

20 October 2016

OUR REF: 603049-01000

The Salvation Army
2 Overlea Blvd.
Toronto, ON M4H 1P4

Attention: Beth Henderson

Dear Beth:

**Re: Salvation Army Barrhaven Church – 102 Bill Leathem Drive TB
Addendum #1**

This Addendum has been prepared to address the comments received from the City of Ottawa with corresponding responses from Parsons. The most recent Site Plan is attached.

CITY COMMENTS

TRANSPORTATION COMMENTS

Comment A: *Accesses should be design to City Standard SC7.1.*

Response A: Noted and the proponent has been advised.

Comment B: *The Transportation Brief should show total volumes at build out. It would be beneficial to align the east proposed accesses with the north side future road. This could potentially avoid any future conflict when this area is more mature.*

Response B: A land use such as the Salvation Army Church does not have a significant impact on the transportation network during the morning and afternoon peak periods. As such, a suitable analysis was undertaken to demonstrate not only the total volumes at build-out (page 8 of the TB, Phases 1 and 2) but also the timeframe where there will be the most impact, that being Sunday morning. The TB analysis and presentation of the results correspond with the Transportation Impact Assessment Guidelines that state that a Transportation Brief requires “a qualitative assessment of potential impacts from the site development”. This is provided within the original TB.

With respect to the future private road connection north of Bill Leathem Drive, the exact location, development and timing are unknown and subject to change given it is not a public road. Bill Leathem Drive is a collector road and the traffic impacts of the proposed church are minor during the peak hours (see above), as such, the site accesses have been designed to suit the needs of this private institution.

Comment C: *There are two bus stops in the immediate vicinity of the site at the Leikin Drive/Bill Leathem Drive intersection. Bus stop #3752 is located along southbound Leikin Drive, south of Bill Leathem Drive. Bus stop #3753 is located along northbound Leikin Drive, south of Bill Leathem Drive. Please revise the TIS.*

Response C: Noted.

Comment D: *Please be advised that while Route 94 is a Transitway Route, limited peak period transit service is provided in the vicinity of the site by this route. The TIS should be amended to reflect the level of service provided by Route 94 special patterns to the RCMP along Leikin Drive and Bill Leathem Drive.*

Response D: Noted, as mentioned in the original TB, Route #94 provides peak hour service only.

Comment E: *The bus stop #3753 is to be maintained. The applicant shall construct a new concrete shelter pad at no cost to the City, as per City specifications SC-11 attached. Consideration should also be given to extending the site along Leikin Drive in order to improve connections and provide pedestrian friendly amenities in the area. The site plan shall be revised to show how these transit amenities will be accommodated.*

Response E: The bus stop can be maintained given the proposed Site Plan. According to the revised Site Plan, a concrete sidewalk is planned along Leikin Drive as part of Phase 2 of the development.

Comment F: *Bus stop #730 located at the Bill Leathem Drive and Paragon Avenue intersection shall also be identified on future site plans. If the stop falls within the site, the applicant shall construct a new concrete shelter pad at no cost to the City, as per City specification SC-11 attached.*

Response F: Noted, and the proponent has been advised.

Comment G: *The southbound approach of Bill Leathem Dr./Leikin intersection consists of a 'single full movement lane; which is controlled by a Stop sign. The southbound right and southbound left projected volume for Phases 1 and 2 together is approximately 120 vph during the Sunday peak hour. Also, for the same time period, the two-way traffic volume at ultimate build-out (Phases 1 & 2) is estimated to be in the range of 340 vph. In order to assess if the single southbound approach has sufficient capacity to accommodate the projected volume, more information is required on existing traffic volume at this intersection during the Sunday Peak hour. This is also required to determine if the existing right-of way protection along Bill Leathem Dr would suffice to accommodate projected traffic volumes at this intersection.*

Response G: Figures 8 and 9 from the TB should not be added together. As outlined in Section 4.1 and 4.2 of the TB, the Site Trip Generation of each proposed GFA was assessed independently (Phase 1 = 7,060 ft² total and Phase 2 = 11,055 ft² total). Phase 2 consists of a 4,000 ft² increase from the Phase 1 building. As such, the total amount of site-generated traffic approaching the Leikin/Bill Leathem intersection in the southbound direction is 67 veh/h (as shown in Figure 9 of the TB). The total two-way traffic for Phases 1 and 2 is approximately 190 veh/h (Table 4).

Comment H: *Synchro analysis seems appropriate to determine if the projected volume would not cause capacity constraint at this intersection especially for southbound approach.*

Response H: As mentioned in Response G, the total projected traffic approaching the Leikin/Bill Leathem intersection along the southbound leg is 67 veh/h. This is significantly less than the existing 175 veh/h during the afternoon peak hour along this leg. Given the existing intersection operates with acceptable levels of service, it is reasonable to assume this intersection will operate acceptably during the Sunday morning hours (Church peak hour), with considerably less traffic volumes.

STREET LIGHTING

Comment A: *Alterations and/or repairs are required where the existing streetlight plant is directly, indirectly or adversely affected by the scope of work under this circulation, due to the proposed road reconstruction process. All streetlight plant alterations and/or repairs must be performed by the City of Ottawa's Streetlight maintenance provider.*

Response A: Noted and the proponent has been advised.

Comment B: *Be advised that the applicant will be 100% responsible for all costs associated with any relocations/modification to the existing streetlight plant.*

Response B: Noted and the proponent has been advised.

PARSONS

Based on the foregoing, the proposed 102 Bill Leathem Drive development continues to be recommended from a transportation perspective. If there are any questions, please call.

Sincerely,



André Jane Sponder, B.A.Sc.
Analyst, Transportation

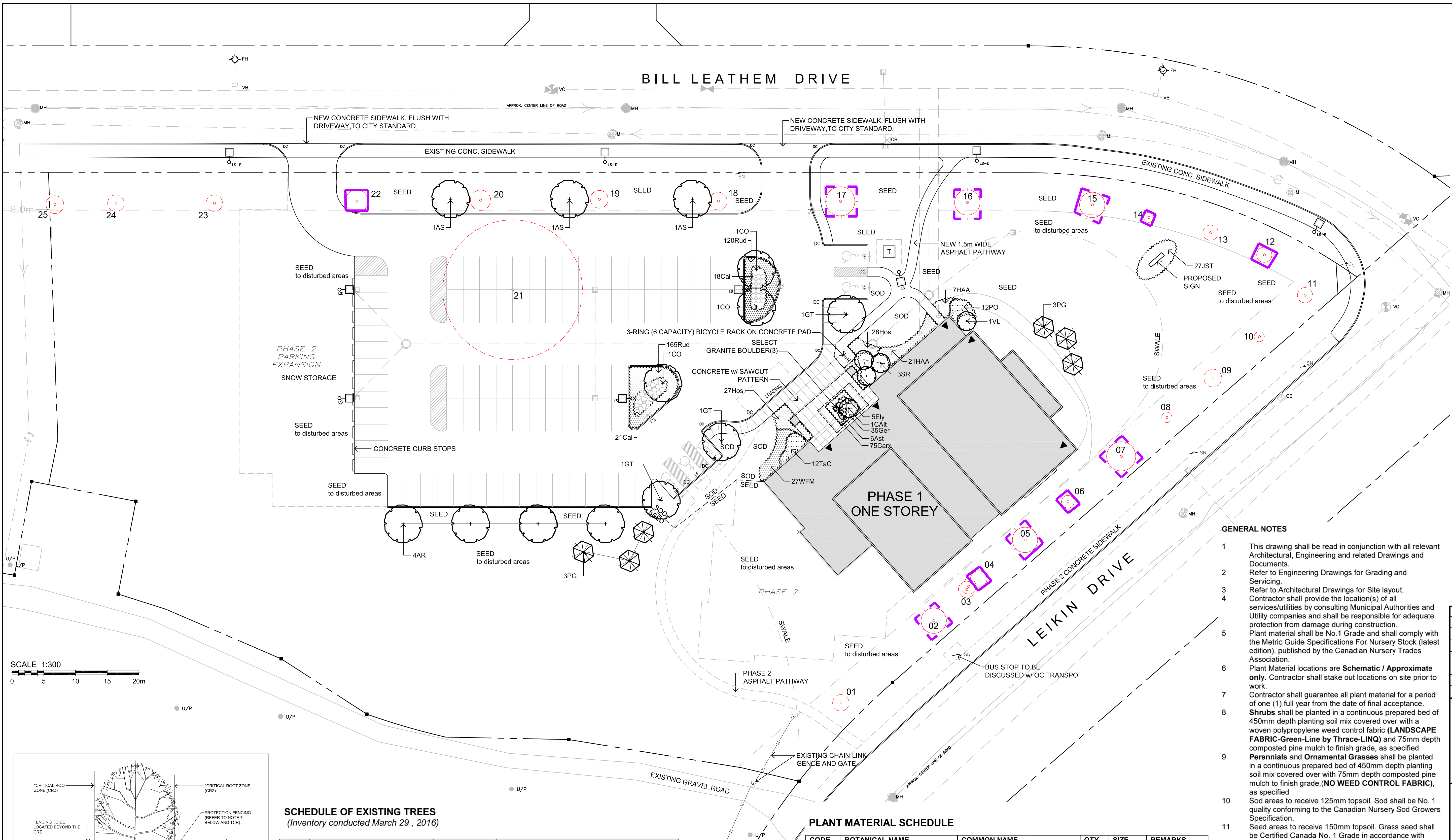


Christopher Gordon, P.Eng.
Senior Project Manager



Attachment #1

Site Plan



LEGEND / SYMBOL

- EXISTING TREE TO BE RETAINED (Refer to Schedule)
- EXISTING TREE TO BE REMOVED (Refer to Schedule)
- CRZ (Critical Root Zone)
- PROPOSED DECIDUOUS TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED SHRUBS AND GROUND COVER
- TREE PROTECTION BARRIER DETAIL 1/L1.01

GENERAL NOTES

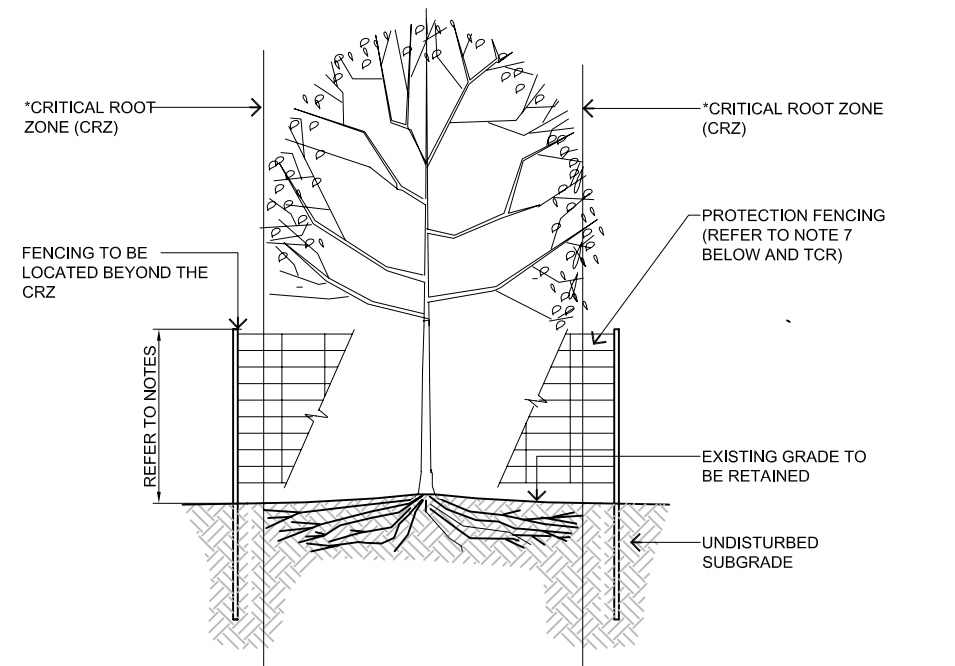
- This drawing shall be read in conjunction with all relevant Architectural, Engineering and related Drawings and Documents.
- Refer to Engineering Drawings for Grading and Servicing.
- Refer to Architectural Drawings for Site layout.
- Contractor shall provide the location(s) of all services/utilities by consulting Municipal Authorities and Utility companies and shall be responsible for adequate protection from damage during construction.
- Plant material shall be No.1 Grade and shall comply with the Metric Guide Specifications For Nursery Stock (latest edition), published by the Canadian Nursery Trades Association.
- Plant Material locations are **Schematic / Approximate only**. Contractor shall stake out locations on site prior to work.
- Contractor shall guarantee all plant material for a period of one (1) full year from the date of final acceptance.
- Shrubs** shall be planted in a continuous prepared bed of 450mm depth planting soil mix covered over with a woven polypropylene weed control fabric (**LANDSCAPE FABRIC-Green-Line by Thrace-LINQ**) and 75mm depth composted pine mulch to finish grade, as specified
- Perennials and Ornamental Grasses** shall be planted in a continuous prepared bed of 450mm depth planting soil mix covered over with 75mm depth composted pine mulch to finish grade. (**NO WEED CONTROL FABRIC**), as specified
- Sod areas to receive 125mm topsoil. Sod shall be No. 1 quality conforming to the Canadian Nursery Sod Growers Specification.
- Seed areas to receive 150mm topsoil. Grass seed shall be Certified Canada No. 1 Grade in accordance with Government of Canada Seeds Acts and Regulations
- Reinstate all areas damaged or disturbed beyond the limit of Work.
- Plant Material substitutions shall not be permitted without written approval from the Consultant.
- Provide **protection for existing trees** to be retained. Install fencing to dieline (canopy) of each tree or groupings of trees (if close together). No excavation, filling, storage of materials, disposal of chemicals or waste, vehicle traffic or other activity which could cause root zone disturbance or compaction, shall take place within the protected area.
- Where limbs of trees are removed to accommodate construction work, they shall be done in accordance with accepted arboricultural practice.
- Where root systems become exposed due to excavation, carefully trim damaged roots and provide temporary mulch until backfill is undertaken. Keep roots moist at all times.
- Construct walls or retaining walls if grades around trees are to be modified. Root feed all existing trees after construction.
- Contractor shall advise Consultant a minimum of **48hrs.** prior to proceeding landscape work and any required Field Reviews..
- THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL SITE PLAN APPROVAL ONLY AND MAY NOT BE USED FOR ANY OTHER PURPOSE.**

SCHEDULE OF EXISTING TREES (Inventory conducted March 29 , 2016)

CODE	SPECIES	SIZE (dia.in cm)	CONDITION / TREATMENT / REMARKS
1	Ash	13	dead / remove /
2	Colorado Spruce	20	good / retain / protect
3	Manitoba Maple (double-stem)	13/12	invasive / remove to promote growth of adjacent Sugar Maple
4	Sugar Maple	13	good / retain / protect
5	Colorado Spruce	20	good / retain / protect
6	Sugar Maple	10	good / retain / protect
7	Colorado Spruce	23	good / retain / protect
8	Ash	8	dead / remove /
9	Ash	14	dead / remove /
10	Ash	8	dead / remove /
11	Ash	12	dead / remove /
12	Sugar Maple	12	good / retain / protect
13	Ash	12	dead / remove /
14	Sugar Maple	9	poor / retain / protect
15	Austrian Pine	20	good / retain / protect
16	Austrian Pine	20	good / retain / protect
17	Austrian Pine	23	good / retain / protect
18	Ash	14	dead / remove /
19	Ash	14	dead / remove /
20	Ash	16	dead / remove /
21	Ash		poor/ EAB infected/ top crown dying / remove / hazardous
22	Colorado Spruce	20	good / retain / protect
23	Ash	13	dead / remove /
24	Ash	13	dead / remove /
25	Ash	14	dead / remove /

PLANT MATERIAL SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARKS
DECIDUOUS TREES					
AR	ACER RUBRUM	RED MAPLE	4	60mm cal	B&B, single stem
AS	ACER SACCHARUM	SUGAR MAPLE	3	60mm cal	B&B, single stem
CO	CELTIS OCCIDENTALIS	COMMON HACKBERRY	3	60mm cal	B&B, single stem
GT	GLEDTISIA TRIACANTHOS	SKYLINE HONEYLOCUST	3	60mm cal	B&B, single stem
QR	QUERCUS RUBRA	RED OAK	1	60mm cal	B&B, single stem
CONIFEROUS TREES					
PG	PICEA GLAUCA	WHITE SPRUCE	6	180cm ht	B&B
DECIDUOUS SHRUBS					
CAIt	CORNUS ALTERNIFOLIA	PAGODA DOGWOOD	1	150cm ht.	B&B, multi-stem
HAA	HYDRANGEA ARBORESCENS	ANNABELLE HYDRANGEA	28	50cm ht	potted, 100cm o/c
ANABELLE	ANNABELLE	ANNABELLE	12	50cm ht	potted, 100cm o/c
PO	PHYSOCARPUS OPULIFOLIUS	COMMON NINEBARK	3	150cm ht	B&B, multi-stem
SR	SYRINGA RETICULATA	JAPANESE TREE LILAC	1	150cm ht	B&B, multi-stem
VL	VIBURNUM LENTAGO	NANNYBERRY	1	150cm ht	B&B, multi-stem
WFM	WEIGELA FLORIDA 'MINUET'	MINUET WEIGELA	27	50cm ht	potted, 80cm o/c
CONIFEROUS SHRUBS					
JST	JUNIPERUS SABINA	TAMARIX JUNIPER	27	50cm spr	potted, 100cm o/c
TaC	TAXUS CANADENSIS	CANADA YEW	12	50cm ht	potted, 100cm o/c
PERENNIALS					
As	ASTER divaricatus	WHITE WOODLAND ASTER	6	15cm pot	plant 50cm o/c
Ger	GERANIUM maculatum	WILD GERANIUM	35	15cm pot	plant 30cm o/c
Hos	HOSTA 'Big Daddy'	'Big Daddy' HOSTA	55	15cm pot	plant 75cm o/c
Rud	RUDBECKIA hirta	BROWN-EYED SUSAN	285	15cm pot	plant 50cm o/c
ORNAMENTAL GRASSES / SEDGES					
Cal	CALAMAGROSTIS x acutiflora 'Karl Foerster'	KARL FOERSTER REED GRASS	39	15cm pot	plant 75cm o/c
Carx	CAREX eburnea	IVORY SEDGE	75	15cm pot	plant 30cm o/c
Ely	ELYMUS hystrix	BOTTLEBRUSH GRASS	5	15cm pot	plant 60cm o/c



NOTES:

- THE CRITICAL ROOT ZONE (CRZ) IS ESTABLISHED AS BEING 10m (33') FROM THE TRUNK OF TREE FOR EVERY cm OF TRUNK DBH THE CRZ IS CALCULATED AS DBH x 10m.
- THE AREA WITHIN THE PROTECTED FENCING SHALL REMAIN UNDISTURBED AND SHALL NOT BE USED FOR THE STORAGE OF MATERIALS, EQUIPMENT OR VEHICLES.
- PRUNE BRANCHES TO REMOVE DAMAGED LIMBS. DO NOT DAMAGE LEADERS.
- CUTTING OF ROOTS OR CHANGING OF GRADES AROUND EXISTING TREES TO BE PRESERVED WILL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE CONSULTANT.
- IF TREES ARE BEING ADVERSELY AFFECTED BY CONSTRUCTION, A WATERING AND FERTILIZING PROGRAM IS TO BE SET UP TO THE SATISFACTION OF THE CITY.
- TREE PROTECTION FENCING MAY BE REQUIRED AROUND INDIVIDUAL TREES TO REMAIN AND/OR AROUND TREE PRESERVATION ZONES AS IDENTIFIED ON THE PLANS.
- TREE PROTECTION FENCING OPTIONS (TO BE APPROVED BY CITY):
 - 01 1.2m HT. MIN. SOLID PLYWOOD HOARDING MOUNTED ON WOOD POSTS, 2.4m o/c MIN.
 - 02 1.2m HT. MIN. CHAIN-LINK FENCE MOUNTED ON TUBULAR STEEL SUPPORT POSTS OR T' POSTS, 2.4m o/c MIN.
 - 03 1.2m HT. MIN. HIGH VISIBILITY (INTERNATIONAL ORANGE) PLASTIC SUPPORT POSTS OR T' POSTS, 2.4m o/c MIN.

1 TREE PROTECTION BARRIER NTS

no.	date	revision
1.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
2.	OCT.21/16	PER CITY COMMENTS
3.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
4.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
5.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
6.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
7.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
8.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
9.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
10.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
11.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
12.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
13.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL
14.	APR.19/16	ISSUE FOR SITE PLAN APPROVAL

Contractor shall check and verify all dimensions on site and report all errors and/or omissions to the Consultant.

Work to be done in accordance with all applicable codes and by-laws.

Do not scale Drawing.

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Consultant

LEVSTEK CONSULTANTS
LANDSCAPE ARCHITECTS

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Client

SALVATION ARMY CHURCH
BARRHAVEN
102 BILL LEATHAM DRIVE

Drawing Title

LANDSCAPE PLAN
PHASE 1

Drawn MGB Date MAR 2016 Drawing No. L1.01

Scale 1:300 Project No. 1114

