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REVISIONS:

rev.	date	description
1.	SEP 18/13	STARTED DRAWINGS
2.	JAN 17/14	SUBMITTED FOR DP
3.	APR 24/14	DISTRIBUTED TO CONSULTANTS FOR REVIEW
4.	JUN 12/14	SUBMITTED FOR DRC
5.	JUL 07/14	RESUBMIT TO DRC
6.	AUG 15/14	SUBMIT TO COUNCIL
7.	JUN 09/16	INITIAL BP SET ISSUED TO CONSULTANTS
8.	JUL 25/16	SECOND BP SET ISSUED TO CONSULTANTS
9.	NOV 02/16	ISSUED FOR BP
10.	OCT 27/17	RE-ISSUED FOR BP
11.	NOV 15/17	ISSUED FOR METRO VANCOUVER APPROVAL
12.	APR 03/18	ISSUED FOR CO-ORDINATION TENDER TO CONSULTANTS
13.	MAY 03/18	ISSUED FOR 90% TENDER
14.	JUNE/18	RE-ISSUED FOR DP

SEAL:

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VANCOUVER, B.C. V5M 2E9
Tel.(778) 229 - 4551

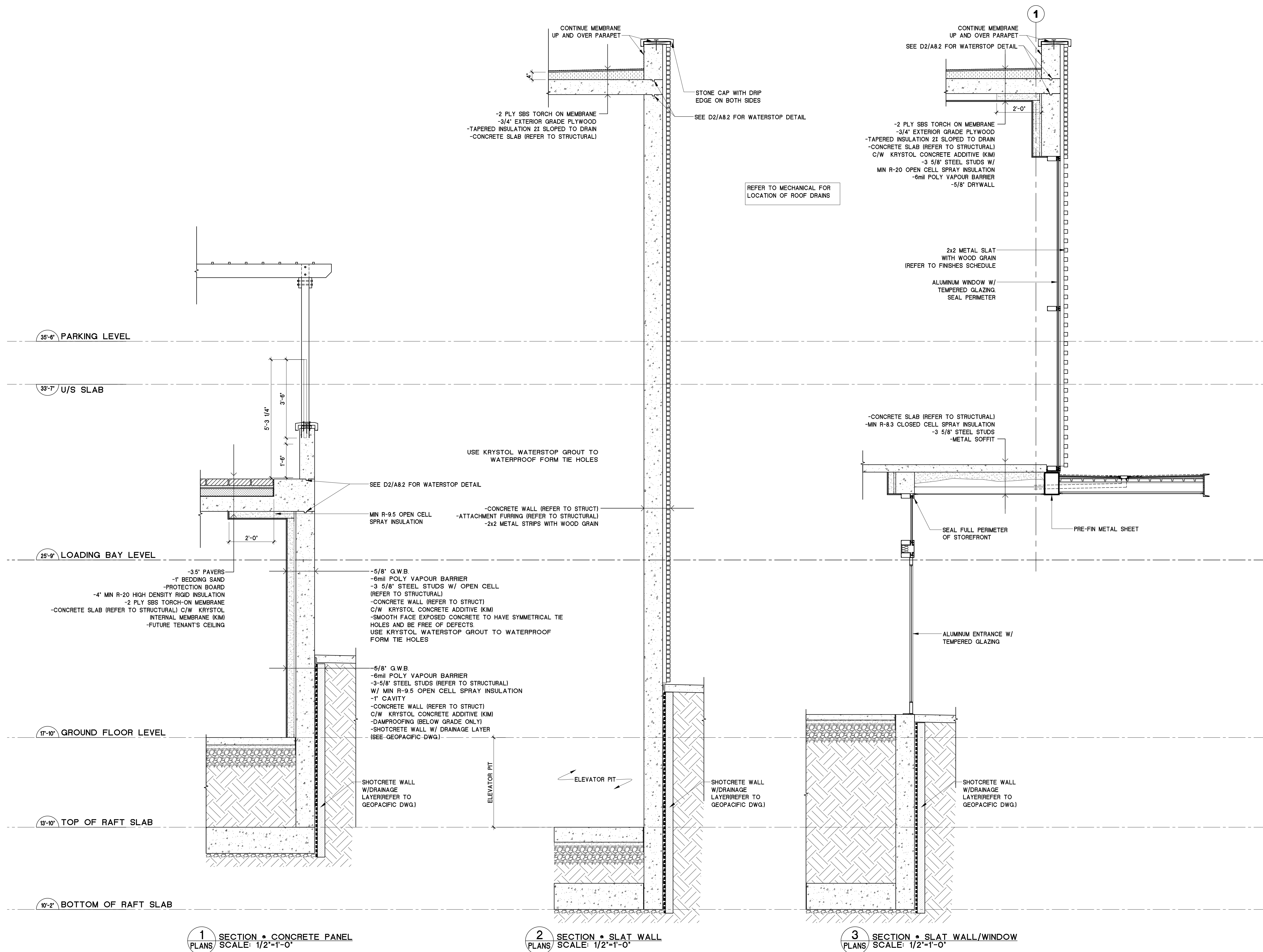
SHOPPERS DRUG MART
DESIGN & CONSTRUCTION

PROJECT:
**1583 MARINE DR.
WEST VANCOUVER, B.C.**

SHEET TITLE:
DETAILS

CHECKED BY: ATA
DRAWN BY: AMT AND CL
START DATE: SEP 18, 13
SCALE: AS NOTED

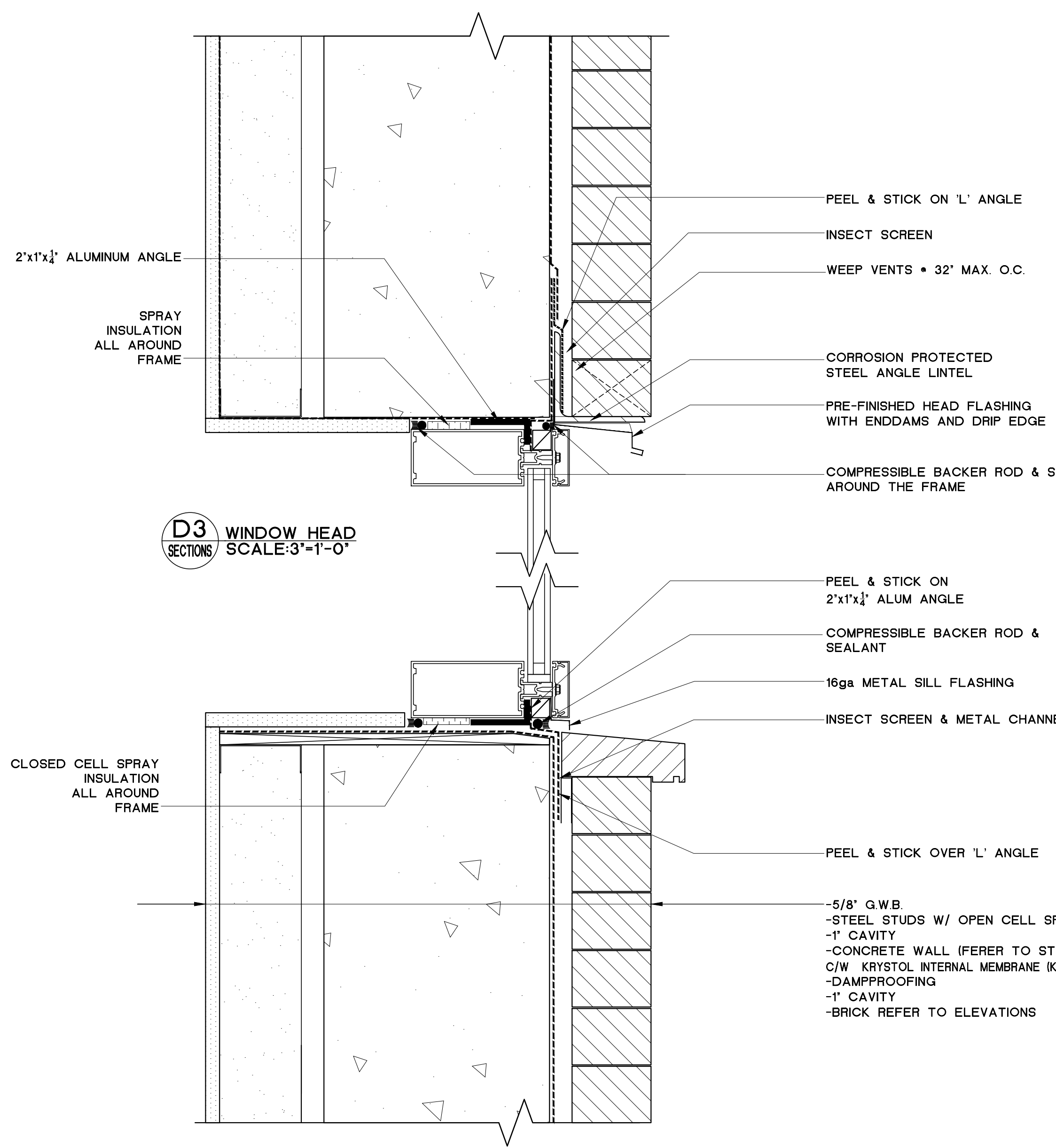
PROJECT NO. DRAWING NO.
12-2280 A8.1



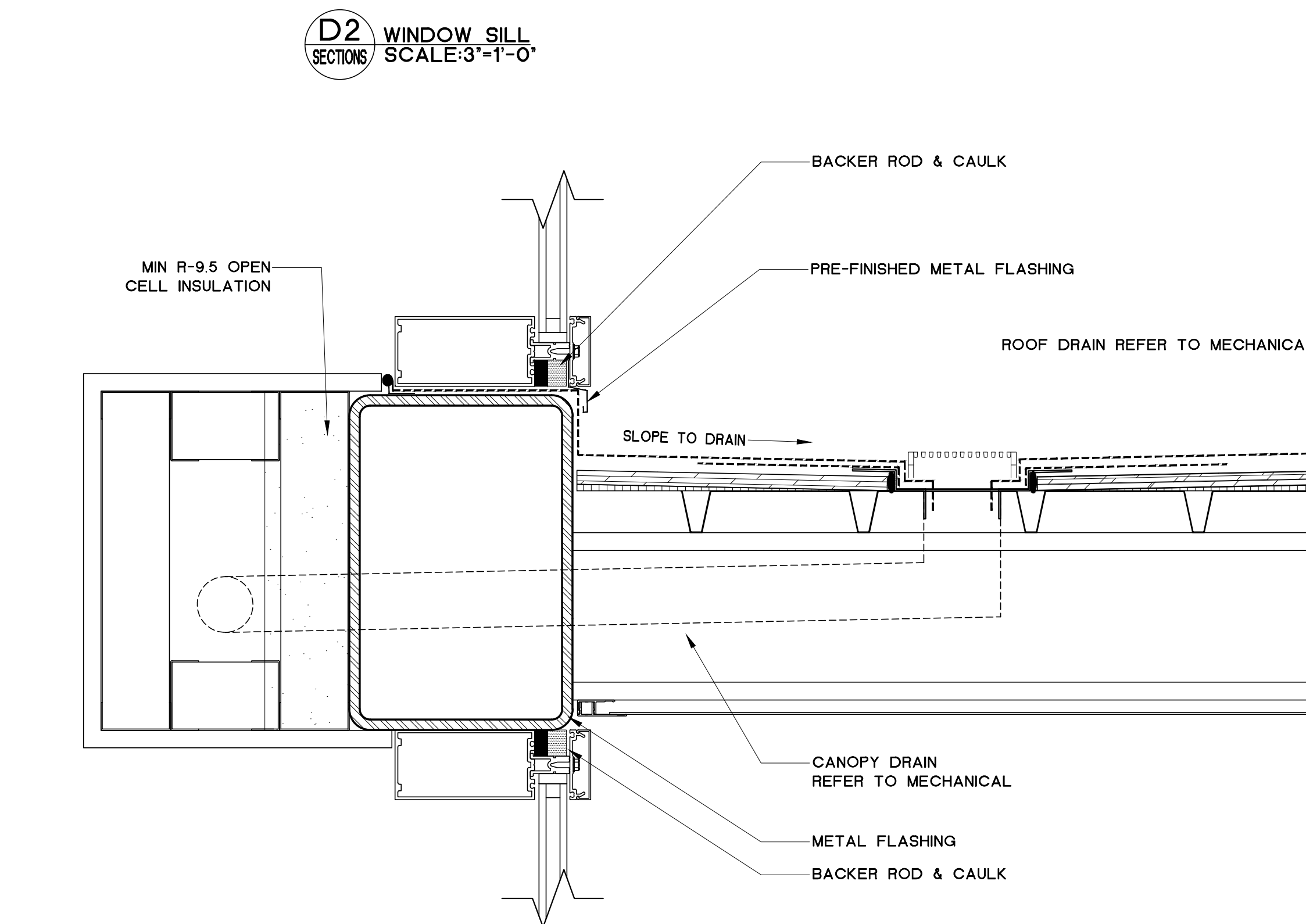
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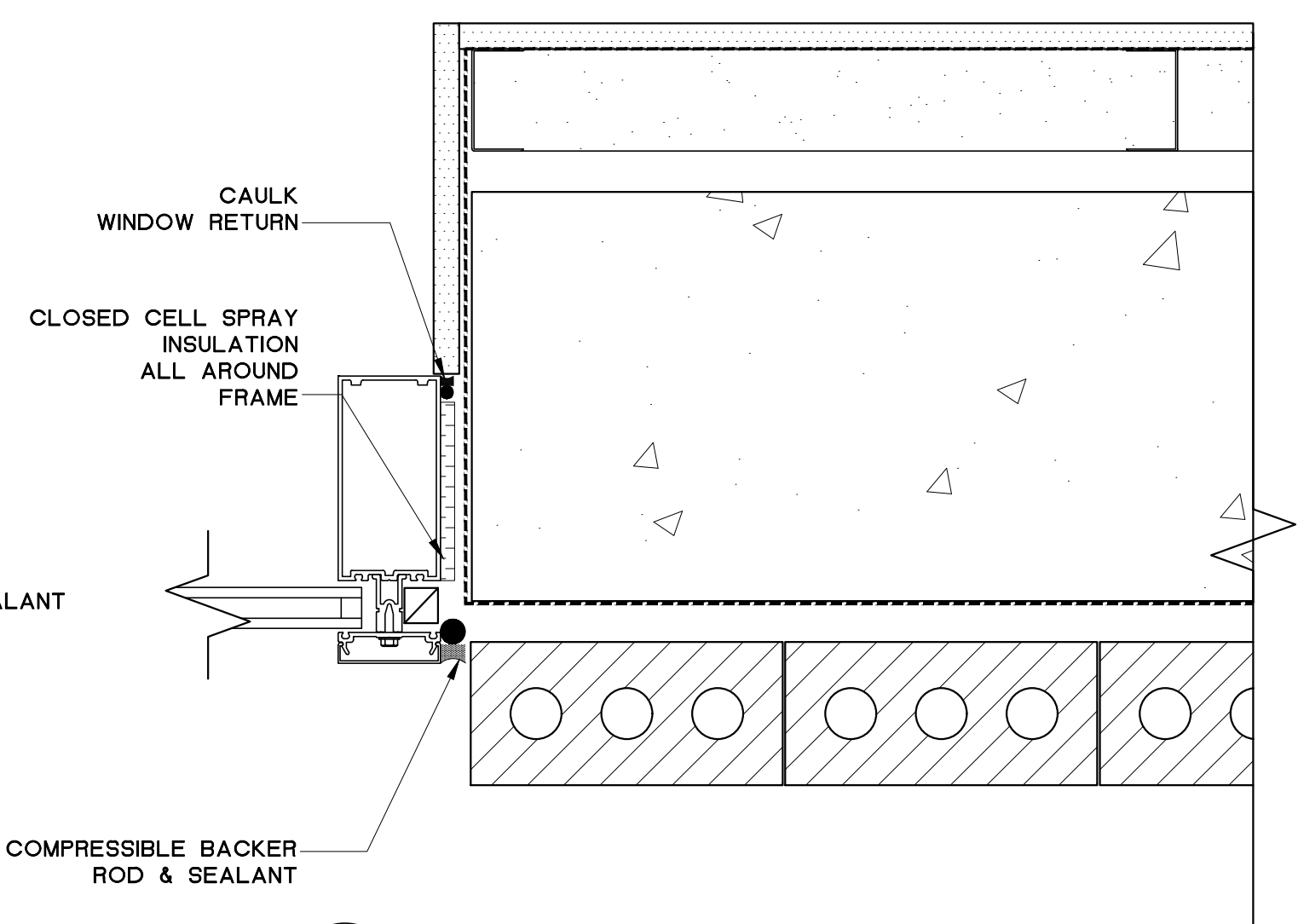
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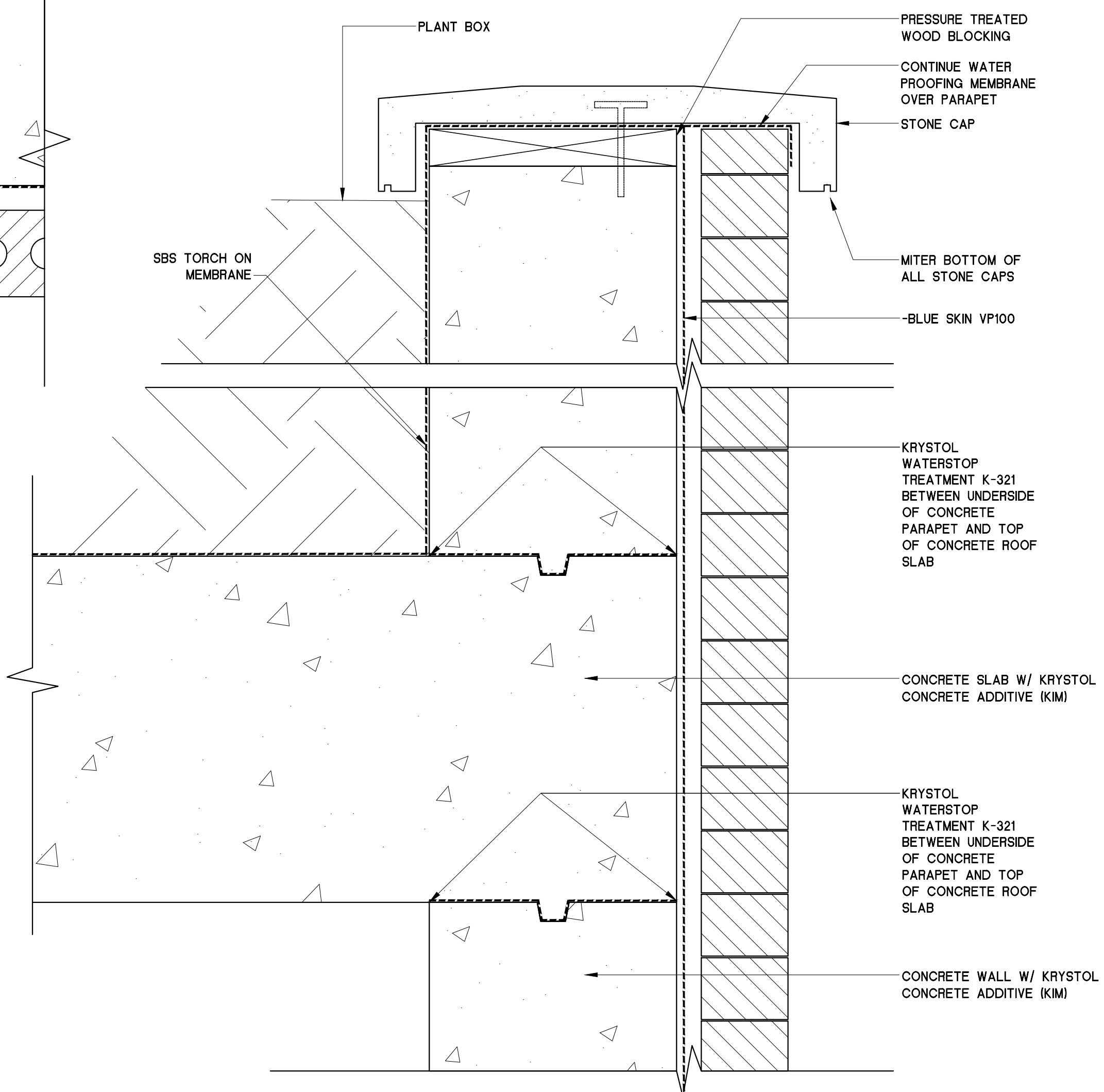
D3 WINDOW HEAD
SECTIONS SCALE: 3'-1'-0"



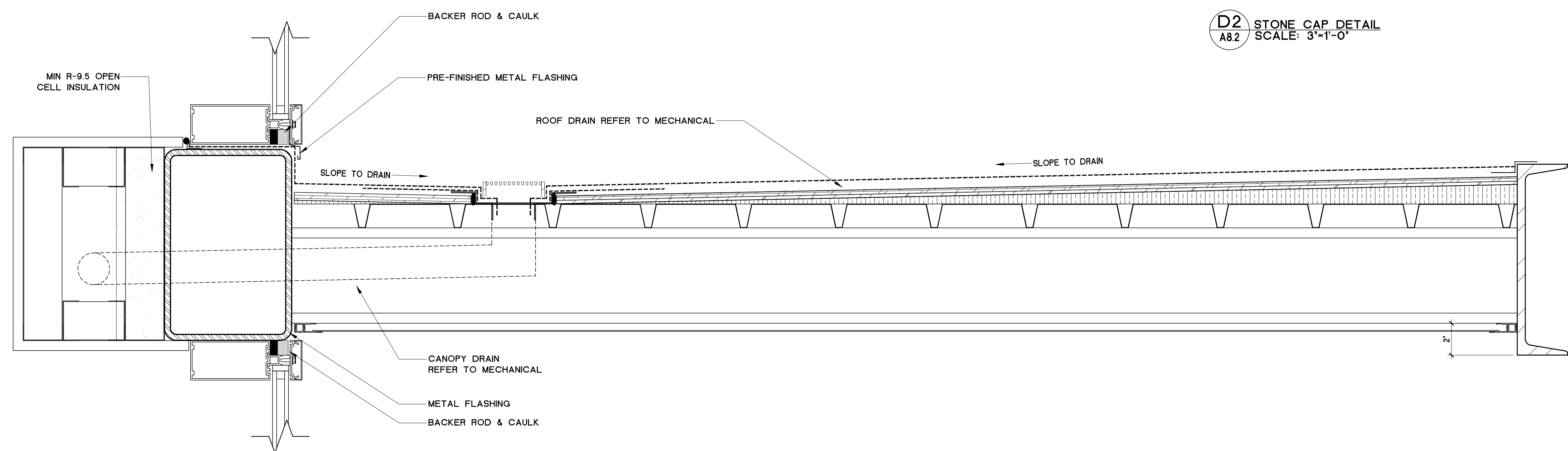
D2 WINDOW SILL
SECTIONS SCALE: 3'-1'-0"



D4 WINDOW JAMB
SECTIONS SCALE: 3'-1'-0"



D2 STONE CAP DETAIL
A8.2 SCALE: 3'-1'-0"



D1 FRONT CANOPY
A8.0 SCALE: 3'-1'-0"

SEAL:

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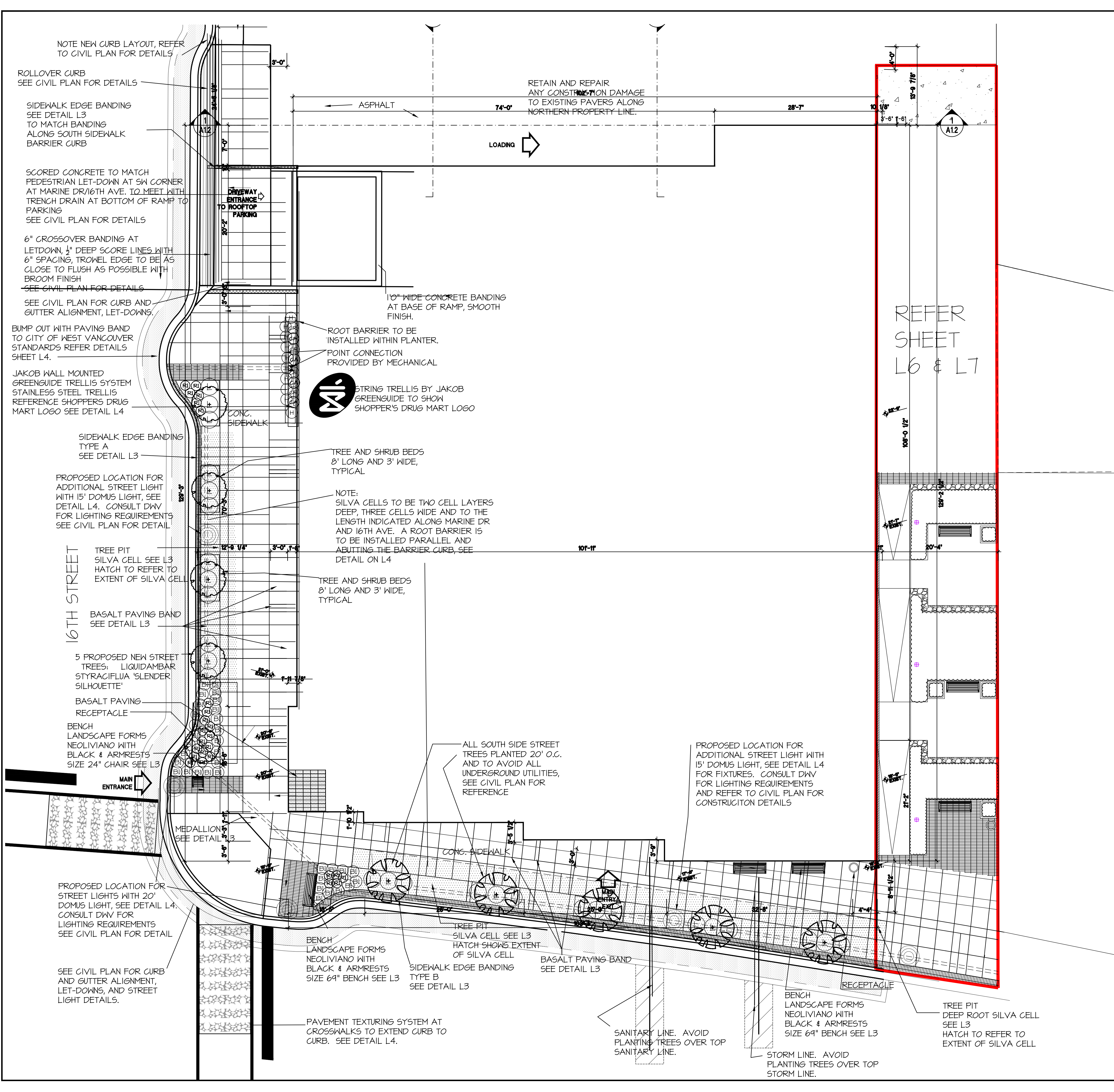
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SHOPPERS DRUG MART
DESIGN & CONSTRUCTION

PROJECT:
1583 MARINE DR.
WEST VANCOUVER, B.C.

SHEET TITLE:
DETAILS

CHECKED BY:	ATA
DRAWN BY:	AMT AND CL
START DATE:	SEP 18, 13
SCALE:	AS NOTED
PROJECT NO.	DRAWING NO.
12-2280	A8.2



PLANT SCHEDULE: OFF-SITE M2 JOB NUMBER: 13-058

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
AC	5	ACER CARPESISTRIS	FIELD MAPLE	12H CAL 2H STD, B4B
LI	5	LIQUIDAMBAR STYRACIFLUA 'SLENDER SILHOUETTE'	SLENDER SILHOUETTE SHEETMUM	12H CAL 2H STD, B4B
BI	34	BIRCH MICROPHYLLOA 'WINTER GEM'	LITTLE-LEAF BOX	#2 POT
L	21	LONGISPA PILEATA	PROVET HONEYBUCKLE	#2 POT
RI	25	ROSA 'HOME RUN'	HOME RUN ROSE	#2 POT
GR	10	HELICTOTRICHON SEBESPIRENSIS	BLUE OAT GRASS	#1 POT
V	4	CAMPIDIS RADICANS	COMMON TRUMPET CREEPER	#2 POT, 60CM
CA	4	CLEHATIS ARMANDI	EVERGREEN CLEHATIS	#2 POT, 60CM STAKED

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER DATA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY.

ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY. PROVIDE CERTIFICATION UPON REQUEST.

PLANT SCHEDULE ON-SITE (ROOFTOP) M2 JOB NUMBER: 13-058

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
T	24	THUJA OCCIDENTALIS 'SHARADZ'	EMERALD GREEN CEDAR	12H HT, B4B
GR	12	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FOERSTER REED GRASS	#1 POT
H	56	HELICTOTRICHON SEBESPIRENSIS	BLUE OAT GRASS	#1 POT
P	8	PANDANUS ALTRICRODENDRUM 'NANLIN'	DWARF FOUNTAIN GRASS	#1 POT
V	3	CAMPIDIS RADICANS	COMMON TRUMPET CREEPER	#2 POT, 60CM
CA	3	CLEHATIS ARMANDI	EVERGREEN CLEHATIS	#2 POT, 60CM STAKED
P	20	PARTHENOCISSUS TRICUSPIDATA 'VEITCHI'	BOSTON IVY	#2 POT, 60CM

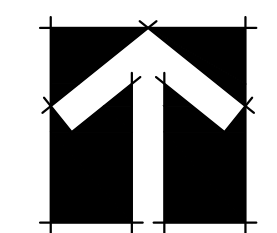
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NO.	DATE	REVISION DESCRIPTION	DR.
15	10 JUN 21	ISSUE FOR DP (INCL. LANENAY)	RC
14	10 MAY 20	90% COMPLETE	RC
13	11 DEC 20	PER CITY COMMENTS/CIVIL CHANGES	RC
12	11 OCT 20	PER CITY COMMENTS	AO
11	19 APR 17	PER CITY COMMENTS	AO
10	9 NOV 16	ISSUED FOR BP	AO
9	12 SEPT 16	REVISED PER NEW SITE PLAN	AO
-8	14 AUG 14	ISSUED FOR DRG	MY
-7	8 AUG 14	ISSUED FOR DRG	MY
-6	20 JUNE 14	ISSUED FOR DRG	MY
-5	11 JUNE 14	ADDED LANE INFO/ISSUED FOR DRG	MY
-4	20 MAY 14	REVISED PER NEW SITE PLAN	MY
-3	1 MAY 14	REVISED PER NEW SITE PLAN	MY
-2	31 JAN 14	REVISED FOR DP SUBMISSION	MY
-1	2 DEC 13	ISSUED FOR DP	MY

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SHOPPERS DRUG MART
 DESIGN & CONSTRUCTION

PROJECT:

**SHOPPERS DRUG MART
 AMBLESIDE**

1583 MARINE DRIVE
 WEST VANCOUVER, B.C.

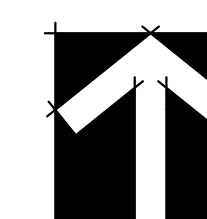
DRAWING TITLE:

**LANDSCAPE PLAN
 GROUND FLOOR**

DATE: JUN 27 2018	DRAWING NUMBER:
SCALE: 1/8" = 1'-0"	L1
DRAWN: MY	
DESIGN: MY	
CHK'D: MM	



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-3	1 MAY 14	REVISED PER NEW SITE PLAN	MY
-2	21 JAN 14	REVISED FOR DP SUBMISSION	MY
-1	2 DEC 13	ISSUED FOR DP	MY

NO.	DATE	REVISION DESCRIPTION	DR.
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DESIGN & CONSTRUCTION

PROJECT:

**SHOPPERS DRUG MART
AMBLESIDE**

1583 MARINE DRIVE
WEST VANCOUVER, B.C.

DRAWING TITLE:

**PAVING PLAN
2ND FLOOR**

DATE:	MAY 03 2018	DRAWING NUMBER:	
SCALE:	1/8"=1'-0"		
DRAWN:	MY		
DESIGN:	MY		
CHK'D:	MM		

L3

OF 8

M2LA PROJECT NUMBER: **JOB NO 13 058**

PLANT SCHEDULE: OFF-SITE

KEY QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE	REMARKS
3	ACER CAMPESTRIS	FIELD MAPLE	104 GAL 24 STD. B&B	
5	LORDBARKER SYRACUSIA 'SLIMMER SILKNETTE'	SLIMMER SILKNETTE SHRETBUM	104 GAL 24 STD. B&B	
SHRUB	34	BIRCH HYDROPHILLA WINTER GEM	LITTLE-LEAF BOX	#2 POT
L	21	LONGICHA PLEATA	PROLET HORSESHOE	#2 POT
R	22	ROSA NOVA RUM	ROSE B&B	#2 POT
GRASS	H	HELICTROCHON BENDERBENDIG	BLUE OAT GRASS	#4 POT
VINE	CR	CAMPUS RADICANS	COMMON TRUMPET CREEPER	#2 POT, 60CM
CA	4	CLEMENS ARMANDI	EVERGREEN CLEMATIS	#2 POT, 60CM STAKED

NOTES: # PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARDS, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER DATA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. # REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. # SEARCH AND REVIEW MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. # SUBSTITUTIONS OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS. TO THE SPECIFIED MATERIAL, UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARDS - DEFINITION OF CONDITIONS OF AVAILABILITY.

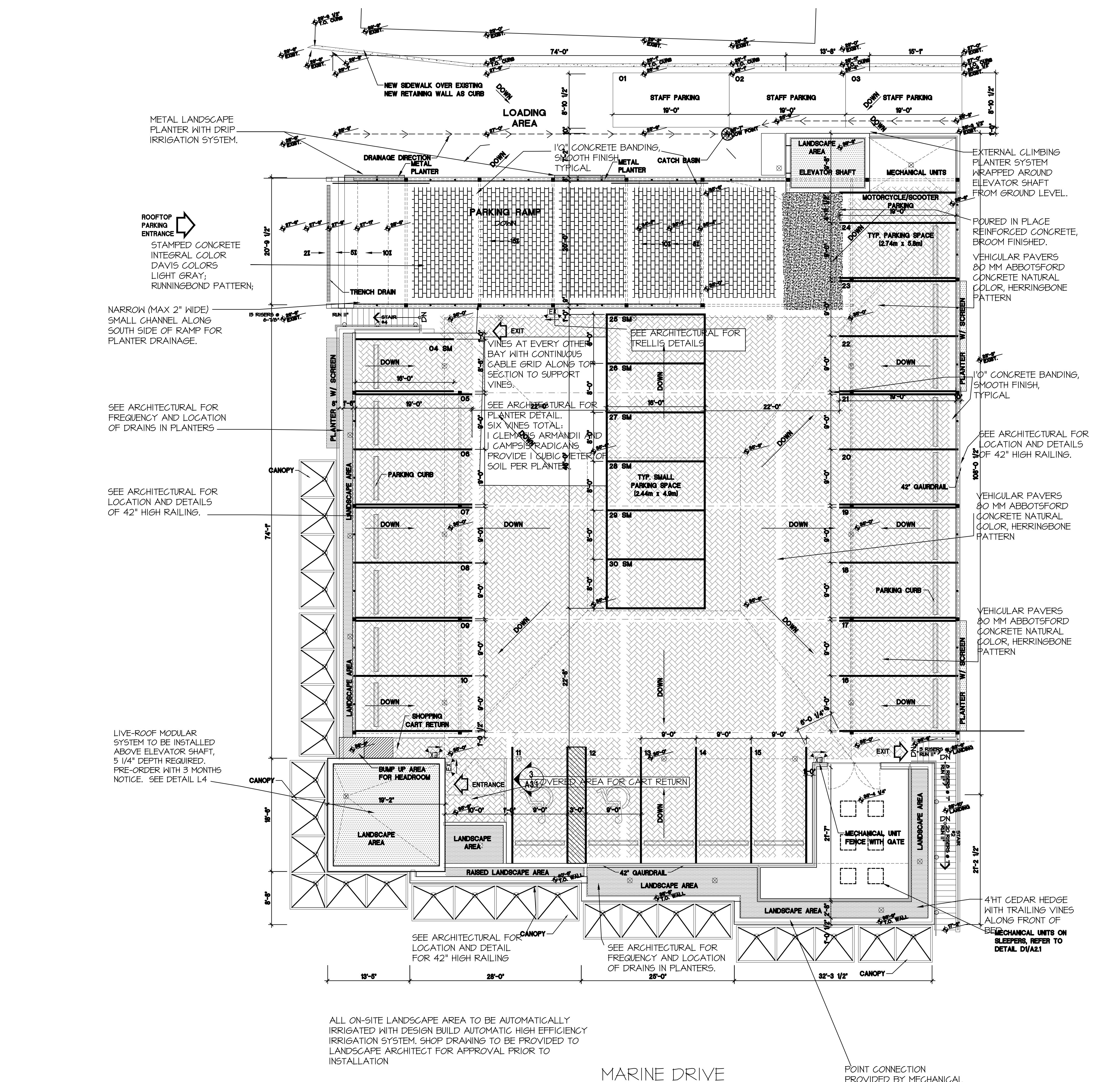
ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY. PROVIDE CERTIFICATION UPON REQUEST.

PLANT SCHEDULE ON-SITE (ROOFTOP)

KEY QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE	REMARKS
SHRUB	24	THELA OCCIDENTALIS 'SHARAGO'	EMERALD GREEN CEDAR	124 101 B&B
GRASS	C	CALAMAGROSTIS ACUTIFLORA KARL FÖRSTER	FÖRSTER REED GRASS	#4 POT
H	36	HELICTROCHON BENDERBENDIG	BLUE OAT GRASS	#4 POT
R	8	FERNEXEM ALBERTOCCO'S WAVELET	SWAMP CORAL GRASS	#4 POT
VINE	CR	CAMPUS RADICANS	COMMON TRUMPET CREEPER	#2 POT, 60CM
CA	3	CLEMENS ARMANDI	EVERGREEN CLEMATIS	#2 POT, 60CM STAKED
F	20	FANBERGOSIA TRICOLORATA 'VEITCH'	ROSEUM IVY	#2 POT, 60CM

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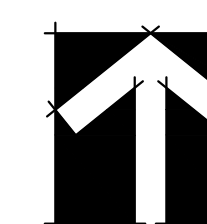
ALL ON-SITE LANDSCAPE AREA TO BE AUTOMATICALLY IRRIGATED WITH DESIGN BUILD AUTOMATIC HIGH EFFICIENCY IRRIGATION SYSTEM. SHOP DRAWING TO BE PROVIDED TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION

MARINE DRIVE

POINT CONNECTION PROVIDED BY MECHANICAL



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Tel. (604) 296 - 4400
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SHOPPERS DRUG MART
DESIGN & CONSTRUCTION

PROJECT:
**SHOPPERS DRUG MART
AMBLESIDE**
1583 MARINE DRIVE
WEST VANCOUVER, B.C.

DRAWING TITLE:
DETAILS

DATE: MAY.03.2018	DRAWING NUMBER:
SCALE: NTS	L4
DRAWN: MY	
DESIGN: MY	
CHK'D: MY	

OF 8

M2LA PROJECT NUMBER: **JOB NO 13 058**

TREE PLANTING DETAILS
STRUCTURAL SOILS, SOIL CELLS + GROWING MEDIUM

The performance and long-term survival of urban trees are heavily dependent upon an adequate provision of growing medium. This is particularly true for street plantings that grow in harsh urban environments with little maintenance.

For street trees, conventional tree planting pits such as curbing or Ambleside, provide insufficient growing medium for the long-term healthy development of medium to large street trees. Insufficient growing medium reduces the long-term supply of moisture, water and oxygen. Current research shows that urban trees require between 8-10 cubic metres of growing medium to develop to a size of 40-50 cm caliper, DBH. A conventional 1.0m x 1.2m tree pit provides approx. 3 cubic metres.

In a streetscape context, there are two main solutions to improve the volume of growing medium provided:

- The use of soil cells under paved areas adjoining tree pits
- The use of structural soil under paved areas adjoining tree pits

Typical tree pit detailing utilizing soil cells and structural soil are provided. Soil cells provide the most growing medium within a given volume but carry the highest construction costs. Structural soil is a cheaper and simpler solution but only provides approximately 1/3 the growing medium by volume of structural soil installed. The remaining 2/3 is rock. Soil cells are preferred by the District. This approach would only be applied to major redevelopment.

Arrangement of Structural Soil or Soil Cells to Provide a 1.0m x 1.2m Tree Pit

Typical Tree Pit Detail Soil Cell Option

Typical Tree Pit Detail Structural Soil Option

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013

RECEPTACLE FORMS AND SURFACES
MODEL: DISPATCH SLD15136

BENCH/CHAIR LANDSCAPE FORMS
MODEL: NEOLIVIANO WITH BLACK & ARMRESTS

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013
P/L Partnership Landscape Architects Inc. - District of West Vancouver

STREETSCAPE ELEMENTS
PAVING MATERIALS

The streetscape standards propose a palette of paving materials including solid limited cut-in-place concrete, recycled brick pavers, local slabs and pavers and concrete unit pavers. The following pages provide detail information concerning the typical layout and dimensioning of these materials within typical streets conditions, the typical application of each paving material, and details of size, finish and installation.

PAVING UNITS

AMBLESIDE RED BRICK
MATERIAL: RED BRICK PAVERS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB
BRICK PAVERS CAN BE RECYCLED OR NEW SUBJECT TO COST AND AVAILABILITY

BASALT PAVER TYPE A
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

BASALT PAVER TYPE B
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

BASALT PAVER TYPE C
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

CONCRETE
MATERIAL: CAST IN PLACE CONCRETE
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: SAND BLENDED WITH SMOOTH SCREPE LINES REFER TO PAGE 30 FOR SAW CUT PATTERNS

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013

PAVING APPLICATIONS

SIDEWALK BANDING

SIDEWALK EDGE BANDING TYPE A
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

SIDEWALK EDGE BANDING TYPE B
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

BASALT BANDING TYPE 1
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

BASALT BANDING TYPE 2
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

BASALT BANDING TYPE 3
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

RED BRICK/BASALT MOSAIC (AT CORNERS)
MATERIAL: RED BRICK
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

CORNER MEDALLION (STREET NAMES)
MATERIAL: GREY BASALT SLABS
DIMENSIONS: 180mm x 180mm x 60mm
INSTALLATION METHOD: MORTAR BEDDING AND JOINTING OVER CAST IN PLACE CONCRETE SLAB

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013
P/L Partnership Landscape Architects Inc. - District of West Vancouver

STREET LIGHTS

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013
P/L Partnership Landscape Architects Inc. - District of West Vancouver

PAVING LAYOUT DETAILS - MARINE DRIVE AND BELLEVUE AVENUE

EXISTING SIDEWALK RENOVATION

NEW SIDEWALK CONSTRUCTION

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013

PAVING LAYOUT DETAILS - NORTH SOUTH STREETS SCORING AND LAYOUT

EXISTING SIDEWALK RENOVATION

NEW SIDEWALK CONSTRUCTION

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013
P/L Partnership Landscape Architects Inc. - District of West Vancouver

CROSSWALKS

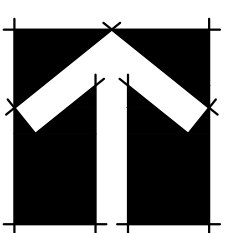
In order to emphasize pedestrian priority it is proposed to mark crosswalks with a custom designed patterning applied to the existing asphalt. The design of the crossing is derived from the shape of cobbles found on the nearby shoreline and is intended to provide a unique design feature within the Village Centre. The design proposed would need to be developed in consultation with a supplier to suit the manufacturing and application process.

Crosswalk Details

Ambleside Village Centre Streetscape Standards - West Vancouver - 2013



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15	10 JUN 17	ISSUE FOR DP (INCL. LANEWAY)	RC
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8	14 AUG 14	ISSUED FOR DRG	MY
7	8 AUG 14	ISSUED FOR DRG	MY
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2	31 JAN 14	REVISED FOR DP SUBMISSION	MY
1	2 DEC 13	ISSUED FOR DP	MY

NO. DATE REVISION DESCRIPTION DR.

SEAL:



200-1687 WEST BROADWAY
VANCOUVER, B.C. V6J 1X2
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FAX. (604) 736-3771

400-3999 HENNING DRIVE
BURNABY, B.C. V5C 6P9
Tel: (604) 296-4400
Fax: (604) 296-4403



DESIGN & CONSTRUCTION

PROJECT:
**SHOPPERS DRUG MART
AMBLESIDE**

1583 MARINE DRIVE
WEST VANCOUVER, B.C.

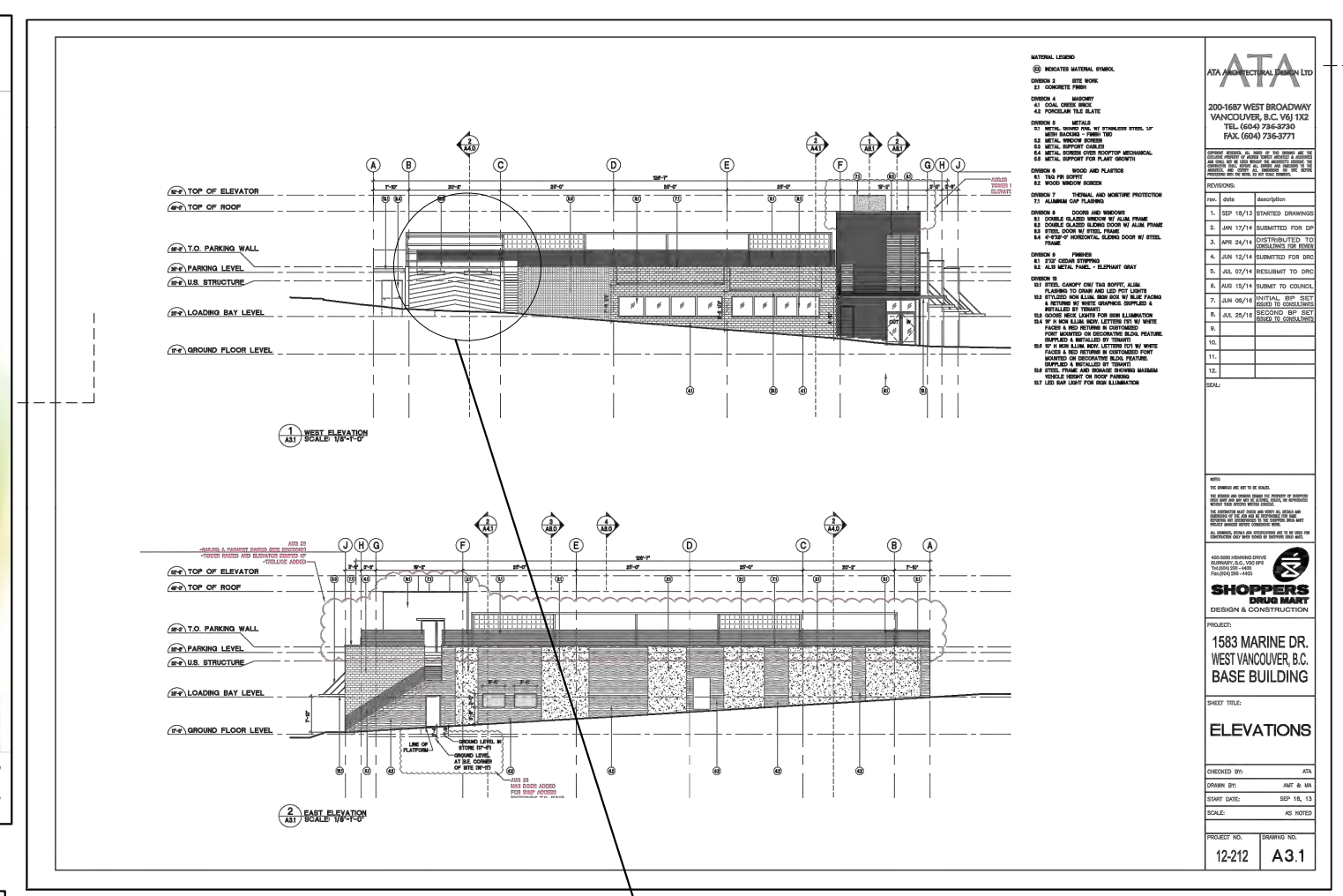
DRAWING TITLE:

DETAILS

DATE: MAY.03.2018	DRAWING NUMBER:
SCALE: NTS	L5
DRAWN: MY	
DESIGN: MY	
CHK'D: MM	

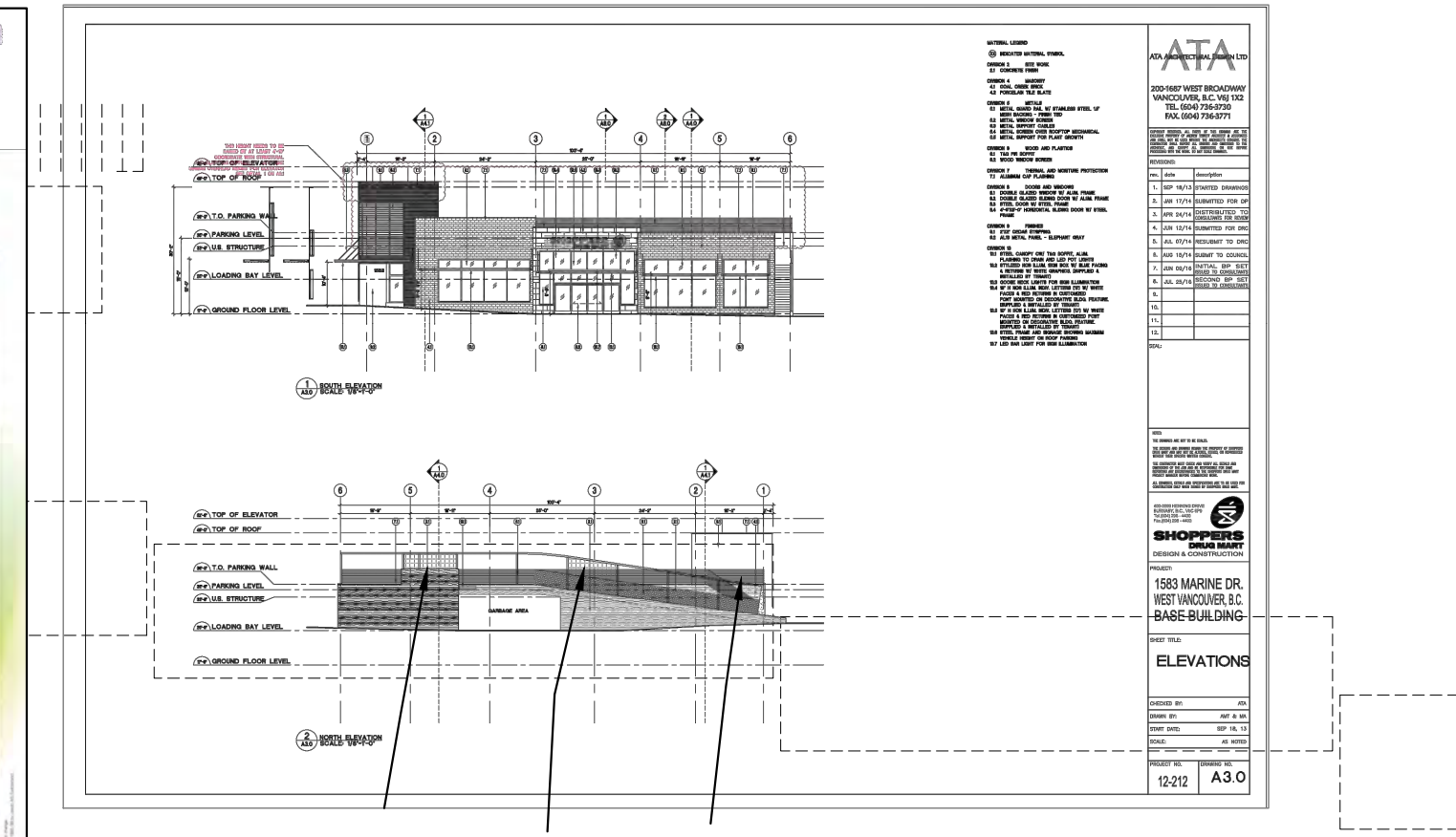
M2LA PROJECT NUMBER: **JOB NO 13 058**

M2 JOB 13058-28.TMP



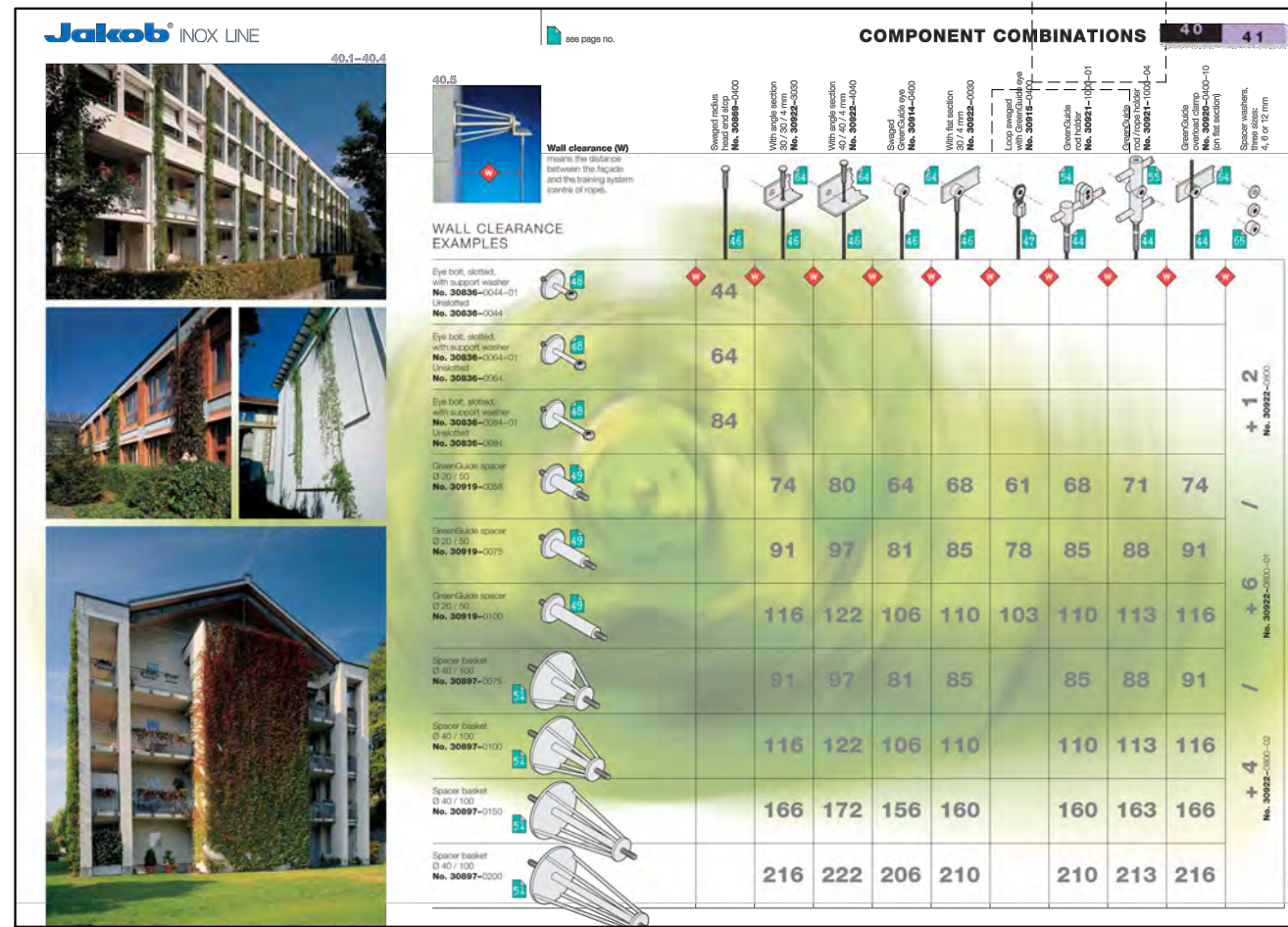
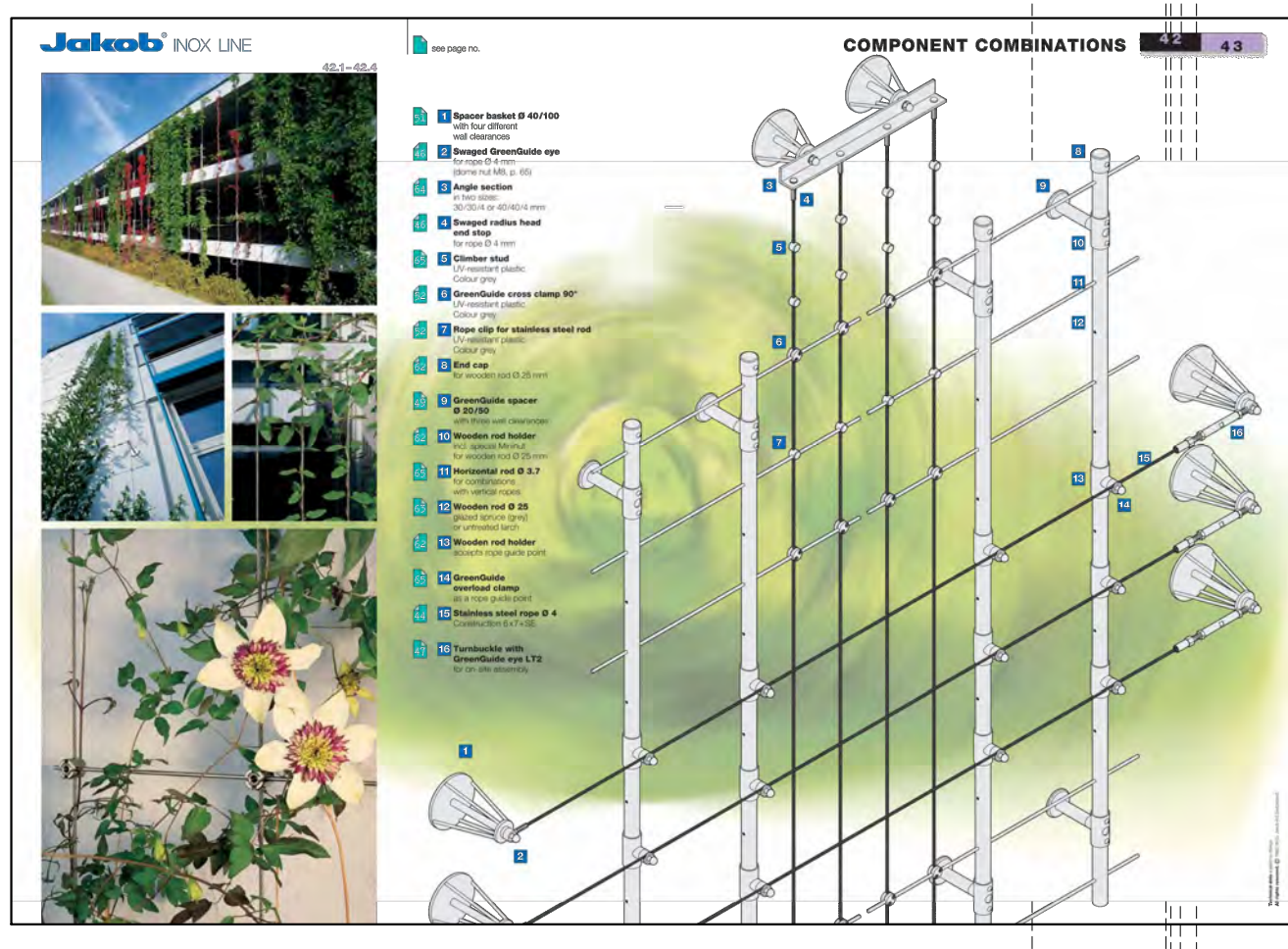
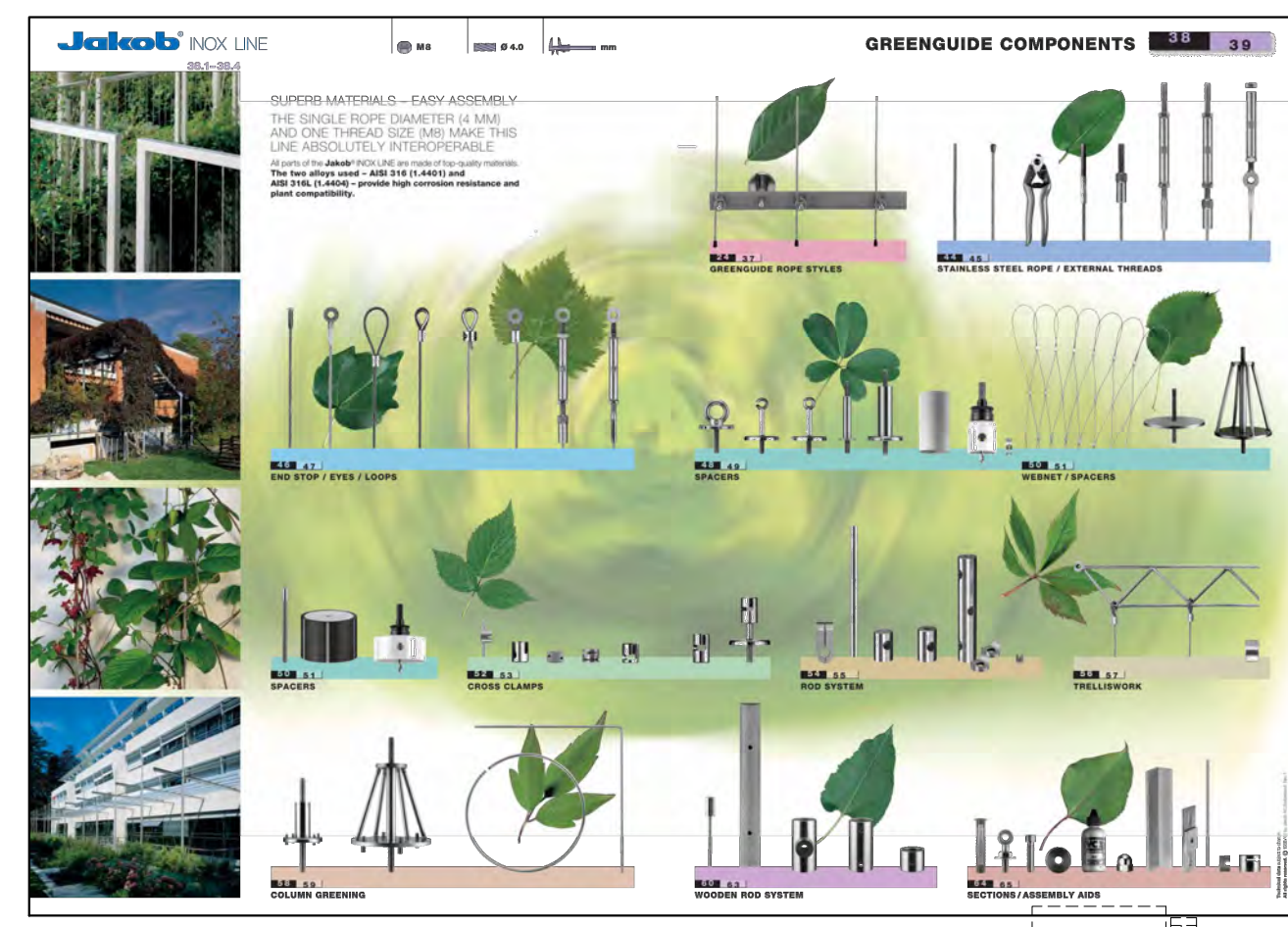
JAKOB WALL MOUNTED GREENGUIDE TRELLIS SYSTEM

JAKOB TRELLIS SYSTEM TO COVER AN AREA TWENTY FEET LONG AND SIX FEET WIDE ON WEST WALL. WIRE ROPE CONFIGURATION TO MIRROR SHOPPER'S DRUG MART LOGO

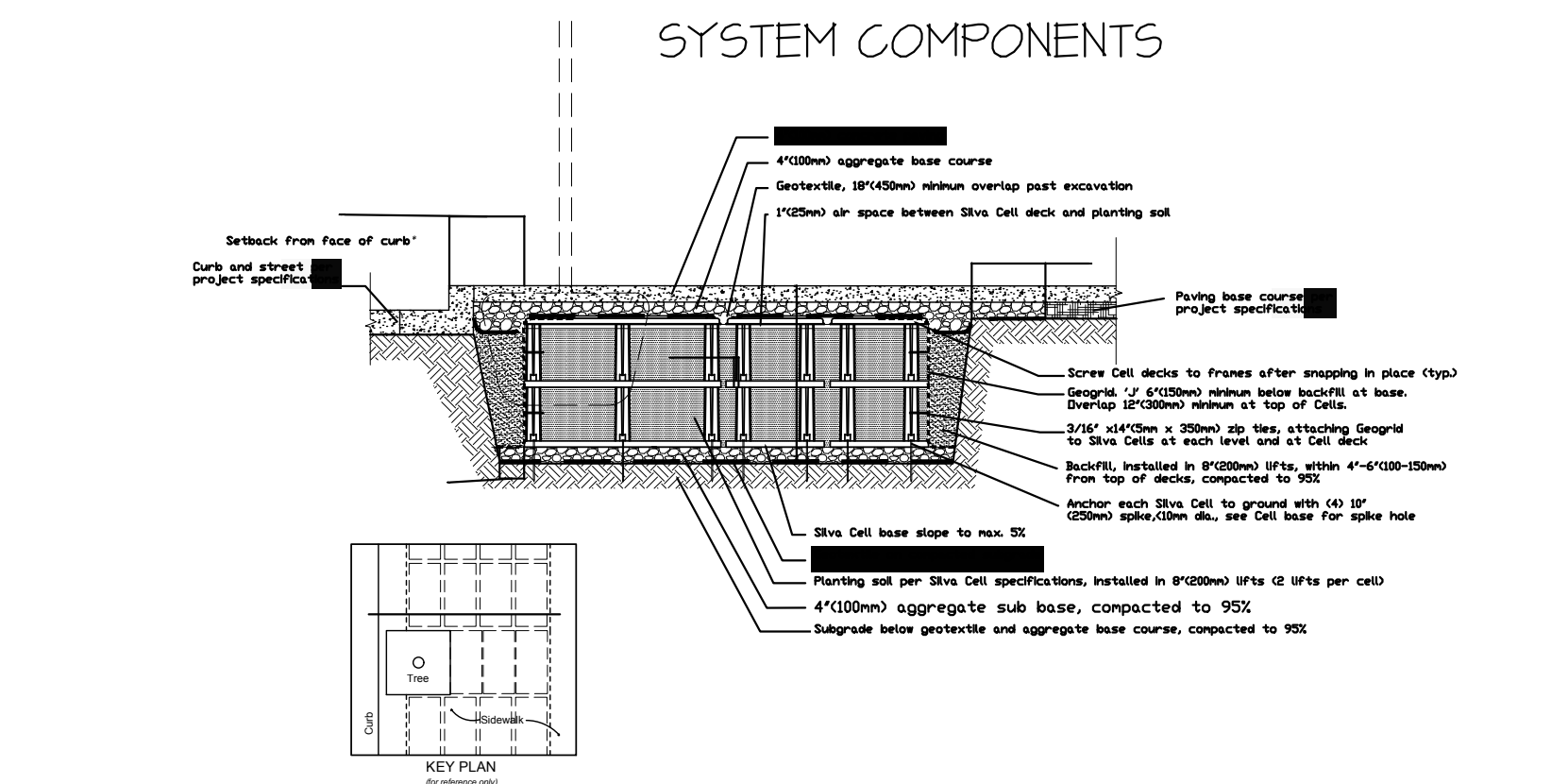
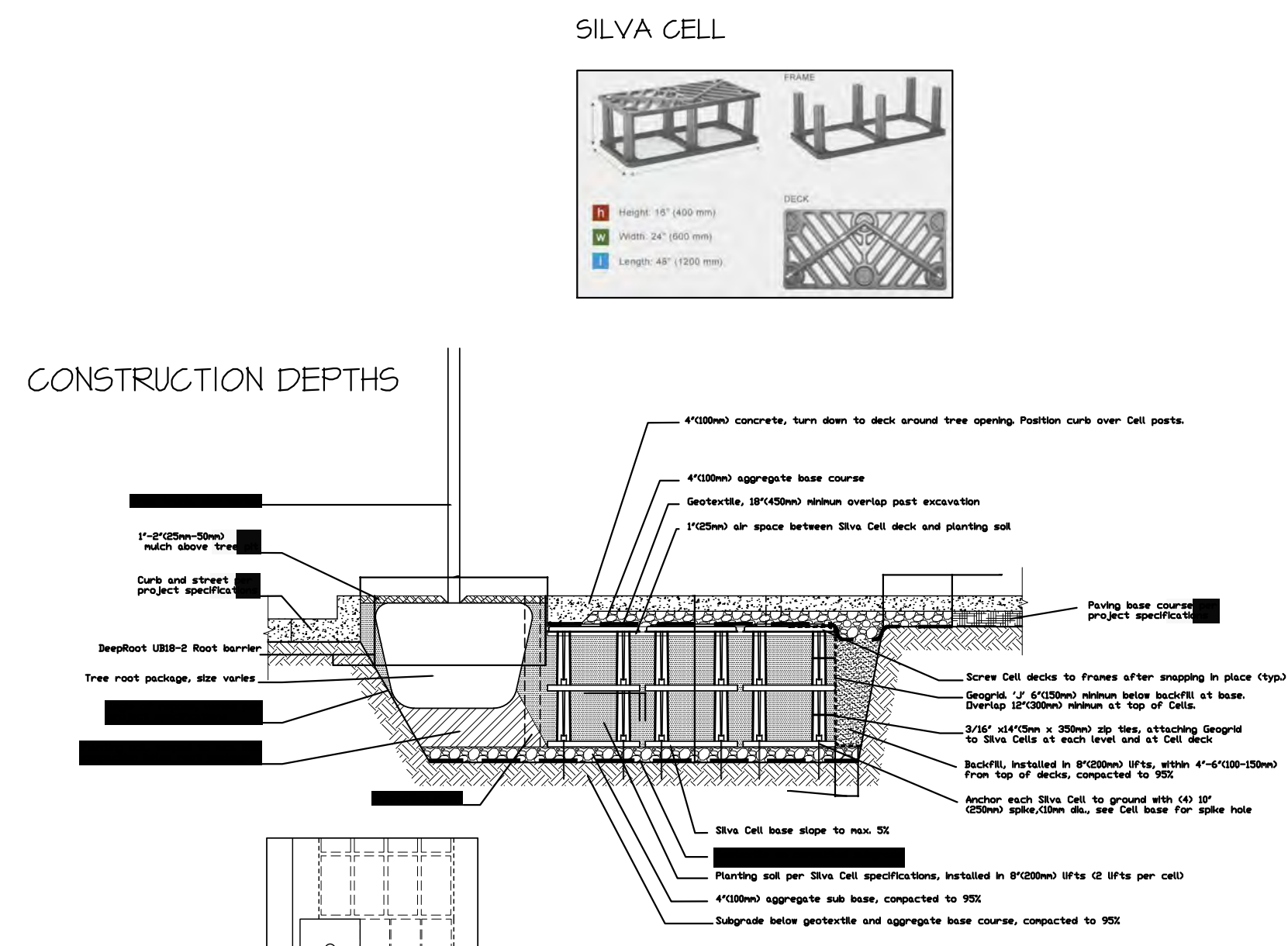


NORTH WALL ELEVATION, CUSTOM PLANTERS BY POT INC. TO BE HUNG FROM WALL UNDER TRELLIS.

JAKOB GREENGUIDE COMPONENTS

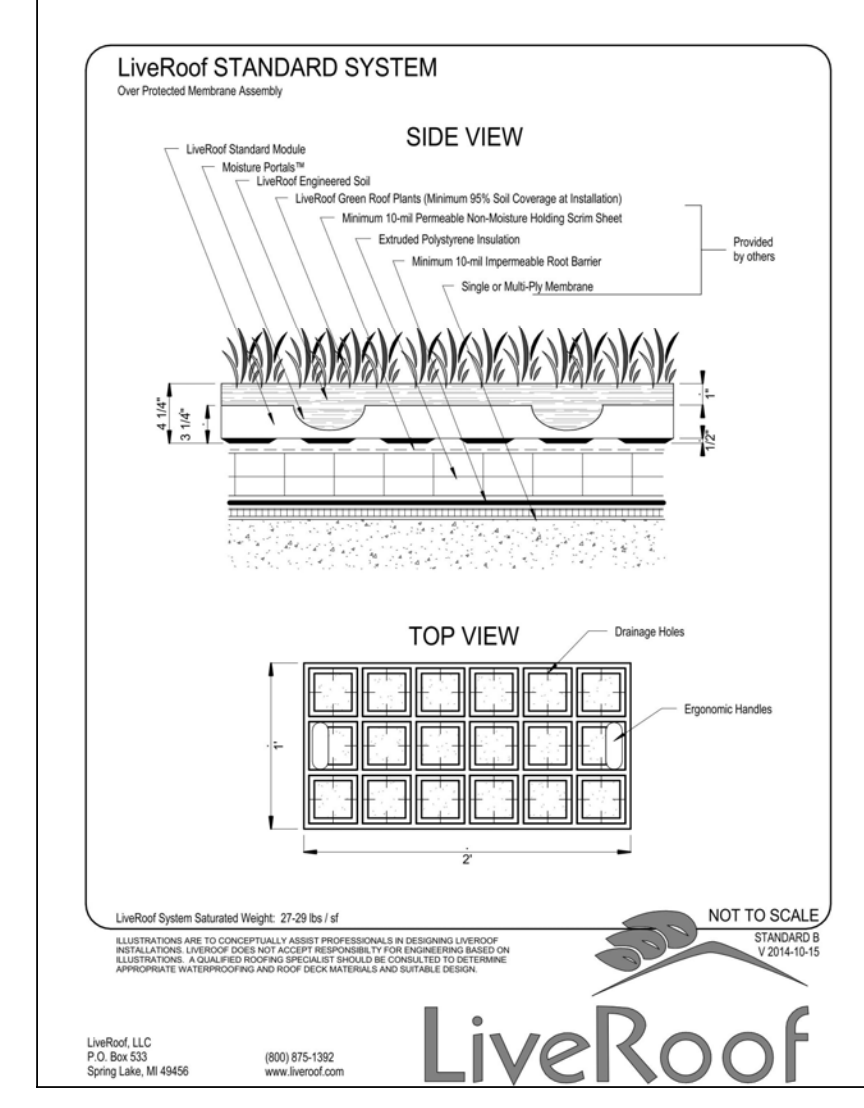


JAKOB GREENGUIDE
A2.0 NTS

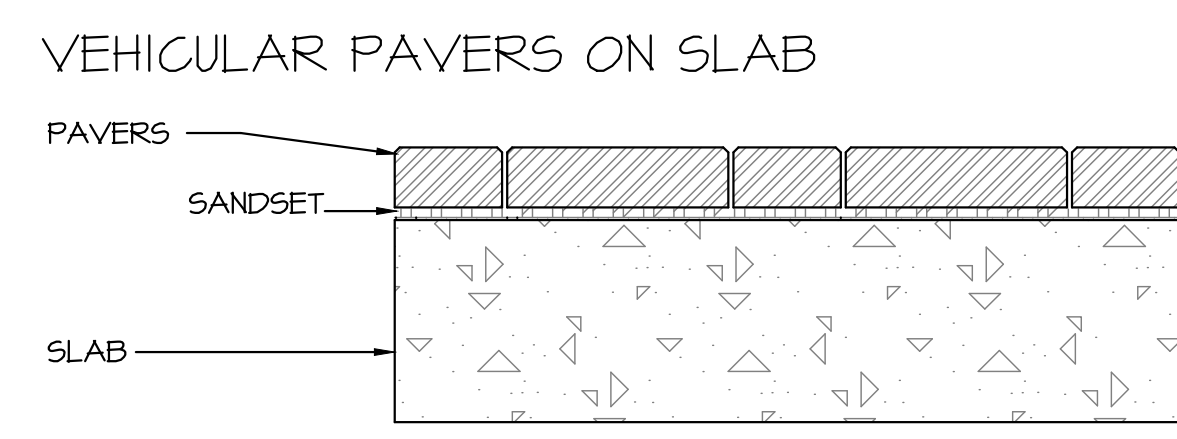


SILVA CELLS DIMENSIONS AND COMPONENTS
2 LAYER NTS

LIVE ROOF DETAIL



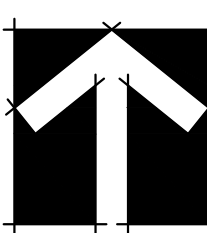
LIVEROOF
A4.0



80MM ABBOTSFORD CONCRETE VEHICULAR PAVER NATURAL COLOR IN HERRINGBONE PATTERN
A3.0 NTS



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1	2 DEC 13	ISSUED FOR DP	MY

NO. DATE REVISION DESCRIPTION DR.

SEAL:



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SHOPPERS DRUG MART
 DESIGN & CONSTRUCTION

PROJECT:

**SHOPPERS DRUG MART
 AMBLESIDE**

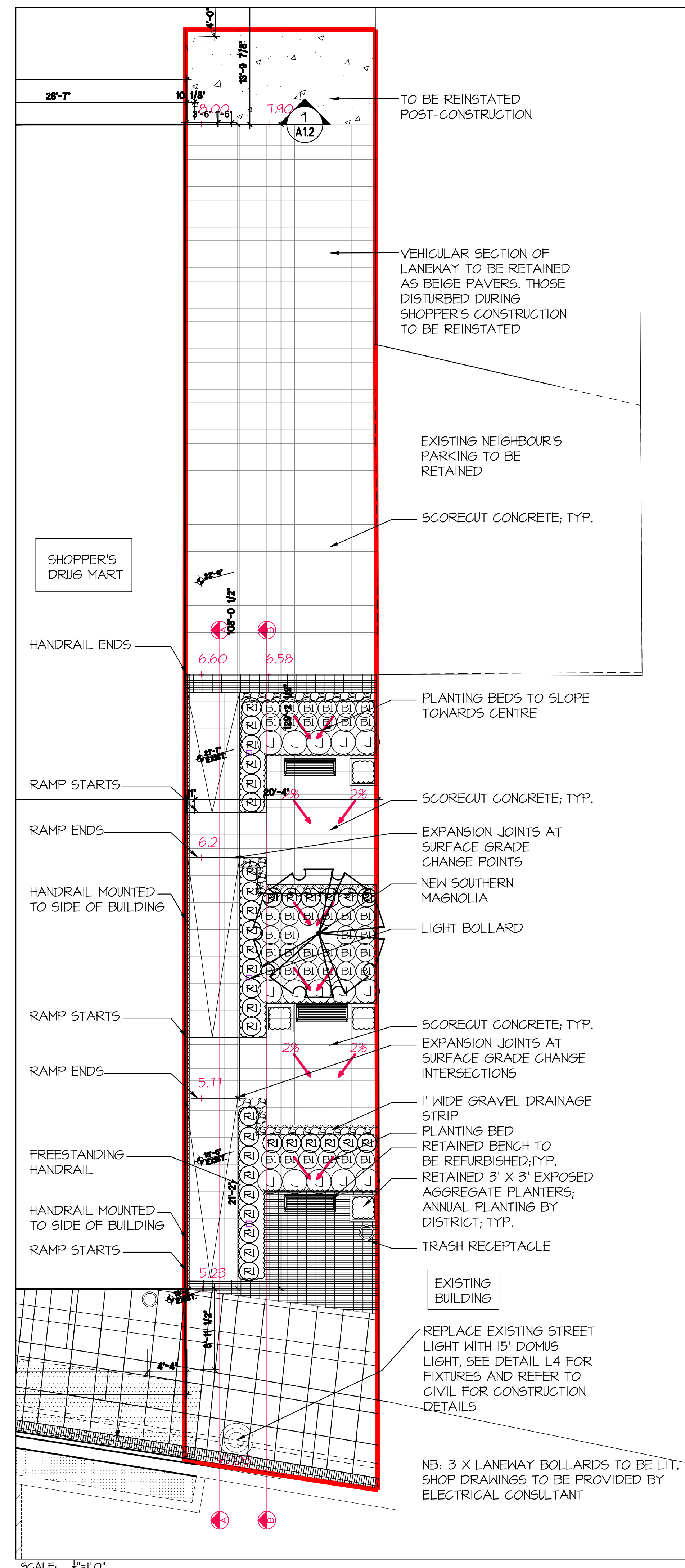
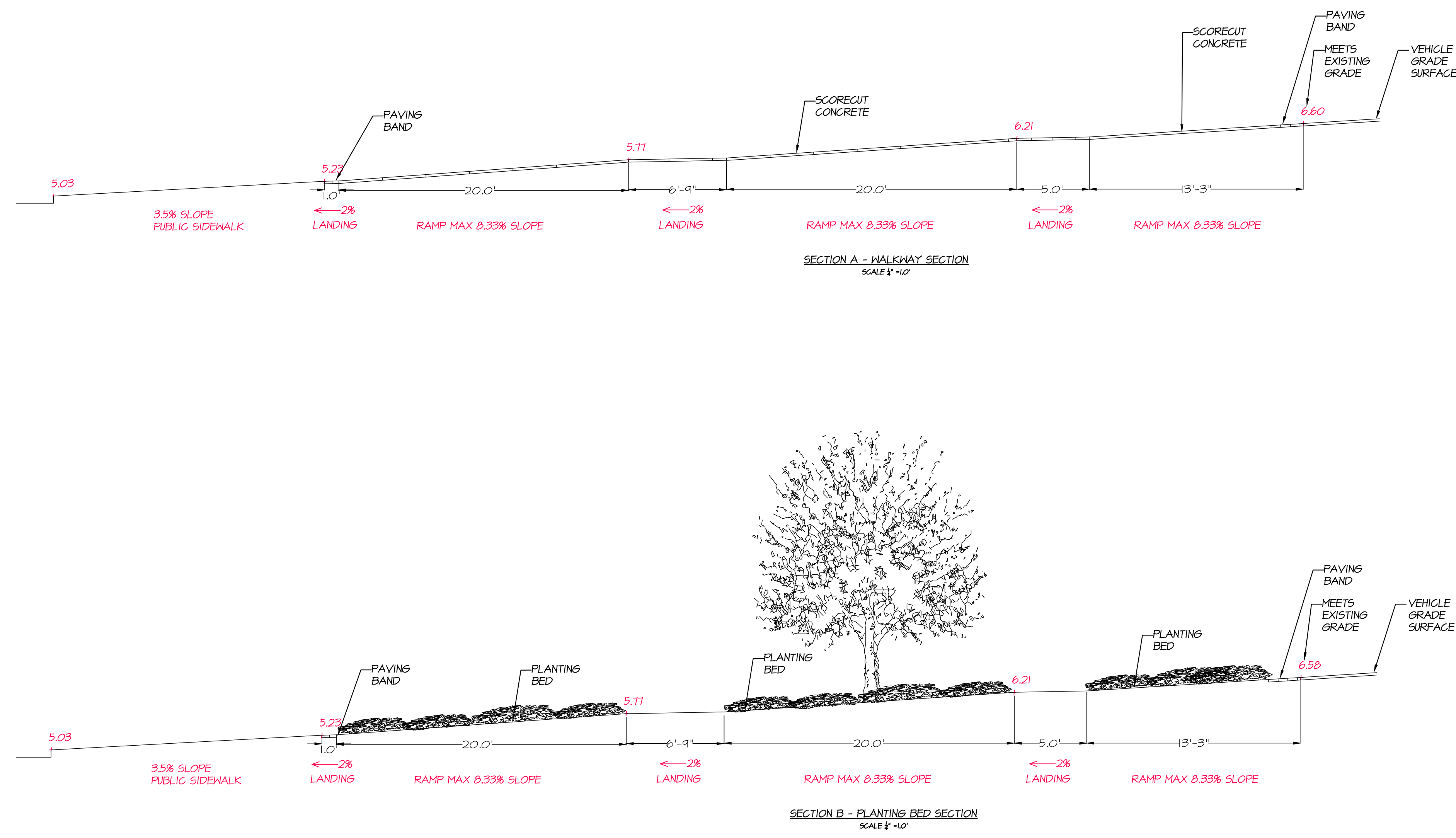
1583 MARINE DRIVE
 WEST VANCOUVER, B.C.

DRAWING TITLE:

**LANEWAY
 GRADING**

DATE: JUNE 27, 2018	DRAWING NUMBER:
SCALE: NTS	L7
DRAWN: MY	
DESIGN: MY	
CHK'D: MM	

M2LA PROJECT NUMBER: **JOB NO 13 058**



TO BE REINSTATED
 POST-CONSTRUCTION

VEHICULAR SECTION OF
 LANEWAY TO BE RETAINED
 AS BEIGE PAVERS. THOSE
 DISTURBED DURING
 SHOPPER'S CONSTRUCTION
 TO BE REINSTATED

EXISTING NEIGHBOUR'S
 PARKING TO BE
 RETAINED

SCORECUT CONCRETE; TYP.

SHOPPER'S
 DRUG MART

HANDRAIL ENDS

PLANTING BEDS TO SLOPE
 TOWARDS CENTRE

RAMP STARTS

SCORECUT CONCRETE; TYP.

RAMP ENDS

EXPANSION JOINTS AT
 SURFACE GRADE
 CHANGE POINTS

HANDRAIL MOUNTED
 TO SIDE OF BUILDING

NEW SOUTHERN
 MAGNOLIA
 LIGHT BOLLARD

RAMP STARTS

SCORECUT CONCRETE; TYP.
 EXPANSION JOINTS AT
 SURFACE GRADE
 CHANGE INTERSECTIONS

RAMP ENDS

1" WIDE GRAVEL DRAINAGE
 STRIP
 PLANTING BED
 RETAINED BENCH TO
 BE REFURBISHED; TYP.
 RETAINED 3' X 3' EXPOSED
 AGGREGATE PLANTERS;
 ANNUAL PLANTING BY
 DISTRICT; TYP.
 TRASH RECEPTACLE

FREESTANDING
 HANDRAIL

HANDRAIL MOUNTED
 TO SIDE OF BUILDING

RAMP STARTS

EXISTING
 BUILDING

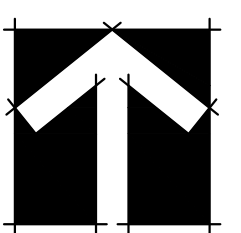
REPLACE EXISTING STREET
 LIGHT WITH 15' DOMUS
 LIGHT, SEE DETAIL L4 FOR
 FIXTURES AND REFER TO
 CIVIL FOR CONSTRUCTION
 DETAILS

NB: 3 X LANEWAY BOLLARDS TO BE LIT.
 SHOP DRAWINGS TO BE PROVIDED BY
 ELECTRICAL CONSULTANT

SCALE: 1/8" = 1'-0"



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NO. DATE REVISION DESCRIPTION DR.

SEAL:



200-1687 WEST BROADWAY
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TEL. (604) 736-3730
FAX. (604) 736-3771



DESIGN & CONSTRUCTION

PROJECT:

**SHOPPERS DRUG MART
AMBLESIDE**

1583 MARINE DRIVE
WEST VANCOUVER, B.C.

DRAWING TITLE:

SPECIFICATION

DATE:	NOV 20, 2013	DRAWING NUMBER:	
SCALE:	NTS		
DRAWN:	MY		
DESIGN:	MY		
CHK'D:	MM		
M2LA PROJECT NUMBER:		JOB NO	13 058

PART ONE GENERAL REQUIREMENTS

11 REFERENCES

- CCDC Doc 2 LATEST EDITION
Comply with all articles in the General Conditions of Contract in conjunction with those unless superseded by other Contract Documents.
- B.C. Landscape Standard, LATEST EDITION, prepared by the B.C. Society of Landscape Architects and the B.C. Landscape & Nursery Association. Jointly all work and materials shall meet standards as set out in the B.C. Landscape Standard unless superseded by this specification or as directed by Landscape Architect with written instruction.
- MASTER MUNICIPAL SPECIFICATIONS & STANDARD DETAILS, LATEST EDITION, prepared by the Consulting Engineers of British Columbia, Roadbuilders and Heavy Construction Association, and the Municipal Engineers Division
- STANDARD FOR LANDSCAPE IRRIGATION SYSTEM, LATEST EDITION, Prepared by the Irrigation Industry Association of British Columbia.
- MUNICIPAL BYLAWS AND ENGINEERING SPECIFICATIONS WHERE NOTED.

12 TESTING

- A current (not more than one month) test for all growing medium to be used on this site is required. Provide and pay for testing by an independent testing facility pre-approved by the Landscape Architect. Deliver growing medium test results to Landscape Architect for review and approval prior to placement. Refer to Section 34 Growing Medium Testing for procedure.
- Owner reserves the right to test re-test materials. Contractor responsible to pay for testing if materials do not meet specification.

13 SUBMITTALS

- Any alternate products differing from that contained in the contract documents must be pre-approved by the Landscape Architect.
- Submittals to consist of product sample or manufacturer's product description.

14 SITE REVIEW

- Under the terms of the Landscape Architect's Contract with the Owner and where the Landscape Architect is the designated reviewer, the Landscape Architect will observe construction as necessary in their opinion to confirm conformance to the plans and specifications. Contact Owners Representative to arrange for site observation at the appropriate times. Allow two days notice. Observation schedule may include but will not be limited to the following:
 - Start up Site Meeting, General Contract: Prior to any site disturbance, a meeting with the general contractor to review tree preservation issues, general landscape issues and municipal requirements.
 - Start up Site Meeting, Landscape Contract (if separate): At the start of work with the Owner's Representative, Site Superintendent and Landscape Contractor, a meeting is to be held to review expected work and to verify the acceptability of the subgrade and general site conditions to the Landscape Contractor. Provide growing medium test results for this meeting.
 - Progress Site Visits: To observe materials and workmanship as necessary through the course of the work. Review of different aspects of the work may be dealt with on any single visit. Such elements may include Site Layout, Rough Grading, Growing Medium - quality, depths, Finish grading, Drainage Materials, Lawns or Grass areas, Planting -plant material includes regulations with suppliers, nursery inspections, plant sizes, quality, quantity, planting practice and layout, tree support, Mulch, Irrigation Systems, Play Equipment, Site Furniture, and other elements of the site development where the Landscape Architect is the designated reviewer such as Pedestrian Paving, Fencing, Non-structural walls and slabs, Unit Paving.
 - Substantial Performance Review of all work, accounting of all substitutions, detentions, plant counts, preparations of deficiency list, and recommendations for completion. 14. Certificate of Completion: Upon the declaration of Substantial Performance, a recommendation for the issuance of the Certificate of Completion will be made to the Payment Certifier as defined in the contract.
 - Deficiency Review: Prior to the completion of the 180-day period, check for completion of deficiencies. Once completed, a Schedule "C" will be issued where required.
 - Warranty Review: Prior to the completion of the warranty period, 11 months after issuance of the Certificate of Completion, review all warranty material and report recommendations for warranty replacement.

15 WORKMANSHIP

- Unless otherwise instructed in the Contract Documents, the preparation of the subgrade shall be the responsibility of the General Contractor. Placement of growing medium constitutes acceptance of the subgrade by the subgrade contractor. Any subsequent corrections to the subgrade required are the responsibility of the Landscape Contractor.
- All work and superintendence shall be performed by personnel skilled in landscape contracting. In addition, all personnel applying herbicides and/or pesticides shall hold a current license issued by the appropriate authorities.
- A site visit is required to become familiar with site conditions before bidding and before start of work.
- Confirm location of all services before proceeding with any work.
- Notify Landscape Architect of any discrepancies. Obtain approval from Landscape Architect prior to deviating from the plans.
- Take appropriate measures to avoid environmental damage. Do not dump any waste materials into water bodies. Conform with all federal, provincial and local statutes and guidelines.
- Collect and dispose of all debris and/or excess material from landscape operations. Keep paved surfaces clean and repair damage resulting from landscape work. Repairs are to be completed prior to final acceptance.
- Where new work connects with existing, and where existing work is altered, make good to match existing undisturbed condition.

16 WARRANTIES

- Guarantee all materials and workmanship for a minimum period of one full year from the date of Certificate of Completion.
- Refer to individual sections for specific warranties.

PART TWO SCOPE OF WORK

21 SCOPE OF WORK

- Other conditions of Contract may apply. Confirm Scope of Work at time of tender.
- Work includes supply of all related items and performing all operations necessary to complete the work in accordance with the drawings and specifications and generally consists of the following:
 - Retention of Existing Trees where shown on drawings.
 - Finish Grading and Landscape Drainage.
 - Supply and placement of growing medium.
 - Testing of imported growing medium and/or site topsoil.
 - Supply and incorporation of additives to meet requirements of soil test and Table One.
 - Preparation of planting beds, supply of plant material and planting.
 - Preparation of rough grass areas, supply of materials and sodding.
 - Preparation of lawn areas, supply of materials and sodding.
 - Supply and placement of bark mulch.
 - Maintenance of planted and seeded/sodded areas until accepted by Owner.
 - SEPARATE PRICE: Establishment Maintenance, Section 11.
 - Other work: Work other than this list, not specified by Landscape Architect.

22 MATERIALS

1 Growing Medium: Conform to BC Landscape Standard for definitions of imported and on-site topsoil. Refer to Table One below.

TABLE ONE: PROPERTIES OF GROWING MEDIUM FOR LEVEL 2 (GROOMED) AND LEVEL 3 (MODERATE AREAS) (Canadian System of Soil Classification Textural Class: "Loamy Sand" to "Sandy Loam")	Low Traffic Areas	High Traffic Lawn Areas	Planting Areas and Planters
Applications	Trees and Large Shrubs	Lawn Areas	Planting Areas and Planters
Growing Medium Types	Z1	ZH	ZP
Texture	Percent Of Dry Weight of Total Growing Medium		
Coarse Gravel: larger than 25mm	0 - 1%		0 - 1%
All Gravel: larger than 2mm	0 - 5%	0 - 5%	0 - 5%
	Percent Of Dry Weight of Growing Medium Excluding Gravel		
Sand: larger than 0.075mm smaller than 2.0mm	50 - 80%	70 - 90%	40 - 80%
Silt: larger than 0.002mm smaller than 0.075mm	10 - 25%	0 - 10%	10 - 25%
Clay: smaller than 0.002mm	0 - 25%	0 - 10%	0 - 25%
Clay and Silt Combined	maximum 35%	maximum 15%	maximum 35%
Organic Content (soat)	3 - 10%	3 - 5%	10 - 20%
Organic Content (inferior)	3 - 5%	3 - 5%	5 - 20%
Acidity (pH)	6.0 - 7.0	6.0 - 7.0	4.5 - 6.5
Drainage:	Percolation shall be such that no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.		

- Fertilizer: An organic and/or inorganic compound containing Nitrogen (N), Phosphorus (P), and Potash (soluble 2) in proportions required by soil test.
- Line: Ground agricultural limestone. Meet requirements of the B.C. Landscape Standard.
- Organic Additive: Commercial compost product to the requirements of the B.C. Landscape Standard, LATEST EDITION and pre-approved by the Landscape Architect. Recommended suppliers: Yardworks, The Answer Garden Products, Fraser Richmond Soils & Fibre, Stream Organics Management.
- Sand: Clean, washed pump sand to meet requirements of the B.C. Landscape Standard.
- Composted Bark Mulch: 10mm (3/8") minus Fir/Hemlock bark chips and fines, free of chunks and sticks, dark brown in colour and free of all soil, stones, roots or other extraneous matter. Fresh orange in colour bark will be rejected.
- Herbicides and Pesticides: If used, must conform to all federal, provincial and local statutes. Applicants must hold current licenses issued by the appropriate authorities in the area.
- Filter Fabric: A non biodegradable blanket or other filtering membrane that will allow the passage of water but not fine soil particles. Such as MRARI 140 NL, GEOLON N40 OR AMOCO 4345 or alternate product pre-approved by the Landscape Architect.
- Drainage Piping if required: Schedule 40 PVC nominal sizes.
- Drain Rock: Clean, round, inert, durable, and have a maximum size of 19mm and containing no material smaller than 10mm.
- Plant Material: To the requirements of the B.C. Landscape Standard. Refer to 3.9, Plants and Planting. All plant material must be provided from a certified disease free nursery. Provide proof of certification.
- Soil: Refer to individual sections in this specification.
- Supplier and installers of segmental block walls to provide engineered drawings for all walls; signed and sealed drawings for all walls, individually, in excess of 1.2m, or combinations of walls collectively in excess of 1.2m. Installations must be reviewed and signed off by Certified Professional Engineer; include cost of engineering services in Tender price.
- Miscellaneous: Any other material necessary to complete the project as shown on the drawings and described herein.

PART THREE SOFT LANDSCAPE DEVELOPMENT

31 RETENTION OF EXISTING TREES

- Prior to any work on site - protect individual trees or plant groupings indicated as retained on landscape plans as vegetation retention areas.
- In some instances the Landscape Architect will tag trees or areas to retain. Discuss tree retention areas at a start-up meeting with the Landscape Architect.
- A physical barrier must be installed to delineate clearing boundaries. Refer to physical barrier detail. If detail not provided, comply with local municipal requirements.
- No machine travel through or within vegetation retention areas or under crowns of trees to be retained is allowed.
- Do not studge soil, construction materials, or excavated materials within vegetation retention areas.
- Do not park, fuel or service vehicles within vegetation retention areas.
- No debris fires, clearing fires or trash burning shall be permitted within vegetation retention areas.
- No excavations, drain or service trenches nor any other disruption shall be permitted within vegetation retention areas without a review of the proposed encroachment by the Landscape Architect.
- Do not cut branches or roots of retained trees without the approval of the Landscape Architect.
- Any damage to existing vegetation intended for preservation will be subject to evaluation by an ISA Certified Arborist using the "Guide for Plant Appraisal", LATEST EDITION.
- Replacement planting of equivalent value to the disturbance will be required. The cost of the evaluation and of the replacement planting will be the responsibility of the General Contractor and/or the person(s) responsible for the disturbance.
- In municipalities with specific tree retention/replacement bylaws ensure compliance to bylaws.
- In situations where required construction may disturb existing vegetation intended for preservation, contact Landscape Architect for review prior to commencing construction.

32 GRADES

- Ensure subgrade is prepared to conform to depths specified in Section 3.5, Growing Medium Supply, below. Where planting is indicated close to existing trees, prepare suitable planting pockets for material indicated on the planting plan. Shape subgrade to eliminate free standing water and conform to the site grading and drainage plan.
- On slopes in excess of 3:1 trench subgrade across slope to 150mm (6") minimum at 1.5m (5 ft.) intervals minimum.
- Scarify the entire subgrade immediately prior to placing growing medium. Re-cultivate where vehicular traffic results in compaction during the construction procedures. Ensure that all planting areas are smoothly contoured after light compaction to finished grades.
- Eliminate standing water from all finished grades. Provide a smooth, firm and even surface and conform to grades shown on the Landscape Drawings. Do not exceed maximum and minimum gradients defined by the B.C. Landscape Standard.
- Contractor swales true to line and grade, smooth and free of sags or high points. Minimum slope 2%, maximum side slopes 10%. Assure positive drainage to collection points.
- Slope not to exceed the following maximums: Rough Grass 3:1, Lawn 4:1, Landscape plantings 2:1.
- Finished soil/mulch elevation at building to comply with municipal requirements.
- Inform Landscape Architect of completion of finish grade prior to placement of seed, sod, plants or mulch.

33 LANDSCAPE DRAINAGE

- Related Work: Growing medium and Finish Grading, Grass areas, Trees Shrubs and Groundcovers, Planters, Crib Walls.
- Work Included: Site finish grading and surface drainage. Installation of any drainage systems detailed on landscape plans. Note: Catch basins shown on landscape plans for coordination only, confirm scope of work prior to bid.
 - Coordinate all landscape drainage work with rest of site drainage. Refer to engineering drawings and specifications for connections and other drainage work.
 - Determine exact location of all existing utilities and structures and underground utilities prior to commencing work, which may not be located on drawings and conduct work so as to prevent interruption of service or damage to them. Protect existing structures and utility services and be responsible for damage caused.
 - Planter drains on side. Refer to Section 3.9, Installing Landscapes on Structures.
- Excavation.
- Do trenching and backfilling in accordance with engineering details and specifications.
- Lay drains on prepared bed, true to line and grade and with inverts smooth and free of sags or high points. Ensure barrel of each pipe is in contact with bed throughout full length.
- Commence laying pipe at outlet and proceed in upstream direction.
- Use perforated pipes with perforations at 8pm and 4pm positions.
- Make joints tight in accordance with manufacturer's directions.
- Do not allow water to flow through the pipes during construction except as approved by Engineer.
- Make watertight connections to existing drains, new or existing manholes or catchbasins where indicated or as directed by Landscape Architect.
- Plug upstream ends of pipe with watertight clean out caps.
- Spruon and cover pipe with drain rock in uniform 150mm layers to various depths as shown in details, minimum 100mm.
- Cover drain rock with non-woven filter cloth lap all edges and seams minimum 50mm.
- Assure positive drainage.
- Back fill remainder of trench as indicated.
- Protect subdrains from floatation during installation.

34 GROWING MEDIUM TESTING

- Submit representative sample of growing medium proposed for use on this project to an independent laboratory. Provide test results to Landscape Architect prior to planting. Test results to include:
 - Physical analysis, % content of gravel, sand, silt, clay and organics.
 - Acidity (pH) and quantities of lime or sulphur required to bring within specified range.
 - Nutrient levels of principle and trace elements and recommendations for required soil amendments.
 - Carbon/Nitrogen level.

35 GROWING MEDIUM SUPPLY AND PLACEMENT

- Supply all growing medium required for the performance of the Contract. Do not load, transport or spread growing medium when it is so wet that its structure is likely to be damaged.
- Supply all growing medium admixtures as required by the soil test. Amended growing medium must meet the specification for growing medium as defined in Table One for the various areas.
 - Thoroughly mix required amendments into the full depth of the growing medium.
 - Special mixes may be required for various situations. Refer to drawing notes for instructions.
- Place the amended growing medium in all grass and planting areas. Spread growing medium in uniform layers not exceeding 6" (150mm), over uniform subgrade free of standing water.
 - Minimum depths of growing medium placed and compacted to 80%:
 - On-grade
 - Seeded and sodded lawn..... 6" (150mm)
 - Mass planted shrubs & groundcovers..... 15" (400mm)
 - Groundcover only areas, if defined on plan..... 9" (225mm)
 - Tree & large shrub pits..... depth to conform to depth of rootball - width shall be at least twice the width of the root ball with saucer shaped sides.
 - 2:1 On-Slab
 - 1:1 Irrigated lawn..... 9" (225mm)
 - 2:1 Groundcover areas..... 12" (300mm)
 - Lawn without automatic irrigation..... 12" (300mm)
 - Shrub & groundcover areas..... 6" (150mm)
 - Trees and specimen shrubs..... 30" (760mm) over columns and/or edge of slab (verify column locations on-site for tree locations).
 - Depth noted includes 1" to 2" (25-50mm) sand over filter fabric.
 - Maximum 18" depth growing medium except where rounded for trees over column points.
- Manually spread growing medium/planting soil around existing trees, shrubs and obstacles.
- In perimeter seeded grass areas, feather growing medium out to nothing at edges and blend into existing grades.
- Finished grades shall conform to the elevations shown on landscape and site plans.

36 ROUGH GRASS AREA - SEEDING

- General: Rough grass areas are noted on the drawings as "Rough Grass". Treat all areas defined as rough grass between all property lines of the project including all boulevards to edge of roads and lanes.
 - Preparation of Surfaces: To B.C. Landscape Standard Class 3 Areas (Rough Grass) Section 7.11.3
 - Clean existing soil by mechanical means of debris over 50mm in any dimension.
 - Roughly grade surfaces to allow for maintenance access and for positive drainage.
- Time of Seeding: Seed from early spring (generally April 1st) to late fall (September 15th) of each year. Further extensions may be obtained on concurrence of the Landscape Architect.
 - Seed Supply & Testing: All seed must be obtained from a recognized seed supplier and shall be No. 1 grass mixture delivered in containers bearing the following information:
 - Analysis of the seed mixture
 - Percentage of each seed type
 - Seed Mixture: All varieties shall be rated as strong performers in the Pacific Northwest and are subject to client approval.
 - 70% Creeping Red Fescue
 - 20% Annual Ryegrass
 - 5% Sierra Perennial Rye
 - 5% Kentucky Bluegrass
 - Fertilizer: Mechanical seeding. Apply a complete synthetic slow-release fertilizer with maximum 35% water soluble nitrogen and a formulation ratio of 18-18-18 - 50% sulphur urea coated, 112 kg/ha/100lbs/acres using a mechanical spreader.
 - Seeding: Apply seed at a rate of 1200/ha (100lbs /acre) with a mechanical spreader. Incorporate seed into the top 1/4" (6mm) of soil and lightly compact.
 - Acceptance: Provide adequate protection of the seeded areas until conditions of acceptance have been met. Comply with Section 3.7 Hydroseeding.

37 HYDROSEEDING

- May be used as an alternate to mechanical seeding in rough grass areas.
- May not be used in areas of lawn unless pre-approved by the Landscape Architect prior to bidding.
- Preparation and Growing Medium.
 - In areas of Rough Grass Comply with Section 3.6 Rough Grass.
 - Where approved for use in areas of lawn, comply with Section 3.8 Lawn Areas: Sodding.
- Protection: Ensure that fertilizer in solution does not come in contact with the foliage of any trees, shrubs, or other susceptible vegetation. Do not spray seed or mulch objects not expected to grow grass. Protect existing site equipment, roadways, landscaping, reference points, monuments, markers and structures from damage. Where contamination occurs, remove seeding slurry to satisfaction of and by means approved by the Landscape Architect.
- Mulch shall consist of virgin wood fibre or recycled paper fibre designed for hydraulic seeding and dyed for ease of monitoring application. If using recycled paper material for wood fibre substitute use 155% by weight. Conform to B.C. Landscape Standard for mulch requirements.
- Water: Shall be free of any impurities that may have an injurious effect on the success of seeding or may be harmful to the environment.
- Equipment: Use industry standard hydraulic seeder/mulcher equipment with the tank volume certified with an identification plate or sticker affixed in plain view on the equipment. The hydraulic seeder/mulcher shall be capable of sufficient agitation to mix the material into a homogeneous slurry and to maintain the slurry in a homogeneous state until it is applied. The discharge pumps and gun nozzles shall be capable of applying the materials uniformly over the designated area.

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT

8 Application Rate:

- Seed Mature: 136 kg/ha (125 lbs/ac)
- Fertilizer: 112 kg/ha (100 lbs/ac)
- Coastal Wildflower Mix: Where specified, apply [31 lbs/ac/are] (1/4 lb. 1 lb. of grass seed)
- Notes:
 - At the time of Tender provide a complete chart of all components of the mix proposed including mulch, tackifier, water, etc. Sloped sites require tackifier.
 - Fertilizer: 84.21
 - Rough Grass: If a soil analysis is available, comply with results.
 - Lawn: Where hydroseeding is approved, comply with soil analysis recommendations.
- Accurately measure the quantities of each of the materials to be charged into the tank either by mass or by a commonly accepted system of mass-calibrated volume measurements. The materials shall be added to the tank while it is being filled with water, in the following sequence: seed, fertilizer. Thoroughly mix into a homogeneous slurry. After charging, add no water or other material to the mixture. Do not leave slurry in the tank for more than four (4) hours.
- Distribute slurry uniformly over the surface of the area to be hydroseeded. Blend application into previous applications and existing grass areas to form uniform surfaces.
- Clean up: Remove all materials and other debris resulting from seeding operations from the job site.
- Maintenance: Begin maintenance immediately after seeding and continue for 60 days after Substantial Completion and until accepted by the Owner. Re-seed at three week intervals where germination has failed. Protect seeded areas from damage with temporary wire or twice fences complete with signage until grass area is taken over by the Owner. Lawn in sufficient quantities to ensure deep penetration at frequent intervals to maintain vigorous growth until grass is taken over by the Owner. It is the Owner's responsibility to supply water at no extra cost to the Contractor.
- Acceptance of the Rough Grass Areas: Proper germination of all specified grass species is the responsibility of the Landscape Contractor. The grass shall be reasonably well established, with no apparent dead or bare spots and shall be reasonably free of weeds (to B.C. Landscape Standard, Section 9 Maintenance Level 4) Open space. Sixty days after substantial completion, areas meeting the conditions above will be taken over by the Owner. Areas seeded in fall will be accepted in Spring one month after start of growing season, provided that the above conditions for acceptance are fulfilled.

38 LAWN AREAS - SOODING

- General: Treat all areas defined as lawn areas on the landscape plan between all property lines of the project including all boulevards to edge of roads and lanes.
- Growing Medium: Comply with Section 2.2.1, Growing Medium. Prior to sodding, request an inspection of the finished grade, and depth and condition of growing medium by the Landscape Architect.
- Time of Sodding: Sod from April 1st to October 31st. Further extensions may be obtained on concurrence of the Landscape Architect.
- Sod Supply: Conform to all conditions of B.C. Landscape Standard, Section 8, B.C. Standard for Turfgrass Sod.
- Specified Turfgrass by area: Refer to Table 2 below.

TABLE 2 SPECIFIED TURFGRASS BY AREA

Area	Description	Quality Grade	Major Species
CLASS 1	Lawn, all areas noted on drawings as lawn in urban development sites including boulevard grass	No. 1 Premium	Kentucky Blue for sun, Fescues for shade
CLASS 2	Grass - public parks, industrial and institutional sites	No. 2 Standard	same
CLASS 3	Rough Grass	see hydroseeding	
SPECIAL			

6 Lime: The lime shall be as defined in Section 2.2.3, Materials. Apply at rates recommended in required soil test. Refer to Section 3.4 for method.

7 Fertilizer: Refer to Section 2.2.2 Materials. Apply separately from lime. Lay seed fertilizer at rates shown in the required soil test. Apply with a mechanical spreader. Cultivate into growing medium 48 hours prior to sodding. Apply according to time.

8 Sodding: Prepare a smooth, firm, even surface for laying sod. Lay sod staggered with sections closely butted, without overlapping or gaps, smooth and even with adjoining areas and roll tightly. Water to obtain moisture penetration of 3" to 4" (75 - 100mm). Comply with requirements of B.C. Landscape Standard Section 8, B.C. Standard for Turfgrass Sod.

9 Maintenance: Begin maintenance immediately after sodding and continue for 60 days after Substantial Completion and until accepted by the Owner. Protect sodded areas from damage with temporary wire or twice fences complete with signage until lawn is taken over by the Owner. Water to obtain moisture penetration of 3" to 4" (75-100mm) at intervals necessary to maintain sufficient growth. Keep grass cut at a height between 1-1/2" (4cm) and 2". Fertilize. Provide adequate protection of sodded areas against damage until the turf has begun taken over by Owner. Repair any damaged areas, re-grade as necessary. Aeration may be required if the Landscape Architect's opinion, drainage through the sod and medium is impaired.

10 Appearance of Lawn Areas: The turf shall be reasonably well established, with no apparent dead spots or bare spots and shall be reasonably free of weeds (to B.C. Landscape Standard, Section 13 Maintenance Level 2) Open space. Use herbicides if necessary for weed removal unless other conditions of contract forbid their use. After the lawn has been cut at least twice, areas meeting the conditions above will be taken over by the Owner.

39 PLANTS AND PLANTING

- Conform to planting layout as shown on Landscape Plans.
- Obtain approval of Landscape Architect for layout and preparation of planting prior to commencement of planting operations.
- Make edge of beds with smooth clean defined lines.
- Time of Planting:
 - Plant trees, shrubs and groundcovers only during periods that are normal for such work as determined by local weather conditions when seasonal conditions are likely to ensure successful adaptation of plants to their new location.
- Standards:
 - All plant material shall conform to the requirements of the B.C. Landscape Standard, LATEST EDITION, unless exceeded by drawing Plant Schedule or this specification.
 - Refer to B.C. Landscape Standard, Section 3.9, B.C.L.M.A. Standard for Container-Grown Plants for minimum standards.
 - Plant material obtained from areas with less severe climatic conditions shall be grown to withstand the site climate.
- Review:
 - Review of the source of supply and/or collection point does not prevent subsequent rejection of any or all planting stock at the site.
- Availability:
 - Area of search includes the Lower Mainland and Fraser Valley. Refer to Plant Schedule for any extension of area.
 - Supply proof of the availability of the specified plant material within 30 days of the award of the Contract.
- Substitution:
 - Obtain written approval of the Landscape Architect prior to making any substitutions to the specified material. Non-approved substitutions will be rejected.
 - Allow a minimum of 5 days prior to delivery for requests to substitute.
 - Substitutions are subject to B.C. Landscape Standard - definition of Conditions of Availability.
- Plant Species & Location:
 - Plants shall be true to name and of the height, caliper and size of root ball as shown on the landscape/site plan plant schedule. Caliper of trees is to be taken 6" (15cm) above grade.
 - Plant all specified species in the location as shown on the landscape drawings. Notify Landscape Architect if conflicting rock or underground/overhead services are encountered.
 - Deviation of given planting location will only be allowed after review of the proposed deviation by the Landscape Architect.
- Excavation:
 - Trees and large shrubs: Excavate a saucer shaped tree pit to the depth of the rootball and to at least twice the width of the rootball. Assume that finished grade is at the original grade the tree was grown at.
- Drainage of Planting Holes:
 - Provide drainage of planting pits where required. In sloped conditions, break out the side of the planting pit to allow drainage down slope, and in flat conditions, mound to raise the rootball above impervious layer. Notify Landscape Architect where the drainage of planting holes is limited.
- Planting and Fertilizing Procedures:
 - Plant all trees and shrubs with the roots placed in their natural growing position. If buttressed, loosen around the top of the ball and cut away or fold under. Do not pull buttress from under the ball. Carefully remove containers without injuring the rootballs. After settled in place, cut tune. For wire baskets, clip and remove top three rows of wire.
 - Fill the planting holes by gently firming the growing medium around the root system in 6" (15cm) layers. Settle the soil with water. Add soil as required to meet finish grade. Leave no air voids. When 2/3 of the topsoil has been placed, apply fertilizer as recommended by the required soil test at the specified rates.
 - Where planting is indicated adjacent to existing trees, use special care to avoid disturbance of the root system or natural grades of such trees.
 - Where trees are in lawn areas, provide a clean cut mulched 900mm (3 ft.) diameter circle centered on the tree.
- Staking of Trees:
 - Use two 2"x2"x5" stakes, unless superseded by municipal requirements. Set stakes minimum 2 ft. in soil. Do not drive stake through rootball.
 - Leave the tree carefully vertical.
 - Confer with pre-approved commercial, flat woven polypropylene fabric (net), minimum width 19mm (3/4"). Approved product: ArborTie - available from Deepholt.
 - Treeless Trees over 6 ft. height: Guy with three 2-strand wires (11 gauge). Drive three stakes equidistant around the tree completely below grade.
 - Trees 6 ft. or Wood or Concrete Bases: Guy as above using three wooden (min. 2"x2"x4") buried to the maximum possible depth instead of stakes.
 - Mark all guy wires with visible tagging material.
- Pruning:
 - Limit pruning to the minimum necessary to remove dead or injured branches. Preserve the natural character of the plants, do not cut the leader. Use only clean, sharp tools. Make all cut's clean and cut to the branch collar leaving no stubs. Shape affected areas so as not to retain water. Remove damaged material.
- Mulching:
 - Mulch all planting areas with an even layer of mulch to 2-1/2" - 3" (65 - 75mm) depth. Confirm placement of mulch in areas labeled "Groundcover Area" on drawings. Mulch a 3 ft. (900mm) diameter circle around trees in lawn areas, leave a clean edge.
- Acceptance:
 - The establishment of all plant material is the responsibility of the Landscape Contractor.
- Plant Material Maintenance:
 - Maintain all plant material for 60 days after landscape work has received a Certificate of Completion.
 - Watering: Conform to B.C. Landscape Standard, Section 13.2 - Watering and generally as follows:
 - Water to supplement natural rainfall such that the soil moisture content is kept to 50% to 100% of field capacity. Water to the full depth of the root zone each time. The Owner is responsible to supply water at no extra cost to the Contractor. Confirm source of water prior to beginning work.
 - Use appropriate measures to control pests or diseases damaging plant material. Comply with all local governing statutes and guidelines for chemical control.
 - Plant material which fails to survive shall be replaced in the next appropriate season as determined by the Landscape Architect.
 - Repair tree guards, stakes, and guy wires, when necessary.
 - Maintain areas relatively weed free. Appearance Level 2: B.C. Landscape Standard, Chapter 13).
 - Maintain mulch to specified depths.

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT

310 INSTALLING LANDSCAPE ON STRUCTURES

- Verify that drainage and protection material is completely installed and acceptable before beginning work. Contact Landscape Architect for instructions if not in place.
- Coordinate work with construction of planters and planter drainage.
- Verify that planter drains are in place and positive drainage to roof drains is present prior to placing any drain rock or soil.
- Provide clean out at all through-slab drain locations. Use 30mm min. dia. PVC Pipe filled with drain rock unless specifically drawing detail shown.
- Install drain rock evenly to a minimum depth of 4" (100mm) alternate sheet drain if specified. Install sheet drain as per manufacturer's recommendations.
- Cover drain rock with alternate sheet drain if specified on drawing details with filter fabric lagging 6" (150mm) at all edges. Obtain approval of drainage system prior to placing growing medium.
- Place an even layer of 25 - 50mm clean washed pump sand over filter fabric.
- Place growing medium to depths specified in Section 3.5 above for various surface treatments. Refer to Drawing details for any light weight filler required to alter grade. Use Styrofoam block over drain rock shaped to provide smooth surface transition at edges. Butt each piece tightly together and cover with filter fabric to prevent soil from migrating downward.

311 ESTABLISHMENT MAINTENANCE: Provide a separate price for this section

- Intent: The intent of "establishment" maintenance is to provide sufficient care to newly installed plant material for a relatively short period of time to ensure or increase the long term success of the planting. The objective is the adaptation of plants to a new site in order to obtain the desired effect from the planting while reducing the rate of failure and unnecessary work associated with improper establishment. Establishment of maintenance procedures apply to all new retained vegetation including cultivated turfgrass areas and new trees and shrubs.
- Maintenance Period: Provide maintenance of installed landscaping for 12 months following substantial completion.
- Related Standards and Legislation: B.C. Landscape Standard, latest edition, Fertilizer Code, B.C. Planting Control Act.
- Site Review: In addition to the inspections at substantial completion, at final progress draw application, and at the end of the guarantee period, there should be three other reviews during the 12 months attended by the Contractor and a designated representative of the Owner. Maintain a logbook and reporting procedures and submit to the designated representative.
- Scheduling: Prepare a schedule of anticipated visits and submit to designated representative at start-up. Maintenance operations shall be carried out predominantly during the growing season between March 1st and November 30th, however visits at other times of the year may be required.
- Maintenance Level: Comply with B. C. Landscape Standard, Section 13, Table 7, Maintenance Level "Medium".
- Fertilizers: To the requirements of the B.C. Landscape Standard: Formulations and rates as required by soil testing.

8 Plant Material Establishment:

- Watering: During the first growing season, water new plants at least every ten (10) days between April 1st and July 31st, and every twenty (20) days between August 1st and September 15th. Minimum 25 gallons per tree per application. During the