REQUEST FOR PROPOSALS

RFP-MCC-2006

ASSESSMENT, OPERATIONAL REVIEW, AND DESIGN

WALLACE NOVA SCOTIA WASTE WATER TREATMENT FACILITY

MUNICIPALITY OF CUMBERLAND

UPPER NAPPAN SERVICE CENTRE
1395 BLAIR LAKE ROAD
UPPER NAPPAN, NS
B4H 3Y4

MUNICIPALITY OF CUMBERLAND

REQUEST FOR PROPOSALS

Assessment, Operational Review, and Design of Wallace Nova Scotia Waste Water Treatment Facility

INTRODUCTION

The Municipality of Cumberland is requesting proposals from qualified firms, to conduct an assessment and operational review of the Wallace Nova Scotia Waste Water Treatment Facility. Once completed, the results of the assessment and operational review may be utilized to design and implement the appropriate upgrades, maintenance and other operational improvements as part of separate projects.

This Request for Proposal (RFP) and supporting documents supplied with it define both the form and content required of your proposal. We urge you to structure your response in accordance with the terms of this RFP. It will be by these criteria that we will determine whether a Proposal is complete, appropriate and competitive. **Proposals that do not conform to these terms and conditions may be given lesser weight than others, or may be rejected.**

This document is not intended to limit the content of your Proposal, but rather, to provide a common framework for the Municipality to assess each Proposal in a professional manner in a demonstrably fair process. You may provide unsolicited information if you consider it to be relevant.

Proposal packages may be subject to disclosure under the Province's "freedom of information" legislation. By submitting a Proposal, the Proponent agrees to the appropriate disclosure of the information supplied, subject to the provisions of the governing law. The Municipality cannot guarantee the confidentiality of the complete content of any Proposal after the procurement has been awarded to the successful Proponent.

SECTION 1 - TERMS AND CONDITIONS

SUBMISSION OF PROPOSALS

The following is to be used in the preparation and submission of a proposal for an assessment and operational review of the Wallace Nova Scotia Waste Water Treatment Facility.

1. Completed vendor proposals and other correspondence should be submitted to:

   MUNICIPALITY OF CUMBERLAND
   UPPER NAPPAN SERVICE CENTRE
   1395 BLAIR LAKE ROAD
   UPPER NAPPAN, NS
   B4H 3Y4

   ATTENTION: Mr. JUSTIN WAUGH-CRESS, P. ENG.
   DIRECTOR, ENGINEERING AND OPERATIONS

   Any proposals submitted by fax, email or telephone will not be accepted under any circumstances.

2. Proposals must be submitted in a sealed envelope clearly marked **"Wallace Nova Scotia Waste Water Treatment Facility Assessment and Operational Review"**.

3. Please provide **two (2) hard copies** and **one (1) PDF electronic copy** of your proposal.

4. **Closing Time and Date:**

   Proposals are due and will not be accepted any later than **2:00 pm local time on Tuesday March 3, 2020**.

5. Late proposals will not be accepted and will be returned unopened.

6. Proposals must be submitted on firm letterhead duly signed by an authorized person.

7. Proposals will be opened publicly, on **Tuesday March 3, 2020** at Upper Nappan Service Centre, 1395 Blair Lake Road, Upper Nappan, NS, immediately following closing at 2:00 pm local time. The opening of proposals at that time is to publicly record receipt of them. Details of the submissions will not be publicly disclosed at that time.

8. **Terms and Conditions**
   The terms and conditions of the Wallace Nova Scotia Waste Water Treatment Facility Assessment and Operational Review proposal submitted by you are to remain firm and irrevocable from the proposed closing date of **Tuesday March 03, 2020 to May 04, 2020** and, if you receive our letter of acceptance, become part of the contract with the Municipality, expiring at the completion of the work identified in the proposal.

PROPOSAL REGULATIONS

1. Submission of a Proposal indicates acceptance by the submitter of all the conditions contained in this RFP unless otherwise clearly and specifically noted in the Proposal submitted.

2. **Municipality's Right to Reject**

   The Municipality of Cumberland reserves the right, without prejudice,
   - to accept any Proposal,
   - to reject any or all Proposals,
   - to not be obligated to accept the lowest Proposal,
   - to accept any Proposal that it considers to be in its best interests.
   - to waive formality, informality or technicality in any Proposal.
   - to reject any proposal that it feels incapable of providing the necessary resources to perform the work in a satisfactory manner.

   Proponents may be required to demonstrate financial stability, authorization to provide the services being acquired, and/or regulatory agency approval or registration as needed or otherwise clarify the Proponent's capability to satisfy the invitation requirements.

   Acceptance is subject to the approval of the Municipal of Cumberland Council.

3. No adjustments will be allowed to any submitted Proposals. Proposals, however, may be withdrawn by written request prior to the submission of proposals closing date and time.

4. Late proposals will be rejected.

5. The submitter must be prepared to include in the contract for services any oral or written representations, undertakings or guarantees that are made prior to the final agreement, including the entire response to this RFP, or parts thereof.

6. Proposals not completed in permanent, unalterable form of print will be rejected.

7. The Municipality of Cumberland shall pay no fee to any firm for the preparation and delivery of its Proposal in response to the Municipality's RFP. The Municipality will not be responsible for any costs, expenses, losses, damages or liability incurred by the Proponent because of, or arising out of data/information collection, the submission of any proposal, or due to the Municipality not accepting or rejecting any proposal.

8. In case of any disputes over the completeness, accuracy and/or interpretation of this RFP, the versions of such documents held by the Municipality will be considered correct. Information, offers, commitments or instruction obtained by any source other than the Municipality of Cumberland will not be binding on the Municipality. Inquiries regarding this request for proposals can be directed to:

Kellie Seaman
Recruitment and Procurement Officer
Upper Nappan Service Centre
1395 Blair Lake Road
Upper Nappan NS
Phone: 902-664-9243
kseaman@cumberlandcounty.ns.ca

Enquiries and responses given may be recorded and may be distributed to all other Proponents as Addenda. No responses shall be binding on the Municipality unless made in writing. All enquiries regarding the interpretation of these Terms and Conditions, general procurement policy or procedures must be made to the Municipality of Cumberland.

9. It is recommended that all parties interested in responding to this RFP, provide their name and contact information to Kellie Seaman, by email at kseaman@cumberlandcounty.ns.ca to ensure the receipt of any addendums or other information relative to this RFP prior to the closing date. It is however, the responsibility of all respondents to check the Municipality of Cumberland web site (www.cumberlandcounty.ns.ca) and the Nova Scotia provincial procurement website on a regular basis for any addendums or information releases for this RFP. No addendums or other relevant information will be issued **within 48 hours of the RFP closing date and time**.

10. It is mandatory to complete **Section 3 - PROPOSAL REQUIREMENTS**.

SECTION 2 – SCOPE OF WORK

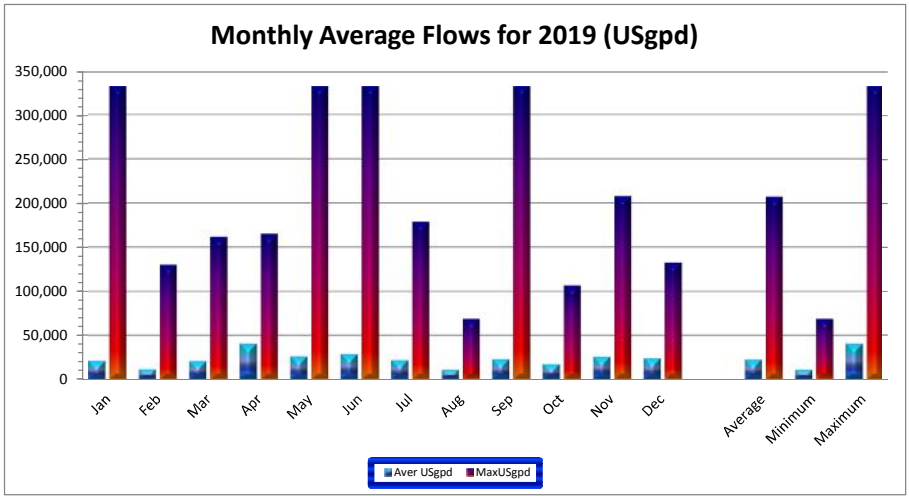
1. Background

The Wallace Nova Scotia Waste Water Treatment Facility (Treatment Facility) is located on Ferry Road, just west of the Village of Wallace and south of the Wallace Harbour. It was constructed in late 1987, and consists of two aerated treatment lagoons, a blower building providing air for Lagoon aeration and an ultraviolet disinfection system. The Treatment Facility is connected to the Village of Wallace waste water collection system which is contemporary in age.

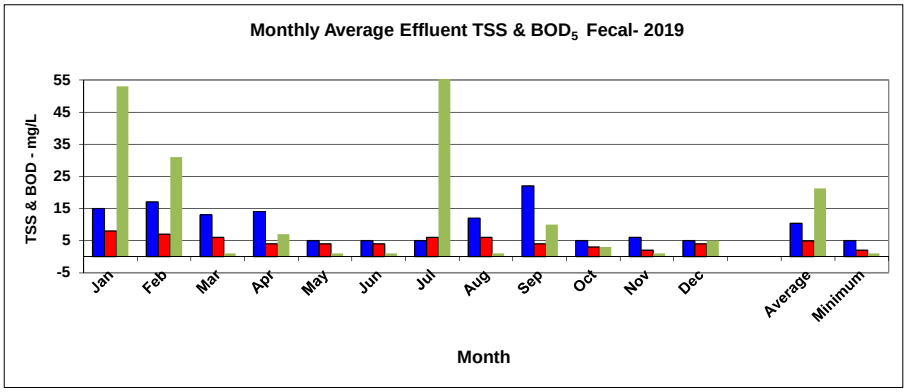
The flow and effluent quality data for 2019 are presented below:

Wallace Monthly Flows

2019	*Aver USgpd*	MaxUSgpd
Jan	21,142	333,159
Feb	11,670	130,115
Mar	20,873	161,697
Apr	40,842	165,166
May	26,284	333,200
Jun	28,891	333,200
Jul	22,076	178,897
Aug	11,213	68,953
Sep	22,963	333,200
Oct	17,603	106,690
Nov	25,937	207,734
Dec	24,269	132,463
Average	**22,814**	**207,040**
Minimum	11,213	68,953
Maximum	40,842	333,200



	Blue	Red	Green
2019	TSS	BOD	Fecal
Jan	15	8	53
Feb	17	7	31
Mar	13	6	1
Apr	14	4	7
May	5	4	1
Jun	5	4	1
Jul	5	6	141
Aug	12	6	1
Sep	22	4	10
Oct	5	3	3
Nov	6	2	1
Dec	5	4	5
Average	**10**	**5**	21.25
Minimum	5	2	1
Maximum	69	19	141



All flow through the Treatment Facility is by gravity. Under normal operating conditions, raw untreated waste water from Wallace first flows into Lagoon No. 1 where it is subjected to aeriation from six (6) aerators. From Lagoon No. 1, the waste water flows

into Lagoon No. 2 where the waste water is also subjected to aeriation from two (2) additional aerators.
``

Air for the lagoon aerators is provided from a blower located within the Lagoon Blower Building located immediately south of Lagoon No. 2. The original blower was replaced by a new 7.5 HP, blower in 2015 although the original piping from the Blower Building to the lagoons is original. Discharge from Lagoon No. 2, flows by gravity to the Ultraviolet Treatment Building where it undergoes UV disinfection from a Trojan 3000 Ultraviolet Disinfection Unit, which was installed in 2002. From the UV treatment unit, the treated waste water flows from the facility and into Wallace Harbour.

Piping within the Treatment facility allows raw untreated inflow to be directed to either lagoon and from either lagoon to the Ultraviolet Treatment Building. Valving also allows the isolation of either Lagoon from each other. A discharge pipe line also extends directly from both lagoons to permit direct discharge from either lagoon into Wallace Harbour

The ultraviolet disinfection unit is a Trojan 3000 system, consisting of three (3) racks with two (2) bulbs per rack. Flow through the UV disinfection system, is controlled by a gate valve. From the UV Disinfection building, the treated waste water discharges into Wallace Harbour.

2. Project Scope

The project scope is to conduct an overall assessment and operational review of the Wallace Nova Scotia, waste water treatment facility, which at a minimum should consider the following tasks.

1. Review of inflow volumes to determine current waste water flow rates.
2. Review of existing pre-and post-treatment water quality information, to assess effectiveness and suitability of existing facility equipment and design including lagoon capacity and retention times.
3. Assessment of the two lagoons condition and operation, and the design and operation of the aerators.
4. Prepare a sludge management plan complete with specifications and tender documents for implementation.
5. Review of the existing aerator blower/compressor and piping to determine suitability and any modifications to obtain design lagoon aeration under current or future increased flows. Provide design and specifications for recommended upgrades.
6. Review of existing ultraviolet disinfection system to determine suitability and any necessary upgrades or modifications to obtain regulatory disinfection levels

under current or future increased flows. Provide design and specifications for recommended upgrades.

7. Review and assessment of facility piping and valve control to ensure water flow meets original facility design and control requirements, and any recommended upgrades to maintain or upgrade the facility operation. Provide design and specifications for recommended upgrades.
8. Review and assess the current level of on-line operational measurements and recommend upgrades and improvements.
9. Other observations and recommendations of facility operation that may result in operational improvements and cost effectiveness.

3. Deliverables

The key deliverables will be:

- A report that addresses and details at a minimum the items identified in Section 2 above and provides operational recommendations and conclusions.
- Design and specifications for recommended facility upgrades.
- A sludge management plan and tender/specification package for implementation.

4. Reporting

A Draft Final Report would be required by **May 1, 2020** with the final report due by **May 15, 2020**.

SECTION 3 – PROPOSAL REQUIREMENTS

Please provide the information requested below in the proposal submission.

1. **The Consulting Team and References**

    - Provide a general description of your firm, including the structure and size.
    - Indicate the size and make-up of the consulting team to be assigned to the work including the names of any sub-contractors or partners that would be utilized.
    - Detail the extent of the team's relevant experience.
    - Please list your major municipal clients and references that would relate to this project.

2. **Methodology and Approach**

    - Outline the methodology and approach to this study and the general steps in the review process.
    - Explain how you would plan to produce each of the key deliverables in the study.

3. **Project Work Plan and Schedule**

    - Provide a detailed plan for conducting the study, with a schedule that will meet the reporting date identified above.
    - Identify any key progress meetings or conference calls required during the study process.
    - Identify activities by consultant and time spent on each major component of the work plan.

4. **Project Fees**

    The proposal should provide a breakdown of consulting fees and estimated expenses that will conform to the Work Plan. In addition, please provide any specific invoicing conditions or requirements that impact the overall costing for the study.

5. **Evaluation Criteria**

    Each response to this Request for Proposal will be evaluated by the Municipality to determine the degree to which it responds to the requirements as set out. Because this is a Request for Proposal, other factors in addition to price will be considered when submissions are evaluated. Factors to be considered are as follows:

Criteria	Weighting
Qualifications, References of the Consulting team	**30%**
Methodology and Approach	**20%**
Work Plan and Schedule	**30%**
Cost	**20%**

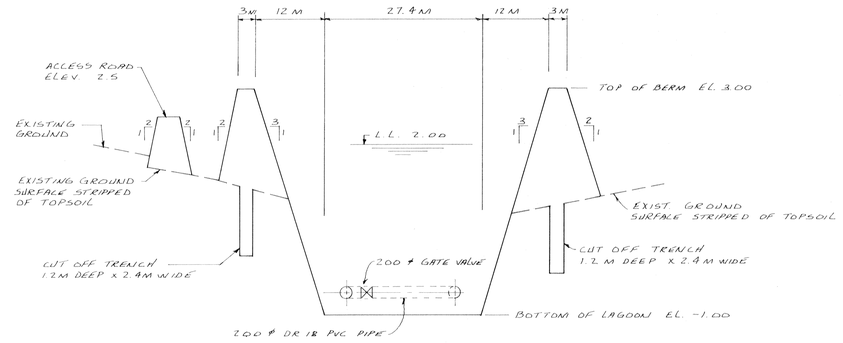
6. Termination

If the Respondent fails to comply with any of the terms and conditions set forth in this document, the Respondent will be notified in writing and will be given fifteen days to comply with the violated sections. At the expiration of the stated 15 day period, if the Respondent has not complied with same to the satisfaction of the Municipality, the Contract will be terminated. Any termination of the Contract by the Municipality as aforesaid shall be without prejudice to any other rights or remedies the Municipality may have.

7. General

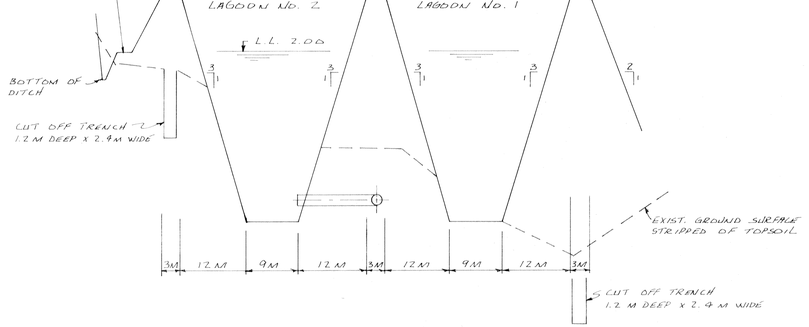
Provide any other information and/or comments which you feel are appropriate for the Municipality to consider in making its decision.

……End of Request for Proposal ……



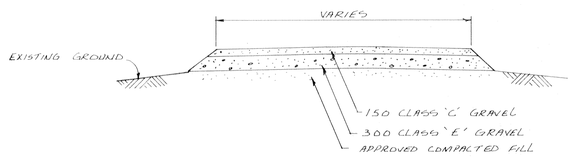
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SCALE - HORZ. 1:500
VERT. 1:50



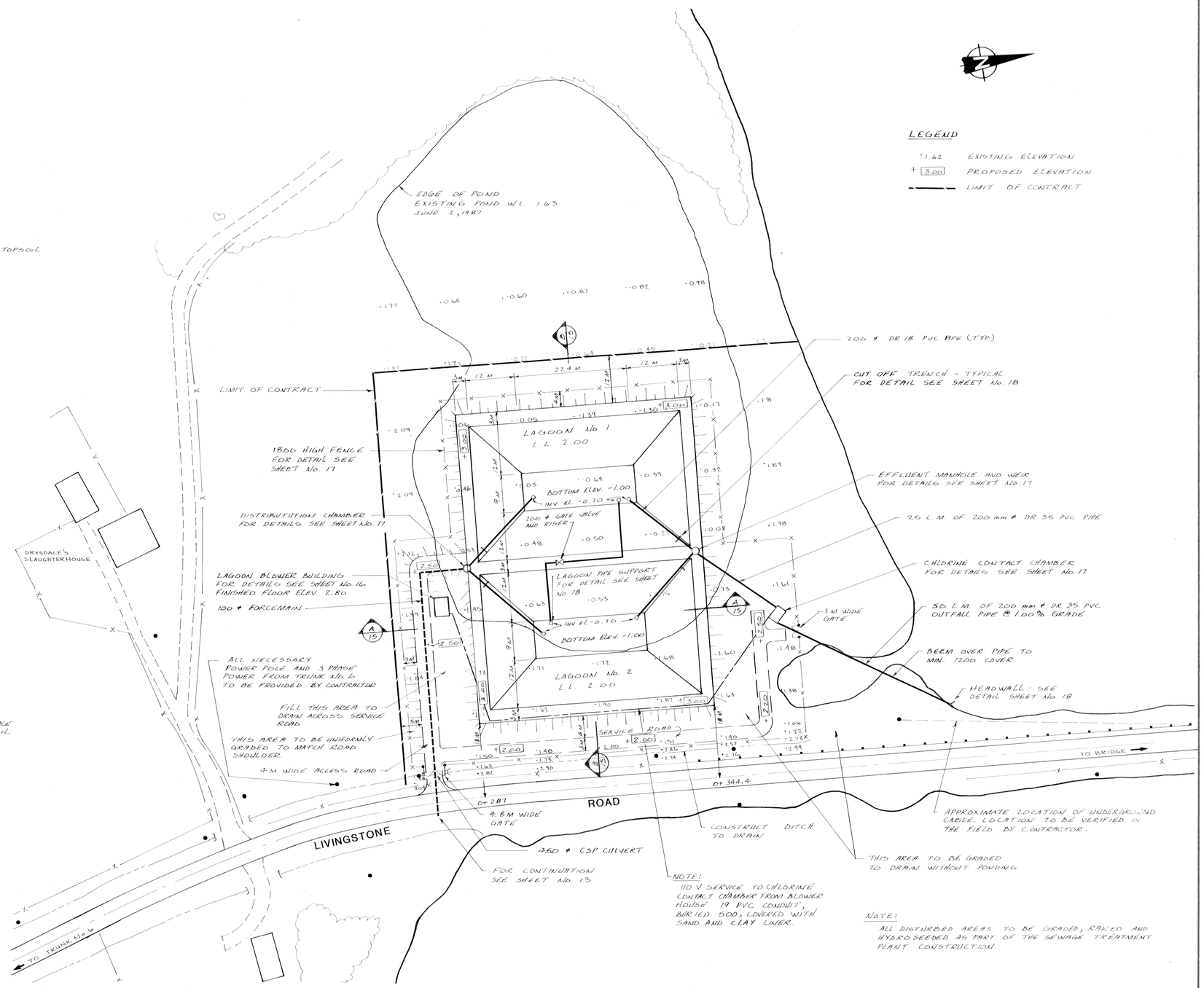
SECTION B-B'

SCALE - HORZ. 1:500
VERT. 1:50



TYPICAL ROAD CROSS - SECTION

SCALE - N.T.S.



SITE PLAN

SCALE - 1:500

Record Drawing
REGISTERED PROFESSIONAL ENGINEER
NO. 4331
G.A. JAGOSH
DATE Feb 1/88

PRINT RECORD

NO.	DATE	FOR

E. M. GILLIS 4036 REGISTERED PROFESSIONAL ENGINEER PROVINCE OF NOVA SCOTIA

REGISTERED PROFESSIONAL ENGINEER DATE 88/01/18 G. A. ISENOR 2683 PROVINCE OF NOVA SCOTIA

MUNICIPALITY OF CUMBERLAND COUNTY

PORTER DILLON
Consulting Engineers • Planners • Environmental Scientists

NO.	REVISIONS	DATE	BY
2	RECORD DRAWING	03/01/88	GAI
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0	ISSUED FOR APPROVAL	22/06/87	G.A.I.

DESIGN	EG
DRAWN	D.H./T.W.
CHECKED	GG/GAI
APPROVED	GAI
DATE	JUNE, 1987
SCALE	AS NOTED

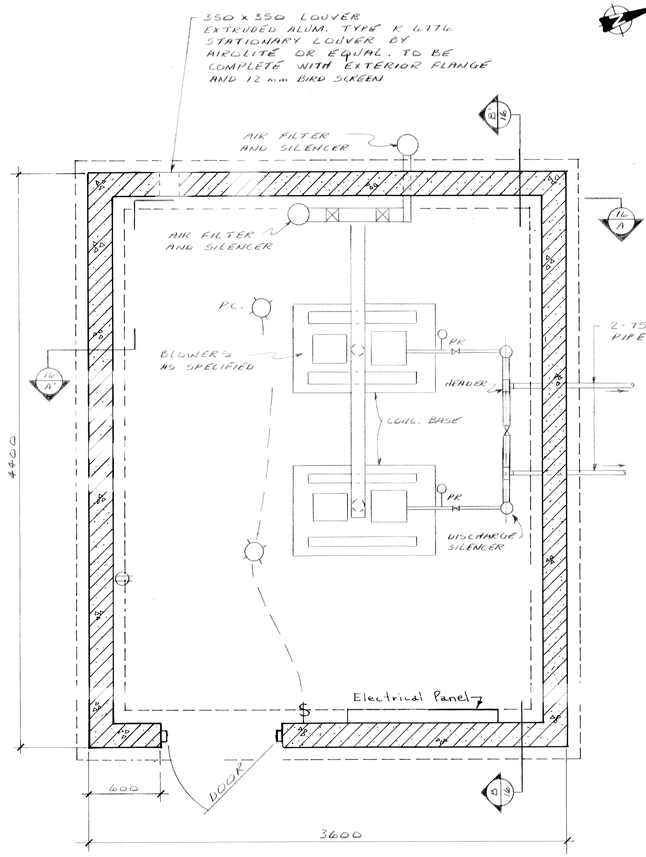
WALLACE SEWER SYSTEM

LAGOON SITE PLAN

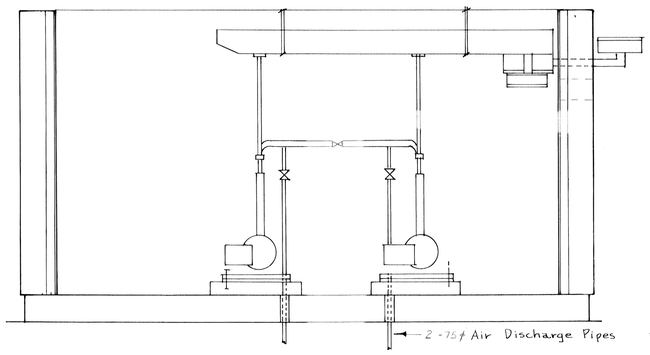
PROJECT NO. 2164
SHEET NO. 15
OF 18

MMD 74-436-8110

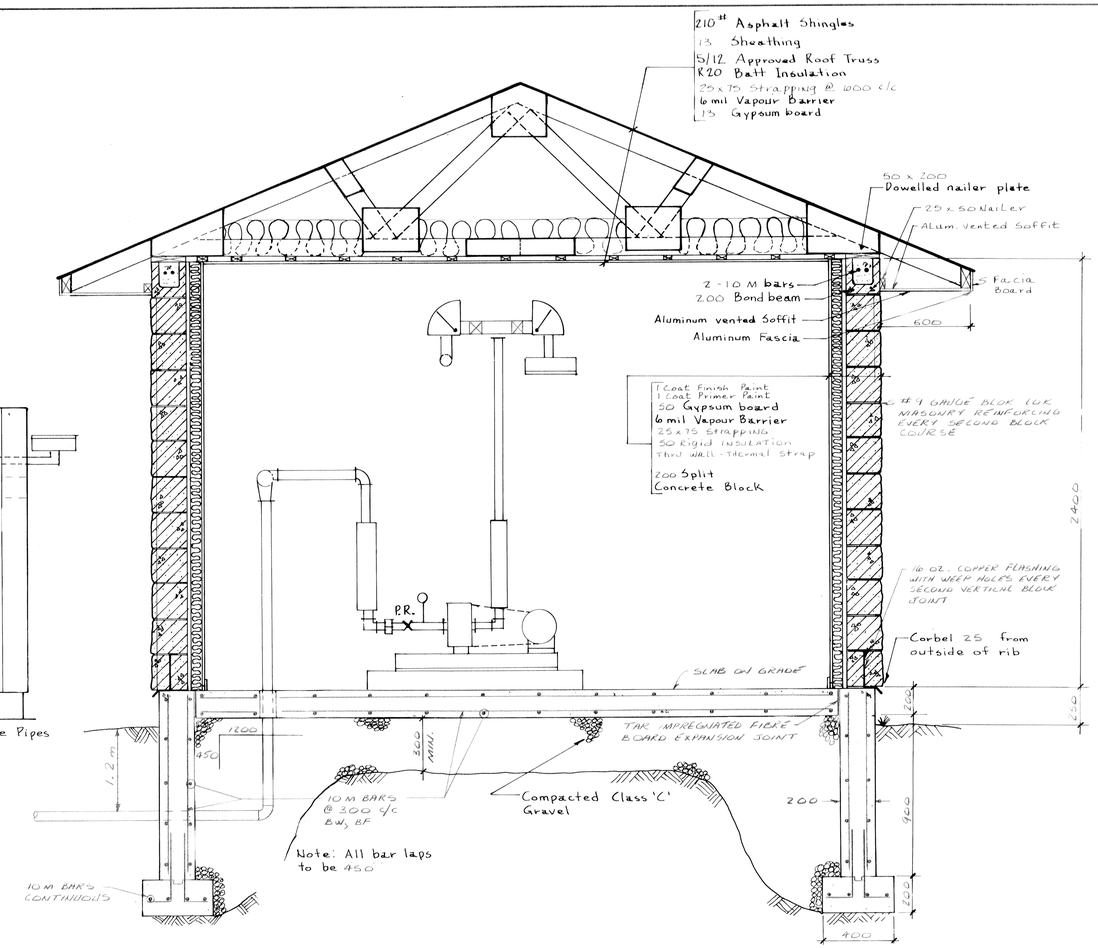
TRANSLAR



PLAN VIEW

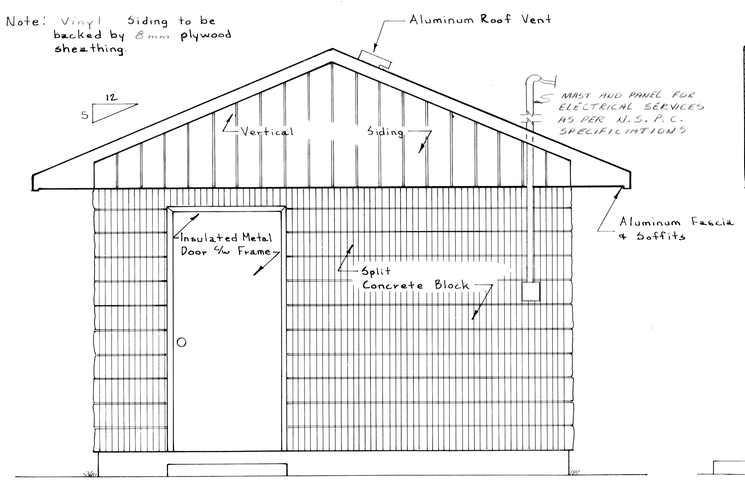


SECTION B-B'

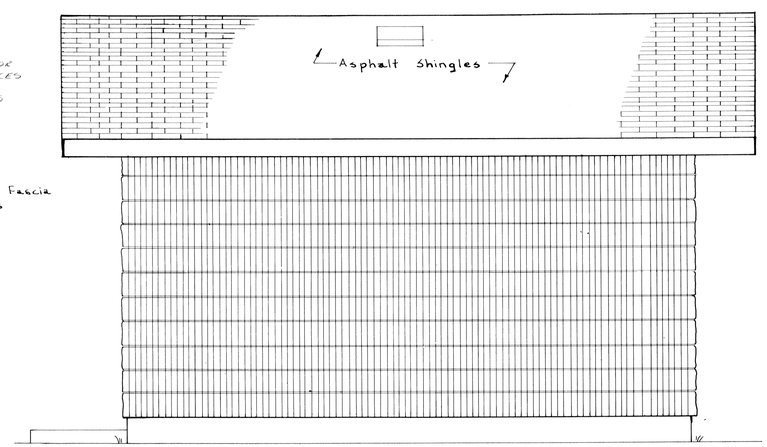


SECTION A-A'

NOTE:
ALL CONCRETE TO BE 25 MPa
@ 28 DAY STRENGTH.



FRONT ELEVATION



SIDE ELEVATION

Record Drawing
REGISTERED PROFESSIONAL ENGINEER
NO 4331 .....
DATE Feb 3/88 G.A. ISENOR

PRINT RECORD
NO | DATE | BY
DATE

REGISTERED PROFESSIONAL ENGINEER
DATE 13 Jan 88
G. T. GOAD
4523
PROVINCE OF NOVA SCOTIA

REGISTERED PROFESSIONAL ENGINEER
DATE 04/02/88
G. A. ISENOR
2663
PROVINCE OF NOVA SCOTIA

MUNICIPALITY OF CUMBERLAND COUNTY

PORTER DILLON
Consulting Engineers • Planners • Environmental Scientists

NO.	REVISIONS	DATE	BY
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2	RECORD DRAWING	04/02/88	
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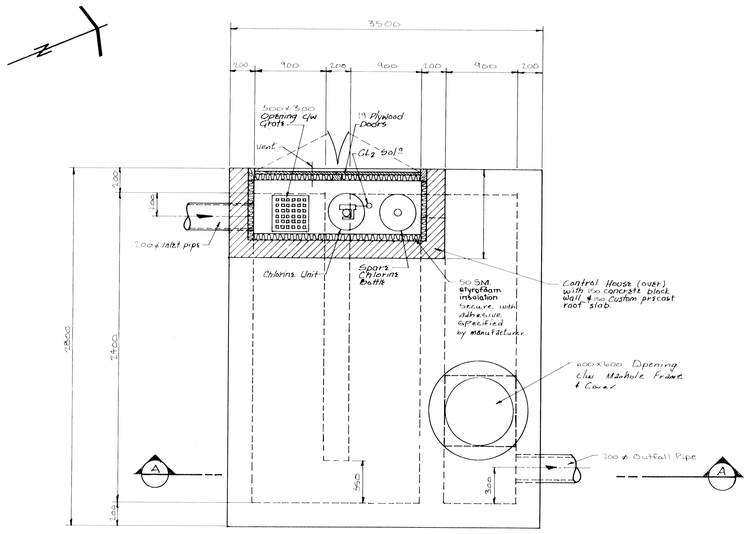
DESIGN G.A.I.
DRAWN T.W./D.P.
CHECKED G.G.
APPROVED G.A.I.
DATE JUNE 1987
SCALE N.T.S.

WALLACE SEWER SYSTEM

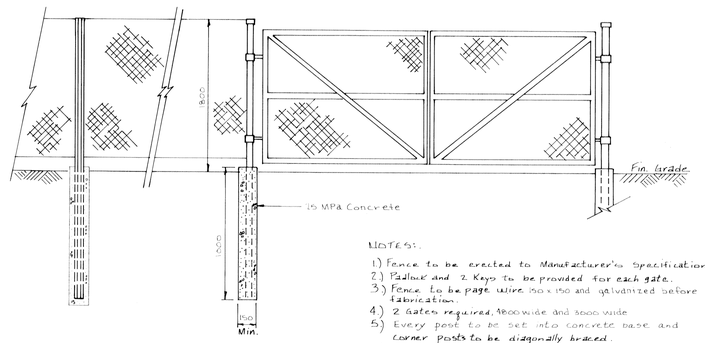
LAGOON BLOWER BUILDING

PROJECT NO 2164
SHEET NO 16
OF 18

(N) TRANSLAW



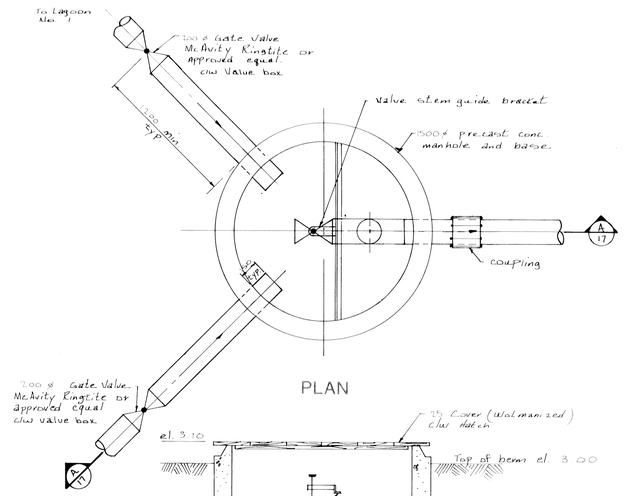
PLAN



NOTES:

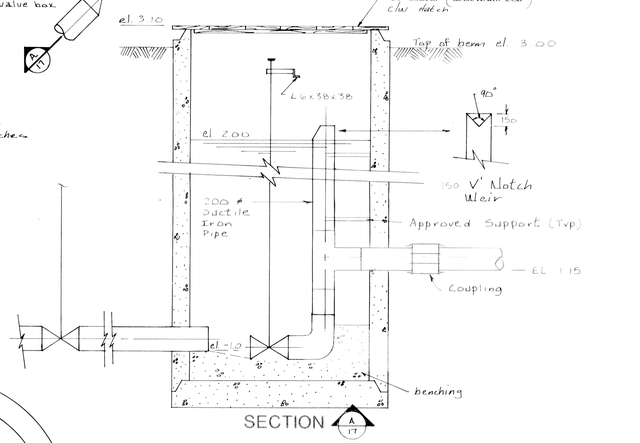
1) Fence to be erected to Manufacturer's Specifications.
2) Padlock and 2 Keys to be provided for each gate.
3) Fence to be page wire 150 x 150 and galvanized before fabrication.
4) 2 Gates required, 4800 wide and 3600 wide
5) Every post to be set into concrete base and corner posts to be diagonally braced.
6) Post to be 3000 apart

FENCE & GATE DETAILS

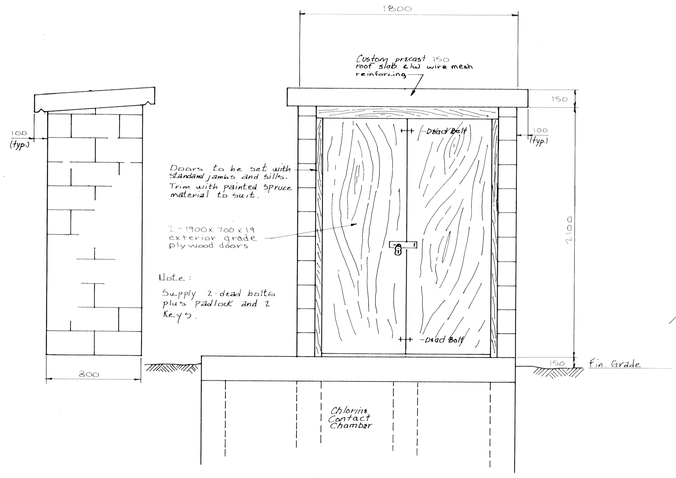


Note:

Piping within manhole to be ductile iron with mechanical joint fittings. Contractor to supply 2 valves wrenches to be stored at blower house.

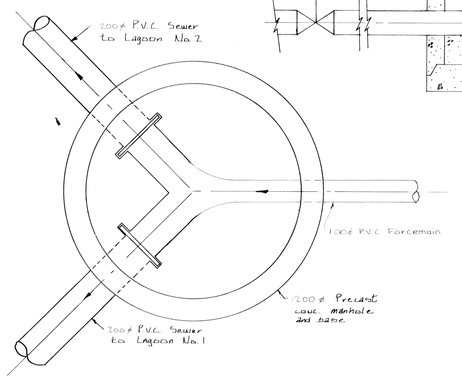


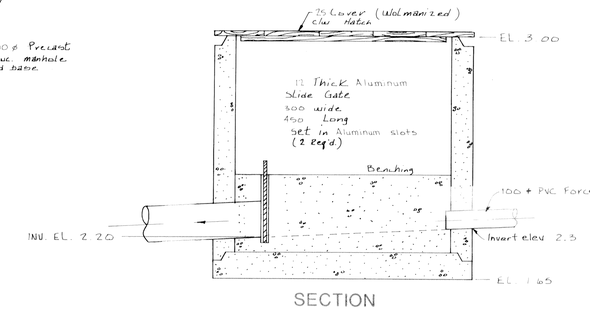
EFFLUENT MANHOLE & WEIR



CHLORINE CONTACT CHAMBER DETAILS

CHLORINE ENCLOSURE DETAILS





DISTRIBUTION CHAMBER

Record Drawing

REGISTERED PROFESSIONAL ENGINEER
NO. 4331 ..... PROVINCE OF NOVA SCOTIA
DATE: Feb 2 / 88

PRINT RECORD

NO	DATE	FOR

DATE .....

REGISTERED PROFESSIONAL ENGINEER — G. T. GOAD — 4523 — PROVINCE OF NOVA SCOTIA — DATE: Oct. 31, 1988

REGISTERED PROFESSIONAL ENGINEER — G. A. ISENOR — 2683 — PROVINCE OF NOVA SCOTIA — DATE: Feb 2 / 88

MUNICIPALITY OF CUMBERLAND COUNTY

PORTER DILLON
Consulting Engineers • Planners • Environmental Scientists

NO.	REVISIONS	DATE	BY
2	RECORD DRAWING	04/01/88	[illegible]
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0	ISSUED FOR APPROVAL	22/06/87	G.A.I.

DESIGN	G.A.I.
DRAWN	J.R.W.
CHECKED	E.G./G.G.
APPROVED	G.A.I.
DATE	JUNE 1987
SCALE	NOT TO SCALE

WALLACE SEWER SYSTEM

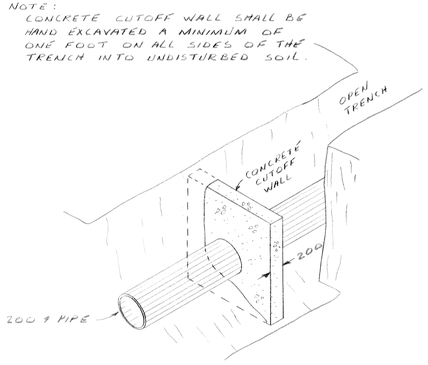
LAGOON DETAILS

PROJECT NO. 2164

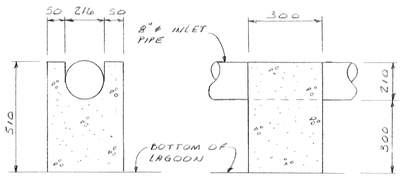
SHEET NO. 17 OF 18

TRANSLAN

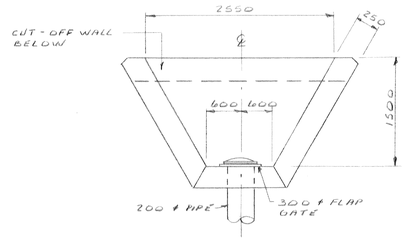
NOTE:
CONCRETE CUTOFF WALL SHALL BE HAND EXCAVATED A MINIMUM OF ONE FOOT ON ALL SIDES OF THE TRENCH INTO UNDISTURBED SOIL.



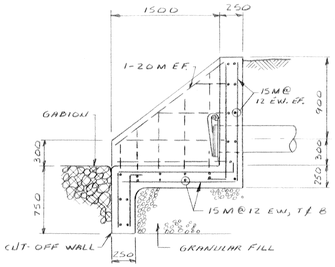
CUT OFF WALL



TYPICAL PIPE SUPPORT

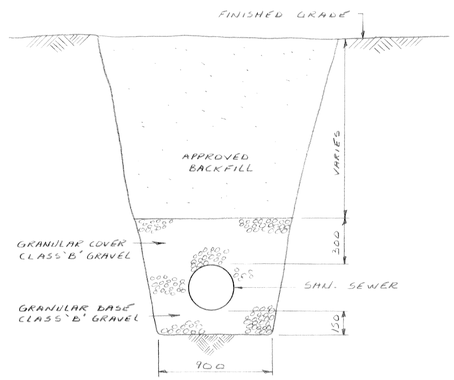


PLAN

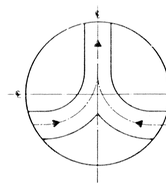


SECTION

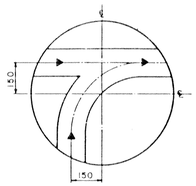
HEADWALL



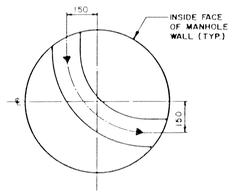
TRENCH DETAIL



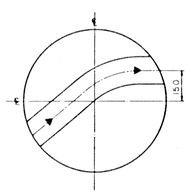
TEE JUNCTION



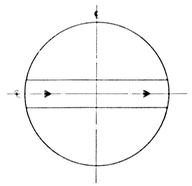
THREE WAY JUNCTION



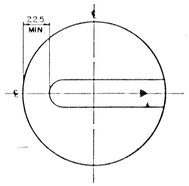
RIGHT ANGLE BEND



ACUTE ANGLE BEND



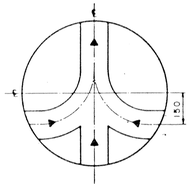
STRAIGHT THROUGH



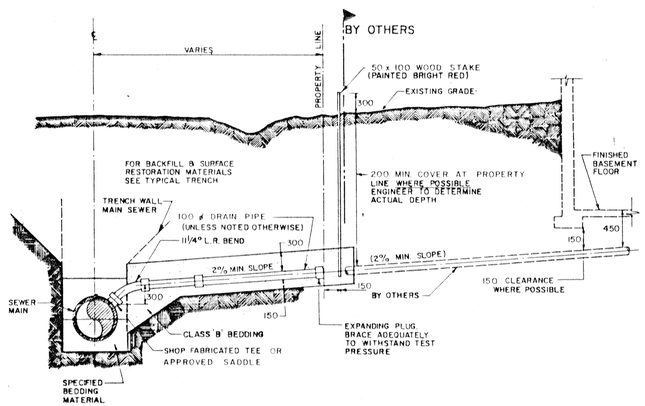
DEAD END

NOTE: ALL BENCHING TO BE GIVEN A WOOD FLOAT FINISH WITH A 1:8 SLOPE FROM M.H. INSIDE WALL TO PIPE CHANNEL SPRINGLINE

BENCHING

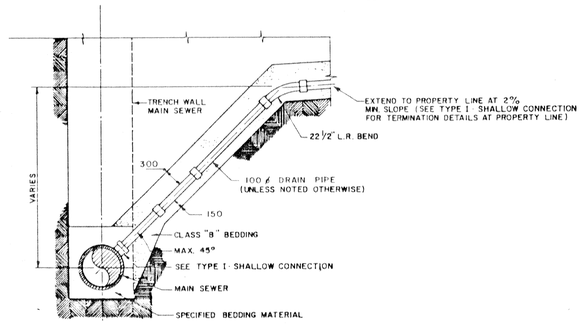


FOUR WAY JUNCTION

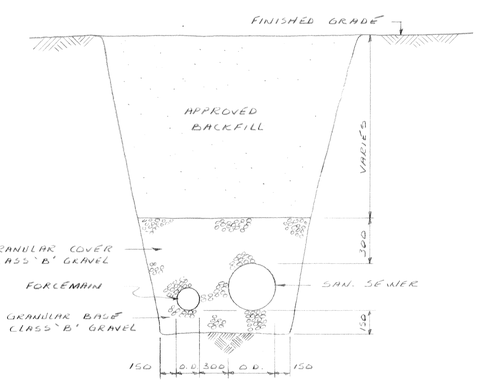


TYPE I - SHALLOW CONNECTION
(TO 3.6m DEEP)

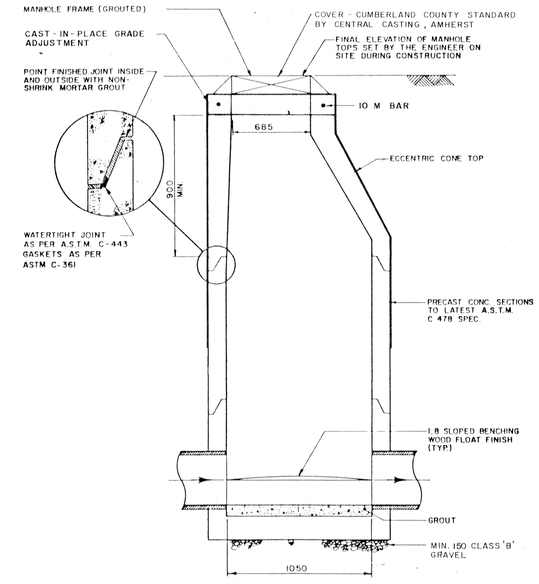
NOTE
FIRST 2 LENGTHS OF PIPE OFF MAIN SEWER TO HAVE A MAX. LENGTH OF 0.9m



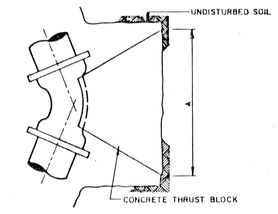
TYPE II - DEEP CONNECTION
(TO 4.8m DEEP)



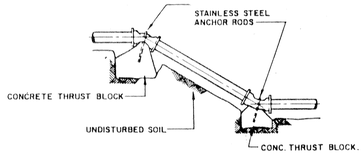
TRENCH DETAIL



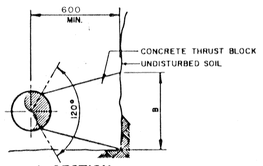
TYPICAL PRECAST MANHOLE



PLAN



VERTICAL BENDS



SECTION

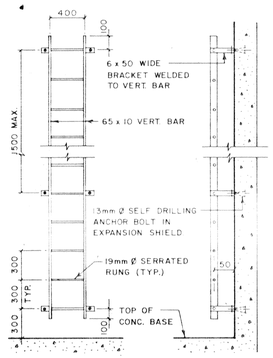
CONCRETE THRUST BLOCK

THRUST BLOCK SIZES -

PIPE DIAMETER (INCHES)	0° TO 45°		46° TO 90°	
	A	B	A	B
75	450	450	610	610
100	450	450	610	610

NOTES:
1) DO NOT ENCASE PIPE JOINT IN CONCRETE.
2) CONCRETE TO BE 20 MPa AT 28 DAYS
3) MINIMUM THRUST BLOCK SIZE TO BE

TRENCH DETAIL



LADDER DETAIL

ALL MANHOLES 2 M AND GREATER IN DEPTH REQUIRE A LADDER.

Record Drawing
REGISTERED PROFESSIONAL ENGINEER
NO. 4331
G.A. JAGOSH
DATE Feb 3/88

PRINT RECORD

NO.	FOR	DATE

REGISTERED PROFESSIONAL ENGINEER — DATE 22/06/87 — G.T. BOAD — 4523 — PROVINCE OF NOVA SCOTIA

REGISTERED PROFESSIONAL ENGINEER — DATE 22/06/87 — G.A. ISENOR — 2683 — PROVINCE OF NOVA SCOTIA

MUNICIPALITY OF CUMBERLAND COUNTY

PORTER DILLON
Consulting Engineers • Planners • Environmental Scientists

NO.	REVISIONS	DATE	BY
2	RECORD DRAWING	04/01/88	GAI
1	ISSUED FOR TENDER	23/06/87	G.A.I.
0	ISSUED FOR APPROVAL	22/06/87	G.A.I.

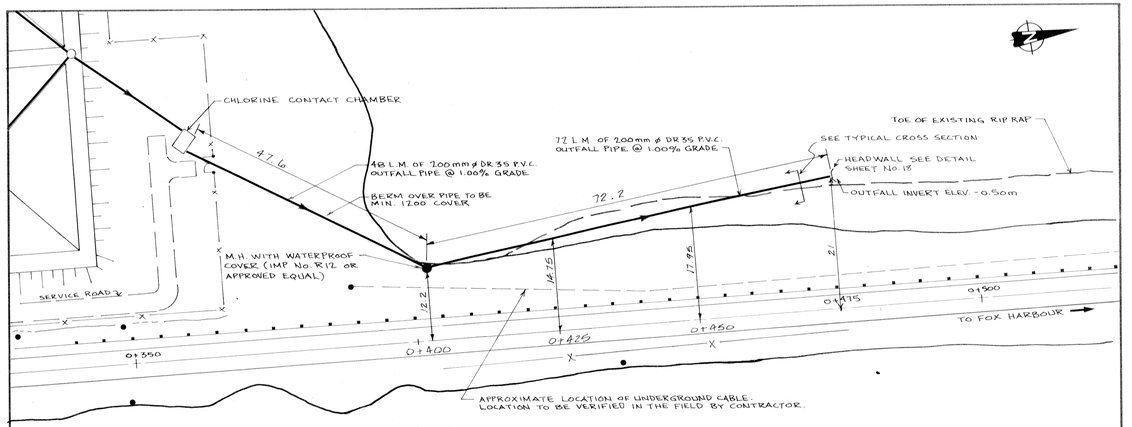
DESIGN GG
DRAWN T.W.
CHECKED GG/GAI
APPROVED GAI
DATE JUNE, 1987
SCALE N.T.S.

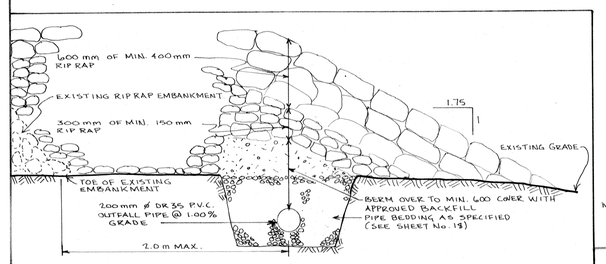
WALLACE SEWER SYSTEM

DETAILS

PROJECT NO. 2164
SHEET NO. 18
OF 18

MADE IN CANADA
TRANSLAN





TYPICAL CROSS SECTION

Scale 1:25

Record Drawing

REGISTERED PROFESSIONAL ENGINEER
NO. 4331
DATE Feb 1/88
R.A. JAGOSH

NOTE: WHERE IN CONFLICT DETAILS ON THIS DRAWING SUPERSEDE SHEET No. 15.

Scale 1:500

PORTER DILLON Consulting Engineers • Planners • Environmental Scientists	TITLE: LAGOON OUTFALL PLAN	PROJECT No. 2164
DATE: JULY 3,1987	PROJECT: WALLACE SEWER SYSTEM	FIGURE No. SK-1