

**FIGURE**

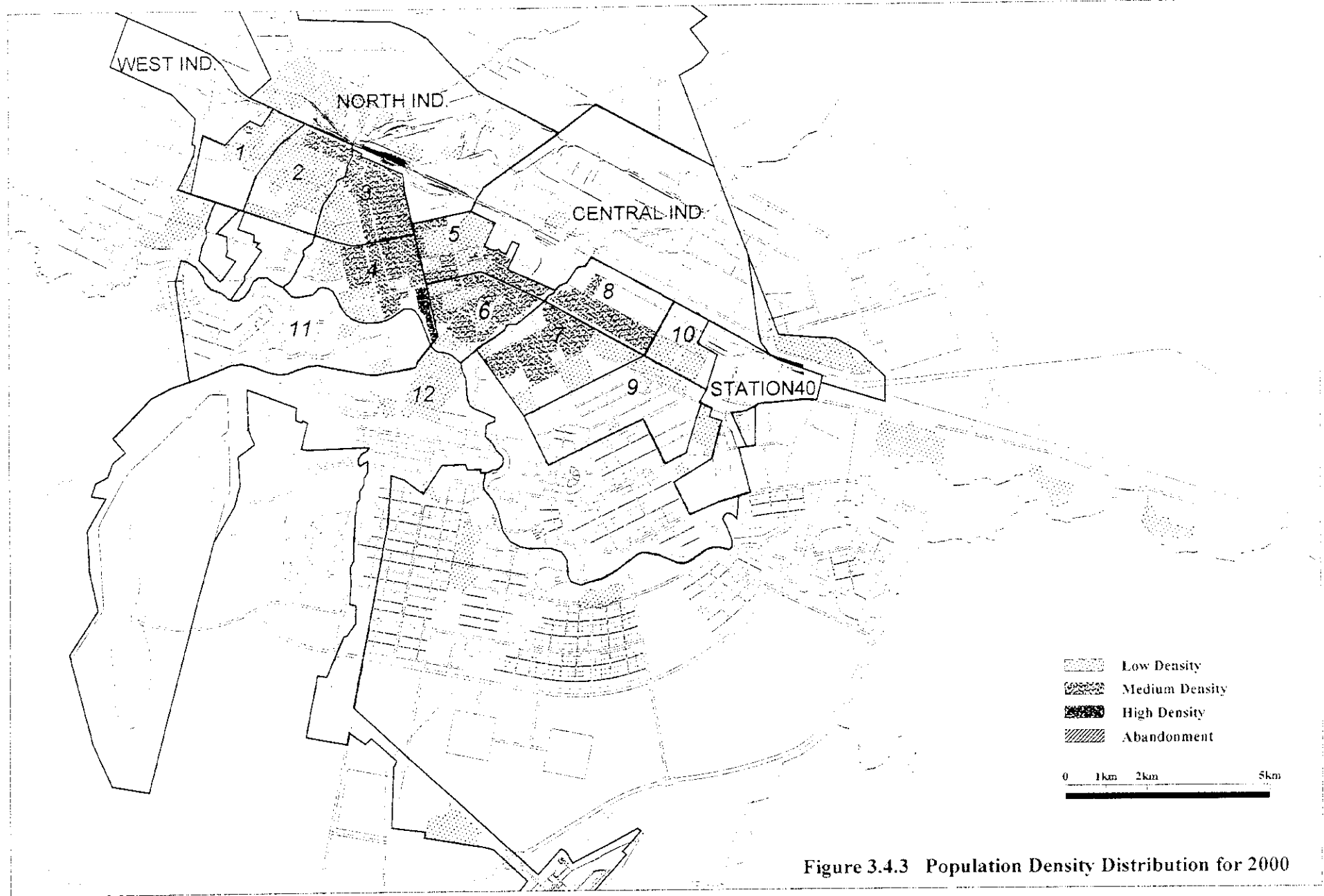


Figure 3.4.3 Population Density Distribution for 2000

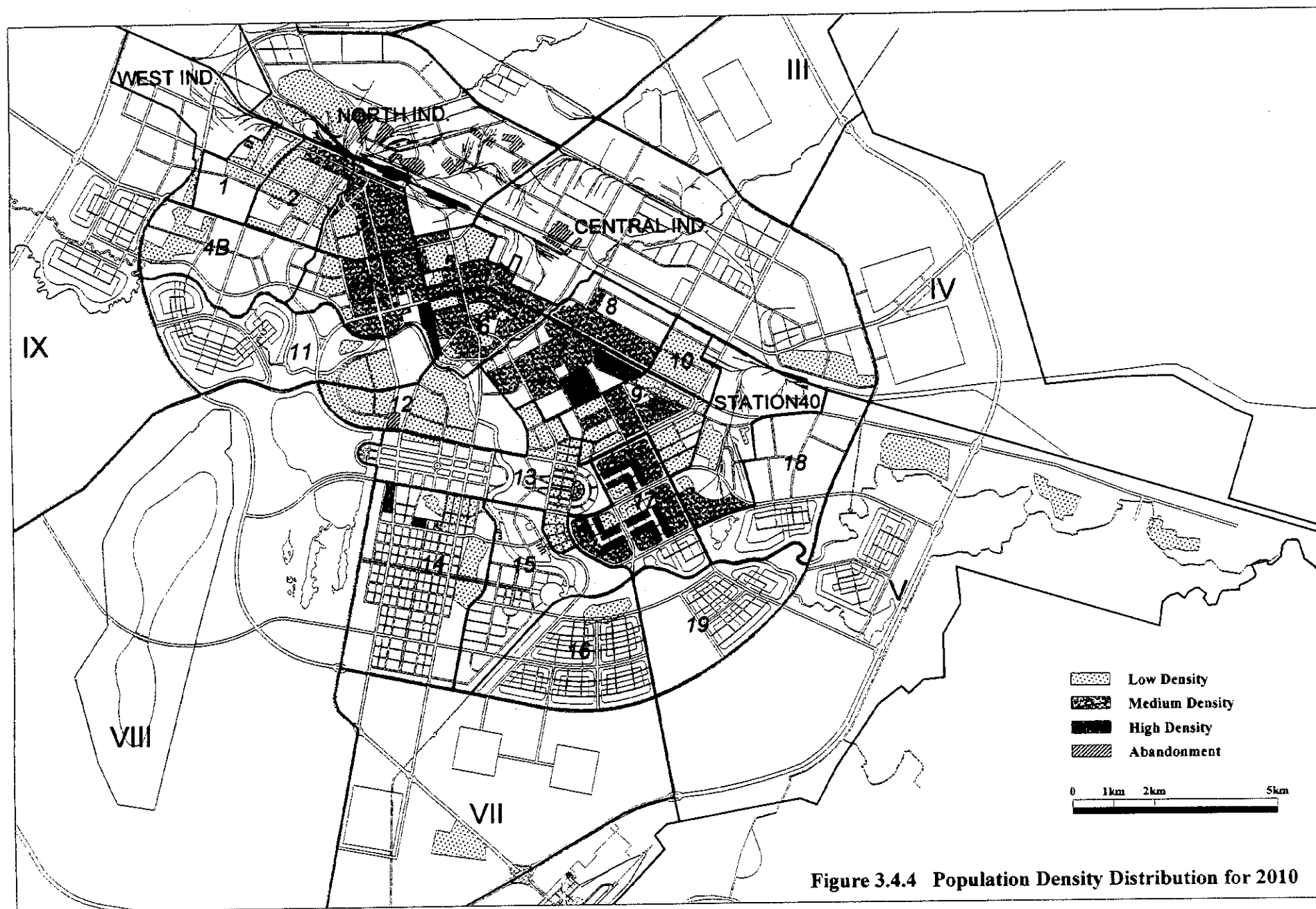


Figure 3.4.4 Population Density Distribution for 2010

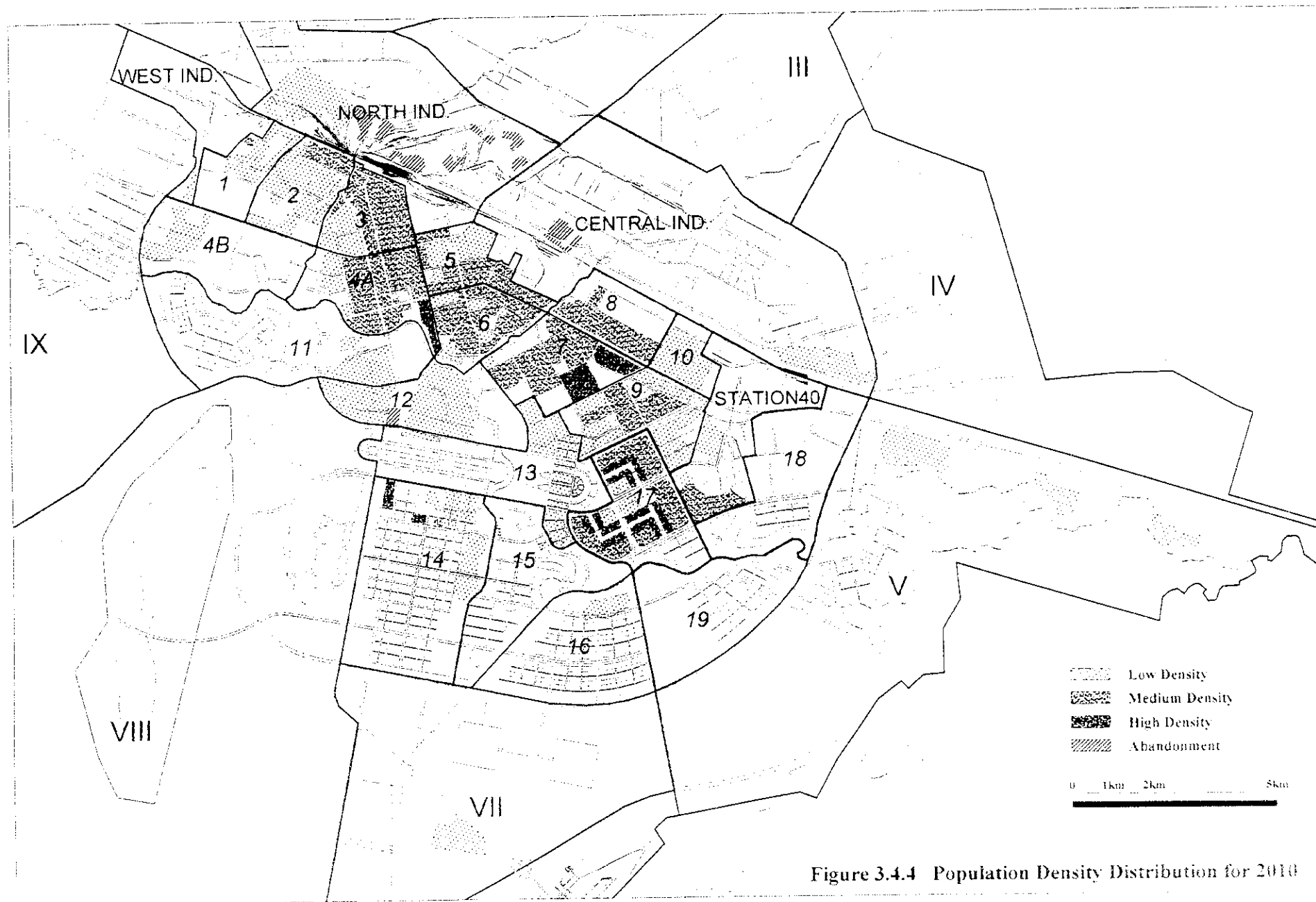


Figure 3.4.4 Population Density Distribution for 2010

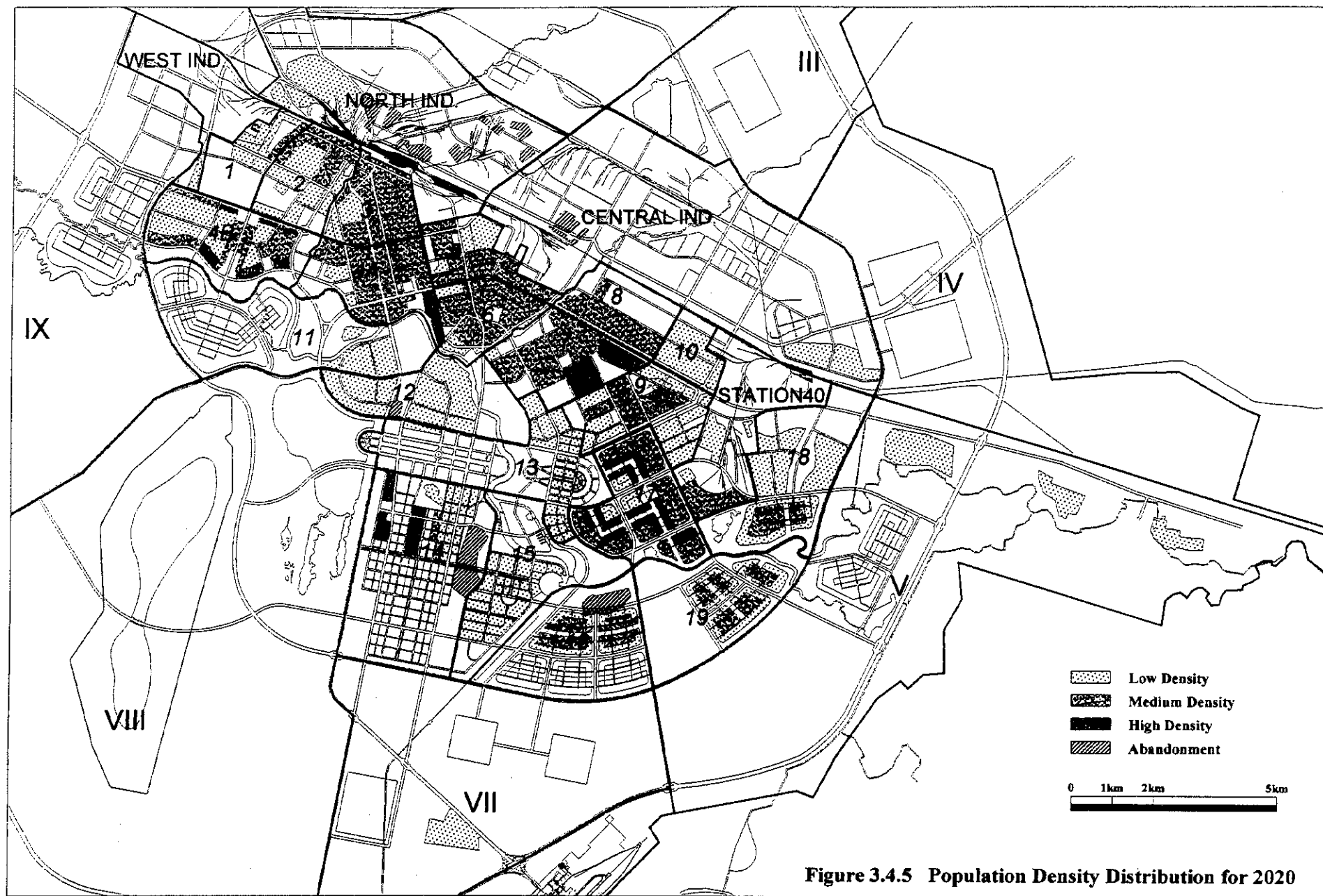


Figure 3.4.5 Population Density Distribution for 2020

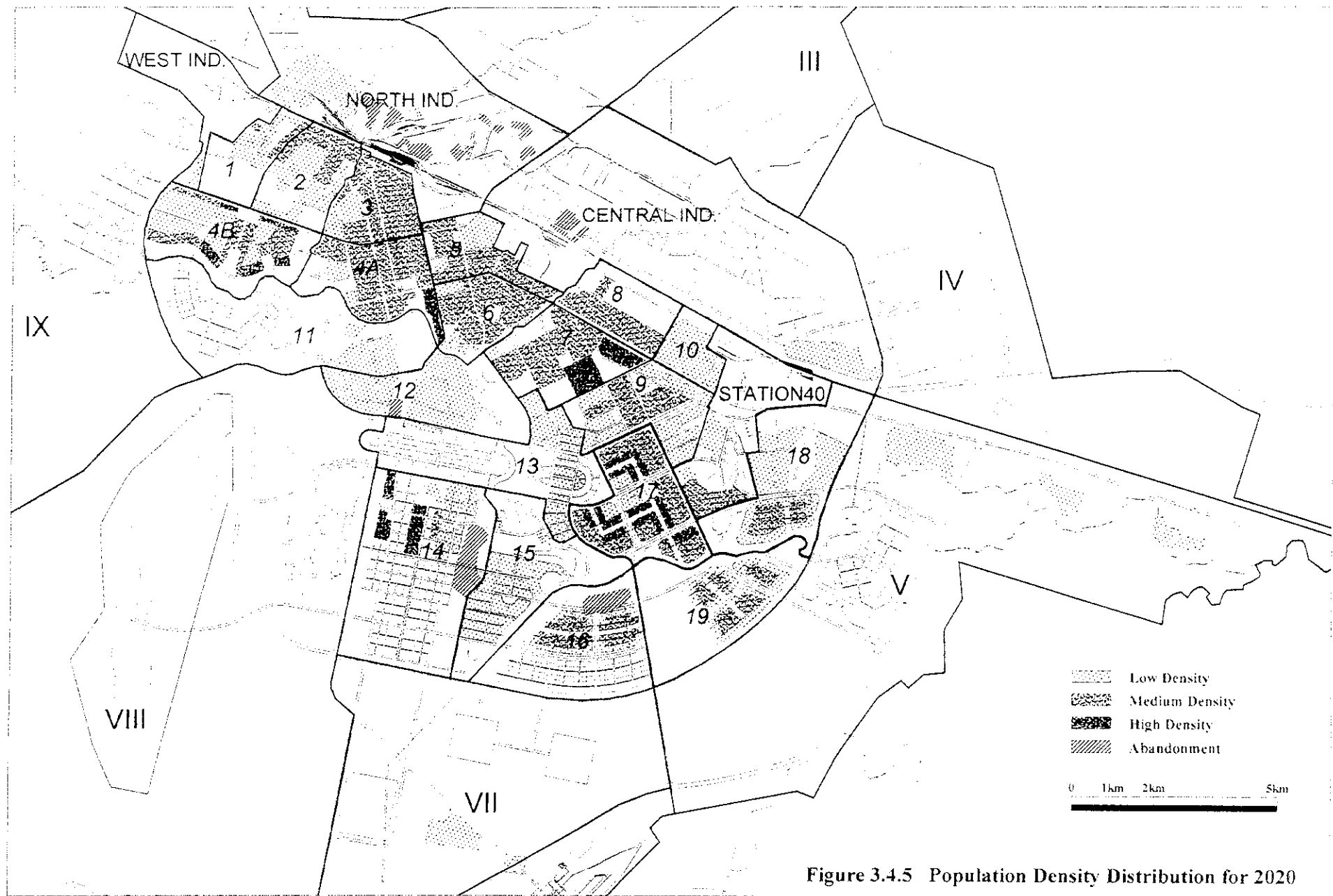


Figure 3.4.5 Population Density Distribution for 2020

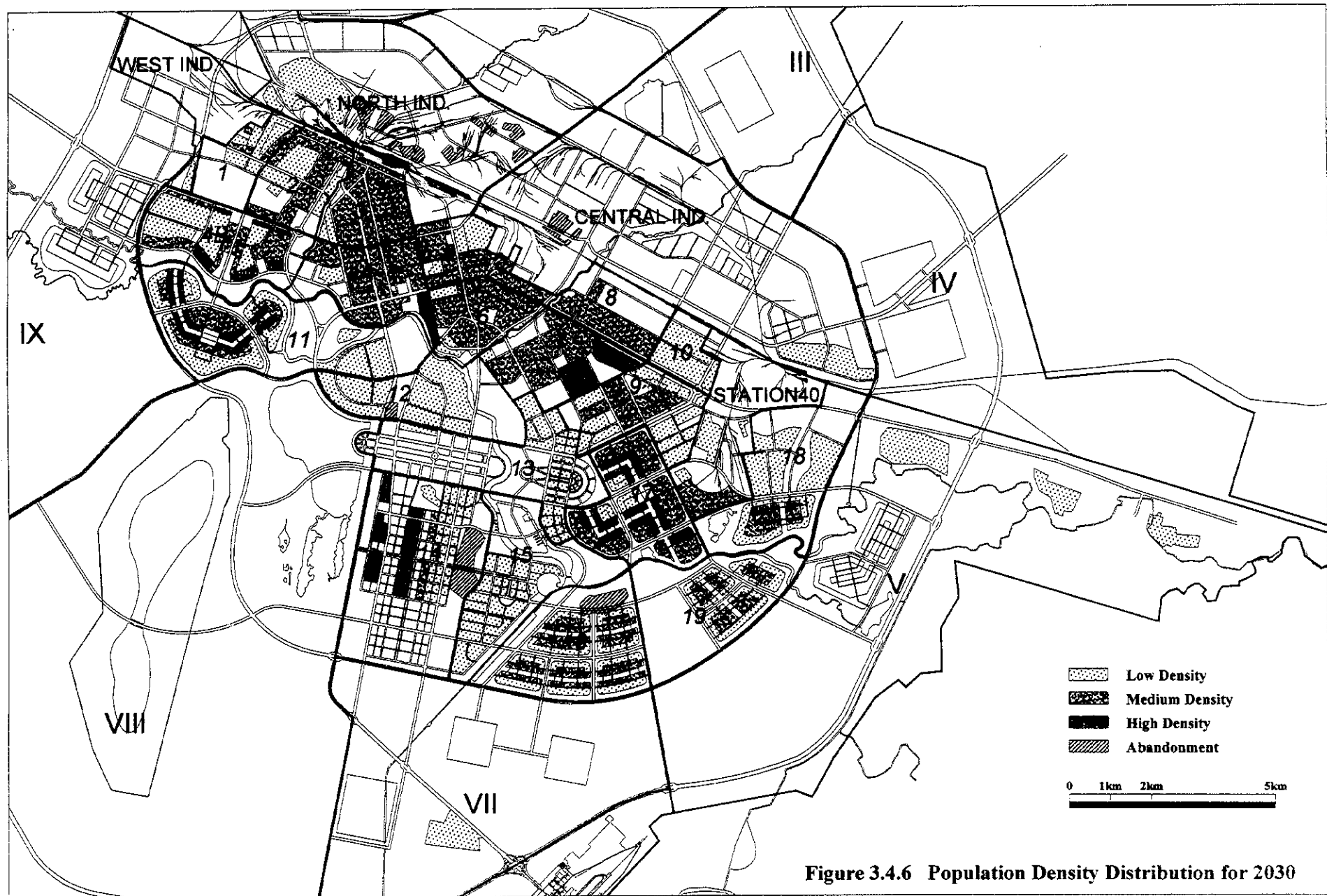


Figure 3.4.6 Population Density Distribution for 2030

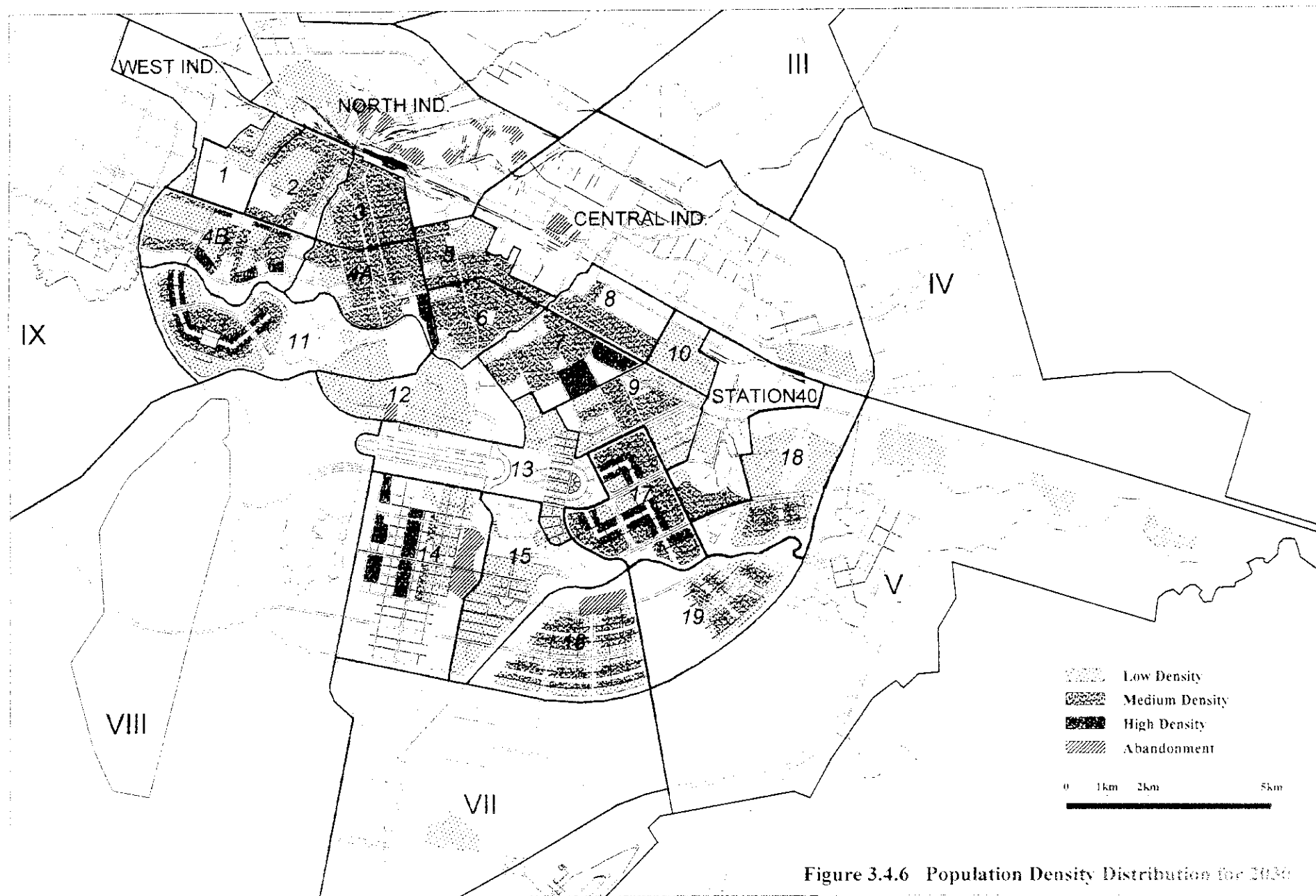






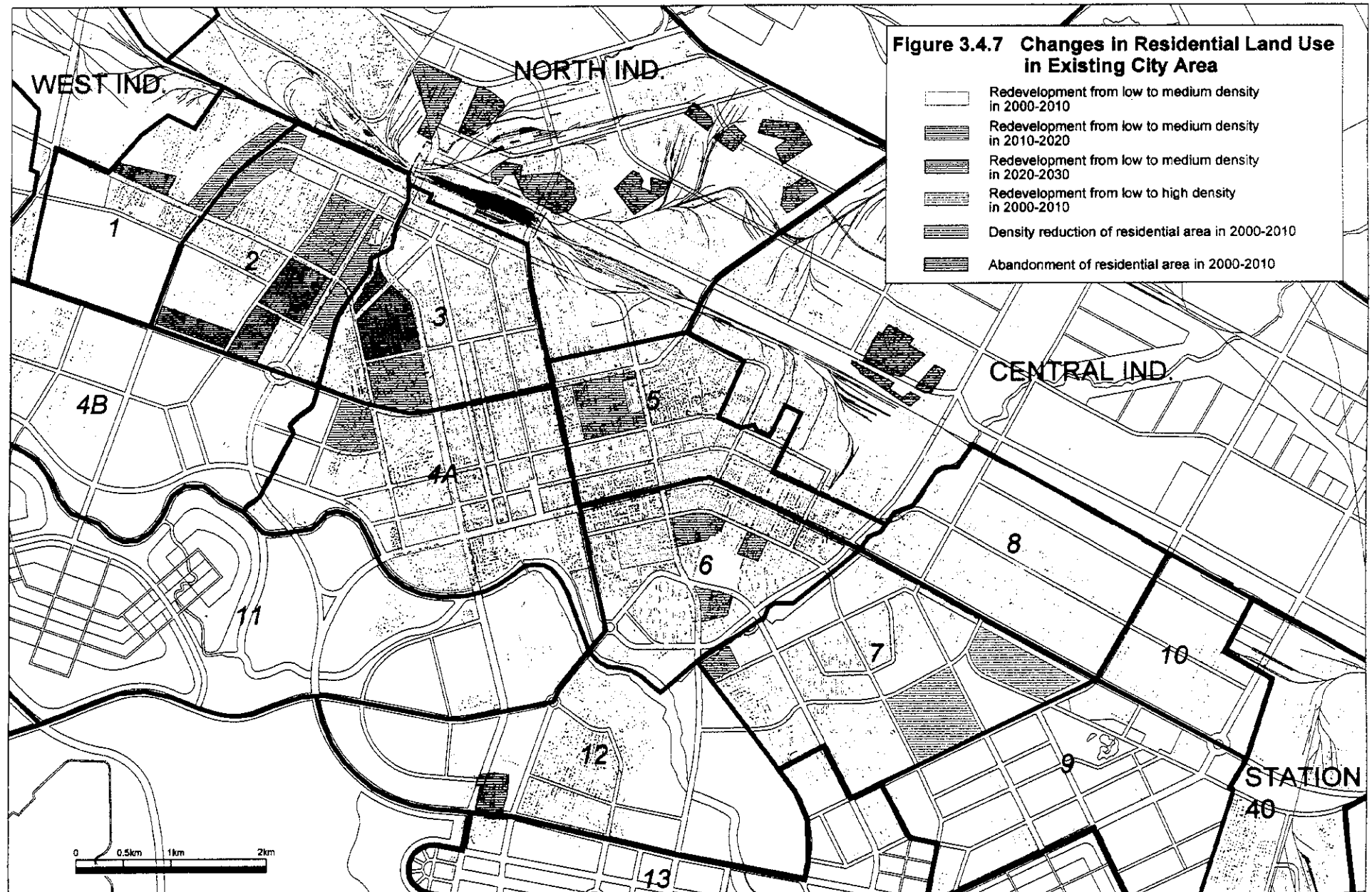


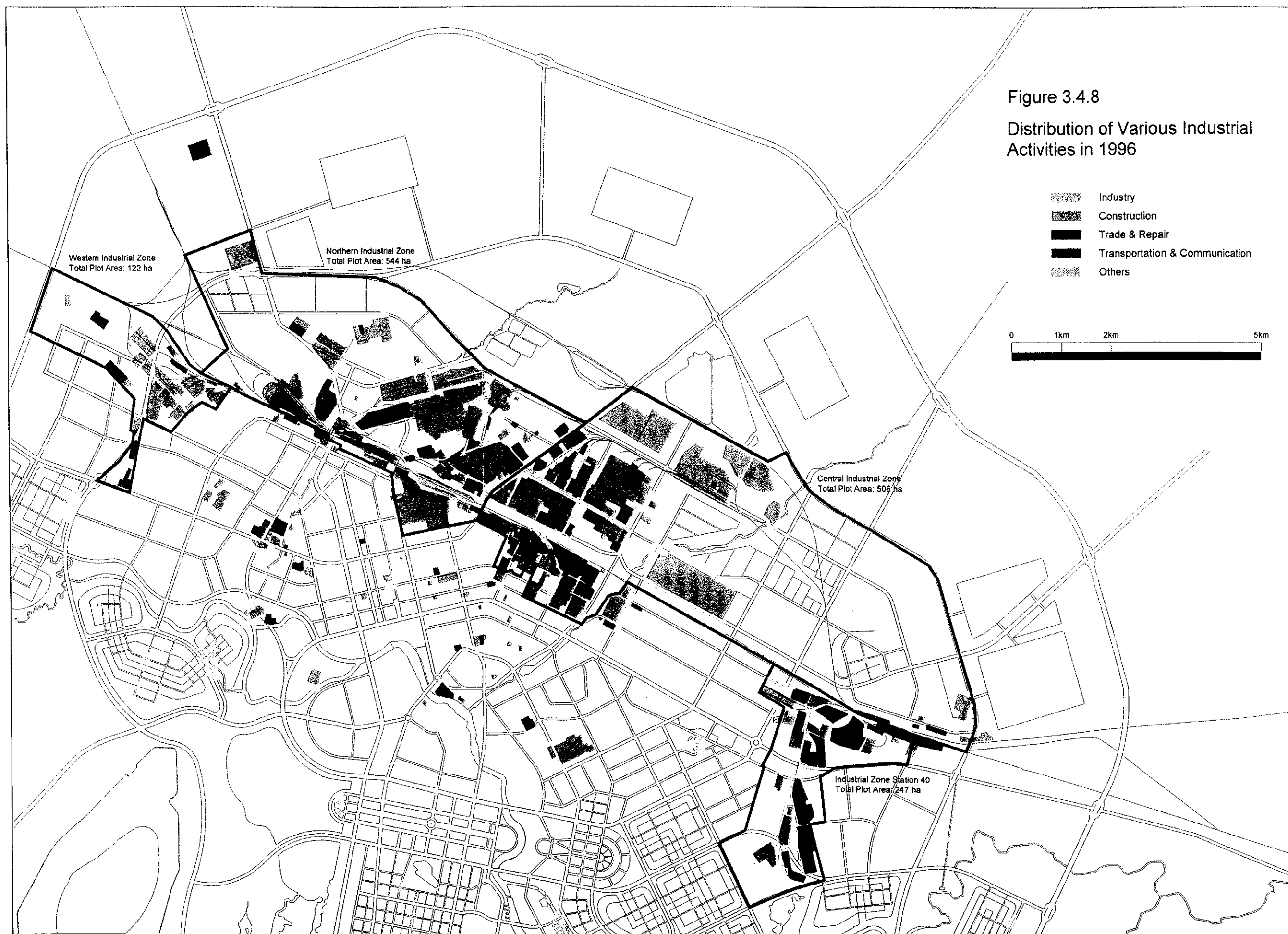
Figure 3.4.6 Population Density Distribution for 2020

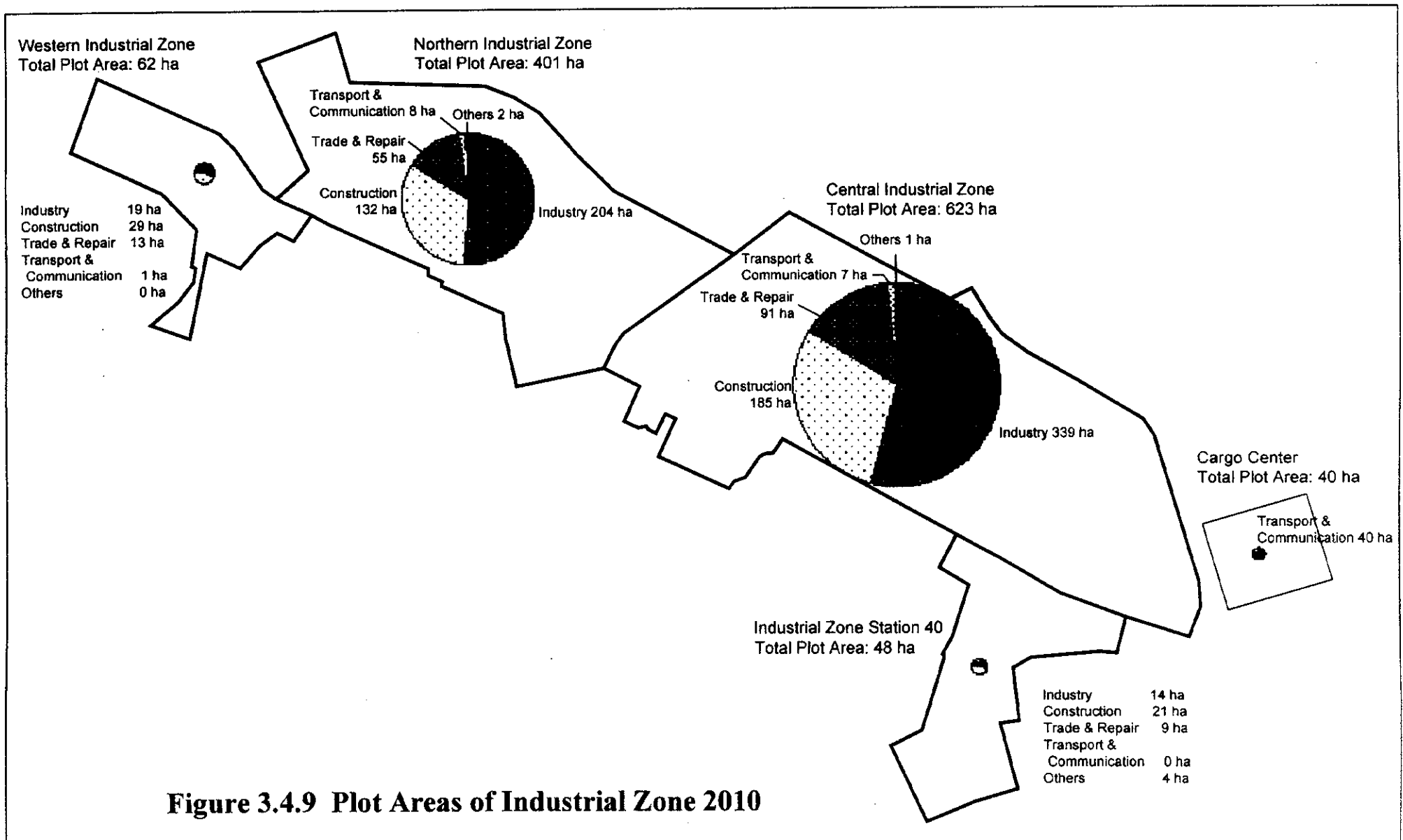


**Figure 3.4.7 Changes in Residential Land Use in Existing City Area**

-  Redevelopment from low to medium density in 2000-2010
-  Redevelopment from low to medium density in 2010-2020
-  Redevelopment from low to medium density in 2020-2030
-  Redevelopment from low to high density in 2000-2010
-  Density reduction of residential area in 2000-2010
-  Abandonment of residential area in 2000-2010







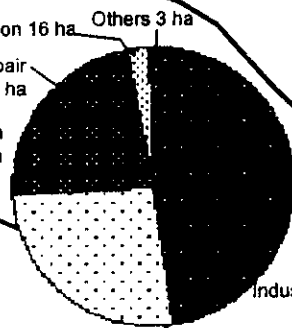
**Figure 3.4.9 Plot Areas of Industrial Zone 2010**

Western Industrial Zone  
Total Plot Area: 81 ha

Industry	21 ha
Construction	37 ha
Trade & Repair	22 ha
Transport & Communication	1 ha
Others	0 ha

Northern Industrial Zone  
Total Plot Area: 597 ha

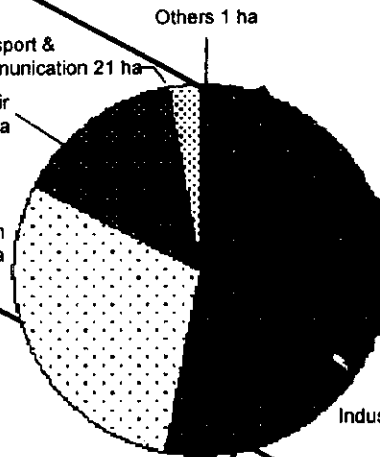
Transport & Communication	16 ha
Trade & Repair	136 ha
Construction	157 ha
Others	3 ha



Industry 285 ha

Central Industrial Zone  
Total Plot Area: 790 ha

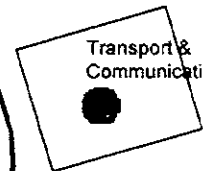
Transport & Communication	21 ha
Trade & Repair	114 ha
Construction	234 ha
Others	1 ha



Industry 420 ha

Cargo Center  
Total Plot Area: 80 ha

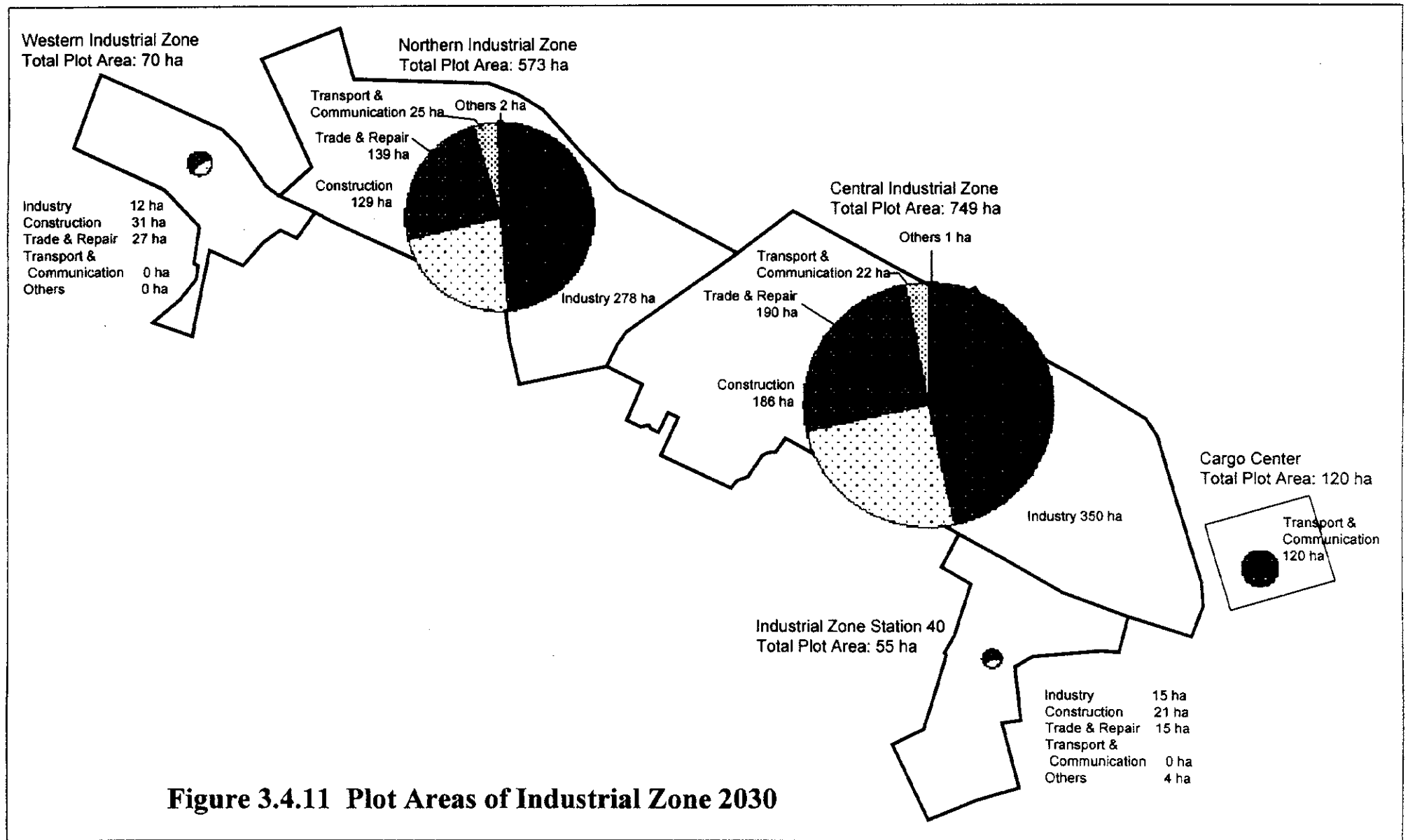
Transport & Communication	80 ha
---------------------------	-------



Industrial Zone Station 40  
Total Plot Area: 36 ha

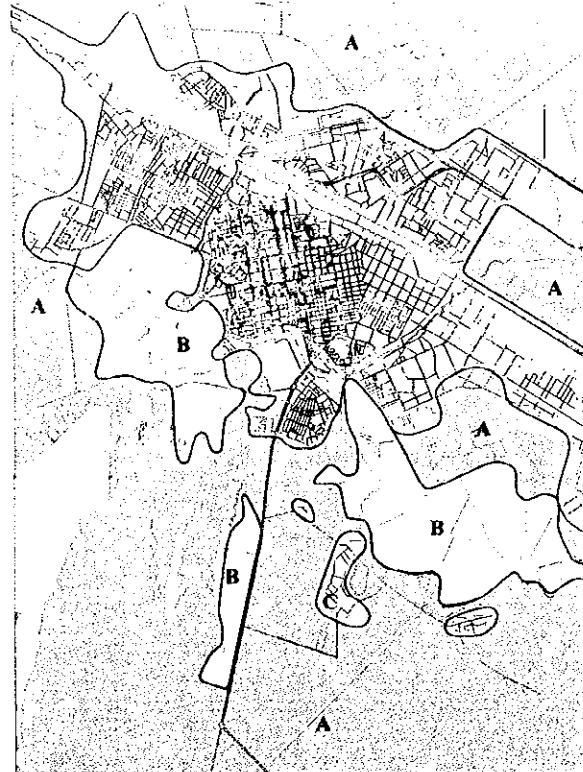
Industry	17 ha
Construction	7 ha
Trade & Repair	8 ha
Transport & Communication	0 ha
Others	4 ha

**Figure 3.4.10 Plot Areas of Industrial Zone 2020**



# ASTANA

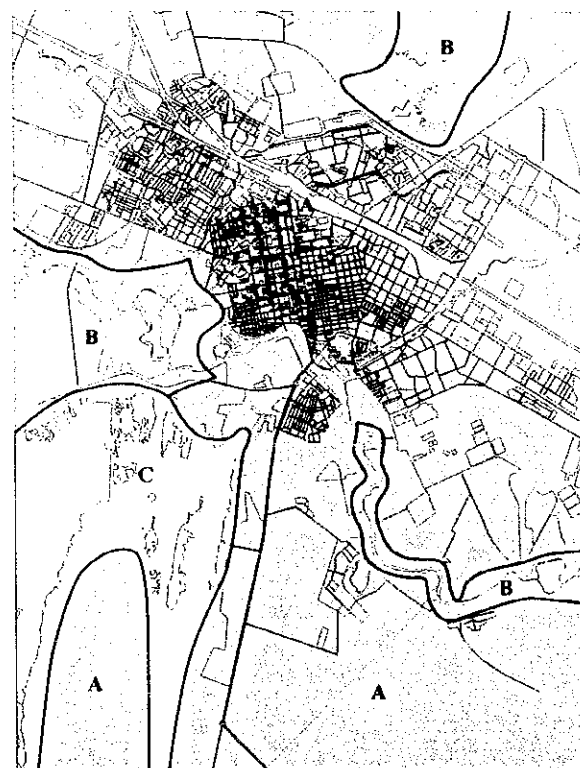
THE STUDY ON THE MASTER PLAN  
FOR  
THE DEVELOPMENT OF THE CITY OF ASTANA  
IN  
THE REPUBLIC OF KAZAKHSTAN



Present Land Use type	Indispensable counter measures for construction	Evaluation
Unused land	Suitable for development	A
Farmland and pasture	Suitable for development	A
Desires	Basically unsuitable	B
Existing urban plan	Unsuitable for development	C

Suitability of land use conditions for development

0 500m 1000m 2000m



Geomorphological type	Indispensable counter measures for construction	Evaluation
Low hill	Suitable for development	A
Periplain	Suitable for development	A
River terrace	Suitable for development	A
High flood plain	Not favorable area for construction	B
Low flood plain (water-logged)	Unsuitable area for construction from geotechnical and financial viewpoints	C

Suitability of existing geomorphological conditions  
for development

0 500m 1000m 2000m



		Existing natural conditions		
		A	B	C
Land use	A			3
	B			2
	C		2	1

General evaluation of topography suitability  
for development

0 500m 1000m 2000m

Assessment of Development Potential

JICA MASTER PLAN TEAM  
HEADED BY YOSHIO KUROKAWA

0 500m 1000m 2000m

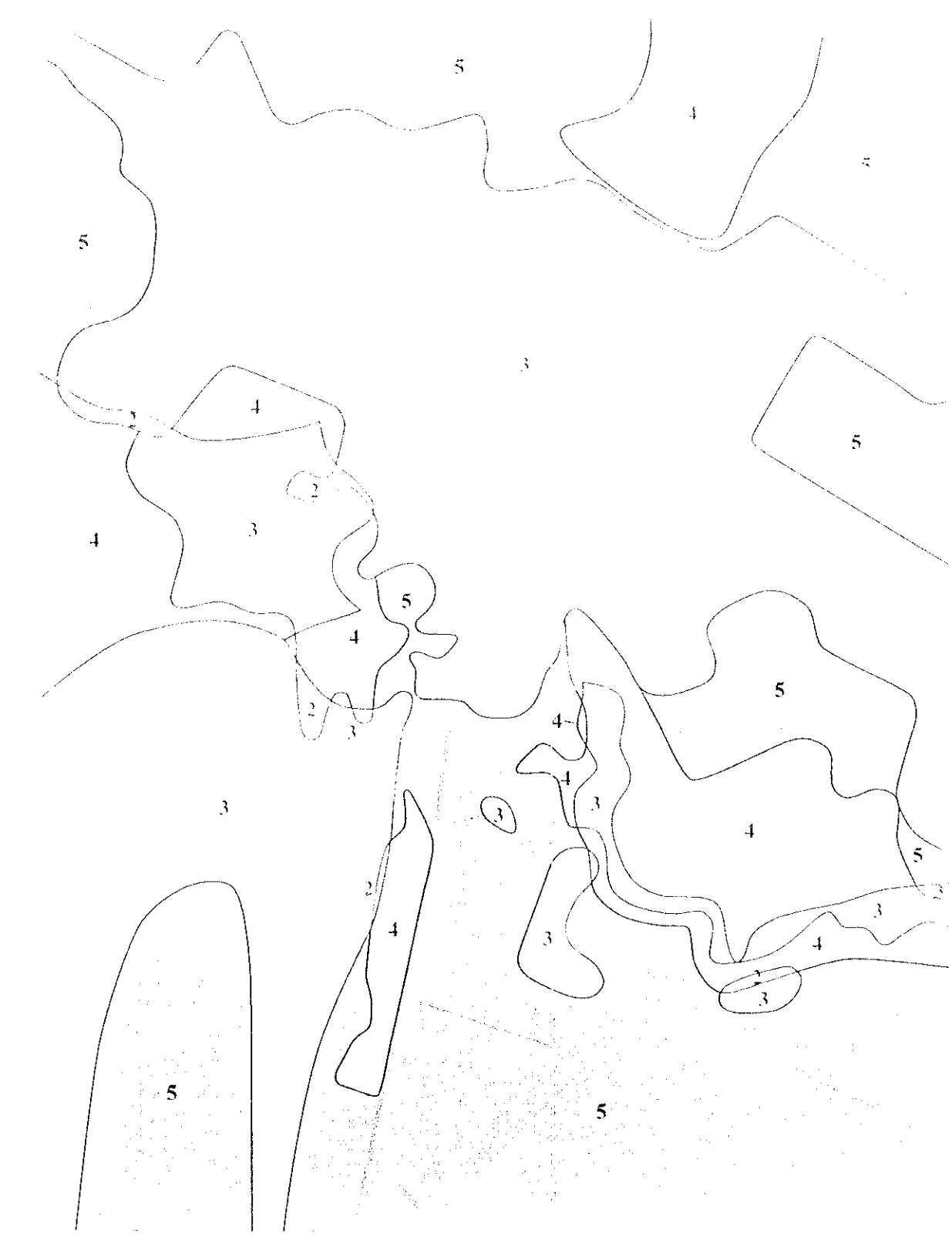
FIGURE 3.5.1



Topographic map of a small area with labels A, B, and C. The map includes contour lines and a grid. The area is divided into several regions, with A, B, and C being the primary labels. The map is oriented with North at the top.



Topographic map of a larger area with labels A, B, and C. The map includes contour lines and a grid. The area is divided into several regions, with A, B, and C being the primary labels. The map is oriented with North at the top.



Level of natural conditions			
	A	B	C
A	5	4	3
B	4	3	2
C	3	2	1

General evaluation of the area for the year 1971.

Assessment of the area for the year 1971.

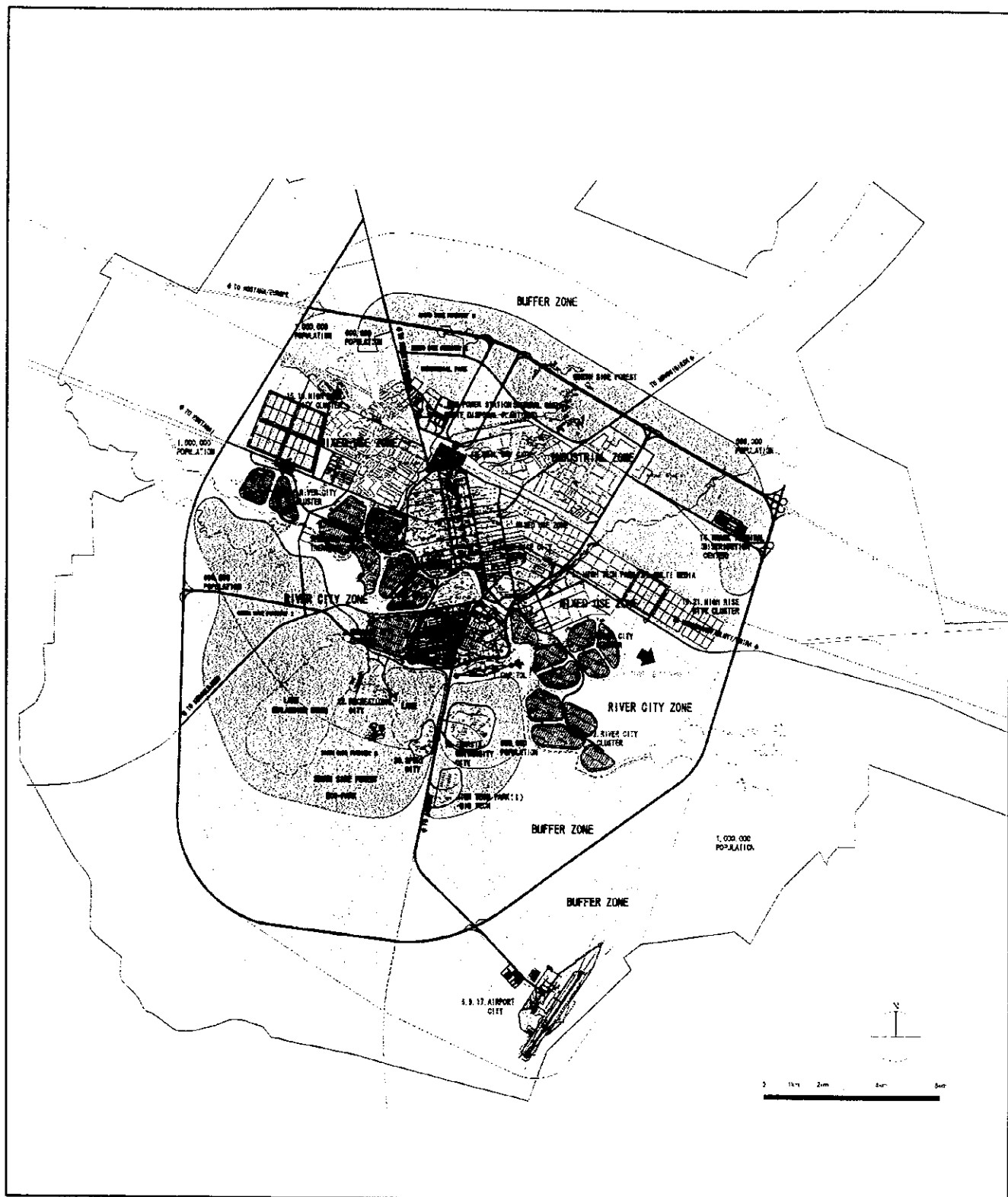


Figure 3.5.2 Area Expansion Plan A (Kurokawa, 1998)

Рисунок 3.5.2 План отвода земель, Вариант А (К. Курокава, 1998)



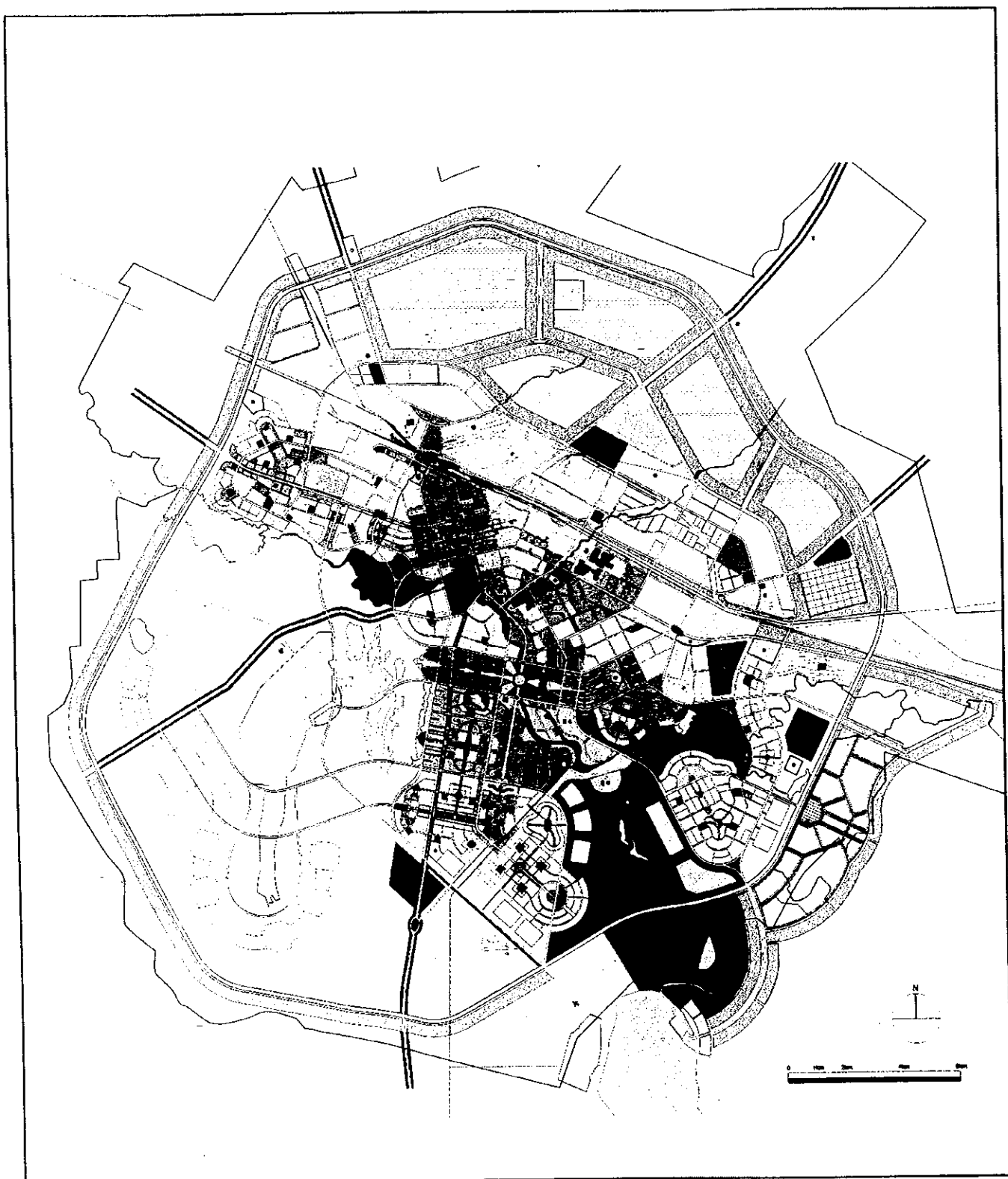


Figure 3.5.3 Area Expansion Plan B (Saudi Binladen, 2000)  
Рисунок 3.5.3 План отвода земель, Вариант В  
(Группа Сауд Бин Ладен, 2000)

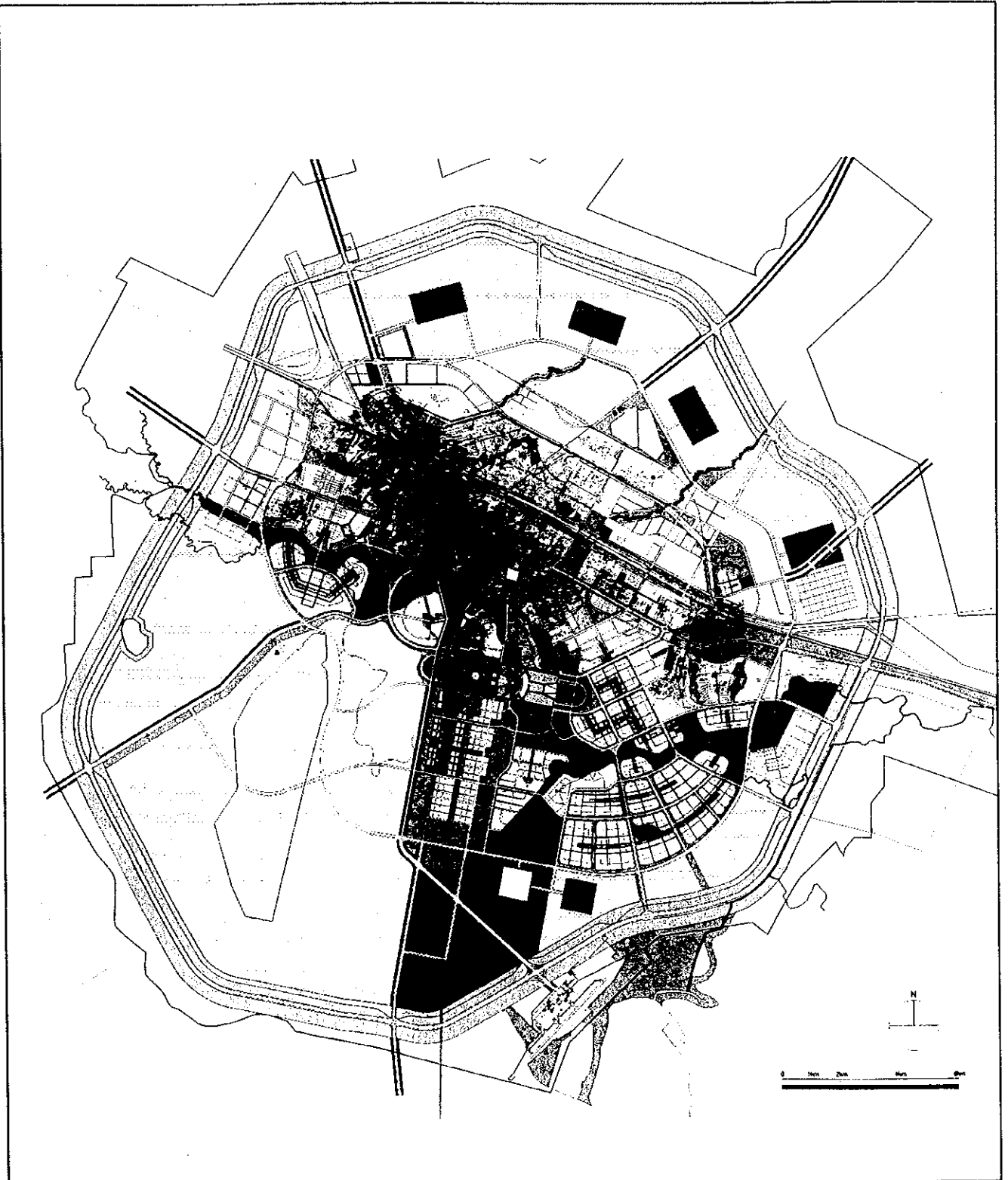
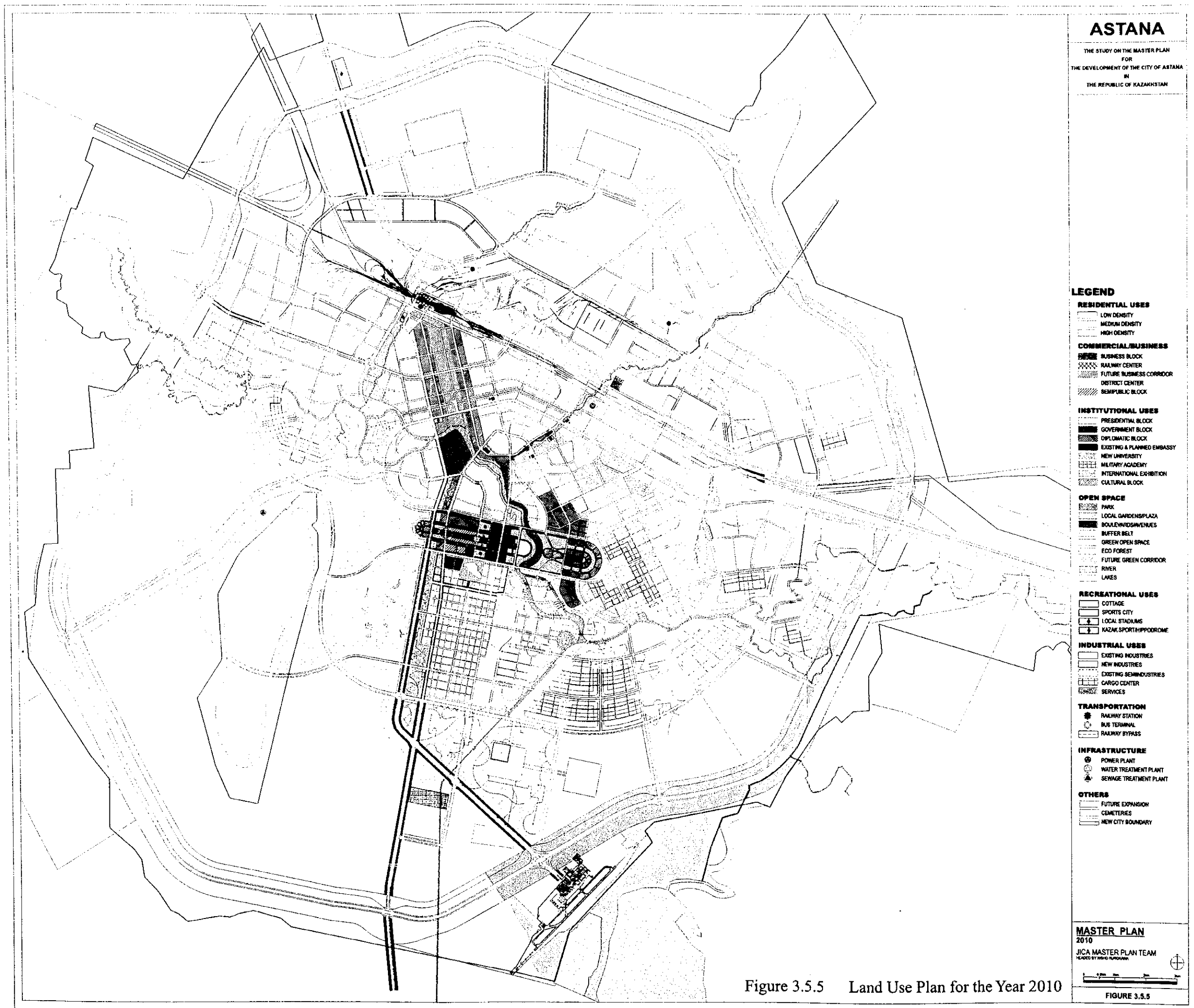


Figure 3.5.4 Area Expansion Plan C (Present Master Plan, 2000)

Рисунок 3.5.4 План отвода земель, Вариант С

(Альтернативный план Исследовательской группы  
ЯМС в рамках существующего Генерального плана, 2000)



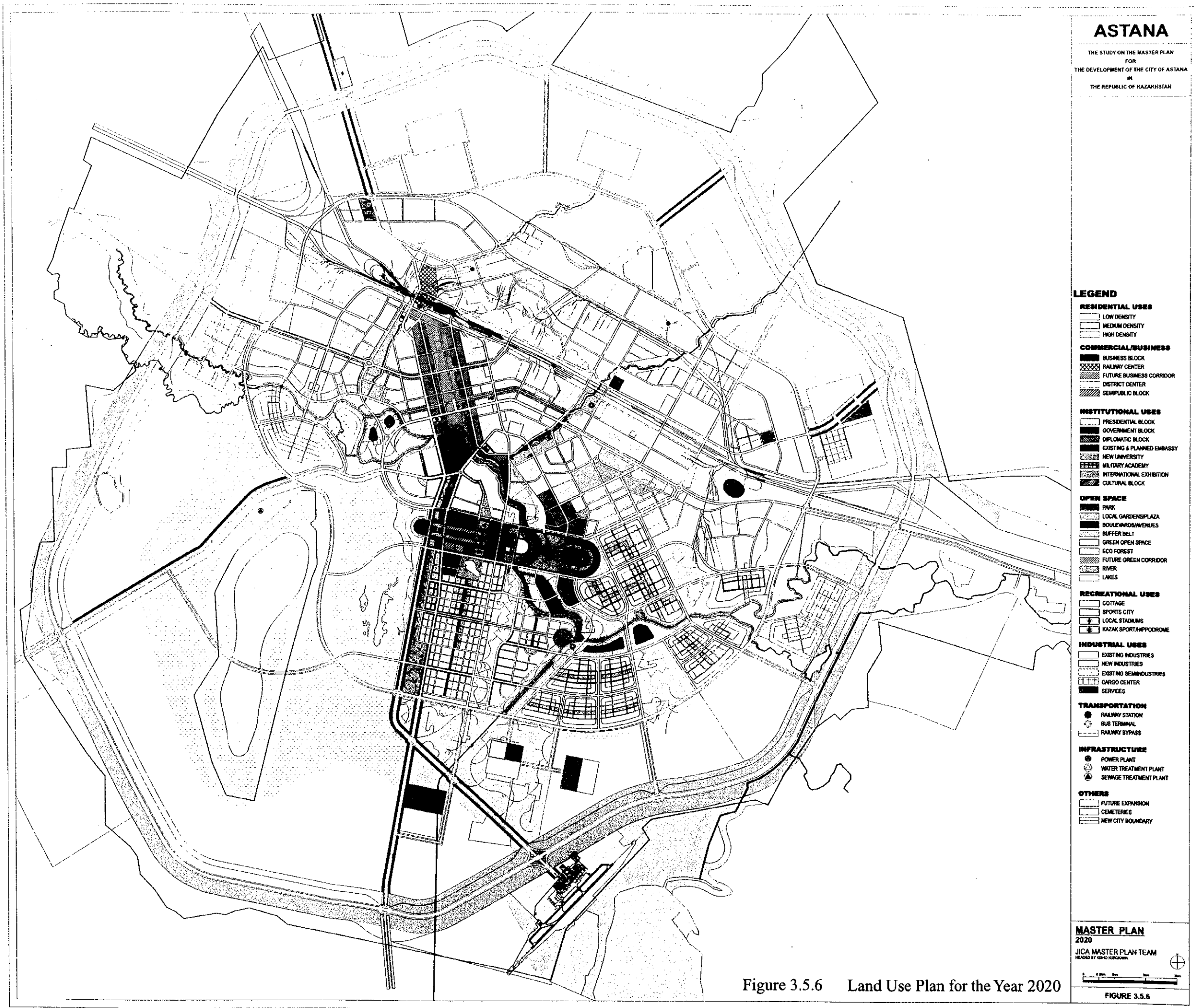
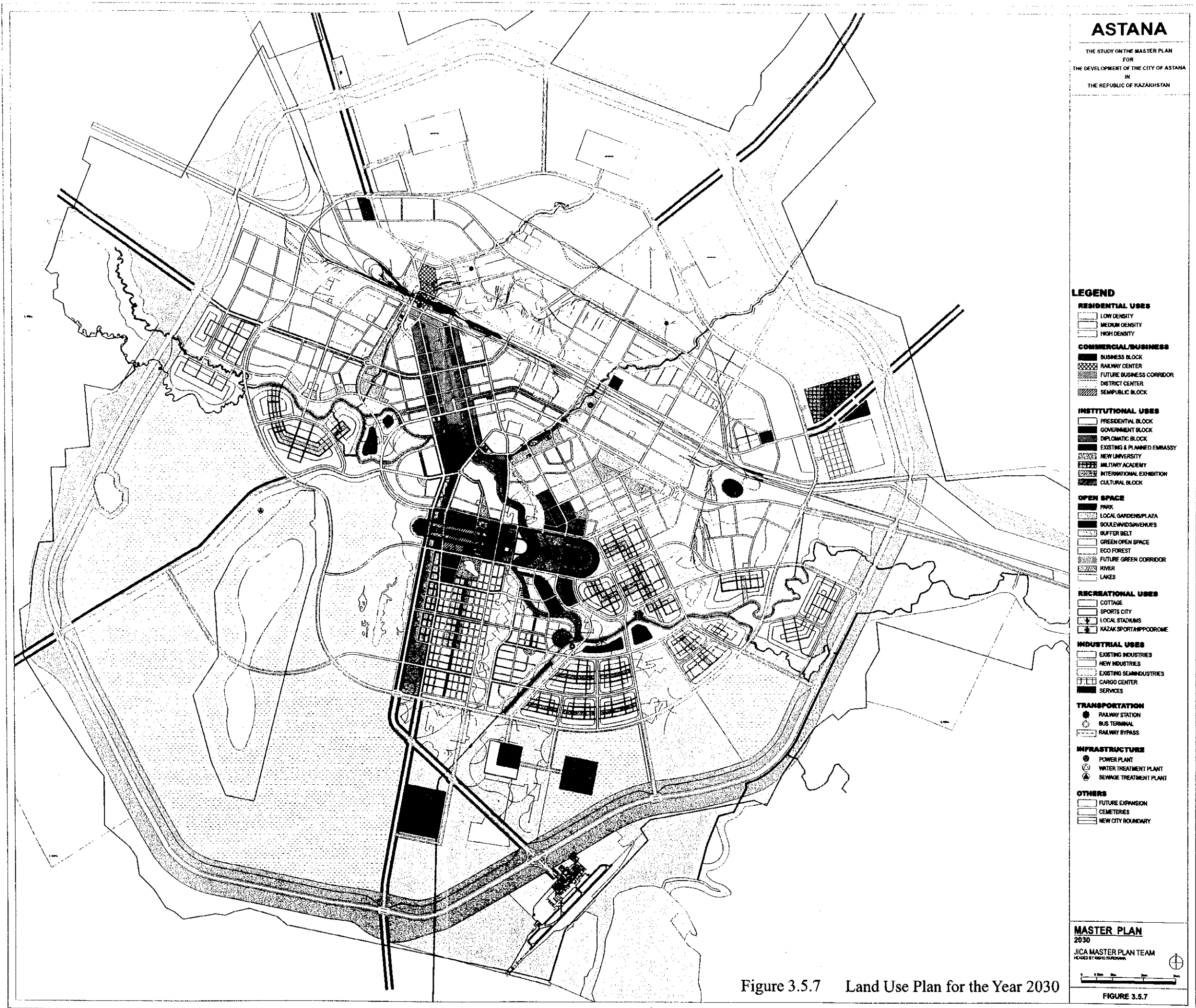
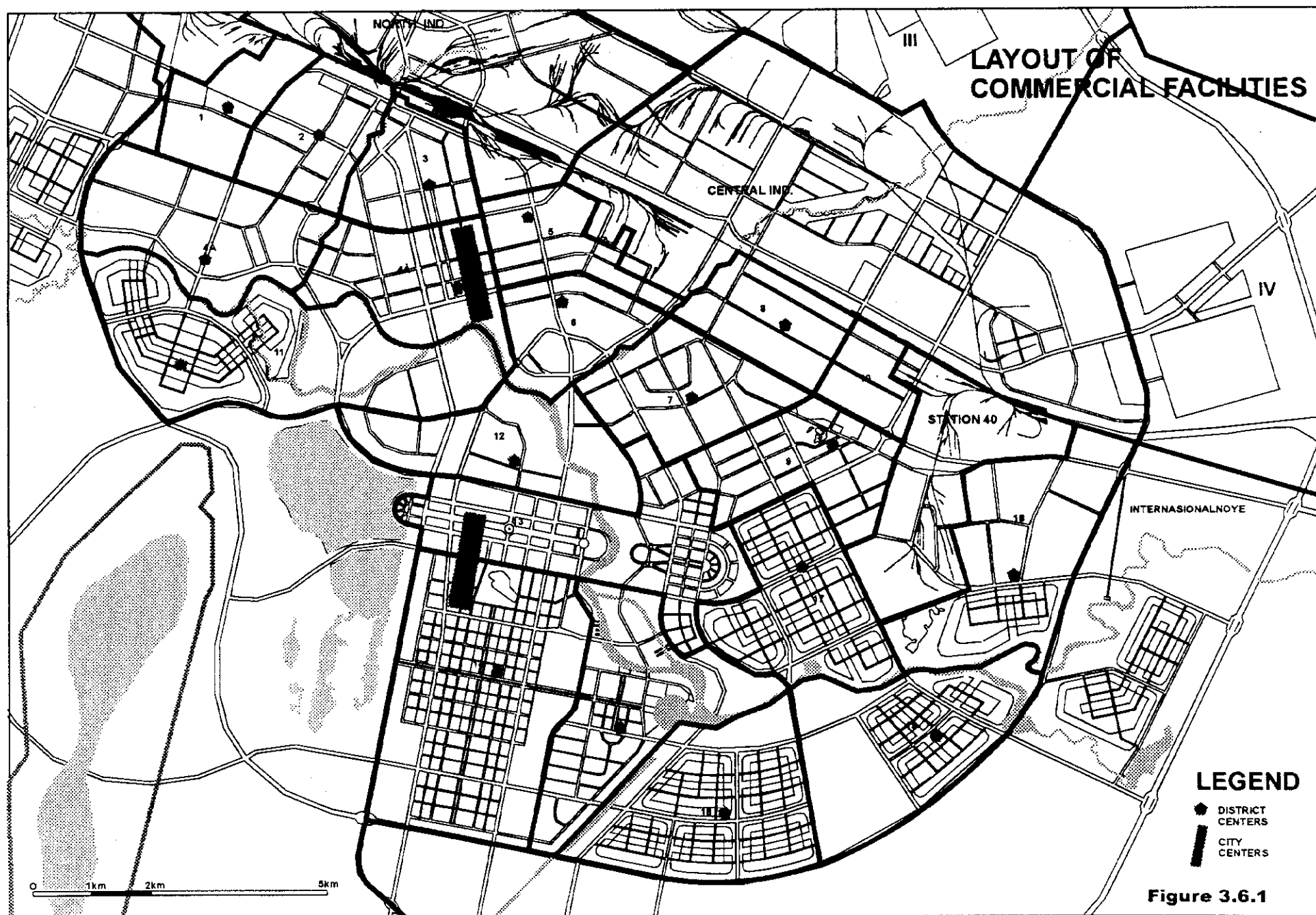


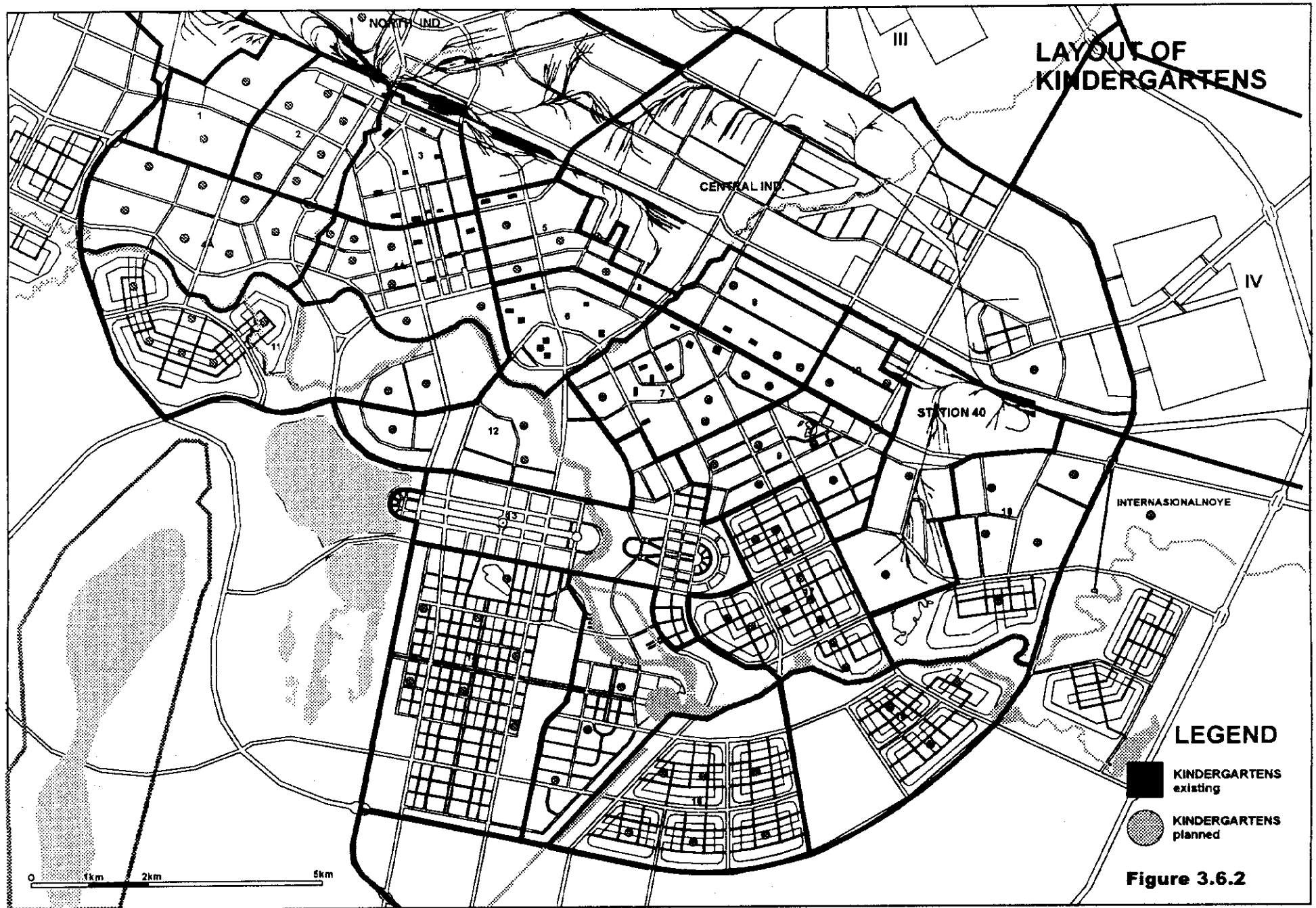
Figure 3.5.6 Land Use Plan for the Year 2020

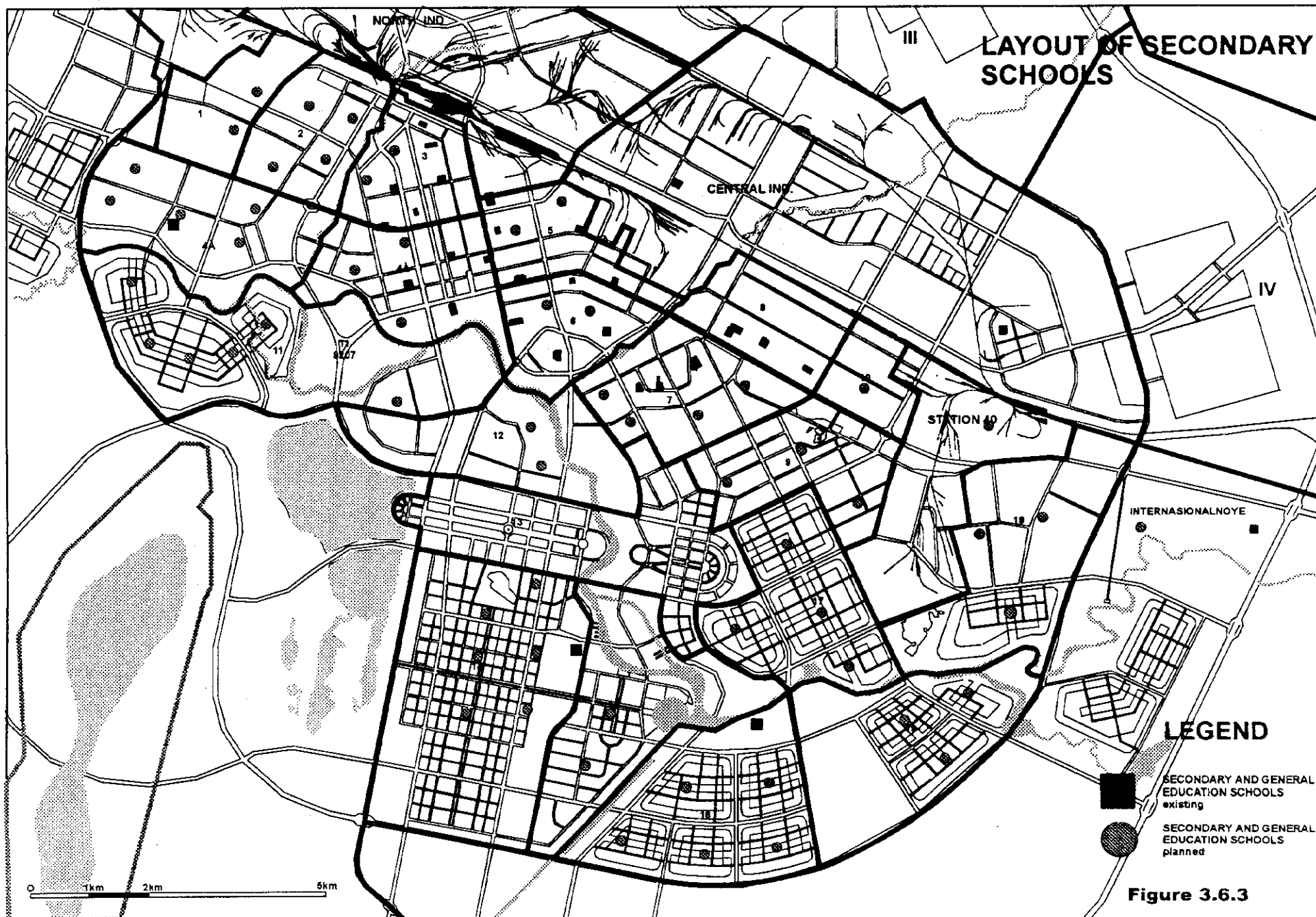




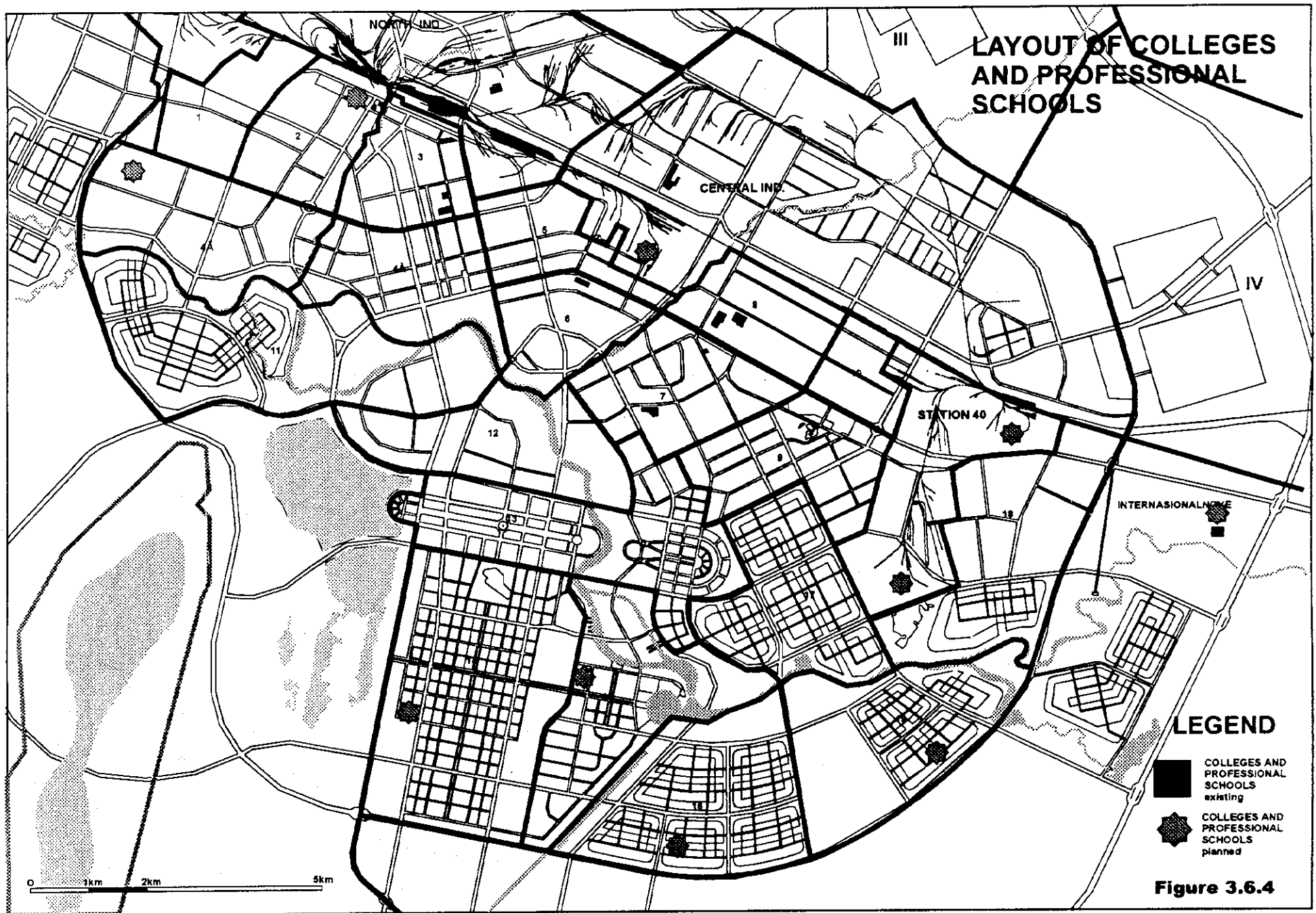
**Figure 3.6.1**

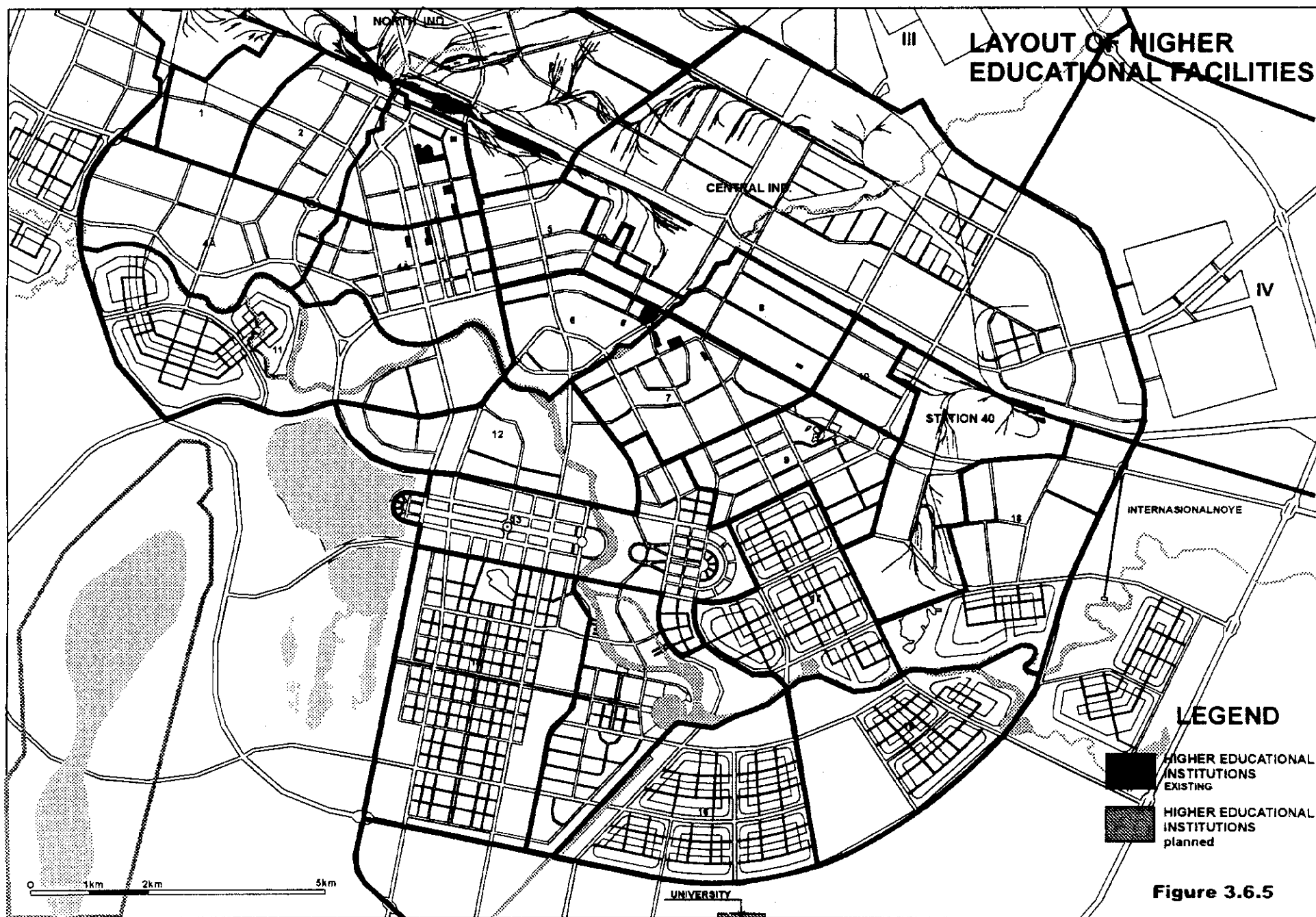


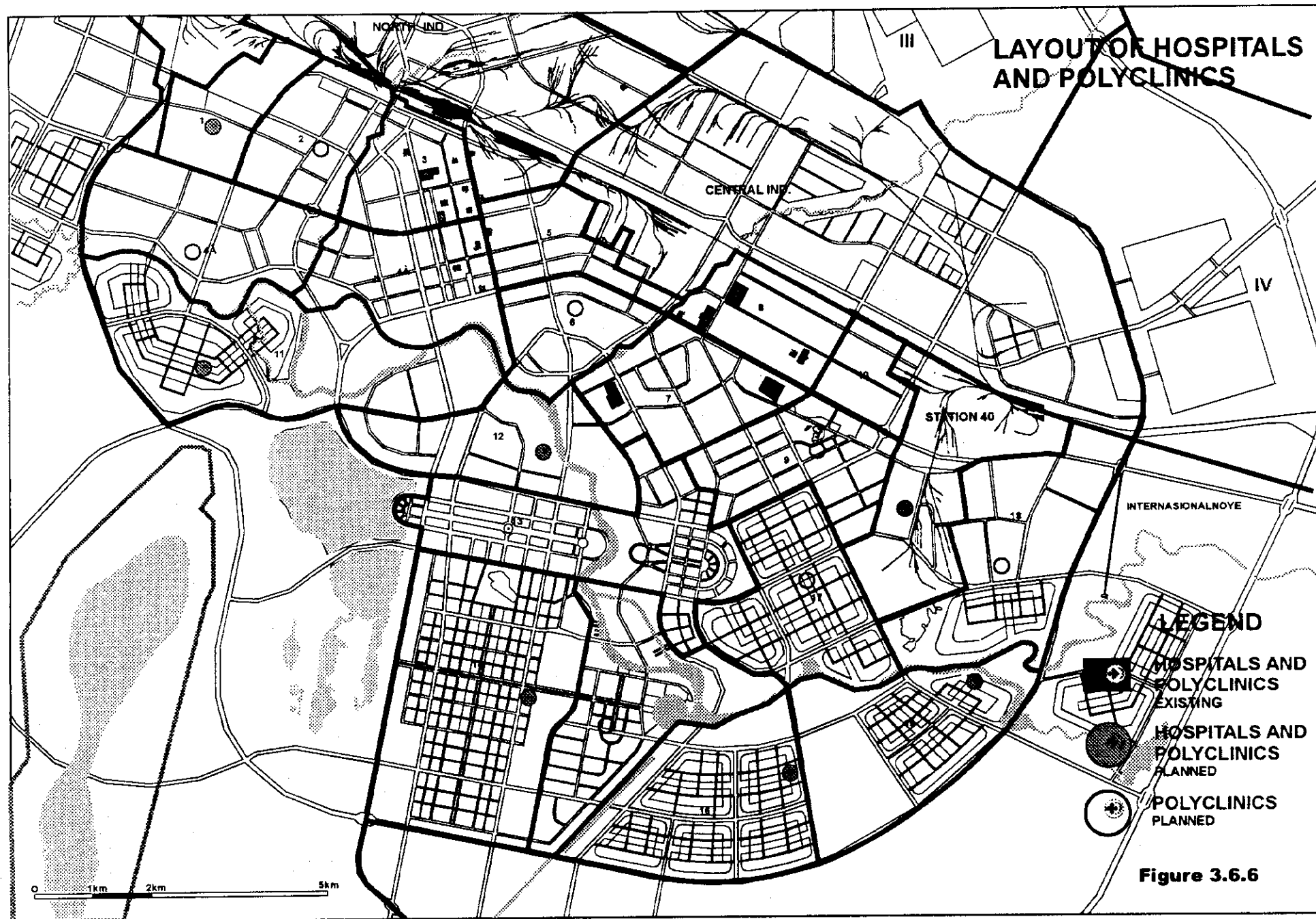


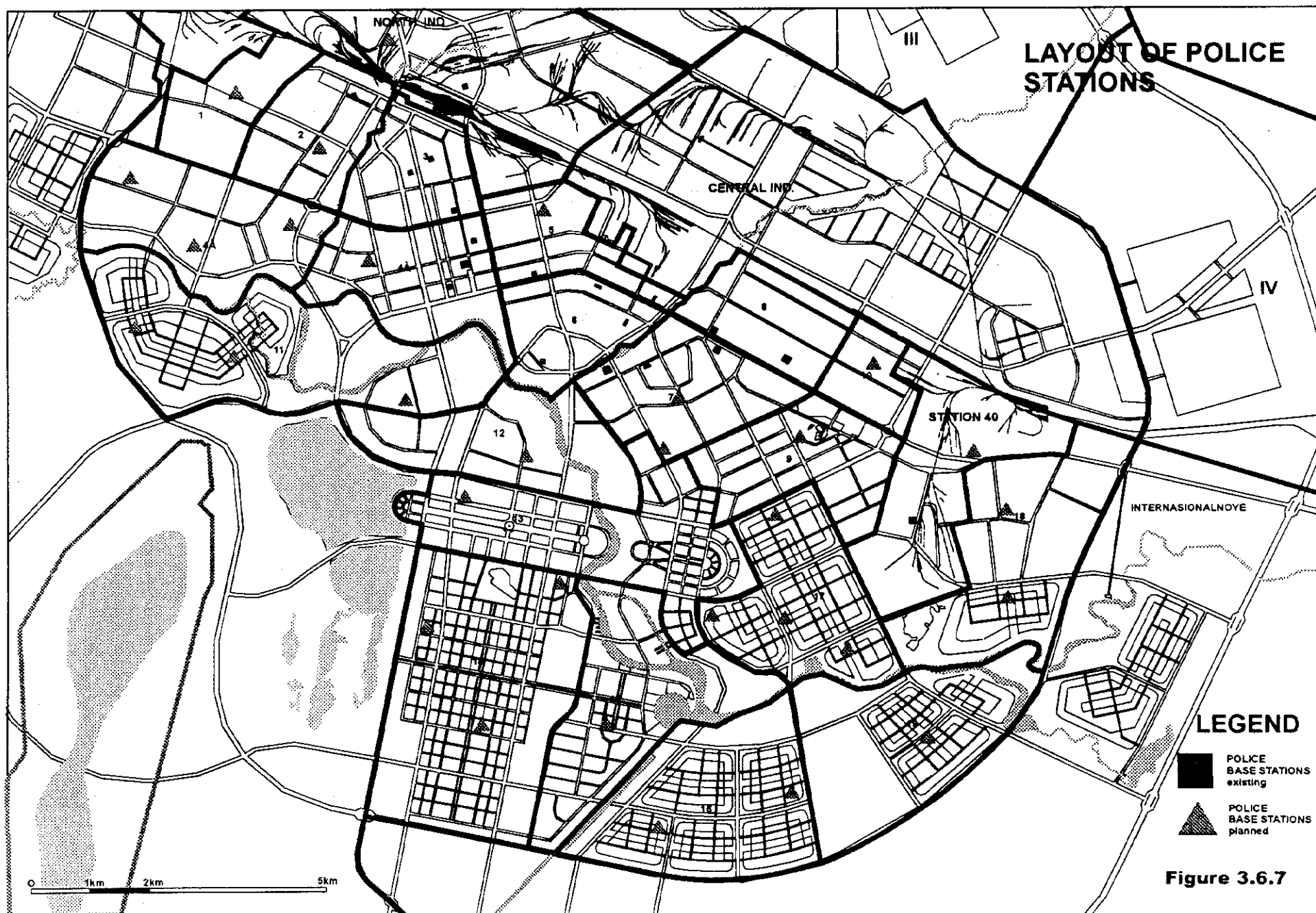












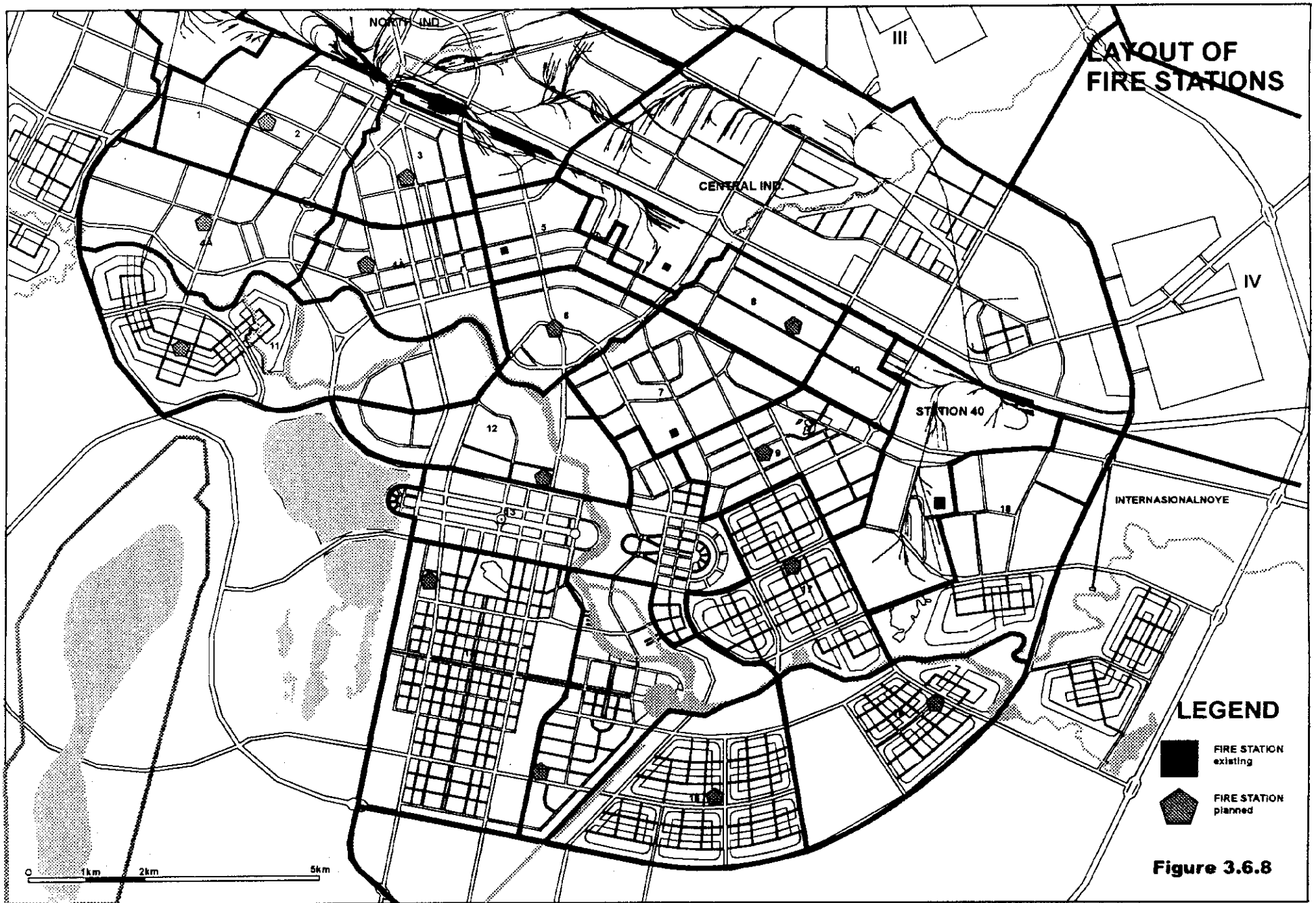
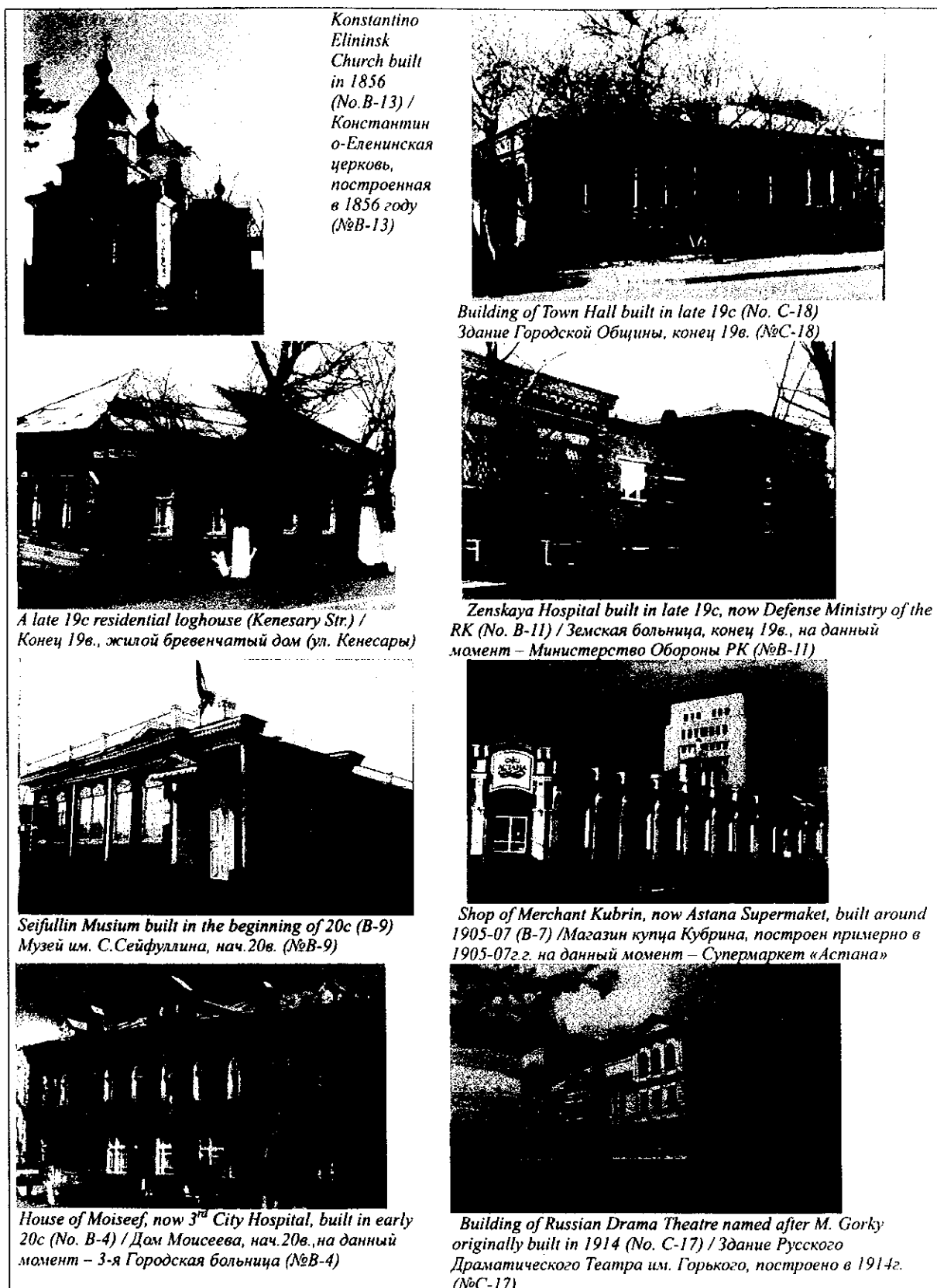






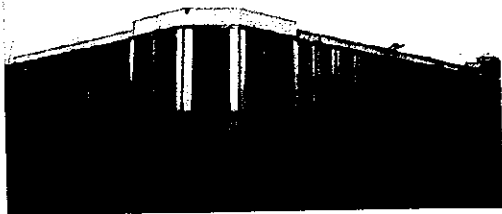
Figure 3.1.1 Buildings with Architectural or Historical Significance

Рисунок 3.1.1 Здания архитектурной и исторической значимости



**Figure 3.1.2 Pre-Revolution Akmolinsky Architecture**

**Рисунок 3.1.2 Дореволюционная Ақмолинская архитектура**



*Building of Karaganda Railway Department, now used by central government ministries built in 1930's / Здание Управления Карагандинской железной дороги, построено в 30-х годах, ныне используется под министерства*



*Building of "Tselinselmash" Plant, built (1950's) / Здание завода «Целинсельмаш», построено в 50-х годах*



*A Government building built in Bukeikan Str. (1950's) / В прошлом здание администрации и органов управления города, построено в 50-х годах, (ул. Букейхана)*



*A residential building at Kenesary – Zheltoksan Streets (1950's) / Жилой дом на перекрестке ул. Кенесары – Желтоксан (50-е г.г.)*



*A residential building in Kenesary Str. (1950's) / Жилой дом на ул. Кенесары, построен в 50-х годах*



*A residential building in Kenesary Str. (1940 – 50's) / Жилой дом на ул. Кенесары (40-50-е годы)*



*A residential building in Akzhaiyk Str. (1950's) / Жилой дом на ул. Акжайык (50-е г.г.)*



*A residential building in Akzhaiyk Str. (1950's) / Жилое здание на ул. Акжайык (50-е годы)*

**Figure 3.1.3 Post-Revolutionary Akmolinsky Architecture**

**Рисунок 3.1.3 Послереволюционная Акмолинская архитектура**

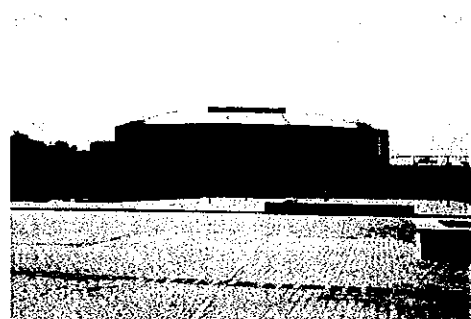




*Railroad worker's Palace (1954–56), designed by Kalmykov, now refurbished as Opera and Ballet Theatre (No. C-16) / Дворец Железнодорожников (1954–56 г.г.), архитектор Калмыков, после реконструкции - Театр Оперы и Балета (№С-16)*



*Tourist Hotel, overlooking the Respublika Avenue (1970's) / Гостиница «Турист», (70-е годы) Пр. Республики*



*Tselinik Palace (1963), now rebuilt as Congress Hall (No. A-1) / Дворец Целинников (1963 г.), после реконструкции - Конгресс-Холл (№ А-1)*



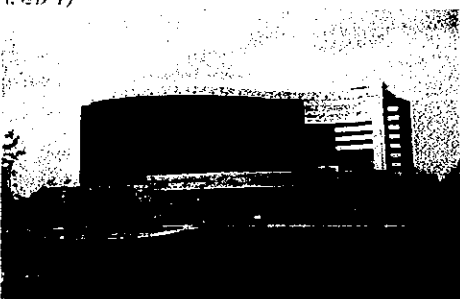
*A 9-storied residential building of 1980's / 9-этажное жилое здание, построено в 80-х годах*



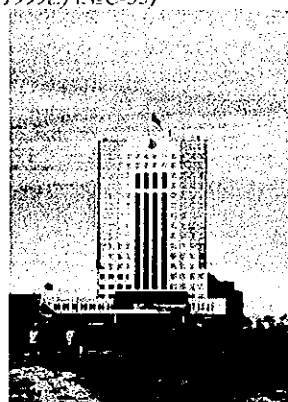
*Building of "Ishim" Hotel bordering the eastern side of the central square built in 1960 (B-8) / Здание гостиницы «Ишим», построено в 1960 году является восточной границей центральной площади (№В-8)*



*Youth Palace, still recreational center of the citizens of Astana built in 1974 (No. B-1) / Дворец Молодежи, остается оздоровительным и развлекательным центром для жителей г. Астана, построен в 1974 году (№В-1)*



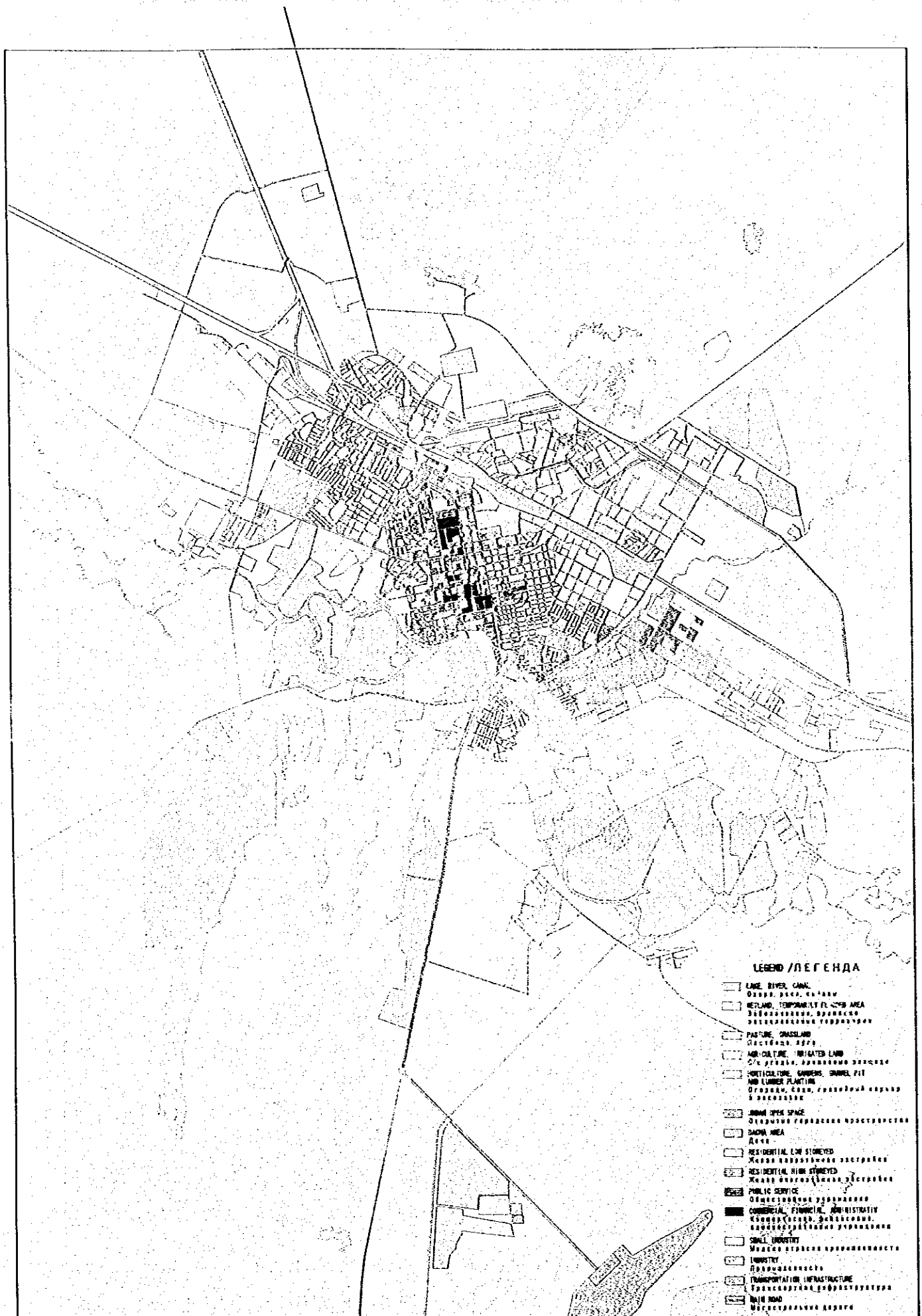
*The S shaped ministerial building (1999) for Ministry of Finance and Ministry of Economics (No. C-35) / Административное здание Министерства Финансов и Министерства Экономики, имеющее форму доллара (1999г.) (№С-35)*



*Parliament building (1997) overlooking the central square (C-31) / Здание Парламента, возвышающееся на центральной площади (1997г.) (№С-31)*

**Figure 3.1.4 Post-War Architecture of Tselinograd, Akmola and Astana**

**Рисунок 3.1.4 Послевоенная архитектура Целинограда, Акмолы и Астаны**



**Figure 3.2.1 Existing Situation - Land Use**  
**Рисунок 3.2.1 Существующий план землепользования**

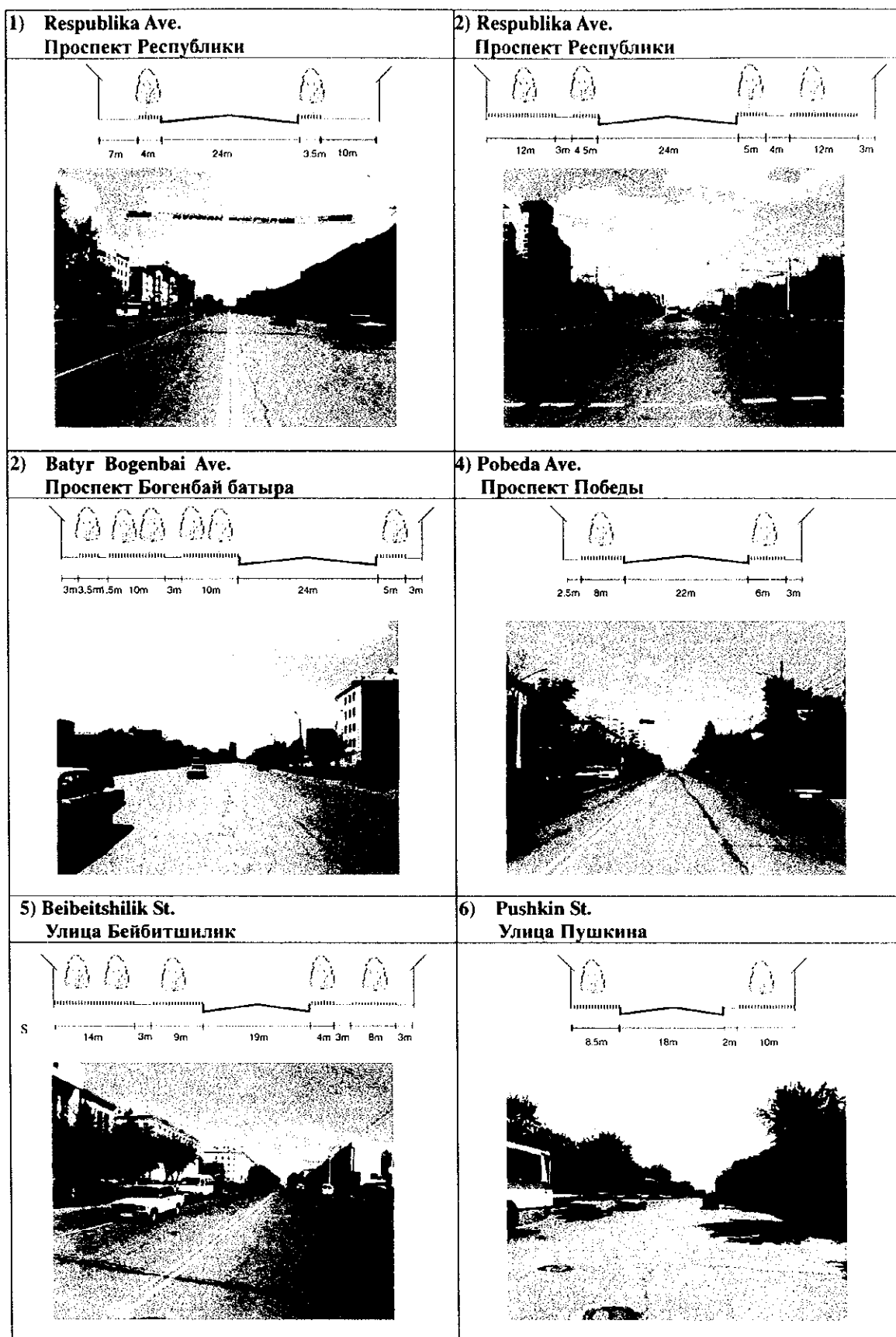


Figure 3.2.2 (1/3) Cross-Sections and Images of Representative Streets in Astana  
Рисунок 3.2.2 (1/3) Внешний вид и поперечное сечение главных улиц г. Астаны

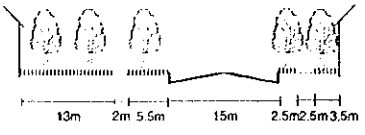

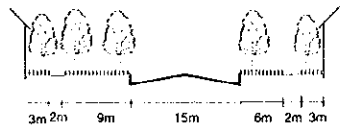

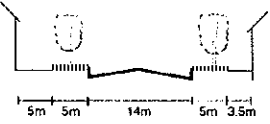

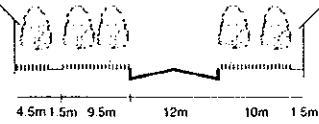

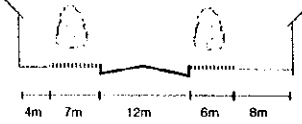

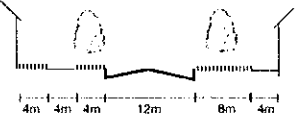

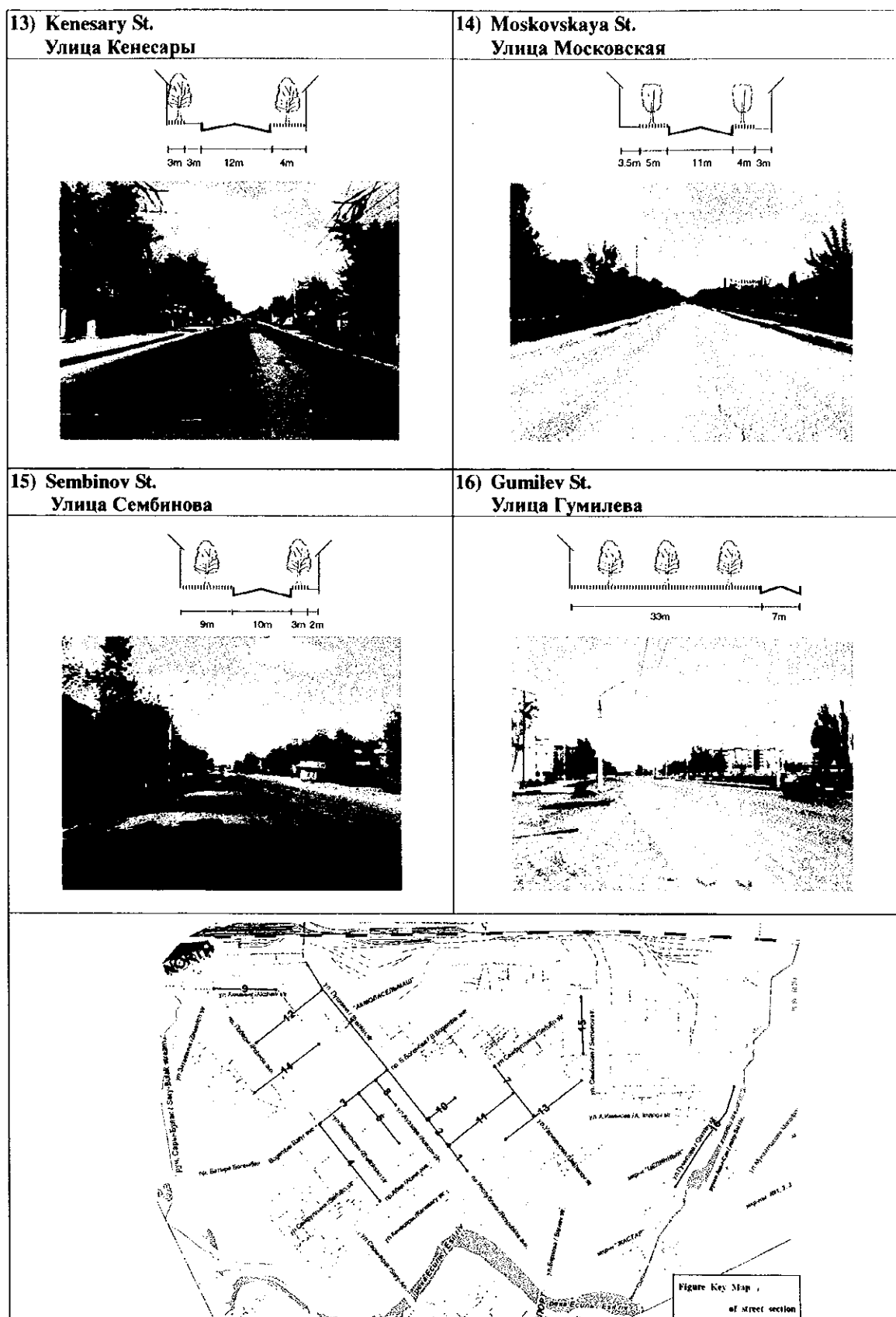
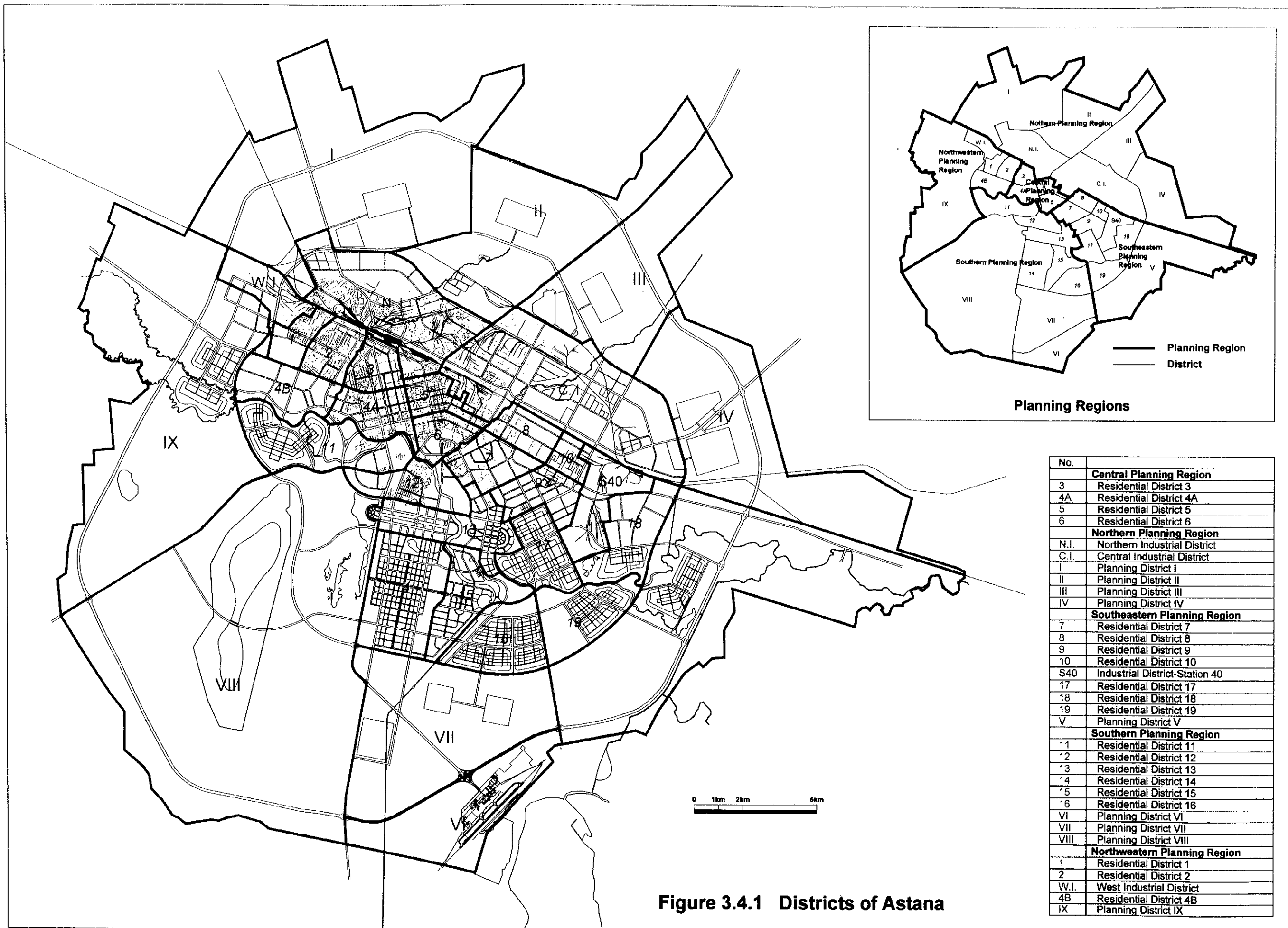
<p>7) Valikhanov St. Улица Валиханова</p>  	<p>8) Auezov St. Улица Ауэзова</p>  
<p>9) Akzhaiyk St. Улица Акжайык</p>  	<p>10) Seifullin St. Улица Сейфуллина</p>  
<p>11) Abai Ave. Проспект Абая</p>  	<p>12) Devyatoye Maya St. Улица 9 Мая</p>  

Figure 3.2.2 (2/3) Cross-Sections and Images of Representative Streets in Astana  
Рисунок 3.2.2 (2/3) Внешний вид и поперечное сечение главных улиц г. Астаны



**Figure 3.2.2 (3/3) Cross-Sections and Images of Representative Streets in Astana**  
**Рисунок 3.2.2 (3/3) Внешний вид и поперечное сечение главных улиц г. Астаны**



**Figure 3.4.1 Districts of Astana**

	<p><b>TYPE A</b> Central business district (CBD) zone; Composed of large buildings and wide streets. (Around Central Square)</p>		<p><b>TYPE B</b> Mixed land use zone; Composed of medium rise buildings and residential buildings in regular grid pattern streets. (North of CBD)</p>
	<p><b>TYPE C</b> Medium rise residential area; Apartment building, including some old, row houses. (Near the station)</p>		<p><b>TYPE D</b> De-touched housing residential area near the city center, with regular road pattern. (Easter part of Old City)</p>
	<p><b>TYPE E</b> Low density detached housing units, with irregular road pattern (Western of Old City)</p>		<p><b>TYPE F</b> Medium to high rise residential area with collective housing units, with high density (Micro District 1)</p>
	<p><b>TYPE G</b> Mixed use area with residential units intruding in industrial areas. (North of railway)</p>		<p><b>TYPE H</b> Industrial area with exclusive use for factories and warehouses. (Astana Techno Park)</p>

Figure 3.4.2 Typology of Urban Areas in Astana

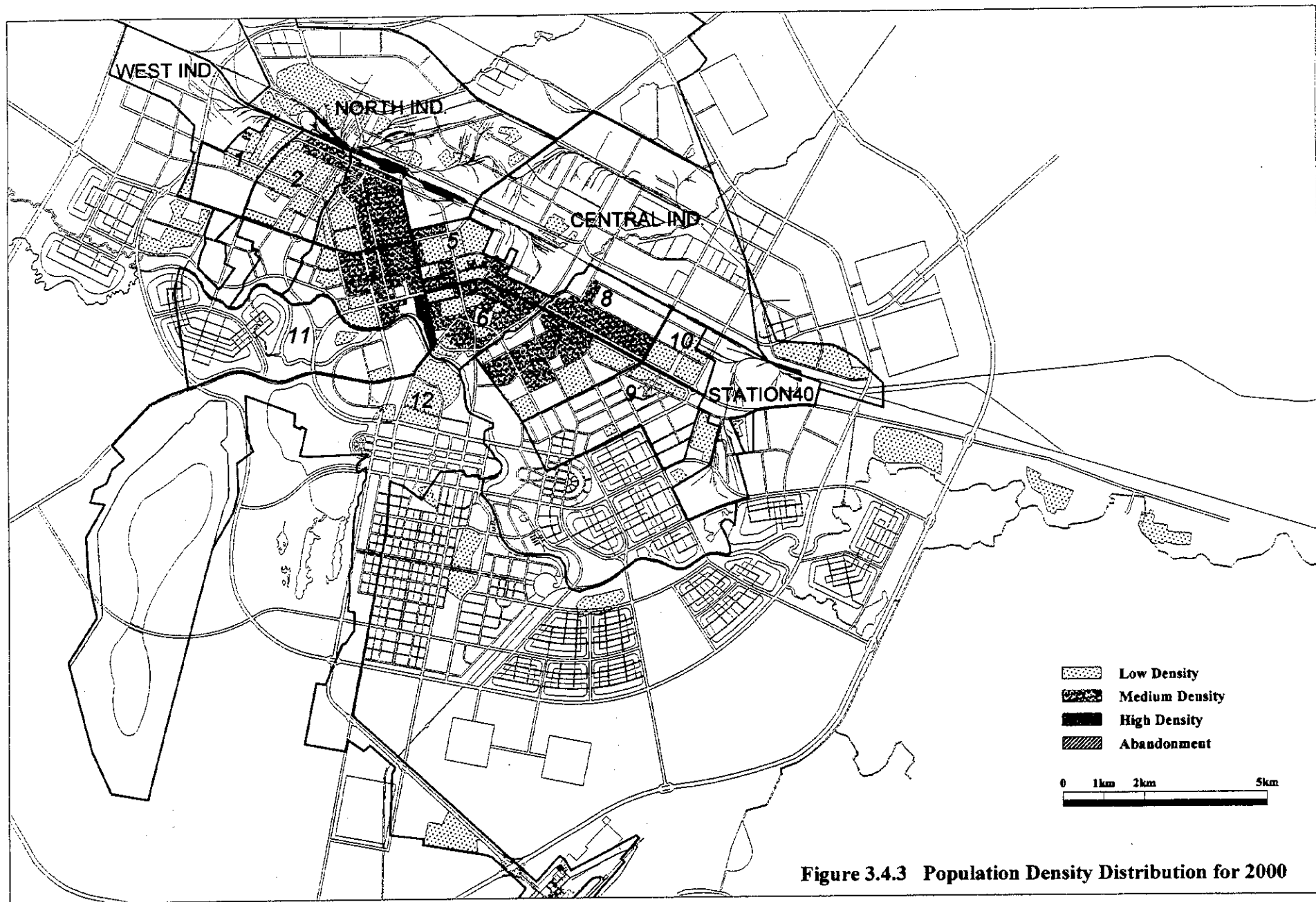


Figure 3.4.3 Population Density Distribution for 2000