

**APPENDIX:
TOD FACILITY PLAN AND
TRANSPORT ACCESS IMPROVEMENT PROJECTS**

Figure 1.1 Location of Nam Thang Long (C1) Station in Zone Plan

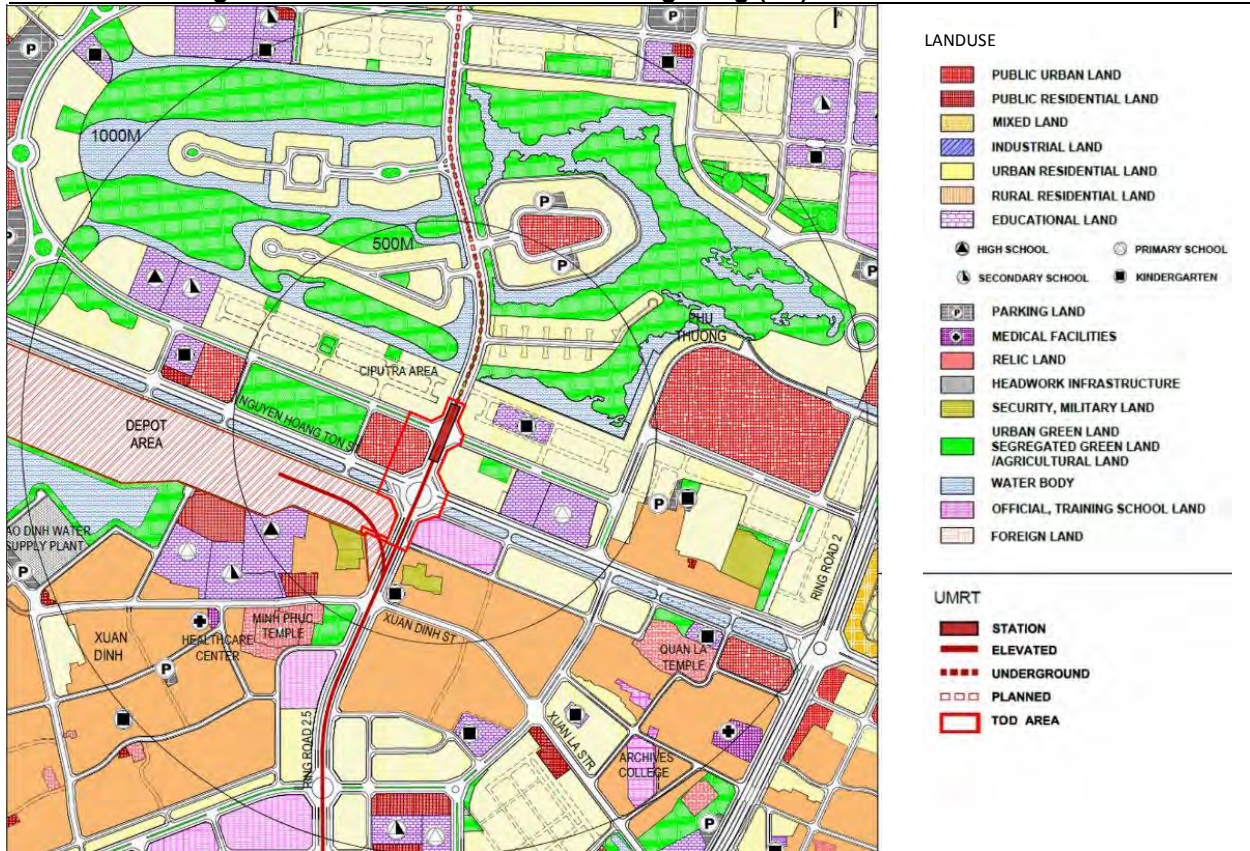


Figure 1.2 Facility Concept Plan at Nam Thang Long (C1) Station

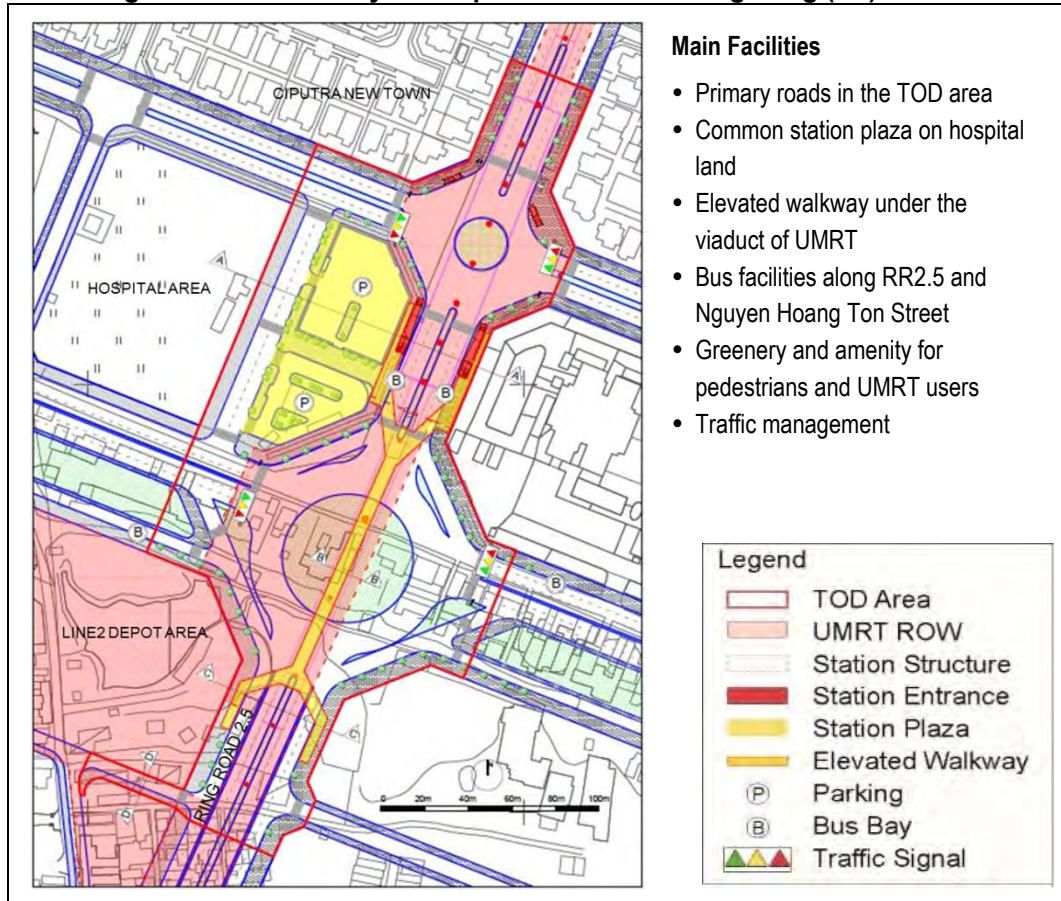


Figure 1.3 Identified Projects in Nam Thang Long (C1) Station Area

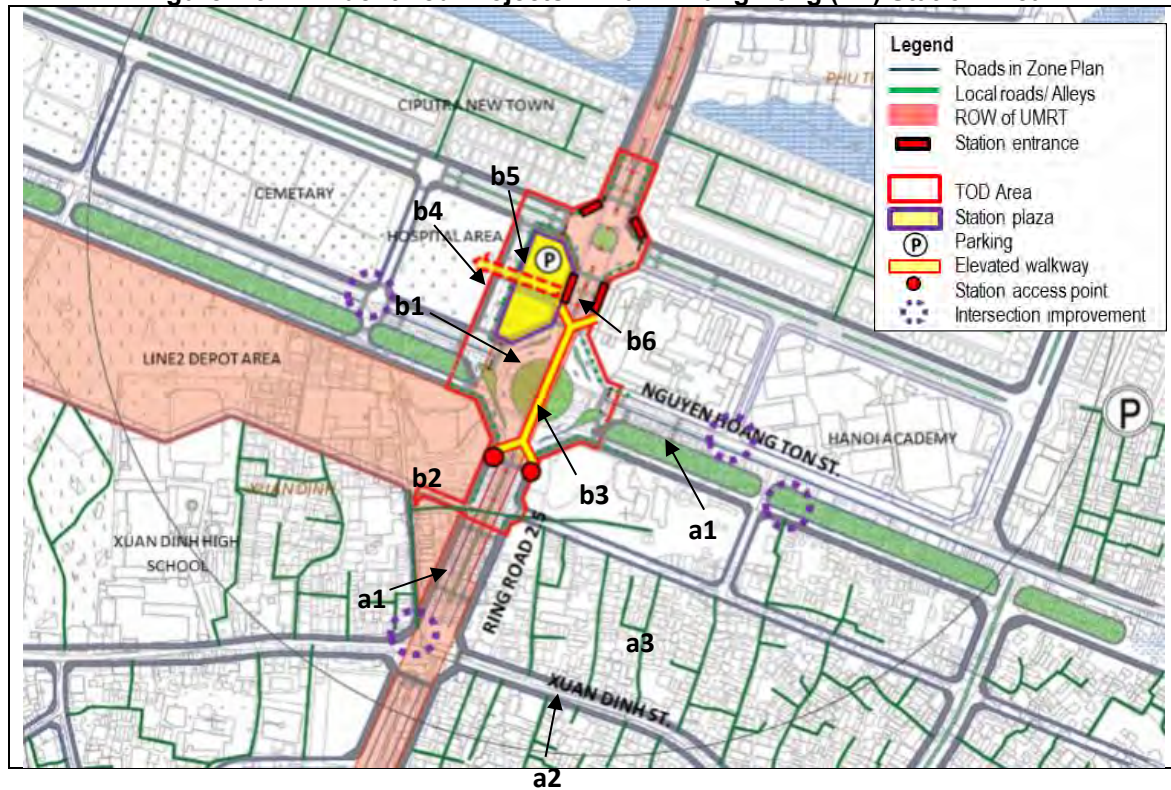


Table 1.1 Access Improvement Project List of C1

Category	ID	Project Name	Quantity	Estimated Cost (VND mil)	Implementation Category
Area within 500m Radius	a1	1. Improvement of Nguyen Hoang Ton St.	12,000m ² (12m x 1,000m)	21,000	Short (Minimum)
		2. Widening of Nguyen Hoang Ton St.	51,200 m ² (64m x 800m)	91,000	Others ¹⁾
		3. Development of RR2.5 (Nam Thang Long Street)	50,000 m ² (50m x 1,000m)	64,000	Others ¹⁾
	a2	1. Improvement	10,000 m ² (12.5m x 800m)	18,000	Short (Minimum)
		2. Widening	17,000 m ² (21.25m x 800m)	14,000	Others ¹⁾
	a3	Improvement of access alleys in Xuan Dinh Ward	20,800 m ² (4m x 5,200m)	45,000	Short (Minimum)
	a4	Improvement of intersections	4 locations	800	Short (Minimum)
Sub Total (excluding others)				84,800	
TOD Area	b1	Priority development of main roads in TOD area (RR2.5 and Nguyen Hoang Ton Street) ²⁾	14,000m ²	21,000	Short
	b2	Development of shortcut road in UMRT Line 2 depot area	90 m ² (9m x 63m)	1,000	Short (Minimum)
	b3	Development of elevated walkway under the UMRT viaduct	1,810 m ² (w=6m, L=200m)	89,000	Short (Minimum)
	b4	Development of elevated walkway to provide direct connection between the UMRT station and the hospital area	420 m ² (w=6m, L=70m)	21,000	Basic
	b5	Development of common station plaza (parking, loading & unloading space, walkway, lighting, green, sign, etc.)	7,400 m ²	19,000	Basic
	b6	Provision of bus bays and intermodal facilities along PR2.5 and Nguyen Hoang Ton Street	2 locations	2,000	Short (Minimum)
	b7	Improvement of traffic management in the TOD area (pedestrian crossing, signals, marking, etc.)	4 signals 460m ² for marking	2,000	Short (Minimum)
Sub Total				155,000	
TOTAL				239,800	

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 2.1 Location of Ngoai Giao Doan (C2) Station in Zone Plan

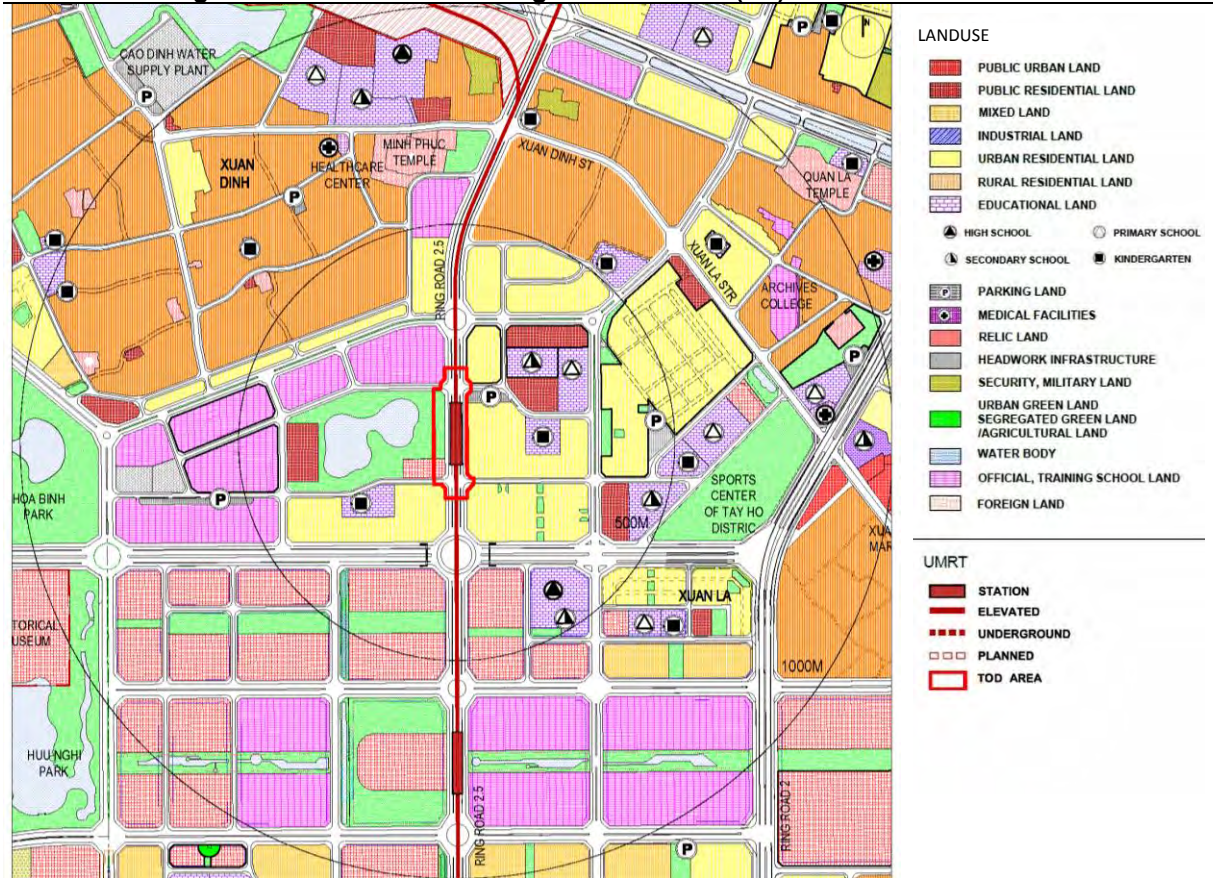


Figure 2.2 Facility Concept Plan for Ngoai Giao Doan (C2) Station

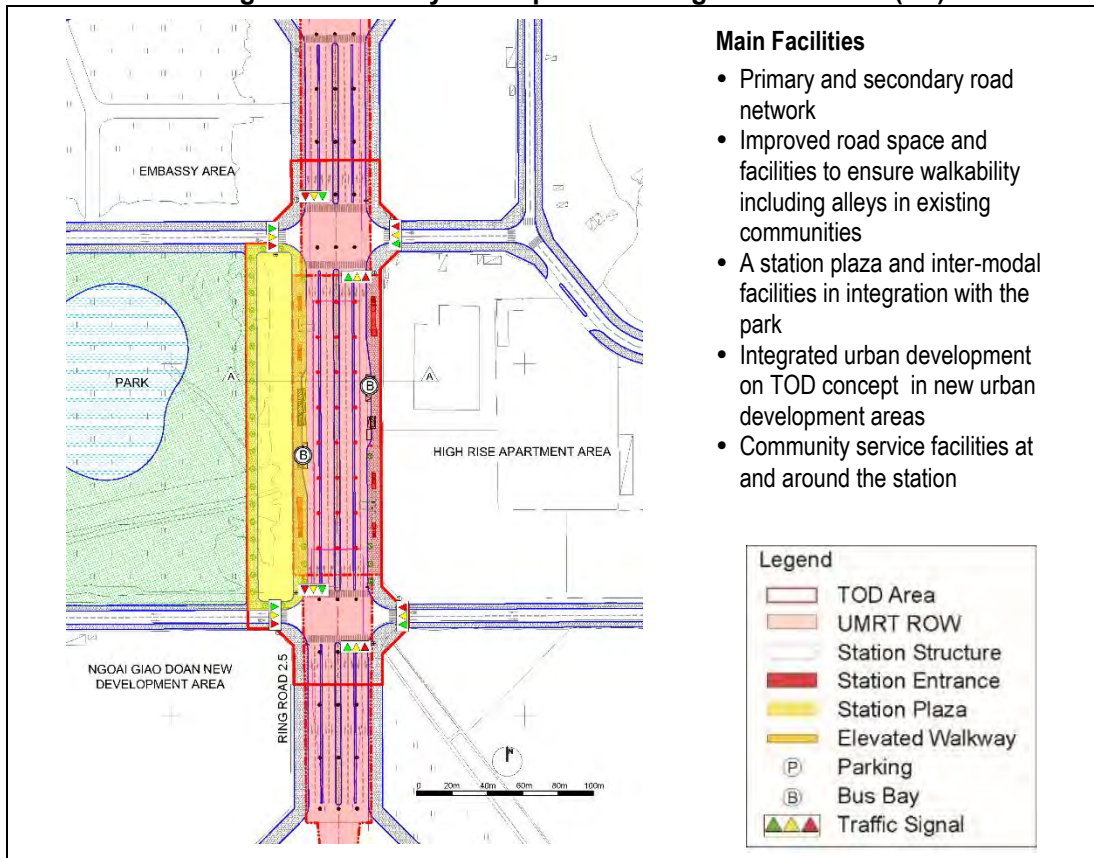


Figure 2.3 Identified Projects Location Map of Ngoai Giao Doan (C2) Station Area

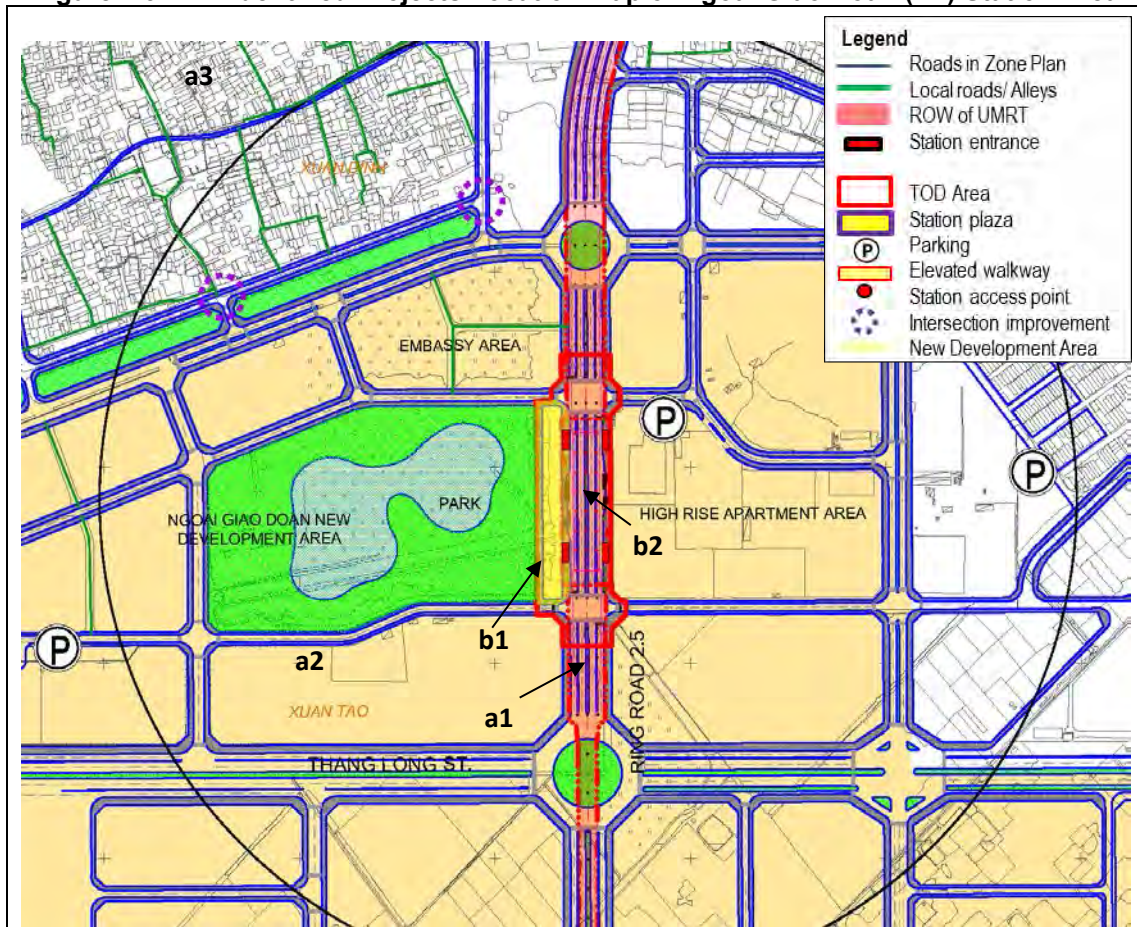


Table 2.1 Access Improvement Project List of C2

Category	ID	Project Name	Quantity	Estimated Cost (VND mil)	Implementation Category
Area within 500m Radius	a1	Development of RR2.5	20,000m ² (50m x 400m)	26,000	Others ²⁾
	a2	Development of secondary roads in new urban development area ¹⁾	(excluded)	(excluded)	Others ²⁾
	a3	Improvement of access alleys in Xuan Dinh ward	11,200m ² (5m x 2,200m)	24,000	Short (Minimum)
	a4	Improvement of intersections in the area within 500m radius of the station	2 locations	400	Short (Minimum)
	Sub Total				24,400
TOD Area	b1	Development of station plaza on the park side of the station	2,600m ²	2,800	Short (Minimum)
	b2	Provision of bus bays and intermodal facilities along PR2.5 and Nguyen Hoang Ton Street	2 locations	1,200	Short (Minimum)
	b3	Improvement of traffic management in the TOD area (pedestrian crossing, signals, marking, etc.)	8 signals 600m ² for marking	4,100	Short (Minimum)
Sub Total				8,100	
Total				32,500	

- 1) Estimated cost includes only the road section which HPC will construct. Other road sections inside of Ngoai Giao Doan development area have been developed by the private developer (ongoing).
- 2) Road development project in the area within 500m radius is excluded from TOD project.

Figure 3.1 Location of Tay Ho Tay (C3) Station in Zone Plan

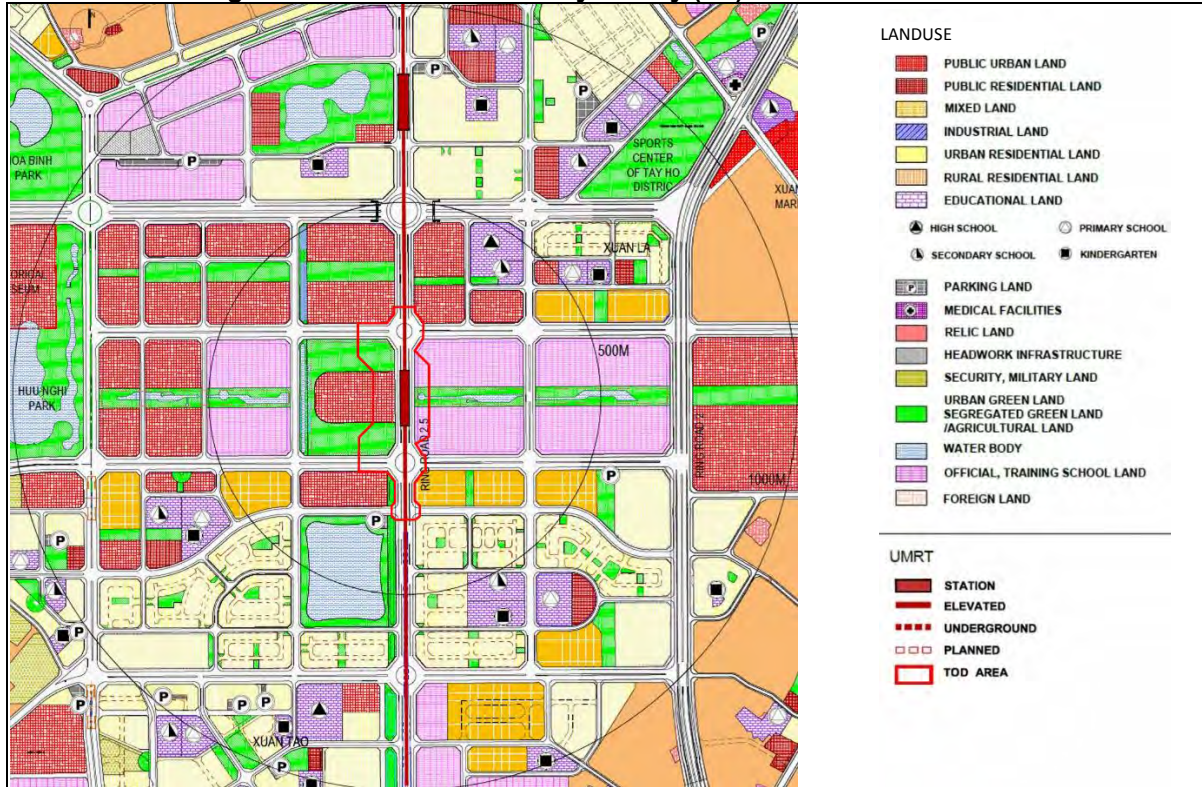


Figure 3.2 Facility Concept Plan of Tay Ho Tay (C3) Station

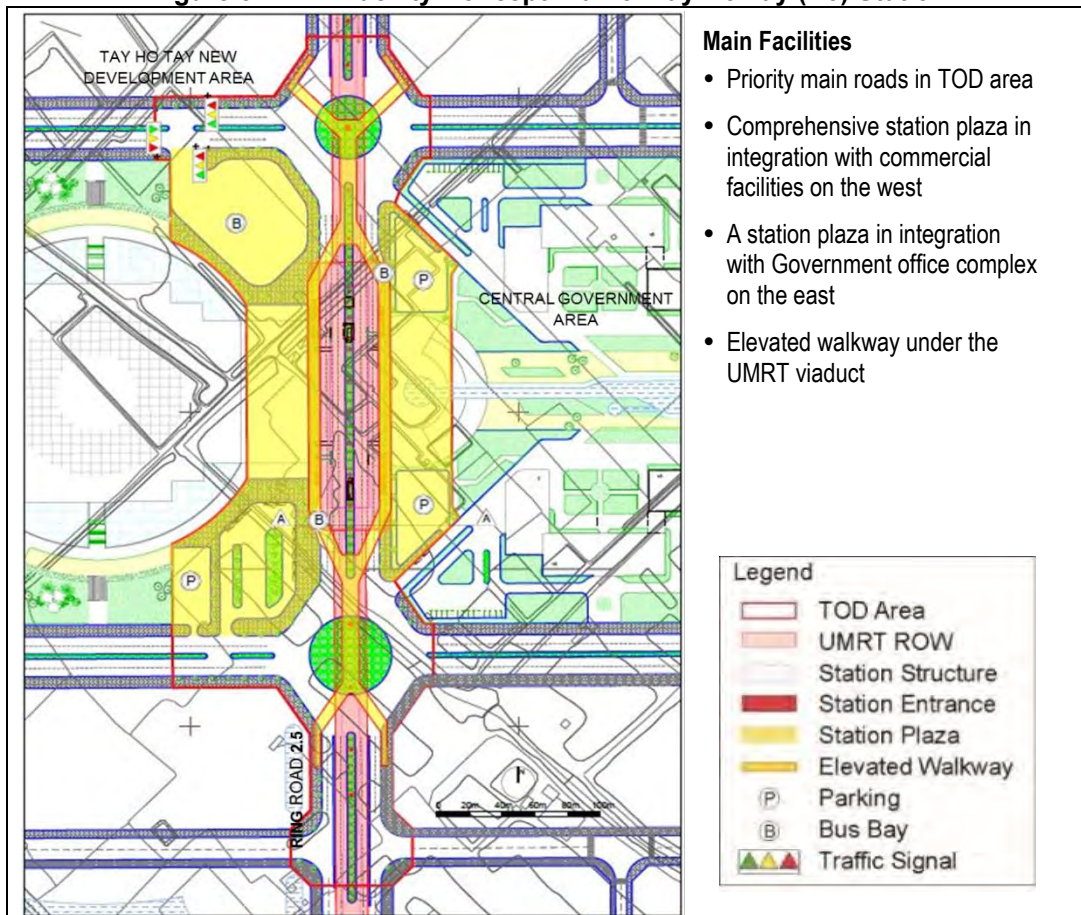


Figure 3.3 Identified Projects Location Map of Tay Ho Tay (C3) Station Area

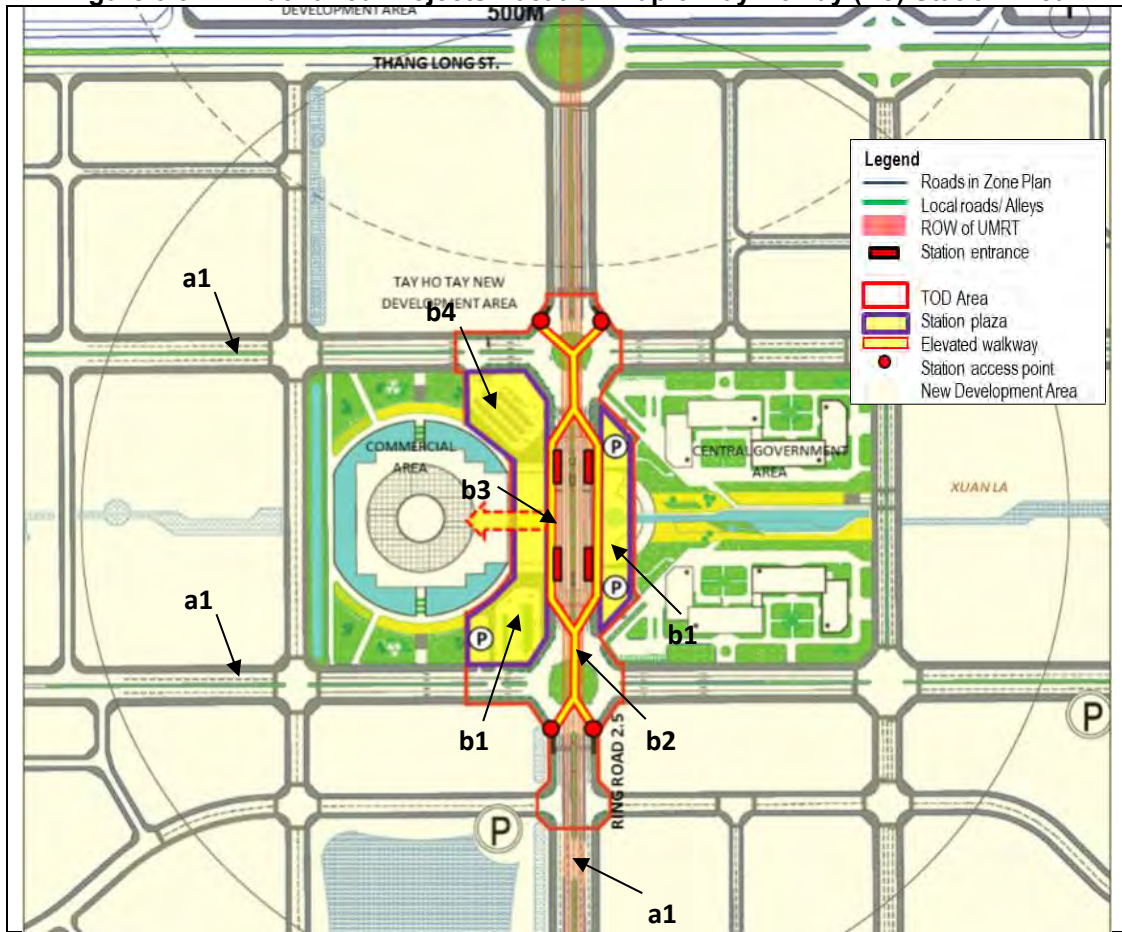


Table 3.1 Access Improvement Project List of C3

Category	ID	Project Name		Quantity	Estimated Cost (VND mil)	Implementation Category
Area within 500m Radius	a1	Development of RR2.5 and east- west roads at the station ¹⁾		---	---	Others
	a2	Development of distribution roads in new urban development area ¹⁾		---	---	Short
	a3	Improvement of walkability in the area		---	---	Short
	Sub Total					0
TOD Area	b1	Development of comprehensive station plaza on the both sides of the station	East station plaza	9,000m ²	20,000	Basic
			West station plaza	9,000m ²	29,000	Basic
	b2	Development of elevated walkways under the UMRT viaduct along RR 2.5	5,800m ² (w=6m, L=130m& 150m)	286,000	Short (Minimum)	
	b3	Provision of bus facilities at the station along RR2.5	Lump sum	1,000	Short (Minimum)	
	b4	Development of integrated UMRT extension bus terminal	7,500m ²	31,000	Basic	
	b5	Improvement of traffic management	Lump sum	4,000	Short (Minimum)	
Sub Total					371,000	
Total					371,000	

1) Estimated cost includes only the road section which HPC will construct. Other road sections inside of Ngoai Giao Doan development area have been developed by the private developer (ongoing).

2) Road development project in the area within 500m radius is excluded from TOD project.

Figure 4.1 Location Map of Buoi (C4) Station in Zone Plan

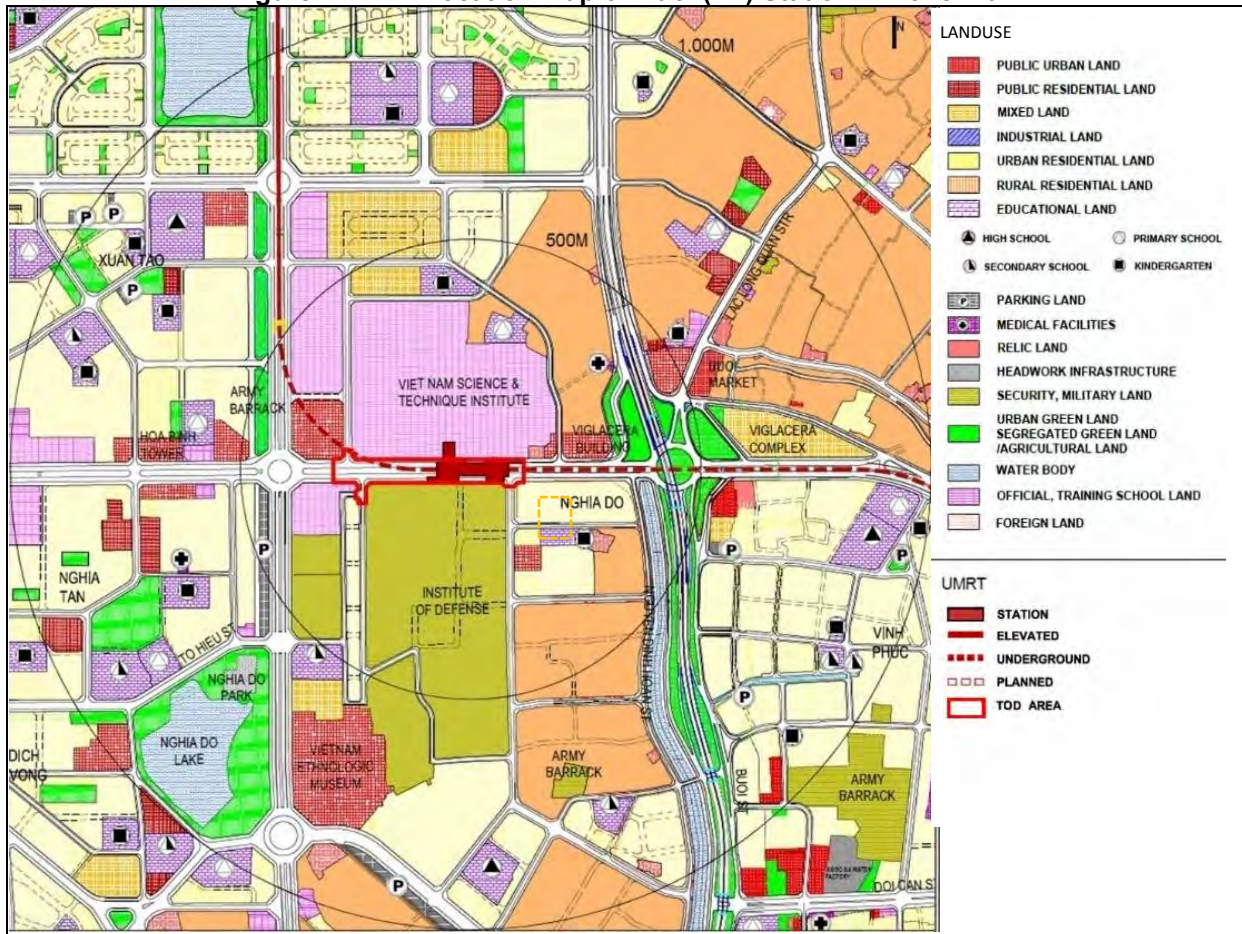


Figure 4.2 Facility Concept Plan of Buoi (C4) Station

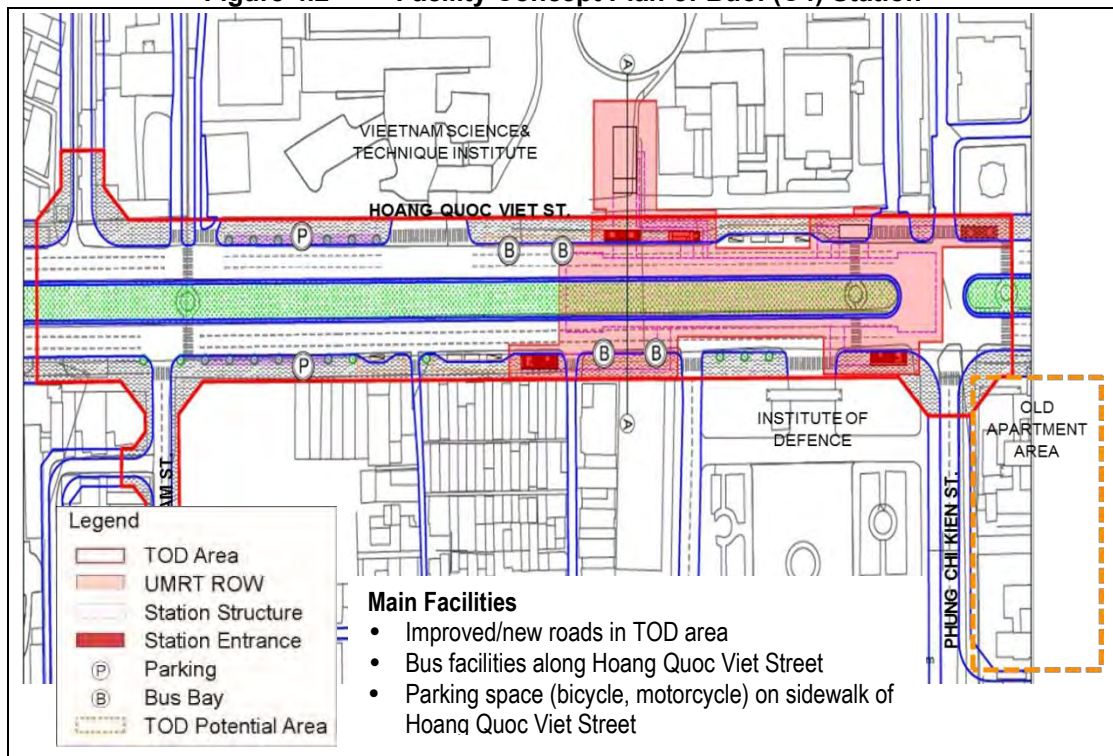


Figure 4.3 Identified Projects Location Map of Buoi (C4) Station Area

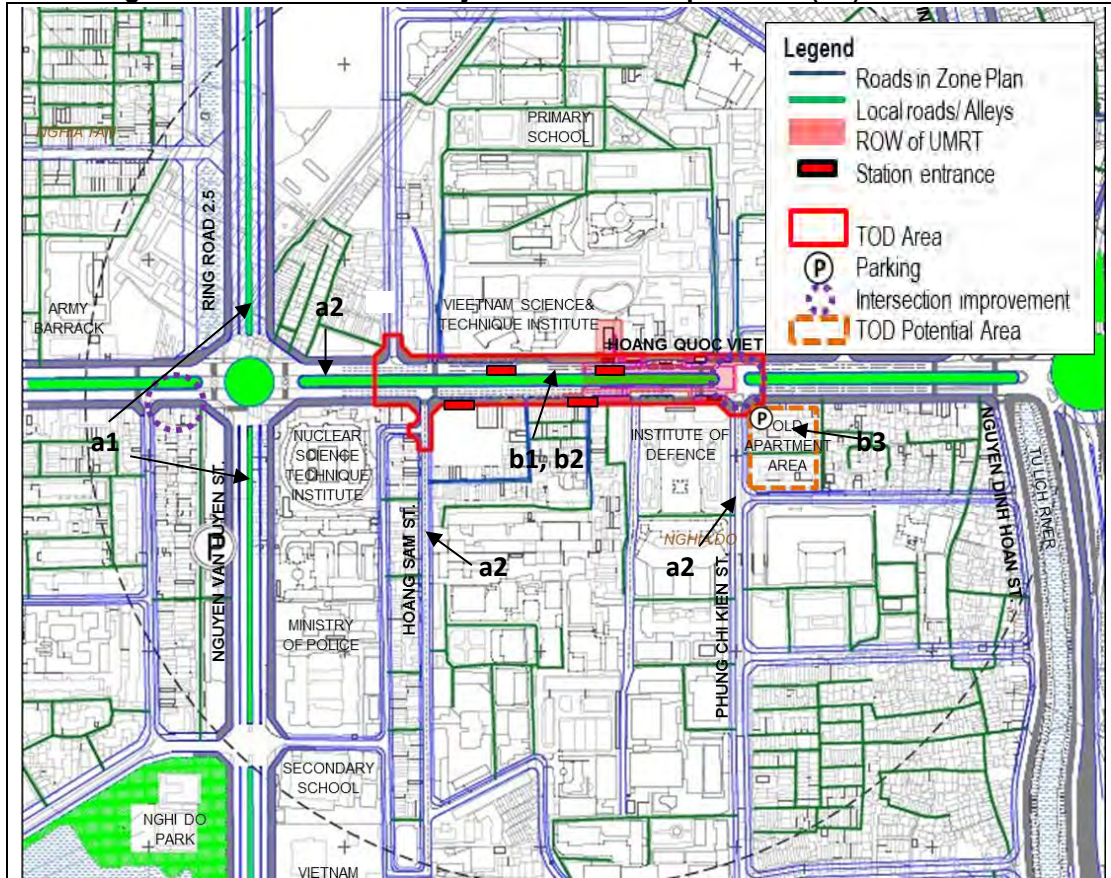


Table 4.1 Access Improvement Project List of C4

Category	ID	Project Name		Quantity	Estimated Cost (VND mil)	Implementation Category	
Area within 500m Radius	a1	1. Development of RR2.5 (W=50m)		25,000m ² (50m x 500m)	32,000	Others ¹⁾	
		2. Widening of Nguyen Van Huyen St. (W=50m)		7,500m ² (25m x 300m)	13,000	Others ¹⁾	
	a2	Improvement of sidewalk and walking condition of Hoang Quoc Viet St., Hoang Sam St., Phung Chi Kien St. and Nguyen Dinh Hoan St.		26,100 m ² (W=3~8m, L=4,500m)	70,000	Short (Minimum)	
	a3	Improvement of access alleys in Nghia Do, Nghia Tan wards		30,000m ² (W=3m, L=10,000m)	64,000	Short (Minimum)	
	a4	Improvement of intersections		4 locations	800	Short (Minimum)	
Sub Total (excluding others)					134,800		
TOD area	b1	Improvement of sidewalk and walking environment in the TOD area ²⁾		4,900m ²	13,000	Short (Minimum)	
	b2	Provision of bus bays and intermodal facilities along Hoang Quoc Viet Street		Lump sum	3,000	Short (Minimum)	
	b3	Development of underground walkway and parking in consideration of redevelopment of old apartment area (TOD potential area)		1. Underground walkway (6m x 30m)	180m ²	24,000	Basic
				2. Underground parking (60m x 80m)	4,800m ²	391,000	Basic
	B4	Improvement of traffic management (sign, marking, etc.)		10 sets of signs 360m ² for marking	500	Short (Minimum)	
Sub Total					431,500		
Total					566,300		

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 5.1 Location of Quan Ngua (C5) Station in Zone Plan

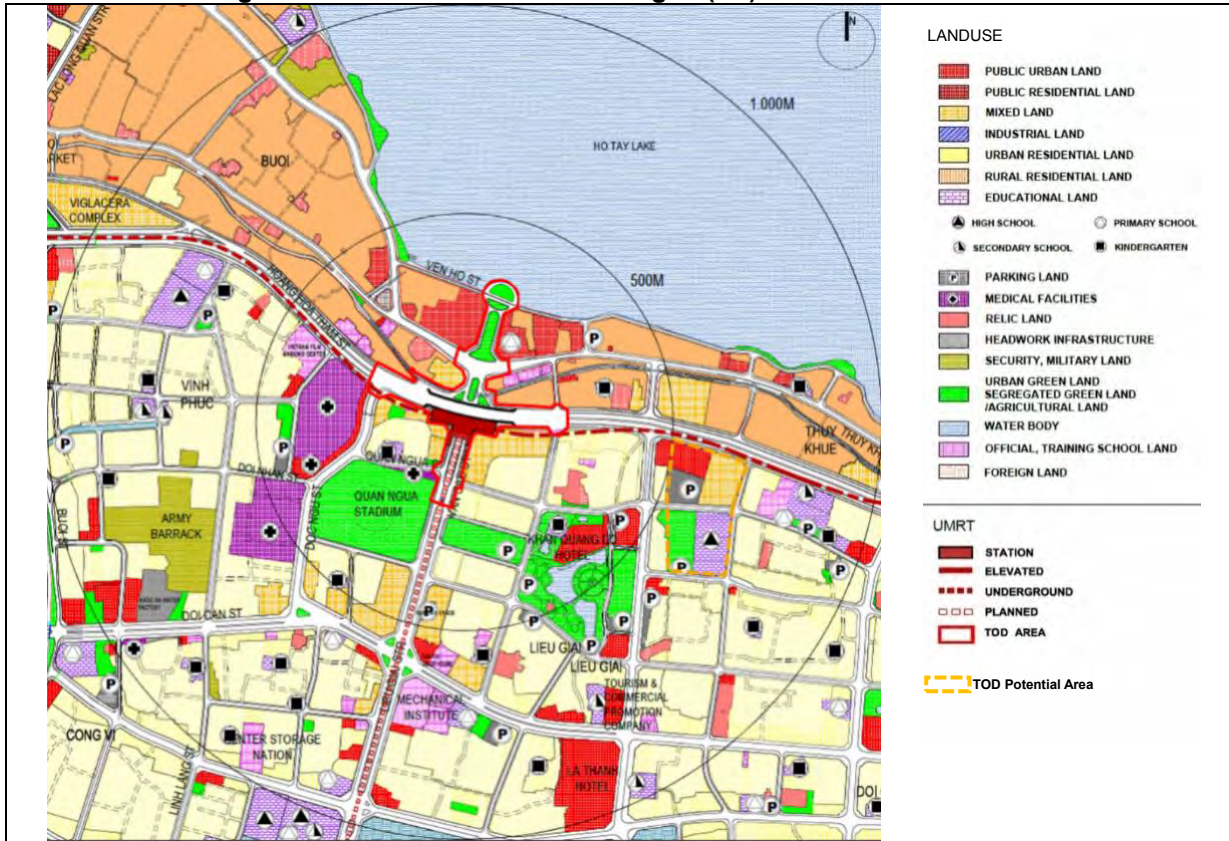


Figure 5.2 Facility Concept Plan at Quan Ngua (C5) Station

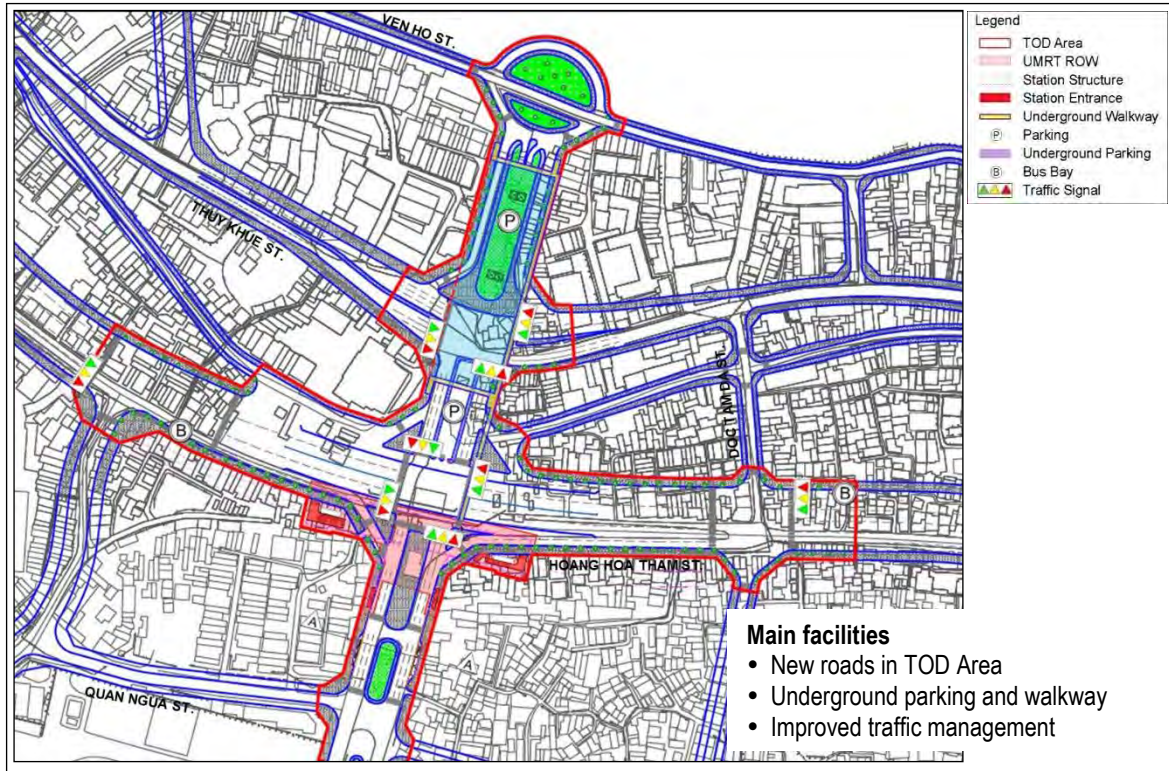


Figure 5.3 Identified Projects Location Map of Quan Ngua (C5) Station Area

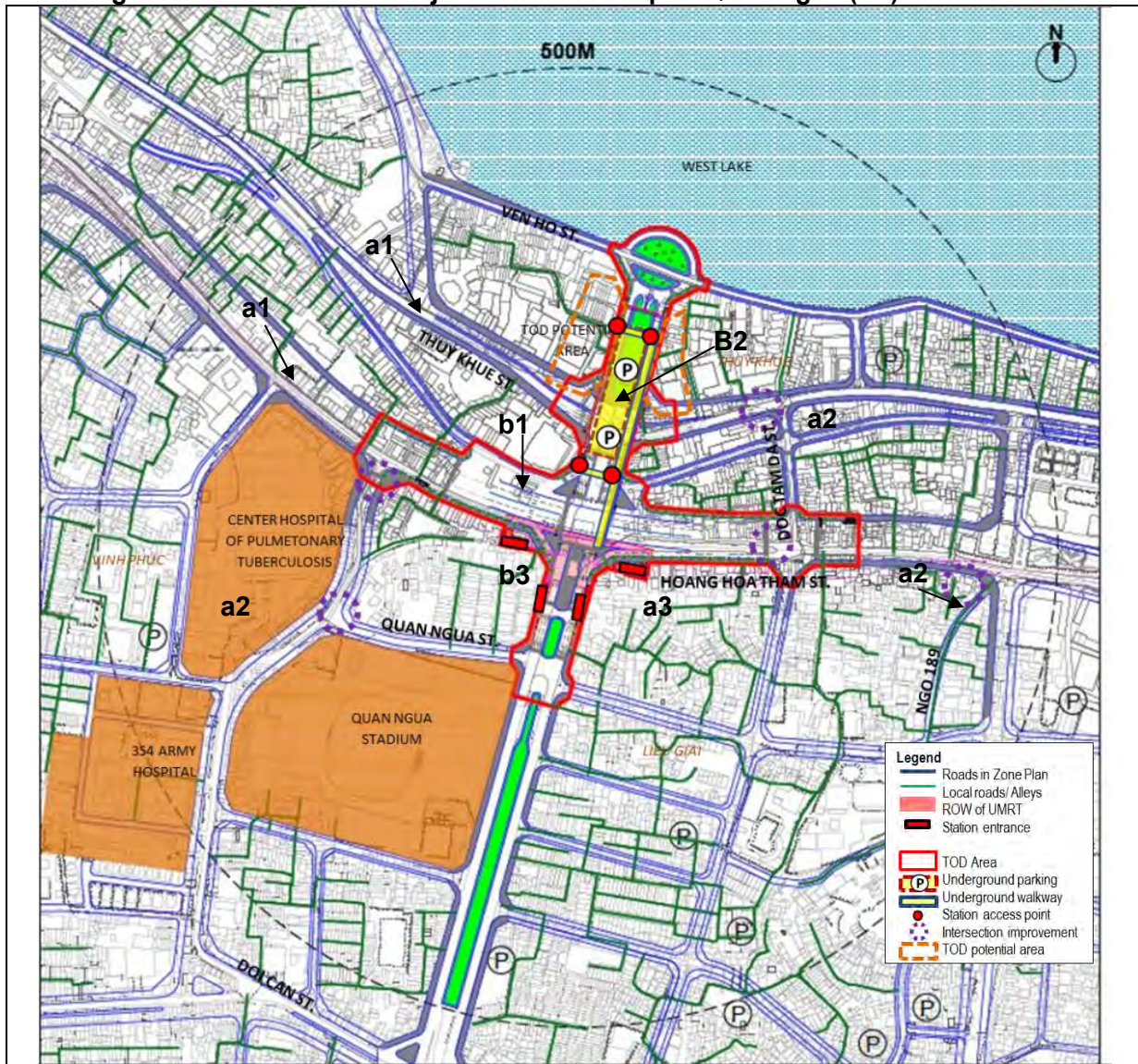


Table 5.1 Access Improvement Project List of C5

Category	ID	Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 500m Radius	a1	Widening of Hoang Hoa Tham St. and Thuy Khue Streets	1. Improvement	13,000m ²	25,000	Short (Minimum)
			2. Widening	28,000 m ²	50,000	Others ¹⁾
	a2	Improvement of Doc Ngu, Ngo 189, Doc Tam Da Streets	1. Improvement	7,600 m ²	14,000	Short (Minimum)
			2. Widening	11,000m ²	19,000	Others ¹⁾
	a3	Improvement of Access Alleys in Thuy Khue, Ngoc Ha and Vinh Phuc Wards	36,000 m ² (W=3m, L=12,000m)	77,000	Short (Minimum)	
a4	Improvement of Intersections	6 locations	1,000	Short (Minimum)		
Sub Total (excluding others)					117,000	
TOD Area	b1	Priority Development of Roads in TOD Area ²⁾	19,000m ²	34,000	Short	
	b2	Development of Integrated Underground Walkway and Parking	1. Underground Walkways	1,000m ²	133,000	Basic
			2. Underground Parking	8,000m ³	652,000	Basic
	b3	Provision of bus bays and intermodal facilities along Hoang Hoa Tham St. and Van Cao St	Lump sum	800	Short (Minimum)	
	b4	Improvement of traffic management	Lump sum	3,800	Short (Minimum)	
Sub Total					823,600	
Total					940,600	

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 6.1 Location of Bach Thao (C6) Station in Zone Plan

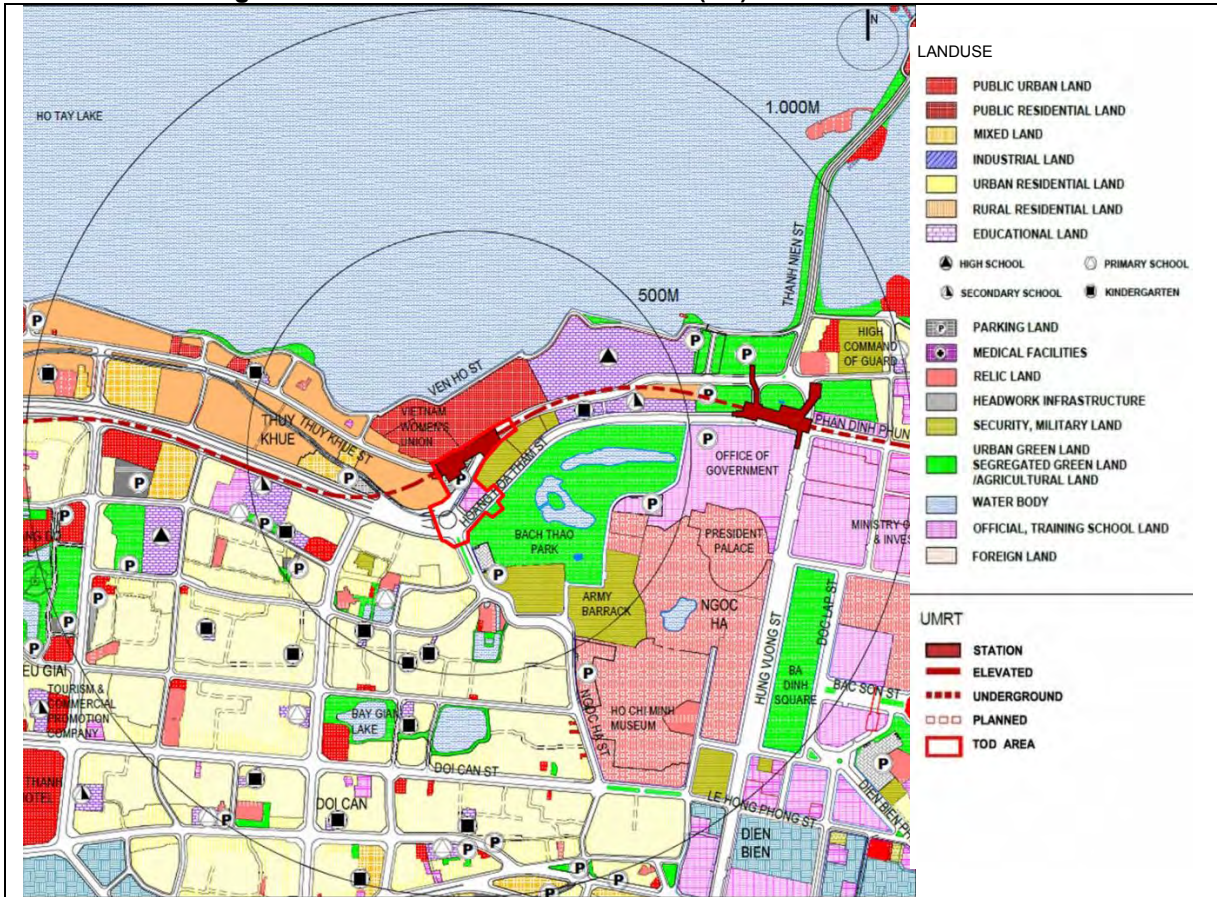


Figure 6.2 Facility Concept Plan of Bach Thao (C6) Station

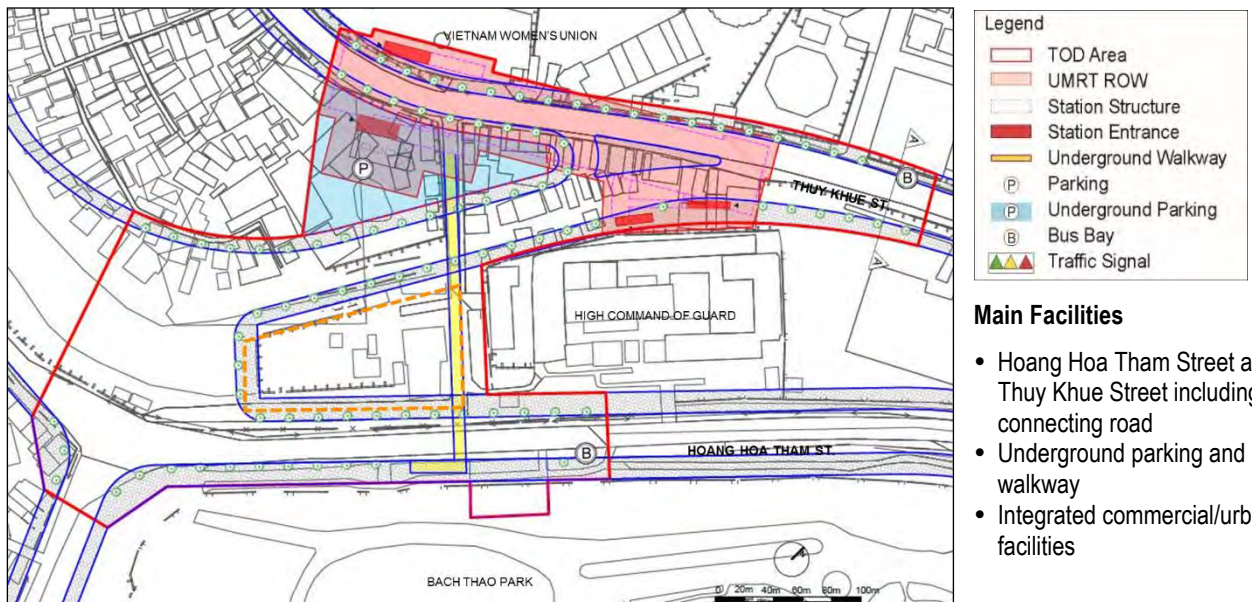


Figure 6.3 Identified Projects Location Map of Bach Thao (C6) Station Area



Table 6.1 Access Improvement Project List of C6

Category	ID	Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 500m Radius	a1	Widening of Hoang Hoa Tham Street and Thuy Khue Street including development of connecting road between the two	1. Improvement	23,400m ²	42,000	Short (Minimum)
			2. Widening and development	38,500m ²	69,000	Others ¹⁾
	a2	Improvement of alleys in Ngoc Ha and Thuy Khue Wards	15,000m ² (W=3m, L=5,000m)	32,000	Short (Minimum)	
	a3	Study for development of new access road to connect between station and the West Lake	---	-	Short (Minimum)	
	a4	Improvement of intersections	8 locations	1,900	Short (Minimum)	
Sub Total				75,900		
TOD area	b1	Priority development of roads in TOD area ²⁾	20,600m ²	41,000	Short	
	b2	Development of underground walkway connecting the station with Bach Thao Park	400m ² (W=4m, L=100m)	54,000	Basic	
	b3	Development of underground parking in conjunction with redevelopment of TOD potential area	10,000m ²	815,000	Basic	
	b4	Provision of bus bays and intermodal facilities along Hoang Hoa Tham St. and Thuy Khue St	2 locations	1,200	Short (Minimum)	
	b5	Improvement of traffic management (signals, signs, marking, etc.)	7 signals 1,130m ² for marking	1,100	Short (Minimum)	
Sub Total				912,300		
Total				988,200		

1) Road development project in the area within 500m radius is excluded from TOD project.
 2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 7.1 Location of Ho Tay (C7) Station in Zone Plan

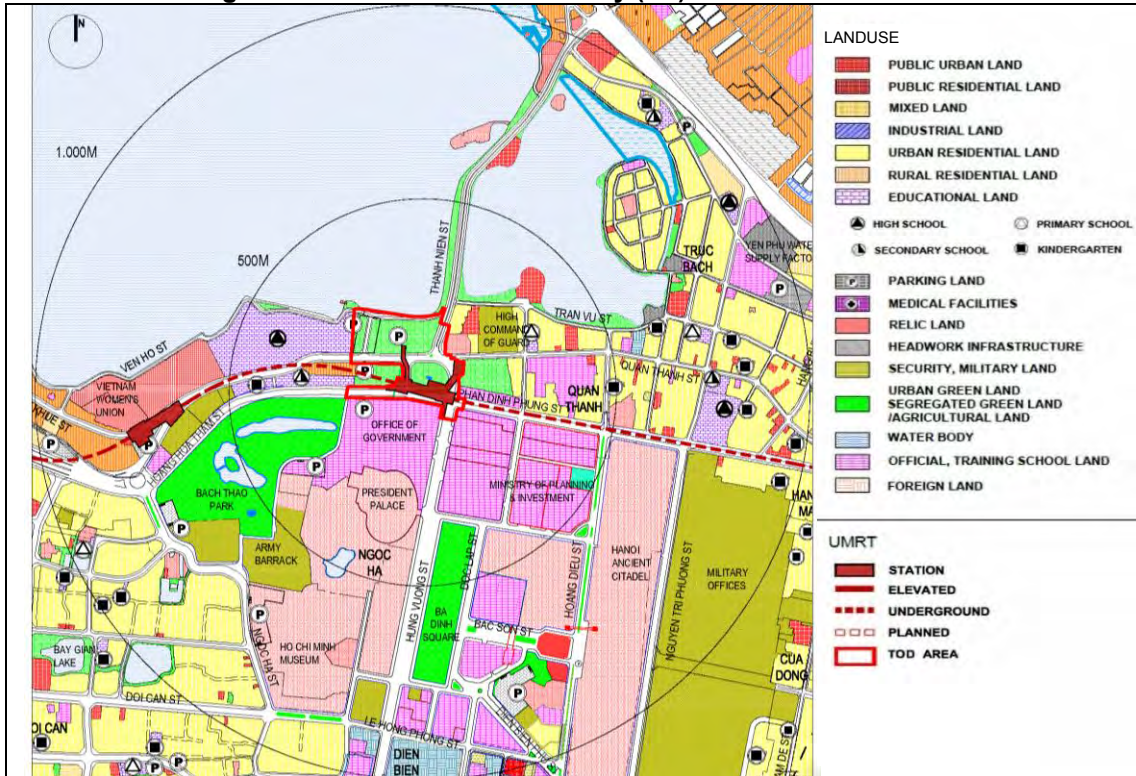
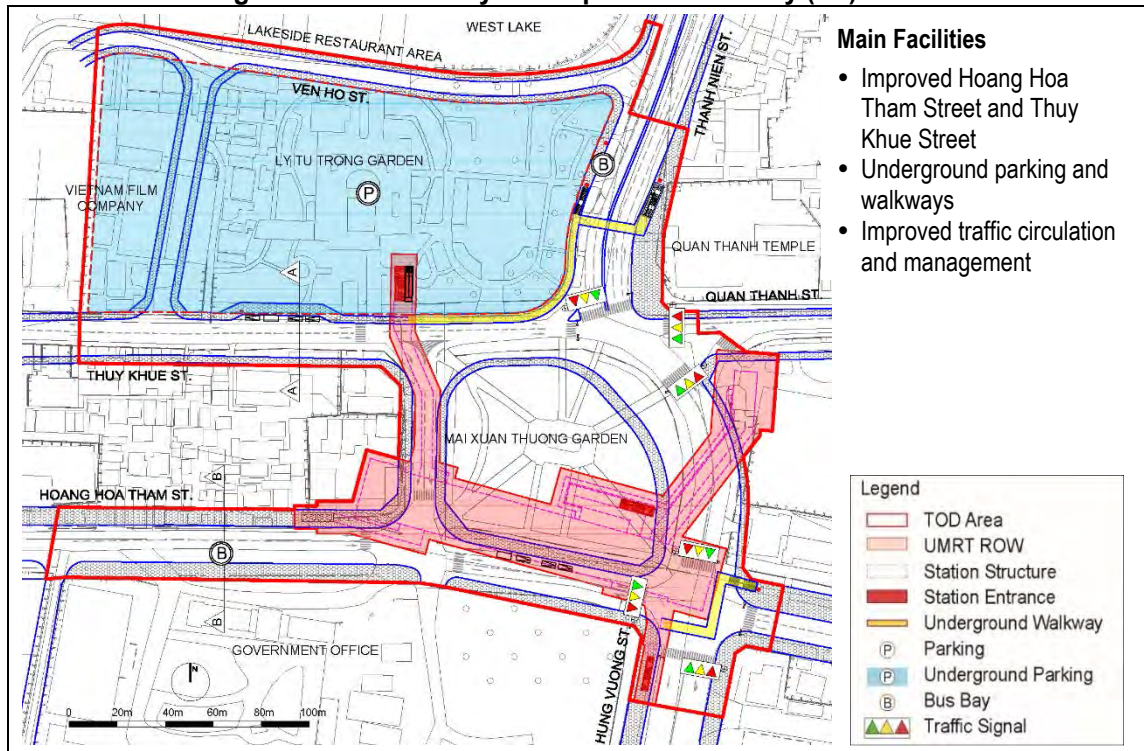


Figure 7.2 Facility Concept Plan of Ho Tay (C7) Station



Main Facilities

- Improved Hoang Hoa Tham Street and Thuy Khue Street
- Underground parking and walkways
- Improved traffic circulation and management

Legend

- TOD Area
- UMRT ROW
- Station Structure
- Station Entrance
- Underground Walkway
- P Parking
- B Underground Parking
- B Bus Bay
- ▲ Traffic Signal

Figure 7.3 Identified Projects Location Map of Ho Tay (C7) Station Area

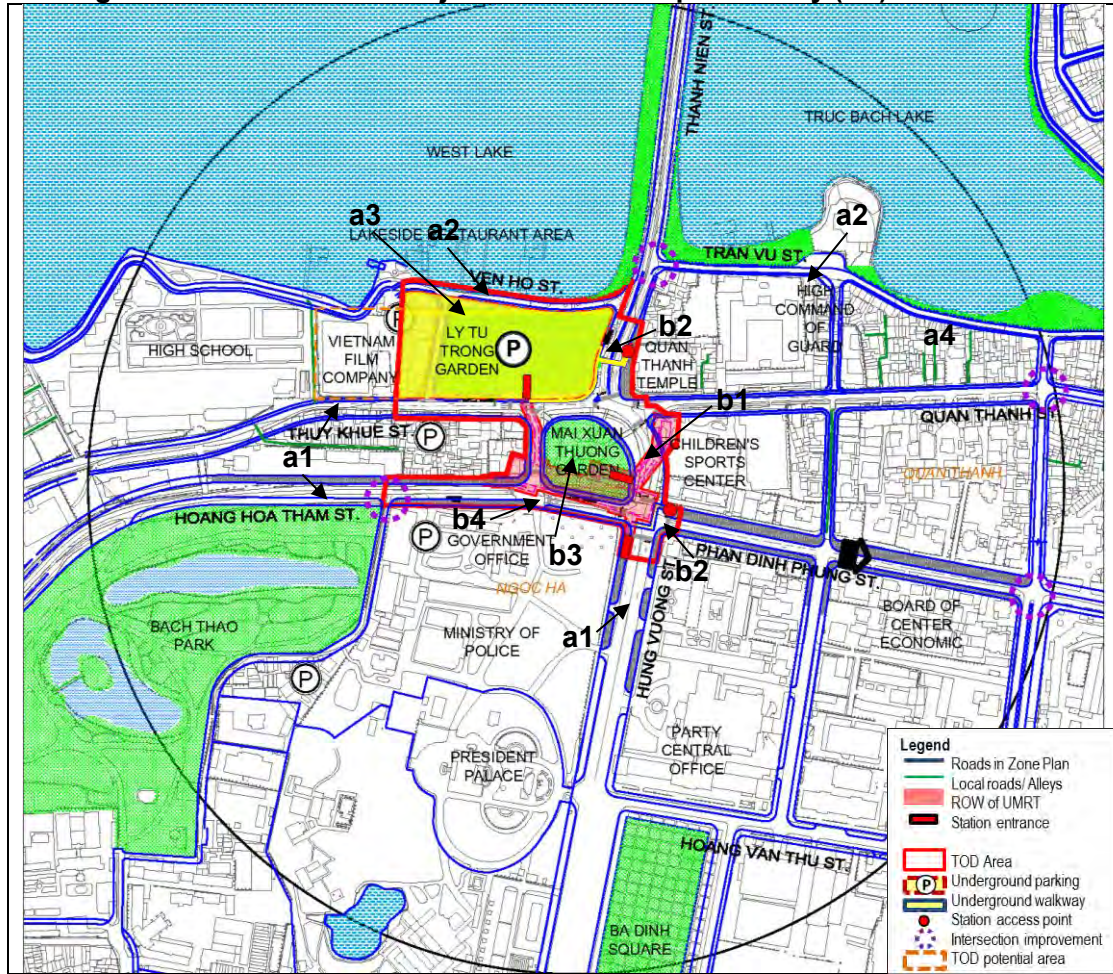


Table 7.1 Access Improvement Project List of C7

		Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 500m Radius	a1	Improvement of Hoang Hoa Tham St., Thuy Khue St., Thanh Nien St., Hung Vuong St., Quan Thanh St., Phan Dinh Phung St.	1. Improvement	55,000m ²	97,000	Short (Minimum)
			2. Widening	3,500m ²	6,000	Others ¹⁾
	a2	Improvement of Ven Ho St., Tran Vu St.	9,800	17,000	Short (Minimum)	
	a3	Development of access road connecting to the West Lake between Vietnam Film Company and Ly Tu Trong Garden	1,800 (15m x 120m)	2,000	Short	
	a4	Improvement of access alleys in Thuy Khue Ward and Quan Thanh Ward	5,000m ² (W=5m, L=1,000m)	11,000	Short (Minimum)	
	a5	Improvement of intersections	4 locations	800	Short (Minimum)	
Sub Total (excluding others)				127,800		
TOD area	b1	Priority development of main roads in the TOD area (Hoang Hoa Tham Str., Thuy Khue Str., Hung Vuong Str., Quan Thanh Str.) ²⁾	4,400m ²	8,000	Short	
	b2	Development of two underground walkways	720m ² (W=4m, L=180m)	97,000	Basic	
	b3	Development of underground parking under Mai Xuan Thung Garden and Ly Tu Trong Flower Garden	9,500m ²	774,000	Basic	
	b4	Provision of bus bays and facilities along Hoang Hoa Tham St. and Thuy Khue St	Lump sum	30,000	Short (Minimum)	
	b5	Improvement of traffic management	Lump sum	3,000	Short (Minimum)	
Sub Total				912,000		
Total				1,039,800		

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 8.1 Location of Hang Dau (C8) Station and Long Bien Nam (V6) Station in Zone Plan

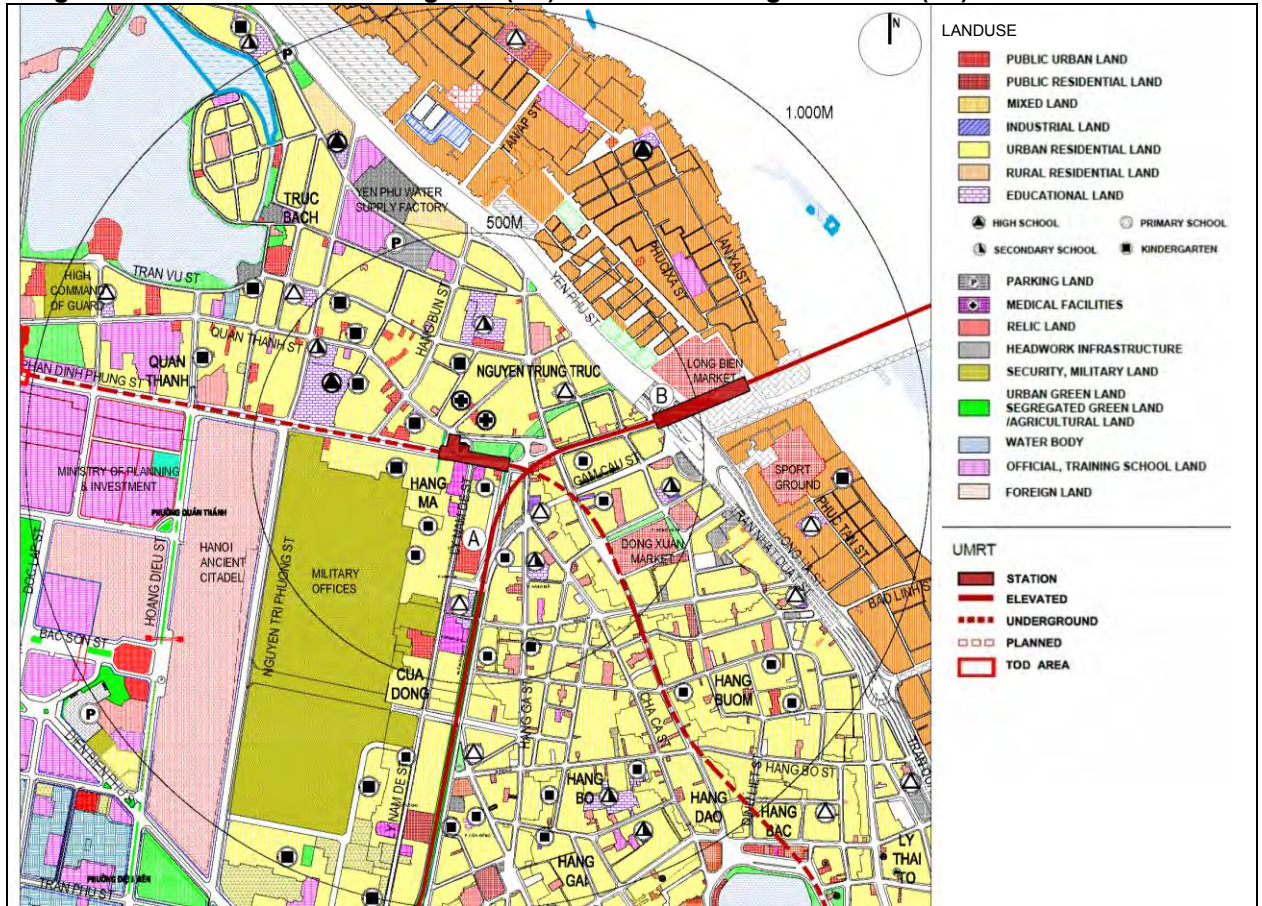


Figure 8.3 Facility Concept Plan of Hang Dau (C8) Station and Long Bien Nam (V6) Station

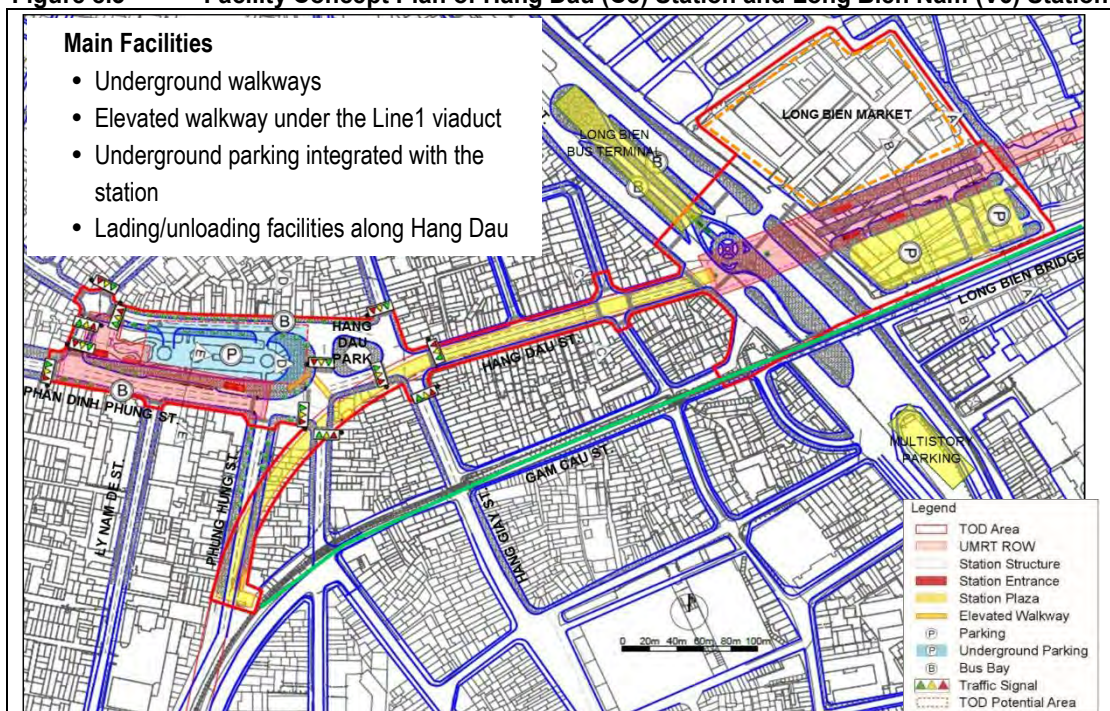


Figure 8.5 Identified Projects Location Map of Hang Dau (C8)& Long Bien Nam (V6) Areas

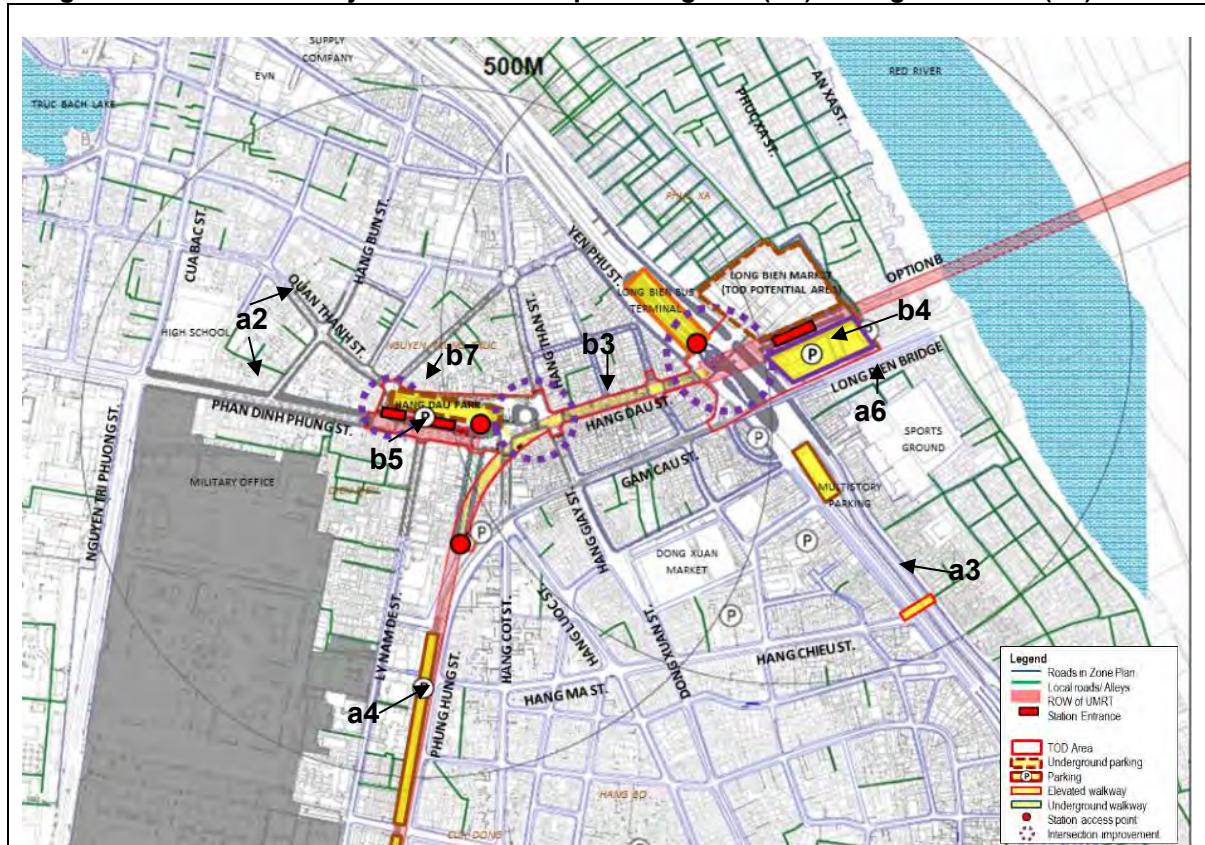


Table 8.1 Access Improvement Project List of C8&V6

		Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category
Area within 500m Radius	a1	Strengthening of traffic management to regulate traffic flow and improvement of walkability in the areas in general and the area of 500m radius of the station in particular	---	---	Minimum
	a2	Improvement of sidewalk of primary roads (Phan Dinh Phung St., Quan Thanh St., Hang Dau St., Gam Cau St., Yen Phu St.)	18,000m ²	49,000	Minimum
	a3	Provision of pedestrian bridge crossing Tran Nhat Duat St. to connect to Hang Chieu St.	135m ² (3m x 45m)	6,700	Minimum
	a4	Development of parking facilities along dyke roads (Yen Phu St. and Tran Nhat Duat St.) and Phung Hung St.	3,000m ² (W=4m, L=750m)	4,500	Minimum
	a5	Improvement of access alleys in Nguyen Trung Truc Ward, Hang Dau Ward, Hang Giay Ward, Hang Cot Ward and Phuc Xa Ward	40,000m ² (W=4m, L=10,000m)	84,000	Minimum
	a6	Development of new bus service and NMT space using to-be-abandoned VNR section including Long Bien Bridge section	---	---	Strategic ¹⁾
	a7	Provision of local circulation minibus and community bike service	---	---	Short
	a8	Improvement of intersections	9 locations	1,900	Minimum
		Sub Total		146,100	
TOD area	b1	Provision of intermodal facilities along Pham Dinh Phung Street and Quan Thanh Street	Lump sum	28,300	Minimum
	b3'	Development of elevated walkway under the viaduct of UMRT Line 1 to connect C8 and V6 stations and Long Bien Bus Terminal	6,000m ² (10m x 600m)	295,800	Minimum
	b4'	Development of station plaza of Line 1 on Long Bien Market land	7,100m ²	140,000	Basic
	b5	Development of underground parking and commercial facility development under Hang Dau Park	2,000m ²	163,000	Basic
	b6	Improvement of traffic management	Lump sum	1,500	Minimum
		Sub Total (excluding strategic project)		628,600	
		Total		774,700	

1)The cost of strategic project out of TOD Area is excluded from the total cost.

Figure 9.1 Location of Hoan Kiem (C9) Station in Zone Plan

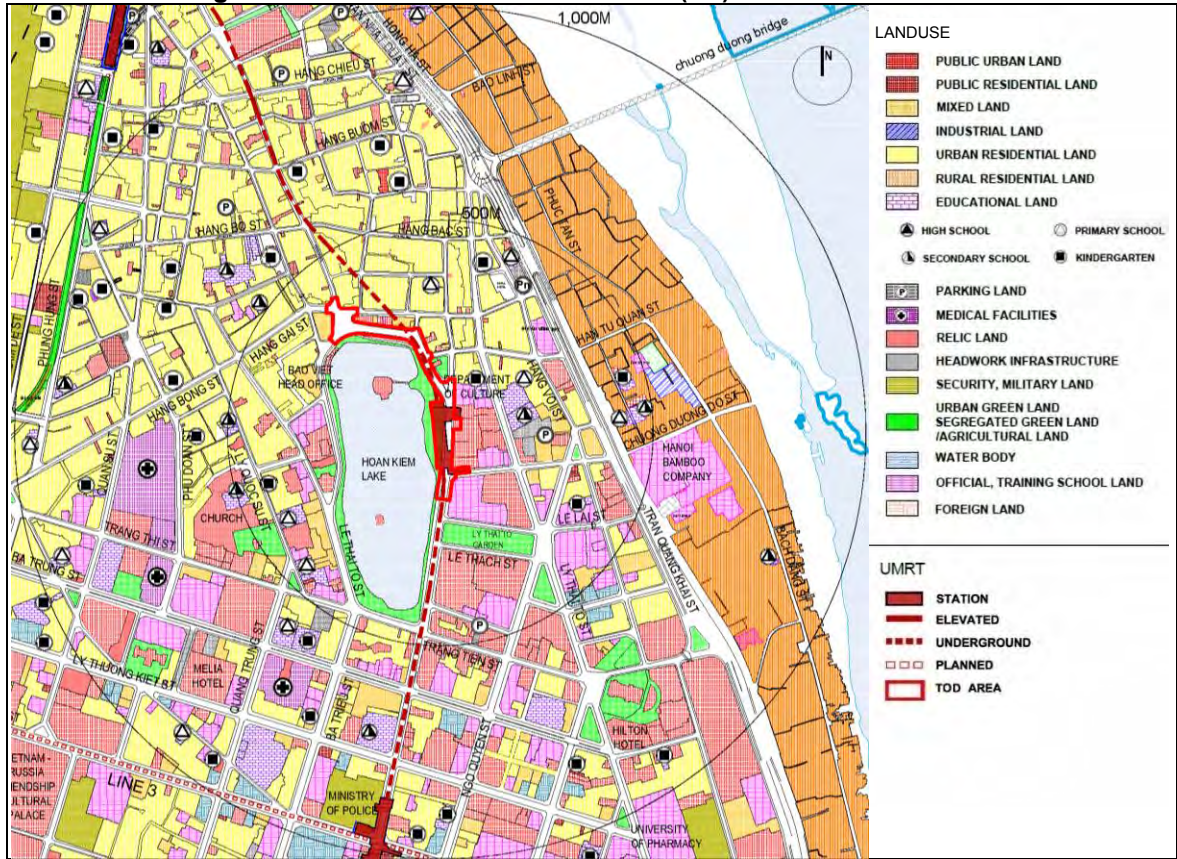


Figure 9.2 TOD Facilities Plan for Hoan Kiem (C9) Station Area

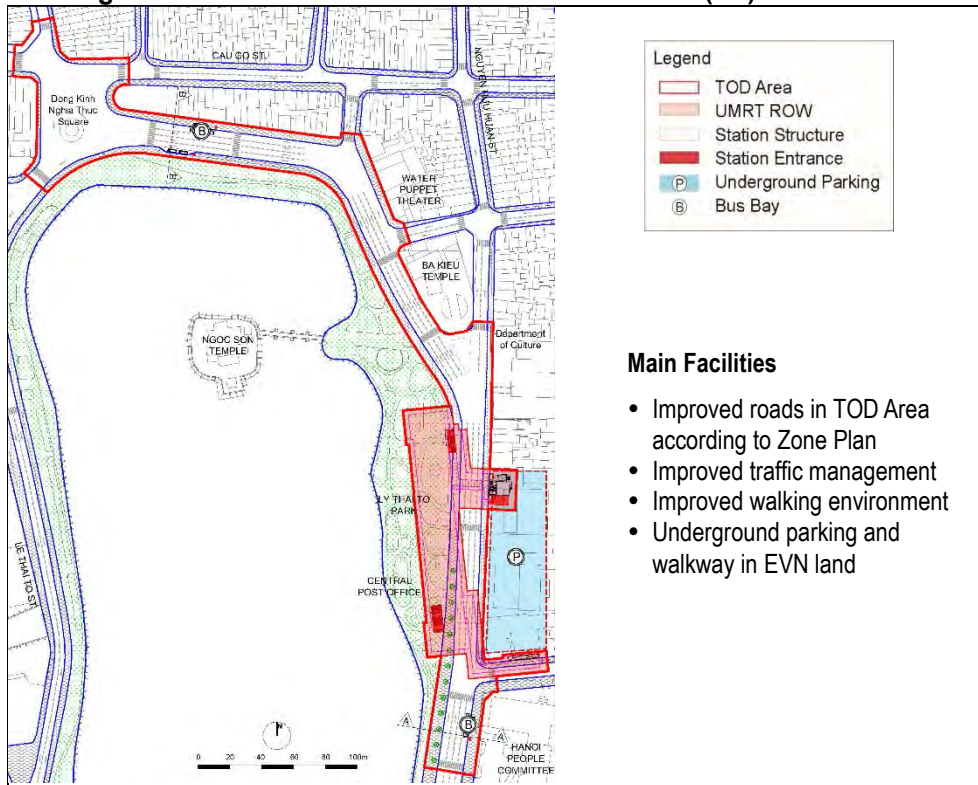


Figure 9.3 Identified Projects Location Map of C9 Hang Dau Station Area

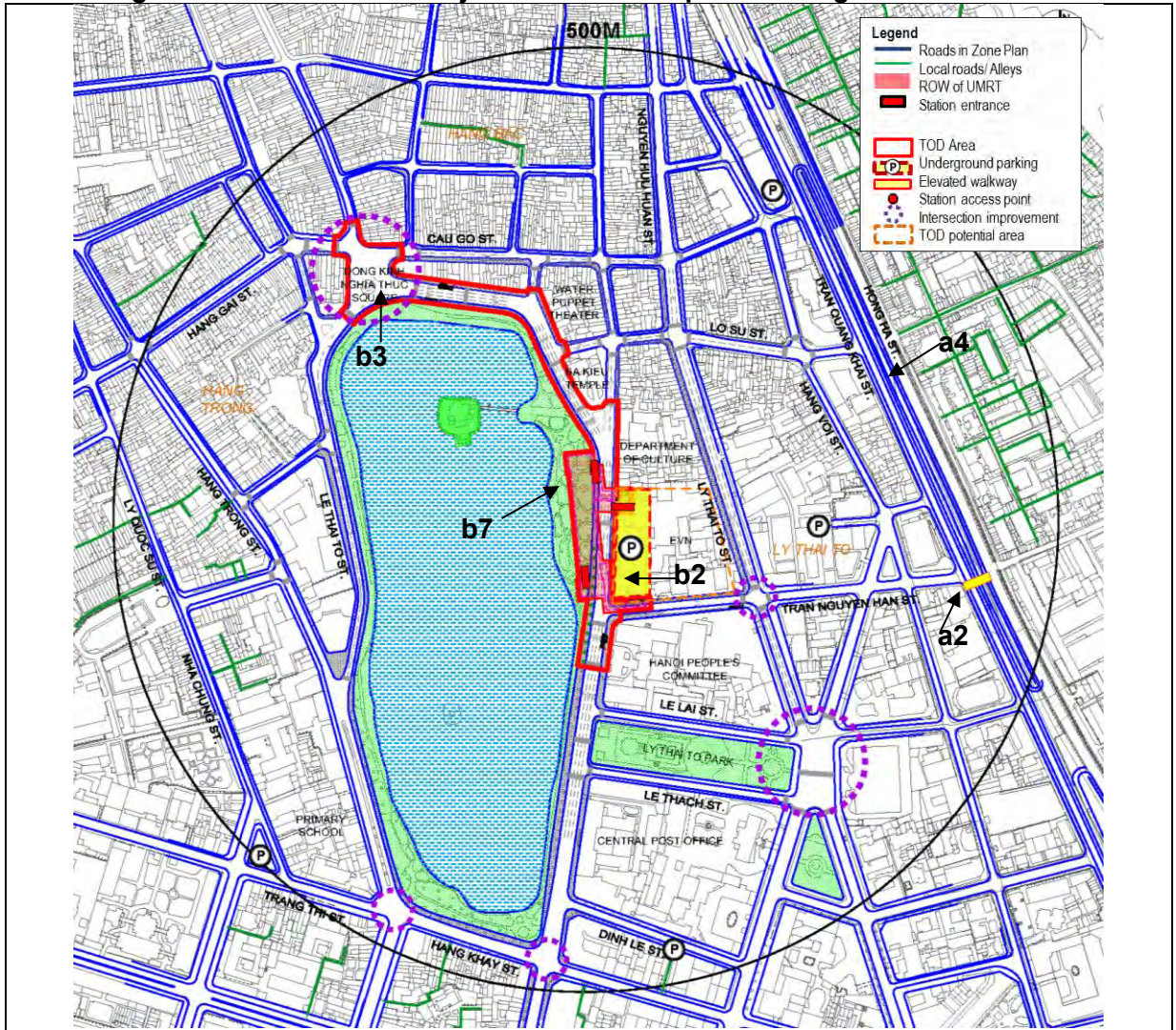


Table 9.1 Access Improvement Project List of C9

Category	ID	Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category
Area within 500m Radius	a1	Improvement of walkability in the areas	---	---	Short (Minimum)
	a2	Improvement of pedestrian crossing across dyke road (Tran Quang Khai St.)	180m ² (3m x 45m)	7,000	Short (Minimum)
	a3	Improvement of access alleys within 500 m radius of the station	14,800m ² (W=4m, L=3,700m)	31,000	Short (Minimum)
	a4	Development of parking facilities along dyke road (Tran Quang Khai St.)	1,200m ² (W=6m, L=200m)	2,000	Short (Minimum)
	a5	Provision of local circulation minibus and community bike services	---	---	Short
	a6	Strengthening of traffic management around the Ancient Quarter and Hoan Kiem Lake	15 locations	3,000	Short
Sub Total				43,000	
TOD area	b1	Improvement of the space at the entrance/exit of the station	3 locations	300	Short (Minimum)
	b2	Development of underground parking in conjunction with redevelopment of EVN area (TOD potential area)	10,000m ²	815,000	Basic
	b3	Development of EV bus and community cycle station at the north of Hoan Kiem Lake	100m ²	2,000	Basic
	b4	Improvement of traffic management (sign, signals, markings, etc.)	360m ² for marking	1,000	Short (Minimum)
Sub Total				818,300	
Total				861,300	

Figure 10.1 Location of Tran Hung Dao (C10) Station in Zone Plan

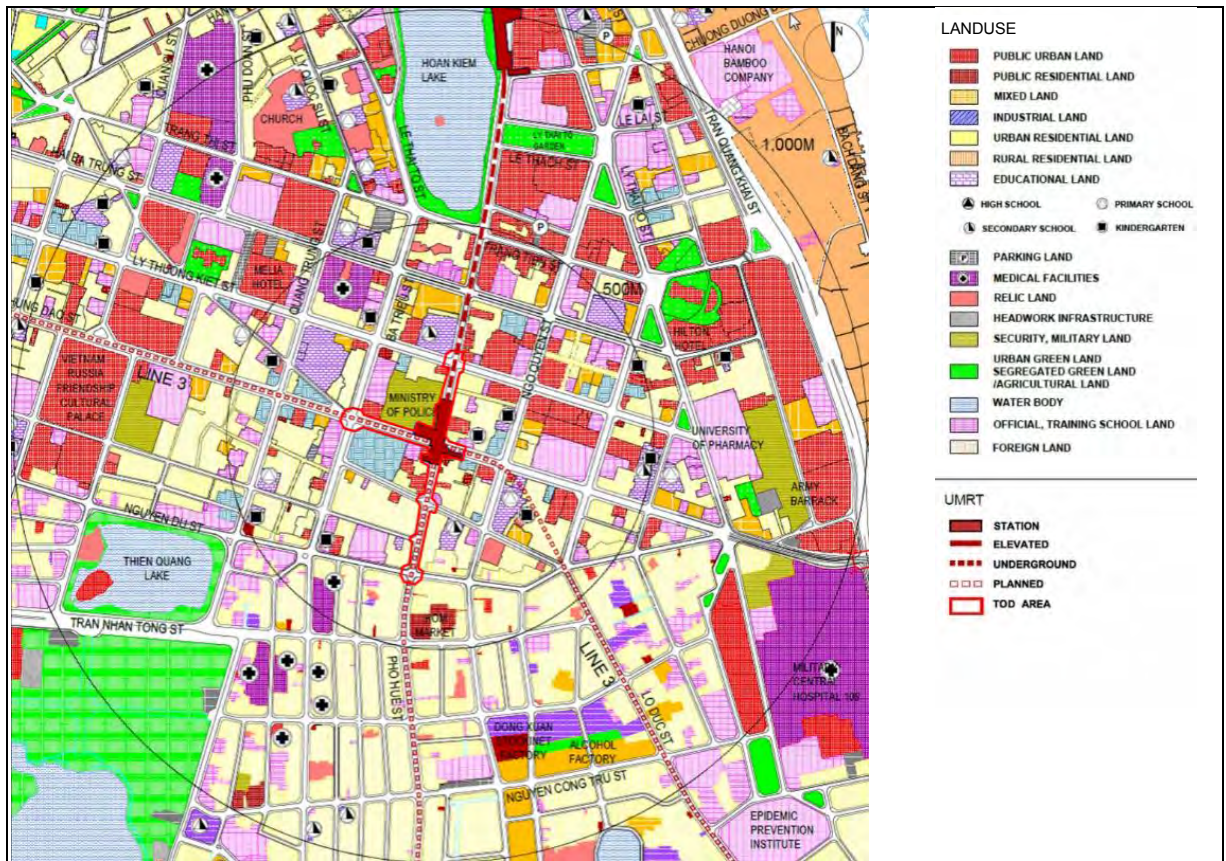


Figure 10.2 Facility Concept Plan of Tran Hung Dao (C10) Station

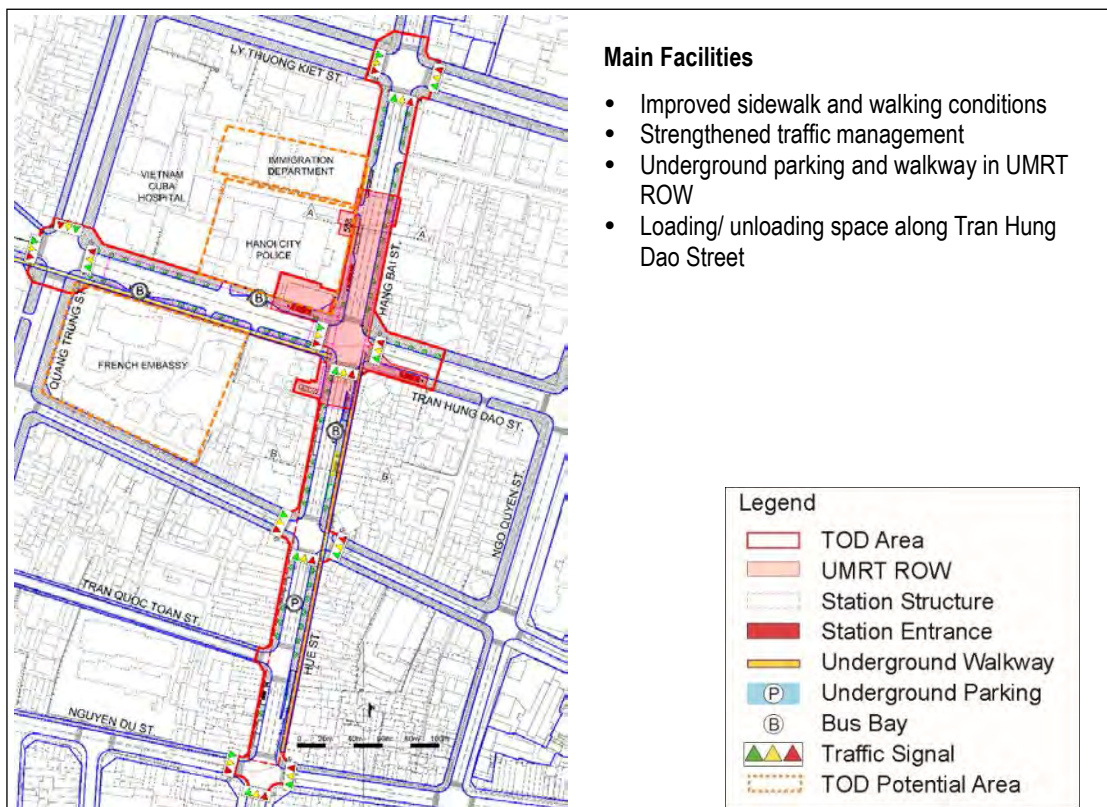


Figure 10.3 Identified Projects Location Map of Tran Hung Dao (C10) Station Area

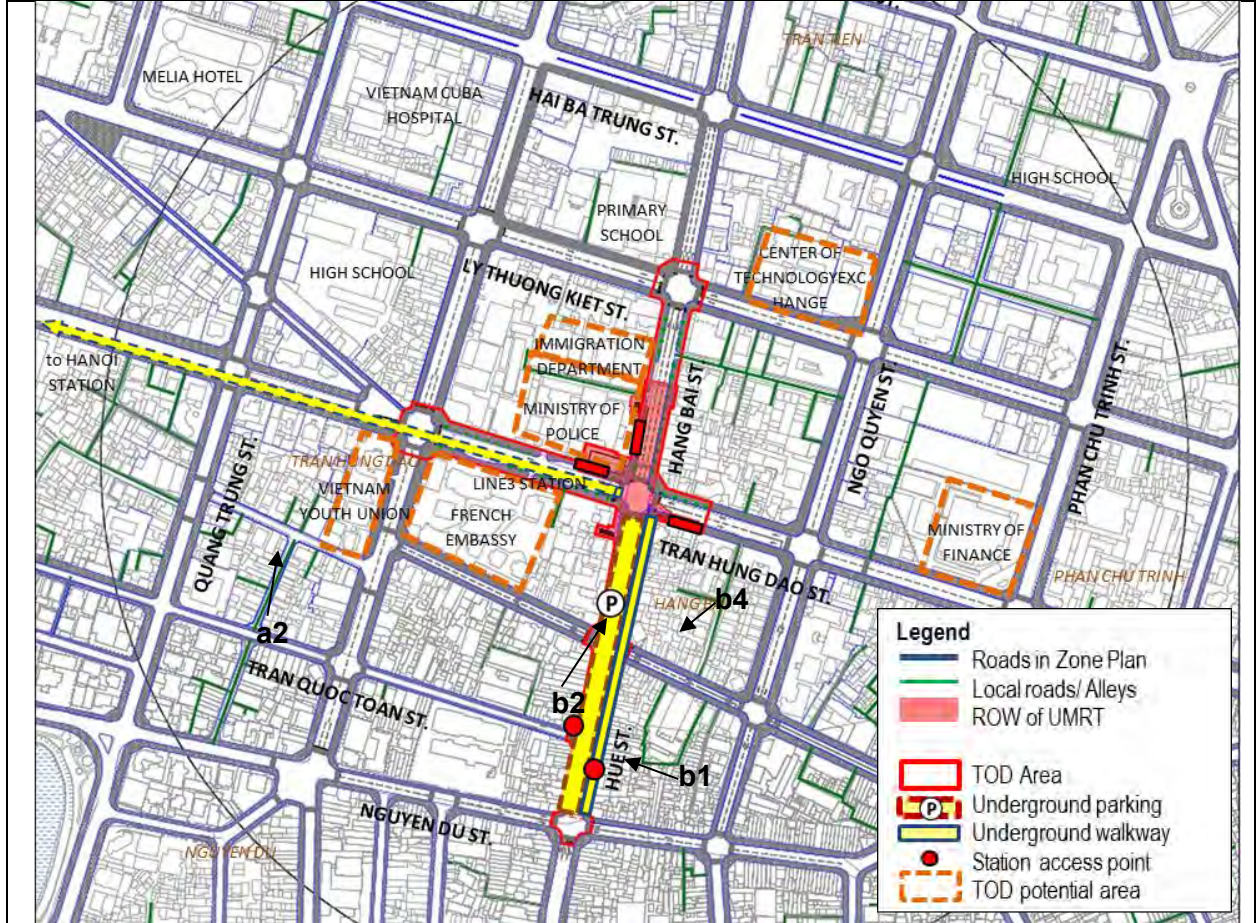


Table 10.1 Access Improvement Project List of C10

Category	ID	Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category
Area within 500m Radius	a1	Improvement of vehicle traffic circulation and management of road space	---	---	Short
	a2	Development of underground walkway along Tran Hung Dao Street	--	---	Strategic ²⁾
	a3	Improvement of access alleys in Hang Bai, Tran Hung Dao, Tran Tien, Phan Chu Trinh Wards	8,000m ² (W=4m, L=2,000m)	17,000	Short (Minimum)
	a4	Provision of local mini-bus circulation and community bike services	---	---	Short
	Sub Total				17,000
TOD area	b1	Development of underground parking and walkway along Hue Street	Parking ¹⁾ 6,300m ² x 2 floors (W=24.5m, L=255m)	196,000	Short (Minimum)
			Walkway 200m ²	34,000	
	b2	Development of underground walkway to connect Line 2 and Line 3 stations	400m ²	54,000	Short
	b3	Development of underground parking in conjunction with redevelopment of Hanoi Police area (TOD potential area)	--	---	Strategic ²⁾
	b4	Provision of intermodal facilities along Tran Hung Dao Street, Hue Street an Hang Bai Street	2 locations	4,000	Short (Minimum)
	b5	Improvement of traffic management in TOD area (sign, marking, benches, trees, etc.)	450m ² for marking	500	Short (Minimum)
Sub Total				288,500	
Total				305,500	

1) The civil work (excavation, construction of structure) is excluded which will be constructed by UMRT Line2 construction project.

2) The strategic project is not estimated.

Figure 11.1 Location of Hanoi (V8) Station in Zone Plan

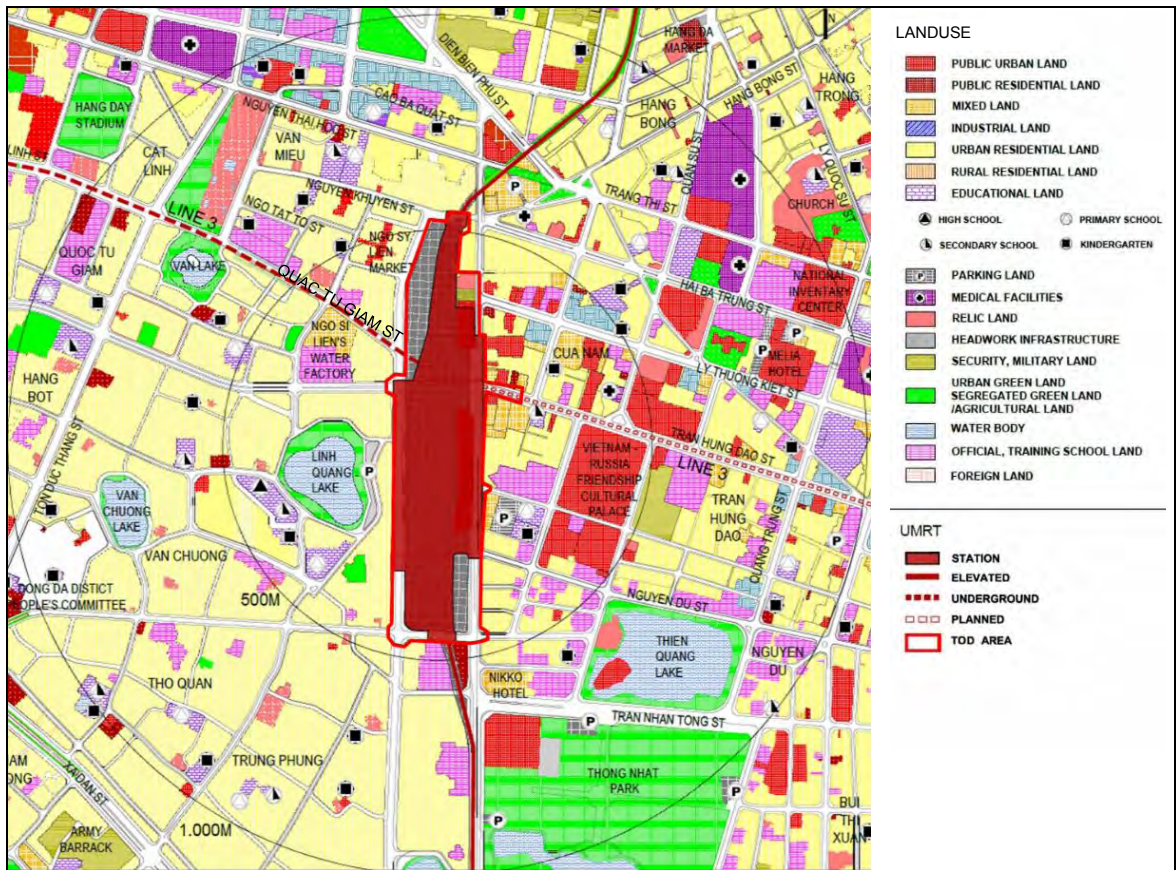


Figure 11.2 Facility Concept Plan of Hanoi Station (V8)

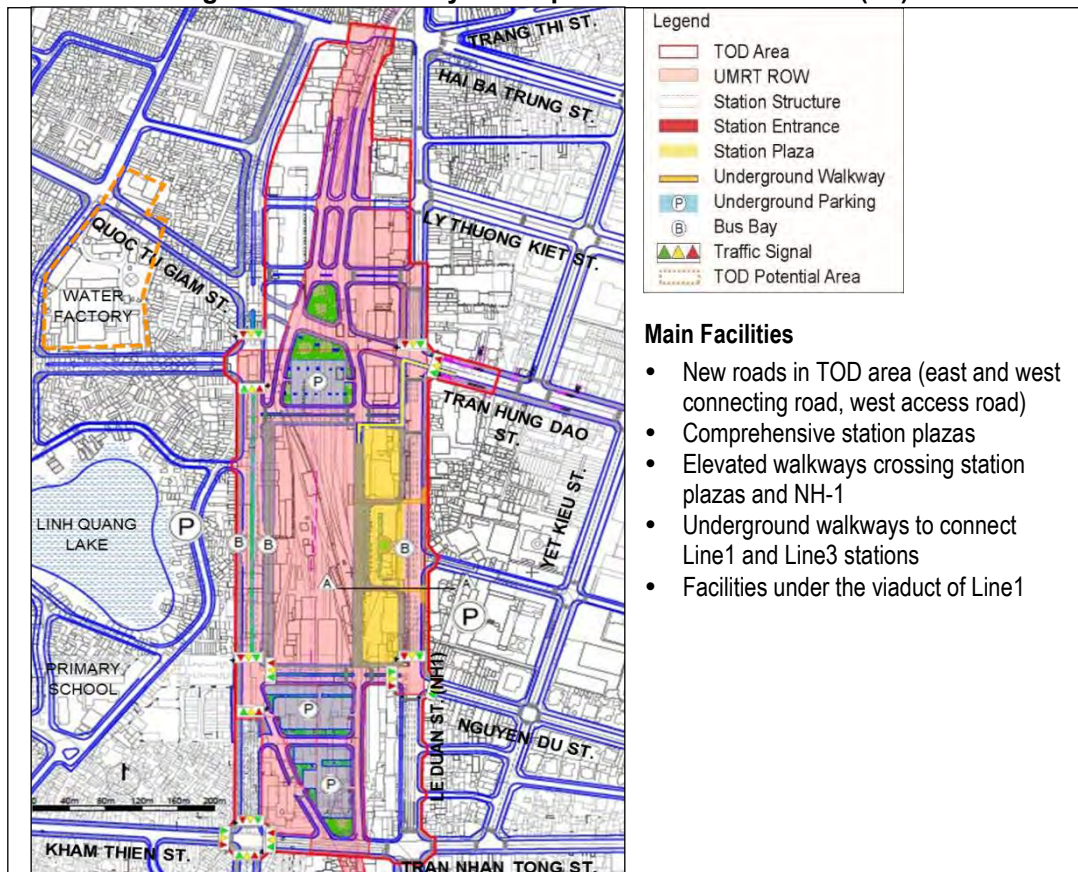


Figure 11.3 Identified Projects Location Map of Hanoi (V8) Area

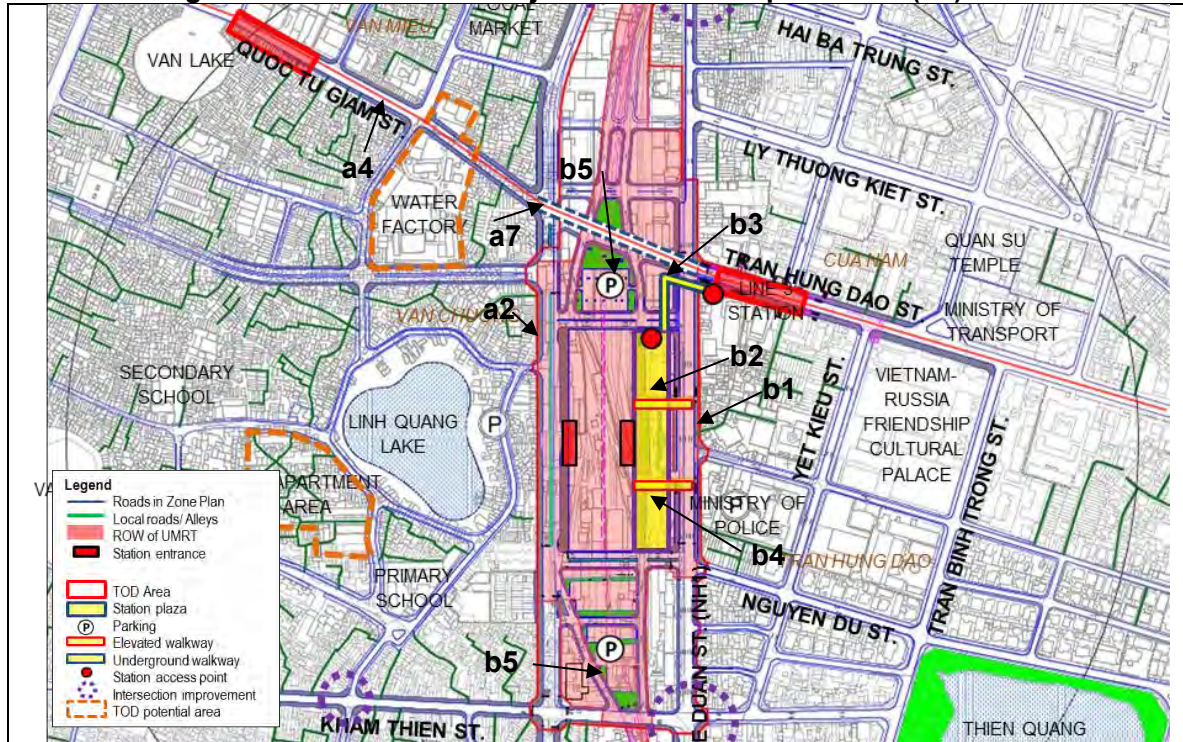


Table 11.1 Access Improvement Project List of V8

		Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 700m Radius	a1	Development of missing link to connect Tran Hugn Dao at east area and Quoc Tu Giam St – Cat Linh St at west areas	Option A (New road – link Tran Hung Dao St – Quoc Tu Giam St – Cat Linh St) of west area 8,800 m ²	16,000	Short	
			Option B (north of VNR Station) of east area 7,700 m ²	14,000		
	a2	Development of new access road in the west side of the station	24,000m ² (30m x 800m)	51,000	Others ¹⁾	
	a3	Study on improvement of intersection at north and south of station along NH1(Le Duan St)	---	---	Short	
	a4	Improvement of secondary roads including Quoc Tu Giam St., Ngo Si Lien St., Tran Qui Cap St. of west built-up area	21,000 m ²	38,000	Short (Minimum)	
	a5	Improvement of access alleys in Van Chuong, Kham Thien, Tran Hung Dao, Cua Nam, Nguyen Du Wards	42,000 m ² (W=3m, L=14,000m)	88,000	Short (Minimum)	
	a6	Provision of local circulation mini-bus services and community bicycle services	---	---	Short	
	a7	Improvement of intersections	3 locations	600	Short (Minimum)	
Sub Total ³⁾				146,600		
TOD area	b1	Priority development of roads located in TOD Area (Le Duan St, new west access road) ²⁾	1. Widening of NH1	10,200m ²	18,000	Short
			2. New west access road (W=30m)	3,600 m ²	6,000	Short
	b2	Development of station plaza in the east and west of the station	1. East station plaza	6,200m ²	23,000	Short (Minimum)
			2. West station plaza	---	---	Basic
	b3	Development of underground walkway connecting between Line1 and Line3 stations and bridges connect to the station	1,000m ² (4m x 250m)	191,000	Short (Minimum)	
	b4	Development of pedestrian bridge crossing NH1	643m ²	31,000	Short	
	b5	Provision of parking facilities under the UMRT viaduct space	13,300 m ²	7,000	Short (Minimum)	
b6	Improvement of traffic management	Lump sum	5,000	Short (Minimum)		
Sub Total				281,000		
Total ³⁾				427,600		

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

3) Total cost includes the cost of Option A of a1.

Figure 12.1 Location of Thong Nhat Park (V9) Station in Zone Plan

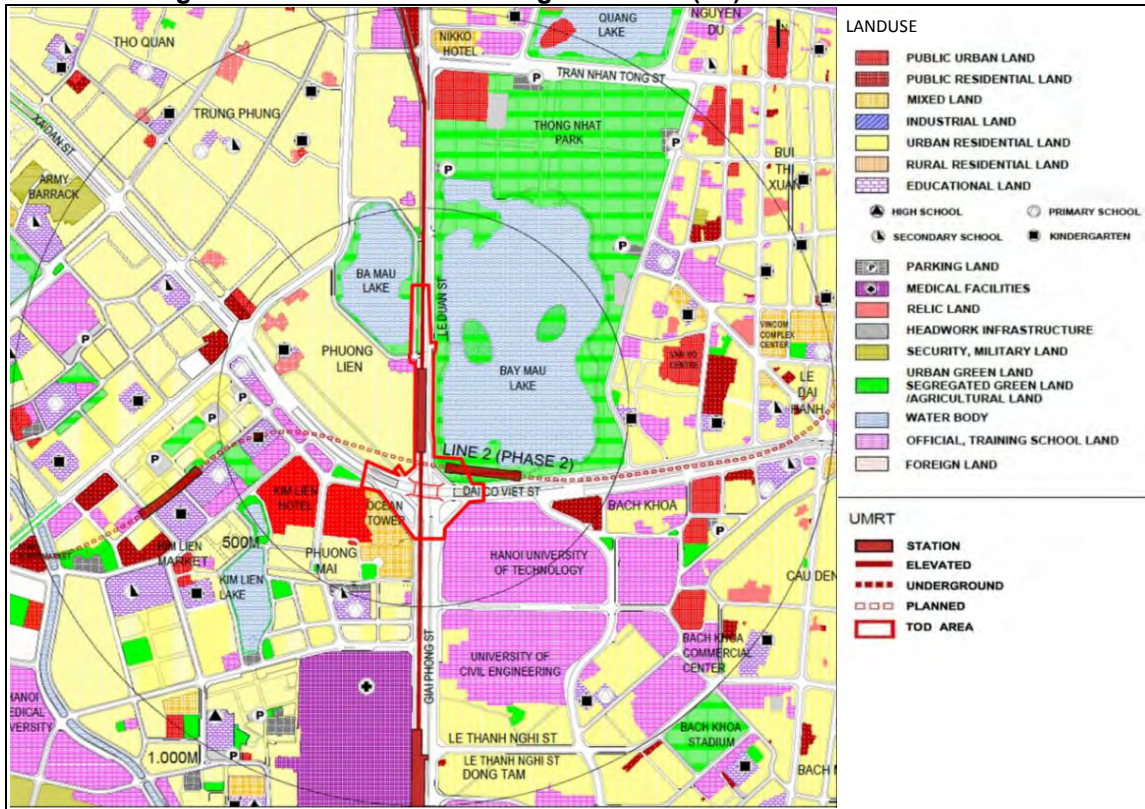
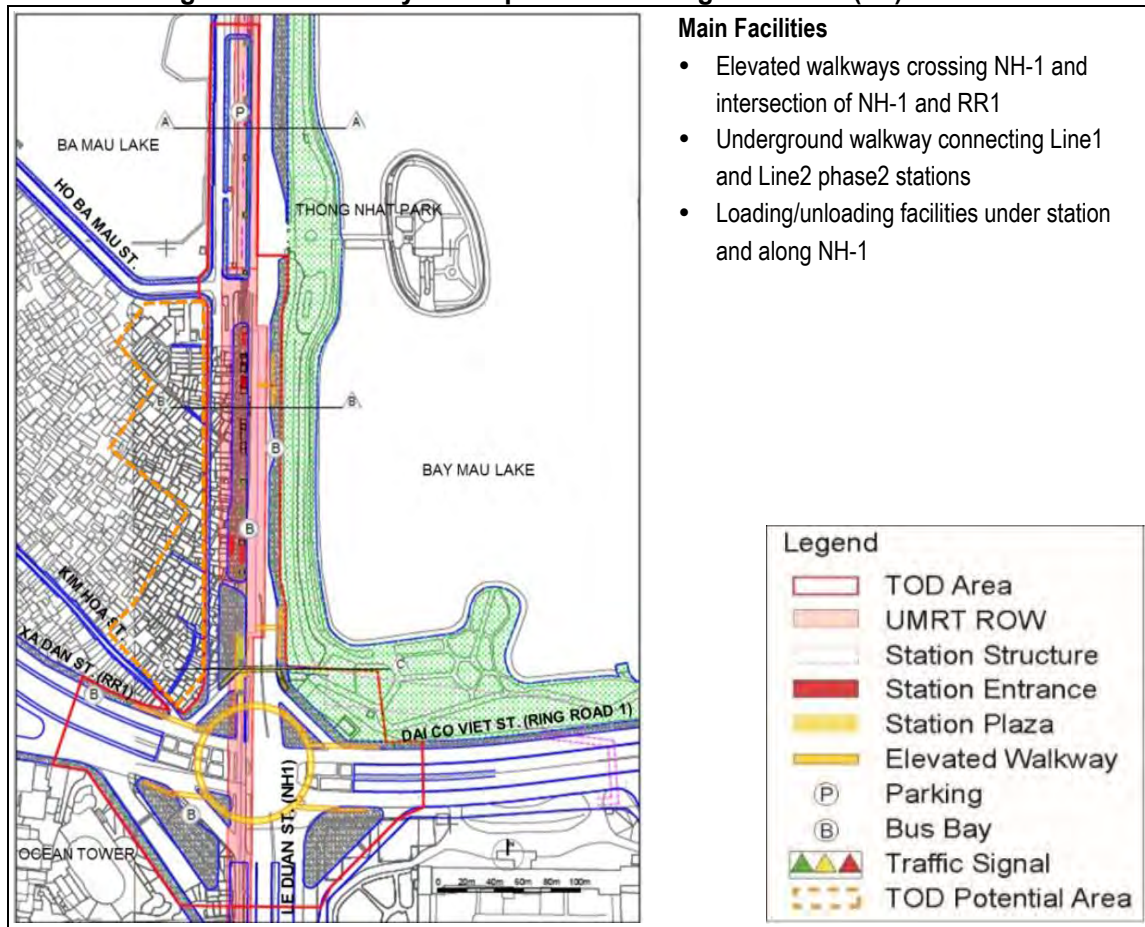


Figure 12.2 Facility Concept Plan at Thong Nhat Park (V9) Station



Main Facilities

- Elevated walkways crossing NH-1 and intersection of NH-1 and RR1
- Underground walkway connecting Line1 and Line2 phase2 stations
- Loading/unloading facilities under station and along NH-1

Figure 12.3 Identified Projects Location Map of Thong Nhat Park (V9) Area

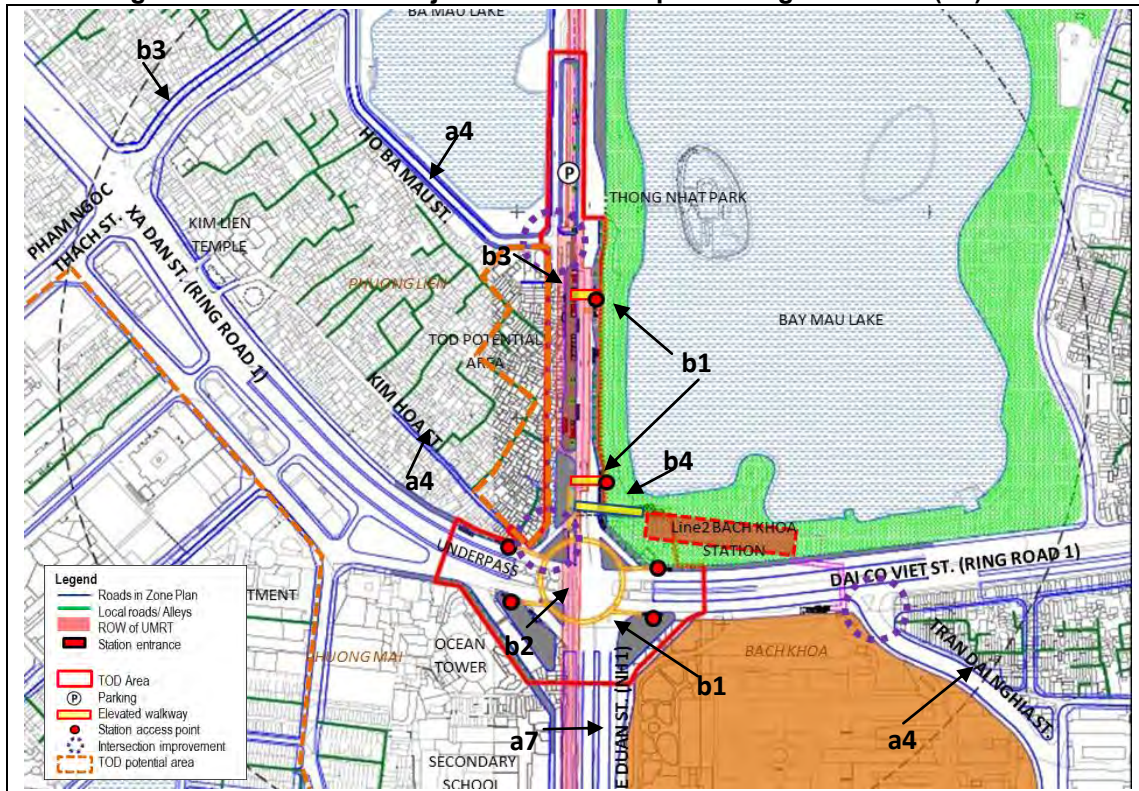


Table 12.1 Access Improvement Project List of V9

	Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 500m Radius	1 Improvement of transport access conditions of main roads including RR1 (Dai Co Viet - Xa Dan St.), NH1 (Le Duan St.), Pham Ngoc Thach St	---	---	Short (Minimum)	
	2 Improvement of RR1	1. Improvement	8,000m ²	14,000	Short (Minimum)
		2. Widening of Dai Co Viet St. (W=67m)	5,100m ²	9,000	Others ¹⁾
	3 Development of new road of west of Ba Mau Lake	8,000m ²	16,000	Others ¹⁾	
	4 Improvement of sidewalk/road surface of Tran Dai Nghia St., Ho Ba Mau St., Hoang Tich Tri St. and Kim Hoa St.	25,000m ²	35,000	Short (Minimum)	
	5 Improvement of access alleys in Kim Lien Phuong Mai, Bach Khoa Wards	9,000m ² (W=3m, L=3,500m)	22,000	Short (Minimum)	
	6 Improvement of intersections in the area within 500m radius of the station	6 locations	1,000	Short (Minimum)	
Sub Total (excluding others)			72,000		
TOD area	1 Development of elevated walkways at the intersection of RR1(Dai Co Viet St.– Xa Dan St) and NH1 (Le Duan St)	1. North pedestrian bridge crossing NH1	87m ²	20,000	Short (Minimum)
		2. South pedestrian bridge crossing NH1	311 m ²		Short (Minimum)
		3. Circular pedestrian bridge crossing intersection	2,400m ²	118,000	Short (Minimum)
	2 Development of intermodal facilities under the station and along Le Duan St.	Lump sum	3,000	Short (Minimum)	
	3 Provision of parking and retail facilities under the UMRT viaduct space	3,200m ²	1,000	Short (Minimum)	
	4 Provision of necessary space for future connection with the underground station of Line 2 ²⁾	500m ²	---	Short	
5 Improvement of traffic management measures in TOD Area	Lump sum	1,000	Short (Minimum)		
Sub Total			168,000		
Total			240,000		

1) Road development project in the area within 500m radius is excluded from TOD project.

2) This project aims to ensure the space for future development of walkway, so the construction cost is not estimated.

Figure 13.1 Location of Bach Mai (V10) Station in Zone Plan

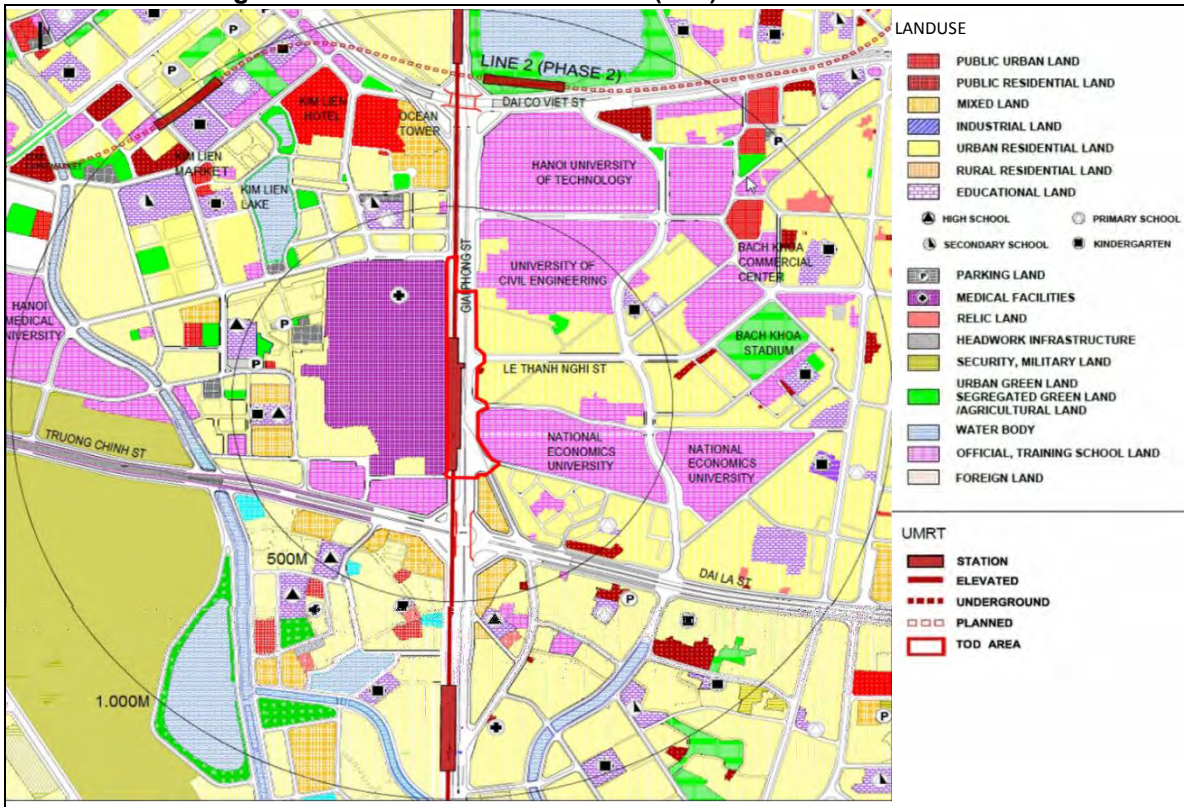


Figure 13.2 Facility Concept Plan at Bach Mai (V10) Station

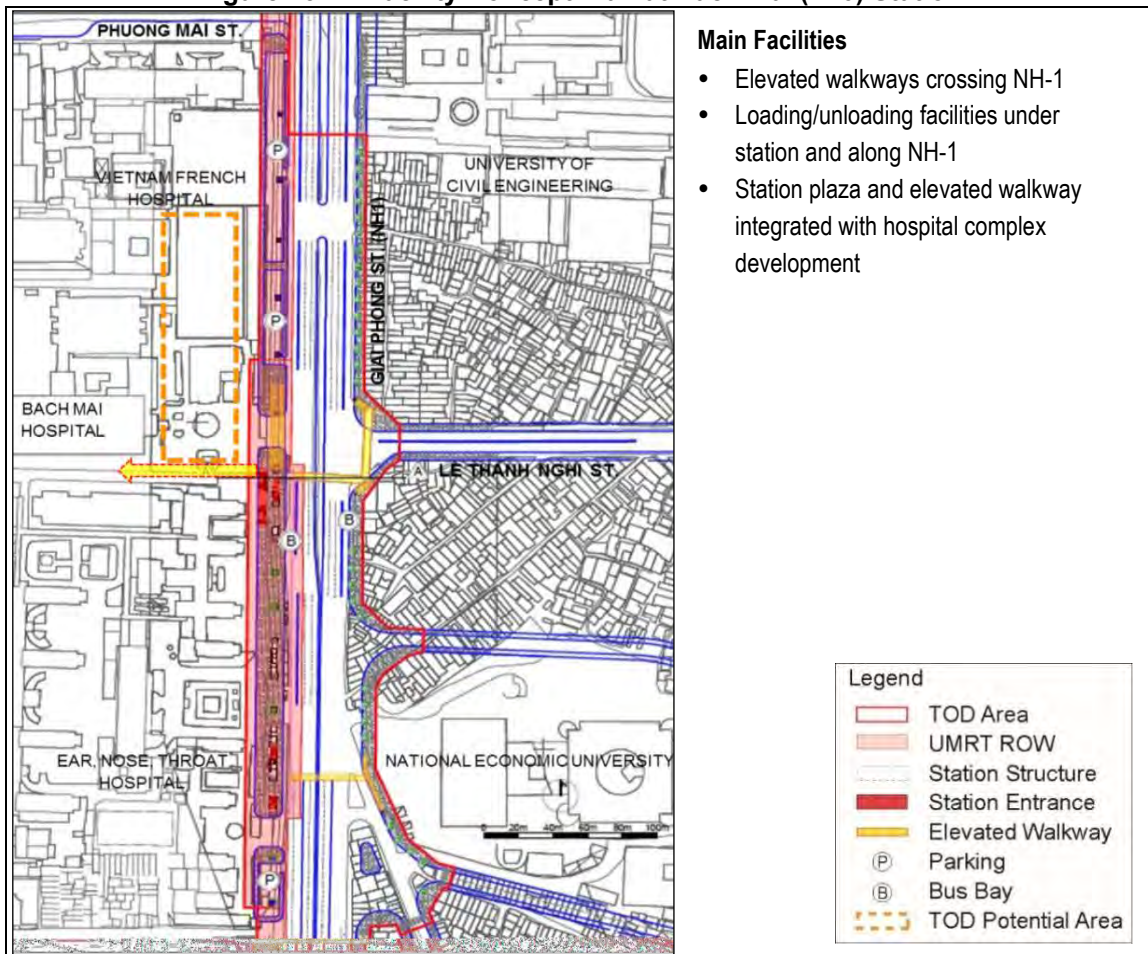


Figure 13.3 Identified Projects Location Map of Bach Mai (V10) station Area

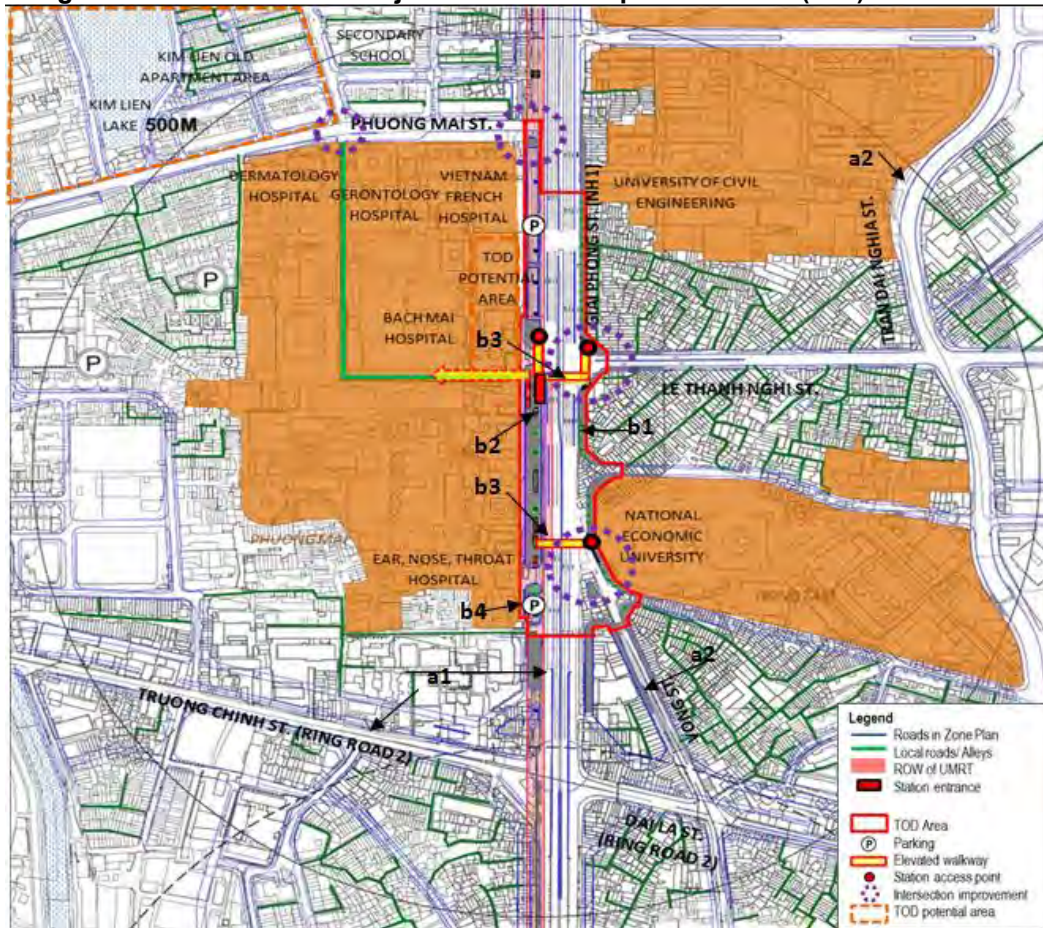


Table 13.1 Access Improvement Project List of V10

	Project Name		Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 500m Radius	1	Improvement of sidewalk of NH1 (Gai Phong St.), RR2 (Truong Chinh St.) and Le Thanh Nghi St.	1. Improvement	17,600m ²	31,000	Short (Minimum)
		2. Widening	15,000m ²	26,000	Others ¹⁾	
	2	Improvement of secondary roads including Tran Dai Nghia St, Vong St. and Phuong Mai St		16,000 m ²	29,000	Short (Minimum)
	3	Improvement of access alleys in Phuong Mai, Bach Khoa, Dong Tam Wards		36,000 m ² (W=4m, L=9,000m)	76,000	Short (Minimum)
	4	Improvement of intersections		6 locations	1,000	Short (Minimum)
Sub Total				137,000		
TOD area	1	Priority development of roads located in TOD Area (NH1) ²⁾	12,400 m ²	22,000	Short	
	2	Development of intermodal facilities under station and in the east side of the station along NH1	2 locations	1,000	Short (Minimum)	
	3	Provision of connecting facilities for smooth movement between UMRT station and hospital areas	1. North of NH1 (W=4m)	320m ²	16,000	Short
			2. South of NH1 (W=4m)	160m ²	8,000	Short
			3. Under viaduct (W=7m)	210m ²	10,000	Short (Minimum)
	4	Provision of parking and retail facilities under the UMRT viaduct space		4,500 m ²	1,000	Short (Minimum)
5	Improvement of traffic management		3 signals 150m ² for marking	2,000	Short (Minimum)	
Sub Total				60,000		
Total				197,000		

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 14.1 Location of Phuong Liet (V11) Station in Zone Plan

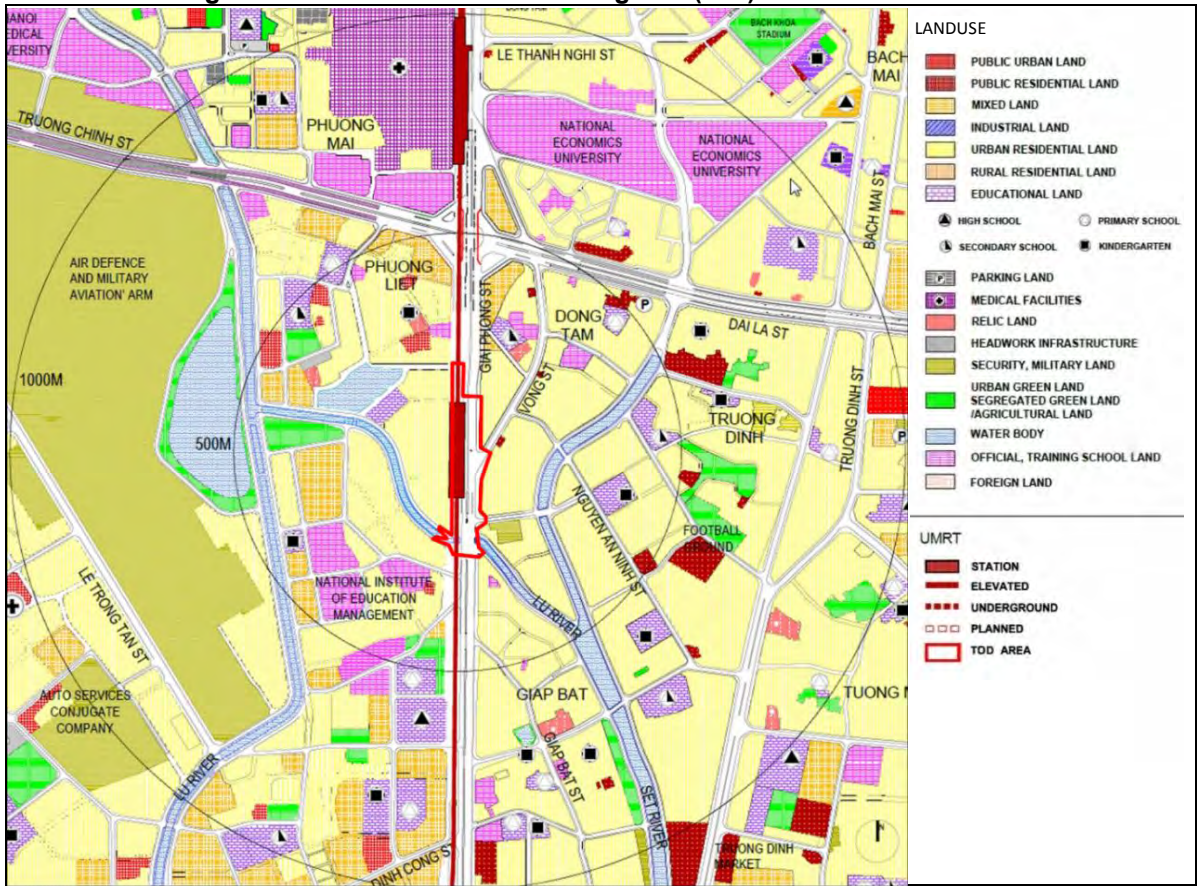


Figure 14.2 Facility Concept Plan and Images of V11 Phuong Liet Station

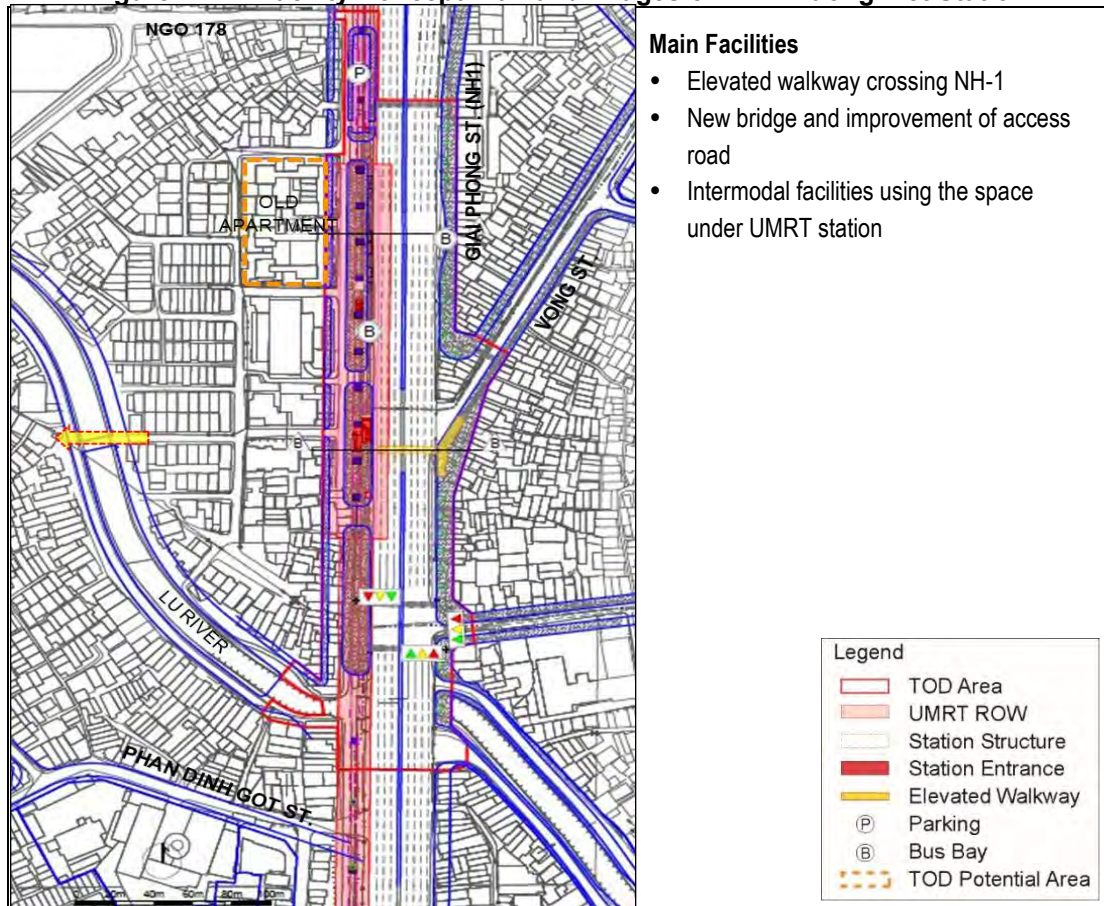


Figure 14.3 Identified Projects in Phuong Liet (V11) Area

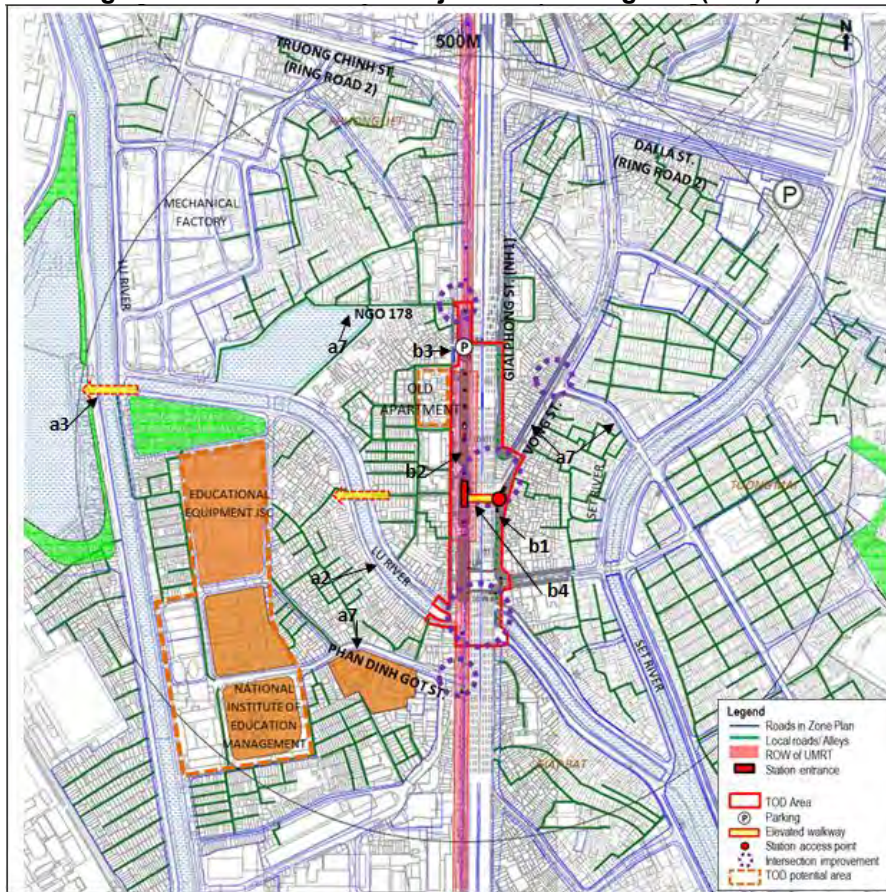


Table 14.1 Access Improvement Project List of V11

	Project Name		Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 500m Radius	1	Improvement of Vong St., Nguyen An Ninh St. Giap Bat St., Phan Dinh Got St., Alley 178 – Giai Phong St.	1. Improvement	15,000m ²	27,000	Short (Minimum)
			2. Widening	9,200m ²	16,400	Others ¹⁾
	2	Improvement of road along Lu river (only one side)		7,000m ²	13,000	Short (Minimum)
	3	Development of a new bridge across Lu River and improvement of connecting road on the west side of the station		1,000m ²	4,800	Short
	4	Improvement of access alleys in Phuong Liet, Dong Tam, Giap Bat Wards		45,000m ² (W=3m, L=15,000m)	95,000	Short (Minimum)
	5	Improvement of intersection		3 locations	600	Short (Minimum)
Sub Total				140,400		
TOD area	1	Priority development of main roads located in TOD Area (NH1) ²⁾		15,000m ²	27,000	Short
	2	Development of intermodal facilities under station and in the east side of the station along NH1		900m ²	700	Short (Minimum)
	3	Provision of parking and retail facilities under the UMRT viaduct space		750m ²	300	Short (Minimum)
	4	Provision of elevated walkway crossing NH1 (W=4m)		140m ²	7,000	Short
	5	Improvement of traffic management			1,800	Short (Minimum)
Sub Total				36,800		
Total				177,200		

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 15.1 Location of Giap Bat (V12) Station in Zone Plan

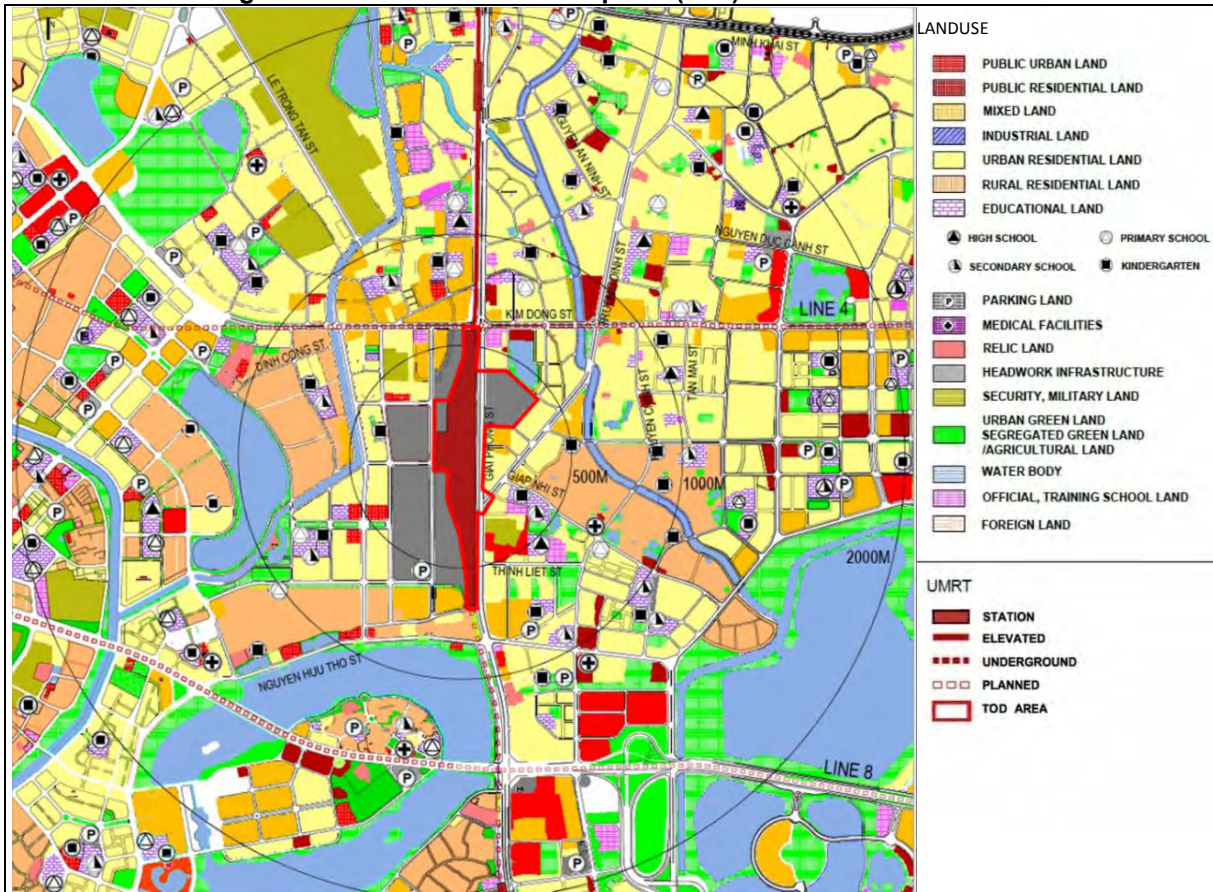


Figure 15.2 Facility Concept Plan and Images of V12 Giap Bat Station

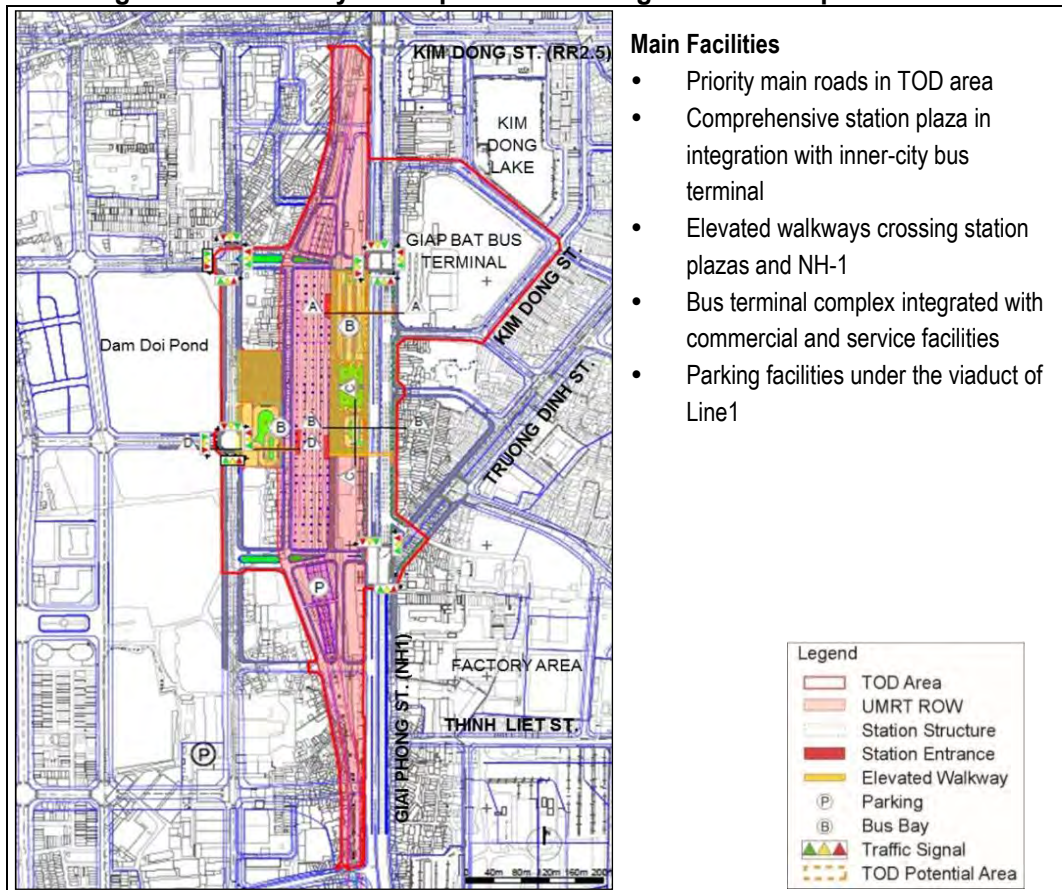


Figure 15.3 Identified Projects in Giap Bat (V12) Station Area

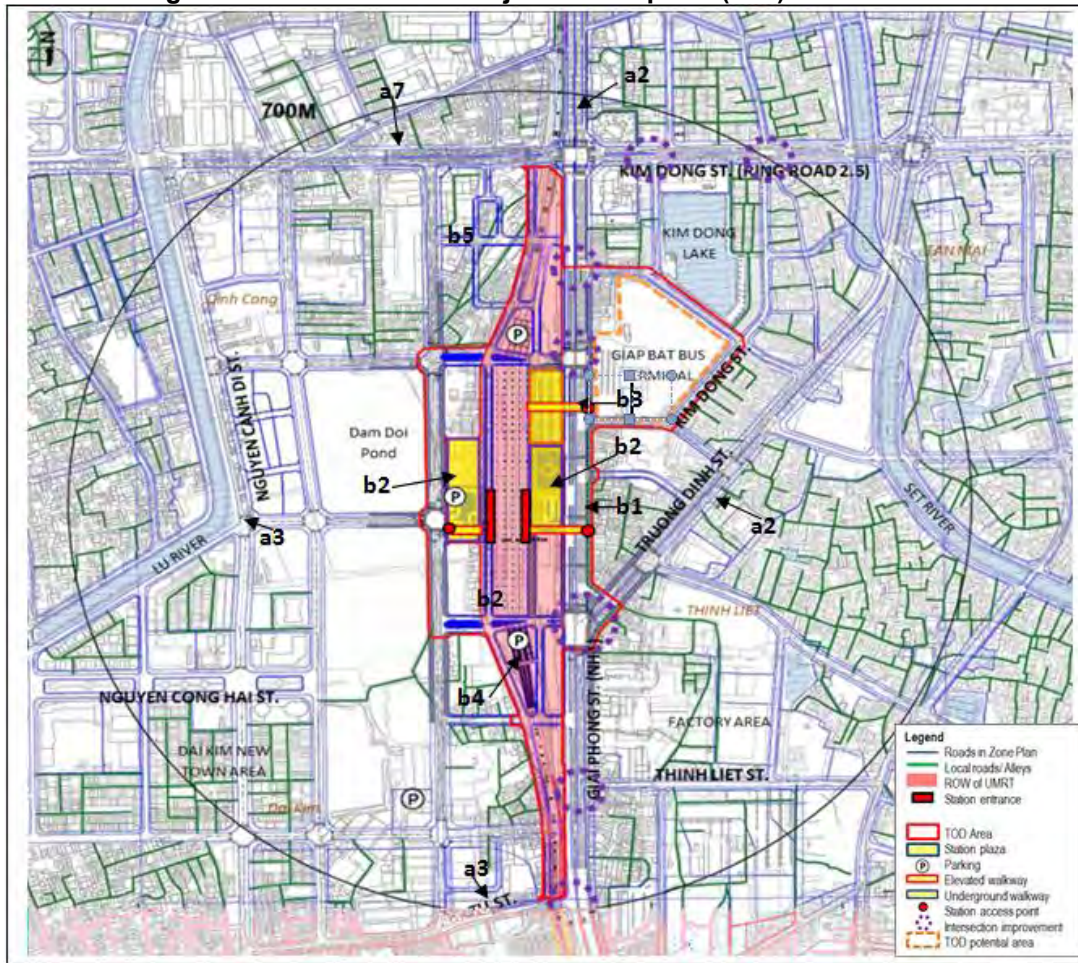


Table 15.1 Access Improvement Project List of V12

	Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 700m Radius	1 Development of RR2.5 and new west access road	20,600m ²	37,000	Others ¹⁾	
	2 Improvement of NH1, Truong Dinh St.	1. Improvement	13,000m ²	24,000	Short (Minimum)
		2. Widening	30,000m ²	53,000	Others ¹⁾
	3 Improvement of Kim Dong St., Nguyen Huu Tho St, Dai Tu St., Ngyuen Canh Di St.	1. Improvement	19,000m ²	34,000	Short (Minimum)
		2. Widening	11,000m ²	20,000	Others ¹⁾
	4 Development of distribution roads of west in consideration of comprehensive TOD development in the west	---	---	---	Strategic
	5 Improvement of access alleys in Thinh Liet, Dinh Cong, Dai Kim and Tan Mai Wards	45,00 m ² (W=3m, L=15,000m)	95,000	Short (Minimum)	
6 Improvement of intersections	5 locations	1,000	Short (Minimum)		
Sub Total (excluding others)			149,000		
TOD area	1 Priority development of roads located in TOD Area ²⁾	1. Widening of NH1 (Giai Phong St)	15,000 m ²	27,000	Short
		2. Development of new west access road	27,000 m ²	45,000	
	2 Development of east and west station plazas	1. East station plaza with inner city bus terminal	16,300 m ²	57,000	Short (Minimum)
		2. West station plaza	6,600 m ²	26,000	Short
	3 Development of connecting facilities	1. East pedestrian bridge connecting to Giap Bat Bus Terminal	850 m ²	49,000	Short (Minimum)
2. West pedestrian bridge		140m ²	12,000	Short	
4 Provision of parking and retail facilities under the UMRT viaduct space	2,800 m ²	2,000	Short (Minimum)		
5 Improvement of traffic management	---	8,000	Short (Minimum)		
Sub Total			226,000		
Total			375,000		

1) Road development project in the area within 500m radius is excluded from TOD project.

2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 16.1 Location of Long Bien Bac (V5) Station in Zone Plan

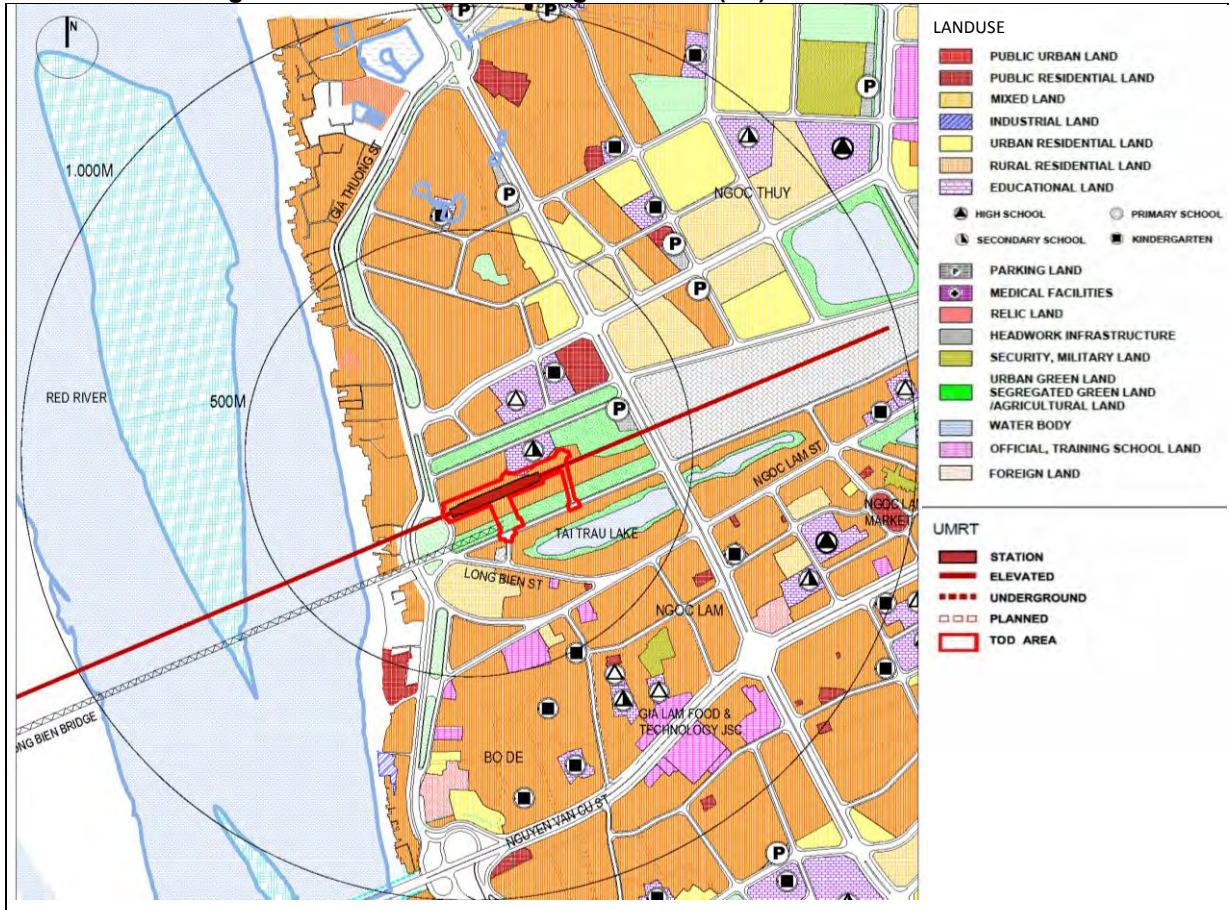
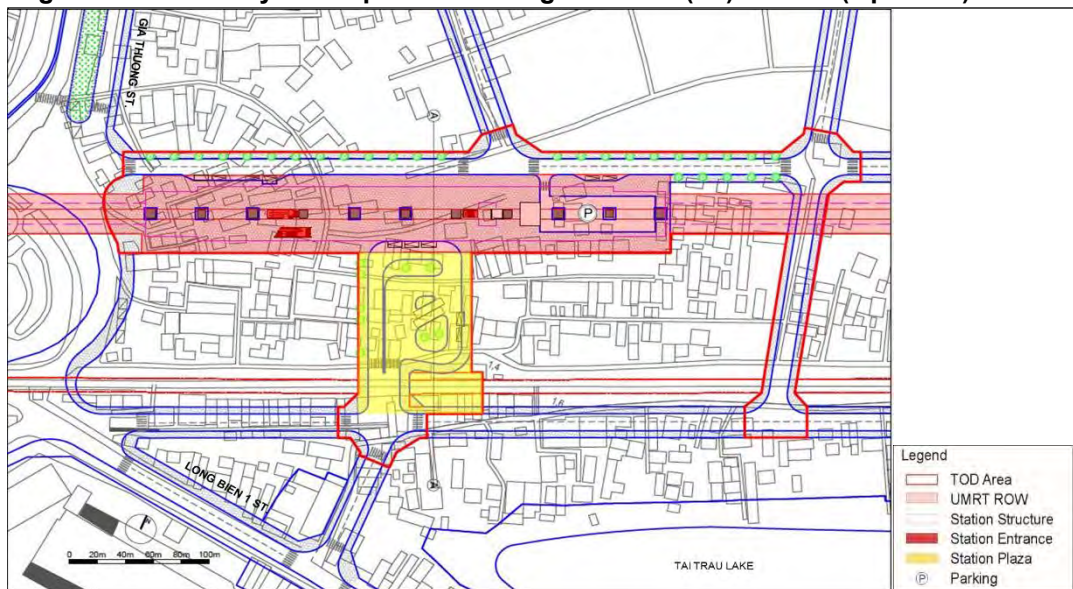


Figure 16.2 Facility Concept Plan at Long Bien Bac (V5) Station (Option B)



Main Facilities

- Primary and secondary road network to ensure connectivity with UMRT, especially in TOD area
- Loading/ unloading facilities under the station
- Station plaza connecting to VNR property

Figure 16.3 Identified Projects in Long Bien Bac (V5) Station Area

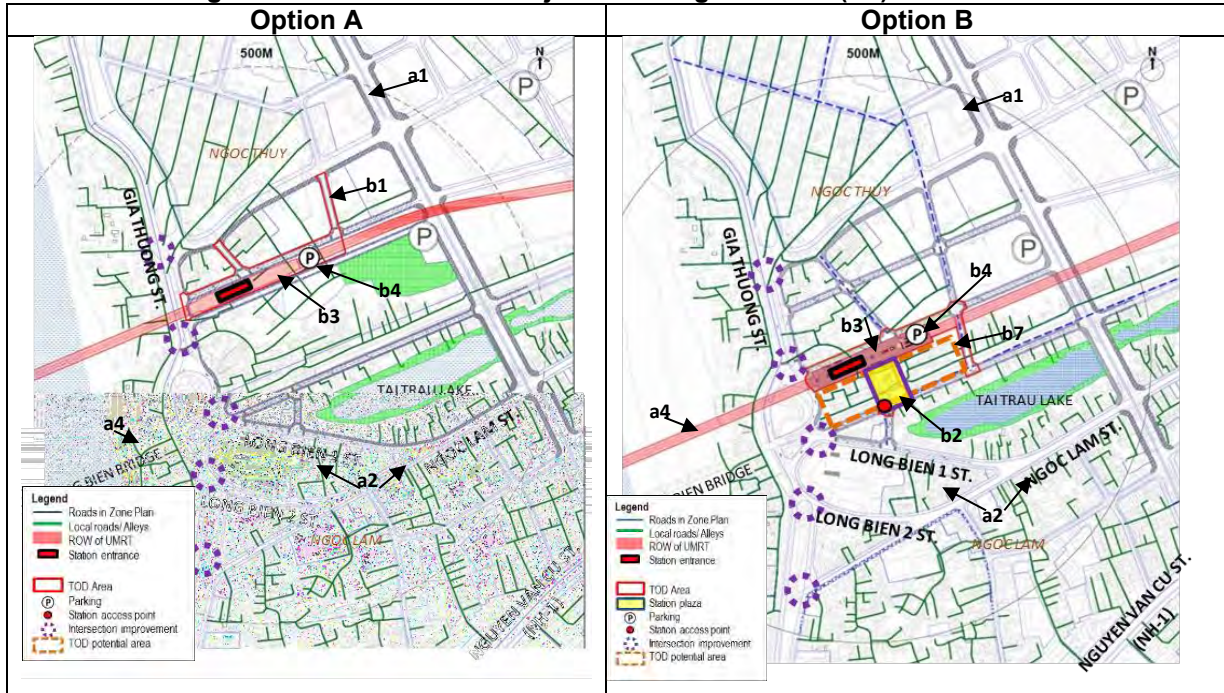


Table 16.1 Access Improvement Project List of V5

	Project Name		Quantity	Estimated Cost (mil. VND)	Implementation Category
Area within 500m Radius	1	Development of new roads at north of the station ¹⁾	46,000m ²	81,000	Others ²⁾
	2	Improvement of Ngoc Lam St., Gia Thuong St. (dyke road), Ngoc Thuy St., Long Bien St No. 1&2	22,500	40,000	Short (Minimum)
	3	Improvement of access alleys in Ngoc Lam and Ngoc Thuy Wards	36,000 (W=3m,L=12,000m)	76,000	Short (Minimum)
	4	Development of new bus service using to be abandoned VNR section including existing Long Bien Bridge section	---	---	Strategic
	5	Improvement of intersections	4 locations	800	Short (Minimum)
	Sub Total (excluding others)				116,800
TOD area	1	Priority development of roads in TOD Area ³⁾ Option A	7,350	13,000	Short
		Option B ¹⁾	5,400	10,000	Short
	2	Development of integrated station plaza of UMRT and new bus service (Option B)	3,500	12,000	Basic (Option B)
	3	Development of intermodal facilities under station	2 locations	14,000	Short (Minimum)
	4	Provision of parking and retail facilities under the UMRT viaduct space	800	500	Short (Minimum)
	5	Improvement of traffic management	3 signals 100m ² for marking	500	Short (Minimum)
Sub Total		Option A		28,000	
		Option B		37,000	
Total		Option A		144,800	
		Option B		153,800	

- 1) In case of Option B location, it is necessary to readjust alignment of Zone Plan to ensure access roads to the station. In the Figure 4.2.16-5 Option B, readjusted road alignments on Zone Plan is proposed.
- 2) Road development project in the area within 500m radius is excluded from TOD project.
- 3) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.

Figure 17.1 Location of Gia Lam (V4) Station in Zone Plan

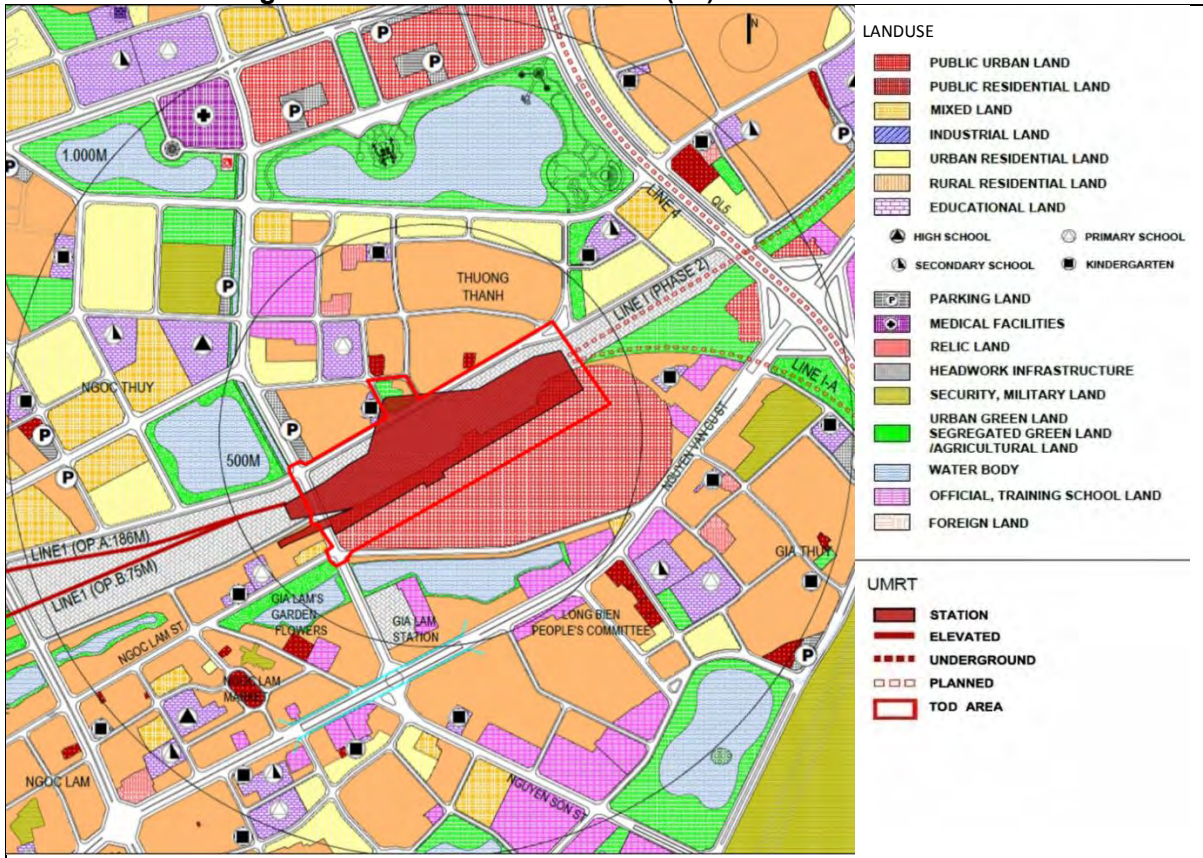
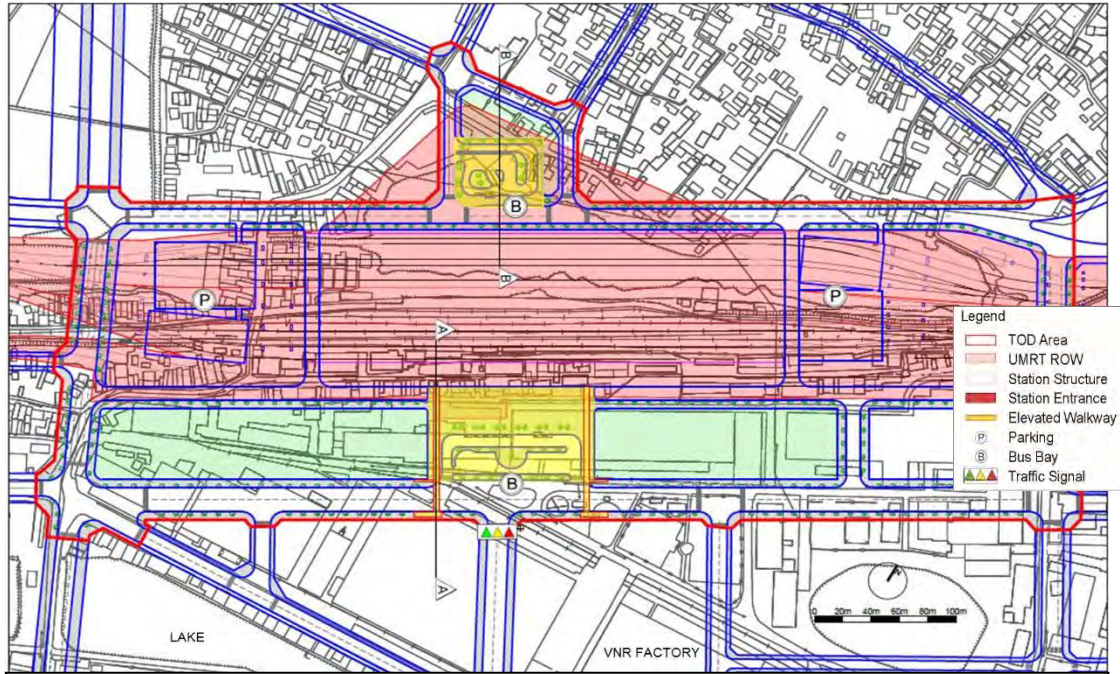


Figure 17.2 Facility Concept Plan at Gia Lam (V4) Station



Main Facilities

- Priority main roads in TOD area
- Comprehensive station plaza in integration with inner-city bus service
- Elevated walkways crossing station plazas
- Bus terminal complex integrated with commercial and service facilities
- Parking facilities under the viaduct of Line 1

Figure 17.3 Identified Projects in Gia Lam (V4) Station Area

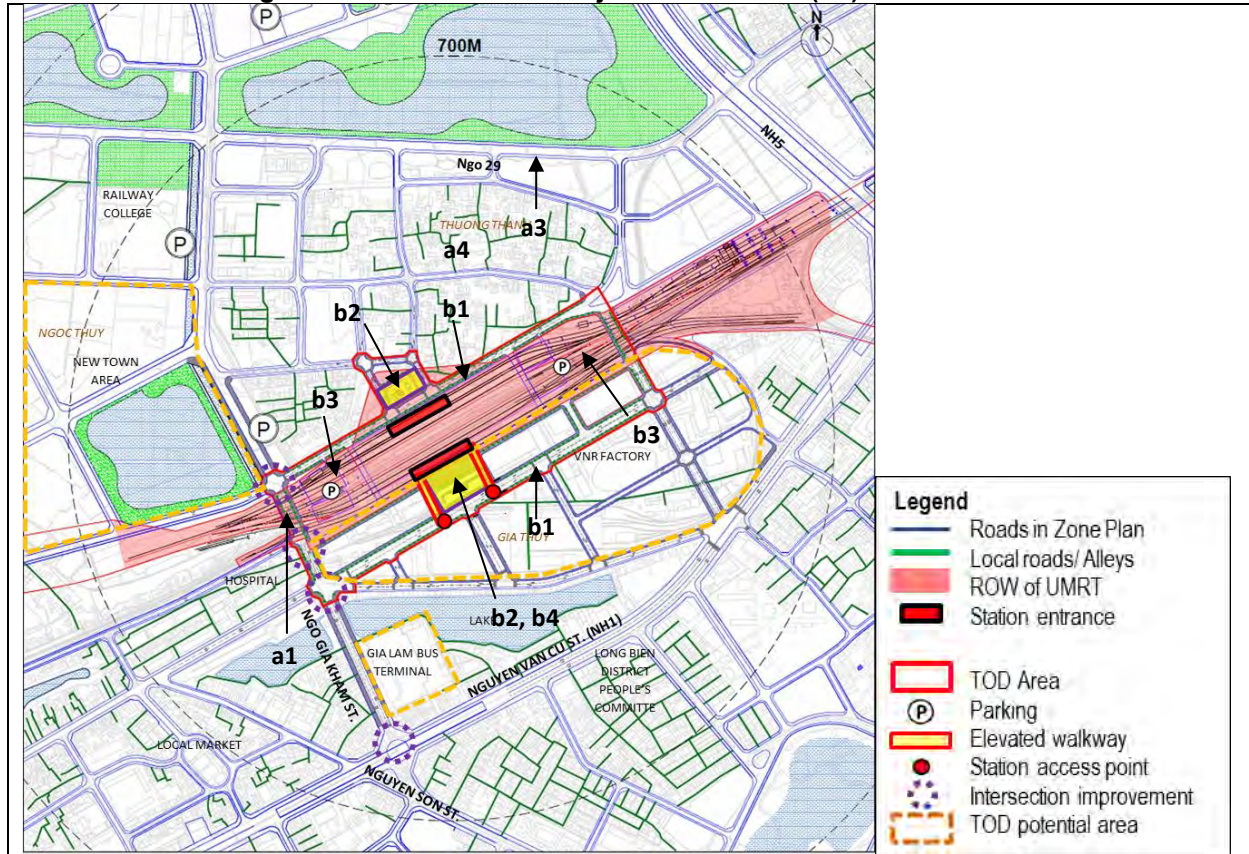


Table 17.1 Access Improvement Project List of V4

	Project Name	Quantity	Estimated Cost (mil. VND)	Implementation Category	
Area within 700m Radius	1 Development of new station access roads at the north and south of the station	73,500m ²	131,000	Others ¹⁾	
	2 Improvement/ widening of main access roads including Ngoc Lam St., Ngo Gia Kham St. and Doc Ga St.	Improvement	18,000m ²	32,000	Minimum
		Widening	14,000m ²	25,000	Short
	3 Improvement of secondary roads including Gia Quat St, Alley 29 – Thuong Thanh St	6,700m ²	12,000	Short (Minimum)	
	4 Improvement of access alleys in Ngoc Lam and Ngoc Thuy Wards	36,000m ² (W=3m,L=12,000m)	76,000	Short (Minimum)	
	5 Improvement of intersections	5 locations	1,000	Short (Minimum)	
	Sub Total (excluding others)		146,000		
TOD area	1 Development/improvement of roads in TOD Area (new north and south access roads, Ngo Gia Kham St) ²⁾	45,000m ²	80,000	Short	
	2 Development of station plaza in the north and south of the station	North station plaza	6,100m ²	19,000	Basic
		South station plaza	8,800m ²	34,000	Basic
	3 Provision of parking facilities under the UMRT viaduct space	11,000m ²	7,000	Short (Minimum)	
	4 Development of inner-city bus terminal inside south station plaza to provide feeder bus services including UMRT relay bus service	---	---	Strategic ³⁾	
	5 Improvement of traffic management	14 signals 500m ² for marking	8,000	Short (Minimum)	
	Sub Total		148,000		
	Total		294,000		

- 1) Road development project in the area within 500m radius is excluded from TOD project.
- 2) Quantity and coverage of road projects within 500m radius and projects in TOD area are not overlapped.
- 3) The cost for strategic project is not estimated.