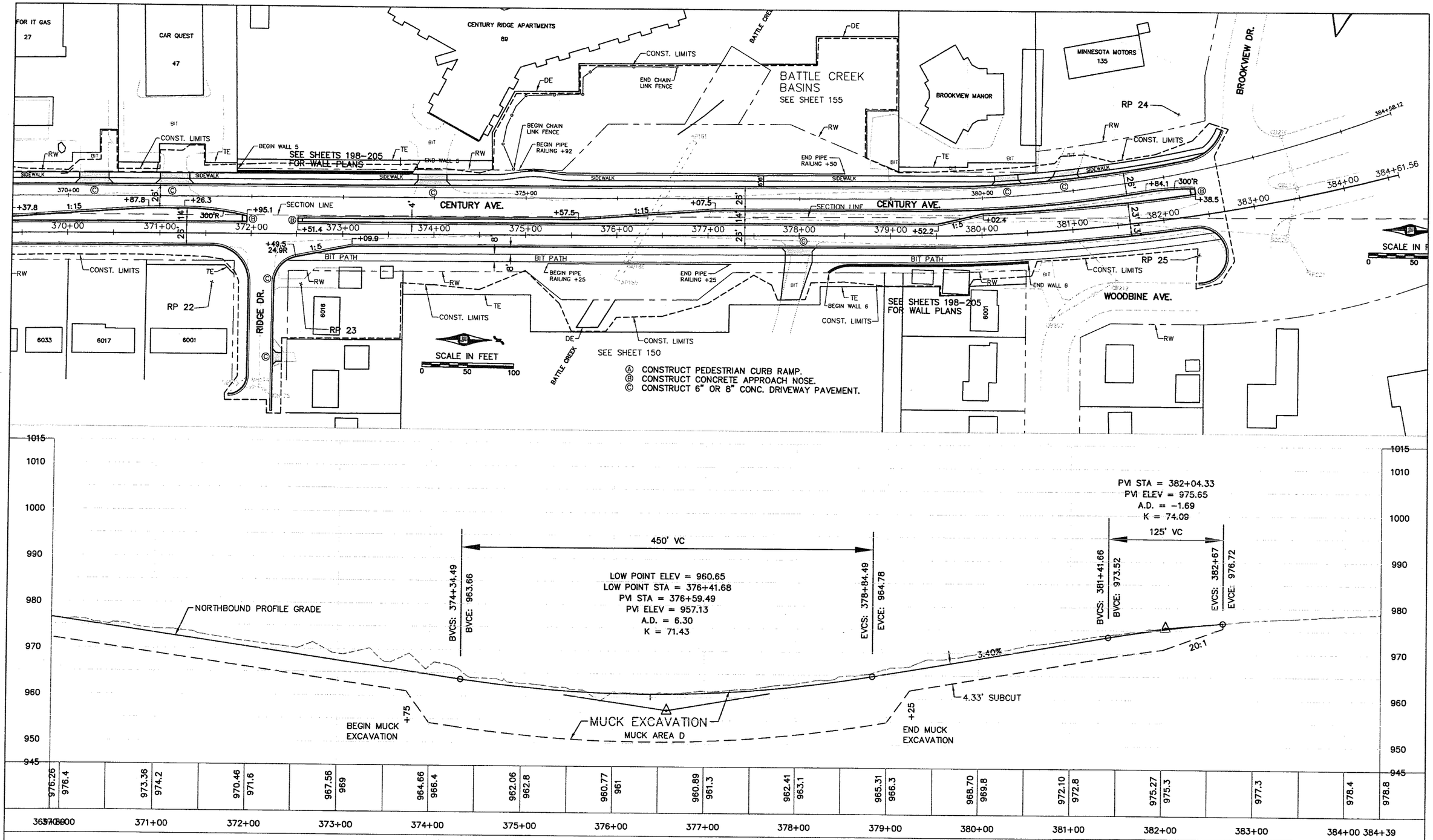
VALLEY CREEK ROAD

S.P.62–672–04 CTB
S.P.82–625–02 CTB
S.A.P.82–616–16 CTB

RAMSEY COUNTY

REMOVALS & SAWCUTS PLAN

Sheet No. 115 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

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SIGNED:

REG NO: 26511 DATE: MAY 13, 2008

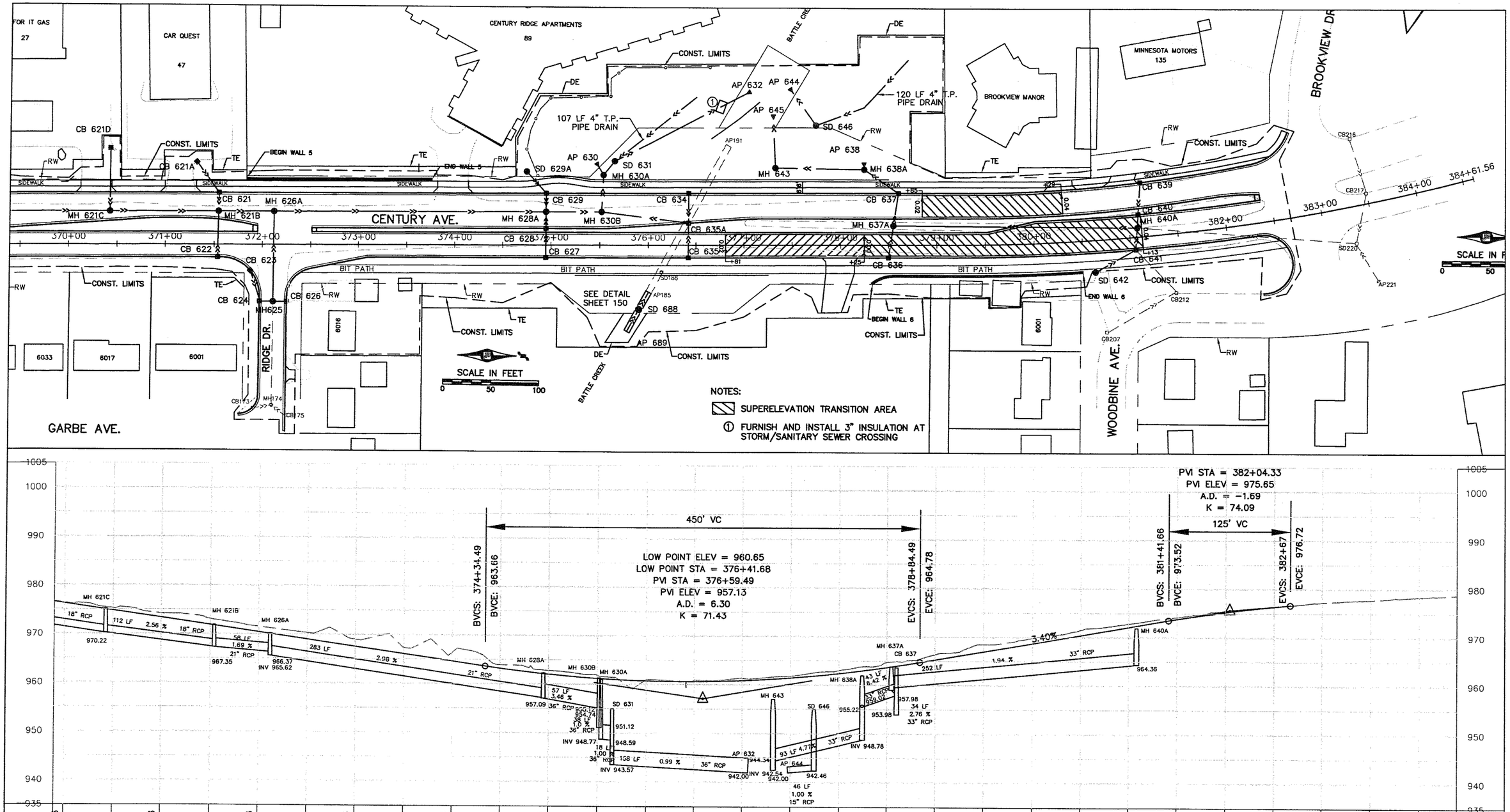
CENTURY AVENUE

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 62-616-16 CTB

RAMSEY COUNTY

CONSTRUCTION PLAN & PROFILE

Sheet No. 122 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION
01	02-11-08	BE	
02	03-05-08	BE	SD 629A

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG NO: 26511 DATE: MAY 13, 2008

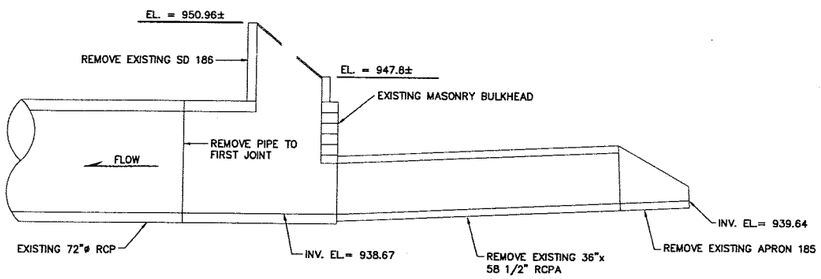
CENTURY AVENUE

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 62-616-16 CTB

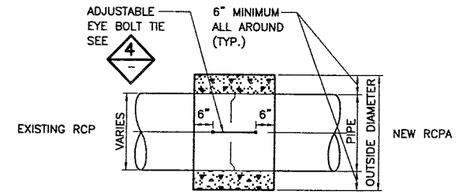
RAMSEY COUNTY

STORM SEWER PLAN & PROFILE

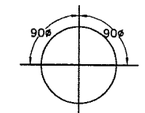
Sheet No. 132 of 315 Sheets



REMOVAL DETAIL



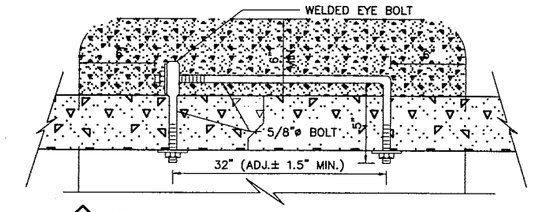
3 DETAIL: RCP CONCRETE COLLAR (TYP.)
NO SCALE



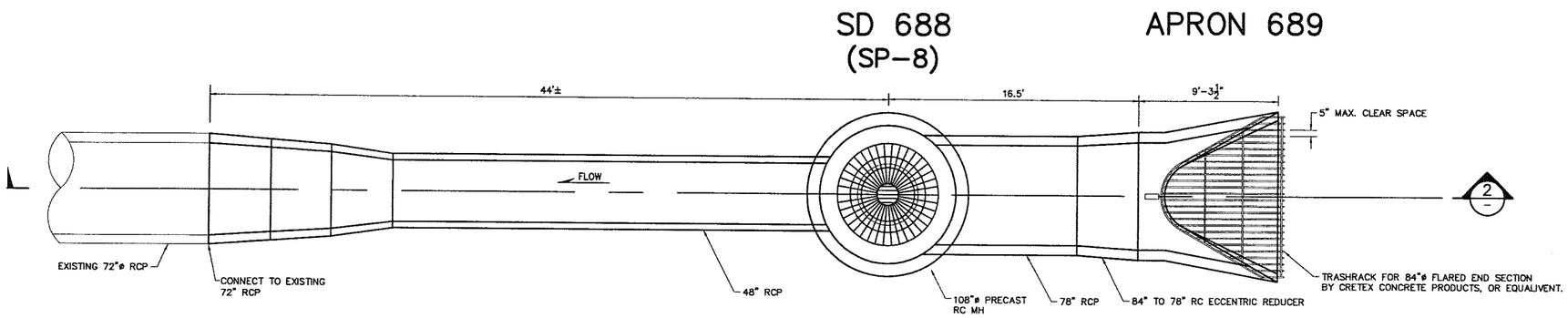
TIE PLACEMENT

NOTES:

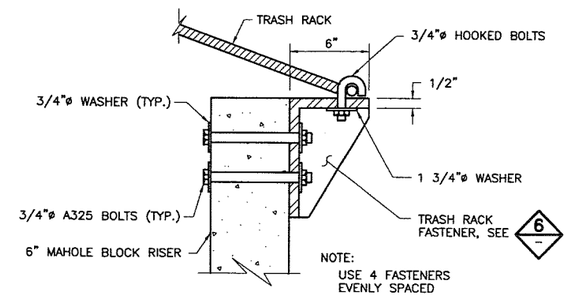
1. HOLES SHALL BE DRILLED 16" FROM SHOULDER AND 16" FROM BELL.



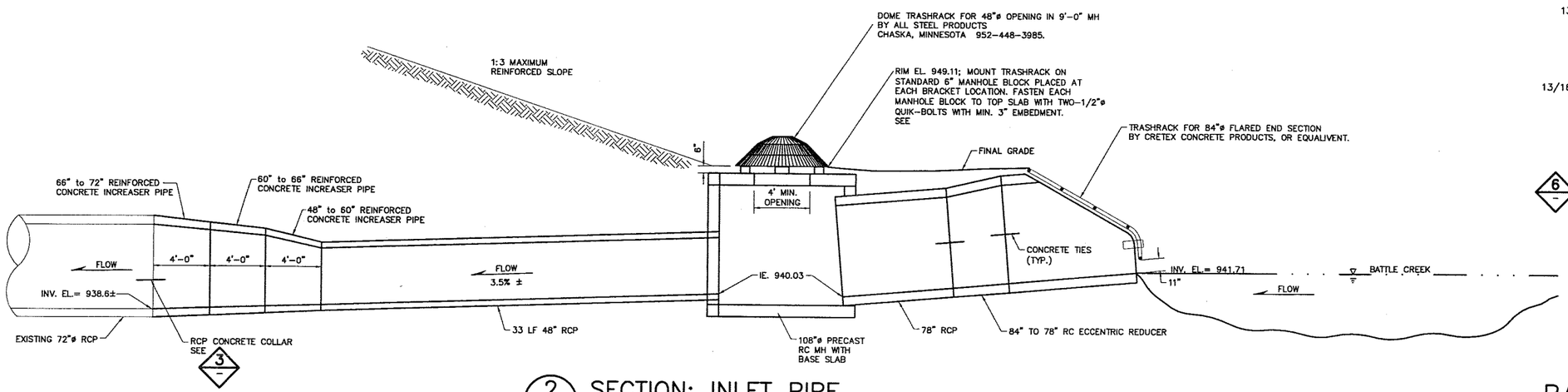
4 DETAIL: ADJUSTIBLE EYE BOLT TIE (TYP.)
NO SCALE



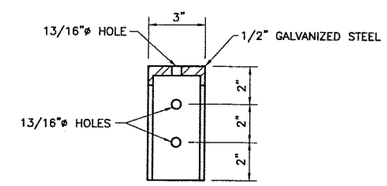
1 PLAN: INLET PIPE



5 DETAIL: TRASH RACK FASTENER ATTACHMENT
NO SCALE



2 SECTION: INLET PIPE



6 DETAIL: TRASH RACK FASTENER
NO SCALE

BATTLE CREEK INLET

NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:

REG. NO: 26541 DATE: May 13, 2008

CENTURY AVENUE

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 82-616-16 CTB

RAMSEY COUNTY

STORM SEWER STRUCTURE DETAILS

Sheet No. 150 of 315 Sheets

WETLAND G
NWL 1027.00
HWL 1027.57

WETLAND #9
NWL 1027.00
HWL 1027.55

GOLF COURSE

TE
TEE BOX
CONST. LIMITS
END WALL 2
BEGIN WALL 2
RW
BEGIN WALL 3
RW
MUCK AREA A
AP 513
SD 513B
AP 12
CB 509
CB 511
CB 514
CB 519
CB 520
CENTURY A
295+00
296+00
297+00
298+00
299+00
300+00
301+00
CB 512
CB 516
CB 518A
CB 521
CB 510
BIT PATH
AP 13
AP 14
MH 518
CB 16
CB 17
CB 18
CONST. LIMITS
TE
MUCK AREA A
RW
AP 515
AP 513A
AP 517
SD 518B
CONST LIMITS
TE
TE
CONST LIMITS
AP 518C
AP 15
CB 19
EXISTING
AP 15
OUTLET
1025.14
POULIOT PKWY
CENTURY POND
(WETLAND #10)
NWL 1025.14
HWL 1026.56
SEE DETAILS
SHEETS 141, 146
DE
DE
SCALE IN FEET
0
50
100

NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

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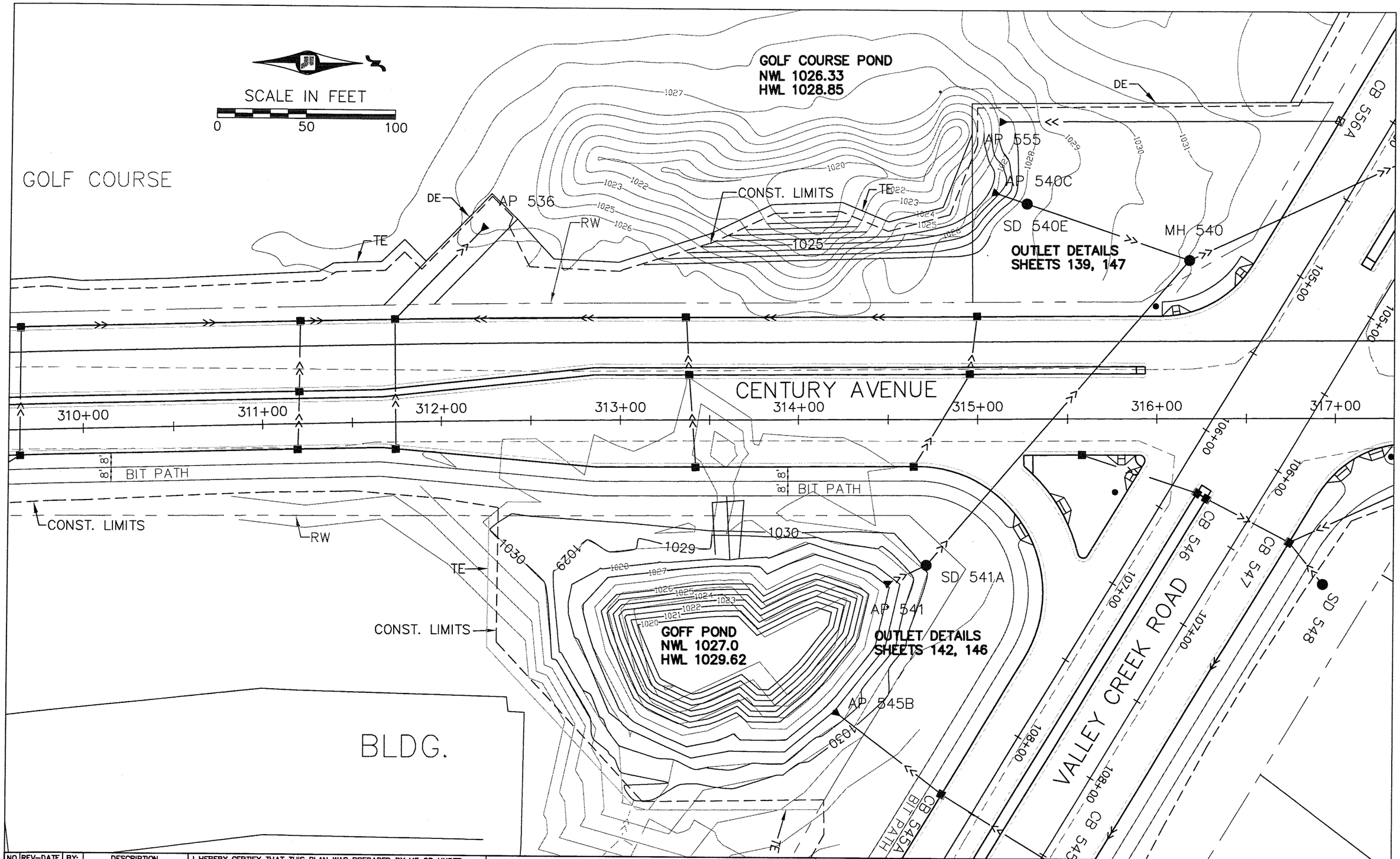
SIGNED:
REG NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 62-616-16 CTB

RAMSEY COUNTY

CENTURY POND
Sheet No. 151 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

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SIGNED:

REG NO: 26511 DATE: MAY 13, 2008

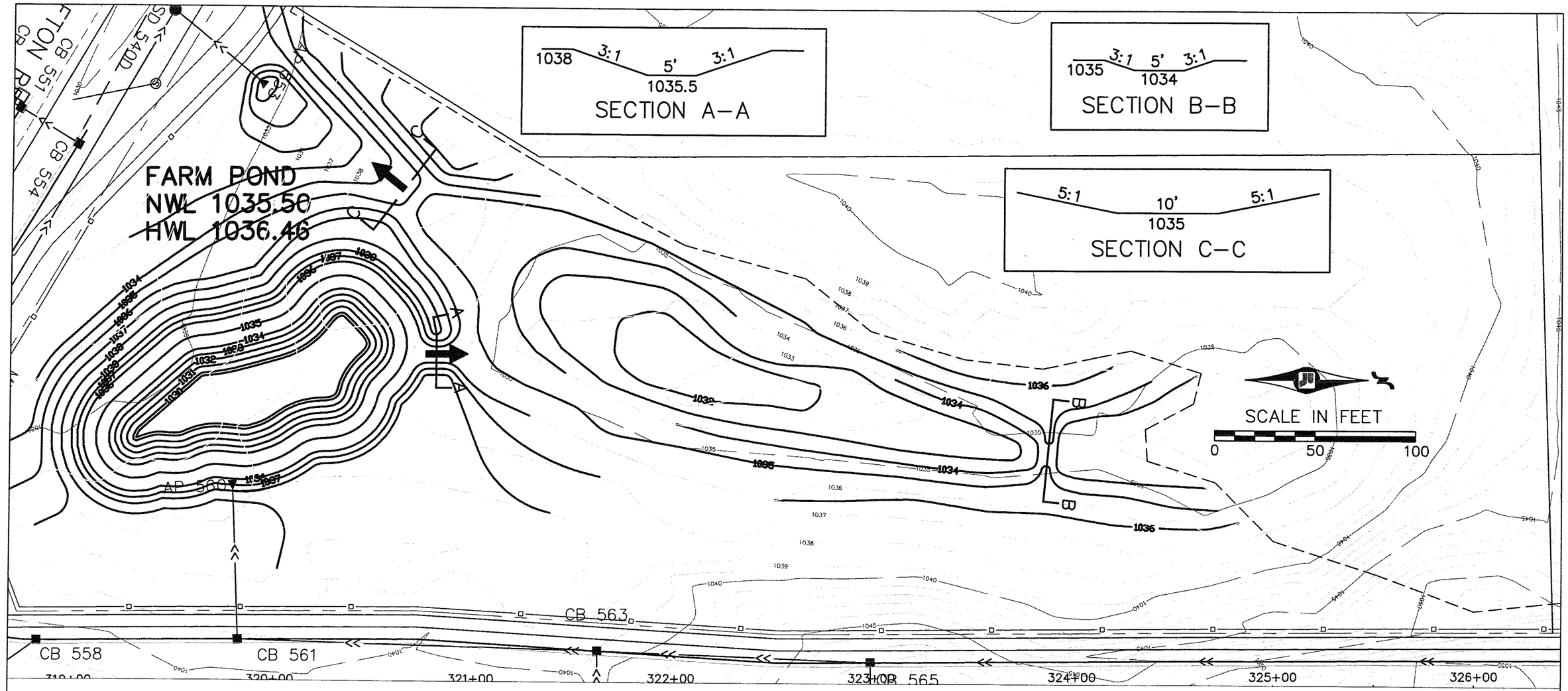
CENTURY AVENUE

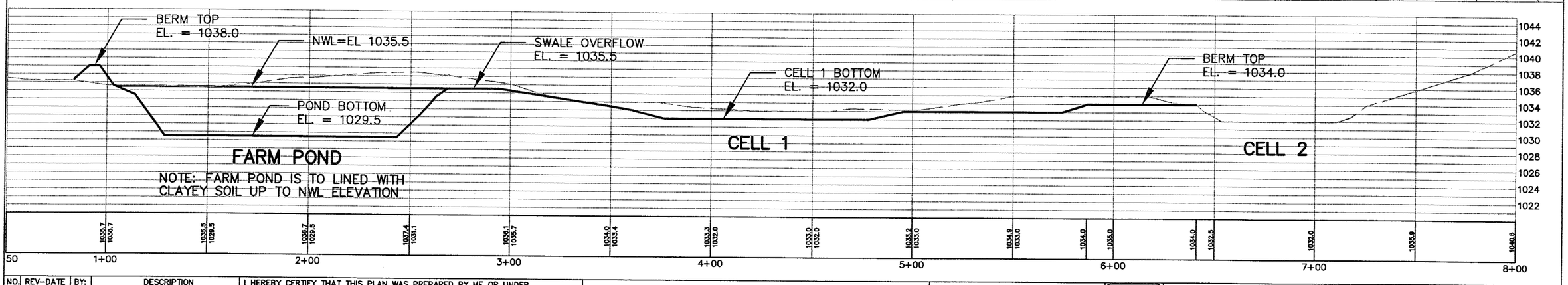
S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 62-616-16 CTB

RAMSEY COUNTY

GOLF COURSE & GOFF PONDS

Sheet No. 152 of 315 Sheets





NO.	REV–DATE	BY:	DESCRIPTION

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SIGNED:

REG. NO: 26511 DATE: May 13, 2008

CENTURY AVENUE

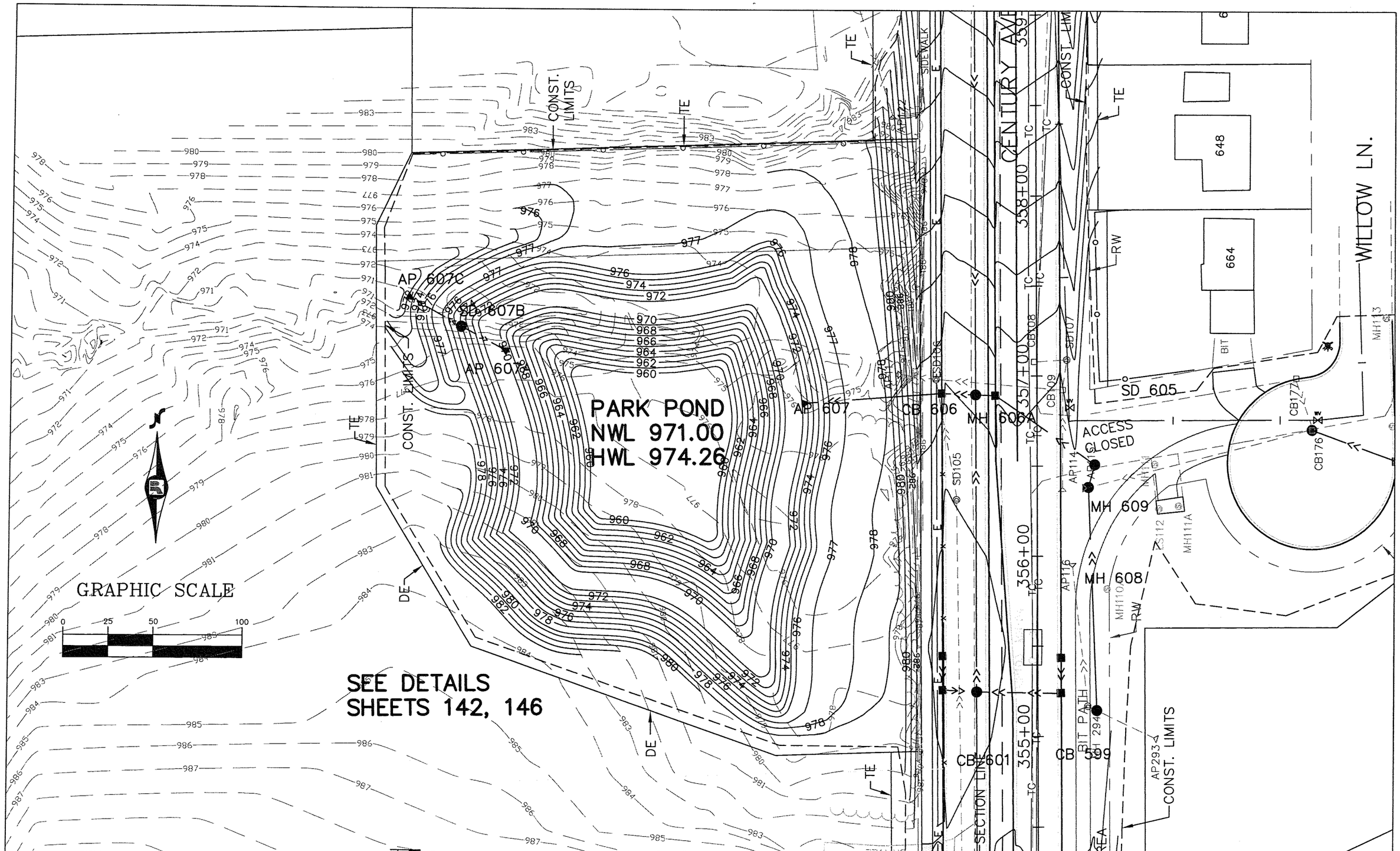
S.P. 62–672–04 CTB
S.P. 82–625–02 CTB
S.A.P. 62–616–16 CTB

RAMSEY COUNTY

FARM POND & REPLACEMENT WETLAND

Sheet No. 153 of 315 Sheets

DATE:



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

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SIGNED:

REG NO: 26571 DATE: May 13, 2008

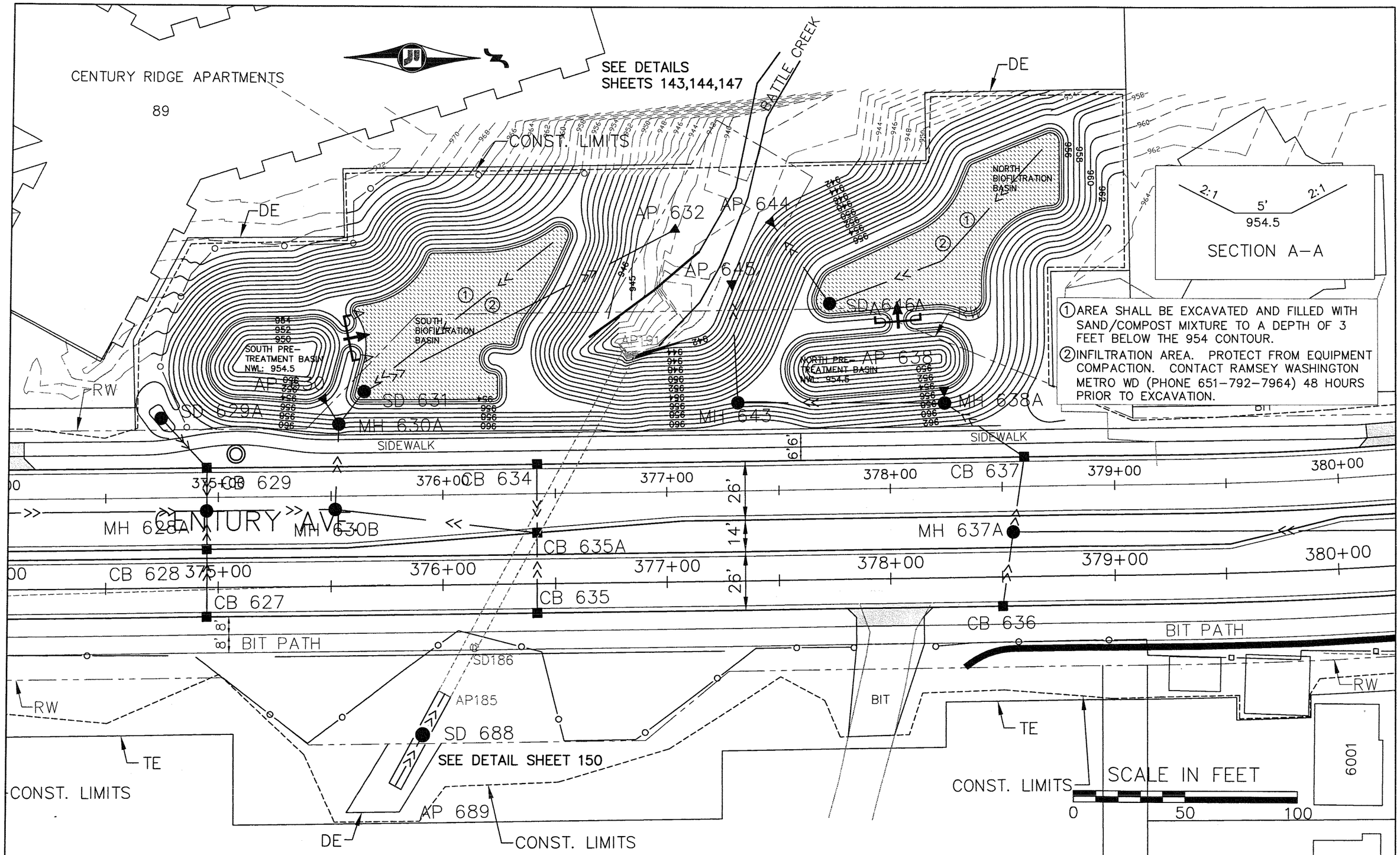
CENTURY AVENUE

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 62-616-16 CTB

RAMSEY COUNTY

PARK POND

Sheet No. 154 of 315 Sheets



① AREA SHALL BE EXCAVATED AND FILLED WITH SAND/COMPOST MIXTURE TO A DEPTH OF 3 FEET BELOW THE 954 CONTOUR.

② INFILTRATION AREA. PROTECT FROM EQUIPMENT COMPACTION. CONTACT RAMSEY WASHINGTON METRO WD (PHONE 651-792-7964) 48 HOURS PRIOR TO EXCAVATION.

NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

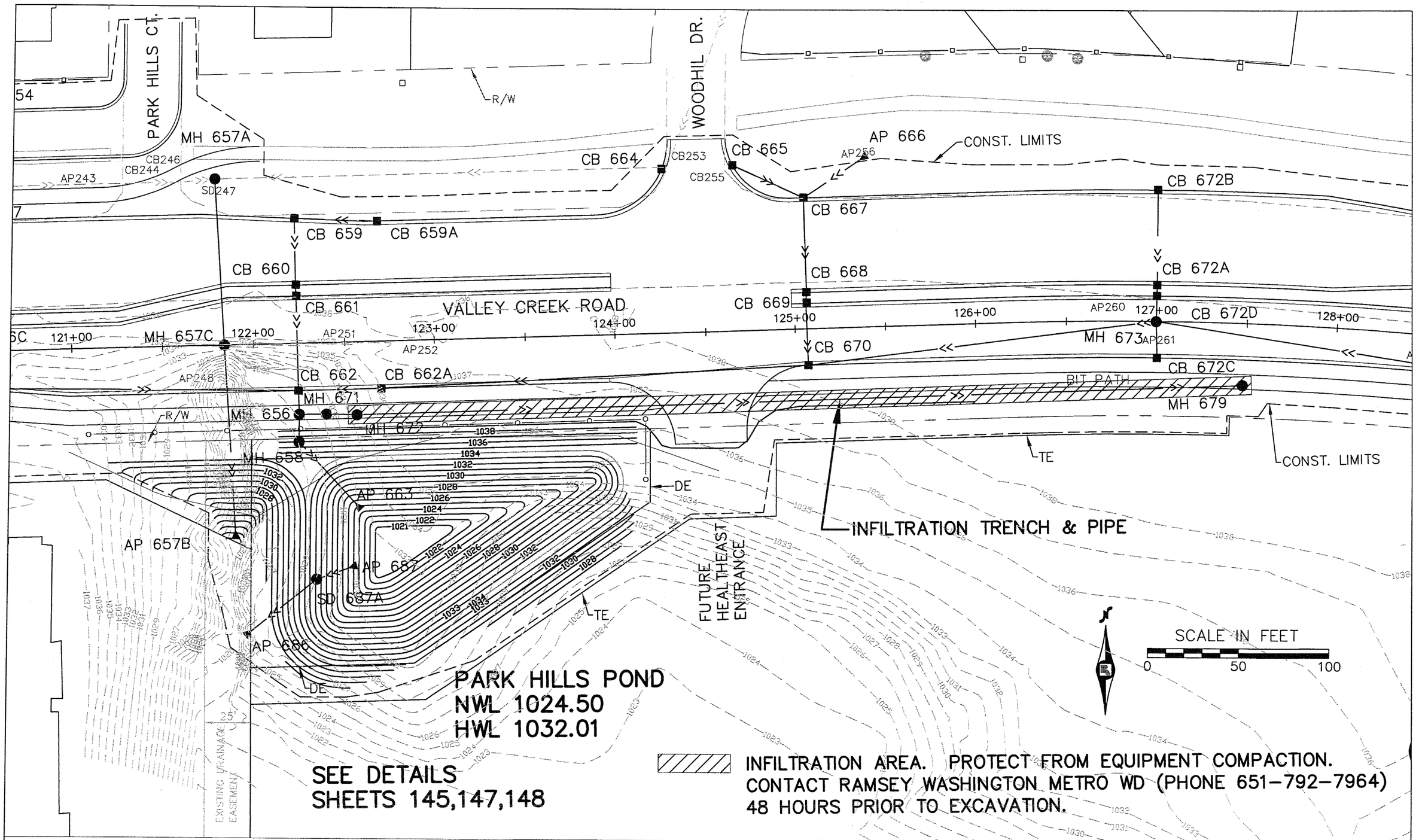
CENTURY AVENUE

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 62-616-16 CTB

RAMSEY COUNTY

BATTLE CREEK BASINS

Sheet No. 155 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

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SIGNED:

REG NO: 26511 DATE: MAY 13, 2008

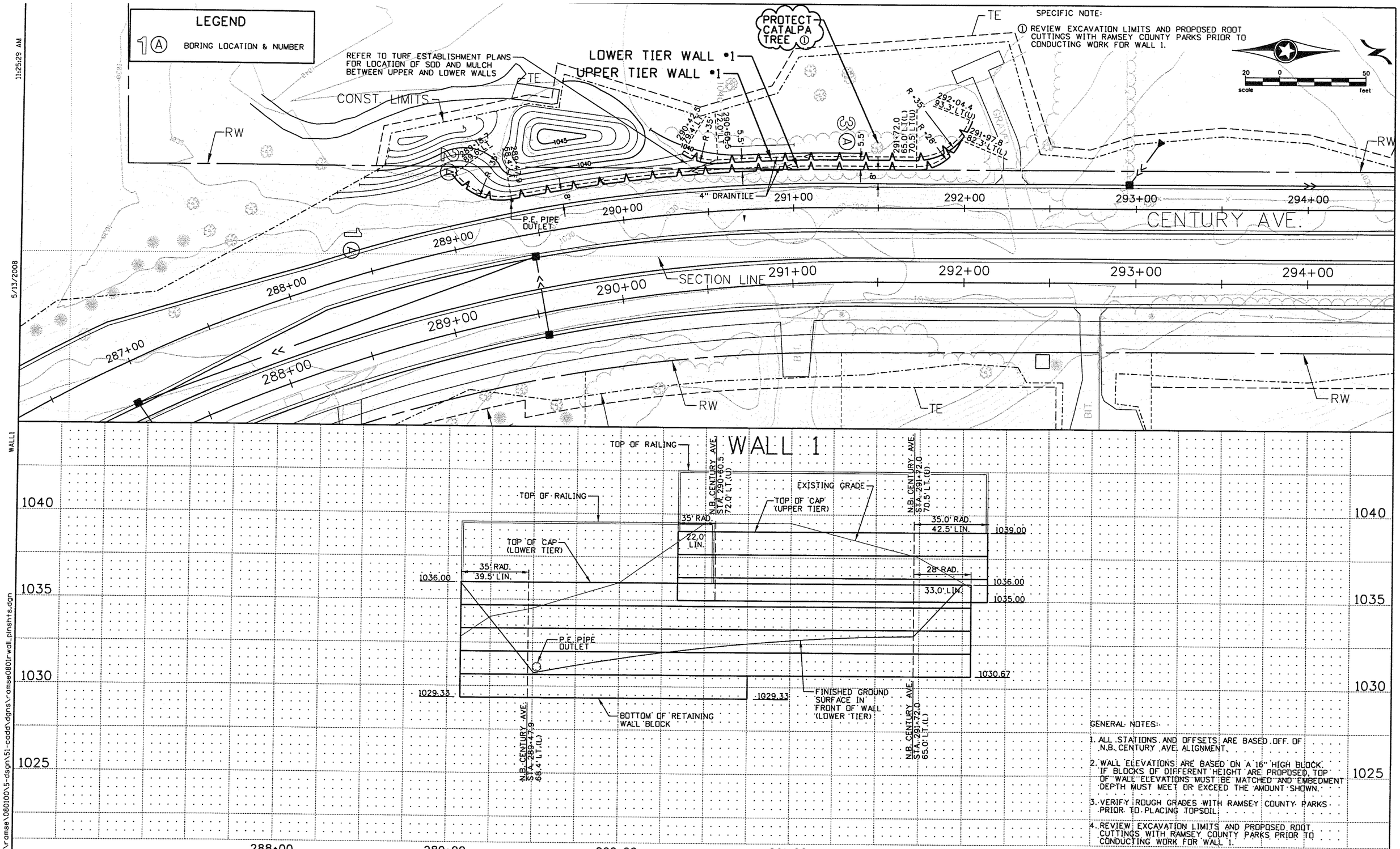
CENTURY AVENUE/
VALLEY CREEK ROAD

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB
S.A.P. 62-616-16 CTB

RAMSEY COUNTY

PARK HILLS POND AND
INFILTRATION TRENCH

Sheet No. 156 of 315 Sheets



GENERAL NOTES:

1. ALL STATIONS AND OFFSETS ARE BASED OFF OF N.B. CENTURY AVE. ALIGNMENT.
2. WALL ELEVATIONS ARE BASED ON A 16" HIGH BLOCK. IF BLOCKS OF DIFFERENT HEIGHT ARE PROPOSED, TOP OF WALL ELEVATIONS MUST BE MATCHED AND EMBEDMENT DEPTH MUST MEET OR EXCEED THE AMOUNT SHOWN.
3. VERIFY ROUGH GRADES WITH RAMSEY COUNTY PARKS PRIOR TO PLACING TOPSOIL.
4. REVIEW EXCAVATION LIMITS AND PROPOSED ROOT CUTTINGS WITH RAMSEY COUNTY PARKS PRIOR TO CONDUCTING WORK FOR WALL 1.

DESIGN TEAM				
DRAWN BY: CIF				
DESIGNER: WSW				
CHECKED BY: WSW	NO.	BY	DATE	REVISIONS

I hereby certify that this plan 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.

Certified By: Wayne S. Wambold — Licensed Professional Engineer — Lic. No. 25640

Printed Name: WAYNE S. WAMBOLD, P.E. — Date: 5/13/2008

SRF CONSULTING GROUP — PHONE: (651)490-2000, 3535 VADNAIS CENTER DR., ST. PAUL, MN 55110

CENTURY AVENUE PROPOSED WALL SYSTEMS

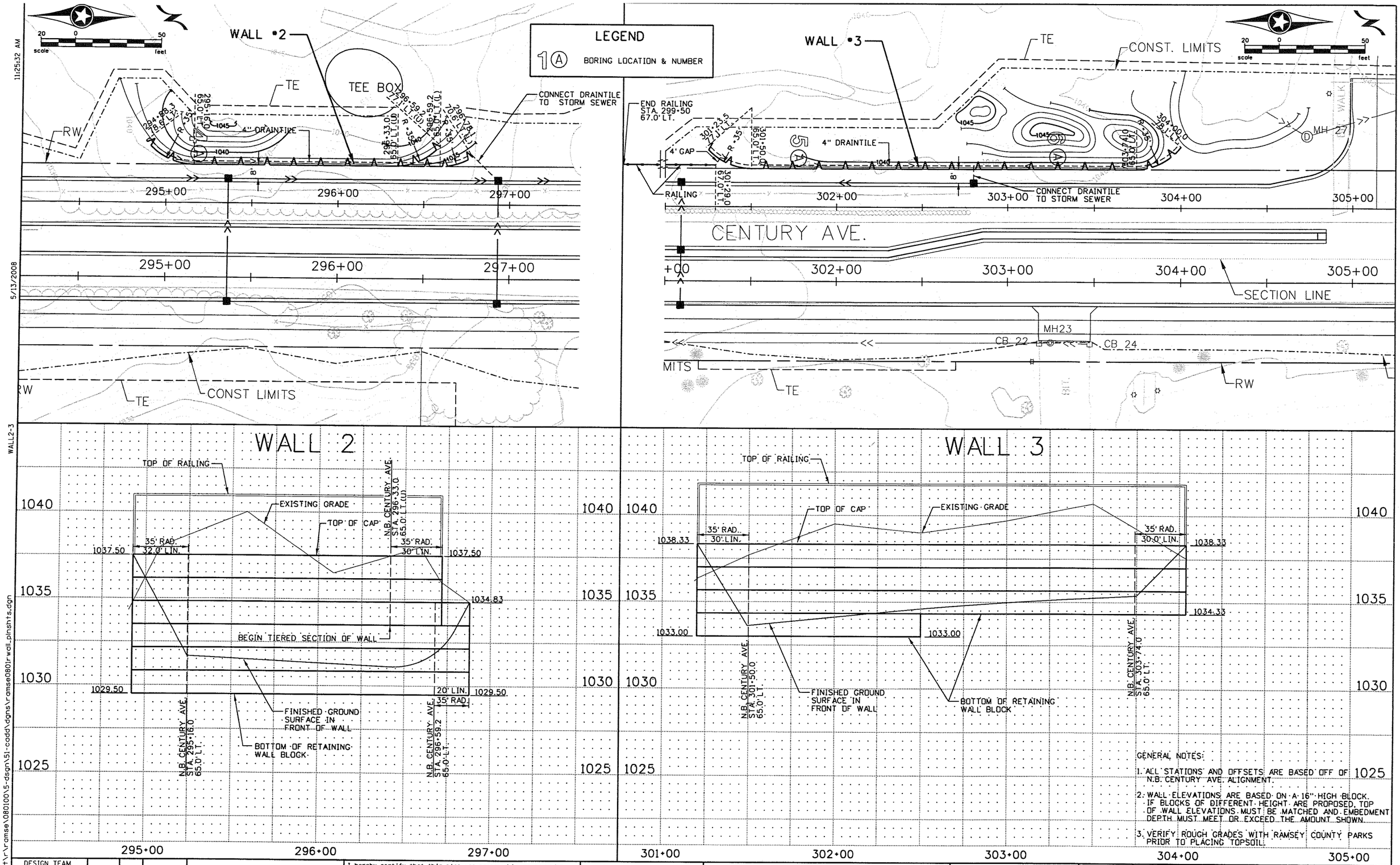
S.P. 62-672-04 CTB
S.P. 82-625-02 CTB

RAMSEY COUNTY

RETAINING WALL #1

Sheet no.199 of 315 sheets

s:\pt\r\ramse\080100\5-dsgn\51-cadd\dgns\ramse080lr-wall_plnshts.dgn WALL1 5/13/2008 11:25:29 AM



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2. WALL ELEVATIONS ARE BASED ON A 16" HIGH BLOCK. IF BLOCKS OF DIFFERENT HEIGHT ARE PROPOSED, TOP OF WALL ELEVATIONS MUST BE MATCHED AND EMBEDMENT DEPTH MUST MEET OR EXCEED THE AMOUNT SHOWN.
3. VERIFY ROUGH GRADES WITH RAMSEY COUNTY PARKS PRIOR TO PLACING TOPSOIL.

DESIGN TEAM				
DRAWN BY: CIF				
DESIGNER: WSW				
CHECKED BY: WSW	NO.	BY	DATE	REVISIONS

I hereby certify that this plan 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.

Certified By: Wayne S. Wambold — Licensed Professional Engineer — Lic. No. 25640

Printed Name: WAYNE S. WAMBOLD, P.E. — Date: 5/13/2008

SEH
PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

CENTURY AVENUE PROPOSED WALL SYSTEMS

S.P. 62-672-04 CTB
S.P. 82-625-02 CTB

RAMSEY COUNTY

RETAINING WALL #2 & #3

s:\pt\r\ramse\080100\5-dsgn\51-cadd\dgns\ramse0801r-wall_plnsht1.dgn
5/13/2008 11:25:32 AM
WALL2-3

BEGIN WALL 1

CB 505

290+00

289+00

CB 506

288+00

BIT PATH

CB 503

287+00

CB 504

BIT.

BIT.

TE

CONST. LIMI

F & I 185 LF
OF SILT FENCE

CENTURY AVE.

CENTURY AVE.

286+00

F & I 385 LF
OF SILT FENCE

RW

CB500

CB501

285+00

TE

CONST. LIMITS

1965

284+00

MH 8

AP 7

CB 6

CB 5

283+00

LAKE ROAD

282+00

SCALE IN FEET

0 50 100

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
- 12" DIA. BIOROLL
- SILT FENCE TYPE MACHINE SLICED
- VEGETATED COIR LOG
- SEED MIX 250, HYDRAULIC SOIL STABILIZER TYPE 6, AND FERTILIZER TYPE 2
- SEED MIX 328 AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX 325 AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX SPECIAL AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX 328 AND EROSION CONTROL BLANKET CAT 3
- EROSION STABILIZATION MAT (SCOUR-STOP)
- EROSION STABILIZATION MAT CLASS 4
- SOD TYPE LAWN, AND FERTILIZER TYPE 2

NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

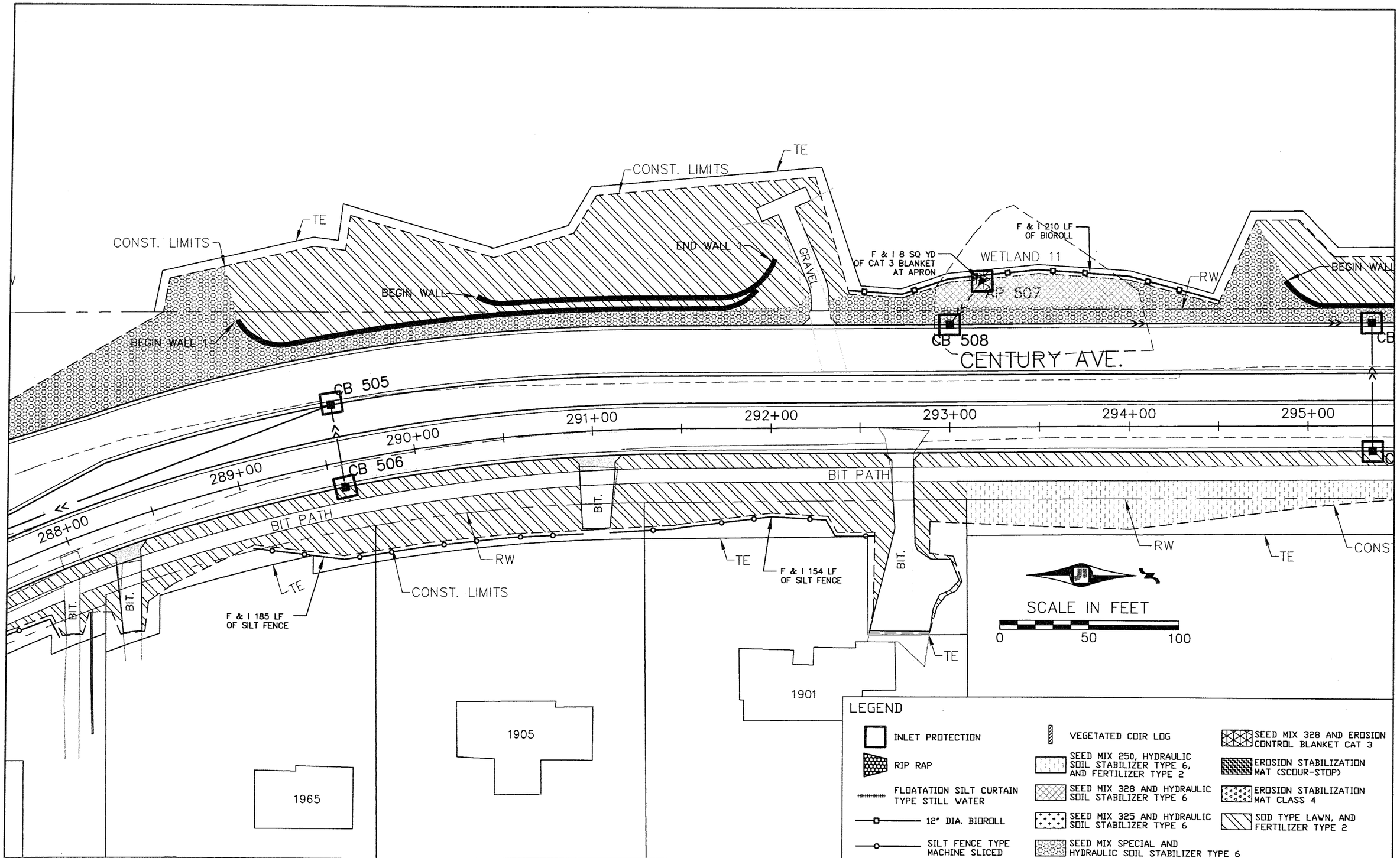
CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 214 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

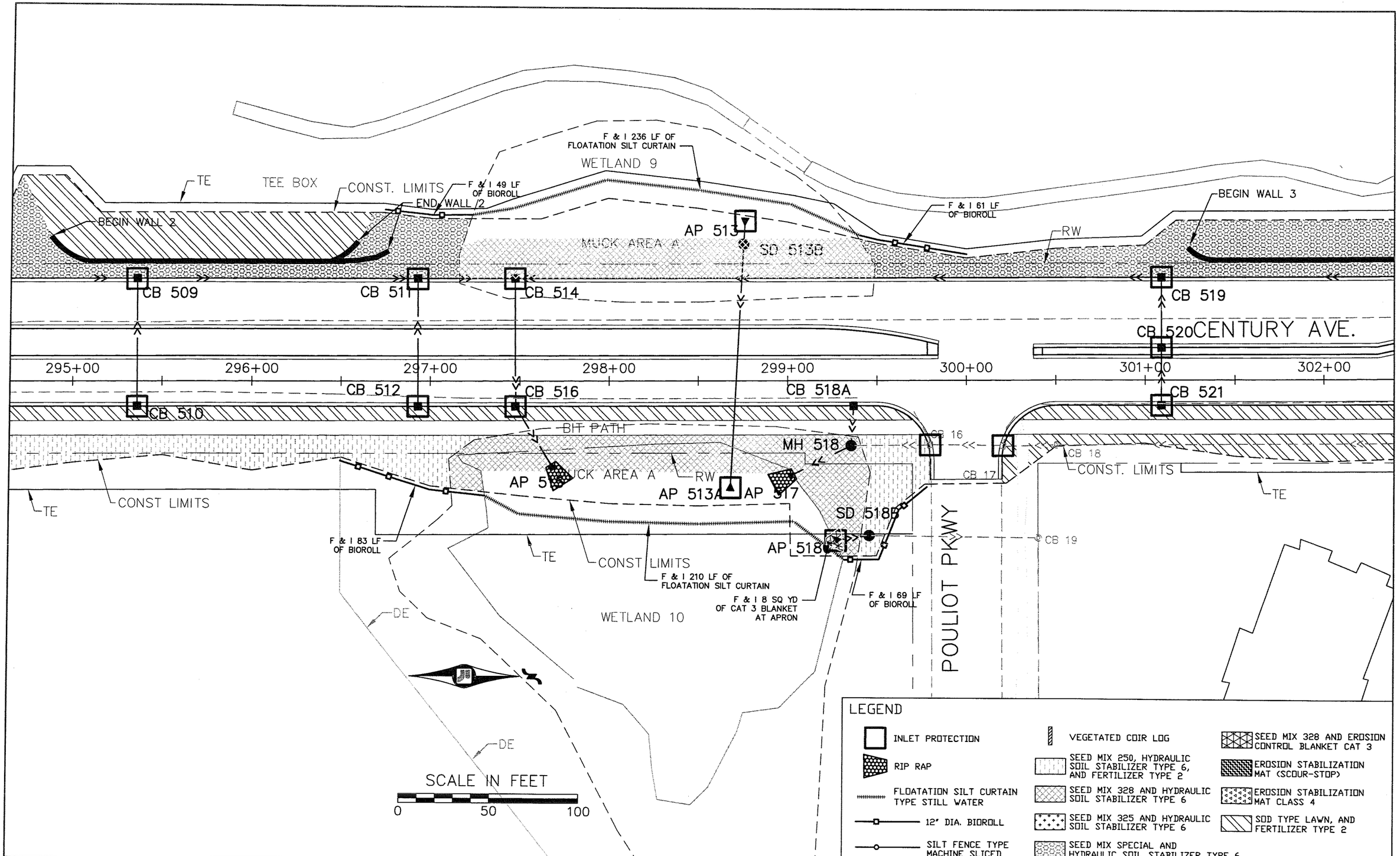
CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 215 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION

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SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

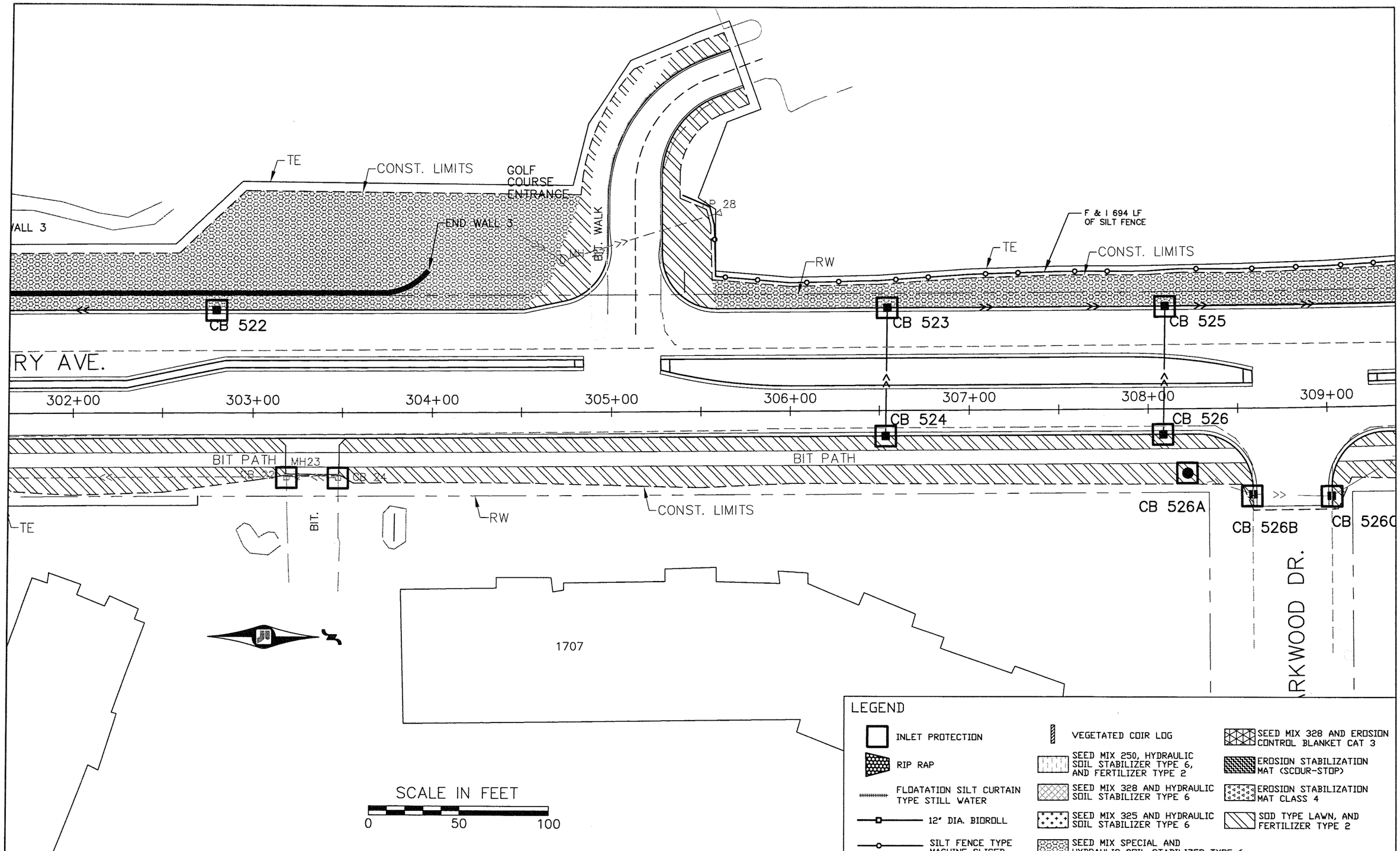
CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 216 of 315 Sheets



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SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 217 of 315 Sheets

F & I 172 LF OF BIOROLL
DE
F & I 191 LF OF BIOROLL
F & I 297 LF OF FLOATATION SILT CURTAIN
GOLF COURSE POND
CONST. LIMITS
F & I 8 SQ YD OF CAT 3 BLANKET AT APRON
SEE SHEET 147
F & I 694 LF OF SILT FENCE
TE
AP 536
RW
555
SD 540E
AP 540C
MH 540
CB 527
CB 530
CB 533
CB 535
CB 535A
CB 539
CB 528
CB 538
309+00
310+00
311+00
312+00
313+00
314+00
315+00
316+00
CB 529
CB 531
CB 532
CENTURY AVE.
CB 534
CB 537
CB 549A
106+00
BIT PATH
CONST. LIMITS
RW
CB 526C
26B
SCALE IN FEET
0
50
100
TE
F & I 10 SQ YD OF CAT 3 BLANKET AT APRON
AP 541
SD 541A
CB 549
CB 546
102+00
CONST. LIMITS
GOFF POND
AP 545B
108+00
VALLEY CREEK RD.
BIT PATH
CB 545A
CB 545C
109+00
ARKWOOD DR.
DG.

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
- 12" DIA. BIOROLL
- SILT FENCE TYPE MACHINE SLICED
- VEGETATED COIR LOG
- SEED MIX 250, HYDRAULIC SOIL STABILIZER TYPE 6, AND FERTILIZER TYPE 2
- SEED MIX 328 AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX 325 AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX SPECIAL AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX 328 AND EROSION CONTROL BLANKET CAT 3
- EROSION STABILIZATION MAT (SCOUR-STOP)
- EROSION STABILIZATION MAT CLASS 4
- SOD TYPE LAWN, AND FERTILIZER TYPE 2

NO.	REV-DATE	BY:	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 218 of 315 Sheets

F & I 675 LF OF BIOROLL

F & I 909 LF OF SILT FENCE

F & I 172 LF OF BIOROLL

LIMITS

LOWER AFTON ROAD

CB 554

BIT PATH

MH 540A

CB 552

FARM POND

REPLACEMENT WETLAND

AP 560

T 147

MH 540

SIDEWALK

CB 563

CB 558

CB 561

CB 565

CENTURY AVE.

CB 557

316+00 317+00 318+00 319+00 320+00 321+00 322+00 323+00

CB 562A

CB 559

CB 564

BIT PATH

CB 549

CB 546

CB 547

SD 548

SD 562

TE

CONST. LIMITS

CONST. LIMITS

1324

1322

SCALE IN FEET

0 50 100

1320

NOTES:

① UNDERLYING SEED MIX SHALL BE THE SAME AS ADJACENT SEEDING AREAS

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
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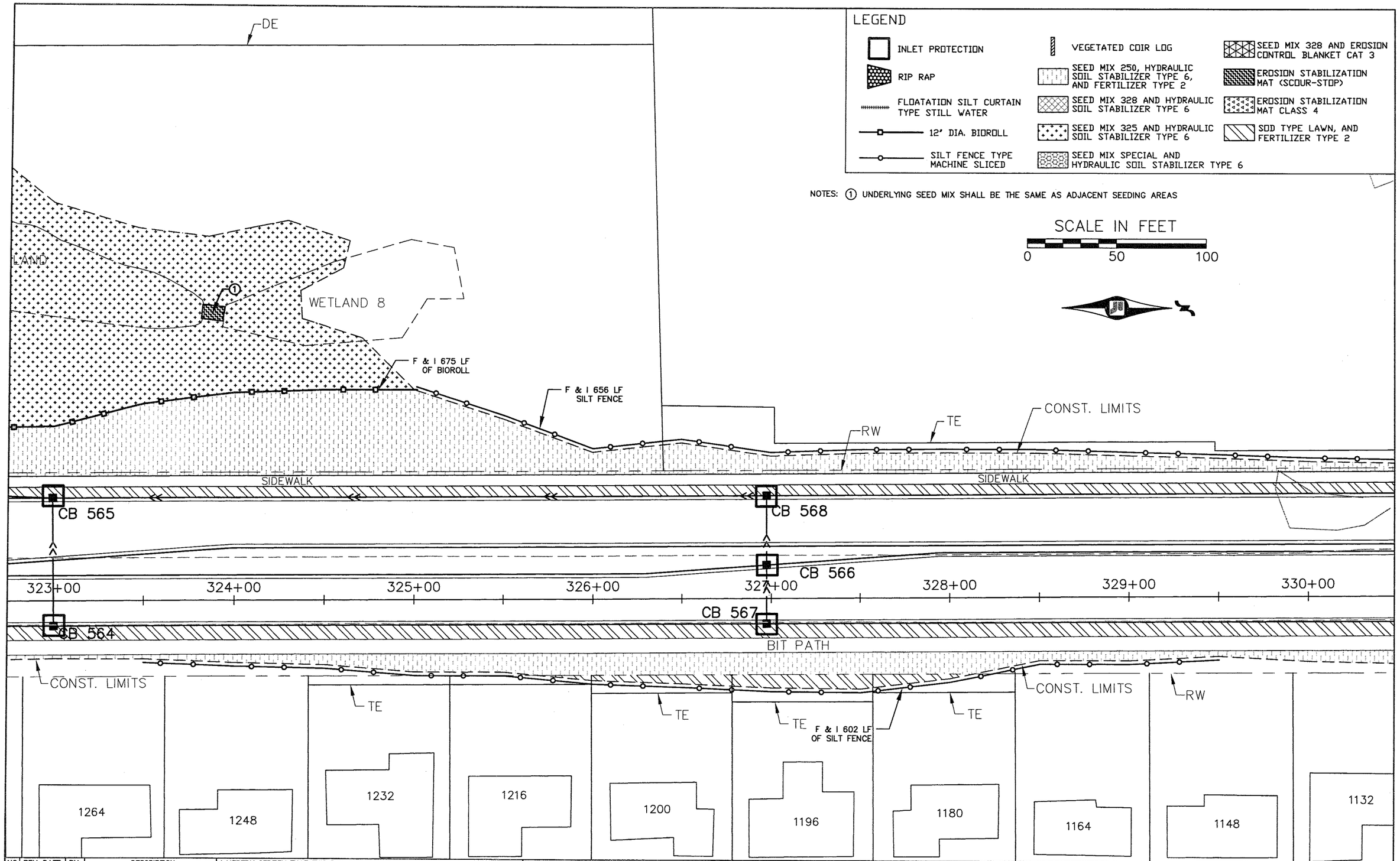
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 219 of 315 Sheets



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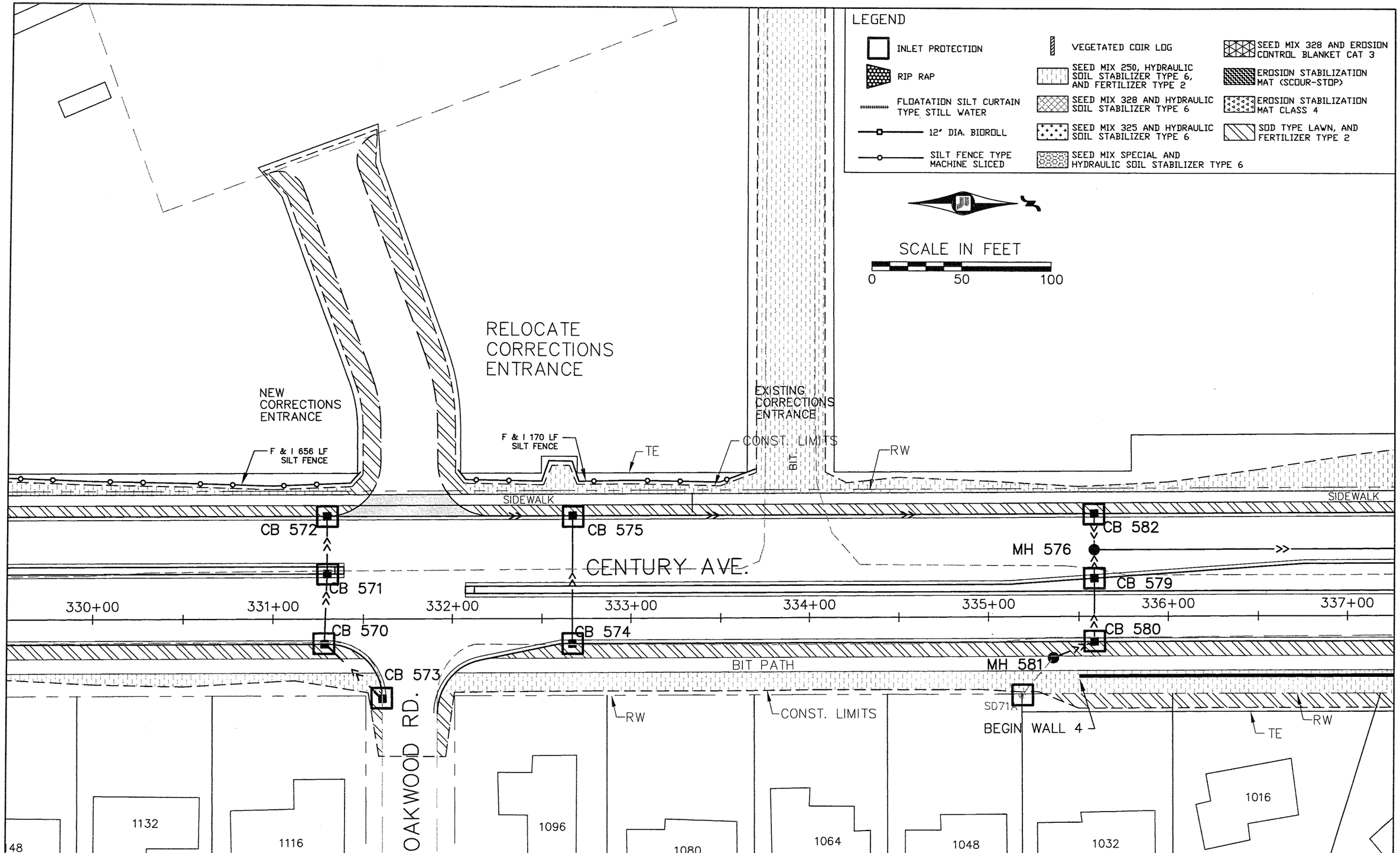
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 220 of 315 Sheets



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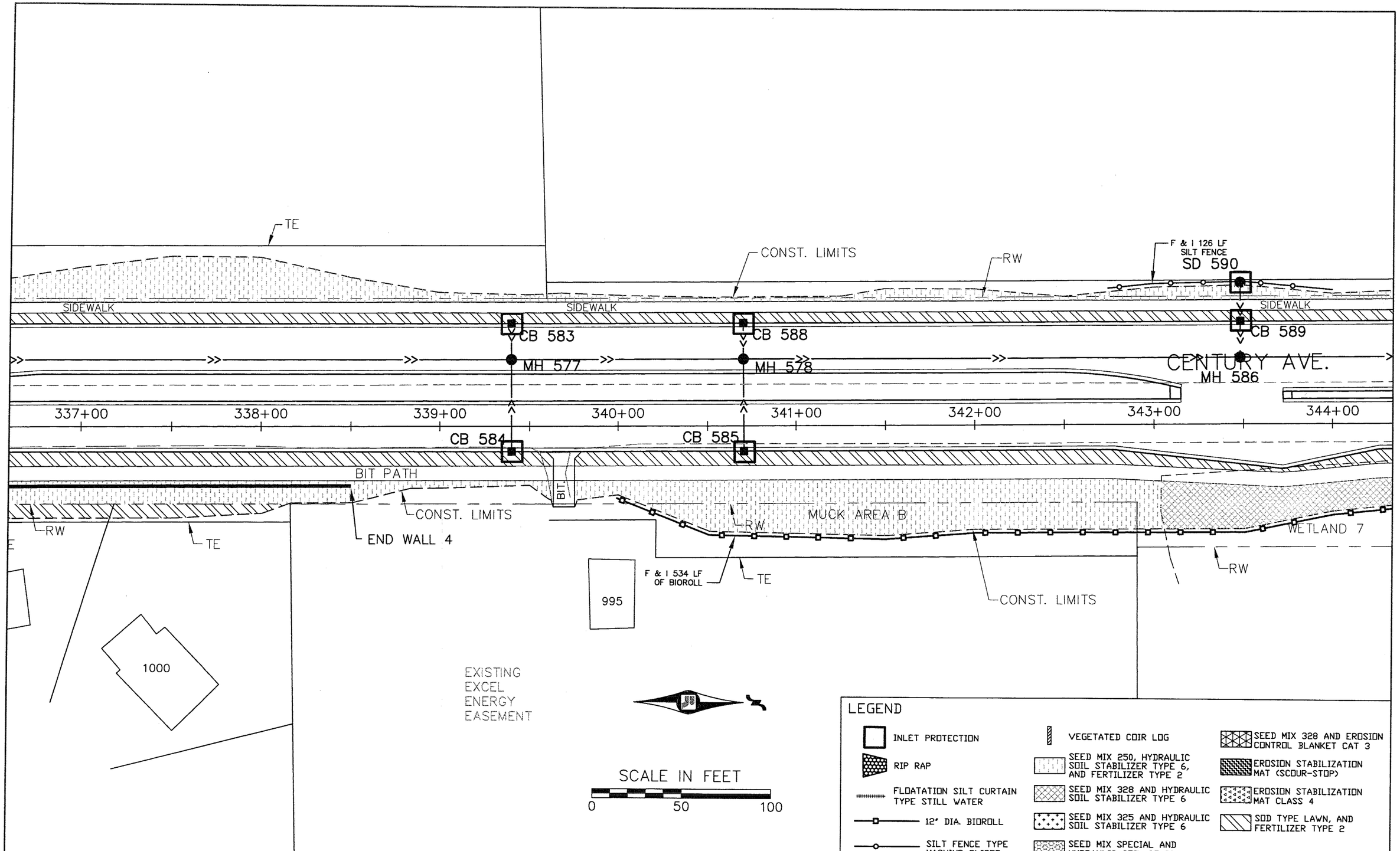
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 221 of 315 Sheets



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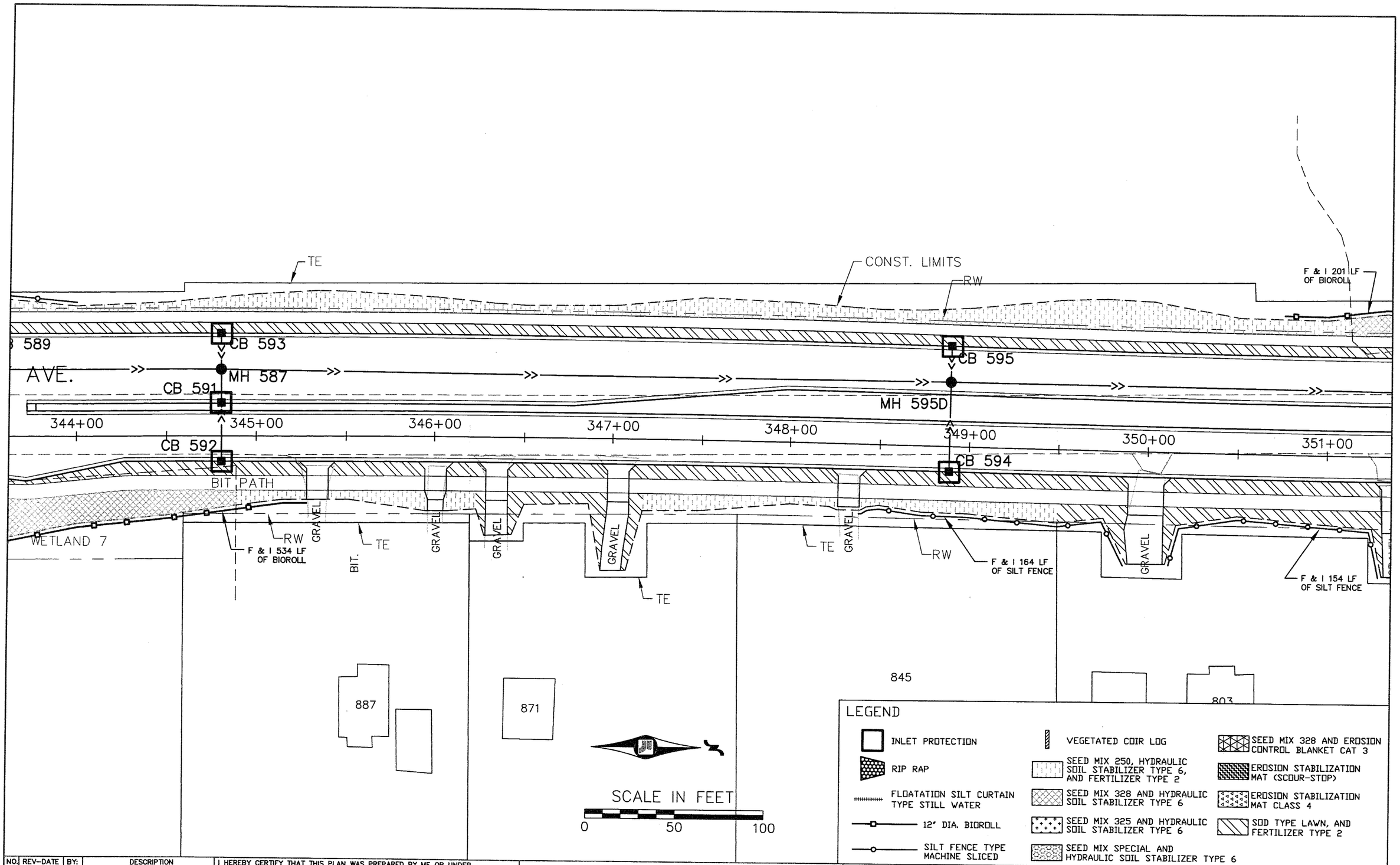
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 222 of 315 Sheets



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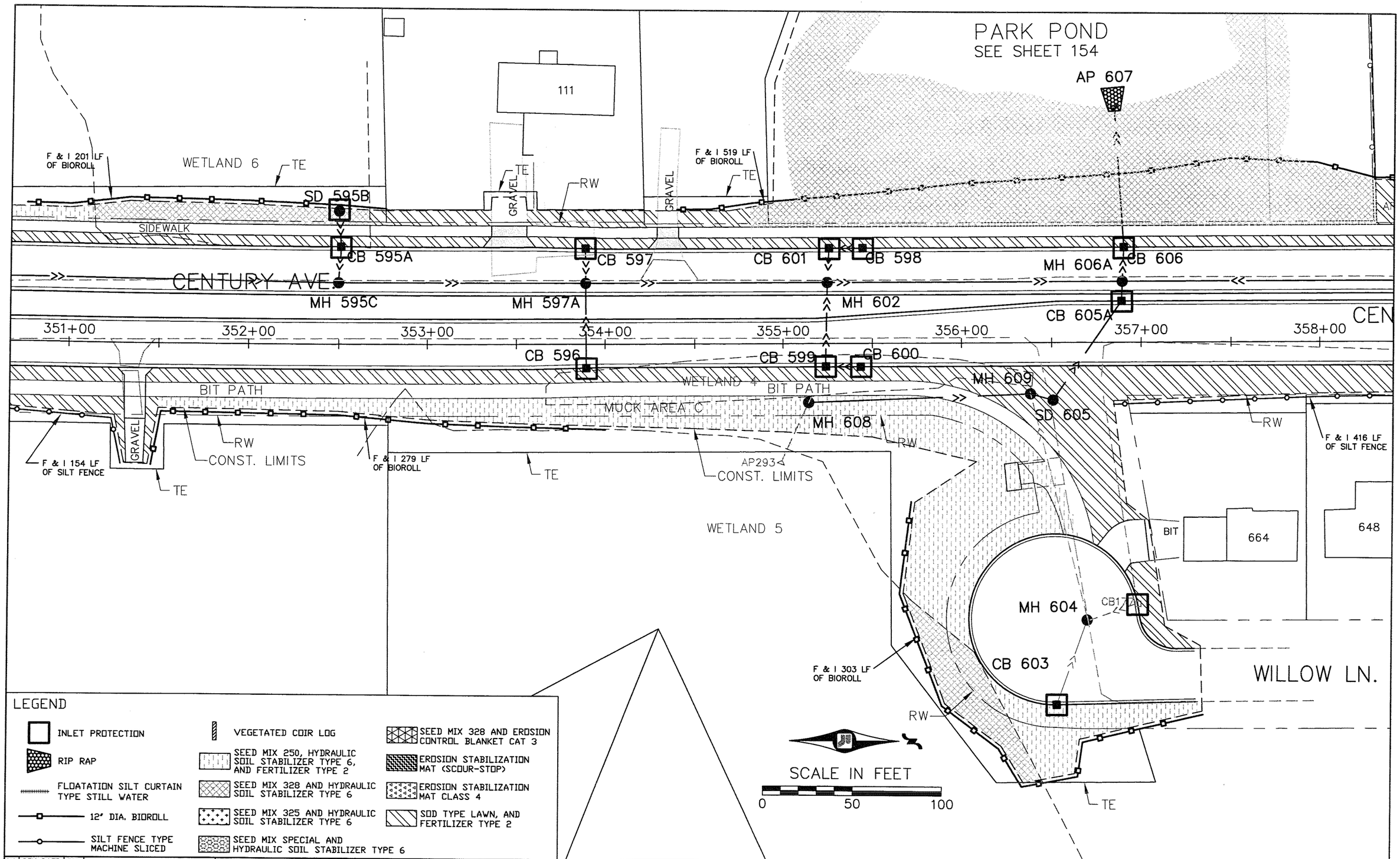
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 223 of 315 Sheets



LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
- 12" DIA. BIOROLL
- SILT FENCE TYPE MACHINE SLICED
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- EROSION STABILIZATION MAT (SCOUR-STOP)
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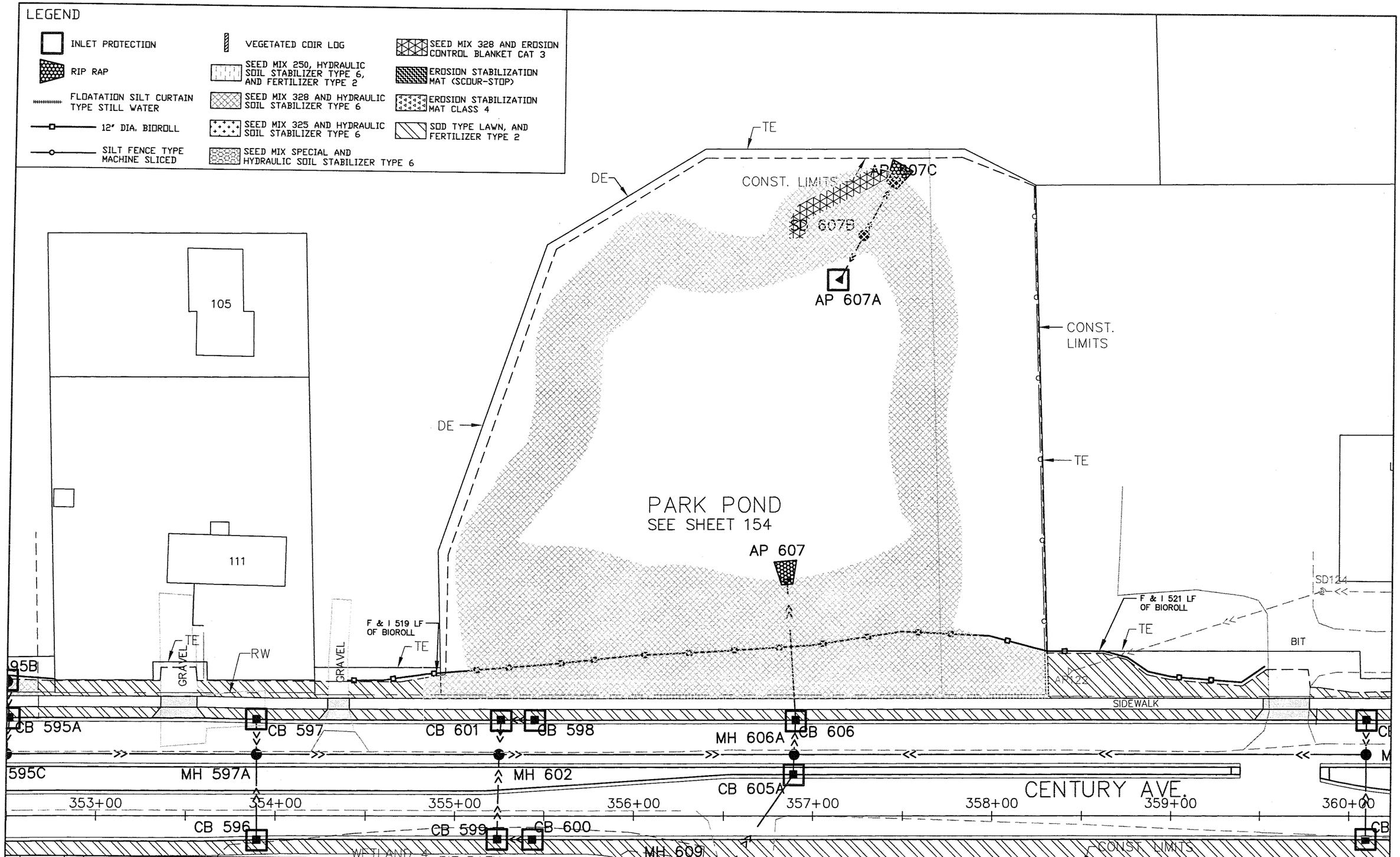
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 224 of 315 Sheets



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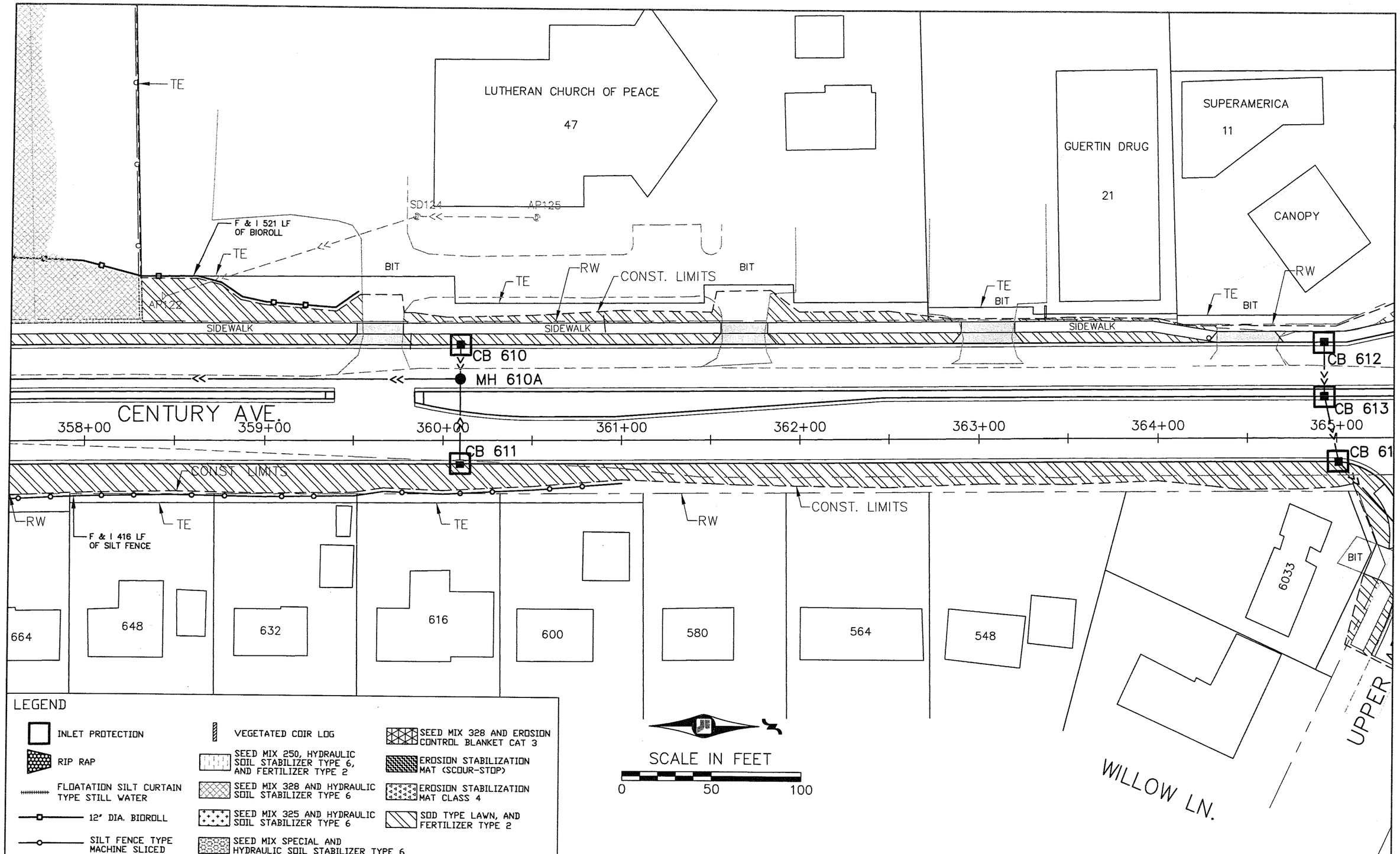
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 225 of 315 Sheets



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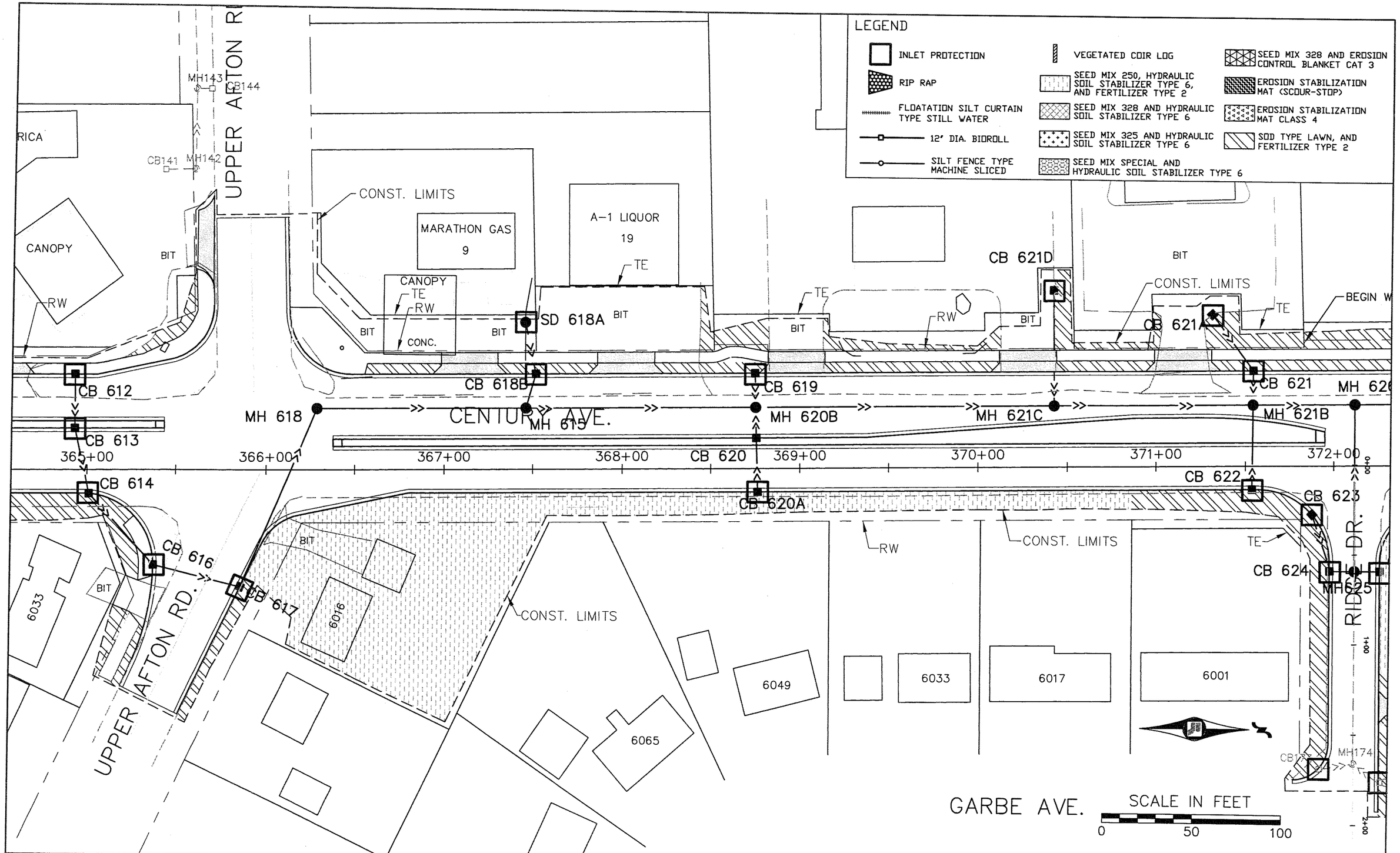
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 226 of 315 Sheets



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S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 227 of 315 Sheets

CENTURY RIDGE APARTMENTS

89

CONST. LIMITS

DE

BATTLE CREEK

AP 642

AP 644

WETLAND

AP 643

AP 645

SD 646

RW

AP191

AP 638

MH 639A

BIT

BEGIN WALL 5

END WALL 5

TE

RW

AP 630

SD 631

SD 629A

MH 630A

MH 643

SIDEWALK

CB 621

MH 626A

MH 621B

CB 629

CB 634

CB 637

MH 628A

MH 630B

CENTURY AVE

CB 635A

MH 637A

372+00

373+00

374+00

375+00

376+00

377+00

378+00

379+00

CB 628

CB 627

CB 635

CB 636

CB 623

BIT PATH

CB 624

MH625

CB 626

RIDGE DR.

6016

SD 688

AP 689

F & I 92 LF OF BIOROLL

F & I 195 LF OF BIOROLL

BEGIN WALL 6

CONST. LIMITS

DE

WETLAND 3

BATTLE CREEK

MH174

CB175

100

SCALE IN FEET

0 50 100

NOTES:

1. EMERGENCY OVER FLOW. GRADE TO DRAIN.
2. UNDERLYING SEED MIX SHALL BE THE SAME AS ADJACENT SEEDING AREAS

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
- 12" DIA. BIOROLL
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CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 228 of 315 Sheets

DE
646
P 638
MH 638A
SIDEWALK
CB 637
MH 637A
78+00
379+00
380+00
381+00
382+00
383+00
384+00
384+61.56
BROOKVIEW MANOR
MINNESOTA MOTORS
135
BROOKVIEW DR.
SCALE IN FEET
0
50
100
RW
CONST. LIMITS
TE
BIT
SIDEWALK
CB 639
CB 640
MH 640A
CB 641
CB 636
BIT PATH
SD 642
END WALL 6
CB212
CB207
SD220
AP221
BEGIN WALL 6
6001
WOODBINE AVE.

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
- 12" DIA. BIOROLL
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CENTURY AVENUE

S.P.62-672-04 CTB
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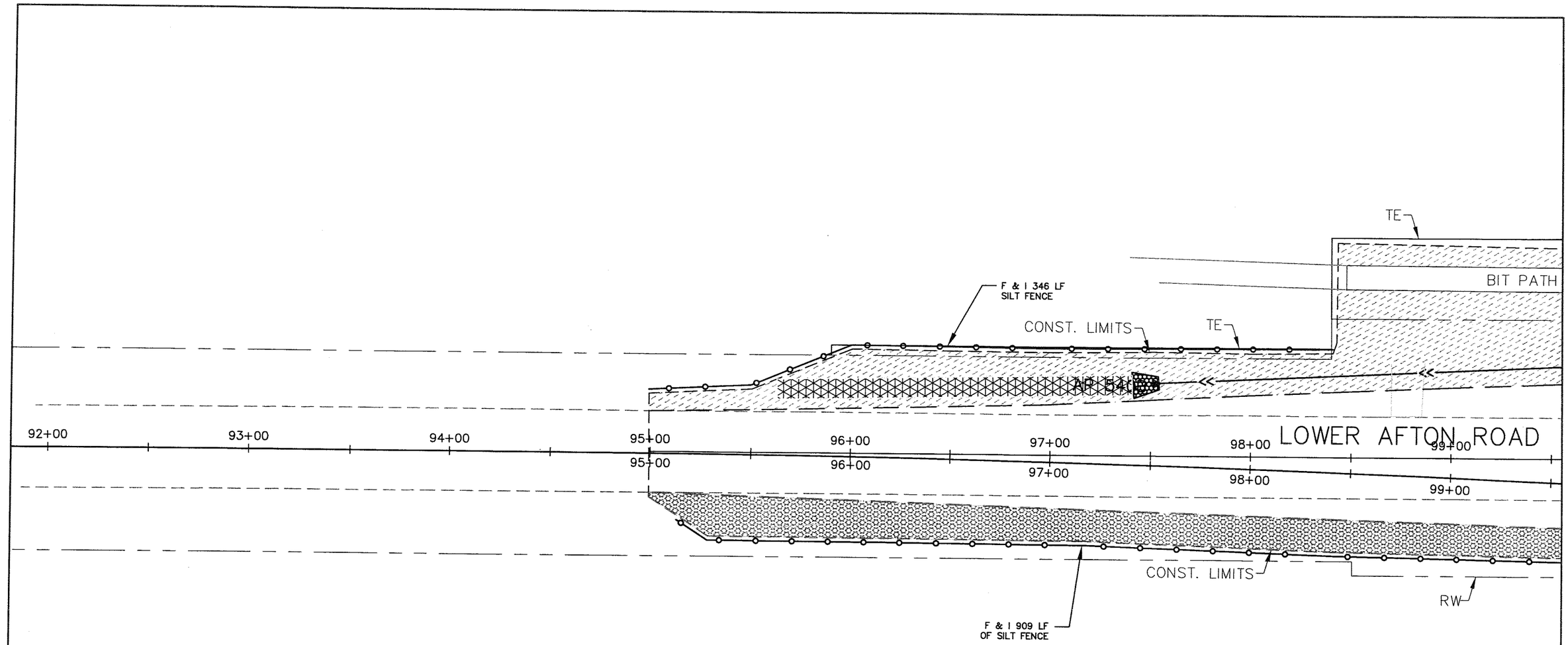
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 229 of 315 Sheets



LEGEND

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LOWER AFTON ROAD

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 230 of 315 Sheets

F & I VEGETATED COIR LOGS

DE

CONST. LIMITS

TE

AP 5

BIT PATH

FARM POND

AP 560

SIDEWALK

CB 558

CENTURY AVE.

319+00

CB 559

318+00

CB 557

TE

1324

MH 540A

SD 540D

BIT PATH

CB 554

CB 551

CB 550

LOWER AFTON ROAD

99+00

100+00

101+00

102+00

103+00

104+00

105+00

106+00

317+00

316+00

CB 556

CB 552

RW

TE

F & I 909 LF OF SILT FENCE

CONST. LIMITS

MH 540

SEE SHEET 147

F & I 172 LF OF BIOROLL

DE

SD 540E

AP 540C

555

CB 539

SCALE IN FEET

0 50 100

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
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LOWER AFTON ROAD

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RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 231 of 315 Sheets

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
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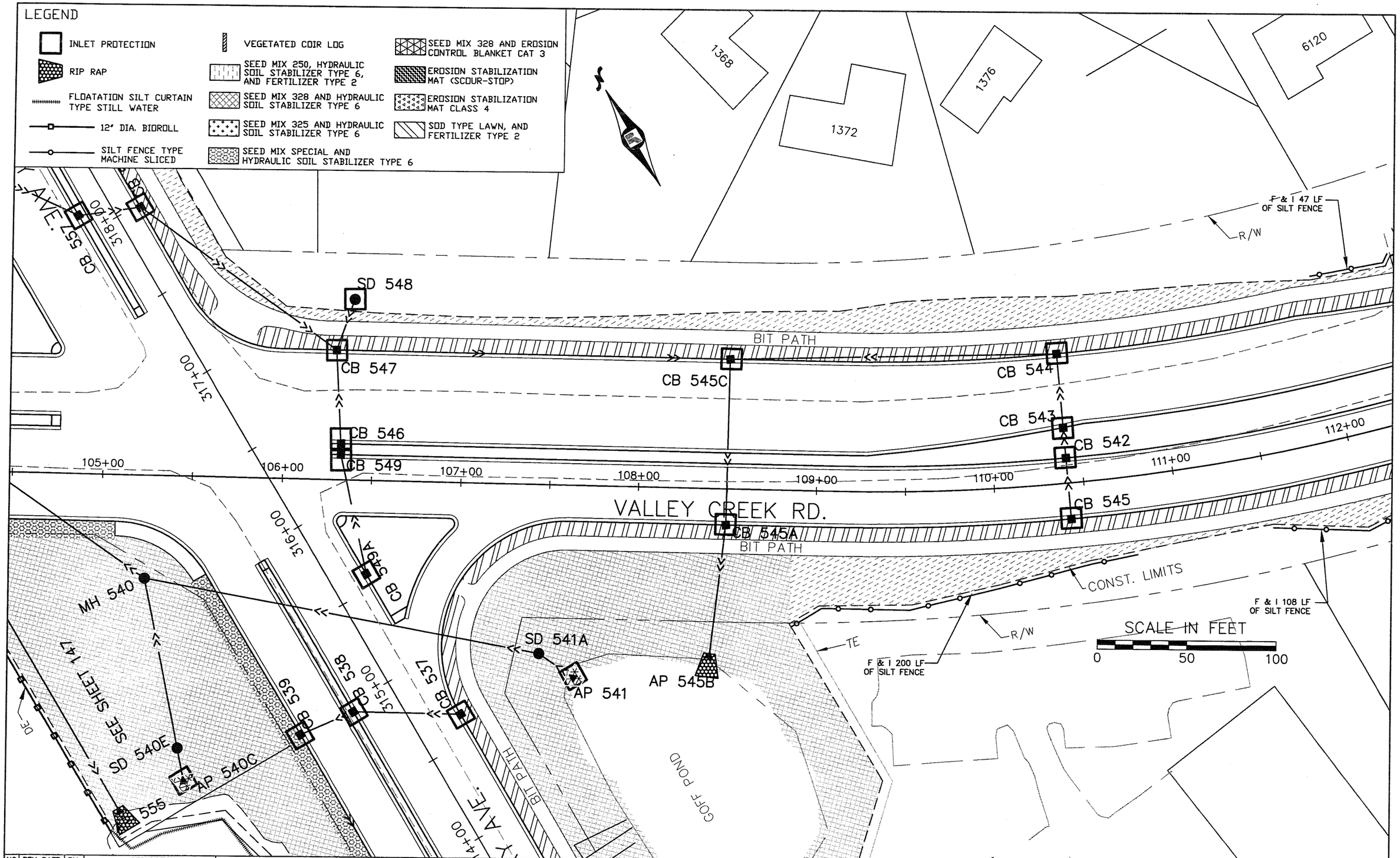

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VALLEY CREEK ROAD

S.P.62-672-04 CTB
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RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 232 of 315 Sheets

6120
6148
6164
6180
1480
1481
PARKWOOD DR.
R/W
F & I 47 LF SILT FENCE
F & I 147 LF OF SILT FENCE
CONST. LIMITS
BIT.
BIT PATH
F & I 68 LF OF SILT FENCE
F & I 199 LF OF SILT FENCE
F & I 124 LF OF SILT FENCE
SD 651
CB 652
CB 653
CB 650
CB 649
CB 648
CB 647
112+00
113+00
114+00
115+00
116+00
117+00
118+00
119+00
F & I 108 LF OF SILT FENCE
F & I 314 LF OF SILT FENCE
TE
SIGN
F & I 99 LF OF SILT FENCE
WOOD DR.

LEGEND

- INLET PROTECTION
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- FLOATATION SILT CURTAIN TYPE STILL WATER
- 12" DIA. BIOROLL
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SCALE IN FEET
0 50 100

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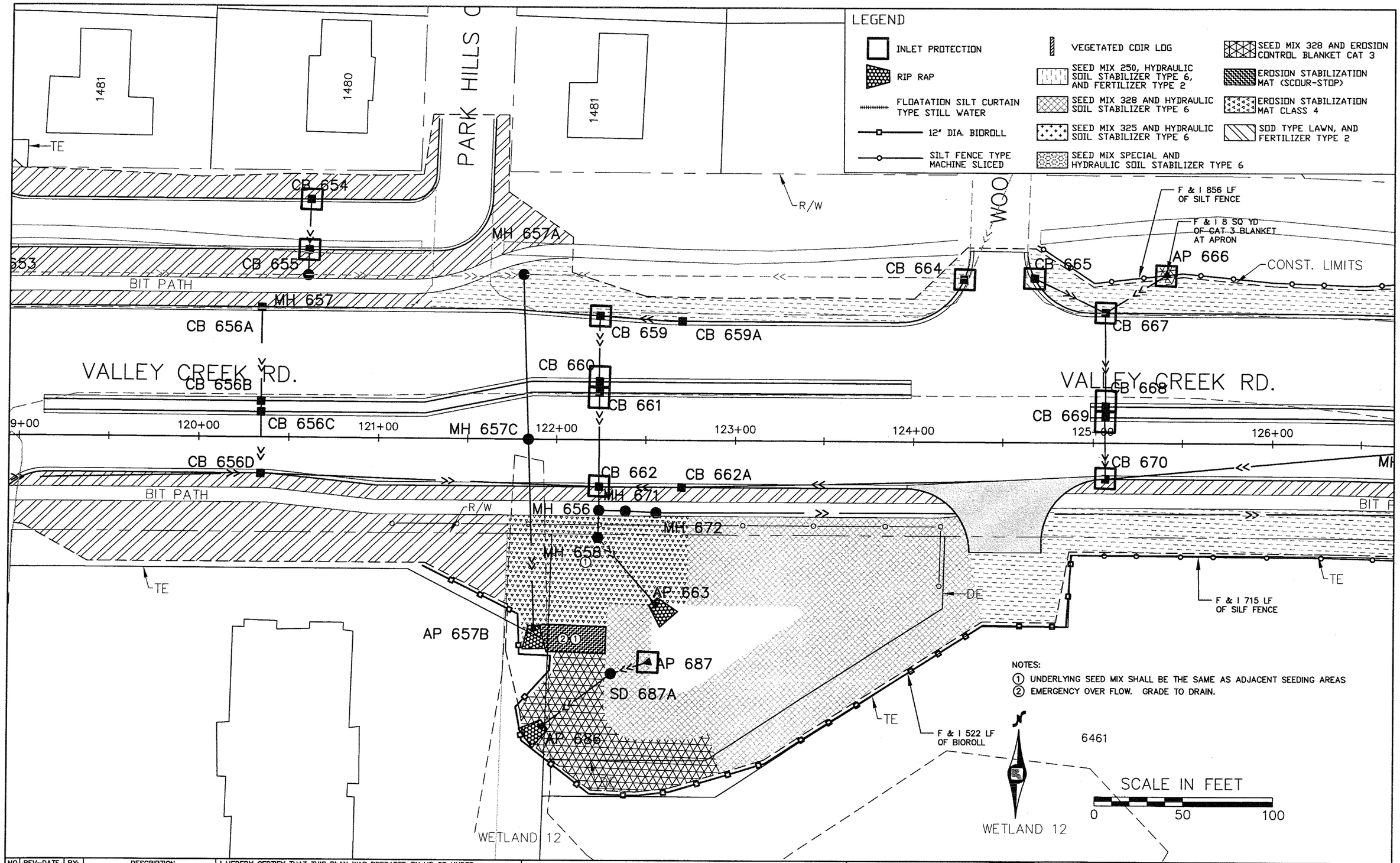
RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT



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RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 234 of 315 Sheets

RW

F & I 856 LF OF SILT FENCE

CONST. LIMITS

RW

F & I 856 LF OF SILT FENCE

MH 67

WETLAND 13

CB 677

CONST. LIMITS

CB 672B

VALLEY CREEK RD.

CB 676

CB 675

130+00

131+00

132+00

133+00

129+00

CB 672A

128+00

CB 674

EK RD.

127+00

CB 672D

126+00

MH 673

CB 672C

BIT PATH

MH 679

RW

CONST. LIMITS

TE

RW

TE

F & I 715 LF OF SILT FENCE

CONST. LIMITS

TE

F & I 715 LF OF SILT FENCE

SCALE IN FEET

0 50 100

LEGEND

- INLET PROTECTION
- RIP RAP
- FLOATATION SILT CURTAIN TYPE STILL WATER
- 12" DIA. BIOROLL
- SILT FENCE TYPE MACHINE SLICED
- VEGETATED COIR LOG
- SEED MIX 250, HYDRAULIC SOIL STABILIZER TYPE 6, AND FERTILIZER TYPE 2
- SEED MIX 328 AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX 325 AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX SPECIAL AND HYDRAULIC SOIL STABILIZER TYPE 6
- SEED MIX 328 AND EROSION CONTROL BLANKET CAT 3
- EROSION STABILIZATION MAT (SCOUR-STOP)
- EROSION STABILIZATION MAT CLASS 4
- SOD TYPE LAWN, AND FERTILIZER TYPE 2

NO.	REV-DATE	BY:	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

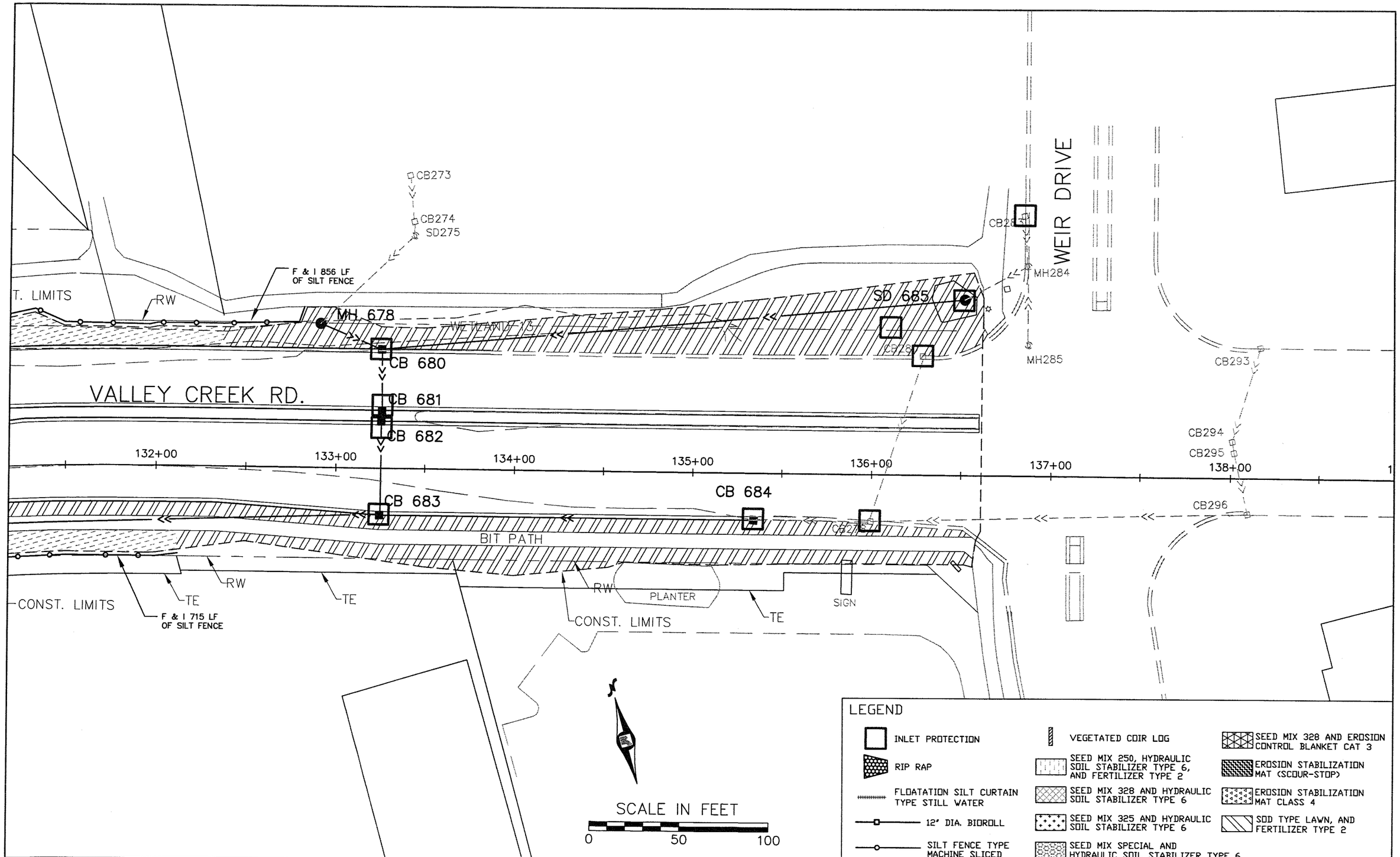
VALLEY CREEK ROAD

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 235 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG. NO: 26511 DATE: MAY 13, 2008

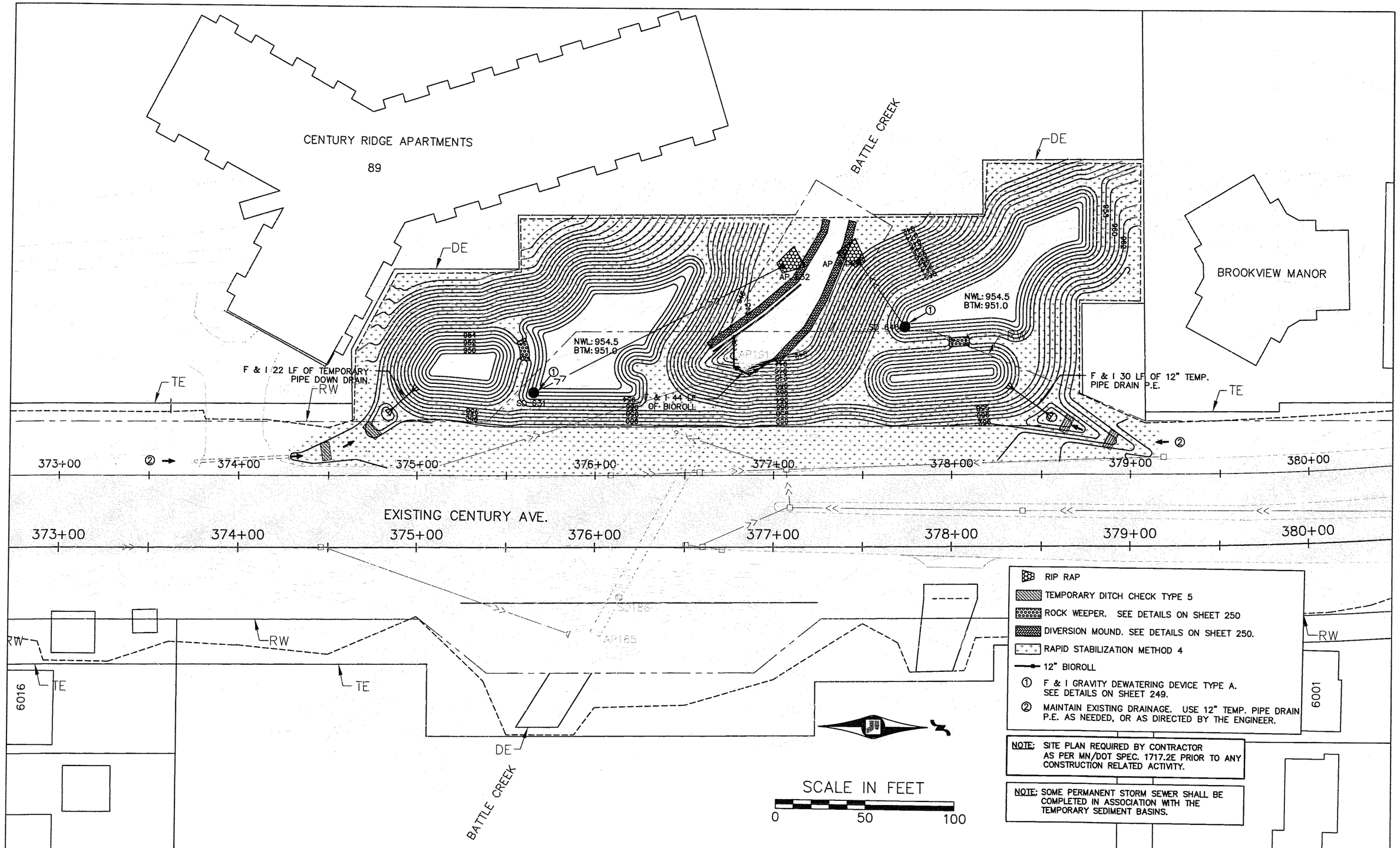
VALLEY CREEK ROAD

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL & TURF ESTABLISHMENT

Sheet No. 236 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG NO: 26521 DATE: May 13, 2008

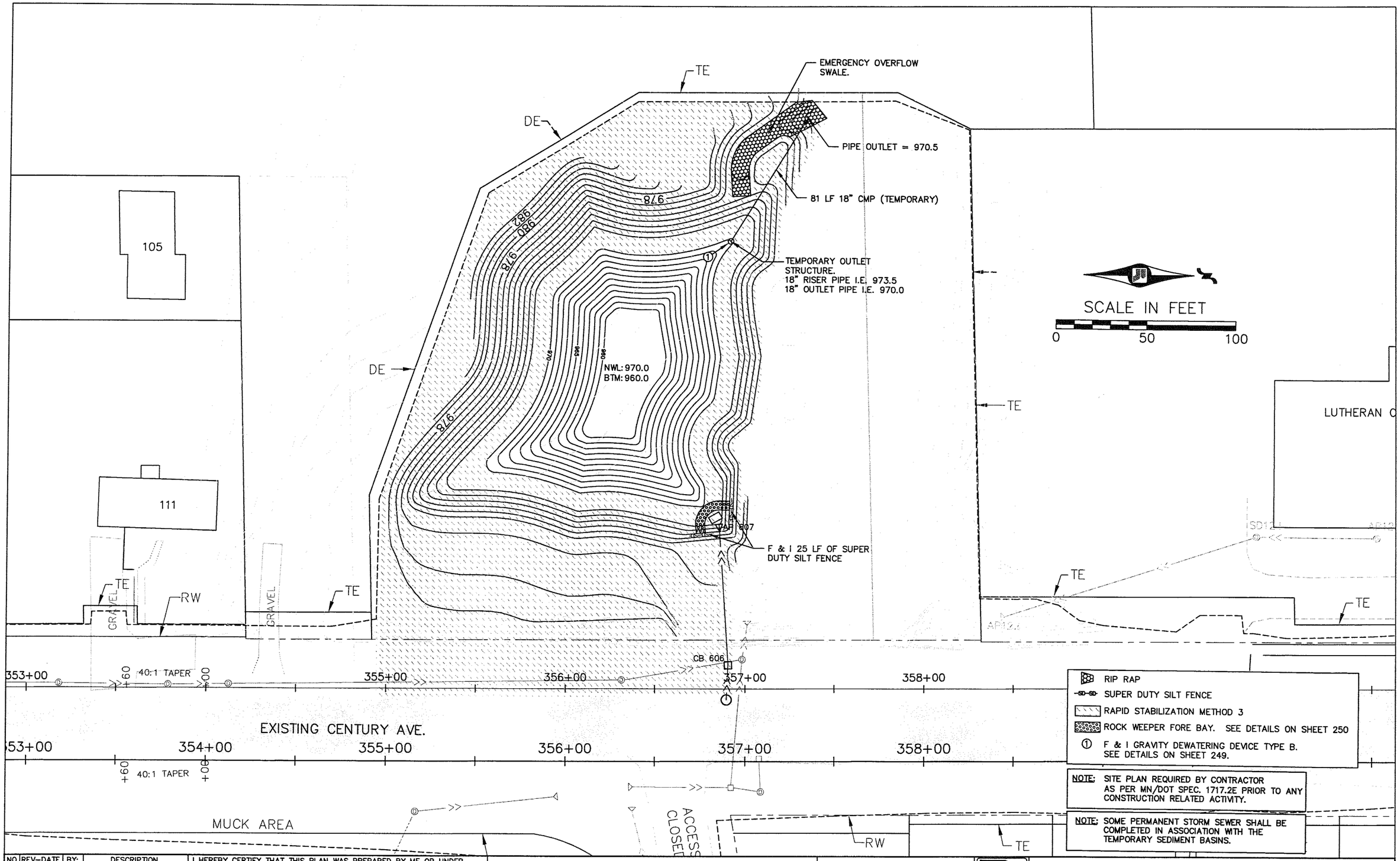
CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

BATTLE CREEK TEMPORARY SEDIMENT BASIN

Sheet No. 237 of 315 Sheets



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG NO: 26590 DATE: May 13, 2008

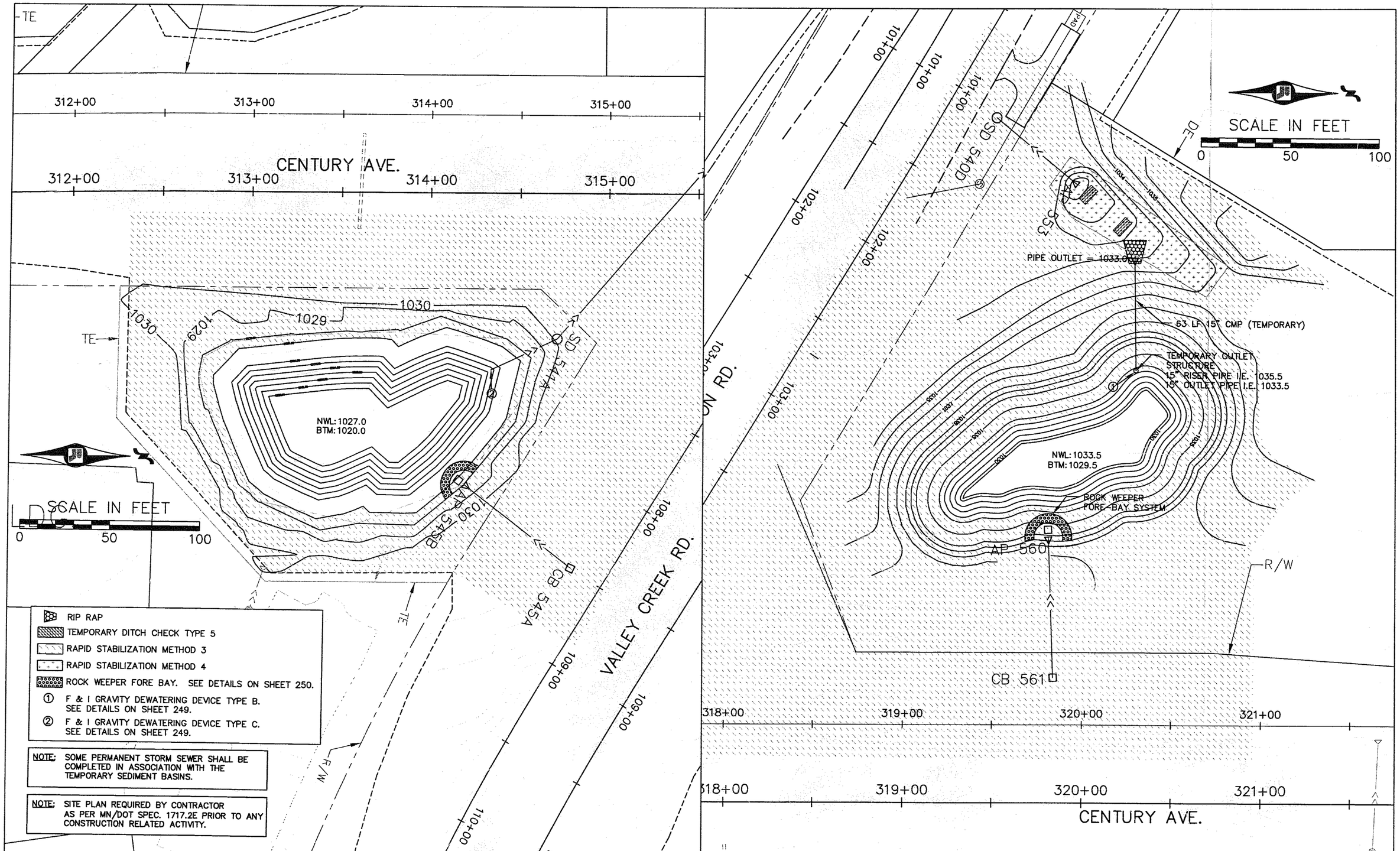
CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

PARK POND TEMPORARY SEDIMENT BASIN

Sheet No. 238 of 315 Sheets



- RIP RAP
- TEMPORARY DITCH CHECK TYPE 5
- RAPID STABILIZATION METHOD 3
- RAPID STABILIZATION METHOD 4
- ROCK WEEPER FORE BAY. SEE DETAILS ON SHEET 250.
- ① F & I GRAVITY DEWATERING DEVICE TYPE B. SEE DETAILS ON SHEET 249.
- ② F & I GRAVITY DEWATERING DEVICE TYPE C. SEE DETAILS ON SHEET 249.

NOTE: SOME PERMANENT STORM SEWER SHALL BE COMPLETED IN ASSOCIATION WITH THE TEMPORARY SEDIMENT BASINS.

NOTE: SITE PLAN REQUIRED BY CONTRACTOR AS PER MN/DOT SPEC. 1717.2E PRIOR TO ANY CONSTRUCTION RELATED ACTIVITY.

NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

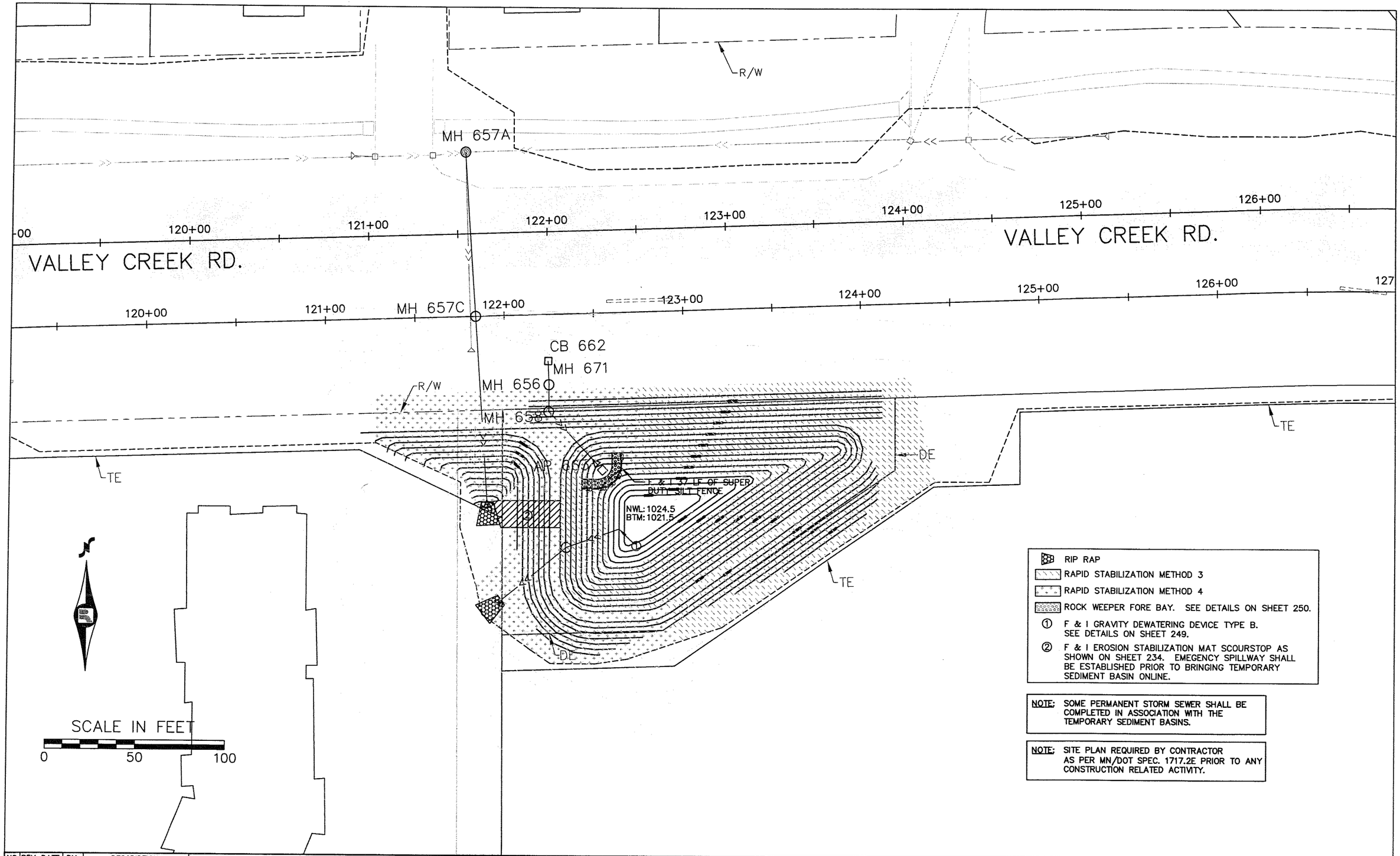
REG NO: 26511 DATE: May 13, 2008

CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

GOFF/FARM POND TEMP. SEDIMENT BASIN



RIP RAP

RAPID STABILIZATION METHOD 3

RAPID STABILIZATION METHOD 4

ROCK WEEPER FORE BAY. SEE DETAILS ON SHEET 250.

① F & I GRAVITY DEWATERING DEVICE TYPE B. SEE DETAILS ON SHEET 249.

② F & I EROSION STABILIZATION MAT SCOURSTOP AS SHOWN ON SHEET 234. EMEGENCY SPILLWAY SHALL BE ESTABLISHED PRIOR TO BRINGING TEMPORARY SEDIMENT BASIN ONLINE.

NOTE: SOME PERMANENT STORM SEWER SHALL BE COMPLETED IN ASSOCIATION WITH THE TEMPORARY SEDIMENT BASINS.

NOTE: SITE PLAN REQUIRED BY CONTRACTOR AS PER MN/DOT SPEC. 1717.2E PRIOR TO ANY CONSTRUCTION RELATED ACTIVITY.

NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

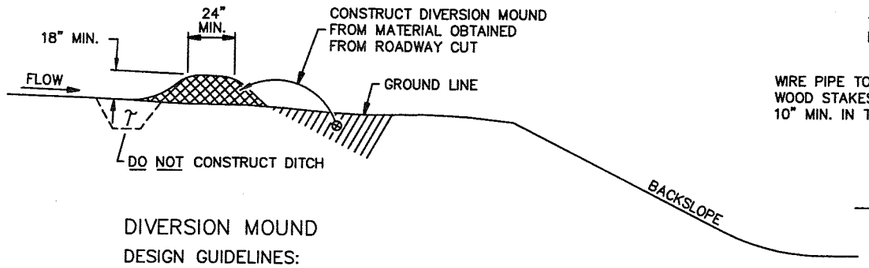
REG NO: 26571 DATE: May 13, 2008

CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

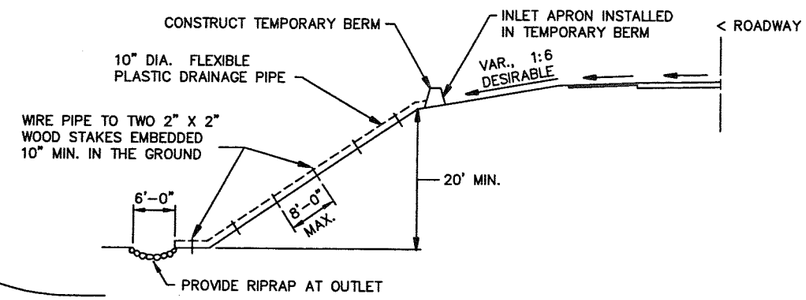
RAMSEY COUNTY

PARK HILLS POND TEMP. SEDIMENT BASIN



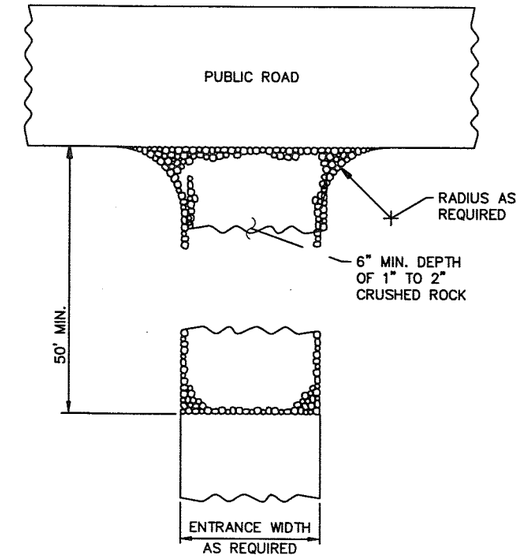
DIVERSION MOUND

DESIGN GUIDELINES:
STORM FREQUENCY: 10 YEAR – 24 HOUR
MAXIMUM DRAINAGE AREA: 5 ACRES
MAXIMUM DIVERSION: GRADE 5%

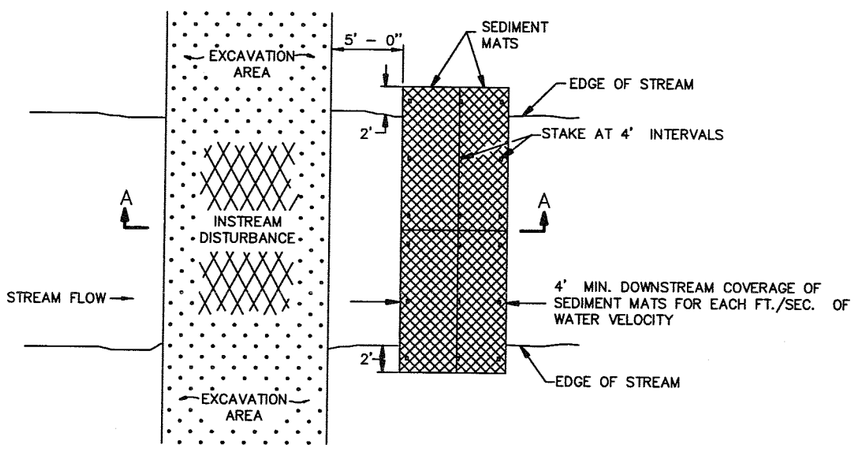


TEMPORARY DOWN DRAIN ON FILL SLOPE

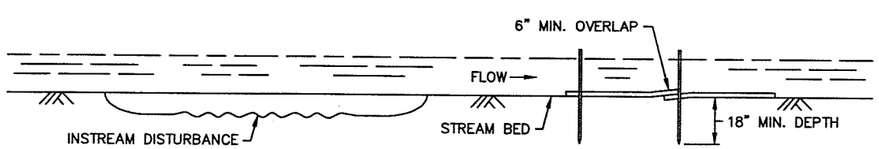
DESIGN GUIDELINES:
STORM FREQUENCY: 2 YEAR – 24 HOUR
MAXIMUM DRAINAGE AREA: 3 ACRES



ROCK CONSTRUCTION ENTRANCE ①



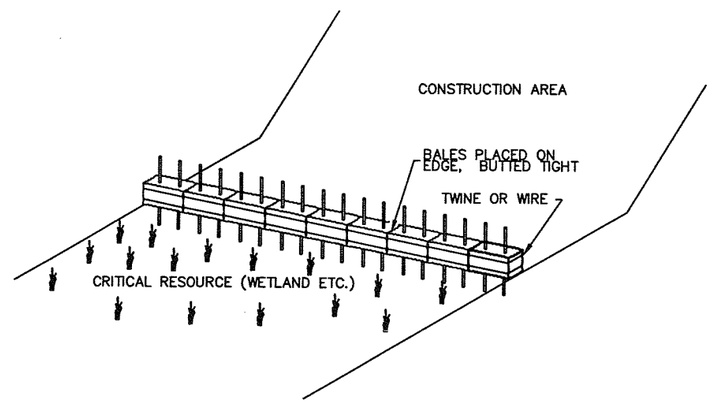
PLAN VIEW



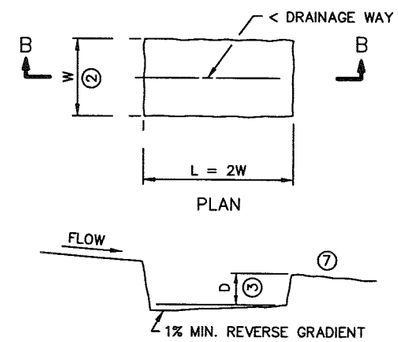
SECTION A–A

SEDIMENT MAT ⑥
TYPICAL STREAM BED INSTALLATION

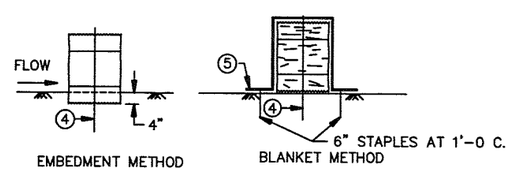
DESIGN GUIDELINES:
MAXIMUM FLOW VELOCITY: 5 FT./SEC.
MAXIMUM FLOW DEPTH: 2 FT.



BALE BARRIERS
TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS



SECTION B–B
SEDIMENT TRAP DETAIL



BALE BARRIER DETAIL
APPROX. BALE SIZE: 14" X 18" X 36" LONG

NOTES:
SEE SPECS. 2573, 3892, & 3894.

① ROCKS AT ENTRANCE CLEAN WORKSITE MUD OFF OF TRUCK TIRES BEFORE TRUCKS ENTER MAIN ROAD. KEEPING MUD OFF THE ROAD WILL PREVENT AUTO DAMAGE AND KEEP CONSTRUCTION SEDIMENT OUT OF DRAINAGE SYSTEMS AND WETLANDS. GEOTEXTILE MAY BE PLACED UNDER THE ROCK TO KEEP ROCKS SEPARATE FROM SOIL.

② W = 10 FT. MIN., 20 FT. MAX.

③ D = 2 FT.

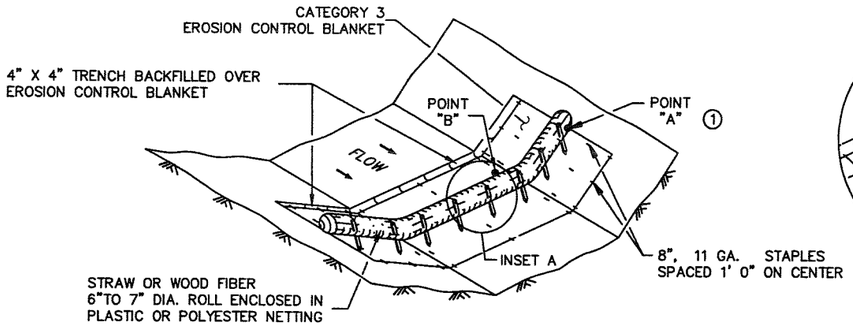
④ TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE EMBEDDED 10 INCHES MINIMUM IN THE GROUND.

⑤ PLACE A CATEGORY 3 EROSION CONTROL BLANKET, 6 FT. WIDE MINIMUM, OVER THE BALE INSTEAD OF TRENCHING.

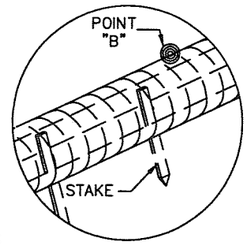
⑥ THIS DETAIL MAY NOT BE ACCEPTABLE FOR WORK ON PUBLIC WATERS, SEE GENERAL PUBLIC WATERS PERMIT (GP) 2004–0001.

⑦ LOCATION OF DOWNSTREAM TEMPORARY SEDIMENT CONTROL DEVICE.

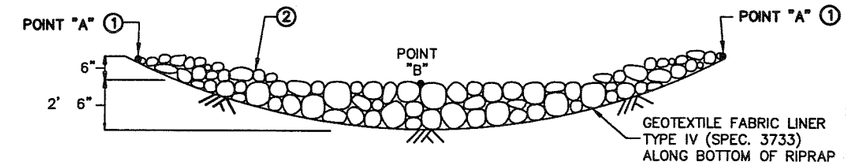
STANDARD SHEET NO. 5–297.405 (2 of 4)	TITLE: TEMPORARY SEDIMENT CONTROL MISCELLANEOUS DETAILS
STANDARD APPROVED: SEPTEMBER 27, 2006	
S.P.62–672–04 CTB, S.P.82–625–02 CTB, S.A.P.82–616–16 CTB	Sheet No. 243 of 315 Sheets



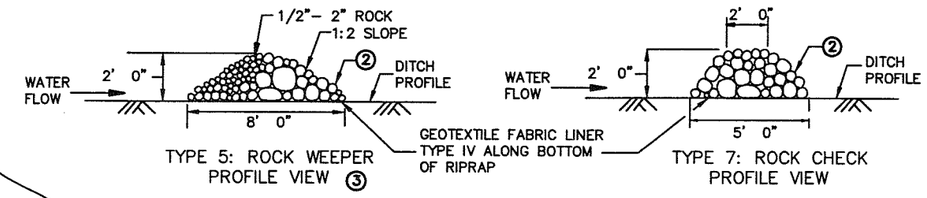
TYPE 3: BIOROLL BLANKET SYSTEM DITCH CHECK



INSET A



CROSS SECTION (ROCK WEEPER AND ROCK CHECK)

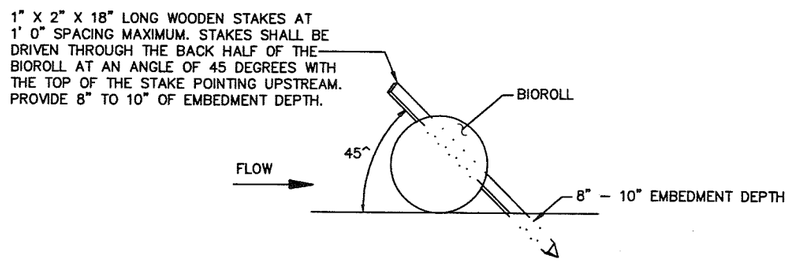


TYPE 5: ROCK WEEPER
PROFILE VIEW ③

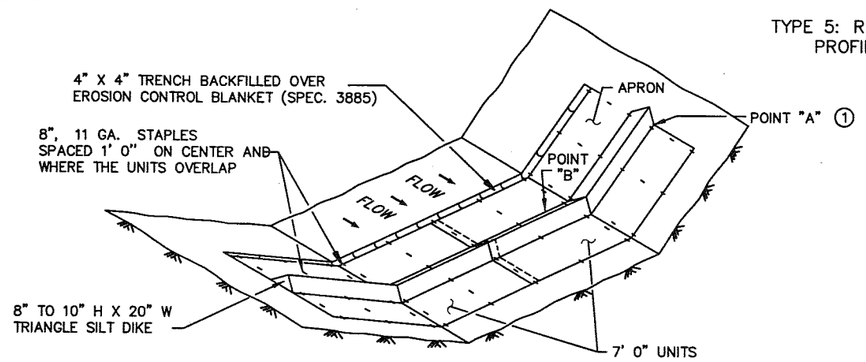
TYPE 7: ROCK CHECK
PROFILE VIEW

TYPE 5: ROCK WEEPER AND
TYPE 7: ROCK CHECK DITCH CHECKS ④

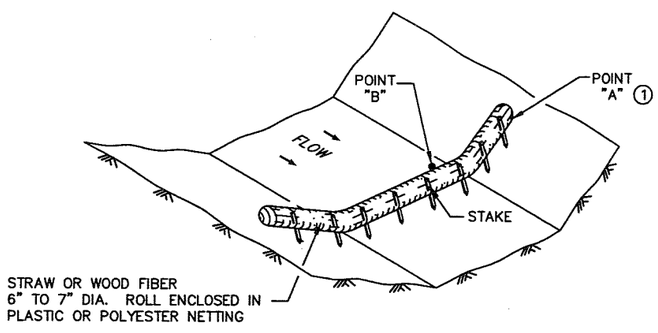
USE ON ROUGH GRADED AREAS



BIOROLL STAKING DETAIL

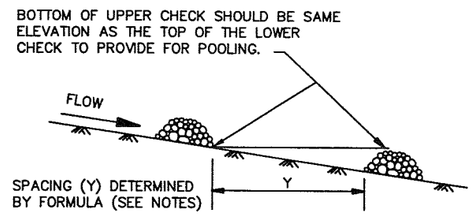


TYPE 6: GEOTEXTILE TRIANGULAR DIKE DITCH CHECK

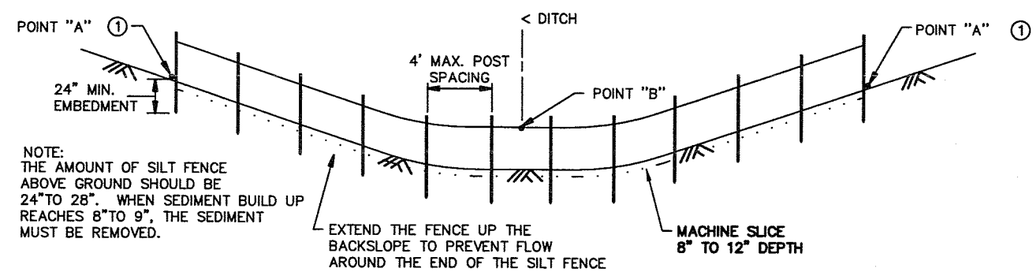


TYPE 2: BIOROLL DITCH CHECK

USE ON ROUGH GRADED AREAS



DITCH CHECK SPACING ④



TYPE 1: SLICED IN SILT FENCE DITCH CHECK

NOTES:

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT)}}{\text{\% CHANNEL SLOPE}} \times 100$$

① POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

② CLASS I – IV RIPRAP (SPEC. 3601) WITH GEOTEXTILE FABRIC LINER, TYPE IV (SPEC. 3733).

③ THE ROCK WEEPER FILTERS SEDIMENT OUT OF THE WATER BETTER THAN THE OTHER DITCH CHECKS. THE ROCK WEEPER COULD BE USED AS A PERMANENT WATER FILTERING FEATURE.

④ PERMANENT ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE WILL NEED TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

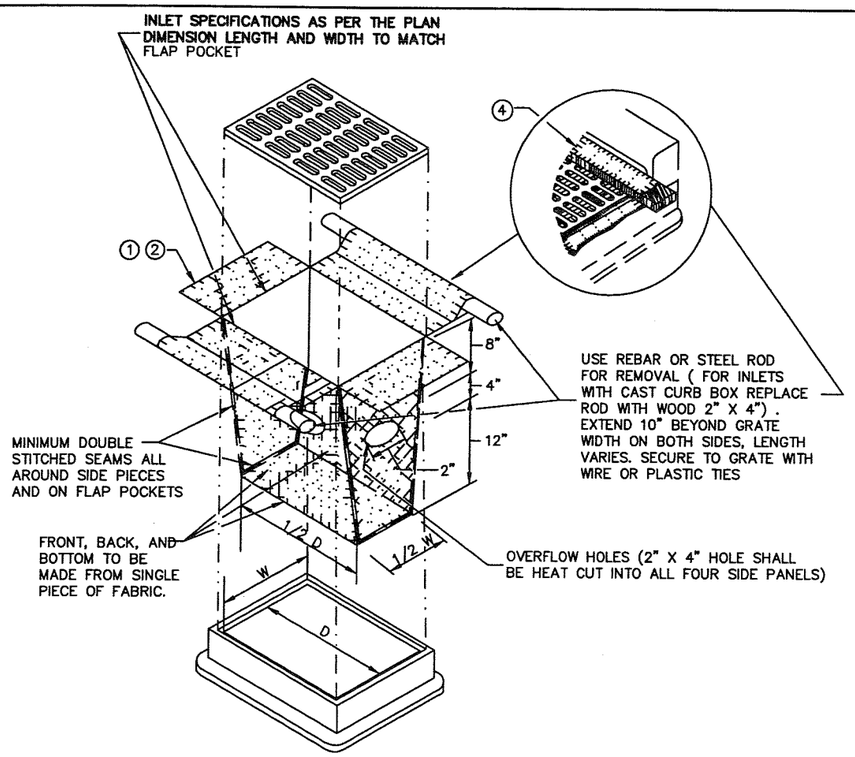
GENERAL DESIGN GUIDELINES						
DITCH CHECK TYPE	SILT FENCE	BIOROLL	BIOROLL BLANKET	TRIANGULAR DIKE	ROCK WEEPER	ROCK CHECK
STORM FREQUENCY:	2 YR. – 24 HR.	2 YR. – 24 HR.	2 YR. – 24 HR.	2 YR. – 24 HR.	5 YR. – 24 HR.	5 YR. – 24 HR.
MAX. FLOW VELOCITY:	< 1 FT./SECOND	1.5 FT./SECOND	4.5 FT./SECOND	1.5 FT./SECOND	12 FT./SECOND	12 FT./SECOND
MAX. DITCH GRADE:	0% – 0.5%	1.5% – 3%	1.5% – 3%	1.5% – 2.0%	3% – 5%	3% – 5%
MAX. DRAINAGE AREA:	1 ACRE	2 ACRE	2 ACRE	4 ACRE	4+ ACRE	4+ ACRE

STANDARD SHEET NO.
5-297.405 (3 OF 4)

STANDARD APPROVED:
SEPTEMBER 27, 2006

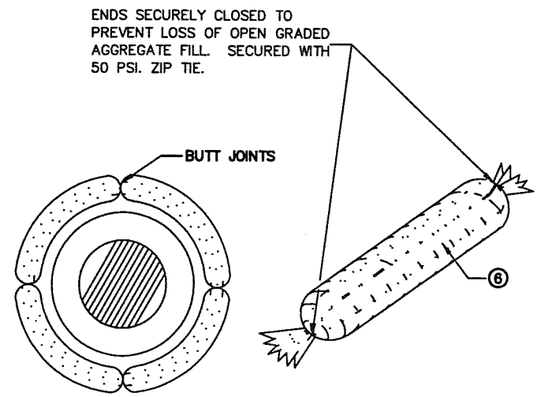
S.P.62-672-04 CTB, S.P.82-625-02 CTB,
S.A.P.82-616-16 CTB

TEMPORARY SEDIMENT CONTROL
DITCH CHECK/BARRIER

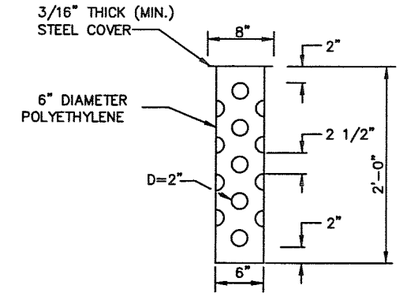


FILTER BAG INSERT ③

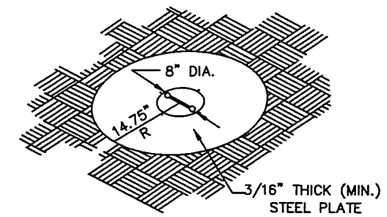
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)



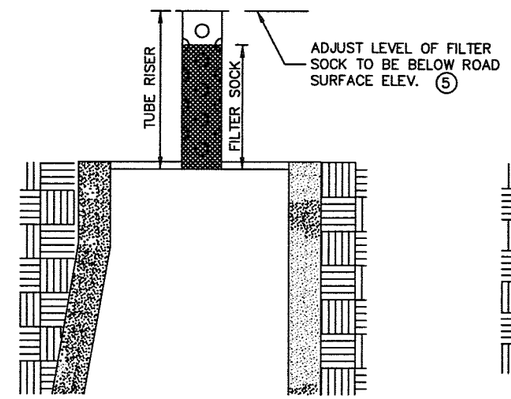
ROCK LOG/COMPOST LOG



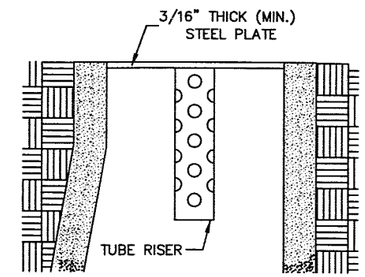
TUBE RISER



PERSPECTIVE VIEW

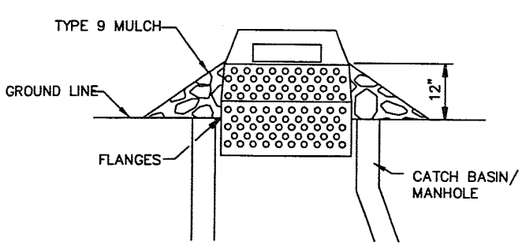


SECTION
(UP POSITION)



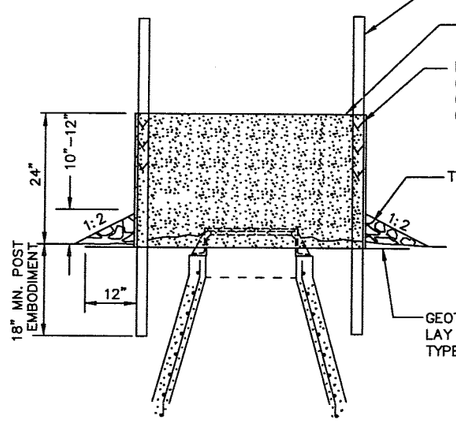
SECTION
(DOWN POSITION)

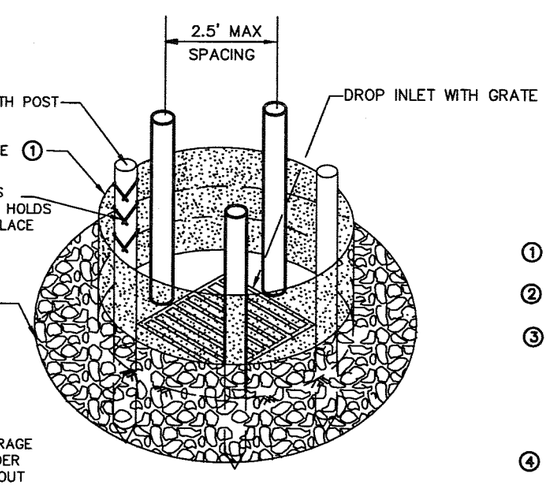
POP-UP HEAD



SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.





SILT FENCE RING AND ROCK FILTER BERM

USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 or LESS

NOTES:
SEE SPECS. 2573, 3137, 3886 & 3891.

MANUFACTURED ALTERNATIVES LISTED ON Mn/DOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.

① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.

② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

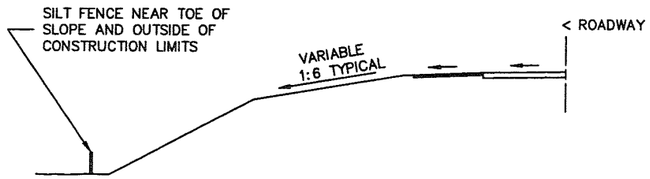
③ INSTALLATION NOTES:
DO NOT INSTALL FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.

④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.

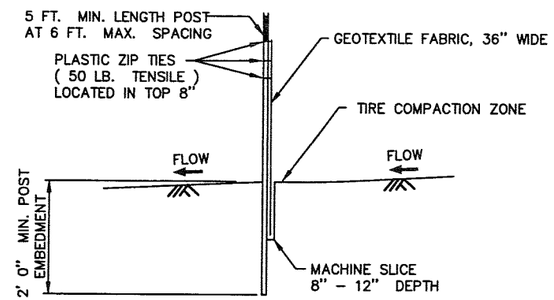
⑤ SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.

⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

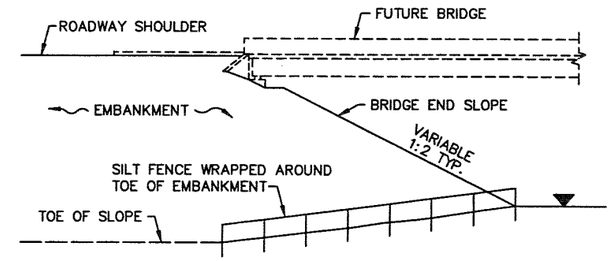
STANDARD SHEET NO. 297.405 (4 OF 4)	TITLE: TEMPORARY SEDIMENT CONTROL STORM DRAIN INLET PROTECTION
STANDARD APPROVED: SEPTEMBER 27, 2006	
S.P.62-672-04 CTB, S.P.82-625-02 CTB, S.A.P.82-616-16 CTB	Sheet No. 245 of 315 Sheets



LOCATION OF SILT FENCE
AT TOE OF ROADWAY EMBANKMENT

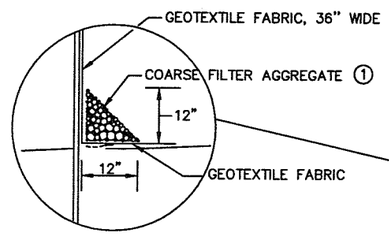


SILT FENCE, MACHINE SLICED
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.

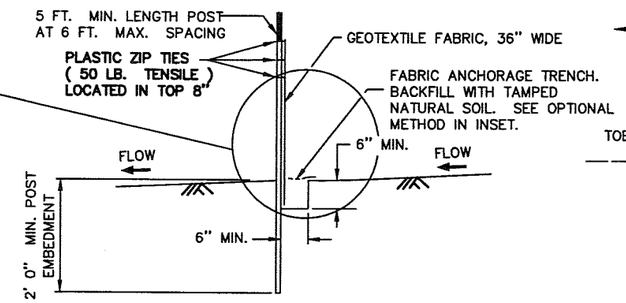


BRIDGE FILL

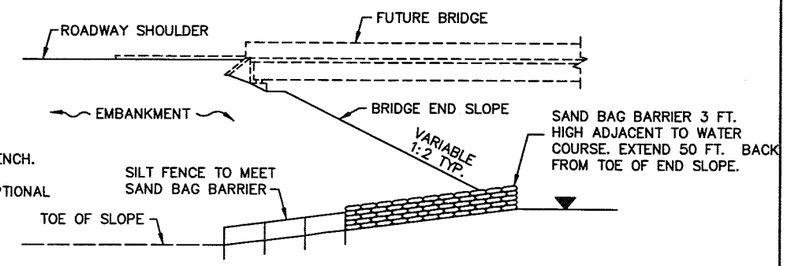
DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: STAGNANT
CONTRIBUTING SLOPE AREA: 1/2 ACRE



OPTIONAL METHOD
FOR SILT FENCE, HEAVY DUTY

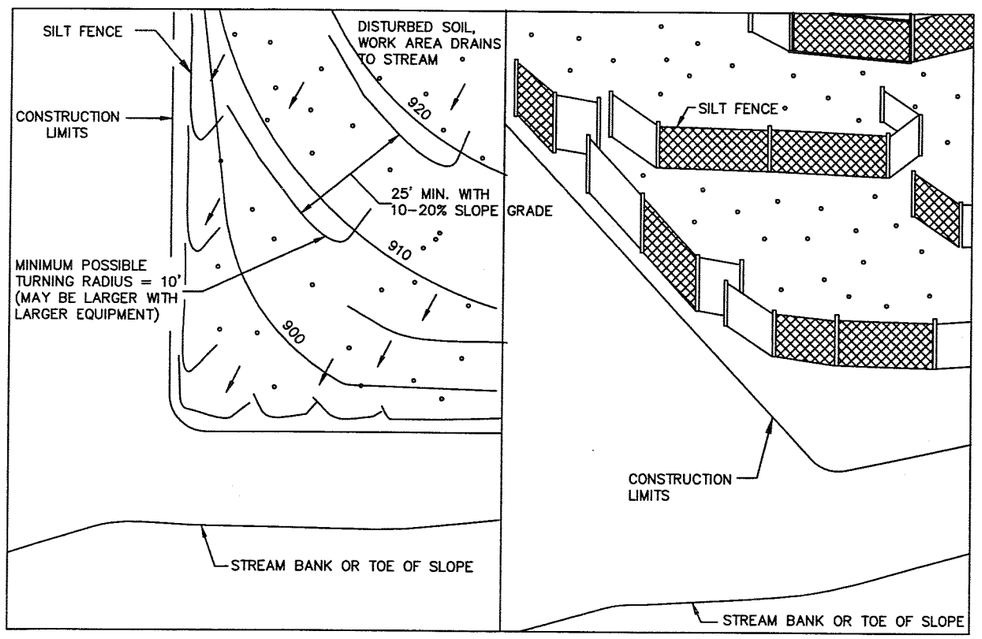


SILT FENCE, HEAVY DUTY
(HAND INSTALLED)
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



BRIDGE FILL

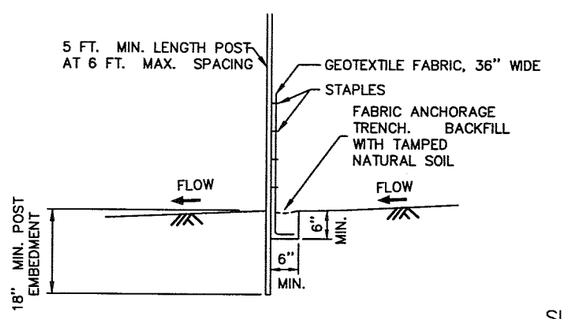
DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1 ACRE



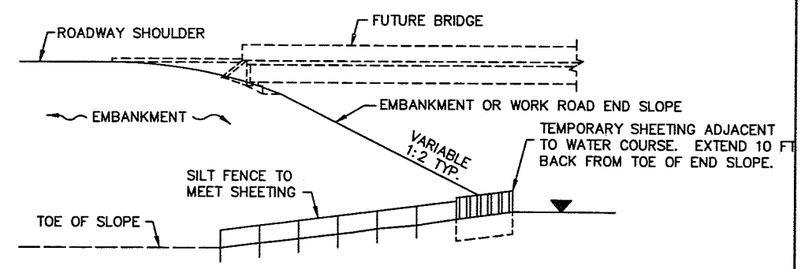
PLAN VIEW

SIDE VIEW

SILT FENCE, J–HOOK INSTALLATION



SILT FENCE, PREASSEMBLED
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



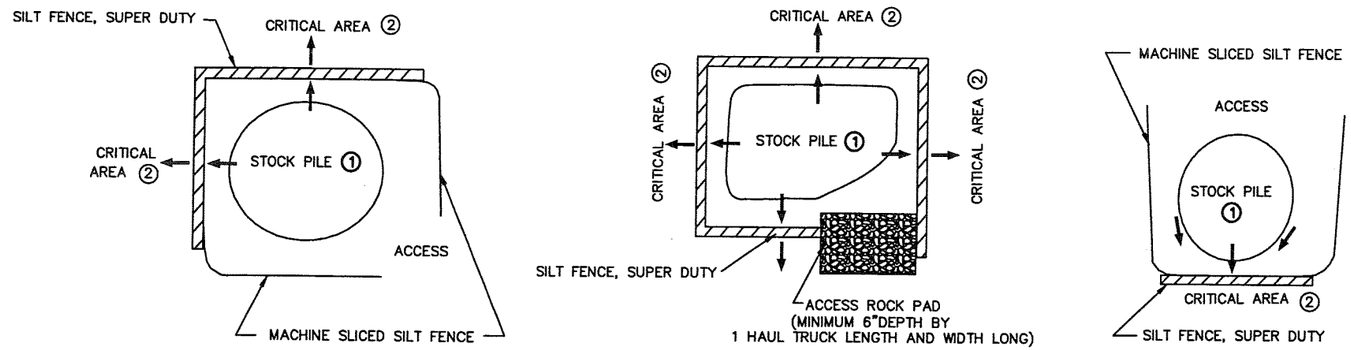
EMBANKMENT OR WORK ROAD FILL

DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC.
CONTRIBUTING SLOPE AREA: 3 ACRES

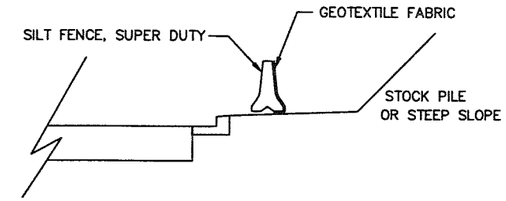
SILT FENCE AT BRIDGE EMBANKMENT ADJACENT TO WATER

NOTES:
SEE SPECS. 2573, 3149 & 3886.
① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

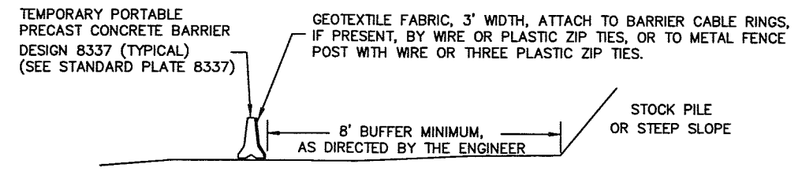
STANDARD SHEET NO. 5-297.408 (1 OF 2)	TITLE: TEMPORARY SEDIMENT CONTROL SILT FENCE
STANDARD APPROVED: SEPTEMBER 27, 2006	
S.P.62-672-04 CTB, S.P.82-625-02 CTB, S.A.P.82-616-16 CTB	Sheet No. 246 of 315 Sheets



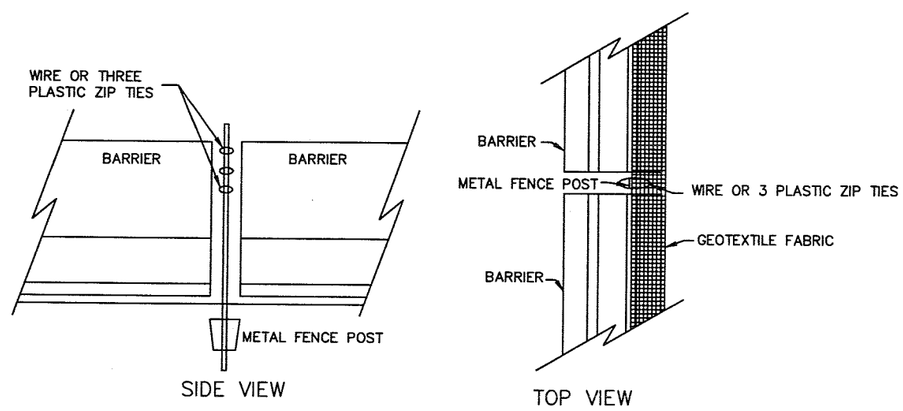
SILT FENCE, SUPER DUTY
STOCK PILE CONTAINMENT



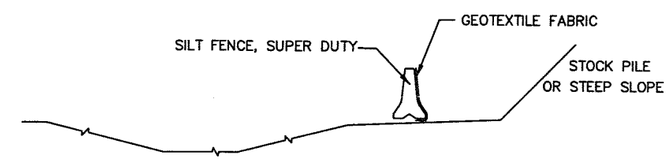
SILT FENCE, SUPER DUTY
CURB AND GUTTER PROTECTION SYSTEM



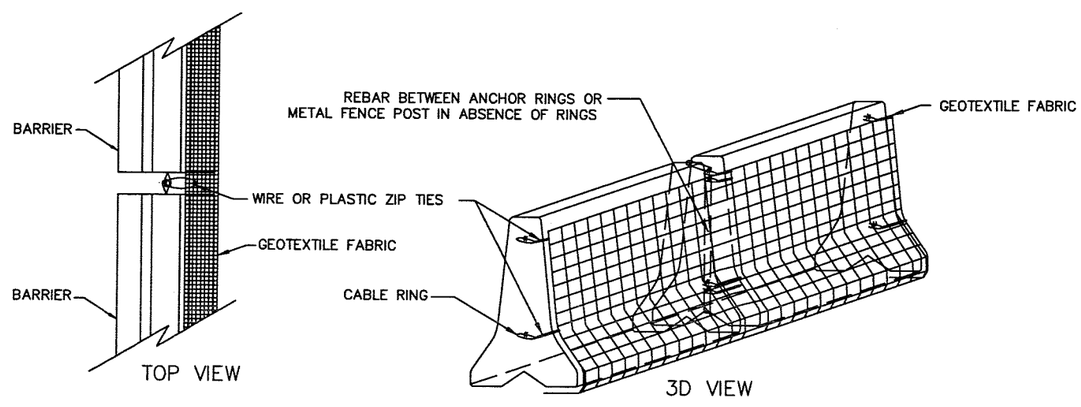
SILT FENCE, SUPER DUTY
STOCKPILE SEDIMENT CONTROL



BARRIER WITHOUT CABLE RINGS



SILT FENCE, SUPER DUTY
DITCH PROTECTION SYSTEM



BARRIER WITH CABLE RINGS
SILT FENCE, SUPER DUTY

NOTES:

SEE SPECS. 2533, 2573 & 3886.

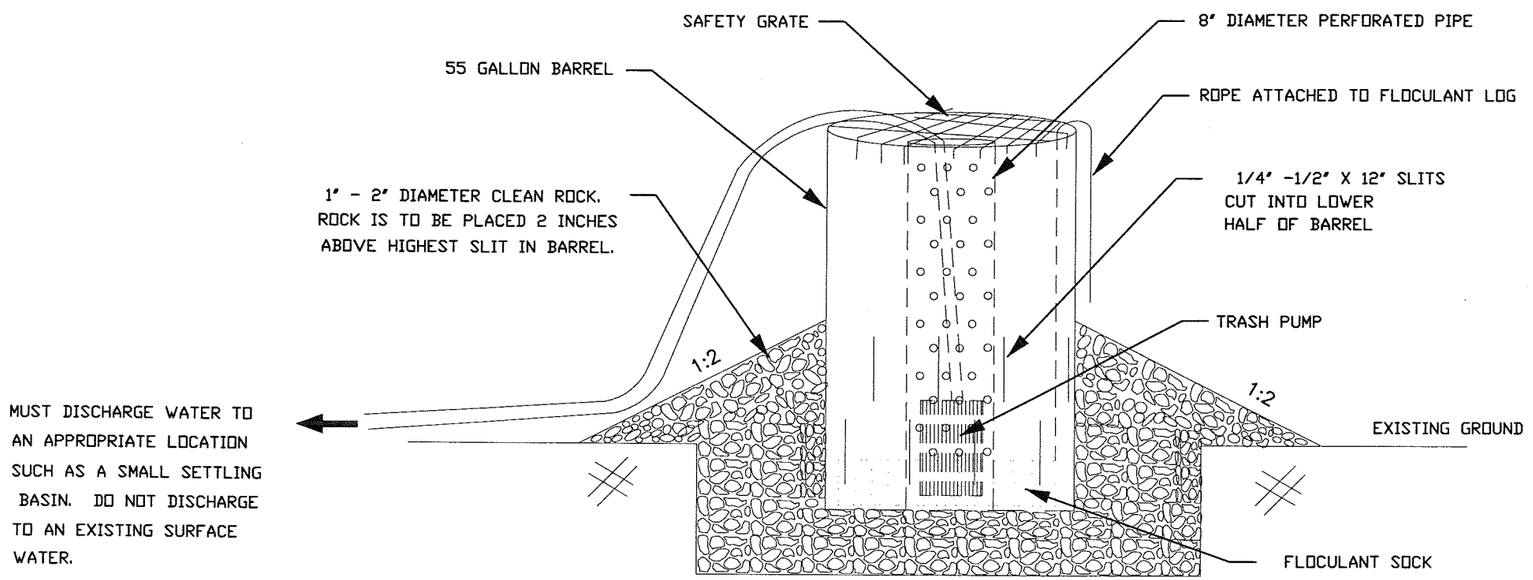
PLACE SUPER DUTY SILT FENCE ALONG A CONSTANT ELEVATION.

SUPER DUTY SILT FENCE CAN UTILIZE EITHER A CONCRETE, OR WATER FILLED, TEMPORARY MEDIAN BARRIER.

① PLACING STOCK PILES NEXT TO AN ENVIRONMENTALLY SENSITIVE AREA IS NOT RECOMMENDED. WHEN THERE ARE NO FEASIBLE ALTERNATIVES, THE SUPER DUTY SILT FENCE IS TO BE USED AS SHOWN OR AS DIRECTED BY THE ENGINEER.

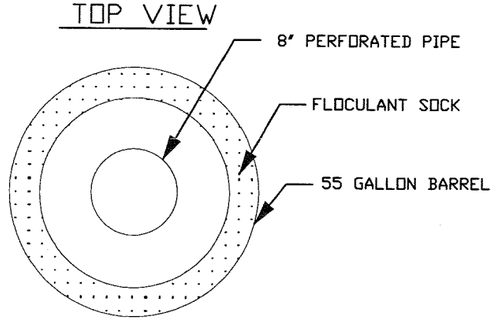
② CRITICAL AREAS INCLUDE WETLANDS, JUDICIAL DITCHES, STREAMS, WATER BODIES, AND OTHER AREAS REQUIRING PROTECTION.

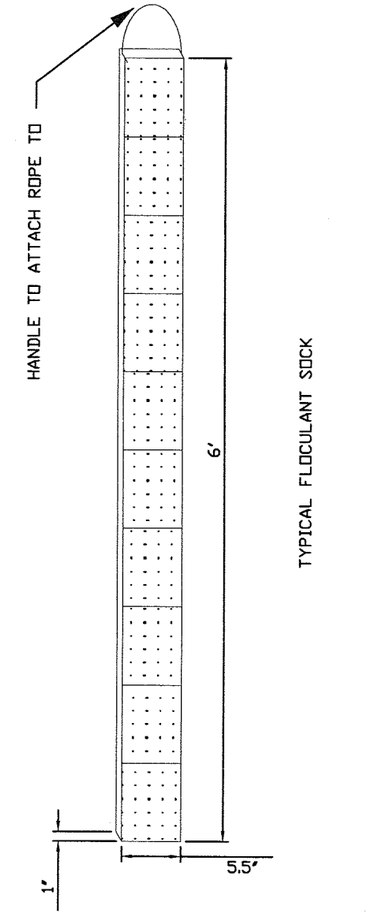
STANDARD SHEET NO. 5-297.408 (2 of 2)	TITLE: TEMPORARY SEDIMENT CONTROL SUPER DUTY SILT FENCE
STANDARD APPROVED: SEPTEMBER 27, 2006	
S.P.62-672-04 CTB, S.P.82-625-02 CTB, S.A.P.82-616-16 CTB	Sheet No. 247 of 315 Sheets



DEWATERING DEVICE SHOULD BE PLACED AT THE LOW POINT OF THE AREA TO DRAIN

TOP VIEW

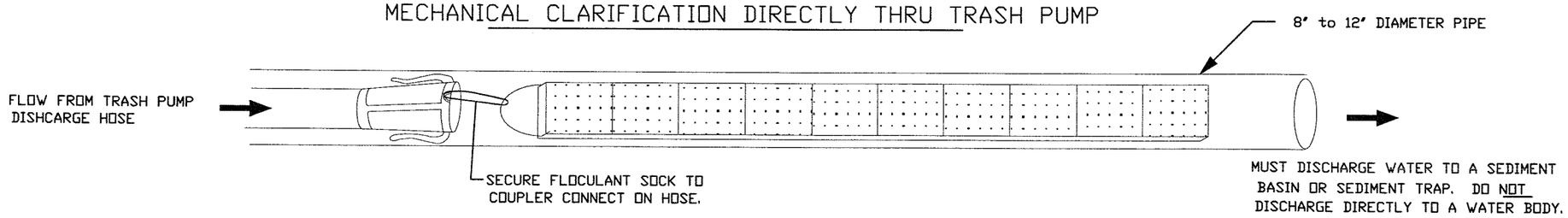




TYPICAL FLOCULANT SOCK

TYPICAL FLOCULANT SOCK

MECHANICAL CLARIFICATION DIRECTLY THRU TRASH PUMP



NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG NO: 26511 DATE: May 13, 2008

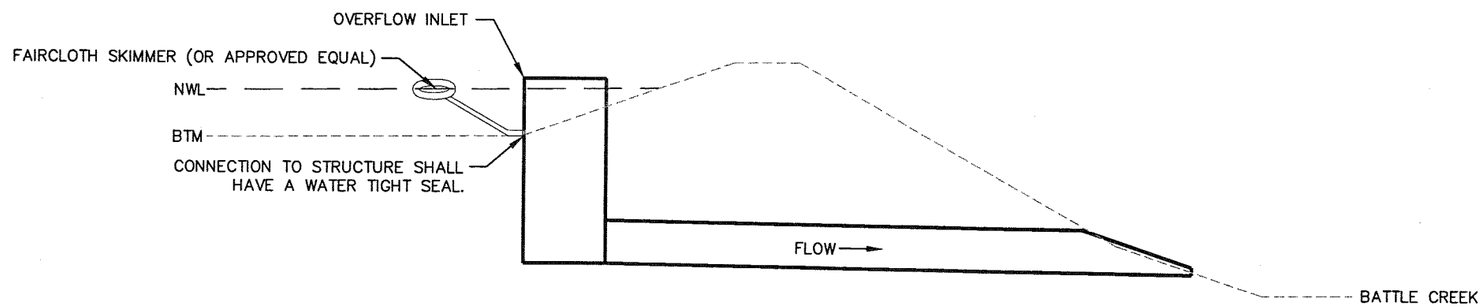
CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

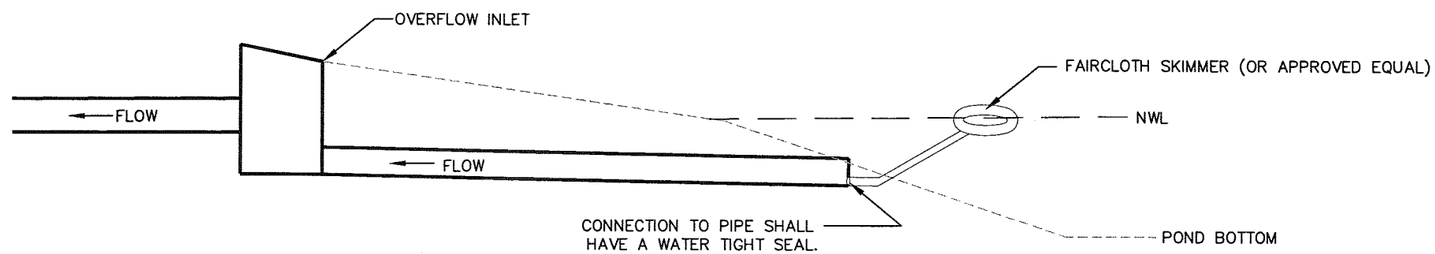
RAMSEY COUNTY

EROSION CONTROL DETAILS

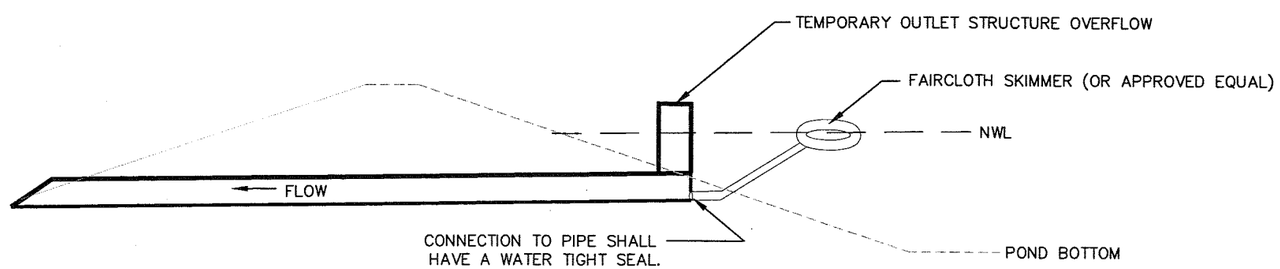
Sheet No. 248 of 315 Sheets



GRAVITY DEWATERING SYSTEM A (BATTLE CREEK TEMPORARY SEDIMENT BASINS)



GRAVITY DEWATERING SYSTEM B (GOFF POND AND PARK HILLS POND TEMPORARY SEDIMENT BASINS)



GRAVITY DEWATERING SYSTEM C (PARK POND AND FARM POND TEMPORARY SEDIMENT BASINS)

NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

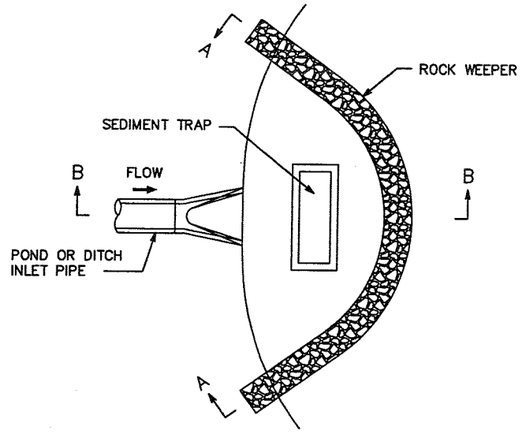
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
SIGNED:
REG NO: 26541 DATE: May 13, 2008

CENTURY AVENUE

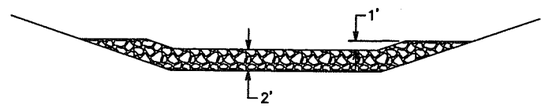
S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

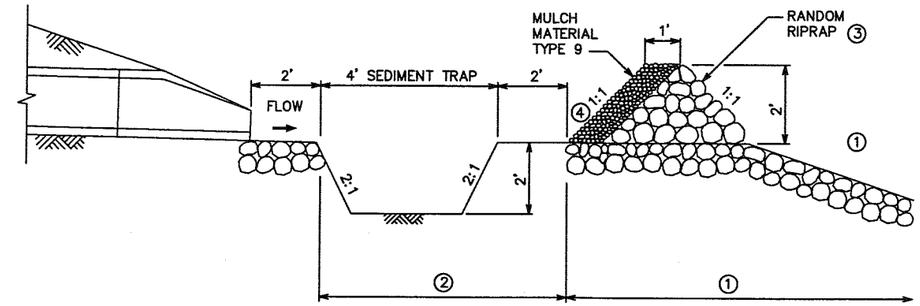
EROSION CONTROL DETAILS



PLAN



SECTION A–A



SECTION B–B

ROCK WEEPER FORE–BAY SYSTEM

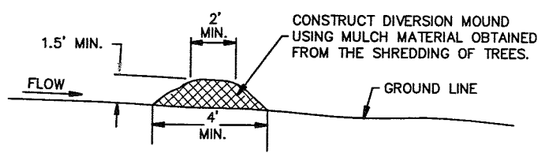
NOTES:

① INSTALL RIPRAP TO POND BOTTOM OR TO TOE OF DITCH

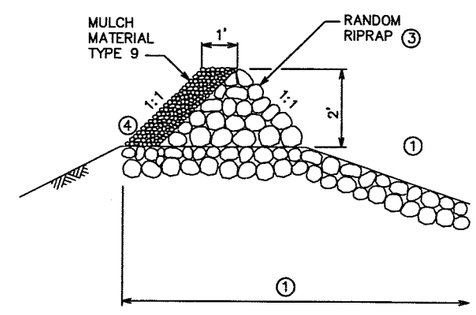
② AFTER SEDIMENT TRAP IS NO LONGER REQUIRED. RIPRAP FROM ROCK WEEPER MAY BE USED FOR THE PLUNGE POOL.

③ USE CLASS III RIPRAP UNLESS OTHERWISE SPECIFIED ON TABULATION FOR PIPE. DEPTH OF RIPRAP AS PER STANDARD PLATES 3133, 3134

④ ANCHOR 2 FLOC SOCKS ALONG ENTIRE LENGTH OF THE FACE OF WEEPER.



DIVERSION MOUND



ROCK WEEPER

AT BATTLE CREEK TEMP. SEDIMENT BASINS

NO.	REV–DATE	BY:	DESCRIPTION
XX	XX–XX–XX	XX	

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG NO: 26511 DATE: May 13, 2008

CENTURY AVENUE

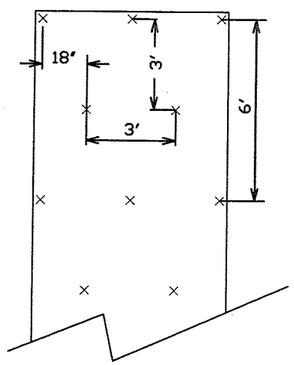
S.P.62–672–04 CTB
S.P.82–625–02 CTB
S.A.P.82–616–16 CTB

RAMSEY COUNTY

EROSION CONTROL DETAILS

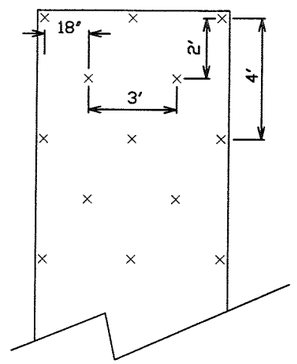
Sheet No. 250 of 315 Sheets

SLOPES FLATTER THAN 1:2
(1.2 STAPLES PER SQ. YD.)



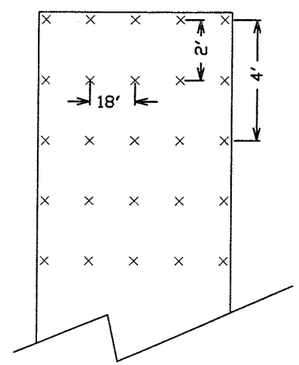
STANDARD 6' BLANKET

SLOPES 1:2 TO 1:1
(1.7 STAPLES PER SQ. YD.)



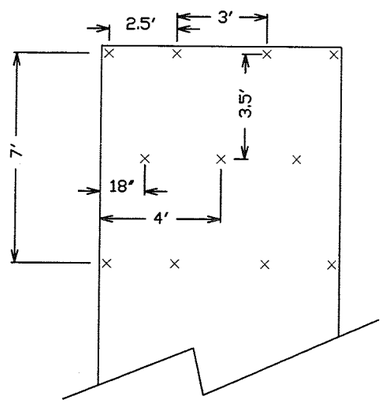
STANDARD 6' BLANKET

CHANNEL AND DITCH APPLICATIONS
(3.5 STAPLES PER SQ. YD.)



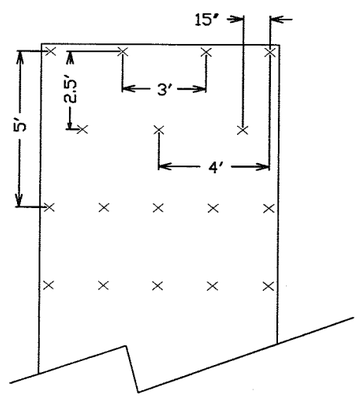
STANDARD 6' BLANKET

SLOPES FLATTER THAN 1:2
(1.2 STAPLES PER SQ.YD.)



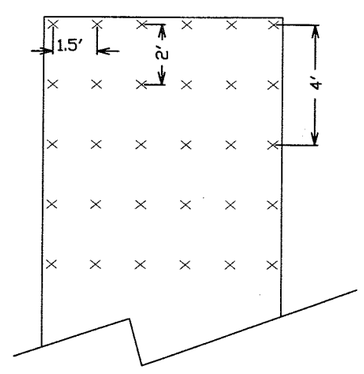
STANDARD 8' BLANKET

SLOPES 1:2 TO 1:1
(1.4 STAPLES PER SQ. YD.)



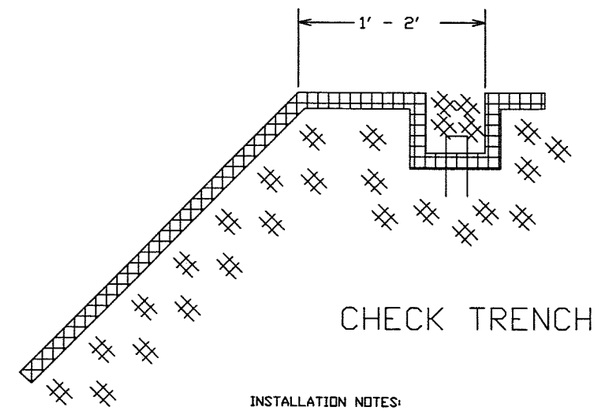
STANDARD 8' BLANKET

CHANNEL AND DITCH APPLICATIONS
(3.5 STAPLES PER SQ. YD.)



STANDARD 8' BLANKET

BLANKET STAPLING PATTERN



CHECK TRENCH

INSTALLATION NOTES:
1. DIG 6 " X 6" TRENCH
2. LAY BLANKET END INTO TRENCH
3. STAPLE BLANKET IN BOTTOM OF TRENCH EVERY 18".
4. BACKFILL TRENCH WITH SOIL AND COMPACT.

NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

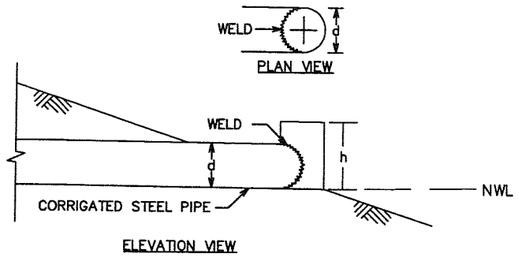
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
SIGNED:
REG NO: 26511 DATE: May 13, 2008

CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

EROSION CONTROL DETAILS



d = DIA. OF CS PIPE. SEE TEMPORARY SEDIMENT BASIN PLAN ON SHEETS 238, AND 239.

h = HEIGHT OF RISER PIPE. SEE TEMPORARY SEDIMENT BASIN PLAN ON SHEETS 238, AND 239.

TEMPORARY OUTLET STRUCTURE

NO.	REV–DATE	BY:	DESCRIPTION
XX	XX–XX–XX	XX	

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SIGNED:

REG NO: 26511 DATE: May 13, 2008

CENTURY AVENUE

S.P.62–672–04 CTB
S.P.82–625–02 CTB
S.A.P.82–616–16 CTB

RAMSEY COUNTY

EROSION CONTROL DETAILS

BB

TEMPORARY SEDIMENT CONTROL

ROAD	STATION	LOC	SILT FENCE TYPE SUPER DUTY	SILT FENCE TYPE MACHINE SLICED	FLOTATION SILT CURTAIN TYPE STILL WATER	DIVERSION MOUND	TEMPORARY ROCK WEEPER	TEMPORARY ROCK WEEPER FORE BAY	TEMPORARY DITCH CHECK TYPE 5	TEMPORARY RIP RAP	VEGETATED COIR LOG	STORM DRAIN INLET PROTECTION	12" BIOROLL	FLOCCULANT SOCK	TEMPORARY OUTLET STRUCTURE	GRAVITY DEWATERING SYSTEM
			LIN FT	LIN FT	LIN FT	CU YD	CU YD	CU YD	CU YD	TON	EACH	EACH	LIN FT	EACH	EACH	EACH
CENTURY AVE NB	283+50 - 297+18	LT										11	259			
	283+52 - 288+13	RT		385								4				
	288+23 - 290+92	RT		185								1				
	291+08 - 292+70	RT		154												
	292+80 - 299+80	RT			210							6	152			
	297+18 - 304+89	LT			236							5	61			
	300+20 - 315+58	RT						10				16		10		1
	305+29 - 316+92	LT		694	297							11	363			
	317+06 - 331+60	RT		602								6				
	318+11 - 331+60	LT		656				12	6	4	3	10	675	12	1	1
	331+47 - 354+30	LT		296								13	201			
	331+91 -345+28	RT										5	534			
	345+40 - 356+91	RT		318								5	582			
	354+40 - 359+55	LT	25					9		37		5	521	10	1	1
	356+91 - 365+32	RT		416								3				
	359+78 - 373+82	LT										10				
	365+51 - 377+90	RT										10	287			
	374+14 - 380+16	LT				43	8		12			6	234	8		2
	378+01 - 382+65	RT										3				
	380+43 - 383+54	LT										4				
LOWER AFTON RD EB/	95+00 - 105+08	RT		909								2				
VALLEY CREEK RD EB	95+00 - 102+46	LT		346								5				
	105+83 - 112+51	LT		47								8				
	107+02 - 118+40	RT		719								3				
	112+67 - 124+30	LT		538								12				
	118+84 - 136+57	RT	37	715				12				7	522	6		1
	124+64 - 136+90	LT		856								15				
TOTALS			62	7836	743	43	8	43	18	41	3	186	4391	46	2	6

NO.	REV-DATE	BY:	DESCRIPTION
XX	XX-XX-XX	XX	

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNED:

REG NO: 26511 DATE: MAY 13, 2008

CENTURY AVENUE

S.P.62-672-04 CTB
S.P.82-625-02 CTB
S.A.P.82-616-16 CTB

RAMSEY COUNTY

TEMPORARY SEDIMENT CONTROL TABULATION