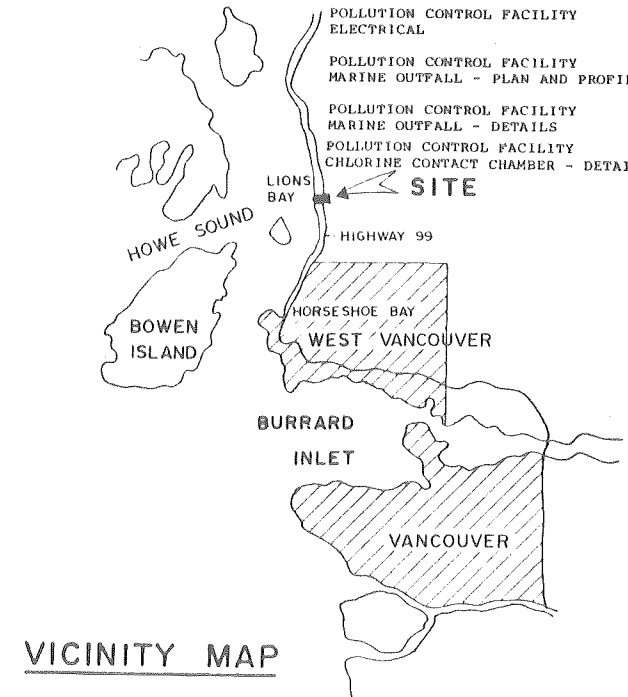
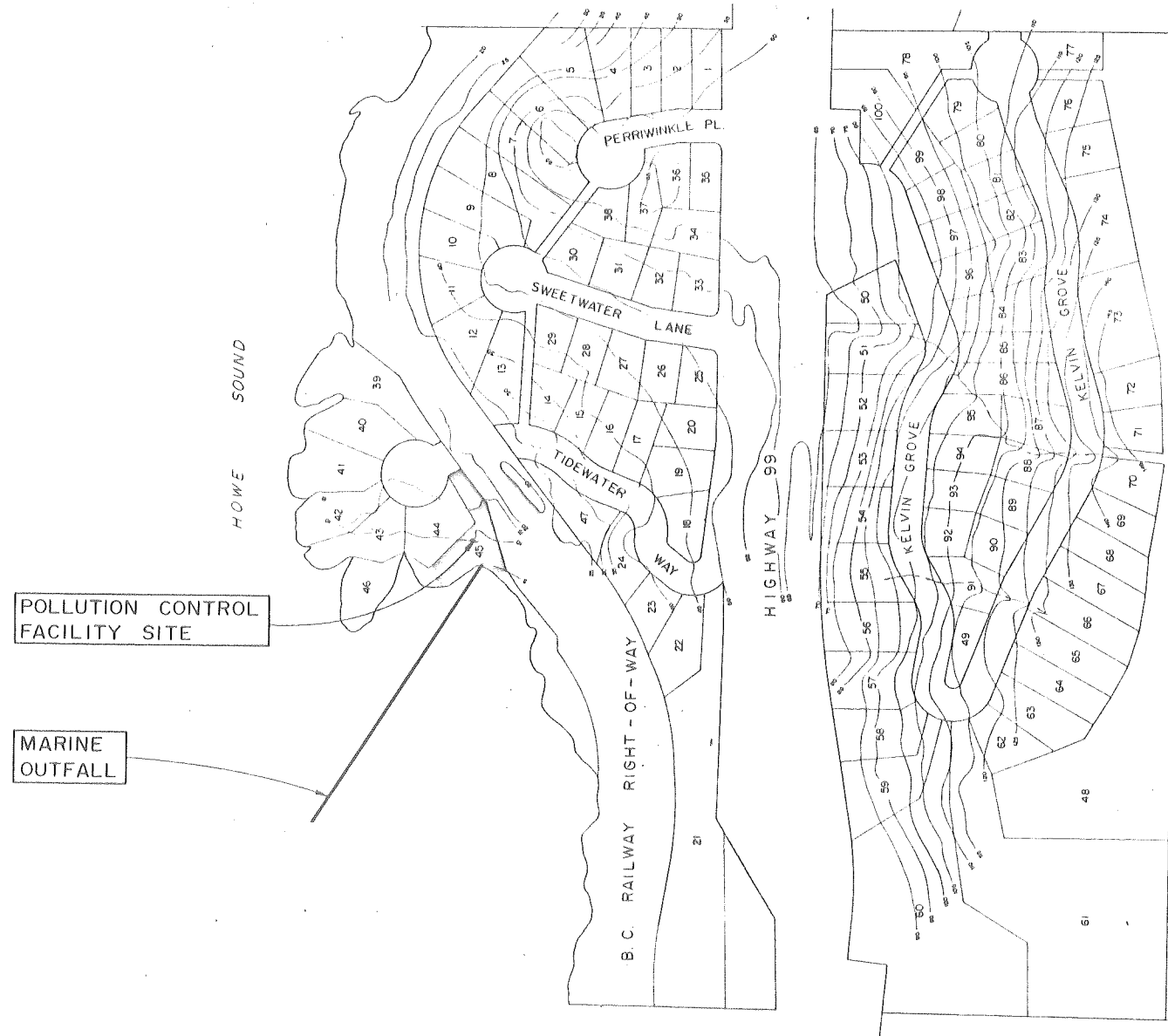
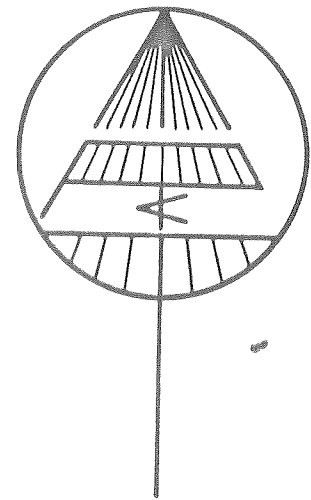


KELVIN GROVE ESTATES LIONS BAY DEVELOPMENT

DRAWING INDEX

TITLE	DWG. NO.
POLLUTION CONTROL FACILITY SITE GRADING AND SECTION	1
POLLUTION CONTROL FACILITY CONCRETE OUTLINE AND DETAILS	2
POLLUTION CONTROL FACILITY STRUCTURAL DETAILS	3
POLLUTION CONTROL FACILITY - FACILITIES BUILDING - DETAILS AND SECTIONS	4
POLLUTION CONTROL FACILITY ELECTRICAL	5
POLLUTION CONTROL FACILITY MARINE OUTFALL - PLAN AND PROFILE	6
POLLUTION CONTROL FACILITY MARINE OUTFALL - DETAILS	7
POLLUTION CONTROL FACILITY CHLORINE CONTACT CHAMBER - DETAILS	8



VICINITY MAP

POLLUTION CONTROL FACILITY

JOB NO. V6559-2

M.P.T. ENGINEERING CO. LTD.

CONSULTING ENGINEERS

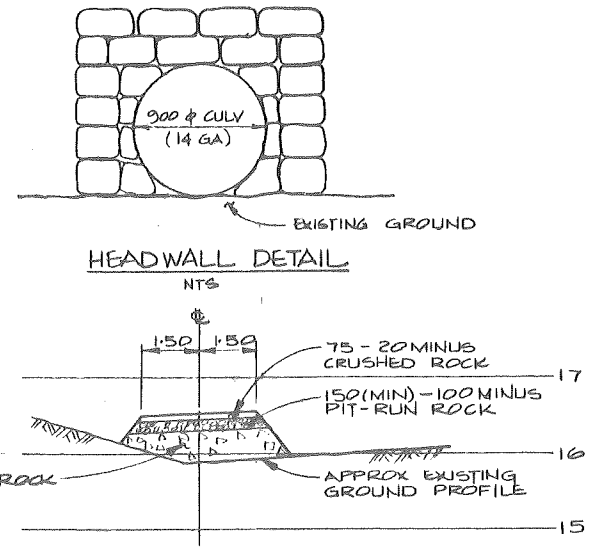
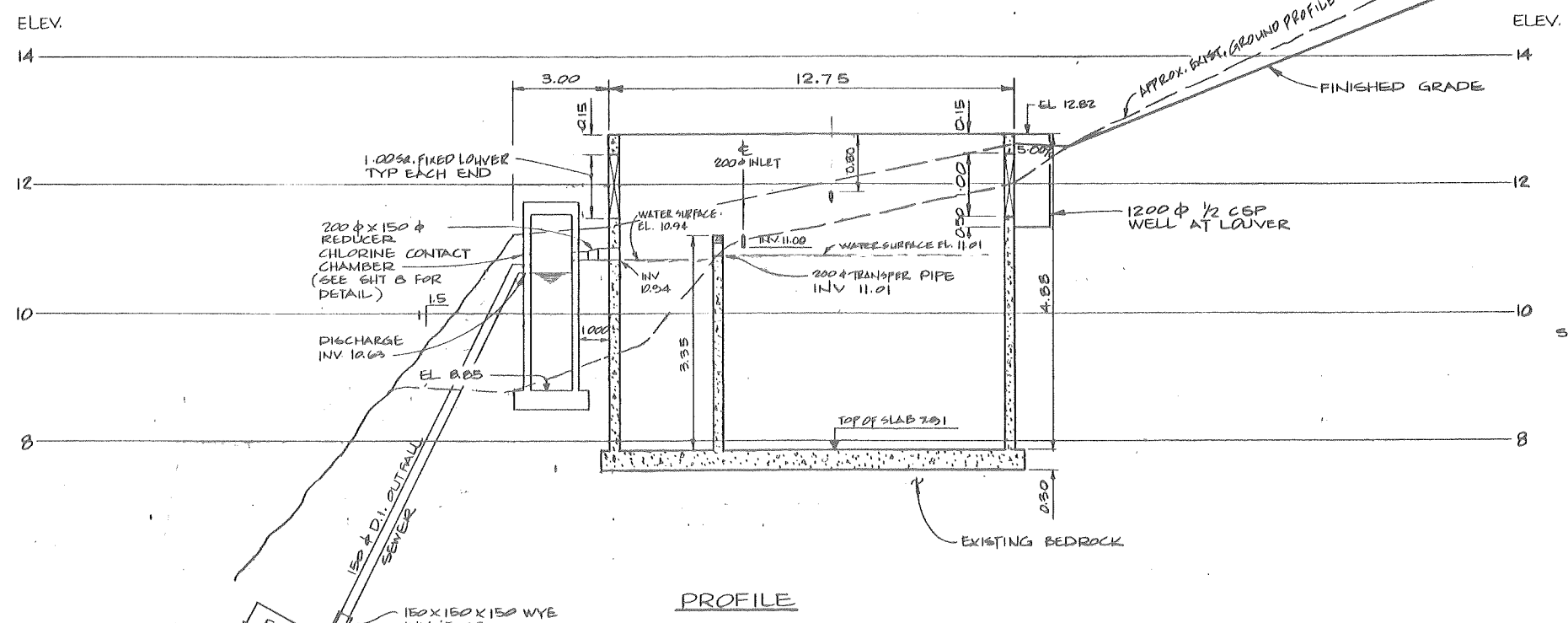
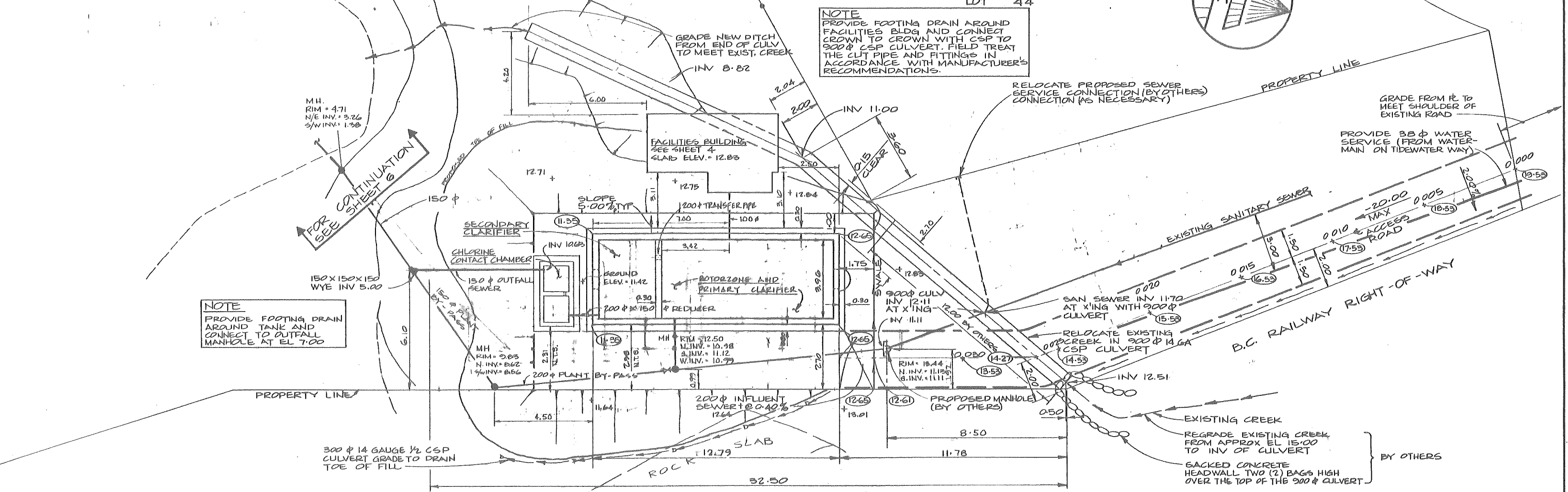
8211 COOK ROAD

PHONE 270-9331

RICHMOND, B.C.

NOTE
 PROVIDE FOOTING DRAIN AROUND FACILITIES BLDG AND CONNECT CROWN TO CROWN WITH CSP TO 900 ϕ CSP CULVERT. FIELD TREAT THE CUT PIPE AND FITTINGS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

NOTE
 PROVIDE FOOTING DRAIN AROUND TANK AND CONNECT TO OUTFALL MANHOLE AT EL 7.00

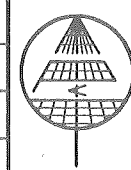


LEGEND
 (12.82) INDICATES FINISHED GRADE ELEVATION

ISSUE	DATE	OWN	CHK	REVISION
C	JAN 11/82	JDK		'AS CONSTRUCTED'
B	MAY 15/81	JDK	HGT	OUTFALL MANHOLE REMOVED & OUTFALL SEWER REVISED



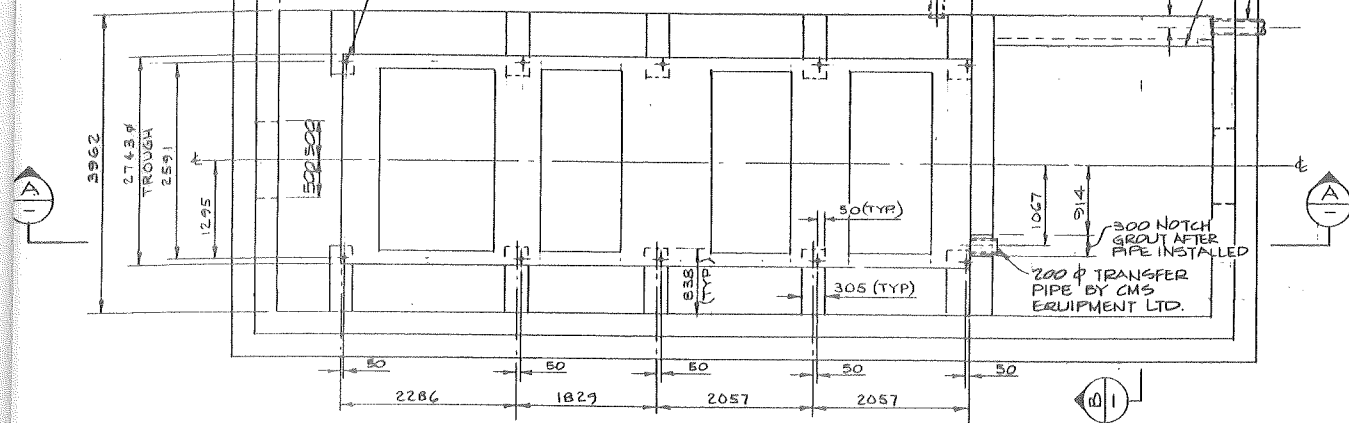
DESIGNED AJ
 DRAWN DEL
 CHECKED 1/61
 APPROVED



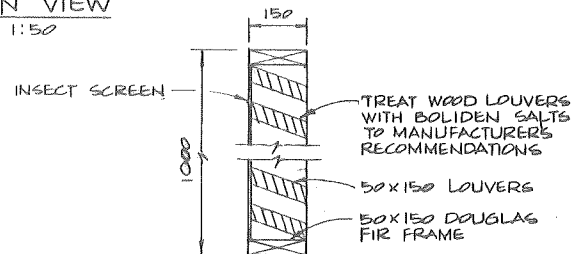
M.P.T. ENGINEERING CO. LTD.
 8211 COOK ROAD
 RICHMOND, B.C.
 V6Y 1V3
 270-9331
 CONSULTING ENGINEERS & LAND SURVEYORS

**KELVIN GROVE ESTATES
 LIONS BAY DEVELOPMENT**
 POLLUTION CONTROL FACILITY
 SITE GRADING AND SECTIONS

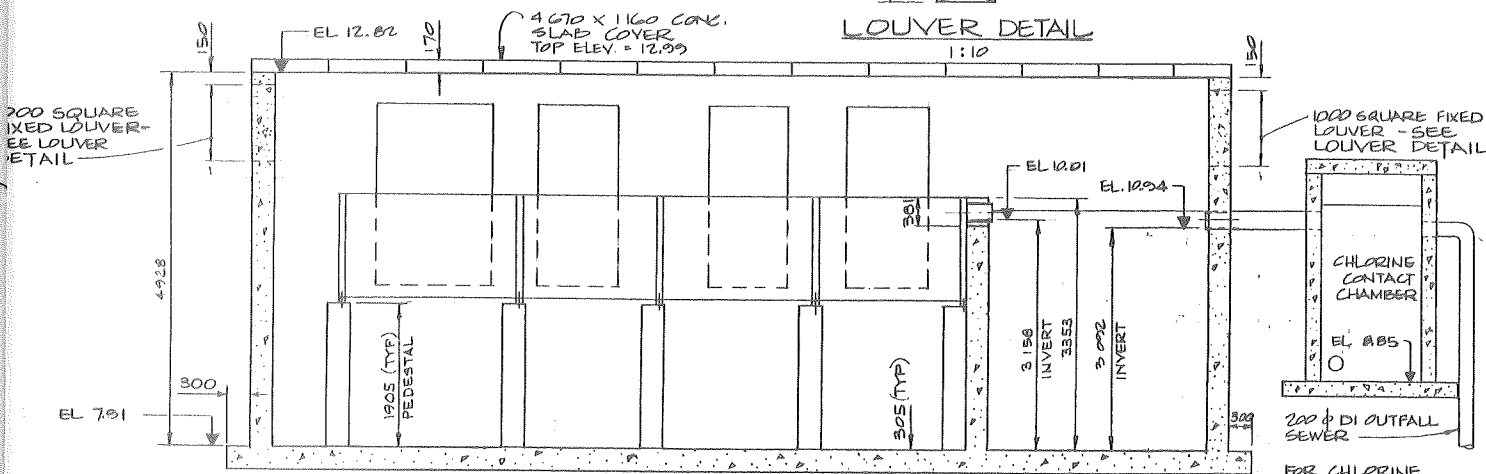
SCALE	HORIZ 1:100	VERT 1:50
ISSUE DATE	FEB 20, 1981	
SHEET	1	OF 8
DWG NO.	V6559-2	
ISSUE	C	



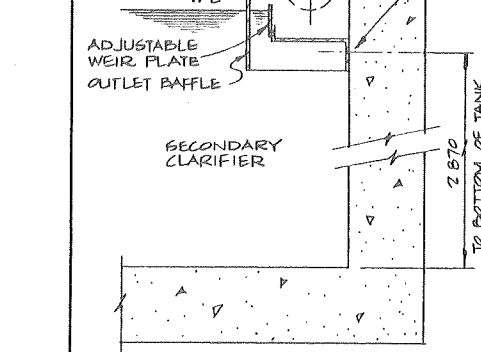
PLAN VIEW
1:50



LOUVER DETAIL
1:10

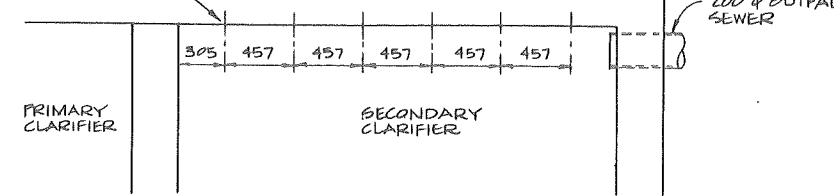


SECTION A-A
1:50

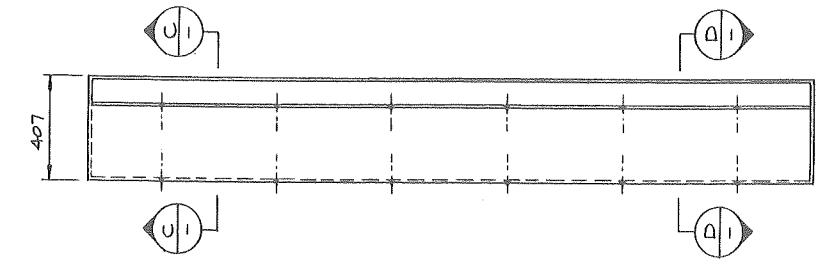


SECTION - EFFLUENT TROUGH
1:15

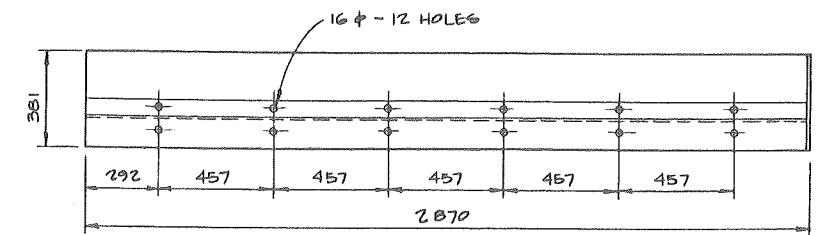
NOTE
EFFLUENT TROUGH SUPPLIED
BY CMS EQUIPMENT LTD.



PLAN VIEW
ANCHOR BOLT LOCATIONS FOR
EFFLUENT TROUGH
1:25



PLAN VIEW OF EFFLUENT TROUGH
1:15

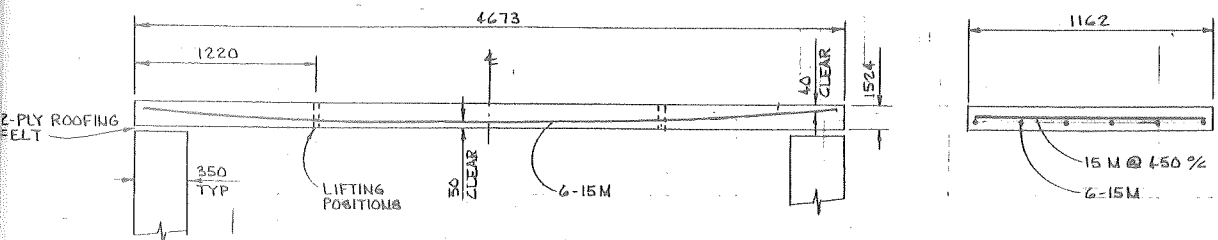


ELEVATION OF EFFLUENT TROUGH
(w/o WEIR PLATE)
1:15

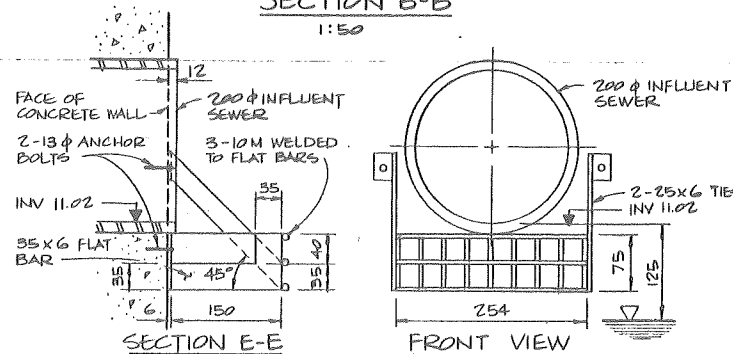


SECTION D-D
1:15

SECTION C-C
1:15

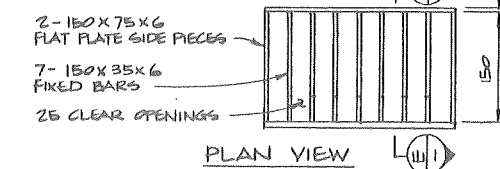


CLARIFIER ROOF PANELS
1:25



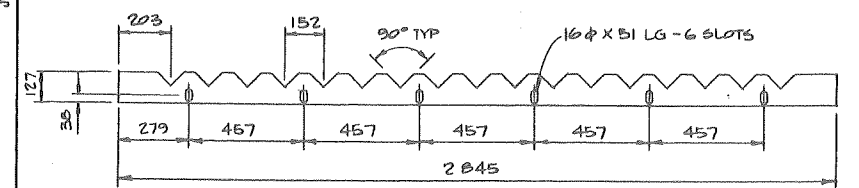
SECTION E-E
1:50

FRONT VIEW



PLAN VIEW

BAR SCREEN-DETAILS
1:5



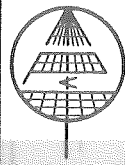
EFFLUENT WEIR - ITEM # C
(FOR ASS'Y ON ITEM # B)
1:15

NOTES:
- DESIGN FOR 100 P.S.F. LIVE LOAD OR 2000 LB. POINT LOAD
- CONCRETE STRENGTH 20 MPa @ 28 DAYS
- STEEL STRENGTH Fy = 400 MPa

ISSUE	DATE	DWN	CHK	REVISION
C	JAN 11/81	JDK	HAT	'AS CONSTRUCTED'
B	MAY 15/81	JDK	HAT	REVISE LOUVRE LOCATION TO 150 BELOW TOP.



DESIGNED
AJ
DRAWN
JDK
CHECKED
HGT.
APPROVED



M. P. T. ENGINEERING CO. LTD.
8211 COOK ROAD
RICHMOND, B. C.
V6Y 1V3

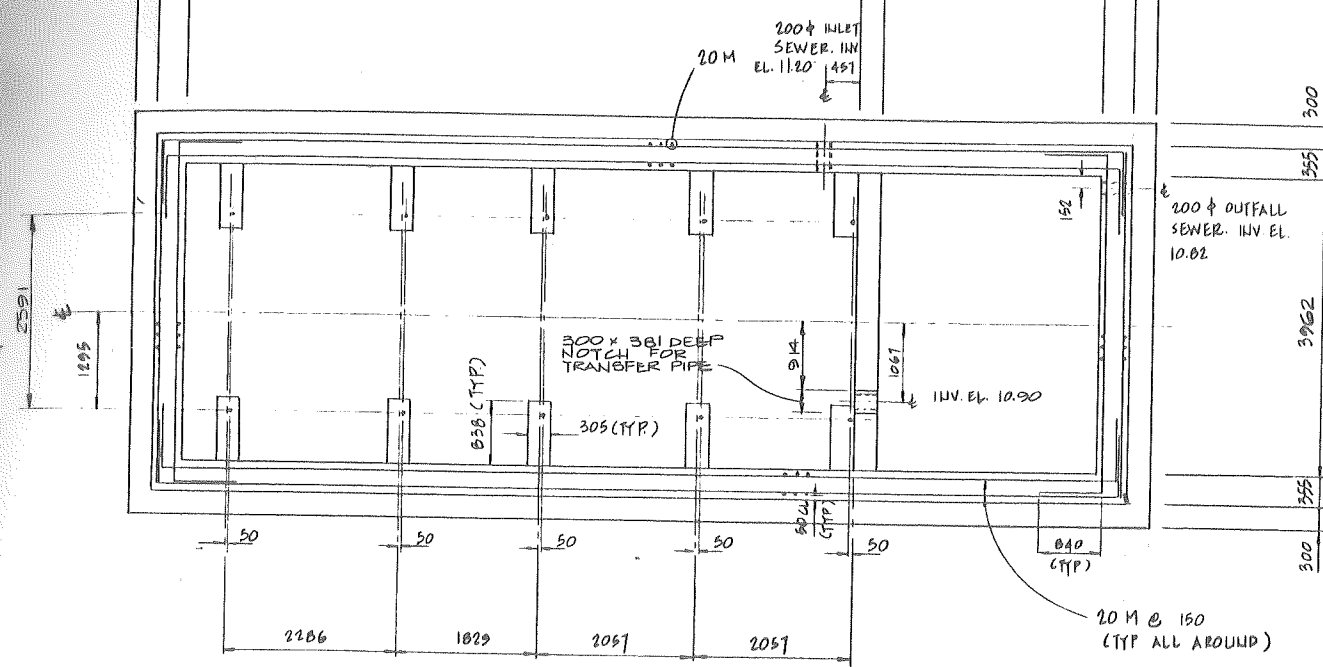
270-9331

CONSULTING ENGINEERS & LAND SURVEYORS

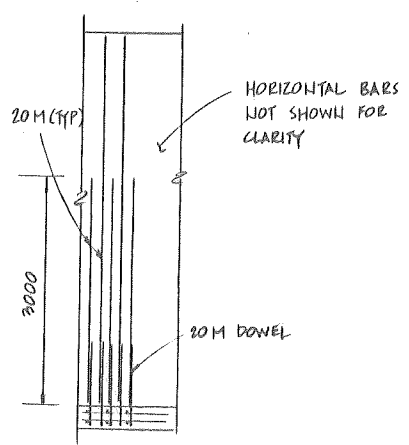
**KELVIN GROVE ESTATES
LIONS BAY DEVELOPMENT**

POLLUTION CONTROL FACILITY
DETAILS

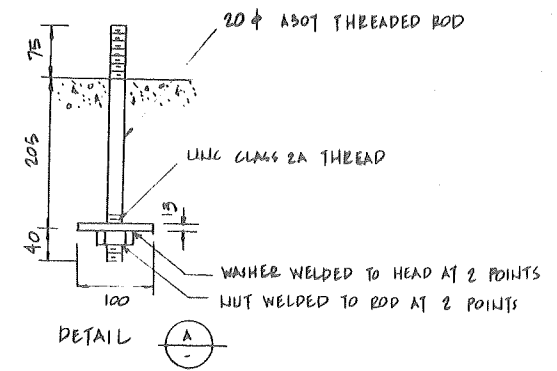
SCALE	AS SHOWN
ISSUE DATE	FEB 20, 1981
SHEET	2 OF 8
DWG. NO.	V6559-2
ISSUE	C



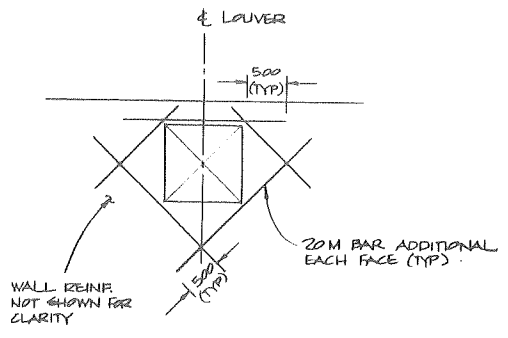
PLAN
1:50



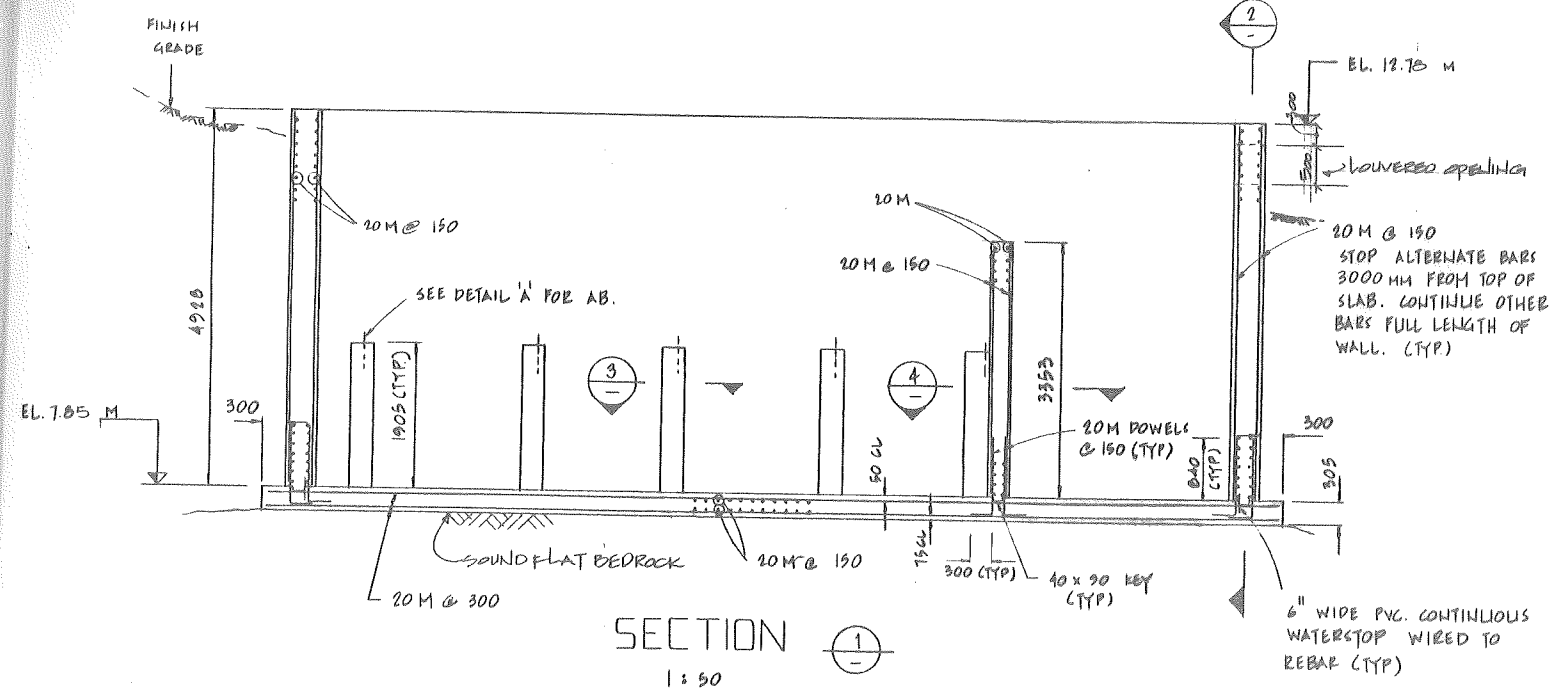
SECTION 2
1:50



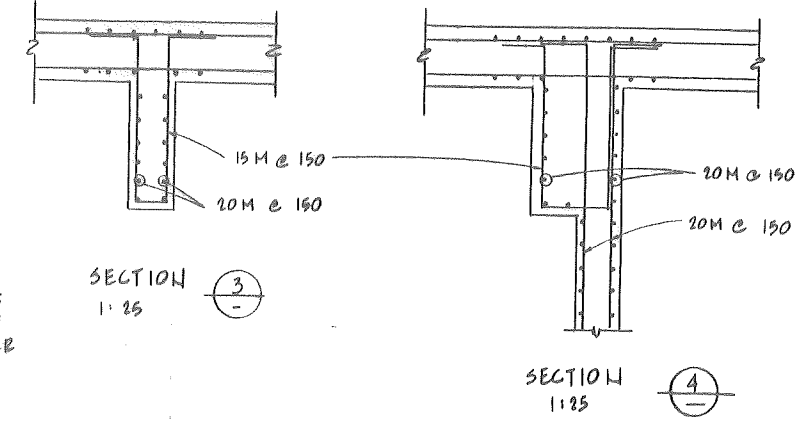
DETAIL A



SECTION 5
1:50



SECTION 1
1:50



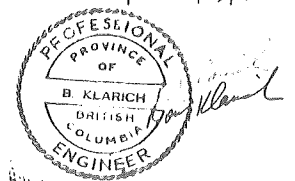
SECTION 3
1:25

SECTION 4
1:25

GENERAL NOTES

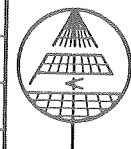
1. CONCRETE STRENGTH SHALL BE 3000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL BE TYPE I OR TYPE II. CONCRETE QUALITY, MIXING & PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 318.77
2. REINFORCEMENT SHALL BE ASTM A615 LATEST EDITION GRADE 60. ALL HOOKS SHALL BE STANDARD HOOKS. LAP LENGTHS SHALL BE BASED ON 17 TIMES DEVELOPMENT LENGTH. (LAP LENGTH FOR 20M = 840)
3. BACKFILL AROUND THE TANK SHALL BE FREE DRAINING GRAVEL.
4. TANK IS DESIGNED FOR A 3050 DEEP LIQUID LOAD.
5. IT IS ASSUMED THAT THERE IS NO GROUND WATER OR MINIMAL
6. FOR DIMENSIONS, OPENINGS & DETAILS REFER TO M.P.T. ENGINEERING DNGS.
7. ENGINEER TO BE NOTIFIED FOR INSPECTION OF REINFORCING PRIOR TO POUR OF CONCRETE (24 HR. NOTICE MIN.)
8. THIS STRUCTURE HAS BEEN DESIGNED TO WITHSTAND SEISMIC LOADS AS PER LATEST N.B.C.

ALL DIMENSIONS ARE IN MILLIMETERS U.N.O.



ISSUE	DATE	DWN	CHK	REVISION
B	JAN 12/01	JDK		'AS CONSTRUCTED'

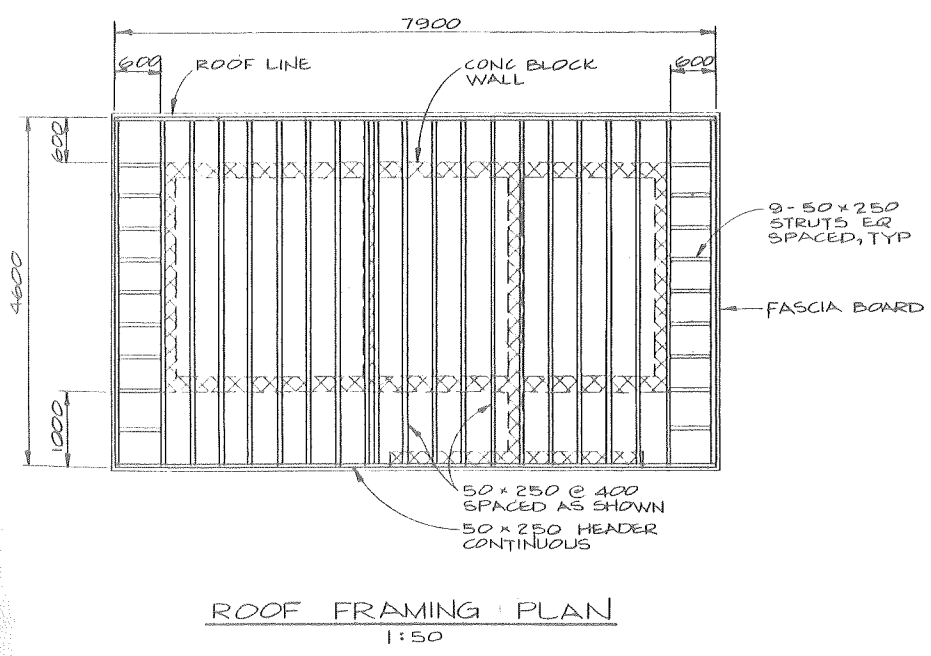
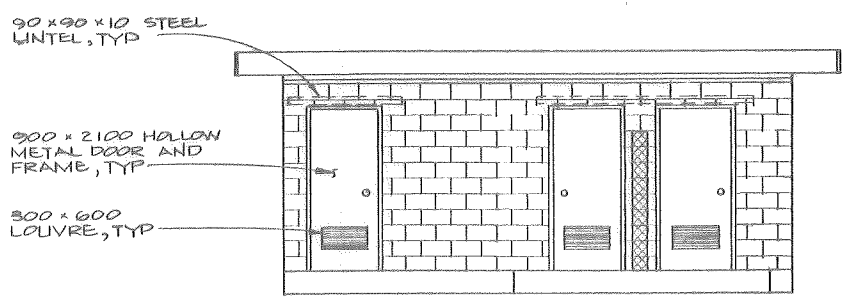
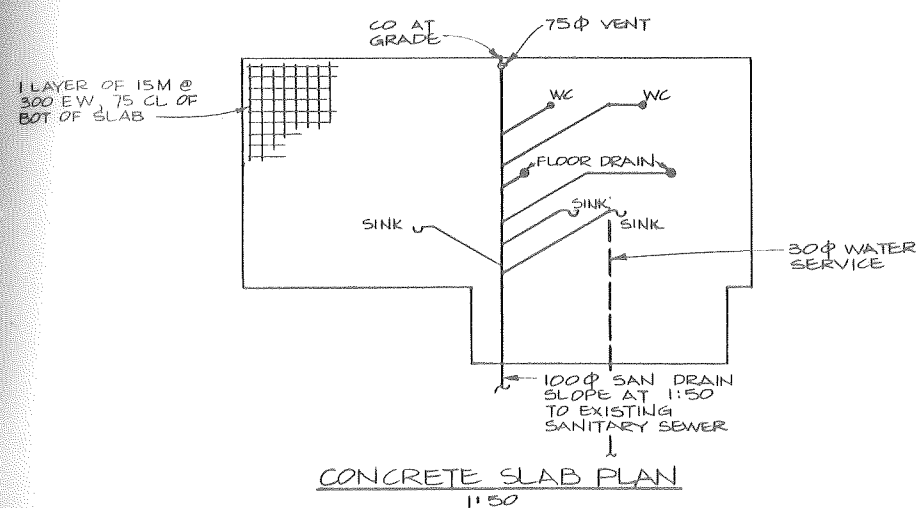
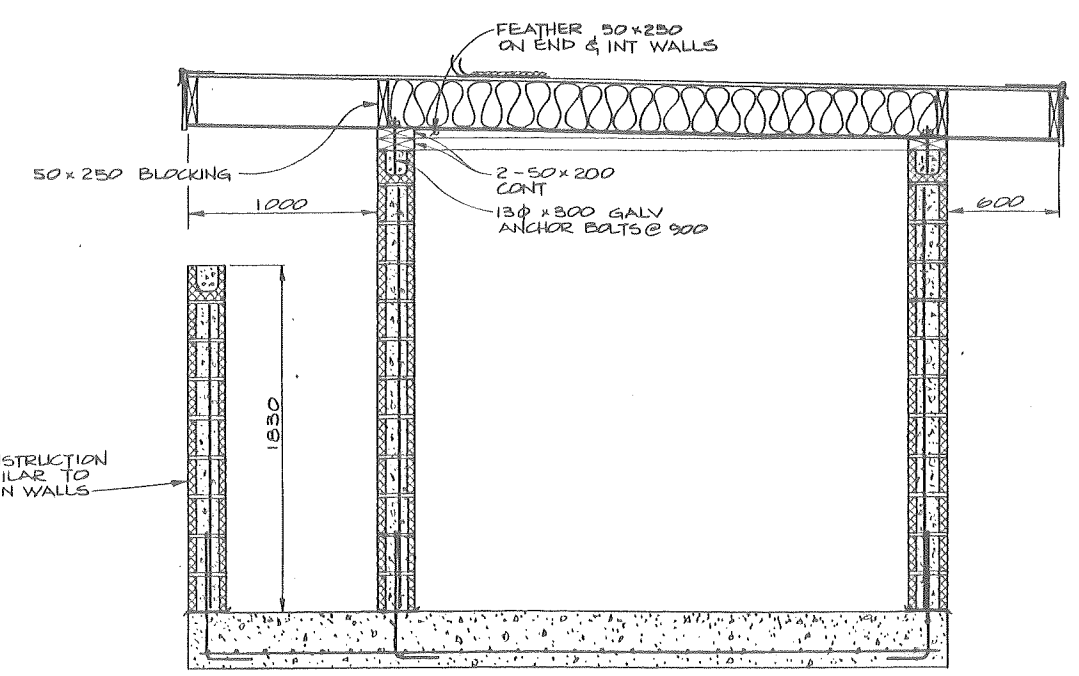
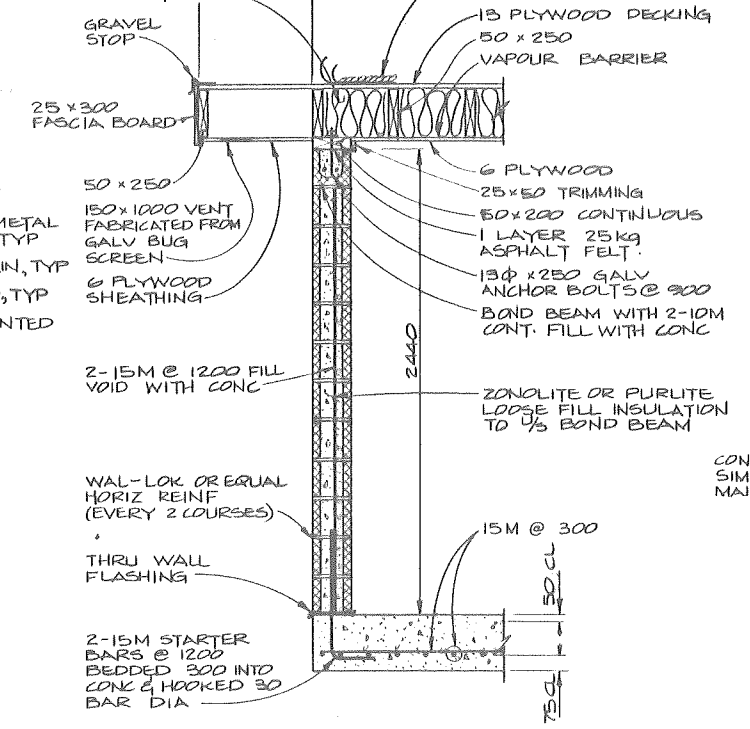
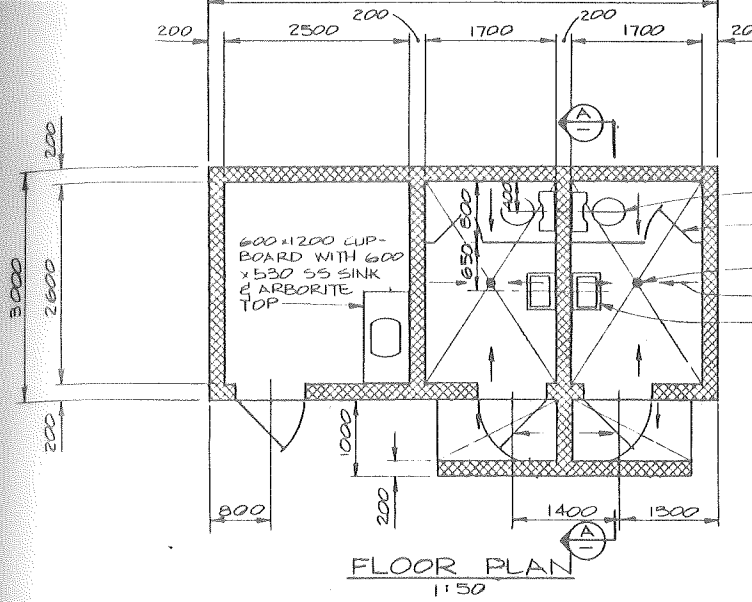
DESIGNED
W. CHOW
DRAWN
W. CHOW
CHECKED
B.K.
APPROVED



M. P. T. ENGINEERING CO. LTD.
8211 COOK ROAD
RICHMOND, B. C.
V6Y 1V3
270-9331
CONSULTING ENGINEERS & LAND SURVEYORS

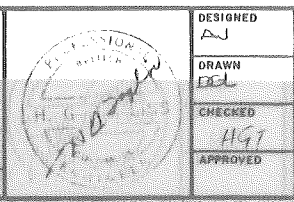
**KELVIN GROVE ESTATES
LIONS BAY DEVELOPMENT**
POLLUTION CONTROL FACILITY
STRUCTURAL DETAILS

SCALE	AS NOTED
ISSUE DATE	Feb 20/00
SHEET	3 OF 8
DWG NO.	V0559-2
ISSUE	B



DESIGNED	AJ
DRAWN	DEL
CHECKED	1197
APPROVED	

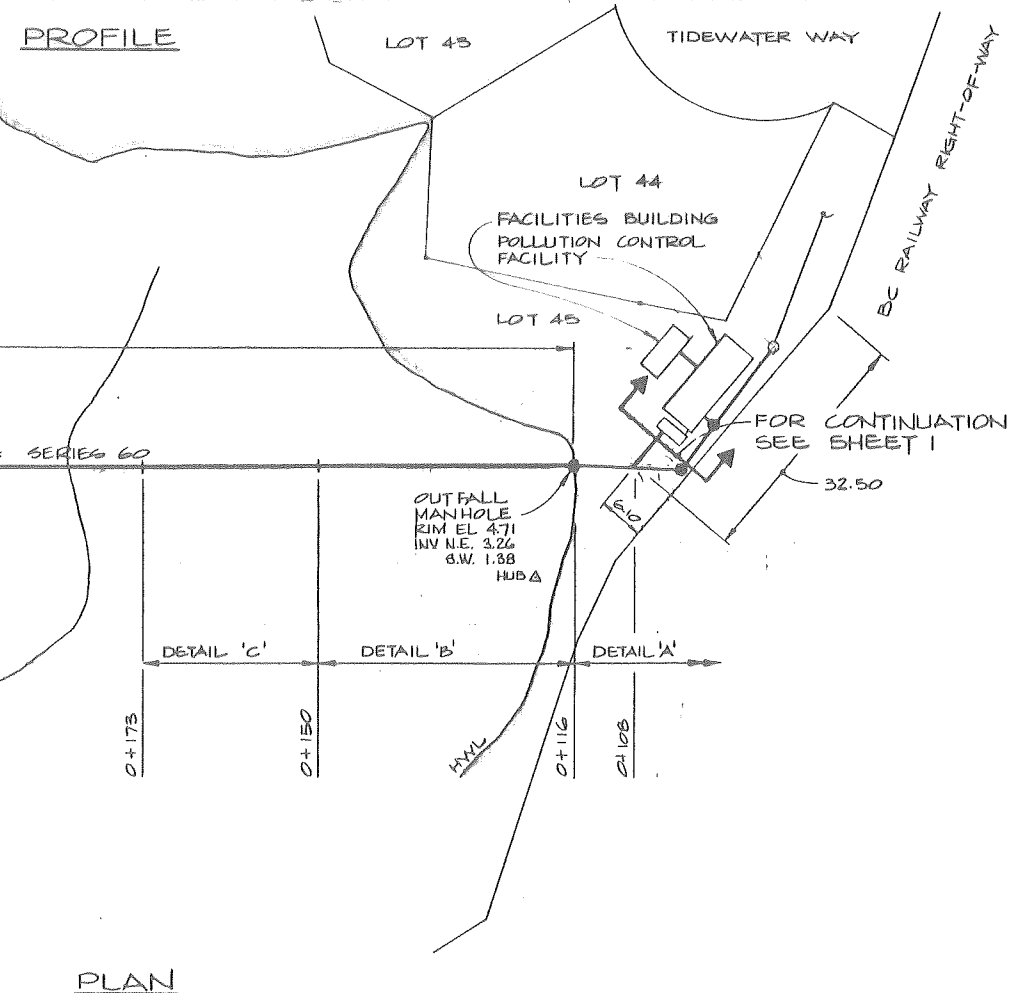
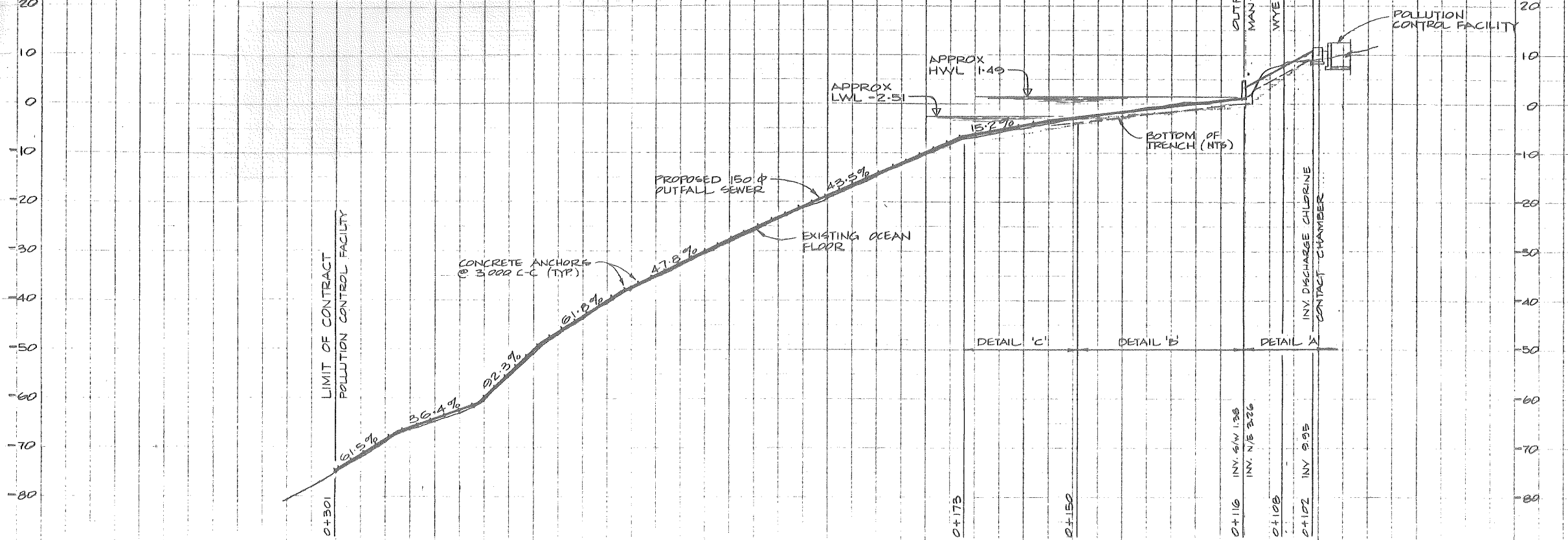
ISSUE	DATE	DWH	CHK	REVISION
1	JAN 1981	JK		AS CONSTRUCTED



M. P. T. ENGINEERING CO. LTD.
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RICHMOND, B.C.
V6Y 1V3
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**KELVIN GROVE ESTATES
LIONS BAY DEVELOPMENT**
POLLUTION CONTROL FACILITY
FACILITIES BUILDING
DETAILS AND SECTIONS

SCALE	AS SHOWN
ISSUE DATE	FEB 20, 1981
SHEET	4 OF 8
DWG NO.	V6553-2 B



NOTES
 1. FOR DETAILS A, B, C, AND D, SEE SHEET 7.

D	JAN 12/81	JDK		'AS CONSTRUCTED'
C	MAY 15/81	JDK	HGT	WYE ADDED AT 0+108 & MH. ADDED AT 0+102. OUTFALL PIPE IDENTIFIED AS 150 φ SCHLAI PIPE SERIES 60.
B	MAY 7/81	JDK	HGT	LOCATION OF OUTFALL MANHOLE REVISED.

DESIGNED
AJ

DRAWN
DEL

CHECKED
HGT

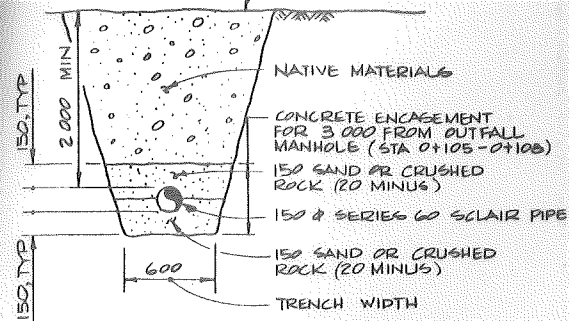
APPROVED

PROFESSIONAL
ENGINEER
H. TOPLISS

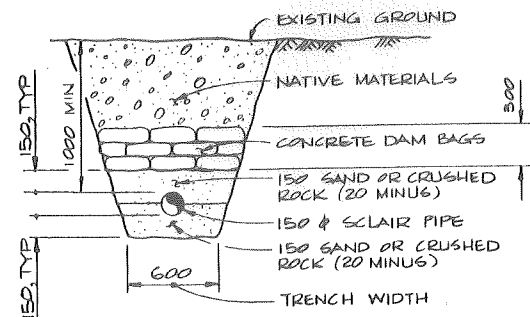
M. P. T. ENGINEERING CO. LTD.
 8211 COOK ROAD
 RICHMOND, B. C.
 V6Y 1V3
 270-9331
 CONSULTING ENGINEERS & LAND SURVEYORS

**KELVIN GROVE ESTATES
 LIONS BAY DEVELOPMENT**
 POLLUTION CONTROL FACILITY
 MARINE OUTFALL
 PLAN AND PROFILE

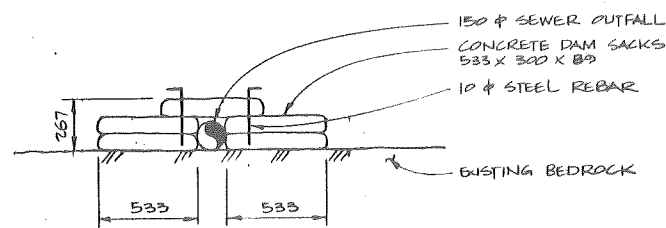
SCALE	1:500
ISSUE DATE	FEB 20, 1981
SHEET OF	6 OF 8
DWG. NO.	V6559-2
ISSUE	D



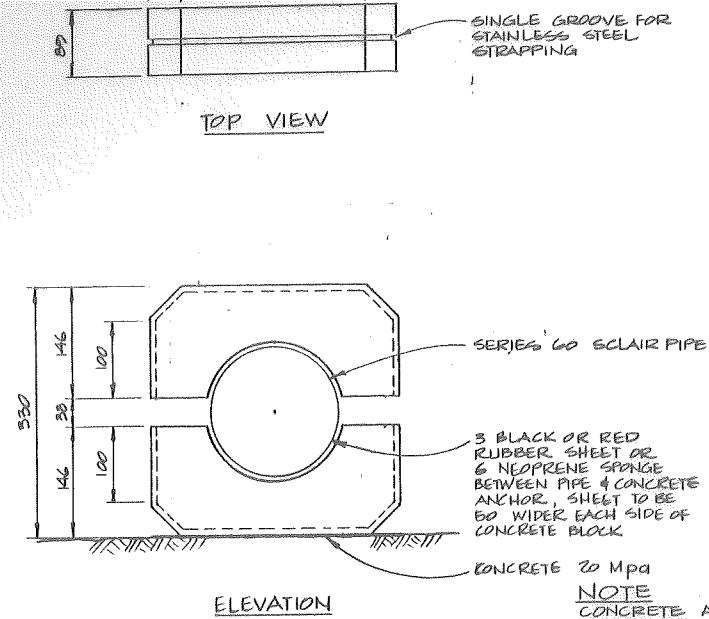
DETAIL 'A'
(ABOVE HIGH WATER LINE)



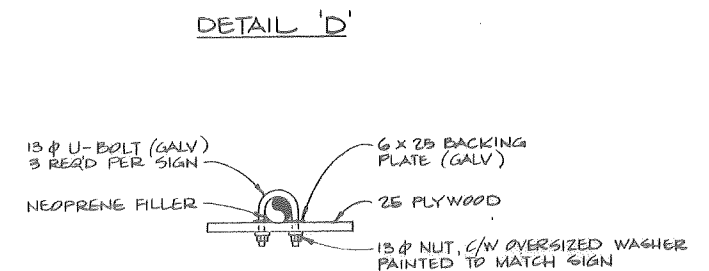
DETAIL 'B'
(IN TIDAL REGIME FOR SAND OR GRAVEL)



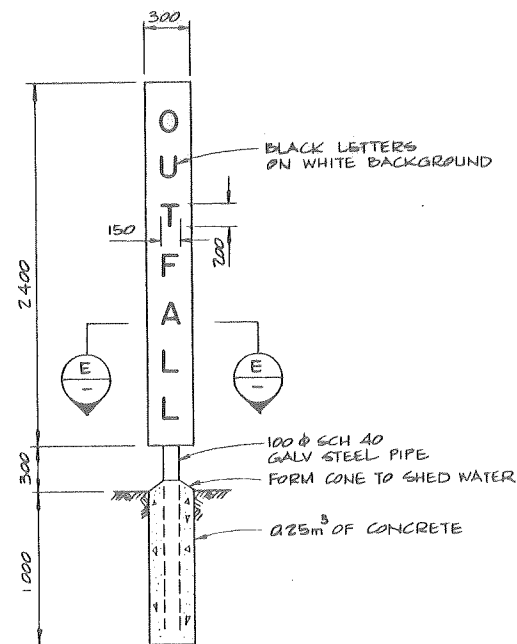
DETAIL 'C'
(IN TIDAL REGIME FOR ROCK)



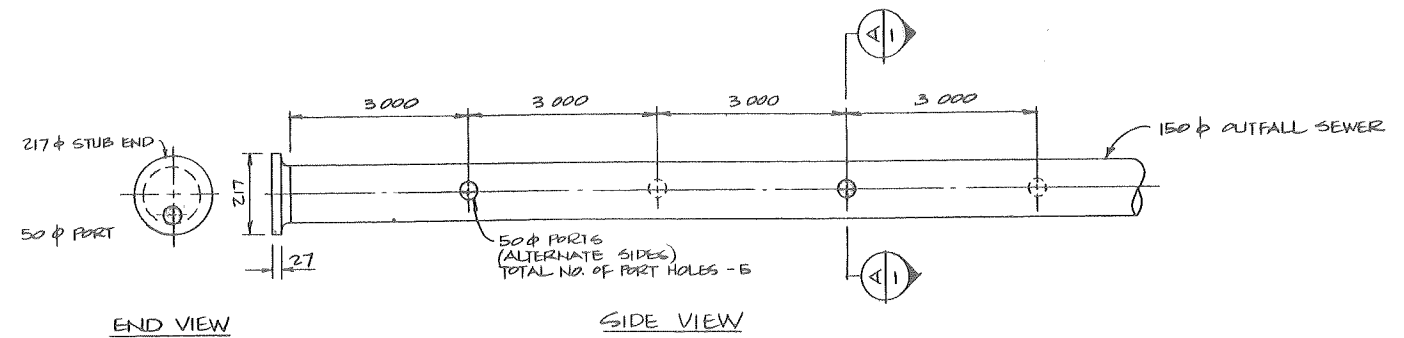
CONCRETE ANCHOR - SPACING 3000 C-C FOR TOTAL LENGTH OF SCLAIR PIPE



SECTION E-E

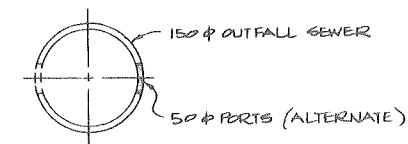


OUTFALL SIGN
(2 REQ'D)



END VIEW

SIDE VIEW



SECTION A-A
DIFFUSER DETAIL

ISSUE	DATE	BY	CHK	REVISION
C	JAN 12/81	JDK		AS CONSTRUCTED
B	APR 28/81	JDK	RS	DIFFUSER DETAIL ADDED

DESIGNED
AJ

DRAWN
JDK

CHECKED
HGT

APPROVED

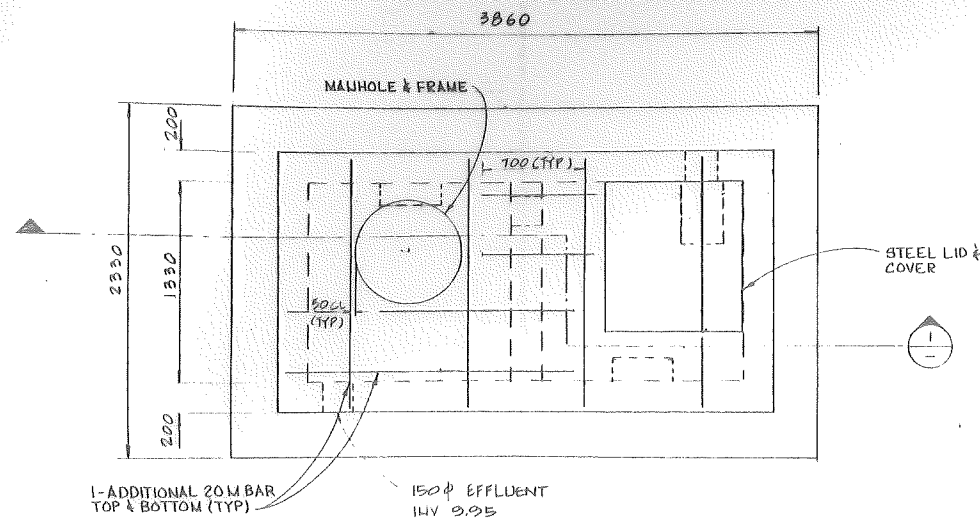
M. P. T. ENGINEERING CO. LTD.
8211 COOK ROAD
RICHMOND, B. C.
V6Y 1V3
270-9331

CONSULTING ENGINEERS & LAND SURVEYORS

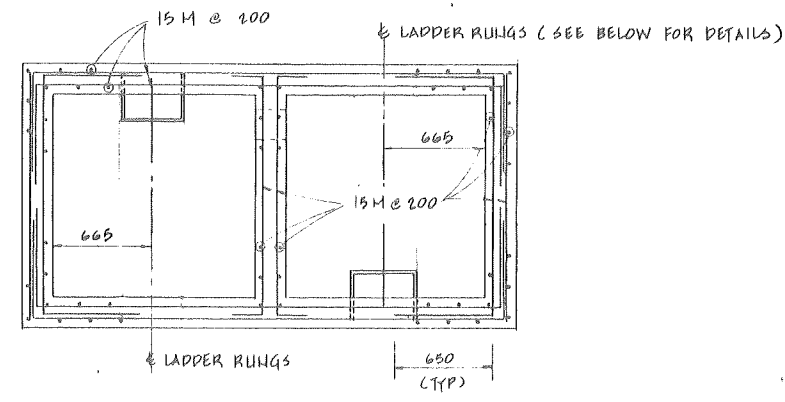
**KELVIN GROVE ESTATES
LIONS BAY DEVELOPMENT**

POLLUTION CONTROL FACILITY
MARINE OUTFALL
DETAILS

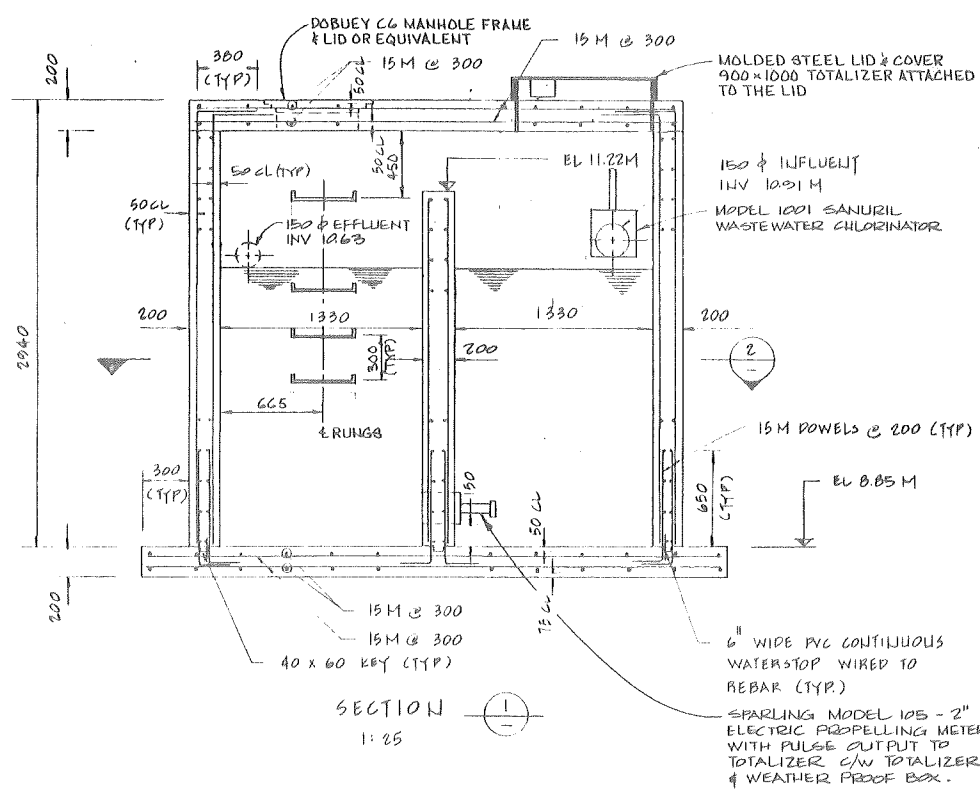
SCALE	NTS
ISSUE DATE	FEB 20, 1981
SHEET	7 OF 8
DWG. NO.	V6559-2
ISSUE	C



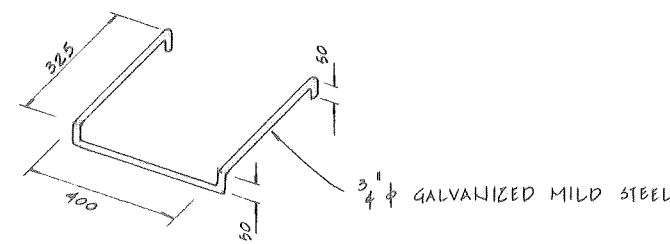
PLAN - CHLORINE CONTACT CHAMBER
1: 25



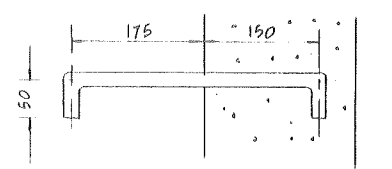
SECTION 2
1: 25



SECTION 1
1: 25



DETAIL OF LADDER RUNG HTS



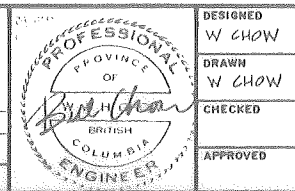
SECTION THROUGH WALL ANCHORING LADDER RUNG
1: 5

GENERAL NOTES

1. FOR GENERAL NOTES SEE DRAWING V6559-2, SHEET 3
2. CHAMBER IS DESIGNED FOR A 2140 MM DEEP LIQUID LOAD PLUS 100 psf LL ON THE ROOF.
3. PIPE INSERTS TO BE INSTALLED BEFORE CONCRETE IS POURED.

ALL DIMENSIONS ARE IN MILLIMETERS U.L.O.

ISSUE	DATE	DWN	CHK	REVISION
C	JAN 12/81	JDK		AS CONSTRUCTED
B	MAY 15/81	JDK		150 φ EFFLUENT INV. REVISED



DESIGNED W CHOW
DRAWN W CHOW
CHECKED
APPROVED

M. P. T. ENGINEERING CO. LTD.
8211 COOK ROAD
RICHMOND, B. C.
V6Y 1V3
270-9331

CONSULTING ENGINEERS & LAND SURVEYORS

KELVIN GROVE ESTATES
LIONS BAY DEVELOPMENT

POLLUTION CONTROL FACILITY
CHLORINE CONTACT CHAMBER
DETAILS

SCALE	AS NOTED
ISSUE DATE	APRIL 7, 1981
SHEET	8 OF 8
DWG NO.	V6559-2
ISSUE	C