

Annex A1

## Environmental Sensitive Receivers

## 1. Location of Air Sensitive Receivers (ASRs)

**Table 1** Location of Air Sensitive Receivers (ASRs)

Section	ASR	Location	Horizontal Distance to the major dust generating work site (m)	Horizontal Distance to the alignment/Vent Building (m)	
Route 16 alignment	A1	Sport Area	75 <sup>(i)</sup>	138	
	A2	HK Institute of Education, Black Campus I	100 <sup>(i)</sup>	150	
	A3	Government Quarter	63 <sup>(i)</sup>	163	
	A5	Practical School	100 <sup>(ii)</sup>	50	
	A6	Mei Foo Sun Chuen Phase 5 Block 1	90 <sup>(ii)</sup>	55	
	A7	Lai Chi Kok Indoor Sport Centre	58 <sup>(ii)</sup>	43	
	A8	Planned Residential Development	100 <sup>(ii)</sup>	73	
	A9	Lai Chi Kok Swimming Pool	200 <sup>(ii)</sup>	50	
	A10	Football Field at Lai Chi Kok Park	260 <sup>(ii)</sup>	40	
	A11	Ching Lai Court	380 <sup>(ii)</sup>	115	
	A13	Lai Chi Kok Hospital	190 <sup>(ii)</sup>	100	
	A14	Lai Chi Kok Reception Centre Staff Quarter	380 <sup>(ii)</sup>	25	
	A15	Hop Hing Industrial Building	510 <sup>(ii)</sup>	30	
	A16	Tung Yuen Industrial Building	580 <sup>(ii)</sup>	45	
	A17	Cheung Sha Wan Cooked Food Market	675 <sup>(ii)</sup>	55	
	A18	Haking Wong Technical Institute	1000 <sup>(ii)</sup>	155	
	A19	Planned G/IC Development	750 <sup>(ii)</sup>	30	
	A20	Residential Development Tower 2 at Site 10	930 <sup>(ii)</sup>	58	
	Mid Ventilation Building	V1	Bamboo Villa	-	200
		V2	Pinehill	-	50
V3		Residential Redevelopment	-	75	
V4		Park Mansion	-	120	

Note:

(i) Distance between the ASR and the cut & fill works at Butterfly Valley

(ii) Distance between the ASR and the excavation works at Ching Cheung Road

Figure A1.1 (a-f) show the location of the air sensitive receivers during construction phase.

## 2. Location of Noise Sensitive Receivers

### 2.1 During Construction Phase

**Table 2** *Location of Noise Sensitive Receivers - Construction Phase*

NSR	Location	Sensitive Uses	Buffer distance (m)
N1	Miu Kong Tsuen	Residential	125
N2	Tai Ching Cheung	Residential	185
N3	Tai Ching Cheung	Residential	135
N6	LCK Reception Centre Staff Quarters	Residential	20
N7	LCK Hospital	Hospital	170
N8	housing development site located at the old Lai Chi Kok Amusement Park	Residential	40
N9	housing development site located at the old Lai Chi Kok Amusement Park	Residential	70
N10	Public Library	Library	65
N11	Mei Foo Sun Chuen, Phase 6, Blk 9	Residential	90
N12	Mei Foo Sun Chuen, Phase 5, Blk 9	Residential	100
N13	Mei Foo Sun Chuen, Phase 4, Blk 113	Residential	245
N14	Haking Wong TT	School	160
N15	Bamboo Villa	Residential	230
N16	Pinehill	Residential	85
N17	New residential development	Residential	80

2.2 Noise Sensitive Receivers - Operational Phase

Table 3 Noise Sensitive Receivers - Operational Phase

Description	NSR ID	Representative floors			Representative floors mPD		
Mei Foo Sun Chuen, Phase 8 (Block 132 )	MF1	1/F	10/F	19/F	14.7	39.9	65.1
Mei Foo Sun Chuen, Phase 4 (Block 113 )	MF2	1/F	10/F	19/F	14.7	39.9	65.1
Mei Foo Sun Chuen, Phase 4 (Block 113 )	MF3	1/F	10/F	19/F	14.7	39.9	65.1
Mei Foo Sun Chuen, Phase 4 (Block 113 )	MF4	1/F	10/F	19/F	14.7	39.9	65.1
Mei Foo Sun Chuen, Phase 6 (Block 46)	MF5	1/F	15/F	29/F	9.2	34.4	59.6
Mei Foo Sun Chuen, Phase 6 (Block 42)	MF6	1/F	15/F	29/F	9.2	34.4	59.6
Mei Foo Sun Chuen, Phase 6 (Block 9)	MF7	1/F	15/F	29/F	9.2	34.4	59.6
Mei Foo Sun Chuen, Phase 5 (Block 7)	MF8	1/F	15/F	29/F	9.2	34.4	59.6
Mei Foo Sun Chuen, Phase 5 (Block 7)	MF9	1/F	15/F	29/F	9.2	34.4	59.6
Mei Foo Sun Chuen, Phase 5 (Block 9)	MF10	1/F	15/F	29/F	9.2	34.4	59.6
Haking Wong T1	NO1	1/F	3/F	\	8.2	13.8	\
Haking Wong T1	NO2	1/F	3/F	\	8.2	13.8	\
KMB Bus Depot CDA Site (Tower 1)	511-518	1/F	17/F	34/F	31.2	79.2	130.2
KMB Bus Depot CDA Site (Tower 2)	521-528	1/F	17/F	33/F	31.2	79.2	127.2
KMB Bus Depot CDA Site (Tower 3)	531-538	1/F	16/F	31/F	28.1	73.1	118.1
KMB Bus Depot CDA Site (Tower 4)	541-548	1/F	14/F	27/F	28.1	64.1	103.1
Site 10 - Residential Blocks (Tower 1)	600-607	1/F	20/F	40/F	9.2	61.5	116.5
Site 10 - Residential Blocks (Tower 2)	608-615	1/F	20/F	39/F	9.2	61.5	113.7
Site 10 - Residential Blocks (Tower 3)	616-623	1/F	20/F	39/F	9.2	61.5	113.7
Site 10 - Residential Blocks (Tower 4)	624-631	1/F	20/F	37/F	9.2	61.5	108.2
Site 10 - Residential Blocks (Tower 5)	632-639	1/F	20/F	37/F	9.2	61.5	108.2
Site 10 - Residential Blocks (Tower 6)	640-647	1/F	20/F	40/F	9.2	61.5	116.5
Site 10 - Residential Blocks (Tower 7)	648-655	1/F	20/F	40/F	9.2	61.5	116.5
Site 10 - School 1	656-657	1/F	4/F	7/F	11.5	21.6	31.5
Site 10 - School 2	658	1/F	4/F	7/F	11.5	21.6	31.5
Site 10 - School 3	659	1/F	4/F	7/F	11.5	21.6	31.5
LCK Reception Centre - New Staff Quarter (Block A)	NO6	3/F	7/F	15/F	20.5	31.7	54.1
LCK Reception Centre - New Staff Quarter (Block B)	NO7	1/F	7/F	15/F	14.4	31.7	54.1
LCK Reception Centre - New Staff Quarter (Block B)	NO8	1/F	7/F	15/F	14.4	31.7	54.1
LCK Reception Centre Staff Quarters	NO9	1/F	3/F	6/F	8.7	13.8	<u>22.7</u>
LCK Reception Centre Staff Quarters	NO10	1/F	3/F	6/F	8.7	13.8	<u>22.7</u>
LCK Reception Centre Staff Quarters	NO11	1/F	3/F	6/F	8.7	13.8	<u>22.7</u>
LCK Reception Centre Staff Quarters	NO12	1/F	5/F	9/F	8.7	19.9	<u>31.1</u>
LCK Reception Centre Staff Quarters	NO13	1/F	5/F	9/F	8.7	19.9	<u>31.1</u>
LCK Reception Centre Staff Quarters	NO14	1/F	5/F	11/F	8.7	19.9	36.7
LCK Reception Centre Staff Quarters	NO15	1/F	5/F	11/F	8.7	19.9	36.7
LCK Hospital	NO16	G/F	1/F	\	30.9	33.7	\

Description	NSR ID	Representative floors			Representative floors mPD		
LCK Hospital	NO17	G/F	1/F	\	30.9	33.7	\
LCK Hospital	NO18	G/F	1/F	\	48.4	51.2	\
LCK Hospital	NO19	G/F	1/F	\	48.4	51.2	\
LCK Hospital	NO20	G/F	1/F	\	48.4	51.2	\
LCK Hospital	NO21	G/F	1/F	\	48.4	51.2	\
LCK Hospital	NO22	G/F	1/F	\	48.4	51.2	\
LCK Hospital	NO23	G/F	1/F	\	48.4	51.2	\
Ching Lai Court	NO24	1/F	7/F	13/F	22.8	39.6	56.4
Public Library	NO25	1/F	3/F	6/F	10.5	16.5	25.5
Site A - Block 4	L1	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Block 4	L2	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Block 5	L3	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Block 5	L4	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Block 5	L5	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Block 5	L6	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Block 5	L7	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Primary School	L8	1/F	4/F	7/F	11.8	20.8	29.8
Site A - Primary School	L9	1/F	4/F	7/F	11.8	20.8	29.8
Site A - Primary School	L10	1/F	4/F	7/F	11.8	20.8	29.8
Site A - Block 1	L11	1/F	21/F	41/F	11.8	67.8	123.8
Site A - Block 1	L12	1/F	21/F	41/F	11.8	67.8	123.8
Site B Tower 1	L13	1/F	15/F	29/F	36.2	75.4	114.6
Site B Tower 3	L14	1/F	15/F	29/F	36.2	75.4	114.6
Village House, Butterfly Valley	V1	G/F	1/F	\	116.5	119.5	\
Village House, Butterfly Valley	V2	G/F	1/F	\	116.5	119.5	\
Village House, Butterfly Valley	V3	G/F	1/F	\	126.5	129.5	\
Village House, Butterfly Valley	V4	G/F	1/F	\	126.5	129.5	\
Village House, Butterfly Valley	V5	G/F	\	\	81.5	\	\
Village House, Butterfly Valley	V6	G/F	\	\	81.5	\	\
O Pui Shan Boy's Home	V7	G/F	1/F	\	122.5	125.5	\
O Pui Shan Boy's Home	V8	G/F	1/F	\	122.5	125.5	\
O Pui Shan Boy's Home	V9	G/F	1/F	\	122.5	125.5	\
O Pui Shan Boy's Home	V10	G/F	1/F	\	123.2	126.2	\
O Pui Shan Boy's Home	V11	G/F	1/F	\	123.2	126.2	\
O Pui Shan Boy's Home	V12	G/F	1/F	\	123.2	126.2	\
Village House, Tai Ching Cheung Village	V13	G/F	\	\	113.5	\	\
Village House, Tai Ching Cheung Village	V23	G/F	\	\	99.5	\	\
Village House, Tai Ching Cheung Village	V24	G/F	\	\	91.5	\	\
Village House, Tai Ching Cheung Village	V28	G/F	1/F	\	77.5	80.5	\
Village House, Tai Ching Cheung Village	V30	G/F	\	\	71.5	\	\
Village House, Tai Ching Cheung Village	V31	G/F	\	\	69.5	\	\

Description	NSR ID	Representative floors			Representative floors mPD		
Village House, Tai Ching Cheung Village	V32	G/F	\	\	81.5	\	\
Village House, Tai Ching Cheung Village	V33	G/F	\	\	87.5	\	\
Village House, Tai Ching Cheung Village	V34	G/F	\	\	87.5	\	\
Village House, Tai Ching Cheung Village	V35	G/F	\	\	105.5	\	\
Village House, Tai Ching Cheung Village	V36	G/F	\	\	111.5	\	\
Village House, Tai Ching Cheung Village	V37	G/F	\	\	110.5	\	\
Village House, Tai Ching Cheung Village	V38	G/F	\	\	111.5	\	\
Village House, Tai Ching Cheung Village	V39	G/F	\	\	112.5	\	\
G/IC - Butterfly Valley	P1	1/F	2/F	3/F	133.8	136.6	139.4
G/IC - Butterfly Valley	P2	1/F	2/F	3/F	133.8	136.6	139.4
G/IC - Butterfly Valley	P3	1/F	2/F	3/F	133.8	136.6	139.4
R (C) - Butterfly Valley	P4	1/F	2/F	3/F	123.8	126.6	129.4
R (C) - Butterfly Valley	P5	1/F	2/F	3/F	123.8	126.6	129.4
R (C) - Butterfly Valley	P6	1/F	2/F	3/F	123.8	126.6	129.4

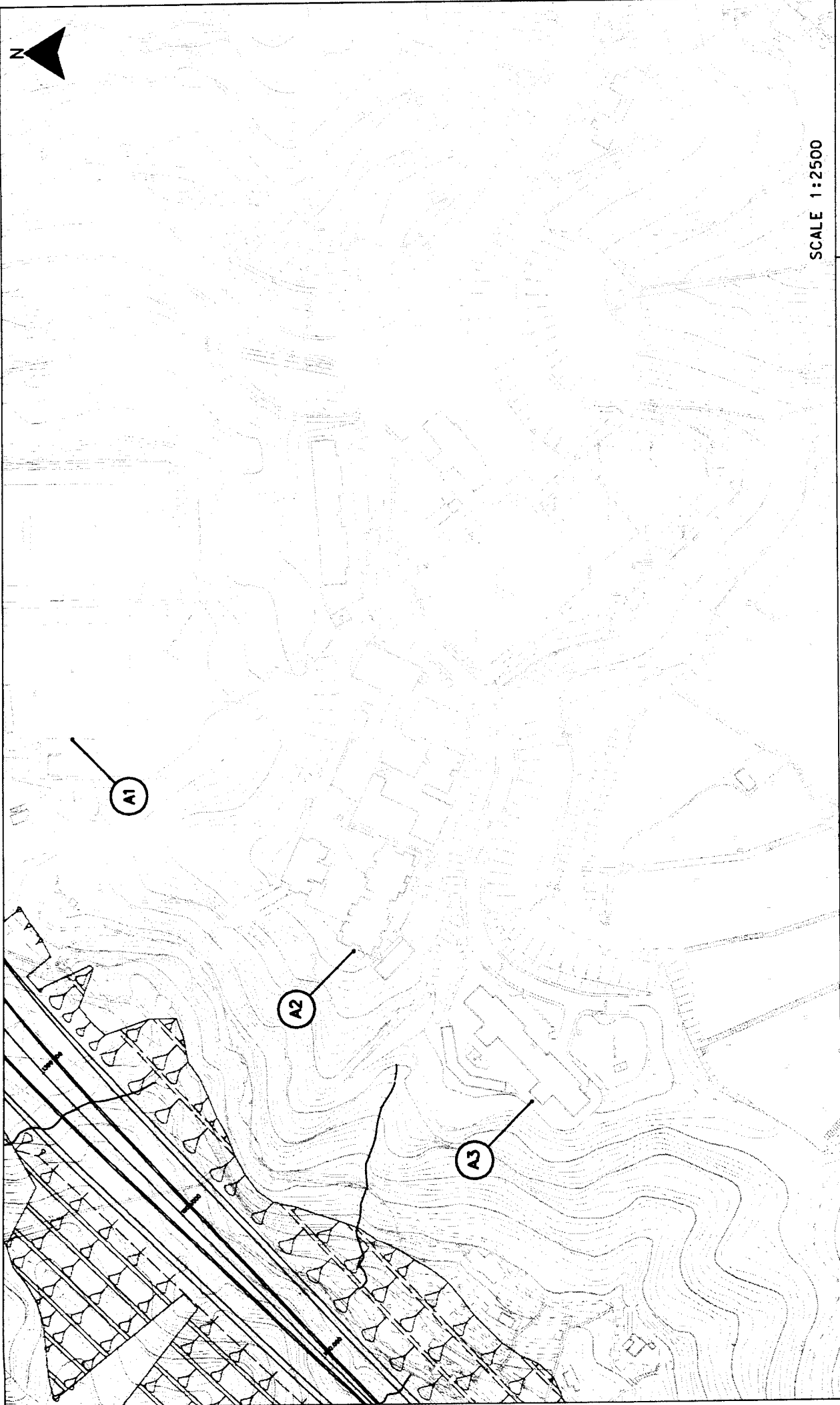
The location of the noise sensitive receivers during construction and operational phase are shown in Figures A1.2 (a to h) and A1.3 (a to k) respectively.

### 3. Location of water sensitive receivers

Water sensitive receivers (WSRs) have been identified in accordance with the *Hong Kong Planning Standards and Guidelines* (HKPSG). The major water bodies along the alternative alignment of Route 16 include:

- Victoria Harbour in the West Kowloon section;
- small streams along the Butterfly Valley and an open nullah near Wai Man Tsuen with water discharging into the Victoria Harbour;
- small reservoirs for temporary storage of floodwater downstream of Kowloon Reservoir;
- Tolo Harbour, Shing Mun River and a number of small streams at the Pak Shek village in the Shatin section; and
- a small stream near the ventilation building besides Tai Po Road near So Uk.

The small streams along the Butterfly Valley, the open nullah near Wai Man Tsuen, the reservoirs / storage ponds downstream of Kowloon Reservoir, the small streams at the Pak Shek village and Toll Plaza, and the small stream near the ventilation building will be directly affected by the Route 16 construction activities. The Victoria Harbour, the Tolo Harbour and Shing Mun River are the downstream receiving water bodies and located outside the construction area; these are located 1.5 km, 6.5 km and 1 km from the nearest works, respectively.



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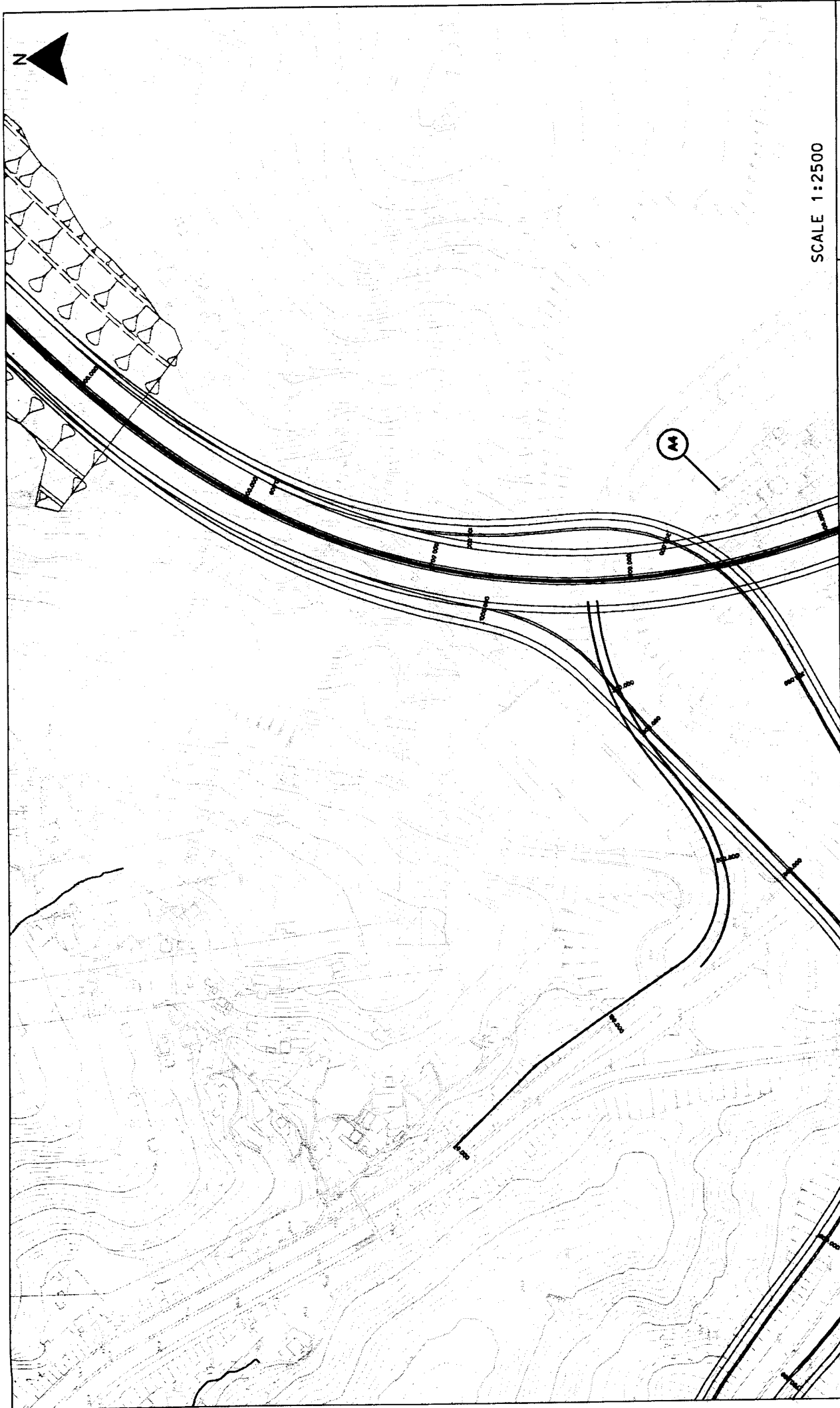


Environmental  
Resources  
Management

LOCATION OF AIR SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

FIGURE A1.10

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DATE: 03/05/99



Environmental  
Resources  
Management

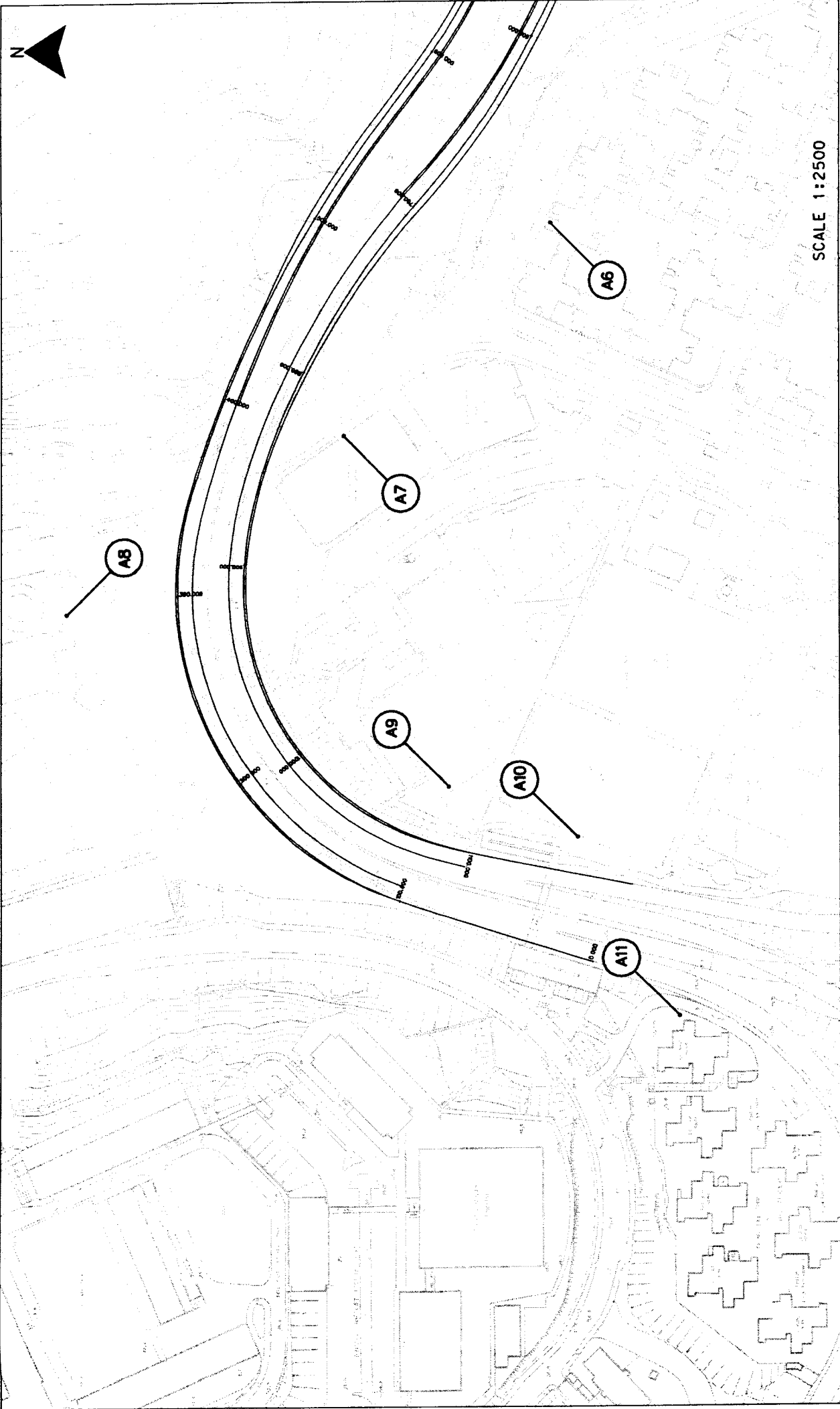
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LOCATION OF AIR SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

FIGURE A1.1b

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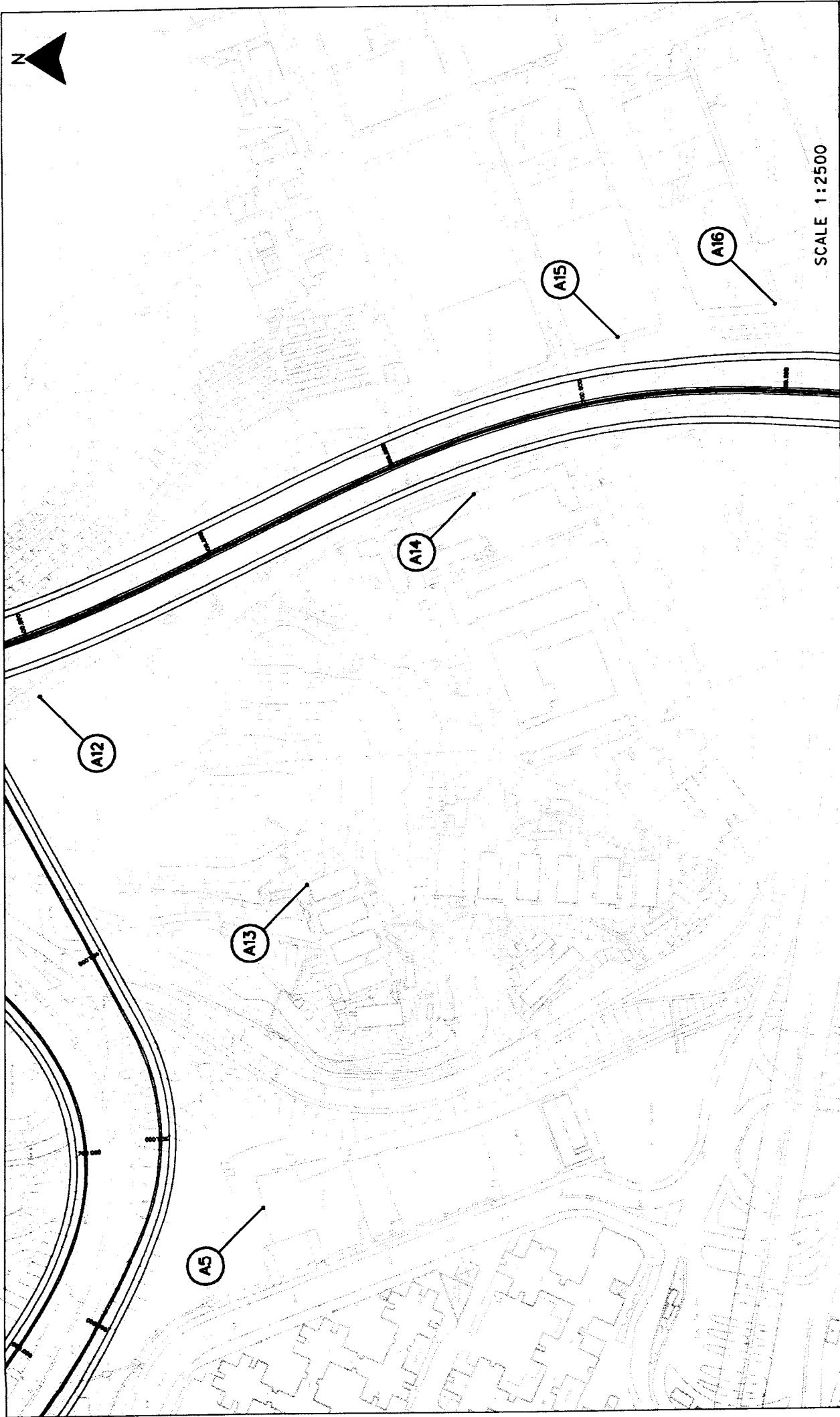


Environmental  
Resources  
Management

LOCATION OF AIR SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

FIGURE A1.1C

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DATE: 03/06/99



LOCATION OF AIR SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

FIGURE A1.1d

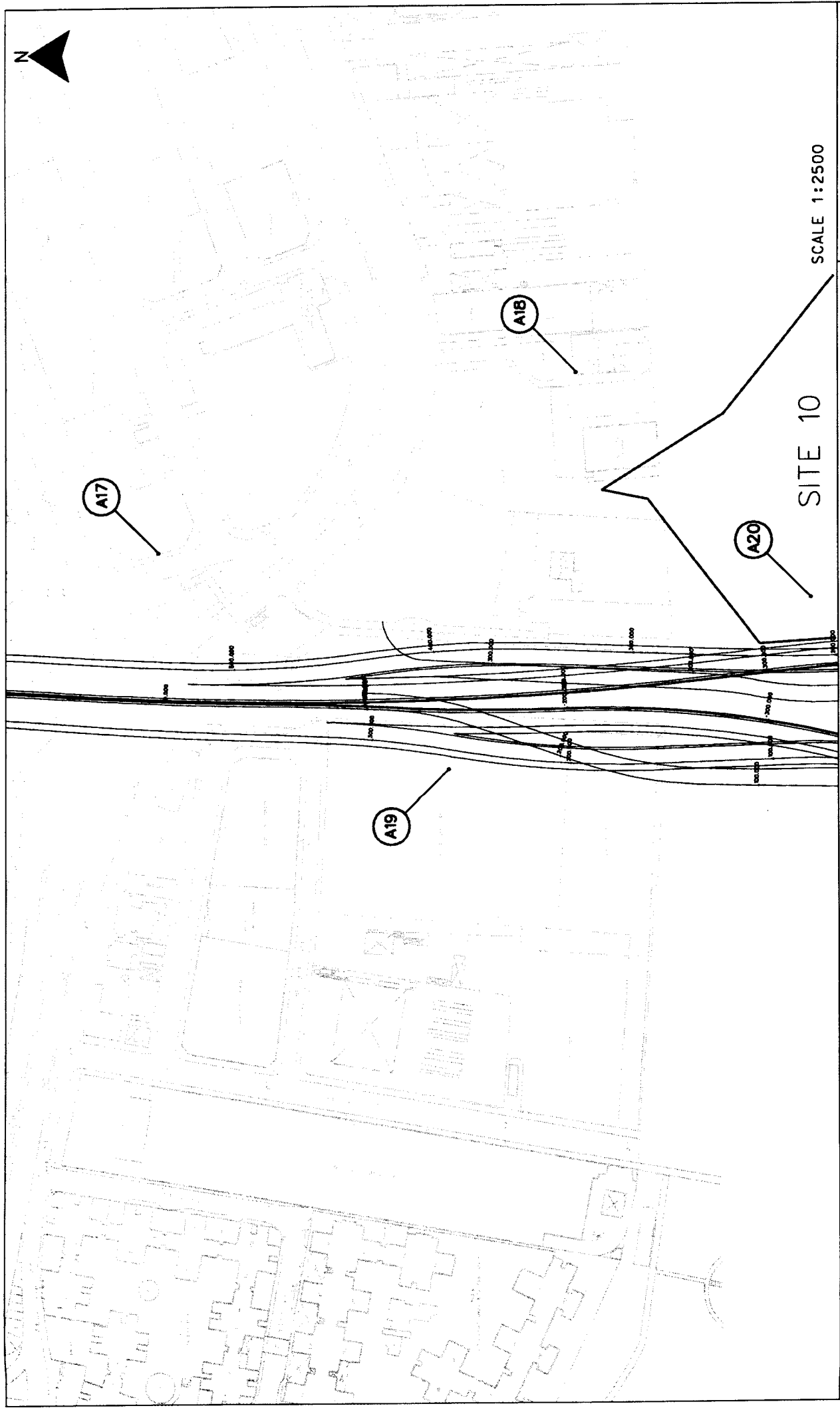
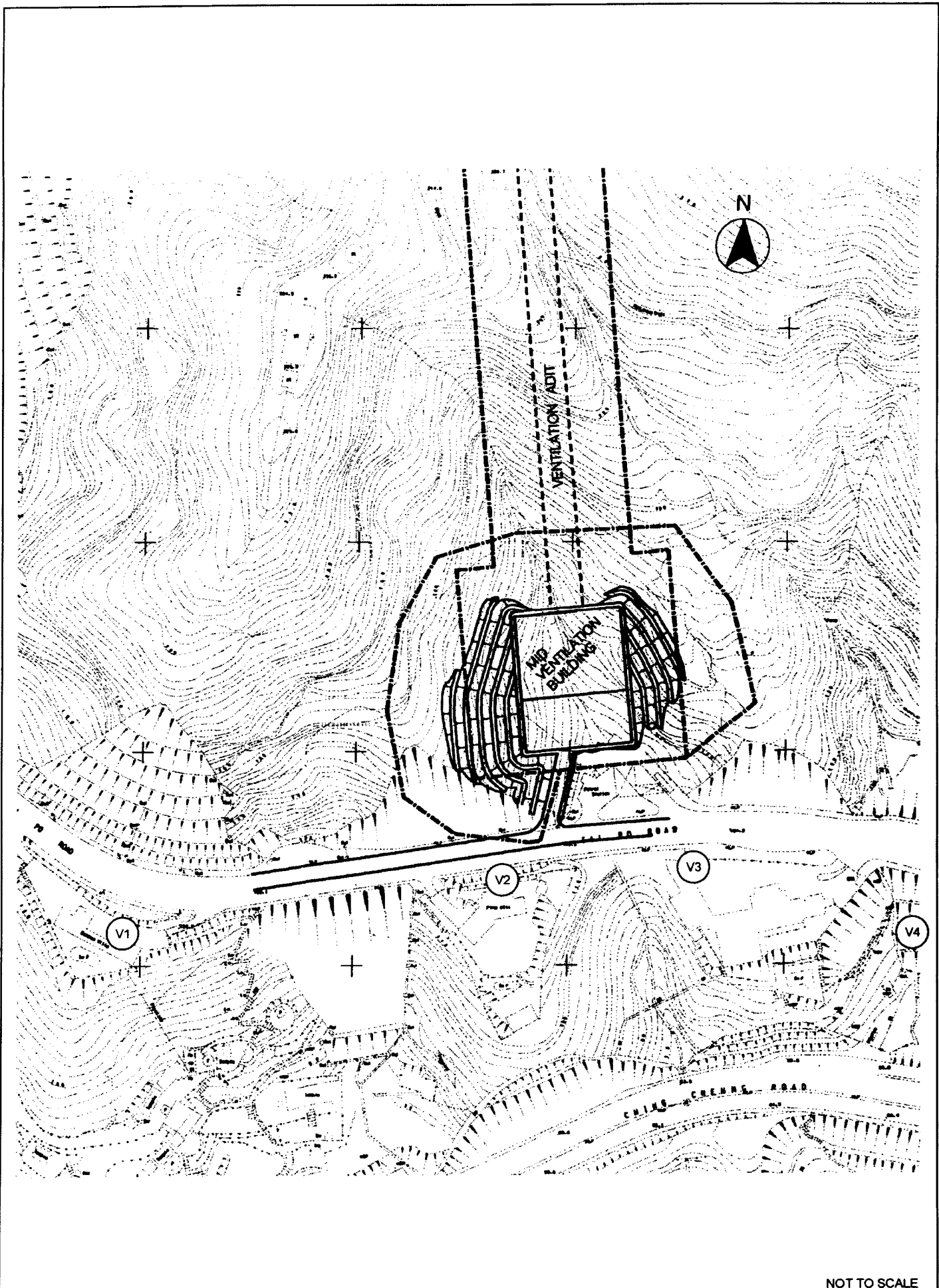


FIGURE A1.1e

LOCATION OF AIR SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

Environmental  
Resources  
Management





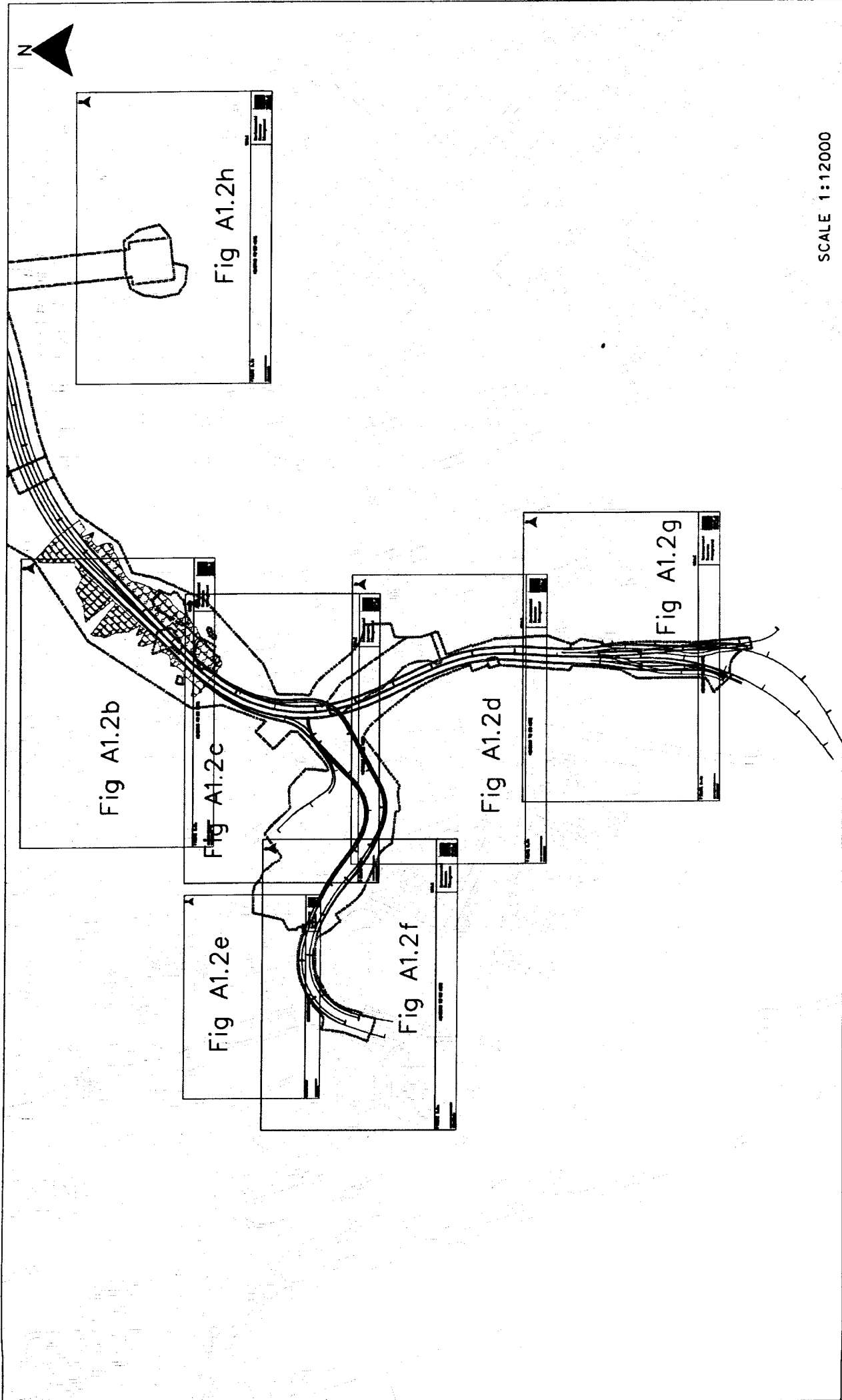
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FIGURE A1.1f LOCATION OF AIR SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

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Environmental  
Resources  
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FIGURE A1.2g

LOCATION OF NOISE SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

Environmental  
Resources  
Management



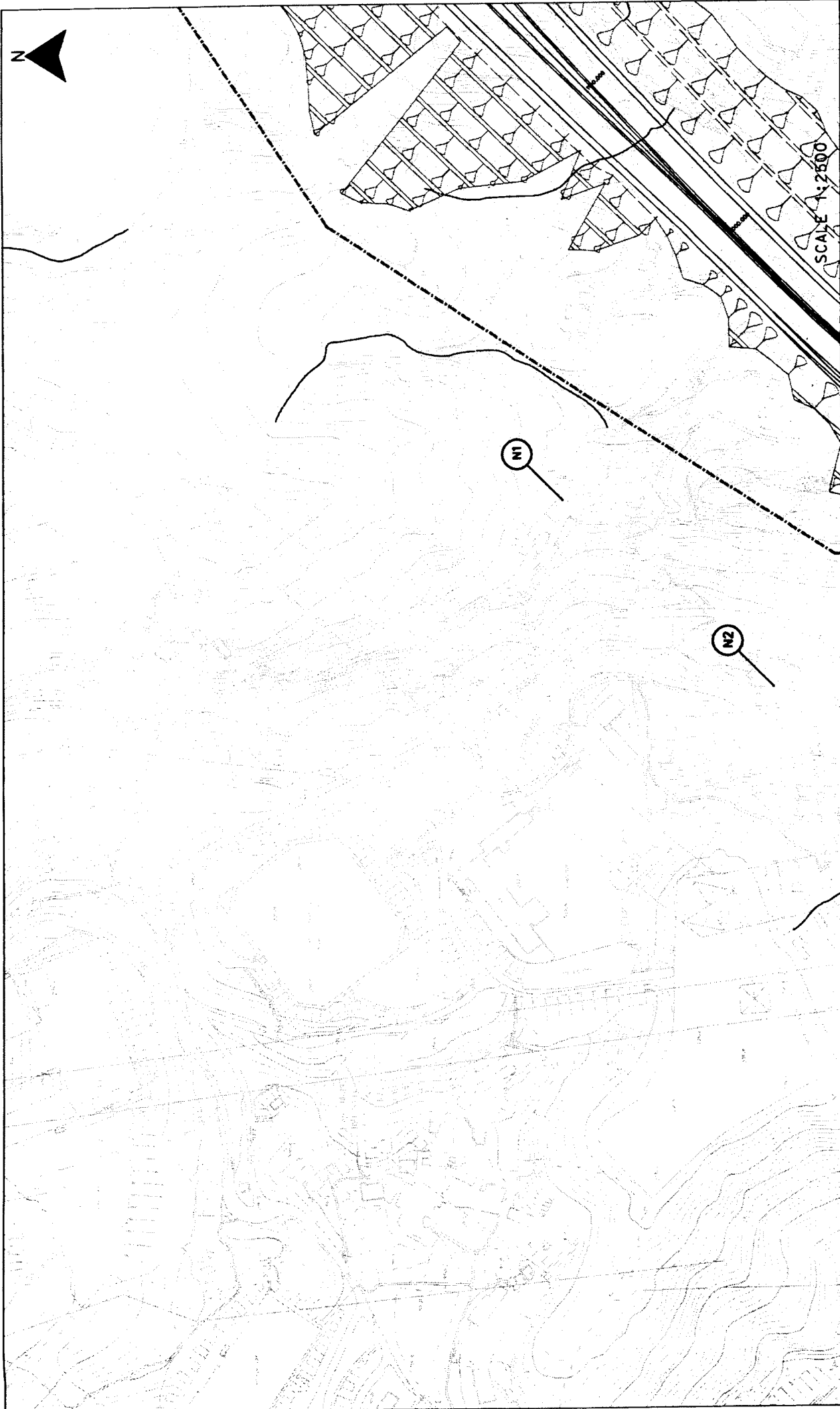
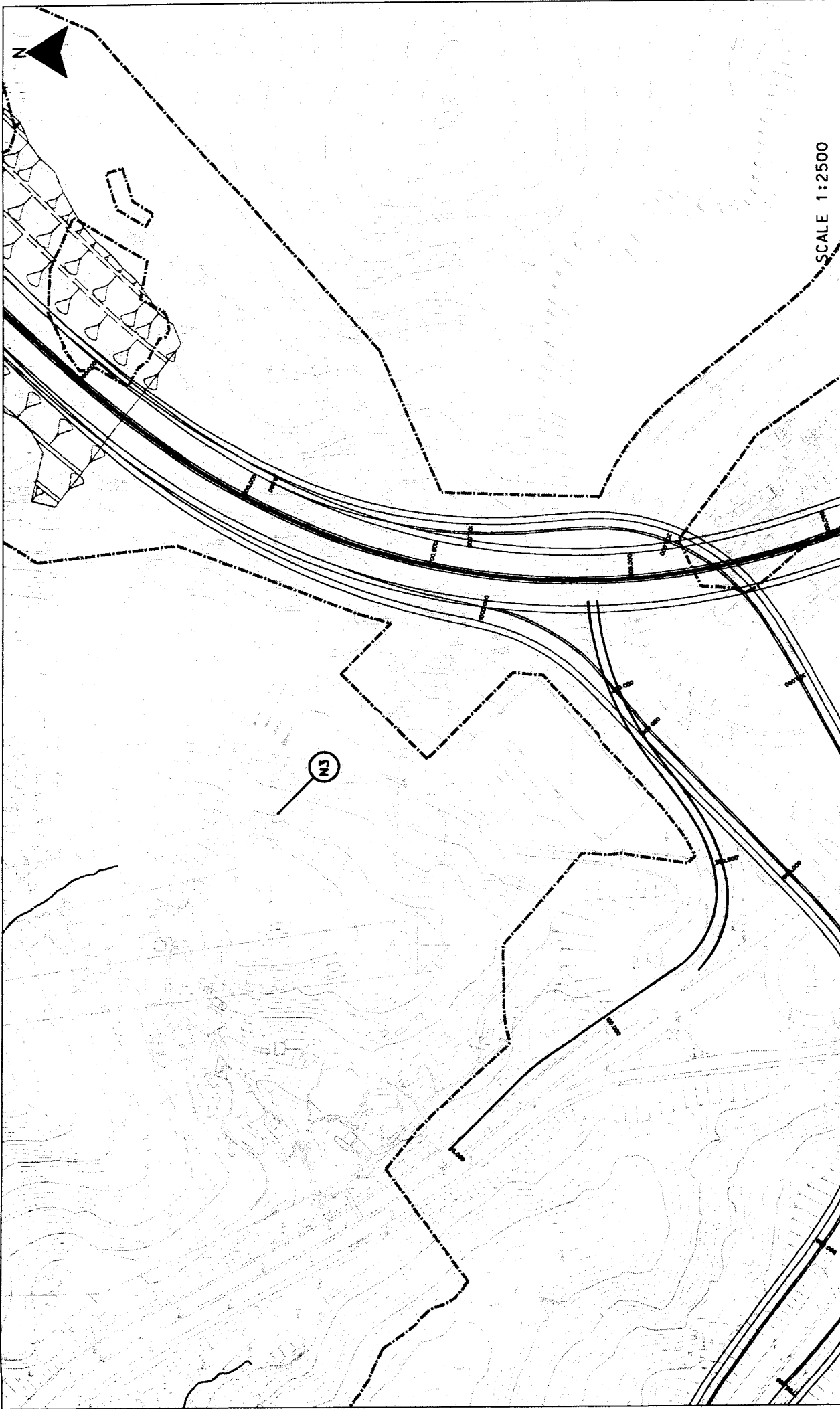


FIGURE A1.2b  
LOCATION OF NOISE SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE



SCALE 1:2500

FIGURE A1.2C

LOCATION OF NOISE SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

Environmental  
Resources  
Management





SCALE 1:2500

LOCATION OF NOISE SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

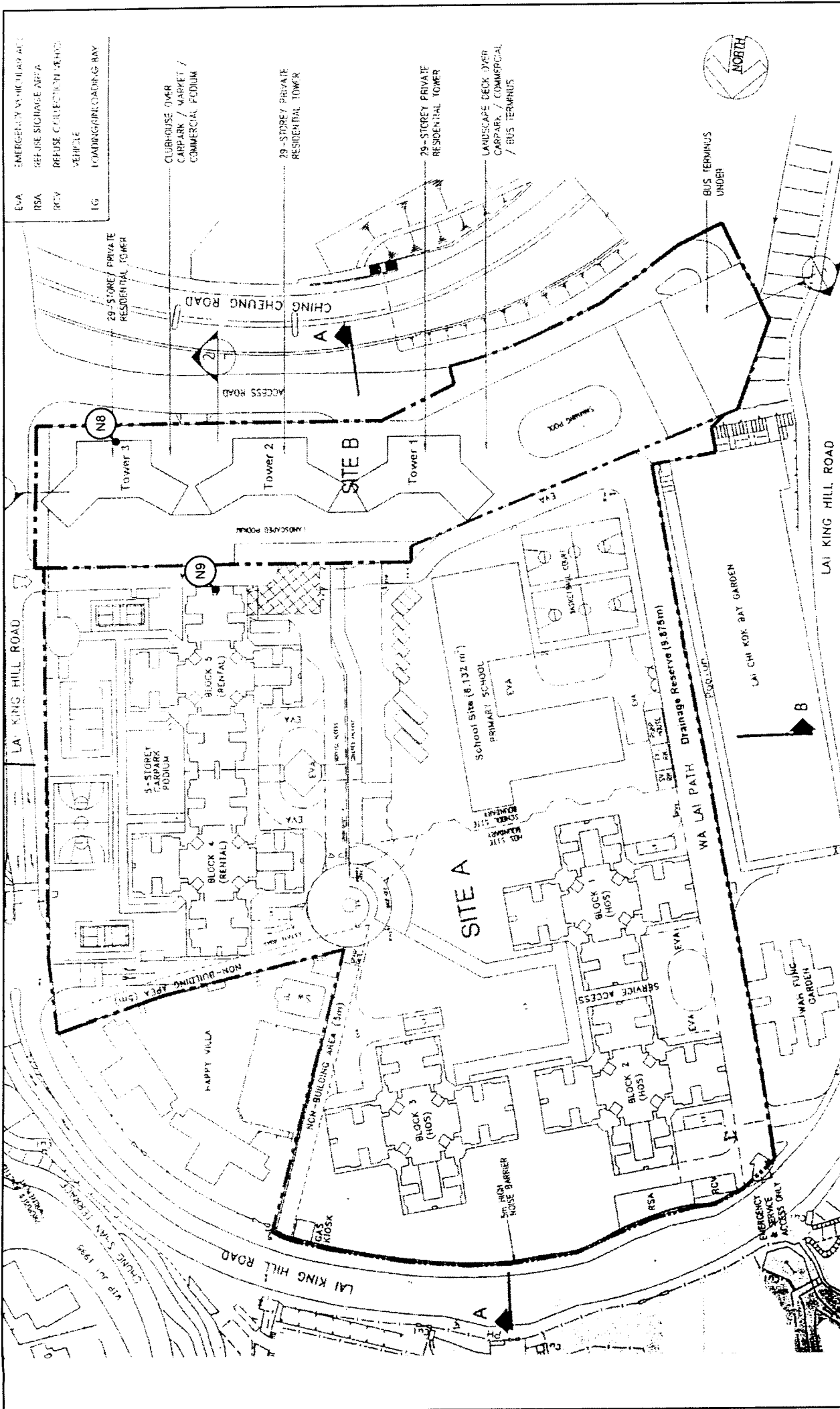
Environmental  
Resources  
Management



FIGURE A1.2d

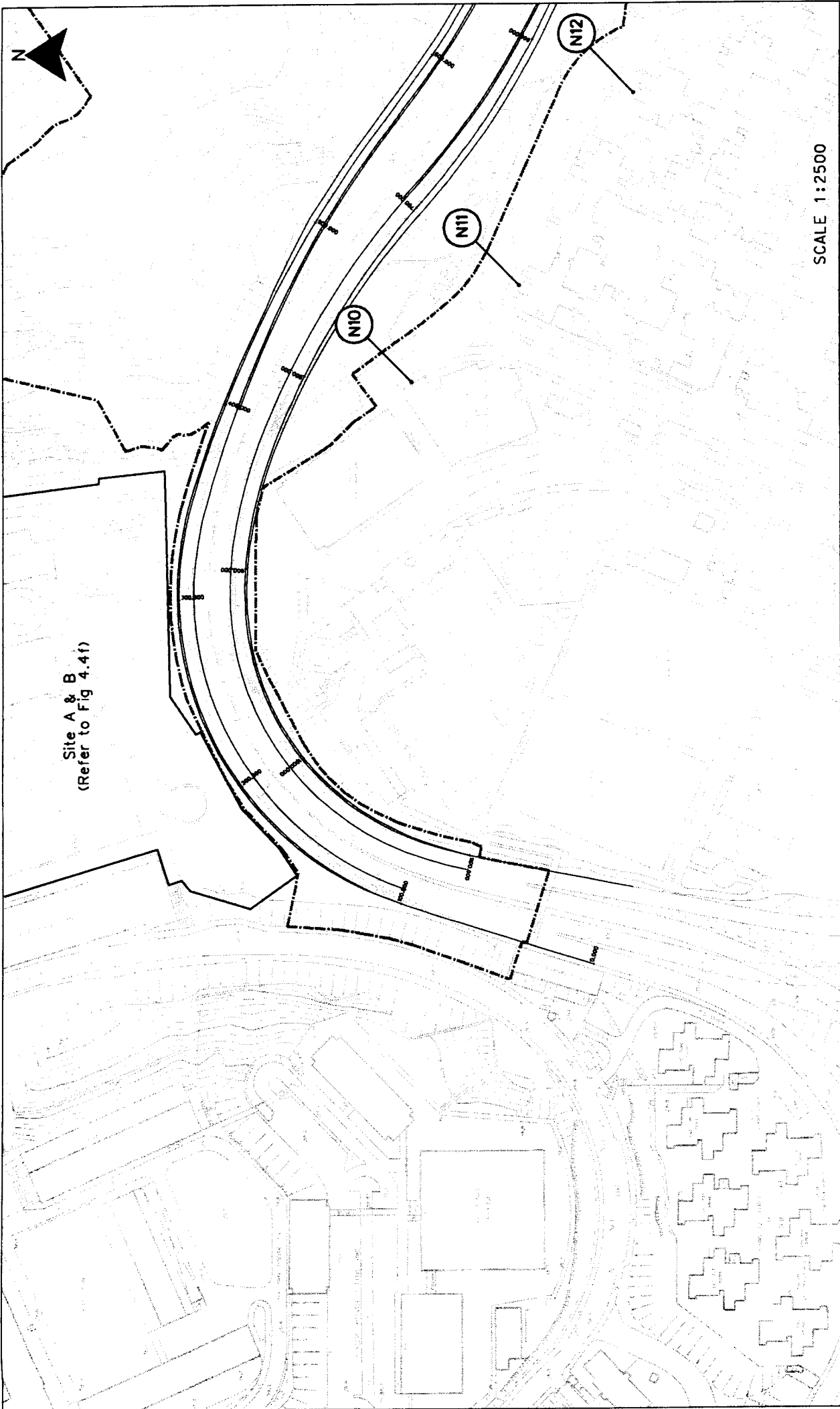
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LOCATION OF NOISE SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

FIGURE A1.29



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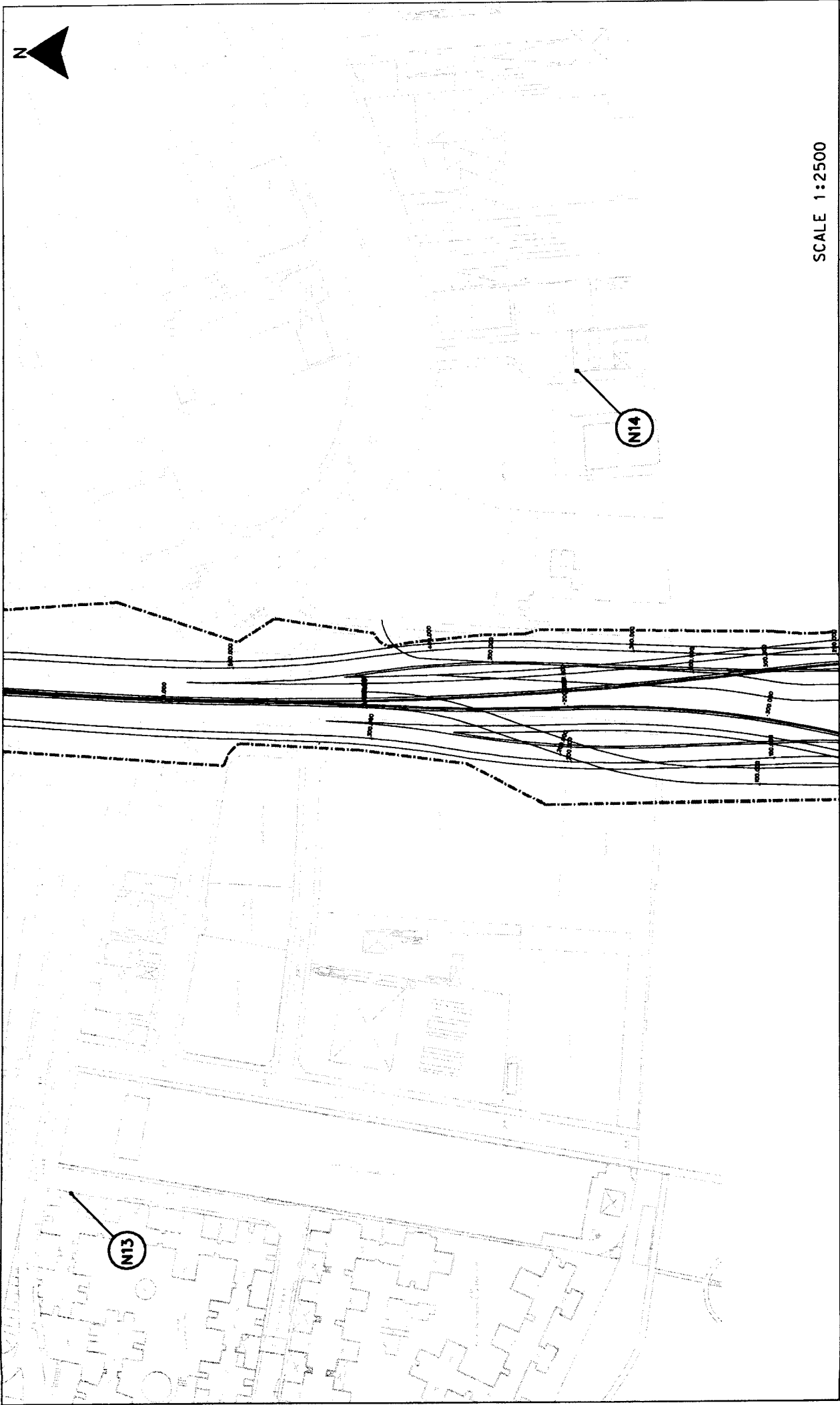


Environmental Resources Management

LOCATION OF NOISE SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

FIGURE A1.2f

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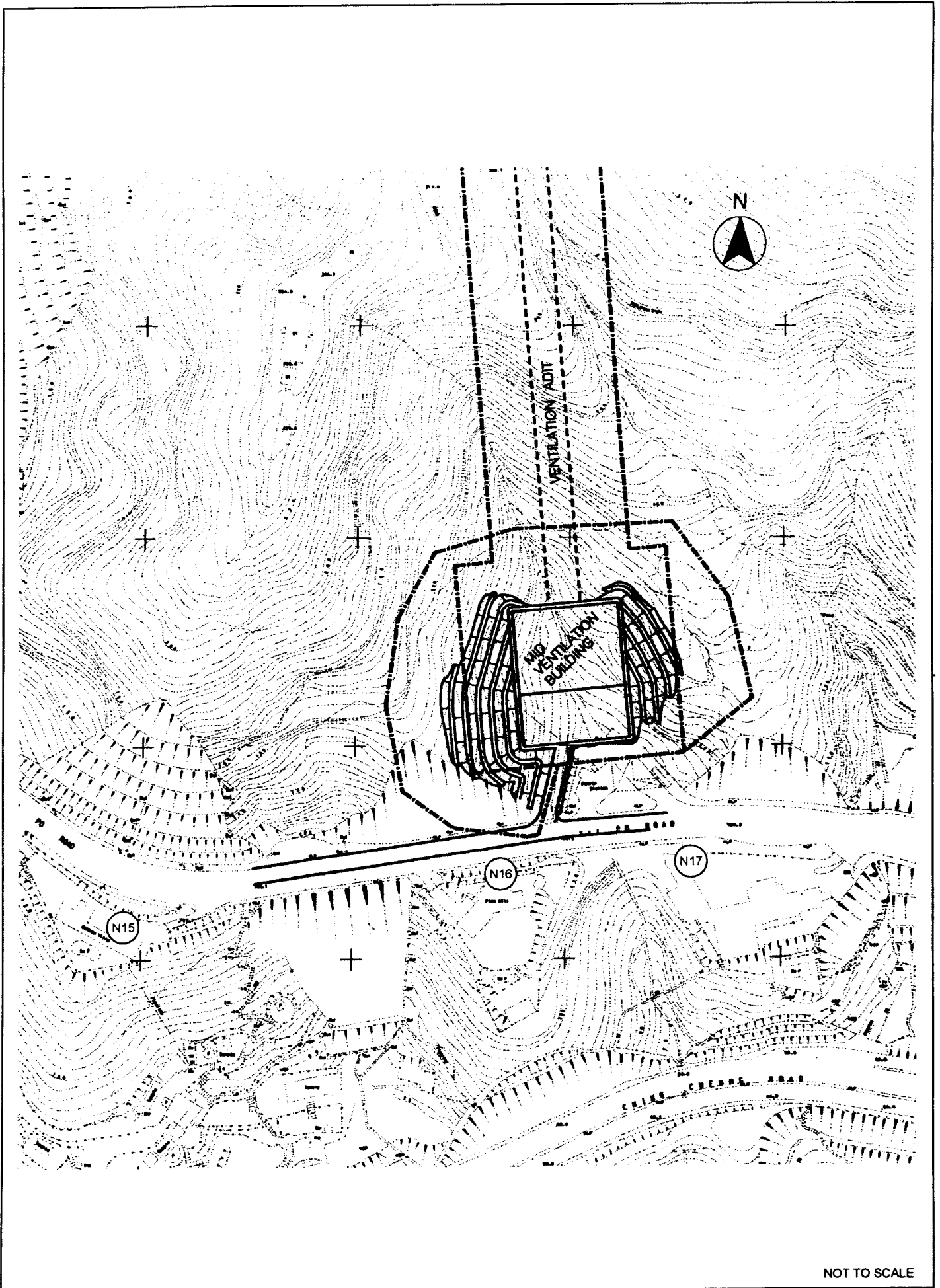


Environmental  
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LOCATION OF NOISE SENSITIVE RECEIVERS DURING CONSTRUCTION PHASE

FIGURE A1.29

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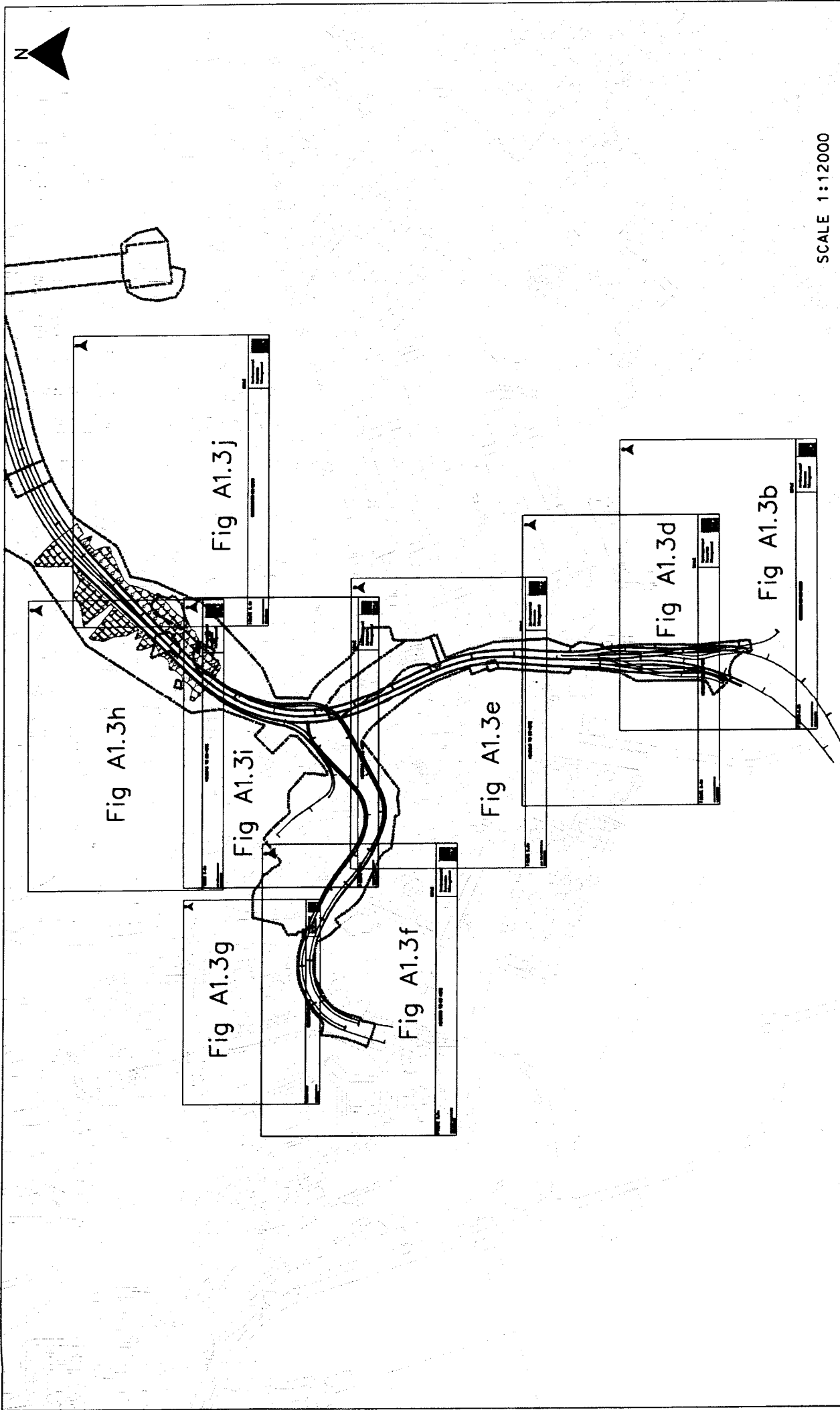
FIGURE A1.2h

LOCATION OF NOISE SENSITIVE RECEIVERS  
DURING CONSTRUCTION PHASE

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DATE: 03/05/99

Environmental  
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LOCATION OF NOISE SENSITIVE RECEIVERS DURING OPERATIONAL PHASE



SITE 10

REFER TO FIG A1.3c

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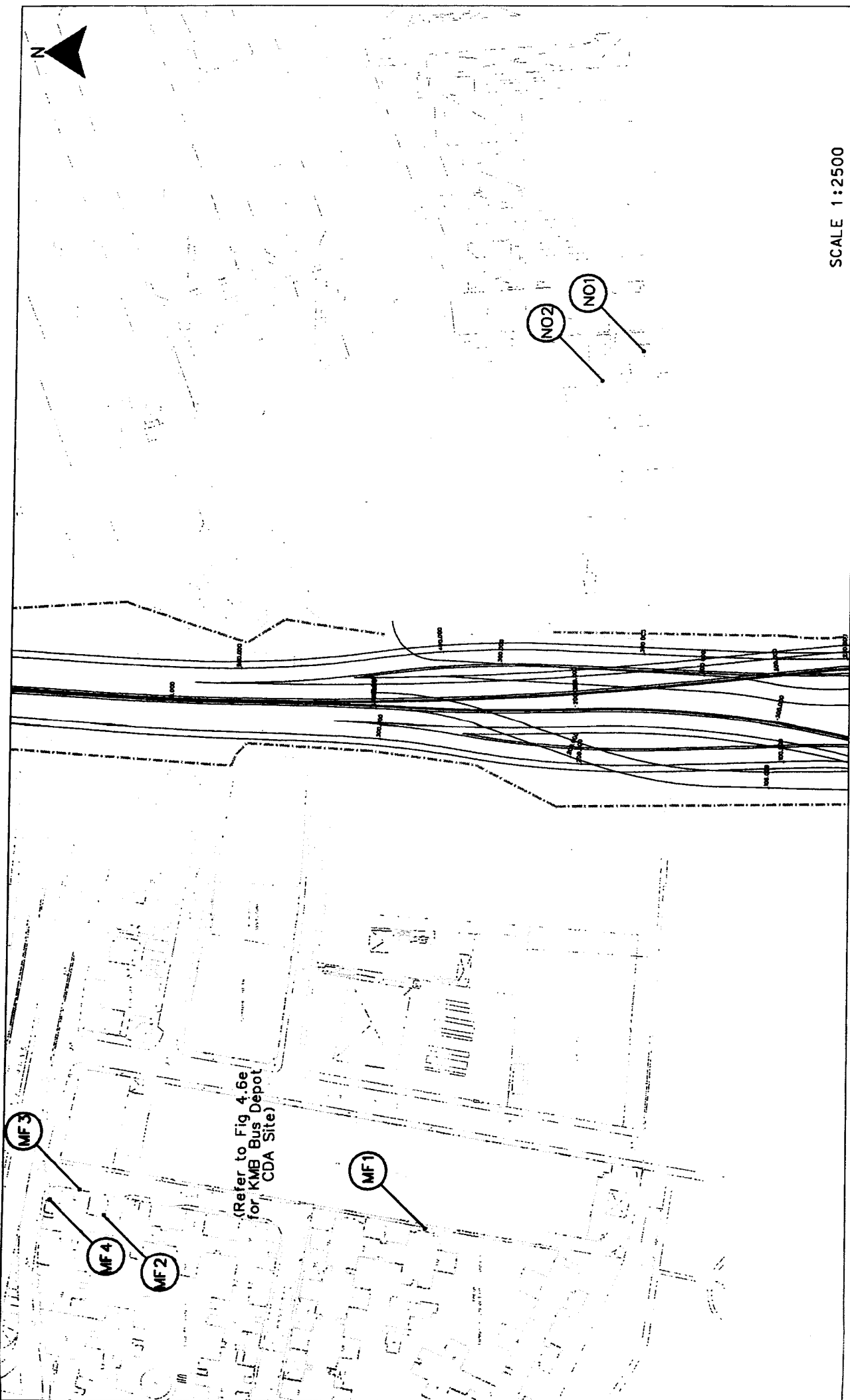
LOCATION OF SITE 10

FIGURE A1.3b



Environmental  
Resources  
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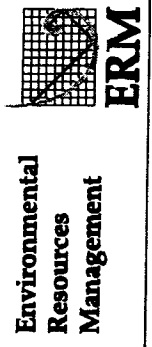




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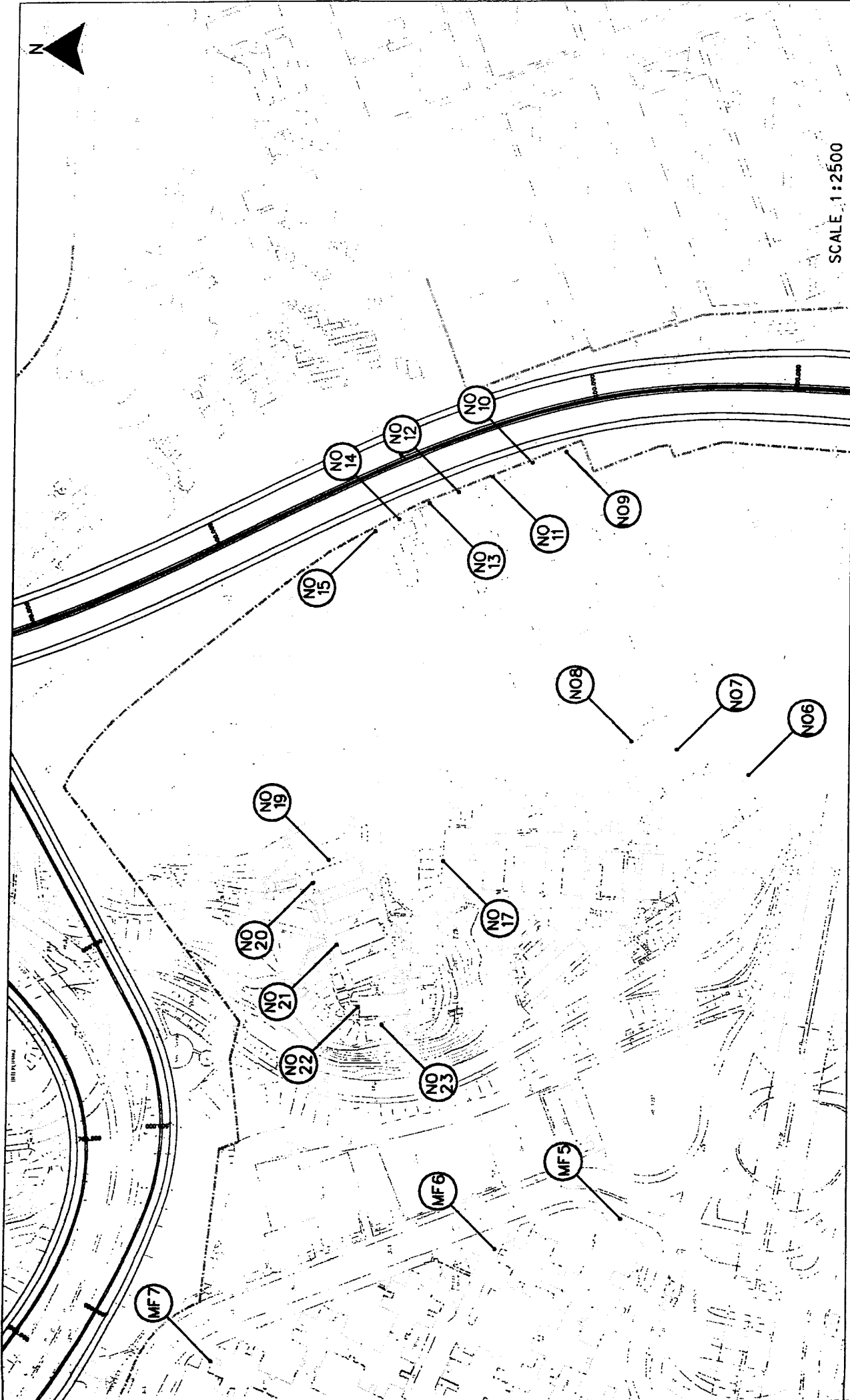
LOCATION OF NOISE SENSITIVE RECEIVERS DURING OPERATIONAL PHASE

FIGURE A1.3d



Environmental  
Resources  
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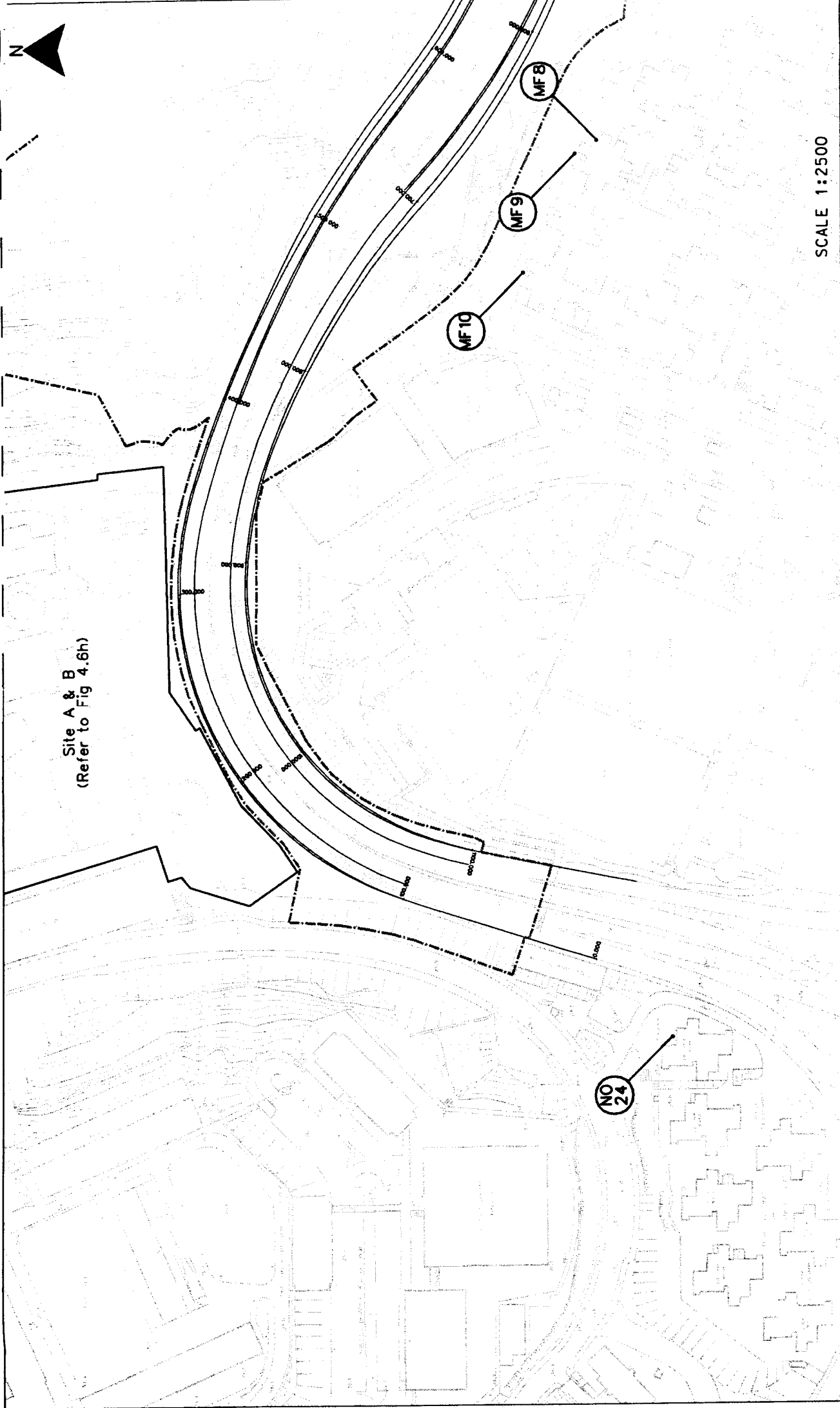
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LOCATION OF NOISE SENSITIVE RECEIVERS DURING OPERATIONAL PHASE

FIGURE A1.3e



Site A & B  
(Refer to Fig 4.6h)



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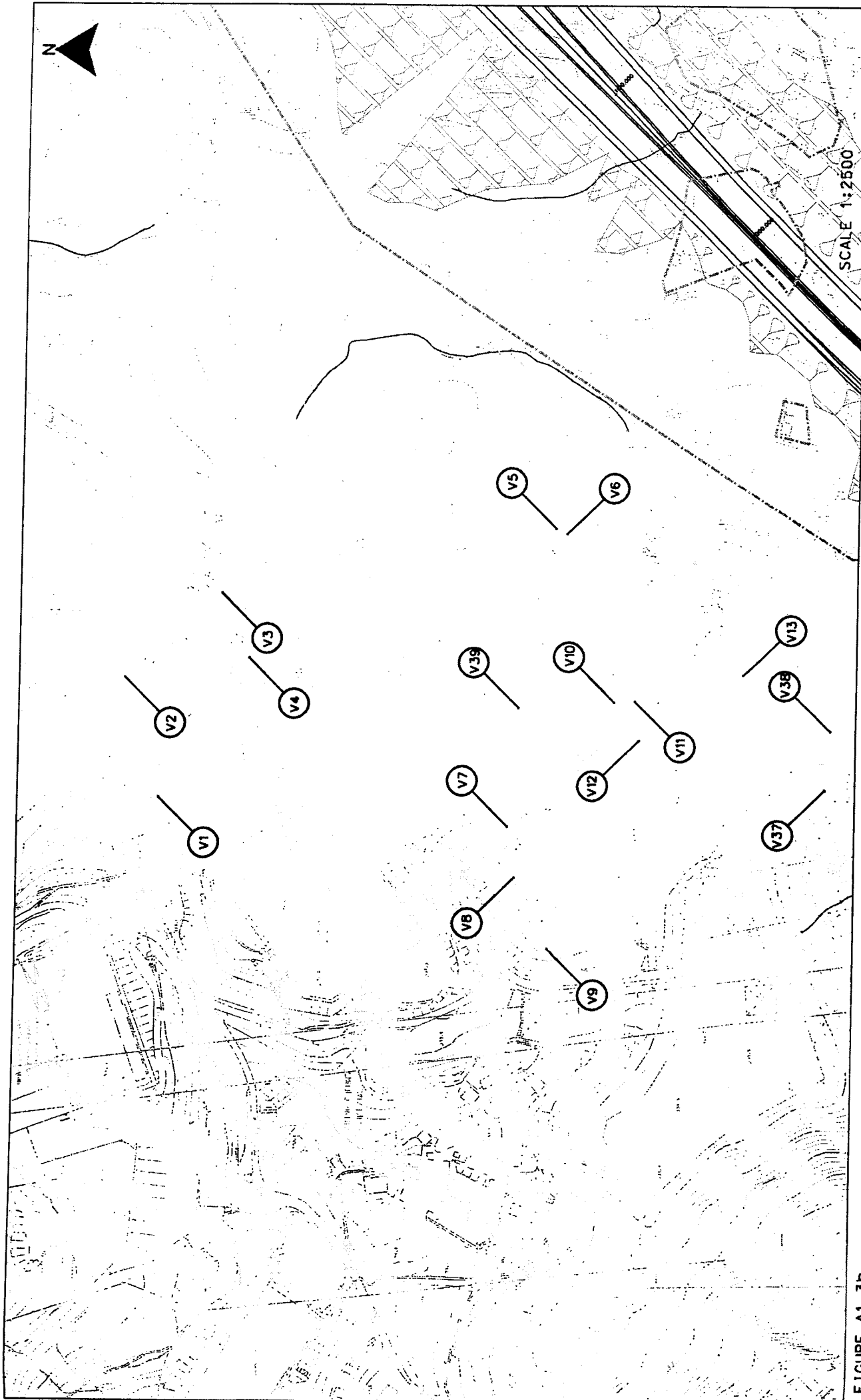
FIGURE A1.3f

LOCATION OF NOISE SENSITIVE RECEIVERS DURING OPERATIONAL PHASE

Environmental  
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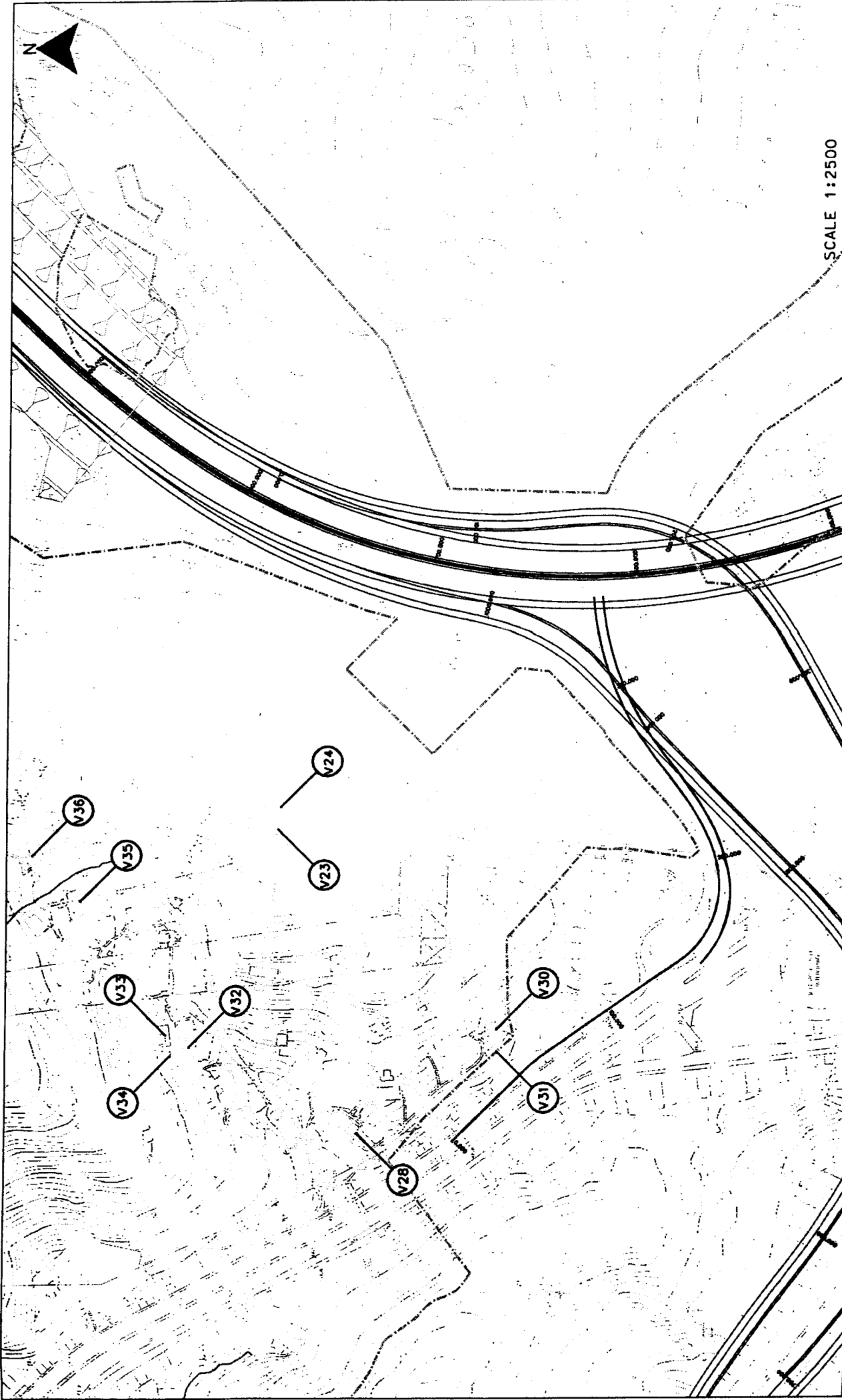




LOCATION OF NOISE SENSITIVE RECEIVERS DURING OPERATIONAL PHASE

FIGURE A1.3h

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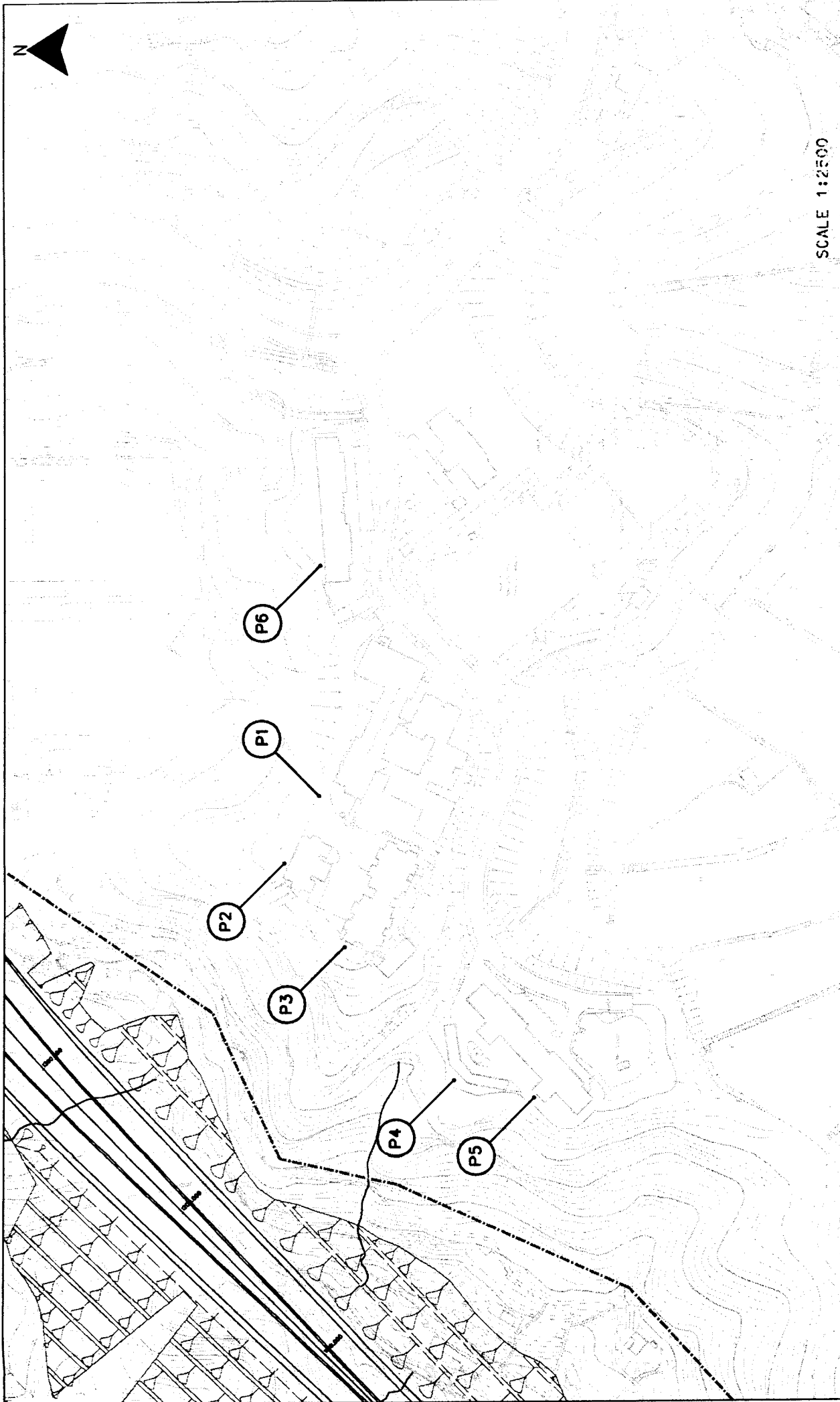


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LOCATION OF NOISE SENSITIVE RECEIVERS DURING OPERATIONAL PHASE

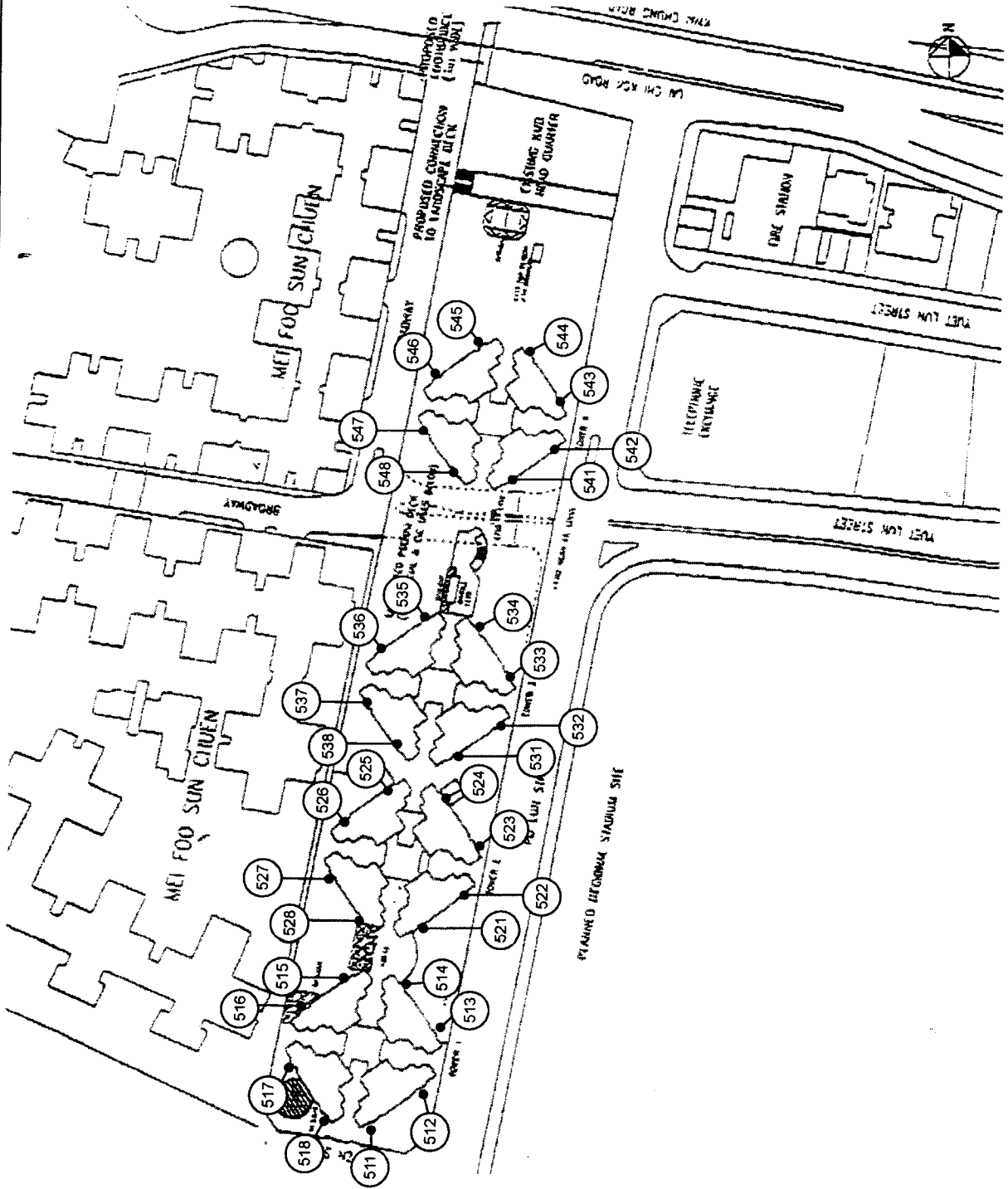
FIGURE A1.31

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 DATE: 18/03/99



SCALE 1:2500

FIGURE A1.3J LOCATION OF NOISE SENSITIVE RECEIVERS DURING OPERATIONAL PHASE



KMB BUS DEPOT - CDA SITE

FIGURE A1.3K



**FIGURE 7.4a**

HABITAT MAP FOR BUTTERFLY VALLEY

SCALE 1:3400

- KEY**
- STREAM
  - BOUNDARY OF CUT SLOPE AND ALIGNMENT
  - ⊗ SAMPLING POINT
  - W = WOODLAND
  - S = SHRUBLAND
  - P = PLANTATION
  - V/O = VILLAGE AND ORCHARD
  - WASTE = WASTELAND
  - CON = CONSTRUCTION SITE
  - X1 = *Hemigramma declivans*
  - X2 = *Allanthus fordii*