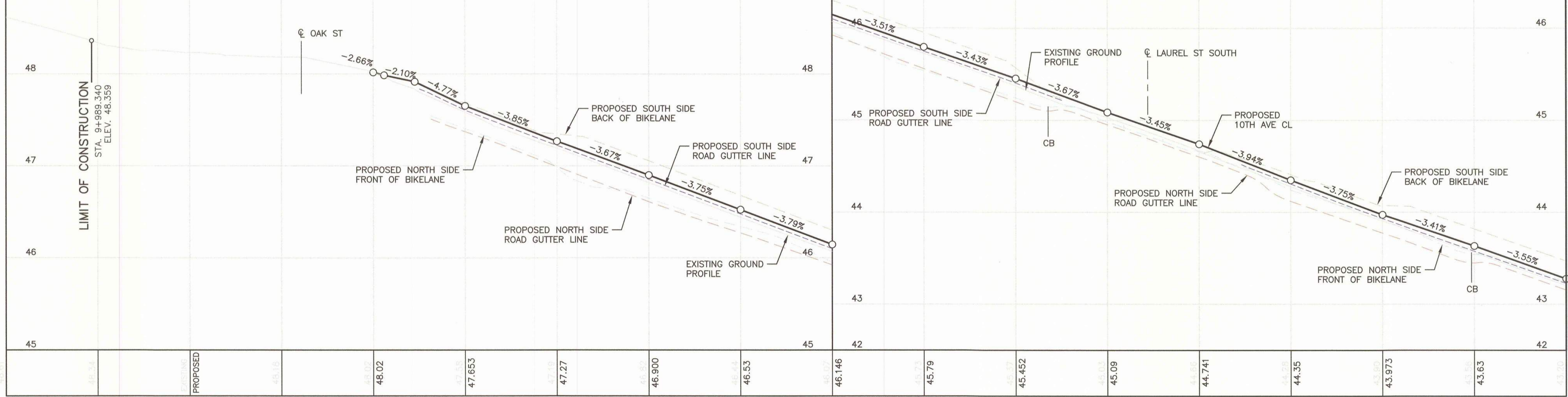


Bus Shelter Foundation 2: Contractor has blocked out the sidewalk to allow for the foundation installation with 1/2" asphalt impregnated fibre board on North, East, and South sides. Install foundation as per "Shelter Foundation Drawing - Sealed"



- NOTES:**
- FOR PROPOSED BENCHES, BOLLARDS AND TREE TREATMENT SEE LANDSCAPE DRAWINGS. FOR SIGN REMOVALS SEE SIGN PLAN DRAWINGS.
- C** REMOVE EXISTING PARKING METER (BY OTHERS)
 - E** REMOVE EXISTING CURB AND GUTTER
 - F** REMOVE EXISTING CONCRETE PAVERS
 - G** PROPOSED CONCRETE MEDIAN INFILL. 100mm CONC, 100mm COMPACTED GRANULAR BASE
 - H** REMOVE EXISTING CONCRETE WALKWAY
 - J** CONCRETE SIDEWALK AS PER COV SRM STD MF137-F-2. ALL JOINTS TO BE SAWCUT
 - K** RETAIN EXISTING RETAINING WALL
 - L** 0.3m EXPOSED GRANITE AGGREGATE CONCRETE BAND
 - M** 0.5m EXPOSED GRANITE AGGREGATE CONCRETE BAND

- REMOVALS**
- SAWCUT LINE
 - ASPHALT PAVEMENT REMOVAL
 - CONCRETE PAVEMENT REMOVAL

REV	DATE	DRAFTER	CHECKER	ENGINEER OF RECORD	DESCRIPTION
0	2017-11-03	N. KRUCKENBERG	V. WANG	V. WANG	ISSUED FOR CONSTRUCTION
1					
2					
3					
4					

CITY OF VANCOUVER ENGINEERING SERVICES
SNC-LAVALIN TRANSPORTATION DIVISION

10TH AVENUE CORRIDOR PROJECT
HEALTH PRECINCT
PLAN AND PROFILE

DESIGN VEHICLE: SUB9 TAC 1984, PC TAC 1984, WB17 TAC 1984
 BIKE FACILITIES: YES NO
 BUS ROUTE: YES NO
 TRUCK ROUTE: YES NO
 RAILWAY CROSSING: YES NO

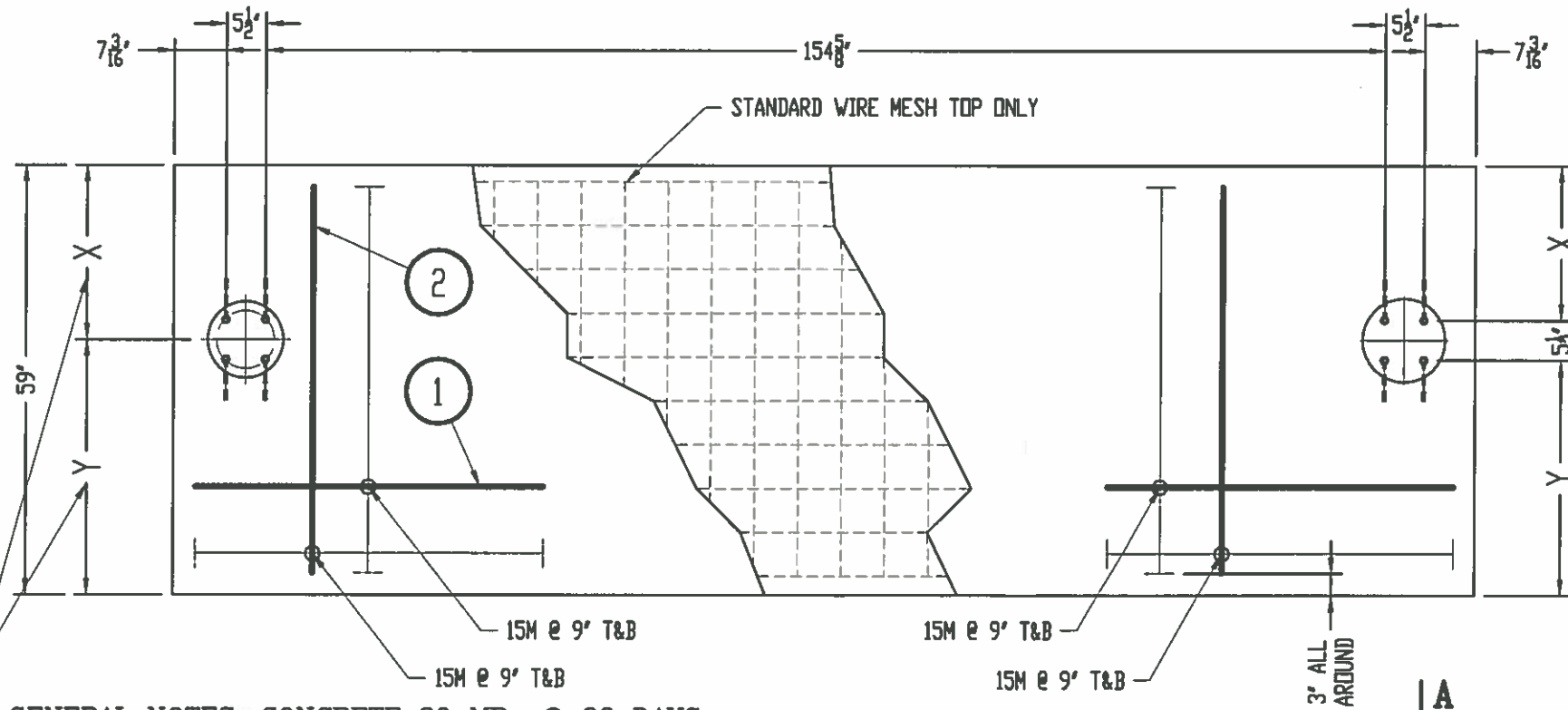
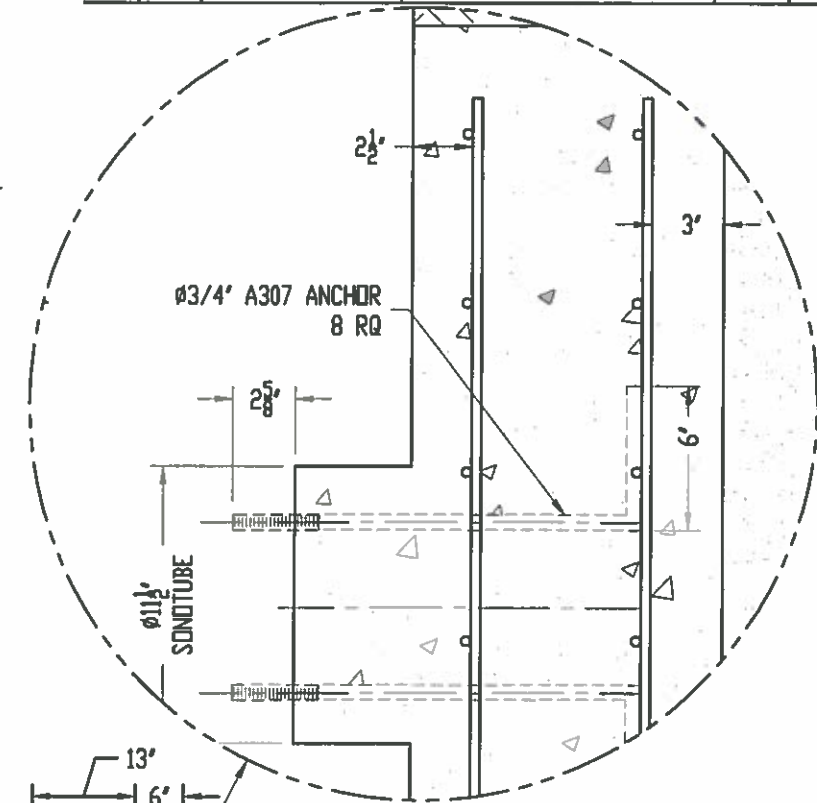
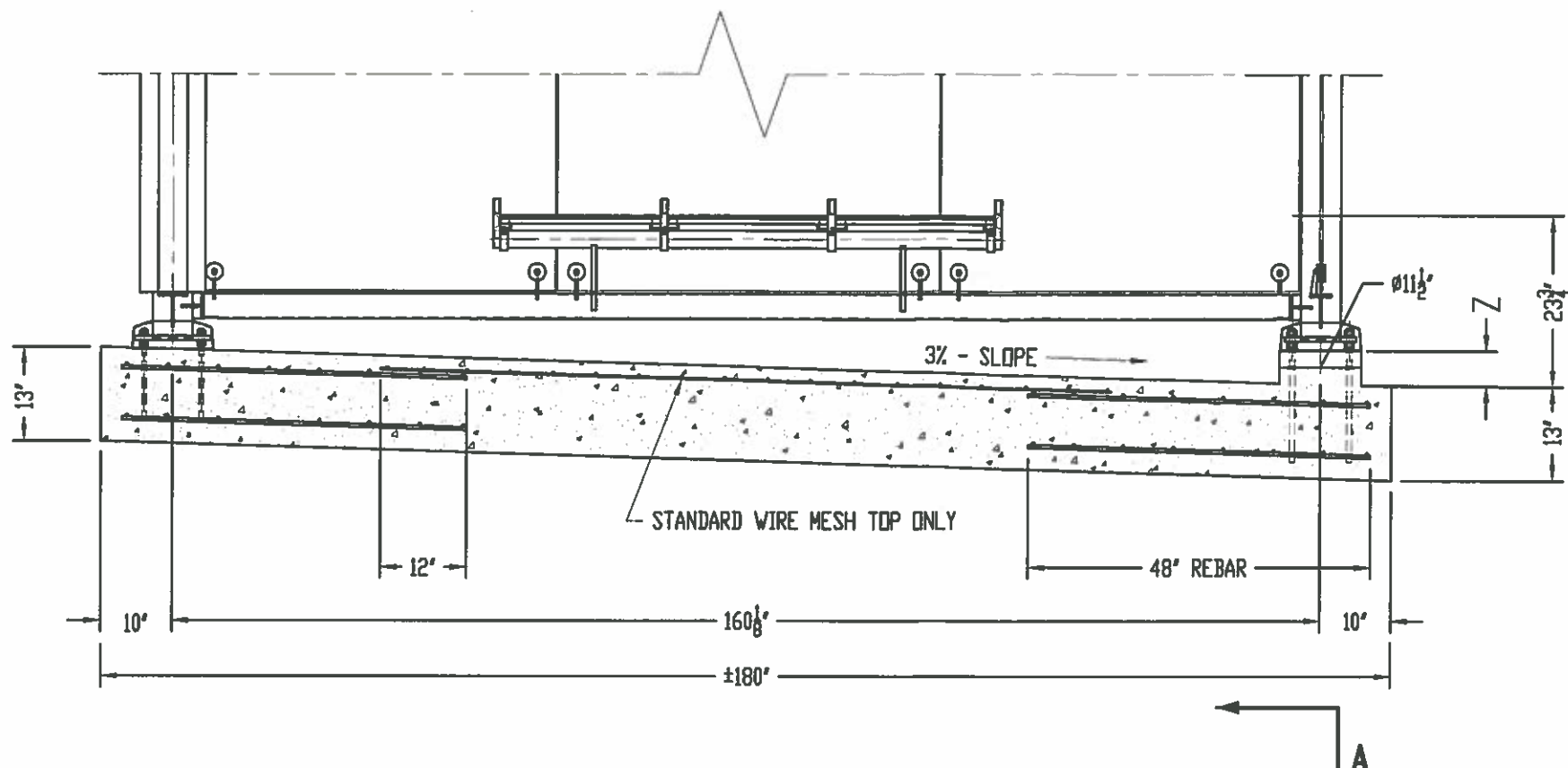
PROJECT NUMBER	646130-41DD-101
ENGS NUMBER	2014-86
STREETS PROJECT NUMBER	133249 153097 153108
REFERENCE	
SCALE	H:1:250 V:1:25
SHEET-SET	

DATE: 2017-11-03 - 11:22am (krcn) PATH: H:\DATA\646130 - City of Van PS20150505\41 - Civil Engineering\41DD - Drawings\646130-41DD-101 to 106.dwg LAYOUT: 101

SLOPE	Z-dist	ANCH. BOLT
1 %	1 5/8'	-14 1/2' lg
2 %	3 1/4'	-16 1/4' lg
3 %	4 3/4'	-17 3/4' lg
4 %	6 3/8'	-19 3/8' lg
5 %	8'	-21' lg
6 %	9 5/8'	-22 1/2' lg
7 %	11 1/4'	-24 1/4' lg
8 %	12 3/4'	-25 3/4' lg
9 %	14 3/8'	-27 3/8' lg
10 %	16 1/8'	-29' lg

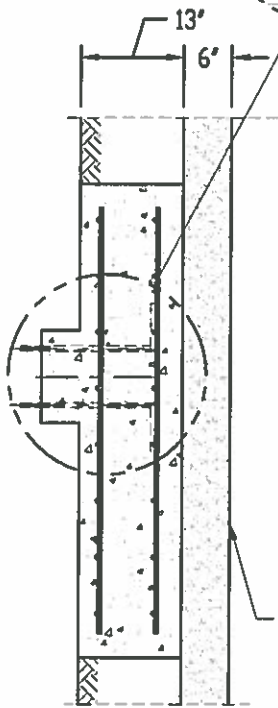
BILL OF MATERIALS for REBARS					
ITEM	QTY.	DWG/PART No	DESCRIPTION	MAT'L	WEIGHT
1	32		48' long	STEEL	---
2	24		53' long	STEEL	---

NOTE:
4 ANCHOR BOLTS ARE ALWAYS 13" LONG, LENGTH OF THE OTHER FOUR DEPENDS ON THE SLOPE



X & Y MAY VARY DEPENDS ON SITE REQUIREMENTS

GENERAL NOTES: CONCRETE 30 MPa @ 28 DAYS
STEEL REBAR Fy=400 MPa
ANCHOR BOLTS A307 (GALV)
CONCRETE PAD 180" x 59"



0-3/4" COMPACTED CRUSHED STONE
COMPACTED 95 %
MODIFIED PROCTOR

M 29, 03
PROFESSIONAL ENGINEER
K.F. HABASHY
25688
BRITISH COLUMBIA

CASE: 3% SLOPE

enseicom
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FAX: 014-486-6486
E-MAIL: enseicom@total.net
www.enseicom.com

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REV	DESCRIPTION	DATE
1		

No. PROJET JOB No.	4950
CLIENT	JCDecaux
LOCALITE LOCATION	VANCOUVER

CONSEILLER CONSULTANT C.M.	No SOUMISSION PROPOSAL No	4797
DESSINE PAR DRAWN BY	DATE	28-04-03
APPROUVE PAR APPROVED BY	DATE	DD-MM-YY
ECHELLE SCALE	1/2"=1' (1:24)	

DESSIN D'ASSEMBLAGE ASSEMBLY DWG	TITRE TITLE	CONCRETE PAD CASE: 3% SLOPE
No DESSIN DWG No.	4950-07-00	REV. --

1 PAGE DE 1
PAGE OF 1

LAUREL ST

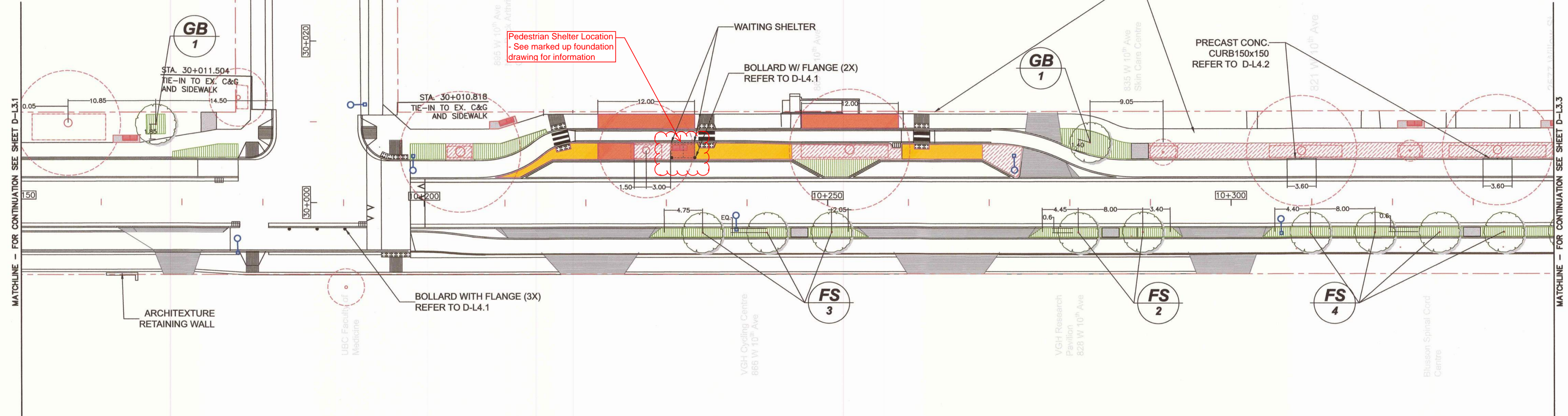
PLANT LIST - TREES

Sym.	Qty.	Botanical Name / Common Name	Size
FS	18	Fagus sylvatica Dawyckii Gold / Gold Dawyck's beech	8 cm
GB	5	Ginkgo biloba Fastigiata / Fastigiata Maidenhair Tree	8 cm
NS	8	Nyssa sylvatica 'Red Rage' / Red Rage	8 cm

ALL WORKERS ARE TO BE AWARE OF THE EXTREME SENSITIVITY OF THE SIGNIFICANT ELM TREES ON THE NORTH SIDE OF THE 800 BLOCK OF WEST 10TH AVENUE (EAST OF LAUREL STREET AND ADJACENT TO 865 W10TH AVE.).

EXCAVATION AND CONSTRUCTION ADJACENT TO THE SIGNIFICANT ELM TREES SHALL BE SUPERVISED BY AN ARBORIST AND SHALL BE UNDERTAKEN IN A MANNER THAT MINIMIZES DAMAGE TO THE ROOT ZONE.

CONTRACTOR TO RESTORE ANY DAMAGE DONE TO BACK BOULEVARD BETWEEN BACK OF SIDEWALK AND PROPERTY LINE, TYP.



LEGEND

	PROPOSED TREES		SOD
	EXISTING TREES TO BE RETAINED		SOD ON 25MM RAKED TOPSOIL
	PROPOSED ACCESSIBLE BENCH WITH .9MX3.3M CONCRETE PAD		RESIN BOUND GRAVEL
	BIKE RACK CONCRETE PAD		RUBBER PATH TYPE 1
			RUBBER PATH TYPE 2

NOTES:

- TREE SPACING 8M ON CENTRE (TYPICAL), UNLESS IT IS SHOWN DIFFERENTLY ON THE DRAWINGS.
- TREES TO BE AT LEAST 60 CM OFFSET FROM THE ADJACENT STREET CURB
- ALL AREAS OF DISTURBANCE TO BE RESTORED AND GRADES TO BE BLENDED TO PROVIDE A SMOOTH TRANSITION FROM PROPOSED GRADES TO EXISTING FINISHED GRADES.

SHEET D-L3.2

4					
3					
2					
1					
0	2017-11-03	S.HOOSHMAND	M. TEED		ISSUED FOR CONSTRUCTION
REV	DATE	DRAFTER	CHECKER	ENGINEER OF RECORD	DESCRIPTION
SEAL	DIRECTOR OF TRANSPORTATION	DATE	DATE	2017-11-03	
	TRANSPORTATION DESIGN	DATE	ENGINEER OF RECORD		
	TRANSPORTATION PLANNING	DATE	DESIGNER		
	TRAFFIC AND DATA MANAGEMENT	DATE	DRAFTER		
	PARKING MANAGEMENT	DATE	CHECKER		
CITY OF VANCOUVER		ENGINEERING SERVICES		PROJECT NUMBER	
space2place		TRANSPORTATION DIVISION		2014-86	
10TH AVENUE CORRIDOR PROJECT				STREETS PROJECT NUMBER	
HEALTH PRECINCT				133249	
LANDSCAPE PLAN				153097	
				153108	
				REFERENCE	
DESIGN VEHICLE	SU9 TAC 1984	PC TAC 1984	WB17 TAC 1984		
BIKE FACILITIES	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	BUS ROUTE	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	TRUCK ROUTE	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
		RAILWAY CROSSING	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
				SCALE	1:250
				SHEET-SET	

10th Avenue Bikeway - Health Precinct Oak Street to Cambie Street - Phase 1

Shelter Recommendation - For Discussion September 25, 2017

Criteria for shelter:	Recommended shelter: Aureo by mmcité
Weather protection (i.e. roof and walls along back side and one end)	Includes roof and walls along back side and customized to have a wall at one end.
Sight lines (i.e. transparent walls and slender posts)	Walls are transparent glass Posts are slender
Accessibility (i.e. sufficient clearances between vertical obstructions)	Back wall and end wall are slender with narrow footprints. Structure is cantilevered to minimize obstructions (compared with a 4 post structure)
Aesthetics (i.e. different appearance than the TransLink bus shelters and suitable for the health precinct.)	Clean, simple lines and appearance that is different than typical TransLink shelters in Vancouver. Opportunity for unique colour palette and accent colour on ends of structure to coordinate with Health Precinct.
Dimensions/proportions of shelter (i.e. to fit within the passenger loading zone and accommodate the Plainwell bench and space for a wheelchair.)	2.86m in length is long enough for 1.8m long Plainwell bench, plus 900mm for wheelchair or standing. Width is 1.64m from back of post to front of canopy, which covers most of the landing zone with approximately 300mm horizontal clearance to vehicle / loading lane.
Estimates of cost for recommended shelter options will also be provided.	Cost estimates provided for supply and freight of standard and custom option (1 end wall and no bench). Installation not included.

SHELTER RECOMMENDATION

Model: aureo

Manufacturer: mmcite

Local Supplier: Park Works,
Edmonton

Contact: Selena Mader
800.667.4264



Flat Roof



Arched Roof



Flat Roof - AE210a-SS

Bus stop shelter with flat roof. Steel structure, roof made of safety glass, rear and side walls made of tempered glass, without lighted advertisement box.
Snow load version 150kg.

Customized with only 1 side wall and no bench.

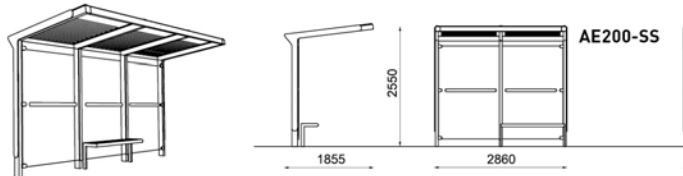
Dimensions: 2860(L) x **1855**(w) x 2550 (h)

Estimated Cost: \$8,200
Freight \$6,500
Total: \$14,700 + Tax

AE200 / 300 / 400-SS

Bus stop shelter with flat roof

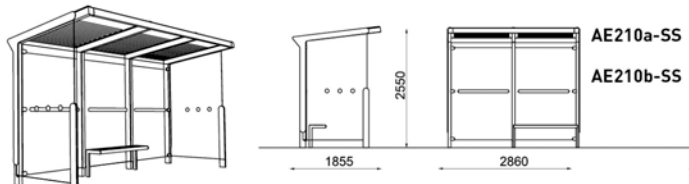
steel structure, roof and rear wall made of tempered glass



AE210 / 310 / 410-SS

Bus stop shelter with flat roof

steel structure, roof, rear and side walls made of tempered glass



Arched Roof - AE215a-LS

Bus stop shelter with arched roof. Steel structure, roof made of polycarbonate, rear and side walls made of tempered glass, without lighted advertisement box.
Snow load version 150kg.

Customized with only 1 side wall and no bench.

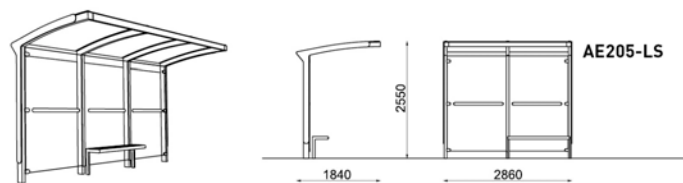
Dimensions: 2860(L) x **1840**(w) x 2550 (h)

Estimated Cost: \$6,800
Freight: \$6,500
Total: \$13,300 + Tax

AE205 / 305 / 405-LS

Bus stop shelter with arched roof

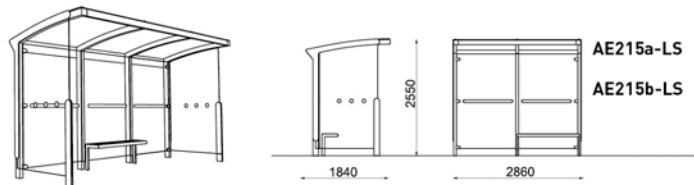
steel structure, roof made of polycarbonate, rear wall made of tempered glass



AE215 / 315 / 415-LS

Bus stop shelter with arched roof

steel structure, roof made of polycarbonate, rear and side walls made of tempered glass



ALTERNATIVE - NOT RECOMMENDED BASED ON INFORMATION AVAILABLE

Model: Smart Series Transit Shelters

Manufacturer: Lucid Management Group

Local Supplier: Lucid Management Group, Richmond, BC

Darren Penner

E: DPenner@lucidmanagementgroup.com

Ph: 604-522-5288

Cell: 604-841-9337

Preferred option:

Smart Series Transit Shelters SH-008-001 Cantilever

Custom: Add 1 side wall

Alternative option:

Smart Series Transit Shelters SH-008-002 Full Side Walls

Custom: Only include 1 side wall

Dimensions:

Standard depth: **1.73m** projection

Also made in low-profile with 1.0m projection

Estimated Cost: ??? Requested. To be provided.

Darren advised on Sept. 25, 2017 they we do not stock the part for the Smart series at this time as they have sold off all inventory since their last mass production order.



ALTERNATIVE - NOT RECOMMENDED BASED ON INFORMATION AVAILABLE

Too similar in appearance to TransLink bus shelters in Vancouver.

Model: S080

Manufacturer: Enseicom Inc.

Michel Soutiere

E: Michel.soutiere@ensei.com

Ph: 514.486.2626 ext. 14

Cell: 514.214.6615

PCB Film integrated in laminated glass. Silk screen pattern into glass
 Requires a 300-350mm thick reinforced concrete slab. Templates provided to ensure that base is correct size. S2P provided a dimensioned plan showing layout of shelter locations (Sept 20, 2017). Awaiting response from supplier.

Optional LED lighting, UV screening in roof

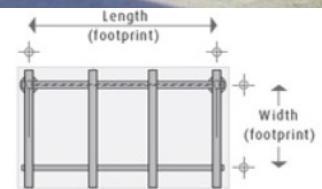
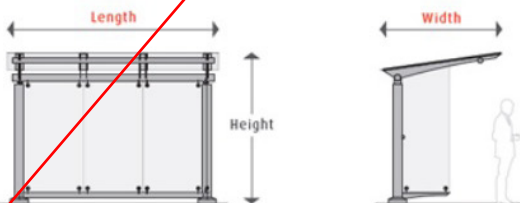
Dimensions: 3.66m x 2.12m x 2.62m (h)

Estimated Cost: ???

Enseicom wants to review site constraints and propose options before providing pricing.



S 080



Model Size

	Length	Width	Height	Length (footprint)	Width (footprint)
<input checked="" type="checkbox"/>	S - 144" / 3 658 mm	F - 83" / 2 113 mm	103" / 2 620 mm	128" / 3 251 mm	56.375" / 1 432 mm
<input checked="" type="checkbox"/>	D - 256" / 6 502 mm	F - 83" / 2 113 mm	103" / 2 620 mm	256" / 6 502 mm	56.375" / 1 432 mm
<input checked="" type="checkbox"/>	T - 400" / 10 160 mm	F - 83" / 2 113 mm	103" / 2 620 mm	384" / 9 754 mm	56.375" / 1 432 mm
<input checked="" type="checkbox"/>	C - Sur mesure / Custom	C - Sur mesure / Custom	-	-	-

ALTERNATIVE - NOT RECOMMENDED BASED ON INFORMATION AVAILABLE

Shelter designed for a ski resort in Wyoming. May not be appropriate for urban context on 10th Ave.

Model: S110

Manufacturer: Enseicom Inc.

Michel Soutiere

E: Michel.soutiere@ensei.com

Ph: 514.486.2626 ext. 14

Cell: 514.214.6615

S110 - Steel structure with optional wood cladding. Sandblast finish with Ecote Shelter designed for a ski resort in Wyoming. May not be appropriate for urban context on 10th Ave. PCB Film integrated in laminated glass. Silk screen pattern into glass
Requires a 300-350mm thick reinforced concrete slab.
Templates provided to ensure that base is correct size

S2P provided a dimensioned plan showing layout of shelter locations (Sept 20, 2017)

Optional LED lighting, UV screening in roof

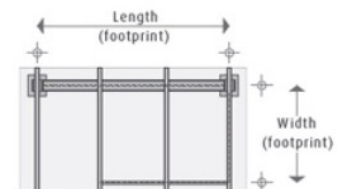
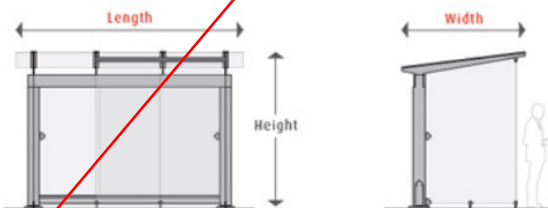
Dimensions: 3.95m x 2.14m x 2.75m (h)

Estimated Cost: ???

Enseicom wants to review site constraints and propose options before providing pricing.



S 110



Model Size

	Length	Width	Height	Length (footprint)	Width (footprint)
<input checked="" type="checkbox"/>	S - 155" / 3 947 mm	F - 84" / 2 143 mm	108" / 2 753 mm	131.5" / 3 340 mm	66.1875" / 1 681 mm
<input checked="" type="checkbox"/>	D - 287" / 7 287 mm	F - 84" / 2 143 mm	108" / 2 753 mm	263" / 6 680 mm	66.1875" / 1 681 mm
<input checked="" type="checkbox"/>	C - Sur mesure / Custom	C - Sur mesure / Custom	-	-	-

* If required, all shelters can be sized to fit client's standard size glass panels.

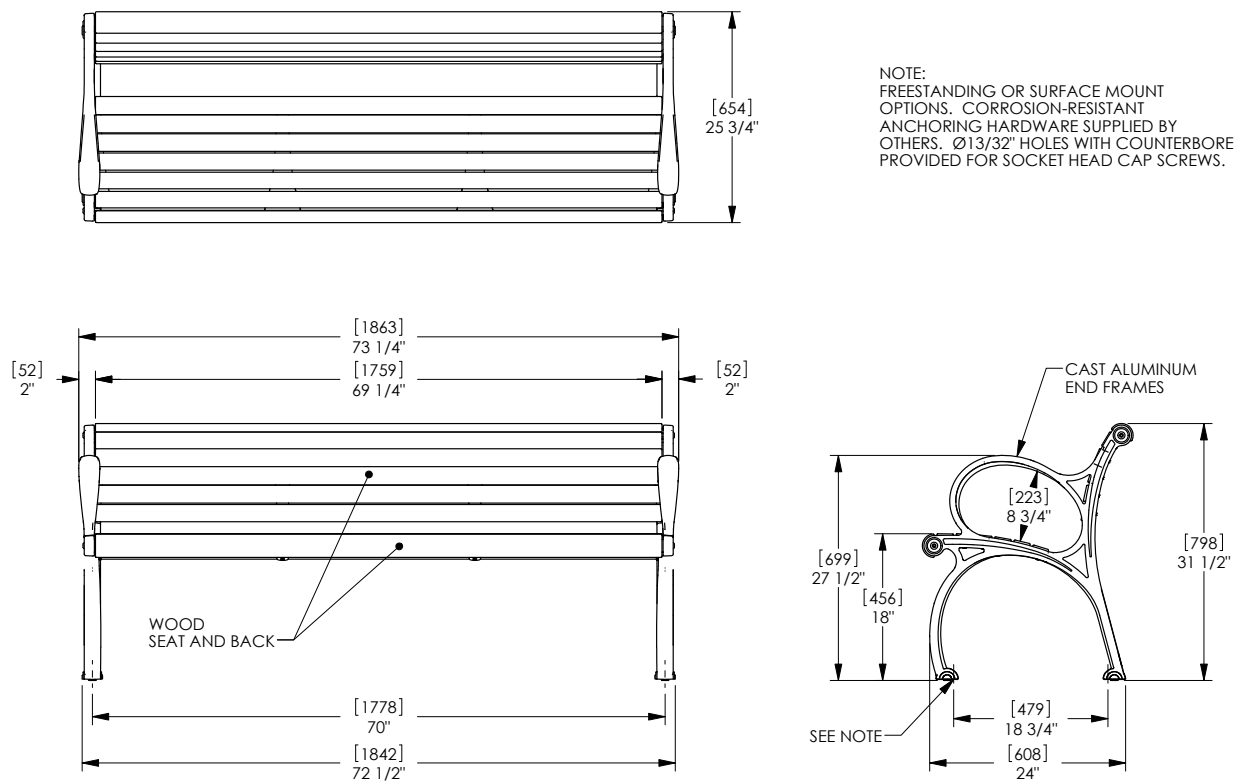
Seating

- Plainwell by LandscapeForms
- 72" long wood slat bench with backrest for comfort, with no centre armrest
- Orient along concrete walk, facing walkway, and facing street where possible.
- Include a widened area of the concrete pad beside the bench for a wheelchair, stroller, etc.



Plainwell™ Bench, 72" Length, with Wood Seat, Freestanding / Surface Mount
Product Drawing

Date: 4/9/2010
www.landscapeforms.com Ph: 800.521.2546

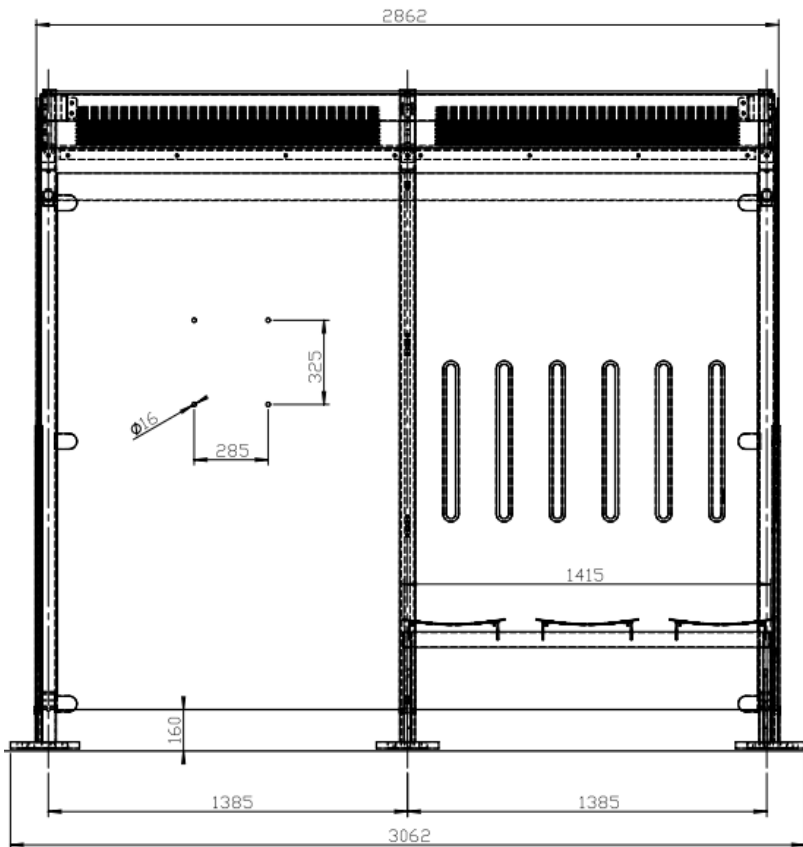
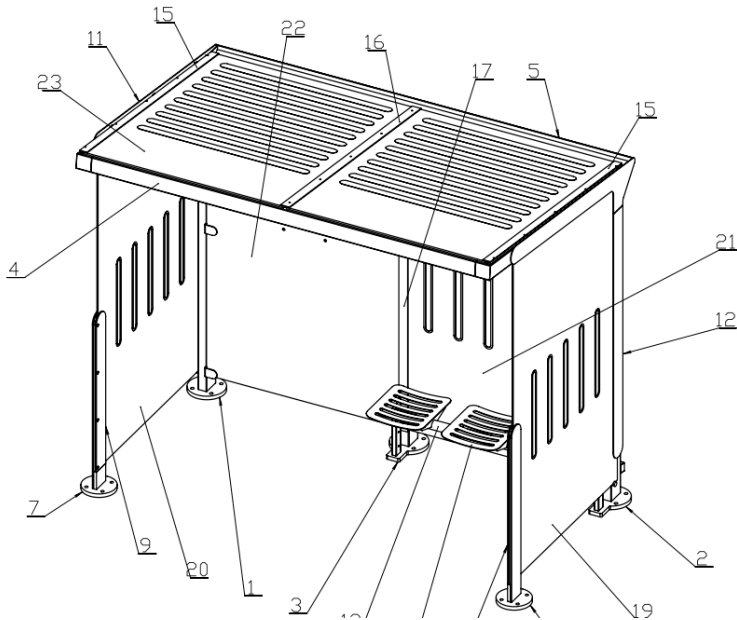


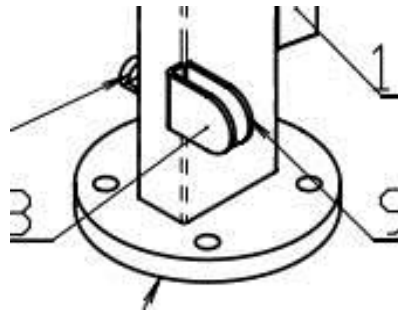
landscapeforms® Drawing: PL271-03
Dimensions are in inches [mm]
U.S. Patent No.: D419,341

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EXP 0170021 CA – WEST 10th AVENUE

Example of surface mount for two-module Aureo shelter





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