

S.T.P. FOR AKWESASNE MOHAWK SCHOOL, BUSINESS MALL & REHABILITATION FACILITY

CORNWALL ISLAND

SITE PLAN

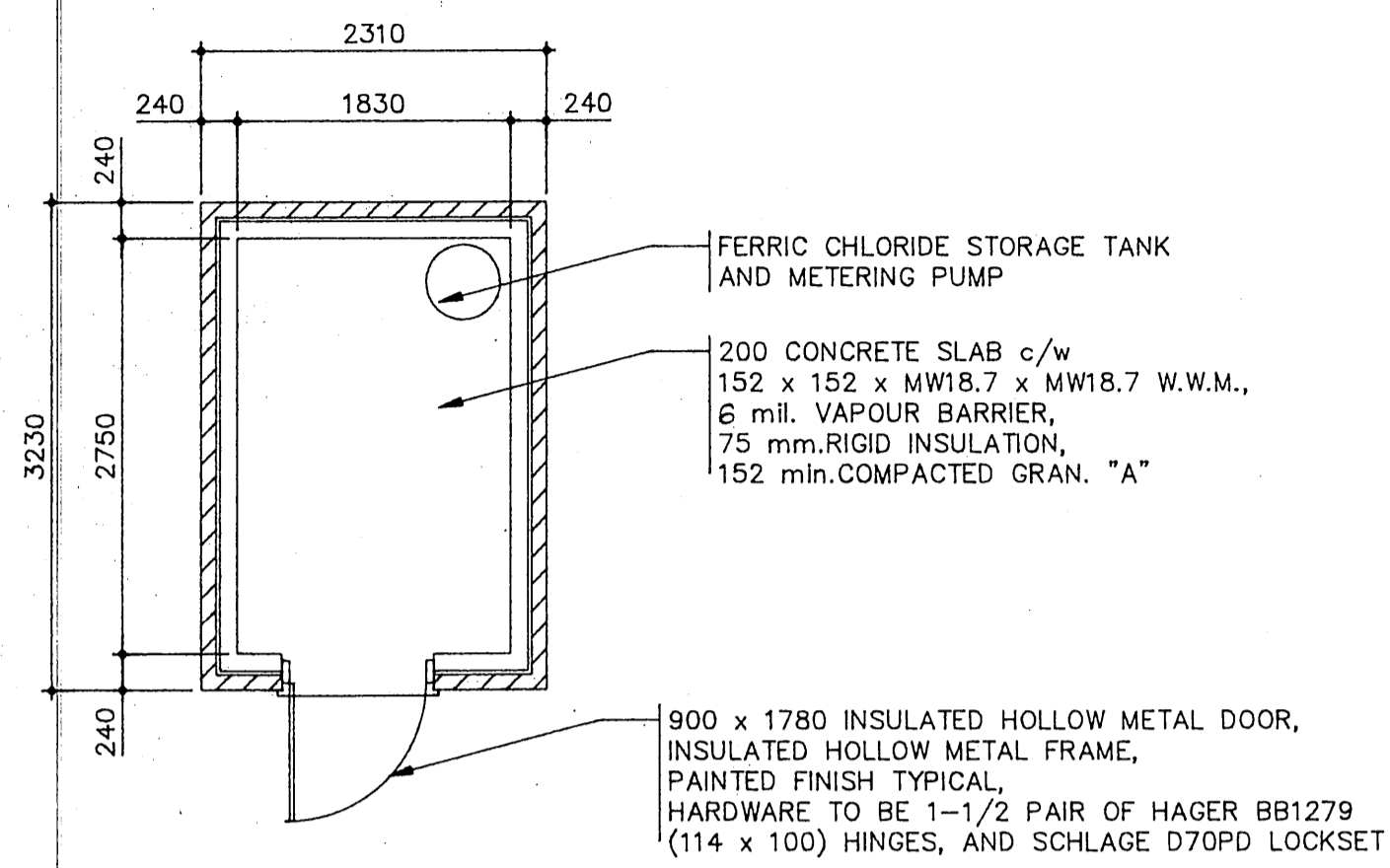
LIST OF DRAWINGS

1. PROPOSED SANITARY SEWER LAYOUT
(FROM MH 1 TO MH 5)
2. PROPOSED SANITARY SEWER LAYOUT
(FROM MH 5 TO RBC)
3. PROPOSED SANITARY SEWER LAYOUT
(FROM RBC TO MH 10)
4. PROPOSED SANITARY SEWER PROFILES
(FROM MH 1 TO MH 5)
5. PROPOSED SANITARY SEWER PROFILES
(FROM MH 5 TO RBC)
6. PROPOSED SANITARY SEWER PROFILES
(FROM RBC TO MH 10)
7. RBC COMPOUND
8. O.P.S.D. AND DESIGN SPECIFICATIONS

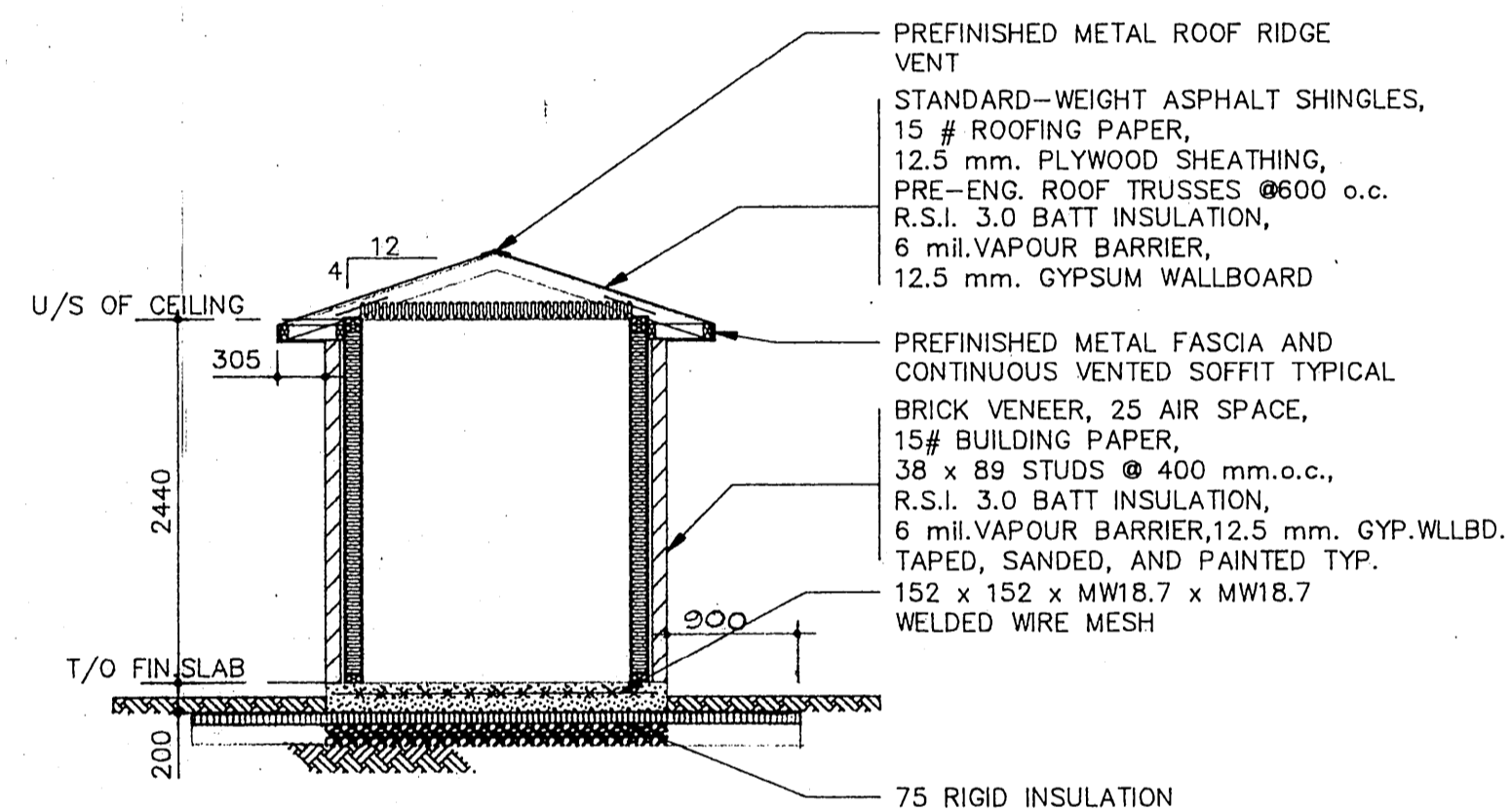
M . S. THOMPSON & ASSOCIATES LIMITED

CONSULTING ENGINEERS
CORNWALL, ONTARIO

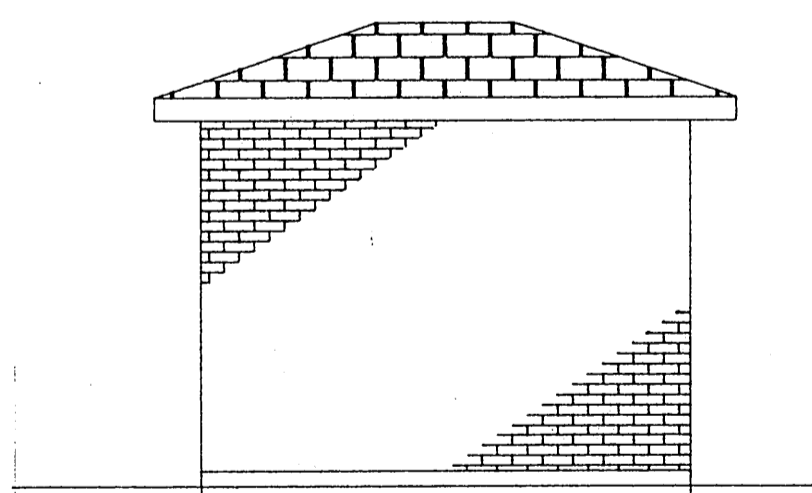
1992 AS BT...
SIP for NHS, Business Mall & Rehabilitation Facility
Drawings
CIA # 3 6874



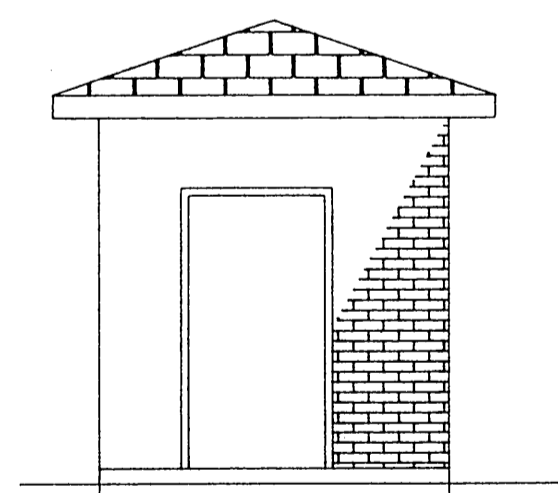
FLOOR PLAN



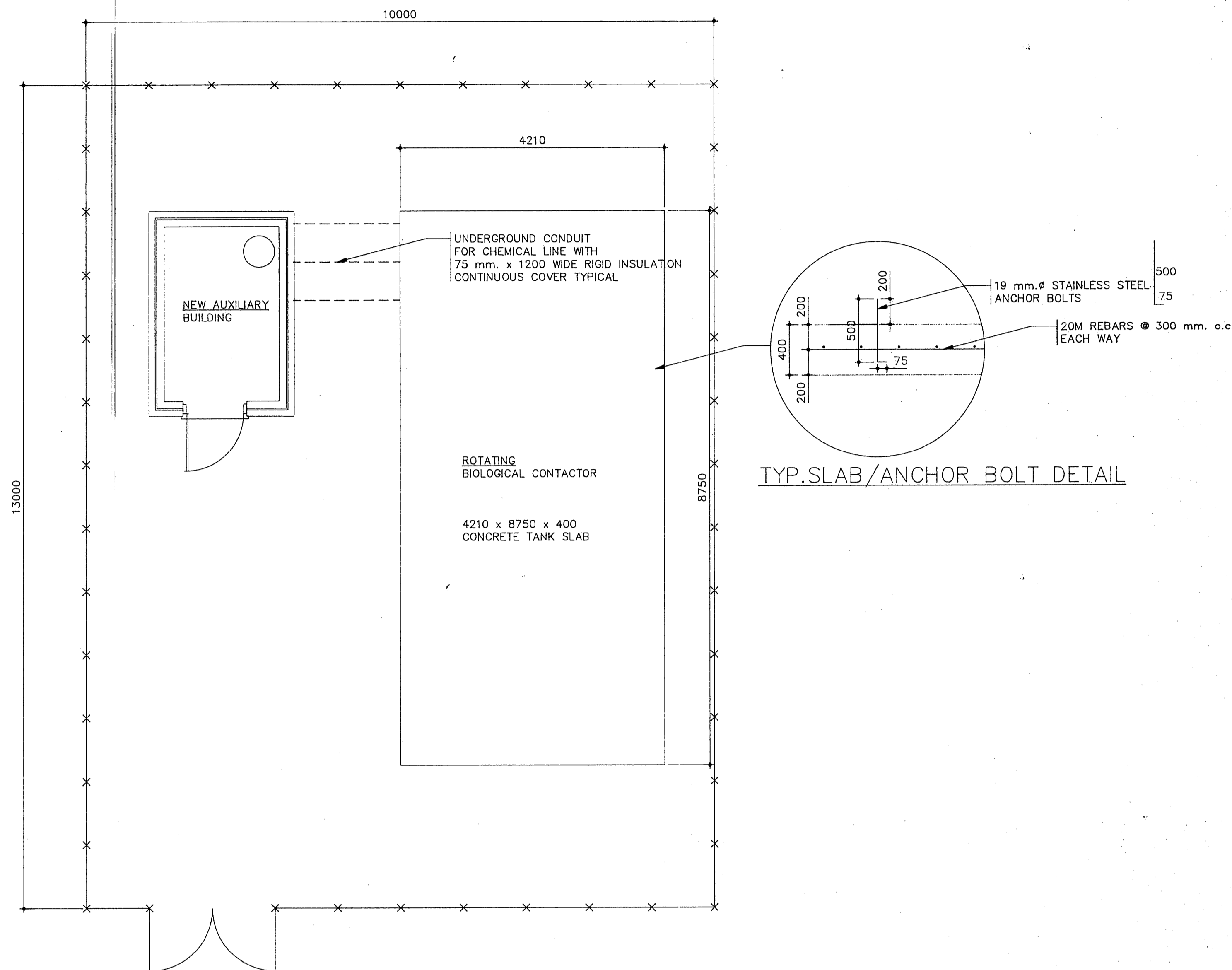
TYPICAL BUILDING SECTION



WEST ELEVATION



SOUTH ELEVATION



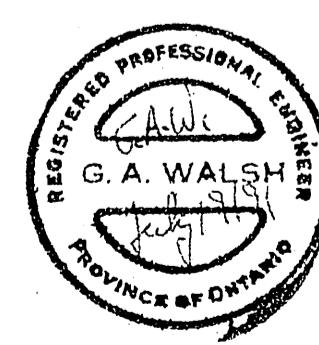
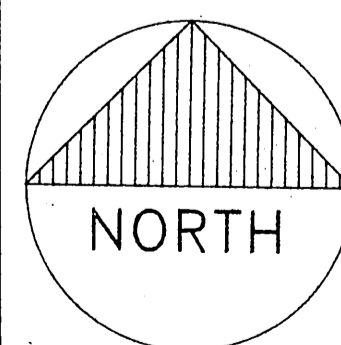
SEWAGE TREATMENT PLANT COMPOUND

APPROVED FOR CONSTRUCTION
DATE JUL 19 1991

No.	BY	DATE	REVISION

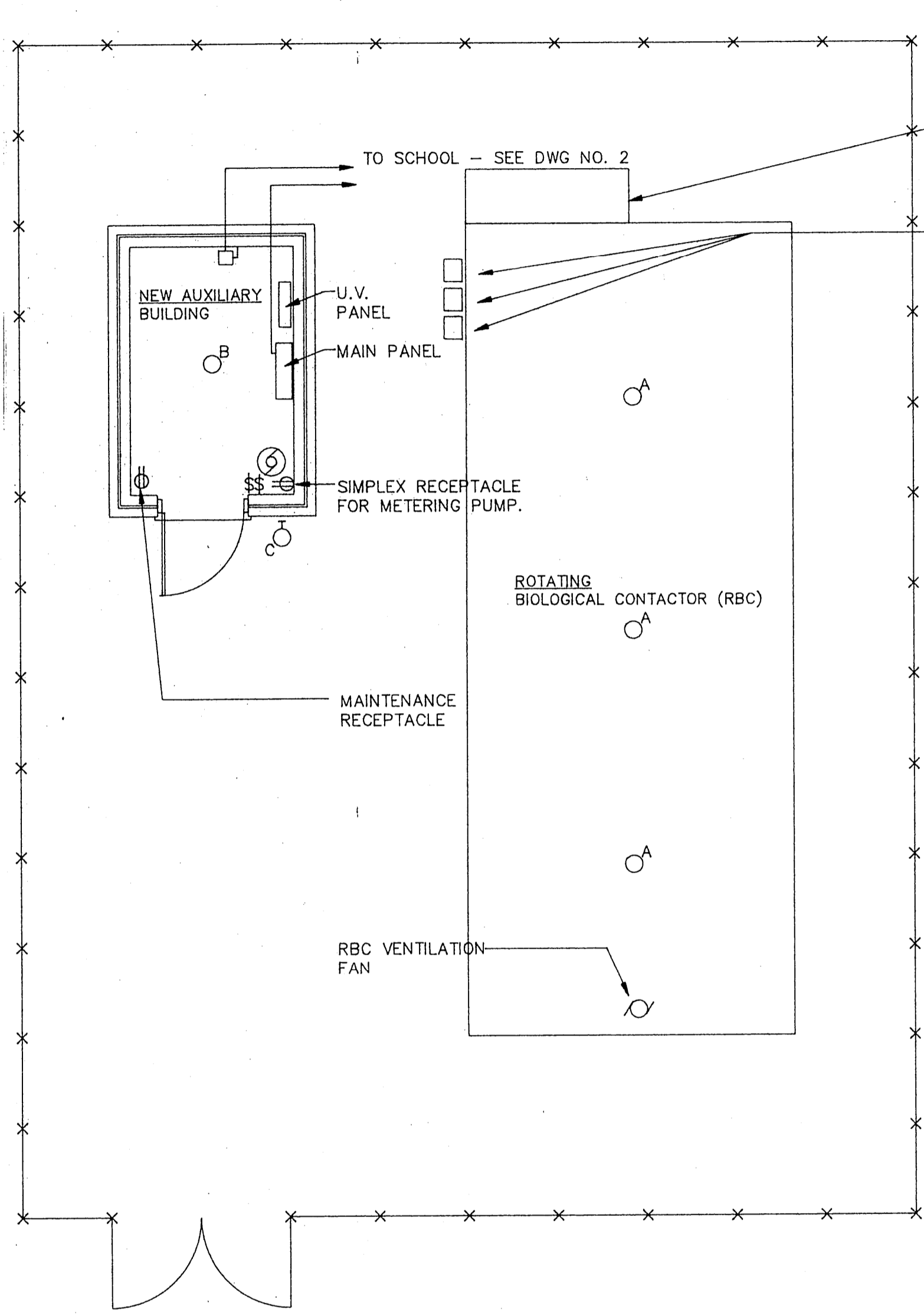
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOB SITE

designed by
clb
drawn by
clb
checked by
gk
date checked
JUNE, 1991



M.S. THOMPSON & ASSOCIATES LIMITED
CONSULTING ENGINEERS
CORNWALL, ONTARIO

PROJECT CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK SCHOOL, BUSINESS MALL & REHABILITATION FACILITY			
DWG. TITLE FLOOR PLAN, ELEVATIONS, AND DETAILS			
SCALE	Horizontal Vertical	1:50 1:50	File No. C- 91050 Drawing No. A-1



ELECTRICAL FLOOR PLAN
SCALE : 1 : 50

- U.V. DISINFECTION TANK. U.V. TUBES SHALL BE LOCATED IN THIS TANK. NOTE: THIS TANK IS NOT A CLASSIFIED LOCATION.
- JUNCTION BOXES PROVIDED WITH RBC
- 30A-3P
- EXISTING SQUARE 'D' I-LINE PANEL. PROVIDE NEW BREAKER.
- 3c#4 AND #10 GD
3c#12 IN 1 1/4" HEAVY WALL P.V.C. CONDUIT
- PROVIDE GREEN 120V LIGHT TO INDICATE POWER AVAILABLE AT RBC AND RED 120V LIGHT TO INDICATE RBC MOTION FAILURE. PROVIDE LAMICOID LABELS
- EXISTING WOOD FURRING CHANNEL IN MAIN OFFICE.
- PRE-PURCHASED EQUIPMENT TO BE INSTALLED BY ELECTRICAL TRADE.
- PROVIDE SIMPLEX RECEPTACLE FOR METERING PUMP
- PROVIDE DUPLEX RECEPTACLE FOR MAINTANANCE.
- PROVIDE LIGHT SWITCH c/w PILOT LIGHT.

MAIN CONTROL PANEL:
INCLUDES:
MAGNETIC STARTERS FOR RBC MOTOR AND SLUDGE PUMP, CONTROL LOGIC, CONTACTOR FOR HEATERS, MANUAL STARTER FOR VENTILATION FAN, MOTION SENSOR CONTROLLER, 100A-600V SPLITTER, 3KVA 120/208V TRANSFORMER AND 4 CCT PANEL BOARD, 120V ALARM OUTPUT.

PROVIDE 1" P.V.C. CONDUIT. INSTALL WIRING SUPPLIED WITH PRE-PURCHASED EQUIPMENT.
U.V. TUBE SUPPLIED WITH PRE-PURCHASED EQUIPMENT.

RBC VENTILATION FAN. SUPPLIED BY OWNER. WIRING SUPPLIED WITH PRE-PURCHASED EQUIPMENT AND INSTALLATION BY ELECTRICAL TRADE.
1/2HP 600V 3Ø
PROVIDE TYPE 'A' LIGHT FIXTURE

JUNCTION BOXES PROVIDED WITH RBC

RBC MOTOR JUNCTION BOX 1/2HP 600V 3Ø

SLUDGE PUMP JUNCTION BOX 2HP 600V 3Ø

MOTION SENSOR JUNCTION BOX

PROVIDE 3/4" P.V.C. CONDUIT AND INSTALL MOTION SENSOR WIRING TO JUNCTION BOX. WIRE SUPPLIED WITH PRE-PURCHASED EQUIPMENT

3c#12 TECK

2c#12 TECK

RBC PLANT CLASS ONE, DIVISION TWO HAZARDOUS LOCATION

SCHOOL BUILDING

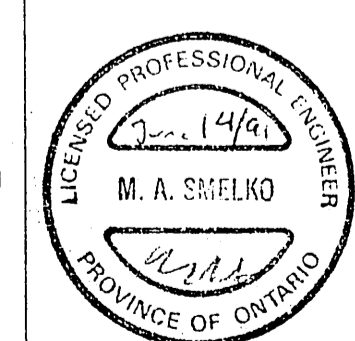
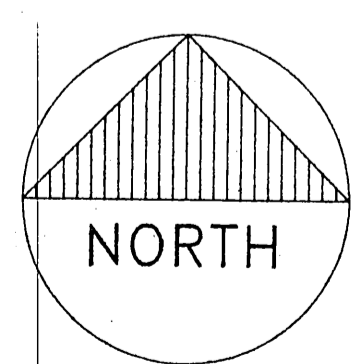
NEW AUXILIARY BUILDING

ELECTRICAL SCHEMATIC
SCALE : N.T.S.

APPROVED FOR CONSTRUCTION
DATE JUL 19 1991

No.	BY	DATE	REVISION

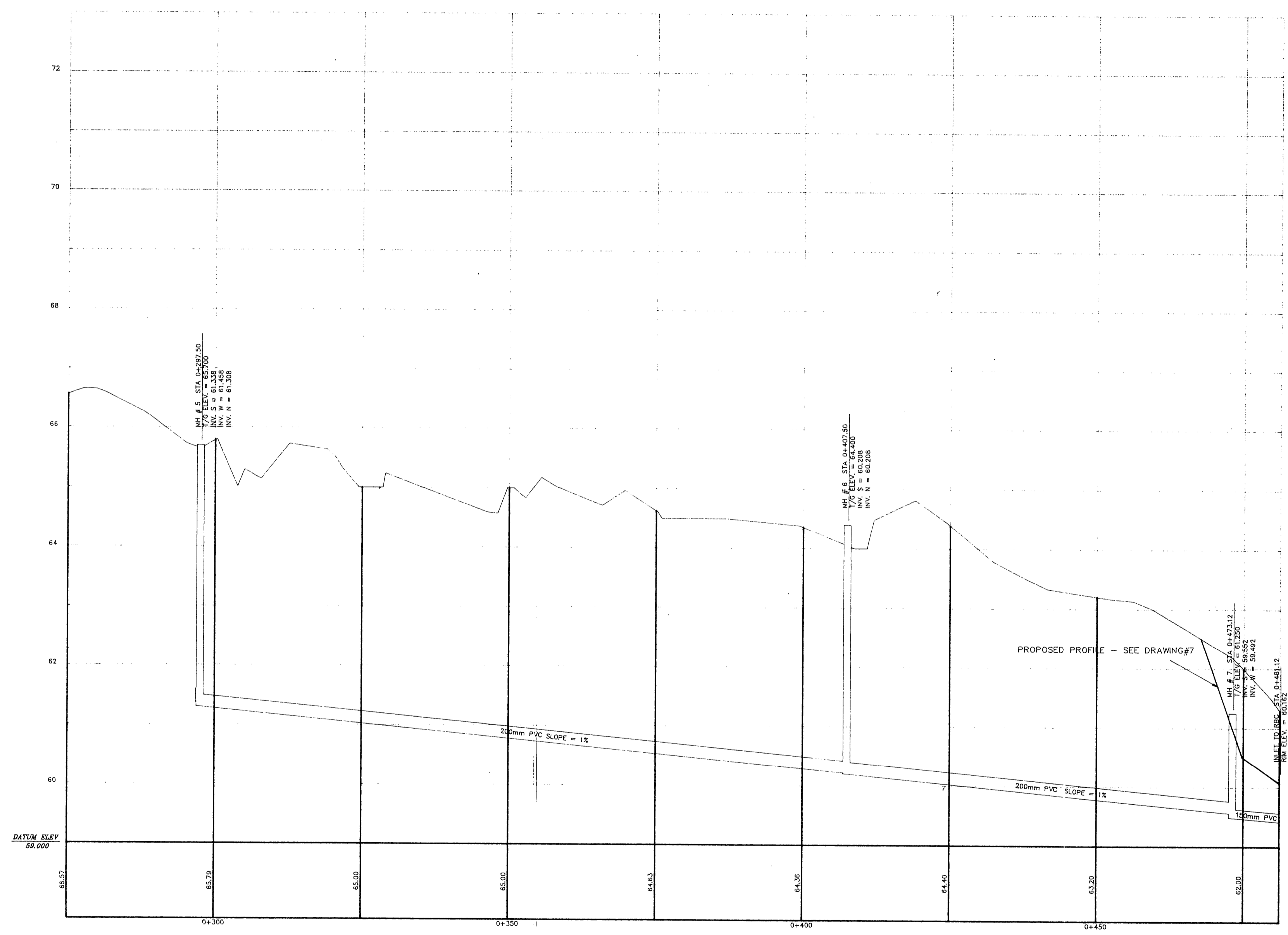
designed by
M. SMELKO
drawn by
A. BOUWMAN
checked by
M. SMELKO
date checked
JUNE, 1991



M.S. THOMPSON & ASSOCIATES LIMITED
CONSULTING ENGINEERS
CORNWALL, ONTARIO

PROJECT CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK SCHOOL, BUSINESS MALL & REHABILITATION FACILITY			
DWG. TITLE ELECTRICAL FLOOR PLAN AND SCHEMATIC			
SCALE	Horizontal Vertical	AS SHOWN AS SHOWN	File No. C- 91050 Drawing No. E-1

**APPROVED FOR
CONSTRUCTION**
DATE JUL 19 1991



Handwritten initials/signature

NOTES
SURVEY BY GADBOIS TECHNICAL SERVICES

THE LEGAL SURVEY INFORMATION SHOWN ON THESE PLANS ARE FOR ILLUSTRATION PURPOSES ONLY. MORE DETAILED LEGAL SURVEY INFORMATION CAN BE OBTAINED BY CONSULTING THE APPROPRIATE DOCUMENTS

THE ELEVATIONS SHOWN ON THESE PLANS ARE GEODETIC AND REFERRED TO GEODETIC SURVEYS OF CANADA BENCH MARK 68U417. ELEV. 70.669 m

No.	BY	DATE	REVISION

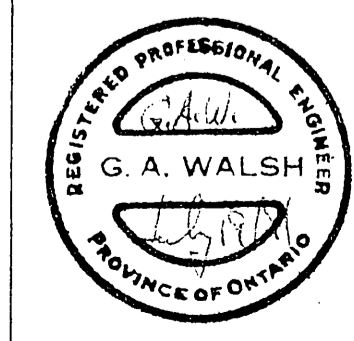
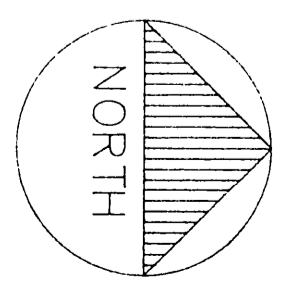
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOBSITE

designed by
K. BAKER/G. WALSH

drawn by
K. BAKER

checked by
G. WALSH

date checked
JUNE 14, 1991



**M. S. THOMPSON &
ASSOCIATES LTD.**

CONSULTING ENGINEERS

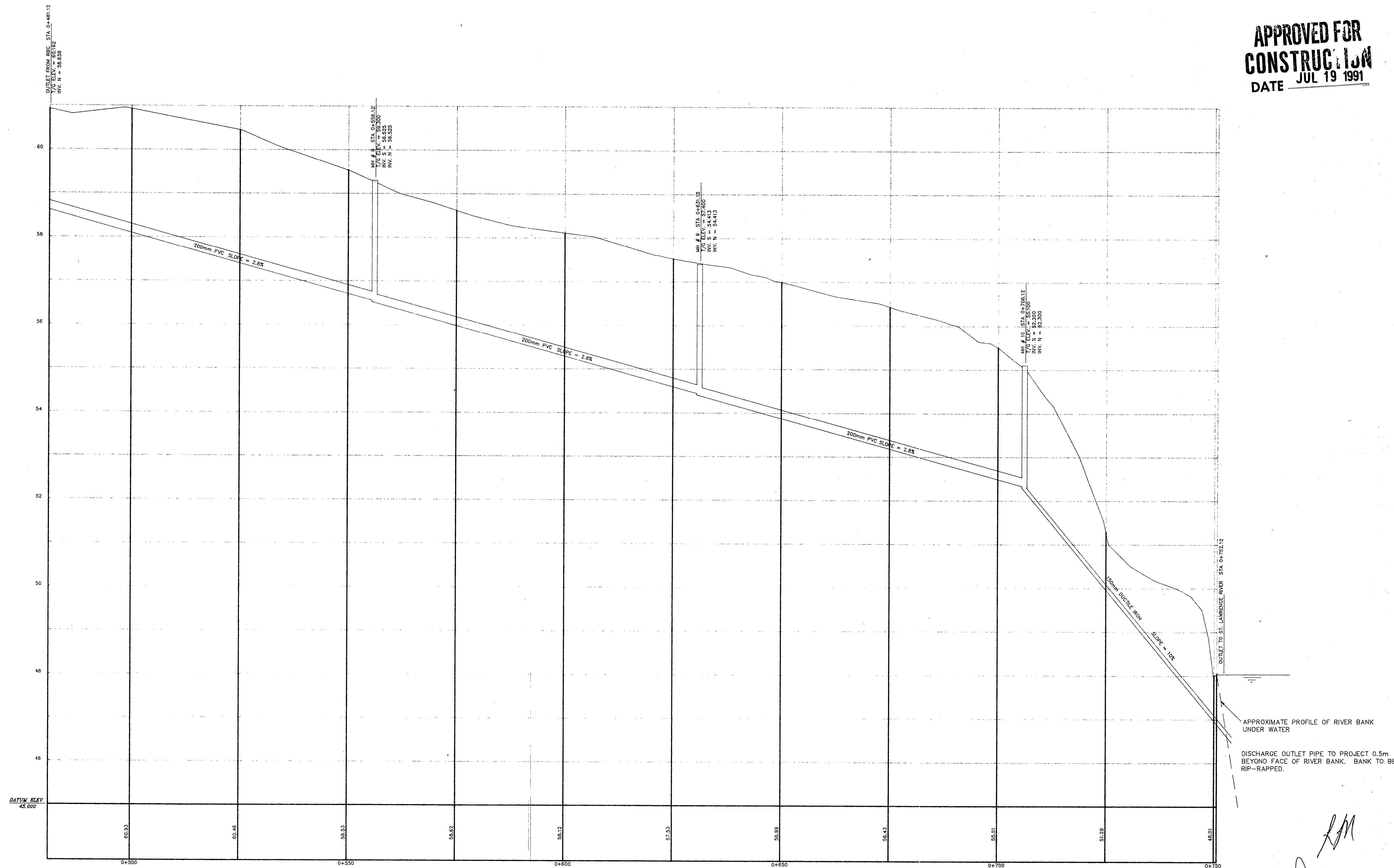
CORNWALL, ONT.

PROJECT
**CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK
SCHOOL, BUSINESS MALL & REHABILITATION FACILITY**

DWG. TITLE
**PROPOSED SANITARY SEWER PROFILES
(FROM MH 5 TO RBC)**

SCALE Horizontal 1:500
Vertical 1:50
File No. C-91050
Drawing No. 5

**APPROVED FOR
CONSTRUCTION**
DATE JUL 19 1991



NOTES

SURVEY BY GADBOIS TECHNICAL SERVICES

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No.	BY	DATE	REVISION

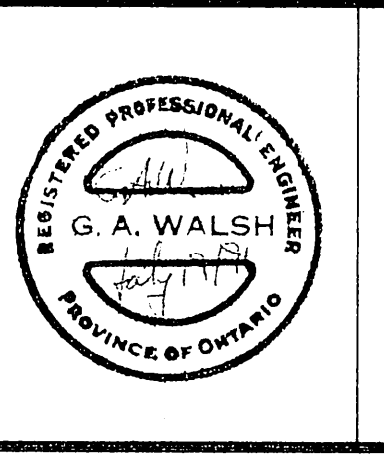
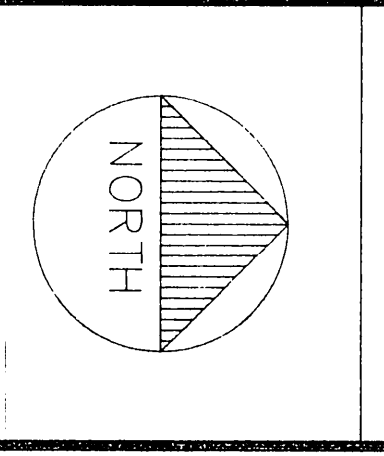
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOBSITE

designed by
K. BAKER/G. WALSH

drawn by
K. BAKER

checked by
G. WALSH

date checked
JUNE 14, 1991



**M. S. THOMPSON &
ASSOCIATES LTD.**

CONSULTING ENGINEERS

CORNWALL, ONT.

PROJECT
**CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK
SCHOOL, BUSINESS MALL & REHABILITATION FACILITY**

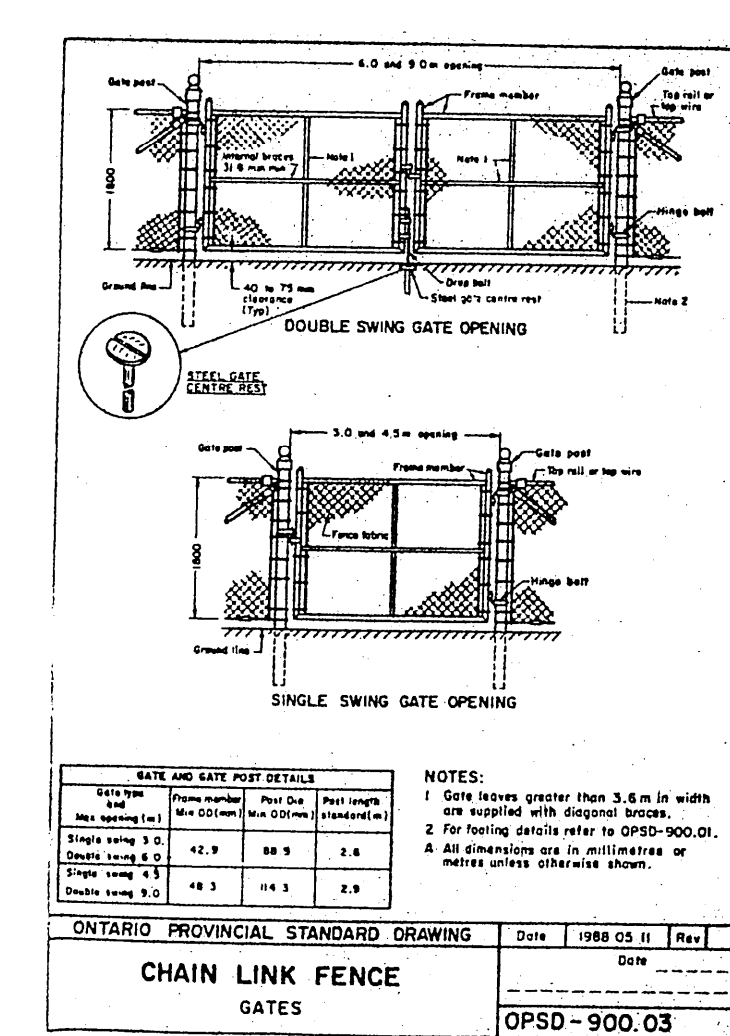
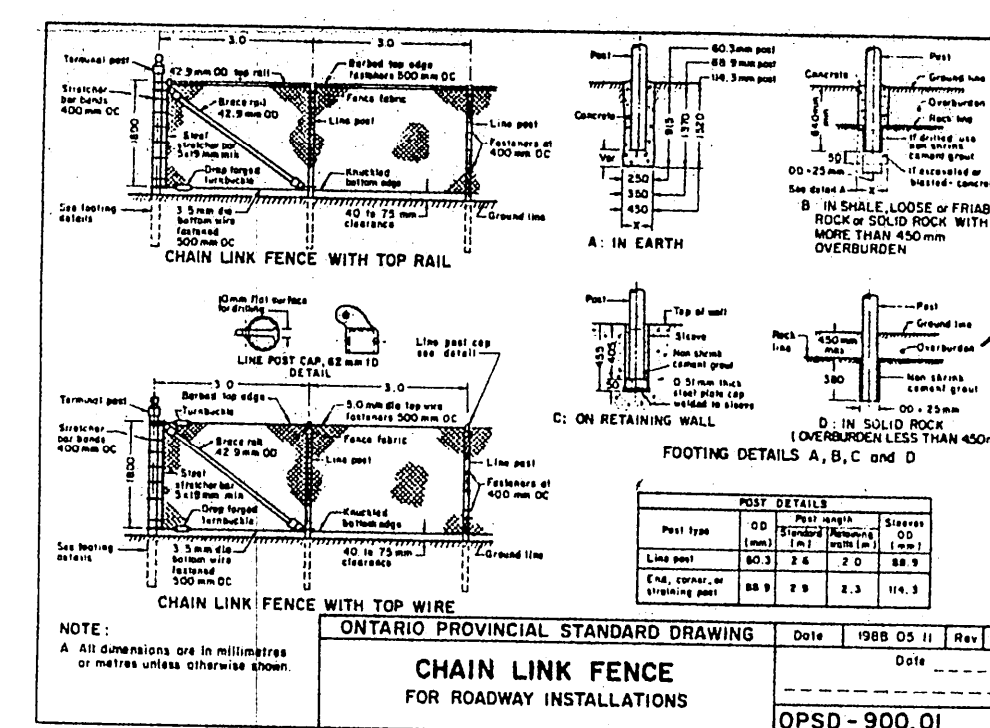
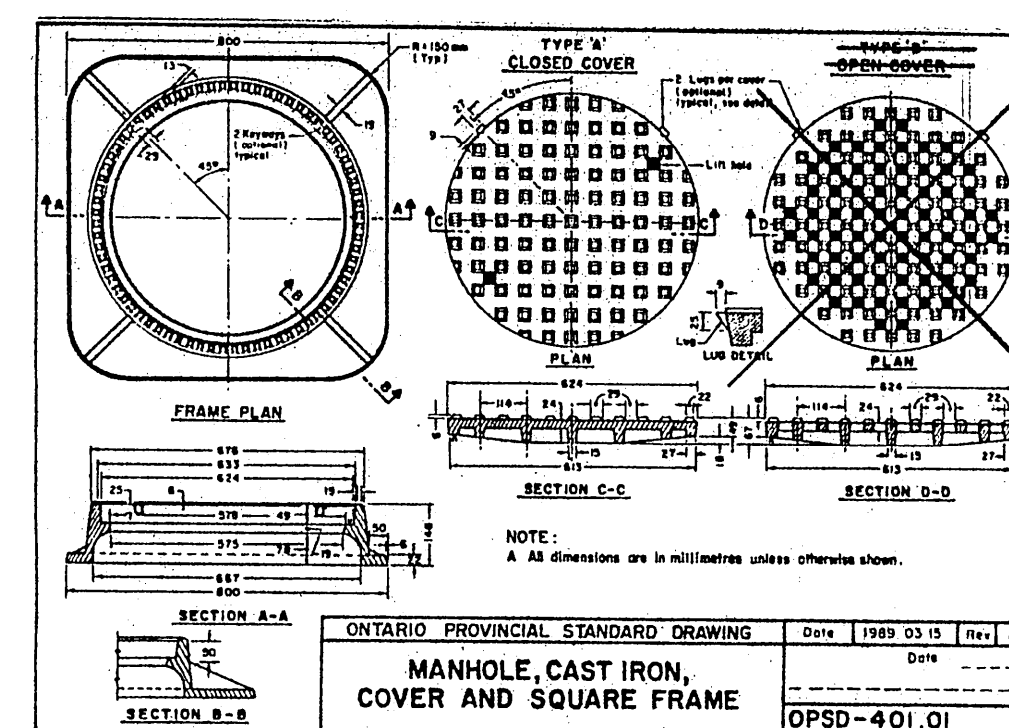
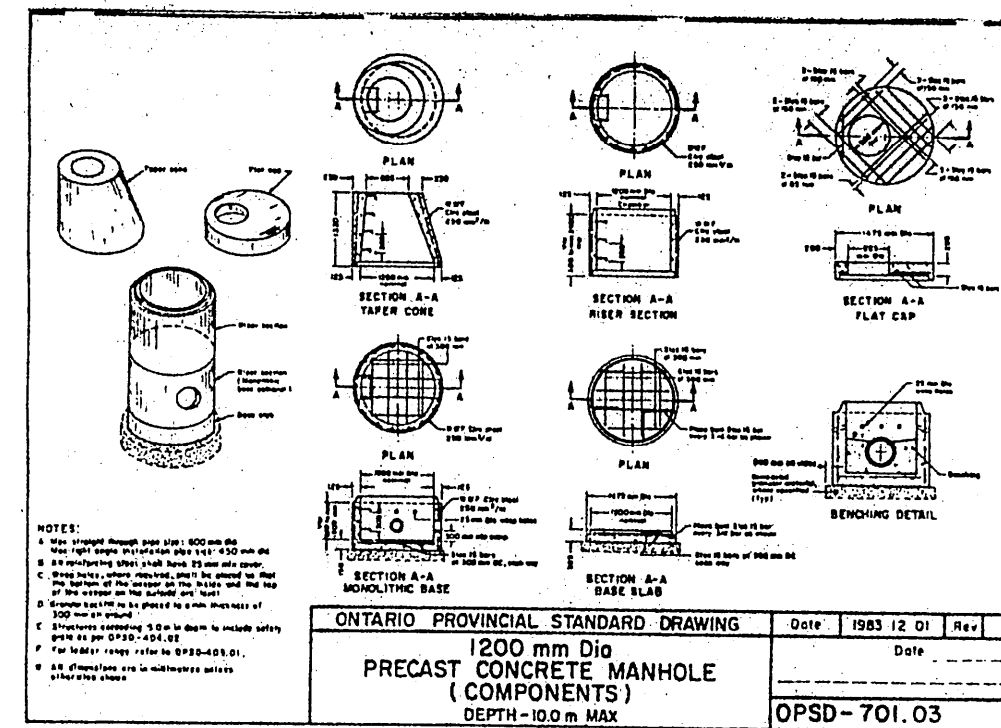
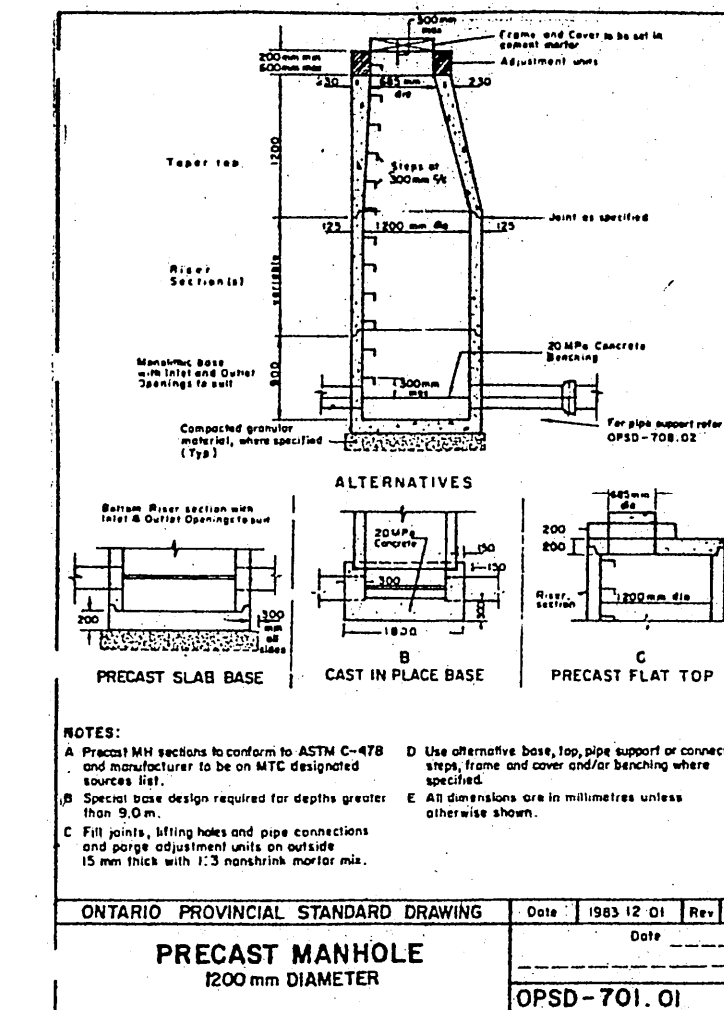
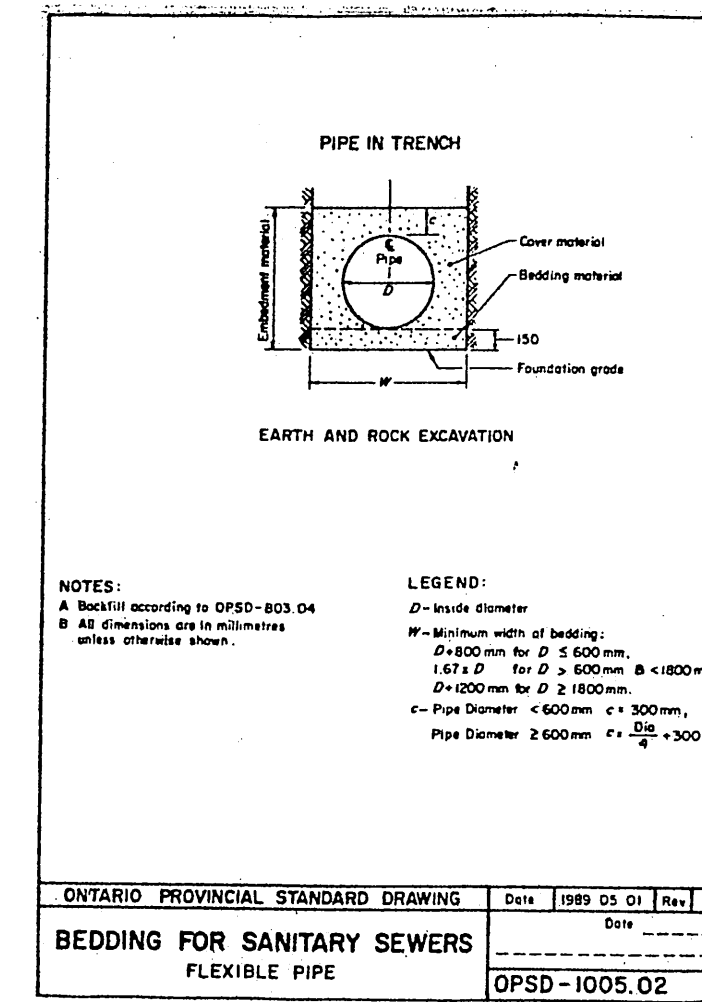
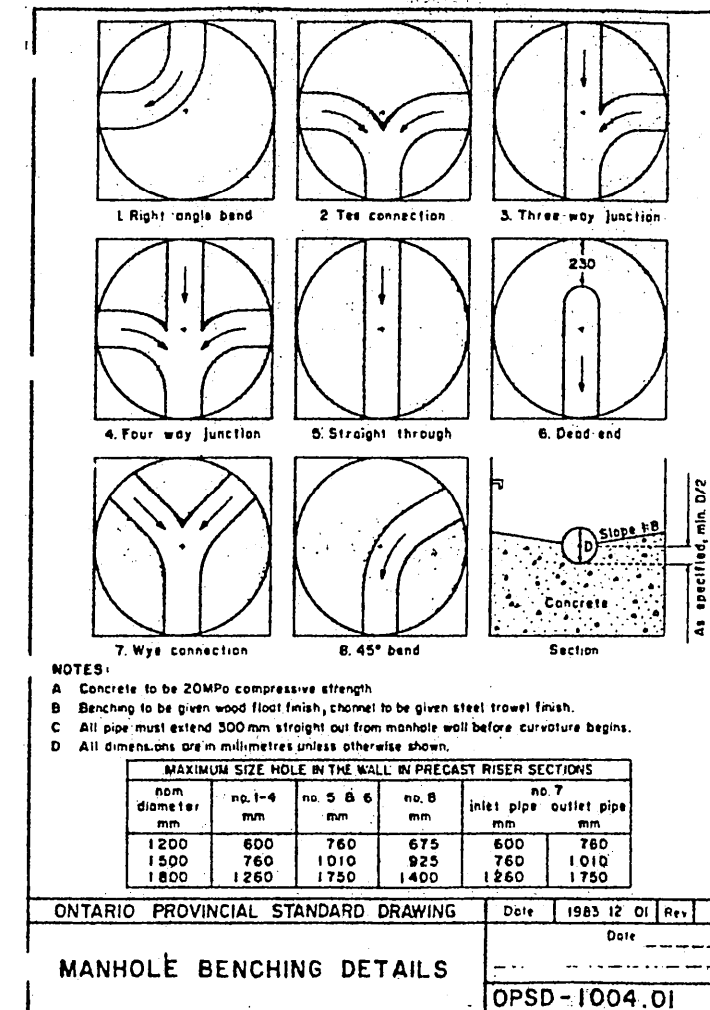
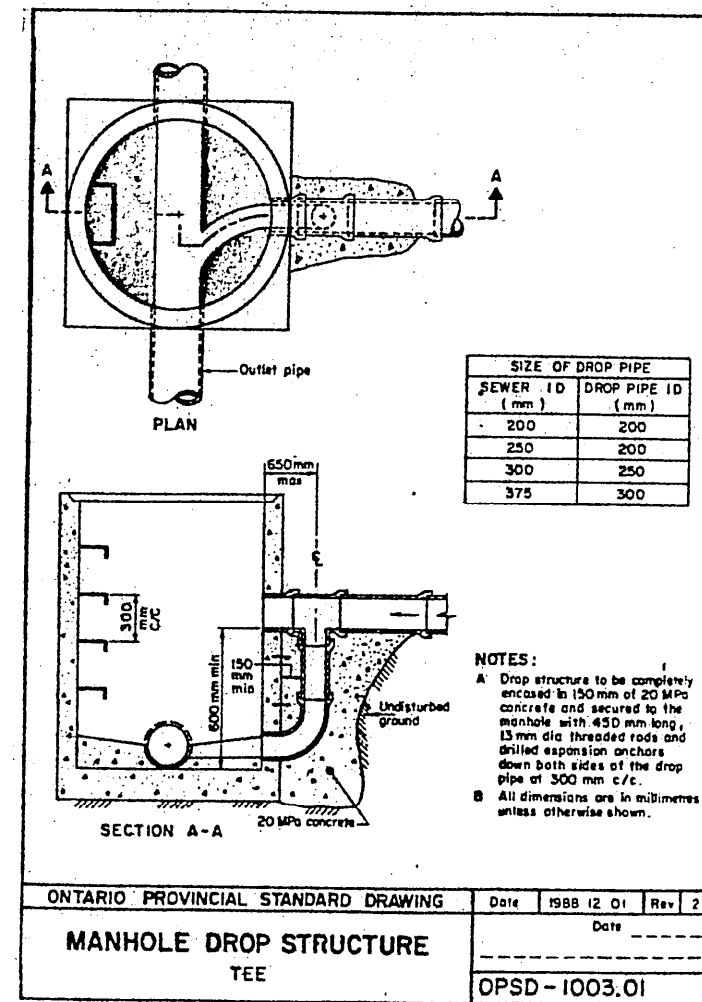
DWG. TITLE
**PROPOSED SANITARY SEWER PROFILES
(FROM RBC TO ST. LAWRENCE RIVER)**

SCALE
Horizontal 1:500
Vertical 1:50

File No.
C-91050

Drawing No.
6

Handwritten initials and signature



APPROVED FOR
CONSTRUCTION
DATE JUL 19 1991

NOTES

No.	BY	DATE	REVISION
1	KB	JUNE 24, 91	CHANGES TO MANHOLES 4 AND 5

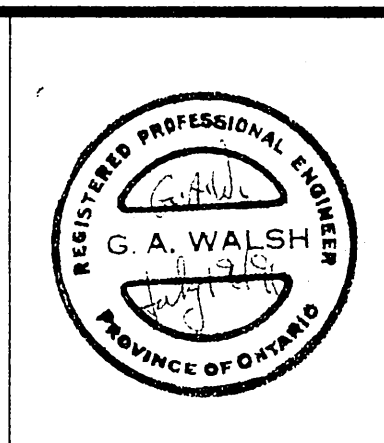
No.	BY	DATE	REVISION
1	KB	JUNE 24, 91	CHANGES TO MANHOLES 4 AND 5

designed by
K. BAKER/G. WALSH

drawn by
K. BAKER

checked by
G. WALSH

date checked
JUNE 14, 1991



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ASSOCIATES LTD.

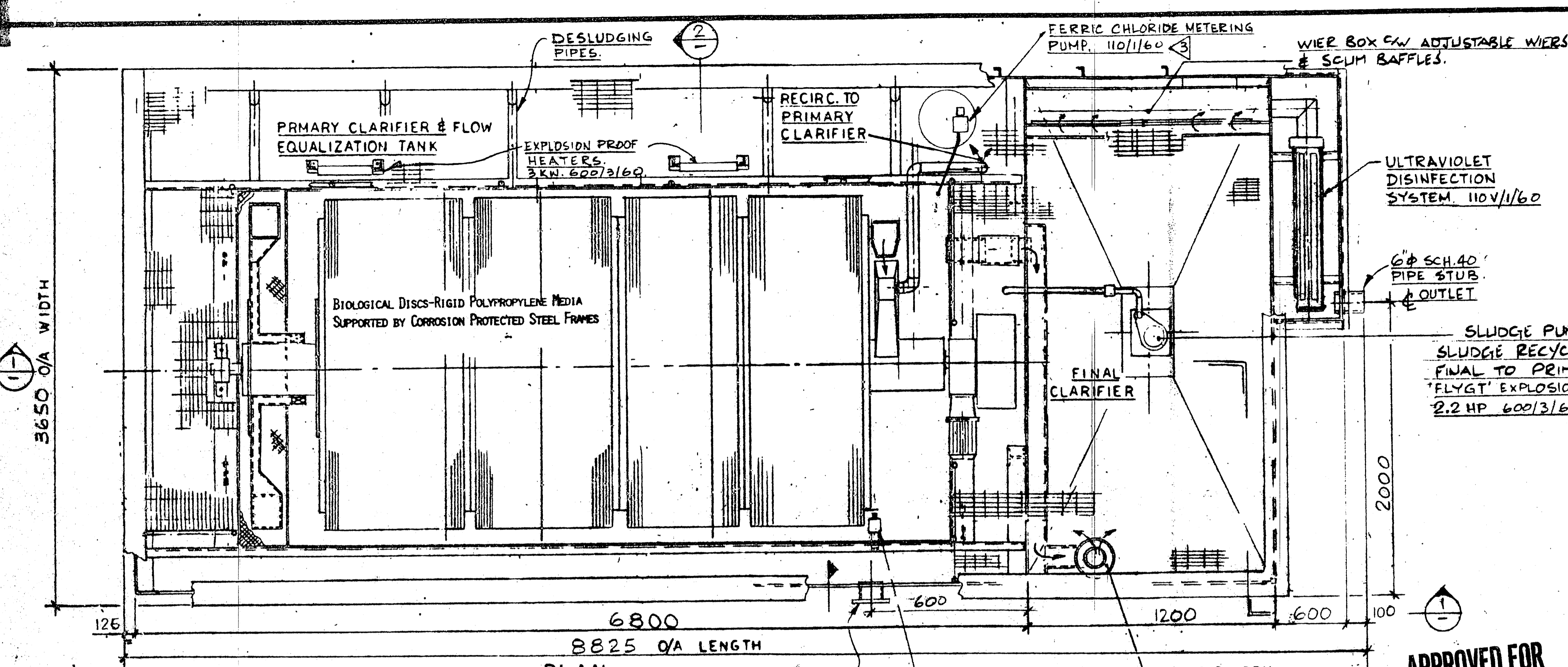
CONSULTING ENGINEERS

CORNWALL, ONT.

PROJECT CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK SCHOOL, BUSINESS MALL & REHABILITATION FACILITY	
DWG. TITLE O.P.S.D. STANDARDS	
SCALE Horizontal N.T.S. Vertical	File No. C-91050
Drawing No. 8	

[Handwritten signature]

CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOBSITE



Rev. Galvanized steel grating, handrails and entry/exit stairs by P.J. Hannah.

DESIGN CRITERIA

AVERAGE DAILY FLOW	50 M ³ /DAY
SOURCE: DOMESTIC SEWAGE	50 M ³ /M
PEAK FLOW	FLOW BALANCED
INFLUENT BOD TOTAL: SUMMER WINTER	8.5 KG/DAY
INFLUENT BOD SETTLED (EST)	6.0 KG/DAY
INFLUENT SUSPENDED SOLIDS	10.0 KG/DAY
EFFLUENT BOD	20 MG/L
EFFLUENT SUSPENDED SOLIDS	20 MG/L
TEMPERATURE	7 °C MIN 21 °C MAX.

M. S. THOMPSON & ASSOCIATES LIMITED	REVIEWED AS NOTED	<input checked="" type="checkbox"/>
CONSULTING ENGINEERS CORNWALL OTTAWA	REVISOR:	<input type="checkbox"/>
DATE: June 17/91	C.A.W.	B
	M	E

REVIEW OF THESE SHOP DRAWINGS IS FOR GENERAL ARRANGEMENT ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS ON THE SITE.

TECHNICAL INFORMATION

BIO SUPPORT MEDIA DIA.	2.15 M
BIO SUPPORT MEDIA AREA	1626 M ²
DISC LOADING: SUMMER WINTER	3.66 GM/M ²

PRIMARY CLARIFIER

CAPACITY INCL. SLUDGE	34 M ³
SLUDGE STORAGE CAPACITY	14.5 M ³
SLUDGE STORAGE TIME	60 DAYS
* THIS TIME BASED ON SLUDGE PRODUCTION OF .5 KG BOD / 1.0 KG BOD @ 2.5 % SOLIDS *	

FINAL CLARIFIER

CAPACITY INCL. SLUDGE	5.25 M ³
SLUDGE STORAGE CAPACITY	0 M ³
SURFACE AREA	4 M ²

APPROVAL REQUIRED
BEFORE COMMENCING FABRICATION

ISSUED FOR APPROVAL

DATE: JUN 12 1991 SIGNATURE: [Signature]

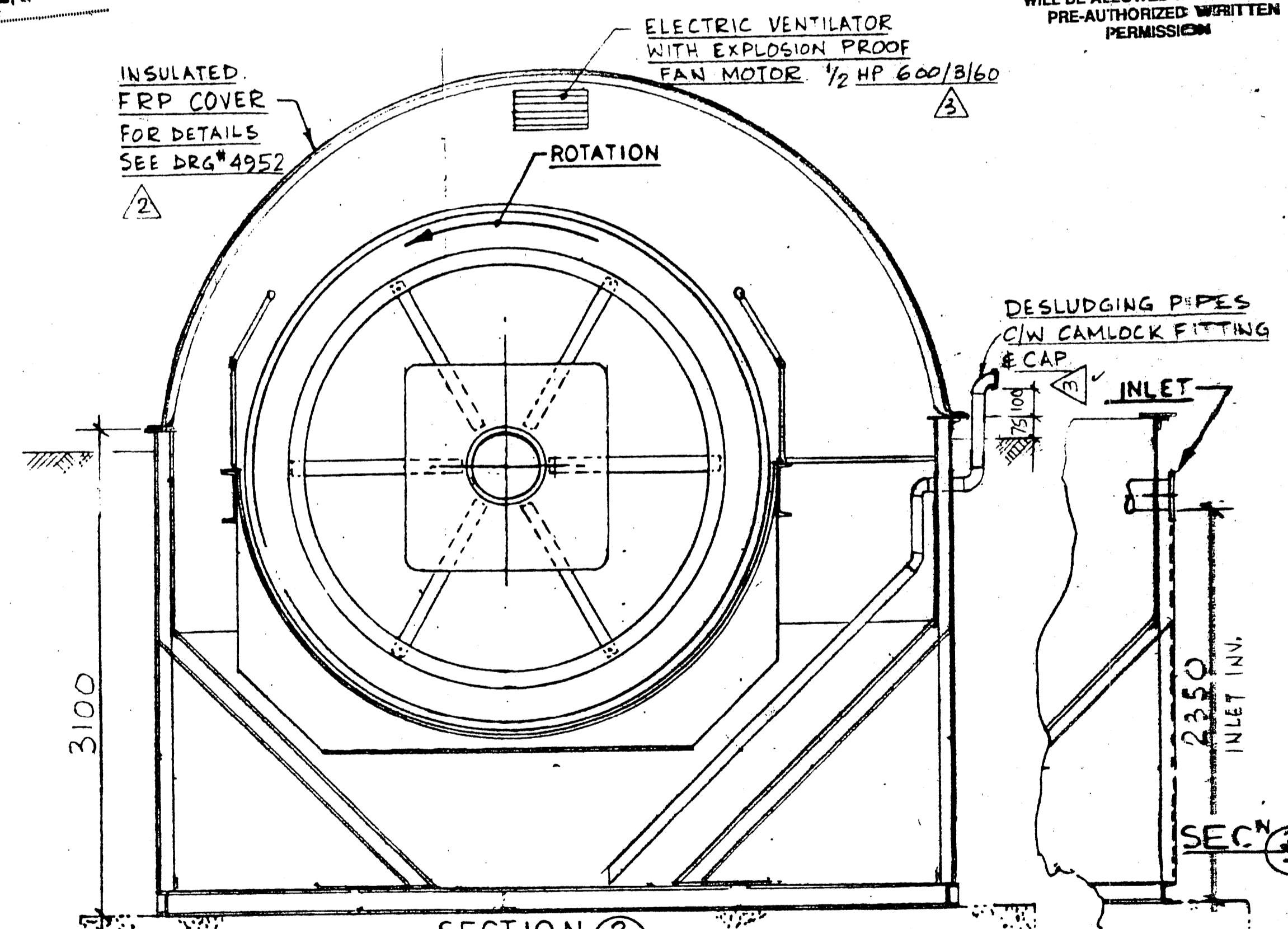
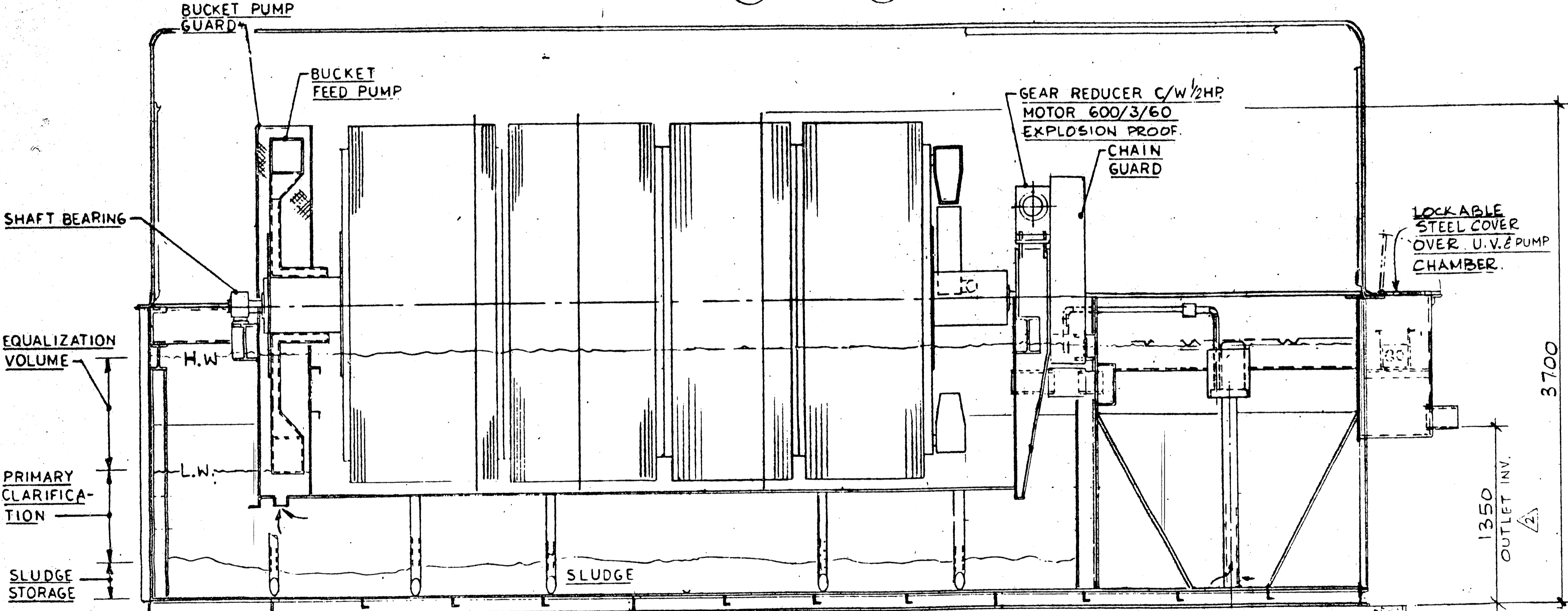
APPROVED FOR CONSTRUCTION
DATE: JUL 19 1991

REV. 3 9/10/91 VOLTAGES ADDED FOR HEATERS, COVER VENTILATOR, NON ROTATION SENSOR, METERING PUMP, DESLEDGING PIPES EXTENDED.

PLAN (WITH COVER REMOVED)

INFLUENT SEWAGE STRENGTH
800 170 mg/L / 56 200 mg/L.

NO BACK CHARGES TO US WILL BE ALLOWED WITHOUT OUR PRE-AUTHORIZED WRITTEN PERMISSION



SECTION 1

REV 2 3/4/91 TANK HEIGHT 3100 WAS 2550; OUTLET LOWERED; INLET RELOCATED; EFFLUENT PUMPS DELETED. NOTE RE: ANCHOR BOLT & FRP COVER ADDED

TOUS LES DIMENSIONS EN mm SION SPECIFIER AUTREMENT / ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED

HOLD-DOWN ANCHOR BOLTS ARE TO BE SUPPLIED BY INSTALLATION CONTRACTOR. CLAMP PLATES FOR ANCHOR BOLTS ARE P.J. HANNAH SUPPLY. FOR DETAILS OF ANCHOR BOLT LOCATION SEE DRG # 4951

DONNÉE DE PROPRIÉTÉ
CE DESSIN EST EMPRUNTÉ AVEC LA CONCORDANCE EXPRESSE QUE L'INFORMATION Y INCLUS ET LE DESSIN MÊME APPARTIENNENT A P. J. HANNAH EQUIPMENT SALES CORP. ET NE SERONT PAS COPIÉS, REPRODUITS NI RÉVÉLÉS A D'AUTRES PERSONNES, ET NE SERONT PAS UTILISÉS DIRECTEMENT OU INDIRECTEMENT POUR LA CONSTRUCTION D'APPAREILS OU DES ÉLÉMENTS DES APPAREILS, SAUF AVEC LE PERMIS ÉCRIT DE P. J. HANNAH EQUIPMENT SALES CORP. VOTRE CONSENTEMENT À RECEVOIR CE DESSIN SERVIRA COMME VOTRE CONSENTEMENT DE LA CONCORDANCE PRÉCÉDENTE.

PROPRIETARY DATA
THIS DRAWING IS LOANED WITH THE EXPRESSED AGREEMENT THAT THE DRAWING AND THE INFORMATION CONTAINED THEREIN ARE THE PROPERTY OF P. J. HANNAH EQUIPMENT SALES CORP. AND WILL NOT BE REPRODUCED, COPIED, DISCLOSED TO OTHERS OR USED DIRECTLY OR INDIRECTLY IN THE MAKING OF APPARATUS OR PARTS THEREOF EXCEPT UPON WRITTEN PERMISSION OF P. J. HANNAH EQUIPMENT SALES CORP. THE ACCEPTANCE OF THIS DRAWING WILL BE CONSIDERED AS ACCEPTANCE OF THE FOREGOING AGREEMENT.

CONSULTANT: M. S. THOMPSON & ASSOCIATE.
PROJECT: CORNWALL ISLAND SCHOOL.
OUR REF # TK1266 YOUR REF #
NOTRE RÉF # VOTRE RÉF #
GENERAL ARRANGEMENT OF KLARGESTER ROTOPACK MODÉL BS11 HBP.

DRAWN	DATE
SCALE	LÉCHELLE
CHECKED	VERIFIÉ
APPROVED	APPROUVÉ

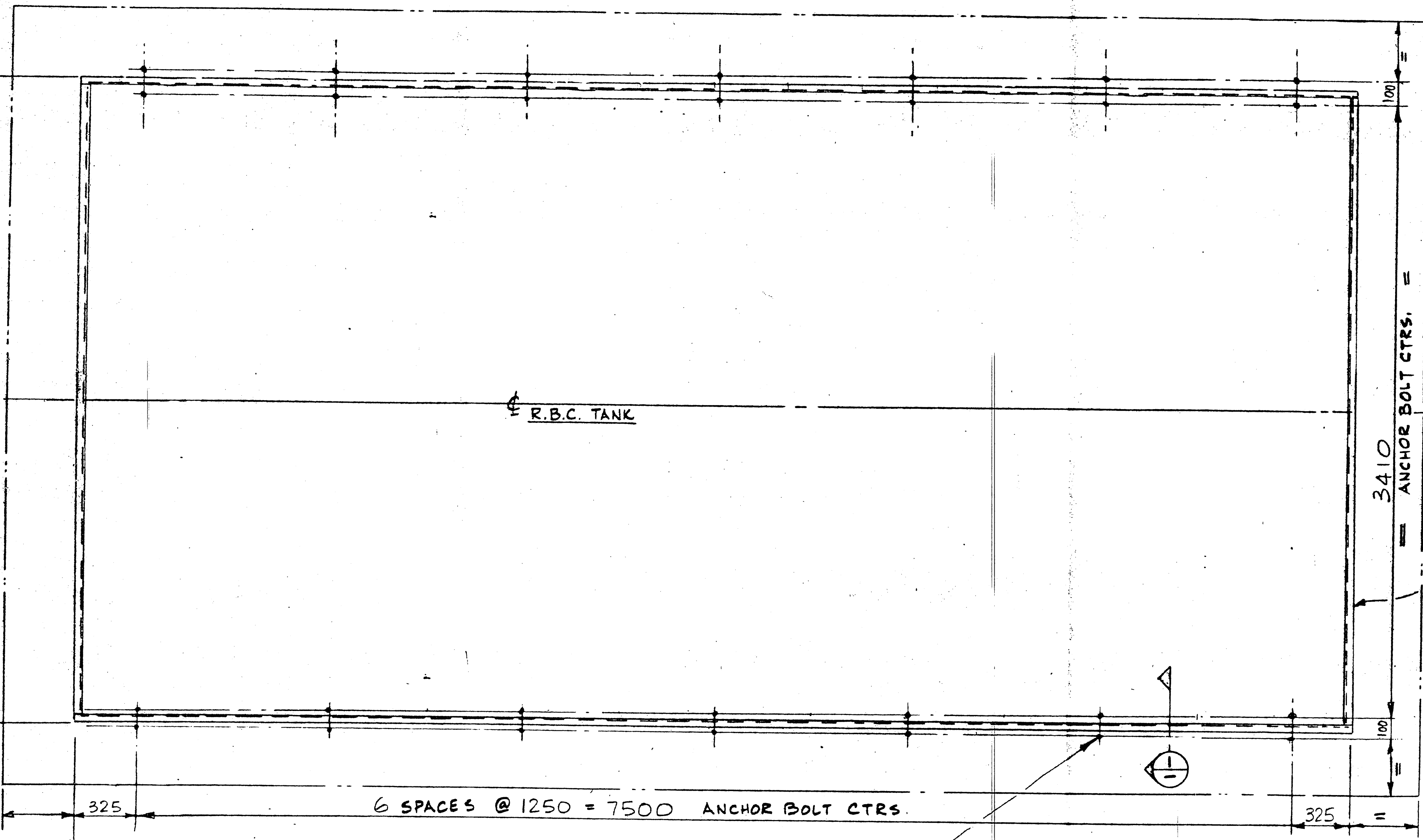
P J HANNAH
EQUIPMENT SALES CORP.
VANCOUVER CALGARY TORONTO MONTREAL

Specialist in pollution control

DWG. NO. 4933/3

REV. 3

3560 (REF)
(O/A TOE TO TOE OF CHANNEL FRAME)



OUTLINE OF
CONCRETE SLAB
(BY OTHERS.)

OUTLINE OF R.B.C.
STEEL TANK
SUPPLIED BY P.J. HANNAH.

**APPROVED FOR
CONSTRUCTION**
DATE JUL 19 1991

M. S. THOMPSON & ASSOCIATES LIMITED	REVIEWED AS NOTED	<input checked="" type="checkbox"/>
CONSULTING ENGINEERS CORNWALL OTTAWA	RESUBMIT	<input type="checkbox"/>
DATE: June 17/91	C. G. M.	B
	M	E

REVIEW OF THESE SHOP DRAWINGS IS FOR GENERAL ARRANGEMENT ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS ON THE SITE.

APPROVAL DRAWING

APPROVED WITHOUT CHANGES

APPROVED AS NOTED

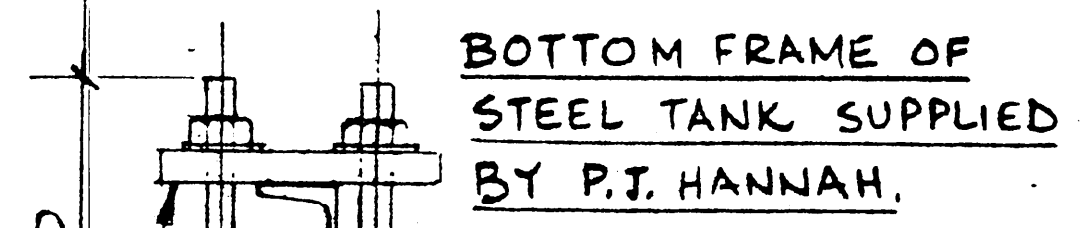
DATE: June 17/91 CUSTOMER SIGNATURE: *[Signature]*

NOTE: APPROVAL AUTHORIZES COMMENCEMENT OF FINAL ENGINEERING AND FABRICATION. AFTER APPROVAL A CERTIFIED DRAWING WILL BE ISSUED.

MAXIMUM UP LIFT ON PLANT
WITH WATER TABLE AT GRADE = 84300 Kg.

STAINLESS STEEL ANCHOR BOLTS 3/4" φ x 8" PROJECTION
C/W NUT, WASHER
- 28 REQUIRED. THESE ANCHOR BOLTS ARE TO BE SUPPLIED & LOCATED AS SHOWN BY OTHERS.

PROJECTION OF ANCHOR BOLT ABOVE CONC. SLAB



DESIGN OF CONCRETE SLAB & SECURING DETAILS OF ANCHOR BOLTS INTO SLAB TO FULL STRENGTH OF ANCHOR BOLT IS THE RESPONSIBILITY OF OTHERS.

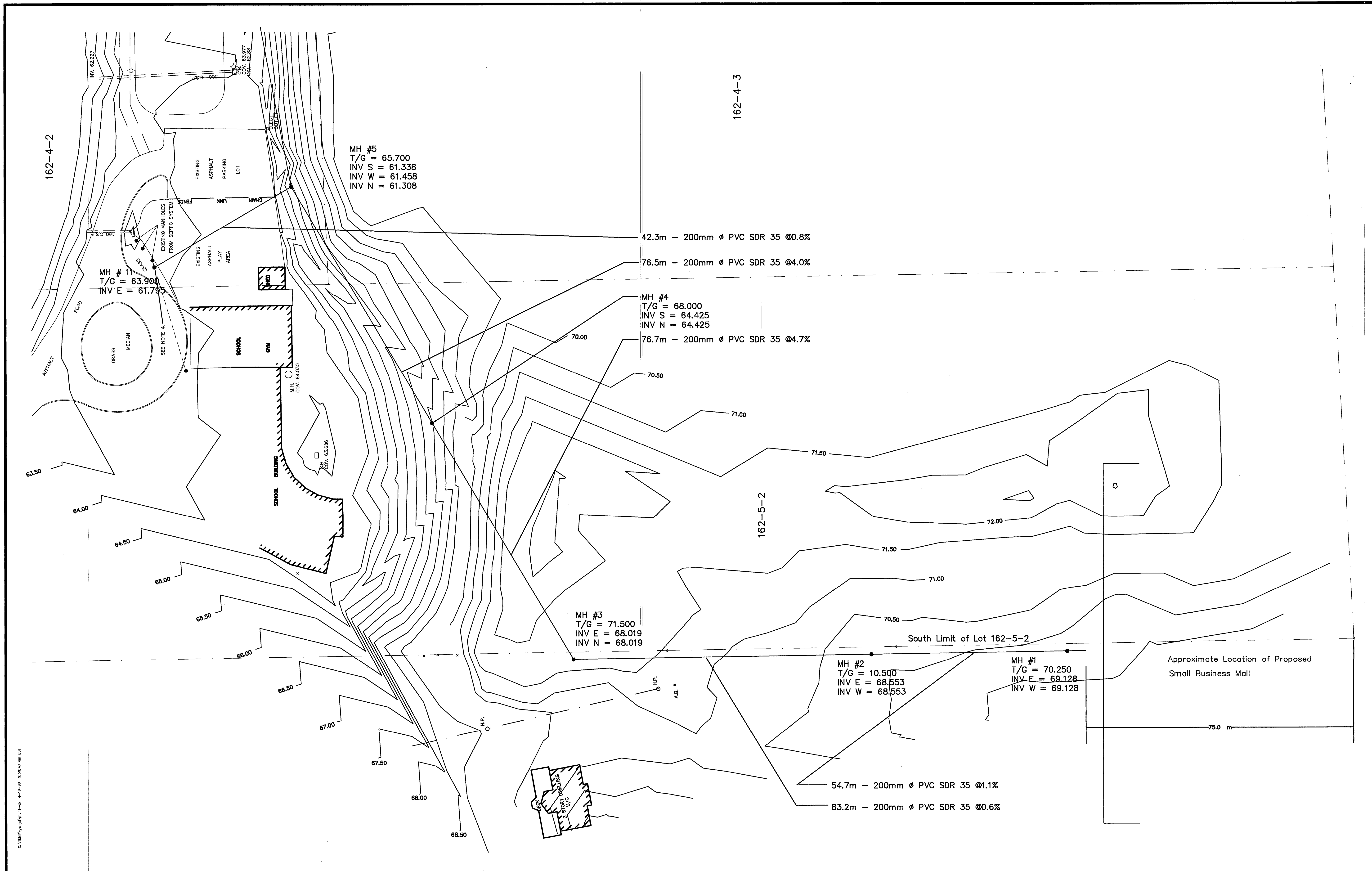
**APPROVAL REQUIRED
BEFORE COMMENCING FABRICATION**

ISSUED FOR APPROVAL

DATE: JUN 12 1991 SIGNATURE: *[Signature]*

NO BACK CHARGES TO US
WILL BE ALLOWED WITHOUT OUR
PRE-AUTHORIZED WRITTEN
PERMISSION

<p>PROPRIETARY DATA</p> <p>THIS DRAWING IS LOANED WITH THE EXPRESSED AGREEMENT THAT THE DRAWING AND THE INFORMATION CONTAINED THEREIN ARE THE PROPERTY OF P. J. HANNAH EQUIPMENT SALES CORP. AND WILL NOT BE REPRODUCED, COPIED, DISCLOSED TO OTHERS OR USED DIRECTLY OR INDIRECTLY IN THE MAKING OF APPARATUS OR PARTS THEREOF, EXCEPT UPON WRITTEN PERMISSION OF P. J. HANNAH EQUIPMENT SALES CORP. THE ACCEPTANCE OF THIS DRAWING WILL BE CONSTRUED AS ACCEPTANCE OF THE FOREGOING AGREEMENT.</p>		<p>CONSULTANT: M. S. THOMPSON & ASSOCIATES</p> <p>PROJECT: CORNWALL ISLAND SCHOOL</p> <p>OUR REF. # TK 1266 YOUR REF. #</p> <p>NOTRE REF. # VOTRE REF. #</p>		<p>TOUS LES DIMENSIONS EN mm SINON SPÉCIFIER AUTREMENT / ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED</p> <p>DRAWN: R.G.</p> <p>DATE: 9/05/30</p> <p>SCALE: N.T.S.</p> <p>CHECKED: VERIFIE</p> <p>APPROVED: <i>[Signature]</i></p>		<p>P J HANNAH EQUIPMENT SALES CORP. VANCOUVER CALGARY TORONTO MONTREAL</p> <p>Specialists in pollution control</p> <p>DRG. NO. 4951</p>	
<p>DONNÉE DE PROPRIÉTÉ</p> <p>CE DESSIN EST EMPRUNTÉ AVEC LA CONCORDANCE EXPRESSE QUE L'INFORMATION Y INCLUS ET LE DESSIN MÊME APPARTIENNENT A P. J. HANNAH EQUIPMENT SALES CORP. ET NE SERONT PAS COPIÉS, REPRODUITS NI RÉVÉLÉS A D'AUTRES PERSONNES, ET NE SERONT PAS UTILISÉS DIRECTEMENT OU INDIRECTEMENT POUR LA CONSTRUCTION DES APPARELS OU DES ÉLÉMENTS DES APPARELS, SAUF AVEC LE PERMIS ÉCRIT DE P. J. HANNAH EQUIPMENT SALES CORP. VOTRE CONSENTEMENT A RECEVOIR CE DESSIN SERVIRA COMME VOTRE CONSENTEMENT DE LA CONCORDANCE PRÉCÉDENTE.</p>		<p>ANCHOR BOLT LAYOUT FOR R.B.C. STEEL TANK.</p>		<p>REV. DATE</p>		<p>REV. DATE</p>	



NOTES

1. SURVEY BY GADBOIS TECHNICAL SERVICES
2. THE LEGAL SURVEY INFORMATION SHOWN ON THESE PLANS ARE FOR ILLUSTRATION PURPOSES ONLY. MORE DETAILED LEGAL SURVEY INFORMATION CAN BE OBTAINED BY CONSULTING THE APPROPRIATE DOCUMENTS
3. THE ELEVATIONS SHOWN ON THESE PLANS ARE GEODETIC AND REFERRED TO GEODETIC SURVEYS OF CANADA BENCH MARK 68U417. ELEV. 70.669 m

No.	BY	DATE	REVISION
1	KB	27/01/92	AS BUILT

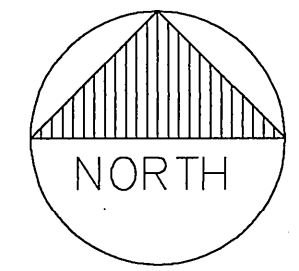
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOBSITE

designed by
K. BAKER/G. WALSH

drawn by
K. BAKER

checked by
G. WALSH

date checked
JUNE 14, 1991



M. S. THOMPSON & ASSOCIATES LTD.

CONSULTING ENGINEERS

CORNWALL, ONT.

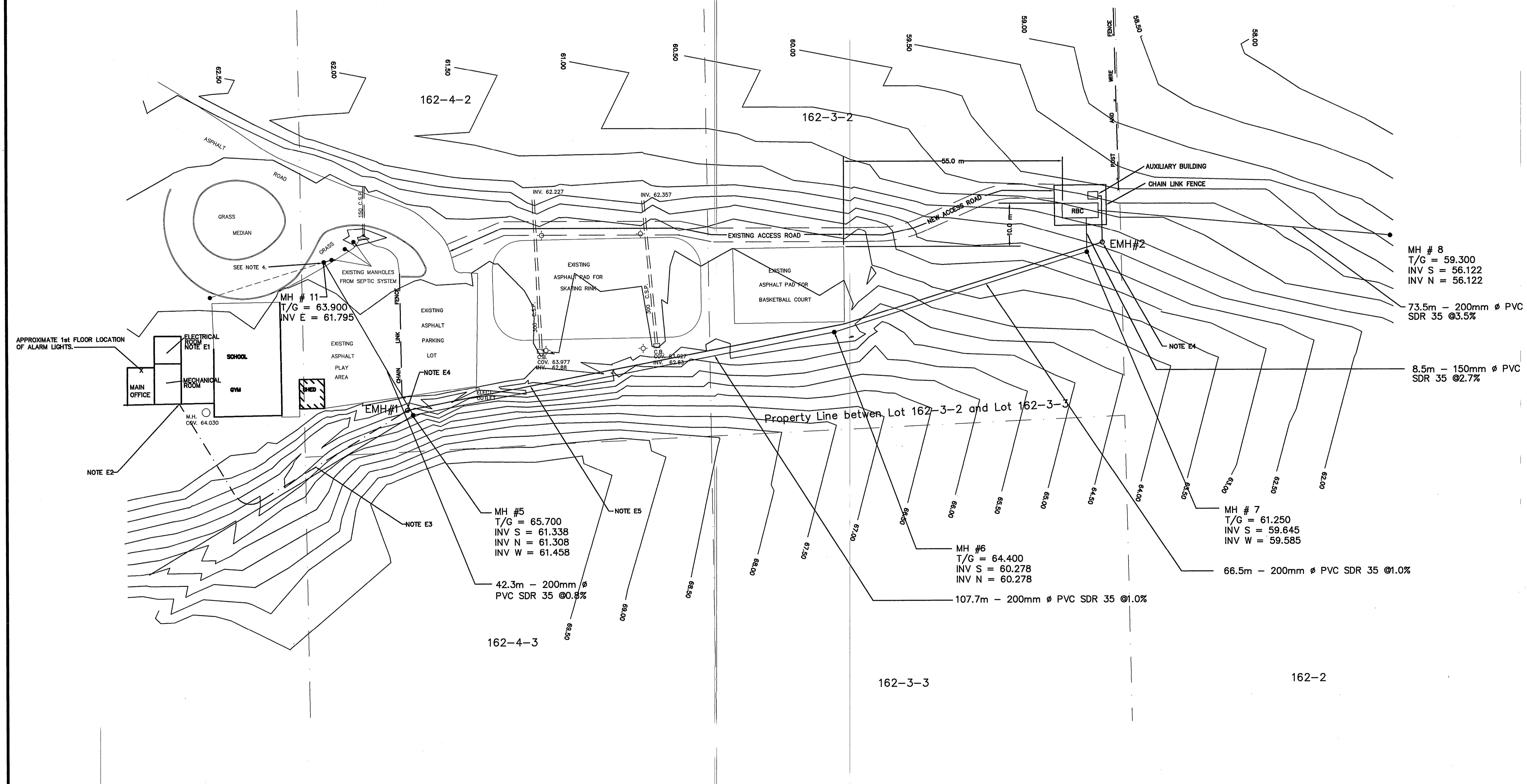
PROJECT
CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK SCHOOL, BUSINESS MALL & REHABILITATION FACILITY

DWG. TITLE
PROPOSED SANITARY SEWER LAYOUT (FROM MH 1 TO MH 5)

SCALE
Horizontal 1:500
Vertical 1:500

File No. C-91050
Drawing No. 1

- ELECTRICAL NOTES**
- E1 - ELECTRICAL ROOM WITH GOOD I-LINE DISTRIBUTION PANEL.
 - E2 - RUN CONDUIT OUTSIDE OF THE BUILDING IN THE RIB OF BLOCK. PROVIDE TRANSITION FROM 1 1/4" PVC TO 1" RIGID GALVANIZED STEEL CONDUIT. TREAT AND PAINT RIGID CONDUIT BROWN TO MATCH TRIM COLOUR. RUN CONDUIT THROUGH SECOND FLOOR MECHANICAL ROOM TO ELECTRICAL ROOM.
 - E3 - BURY CONDUIT MINIMUM 1m BELOW GRADE WITH 300mm OF SAND SURROUNDING CONDUIT (IE. 600mm X 600mm SAND FILLED TRENCH)
 - E4 - PROVIDE FIBERGLASS OR CONCRETE PRECAST ELECTRICAL MANHOLE WITH CAST IRON COVER
 - E5 - 3#4 & 3#10GD, 3#12 IN 1 1/4" HEAVY WALL PVC CONDUIT. ALL CONDUCTORS TW 60 C RATED 600V.



NOTES

1. SURVEY BY GADBOIS TECHNICAL SERVICES
2. THE LEGAL SURVEY INFORMATION SHOWN ON THESE PLANS ARE FOR ILLUSTRATION PURPOSES ONLY. MORE DETAILED LEGAL SURVEY INFORMATION CAN BE OBTAINED BY CONSULTING THE APPROPRIATE DOCUMENTS
3. THE ELEVATIONS SHOWN ON THESE PLANS ARE GEODETIC AND REFERRED TO GEODETIC SURVEYS OF CANADA BENCH MARK 68J417. ELEV. 70.669 m

No.	BY	DATE	REVISION
1	KB	27/01/92	AS BUILT

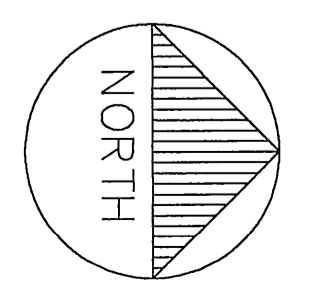
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOBSITE

designed by
K. BAKER/G. WALSH

drawn by
K. BAKER

checked by
G. WALSH

date checked
JUNE 14, 1991



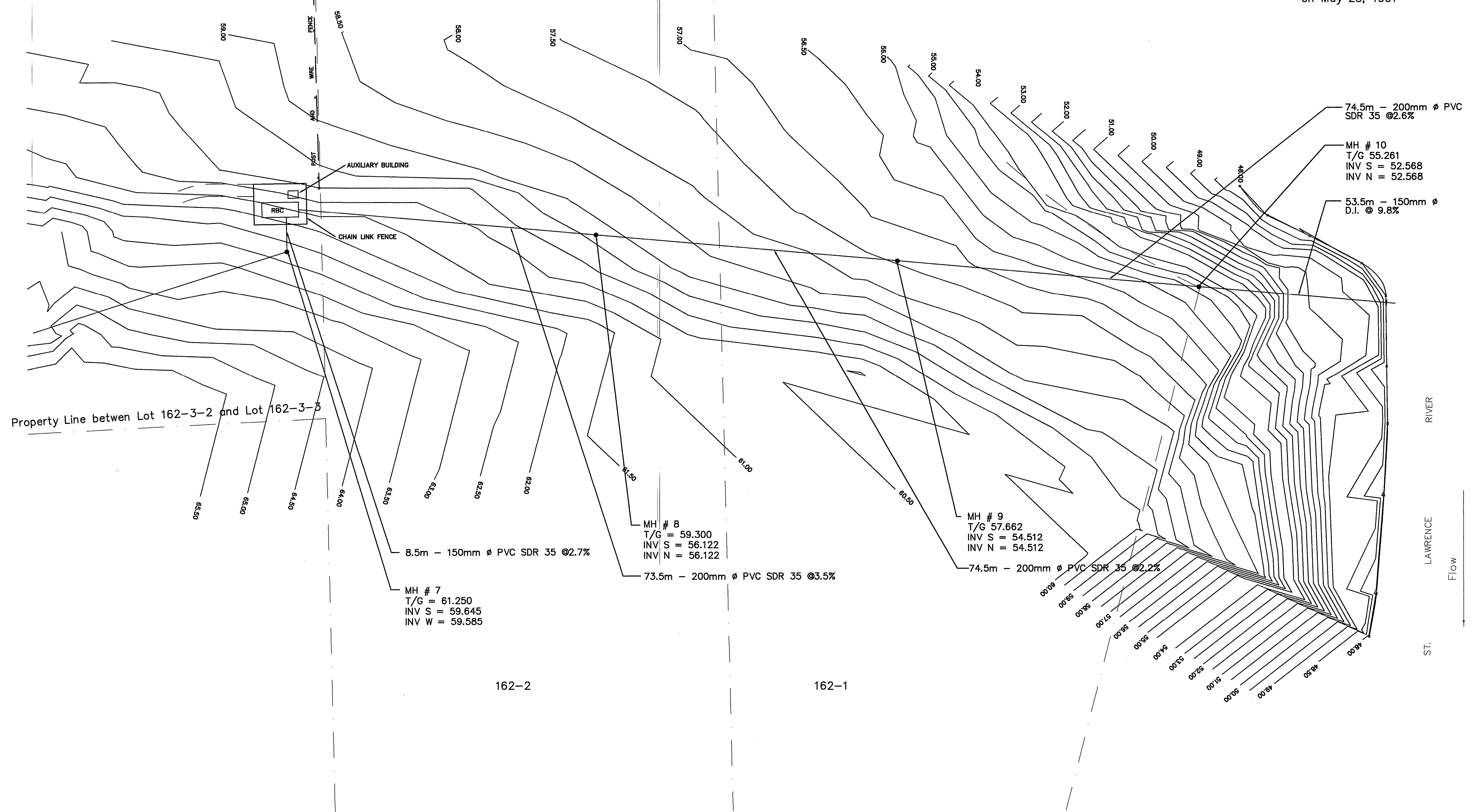
M. S. THOMPSON & ASSOCIATES LTD.

CONSULTING ENGINEERS

CORNWALL, ONT.

PROJECT CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK SCHOOL, BUSINESS MALL & REHABILITATION FACILITY			
DWG. TITLE PROPOSED SANITARY SEWER LAYOUT (FROM MH 5 TO RBC)			
SCALE	Horizontal Vertical	1:500	File No. C-91050
			Drawing No. 2

Water Elevation 47.87 m
on May 23, 1991



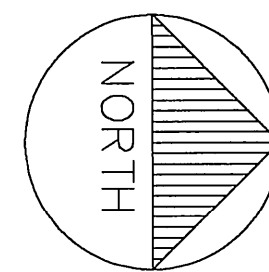
NOTES
SURVEY BY GADBOIS TECHNICAL SERVICES

THE LEGAL SURVEY INFORMATION SHOWN ON THESE PLANS ARE FOR ILLUSTRATION PURPOSES ONLY.
MORE DETAILED LEGAL SURVEY INFORMATION CAN BE OBTAINED BY CONSULTING THE APPROPRIATE DOCUMENTS

THE ELEVATIONS SHOWN ON THESE PLANS ARE GEODETIC AND REFERRED TO GEODETIC SURVEYS OF CANADA
BENCH MARK 68U417. ELEV. 70.669 m

No.	BY	DATE	REVISION
1	KB	27/01/92	AS BUILT
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOBSITE			

designed by
K. BAKER/G. WALSH
drawn by
K. BAKER
checked by
G. WALSH
date checked
JUNE 14, 1991



**M. S. THOMPSON &
ASSOCIATES LTD.**
CONSULTING ENGINEERS
CORNWALL, ONT.

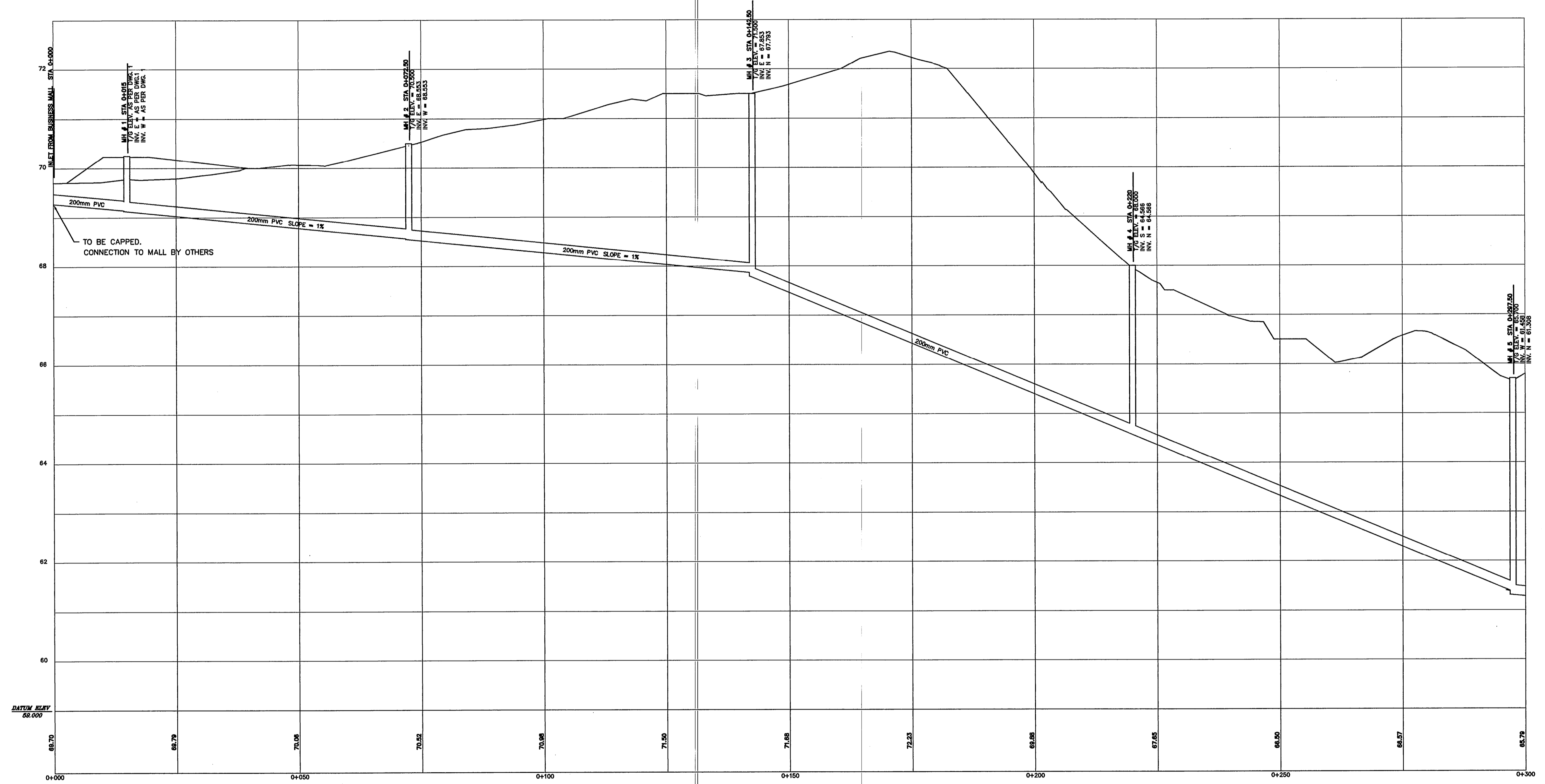
PROJECT
**CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK
SCHOOL, BUSINESS MALL & REHABILITATION FACILITY**

DWG. TITLE
**PROPOSED SANITARY SEWER LAYOUT
(FROM RBC TO MH 10)**

SCALE Horizontal 1:500
Vertical

File No.
C-91050

Drawing No.
3



NOTES

SURVEY BY GADBOIS TECHNICAL SERVICES

THE LEGAL SURVEY INFORMATION SHOWN ON THESE PLANS ARE FOR ILLUSTRATION PURPOSES ONLY. MORE DETAILED LEGAL SURVEY INFORMATION CAN BE OBTAINED BY CONSULTING THE APPROPRIATE DOCUMENTS

THE ELEVATIONS SHOWN ON THESE PLANS ARE GEODETIC AND REFERRED TO GEODETIC SURVEYS OF CANADA BENCH MARK 68U417. ELEV. 70.669 m

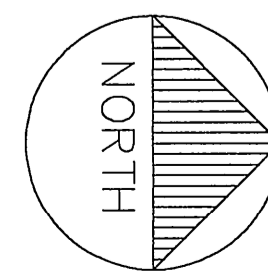
No.	BY	DATE	REVISION
1	KB	JUNE 24, 91	CHANGES IN ELEVATION TO MANHOLES 4 AND 5
2	KB	MAY 1992	AS BUILT
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOBSITE			

designed by
K. BAKER/G. WALSH

drawn by
K. BAKER

checked by
G. WALSH

date checked
JUNE 14, 1991



M. S. THOMPSON & ASSOCIATES LTD.

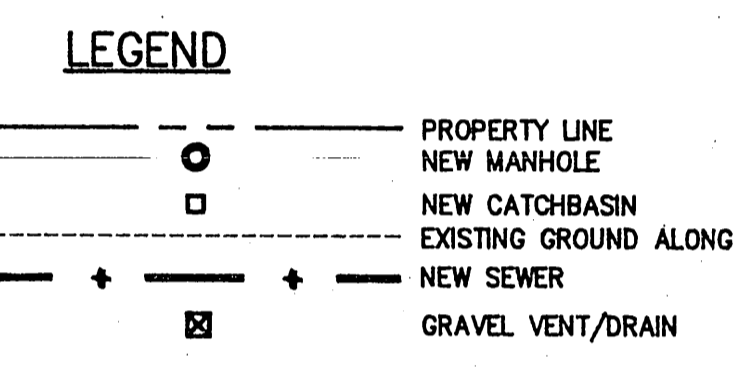
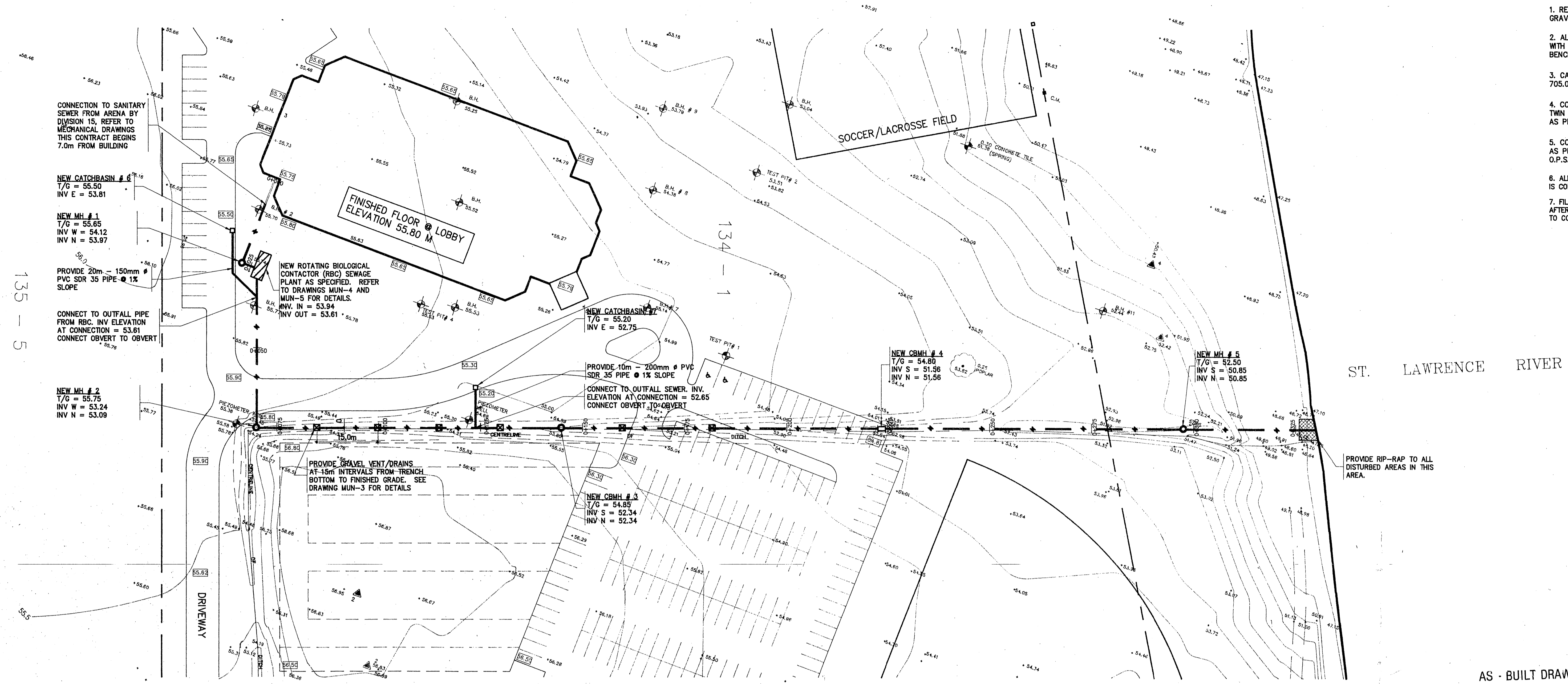
CONSULTING ENGINEERS

CORNWALL, ONT.

PROJECT CORNWALL ISLAND S.T.P. FOR AKWESASNE MOHAWK SCHOOL, BUSINESS MALL & REHABILITATION FACILITY			
DWG. TITLE PROPOSED SANITARY SEWER PROFILES (FROM MH 1 TO MH 5)			
SCALE	Horizontal 1:500 Vertical 1:50	File No. C-91050	Drawing No. 4

NOTES

1. REFER TO DRAWING MUN-3 FOR TRENCH DETAIL AND GRAVEL VENT/DRAIN DETAIL.
2. ALL MANHOLES TO BE AS PER O.P.S.D. 1001.01 WITH COVERS AS PER O.P.S.D. 401.01 TYPE "A" AND BENCHING AS PER O.P.S.D. 1004.01
3. CATCHBASINS # 6 AND # 7 TO BE AS PER O.P.S.D. 705.02 WITH COVERS AS PER O.P.S.D. 400.02
4. COMBINED CATCHBASIN MANHOLE # 4 TO BE A PRE-CAST TWIN INLET CATCHBASIN AS PER O.P.S.D. 705.01 WITH COVERS AS PER O.P.S.D. 400.02
5. COMBINED CATCHBASIN MANHOLE # 3 TO BE AS MANHOLE AS PER O.P.S.D. 1001.01 WITH A CATCHBASIN COVER AS PER O.P.S.D. 400.02
6. ALL EXCAVATION MUST BE DEWATERED UNTIL BACKFILLING IS COMPLETED. ALL BACKFILL TO BE COMPACTED TO 100% SPD.
7. FILL RBC TO OPERATING LEVEL WITH WATER IMMEDIATELY AFTER PLACING ON CONCRETE PAD AND SECURING ANCHOR BOLTS TO COUNTER FLOATION FORCES.



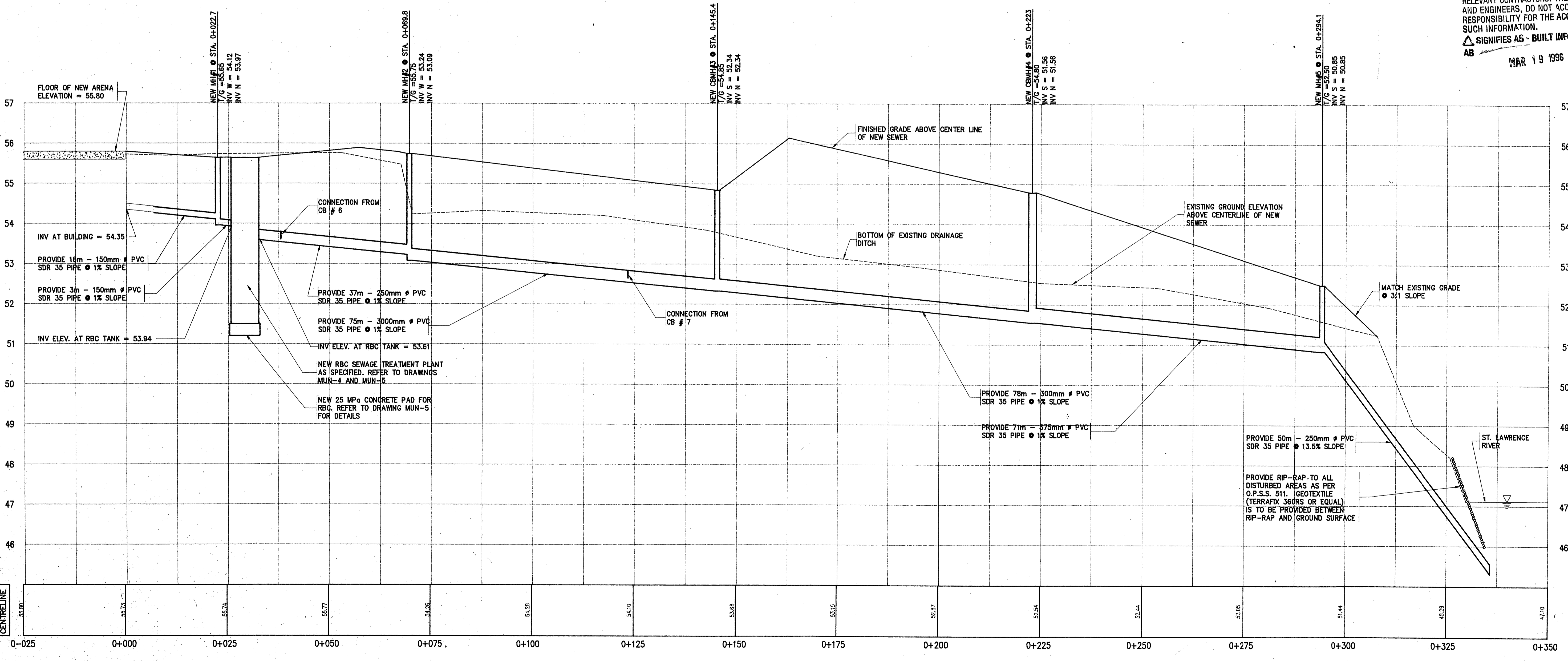
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AS SIGNIFIES AS - BUILT INFORMATION

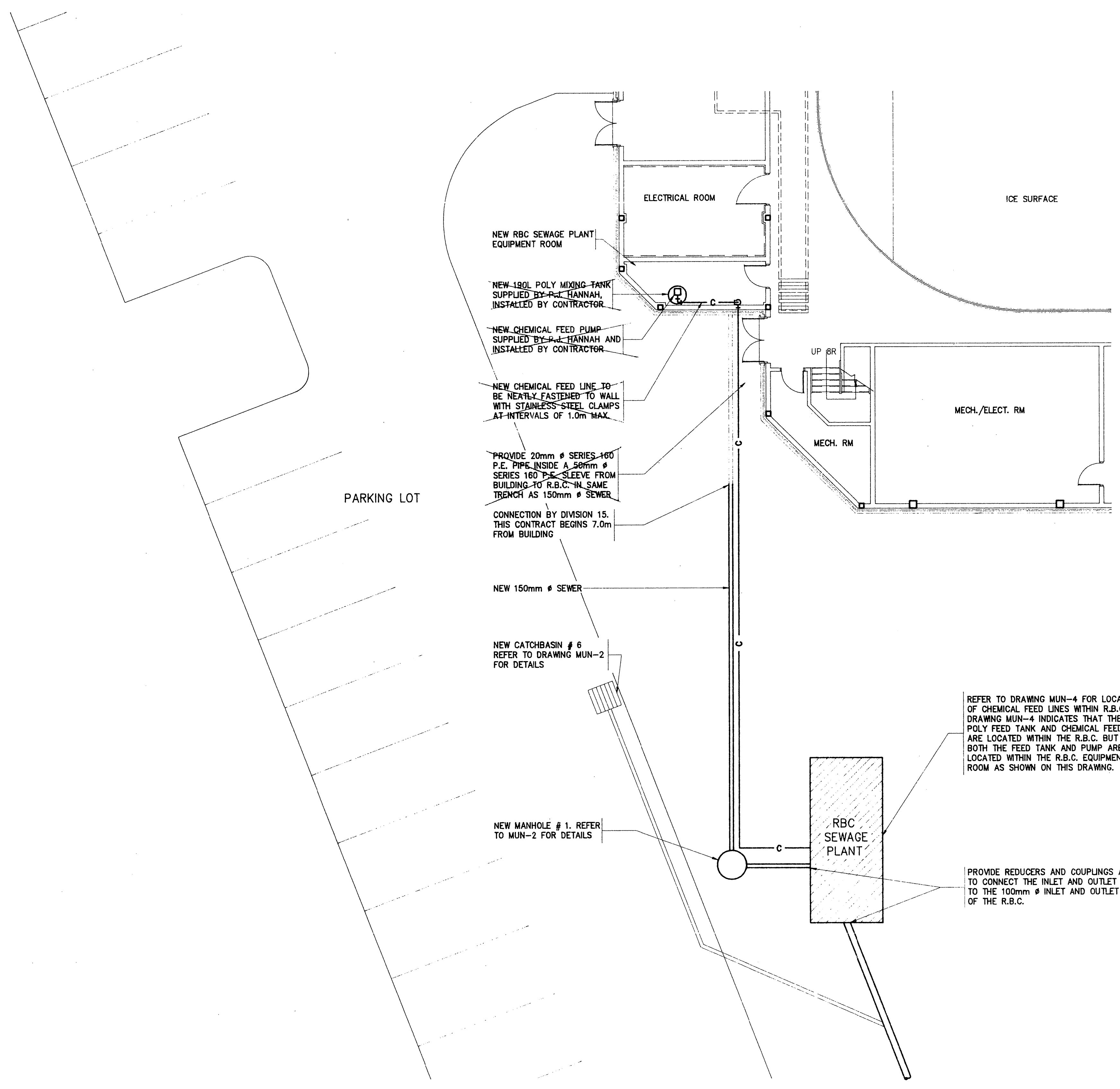
MAR 19 1996

- BELL TELEPHONE BURIED CABLE
- BELL TELEPHONE PEDESTAL
- C.S.P. CORRUGATED STEEL PIPE
- OVERHEAD TRANSMISSION LINES
- UTILITY POLE
- ANCHOR BOLT
- CENTRELINE OF DRAINAGE COURSE
- C.L.S.R. CANADA LANDS SURVEY RECORDS
- BOREHOLE OR TESTHOLE
- T.B.M. TEMPORARY BENCH MARK
- SURVEY CONTROL TRAVERSE POINT
- I.B. IRON BAR 15mm SQUARE
- S.I.B. STANDARD IRON BAR 25mm SQUARE
- C.M. CONCRETE MONUMENT
- R.I.B. ROUND IRON BAR 15mm DIAMETER

DATE	19 1996	AS CALS-RECORDED
REVISION	No.	
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOB SITE		
scale	1:500	job no. -01181
date	JUNE 1994	drawing no.
drawn by	K. BAKER	MUN-2
checked by	G. WALSH	
PROJECT AKWESASNE ARENA		
CORNWALL ISLAND ONTARIO		
TITLE PLAN AND PROFILE SANITARY SEWER AND COMBINED SEWER OUTFALL		
ROSEMOUNT DESIGN GROUP LTD. ARCHITECT & CONSULTING ENGINEERS CORNWALL, ONTARIO		



DATUM ELEV
45.00



ELECTRICAL ROOM

ICE SURFACE

NEW RBC SEWAGE PLANT EQUIPMENT ROOM

NEW 150L POLY MIXING TANK SUPPLIED BY P.C. HANNAH, INSTALLED BY CONTRACTOR.

NEW CHEMICAL FEED PUMP SUPPLIED BY P.C. HANNAH AND INSTALLED BY CONTRACTOR.

NEW CHEMICAL FEED LINE TO BE NEATLY FASTENED TO WALL WITH STAINLESS-STEEL CLAMPS AT INTERVALS OF 1.0m MAX.

PROVIDE 20mm # SERIES-100 P.E. PIPE INSIDE A 50mm # SERIES 100 T.P.C. SLEEVE FROM BUILDING TO R.B.C. IN SAME TRENCH AS 150mm # SEWER.

CONNECTION BY DIVISION 15, THIS CONTRACT BEGINS 7.0m FROM BUILDING

NEW 150mm # SEWER

NEW CATCHBASIN # 6 REFER TO DRAWING MUN-2 FOR DETAILS

NEW MANHOLE # 1. REFER TO MUN-2 FOR DETAILS

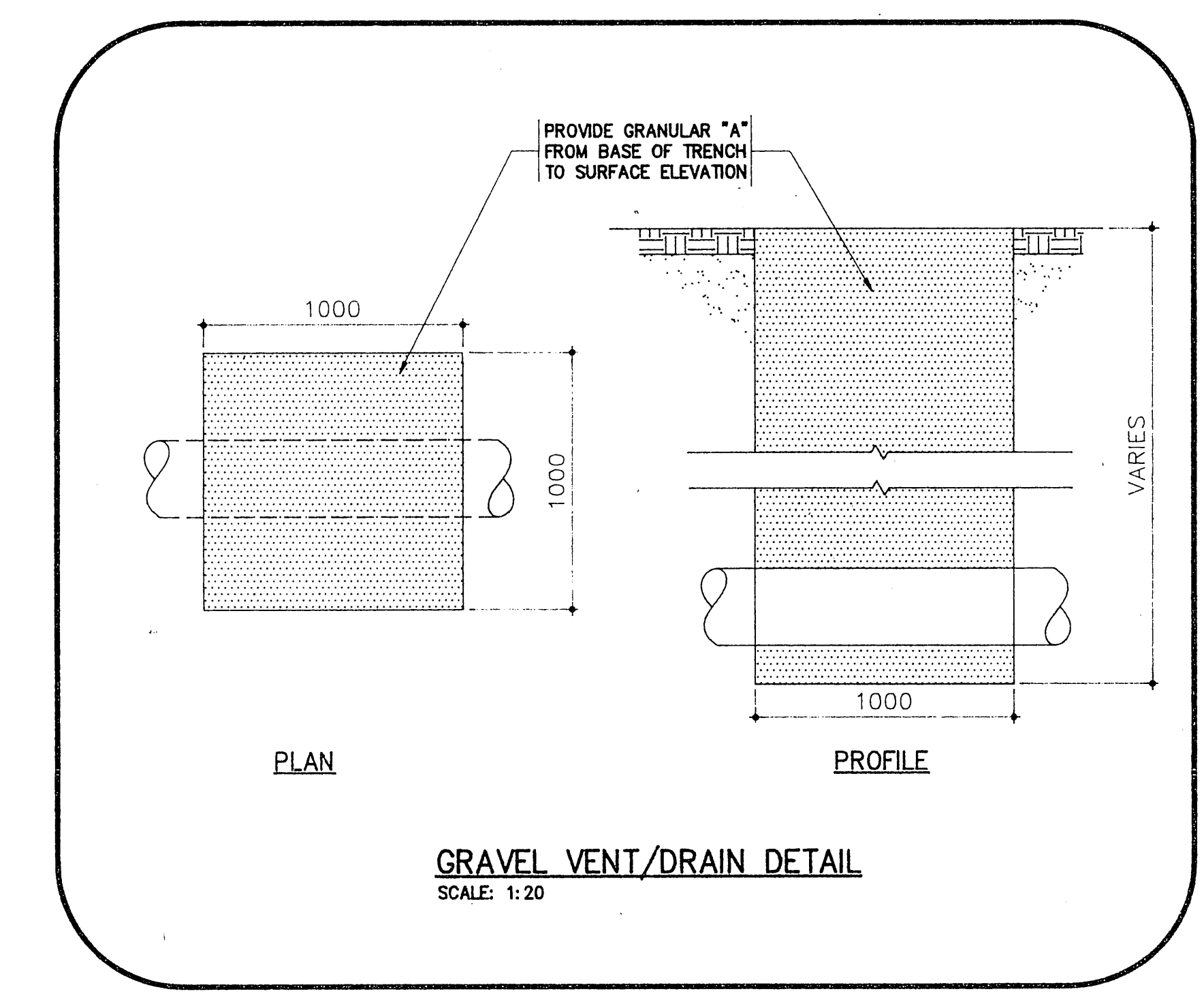
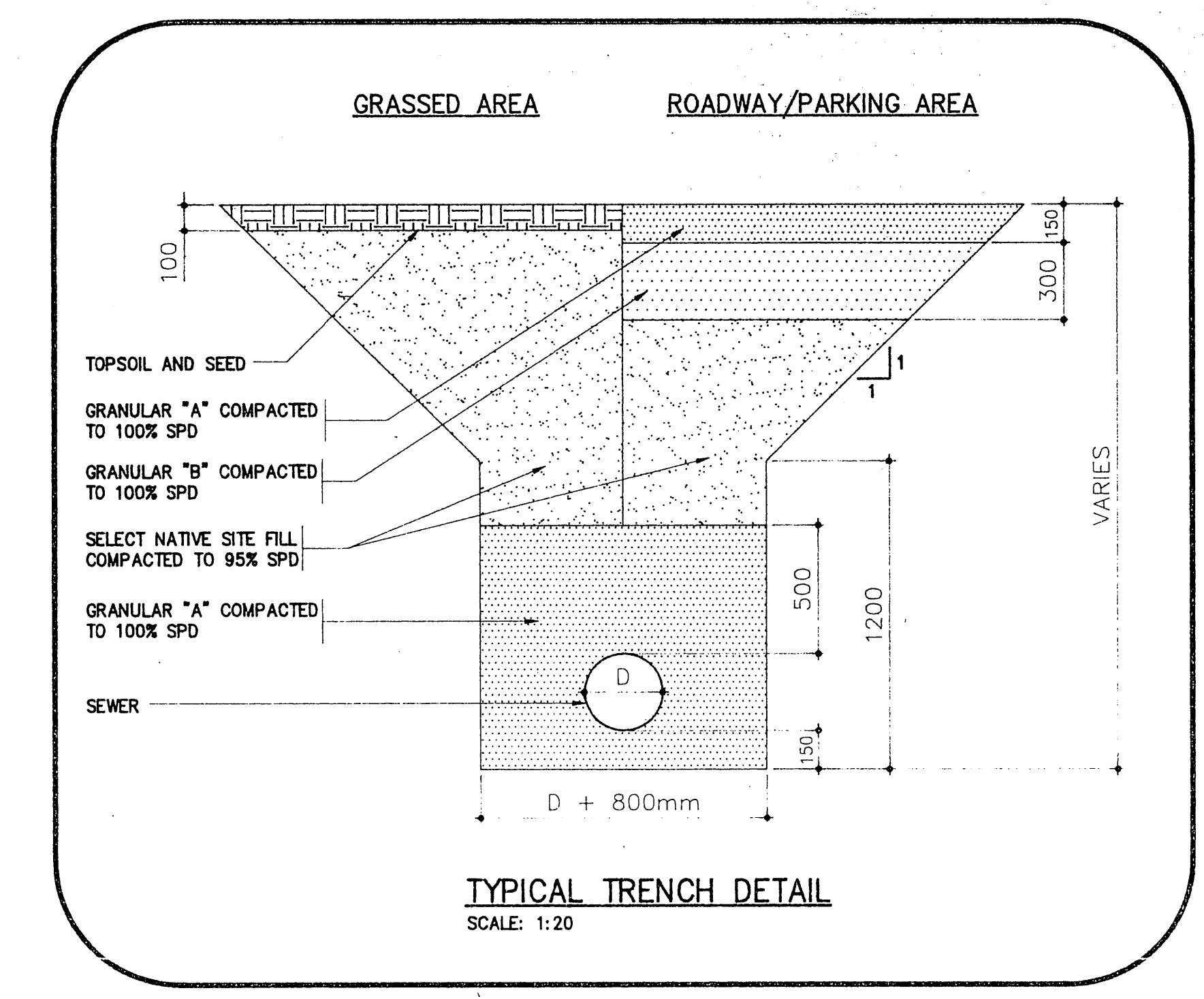
MECH./ELECT. RM

MECH. RM

RBC SEWAGE PLANT

REFER TO DRAWING MUN-4 FOR LOCATION OF CHEMICAL FEED LINES WITHIN R.B.C. DRAWING MUN-4 INDICATES THAT THE POLY FEED TANK AND CHEMICAL FEED PUMP ARE LOCATED WITHIN THE R.B.C. BUT BOTH THE FEED TANK AND PUMP ARE TO BE LOCATED WITHIN THE R.B.C. EQUIPMENT ROOM AS SHOWN ON THIS DRAWING.

PROVIDE REDUCERS AND COUPLINGS AS REQUIRED TO CONNECT THE INLET AND OUTLET SEWERS TO THE 100mm # INLET AND OUTLET SUBS OF THE R.B.C.



DATE	No.	REVISION
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOB SITE		
scale	1:100	job no. 91181
date	JULY 1994	drawing no.
drawn by	K.BAKER	MUN-3
checked by	G.WALSH	
PROJECT AKWESASNE ARENA		
CORNWALL ISLAND ONTARIO		
TITLE SBR EQUIPMENT ROOM PLAN DETAILS		
ROSEMOUNT DESIGN GROUP LTD. ARCHITECT & CONSULTING ENGINEERS CORNWALL, ONTARIO		

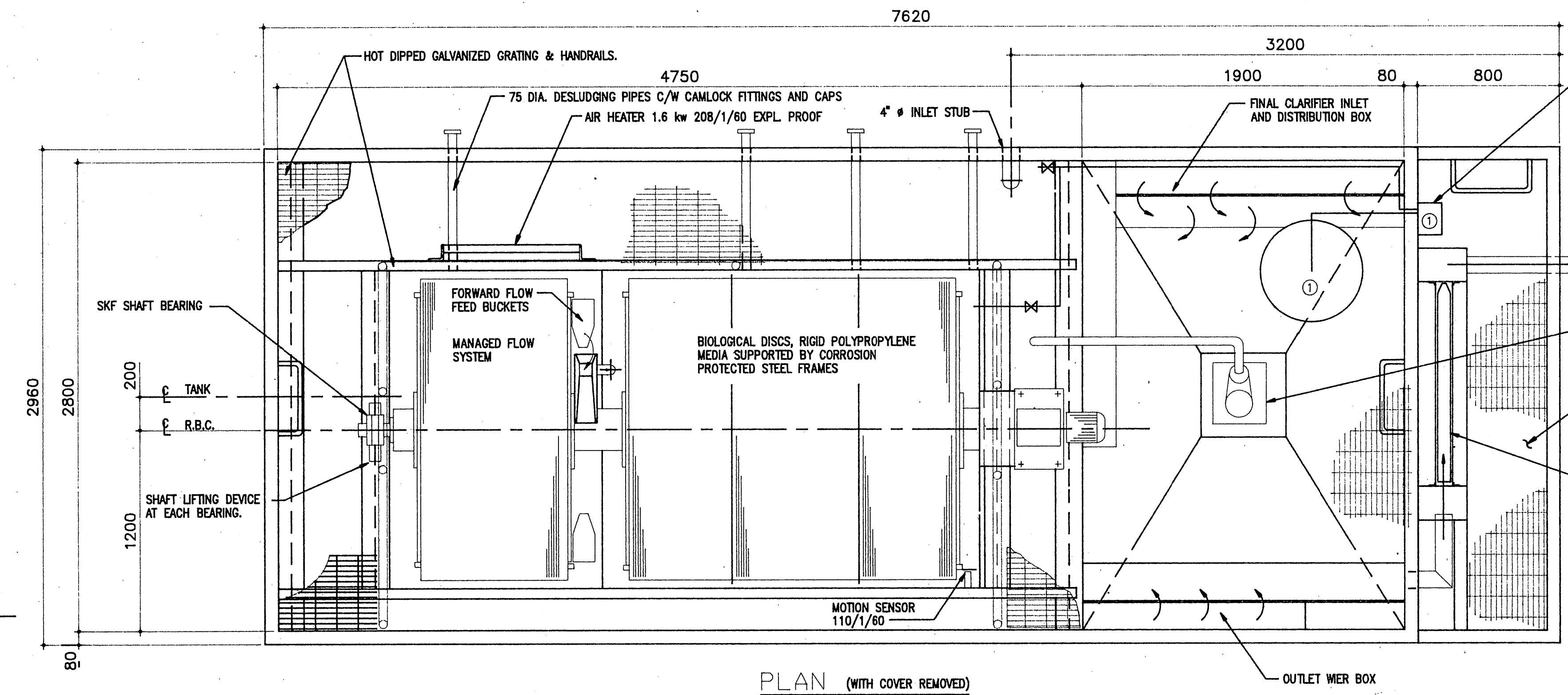
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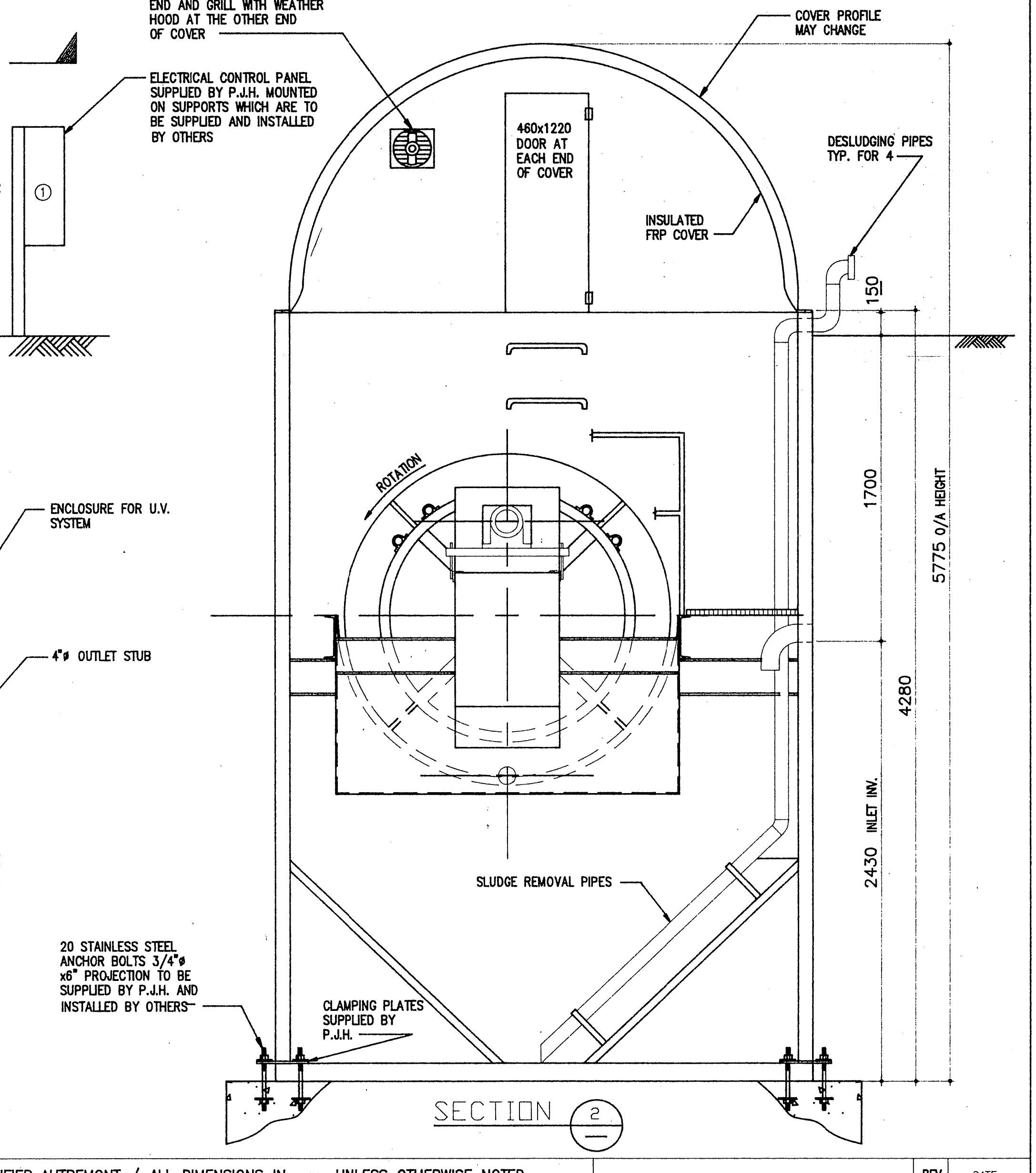
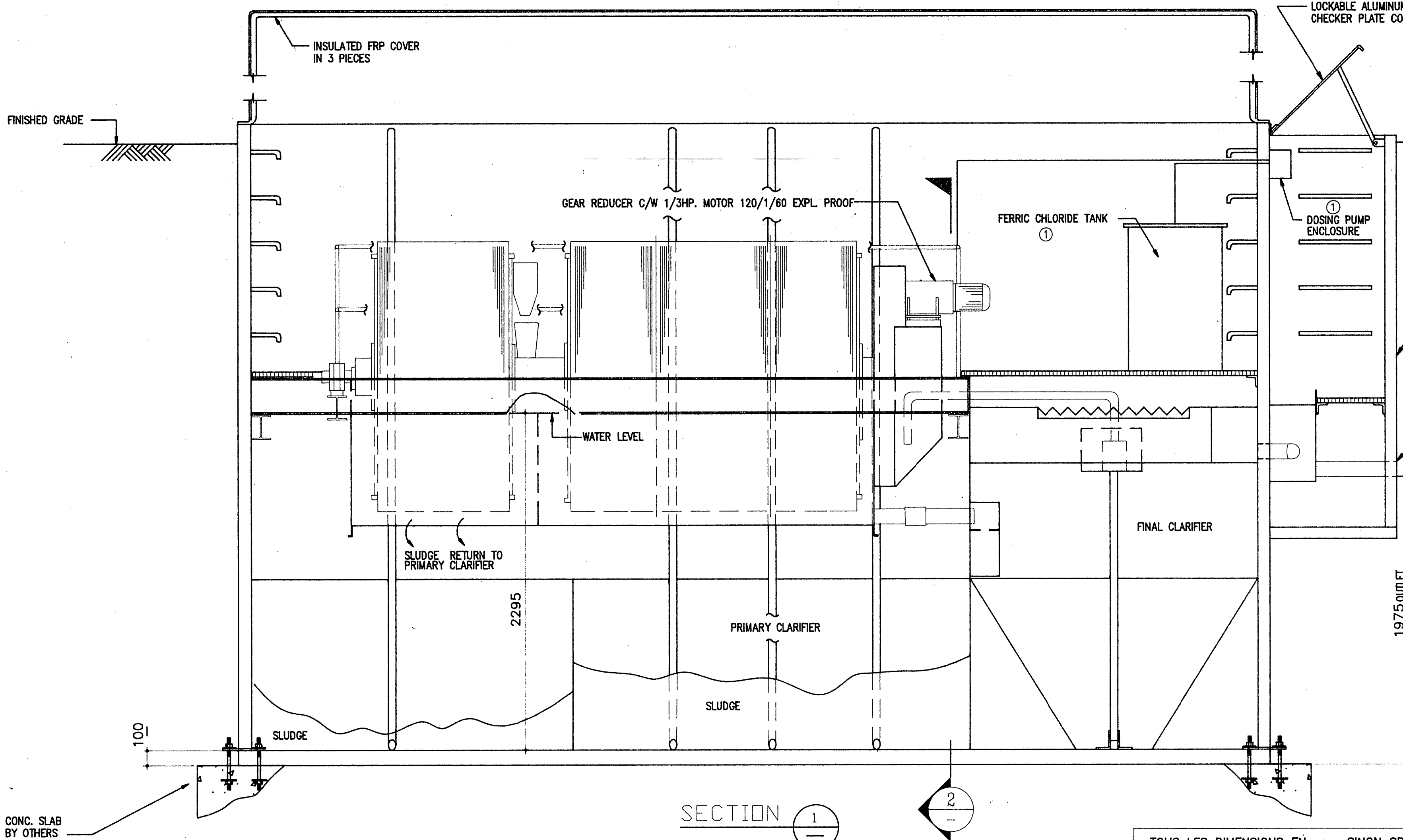
AB SIGNIFIES AS - BUILT INFORMATION

MAR 19 1996

MUN-3 14/07/94 08:15



CRITERES DE CONCEPTION		DESIGN CRITERIA	
DEBIT JOURNALIER MOYEN	SOURCE: EGOUT DOMESTIQUE	AVERAGE DAILY FLOW	30 M ³ /DAY (JOUR)
DEBIT DE POINTE	AFFLUENT DBO TOTALE: ETE	PEAK FLOW	3.75 M ³ /H
AFFLUENT DBO SEDIMENTE	AFFLUENT SOLIDES EN SUSPENSION	INFLUENT BOD SETTLED (EST)	4.2 KG/DAY (JOUR)
EFFLUENT DBO	EFFLUENT SOLIDES EN SUSPENSION	EFFLUENT BOD	6 KG/DAY (JOUR)
TEMPERATURE		EFFLUENT SUSPENDED SOLIDS	15 (AVG.) MG/L
		TEMPERATURE	15 (AVG.) C MIN.
			21 C MAX.
DIA. DU DISQUE BIOLOGIQUE	SURFACE DU DISQUE BIOLOGIQUE	BIO SUPPORT MEDIA DIA.	1.85 M
CHARGE APPLIQUEE SUR LES DISQUES:		BIO SUPPORT MEDIA AREA	857 M ²
		DISC LOADING: SUMMER	4.9 GM/M ²
		DISC LOADING: WINTER	
DECANTEUR PRIMAIRE		PRIMARY CLARIFIER	
CAPACITE INCLUANT LES BOUES	CAPACITE D'EMMAGASINEMENT DES BOUES	CAPACITE INCLUANT LES BOUES	23 M ³
RETENTION DES BOUES	RETENTION DES BOUES	SLUDGE STORAGE CAPACITY	10.4 M ³
SETTE RETENTION EST BASEE SUR UNE	PRODUCTION DE BOUES DE 5 KG EN BOUES/	SLUDGE STORAGE TIME	180 DAYS (JOUR)
	1.0 KG DBO CONCENTRE A 5%	THIS TIME BASEE SUR UNE	
		PRODUCTION DE 5 KG SLUDGE/	
		1.0 KG DBO @ 5% SOLIDS	
DECANTEUR SECONDAIRE		FINAL CLARIFIER	
CAPACITE INCLUANT LES BOUES	CAPACITE D'EMMAGASINEMENT DES BOUES	CAPACITE INCLUANT LES BOUES	5.7 M ³
ARE DU SURFACE	ARE DU SURFACE	SLUDGE STORAGE CAPACITY	5.3 M ³
		SURFACE AREA	



PATENT PENDING

DONNEE DE PROPRIETE
 CE DESSIN EST EMPRUNTE AVEC LA CONCORDANCE EXPRESSE QUE L'INFORMATION Y INCLUS ET LE DESSIN MEME APPARTIENNENT A P.J. HANNAH EQUIPMENT SALES CORP. ET NE SERONT PAS COPIES, REPRODUITS NI REVELES A D'AUTRES PERSONNES, ET NE SERONT PAS UTILISES DIRECTEMENT OU INDIRECTEMENT POUR LA CONSTRUCTION DES APPARELS OU DES ELEMENTS DES APPARELS, SAUF AVEC LE PERMIS ECRIT DE P.J. HANNAH EQUIPMENT SALES CORP. VOTRE CONSENTEMENT A RECEVOIR CE DESSIN SERVIRA COMME VOTRE CONSENTEMENT DE LA CONCORDANCE PRECEDENTE.

PROPRIETARY DATA
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TOUS LES DIMENSIONS EN mm. SINON SPECIFIER AUTREMENT / ALL DIMENSIONS IN mm. UNLESS OTHERWISE NOTED

CONSULTANT	M.S. THOMPSON AND ASSOCIATES LTD.	DATE	94/06/30
PROJECT	CORNWALL ISLAND REC. CENTRE	SCALE	1:20
OUR REF. #	TK-1865	CHECKED	
YOUR REF. #	91181	VERIFIED	
VOTRE REF. #		APPROVED	

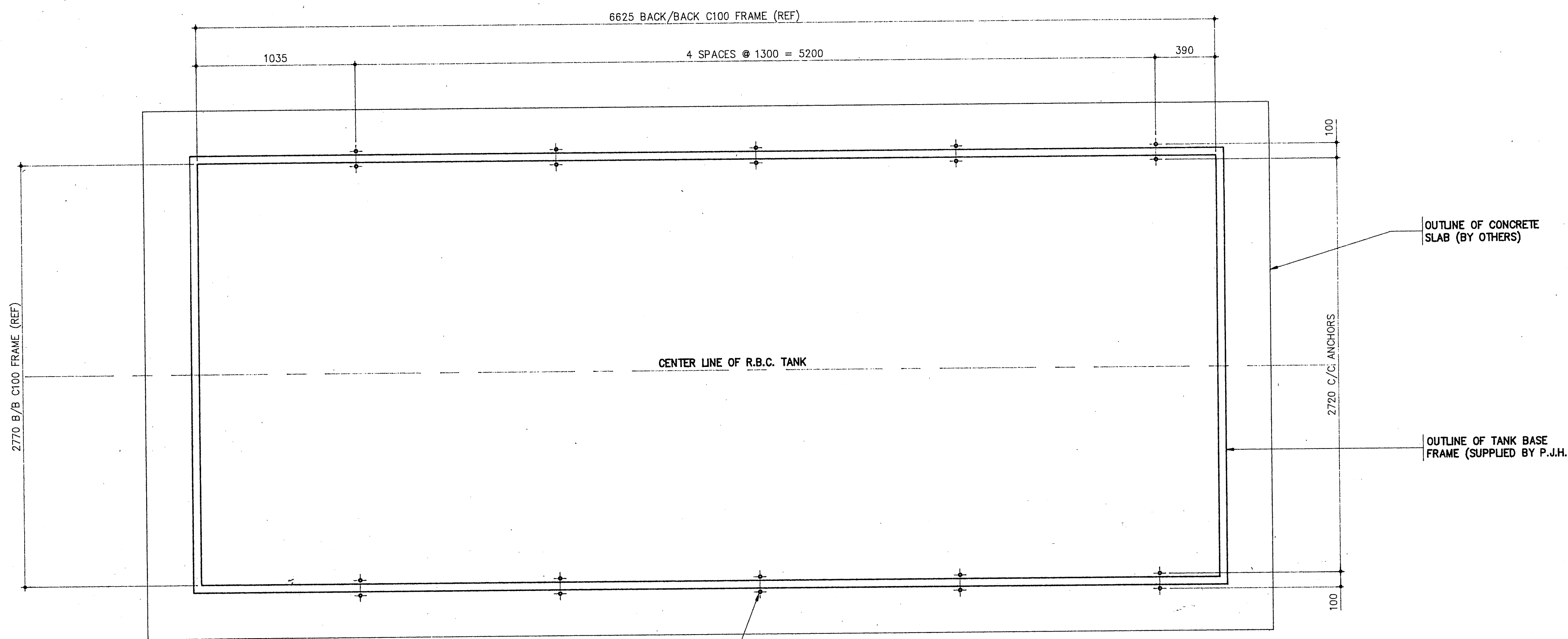
GENERAL ARRANGEMENT
KLARGESTER ROTOPACK MODEL B8BF BFP

PJ HANNAH
 EQUIPMENT SALES CORP.
 VANCOUVER CALGARY TORONTO MONTREAL
 Specialists in pollution control

DRG. NO. / DESSIN: TK1865/7908

BUILT DRAWINGS
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 SIGNIFIES AS - BUILT INFORMATION
 MAR 19 1996

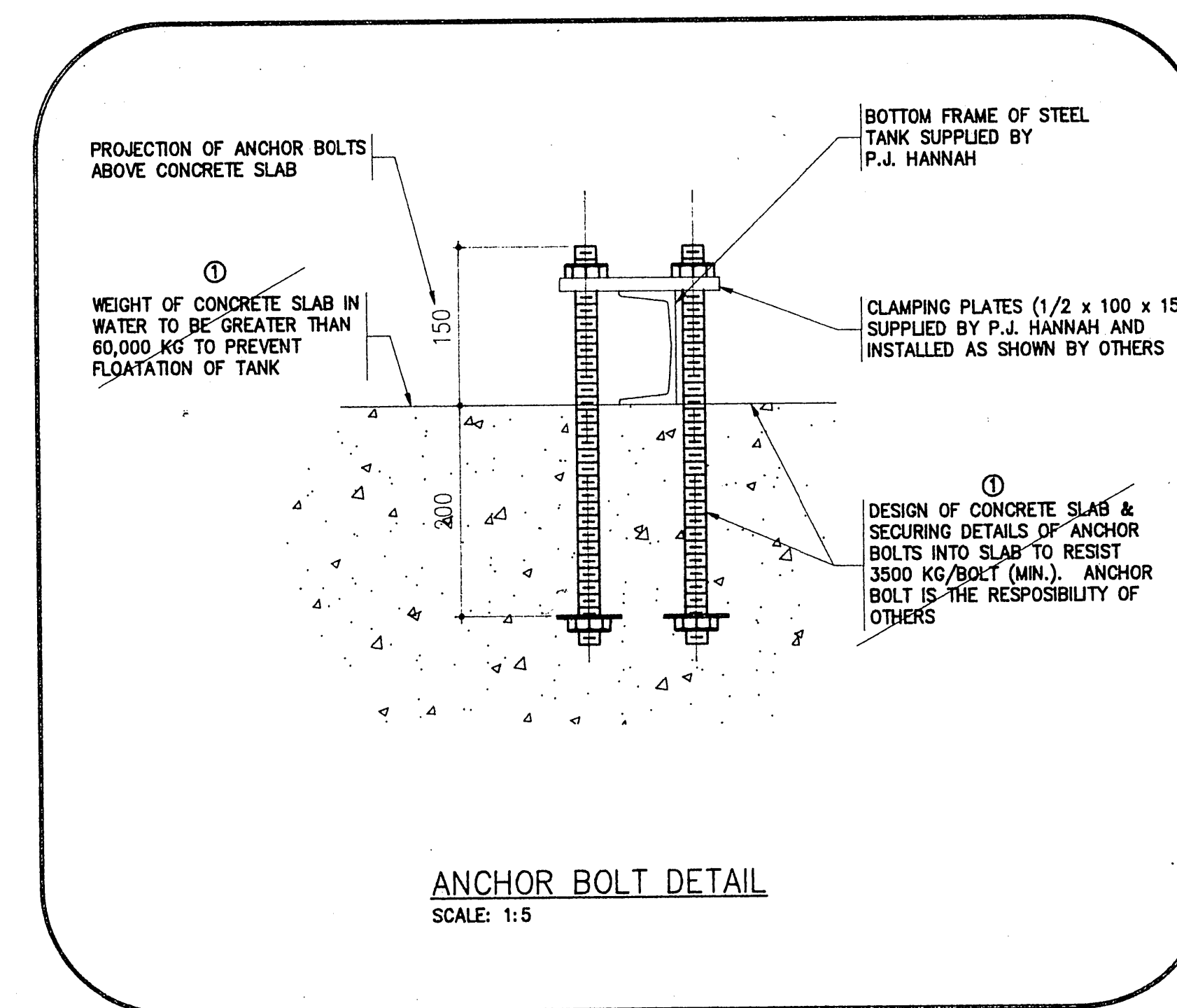
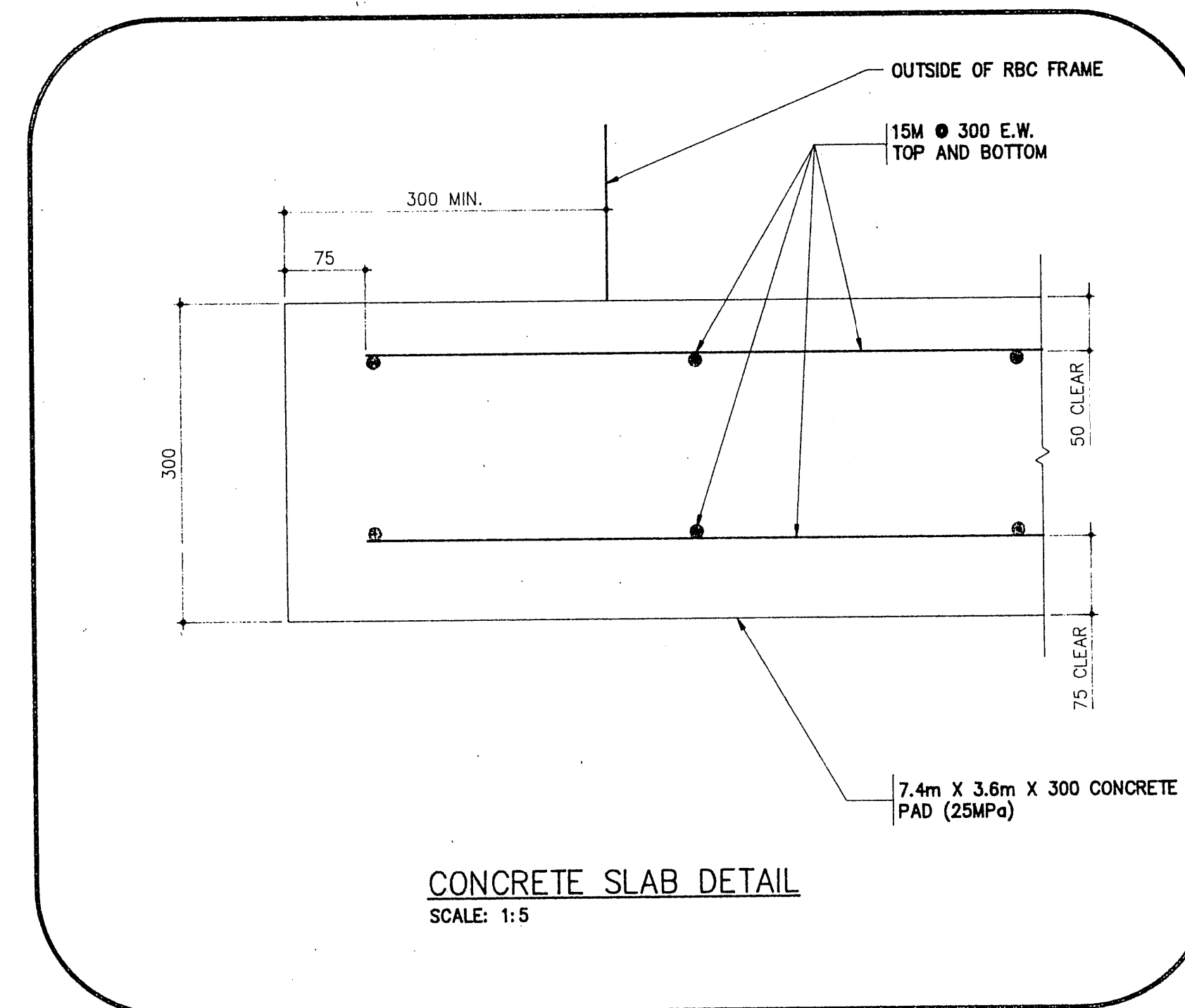
07-12-94	1	TO BE LOCATED IN ARENA
DATE	No.	REVISION
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOB SITE		
scale	1:20	job no. 91181
date	JULY 1994	drawing no.
drawn by	MUN-4	
checked by		
PROJECT AKWESASNE ARENA		
CORNWALL ISLAND ONTARIO		
TITLE ROTATING BIOLOGICAL CONTACTOR - GENERAL ARRANGEMENT		
ROSEMOUNT DESIGN GROUP LTD. ARCHITECT & CONSULTING ENGINEERS CORNWALL, ONTARIO		



WEIGHT OF DRY TANK W/ MODULE = 9200 KG
 MAXIMUM UP LIFT ON PLANT WITH WATER
 TABLE ASSUMED AT 300mm BELOW T.O TANK
 68200 KG - 9200 KG = 59000 KG

PULL OUT FORCE ON EACH BOLT = 2950 KG
 ANCHOR BOLTS TO BE DESIGNED TO
 EACH RESIST 3500 KG PULL OUT FORCE

STAINLESS STEEL THREADED ROD AS ANCHOR BOLTS 3/4" x 6" PROJECTION C/W NUT, WASHER, LOCK WASHER. 20 REQUIRED. THESE ANCHOR BOLTS ARE SUPPLIED BY P.J. HANNAH AND INSTALLED AS SHOWN BY OTHERS



AS - BUILT DRAWINGS
 BUILT INFORMATION SHOWN ON THESE DRAWINGS HAS BEEN RECORDED FROM INFORMATION PROVIDED BY THE RELEVANT CONTRACTORS. THE ARCHITECTS AND ENGINEERS, DO NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY OF SUCH INFORMATION.
 ▲ SIGNIFIES AS BUILT INFORMATION
 MAR 19 1995

07-12-94	1	P.J. HANNAH NOTE DELETED
DATE	No.	REVISION
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOB SITE		
scale	1:20	job no. 91181
date	JULY 1994	drawing no. MUN-5
drawn by		
checked by		
PROJECT AKWESASNE ARENA		
CORNWALL ISLAND ONTARIO		
TITLE CONCRETE BASE SLAB AND ANCHOR BOLT LAYOUT FOR RBC STEEL TANK		

DONNÉE DE PROPRIÉTÉ
 CE DESSIN EST EMPRUNTÉ AVEC LA CONCORDANCE EXPRESSE QUE L'INFORMATION Y INCLUS ET LE DESSIN MÊME APPARTIENNENT A P.J. HANNAH EQUIPMENT SALES CORP. ET NE SERONT PAS COPIÉS, REPRODUITS NI REVELES A D'AUTRES PERSONNES, ET NE SERONT PAS UTILISES DIRECTEMENT OU INDIRECTEMENT POUR LA CONSTRUCTION DES APPARELS OU DES ELEMENTS DES APPARELS, SAUF AVEC LE PERMIS ECRIT DE P.J. HANNAH EQUIPMENT SALES CORP. VOTRE CONSENTEMENT A RECEVOIR CE DESSIN SERVIRA COMME VOTRE CONSENTEMENT DE LA CONCORDANCE PRECEDENTE.

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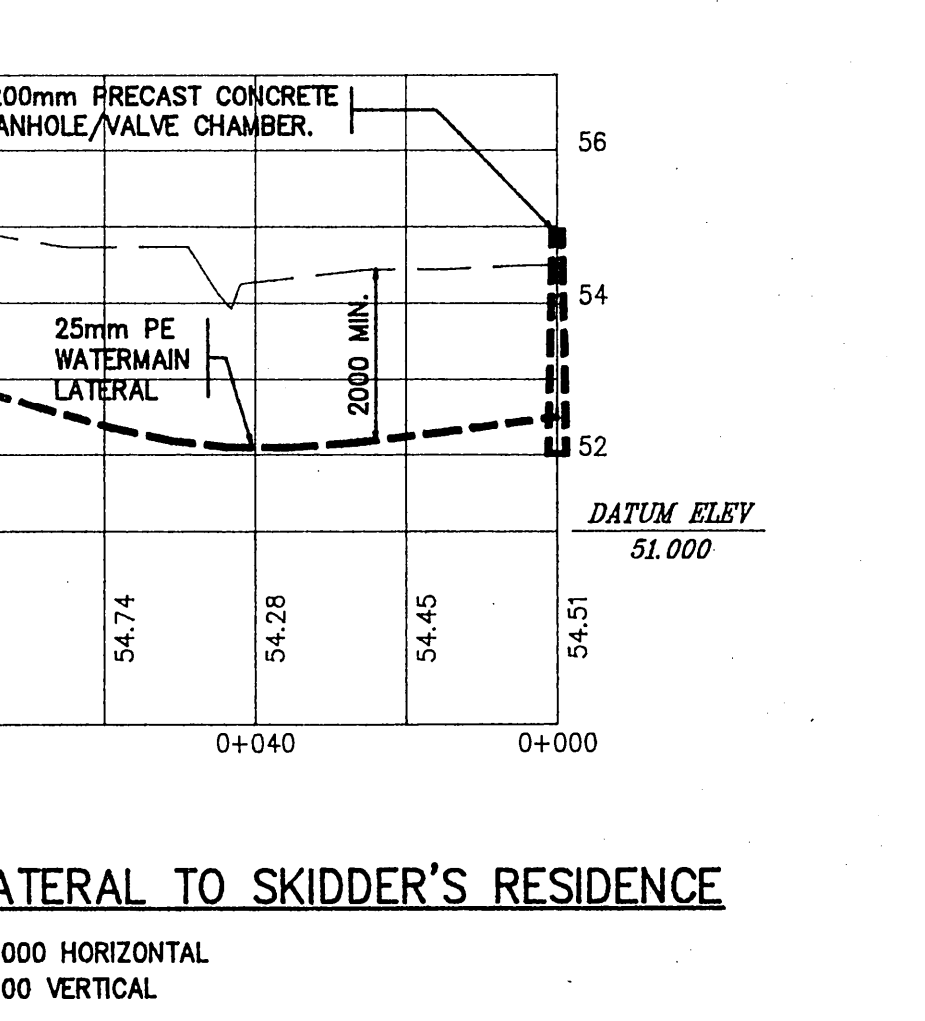
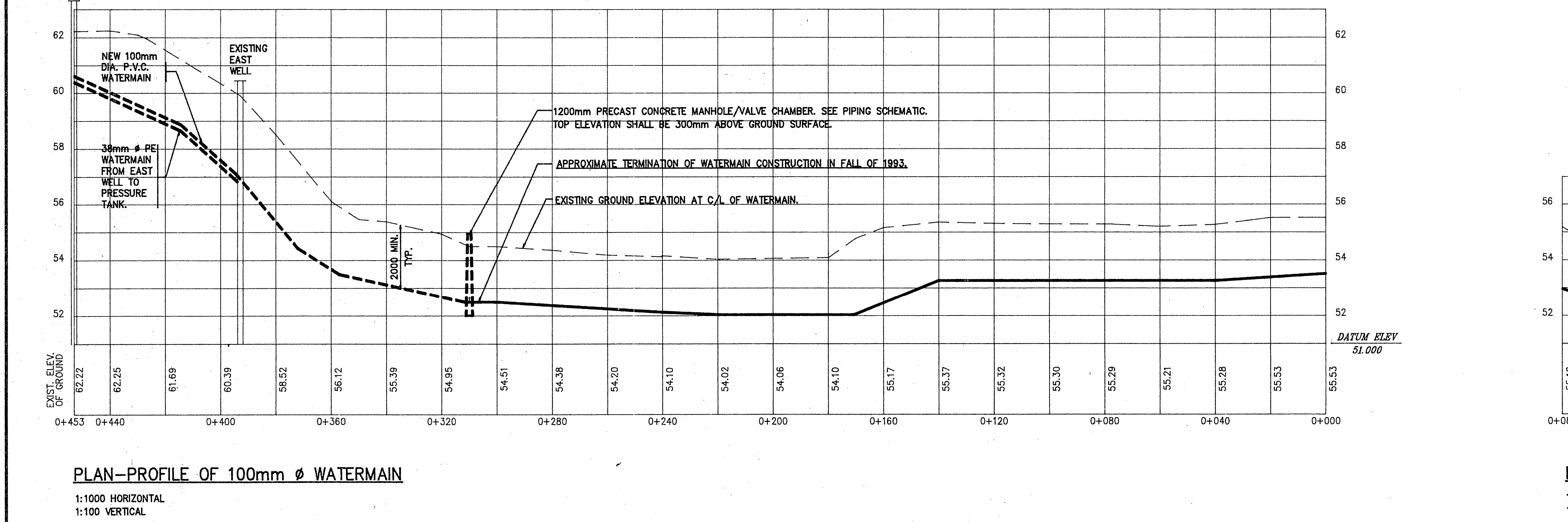
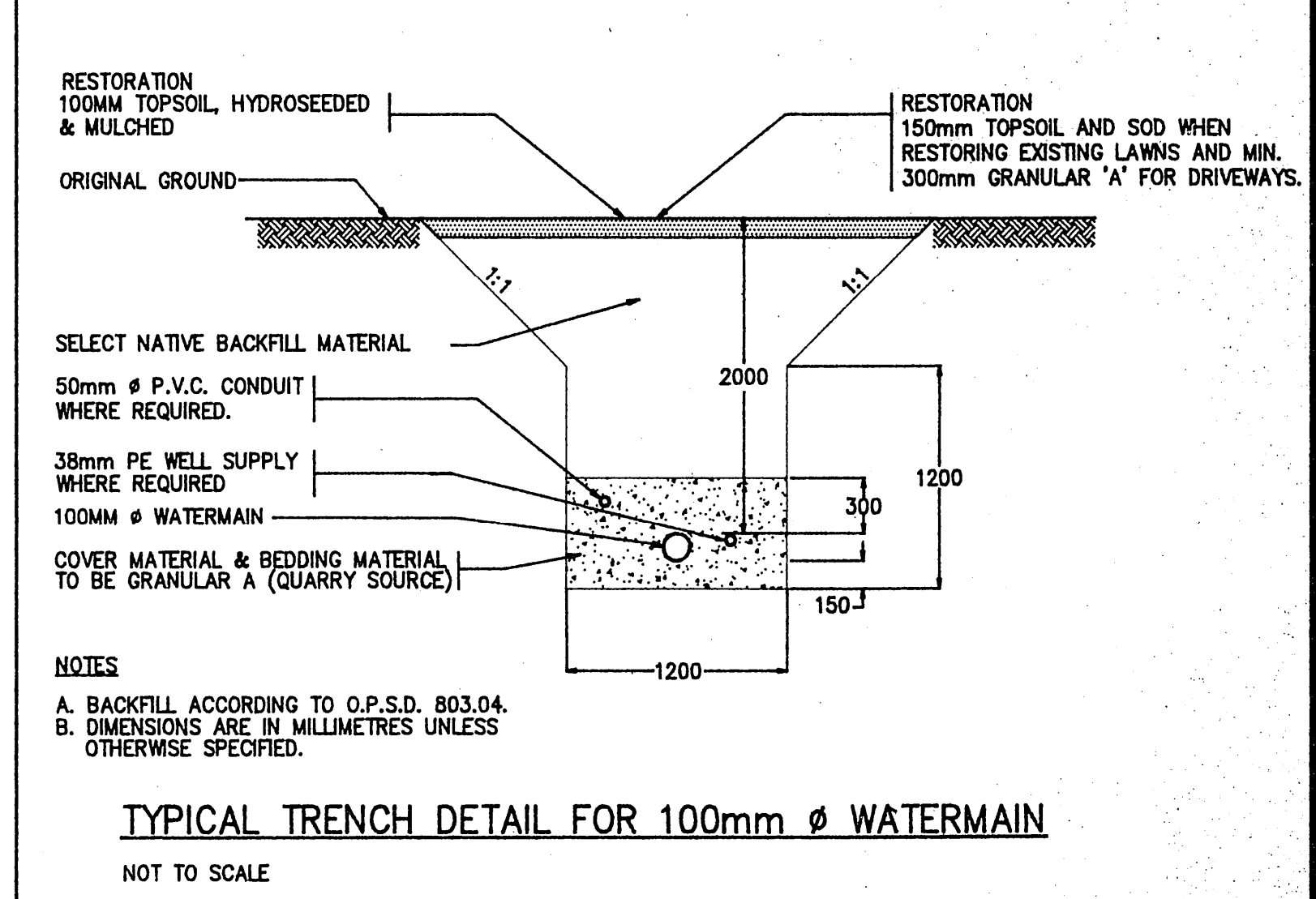
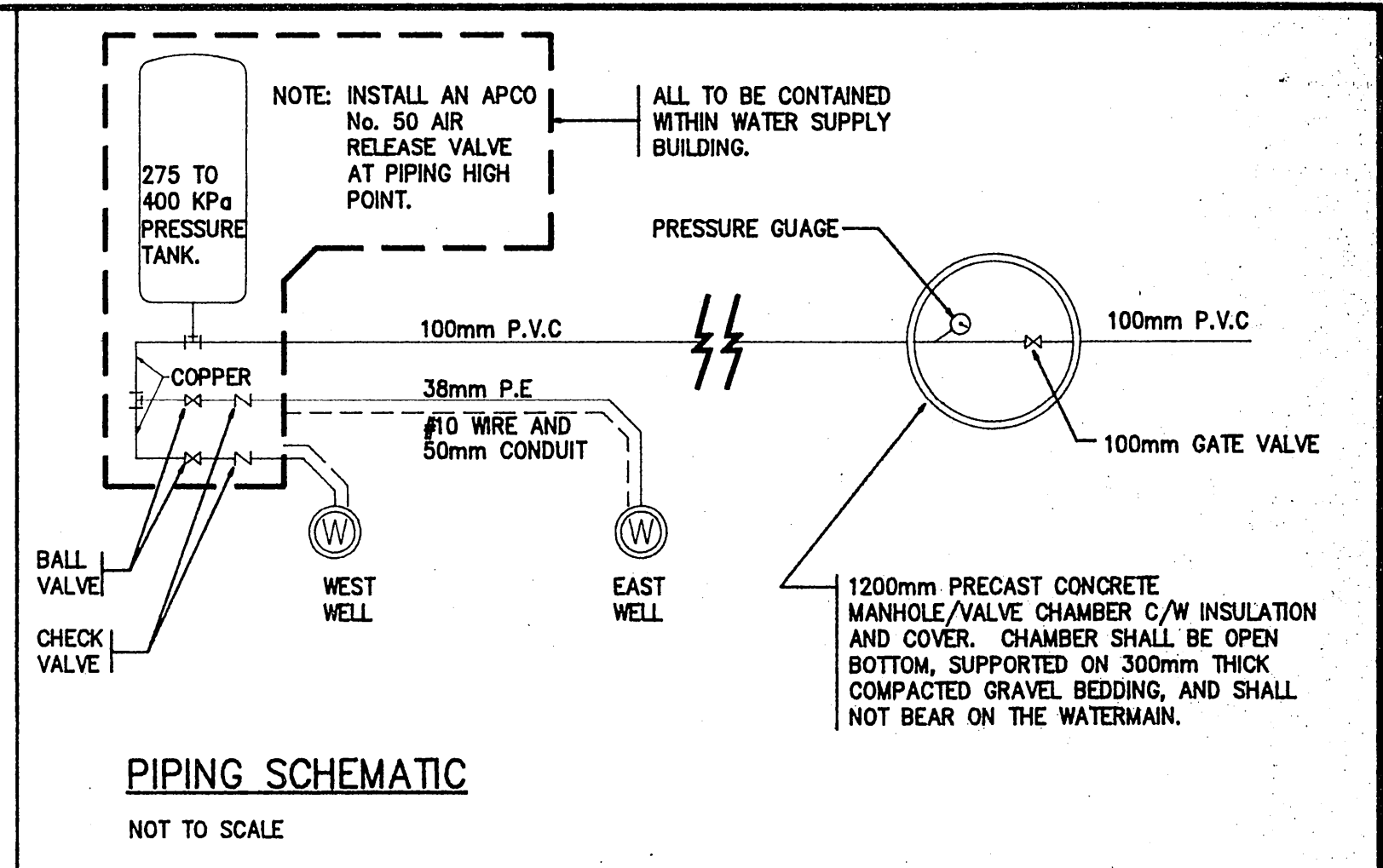
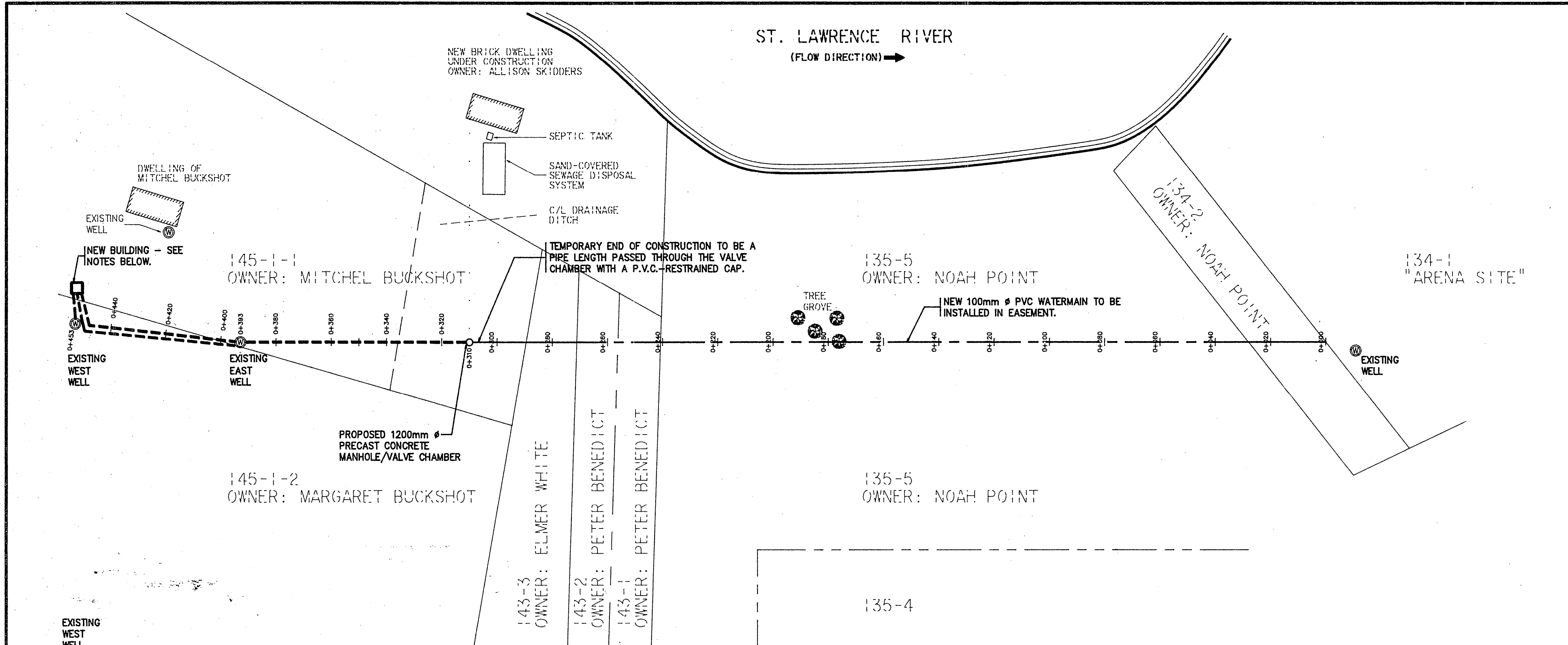
TOUS LES DIMENSIONS EN mm. SINON SPECIFIER AUTREMENT / ALL DIMENSIONS IN mm. UNLESS OTHERWISE NOTED

CONSULTANT M.S. THOMPSON AND ASSOCIATES LTD.
 PROJECT CORNWALL ISLAND REC. CENTRE
 OUR REF. # TK-1865 YOUR REF. # 91181
 NOTRE REF. # VOTRE REF. #
 ANCHOR BOLT LAYOUT FOR R.B.C. STEEL TANK

DRAWN DESSEE DATE SCALE LECHELLE CHECKED VERIFIE APPROVED APPROVE	E.L. 94/06/30 1:20	EQUIPMENT SALES CORP. VANCOUVER CALGARY TORONTO MONTREAL Specialists in pollution control	REV. DATE 8243 1
-------------------------------------------------------------------------------------------	--------------------------	-------------------------------------------------------------------------------------------------	------------------------

MUN-5 14/07/94 CR.35

ROSEMOUNT DESIGN GROUP LTD.
 ARCHITECT & CONSULTING ENGINEERS
 CORNWALL, ONTARIO



NOV. 15, 1994	AS CONSTRUCTED
DATE	No. REVISION
CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE JOB SITE	
scale 1:1000	job no. 91181
date NOVEMBER 1993	drawing no.
drawn by DWP	MUN-1
checked by GAW	

SPECIFICATION
PUMPS, AND PRESSURE CONTROL

SUPPLY AND INSTALL A MYERS PREDATOR II 2JF72-8, 3/4 HORSEPOWER SUBMERSIBLE PUMP IN EACH OF THE TWO WELLS, TOGETHER WITH THE FOLLOWING ACCESSORIES AND OTHER MISCELLANEOUS FITTINGS TO PROVIDE A COMPLETE WORKING SYSTEM, WITH A 40 TO 60 PSI OPERATING PRESSURE, ALL INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.

- 1 MYERS MODEL WR200-02 PRESSURE TANK
- 1 MYERS "TANK PACKAGE" (I.E. AIR CONTROL, PRESSURE SWITCH, PRESSURE GAUGE, CHECK VALVE, AIR VALVE, BLEED BACK VALVE)
- 2 MODEL TA 48 TORQUE ARRESTORS
- 2 MODEL 1840 BRASS PITLESS ADAPTERS
- 2 PITLESS WELL VENTED ADAPTER CAPS WITH NYLON SAFETY ROPE ATTACHED TO SUBMERSIBLE PUMP
- 2 WELL SEALS
- 1 MYERS CP10-21 CONTROL PANEL WITH ABILITY TO ALTERNATE PUMP IN SERVICE AND/OR DUAL PUMPS IN SERVICE

ALL FITTINGS SHALL BE BRASS INCLUDING 2 - 90° ELBOWS AT EACH PITLESS ADAPTER TO PROVIDE FLEXIBILITY IN THE LINE. PIPING SHALL BE SERIES 160 HIGH DENSITY POLYETHYLENE. ELECTRICAL WIRING SHALL BE #12 WIRE TO WEST WELL AND #10 WIRE TO EAST WELL AND EXTENDED FROM BUILDING TO WELL INSIDE 50mm PVC CONDUIT. VALVES SHALL BE CHEMLINE.

BUILDING

PROVIDE A COMPLETE BUILDING TO HOUSE THE WATER SUPPLY PRESSURE TANK AND CONTROL SYSTEM INCLUDING ELECTRIC POWER PANEL. THE BUILDING SHALL BE MINIMUM 6'-4" X 6'-4" WITH 8' CEILING HEIGHT WITH THE FOLLOWING PRINCIPAL FEATURES:

- BRICK EXTERIOR WITH BUILDING PAPER, 1/2" PLYWOOD EXT. GR. SHEATHING, 2 X 4 STUDS @ 16" O.C., R-12 BATT, 6 MIL. POLY VAPOUR BARRIER, 1/2" G1S PLYWOOD (PAINTED).
- 20 YEAR ASPHALT SHINGLE, 5 IN 12 SLOPED COTTAGE STYLE ROOF ON 1/2" SPRUCE PLYWOOD, R-20 BATT INSULATION, 6 MIL. POLY VAPOUR BARRIER, AND 1/2" PLYWOOD G1S (PAINTED), ROOF TRUSSES @ 2'-0" O.C.
- MINIMUM 8" THICK REINFORCED CONCRETE FOUNDATION SLAB, 25 MPa, AIR ENTRAINED, ON 2" THICK STYROFOAM INSULATION PROJECT 2"-0" BEYOND PERIMETER OF BUILDING, 8" THICK COMPACTED GRAN. "A" GRAVEL, BASE ON UNDISTURBED SOIL (WITH TOPSOIL REMOVED). PROVIDE A FLOOR DRAIN WITH DISCHARGE TO GRAVEL BASE.
- PROVIDE PRE-FINISHED METAL FLASHING AND VENTED SOFFIT.
- INSULATED 3' X 7' STEEL DOOR WITH STEEL FRAME, WEATHERSTRIP, THRESHOLD, LOCKSET (SCHLAGE A SERIES), PAINTED.
- 500 WATT CHROMOLUX PHH-500 UTILITY HEATER WITH CONTROL THERMOSTAT
- LIGHT, SWITCH AND DUPLEX RECEPTACLE
- ELECTRICITY METER ON BUILDING, 60 AMP. 120/240 - 1 PHASE, 3 WIRE SERVICE
- 24 CIRCUIT SERVICE ENTRANCE TYPE PANEL
- POWER FROM NEARBY OVERHEAD SUPPLY

WATERMAIN

THE 100mm DIAMETER WATERMAIN SHALL BE "BLUE BRUTE" CLASS 150 (DR 18) PVC INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON CONFORMING TO AWWA A21 SPECIFICATIONS. RESTRAINING CLAMPS SHALL BE USED AT ALL ELBOWS, BENDS AND CAPPED ENDS AND SHALL BE UNI-FLANGE 1300 RESTRAINERS FOR PVC PIPE. GATE VALVES SHALL BE DUCTILE IRON WITH FLANGED JOINTS AND WHEEL ACTUATOR.

TEN METRE WIDE WATERMAIN EASEMENT ALIGNMENT WILL BE STAKED FOR THE CONTRACTOR. CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING DAMAGED SURVEYED BARS OR STAKES WHILE THIS CONTRACT IS IN PROGRESS. CONTRACT INCLUDES THE REMOVAL OF TREES, BRUSH, ETC. WITHIN THE EASEMENT REQUIRED FOR CONSTRUCTION OF THE WATERMAIN.

GENERAL

ALL NEW CONSTRUCTION, EXCEPT THE 100mm DIA. WATERMAIN FROM STA. 0+000 TO 0+305 IS PART OF THIS CONTRACT.

AS - BUILT DRAWINGS

AS - BUILT INFORMATION SHOWN ON THESE DRAWINGS HAS BEEN RECORDED FROM INFORMATION PROVIDED BY THE RELEVANT CONTRACTORS. THE ARCHITECTS AND ENGINEERS, DO NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY OF SUCH INFORMATION.

△ SIGNIFIES AS - BUILT INFORMATION

AB

MAR 19 1996

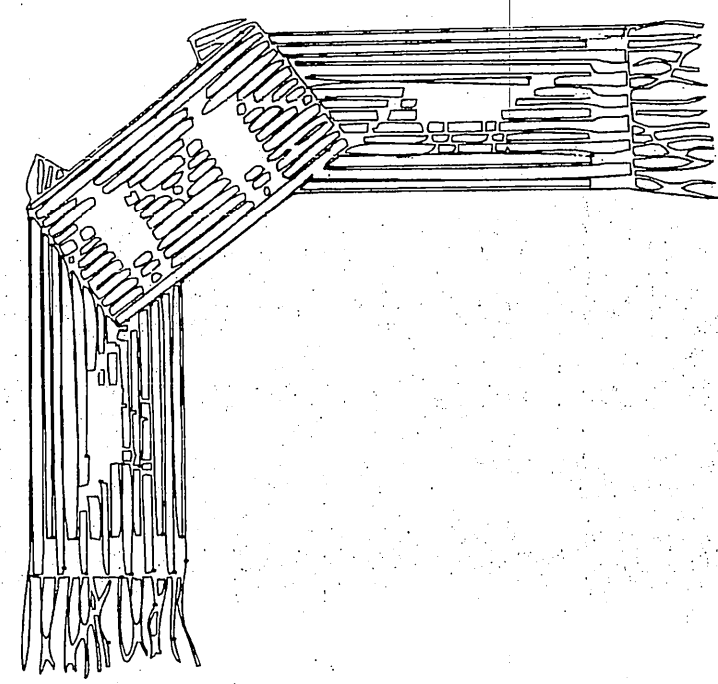
PROJECT
AKWESASNE ARENA WATER SUPPLY

CORNWALL ISLAND ONTARIO

TITLE
WATERMAIN PLAN-PROFILE STA. 0+000 TO 0+453, AND PIPING SCHEMATIC

M.S. THOMPSON & ASSOCIATES LTD.
CONSULTING ENGINEERS
CORNWALL, OTTAWA, KINGSTON

D:\91181\WATERLINDING 11/15/94 11:00



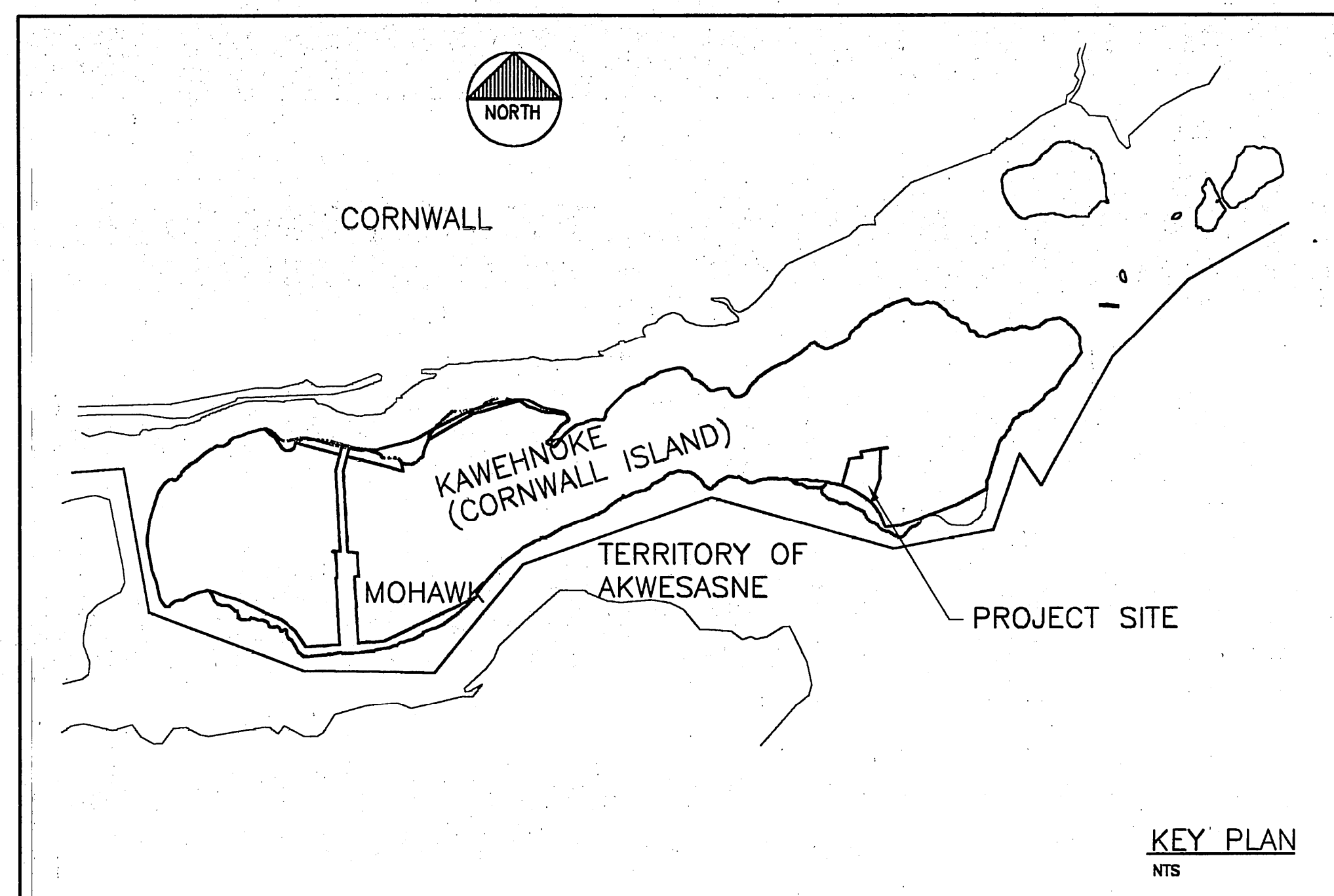
MOHAWK COUNCIL OF AKWESASNE

BLOCK 97, KAWEHNOKE
(CORNWALL ISLAND)

SEWAGE TREATMENT FACILITY

ROTATING BIOLOGICAL CONTACTOR (RBC)

KEY PLAN



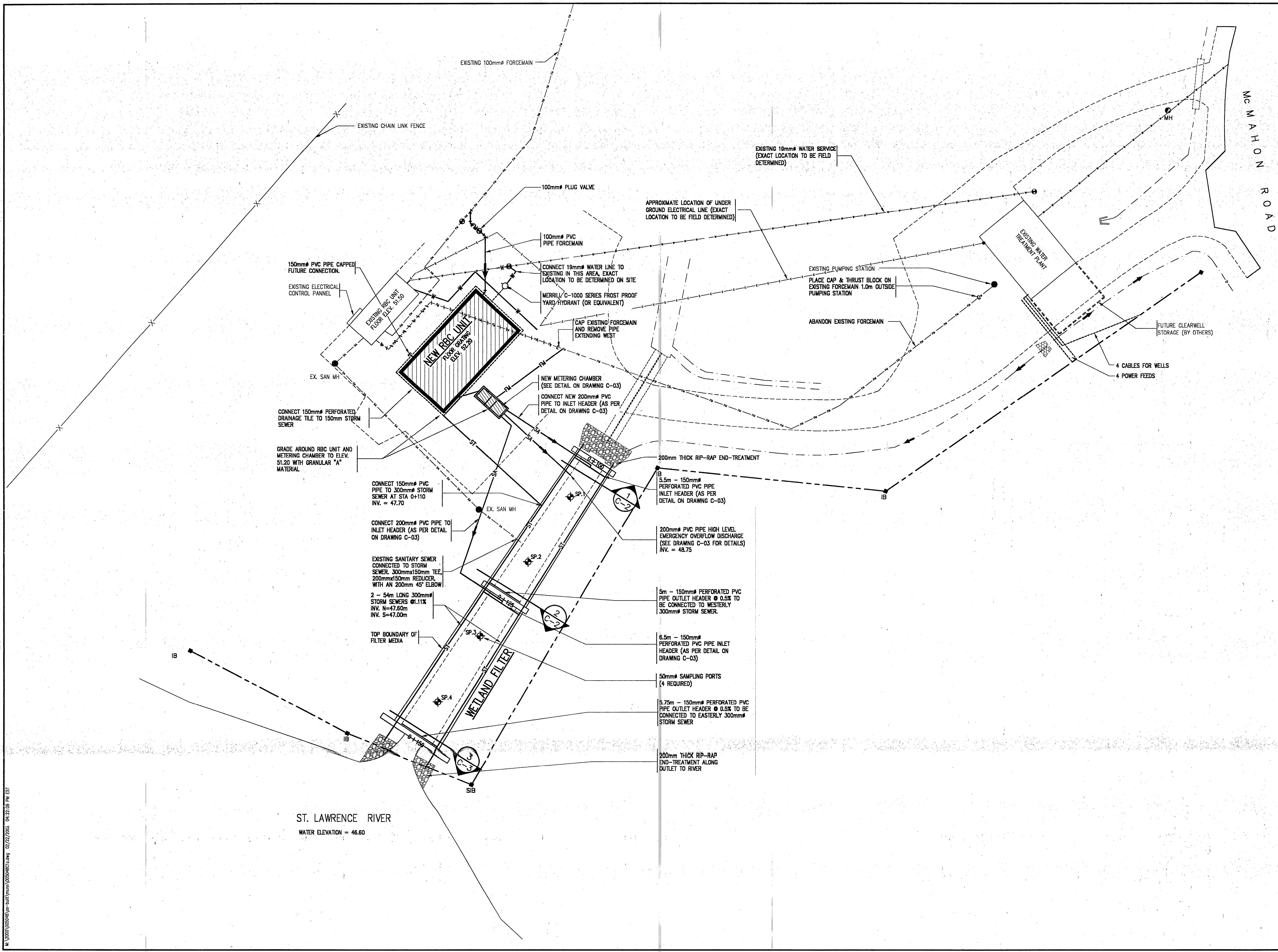
LIST OF DRAWINGS

C-01	CIVIL, SITE PLAN
C-02	CIVIL, SECTIONS, PROFILES, AND DETAILS
C-03	CIVIL, SECTIONS AND DETAILS
S-1	STRUCTURAL, PLANS, SECTION AND DETAIL
S-2	STRUCTURAL, SECTIONS AND DETAILS
M-1	MECHANICAL, PLAN AND SECTIONS
M-2	MECHANICAL, SECTIONS AND DETAILS
E-1	ELECTRICAL, PARTIAL SITE PLAN, ELECTRICAL LAYOUT, AND SINGLE LINE DIAGRAM
E-2	ELECTRICAL, RBC CONTROL PANEL REVISED WIRING DIAGRAM

AS-BUILT



M.S. THOMPSON & ASSOCIATES LTD.
consulting engineers
CORNWALL KINGSTON



NOTES:

- 1) IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL BURIED SERVICES PRIOR TO EXCAVATION OF NEW WORKS
- 2) TOPOGRAPHIC SURVEY BY GADBOIS TECHNICAL SURVEY SERVICES LTD.
- 3) ALL DISTURBED AREA TO BE REINSTATED USING 100mm TOPSOIL AND SEED (UNLESS OTHERWISE STATED IN DETAILS).

LEGEND:

- SA— NEW SANITARY SEWER
- ES— EXISTING SANITARY SEWER
- EXISTING SANITARY MANHOLE
- C NEW CAP AND THRUSTBLOCK
- FM— NEW SANITARY FORCEMAIN
- ES— EXISTING SANITARY FORCEMAIN
- FM --- EXISTING FORCEMAIN TO BE REMOVED
- ST— NEW STORM SEWER
- W— NEW WATERMAIN
- EW— EXISTING WATERMAIN
- NEW VALVE
- ⊙ NEW HYDRANT
- PROPERTY LINE
- IB IRON BAR
- SIB STANDARD IRON BAR
- EXISTING DITCH
- EXISTING CULVERT
- EXISTING GRAVEL ROADWAY
- EXISTING ELECTRICAL SERVICE
- ▨ NEW CONSTRUCTION

FEB. 18, 02	AS-BUILT
DATE	No. REVISION

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS ON THE JOB SITE.

designed by IM/JSTM scale 1:250
 drawn by G.A.D. / KW job no. 005048
 checked by drawing no. C-01
 approved by date SEPT. 2000

OWNER
MOHAWK COUNCIL OF AKWESASNE

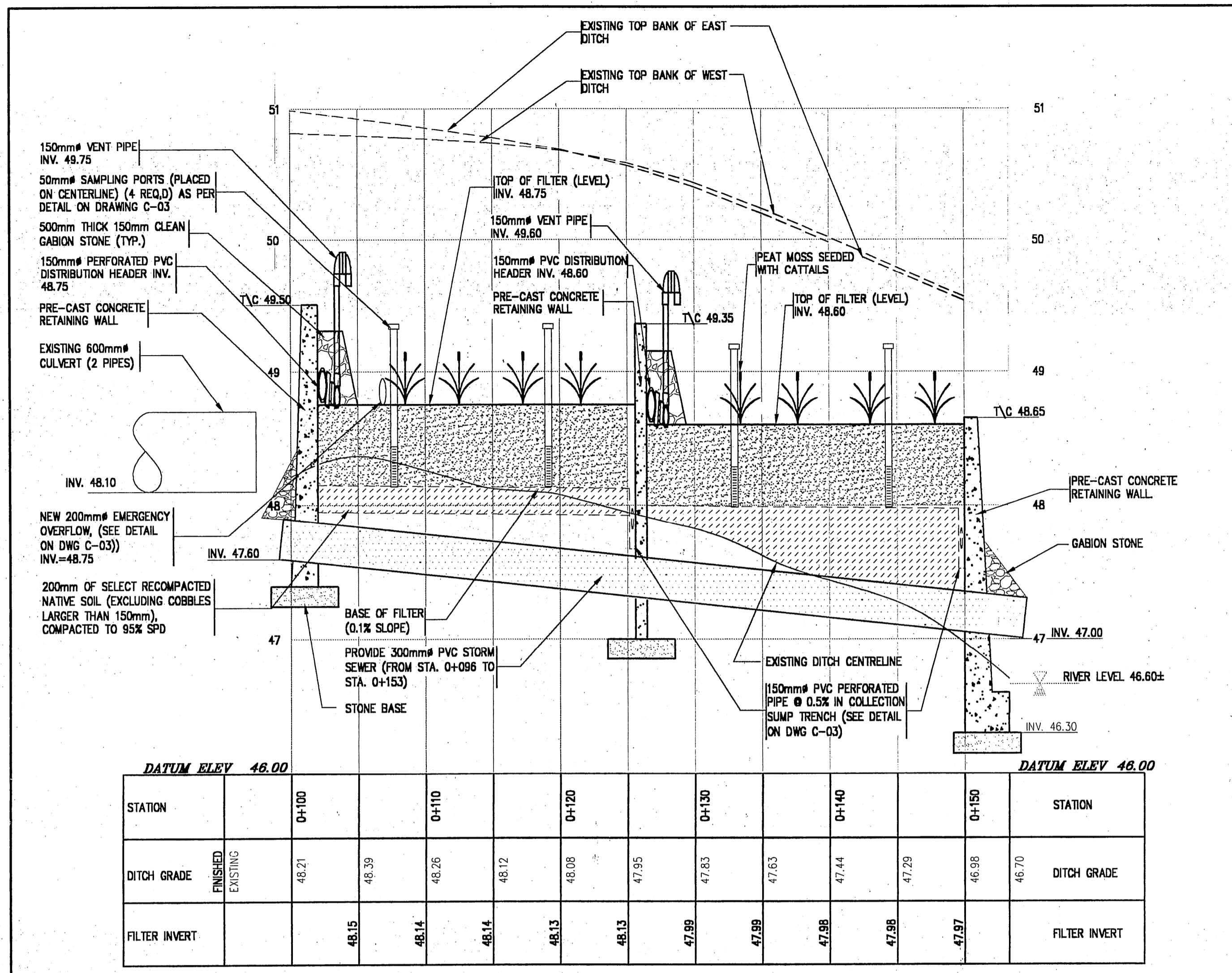
PROJECT
BLOCK 97, RBC

CORNWALL ISLAND ONTARIO

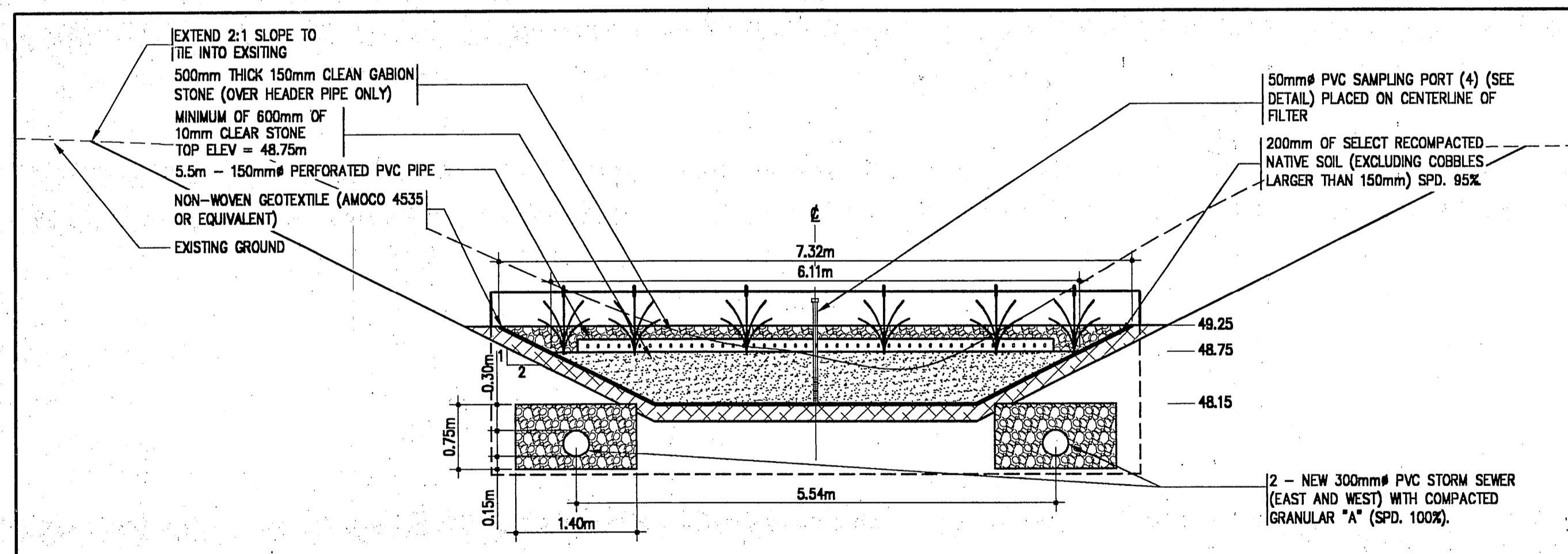
TITLE
SITE PLAN

M.S. THOMPSON & ASSOCIATES LTD.
 consulting engineers
 CORNWALL KINGSTON
 1345 ROSEMOUNT AVE., CORNWALL, ONT.
 TEL: 613-933-5802
 FAX: 613-936-0335
 EMAIL: mail@trg.ca WEBSITE: www.trg.ca

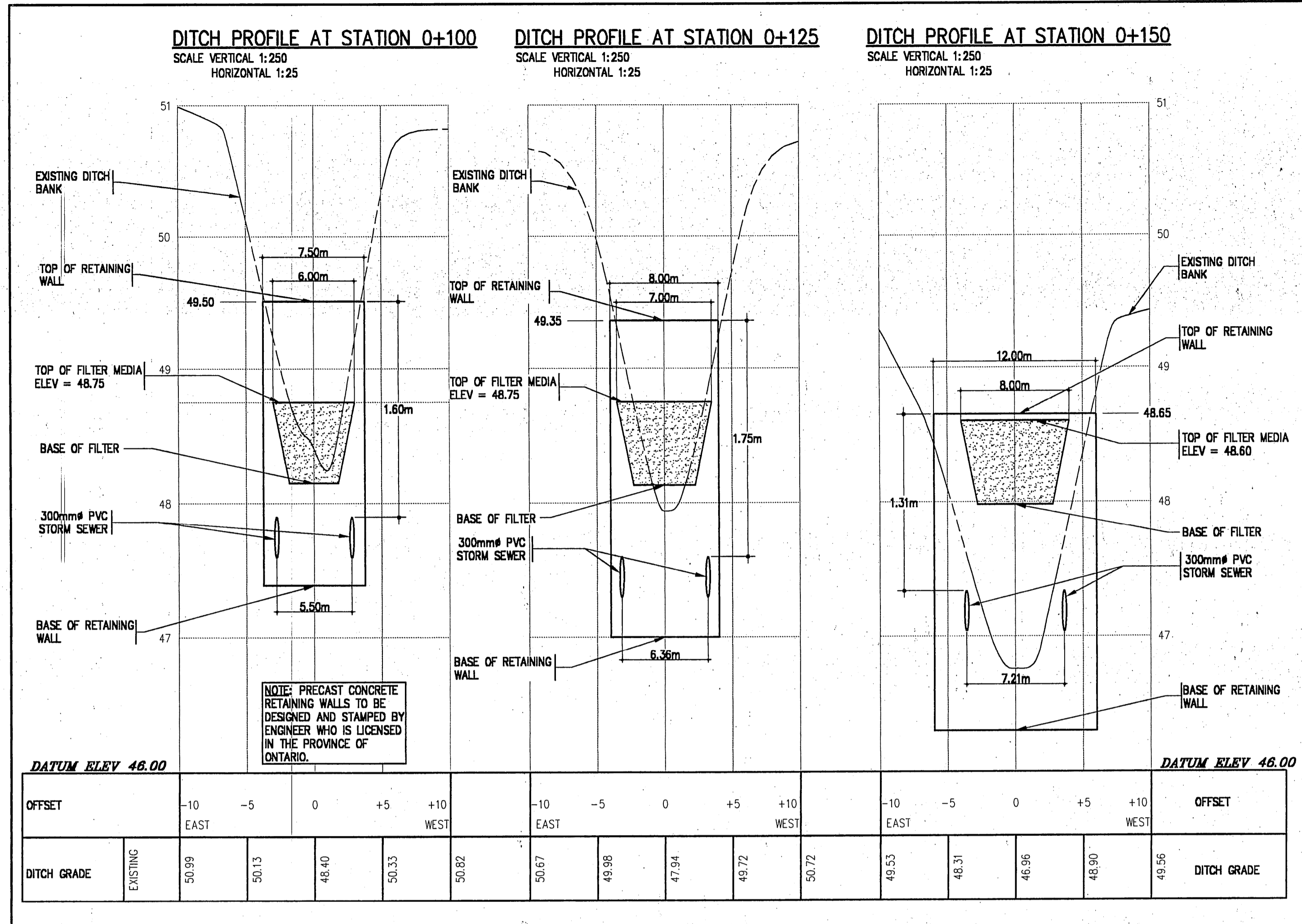
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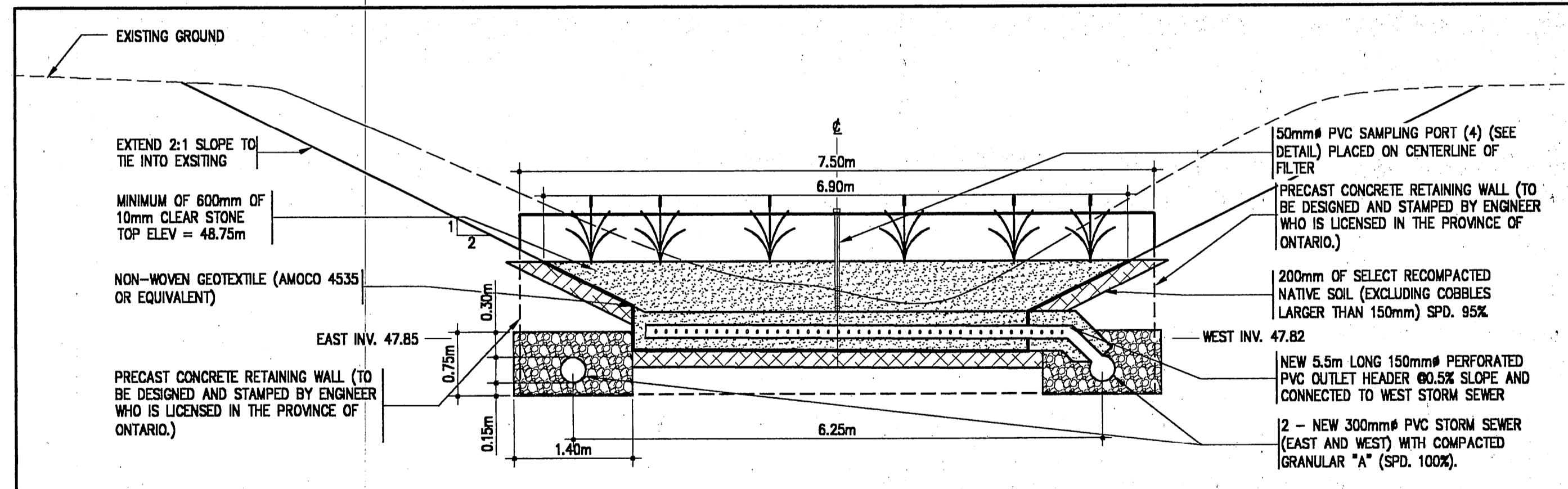
WETLAND FILTER PROFILE VIEW
SCALE: H=1:250
V=1:25



CROSS-SECTION DETAIL 1
SCALE: 1:50



DITCH PROFILE AT STATION 0+100 SCALE VERTICAL 1:250 HORIZONTAL 1:25
DITCH PROFILE AT STATION 0+125 SCALE VERTICAL 1:250 HORIZONTAL 1:25
DITCH PROFILE AT STATION 0+150 SCALE VERTICAL 1:250 HORIZONTAL 1:25



CROSS-SECTION DETAIL 2
SCALE: 1:50

DATE	NO.	REVISION
FEB 18, 02	AS-BUILT	

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS ON THE JOB SITE.

DESIGNED BY	JSTM	SCALE	AS NOTED
DRAWN BY	G.A.D.	JOB NO.	005048
CHECKED BY		DRAWING NO.	C-02
APPROVED BY		DATE	SEPT. 2000

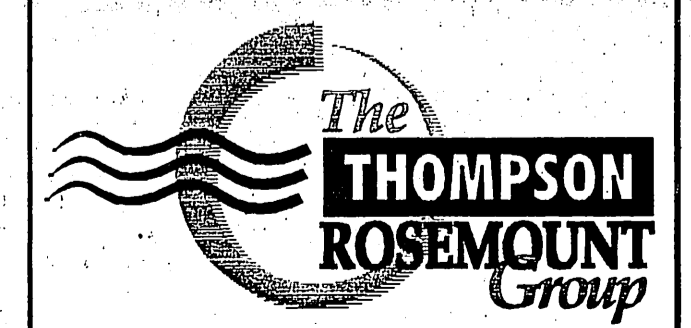
OWNER
MOHAWK COUNCIL OF AWKESASNE

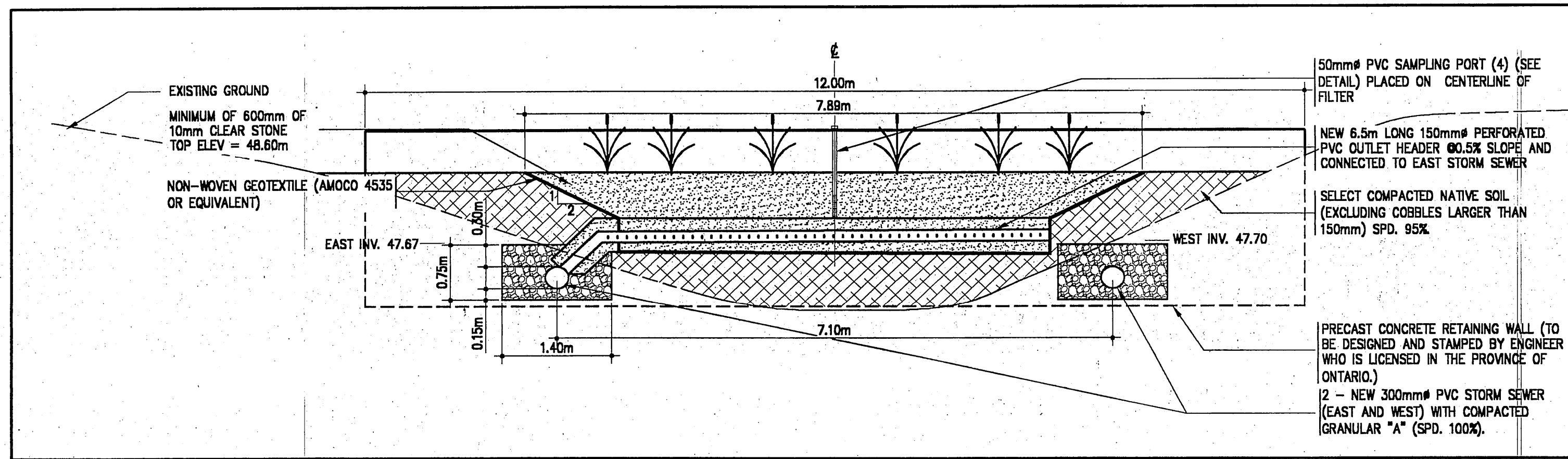
PROJECT
BLOCK 97, RBC

CORNWALL ISLAND ONTARIO

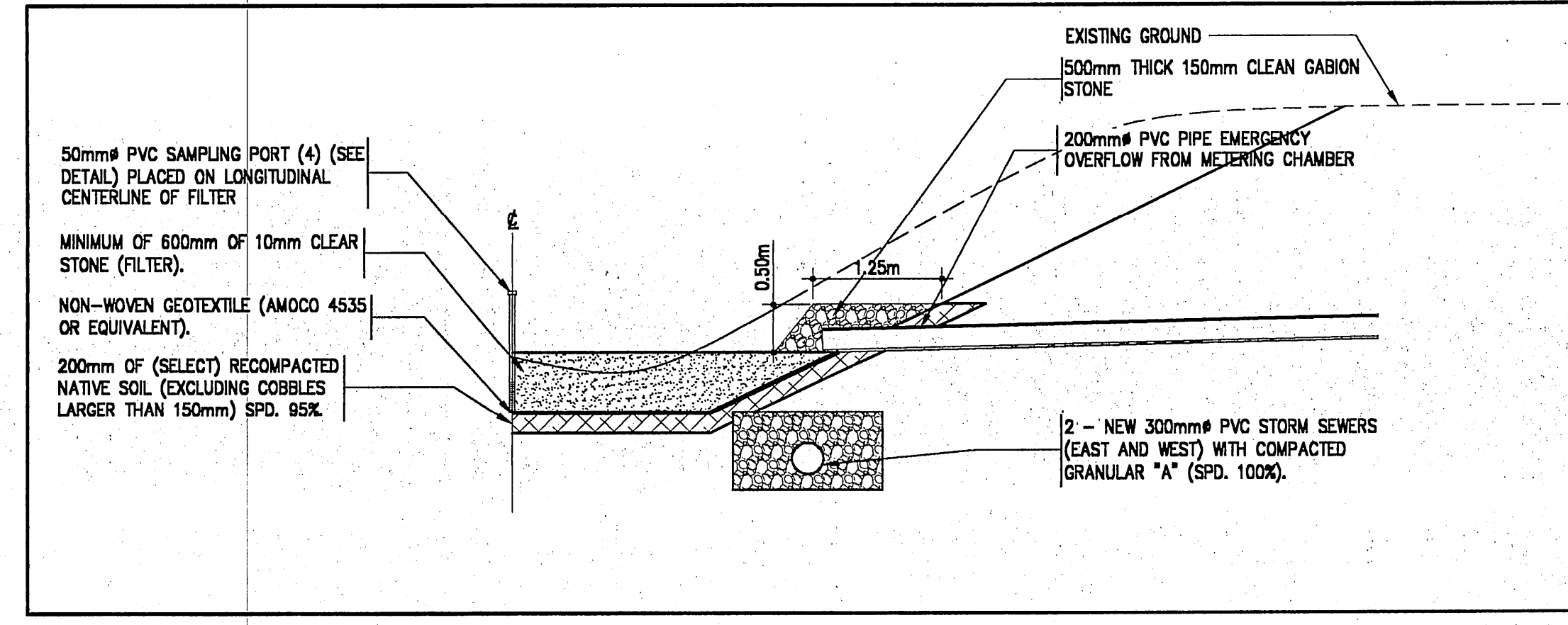
TITLE
SECTIONS, PROFILES, AND DETAILS

M.S. THOMPSON & ASSOCIATES LTD.
consulting engineers
CORNWALL KINGSTON
1345 ROSEMOUNT AVE., CORNWALL, ONT.
TEL: 613-933-5602
FAX: 613-936-0335
EMAIL: mail@trg.ca WEBSITE: www.trg.ca

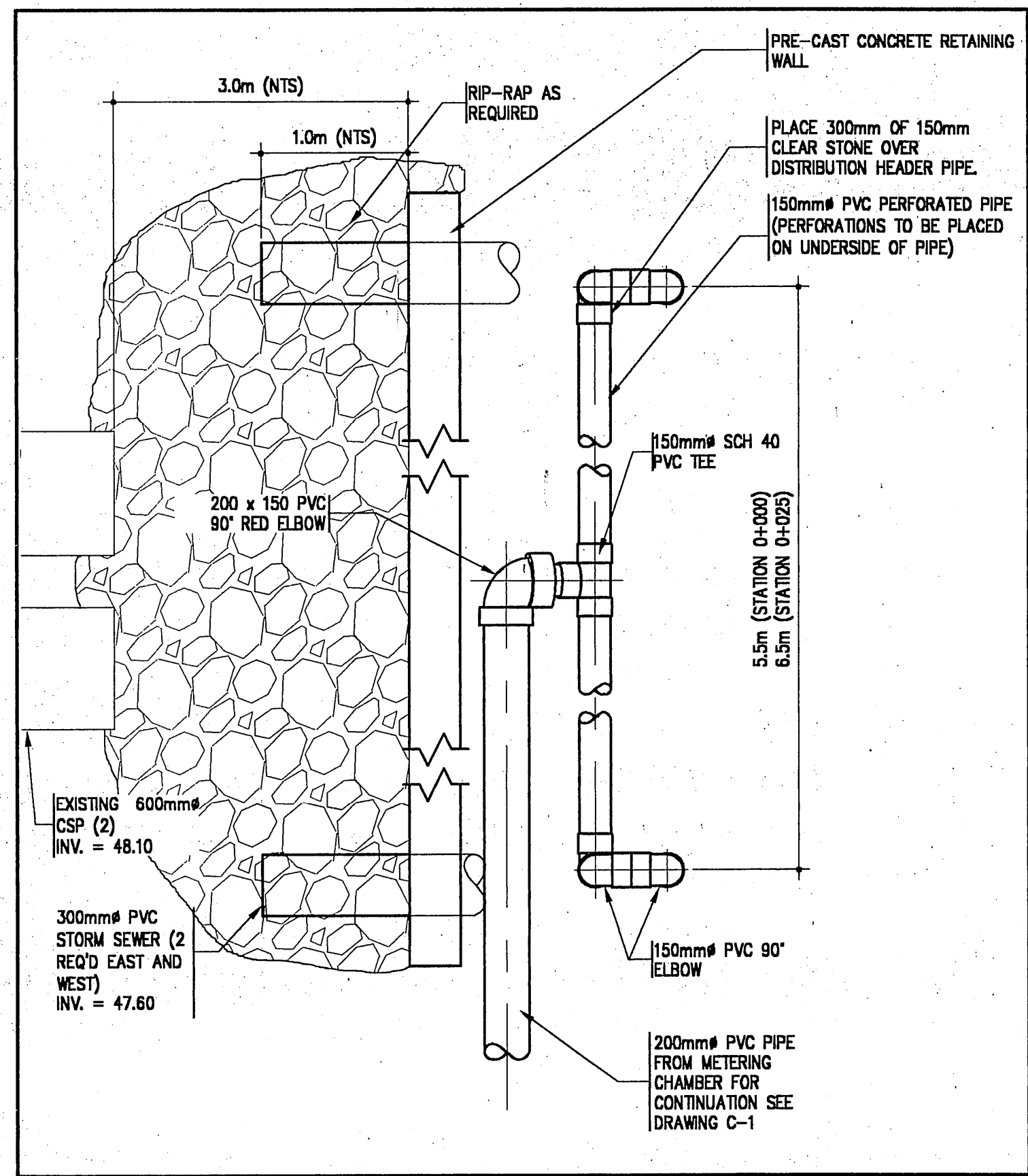




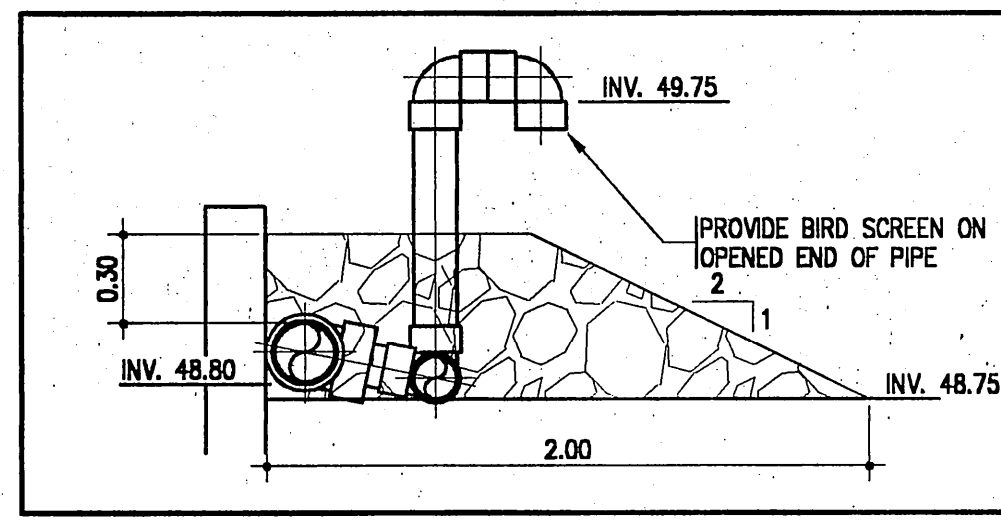
CROSS-SECTION DETAIL
SCALE= 1:50



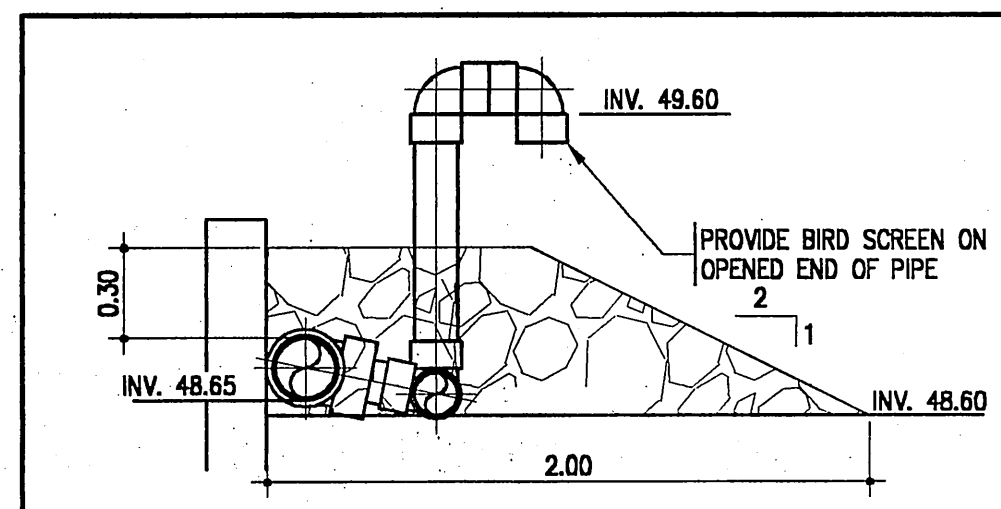
EMERGENCY OVERFLOW DISCHARGE DETAIL
SCALE= 1:50



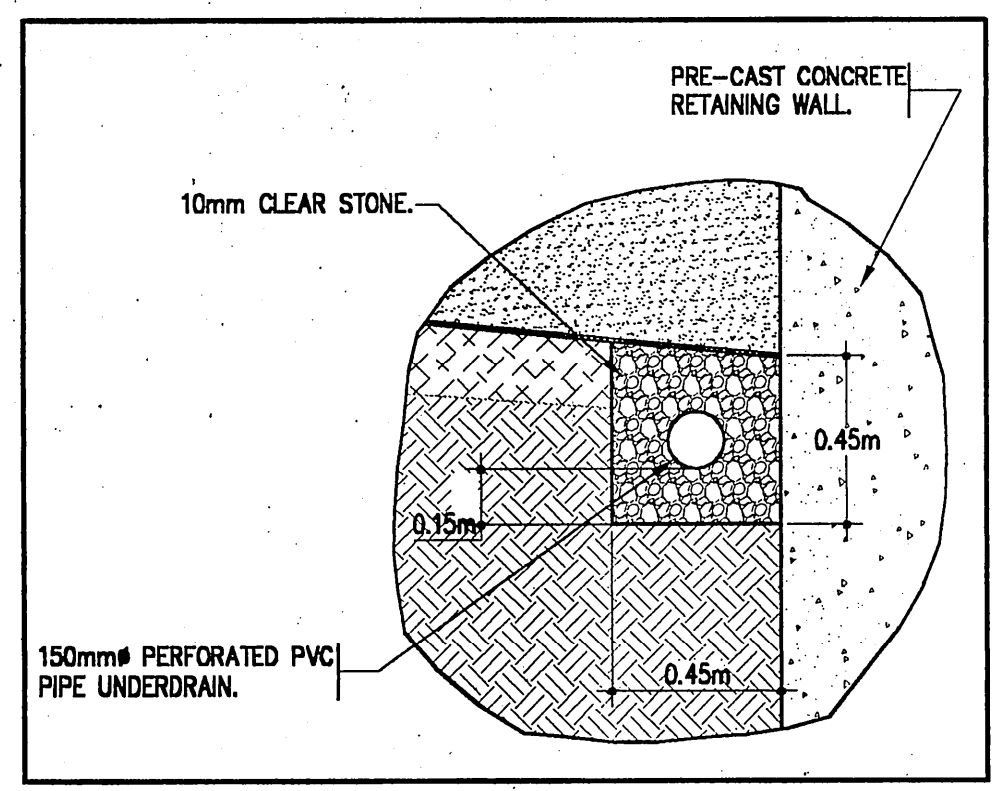
TYPICAL DISTRIBUTION HEADER ARRANGEMENT (2 REQ'D)
SCALE= 1:25



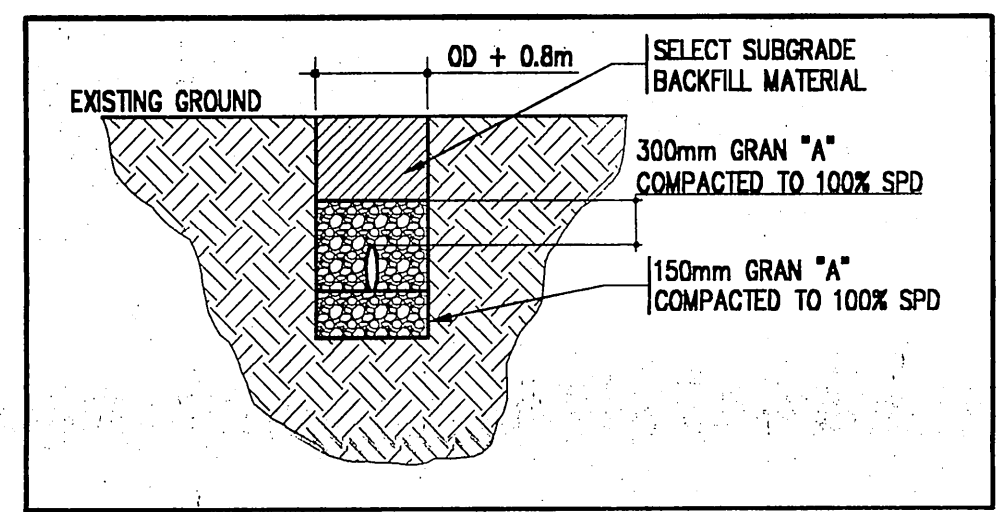
NORTH DISTRIBUTION HEADER (STATION 0+000)
SCALE: V=1:25



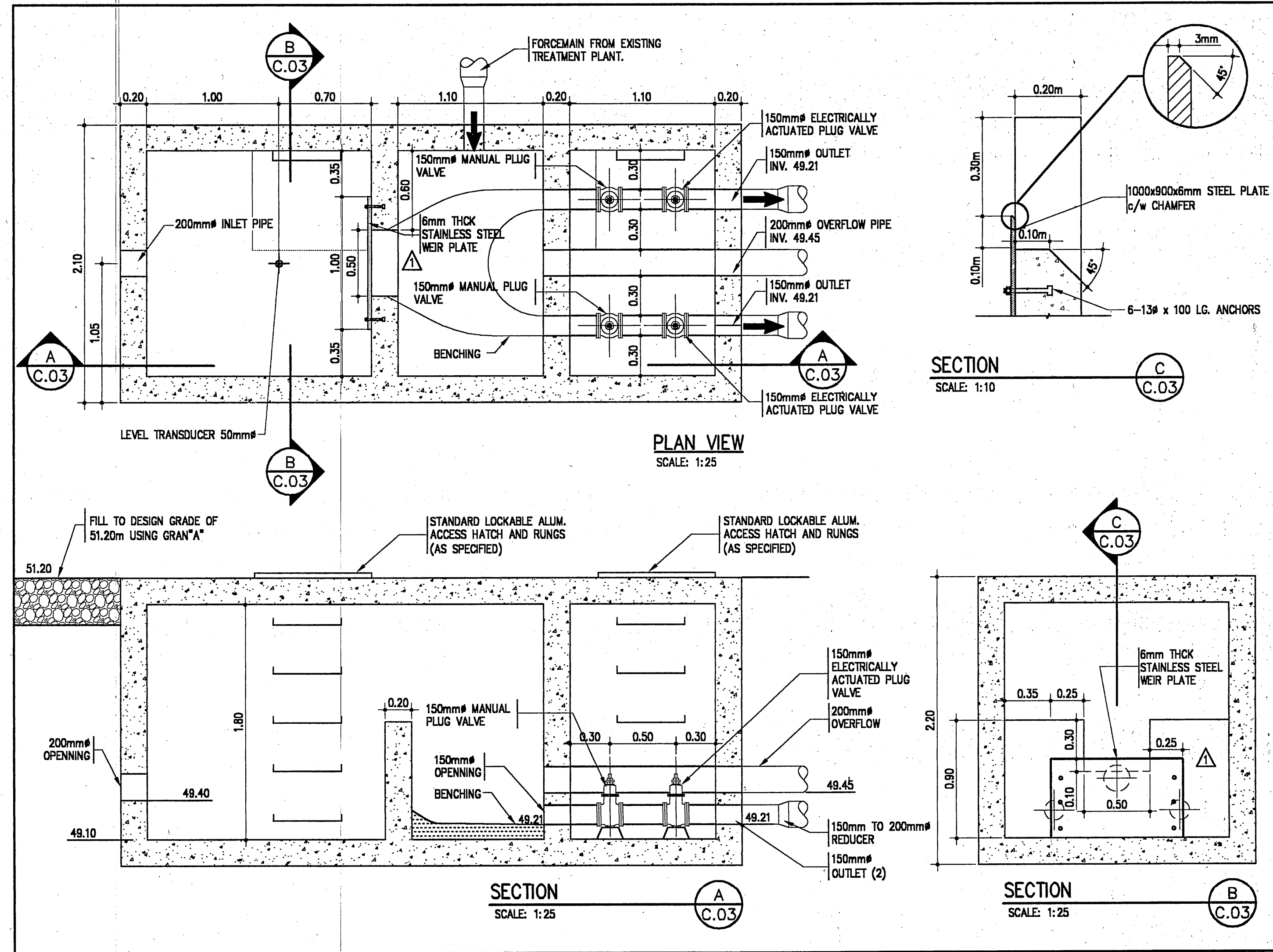
INTERMEDIATE DISTRIBUTION HEADER (STATION 0+025)
SCALE: V=1:25



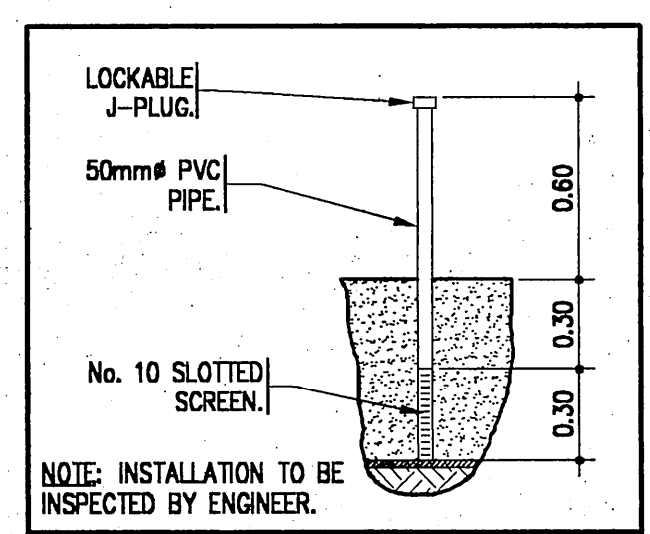
TYPICAL OUTLET HEADER SUMP DETAIL (2 REQ'D)
SCALE: 1:20



TYPICAL SEWER TRENCH DETAIL
SCALE: N.T.S.



METERING CHAMBER DETAIL



SAMPLING PORT DETAIL
SCALE= 1:25

FEB 18, 02	AS-BUILT
NOV. 8, 00	REVISED WEIR WALL DESIGN
DATE	REVISION

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS ON THE JOB SITE.

designed by	JSTM/JM	scale	AS NOTED
drawn by	GAD/JE	job no.	005048
checked by		drawing no.	C-03
approved by		date	SEPT. 2000

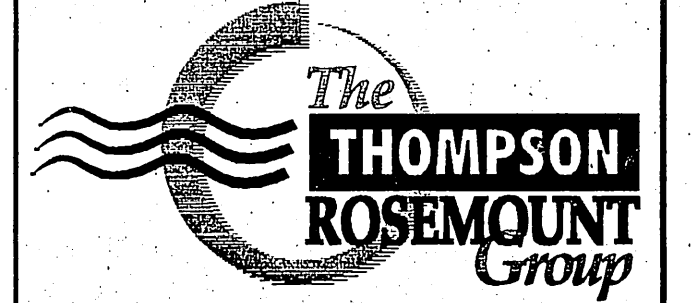
OWNER
MOHAWK COUNCIL OF AWKESASNE

PROJECT
BLOCK 97, RBC

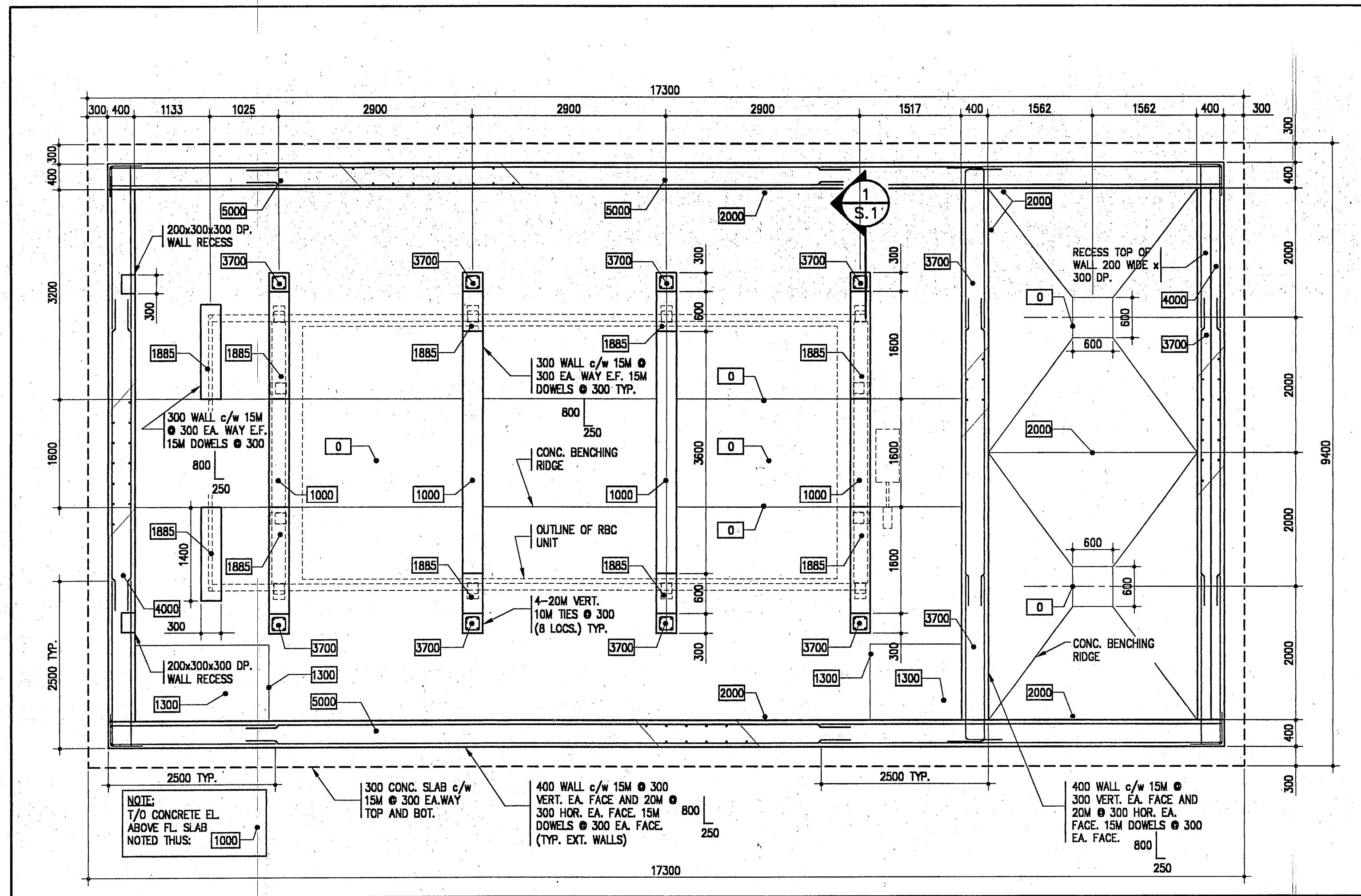
CORNWALL ISLAND ONTARIO

TITLE
SECTIONS AND DETAILS

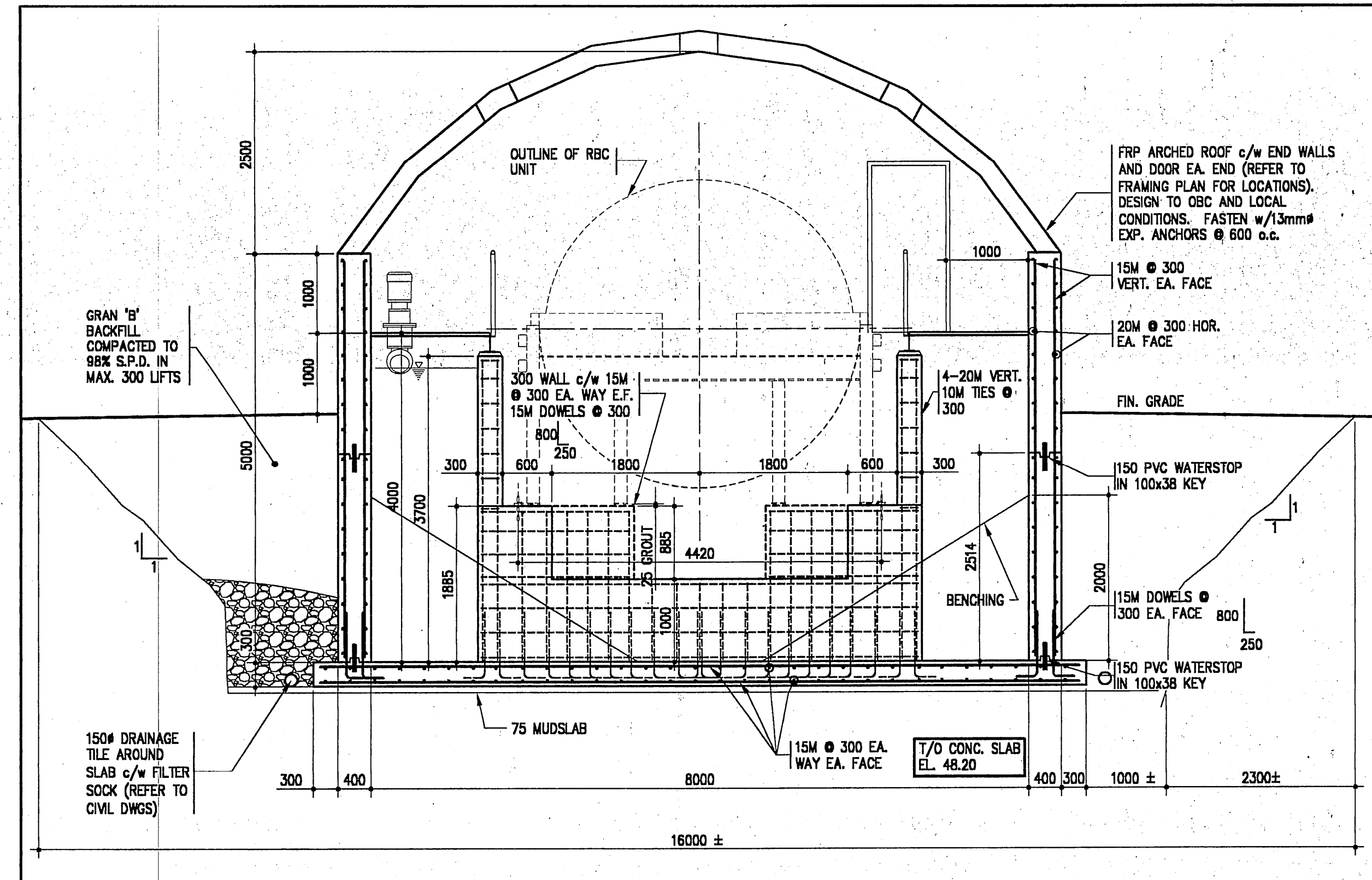
M.E. THOMPSON & ASSOCIATES LTD.
consulting engineers
CORNWALL KINGSTON
1345 ROSEMOUNT AVE., CORNWALL, ONT.
TEL: 613-933-6802
FAX: 613-936-0355
EMAIL: mail@trg.ca WEBSITE: www.trg.ca



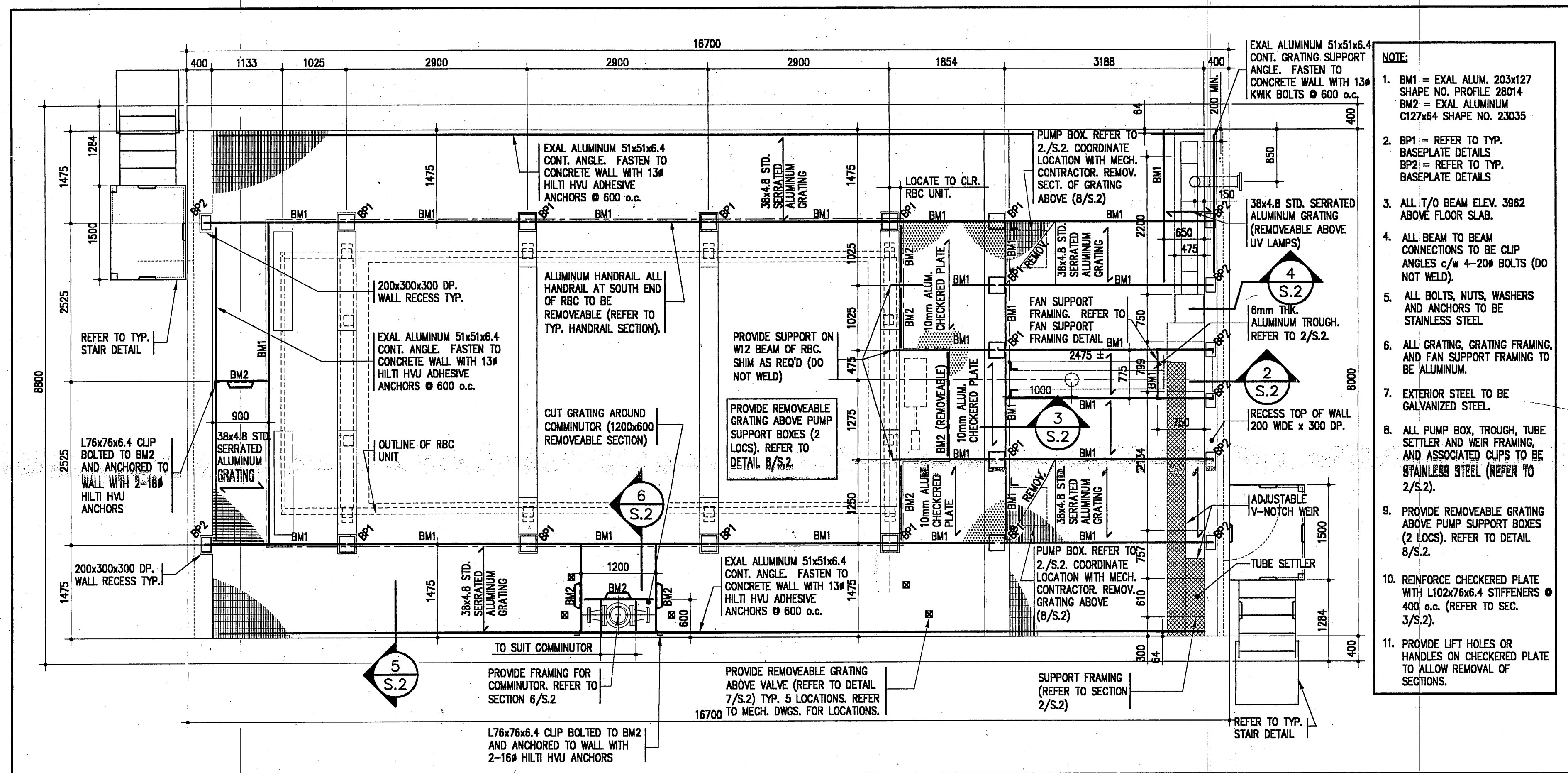
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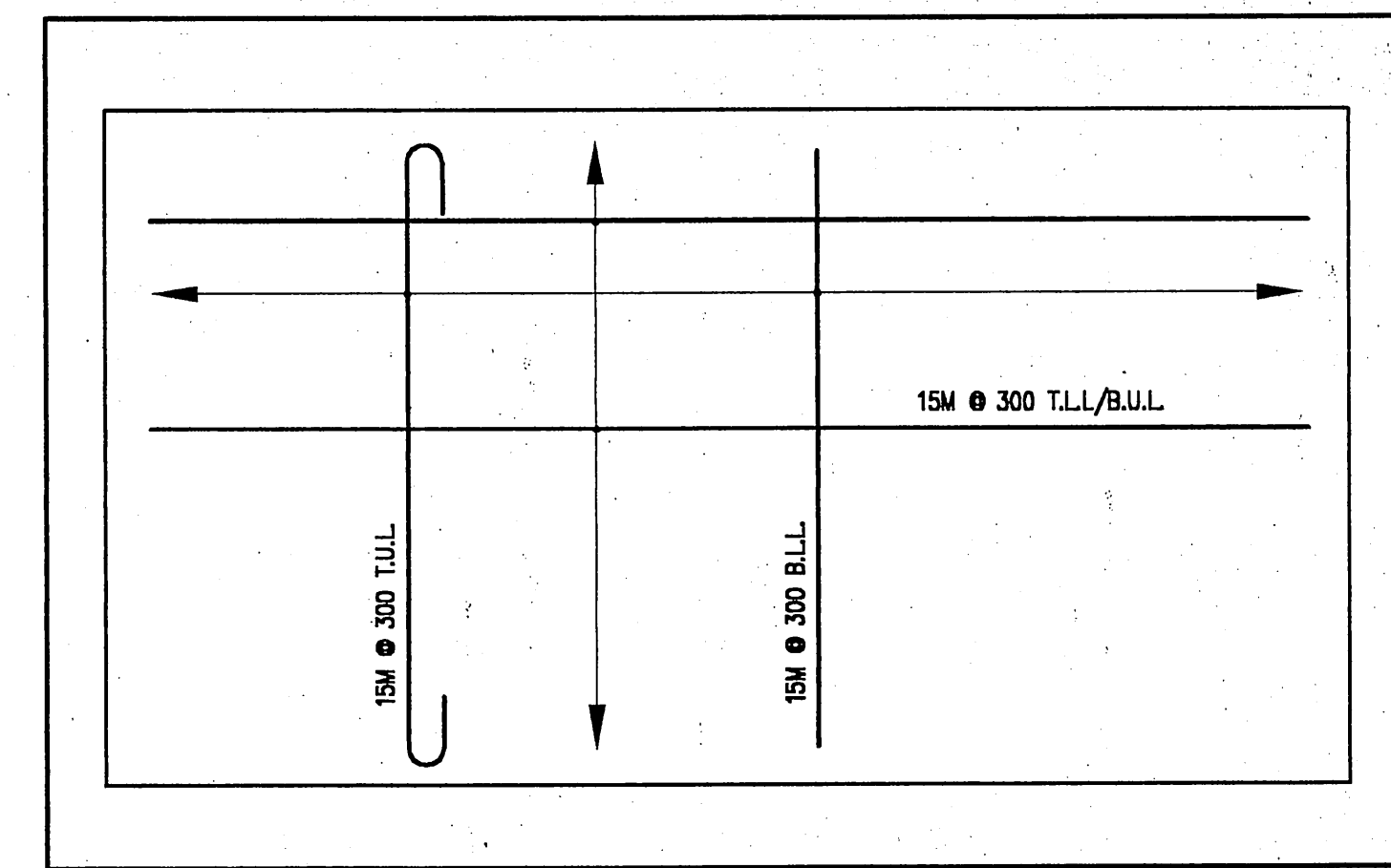
FOUNDATION PLAN
SCALE: 1:50



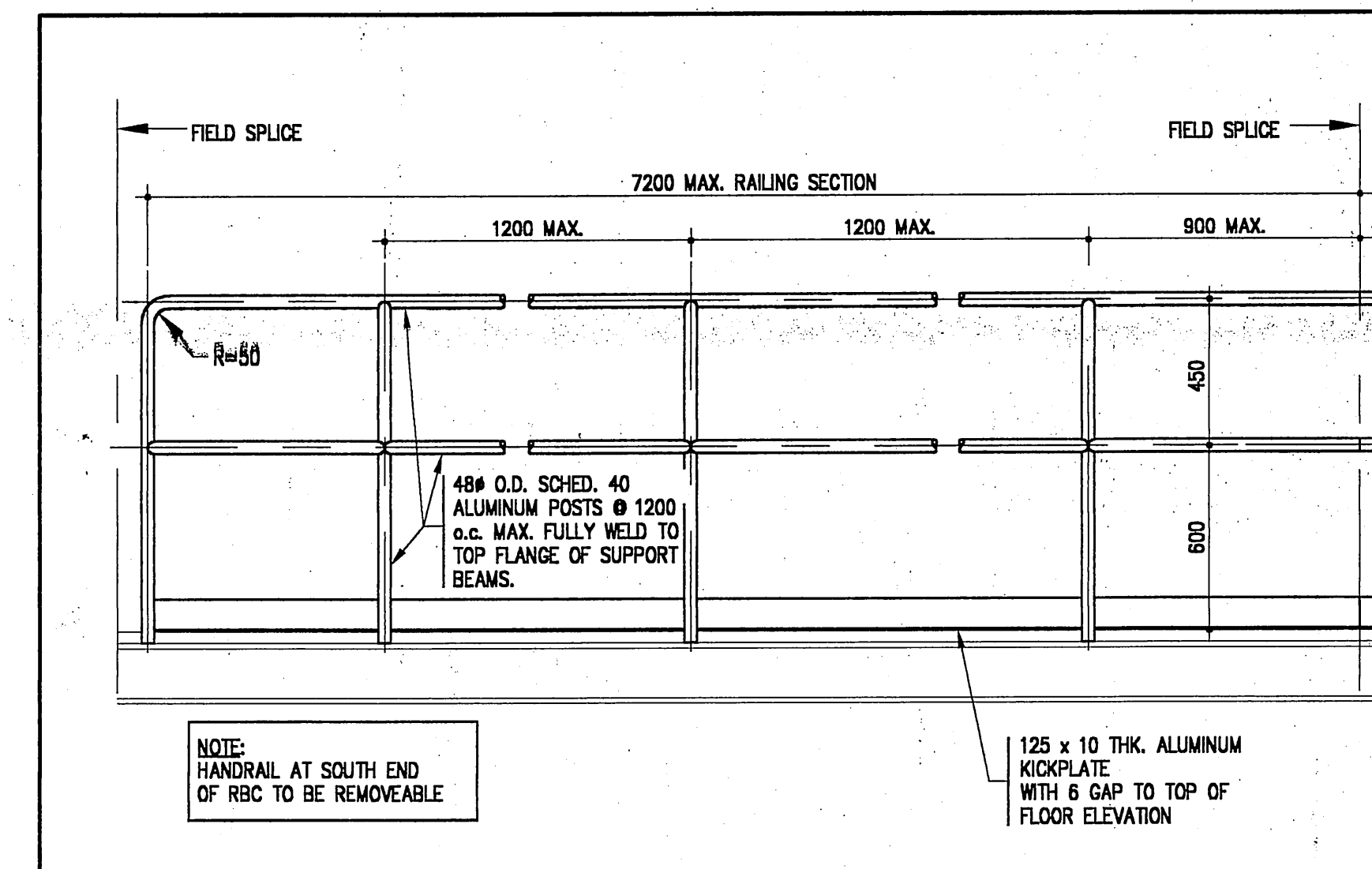
SECTION 1-1
SCALE: 1:50



FRAMING PLAN
SCALE: 1:50



SLAB REINFORCING PLAN
SCALE: 1:100



TYPICAL HANDRAIL DETAIL
SCALE: 1:20

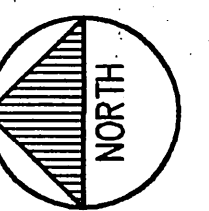
GENERAL NOTES

- FLOOR LOADING DL = 1.0 kPa
LL = 9.6 kPa
- ALL ALUMINUM BEAMS TO BE BY EXAL ALUMINUM OR APPROVED EQUIVALENT.
- REINFORCING STEEL TO BE DEFORMED BARS, GRADE 60 (400 MPa). REINFORCING BARS IN CONC. TO HAVE CLASS B LAPS.
- PROVIDE ALL NECESSARY SHORING FOR THE SAFE COMPLETION OF THE WORK.
- REFER TO SPECIFICATIONS FOR CONCRETE PROPERTIES.
- CONTRACTOR TO CONFIRM THAT WORK AREA IS CLEAR OF UNDERGROUND SERVICES (PIPING, CONDUIT) PRIOR TO PROCEEDING WITH EXCAVATING.
- FOUNDATION DESIGN BASED UPON A NET ALLOWABLE SOIL BEARING CAPACITY OF 62 kPa. BEARING CAPACITY OF SOIL AT FOUNDING LEVEL TO BE CONFIRMED TO BE MIN. 24 kPa BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
- ALL NEW STEEL SHALL COMPLY WITH LATEST EDITIONS OF CAN3-G40.20 & CAN3-G40.21, GRADE 350W. HSS SECTIONS SHALL BE GRADE 350W CLASS H.
- WELDING SHALL COMPLY WITH CSA W59 (LATEST EDITION) AND BE CARRIED OUT BY WELDERS QUALIFIED IN ACCORDANCE WITH CSA W47.1-1983 (DIV. 1 OR 2A).
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR STEEL & ALUMINUM WORK BEARING THE STAMP OF A PROFESSIONAL ENGINEER. ALLOW 7 DAYS FOR REVIEW.
- REFER TO MECH. DWGS. FOR LOCATIONS OF OPENINGS IN CONCRETE FOR PIPING.
- PROVIDE 2-20# BARS AROUND ALL WALL OPENINGS AND EXTEND A MIN. OF 600mm BEYOND OPENING ON ALL SIDES.
- REFER TO SPECIFICATIONS FOR BACKFILLING REQUIREMENTS.
- GROUT TO BE NON-SHRINK, NON-METALLIC LIQUID GROUT SUCH AS "INPAK" BY C.C. CHEMICALS LTD. OR AN APPROVED ALTERNATE.
- STEEL INSTALLATION TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- BOLTS FOR BOLTED CONNECTIONS SHALL COMPLY WITH ASTM A325-76c.

CONT'D ON S.2

DESIGNED BY	D.H./G.E.	SCALE	AS SHOWN
DRAWN BY	D.H./G.E.	JOB NO.	005048
CHECKED BY		DRAWING NO.	S.1
APPROVED BY		DATE	SEPT 2000

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS ON THE JOB SITE.



DATE	FEB 18, 02	REVISION	AS-BUILT
DATE		REVISION	

OWNER
MOHAWK COUNCIL OF AKWESASNE

PROJECT
BLOCK 97 RBC

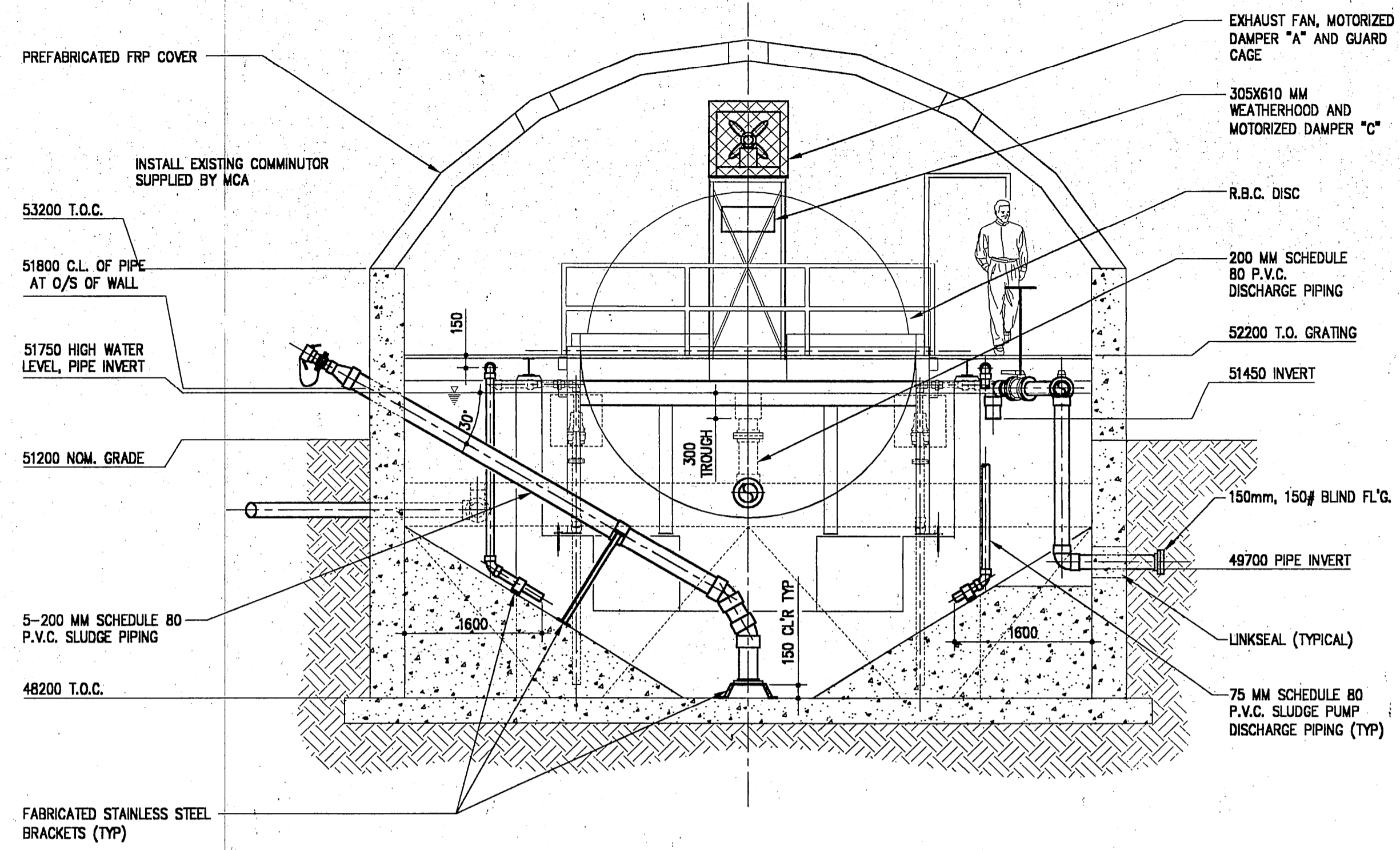
CORNWALL ISLAND ONTARIO

TITLE
PLANS, SECTION & DETAIL

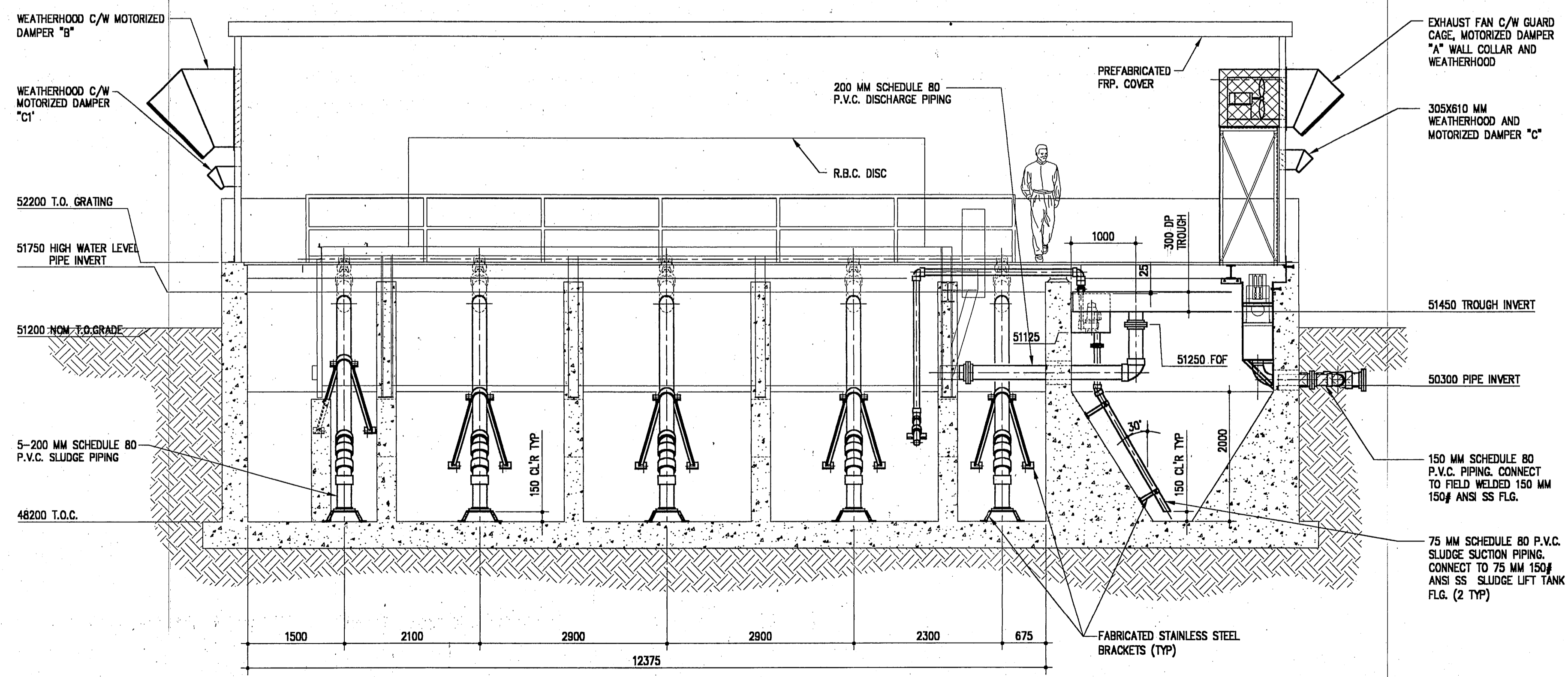
M.S. THOMPSON & ASSOCIATES LTD.
consulting engineers
CORNWALL KINGSTON
1345 ROSEMOUNT AVE., CORNWALL, ONT.
TEL: 613-933-5602
FAX: 613-936-0335
EMAIL: mol@trg.ca WEBSITE: www.trg.ca



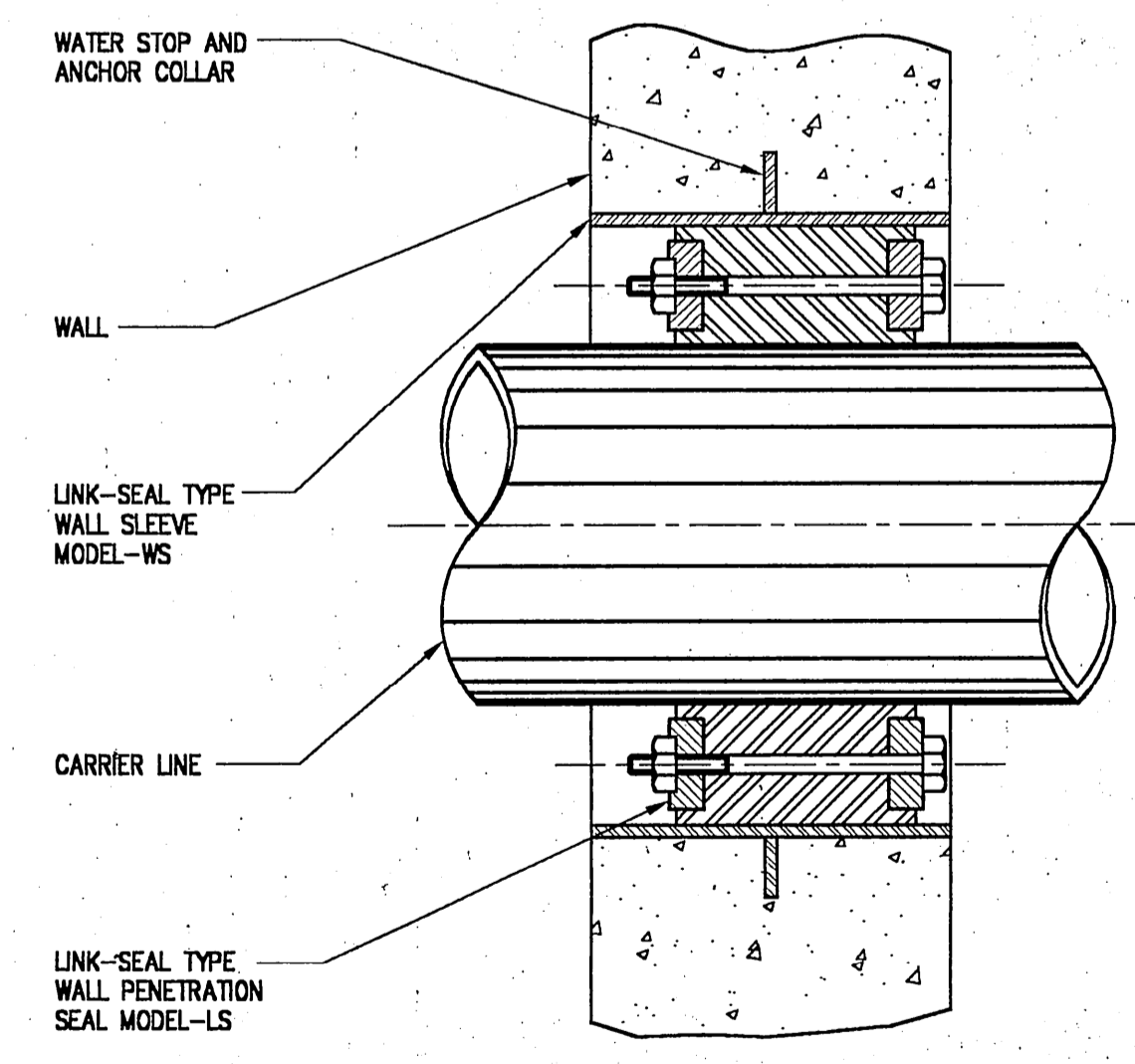
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SECTION D
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M2



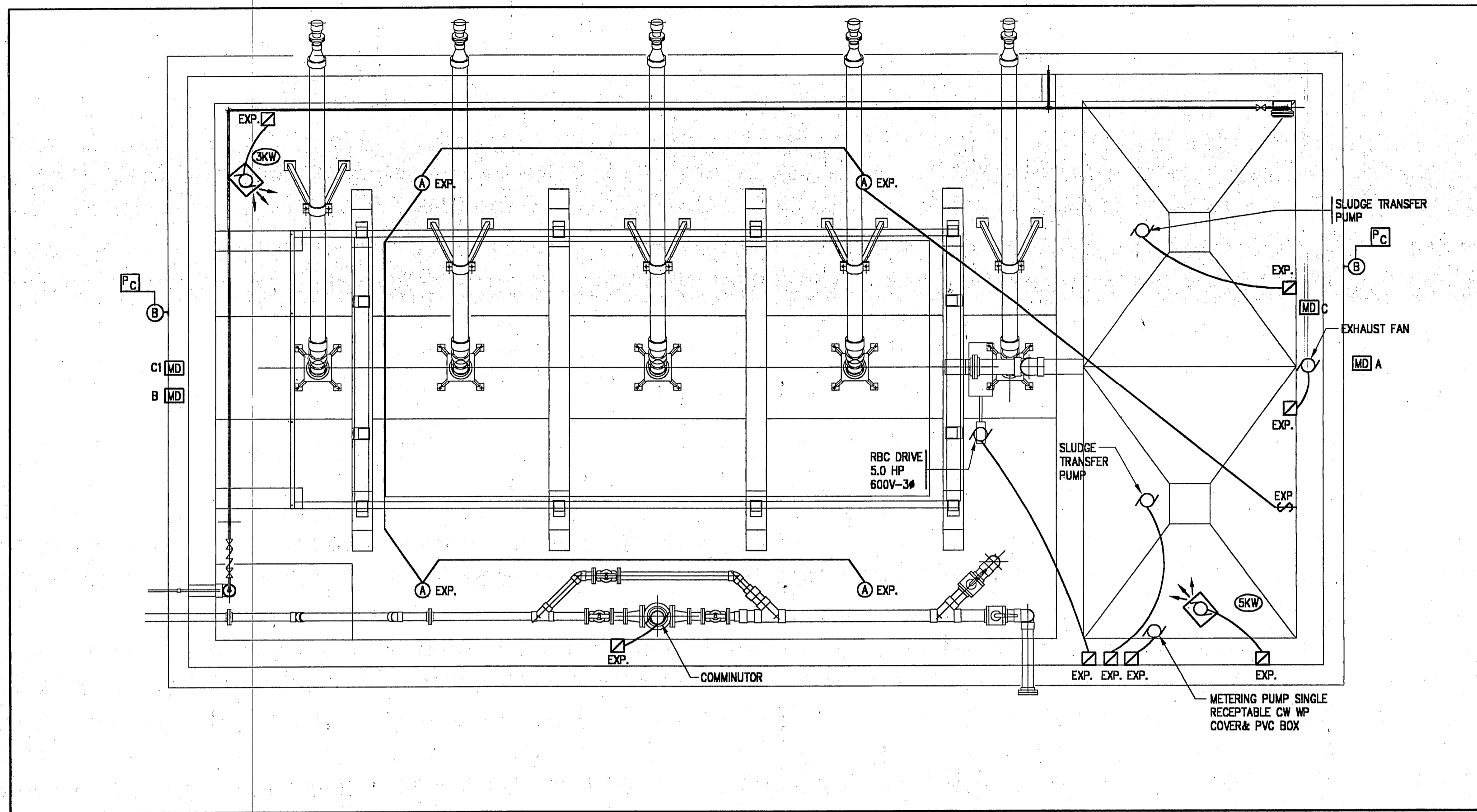
SECTION C
SCALE: 1:50
M2



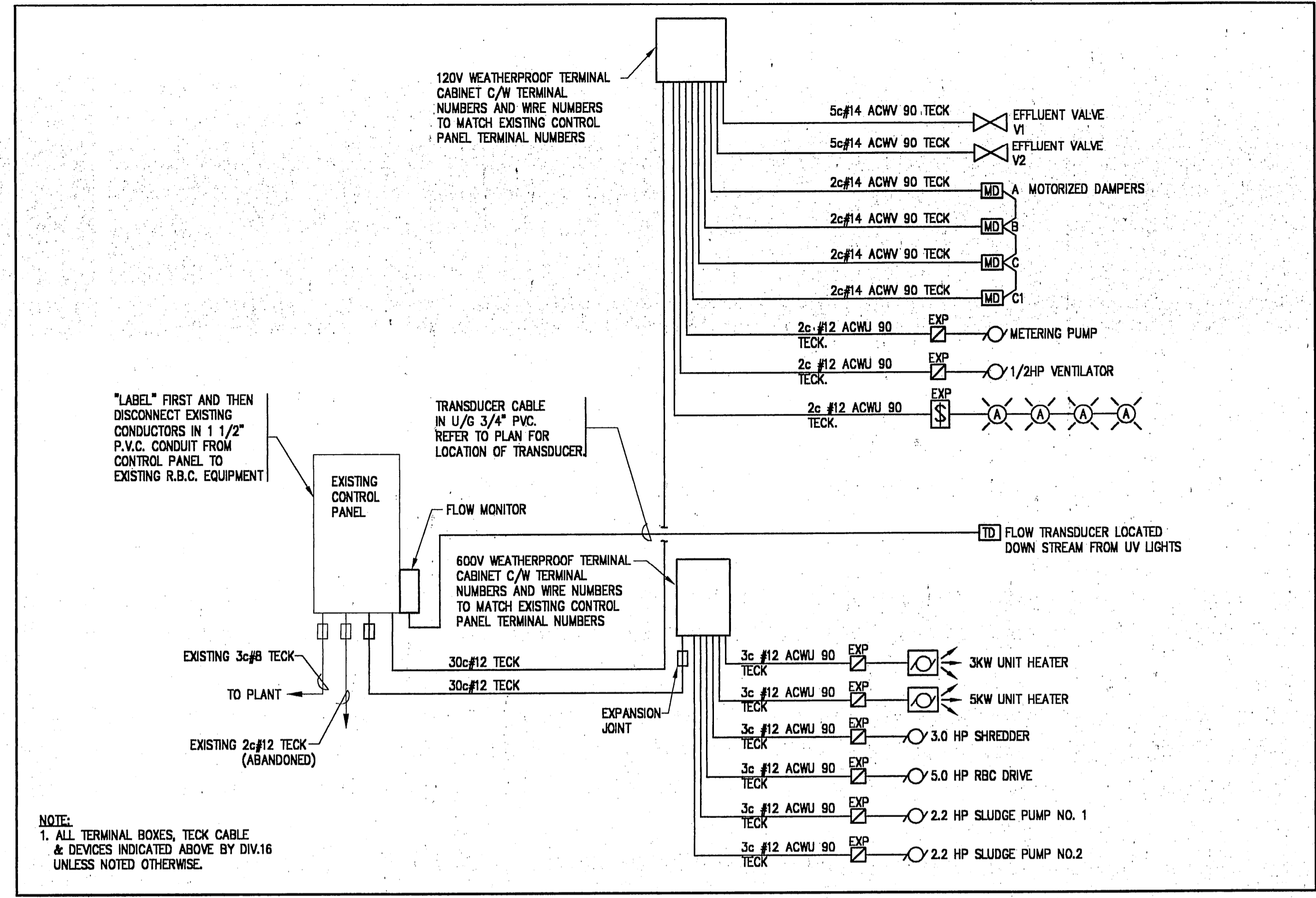
TYPICAL LINKSEAL CONNECTION DETAIL
SCALE: NTS

DESIGNED BY	JSTM	SCALE	AS SHOWN
DRAWN BY	JMD	JOB NO.	005048
CHECKED BY		DRAWING NO.	M2
APPROVED BY		DATE	07-SEPT-00
OWNER MOHAWK COUNCIL OF AKWESASNE			
PROJECT BLOCK 97 RBC			
CORNWALL		ONTARIO	
TITLE SECTIONS AND DETAILS			
M.S. THOMPSON & ASSOCIATES LTD. consulting engineers CORNWALL KINGSTON 1345 ROSEMOUNT AVE., CORNWALL, ONT. TEL: 613-933-5602 FAX: 613-936-0335 EMAIL: mail@trg.ca WEBSITE: www.trg.ca			

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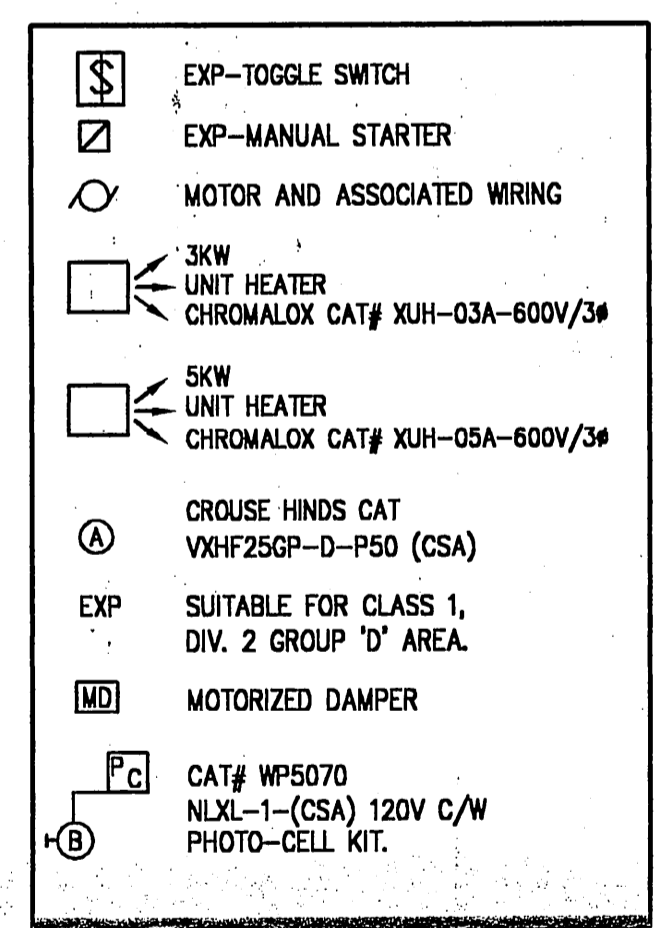


PARTIAL FLOOR PLAN
SCALE 1:50



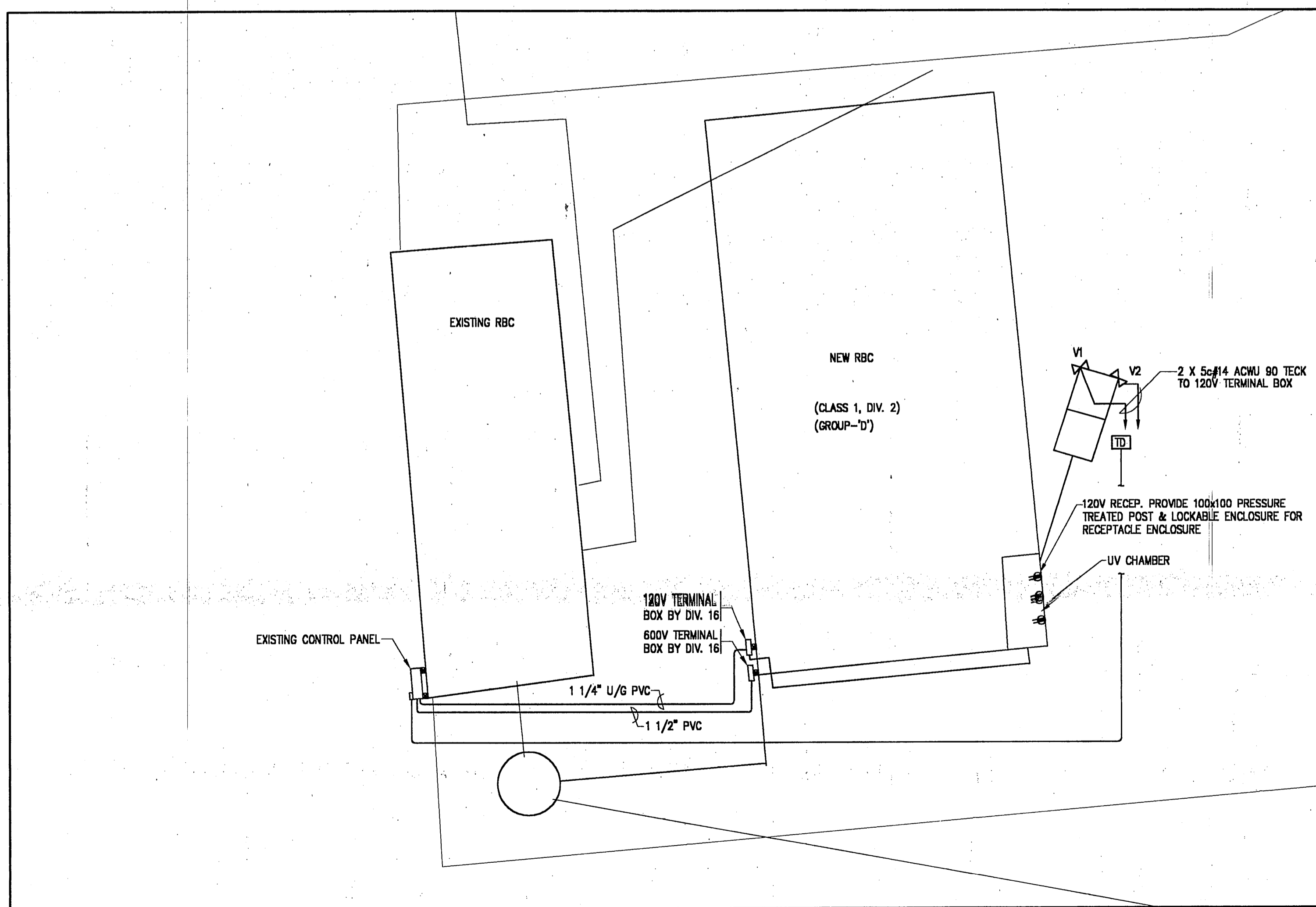
SINGLE LINE DIAGRAM

- NOTES:**
- REFER TO DRAWING E.2 FOR EXTENT OF WORK REQUIRED TO MODIFY EXISTING CONTROL PANEL.
 - ALL PVC CONDUIT AND TECK CABLE TO ENTER BOTTOM OF WEATHERPROOF TERMINAL BOXES.



SEQUENCE OF OPERATION

1. MOTORIZED DAMPER 'A', 'B' & 'C' SHALL BE INTERLOCKED WITH THE PROPELLER FAN MOTOR DAMPER. WHEN DAMPERS 'A' & 'B' ARE OPEN, DAMPERS 'C' & 'C1' IS CLOSED. WHEN FAN RUNS DAMPERS OPERATE OPEN.



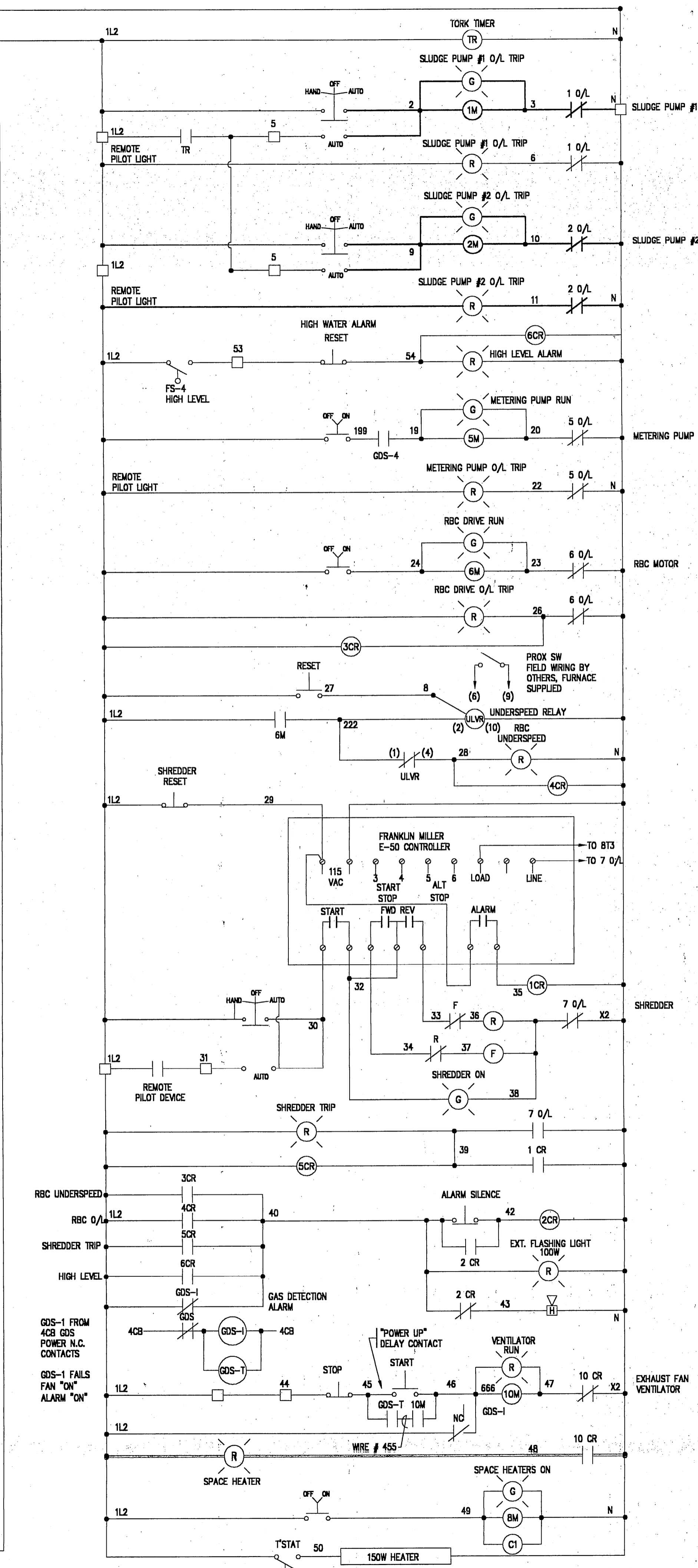
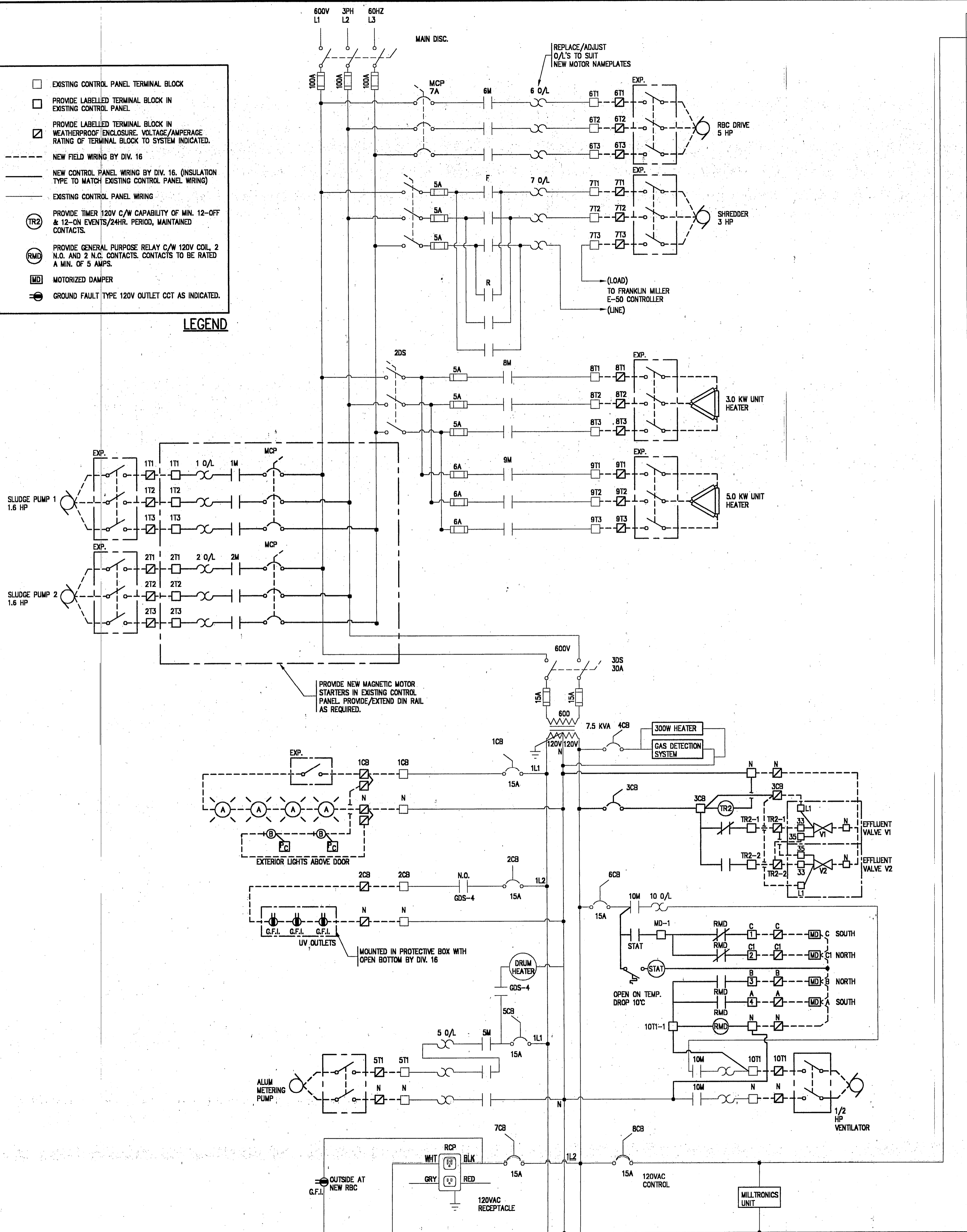
PARTIAL SITE PLAN
SCALE 1:100

DESIGNED BY	F. HARRIS	SCALE	AS SHOWN
DRAWN BY	AB	JOB NO.	005048
CHECKED BY		DRAWING NO.	E.1
APPROVED BY		DATE	SEPT 2000
OWNER: MOHAWK COUNCIL OF AKWESASNE			
PROJECT: BLOCK 97 RBC			
CORNWALL ISLAND		ONTARIO	
TITLE: PARTIAL SITE PLAN, ELECTRICAL LAYOUT, AND SINGLE LINE DIAGRAM			
M.S. THOMPSON & ASSOCIATES LTD. consulting engineers CORNWALL: 1345 ROSEMOUNT AVE., CORNWALL, ONT. TEL: 613-933-5602 FAX: 613-936-0335 EMAIL: mail@trg.ca WEBSITE: www.trg.ca			



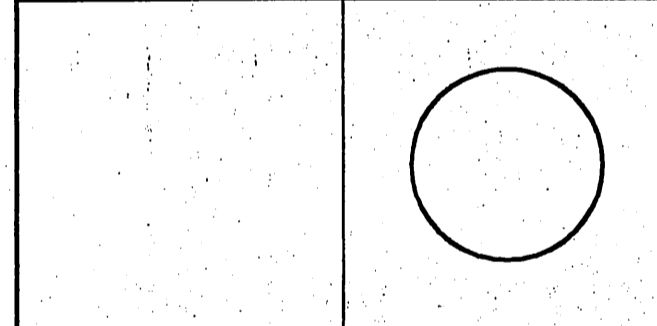
- EXISTING CONTROL PANEL TERMINAL BLOCK
- PROVIDE LABELED TERMINAL BLOCK IN EXISTING CONTROL PANEL
- ☑ PROVIDE LABELED TERMINAL BLOCK IN WEATHERPROOF ENCLOSURE, VOLTAGE/AMPERAGE RATING OF TERMINAL BLOCK TO SYSTEM INDICATED.
- NEW FIELD WIRING BY DIV. 16
- NEW CONTROL PANEL WIRING BY DIV. 16. (INSULATION TYPE TO MATCH EXISTING CONTROL PANEL WIRING)
- EXISTING CONTROL PANEL WIRING
- TR2 PROVIDE TIMER 120V C/W CAPABILITY OF MIN. 12-OFF & 12-ON EVENTS/24HR. PERIOD, MAINTAINED CONTACTS.
- RMS PROVIDE GENERAL PURPOSE RELAY C/W 120V COIL, 2 N.O. AND 2 N.C. CONTACTS. CONTACTS TO BE RATED A MIN. OF 5 AMPS.
- MD MOTORIZED DAMPER
- ⊖ GROUND FAULT TYPE 120V OUTLET CCT AS INDICATED.

LEGEND



DATE	NO.	REVISION
FEB 18, 02	AS-BUILT	

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS ON THE JOB SITE.



designed by	F. HARRIS	scale	NTS
drawn by	AB	job no.	005048
checked by		drawing no.	E2
approved by		date	SEPT 2000

OWNER
MOHAWK COUNCIL OF AKWESASNE

PROJECT
BLOCK 97 RBC

CORNWALL ISLAND ONTARIO

TITLE
RBC CONTROL PANEL REVISED - WIRING DIAGRAM

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