NO. 93 existing bridge condition

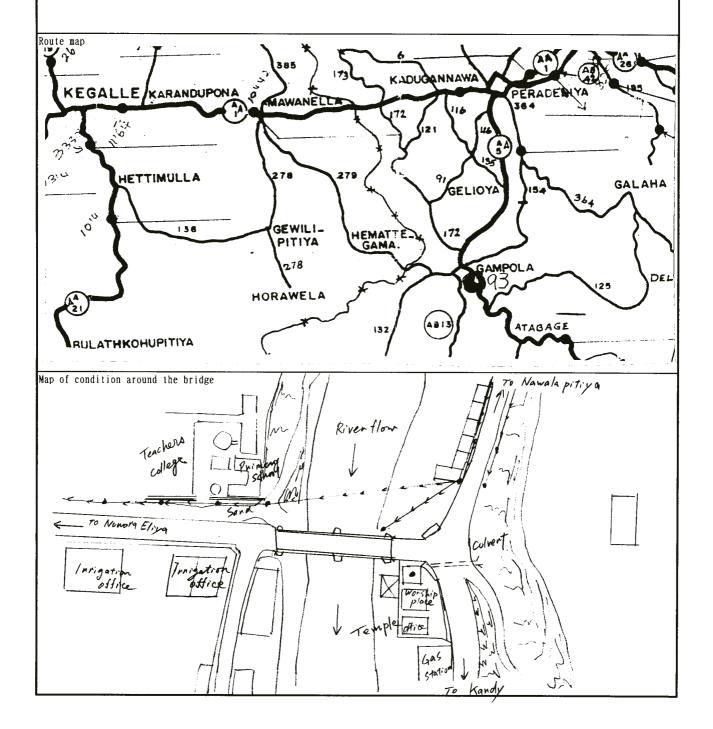
	Location		Road No.	Name of road	V- Da-4
	Province	District	Road No.	Name of foat	Km Post
L	Middle	Kandy	AA005	Peradeniya-Badulla-Chenkaladi	21/4

Outline of the route

The A5 road is an important route that connect the second largest city of Sri Lanka, Kyandy, with Nuwara Eliya, a tea production center and one of the greatest tourist sites. In Gampola, the road branches into two directions, one toward Nuwara Eliya and the other toward Gampola urban district, before this bridge.

The improvement work is currently under way for the A5 road section, Kyandy and Gampola, where the traffic volume is the largest. The Gampola-Nuwara Eliya section runs through a mountainous area and is unsatisfactory in terms of width and road alignment. It is therefore scheduled to start road improvement under assistance of JBIC within this year.

This bridge for the A5 road crosses over the Mahaweli Ganaga River, the longest river in Sri Lanka, at Kyandy. This is one of the most important bridges for economic development of Sri Lanka.



The general view (longitudinal direction to the bridge axis)



The side view (perpendicular direction to the bridge axis)



Structural data

Structure type:

⟨Superstructure⟩ 2-span simple steel truss bridge (existing bridge drawing made available from RDA)

Span split: 49.10m+48.90m

(Abutment) Stone masonry block structure

(Pier)

Stone masonry block structure

Bridge length:

98.30m

Sidewalk 2@2.08m

Width composition:

Driveway 4.85m.

Straight bridge Alignment:

Year of construction: 1926

Damage condition

Superstructure:

Corrosion and deterioration of steel truss members

Substructure:

Aging of steel materials

Accessories :

Clogging of expansion joint. Abnormality in pier bearings

Others:

Deflection of superstructure in the pier Insufficient road width

Traffic volume

(): Pedestrians

1990 2000 2. 279 vehicles/day

6, 555 vehicle (6, 434)

Natural conditions

Topographical features The bridge crosses the Mahaweli Ganaga river flowing through the central highlands. The site is like a valley topography, but not so steep. The start point (Gampola side) shows a river terrace shape. The Nuwara Eliya side at the end point shows a relatively gentle terrain.

Geological features:

Judging from the plan view of existing bridge, the bearing strata are thought to exist at a relatively shallow

level. Scouring is thought to cause a substantial irregularity in the bearing stratum.

River:

ine water level towered considerably since construction of the upstream dam. Even during rainy season, the water level rises maximum to a point about 6 m below the girder. At a time of survey, it was found that the caisson foundation of nier was above the water level

Surrounding environment

This bridge crosses the Mahaweli Ganaga River. There are no other bridges upstream or downstream. This bridge is therefore indispensable as part of a trunk road of Sri Lanka, and as a vital bridge connecting Gampola and areas on the opposite bank. This is essential for development of the area around Gampola.

On the Nuwara Eliya side of this bridge, there are government offices, school, and private houses densely. About 6000 people is of the sounds a criya side of this orige, there are government offices, school, and private nouses definely. About bood people is living there. The office of the Irrigation Ministry exists on the right side of bridge approach. Teachers College and primary school are on the right side. The number of college students is 100, and 250 pupils are attending the primary school. Many College students cross over the bridge to Gampola side on foot or by bus. The secondary school is in Gampola on the other side of the bridge. On the Gampola side, there is a temple to the left and the linden tree stands by the side of existing bridge. The business district is to the right side, with small stores. According to the RDA explanation, some of residents around the bridge are illegal.

Others

Utilities to be transfutility poles installed on top chord need to be transferred.

(Unit:mm)

Bypass:

Bypass runs through Ulapane located 20 km on the upstream side or Kyandy located 20 km on the downstream side.

Precipitation

1 2 3 4 5 6 7 8 9 10 11 12

1,250

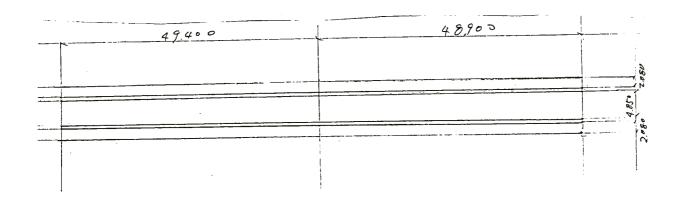
10

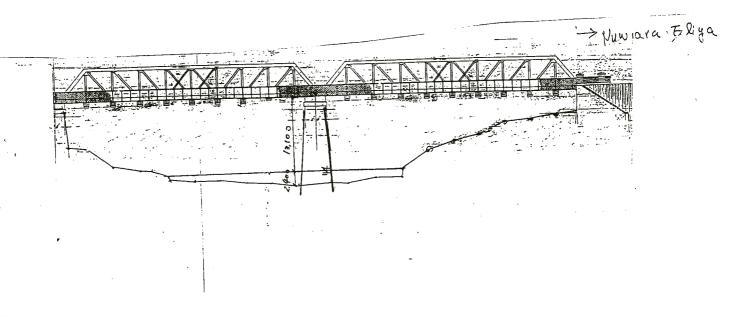
mm

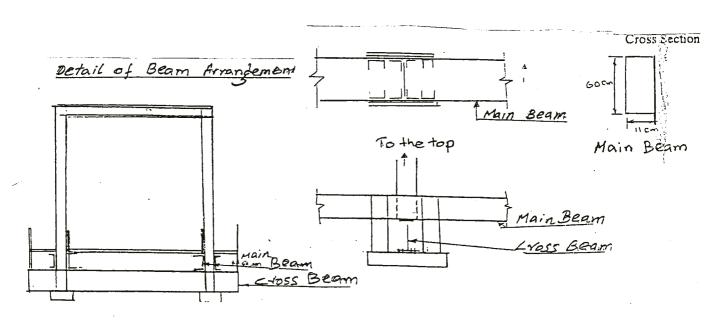
Monthly maximum rainfall Month with maximum rainfall 200

mm

Current site map





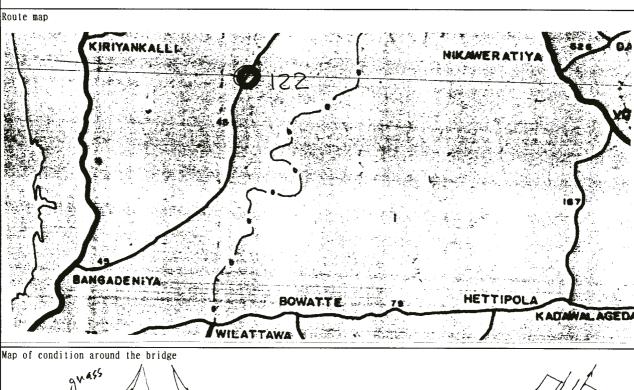


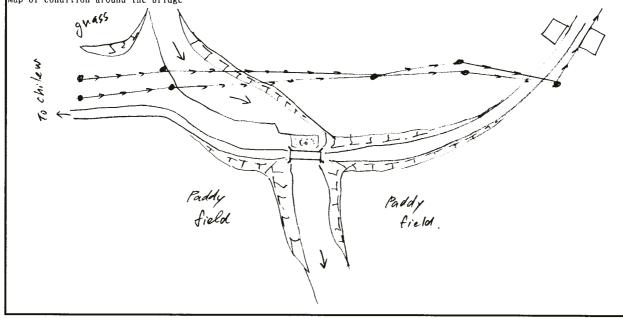
NO. 122 existing bridge condition

	Location		Road No.	Name of road	Km Post
E	Province	District			
	North-west	Chilaw	B045	Bangadeniya-Andigama-Anamaduwa	19/1

Outline of route

This is a B-class road that branches from the A-class National Highway 3 (A3) at Bangadeniya and connects to Anamaduwa of the A-class National Highway 10 (A10). It enables direct access to the inland area of Puttalam without passing through Puttalam. There are coconut plantations, paddy fields, cashew nut plantations, and orchards along the road. The towns along the road are not so large.





The general view (longitudinal direction to the bridge axis)



The side view (perpendicular direction to the bridge axis)



Structural data Structure type:

(Superstructure) Simple steel truss half-through bridge (RC slab) Reinforced concrete structure

<Abutment>

(Pier)

None

Bridge length: Width composition: 18.5m

Effective width 3.40m

Alignment:

Straight bridge

Year of construction:

Superstructure used in a different bridge was diverted to this bridge in 1992.

Span split: -

Damage condition

Superstructure:

Paint deterioration and corrosion in steel truss material

Substructure:

Deterioration and crack in the concrete surface Defective expansion joint

Accessories : Others:

Insufficient road width

Traffic volume

(): Pedestrians 1, 050 vehicles/day

2000

1, 208 vehicle(10)

Natural conditions

Topographical features:

Flat topography

Geological features:

Red brown color of surface soil may indicate that the bearing stratum exists at a relatively shallow

River:

According to the local hearing, F.W.L is about 1 m below the girder.

Others:

An old bridge (a submerged bridge) remaines on the downstream side.

Surrounding environment

This bridge crosses over Rathmbala Oya at a point about 20 km inland from A3 road. The bridge to be surveyed is in a village called Serukala with 1000 households (5200 people) .

This village has a primary school, but the secondary school is in Pallama at the start point (about 15 km) of the bridge. There are a hospital and government office in Pallama, but the police station exists only in Bangadenia (Al) or Amwaduwa (A3).

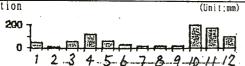
Site condition

Utilities to be transferred: None in particular

Bypass:

A3 road (30 km) on the downstream side and A10 (50 km) on the upstream side

Precipitation

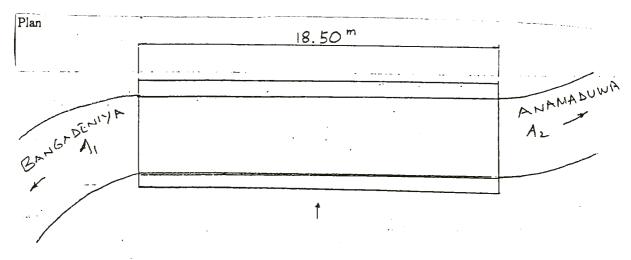


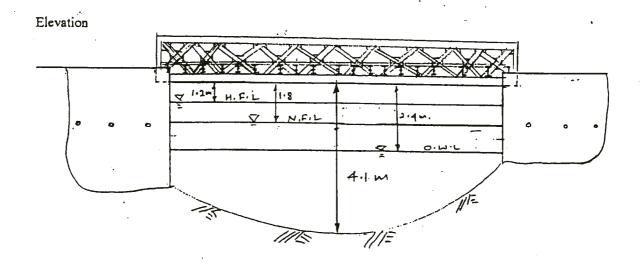
Annual rainfal 900 Monthly maximu 200

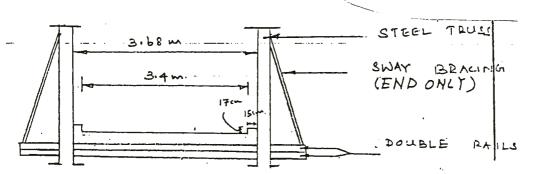
mm mm

Month with may October

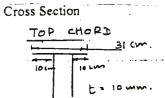
Current site map

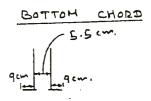






This bridge was constructed in Feb. 1992 by using re-use superstructure.





NO. 154 existing bridge condition

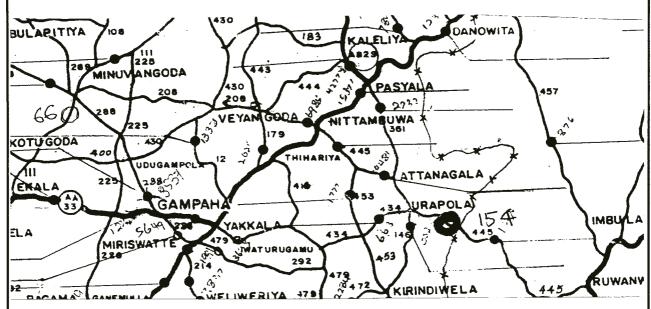
Locatio	n	Road No.	Name of road	Km Post
Province	District			
Sabaragamuwa	Kegalle	B445	Veyangoda-Ruwanwella	14/1

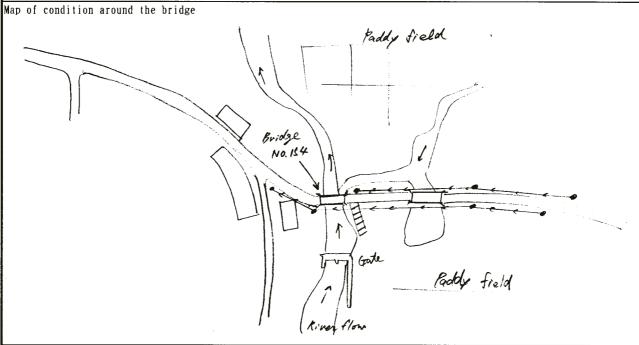
Outline of route

This road intersects with the A-class National Highway 1 (A1) at Nittambuwa and connects to the A-class National Highway 21 (A21) at Ruwanawella.

The A7 road is located a few kilometers from Ruwanawella and connects with A1 Road directly with Nuwara Eliya. At a 7 km point of this road (on the base point side of the bridge to be surveyed), the bridge replacement work was under way. However, at other points, the bridge width is narrow and no road improvement has been attempted. Coconut plantations and paddy fields are located in the surrounding area.

Route map





The general view (longitudinal direction to the bridge axis)



The side view (perpendicular direction to the bridge axis)



Structural data

Structure type:

⟨Superstructure⟩ Simple steel I-girder bridge (deck slab)

<Abutment>

Stone masonry block structure

Span split: -

<Pier>

10.35m

Effective width 4,60m

Bridge length: Width composition: Alignment:

Straight bridge

Year of construction: -

Damage condition

Superstructure:

Corrosion of main girder (steel I-girder)

None

Substructure: Accessories:

Partial space in stone masonry block None in particular

Others:

Crack in pavement Insufficient road width

Traffic volume

(): Pedestrians

1998

1,024 vehicles/day

2000

970 vehicl (170)

Natural conditions

Topographical features The bridge is located in a valley of undulating terrain

Geological features: Soft stratum deposited on the upper section H.W.L is about 2 m from the road surface.

River: Others:

Weir on the upstream side of the river

Surrounding environment

The bridge is located at a point 10 km from Al Road and a point 20 km from A21 Road, crossing Pollowatta Oya. Pollowatta Oya branches at a point where it intersects with B445. There is another bridge of the same size about 10 m away. The population of a town at the start point of this bridge is 700 households (2200 people) while the population of the village at the end point is 200 households (700 people). Private houses and stores are dotted on the start point side, and paddy fields exist on the end point side.

There are schools on both sides of the bridge. But there is no police station and hospital in the neighborhood and

people has to go to Nittambua or Ruanawera.

Site condition

Utilities to be transf Water pipes and telephone lines are installed.

Bypass:

There is a bypass at a distance of 10km, which causes a 20km detour.

(Unit:mm)

Precipitation

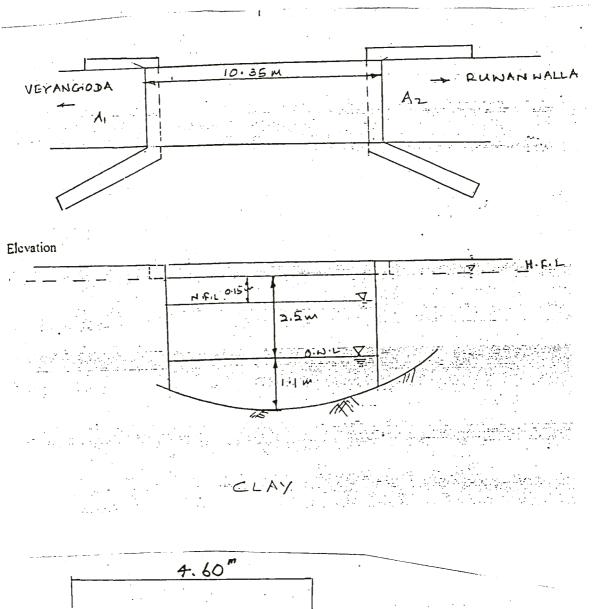


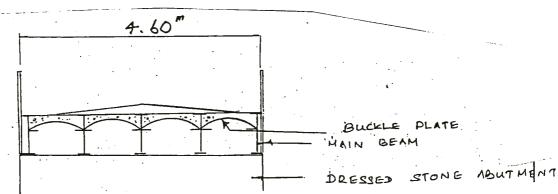
Annual rainfa 1,900 Monthly maxim 300

mm mm

Month with ma October

Current site map



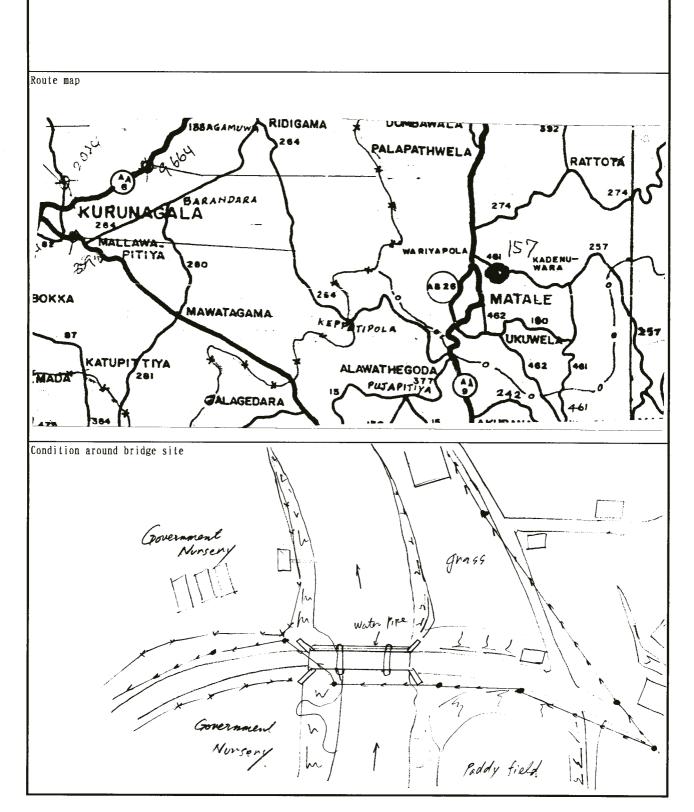


NO. 157 existing bridge condition

Location		Road No.	None of mod	V D1
Province	District	KOAU NO.	Name of road	Km Post
Middle	Matale	B461	Wattegama-Kandenuware-Wariyapola	28/2

Outline of route

This road connects villages to the east of Matale and also connects Aattegama of the Kyandy District. It seemes to be used by villagers to the east of Matale mainly for the purpose of utilizing the social infrastructure of Matale and as a route to transport teas from the tea factory to the east of Matale.



The general view (longitudinal direction to the bridge axis)



The side view (perpendicular direction to the bridge axis)



Structural data

Structure type:

(Superstructure) Simple steel I-girder bridge (deck slab)

<Abutment>

Reinforced concrete structure Reinforced concrete structure

(Pier>

24.80m

Span split: 6.7m+13.9m+5.6m

Bridge length: Width composition:

Effective width3.20m

Alignment:

Straight bridge

Year of construction: -

Damage condition

Superstructure:

Heavy rusting of main girder

Substructure:

Crack in the abutment

Accessories:

Soil accumulated on the shoe seat surface

Others:

Insufficient road width

Traffic volume

(): Pedestrians

1991 2000

50 vehicles/day 471 vehicles / (215)

Natural conditions

Topographic features: Located near the eastern mountainous area of Matale and in a valley of undulating terrain. Open limestone pit in the neighborhood. As the river name (Sudu Ganga) indicates, the limestone

Geological features: stratum may exist near the riverbed.

The river water includes water released from the power plant and its water level is stable.

Others: None in particular

Surrounding environment

This bridge crosses the Suthu Ganga that flows along the boundary between Matale and Kandenuwara. About 5000 households (20000 people) live on both sides of the bridge. Though there are schools in both districts; large hospitals and police stations are in Matale only.

The agricultural experiment station exists on the Matale side of the bridge. There are no other large facilities on both bands of the bridge.

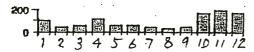
Site condition

Utilities to be transf(Water pipe (φ150mm) is installed.

A bypass exists 10 km to the south of the bridge, which causes a detour of 20 km or more.

Precipitation

(Unit;mm)



Annual rainfa 900 Monthly maxim 200 Month with ma November

mm

mm

Current site map

