Hybrid Techniques for Architecture Design www.hytac.arch.ethz.ch Doz. Jonathan Benhamu D-ARCH ETHZ



## HYTAC Basics SS 23 \_ Workflows

Before this Workflow take the **3DJony** Course **W-1c:** 3D Based CADing for Architecture Design & **W-1e:** 3D Documentation from 3D Model for Architecture Design



a. Go to the "SitePlan" View, the one you created in the "Situation-Plan Workflow". Right-click on the View "W-01 Kataster Pobleneu", and select "Show as Trace Reference".
b. Click on the Toolbar/Viewpoint/Elevation Tool and draw the elevation line. Except of the block, make sure that your view includes part of the streets and surrounding Blocks.

## 2



**a.** In order to visualize the buildings of the surrounding blocks in the elevation, zoom-in to check which buildings are in front of the elevation line. Using the **Slab Tool**, create a slab on the boundaries of these buildings and **set the height** according to the information provided on the plan.(building height - street height).

**b.** In the 3D view, the slabs should look like on the screenshot above.





a. Select the elevation line and click on the Elevation Settings, define the name, set the
 Horizontal Range to Limited, and activate the checkbox of Face Distant Elements in the
 "Model Appearance" table.

**b.** Now the Elevation is defined by **two green lines**. The front view line (**b1.**) and the depth line (**b2.**). By adjusting the position of the second one, you can define which part of the model is visible.







5

6

		(in (in you page Support Spinst Spinst Walks Spin	
			Sales ins Sales Sine Selector
\$45 Evolori #	□ (0.12 Section and Beals 🚔 (Adom Center) 🔅 (0.10 Size Pain (0.10) □ (0.13 Building Section) 🖉 (0.10) Section (0.10) Sec.		III Checkwary Owner
Caulty & GUARGON			
			C There is a second seco
-1300 -1367 -1367 -1369 -1369 -1369			(1) 10040 v(2) 1200-04480 (2) 200-044800 (200-0440 (Model (2) 200-044800 (200-0440 (Model (2) 200 (200-0440))))))))))))))))))))))))))))))))
		O Mon     O Mon     O Downey     O Downey	GANHEOFT CLER (Instan

a. In the **Project Map**, find the elevation you named before and open the **View**.

- b. Right click over the automatic levels( horizontal lines) and select
- "Hide the Story Levels".

**c.** Use the **Polyline Tool**, in "**XXX Group XXX Layer 1**" and draw the buildings of the surrounding blocks, using as reference the slabs you created before. When you have drawn



a. For more detail, go to the Elevations Settings and activate the Shadows.

Set the "Fill" to 25 and the "Fill Foreground Pen" to 102 Pen (0.03mm).

b. Draw the Ground using the Fill tool (Window/Toolbars/Tools-Documenting). In the properties, assign the layer, set the Line type as Solid Line, the Contour Pen to 244 (0.2mm), the Fill Type to Foreground in 121 Pen (White) and create the base of your drawing.



a. Adjust the Outlines of Slabs and Walls, and set the "Uncut Line Pen", to "89 0.01mm
 Slabs - Outlines and Cover Fills."

**b.** Check carefully your drawing. Correct any misplaced lines and delete when needed.

Hybrid Techniques for Architecture Design www.hytac.arch.ethz.ch Doz. Jonathan Benhamu D-ARCH ETHZ

HYTAC Basics SS 23 \_ Workflows

## ○ 06\_Elevation



00 2// 1	「豆×薏苡・苡・谷へ丁にと曰う 環境日日 白白		Nex Lewi Cardwork	in Mehral Depress Mehral	Rana Tana	Pertia Pertias but	. 50
Nan iger Grenute Helse	larray tahui latar ya lathatan hataa kan ya	harber hard a	Marting 21 + @1000xxxx101xx1 + 3+04	-++ ++ × ++ ++ H	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Mill 230 mm Varent Sock v	400 44 1 🔳 🛛
Win the Contract of the State o	• 🗶 ** ** 50 10 2* * X * * * * 10 10 112 100 m √Assoches		. In Contraction ( C.D. Broston)	[[] A M N3] [] [] ()	10-24 Mar 740-30-24 Amer. 2010 Wild Elevation (st. 24 Elevation		xb-
N 23 Cat & sugargings (control). Cat its tendent	🕞 (a. d. 4. 102) 👘 (b. 3. 56 an 20-66 Auss. 🖉 (b. 10. 6 Count. + 🖉 (b. 10. 55 Section 30-66 Sect	pringe Perspective. 10 * the s	R INCOMPANIES of the state of the state (author of Galdenia).	11			1/2 .
	Province function functions	-					C atom
		- Diator w	nor l				> 🗁 Contor
Yespe	1 Straded 1 Selected 1	> D Corne					> Contraction
****	* J. V SAMPANE THE	> =====================================					
-	Distancian Type Distancian Origin:	127 30-06	4		$\sim$		C 100
*		C 184	(D)		J.		0 6418
	Hole for	Otest		In			C 10 P
(2) ±17.48		CT 10 fe	0				C 6.80
e, nun h.	Manufact and	Co. Box		-h			C there
		C 0 Aug		前			C milt fi
iii. ±14.58	The second secon	2 wetra	45"	114-2			~ D 8.100
		- C3 8,900					G Genes
*) חחח !	NUMBER B/UT AS IN NO.	C Geter	A* .				2 Web
A*		Work	A 1				20 10-16
	126 POSE Disease DJ - D	20 10-06		8			20 XD-3H
MI D D D	Diana 🕑 J 🛛 📰	20 10-04 20 m/th					(2) w-66
· +8.92	<ul> <li>-{] WARKER AND INTERSEEM OPTIONS</li> </ul>	W del	9	-			- 🗂 1500
	ISI materios	- C 1800	<i>a</i>	p			20 304
a	System: When Sup 6.31 m	(C) #4					20 mil
1 5403	C <sup>132</sup> Cuton When the Length Bott - C.	🖉 w a		ch			20 wid
0 8 3A	Nonzer	🖉 w.3	če la				
C 8 53	• # эменнон остала		0.0				
~ 22 ~	· E montants		*				
* 3262	All distillance sitisten at the second of the		28	é			· Popular
R AT THE		· Popular	95	14			10 mile (4
(Ch) ±0.40		22 (m-06 ) (t			s		(Color
		EF Conton			) ).	GRA	PHISOFE EDIt Milliong Ph

**a.** To add **Level Markers**, use the **Dimension Tool** (Toolbar/Document/ Dimension Tool). Go to the **Dimension Settings** and change the following properties.

**Dimension Type:** Elevation Dimension

Marker Type: Elevation Marker Dimensions / Direction / Solid Marker

Witness Line: Sized Height

Text Style: Avenir Book - Size 2 mm

Marker Size: 2 mm

**b.** Press "**OK**" and on your drawing, click on all the **points** you want to measure. Double click to complete the process.





a. To add Dimensions use again to the Dimension Tool .

Go to the **Dimension Settings** and change the following properties.

Dimension Type: Linear Method

Marker Type: Extend Witness Lines

Witness Line: Sized Height

Text Style: Avenir Book - Size 2 mm

**b.** Press "**OK**" and on your drawing, click on all the **points** you want to measure. Double click to complete the process.

10







a. Add extra details as trees or human figures.

Using the **Object Tool** (Toolbar/Design/Object Tool), you can find the **trees** in >>2. VISUALIZATION/2.2 Site Improvements 25/Garden 25/ Decidiuous Trees 25.

and the figures in >>2. VISUALIZATION/2.3 People and Vehicles 25/People Contour 25.

Edit the  ${\bf 2D}\ {\bf Representation}$  and place the figures in the Section.

·	🖀 Library Managar	7 X	Called Inte		2 11 14 14 14 14 14 14 14 14 14 14 14 14	8.
Ref. C. B. B. Grupp H. Barrell, Grupp H. Barrell, Grupp H. Barrell, S. Barrell	The T-S Mail Mark State				Image: sector	K         Bits start           Image: Bits start         Image: Bits start <td< th=""></td<>
Ann Braanse ( Print)	a. Pased signal.		Canot Add	b	2010 DOCUMENTS     30-DNEY     Canod     Ot	20 de Roof Plan     Generic Perspective     6 Cosund Plane     20 vice 8 http:     20 vice 8 http:     20 vice 8 http:     20 vice 6 http:

**a.** If you can't find the Library you can check the **Library Manager** (File/Library and Objects/Library Manager), and add a Library from the BIMcloud Library.

b. Create and Save the View from the "View Map/Save Current View ...",

and set the scale to 1:200 . Move the View in your Drawings Folder.