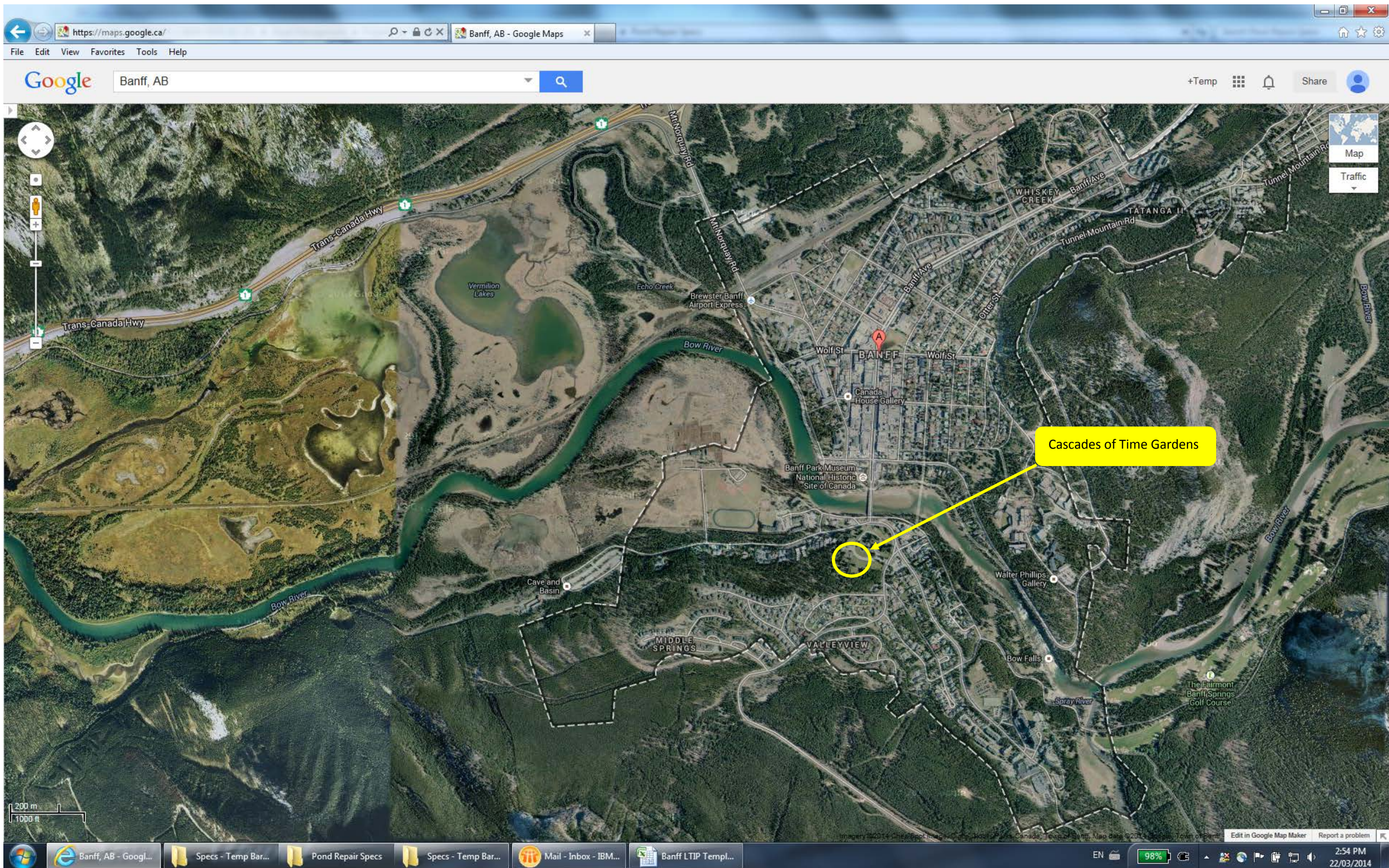


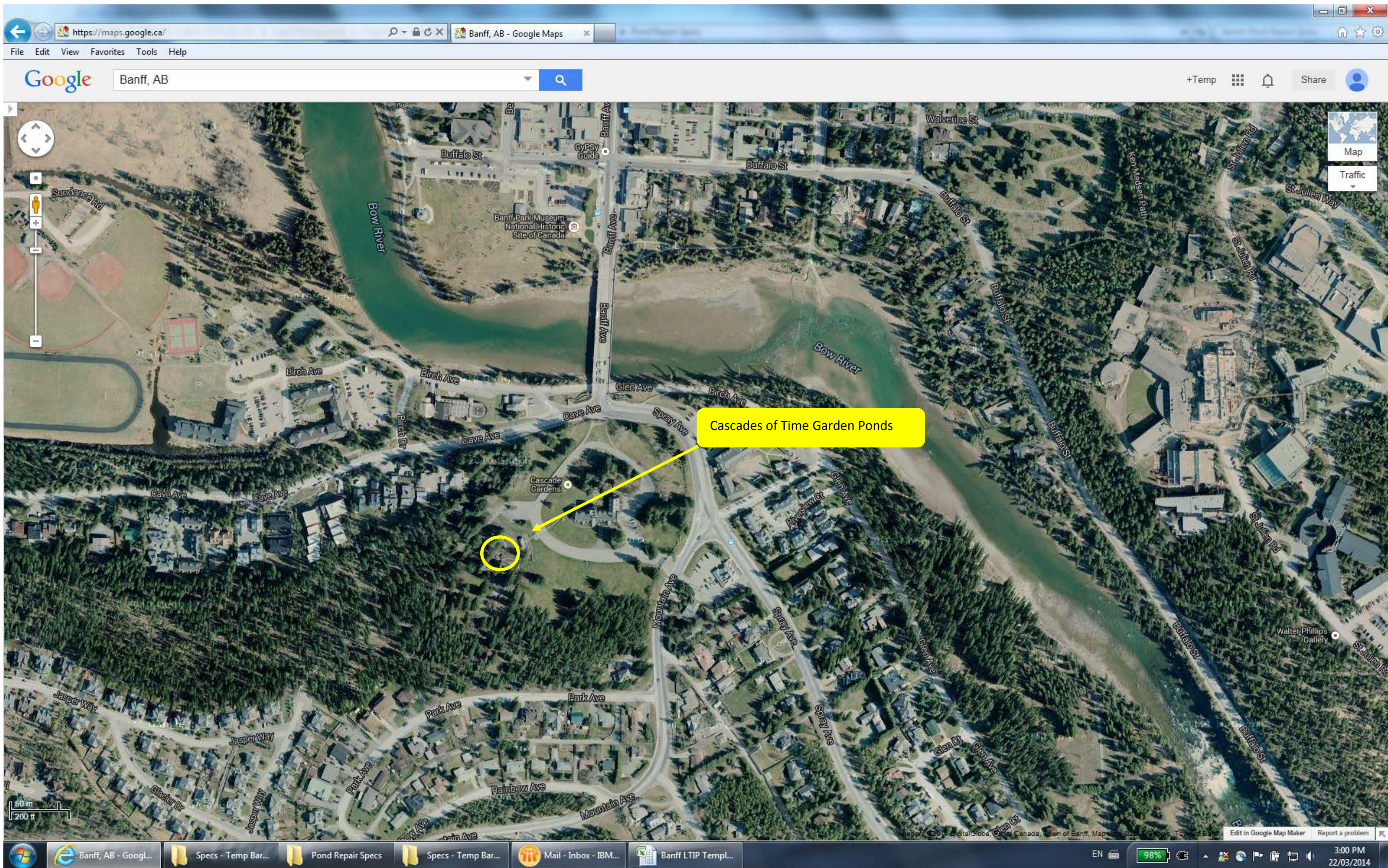
# Appendix A

## Site Location / Plan

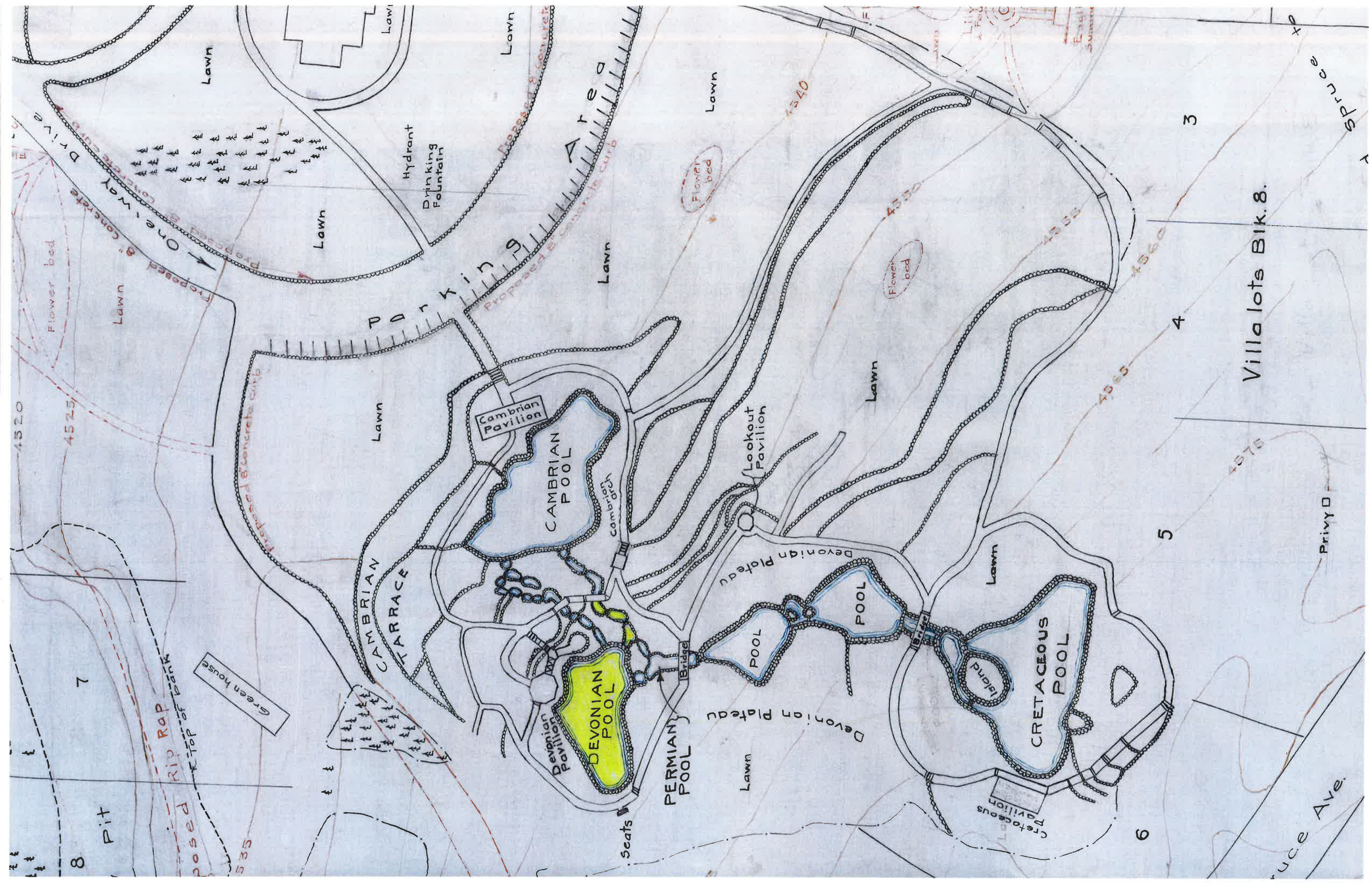












Villalots Bik. 8.



# Appendix B

## Design Details

### Devonian Pool and 3 Down Stream Pools

# CASCADE GARDENS BANFF, ALBERTA

## DEVONIAN POOL REHABILITATION ISSUED FOR TENDER FEBRUARY 2015

### ARCHITECTURAL TAIGH ARCHITECTURE INC.

#425, 24th Ave. N.E.  
Calgary, Alberta T2E 1X2  
Tel : (587) 223-5766  
james@taigh-architecture.com

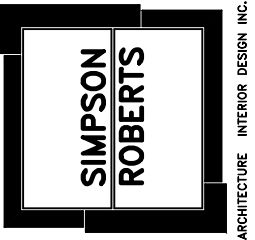
### STRUCTURAL: QUINN SARETSKY STRUCTURAL ENGINEERING INC.

89 Hounslow Dr. N.W.  
Calgary, Alberta T2K 2E6  
Tel: (403) 543-2257  
choc@quinnsaretsky.com

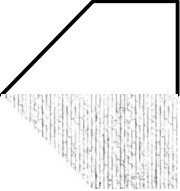
A0.0	COVER SHEET & LIST OF DRAWINGS
A0.1	GENERAL NOTES
A1.1	OVERALL SITE PLAN
A2.1	AS-FOUND PLAN
A2.2	AS-FOUND DETAIL PLAN
A2.3	REHABILITATED PLAN
A2.4	AS-FOUND PLAN / REHABILITATED PLAN
A3.1	ORIGINAL SEQUENCE OF CONSTRUCTION
A3.2	ANALYSIS OF EXISTING CONSTRUCTION
A3.3	REHABILITATION SCOPE OF WORK & DETAIL
A3.4	AS-FOUND SECTION & REHABILITATED SECTION
A3.5	AS-FOUND SECTION
A4.1 THRU A4.9	AS-FOUND PHOTO REFERENCE

S0.1	STRUCTURAL NOTES
S0.2	STRUCTURAL SECTION

**NOTE:**  
ALL CONSERVATION WORK IS TO BE PERFORMED IN  
ACCORDANCE WITH THE STANDARDS & GUIDELINES  
FOR THE CONSERVATION OF HISTORIC PLACES IN  
CANADA



SCALE:	N.T.S.
Date:	JANUARY 2015
Project No.	2670
Drawing No.	A0.0



Project Name:  
CASCADE GARDENS REHABILITATION  
BANFF, ALBERTA

Drawing Title  
DEVONIAN POOL  
COVER SHEET & LIST OF DRAWINGS

INTENT

THE INTENT OF THIS PROJECT IS TO COMPLETE A REHABILITATION OF THE DEVONIAN WATER BASIN & (3) ADJACENT CASCADE PONDS. IT IS INTENDED TO BE THE SECOND PHASE OF REHABILITATION OF ALL THE POOLS AND AS SUCH WILL ACT TO CONFIRM THE EXACT NATURE OF THE CONSTRUCTION OF THE EXISTING POOL STRUCTURES, AND ESTABLISH THE REPAIR PROCEDURE FOR THE FUTURE WORK. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING ELEMENTS:

- 1.) CLEANING OF STONE IN SITU.
- 2.) CAREFUL DISMANTLING OF THE STONE WALLS WITH WORK COMPLETED IN A SEQUENTIAL FASHION. STONES ARE TO BE STORED ON INDIVIDUAL PALLETS SUCH THAT THEY CAN BE RE-INSTALLED IN THE SAME LOCATION AND IN THE SAME ORDER. WORK INCLUDES ACCURATE RE-INSTALLATION OF RANDOM FLOOR STONES. NOTE: THE WALL STONES ARE TO BE RE-INSTALLED BASED ON THE ORIGINAL STONE PATTERNS.
- 3.) REMOVAL OF THE POOL BASIN STONES & FLOOR
- 4.) INSTALLATION OF FREE DRAINING GRANULAR BACK FILL AND WEEPING TILE SYSTEM WITH SUMPS
- 5.) INSTALLATION OF NEW BASIN FLOOR SLAB
- 6.) REPAIR OF EXISTING CONCRETE WALLS & NEW CONCRETE
- 7.) INSTALLATION OF SEAMLESS WATERPROOFING MEMBRANE AND WATER TESTING
- 8.) RE-INSTALLATION OF THE STONE WALLS
- 9.) RE-INSTALLATION OF THE FLOOR STONES
- 10.) RE-FILLING THE POOL AND MONITORING OF WATER LEVELS TO VERIFY INTEGRITY OF INSTALLATION

CASH ALLOWANCES

REFER TO SPECIFICATION SECTION: 01 21 00 – ALLOWANCES

SALVAGE & ARCHAEOLOGICAL CONSIDERATIONS

SALVAGED MATERIAL WILL BE TURNED OVER TO THE OWNER FOR STORAGE AND FUTURE REUSE. MATERIALS TO BE SALVAGED AND/OR REUSED WILL BE ESTABLISHED AT THE INITIATION OF THE PROJECT WITH THE ARCHITECT. DURING EXCAVATION ANY MATERIALS UNCOVERED DURING SUCH WORK ARE TO BE RETAINED AND REVIEWED WITH THE ARCHITECT PRIOR TO DISPOSAL.

SITE SAFETY. CLEANLINESS & PERMITS

OBTAIN ALL DEMOLITION PERMITS, BUILDING PERMITS, OCCUPANCY PERMITS AND OTHER APPLICATIONS REQUIRED TO COMPLETELY EXECUTE THE WORK AT THE CONTRACTOR’S EXPENSE.

ABIDE BY ALL APPLICABLE CODES TO ENSURE THE SAFETY OF THE WORKERS, THE PUBLIC AND ADJACENT TENANTS. COMPLETE JOB HAZARDS ASSESSMENT AND REVIEW ALL CONSTRUCTION PROCEDURES AND SAFE WORK PRACTICES WITH AUTHORITIES HAVING JURISDICTION PRIOR TO PROCEEDING WITH THE WORK.

MAINTAIN THE SITE IN A TIDY CONDITION AT ALL TIMES. REMOVE WASTE MATERIAL AND DEBRIS FROM SITE AT THE END OF EACH WORK DAY. DISPOSE OF ALL WASTE AT AN APPROVED DISPOSAL SITE AND IN AN APPROVED MANNER.

HANDLE AND STORE ALL MATERIALS AND PRODUCTS IN A MANNER TO PREVENT DAMAGE, ADULTERATION, DETERIORATION AND SOILING IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. STORE PACKAGED MATERIALS AND PRODUCTS IN THE ORIGINAL MANUFACTURER’S PACKING WITH SEALS AND LABELS INTACT.

CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE CARE, CUSTODY AND CONTROL OF PROPERTY WHICH IS ASSIGNED TO HIM FOR THE PERFORMANCE OF THE WORK.

CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR AND SHALL MAKE GOOD DAMAGE TO EXISTING PROPERTY ATTRIBUTABLE TO PERFORMANCE OF WORK IN THIS CONTRACT.

MAINTAIN WORK IN A TIDY CONDITION, FREE FROM THE ACCUMULATION OF WASTE PRODUCTS AND DEBRIS. REMOVE WASTE MATERIAL AND DEBRIS FROM THE SITE AT THE END OF EACH WORKING DAY. CLEAN INTERIOR AREAS PRIOR TO START OF FINISHING WORK. MAINTAIN AREAS FREE OF DUST AND OTHER CONTAMINENTS DURING FINISHING OPERATIONS.

BUILDING MOVEMENT

THE TRADE SECTIONS OF THE SPECIFICATIONS HAVE REQUIREMENTS TO PROVIDE EXPANSION AND CONTROL JOINTS WITHIN RIGID MATERIALS AND AT JUNCTIONS TO ADJACENT MATERIALS. THE CONTRACTOR IS TO ENSURE THAT THE STRUCTURAL COMPONENTS ARE ABLE TO MOVE WITHIN THEIR DESIGN LIMITS WITHOUT DETRIMENTAL EFFECTS TO THE EXPOSED FINISH MATERIALS. PROVIDE EXPANSION JOINT COVERS WHERE NOTED AND SEALANT TO ALL OTHER JOINTS EXCEPT WHERE NOTED OTHERWISE.

THE CONTRACTOR IS TO REVIEW IN DETAIL THE WALL, FLOOR AND CEILING REQUIREMENTS TO ACCOMODATE MOVEMENT. ADVISE THE ARCHITECT OF ANY OMISSIONS OR DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.

DRAWINGS. DIMENSIONS & CO-ORDINATION

THESE DRAWINGS ARE NOT TO BE SCALED.

ALL DIMENSIONS ARE TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

ALL WORK SHALL COMPLY WITH THE 2006 ALBERTA BUILDING CODE.

THE CONTRACTOR IS TO INSPECT AND VERIFY EXISTING SITE CONDITIONS AND ADVISE THE CONSULTANT OF ANY DISCREPANCIES, OMISSIONS OR INACCURACIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.

WHERE A PRODUCT OR TYPE OF CONSTRUCTION OCCURS IN THE EXISTING BUILDING AND IT IS NOT SPECIFIED AS PART OF THE NEW WORK, PROVIDE SUCH PRODUCTS OR TYPES OF CONSTRUCTION AS NEEDED TO PATCH, EXTEND OR MATCH THE EXISTING WORK.

FULLY CO-ORDINATE ALL ADDITIONAL SUPPORT REQUIRED FOR ANCHORAGE OF MECHANICAL EQUIPMENT, ACCESS PANELS, OR DUCTS AND ELECTRICAL FIXTURES.

MANUFACTURERS INSTRUCTIONS

UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS, INSTALL AND/OR ERECT PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER’S INSTRUCTIONS. DO NOT RELY ON LABELS OR ENCLOSURES PROVIDED WITH THE PRODUCTS. COMMUNICATE DIRECTLY WITH THE MANUFACTURER’S REPRESENTATIVE AND CONDUCT THE WORK IN ACCORDANCE WITH HIS WRITTEN INSTRUCTION. NOTIFY THE ENGINEER OF ANY CONFLICT BETWEEN THE SPECIFICATIONS AND THE MANUFACTURER’S INSTRUCTION PRIOR TO PROCEEDING WITH THE WORK. IMPROPER INSTALLATION OR ERECTION OF PRODUCTS, DUE TO FAILURE TO COMPLY WITH THESE REQUIREMENTS, SHALL CAUSE THE REMOVAL AND RE-INSTALLATION AT NO INCREASE IN CONTRACT PRICE.

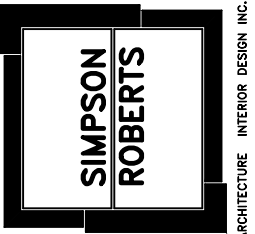
WORKMANSHIP SHALL BE BEST QUALITY, EXECUTED BY WORKERS EXPERIENCED AND SKILLED IN THEIR RESPECTIVE DUTIES FOR WHICH THEY ARE EMPLOYED. IMMEDIATELY NOTIFY THE ARCHITECT IF REQUIRED WORK IS SUCH AS TO MAKE IT IMPRACTICAL TO PRODUCE REQUIRED RESULTS.

PROJECT COMPLETION & CLOSEOUT

WHEN WORK IS COMPLETE REMOVE SURPLUS MATERIALS, TOOLS AND EQUIPMENT – REMOVE ALL WASTE AND DEBRIS FROM SITE.

INSPECT ALL WORK WITH THE CONSULTANT AND OWNER – CARRY OUT CORRECTIVE WORK FOR ALL DEFICIENCIES AS DIRECTED.

- FINAL CLEANING:
1. LEAVE THE WORK CLEAN BEFORE INSPECTION PROCESS COMMENCES.
2. CLEAN AND POLISH GLASS AND METAL FINISHES.
3. REMOVE STAINS, SPOTS, MARKS AND DIRT FROM INTERIOR GYPSUM BOARD SURFACES, ELECTRICAL AND MECHANICAL FIXTURES, EXTERIOR METALS AND EXTERIOR MASONRY.



ARCHITECTURE INTERIOR DESIGN INC.

Project Name:

CASCADE GARDENS REHABILITATION  
BANFF, ALBERTA

Drawing Title

DEVONIAN POOL  
GENERAL NOTES

SCALE:

N.T.S.

Date:

JANUARY 2015

Project No.

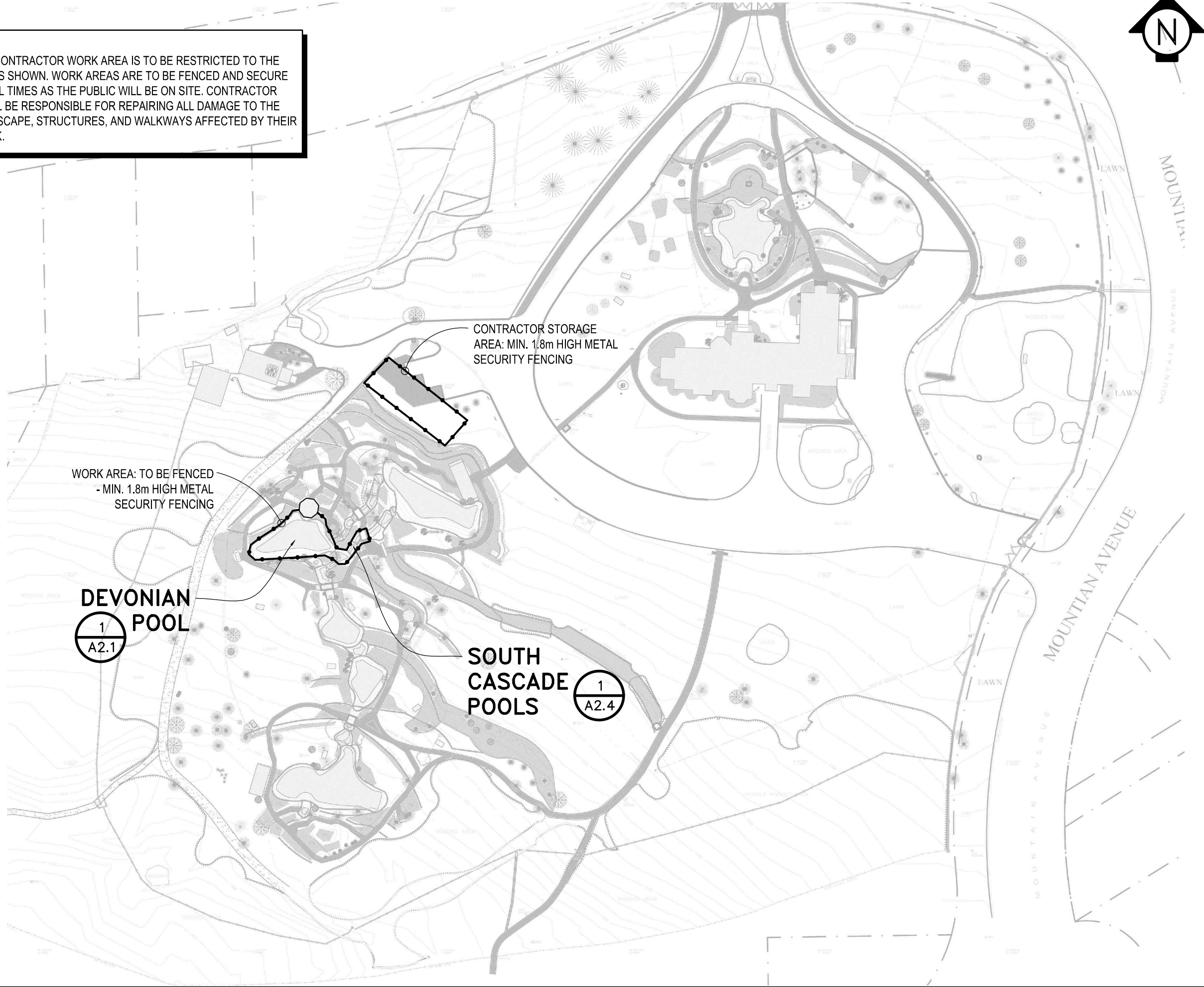
2670

Drawing No.

A0.1

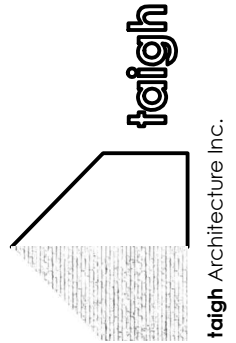
taigh Architecture Inc.

**NOTE:**  
THE CONTRACTOR WORK AREA IS TO BE RESTRICTED TO THE AREAS SHOWN. WORK AREAS ARE TO BE FENCED AND SECURE AT ALL TIMES AS THE PUBLIC WILL BE ON SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE TO THE LANDSCAPE, STRUCTURES, AND WALKWAYS AFFECTED BY THEIR WORK.



**Project Name:**  
CASCADE GARDENS REHABILITATION  
BANFF, ALBERTA

**Drawing Title**  
DEVONIAN POOL  
OVERALL SITE PLAN



**SCALE:**

1 : 1000

**Date:** JANUARY 2015

**Project No.** 2670

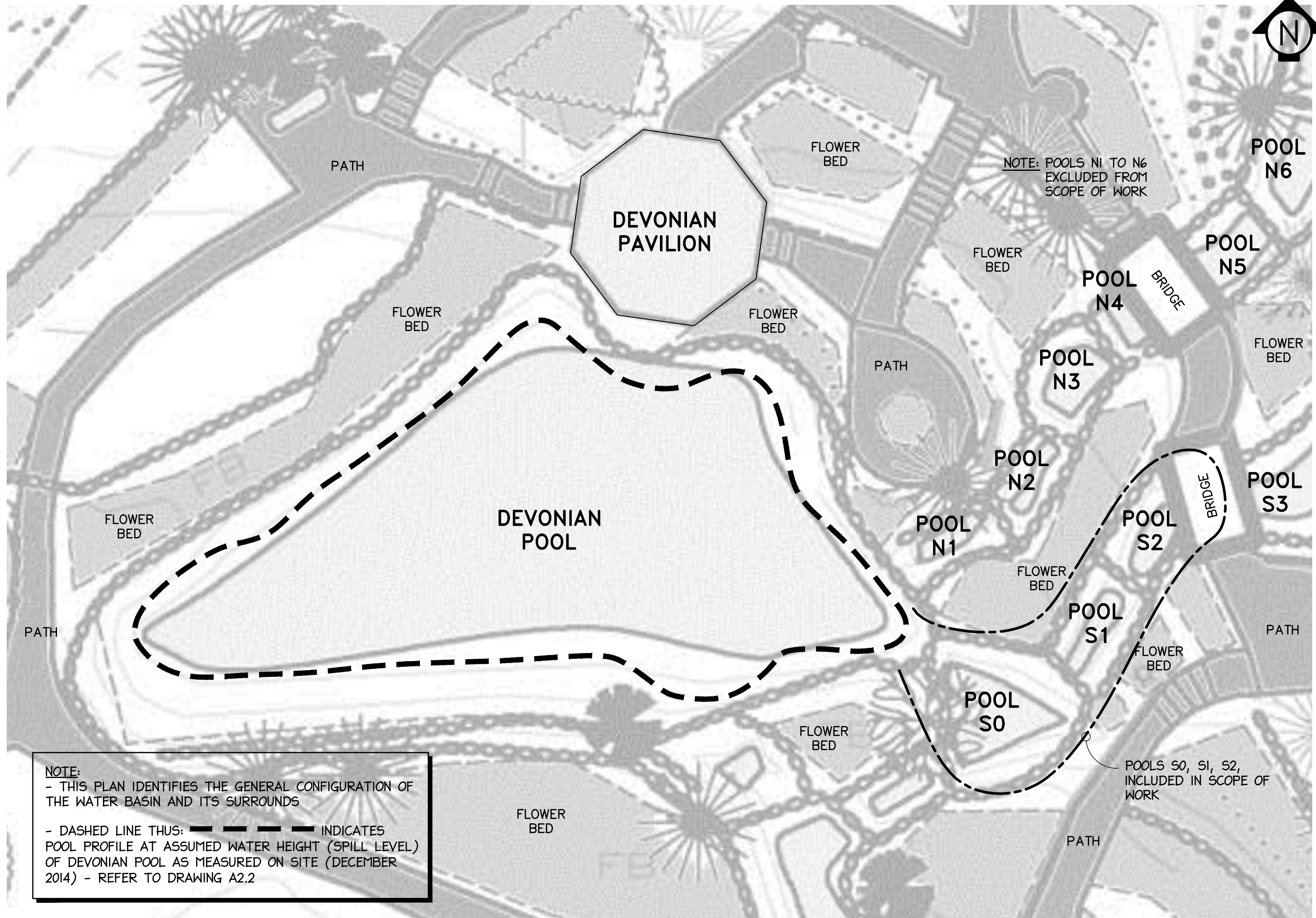
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A1.1

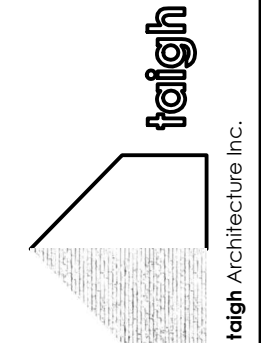
**SIMPSON**  
**ROBERTS**

ARCHITECTURE INTERIOR DESIGN INC.





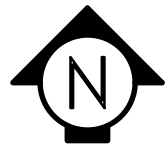
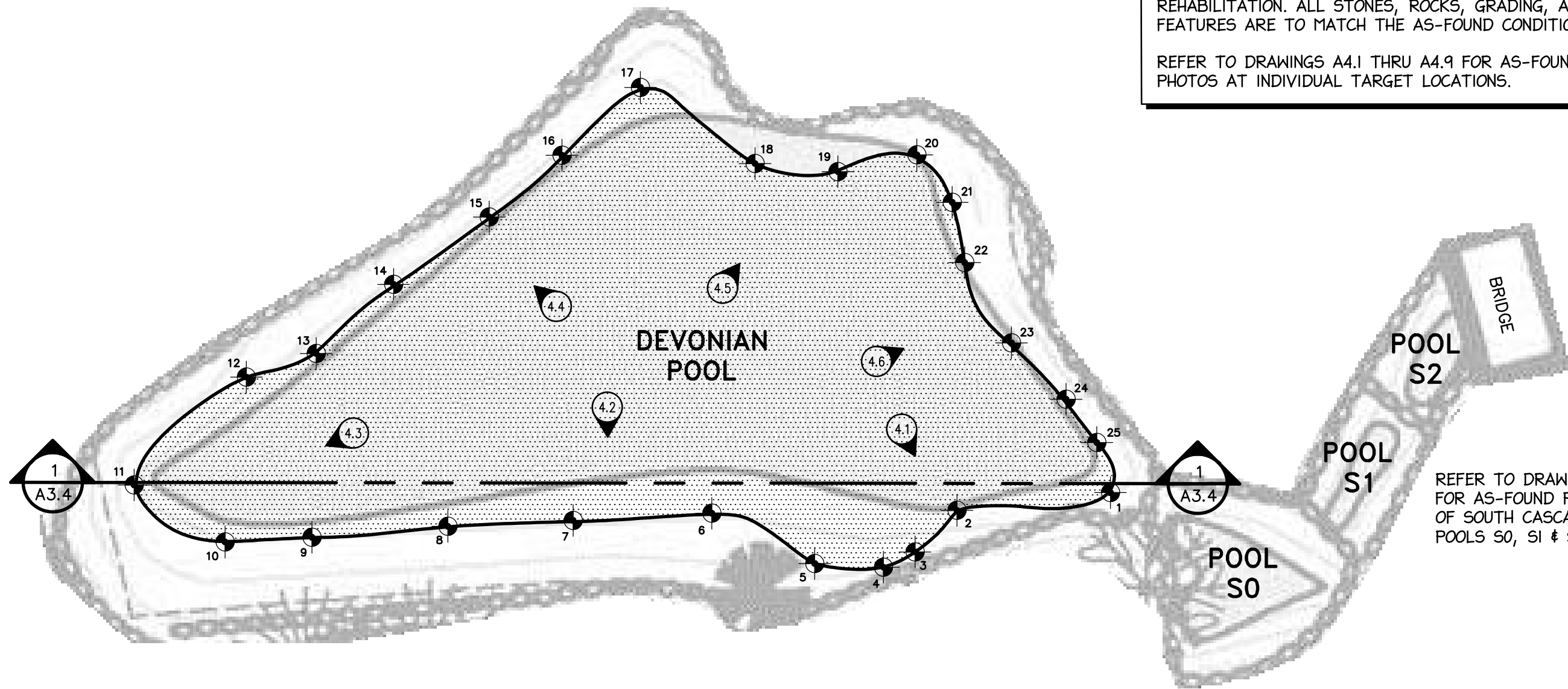
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Date:	JANUARY 2015
Project No.	2670
Drawing No.	A2.1



Project Name:  
**CASCADE GARDENS REHABILITATION  
BANFF, ALBERTA**

Drawing Title  
**DEVONIAN POOL  
EXISTING SITE PLAN**

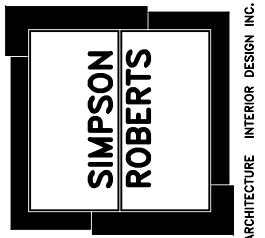




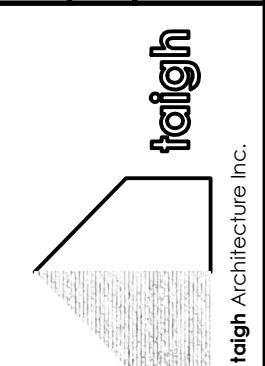
**NOTE:**  
 THIS DIAGRAM IDENTIFIES THE AS-FOUND CONDITION OF THE WATER BASIN. IT IS THE BASIS FOR THE FINAL REHABILITATION. ALL STONES, ROCKS, GRADING, AND FEATURES ARE TO MATCH THE AS-FOUND CONDITION

REFER TO DRAWINGS A4.1 THRU A4.9 FOR AS-FOUND PHOTOS AT INDIVIDUAL TARGET LOCATIONS.

**1 AS-FOUND PLAN**  
 A2.2 SCALE: 1/8" = 1'-0"



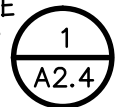
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Date: JANUARY 2015	Drawing No. A2.2
Project No. 2670	



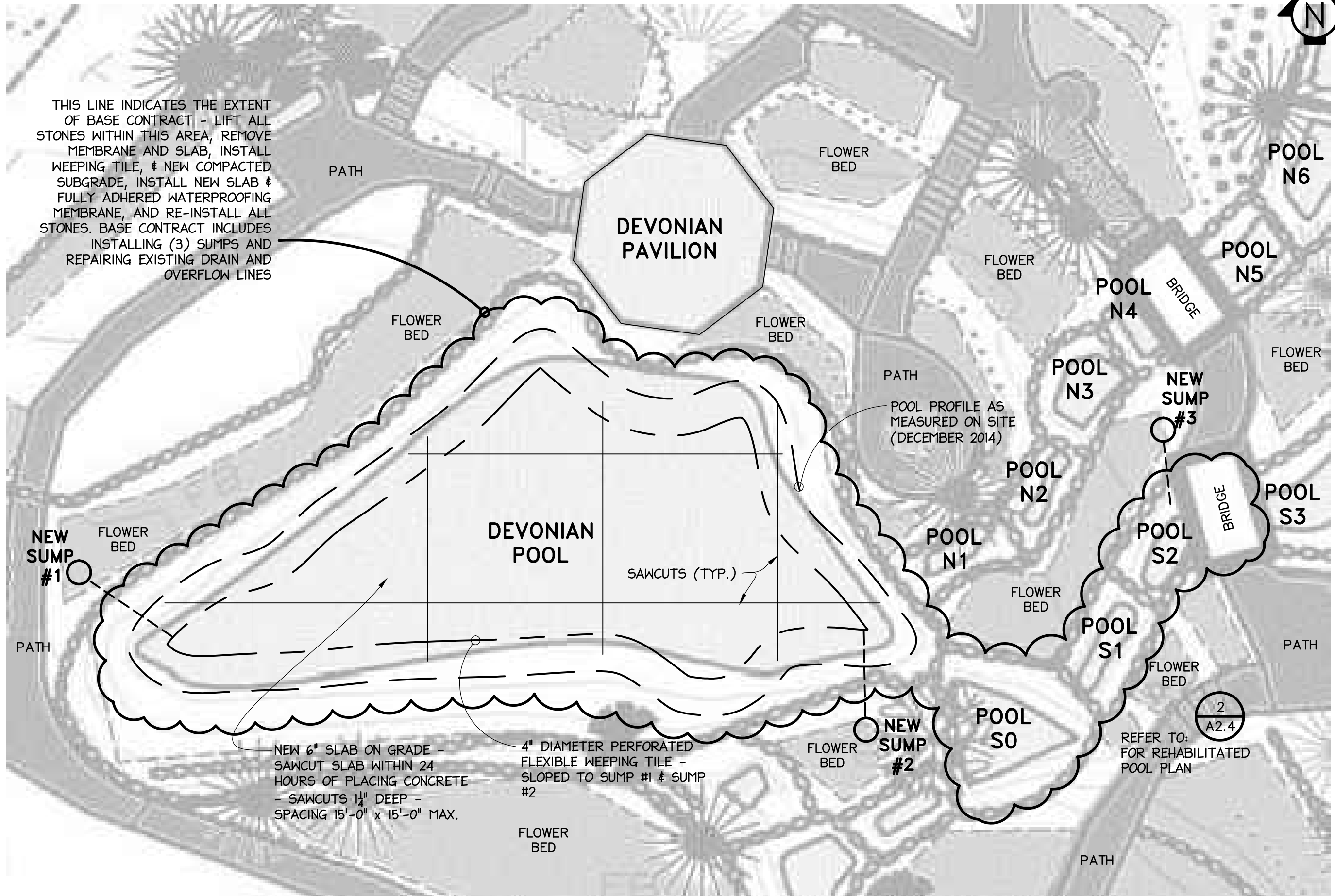
Project Name: CASCADE GARDENS REHABILITATION  
 BANFF, ALBERTA

Drawing Title: DEVONIAN POOL  
 AS-FOUND DETAIL PLAN

REFER TO DRAWING:  
 FOR AS-FOUND PLAN  
 OF SOUTH CASCADE  
 POOLS S0, S1 & S2







THIS LINE INDICATES THE EXTENT OF BASE CONTRACT - LIFT ALL STONES WITHIN THIS AREA, REMOVE MEMBRANE AND SLAB, INSTALL WEEPING TILE, & NEW COMPACTED SUBGRADE, INSTALL NEW SLAB & FULLY ADHERED WATERPROOFING MEMBRANE, AND RE-INSTALL ALL STONES. BASE CONTRACT INCLUDES INSTALLING (3) SUMPS AND REPAIRING EXISTING DRAIN AND OVERFLOW LINES

PATH

FLOWER BED

FLOWER BED

POOL N6

POOL N5

POOL N4

BRIDGE

FLOWER BED

FLOWER BED

POOL N3

NEW SUMP #3

PATH

POOL PROFILE AS MEASURED ON SITE (DECEMBER 2014)

POOL N2

POOL N1

FLOWER BED

POOL S3

BRIDGE

POOL S2

POOL S1

FLOWER BED

PATH

POOL S0

FLOWER BED

NEW SUMP #2

REFER TO: FOR REHABILITATED POOL PLAN

2  
A2.4

DEVONIAN POOL

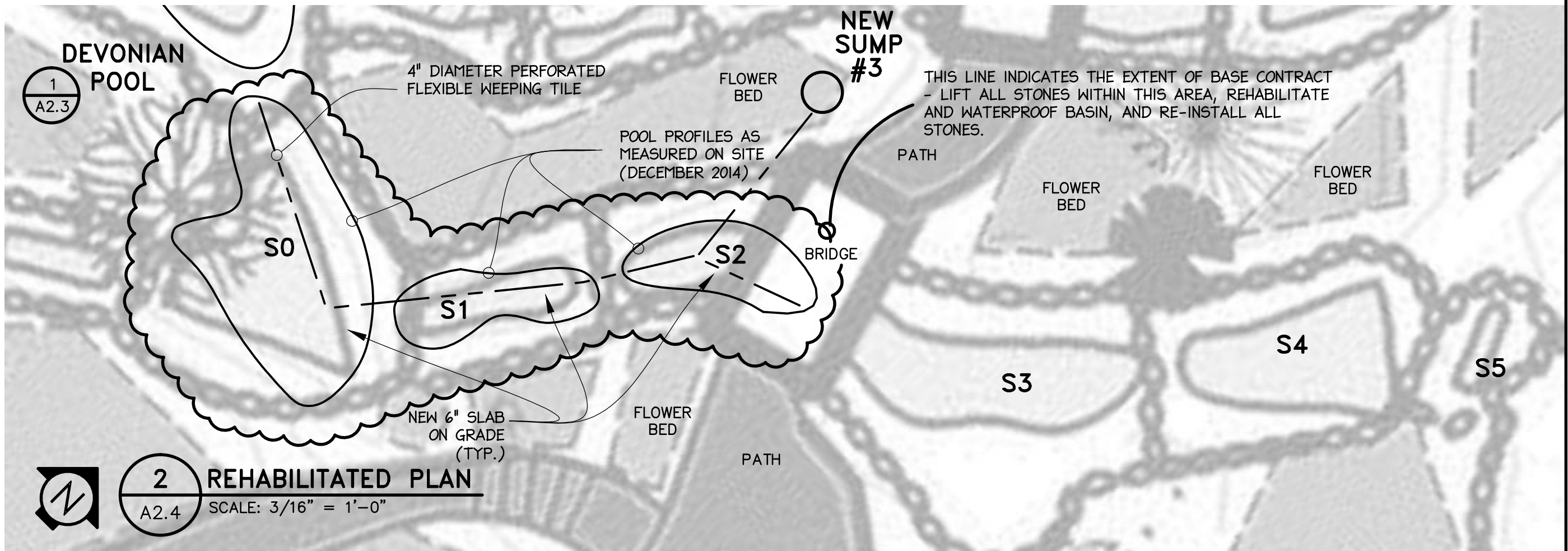
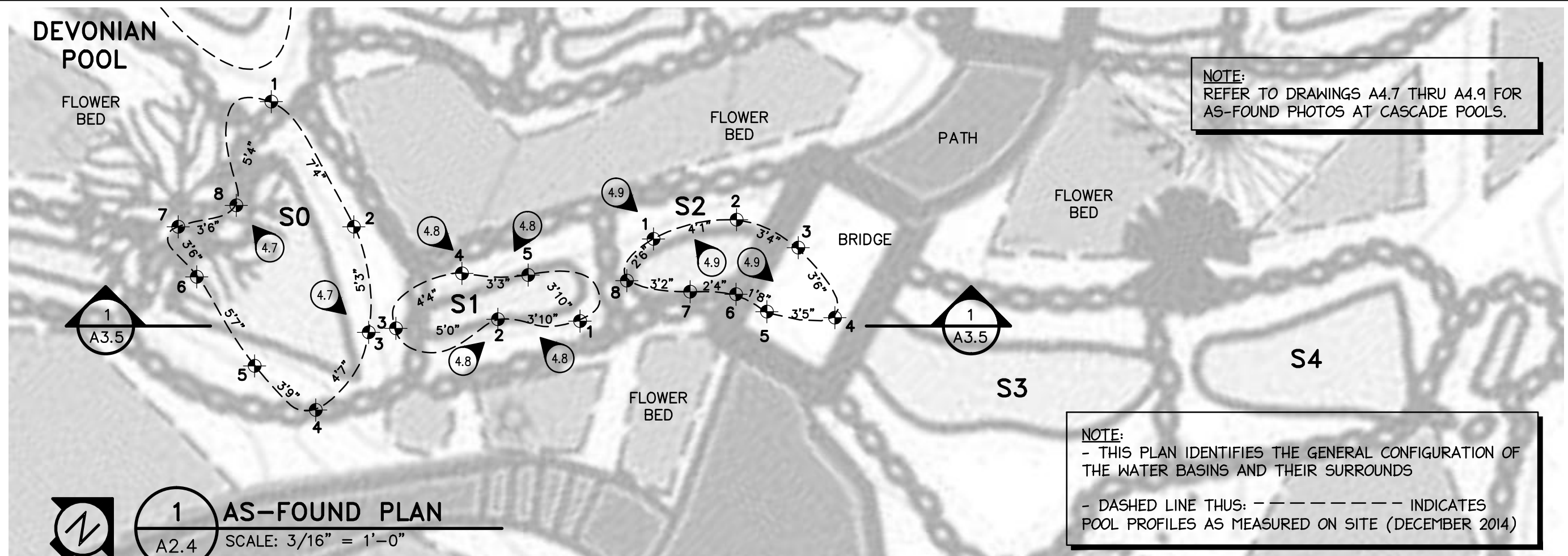
SAWCUTS (TYP.)

FLOWER BED

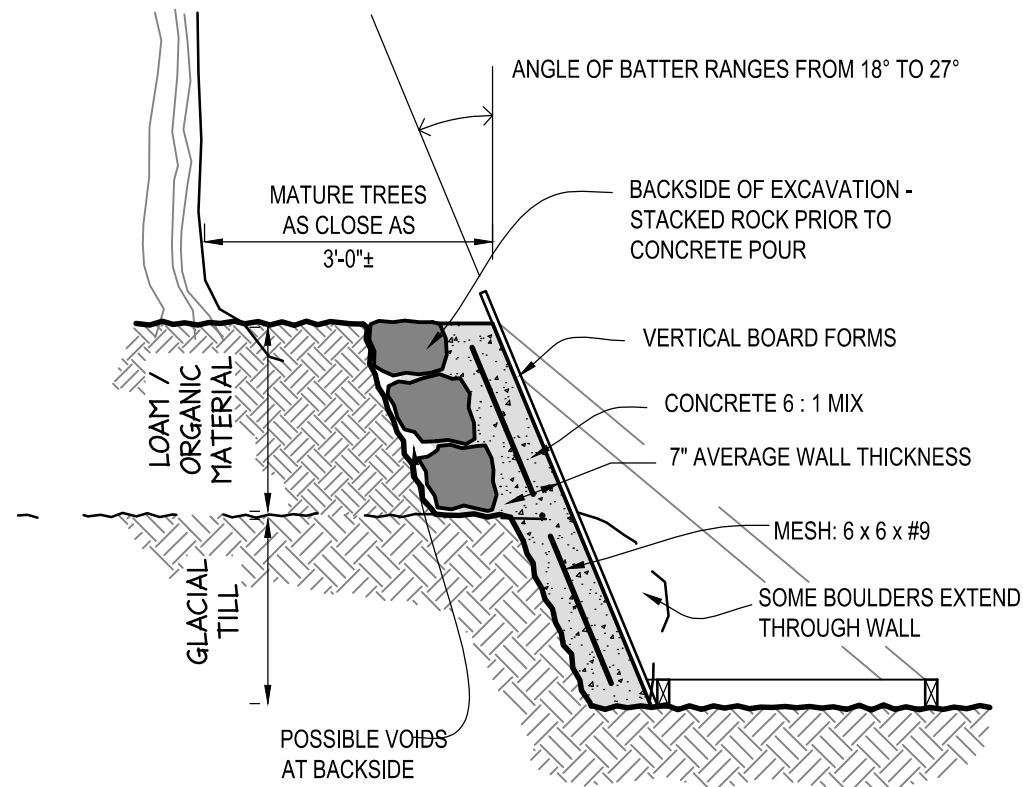
NEW 6" SLAB ON GRADE -  
SAWCUT SLAB WITHIN 24 HOURS OF PLACING CONCRETE -  
SAWCUTS 1 1/4" DEEP -  
SPACING 15'-0" x 15'-0" MAX.

4" DIAMETER PERFORATED FLEXIBLE WEEPING TILE -  
SLOPED TO SUMP #1 & SUMP #2

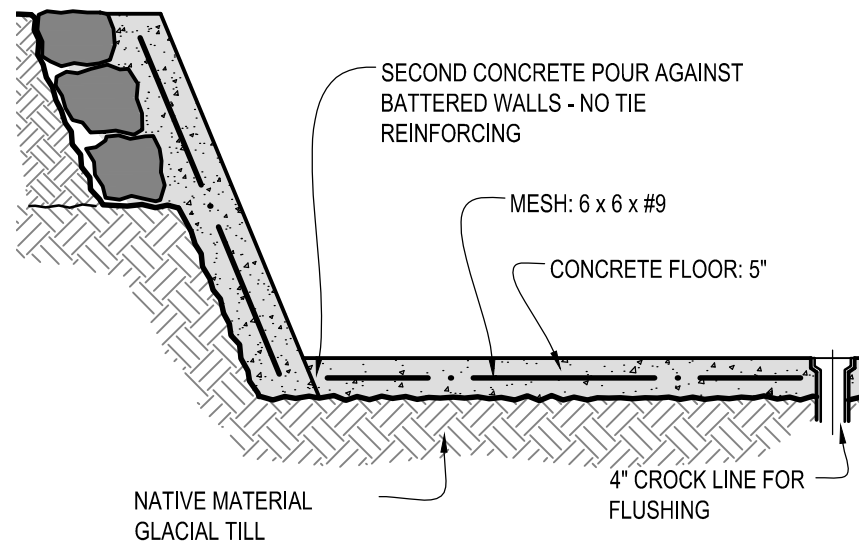




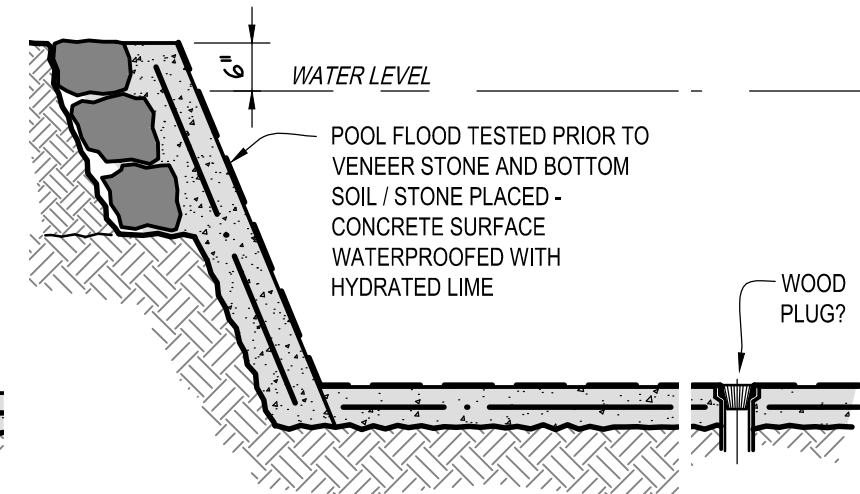




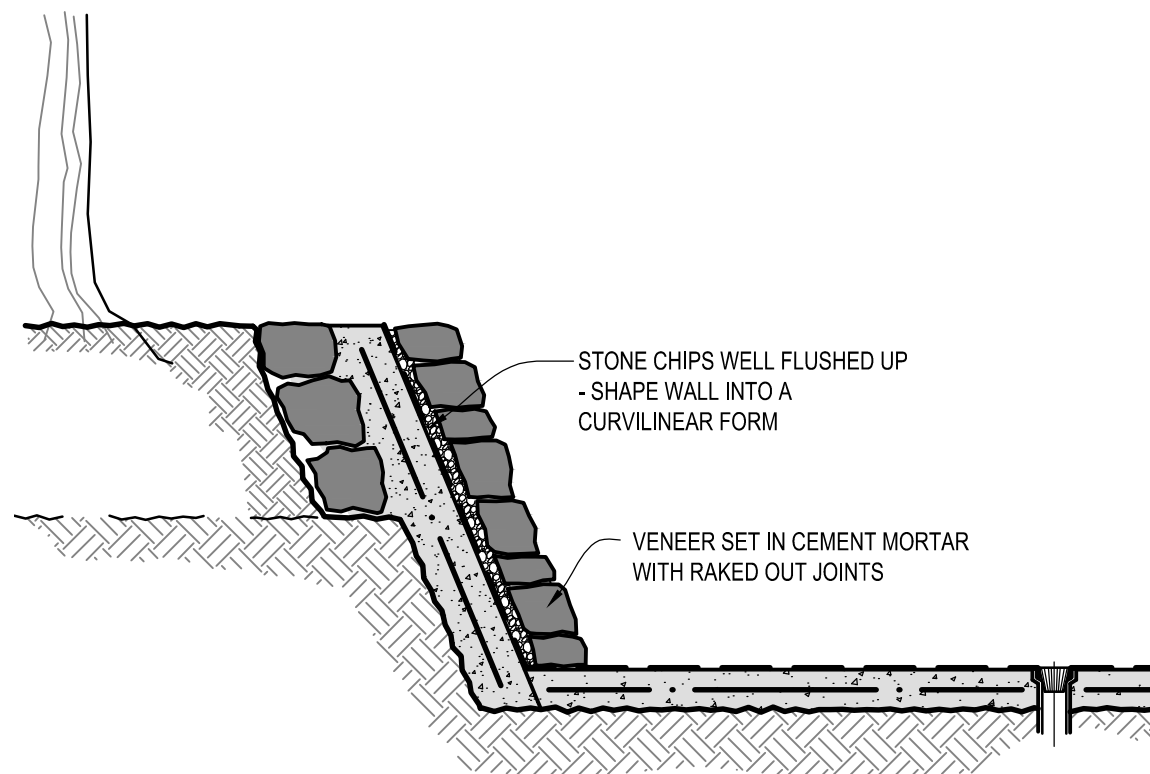
**CONCRETE POUR #1**



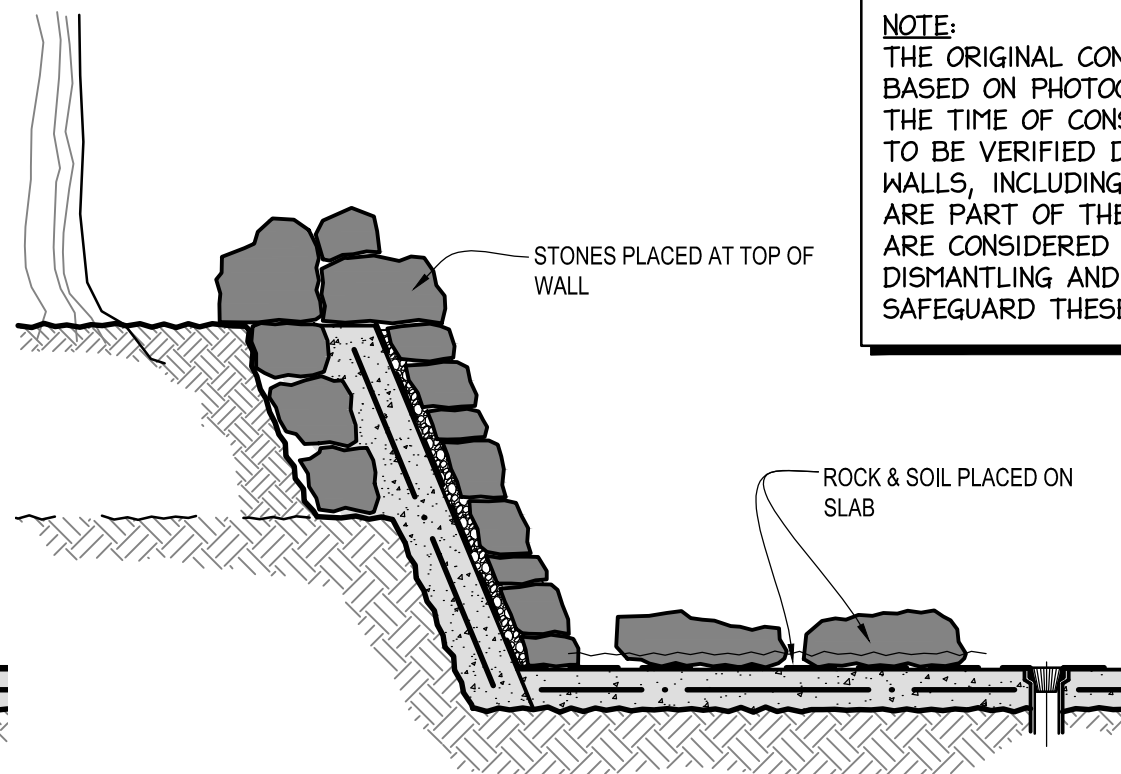
**CONCRETE POUR #2**



**LIME & WATER FLOOD TEST**



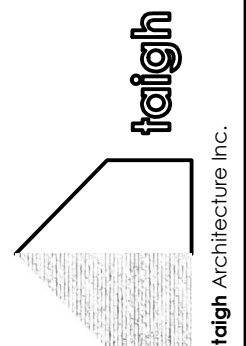
**WALL VENEER**



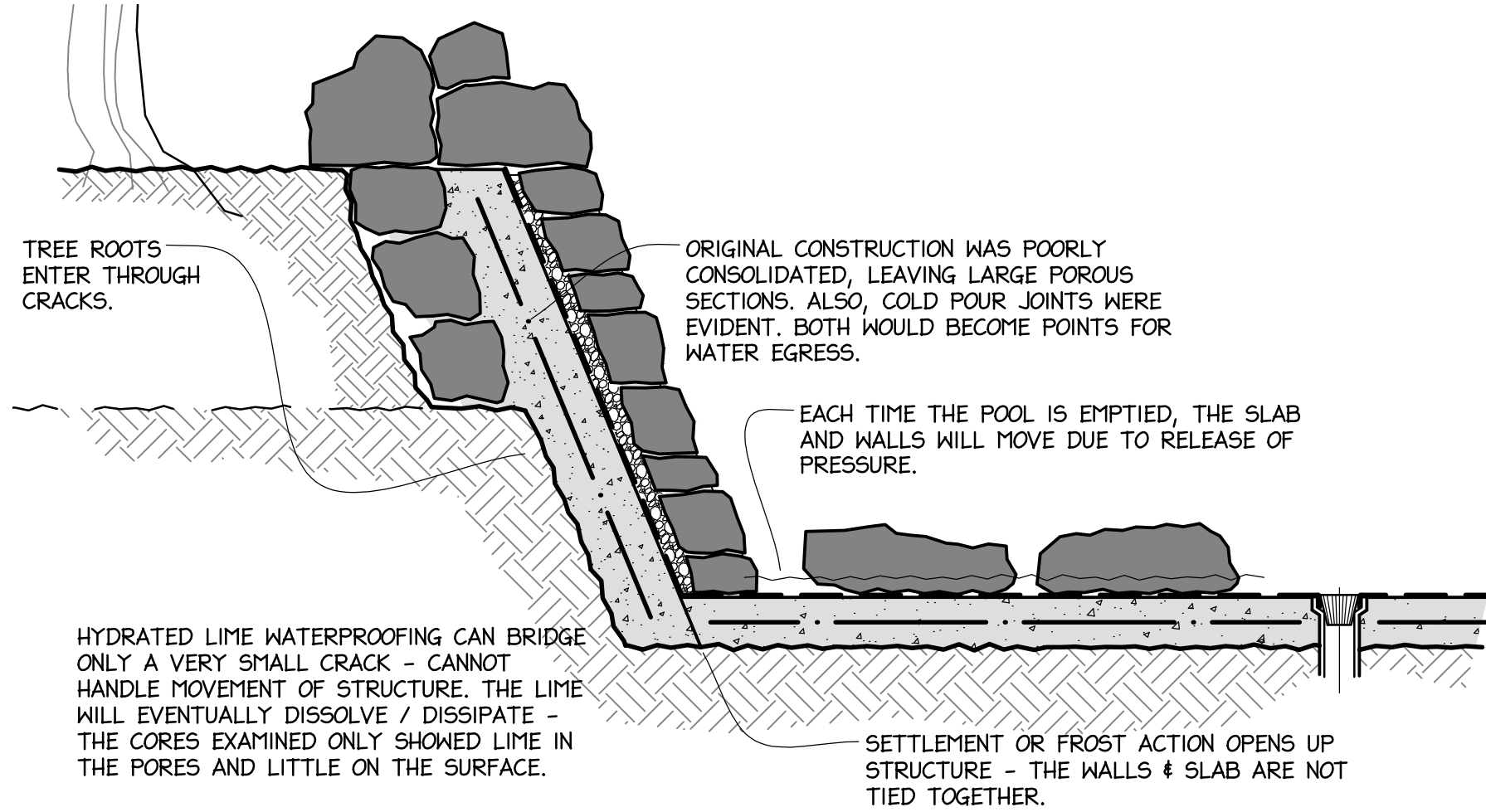
**FINAL STONE PLACEMENT**

**NOTE:**  
THE ORIGINAL CONSTRUCTION SEQUENCE SHOWN IS BASED ON PHOTOGRAPHS AND SPECIFICATIONS FROM THE TIME OF CONSTRUCTION. THE CONSTRUCTION IS TO BE VERIFIED DURING DISMANTLING. THE POOL WALLS, INCLUDING ALL ASSOCIATED STONEWORK ARE PART OF THE ORIGINAL CONSTRUCTION AND ARE CONSIDERED TO BE HISTORIC FABRIC. DISMANTLING AND RECONSTRUCTION WORK MUST SAFEGUARD THESE COMPONENTS AT ALL TIMES

SCALE: 1/2" = 1'-0"	Date: JANUARY 2015	Drawing No. A3.1
	Project No. 2670	

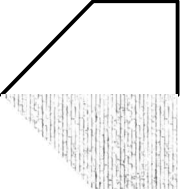




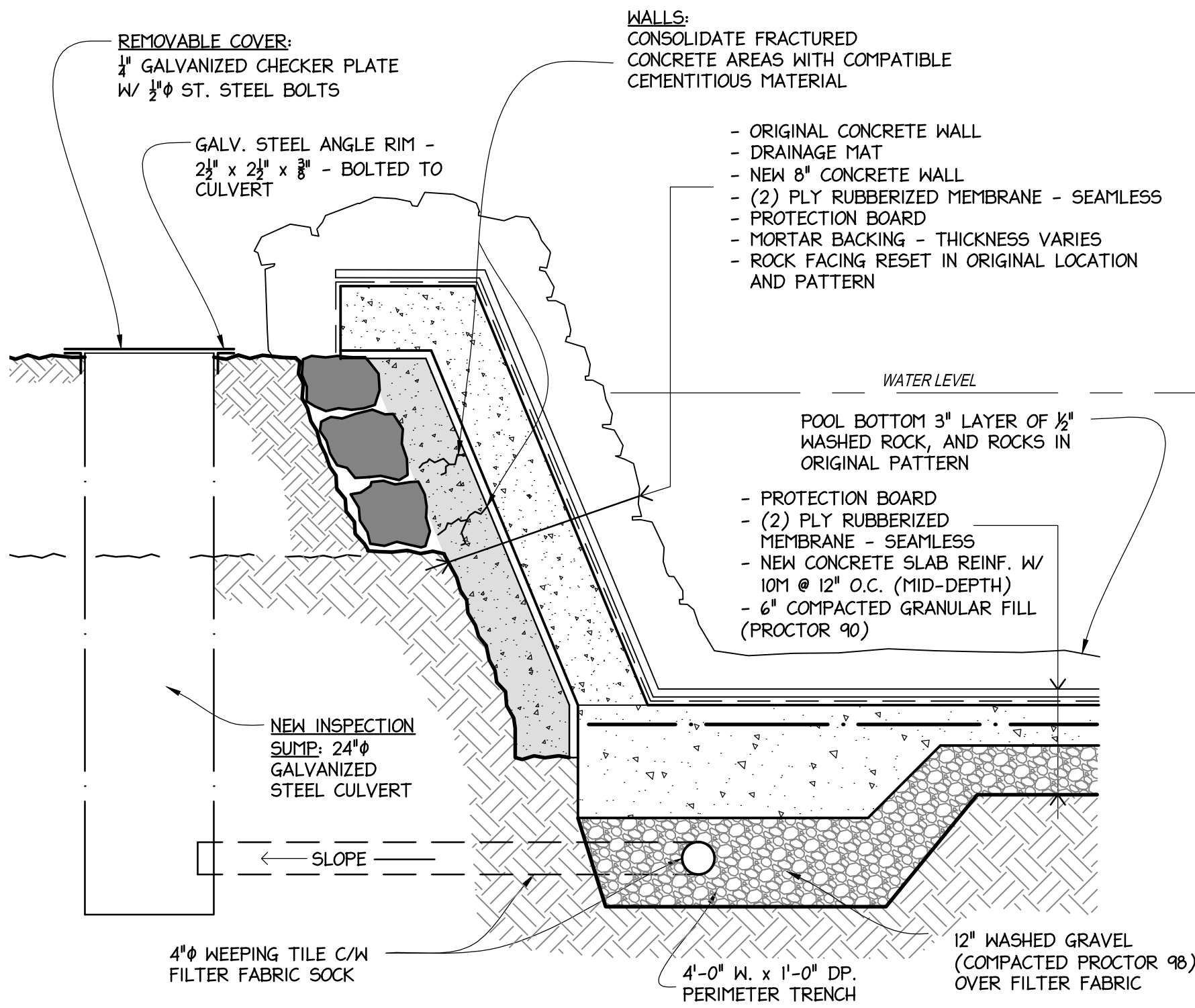


## POSSIBLE MODES OF FAILURE

Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>		SCALE: <b>3/4" = 1'-0"</b>
Drawing Title <b>DEVONIAN POOL ANALYSIS OF EXISTING CONSTRUCTION</b>	Project No. <b>2670</b>	Date: <b>JANUARY 2015</b>
	Drawing No. <b>A3.2</b>	

**taigh**  
Architecture Inc.





## REHABILITATION SCOPE OF WORK

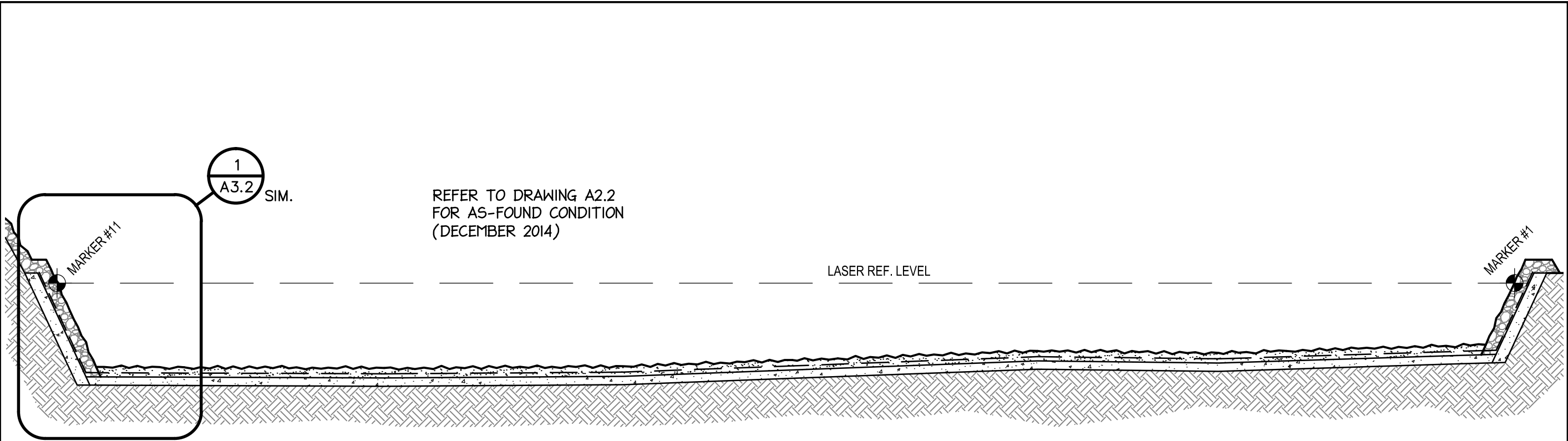
1. CLEAN STONE IN SITU
2. LABEL & REMOVE WALL VENEER STONES IN "COLUMNS", STORE IN NUMBERED PALLETS
3. REMOVE & STOCKPILE ORGANIC MATERIAL FROM POOL BOTTOM; LOCATE, LABEL & STORE LARGE FEATURE STONES
4. REMOVE SAND BED FROM POOL BOTTOM. EXCAVATE FOR NEW SLAB SUB-BASE
5. CLEAN CONCRETE WALLS TO EXPOSE:
  - i) DELAMINATION - CORROSION OF REINFORCING
  - ii) HONEYCOMB IN ORIGINAL
  - iii) CRACK
    - ORIGINAL COLD JOINTS
    - MOVEMENT: THERMAL & LOADS
    - TREE ROOTS
6. CORE SAMPLES AT WALLS - (4) LOCATIONS TO BE DETERMINED BY STRUCTURAL ENGINEER
7. AS-FOUND MAPPING / CONDITION OF CONCRETE WALLS (BY CONSERVATION ARCHITECT)
8. PREPARE EXISTING CONCRETE FOR LOCAL REPAIRS:
  - MUST GET DOWN TO SOLID CONCRETE; REMOVE DETERIORATED MATERIAL
  - HAND GRINDERS (NO LARGE EQUIPMENT)
9. REPAIR CONCRETE WITH COMPATIBLE CEMENTITIOUS MATERIAL
10. INSTALL NEW COMPACTED SUB-BASE AND CONCRETE SLAB
11. INSTALL NEW CONCRETE WALL & FULLY BONDED MEMBRANE
12. FLOOD TEST
13. INSTALL PROTECTION LAYER ON SLAB & WALLS
14. REPLACE STONES FROM NUMBERED PALLETS; REPLACE GROUND LAYER FILL & FEATURE STONES ON SLAB

**1**  
**TYPICAL DETAIL AT REHABILITATED POOL**  
A3.3 SCALE: 3/4" = 1'-0"

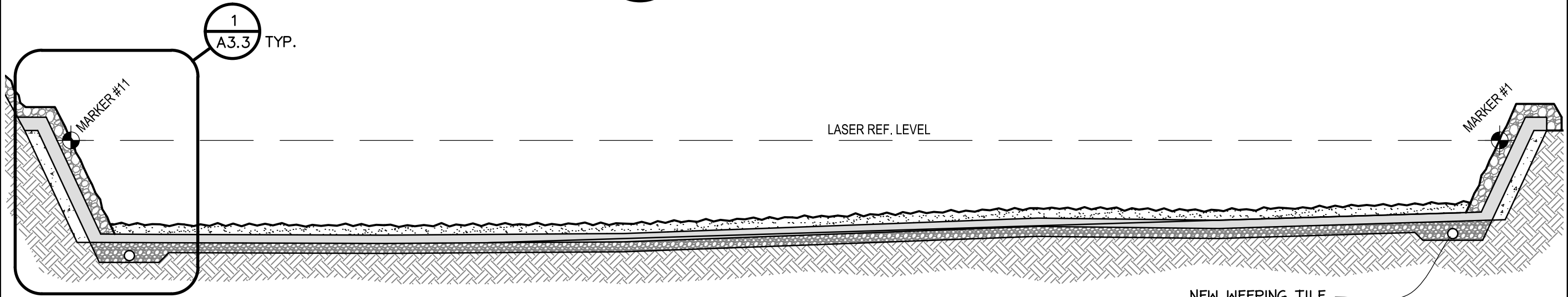
Project Name:	SCALE: 3/4" = 1'-0"	
	Date: JANUARY 2015	Drawing No. A3.3
Project No. 2670	Project Name: CASCADE GARDENS REHABILITATION	
	Project No. 2670	
Drawing Title	DEVONIAN POOL	
	REHABILITATION SCOPE OF WORK & DETAIL	

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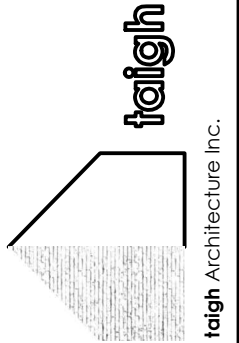


1 **AS-FOUND SECTION**  
A3.4 SCALE: 3/16" = 1'-0"



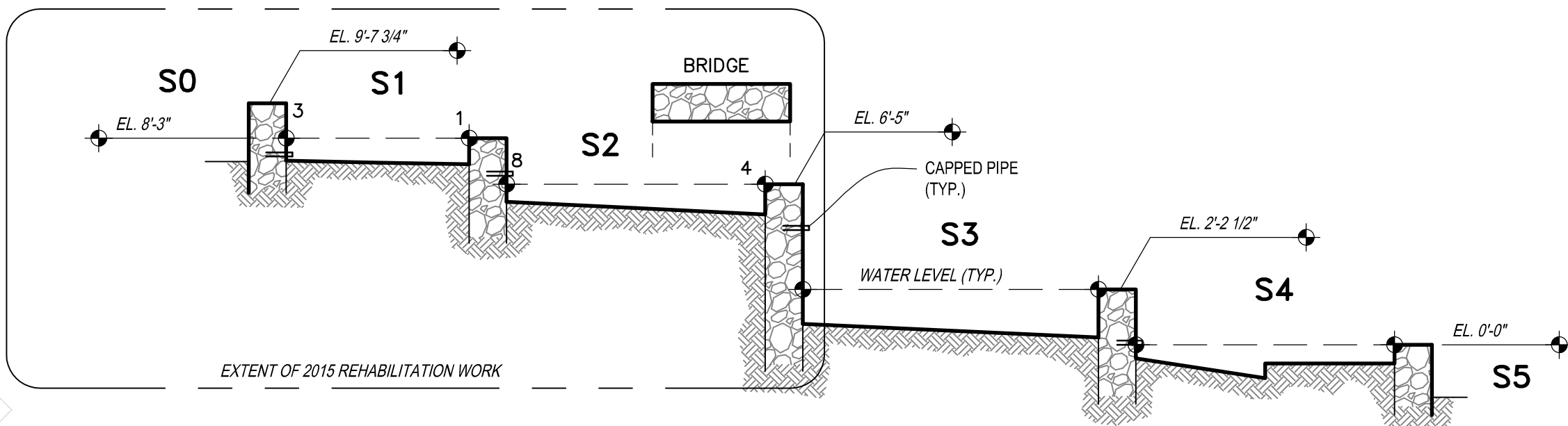
2 **REHABILITATED SECTION**  
A3.4 SCALE: 3/16" = 1'-0"

SCALE: 3/16" = 1'-0"	Date: JANUARY 2015	Project No. 2670	Drawing No. A3.4
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Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>	Drawing Title: <b>DEVONIAN POOL AS-FOUND &amp; REHABILITATED SECTION</b>
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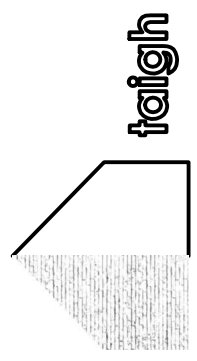
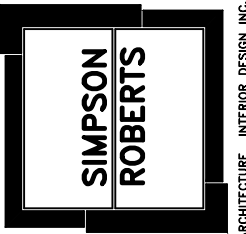


**1**  
A3.5

**SOUTH CASCADE POOLS  
AS-FOUND SECTION**

SCALE: 3/16" = 1'-0"

**NOTE:** THIS SECTION DRAWING IS ILLUSTRATIVE AND INTENDED TO CONVEY THE RELATIVE RELATIONSHIP OF WALL HEIGHTS AND WATER LEVELS ONLY

<b>Project Name:</b> CASCADE GARDENS REHABILITATION BANFF, ALBERTA		<b>Project No.</b> 2670		<b>Scale:</b> 3/16" = 1'-0"	
<b>Drawing Title</b> DEVONIAN POOL - SOUTH CASCADE POOLS - AS-FOUND SECTION		<b>Date:</b> JANUARY 2015		<b>Drawing No.</b> A3.5	
<div><b>taigh</b> Architecture Inc.</div>					
<div>ARCHITECTURE INTERIOR DESIGN INC.</div>					



GENERAL NOTES

1. THIS SET OF DRAWINGS SHOWS THE COMPLETE PROJECT. THE DRAWINGS DO NOT INCLUDE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, FORMWORK, FALSEWORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK.
2. THE GENERAL CONTRACTOR SHALL REVIEW THE DRAWINGS AND CHECK THE DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES TO THE ENGINEER FOR CLARIFICATION.
3. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE ALBERTA BUILDING CODE 2006.

REINFORCING NOTES

1. REINFORCEMENT BE HOT DIPPED GALVANIZED AND SHALL CONFORM TO THE FOLLOWING STANDARDS:
- A. C.S.A. G30.5 – WELDED WIRE MESH  
B. CAN/CSA-G30.18 – GRADE 400 MPa
2. CONCRETE COVER OVER REINFORCEMENT SHALL BE:
- A. SURFACE IN CONTACT WITH GROUND 3”  
B. FORMED SURFACES EXPOSED TO EARTH OR WEATHER 2”
3. DO NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCING BARS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
4. REINFORCING BARS, STIRRUPS AND TIES SHALL BE BILLET STEEL CONFORMING TO CAN/CSA G30.18, 400 MPa.
5. REINFORCING STEEL SHALL BE CUT, BENT, SPLICED, PLACED AND HANDLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF CODE FOR DESIGN OF CONCRETE STRUCTURES FOR BUILDINGS (A23.3) AND THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCEMENT OF CONCRETE STRUCTURES (ACI-315).
6. REINFORCING STEEL SHALL BE FREE FROM LOOSE, FLAKY RUST, MUD, OIL OR OTHER COATINGS WHICH MAY REDUCE BOND.

CONCRETE NOTES

SPECIFICATION

1. CEMENT SHALL BE PORTLAND CEMENT TYPE 50 – U.N.O. CONCRETE SHALL BE STONE CONCRETE WITH A UNIT WEIGHT OF 150 pcf.
2. CONCRETE PROPERTIES:

ELEMENT	MIN. 56 DAY STRENGTH (MPa)	SLUMP (mm)	MAX. AGG. SIZE (mm)	EXPOSURE CLASS
SLAB & WALL	32 MPa	75mm	20mm	C-1

- NOTES:
- PUMP MIXES ALSO AS ABOVE
  - WATER CEMENT RATIOS FOR EXPOSURE CLASSES AS TABLE 2, CAN/CSA-23.1.
  - AIR CONTENT FOR EXPOSURE CLASSES AND AGGREGATE SIZE AS TABLE 4 CAN/CSA-23.1.
  - SLUMP TOLERANCE – 3/4” FOR SLUMPS 3” OR LESS, OTHERWISE 1-1/2”.
  - AGGREGATE SIZES SHOWN ARE MAXIMUMS. SMALLER SIZES MAY BE USED.
  - LOWER SLUMPS MAY BE USED SUBJECT TO APPROVAL.
  - MIX DESIGNS SHALL STATE THE ELEMENT FOR WHICH THEY ARE INTENDED.

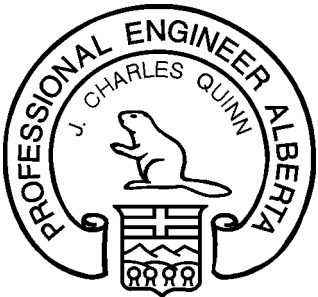
3. NO CALCIUM CHLORIDE, IN ANY FORM, IS PERMITTED IN ANY CONCRETE MIX.
4. DO NOT USE ADMIXTURES OTHER THAN AIR ENTRAINMENT, STANDARD WATER REDUCERS, OR SUPER PLASTICIZERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
5. REJECT ALL CONCRETE WHEN TIME BETWEEN BATCHING AND PLACING EXCEEDS 2 HRS.
6. DO NOT ADD WATER TO THE CONCRETE ON SITE UNLESS AUTHORIZED BY THE ENGINEER.
7. CONSOLIDATE ALL CONCRETE USING MECHANICAL VIBRATORS.
8. INSTALL CONSTRUCTION JOINTS AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
9. PROTECT CONCRETE FROM ADVERSE WEATHER CONDITIONS IN ACCORDANCE WITH CSA A23.1 OR AS DETERMINED BY THE ENGINEER.
10. CONSTRUCT FORMWORK IN ACCORDANCE WITH WCB REGULATIONS AND CSA S269.3. FORMWORK DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR.

FIELD REVIEW BY QUINN SARETSKY STRUCTURAL ENGINEERS INC.

QUINN SARETSKY STRUCTURAL ENGINEERS INC. PROVIDES REVIEW ONLY FOR THE WORK SHOWN ON THESE DRAWINGS. THIS REVIEW IS NOT A "FULL TIME" REVIEW, BUT RATHER A PERIODIC REVIEW TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY QUINN SARETSKY STRUCTURAL ENGINEERS INC.. FIELD REVIEW BY QUINN SARETSKY STRUCTURAL ENGINEERS INC. DOES NOT MAKE US GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.

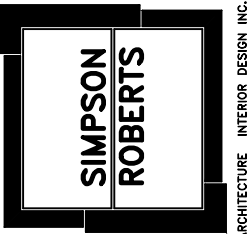
COLD WEATHER REQUIREMENTS

- IN COLD WEATHER, ALL HEATING EQUIPMENT AND PROTECTIVE ENCLOSURES SHALL BE ON THE JOB READY FOR USE WHEN CONCRETE IS PLACED. SUCH EQUIPMENT SHALL BE ADEQUATE FOR THE PURPOSE OF HEATING THE CONCRETE MATERIALS AND PROTECTING THE CONCRETE IN ACCORDANCE WITH CSA A23.1, 2, & 3 AND THE FOLLOWING REQUIREMENTS:
1. WHENEVER THE TEMPERATURE OF THE SURROUNDING ATMOSPHERE IS 5 DEG C OR LOWER, OR THERE IS A PROBABILITY OF IT FALLING BELOW 5 DEG C, ALL AGGREGATES AND WATER SHALL BE PRE-HEATED AND ALL FORMS, FILL AND GROUND WITH WHICH THE CONCRETE IS IN CONTACT OR IS CALCULATED TO COME IN CONTACT WITH, SHALL BE DEFROSTED. STEEL REINFORCEMENT AND AGGREGATES SHALL BE PROTECTED BY ADEQUATE MEANS TO PREVENT FORMATION OF AN ICE FILM.
2. ALL CONCRETE WHEN PLACED IN THE FORMS SHALL HAVE A TEMPERATURE BETWEEN 16 DEG C AND 27 DEG C AND ADEQUATE MEANS SHALL BE PROVIDED BY ENCLOSURES AND HEATING APPURTENANCES FOR MAINTAINING A TEMPERATURE OF AT LEAST 22 DEG C FOR THE FIRST SEVEN DAYS AND AT LEAST 10 DEG C FOR AS MUCH MORE TIME AS MAY BE NECESSARY TO ENSURE THE PROPER CURING OF THE CONCRETE.
3. ALL CANVAS OR OTHER PROTECTIVE COVERING SHALL BE KEPT CLEAR OF ALL CONCRETE IN ORDER TO PERMIT FREE CIRCULATION OF AIR AROUND ALL WALLS, COLUMNS, AND OVER THE TOPS OF ALL SLABS.



Quinn Saretsky STRUCTURAL ENGINEERS INC.  
Calgary, Alberta  
PH: (403) 543-2257 FAX: 271-5904  
Permit No. P7453

JOB# 1349-3-15



ARCHITECTURE INTERIOR DESIGN INC.

Project Name:

CASCADE GARDENS REHABILITATION  
BANFF, ALBERTA

Drawing Title

DEVONIAN POOL  
STRUCTURAL NOTES

SCALE:

N.T.S.

Date:

JANUARY 2015

Project No.

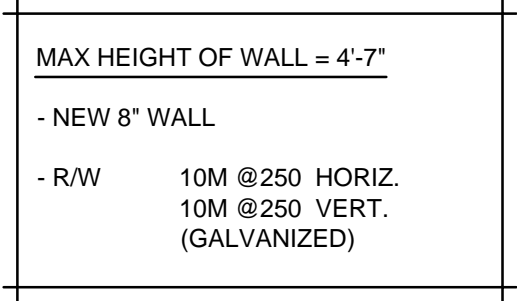
2670

Drawing No.

S0.1

taigh

taigh Architecture Inc.



JOB# 1349-3-15



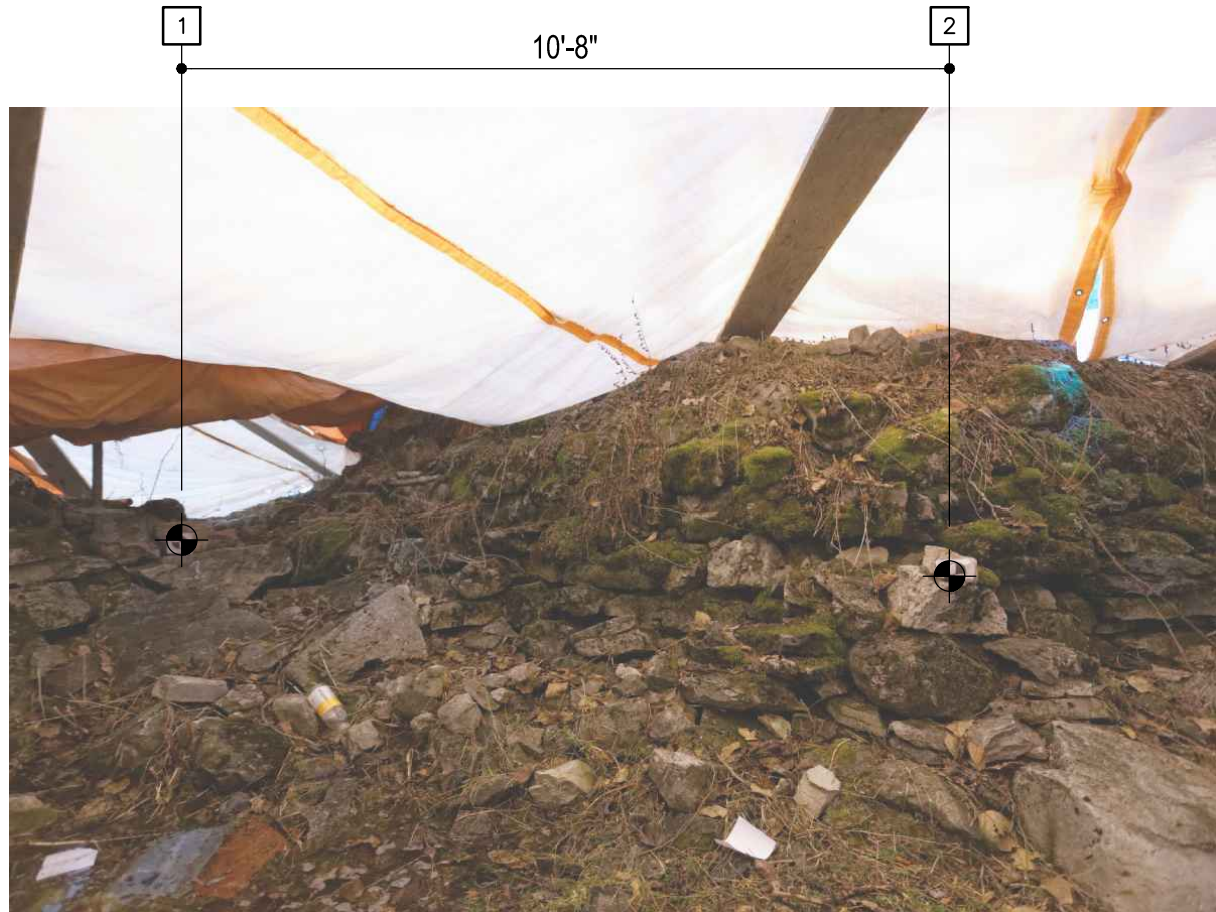


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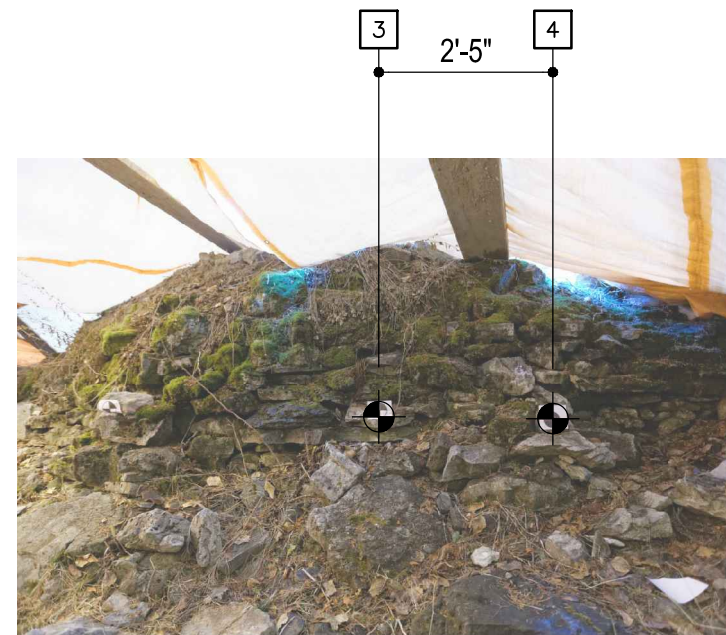


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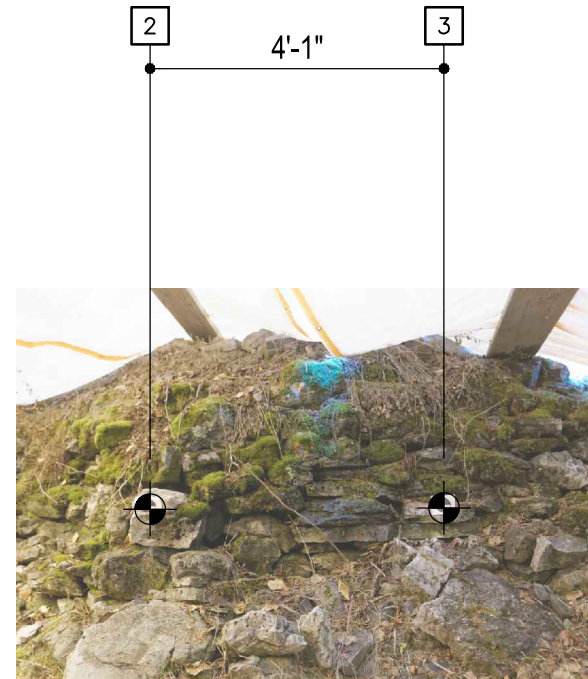


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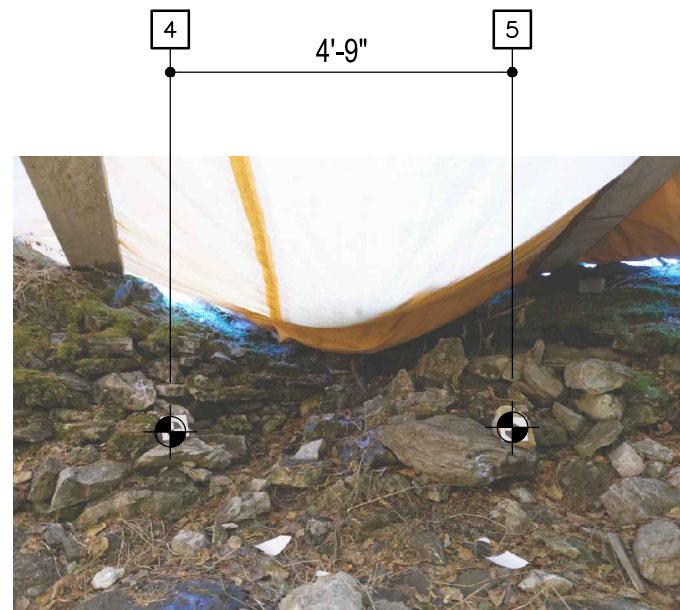
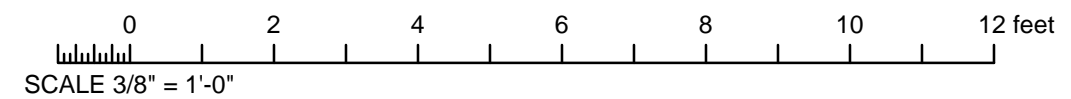
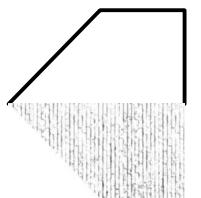



PHOTO #4



<div>Project Name: CASCADE GARDENS REHABILITATION BANFF, ALBERTA</div> <div>Drawing Title DEVONIAN POOL AS-FOUND PHOTO REFERENCE</div>	SCALE: 3/8" = 1'-0" +/-	
	Date: JANUARY 2015	
	Project No. 2670	Drawing No. A4.1
	<div></div> <div> <b>taigh</b> Architecture Inc.</div>	



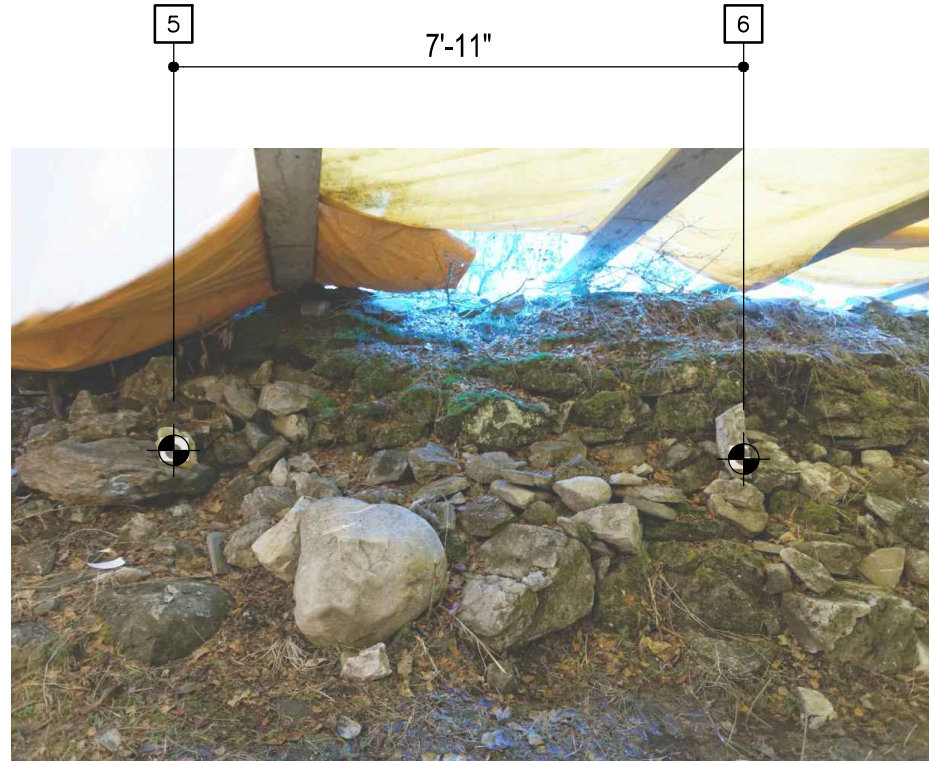


PHOTO #5



PHOTO #6

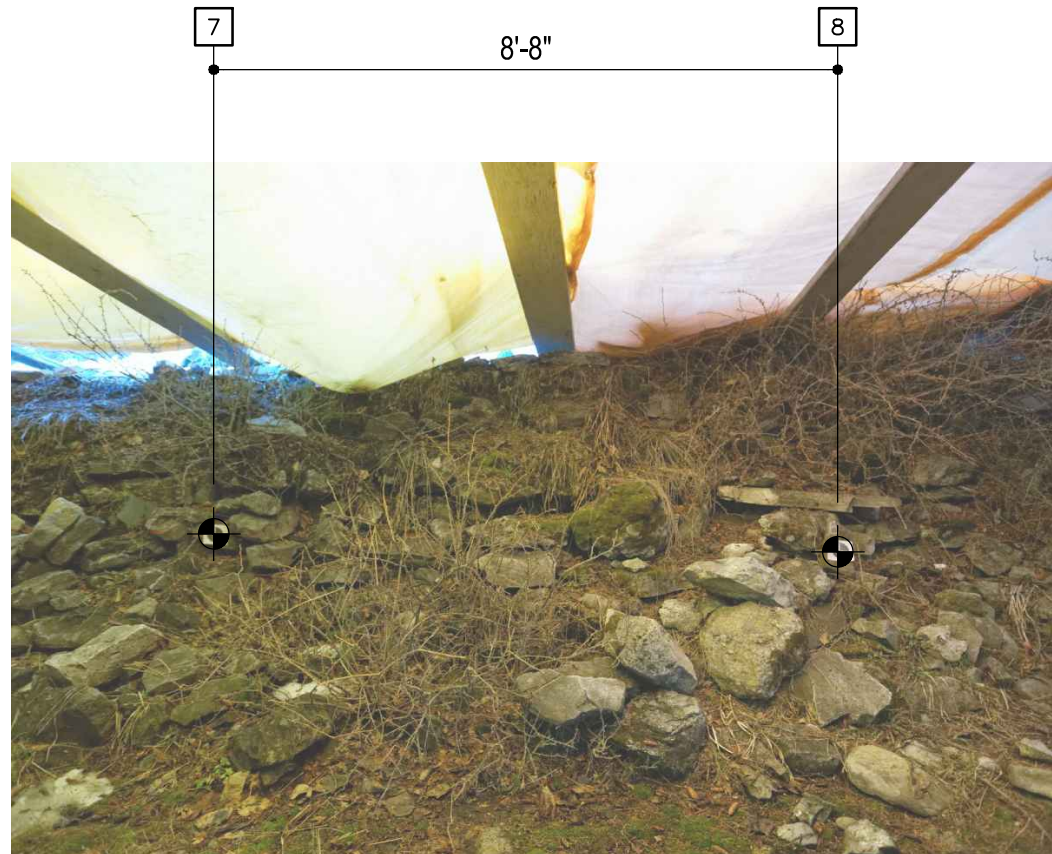


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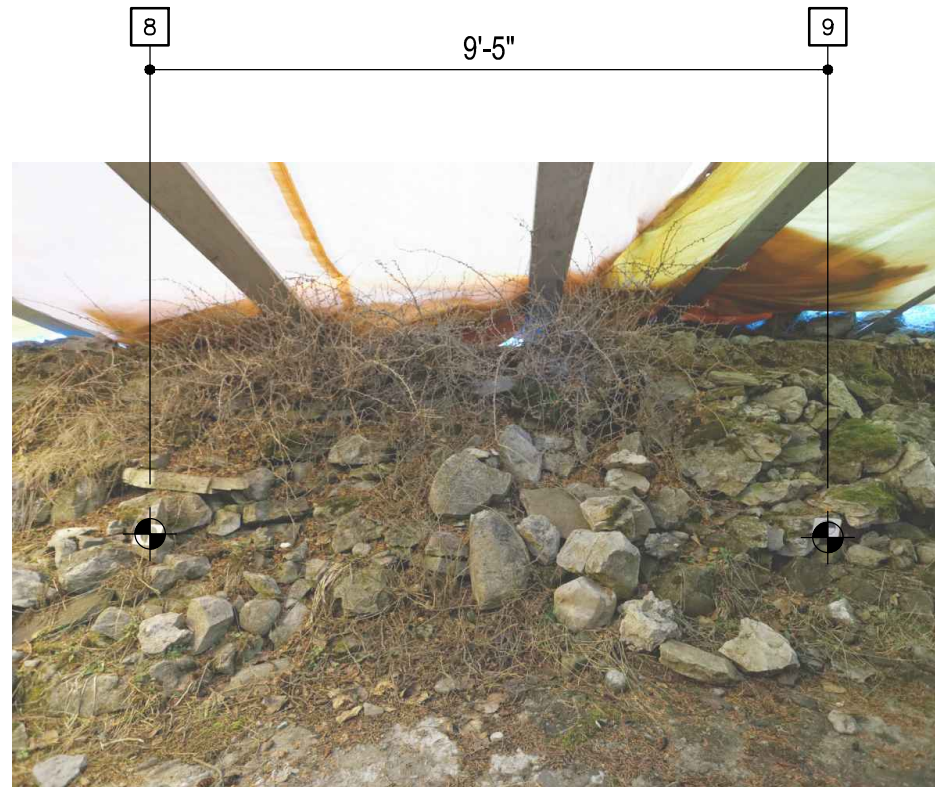
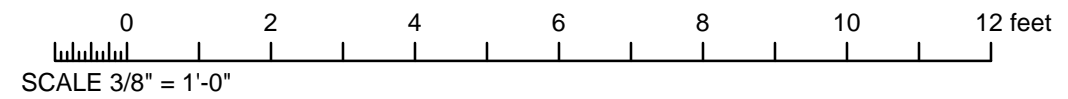


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Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>	SCALE: 3/8" = 1'-0" +/-		
	Date: JANUARY 2015	Project No. 2670	Drawing No. A4.2
	Drawing Title <b>DEVONIAN POOL AS-FOUND PHOTO REFERENCE</b>		



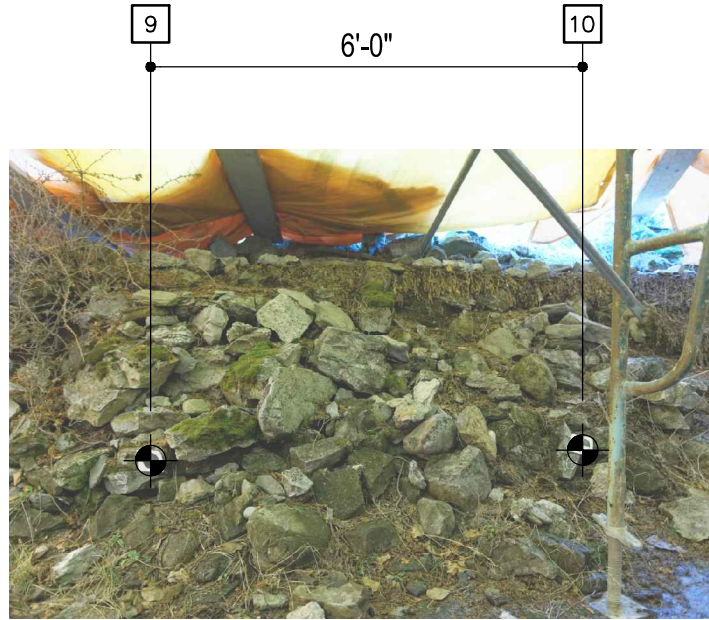


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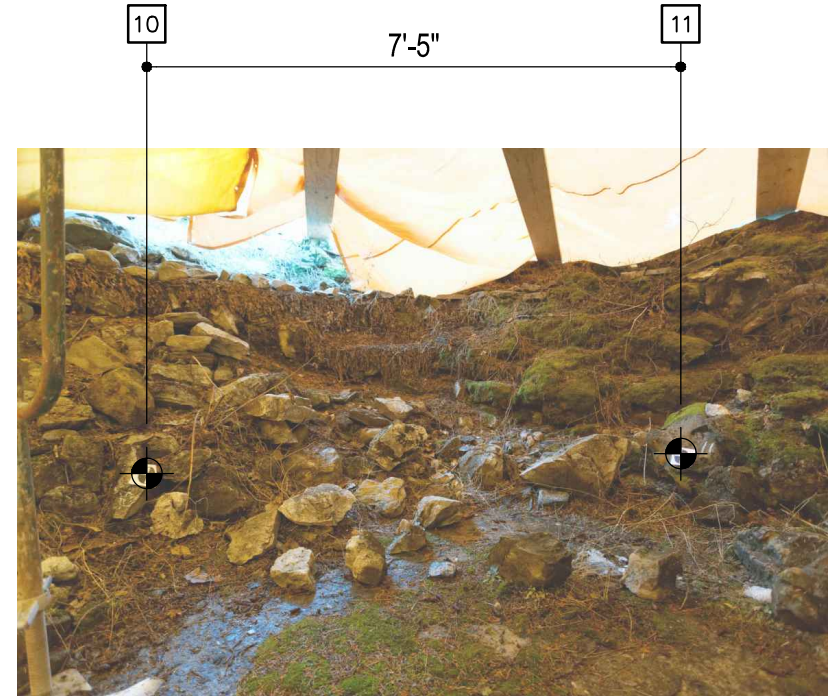


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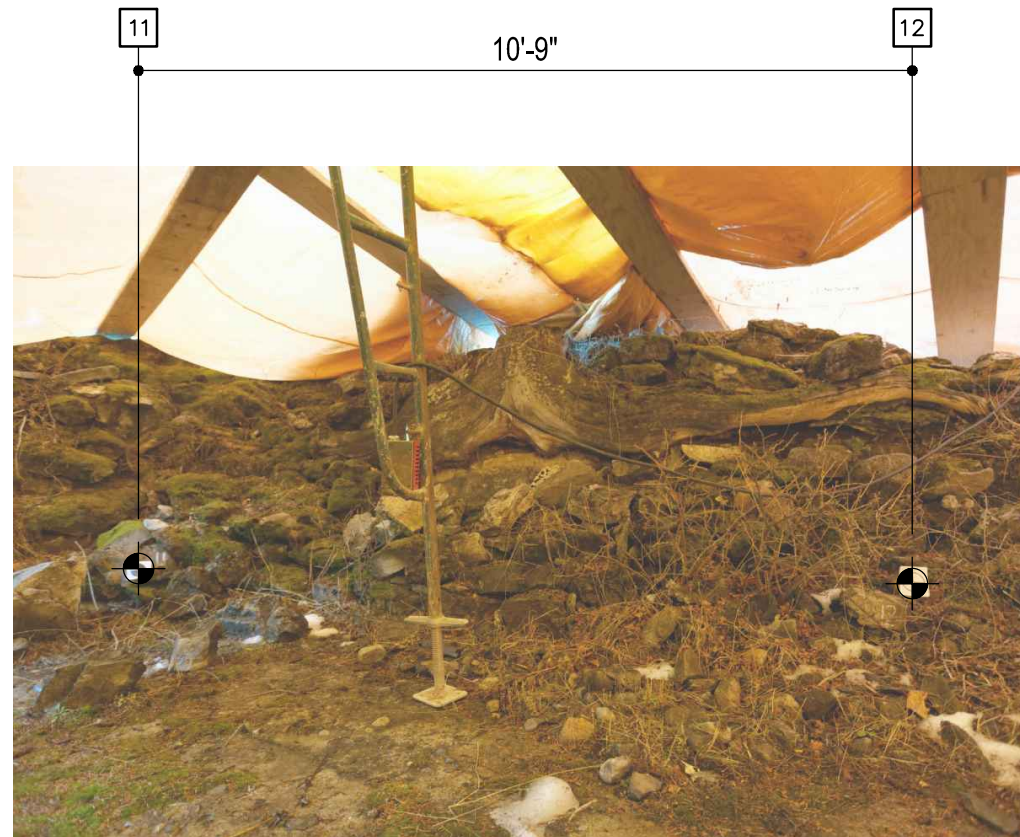


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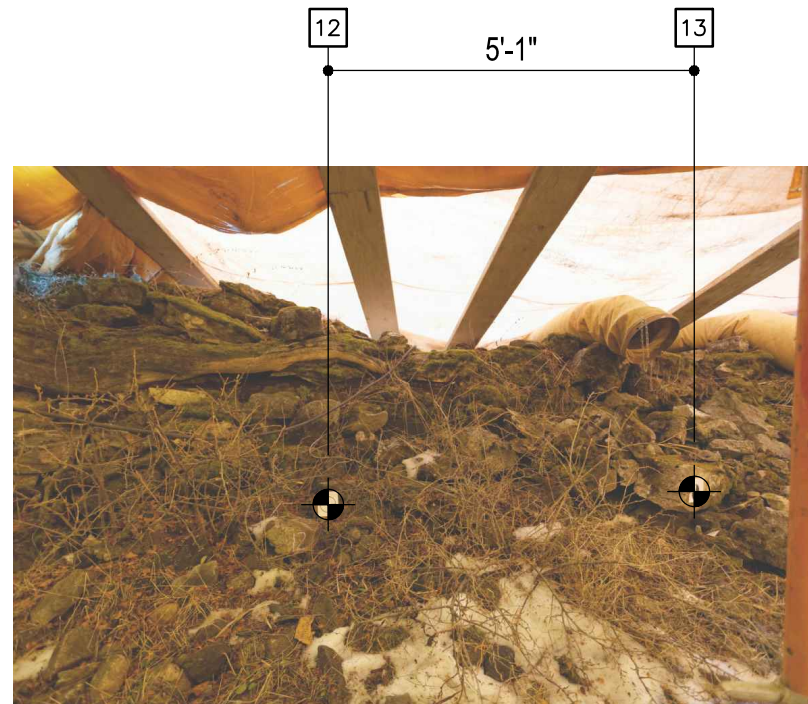
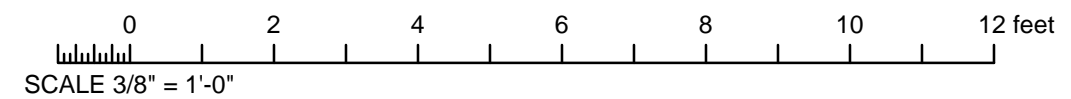


PHOTO #12



Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>	SCALE: 3/8" = 1'-0" +/-
	Date: <b>JANUARY 2015</b>
	Project No. <b>2670</b>
Drawing Title <b>DEVONIAN POOL AS-FOUND PHOTO REFERENCE</b>	Drawing No. <b>A4.3</b>



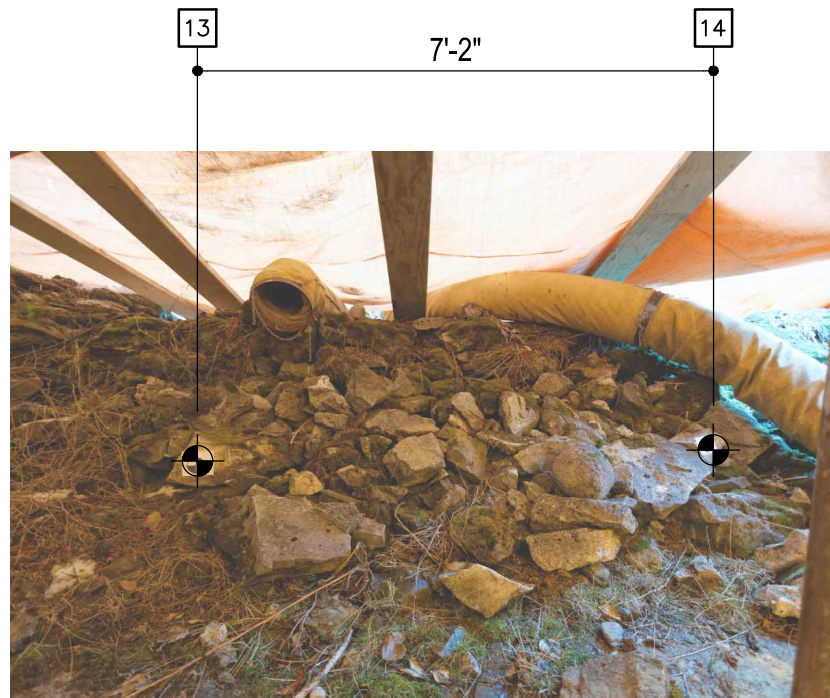


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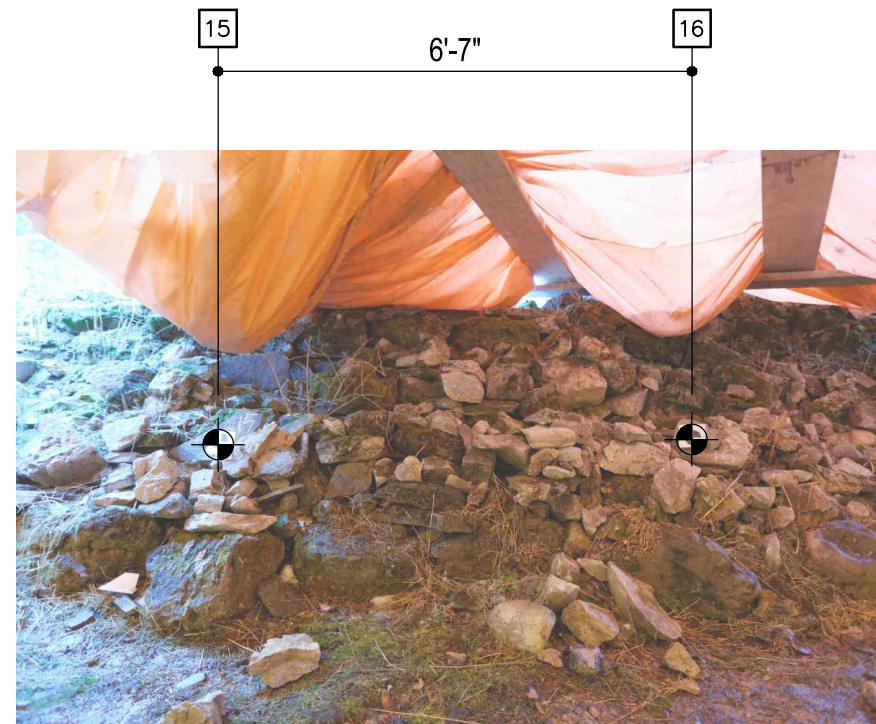


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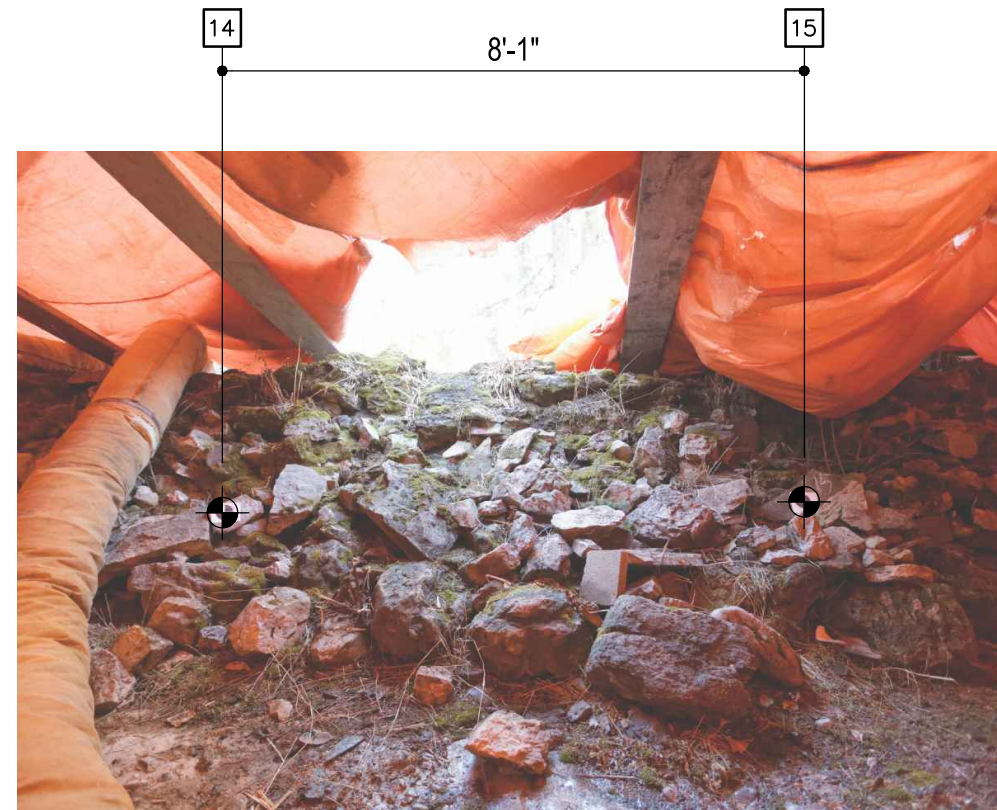


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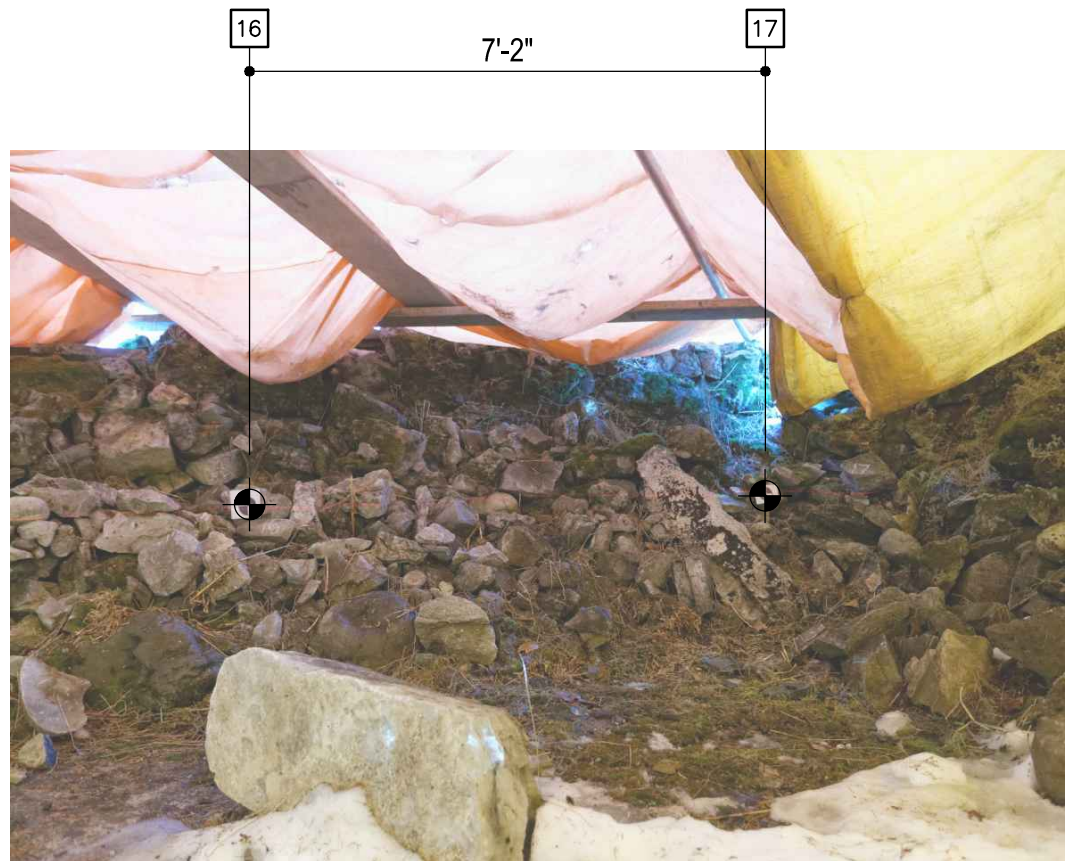
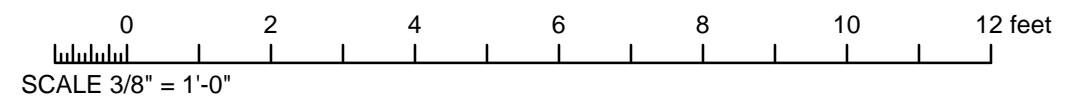
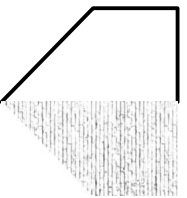


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Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>	SCALE: 3/8" = 1'-0" +/-	
	Date: <b>JANUARY 2015</b>	Drawing No.
	Project No. <b>2670</b>	<b>A4.4</b>
 <b>taigh</b> Architecture Inc.		
Drawing Title <b>DEVONIAN POOL AS-FOUND PHOTO REFERENCE</b>		



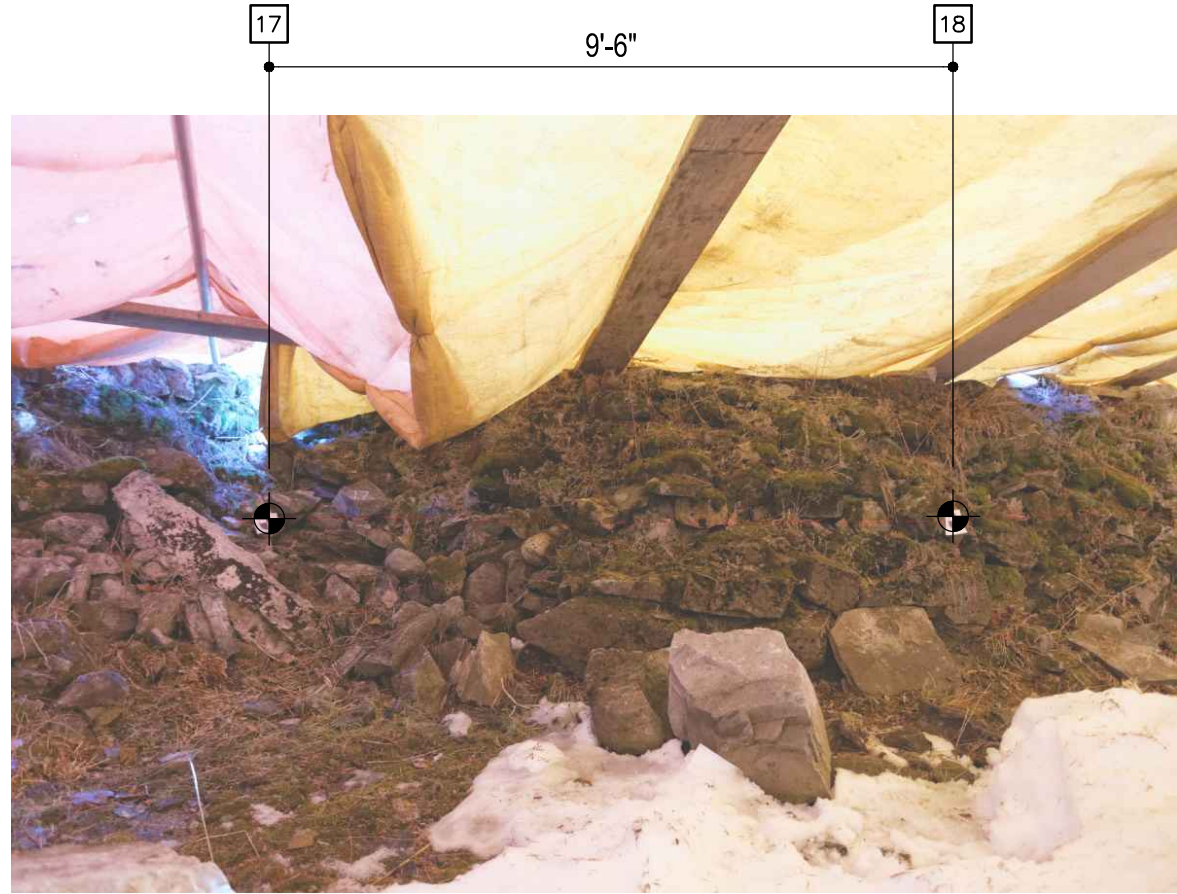


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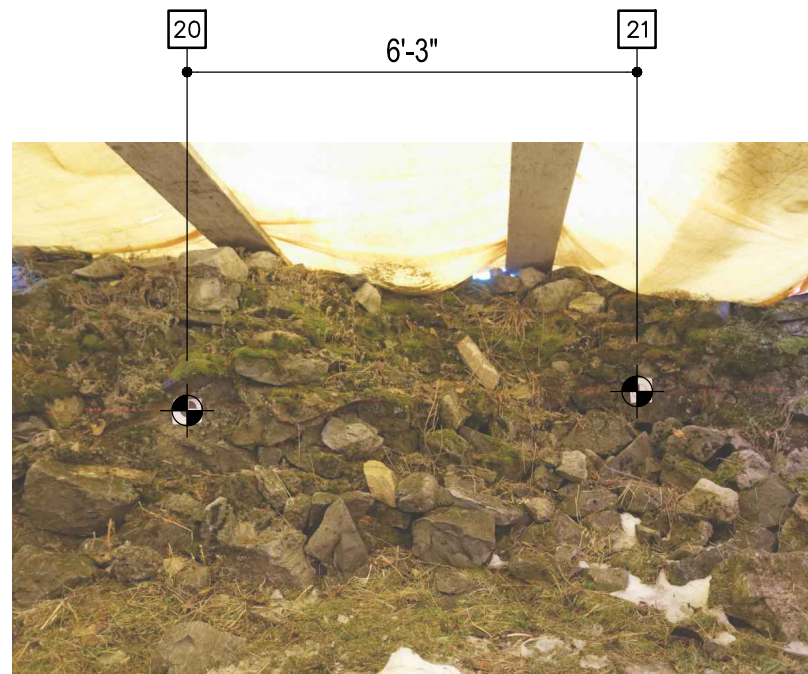


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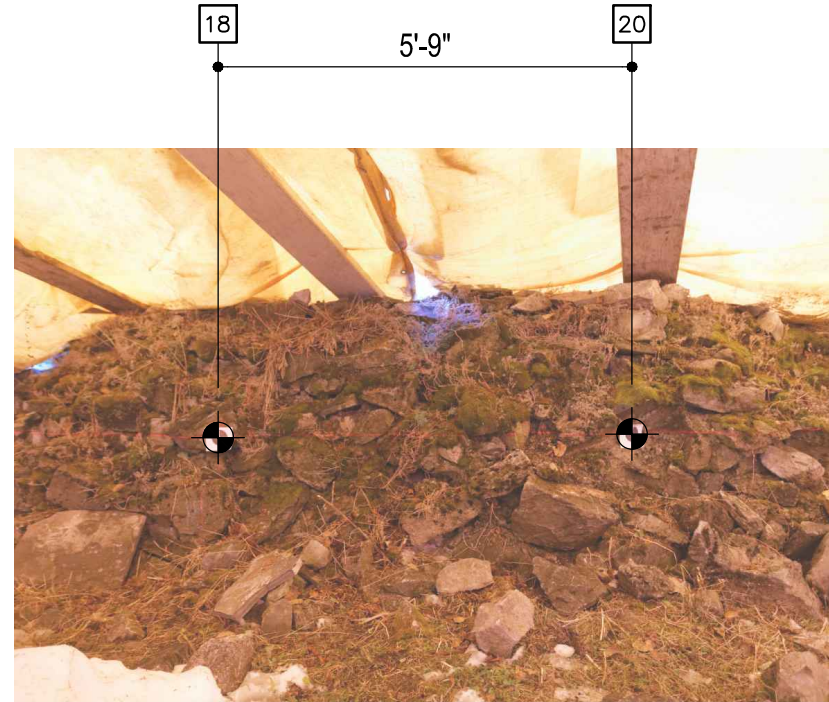


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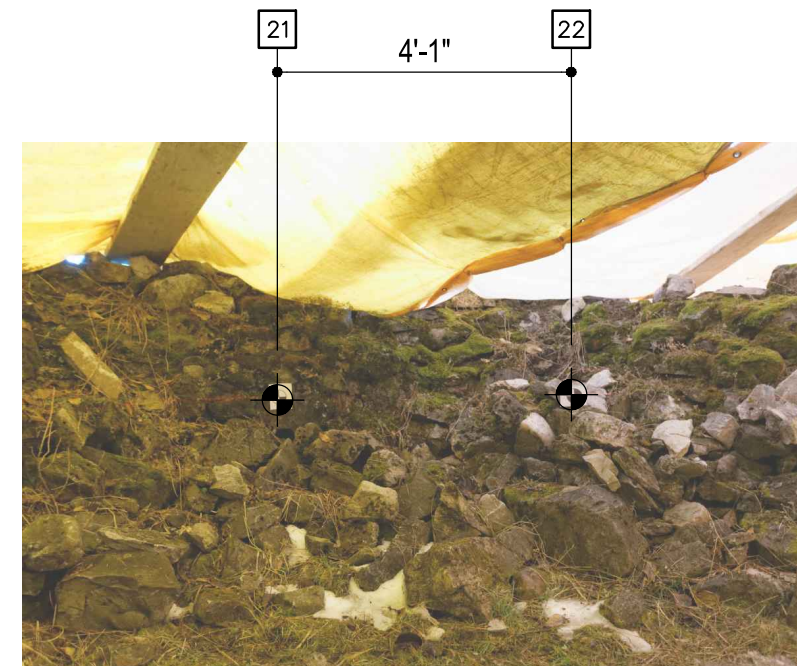
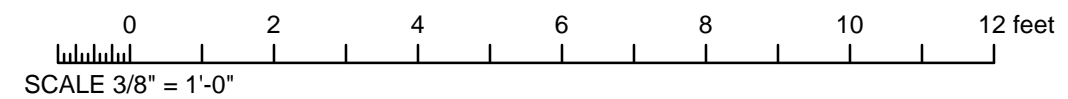
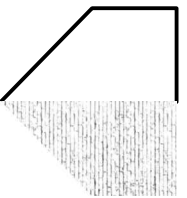



PHOTO #20



Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>	SCALE: 3/8" = 1'-0" +/-		
	Date: JANUARY 2015		
	Project No. 2670	Drawing No.	A4.5
 <b>taigh</b> Architecture Inc.			
Drawing Title <b>DEVONIAN POOL AS-FOUND PHOTO REFERENCE</b>			



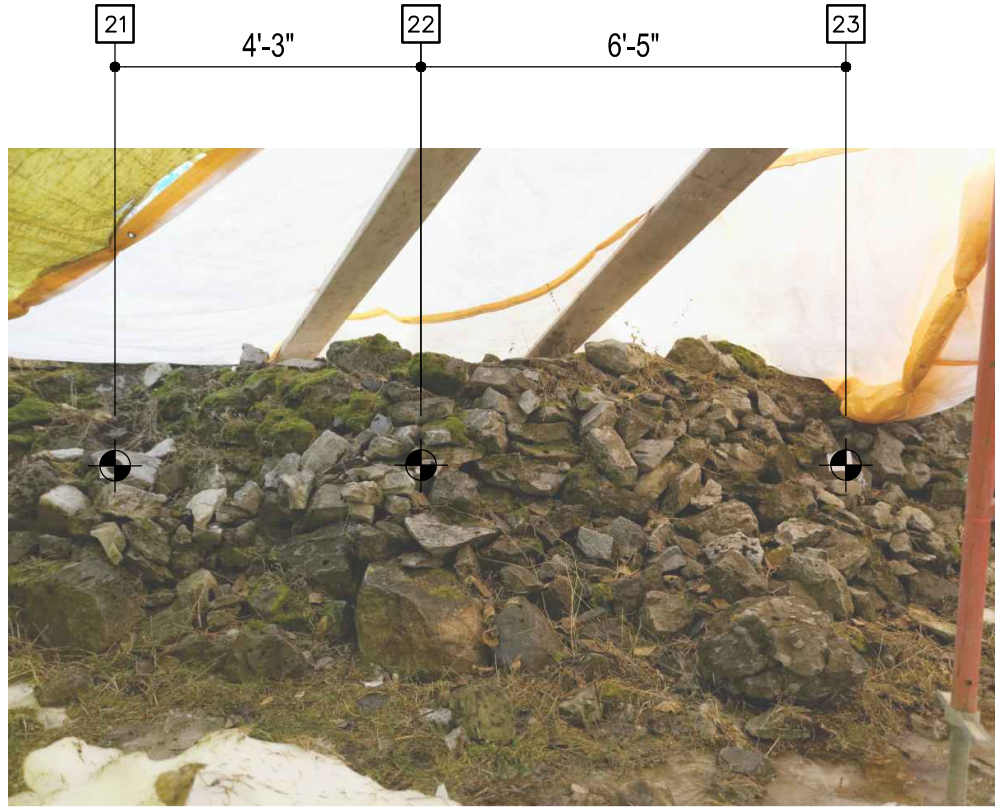


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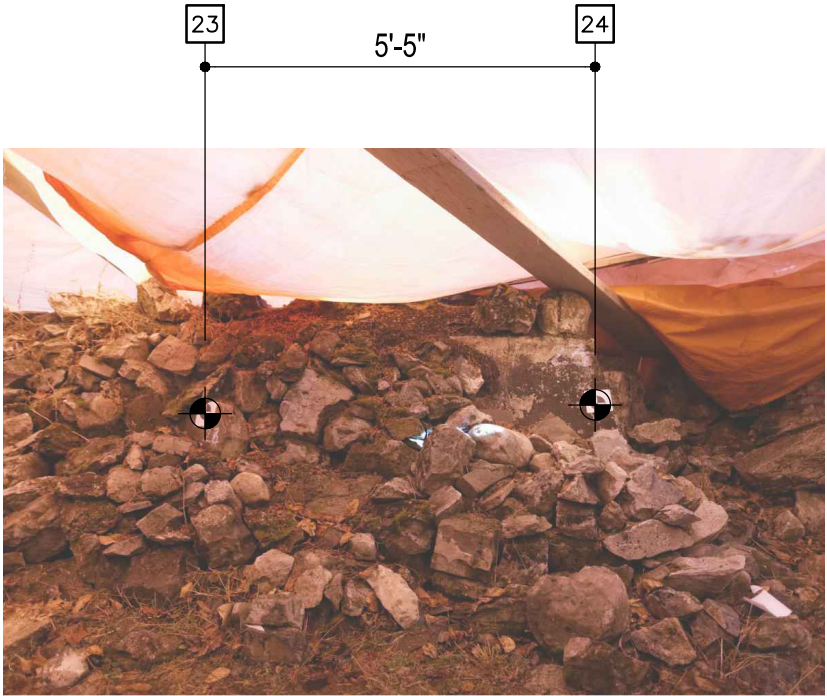


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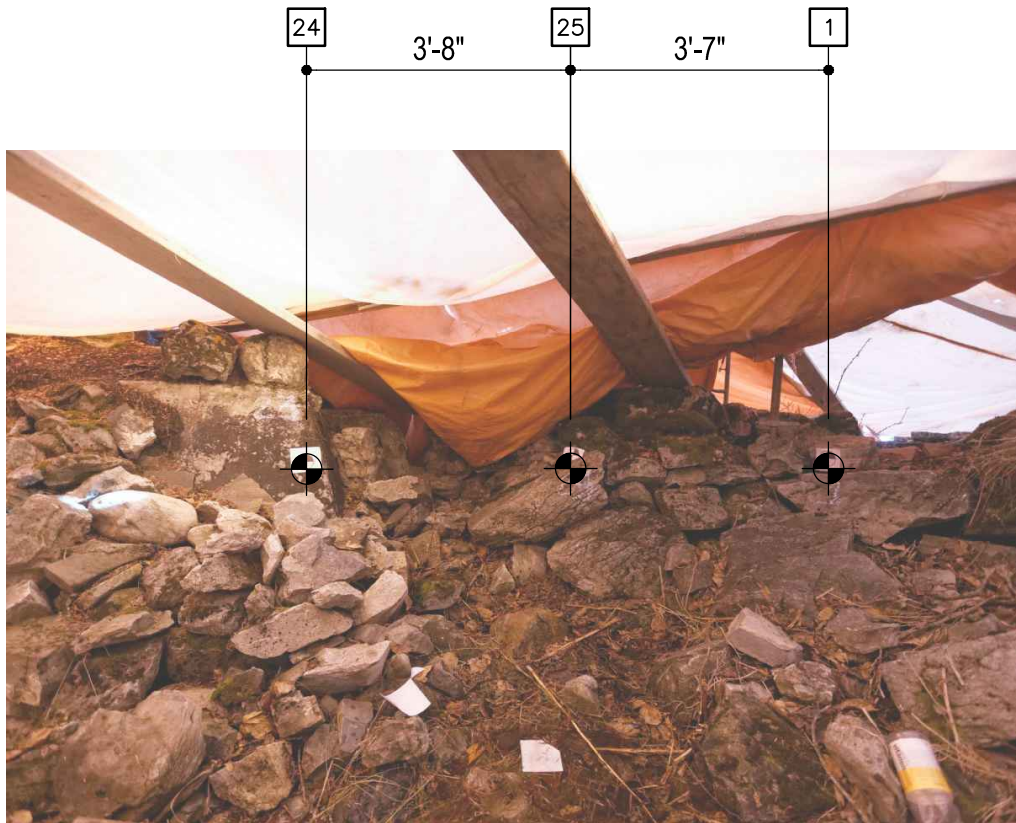
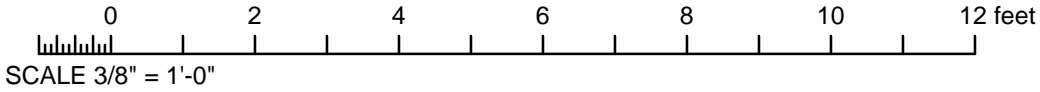


PHOTO #23



Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>	SCALE: 3/8" = 1'-0" +/-
	Date: JANUARY 2015
	Project No. 2670
Drawing Title <b>DEVONIAN POOL AS-FOUND PHOTO REFERENCE</b>	Drawing No. <b>A4.6</b>



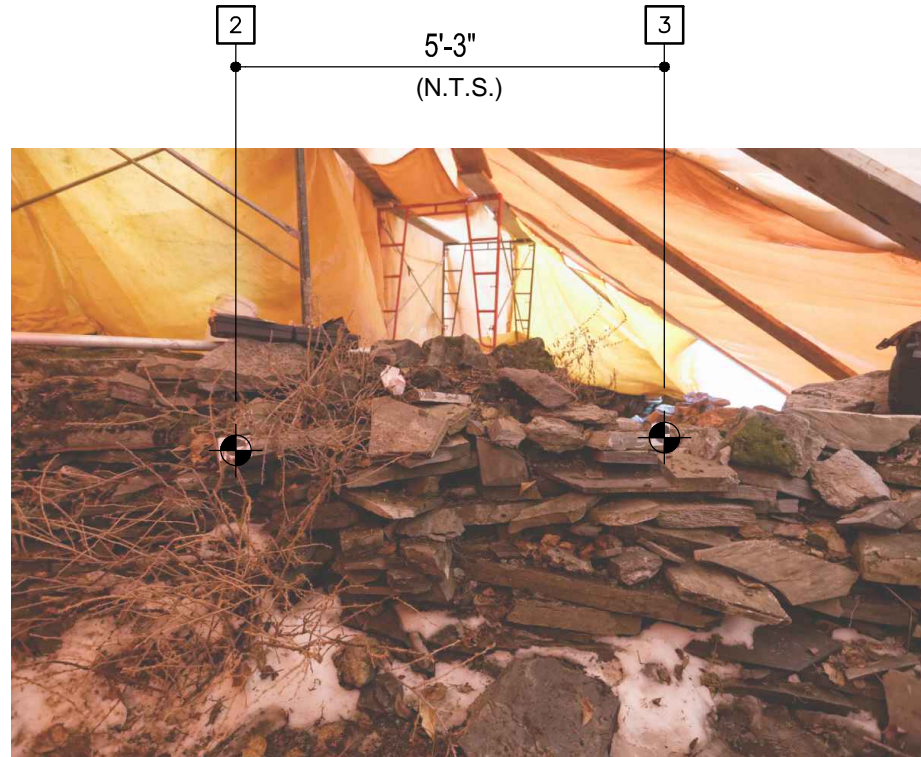


PHOTO #1 - S0

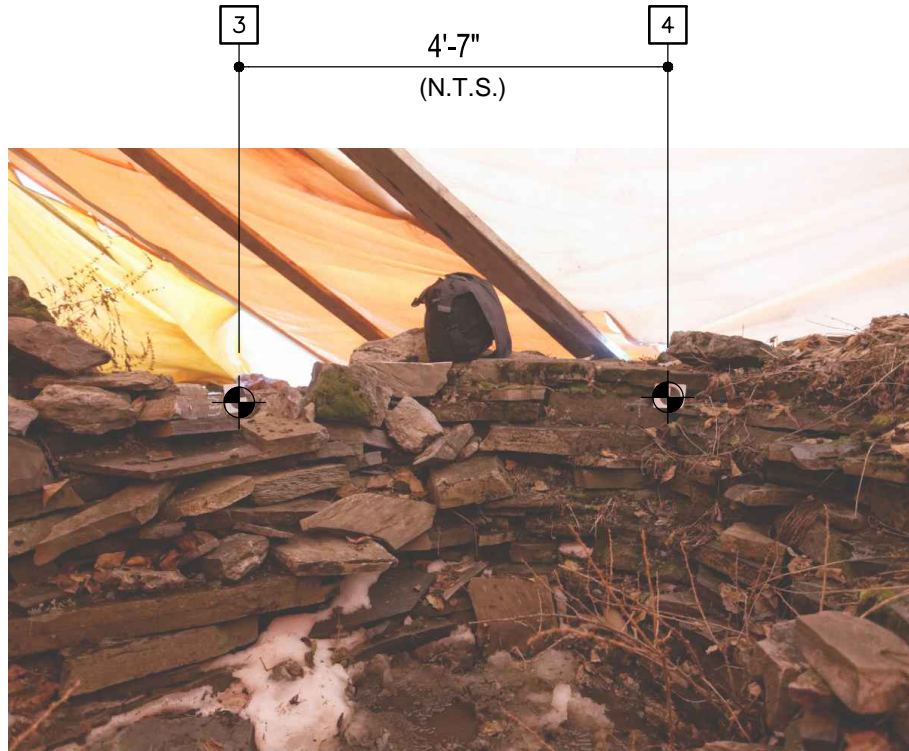


PHOTO #2 - S0



PHOTO #3 - S0

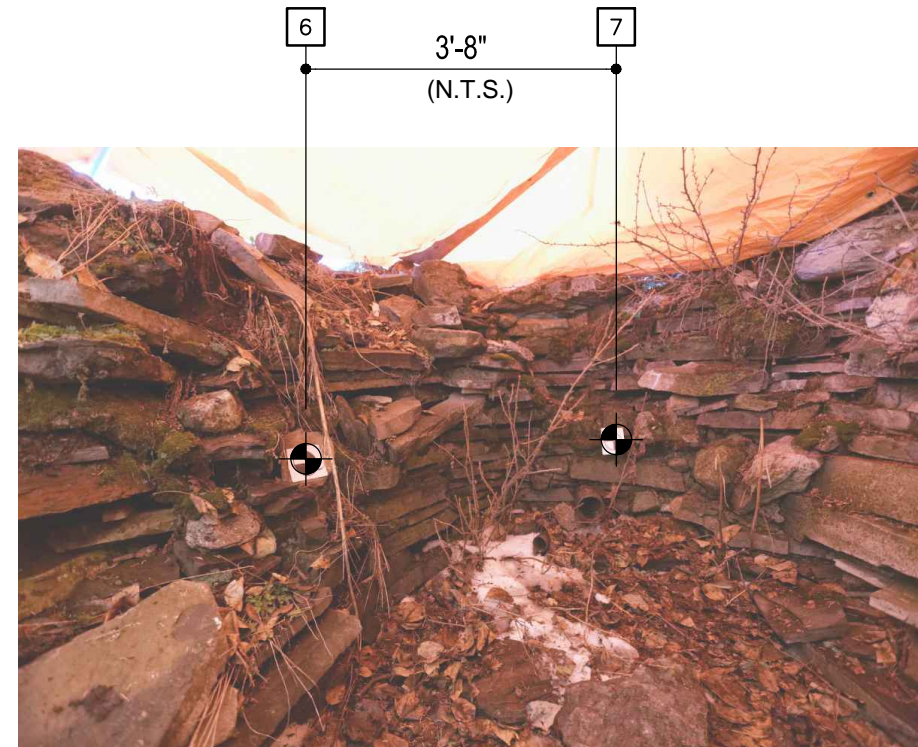


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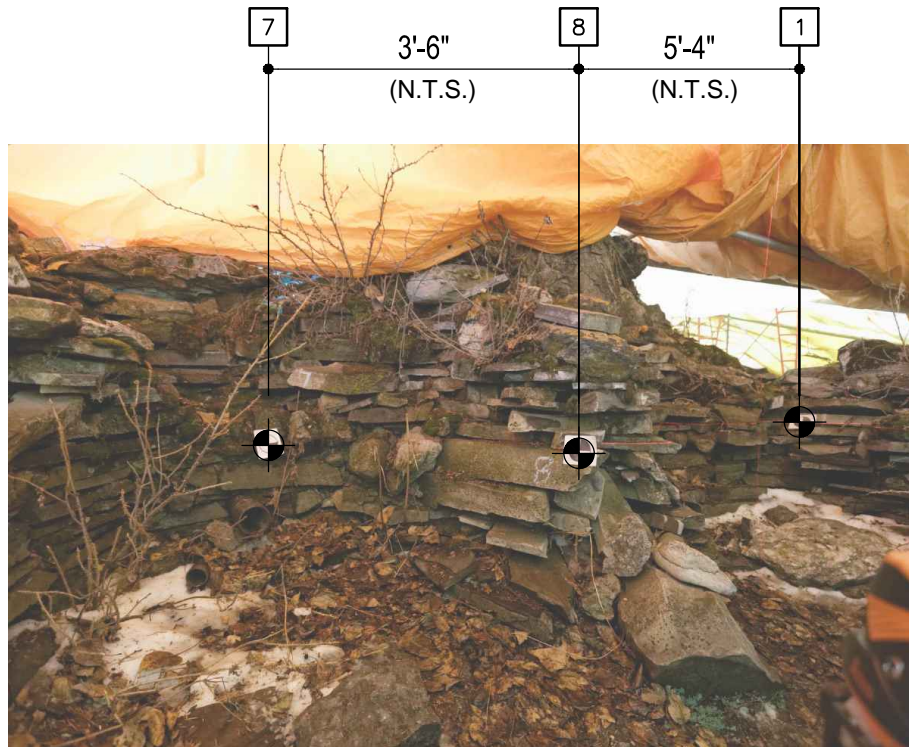


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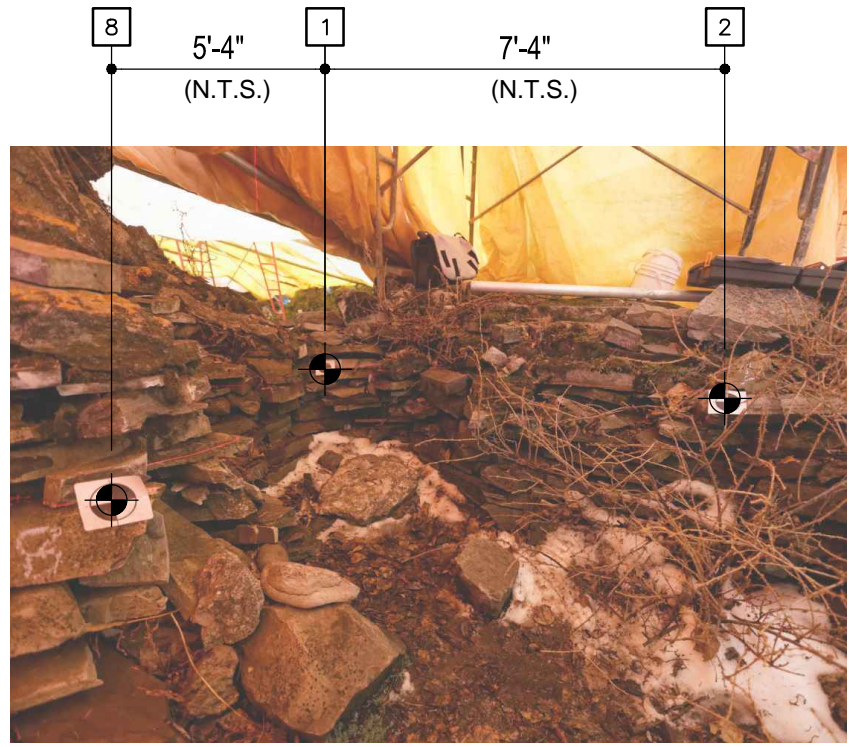


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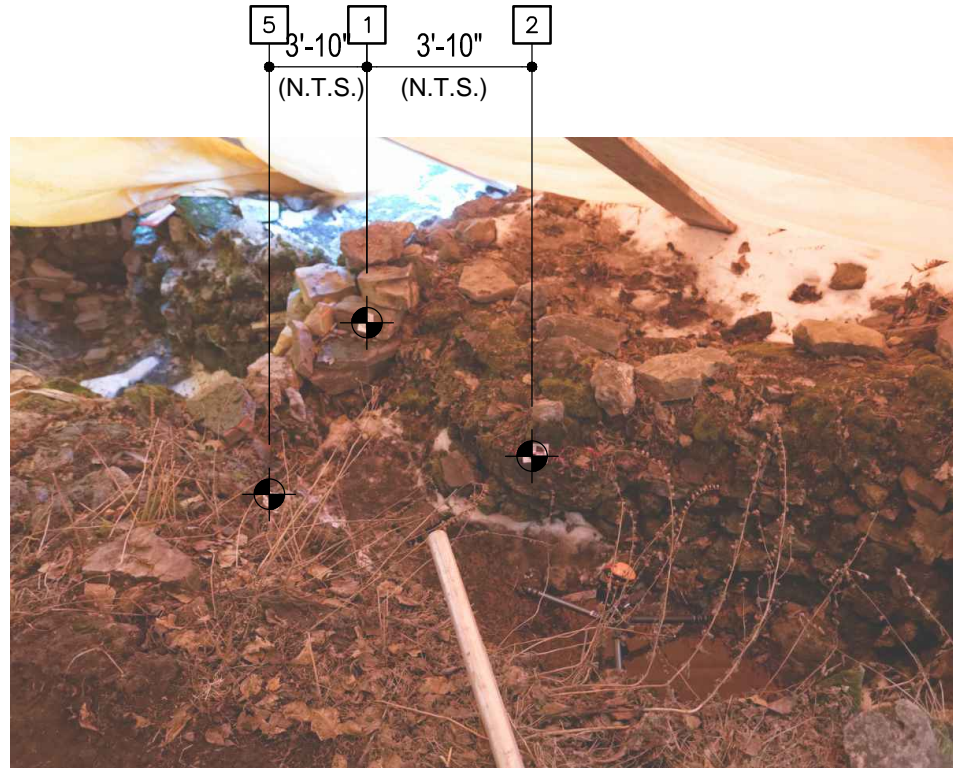


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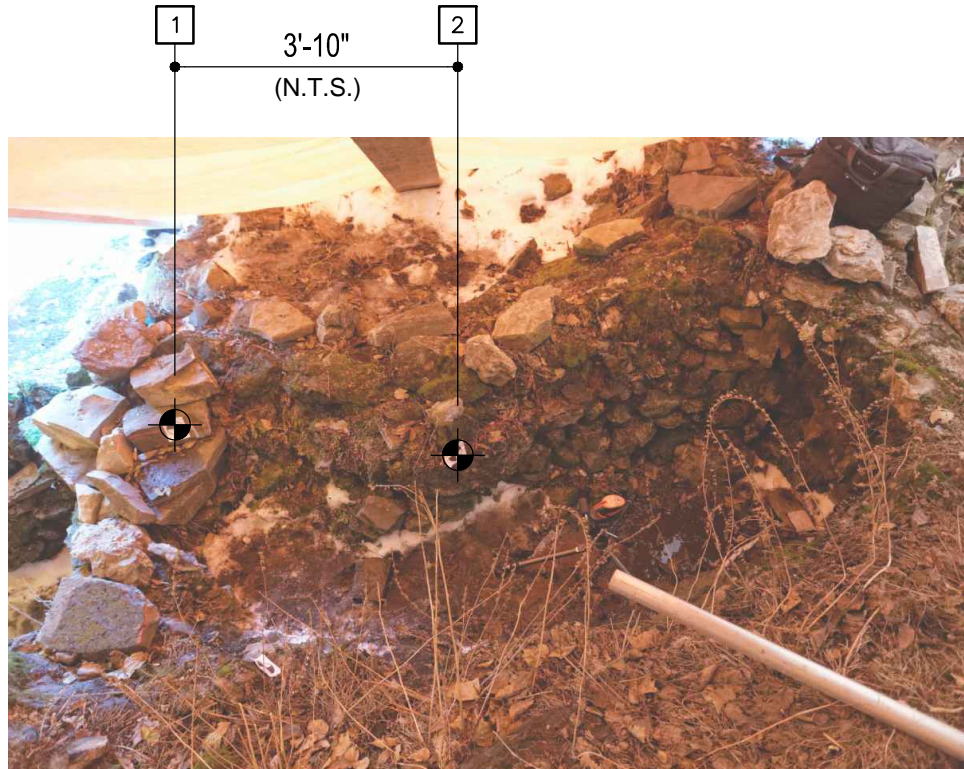


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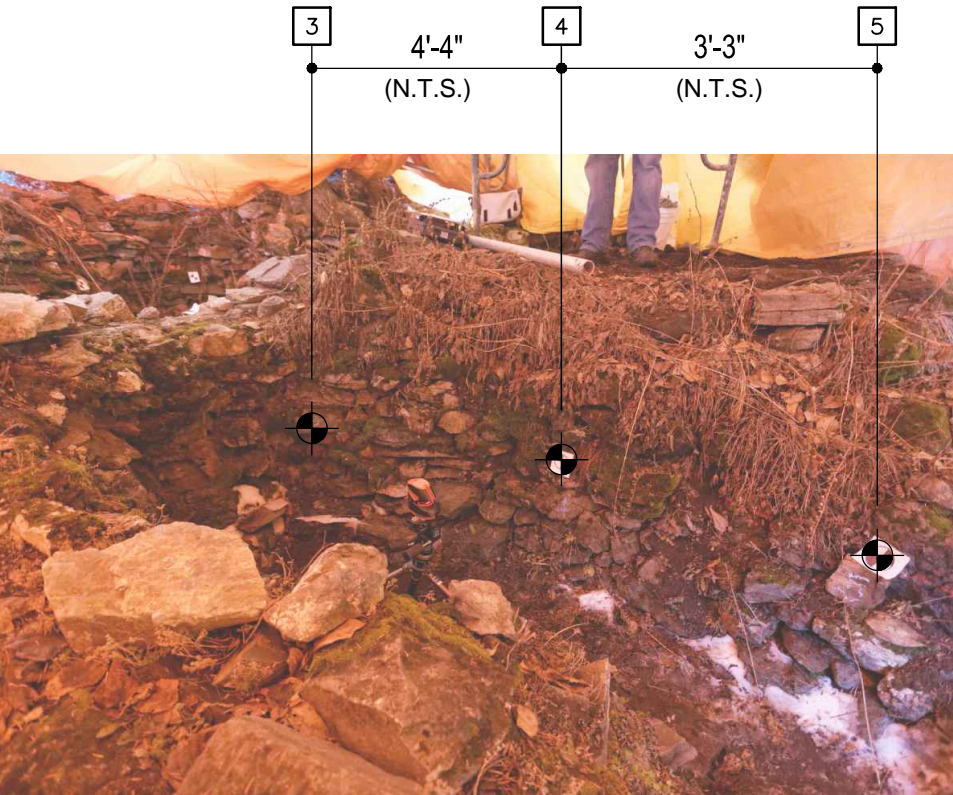


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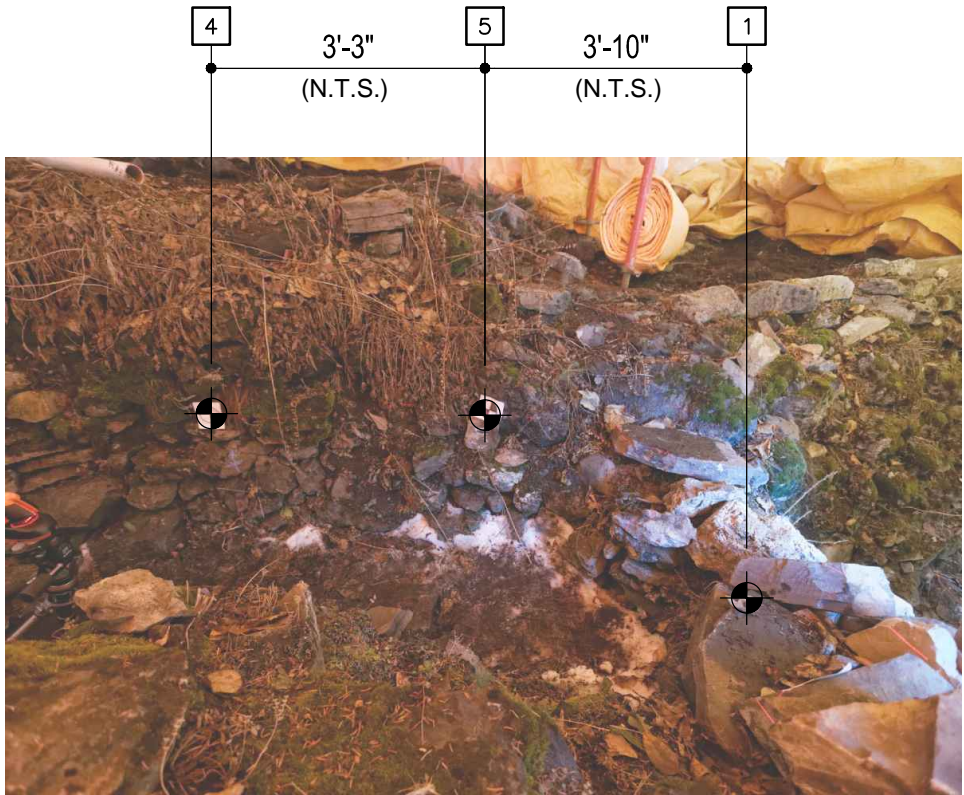


PHOTO #4 - S1



PHOTO #5 - S1



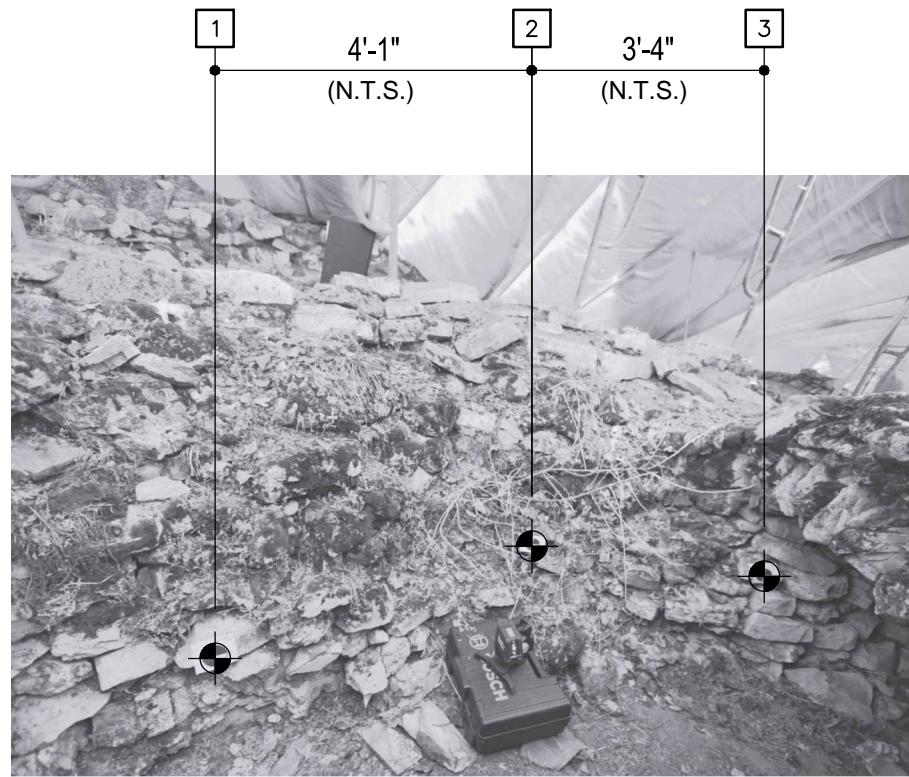


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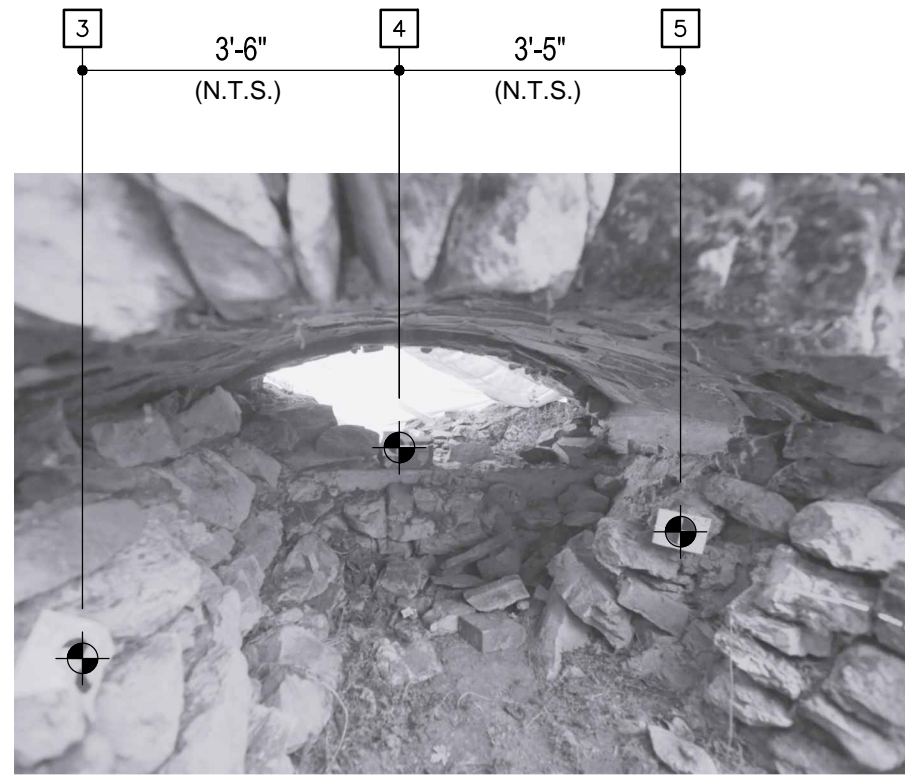


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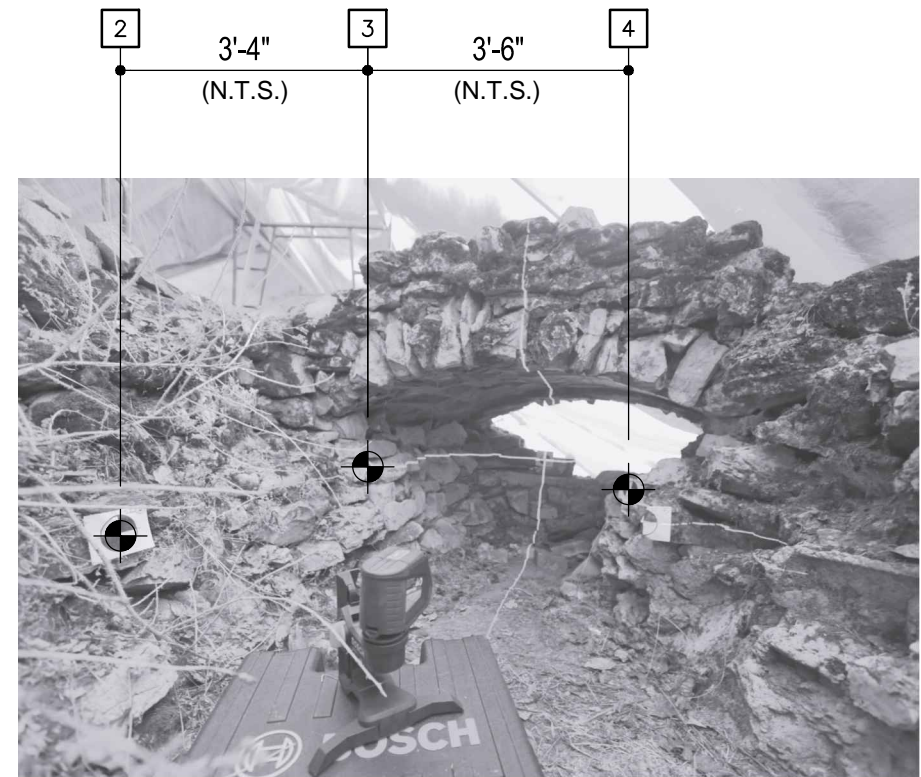


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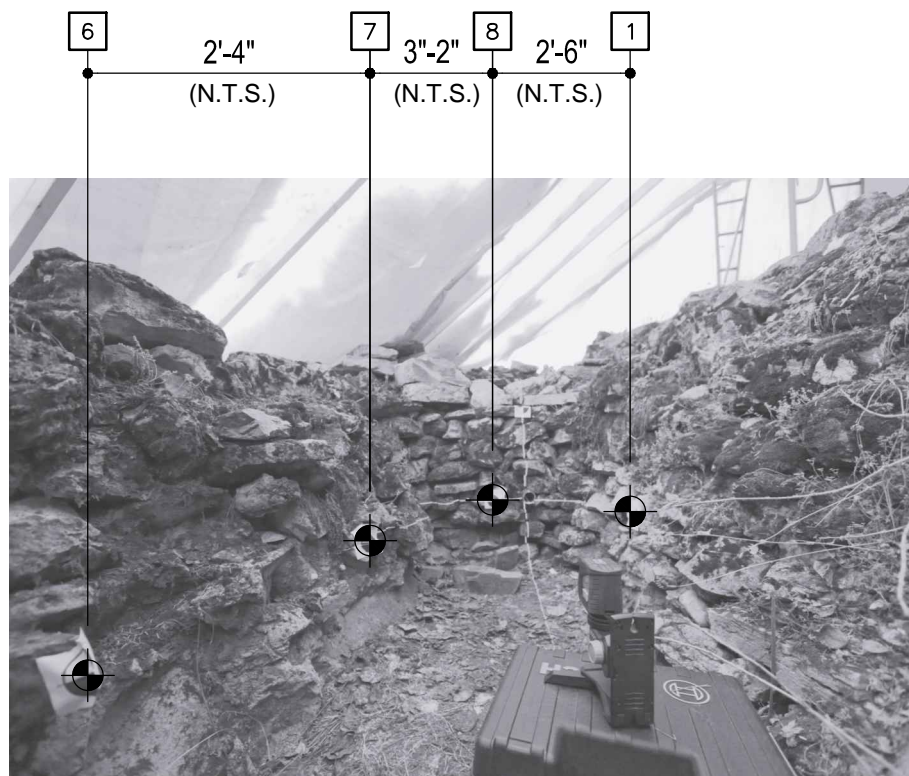


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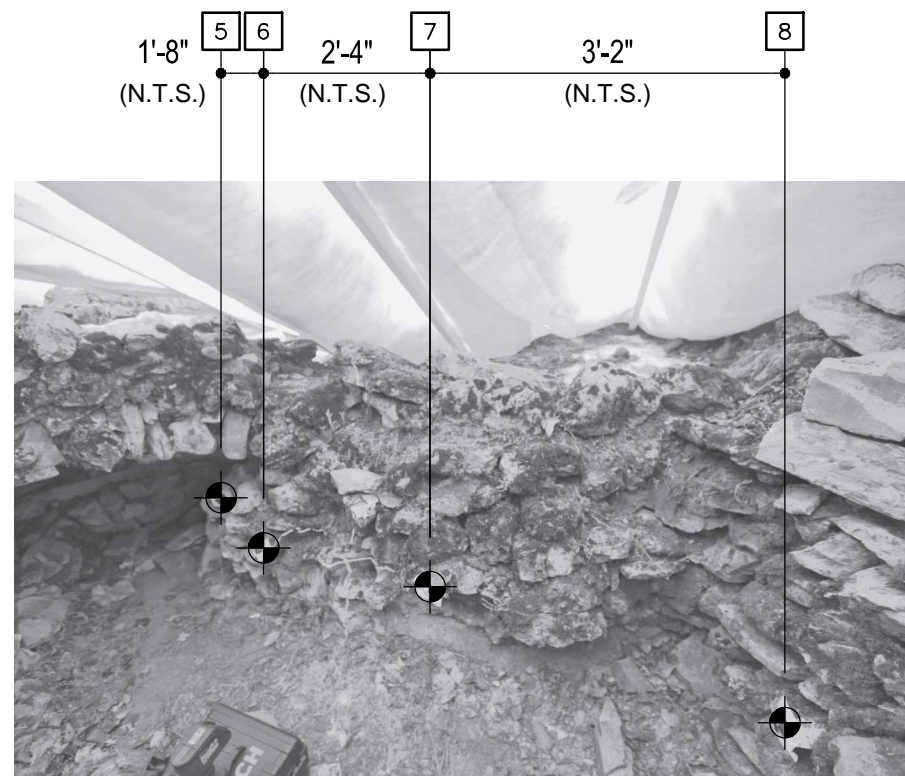
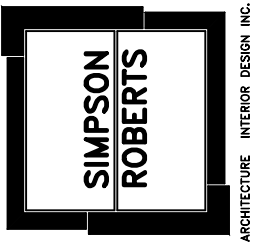
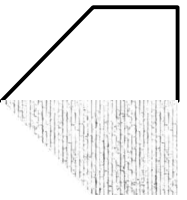


PHOTO #5 - S2



PHOTO #6 - S2 OVERALL



Project Name: <b>CASCADE GARDENS REHABILITATION BANFF, ALBERTA</b>	SCALE: 3/8" = 1'-0" +/-	
	Date: <b>JANUARY 2015</b>	Drawing No. <b>A4.9</b>
Drawing Title <b>DEVONIAN POOL - POOL - S2 AS-FOUND PHOTO REFERENCE</b>	Project No. <b>2670</b>	
	 <b>taigh</b> Architecture Inc.	

# Appendix C

## Tree Removal



Deciduous Tree to be removed

Cascades of Time Garden — Banff National Park

- tree roots are posing a threat to the integrity of the Devonian Pool and the small connecting pool to its east
- tree to be carefully removed in sections; falling is not suitable for this location
- tree sections and branches to be removed for appropriate disposal
- stump to be trimmed as close as possible to grade

18 March 2015

