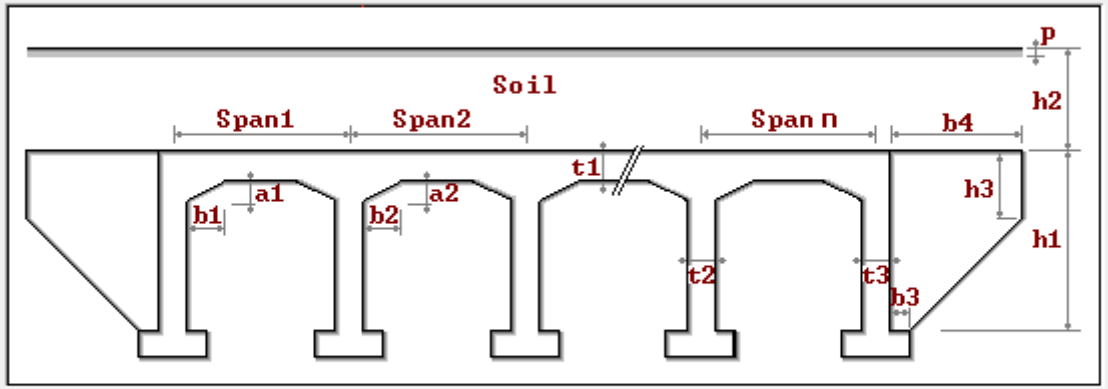
Software Development Test

Please consider following Points

- Task1->Every data like textboxes, dropdown, selection, radio button, checkbox value should be stored in either in excel or json file format when save button is clicked
- Task2-> If user selects one of the saved file The data should be replaced as per the imported file.
- Task3-> The data should be changed as per selected unit.
- Use Node.js and react.js for development, you can use react hooks, data grid,mui- materials.
- Try to create the Webpage application as shown below.
- The webpage should be responsive.

RC Frame

Longitudinal | Transverse | Loads



Structure Type ○ 2-Dimensional ◉ 3-Dimensional

Type of Bridge

◉ Normal Type Frame ○ Box Culvert

Material 1 [ ] ...

Span 12.8016 m

(ex : 3 , 4 , 5@5.5)

Skew Angle 20 [deg]

Length-Unit M,mm,in

Size of Plate Element 0.9144 m

☑ Wing Wall : Thickness 0.4572 m

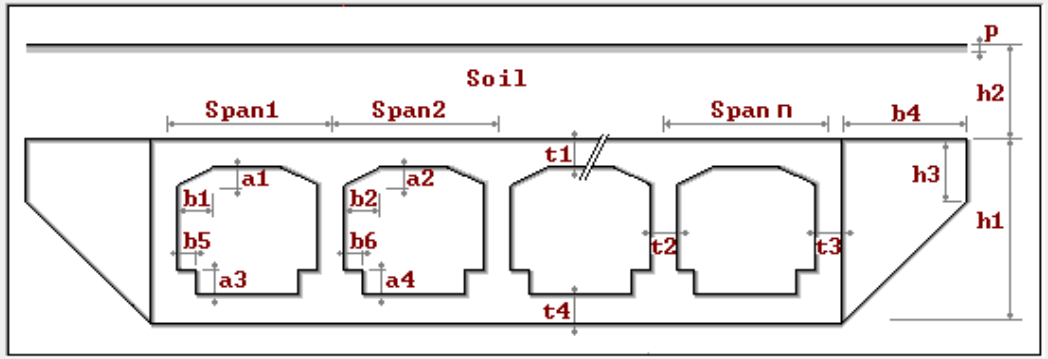
Dimensions

t1	0.70104 m	t2	0.48768 m	t3	0.70104 m	t4	0.762 m	a1	0.3048 m		
a2	0.3048 m	a3	0.6096 m	a4	0.54864 m	b1	0.9144 m	b2	0.9144 m		
b3	1.524 m	b4	8.01624 m	b5	0.3048 m	b6	0.03048 m	h1	8.01624 m		
h2	0.09144 m	h3	1.524 m	A	60 [deg]	C	0.4572 m	p	0.09144 m		

Import | No file chosen | Save

RC Frame

Longitudinal | Transverse | Loads



Structure Type ○ 2-Dimensional ◉ 3-Dimensional

Type of Bridge

○ Normal Type Frame ◉ Box Culvert

Material 1 ... Size of Plate Element 0.9144 m

Span 12.8016 m ☑ Wing Wall : Thickness 0.4572 m

(ex : 3 , 4 , 5@5.5)

Skew Angle 20 [deg]

Length-Unit M,mm,in

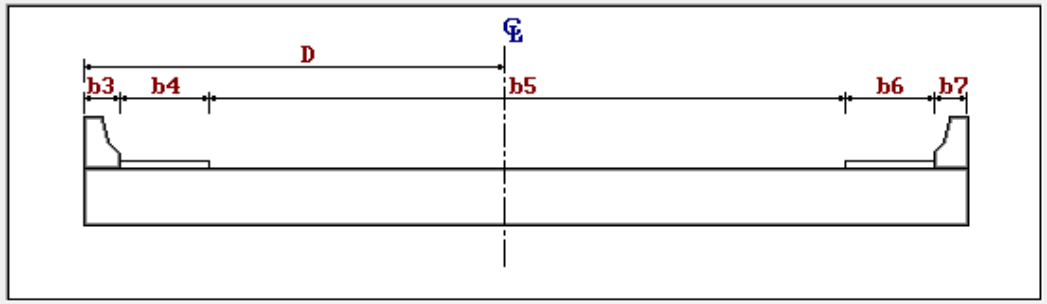
Dimensions

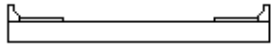
t1	0.70104	m	t2	0.48768	m	t3	0.70104	m	t4	0.762	m
a1	0.3048	m	a2	0.3048	m	a3	0.6096	m	a4	0.54864	m
b1	0.9144	m	b2	0.9144	m	b3	1.524	m	b4	8.01624	m
b5	0.3048	m	b6	0.03048	m	h1	8.01624	m	h2	0.09144	m
h3	1.524	m	A	60	[deg]	C	0.4572	m	p	0.09144	m

Import | No file chosen | Save

RC Frame

Longitudinal | Transverse | Loads



Type  Type1

Size of Plate Element 1.00584 m

b1	1.00584 m	b2	1.88976 m	b3	0.4572 m	b4	2.01168 m
b5	15.24 m	b6	2.01168 m	b7	0.4572 m	D	6.096 m
n	3						

Supports of Pi Frame

Transverse Fixed Support from left side

Supports of Culvert

Spring Type: (•) General ( ) Compression Only

Modulus of Subgrade Reaction

Lower : 19635.9 kN/m³

Lateral : 19635.9 kN/m³

Upper : 19635.9 kN/m³

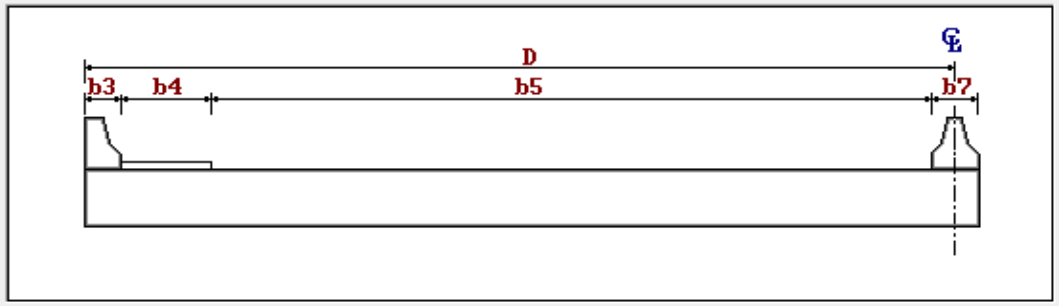
Length of Elastic Link 1.00584 m

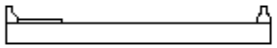
Length-Unit M,mm,in

Import | No file chosen | Save

RC Frame

Longitudinal | Transverse | Loads



Type  Type2

Size of Plate Element 1.00584 m

b1	1.00584 m	b2	1.88976 m	b3	0.4572 m	b4	2.01168 m
b5	15.24 m	b6	2.01168 m	b7	0.4572 m	D	6.096 m
n	3						

Supports of Pi Frame

Transverse Fixed Support from left side

Supports of Culvert

Spring Type: (●) General ( ) Compression Only

Modulus of Subgrade Reaction

Lower : 19635.9 kN/m³

Lateral : 19635.9 kN/m³

Upper : 19635.9 kN/m³

Length of Elastic Link 1.00584 m

Length-Unit M,mm,in

Import | No file chosen | Save

RC Frame

Longitudinal | Transverse | Loads

Load Combinations : AASHTO-Std2K — Factored — Unfactored

Define Moving Load Code

- Self Weight
- Pavement : Weight Density 23.5631 kN/m³ — Thickness 0.09144 m
- Soil : Weight Density 20.4214 kN/m³ — Phi 35 [deg]
  - Surcharge 9.57605 kN/m²
  - Submerged Weight Density 10.9961 kN/m³
  - Load Slope (L) 1 : 1.5 (R) 1 : 1.5
- Underground Water : GL - 1.00584 m
- Barrier : Self Weight 8.75634 kN/m — Additional Load 0 kN/m
- Median Strip : 10.2157 kN/m
- SideWalk : Weight Density 23.5631 kN/m³ — Thickness 0.3048 m
  - Crowd Load 4.78803 kN/m²
- Live Load : Class of Loading H15-44
  - Eccentricity (left / right)
- Settlement : -0.009144 m
- System Temperature : T [+/-] 10 [T]
- Temperature Gradient : Delta T 5 [T]
- Shrinkage Strain : 0.00015 — Thermal Coefficient : 1e-05 1/[T]

Force-Unit: kN,Kips,N — Length-Unit: M,mm,in

Import | No file chosen | Save