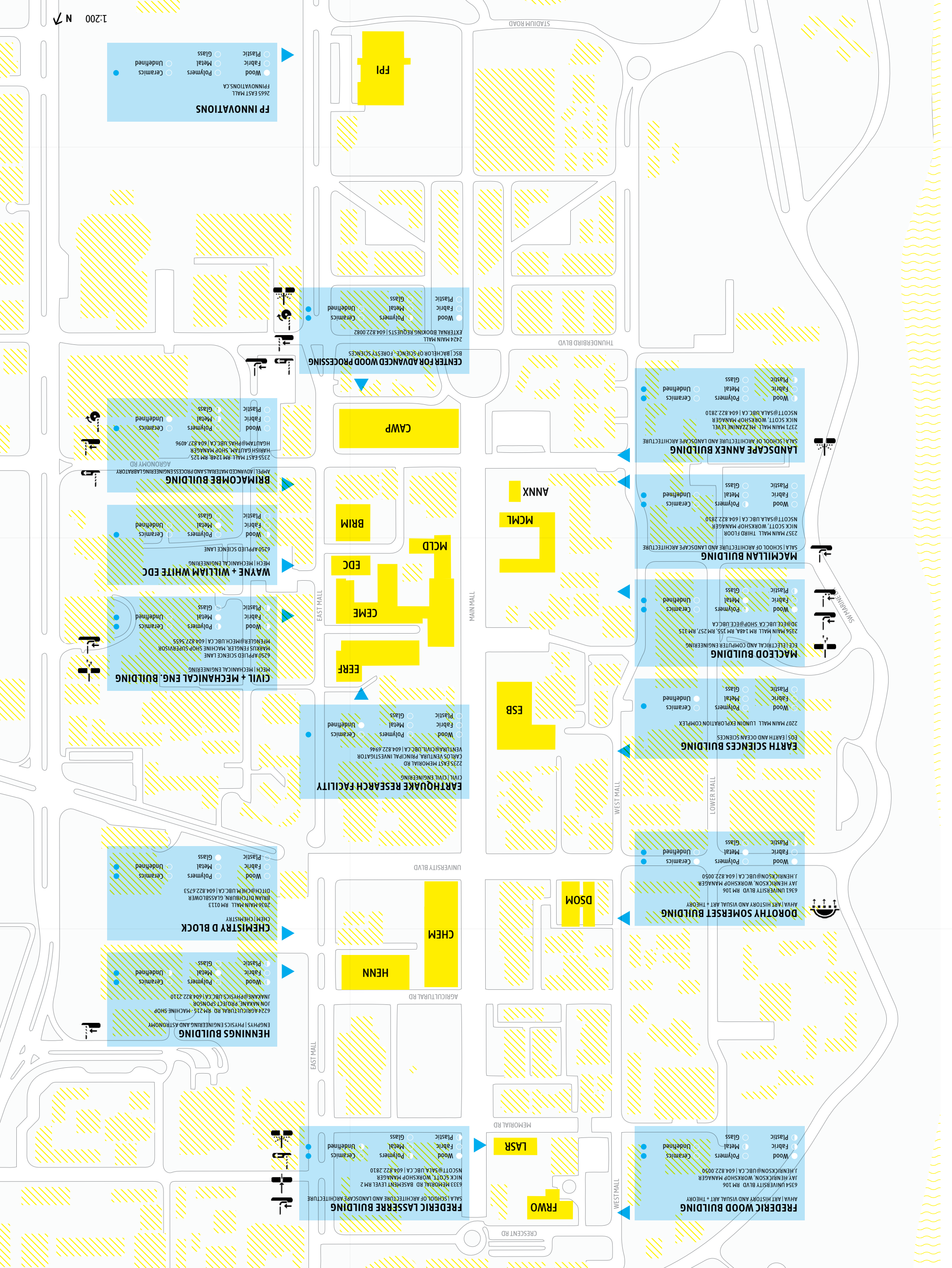


UNIVERSITY OF BRITISH COLUMBIA  
**D-CONSTRUCTED**  
 WORKSHOP LOCATIONS  
 MATERIALS • TOOLS • PROCESS

- EASE OF ACCESS**
- Restricted
  - Limited
  - Open Service

- TIER 1 TOOLS**
- CNC-Mill
  - CNC-Router
  - CNC-Lathe
  - Laser Cutter
  - Water-Jet Cutter
  - Die Cutter
  - Thermoformer
  - 3D Printer - FDM
  - 3D Printer - Polyjet

- MATERIAL TOOLS**
- Scope of Tier 2+3 tools and resources
- Standard
  - Limited and/or specialized
  - N/A



**ANNX | LANDSCAPE ARCHITECTURE ANNEX BUILDING**  
SALA | SCHOOL OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE

2371 MAIN MALL MEZZANINE LEVEL  
NICK SCOTT, WORKSHOP MANAGER  
NSCOTT@SALA.UBC.CA | 604.822.2810

**BRIM | BRIMACOMBE BUILDING**

AMPEL | ADVANCED MATERIALS AND PROCESS ENGINEERING LABRATORY, COMPUTER SCIENCE

2355 EAST MALL RM 124B, RM 125  
HARISH GAUTAM, SHOP MANAGER  
HGAUTAM@PHAS.UBC.CA | 604.827.4096

**CAWP | CENTER FOR ADVANCED WOOD PROCESSING**

BSC | BACHELOR OF SCIENCE - FORESTRY SCIENCES

2424 MAIN MALL  
EXTERNAL BOOKING REQUESTS | 604.822.0082

**CEME | CIVIL + MECHANICAL ENG. BUILDING**

MECH | MECHANICAL ENGINEERING

6250 APPLIED SCIENCE LANE  
MARKUS FENGLER, MACHINE SHOP SUPERVISOR  
MFENGLER@MECH.UBC.CA | 604.827.5655

**CHEM | CHEMISTRY (D BLOCK)**

CHEM | CHEMISTRY

2036 MAIN MALL, D113  
BRIAN DITCHBURN, GLASSBLOWER  
DITCH@CHEM.UBC.CA | 604.822.6753

**DSOM | DOROTHY SOMERSET BUILDING**

AHVA | ART HISTORY AND VISUAL ART + THEORY

6361 UNIVERSITY BLVD RM 106  
JAY HENRICKSON, WORKSHOP MANAGER  
J.HENRICKSON@UBC.CA | 604.822.0050

**FRWO | FREDERIC WOOD BUILDING**

AHVA | ART HISTORY AND VISUAL ART + THEORY

6354 CRESCENT RD RM 106  
JAY HENRICKSON, WORKSHOP MANAGER  
J.HENRICKSON@UBC.CA | 604.822.0050

**LASR | FREDERIC LASSERRE BUILDING**

SALA | SCHOOL OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE

6333 MEMORIAL RD BASEMENT LEVEL RM 2  
GRAHAM ENTWISTLE, WORKSHOP MANAGER  
GENTWISTLE@SALA.UBC.CA | 604.822.2810

**MCLD | MACLEOD BUILDING**

ECE | ELECTRICAL AND COMPUTER ENGINEERING

2356 MAIN MALL RM 148A, RM 155, RM 257, RM 315  
BOOKINGS: 3D@ECE.UBC.CA SHOP@ECE.UBC.CA

**THIS TOOL-MAP**

Why make this map?

An interdependence of ‘excellent designing’ and ‘excellent making’ is a core value of design pedagogy at UBC. However, contemporary ‘making’ practices and technologies (3-d printing, laser-cutting, robotic milling etc.) have changed how we visualize, evaluate, and construct the built environment. Increasingly the experience we offer students depends on providing better access to a wide variety of tools and techniques.

The members of SALA are driven to put more tools in the hands of young designers, and to increase opportunities for students to have access to meaningful, coordinated design fabrication experiences, training and infrastructure. We are also motivated to increase opportunities for UBC students to work with each other in a true interdisciplinary manner. We built this map to support this mission.

**TOOL STRATEGIES**

Adding and subtracting

Computer Numerical Control (CNC) is the automation of tools through the use of a computer and preprogrammed sequences. Additive manufacturing creates objects by building up layers of material (3D printing or laminating). Subtractive manufacturing defines an object through the removal of material (mills, lathes, and cutters).

**MATERIALS, TOOLS, WORKSHOPS + CONTACT**

PLASTICS	ANNX	BRIM	CAWP	CEME	CHEM	DSOM	EDC	HENN	FRWO	LASR	MCLD	MCML
Bead Blaster						•						
CNC - Drill			•									
CNC - Lathe			•									
CNC - Microdrill		•										
CNC - Mill		•						•				
CNC - Router										•		
Die Cutter										•		
Drill		•	•	•		•		•	•	•		
Drill Press			•			•				•	•	
Heatgun										•		
Laser Cutter	•		•							•		
Milling Machine		•				•						
Router		•										
Sander		•	•			•		•	•	•		
Saw		•	•			•		•	•	•		
Vacuum Formers			•			•						

**POLYMERS**

3D Printer - FDM		•	•							•	•	•
3D Printer - Polyjet											•	

**FABRIC**

Sewing Machine					•							
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**CERAMICS**

Kiln					•							
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**WOOD**

WOOD	ANNX	BRIM	CAWP	CEME	CHEM	DSOM	EDC	HENN	FRWO	LASR	MCLD	MCML
Bead Blaster						•						
Bench Grinder		•										
Boring Machine			•									
CNC - Drill		•	•									
CNC - Lathe		•										
CNC - Mill		•						•				
CNC - Router			•							•		
Die Cutter										•		
Drill			•							•	•	
Drill - Hinge			•									
Drill - Press			•			•				•	•	
Dust Table			•									
Edgebander			•									
Grinder			•			•						
Heatgun									•			
Joiner		•	•			•						
Laser Cutter	•		•						•			
Lathe Machine		•				•						
Milling Machine		•				•						
Mortise			•									
Nailgun		•									•	
Planer			•			•				•		
Router		•								•		
Sander		•	•			•				•		
Saw		•	•			•				•	•	
Shaper			•									
Shearing Lathe											•	
Spindle Moulder			•									
Veneer Guillotine			•									
Veneer Stitcher			•									

**METAL**

METAL	ANNX	BRIM	CAWP	CEME	CHEM	DSOM	EDC	HENN	FRWO	LASR	MCLD	MCML
Bead Blaster						•						
Bench Grinder		•										
Brazing Torch						•						
Buffer						•						
Brake						•						
Drill - Press						•						
Grinder			•			•						
Lathe Machine			•			•						
Milling Machine						•						
Oxy-Fuel Torch						•						
Plasma Cutter						•						
Roller						•						
Saw		•	•	•		•			•	•	•	
Shear						•						
Spotwelder						•					•	
Water-jet Cutter				•								

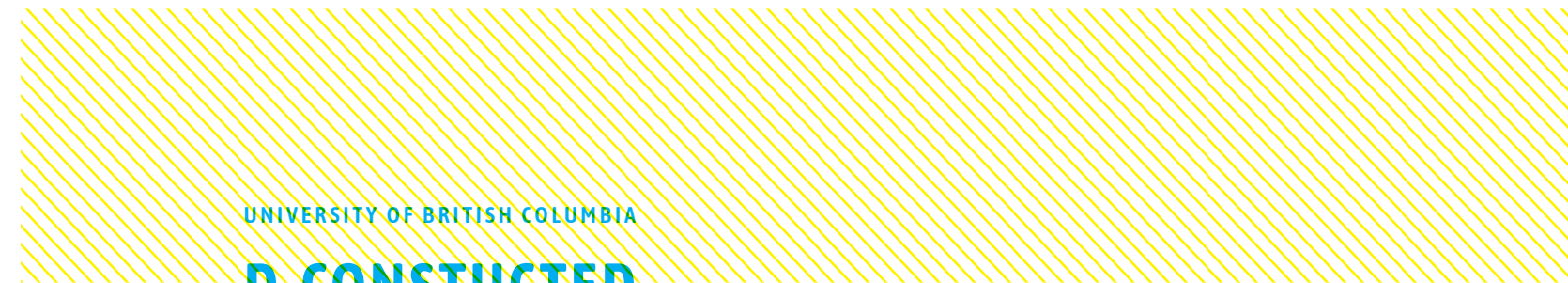
**GLASS**

Bead Blaster						•						
Glassblower						•						
Water-jet Cutter				•								

**UNDEFINED**

Drone										•		
Kuka Robotic Arm			•									
VR Equipment			•									

The “University of British Columbia D-Constructed Map” introduces UBC students to some of the shop resources available on the West Point Gray campus. The outside cover of this document is a map of campus with key buildings and shops identified. The inside cover has contact information for those shops and a chart that lists common materials and the tools that might be used to modify them. This document was produced by the UBC School of Architecture and Landscape Architecture as part of a Large TLEF Grant titled “Integrated Design Learning through Making and Building @ SALA”.



UNIVERSITY OF BRITISH COLUMBIA

**D-CONSTUCTED**

MATERIALS • TOOLS • PROCESSES

**TLEF**

SCHOOL OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE