

The Government of the Province of British Columbia
Ministry of Environment and Parks
Water Management Branch

Canada – British Columbia
Fraser River Flood Control 1968 Agreement
Project No. 22 – Glen Valley Dyking District

DRAWING LIST

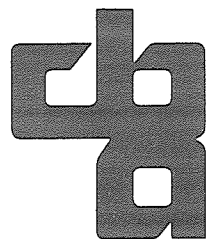
CONTRACT DRAWINGS

REFERENCE DRAWINGS

88-9-1-1 A	GENERAL PLAN	88-9-1-13 A	WEST WINGDYKE PROPERTY REQUIREMENTS SH 1 OF 3
88-9-1-2 A	WEST WINGDYKE ALIGNMENT PLAN CH 0+00W TO CH 1+450W SH 1 OF 3	88-9-1-14 A	WEST WINGDYKE PROPERTY REQUIREMENTS SH 2 OF 3
88-9-1-3 A	WEST WINGDYKE ALIGNMENT PLAN CH 1+450W TO CH 2+550W SH 2 OF 3	88-9-1-15 A	WEST WINGDYKE PROPERTY REQUIREMENTS SH 3 OF 3
88-9-1-4 A	WEST WINGDYKE ALIGNMENT PLAN CH 2+500W TO CH 2+590.360W SH 3 OF 3	88-9-1-16 A	FRASER RIVER BANK PROTECTION PROPERTY REQUIREMENTS
88-9-1-5 A	WEST WINGDYKE PROFILE		
88-9-1-6 A	WEST WINGDYKE TYPICAL SECTIONS SH 1 OF 3		
88-9-1-7 A	WEST WINGDYKE TYPICAL SECTIONS SH 2 OF 3		
88-9-1-8 A	WEST WINGDYKE TYPICAL SECTIONS SH 3 OF 3		
88-9-1-9 A	WEST WINGDYKE MISCELLANEOUS DETAILS		
88-9-1-10 A	FRASER RIVER BANK PROTECTION ALIGNMENT PLAN		
88-9-1-11 A	FRASER RIVER BANK PROTECTION TYPICAL SECTIONS SH 1 OF 2		
88-9-1-12 A	FRASER RIVER BANK PROTECTION TYPICAL SECTIONS SH 2 OF 2		

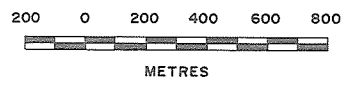
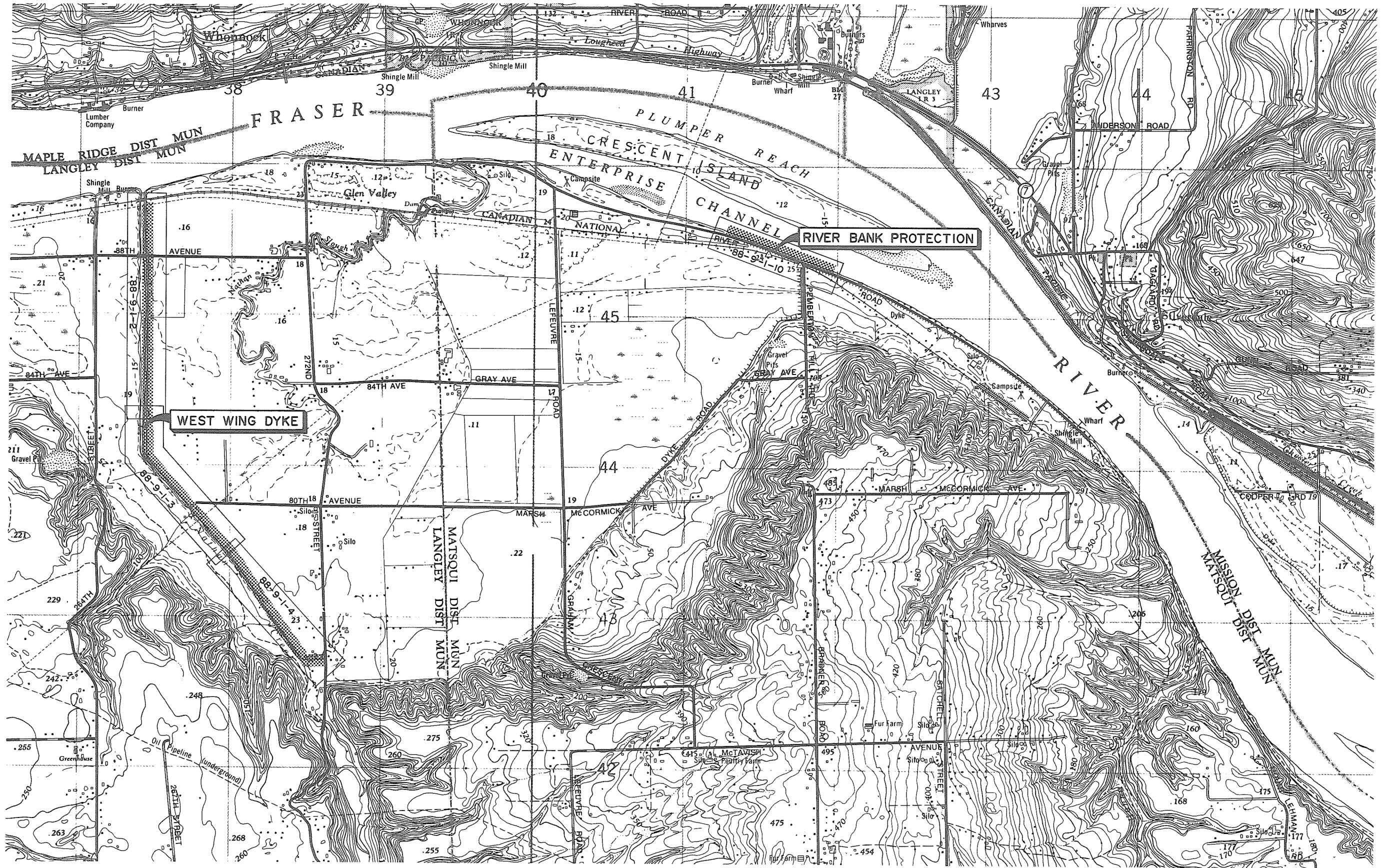
Contract No. 1

**West Wingdyke Upgrading and
Fraser River Bank Protection**



CBA ENGINEERING LTD

Consulting Engineers
Vancouver, Canada




[Handwritten signature]


 Prepared by
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

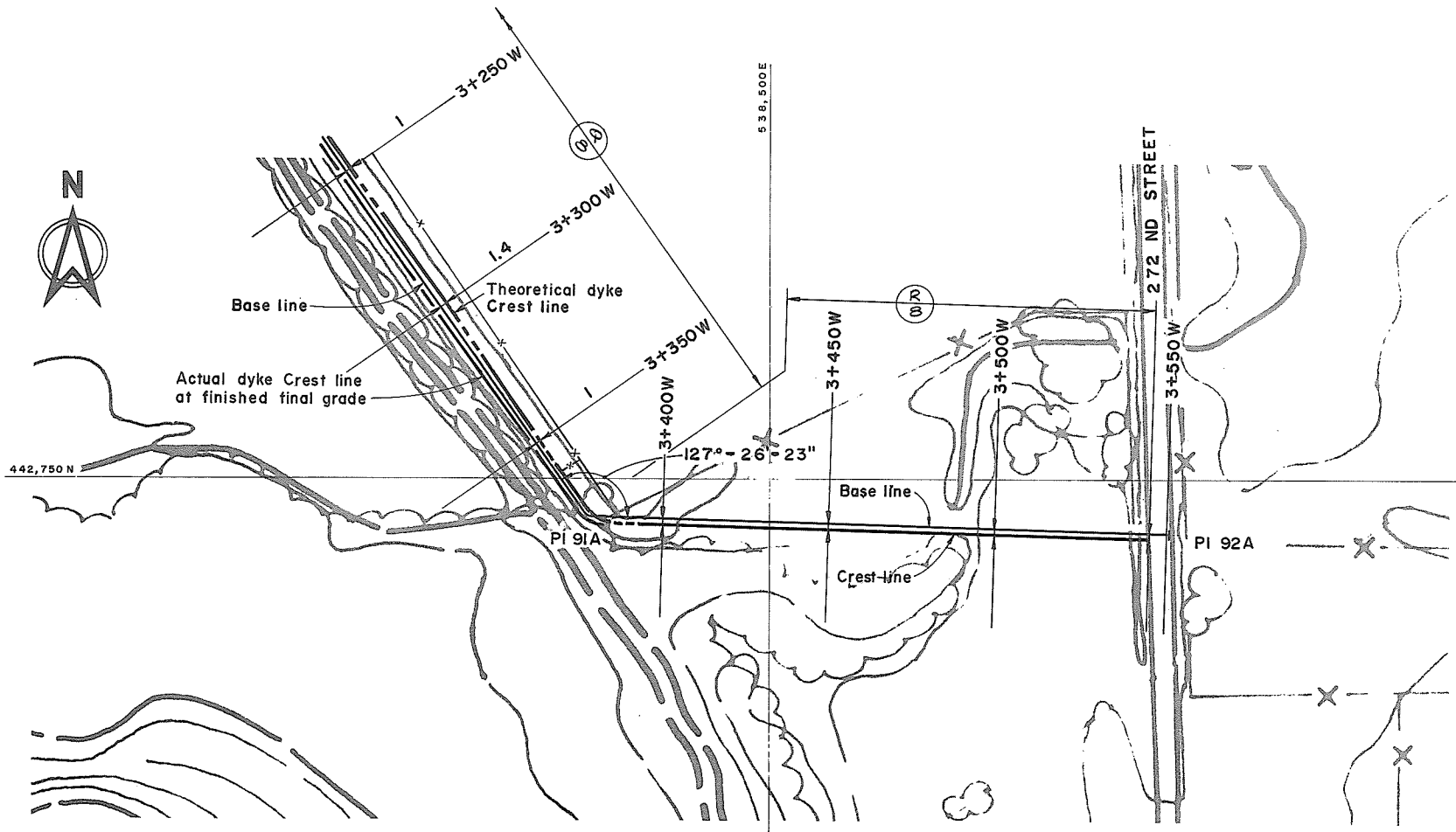
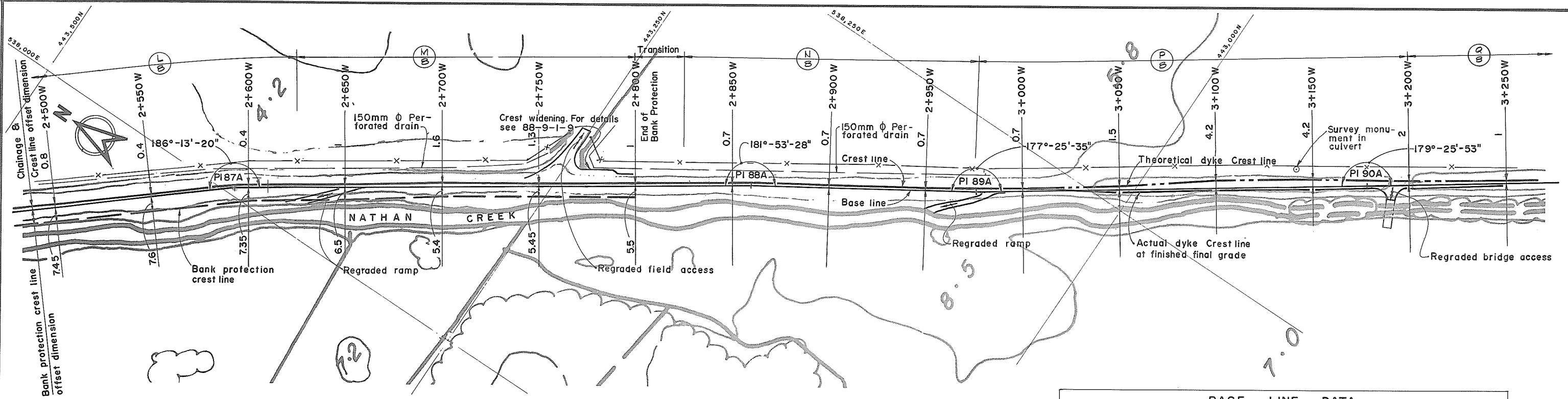
REVISIONS	
No.	DESCRIPTION
A	As constructed

RECOMMENDED *R.A. Cameron*
 DATE *April 27 1988*
 RECOMMENDED *[Signature]*
 DATE *1988-04-27*
 APPROVED *[Signature]*
 DATE *April 27 1988*


 Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
CONTRACT NO. 1
GENERAL PLAN

FILE No. 0281550 C9-1	SURVEYED
DESIGNED	DATE
DRAWN <i>AR</i>	SCALE AS SHOWN
DATE MAY 1988	DRAWING No. 88-9-1-1A
CHECKED <i>DLC</i>	SHEET of

Neg. No 342001



BASE LINE DATA					
PI	BEARING	CHAINAGE	INTERVAL	CO-ORDINATES	
				NORTH	EAST
87 A		2+592.818		5,443,385.773	538,004.300
88 A	S 145°-47'-54" E	2+859.768	266.950	5,443,165.071	538,154.298
89 A	S 147°-41'-22" E	2+976.166	116.398	5,443,066.733	538,216.490
90 A	S 145°-06'-57" E	3+178.018	201.852	5,442,901.214	538,331.890
91 A	S 144°-32'-50" E	3+376.550	198.532	5,442,739.552	538,447.001
92 A	S 91°-59'-13" E	3+550.360	173.810	5,442,733.528	538,620.641

LEGEND

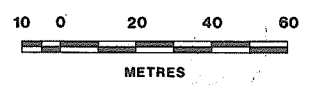
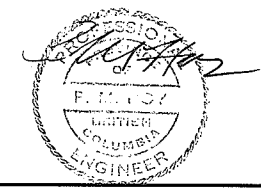
- △ - survey monument
- ⊙ G.W.D.# - Bench mark & Geodetic elevation
- Ⓛ - section identification letter
- Ⓟ - Drawing number on which section is located i.e. 88-9-1-B

GENERAL NOTES

- Elevations are in metres and refer to the Geodetic Survey of Canada.
- All dimensions are in metres except as noted.
- Offset distances from base line to crest line are taken at the design crest elevation.
- The angle offset is 90° to the base line.
- Terminal parts of the work shall be constructed to blend with the existing ground.
- Water levels in Nathan Creek from CH 0+000 to approx CH 2+000 vary to tidal conditions and water levels of the Fraser River.

NOTES

- For Profile see 88-9-1-5



Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	MAR 1990

RECOMMENDED: *R.H. Cameron*
 DATE: *April 27, 1988*

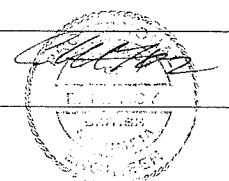
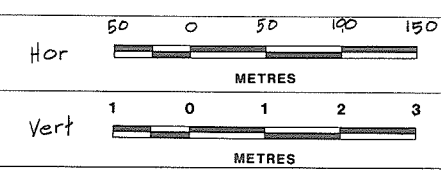
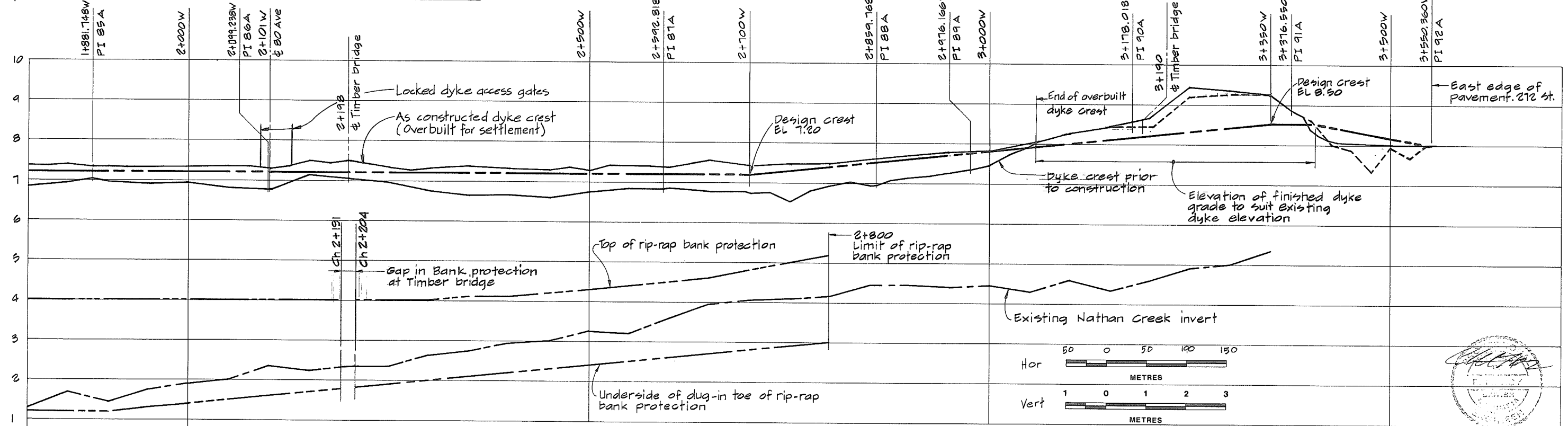
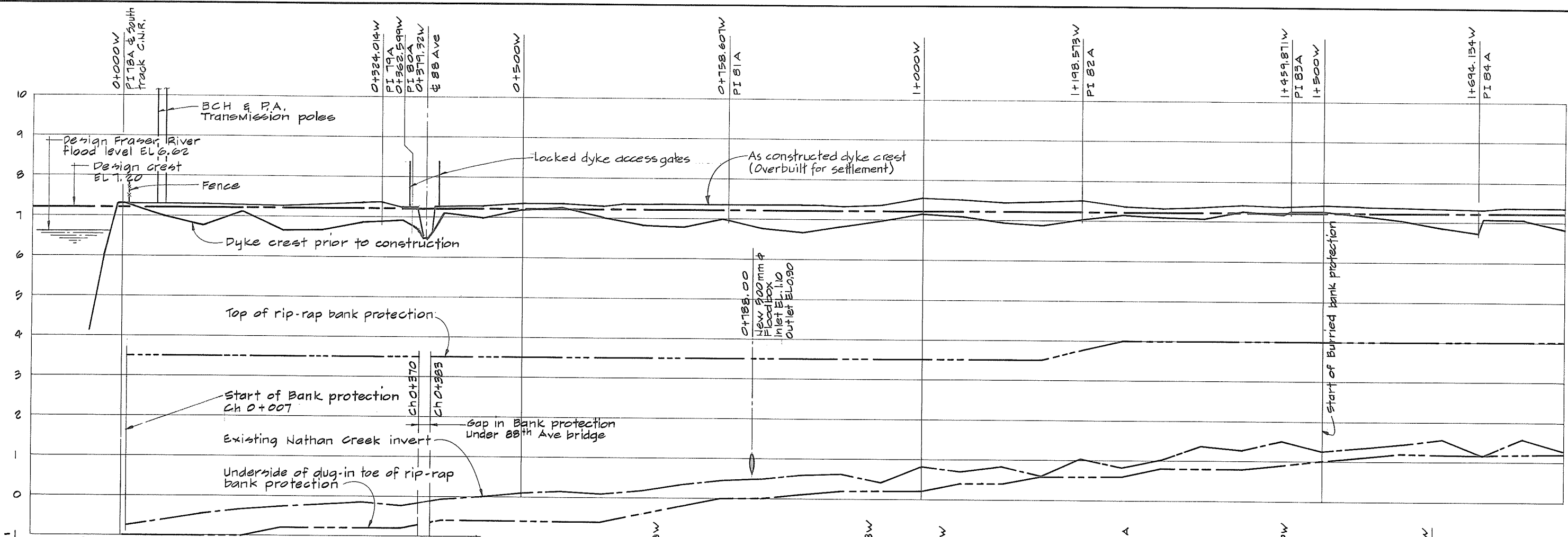
RECOMMENDED: *W. H. H. Paton*
 DATE: *14.88-04-27*

APPROVED: *[Signature]*
 DATE: *April 27, 1988*

Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 1 WEST WINGDYKE
 ALIGNMENT PLAN
 CH 2+500W TO CH 3+550.360W

FILE No. 0281550C9-1	SURVEYED DB & DLC
DESIGNED DLC & EMH	DATE MARCH 1987
DRAWN AR	NEGATIVE No. 342004
DATE MAY 1988	DRAWING No. 88-9-1-4 A
CHECKED DLC	SHEET 3 of 3



NOTES

For General Notes see 88-9-1-4

Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

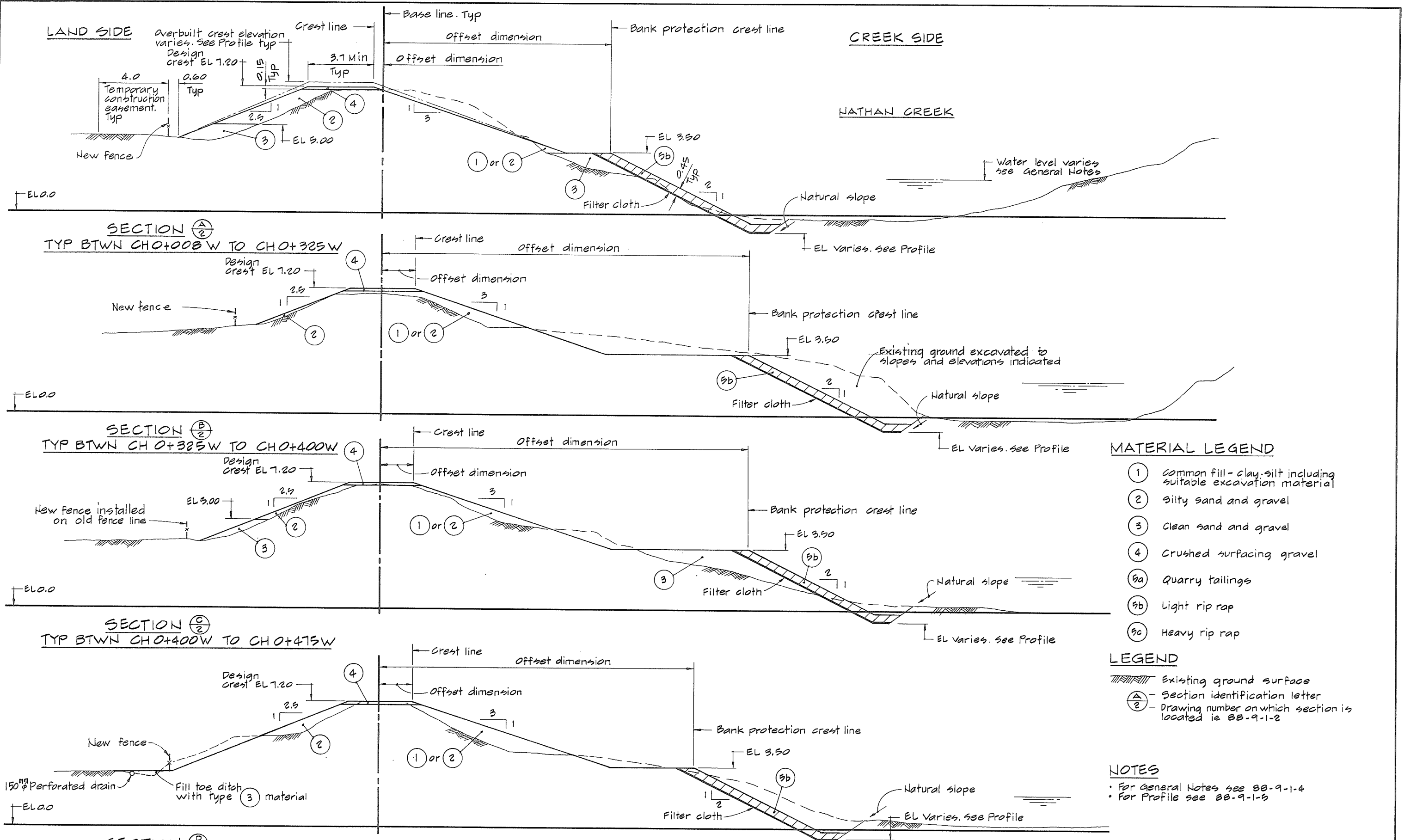
REVISIONS		
No	DESCRIPTION	DATE
A	As constructed	March 1990

RECOMMENDED <i>R. H. Camm</i>	DATE <i>April 27, 1988</i>
RECOMMENDED <i>W. H. White</i>	DATE <i>1988-04-27</i>
APPROVED <i>[Signature]</i>	DATE <i>April 27, 1988</i>

Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 1 WEST WINGDYKE
 PROFILE

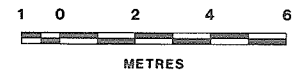
FILE No. 0281550 C9-1	SURVEYED DB & DLC
DESIGNED DLC & EMH	DATE MARCH 1987
DRAWN OR/RC	NEGATIVE No. 342005
DATE MAY 1988	DRAWING No. 88-9-1-5A
CHECKED DLC	SHEET 1 of 1



- MATERIAL LEGEND**
- ① Common fill - clay, silt including suitable excavation material
 - ② Silty sand and gravel
 - ③ Clean sand and gravel
 - ④ Crushed surfacing gravel
 - 9a Quarry tailings
 - 9b Light rip rap
 - 9c Heavy rip rap

- LEGEND**
- Existing ground surface
 - Ⓐ - Section identification letter
 - ② - Drawing number on which section is located i.e. 88-9-1-2

- NOTES**
- For General Notes see 88-9-1-4
 - For Profile see 88-9-1-5



Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

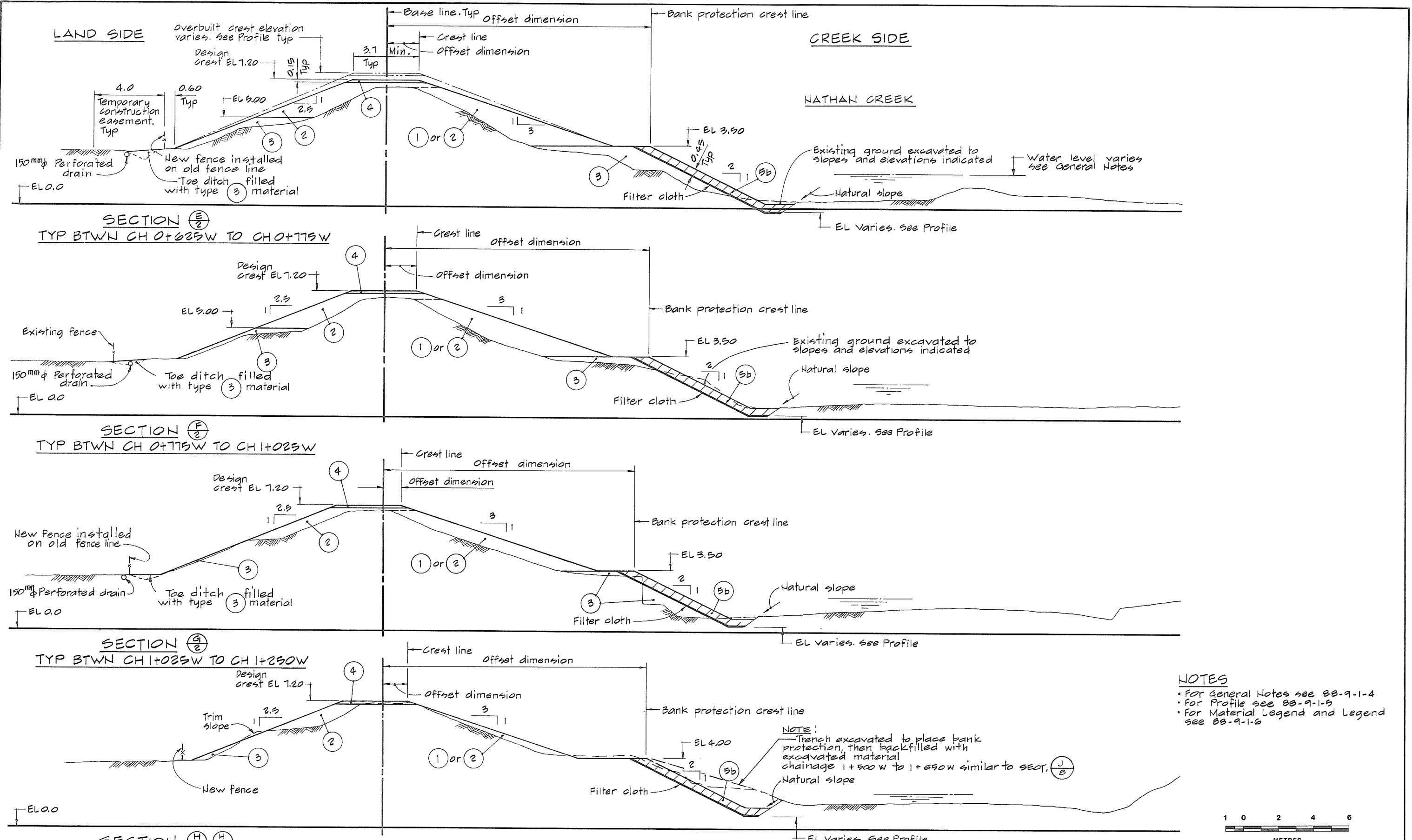
REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	March 1990

RECOMMENDED <i>R. W. Cameron</i>
DATE <i>April 27, 1988</i>
RECOMMENDED <i>W. J. Milligan</i>
DATE <i>1988-04-27</i>
APPROVED <i>[Signature]</i>
DATE <i>April 27, 1988</i>

Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 1 WEST WINGDYKE
 TYPICAL SECTIONS

FILE No. 0281550C9-1	SURVEYED DB & DLC
DESIGNED DLC & EMH	DATE MARCH 1987
DRAWN OR/EC	NEGATIVE No. 342006
DATE MAY 1988	DRAWING No. 88-9-1-6A
CHECKED DLC	SHEET 1 of 3



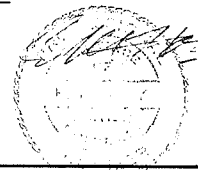
- NOTES**
- For General Notes see 88-9-1-4
 - For Profile see 88-9-1-5
 - For Material Legend and Legend see 88-9-1-6

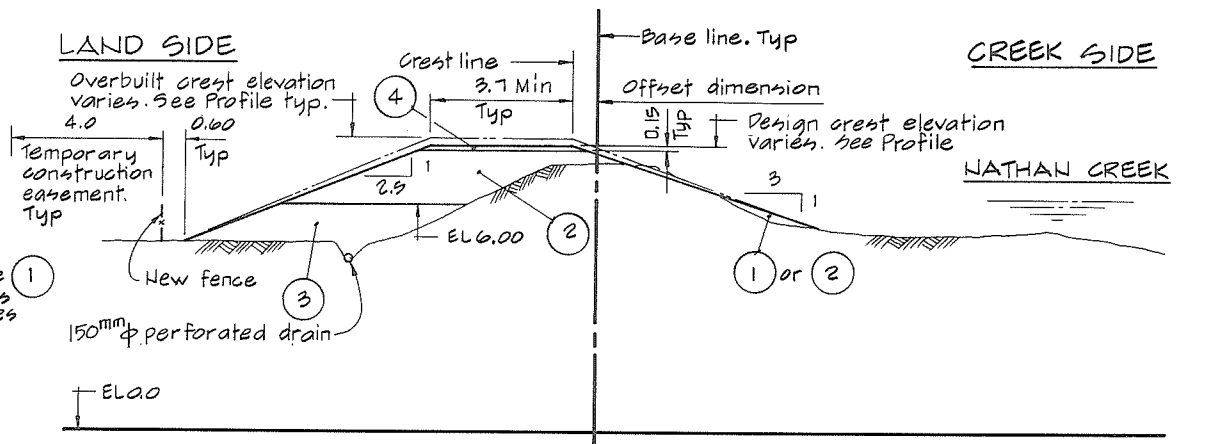
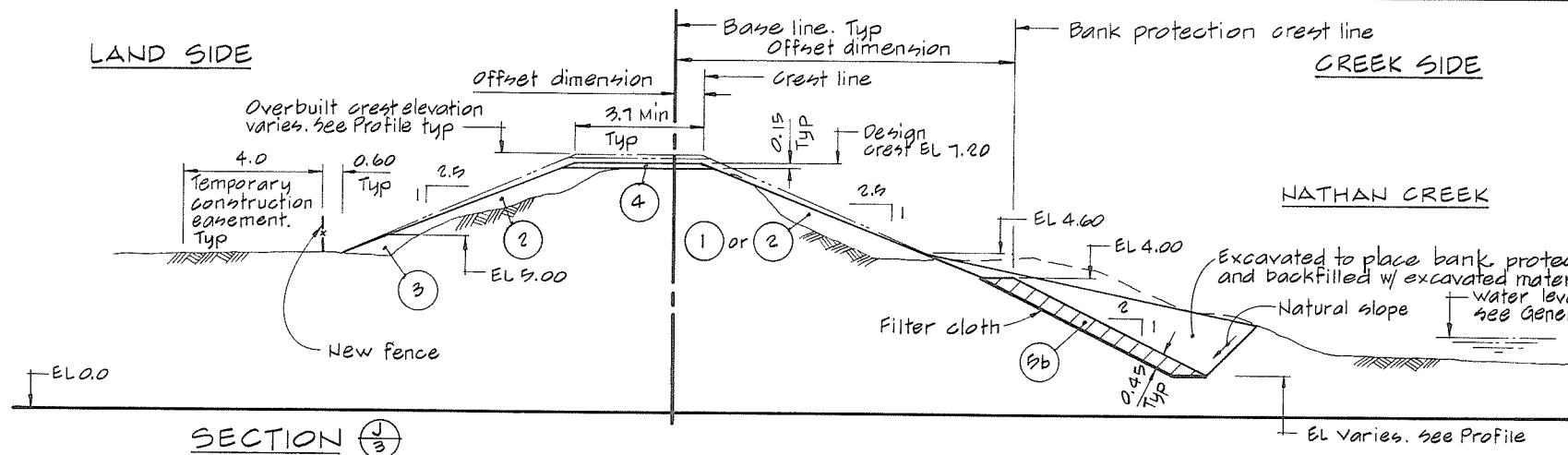
REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	March 1990

RECOMMENDED <i>R. W. Camm</i>	DATE <i>April 27 1988</i>
RECOMMENDED <i>D. M. H. Carter</i>	DATE <i>1988-04-27</i>
APPROVED <i>[Signature]</i>	DATE <i>April 27 1988</i>

Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA-BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-1	SURVEYED <i>DB & DLC</i>
	DESIGNED <i>DLC & EMH</i>	DATE MARCH 1987
	DRAWN <i>AR/RC</i>	NEGATIVE No. 342007
	DATE MAY 1988	DRAWING No. 88-9-1-7A
	CHECKED <i>DLC</i>	SHEET 2 of 3

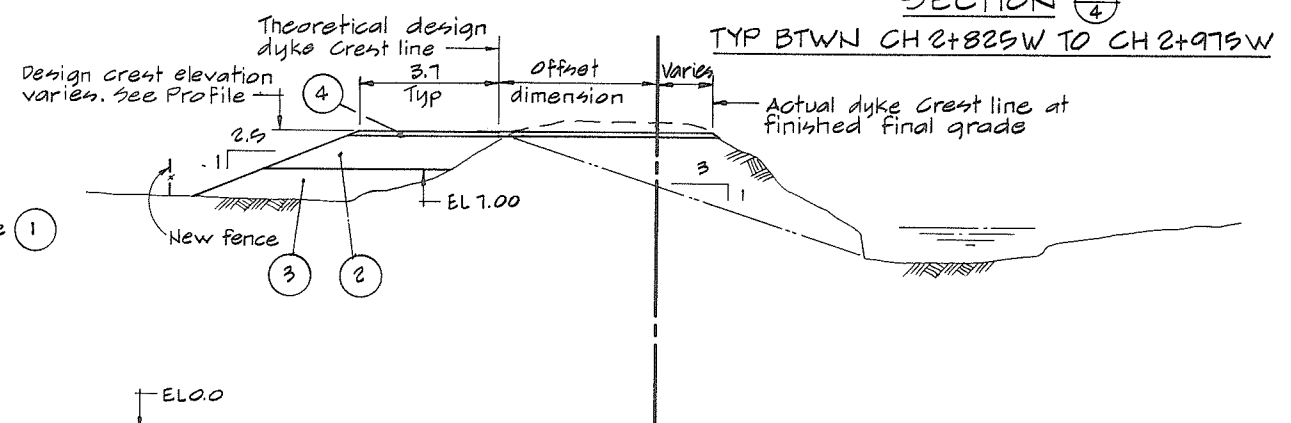
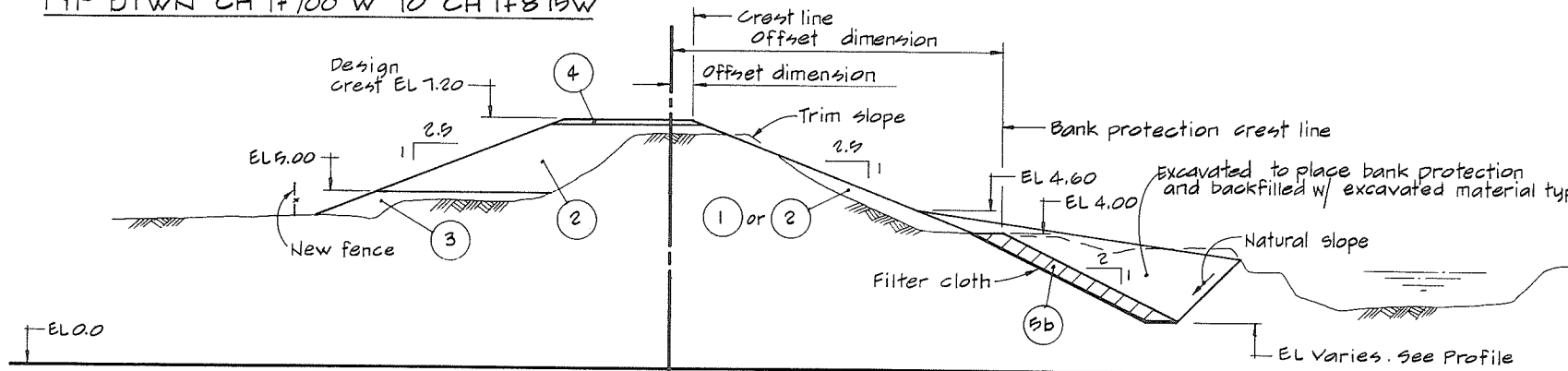
Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA





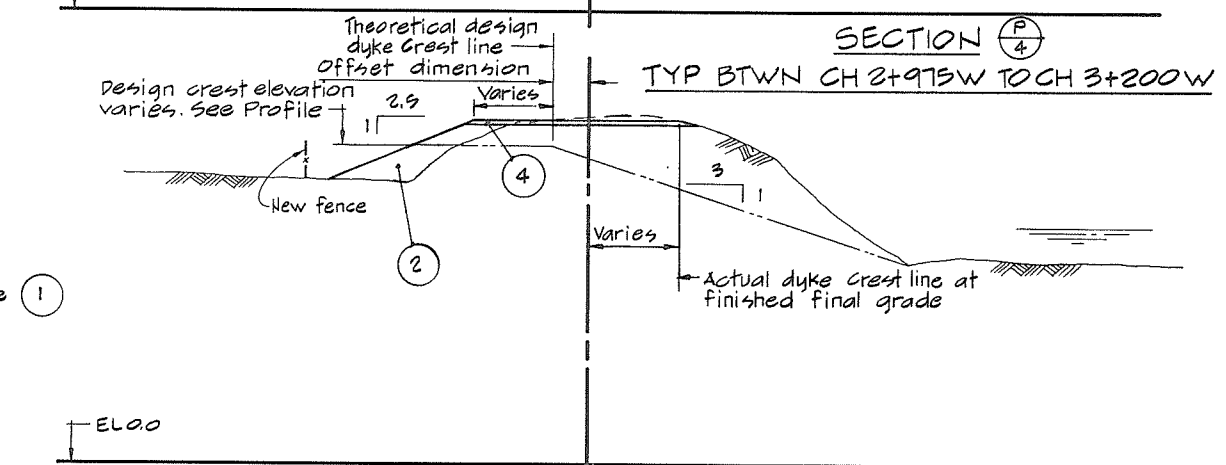
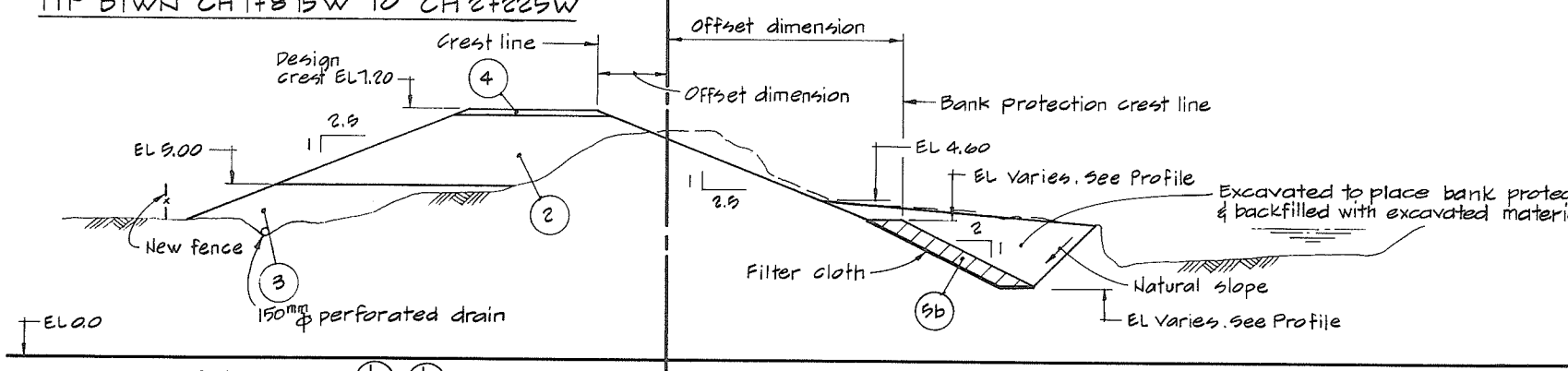
SECTION $\frac{J}{3}$
TYP BTWN CH 1+700 W TO CH 1+875 W

SECTION $\frac{N}{4}$
TYP BTWN CH 2+825 W TO CH 2+975 W



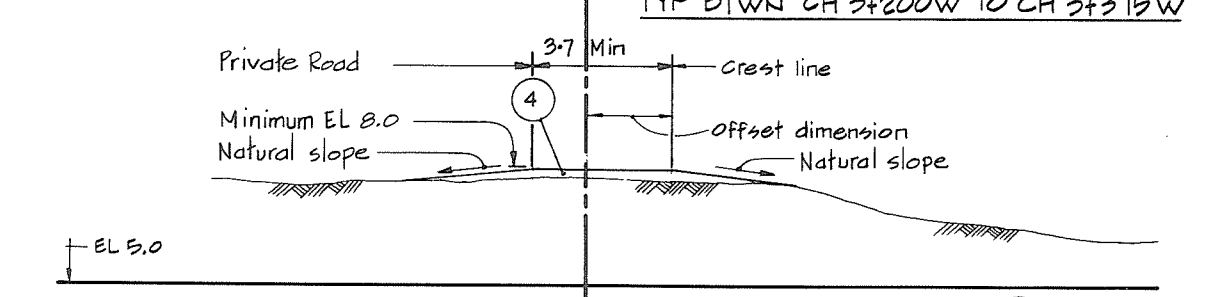
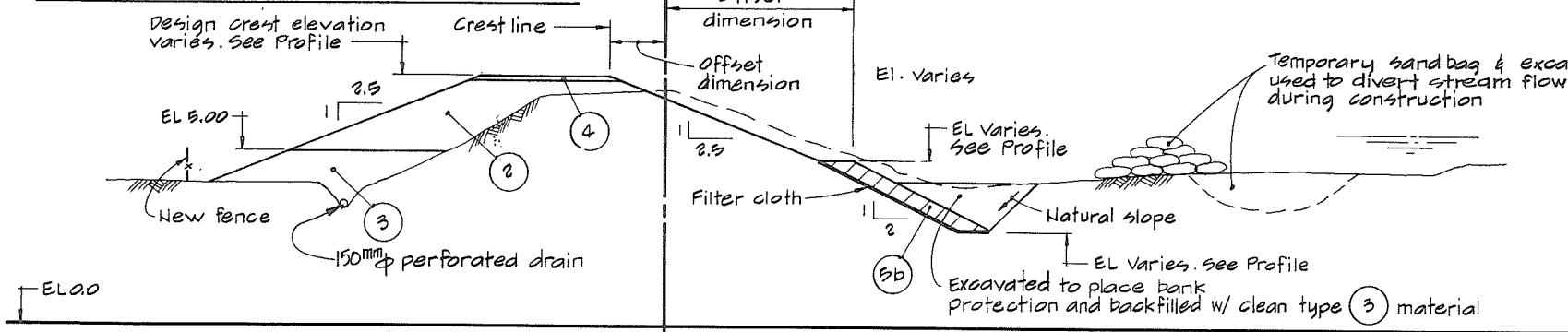
SECTION $\frac{K}{3}$
TYP BTWN CH 1+875 W TO CH 2+225 W

SECTION $\frac{P}{4}$
TYP BTWN CH 2+975 W TO CH 3+200 W



SECTION $\frac{L}{3}$ $\frac{L}{4}$
TYP BTWN CH 2+225 W TO CH 2+625 W

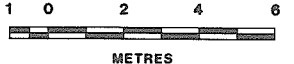
SECTION $\frac{Q}{4}$
TYP BTWN CH 3+200 W TO CH 3+375 W



SECTION $\frac{M}{4}$
TYP BTWN CH 2+625 W TO CH 2+800 W

SECTION $\frac{R}{4}$
TYP BTWN CH 3+375 W TO CH 3+550.360 W

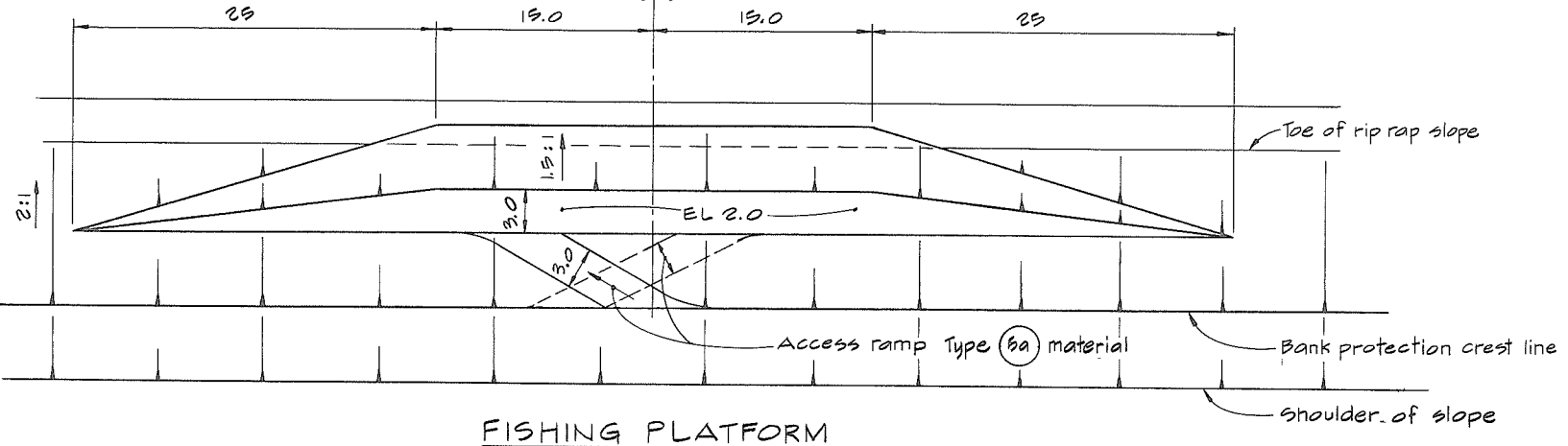
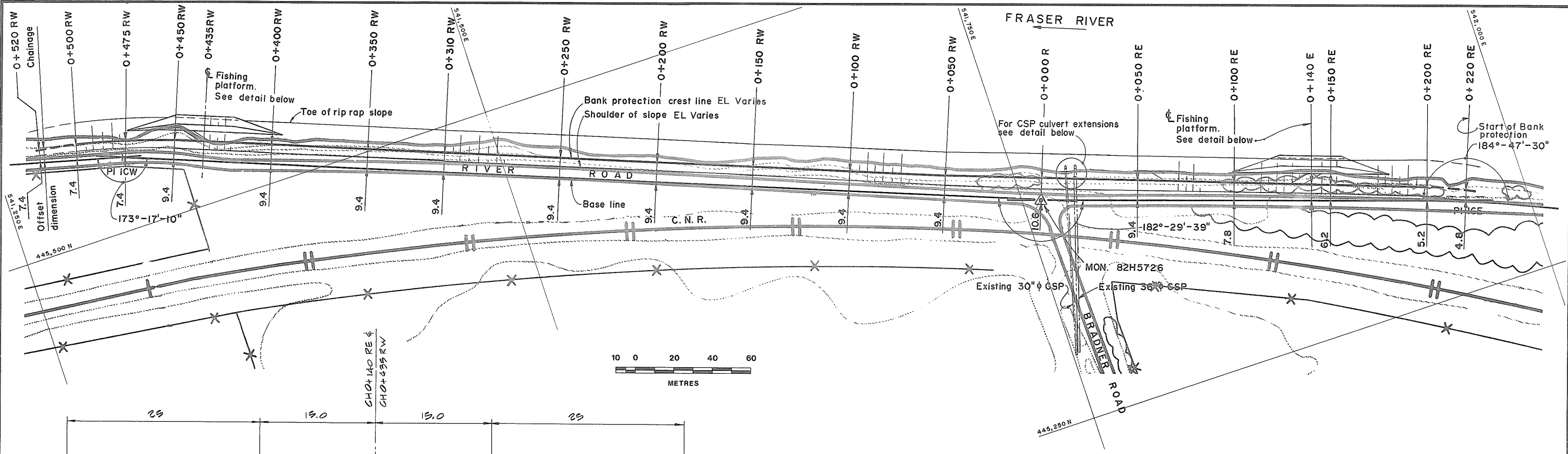
NOTES
 • For General Notes see 88-9-1-4
 • For Profile see 88-9-1-5
 • For Material Legend and Legend see 88-9-1-6



Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		RECOMMENDED	DATE
No.	DESCRIPTION		
A	As constructed	RECOMMENDED R. H. Camm	April 27, 1988
		RECOMMENDED G. H. McNeill Partner	1988-04-27
		APPROVED [Signature]	April 27, 1988

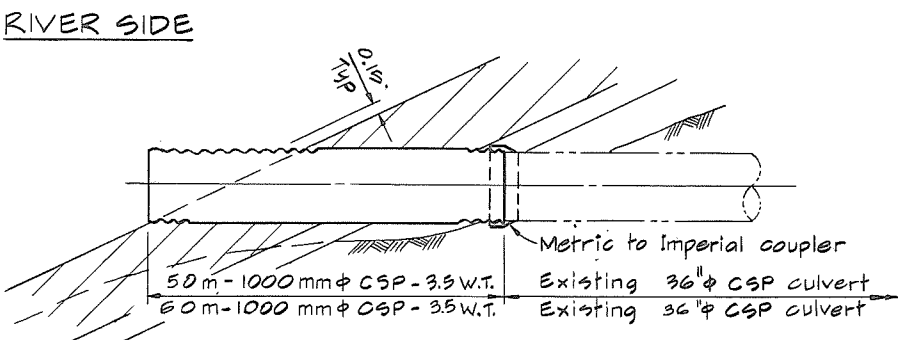
Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-1	SURVEYED DB & DLC
	DESIGNED DLC & EMM	DATE MARCH 1987
	DRAWN AR 1 Etc	NEGATIVE No. 342008
	DATE MAY 1988	DRAWING No. 88-9-1-8A
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT	CHECKED DLC	SHEET 3 of 3
CONTRACT NO. 1 WEST WINGDYKE TYPICAL SECTIONS		



PI	BEARING	CHAINAGE	INTERVAL	CO-ORDINATES	
				NORTH	EAST
2CE	S 113°-19'-51" E	0+358.77 RE	137.766	5,445,241.442	542,095.206
1CE	S 108°-32'-21" E	0+221.00 RE	220.999	5,445,296.003	541,968.705
MON.	N 291°-02'-00" W	0+000	476.690	5,445,366.270	541,759.174
1CW	N 284°-19'-10" W	0+476.69 RW	220.970	5,445,537.361	541,314.241
2CW		0+697.66 RW		5,445,592.013	541,100.136

NOTES

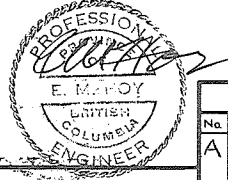
- For general notes see 88-9-1-4
- For typical sections see 88-9-1-11 & 12



CSP CULVERT EXTENSION DETAILS

NTS

Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA

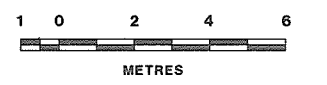
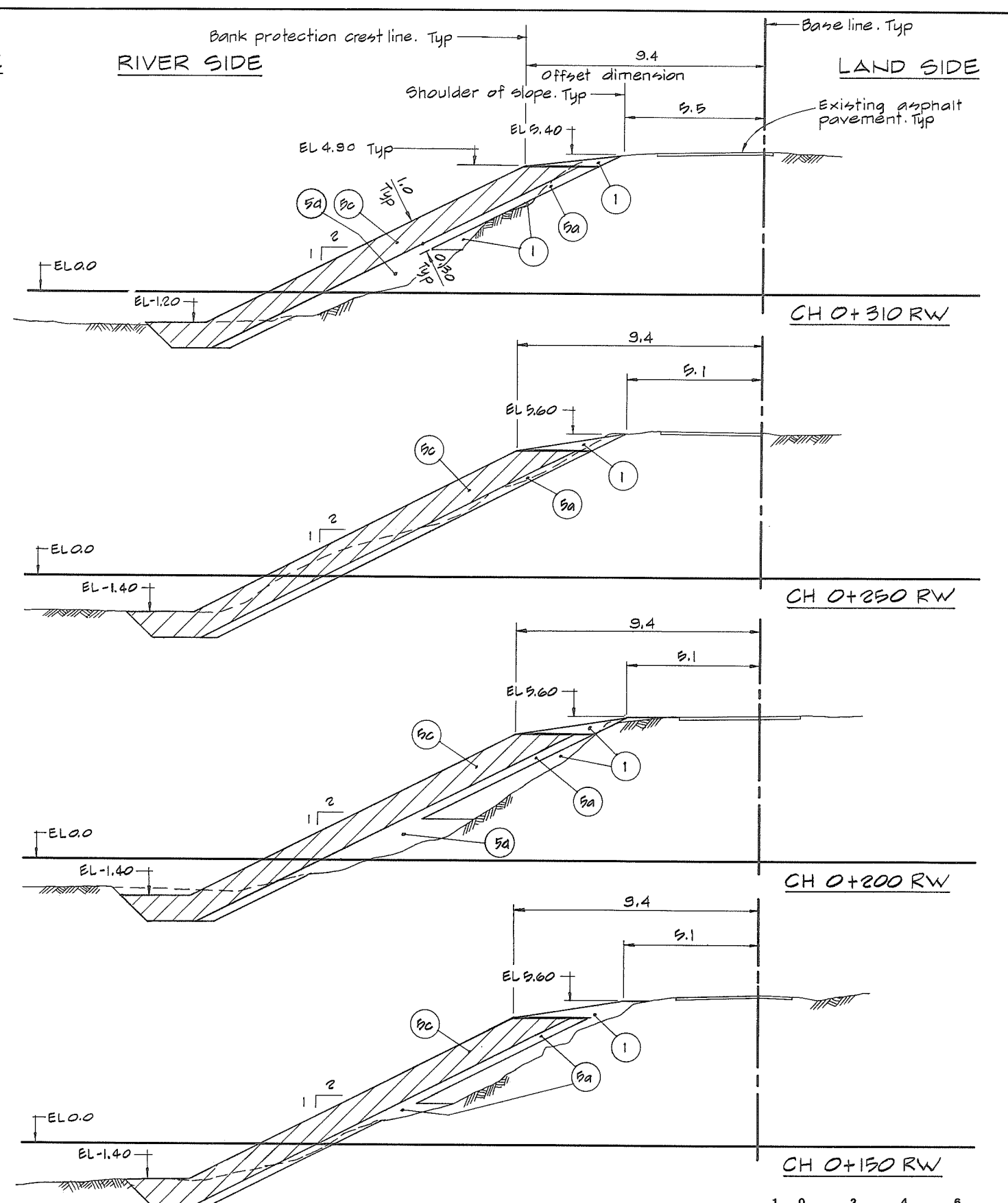
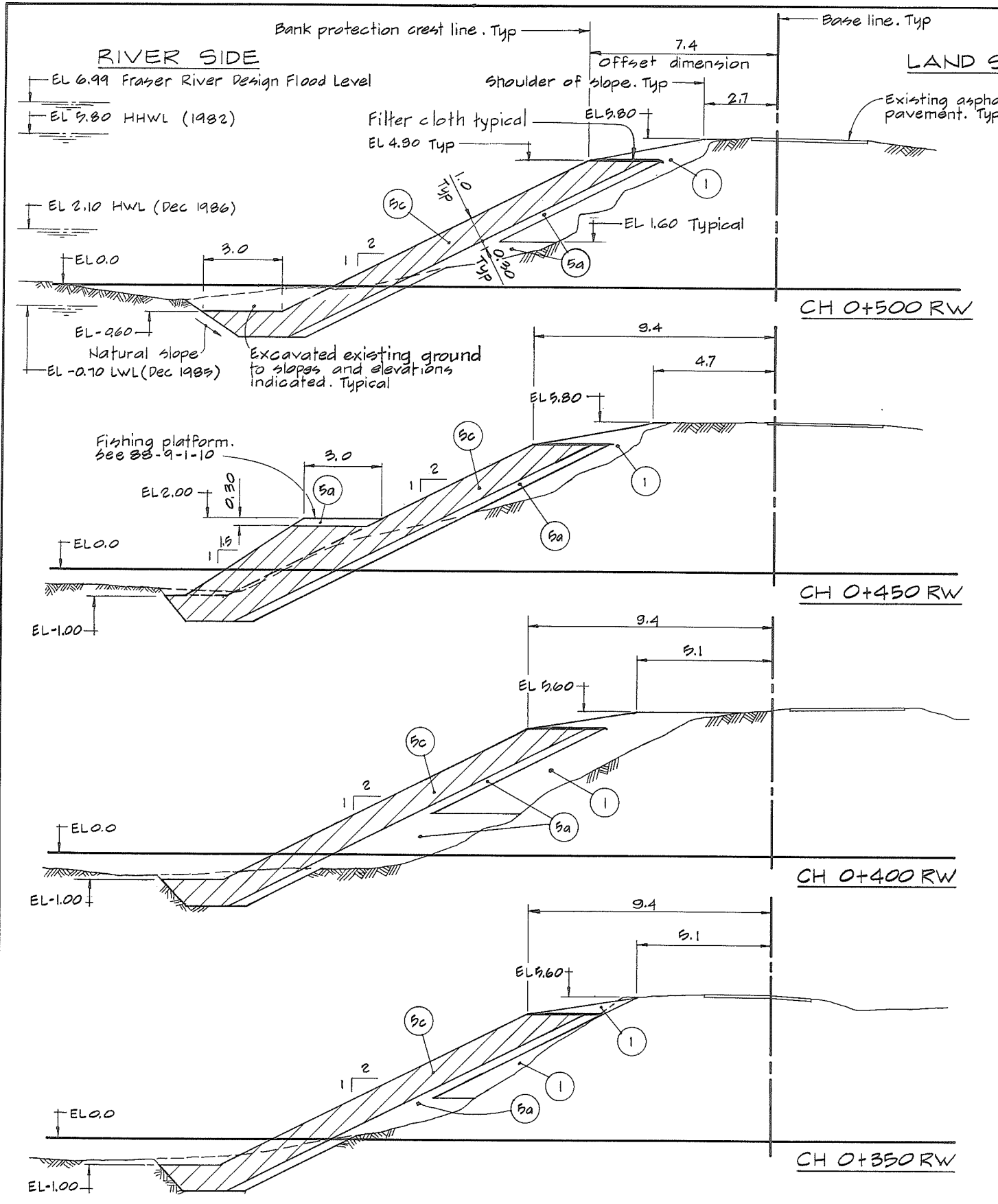


REVISIONS		RECOMMENDED
No.	DESCRIPTION	DATE
A	As constructed	March 1990
		RECOMMENDED <i>P. H. Cannon</i> DATE <i>April 27, 1988</i>
		RECOMMENDED <i>W. W. P. P. P.</i> DATE <i>1988-04-27</i>
		APPROVED <i>E. M. Moy</i> DATE <i>April 27, 1988</i>

Province of British Columbia
Ministry of Environment and Parks
WATER MANAGEMENT BRANCH
CANADA - BRITISH COLUMBIA
FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
CONTRACT NO. 1 FRASER RIVER BANK PROTECTION
ALIGNMENT PLAN

FILE No. 0281550C9-1	SURVEYED DB & DLC
DESIGNED DLC & EMH	DATE MARCH 1987
DRAWN AR	NEGATIVE No. 342010
DATE MAY 1988	DRAWING No. 88-9-1-10A
CHECKED DLC	SHEET of



- NOTES**
- For General Notes see 88-9-1-4
 - For Fraser River bank protection alignment see 88-9-1-10
 - For Material Legend and Legend see 88-9-1-6



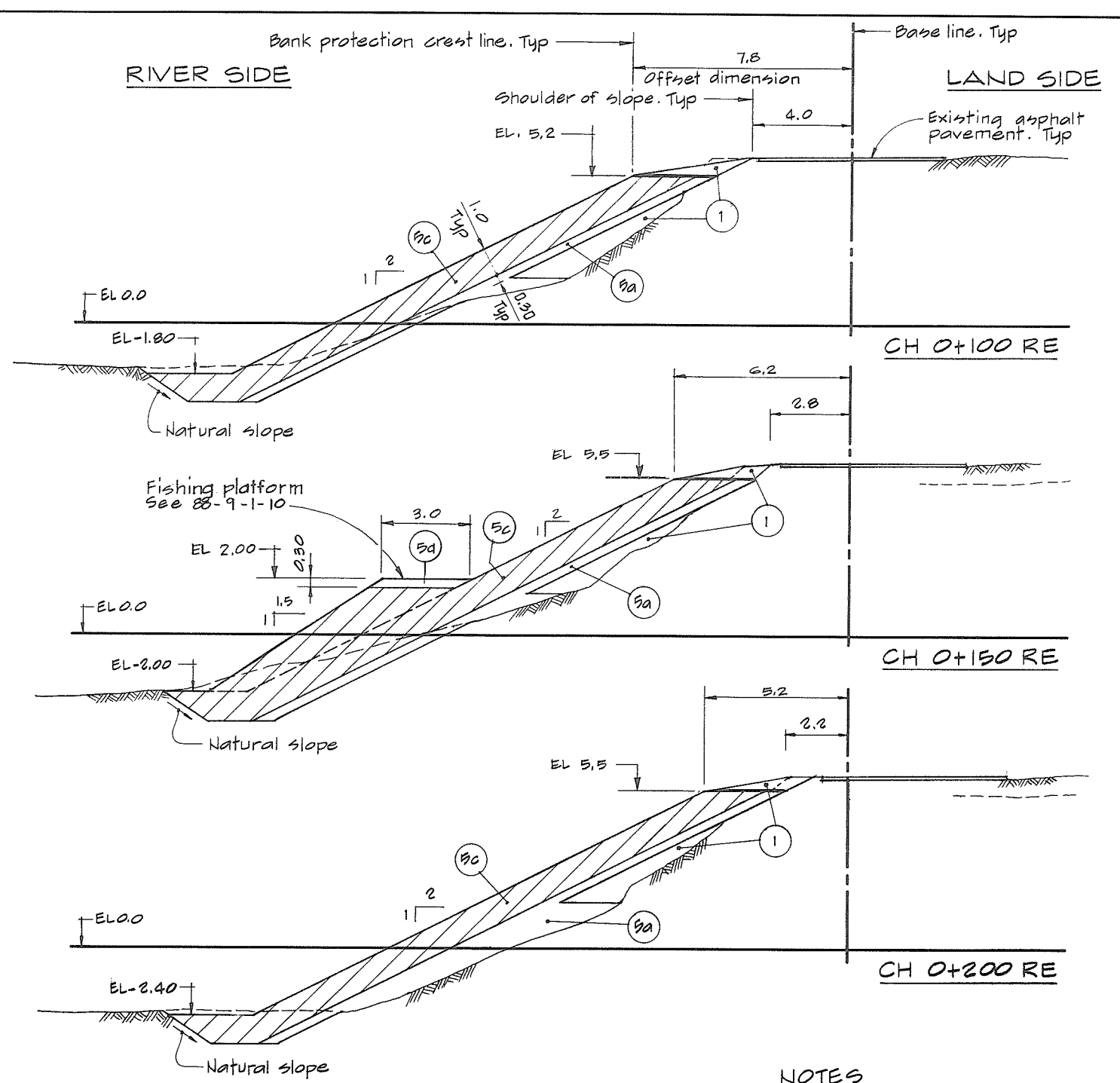
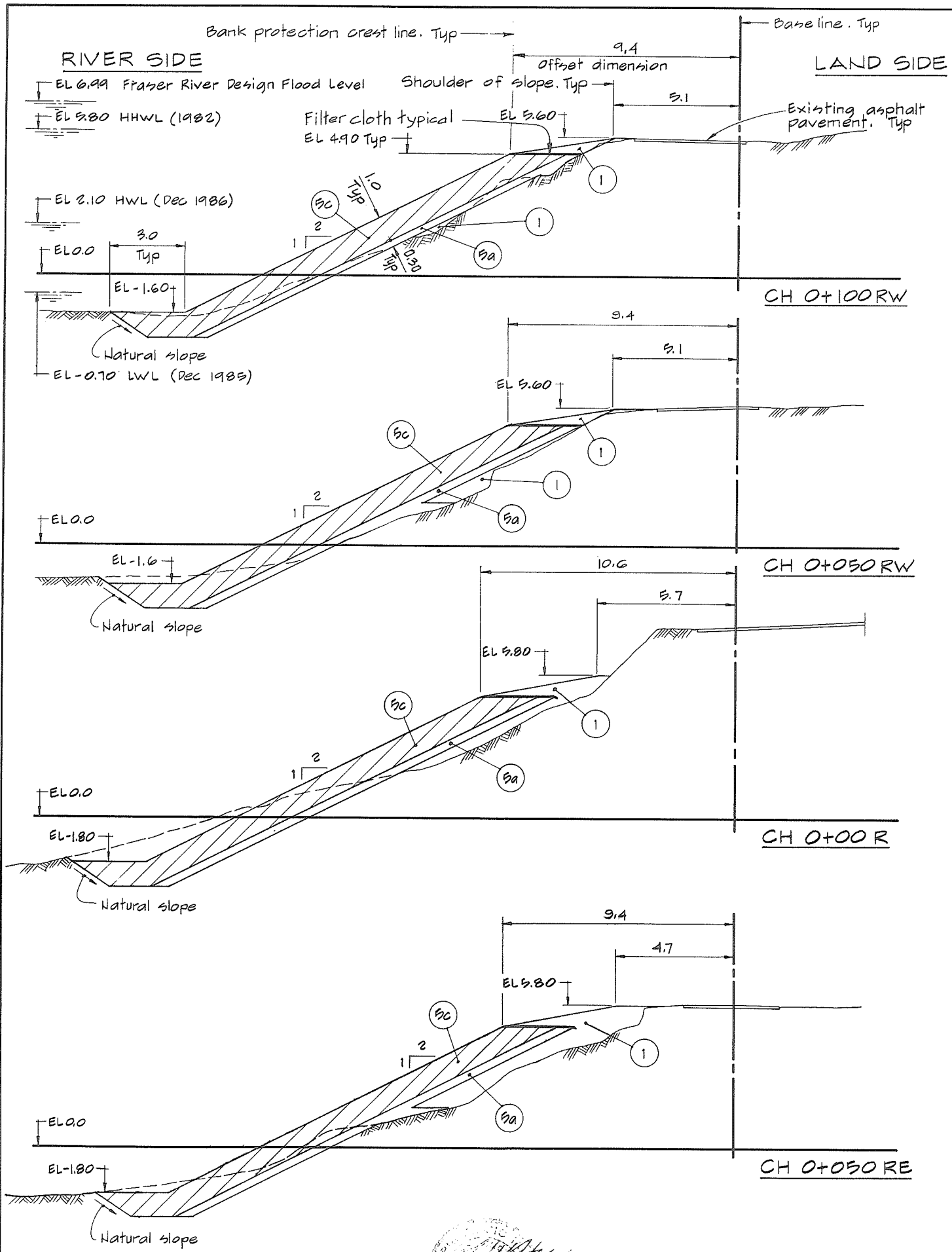
Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		RECOMMENDED	DATE
No.	DESCRIPTION		
A	As constructed	<i>R. N. Cameron</i>	April 27, 1988
		<i>W. M. Patten</i>	March 1990
		<i>W. M. Patten</i>	1988-04-27
		<i>R. N. Cameron</i>	April 27, 1988

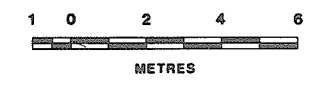
Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 1 FRASER RIVER BANK PROTECTION
 TYPICAL SECTIONS

FILE No. 0281550C9-1	SURVEYED DB & DLG
DESIGNED DLG & EMH	DATE MARCH 1987
DRAWN AR	NEGATIVE No. 342011
DATE MAY 1988	DRAWING No. 88-9-1-11A
CHECKED DLG	SHEET 1 of 2



- NOTES**
- For General Notes see BB-9-1-4
 - For Fraser River bank protection alignment see BB-9-1-10
 - For Material Legend and Legend see BB-9-1-6



Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	March 1990

RECOMMENDED: *B.H. Cameron*
 DATE: April 27, 1988
 RECOMMENDED: *[Signature]*
 DATE: 1988-04-27
 APPROVED: *[Signature]*
 DATE: April 27, 1988



Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 1 FRASER RIVER BANK PROTECTION
 TYPICAL SECTIONS

FILE No. 0281550C9-1	SURVEYED DB & DLG
DESIGNED DLG & EMH	DATE MARCH 1987
DRAWN AR	NEGATIVE No. 342012
DATE MAY 1988	DRAWING No. 88-9-1-12A
CHECKED DLG	SHEET 2 of 2

The Government of the Province of British Columbia
Ministry of Environment
Water Management Branch

Canada – British Columbia

Fraser River Flood Control 1968 Agreement
Project No. 22 – Glen Valley Dyking District

DRAWING LIST

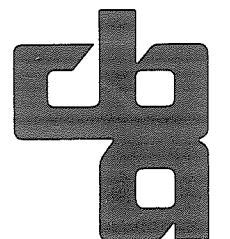
CONTRACT DRAWINGS

88-9-2-1 A GENERAL PLAN
88-9-2-2 A EAST WINGDYKE
ALIGNMENT PLAN AND DETAILS
CH 0+004E TO CH 0+332.50E
88-9-2-3 A EAST WINGDYKE
GRAVITY FLOOD BOX
PLAN AND DETAILS
88-9-2-4 A EAST INTERCEPTOR DITCH AND
EAST-WEST DIVERSION DITCH
PLAN
88-9-2-5 A EAST INTERCEPTOR DITCH AND
EAST-WEST DIVERSION DITCH
PROFILES
88-9-2-6 A EAST INTERCEPTOR DITCH
CULVERT DETAILS
88-9-2-7 A EAST-WEST DIVERSION DITCH
CULVERT AND DITCH
DETAILS, SHEET 1 OF 2
88-9-2-8 A EAST-WEST DIVERSION DITCH
CULVERT AND DITCH
DETAILS, SHEET 2 OF 2
88-9-2-9 A CULVERT AND FENCE DETAILS
88-9-2-10 A PUMPHOUSE DYKE
PLAN AND DETAILS
88-9-2-11 A PUMPHOUSE DYKE
TYPICAL SECTIONS
88-9-2-12 A PUMPHOUSE ACCESS ROAD
PLAN AND DETAILS
88-9-2-13 A PUMPHOUSE
FLOOD GATE DETAILS
88-9-2-14 A PUMPHOUSE
PUMPED DISCHARGE PIPE DETAILS
88-9-2-15 A PUMPHOUSE
INLET SCREEN DETAILS
SHEET 1 OF 2
88-9-2-16 A PUMPHOUSE
INLET SCREEN DETAILS
SHEET 2 OF 2

REFERENCE DRAWINGS

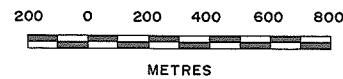
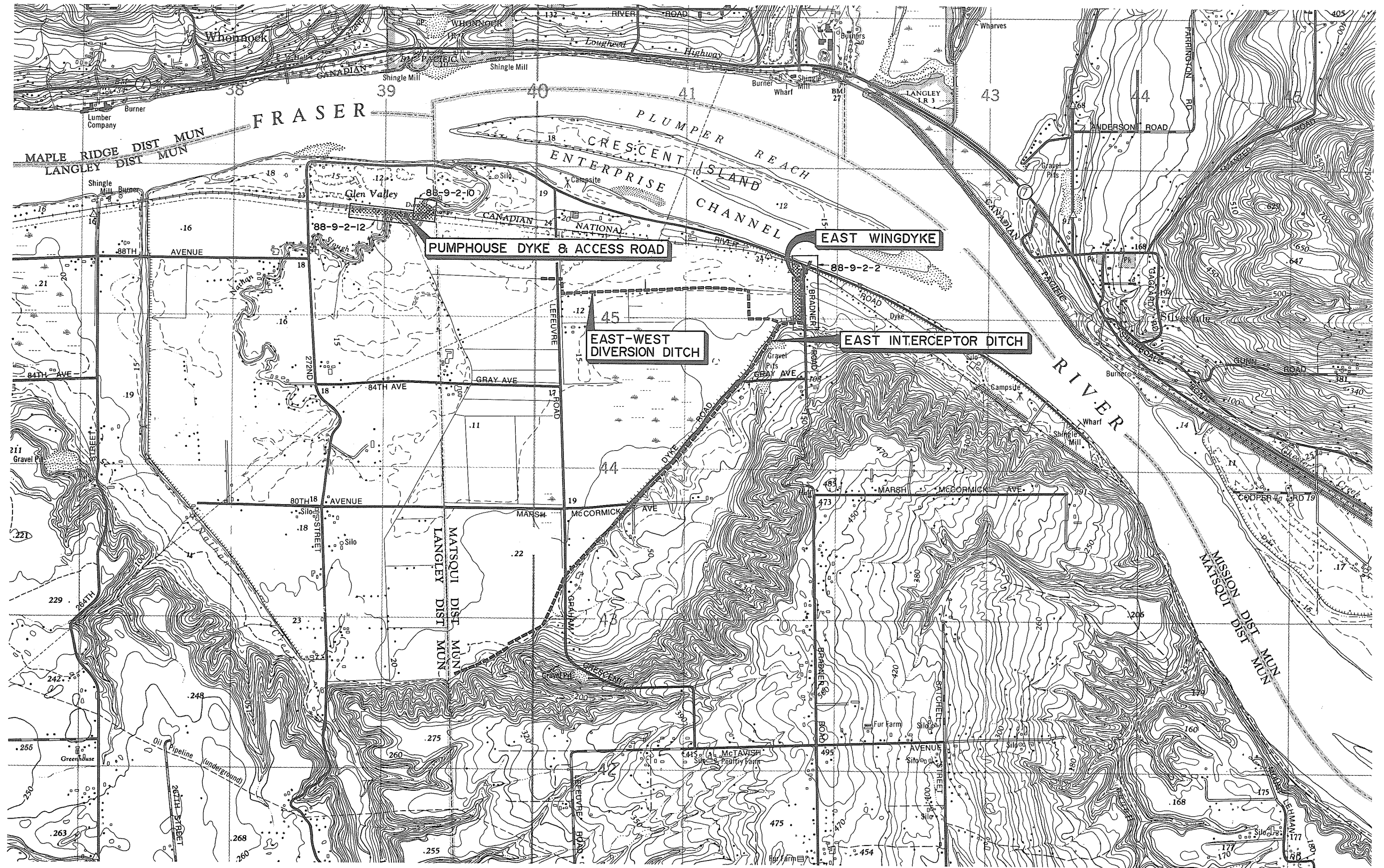
88-9-2-17 A EAST WINGDYKE
PROPERTY REQUIREMENTS
88-9-2-18 A PUMPHOUSE DYKE AND ACCESS ROAD
PROPERTY REQUIREMENTS
88-9-2-19 A EAST-WEST DIVERSION DITCH
PROPERTY REQUIREMENTS
88-9-2-20 A PUMPHOUSE ACCESS ROAD
GENERAL ARRANGEMENT

Contract No.2
East Wingdyke and
Pumphouse Dyke Upgrading



CBA ENGINEERING LTD
Consulting Engineers
Vancouver, Canada

Neg No. 342017



Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	MAY 1990

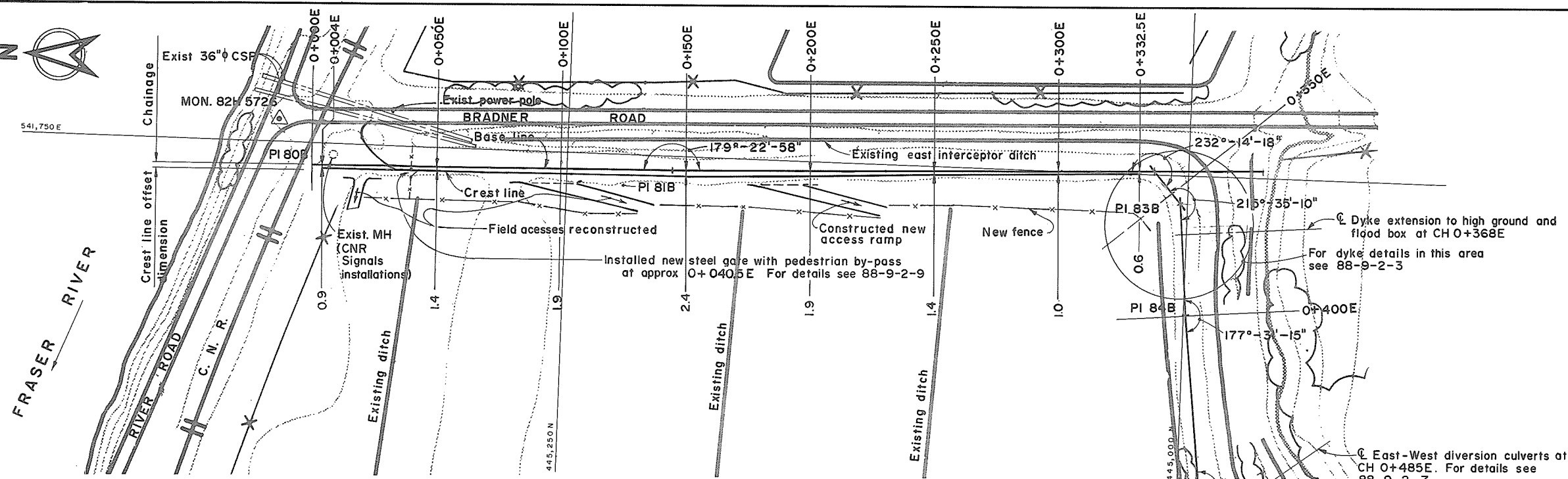
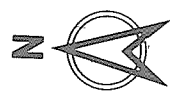
RECOMMENDED *R. H. Cameron*
 DATE *Apr. 21/89*
 RECOMMENDED *A. W. Wood*
 DATE *1989-04-21*
 APPROVED *G. G. G.*
 DATE *Apr. 21/89*

Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
CONTRACT NO. 2
GENERAL PLAN

FILE No. 0281550C9-2	SURVEYED
DESIGNED	DATE
DRAWN <i>AR</i>	SCALE AS SHOWN
DATE <i>April 1/89</i>	DRAWING No. 88-9-2-1 A
CHECKED <i>PLC</i>	SHEET _____ of _____

NegNo 342018

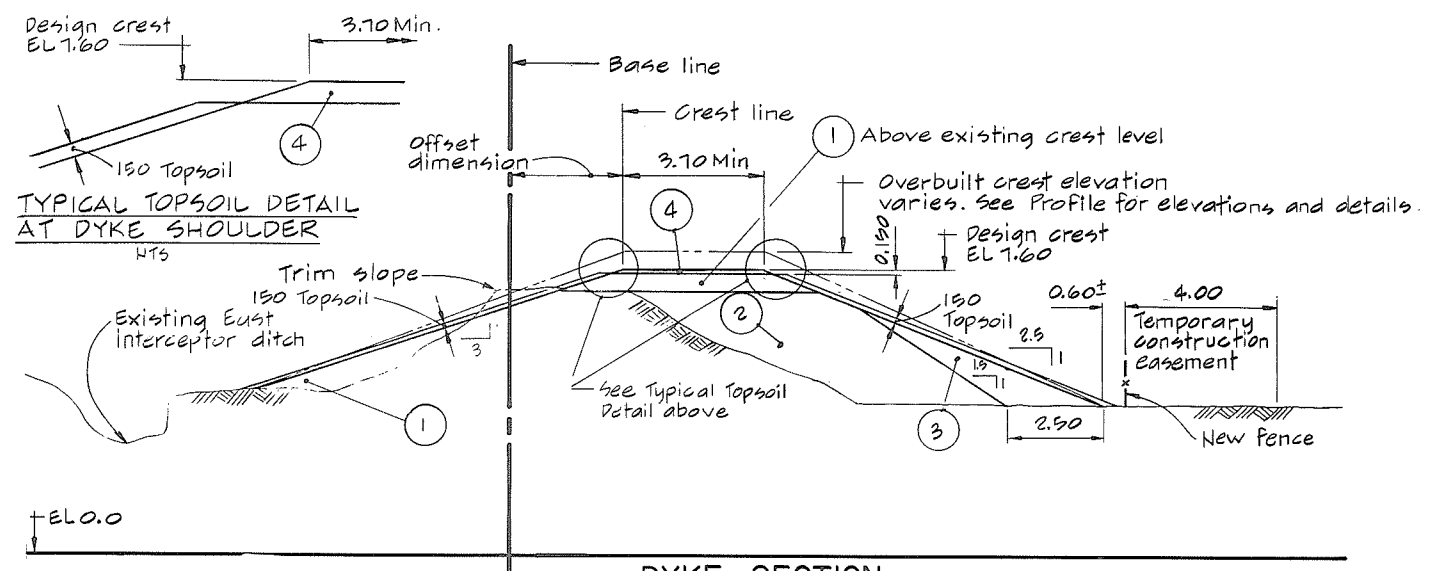
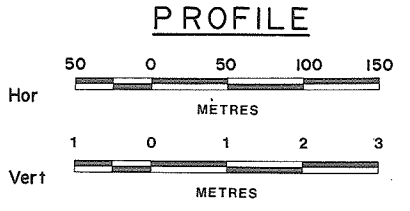
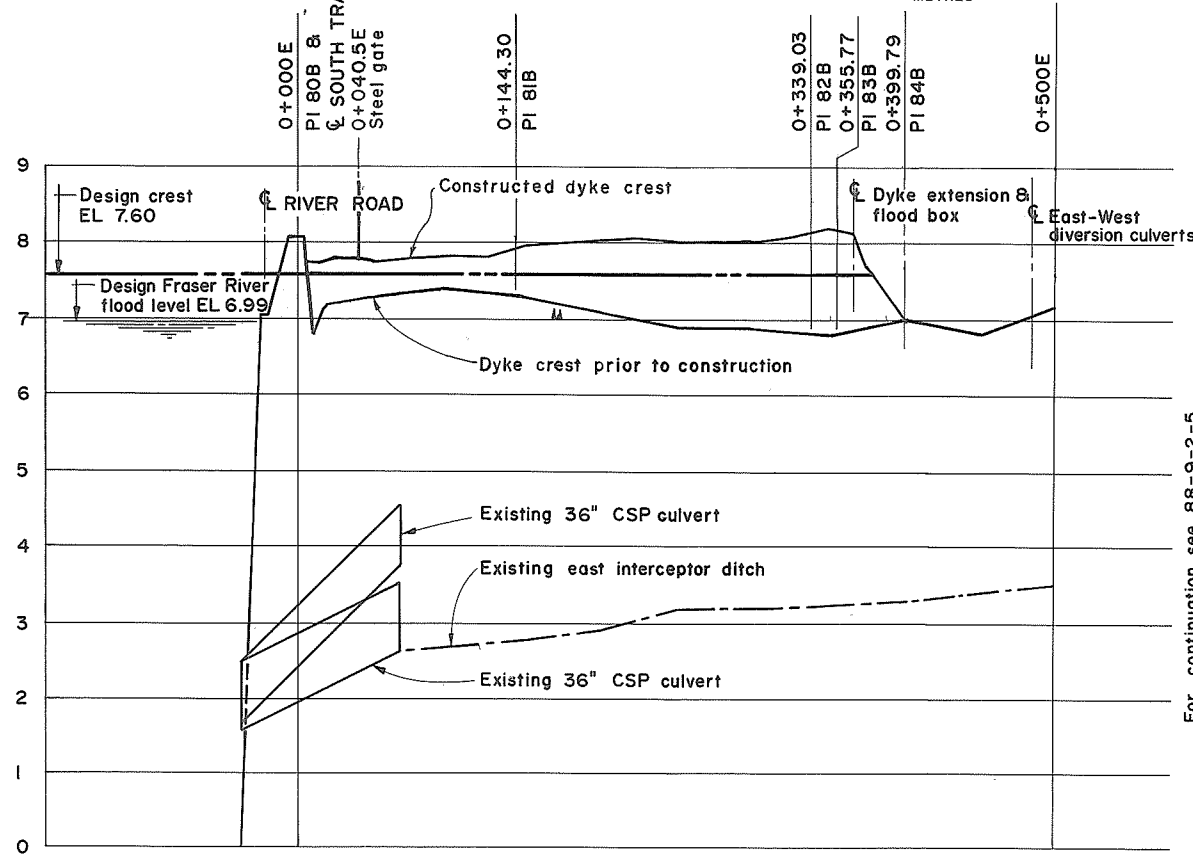


- ### MATERIAL LEGEND
- ① Common fill - clay silt or silty sand and gravel
 - ② Sand or sand and gravel
 - ③ Clean sand and gravel
 - ④ Crushed surfacing gravel

- ### LEGEND
- △ Survey monument
 - Existing ground surface
 - ⊙ Section identification letter Drawing number on which section is located is 88-9-2-2

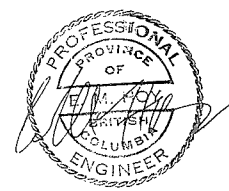
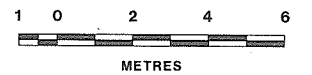
- ### GENERAL NOTES
- Elevations are in metres and refer to the Geodetic Survey of Canada.
 - All dimensions are in metres except as noted.
 - Offset distances from baseline to crest line are taken at the design crest elevation.
 - The angle offset is 90° to the baseline.
 - Terminal parts of the work shall be constructed to blend with the existing ground.

BASE LINE DATA					
PI	BEARING	CHAINAGE	INTERVAL	CO-ORDINATES	
				NORTH	EAST
80B	S 178°-37'-47" E	0+000		5,445,352.073	541,741.232
81B	S 178°-00'-44" E	0+144.300	144.30	5,445,207.831	541,744.682
82B	S 230°-15'-21" W	0+339.03	194.73	5,445,013.314	541,751.433
83B	S 265°-50'-33" W	0+355.77	16.74	5,445,002.619	541,738.571
84B	S 263°-21'-48" W	0+399.79	44.02	5,444,999.429	541,694.683
85B	S 263°-21'-48" W	0+471.58	71.79	5,444,991.135	541,623.398
86B	S 234°-22'-33" W	0+507.52	35.94	5,444,970.210	541,594.196



TYPICAL TOPSOIL DETAIL AT DYKE SHOULDER

DYKE SECTION TYP BTWN CH 0+004E TO CH 0+332.50E



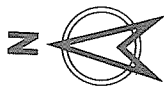
Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		RECOMMENDED	DATE
No.	DESCRIPTION		
A	As Constructed	R. H. Cameron	APR. 21 1990
		H. M. ...	1989-04-21
		...	APR. 21 1989

Province of British Columbia
Ministry of Environment and Parks
WATER MANAGEMENT BRANCH
CANADA - BRITISH COLUMBIA
FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

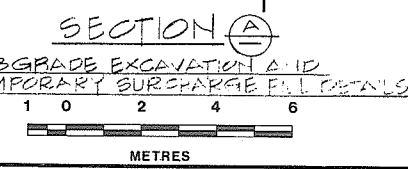
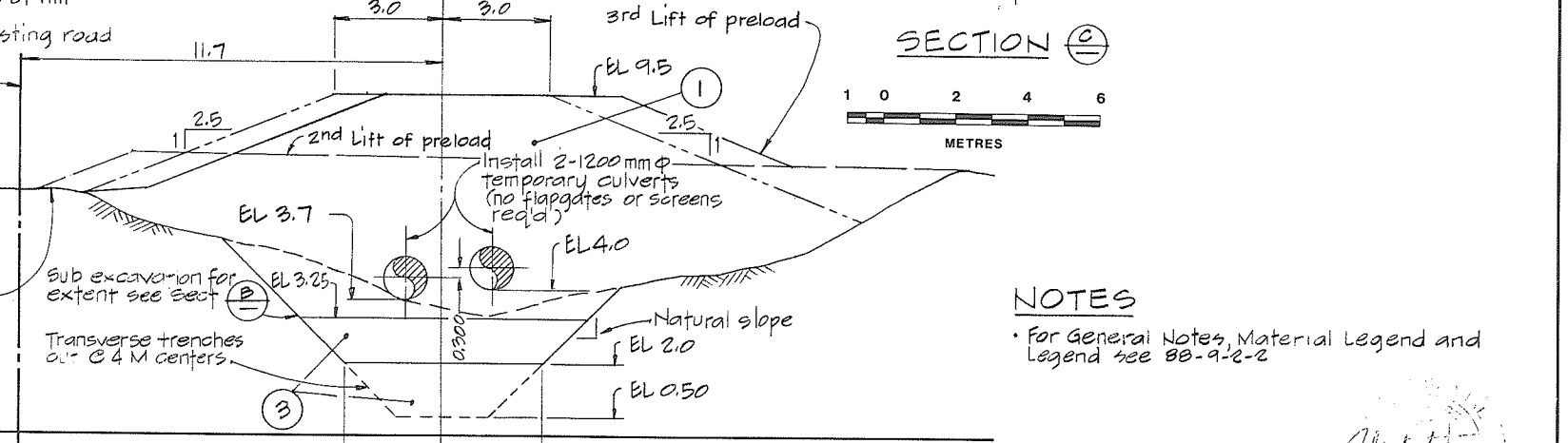
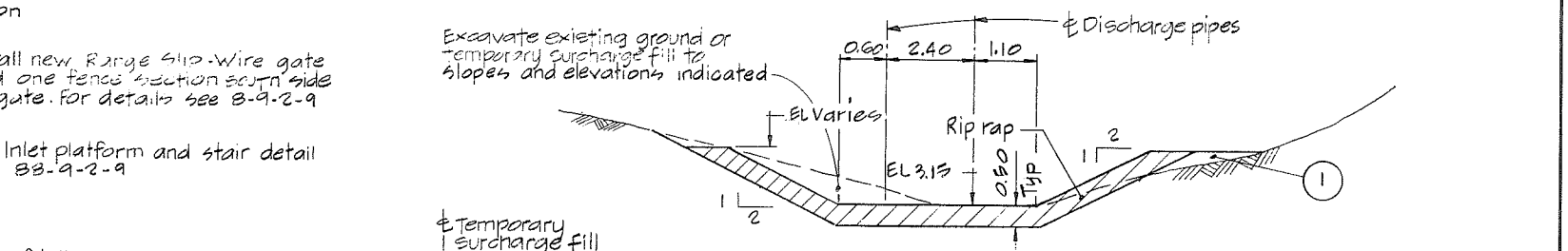
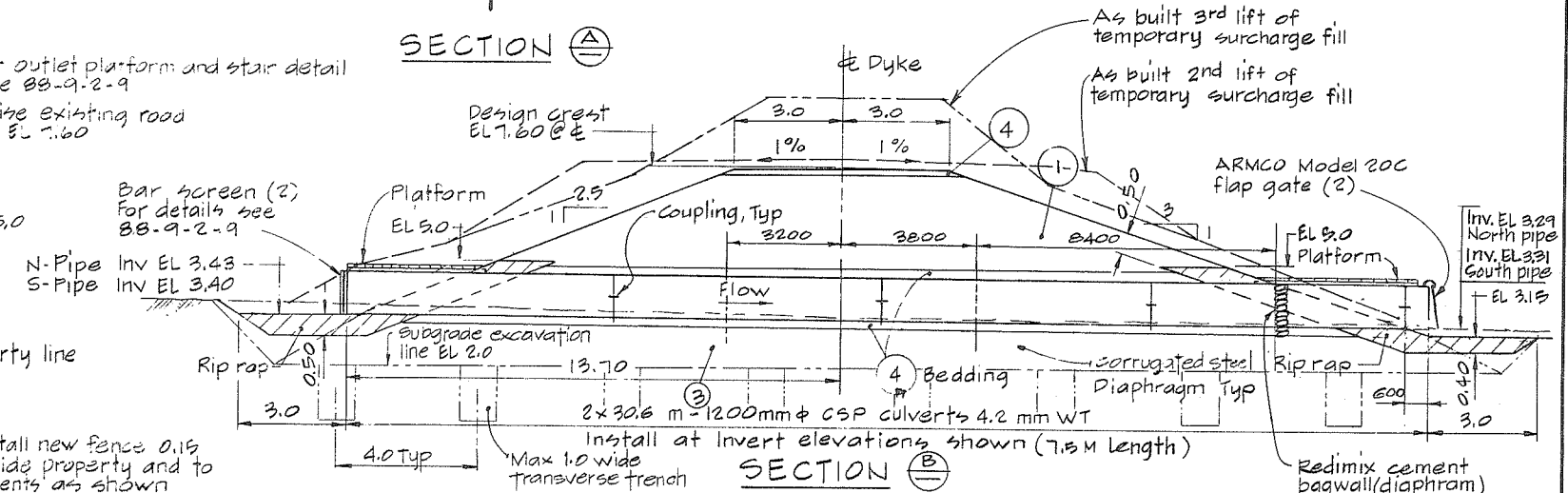
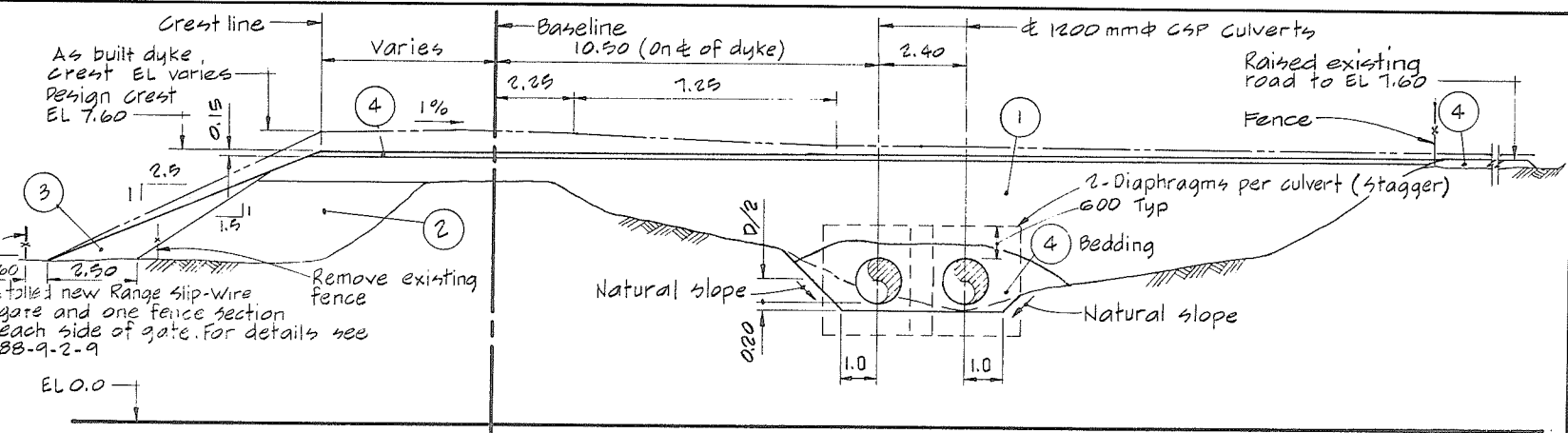
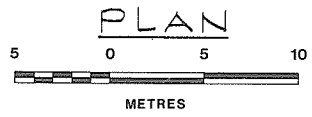
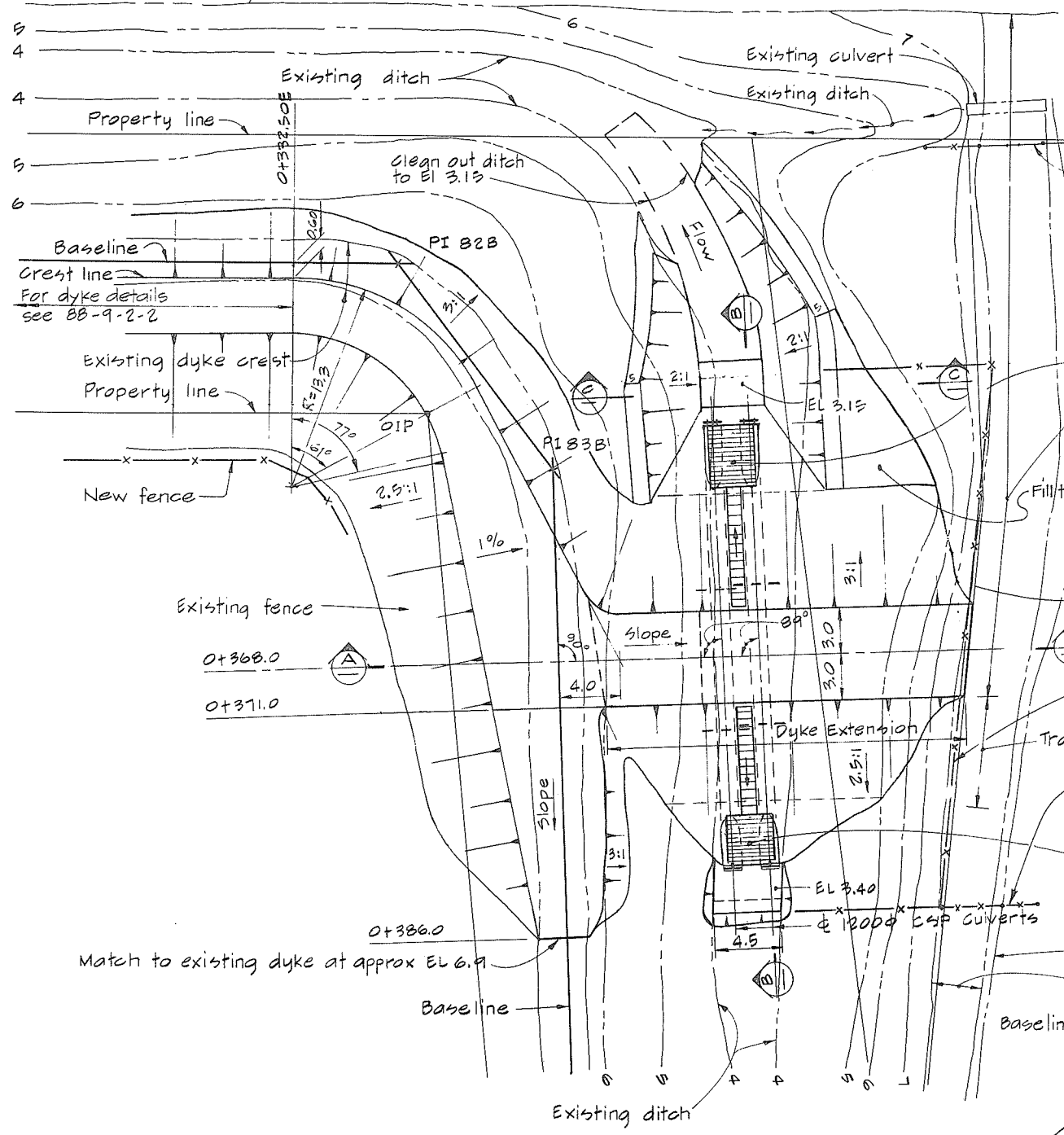
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
CONTRACT NO. 2 EAST WINGDYKE
ALIGNMENT PLAN AND DETAILS
CH 0+000E TO CH 0+332.50

FILE No. 02B1550C9-2	SURVEYED DLC/DB
DESIGNED DLC/EMH	DATE Jan, Mar 1987
DRAWN AR-RC	NEGATIVE No. 342019
DATE April 1989	DRAWING No. 88-9-2-2A
CHECKED DLC/EMH	SHEET of



& Bradner Road

Edge of pavement



NOTES
 • For General Notes, Material Legend and Legend see 88-9-2-2

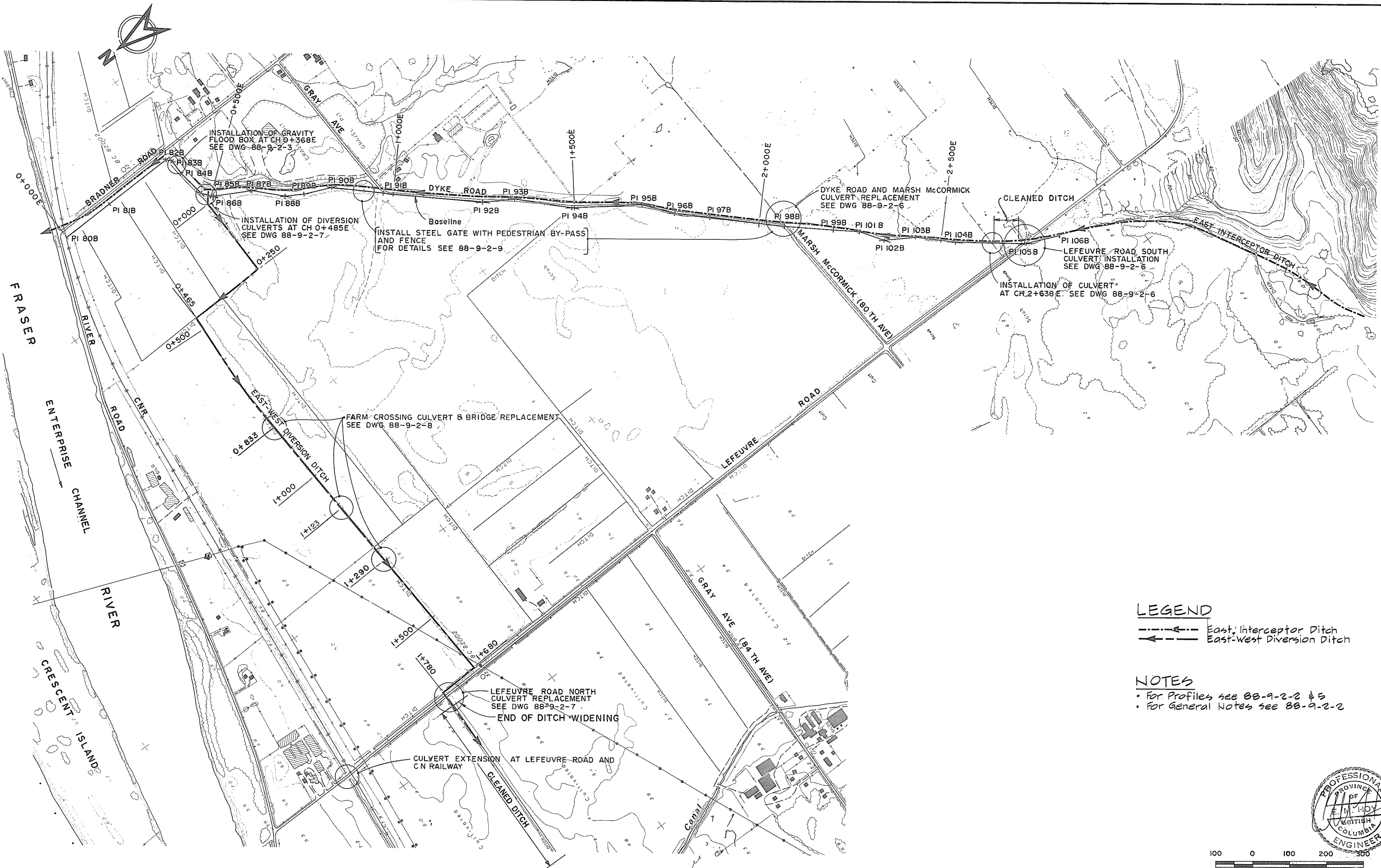
Handwritten signature

Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	MAR 1990

RECOMMENDED <i>A. R. Camion</i>	DATE <i>APR 21 1989</i>
RECOMMENDED <i>H. H. McNeill</i>	DATE <i>1989-04-21</i>
APPROVED <i>[Signature]</i>	DATE <i>April 21 1989</i>

Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-2	SURVEYED <i>DLC/EMH</i> DATE July 1988
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT CONTRACT NO. 2 EAST WINGDYKE GRAVITY FLOOD BOX PLAN AND DETAILS	DESIGNED <i>DLC/EMH</i>	NEGATIVE No. 342020
	DRAWN <i>AR/RC</i>	DRAWING No. 88-9-2-3A
	DATE <i>April 1989</i>	SHEET <i>1</i> of <i>1</i>



LEGEND
 - - - - - East Interceptor Ditch
 - - - - - East-West Diversion Ditch

NOTES
 • For Profiles see 88-9-2-2 & 5
 • For General Notes see 88-9-2-2

100 0 100 200 300
 METRES

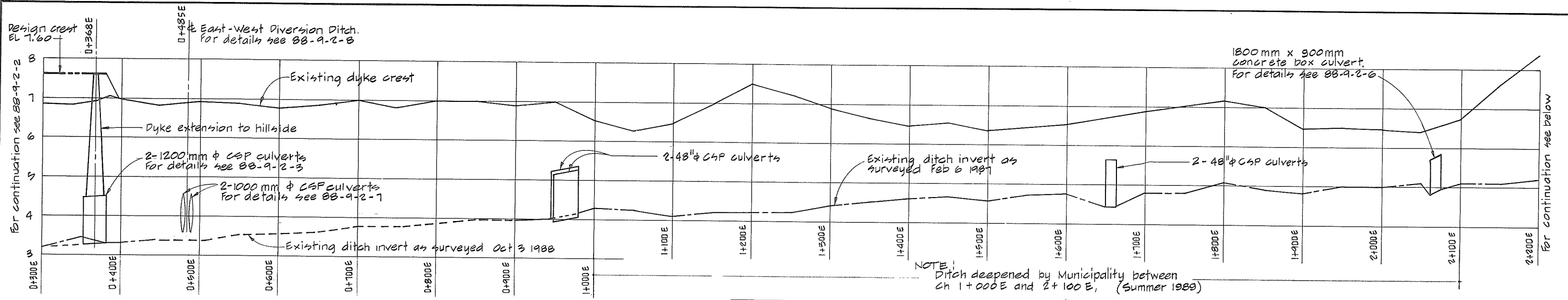
REVISIONS		RECOMMENDED
No.	DESCRIPTION	DATE
A	As constructed	APR. 21 / 89
		RECOMMENDED <i>W. H. Cameron</i>
		DATE 1989-04-21
		APPROVED <i>E. H. Cameron</i>
		DATE April 21 / 89

Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

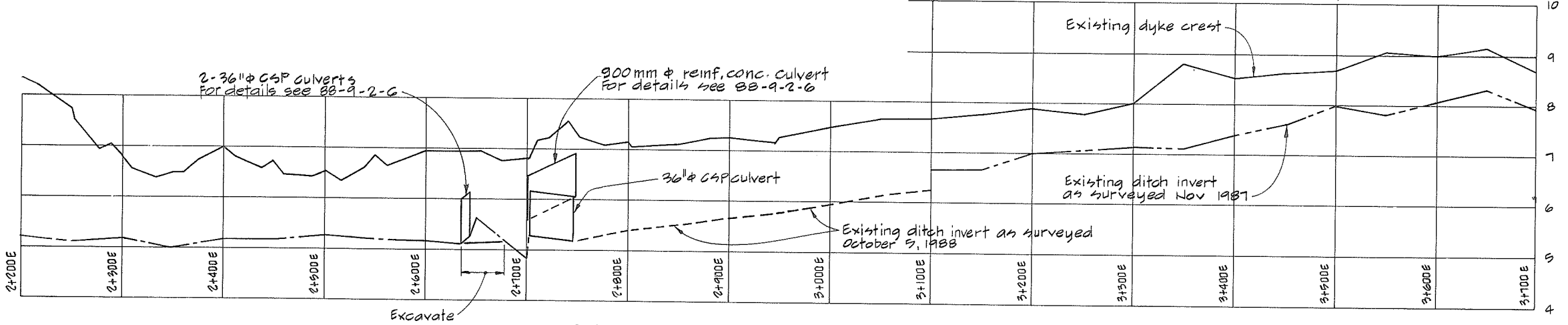
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 2 EAST INTERCEPTOR DITCH AND
 EAST-WEST DIVERSION DITCH
 PLAN

FILE No. 0281550C9-2	SURVEYED <i>dlc/db</i>
DESIGNED <i>dlc/emh</i>	DATE Jan, Mar. 1987
DRAWN <i>dlc/ar</i>	NEGATIVE No. 342021
DATE April 1989	DRAWING No. 88-9-2-4 A
CHECKED <i>dlc/emh</i>	SHEET of

Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

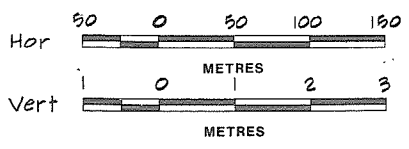
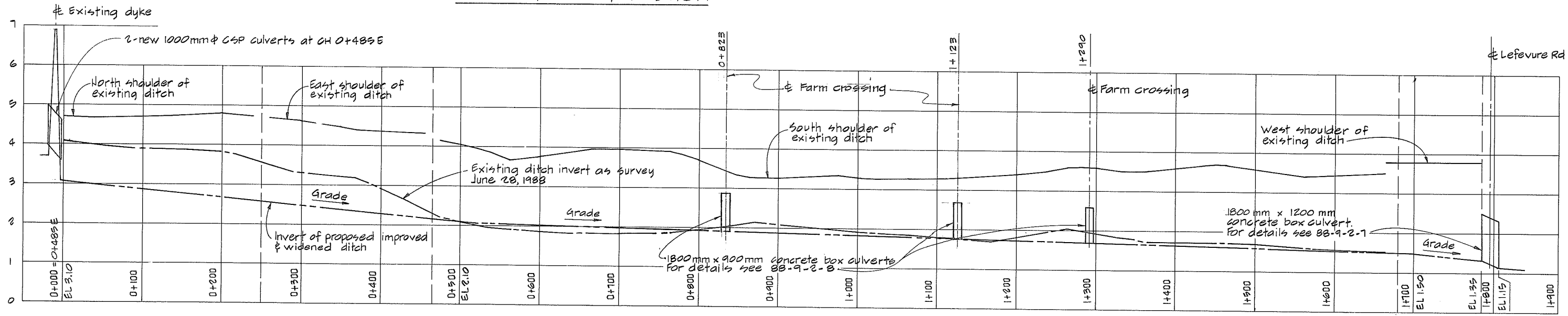


NOTE: Ditch deepened by Municipality between Ch 1+000E and 2+100E, (Summer 1989)



NOTES
 • For General Notes see 88-9-2-2

PROFILE EAST INTERCEPTOR DITCH



PROFILE EAST-WEST DIVERSION DITCH

NOTE
 Ground profile shown as ditch shoulder has been developed from elevation readings taken at approx 100 m intervals.

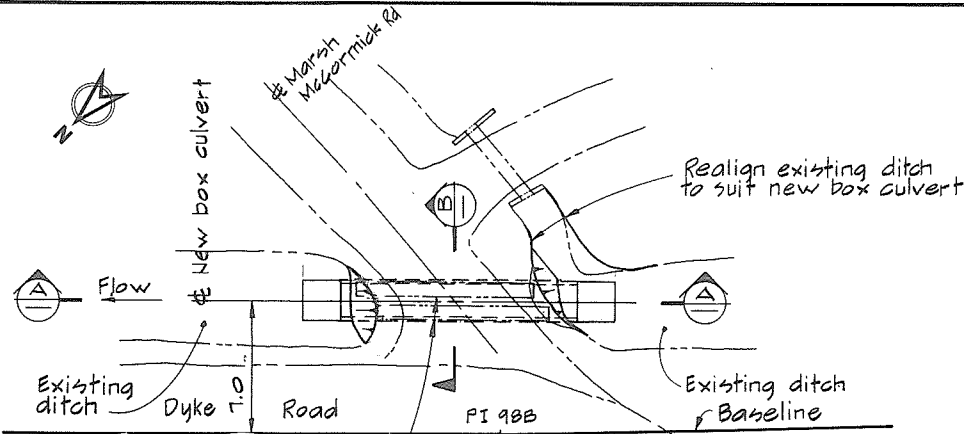


Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

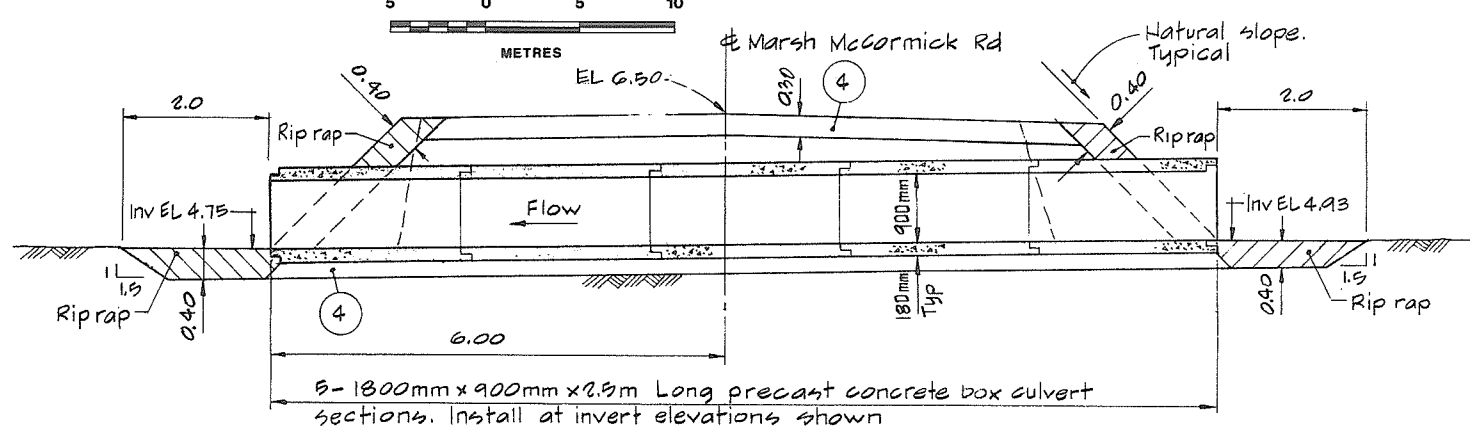
REVISIONS		RECOMMENDED
No	DESCRIPTION	DATE
A	As constructed	MAR 1990
		RECOMMENDED <i>R.N. Cameron</i>
		DATE APR 21 / 89
		RECOMMENDED <i>W. W. ...</i>
		DATE 1989-04-21
		APPROVED <i>[Signature]</i>
		DATE APR 21 / 89

Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-2 DESIGNED <i>PLC/EMH</i> DRAWN <i>AR</i> DATE April 1989 CHECKED <i>PLC/EMH</i>	SURVEYED <i>PLC/EMH</i> DATE Jan 87 & June 88 NEGATIVE No. 342022 DRAWING No. 88-9-2-5 A SHEET of
--	---	---

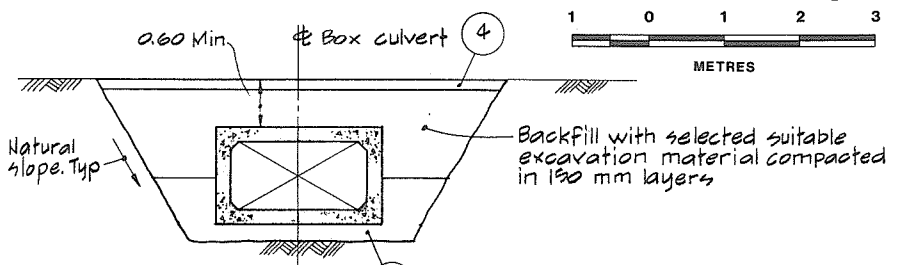
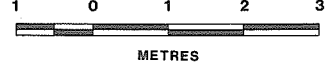
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 2 EAST INTERCEPTOR DITCH AND
 EAST-WEST DIVERSION DITCH
 PROFILES



Removed 2-36" ϕ CSP Pipe culverts

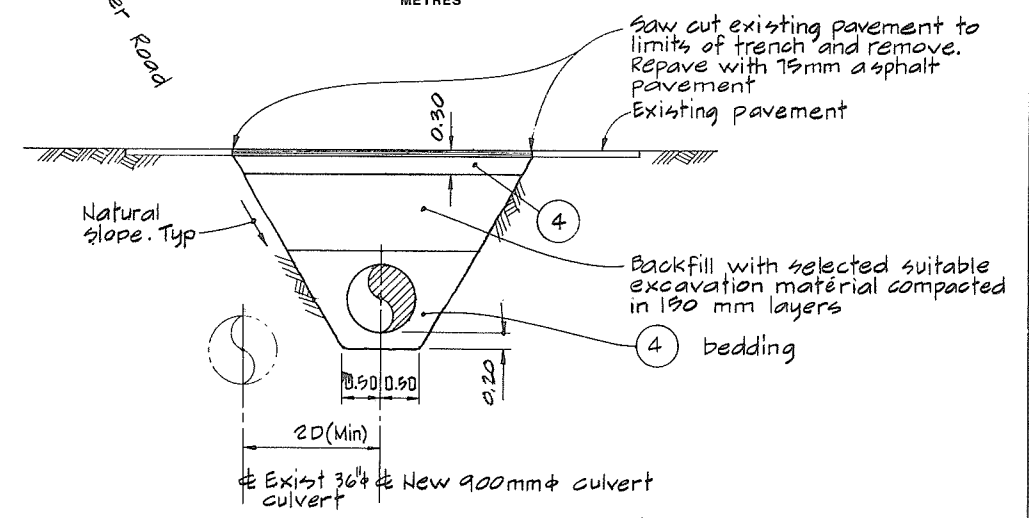
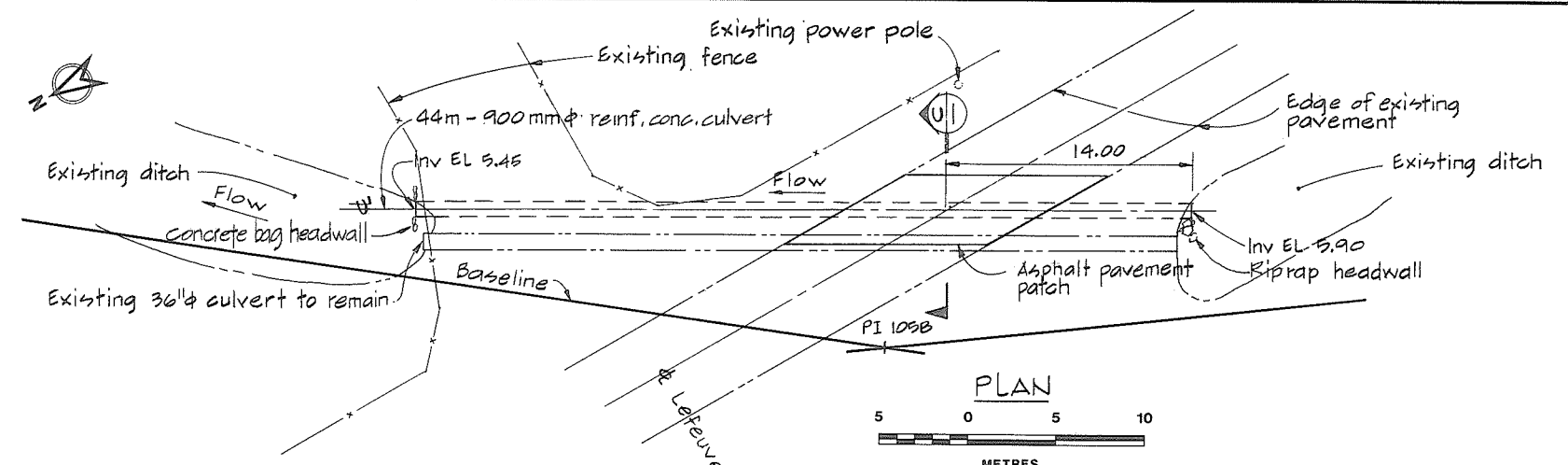


SECTION A-A

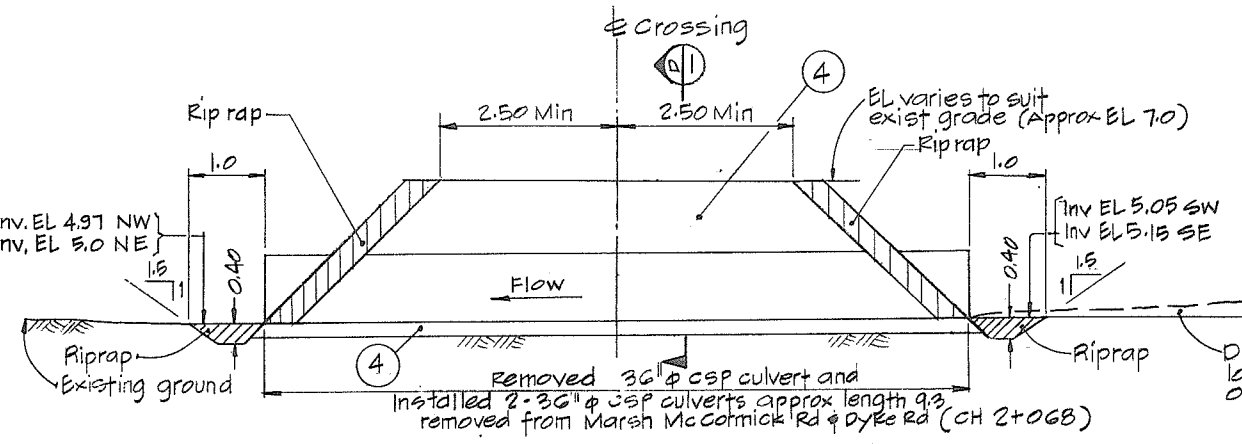


SECTION B-B

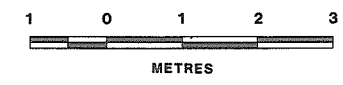
DYKE ROAD & MARSH MCCORMICK (BOTH AVE) CULVERT REPLACEMENT



SECTION C-C

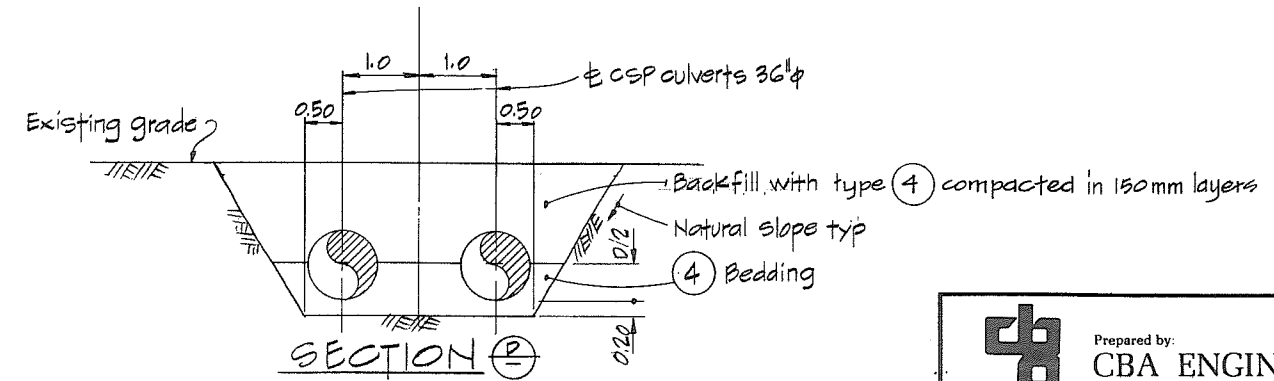


CULVERT REPLACEMENT & CROSSING DETAIL @ CH 2+638 E



LEFEUVRE ROAD SOUTH CULVERT INSTALLATION

NOTES
 • For General Notes, Material Legend and Legend see 88-9-2-2.



SECTION D-D

Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No	DESCRIPTION	DATE
A	As constructed	MAR 1990

RECOMMENDED *B. H. Conner*
 DATE *APR. 21, 89*

RECOMMENDED *A. A. W. ...*
 DATE *1989-04-21*

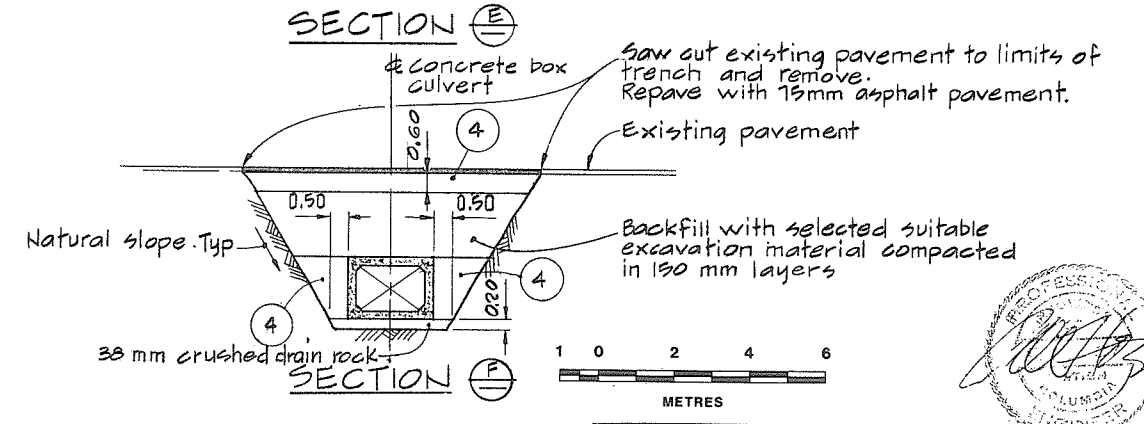
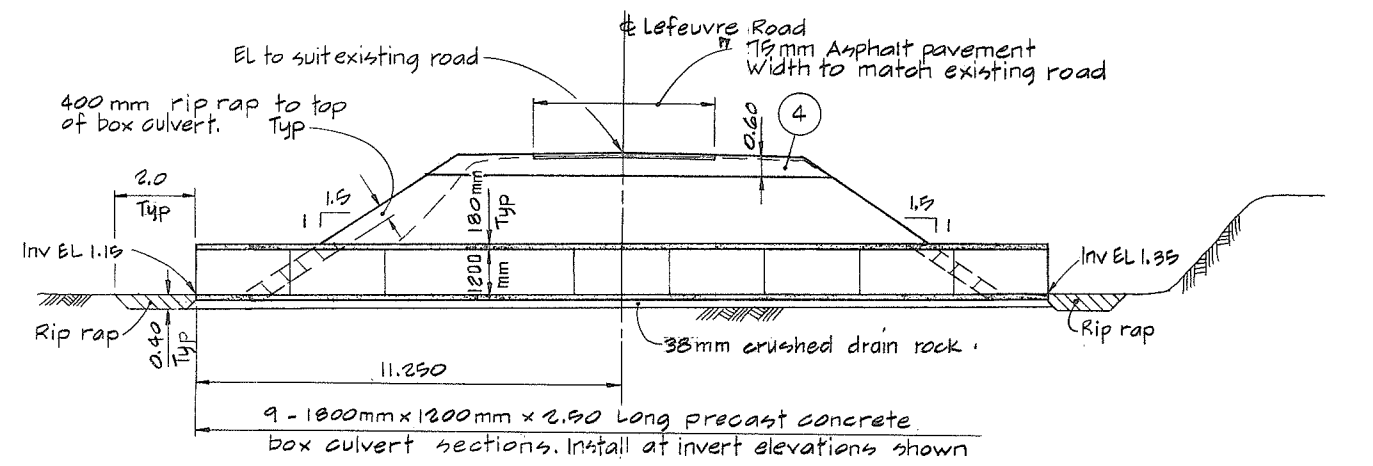
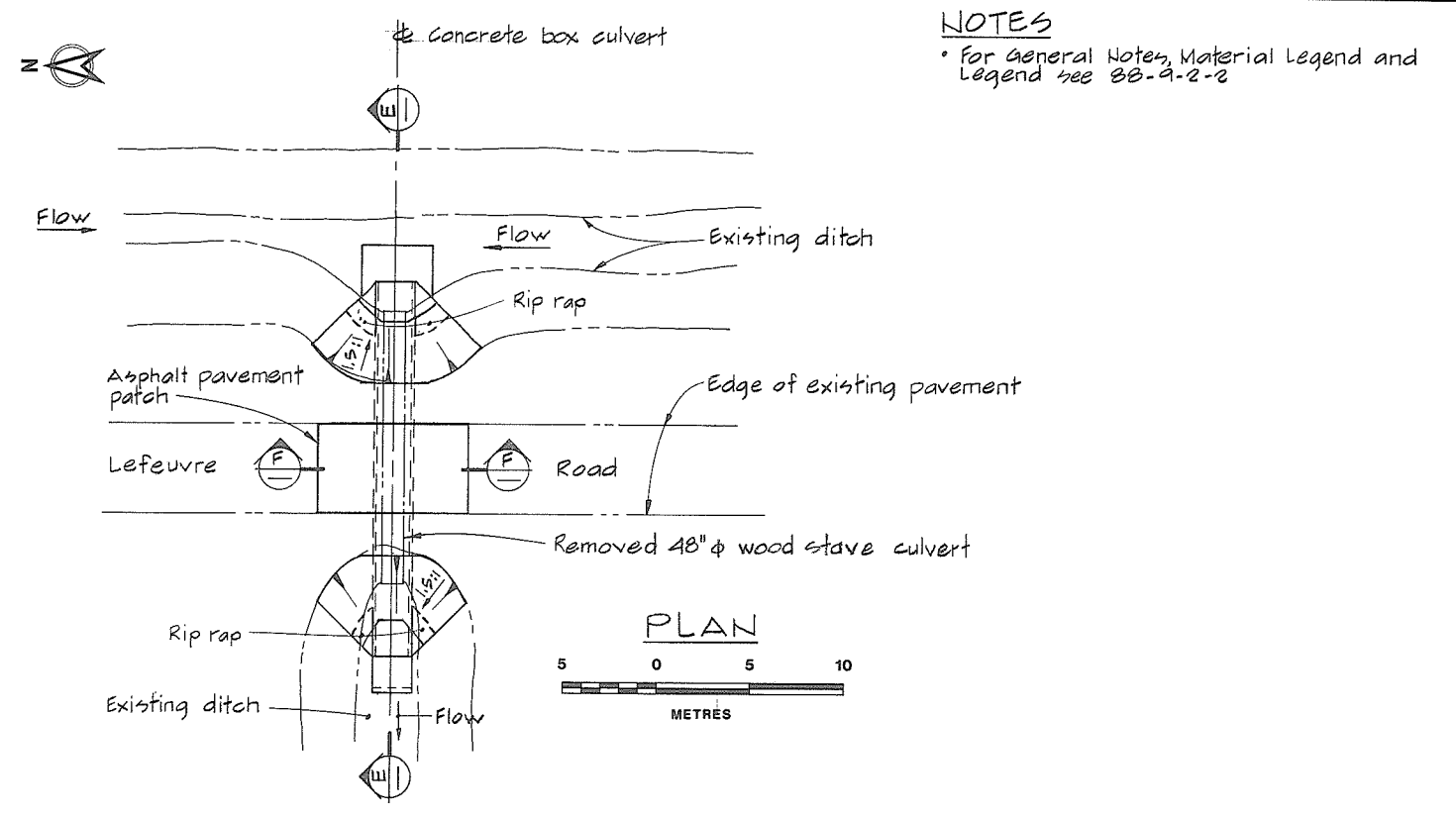
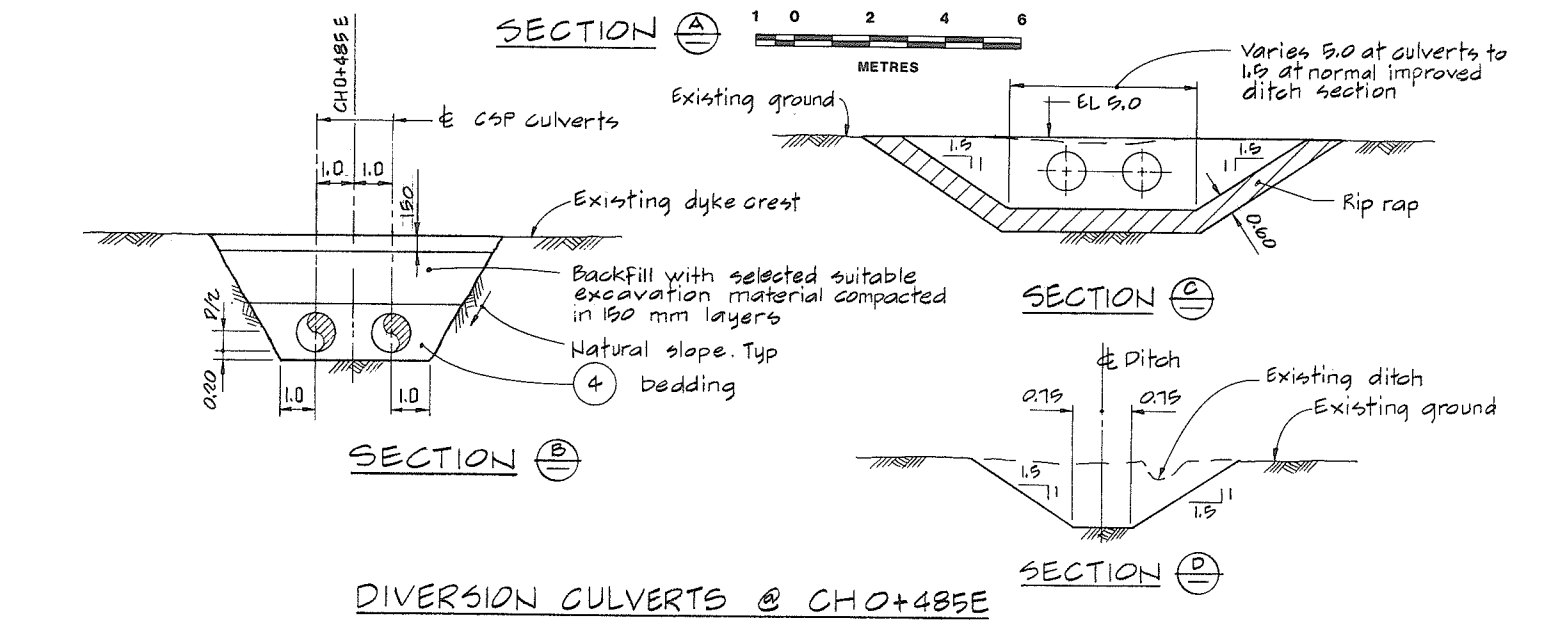
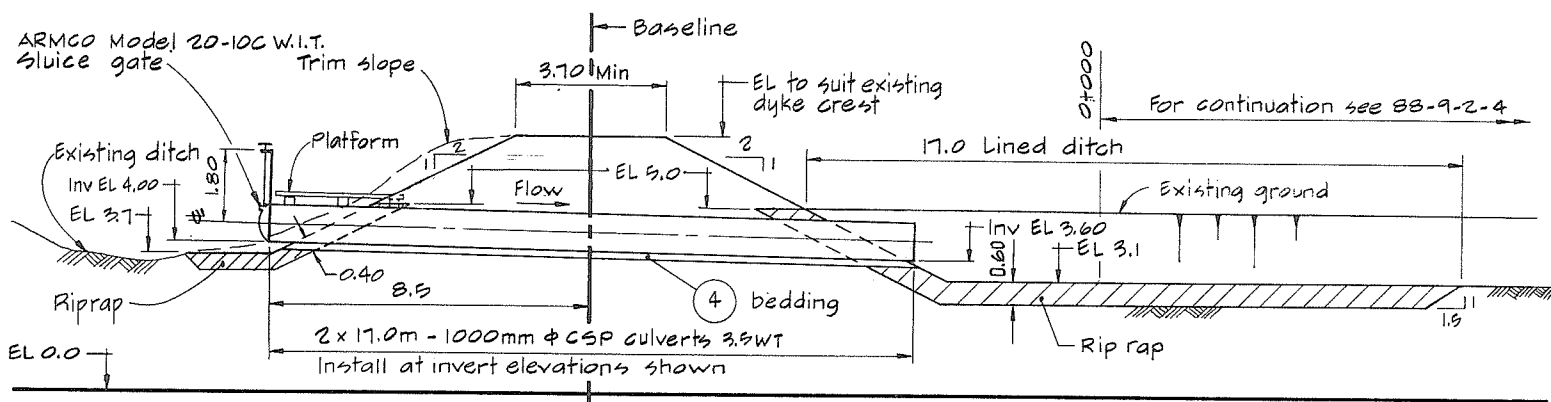
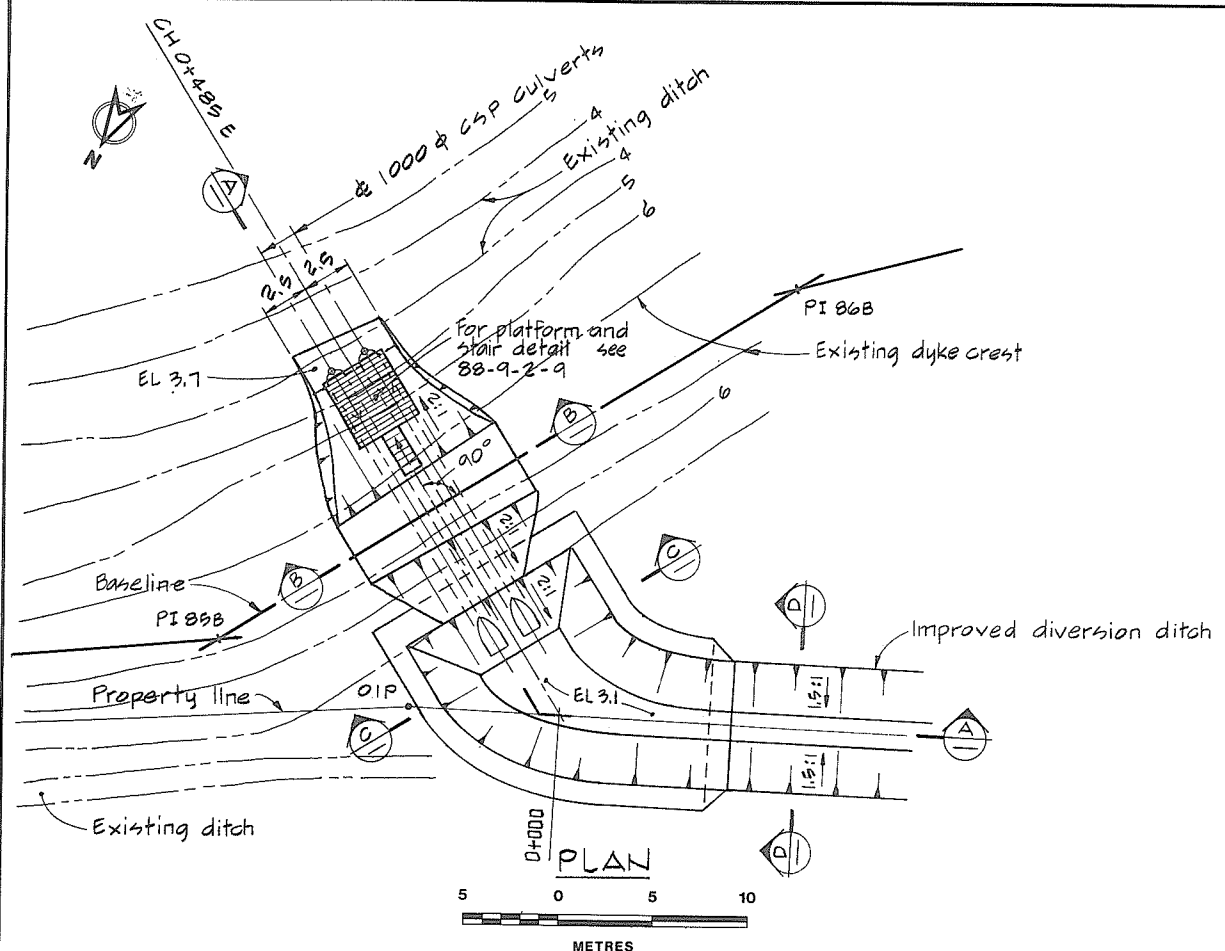
APPROVED *[Signature]*
 DATE *APR. 21, 89*

Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 2 EAST INTERCEPTOR DITCH
 CULVERT DETAILS

FILE No. 0281550C9-2	SURVEYED <i>DLC/EMH</i>
DESIGNED <i>DLC/EMH</i>	DATE July 1988
DRAWN <i>AR</i>	NEGATIVE No. 342023
DATE April 1989	DRAWING No. 88-9-2-6A
CHECKED <i>DLC/EMH</i>	SHEET of

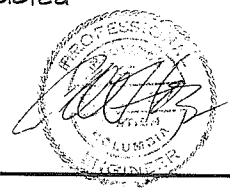


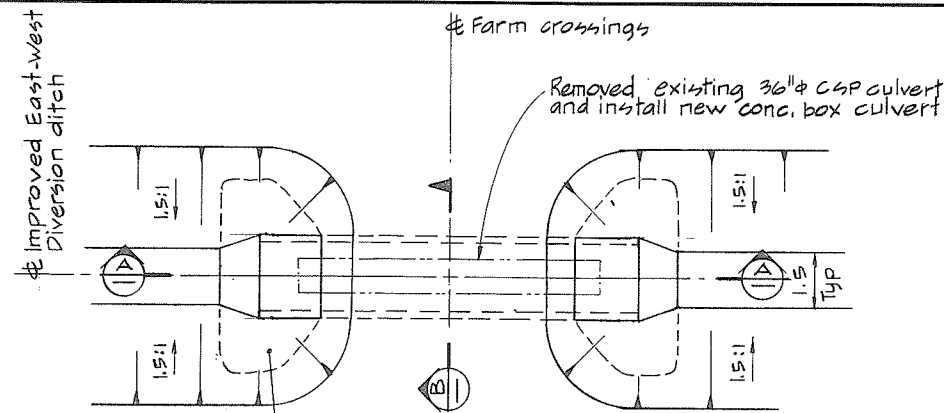


NOTES
 • For general Notes, Material Legend and Legend see 88-9-2-2

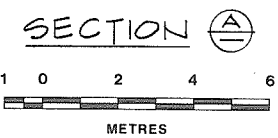
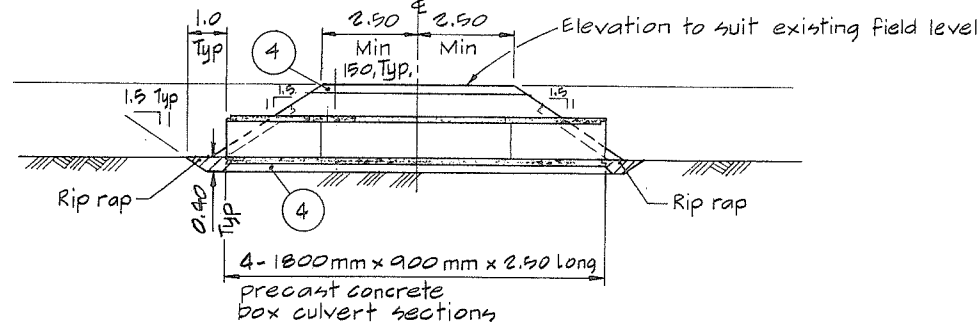
**LEFEUVRE ROAD NORTH
 CULVERT REPLACEMENT**

REVISIONS		RECOMMENDED	Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No.	SURVEYED
No.	DESCRIPTION	DATE		0281550C9-2	PLC/EMH
A	As constructed	MAR 1990			DATE July 1988
		APPROVED			DRAWN AR
		DATE			NEGATIVE No. 342024
		DATE			DRAWING No. 88-9-2-7A
		DATE			CHECKED PLC/EMH
		DATE			SHEET 1 of 2

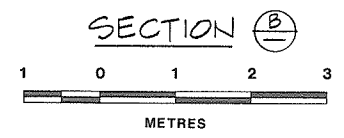
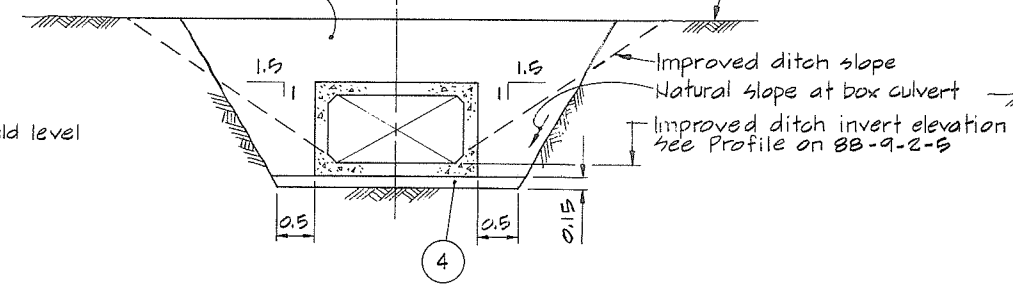




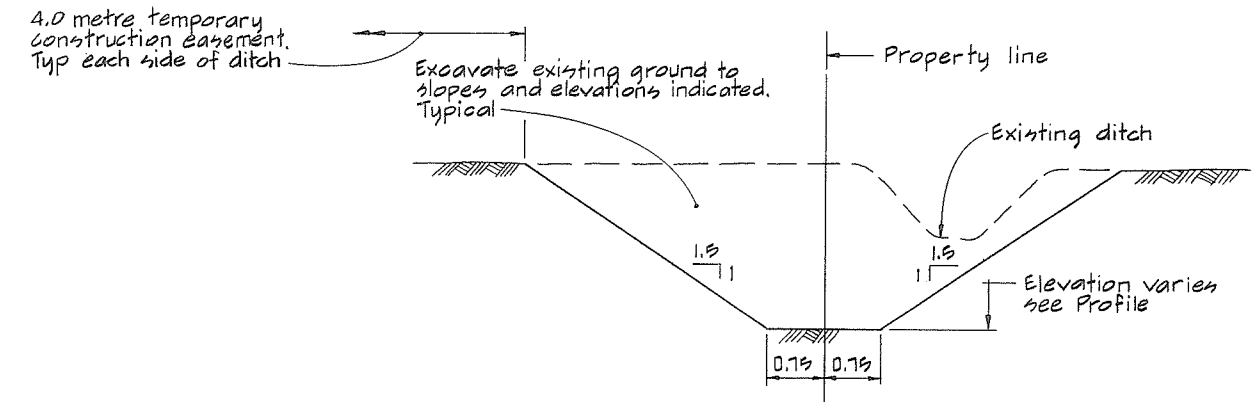
PLAN
 CH 1+115 SHOWN
 CH 1+290 SIMILAR
 CH 0+750 SIMILAR
 EXCEPT EXISTING STRUCTURE TIMBER BRIDGE



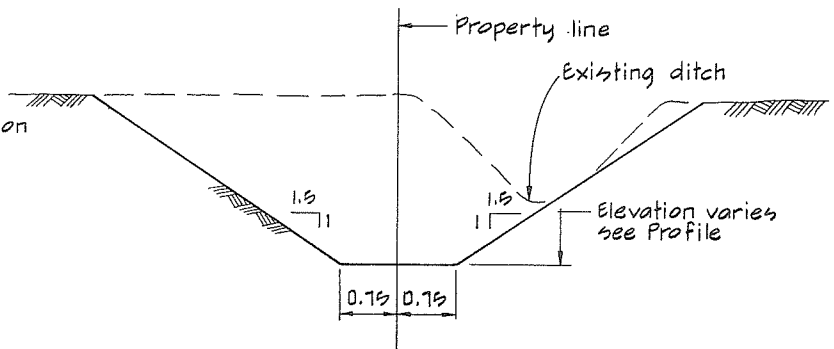
Back fill with suitable selected excavation material compacted in 150mm layers



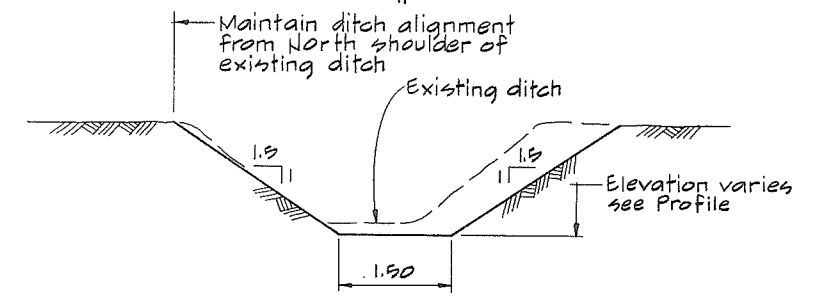
FARM CROSSING CULVERT REPLACEMENT
 3-REQ'D



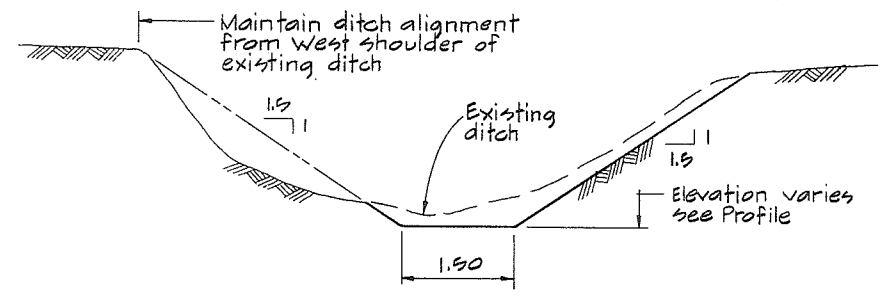
TYPICAL BTWN CH 0+008 TO 0+250



TYPICAL BTWN CH 0+250 TO 0+465

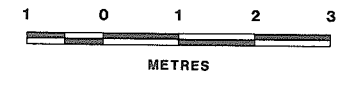


TYPICAL BTWN CH 0+465 TO 1+680



TYPICAL BTWN CH 1+680 TO 1+785

EAST-WEST DIVERSION DITCH



- NOTES
- For general Notes, Material Legend and Legend see 88-9-2-2
 - For East-West Diversion Ditch Profile see 88-9-2-6
 - For location of ditch sections see 88-9-2-4

Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

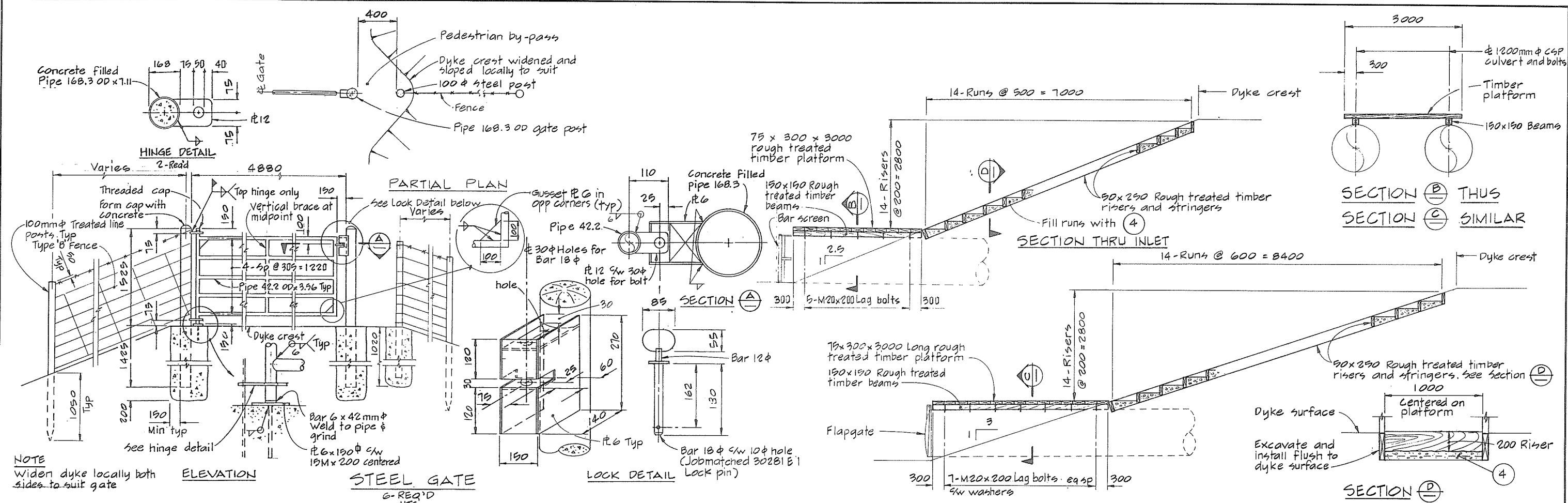
REVISIONS		RECOMMENDED
No.	DESCRIPTION	DATE
A	As constructed	APR 21 1989
		RECOMMENDED [Signature]
		DATE 1989-04-21
		APPROVED [Signature]
		DATE APR 21 1989

Province of British Columbia
 Ministry of Environment and Parks
 WATER MANAGEMENT BRANCH
 CANADA - BRITISH COLUMBIA
 FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

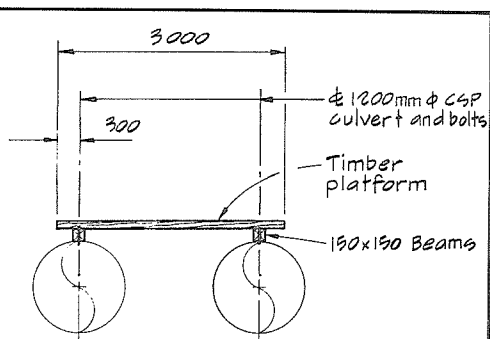
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
 CONTRACT NO. 2 EAST-WEST DIVERSION DITCH
 CULVERT AND DITCH DETAILS

FILE No. 02B1550C9-2	SURVEYED PLC/EMH
DESIGNED PLC/EMH	DATE July 1988
DRAWN OR	NEGATIVE No. 342025
DATE April 1989	DRAWING No. 88-9-2-8 A
CHECKED PLC/EMH	SHEET 2 of 2

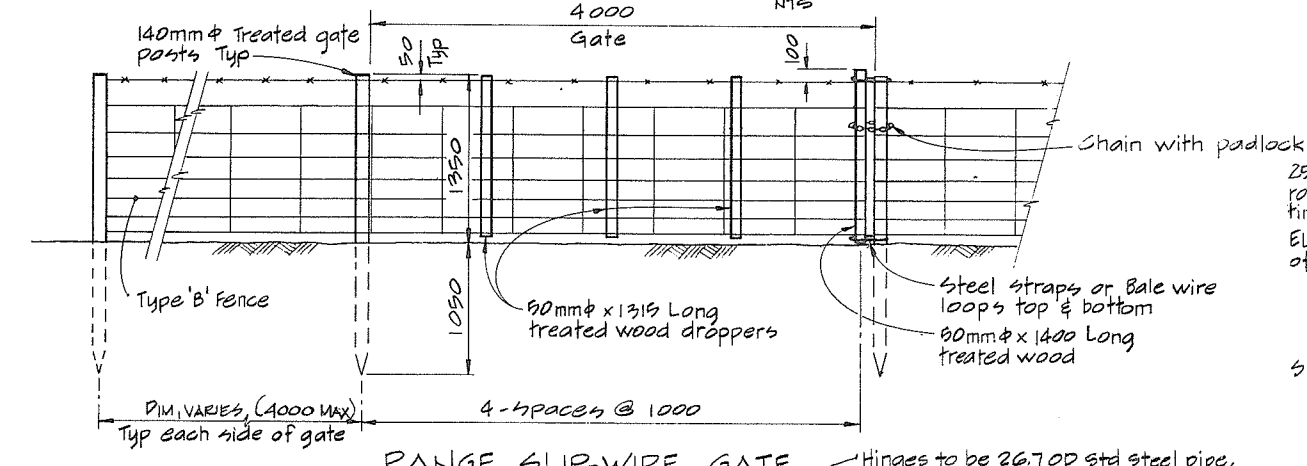




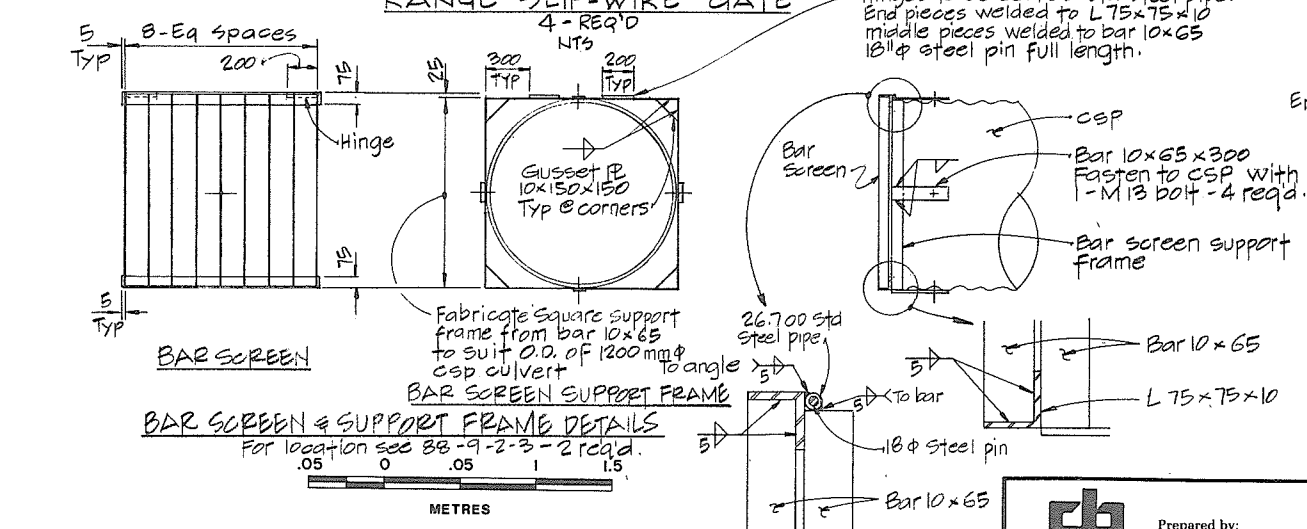
NOTE
Widen dyke locally both sides to suit gate



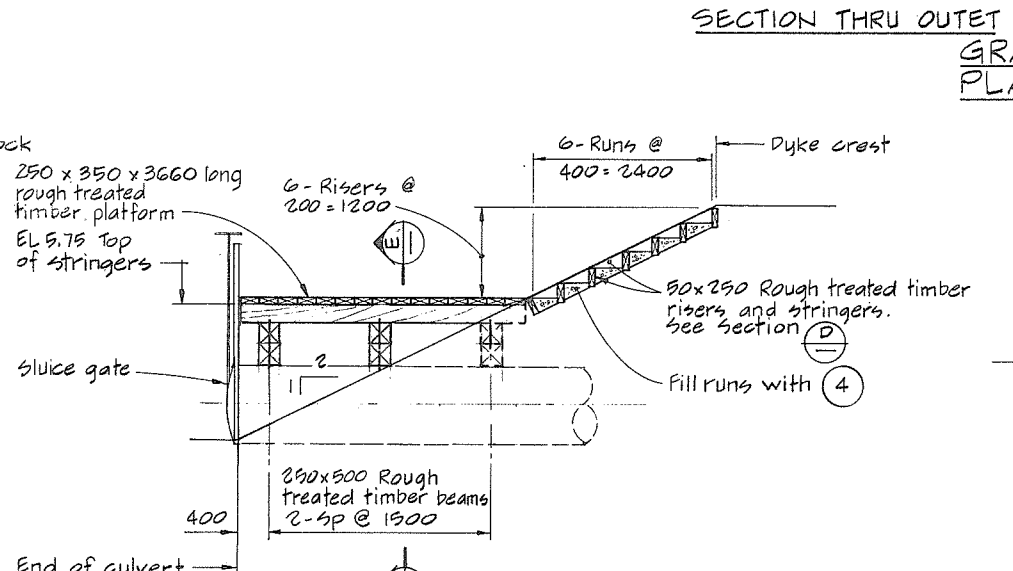
SECTION B THUS SECTION C SIMILAR



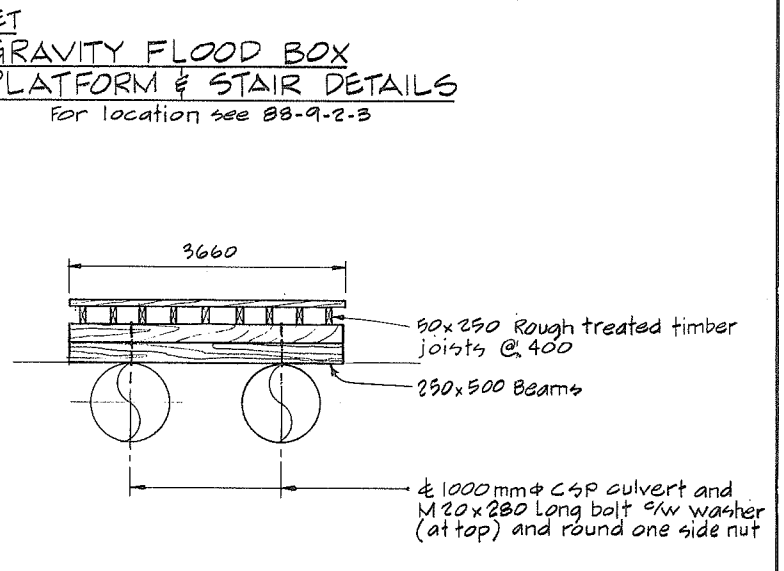
RANGE SLIP-WIRE GATE
4-REQ'D NTS



BAR SCREEN & SUPPORT FRAME DETAILS
For location see 88-9-2-3 - 2 req'd.



SECTION THRU INLET



SECTION E

DIVERSION CULVERT PLATFORM & STAIR DETAILS
For location see 88-9-2-1

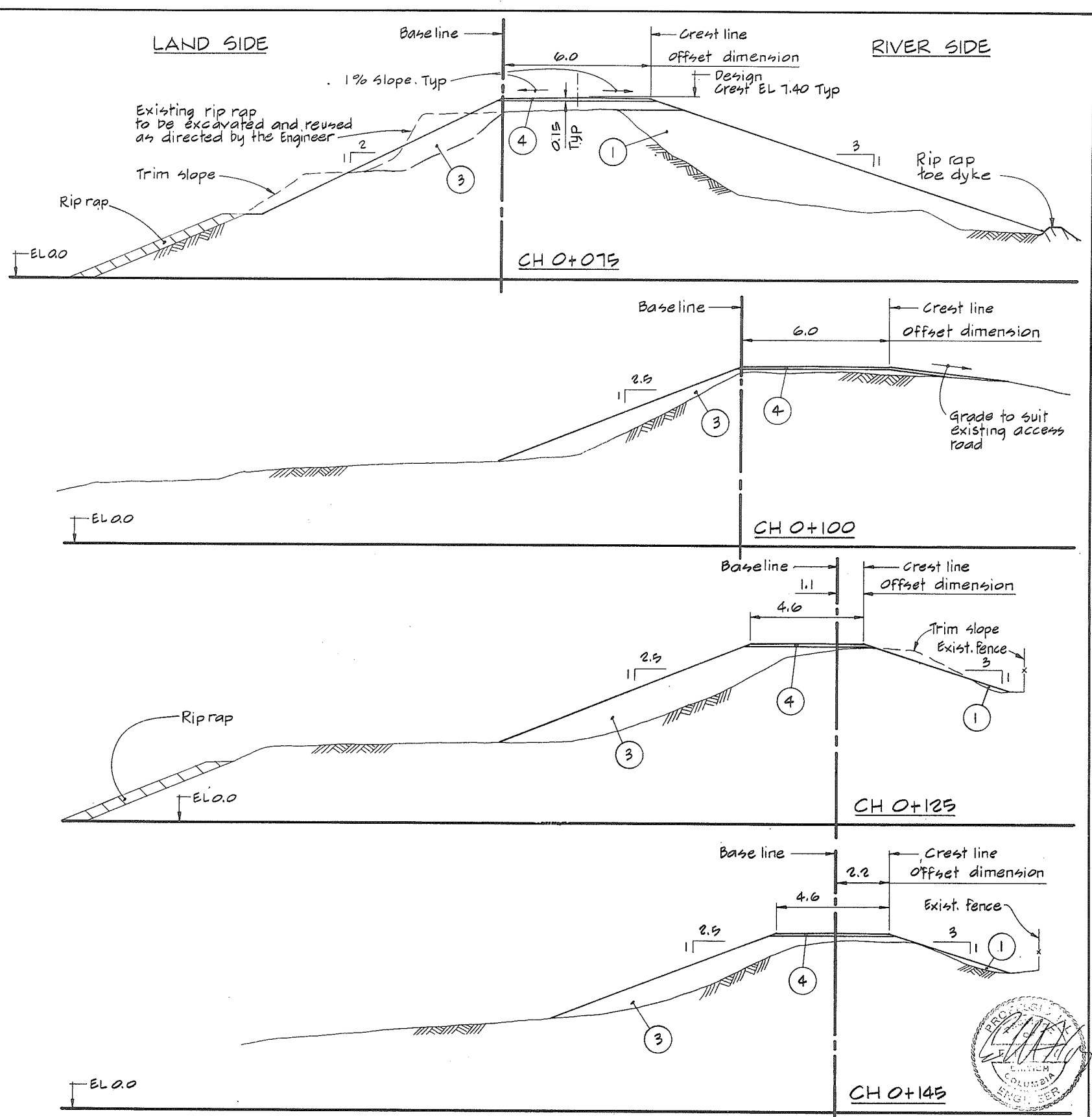
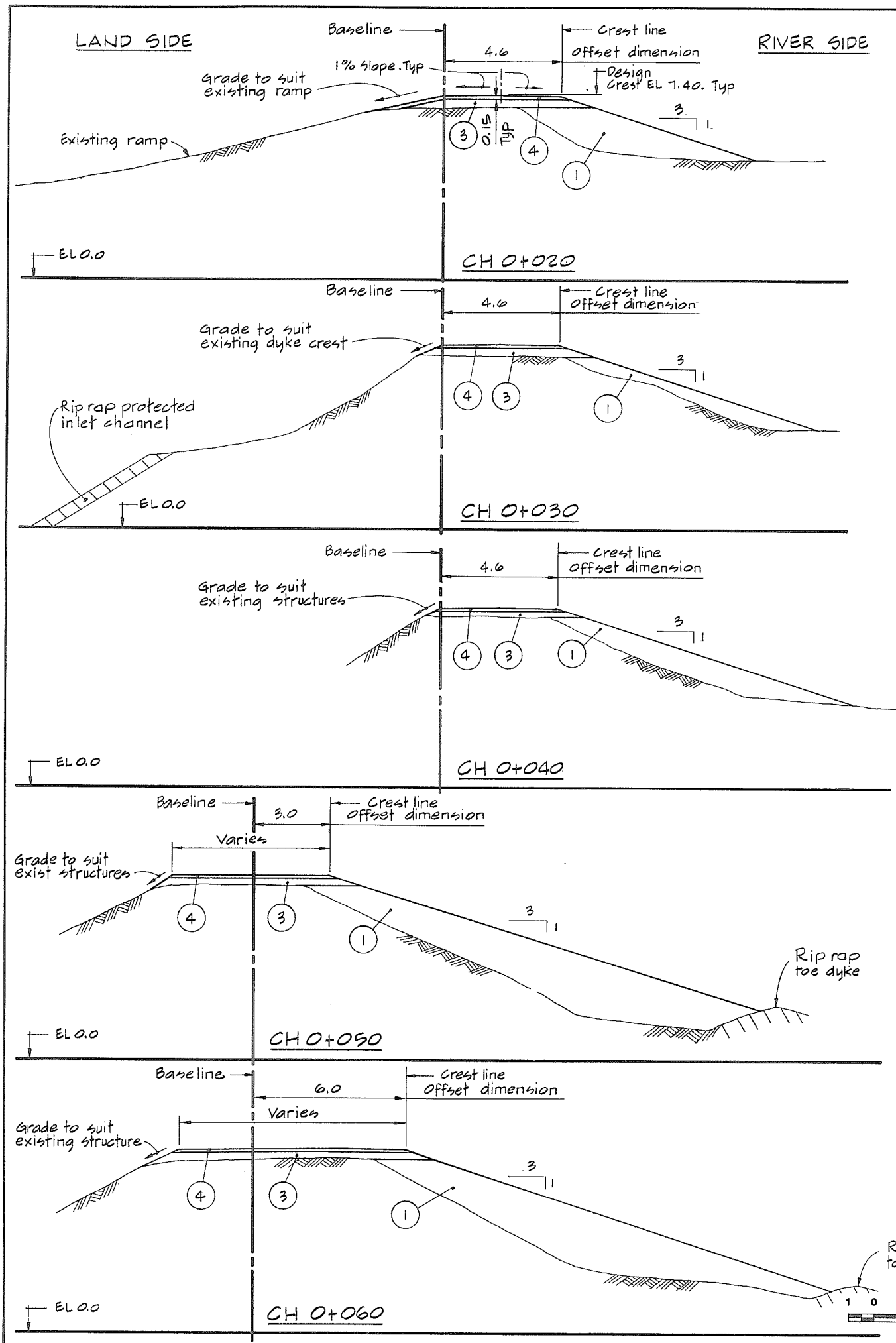


REVISIONS		
No.	DESCRIPTION	DATE
A	As Constructed	MAR 1990

RECOMMENDED <i>R. H. Cameron</i>	DATE <i>APR 21 1989</i>
RECOMMENDED <i>W. H. W. Smith</i>	DATE <i>1989 DEC 21</i>
APPROVED <i>[Signature]</i>	DATE <i>APR 21 1989</i>

Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-2	SURVEYED DATE
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT CONTRACT NO. 2 CULVERT AND FENCE DETAILS	DESIGNED MH/DLC	NEGATIVE No. 342026
	DRAWN AR	DRAWING No. 88-9-2-9 A
	DATE April 1989	SHEET of
CHECKED DLC/EMH		

Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA



NOTES

- For Pumphouse Dyke alignment see 88-9-2-10
- For General Notes, Material Legend and Legend see 88-9-2-2



Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	March 1990

RECOMMENDED *R. R. Cameron*
DATE *APR. 21/89*

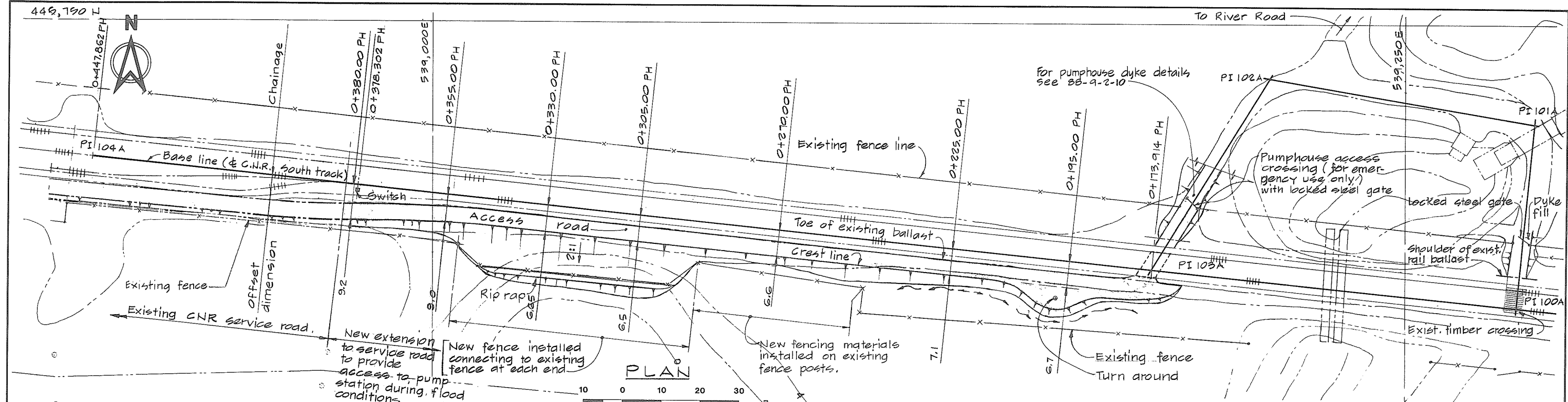
RECOMMENDED *W. M. ...*
DATE *1989-04-21*

APPROVED *Sev ...*
DATE *21 April 89*

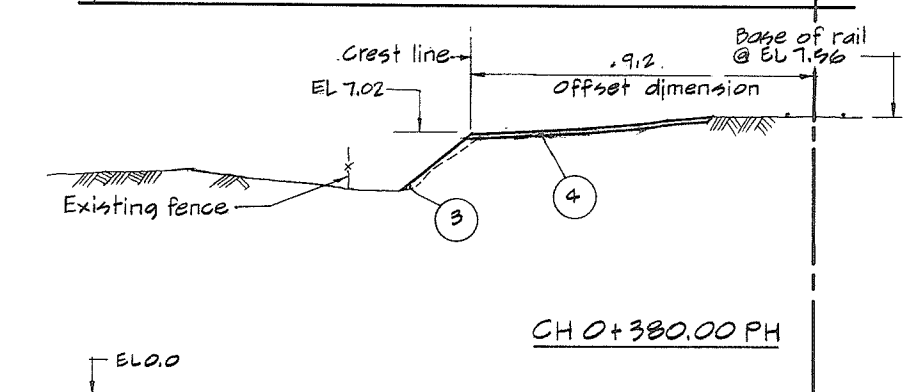
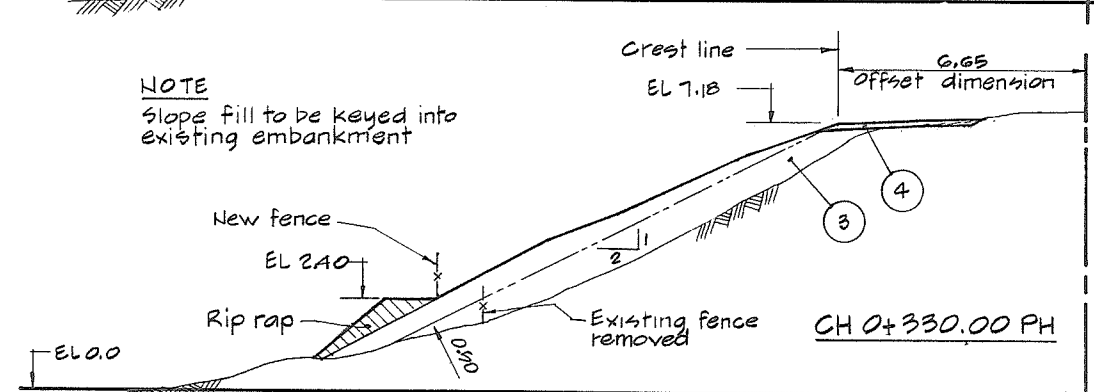
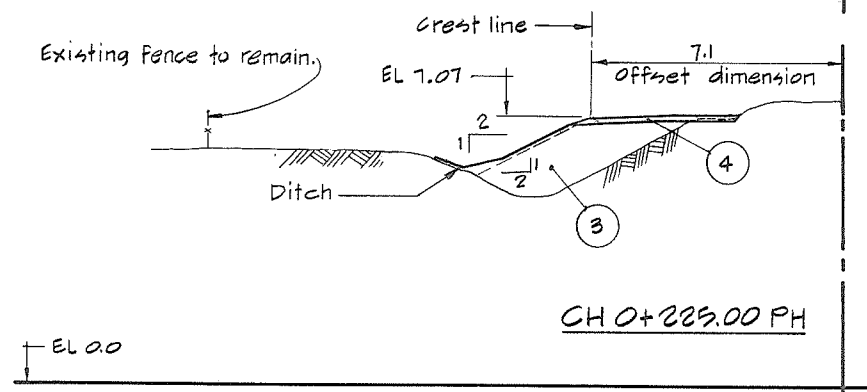
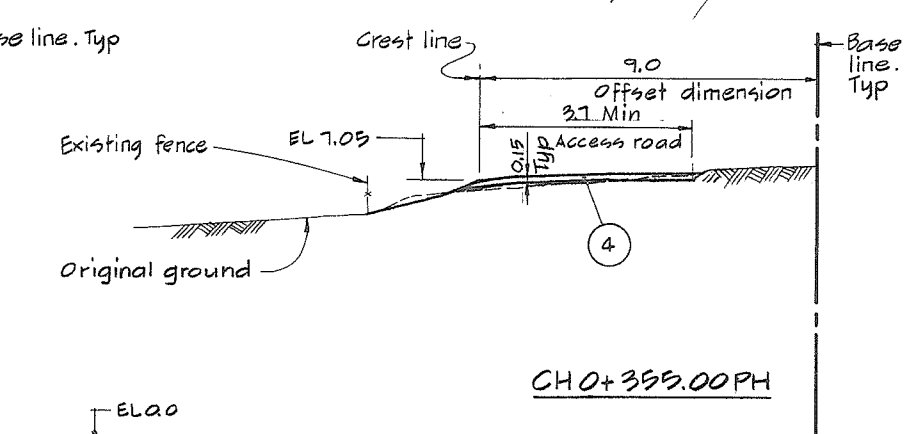
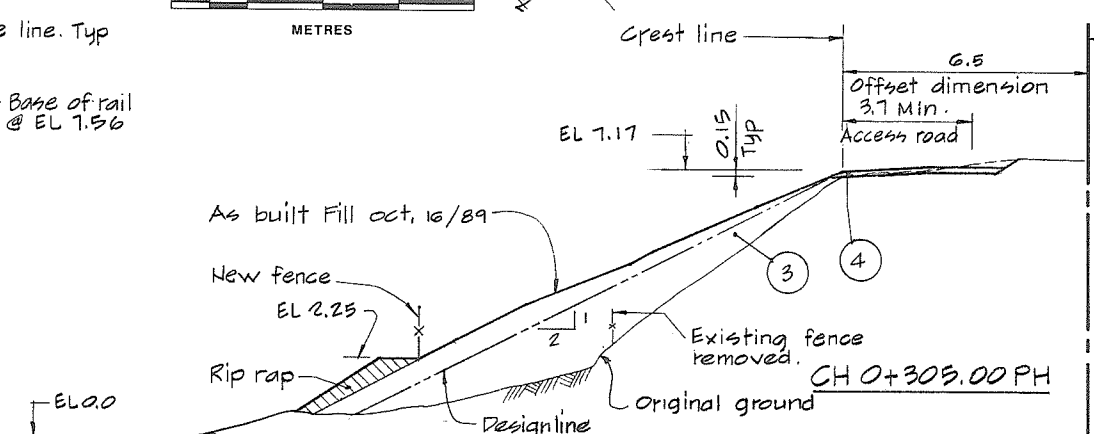
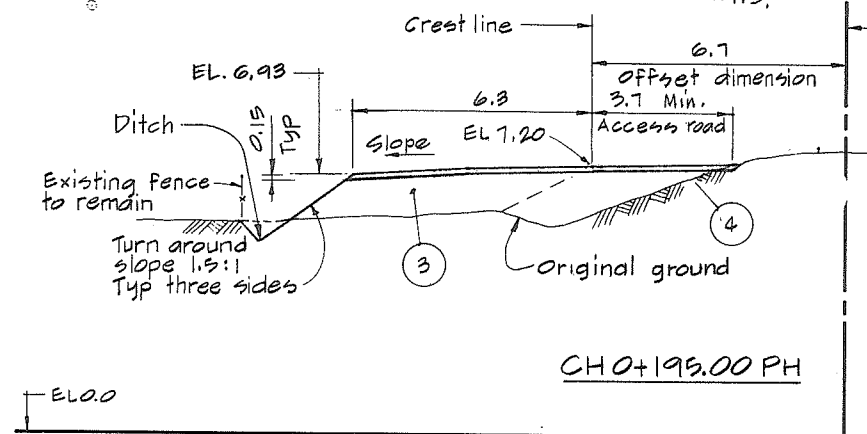
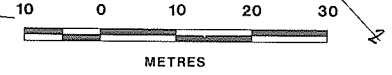
Province of British Columbia
Ministry of Environment and Parks
WATER MANAGEMENT BRANCH
CANADA - BRITISH COLUMBIA
FRASER RIVER FLOOD CONTROL 1968 AGREEMENT

PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT
CONTRACT NO. 2 PUMPHOUSE DYKE
TYPICAL SECTIONS

FILE No. 0281550C9-2	SURVEYED <i>DLG/EMH</i>
DESIGNED <i>DLG/EMH</i>	DATE <i>Dec 1988</i>
DRAWN <i>AR</i>	NEGATIVE No. 342028
DATE <i>April 1989</i>	DRAWING No. 88-9-2-11A
CHECKED <i>DLG/EMH</i>	SHEET <i>...</i> of <i>...</i>

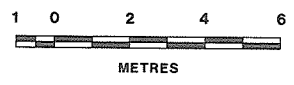


PLAN



NOTE
Slope fill to be keyed into existing embankment

SECTIONS



MATERIAL LEGEND

- ③ Clean sand and gravel
- ④ Crushed surfacing gravel

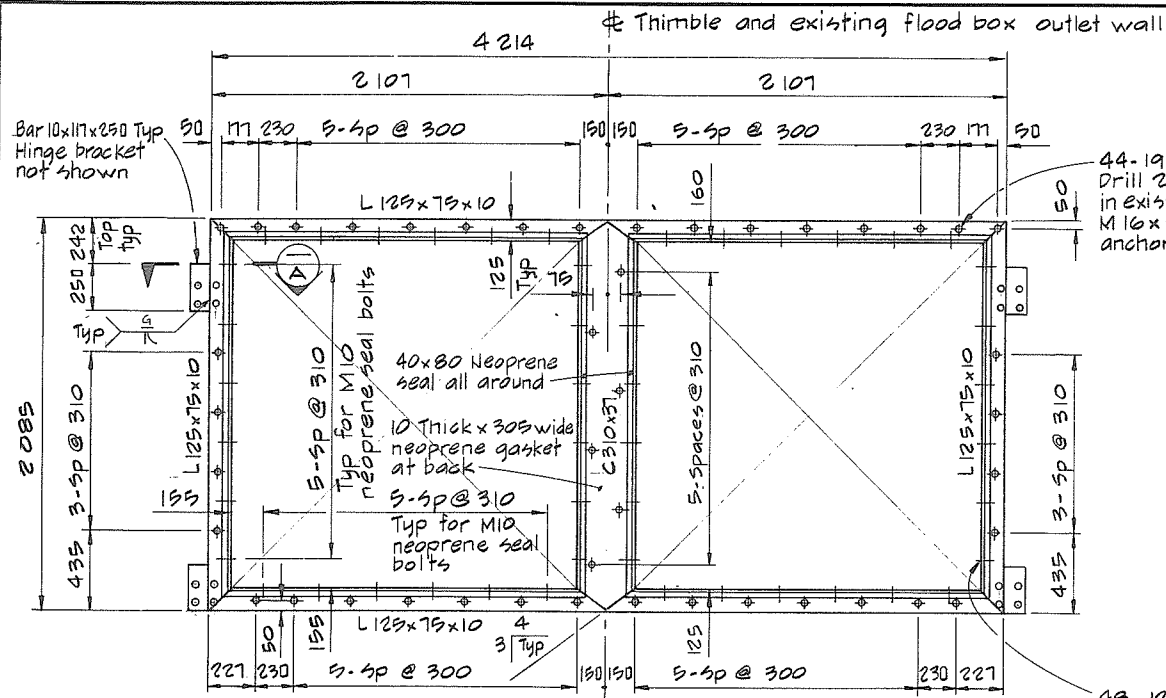
NOTES

All elevations and dimensions are in metres.
Elevations refer to the Geodetic Survey of Canada.

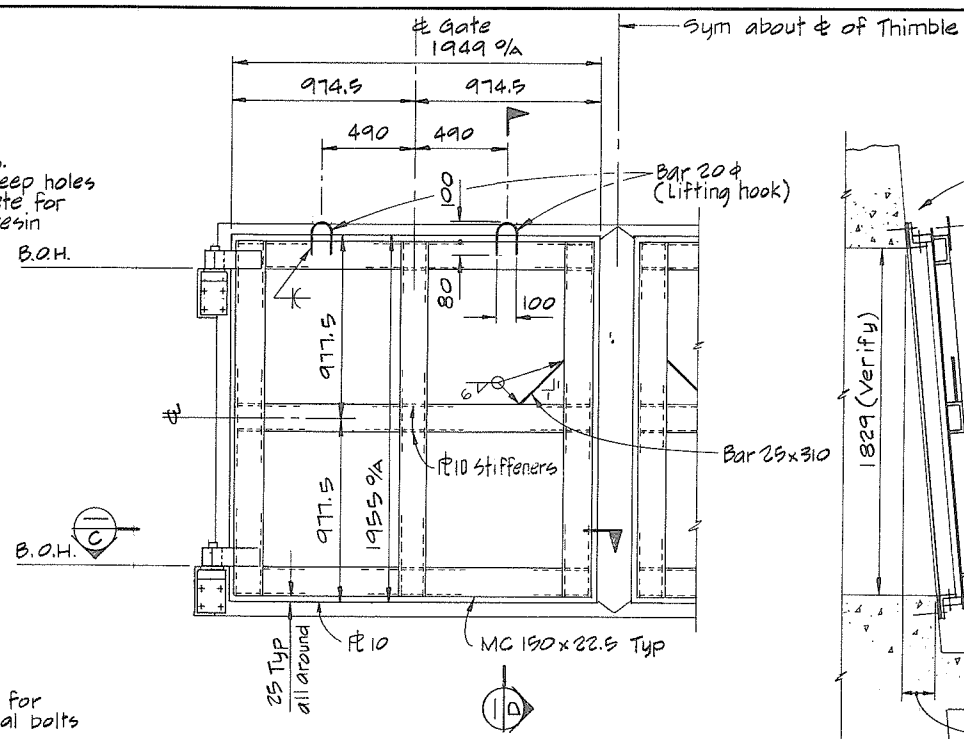
Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No.	DESCRIPTION	DATE
A	As constructed	March 1990

RECOMMENDED: <i>R.M. Lamson</i> DATE: APR. 21 / 89 RECOMMENDED: <i>W.H.H. & J.T.</i> DATE: 1989-04-21 APPROVED: <i>Geo Bark</i> DATE: April 21 / 89	Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-2 DESIGNED: <i>PLC/EMH</i> DRAWN: <i>re/ar</i> DATE: April 1989 CHECKED: <i>PLC/EMH</i>	SURVEYED: <i>DLC/PB</i> DATE: Feb 1987 NEGATIVE No. 342029 DRAWING No. 88-9-2-12 A SHEET of
--	--	--	---

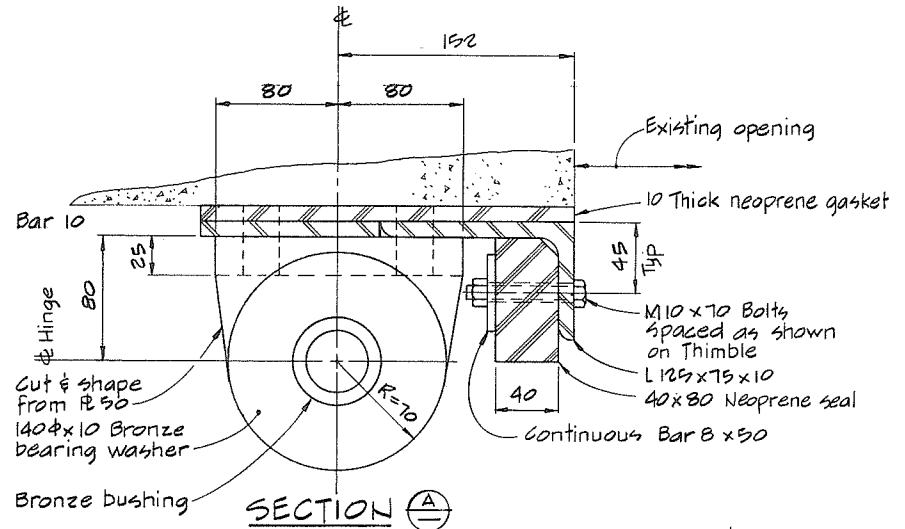


ELEVATION - THIMBLE

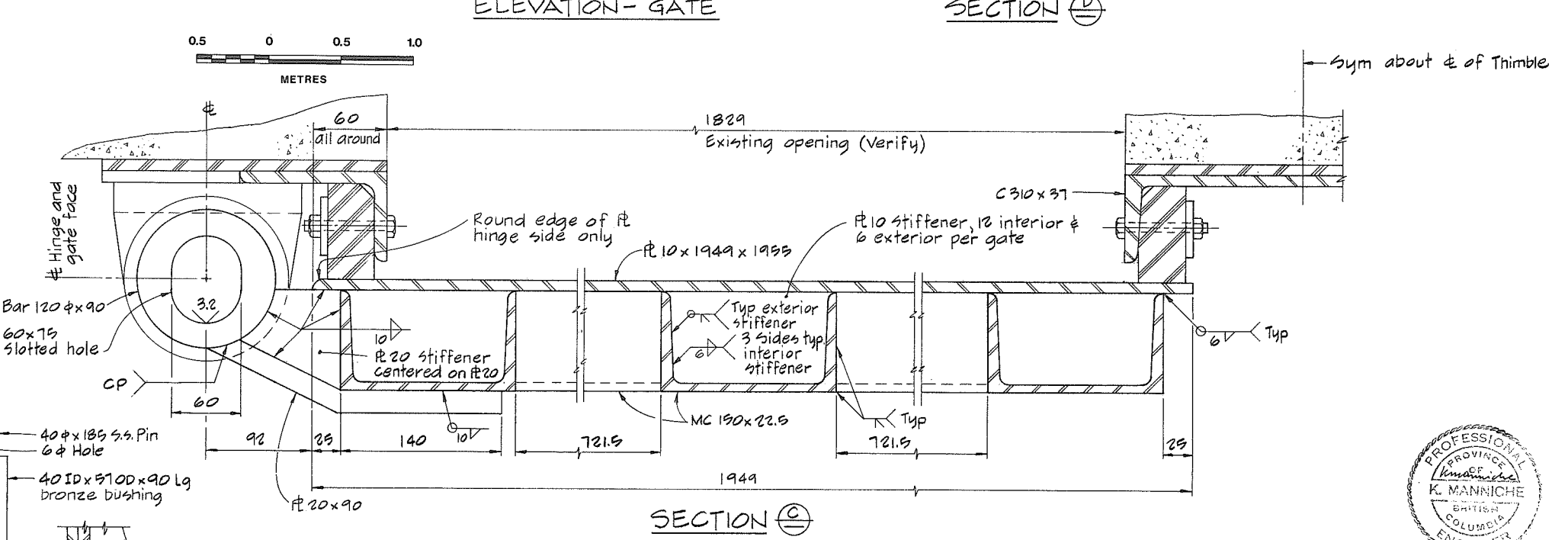


ELEVATION - GATE

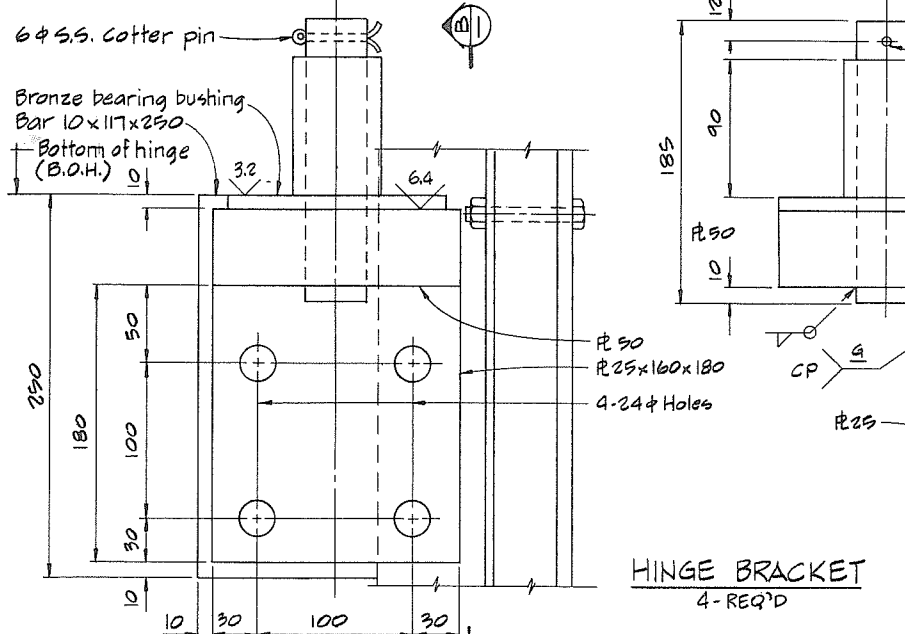
SECTION D



SECTION A



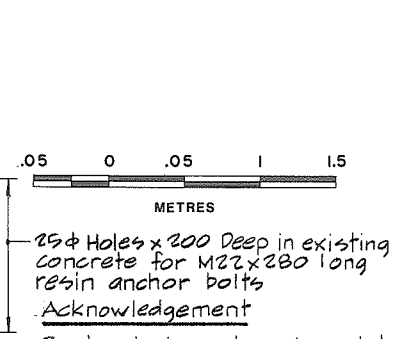
SECTION C



ELEVATION

HINGE BRACKET
4-REQ'D

SECTION B



Acknowledgement
Design is based on Associated Engineering Services Ltd DWG 4793-S-11

NOTES

- All steel shall meet the requirements of CSA G40.21 Grade 300w.
- Mitre corners of gate thimble section, continuous butt weld and grind smooth.
- All gate welding shall be continuous and watertight. Provide vent holes as required for galvanizing, plug weld holes afterwards and coat with Galvalume.
- All parts of hinge assembly in contact with bronze bushing and bearing pieces shall be ground to stipulated smoothness tolerances, bronze bushing and bearing washer shall be similarly ground and reamed as required to just slip easily on the stainless steel pin. Stainless steel pin shall be smooth and free of upsets and burrs.
- Neoprene gasket and seal shall be mitred and vulcanized at corners. To be watertight, exposed edge on four sides of seal shall form a true plane for seating of gate.
- Neoprene gasket may be glued to the thimble prior to installation.
- Gate face shall be one plane after fabrication.
- All dimensions are in mm. Steel rolled sections, rounds, flats, bolts, nuts, and resin anchor capsules manufactured to equivalent imperial sizes will be accepted provided a true fit within allowable tolerances can be achieved.
- All brackets are continuous shop welded on to the thimble.
- Finishes are indicated in μ m
- Welding shall meet the requirements of CSA standard W59.
- For existing flood box concrete details see P2-29-420

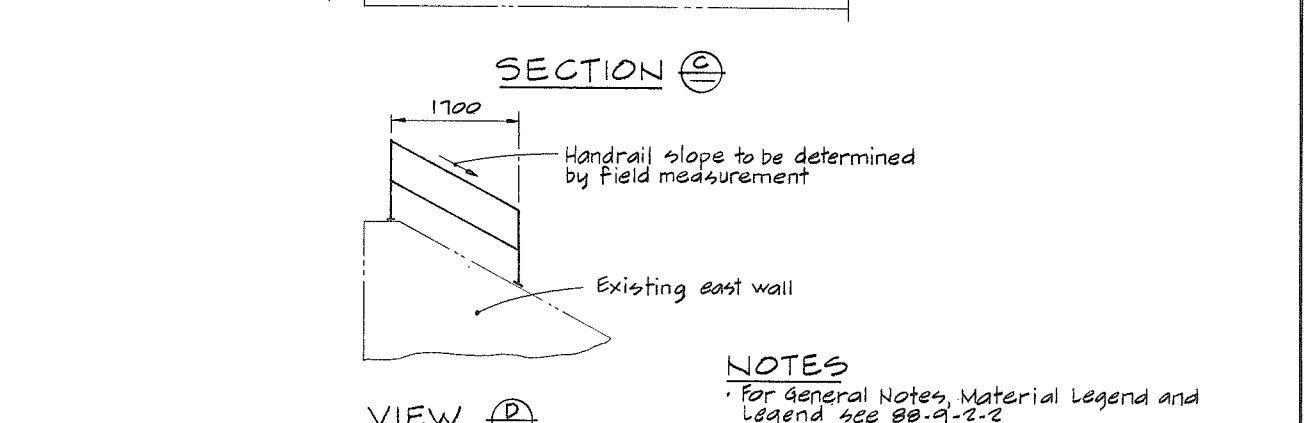
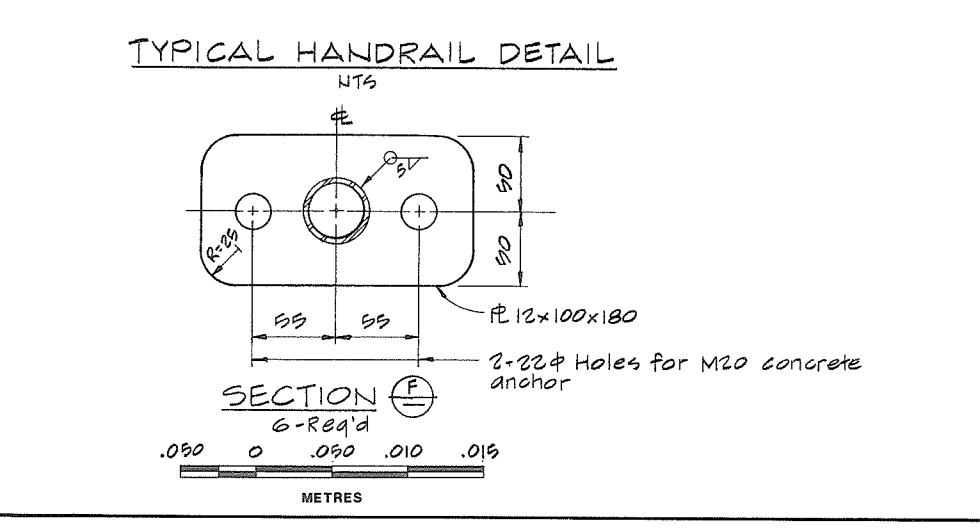
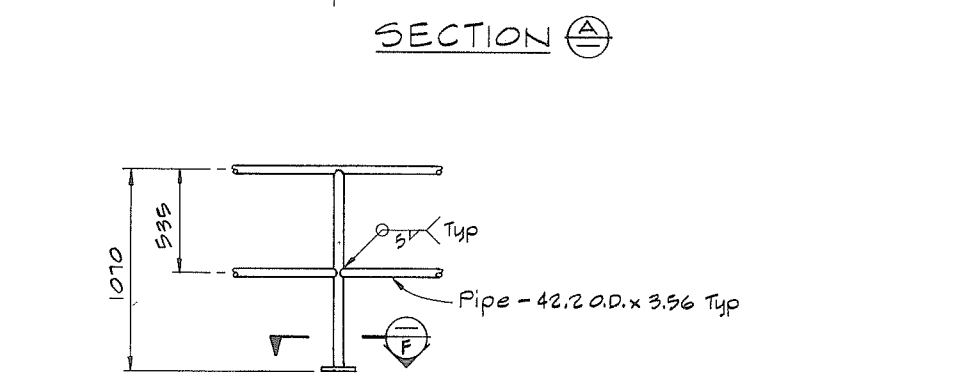
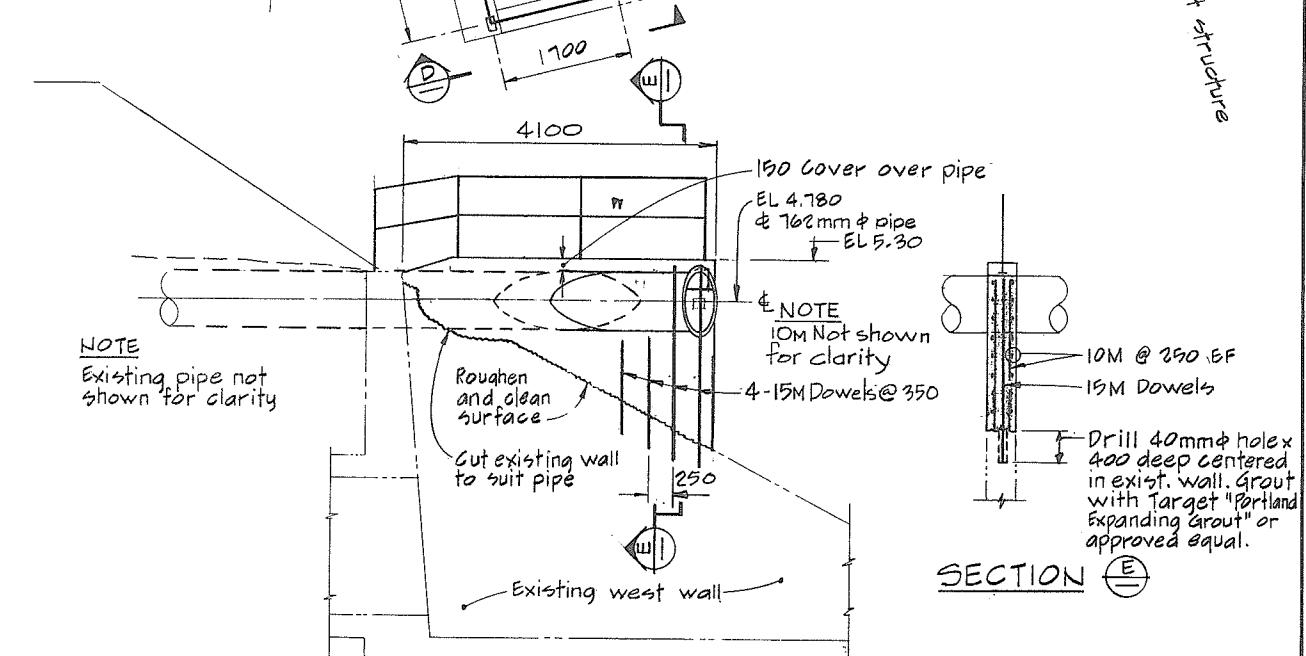
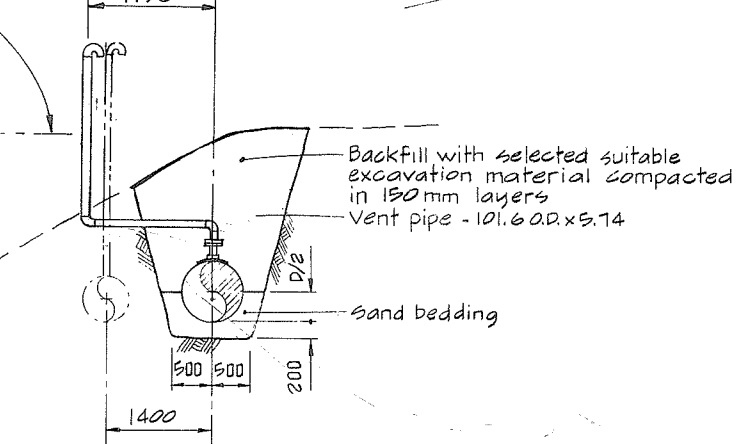
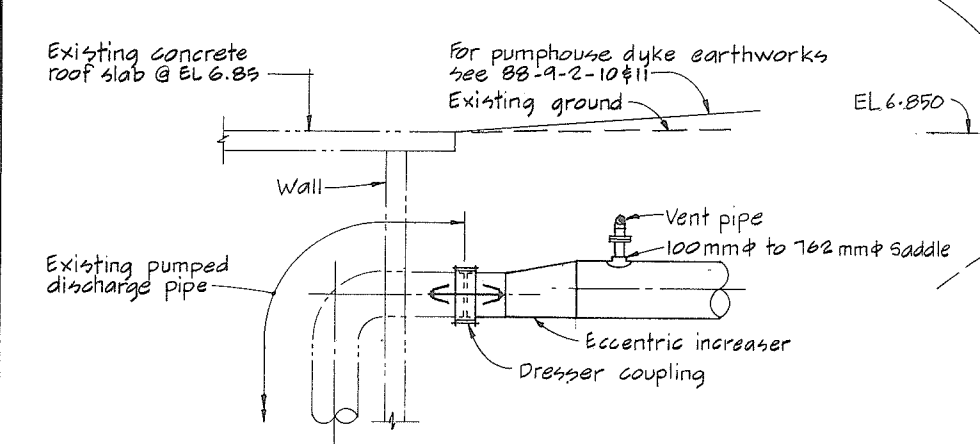
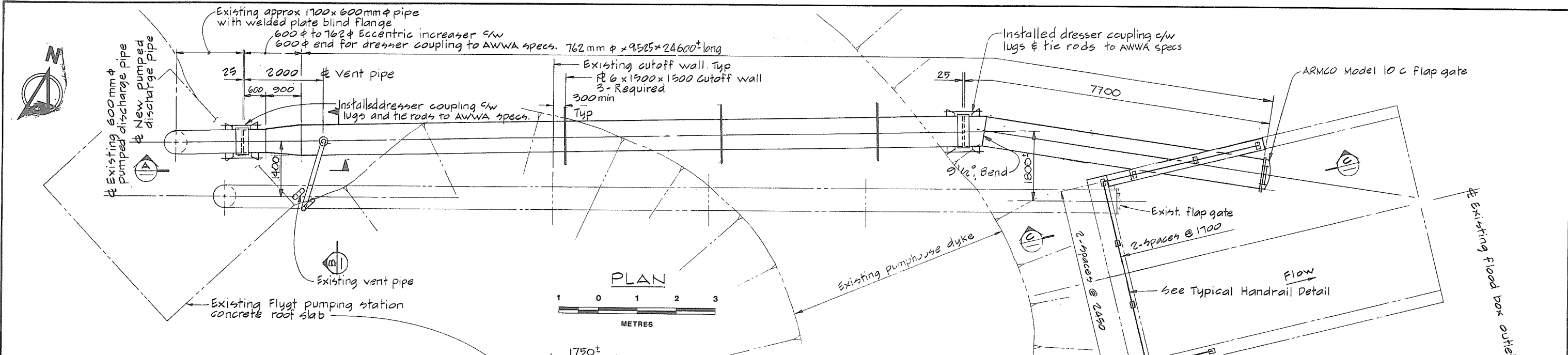


Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		RECOMMENDED
No.	DESCRIPTION	DATE
A	As constructed	March 1990

RECOMMENDED	<i>R.H. Camm</i>
DATE	Apr. 21, 1989
RECOMMENDED	<i>H.A. M... ..</i>
DATE	1989-04-21
APPROVED	<i>[Signature]</i>
DATE	April 21, 1989

Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-2	SURVEYED
	DESIGNED KM	DATE
	DRAWN AR	NEGATIVE No. 342030
	DATE April 1989	DRAWING No. 88-9-2-13 A
	CHECKED KM	SHEET of

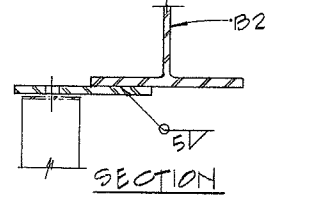
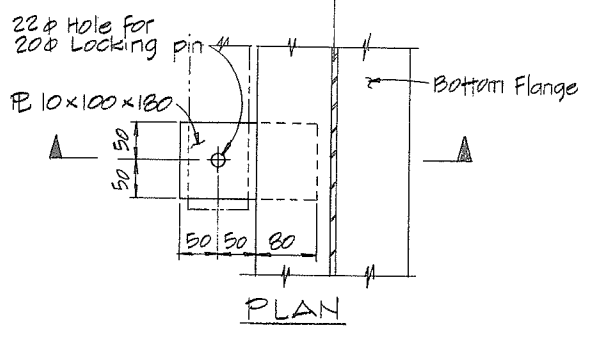
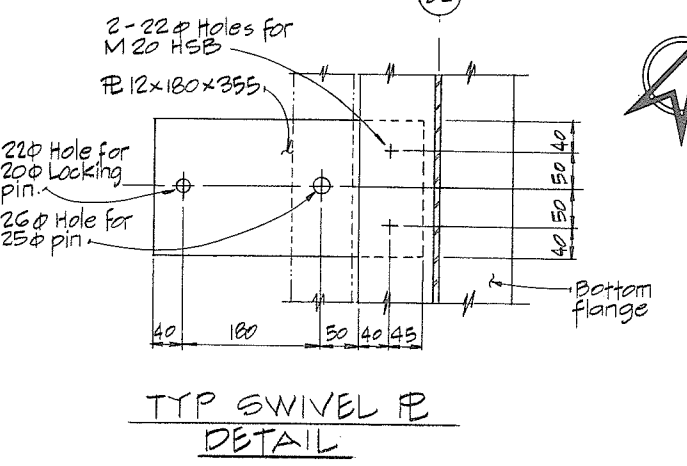
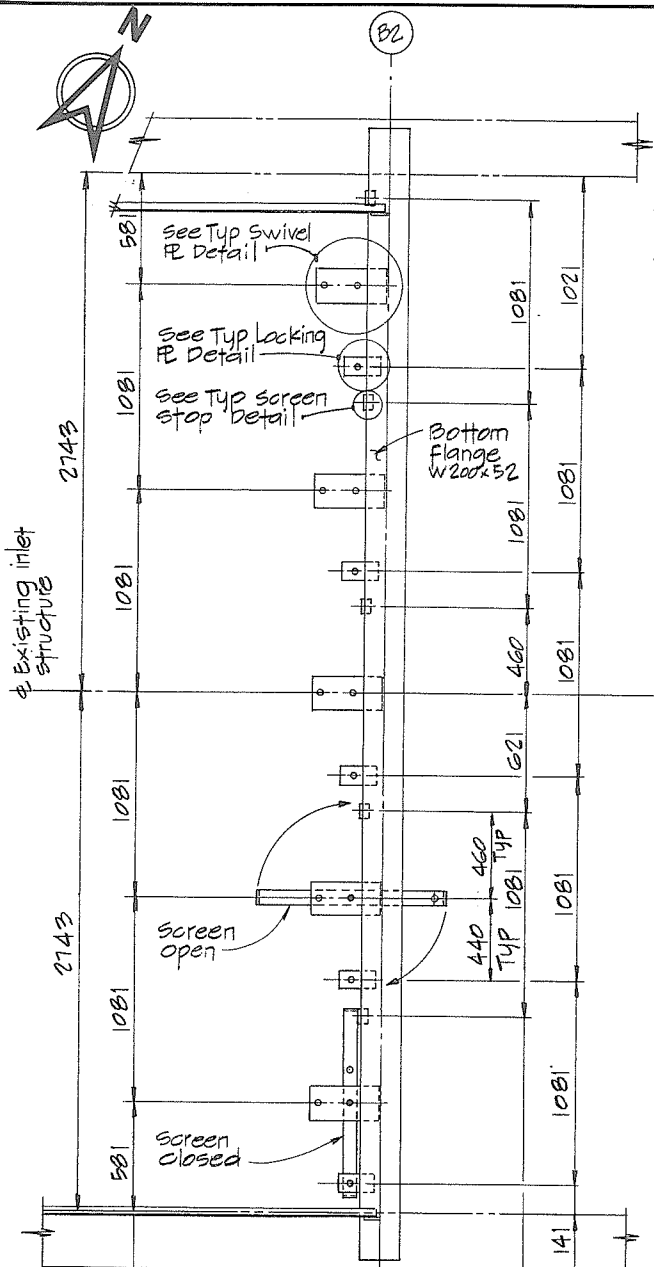


NOTES
 For General Notes, Material Legend and Legend see 88-9-2-2

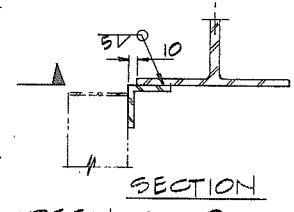
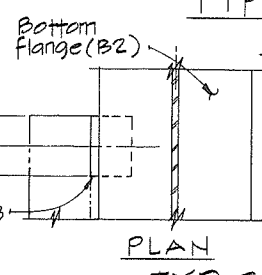
Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		RECOMMENDED
No	DESCRIPTION	DATE
A	As constructed	March 1990
		RECOMMENDED <i>R. H. Cameron</i>
		DATE <i>APR. 21 / 89</i>
		RECOMMENDED <i>H. H. Hedlett</i>
		DATE <i>1989-04-21</i>
		APPROVED <i>E. D. G. Smith</i>
		DATE <i>April 21 1989</i>

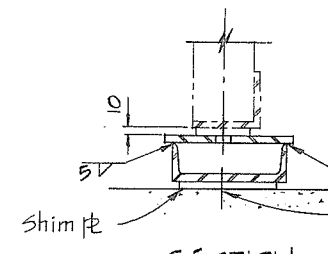
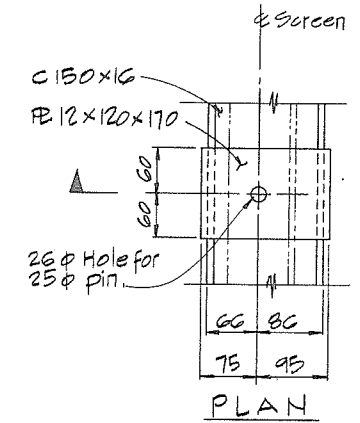
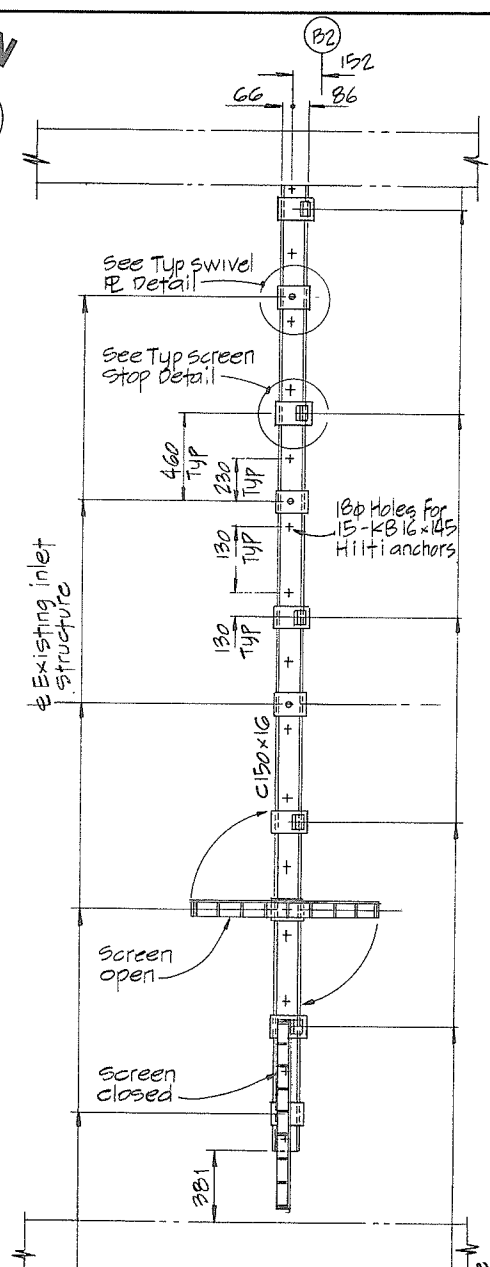
Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT	FILE No. 0281550C9-2	SURVEYED
	DESIGNED DLC/KM	DATE
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT	DRAWN AR	NEGATIVE No. 342031
CONTRACT NO. 2 PUMPHOUSE	DATE April 1989	DRAWING No. 88-9-2-14 A
PUMPED DISCHARGE PIPE DETAILS	CHECKED DLC/EMH	SHEET 1 of 1



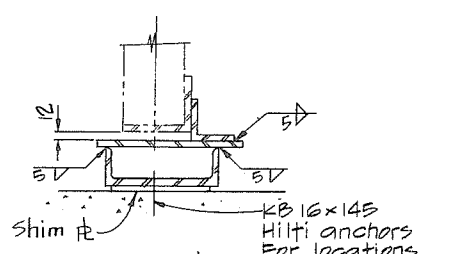
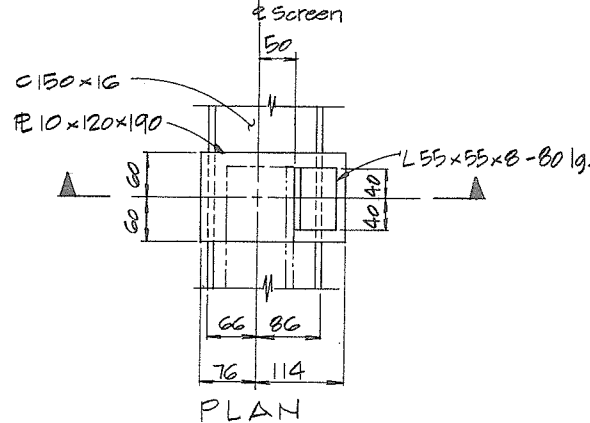
TYP LOCKING PE DETAIL



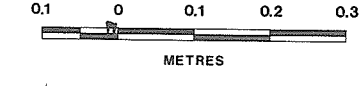
TYP SCREEN STOP DETAIL



TYP SWIVEL PE DETAIL

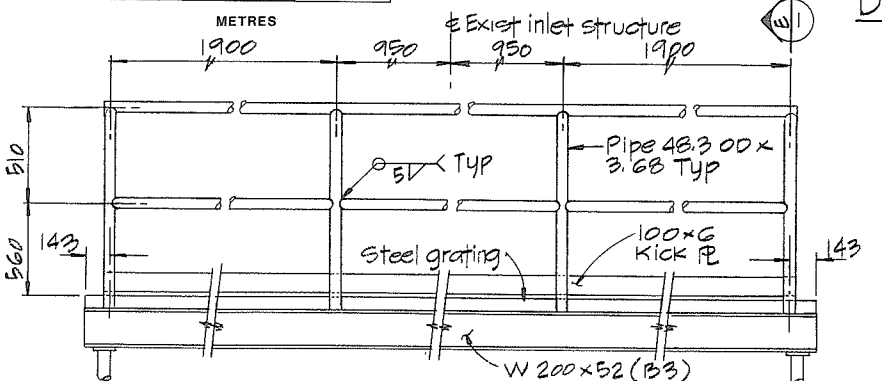
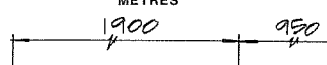


TYP SCREEN STOP DETAIL



NOTE: 5 screens required only 1 open & 1 closed shown.

PLAN - TOP OF SCREENS DETAIL 3/15

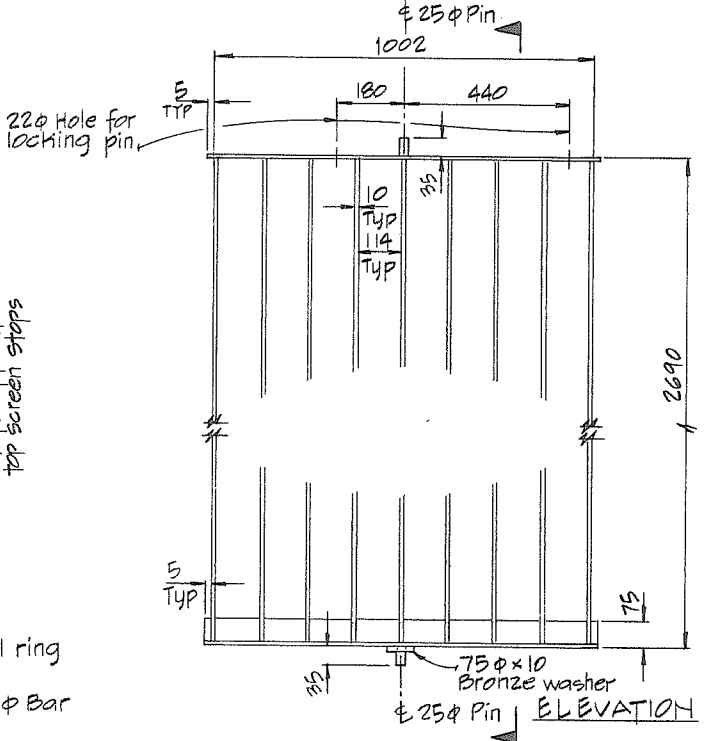


HANDRAIL DETAIL

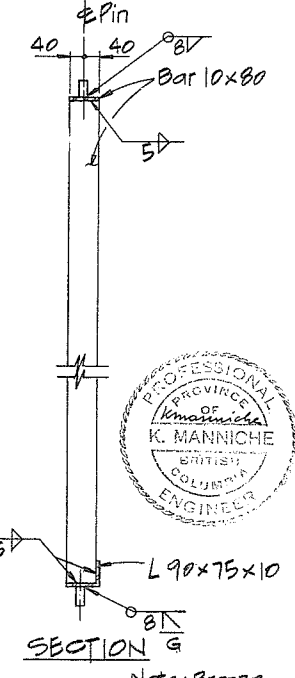
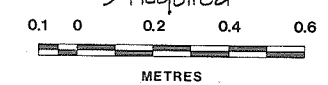


NOTE: 5 screens required only 1 open & 1 closed shown.

PLAN - BOT OF SCREENS DETAIL 4/15



INLET SCREEN DETAIL



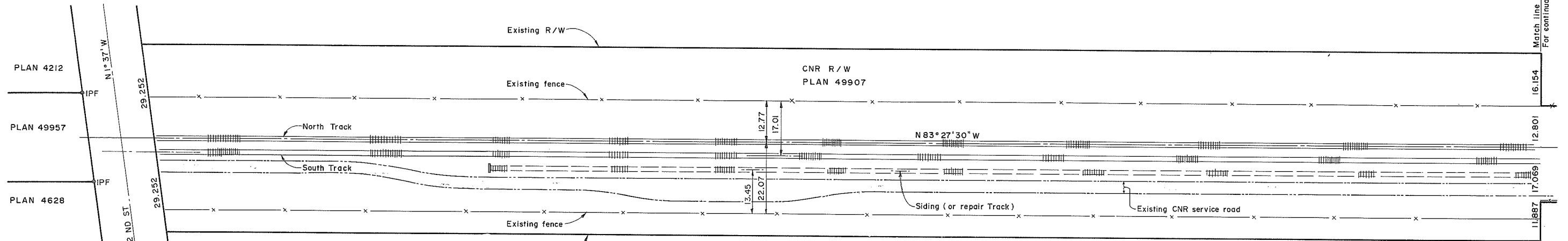
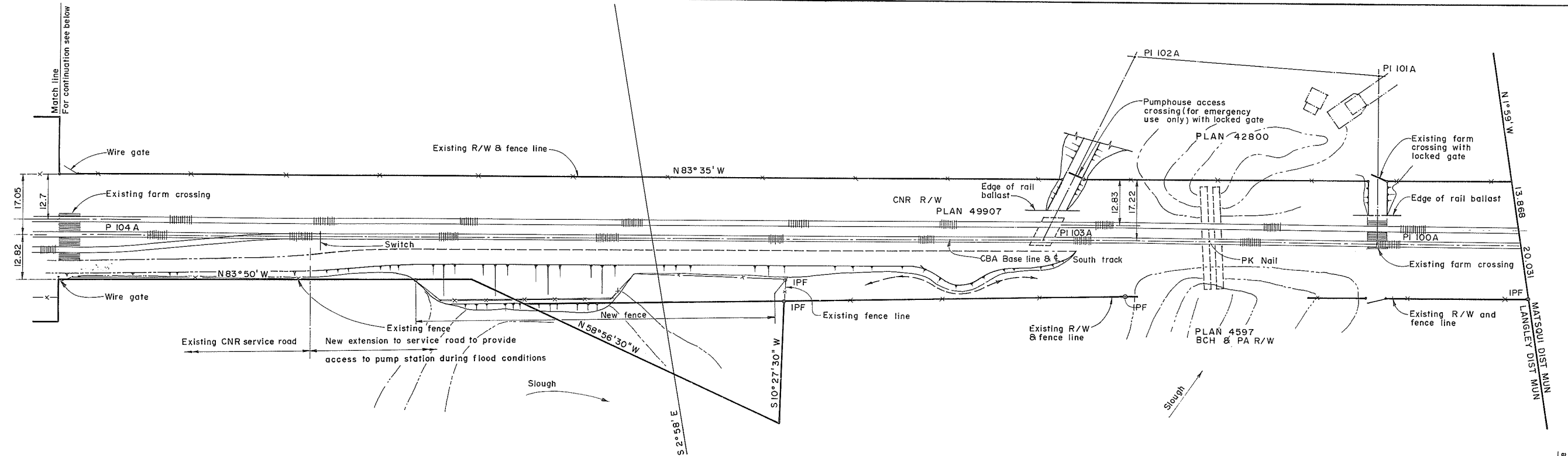
SECTION G



Prepared by:
CBA ENGINEERING LTD.
CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		RECOMMENDED	DATE
No.	DESCRIPTION		
A	As constructed	APR. 21/89	March 1990

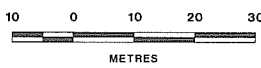
RECOMMENDED: <i>R. M. Cameron</i> DATE: APR. 21/89 RECOMMENDED: <i>M. M. M. M. M.</i> DATE: 1989-04-21 APPROVED: <i>E. J. B. B.</i> DATE: April 21/89	Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1968 AGREEMENT PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT CONTRACT NO. 2 PUMPHOUSE INLET SCREEN DETAILS SHEET 2 OF 2	FILE No. Q28155QC9-2 DESIGNED KM DRAWN W.S.M. DATE April 1989 CHECKED KM	SURVEYED DATE NEGATIVE No. 342033 DRAWING No. 88-9-2-16 A SHEET of
--	--	--	--



NOTES

Property data shown on this drawing have been compiled from old legal maps and field measurement from Iron Pins Found. This data has been recorded in good faith but is subject to errors inherent in assembling information from varied sources. This drawing is for information only and is not a legal drawing

- LEGEND:**
- IPF Iron Pin Found
 - Existing



Prepared by:
CBA ENGINEERING LTD.
 CONSULTING ENGINEERS - VANCOUVER - CANADA

REVISIONS		
No	DESCRIPTION	DATE

RECOMMENDED.....	DATE.....
RECOMMENDED.....	DATE.....
APPROVED.....	DATE.....
DATE.....	DIRECTOR.....

Province of British Columbia Ministry of Environment and Parks WATER MANAGEMENT BRANCH CANADA - BRITISH COLUMBIA FRASER RIVER FLOOD CONTROL 1958 AGREEMENT	FILE No. 028155009-2	SURVEYED As built
	DESIGNED	DATE Oct. 1989
PROJECT NO. 22 GLEN VALLEY DYKING DISTRICT CONTRACT NO. 2 - PUMPHOUSE ACCESS ROAD GENERAL ARRANGEMENT	DRAWN rfc	NEGATIVE No. 342037
	DATE Feb. 5, 1990	DRAWING No. 88-9-2-20
	CHECKED DLC	SHEET of