



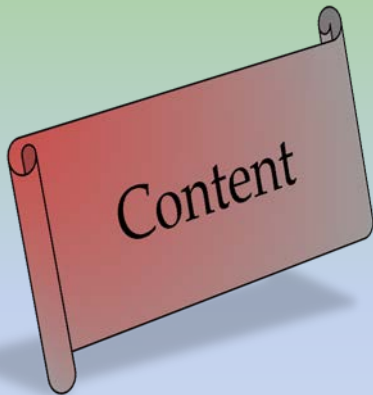
THE REPUBLIC OF THE UNION OF MYANMAR

PANEL DISCUSSION OF BRIDGE

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Myanmar Profile

Population

60 Million (2010-2011)

Road Length

1423956 km (2011)

Area

676578 km²
936 km (East - West)
2051 km (North - South)

Number of Registered Vehicles

- 2476672 (June 2012)

Neighboring Countries

- Bangladesh, India, China, Laos, Thailand





Myanmar Profile

Myanmar National Data

Composition

- 7 States & 7 Regions
- 138 National Races

Official Language

- Myanmar

Capital City

- Naypyitaw (Government)
- Yangon (Economic)
- Mandalay (Culture)

Climate

- Seasons (Summer, Raining, Winter)
- Temperature (Mean max: 31°C)
- Humidity (Mean ~ 70 %)
- Avg. Annual rainfall (~ 1800 mm)

Economy

- Currency – Kyat (1 US \$ ~ 900 kyats)
- Per capita GDP – 700 US \$ (March 2011)





Current Practice in Bridge



Background Data

Major Bridges



| No. | Name | Span(ft) | Type of Bridge |
|-----|--------------------------------|----------|------------------------|
| | River Ayeyarwaddy | | |
| 1 | Innwa Bridge(Sagaing) | 3,960 | Steel Truss |
| 2 | Nawaday Bridge | 4,183 | Steel Truss |
| 3 | Maubin Bridge | 2,362 | Steel Truss + RCC |
| 4 | Bala Min Htin Bridge | 2,688 | Steel Truss |
| 5 | Bo Myat Htun Bridge | 8,544 | Steel Truss |
| 6 | Anawrahtar Bridge | 5,192 | Steel Truss |
| 7 | Ayeyarwaddy Bridge(Magwe) | 8,989 | Steel Truss + PC + RCC |
| 8 | Dadaye Bridge | 4,088 | Steel Truss+ RC |
| 9 | Ayeyarwaddy Bridge(Yadanarpon) | 5,641 | Steel Truss |
| 10 | Ayeyarwaddy Bridge(Naungdone) | 7,201 | Steel Truss |
| 11 | Ayeyarwaddy Bridge (Pakokku) | 11,431 | Steel Truss |
| 12 | Ayeyarwaddy Bridge (Sinkhan) | 3,215 | Steel Truss |
| 13 | Ayeyarwaddy Bridge (Malun) | 5839 | Steel Truss |
| 14 | Yatana Theinga Bridge | 2480 | Steel Truss |

Major Bridges

| No. | Name | Span(ft) | Type of Bridge |
|-----|--|----------|---------------------------------|
| | River Sittaung | | |
| 15 | Sittaung Bridge (Theinzatyat) | 2,320 | Steel Truss |
| 16 | Sittaung Bridge (Taungngu-Mawchi-Loikaw) | 680 | CH Steel Girder |
| 17 | Sittaung Bridge (Shwe Kyin-Madauk) | 1,500 | PC+RCC |
| 18 | Sittaung Bridge(Mokepalin) | 2,393 | Steel Truss + Plate Girder + RC |
| 19 | Sittaung Bridge (Natthankwin) | 720 | Steel Truss |

| No. | Name | Span(ft) | Type of Bridge |
|-----|-----------------------------|----------|------------------------|
| | River Thanlwin | | |
| 20 | Kwan Lon Bridge | 789 | Steel Suspension |
| 21 | Tar Kaw Bridge | 780 | Steel Truss |
| 22 | Thanlwin Bridge (Pha An) | 2,252 | Steel Truss |
| 23 | Thanlwin Bridge(Tarsan) | 900 | Suspension |
| 24 | Thanlwin Bridge(Mawlamyine) | 11,575 | Steel Truss + PC + RCC |
| 25 | Thanlwin Bridge(Tarpar) | 600 | Steel Suspension |
| 26 | Thanlwin Bridge(Tarkaw At) | 600 | Bailey |
| | River Chindwin | | |
| 27 | Shinphyushin Bridge | 4,957 | Steel Truss |
| 28 | Chindwin Bridge(Monywa) | 4,730 | Steel Truss |

Bridge List in Myanmar (As of 18.7.2013)

| State / Region | Before 1988, 180 feet and above Length Bridges | After 1988, 180 Feet and above Length Bridges |
|--------------------|---|--|
| Kachin State | 27 | 23 |
| Kayah State | 6 | 2 |
| Chin State | 2 | 3 |
| Sagaing Region | 17 | 30 |
| Magwe Region | 20 | 38 |
| Manadalay Region | 18 | 22 |
| Shan State (East) | 4 | 4 |
| Shan State (South) | 5 | 8 |
| Shan State (North) | 15 | 8 |
| Kayin State | 8 | 10 |
| Tanintharyi Region | 8 | 7 |
| Bago Region | 36 | 25 |
| Mon State | 3 | 4 |
| Rakhine State | 11 | 38 |
| Yangon Region | 7 | 30 |
| Ayeyarwady Region | 11 | 78 |
| Total | 198 | 330 |
| Grand Total | 528 | |

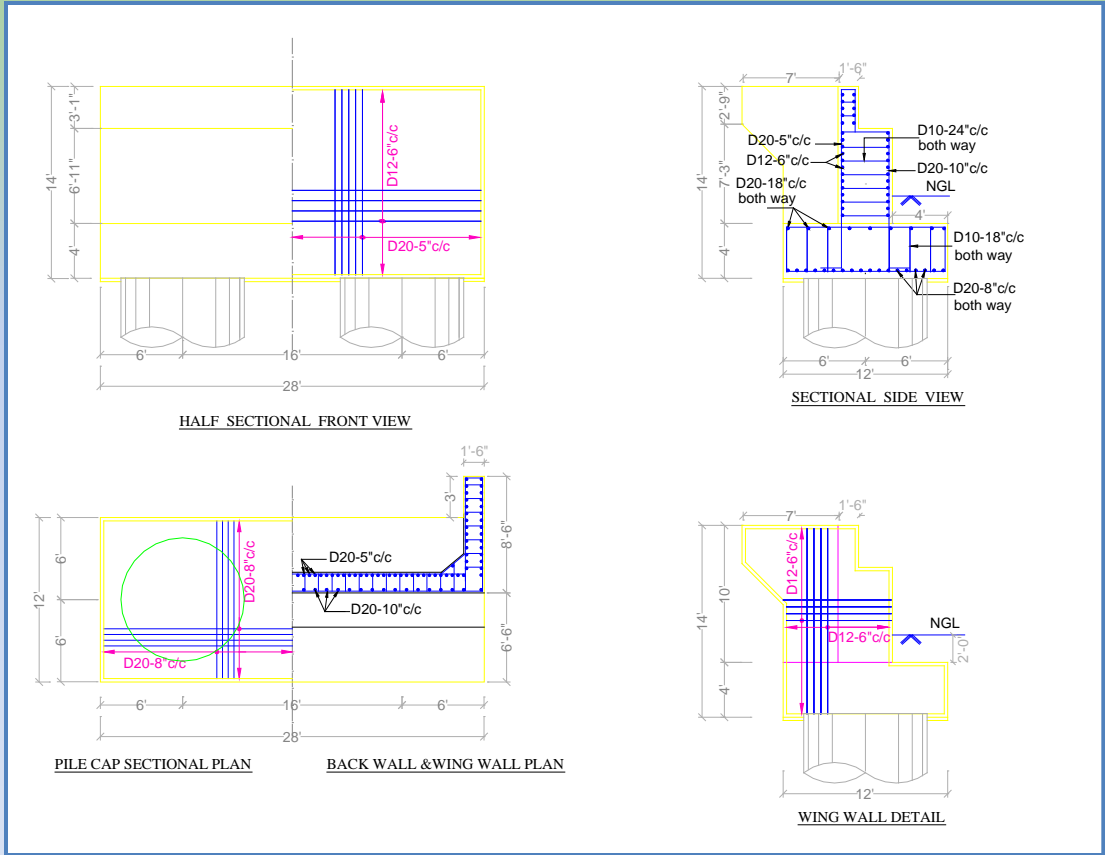
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Major Issues on Bridge

Bridge Design

Sub Structure

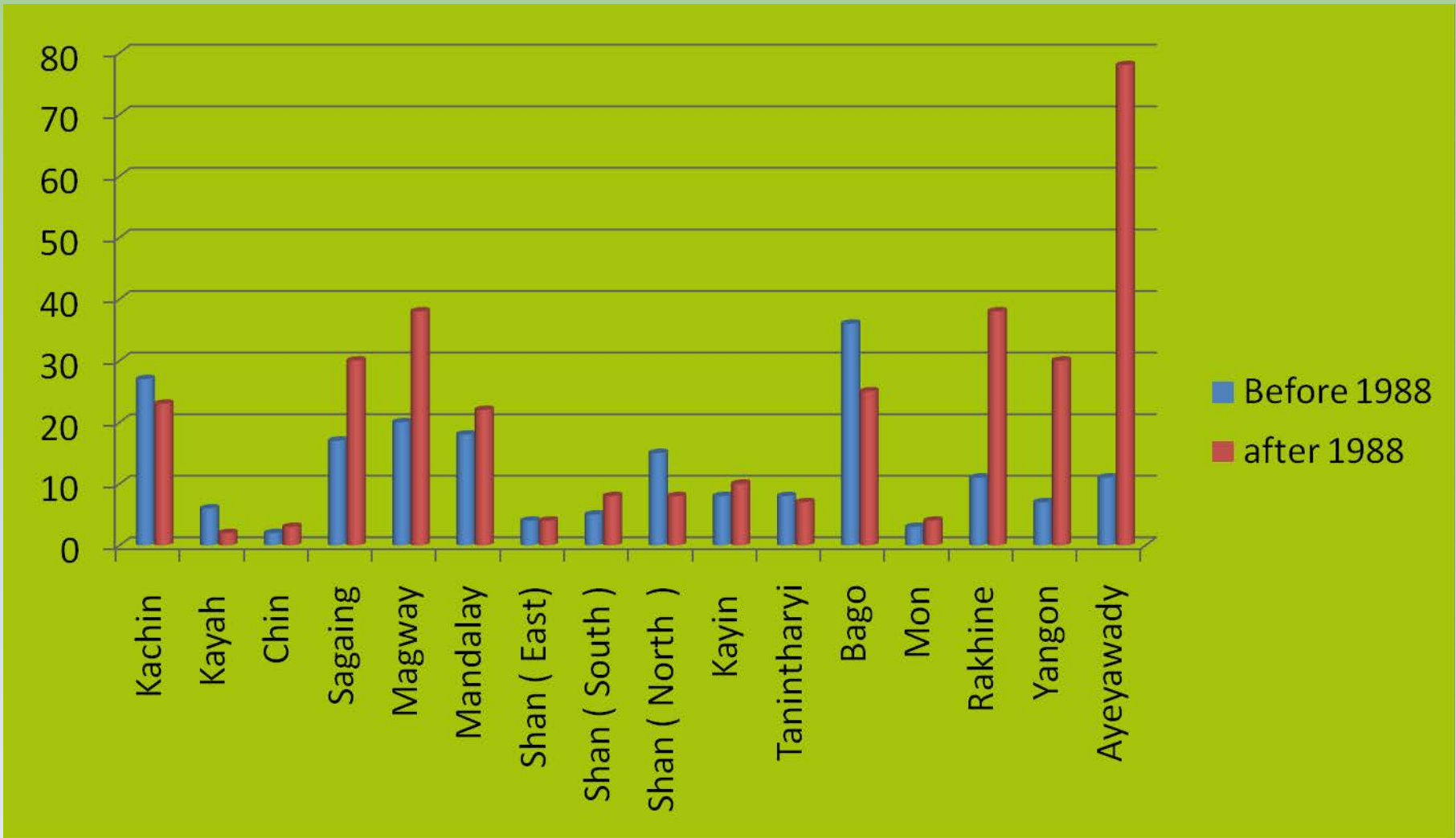
Well Foundation





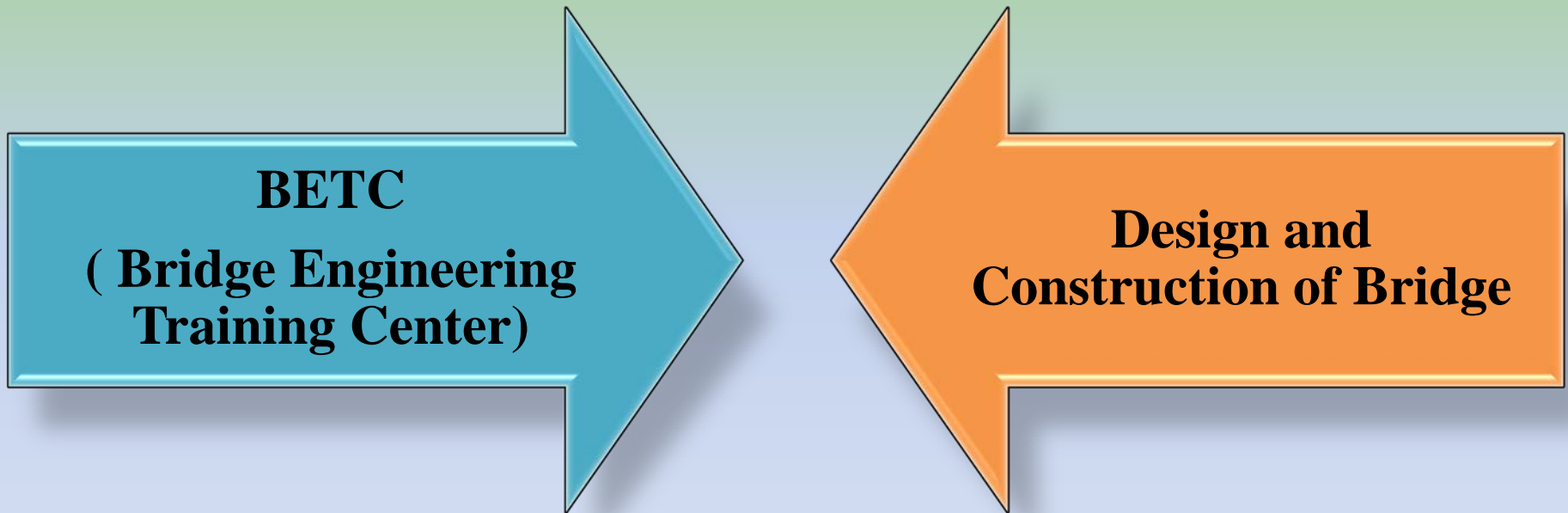
Current Practice in Bridge

Bridge List in Myanmar (As of 18.7.2013)





Current Practice in Bridge



**ASEAN Outstanding Awards
for 2011 in CAFEO-30**

Pakkoku Bridge

**Completion of
Three Major Bridge Projects
across the Ayeyarwaddy River
within Two Years' period (2009-2011)**



Sinkham Bridge



Naungdone Bridge



Major Issues on Bridge

Bridge Design

Sub Structure

- Foundation (Open , Spun Pipe ,Bored Pile, Well)
- Cap , Shaft , Cross Beam

→ We Can

Super Structure

- Reinforced Concrete(R.C Girder , P.C Girder , Slab)
- Steel Truss
- Cable Stayed
- Suspension

→ We Can

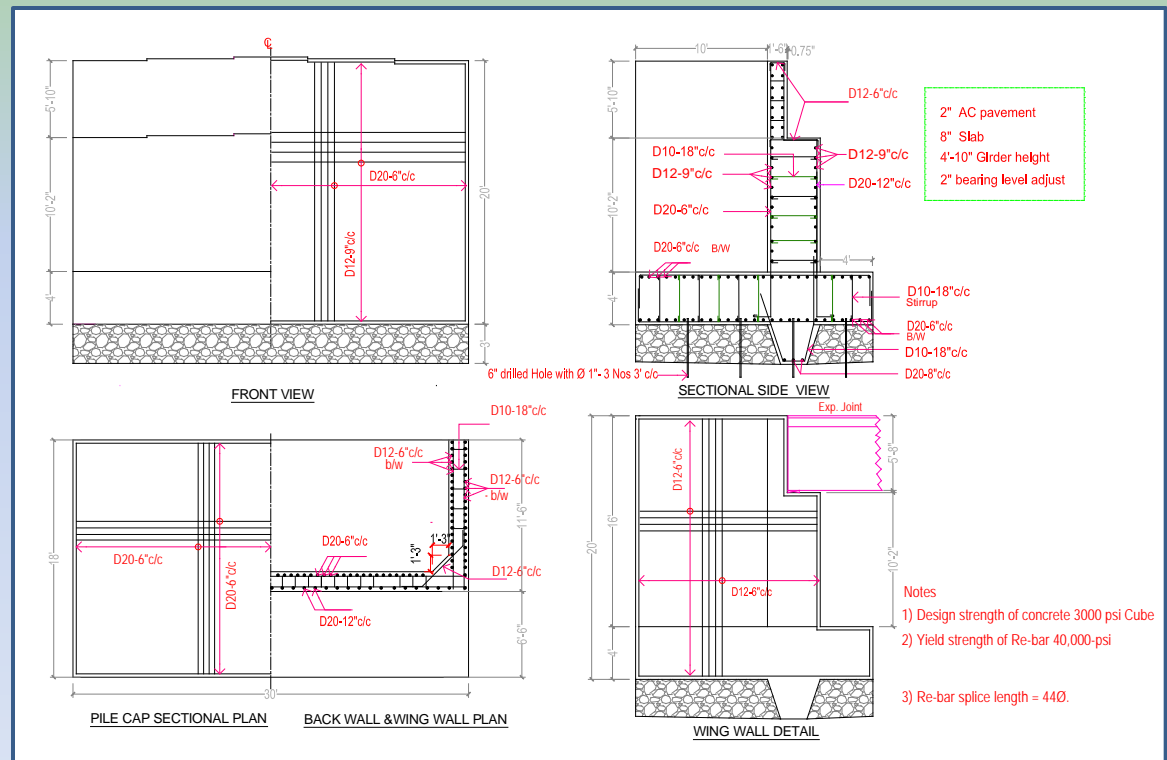
→ We Can't



Bridge Design

Sub Structure

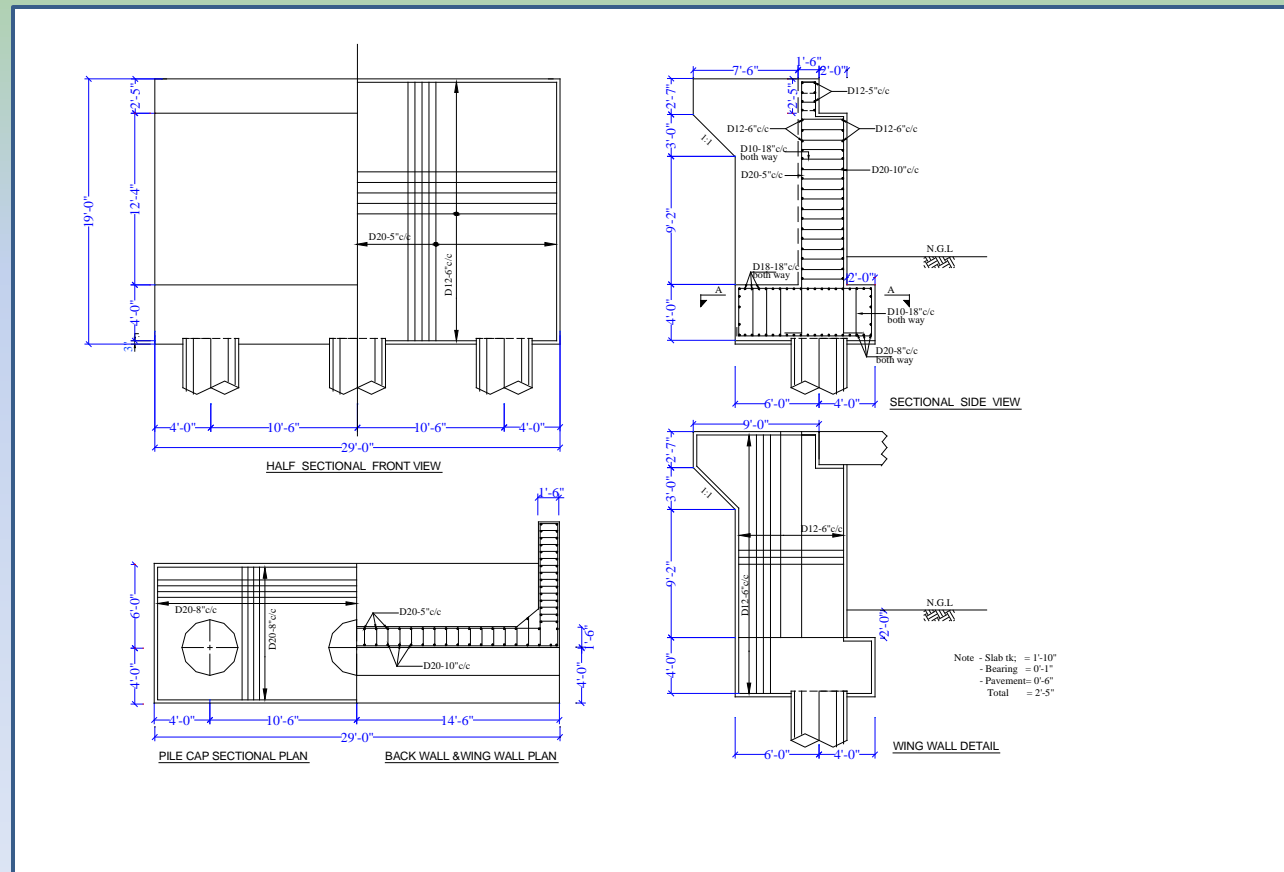
Open Foundation



Bridge Design

Sub Structure

Spun Pipe Foundation



Bridge Design

Sub Structure

Bored Pile Foundation

