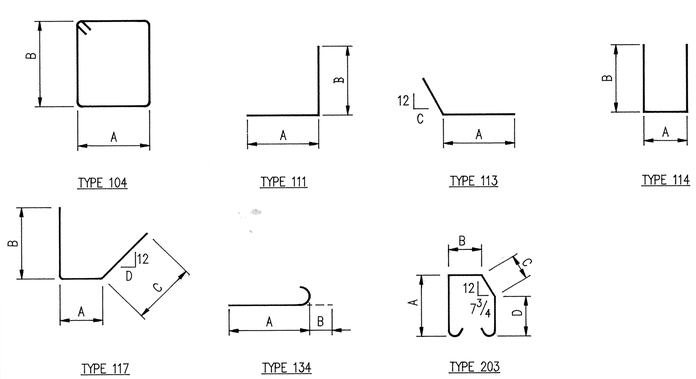
BILL OF REINFORCEMENT FOR EACH ABUTMENT

BAR MARK	NO. BARS	NO. SERIES	LENGTH	TYPE	DIM A	DIM B	DIM C	DIM D	LOCATION
PLAIN BARS									
A501	54		19 - 9	104	2-10	6-7			FOOTING TRANS.
A602	12		52 - 0	STR					FOOTING LONG.
A503	16		10 - 7	104	2-10	2-0			W.W.FOOTING TRANS.
A604	16		9 - 2	STR					W.W.FOOTING LONG.
EPOXY-COATED BARS									
A505E	25		51 - 2	STR					ABUT. HORIZ.
A506E	104		4 - 8	STR					FOOTING DOWEL
NOT USED									
A508E	4		2 - 8	STR					ABUT. END
A509E	36		4 - 0	111	0-10	3-2			W.W. FOOTING DOWEL
A510E	2		13 - 9	113	9-0	4-9	6-5/8		W.W. BOTTOM
A511E	52		9 - 1	114	3-11	2-7			BARREL VERT.
A512E	52		16 - 2	114	1-2	7-6			BACKWALL VERT.
A513E	14		4 - 6	117	1-2	2-0	1-4	12	W.W. CORNER HORIZ.
A514E	48		3 - 11	134	3-4	0-7			BACKWALL VERT.
A515E	48		3 - 0	STR					BACKWALL VERT.
A516E		2 SER.	12 - 7	STR					W.W. HORIZ.
		OF 3	16 - 3						
A517E	4		15 - 9	STR					W.W. HORIZ.
A518E	2		17 - 8	STR					W.W. HORIZ.
A519E	22		18 - 0	STR					W.W. HORIZ.
A520E		2 SER.	5 - 2	STR					W.W. VERT.
		OF 8	9 - 0						
A521E	18		9 - 1	STR					W.W. VERT.
A522E	6		3 - 0	111	1-6	1-6			W.W. CORNER HORIZ.
A523E		2 SER.	5 - 3	STR					W.W. VERT.
		OF 8	9 - 10						
A524E	18		9 - 9	STR					W.W. VERT.
A525E		2 SER.	13 - 11	STR					W.W. HORIZ.
		OF 3	16 - 11						
A526E	2		17 - 3	STR					W.W. HORIZ.
A527E	25		4 - 5	203	1-4	7-1/2	1-0	0-6	RAIL BASE VERT.
A528E	26		9 - 5	114	0-7	4-5			RAIL BASE VERT.
A529E	2		14 - 3	113	9-6	4-9	8		W.W. HORIZ.
A430E	4		18 - 0	STR					W.W. HORIZ.
A731E	3		5 - 0	203	1-4	7-1/2	1-0	0-6	RAIL BASE VERT.
A732E	3		4 - 6	114	1-2	1-8			RAIL BASE VERT.
A533E	25		4 - 6	114	1-2	1-8			RAIL BASE VERT.
A534E	30		5 - 2	114	2-2	1-6			BEAM SEAT
A535E	30		5 - 6	114	2-2	1-6			BEAM SEAT

BAR BENDING DIAGRAMS



SUMMARY OF QUANTITIES FOR ABUTMENTS

	ITEM	UNIT	N. ABUT.	S. ABUT.	TOTAL
	STRUCTURE CONCRETE (1A43)	CU. YD.	54	54	108
	STRUCTURE CONCRETE (3Y43)	CU. YD.	60	60	120
	REINFORCEMENT BARS	POUND	2450	2450	4900
	REINFORCEMENT BARS (EPOXY COATED)	POUND	6130	6130	12260
1	C.I.P. CONCRETE PILING DELIVERED 12"	LIN. FT.	680	680	1360
1	C.I.P. CONCRETE PILING DRIVEN 12"	LIN. FT.	680	680	1360
	C.I.P. CONCRETE TEST PILE 60 FEET LONG 12"	EACH	2	2	4

QUANTITY NOTES :

1 DOES NOT INCLUDE TEST PILES.

COMPUTED PILE LOADS TONS PER PILE

DEAD LOAD + EARTH PRESSURE	44.1
LIVE LOAD	5.9
DESIGN LOAD	50.0

PILE NOTES :

- (2) CAST-IN-PLACE CONCRETE TEST PILES 60 FEET LONG.
- (17) CAST-IN-PLACE CONCRETE PILES ESTIMATED LENGTH 40 FEET.
- (19) CAST-IN-PLACE CONCRETE PILES REQUIRED FOR EACH ABUTMENT.
- PILE SPACING SHOWN IS AT BOTTOM OF FOOTING.
- PILES MARKED THUS : ○▶ TO BE BATTERED 3" PER FOOT IN DIRECTION SHOWN.
- PILES TO HAVE A NOMINAL DIAMETER OF 12".

Larson
ENGINEERING OF MINNESOTA
3524 LABORE ROAD
WHITE BEAR LAKE, MN. 55110
612-481-9120

S.P. 204-113-03

RECORD PLAN OCT. 1993

ABUTMENT BARLIST & QUANTITIES

DES : DRM	DR : GLA	APPROVED :
CHK : RLD	CHK : RLD	7-2-92

Sheet No. 6 of 24 Sheets

Bridge No. 71517

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502
DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502
DRAWING NUMBER MAINS.91 6
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6502