

Field Work Exercise 1 – Test Booklet

Assignments

Task 1: Sustainability and liveability – Wangjing Huayuandongqu Community [12 marks]

1. Identify and annotate on a separate worksheet version of the map (Fig. 1) provided:
 - i. 6 features that affect the urban sustainability of the community in a positive or negative way and explain for each feature how it affects sustainability. [6m]
 - ii. 6 features that affect liveability in the community in a positive or negative way and explain for each feature how it affects liveability. [6m]

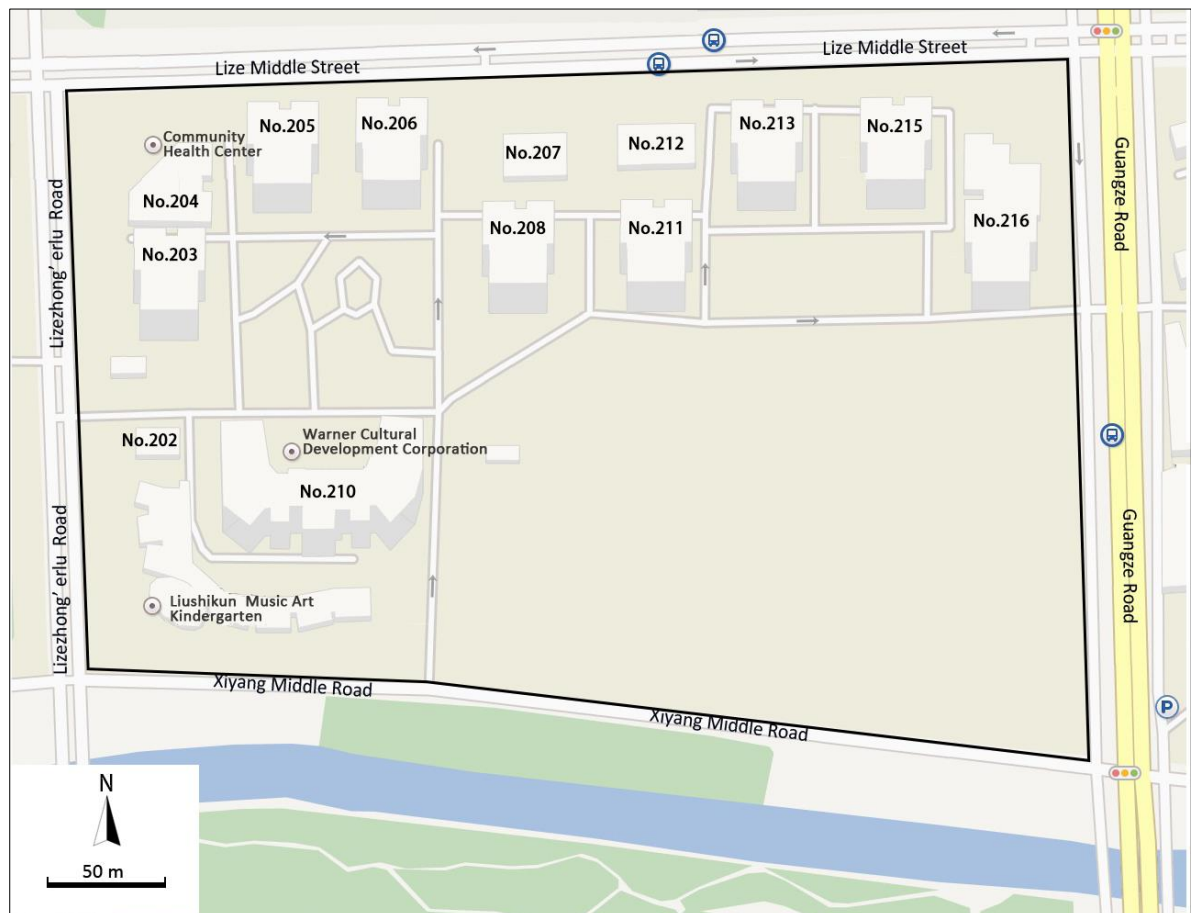


Figure1: Layout map of the Wangjing Huayuandongqu Community

Task 2: Water management – Beixiaohe River [9 marks]

2. Observe the river and annotate on a separate worksheet version of the map (Fig. 2) provided, notes about:

- i. its form and structure;
- ii. what functions it serves with respect to water management in this part of Beijing;
- iii. what functions it serves within the local community. [6m]

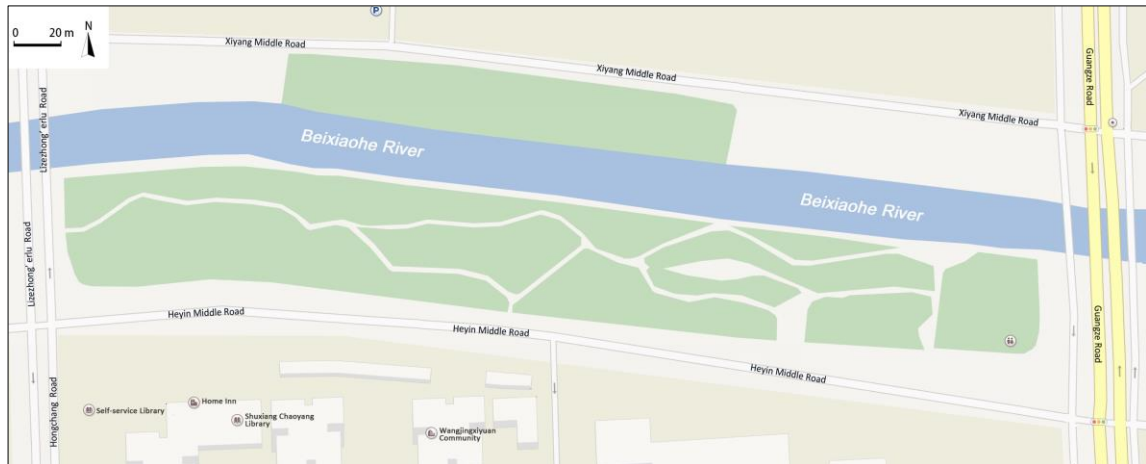


Figure 2: Layout map of a Section of the Beixiaohe River

3. Write brief observations of the water quality of the river in Table 1 below. [3m]

Table 1

Indicator		Observations
Clarity		
Water Flow	Velocity	
	Depth	
	Obstacles	
Smell		
Aquatic organisms		

Task 3: Traffic junction and subway station [11 marks]

4. Observe the flow of traffic at the junction using the tally worksheet provided as a guide (Table 2).

- i. Based on your traffic count, what are the 3 main categories of users of the traffic junction? Provide evidence from Table 2 to support your answer. [2m]
- ii. Which groups of road users are prioritised in the design of this traffic junction? Why do you say so? Write your answer in the box at the bottom of Table 2. [3m]
- iii. Locate and annotate on a separate worksheet version of the map (Fig.3) provided, where bottlenecks in traffic flow are occurring / might occur and explain why they might occur there. [6m]

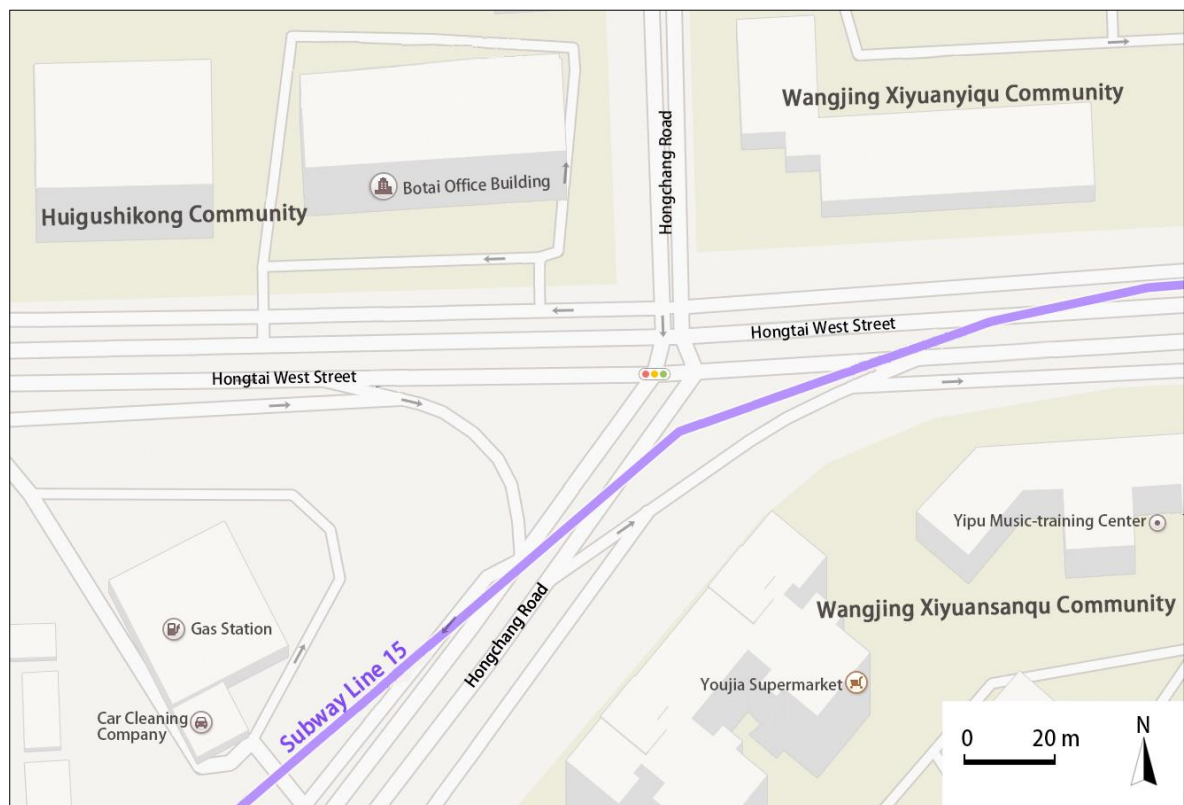


Figure 3: Lay-out map of the Hongchang Road - Hongtai West Street intersection

Table 2:

Type of traffic (vehicular/ pedestrian)	Numbers counted in a 5 minute period	Time	Other relevant observations
Buses			
Trucks			
Cars			
Motorcycles/ Scooters			
Bicycles			
Pedestrians			
Others			
Which groups of road users are prioritised in the design of this traffic junction? Why do you say so?			

FWExercise Part 2 – Test Booklet

Assignments

Task 1: Sustainability and liveability – Wangjing Huayandongqu Community

Using the materials in the resource booklet as well as your observations yesterday, design a sustainable residential development for the empty plot of land next to the Wangjing Huayandongqu Community,

- i) represent your proposed development using annotated sketches/ maps;
- ii) explain how your proposed development will enhance the sustainability and liveability of the area and for the local community in 400 words or less.

Task 2: Water management – Beixiaohe River

Based on your observations of the Beixiaohe River yesterday, the changes you might make to the canal to:

- i) improve water retention during the dry seasons;
- ii) enhance the liveability of the area for the local community.

Annotate your suggestions on the sketch map provided (Fig. 1).
No additional text or writing is permitted beyond the annotated sketch.

Task 3: Traffic junction and subway station

With reference to the resource materials on the Transit Elevated Bus provided, and based on your field observations yesterday:

- i) analyse the strengths and weaknesses of the proposed Transit Elevated Bus system in addressing sustainability and liveability issues observed in Wangjing in 400 words or less.

Notes for the Local FWE-team:

The following resources must be provided in the Resource Booklet for the problem solving test:

1. General information about Wanjing district - residential population, landuse, energy use, water consumption, transport systems and routes, sustainable community features etc.
2. A clear well-labelled map showing the neighbourhood around Huayandongqu Community and the empty plot of land next to it. The North arrow as well as scale of the map needs to be clear to aid students in developing their answers.
3. A clear well-labelled map showing the landuse of the neighbourhood around the the Beixiaohe River, the north arrow as well as scale of the map needs to be clear to aid students in developing their answers.
4. Information about the Elevated Transit Bus system.

The following resources must be provided for students to complete their tasks:

- Sketch map (Fig. 1) of the Beixiaohe River?Canal for annotation.