

**2019-12-20**

**REQUEST FOR PROPOSAL  
RFP #56 (2019-12)  
CONSULTING SERVICES FOR DESIGN OF NEW  
FILTRATION SYSTEM (POLAR BEAR POOLS)**

You are invited to submit a written proposal to provide consulting services for the design of a new filtration system for the polar bear pools at the Toronto Zoo. Services to be provided include: the analysis of all site constraints and opportunities, review of existing facilities, services and drawings, the conceptual design of a new filtration system, detailed design, preparation of specifications and drawings, review and recommendation of tender submissions and contract administration throughout the construction phases of the Project.

**Project Briefing:** A project briefing for consultants will be held **Tuesday, 2019-01-07, at 1030 hours (10:30 a.m.)**. Meet at the Administrative Support Centre, enter at Gate A, 361A Old Finch Avenue, west of Meadowvale Road, Toronto, Ontario, M1B 5K7.

**Proposal:** Provide **five (5)** copies of your proposal, **one (1)** unbound signed and clearly marked as ORIGINAL and **three (3)** copies of the original proposal clearly marked as COPY and **one (1)** electronic copy (Microsoft Word or PDF) on a CD or flash drive in a sealed package or envelope. The original and all copies should be identical (excluding any obvious differences in labeling as noted above). Proposal to be delivered to the office of Purchasing & Supply, Toronto Zoo, Administrative Support Centre, 361A Old Finch Ave., Toronto, Ontario, M1B 5K7 by:

**Due Date:** **Friday, 2020-01-17 by 1200 hours (noon), local time**

Proposals shall remain in effect for a period of ninety (90) days from the Proposal due date.

The Board of Management of the Toronto Zoo reserves the right to reject any or all Proposals or to accept any Proposal, should it deem such action to be in its interests.

If you have any queries regarding this request for proposal, please contact Mr. Peter Vasilopoulos, Supervisor of Purchasing & Supply at 416 392-5916 or [pvasilopoulos@torontozoo.ca](mailto:pvasilopoulos@torontozoo.ca). If you require further technical details, please contact Ben Knoop – Project Manager, [bknoop@torontozoo.ca](mailto:bknoop@torontozoo.ca).

Yours truly,

Taryne Haight  
Manager, Financial Services

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## Drawings Attached:

## 01 – Polar Bear Exhibit Retrofit

- 1 – Polar Bear Exhibit Retrofit – Site Reference Plan
  - 2 – Polar Bear Exhibit Retrofit – Filter System Installation
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- A1 – Polar Bear Exhibit Reconstruction – Site Plan  
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M3 – Polar Bear Exhibit Reconstruction – Details and Sections  
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## 1.0 GENERAL TERMS

- 1.1 The following definitions will apply to this Request for Proposal and to any subsequent Contract:
- 1.1.1 **“Board” or “Toronto Zoo”** means the Board of Management of the Toronto Zoo;
  - 1.1.2 **“CEO”** means the Chief Executive Officer of the Toronto Zoo;
  - 1.1.3 **“Preferred Consultant”** means the person, partnership or corporation contracting with the Board to provide the required Services;
  - 1.1.4 **“Contract”** means acceptance by the Toronto Zoo (by way of written acknowledgement, Agreement, Contract or Purchase Order) to furnish Services for money or other considerations;
  - 1.1.5 **“Contract Price”** means the price payable under the contract to the Consultant, being the Proposal Price eventually accepted by the Board of Management of the Toronto Zoo subject to any changes pursuant to the Contract Requirements;
  - 1.1.6 **“Construction Act”** means the *Construction Act*, R.S.O. c. C.30.
  - 1.1.7 **“Proponent”** means an individual or company that submits or intends to submit, a proposal in response to this Request for Proposal;
  - 1.1.8 **“Proposal Price”, “Contract” and “Contract Documents”** have the meanings set out therefore in clauses contained in these documents;
  - 1.1.9 **Request for Proposal (RFP)”** means the RFP document in its entirety, inclusive of any addenda that may be issued by the Toronto Zoo;
  - 1.1.10 **“Services” or “Work”** means everything that is necessary to be performed, furnished delivered by the Consultant to meet the Consultant’s obligation under this Contract;

## 2.0 BACKGROUND AND PROJECT OVERVIEW

### 2.1 BACKGROUND

The Toronto Zoo opened August 15, 1974. Home to more than 5,000 animals and 300 exhibits representing the world’s biomes, the Zoo is situated on 697 acres of land in the picturesque Rouge Valley. The Zoo attracts an average of 1.2 million guests annually.

### 2.2 PROJECT OVERVIEW

The polar bear exhibit has two pools – the main exhibit pool, and the maternity exhibit pool. The main exhibit filtration system was most recently renovated in 1995, and now requires more modern filtration equipment and conversion to salt water to meet modern day standards. The maternity exhibit pool currently does not have a filtration system installed.

The new filtration systems should be designed to meet or exceed all requirements in the scope of work below. Design for the full project will be completed immediately and construction should take place in March 2020.

### **3.0 DESCRIPTION AND SCOPE OF PROJECT**

- 3.1 The Toronto Zoo is seeking a qualified and experienced consulting team to facilitate and develop a design for new filtration systems for the polar bear pools at the Toronto Zoo. Discussions with appropriate Toronto Zoo staff and a complete review of the site, facilities, exhibits, equipment and infrastructure is required to confirm the design concept and prepare the required design documents. As well, the direction of the Zoo and its mission and vision, goals and objectives as set out in the 2016 Master Plan, [http://www.torontozoo.com/2017-01-24\\_TZ-MP%20Final%20Report\\_web.pdf](http://www.torontozoo.com/2017-01-24_TZ-MP%20Final%20Report_web.pdf) have to be considered in preparing your proposed design with respect to animal care, existing structures, site conditions, financial sustainability, conservation, education and guest experiences.

One new filtration system will replace the existing filtration system for the main polar bear pool. A second filtration system will be installed on the maternity exhibit pool. Conceptual and detailed design drawings, are to be completed in early 2020 and construction is to begin in March 2020. The Consultants, in collaboration with its sub-consultants responsibilities include:

- a) Conceptual design;
- b) Detailed design includes all products leading to Final Plans and Specifications for tender and construction;
- c) Tender;
- d) Contract Administration for the construction phase; and
- e) Project close-out and Commissioning.

As described in this RFP, the Successful Consultant, in collaboration with its sub-consultants, will assess the current proposed areas and surrounding site to evaluate design refurbishments for the area. Site services changes (water, sanitary, storm, gas, electrical and communications), demolition of the existing facilities, soft and hard landscaping, etc. will be included with the design, as well as all necessary permits that will be required.

3.2 Preliminary design criteria (subject to change):

- Existing main pool is approximately 365,000 litres (to be verified by the successful proponent).
- Existing maternity pool is approximately 23,000 litres (to be verified by the successful proponent).
- Both pools to have volume increased – filtration system to be designed to larger volume (final volumes are yet to be determined).
- Water quality requirements:
  - 30‰ salinity
  - 200-400ppm potassium
- Temperature to be maintained at 13 degrees Celsius.

- Both pools to have skimmers as well as filtration from the bottom drains
- Saltwater and backwash reserve tanks are required.
- Ozone systems required.
- The Project must be integrated into the existing Zoo site consistent with the current and future public and staff service circulation, physical site features, and site and facility plans.
- Existing drawings at the Toronto Zoo are for review and site familiarization only. Conceptual drawings and background information, provided by the Zoo, are for general layout and reference and not to be treated as final design products. Specifications for some typical details from similar projects, as prepared by the Zoo with previous Consultants, are to be reviewed, and/or modified where necessary and used by Consultant to formulate drawings and specifications for all related work required for design and implementation of the Project.
- A budget for this project has not been set.
- The Consultant shall keep proper record of accounts including supporting documents for the services rendered as a result of this Agreement and these records of account shall be open for inspection and/or audit by the Zoo upon reasonable request during normal business hours at the Zoo. Such records shall be retained for two (2) years following the completion of the services.

3.3 The Successful consultant will be required to complete all services necessary for the Toronto Zoo to implement the project including, but will not be limited to:

- Planning, including information gathering, site analysis and program development;
- Preparation and/or review of existing plans provided by the Toronto Zoo;
- Coordination with sub consultants, Zoo, City and authorities having jurisdiction;
- Conceptual Design, and Design development graphics for meetings, reports and approvals;
- Detailed design, issued for permit drawings;
- Contract documentation, signed & sealed construction drawings and specifications; and cost estimates
- All site review, final commissioning, and close-out services as further defined in this RFP.

## **4.0 DESIGN SERVICES**

### **4.1 Project Orientation and Initiation**

- Upon award of the contract, the selected firm will enter into an agreement for Architectural and Engineering Services with the Zoo, incorporating the terms and conditions of the Request for Proposal and the proponent proposal.
- Direct assistance and liaison of consultant with designated Zoo Facilities & Services staff regarding planning, design, construction, organization and scheduling. Identify and address the specific functional requirements of the program for the existing and future site users, and the concerns/issues of the community.
- Consideration must be given to the use of reused and recycled products, sustainable products, and consideration for waste management. Consideration should also be given to the use of long lasting maintenance free products where possible and appropriate.

- Project orientation meeting with Zoo Staff – clarification of project objectives, scope of work, information transfer, schedules and process steps.
- Identify/validate the program; identify opportunities/constraints.
- Consultant to co-ordinate and liaise with all sub-consultants and others as necessary making sure all relevant issues, opportunities, and constraints have been raised and concluded.
- Arrange soil investigation, land survey, arborist report, or other investigations, and analysis if required, as part of their work for the Project.
- Information assembly and review: If available, the Zoo will provide to the Consultant, any relevant existing site information it may have on file. This may include previous concepts or designs, project history, photos and aerial documentation, environmental assessments, record drawings, project goals and visions.
- Verify and analyze all existing information related to the sites and identify opportunities, constraints and issues that require clarification or assessment work before start of concept and detailed design.

#### 4.2 Program, Conceptual Design, Consultation

- Develop program options appropriate for the service level, area context and inventory, and site parameters.
- Provide all aspects of the conceptual design work including drawings, sketches, precedent photos, presentation materials and 3D renderings and graphics.
- Prepare conceptual drawings of site considering and incorporating feedback from orientation workshop ensuring specific features are consistent with achieving project objectives, adhere to safe and sustainable design and construction standards.
- Revise the conceptual design drawings, as instructed, to meet the requirements of the Toronto Zoo.
- Prepare information for preliminary cost estimates and materials list for conceptual designs.
- Revise conceptual designs and generate preliminary cost estimates based on feedback and guidance received from the Zoo and other stakeholders.
- Prepare materials as needed for presentation and discussion to the Zoo and other stakeholders.
- Meet with the Zoo and other stakeholders to facilitate discussion about the design concepts, gather feedback, comments, and field questions (Zoo will provide the venue and arrange the meeting)
- Adjust and update conceptual designs as required.
- Review and analyze feedback with Toronto Zoo Project contact to update concept design accordingly.
- Meet to update Zoo and other stakeholders to refine preferred conceptual designs, materials lists and construction cost estimates.
- Prepare information as needed for reports to Zoo Management to seek endorsement/approval of the preferred conceptual design and to proceed to next phase of detail design.
- Prepare and deliver to the Toronto Zoo a complete set of conceptual design plans showing how the proposed design will look and how they will meet the requirements set out in the RFP.
- Sign-off of the conceptual design by the Toronto Zoo is required prior to the consulting team moving to detailed design.

#### 4.3 Detailed Design and Specification Documents

- Prepare detailed design drawings and specifications from Zoo site drawings, typical specifications supplied by the Zoo, and from Project team meetings and workshop developments. The following authorities, guidelines and directives, among others, must be considered and developed into designs, as appropriate:
  - Ontario Ministry of Labour - Health & Safety Act
  - Toronto Green Standards
  - Ontario Building Code
  - Accessibility Design Guidelines – City of Toronto
  - Accessibility for Ontarians with Disabilities Act (AODA)
- Provide construction methodology, materials list, and timelines.
- Meet with Zoo to develop design details and standards of project components.
- Prepare preliminary cost estimates, based upon input from the Consultant Team's Quantity Surveyor.
- Coordinate all design and development drawings.
- Preparation of final Plans and Specifications including all drawings (Architectural, Structural, Mechanical, Electrical, etc.), specifications, renderings, models and photograph reference as necessary for tendering and construction.
- Revise the drawings and specifications as instructed, to meet the requirements of the Toronto Zoo.
- Seek all permits where applicable, and all other approvals from authorities having jurisdiction (including TRCA) on behalf of the Zoo, and such work to be considered part of the Scope of Work of the Consultant in the Fee Proposal. Consultant to submit all necessary Project reports including final Project review report to authorities having jurisdiction on behalf of the Zoo.
- Any Building Permit Application fees, and other fees that may be required, will be paid by the Zoo and should not be included in your fee proposal.
- Prepare refined cost estimates for the approved design, based upon input from the Consultant Team's Quantity Surveyor.
- Review detail design drawings with Zoo at milestone completion stages of drawing process.
- Review construction schedule for final approval with Project Manager.
- Prepare a working budget for evaluation and analysis of tender results including unit prices as applicable.
- Prepare requested information for the report to Zoo Management to update on the final drawings, costing, project budget, procurement and construction schedule.
- Detailed design services will include, but not be limited to;
  - Product samples,
  - all applicable codes,
  - review of similar projects,
  - associated design work,
  - incorporation of animal, guest and zoo needs, and landscaping.
- Preparation of all Tender Drawings and Specifications, including certification of construction ready drawings and specifications by Architect/Engineer is required.

## **5.0 CONTRACT PROCUREMENT**

- 5.1 The Zoo's Purchasing Department will be responsible for the administration of the construction Tender process, including its release, closing and selection of the successful Tender. The Consultant will be available and provide assistance to the Project Manager throughout the entire Tendering process.
- 5.2 Consultant to attend site briefing of contractors during tendering of project.
- 5.3 The Zoo will review the submitted Tenders and tender selection will be based on the Zoo's Tender Evaluation Form. The Consultant will be asked to assist against requirements and project budget, confirm references and recommend a successful contractor to the Zoo for award of the work but the Zoo will make the final selection decision.
- 5.4 The Zoo and Consultant will meet to determine target dates for the pre-award and pre-construction meetings. The pre-construction meeting date will be selected based upon the Zoo's decision for the project to proceed.

## **6.0 CONTRACT ADMINISTRATION**

- 6.1 The Zoo will arrange a pre-construction meeting for which the Consultant shall attend. The pre-construction meeting date will be selected based upon the Zoo's decision for the project to proceed in a timely manner.
- 6.2 The Consultant shall ensure that all design and development for this project complies with all requirements of the City of Toronto's Zoning Bylaw and Building Bylaws as well as all other applicable Federal, Provincial and Municipal laws and bylaws.
- 6.3 The Consultant will obtain all development and building permits, variances if required, and any other permits and approvals necessary by authorities having jurisdictions prior to the preconstruction meeting, in order for the project to proceed in a timely manner at that time.
- 6.4 The Consultant will have ongoing review submittals for the Contractor for approvals including, but not limited to: shop drawings, samples, mock-ups and test results.
- 6.5 The Consultant will be responsible to attend all site meetings including all participating sub consultants, contractors and tradespersons.
- 6.6 The Consultant shall record all meeting minutes, including significant proceedings and decisions, identifying 'action by' parties, and will reproduce and distribute copies of minutes within three (3) business days after each meeting and transmit to meeting participant, affected parties not in attendance, Consultants and the Zoo.
- 6.7 The Consultant will review all monthly trade progress claims, provide payment certificates and forward to the Project Manager.
- 6.8 Review and approve shop drawings for all aspects of the work as necessary during construction.



- 6.9 Review, prepare, recommend and issue site instructions (SI), requests for information (RFI), contemplated change orders (CCO) and change orders (CO), including for correction of site conditions, unknowns, and owner requested changes that are within the contingency allowance, as required to the contractor performing the Project, at no additional fee.
- 6.10 The Consultant will inspect work in progress, prepare and issue progress and field review reports, certify substantial and total completion, and assist in rectifying deficiencies.

## **7.0 FIELD AND CONSTRUCTION REVIEW**

- 7.1 The Consultant will be responsible to conduct regularly scheduled field reviews, including all material and equipment inspections prior to delivery to the site, to determine if the work performed, products, material and equipment conforms to the design and specifications.
- 7.2 The Consultant will be responsible for all construction review reports and coordination of the construction reviews by the appropriate members of the Consulting Team for the work. The Consultant will be responsible for all construction review reports and will forward them to the Project Manager within three (3) days of the review.
- 7.3 The Consultant, in consultation with their Sub Consultants, shall review and interpret the results of all reports and testing conducted on this project.
- 7.4 The Contractor is responsible for their own Quality Control (QC), but the Consultant shall be responsible for Quality Assurance (QS) and will not allow any features, materials or components to be supplied or, installation work to proceed, until positive test results on the features, materials or components are received, reviewed and accepted by Consultant and the Zoo.
- 7.5 Final detailed design products, drawings, specifications, renderings, photographic and other design products following Consultant and Zoo approval must be reviewed and approved by all authorities having jurisdiction.

## **8.0 PROJECT CLOSE-OUT AND COMMISSIONING**

- 8.1 Perform commissioning services for all systems to confirm they are operating as designed. Consultant to attend commissioning and review of equipment with contractor and Toronto Zoo staff.
- 8.2 Deficiency identification and follow-up inspection.
- 8.3 Ensure that all closeout documentation is provided including as-built drawings, maintenance manuals, operating manuals, warranty information etc. as per the contract documents.
- 8.4 Re-inspect the project, to liaise with contractors and other consultants, making sure all deficiencies have been corrected prior to the expiry date of warranties.

## **9.0 MEETING MINUTES**

9.1 The Consultant will be responsible for recording all meeting minutes for the meetings noted above, including significant proceedings and decisions, identifying 'action by' parties, and will reproduce and distribute copies of minutes within three (3) business days after each meeting and transmit to Toronto Zoo for review and approval. Final approved minutes will be distributed by the Consultant to meeting participants, affected parties not in attendance, Consultants and the Zoo.

## **10.0 RECORD DRAWINGS**

10.1 Upon completion of construction the Consultant shall be requested to supply record plans, based upon information accumulated in the field and received from Sub consultants, Contractors and City Inspectors.

10.2 Upon receipt of marked-up check prints from Sub consultants, Contractors and City Inspectors, the Consultant is to amend the Contract Drawings and provide AutoCAD drawings in .dwg files and PDF copies on a USB flash drive to the Zoo's currently acceptable standards.

## **11.0 INSURANCE, INDEMNIFICATION AND POLICIES**

The Consultant agrees to purchase and maintain in force, at its own expense and for the duration of the services, the following policies of insurance, which policies shall be in a form and with an insurer acceptable to the Toronto Zoo.

A certificate evidencing these policies signed by the insurer or an authorized agent of the insurer must be delivered to the Toronto Zoo prior to the commencement of services

11.1 Professional liability insurance in the amount of \$1,000,000 (per claim) and \$2,000,000 general liability insurance in respect of injury or death to a single person or for property damage in a manner satisfactory to the Chief Executive Officer must be maintained through the Project and included in the Fee Proposal.

11.2 The Consultant hereby agrees that the Consultant will keep harmless and fully indemnify the Board, the City of Toronto, the Toronto and Region Conservation Authority, their employees, officers and agents against all actions and claims against all loss, liability, judgments, costs, demands or expenses which they or any of them may sustain as a result of the negligent or intentional acts or omissions of the Consultant, its agents, servants, employees or sub-consultants or any of them, in the performance of the Services, save and except and only to the extent that any such loss, liability, judgments, costs, demands or expenses are caused by the Board or those for whom at law it is responsible.

11.3 All insurance policies shall be endorsed to provide a minimum advance written notice of not less than thirty (30) days, in the event of cancellation, termination or reduction in coverage or limits, such notice to be made to the Chief Executive Officer.

11.4 The Consultant shall, as applicable, conform to and enforce strict compliance with the Occupational Health and Safety Act and for purposes of the Act be designated as the "constructor" for the Service.

11.5 The Consultant must adhere to all relevant Zoo policies, including, but not limited to, the Contractor Safety Policy, Working in the Vicinity of Animal Containments Policy and the Vehicles on Site Policy, copies of which the Zoo shall supply to the Consultant.

It is understood and agreed that the coverage and limits of liability noted above are not to be construed as the limit of liability of the Consultant in the performance of services. It is also agreed that the above insurance policies may be subject to reasonable deductible amounts, which deductible amounts shall be borne by the Consultant. At the expiry of the policies of insurance, original signed Certificates evidencing renewal will be provided to the Toronto Zoo without notice or demand.

The successful Consultant is responsible for any loss or damage whatsoever to any of its materials, goods, equipment or supplies and will maintain appropriate all-risk coverage as any prudent owner of such materials, goods, supplies and equipment. The successful vendor shall have no claim against the Toronto Zoo or the Toronto Zoo's insurers for any damage or loss to its property and shall require its property insurers to waive any right of subrogation against the Toronto Zoo.

## 12.0 PROPONENT SUBMISSION REQUIREMENTS

- 12.1 Title page showing request for Proposal Proponent's name
- 12.2 Duly executed proposal form
- 12.3 Indicate the individual or incorporated name of the Proponent (i.e. the prime Consultant); address(es); telephone and fax number(s); and name of key contact person(s).
- 12.4 The Proponent must provide names and company information for all Sub-consultants required by Consultant.
- 12.5 State the scope and limits of responsibility of the Consultant and Sub-consultants named in the team.
- 12.6 Provide a schedule or chart of the proposed tasks, hours and the hourly rates for each person associated with this project.
- 12.7 The Proponent must confirm compliance with the Insurance and Indemnification provisions identified in Section 11.0.
- 12.8 Clearly articulate key personnel to be involved with the Project and their responsibilities. Indicate the qualifications and experience (beyond a general resume), that each member will bring to the team and include a breakdown on the number of hours each will devote to the Project and their hourly billing rate. Indicate the total extent of availability of all team members throughout entire Project period.
- 12.9 Provide the name, location, client reference and brief description of not more than five (5) similar studies under the direct responsibility of the persons or team named above.
- 12.10 Clearly indicate how Project design and construction will be managed to conform to assigned projects budgets, construction timing, etc.
- 12.11 Guarantee Project start immediately following successful confirmation of award of the Project, and work to implementation and completion schedule.

## 13.0 LEVEL OF EFFORT AND FEE SCHEDULE

### 13.1 Fee Schedule and Cost of Services

- The Proponent shall attach a Level of Effort and Fees Schedule for all of the Services outlining level of effort by each team member, including hourly rates and total lump sum fee. The hourly rates will be used to value additional services if required. The fee schedule should show the maximum upset limits that the Consultant will not exceed unless the Project Manager request additional services which are beyond the Scope of Work as outlined in this RFP.
- The Proponent shall include in the fee schedule all sub-Consultant fees and all disbursements.
- The Proponent shall indicate any additional 'Optional Services' or costs not

accounted for in the fee schedule as part of the proposal submission.

- The Consultant will not be able to claim any additional cost as a result of changes to the Construction Schedule or order of works, or for project delays due to inclement weather conditions. This condition shall be in effect for the duration of the project.
- All Consultant and Sub-consultants costs and drawings, models, renderings and similar costs to be the responsibility of the Consultant, identified and included as part of the fees in the Fee Proposal.
- Provide hourly rates for other services, which may be requested during completion of the Project.
- An upset limit for disbursements is required, including, but not limited to, reproduction, postage, courier, fax machine, long-distance telephone calls; printing of drawings and specifications, photographic production, approved Consultant travel, as required. Photocopies of receipts must be provided for disbursements.
- Soil and topographical surveys, arborist report, environmental testing, permits and application fees are not to be included in the Fee Proposal and will be reimbursed separately if required.
- A 10% holdback will apply to all fees, not including disbursements, to be released after 30 days following acceptance of final construction of the Project.
- Proposal prices shall remain in effect for a period of ninety (90) days from the proposal due date.

#### **14.0 PROPOSAL EVALUATION AND SELECTION**

14.1 The Proponent is urged to ensure that its Proposal is submitted in the most favourable terms in order to reflect the best possible potential, since less than best potential could result in exclusion of the Proposal from further consideration.

14.2 The Agreement will not be awarded to the Proposal with the lowest cost, but rather, award shall be based on a combination of related expertise, prior project experience and price. The lowest proposal may not necessarily be accepted, rather will be analyzed to determine the best overall value to the Zoo. Additionally, the Zoo may accept or reject any part of the Proponent's bid.

14.3 An Evaluation Team comprised of representatives designated by the Zoo will evaluate responses to the RFP.

14.4 There are three steps to the pre-defined evaluation process:

Step 1 – Initial Review of Responses

Step 2 – Evaluation of Submitted Proposals

Step 3 – Evaluation of Presentations

#### 14.5 Step 1 – Initial Review of Responses

The Zoo will open only those Proposals received by the Proposal Deadline and time specified within this RFP. Immediately upon opening, the Zoo will review each Proposal for compliance with the instructions and conditions applicable to this RFP. The Zoo, at its option, may seek Proponent retraction and clarification of any discrepancy/contradiction found during its review of Proposals.

#### 14.6 Step 2 – Evaluation of Submitted Proposals

- The Evaluation Team will evaluate each submitted Proposal, that has passed through Step 1, on criteria that will include, but not necessarily be limited to, the following:

<b>Evaluation Criteria</b>	<b>Points</b>
Depth and breadth of the Project team's relevant qualifications and experience with similar scale and type of Projects	30
Commitment to complete work according to schedule of events in section 14.12 within the RFP	15
Availability of team members during entire Project	15
Understanding of Project scope of work	15
Details on the general approach and methodology that proponent would take in performing the services outlined within the RFP	15
Fee Proposal	25

- The Zoo may, at its discretion, eliminate a Proposal from further consideration if it deems the overall cost to be prohibitive.
- A short-list of suitable Proponents may be established who may be invited to Step 3 to provide presentations related to their Proposal.

#### 14.7 Step 3 – Evaluation of Presentations (If Required)

- Invited Proponent(s) shall provide presentations in support of their Proposals or to demonstrate or otherwise expand on the information contained therein.
- The Proponent(s) shall ensure that the presentation is made by well versed staff with the authority to make decisions and commitments on behalf of the Proponent.
- Any and all costs incurred by the Proponent in order to prepare for and attend the presentation and/or demonstration including transportation, food, lodging, etc. shall be borne entirely by the Proponent.

14.8 The final score is then calculated as illustrated in the following table:

<b>Evaluation</b>	<b>Score</b>
Step 1 – Initial Review of Submitted Proposals	Prerequisite
Step 2 – Evaluation of Submitted Proposals	Maximum 100

Step 3 – Evaluation of Presentations (If Required)	(Maximum 50 If Required)
<b>Total maximum score excluding Presentation</b>	<b>100</b>
<b>Total maximum score including Presentation</b>	<b>150</b>

14.9 By responding to this Proposal, the Proponent agrees to accept the recommendation of the Evaluation Team as final.

14.10 All Proposals shall be submitted by the Proponent on the understanding that the Proposals shall become the property of the Zoo.

14.11 The Zoo reserves the right to accept or reject any or all proposals or cancel the RFP. The lowest proposal may not necessarily be accepted, rather will be analyzed to determine best overall value to the Zoo.

**14.12 SCHEDULE OF EVENTS:**

The following is a tentative schedule for the Public Washroom Improvement process.

The Zoo expects detailed design work to begin immediately upon selection of the successful consultant, and be completed such that all construction/refurbishment work is completed as follows:

The final schedule will be developed jointly with the successful proponent in the first week of project execution:

<b>Component</b>	<b>Milestone Dates</b>
<b>Pre-Award</b>	
Release of RFP	<b>2019-12-20</b>
Site Inspection	<b>2020-01-07</b>
Proponents' Question Deadline	<b>2020-01-10</b>
Submission Due	<b>2020-01-17</b>
Interviews, if necessary	<b>Week of 2020-01-20</b>
Notification of Award By the Toronto Zoo	<b>Week of 2020-01-20</b>
<b>Post-Award</b>	
Complete Detailed Design (ready for tender)	<b>2020-02-21</b>

**The consultant to provide a detailed design schedule based on the above dates and including all disciplines. The consultant should notify the Zoo of any component and milestone dates that are missing or changes that are required. Approved changes should be included in the detailed design schedule that is provided by the consultant.**

The RFP process and project will be governed according to the above schedule or other schedule provided by the Consultant and approved by the Toronto Zoo. Although every attempt will be made to meet all dates listed, the Toronto Zoo reserves the right to modify any or all dates at its sole discretion. Appropriate notice of change will be provided, in

writing, as soon as is feasible so that each Proponent will be given the same non-preferential treatment.

Upon award of the contract, the selected firm will enter into an agreement for Architectural and Engineering Services with the Zoo, incorporating the terms and conditions of the Request for Proposal and the proponent proposal.



## 15.0 PROPOSAL TERMS AND PROVISIONS

The successful Proponent shall be retained through a contractual agreement and/or a purchase order, which includes the terms and conditions of this Request for Proposal.

### 15.1 Consultant's Liability and Indemnity

The Consultant will from time to time at all times hereafter well and truly save, defend and keep harmless and fully indemnify the Board, the City of Toronto, and the Toronto and Region Conservation Authority and each of their officers, employees and agents (hereinafter called the "Toronto Indemnities") of, from and against all manner of action, suits, claims, executions and demands which may be brought against or made upon the Toronto Indemnities or any of them and of, from and against all loss, costs, charges, damages, liens and expenses which may be sustained, incurred or paid by the Toronto Indemnities, their officers, employees and agents or any of them by reason of or on account of or in consequence of the execution of this agreement or provision of the business or any other work or matter to be carried out or performed by the Proponent with respect to the Request for Proposal or any agreement that may result from the request for proposal process, and/or the non-execution or imperfect or improper execution thereof and will pay to the Toronto Indemnities on demand any loss, costs, damages and expenses which may be sustained, incurred or paid by the Toronto Indemnities or any of them in consequence of any such action, suit, claim, lien, execution or demand and any monies paid or payable by the Toronto Indemnities or any of them in settlement or discharge on account thereof.

The Consultant shall be responsible for any and all damages, or claims for damages for injuries or accidents done or caused by his or her employees, or resulting from the prosecution of the Work, or any of their operations, or caused by reason of the existence of location or condition of the works, or of any materials, plant or machinery used thereon or therein, or which may happen by reason thereof, or arising from any failure, neglect or omission on their part, or on the part of any of their employees to do or perform any or all of the several acts or things required to be done by him or them under and by these General Conditions, and covenants and agrees to hold the Board, the Toronto and Region Conservation Authority and the City of Toronto, their officers, agents, employees, Consultants and invitees harmless and indemnified for all such damages and claims for damage; and in case of the Consultant's failure, neglect or omission to observe and perform faithfully and strictly, all the provisions of the Work, the CEO may, either with or without notice (except where in these Contract Requirements, notice is specially provided for, and then upon giving the notice therein provided for), take such steps, procure such material, plant trucks and men, and do such work or things as he/she may deem advisable toward carrying out and enforcing the same and any such action by the CEO as he is herein empowered to take, shall not in any way relieve the Consultant or his/her surety from any liability under the Contract.

## 15.2 Incurred costs

The Proponent shall bear all costs and expenses with respect to the preparation and submission of its Proposal and the Proponent's participation in the proposal process (the "Proposal Costs"), including but not limited to: all information gathering processes, interviews, preparing responses to questions or requests for clarification from the Board and contract discussions and negotiations.

The Toronto Zoo shall not be responsible for or liable to pay any Proposal Costs of any Proponent regardless of the conduct or outcome of the Proposal Request, Purchase Order process, or Contract process.

- The RFP does not constitute an offer or tender by the Toronto Zoo. Receipt of Proposals by the Toronto Zoo pursuant to this RFP or selection or notification confers no rights under any Proposal nor obligates the Toronto Zoo in any manner whatsoever.

## 15.3 Liability of Errors

While the Toronto Zoo has used considerable efforts to ensure an accurate representation of information in this Request for Proposal, the information contained in this Request for Proposal is supplied solely as a guideline for Proponents. The information is not guaranteed or warranted to be accurate by the Toronto Zoo, nor is it necessarily comprehensive or exhaustive. Nothing in this Request for Proposal is intended to relieve Proponents from forming their own opinions and conclusions with respect to the matters addressed in this Request for Proposal.

## 15.4 Toronto Zoo Rights and Options Reserved:

The Toronto Zoo reserves the right to award the contract to any proponent who will best serve the interest of the Toronto Zoo. The Toronto Zoo reserves the right, in its sole discretion, to exercise the following rights and options with respect to the proposal submission, evaluation and selection process under this RFP:

- (a) To reject any or all proposals.
- (b) To re-issue this RFP at any time prior to award of work.
- (c) To cancel this RFP with or without issuing another RFP.
- (d) To supplement, amend, substitute or otherwise modify this RFP at any time prior to the selection of one or more proponents for negotiation.
- (e) To accept or reject any or all of the items in any proposal and award the work in whole or in part.
- (f) To waive any informality, defect, non-responsiveness and/or deviation from this RFP and its requirements.
- (g) To permit or reject at the Toronto Zoo's sole discretion, amendments (including information inadvertently omitted), modifications, alterations and/or corrections of proposals by some or all of the proponents following proposal submission.
- (h) To request that some or all of the proponents modify proposals based upon the Toronto Zoo's review and evaluation.
- (i) To request additional or clarifying information or more detailed information from any Proponent at any time, before or after proposal submission, including information inadvertently omitted by the proponent.

### 15.5 Cancellation

Nothing herein shall be construed as giving the Proponent the right to perform the services contemplated under this agreement beyond the time when such services become unsatisfactory to the Toronto Zoo; and in the event that the Proponent shall be discharged before all the services contemplated hereunder have been completed or the services are for any reason terminated, stopped or discontinued because of the inability of the Proponent to serve under this agreement, the Proponent shall be paid only for the portion of the work which shall have been satisfactorily completed at the time of termination.

### 15.6 Ownership and Confidentiality of Board-Provided Data

All correspondence, documentation and information provided by the Toronto Zoo staff to any bidder or prospective Bidder in connection with, or arising out of this RFP, the services or acceptance of the RFP:

- 9.1.1 is and shall remain the property of the Board;
- 9.1.2 must be treated by Proponents and Prospective Proponents as confidential;
- 9.1.3 must not be used for any purpose other than for replying to this RFP, and for fulfillment of any related subsequent agreement.

### 15.7 Copyright:

The final product and related materials from the work is to be for the exclusive use of the Toronto Zoo. The Toronto Zoo shall be the only and sole owner of the product and related materials for the sole and unfettered use by the Toronto Zoo. Upon payment of the said product and related materials by the Toronto Zoo, the successful bidder shall have no hold, proprietary claim, ownership, use of any kind, intellectual or otherwise nor shall there be any restrictions placed on the final product and related products by the successful bidder. By submitting a Proposal in this response to this RFP, the Bidder shall thereby acknowledge and agrees that the Toronto Zoo has exclusive ownership and sole and unfettered use of this final product and related products.

### 15.8 Ownership and Disclosure of Proposal Documentation

The documentation composing any Proposal submitted in response to this RFP, along with all correspondence, documentation and information provided to the Toronto Zoo by any Bidder in connection with, or arising of this RFP, once received by the Toronto Zoo:

- Shall become property of the Toronto Zoo and may be appended to purchase order issued to the successful Bidder;
- Shall be come subject to the Municipal *Freedom of Information and Protection of Privacy Act ("MFIPPA")* and may be released pursuant to that Act

Because of *MFIPPA*, prospective Bidders are advised to identify in their Proposal material any scientific, technical, commercial, proprietary or similar confidential information, the disclosure of which could cause them injury.

Each Bidder's name shall be made public. Proposals will be made available to member of the Board on a confidential basis and may be released to members of the public pursuant to *MFIPPA*.

### **15.9 Conflict of Interest Statement**

In its Proposal, the Proponent must disclose to the Toronto Zoo any potential conflict of interest that might compromise the performance of the Work. If such a conflict of interest does exist, the Toronto Zoo may, at its discretion, refuse to consider the Proposal.

The Proponent must also disclose whether it is aware of any Toronto Zoo employee, member of board, agency or commission or employee thereof having a financial interest in the Proponent and the nature of that interest. If such an interest exists or arises during the evaluation process or the negotiation of the Agreement, the Toronto Zoo may, at its discretion, refuse to consider the Proposal or withhold the awarding of any agreement to the Proponent until the matter is resolved to the Toronto Zoo's sole satisfaction.

Proponents are cautioned that the acceptance of their Proposal may preclude them from participating as a Proponent in subsequent projects where a conflict of interest may arise. The Consultant(s) for this project may participate in subsequent/other Toronto Zoo projects provided the Consultant(s) has (have) satisfied pre-qualification requirement of the Toronto Zoo, if any and in the opinion of the Toronto Zoo, no conflict of interest would adversely affect the performance and successful completion of an Agreement by the Consultant(s).

If, during the Proposal evaluation process or the negotiation of the Agreement, the Proponent is retained by another client giving rise to potential conflict of interest, then the Proponent will so inform the Toronto Zoo. If the Toronto Zoo requests, then the Proponent will refuse the new assignment or will take steps as are necessary to remove the conflict of interest concerned.

### **15.10 No Collusion**

A proponent shall not discuss or communicate, directly or indirectly, with any other Proponent or their agent or representative about the preparation of the Proposals, Each proponent shall attest by virtue of signing the Proposal Submission Form that its participation in the RFP process is conducted without any collusion or fraud. If the Toronto Zoo discovers there has been a breach of this requirement at any time, the Toronto Zoo reserves the right to disqualify the Proposal or terminate any ensuing Agreement.

### **15.11 Governing Law**

This RFP and any quotation submitted in response to it and the process contemplated by this RFP including any ensuing Agreement shall be governed by the laws of the Province of Ontario. Any dispute arising out of this RFP or this RFP process will be determined by a court of competent jurisdiction in the Province of Ontario

**16.0 PROPOSAL FORM**

The undersigned Proponent having reviewed and fully understood the RFP and all terms and requirements of the RFP and all terms and conditions of the RFP and information provided, hereby submits the attached Proposal and supporting materials (“the Proposal”) in accordance.

I/We, hereby, have received, allowed for and included as part of our submission all issued Addendum numbered \_\_\_\_\_.

The Board of Management of the Toronto Zoo reserves the right to reject any or all Proposals or to accept any Proposal, should it deem such action to be in its interests.

By submitting a Proposal the Proponent agrees to all of the terms and conditions of this Request for Proposal.

By signing and submitting this proposal, you are agreeing to the release of your proposal information, as deemed necessary by the Board, in order to conduct business associated with this proposal or project.

<b>COMPANY INFORMATION</b>	
Company Name:	
Name of authorized Signing Officer	Title:
Signature:	Date:
Contact Name:	Title:
Address:	
Telephone #:	Fax #:
Email:	Web Site:
HST #:	

<b>DISCOUNT</b>	<b>Discount</b>	<b>Days</b>
Discount allowed for prompt payment and period within which invoice must be paid to qualify.	%	

**NOTICE OF NO BID  
INSTRUCTIONS:**

Notes: Software costs to be broken down on a separate pricing sheet or on Appendix II and Appendix III if applicable. Software costs to clearly indicate initial fees, subscription cost, maintenance cost, and support fees if applicable. If needed, please provide a separate pricing sheet showing the cost of individual “modules” that must be purchase by the Zoo to satisfy the Secondary Requirements. The proponent shall also clearly indicate if pricing varies by number of users and/or type of user.

<b>A Proposal/Quotation/Tender is not submitted for the following reason(s):</b>		
	Project/quantity too large.	Project/quantity too small.
	We do not offer services or commodities to these requirements	Cannot meet delivery or completion requirement
	We do not offer this service or commodity.	Agreements with other company do not permit us to sell directly.
	Cannot handle due to present commitments.	Licensing restrictions
	Unable to bid competitively.	We do not wish to bid on this service or commodity in the future.
	Insufficient information to prepare quote/proposal/tender	Specifications are not sufficiently defined
	We are unable to meet bonding or insurance requirements.	

<u>Other reasons or additional comments (please explain):</u>

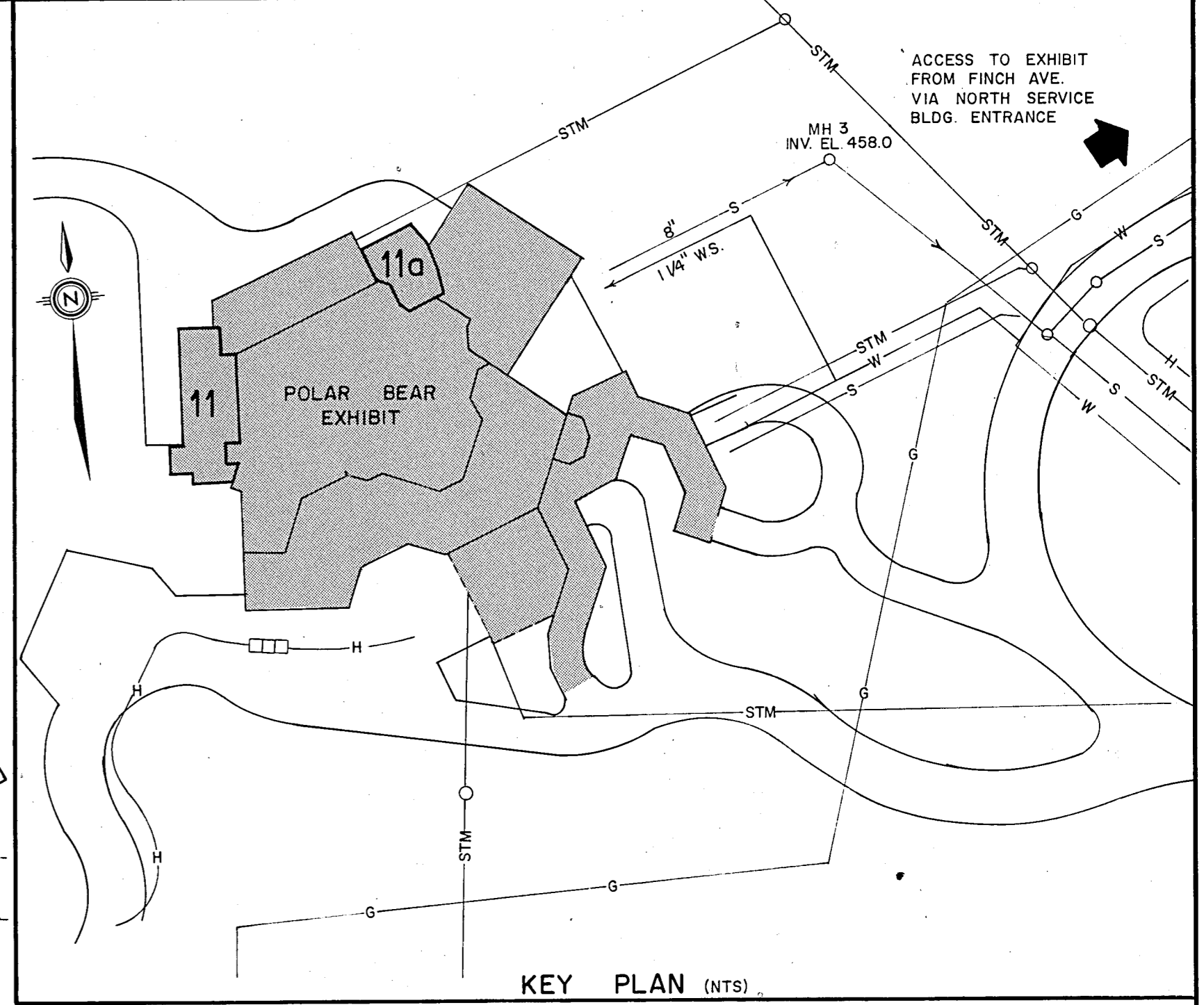
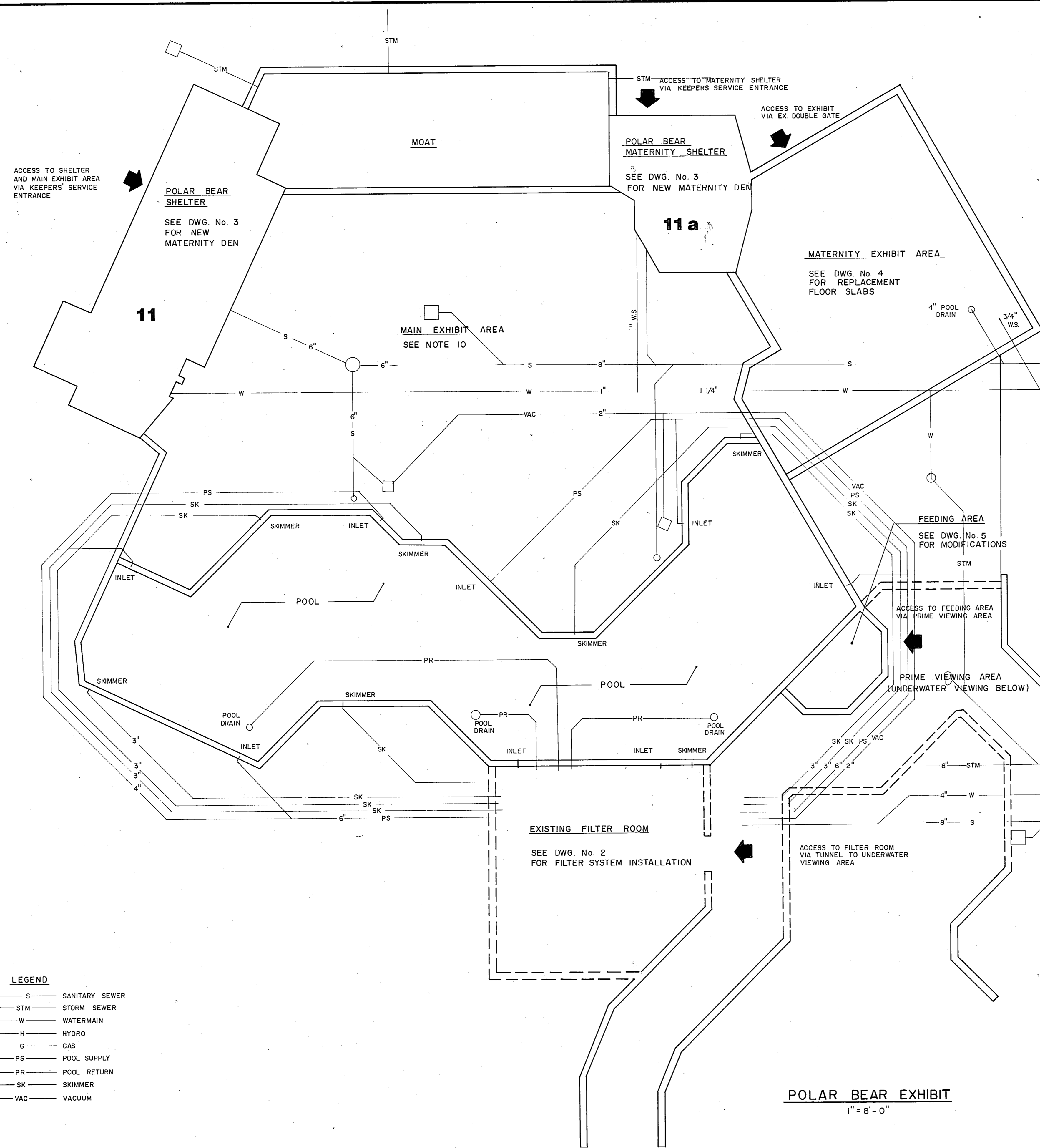
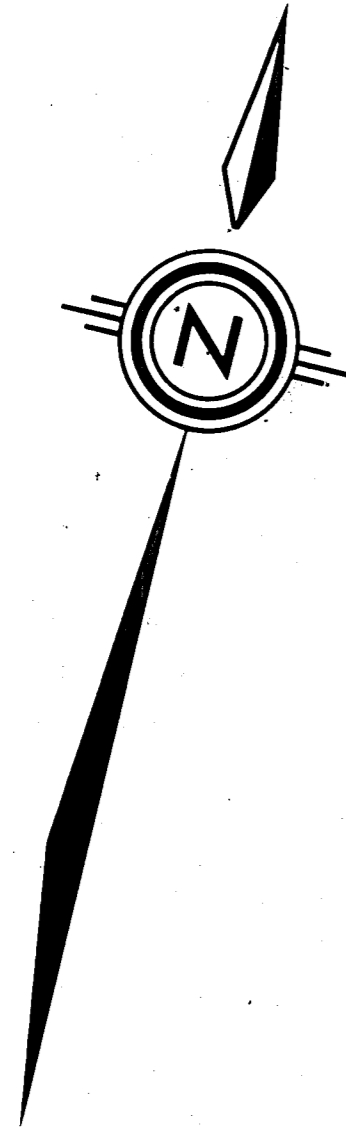
Company Name:	
Address	
Contact Person:	
Signature of Company Representative:	
Date:	
Phone Number:	
Email address	
Fax Number:	

**FEE PROPOSAL FORM**

<b>Proponent Name</b>				
	<b>FEES</b>	<b>DISBURSEMENTS</b>	<b>HST</b>	<b>TOTAL</b>
<b>Detailed Design and Tender</b>				
<b>Construction Administration and Commissioning</b>				
<b>Daily Rate For Resident Site Inspection (if requested)</b>				
<b>TOTAL COSTS</b>				









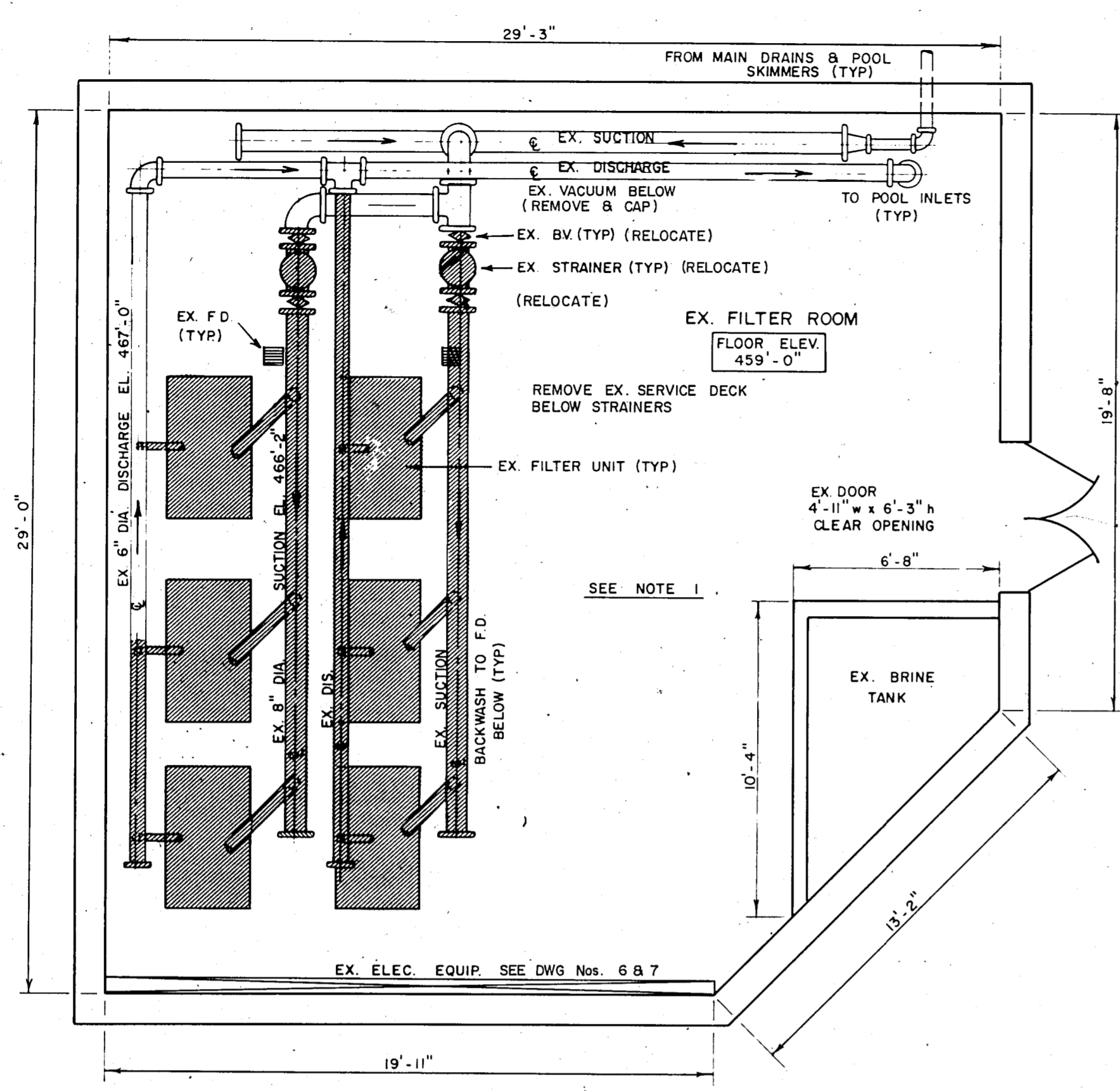
- NOTES**
- (1) ALL WORK TO BE PERFORMED AS PER THE SPECIFICATIONS.
  - (2) SEE SECTION 1 FOR GENERAL INFORMATION AND REQUIREMENTS.
  - (3) PERFORM SITE PREPARATION, REMOVALS AND CLEANUP AS PER SECTION 2.
  - (4) PERFORM FILTER SYSTEM INSTALLATION AS PER SECTION 3. SEE DWG. No. 2.
  - (5) CONSTRUCT MATERNITY DENS AS PER SECTION 4. SEE DWG. No. 3.
  - (6) MODIFY FEEDING AREA AND REPAIR AND/OR REPLACE EXTERIOR CONCRETE SLABS IN EXHIBIT AREAS AS PER SECTION 5. SEE DWG. Nos. 4 & 5.
  - (7) PERFORM REFINISHING AND PAINTING, AND RESTORATION WORKS AS PER SECTIONS 6 & 7.
  - (8) PERFORM ELECTRICAL WORKS AS PER SECTION 8. SEE DWG. Nos. 6 & 7.
  - (9) PERFORM ALL OTHER RELATED WORKS AND CONTINGENCY WORKS AS DIRECTED BY THE ENGINEER.
  - (10) A CASH ALLOWANCE HAS BEEN INCLUDED FOR MAIN EXHIBIT AREA SLAB REPAIRS. SEE SECTIONS 5 AND 9 OF THE SPECIFICATIONS.

**LEGEND**

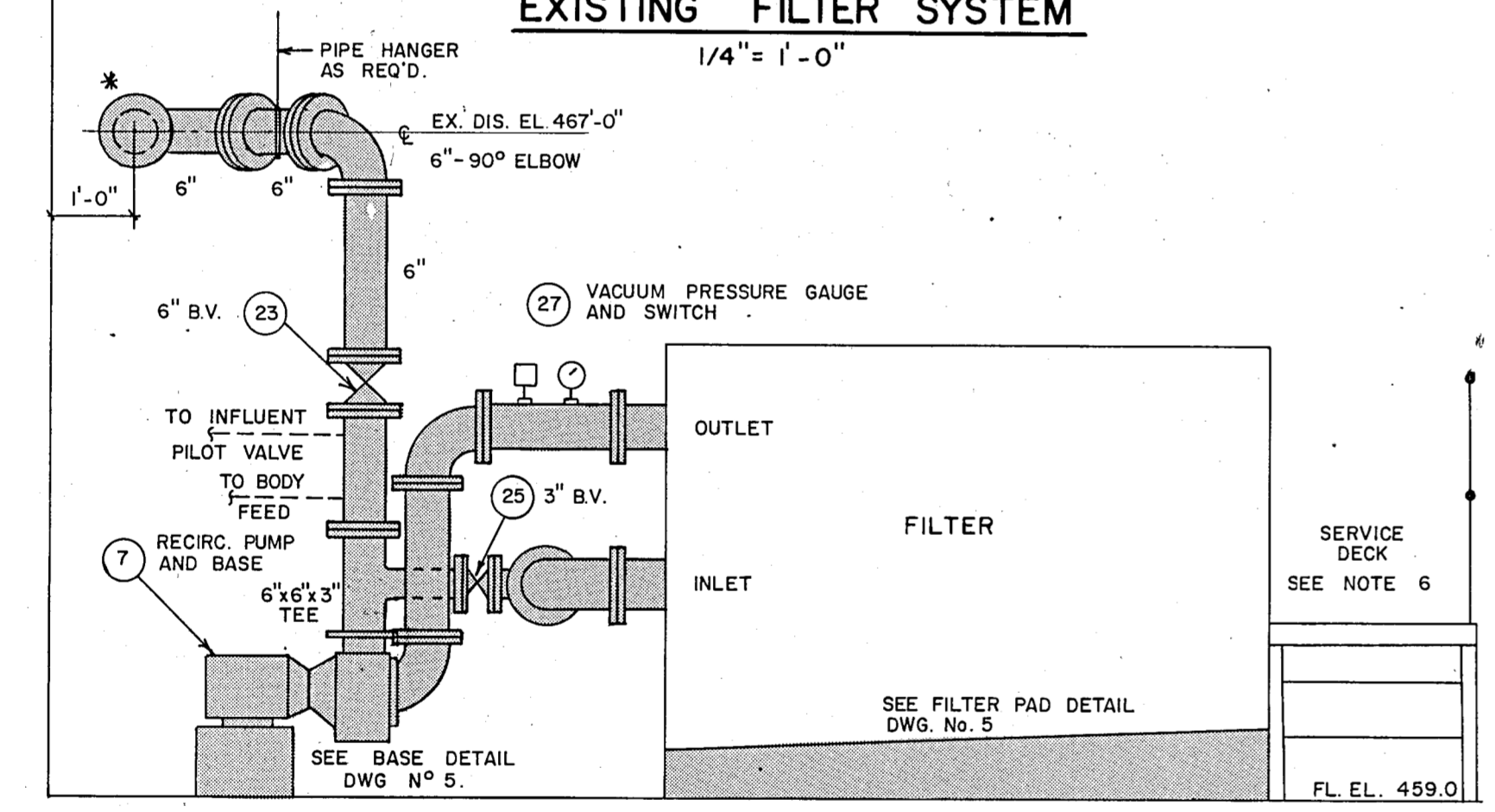
— S —	SANITARY SEWER
— STM —	STORM SEWER
— W —	WATERMAIN
— H —	HYDRO
— G —	GAS
— PS —	POOL SUPPLY
— PR —	POOL RETURN
— SK —	SKIMMER
— VAC —	VACUUM

**POLAR BEAR EXHIBIT**  
1" = 8'-0"

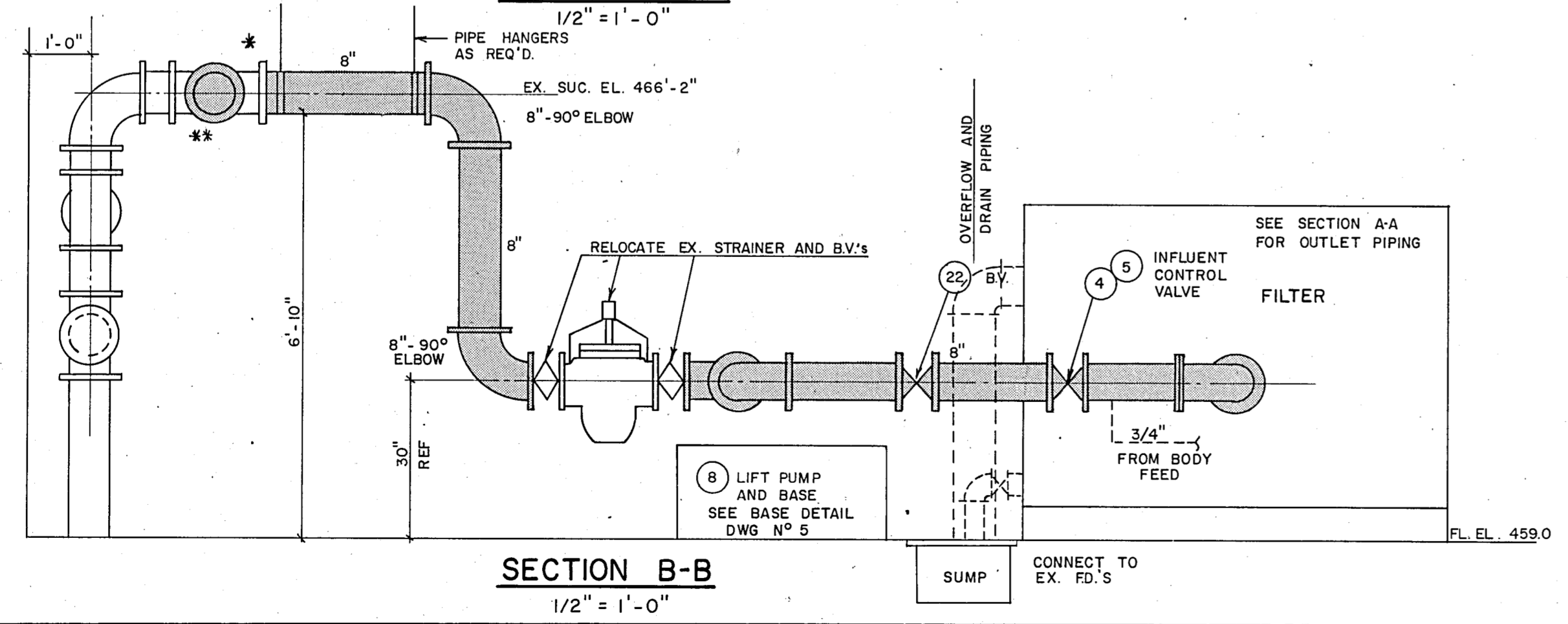
No.	REVISIONS	DATE	 <p>MR. R. G. BUNDY COMMISSIONER OF PARKS AND PROPERTY</p>	<p>MUNICIPALITY OF METROPOLITAN TORONTO PARKS AND PROPERTY DEPARTMENT</p> <p>METRO TORONTO ZOO</p>	<p>POLAR BEAR EXHIBIT RETROFIT</p> <p>SITE REFERENCE PLAN</p>	 <p>C. J. HARTLEY REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO</p>	<p>CHISHOLM, FLEMING AND ASSOCIATES CONSULTING ENGINEERS</p>	SCALE	DATE
									AS SHOWN
								CHECKED BY: CJH.	1



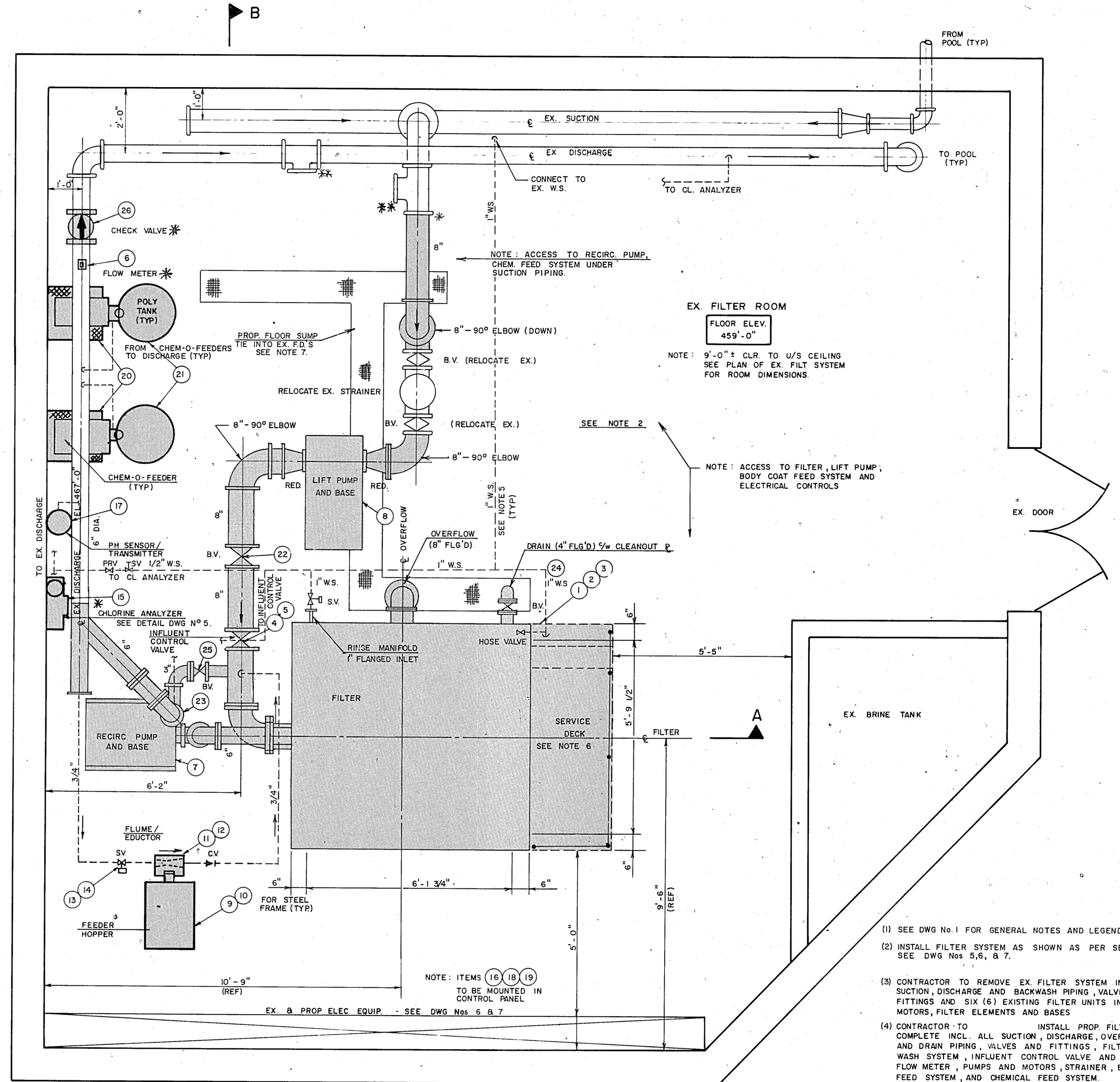
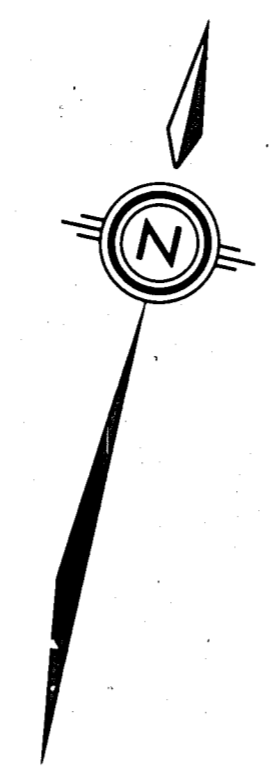
**PLAN OF EXISTING FILTER SYSTEM**  
1/4" = 1'-0"



**SECTION A-A**  
1/2" = 1'-0"



**SECTION B-B**  
1/2" = 1'-0"



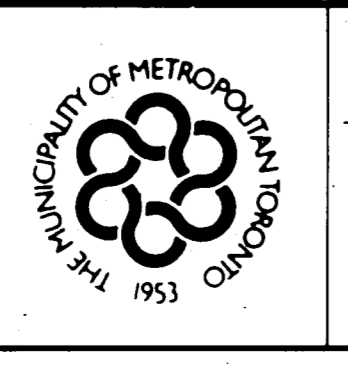
**PLAN OF PROPOSED FILTER SYSTEM**  
1/2" = 1'-0"

- (1) SEE DWG NO. 1 FOR GENERAL NOTES AND LEGEND
- (2) INSTALL FILTER SYSTEM AS SHOWN AS PER SECTION 3 SEE DWG NOS 5, 6, & 7.
- (3) CONTRACTOR TO REMOVE EX. FILTER SYSTEM INCL ALL SUCTION, DISCHARGE AND BACKWASH PIPING, VALVES AND FITTINGS AND SIX (6) EXISTING FILTER UNITS INCL. PUMPS, MOTORS, FILTER ELEMENTS AND BASES
- (4) CONTRACTOR TO INSTALL PROP. FILTER SYSTEM COMPLETE INCL. ALL SUCTION, DISCHARGE, OVERFLOW AND DRAIN PIPING, VALVES AND FITTINGS, FILTER AND WASH SYSTEM, INFLUENT CONTROL VALVE AND ACCESSORIES, FLOW METER, PUMPS AND MOTORS, STRAINER, BODY COAT FEED SYSTEM, AND CHEMICAL FEED SYSTEM.

- LEGEND**
- EX. FILTER SYSTEM TO BE REMOVED SEE NOTE 1.
  - PROP. FILTER SYSTEM TO BE INSTALLED - SEE NOTE 4.
  - PREORDERED EQUIPMENT REF. SUMMA ENG. LTD. QUOTATION NO. SE-87093-TC REV. 1
  - TIE INTO EX. SUCTION AND DISCHARGE PIPING
  - CAP OR PLUG EX. SUCTION AND DISCHARGE PIPING

- (5) INSULATE ALL NEW WATER SERVICE PIPING WITH 25mm INSULATION, VAPOUR BARRIER, LAGGING IN COATING AND BAND. JM INSULATION PRODUCTS OR APPROVED EQUAL.
- (6) CONSTRUCT SERVICE DECK OF ALUMINUM STRINGERS, GRATING, TREADS AND HANDRAIL AND BOLT TO FLOOR WITH STUD ANCHORS.
- (7) CONSTRUCT 12" WIDE BY 12" DEEP SUMP 5/8" ALUMINUM FRAME AND GRATING AND CONNECT TO EX. F.D.'S.

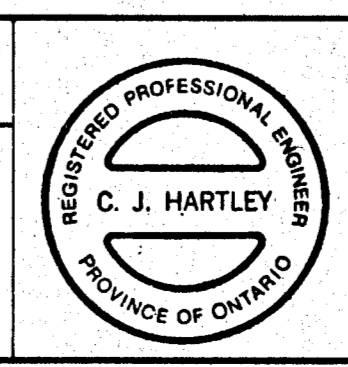
No.	REVISIONS	DATE



MR. R. G. BUNDY  
COMMISSIONER OF  
PARKS AND PROPERTY

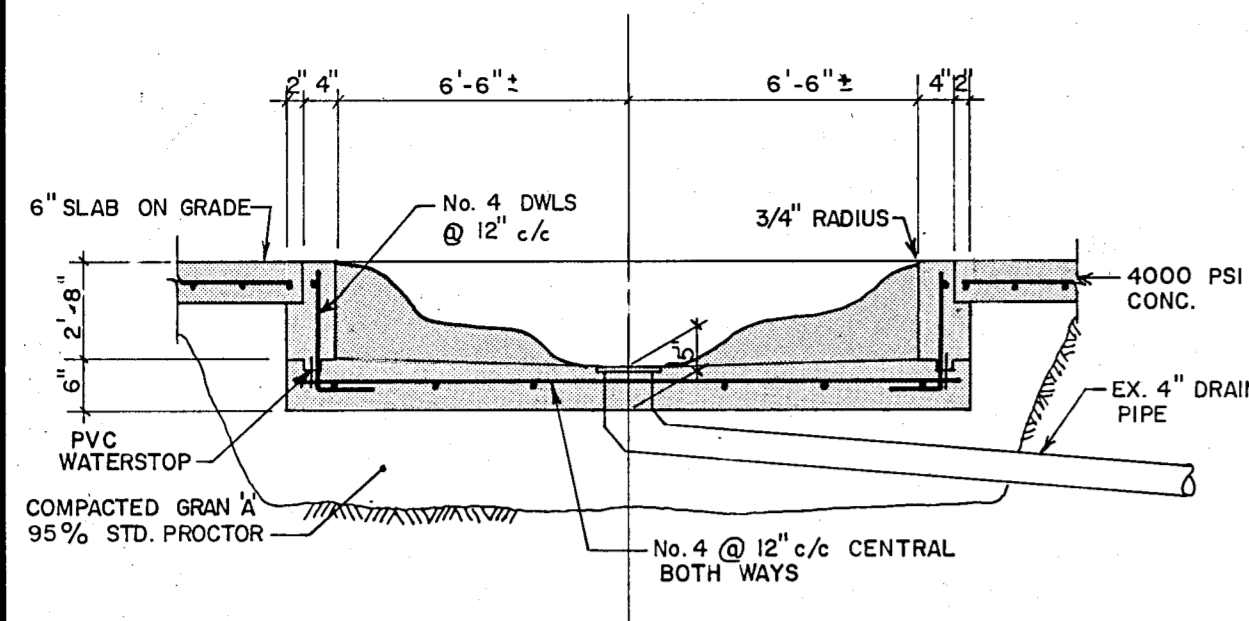
MUNICIPALITY OF METROPOLITAN TORONTO  
PARKS AND PROPERTY DEPARTMENT  
METRO TORONTO ZOO

POLAR BEAR EXHIBIT RETROFIT  
FILTER SYSTEM INSTALLATION



*C. J. Hartley*  
CHISHOLM, FLEMING  
AND ASSOCIATES  
CONSULTING ENGINEERS

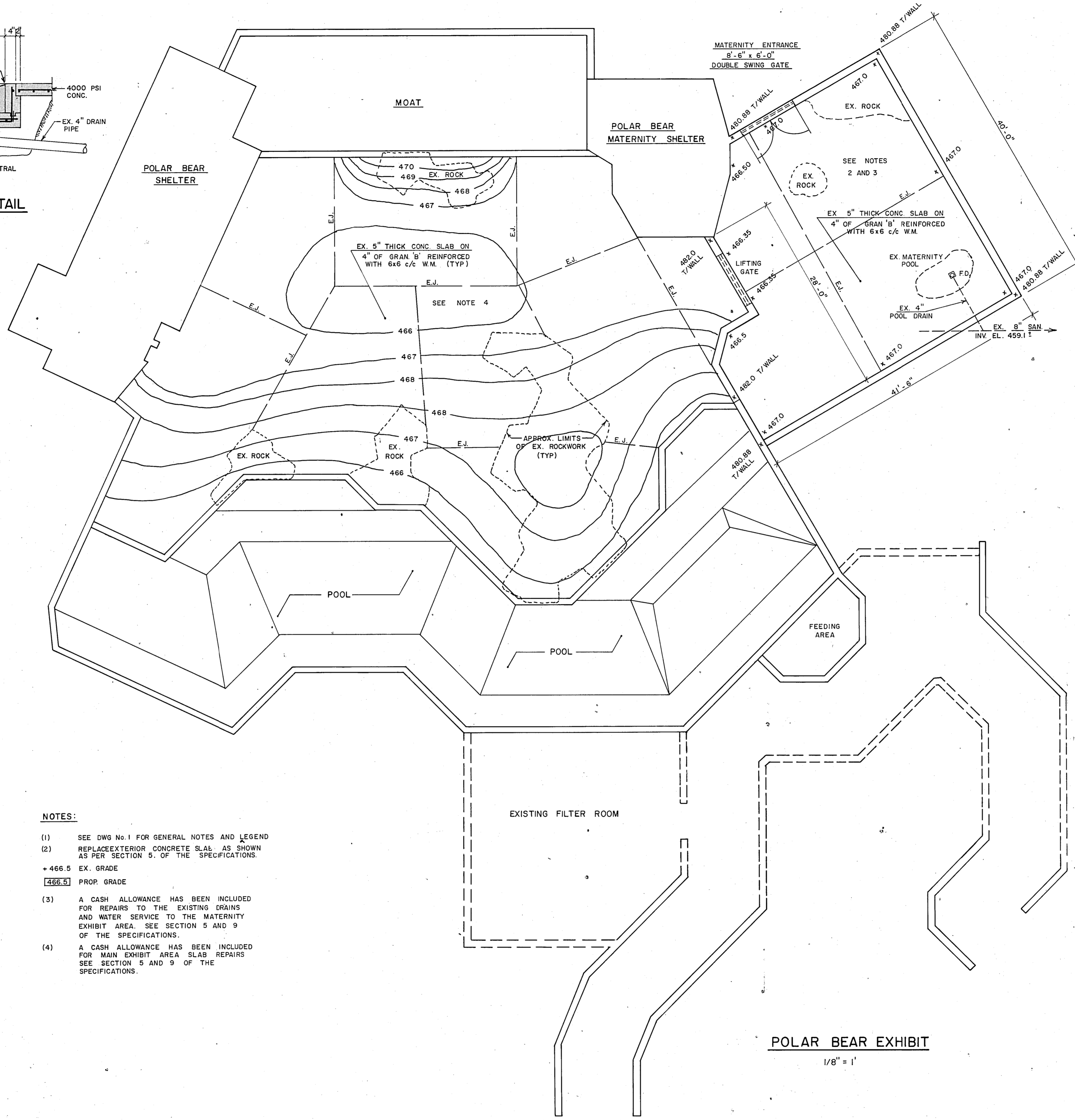
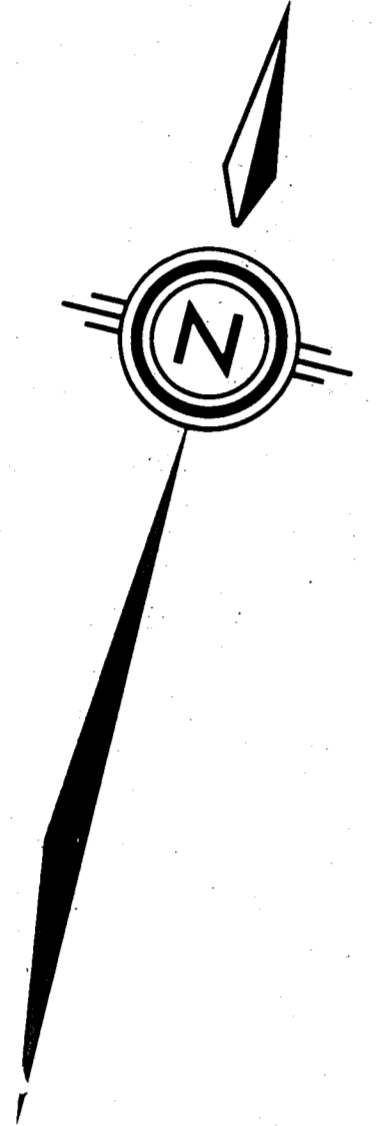
SCALE	DATE
AS SHOWN	JULY, 1987
DRAWN BY: R.C.C.	DRAWING No.
CHECKED BY: C.J.H.	2



**MATERNITY POOL DETAIL**

N.T.S.

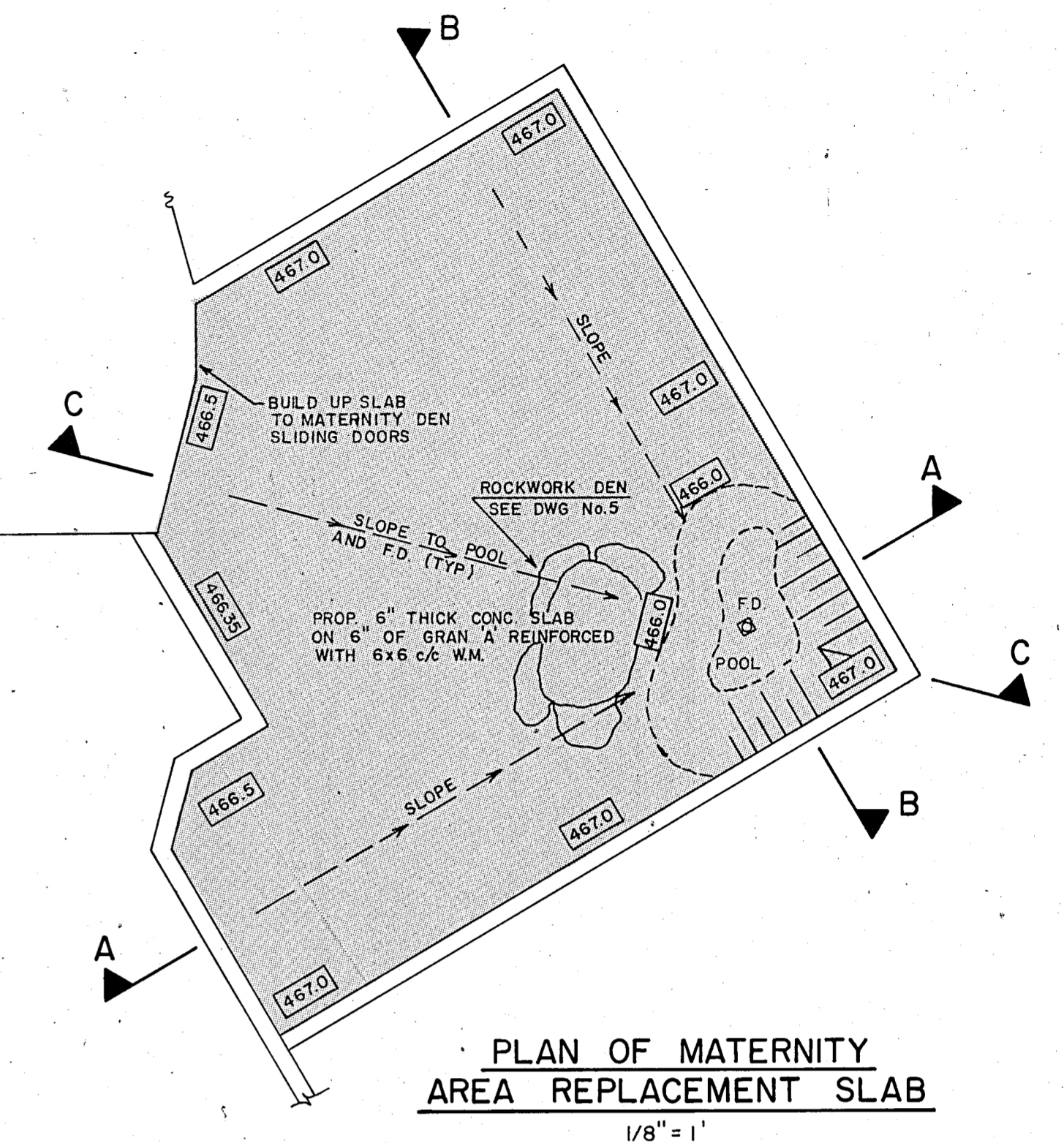
NOTE: POOL TO BE IRREGULAR SHAPE, MAXIMUM 2'-8" DEEP AND APPROX. 12 TO 14 FEET WIDE. REINFORCE UPPER LAYER WITH 6x6 c/c W.M.



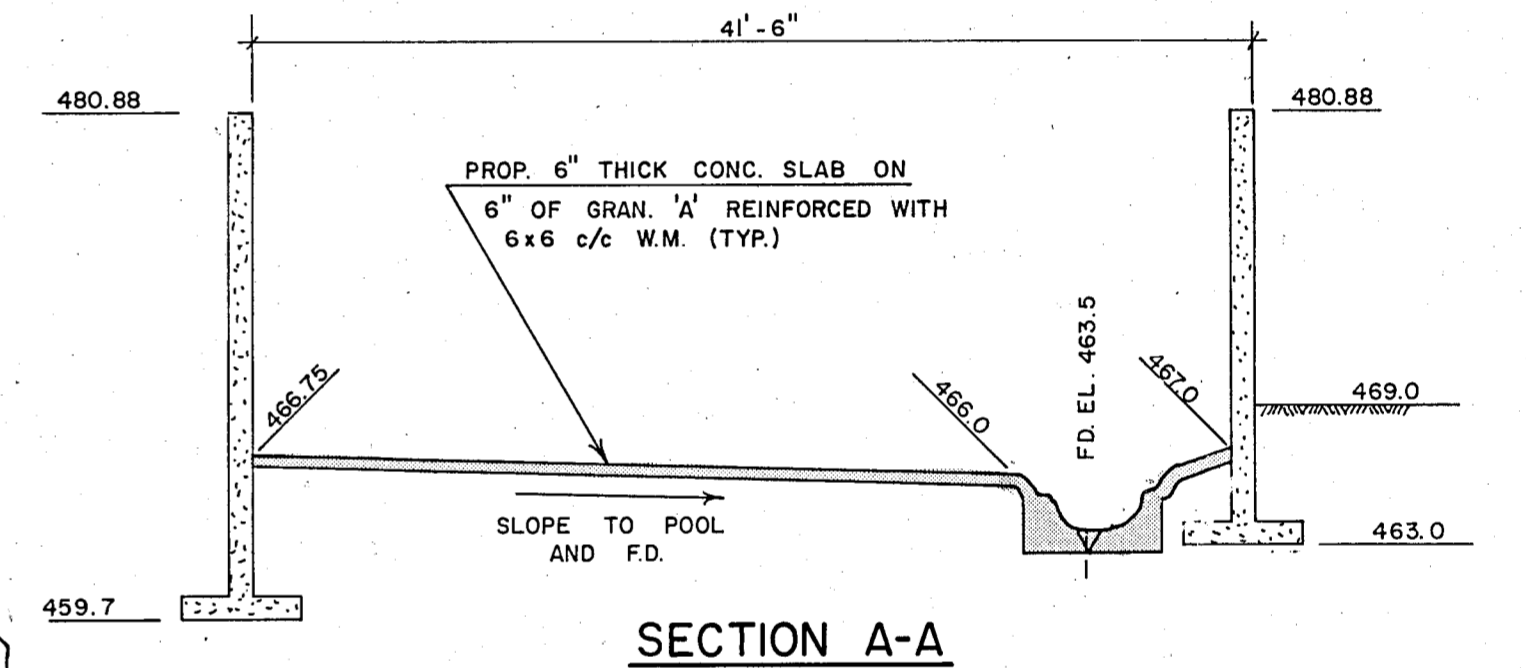
**POLAR BEAR EXHIBIT**  
1/8" = 1'

**NOTES:**

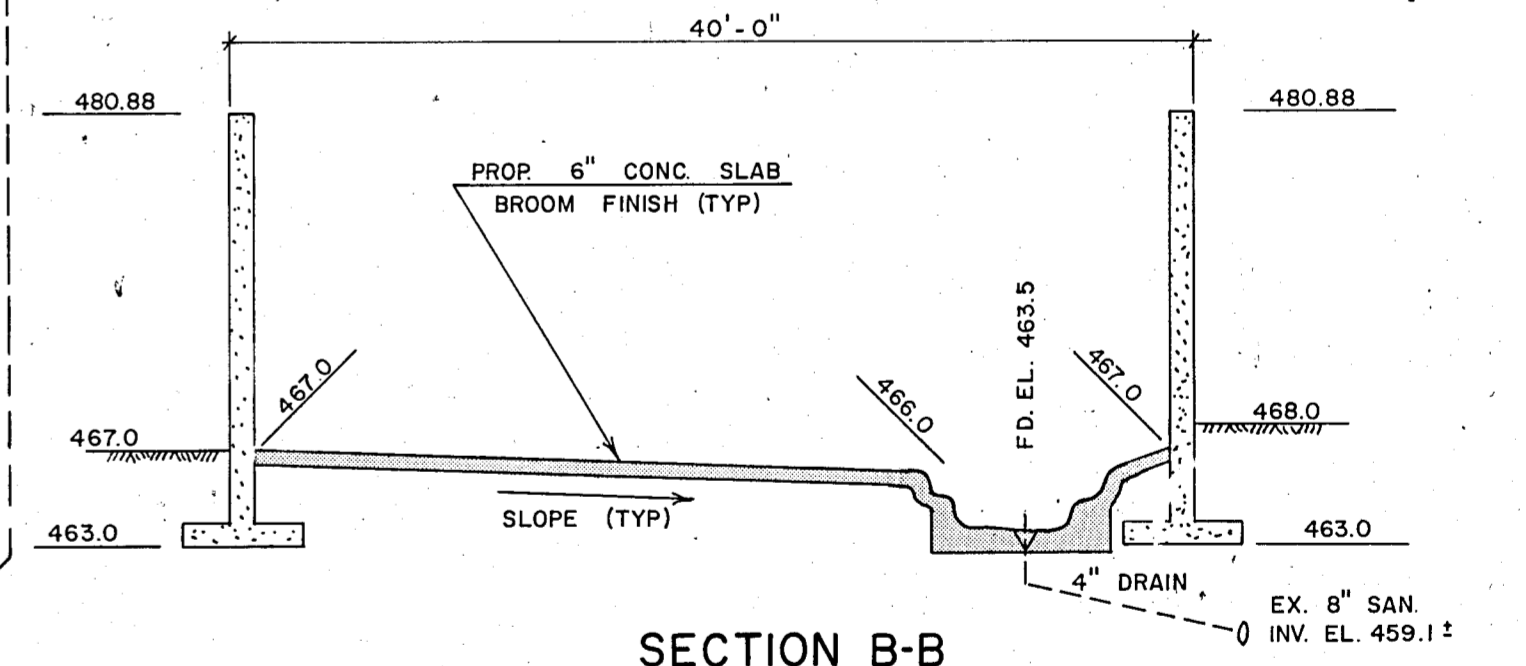
- (1) SEE DWG No. 1 FOR GENERAL NOTES AND LEGEND
- (2) REPLACE EXTERIOR CONCRETE SLAB AS SHOWN AS PER SECTION 5 OF THE SPECIFICATIONS.  
+466.5 EX. GRADE  
[466.5] PROP. GRADE
- (3) A CASH ALLOWANCE HAS BEEN INCLUDED FOR REPAIRS TO THE EXISTING DRAINS AND WATER SERVICE TO THE MATERNITY EXHIBIT AREA. SEE SECTION 5 AND 9 OF THE SPECIFICATIONS.
- (4) A CASH ALLOWANCE HAS BEEN INCLUDED FOR MAIN EXHIBIT AREA SLAB REPAIRS SEE SECTION 5 AND 9 OF THE SPECIFICATIONS.



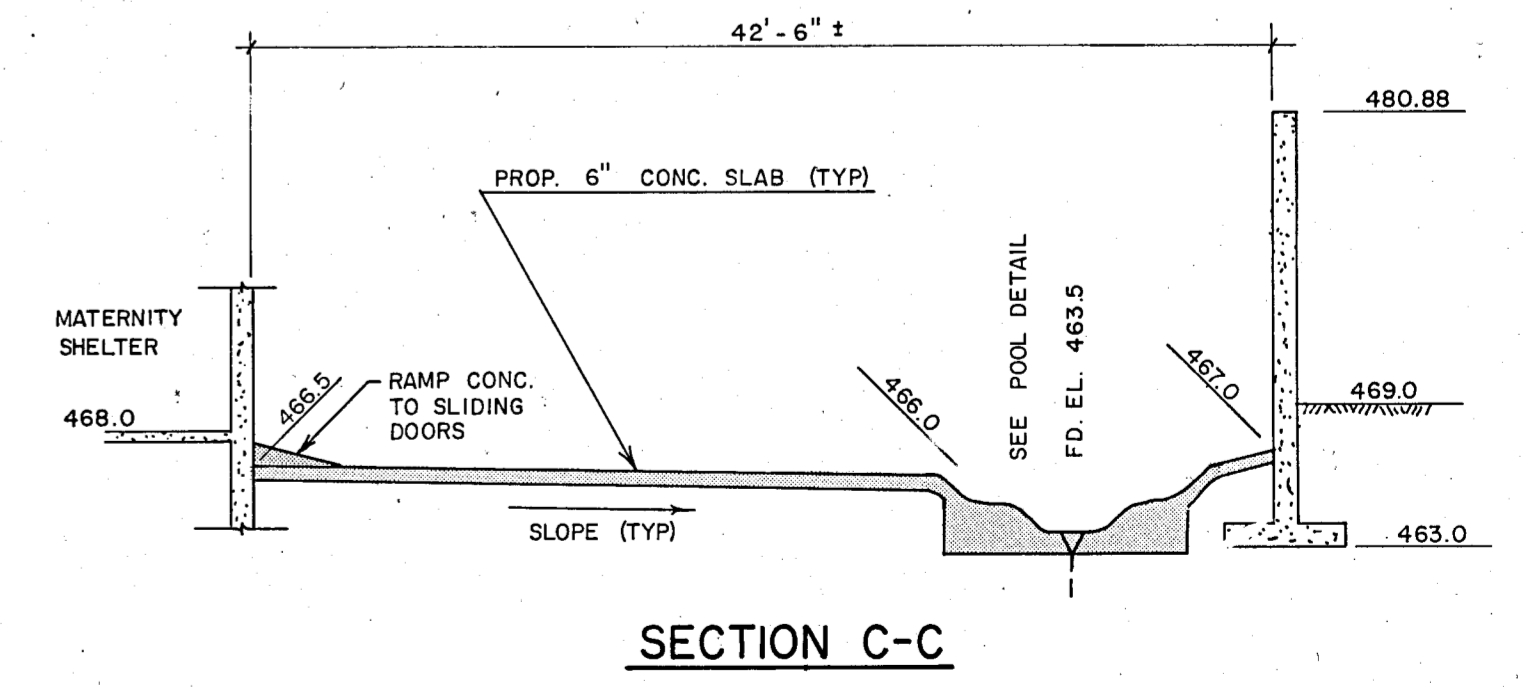
**PLAN OF MATERNITY AREA REPLACEMENT SLAB**  
1/8" = 1'



**SECTION A-A**

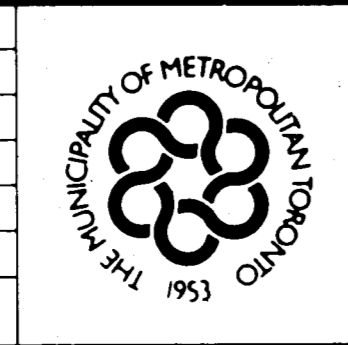


**SECTION B-B**



**SECTION C-C**

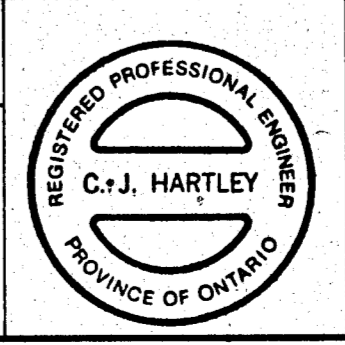
No.	REVISIONS	DATE



MR. R. G. BUNDY  
COMMISSIONER OF  
PARKS AND PROPERTY

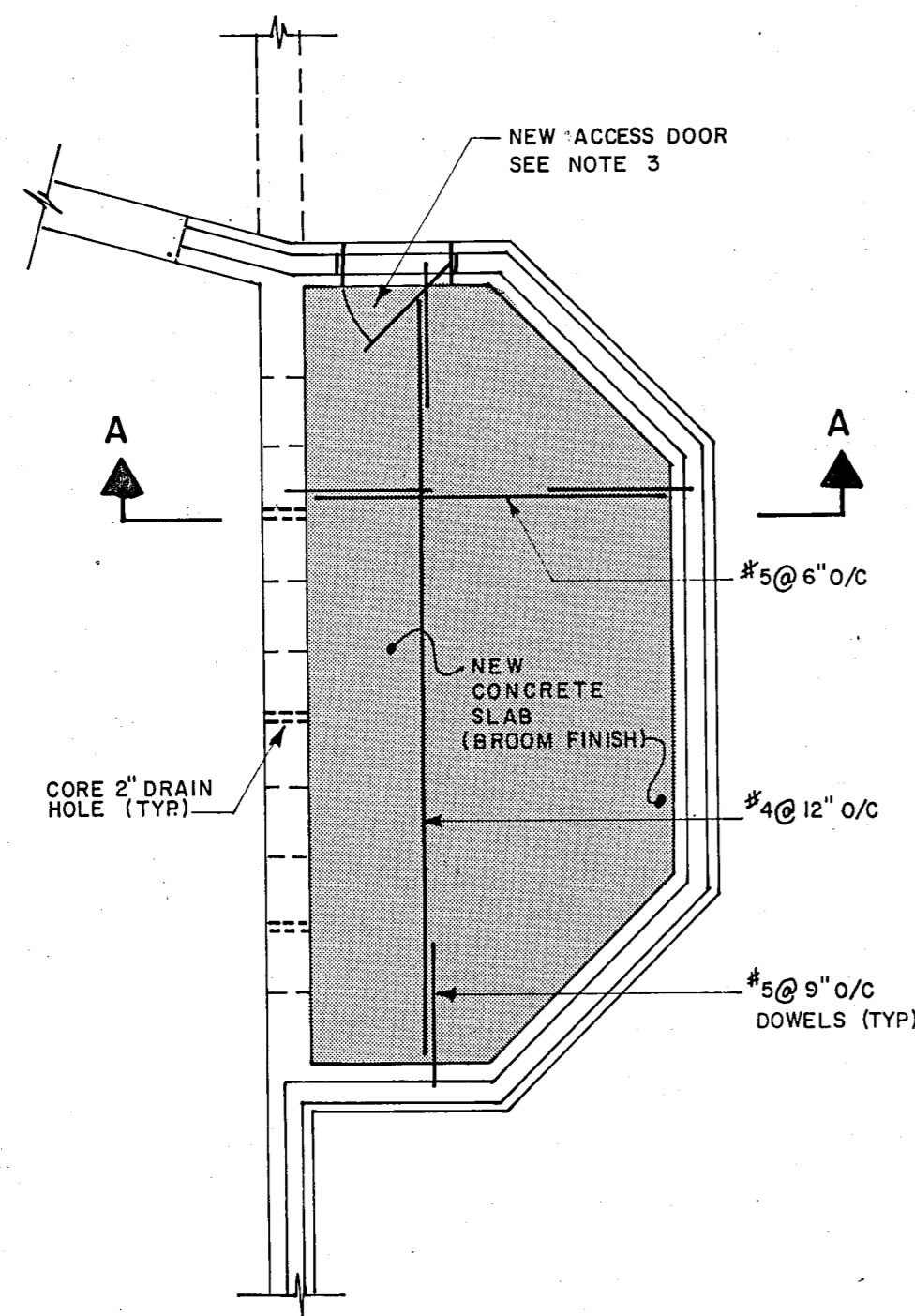
MUNICIPALITY OF METROPOLITAN TORONTO  
PARKS AND PROPERTY DEPARTMENT.  
METRO TORONTO ZOO

POLAR BEAR EXHIBIT RETROFIT  
MODIFICATIONS TO  
EXTERIOR CONCRETE SLABS

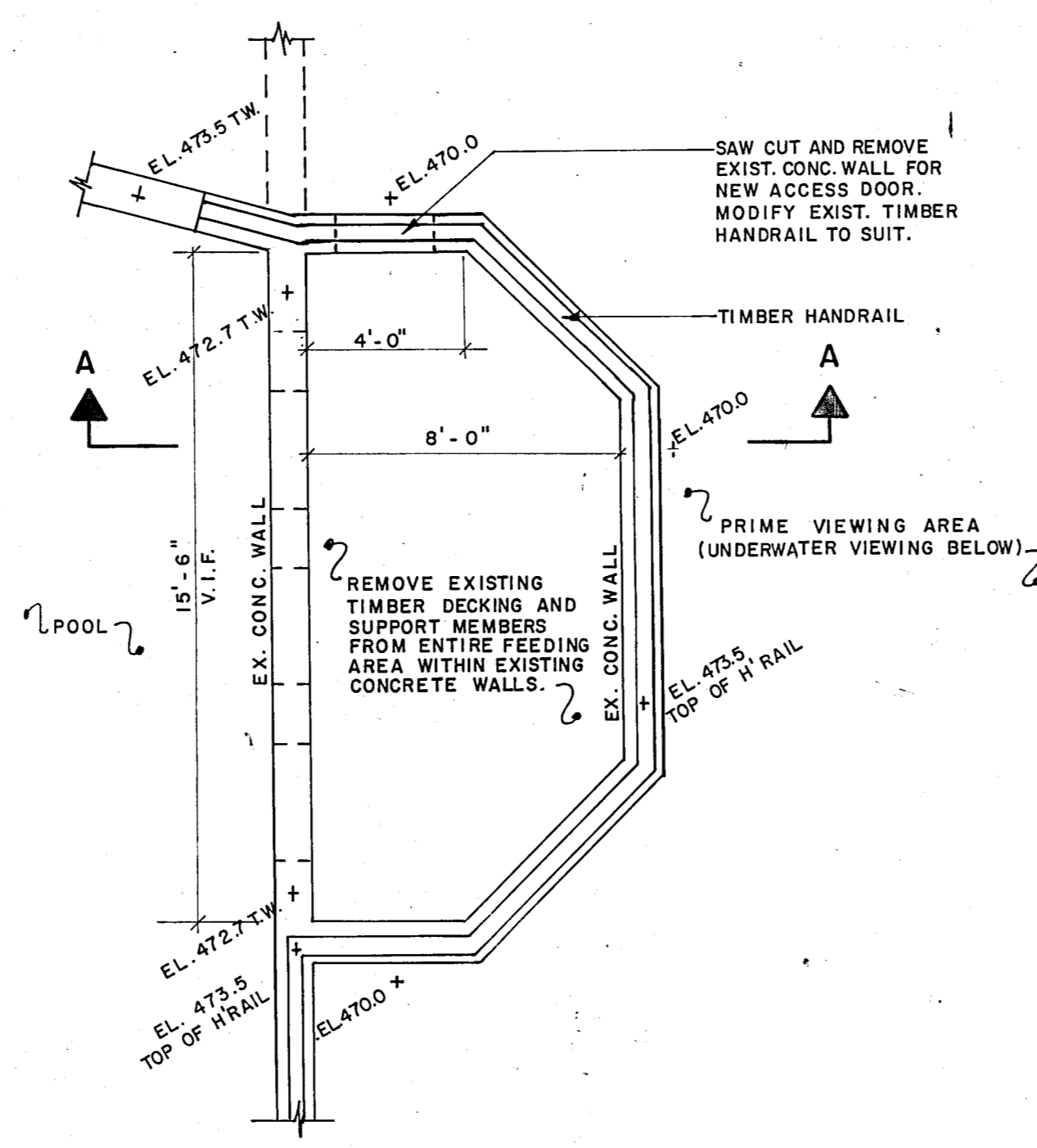


*C. J. Hartley*  
CHISHOLM, FLEMING  
AND ASSOCIATES  
CONSULTING ENGINEERS

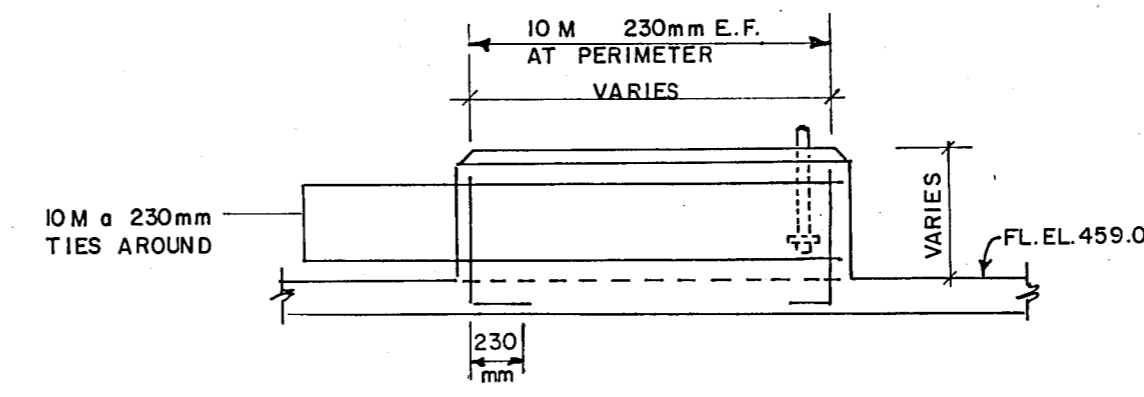
SCALE AS SHOWN	DATE JULY, 1987
DRAWN BY: RCC	DRAWING No. 4
CHECKED BY: C.J.H.	



PLAN OF NEW SOLID CONCRETE SLAB  
1/4" = 1'-0"

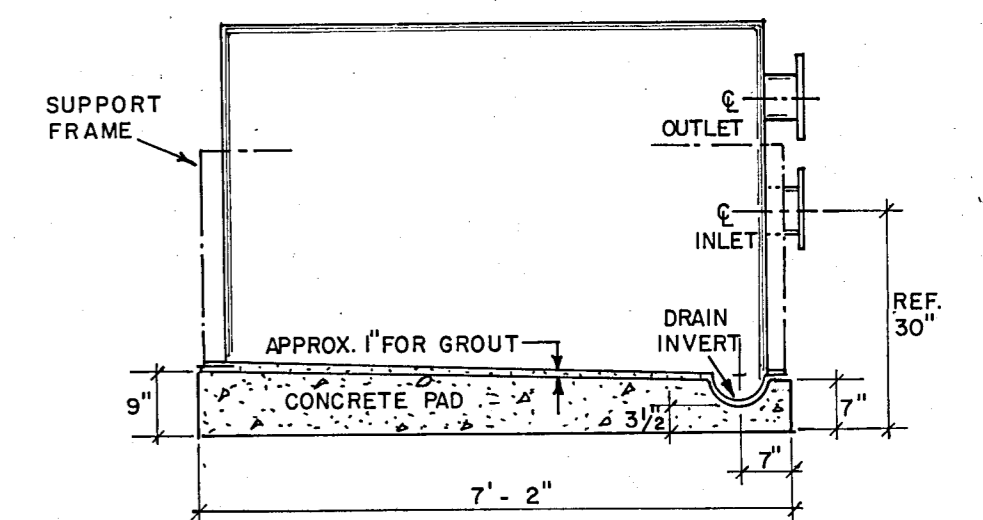


PLAN OF EXISTING FEEDING AREA  
1/4" = 1'-0"



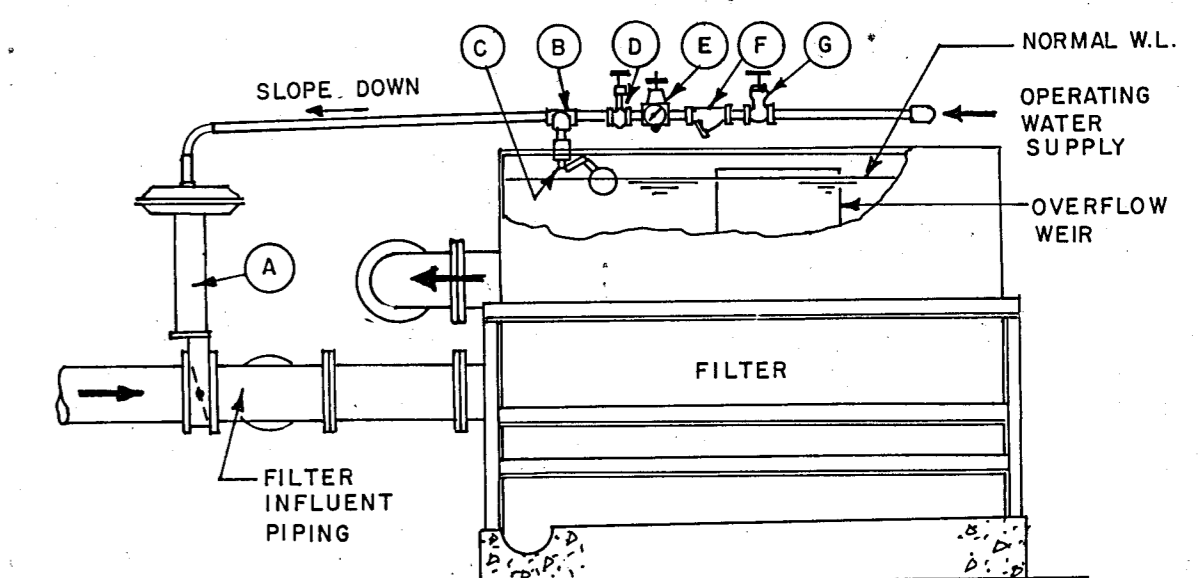
NOTE: ROUGHEN SLAB PRIOR TO POUR. DRILL & GROUT 10M DOWELS. SIZE TO SUIT PUMPS. ANCHOR BOLT TYPE, SIZE AND LOCATION TO SUIT PUMPS.

TYPICAL PUMP BASE DETAIL  
N.T.S.  
SEE DWG No. 2



FILTER PAD DETAIL

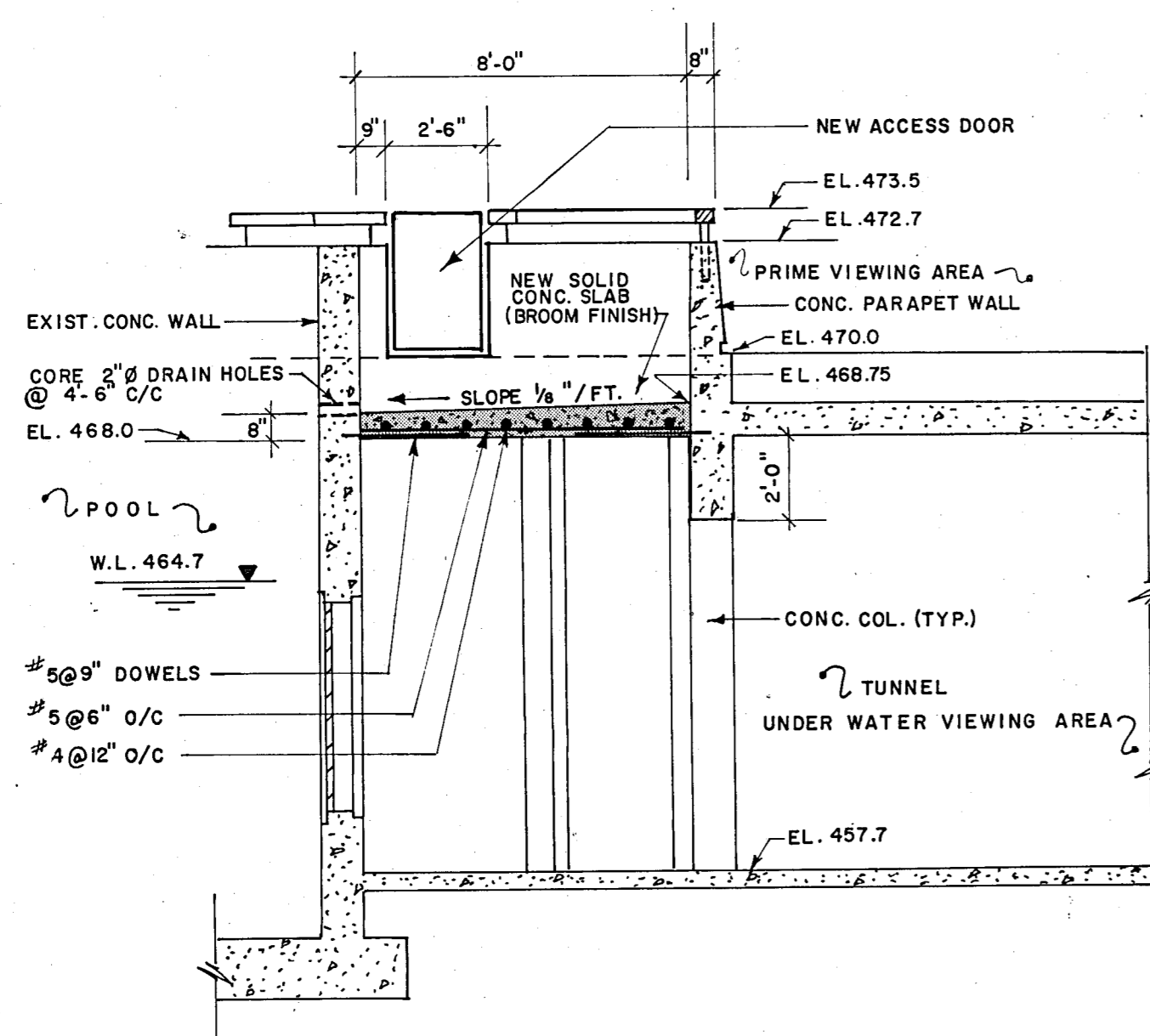
N.T.S.  
SEE DWG No. 2  
NOTE: INSTALL FILTER PAD AS PER FILTER MANUFACTURERS INSTRUCTIONS.



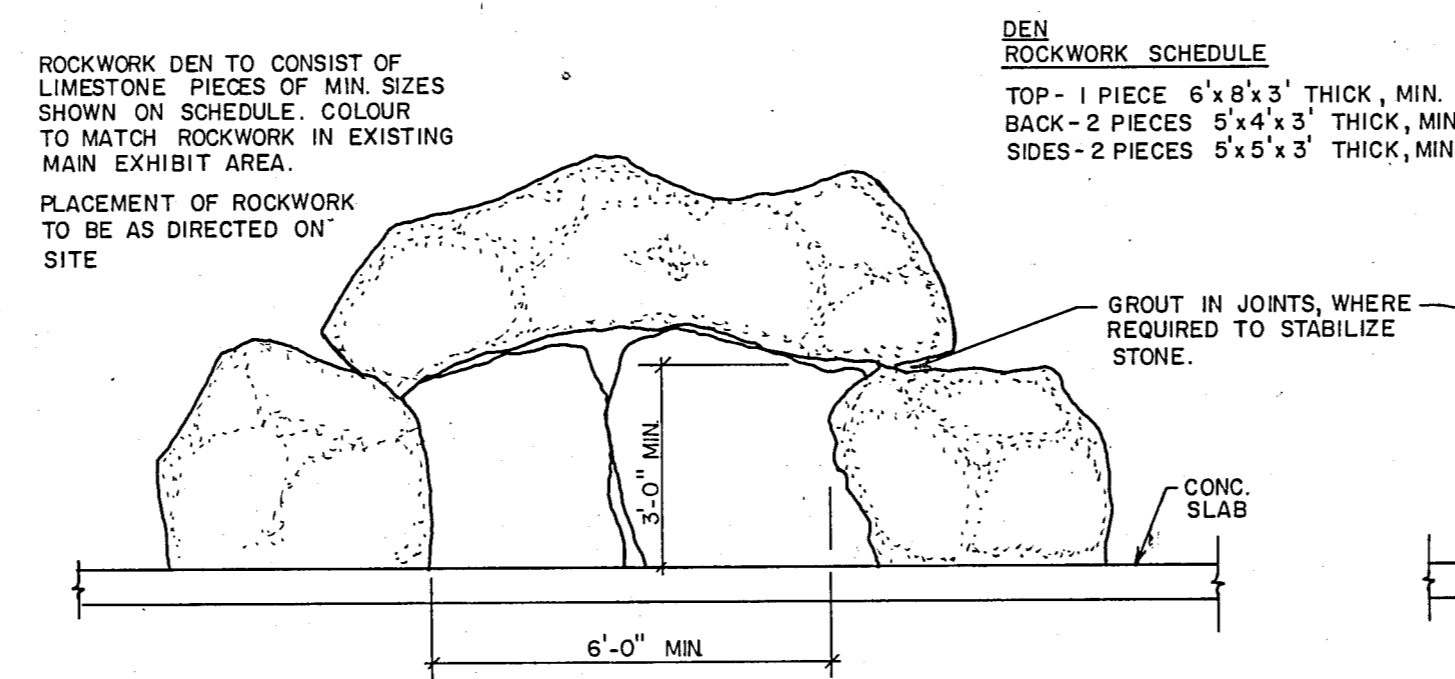
A INFLUENT CONTROL VALVE  
B - G LEVEL CONTROL SYSTEM  
NOTE: CONTRACTOR TO INSTALL LEVEL CONTROL SYSTEM AS SHOWN C/W OPERATING WATER SUPPLY

INFLUENT CONTROL VALVE AND LEVEL CONTROL SYSTEM SCHEMATIC

N.T.S.  
SEE DWG No. 2  
NOTE: INSTALL INFLUENT CONTROL SYSTEM AS PER MANUFACTURERS INSTRUCTIONS. OPERATING WATER SUPPLY FROM EXISTING WATER SERVICE AND RECIRCULATION PUMP DISCHARGE.



SECTION A-A  
1/4" = 1'-0"



ELEVATION

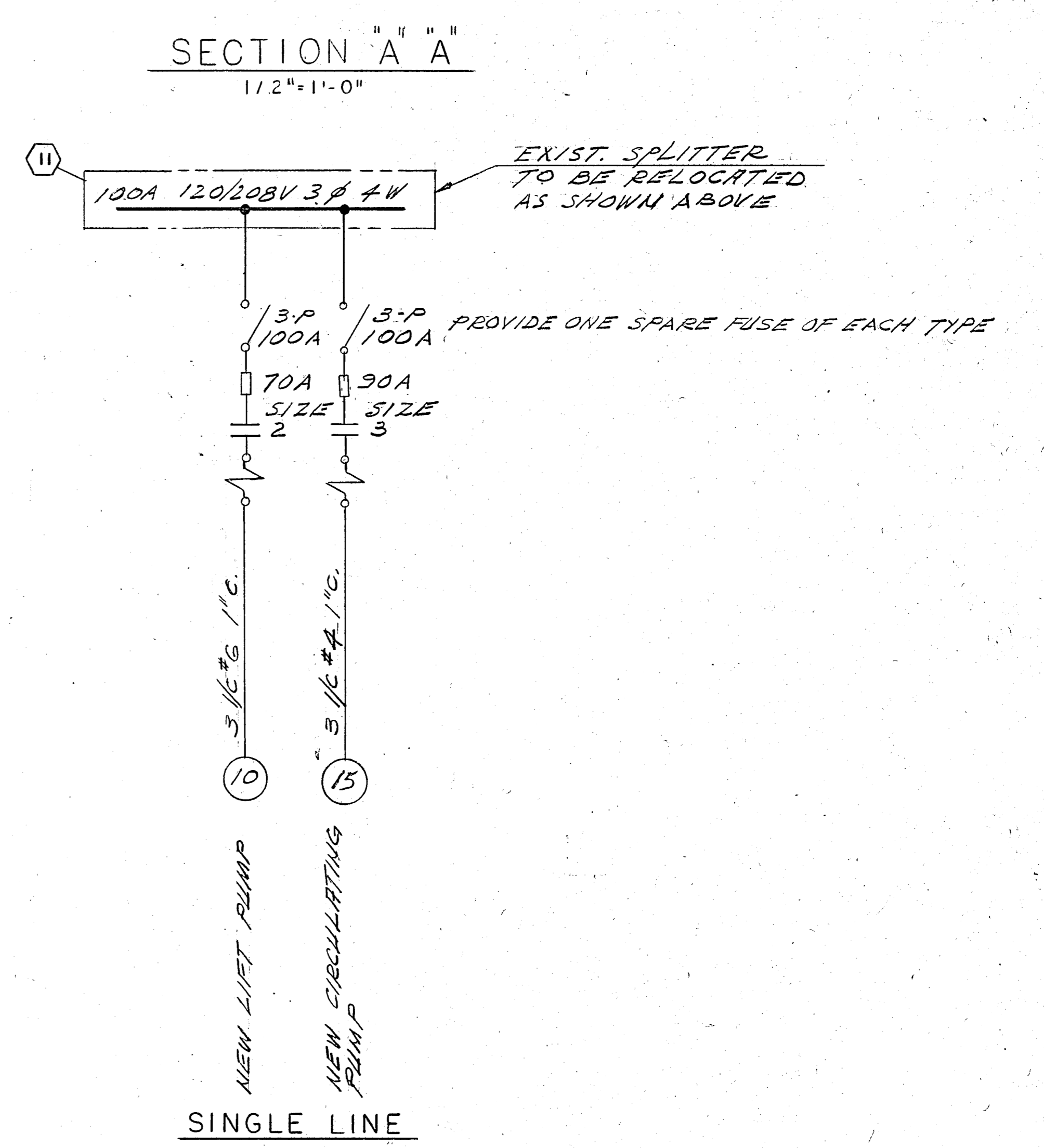
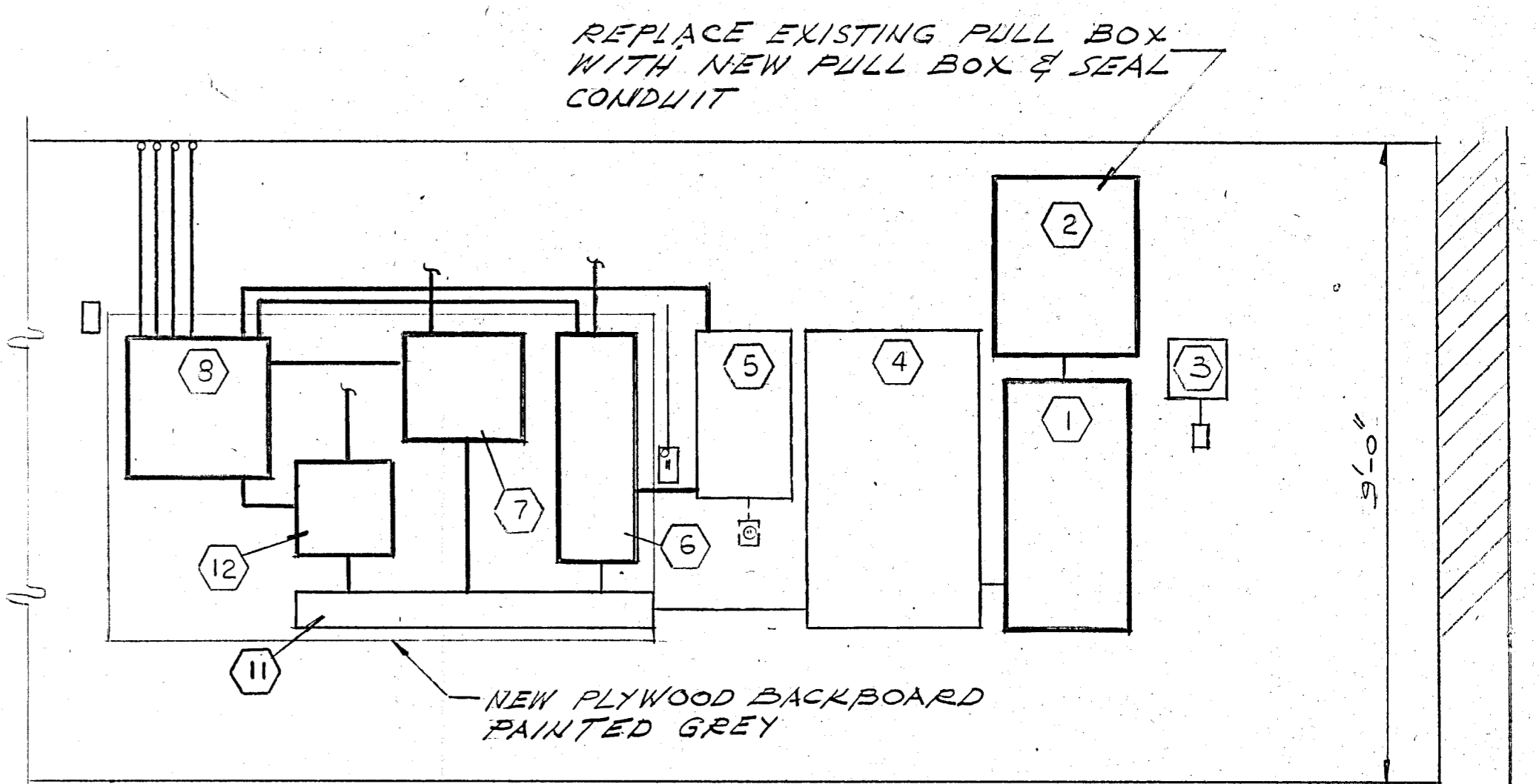
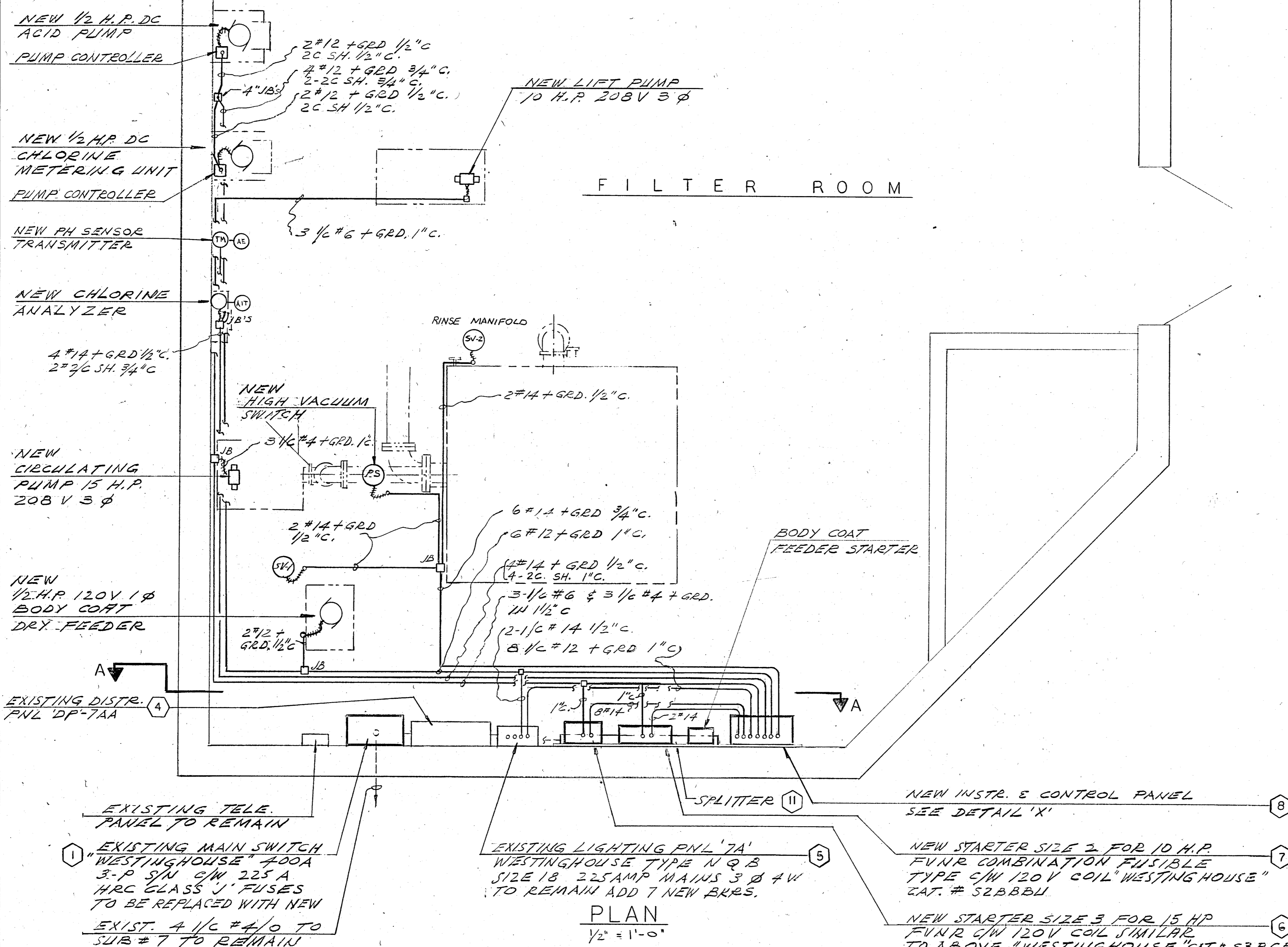
SECTION

ROCKWORK DEN  
N.T.S.  
SEE DWG. No. 4.

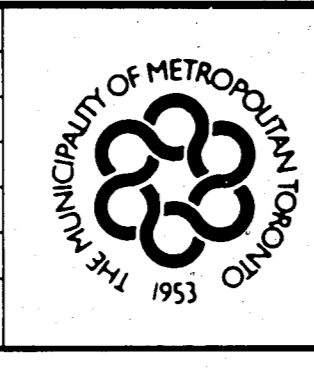
NOTES

- SEE DWG No. 1 FOR GENERAL NOTES AND LEGEND
- MODIFY FEEDING AREA AS SHOWN AS PER SECTION 5. OF THE SPECIFICATIONS.
- ACCESS DOOR SHALL BE SPECIAL HOLLOW METAL DOOR (12 ga. STEEL ON CONTINUOUS STEEL CHANNEL FRAME) AND STEEL FRAME TO FIT 2'-6" WIDE OPENING (3'-6" HIGH) DOOR TO HINGE IN 5/8" HEAVY DUTY LOCK.

No.	REVISIONS	DATE		MR. R.G. BUNDY	MUNICIPALITY OF METROPOLITAN TORONTO PARKS AND PROPERTY DEPARTMENT METRO TORONTO ZOO	POLAR BEAR EXHIBIT RETROFIT FEEDING AREA MODIFICATIONS AND MISCELLANEOUS DETAILS		 CHISHOLM, FLEMING AND ASSOCIATES CONSULTING ENGINEERS	SCALE AS SHOWN	DATE JULY, 1987
				COMMISSIONER OF PARKS AND PROPERTY						



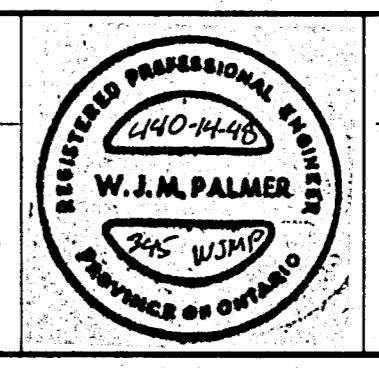
No.	REVISIONS	DATE



MR. R. G. BUNDY  
 COMMISSIONER OF  
 PARKS AND PROPERTY

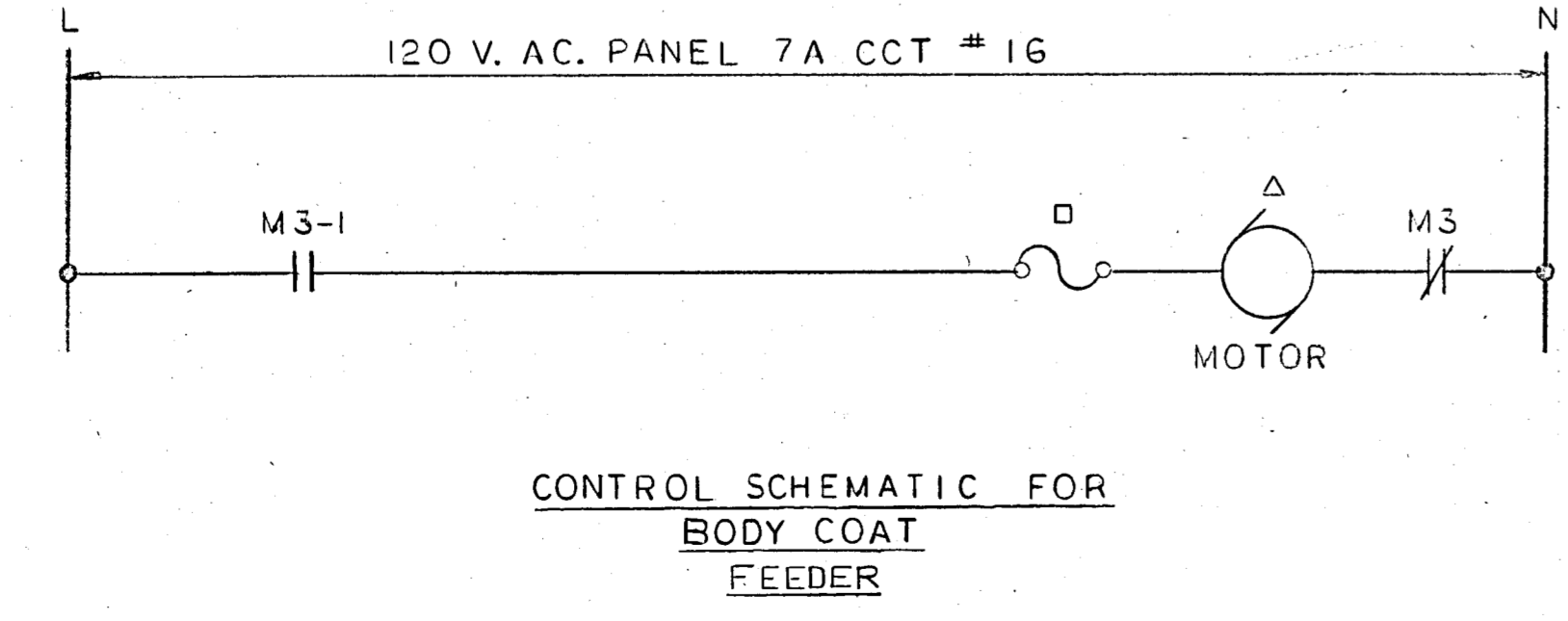
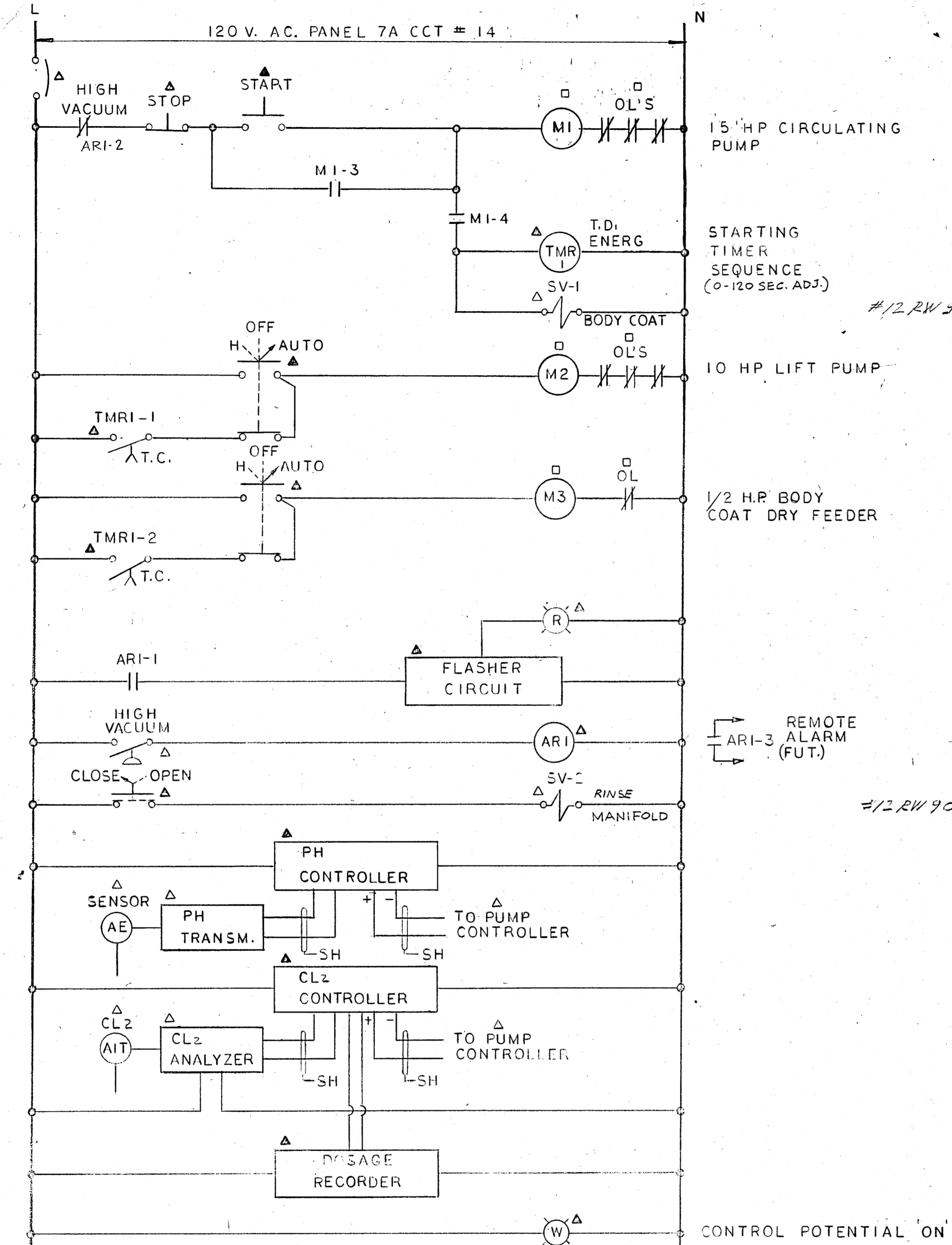
MUNICIPALITY OF METROPOLITAN TORONTO  
 PARKS AND PROPERTY DEPARTMENT  
 METRO TORONTO ZOO

POLAR BEAR EXHIBIT RETROFIT  
 ELECTRICAL  
 FILTER SYSTEM INSTALLATION (I)



CHISHOLM, ELEMING  
 AND ASSOCIATES  
 CONSULTING ENGINEERS

SCALE AS SHOWN	DATE JULY, 1987
DRAWN BY: H.P.	DRAWING No. <b>6</b>
CHECKED BY: O.P.M.	

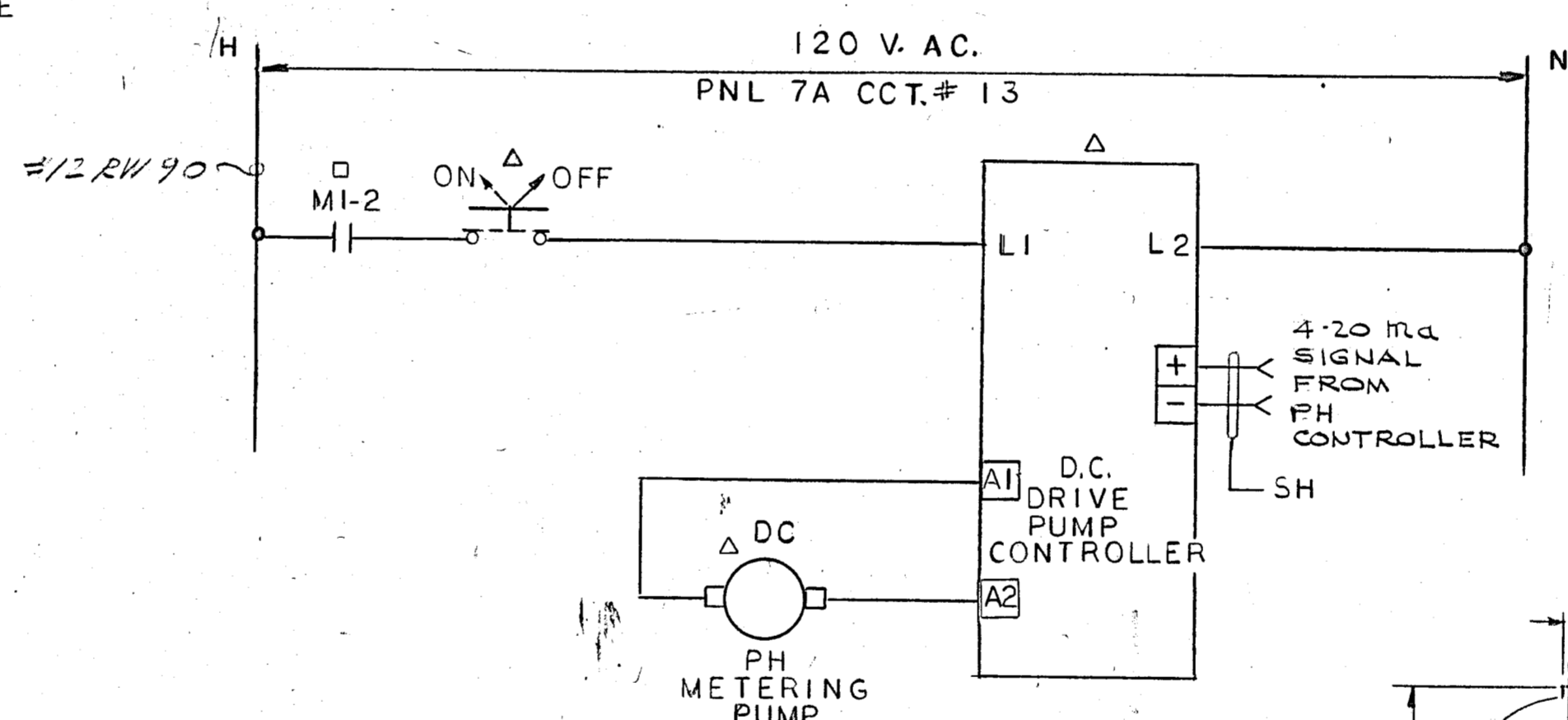
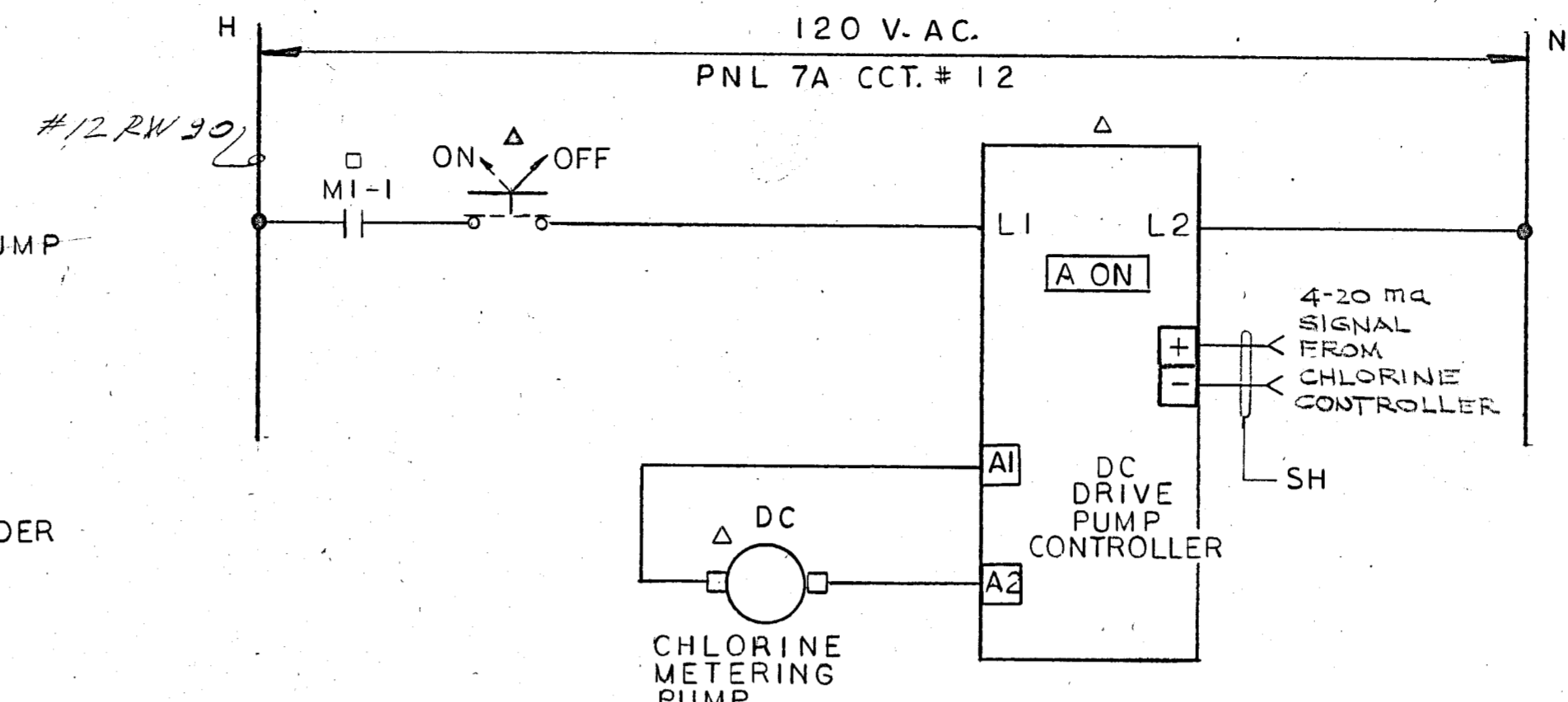


**LEGEND**

- △ FIELD MOUNTED
- ▲ PANEL MOUNTED
- STARTER

**NAME PLATES**

ITEM	DESCRIPTION
①	15 H.P. CIRCULATING PUMP
②	10 H.P. LIFT PUMP
③	1/2 H.P. BODY COAT DRY FEEDER
④	1/2 H.P. CHLORINE METERING PUMP
⑤	1/2 H.P. ACID PUMP (PH METERING)
⑥	CONTROL POTENTIAL ON
⑦	HIGH VACUUM ALARM
⑧	WASH MANIFOLD
⑨	CHLORINE CONTROLLER
⑩	PH TX CONTROLLER
⑪	DOSAGE RECORDER



120/208 V 3# 4 W EXIST.

TOTAL LOAD:		TYPE: WEST. N.O.B.		MOUNTING: WALL	
TOTAL CIRCUITS:		MAINS: 225 AMP		LOCATION: FILTER RM	
LOAD	SERV.	WIRE	BRKR	WIRE	SERV. LOAD
W. HR	REF.				W. HP
EXIST. IN USE		1	2	3	4
		5	6	7	8
		9	10	11	12
		13	14	15	16
PH METERING	2# 12	15A I-P	15A I-P	15A I-P	2# 12
SPARE		15A I-P	15A I-P	15A I-P	2# 12
		17	18	15A I-P	2# 12
					SPARE

EXIST. IN USE

EXIST. IN USE

PH METERING

SPARE

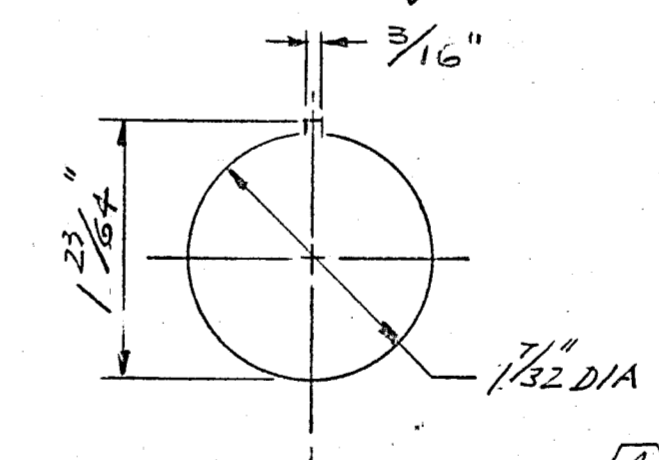
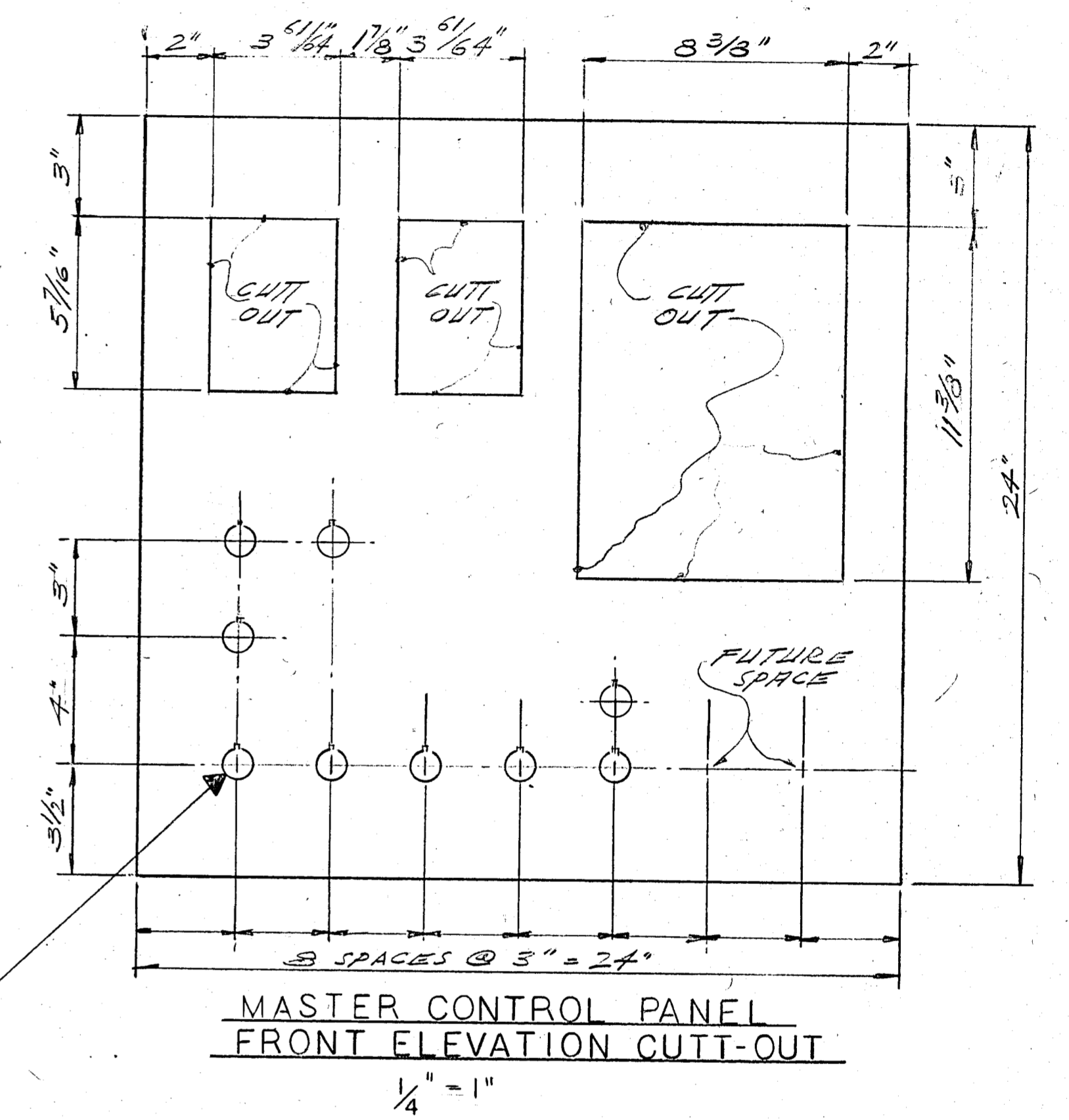
CHLORINE METERING

FILTRATION

BODY COAT FEEDER

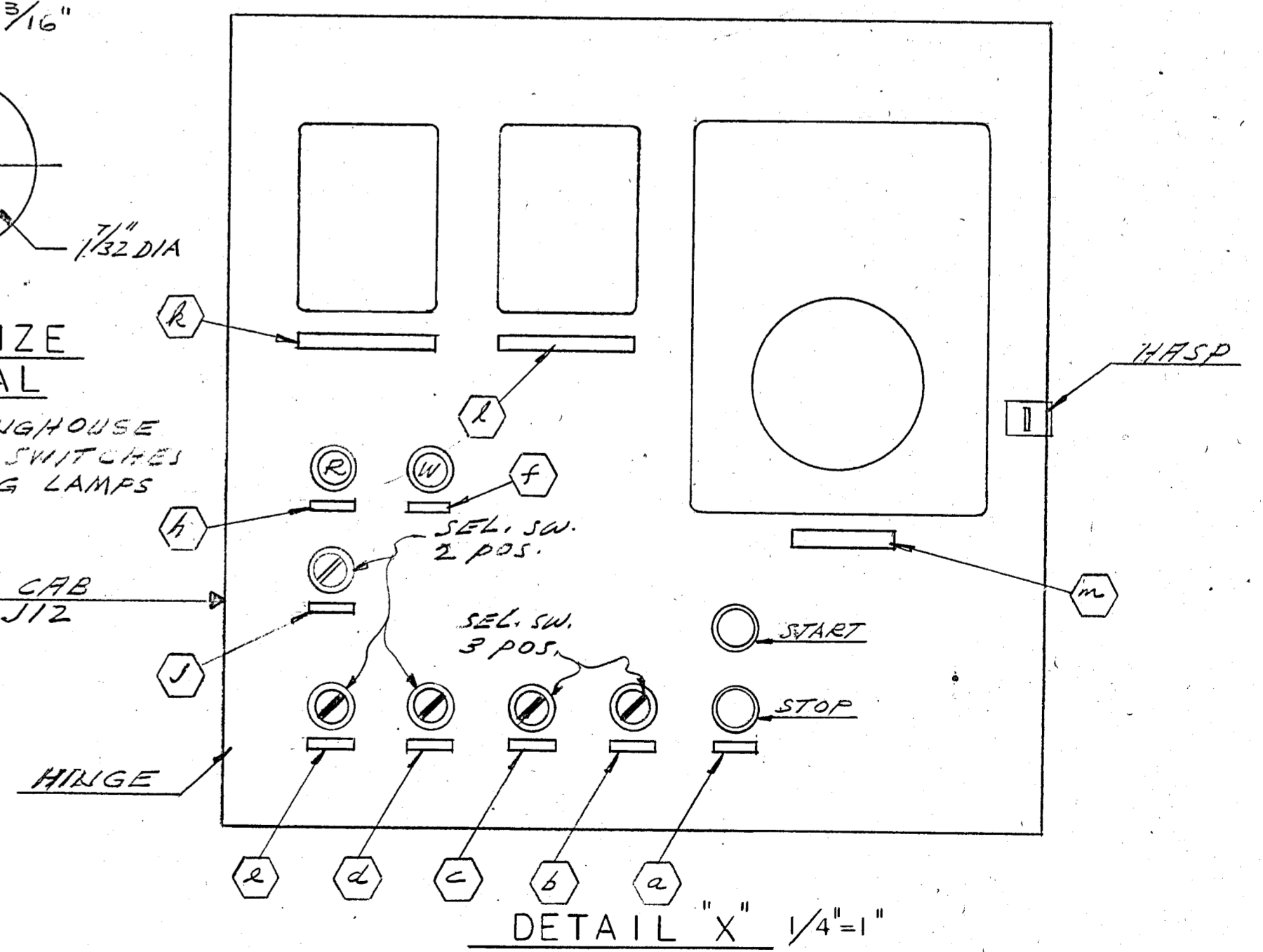
SPARE

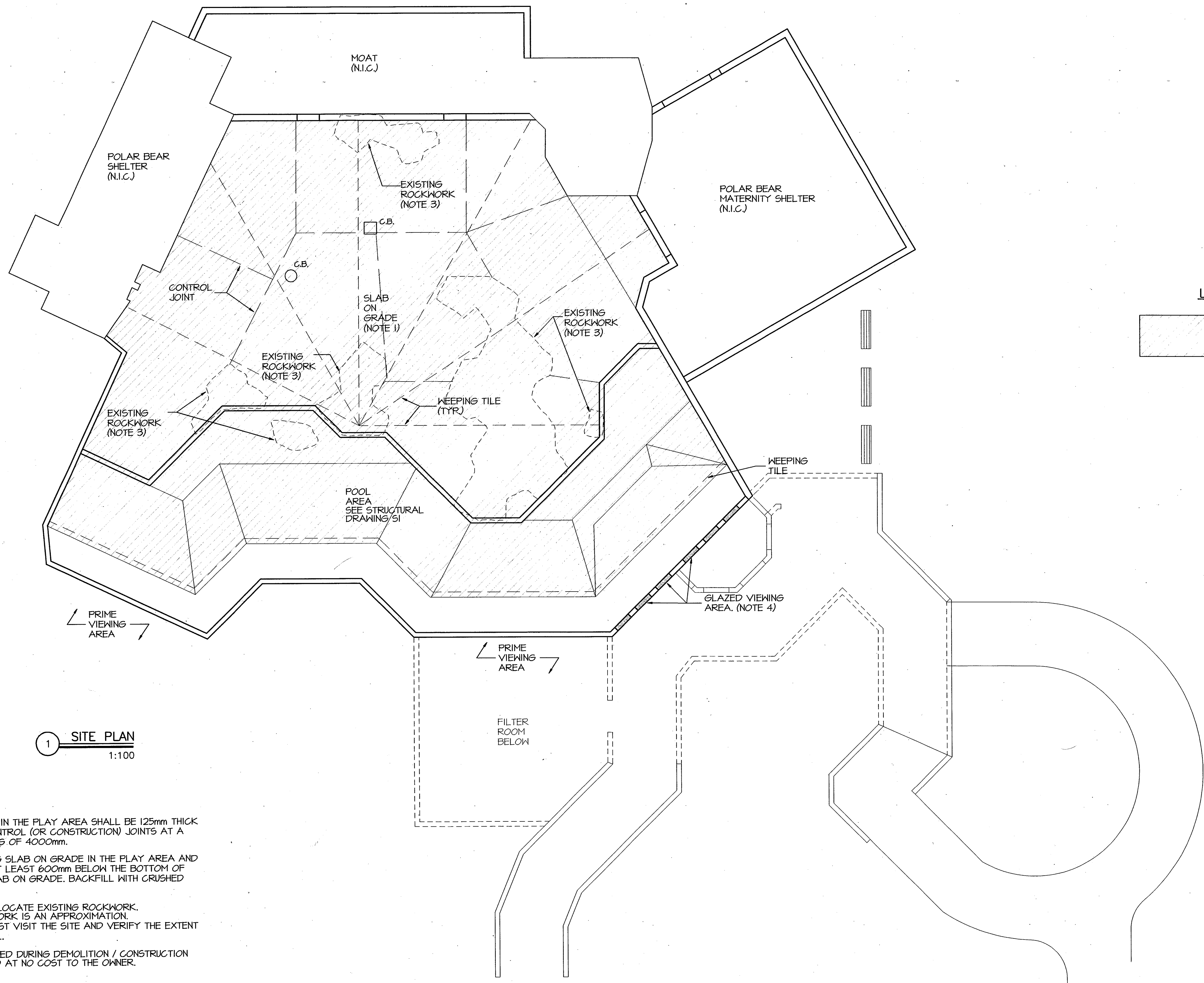
PROVIDE 7 NEW BRKS.



FOR WESTINGHOUSE SELECTOR SWITCHES & INDICATING LAMPS

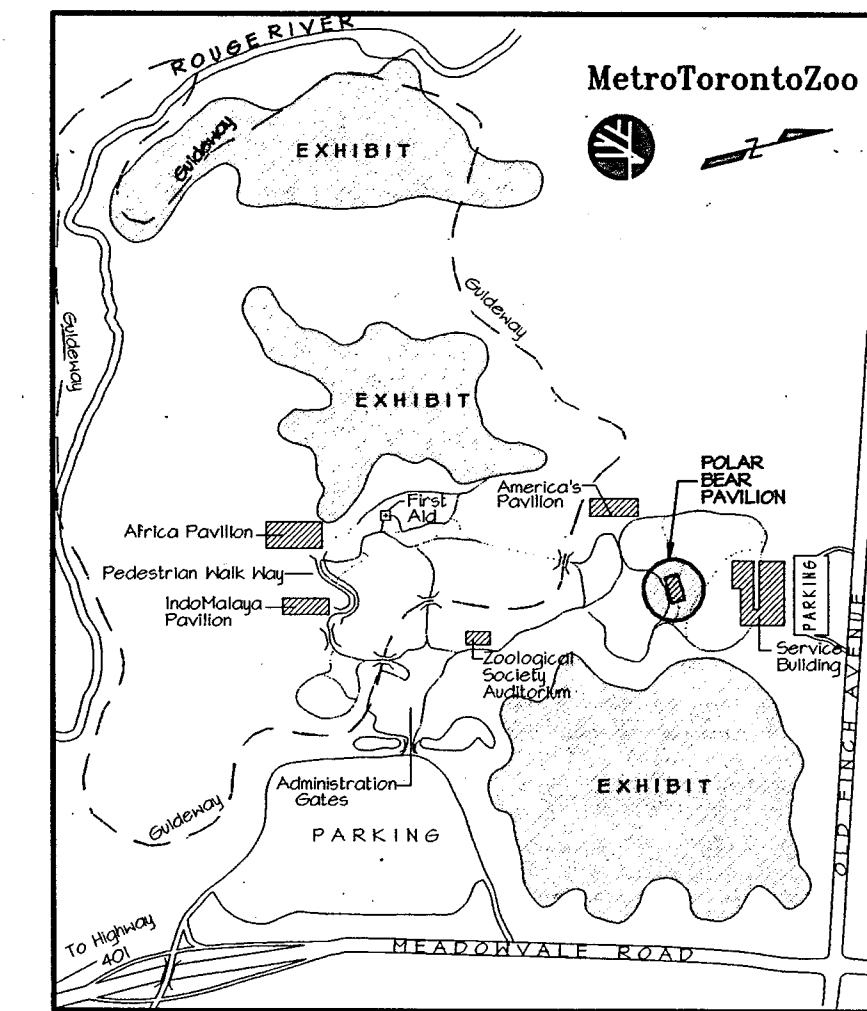
HAMMOND CAB CAT. # 141BJ12



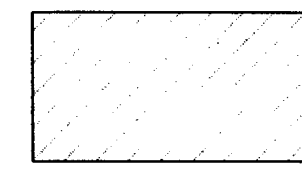


1 SITE PLAN  
1:100

- NOTES:
1. SLAB ON GRADE IN THE PLAY AREA SHALL BE 125mm THICK WITH SAWCUT CONTROL (OR CONSTRUCTION) JOINTS AT A MAXIMUM SPACING OF 4000mm.
  2. REMOVE EXISTING SLAB ON GRADE IN THE PLAY AREA AND EXCAVATE TO AT LEAST 600mm BELOW THE BOTTOM OF THE EXISTING SLAB ON GRADE. BACKFILL WITH CRUSHED STONE.
  3. REMOVE AND RELOCATE EXISTING ROCKWORK. EXISTING ROCKWORK IS AN APPROXIMATION. CONTRACTOR MUST VISIT THE SITE AND VERIFY THE EXTENT OF THE REMOVAL.
  4. WINDOWS DAMAGED DURING DEMOLITION / CONSTRUCTION TO BE REPLACED AT NO COST TO THE OWNER.



KEY PLAN  
N.T.S.

LEGEND  
 APPROXIMATE EXTENT OF THE DEMOLITION.

ISSUED FOR TENDER AND BUILDING PERMIT	date	no.	ref.
	22/01/96	1	
revisions & issues			

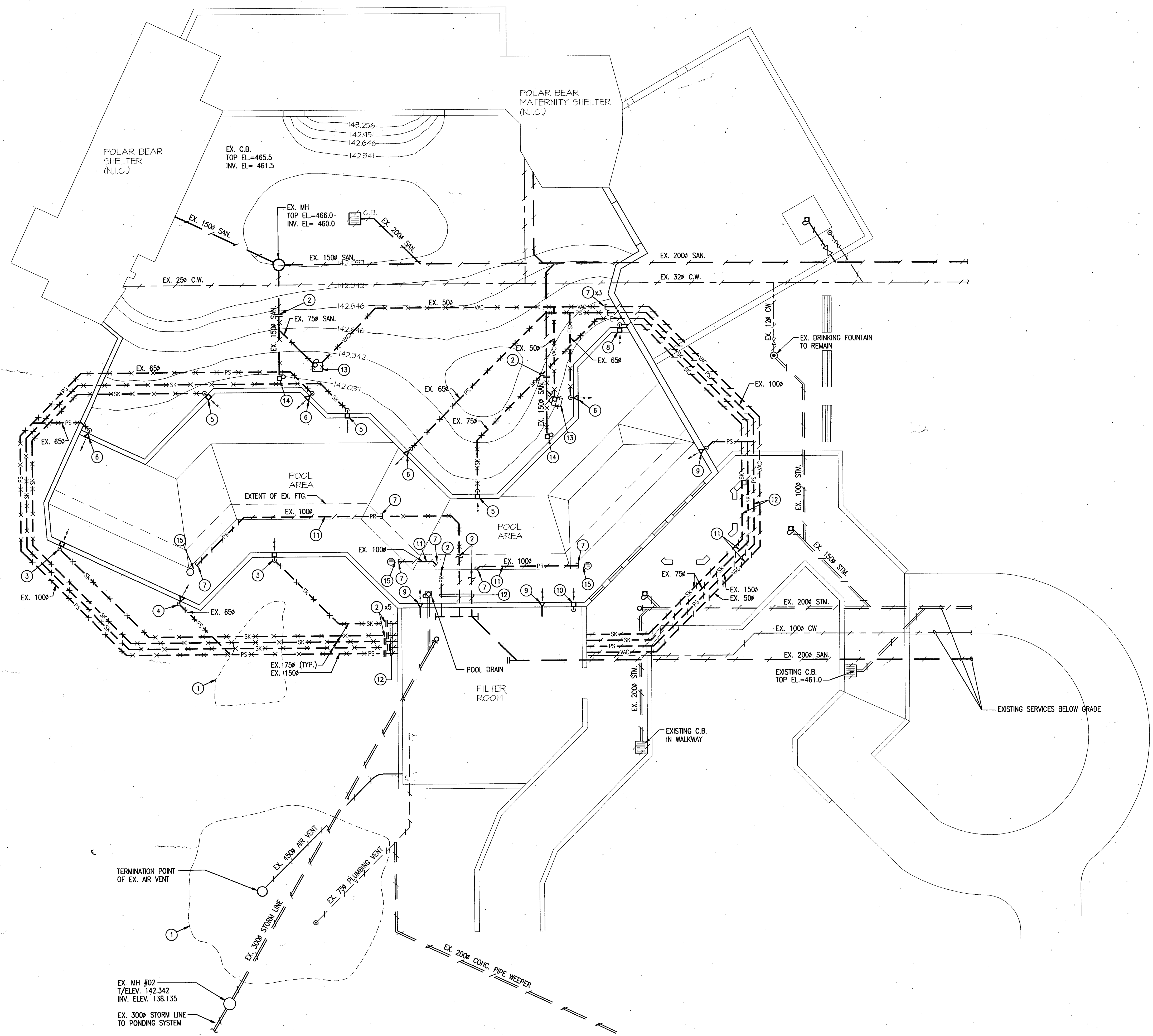
**CSCOLE SHERMAN**  
 CONSULTING ENGINEERS + PLANNERS  
 75 Commerce Valley Drive East  
 Thornhill, Ontario L3T 7N9  
 TEL: (905)-882-4401 FAX: (905)-882-4399

**MetroTorontoZoo**  
**POLAR BEAR EXHIBIT RECONSTRUCTION**

title	
SITE PLAN	
scale	date
1 : 100	DEC. 21, 1995
drawn by:	drawing no.
DPT	18995 - A1
checked by:	
AL	

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PLOT DATE: JUN. 22/96



**LEGEND**

- PS--- POOL SUPPLY UNDERGRADE PIPING
- SK--- POOL SKIMMER UNDERGRADE PIPING
- PR--- POOL RETURN UNDERGRADE PIPING
- VAC--- VACUUM LINE UNDERGRADE PIPING
- SANT--- SANITARY UNDERGRADE PIPING
- COLD--- COLD WATER PIPING
- === STORM WATER PIPING
- PIPING TO REMAIN
- X--- PIPING/EQUIPMENT TO BE REMOVED
- DROP IN PIPING
- POOL SUPPLY
- POOL SKIMMER
- POOL DRAIN (FOR RETURN)
- EX. PIPING TO BE CAPPED
- EX. PIPING TO BE CUT FOR CONNECTION OF NEW PIPING (SEE DWG. M2)

**LAYOUT NOTES:** (THESE NOTES APPLY ONLY TO THIS DRAWING)

- 1 REMOVAL OF MAN MADE ROCK FORMATIONS AS REQUIRED TO ALLOW EXCAVATION AND MECHANICAL WORK BY GENERAL TRADES, CO-ORDINATE FULLY MECHANICAL WORK. (FORMATIONS MAY NOT BE EXACTLY AS SHOWN ON PLAN - FIELD VERIFY)
- 2 EX. PIPING TO BE CUT FOR CONNECTION OF NEW PIPING. (SEE DWG. M2)
- 3 EXISTING SKIMMER TO REMAIN. CUT AND REMOVE PIPING CONNECTED TO IT. LEAVE A CLEAN STUB FOR CONNECTION OF NEW PIPING.
- 4 EXISTING SUPPLY DISCHARGE TO REMAIN. CUT AND REMOVE PIPING CONNECTED TO IT. LEAVE A CLEAN STUB FOR CONNECTION OF NEW PIPING.
- 5 EXISTING SKIMMER c/w ALL ASSOCIATED PIPING TO BE REMOVED.
- 6 EXISTING SUPPLY DISCHARGE c/w ALL ASSOCIATED PIPING TO BE REMOVED.
- 7 EXISTING PIPING TO BE CAPPED WATER TIGHT.
- 8 EXISTING SKIMMER TO BE REMOVED. ASSOCIATED PIPING TO BE REMAIN. PROTECT PIPING DURING EXCAVATION AND DEMOLITION OF ADJACENT CONC. WORK.
- 9 EXISTING SUPPLY DISCHARGE AND ASSOCIATED PIPING TO REMAIN.
- 10 EXISTING SKIMMER c/w ALL ASSOCIATED PIPING TO REMAIN.
- 11 PIPING TO BE ABANDONED.
- 12 EXISTING PIPING TO BE PRESSURE TESTED AND REUSED.
- 13 EXISTING VACUUM OUTLET PITS c/w ALL ASSOCIATED PIPING, ELECT. CONDUITS, ETC. TO BE REMOVED. CAP AND MAKE SAFE ALL REMAINING PIPES, ELECTRICAL CONDUITS ETC.
- 14 EXISTING 1500 AREA DRAIN TO BE REMOVED AND REPLACED WITH SAME.
- 15 EXISTING POOL DRAINS TO REMAIN. CUT LINE CLOSE TO DRAIN. LEAVE STUB FOR CONNECTION OF NEW LINE (SEE DWG. M2)

**PLAN - DEMOLITION**  
SCALE: 1 : 100

<b>"AS BUILT"</b>			
ISSUED FOR TENDER AND BIDDING PERMIT	July 96		
description	date	no.	ref.
revisions & issues			

**COLE SHERMAN**  
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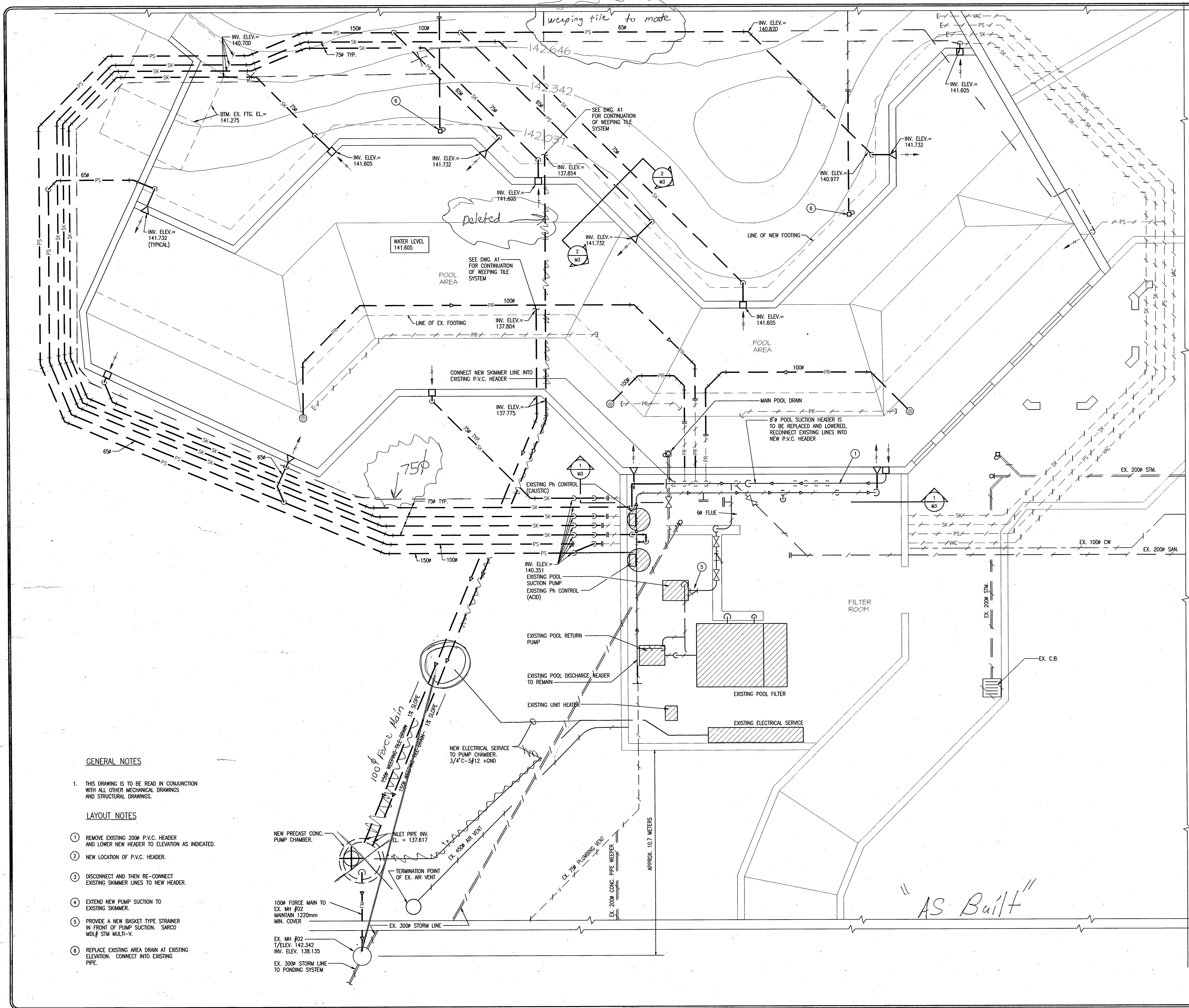
**MetroTorontoZoo**  
**POLAR BEAR EXHIBIT RECONSTRUCTION**

title  
**DEMOLITION PLAN**

scale 1 : 100	date DEC. 1995
drawn by: CFL	drawing no. 18995 - M1
checked by: JWD	

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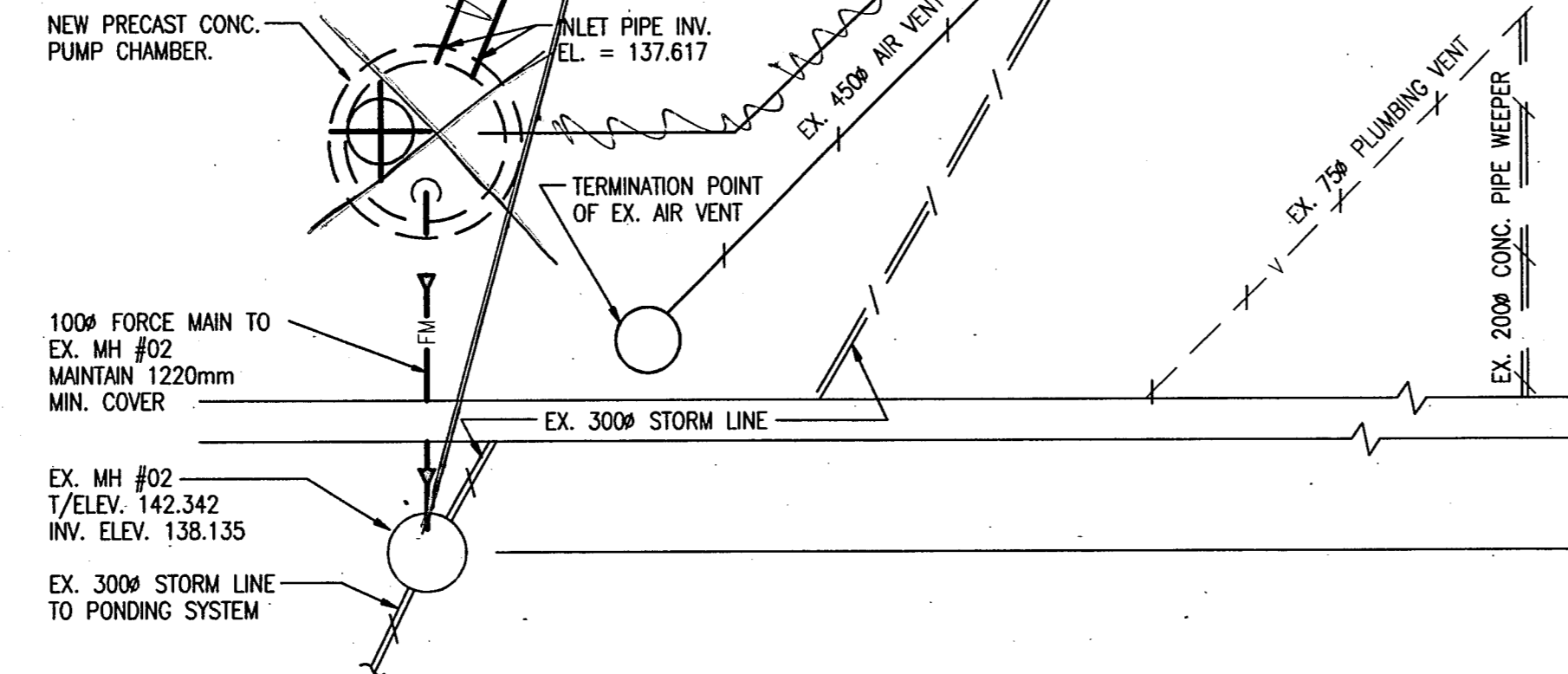


**GENERAL NOTES**

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER MECHANICAL DRAWINGS AND STRUCTURAL DRAWINGS.

**LAYOUT NOTES**

- 1 REMOVE EXISTING 200P P.V.C. HEADER AND LOWER NEW HEADER TO ELEVATION AS INDICATED.
- 2 NEW LOCATION OF P.V.C. HEADER.
- 3 DISCONNECT AND THEN RE-CONNECT EXISTING SKIMMER LINES TO NEW HEADER.
- 4 EXTEND NEW PUMP SUCTION TO EXISTING SKIMMER.
- 5 PROVIDE A NEW BASKET TYPE STRAINER IN FRONT OF PUMP SUCTION. SARCO MOL# STM MULTI-V.
- 6 REPLACE EXISTING AREA DRAIN AT EXISTING ELEVATION. CONNECT INTO EXISTING PIPE.



<b>"AS BUILT"</b>		Issued	22/01/96	1
ISSUED FOR TENDER AND BUILDING PERMIT	description	date	no.	ref.
revisions & issues				

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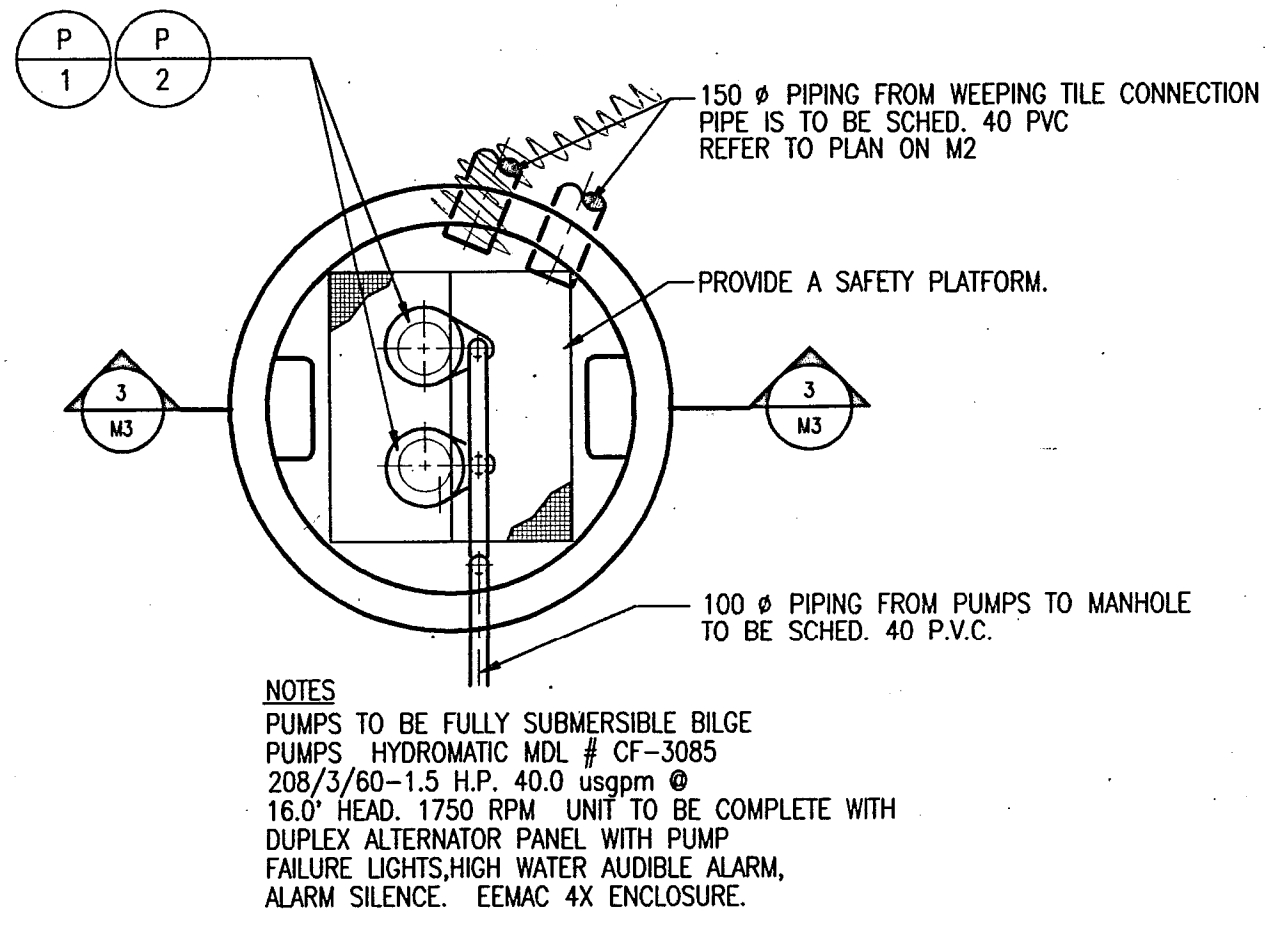
**MetroTorontoZoo**  
**POLAR BEAR EXHIBIT RECONSTRUCTION**

NEW WORK

scale	1 : 50	date	DEC. 1995
drawn by:	CFL	drawing no.	18995 - M2
checked by:	JWD		

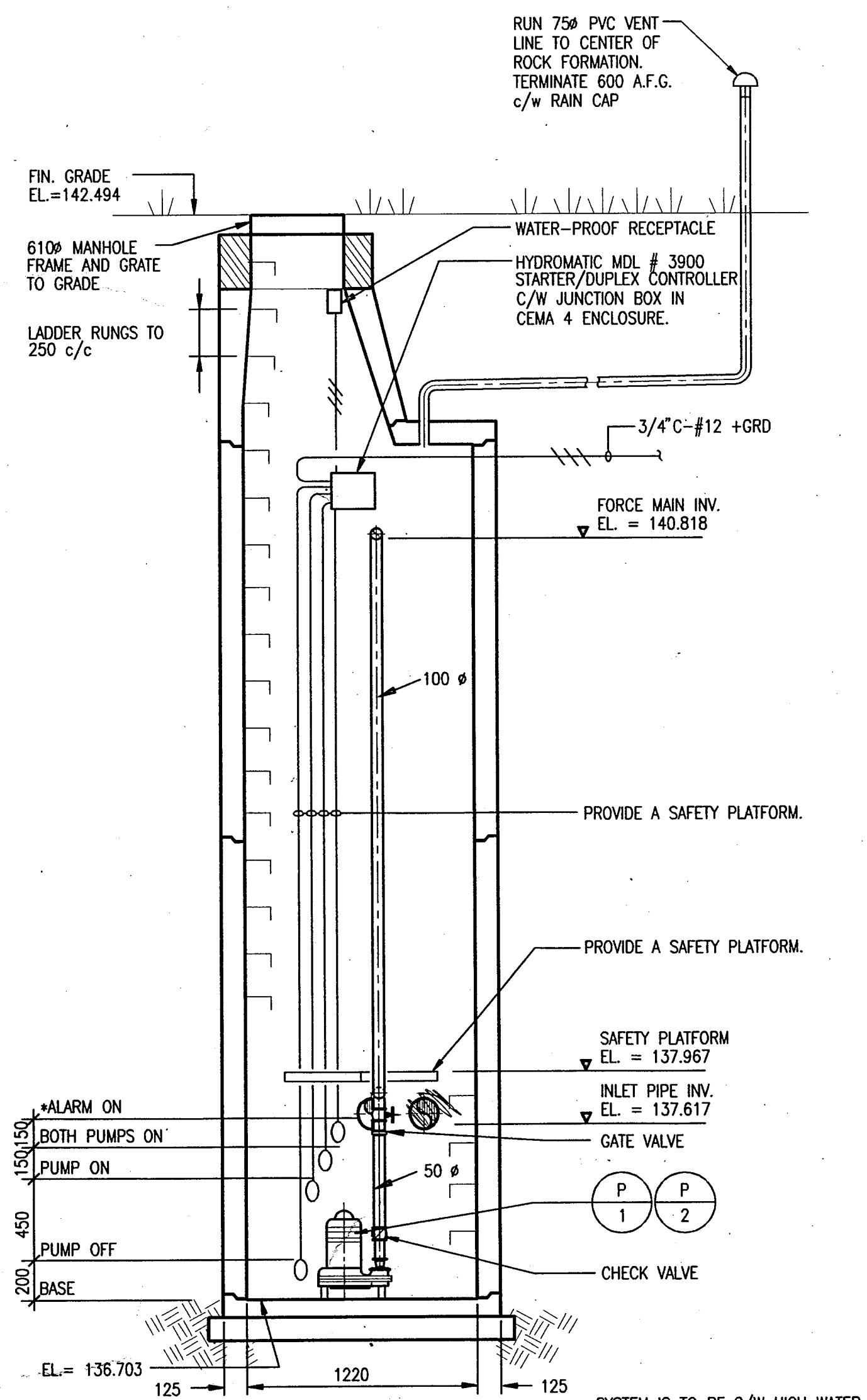
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"AS Built"



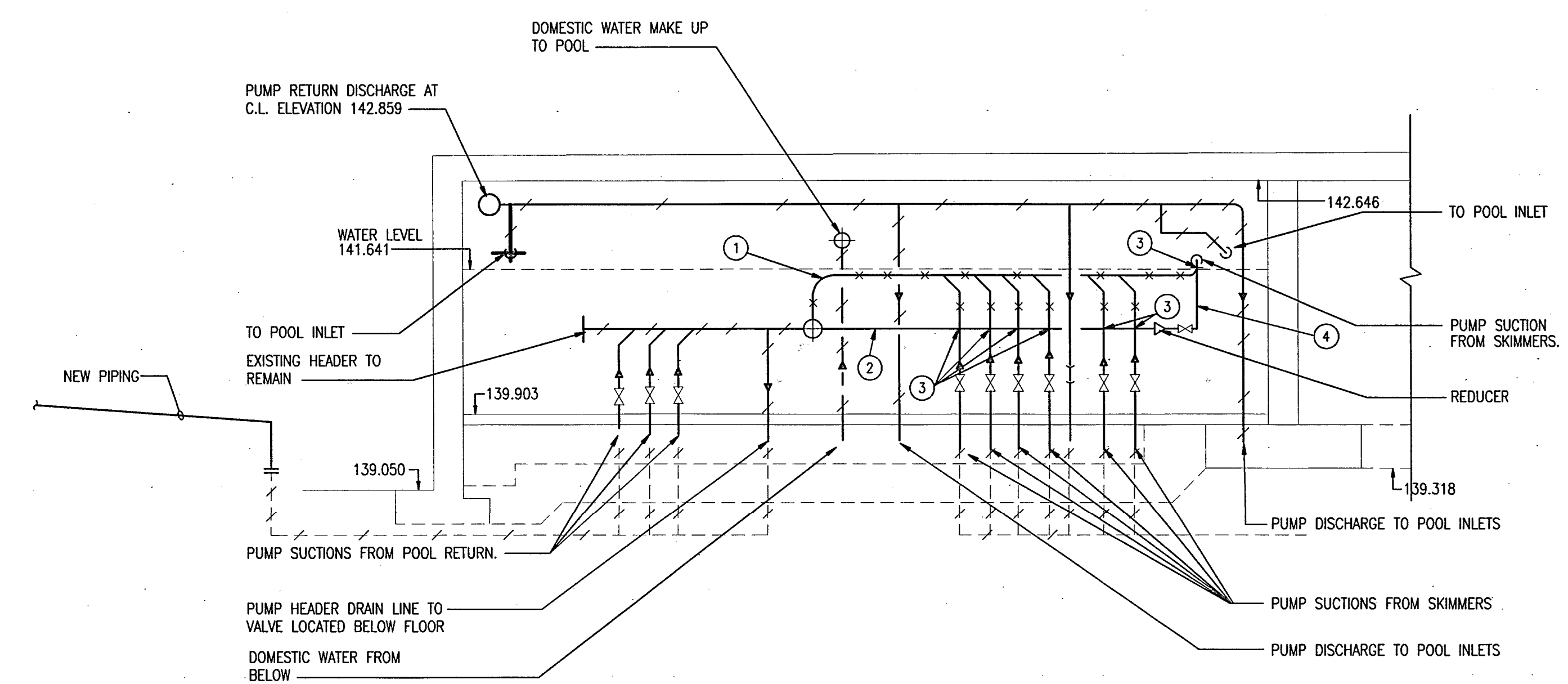
**1 PUMP CHAMBER DETAILS**  
SCALE: 1 : 25

NOTES  
PUMPS TO BE FULLY SUBMERSIBLE DILGE  
PUMPS: HYDRAMATIC MDL # CF-3085  
208/3/60-1.5 H.P. 40.0 usgpm Ø  
16.0" HEAD. 1750 RPM UNIT TO BE COMPLETE WITH  
DUPLIX ALTERNATOR PANEL WITH PUMP  
FAILURE LIGHTS, HIGH WATER AUDIBLE ALARM,  
ALARM SILENCE, EEMAC 4X ENCLOSURE.



**3-3 SECTION**  
SCALE: 1 : 25

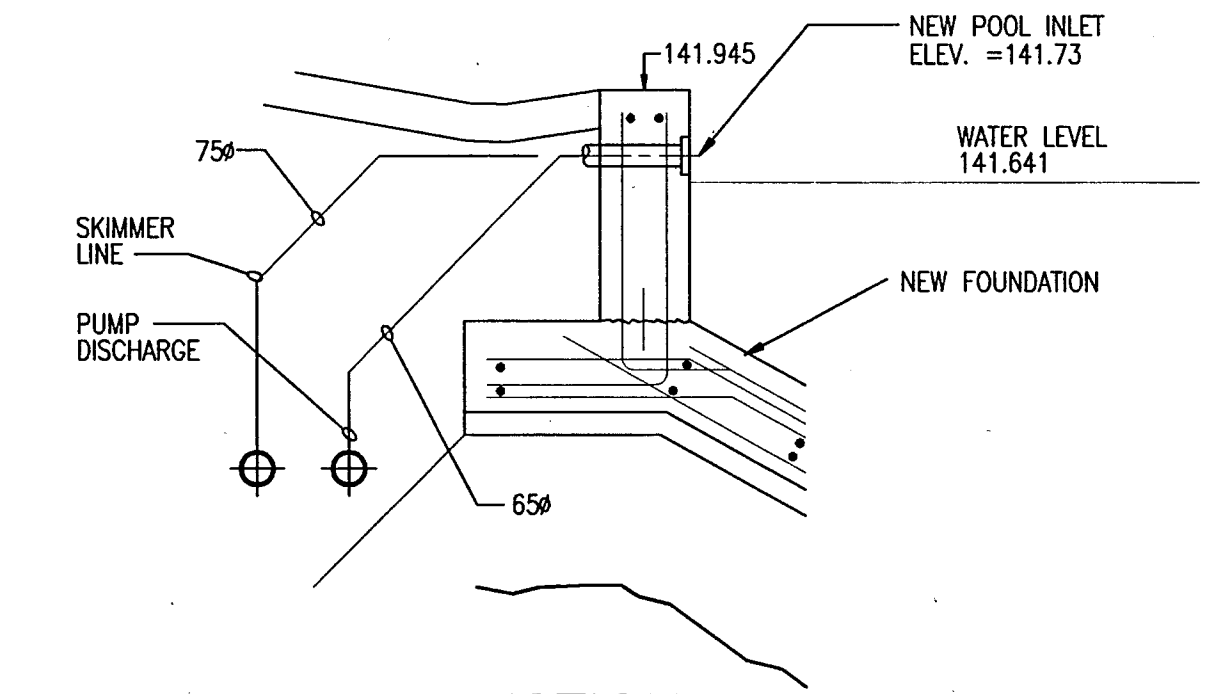
\*SYSTEM IS TO BE C/W HIGH WATER ALARM W/ INDICATOR LIGHTS, AUDIBLE ALARM & SILENCE BUTTON. LOCATE IN MECH. ROOM



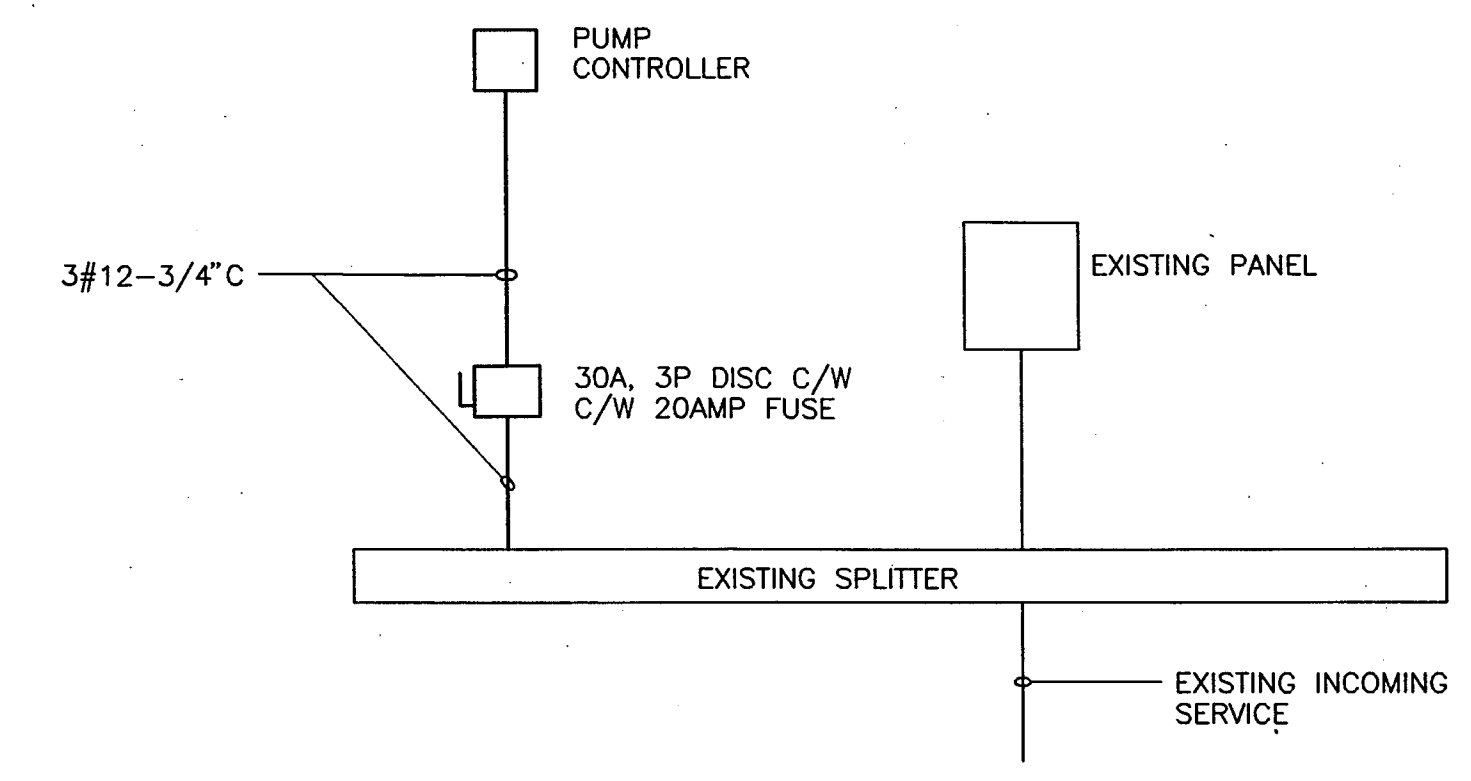
**1-1 SECTION**  
SCALE: 1 : 50

**LAYOUT NOTES**

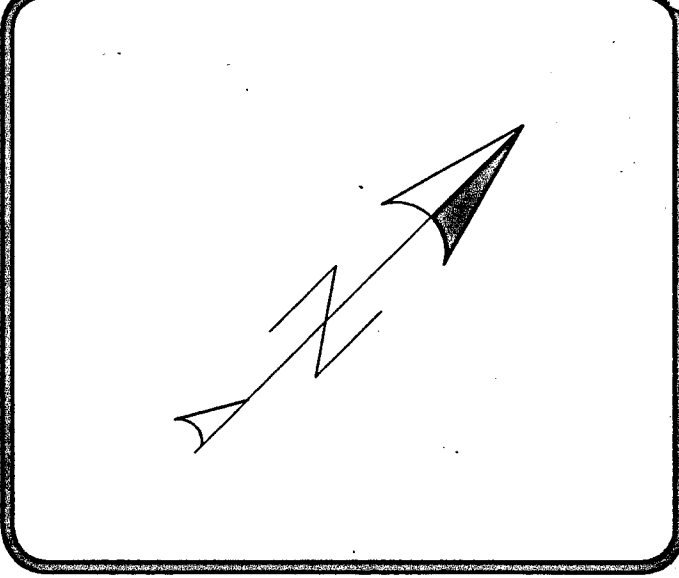
- 1 REMOVE EXISTING 200Ø P.V.C. HEADER AND LOWER NEW HEADER TO ELEVATION AS INDICATED.
- 2 NEW LOCATION OF P.V.C. HEADER.
- 3 DISCONNECT AND THEN RE-CONNECT EXISTING SKIMMER LINES TO NEW HEADER.
- 4 EXTEND NEW PUMP SUCTION TO EXISTING SKIMMER.



**2-2 SECTION**  
SCALE: 1 : 25



**SINGLE LINE DIAGRAM**  
SCALE: N.T.S.



ISSUED FOR TENDER AND BUILDING PERMIT	22/01/94	1	
description	date	no.	ref.
revisions & issues			

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**MetroTorontoZoo**  
**POLAR BEAR EXHIBIT RECONSTRUCTION**

title  
**DETAILS, AND SECTIONS**

scale AS SHOWN	date DEC. 1995
drawn by CFL	drawing no. 18995 - M3
checked by JWD	

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1997 NOV 24  
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**GENERAL NOTES**

1. SURVEY THE EXISTING POOL AND DETERMINE ALL DIMENSIONS AND ELEVATIONS REQUIRED FOR THE CONSTRUCTION.
2. CHECK AND EXAMINE ALL EXISTING CONDITIONS AT THE SITE. REVIEW DRAWINGS OF THE EXISTING CONSTRUCTION. DETAILS OF THE EXISTING CONDITIONS ARE NOT SHOWN ON STRUCTURAL DRAWINGS. ALL DIMENSIONS AND ANGLES RELATING TO EXISTING CONDITIONS SHOWN ON THE CONTRACT DRAWINGS ARE APPROXIMATE ONLY AND ARE BASED ON EXISTING DRAWINGS AVAILABLE TO THE CONSULTANTS.

3. DIMENSIONS ARE SHOWN IN MILLIMETRES AND ELEVATIONS IN METRES

**TIE-BACK SHORING**

1. PROVIDE TIE-BACK SHORING TO RETAINING WALLS OF THE POOL BEFORE DEMOLITION.
2. SUBMIT TO ENGINEER FOR REVIEW, THE DESIGN DRAWINGS AND SUPPORTING DATA OF THE SHORING SYSTEM. THE DRAWINGS SHALL BEAR THE STAMP AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN ONTARIO.
3. THE SHORING DESIGN IS UNDER THE FOLLOWING CONSTRAINTS:
  - HOLES IN THE RETAINING WALL NOT LARGER THAN 150mm
  - ONLY TWO ROWS OF TIE-BACKS
  - HORIZONTAL SPACING OF TIE-BACKS NOT LESS THAN 3m
4. MONITOR MOVEMENTS (HORIZONTAL & VERTICAL) OF THE RETAINING WALL AT TOP AND BOTTOM AT ONE-WEEK INTERVALS. SUBMIT REPORTS TO ENGINEERS. MONITORING SHALL START ONE WEEK BEFORE DEMOLITION OF POOL STRUCTURE AND CONTINUE UNTIL THE CLOSURE STRIP IS POURED.
5. THE HOLES IN THE RETAINING WALL SHALL BE FILLED WITH NON-SHRINK FLOWABLE GROUT (40MPa) AND WATERTIGHT. TREAT THE JOINT AS PER DETAIL 2/52.
6. REFER TO SPECIFICATIONS FOR SOIL INFORMATION, DESIGN PARAMETERS AND PERFORMANCE SPECIFICATIONS. NO MOVEMENTS OF THE RETAINING WALLS ARE PERMITTED AFTER CONCRETE OF THE POOL STRUCTURE IS POURED.
7. UPON EXCAVATION, CONSULTANT TO REVIEW EXPOSED STRUCTURAL ELEMENTS. ALL VOIDS OR DISTURBED SUBGRADE TO BE FILLED AT THE DIRECTION CONSULTANT. FILL TO INCLUDE BACKFILLING OF VOIDS WITH FLOWABLE NON-SHRINK LEAN CONCRETE MIX. SUBMIT MIX DESIGN TO CONSULTANT FOR REVIEW.

**REMOVAL**

1. A LONGITUDINAL SAWCUT, 25mm DEEP, OR TO THE COVER OF THE REINFORCING STEEL, WHICHEVER IS LESS, SHALL BE MADE AT THE SPECIFIED LOCATIONS.
2. REINFORCING STEEL THAT IS TO REMAIN IN PLACE SHALL NOT BE DAMAGED OR LOOSENED. THE CONTRACTOR SHALL EXERCISE CARE DURING REMOVAL OPERATIONS TO ENSURE THAT PNEUMATIC HAMMERS DO NOT COME IN CONTACT WITH REINFORCING STEEL IN A MANNER WHICH WILL CAUSE DEBONDING OF BARS IN ADJACENT CONCRETE AREAS NOT BEING REMOVED.
3. ALL CONCRETE BEING REMOVED WITHIN 300mm TO 150mm OF CONCRETE TO REMAIN IN PLACE SHALL BE REMOVED USING JACKHAMMERS. ONLY CHIPPING HAMMERS SHALL BE USED FOR THE REMOVAL OF CONCRETE LOCATED WITHIN 150mm OF CONCRETE TO REMAIN. ONLY CHIPPING HAMMERS SHALL BE USED FOR THE REMOVAL OF CONCRETE ABOVE, BETWEEN, BEHIND AND WITHIN 25mm OF ANY REINFORCING STEEL THAT IS TO REMAIN IN PLACE.
4. CHIPPING HAMMERS SHALL BE 7.0 kg MAXIMUM AND JACKHAMMERS SHALL BE 14.0 kg MAXIMUM

**CONCRETE & REINFORCING**

1. CONCRETE : TO CAN/CSA - A23.1-94

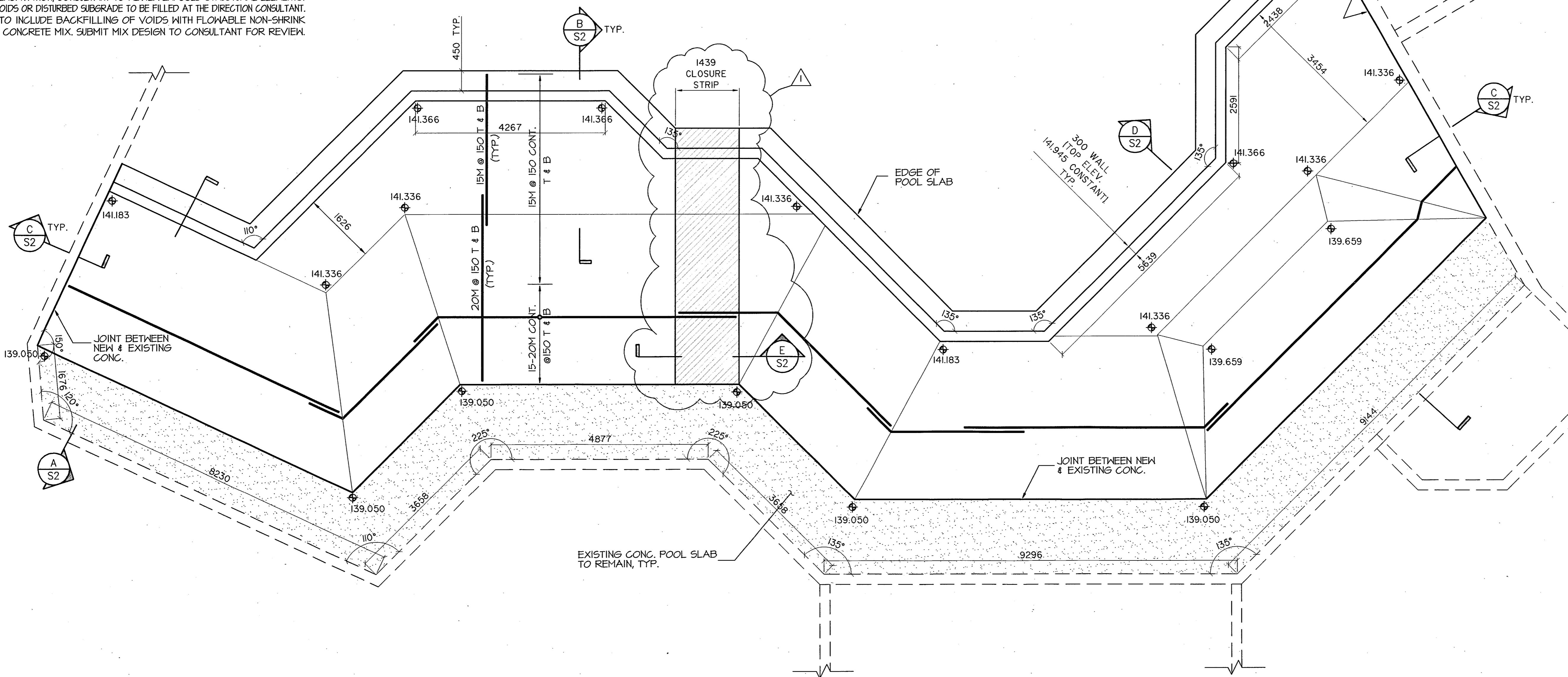
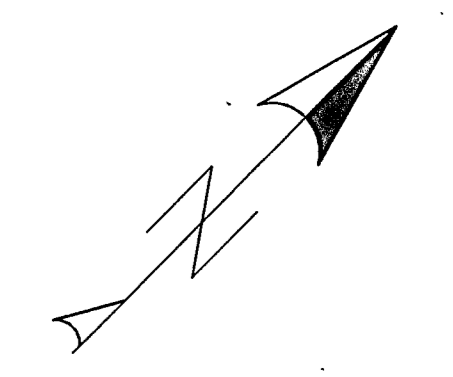
	CLASS OF EXPOSURE	28 DAY COMPRESSIVE STRENGTH	AIR CONTENT
POOL AND SKIM SLAB	F-1	30 MPa	5 TO 8%
PLAY AREA SLAB ON GRADE & OTHERS	F-2	25 MPa	4 TO 7%
LEAN NON-SHRINK CONCRETE	-	10 MPa	-

NOMINAL MAXIMUM COARSE AGGREGATE SIZE : 20mm

2. REINFORCEMENT SHALL BE GRADE 400 DEFORMED BARS.
3. CONCRETE COVER TO REINFORCEMENT SHALL BE 60mm UNLESS NOTED OTHERWISE.

**WATERPROOFING**

1. PROVIDE LABOUR, MATERIALS, TOOLS AND EQUIPMENT, TO SUPPLY AND INSTALL CHEMICAL WATERPROOFING FOLLOWING THE CONCRETE WORK.
2. ENSURE SURFACES ARE CLEAN, FREE OF EXCESSIVE DAMPNESS, FROST, NIBS, FINS, DUST, NAILS, LANTAGE OF LOOSE CONCRETE AND FILMS OF OIL, GREASE, CURING, COMPOUNDS OR OTHER SUBSTANCES WHICH COULD AFFECT PERFORMANCE OR ABSORBENT OF WATERPROOFING MATERIALS.



1 PLAN  
1:50

**NOTES**

1. TOP OF POOL SLAB ELEVATION, METRES (SAME AS EXISTING)
2. INSIDE DIMENSIONS AND ELEVATIONS OF THE POOL SHALL BE THE SAME AS THE EXISTING ONE.
3. ALL REINFORCEMENT SHALL BE CONTINUOUS WITH FULL TENSION CLASS C LAP LENGTH OR LONGER WHERE SPECIFIED.

"AS BUILT"		date	no.	ref.
REVISION TO CLOSURE STRIP	12/04/96	2		
ISSUED FOR TENDER AND BUILDING PERMIT	22/01/96	1		
description	date	no.	ref.	

revisions & issues	

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**MetroTorontoZoo**  
**POLAR BEAR EXHIBIT RECONSTRUCTION**

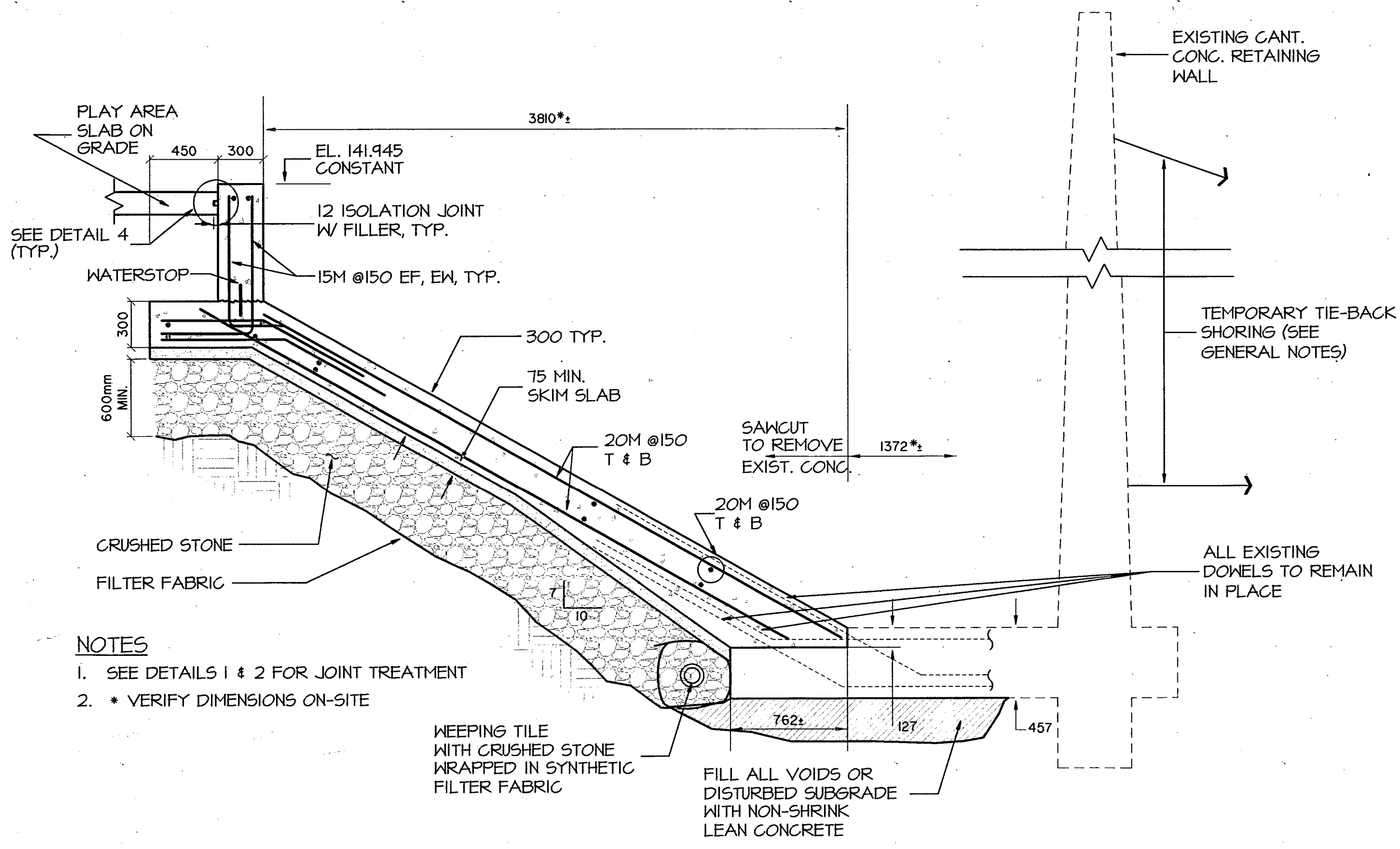
title  
**STRUCTURAL PLAN**

scale  
1 : 50

date  
DEC. 21/95

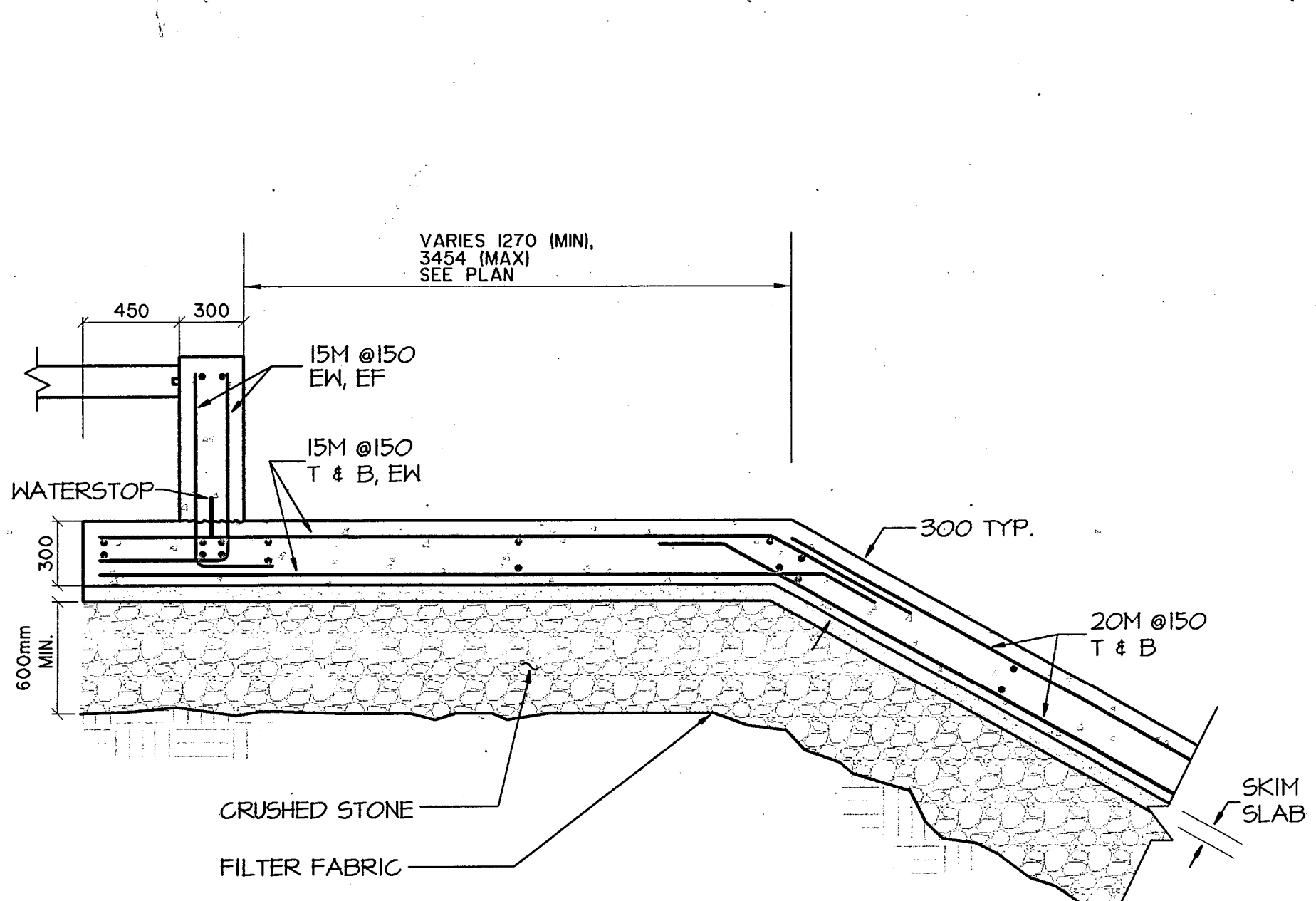
drawn by: DPT  
checked by: AL  
drawing no.: 18995 - S1

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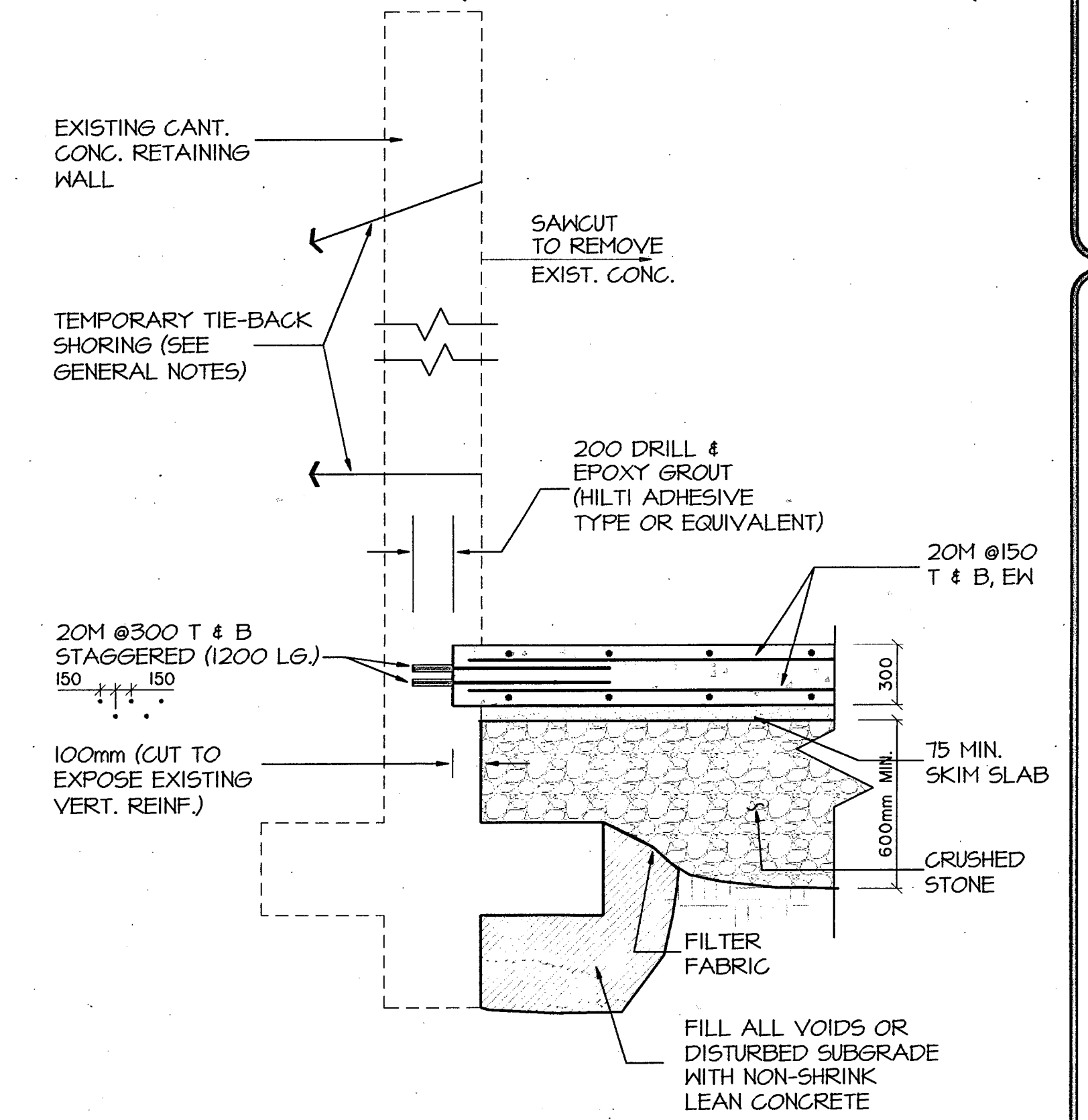
NOTES  
 1. SEE DETAILS 1 & 2 FOR JOINT TREATMENT  
 2. \* VERIFY DIMENSIONS ON-SITE

SECTION A  
 1:25mm



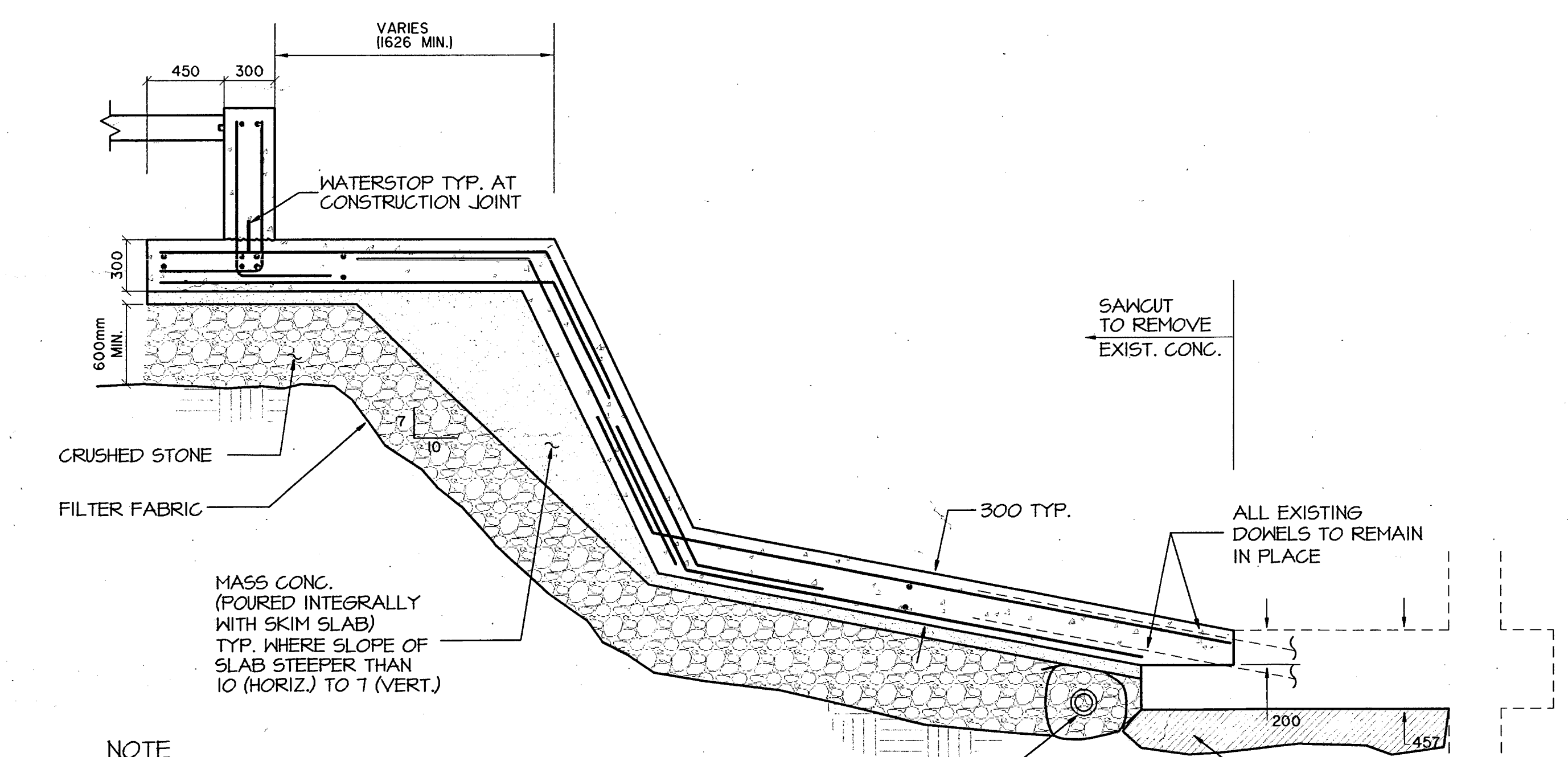
NOTE  
 1. SEE DETAILS 2 FOR CONSTRUCTION JOINT DETAIL

SECTION B  
 1:25mm



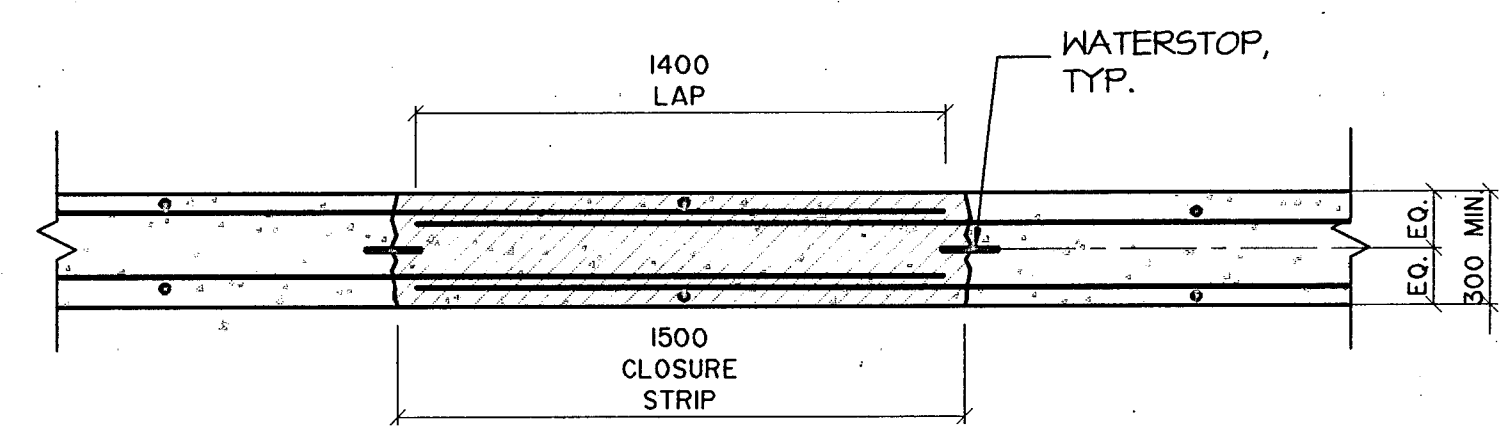
NOTE  
 1. SEE TYPICAL DETAIL 1 FOR TREATMENT OF JOINT BETWEEN NEW AND EXISTING CONCRETE.

SECTION C  
 1:25mm



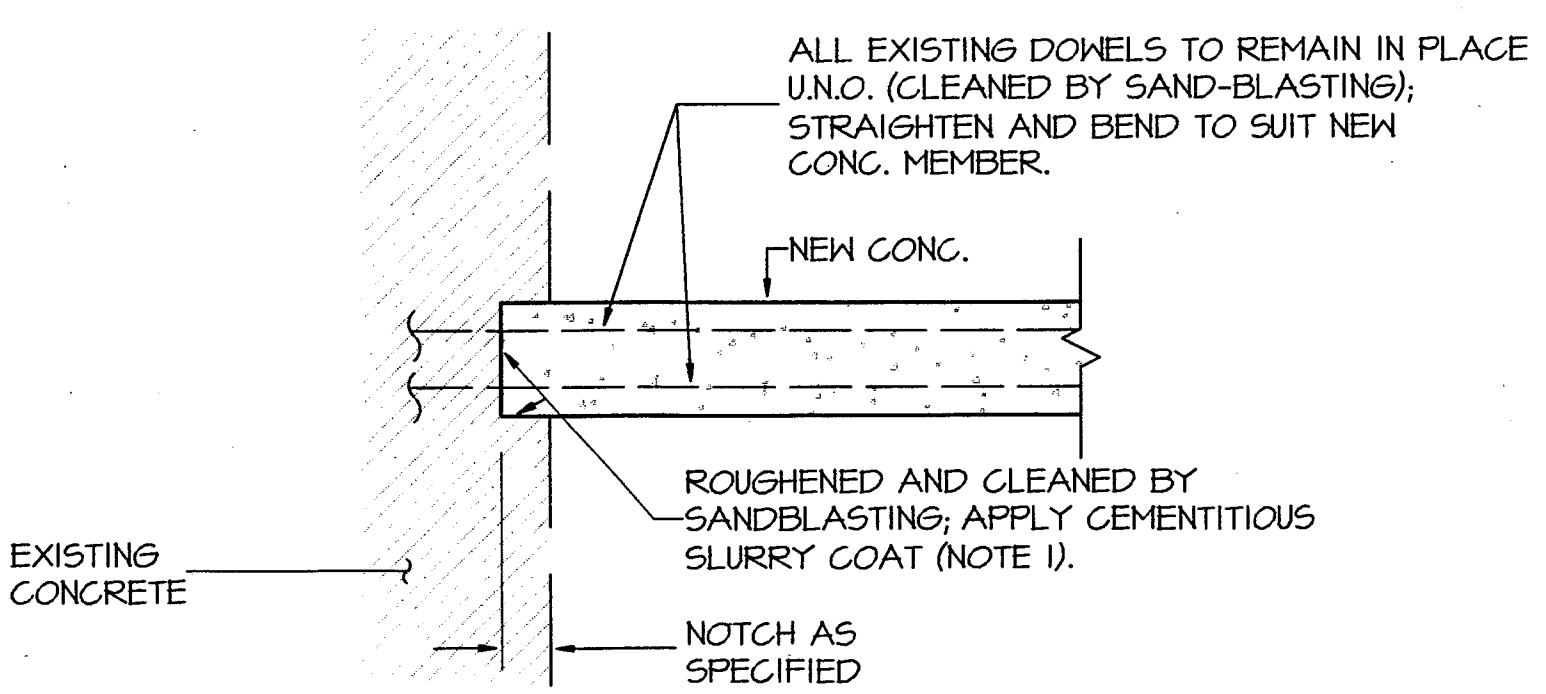
NOTE  
 1. SEE DETAILS 1 & 2 FOR JOINT TREATMENT

SECTION D  
 1:25mm



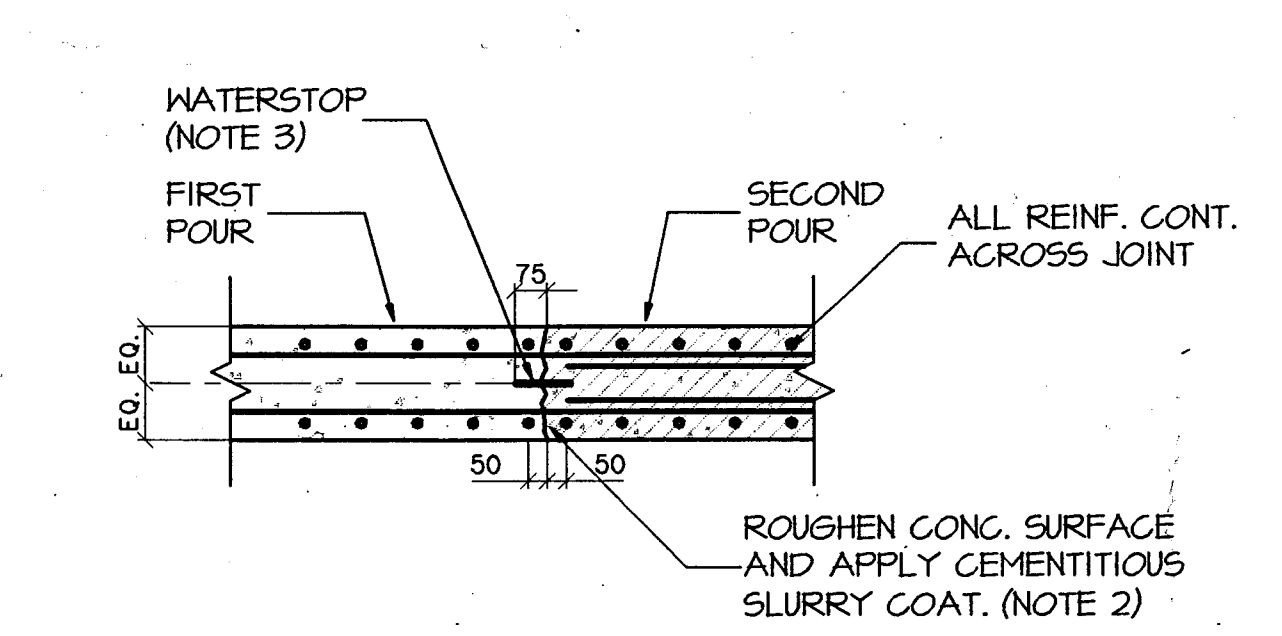
NOTE  
 1. CLOSURE STRIP SHALL NOT BE POURED UNTIL ADJACENT SLABS HAVE BEEN CURED FOR A MINIMUM OF 28 DAYS  
 2. SEE TYP. DETAIL 2 FOR TREATMENT OF CONSTRUCTION JOINT.

SECTION E  
 1:20mm



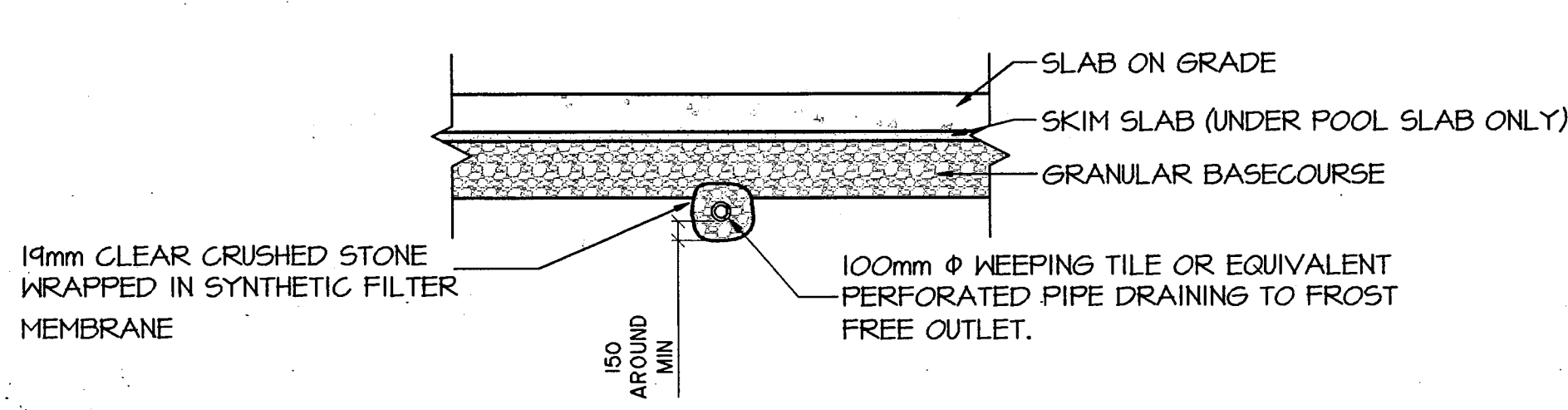
1 TYPICAL JOINT BETWEEN NEW AND EXISTING CONCRETE  
 1:20mm

NOTES  
 1. EXISTING CONCRETE SURFACE SHALL BE THOROUGHLY CLEANED AND IN SATURATED SURFACE DRY CONDITION. APPLY THE CEMENTITIOUS SLURRY COAT IMMEDIATELY BEFORE CONCRETE PLACEMENT TO BOND EXISTING CONCRETE TO NEW CONCRETE.  
 2. NOT MORE THAN 24 HOURS BEFORE PLACEMENT OF THE NEW CONCRETE, THE EXISTING CONCRETE, TO BE IN CONTACT WITH THE NEW CONCRETE, SHALL BE SANDBLASTED INCLUDING ANY REINFORCING BAR THAT IS UNCOVERED UNTIL THE AREA IS FREE OF LOOSE CONCRETE, DIRT AND/OR CORROSION PRODUCTS. THE ABRASIVE BLAST CLEANING SHALL REMOVE ALL SCALE AND CORROSION DEPOSITS FROM THE EXPOSED REINFORCING STEEL. "LOW FREE SILICA" SAND SHALL BE USED FOR SANDBLASTING

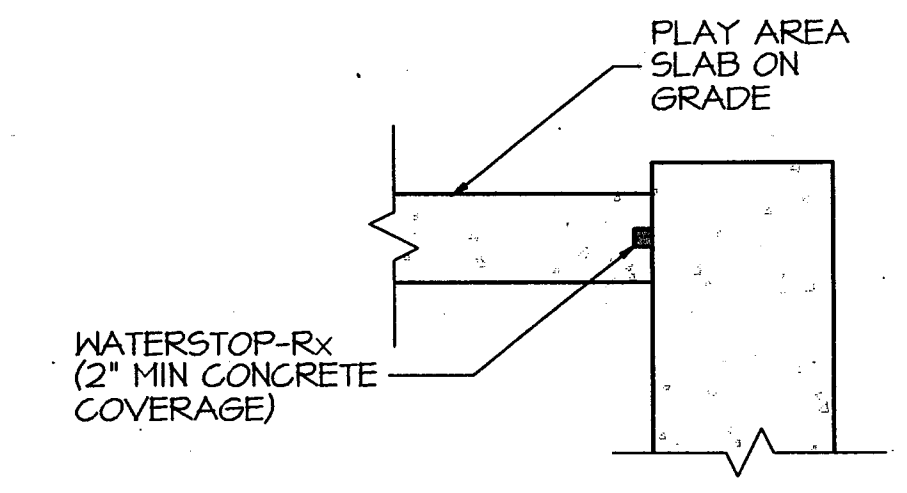


2 TYPICAL CONSTRUCTION JOINT DETAIL (SECTION)  
 1:20mm

NOTES  
 1. CONSTRUCTION JOINTS ARE NOT PERMITTED EXCEPT WHERE INDICATED ON STRUCTURAL DRAWINGS.  
 2. THE SURFACE OF THE SET CONCRETE SHALL BE SUITABLY ROUGHENED, THOROUGHLY CLEANED, AND IN SATURATED SURFACE DRY CONDITION. APPLY CEMENTITIOUS SLURRY COAT IMMEDIATELY BEFORE CONCRETE PLACEMENT TO BOND FIRST CONCRETE POUR TO SECOND CONCRETE POUR.  
 3. WATERSTOP SHALL BE 150 x 6mm STEEL PLATE FREE OF ALL MUD, OIL OR OTHER MATERIAL. SPLICES SHALL BE MADE BY CONT. FULL PENETRATION GROOVE WELDS.



3 TYPICAL UNDERSLAB DRAINAGE SYSTEM  
 1:50mm



4 TYPICAL WATERPROOFING DETAIL  
 1:50mm

"As Built"			
ISSUED FOR TENDER AND BUILDING PERMIT	July 98		
description	date	no.	ref.
revisions & issues			

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**MetroTorontoZoo**  
 POLAR BEAR EXHIBIT RECONSTRUCTION

title		date	
SECTIONS AND TYPICAL DETAILS		DEC 18, 1995	
scale	AS NOTED	drawing no.	18995 - S2
drawn by:	DPT	checked by:	AL

RECEIVED  
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 MAINTENANCE