RFP-MCC-2513
Addendum #1

To All Bidders of RFP-MCC-2513:

Please note: the following addendum applies to RFP-MCC-2513 and shall be taken into consideration when preparing bid documents.

Construction Drawings

Attached are the Issued for Construction Drawings for the Springhill Water Treatment Plant. Please note, there are not record drawings and a site visit is recommended.

A signed copy of each Addendum must also be included with the bid submission. Failure to include this Addendum may be cause for rejection. If you have any questions, please contact Shelby Hum at shelbyhum@cumberlandcounty.ns.ca

ALL OTHER SPECIFICATIONS, TERMS AND CONDITIONS REMAIN UNCHANGED.

Acknowledgement by Bidder:

Company Name: _____

Print Name: _____

Signed: _____

Date: _____

End of Addendum #1

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

(REVISED DRAWINGS – REVISION No. 2 / ADDENDUM No. 4)

CONTRACT No. 5135

SET No. __

SEPTEMBER 6, 2002 (REVISED JULY 28, 2004)

amec

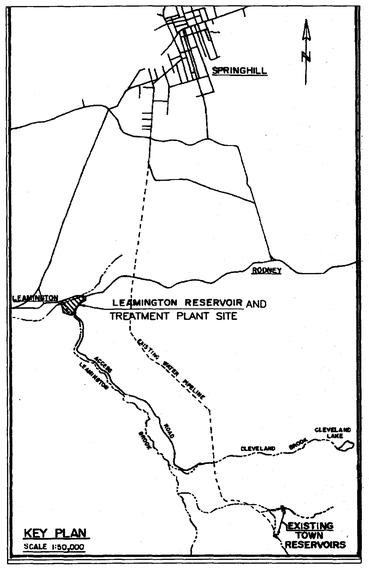
AMEC E&C Services Limited
1874 Brunswick Street
Halifax, Nova Scotia
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Tel: (902)420-8900
Fax: (902)420-8949

IN ASSOCIATION WITH

ABL ENVIRONMENTAL consultants limited
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DARTMOUTH, NS, B2Y 3Y6
TEL: (902)466-2050
FAX: (902)465-4399

INDEX & KEY PLAN

LIST OF DRAWINGS



STRUCTURAL

51353-201B	TYPICAL DETAILS AND NOTES
-202B	FOUNDATION PLAN FORMWORK, SECTIONS AND DETAILS
-203B	FOUNDATION REINFORCING PLAN, DETAILS AND SECTIONS
-204B	SECTIONS
-205B	MAIN AND MEZZANINE FLOOR SLAB PLANS, SECTIONS AND DETAILS
-206B	ROOF PLAN, SECTIONS, DETAILS, AND MISCELLANEOUS DETAILS

ARCHITECTURAL

51353-301B	BUILDING PLANS AND ELEVATIONS
-302B	BUILDING SECTIONS AND MISCELLANEOUS DETAILS
-303B	WALL SECTIONS AND ROOF DETAILS
-304B	STAIR DETAILS, MILLWORK DETAILS, DOOR SCHEDULE, MISCELLANEOUS DETAILS

MECHANICAL

51353-401B	SANITARY AND DOMESTIC SERVICES
-402B	VENTILATION PLANS AND SECTIONS
-403B	PROCESS PIPING PLAN
-404B	HIGH LIFT PUMPS - PLAN AND SECTIONS
-405B	BACKWASH AND RAW WATER PUMPS - PLAN AND SECTIONS
-406B	DETAILS
-407B	DETAILS
-408B	INSTRUMENTATION PLAN

NOTE:
ALL REVISED DRAWINGS FOR THE 800 I.G.P.M DAY TREATMENT PLANT, EXPANDED BUILDING AND ASSOCIATED DELETIONS / MODIFICATIONS AS A RESULT OF THE VALUE ENGINEERING STUDY HAVE THE SUFFIX "B", INCLUDED FOR ALL DRAWING NUMBERS.

ELECTRICAL

51353-501B	ELECTRICAL SITE PLAN, LEGEND AND SCHEDULE
-502B	SITE PLAN DETAILS
-503B	SITE PLAN DETAILS
-504B	FLOOR PLAN - LIGHTING
-505B	FLOOR PLAN - POWER
-506B	PANEL SCHEDULES
-507B	MOTOR STARTER LIST, WIRING DIAGRAMS AND DETAILS

CIVIL

51353-602B	LEAMINGTON RESERVOIR - SITE PLAN
-603B	LEAMINGTON RESERVOIR - SITE PLAN, YARD PIPING & DRAINAGE
-604B	LEAMINGTON RESERVOIR - EROSION AND SEDIMENT CONTROL
-605B	LEAMINGTON RESERVOIR - INTAKE PLAN
-606B	LEAMINGTON RESERVOIR - WASH WATER LAGOON
-607B	LEAMINGTON RESERVOIR - DETAILS

REFERENCE DRAWINGS ONLY

51353601	GENERAL ARRANGEMENTS (REFERENCE PRE-TENDER DOCUMENT)
29001I-16	PLAN AND PROFILE RIGHT OF WAY - PHASE 2 - JULY 1979
29001I-17	PLAN AND PROFILE RIGHT OF WAY - PHASE 2 - JULY 1979
29001I-19	LEGAL PLAN - WATER PIPELINE RIGHT OF WAY - AUGUST 1, 1979
29001I-20	DETAILS (PRV CHAMBER) - PHASE 2, JULY 1979

amec

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FAX: (902)466-4369

SEPTEMBER 6, 2002 (REVISED JULY 28, 2004)

GENERAL NOTES:

1. DRAWINGS NOT TO BE SCALED. ONLY FIGURED DIMENSIONS TO BE FOLLOWED.
2. LINEAR DIMENSIONS SHOWN ON DRAWINGS ARE IN MILLIMETERS, ELEVATIONS ARE IN METERS.
3. PRIOR TO PROCEEDING WITH WORK, CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS AND SUBMIT TO ENGINEER FOR REVIEW ANY INCONSISTENCIES AND ALTERATIONS TO THE WORK PRIOR TO COMMENCING CONSTRUCTION.
4. CO-ORDINATE WORK ON THESE DRAWINGS WITH ARCHITECTURAL, CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS AND REPORT ANY INCONSISTENCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. LOCATION OF SERVICES WHERE INDICATED ARE FOR GUIDANCE ONLY. COMPLETENESS AND ACCURACY ARE NOT GUARANTEED.
6. THE CARRYING OUT OF ANY WORK PRIOR TO THE REVIEW AND ACCEPTANCE OF DETAILED SHOP DRAWINGS BY THE ENGINEER TO BE AT THE CONTRACTOR'S OWN RISK.
7. ALL WORK AND MATERIALS TO CONFORM TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA, 1995.
8. CONTRACTOR IS TO ASSUME FULL RESPONSIBILITY FOR THE INTEGRITY OF THE STRUCTURES DURING ERECTION. CONTRACTOR IS TO PROVIDE ADEQUATE TEMPORARY BRACING SYSTEM TO MAINTAIN STRUCTURAL SAFETY, PLUMB AND IN TRUE ALIGNMENT UNTIL COMPLETION OF WORK.
9. ALL STRUCTURAL DESIGN WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:
   NATIONAL BUILDING CODE OF CANADA 1995
   CSA STANDARD A23.3-94 (CONCRETE)
   CSA STANDARD CAN/CSA-S16.1-94 (STRUCTURAL STEEL)
   CSA STANDARD S304.1-94 (MASONRY)

FOUNDATION NOTES:

1. ALL FOUNDATION AND SLAB ON GRADE BEARING SURFACES SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING THE CONCRETE.
2. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY JACQUES, WHITFORD & ASSOCIATES LTD. DATED NOVEMBER 6, 1979 (PROJECT NO. 1719) AND COMMENTS AND RECOMMENDATIONS DATED JULY 10, 2002 (PROJECT No. NSD17072)
3. ALL BUILDING FOUNDATIONS SHALL BE FOUNDED ON UNDISTURBED NATURAL TILL OR PREPARED STRUCTURAL FILL MATERIAL WITH ALLOWABLE BEARING CAPACITY OF 150 Kpa.
4. ALL FILL AND ORGANIC MATERIAL SHALL BE REMOVED DOWN TO THE UNDISTURBED TILL AS PER THE RECOMMENDATION OF THE GEOTECHNICAL REPORT, AND WHERE REQUIRED AREAS SHALL BE BROUGHT BACK TO REQUIRED ELEVATIONS WITH STRUCTURAL FILL COMPACTED AND PLACED ACCORDING TO THE RECOMMENDATION OF GEOTECHNICAL REPORT.
5. ALL EXTERIOR FOOTINGS SHALL BE FOUNDED AT A MINIMUM DEPTH OF 1400mm BELOW FINISH GRADE FOR FROST PROTECTION, REFER TO FOUNDATION PLAN FOR UNDERSIDE OF FOOTING ELEVATION.
6. SUBBASE FOR SLAB ON GRADE TO BE 300mm MINIMUM THICK TYPE 2 GRANULAR MATERIAL COMPACTED TO 100 PER CENT OF MAXIMUM STANDARD PROCTOR DRY DENSITY.
7. SLAB-ON-GRADE IS NOT TO BE PLACED UNTIL ALL UNDERGROUND SERVICES AND EMBEDDED PARTS HAVE BEEN INSTALLED AND TESTED.
8. THE BACKFILL MATERIAL STRUCTURAL FILL. ALL BACKFILLS SHOULD BE PLACED IN LIFTS AND COMPACTED TO 100 PERCENT OF MAXIMUM STANDARD PROCTOR DRY DENSITY.

MASONRY NOTES:

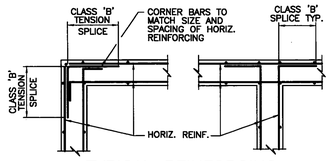
1. ALL CONCRETE BLOCK SHALL BE STANDARD CONCRETE MASONRY UNITS TYPE A TO CSA A165.1-94, CLASSIFICATION H/15/A/M UNLESS NOTED OTHERWISE.
2. ALL MASONRY MORTOR FOR CONCRETE BLOCK WALL SHALL BE TYPE 'S' TO CSA A179-94.
3. ALL MASONRY GROUT TO BE READY MIX CONCRETE TO CAN/CSA-A23.1 AND TO HAVE 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 20 MPa. SEE SPECIFICATION.
4. ALL REINFORCING STEEL SHALL HAVE MINIMUM YIELD STRENGTH OF 400 MPa AND CONFORM TO CAN/CSA G30.18-M1992.
5. ALL REINFORCING STEEL SHALL BE LAPPED IN ACCORDANCE TO CSA S304.1-94.
6. ALL MORTOR JOINTS SHALL BE 10mm.
7. ALL INTERSECTING OR ABUTTING MASONRY UNIT MUST BE BONDED BY MASONRY BONDING UNITS.
8. MASONRY CONTRACTOR TO COORDINATE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF OPENINGS, LOCATIONS OF DUCTS, PIPES AND OTHER PENETRATIONS THROUGH THE WALLS.
9. ALL INTERIOR MASONRY WALL TOP COURSE TO BE BOND BEAM FILLED WITH GROUT.
10. INSTALL 2-15M REINFORCING BARS ON BOTH SIDES OF DOOR OPENINGS, WALL ENDS, CONTROL JOINTS AND GROUT SOLID.
11. LINTEL SCHEDULE: ALL LINTEL FILLED WITH CONCRETE.
    DOOR AND LOUVER LINTEL SPAN 700 TO 1500
    USE TWO COURSE BOND BEAM WITH 1-15M TOP AND 1-20M BOTTOM 10M TIES AT 150 C/C WITH 200 BEARING EACH END.
    DOOR AND LOUVER LINTEL SPAN 690 AND SHORTER
    USE ONE COURSE BOND BEAM WITH 1-15M BOTTOM WITH 200 BEARING EACH END.
    LOOSE LINTEL FOR FACE BLOCK SPAN 1600 AND SHORTER
    USE L102x102x9.5 GALVANIZED WITH 200 BEARING EACH END.
12. INSTALL CONTROL JOINTS ON BLOCK WALL WHERE INDICATED ON ARCHITECTURAL DRAWING AND TO MAXIMUM SPACING OF 8m. NO CONTROL JOINTS ALLOWED DIRECTLY UNDER PRESTRESSED DOUBLE TEE SUPPORTS.

REINFORCED CONCRETE NOTES:

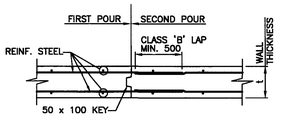
1. STRUCTURAL CONCRETE MATERIALS, AND WORKMANSHIP TO CONFORM TO CSA STANDARD A23.1-94 AND A23.2-94.
2. STRUCTURAL CONCRETE TO HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 30 MPa EXCEPT 20 MPa FOR THE MASONRY GROUT.
3. REINFORCING STEEL TO BE DEFORMED NEW BILLET STEEL CONFORMING TO CAN/CSA G30.18-M1992. MINIMUM YIELD STRENGTH 400 MPa.
4. WELDED STEEL WIRE FABRIC TO CONFORM TO CSA STANDARD G30.15-M1983 (R1991). PROVIDE IN FLAT SHEET ONLY.
5. UNLESS NOTED OTHERWISE REINFORCING STEEL TO HAVE A MINIMUM CONCRETE COVER AS FOLLOWS:
   a) CONCRETE AGAINST FILL OR ROCK 75mm
   b) CONCRETE AGAINST FORMS EXPOSED TO FILL 50mm
   c) OTHER REINFORCING 50mm
6. UNLESS NOTED OTHERWISE REINFORCING STEEL TO BE SPLICED AS FOLLOWS:
   a) ALL SPLICES TO BE TENSION LAP SPLICES, CLASS 'B'.
   b) NO MORE THAN 50% OF THE REINFORCING TO BE SPLICED AT ANY GIVE LOCATION.
7. All BENDS TO BE STANDARD BENDS UNLESS NOTED OTHERWISE.
8. REINFORCING STEEL, EMBEDDED PARTS, ANCHOR BOLTS, DOWELS ETC. TO BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
9. ANCHOR BOLTS TO BE PLACED WITH TEMPLATES AND TO BE HELD RIGIDLY DURING PLACEMENT OF CONCRETE.
10. REINFORCING STEEL TO BE INSPECTED BY ENGINEER PRIOR TO CLOSING OF FORMS.
11. CONCRETE TO BE PLACED IN DRY.
12. REFER TO MECHANICAL AND ELECTRICAL DRAWING FOR SLEEVING, PIPING ETC. IN STRUCTURAL ELEMENTS. ALL MAJOR OPENINGS IN STRUCTURAL ELEMENTS SUCH AS BEAMS, COLUMNS, SLABS, WALLS ETC. SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCING WORK.
13. ALL CORNERS AND INTERSECTIONS TO HAVE CORNER BARS, SAME SIZE AND SPACING AS MAIN BARS. PROVIDE TENSION LAP WITH MAIN BARS.
14. ALL EXPOSED CORNERS TO HAVE A MINIMUM CHAMFER OF 25mm UNLESS NOTED OTHERWISE.
15. CONSTRUCTION JOINT:
   a) LOCATION OF CONSTRUCTIONS JOINTS, OTHER THAN INDICATED ON DRAWINGS, SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND ACCEPTANCE.
   b) UNLESS NOTED OTHERWISE CONSTRUCTION JOINTS DETAILED WITHOUT A KEY TO HAVE A ROUGHENED SURFACE.
   c) THE SPACING BETWEEN THE CONSTRUCTION JOINT IN THE WALL AND FOOTINGS SHALL NOT EXCEED 12.2 METERS.
16. ALL CONCRETE WALL OPENINGS SHOULD HAVE 1-20M ONE IN EACH FACE ALL AROUND THE OPENINGS. SUCH BAR SHALL BE EXTENDED AT LEAST 650mm BEYOND THE CORNERS OF THE OPENINGS.
17. SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR REVIEW.

STRUCTURAL STEEL NOTES:

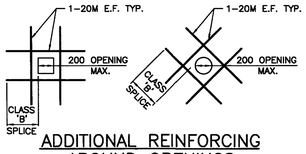
1. ALL STEEL ROLLED SECTIONS ARE INDICATED IN THE S.I. SYSTEM OF UNITS U.N.O.
2. STRUCTURAL STEEL MATERIALS, FABRICATION AND ERECTION TO CONFORM TO:
   a) CAN/CSA-G40.21-92 TYPE 350W FOR ROLLED SECTIONS AND CLASS C FOR HOLLOW STRUCTURAL SECTIONS, TYPE 300W FOR CHANNELS, ANGLES AND PLATES.
   b) CAN/CSA-40.21, GRADE 300W FOR ANCHOR BOLTS.
   c) ASTM-A325M-94 FOR CONNECTION BOLTS.
   d) CSA W48 SERIES FOR WELDING ELECTRODES.
3. ALL STRUCTURAL STEEL TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH CAN/CSA-S16.1-94.
4. ALL WELDING TO BE IN ACCORDANCE WITH CSA W59-1989, AND W47.
5. ALL COMPANIES AND WELDERS SHALL BE CERTIFIED BY AND QUALIFIED IN ACCORDANCE WITH CSA STANDARD W47.1-92 DIVISION 1 OR 2.1.
6. UNLESS NOTED OTHERWISE SHOP PRIME ALL STRUCTURAL STEEL TO CISC/CPMA 2-75. TOUCH UP BOLTS, WELDS ETC. WITH SHOP PRIMER AT COMPLETION OF ERECTION.



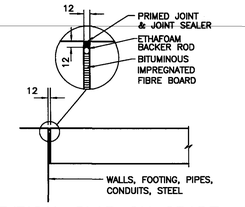
TYPICAL REINFORCING AT INTERSECTIONS
N.T.S.
(FOR ALL CONCRETE WALLS, FOOTINGS & BEAMS UNLESS NOTED OTHERWISE)



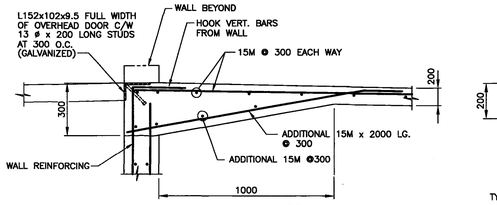
WALL CONSTRUCTION JOINT



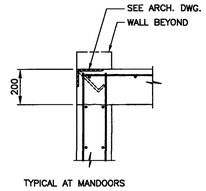
ADDITIONAL REINFORCING AROUND OPENINGS
N.T.S.
NOTES: OPENING FROM 200 TO 500 PROVIDE 2-20M E.F. AT 100 C/C TYPICAL.
OPENING LARGER THAN 500mm TO BE APPROVED BY THE ENGINEER.



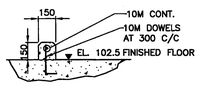
TYPICAL SLAB ON GRADE ISOLATION JOINT DETAIL (I.J.)
N.T.S.



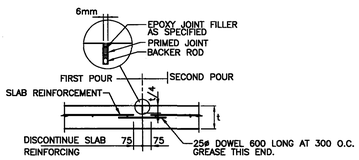
SECTION A 205
N.T.S.



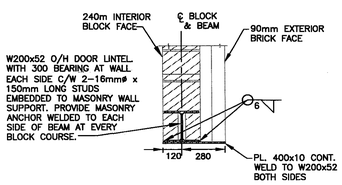
SECTION B 205
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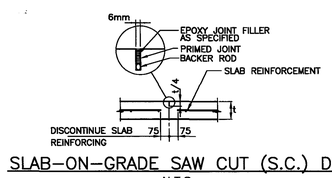
SECTION C 205
N.T.S.



SLAB-ON-GRADE CONSTRUCTION JOINT (C.J.) DETAIL
N.T.S.



NOTE: ALL GALVANIZED STEEL
OVERHEAD DOOR LINTEL SECTION D 205
SCALE: N.T.S.



SLAB-ON-GRADE SAW CUT (S.C.) DETAIL
N.T.S.

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

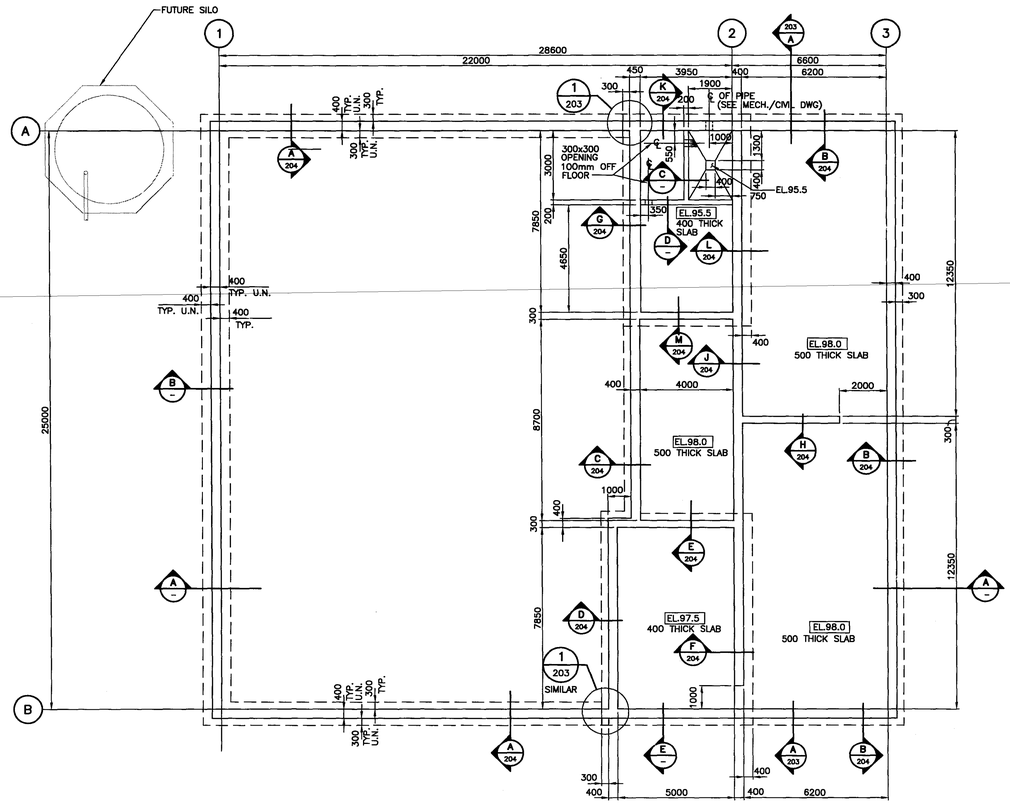
WATER SUPPLY AND TREATMENT PLANT

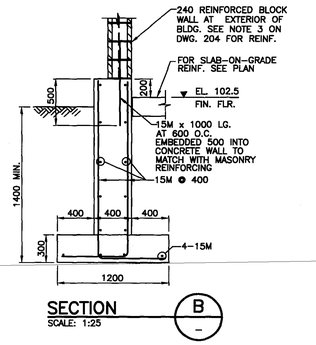
TYPICAL DETAILS & NOTES

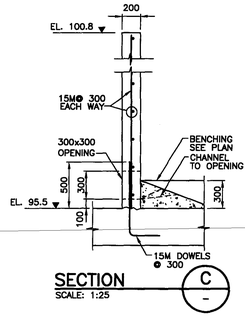
TRADE: STRUCTURAL	DRAWN: B.J.G. , G.J.J.
DATE: JULY 29, 2005	DESIGNED: P.W.
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

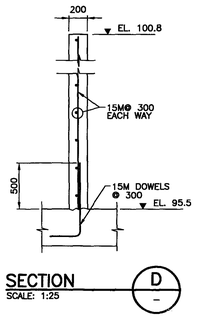
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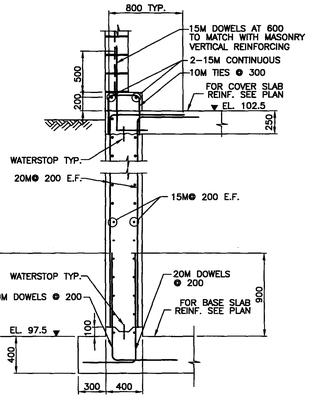
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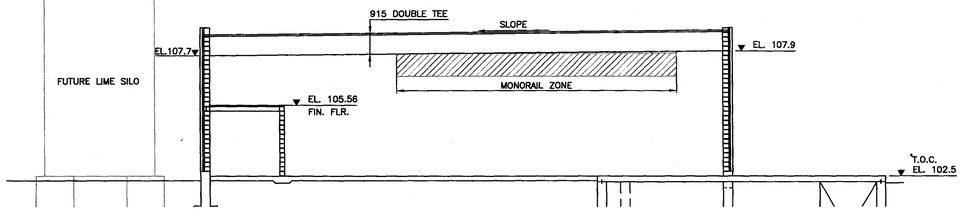








FOUNDATION PLAN
SCALE: 1:100



NOTES:

1. SEE DRAWING 201 FOR TYPICAL NOTES AND DETAILS.
2. CO-ORDINATE ALL OPENINGS IN WALLS AND SLABS WITH OTHER TRADES.

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

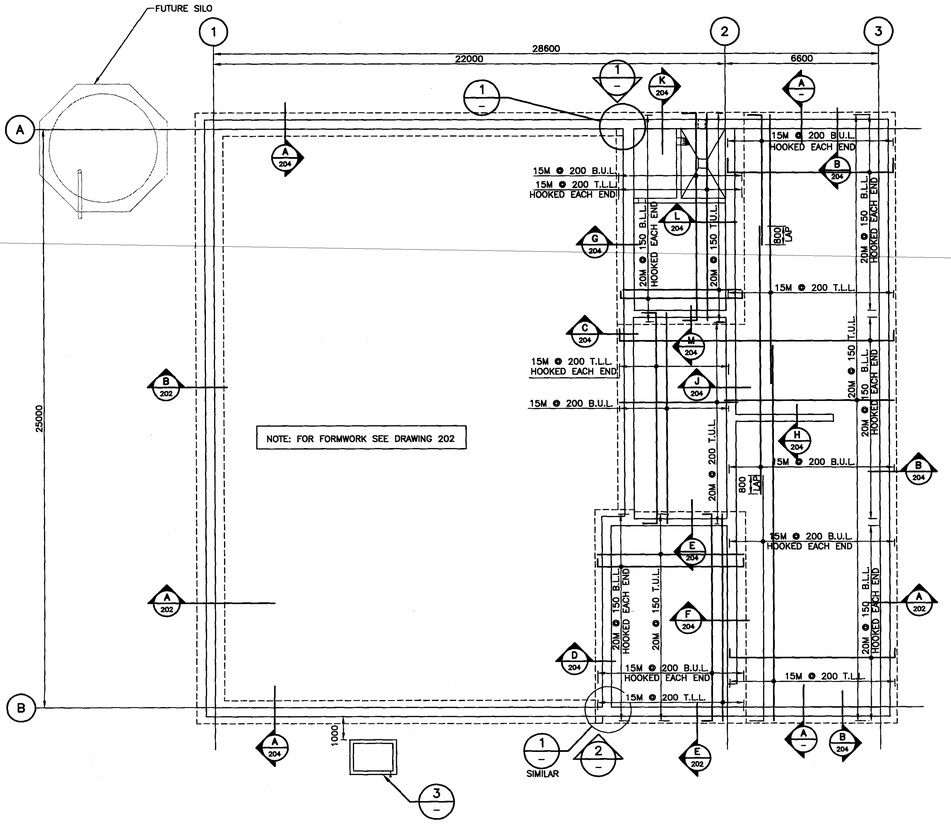
WATER SUPPLY AND TREATMENT PLANT

SECTIONS AND DETAILS

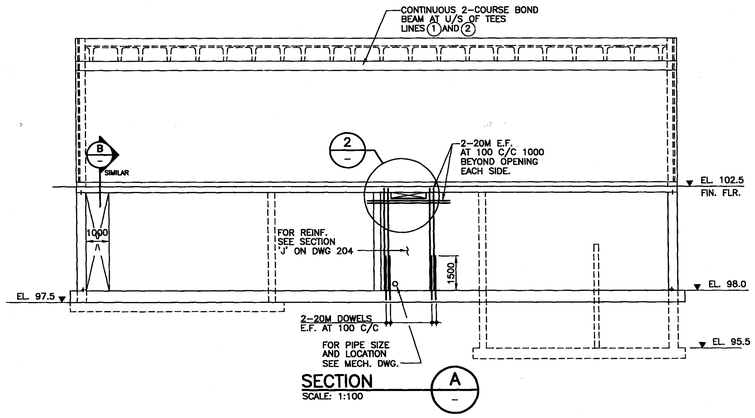
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STRUCTURAL	B.J.G. , G.J.J.
DATE: JULY 29, 2005	DESIGNED: P.W.
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353202B

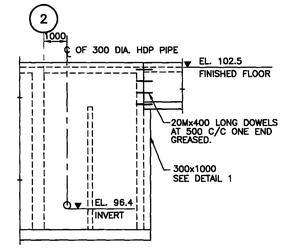
REV. NO. 3



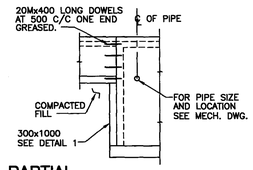
BASE SLAB REINFORCING PLAN



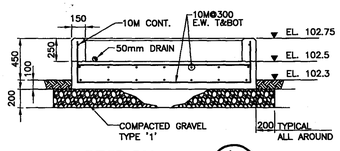
SECTION A
SCALE: 1:100



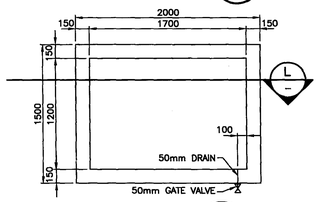
PARTIAL ELEVATION 1
SCALE: 1:100



PARTIAL ELEVATION 2
SCALE: 1:100



SECTION L
SCALE: 1:25



DETAIL PLAN 3
SCALE: 1:25

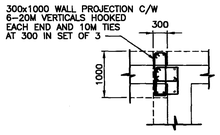
NOTES:

1. SEE DRAWING 201 FOR TYPICAL NOTES AND DETAILS.
2. CO-ORDINATE ALL OPENINGS IN WALLS AND SLABS WITH OTHER TRADES.

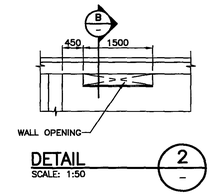
LEGEND

EL.98.0 TOP OF CONCRETE ELEVATION

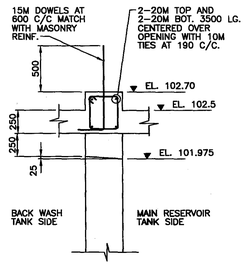
T.U.L. = TOP UPPER LAYER
T.L.L. = TOP LOWER LAYER
B.U.L. = BOTTOM UPPER LAYER
B.L.L. = BOTTOM LOWER LAYER



DETAIL 1
SCALE: 1:50



DETAIL 2
SCALE: 1:50



SECTION B
SCALE: 1:25

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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AMEC Americas Limited
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1874 Brunswick Street
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ABL ENVIRONMENTAL consultants limited
103 PORTLAND STREET, P.O. BOX 501 DARTMOUTH, NS, B2Y 3Y6
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FAX: (902)468-4399

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

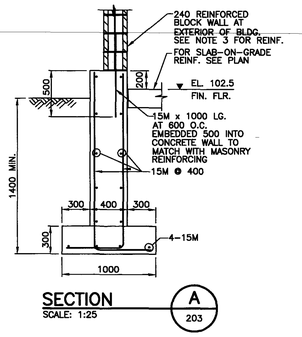
WATER SUPPLY AND TREATMENT PLANT

DETAILS AND SECTIONS

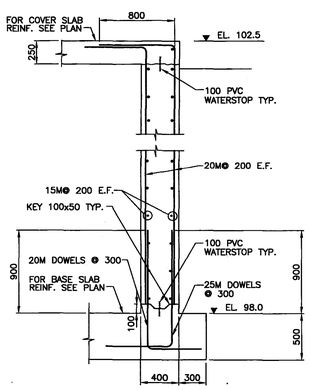
TRADE: STRUCTURAL	DRAWN: B.J.G. , G.J.J.
DATE: JULY 29, 2005	DESIGNED: P.W.
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353203B

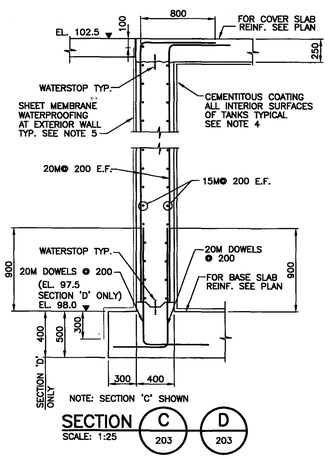
REV. NO. 3



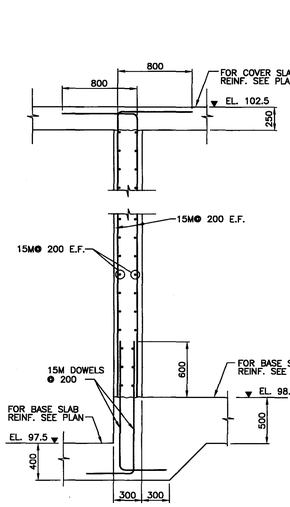
SECTION A / 203
SCALE: 1:25



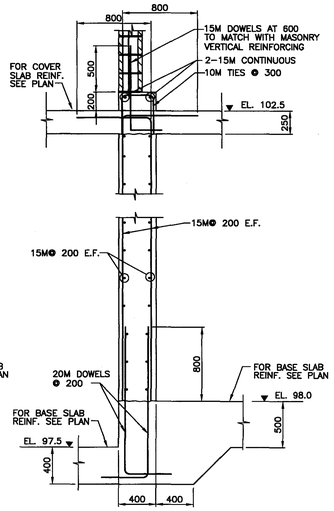
SECTION B / 203
SCALE: 1:25



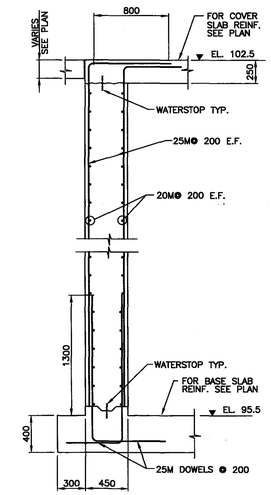
SECTION C / 203 D / 203
SCALE: 1:25



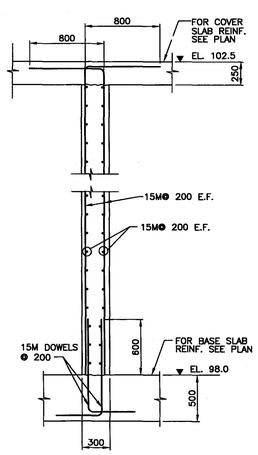
SECTION E / 203
SCALE: 1:25



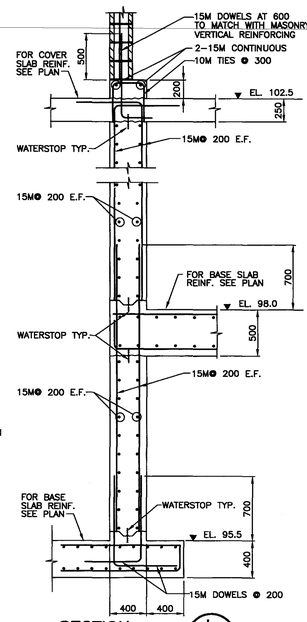
SECTION F / 203
SCALE: 1:25



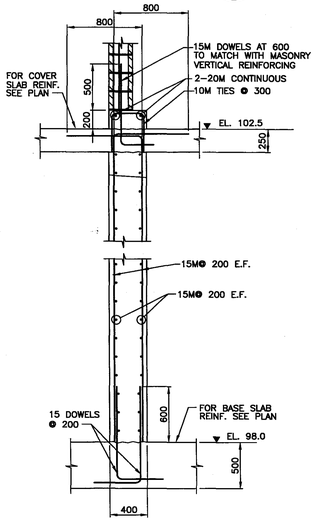
SECTION G / 203
SCALE: 1:25



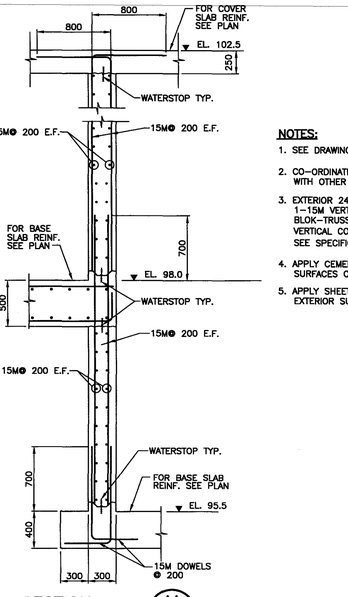
SECTION H / 203
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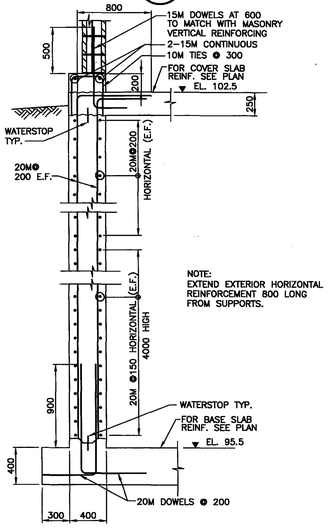
SECTION L / 203
SCALE: 1:25



SECTION J / 203
SCALE: 1:25



SECTION M / 203
SCALE: 1:25



SECTION K / 203
SCALE: 1:25

NOTES:

1. SEE DRAWING 201 FOR TYPICAL NOTES AND DETAILS.
2. CO-ORDINATE ALL OPENINGS IN WALLS AND SLABS WITH OTHER TRADES.
3. EXTERIOR 240 BLOCK WALL TO BE REINFORCED WITH 1-15M VERTICAL AT 600 C/C AND STANDARD BLOK-TRUSS EVERY SECOND COURSE. GROUT VERTICAL CORES SOLID WITH CONCRETE GROUT. SEE SPECIFICATION.
4. APPLY CEMENTITOUS COATING TO ALL INTERIOR SURFACES OF TANKS. SEE SPECIFICATION.
5. APPLY SHEET MEMBRANE WATERPROOFING TO ALL EXTERIOR SURFACES OF TANKS. SEE SPECIFICATION.

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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amec
AMEC Americas Limited
Industrial & PharmaChem Division
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Fax: (902)420-8946

ABL ENVIRONMENTAL consultants limited
102 PORTLAND STREET, P.O. BOX 501
DARTMOUTH, NS, B2Y 3Y6
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FAX: (902)468-1369

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

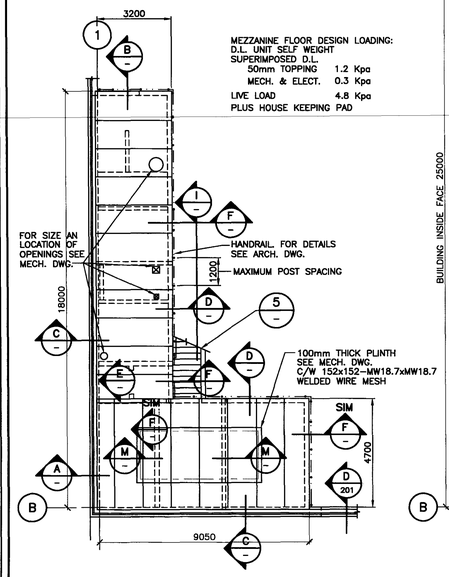
WATER SUPPLY AND TREATMENT PLANT

SECTIONS

TRADE:	DRAWN:
STRUCTURAL	B.J.G., G.J.J.
DATE:	DESIGNED:
JULY 29, 2005	P.W.
SCALE:	JOB NO:
1:25	5135
PROJECT NO:	TENDER NO:
142332	

DRAWING NO. 51353204B

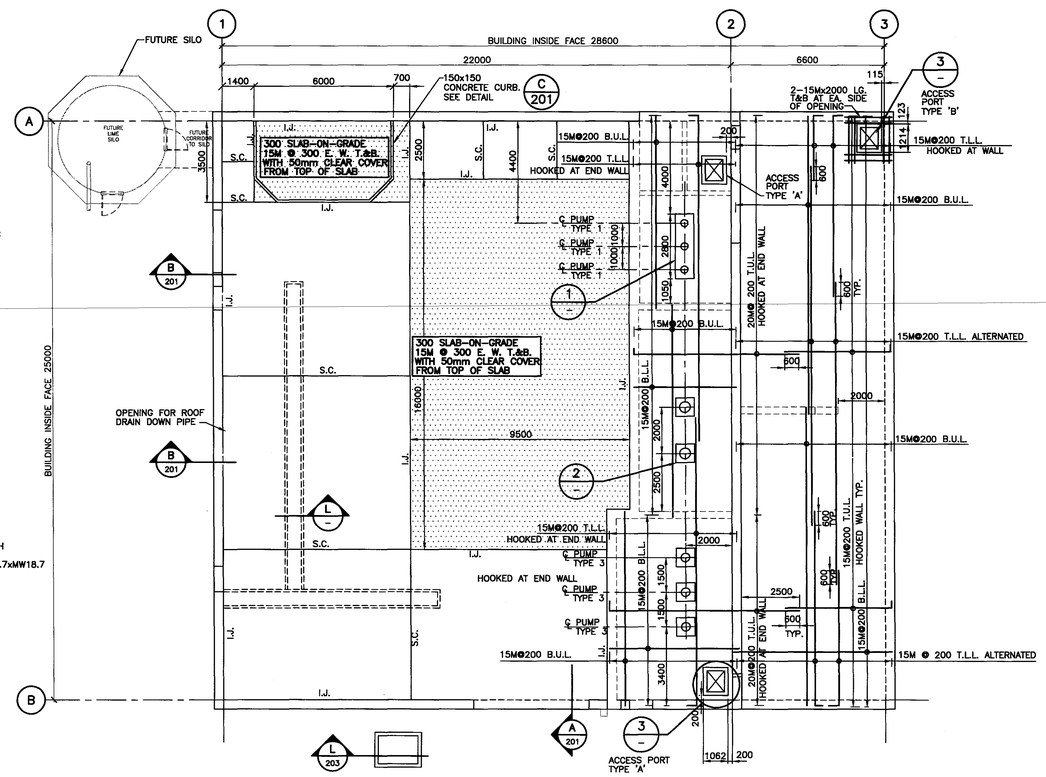
REV. NO. 3



TOP OF MEZZ. FIN. FLOOR EL. 105.56

MECHANICAL DECK PLAN

SCALE: 1:100

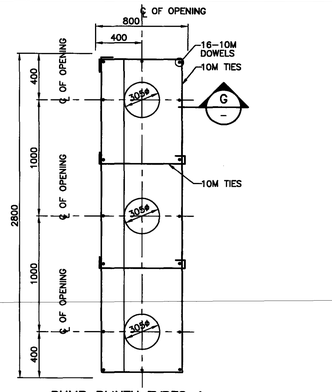


TOP OF SLAB EL. 102.500 TYP. U.N.

MAIN FLOOR PLAN

SCALE: 1:100

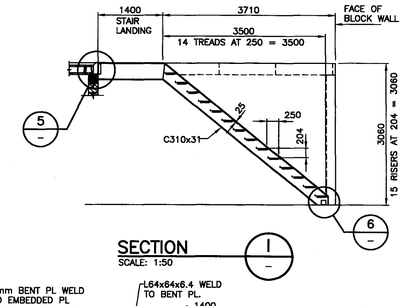
STRUCTURAL FLOOR SLAB DESIGN LOADING
D.L. 250mm THICK SLAB SELF WEIGHT
L.L. 12 Kpa TANK COVER SLABS
6 Kpa BETWEEN GRIDS 2–3



PUMP PLINTH TYPES 1

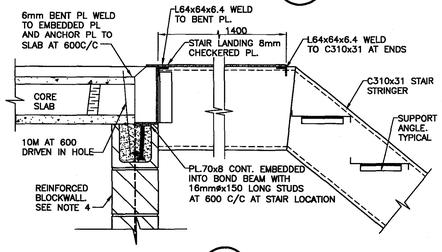
DETAILS 1

SCALE: 1:20



SECTION 1

SCALE: 1:50



DETAIL 5

SCALE: 1:10

NOTES:

1. SEE DRAWING 201 FOR TYPICAL NOTES AND DETAILS.
2. ADD 1–20M TOP AND BOTTOM AT 4 SIDES OF ALL SUSPENDED SLAB OPENINGS.
3. ALL 240 BLOCK WALL TO BE REINFORCED WITH 1–15M VERTICAL AT 600 C/C AND STANDARD BLOK–TRUSS EVERY SECOND BLOCK COURSE. GROUT VERTICAL CORES SOLID WITH CONCRETE GROUT. SEE SPECIFICATION.
4. INTERIOR 190 BLOCK WALL TO BE REINFORCED WITH 1–15M VERTICAL AT 800 C/C AND STANDARD BLOK–TRUSS EVERY SECOND BLOCK COURSE. GROUT VERTICAL CORES SOLID WITH CONCRETE GROUT. SEE SPECIFICATION.
5. PROVIDE CONTINUOUS BOND BEAM 1–COURSE AT TOP OF ALL INTERIOR WALLS REINFORCE WITH 1–15M BAR, TYPICAL U.N.O.
6. FOR MAIN FLOOR STRUCTURAL SLAB REINFORCING BARS NOT ALLOWED TO BE CUT AT SLAB OPENINGS,

LEGEND

S.J. – SAW CUT JOINT
I.J. – ISOLATION JOINT

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
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amec
AMEC Americas Limited
Industrial & PharmaChem Division
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FAX: (902)469-4299

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

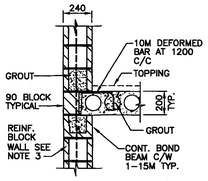
DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
MAIN FLOOR SLAB, MECHANICAL DECK PLAN, SECTIONS & DETAILS

TRADE:	DRAWN:
STRUCTURAL	B.J.G., G.J.J.
DATE: JULY 29, 2005	DESIGNED: P.W.
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

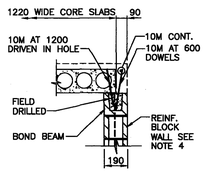
DRAWING NO. 51353205B

REV. NO. 3



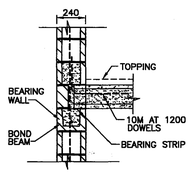
SECTION A

SCALE: 1:20



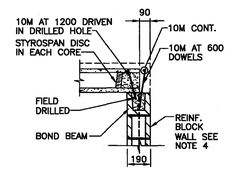
SECTION B

SCALE: 1:20



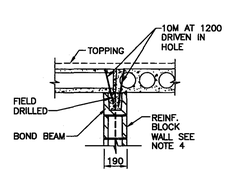
SECTION C

SCALE: 1:20



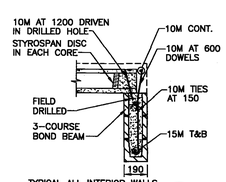
SECTION D

SCALE: 1:20



SECTION E

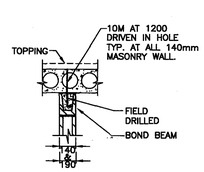
SCALE: 1:20



TYPICAL ALL INTERIOR WALLS

SECTION F

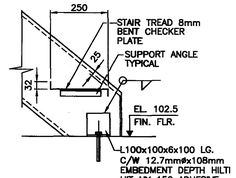
SCALE: 1:20



TYPICAL AT PARTION WALLS

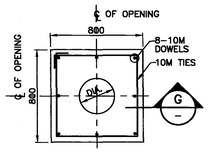
SECTION M

SCALE: 1:20



DETAIL 6

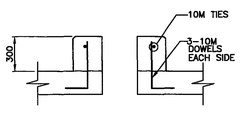
SCALE: 1:10



PUMP TYPE 2 DIA.= 460mm
PUMP TYPE 3 DIA.= 370mm

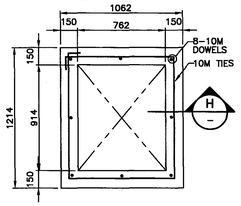
DETAIL 2

SCALE: 1:20



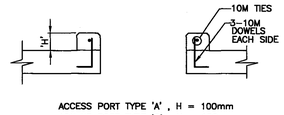
SECTION G

SCALE: 1:20



DETAIL 3

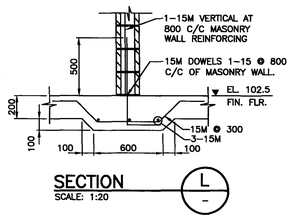
SCALE: 1:20



ACCESS PORT TYPE 'A' , H = 100mm
ACCESS PORT TYPE 'B' , H = 150mm

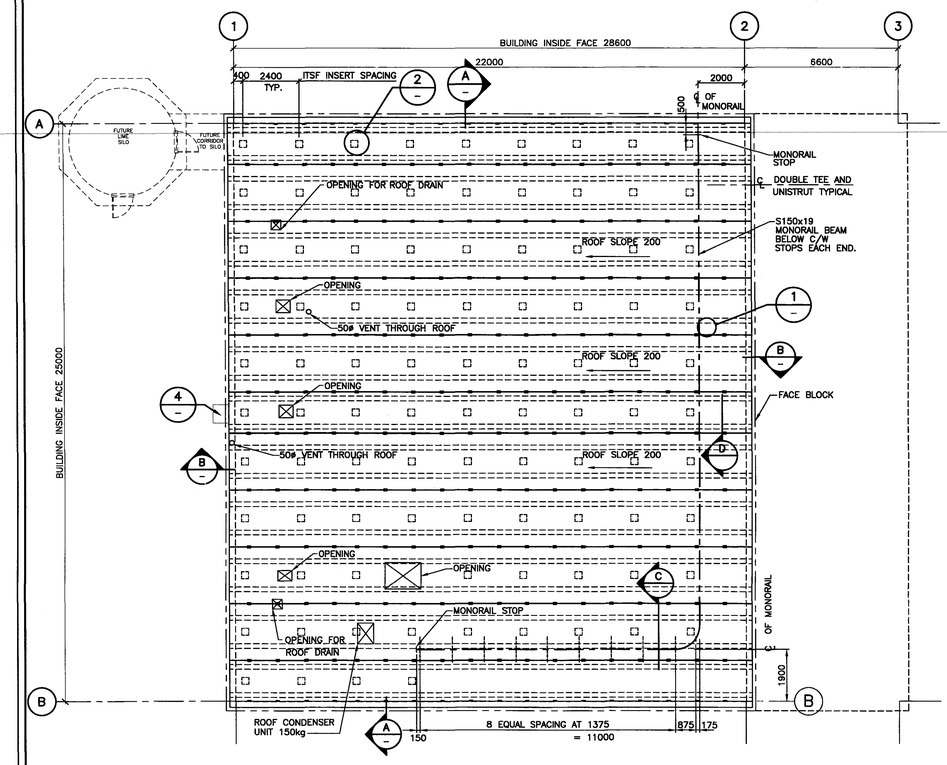
SECTION H

SCALE: 1:20

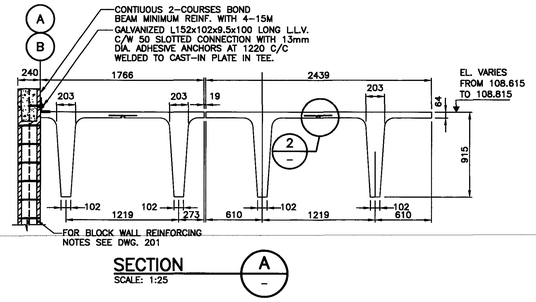


SECTION L

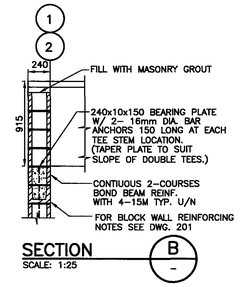
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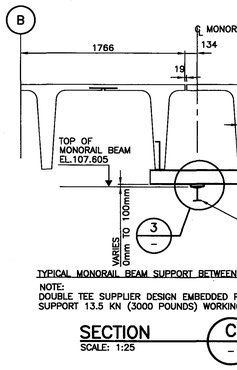
ROOF PLAN
SCALE: 1:100



SECTION A
SCALE: 1:25



SECTION B
SCALE: 1:25



TYPICAL MONORAIL BEAM SUPPORT BETWEEN DOUBLE TEE

NOTE:
DOUBLE TEE SUPPLIER DESIGN EMBEDDED PLATE TO SUPPORT 13.5 KN (3000 POUNDS) WORKING LOAD.

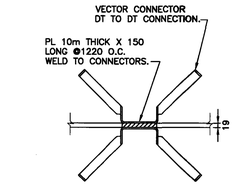
SECTION C
SCALE: 1:25

TYPICAL MONORAIL BEAM SUPPORT AT EACH DOUBLE TEE

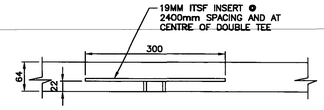
NOTE:
DOUBLE TEE SUPPLIER DESIGN EMBEDDED PLATE TO SUPPORT 22.25 KN (5000 POUNDS) WORKING LOAD.

SECTION D
SCALE: 1:25

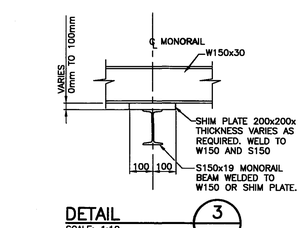
MONORAIL DETAILS



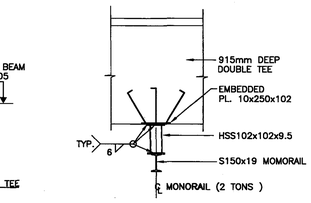
DETAIL 1
SCALE: 1:10



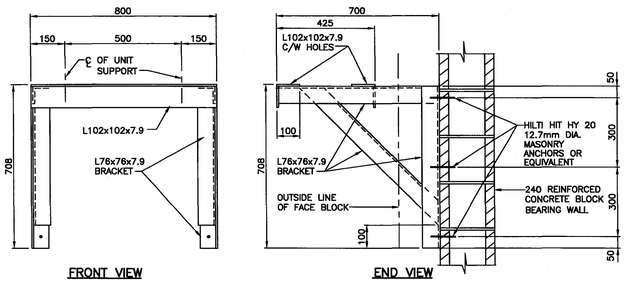
DETAIL 2
SCALE: 1:5



DETAIL 3
SCALE: 1:10



DETAIL E
SCALE: 1:20

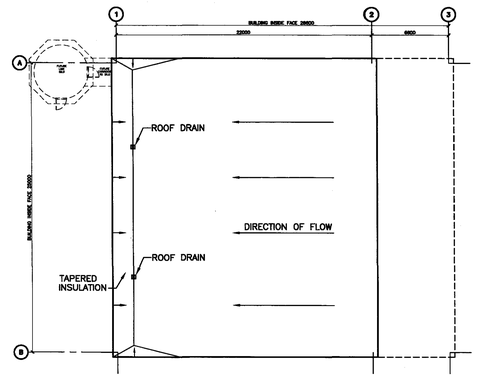


FRONT VIEW

END VIEW

NOTE: ALL WITH 6mm FILLET WELD. ALL GALVANIZED.
FOR LOCATION SEE MECHANICAL DRAWINGS.

OUTDOOR UNIT CU–1 SUPPORT DETAIL 4
SCALE: 1:10



ROOF FLOW PLAN
SCALE: N.T.S.

ROOF DESIGN LOADING

D.L. UNIT SELF WEIGHT	
S.D.L. INSULATION AND ROOFING	0.5 Kpa
SUSPENDED MECH. AND ELECT.	0.5 Kpa
	1.0 Kpa
L.L. SNOW	2.74 Kpa
PLUS 2 TON OF MONORAIL	

NOTES:

1. SEE DRAWING 201 FOR TYPICAL NOTES AND DETAILS.
2. SEE MECH., ELECT. AND ARCH. DRAWINGS FOR SIZE AND LOCATION OF ROOF OPENINGS.
3. EXTERIOR 240 BLOCK WALL TO BE REINFORCED WITH 1–15M VERTICAL AT 600 C/C AND STANDARD BLOK–TRUSS EVERY SECOND COURSE. GROUT VERTICAL CORES SOLID WITH CONCRETE GROUT. SEE SPECIFICATION.

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29.2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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FAX: (902)466-4369

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

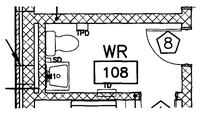
DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
ROOF PLAN, SECTIONS, DETAILS, AND MISC. DETAILS

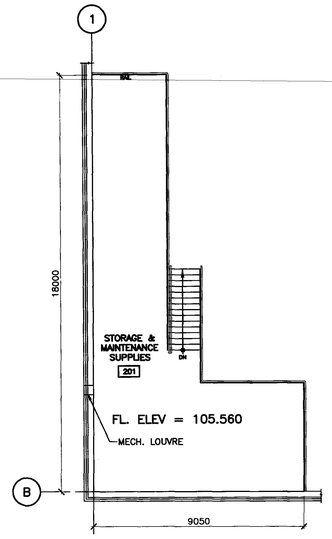
TRADE: STRUCTURAL	DRAWN: B.J.G., G.J.J.
DATE: JULY 29, 2005	DESIGNED: P.W.
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353206B

REV. NO. 3

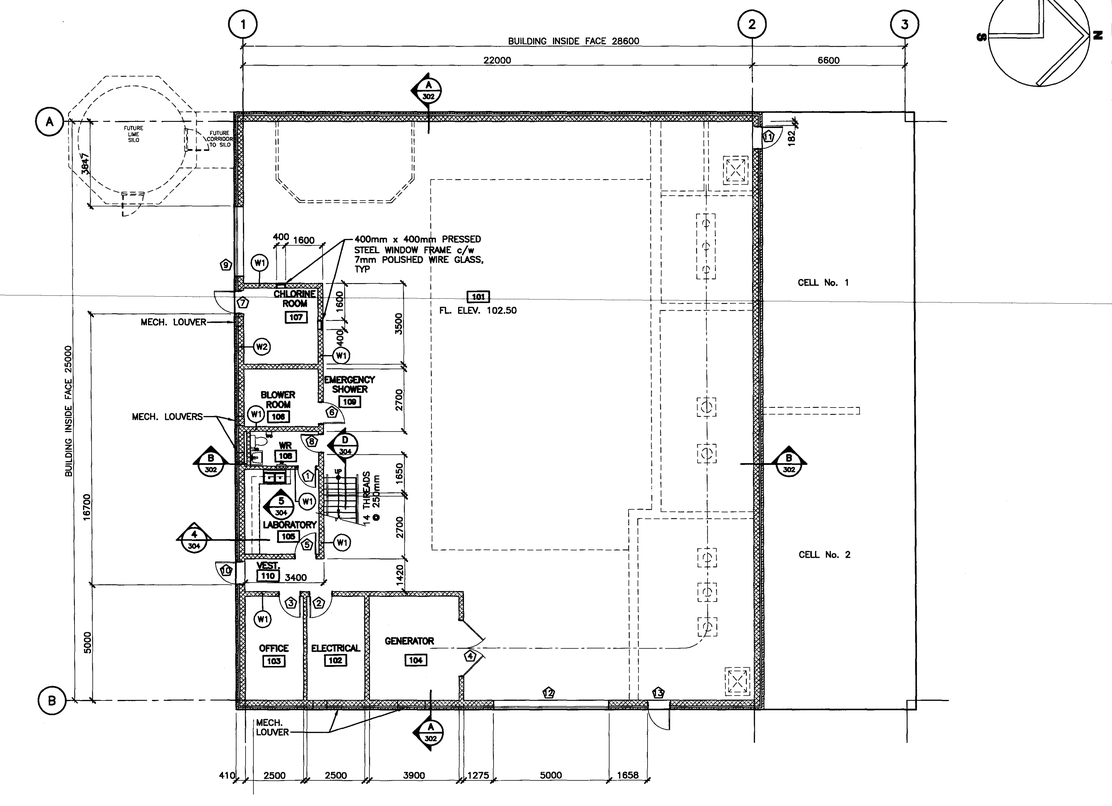


W/R & SHOWER ACCESSORIES
SCALE: 1:50

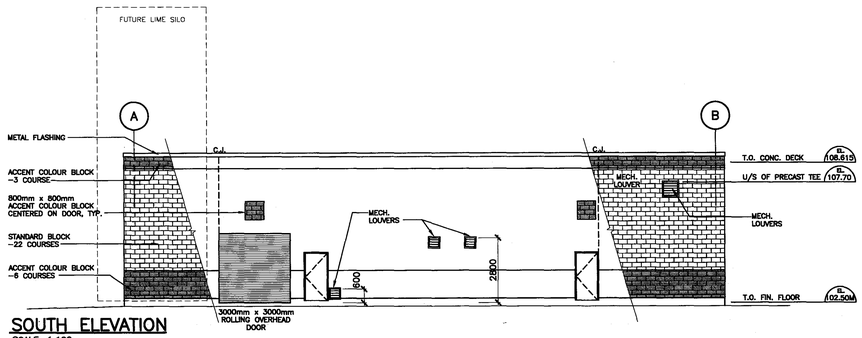


MECHANICAL DECK
SCALE: 1:100

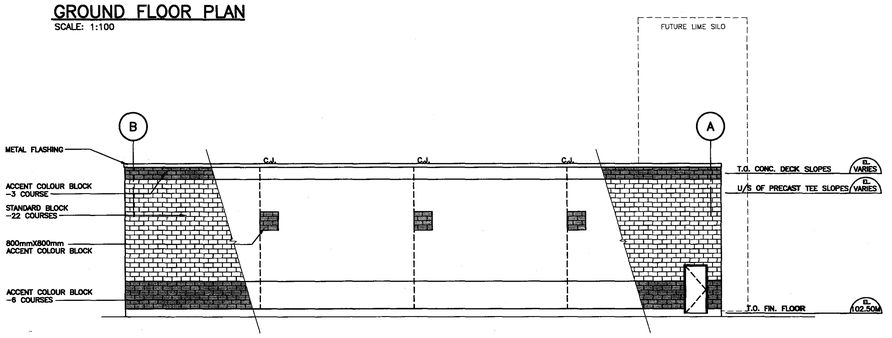
WALL TYPES	
W1	190mm CONC. BLOCK TYP. U/N. HEIGHT AS DETAILED, SEALED BOTH SIDES AND PAINTED ON INSIDE 'WHITE'
W1R	SAME AS W1, 1 HR FIRE RATED.
W2	140 CONC. BLOCK TYP. U/N. HEIGHT TO U/S OF CORE SLAB OR AS DETAILED, SEALED AND PAINTED BOTH SIDES 'WHITE'
W2R	SAME AS W2, 1 HR FIRE RATED.



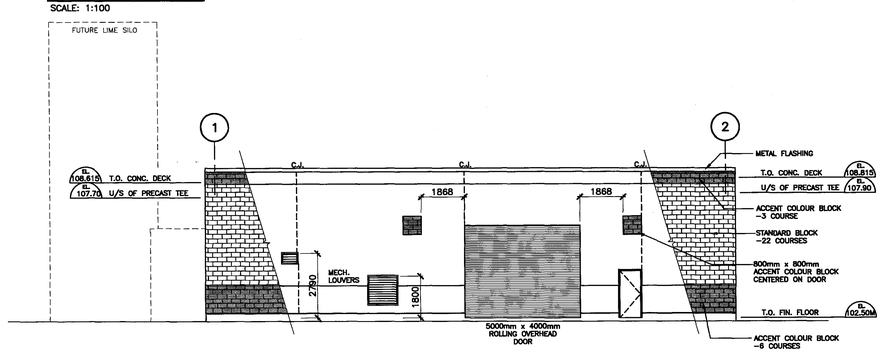
GROUND FLOOR PLAN
SCALE: 1:100



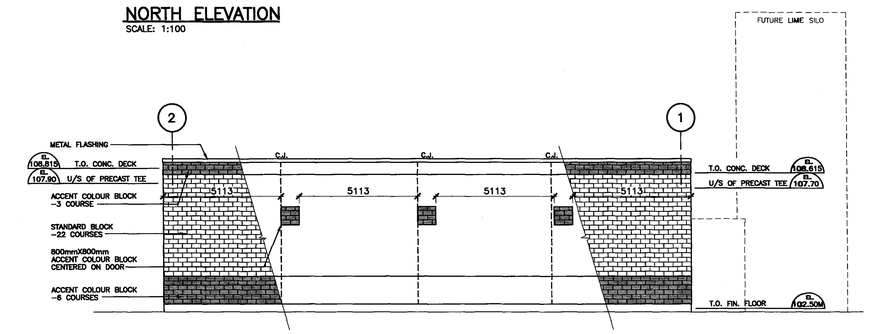
SOUTH ELEVATION
SCALE: 1:100



NORTH ELEVATION
SCALE: 1:100



EAST ELEVATION
SCALE: 1:100



WEST ELEVATION
SCALE: 1:100

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REGISTERED MEMBER E. JAMES HARRIETT N.S. ASSOCIATION OF ARCHITECTS

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

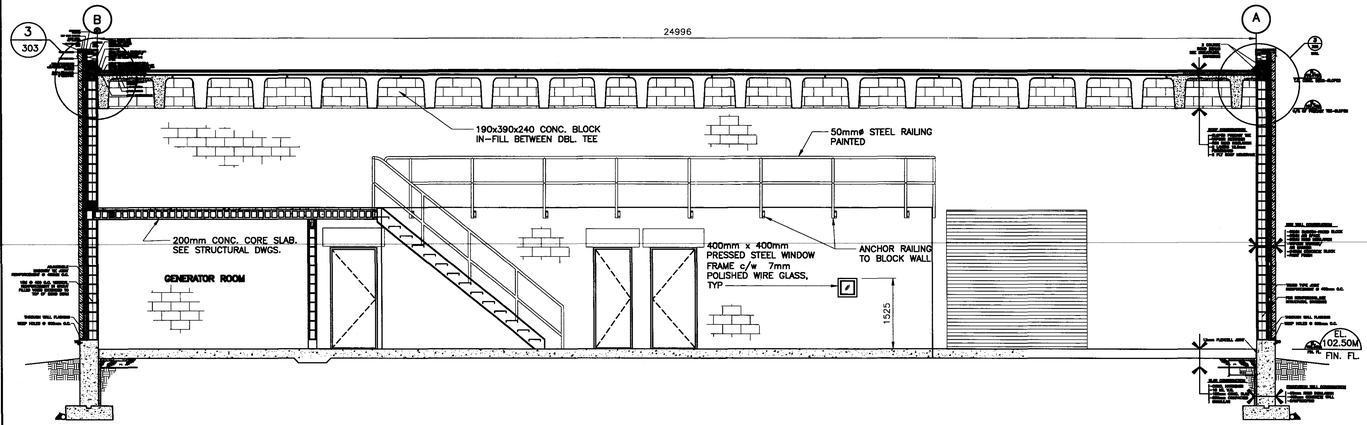
WATER SUPPLY AND TREATMENT PLANT

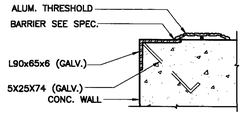
BUILDING PLANS & ELEVATIONS

TRADE: ARCHITECTURAL	DRAWN: STAFF
DATE: JULY 29, 2005	DESIGNED: STAFF
SCALE: 1:100	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353301B

REV. NO. 3

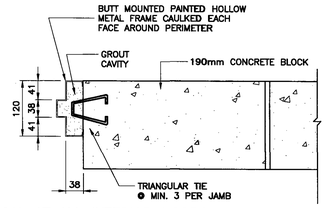




TYPICAL AT ALL EXTERIOR DOORS

THRESHOLD DETAIL

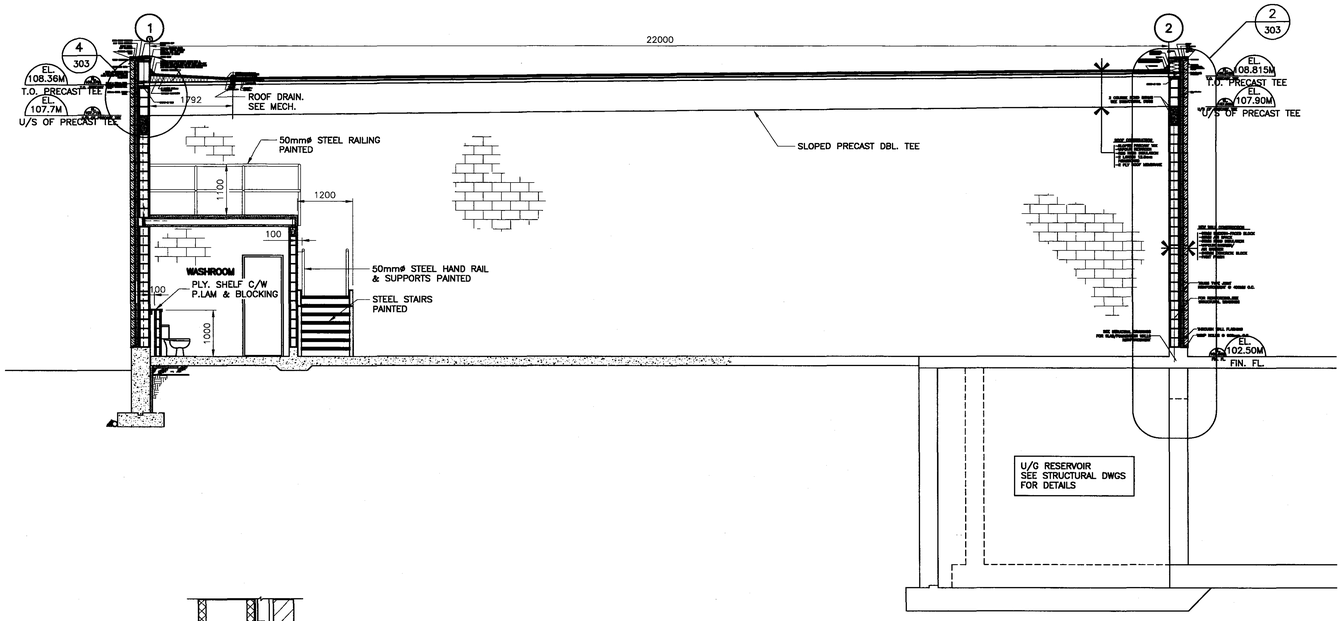
SCALE: 1:5



TYPICAL AT ALL INTERIOR DOORS

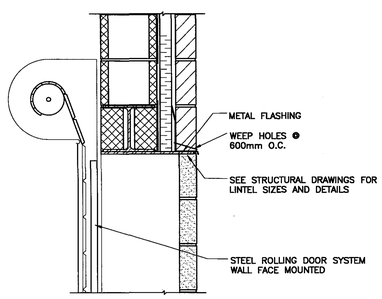
INTERIOR DOOR JAMB DETAIL J-1

SCALE: 1:5



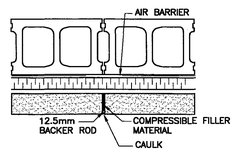
TYPICAL EXTERIOR DOOR HEAD DETAIL

SCALE: 1:5



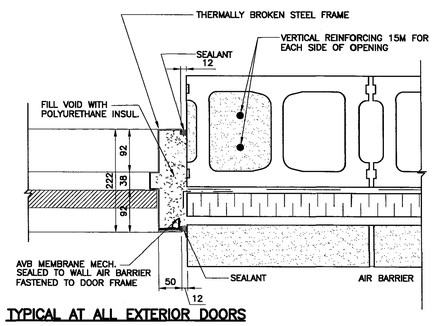
STEEL ROLLING SERVICE DOOR DETAIL

SCALE: 1:10



CONTROL JOINT DETAIL (C.J.)

SCALE: 1:10



TYPICAL AT ALL EXTERIOR DOORS

EXTERIOR DOOR JAMB DETAIL J-2

SCALE: 1:5

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

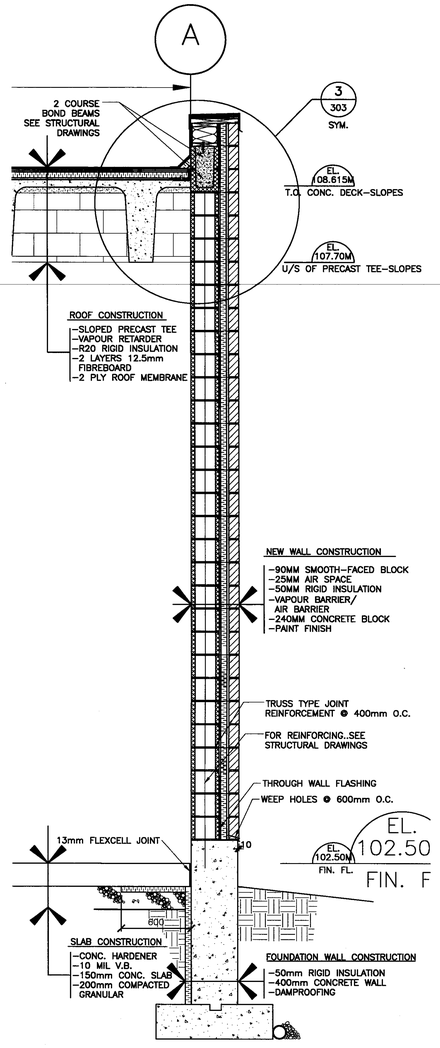
WATER SUPPLY AND TREATMENT PLANT

BUILDING SECTIONS & MISC. DETAILS

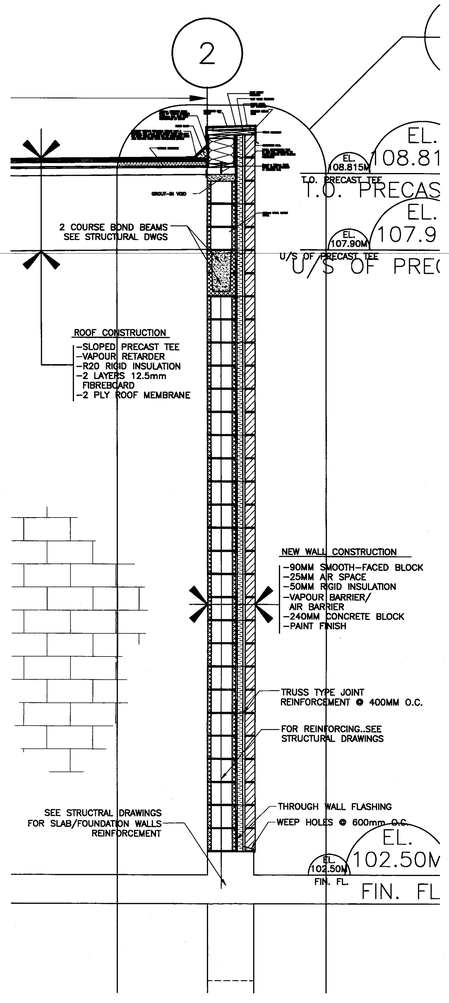
TRADE: ARCHITECTURAL	DRAWN: STAFF
DATE: JULY 29, 2005	DESIGNED: STAFF
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353302B

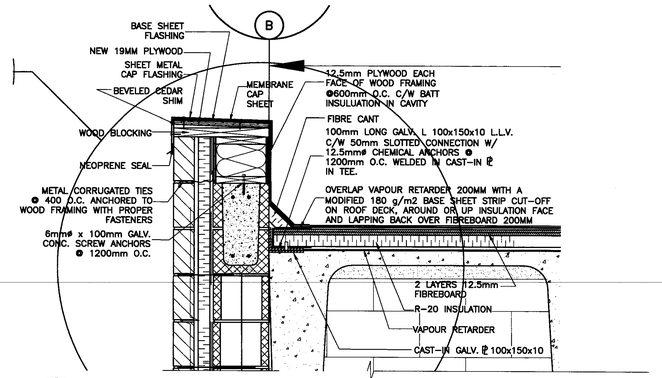
REV. NO. 3



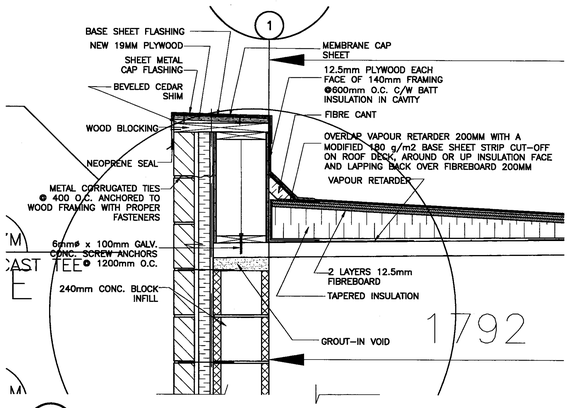
1 302 TYPICAL WALL SECTION @ GRIDLINE 'A'
SCALE: 1:20



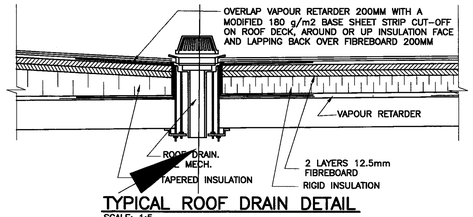
2 302 TYPICAL WALL SECTION @ GRIDLINE '2'
SCALE: 1:20



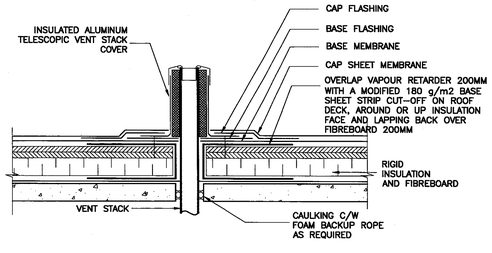
3 302 EXTERIOR WALL PARAPET DETAIL @ GRIDLINE 'B'
SCALE: 1:10



4 302 EXTERIOR WALL PARAPET DETAIL @ GRIDLINE '1'
SCALE: 1:10



TYPICAL ROOF DRAIN DETAIL
SCALE: 1:5



TYPICAL VENT STACK DETAIL
SCALE: 1:5

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT

WALL SECTIONS & ROOF DETAILS

TRADE: ARCHITECTURAL	DRAWN: STAFF
DATE: JULY 29, 2005	DESIGNED:
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353303B

REV. NO. 3

ROOM FINISH SCHEDULE

ROOM No.	ROOM NAME	FLOOR FINISH	WALLS			CEILING		REMARKS
			MATERIAL	FINISH	COLOUR	FINISH	COLOUR	
101	PLANT	CONC.	C.B.	PT	W	UNFINISHED	–	"
102	ELECTRICAL ROOM	CONC.	C.B.	PT	W	PT	W	"
103	OFFICE	N.S.T.	C.B.	PT	W	PT	W	"
104	VESTIBULE	CONC.	C.B.	PT	W	PT	W	"
105	LABORATORY	N.S.T.	C.B.	PT	W	PT	W	"
106	BLOWER ROOM	CONC.	C.B.	PT	W	PT	W	"
107	CHLORINE ROOM	CONC.	C.B.	EPT	W	PT	W	SEE NOTE 1.
108	WASHROOM	N.S.T.	C.B.	PT	W	PT	W	"
109	CORRIDOR TO SILO	CONC.	C.B.	PT	W	UNFINISHED	–	"
110	EMERGENCY SHOWER	CONC.	C.B.	PT	W	UNFINISHED	–	"
111	GENERATOR ROOM	CONC.	C.B.	PT	W	PT	W	"
201	MECHANICAL DECK	CONC.	C.B.	PT	W	UNFINISHED	–	"

NOTE:
1. THIS ROOM REQUIRES TO BE AIRTIGHT. WALLS AND CEILING REQUIRES AN EPOXY SEALER AS WELL AS CONDUITS, OPENINGS, MECHANICAL DUCTS ETC.. REQUIRE AIRTIGHT SEALS AND TWO WINDOWS. SEE PLAN.

N.S.T. = NON–SLIP TILE
C.B. = CONCRETE BLOCK

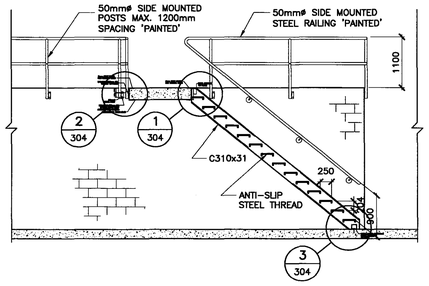
CONC. = CONCRETE
PT = PAINT
PM = PRE–FINISHED METAL
W = WHITE
EPT = EPOXY PAINT

DOOR AND FRAME SCHEDULE

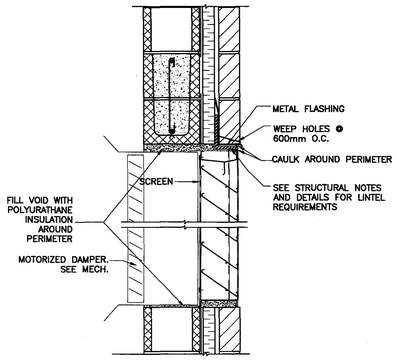
DOOR No.	LOCATION			SIZE		DOORS			FRAMES					FIRE RATING	CLOSER	REMARKS
	From	To	Swing	Width	Height	Door Elev.	Door Mat'l	Fin.	Frame Elev.	Jamb Type	Jamb Mat'l	Fin.	Glaz.			
1	108	105	LH	914	2134	D1	IHM	PT	F1	J2	PS	PT	–	–	–	
2	110	102	RH	914	3000	D2	IHM	PT	–	–	–	PT	–	–	–	
3	110	103	LH	914	2134	D1	HM	PT	F1	J1	PS	PT	–	1 HR	CL	
4	104	101	DOUB	914	2134	D1	HM	PT	F1	J1	PS	PT	–	1 HR	CL	
5	110	105	RH	914	2134	D1	HM	PT	F1	J1	PS	PT	–	–	–	
6	106	109	RH	914	2134	D1	IHM	PT	F1	J2	PS	PT	–	–	–	
7	107	EXT	RH	914	2134	D1	HM	PT	F1	J1	PS	PT	–	–	–	
8	109	108	RH	914	2134	D1	HM	PT	F1	J1	PS	PT	–	–	–	
9	101	EXT	OH	3000	2134	D1	IHM	PT	F1	J2	PS	PT	–	–	–	
10	110	EXT	RH	914	2134	D1	HM	PT	F1	J1	PS	PT	–	–	–	
11	101	EXT	LH	914	2134	D1	IHM	PT	F1	J2	PS	PT	–	–	–	
12	101	EXT	OH	5000	4000	D3	HM	PT	–	–	–	PT	–	–	–	
13	101	EXT	LH	914	2134	D1	HM	PT	F1	J1	PS	PT	–	–	–	

GENERAL NOTES:
1. UNDERCUT ALL INTERIOR DOORS 19mm.
2. ALL FRAMES TO BE CAULKED TO ADJACENT WALL SURFACES.
3. ALL DOORS AND FRAMES ARE TO BE PAINTED

PS = PRESSED STEEL FRAME
PT = PAINT
HM = HOLLOW METAL
IHM = INSULATED HOLOW METAL
PST = PAINTED STEEL

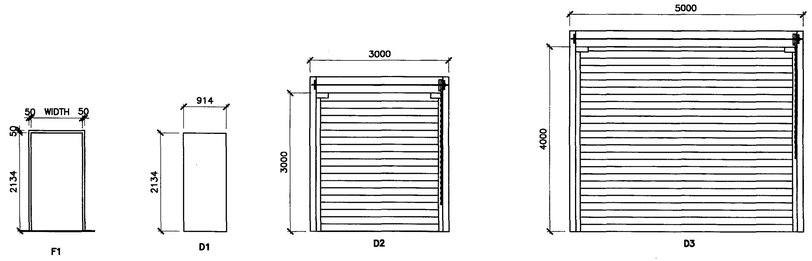


D 301 SECTION – STAIRS
SCALE: 1:50

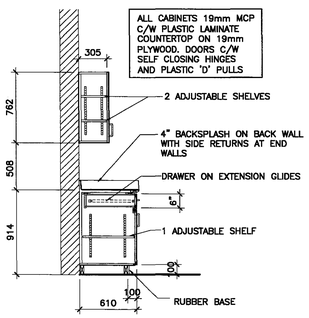


DETAIL – LOUVER L–1 (TYP.)
SCALE: 1:10

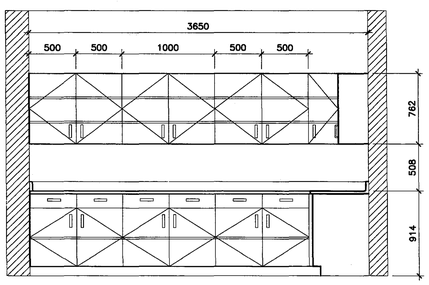
NOTE: SEE STRUCTURAL DETAILS FOR OTHER LOUVER SIZE OPENINGS



DOORS & FRAMES
SCALE: 1:50

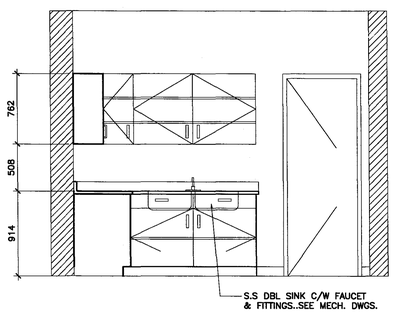


4 301 MILLWORK DETAILS LABORATORY 105
SCALE: 1:25



MILLWORK ELEVATION "A"

5 301 MILLWORK DETAILS LABORATORY 105
SCALE: 1:25



MILLWORK ELEVATION "B"



6 301 W/R ELEVATION
SCALE: 1:50

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TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

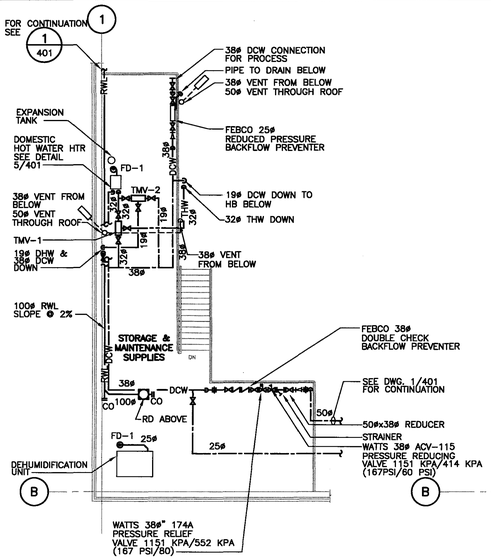
CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
STAIR DETAILS, MILLWORK DETAILS, DOOR & ROOM FINISH SCHEDULES

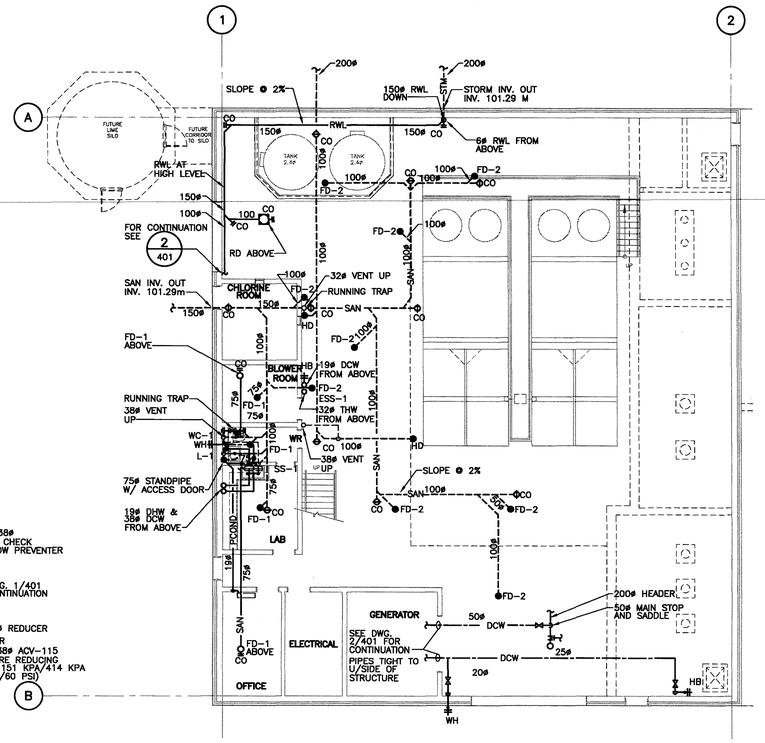
TRADE:	DRAWN:
ARCHITECTURAL	STAFF
DATE:	DESIGNED:
JULY 29, 2005	STAFF
SCALE:	JOB NO:
N.T.S.	5135
PROJECT NO:	TENDER NO:
142332	

DRAWING NO.: 51353304B
REV. NO.: 3



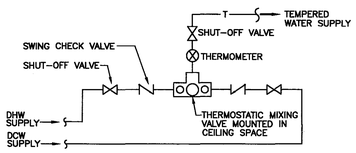
MECH. DECK SAN. & DOM. SERVICES PLAN 2/401

SCALE: 1:100



MAIN FLOOR SAN. & DOM. SERVICES PLAN 1/401

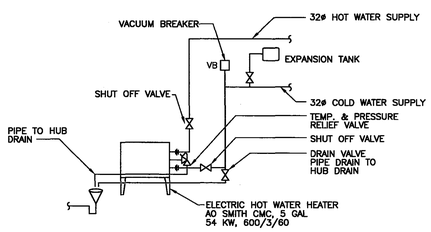
SCALE: 1:100



DETAIL 3/401

SCALE: N.T.S.

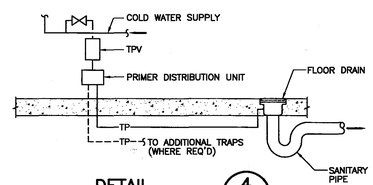
THERMOSTATIC MIXING VALVE (TYPICAL)



DETAIL 5/401

SCALE: N.T.S.

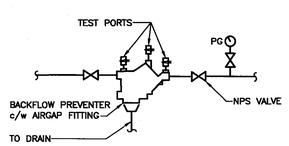
DOMESTIC HOT WATER TANK



DETAIL 4/401

SCALE: N.T.S.

TRAP PRIMER PIPING ARRANGEMENT



DETAIL 6/401

SCALE: N.T.S.

REDUCED PRESSURE PRINCIPLE BACKFLOW PEVENTER ASSEMBLY (MEDIUM/HIGH HAZARD)

NOTES:

1. ALL MAIN PIPES TO RUN ABOVE DUCTS.
2. EXACT ROUTING OF PIPING SHALL BE DETERMINED ON SITE BY CONTRACTOR. INSTALLATION SHALL CONFORM TO LATEST EDITION OF CANADIAN PLUMBING CODE.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SHOP DRAWINGS FOR ALL EQUIPMENT.
4. OFFSETS AROUND OBSTRUCTIONS AND SERVICES NOT SHOWN. PROVIDE ALL OFFSETS AS REQUIRED. CO-ORDINATE WITH ALL OTHER TRADES.
5. CONNECTIONS FROM INDIVIDUAL RISERS TO FIXTURES NOT SHOWN. REFER TO FIXTURE SCHEDULE FOR SIZES.
6. PROVIDE WATER HAMMER ARRESTORS ON HOT AND COLD WATER LINES AT EVERY FIXTURE.
7. ALL CONDENSATE PIPING TO BE INSULATED.

GENERAL LEGEND	SYMBOL
GATE VALVE	
FUSIBLE LINK VALVE	
CHECK VALVE	
TEMPERATURE/PRESSURE RELIEF VALVE	TPR
PRESSURE RELIEF VALVE	R
PRESSURE REDUCING VALVE	PRV
STRAINER	
CONCENTRIC REDUCER	
UNION	
FLANGE	
VACUUM BREAKER	VB
PIPE ELBOW – TURNED DOWN	
PIPE ELBOW – TURNED UP	
PIPE TEE – OUTLET DOWN	
PIPE TEE – OUTLET UP	
BALANCE DAMPER	BD
MOTORIZED DAMPER (WIRED BY DIV 16)	MD

PLUMBING LEGEND	SYMBOL
DOMESTIC COLD WATER	DCW
DOMESTIC HOT WATER	DHW
TEMPERED HOT WATER	THW
VENT PIPING	V
SANITARY PIPING (ABOVE FLOOR)	SAN
SANITARY PIPING (BELOW FLOOR OR U/G)	SAN
CONDENSATE PIPING	COND
STORM DRAIN (ABOVE FLOOR)	STM
STORM DRAIN (BELOW FLOOR OR U/G)	STM
RAINWATER LEADER PIPING (ABOVE GRADE)	RWL
SUCTION PIPING	S
LIQUID PIPING	L
PUMPED CONDENSATE PIPING	PCOND
ROOF DRAIN	RD
RAINWATER LEADER	RWL
FLOOR DRAIN	FD
HUB DRAIN	HD
FUNNEL FLOOR DRAIN	FFD
CLEANOUT (ABOVE FLOOR)	CO
CLEANOUT (IN FLOOR)	CO
WALL HYDRANT (FREEZE PROTECTED)	WH
HOSE BIBB	HB

DRAINS	
RD	ZURN Z-100-ERCA
FD-1	ZURN ZN-415-BP (GENERAL PURPOSE)
FD-2	ZURN Z-555-ARP
HD	ZURN Z-415-S
WH	ZURN Z-1300

FIXTURE SCHEDULE

ITEM	DESCRIPTION	PIPE CONNECTIONS (NPS)				
		DHW	DCW	TEMPERED	SANITARY	VENT
WC-1	WATER CLOSET – FLUSH TANK – FLOOR MOUNT	–	1/2	–	3	1 1/2
L-1	LAVATORY – WALL MOUNTED	1/2	1/2	–	1 1/2	1 1/4
SS-1	DOUBLE STAINLESS STEEL SINK	1/2	1/2	–	1 1/2	1 1/4
ESS-1	EMERGENCY SHOWER/EYEWASH STATION	–	–	1 1/4	1 1/2	1 1/4
HB	HOSE BIBB (W/ VACUUM BREAKER)	–	3/4	–	–	–
WH	WALL HYDRANT–FREEZE PROTECTED (W/VACUUM BREAKER)	–	3/4	–	–	–

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

STAMP

REGISTERED PROFESSIONAL ENGINEER — DATE July 29/05 — D. A. AMIRAULT — 7496 — PROVINCE OF NOVA SCOTIA

STAMP

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

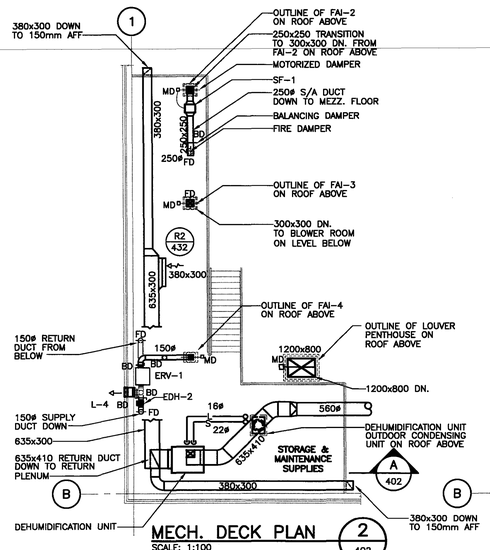
WATER SUPPLY AND TREATMENT PLANT

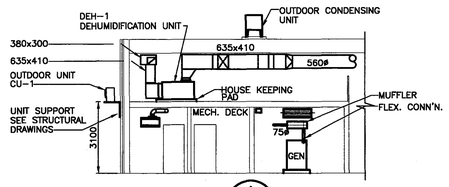
SANITARY & DOMESTIC SERVICES

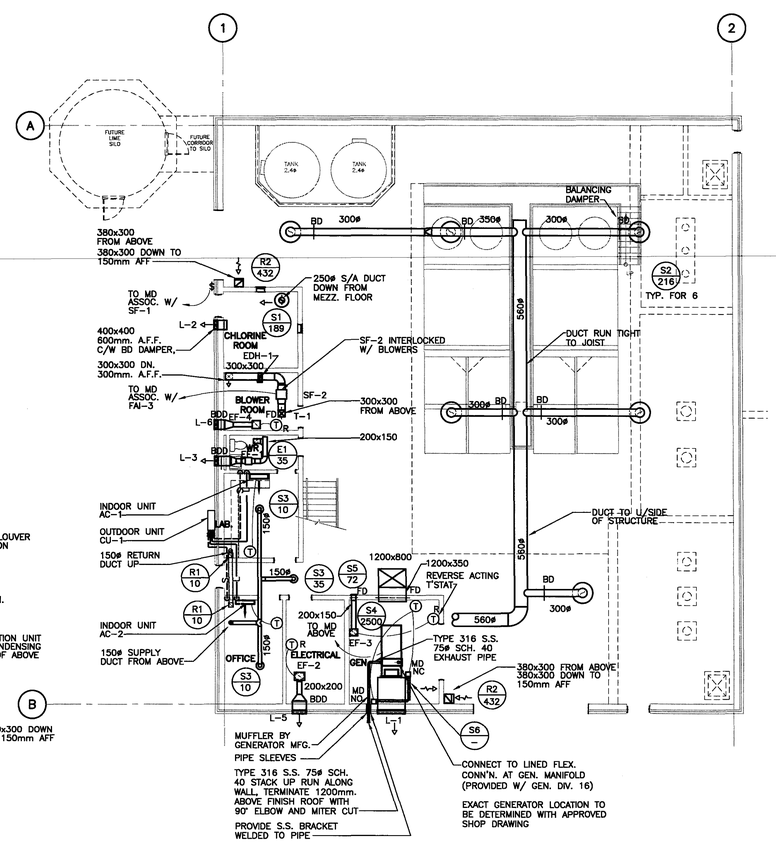
TRADE: MECHANICAL	DRAWN: T.H
DATE: JULY 29, 2005	DESIGNED: R.M.B
SCALE: 1:100	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353401B

REV. NO. 3







DEHUMIDIFIER UNIT SCHEDULE

No.	MAKE & MODEL	AIR FLOW RATE (L/S)	EXT. STATIC PRESSURE (PA)	MIN AMP	MAX FUSE	ELECT. SUPPLY VOLTS	ELECT. SUPPLY PHASE
DEH-1	DECTRON DA2-016	1415	250	11	15	575	3

REMARKS:
C/W DECTRON OUTDOOR CONDENSING UNIT MODEL CCA-004.
PROVIDE SINGLE POINT POWER. FIELD WIRE TO OUTDOOR UNIT.
SUPPLY AIR TEMP: 21.1°C @ 40% RH 575/3/60

PACKAGED AIR CONDITIONING UNIT SCHEDULE

No.	MANUFACTURER	EVAPORATOR SECTION (INDOOR) MODEL NO.	AIR FLOW RATE (l/s)	TOTAL COOLING (kW)	ELECTRICAL REQUIREMENTS MINIMUM AMPACITY	MAX. FUSE (AMPS) (TIME DELAY)	ELEC.
AC-1	MITSUBISHI	MS09NW	95	2.461	0.5	15	120/1/60
AC-2	MITSUBISHI	MS09NW	118	2.461	0.5	15	120/1/60

CONDENSER SECTION (OUTDOOR) UNIT

NO.	MODEL NO.	ELECTRICAL REQUIREMENTS MINIMUM AMPACITY	MAX. FUSE (AMPS) (TIME DELAY)	FAN MOTOR F.L.A.	ELEC.	LIQUID LINE (O.D.)	SUCTION LINE (O.D.)	COND. DRAIN (O.D.)
CU-1	MUM18NW	14	15 x 2	1.0	208/1/60	6ø mm.	10ø mm.	16ø mm.

REMARKS
INDOOR 26.7°C DB, 19°C WB OUTDOOR 35°C DB, 23.8°C WB
PROVIDE STEEL ANGLE SUPPORT FOR OUTDOOR UNIT, LOCATE 3000mm. ABOVE FINISHED GRADE
PROVIDE PIPE SLEEVES THRU WALL. REFRIGERANT PIPING TO BE INSULATED
EACH INDOOR UNIT C/W SAUERMANN SI 2750 CONDENSATE PUMP AND DETECTION UNIT.

ELECTRIC DUCT HEATER SCHEDULE

NO.	MAKE AND MODEL	SIZE	L/S	KW	ELEC.	REMARKS
EDH-1	THERMOLEC.	300x300	236	13	600/3/60	WIRED BY DIV. 16
EDH-2	THERMOLEC	200x200	38	2	208/1/60	WIRED BY DIV. 16

NOTE: DUCT HEATERS SHALL BE C/W DISCONNECT SWITCH, THERMAL CUT OUT, AIR FLOW SENSOR, DUCT T'STAT, ETC.
SEE MECHANICAL SPECIFICATIONS
DUCT T'STAT WIRED BY DIV 16

HEAT RECOVERY VENTILATOR SCHEDULE

	LOCATION	MAKE & MODEL	L/S	PA.	SUPPLY VOLTAGE	W	REMARKS
ERV-1	MEZZANINE	RENEWAIRE EV130	56	100	115/1/60	124	*

* C/W FILTERS, HANGING KIT, POWER DISCONNECT, VIBRATION ISOLATORS.

FAN SCHEDULE

No.	MANUFACTURER	MODEL NO.	AIR FLOW RATE (L/S)	STATIC PRESSURE (Pa)	R.P.M.	MOTOR CAPACITY (WATTS)	ELECT. SUPPLY VOLTS	ELECT. SUPPLY PHASE	REMARKS
SF-1	GREENHECK	CSP-252	189	94	1070	217	115	1	C/W DISCONNECT SWITCH, ISOLATION KIT
SF-2	GREENHECK	CSP-255	189	94	1080	325	115	1	C/W DISCONNECT SWITCH, ISOLATION KIT
EF-1	GREENHECK	CSP-224	–	63	1000	83	115	1	ISOLATION KIT
EF-2	GREENHECK	SP-255	308	63	1080	285	115	1	ISOLATION KIT, GRILLE
EF-3	GREENHECK	SP-09	72	63	1050	129	115	1	ISOLATION KIT, GRILLE
EF-4	GREENHECK	SP-218	79	63	1400	113	115	1	ISOLATION KIT, GRILLE

LOUVER SCHEDULE

No.	MANUFACTURER	MODEL NO.	WIDTH (mm.)	HEIGHT (mm.)	VELOCITY (M/S)	REMARK
L-1	AIROLITE	K6776	1,219	1,219	2.99	C/W BIRDSCREEN
L-2	AIROLITE	K6776	406	406	4.95	C/W BIRDSCREEN
L-3	AIROLITE	K6776	406	406	2.47	C/W BIRDSCREEN
L-4	AIROLITE	K6776	400	300	2.17	C/W BIRDSCREEN
L-5	AIROLITE	K6776	610	406	3.75	C/W BIRDSCREEN
L-6	AIROLITE	K6776	406	406	2.07	C/W BIRDSCREEN

E.H. PRICE GRILLE, DIFFUSER AND REGISTER SCHEDULE

No.	MODEL	DESCRIPTION	NECK DIA. (mm.)	FACE SIZE (mm.)	MAX. FLOW RATE (L/S)	NC	REMARKS
S1	RCD	ROUND DIFFUSER	250	572ø	189	27	–
S2	RCD	ROUND DIFFUSER	300	560ø	236	19	–
S3	RCD	ROUND DIFFUSER	150	343ø	38	–	–
S4	520D 19mm. SPACE	REGISTER C/W STEEL DAMPER	–	1200x350	2500	–	C/W DAMPER
S5	520D 19mm. SPACE	REGISTER C/W STEEL DAMPER		200x150	72	–	C/W DAMPER
R1/E1	80 DAL	EGG CRATE GRILLE		200x200	108	20	C/W O.B. DAMPER
R2	630DAL	LOUVER RETURN	–	1220x300	432	16	C/W O.B. DAMPER
S6	520D 19mm. SPACE	REGISTER	–	965x1220	–	–	–
T1	STG-1BF	HEAVY DUTY STEEL TRANSFER GRILLE		550x350	236	37	C/W O.B. DAMPER, FIRE DAMPER

GRAVITY VENTILATOR SCHEDULE

No.	MANUFACTURER	MODEL NO.	AIR FLOW RATE (L/S)	STATIC PRESSURE (PA)	THROAT SIZE WIDTH (mm.)	THROAT SIZE LENGTH (mm.)	HOOD WIDTH (mm.)	HOOD LENGTH (mm.)	REMARKS
FAI-2	GREENHECK	FHI	189	20	305	305	559	610	C/W 400 mm. PREFAB ROOF CURB, MOTORIZED DAMPER.
FAI-3	GREENHECK	FHI	236	20	305	305	559	610	
FAI-4	GREENHECK	FHI	94	20	203	203	457	610	

LOUVERED GRAVITY INTAKE

No.	MANUFACTURER	MODEL NO.	AIR FLOW RATE (L/S)	STATIC PRESSURE (PA)	THROAT SIZE WIDTH (mm.)	THROAT SIZE LENGTH (mm.)	HOOD WIDTH (mm.)	HOOD LENGTH (mm.)	REMARKS
PL-1	GREENHECK	WIH	2500	21	813	1016	1346	1829	C/W PREFAB ROOF CURB, MOTORIZED DAMPER,

REV	DESCRIPTION	DATE
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2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28.2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06.2002

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REGISTERED PROFESSIONAL ENGINEER
DATE July 29/05
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PROVINCE OF NOVA SCOTIA

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FAX: (902)465-4399

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

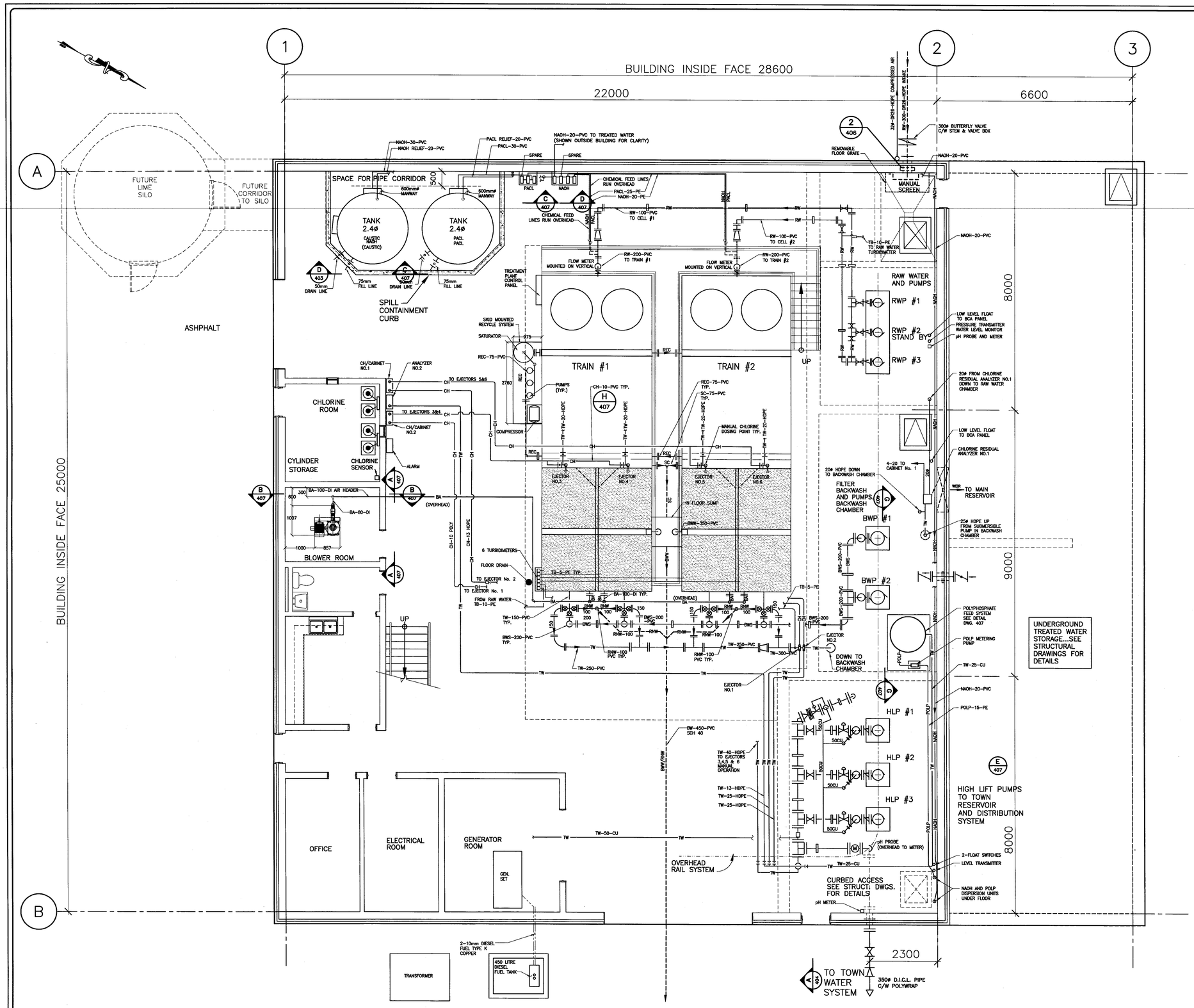
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WATER SUPPLY AND TREATMENT PLANT VENTILATION PLANS, SCHEDULES & SECTION

TRADE:	DRAWN:
MECHANICAL	T.H
DATE: JULY 29, 2005	DESIGNED: R.M.B
SCALE: 1:100	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353402B

REV. NO. 3



REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

STAMP

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF NOVA SCOTIA
DATE: JULY 29/05
R.M. DEBERDT
6817

STAMP

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF NOVA SCOTIA
DATE: JULY 29/05
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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT

PROCESS PIPING PLAN

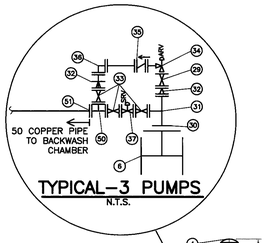
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DATE: JULY 29, 2005	DESIGNED: R.M.B
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PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353403B

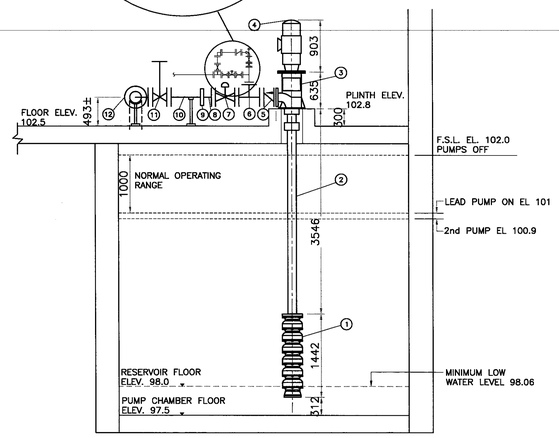
REV. NO. 3

HIGH LIFT PUMPS (250 lb FLANGE SYSTEM)

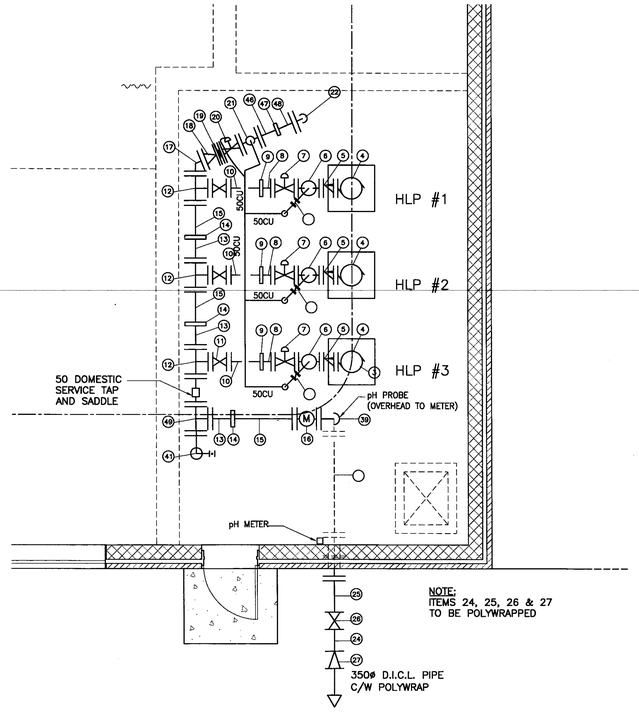
#	QUANTITY	ITEM
1	3	6 STAGE PUMP
2	3	150mmø PIPE, COLUMN AND SHAFT
3	3	TYPE "F" DISCHARGE HEAD
4	3	45KW USEM MOTOR (60HP)
5	3	150mmø CHECK VALVE, FLANGED
6	3	150mmx150mmx100mm TEE, FLANGED
7	3	150mmø PUMP CONTROL VALVE, FLANGED
8	3	150mmø NIPPLE, FLGE ONE END, VIC. ONE END, L=200mm.
9	3	150mmø VICTAULIC COUPLING
10	3	150mmø NIPPLE, FLGE ONE END, VIC. ONE END, LENGTH TO SUIT
11	3	150mmø KNIFE GATE VALVE, WAFER TYPE
12	3	200mmx200mmx150mm TEE, FLANGED
13	3	200mmø NIPPLE, FLGE ONE END, VIC. ONE END, 400mm MIN.
14	4	200mmø VICTAULIC COUPLING
15	4	200mmø NIPPLE, FLGE ONE END, VIC. ONE END, LENGTH TO SUIT.
16	1	200mmø FLOW METER
17	1	200mmø 22 1/2° ELBOW, FLANGED BOTH ENDS
18	1	200mmx100mm REDUCER, FLANGED BOTH ENDS
19	1	100mmø KNIFE GATE VALVE, WAFER TYPE
20	1	100mmø SURGE RELIEF VALVE WITH ANTICIPATOR FEATURE.
21	1	100mmx100mmx100mm TEE, FLANGED
22	1	100mmø 90° ELBOW, FLANGED.
23	1	200mmø NIPPLE, FLGE BOTH ENDS, 400mm.
24	1	200mmø MAKE-UP PIPE - LENGTH TO SUIT.
25	1	200mmø NIPPLE, FLGE ONE END, M.J. ONE END, L=500mm.
26	1	200mmø GATE VALVE, DIRECT BURY M.J.
27	1	200mmx350mm INCREASER, M.J.
28	1	100mmø NIPPLE, FLANGED ONE END, PLAIN ONE END, L=200mm
29	3	25mmø GATE VALVE
30	3	100mmx50mm REDUCING FLANGE
31	3	50mmx50mmx50mm TEE, FLANGED
32	3	50mmx25mm REDUCER, FLANGED
33	12	50mmø GATE VALVED. FLANGED
34	3	25mmø AIR RELEASE VALVE, FLANGED
35	3	25mmø CHECK VALVE, FLANGED
36	3	100mmø 90° ELBOW, FLANGED BOTH ENDS
37	3	50mmø SURGE RELEASE VALVE, FLANGED
38	1	GRD BOX & STEM
39	2	200mmø 90° ELBOW FLANGED
40	2	200ø NIPPLE, FLANGED BOTH ENDS, PVC - SCH 80 FIELD CUT & FLANGED TO SUIT
41	1	200mmx100mm REDUCING 90° ELBOW
42	1	100mmx64mm REDUCER
43	1	64mmø GATE VALVE
44	1	64mmø PRESSURE REDUCING VALVE 175psi/60psi
45	1	TRANSITION NIPPLE-FLANGED TO HDPE
46	1	100mmø NIPPLE, FLANGED ONE END, VIC. ONE END.
47	2	100mmø VICTAULIC COUPLING
48	2	100mmø NIPPLE, FLANGED ONE END, VIC. ONE END., LENGTH TO SUIT.
49	1	200mmx200mmx200mm TEE, FLANGED
50	3	50mmx50mmx50mm TEE, FLANGED
51	3	50mm TRANSITION FLANGED TO COPPER, WELDED



TYPICAL-3 PUMPS
N.T.S.



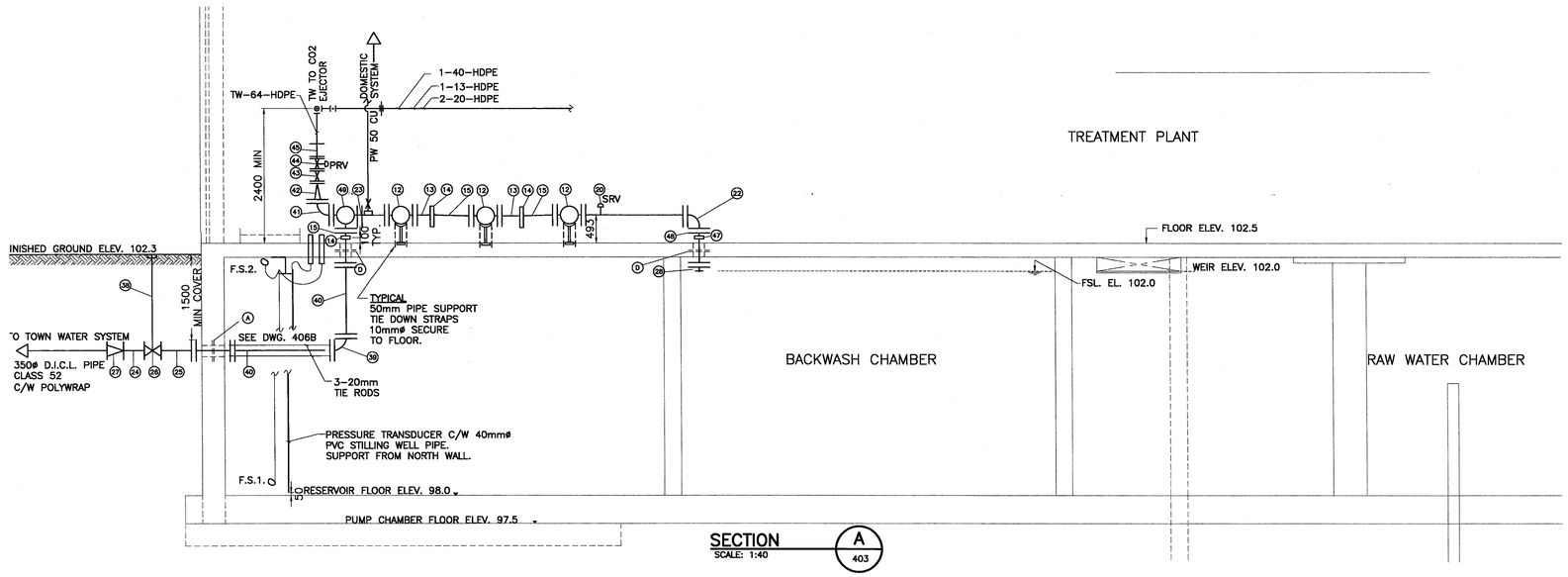
SECTION-HIGH LIFT PUMPS (A / 404)
SCALE: 1:40



PLAN-HIGH LIFT PUMPS
SCALE: 1:40

NOTES:

1. ALL HIGH LIFT PUMP SYSTEM TO BE DUCTILE IRON PIPE, CLASS 54; CEMENT LINED C/W 250 LB RATED FLANGES OR AS NOTED. SEE ITEMS NO.40



SECTION (A / 403)
SCALE: 1:40

BA	-	BLOWER AIR
BWS	-	BACKWASH WATER
BWW	-	BACKWASH WATER TO WASTE
TW	-	TREATED WATER
LIS	-	LIME SLURRY
CA	-	COMPRESSED AIR
RW	-	RAW WATER
PW	-	PLANT WATER
NACH	-	SODIUM HYDROXIDE
PACL	-	POLYALUMINUM CHLORIDE
POLY	-	POLYMER
RNW	-	RINSE WATER TO WASTE
CH	-	CHLORINE
CO2	-	CARBON DIOXIDE
POLP	-	POLYPHOSPHATE
-||-	-	UNION
-||-	-	BUTTERFLY VALVE
-||-	-	BALL VALVE
-⊖	-	ELBOW DOWN
-⊖	-	ELBOW UP
-|	-	LINE CONTINUES
—BA—	-	BLOWER AIR
-·-·-·-	-	LIME SLURRY
—CA—	-	COMPRESSED AIR
————	-	PLANT WATER
-··-··-	-	POLYALUMINUM CHLORIDE
————	-	POLYMER

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29.2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28.2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06.2002

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

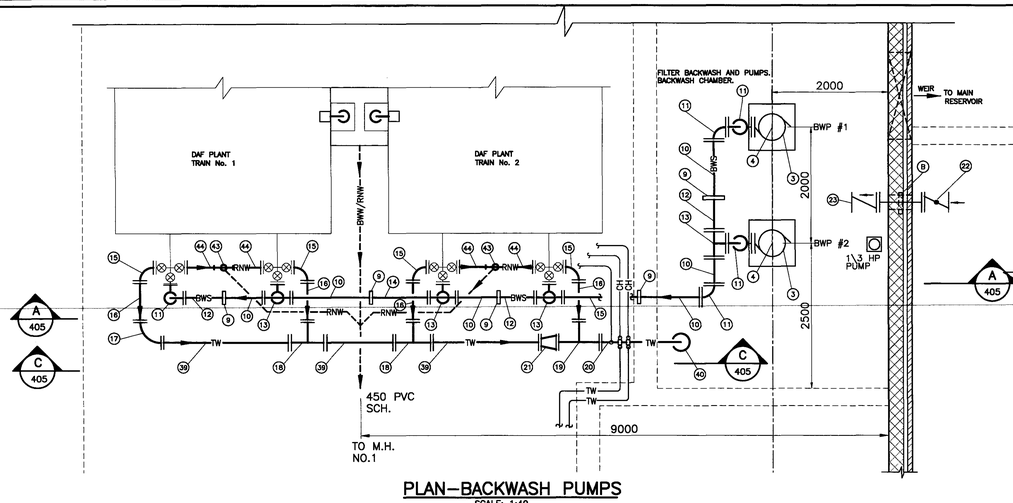
WATER SUPPLY AND TREATMENT PLANT

PLAN & SECTIONS HIGH LIFT PUMPS

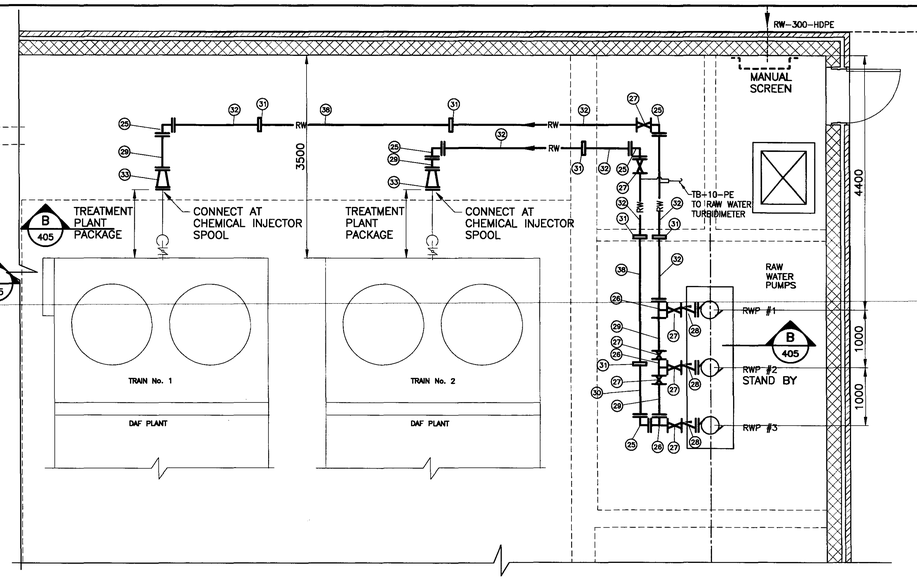
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DATE: JULY 29, 2005	DESIGNED: R.M.B
SCALE: 1:40	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353404B

REV. NO. 3



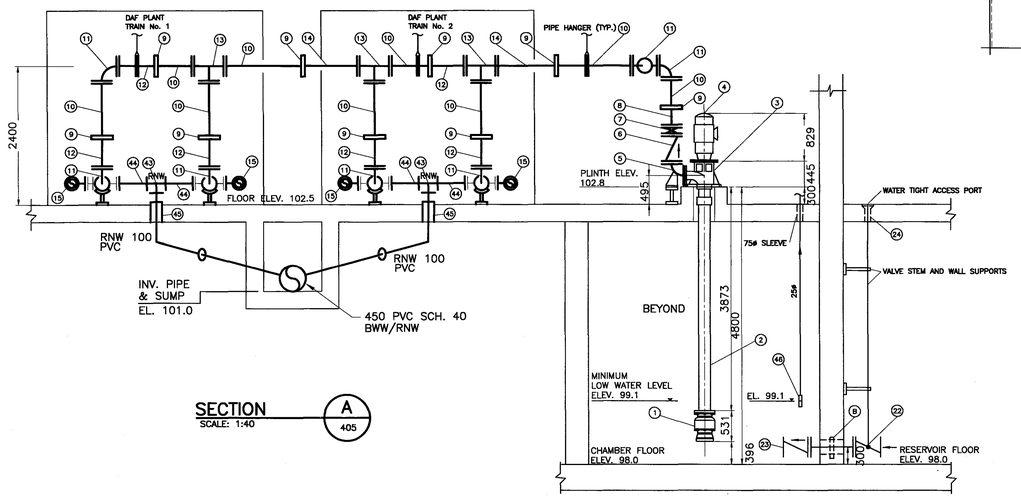
PLAN–BACKWASH PUMPS
SCALE: 1:40



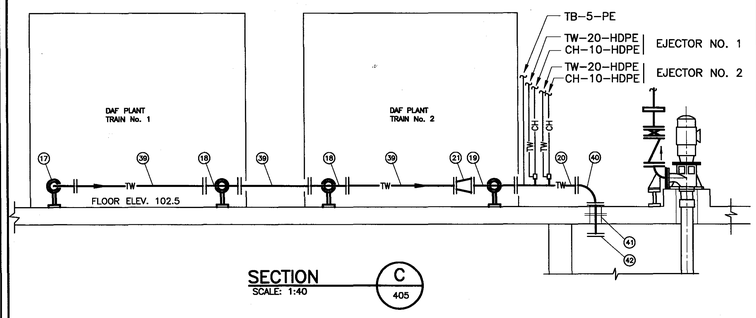
PLAN–RAW WATER PUMPS
SCALE: 1:40

NOTE:

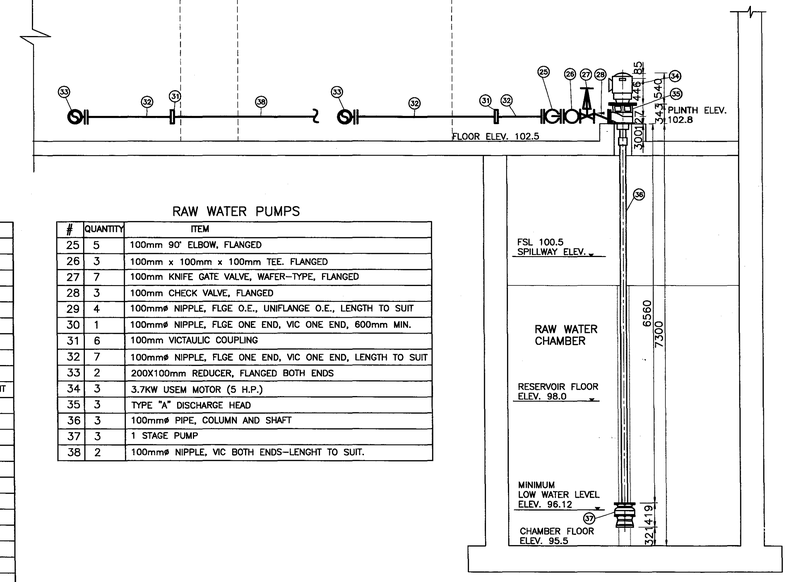
ALL PIPE FOR BACKWASH AND RAW WATER SYSTEMS TO BE PVC SCHEDULE 40 PIPE C/W 125LB RATED FLANGES EXCEPT AS NOTED IN THE SCHEDULE.



SECTION A 405
SCALE: 1:40



SECTION C 405
SCALE: 1:40



SECTION B 405
SCALE: 1:40

FILTER BACKWASH AND PUMPS

#	QUANTITY	ITEM
1	2	SINGLE STAGE PUMP
2	2	200mmø PIPE, COLUMN AND SHAFT
3	2	TYPE "A" DISCHARGE HEAD
4	2	30KW USEM MOTOR (40 H.P.)
5	2	200mmø 90° ELBOW FLANGED BASE, D.I.C.L.
6	2	200mmø CHECK VALVE, SPRING–TYPE, FLANGED
7	2	200mmø WAFER KNIFE VALVE, FLANGED
8	2	200mmø NIPPLE, FLGD ONE END, VIC ONE END, L=300mm
9	11	200mmø VICTAULIC COUPLING
10	12	200mmø NIPPLE, FLGD ONE END, VIC ONE END, LENGTH TO SUIT
11	9	200mmø 90° ELBOW, FLANGED
12	7	200mmø NIPPLE, FLGD ONE END, VIC ONE END, L=500mm
13	4	200x200x200 TEE, FLANGED
14	2	200mmø NIPPLE, FLGD ONE END, VIC ONE END, L=1000mm
15	4	150mmø 90° ELBOW, FLANGED
16	4	150mmø NIPPLE + UNI–FLANGE – LENGTH TO SUIT
17	1	150 x 250 INCREASING ELBOW
18	2	250x250x150 TEE
19	1	300x300x150 TEE
20	1	300mmø NIPPLE, FLGD ONE END, UNI–FLANGE ONE END
21	1	INCREASER FLGD 250 x 300
22	1	250mmø BUTTERFLY VALVE, FLANGED
23	1	250mmø CHECK VALVE, SPRING–TYPE, FLANGED
24	1	WATERTIGHT VALVE BOX TO SUIT 250mmø BUTTERFLY VALVE
39	3	250mmø NIPPLE, FLANGED ONE END, UNI–FLANGED ONE END
40	1	300mmø 90° ELBOW
41	1	450mmø SLEEVE
42	1	300mmø NIPPLE, FLANGED ONE END, PLAIN ONE END
43	2	100x100x100 TEE
44	4	100mmø NIPPLE, FLANGED ONE END, UNI–FLANGED ONE END
45	2	150mmø SLEEVE
46		1\3 H.P. GUNFOS SUBMERSIBLE PUMP NO. 5SQ03A–90–1" DISCHARGE TDH 200 FEET @4.0 USGPM. –230/1/60

RAW WATER PUMPS

#	QUANTITY	ITEM
25	5	100mm 90° ELBOW, FLANGED
26	3	100mm x 100mm x 100mm TEE. FLANGED
27	7	100mm KNIFE GATE VALVE, WAFER–TYPE, FLANGED
28	3	100mm CHECK VALVE, FLANGED
29	4	100mmø NIPPLE, FLGE O.E., UNIFLANGE O.E., LENGTH TO SUIT
30	1	100mmø NIPPLE, FLGE ONE END, VIC ONE END, 600mm MIN.
31	6	100mm VICTAULIC COUPLING
32	7	100mmø NIPPLE, FLGE ONE END, VIC ONE END, LENGTH TO SUIT
33	2	200X100mm REDUCER, FLANGED BOTH ENDS
34	3	3.7KW USEM MOTOR (5 H.P.)
35	3	TYPE "A" DISCHARGE HEAD
36	3	100mmø PIPE, COLUMN AND SHAFT
37	3	1 STAGE PUMP
38	2	100mmø NIPPLE, VIC BOTH ENDS–LENGHT TO SUIT.

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1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

STAMP

REGISTERED PROFESSIONAL ENGINEER
R.G. CLEMENTS
6817
PROVINCE OF NOVA SCOTIA
DATE

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FAX: (902)469-4399

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

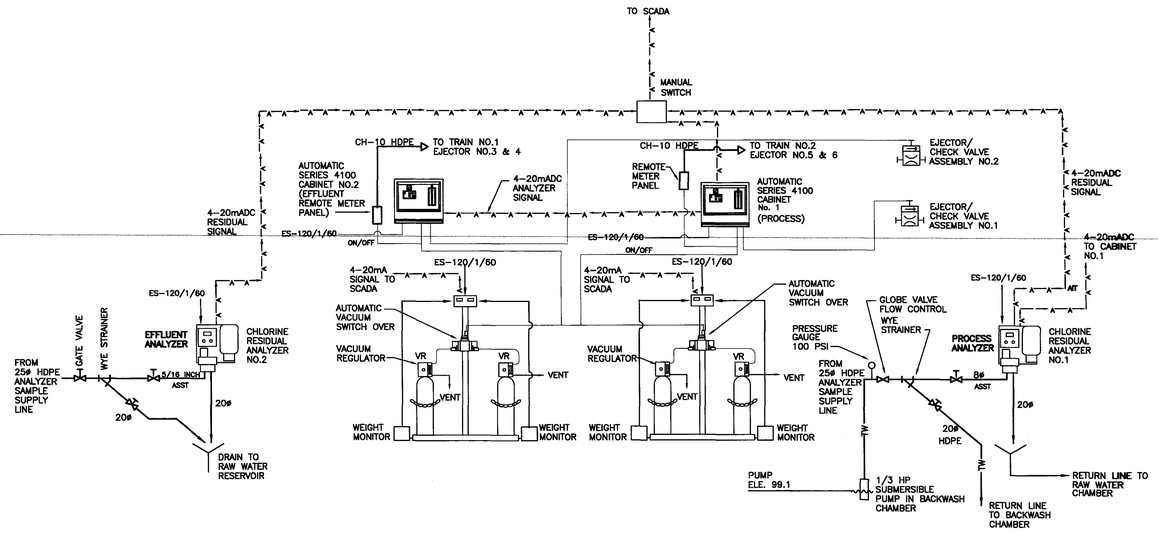
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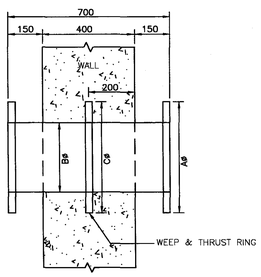
WATER SUPPLY AND TREATMENT PLANT
PLAN & SECTION
BACKWASH & RAW WATER PUMPS

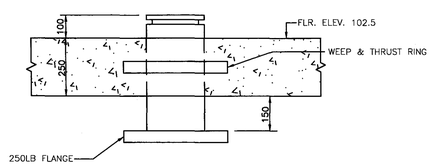
TRADE:	DRAWN:
MECHANICAL	T.H
DATE: JULY 29, 2005	DESIGNED: R.M.B
SCALE: 1:40	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353405B

REV. NO. 3







WALL THIMBLE TABLE

ITEM No.	DESCRIPTION	FLANGE TYPE	No. BOLTS	A (mm)	B (mm)	C (mm)
A	DISCHARGE TO TOWN	250 lbs	12	380	200	380
B	BACKWASH CHAMBER	125 lbs	12	400	250	400
C	RAW WATER INLET	125 lbs	12	480	300	480

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REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE: July 29, 2005
R.G. CLEMENTS
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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

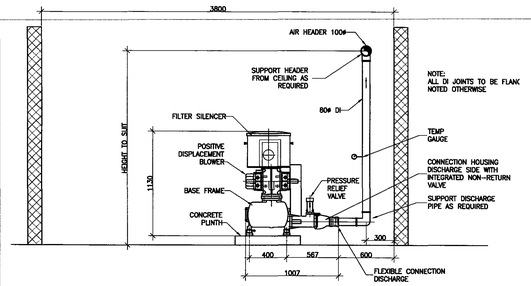
WATER SUPPLY AND TREATMENT PLANT

DETAILS

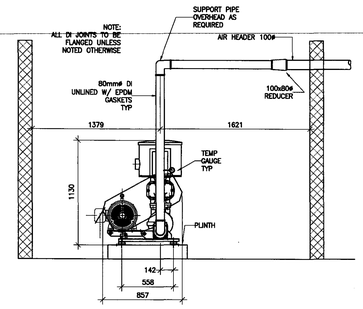
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MECHANICAL	T.H
DATE: JULY 29, 2005	DESIGNED: R.M.B
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353406B

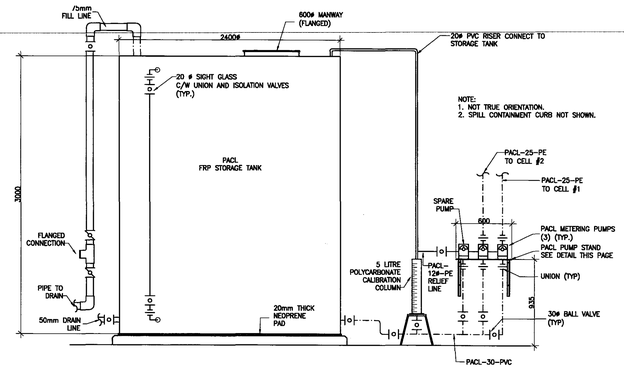
REV. NO. 3



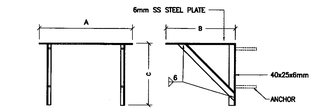
A 403 BLOWER SECTION
SCALE: 1:25



B 403 BLOWER SECTION
SCALE: 1:25

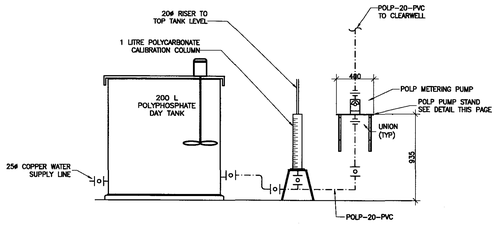


C 403 PACL FEED SYSTEM
SCALE: NOT TO SCALE

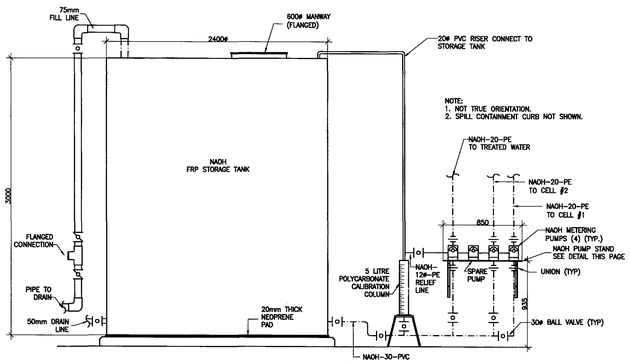


	A	B	C
PACL	600	450	400
POLP	400	400	400
NAOH	850	450	400

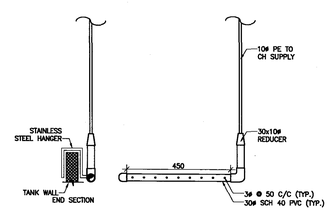
F 403 PUMP STAND
SCALE: NOT TO SCALE



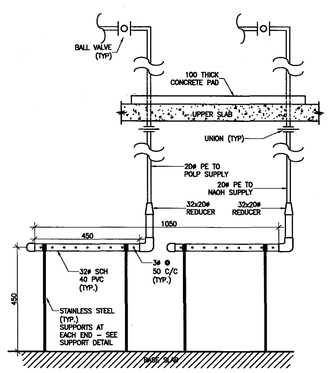
G 403 POLYPHOSPHATE FEED SYSTEM
SCALE: NOT TO SCALE



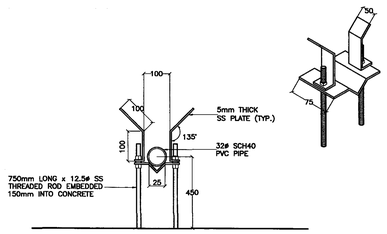
D 403 NAOH FEED SYSTEM
SCALE: NOT TO SCALE



H 403 CHLORINE DIFFUSER
SCALE: NOT TO SCALE



E 403 SODIUM HYDROXIDE/POLYPHOSPHATE DIFFUSERS
SCALE: NOT TO SCALE



— CHEMICAL DIFFUSER SUPPORT
SCALE: NOT TO SCALE

NOTES:

1. REFER TO PRE-SELECTION DOCUMENTS FOR LIMITS OF SUPPLY.
2. PROVIDE ALL SERVICEABLE EQUIPMENT WITH UNIONS.
3. PIPE ALIGNMENT IS SHOWN TO INDICATE INTENT. FINAL ALIGNMENT TO BE FINALIZED IN THE FIELD (ALLOW FOR 1 m VARIATION FROM THAT SHOWN.)

BA	–	BLOWER AIR
BWS	–	BACKWASH WATER
BWW	–	BACKWASH WATER TO WASTE
CA	–	COMPRESSED AIR
CH	–	CHLORINE
NAOH	–	CAUSTIC SODA
PACL	–	POLYALUMINUM CHLORIDE
PW	–	PLANT WATER
POLP	–	POLYPHOSPHATE
REC	–	RECYCLE FLOW
RNW	–	RINSE WATER TO WASTE
RW	–	RAW WATER
SC	–	DAF FLOAT
TB	–	TURBIDITY
TW	–	TREATED WATER
	–	UNION
	–	BUTTERFLY VALVE
	–	BALL VALVE
	–	ELBOW DOWN
	–	ELBOW UP
	–	LINE CONTINUES

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PROFESSIONAL ENGINEERS PROVINCE OF NOVA SCOTIA
DATE JULY 29/05
A. T. SALOOJEE
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PROJECT:

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CUMBERLAND COUNTY, NOVA SCOTIA

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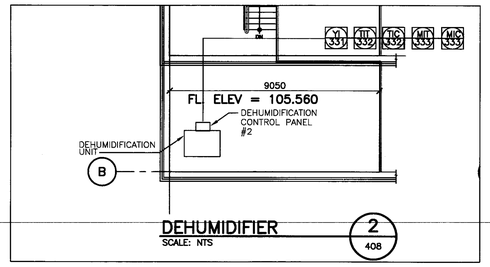
WATER SUPPLY AND TREATMENT PLANT

DETAILS

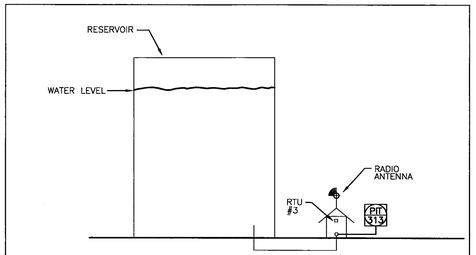
TRADE: MECHANICAL	DRAWN: T.H
DATE: JULY 29, 2005	DESIGNED: R.M.B
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353407B

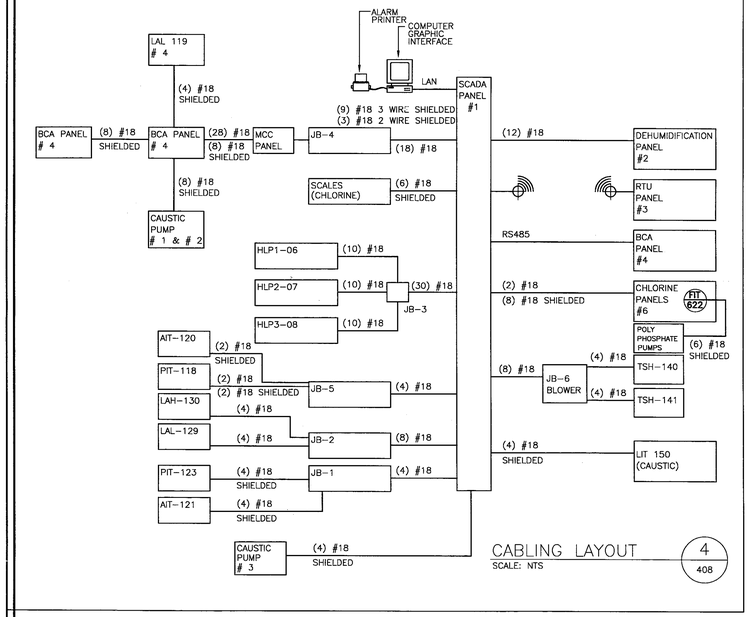
REV. NO. 3



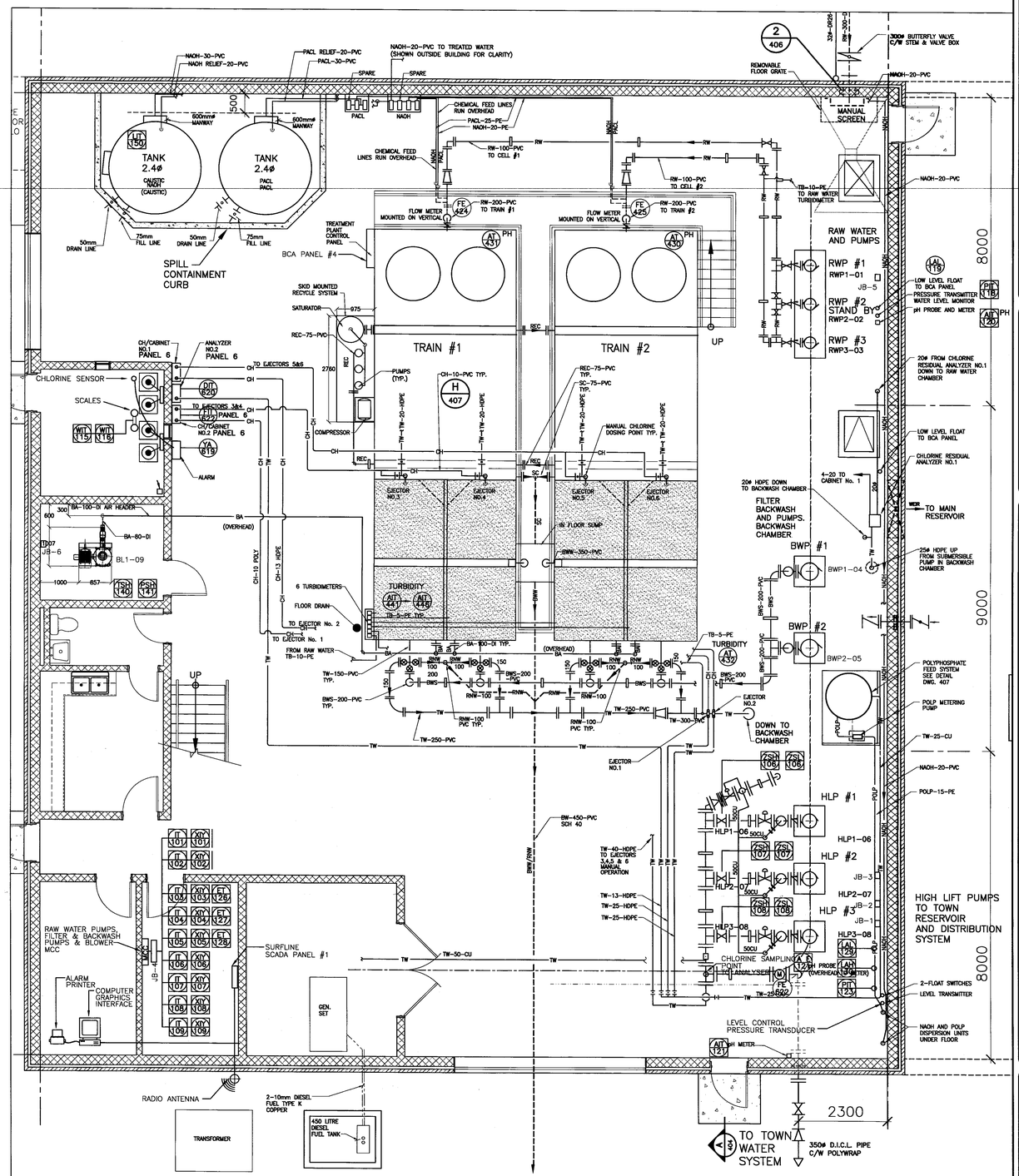
DEHUMIDIFIER
SCALE: NTS
2
408



RESERVOIR
SCALE: NTS
3
408



CABLING LAYOUT
SCALE: NTS
4
408



REV	DESCRIPTION	DATE
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REGISTERED PROFESSIONAL ENGINEER
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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

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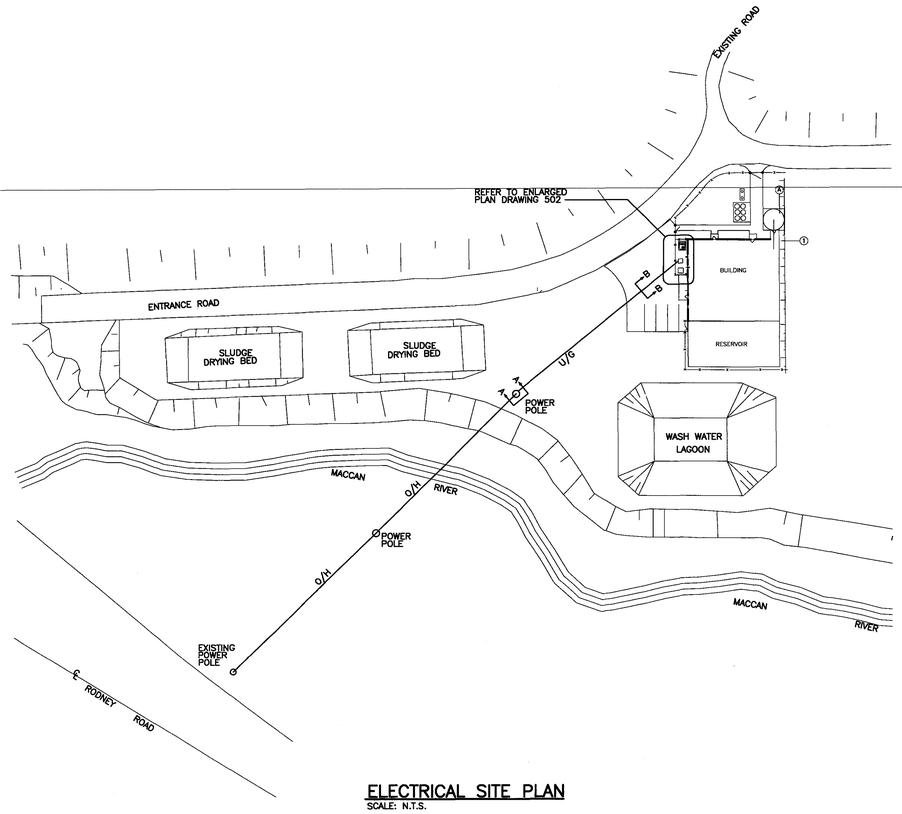
WATER SUPPLY AND TREATMENT PLANT

INSTRUMENTATION

TRADE:	DRAWN:
MECHANICAL	T.H
DATE: JULY 29, 2005	DESIGNED: R.M.B
SCALE: N.T.S.	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353408B

REV. NO. 3



ELECTRICAL SITE PLAN
SCALE: N.T.S.

ELECTRICAL LEGEND

TYPE	DESCRIPTION	TYPE	DESCRIPTION
$	SINGLE POLE SWITCH		SINGLE PHASE MOTOR.
Ex $	SINGLE POLE SWITCH. 'Ex' INDICATES CLASS I, DIVISION I, EXPLOSION PROOF.		THREE PHASE MOTOR.
3w $	THREE-WAY SINGLE POLE SWITCH		DISCONNECT SWITCH.
	FLUORESCENT FIXTURE. 'B' INDICATES FIXTURE TYPE		CONTROL SWITCH.
K	HID LUMINAIRE OR FLUORESCENT POT LIGHT. 'K' INDICATES FIXTURE TYPE		MAGNETIC MOTOR STARTER/LIGHTING CONTACTOR
J	WALL MOUNTED EXTERIOR LIGHT FIXTURE. 'J' INDICATES FIXTURE TYPE.		DOOR SWITCH. (SENTROL 2700 SERIES)
P	PHOTOCELL		DOOR CONTACT
	DUAL HEAD EMERGENCY LIGHT FIXTURE c/w 100W 10 YEAR LIFE BATTERY PACK AND 2x20W QUARTZ HALOGEN LAMPS. MOUNT 2800mm A.F.F.		LIGHTING/POWER PANEL.
	WALL MOUNTED EXIT LIGHT FIXTURE.	GB	GROUND BUS
	DATA/VOICE OUTLET, WALL MOUNTED, 100x100mm OUTLET BOX c/w DEVICE COVER FOR DRYWALL.	GC	GROUND CABLE
	TELEPHONE JACK		208V ELECTRIC BASEBOARD HEATER
	DUPLEX RECEPTACLE 120V,15A OR 20A WHERE INDICATED		
	GFI DUPLEX RECEPTACLE 120V,15A OR 20A WHERE INDICATED		
	30A RECEPTACLE.		
	OUTLET FOR DIRECT CONNECTION TO EQUIPMENT, 120VAC		
	OUTLET FOR DIRECT CONNECTION TO EQUIPMENT, 208VAC OR 600VAC		
T	THERMOSTAT SUPPLIED BY MECHANICAL, WIRED & INSTALLED BY ELECTRICAL UNLESS OTHERWISE NOTED. SEE MOTOR STARTER & CONTROL LIST.		
M $	MANUAL MOTOR STARTER.		

LIGHTING FIXTURE SCHEDULE
(STANDARD OF ACCEPTANCE)

TYPE	FIXTURE	LAMP	MANUFACTURER
A	175 WATT METAL HALIDE LOWBAY FIXTURE, SEALED AND GASKETED, PENDANT MOUNTING AT 4700mm AFF.	175W BT-28 MOGUL BASE METAL HALIDE	HOLOPHANE ENDURALUME V EN-175PM-34-P-8
B	1220mm SURFACE WRAP AROUND FLUORESCENT FIXTURE C/W ELECTRONIC BALLAST AND CHAIN HUNG FROM CEILING AT 2440mm AFF.	2 T-8 32 WATT FLUORESCENT	METALUX WB-232A-347-EB81
C	610mm SURFACE WRAP AROUND FLUORESCENT FIXTURES C/W ELECTRONIC BALLAST AND CHAIN HUNG FROM CEILING AT 2440mm AFF.	2 T-8 17 WATT FLUORESCENT	METALUX W-217A-347-EB81
D	1220mm INDUSTRIAL STRIP FLUORESCENT FIXTURE C/W CLOSED TOP REFLECTOR AND ELECTRONIC BALLAST AND CHAIN HUNG AT 2740mm AFF.	2 T-8 32 WATT FLUORESCENT	METALUX IC-232-347-EB81
E	1220mm WALL MOUNTED FLUORESCENT FIXTURE C/W ELECTRONIC BALLAST	2 T-8 32 WATT FLUORESCENT	METALUX BI-232-120-EB81
F	1220mm INDUSTRIAL/VAPOURTITE FLUORESCENT FIXTURE C/W ELECTRONIC BALLAST AND CHAIN HUNG FROM CEILING AT 2440mm AFF.	2 T-8 32 WATT FLUORESCENT	METALUX VT2-232DR-120-EB81
G	1220mm WALL MOUNTED FLUORESCENT FIXTURE C/W ELECTRONIC BALLAST	2 T-8 32 WATT FLUORESCENT	METALUX BI-232-347-EB81
H	1220mm COMMERCIAL STRIP LIGHT C/W ELECTRONIC BALLAST AND WIRE GUARD	2 T-8 32 WATT FLUORESCENT	METALUX SS-232-347 EB81-WG/SS-4FT-U
J	VANDAL RESISTANT WALLPACK WITH 120V HPS BALLAST	70 WATT HPS	HOLOPHANE WP-2-A-070HP-12-BZ-WP2W6
K	150 WATT INCANDESCENT EXPLOSION PROOF FIXTURE CEILING MOUNTED	A-21 150 WATT INCANDESCENT	CROUSE-HINDS EVCX

HEATING FIXTURE SCHEDULE
(STANDARD OF ACCEPTANCE)

TYPE	ELECTRIC HEATERS	MANUFACTURER
A	500 WATT 208V 1ø ELECTRIC BASEBOARD HEATER C/W INTERNAL THERMOSTAT	CHROMALOX BN2805W21
B	1500 WATT 208V 1ø ELECTRIC BASEBOARD HEATER	CHROMALOX BN6615W21
C	1000 WATT 208V 1ø ELECTRIC BASEBOARD HEATER	CHROMALOX BL2810
D	500 WATT 208V 1ø ELECTRIC BASEBOARD HEATER	CHROMALOX BL2805
E	1000 WATT 208V 1ø ELECTRIC BASEBOARD HEATER C/W INTERNAL THERMOSTAT	CHROMALOX BN4810W21
F	500 WATT 208V 1ø EXPLOSION-PROOF AIR HEATER C/W EXPLOSION-PROOF THERMOSTAT, MOUNTED AT 900mm AFF.	CHROMALOX TYPE FPEP AR-1064-ER-1
G	15KW ELECTRIC BLOWER UNIT HEATER, MOUNTED 3000mm AFF C/W FACTORY INSTALLED THERMOSTAT	CHROMALOX BUH-150-2-0-0-0-2-0-600-3ø
T	DOUBLE POLE WALL MOUNTED THERMOSTAT WITH OFF POSITION	DIMPLEX TD902

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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102 PORTLAND STREET, P.O. BOX 501 DARTMOUTH, NS, B2Y 3Y6
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FAX: (902)466-4369

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

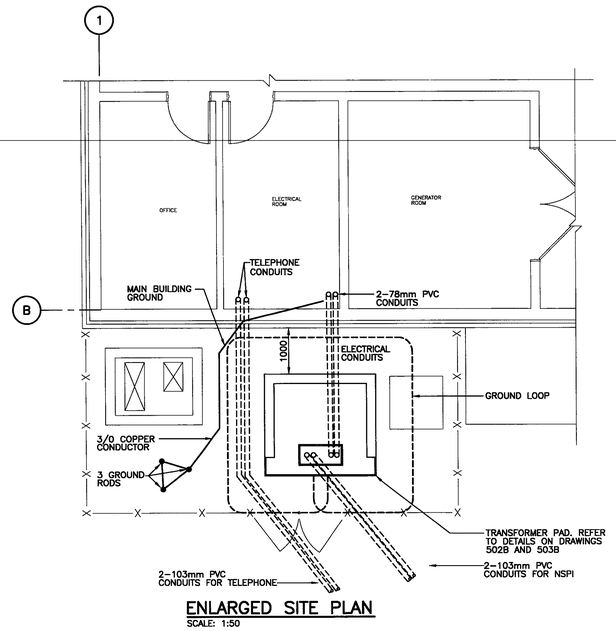
DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
ELECTRICAL SITE PLAN, LEGEND & SCHEDULES

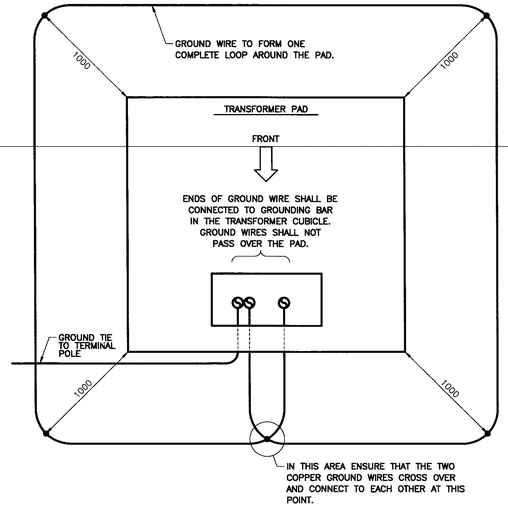
TRADE: ELECTRICAL	DRAWN: R. ARMSTRONG , M. PICKRILL
DATE: JULY 29, 2005	DESIGNED: G. ROSS
SCALE: N.T.S.	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353501B

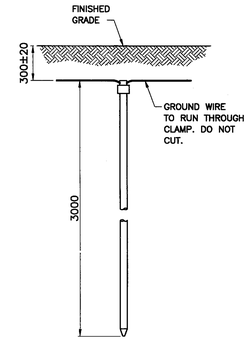
REV. NO. 3



ENLARGED SITE PLAN
SCALE: 1:50



NOTES:
A. GROUNDING SHALL BE IN ACCORDANCE WITH SECTION 36 OF THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE, PART 1.
B. REFER TO NSPI DRAWING No. 10U-ED-11M FOR GROUND ROD CONNECTION DETAILS.
C. THE GROUND TIE SHALL BE A BARE COPPER CONDUCTOR INSTALLED UNDERNEATH THE CONCRETE ENCASED DUCTBANK OR ADJACENT TO THE DIRECT BURIED CONDUITS. THE MINIMUM WIRE SIZE SHALL BE #2/0 AWG FOR 3Φ PADMOUNTS AND #2 AWG FOR 1Φ PADMOUNTS. THE GROUND TIE SHALL INTERCONNECT THE PADMOUNT GROUND TO THE RISER POLE GROUND ROD(S) AND ANY OTHER PADMOUNT GROUND. UNDER SPECIAL CIRCUMSTANCES, A CUSTOMER GROUND TIE FROM THE PAD TO THE CUSTOMER SERVICE SWITCH MAY BE REQUIRED BY THE INSPECTION AUTHORITY.
D. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

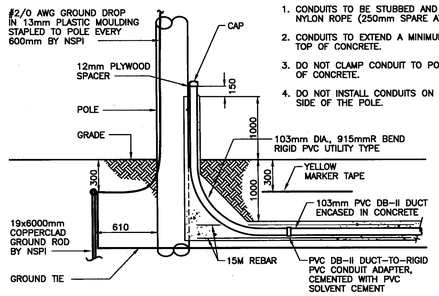


DETAIL 1
SCALE: 1:20 — 502B

TYPICAL GROUNDING CONNECTION FOR PADMOUNT TRANSFORMERS

DETAIL 2
SCALE: N.T.S. — 502B

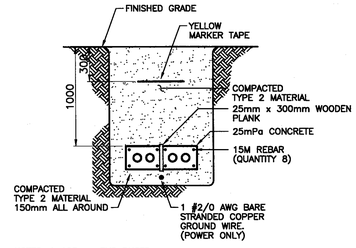
TYPICAL GROUNDING CONNECTION FOR PADMOUNT TRANSFORMERS



NOTES:
1. CONDUITS TO BE STUBBED AND CAPPED WITH 6mm NYLON ROPE (250mm SPARE AT EACH END) INSIDE.
2. CONDUITS TO EXTEND A MINIMUM OF 150mm ABOVE TOP OF CONCRETE.
3. DO NOT CLAMP CONDUIT TO POLE WITHIN 100mm OF CONCRETE.
4. DO NOT INSTALL CONDUITS ON THE CURB OR TRAFFIC SIDE OF THE POLE.

SECTION A
NOT TO SCALE — 501B

DUCT TERMINATION AT POLE FOR UNDERGROUND PRIMARY SERVICE



NOTES: 1. 103mm PVC DUCTS
2. CONCRETE ENCASED
3. STEEL REINFORCEMENT
4. MIN. 50mm COVER OVER REBAR
5. USE SCEPTER OR EQUAL SADDLE SPACERS.
6. CONCRETE THICKNESS: 75mm BETWEEN DUCTS, 75mm TO BOTTOM AND SIDES, 100mm TO TOP OF CONCRETE.

SECTION B
NOT TO SCALE — 501B

TYPICAL ENCASED DUCT BANK

1:20 0.6 0 1m

1:50 1 0 1 2 3m

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
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1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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FAX: (902)466-4369

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

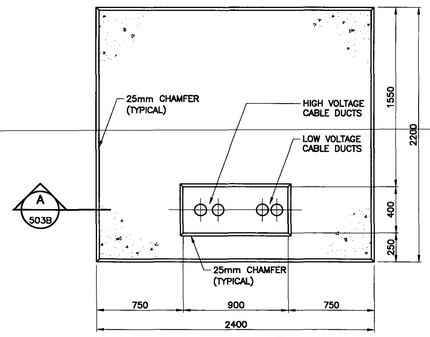
WATER SUPPLY AND TREATMENT PLANT

SITE PLAN DETAILS

TRADE: ELECTRICAL	DRAWN: R. ARMSTRONG , M. PICKRILL
DATE: JULY 29, 2005	DESIGNED: G. ROSS
SCALE: N.T.S.	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

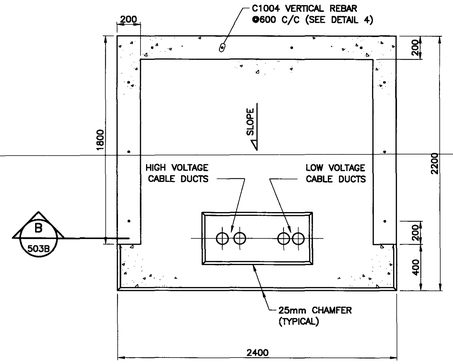
DRAWING NO. 51353502B

REV. NO. 3



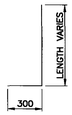
DETAIL 1 — SCALE: 1:20 — 503B

CONCRETE PAD FOR 3ø PADMOUNT TRANSFORMER 150kVA – 500 kVA



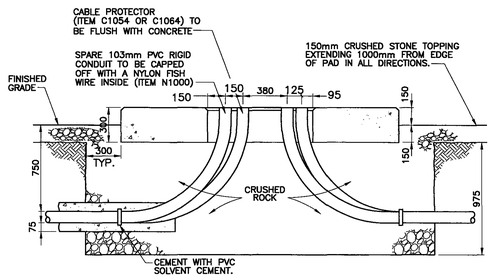
DETAIL 2 — SCALE: 1:20 — 503B

FIRE–RESISTING BARRIER FOR 3ø PADMOUNT TRANSFORMER 150 kVA – 500 kVA



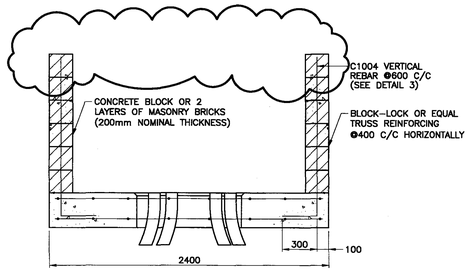
DETAIL 3 — SCALE: 1:20 — 503B

VERTICAL REBAR DETAIL



NOTES:
A. CONCRETE – 30 MPa @28 DAYS.
E. LEAVE A MINIMUM OF 1300mm OF SECONDARY CABLES ABOVE DUCTS.

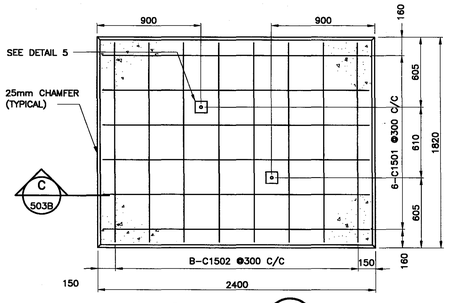
SECTION A — SCALE: 1:20 — 503B



REBAR SCHEDULE: C1004 – ∯10M BAR x LG VARIES – 10 REQUIRED (SEE DETAIL 4)

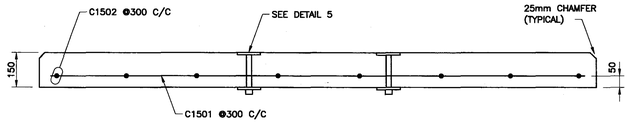
NOTES:
A. REINFORCING – 400MPa YIELD.
B. WHEN HOLLOW CONCRETE BLOCK IS USED, ALL OPENINGS IN THE BLOCK SHALL BE FILLED WITH MORTAR.
C. IF MASONRY BRICK IS USED, PLACE VERTICAL REBAR (C1004) BETWEEN COLUMNS.
D. SLOPE TRANSFORMER PAD TOWARDS OPEN END – 1:200.
E. FOR TYPICAL CONSTRUCTION DETAILS, REFER TO NSPI DRAWING No. 6U–ED–38M.
F. FOR CONCRETE TOP, IF REQUIRED FOR FIRE–RESISTING BARRIER, REFER TO DRAWING No. 6U–ED–23M.
G. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

SECTION B — SCALE: 1:20 — 503B



DETAIL 4 — SCALE: 1:20 — 503B

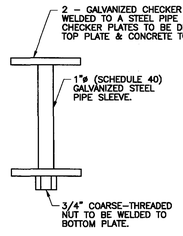
CONCRETE TOP OF FIRE–RESISTING BARRIER, 3ø PADMOUNT TRANSFORMER 150kVA – 500kVA



REBAR SCHEDULE: C1501 – ∯15M BAR x 2300mm LG – 6 REQUIRED.
C1502 – ∯15M BAR x 2300mm LG – 6 REQUIRED.

NOTES:
A. CONCRETE – 30 MPa @28 DAYS.
B. REINFORCING – 400MPa YIELD.
C. DO NOT LIFT PRECAST TOP UNTIL IT HAS BEEN ALLOWED TO CURE FOR A MINIMUM OF SEVEN DAYS.
D. USE 3/4" EYE BOLTS (89 kN STRENGTH AS PER CSA STANDARD C83, ITEM B–24) FOR LIFTING CONCRETE TOP.
E. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

SECTION C — SCALE: 1:10 — 503B



DETAIL 5 — SCALE: N.T.S. — 503B

1:10 0.3 0 0.5m

1:20 0.6 0 1m

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
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1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

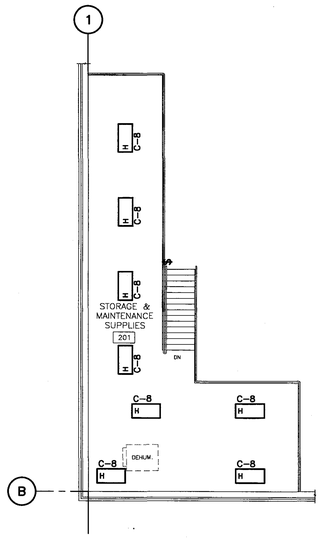
WATER SUPPLY AND TREATMENT PLANT

SITE PLAN DETAILS

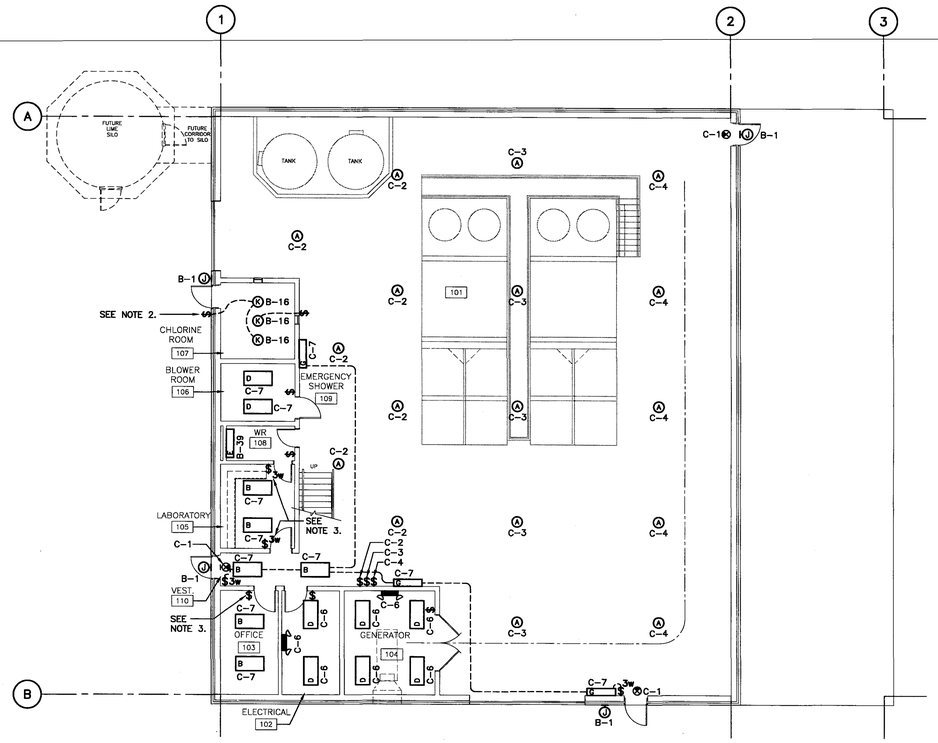
TRADE: ELECTRICAL	DRAWN: R. ARMSTRONG , M. PICKRILL
DATE: JULY 29, 2005	DESIGNED: G. ROSS
SCALE: N.T.S.	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353503B

REV. NO. 3



PARTIAL MEZZ. PLAN 2
SCALE: 1:100
5048



MAIN FLOOR PLAN 1
SCALE: 1:100
5048

1:100 1 0 1 2 3 4 5 6 7m

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

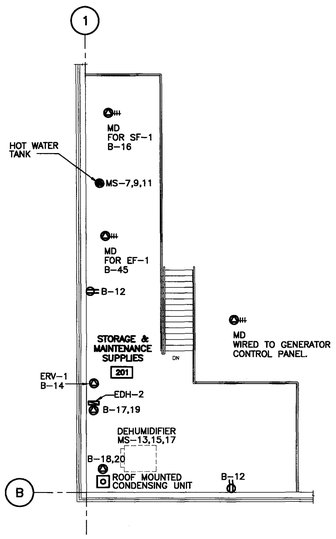
WATER SUPPLY AND TREATMENT PLANT

FLOOR PLANS – LIGHTING

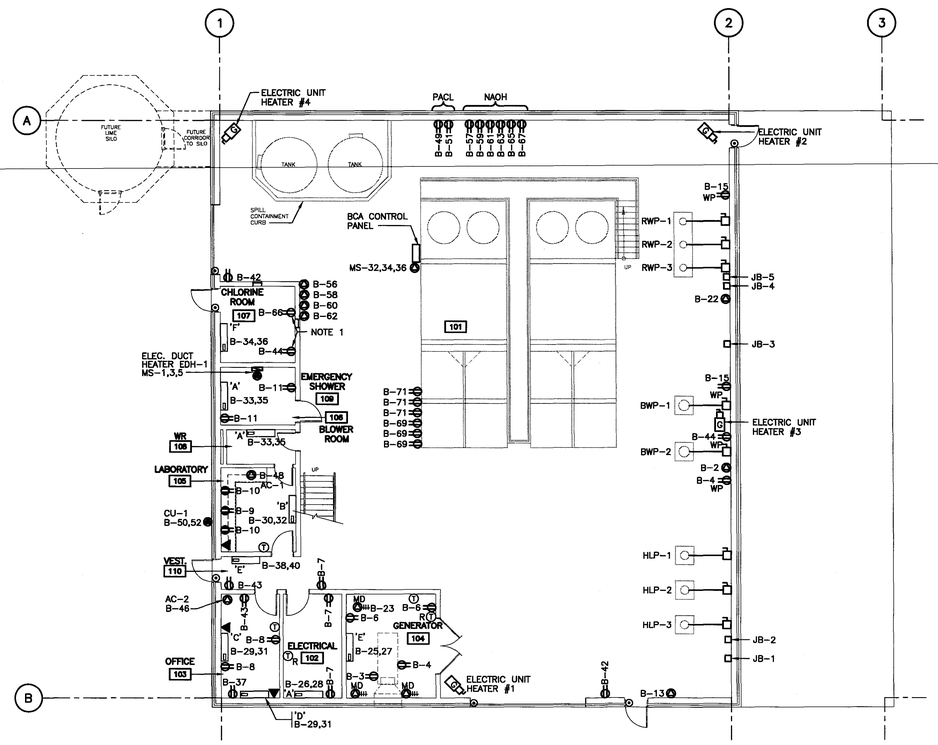
TRADE: ELECTRICAL	DRAWN: R. ARMSTRONG , M. PICKRILL
DATE: JULY 29, 2005	DESIGNED: G. ROSS
SCALE: N.T.S.	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353504B

REV. NO. 3

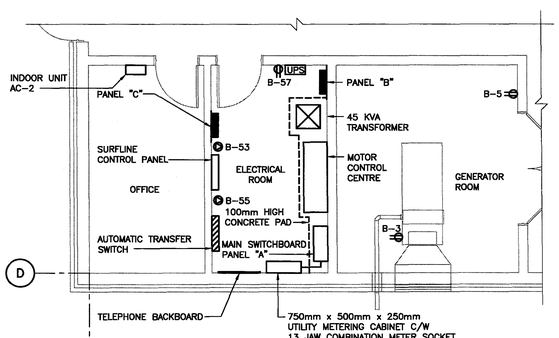


PARTIAL MEZZ. PLAN 2 (505B)
SCALE: 1:100

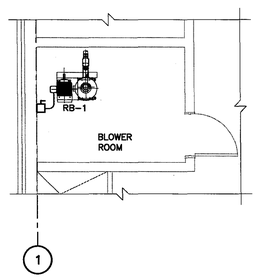


MAIN FLOOR PLAN 1 (505B)
SCALE: 1:100

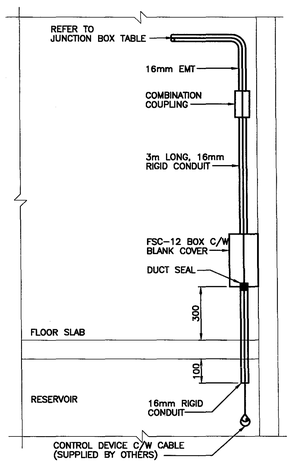
JUNCTION BOX TABLE		
JUNCTION BOX	CONDUIT DESTINATION	INSTALL CABLE FOR
JB-1	SURFLINE PANEL	PRESSURE TRANSDUCER
JB-2	SURFLINE PANEL	FLOAT SWITCH
JB-3	BCA PANEL	FLOAT SWITCH
JB-4	BCA PANEL	FLOAT SWITCH
JB-5	SURFLINE PANEL	PRESSURE TRANSDUCER



ELECTRICAL ROOM ENLARGED PLAN 3 (505B)
SCALE: 1:50



BLOWER ROOM ENLARGED PLAN 4 (505B)
SCALE: 1:50



JUNCTION BOX DETAIL 5 (505B)
SCALE: N.T.S.

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT

FLOOR PLANS – POWER

TRADE:	DRAWN:
ELECTRICAL	R. ARMSTRONG , M. PICKRILL
DATE:	DESIGNED:
JULY 29, 2005	G. ROSS
SCALE:	JOB NO:
N.T.S.	5135
PROJECT NO:	TENDER NO:
142332	

DRAWING NO. 51353505B

REV. NO. 3

MAIN SWITCHBOARD		PANEL TYPE	–	INTERRUPTING RATING	10,000	AMPS
VOLTAGE	600/347	BREAKER TYPE	BOLT–ON	MAINS	LUGS	
PHASE/WIRES	3ø, 4W	MOUNTING	SURFACE		BREAKER 500 AMPS	
					MCS AMPS	BUS 600 AMPS

DESIGNATION	LOAD(VA) A	B	C	AWG	CCT #	BKR	A B C	BKR	CCT #	AWG	LOAD(VA) A	B	C	DESIGNATION
BLOWER ROOM DUCT HEATER	4330			12	1	3P 20A		3P 20A	2	12	5000			
		4330		12	3				4	12		5000		UNIT HEATER #3
			4330	12	5				6	12			5000	
HOT WATER TANK – MEZZANINE	18000			4	7	3P 70A		3P 20A	8	12	5000			
		18000		4	9				10	12		5000		UNIT HEATER #4
			18000	4	11				12	12			5000	
DEHUMIDIFIER – MEZZANINE	3333			12	13	3P 15A			14					
		3333		12	15				16					SPACE
			3333	12	17				18					
MOTOR CONTROL CENTRE	50000			500	19	3P 400A			20					
		50000		500	21				22					SPACE
			50000	500	23				24					
45 KVA TRANSFORMER / PANEL B	7994			6	25	3P 60A		3P 100A	26	3	13275			
		7123		6	27				28	3		13000		AUTOMATIC TRANSFER SWITCH / PANEL C
			8050	6	29				30	3			10520	
TVSS	50			10	31	3P 30A		3P 30A	32	10	2490			
		50		10	33				34	10		2490		BCA CONTROL PANEL
			50	10	35				36	10			2490	
SPARE				–	37	3P 30A		–	38	–				SPACE
				–	39			–	40	–				SPACE
				–	41			–	42	–				SPACE

* PROVIDE LOCK ON BREAKER

TOTALS	WATTS	AMPS
PHASE A	109472	315
PHASE B	108326	312
PHASE C	106773	307
A+B+C	324571	

PANEL No.	'C'	PANEL TYPE	–	INTERRUPTING RATING	10,000	AMPS
VOLTAGE	600/347	BREAKER TYPE	BOLT–ON	MAINS	LUGS	
PHASE/WIRES	3ø, 4W	MOUNTING	SURFACE		BREAKER – AMPS	
					MCS AMPS	BUS 225 AMPS

DESIGNATION	LOAD(VA) A	B	C	AWG	CCT #	BKR	A B C	BKR	CCT #	AWG	LOAD(VA) A	B	C	DESIGNATION
EMERGENCY, EXIT LIGHTS (*)	100			12	1	15A		15A	2	12	2100			
HIGHBAY LIGHTING		1500		12	3	15A		15A	4	12		1500		HIGHBAY LIGHTING
SPARE			–	–	5	15A		15A	6	12			520	GENERATOR ROOM, ELECT. ROOM
OFFICE, LAB, BLOWER ROOM	490			12	7	15A		15A	8	12	585			MEZZANINE LIGHTING
	5000			12	9	3P 20A			10	12	5000			
UNIT HEATER #1		5000		12	11			3P 20A	12	12		5000		UNIT HEATER #2
			5000	12	13				14	12			5000	
SPARE				–	15	15A		15A	16	–				SPARE
SPARE				–	17	15A		15A	18	–				SPARE
SPARE				–	19	15A		15A	20	–				SPARE
SPARE				–	21	15A		15A	22	–				SPARE
SPARE				–	23	15A		15A	24	–				SPARE
SPARE				–	25	15A		15A	26	–				SPARE
SPARE				–	27	15A		15A	28	–				SPARE
SPARE				–	29	15A		15A	30	–				SPARE
SPACE				–	31	–		–	32	–				SPACE
SPACE				–	33	–		–	34	–				SPACE
SPACE				–	35	–		–	36	–				SPACE
SPACE				–	37	–		–	38	–				SPACE
SPACE				–	39	–		–	40	–				SPACE
SPACE				–	41	–		–	42	–				SPACE

* PROVIDE LOCK ON BREAKER

TOTALS	WATTS	AMPS
PHASE A	13275	38
PHASE B	13000	37
PHASE C	10520	30
A+B+C	36795	

PANEL No.	'B'	PANEL TYPE	–	INTERRUPTING RATING	10,000	AMPS
VOLTAGE	208/120	BREAKER TYPE	BOLT ON	MAINS	LUGS	
PHASE/WIRES	3ø, 4W	MOUNTING	SURFACE		BREAKER – AMPS	
					MCS AMPS	BUS 225 AMPS

DESIGNATION	LOAD(VA) A	B	C	AWG	CCT #	BKR	A B C	BKR	CCT #	AWG	LOAD(VA) A	B	C	DESIGNATION
OUTSIDE LIGHTING	360			12	1	15A		15A	2	12	100			POLYPHOSPHATE SYSTEM
GENERATOR BLOCK HEATER (*)		1000		12	3	15A		15A	4	12		100		POLYPHOSPHATE SYSTEM
GENERATOR BATTERY CHARGER (*)			500	12	5	15A		15A	6	12			500	GENERATOR ROOM RECEPTACLES
ELECTRICAL ROOM RECEPT.	500			12	7	15A		15A	8	12	500			OFFICE RECEPTACLES
LABORATORY RECEPTACLES		500		12	9	15A		15A	10	12		500		LABORATORY RECEPTACLES
BLOWER ROOM RECEPTACLES			500	12	11	15A		15A	12	12			500	MEZZANINE RECEPTACLES
PH METER	200			12	13	15A		15A	14	12	124			ERV–1, MEZZ.
PUMP AREA RECEPTACLES		700		12	15	15A		15A	16	12		350		CHLORINE ROOM LIGHTS AND SF–1
DUCT HEATER EDH–2	1000		1000	12	17	2P		15A	18					SPARE
					19	15A		15A	20					SPARE
SPARE				–	21	15A		15A	22	12		100		PH METER & PROBE
EF–2 AND EF–3			500	12	23	15A		15A	24	12			500	SF–2 AND MOTOR DAMPER
HEATER – GENERATOR ROOM	500			12	25	2P		2P	26	12	500			
		500			27	15A		15A	28			500		HEATER – ELECTRICAL ROOM
HEATER – OFFICE			750	12	29	2P		2P	30	12			750	
	750				31	15A		15A	32		750			HEATER – LABORATORY
HEATER – BLOWER RM., WASHRM.		500		12	33	2P		2P	34	12		250		EXPLOSION PROOF HEATER
			500		35	15A		15A	36				250	CHLORINE STORAGE ROOM
OFFICE COMPUTER/PRINTER	600			12	37	15A		2P	38	12	500			
WASHROOM LIGHTS AND EF–1		250		12	39	15A		15A	40			500		HEATER – VESTIBULE
SPARE					41	15A		15A	42	12			200	GARAGE DOOR RECEPTACLES
OFFICE, VEST. RECEPTACLES	300			12	43	15A		15A	44	12	300			PUMP AREA RECEPTACLE
BLOWER RM EXHAUST FAN EF–4		113		12	45	15A		15A	46	12		100		AC–2 & PAN PUMP
ROTARY SCREW CONTROL PANEL			500	12	47	15A		15A	48	12			100	AC–1 & PAN PUMP
PACL PUMP	200			12	49	15A		2P	50	12	110			
PACL PUMP		200		12	51	15A		15A	52			110		CONDENSING UNIT #1
SURFLINE CONTROL PANEL			100	12	53	15A		15A	54	12				SPARE
SURFLINE CONTROL PANEL	100			12	55	15A		15A	56	12	100			CHLORINE ANALYZER
NAOH SYSTEM		200		12	57	15A		15A	58	12		50		CHLORINE ALARM SYSTEM
NAOH SYSTEM			200	12	59	15A		15A	60	12			100	CHLORINE FEED SYSTEM
NAOH SYSTEM	200			12	61	15A		15A	62	12	100			CHLORINE FEED SYSTEM
NAOH SYSTEM		200		12	63	15A		15A	64	12		100		CHLORINE RM RECEPTACLE
NAOH SYSTEM			200	12	65	15A		15A	66	12			100	CHLORINE RM RECEPTACLE
NAOH SYSTEM	200			12	67	15A		15A	68	–				SPARE
TURBIDIMETERS		300		12	69	15A		15A	70	–				SPARE
TURBIDIMETERS			300	12	71	15A		15A	72	–				SPARE

(*) – PROVIDE LOCK ON BREAKER.

TOTALS	WATTS	AMPS
PHASE A	7994	67
PHASE B	7123	60
PHASE C	8050	67
A+B+C	23167	

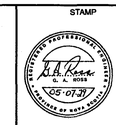
NOTES:

1. CCT. #1 – PROVIDE CONTACTOR, HAND–OFF–AUTO SWITCH AND PHOTOCELL FOR EXTERIOR LIGHTS. MOUNT PHOTOCELL ON NORTH WALL OF BUILDING.
2. CCT. #24 – SUPPLY FAN #2 ACTIVATED BY BLOWER MOTOR AND INTERLOCKED WITH MOTORIZED DAMPER, ELECTRIC DUCT HEATER, EDH–1 AND THERMOSTAT.
3. CCT. #41 – SUPPLY FAN #3 ACTIVATED BY LIGHT SWITCHES IN OFFICE AND LABORATORY..

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT

PANEL SCHEDULES

TRADE:	DRAWN:
ELECTRICAL	R. ARMSTRONG , M. PICKRILL
DATE:	DESIGNED:
JULY 29, 2005	G. ROSS
SCALE:	JOB NO:
N.T.S.	5135
PROJECT NO:	TENDER NO:
142332	

DRAWING NO.	REV. NO.
51353506B	3

MOTOR STARTER AND CONTROL LIST

●	PROVIDE
C	DIVISION 2
E	DIVISION 16
M	DIVISION 15
U	USERS EQUIPMENT

1	STOP-START	9	ELECTRO PNEUMATIC SWITCH	17	CONTROL TRANSFORMER	25	EMCS CONTROL	33	END SWITCH/EMCS CONTROL
2	ON-OFF	10	PNEUMATIC ELECTRO SWITCH	18	THERMOSTAT	26	CURRENT SWITCH	34	EXHAUST HOOD CONTROL PANEL
3	HAND-OFF-AUTO	11	SOLENOID	19	INTEGRAL CONTROL PANEL	27	CLASS 1, DIV. 2	35	LEVEL SWITCH
4	PILOT LIGHT	12	MOTORIZED DAMPER WIRED BY DIV. 16	20	FIRE ALARM CONTROL	28	MANUAL MOTOR STARTER	36	CLOGGED FILTER SWITCH
5	CONTROL RELAY	13	FLOAT SWITCH	21	FREEZE PROTECTION	29	CSA TYPE 2 ENCLOSURE	37	EXPLOSION PROOF, CLASS I, DIVISION I.
6	TIMING RELAY	14	PRESSURE SWITCH	22	FIRE PROTECTION	30	EMCS MONITORING		
7	DOUBLE VOLTAGE RELAY	15	FLOW SWITCH	23	HIGH LIMIT	31	–	38	DIRECT CONNECTION
8	THERMISTORS	16	SAIL SWITCH	24	LOW LIMIT	32	REVERSE ACTING THERMOSTAT		

GENERAL NOTES

1. INTERLOCK MOTORIZED DAMPER WITH MOTOR STARTER AND THERMOSTAT.
2. INTERLOCK MOTORIZED DAMPER AND SUPPLY FAN WITH LIGHT SWITCH.
3. INTERLOCK MOTORIZED DAMPER WITH SF2 AND BLOWER MOTORS.
4. INTERLOCK MOTOR STARTER WITH OCCUPANCY SENSORS.
5. INTERLOCK EF-1 WITH WASHROOM LIGHT SWITCH.
6. DISCONNECT SWITCH TO BE 3R RATED.
7. PROVIDE 4 #18 CONDUCTORS BETWEEN INDOOR AND OUTDOOR UNITS FOR CONTROL PURPOSES. PROVIDE POWER WIRING BETWEEN INDOOR AND OUTDOOR UNITS.

EQUIP. No.	LOCATION	EQUIPMENT	SUPPLIED UNDER	INSTALLED UNDER	WIRED UNDER	KW	HP	VOLTAGE	PHASE	PANEL	CIRCUIT NUMBER(S)
PART 1 – FANS											
SF-1	MEZZANINE	SUPPLY FAN FOR CHLORINE ROOM	M	M	E	0.217		120	1	B	B-16
SF-2	BLOWER ROOM	SUPPLY FAN FOR BLOWER ROOM	M	M	E	0.325		120	1	B	B-24
SF-3	LABORATORY	SUPPLY FAN FOR LABORATORY & OFFICE	M	M	E	0.055		120	1	B	B-41
EF-1	WASHROOM	EXHAUST FAN FOR WASHROOM	M	M	E	0.083		120	1	B	B-39
EF-2	ELECTRICAL ROOM	EXHAUST FAN FOR ELECTRICAL ROOM	M	M	E	0.285		120	1	B	B-23
EF-3	GENERATOR ROOM	EXHAUST FAN FOR GENERATOR ROOM	M	M	E	0.129		120	1	B	B-23
EF-4	BLOWER ROOM	EXHAUST FAN FOR BLOWER ROOM	M	M	E	0.285		120	1	B	B-45
PART 2 – PUMPS											
RWP-1	MAIN FLOOR	RAW WATER PUMP #1	M	M	E		5	600	3	MCC	
RWP-2	MAIN FLOOR	RAW WATER PUMP #2	M	M	E		5	600	3	MCC	
RWP-3	MAIN FLOOR	RAW WATER PUMP #3	M	M	E		5	600	3	MCC	
BWP-1	MAIN FLOOR	BACKWASH PUMP #1	M	M	E		40	600	3	MCC	
BWP-2	MAIN FLOOR	BACKWASH PUMP #2	M	M	E		40	600	3	MCC	
HLP-1	MAIN FLOOR	HIGH LIFT PUMP #1	M	M	E		60	600	3	MCC	
HLP-2	MAIN FLOOR	HIGH LIFT PUMP #2	M	M	E		60	600	3	MCC	
HLP-3	MAIN FLOOR	HIGH LIFT PUMP #3	M	M	E		60	600	3	MCC	
RB-1	BLOWER ROOM	ROTARY BLOWER #1	M	M	E		10	600	3	MCC	
RB-2	BLOWER ROOM	ROTARY BLOWER #2 (FUTURE)									
PART 3 – HEATING											
UH-1	MAIN FLOOR	FORCED AIR UNIT HEATER	E	E	E	15		600	3	'C'	C-9,11,13
UH-2	MAIN FLOOR	FORCED AIR UNIT HEATER	E	E	E	15		600	3	'C'	C-10,12,14
UH-3	MAIN FLOOR	FORCED AIR UNIT HEATER	E	E	E	15		600	3	'MS'	MS-2,4,6
UH-4	MAIN FLOOR	FORCED AIR UNIT HEATER	E	E	E	15		600	3	'MS'	MS-8,10,12
EDH-1	BLOWER ROOM	ELECTRIC DUCT HEATER	M	M	E	13		600	3	'MS'	MS-1,3,5
EDH-2	LABORATORY	ELECTRIC DUCT HEATER	M	M	E	2		208	1	'B'	B-17,19
PART 3 – MISCELLANEOUS											
DEH-1	MEZZANINE	DEHUMIDIFIER UNIT c/w CONDENSING UNIT	M	M	E	10		600	3	'MS'	MS-13,15,17
BCA	MAIN FLOOR	BCA CONTROL PANEL	M	M	E		3 @ 5	600	3	'MS'	MS-32,34,36

STARTER

EQUIP. No.	MANUAL	TOGGLE (IN COVER)	KEY (IN COVER)	PUSH BUTTON (IN COVER)	PILOT LIGHT (IN COVER)	MAGNETIC	COMBINATION	REDUCED VOLTAGE	TWO SPEED	BREAKER TYPE	FUSE TYPE	CONTROL TRANSFORMER	AUXILIARY CONTACT	DUPLEX CONTROL ASSEMBLY	STOP-START (IN COVER)	ON-OFF (IN COVER)	HAND-OFF-AUTO (IN COVER)	ON LIGHT-RED (IN COVER)	CSA ENCLOSURE TYPE	LEGEND ABOVE	GENERAL NOTES	EMCS CONTROL	SUPPLIED UNDER	INSTALLED UNDER	WIRED UNDER
SF-1	●	●			●														1				E	E	E
SF-2	●	●			●														1				E	E	E
SF-3	●	●			●														1				E	E	E
EF-1	●	●			●														1				E	E	E
EF-2	●	●			●														1				E	E	E
EF-3	●	●			●														1				E	E	E
EF-4	●	●			●														1				E	E	E
RWP-1						●	●			●		●	●				●	●							
RWP-2						●	●			●		●	●				●	●							
RWP-3						●	●			●		●	●				●	●							
BWP-1						●	●			●		●	●				●	●							
BWP-2						●	●			●		●	●				●	●							
HLP-1						●	●			●		●	●				●	●							
HLP-2						●	●			●		●	●				●	●							
HLP-3						●	●			●		●	●				●	●							
RB-1						●	●			●		●	●				●	●							
DEH-1																				19					
BCA																				19					

LOCATE AT MOTOR

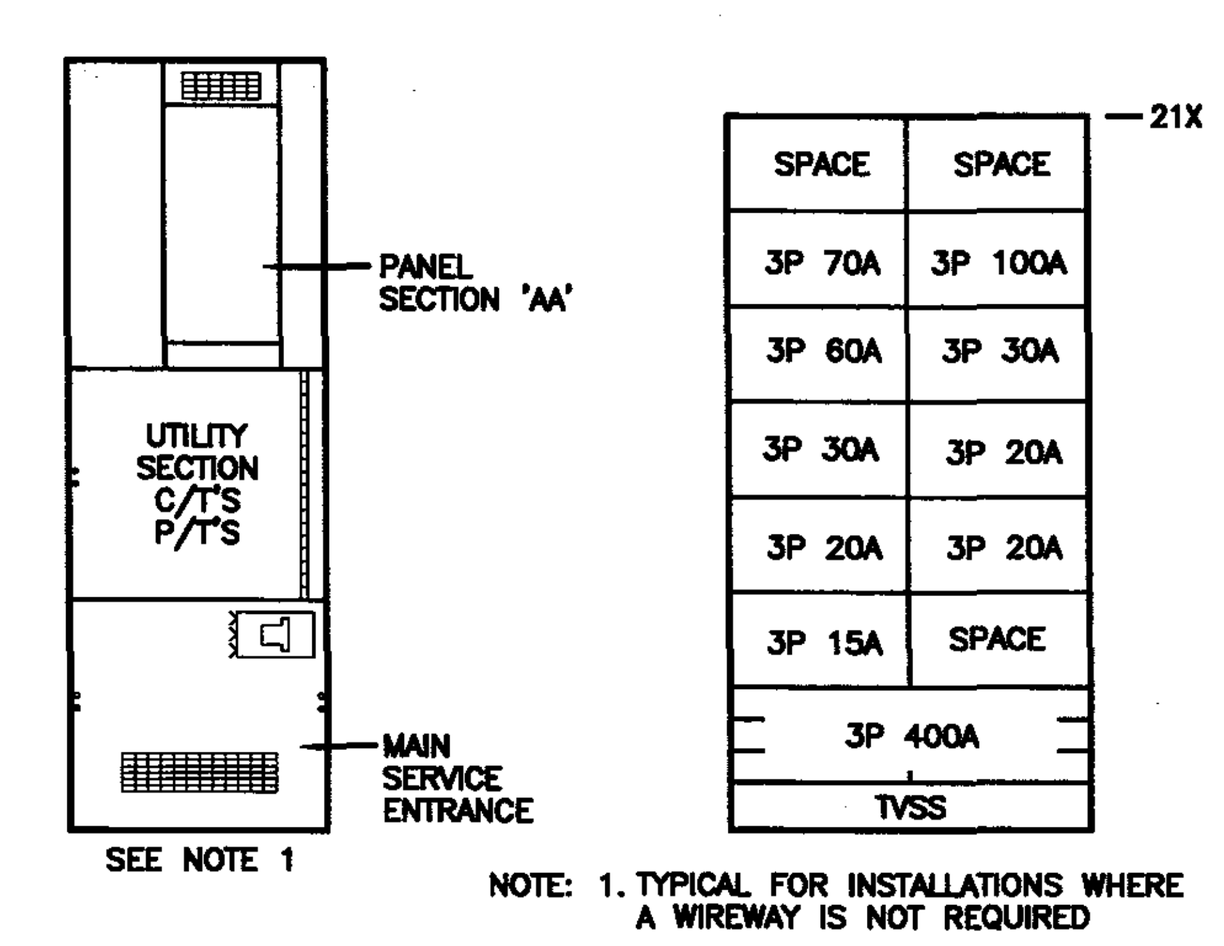
EQUIP. No.	DISCONNECT SWITCH	TOGGLE SWITCH	JUNCTION BOX	RECEPTACLE	WEATHER PROOF	LEGEND ABOVE	LEGEND ABOVE	NOTES BELOW	SUPPLIED UNDER	INSTALLED UNDER	WIRED UNDER
RWP-1	●							6	E	E	E
RWP-2	●							6	E	E	E
RWP-3	●							6	E	E	E
BWP-1	●							6	E	E	E
BWP-2	●							6	E	E	E
HLP-1	●							6	E	E	E
HLP-2	●							6	E	E	E
HLP-3	●							6	E	E	E
RB-1	●								E	E	E

REMOTE CONTROL (columns: LEGEND ABOVE, LEGEND ABOVE, LEGEND ABOVE, NOTES BELOW, SUPPLIED UNDER, INSTALLED UNDER, WIRED UNDER, LEGEND ABOVE, LEGEND ABOVE, LEGEND ABOVE, LEGEND ABOVE, NOTES BELOW, SUPPLIED UNDER, INSTALLED UNDER, WIRED UNDER — no entries)

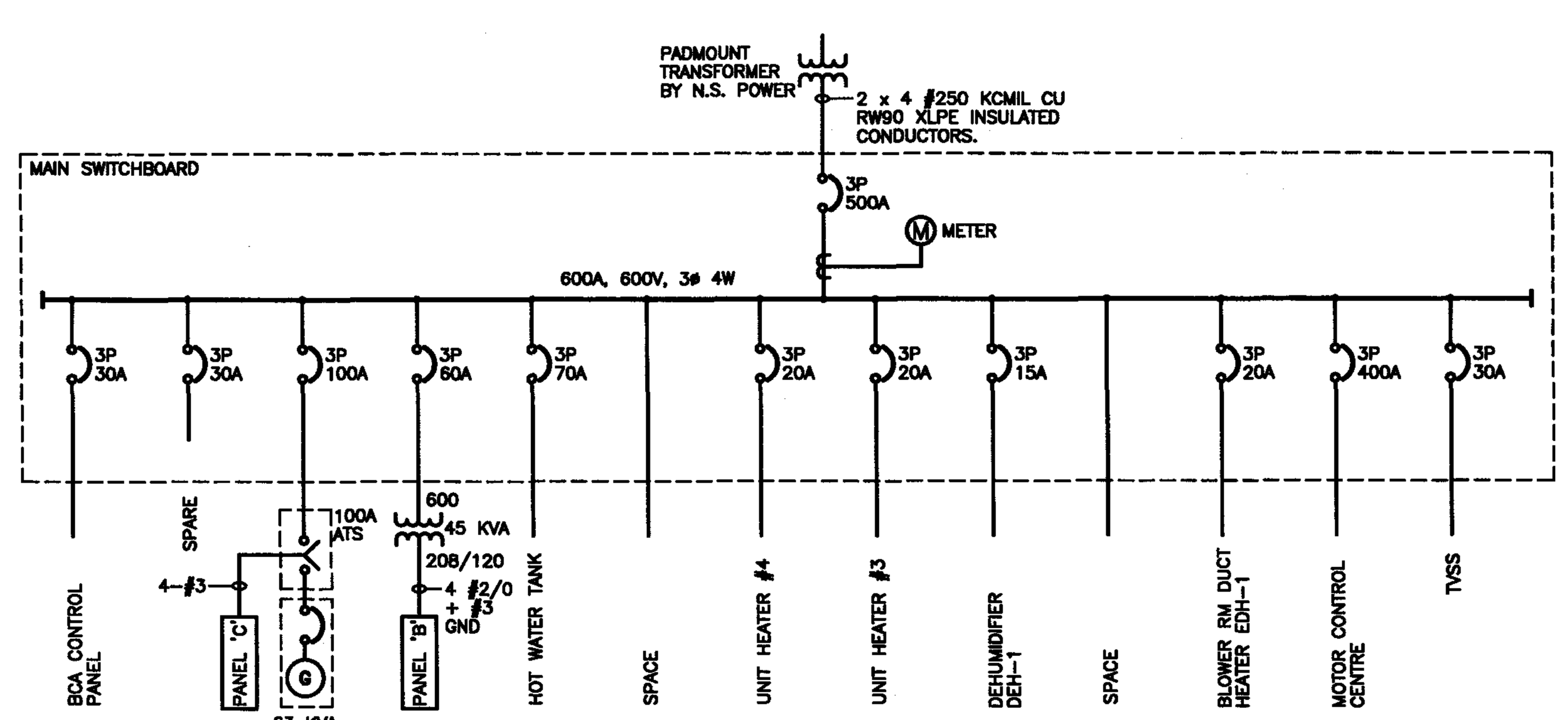
EQUIP. No.	NOTES	CONTROL DIAGRAM	FEEDER DETAILS	EQUIP. No.
PART 1 – FANS				
SF-1	2		2#12 + #12 GND, 16mm C.	SF-1
SF-2	3	1	2#12 + #12 GND, 16mm C.	SF-2
SF-3	4		2#12 + #12 GND, 16mm C.	SF-3
EF-1	5		2#12 + #12 GND, 16mm C.	EF-1
EF-2	1	1	2#12 + #12 GND, 16mm C.	EF-2
EF-3	1	1	2#12 + #12 GND, 16mm C.	EF-3
EF-4		1	2#12 + #12 GND, 16mm C.	EF-4
PART 2 – PUMPS				
RWP-1			3#12 + #12 GND, 16mm C.	RWP-1
RWP-2			3#12 + #12 GND, 16mm C.	RWP-2
RWP-3			3#12 + #12 GND, 16mm C.	RWP-3
BWP-1			3#6 + #8 GND, 27mm C.	BWP-1
BWP-2			3#6 + #8 GND, 27mm C.	BWP-2
HLP-1			3#4 + #6 GND, 27mm C.	HLP-1
HLP-2			3#4 + #6 GND, 27mm C.	HLP-2
HLP-3			3#4 + #6 GND, 27mm C.	HLP-3
RB-1			3#10 + #12 GND, 21mm C.	RB-1
RB-2				RB-2
PART 3 – HEATING				
UH-1			3#12 + #12 GND, 16mm C.	UH-1
UH-2			3#12 + #12 GND, 16mm C.	UH-2
UH-3			3#12 + #12 GND, 16mm C.	UH-3
UH-4			3#12 + #12 GND, 16mm C.	UH-4
EDH-1			3#12 + #12 GND, 16mm C.	EDH-1
EDH-2			2#12 + #12 GND, 16mm C.	EDH-2
DEH-1	7		3#12 + #12 GND, 16mm C.	DEH-1
BCA				

NOTES:

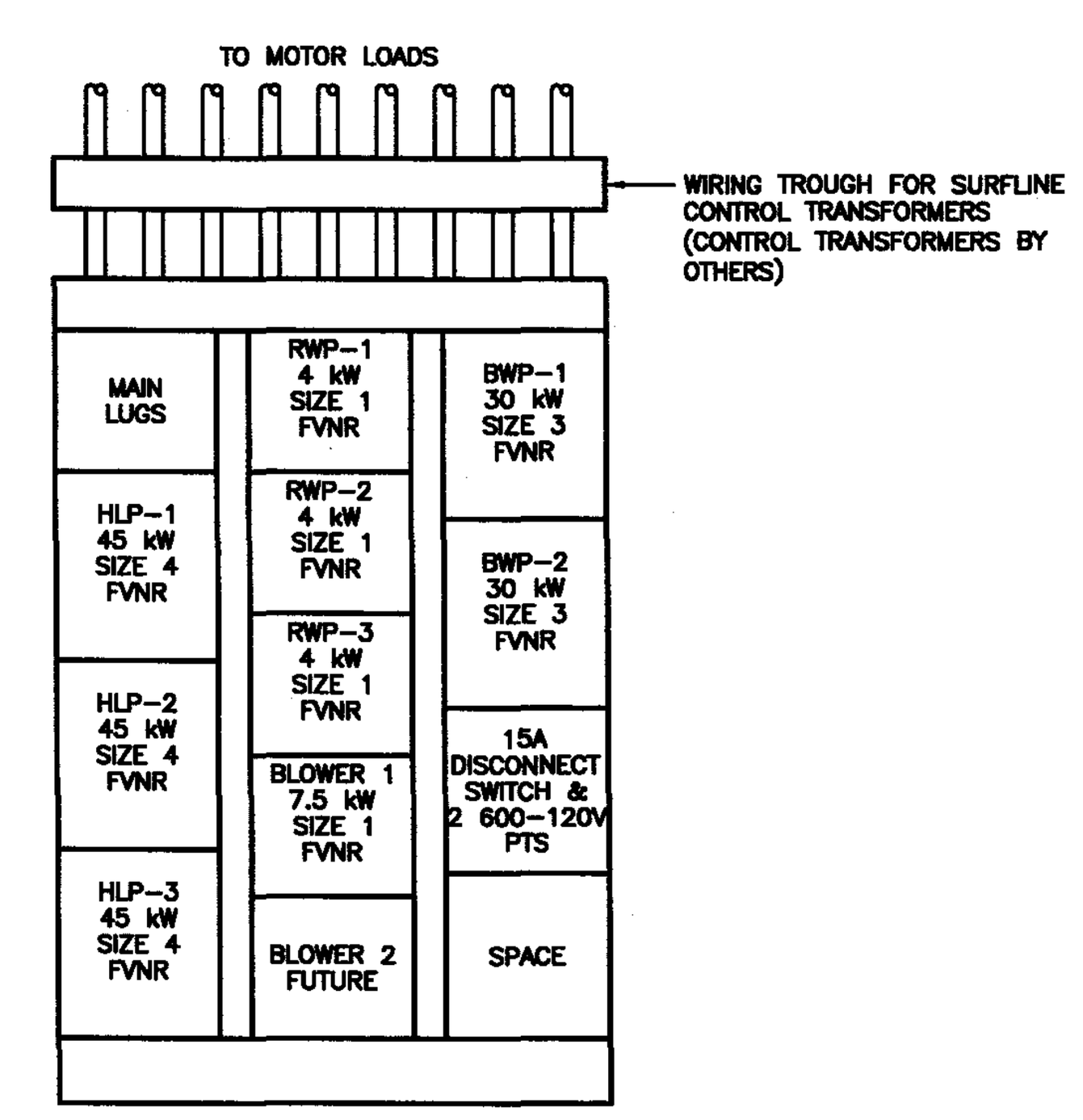
1. ALL WIRING SHALL BE CONCEALED IN EMT CONDUIT. ALL CONDUIT SHALL BE NEATLY INSTALLED PARALLEL TO BUILDING LINES. SUPPORT CONDUIT IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE. BX WIRING SHALL NOT BE USED.
2. DO NOT CONNECT BUILDING GROUND TO MAIN WATER LINE. MAIN WATER LINE HAS AN EXTERIOR PLASTIC COATING.
3. SEE MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF FANS, THERMOSTATS, MOTORIZED DAMPERS AND AIR CONDITIONING UNITS.
4. SEE DRAWING 603B FOR LOCATION OF SEWAGE PUMP
5. WIRE THE DOOR CONTACTS TO THE SURFLINE PANEL.
6. SEE DRAWING 51353408B FOR DETAILS ON INSTRUMENTATION AND CONTROL WIRING.
7. CONDUITS ENTERING THE CHLORINE ROOM TO BE AT CEILING LEVEL. NO THRU-FLOOR OR LOW LEVEL CONDUITS.
8. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL ELECTRICAL CONDUIT NECESSARY FOR THE CONTROL WIRING.
9. PROVIDE 21mm PLYWOOD BACKBOARD ON THE WALLS OF THE ELECTRICAL ROOM TO A HEIGHT OF 2440mm. COVER PLYWOOD WITH FLAME RETARDANT PAINT. MOUNT ALL EQUIPMENT ON PLYWOOD BACKBOARD. EXTEND PLYWOOD BACKBOARD TO FULL HEIGHT OF ROOM WHERE NECESSARY.
10. FOR THE PURPOSES OF THESE DRAWINGS, THE WORD 'PROVIDE' SHALL MEAN 'SUPPLY AND INSTALL'.



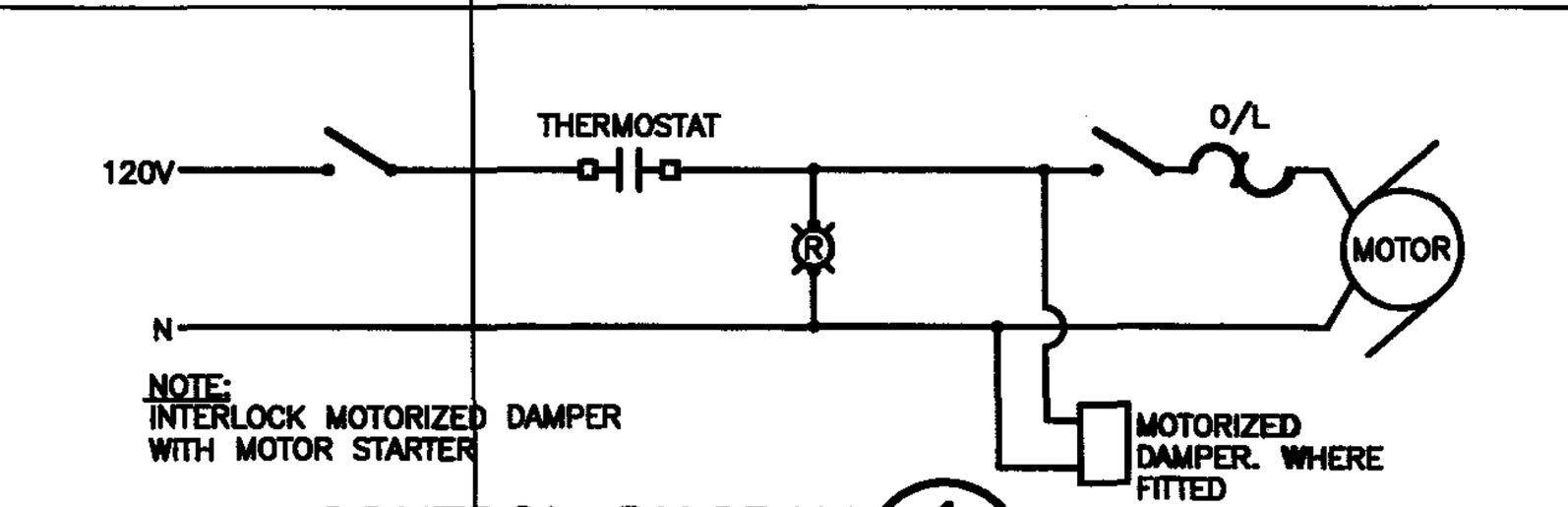
SERVICE ENTRANCE PANEL DETAIL
SCALE: N.T.S.



SINGLE LINE DIAGRAM
NOT TO SCALE



MOTOR CONTROL CENTRE
NOT TO SCALE



CONTROL DIAGRAM 1 / 507B
SCALE: N.T.S.

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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REGISTERED PROFESSIONAL ENGINEER G. A. ROSS 05-07-29 PROVINCE OF NOVA SCOTIA

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

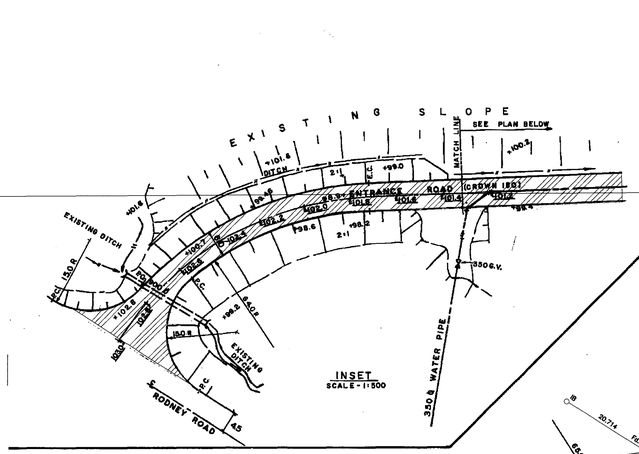
CUMBERLAND COUNTY, NOVA SCOTIA

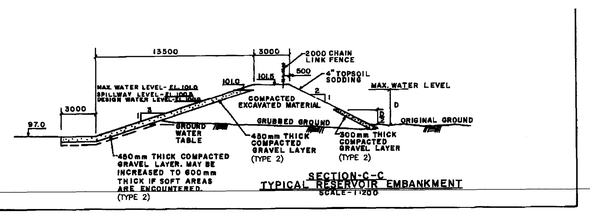
DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
MOTOR STARTER LIST, WIRING DIAGRAMS AND DETAILS

TRADE: ELECTRICAL	DRAWN: R. ARMSTRONG , M. PICKRILL
DATE: JULY 29, 2005	DESIGNED: G. ROSS
SCALE: N.T.S.	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353507B | REV. NO. 3





NOTE RE SURFACE TREATMENT

AREAS TO BE ASPHALT PAVED

AREAS TO BE GRAVELLED 300mm THICK.

ALL OTHERS DISTURBED AREAS TO GRASSED.

OVERFLOW DETAIL 'B'
SCALE 1:100

NOTE:
+99.61 - DENOTES SPOT ELEVATION OF EXISTING GROUND

102.3 - DENOTES FINISHED GRADE ELEVATION

EXISTING GATE VALVE

NEW GATE VALVE

NOTE:
MOBILE PUMP TO BE SUPPLIED C/W 225 METRES OF 80mm HOSE AND 12 METRES IF INTAKE HOSE TO SUIT PUMP. EQUIPMENT TO BE STORED AT THE WATER TREATMENT PLANT UNTIL LOW FLOW EVENT OCCURS AND SUPPLEMENTARY FISH MAINTENANCE FLOW IS REQUIRED (D.F.O. REQUIREMENT)

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE: July 29/05
G.G. CLEMENTS
6817

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FAX: (902)469-4399

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

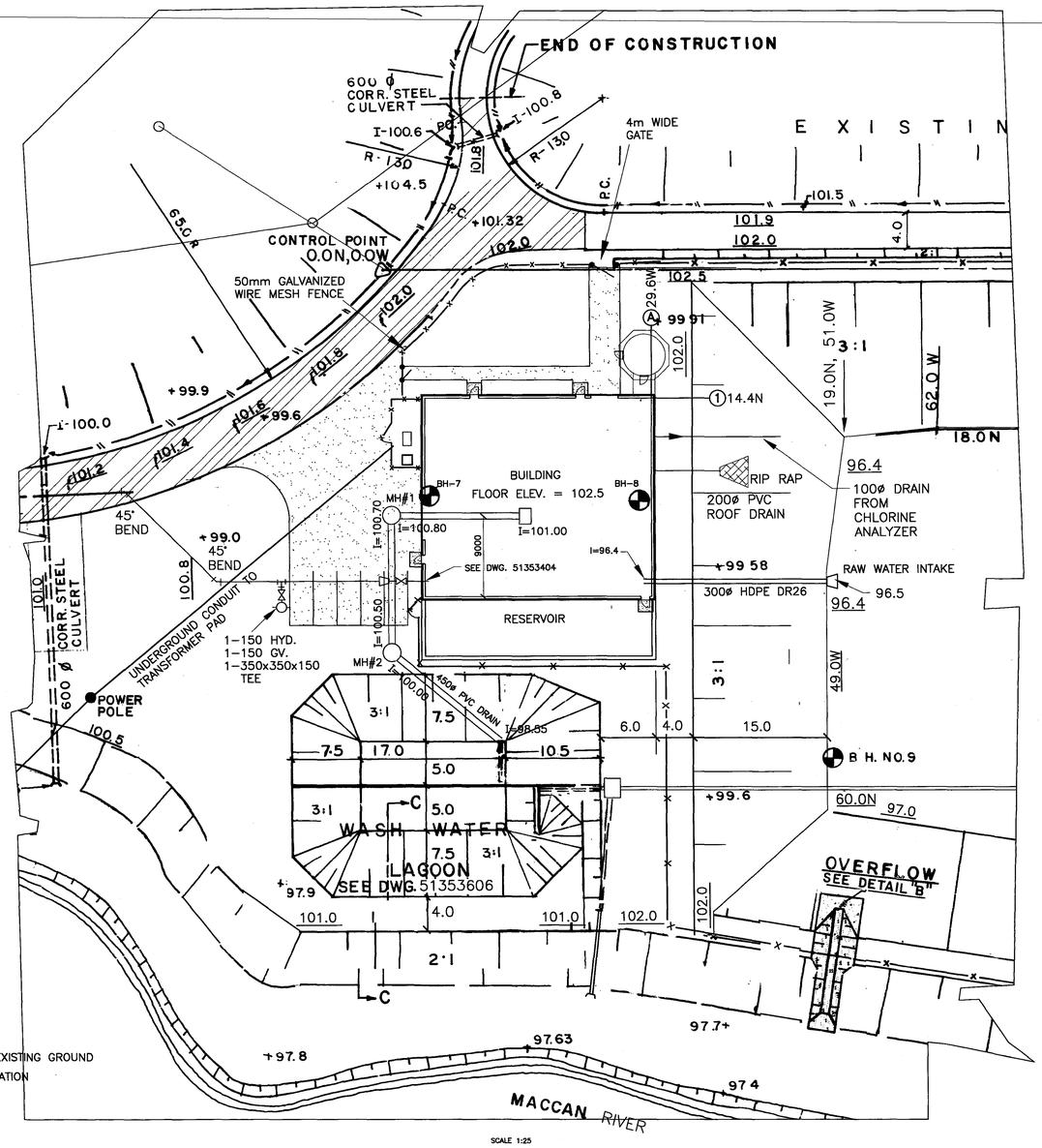
WATER SUPPLY AND TREATMENT PLANT
LEAMINGTON RESERVOIR
SITE PLAN

TRADE:	DRAWN:
CIVIL	D.M.
DATE: JULY 29, 2005	DESIGNED: D.C. T.S. G.C.
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353602B

REV. NO. 3

NOTE:
SEE DWG No. 51353602 FOR SECTIONS
REFERENCED ON THIS DWG



SCALE 1:25

NOTE:
+ 99.61 – DENOTES SPOT ELEVATION OF EXISTING GROUND
102.3 – DENOTES FINISHED GRADE ELEVATION

REV	DESCRIPTION	DATE
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2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

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REGISTERED PROFESSIONAL ENGINEER
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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
LEAMINGTON RESERVOIR
YARD PIPING & DRAINAGE DETAIL

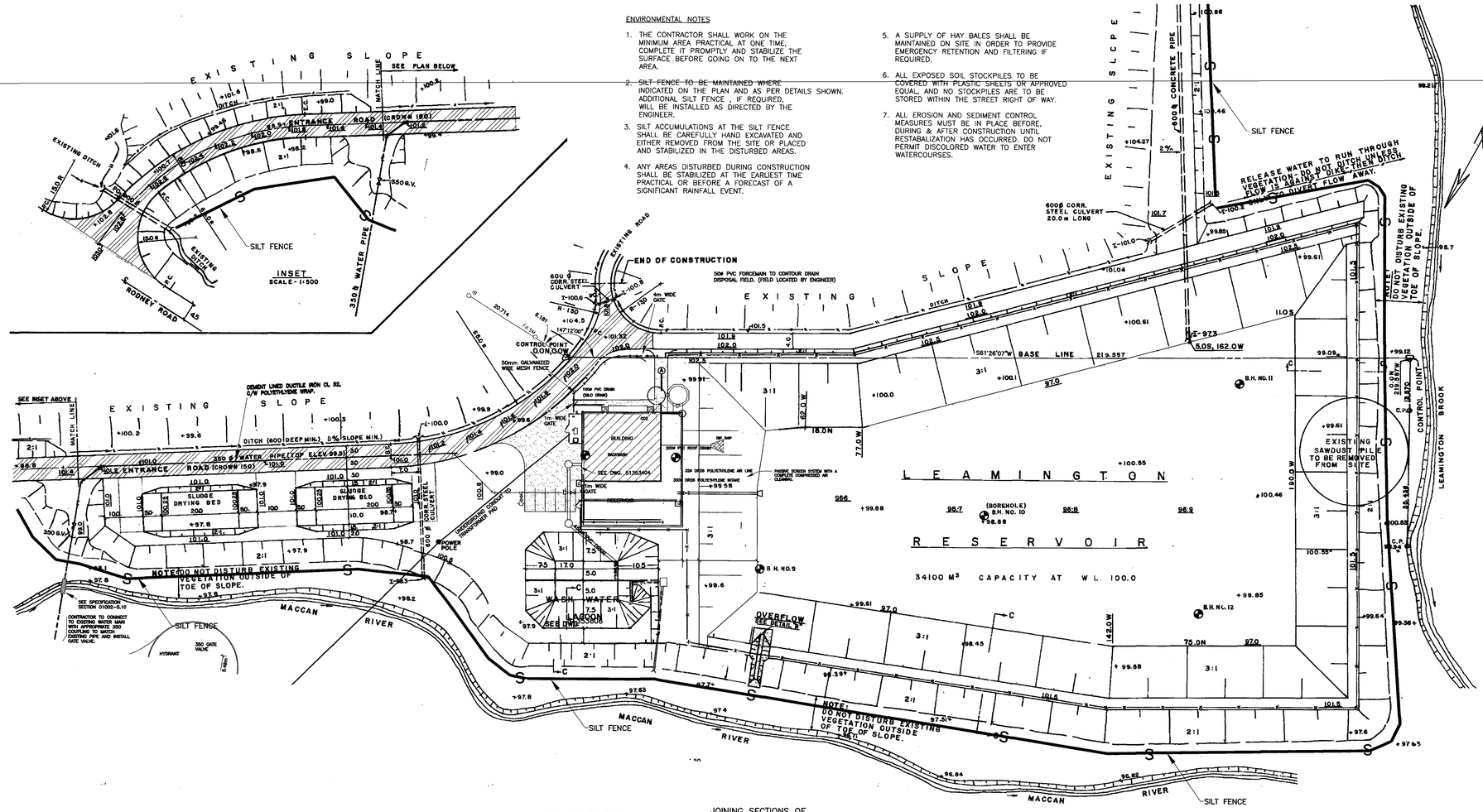
TRADE:	DRAWN:
CIVIL	STAFF
DATE: JULY 29, 2005	DESIGNED:
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353603B

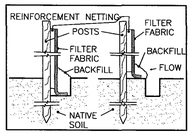
REV. NO. 3

ENVIRONMENTAL NOTES

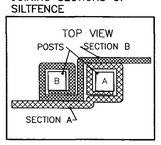
1. THE CONTRACTOR SHALL WORK ON THE MINIMUM AREA PRACTICAL AT ONE TIME, COMPLETE IT PROMPTLY AND STABILIZE THE SURFACE BEFORE GOING ON TO THE NEXT AREA.
2. SILT FENCE TO BE MAINTAINED WHERE INDICATED ON THE PLAN AND AS PER DETAILS SHOWN. ADDITIONAL SILT FENCE , IF REQUIRED, WILL BE INSTALLED AS DIRECTED BY THE ENGINEER.
3. SILT ACCUMULATIONS AT THE SILT FENCE SHALL BE CAREFULLY HAND EXCAVATED AND EITHER REMOVED FROM THE SITE OR PLACED AND STABILIZED IN THE DISTURBED AREAS.
4. ANY AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED AT THE EARLIEST TIME PRACTICAL OR BEFORE A FORECAST OF A SIGNIFICANT RAINFALL EVENT.
5. A SUPPLY OF HAY BALES SHALL BE MAINTAINED ON SITE IN ORDER TO PROVIDE EMERGENCY RETENTION AND FILTERING IF REQUIRED.
6. ALL EXPOSED SOIL STOCKPILES TO BE COVERED WITH PLASTIC SHEETS OR APPROVED EQUAL, AND NO STOCKPILES ARE TO BE STORED WITHIN THE STREET RIGHT OF WAY.
7. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE BEFORE, DURING & AFTER CONSTRUCTION UNTIL RESTABALIZATION HAS OCCURRED. DO NOT PERMIT DISCOLORED WATER TO ENTER WATERCOURSES.

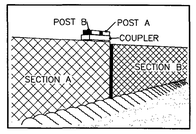


TOE–IN METHODS



JOINING SECTIONS OF SILTFENCE





SILT FENCE SEDIMENT CONTROL SYSTEM INSTALLATION

SILT FENCE INSTALLATION:
- EXCAVATE A 150 x 150 TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
- UNROLL SILT FENCE ONE SECTION AT A TIME AND POSITION POSTS AGAINST THE DOWNSTREAM WALL OF THE TRENCH. REINFORCEMENT NETTING MUST BE ON THE DOWNSTREAM SIDE OF FLOW DIRECTION.
- DRIVE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 50 FROM THE TRENCH BOTTOM.
- LAY THE TOE–IN FLAP OF THE FABRIC IN THE BOTTOM OF THE TRENCH, BACKFILL THE TRENCH, AND TAMP THE SOIL. TOE–IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNTRENCHED GROUND AND PILING AND TAMPING SOIL OVER THE FLAP AT THE BASE OF THE STRUCTURE.
- JOIN SILT FENCE SECTIONS AS SHOWN ABOVE.

SILT FENCE DETAIL
N.T.S.

NOTE:
+99.61 – DENOTES SPOT ELEVATION OF EXISTING GROUND

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29.2005
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STAMP

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE:
S.G. CLEMENTS
6817

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AMEC Americas Limited
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WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

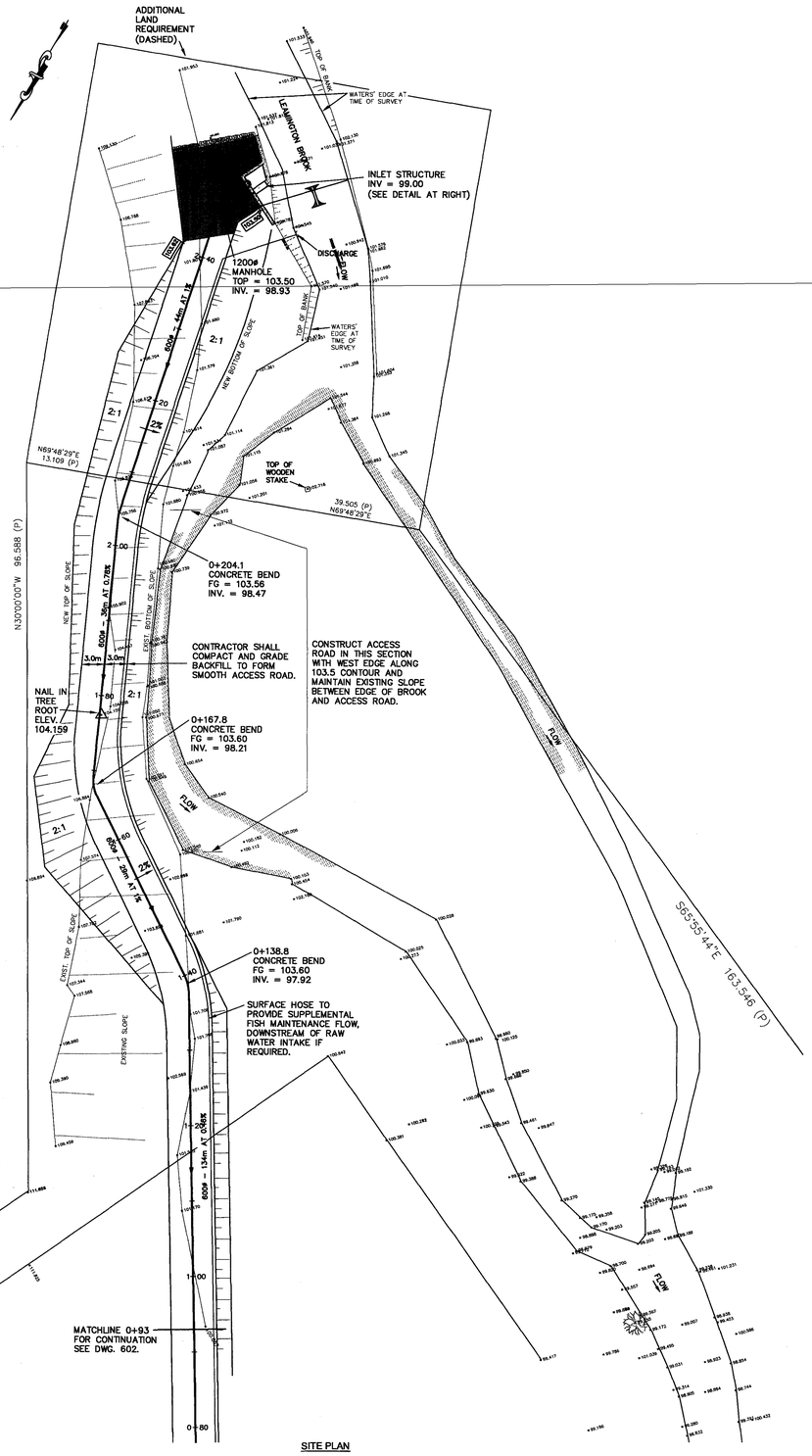
DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
TYPICAL DETAILS & NOTES
EROSION & SEDIMENT CONTROL

TRADE:	DRAWN:
CIVIL	STAFF
DATE: JULY 29, 2005	DESIGNED:
SCALE: 1:500	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

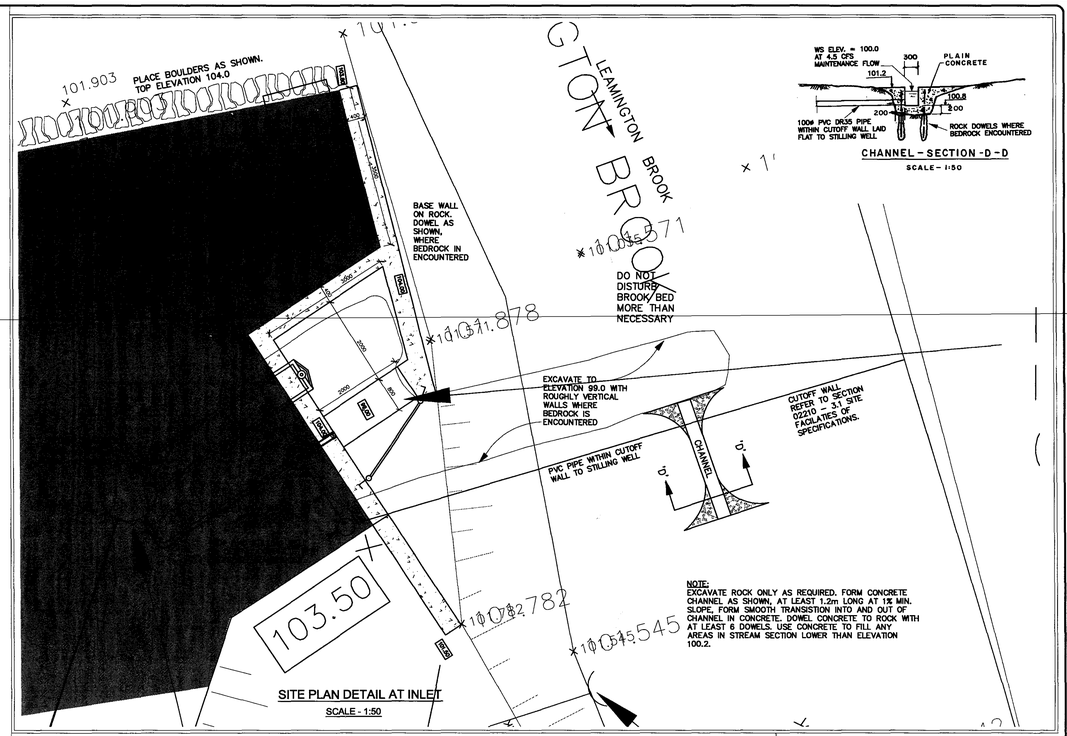
DRAWING NO. 51353604B

REV. NO. 3



SITE PLAN

SCALE - 1:300

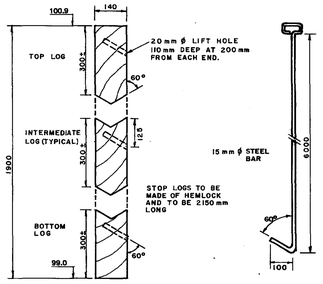


SITE PLAN DETAIL AT INLET

SCALE - 1:50

CHANNEL - SECTION - D - D

SCALE - 1:50



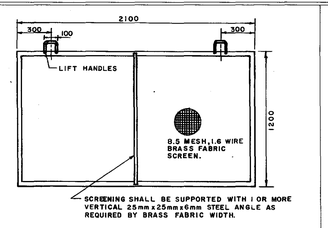
STOP LOGS DETAIL

SCALE - 1:10

LIFT HOOK

(2 REQ'D)

N.T.S.

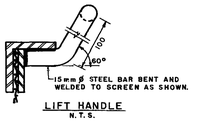


SCREENING SHALL BE SUPPORTED WITH 1 OR MORE VERTICAL 25mm x 25mm x 6mm STEEL ANGLE AS REQUIRED BY BRASS FABRIC WIDTH.

SCREEN DETAIL

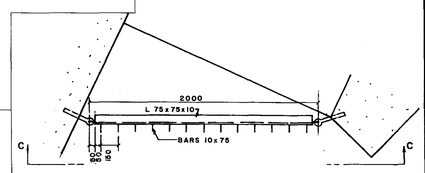
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SCALE - 1:20



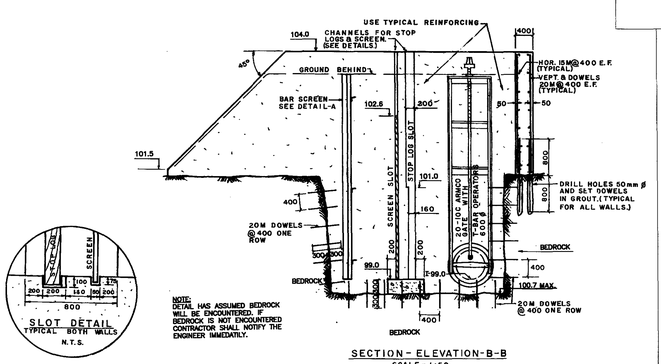
LIFT HANDLE

N.T.S.



PLAN - SCREEN DETAIL - A

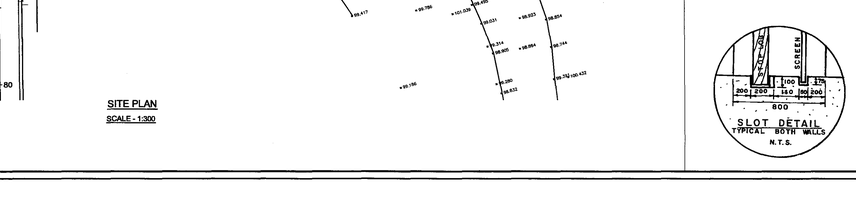
SCALE - 1:20



NOTE:
DETAIL HAS ASSUMED BEDROCK WILL BE ENCOUNTERED. IF BEDROCK IS NOT ENCOUNTERED CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

SECTION - ELEVATION - B - B

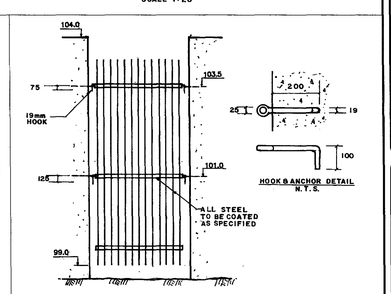
SCALE - 1:50



SLOT DETAIL

TYPICAL BOTH WALLS

N.T.S.



SCREEN ELEVATION - C - C

SCALE - 1:50

HOOK & ANCHOR DETAIL

N.T.S.

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REGISTERED PROFESSIONAL ENGINEER
DATE: July 29, 2005
E.G. CLEMENTS
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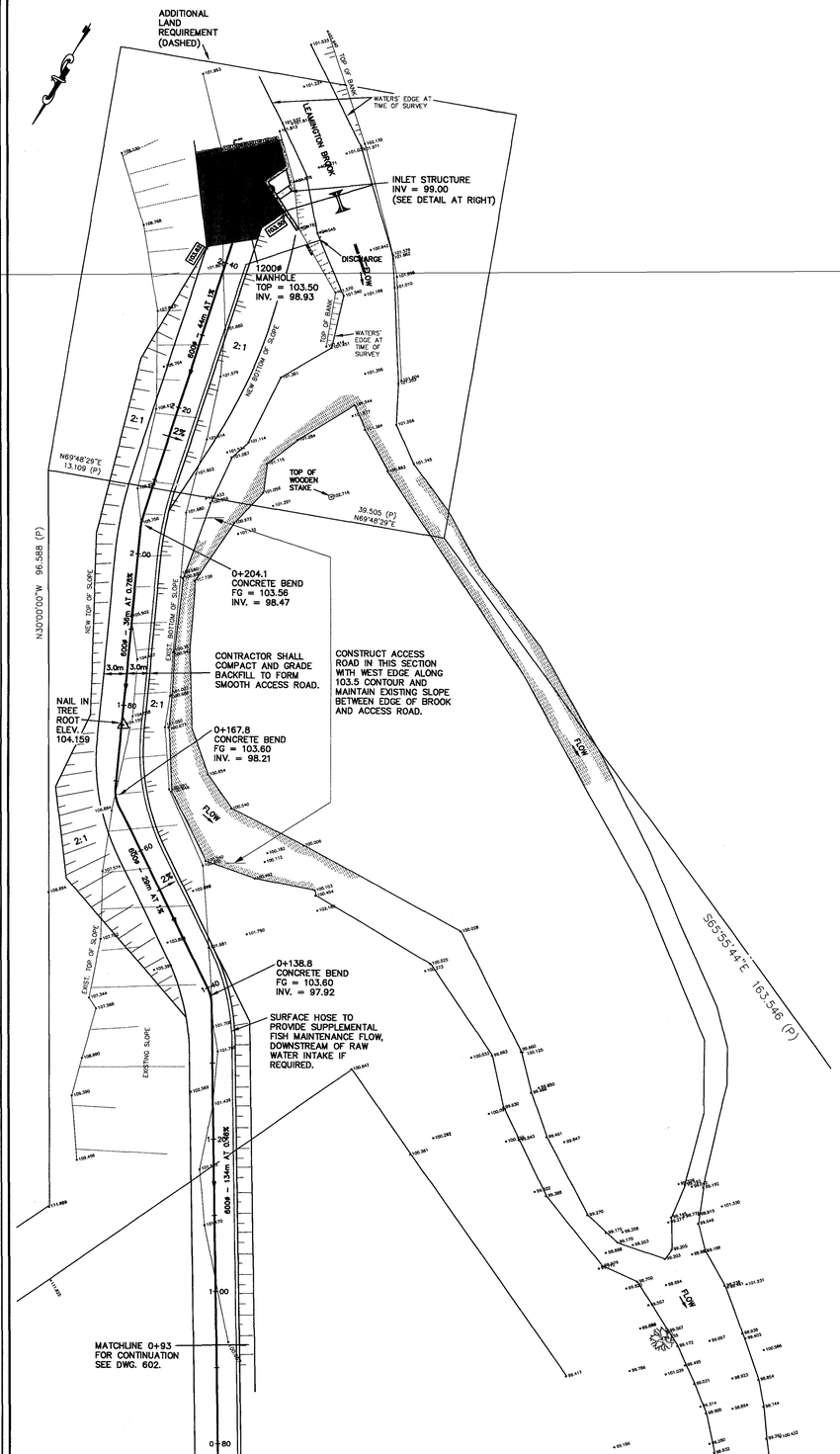
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WATER SUPPLY AND TREATMENT PLANT
LEAMINGTON RESERVOIR
INTAKE PLAN

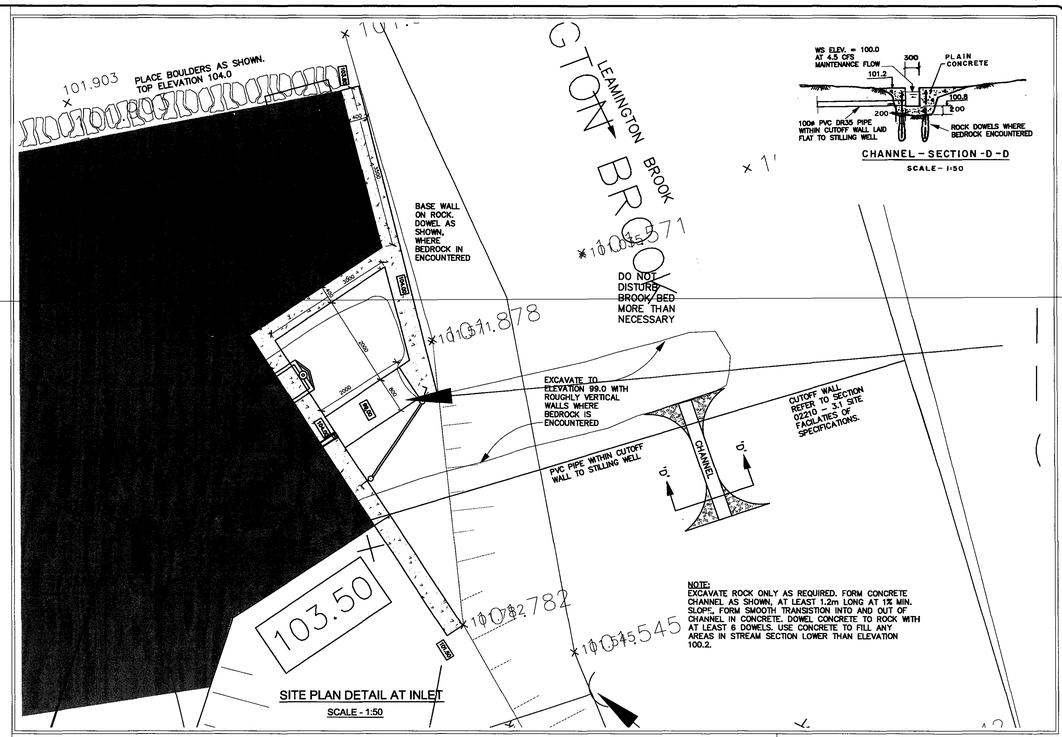
TRADE:	DRAWN:
CIVIL	STAFF
DATE:	DESIGNED:
JULY 29, 2005	D.C. T.S. G.C.
SCALE:	JOB NO:
AS SHOWN	5135
PROJECT NO:	TENDER NO:
142332	

DRAWING NO. 51353605B

REV. NO. 3

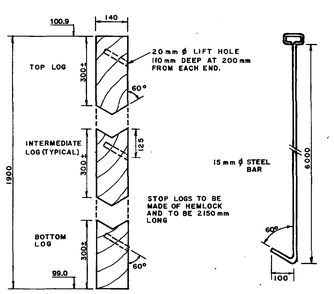


SITE PLAN
SCALE - 1:300



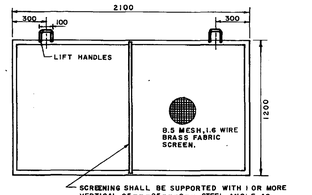
SITE PLAN DETAIL AT INLET
SCALE - 1:50

CHANNEL - SECTION -D - D
SCALE - 1:50

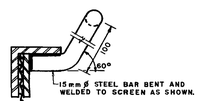


STOP LOGS DETAIL
SCALE - 1:10

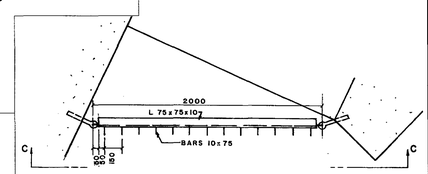
LIFT HOOK
(2 REQ'D)
N.T.S.



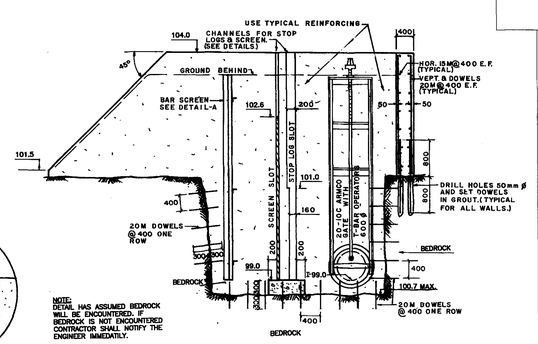
SCREEN DETAIL
(REQUIRED)
SCALE - 1:20



LIFT HANDLE
N.T.S.

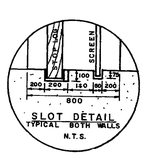


PLAN - SCREEN DETAIL - A
SCALE - 1:20

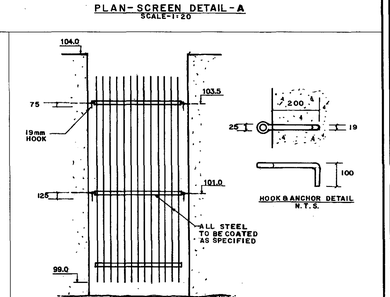


NOTE:
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SECTION - ELEVATION - B - B
SCALE - 1:50



SLOT DETAIL
TYPICAL BOTH WALLS
N.T.S.



HOOK & ANCHOR DETAIL
N.T.S.

SCREEN ELEVATION - C - C
SCALE - 1:50

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PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

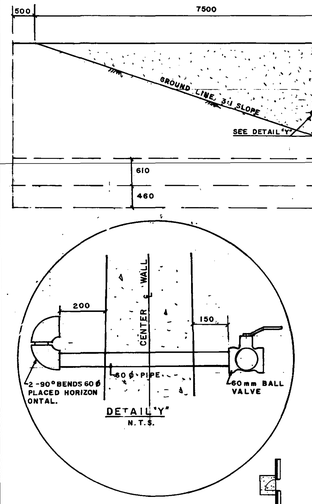
DRAWING TITLE:

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INTAKE PLAN

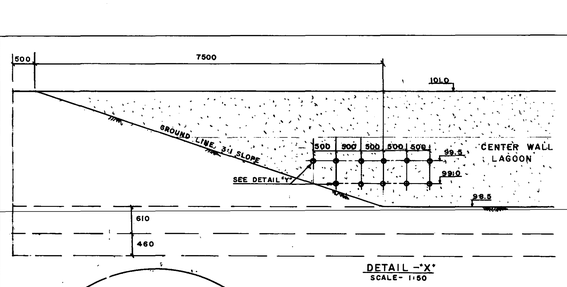
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DATE: JULY 29, 2005	DESIGNED: D.C. T.S. G.C.
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353605B

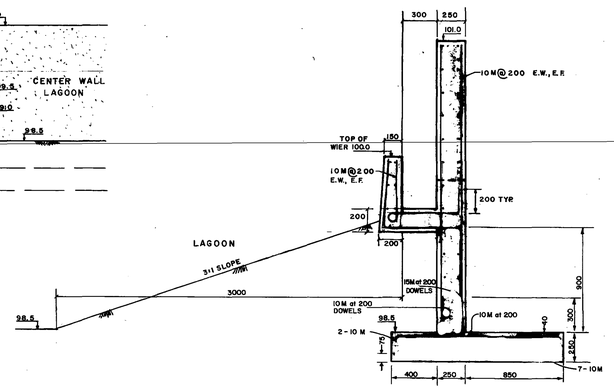
REV. NO. 3



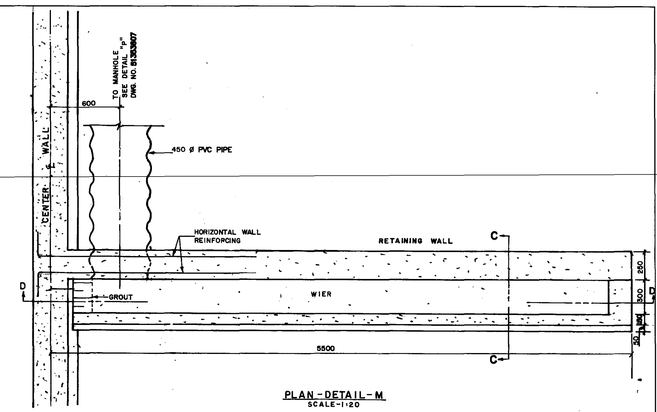
DETAIL 'Y'
N.T.S.



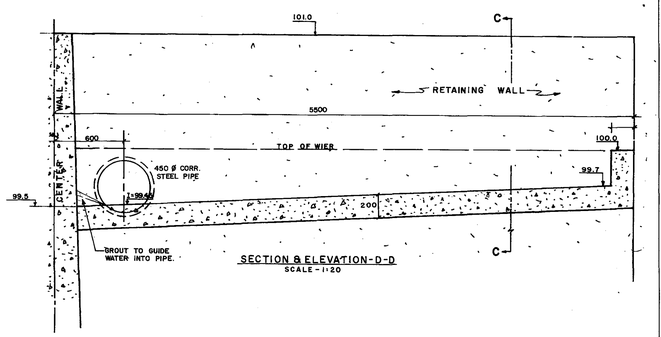
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SCALE- 1:50



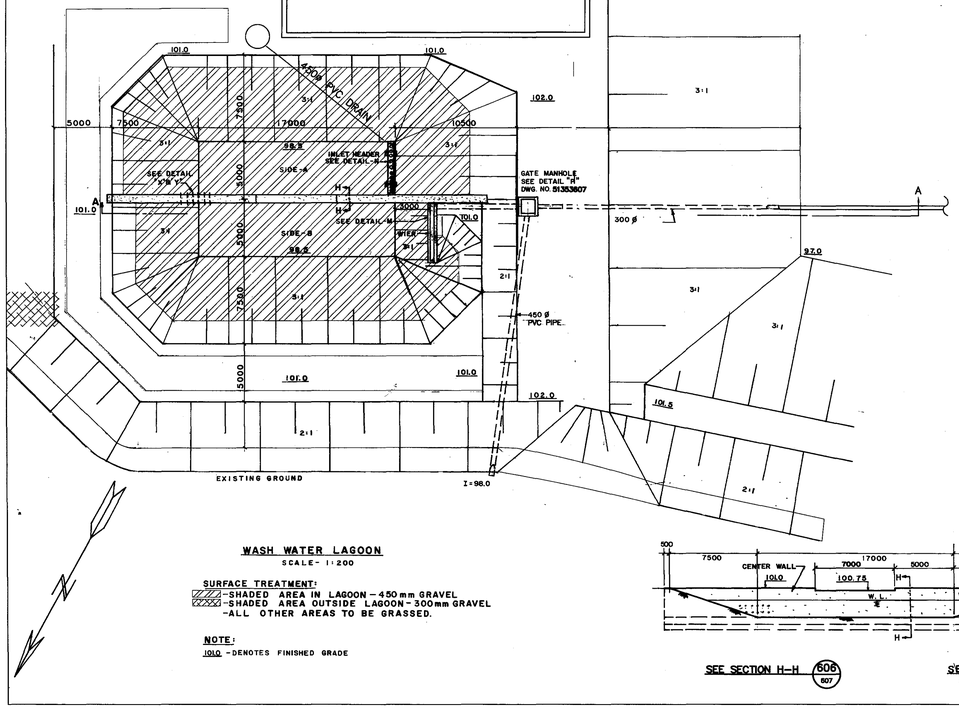
SECTION C - C
SCALE 1:20



PLAN - DETAIL - M
SCALE-1:20



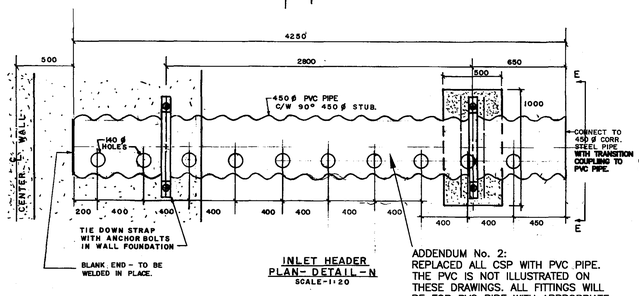
SECTION & ELEVATION-D-D
SCALE-1:20



WASH WATER LAGOON
SCALE- 1:200

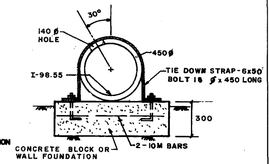
SURFACE TREATMENT:
-SHADED AREA IN LAGOON - 450 mm GRAVEL
-SHADED AREA OUTSIDE LAGOON - 300mm GRAVEL
-ALL OTHER AREAS TO BE GRASSED.

NOTE:
101.0 - DENOTES FINISHED GRADE

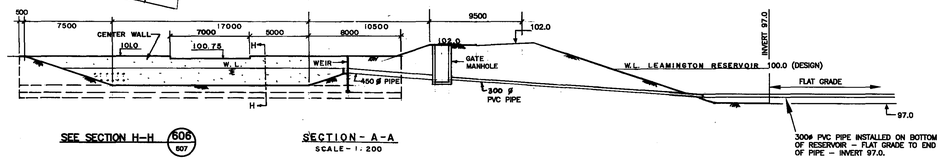


INLET HEADER PLAN- DETAIL - N
SCALE-1:20

ADDENDUM No. 2:
REPLACED ALL CSP WITH PVC PIPE. THE PVC IS NOT ILLUSTRATED ON THESE DRAWINGS. ALL FITTINGS WILL BE FOR PVC PIPE WITH APPROPRIATE RESTRAINTS WHERE REQUIRED.



END VIEW - E - E
SCALE 1:20



SEE SECTION H-H 606/607

SECTION - A-A
SCALE- 1:200

300ø PVC PIPE INSTALLED ON BOTTOM OF RESERVOIR - FLAT GRADE TO END OF PIPE - INVERT 97.0.

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CUMBERLAND COUNTY, NOVA SCOTIA

DRAWING TITLE:

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LEAMINGTON RESERVOIR
WASH WATER LAGOON

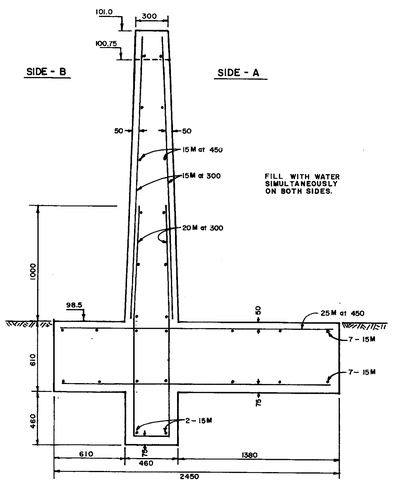
TRADE: CIVIL	DRAWN: STAFF
DATE: JULY 29, 2005	DESIGNED:
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353606B

REV. NO. 3

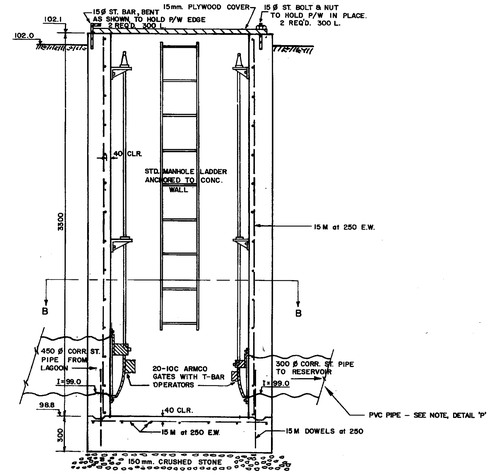
WASH WATER LAGOON

SEE DWG. NO. 51353606



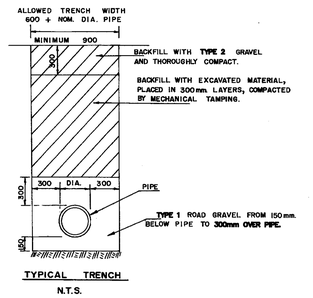
SECTION H - H (607/606)
CENTRE WALL

SCALE 1:20



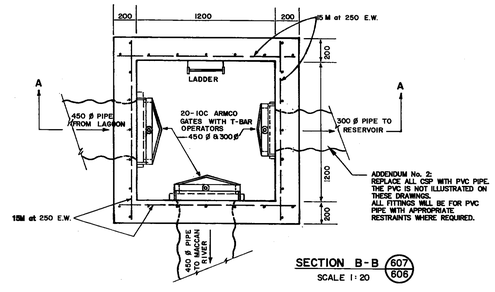
SECTION A - A (607/607)

SCALE 1:20



TYPICAL TRENCH

N.T.S.



SECTION B-B (607/606)

SCALE 1:20

DETAIL "P"
GATE MANHOLE

REV	DESCRIPTION	DATE
3	ISSUED FOR CONSTRUCTION	JULY.29,2005
2	FOR APPROVAL, REVISED DWGS/ ADDEN. 4	JULY.28,2004
1	ISSUED FOR APPROVAL & TENDER	SEPT.06,2002

STAMP

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE
S.G. CLEMENTS
6817

STAMP

amec

AMEC Americas Limited
Industrial & PharmaChem Division
1874 Brunswick Street
Halifax, Nova Scotia
Canada B3J 2G7
Tel: (902)420-8900
Fax: (902)420-9948

ABL ENVIRONMENTAL consultants limited
102 PORTLAND STREET, P.O. BOX 501 DARTMOUTH, NS, B2Y 3Y6
TEL: (902)466-0050
FAX: (902)466-4369

PROJECT:

TOWN OF SPRINGHILL

WATER SUPPLY AND TREATMENT PLANT

CUMBERLAND COUNTY, NOVA SCOTIA

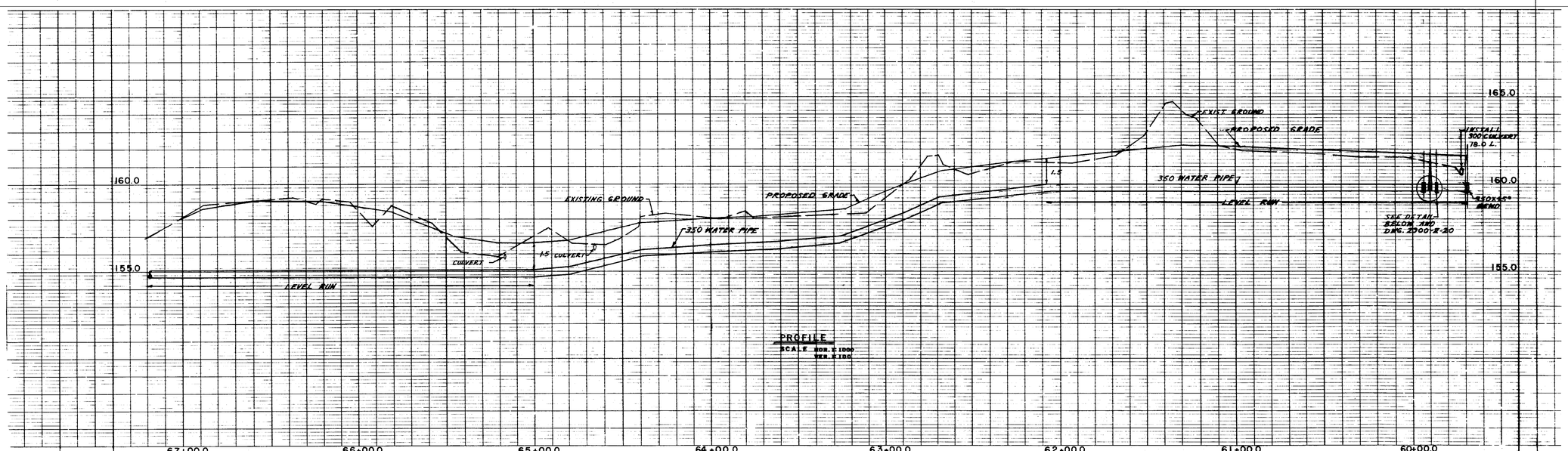
DRAWING TITLE:

WATER SUPPLY AND TREATMENT PLANT
LEAMINGTON RESERVOIR
DETAILS

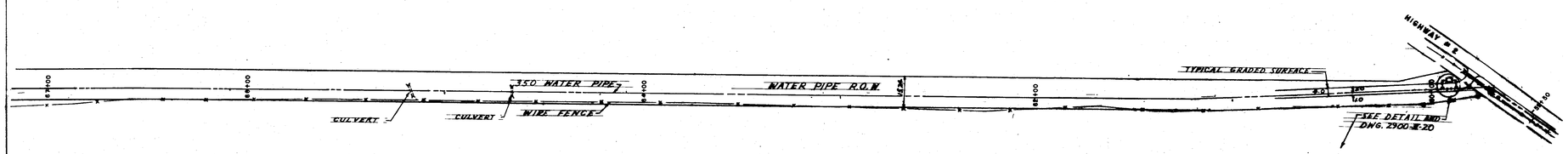
TRADE:	DRAWN:
CIVIL	STAFF
DATE: JULY 29, 2005	DESIGNED:
SCALE: AS SHOWN	JOB NO: 5135
PROJECT NO: 142332	TENDER NO:

DRAWING NO. 51353607B

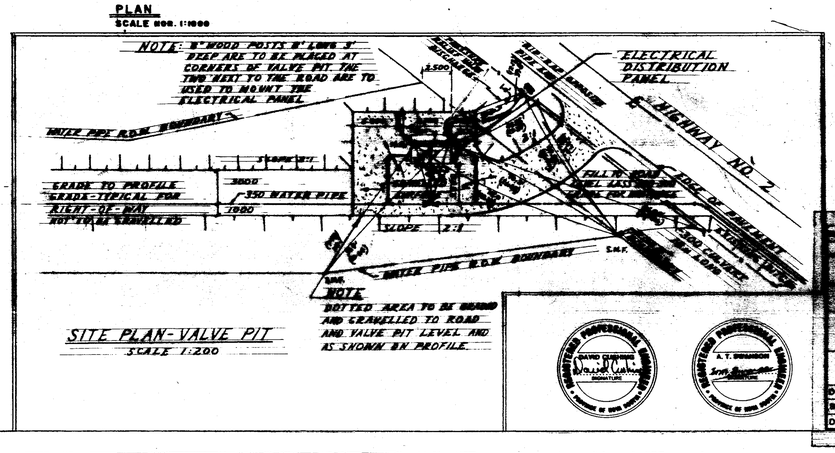
REV. NO. 3



PROFILE
SCALE HOR. 1:1000
VER. 1:100



PLAN
SCALE HOR. 1:1000



SITE PLAN-VALVE PIT
SCALE 1:200

NOTE:-
32.1' - DENOTES IMPERIAL MEASUREMENT
(9.78) - DENOTES METRIC MEASUREMENT

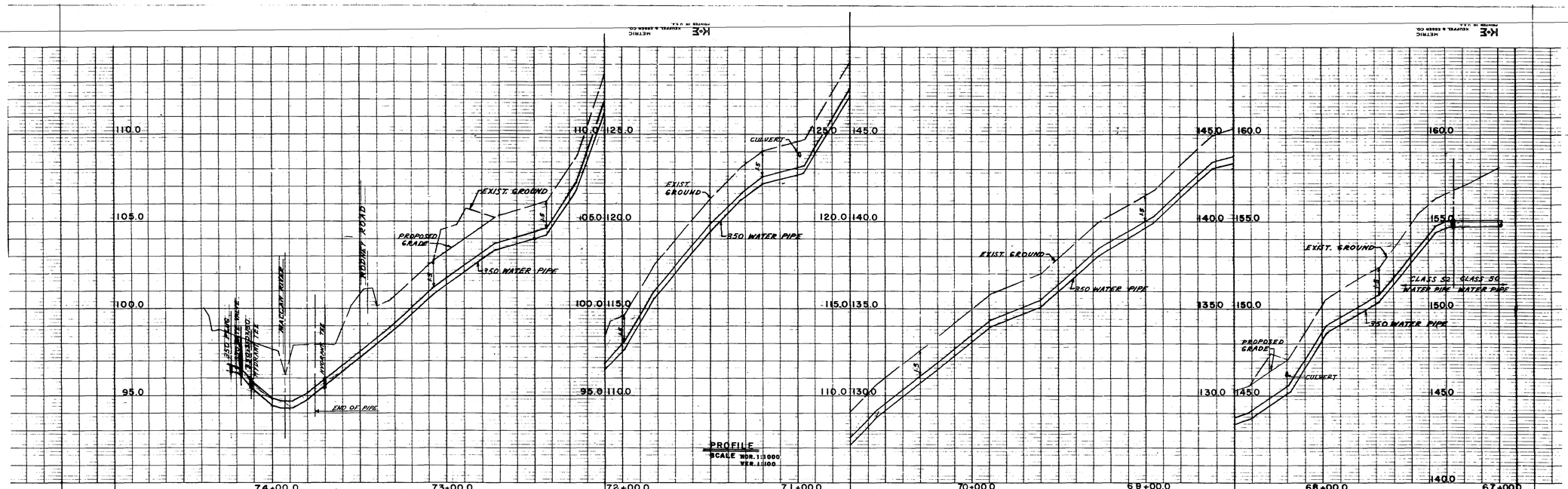
SYMBOL LEGEND:
- STREET CENTER LINE
- NEW WATER PIPE
- APPROX. LOCATION EXISTING WATER LINE
- GATE VALVE
- HYDRANT
- EXISTING CURB STOP
- COMBINATION AIR RELEASE VALVE
- APPROX. LOCATION EXISTING SEWER
- MANHOLE
- CATCH BASIN
- UTILITY POLE
- DITCH
- NEW CURB STOP

NOTE:
- ALL ELEVATIONS ARE GEODETIC AND ARE BASED ON N.B.C.M.I.S ALONG THE PIPELINE ROUTE.
- ALL WATER PIPE SHALL BE CEMENT LINED DUCTILE IRON. WATER PIPE SHALL BE CLASS 50 BETWEEN CHAINAGE 11 + 50.0 AND THE GATE VALVE AT CHAINAGE 67 + 35, AND CLASS 52 BEYOND THE GATE VALVE.
- WATER PIPE SHALL BE RUN IN STRAIGHT LINES BETWEEN BENDS EXCEPT WHERE DIRECTED OTHERWISE BY THE ENGINEER.
- FOR THRUST BLOCK BEARING AREAS SEE DWG. # 2900-II-20.

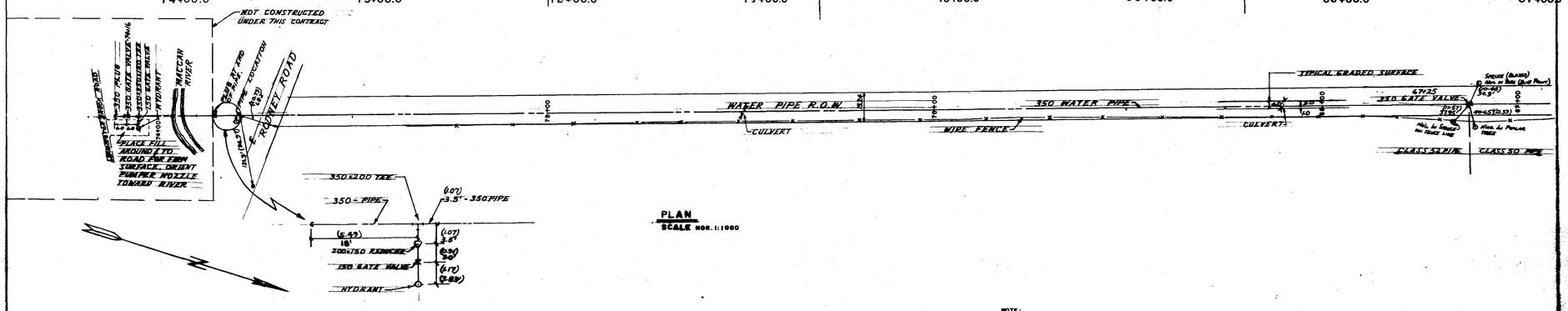
TOWN OF WOODSTOCK
WATER SYSTEM
PHASE - II
PLAN & PROFILE
RIGHT OF WAY

DRAWN D.E.C., S.E.H., A.T.	SIGNED
SCALE HOR. 1:1000, VERT. 1:100	DWG. NO. 2900-II-16
DATE JULY 24, 1979	

(16)



PROFILE
SCALE HOR. 1:1000
VER. 1:100



PLAN
SCALE HOR. 1:1000

NOTE:
3.6, 3" DENOTES IMPERIAL DIMENSION.
(10.45) DENOTES METRIC DIMENSION.

SYMBOL LEGEND:
- STREET CENTER LINE
- NEW WATER PIPE
- APPROX. LOCATION EXISTING WATER LINE.
- GATE VALVE
- HYDRANT
- EXISTING CURB STOP
- COMBINATION AIR RELEASE VALVE
- APPROX. LOCATION EXISTING SEWER
- MANHOLE
- CATCH BASIN
- UTILITY POLE
- DITCH
- NEW CURB STOP

NOTE:
- ALL ELEVATIONS ARE GEODETIC AND ARE BASED ON N.S.C.M.'S ALONG THE PIPELINE ROUTE.
- ALL WATER PIPE SHALL BE CEMENT LINED DUCTILE IRON. WATER PIPE SHALL BE CLASS 50 BETWEEN CHAINAGE 11 + 50.0 AND THE GATE VALVE AT CHAINAGE 67 + 25, AND CLASS 52 BEYOND THE GATE VALVE.
- WATER PIPE SHALL BE RUN IN STRAIGHT LINES BETWEEN BENDS EXCEPT WHERE DIRECTED OTHERWISE BY THE ENGINEER.
- FOR THRUST BLOCK BEARING AREAS SEE DWG. # 2900-II-20.

REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NEW BRUNSWICK — DAVID CLEMENTS

REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NEW BRUNSWICK — A. T. SWANSON

ATLANTIC CONSULTANTS LTD.

TOWN OF SPRINGHILL

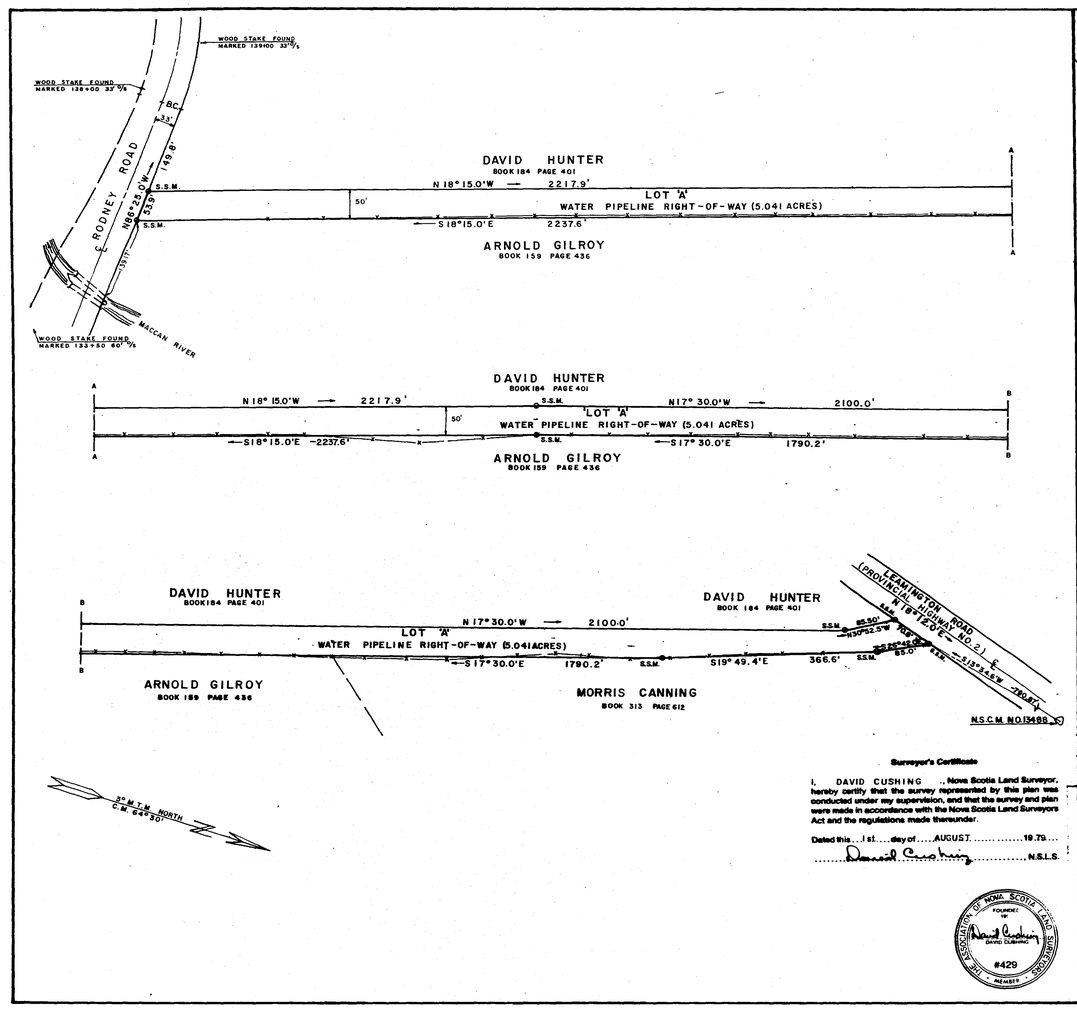
WATER SYSTEM
PHASE - II

PLAN & PROFILE
RIGHT OF WAY

DRAWN D.E.C., S.E.B. | SIGNED

SCALE HOR. 1:1000, VER. 1:100 | DWG. NO. 2900-II-17

DATE JULY 24, 1979



NOTES:

BEARINGS ARE BASED ON 3° M.T.M. NORTH AND REFER TO N.S.C.M. NO. 13488 AND N.S.C.M. NO. 13487. DISTANCES ARE AS MEASURED, SCALE FACTOR WAS NOT APPLIED.

THIS SURVEY WAS EXECUTED IN NOVEMBER 1978 AND JULY 1979.

EVIDENCE REFERRED TO:

DEED TO DAVID HUNTER BOOK 184 PAGE 401.

DEED TO ARNOLD GILROY BOOK 159 PAGE 436.

DEED TO MORRIS CANNING BOOK 313 PAGE 612.

PAROLE EVIDENCE BY ARNOLD GILROY AND DAVID HUNTER THAT THE FENCE IS SUBSTANTIALLY THE LINE BETWEEN THEIR LANDS.

SYMBOL LEGEND:

⊙ S.S.M. — DENOTES SURVEY MARKER SET.

—x—x— — DENOTES WIRE FENCE.

TABLE OF COORDINATE VALUES

1976 ADJUSTMENT

POINT	NORTHING	EASTING
N.S.C.M. NO.13488	16577249.66	1105185.30
N.S.C.M. NO.13487	16575723.77	1104744.00

DATE	REVISION	APPROVED

Surveyor's Certificate

I, DAVID CUSHING, Nova Scotia Land Surveyor, hereby certify that the survey represented by this plan was conducted under my supervision, and that the survey and plan were made in accordance with the Nova Scotia Land Surveyors Act and the regulations made thereunder.

Dated this 1st day of AUGUST, 19 79

David Cushing N.S.L.S.

ASSOCIATION OF NOVA SCOTIA LAND SURVEYORS — FOUNDED 1919 — DAVID CUSHING — #429 — 1979 MEMBER

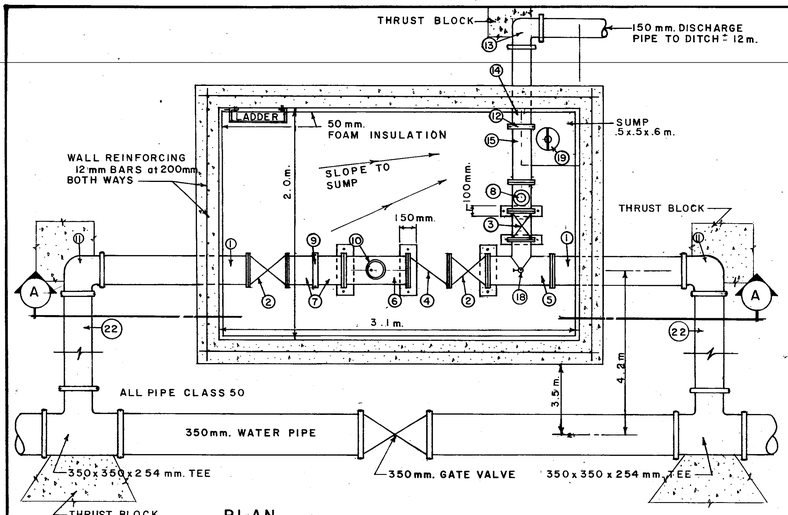
ALDERNEY CONSULTANTS
CONSULTING ENGINEERS, NOVA SCOTIA LAND SURVEYORS
DARTMOUTH, N.S.

PREPARED FOR
TOWN OF SPRINGHILL

LANDS OF
DAVID HUNTER
LEAMINGTON, CUMBERLAND CO., N.S.

LEGAL PLAN
WATER PIPELINE RIGHT-OF-WAY

DRAWN D.E.C. S.E.M.	SIGNED D. Cushing
SCALE 1" = 100'	DWG. NO. 2900-II-19
DATE AUGUST 1, 1979	



PLAN

LIST OF FITTINGS		
NO.	QUANTITY	DESCRIPTION
1	1	250mm. PIPE FL. ONE END ± 2.0m LONG
2	2	250mm GATE VALVE-FL.
3	1	150mm. GATE VALVE-FL.
4	1	250mm SILENT CHECK VALVE-FL. APCO MODEL 660 OR EQUIV.
5	1	250x250x150mm. TEE-FL.
6	1	250x250x150mm. TEE-FL. C/W 75mm. CLOSE NIPPLE
7	2	250mm. ADAPTOR NIPPLE-FL. ONE END-200mm. LONG.
8	1	150mm. PRESSURE RELIEF VALVE ROSS MODEL 50 RWR-FL. OR EQUIV.
9	1	250mm. VICTAULIC COUPLING
10	1	75 mm. SLOW CLOSING COMBINATION AIR VALVE-FL- APCO MODEL 1603/146-55 OR EQUIV.
11	2	250 - 90° BEND
12	1	150mm. VICTAULIC COUPLING
13	1	150-45° BEND
14	1	150mm. MAKE UP PIPE ± 2m.
15	1	150mm. ADAPTOR NIPPLE-FL. ONE END-500mm. LONG.

LIST OF FITTINGS (CONT.)		
NO.	QUANTITY	DESCRIPTION
16	2	75mm. THREADED NIPPLE 150 mm. LONG
17	1	75mm. BRONZE GATE VALVE
18	1	PRESSURE GAUGE c/w SHUT-OFF COCK & TAPS RANGE 0-250 P.S.I.
19	1	MYERS SUMP PUMP MODEL SS25-11 OR EQUIV.
20	1	SUMP PUMP DISCHARGE PIPE 32 mm. Ø, 2.5m LONG ±
21	1	GROUND FAULT PROTECTED, DUPLEX RECEPTACLE
22	2	250mm. CLDI PIPE 4.2m. LONG

TABLE OF REQUIRED THRUST BLOCKS BEARING AREAS

(MINIMUM AREAS IN m^2 AGAINST UNDISTURBED SOIL)

TABLE I - FOR THRUST BLOCKS ON CLASS 50 PIPE +

NOM. DIA.	TEES & PLUGS	90° BENDS	45° BENDS	22½° BENDS	11¼° BENDS
350	1.7	2.4	1.3	0.7	0.4
300	1.3	1.8	1.0	0.5	0.3
250	0.9	1.3	0.7	0.4	0.2
200	0.6	0.9	0.5	0.3	0.1
150	0.4	0.5	0.3	0.2	0.1
100	0.2	0.3	0.1	0.1	0.1

+ BASED ON 1380 KP_a TEST PRESSURE AND A SOIL BEARING PRESSURE OF 100 KP_a.

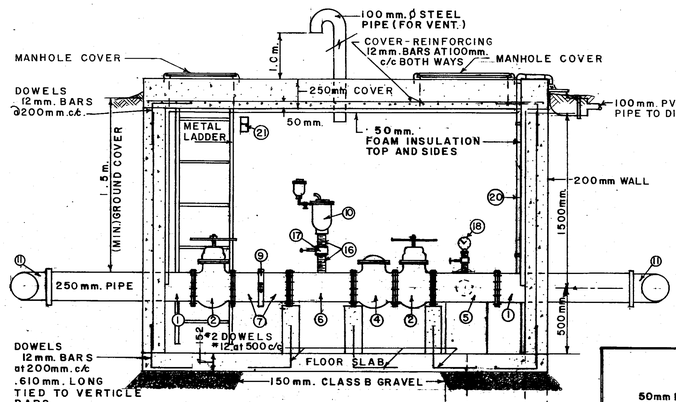
TABLE II - FOR THRUST BLOCKS ON CLASS 52 PIPE °

NOM. DIA.	TEE & PLUGS	90° BENDS	45° BENDS	22½° BENDS	11¼° BENDS
350	2.1	3.0	1.6	0.8	0.4
300	1.6	2.2	1.2	0.6	0.3
250	1.1	1.6	0.9	0.5	0.2

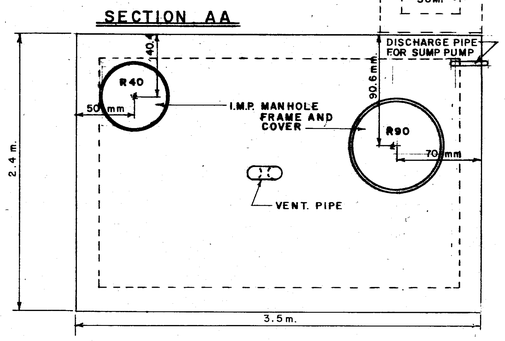
° BASED ON 1710 KP_a TEST PRESSURE AND A SOIL BEARING PRESSURE OF 100 KP_a.

NOTE: WHERE BEARING IS ON SOLID ROCK THE BEARING AREAS MAYBE REDUCED TO HALF OF THE ABOVE.

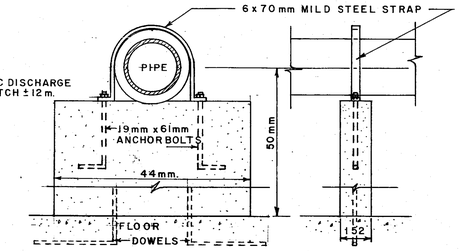
ALL THRUST BLOCK FORMS SHALL BE APPROVED BY ENGINEER BEFORE THE THRUST BLOCKS ARE POURED.



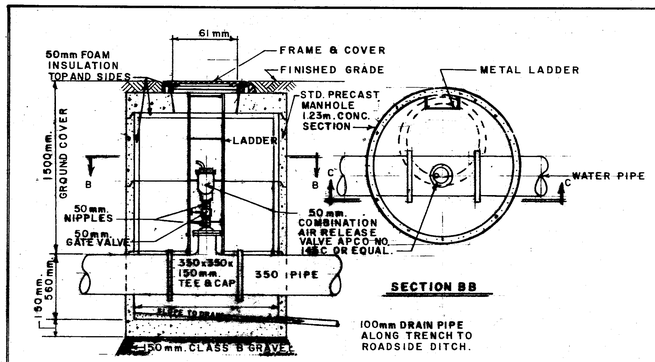
SECTION AA



COVER SCALE 1 = 100



CONCRETE PIPE SUPPORTS



SECTION BB

SECTION CC SCALE 1 = 100

COMBINATION AIR RELEASE VALVE

DATE	REVISION	APPROVED

ALDERNEY CONSULTANTS
CONSULTING ENGINEERS, MUNICIPAL AND LAND SURVEYORS
SPRINGHILL, N.S.

TOWN OF SPRINGHILL

WATER SYSTEM
PHASE - II - 2

DETAILS

REGISTERED PROFESSIONAL ENGINEER — A. T. SWANSON — SIGNATURE — PROVINCE OF NOVA SCOTIA

DRAWN AK	SIGNED A. T. Swanson
SCALE AS NOTED	DWG. NO. 2900-II-20
DATE JULY 24/1979	