

REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS & HIGHWAYS

**Pilot Study  
for the  
Rural Road Network Development Project**

FINAL REPORT  
DRAWINGS I  
(VOLUME IV)  
PROVINCE OF CAVITE

FEBRUARY, 1989

JAPAN INTERNATIONAL COOPERATION AGENCY

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C O N T E N T S

Drawing No	Title
1 to 4	LOCATION MAP
5 to 12	TYPICAL ROAD SECTIONS
13 to 101	PRESENT CONDITION AND PROPOSED IMPROVEMENT

L I S T O F R O A D S

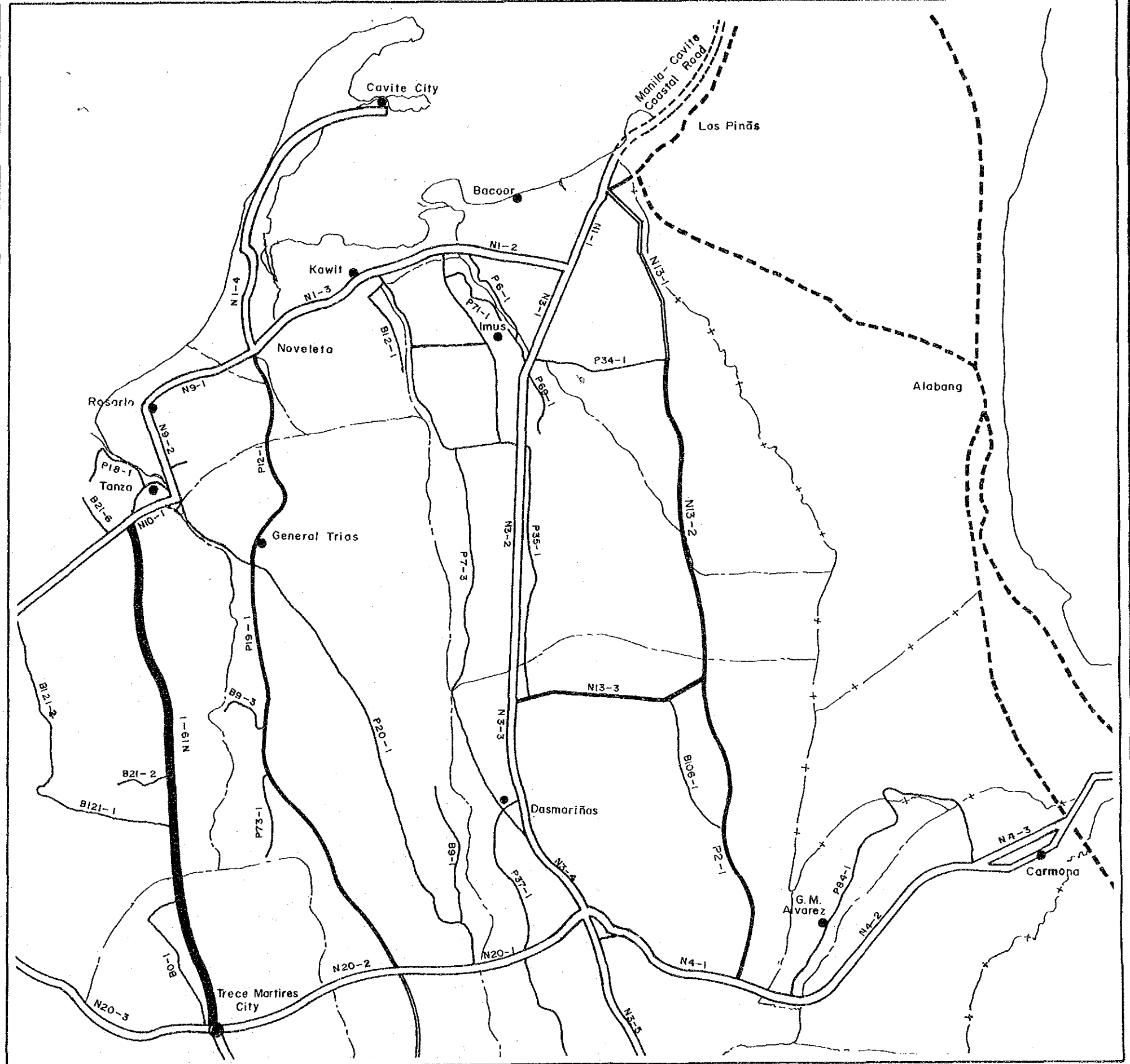
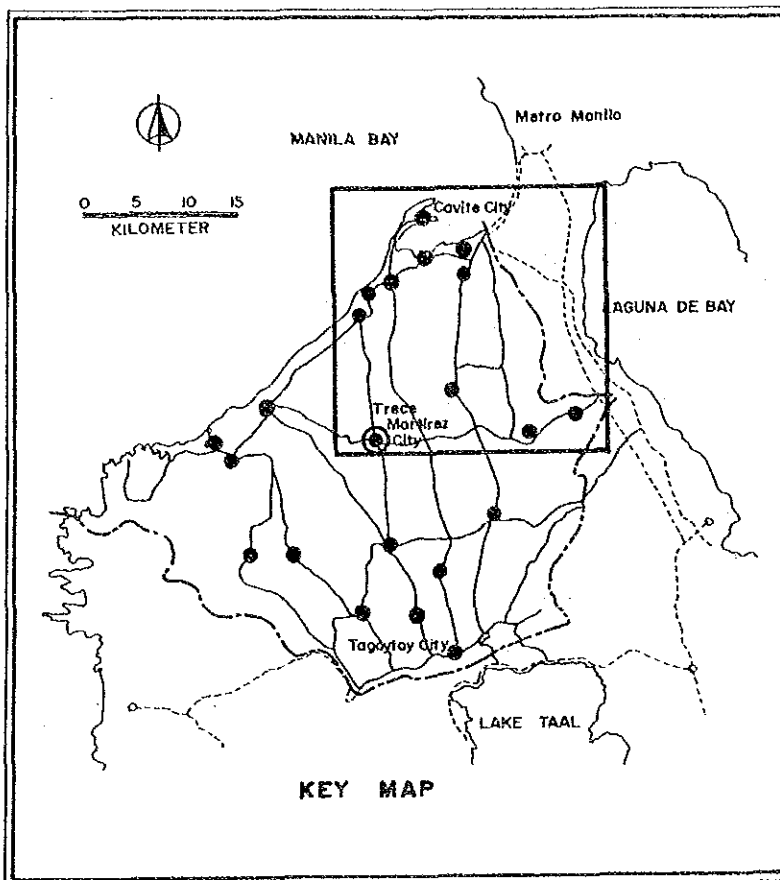
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(Primary Major Road)		(Minor Road)		P 60-1	49	B 1-3	65	B 13-3	78	B 19-15	91
N 9-5	13	N 18-2	32	P 59-1	50	B 1-6	65	B 13-4	79	B 19-16	92
N 19-1	14	N 22-1	33	P 62-1	51	B 1-7	66	B 13-5	79	B 119-1	92
P 27-1	15	P 7-3	34	P 64-1	52	B 1-8	66	B 14-1	80	B 119-2	93
P 27-2	15	P 18-1	35	P 65-1	53	B 1-9	67	B 14-5	80	B 20-1	93
P 63-1	16	P 26-1	35	P 71-1	53	B 1-10	67	B 14-6	81	B 20-2	94
P 146-1	17	P 20-1	36	P 68-1	54	B 1-11	68	B 15-1	81	B 20-3	94
(Secondary Major Road)		P 25-1	37	P 73-1	55	B 2-1	68	B 15-5	82	B 20-4	95
N 8-1	18	P 28-1	38	P 74-1	55	B 106-1	69	B 15-7	82	B 20-5	95
N 8-2	19	P 28-2	38	P 75-1	56	B 7-1	69	B 15-8	83	B 20-7	96
N 9-4	20	P 29-1	39	P 77-1	56	B 7-2	70	B 15-10	83	B 20-9	96
N 13-2	21	P 32-1	40	P 83-1	57	B 7-5	71	B 15-11	84	B 20-11	97
N 13-3	22	P 34-1	40	P 102-1	57	B 7-6	72	B 115-1	84	B 20-12	97
N 21-1	22	P 35-1	41	P 84-1	58	B 9-1	72	B 16-3	85	B 20-13	98
P 2-1	23	P 37-1	42	P 101-1	59	B 9-3	73	B 16-4	86	B 20-14	98
P 12-1	24	P 51-1	42	P 103-1	60	B 111-1	73	B 16-5	86	B 20-15	99
P 19-1	25	P 42-1	43	P 104-1	61	B 9-4	74	B 19-1	87	B 21-2	99
P 19-4	26	P 44-1	44	P 146-2	61	B 11-2	75	B 19-3	88	B 21-3	100
P 30-1	27	P 50-1	45	B 0-1	62	B 11-3	75	B 19-4	88	B 21-6	100
P 45-1	28	P 53-1	46	B 0-2	62	B 11-6	76	B 19-6	89	B 121-1	101
P 47-1	29	P 54-1	46	B 0-3	63	B 11-7	76	B 19-8	89	B 121-2	101
P 47-2	29	P 55-1	47	B 0-4	63	B 12-1	77	B 19-12	90		
P 56-1	30	P 57-1	48	B 0-5	64	B 13-1	77	B 19-13	90		
P 66-1	31	P 58-1	49	B 1-1	64	B 13-2	78	B 19-14	91		

THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
IN THE REPUBLIC OF THE PHILIPPINES

LOCATION MAP (1)

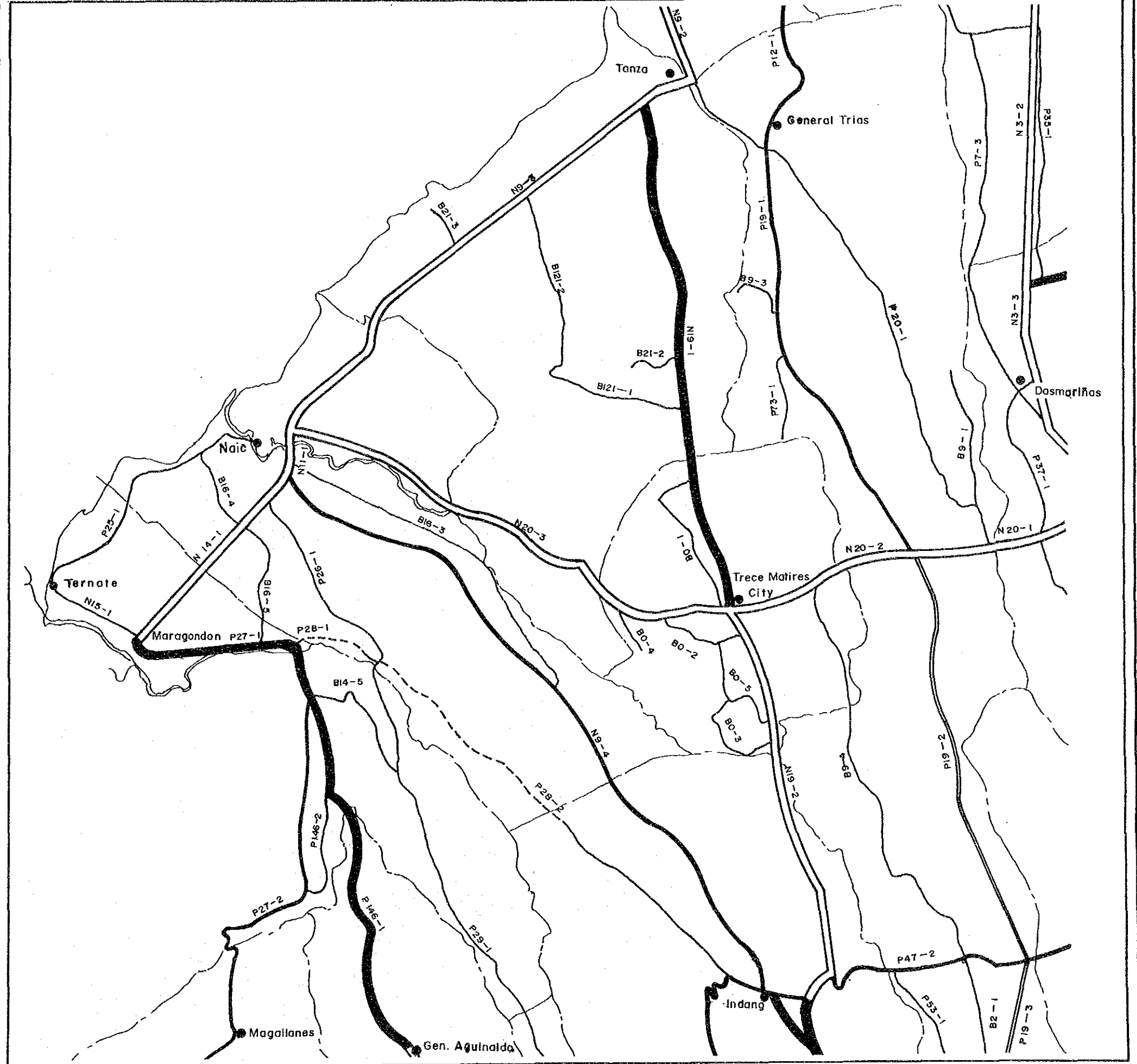
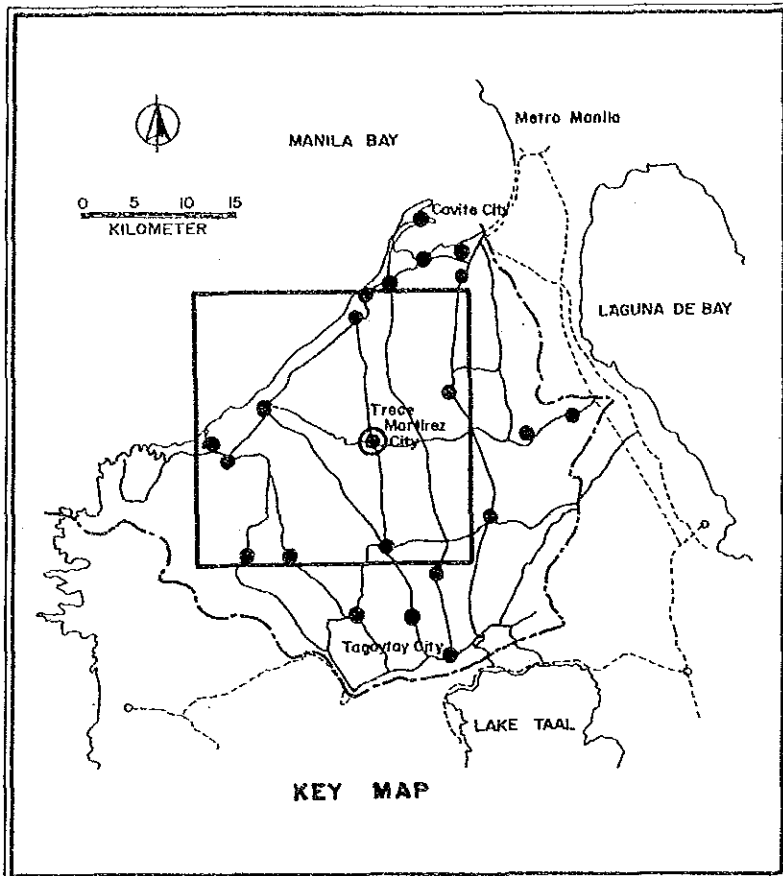
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Drawing No.  
1







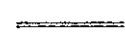


LEGEND:

- Primary Major Road for F/S
- Secondary Major Road for F/S
- Minor Road for F/S
- Existing Primary Major Road in Good/Fair Condition
- Existing Secondary Major Road in Good/Fair Condition
- Provincial Capital
- City/Municipality



LEGEND:

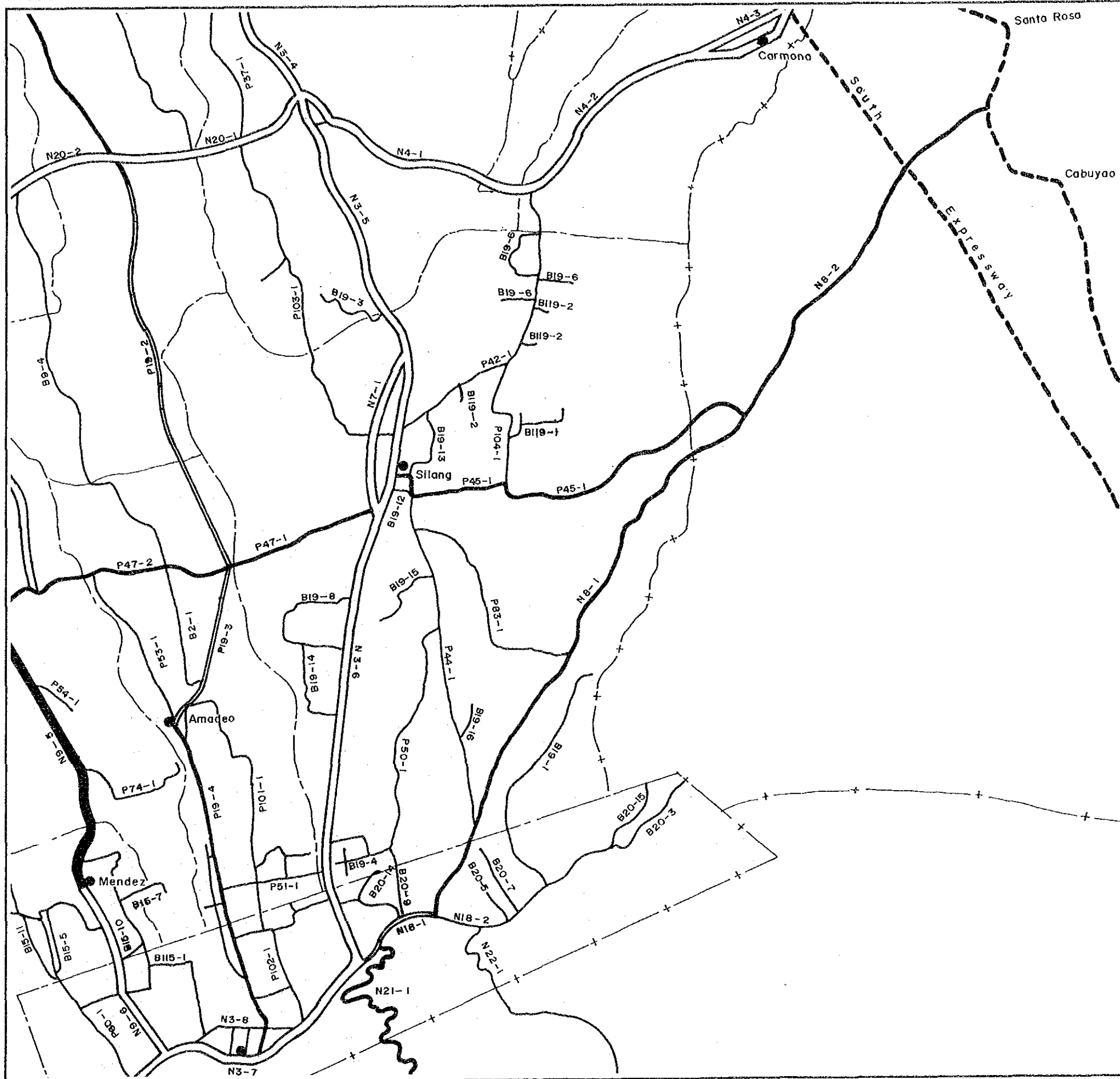
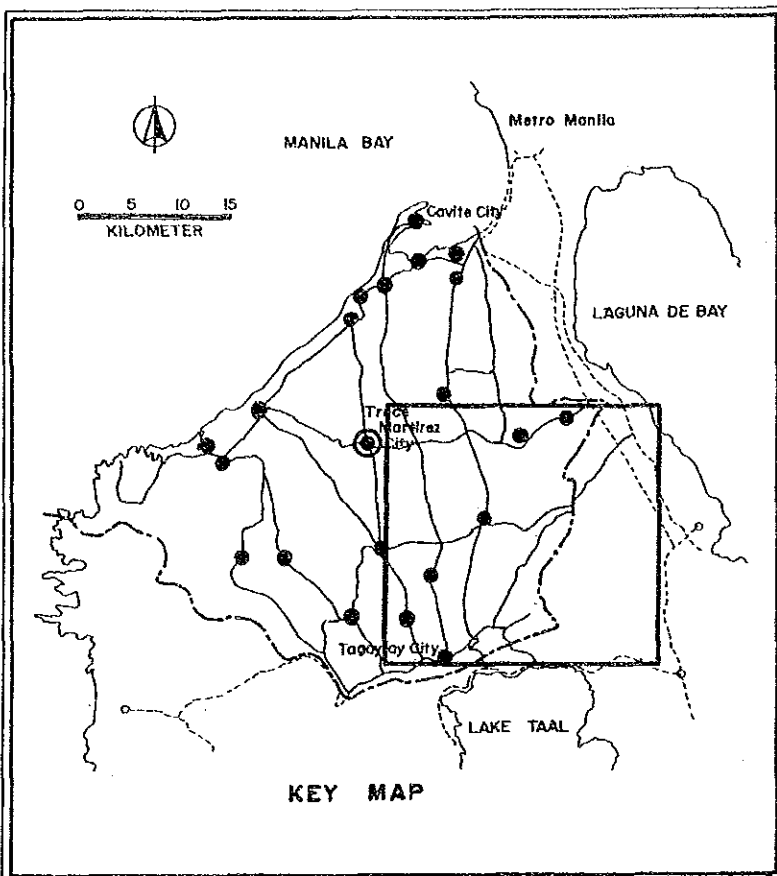
-  Primary Major Road for F/S
-  Secondary Major Road for F/S
-  Minor Road for F/S
-  Existing Primary Major Road in Good/Fair Condition
-  Existing Secondary Major Road in Good/Fair Condition
-  Provincial Capital
-  City/Municipality

# THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT IN THE REPUBLIC OF THE PHILIPPINES

LOCATION MAP (3)

Scale  
1:100,000

Drawing No.  
3



**LEGEND:**

- Primary Major Road for F/S
- Secondary Major Road for F/S
- Minor Road for F/S
- Existing Primary Major Road in Good/Fair Condition
- Existing Secondary Major Road in Good/Fair Condition
- Provincial Capital
- City/Municipality

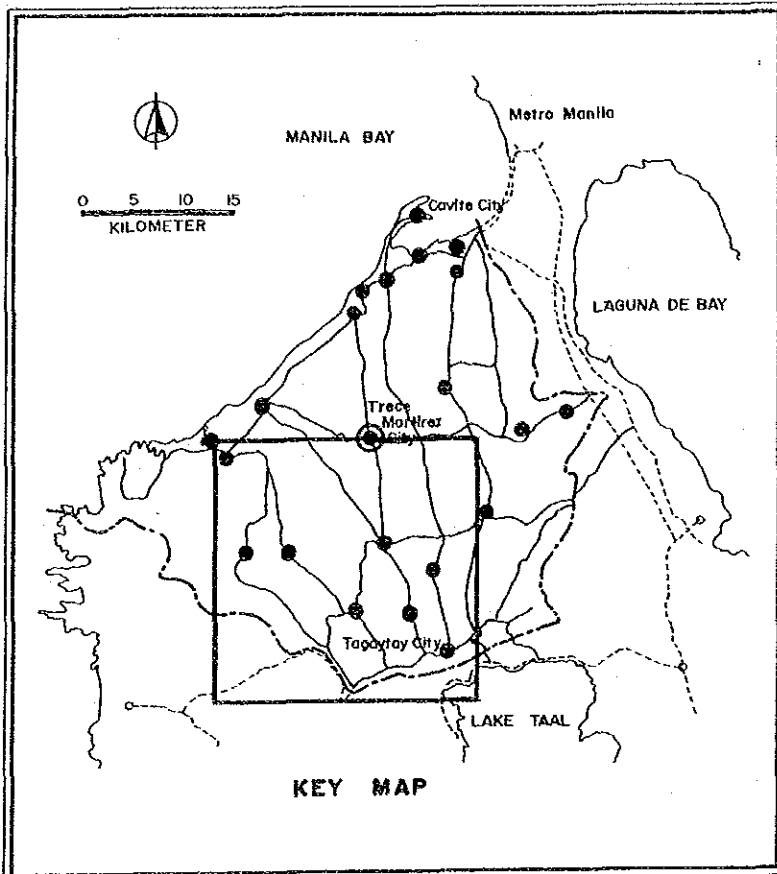


# THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT IN THE REPUBLIC OF THE PHILIPPINES

LOCATION MAP (4)

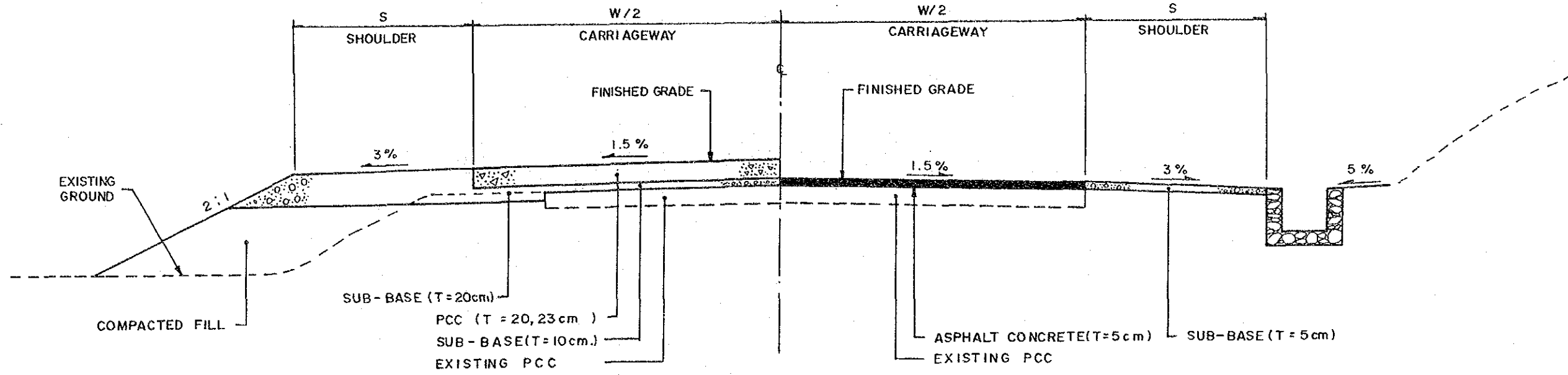
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Drawing No.  
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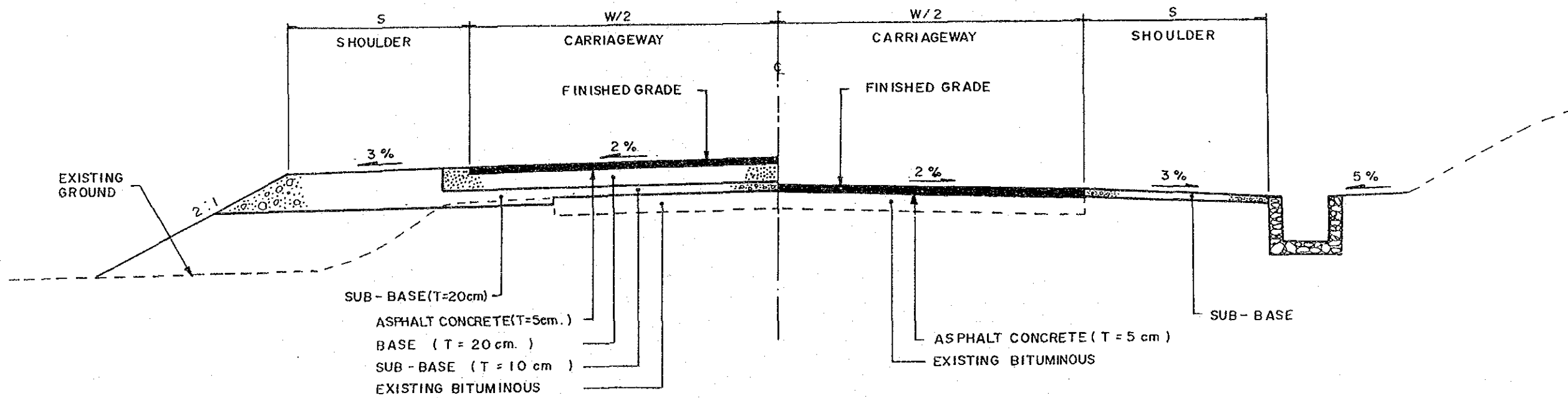
**LEGEND:**

- Primary Major Road for F/S
- Secondary Major Road for F/S
- Minor Road for F/S
- Existing Primary Major Road in Good/Fair Condition
- Existing Secondary Major Road in Good/Fair Condition
- Provincial Capital
- City/Municipality



**TYPE 1-1**  
PROPOSED PAVEMENT : PCC  
EXISTING PAVEMENT : PCC (BAD / VERY BAD)

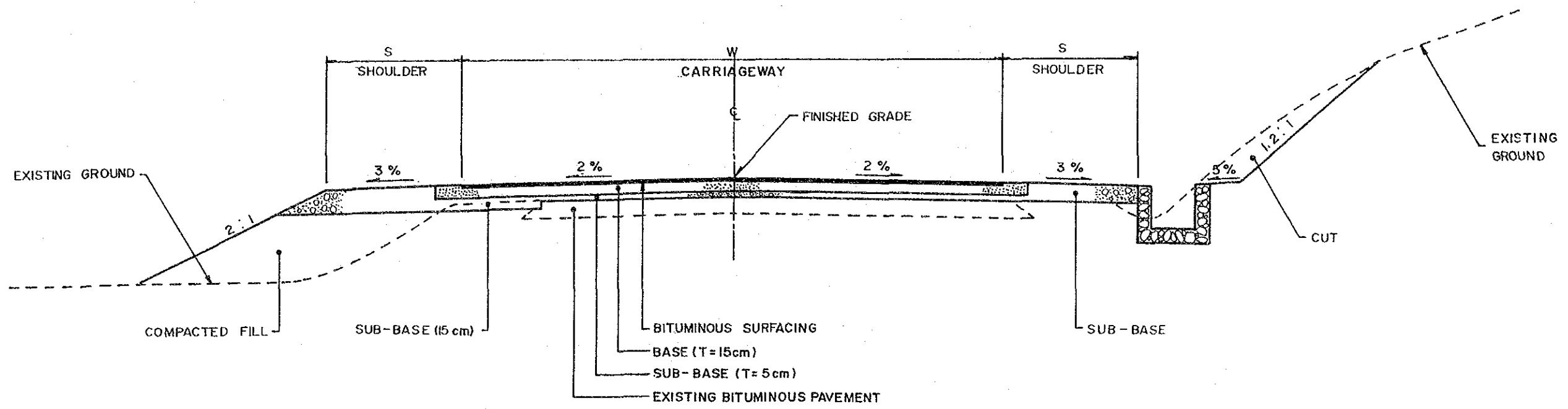
**TYPE 1-2**  
PROPOSED PAVEMENT : ASPHALT CONCRETE OVERLAY  
EXISTING PAVEMENT : PCC (BAD / VERY BAD)



**TYPE 1-3**  
PROPOSED PAVEMENT : ASPHALT CONCRETE  
EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

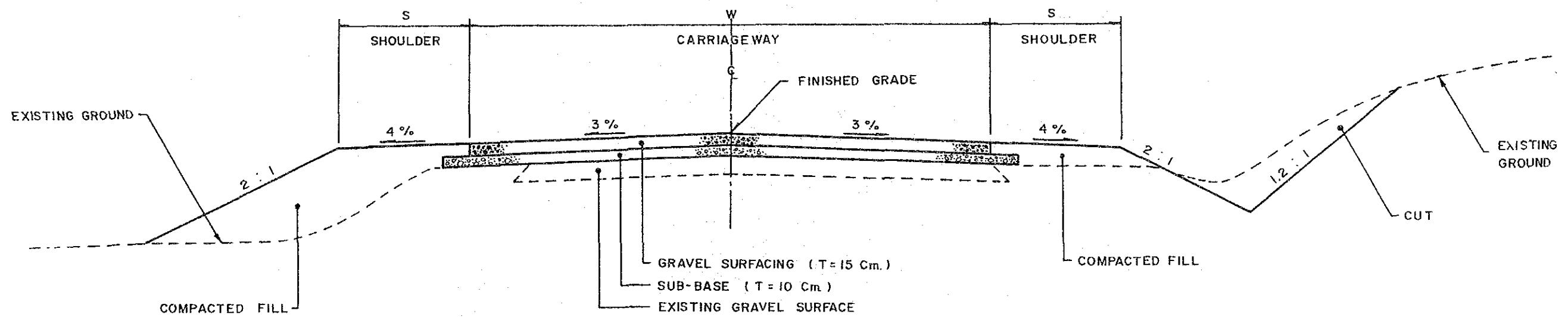
**TYPE 1-4**  
PROPOSED PAVEMENT : ASPHALT CONCRETE OVERLAY  
EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

REHABILITATION (1)



**TYPE I-5**

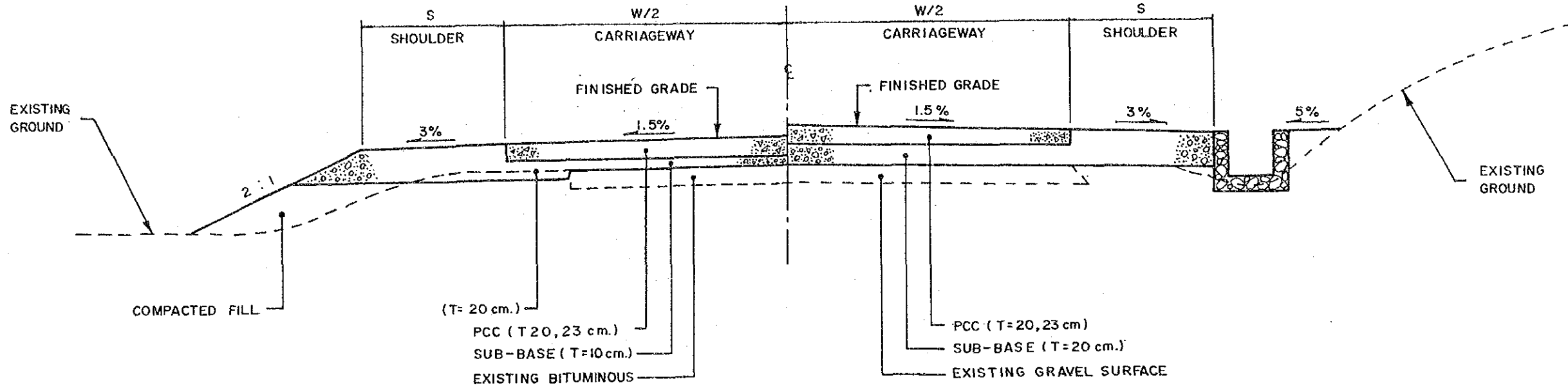
PROPOSED PAVEMENT : BITUMINOUS MACADAM/DOUBLE BITUMINOUS SURFACE TREATMENT  
EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)



**TYPE I-6**

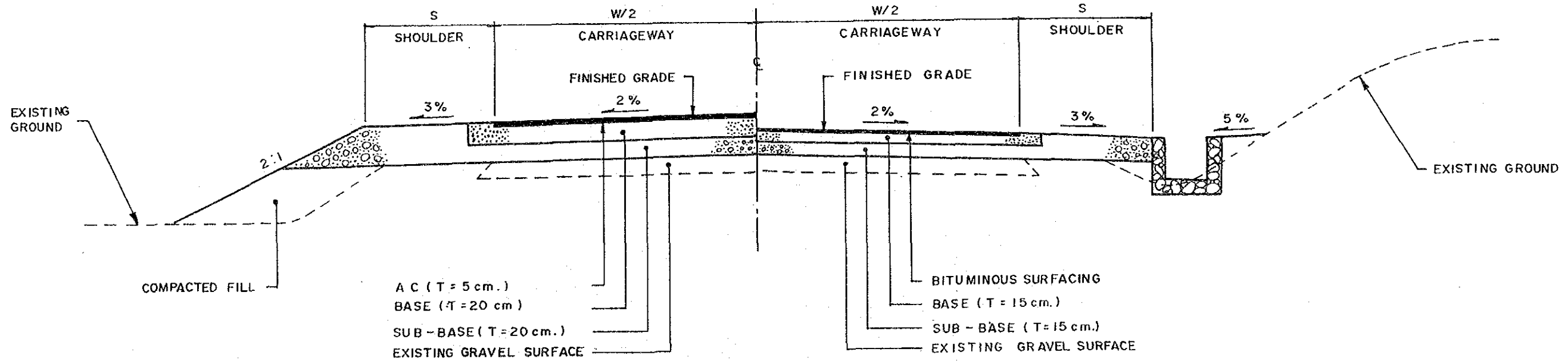
PROPOSED PAVEMENT : GRAVEL SURFACING  
EXISTING PAVEMENT : GRAVEL SURFACING (BAD./VERY BAD)

REHABILITATION (2)



**TYPE 2-1**  
PROPOSED PAVEMENT : PCC  
EXISTING PAVEMENT : BITUMINOUS (BAD/VERY BAD)

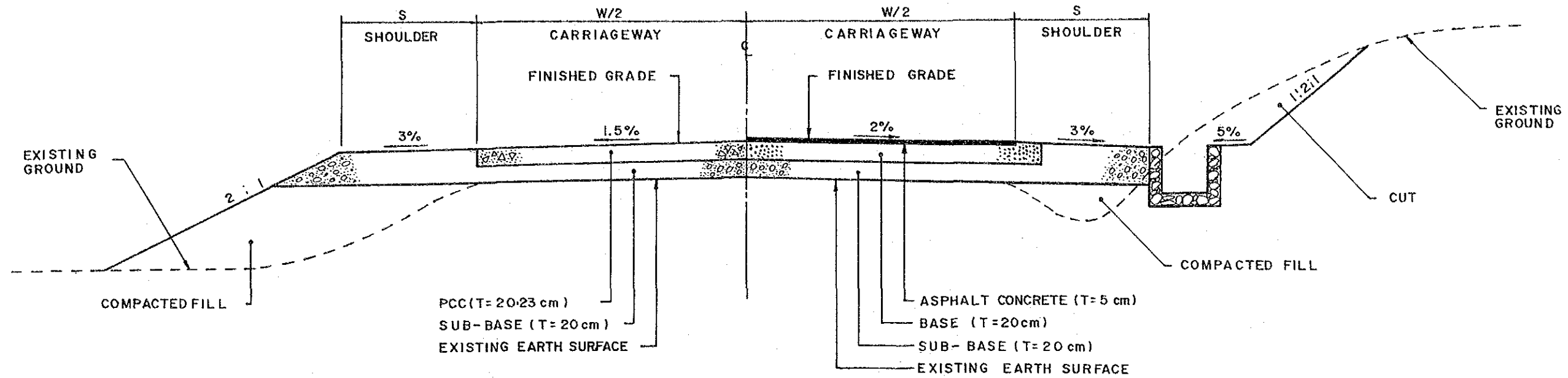
**TYPE 2-2**  
PROPOSED PAVEMENT : PCC  
EXISTING PAVEMENT : GRAVEL SURFACING (BAD/VERY BAD)



**TYPE 2-3**  
PROPOSED PAVEMENT : ASPHALT CONCRETE  
EXISTING PAVEMENT : GRAVEL SURFACING  
(BAD/VERY BAD)

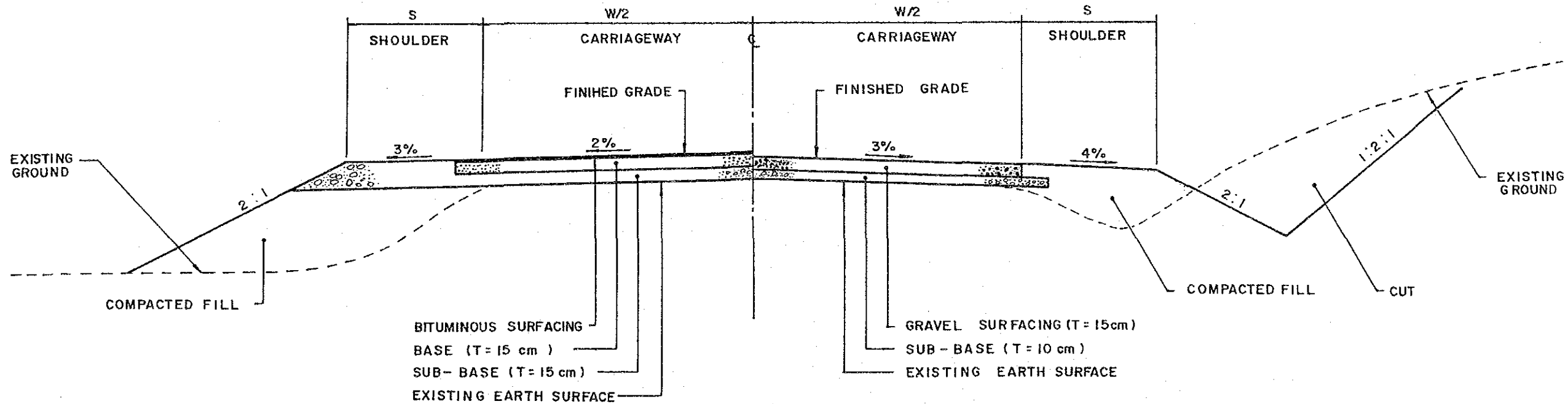
**TYPE 2-4**  
PROPOSED PAVEMENT : BITUMINOUS MACADAM / DOUBLE BITUMINOUS  
SURFACE TREATMENT  
EXISTING PAVEMENT : GRAVEL SURFACING (BAD/VERY BAD)

IMPROVEMENT - I (I)



TYPE 2-5  
PROPOSED PAVEMENT : PCC  
EXISTING PAVEMENT : EARTH SURFACE

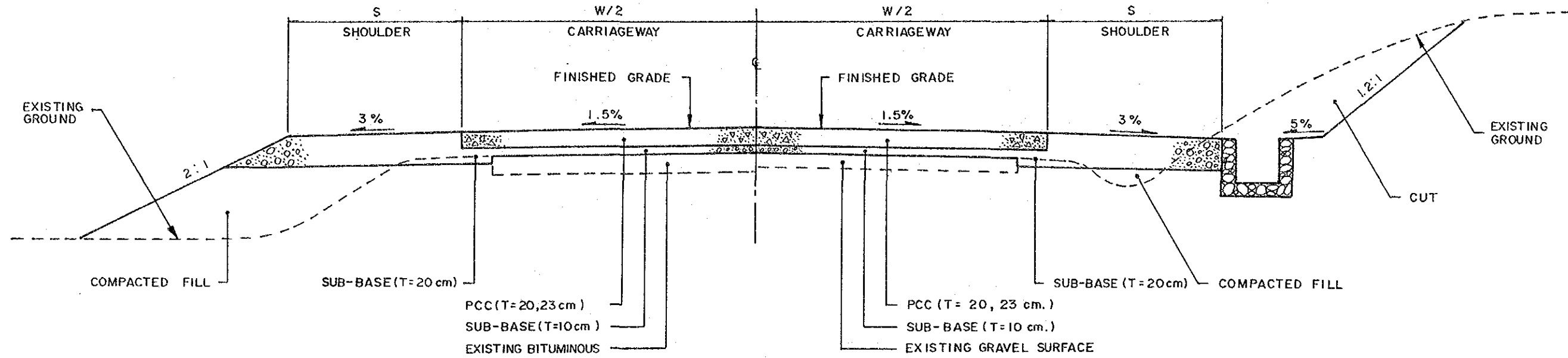
TYPE 2-6  
PROPOSED PAVEMENT : ASPHALT CONCRETE  
EXISTING PAVEMENT : EARTH SURFACE



TYPE 2-7  
PROPOSED PAVEMENT : BITUMINOUS MACADAM /  
DOUBLE BITUMINOUS  
SURFACE TREATMENT  
EXISTING PAVEMENT : EARTH SURFACE

TYPE 2-8  
PROPOSED PAVEMENT : GRAVEL SURFACING  
EXISTING PAVEMENT : EARTH SURFACING

IMPROVEMENT - I (2)

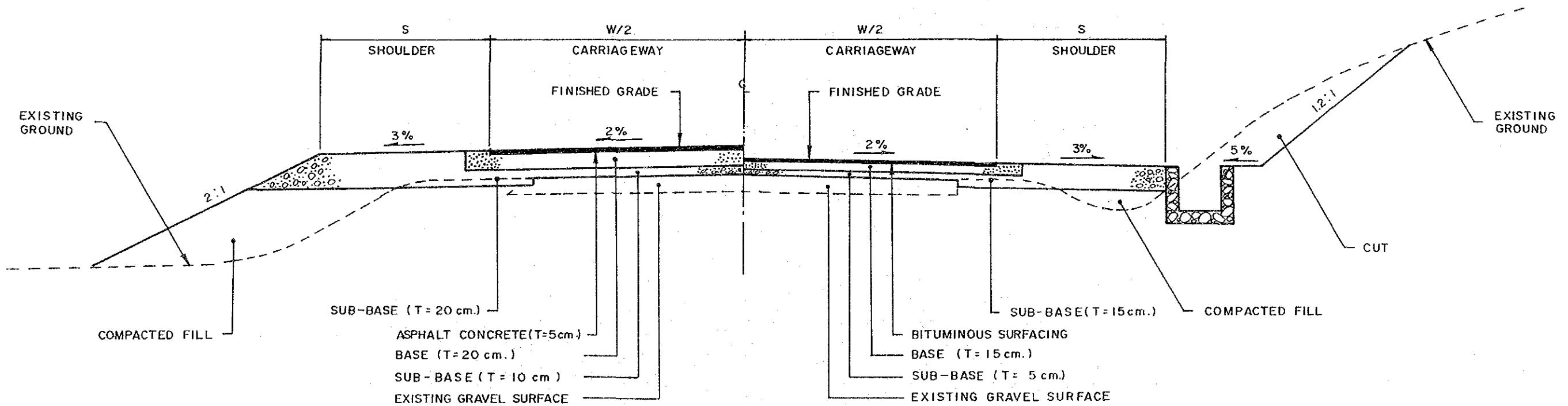


**TYPE 3-1**

PROPOSED PAVEMENT : PCC  
EXISTING PAVEMENT : BITUMINOUS (Good/Fair)

**TYPE 3-2**

PROPOSED PAVEMENT : PCC  
EXISTING PAVEMENT : GRAVEL SURFACING (Good/Fair)



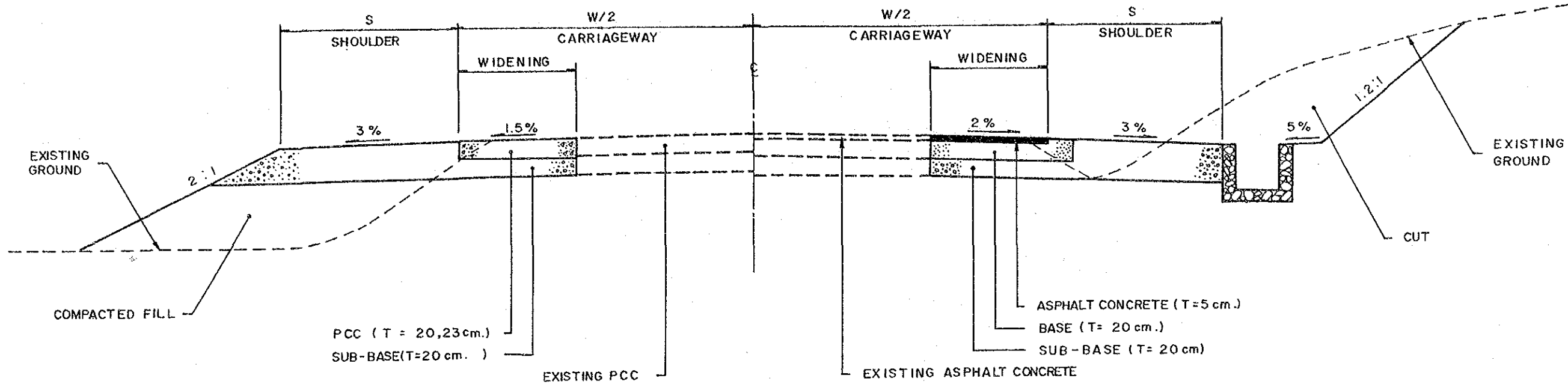
**TYPE 3-3**

PROPOSED PAVEMENT : ASPHALT CONCRETE  
EXISTING PAVEMENT : GRAVEL SURFACING (Good/Fair)

**TYPE 3-4**

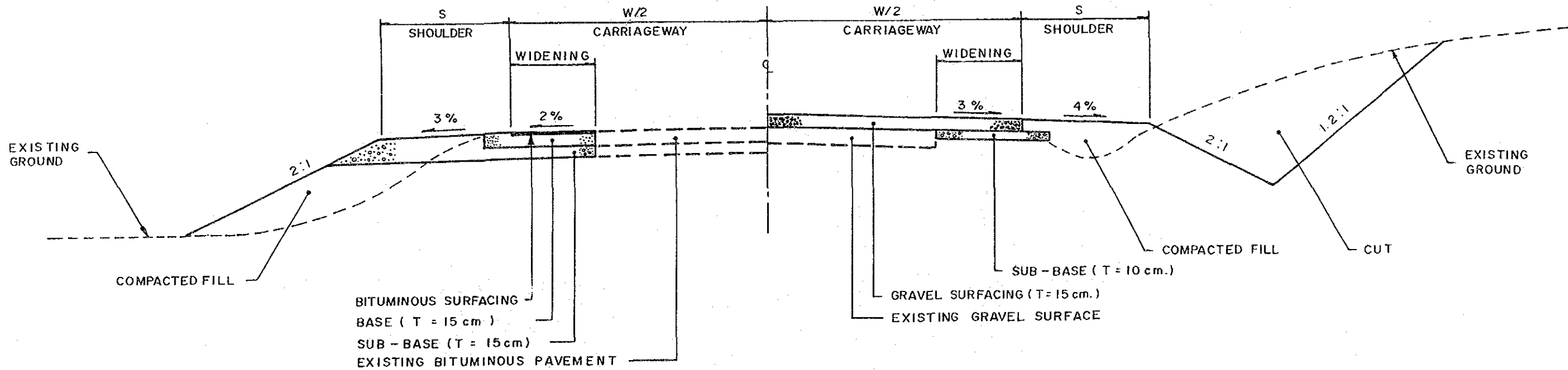
PROPOSED PAVEMENT : BITUMINOUS MACADAM/DOUBLE BITUMINOUS SURFACE TREATMENT  
EXISTING PAVEMENT : GRAVEL SURFACING (Good/Fair)

**IMPROVEMENT-2**



**TYPE 4-1**  
 PROPOSED PAVEMENT : PCC  
 EXISTING PAVEMENT : PCC

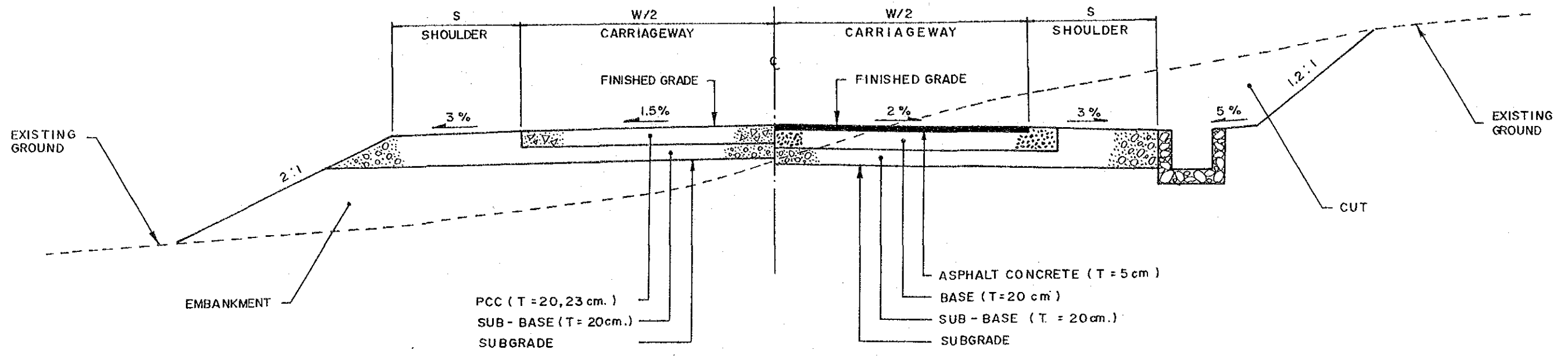
**TYPE 4-2**  
 PROPOSED PAVEMENT : ASPHALT CONCRETE  
 EXISTING PAVEMENT : ASPHALT CONCRETE



**TYPE 4-3**  
 PROPOSED PAVEMENT : BITUMINOUS MACADAM/  
 DOUBLE BITUMINOUS  
 SURFACE TREATMENT  
 EXISTING PAVEMENT : BITUMINOUS

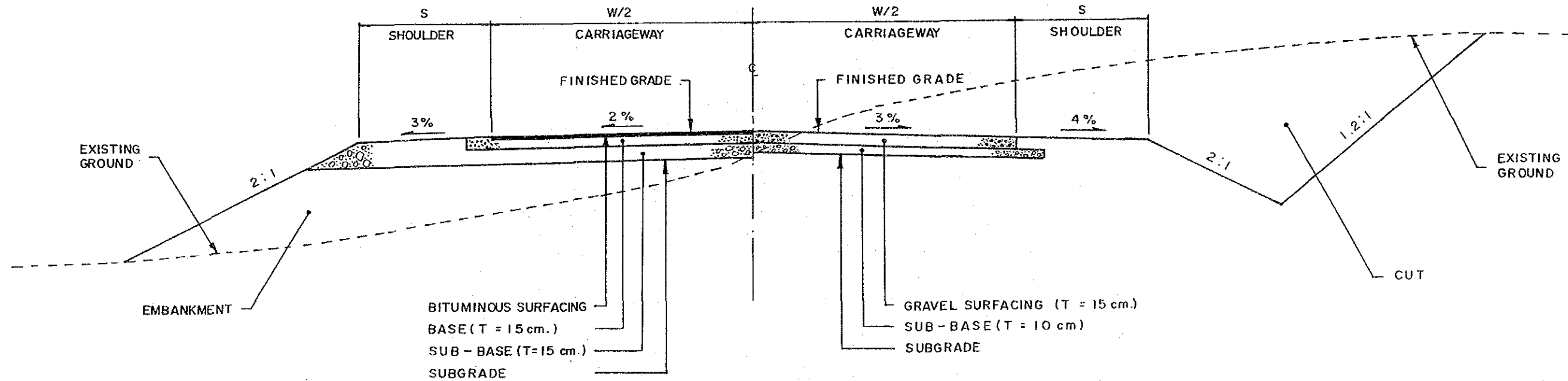
**TYPE 4-4**  
 PROPOSED PAVEMENT : GRAVEL SURFACING  
 EXISTING PAVEMENT : GRAVEL SURFACING

**WIDENING**



**TYPE 5-1**  
PROPOSED PAVEMENT : PCC

**TYPE 5-2**  
PROPOSED PAVEMENT : ASPHALT CONCRETE

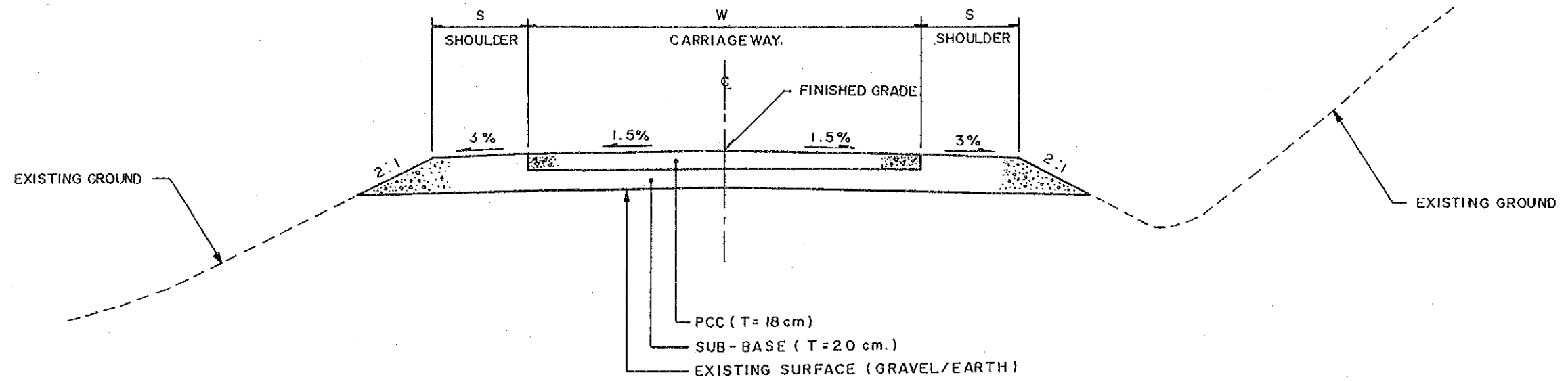


**TYPE 5-3**  
PROPOSED PAVEMENT : BITUMINOUS MACADAM/  
DOUBLE BITUMINOUS  
SURFACE TREATMENT

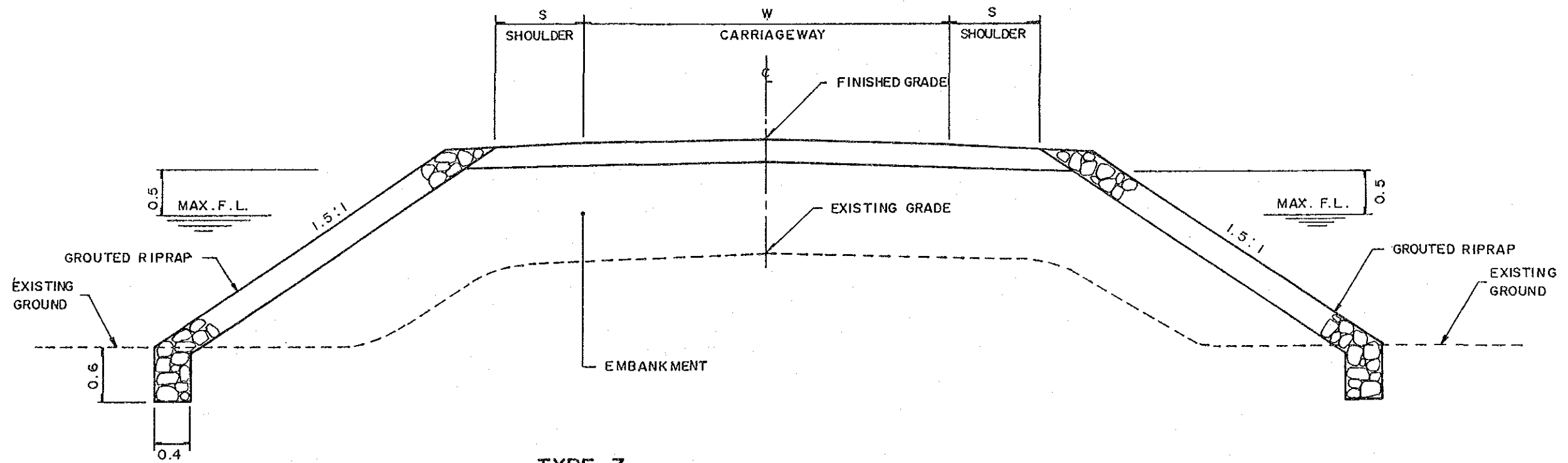
**TYPE 5-4**  
PROPOSED PAVEMENT : GRAVEL SURFACING

**NEW CONSTRUCTION**





TYPE 6  
PCC PAVEMENT FOR STEEP GRADIENT SECTIONS



TYPE 7  
GRADE RAISING SECTIONS IN FLOOD AREA

**THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
IN THE REPUBLIC OF THE PHILIPPINES**

**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

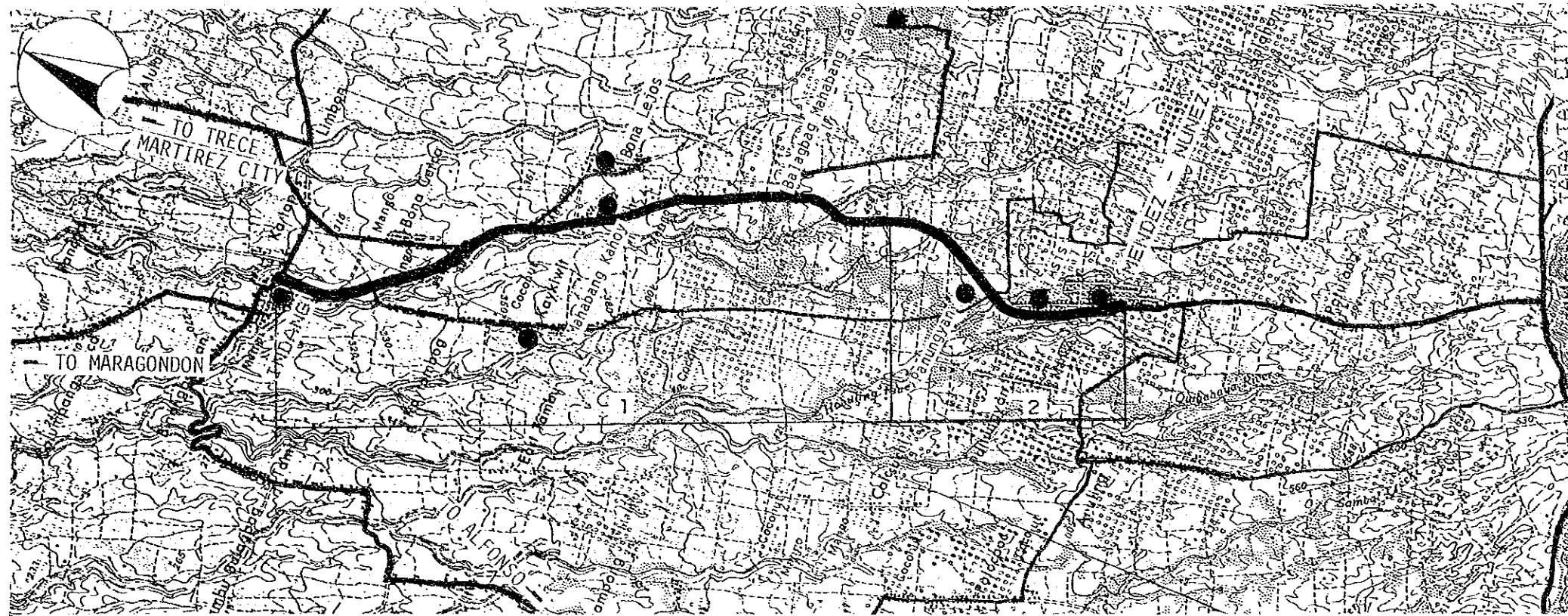
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Drawing No.  
13

Road No: N9-5

Road Name: NOVELETA-NAIC-TAGAYTAY

Location : INDANG & MENDEZ, CAVITE



Road Classification	Primary Major Road (National Road)	
Total Length	8.5 km	
Sub-section No.	1	2
Length (km)	5.9	2.6
Terrain	Rolling	Rolling
Existing Road Surface	6.0-BTM (Bad)	6.0-BTM (Bad)
Proposed Improvement	Rehabil.	Rehabil.
Improvement Type	Overlay	Overlay
Surface Type		
Carriageway Width(m)	6.0	6.0
Shoulder Width (m)	1.5	1.5
Ref. Typical Section	TYPE 1-4	TYPE 1-4

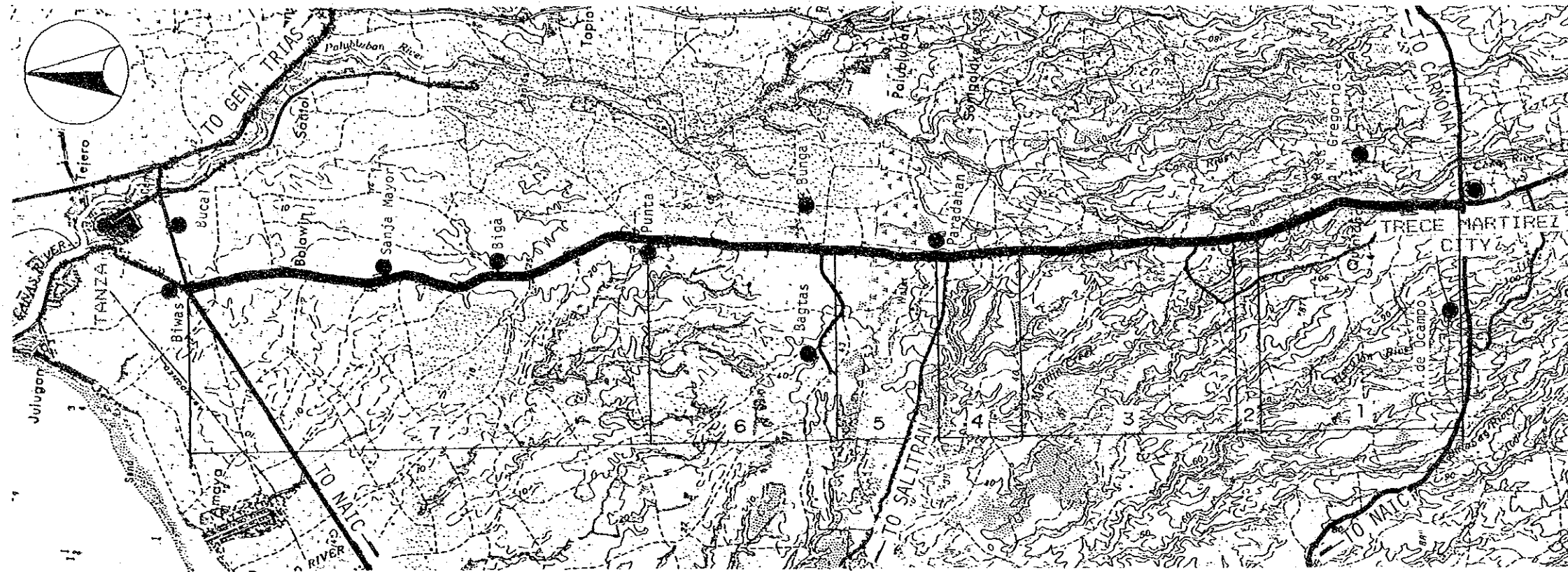
THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
IN THE REPUBLIC OF THE PHILIPPINES

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale  
1:50,000

Drawing No.  
14

Road No: N19-1      Road Name: TANZA-INDANG VIA TMC  
Location : TANZA & TRECE MARTIREZ CITY, CAVITE



Road Classification	Primary Major (National Road)						
Total Length	12.5 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	2.1	.2	2.1	.9	.9	1.8	4.5
Terrain	Flat	Flat	Flat	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	6.0-PCC (Fair)	5.5-GRV (V.Bad)	5.0-BTM (V.Bad)	6.0-PCC (Fair)	6.0-GRV (V.Bad)	5.0-BTM (Bad)	6.0-BTM (Fair)
Proposed Improvement	-	Impr.-1	Impr.-1	-	Impr.-1	Impr.-1	-
Improvement Type	-	PCC	PCC	-	PCC	PCC	-
Surface Type	-	6.7	6.7	-	6.7	6.7	-
Carriageway Width(m)	-	2.5	2.5	-	1.5	1.5	-
Shoulder Width (m)	-	-	-	-	-	-	-
Ref. Typical Section	-	TYPE 2-2	TYPE 2-1	-	TYPE 2-2	TYPE 2-1	-

**THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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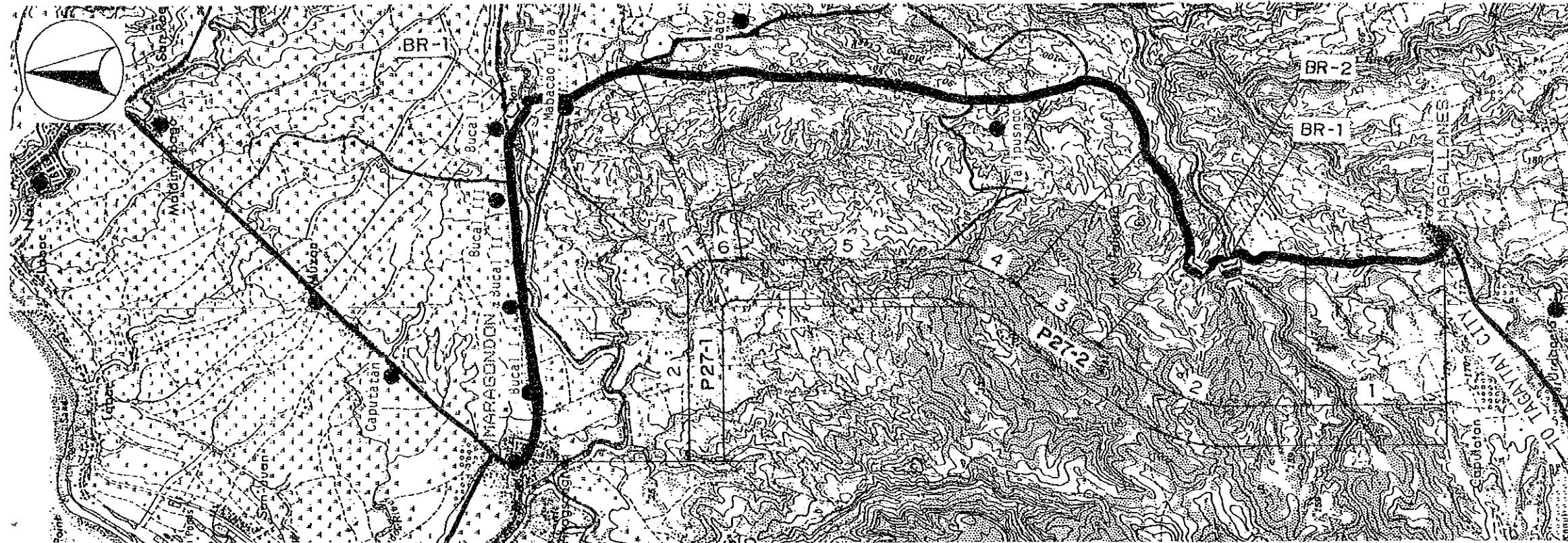
**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
1:50,000

Drawing No.  
15

Road No: P27-1      Road Name: MAGALLANES-MARAGONDON  
Location : MARAGONDON & MAGALLANES, CAVITE

Road No: P27-2      Road Name: MAGALLANES-MARAGONDON  
Location : MARAGONDON & MAGALLANES, CAVITE



Road No: P27-2

Road Classification	Primary Major Road (Provincial Road)	
Total Length	5.1 km	
Sub-section No.	1	2
Length (km)	1.4	3.7
Terrain	Rolling	Flat
Existing Road Surface	6.0-PCC (Fair)	6.0-PCC (Fair)
Proposed Improvement		
Improvement Type	-	-
Surface Type	-	-
Carriageway Width(m)	-	-
Shoulder Width (m)	-	-
Ref. Typical Section	-	-
Bridge No.	BR-1	
Existing Type	Bailey	
Length (m)	79	
Proposed Type	2Lane-Br	
Length (m)	80	
No. of Spans	4	

Road Classification	Secondary Major (Provincial Road)					
Total Length	11.1 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	1.4	1.7	1.7	1.2	4.3	.8
Terrain	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Rolling
Existing Road Surface	6.0-PCC (Fair)	5.5-GRV (Bad)	6.0-PCC (Fair)	6.0-PCC (Fair)	6.0-GRV (V.Bad)	6.0-PCC (Fair)
Proposed Improvement						
Improvement Type	-	Impr.-1	-	-	Impr.-1	-
Surface Type	-	* BMP	-	-	* BMP	-
Carriageway Width(m)	-	6.0	-	-	6.0	-
Shoulder Width (m)	-	1.0	-	-	1.0	-
Ref. Typical Section	-	TYPE 2-4	-	-	TYPE 2-4	-
Bridge No.	BR-1	BR-2				
Existing Type	Timber	Steel				
Length (m)	8	30				
Proposed Type	2Lane-Br	2Lane-Br				
Length (m)	10	30				
No. of Spans	1	1				

\* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.

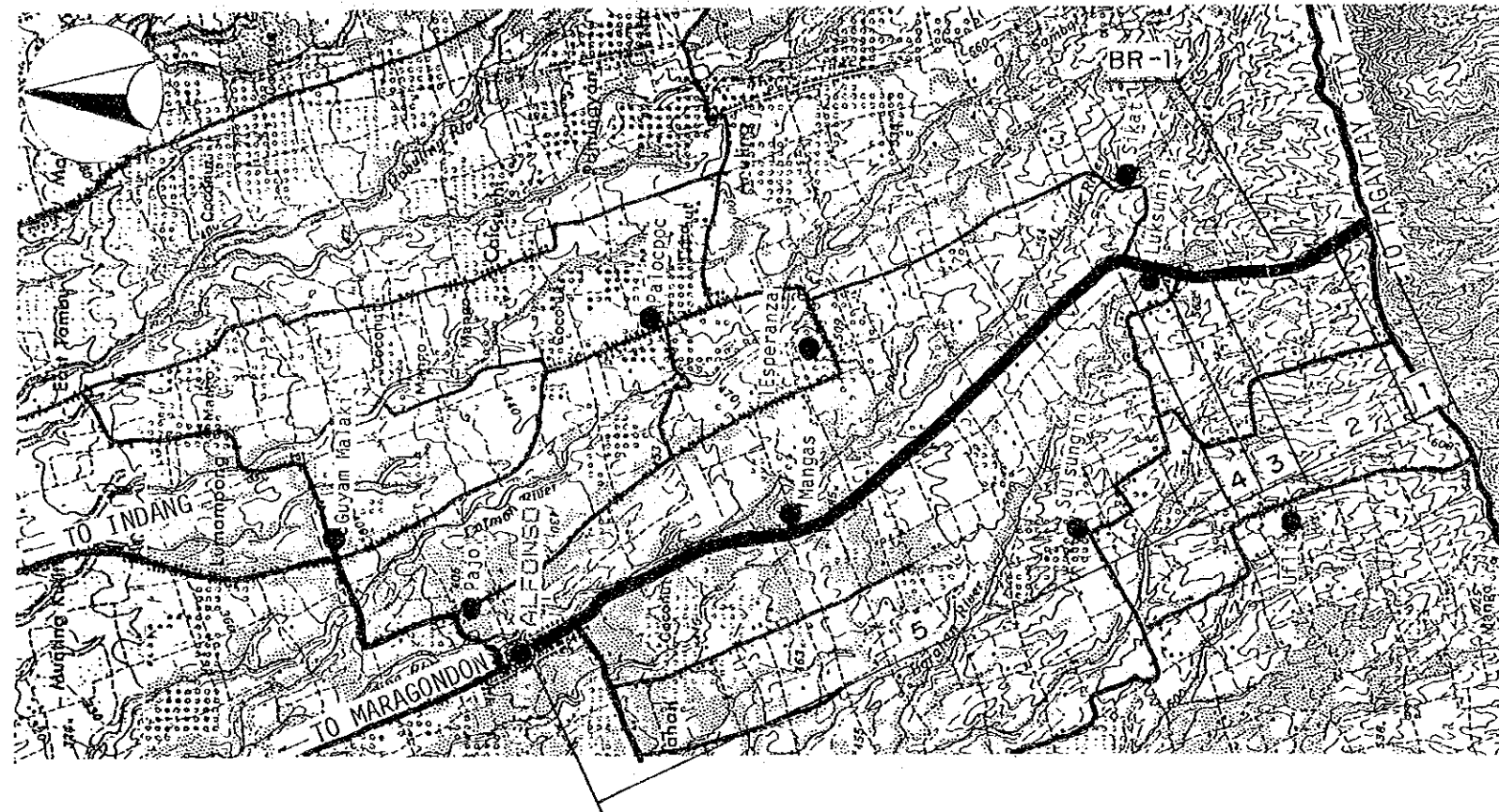
THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale  
1:50,000

Drawing No.  
16

Road No: P63-1      Road Name: TAGAYTAY-ALFONSO  
Location: ALFONSO, CAVITE



Road Classification	Primary Major (Provincial Road)				
Total Length	7.4 km				
Sub-section No.	1	2	3	4	5
Length (km)	.3	1.0	.4	.4	5.3
Terrain	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	5.5-BTM (Fair)	6.0-PCC (Fair)	6.0-BTM (V.Bad)	6.0-BTM (V.Bad)	6.0-BTM (V.Bad)
Proposed Improvement					
Improvement Type	Rehabil.	-	Rehabil.	Rehabil.	Rehabil.
Surface Type	AC	-	AC	AC	AC
Carriageway Width(m)	6.7	-	6.7	6.7	6.7
Shoulder Width (m)	1.5	-	1.5	1.5	1.5
Ref. Typical Section	TYPE 1-3	-	TYPE 1-3	TYPE 1-3	TYPE 1-3
Bridge No.	BR-1				
Existing Type	Concrete				
Length (m)	6				
Proposed Type	-				
Length (m)	-				
No. of Spans	-				

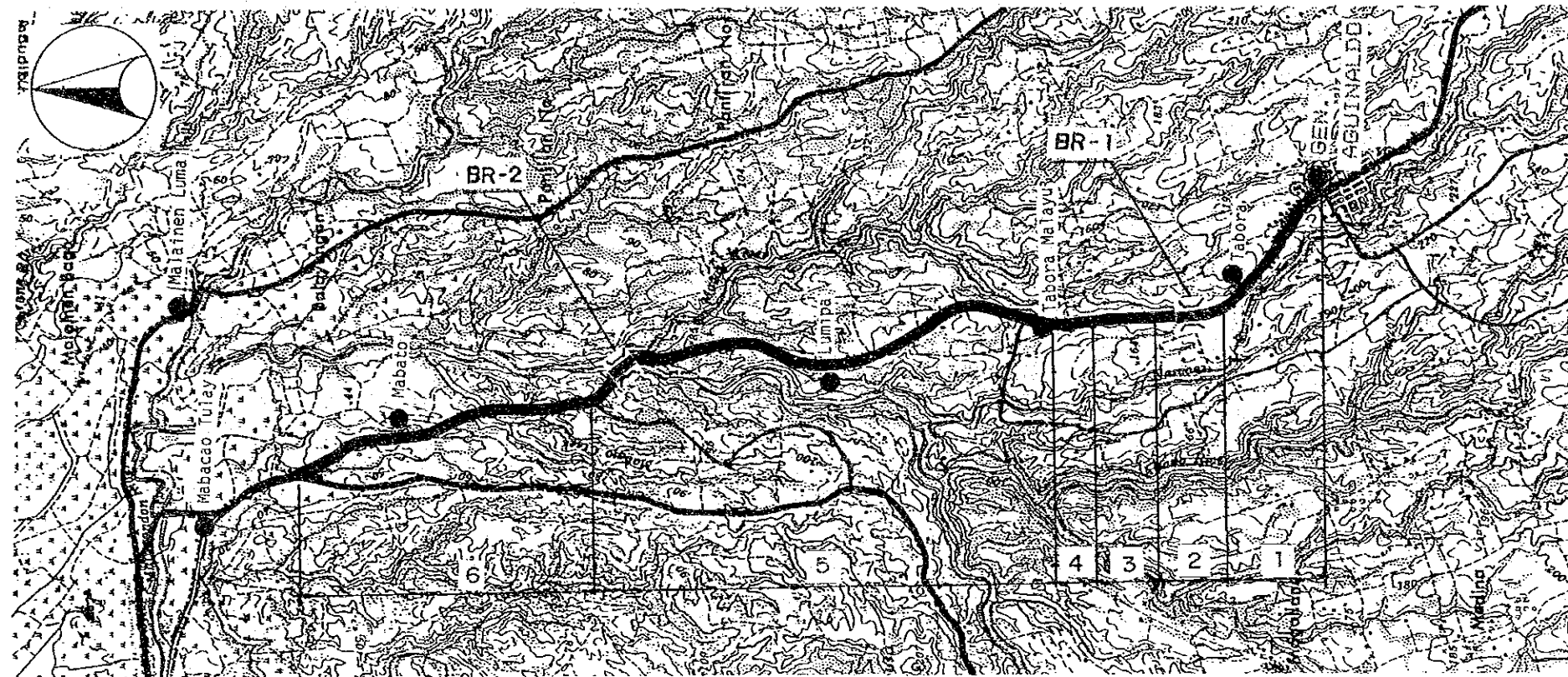
**THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
IN THE REPUBLIC OF THE PHILIPPINES**

**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
1:50,000

Drawing No.  
17

Road No: P146-1    Road Name: MARAGONDON-GEN. AGUINALDO  
Location : GENERAL AGUINALDO & MARAGONDON, CAVITE



Road Classification	Primary Major (Provincial Road)					
Total Length	10.7 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	1.4	.6	.6	.4	4.8	3.0
Terrain	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	3.2-GRV (Bad)	3.2-EAR (Bad)	3.2-EAR (Bad)	6.0-EAR (V.Bad)	6.0-EAR (V.Bad)	6.0-EAR (V.Bad)
Proposed Improvement	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1
Improvement Type	* BMP	* BMP	* BMP	* BMP	* BMP	* BMP
Surface Type	* BMP	* BMP	* BMP	* BMP	* BMP	* BMP
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	1.0	1.0	1.0	1.0	1.0	1.0
Ref. Typical Section	TYPE 2-4	TYPE 2-7	TYPE 2-7	TYPE 2-7	TYPE 2-7	TYPE 2-7
Special Treatment						
Steep Section Length	-	-	-	120	200	200
Bridge No.	BR-1	BR-2				
Existing Type	Bailey Spillway					
Length (m)	6	46				
Proposed Type	2Lane-Br					
Length (m)	10	-				
No. of Spans	1	-				

\* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.

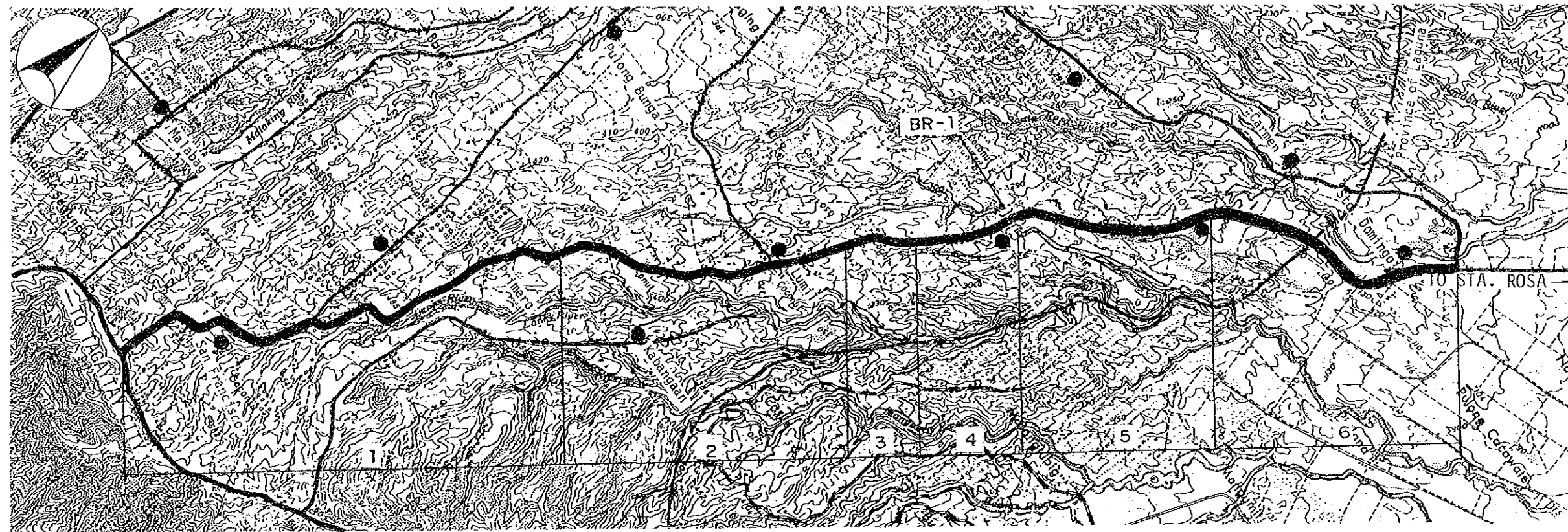
THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale  
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Drawing No.  
18

Road No: N8-1      Road Name: TAGAYTAY-ULAT-LAGUNA BDRY.  
Location : TAGAYTAY & SILANG, CAVITE



Road Classification	Secondary Major (National Road)					
Total Length	13.8 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	4.3	2.9	.8	1.1	2.0	2.7
Terrain	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	4.5-BTM (Bad)	5.0-BTM (Bad)	6.0-GRV (Bad)	6.5-BTM (Bad)	5.5-BTM (Bad)	5.5-BTM (Bad)
Proposed Improvement	Rehabil.	Rehabil.	Impr.-1	Rehabil.	Rehabil.	Rehabil.
Improvement Type						
Surface Type	AC	AC	AC	Overlay	Overlay	Overlay
Carriageway Width(m)	6.0	6.0	6.0	5.5	5.5	5.5
Shoulder Width (m)	1.5	1.5	1.5	1.5	1.5	1.5
Ref. Typical Section	TYPE 1-3	TYPE 1-3	TYPE 2-3	TYPE 1-4	TYPE 1-4	TYPE 1-4
Bridge No.	BR-1					
Existing Type	Concrete					
Length (m)	25					
Proposed Type	-					
Length (m)	-					
No. of Spans	-					

**THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

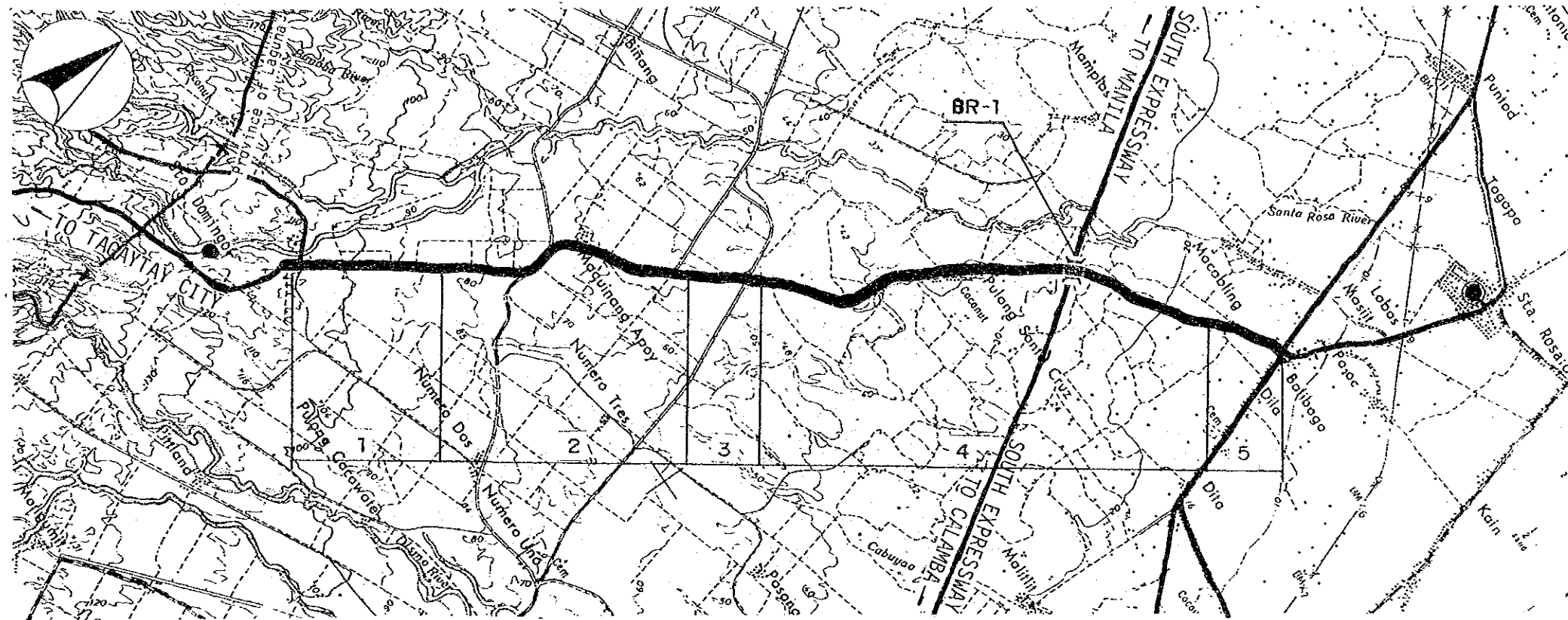
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Drawing No.  
19

Road No: N8-2

Road Name: TAGAYTAY-ULAT-STA. ROSA

Location : STO. DOMINGO & STA. ROSA, LAGUNA



Road Classification	Secondary Major (National Road)				
Total Length	9.3 km				
Sub-section No.	1	2	3	4	5
Length (km)	1.3	2.4	.7	4.2	.7
Terrain	Rolling	Rolling	Flat	Rolling	Flat
Existing Road Surface	6.0-EAR (V.Bad)	5.5-BTM (V.Bad)	5.5-BTM (V.Bad)	6.0-EAR (V.Bad)	6.0-PCC (Fair)
Proposed Improvement	Impr.-1	Rehabil.	Rehabil.	Impr.-1	-
Improvement Type	Impr.-1	Rehabil.	Rehabil.	Impr.-1	-
Surface Type	AC	AC	AC	AC	-
Carriageway Width(m)	6.0	6.0	6.0	6.0	-
Shoulder Width (m)	1.5	1.5	2.0	1.5	-
Ref. Typical Section	TYPE 2-6	TYPE 1-3	TYPE 1-3	TYPE 2-6	-
Special Treatment					
Flood Section Length	1000	2400	-	2000	-
Height	.2	.2	-	.2	-
Bridge No.	BR-1				
Existing Type	Concrete				
Length (m)	70				
Proposed Type	-				
Length (m)	-				
No. of Spans	-				



THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

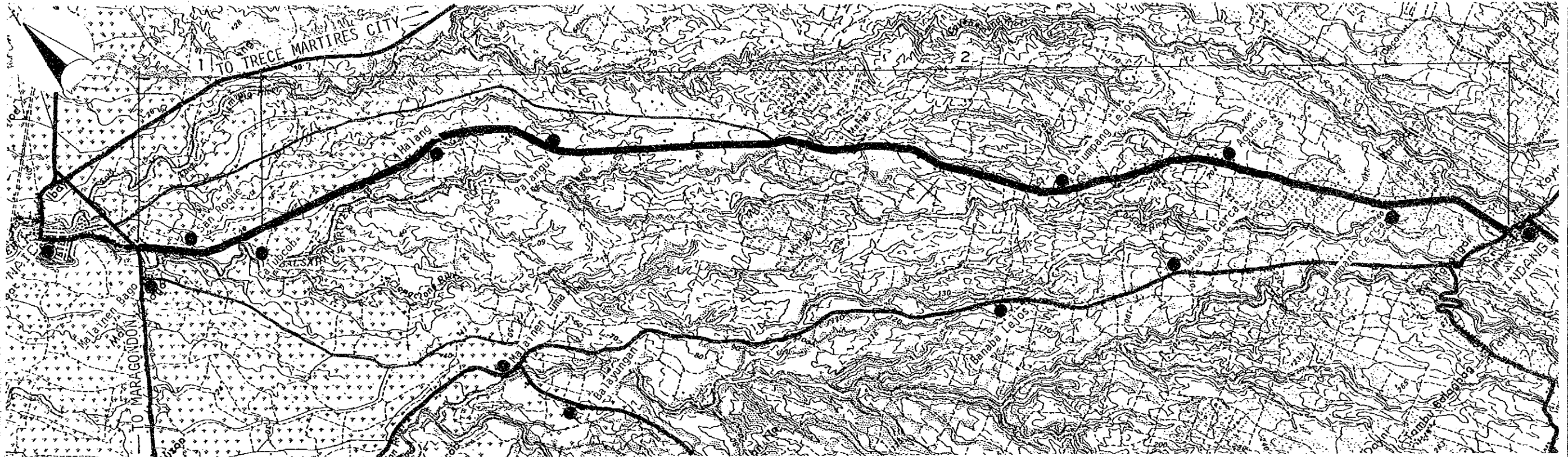
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Drawing No.  
20

Road No: N9-4

Road Name: NOVELETA-NAIC-TAGAYTAY

Location : NAIC & INDANG, CAVITE



Road Classification	Second'y Major Rd (National Road)	
Total Length	17.9 km	
Sub-section No.	1	2
Length (km)	1.5	16.4
Terrain	Flat	Rolling
Existing Road Surface	6.0-BTM (Fair)	6.0-BTM (Bad)
Proposed Improvement	-	
Improvement Type	- Rehabil.	
Surface Type	- AC	
Carriageway Width(m)	- 6.0	
Shoulder Width (m)	- 1.5	
Ref. Typical Section	- TYPE 1-3	

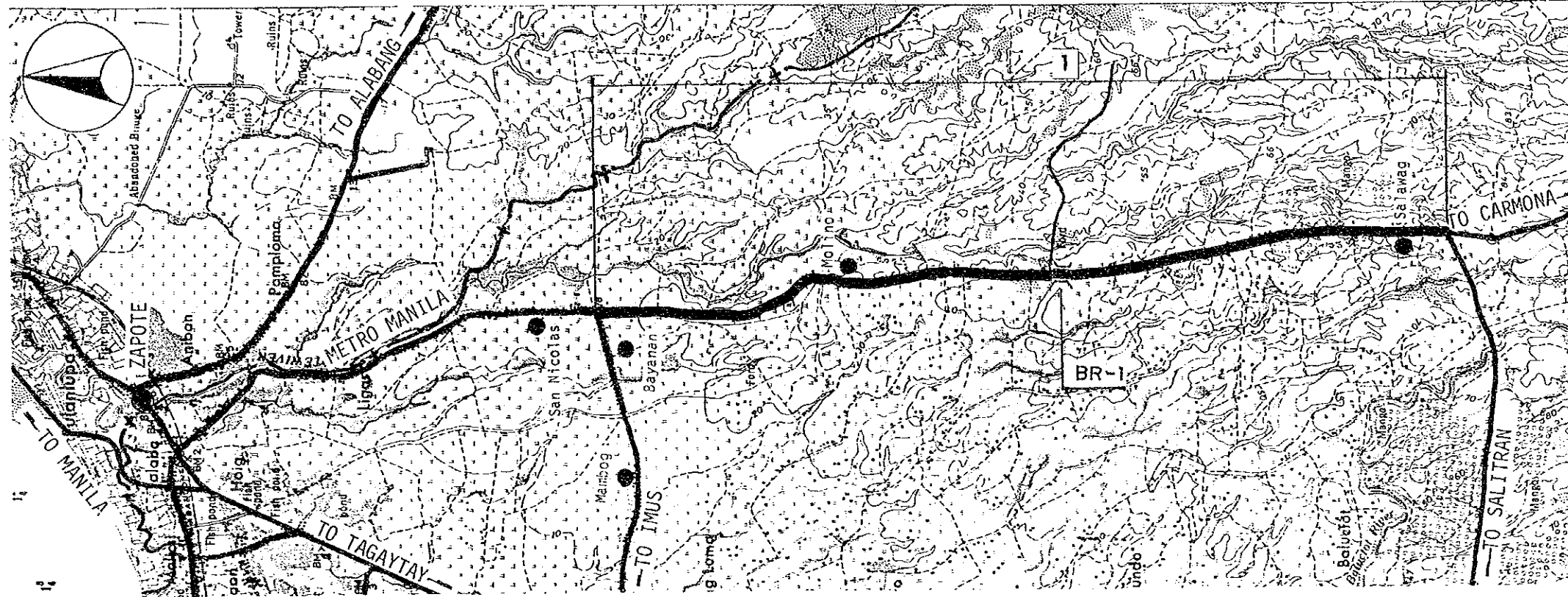
**THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
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Drawing No.  
21

Road No: N13-2      Road Name: ZAPOTE-SALAWAG-SALITRAN  
Location : BACOR & IMUS, CAVITE



Road Classification	Second'y Major Rd (National Road)
Total Length	8.3 km
Sub-section No.	1
Length (km)	8.3
Terrain	Flat
Existing Road Surface	6.0-BTM (Bad)
Proposed Improvement	
Improvement Type	Impr.-1
Surface Type	PCC
Carriageway Width(m)	6.0
Shoulder Width (m)	2.5
Ref. Typical Section	TYPE 2-1
Bridge No.	BR-1
Existing Type	Concrete
Length (m)	10
Proposed Type	-
Length (m)	-
No. of Spans	-

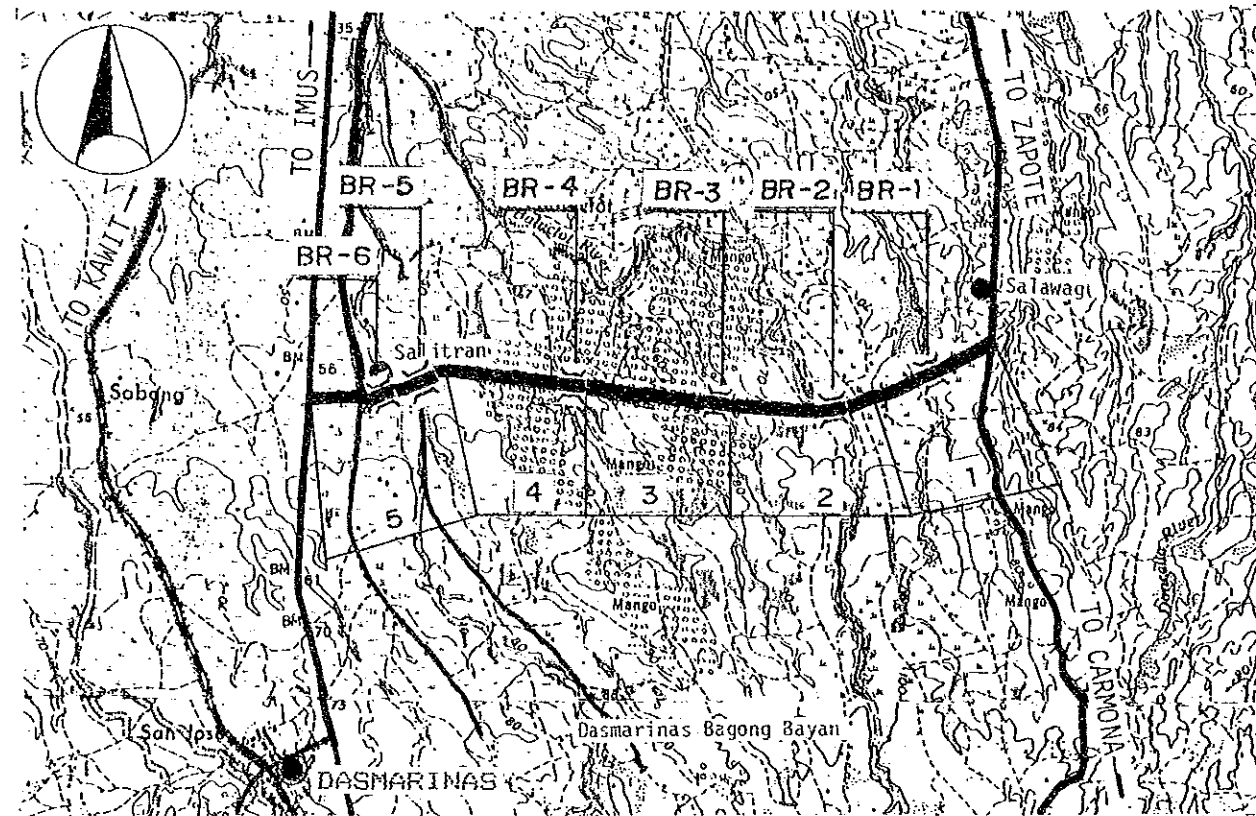
**THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

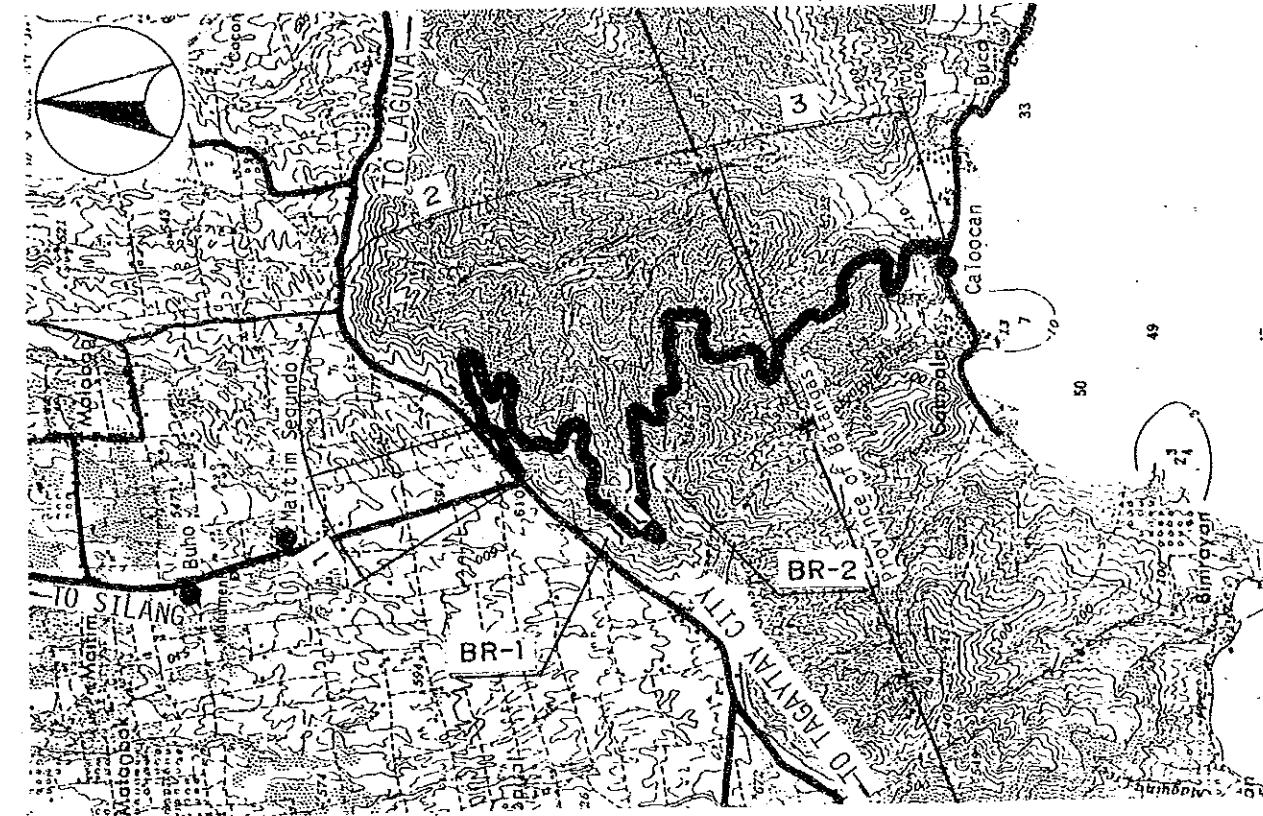
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Drawing No.  
22

Road No: N13-3 Road Name: ZAPOTE-SALAWAG-SALITRAN  
Location: DASMARINAS, CAVITE



Road No: N21-1 Road Name: TAGAYTAY-TAAL LAKE  
Location: TAGAYTAY CITY, CAVITE & TALISAY, BATANGAS



Road Classification	Secondary Major (National Road)					
Total Length	4.5 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	.9	1.0	1.0	1.0	.6	
Terrain	Rolling	Rolling	Rolling	Rolling	Rolling	
Existing Road Surface	5.0-GRV (Bad)	5.0-BTM (Fair)	4.0-BTM (Fair)	4.0-BTM (V.Bad)	4.0-BTM (Fair)	
Proposed Improvement	Impr.-1	Rehabil.	Rehabil.	Rehabil.	Rehabil.	
Improvement Type						
Surface Type	AC	AC	AC	AC	AC	
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	
Shoulder Width (m)	1.5	1.5	1.5	1.5	1.5	
Ref. Typical Section	TYPE 2-3	TYPE 1-3	TYPE 1-3	TYPE 1-3	TYPE 1-3	
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6
Existing Type	Bailey	Timber	Timber	Timber	Concrete	Others
Length (m)	62	5	6	6	10	14
Proposed Type	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br
Length (m)	63	10	10	10	10	15
No. of Spans	3	1	1	1	1	1

Road Classification	Second'y Major (National Rd)		
Total Length	11.2 km		
Sub-section No.	1	2	3
Length (km)	.4	8.4	2.4
Terrain	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	6.0-PCC (Fair)	6.0-GRV (Bad)	4.0-BTM (Fair)
Proposed Improvement		Impr.-1 Widening	
Improvement Type			
Surface Type		* BMP	* BMP
Carriageway Width(m)		6.0	6.0
Shoulder Width (m)		1.0	1.0
Ref. Typical Section		TYPE 2-4	TYPE 4-3
Special Treatment			
Slope Protection (Cut Slope)		160	
(Embank't Slop)		30	
Bridge No.	BR-1	BR-2	
Existing Type	Concrete	Concrete	
Length (m)	8	15	
Proposed Type			
Length (m)			
No. of Spans			

\* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.

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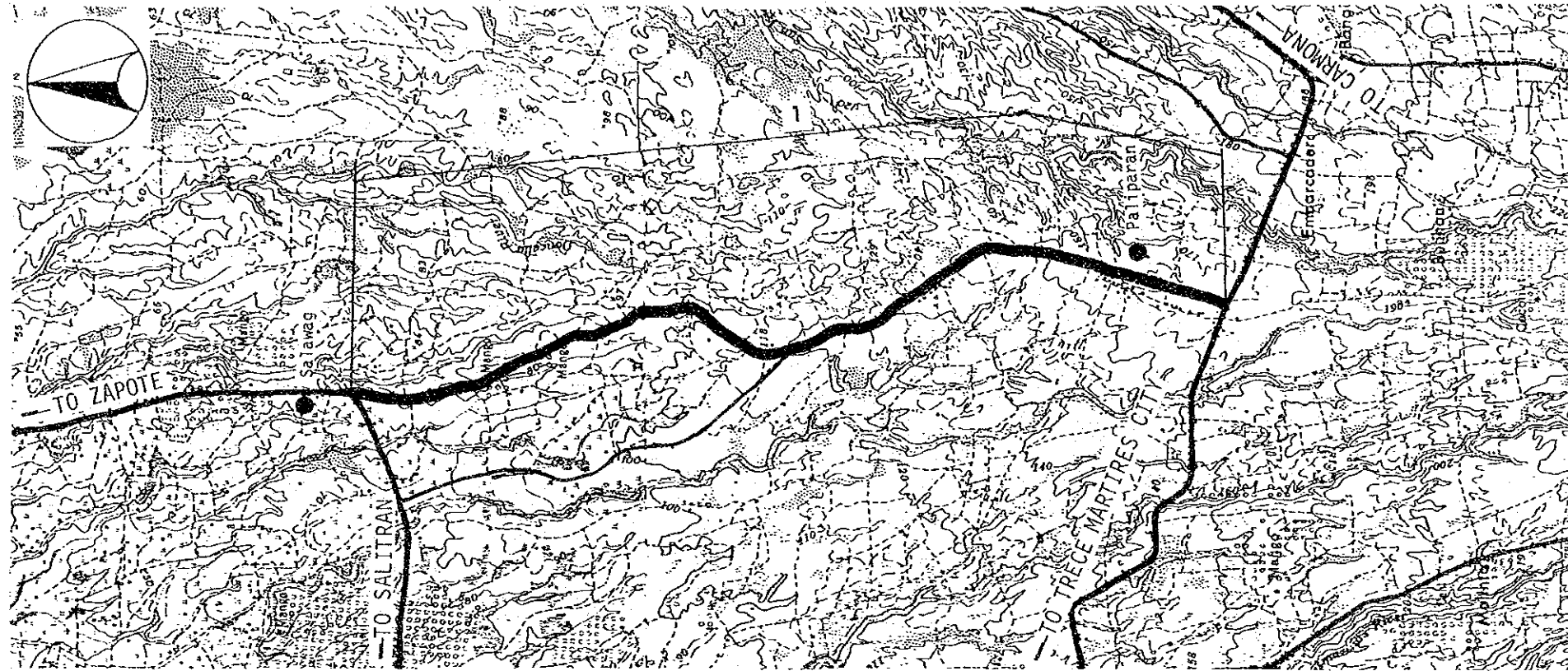
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Drawing No.  
23

Road No: P2-1

Road Name: SALAWAG-PALIPARAN

Location : DASMARINAS, CAVITE



Road Classification	Second'y Major Rd (Provincial Road)
Total Length	8.1 km
Sub-section No.	1
Length (km)	8.1
Terrain	Rolling
Existing Road Surface	6.0-BTM (Bad)
Proposed Improvement	
Improvement Type	Impr.-1
Surface Type	PCC
Carriageway Width(m)	6.0
Shoulder Width (m)	1.5
Ref. Typical Section	TYPE 2-1

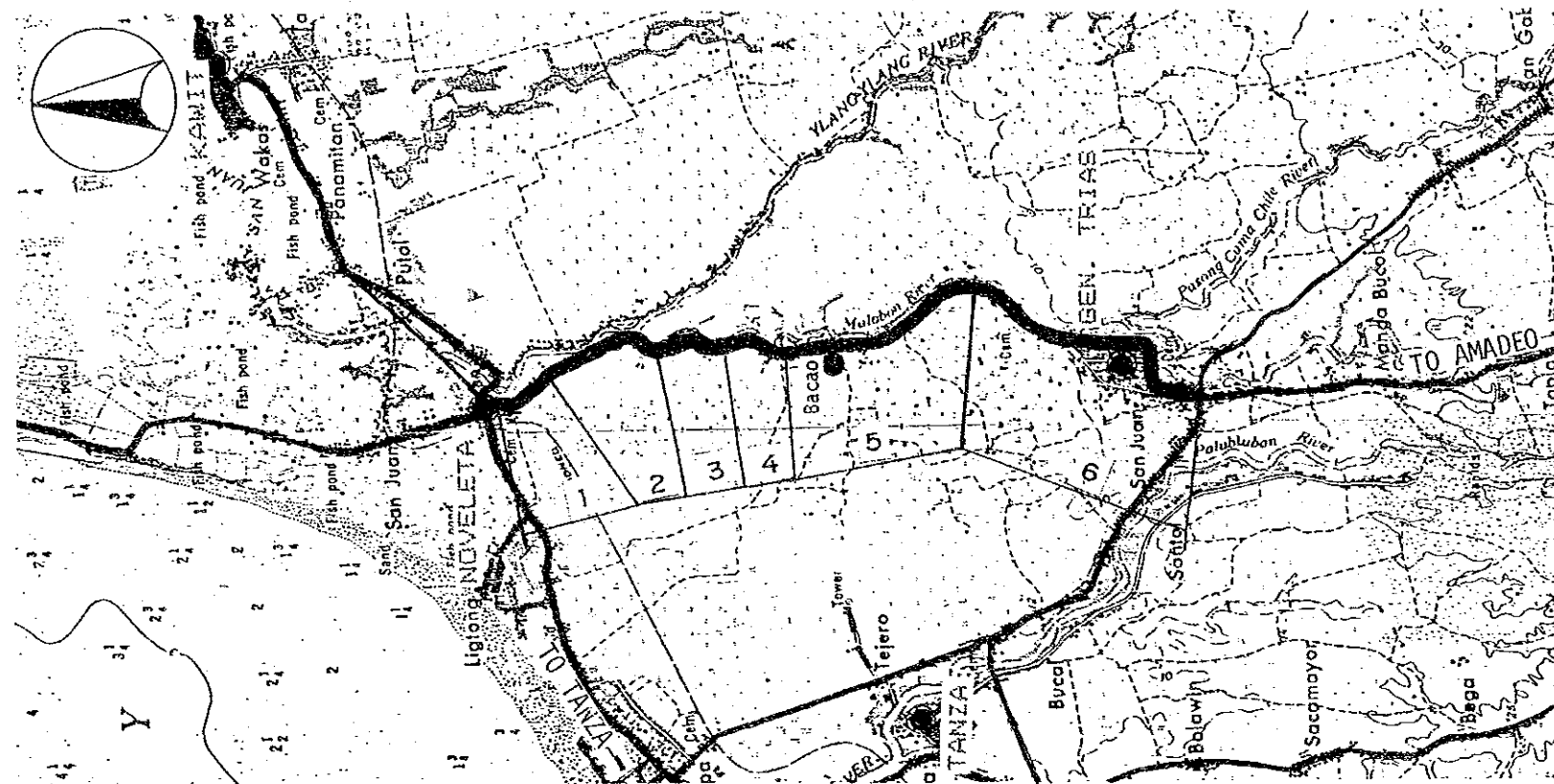
THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale  
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Drawing No.  
24

Road No: P12-1 Road Name: NOVELETA-GEN. TRIAS  
Location: NOVELETA & GEN. TRIAS, CAVITE



Road Classification	Secondary Major (Provincial Road)					
Total Length	6.5 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	.6	.8	.5	.5	1.5	2.6
Terrain	Flat	Flat	Flat	Flat	Flat	Flat
Existing Road Surface	6.0-PCC (Fair)	5.0-PCC (Fair)	5.0-GRV (Bad)	4.0-GRV (V.Bad)	4.0-PCC (Fair)	3.0-PCC (Fair)
Proposed Improvement						
Improvement Type	-	-	Impr.-1	Impr.-1	Widening	Widening
Surface Type	-	-	PCC	PCC	PCC	PCC
Carriageway Width(m)	-	-	6.0	6.0	6.0	6.0
Shoulder Width (m)	-	-	2.5	2.5	2.5	2.5
Ref. Typical Section	-	-	TYPE 2-2	TYPE 2-2	TYPE 4-1	TYPE 4-1
Special Treatment						
Slope Protection (Embank't Slop)	-	-	-	-	12	-

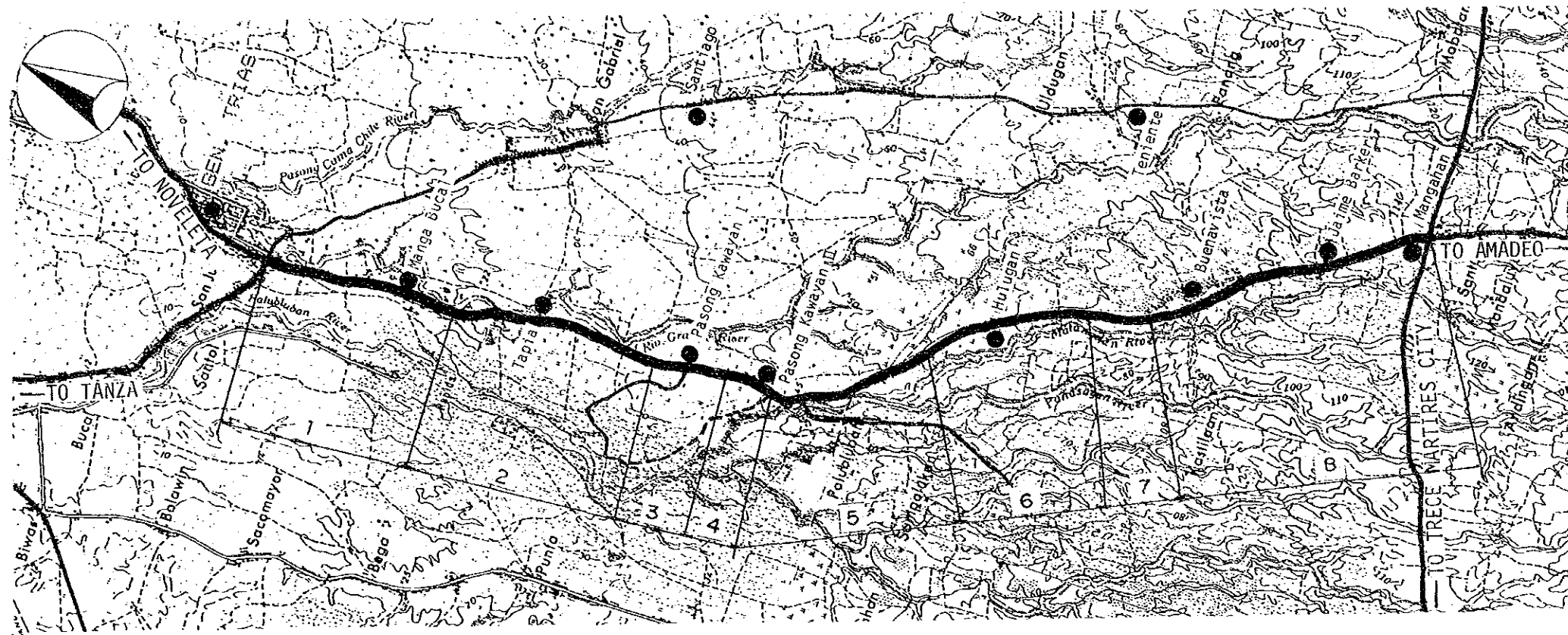
THE PILOT STUDY FOR THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale  
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Drawing No.  
25

Road No: P19-1      Road Name: GEN TRIAS-TAGAYTAY  
Location : GEN. TRIAS, CAVITE



Road Classification	Secondary Major (Provincial Road)							
Total Length	12.0 km							
Sub-section No.	1	2	3	4	5	6	7	8
Length (km)	2.0	2.4	.8	.6	1.7	1.6	.6	2.3
Terrain	Flat	Rolling	Rolling	Rolling	Rolling	Rolling	Flat	Flat
Existing Road Surface	6.0-BTM (Bad)	6.0-BTM (Bad)	6.0-GRV (Bad)	6.0-BTM (V.Bad)	6.0-PCC (Fair)	6.0-BTM (Bad)	5.0-BTM (V.Bad)	6.0-PCC (Fair)
Proposed Improvement	Impr.-1	Impr.-1	Impr.-1	Impr.-1	-	Impr.-1	Impr.-1	-
Improvement Type	Impr.-1	Impr.-1	Impr.-1	Impr.-1	-	Impr.-1	Impr.-1	-
Surface Type	PCC	PCC	PCC	PCC	-	PCC	PCC	-
Carriageway Width(m)	6.0	6.0	6.0	6.0	-	6.0	6.0	-
Shoulder Width (m)	2.5	1.5	1.5	1.6	-	1.5	2.5	-
Ref. Typical Section	TYPE 2-1	TYPE 2-1	TYPE 2-2	TYPE 2-1	-	TYPE 2-1	TYPE 2-1	-

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale  
1:50,000

Drawing No.  
28

Road No: P19-4

Road Name: GEN. TRIAS-TAGAYTAY

Location : AMADEO & TAGAYTAY, CAVITE



Road Classification	Second'y Major (Prov'l Road)		
Total Length	9.3 km		
Sub-section No.	1	2	3
Length (km)	2.1	6.5	.7
Terrain	Rolling	Rolling	Rolling
Existing Road Surface	6.0-BTM (Bad)	6.0-BTM (V.Bad)	6.0-BTM (Fair)
Proposed Improvement			
Improvement Type	Rehabil.	Rehabil.	-
Surface Type	Overlay	Overlay	-
Carriageway Width(m)	6.0	6.0	-
Shoulder Width (m)	1.5	1.5	-
Ref. Typical Section	TYPE 1-4	TYPE 1-4	-

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

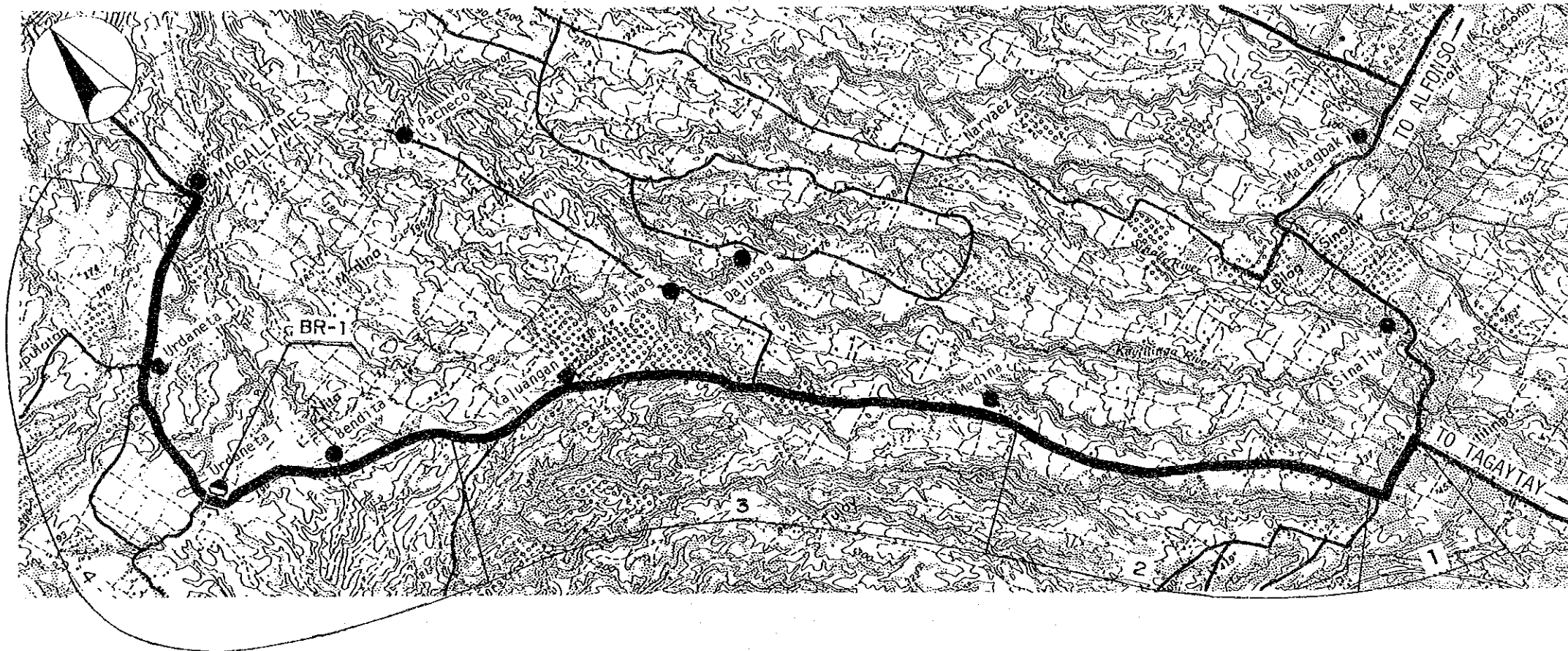
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Drawing No.  
27

Road No: P30-1

Road Name: MAGALLANES-AMUYONG

Location : MAGALLANES & ALFONSO, CAVITE



Road Classification	Secondary Major (Provincial Road)			
Total Length	16.7 km			
Sub-section No.	1	2	3	4
Length (km)	.7	3.5	6.3	6.2
Terrain	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	6.0-PCC (Fair)	6.0-GRV (V.Bad)	6.0-EAR (V.Bad)	6.0-PCC (Fair)
Proposed Improvement				
Improvement Type	-	Impr.-1	Impr.-1	-
Surface Type	-	* BMP	* BMP	-
Carriageway Width(m)	-	6.0	6.0	-
Shoulder Width (m)	-	1.0	1.0	-
Ref. Typical Section	-	TYPE 2-4	TYPE 2-7	-
Bridge No.	BR-1			
Existing Type	Balley			
Length (m)	6			
Proposed Type	2Lane-Br			
Length (m)	10			
No. of Spans	1			

\* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.



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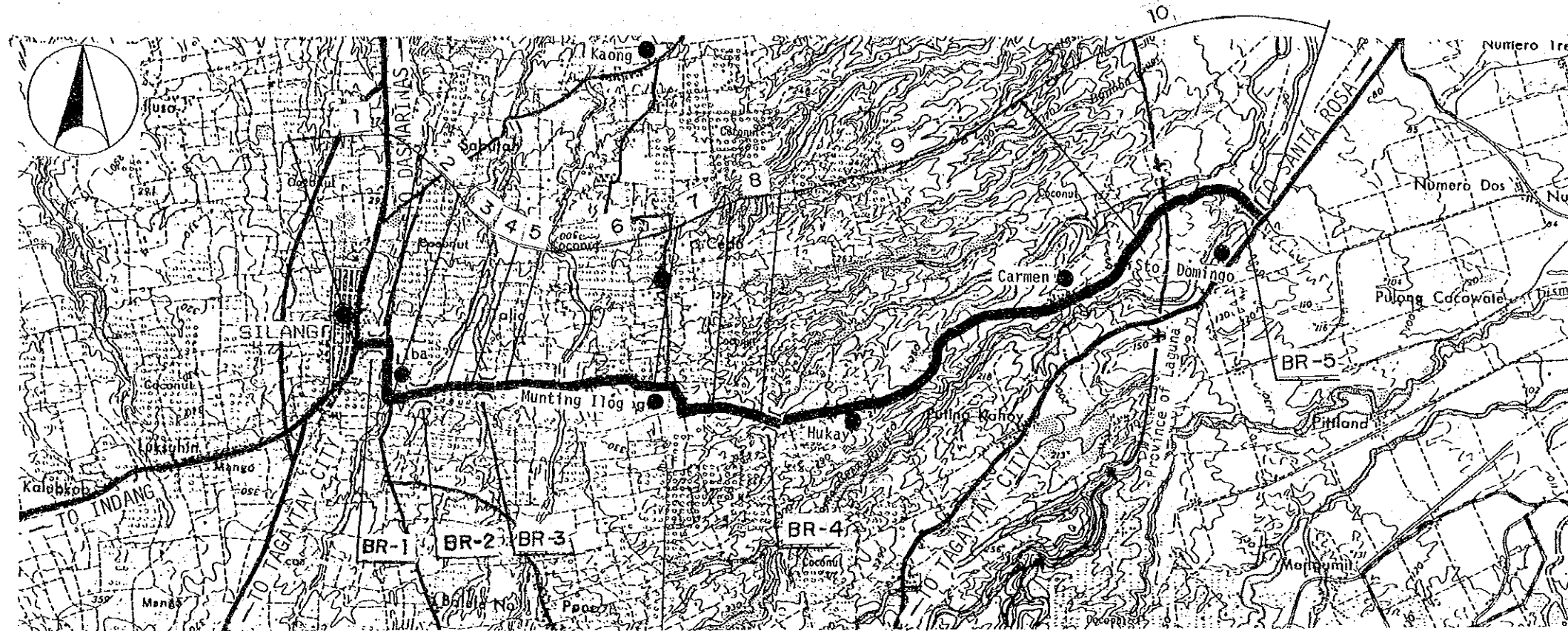
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Drawing No.  
28

Road No: P45-1

Road Name: IBA MUNTING ILOG CARMEN

Location : SILANG, CAVITE



Road Classification	Secondary Major (Provincial Road)									
Total Length	9.5 km									
Sub-section No.	1	2	3	4	5	6	7	8	9	10
Length (km)	.3	.4	.4	.3	.3	1.4	.7	.5	3.9	1.3
Terrain	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	5.5-PCC (Fair)	6.1-PCC (Fair)	6.0-GRV (Bad)	6.0-GRV (Bad)	6.0-GRV (Bad)	6.0-GRV (Bad)	5.5-GRV (Bad)	6.1-PCC (Bad)	4.0-EAR (Bad)	3.6-EAR (V.Bad)
Proposed Improvement	-	-	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Rehabil.	Impr.-1	Impr.-1
Improvement Type	-	-	AC	AC	AC	AC	AC	Overlay	AC	AC
Surface Type	-	-	AC	AC	AC	AC	AC	Overlay	AC	AC
Carriageway Width(m)	-	-	6.0	6.0	6.0	6.0	6.0	6.1	6.0	6.0
Shoulder Width (m)	-	-	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Ref. Typical Section	-	-	TYPE 2-3	TYPE 2-3	TYPE 2-3	TYPE 2-3	TYPE 2-3	TYPE 1-2	TYPE 2-6	TYPE 2-6
Special Treatment	-	-	-	-	-	-	-	150	-	200
Steep Section Length	-	-	-	-	-	-	-	150	-	200
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5					
Existing Type	Steel	Bailey	Timber	Bailey	Timber					
Length (m)	22	15	6	15	24					
Proposed Type	-	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br					
Length (m)	-	16	8	16	25					
No. of Spans	-	1	1	1	1					

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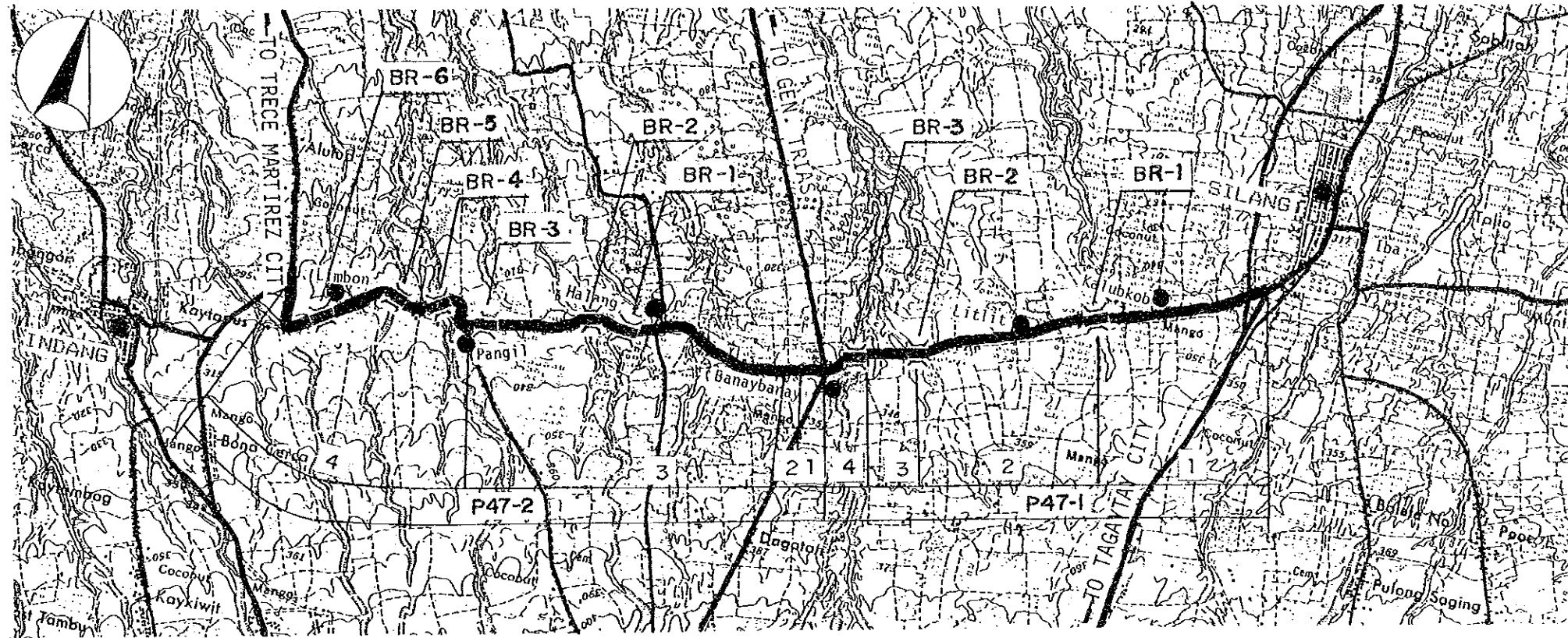
PRESENT CONDITION AND PROPOSED IMPROVEMENT

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Drawing No.  
29

Road No: P47-1 Road Name: SILANG-INDANG  
Location : SILANG & INDANG, CAVITE

Road No: P47-2 Road Name: SILANG-INDANG  
Location : SILANG & INDANG, CAVITE



Road No: P47-1

Road Classification	Secondary Major (Provincial Road)			
Total Length	4.2 km			
Sub-section No.	1	2	3	4
Length (km)	1.5	1.8	.5	.4
Terrain	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	6.0-PCC (Fair)	5.5-GRV (Bad)	5.5-EAR (Bad)	2.1-PCC (Fair)
Proposed Improvement	-	Impr.-1	Impr.-1	Widening
Improvement Type	-	AC	AC	PCC
Surface Type	-	6.0	6.0	6.0
Carriageway Width(m)	-	1.5	1.5	1.5
Shoulder Width (m)	-	TYPE 2-3	TYPE 2-6	TYPE 4-1
Ref. Typical Section	-	-	150	-
Special Treatment	-	-	-	-
Steep Section Length	-	-	-	-
Bridge No.	BR-1	BR-2	BR-3	
Existing Type	Bailey	Timber	Bailey	
Length (m)	18	6	18	
Proposed Type	2Lane-Br	2Lane-Br	2Lane-Br	
Length (m)	20	10	20	
No. of Spans	1	1	1	

Road No: P47-2

Road Classification	Secondary Major (Provincial Road)					
Total Length	5.7 km					
Sub-section No.	1	2	3	4		
Length (km)	.2	.2	3.0	2.3		
Terrain	Rolling	Rolling	Rolling	Rolling		
Existing Road Surface	5.0-PCC (Fair)	2.1-PCC (Fair)	6.0-GRV (V.Bad)	3.2-GRV (Bad)		
Proposed Improvement	-	Widening	Impr.-1	Impr.-1		
Improvement Type	-	PCC	AC	AC		
Surface Type	-	6.0	6.0	6.0		
Carriageway Width(m)	-	1.5	1.5	1.5		
Shoulder Width (m)	-	TYPE 4-1	TYPE 2-3	TYPE 2-3		
Ref. Typical Section	-	-	200	690		
Special Treatment	-	-	-	-		
Steep Section Length	-	-	-	-		
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6
Existing Type	Bailey	Timber	Bailey	Timber	Bailey	Bailey
Length (m)	12	7	12	18	12	6
Proposed Type	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br
Length (m)	15	10	15	25	15	10
No. of Spans	1	1	1	1	1	1