

The Railway Electrification and Double-double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIREKTORAT JENDERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat: no 8 Gedung Kory: 11111 Hp: 021-3506320-3506557
 JAKARTA

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

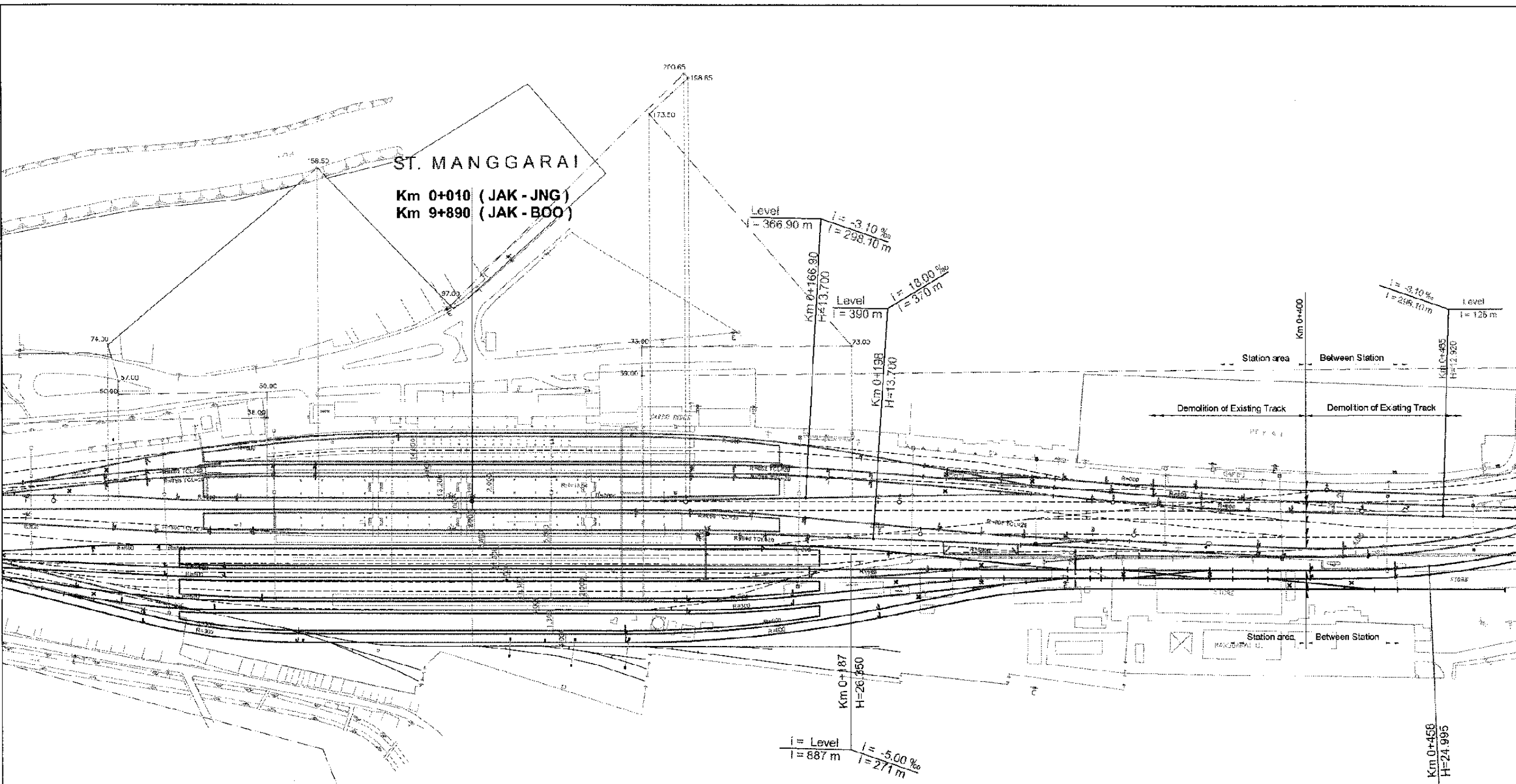
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE -

Drawing Title :
 MANGGARAI ST. (1/3)

Scale: 1 : 1000
 Drawing No: TR - 01 - 001



Track Work in Manggarai Station
Km 0+746 to Km 0+400

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	10,917	
Track Panel Installation	tm	4,650	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	11	
Scissors Crossing R 64 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	2	
Double Slip Switch Installation # 10	set	-	
Welding Works	each	279	
Final Tamping Works	tm	5,185	
Buffer Stop Installation	set	4	
Railway Sign Post	each	58	

ITEM	UNIT	VOLUME	REMARKS
Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	-	
Track Panel Demolition	tm	6,838	
Simple Turnout Demolition #8 & #10	set	24	
Scissors Crossing #3 & #10	set	3	
Double Split Switch Demolition #10	set	11	
Buffer Stop Demolition	each	2	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	8,987	
Track Panel Installation	tm	3,958	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	9	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	1	
Double Slip Switch	set	2	
Welding Works	each	237	
Final Tamping Works	tm	4,357	
Buffer Stop Installation	set	2	
Railway Sign Post	each	83	

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

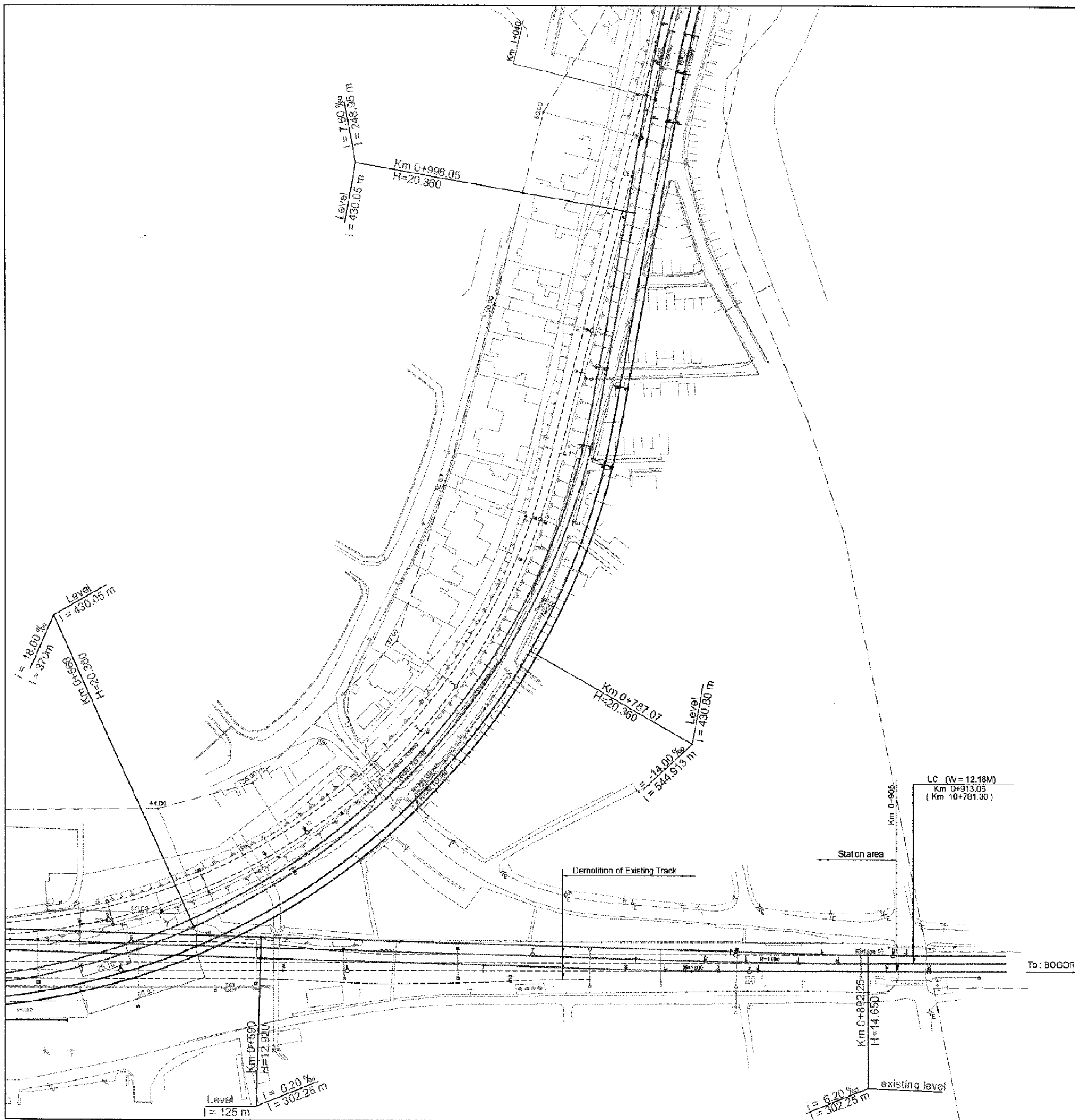
TRACK
TRACK WORKS

DATE -

Drawing Title :

MANGGARAI ST. (2/3)

Scale: 1 : 1000
Drawing No: TR - 01 - 002



The Railway Electrification and Double-double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIREKTORAT JENDERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat, no. 0 Gedung 5a JI.111111-111111-111111-111111
 JAKARTA

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

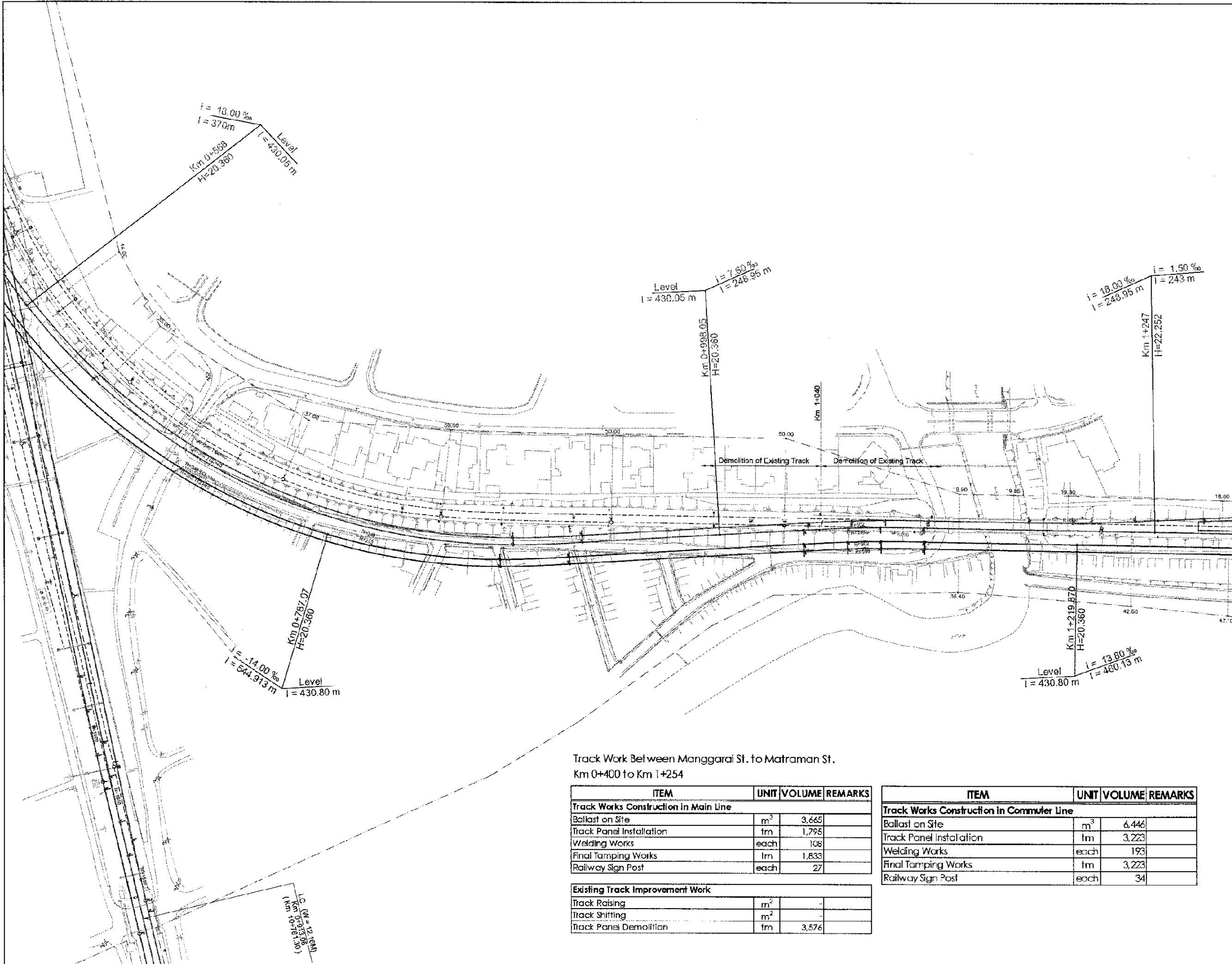
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE -

Drawing Title :
 MANGGARAI ST. (3/3)

Scale: 1 : 1000
 Drawing No. TR - 01 - 003



Track Work Between Manggarai St. to Matraman St.
Km 0+400 to Km 1+254

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	3,665	
Track Panel Installation	tm	1,795	
Welding Works	each	108	
Final Tamping Works	lm	1,833	
Railway Sign Post	each	27	
Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	-	
Track Panel Demolition	tm	3,576	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	6,446	
Track Panel Installation	tm	3,223	
Welding Works	each	193	
Final Tamping Works	lm	3,223	
Railway Sign Post	each	34	

The Railway Electrification and Double - double Tracking of Java Main Line Project



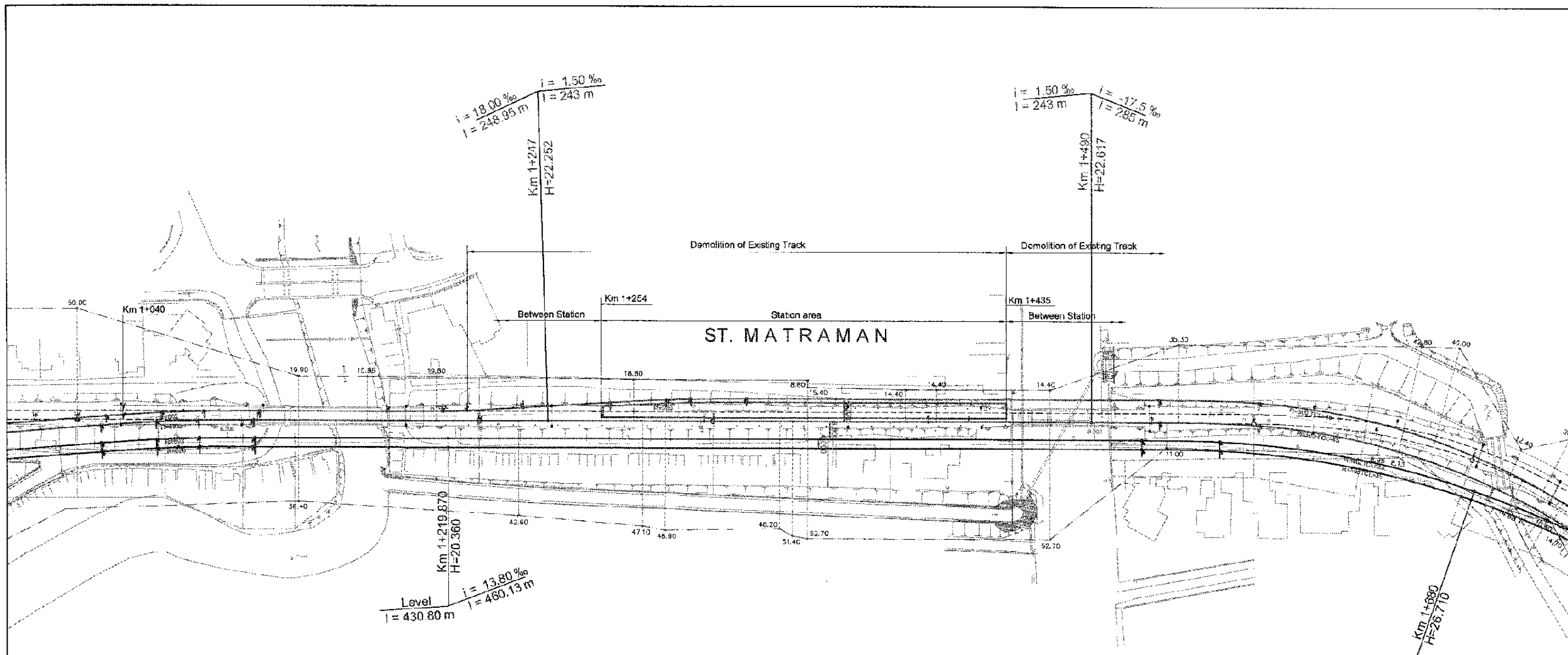
Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS
DATE -

Drawing Title:
Between MANGGARAI ST. to MATRAMAN ST.

Scale: 1 : 1000
Drawing No: TR - 01 - 004



Track Work in Matraman Station
Km 1+254 to Km 1+435

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	724	
Track Panel Installation	tm	362	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	-	
Double Slips Switch Installation # 10	set	-	
Welding Works	each	22	
Final Tamping Works	tm	362	
Buffer Stop Installation	set	-	
Railway Sign Post	each	2	

Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	-	
Track Panel Demolition	tm	362	
Simple Turnout Demolition #8 & #10	set	-	
Scissors Crossing #8 & #10	set	-	
Double Split Switch Demolition #10	set	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	724	
Track Panel Installation	tm	362	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	-	
Double Split Switch Demolition #10	set	-	
Welding Works	each	22	
Final Tamping Works	tm	362	
Buffer Stop Installation	set	-	
Railway Sign Post	each	4	

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENJANG PERHUBUNGAN DAFTAR
DIRECTORATE GENERAL OF LAND CONSTRUCTION
Jalan Medan Merdeka Barat no.8 Gedung Kera R.11 Rp.021-350822-350857
J A K A R T A

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

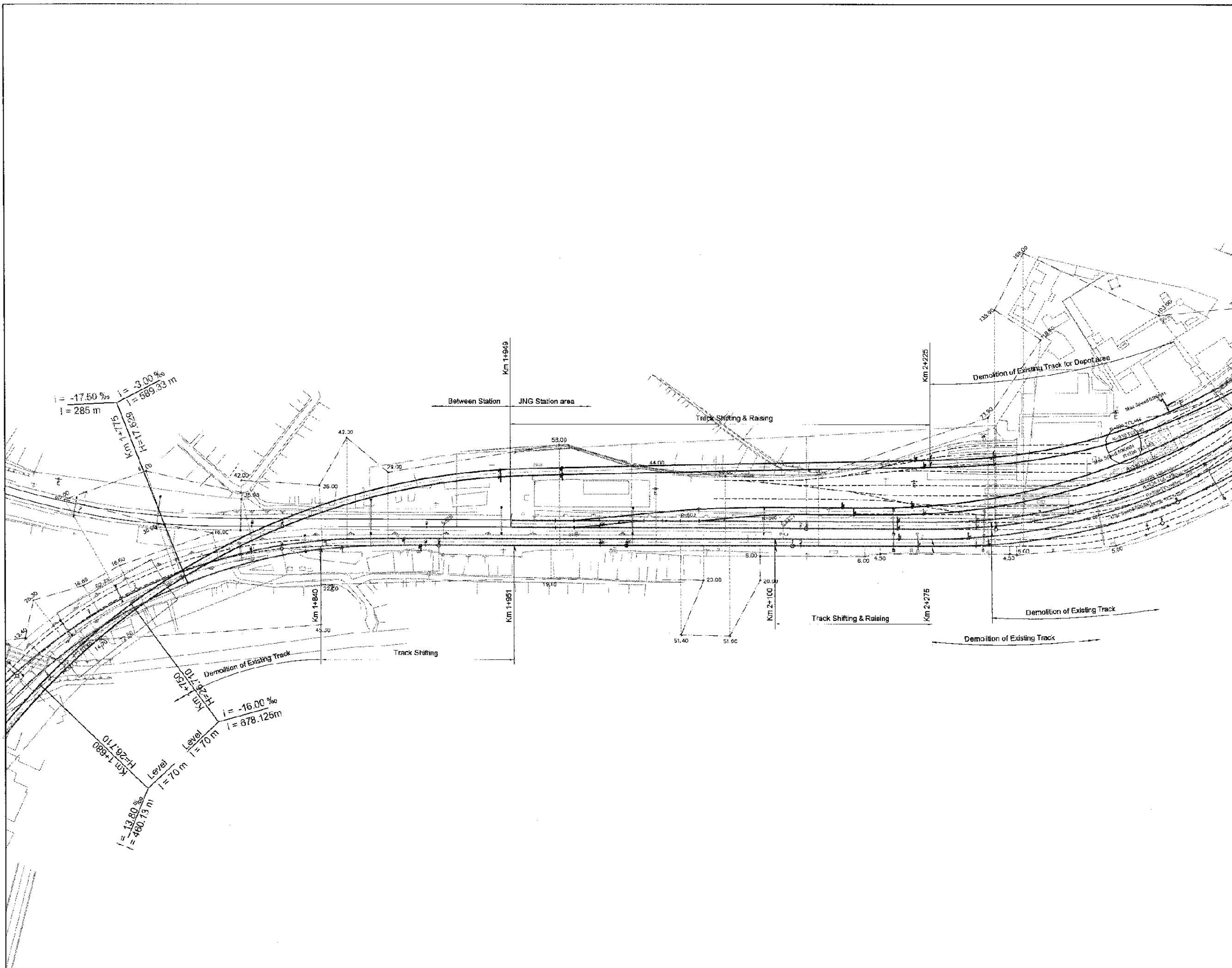
TRACK

TRACK WORKS

DATE -

Drawing Title :
MATRAMAN ST.

Scale: 1 : 1000 Drawing No: TR - 01 - 005



The Railway Electrification and Double-double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN BARAT
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat No. 8 Gedung Layer 8, 111021-350628-350657
 JAKARTA

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
 TRACK WORKS

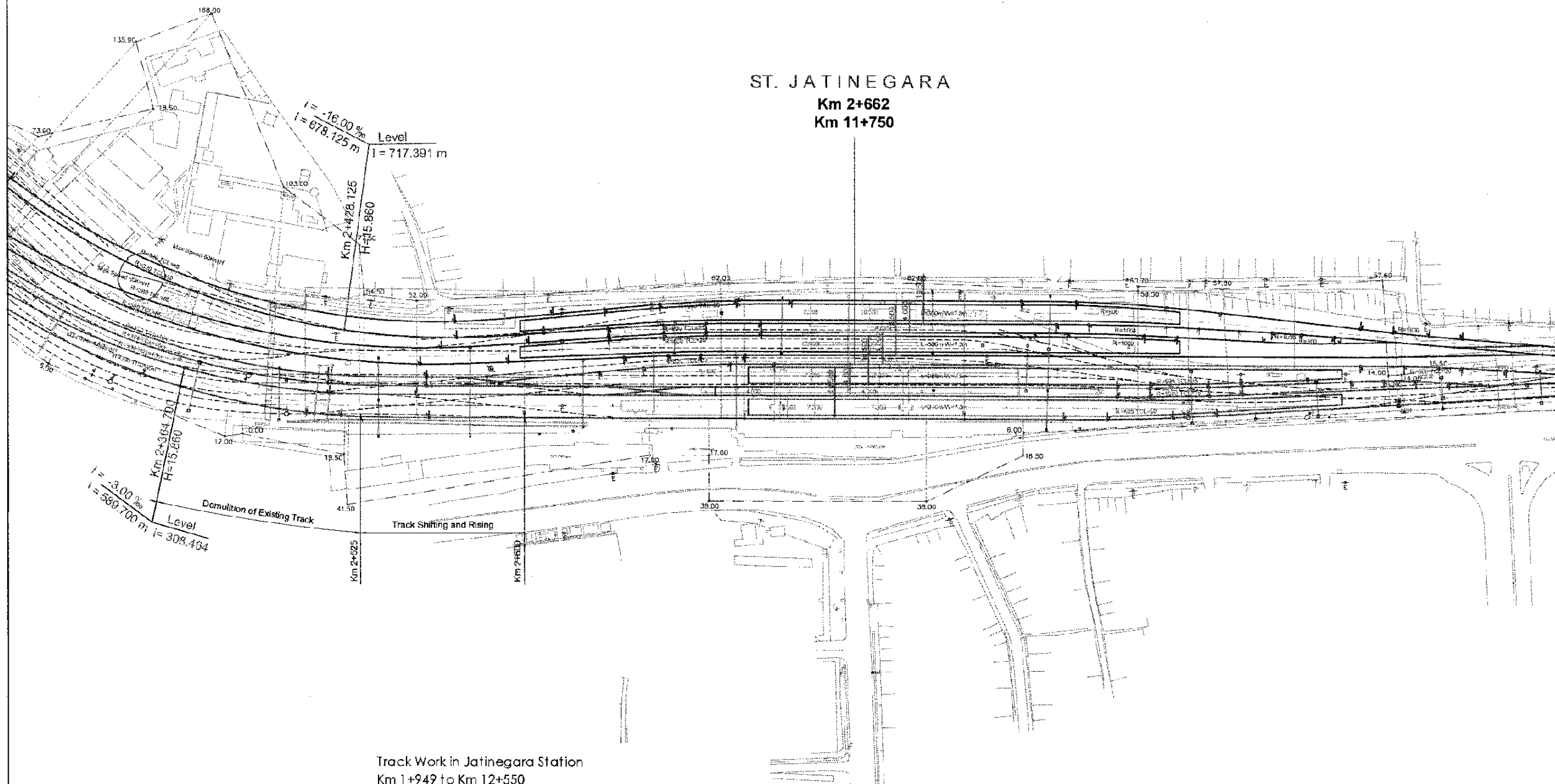
DATE -

Drawing Title :
 JATINEGARA St. (1/3)

Scale: 1 : 1000 Drawing No: TR - 01 - 006

ST. JATINEGARA

Km 2+662
Km 11+750



Track Work in Jatinegara Station
Km 1+949 to Km 12+550

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	6,443	
Track Panel Installation	lm	2,809	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	11	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	-	
Double Slips Switch Installation # 10	set	-	
Welding Works	each	169	
Final Tamping Works	lm	3,222	
Buffer Stop Installation	set	-	
Railway Sign Post	each	64	

ITEM	UNIT	VOLUME	REMARKS
Existing Track Improvement Work			
Track Raising	m ²	123.2	
Track Shifting	m ²	1,034.6	
Track Panel Demolition	lm	5,382	
Simple Turnout Demolition #8 & #10	set	20	
Scissors Crossing #8 & #10	set	3	
Double Split Switch Demolition #10	set	6	
Buffer Stop Demolition	set	15	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	7,843	
Track Panel Installation	lm	2,446	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	9	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	2	
Double Split Switch Demolition #10	set	-	
Welding Works	each	147	
Final Tamping Works	lm	5,334	
Buffer Stop Installation	set	-	
Railway Sign Post	each	63	

ITEM	UNIT	VOLUME	REMARKS
Temporary Track Works			
Level Crossing			
Level Crossing Type A	m ²	-	
Level Crossing Type B	m ²	-	

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
DEPARTMENT GENERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat no.8 Gedung Karya II.11 Rp.021 - 2509228 - 2000337
J A K A R T A

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.

The copyright of this drawing rests with JICA.

Designed by:

Japan International Cooperation Agency (JICA)

JICA Study Team:

Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK

TRACK WORKS

DATE

Drawing Title :

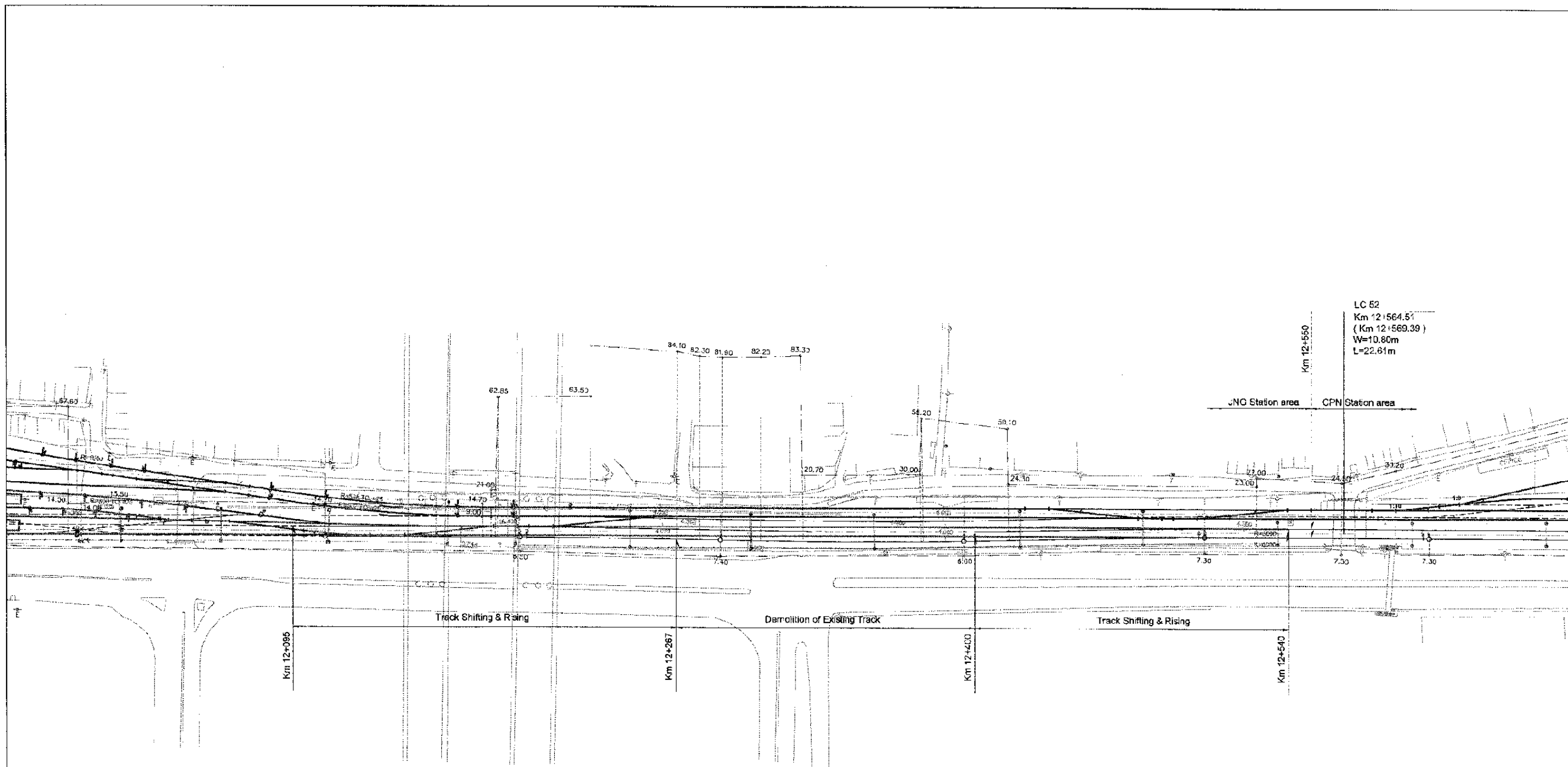
JATINEGARA ST. (2/3)

Scale:

1 : 1000

Drawing No.

TR - 01 - 007



The Railway Electrification and Double-double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat No. 8 Gedung Kiri Lt. II (0-021-3006326-3006327)
 JAKARTA

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

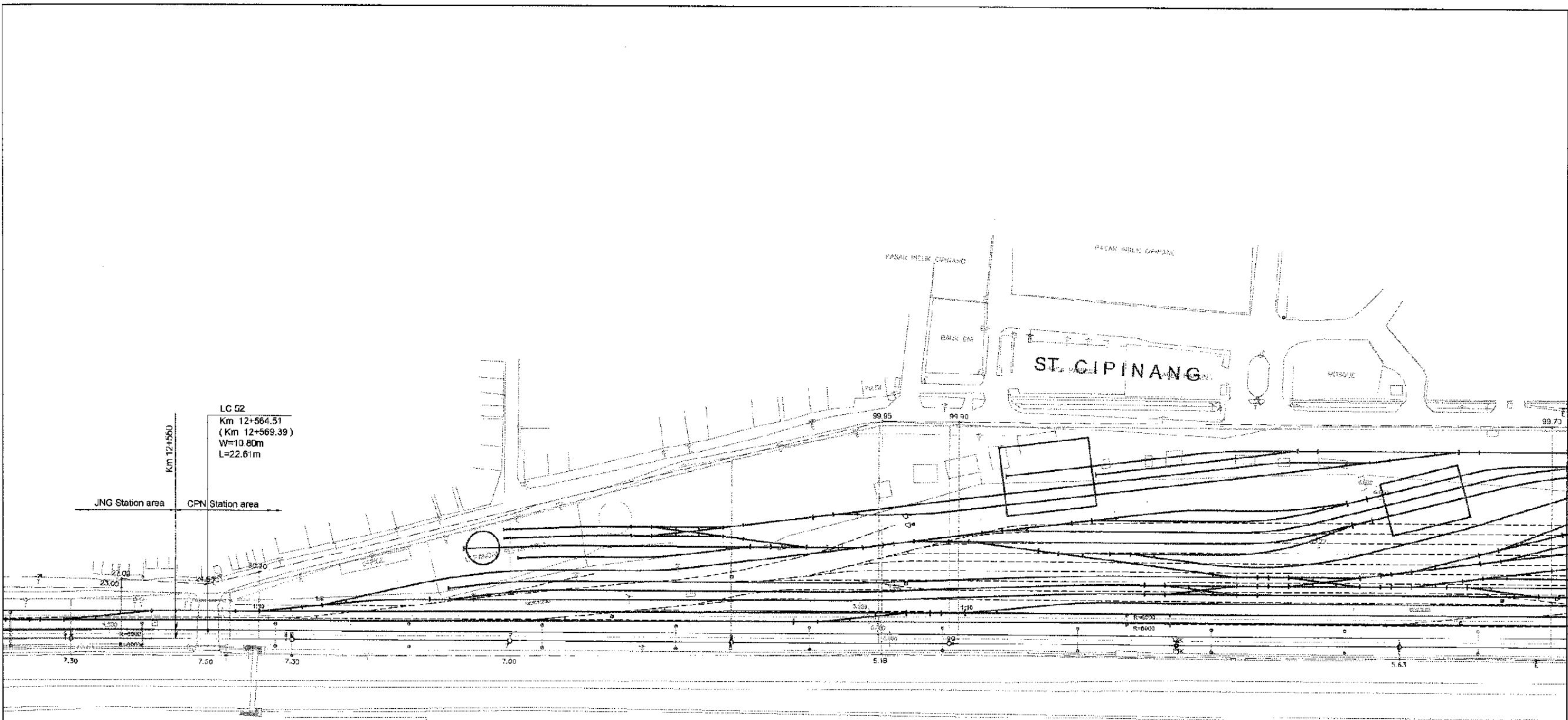
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS

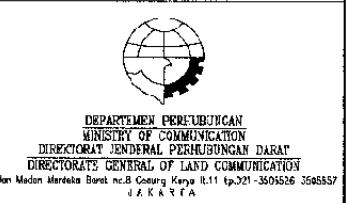
DATE

Drawing Title :
 JATINEGARA St. (3/3)

Scale: 1 : 1000 Drawing No: TR - 01 - 008



The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study team.
 The copyright of this drawing rests with JICA

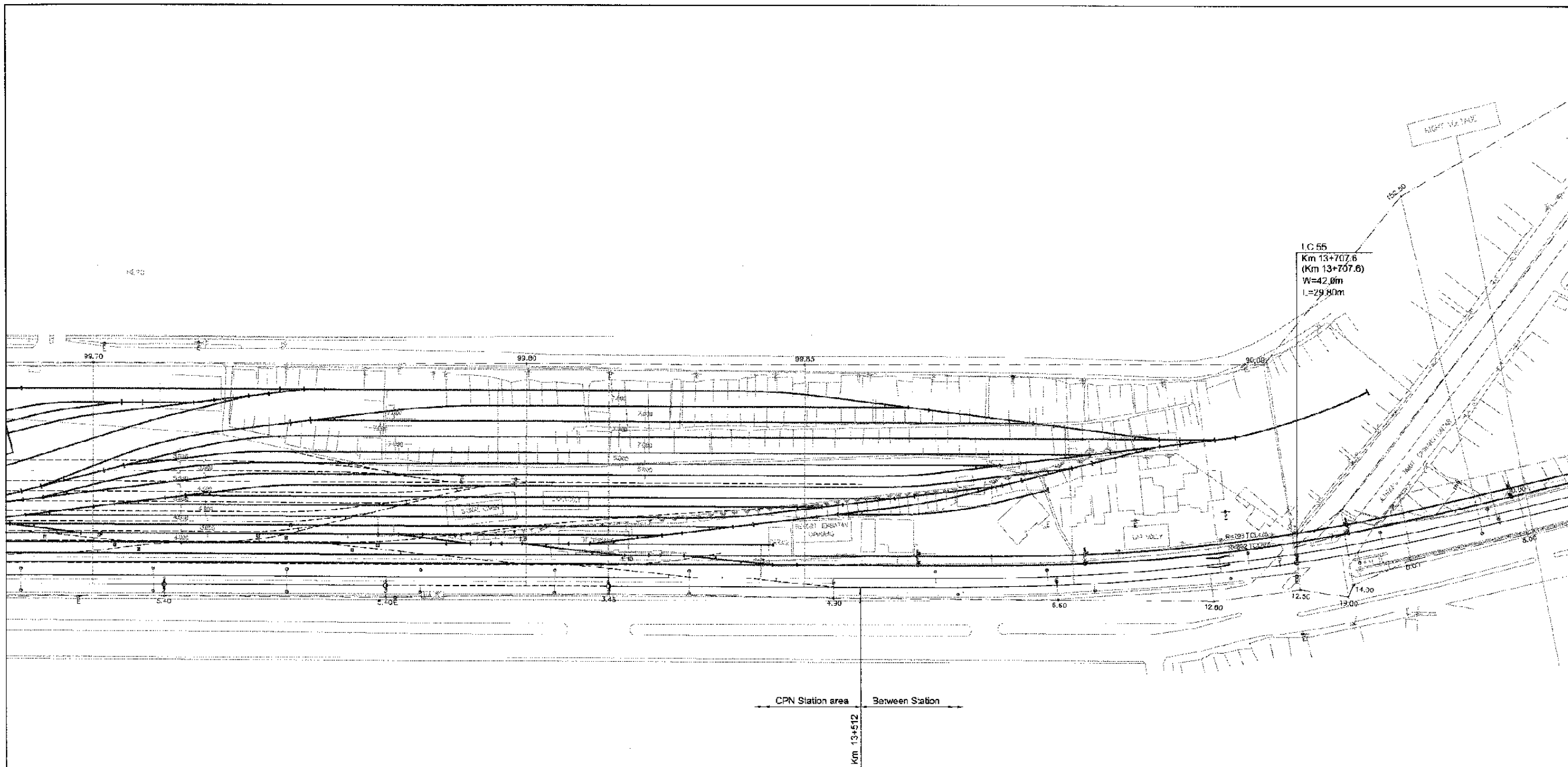
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE -

Drawing Title :
 CIPINANG ST. (1/2)

Scale: 1 : 1000
 Drawing No: TR - 01 - 009



ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	4,023	
Track Panel Installation	tm	1,749	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	7	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Slip Switch Installation # 10	set	-	
Welding Works	each	105	
Final Tamping Works	tm	2,012	
Buffer Stop Installation	set	-	
Railway Sign Post	each	22	

ITEM	UNIT	VOLUME	REMARKS
Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	-	
Track Panel Demolition	tm	15	
Cipinang Yard	tm	6,032	
Simple Turnout Demolition #8 & #10	set	3	
Cipinang Yard	set	35	
Scissors Crossing #8 & #10	set	-	
Double Slip Switch Demolition #10	set	-	
Buffer Stop Demolition in Yard	each	7	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	375	
Track Panel Installation	tm	75	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Slip Switch Demolition #10	set	-	
Welding Works	each	5	
Final Tamping Works	tm	75	
Buffer Stop Installation	set	-	
Railway Sign Post	each	11	

ITEM	UNIT	VOLUME	REMARKS
Temporary Track Works			
Level Crossing			
Level Crossing Type A	m ²	244,188	
Level Crossing Type B	m ²	-	

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
DIRECTORATE GENERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat no.8 Gedung Kerya Lt.11 Telp.321-350326-350557
J A K A R T A

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK

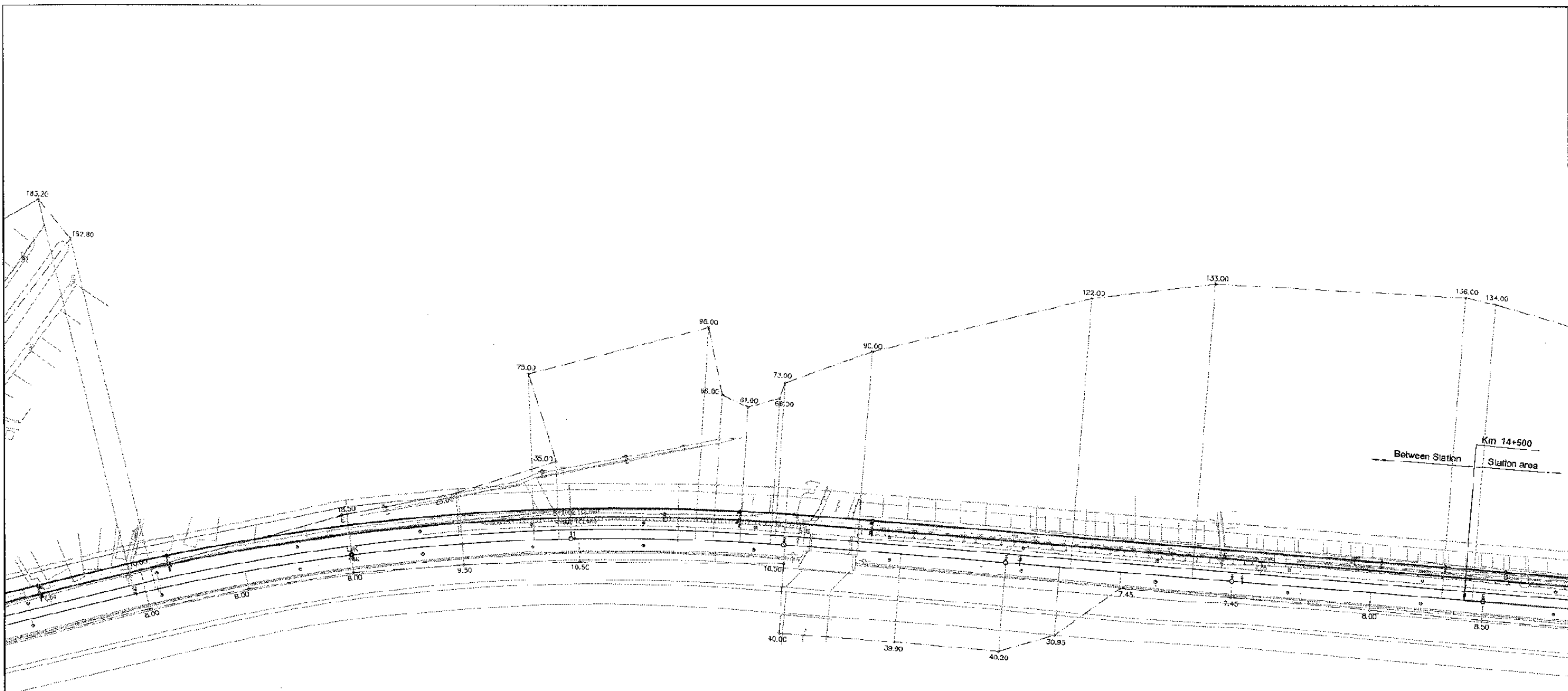
TRACK WORKS

DATE

Drawing Title :

CIPINANG ST. (2/2)

Scale: 1 : 1000 Drawing No: TR - 01 - 010



Track Work Between Cipinang St. to Klender St.
Km 13+512 to Km 14+500

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	3,952	
Track Panel Installation	tm	1,976	
Welding Works	each	119	
Final Tamping Works	tm	1,976	
Railway Sign Post	each	25	

Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	-	
Track Panel Demolition	tm	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	-	
Track Panel Installation	tm	-	
Welding Works	each	-	
Final Tamping Works	tm	-	
Railway Sign Post	each	11	

Temporary Track Works	ls	-	
Level Crossing			
Level Crossing Type A	m ²	1,251.6	
Level Crossing Type B	m ²	-	

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

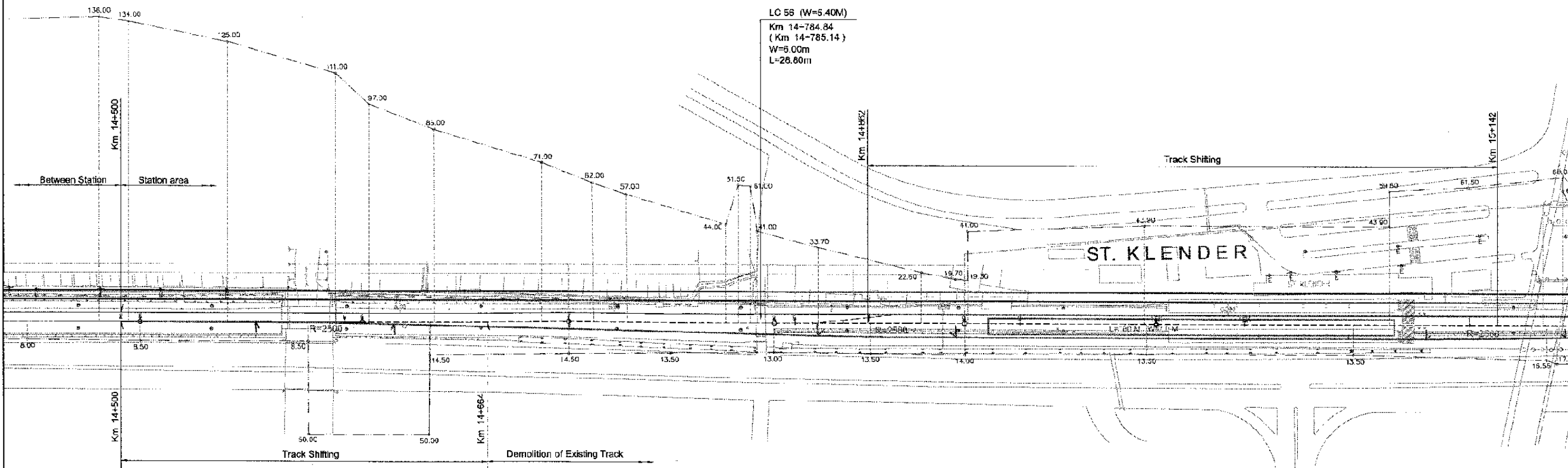
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS

DATE -

Drawing Title :
Between CIPINANG ST.
to KLENDER ST.

Scale: 1 : 1000
Drawing No: TR - 01 - 011



Track Work in Klender Station
Km 14+500 to Km 15+406

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	3,624	
Track Panel Installation	tm	1,812	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	-	
Double Slips Switch Installation # 10	set	-	
Diamond Crossing	set	-	
Welding Works	each	109	
Final Tamping Works	tm	1,812	
Buffer Stop Installation	set	-	
Railway Sign Post	each	12	

Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	202.4	
Track Panel Demolition	tm	593	
Simple Turnout Demolition #8 & #10	set	4	
Scissors Crossing #8 & #10	set	-	
Double Split Switch Demolition #10	set	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	1,386	
Track Panel Installation	tm	693	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	-	
Double Split Switch Demolition #10	set	-	
Diamond Crossing	set	-	
Welding Works	each	42	
Final Tamping Works	tm	1,366	
Buffer Stop Installation	set	-	
Railway Sign Post	each	30	

Temporary Track Works	ls	-	
Level Crossing			
Level Crossing Type A	m ²	172,80	
Level Crossing Type B	m ²	-	

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
DIRECTORATE GENERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat no.8 Gedung Rupa R.11 Rp.021-3503574-3503577
J.A.S.T.A

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

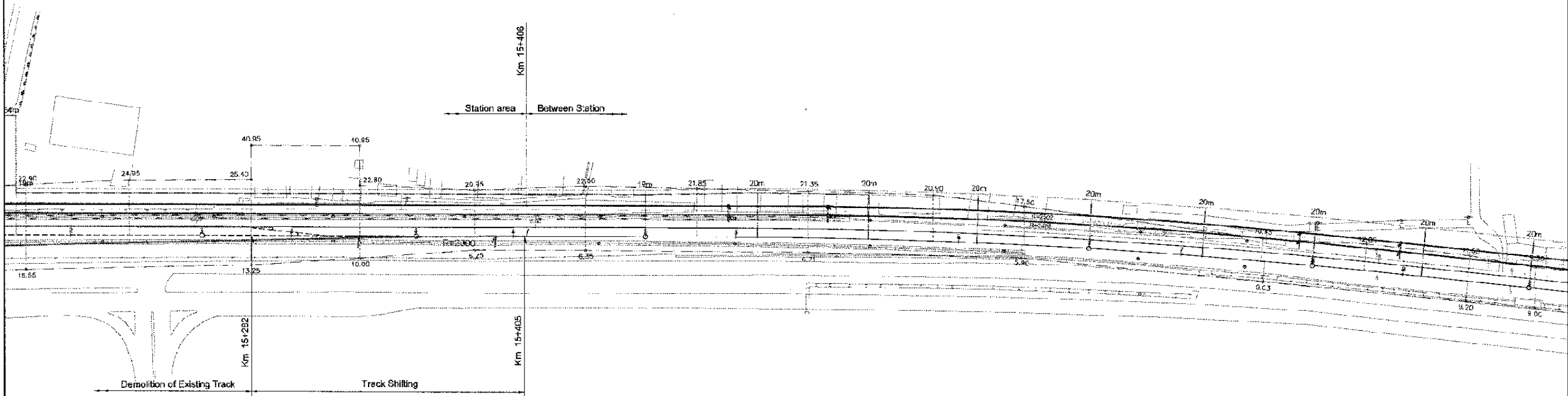
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK
TRACK WORKS

DATE

Drawing Title :
KLENDER ST. (1/2)

Scale: 1 : 1000
Drawing No: TR - 01 - 012



The Railway Electrification and Double-double Tracking of Java Main Line Project



Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

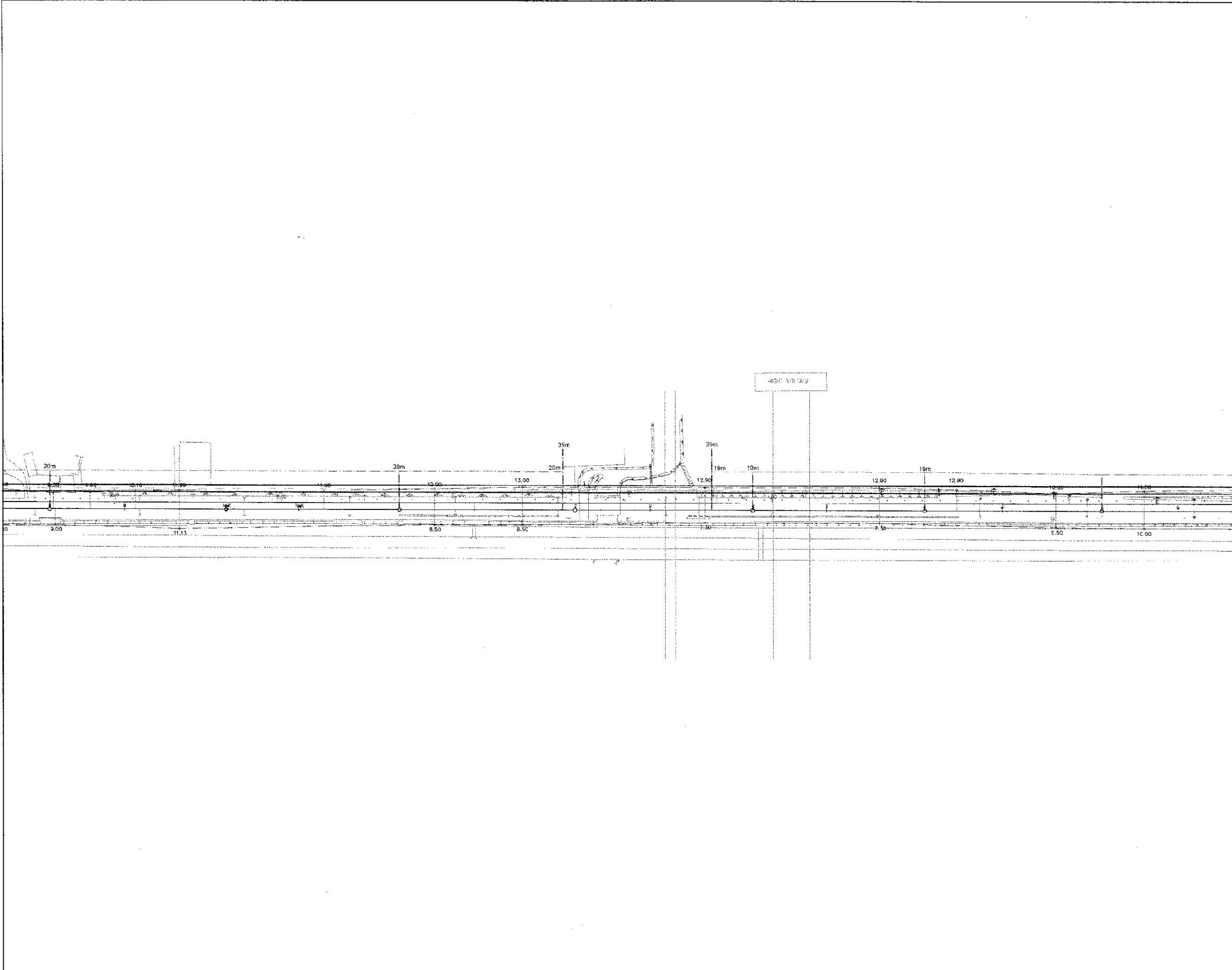
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE

Drawing Title :
 KLENDER ST. (2/2)

Scale: 1:1000
 Drawing No: TR-01-013



The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENJAL PENERUSAN LUKAS
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat no.8 Gedung Kiri Lt.11 Rp.021-339507-339557
 J A K A R T A

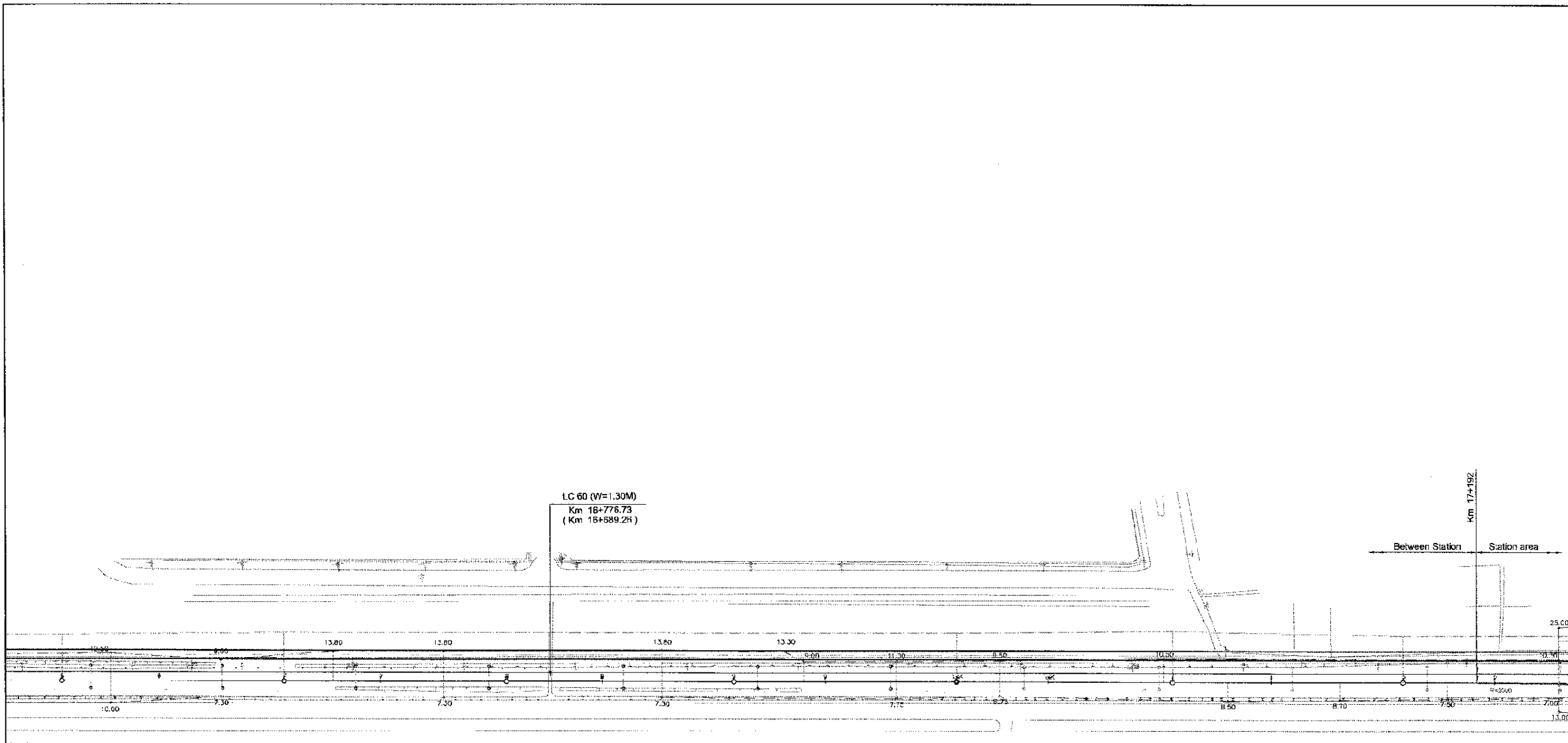
Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS
 DATE -

Drawing Title :
 Between KLENDER ST.
 to BUARAN ST. (1/2)

Scale: 1 : 1000
 Drawing No: TR - 01 - 014



The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS
DATE -

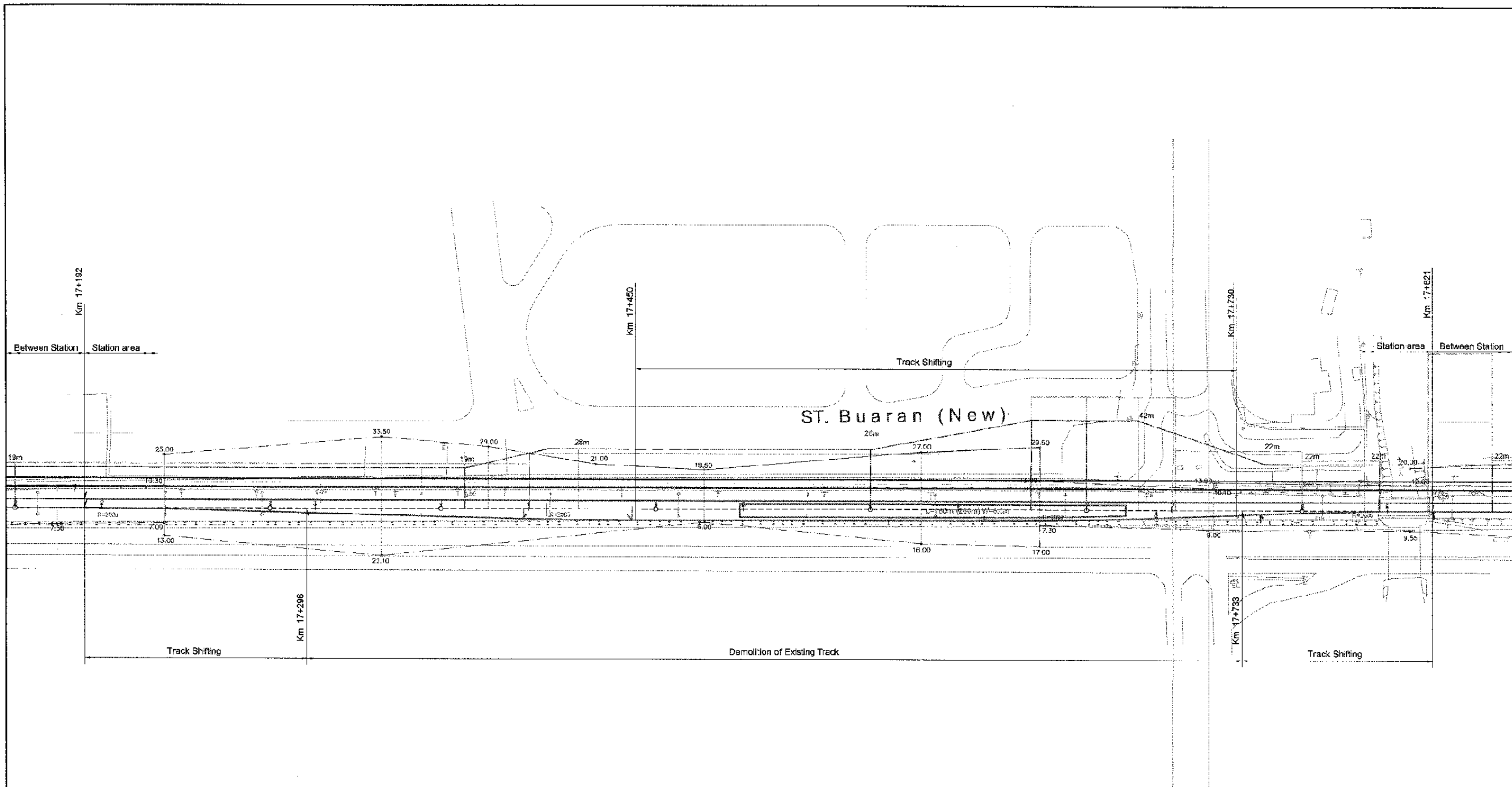
Drawing Title :
Between KLENDER ST.
to BUARAN ST. (2/2)

Scale: 1 : 1000 Drawing No: TR - C1 - 015

Track Work Between Klender St. to Buaran St.
Km 15+406 to Km 17+192

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	7,144	
Track Panel Installation	tm	3,572	
Welding Works	each	214	
Final Tamping Works	tm	3,572	
Railway Sign Post	each	31	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	-	
Track Panel Installation	tm	-	
Welding Works	each	-	
Final Tamping Works	tm	-	
Railway Sign Post	each	17	



The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Track Work in Buaran Station
Km 17+192 to Km 17+821

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	2,514	
Track Panel Installation	fm	1,258	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Slip Switch Installation # 10	set	-	
Welding Works	each	75	
Final Tamping Works	fm	1,258	
Buffer Stop installation	set	-	
Railway Sign Post	each	11	

Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	199.3	
Track Panel Demolition	fm	437	
Simple Turnout Demolition #8 & #10	set	-	
Scissors Crossing #8 & #10	set	-	
Double Split Switch Demolition #10	set	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	959	
Track Panel Installation	fm	437	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Split Switch Demolition #10	set	-	
Welding Works	each	26	
Final Tamping Works	fm	1,258	
Buffer Stop Installation	set	-	
Railway Sign Post	each	25	

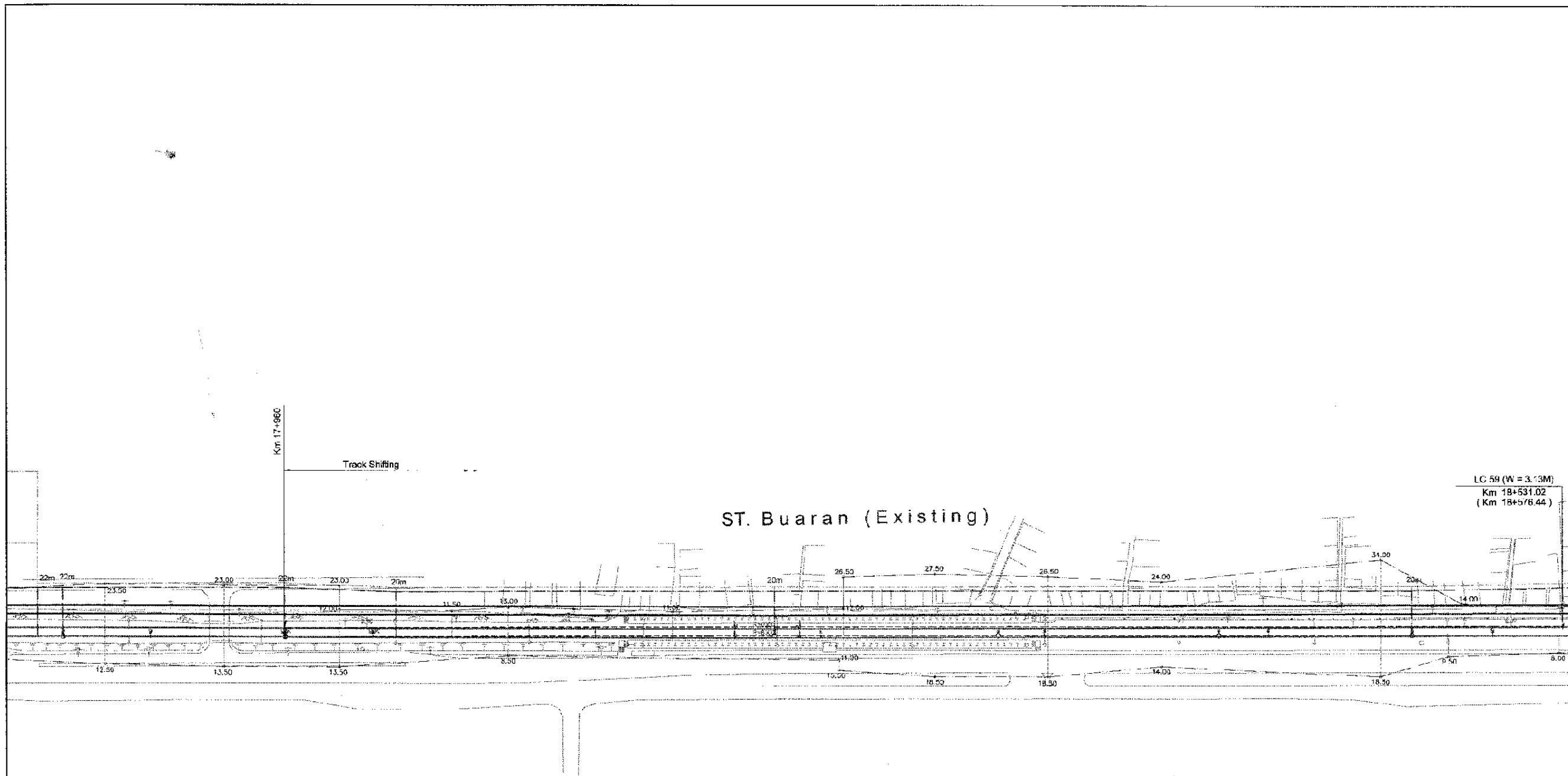
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS

DATE

Drawing Title :
BUARAN ST.

Scale: 1 : 1000
Drawing No: TR - 01 - 016



The Railway Electrification and
Double - double Tracking of
Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
DIREKTORAT GENERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat no.8 Gedung Koro RI 1110021 - 354526 - 355557
J A K A R T A

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

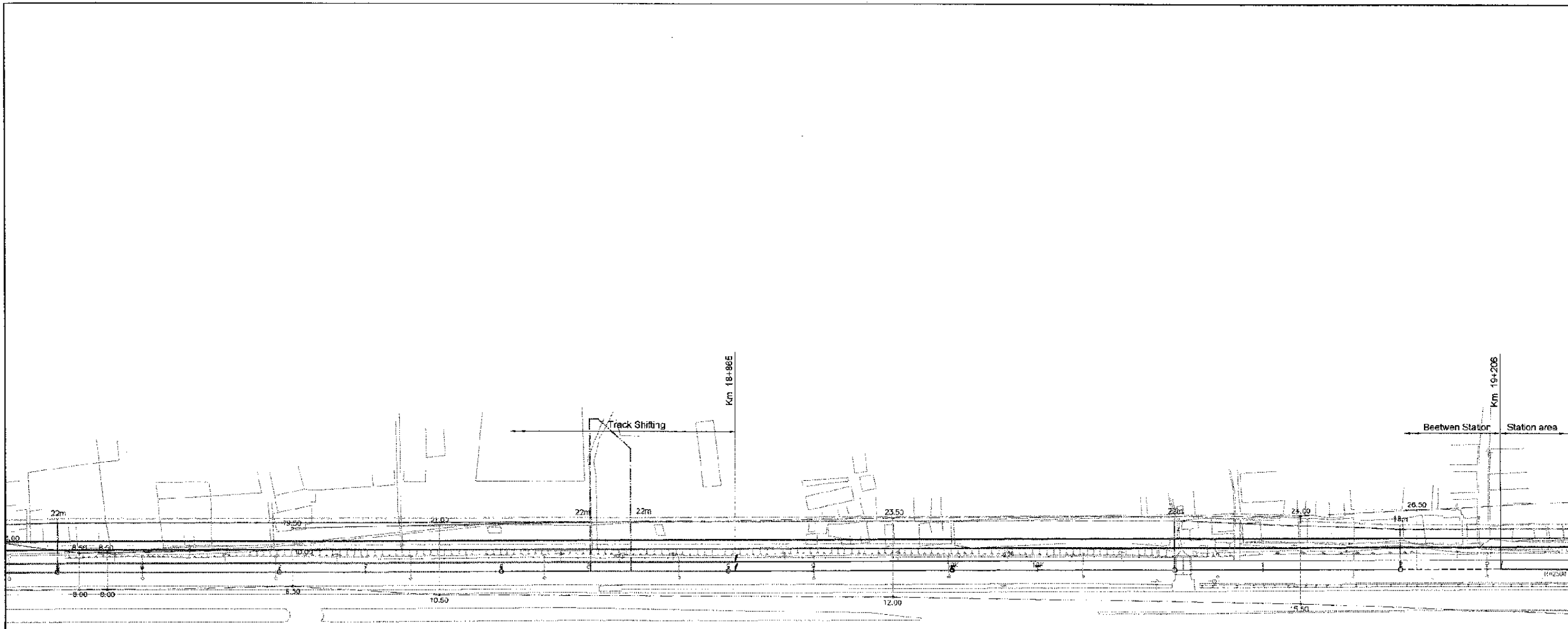
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK
TRACK WORKS

DATE -

Drawing Title :
Between BUARAN ST.
to KLENDER BARU ST. (1/2)

Scale: 1 : 1000
Drawing No: TR - 01 - 017



Track Work Between Buaran St. to Klender Baru St.
Km 17+821 to Km 19+206

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	5,542	
Track Panel Installation	tm	2,770	
Welding Works	each	166	
Final Tamping Works	tm	2,770	
Railway sign Post	set	20	
Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	847.9	
Track Panel Demolition	lm	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	360	
Track Panel Installation	tm	-	
Welding Works	each	-	
Final Tamping Works	tm	2,088	
Railway Sign Post	each	28	

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

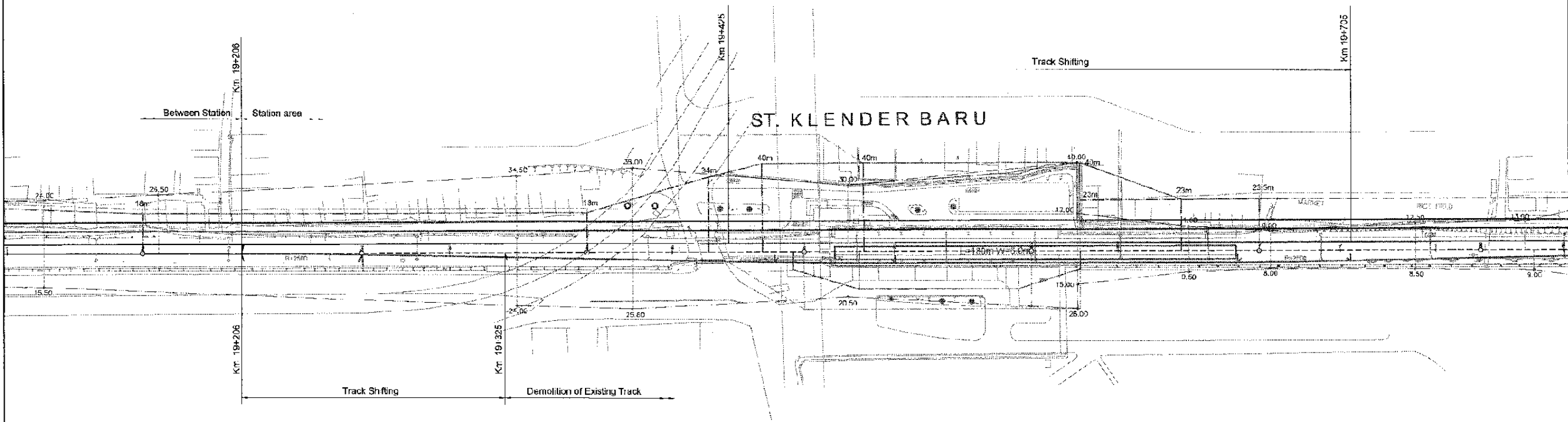
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK
TRACK WORKS

DATE -

Drawing Title :
Between BUARAN ST.
to KLENDER BARU ST. (2/2)

Scale: 1 : 1000
Drawing No: TR - 01 - 018



Track Work in Klander Baru Station
Km 19+206 to Km 19+986

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	3,120	
Track Panel Installation	tm	1,560	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Slips Switch Installation # 10	set	-	
Welding Works	each	94	
Final Tamping Works	tm	1,560	
Buffer Stop Installation	set	-	
Railway Sign Post	each	14	
Existing Track Improvement Work			
Track Raising	m ²	-	
Track Shifting	m ²	256.5	
Track Panel Demolition	tm	509	
Simple Turnout Demolition #8 & #10	set	-	
Scissors Crossing #8 & #10	set	-	
Double Split Switch Demolition #10	set	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	1,127	
Track Panel Installation	tm	509	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Split Switch Demolition #10	set	-	
Welding Works	each	31	
Final Tamping Works	tm	1,112	
Buffer Stop Installation	set	-	
Railway Sign Post	each	24	
Temporary Track Works			
Level Crossing	is	-	
Level Crossing Type A	m ²	-	
Level Crossing Type B	m ²	-	

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

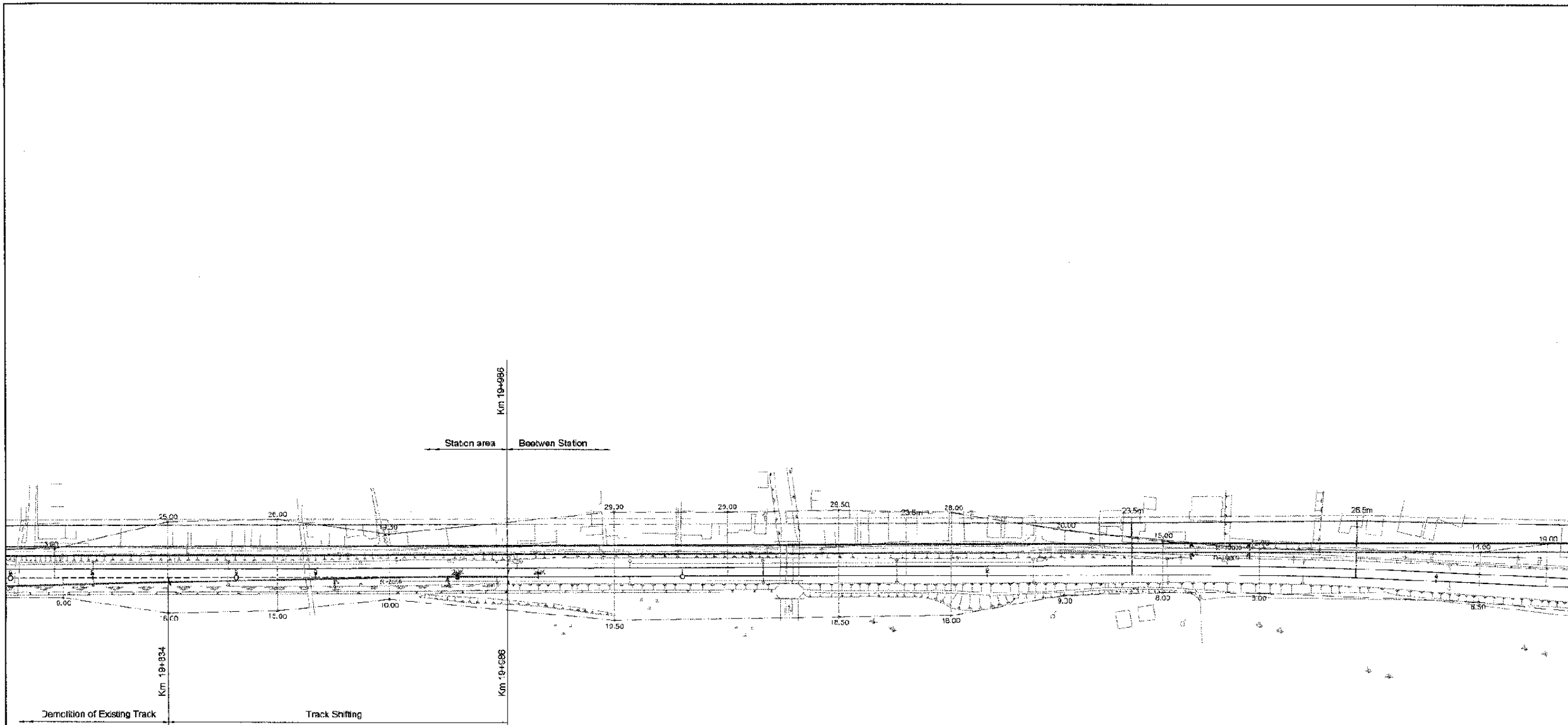
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS

DATE -

Drawing Title :
KLENDER BARU ST. (1/2)

Scale: 1 : 1000
Drawing No: TR - 01 - 019



The Railway Electrification and Double-double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat no.8 Gedung Raya 11111 10111 3506525 3506517
 J A K A R T A

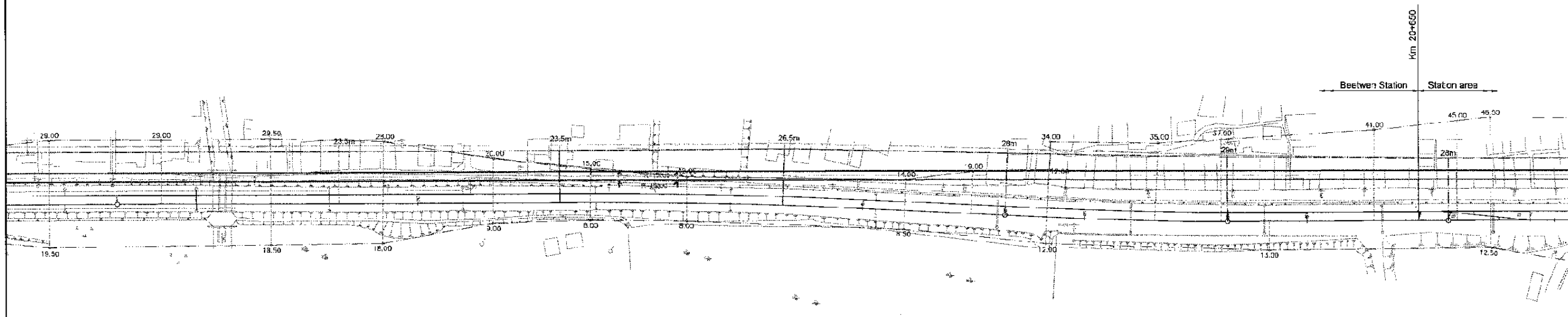
Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS
 DATE -

Drawing title :
 KLENDER BARU ST. (2/2)

Scale: 1 : 1000
 Drawing No: TR - 01 - 020



Track Work Between Kiender Baru St. to Cakung St.
Km 19+986 to Km 20+650

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	2,656	
Track Panel Installation	tm	1,328	
Welding Works	each	80	
Final Tamping Works	tm	1,328	
Railway Sign Post	each	15	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	-	
Track Panel Installation	tm	-	
Welding Works	each	-	
Final Tamping Works	tm	-	
Railway Sign Post	each	7	

The Railway Electrification and Double-double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

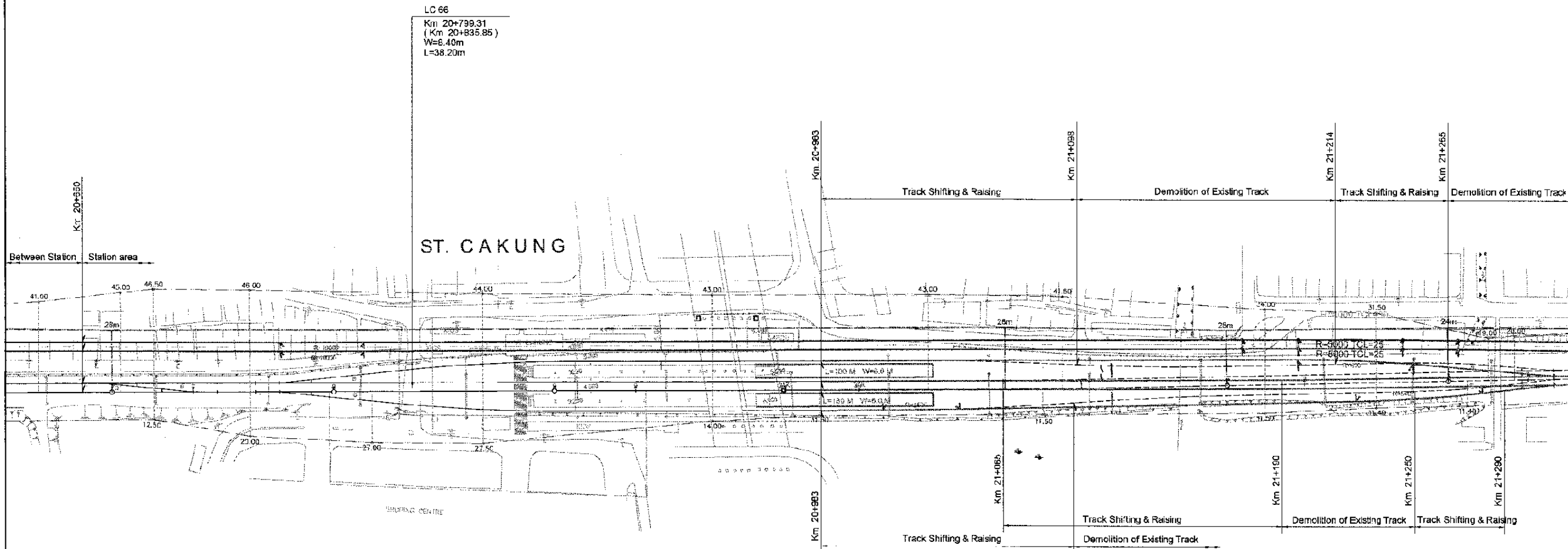
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK
TRACK WORKS

DATE: -

Drawing Title:
Beetwen KLENDER BARU ST.
to CAKUNG ST.

Scale: 1:1000
Drawing No: TR-C1-021



Track Work In Cakung Station
Km 20+650 to Km 21+600

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	3,800	
Track Panel Installation	tm	1,900	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	-	
Double Slips Switch Installation # 10	set	-	
Welding Works	each	114	
Final Tamping Works	tm	1,900	
Buffer Stop Installation	set	-	
Railway Sign Post	each	29	

Existing Track Improvement Work			
Track Raising	m ²	134	
Track Shifting	m ²	1,195.3	
Track Panel Demolition	tm	629	
Simple Turnout Demolition #8 & #10	set	4	
Scissors Crossing #8 & #10	set	-	
Double Split Switch Demolition #10	set	-	
Buffer Stop Demolition	each	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	1,558	
Track Panel Installation	tm	629	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	4	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	-	
Double Split Switch Demolition #10	set	-	
Welding Works	each	38	
Final Tamping Works	tm	1,912	
Buffer Stop Installation	set	-	
Railway Sign Post	each	27	

Temporary Track Works			
Level Crossing			
Level Crossing Type A	m ²	320.88	
Level Crossing Type B	m ²	-	

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

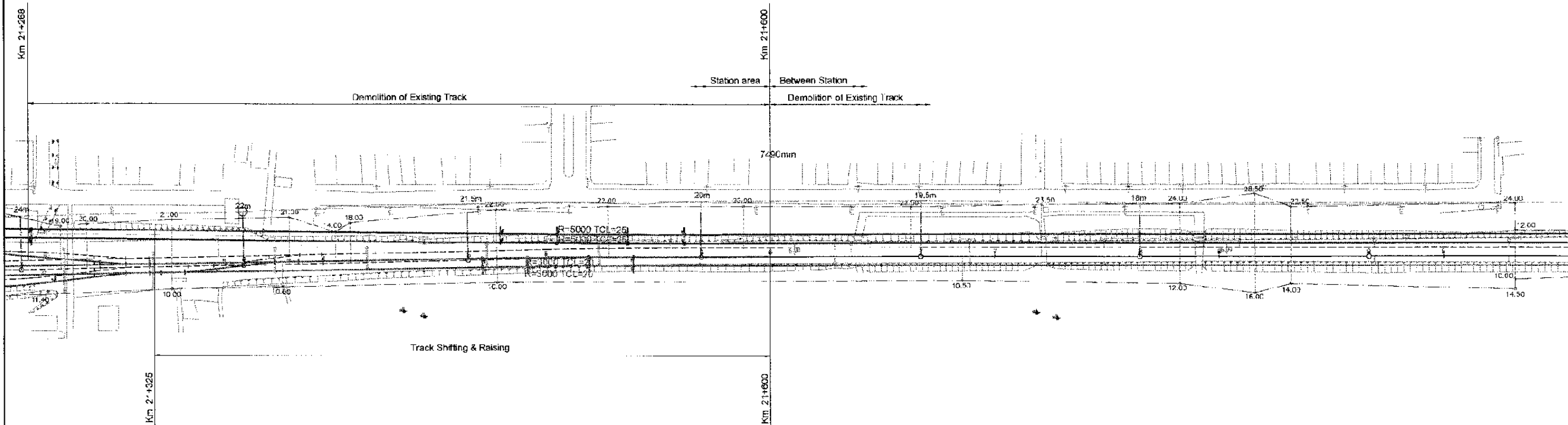
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK
TRACK WORKS

DATE

Drawing Title :
CAKUNG ST. (1/2)

Scale: 1 : 1000
Drawing No. TR - 01 - 022



The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DASAR
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Malar Mendaka Barat no 5 Gedung Raya P.11 Ng.021-350525-350557
 J A K A R T A

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

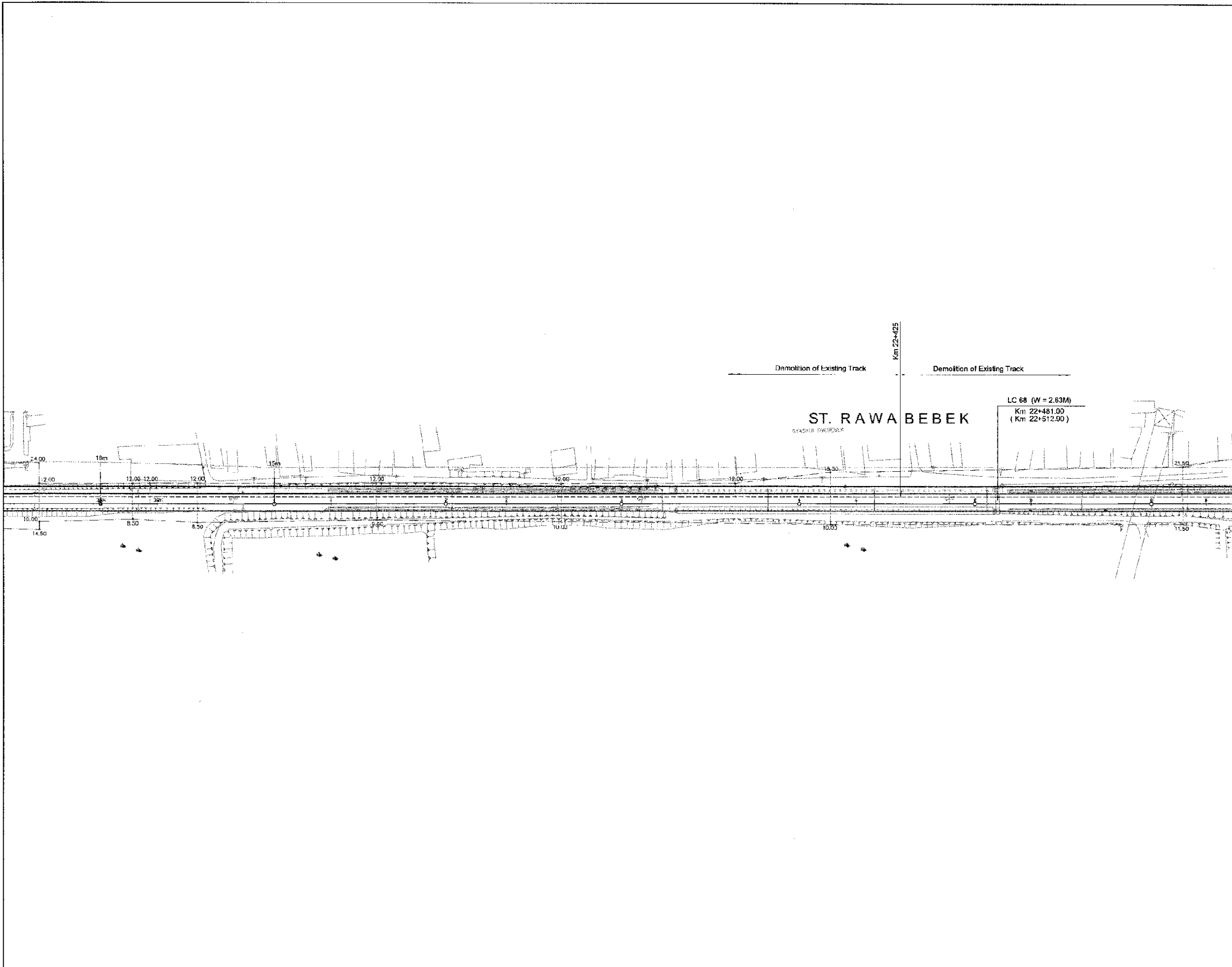
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE -

Drawing Title :
 CAKUNG ST. (2/2)

Scale: 1 : 2000
 Drawing No: TR - 01 - 023



The Railway Electrification and Double - double tracking of Java Main Line Project



Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and a JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

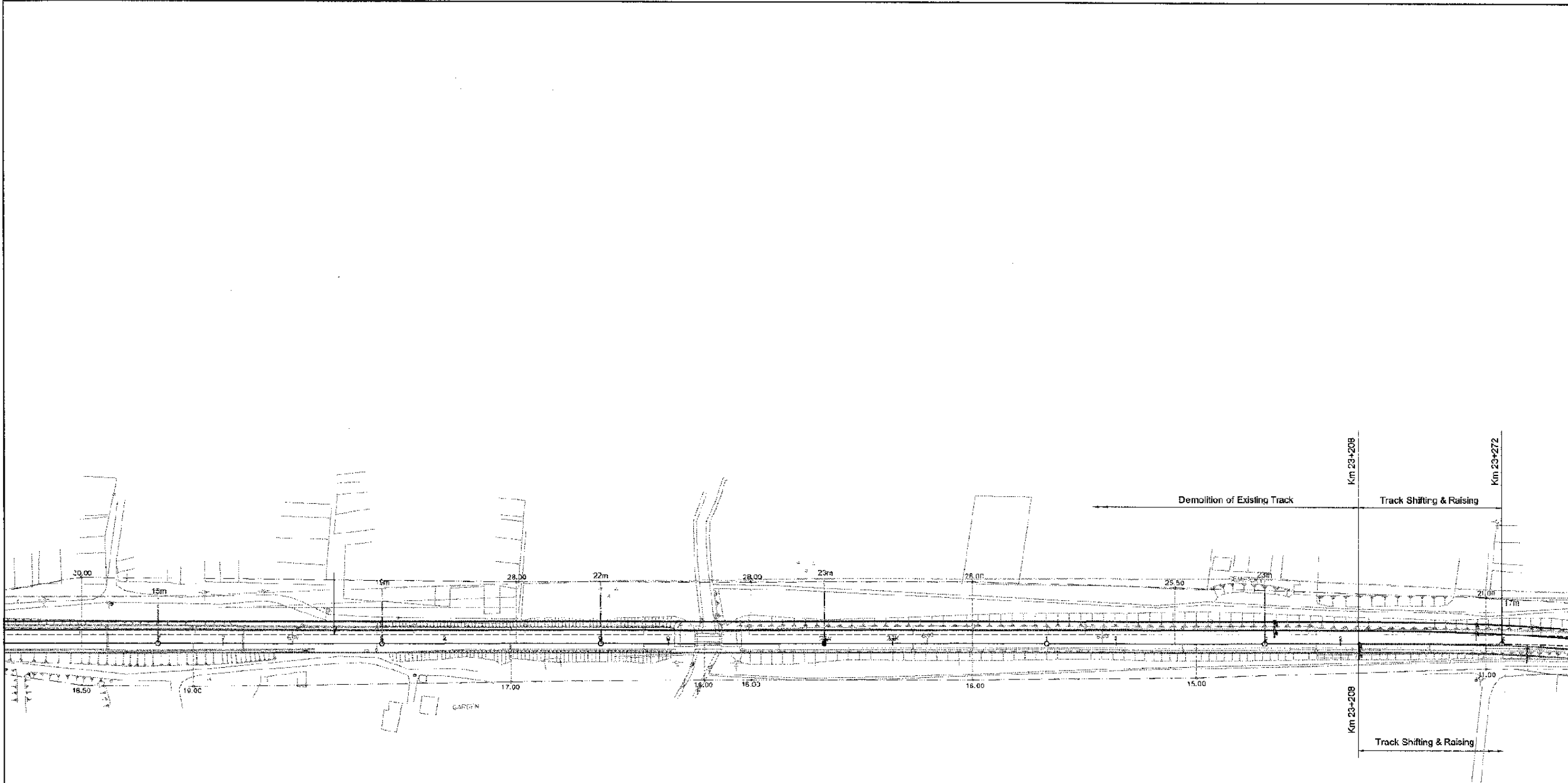
TRACK

TRACK WORKS

DATE -

Drawing Title :
 Between CAKUNG ST.
 to KRANJI ST. (1/3)

Scale: 1 : 1000
 Drawing No: TR - 01 - 024



The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIREKTORAT JENDERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat No. 8 Gedung Kera RI 11 10110-3506226-3333027
 JAKARTA

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

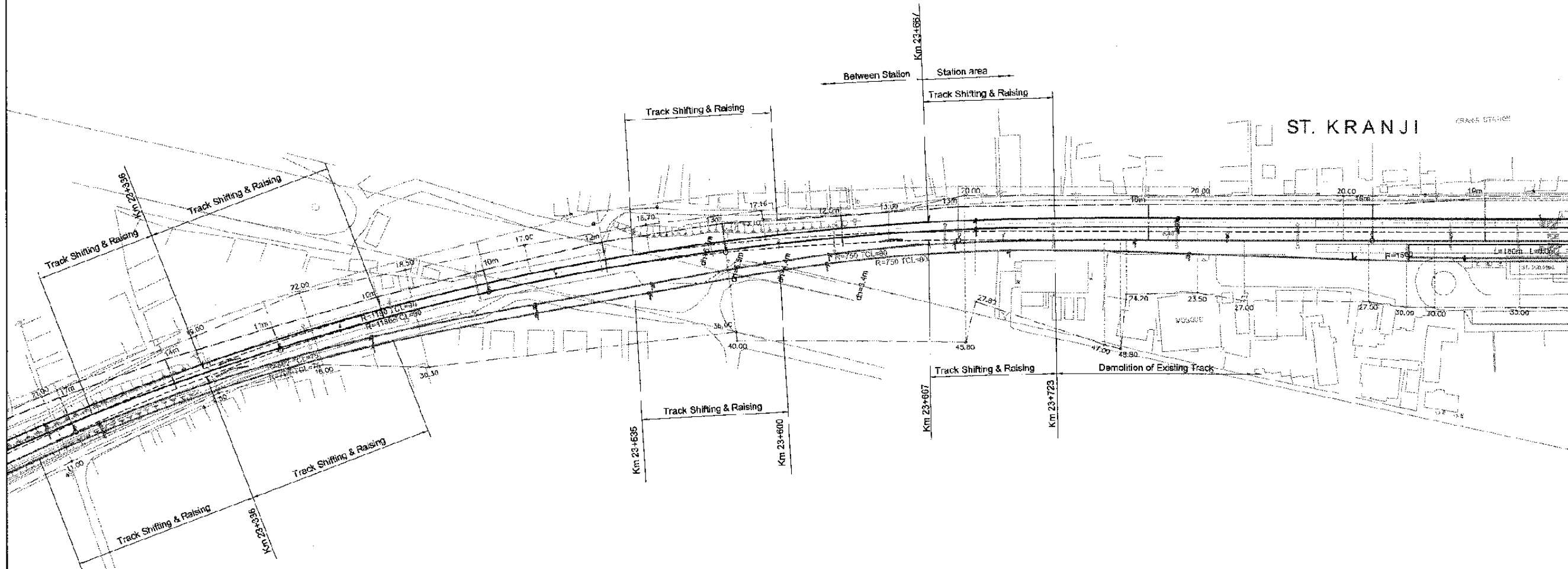
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE -

Drawing Title :
 Between CAKUNG ST.
 to KRANJI ST. (2/3)

Scale: 1 : 1000
 Drawing No. TR - 01 - 025



Track Work Between Cakung St. to Kranji St.
Km 21+600 to Km 23+667

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	4,256	
Track Panel Installation	tm	2,128	
Welding Works	each	128	
Final Tamping Works	tm	2,128	
Railway Sign Post	each	32	
Existing Track Improvement Work			
Track Raising	m ²	138.82	
Track Shifting	m ²	105.51	
Track Panel Demolition	tm	743	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	5,498	
Track Panel Installation	tm	2,749	
Welding Works	each	165	
Final Tamping Works	tm	4,134	
Railway Sign Post	each	36	

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
DIREKTORAT CENTRAL PEKERJAAN DAN KONSTRUKSI
Jalan Medan Merdeka Barat no.8 Gedung Korpri Lt. 11 Jakarta-1508226-300557
T A K A R I A

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.

The copyright of this drawing rests with JICA.

Designed by:

Japan International Cooperation Agency (JICA)

JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

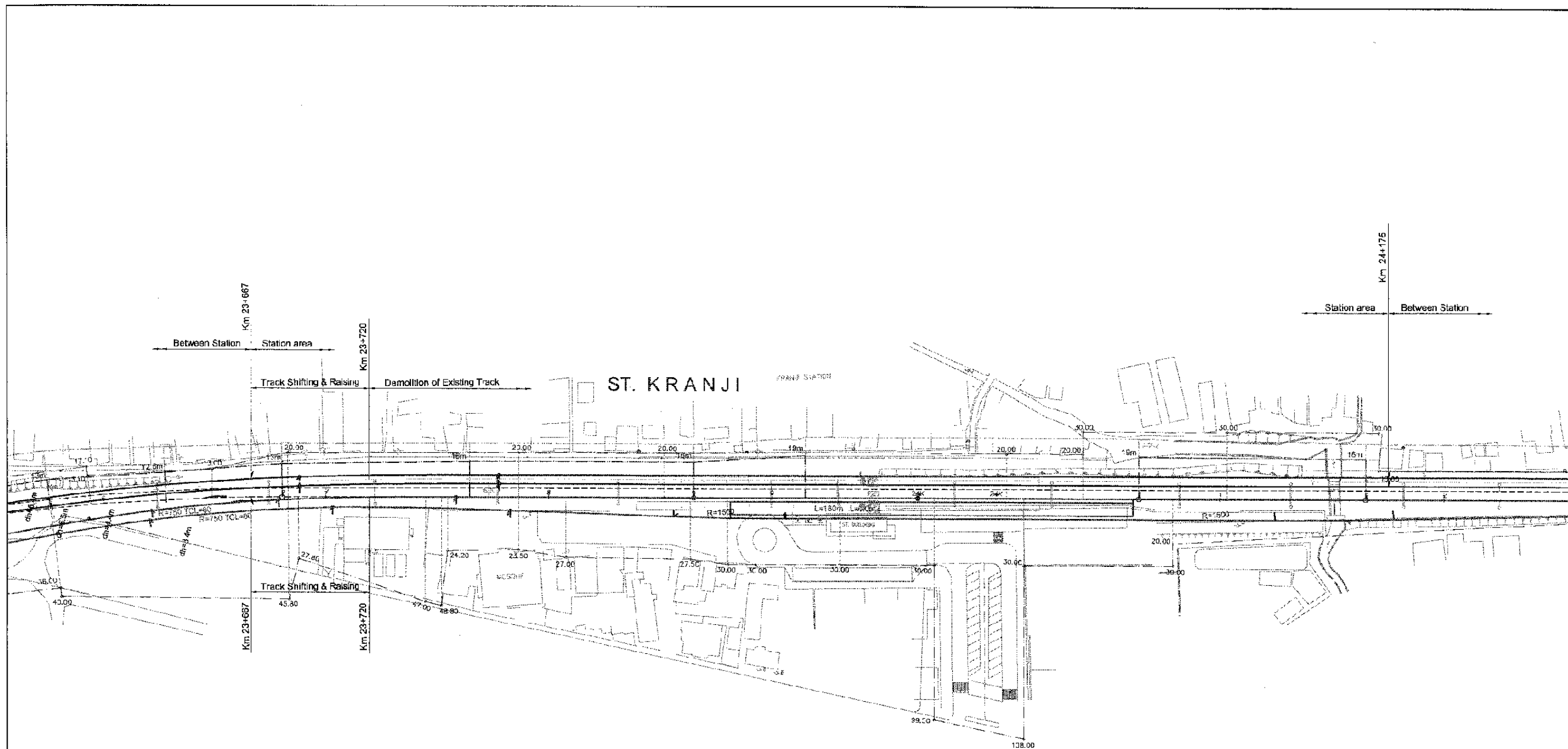
TRACK

TRACK WORKS

DATE: -

Drawing Title:
Between CAKUNG ST. to KRANJI ST. (3/3)

Scale: 1:1000 Drawing No. TR-01-026



Track Work in Kranji Station
Km 23+667 to Km 24+175

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	1,016	
Track Panel Installation	tm	508	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Slips Switch Installation # 10	set	-	
Welding Works	each	30	
Final Tamping Works	tm	508	
Buffer Stop Installation	set	-	
Railway Sign Post	each	7	

Existing Track Improvement Work			
Track Raising	m ²	22.5	
Track Shifting	m ²	1,001.4	
Track Panel Demolition	tm	175	
Simple Turnout Demolition #8 & #10	set	-	
Scissors Crossing #8 & #10	set	-	
Double Split Switch Demolition #10	set	-	
Buffer Stop Demolition	each	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	1,366	
Track Panel Installation	tm	683	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	-	
Scissors Crossing R 54 : 1 : 8 Installation	set	-	
Scissors Crossing R 54 : 1 : 10 Installation	set	-	
Double Split Switch Demolition #10	set	-	
Welding Works	each	41	
Final Tamping Works	tm	683	
Buffer Stop Installation	set	-	
Railway Sign Post	each	11	

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



DEPARTEMEN PERUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERUBUNGAN DARAT
DIRECTORATE GENERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat no.8 Gedung Karya R.11 tp.201 - 3501220 - 3505257
J A K A R T A

Note:
This detailed design has been executed by a team
of consultants as shown below in accordance with
the agreement between Japan International
Cooperation Agency (JICA) and JICA Study
Team.
The copyright of this drawing rests with JICA.

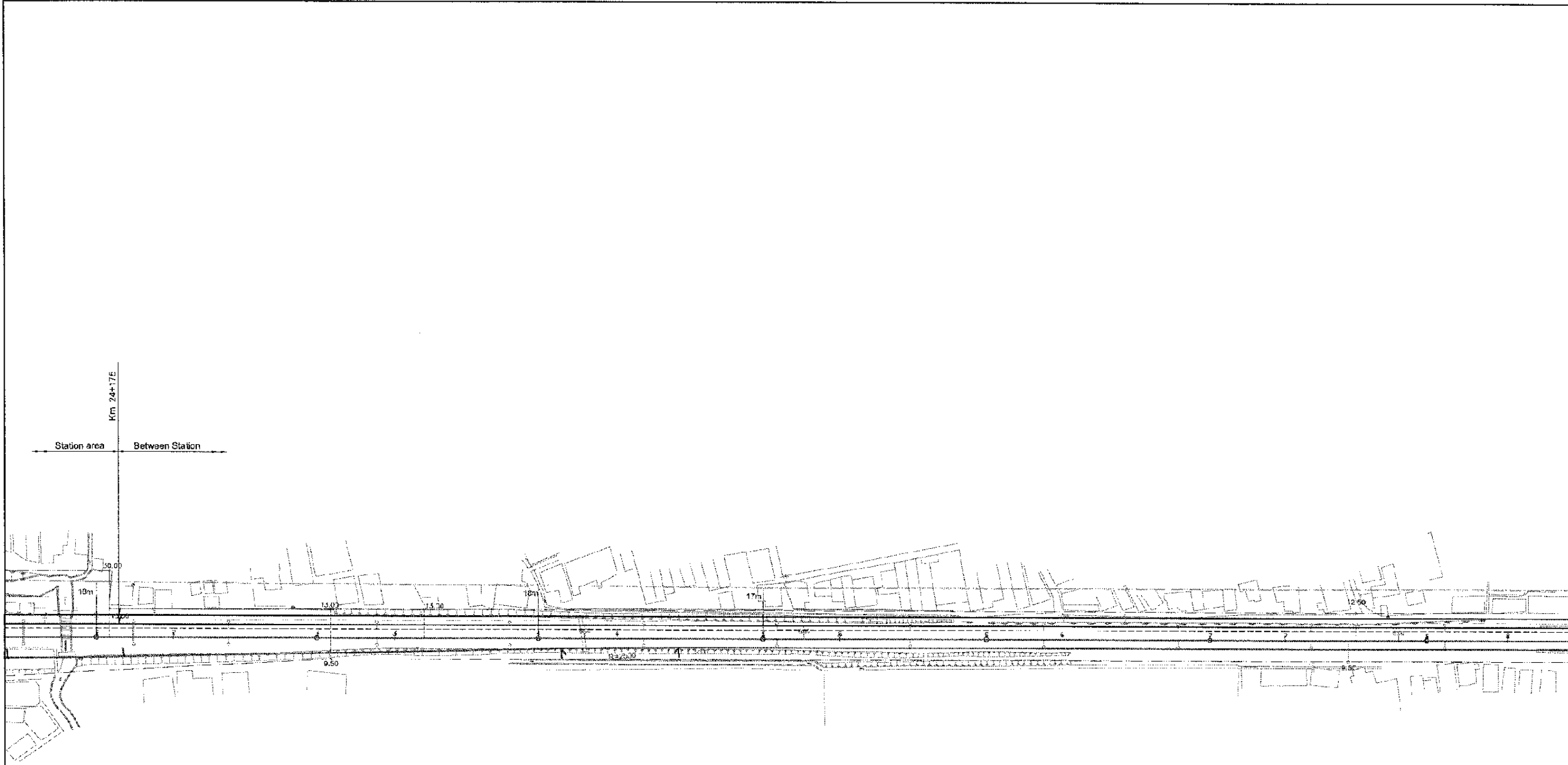
Designed by:
Japan International Cooperation
Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK
TRACK WORKS

DATE -

Drawing Title :
KRANJI ST.

Scale: 1 : 1000 Drawing No: TR - 01 - 027



The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

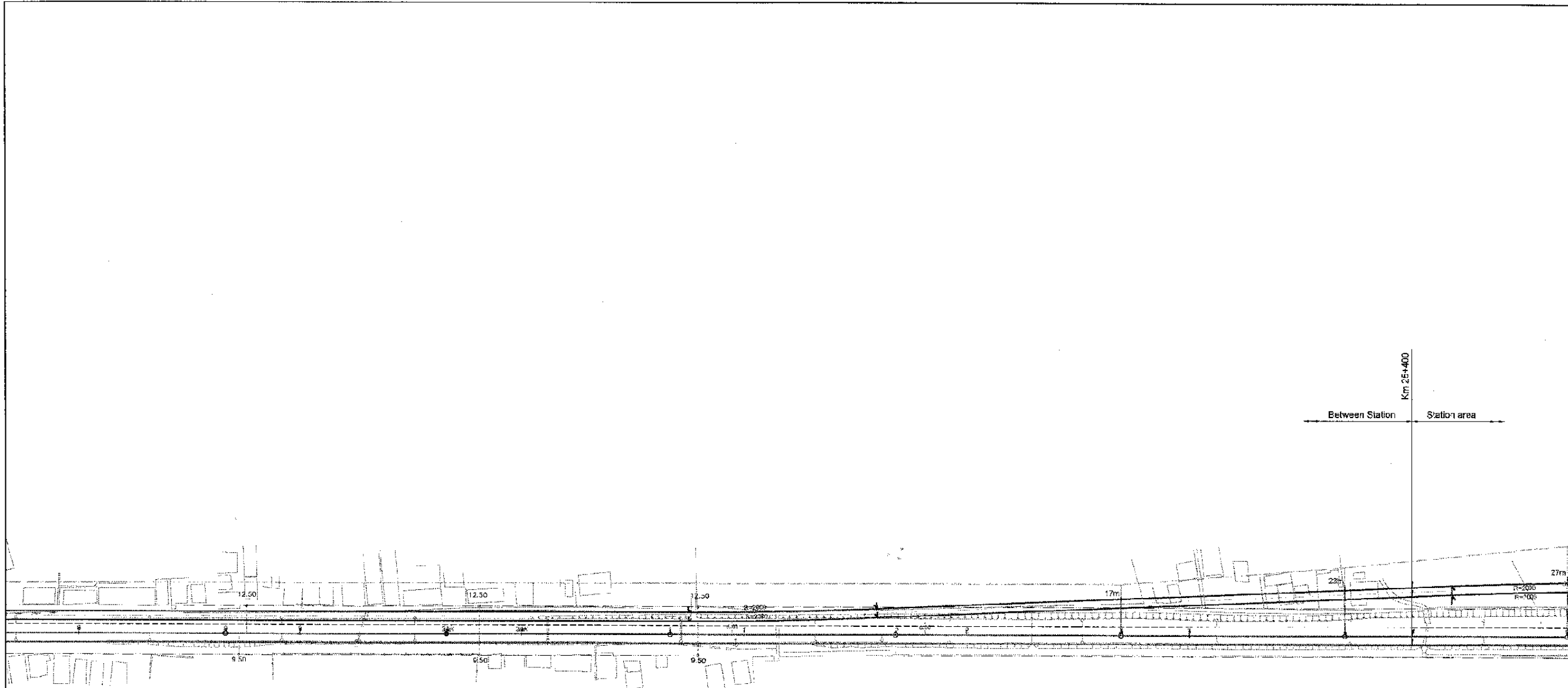
TRACK

TRACK WORKS

DATE | Oct / 2004

Drawing Title :
 Between KRANJI ST.
 to BEKASI ST (1/2)

Scale: | Drawing No:
 1 : 1000 | TR - 01 - 028



The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Negeri Merdeka Barat no.8 Gedung Raya 11111 No.021-350526-350537
 J A K A R T A

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE -

Drawing Title :
 Between KRANJI ST.
 to BEKASI ST (2/2)

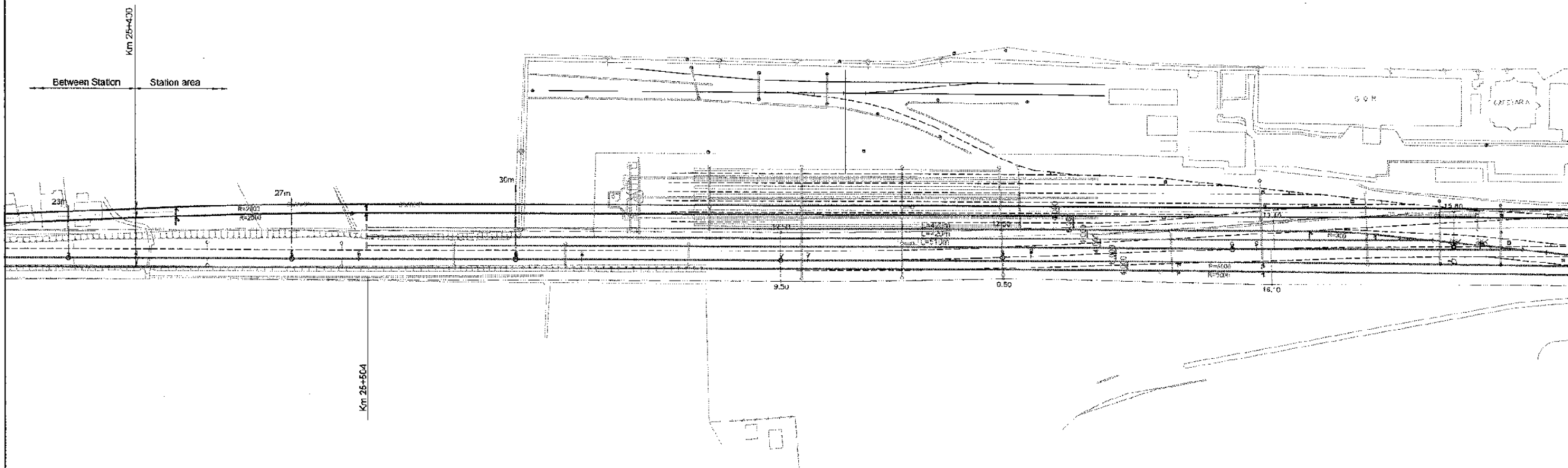
Scale: 1 : 1000 Drawing No: TR - 01 - 029

Track Work Between Kranji St. to Bekasi St.
 Km 24+175 to Km 25+400

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	3.100	
Track Panel Installation	1m	1.550	
Welding Works	each	93	
Final Tamping Works	1m	1.550	
Railway Sign Post	each	23	

Existing Track Improvement Work			
Track Raising	m ²	266.2	
Track Shifting	m ²	1.800.0	
Track Panel Demolition	1m	625	
Removal of Old Ballast	1m	-	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	3.050	
Track Panel Installation	1m	1.525	
Welding Works	each	92	
Final Tamping Works	1m	1.525	
Railway Sign Post	each	21	



The Railway Electrification and Double-double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat, 1025 Gedung Kerya L11 Up.021-3500328-3500327
 JAKARTA

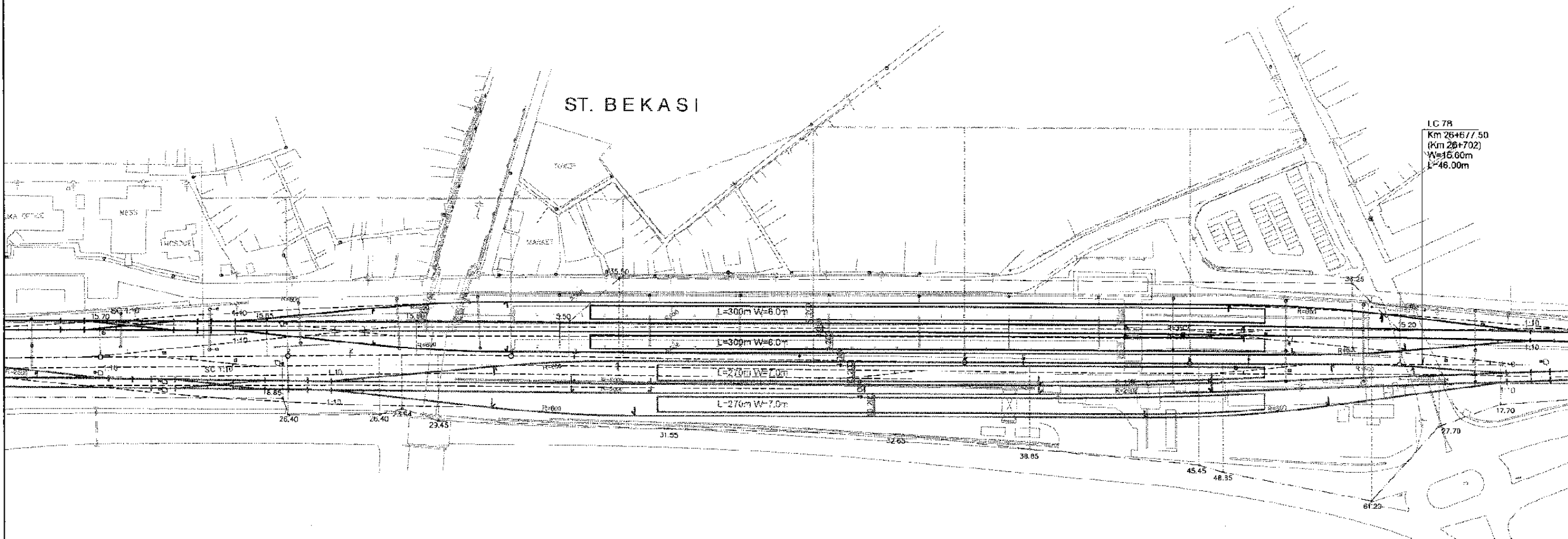
Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK	
TRACK WORKS	
DATE	-

Drawing Title :
 BEKASI ST. (1/4)

Scale: 1 : 1000	Drawing No. TR - 01 - 030
--------------------	------------------------------



Track Work in Bekasi Station
Km 25+400 to Km 26+900

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Main Line			
Ballast on Site	m ³	8,658	
Track Panel Installation	tm	3,783	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	4	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	2	
Double Slips Switch Installation # 10	set	-	
Diamond Crossing	set	-	
Welding Works	each	218	
Final Tamping Works	tm	4,056	
Buffer Stop Installation	set	-	
Railway Sign Post	each	45	

Existing Track Improvement Work			
Track Raising	m ²	57.3	
Track Shifting	m ²	254.7	
Track Panel Demolition	tm	3,490	
Depot + Coal Line		3,536	
Simple Turn-out Demolition #8 & #10	set	9	
Scissors Crossing #8 & #10	set	2	
Double Split Switch Demolition #10	set	11	

ITEM	UNIT	VOLUME	REMARKS
Track Works Construction in Commuter Line			
Ballast on Site	m ³	10,865	
Track Panel Installation	tm	4,774	
Turnout R54 1 : 8 Installation	set	-	
Turnout R54 1 : 10 Installation	set	7	
Scissors Crossing R 54 ; 1 : 8 Installation	set	-	
Scissors Crossing R 54 ; 1 : 10 Installation	set	2	
Double Split Switch Demolition #10	set	-	
Diamond Crossing	set	-	
Welding Works	each	311	
Final Tamping Works	tm	6,009	
Buffer Stop Installation	set	3	
Railway Sign Post	each	60	

Temporary Track Works	ls	-	
Level Crossing			
Level Crossing Type A	m ²	717.60	
Level Crossing Type B	m ²	-	

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
DIRECTORATE GENERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat no.8, Gedung Koper RI 111, Jakarta 10115-1506529-1506557
J.A.K.A.B.T.A.

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

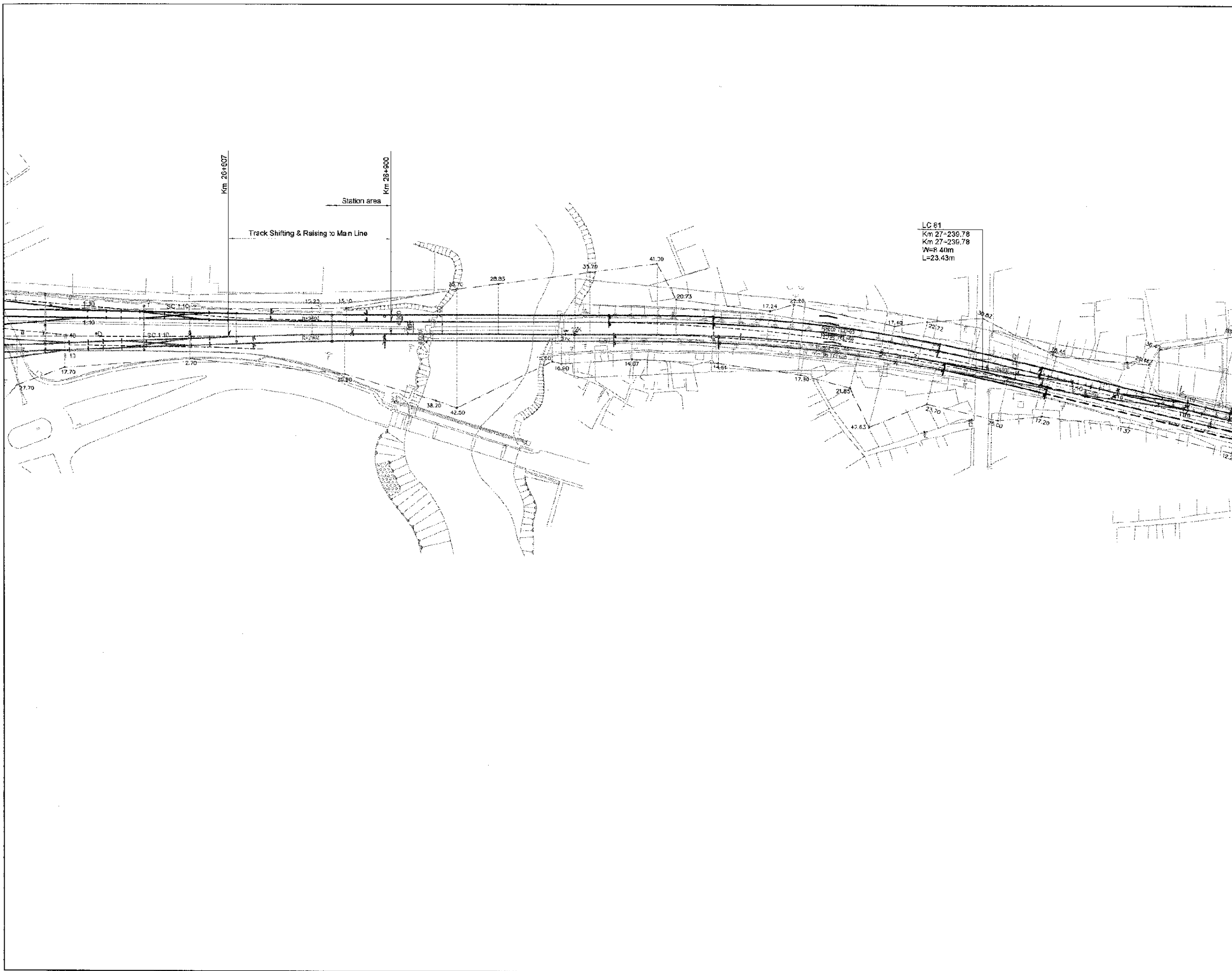
TRACK

TRACK WORKS

DATE -

Drawing Title :
BEKASI ST. (2/4)

Scale: 1 : 1000
Drawing No: TR - 01 - 031



The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

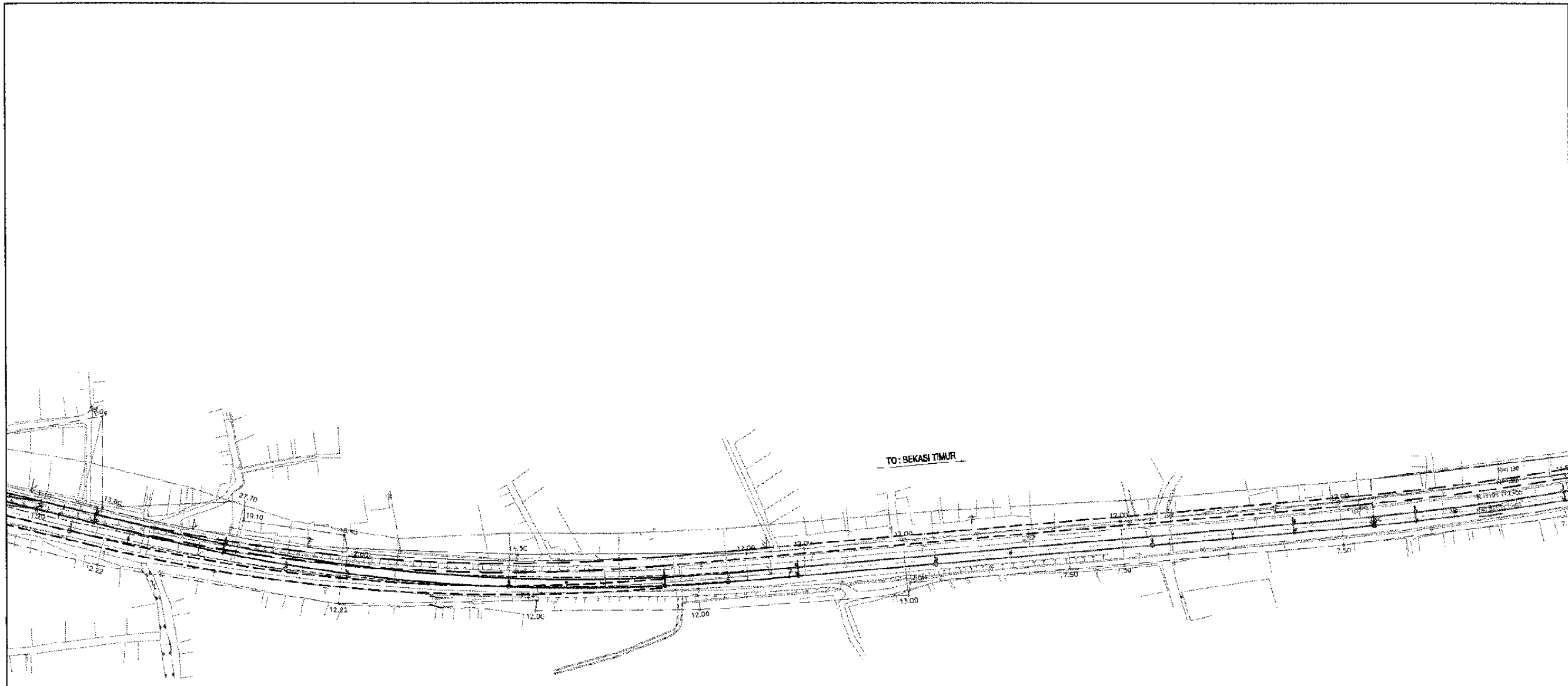
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
 TRACK WORKS

DATE -

Drawing Title :
 BEKASI ST. (3/4)

Scale: 1 : 1000 Drawing No: IR - 01 - 032



The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

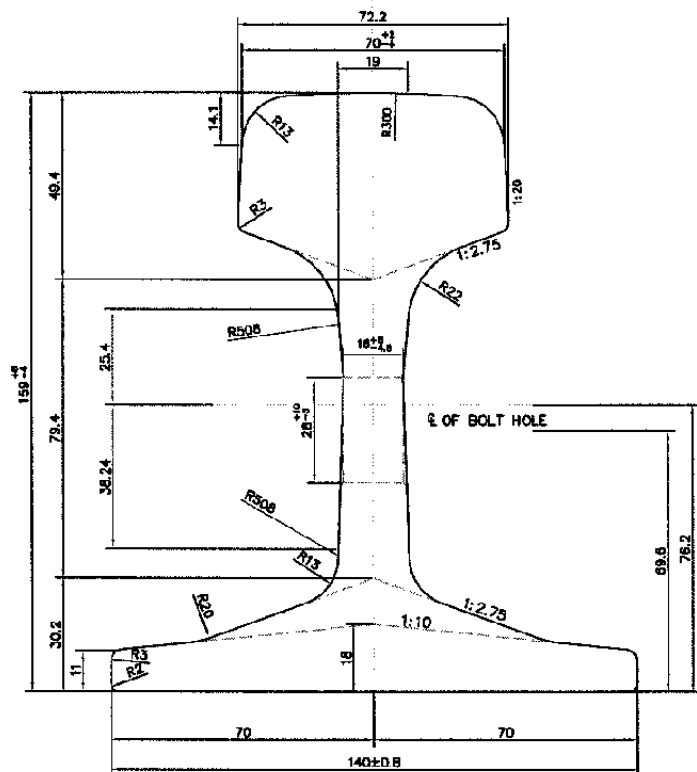
Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of
 Pacific Consultants International and
 Japan Railway Technical Service

TRACK
 TRACK WORKS

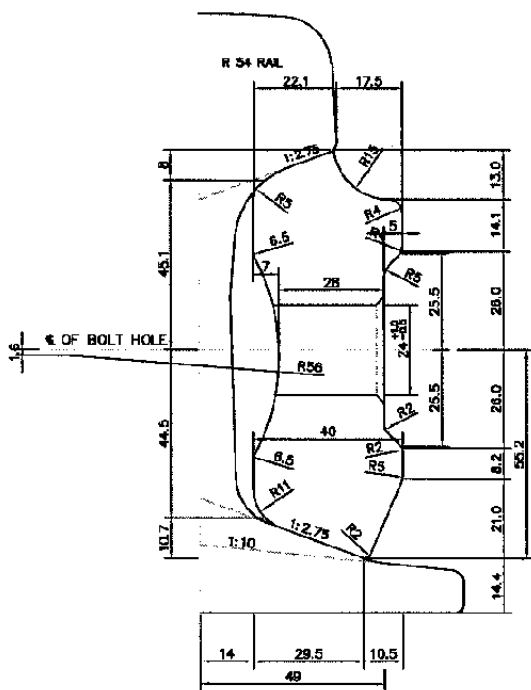
DATE -

Drawing Title :
 BEKASI ST. (4/4)

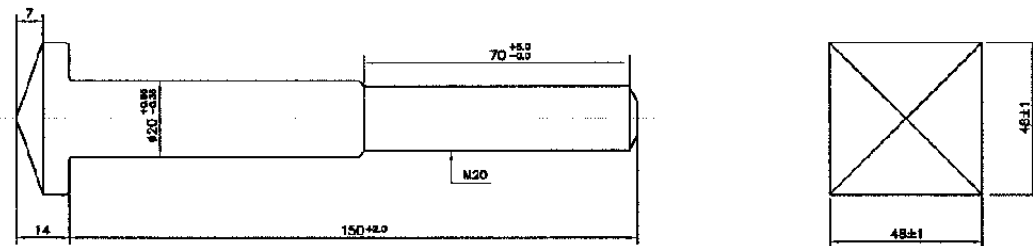
Scale: 1 : 1000 Drawing No: TR - 01 - C33



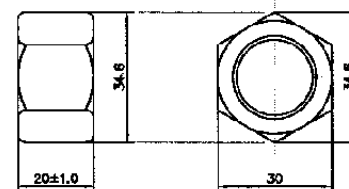
RAIL R.54
SCALE 1:1



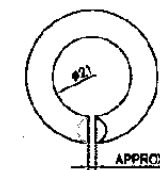
RAIL R.54
SCALE 1:1



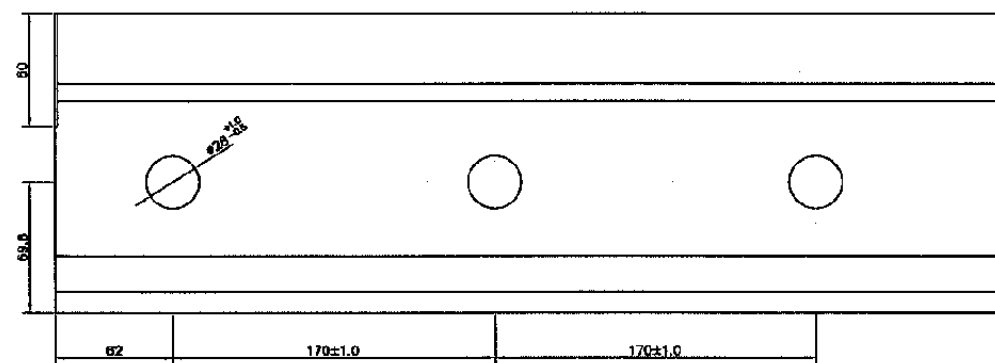
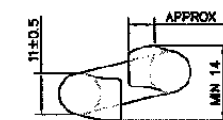
BOLT
SCALE 1:1



NUT
SCALE 1:1

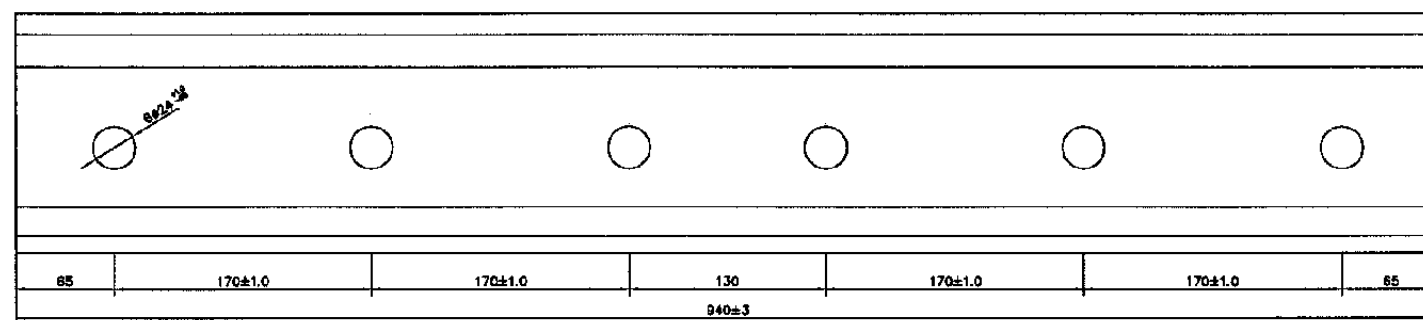


LOCK WASHER
SCALE 1:1



SIDE VIEW OF RAIL
SCALE 1:2

NOTE :
ALL DIMENSION ARE SHOWN IN MILLIMETER
UNLESS OTHERWISE INDICATED.
2 RAILS OUT OF EVERY 4 RAILS SHOULD BE PREPARED WITH
3 HOLES FOR THE JOINT BOLTS AT ONE END ONLY
STANDARD LENGTH OF RAILS 25 M.
FOLLOWING MARK SHALL BE SHOWN ON THE SURFACE
OF THE WEB IN 10 mm HEIGHT
MANUFACTURE'S TRADE MARK,
LAST TWO FIGURE OF THE YEAR OF MANUFACTURE,
PT. KAI MARK, R.54 MARK



SIDE VIEW OF FISH PLATE
SCALE 1:4.5

RAIL R.54 FISHPLATE AND ACCESSORIES

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



DEPARTMENT PERKOMUNIKASIAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERKOMUNIKASIAN DARAT
DIREKTORAT JENDERAL PERKOMUNIKASIAN DARAT
Jalan Medan Merdeka Barat No.8 Gedung Rappo B.11 10121-350625-350657
JAKARTA

Note:
This detailed design has been executed by a team
of consultants as shown below in accordance with
the agreement between Japan International
Cooperation Agency (JICA) and JICA study
Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation
Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

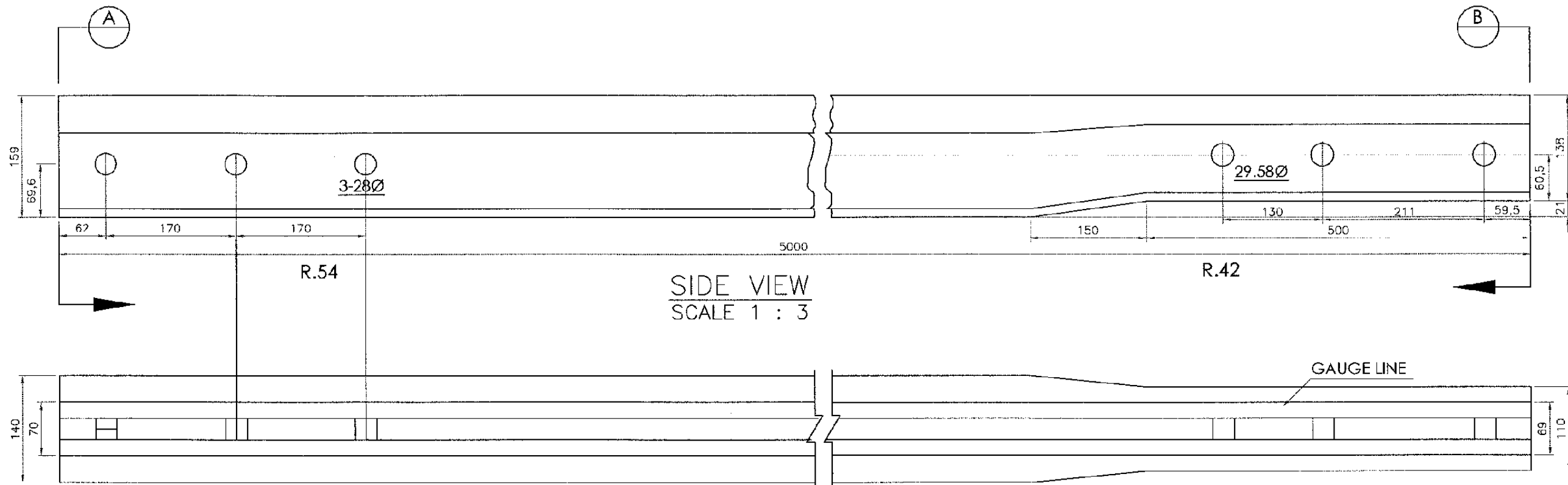
TRACK

TRACK WORKS

DATE -

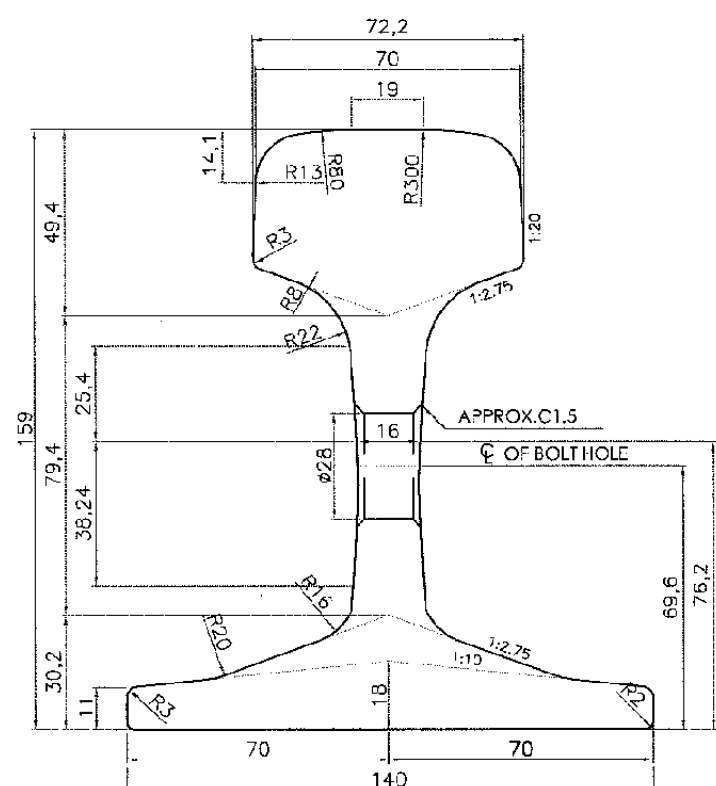
Drawing Title :
RAIL R.54 AND RAIL JOINT ACCESSORIES

Scale: 1: 4.5
1: 2
1: 1
Drawing No.: TR - 02 - 001

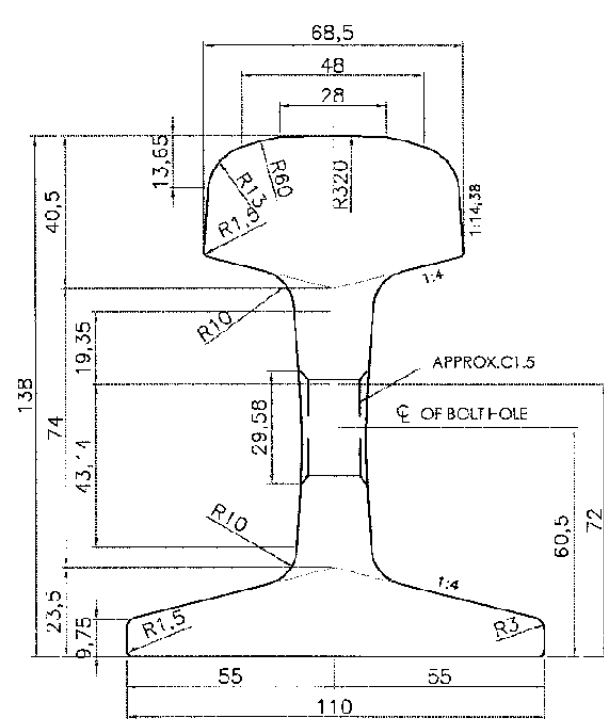


SIDE VIEW
SCALE 1 : 3

PLAN
SCALE 1 : 3



SECTION
SCALE 1 : 1



SECTION
SCALE 1 : 1

- NOTES
1. THIS DRAWING SHOWS RIGHT HAND COMPROMISE RAIL LEFT HAND COMPROMISE RAIL IS SYMMETRICAL TO RIGHT HAND ONE
 2. ALL DIMENSION ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

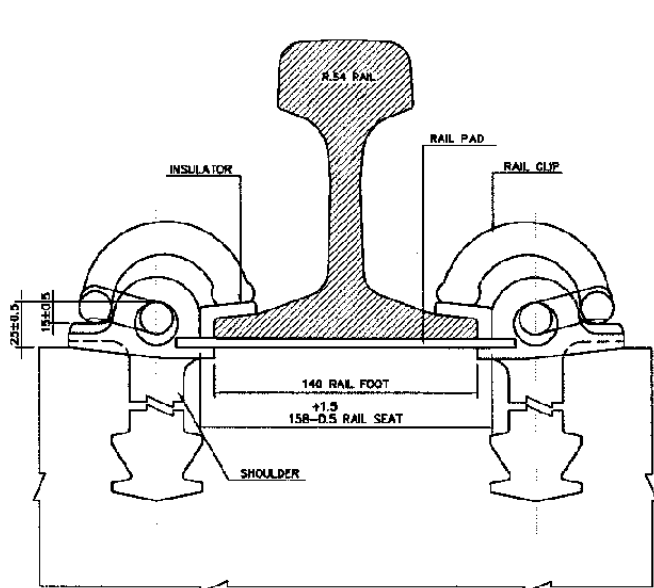
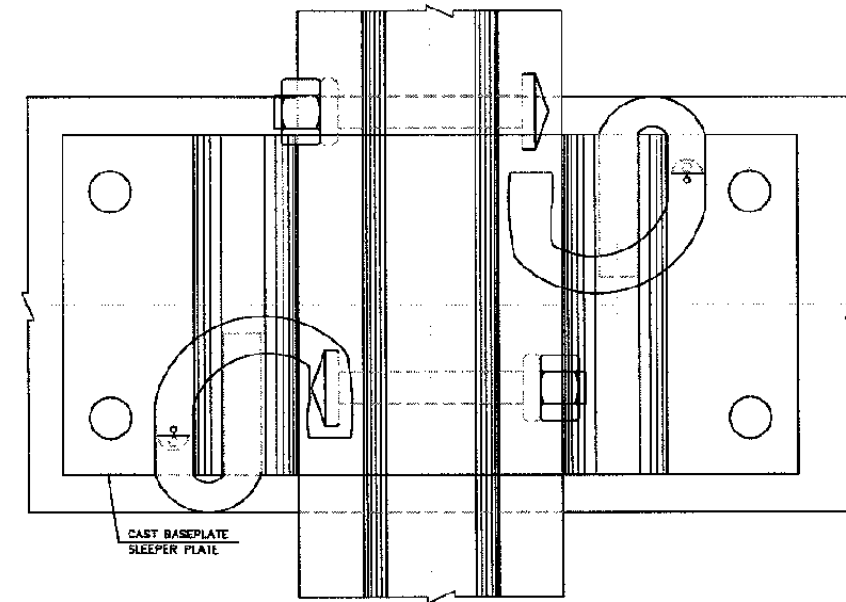
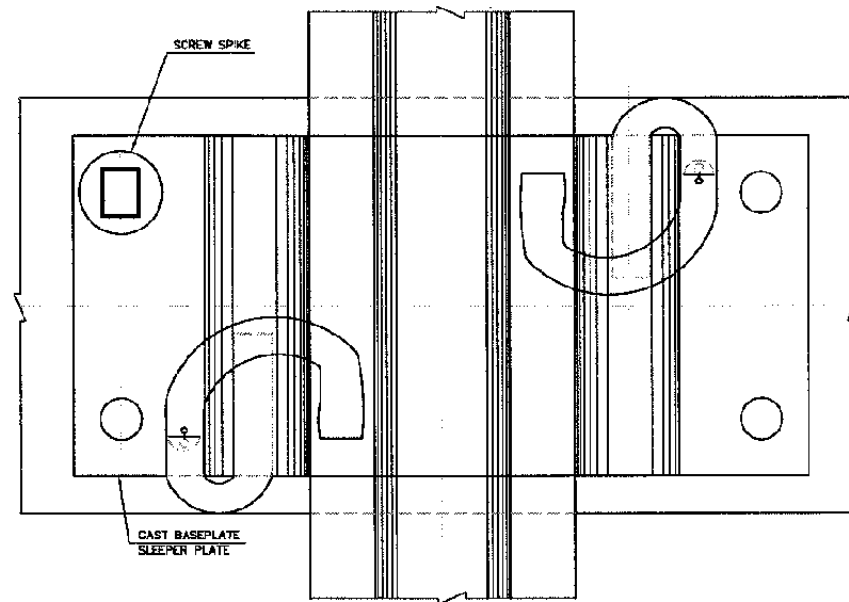
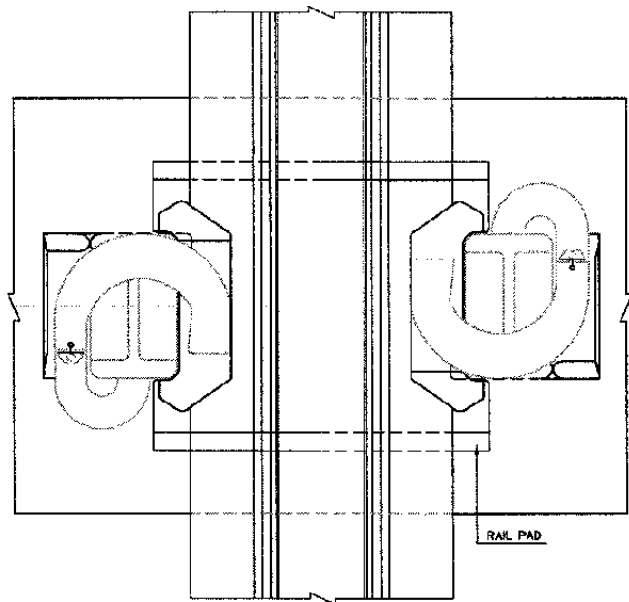
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS

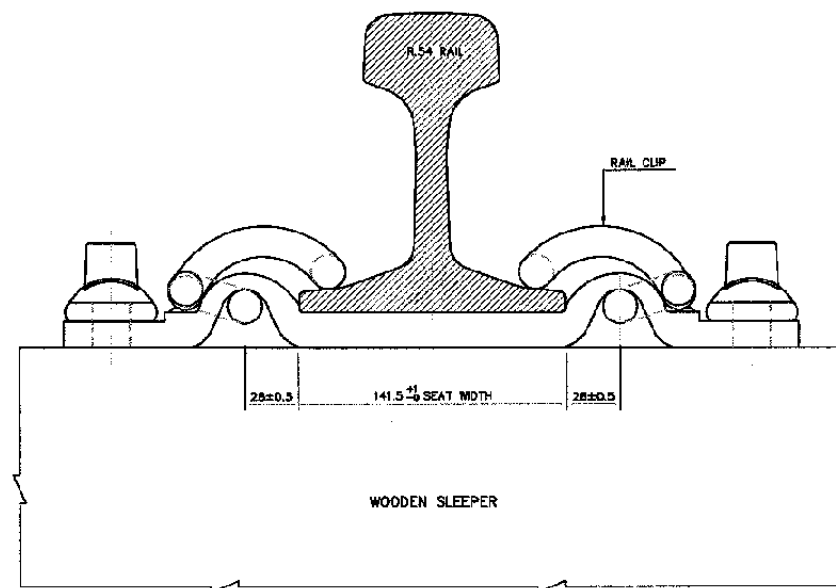
DATE -

Drawing Title:
COMPROMISE RAIL
R.54 - R.42

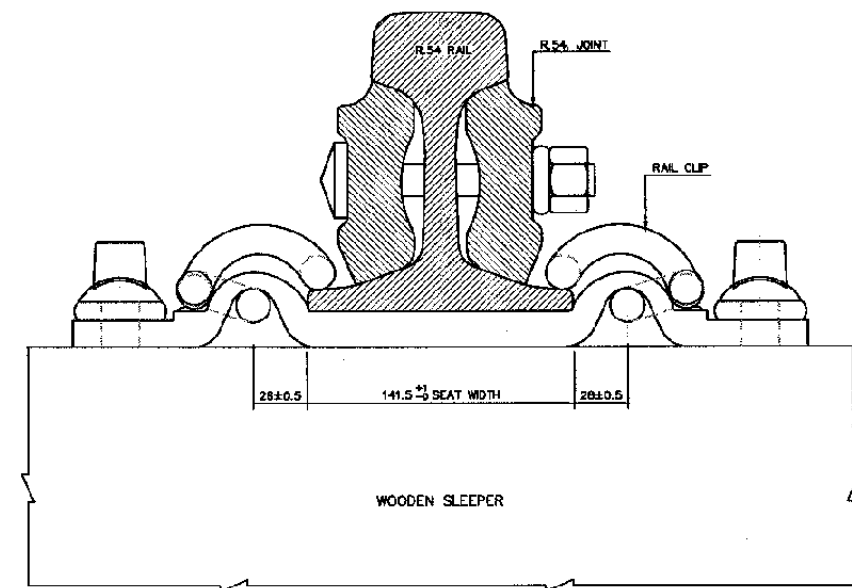
Scale: 1:1, 1:3
Drawing No: TR - 02 - 002



FOR PC SLEEPER
SCALE 1:2



FOR WOODEN SLEEPER
SCALE 1:2



FOR JOINT
SCALE 1:2

RAIL FASTENING DEVICES

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



DEPARTMENT OF COMMUNICATION
MINISTRY OF COMMUNICATION
AND INFORMATICS
DIRECTORATE GENERAL OF TELECOMMUNICATIONS
DIRECTORATE GENERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat, no.8 Gedung Korpri 8.11 Hp.021-3206528-3206527
JAKARTA

Note:
This detailed design has been executed by a team
of consultants as shown below in accordance with
the agreement between Japan International
Cooperation Agency (JICA) and JICA Study
Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation
Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK

TRACK WORKS

DATE

Drawing Title :

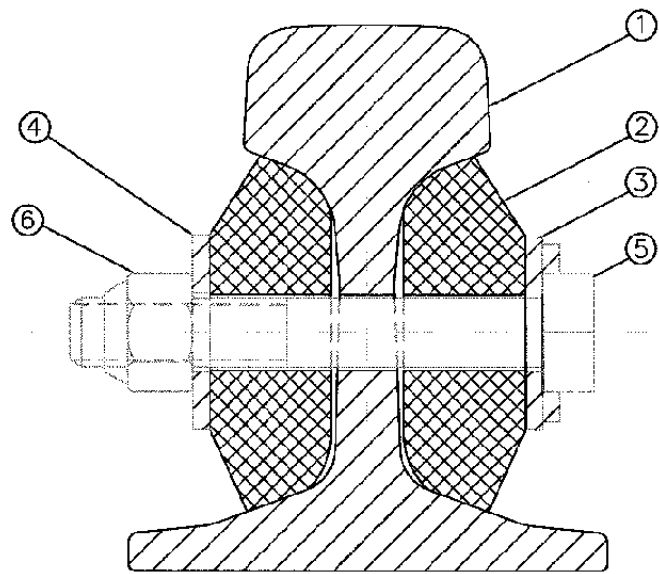
RAIL FASTENING

Scale

1:2

Drawing No.:

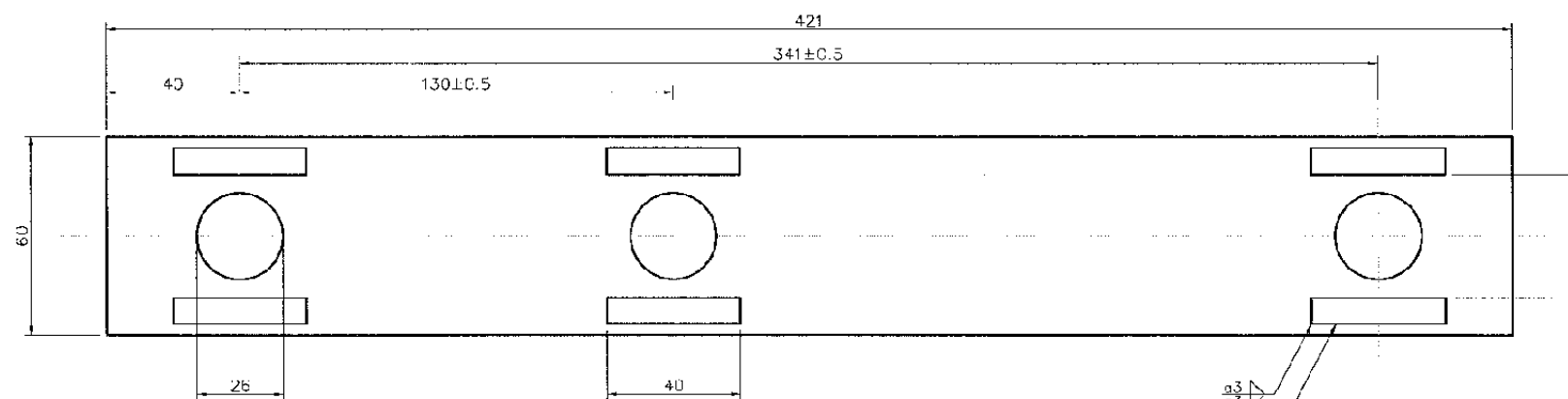
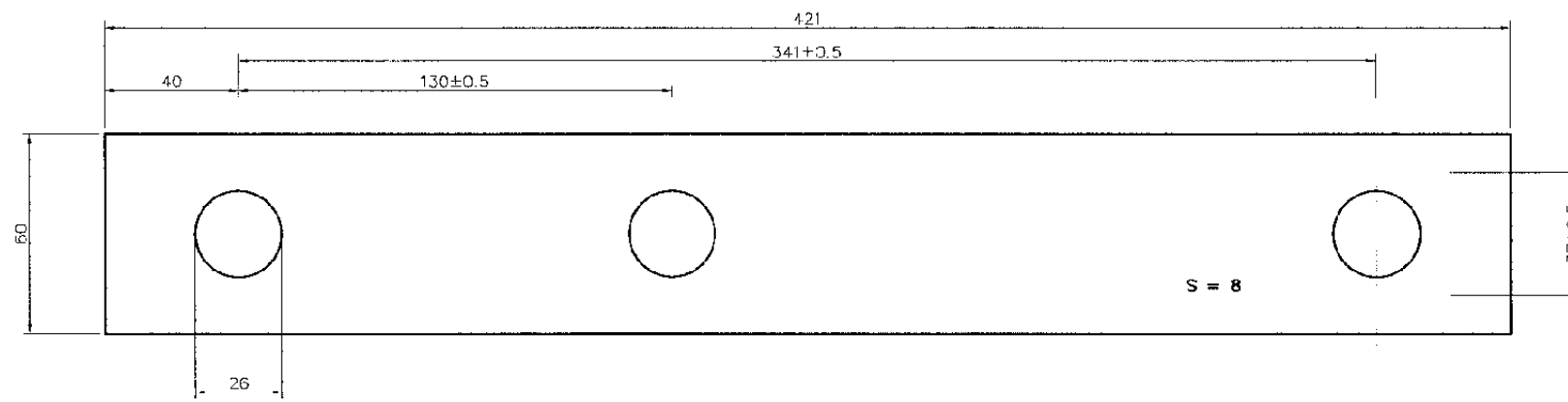
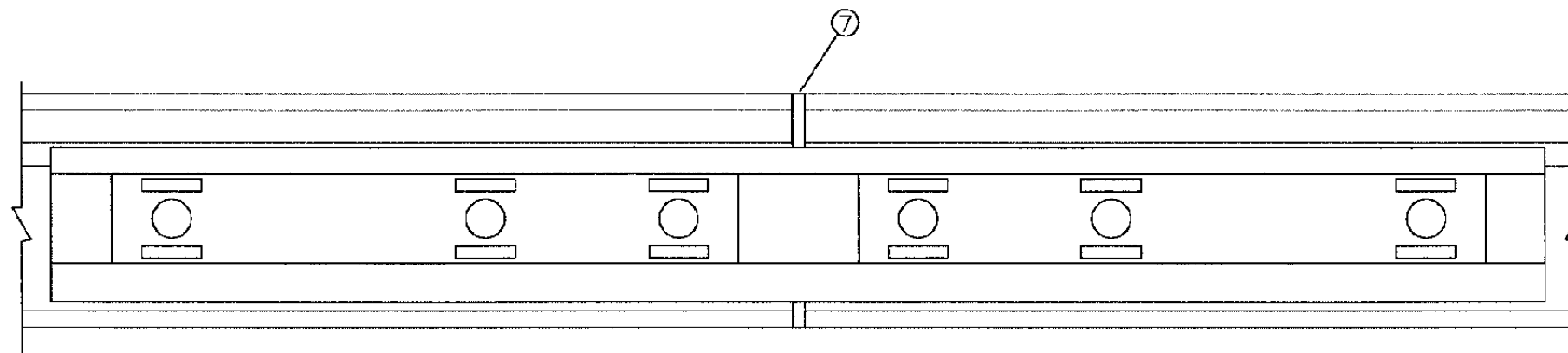
TR - 02 - 003



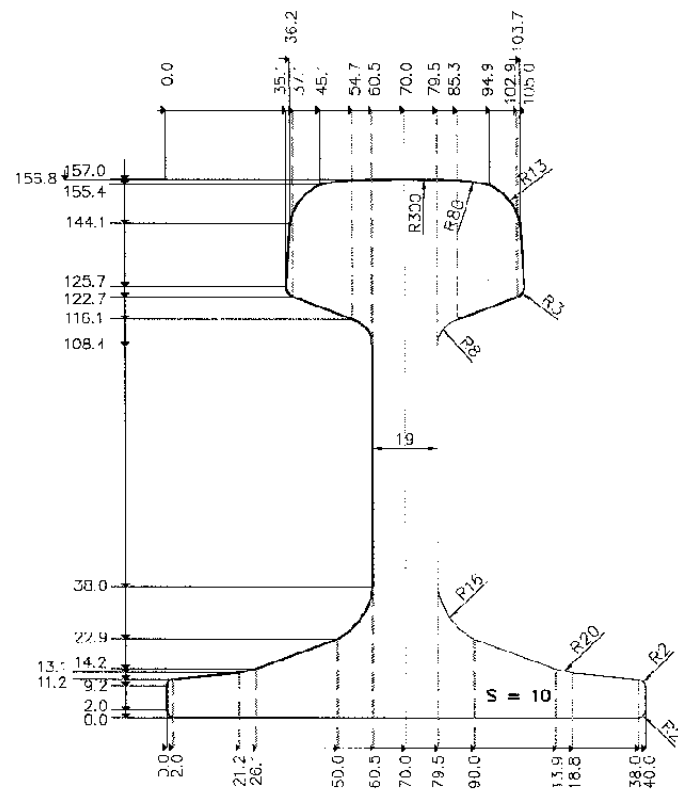
INSULATED JOINT ASSEMBLY

LIST OF MATERIAL AND QUANTITY

NO.	NAME	MATERIAL	QUANTITY
①	RAIL R54	STEEL	3
②	ISOLATOR BAR	FIBERGLASS	2
③	BACK-UP PLATE	STEEL	2
④	BACK-UP PLATE	STEEL	2
⑤	HEX SCREW M24	STEEL	6
⑥	LOCK NUT M24	STEEL	6
⑦	END PLATE	FIBERGLASS	1



BACK-UP PLATE



**R.54 RAIL END POST
10 MM THICKNESS**

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERKULIAHAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERKULIAHAN DARAT
DIREKTORAT JENDERAL LAYANAN KOMUNIKASI
Jalan Medan Merdeka Barat No.3 Gedung Raya 6/11 Jakarta-150637-150657
JAKARTA

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

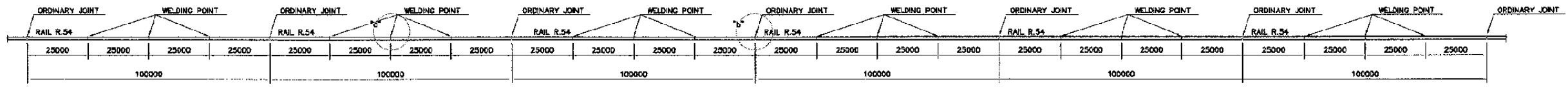
TRACK

TRACK WORKS

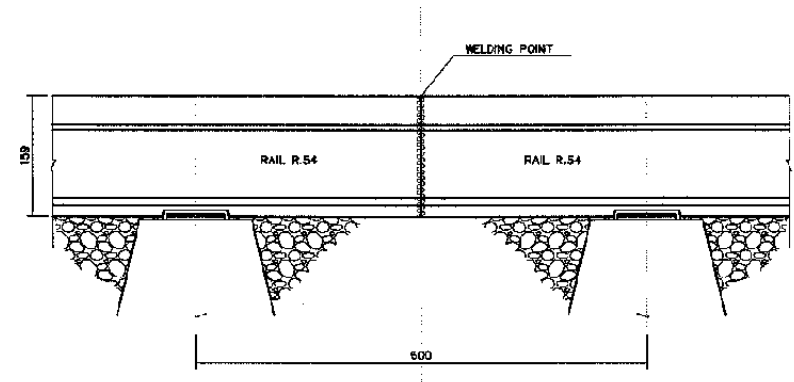
DATE -

Drawing Title :
INSULATED RAIL R.54 JOINT ACCESSORIES

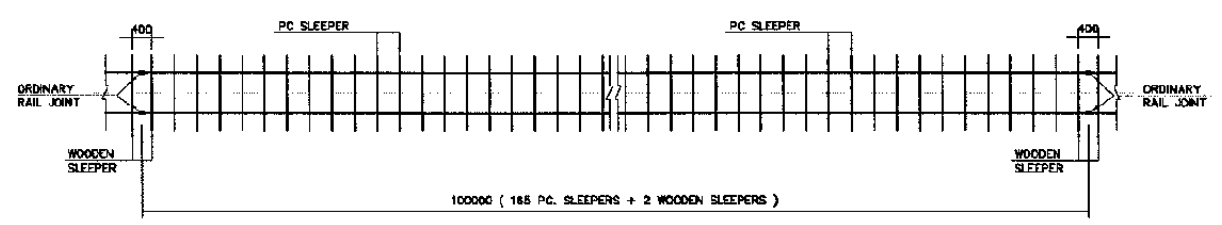
Scale: 1 : 11 Drawing No: TR - 02 - 004



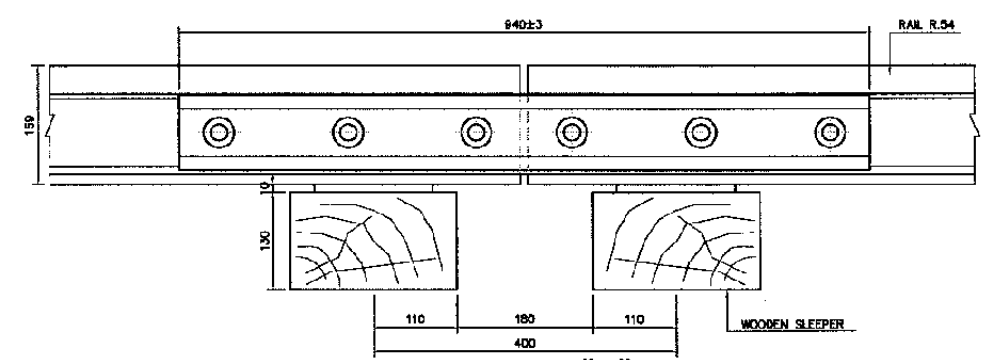
TRACK PANEL
SCALE 1:1000



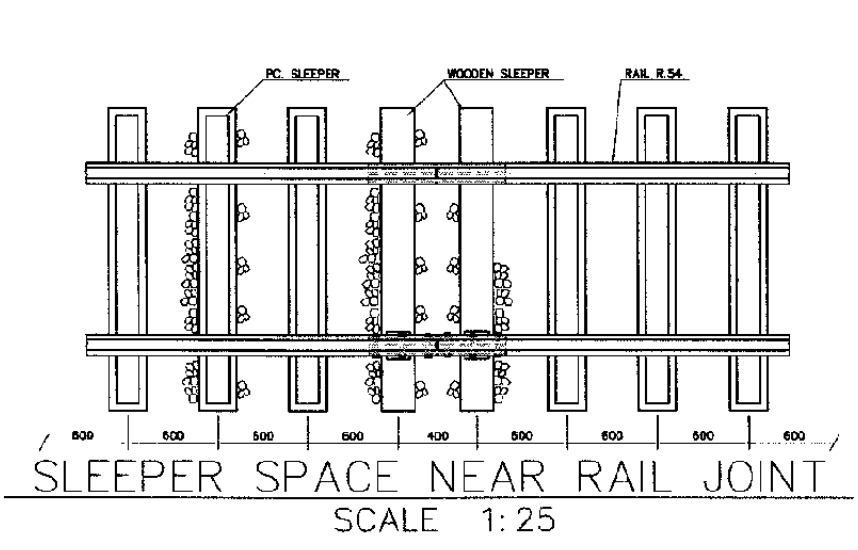
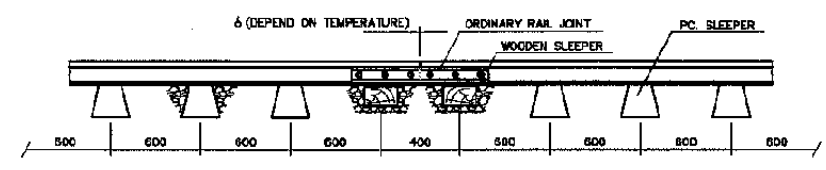
DETAIL "a"
RAIL WELDING
SCALE 1:5



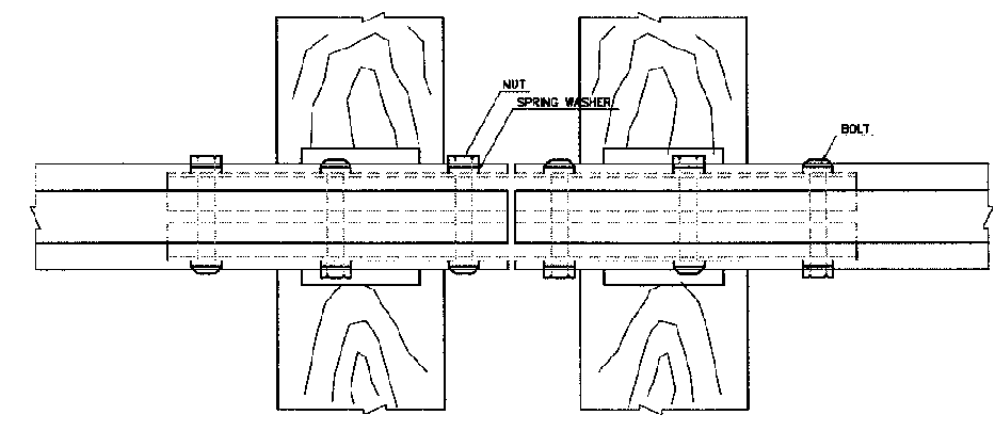
SLEEPER SPACE FOR FULL LENGTH OF 100 M
SCALE 1:100



DETAIL "b"
SIDE VIEW ORDINARY RAIL JOINT
SCALE 1:5



SLEEPER SPACE NEAR RAIL JOINT
SCALE 1:25



PLAN ORDINARY RAIL JOINT
SCALE 1:5

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

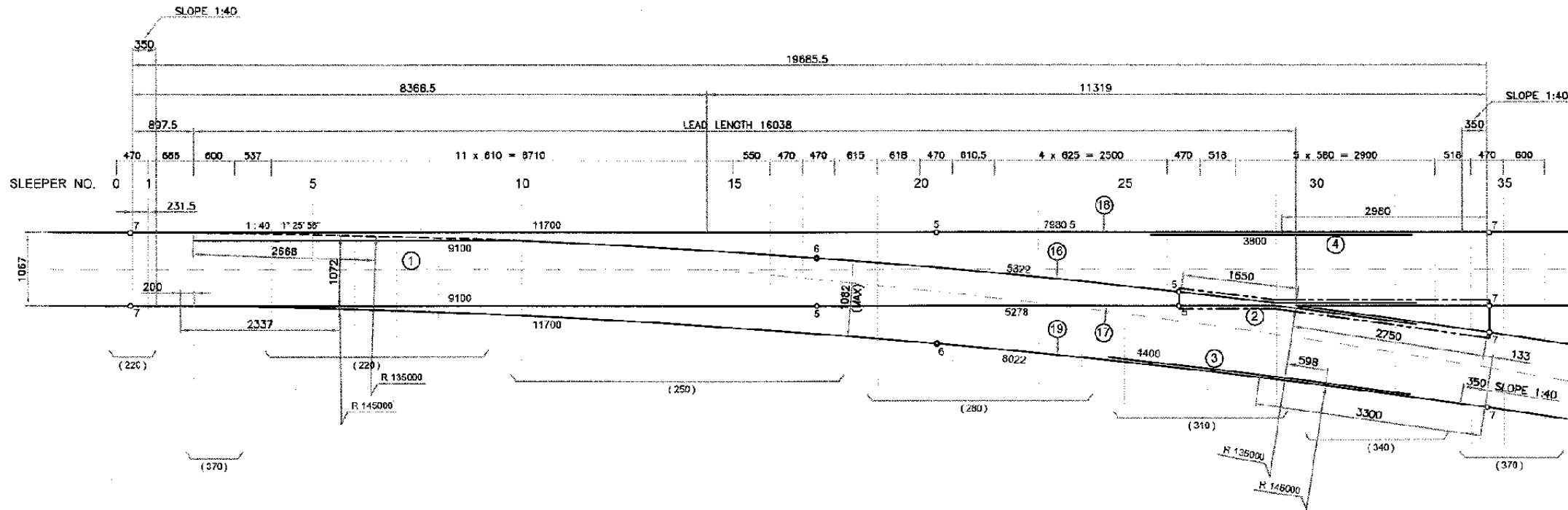
TRACK
TRACK WORKS

DATE

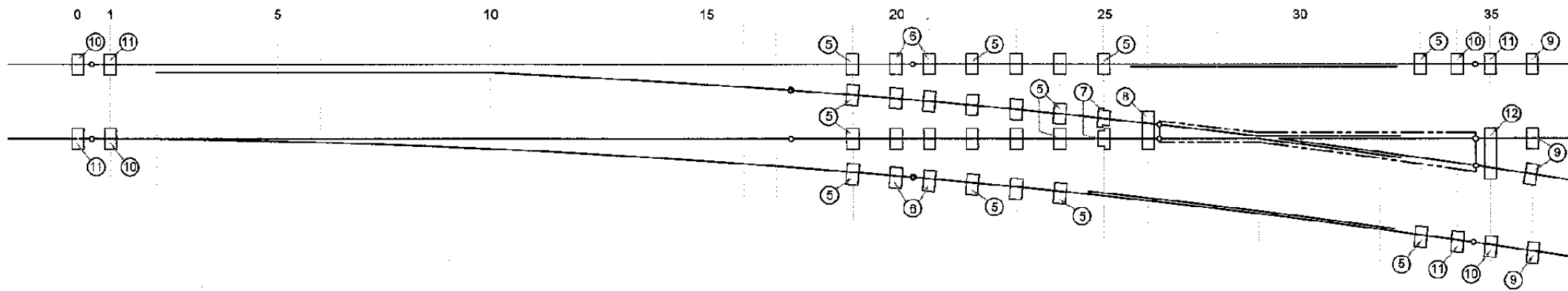
Drawing Title :
TRACK PANEL

Scale: 1:1000 / 1:25 / 1:100 / 1:5
Drawing No: TR - 02 005

(B) SIMPLE TURNOUT R.54 No.8



METHOD FOR INSTALLING TIE PLATE



MATERIAL LIST

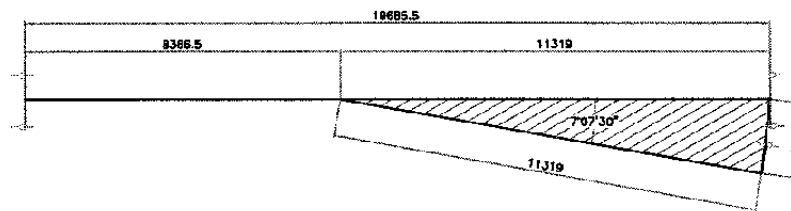
DESCRIPTION	DIMENSION	QTY	REMARKS
SWITCH	9100	1	
CROSSING	M = 1650 N = 2750	1	HIGH MANGANESE CAST STEEL
CHECK RAIL	4400	1	R54 RAIL
CHECK RAIL	3600	1	R54 RAIL
TIE PLATE	200 x 16 x 340	23	
TIE PLATE	200 x 16 x 340	4	
TIE PLATE	200 x 16 x 340	2	
TIE PLATE	220 x 18 x 63E	1	
TIE PLATE	200 x 22 x 340	4	
TIE PLATE	200 x 22 x 340	4	
TIE PLATE	220 x 22 x 640	1	
FISH PLATE		20	
INSULATED JOINT		2	
FISH BOLT & NUT		60	
SCREW SPIKE		400	
LEAD RAIL	5322	1	R54 RAIL
LEAD RAIL	5278	1	R54 RAIL
MAIN RAIL	7980.5	1	R54 RAIL
MAIN RAIL	5222	1	R54 RAIL
STOCK RAIL	11700	2	R54 RAIL

PART NO.	DESCRIPTION	DIMENSION	QTY	REMARKS
370	SLEEPER	250 x 150 x 3700	5	
340	SLEEPER	250 x 150 x 3400	1	
310	SLEEPER	250 x 150 x 3100	5	
280	SLEEPER	250 x 150 x 2800	6	
250	SLEEPER	250 x 150 x 2500	9	
220	SLEEPER	250 x 150 x 2200	8	

LEGEND :

- : ORDINARY JOINT 6mm
- : INSULATED JOINT 10mm
- - - - : APPROXIMATE SHAPE OF MONOBLOCK CASTING

SKELETON



REDDT - Stage 2 (Manggarai - Bekasi) Simple Turnout R.54 - No.8 Installation

No.	KM To	KM	Unit	Simple Turnout R.54 - NO.8		
				Main Line	Commuter Line	
1	0 + 746	To 0 + 400	Set	0	0	
2	0 + 400	To 1 + 254	Set	0	0	
3	1 + 254	To 1 + 435	Set	0	0	
4	1 + 435	To 1 + 949	Set	0	0	
5	1 + 949	To 12 + 550	Set	0	0	
6	12 + 550	To 13 + 512	Set	0	0	
		Cipinang Yard	Set	51	0	
7	13 + 512	To 14 + 500	Set	0	0	
8	14 + 500	To 15 + 405	Set	0	0	
9	15 + 405	To 17 + 821	Set	0	0	
10	17 + 192	To 17 + 821	Set	0	0	
11	17 + 821	To 19 + 205	Set	0	0	
12	19 + 205	To 19 + 950	Set	0	0	
13	19 + 950	To 20 + 650	Set	0	0	
14	20 + 650	To 21 + 600	Set	0	0	
15	21 + 600	To 23 + 667	Set	0	0	
16	23 + 667	To 24 + 175	Set	0	0	
17	24 + 175	To 25 + 400	Set	0	0	
18	25 + 400	To 26 + 900	Set	0	0	
TOTAL					51	0

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTMENT OF COMMUNICATION
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PESIUDJARA DARAT
DIREKTORAT JENDERAL OF LAND COMMUNICATION
Jalan Medan Merdeka Barat, no.8 Gedung Korpri Lt.11 Jakarta-10110-3200000
JAKARTA

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK

TRACK WORKS

DATE

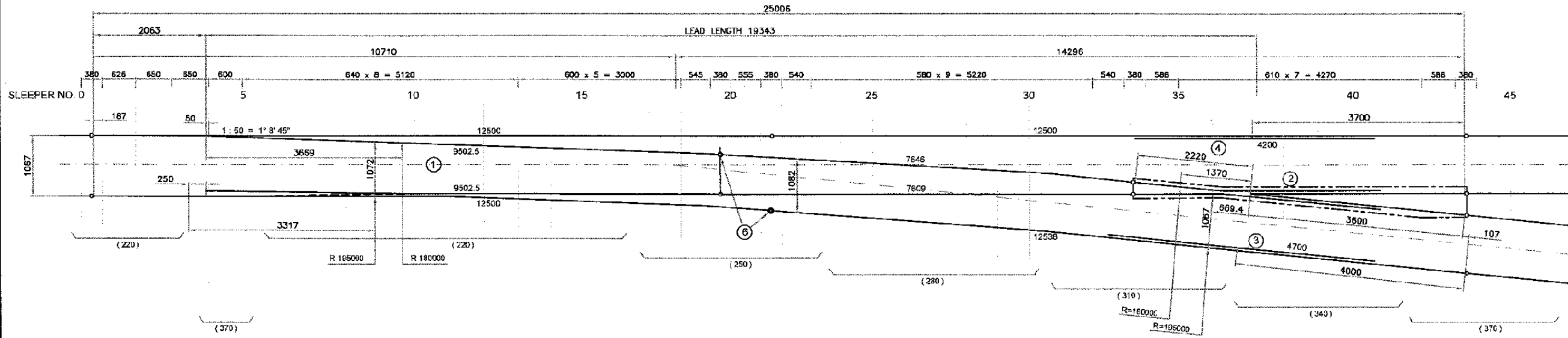
Drawing Title :

SIMPLE TURNOUT R.54 No.8

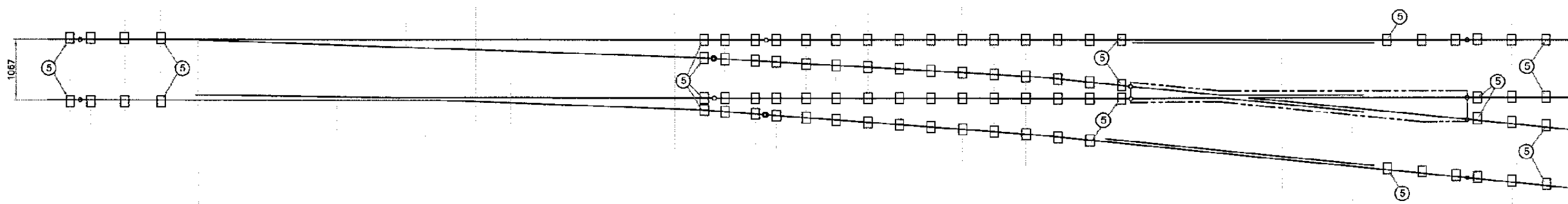
Scale: 1 : 40

Drawing No: TR - 02 006

(B) SIMPLE TURNOUT R.54 No.10



METHOD FOR INSTALLING TIE PLATES

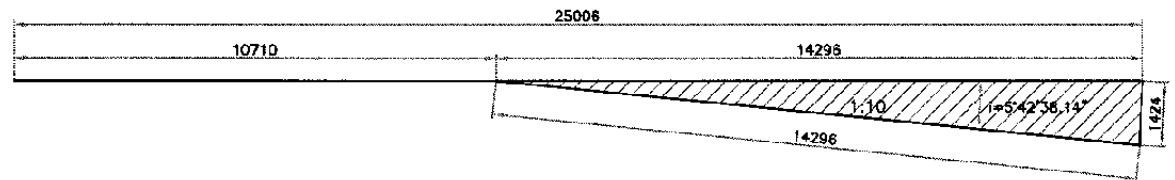


MATERIAL LIST

PART NO.	DESCRIPTION	DIMENSION	QTY	REMARKS
1	SWITCH	0502.5	1	
2	CROSSING	M = 2220 N = 3000	1	HIGH MANGANESE CAST STEEL
3	CHECK RAIL	4700	1	R54 RAIL
4	CHECK RAIL	4200	1	R54 RAIL
b	TIE PLATE	200 x 16 x 255	85	
	FISH PLATE		20	
	FISH BOLT & NUT		80	
	SCREW SPIKE		560	
6	INSULATED JOINT		2	
	MAIN RAIL	12500	1	H64 RAIL
	MAIN RAIL	12538	1	R54 RAIL
	LEAD RAIL	7646	1	R54 RAIL
	LEAD RAIL	7619	1	R54 RAIL
	STOCK RAIL	12500	2	R54 RAIL

PART NO.	DESCRIPTION	DIMENSION	QTY	REMARKS
370	SLEEPER	230 x 140 x 3100	7	WOODEN MATERIAL
340	SLEEPER	230 x 140 x 2400	5	WOODEN MATERIAL
310	SLEEPER	230 x 140 x 3100	6	WOODEN MATERIAL
280	SLEEPER	230 x 140 x 2800	7	WOODEN MATERIAL
250	SLEEPER	230 x 140 x 2500	7	WOODEN MATERIAL
220	SLEEPER	230 x 140 x 2200	15	WOODEN MATERIAL

LEGEND :
 ○ : ORDINARY JOINT 6mm
 ● : INSULATED JOINT 10mm
 --- : APPROXIMATE SHAPE OF MONOBLOCK CASTING



SKELETON
SCALE 1 : 200

REDDT - Stage 2 (Manggarai - Bekasi) Simple Turnout R.54 - No.10 Installation

No	KM	To KM	Unit	Simple Turnout R.54 - NO.8		
				Main Line	Commuter Line	
1	0 + 746	To 0 + 400	Set	11	9	
2	0 + 400	To 1 + 254	Set	1	0	
3	1 + 254	To 1 + 435	Set	0	0	
4	1 + 435	To 1 + 949	Set	0	0	
5	1 + 949	To 12 + 550	Set	11	9	
6	12 + 550	To 13 + 512	Set	7	0	
	Cipinang Yard			Set	0	
7	13 + 512	To 14 + 500	Set	0	0	
8	14 + 500	To 15 + 406	Set	0	0	
9	15 + 406	To 17 + 821	Set	0	0	
10	17 + 192	To 17 + 821	Set	0	0	
11	17 + 821	To 19 + 206	Set	0	0	
12	19 + 708	To 19 + 986	Set	0	0	
13	19 + 986	To 20 + 850	Set	0	0	
14	20 + 650	To 21 + 000	Set	0	4	
15	21 + 800	To 23 + 087	Set	0	0	
16	23 + 667	To 24 + 175	Set	0	0	
17	24 + 175	To 25 + 400	Set	0	0	
18	25 + 400	To 26 + 900	Set	4	7	
TOTAL					34	28

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultant International and Japan Railway Technical Service

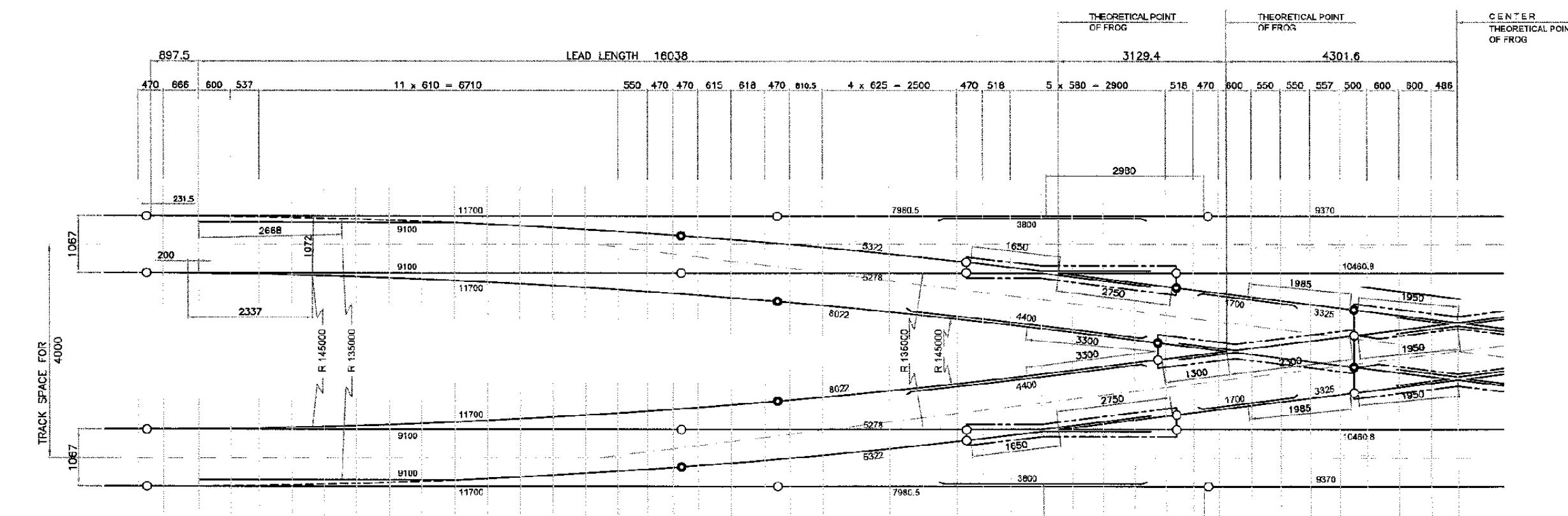
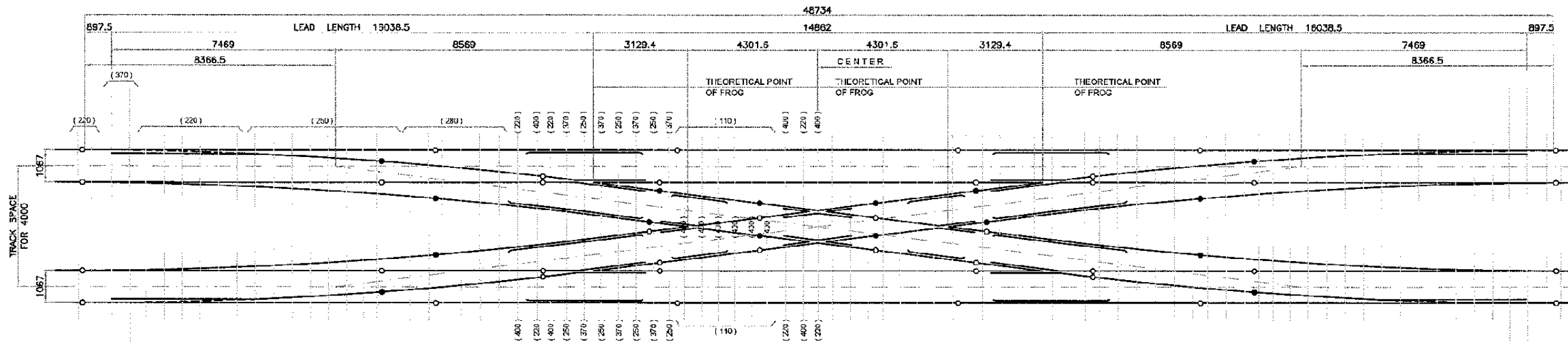
TRACK

TRACK WORKS

DATE : -

Drawing Title :
 SIMPLE TURNOUT R.54 No.10

Scale: 1 : 200
 1 : 40
 Drawing No.: TR - 02 - 007



MATERIAL LIST

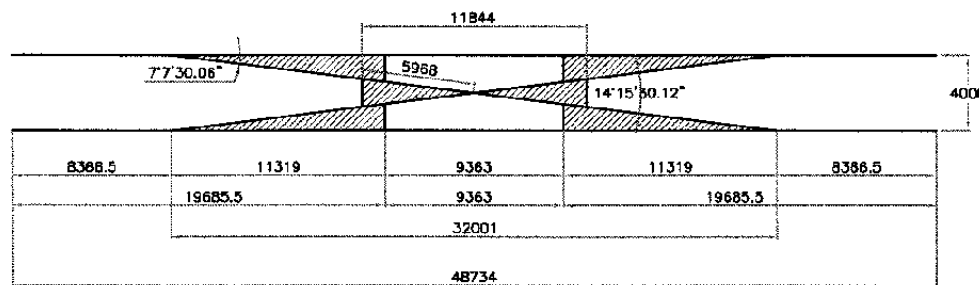
ITEM	DIMENSION	QTY	REMARKS
SWITCH	9100	2	
CROSSING (#8)	M = 1650 N = 2750	4	HIGH MANGANESE CAST STEEL
CROSSING (#4)	M = 2300 N = 1700	2	HIGH MANGANESE CAST STEEL
CROSSING (#4)	N = 1863	2	HIGH MANGANESE CAST STEEL
GUARD	3000	4	R 54
GUARD	1700	4	R 54
GUARD	4400	4	R 54
TIE PLATE		248	
FISH PLATE		40	
BOLT / NUT		240	FOR ORDINARY JOINT
SREW SPIKE		992	
INSULATED JOINT	"R		
BOLT / NUT		98	FOR INSULATED JOINT
MAIN RAIL	7980.5	4	R 54
MAIN RAIL	8022	4	R 54
STOCK RAIL	11700	8	R 54
LEAD RAIL	5322	4	R 54
LEAD RAIL	5278	4	R 54
RAIL	8370	2	R 54
RAIL	10480.8	2	R 54
RAIL	3325	2	R 54

SLEEPER LIST

LENGTH	WIDTH x THICKNESS	QTY
2200	230 x 140	36
2500	230 x 140	50
2800	230 x 140	34
3700	230 x 140	22
4000	230 x 140	23
1100	230 x 140	24

LEGEND :

- : ORDINARY JOINT 6mm
- : INSULATED JOINT 10mm
- - - : APPROXIMATE SHAPE OF MONOBLOCK CASTING



STANDARD SKELETON R.54 No.8

REDDT - Stage 2 (Manggarai - Bekasi)

Scissors Crossing R.54 - No.8 Installation

No.	KM	To	KM	Unit	Simple Turnout R.54 - NO.8	
					Main Line	Commuter Line
1	0 + 746	To	0 + 400	Set	0	0
2	0 + 400	To	1 + 254	Set	0	0
3	1 + 254	To	1 + 435	Set	0	0
4	1 + 435	To	1 + 949	Set	0	0
5	1 + 949	To	12 + 550	Set	0	0
6	12 + 550	To	13 + 612	Set	0	0
				Scissors Crossing	3	0
7	13 + 612	To	14 + 500	Set	0	0
8	14 + 500	To	15 + 406	Set	0	0
9	15 + 406	To	17 + 821	Set	0	0
10	17 + 192	To	17 + 821	Set	0	0
11	17 + 821	To	19 + 206	Set	0	0
12	19 + 206	To	19 + 996	Set	0	0
13	19 + 996	To	20 + 650	Set	0	0
14	20 + 650	To	21 + 600	Set	0	0
15	21 + 600	To	23 + 667	Set	0	0
16	23 + 667	To	24 + 175	Set	0	0
17	24 + 175	To	25 + 400	Set	0	0
18	25 + 400	To	26 + 900	Set	0	0
				TOTAL	3	0

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
 MINISTRY OF COMMUNICATION
 DIREKTORAT JENDERAL PERHUBUNGAN DARAT
 DIRECTORATE GENERAL OF LAND COMMUNICATION
 Jalan Medan Merdeka Barat No.2 Gedung Raya R.11 10121-300020-300057
 JAKARTA

Note:
 This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
 The copyright of this drawing rests with JICA.

Designed by:
 Japan International Cooperation Agency (JICA)
 JICA Study Team:
 Joint Venture of Pacific Consultants International and Japan Railway Technical Service

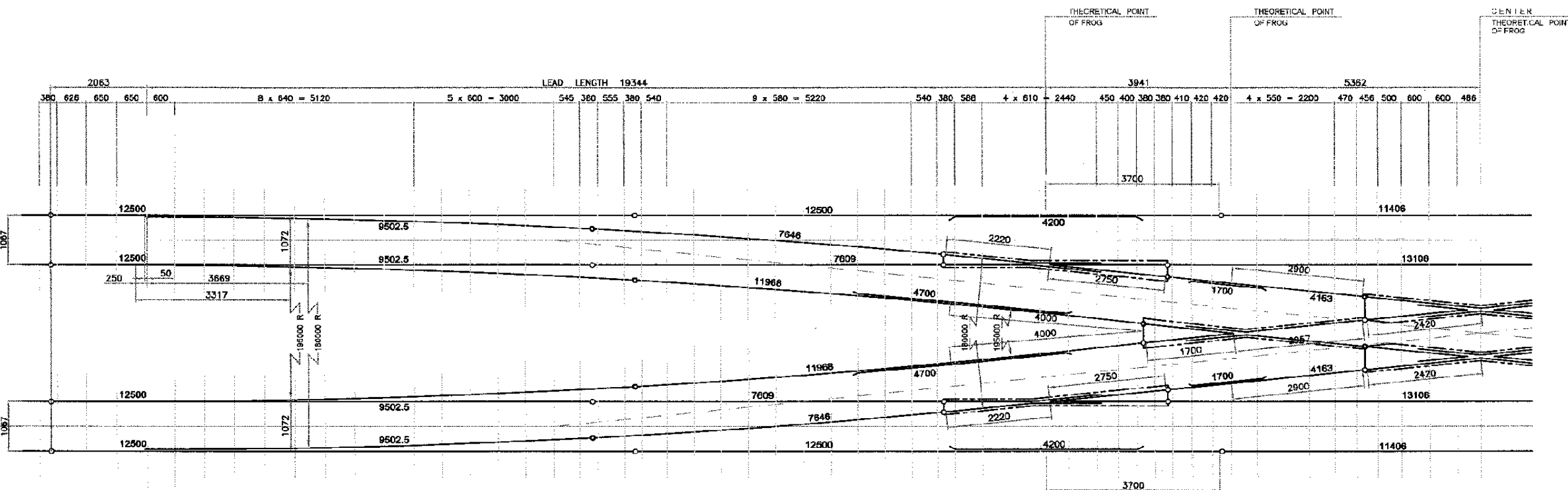
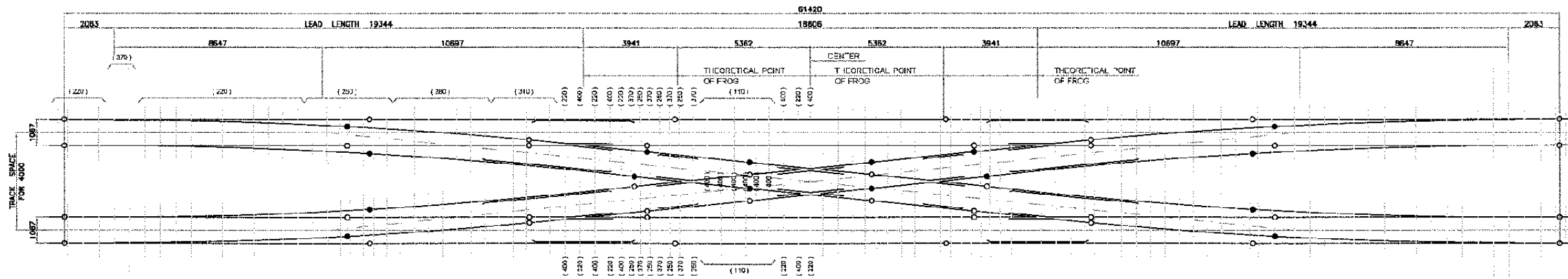
TRACK

TRACK WORKS

DATE : -

Drawing Title :
SCISSOR CROSSING R.54 No.8

Scale: 1 : 80
 1 : 45
 Drawing No: TR - 02 - 008



MATERIAL LIST

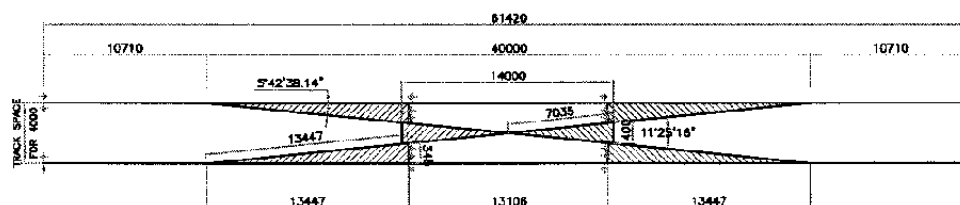
SLEEPER LIST

ITEM	DIMENSION	QTY	REMARKS
SWITCH	9502.5	2	
SWITCH	9502.5	2	
CROSSING (10)	M = 2220 N = 2780	4	HIGH MANGANESE CAST STEEL
CROSSING (5)	M = 2897 N = 1700	2	HIGH MANGANESE CAST STEEL
CROSSING (5)	N = 2420	2	HIGH MANGANESE CAST STEEL
GUARD	4200	4	R 54
GUARD	700	4	R 54
GUARD	4700	4	R 54
TIE PLATE		88	
FISH PLATE		80	
BOLT / NUT		240	FOR ORDINARY JOINT
SCREW SPHE		2752	
INSULATED JOINT		32	
BOLT / NUT		96	FOR INSULATED JOINT
MAIN RAIL	12500	4	R 54
MAIN RAIL	11968	4	R 54
STOCK RAIL	12500	8	R 54
LEAD RAIL	7646	4	R 54
LEAD RAIL	7609	4	R 54
RAIL	11406	2	R 54
RAIL	13106	2	R 54
RAIL	4163	2	R 54

LENGTH	WIDTH x THICKNESS	QTY
2200	230 x 140	76
2500	230 x 140	42
2800	230 x 140	28
3000	230 x 140	20
3700	230 x 140	14
4800	230 x 140	28
1700	230 x 140	24

LEGEND :

- : ORDINARY JOINT 6mm
- : INSULATED JOINT 10mm
- - - : APPROXIMATE SHAPE OF MONOBLOCK CASTING



STANDARD SKELETON R.54 No.10

**REDDT - Stage 2 (Manggarai - Bekasi)
Scissors Crossing R.54 - No.10 Installation**

No.	KM To	KM	Unit	Simple Turnout R.54 - NO.5	
				Main Line	Commuter Line
1	0 + 748	To 0 + 400	Set	2	1
2	0 + 400	To 1 + 254	Set	0	0
3	1 + 254	To 1 + 435	Set	0	0
4	1 + 435	To 1 + 948	Set	0	0
5	1 + 948	To 12 + 580	Set	0	2
6	12 + 580	To 13 + 512	Set	0	0
Cipinang Yard				Set	0
7	13 + 512	To 14 + 300	Set	0	0
8	14 + 300	To 15 + 406	Set	0	0
9	15 + 406	To 17 + 321	Set	0	0
10	17 + 321	To 17 + 321	Set	0	0
11	17 + 321	To 19 + 208	Set	0	0
12	19 + 208	To 19 + 306	Set	0	0
13	19 + 306	To 20 + 560	Set	0	0
14	20 + 560	To 21 + 900	Set	0	C
15	21 + 900	To 23 + 967	Set	0	C
16	23 + 967	To 24 + 175	Set	0	C
17	24 + 175	To 25 + 400	Set	0	C
18	25 + 400	To 26 + 900	Set	2	2
TOTAL				4	5

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTMENT PERUBAHAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERUBAHAN DARAT
DIREKTORAT JENDERAL PERUBAHAN DARAT
Jalan Medan Merdeka Barat No.8 Gedung Ekipa B.11 Jakarta-10550-200557
JAKARTA

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

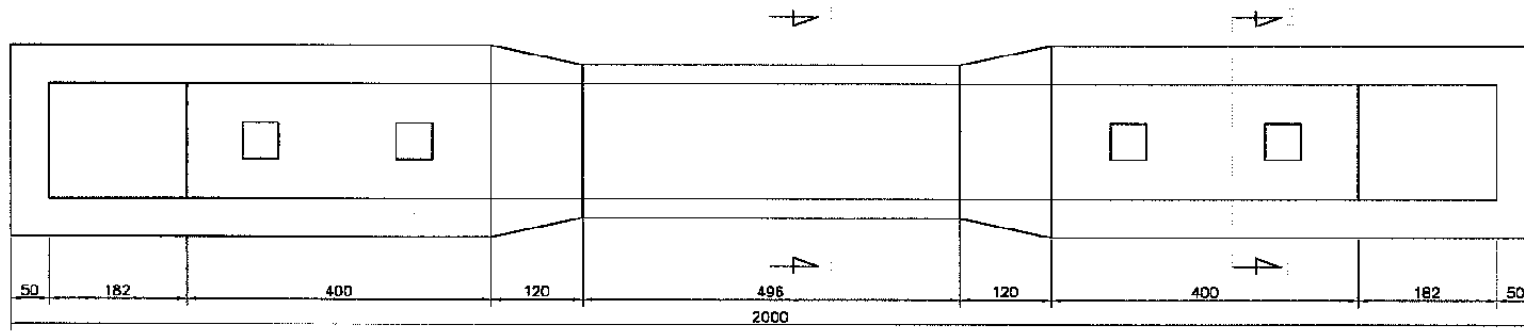
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS

DATE -

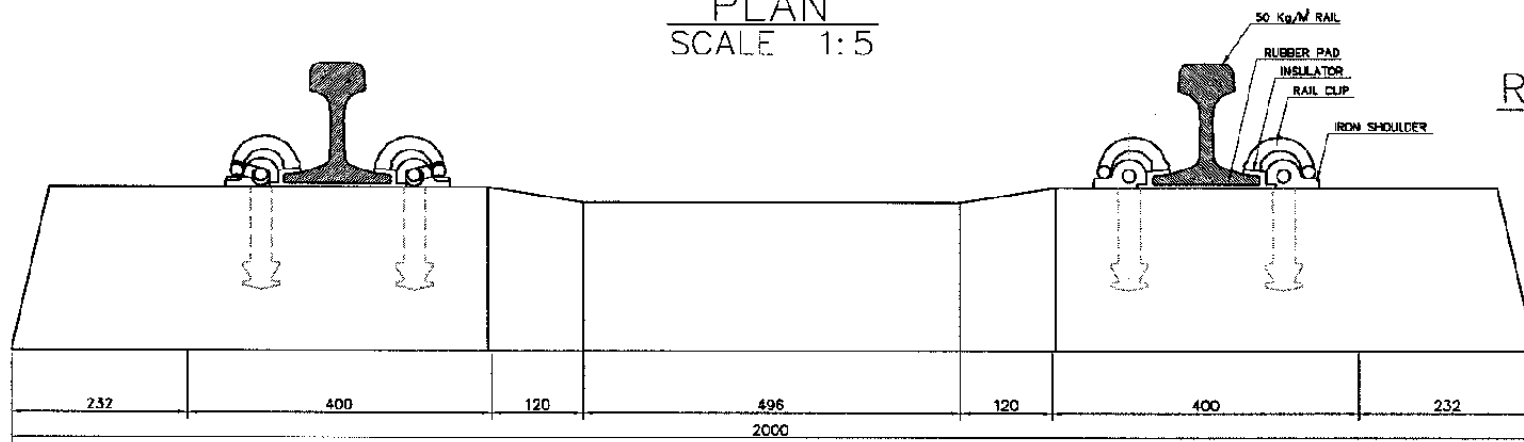
Drawing Title :
SCISSOR CROSSING R.54 No.10

Scale: 1:200 / 1:100 / 1:50
Drawing No.: TR - 02 - 009

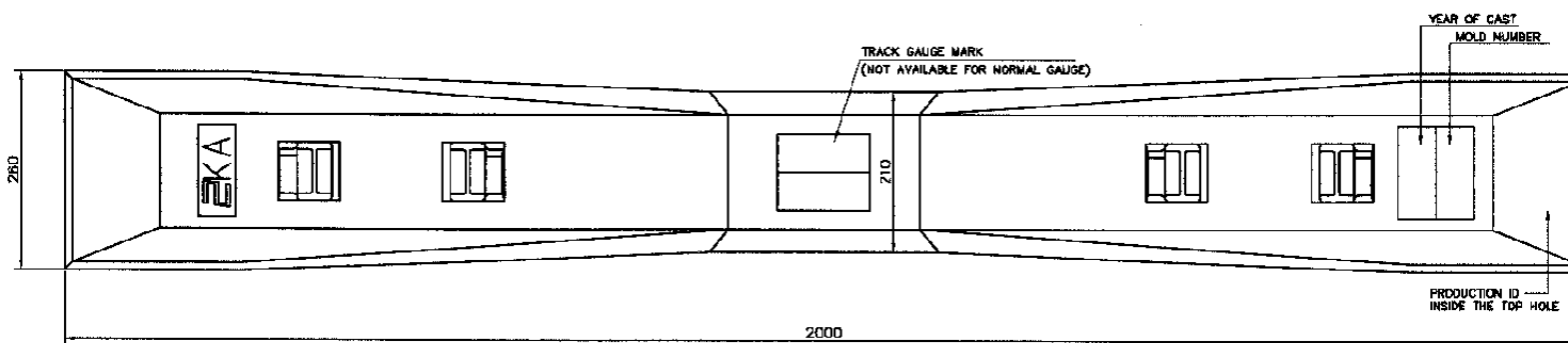
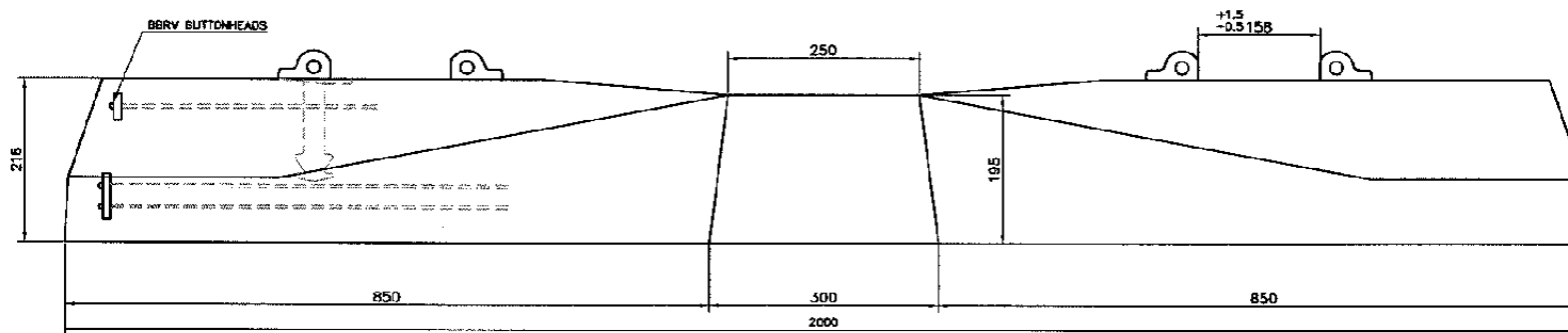


PRESTRESSED CONCRETE SLEEPERS

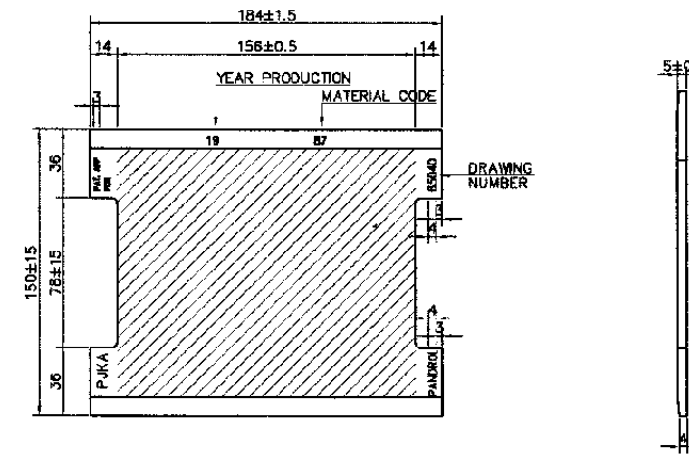
PLAN
SCALE 1:5



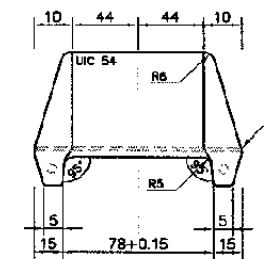
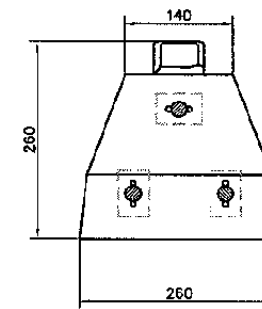
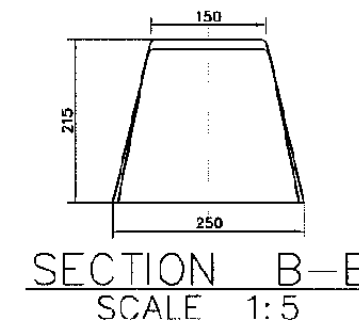
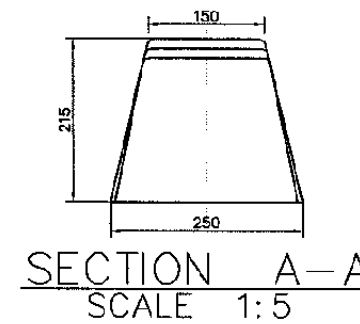
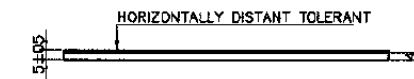
SIDE VIEW
SCALE 1:5
P.C. SLEEPER AND ACCESSORIES



PRESTRESSED CONCRETE SLEEPER
SCALE 1:5



RUBBER PAD FOR R.54 RAIL ON PC SLEEPER
SCALE 1:2



INSULATOR FOR R.54 RAIL ON PC SLEEPER
SCALE 1:2

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

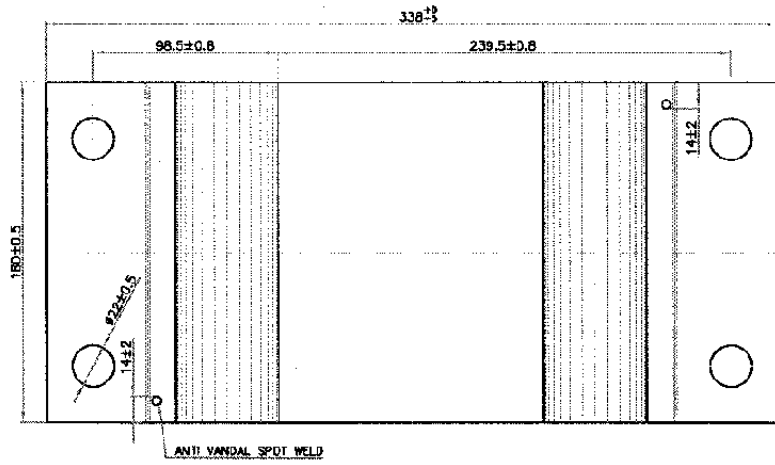
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS

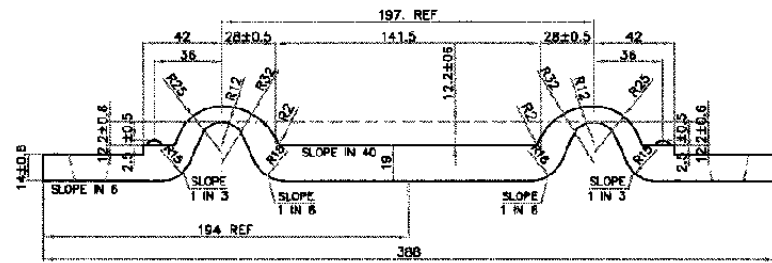
DATE -

Drawing Title :
PC SLEEPERS AND FASTENING

Scale: 1:5, 1:2
Drawing No.: TR - 02 - 010



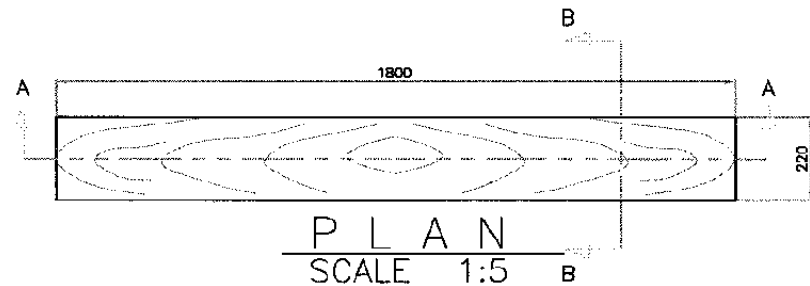
PLAN
SCALE 1:2



ENLARGED ANTI VANDAL SPOT WELD DETAIL

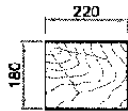
CROSS
SCALE 1:2

PANDROL TYPE BASE - PLATE FOR R.54



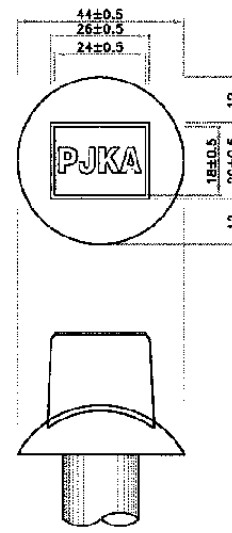
PLAN
SCALE 1:5

SECTION B - B

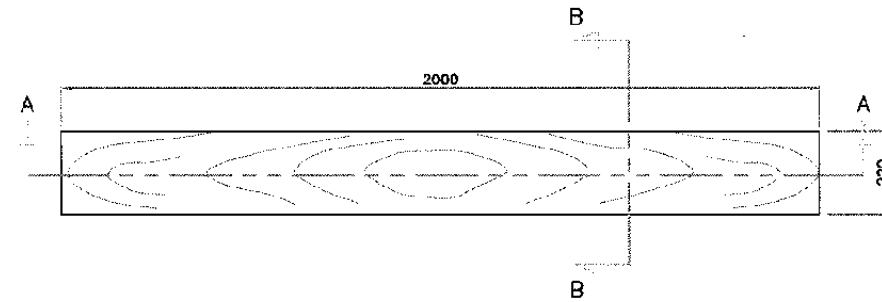


SECTION A - A
SCALE 1:5

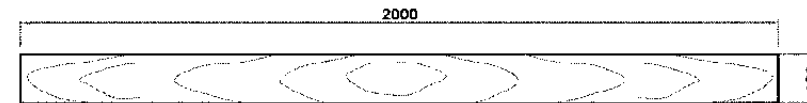
WOODEN SLEEPER ON BRIDGE



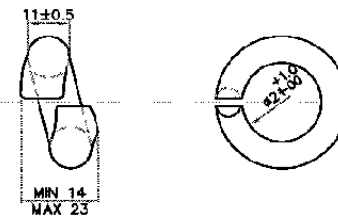
SCREW SPIKE
SCALE 1:1



PLAN
SCALE 1:5



SECTION A - A
SCALE 1:5



SPRING WASHER
SCALE 1:1



SECTION B - B

WOODEN SLEEPER ON TRACK

WOODEN SLEEPER AND FASTENING

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



DEPARTEMEN KOMUNIKASI
KEMENTERIAN KOMUNIKASI
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
Jalan Medan Merdeka Barat No.8 Gedung Korpri Lt.11 Jakarta-15132
JAKARTA

Note:
This detailed design has been executed by a team
of consultants as shown below in accordance with
the agreement between Japan International
Cooperation Agency (JICA) and JICA Study
Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation
Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK

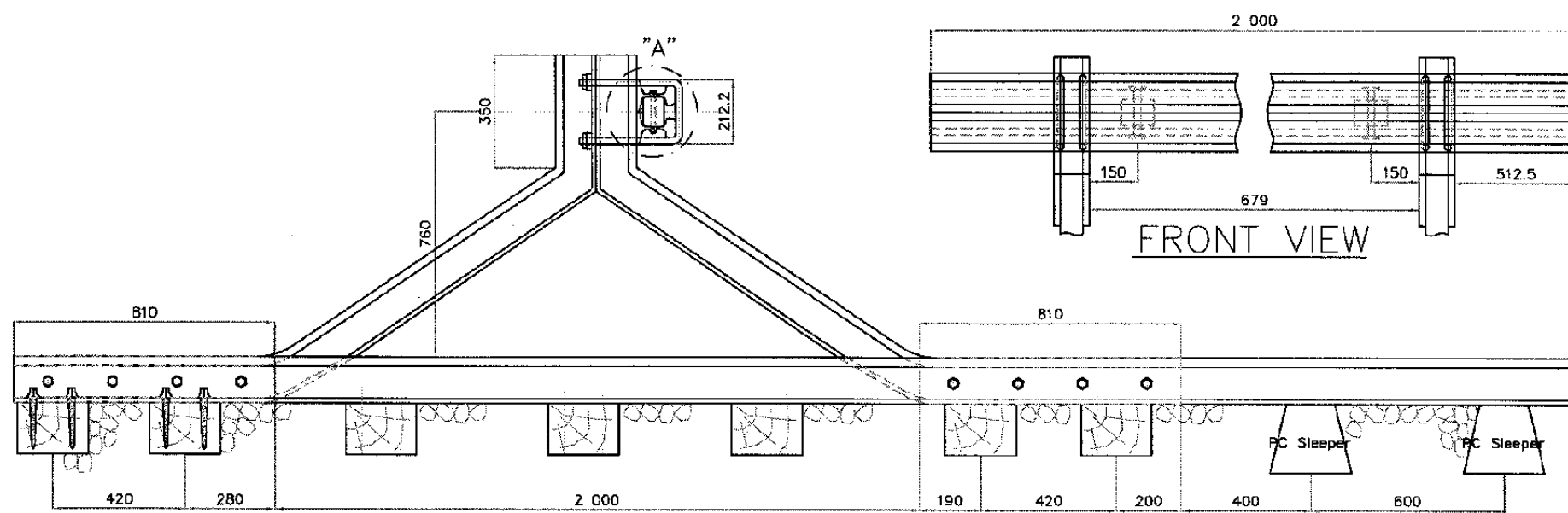
TRACK WORKS

DATE

Drawing Title :

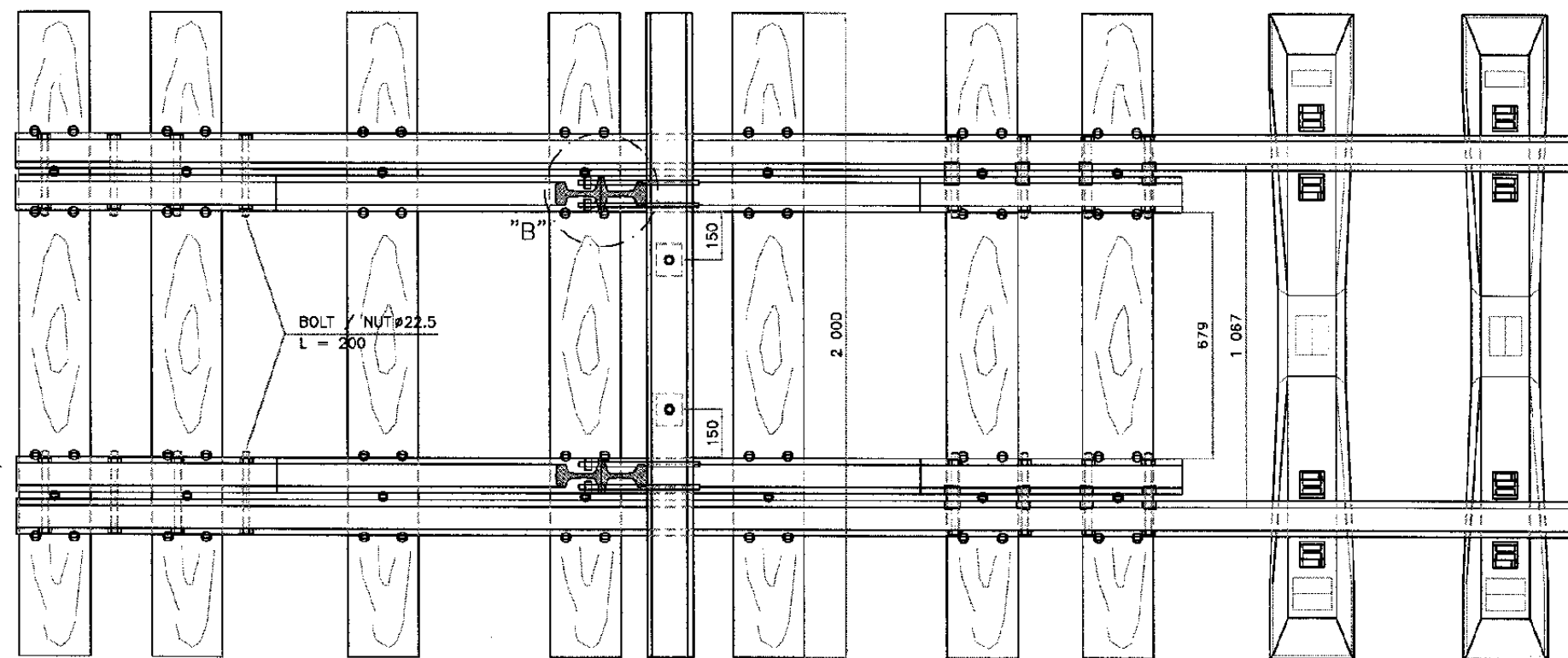
WOODEN SLEEPER AND FASTENING

Scale: 1:5
1:2
1:1
Drawing no: TR - 02 - 011

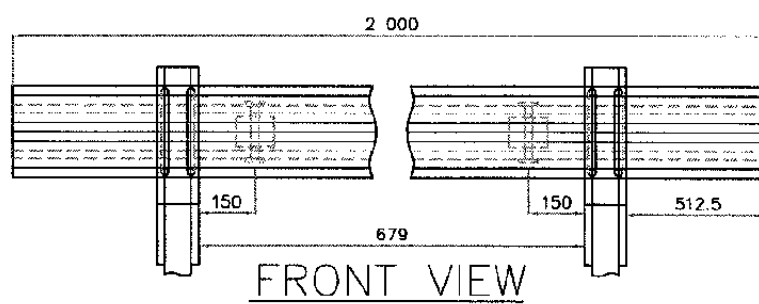


SIDE VIEW
SCALE 1:20

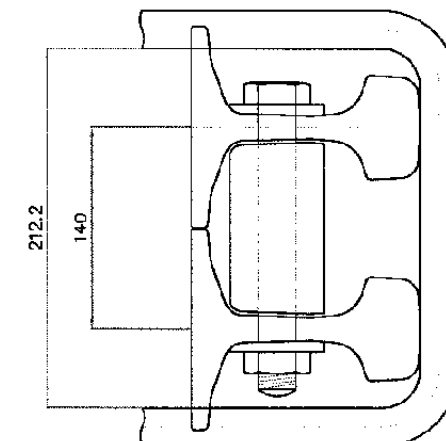
NOTE:
IN FABRICATING BUFFER STOPS
OLD R54 RAILS SHALL BE UTILIZED



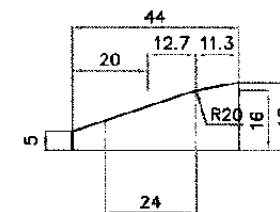
PLAN
SCALE 1:20



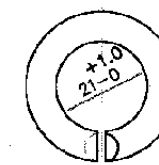
FRONT VIEW



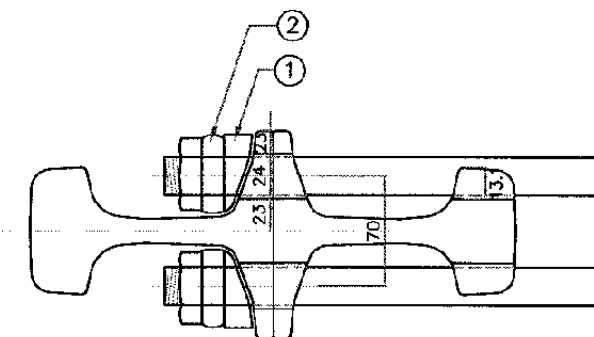
DETAIL "A"
SCALE 1:4



①
CLAMP PLATE
SCALE 1:2



②
WASHER
SCALE 1:2



DETAIL "B"
SCALE 1:4

The Railway Electrification and
Double - double Tracking of
Java Main Line Project



Note:
This detailed design has been executed by a team
of consultants as shown below in accordance with
the agreement between Japan International
Cooperation Agency (JICA) and JICA Study
Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation
Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK

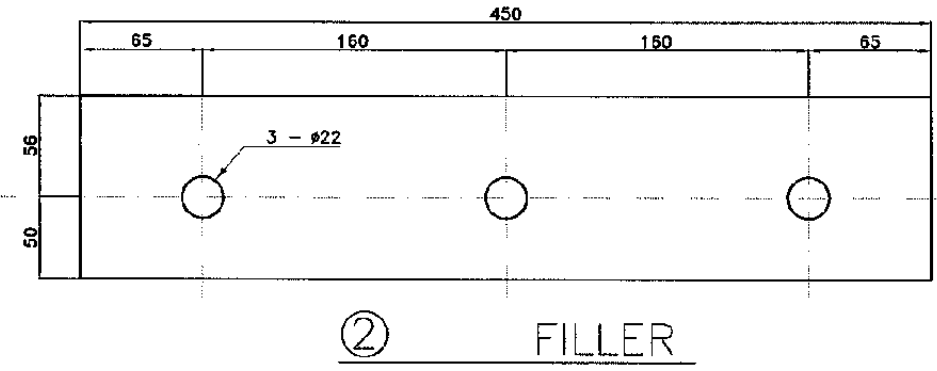
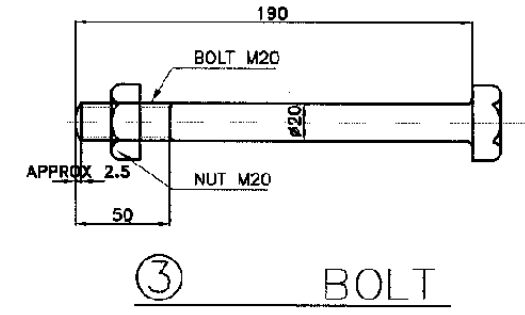
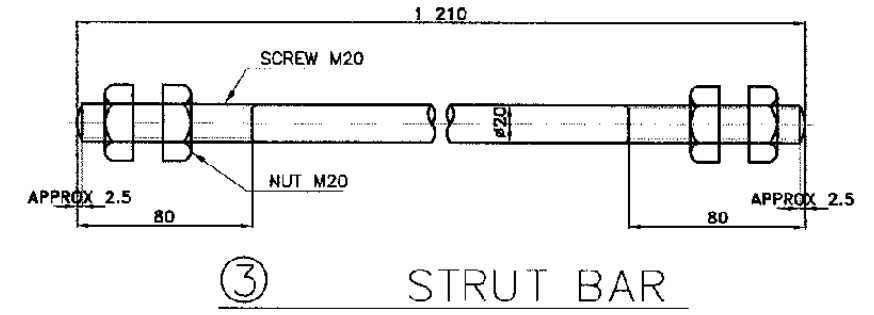
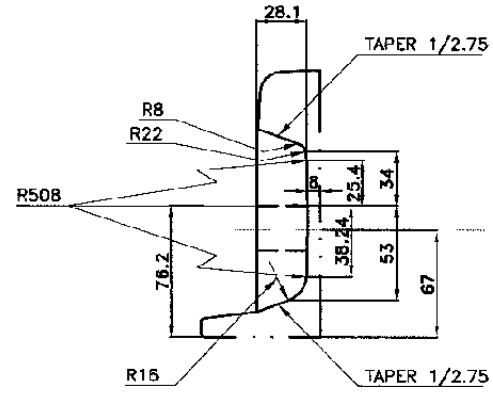
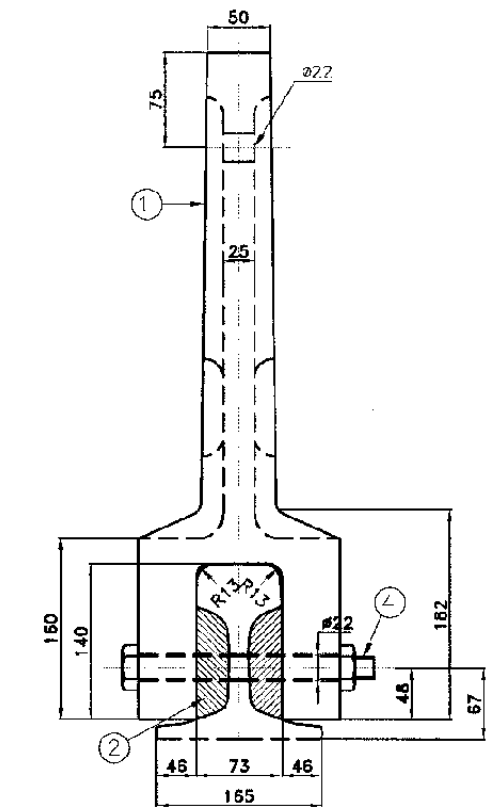
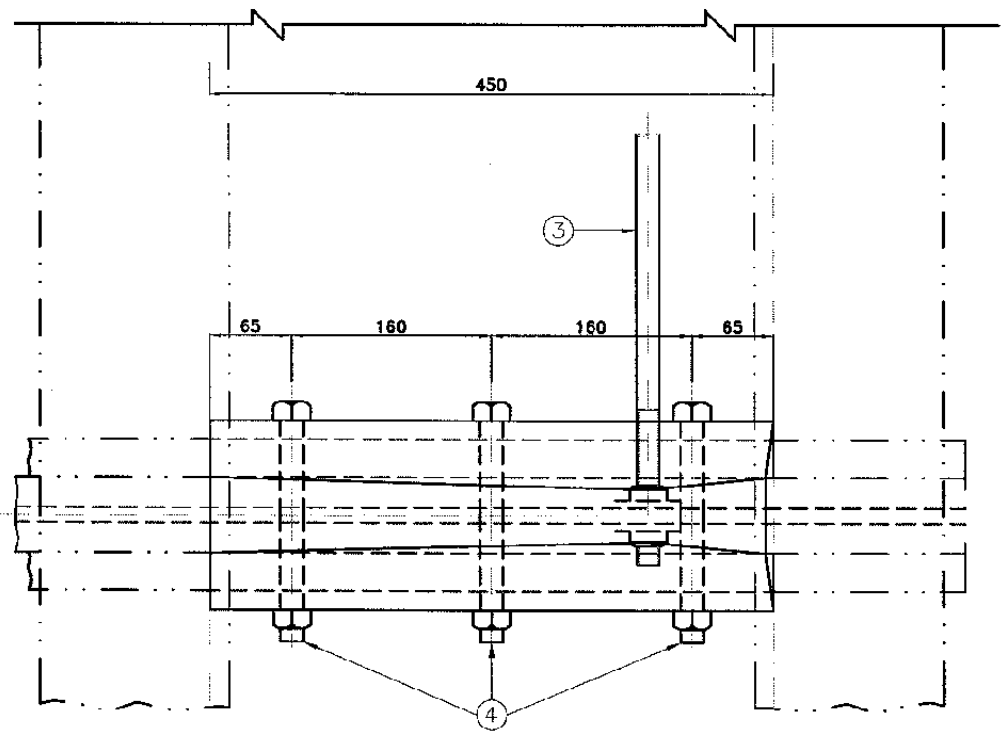
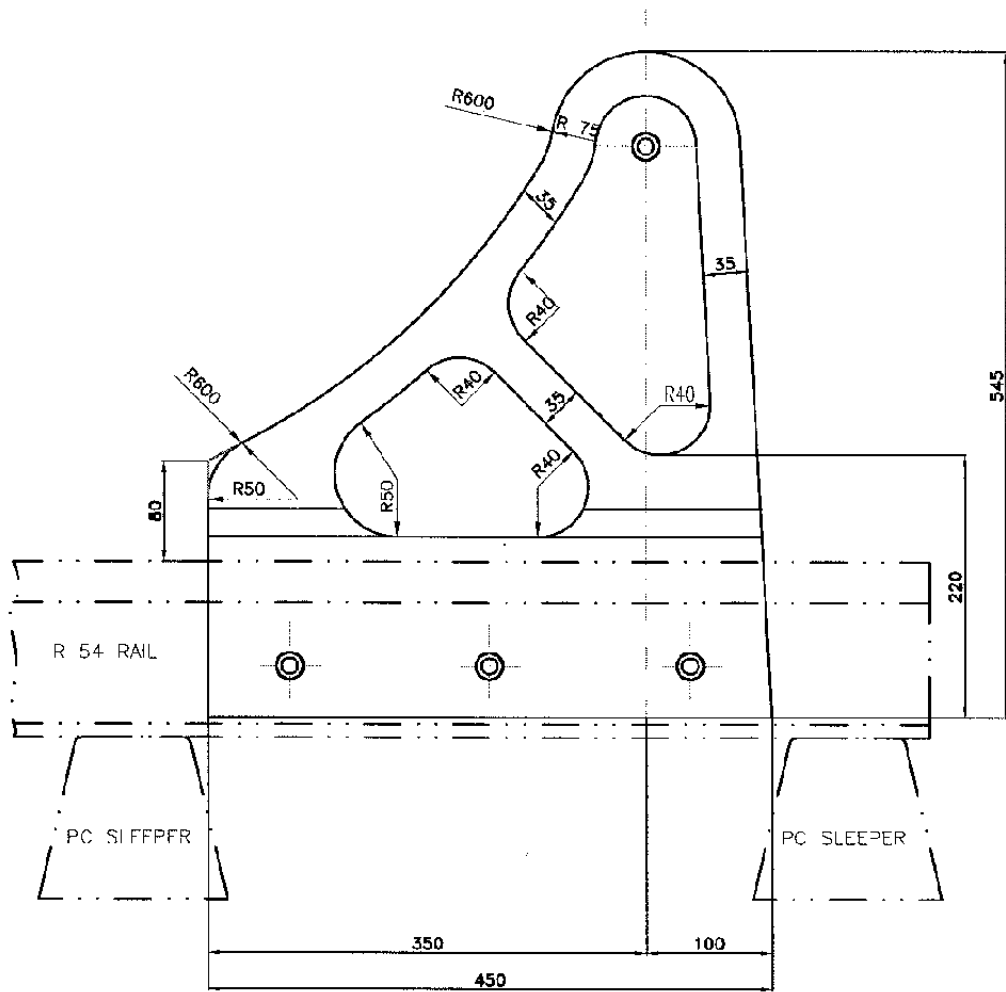
TRACK WORKS

DATE -

Drawing Title:

BUFFER STOP ASSEMBLY (TYPE A)

Scale: 1:20
1:4
1:2
Drawing No: TR-02-012



MATERIAL LIST

NO	DESCRIPTION	DIMENSION	MATERIAL	Q'TY	REMARK
1	WHEEL STOPPER		CAST STEEL	2	
2	FILLER	97.5 x 26.5 x 450	WOOD	4	
3	STRUT BAR	20 x 1 210	3	1	
4	BOLT	20 x 190	4	6	

REDDT - Stage 2 (Manggarai - Bekasi) Buffer Stop Installation

No.	KM	To	KM	Unit	Simple Turnout R.54 - NO.8	
					Main Line	Commuter Line
1	0 - 746	To	0 + 400	Set	4	2
2	0 - 400	To	1 + 254	Set	1	0
3	1 - 254	To	1 + 436	Set	0	0
4	1 - 436	To	1 + 949	Set	0	0
5	1 - 949	To	12 + 590	Set	0	0
6	12 - 590	To	13 + 512	Set	0	0
					Cipinang Yard	
7	13 - 512	To	14 + 500	Set	0	0
8	14 - 500	To	15 + 406	Set	0	0
9	15 - 406	To	17 + 321	Set	0	0
10	17 - 321	To	17 + 321	Set	0	0
11	17 - 321	To	19 + 206	Set	0	0
12	19 - 206	To	19 + 994	Set	0	0
13	19 - 994	To	20 + 650	Set	0	0
14	20 - 650	To	21 + 800	Set	0	0
15	21 - 800	To	23 + 687	Set	0	0
16	23 - 687	To	24 + 175	Set	0	0
17	24 - 175	To	25 + 400	Set	0	0
18	25 - 400	To	26 + 500	Set	0	3
TOTAL					15	5

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

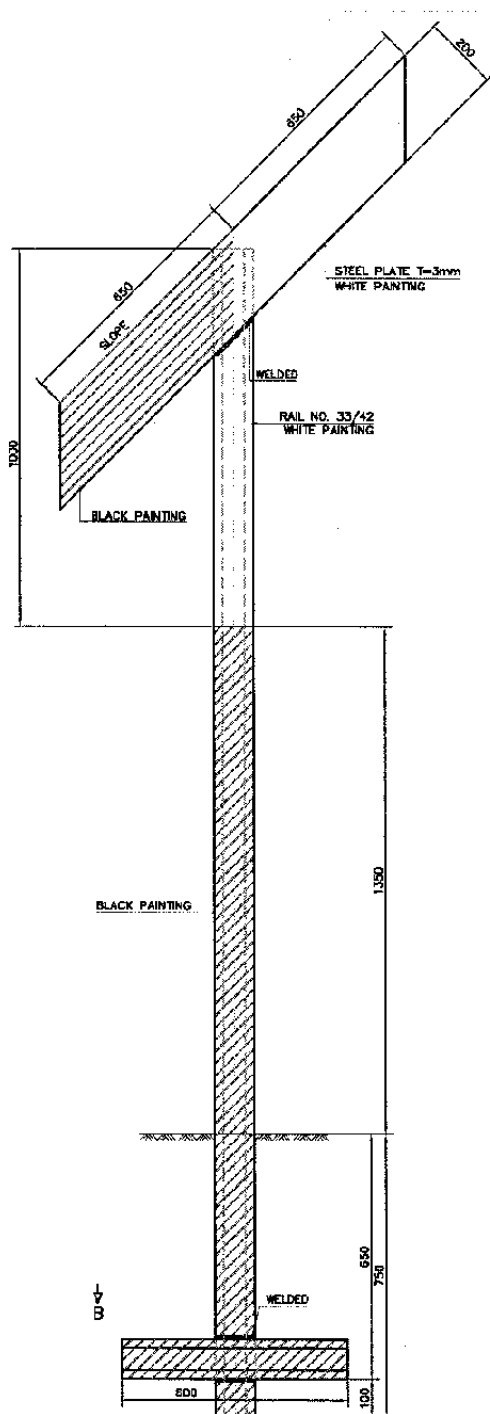
Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK
TRACK WORKS

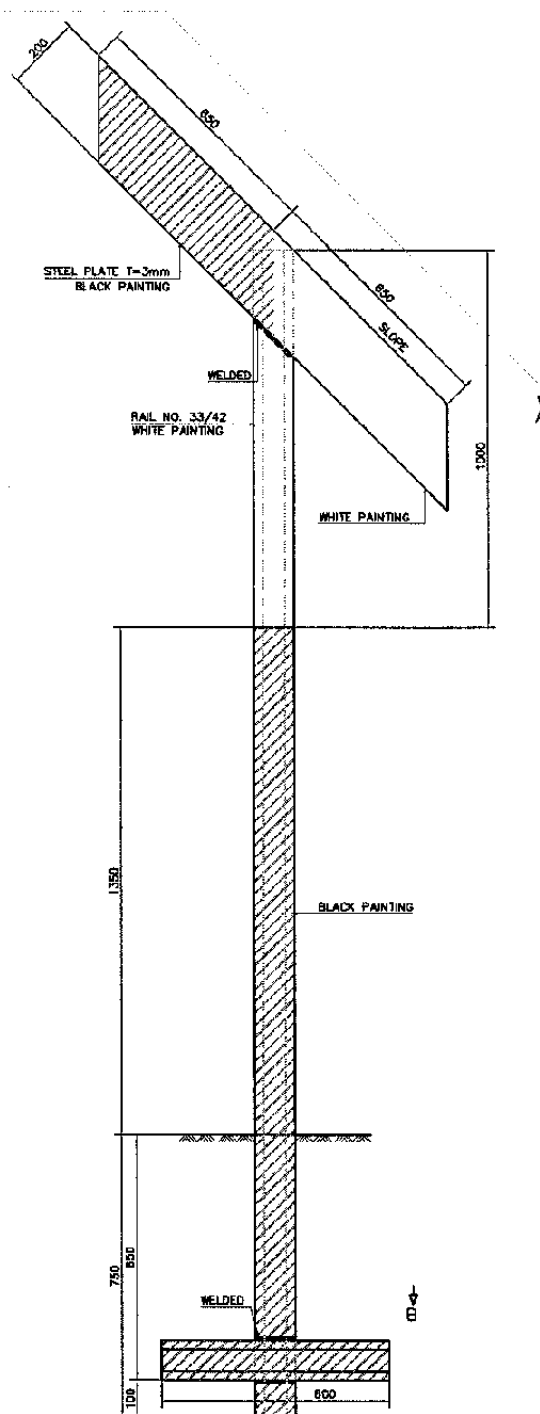
DATE -

Drawing Title :
BUFFER STOP ASSEMBLY (TYPE B)

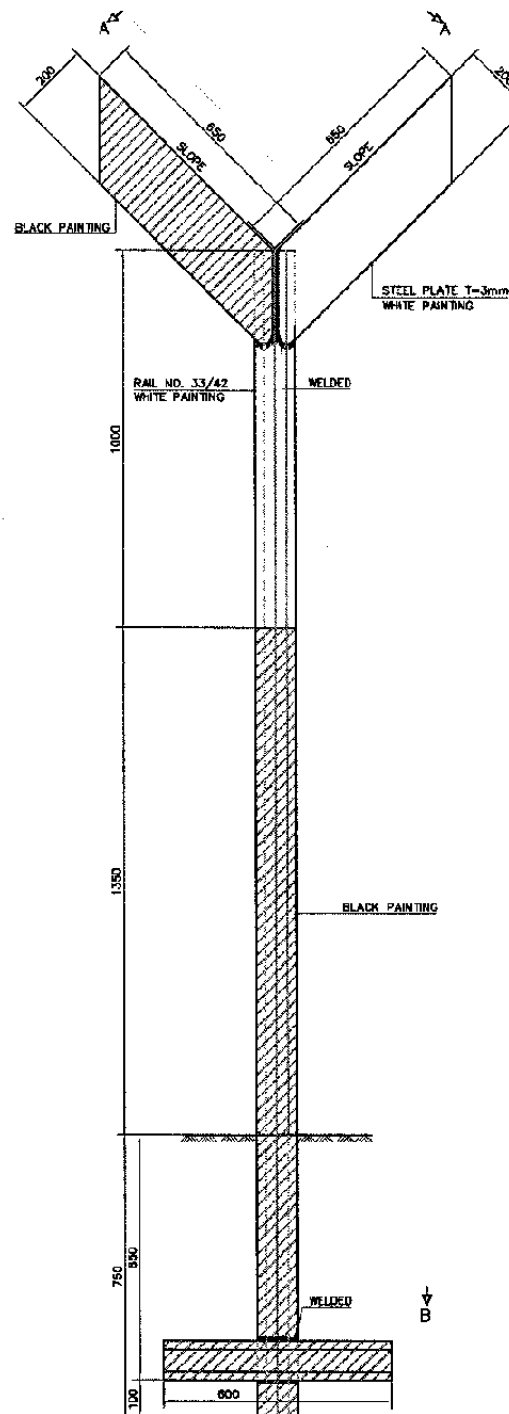
Scale: 1: 100
Drawing No: TR - 02 - 013



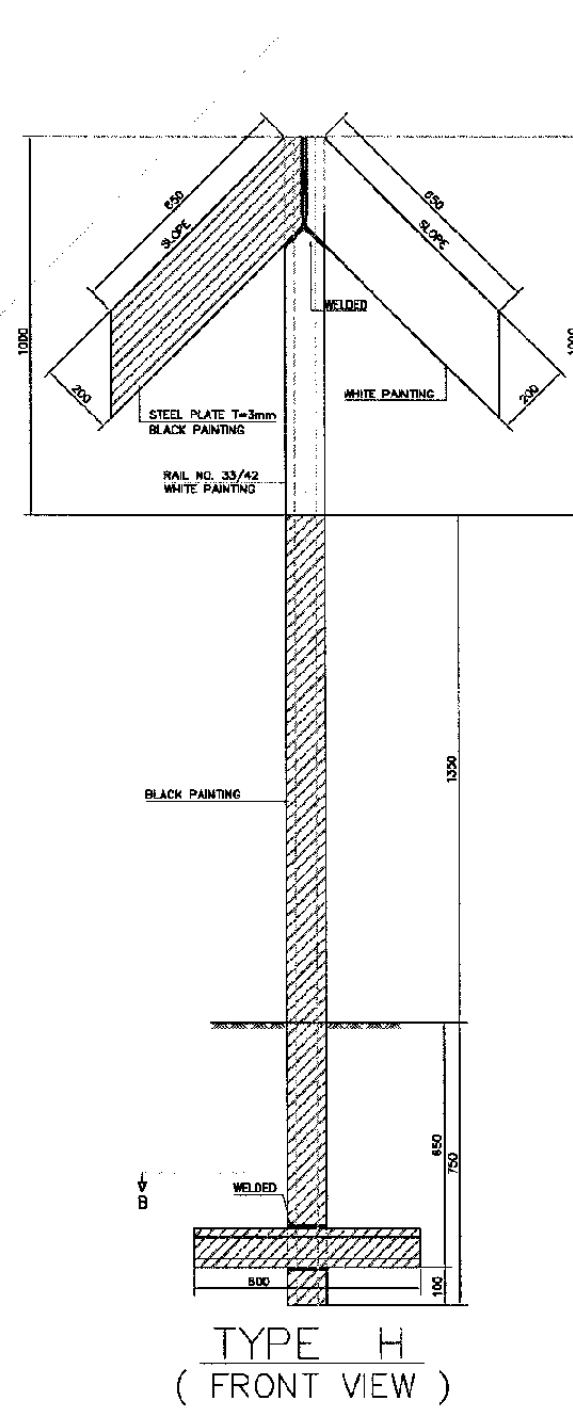
TYPE E
(FRONT VIEW)



TYPE F
(FRONT VIEW)

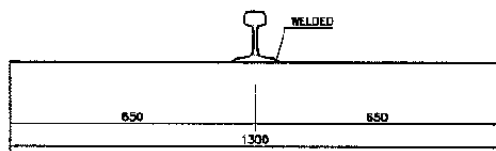


TYPE G
(FRONT VIEW)

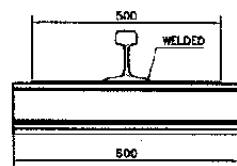


TYPE H
(FRONT VIEW)

GRADIENT SIGN POST
SCALE 1:10



TOP VIEW



SECTION B-B

NOTE : ON BACK SIDE OF ALL STEEL PLATE MUST BE WELDED ON RAIL POST

- NOTE :
1. CLEARANCE POST SHALL BE INSTALLED AT SIMPLE TURN OUTS (OF SCISSORS CROSSING, OF DOUBLE SLIP SWITCH, OF SINGLE SLIP SWITCH)
 2. CURVE POST SHALL BE INSTALLED AT THE THEORETICAL BEGINNING AND END POINTS OF CIRCULAR CURVES
 3. GRADE POST SHALL BE INSTALLED AT THE CHANGING POINT OF GRADES
 4. KILOMETRE POST SHALL BE INSTALLED EVERY 1 KM.
 5. 100 METRE POST SHALL BE INSTALLED EVERY 100 M FROM A KILOMETRE POST
 6. LEVEL CROSSING POST SHALL BE INSTALLED AT BOTH SIDE OF THE ROAD

REDDT - Stage 2 (Manggarai - Bekasi)
Railway Sign Installation

No.	KM To KM	Unit	Railway Sign Installation Main Line			Railway Sign Installation Commuter Line		
			Clearance Post	Curve Post	Grade Post	Clearance Post	Curve Post	Grade Post
1	0 + 746 To 0 + 400	Set	13	30	2	11	36	14
2	0 + 400 To 1 + 254	Set	1	12	6	0	18	4
3	1 + 254 To 1 + 435	Set	0	0	0	0	0	0
4	1 + 435 To 1 + 949	Set	0	4	4	0	4	4
5	1 + 949 To 12 + 530	Set	11	35	4	13	20	4
6	12 + 530 To 13 + 512	Set	7	0	4	0	0	0
	Cipinang Yard	Set	57	64	0	0	0	0
7	13 + 512 To 14 + 530	Set	0	8	5	0	0	0
8	14 + 500 To 15 + 436	Set	0	0	2	0	6	12
9	15 + 406 To 17 + 192	Set	0	4	10	0	0	0
10	17 + 192 To 17 + 821	Set	0	0	4	0	6	10
11	17 + 821 To 19 + 736	Set	0	0	8	0	2	10
12	19 + 205 To 19 + 986	Set	0	0	6	0	5	8
13	19 + 986 To 20 + 050	Set	0	4	6	0	0	0
14	20 + 650 To 21 + 600	Set	0	2	6	4	10	4
15	21 + 600 To 23 + 687	Set	0	2	14	0	6	10
16	23 + 667 To 24 + 175	Set	0	2	4	0	6	0
17	24 + 175 To 25 + 400	Set	0	4	6	0	2	6
18	26 + 400 To 26 + 900	Set	8	22	6	11	28	6
	TOTAL		99	234	96	39	158	92

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTMENT PERUBUDHARAN
MINISTRY OF COMMUNICATION
DIREKTORAT JENDERAL PERUBUDHARAN DARAT
Jalan Medan Merdeka Barat No. 8 Gedung Koperasi 2.11 Jakarta - 10110-330633-330637
JAKARTA

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK

TRACK WORKS

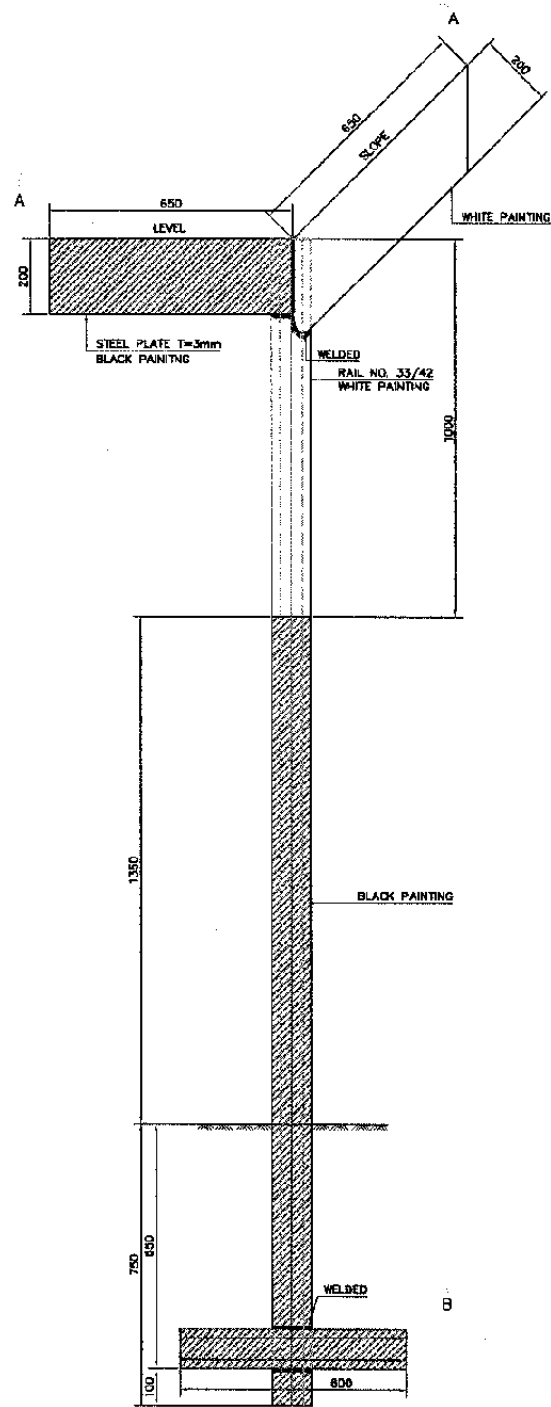
DATE

Drawing Title :

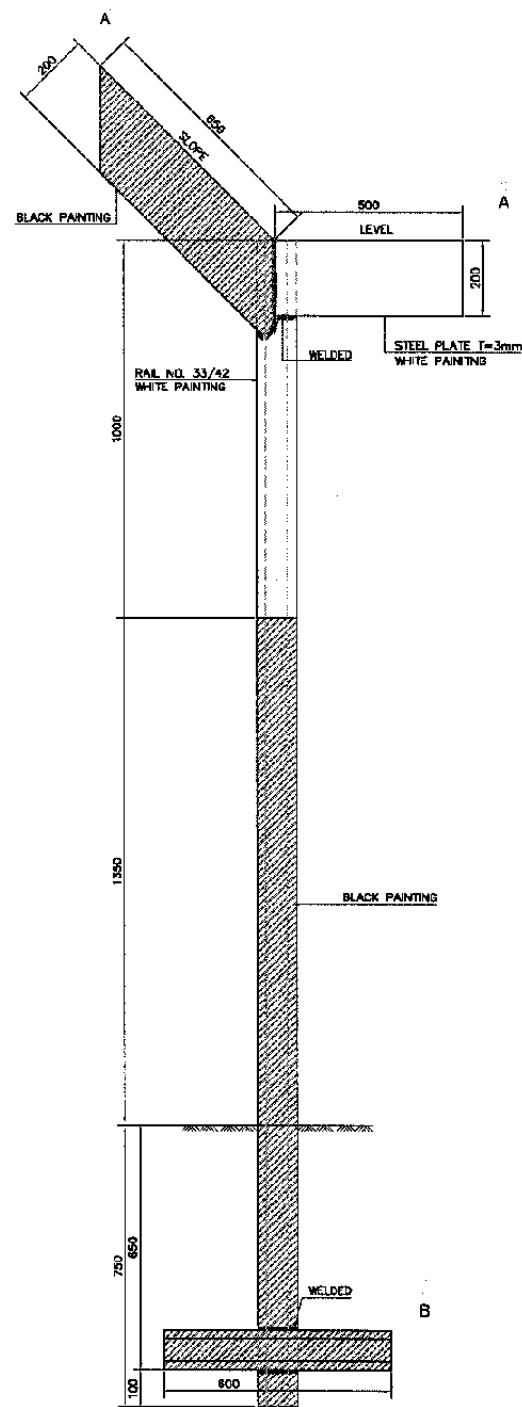
RAILWAY SIGN POST
(SHEET 1 OF 3)

Scale:
1:10

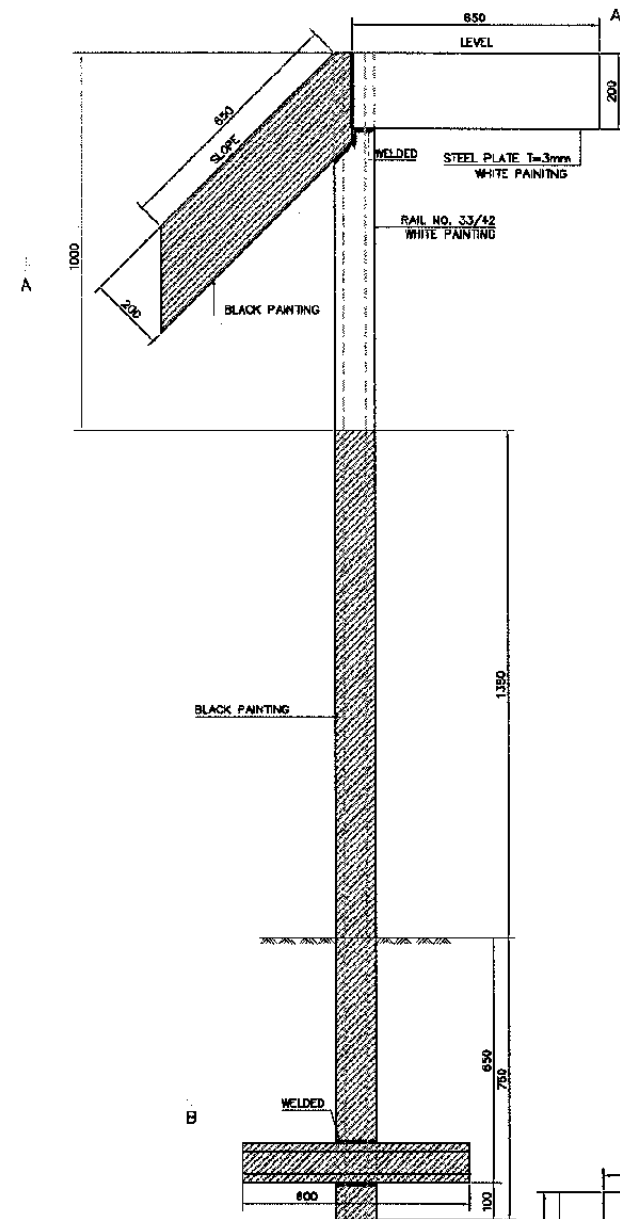
Drawing No:
TR - C2 - 014



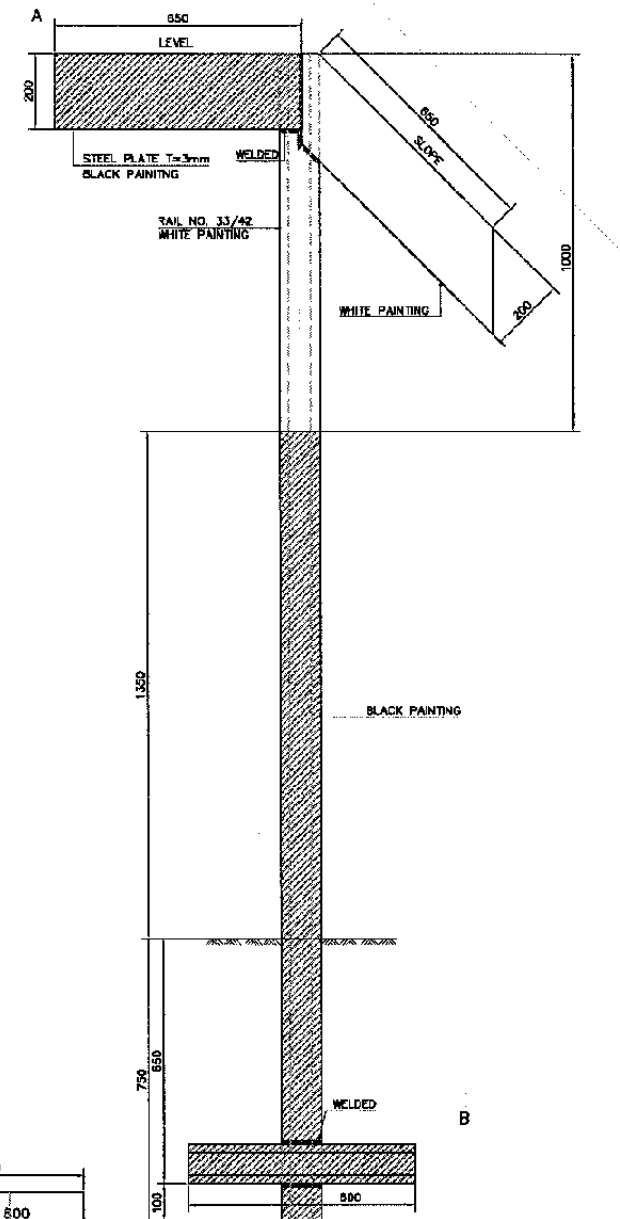
TYPE A
(FRONT VIEW)



TYPE B
(FRONT VIEW)

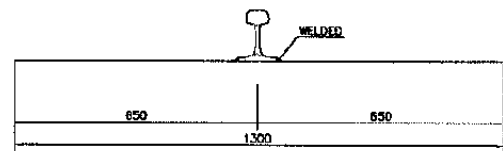


TYPE C
(FRONT VIEW)

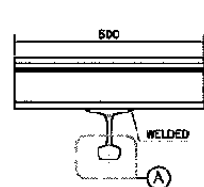


TYPE D
(FRONT VIEW)

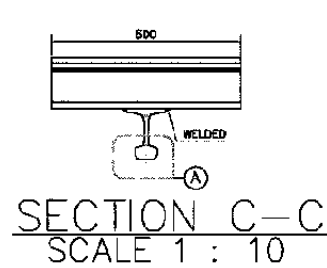
GRADIENT SIGN POST
SCALE 1:10



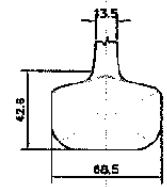
SECTION A-A



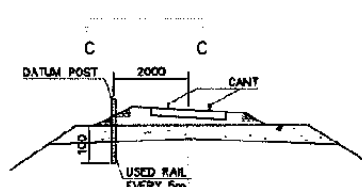
SECTION B-B



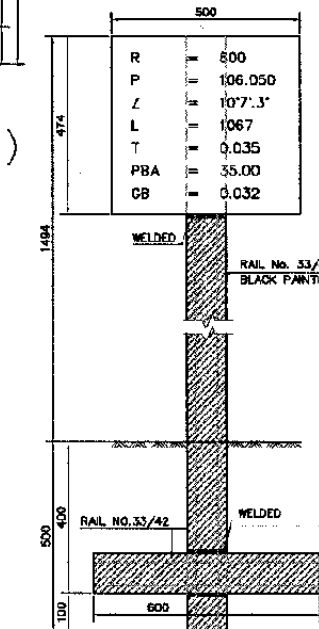
SECTION C-C
SCALE 1:10



A-DETAIL
(MEASURE POINT)
SCALE 1:10



INSTALLATION
SCALE 1:100



CURVE SIGN POST
SCALE 1:10

NOTE : ON BACK SIDE OF ALL STEEL PLATE MUST BE WELDED ON RAIL POST

The Railway Electrification and Double - double Tracking of Java Main Line Project



DEPARTEMEN PERHUBUNGAN
MINISTERI KOMUNIKASI
DIREKTORAT JENDERAL PERHUBUNGAN DARAT
Jalan Medan Merdeka Barat No.8 Gedung Korpri Lt.11 Jakarta-15165
J.A.R.A.

Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of Pacific Consultants International and Japan Railway Technical Service

TRACK

TRACK WORKS

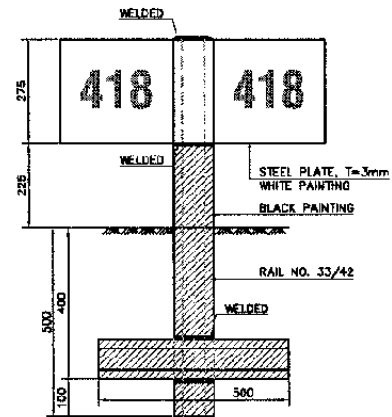
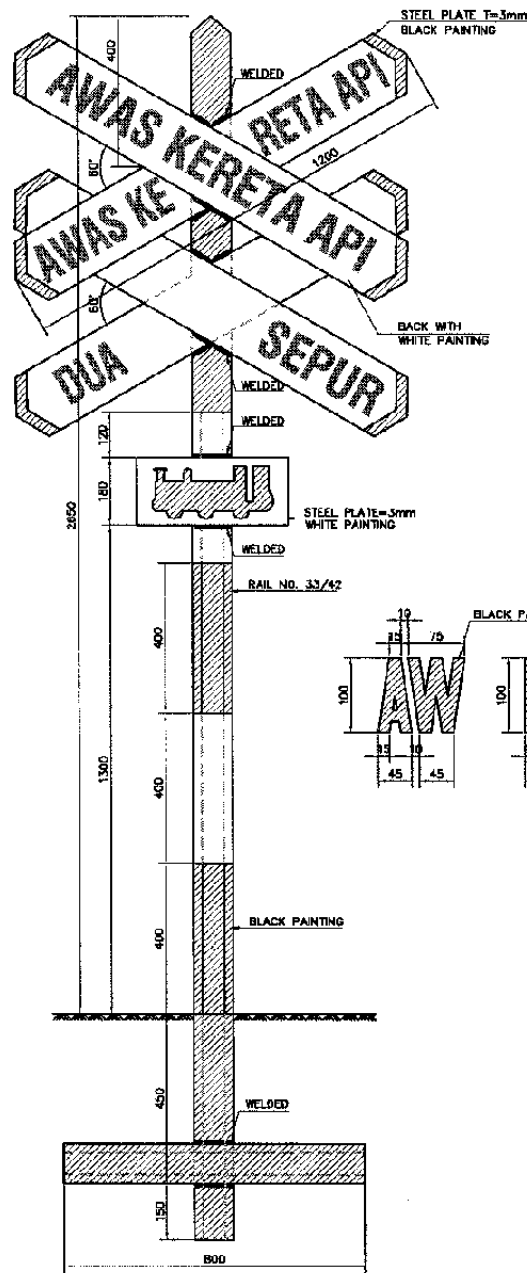
DATE

Drawing Title :

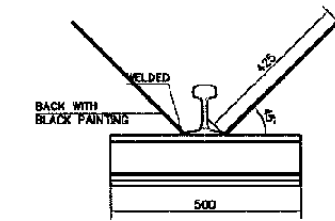
RAILWAY SIGN POST
(SHEET 2 OF 3)

Scale: 1:10

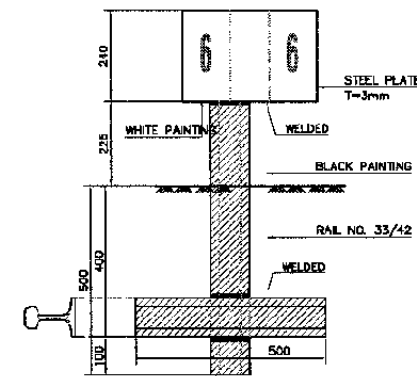
Drawing No: TR-02-015



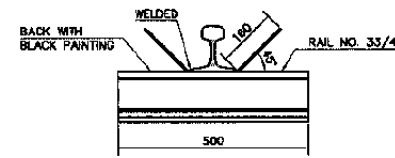
FRONT VIEW



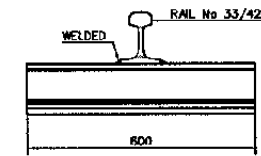
PLAN
SIGN POST
OF EVERY KILOMETRE (KM)
SCALE 1:10



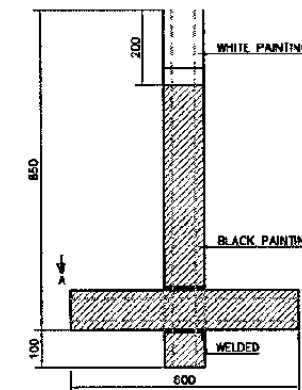
FRONT VIEW



PLAN
SIGN POST
OF EVERY 100 METRE (HM)
SCALE 1:10



SECTION A-A



CLEARANCE POST
SCALE 1:10

**ANDREAS CROSS POST
ON LEVEL CROSSING WITHOUT BARRIER**
SCALE 1:10

NOTE

- 1) WORD: "DUA" CAN BE CHANGED INTO "TIGA" OR "EMPAT" ACCORDINGLY
- 2) ALL WORDS, FIGURES AND SYMBOLS ARE BLACK PAINTED
- 3) ON BACK SIDE OF ALL STEEL MUST BE WELDED ON RAIL POST

The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:
This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team.
The copyright of this drawing rests with JICA.

Designed by:
Japan International Cooperation Agency (JICA)
JICA Study Team:
Joint Venture of
Pacific Consultants International and
Japan Railway Technical Service

TRACK

TRACK WORKS

DATE -

Drawing Title:

RAILWAY SIGN POST
(SHEET 3 OF 3)

Scale: 1:10 Drawing No.: TR-02-016