Project Profile

Category	R-10/C-3 Expressway	Project Location: NCR
Expressway		
Description: R-10/C-3 Expressway will connect the North Harbor and the M.M. Skyway at A. Bonifacio & C-3 intersection through R-10 and C-3 corridor. It is expected to form an urban circular expressway network and to serve heavy vehicles to and from the Port area.		

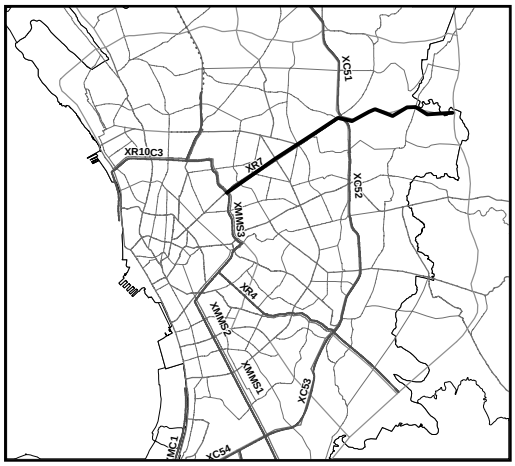
Code		XR10C3			
Item		R-10/C-3 Expressway 7.5 km			
Agency		DPWH BOT-PMO			
Project Type	Standard	Expressway (6 lanes)			
	Type of Work	New			
	Status	DPWH Plan			
Existing Road	Classification	National Road			
	ROW (m)	35.0			
	Pavement	Concrete			
Roadside Condition	Land Use	Commercial			
	Density	High			
	Squatter	Significant			
Environmental Constraints		Air Pollution			
ROW Acquisition	Area (m^2)				
	Difficulty				
Project Cost (PHPmil)	ROW	---			
	Compensation	---			
	Construction	12,732.0			
	Total	12,732.0			
Technical Issues for Construction		Construction on congested highway			
Remarks		Elevated Expressway			

Project Profile

Category	R-7 Expressway
Expressway	

Description:
This expressway will utilize Quezon Ave. and form a radial route from the inner circular network formed by M.M. Skyway and R-10/C-3 Expressway. In the MMUTIS proposal, it will be extended toward the east and connected to C-6 to server traffic demand between Manila CBD and Marikina.

Project Location: NCR



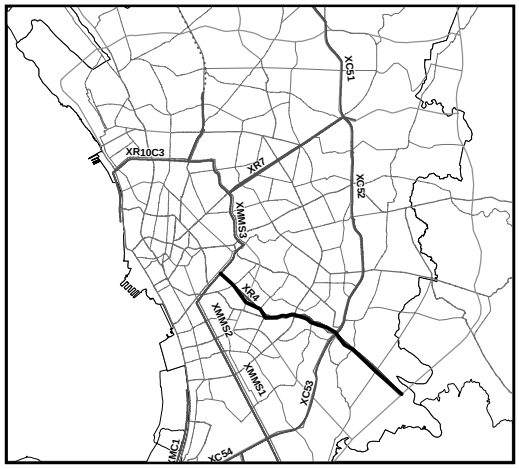
Code		XR7			
Item		R-7 Expressway 13.5 km			
Agency		DPWH BOT-PMO			
Project Type	Standard Type of Work Status	Expressway (6 lanes) New MMUTIS proposal			
Existing Road	Classification ROW (m) Pavement	National Road 35.0 Concrete			
Roadside Condition	Land Use Density Squatter	Housing High Significant			
Environmental Constraints		Air Pollution			
ROW Acquisition	Area (m^2) Difficulty				
Project Cost (PHPmil)	ROW Compensation Construction	--- --- 22,916.0			
	Total	22,916.0			
Technical Issues for Construction		Construction on congested highway			
Remarks		Elevated Expressway			

Project Profile

Category	R-4 Expressway
Expressway	

Description:
This Expressway will utilize Pasig River and R-4 Extension (a primary arterial proposed by MMUTIS), and form a radial route from the inner circular network formed by M.M. Skyway and R-10/C-3 Expressway. In the MMUTIS proposal, it will be extended toward the southeast and connected to C-6 to serve traffic demand between Manila CBD and northern Laguna de

Project Location: NCR



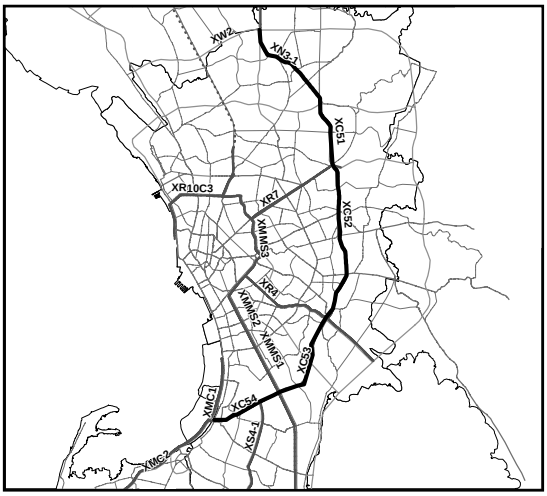
Code		XR4			
Item		R-4 Expressway 12.5 km			
Agency		DPWH BOT-PMO			
Project Type	Standard Type of Work Status	Expressway (6 lanes) New MMUTIS proposal			
Existing Road	Classification ROW (m) Pavement	MMUTIS proposal 51.0 Concrete			
Roadside Condition	Land Use Density Squatter	Housing High Significant			
Environmental Constraints		Air Pollution			
ROW Acquisition	Area (m^2) Difficulty				
Project Cost (PHPmil)	ROW Compensation Construction	--- --- 21,220.0			
	Total	21,220.0			
Technical Issues for Construction		Construction on congested highway			
Remarks		Elevated Expressway			

Project Profile

Category	C-5 Expressway
Expressway	

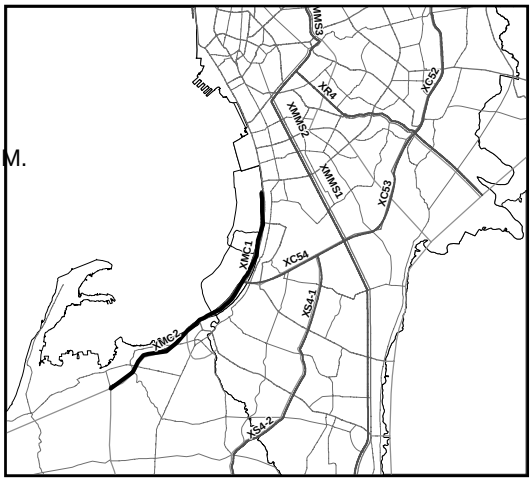
Description:
This Expressway will be an elevated structure over C-5 and will form the second north-south expressway corridor next to the Skyway and R-10/C-3, and will ease heavy traffic demand between the north and south of Metro Manila. The MMUTIS proposal, it will be connected to the North Expressway over the North Central Road in the north and the South Central Expressway over the South Central Road in the south.

Project Location: NCR



Code		XC51	XC52	XC53	XC54
Item		South Fairview-Quezon Ave. 5.0 km	Quezon Ave.- R-4 12.5 km	R-4 - SLE 7.0 km	SLE-Roxas Blvd. 6.4 km
Agency		DPWH BOT-PMO	DPWH BOT-PMO	DPWH BOT-PMO	DPWH BOT-PMO
Project Type	Standard	Expressway (6 lanes)	Expressway (6 lanes)	Expressway (6 lanes)	Expressway (6 lanes)
	Type of Work	New	New	New	New
	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Existing Road	Classification	National Road	National Road	National Road	National Road
	ROW (m)	50.0	50.0	50.0	50.0
	Pavement	Concrete	Concrete	Concrete	Concrete
Roadside Condition	Land Use	Housing	Housing	Housing	Housing
	Density	High	High	High	High
	Squatter	Significant	Significant	Significant	Significant
Environmental Constraints		Air Pollution	Air Pollution	Air Pollution	Air Pollution
ROW Acquisition	Area (m^2)				
	Difficulty				
Project Cost (PHPmil)	ROW	---	---	---	---
	Compensation	---	---	---	---
	Construction	8,488.0	21,220.0	11,884.0	10,864.0
	Total	8,488.0	21,220.0	11,884.0	10,864.0
Technical Issues for Construction		Construction on congested highway	Construction on congested highway	Construction on congested highway	Construction on congested highway
Remarks		Elevated Expressway	Elevated Expressway	Elevated Expressway	Elevated Expressway

Project Profile

Category	Manila-Cavite Expressway	Project Location: NCR/Cavite Prov.
Expressway		

Description:

This Expressway will connect Baclaran area with Zapote/ Talaba and Kawit on the Coastal Highway corridor and will serve the increasing traffic demand on the Coastal Highway corridor. M M. It will work on the Coastal Highway in the same manner . Skyway South Luzon Expressway,

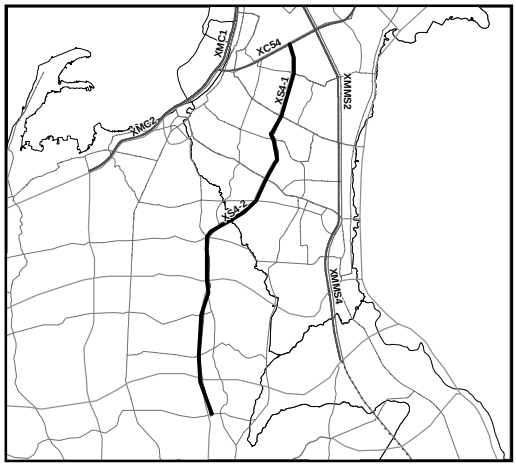
Code		XMC1	XMC2		
Item		Bacularan-Zapote 8.0 km	Zapote-Kawit 6.5 km		
Agency		DPWH BOT-PMO	DPWH BOT-PMO		
Project Type	Standard	Expressway (6 lanes)	Expressway (6 lanes)		
	Type of Work	New	New		
	Status	MMUTIS proposal	MMUTIS proposal		
Existing Road	Classification	National Road	National Road		
	ROW (m)	50.0	50.0		
	Pavement	Asphalt	Asphalt		
Roadside Condition	Land Use	Commercial	Housing		
	Density	Medium	Medium		
	Squatter	Significant	Medium		
Environmental Constraints		Air Pollution	Air Pollution		
ROW Acquisition	Area (m^2)				
	Difficulty				
Project Cost (PHPmil)	ROW	---	---		
	Compensation	---	---		
	Construction	13,580.0	11,032.0		
	Total	13,580.0	11,032.0		
Technical Issues for Construction		Construcion on congested highway	Construction on congested highway		
Remarks		Elevated Expressway	Elevated Expressway		

Project Profile

Category	South Central Expressway
Expressway	

Description:
This Expressway will be an elevated expressway on the South Central Road proposed by MMUTIS to form the second north-south axis in the southern suburb of Metro Manila.

Project Location: NCR/Cavite Prov.



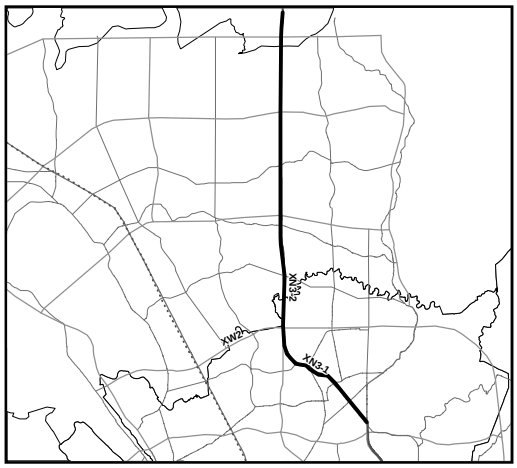
Code		XS4-1	XS4-2		
Item		Bicutan-Alabang Zapote Rd. 8.0 km	Alabang Zapote Rd.-Das Mariñas 14.5 km		
Agency		DPWH BOT-PMO	DPWH BOT-PMO		
Project Type	Standard	Expressway (6 lanes)	Expressway (6 lanes)		
	Type of Work	New	New		
	Status	MMUTIS proposal	MMUTIS proposal		
Existing Road	Classification	MMUTIS proposal	MMUTIS proposal		
	ROW (m)	51.0	51.0		
	Pavement	Concrete	Concrete		
Roadside Condition	Land Use	Housing	Housing		
	Density	High	Medium		
	Squatter	Minimal	Minimal		
Environmental Constraints		Air Pollution	Air Pollution		
ROW Acquisition	Area (m^2)				
	Difficulty				
Project Cost (PHPmil)	ROW	---	---		
	Compensation	---	---		
	Construction	13,580.0	24,616.0		
	Total	13,580.0	24,616.0		
Technical Issues for Construction		Construcion on congested highway	Construction on congested highway		
Remarks		Elevated Expressway	Elevated Expressway		

Project Profile

Category	North Central Expressway
Expressway	

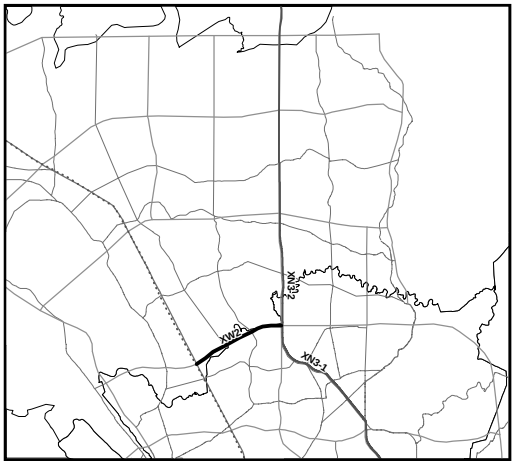
Description:
This Expressway will be an elevated expressway on the North Central Road proposed by MMUTIS to form the second north-south axis in the northern suburb of Metro Manila.

Project Location: Bulacan Prov.



Code		XN3-1	XN3-2		
Item		South Fairview-C-6 8.0 km	C-6 -Norzagaray 16.0 km		
Agency		DPWH BOT-PMO	DPWH BOT-PMO		
Project Type	Standard	Expressway (6 lanes)	Expressway (6 lanes)		
	Type of Work	New	New		
	Status	MMUTIS proposal	MMUTIS proposal		
Existing Road	Classification	MMUTIS proposal	MMUTIS proposal		
	ROW (m)	51.0	51.0		
	Pavement	Concrete	Concrete		
Roadside Condition	Land Use	Rural Housing	Rural Housing		
	Density	Medium	Low		
	Squatter	Minimal	None		
Environmental Constraints		Air Pollution	Air Pollution		
ROW Acquisition	Area (m^2)				
	Difficulty				
Project Cost (PHPmil)	ROW	---	---		
	Compensation	---	---		
	Construction	13,580.0	27,160.0		
	Total	13,580.0	27,160.0		
Technical Issues for Construction		Construcion on congested highway	Construction on congested highway		
Remarks		Elevated Expressway	Elevated Expressway		

Project Profile

Category	C-6 North Expressway	Project Location: Bulacan Prov.
Expressway		

Description:
This Expressway will form a branch route from North Luzon Expressway to the North Central Expressway on C-6 corridor to serve as a bypass function on the northern suburb.

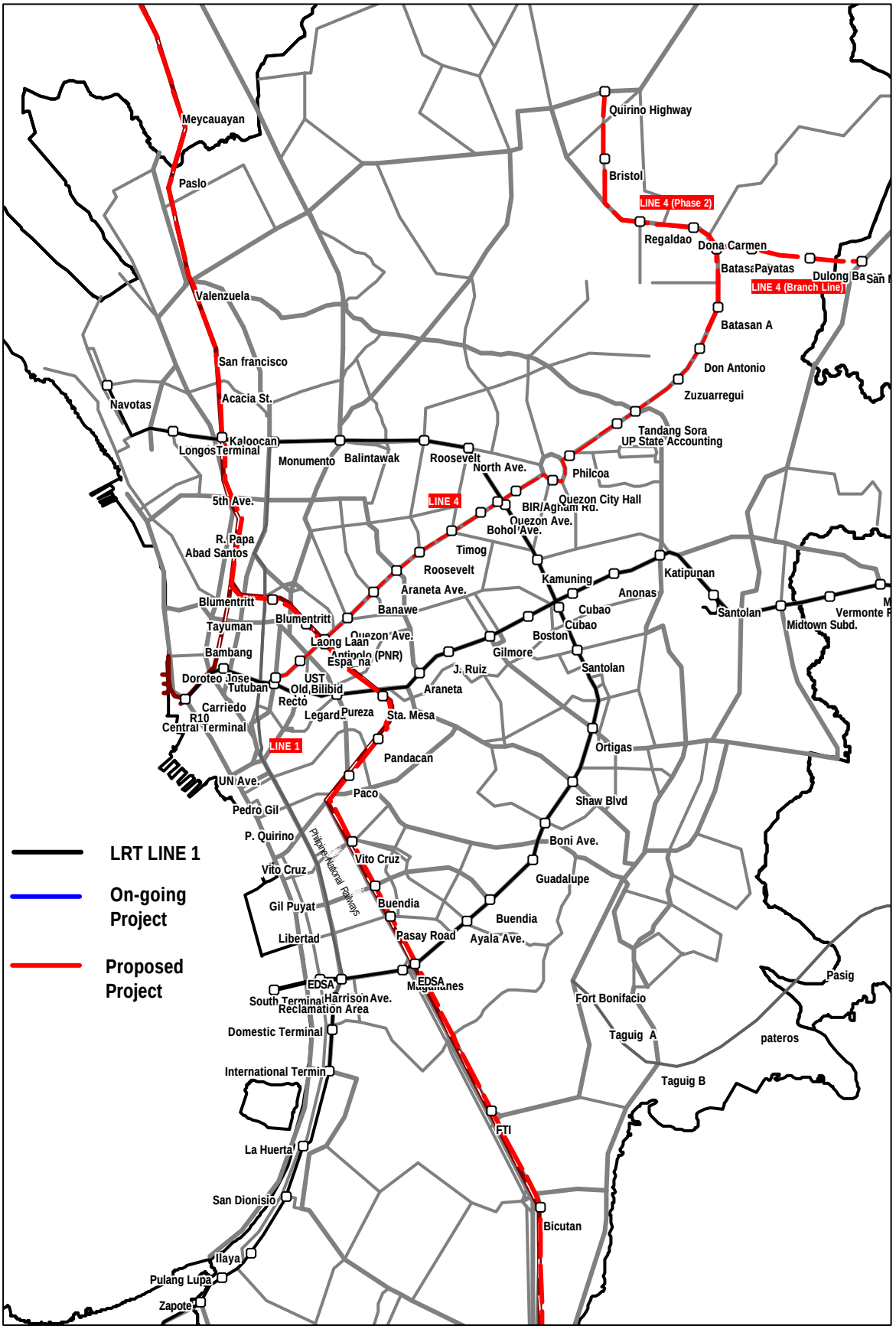
Code		XW2			
Item		NLE-North Central Expressway 5.5 km			
Agency		DPWH BOT-PMO			
Project Type	Standard	Expressway (6 lanes)			
	Type of Work	New			
	Status	MMUTIS proposal			
Existing Road	Classification	MMUTIS proposal			
	ROW (m)	51.0			
	Pavement	Concrete			
Roadside Condition	Land Use	Housing			
	Density	Medium			
	Squatter	Medium			
Environmental Constraints		Air Pollution			
ROW Acquisition	Area (m^2)				
	Difficulty				
Project Cost (PHPmil)	ROW	---			
	Compensation	---			
	Construction	9,336.0			
	Total	9,336.0			
Technical Issues for Construction		Construction on congested highway			
Remarks		Elevated Expressway			

1.2 Rail

Project List (MRT/LRT Busway)

LINES	SECTION	CODE	PROFILE		TYPE[1/]	ESTIMATED CAPITAL COST ($ MIL)		
			LENGTH:KM	SYSTEM		INFRA[2/]	E & M[2/]	TOTAL
LINE 1 & LINE 6	EXISTING (MON.–BACLARAN)	RIO	14.5	EL-LRT	U	-	-	-
	S. EXTENSION (IMUS)	RISA	15.0	EL-MRT	S	450	450	900
	S. EXTENSION (DASMARIÑAS)	RISB	15.0	AG-MRT	S	150	300	450
	SUBTOTAL		44.5			600	750	1,350
LINE 2	E. EXTENSION (ANTIPOLO)	R2EA	7.7	AG/EL BUSWAY	S	77	-	77
	E. EXTENSION (MASINAG)	R2E	4.0	EL-MRT	S	137	91	228
	EXISTING (RECTO – SANTOLAN)[3/]	R2O	14.0	EL-MRT	U/S	(488)	(368)	(856)
	W. EXTENSION (N. HARBOUR)	R2W	4.0	EL-MRT	U	137	91	228
	SE. EXTENSION (TAYTAY)	R2EB	19.8	AG/EL-MRT	U/S	168	150	318
	SE. EXTENSION (BINANGONAN)	R2EC	12.0	AG/EL BUSWAY	S	120	-	120
	SUBTOTAL		53.7			639	332	971
LINE 3	NW EXTENSION (NAVOTAS)	R3N	10.0	EL-MRT	U	258	216	474
	EXISTING (Q. C.- PASAY RTD.) [3/]	R3O	16.8	EL/AG-LRT	U	(235)	(420)	(655)
	S. EXTENSION (RECLAMATION)	R3S	2.0	EL-MRT	U	48	45	93
	SUBTOTAL		28.8			306	261	567
LINE 4	MAIN (RECTO – BATASAN)	R4OA	15.1	EL-MRT	U	453	453	906
	PHASE 2 (NOVALICHES)	R4OB	7.7	EL-MRT	U	231	193	424
	Branch Line (San Mateo)	R4OC	4.0	AG/EL BUSWAY	S	40	-	40
	SUBTOTAL		26.8			724	646	1,370
PNR-N.Rail/ MCX	MEYCAUYAN (CALOOCAN)	R5N	18.0	AG-MRT	IC,S	349	409	758
	CALOOCAN – STA. MESA	R5M	8.0	EL-MRT	IC,U	240	240	480
	STA. MESA – EDSA	R6SA	8.6	EL-MRT	IC,U	258	258	516
	EDSA – ALABANG	R6SB	22.1	AG-MRT	IC,U	177	442	619
	ALABANG - STA. ROSA	R6SC	14.8	AG-MRT	IC,S	119	296	415
	SUBTOTAL		71.5			1,143	1,645	2,788
	TOTAL		196.5			3,412 (P136B)	3,634 (P145B)	7,046 (P281B)

Figure 1
Alignment of MRT/LRT/Busway Line



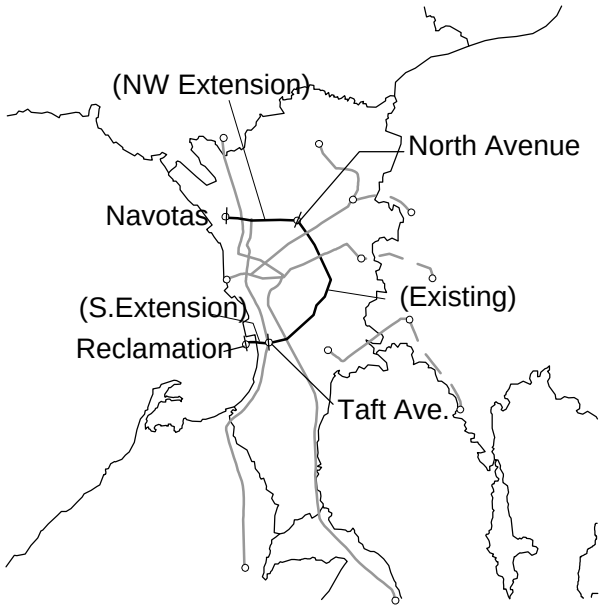
Project Profile (MRT/LRT Network Development)

	MRT Line 3 Extension

Description:

- The extension from North Avenue is planned to connect LRT Line 1 and North rail forming the circumferential railway network in the CBD.
- The South extension is planned as an MRT integration project between LRT Line 1 and MRT Line 3 and Line 6.
- The south extension will link the reclamation area.

Project Location



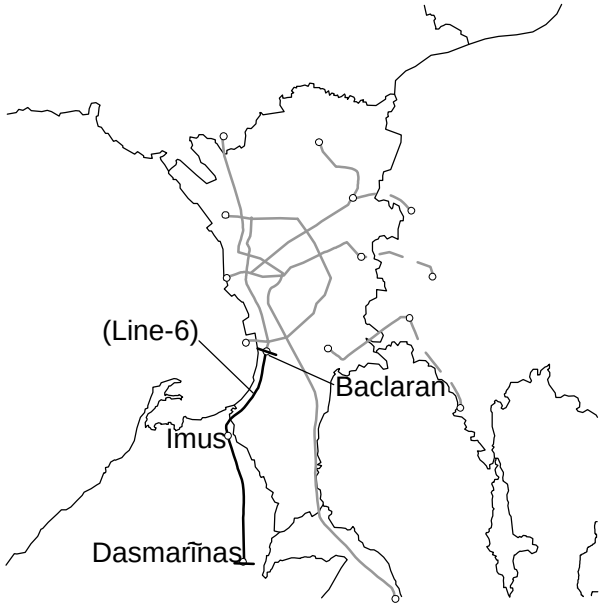
System Characteristics

Section		1 NW Extension	2 (Existing)	3 S. Extension		Total
Route	From:	North Avenue	North Avenue	Taft Avenue		Navotas
	To:	Navotas	Taft Avenue	Reclamation		Reclamation
Truck Length (km)		10.0	16.8	2		28.8
System		MRT	MRT	MRT		MRT
Type		U	U	U		
Stations		6	13	2		21
Structure Type	EL	X	X	X		
	AG		X			
	UG					
Track Gauge (mm)		1435				
Minimum Radius (m)		370				
Electric Power		750 V DC				
Train		LRV 3-unit per train				
Operation	Max Speed	65 km/h				
	Scheduled Speed	36 km/h				
	Headway	2.5 minutes				
Capacity	Pax/train	1,188				
	Pax/hr/dir	35,300				
Max Volume (2015)	Per day/dir	383,000				
	Per peak hr/dir	38,000				
Project Cost ($ mil)	Land					
	Infra	258		48		306
	E & M	216		45		261
	Total	474		93		567
Note						

Project Profile (MRT/LRT Network Development)

	MRT Line 6
Description:	
- Line 6 is planned as an extension of LRT Line 1, aiming to provide railway linkage in the south of Metro Manila, as well as Cavite, where rapid urbanization and traffic congestion are serious.	
- For the construction of the line, there is no sufficient road reserve or railway reserve.	

Project Location



System Characteristics

Section		1	2	3		Total
Route	From:	Baclaran	Imus			
	To:	Imus	Dasmarinas			
Truck Length (km)		15	15			30
System		MRT	MRT			MRT
Type		U	S			
Stations		6	13			21
Structure Type	EL	X	X			
	AG					
	UG					
Track Gauge (mm)		1435				
Minimum Radius (m)		400				
Electric Power		750 V DC				
Train		HRV 6-unit per train				
Operation	Max Speed	60 km/h				
	Scheduled Speed	36 km/h				
	Headway	3 minutes				
Capacity	Pax/train	2,490				
	Pax/hr/dir	49,800				
Max Volume (2015)	Per day/dir	493,000				
	Per peak hr/dir	49,000				
Project Cost ($ mil)	Land					
	Infra	450	150			600
	E & M	450	300			750
	Total	900	450			1,350
Note						

Project Profile (MRT/LRT Network Development)

	MRT Line 2 (East, West Extension)

Description:

- Line 2 west extension is expected to provide a better access to the Port Area where there is a large volume of workers are existing.
- The east extension intends to improve the accessibility in the new housing development areas, as well as eliminate traffic congestion on Marcos Highway.

Project Location

System Characteristics

Section		1	2	3		Total
		West	(on-going)	East	East	
Route	From:	North Harbor	Recto	Santolan	Masinag	
	To:	Recto	Santolan	Masinag	Antipolo	
Truck Length (km)		4	14.0	4.0	7.7	29.7
System		MRT	MRT	MRT	Busway	
Type		U	U/S	S	S	
Stations		5	18	3		26
Structure Type	EL	X	X	X		
	AG				X	
	UG					
Track Gage (mm)		1435				
Minimum Radius (m)		400 (175)				
Electric Power		1500 V DC				
Train		HRV 4-unit per train				
Operation	Max Speed	80 km/h				
	Scheduled Speed	35 km/h				
	Headway	2.5 minutes				
Capacity	Pax/train	1,660				
	Pax/hr/dir	49,800				
Max Volume (2015)	Per day/dir	253,000				
	Per peak hr/dir	25,000				
Project Cost ($ mil)	Land					
	Infra	137		137	77	351
	E & M	91		91	-	182
	Total	228		228	77	533
Note						

Project Profile (MRT/LRT Network Development)

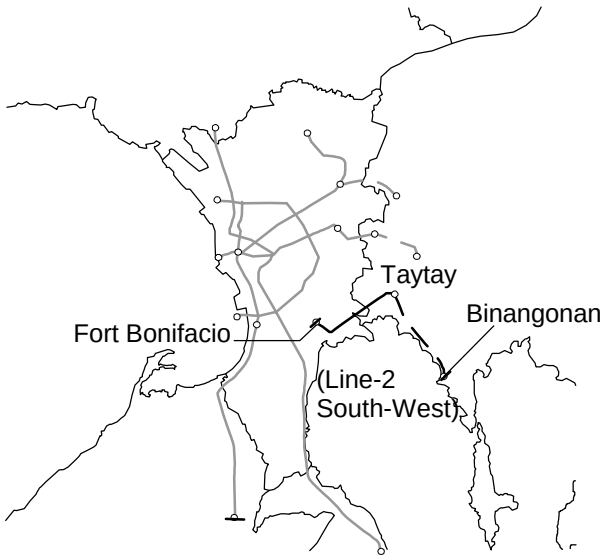
	MRT Line 2 (South-East Extension)

Description:

- This project is expected to provide a better public transport linkage to the northern area of Laguna Bay, where accessibility to the CBD is poor.

- The project will be divided into two sections and second section is proposed to operate as a busway.

Project Location



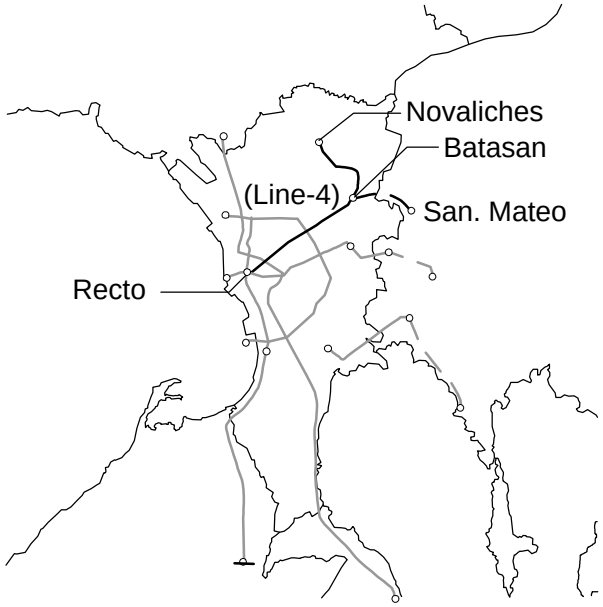
System Characteristics

Section		1	2	3		Total
Route	From:	Fort Boni.	Taytay			
	To:	Taytay	Binangonan			
Truck Length (km)		19.8	12.0			31.8
System		MRT	Busway			
Type		U/S	S			
Stations		6	3			26
Structure Type	EL	X	X			
	AG	X	X			
	UG					
Track Gage (mm)		1435				
Minimum Radius (m)		400 (175)				
Electric Power		1500 V DC				
Train		HRV 4-unit per train				
Operation	Max Speed	80 km/h				
	Scheduled Speed	35 km/h				
	Headway	2.5 minutes				
Capacity	Pax/train	1,660				
	Pax/hr/dir	49,800				
Max Volume (2015)	per day/dir	253,000				
	per peak hr/dir	25,000				
Project Cost ($ mil)	Land					
	Infra	168	120			288
	E & M	150	-			150
	Total	318	120			438
Note						

Project Profile (MRT/LRT Network Development)

	MRT Line 4
Description:	
- Line 4 is planned to be constructed on Quezon Avenue up to Don M. Marcos Highway, which are the sections presently facing serious traffic congestion.	
- Line 4 is expected to serve the bedtown of Metro Manila northeast section.	
- The line will connect Line 3, North Rail, Line 2 and Line 1.	

Project Location



System Characteristics

Section		1	2	3		Total
				Branch Line		
Route	From:	Recto	Batasan	Batasan		
	To:	Batasan	Novaliches	San Mateo		
Truck Length (km)		15.1	7.7	4.0		26.8
System		MRT	MRT	Busway		
Type		U	U	S		
Stations		18	4			22
Structure Type	EL	X	X			
	AG					
	UG					
Track Gauge (mm)		1435				
Minimum Radius (m)		400				
Electric Power		750 V DC				
Train		LRV 5-unit per train				
Operation	Max Speed	80 km/h				
	Scheduled Speed	35 km/h				
	Headway	2.5 minutes				
Capacity	Pax/train	1,100				
	Pax/hr/dir	33,000				
Max Volume (2015)	Per day/dir	468,000				
	Per peak hr/dir	47,000				
Project Cost ($ mil)	Land					
	Infra	453	231	40		724
	E & M	453	193	-		646
	Total	906	424	40		1370
Note						

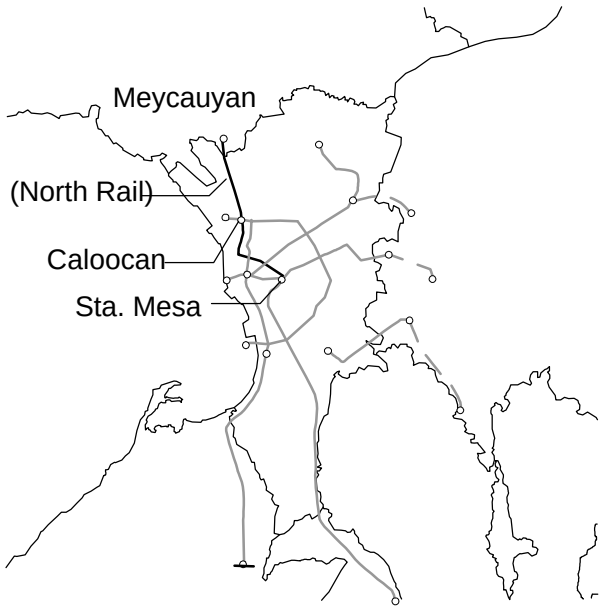
Project Profile (MRT/LRT Network Development)

	North Rail

Description:

- The basic aim of the project is to link Metro Manila CBD and the planned international airport in Clark. With the railway development, it is expected to induce a significant positive impact on the north area on Metro Manila.
- The project will be implemented by sharing the existing PNR ROW Resettlement of squatters will be needed.
- Sufficient linkage with other MRT/LRT lines in Metro Manila is important. Integration with MCX should be taken into account.

Προφεχτ Λοχατιον



System Characteristics

Section		1	2	3		Total
Route	From:	Meycauyan	Caloocan			
	To:	Caloocan	Sta. Mesa			
Truck Length (km)		18.0	8.0			26.0
System		MRT	MRT			
Type		IC,S	IC,U			
Stations		6	4			10
Structure Type	EL		X			
	AG	X				
	UG					
Track Gauge (mm)		1435				
Minimum Radius (m)		400				
Electric Power		1500 V DC				
Train		HRV 4-unit per train				
Operation	Max Speed	80 km/h				
	Scheduled Speed	50 km/h				
	Headway	3 minutes				
Capacity	Pax/train	1,660				
	Pax/hr/dir	33,200				
Max Volume (2015)	Per day/dir	221,000				
	Per peak hr/dir	22,000				
Project Cost ($ mil)	Land					
	Infra	349	240			589
	E & M	409	240			649
	Total	758	480			1,238
Note						

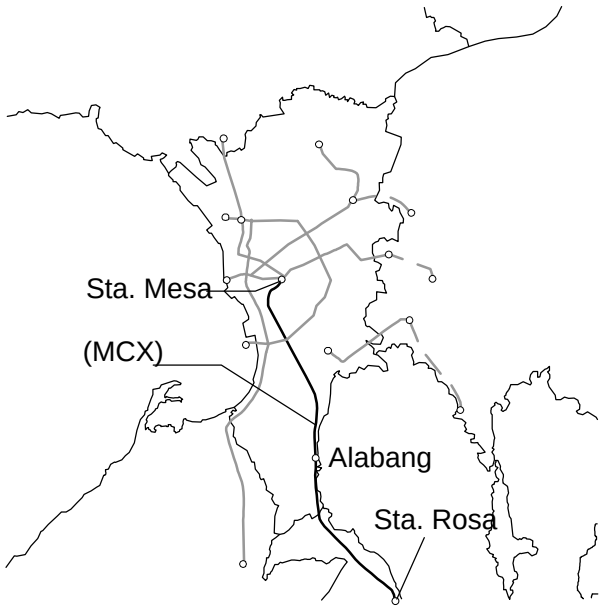
Project Profile (MRT/LRT Network Development)

	MCX

Description:

- The MCX will provide a railway linkage between Metro Manila CBD and existing major and minor urban centers Laguna.
- Construction of the MCX is planned on the PNR ROW. Resettlement of squatters will be needed.
- Development of the stations are indispensable to provide an appropriate access for passengers.
- Coordination with other MRT/LRT lines, particularly with the North Rail project. shall be examined casually,

Project Location



System Characteristics

Section		1	2	3		Total
Route	From:	Sta. Mesa	EDSA	Alabang		
	To:	EDSA	Alabang	Sta. Rosa		
Truck Length (km)		8.6	22.1	14.8		45.5
System		MRT	MRT	MRT		
Type		IC,U	IC,U	IC,S		
Stations		7	4	5		16
Structure Type	EL	X				
	AG		X	X		
	UG					
Track Gauge (mm)		1067				
Minimum Radius (m)		300				
Electric Power		1500 V DC				
Train		HRV 6-unit per train				
Operation	Max Speed	80 km/h				
	Scheduled Speed	35-50 km/h				
	Headway	2 minutes				
Capacity	Pax/train	2,490				
	Pax/hr/dir	74,700				
Max Volume (2015)	Per day/dir	651,000				
	Per peak hr/dir	65,000				
Project Cost ($ mil)	Land					
	Infra	258	177	119		554
	E & M	258	442	296		996
	Total	516	619	415		1,550
Note						

1.3 Traffic Management

Project List

Category	Code	Project Name	Status	Implementation Period			Project Cost (P Million)			Agency
				1999	2005	2010	Capital		Recurrent	
				-2005	-2010	-2015	Public	Private	(/year)	
Traffic Signal	SG01	ATC System Renewal	O	*				NA		TEC/DPWH
	SG02	Metro Manila Signalization Project	M	*	*	*	1478			LGU
	SG03	Provincial Signalization Project (South)	M	*	*	*	1173			LGU
	SG04	Provincial Signalization Project (North)	M	*	*	*	590			LGU
	SG05	Provincial Signalization Project (East)	M	*	*	*	216			LGU
Traffic Information	RT01	Traffic Information Center	M	*	*	*	450			MMDA
	RT02	Toll Road Information System	P/M	*	*					DPWH, Toll Road Operato
	RT03	Road Numbering Sytem	M	*						DPWH
Traffic Regulation	RG01	National Traffic Code	M	*					NA	DOTC, DPWH, PNP
	RG02	Traffic Sign and Pavement Marking Manual	M	*			6		NA	DPWH, DST
	RG03	Taffic Regulation and Traffic Sign Database	M	*						LGU
	RG04	Pavement Making Re-installation	M	*	*	*				DPWH, LGU
Human Resources Development	HR01	Traffic Enforcement/ Aid Training Program	M	*						PNP, MMDA, LGU
Traffic Safety	SF01	Traffic Safety Education for Drivers	M	*						LTO
	SF02	Traffic Safety Education for School Children	M	*						DECS
Corridor Improvement	CR01	LRT 1 Corridor Improvement Project	M	*						DPWH, MMDA
	CR02	Corridor Improvement Projects (Others)	M	*						DPWH, MMDA
Traffic Engineering and Management	TE01	TEAM Project in Cities and Municipalities	M	*						LGU

Project Profile

SG01	ATC System Renewal	Project Location:
Project Description: 1. Existing signals which were installed under the Metro Manila TEAM Project Phase I, II, and III are being replaced with new type of signal controllers. 2. The existing equipment at the control center will be replaced and installed in a new building to be built on the same premises. 3. The existing TEC-owned communication cable system will be used.		Various locations in Metro Manila

Equipment configuration:	Project Cost:
Control center equipment 1 system Signal controller units Vehicle detector units Signal lantern units	Construction cost: Equipment M Pesos Installation work M Pesos Others M Pesos Total M Pesos Annual Operation and Maintenance Cost: M Pesos
Project schedule (original): Contract period 12/13/95 – 07/28/04 Installation: 07/28/97 – 03/27/00 Engineering 10/02/97 – 07/22/03 Project management 07/25/97 – 07/28/04	Environmental impact: The project will contribute to the improvement of air quality by reducing the emission of pollutants from vehicles.
Operation and maintenance: Once the system is completed, the operation and maintenance will be carried out by MMDA.	

Project Profile

SG02	Metro Manila Signalization Project

Project Description:

1. Signalization of intersections and replacement of existing signals (if any) at the peripheries of Metro Manila, are far from the control center and whose inclusion into the existing ATC system is not technically and economically beneficial.
2. Coordination of signals along arterial streets using local master is applied where required.
3. Intersection geometric improvement and other traffic management measures are included.
4. Pavement marking is provided near the signalized intersection.
5. Training of MMDA and LGU staff in charge of traffic management is included.

Project Location:

Cities and municipalities in the peripheral area of Metro Manila

Equipment configuration:

	- 2005	- 2010	-2015	Total
Signal controller	164	85	57	306
Mater controller	14	7	7	28

Project cost:

(million Pesos)

	- 2005	- 2010	-2015	Total
Foreign component	548	256	184	988
Local component	275	127	88	490
Total	823	383	272	1,478

Annual operation and maintenance cost:

Environmental impact:

The project will contribute to the improvement of air quality by reducing the emission of pollutants from vehicles.

Right of way acquisition:

No ROW acquisition is required.

Implementation:

Each city and municipality will be responsible for the implementation.

Operation and maintenance:

The operation and maintenance of the signal system will be carried out by traffic management unit of each city and municipality.

Project Profile

SG03	Provincial Municipalities Signalization Project (South)

Project Description:

1. Signalization of intersections and replacement of existing signal (if any) in cities and municipalities in provinces adjacent to Metro Manila.
2. Coordination of signals along arterial streets using local master is applied where required.
3. Intersection geometric improvement and other traffic management measures are included.
4. Pavement markings will be provided near the signalized intersection.
5. Training of LGU staff in charge of traffic management will be provided.

Project Location:

Various municipalities in the province south of Metro Manila such as Bogor, Imus, Cavite, Kawit, Rosario, Genreral Trias, Tanza, Tres Maritires, Dasmarinas, Silang, Binana, Carmona, San Pedro, Santa Rosa, Cabuyao, Calamba, and Los Banios.

Equipment configuration:

	- 2005	- 2010	-2015	Total
Signal controller	134	80	67	281
Mater controller	7	5	4	16

Project cost:

(million Pesos)

	- 2005	- 2010	-2015	Total
Foreign component	372	224	188	784
Local component	197	105	87	389
Total	569	329	275	1,173

Annual Operation and maintenance cost:

Environmental impact:

The project will contribute to the improvement of air quality by reducing the emission of pollutants by vehicles.

Right of way acquisition:

No ROW acquisition is required.

Implementation:

The Provincial governments of Cavite and Laguna will be responsible for the implementation.

Operation and maintenance:

The operation and maintenance of the signal system will be carried out by the traffic management unit of each municipality.

Project Profile

SG04	Provincial Municipalities Signalization Project (North)

Project Description:

1. Signalization of intersections and replacement of existing signals (if any) in cities and municipalities in the provinces adjacent to Metro Manila.
2. Coordination of signals along arterial streets using local master is applied where required.
3. Intersection geometric improvement and other traffic management measures are included.
4. Pavement markings will be provided near the signalized intersection.
5. Training of LGU staff in charge of traffic management will be provided.

Project Location:

Various municipalities in the province north of Metro Manila such as Meycauayan, Bulacan, Bocaue, Malolos, Plaridel, Santa Monica, San Jose and Sapangpalay.

Equipment configuration:

	- 2005	- 2010	-2015	Total
Signal controller	41	54	45	140
Mater controller	3	3	3	9

Project cost:

(million Pesos)

	- 2005	- 2010	-2015	Total
Foreign component	120	152	128	400
Local component	61	70	59	190
Total	181	222	187	590

Annual operation and maintenance cost:

Environmental impact:

The project will contribute to the improvement of air quality by reducing the emission of pollutants by vehicles.

Right of way acquisition:

No ROW acquisition is required.

Implementation:

The Provincial government of Bulacan will be responsible for the implementation.

Operation and maintenance:

The operation and maintenance of the signal system will be carried out by the traffic management unit of each municipality.

Project Profile

SG05	Provincial Municipalities Signalization Project (East)

Project Description:

1. Signalization of intersections and replacement of existing signals (if any) in cities and municipalities in the province adjacent to Metro Manila.
2. Coordination of signals along arterial streets using local master is applied where required.
3. Intersection geometric improvement and other traffic management measures are included.
4. Pavement markings will be provided near the signalized intersection.
5. Training of LGU staff in charge of traffic management will be provided.

Project Location:

Various municipalities in the province east of Metro Manila such as Rodriguez, San Mateo, Antipolo, Cainta and Binangonana.

Equipment configuration:

	- 2005	- 2010	-2015	Total
Signal controller	35	9	6	50
Mater controller	2	1	1	4

Project cost:

(million Pesos)

	- 2005	- 2010	-2015	Total
Foreign component	96	28	20	144
Local component	52	12	8	72
Total	148	40	28	216

Annual operation and maintenance cost:

Environmental impact:

The project will contribute to the improvement of air quality by reducing the emission of pollutants by vehicles.

Right of way acquisition:

No ROW acquisition is required.

Implementation:

The Provincial Government of Rizal will be responsible for the implementation.

Operation and maintenance:

The operation and maintenance of the signal system will be carried out by the traffic management unit of each municipality.

Project Profile

IF01	Metro Manila Traffic Information Center	Project Location:
Project Description: 1. The existing Metro Base of MMDA will be transformed into Traffic Information Center (TIC), where all information related to road traffic such as congestion, traffic accident, construction, flooding will be collected. 2. Information will be gathered through TV cameras installed at strategic locations, radio communication system that connects TIC with MMDA traffic enforcer at field, traffic police, DPWH district offices, city and municipality offices, etc. 3. Gathered data are input to Geographic Information System (GIS) and updated regularly. 4. Traffic information will be disseminated through traffic information radio station, commercial radio, roadside radio, cable TV, Internet, etc.		Metro Manila

Equipment configuration:

GIS Workstation	Radio communication equipment
GIS software	Closed TV system equipment
Operator console	Roadside radio equipment
Wall map display	Internet server

Project cost:

(million Pesos)

	- 2005	- 2010	-2015	Total	Annual operation and maintenance cost:
Foreign component					
Local component					
Total	100	150	200	450	

Environmental impact:

Traffic information provided to road users will lessen the traffic congestion and contribute to the improvement of air quality by reducing the emission of pollutants from vehicles.

Right of way acquisition:

No ROW acquisition is required.

Implementation:

Phase I (-2005): GIS system, radio communication equipment, TV system, Center building
Phase II (-2010): System expansion + traffic information to vehicles (one-way)
Phase III (-2015): System expansion + real time route guidance system to vehicle (two-way)

Operation and maintenance:

Project Profile

TR01	Toll Road Information System

Project Description:

1. A Toll Road Information Center (TRIC)will be established at each toll road. TRIC will collect traffic information on toll road such as congestion, accident, stalled car, etc. Data are processed at the center and disseminated to toll road users (those already on the toll road and those intend to use it) through various media.
2. Information dissemination equipment includes changeable message sign at main line and at entrance, highway radio, commercial radio, internet, etc.
3. Information will be exchanged among toll road operators.

Project Location:

Metro Manila Skyway (37.6 km)
R-10/C-3 Expressway (7.5km)
R-7 Expressway (13.5 km)
R-4 Expressway (13.5 km)
C-5 Expressway (30.9 km)
Manila-Cavite Expressway (14.5 km)
South Central Expressway (22.5 km)
North Central Expressway (24 km)
C-6 North Expressway (5.5 km)

Equipment configuration:

Emergency telephone	Central computer system
Vehicle detector	Changeable message sign
TV camera	Highway radio equipment
Radio communication unit	Internet server

Project cost: (million Pesos)

	- 2005	- 2010	-2015	Total
Foreign component				
Local component				
Total	1,163	423	1,465	3,051

Annual operation and maintenance cost:

Environmental impact:

Traffic information provided will lessen traffic congestion and contribute to the improvement of air quality by reducing the emission of pollutants by vehicles.

Right of way acquisition:

No ROW acquisition is required.

Implementation:

For existing toll roads, the system will be installed immediately after the detailed design has been completed. For future toll roads, the system will be installed at the same time the toll road is constructed.

Operation and maintenance:

Operation and maintenance of the system is undertaken by each toll road operator. Traffic information will be exchanged among the systems.

Project Profile

RG01	National Traffic Code	Project Location:
Project Description: 1. Review and revise Republic Act 4136 and legislate a new national traffic code.		Nationwide

Background and Necessity:

Traffic code stipulates the use of vehicles on the road. In the Philippines, the Republic Act No. 4136 entitled "An act to compile the laws relative to land transportation and traffic rules, to create a land transportation commission and for other purposes" contains clauses pertaining to such rules.

RA4136 stipulates not only traffic rules but it also contains the clauses regarding the registration and operation of vehicles and creation of Land Transportation Commission, which was later transformed into Land Transport Office.

The law was enacted more than 30 years ago in 1964 when the number of vehicles was very few and road traffic condition was quite different from what it is now. There are sections which is not adequate or not applicable today. On the other hand, there are items a traffic code should set forth but not mentioned at all in RA 4136.

The proposed project will review RA 4136 and other laws and regulation related to road vehicle traffic and create a National Traffic Code. Clauses pertaining to LTO and LTFRB will also be reviewed and legislated into a separate law.

Project Schedule:

The project is expected to take one year for the study, preparation, deliberation, discussion and legislation of the code.

Project Profile

RG02	Traffic Sign and Pavement Marking Manual	Project Location: Nationwide

Project Description:

1. National standard specifications for traffic sign and pavement marking will be stipulated.
2. Manual on Pavement Markings (1980 Edition) will be reviewed, updated and revised.
3. Philippine Road Signs Manual (1982 Edition) will be reviewed, updated and revised.
4. Manuals will be distributed to offices of DPWH, DOTC, LGU and other government agency.
5. One-sheet guide traffic signs pavement marking will also be printed for distribution to drivers and school children
6. If necessary, legislative action will be taken

National Standard Specifications:

National standard specification for traffic sign that stipulate size, material, reflectiveness and structure of traffic sign will be established.

National standard specifications for pavement marking that stipulate physical and chemical properties of material, size and amount of glass beads, application method and testing method will be established.

Manuals:

Traffic sign manual stipulates code, name, size, color, design, layout, symbol, font, definition and meaning of various types of regulatory and guidance signs. It also contains the installation guidelines.

Pavement marking manual stipulates definition, type, color size and meaning of various type of pavement markings such as center line, lane line, stop line, pedestrian crossing marking and directional arrow together with their application standards. The manual also stipulates stud and reflective market that are permanently placed on the road for delineation of flow.

Project Outputs:

National standard specifications	500	copies
Philippine Road Signs Manual	1,000	copies
Manual in Pavement Markings	1,000	copies
Road sign leaflet	10,000	copies

Project Schedule:

Project takes ten (10) months for review, study, approval, printing and distribution.

Project Cost:

6 million Pesos

Program Profile

RG03	Traffic Regulation and Traffic Sign Database	Project Location: Cities and municipalities in Metro Manila

Project Description:

1. Location and type of existing traffic regulation and the location of signs indicating the regulation will be identified by field survey.
2. A geographic information database will be established to store the traffic regulation information in each cities and municipality in Metro Manila.
3. Regulation and sign location will be reviewed and revised if necessary.
4. New regulation will be applied and new traffic signs will be installed at the location where such action is found necessary.

Hardware Requirements:

GIS system	17	sets
Traffic signs	3,000	sheets

Project Schedule:

Project takes 18 months for purchase of equipment, staff training, field survey, database construction, review, and sign installation.

Project Cost:

5 million Pesos

Note:

Legislation of National Traffic Code and establishment of specifications for traffic signs and its manual must precede the project.

Project Profile

RG04	Pavement Marking Re-installation Project	Project Location: Metro Manila

Project Description:

1. Review and select primary and secondary arterial streets to be covered by the project.
2. Conduct Field survey on the existing condition of pavement marking along the selected streets and establish a pavement marking inventory.
3. Design pavement markings along the selected streets.
4. Establish annual pavement marking program taking road classification, traffic volume and available fund into consideration.
5. Install pavement marking according to annual program.

Scope of Work:

Selection of Streets
Pavement marking inventory survey
Pavement marking design
Establishment of annual program
Pavement marking re-installation

Project Profile

RN01	Road Numbering System	Project Location:
Project Description: 1. Develop road numbering system that is suitable for the road network classification and hierarchy in the Metro Manila. 2. Install route guide sign and road number sign at strategic location in the road network.		Cities and municipalities in Metro Manila and adjacent provinces.

Project Background:

There are few route guide signs on the road network in the study area. One of the reasons is that there exists no road numbering system. Roads are called by name, which is often not clearly defined and changed to a new name.

The proposed system develop a road numbering system for the primary and secondary arterial roads in Metro Manila. Route guide sign and road number sign will be installed at strategic locations in the road network.

Scope of Work:

Project Cost:

Project Profile

HR01	Traffic Enforcer/aid Training Program	Project Location:
Project Description: 1. Review the current training program and curriculum for traffic enforcers and traffic aids. 2. Develop training program and materials. 3. Conduct training at MMDA Training Center and at each police district on a regular basis.		Cities and municipalities in Metro Manila and adjacent provinces.

Project Background:

Philippine National Police, Metro Manila Development Authority and Local Government Unit play their role in the traffic management in Metro Manila and adjacent provinces. They are assigned to key intersections for enforcement and guidance of traffic. But they do not receive sufficient training on the basics of traffic management and on the role they are expected to play. Traffic will be more efficient and orderly if their knowledge is strengthened and their jobs at intersection is more clearly defined.

The proposed project will develop training program for traffic enforcers and traffic aid, procure facilities necessary for the training and conduct training.

Scope of Work:

Project Cost:

Project Profile

SF01	Traffic Safety Education for Drivers	Project Location:
Project Description: 1. Traffic safety education video programs and leaflets will be developed and prepared. 2. Video program will be shown at LTO and leaflets are distributed to drivers who visit the office for drivers license renewal.		Study Area

Project Background:

Lack of discipline is said to be one of the causes of traffic congestion and accident in the Philippines. Under the current drivers license system, drivers receive no traffic safety education when they first obtain license or they renew it every three years.

Several traffic safety video programs each lasting 10 to 15 minutes will be prepared. Leaflet showing basic driving techniques and manner will be developed and printed. Drivers are required to visit LTO office for photo taking when they renew their license. The programs will be shown continuously at LTO offices to drivers who are waiting for their renewal application processed. Leaflets are also distributed at LTO office.

Scope of Work:

Purchase and installation of audio visual system	10	sets
Development of video program	5	programs
Development and printing of leaflet	1	million copies

Project Cost:

Project Profile

SF02	Traffic Safety Education Program for School Children	Project Location: Study Area

Project Description:

1. A traffic safety education curriculum and materials will be developed by expert on traffic safety.
2. Teachers of elementary school will be trained on the traffic safety curriculum and use of the materials.
3. Special traffic safety class will be held at the beginning of each school year to teach school children basics of traffic safety.

Project Background:

Scope of Work:

Development of traffic safety education curriculum and materials.
Training of teachers on the curriculum and materials
Holding of traffic safety education class

Project Cost:

Project Profile

CR01	LRT 1 Corridor Improvement Project	Project Location:
Project Description: 1. Conduct a field survey on the existing condition of the corridor and identify the traffic management problems. 2. Devise and design various measures to enhance the efficiency and safety of the corridor. 3. Apply the measures.		Mexico Road, Taft Avenue, and Rizal Avenue

Scope of Work:

Measures to be considered and applied include:

- Re-paving of carriage-way and sidewalk
- Removal of obstruction along sidewalk
- Plant and vegetation
- Street lighting
- Traffic sign and pavement markings
- Re-adjustment of signal phase and timing
- Pedestrian overpass/underpass
- Drainage rehabilitation
- Guardrail and pedestrian barrier
- Waiting shed rehabilitation and construction

Project Cost:

Project Schedule:

Project Profile

CR02	Corridor Improvement Project

Project Description:

1. Conduct a field survey on the existing condition of the corridor and identify the traffic management problems.
2. Devise and design various measures to enhance the efficiency and safety of the corridor.
3. Apply the measures.

Project Location:

Candidate locations:
Aguinaldo Highway
Alabang – Zapote Road
Commonwealth Avenue
Quirino Highway
McArthur Highway

Scope of Work:

Measures to be considered and applied include:

- Re-paving of carriage-way and sidewalk
- Removal of obstruction along sidewalk
- Plant and vegetation
- Street lighting
- Traffic sign and pavement markings
- Re-adjustment of signal phase and timing
- Pedestrian overpass/underpass
- Drainage rehabilitation
- Guardrail and pedestrian barrier
- Waiting shed rehabilitation and construction

Project Cost:

Project Profile

TE01	Traffic Engineering and Management Project in Cities and Municipalities	Project Location: Cities and municipalities in Metro Manila and adjacent provinces.

Project Description:

1. A comprehensive traffic engineering and management project will be carried out at cities and municipalities in Metro Manila and adjacent province.
2. Project components include geometric improvement, signalization, traffic signs, pavement marking, street lighting, bus/jeepney bay, waiting shed, pedestrian overpass/underpass, and pedestrian barrier.
3. The project will be carried out under the initiative of local government unit in cooperation with DPWH.

Project Background:

Substantial efforts have been made to improve traffic condition in Metro Manila particularly in the area inside and immediate vicinity of EDSA. On the other hand, traffic condition in the outer area such as cities and municipalities at the peripheral area and in the province adjacent to Metro Manila is as severe or even worse than the condition in the central area. Due to the budgetary and human resource constrains , measures so far taken at these areas are not sufficient in terms of scale and technical level. In other words, there is much room for improvement. The proposed project will address to the traffic management problems in these areas with various traffic engineering and management measures.

Scope of Work:

Identify of traffic engineering and management problems in the project area
Devise and design measures to ameliorate the traffic condition
Implement improvement measures
Train LGU staff on traffic engineering and management through class room training and OJT

Project Cost:

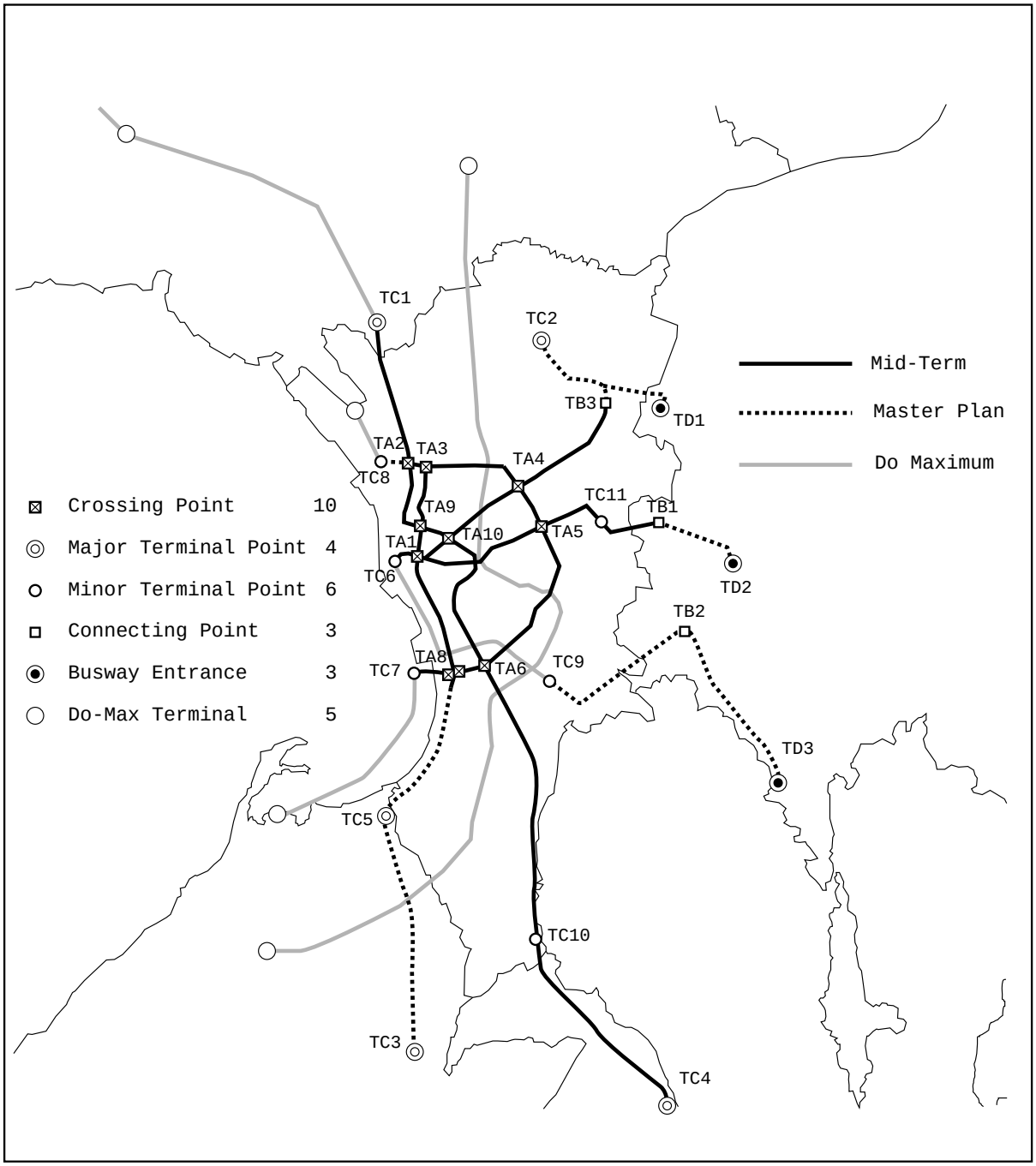
1.4 Terminal

Project List (Public Transportation Node)

Category	Code	Name	Line	Period			Cost (PM)	Agency
				-2005	-2010	-2015		
Crossing Point	TA1	Recto	Line-1 Line-2 Line-4	*	*	*	108	MMDA/ LGU/ DPWH
	TA2	Caloocan	Line-3 N-Rail	*	*	*	1,195	MMDA/ LGU/ DPWH
	TA3	Monumento	Line-1 Line-3	*	*	*		MMDA/ LGU/ DPWH
	TA4	Quezon/EDSA	Line-3 Line-4	*	*		132	MMDA/ LGU/ DPWH
	TA5	Cubao	Line-2 Line-3	*	*		228	MMDA/ LGU/ DPWH
	TA6	Magallanes	Line-3 MCX	*	*	*	212	MMDA/ LGU/ DPWH
	TA7	Taft/EDSA	Line-1 Line-3	*			400	MMDA/ LGU/ DPWH
	TA8	Baclaran	Line-1 Line-3 Line-6	*	*	*	498	MMDA/ LGU/ DPWH
	TA9	Blumentritt	Line-1 N-Rail	*			132	MMDA/ LGU/ DPWH
	TA10	España	Line-4 N-Rail	*			256	MMDA/ LGU/ DPWH
Connecting Point	TB1	Masinag	Line-2	*			24	MMDA/ LGU/ DPWH
	TB2	Taytay	Line-2S		*	*	34[1/]	MMDA/ LGU/ DPWH
	TB3	Batasan	Line-4		*	*	34[1/]	MMDA/ LGU/ DPWH
Terminal Point	TC1	Meycauyan	N-Rail	*			12[1/]	MMDA/ LGU/ DPWH
	TC2	Novaliches	Line-4		*	*	34[1/]	MMDA/ LGU/ DPWH
	TC3	Dasmariñas	Line-6		*	*	24[1/]	MMDA/ LGU/ DPWH
	TC4	Sta. Rosa	MCX		*	*	34[1/]	MMDA/ LGU/ DPWH
	TC5	Imus	Line-6		*	*	12[1/]	MMDA/ LGU/ DPWH
	TC6	Port Area	Line-2		*	*	34[1/]	MMDA/ LGU/ DPWH
	TC7	Reclamation	Line-3		*	*	12[1/]	MMDA/ LGU/ DPWH
	TC8	Navotas	Line-3		*	*	12[1/]	MMDA/ LGU/ DPWH
	TC9	Fort Bonifacio	Line-2S		*	*	795	MMDA/ LGU/ DPWH
	TC10	Alabang	MCX	*	*		249	MMDA/ LGU/ DPWH
	TC11	Santolan	Line-2	*			34[1/]	MMDA/ LGU/ DPWH
Busway Entrance	TD1	San Mateo	Busway		*	*	17[1/]	MMDA/ LGU/ DPWH
	TD2	Antipolo	Busway		*	*	12[1/]	MMDA/ LGU/ DPWH
	TD3	Biñangoñan	Busway		*	*	8[1/]	MMDA/ LGU/ DPWH

[1/]: excluding land acquisition and compensation cost

Figure 2
Location of Major Public Transportation Node



Project Profile (Terminal)

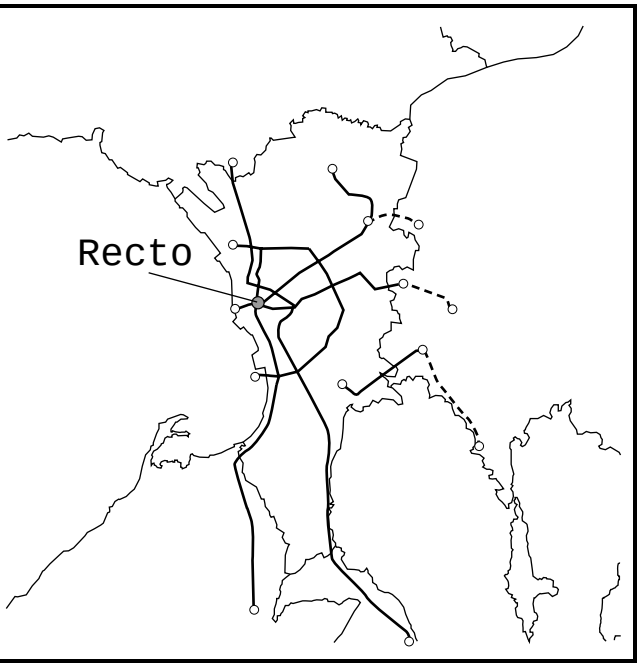
Code: TA1	Recto

Description:

Recto area is located in the center of Metro Manila as major commercial and business center, and important point for public transportation. In addition to existing LRT Line-1, Line-2 and Line-4 is planned and proposed.

This terminal project provide a pedestrian deck on Oroqueita to connect Line-1 and Line-2 stations.

It is inevitable to redevelop the city jail as the site of Line-4 station, and a station square is proposed in the site.



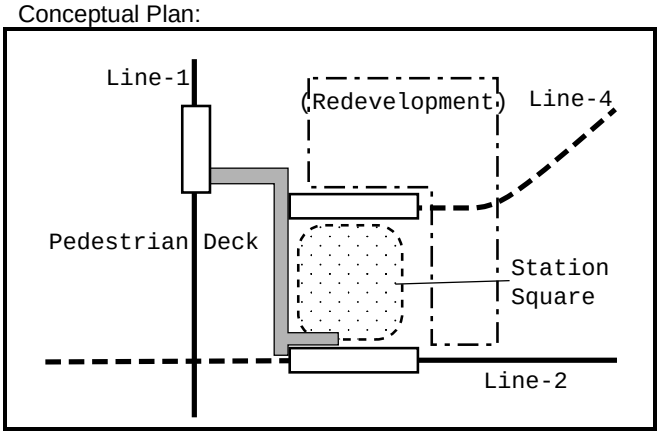
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1)Doroteo.Jose	LRT-1	Existing	357,000		
(2)Recto	LRT-2	On-going	123,000		
(3)Recto	LRT-4	Proposal	384,000		Redevelopment

Project Context:

Status	Proposal		
Project Type	Pedestrian Deck		✓
	Station Square		✓
	Bus/Jeepney Terminal		
	Jeepney Transit Mall		✓
	Sidewalk facility		✓
	Integration of Stations		
	Park & Ride		
	Urban (re)Development		✓
Area	Square=7,000sq.m		
Schedule	1999 – 2015		
Project Cost (P Million) *Exclude urban redevelopment	Construction	46	
	Land Acquisition	62	
	Total	108*	

Conceptual Plan:



Current Condition:

Land Use	High Commercial	
Feature	Old CBD	
Terminals / Station	Bus	Low
	Jeepney	High

Project Profile (Terminal)

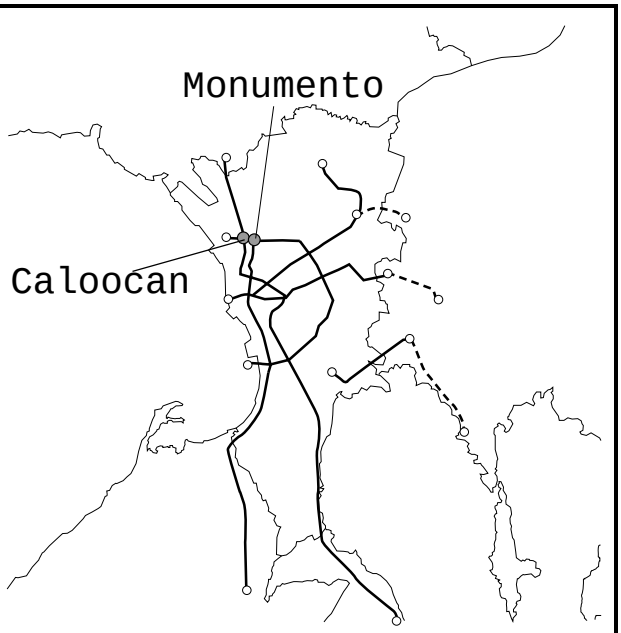
Code: TA2, 3	Caloocan & Monumento

Description:

Monumento is the north gate of Metro Manila CBD, and it is expected that extension of MRT Line-3 raise the role of public transportation terminal.

This project provides pedestrian deck between the Monumento station of Line-1 and that of Line-3, and redevelops existing bus terminal as a symbolic station square.

In the Caloocan area, the connection among three lines – North rail, Line-3 and MCX – is important issue. This project provides station square using the existing PNR compound.



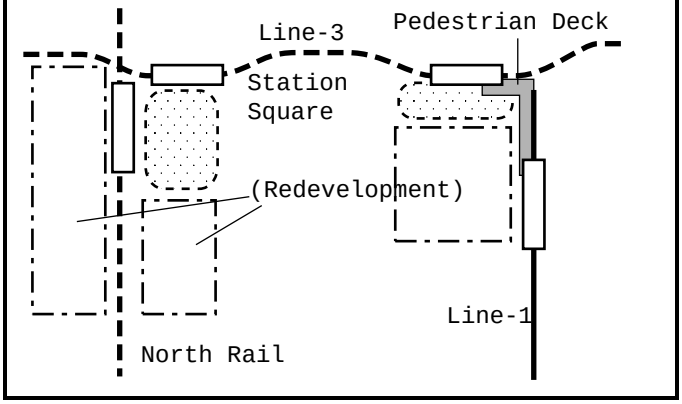
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Caloocan	North Rail	Committed	567,000		
(2) Caloocan	MCX	Proposal	508,000		
(3) Caloocan	Line-3 ext.	Proposal	197,000		
(4) Monumento	Line-1	Existing	277,000		
(5) Monumento	Line-3 ext.	Proposal	97,000		

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	✓
	Station Square	✓
	Bus/Jeepney Terminal	✓
	Jeepney Transit Mall	
	Pedestrian facility	✓
	Integration of Stations	
	Park & Ride	
	Urban (re)Development	✓
Area	Square=30,000sq.m×2	
Schedule	1999 – 2015	
Project Cost (P Million) *Exclude urban redevelopment	Construction	102
	Land Acquisition	109
	Total	211*

Conceptual Plan:



Current Condition:

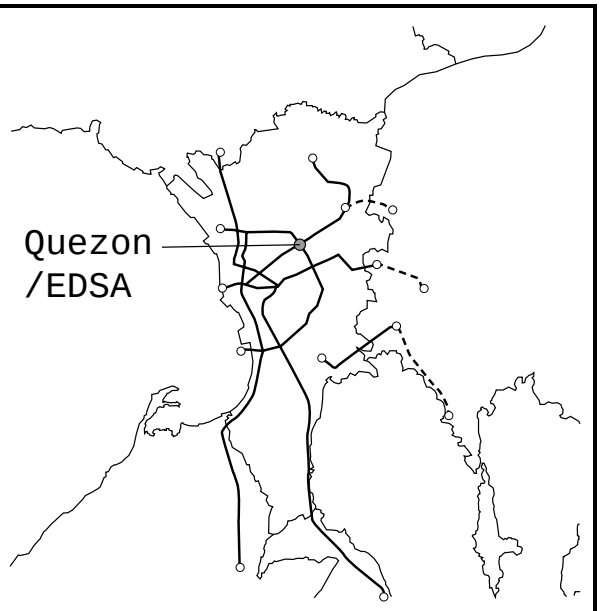
Land Use	High Commercial	
Feature	Old CBD	
Terminals / Stations	Bus	High
	Jeepney	High

Project Profile (Terminal)

Code: TA4	Quezon/EDSA

Description:

This project provides adequate pedestrian facilities to connect the station of MRT Line-3 and that of Line-4.



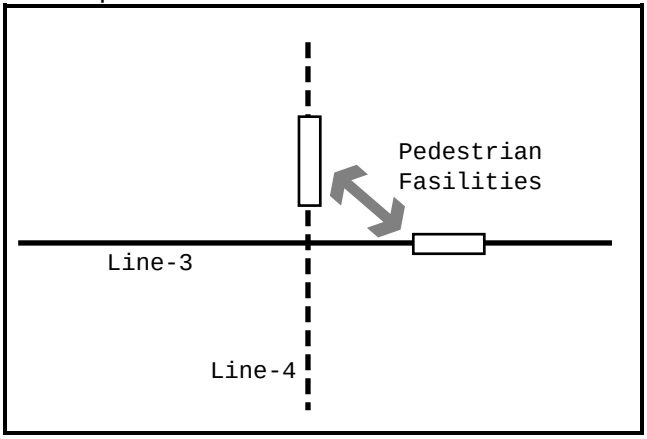
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Quezon Ave.	Line-3	On-going	295,000		
(2) EDSA	Line-4	Proposed	439,000		Expressway

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	
	Station Square	
	Bus/Jeepney Terminal	✓
	Bus/Jeepney Stop	✓
	Pedestrian facility	✓
	Integration of Stations	
	Park & Ride	
	Urban (re)Development	
Area	4,000sq.m	
Schedule	2005 – 2010	
Project Cost (P Million)	Construction	12
	Land Acquisition	120
	Total	132

Conceptual Plan:



Current Condition:

Land Use	Low Density	
Feature	New Urban Center	
Terminals / Stations	Bus	High
	Jeepney	High

Project Profile (Terminal)

Code: TA6,7	EDSA/Taft Ave. & Baclaran

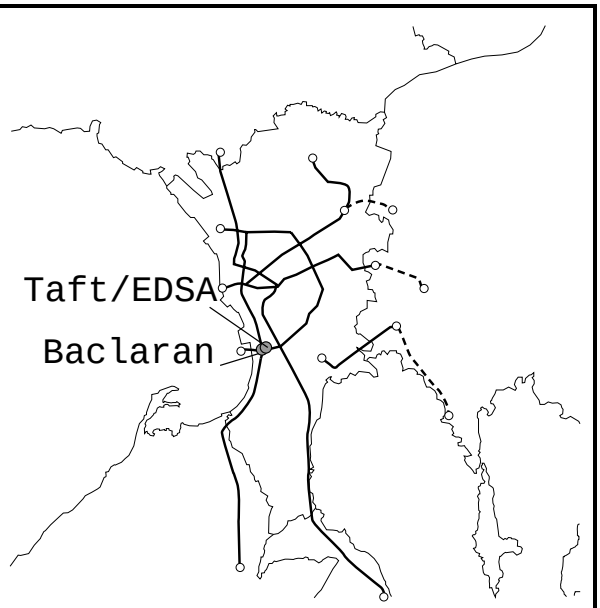
Description:

This area is one of the most important crossing points where major circular road and radial road meat each other, and the south gate of Metro Manila CBD.

In addition, three lines – Line-1, Line-3 and Line-6 – will be crossing in the future, which will raise the importance of this area.

To serve the smooth connection between stations of these lines, this project provides three pedestrian decks: Line-1 & Liine-3, Line-3 & Line-6, and Line-1 & Line-6.

It is important to provide comfortable access to a famous church, market, and commercial buildings.



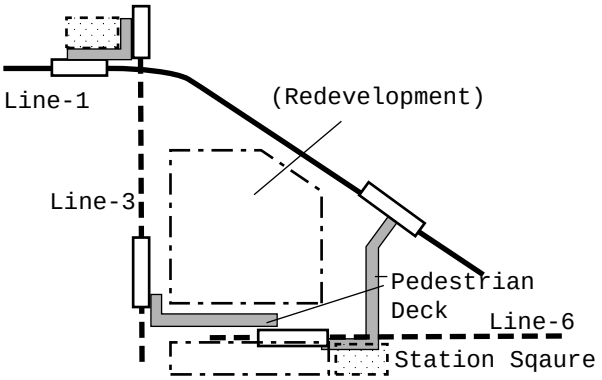
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Baclaran	Line-1	Existing	516,000		
(2) EDSA	Line-1	Existing	240,000		
(3) Taft	Line-3	Ongoing	242,000		
(4) Harrison	Line-6	Proposal	761,000		(Baclaran)
(5) Harrison	Line-3	Proposal	321,000		

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	✓
	Station Sqare	
	Bus/Jeepney Terminal	✓
	Jeepney Transit Mall	
	Pedestrian facility	✓
	Integration of Stations	
	Park & Ride	
	Urban (re)Development	✓
Area	Square=5,400sq.m	
Schedule	1999 – 2015	
Project Cost (P Million) *Exclude urban redevelopment	Construction	40
	Land Acquisition	293
	Total	333*

Conceptual Plan:



Current Condition:

Land Use	Commercial / Residential	
Feature	Popular church, market	
Terminals / Stations	Bus	High (along EDSA)
	Jeepney	High

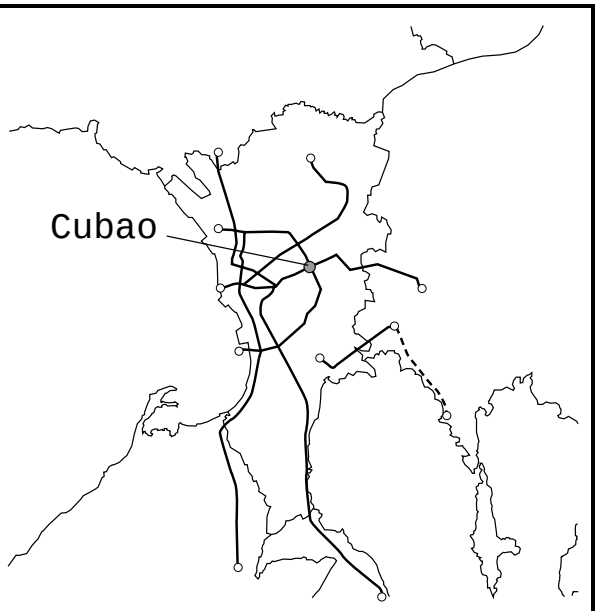
Project Profile (Terminal)

Code: TA5	Cubao

Description:

Cubao is one of the major commercial centers along EDSA, and an important transportation node at the gate to east developing area. Ongoing two lines – Line-3 and Line-2 – will be crossing in this area.

This project provides a pedestrian deck connecting two stations of these line, and jeepney transit mall.



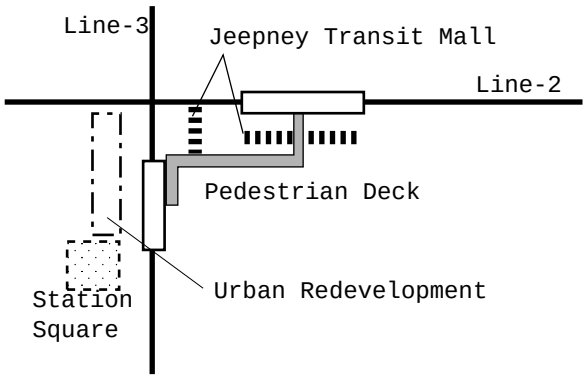
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Cubao	Line-3	On-going	500,000		
(2) Cubao	Line-2	On-going	335,000		

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	✓
	Station Square	
	Bus/Jeepney Terminal	
	Jeepney Transit Mall	✓
	Pedestrian facility	✓
	Integration of Stations	✓
	Park & Ride	
	Urban (re)Development	✓
Area	--	
Schedule	1999 – 2010	
Project Cost (P Million) *Exclude urban redevelopment	Construction	48
	Land Acquisition	180
	Total	228*

Conceptual Plan:



Current Condition:

Land Use	High Commercial	
Feature	Super Block Development	
Terminals / Stations	Bus	High (along EDSA)
	Jeepney	Medium

Project Profile (Terminal)

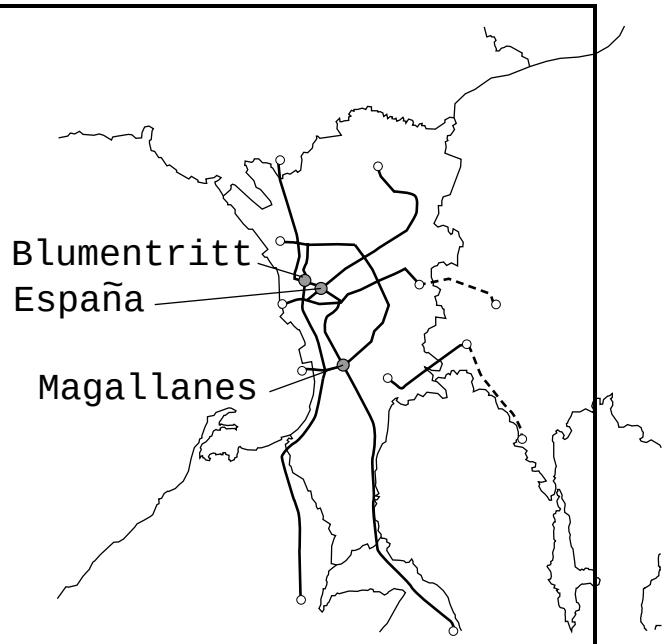
Code: TA8~10	Magallanes, etc

Description:

Magallanes is a connecting point between MCX and MRT stations. The distance of these stations is long, and it is desirable to provide comfortable pedestrian facilities connecting these stations. In addition, access route for feeder mode should be prepared adequately.

Followings are the similar Public Transportation Node that is required comfortable connections (MRT – MCX/North Rail) and adequate access route for feeder mode.

Blumentritt, España



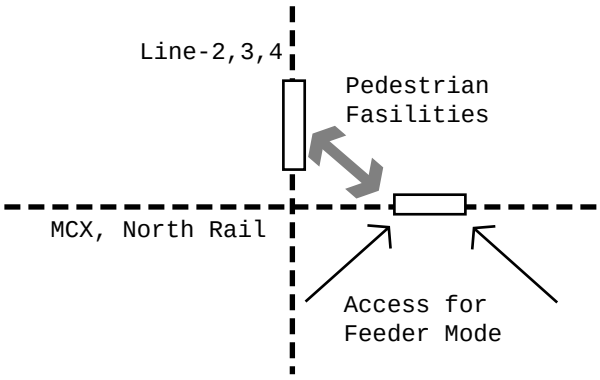
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Magallanes	Line-3	On-going	233,000		MCX (406,000)
(2) Blumentritt	Line-1	Existing	106,000		MCX (131,000)
(3) España	Line-4	Proposed	263,000		MCX (422,000)

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	
	Station Square	✓
	Bus/Jeepney Terminal	
	Jeepney Transit Mall	✓
	Pedestrian facility	✓
	Integration of Stations	
	Park & Ride	
	Urban (re)Development	
Area	--	
Schedule	2004 – 2015	
Project Cost (P Million)	Construction	12
	Land Acquisition	200
	Total	212

Conceptual Plan:



Current Condition:

Land Use	Commercial, Residential	
Feature	Inner City	
Terminals / Stations	Bus	Medium
	Jeepney	Medium

Project Profile (Terminal)

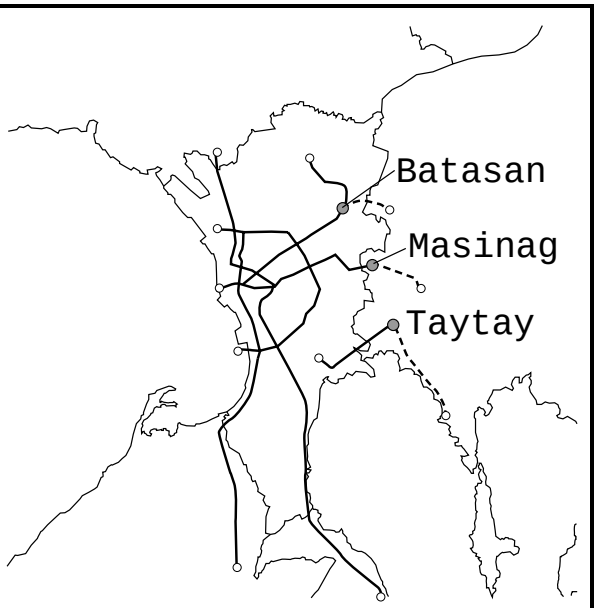
Code: TB1~3	Masinag

Description:

Masinag is the connecting point between proposed Line-2 extension and Busway to Antipolo. Transferring between Bus and MRT is an important issue, and it is proposed to provide such a station square that enable effective connection between these modes.

Followings are similar Public Transportation Node like Masinag:

Taytay, Batasan



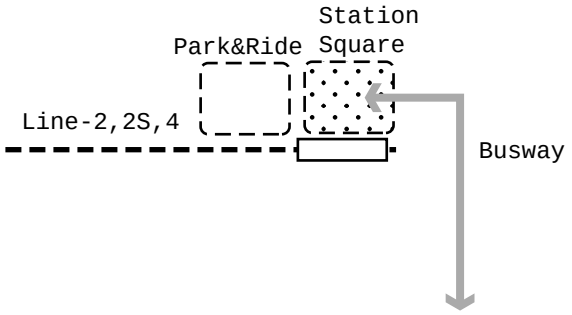
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Masinag	Line-2	Proposal	463,000		Busway (385,000)
(2) Taytay	Line-2S	Proposal	74,000		Busway (227,000)
(3) Batasan	Line-4	Proposal			Busway ()

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	
	Station Square	✓
	Bus/Jeepney Terminal	
	Jeepney Transit Mall	
	Pedestrian facility	
	Integration of Stations	
	Park & Ride	✓
	Urban (re)Development	
Area	Square 6,600sq.m	
Schedule	1999 – 2005	
Project Cost (P Million)	Construction	6
	Land Acquisition	18
	Total	24

Conceptual Plan:



Current Condition:

Land Use	Residential	
Feature	Minor Urban Center	
Terminals / Stations	Bus	Low
	Jeepney	Low

Project Profile (Terminal)

Code: TC1 ~ 5	Dasmariñas, etc.

Description:

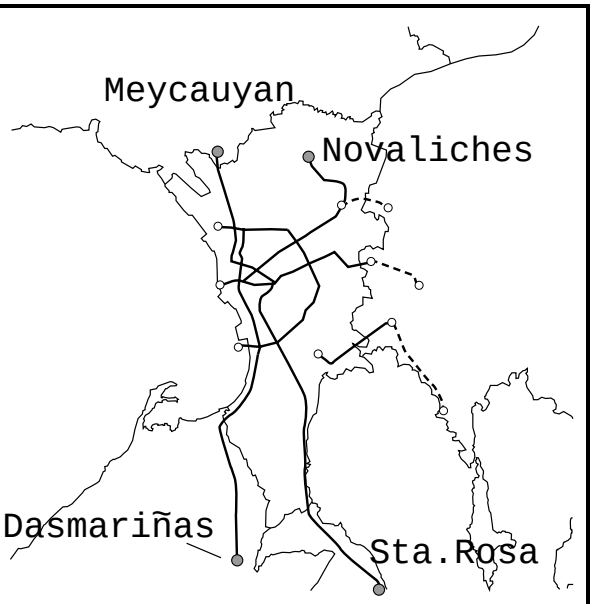
Dasmariñas is a Major Urban Center in southern of study area in which the terminal of Line-6 is proposed.

It is expected a large number of bus and jeepney will be attracted, so bus and jeepney terminal with urban development is major program of this area.

Follows are similar Major Urban Center.

Maycauyan, Novaliches, Sta. Rosa, Imus

Although Imus is not a terminal point, its characteristic as transportation node is similar to these stations, because Imus has a southern hinterland along seashore.



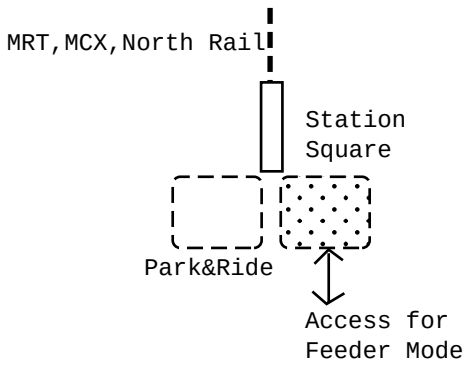
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Dasmariñas	Line-6	Proposal	509,000		
(2) Meycauyan	North Rail	Proposal	367,000		
(3) Sta. Rosa	MCX	Proposal	405,000		
(4) Novaliches	Line-4	Planned	238,000		
(5) Imus	Line-6	Proposal	615,000		

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	
	Station Square	✓
	Bus/Jeepney Terminal	✓
	Jeepney Transit Mall	
	Pedestrian facility	
	Integration of Stations	
	Park & Ride	✓
	Urban (re)Development	
Area	--	
Schedule	2004 – 2015	
Project Cost (P Million)	Construction	24
	Land Acquisition	N.A.
	Total	24

Conceptual Plan:



Current Condition:

Land Use	Residential	
Feature	Major Urban Center	
Terminals / Stations	Bus	Medium
	Jeepney	Medium

Project Profile (Terminal)

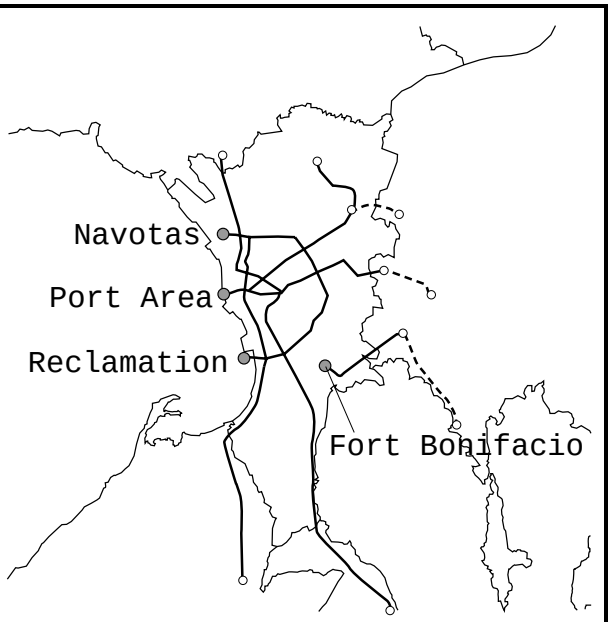
Code: TC6~9	Port Area, etc.

Description:

Port Area Station is located at the west end of Line-2 in Master Plan, and the extension of Line-2 is considered in "Do-Maximum" Plan. Therefore, it is desirable that the station be designed to meet the possibility of extension.

Followings are similar Public Transportation Nodes like Port Area:

Navotas, Reclamation, Fort Bonifacio



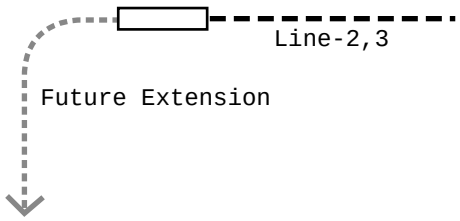
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Port Area	Line-2	Proposal	52,000		Extension (Do Maximun)
(2) Navotas	Line-3	Proposal	89,000		Extension (Do Maximum)
(3) Reclamation	Line-3	Proposal	35,000		Extension(Do Maximum)
(4) Fort Bonifacio	Line-2South	Proposal			

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	
	Station Square	✓
	Bus/Jeepney Terminal	
	Jeepney Transit Mall	
	Pedestrian facility	
	Integration of Stations	
	Park & Ride	
	Urban (re)Development	
Area	--	
Schedule	2004 – 2015	
Project Cost (P Million)	Construction	36
	Land Acquisition	NA.
	Total	36

Conceptual Plan:



Current Condition:

Land Use	Industrial	
Feature	Near Port	
Terminals / Stations	Bus	Low
	Jeepney	Low

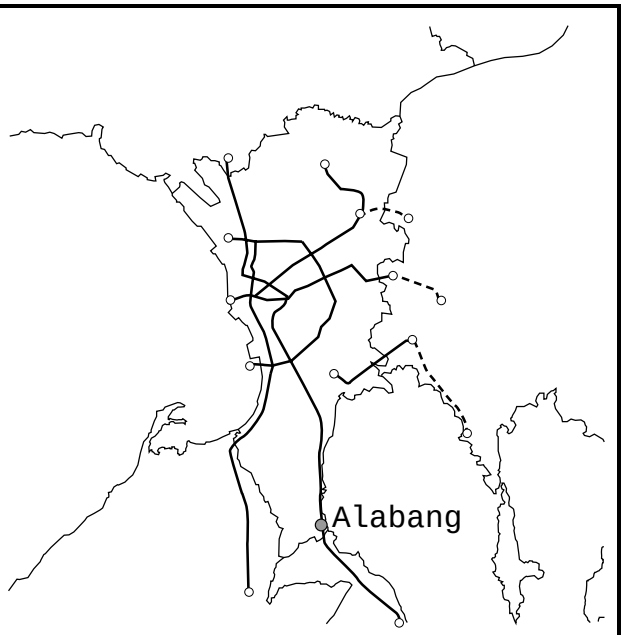
Project Profile (Terminal)

Code: TC10	Alabang

Description:

Alabang is a major urban center in southern Metro Manila on Laguna Corridor where the expansion of urbanization is prominent, and growing hinterland stretches in the west of this area. PNR Improvement project is expected to raise the role of the existing station as an important public transportation node.

This project provides a station square for feeder mode and pedestrian facilities including sidewalk and underpass.



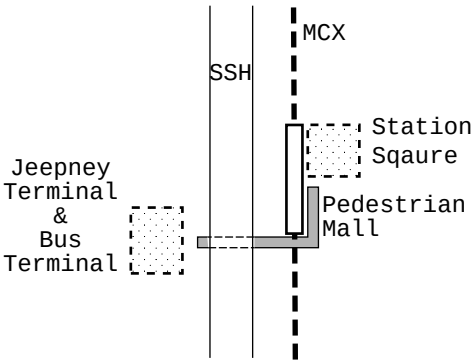
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Alabang	MCX	Proposal	588,000		

Project Context:

Status	Proposal	
Project Type	Pedestrian Deck	
	Station Square	✓
	Bus/Jeepney Terminal	✓
	Jeepney Transit Mall	
	Pedestrian facility	✓
	Integration of Stations	
	Park & Ride	
	Urban (re)Development	
Area	--	
Schedule	2004 – 2014	
Project Cost (P Million)	Construction	99
	Land Acquisition	150
	Total	249

Conceptual Plan:



Current Condition:

Land Use	Commercial, Residential	
Feature	Major Urban Center	
Terminals / Stations	Bus	High
	Jeepney	High

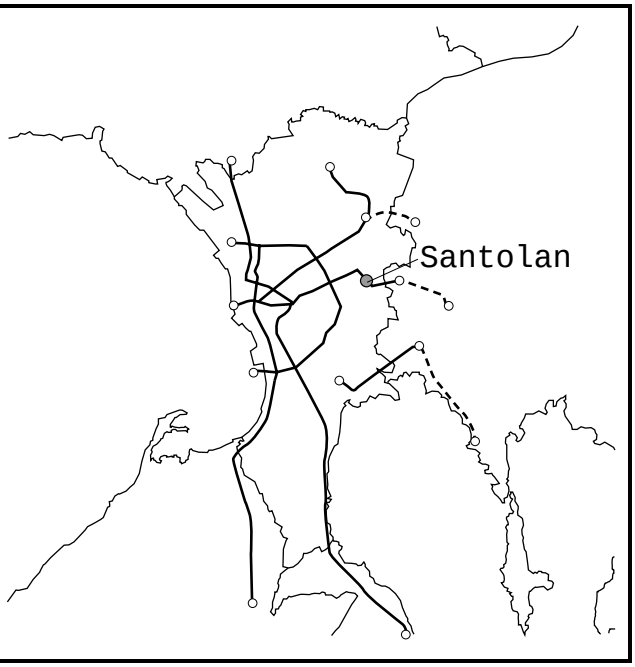
Project Profile (Terminal)

Code: TC11	Santolan

Description:

Santolan is located in the east area of Marikina river along Marcos highway, and urbanizing hinterland stretch around the area.

This project provides a station square and park & ride facilities to deal with a large number of transferring demand.



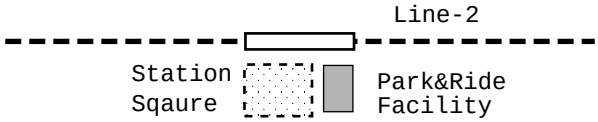
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Santolan	Line-2	Ongoing	107,000		

Project Context:

Status	Proposal		
Project Type	Pedestrian Deck		
	Station Square		✓
	Bus/Jeepney Terminal		✓
	Jeepney Transit Mall		
	Pedestrian facility		
	Integration of Stations		
	Park & Ride		✓
	Urban (re)Development		
Area	--		
Schedule	1999 – 2005		
Project Cost (P Million)	Construction	34	
	Land Acquisition	36	
	Total	70	

Conceptual Plan:



Current Condition:

Land Use	Industrial, Residential	
Feature	Industrial, Residential	
Terminals / Stations	Bus	Low
	Jeepney	Low

Project Profile (Terminal)

Code: TD1~3	Antipolo, etc

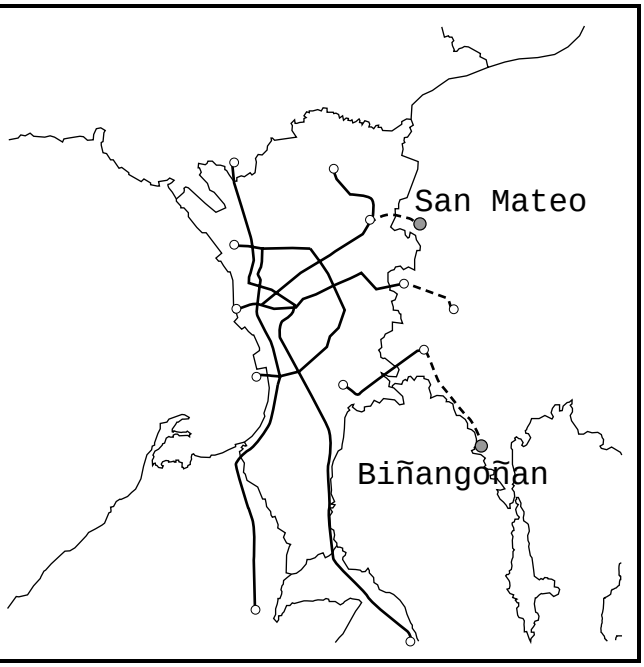
Description:

Busway is proposed to connect between the eastern Metro Manila and Antipolo in Rizal.

This project provides bus terminal at the entrance of busway in Antipolo.

Followings are the similar Public Transportation Node:

San Mateo, Biñangoñan



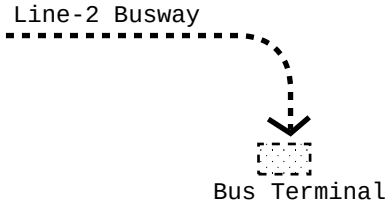
Railway Station:

Name	Line	Situation	Passenger forecast		Remark
			On/Off	Passenger/day	
(1) Antipolo	Line-2		436,000		Busway
(2) San Mateo	Line-4		51,000		Busway
(3) Biñangoñan	Line-2South		235,000		Busway

Project Context:

Status	Proposal		
Project Type	Pedestrian Deck		
	Station Square		
	Bus/Jeepney Terminal		✓
	Jeepney Transit Mall		
	Pedestrian facility		
	Integration of Stations		
	Park & Ride		
	Urban (re)Development		
Area	--		
Schedule	2004 – 2015		
Project Cost (P Million)	Construction	12	
	Land Acquisition	40	
	Total	52	

Conceptual Plan:



Current Condition:

Land Use	Residential	
Feature	Major Urban Center	
Terminals / Stations	Bus	Low
	Jeepney	Low

APPENDIX I

PROFILE OF THE PROPOSED PROJECT
MEDIUM TERM DEVELOPMENT PLAN

MMUTIS
CATEGORY
ROAD
CODE
PROJECT
Arterial Road Mid-term Plan
LOCATION MAP
PROVINCE
NCR, Laguna, Cavite
SHEET NO.
1
TOTAL SHEET
1
SCALE 1:200,000
PRIMARY ARTERIAL ROADS
Scale
PC03 C-3 Caloocan Missing Link
PC04 EDSA Missing Link
PC05 (1) C-5 Katipunan Missing Link
PC05 (2) C-5 South Section
PW01 C-5 North Section
PN03 North Central Road (Quirino Highway-SM16)
PN04 C-5 North Extension (Dilliman-South Fairview)
PS01 Talaba-Kawit Road
PS03 Kawit-Bucandala Road
PE01 Bucandala-Muntinglupa Road (PS04 South Central Road)
SECONDARY ARTERIAL ROADS
Scale
SM01 Aurora Ave. Extension to R-10
SM02 A.M. Maceda St. Extension to Aurora Blvd.
SM03 F. Martinez Extension to Ortigas Ave.
SM04 S. Luzon Expway Ext. (Pres. Quirino-J.P. Rizal)
SM05 Gilmore Ave. Extension to Roosevelt
SM06 Victoneta Ave. Extension to Congressional Ave.
SM13 Don M. Marcos Ave. Ext. to North Central Rd.
SM14 Quirino Highway Novaliches Bypass
SM17 Kalayaan Ave. Extension to 20th Ave.
SM18 New Marikina Road
SM20 Col. B. Serrano Ave. Ext. to Marcos Highway
SM21 Pasay Rd. Ext. (Lawton Ave.-Gen. Santos Ave.)
1:10,000
1:10,000
1:10,000
1:10,000
1:10,000
1:10,000
1:10,000
1:10,000
1:10,000
1:10,000
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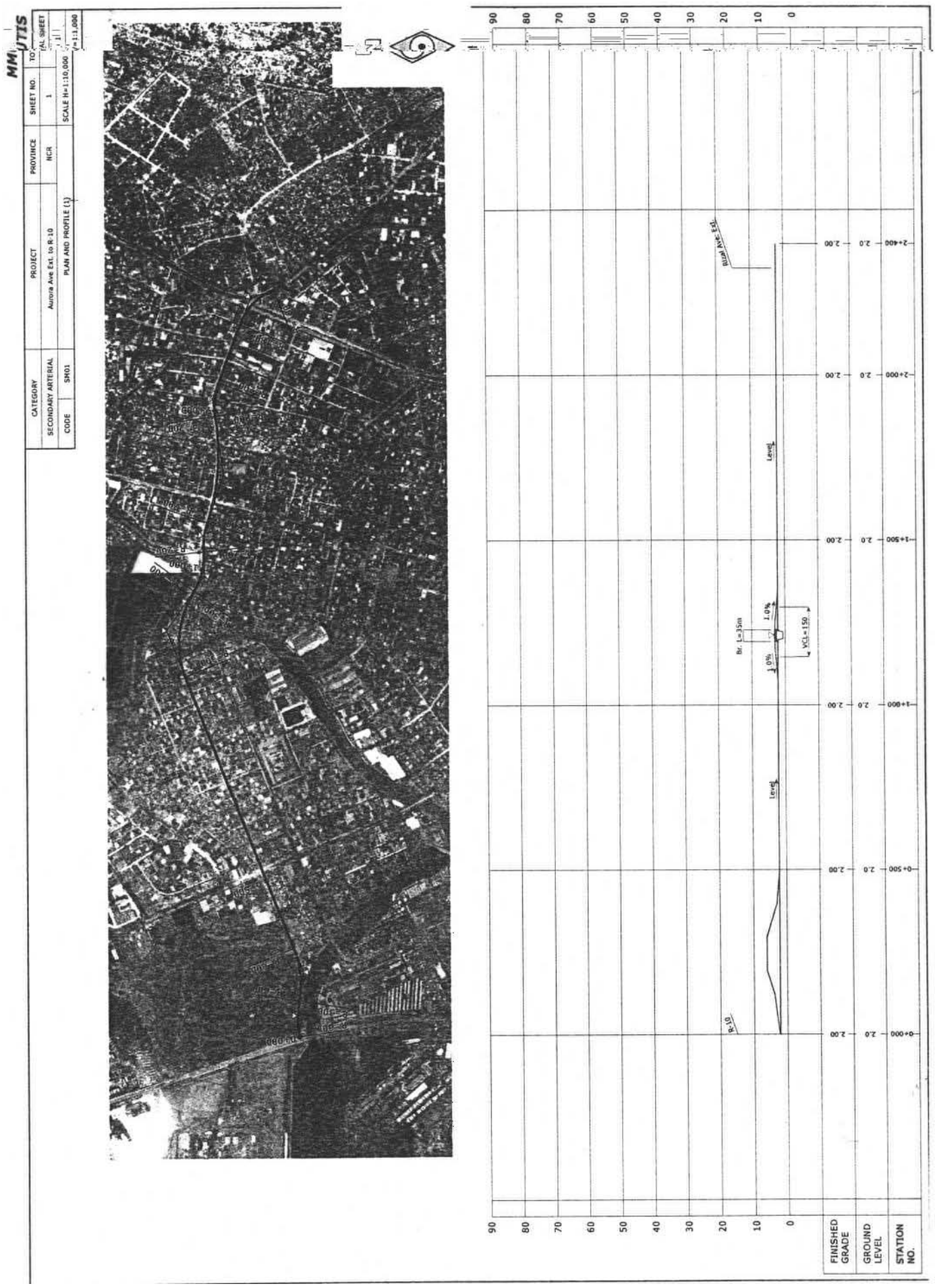
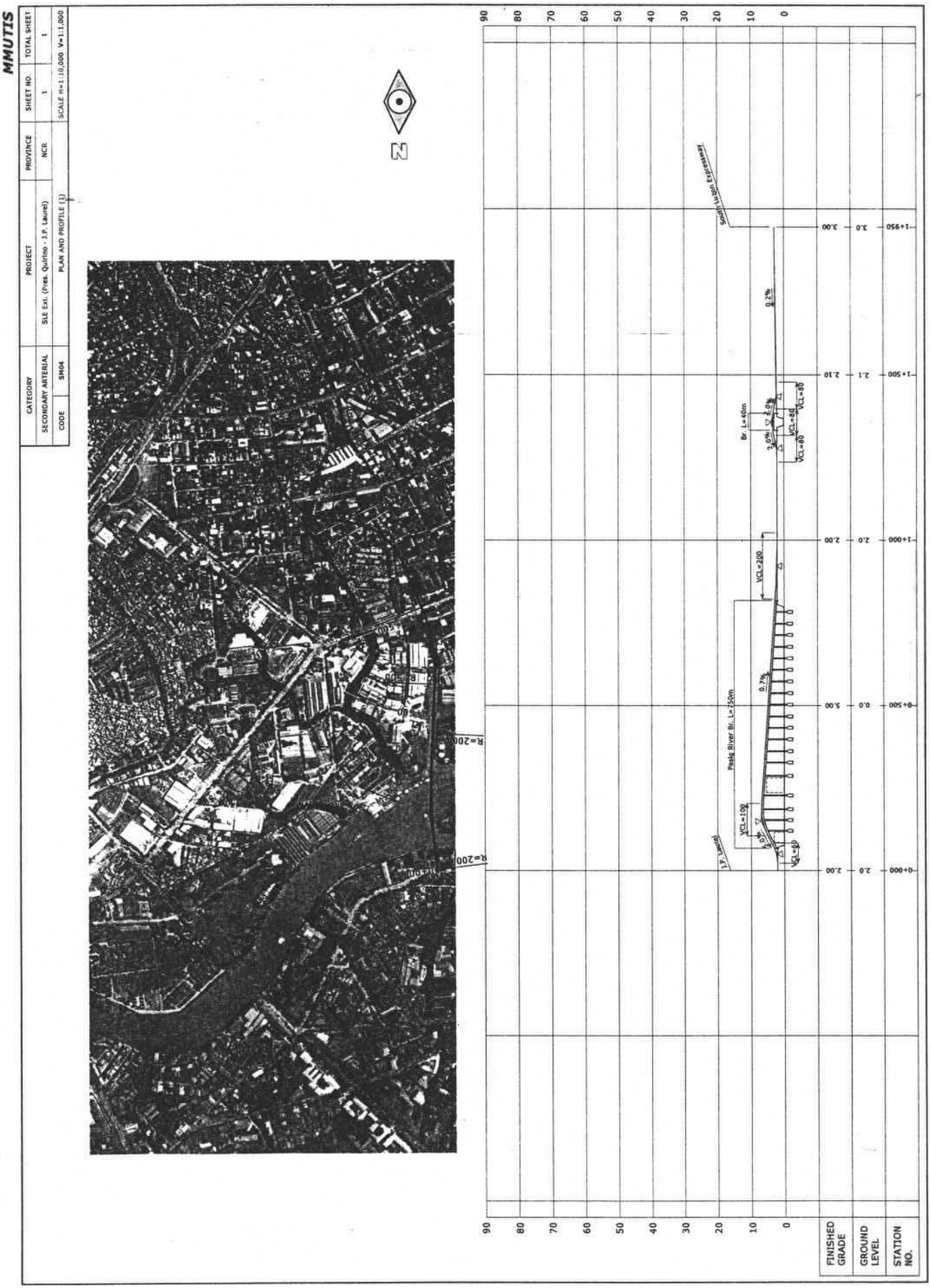
1:20,000
1:20,000
1:20,000
NORTHERN PACKAGE
CENTRAL/EASTERN PACKAGE
SOUTHERN PACKAGE
N
Primary Arterial Mid-term Plan (MMUTIS Mid-term Plan)
Primary Arterial Mid-term Plan (for Implementation Study)
Primary Arterial Mid-term Plan (On-going DPWH Plans)
Secondary Arterial Mid-term Plan (MMUTIS Mid-term Plan)
Urban Tollways (On-going DPWH Plans)
Primary Arterial
Secondary Arterial


MMUTIS
CATEGORY
SECONDARY ARTERIAL
CODE
SM01
PROJECT
Aurora Ave. Ext. to R-10
PLAN AND PROFILE (1)
PROVINCE
NCR
SHEET NO.
1
TOTAL SHEET
SCALE H=1:10,000
V=1:1,000
Rizal Ave. Ext.
R-10
Level
Level
Br. L=35m
1.0%
1.0%
VCL=150
2+400
2+000
1+500
1+000
0+500
0+000
2.0
2.00
FINISHED GRADE
GROUND LEVEL
STATION NO.

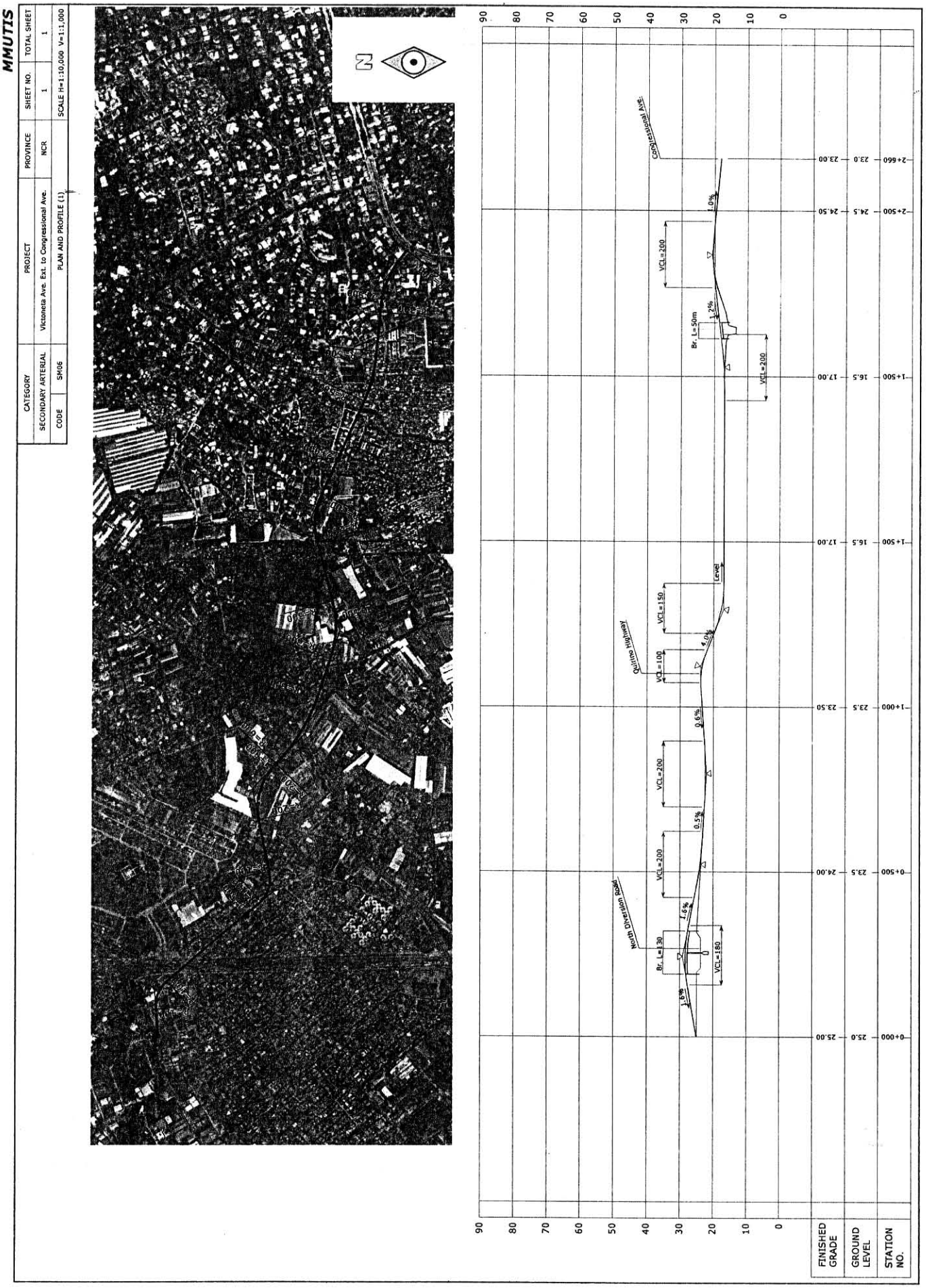
MMUTIS
CATEGORY
SECONDARY ARTERIAL
CODE SM02
PROJECT
A.H. Maceda & Ext. to Aurora Blvd.
PLAN AND PROFILE (1)
PROVINCE
NCR
SHEET NO.
1
TOTAL SHEET
1
SCALE H=1:10,000 V=1:1,000
N
Aurora Blvd. (R. Magsaysay)
Following Existing Road Alignment
Superelevation
FINISHED GRADE
GROUND LEVEL
STATION NO.
0+000
0+500
1+000
1+500
2+000
2+500
3+000
3+260

MMUTIS
CATEGORY
SECONDARY ARTERIAL
CODE
SM03
PROJECT
F. Martinez Ext. to Ortigas Ave.
PLAN AND PROFILE (1)
PROVINCE
NCR
SHEET NO.
1
TOTAL SHEET
1
SCALE H=1:10,000 V=1:1,000
N
Ortigas Ave.
Following Existing Road Alignment
Following Existing Road Alignment
Shaw Blvd.
Level
VCL=60
VCL=80
VCL=120
VCL=200
3.0%
5.0%
1.0%
1.0%
FINISHED GRADE
GROUND LEVEL
STATION NO.
16.00
22.00
20.00
20.00
17.00
17.00
0+000
0+500
1+000
1+500
2+000
2+200
16.0
15.0
20.0
20.0
17.0
17.0
17.0
90
80
70
60
50
40
30
20
10
0


MMUTIS
CATEGORY
SECONDARY ARTERIAL
CODE
SM04
PROJECT
SLE Ext. (Pres. Quirino - J.P. Laurel)
PLAN AND PROFILE (1)
PROVINCE
NCR
SHEET NO.
1
TOTAL SHEET
1
SCALE H=1:10,000 V=1:1,000
N
R=200m
R=200m
South Luzon Expressway
Pasig River Br. L=750m
J.P. Laurel
Br. L=40m
VCL=200
VCL=100
VCL=60
VCL=80
VCL=80
VCL=80
0.7%
0.2%
2.0%
2.0%
FINISHED GRADE
GROUND LEVEL
STATION NO.
0+000
0+500
1+000
1+500
1+950
2.00
2.0
2.00
5.00
0.0
2.00
2.0
2.10
2.1
3.00
3.0
90
80
70
60
50
40
30
20
10
0

MMUTIS

CATEGORY	PROJECT	PROVINCE	SHEET NO.	TOTAL SHEET
SECONDARY ARTERIAL	Gilmore Ave. Ext. to Roosevelt	NCR	1	1
CODE SM05	PLAN AND PROFILE (1)	SCALE H=1:10,000 V=1:1,000		


MMUTIS
CATEGORY
SECONDARY ARTERIAL
CODE SM06
PROJECT
Victoneta Ave. Ext. to Congressional Ave.
PLAN AND PROFILE (1)
PROVINCE
NCR
SHEET NO.
1
TOTAL SHEET
1
SCALE H=1:10,000 V=1:1,000
N
North Diversion Road
Quirino Highway
Congressional Ave.
Br. L=30
Br. L=50m
VCL=180
VCL=200
VCL=150
VCL=100
Level
1.6%
1.6%
0.5%
0.6%
4.0%
1.2%
1.0%
FINISHED GRADE
GROUND LEVEL
STATION NO.
25.00
24.00
23.50
17.00
24.50
23.00
0+000
0+500
1+000
1+500
2+500
2+660