

# THE ARCHITECTURE HANDBOOK:

## A Student Guide to Understanding Buildings

TEACHER EDITION

CHICAGO ARCHITECTURE FOUNDATION

Produced in  
partnership with



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# Project 1 | The Block Plan

Architects don't just think about individual buildings in isolation. During the process of designing a new building, architects spend time investigating the nearby streets and blocks because the building's design will be impacted by its surroundings. Architects want to better understand what other types of buildings are nearby, how the new building will relate in size and shape to the other structures, and how its physical location is linked to the rest of the city. All these issues are connected.

Each chapter in Project 1 explores a different skill that is critical in understanding how a street is organized and why it looks the way it does. These chapters will give you the important tools to 'see' the built environment around you. Architects and urban planners must read maps and drawings (Chapter 2); understand scale (Chapter 3); and count, label, and document different types of buildings on a block (Chapter 4). Finally, you'll compare and contrast the F10 House block with your own street (Chapter 5).

# Short Activity

## COLOR CODE BUILDINGS ON THE F10 HOUSE BLOCK TO CREATE A LAND USE MAP



### SKILLS

- comparing and contrasting
- collecting data
- mapping
- observing the built environment
- reading

### DISCUSSION POINTS

#### PRE-ACTIVITY

- If you lived in the F10 house, what types of buildings on the map would you visit daily, weekly, monthly, or yearly?
- How many residential buildings are shown on this map?
- How many commercial buildings are shown on this map?

#### POST-ACTIVITY

- How would you describe the patterns and groupings of buildings on this land use map?
- What is different about the types of buildings on Armitage Avenue compared to those on Keeler, Kedvale, or Tripp Avenues?
- Why do you think the city of Chicago chose to group various building types in this way?
- Are the patterns and groupings of buildings along Armitage and Keeler Avenues similar or different from the streets around your school? Explain.

### MATERIALS NEEDED

- colored pencils, markers, or crayons (*any 3 different colors per student*)
- **CD** **Image Set 4.1** – photographs of buildings on and around the F10 House block
- **CD** **Image Set 4.2** – F10 House block map with buildings labeled
- **CD** **Image Set 4.3** – student sample of completed color-coded land use map

### TIMEFRAME

1 class period

### TEACHER PREP

- gather materials
- prepare to project **Image Set 4.1** to the class
- photocopy **Image Set 4.2** (*one per student*)
- *optional*: prepare to project **Image Set 4.3** to the class

### TEACHER NOTES

This activity gives students an opportunity to take the knowledge they've learned about the broad categories of land uses and apply it on a case-by-case basis to buildings in the area around the F10 House block.

Even though all the buildings on the map on **Image Set 4.2** are labeled, students may have a difficult time recognizing how building types are grouped together on these blocks. By taking the time to color in each type, students can begin to recognize the land use patterns that emerge.

The map does not label any residences that may exist on the upper floors, so any mixed-use building appears solely as commercial. The photos on **Image Set 4.1** illustrate these mixed-used buildings more clearly.

BUILDING	LAND USE CATEGORY
<b>Armitage Avenue</b>	
Mexican restaurant	commercial
Walgreens drugstore	commercial
groceries	commercial
dollar store	commercial
social services	institutional
hardware store	commercial
arts organization	institutional
dentist	commercial
salon	commercial
home	residential
glass	commercial
real estate	commercial
clothing	commercial
income tax preparers	commercial
Illinois state representative	institutional
currency exchange	commercial
car accessories	commercial
pizza	commercial
church	institutional
<b>Keeler Avenue</b>	
home	residential
groceries	commercial
<b>Kedvale Avenue</b>	
church	institutional
school	institutional

CONTINUED ON NEXT PAGE

Industrial buildings in the neighborhood cannot be seen on this map, because they are separated from the homes and businesses. Two neighborhood parks are within easy walking distance, but they are also located beyond this map.

If you have access to a professionally produced land use map from your city's department of planning or from an urban planning firm, you'll notice that five standard colors are typically used in labeling buildings or areas.

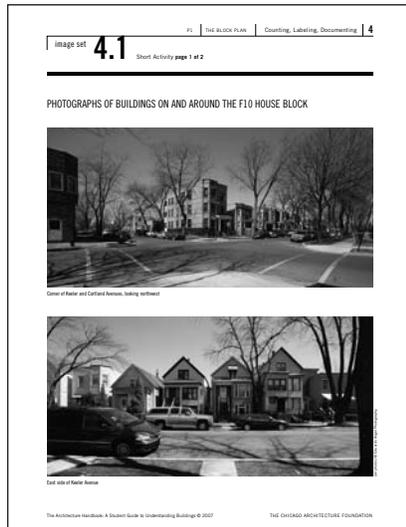
residential	yellow
commercial / business	red
institutional / public	blue
industrial	grey
open space	green

If each student does not have access to pencils, markers, or crayons in these particular colors, feel free to use any three different colors when coding the land use map on **Image Set 4.2**. Only three colors are needed for this activity because industrial buildings and parks are not shown on this map.

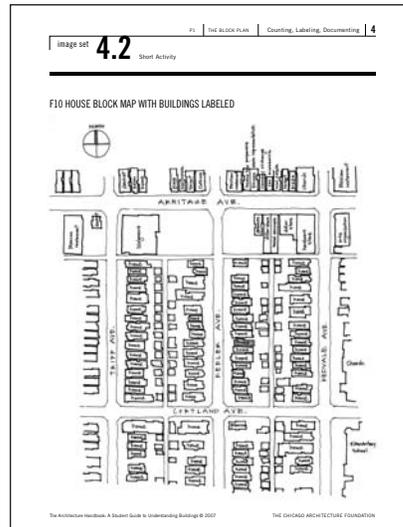
This color-coding activity can be replicated with any aerial photograph from your own neighborhood. If your students live in a suburban or rural area, the scale of your map will have to be much larger, because these areas typically tend to segregate residential buildings farther away from commercial and institutional buildings.

### ACTIVITY STEPS

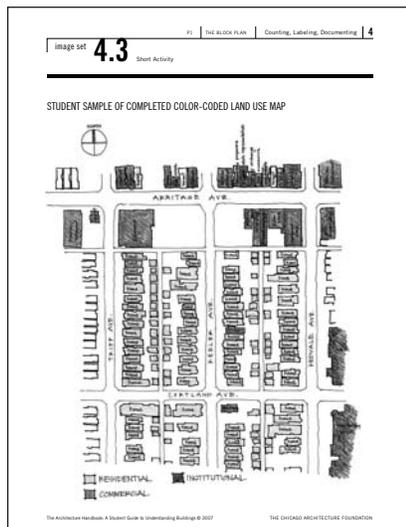
- 1 Project **Image Set 4.1** to the class, which shows photographs of the streets surrounding the F10 House. Lead a class discussion about the different types of residential, commercial, and institutional buildings shown.
- 2 Review the vocabulary words found in Chapter 4 of the student book. Use the Discussion Points to guide your conversation.
- 3 Distribute the F10 House block map on **Image Set 4.2** and 3 different colors of pencils, markers, or crayons to each student.
- 4 Have each student decide which color will represent each land use type (residential, commercial, and institutional) and create a simple legend at the bottom of the page.
- 5 Then have students color-code each building on the map based on the legend they created.
- 6 Pin up a few examples of student work and have the students talk through their maps to the class. Use the Discussion Points to guide your conversation.
- 7 *Optional:* Project **Image Set 4.3** to the class to show sample work from one student.



**CD** Image Set 4.1, page 1 of 2 – photographs of buildings on and around the F10 House block



**CD** Image Set 4.2 – F10 House block map with buildings labeled



**CD** Image Set 4.3 – student sample of completed color-coded land use map

## CHECKLIST FOR ASSESSMENT

Ways to evaluate the activity for student learning:

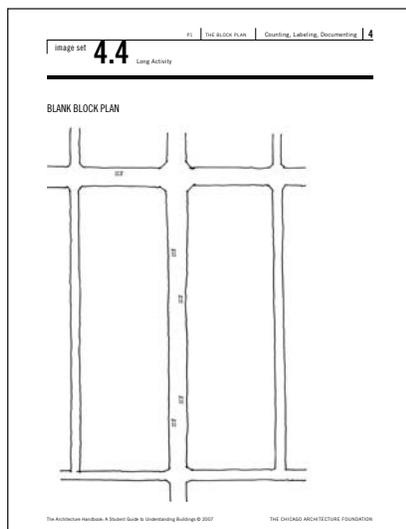
- **Accurate coloring of land use**  
Students should have correctly and carefully colored each building on the F10 House block plan according to its use as commercial, residential, or institutional.
- **Map legend** Each map should include a legend created by the student at the bottom of the page.



If students have read the Chapter 4 reading by Jane Jacobs, talk briefly about her descriptions of her street. What street life characteristics from the Jacobs reading do students find appealing or unappealing? Will this reading influence the ideal block plans of your students in any way?

### ACTIVITY STEPS

- 1 Review the vocabulary words found in Chapter 4 of the student book.
- 2 Have each student make a quick list on a piece of scratch paper with four columns labeled Daily, Weekly, Monthly, and Yearly. Under each category, students should list the types of buildings they and their family visit on a daily basis, on a weekly basis, on a monthly basis, and on a yearly basis.
- 3 Then have students make a list of those places or uses they would like to include on their ideal block plan.
- 4 Distribute **Image Set 4.4** to each student. Point out the cars drawn along the block. These were included for scale reference. Each car measures approximately 10 feet  $\times$  15 feet.
- 5 Have students draw a plan of their ideal block on the blank map. Remind students to draw objects only in plan view. Each building or space should be labeled, and their own home should be included somewhere on the plan.
- 6 Pin up the work of several students and spend a few minutes discussing their block plans as a class. What similarities and differences can be seen in each student's plan? Use the Discussion Points to guide your conversation.



**CD** Image Set 4.4 – blank block plan

### CHECKLIST FOR ASSESSMENT

Ways to evaluate the activity for student learning:

#### Neatly sketched block plans

Student sketches should clearly differentiate buildings, streets, railroad tracks, green spaces (such as parks), or empty spaces. Trees and other objects along the block are optional.

**Plan view** Each object on the block or neighborhood plan should be drawn in plan view.

**Scale reference** Based on the size of the cars (roughly 10 feet  $\times$  15 feet) included for scale reference, can the students estimate the size of their own home on the block plan?

**Labeling** Have students labeled each building as residential, commercial, or institutional? Have they included street names?

**Own home** Has the student's own home been drawn and labeled on the plan?