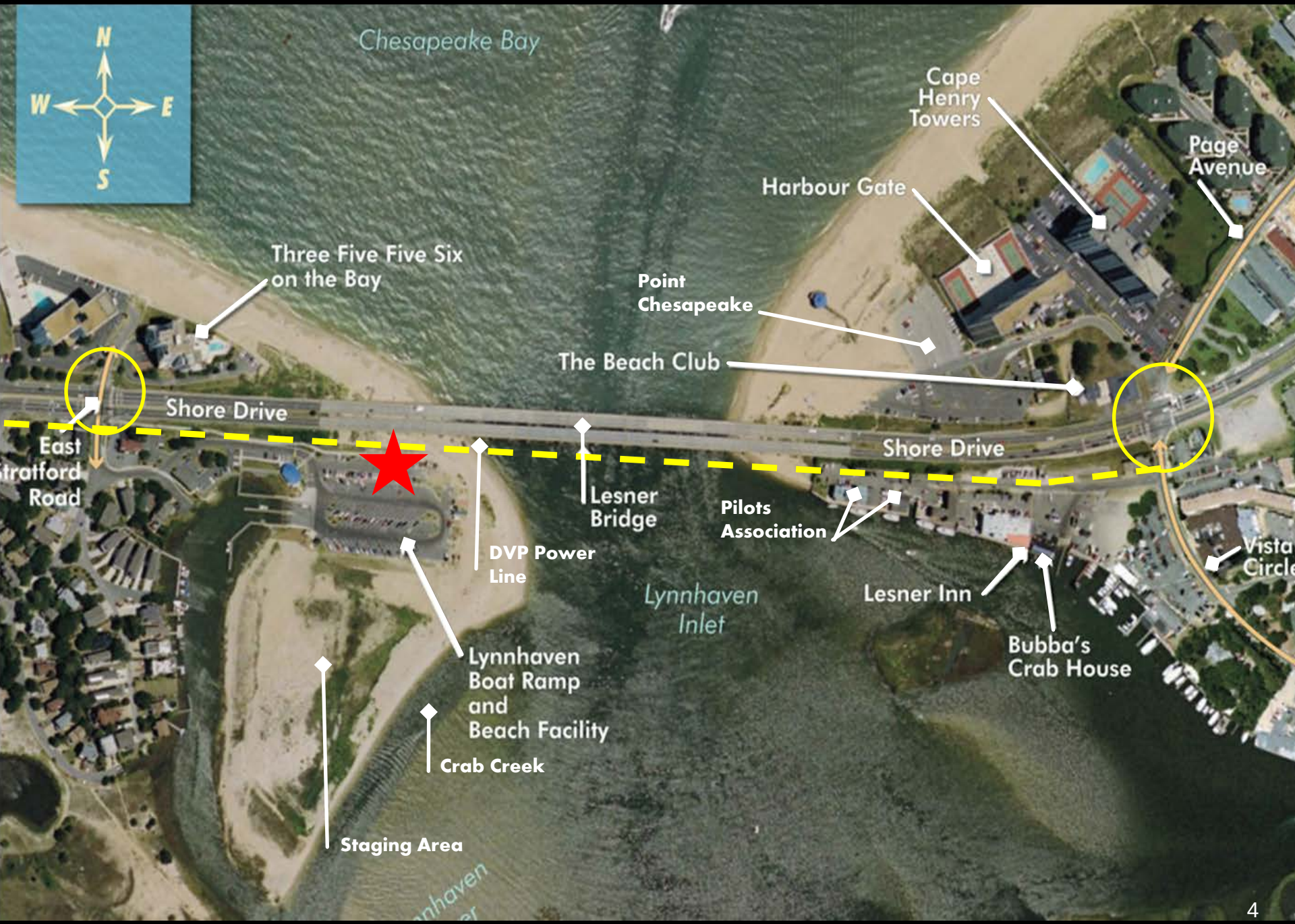
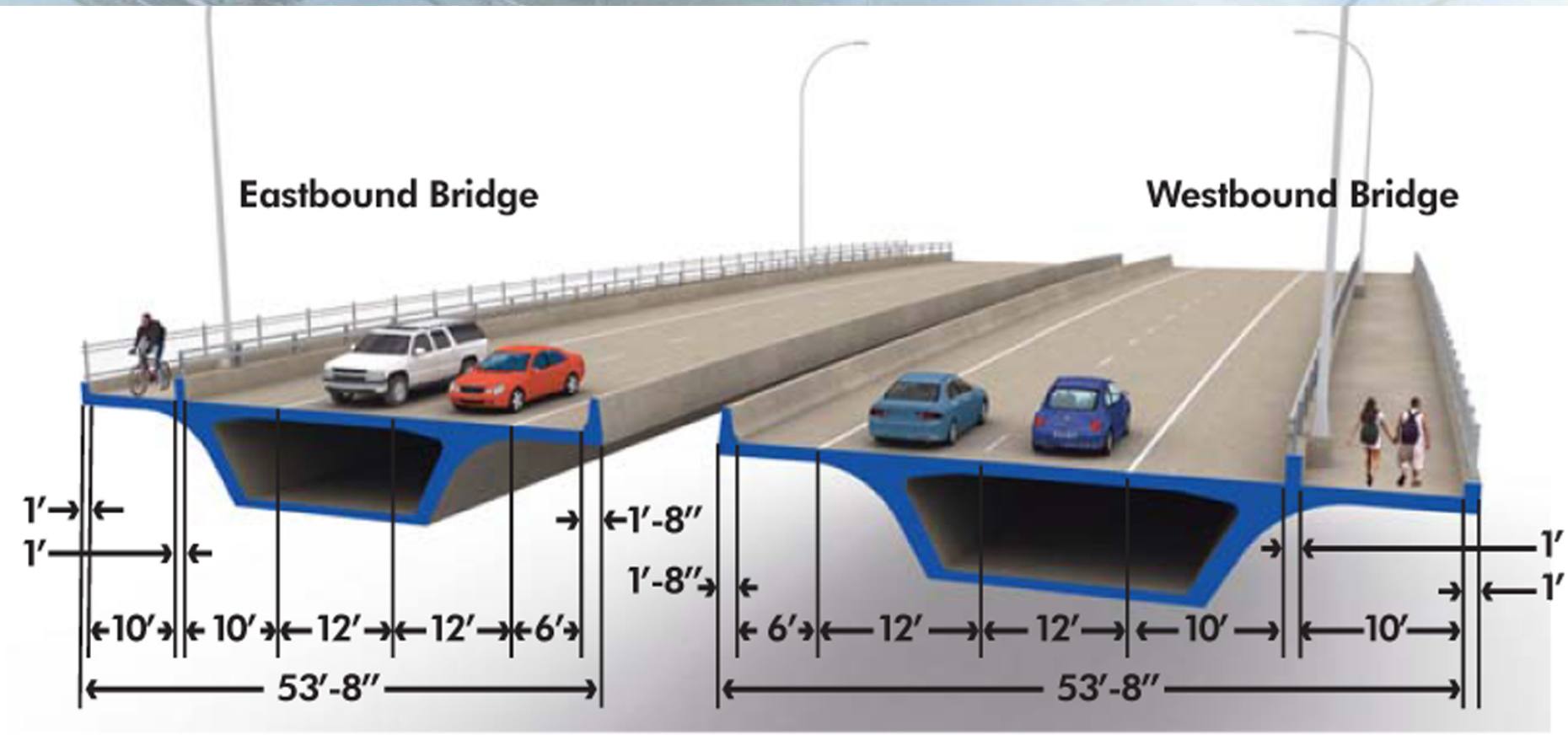

N
W
E
S
Chesapeake Bay
Cape Henry Towers
Page Avenue
Harbour Gate
Three Five Five Six on the Bay
Point Chesapeake
The Beach Club
Shore Drive
East Stratford Road
Shore Drive
Lesner Bridge
Pilots Association
DVP Power Line
Lynnhaven Inlet
Lesner Inn
Vista Circle
Bubba's Crab House
Lynnhaven Boat Ramp and Beach Facility
Crab Creek
Staging Area

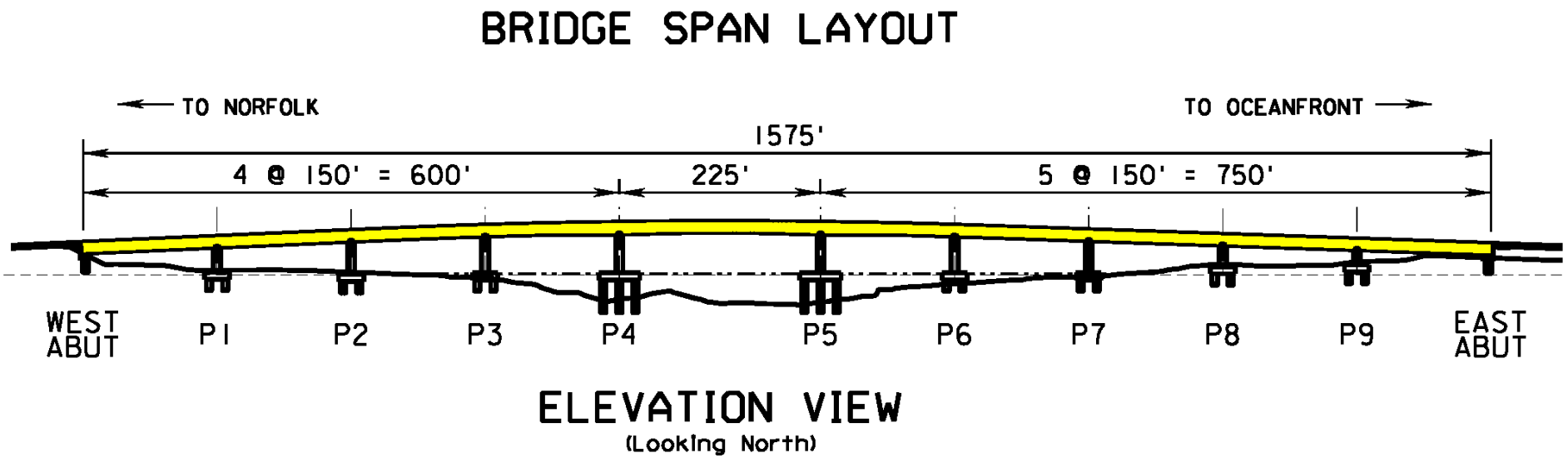
Lesner Bridge – Box Birder and Pier Shapes

- 53’ 8” Wide Box Girder
- 9’ – 2” Deep Typical
- 10” 2” Deep at Main Piers
- Piers – 7’- 10” x 19’ – 0”

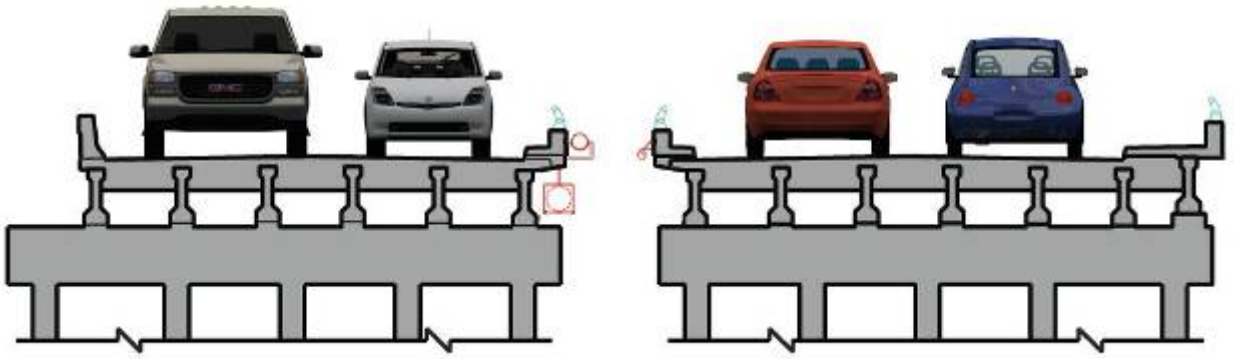
Lesner Bridge – Cross Section & Lane Configuration



Span Layout


BRIDGE SPAN LAYOUT
TO NORFOLK
TO OCEANFRONT
1575'
4 @ 150' = 600'
225'
5 @ 150' = 750'
WEST ABUT
P1
P2
P3
P4
P5
P6
P7
P8
P9
EAST ABUT
ELEVATION VIEW
(Looking North)

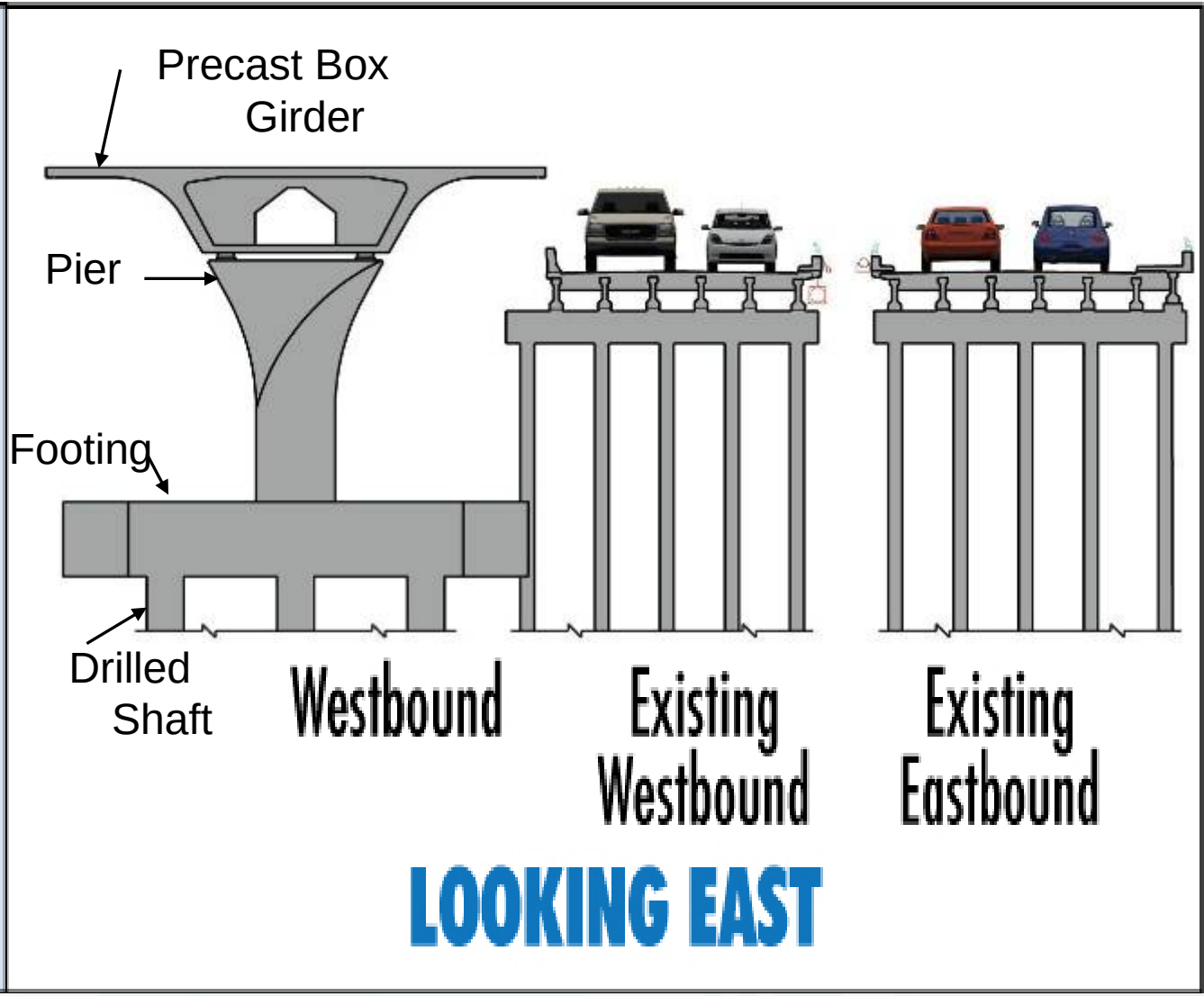
Step 1



LOOKING EAST

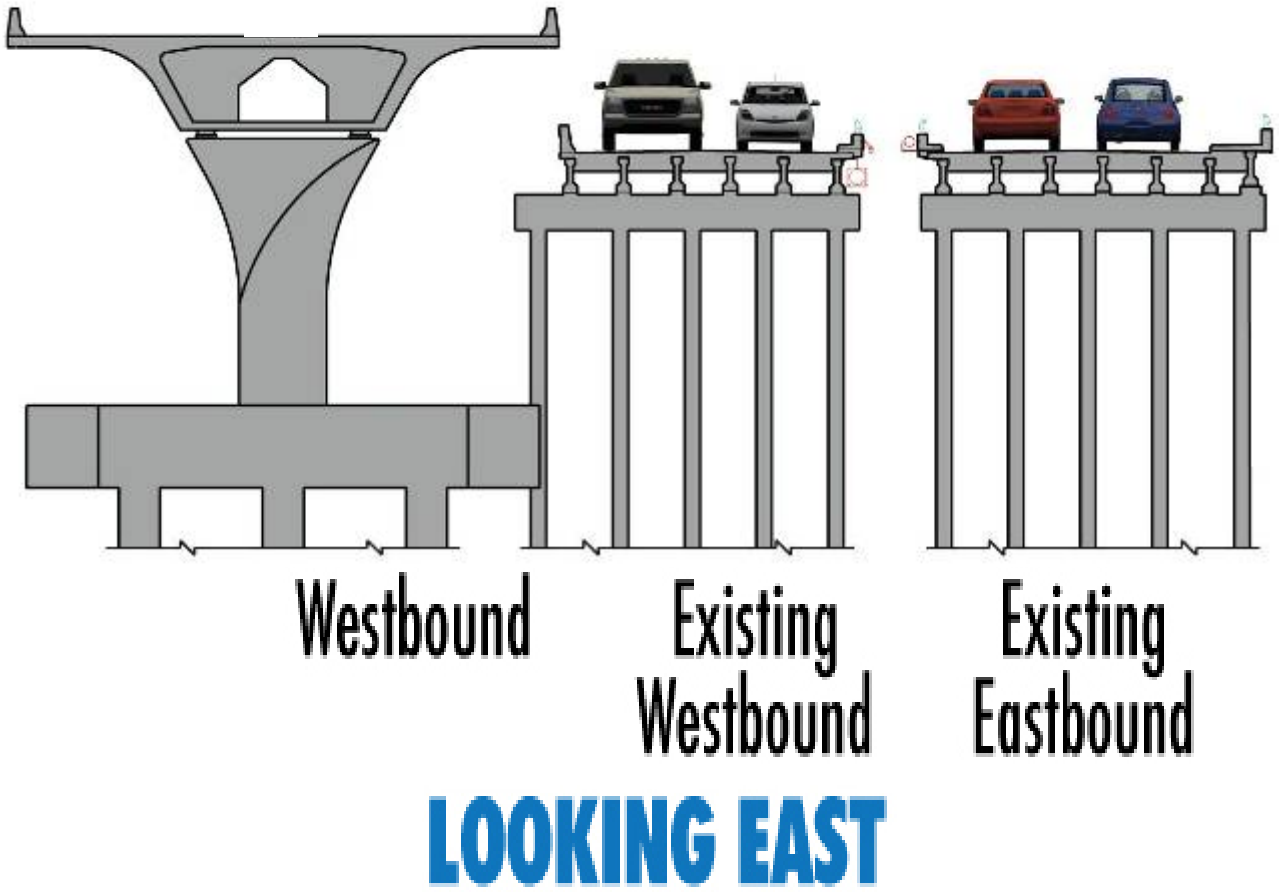
Five feet are removed from the north side of the westbound bridge, maintaining the traffic configuration with 2 lanes in each direction.

Step 2



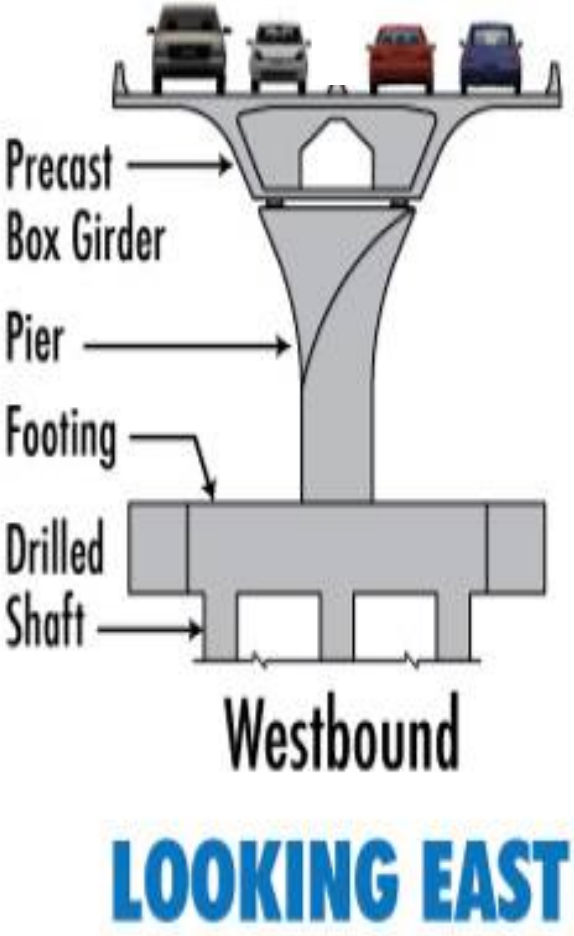
The new westbound bridge is built just to the north of the existing westbound bridge.

Step 3



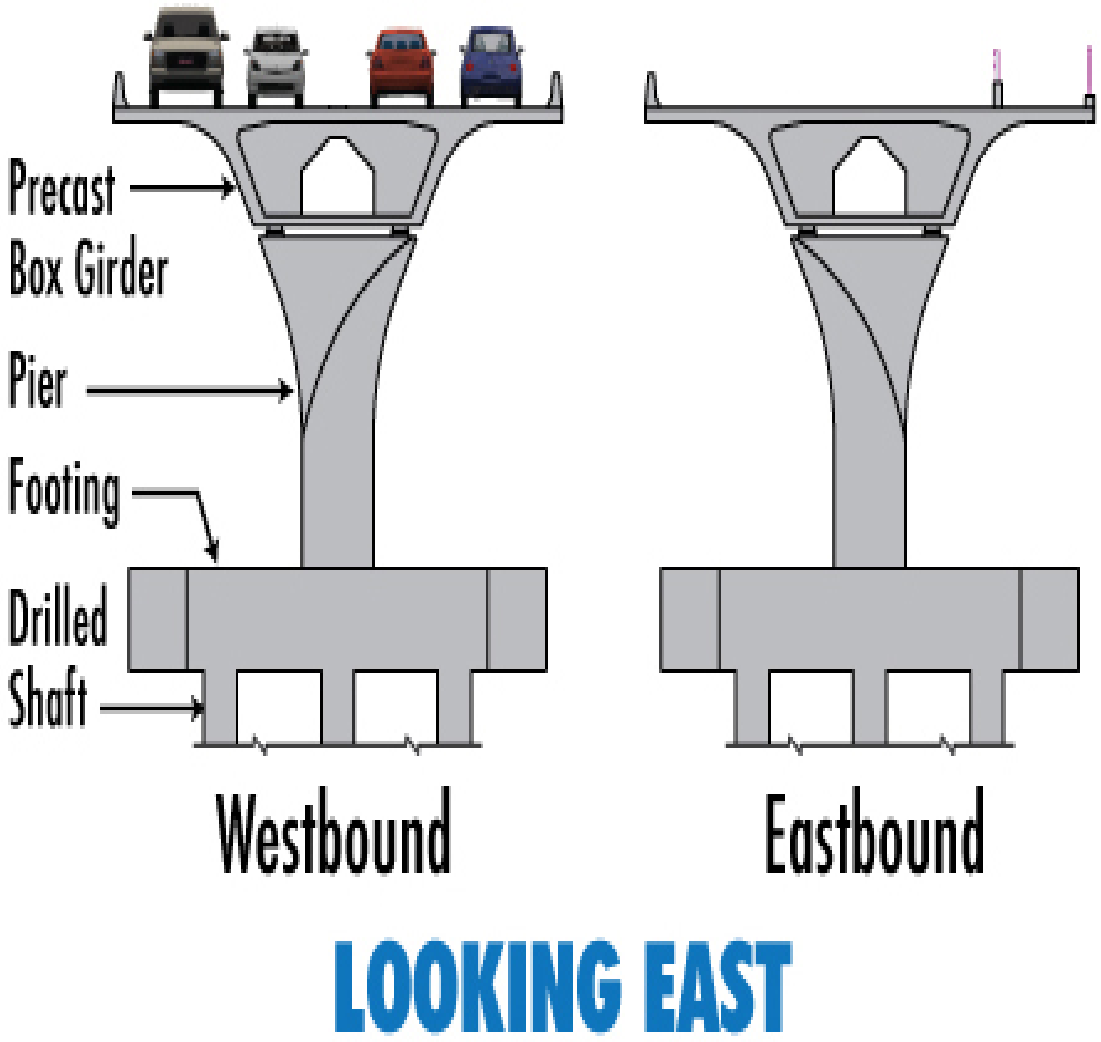
The remainder of the westbound bridge is built. Once the bridge is complete, temporary barriers are placed on the structure for the temporary traffic configuration.

Step 4



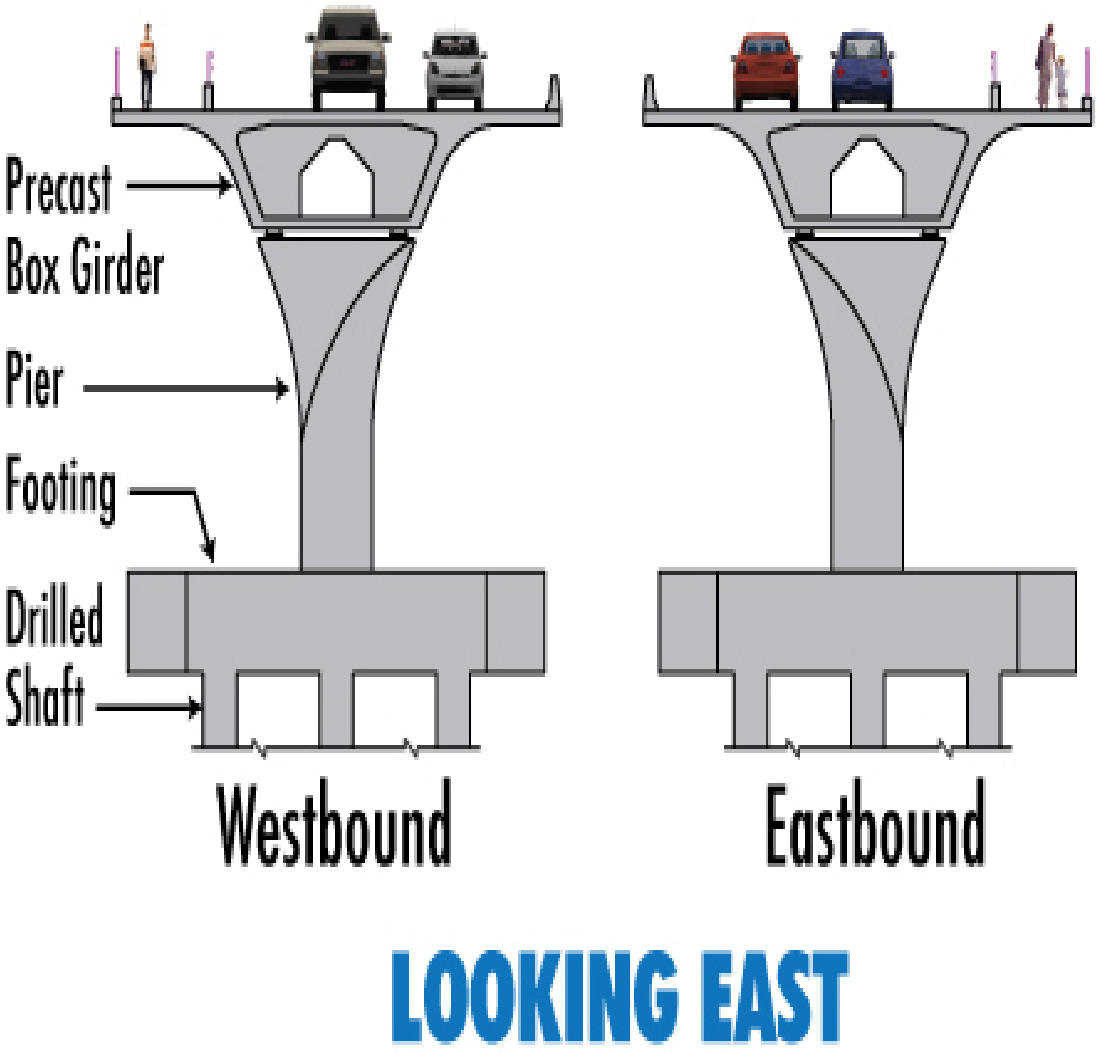
All traffic, two lanes in each direction, is moved to the new westbound bridge. The wider deck width allows for four lanes of traffic to be accommodated temporarily. Utilities are completely relocated to the new westbound bridge. Both the existing eastbound and westbound bridges are removed.

Step 5



The new eastbound bridge is constructed.

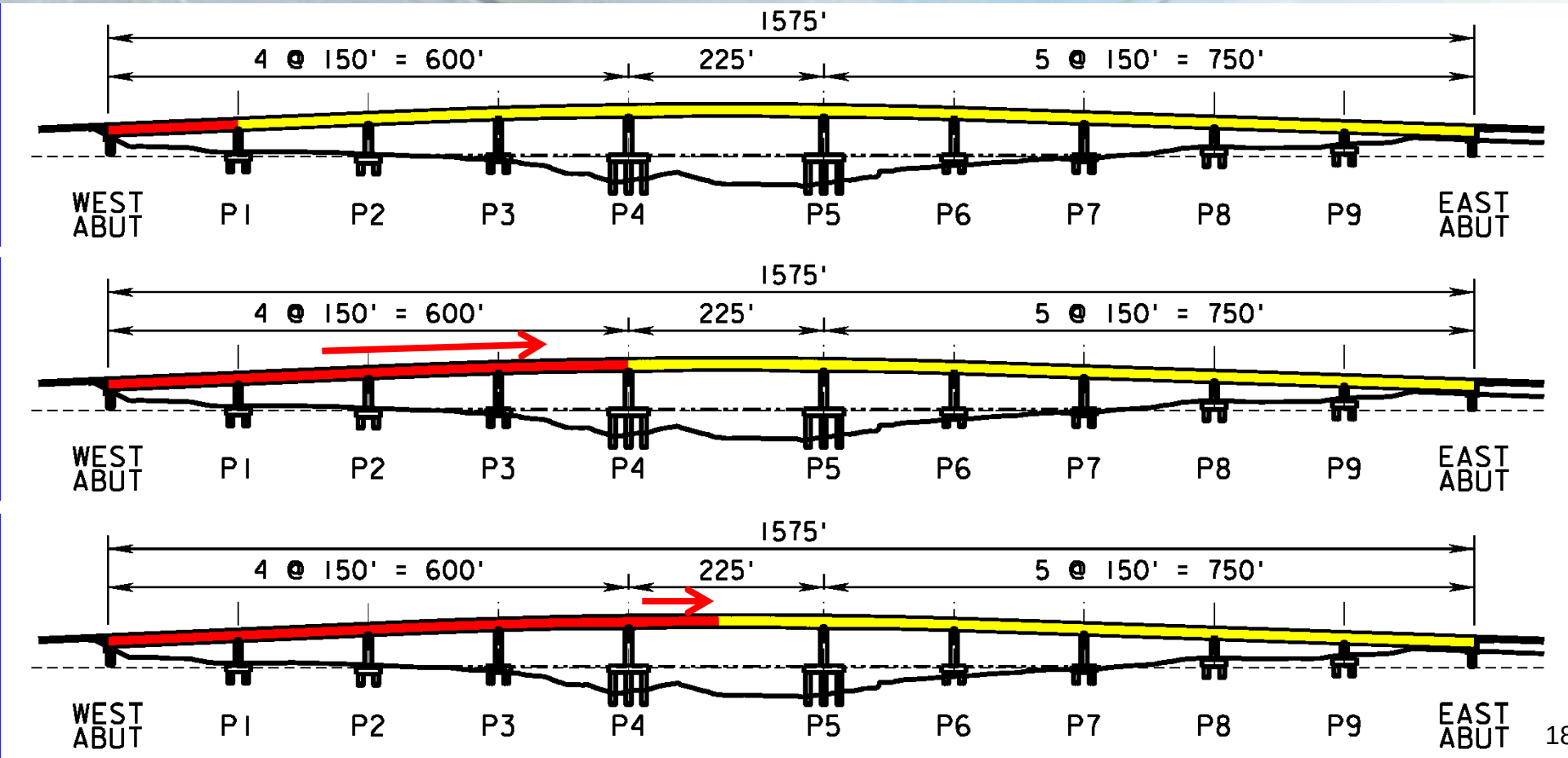
Step 6



After completion of the eastbound bridge and approach roadways, traffic is shifted to the completed structures. Sidewalk areas are also completed on westbound bridge with permanent railings.

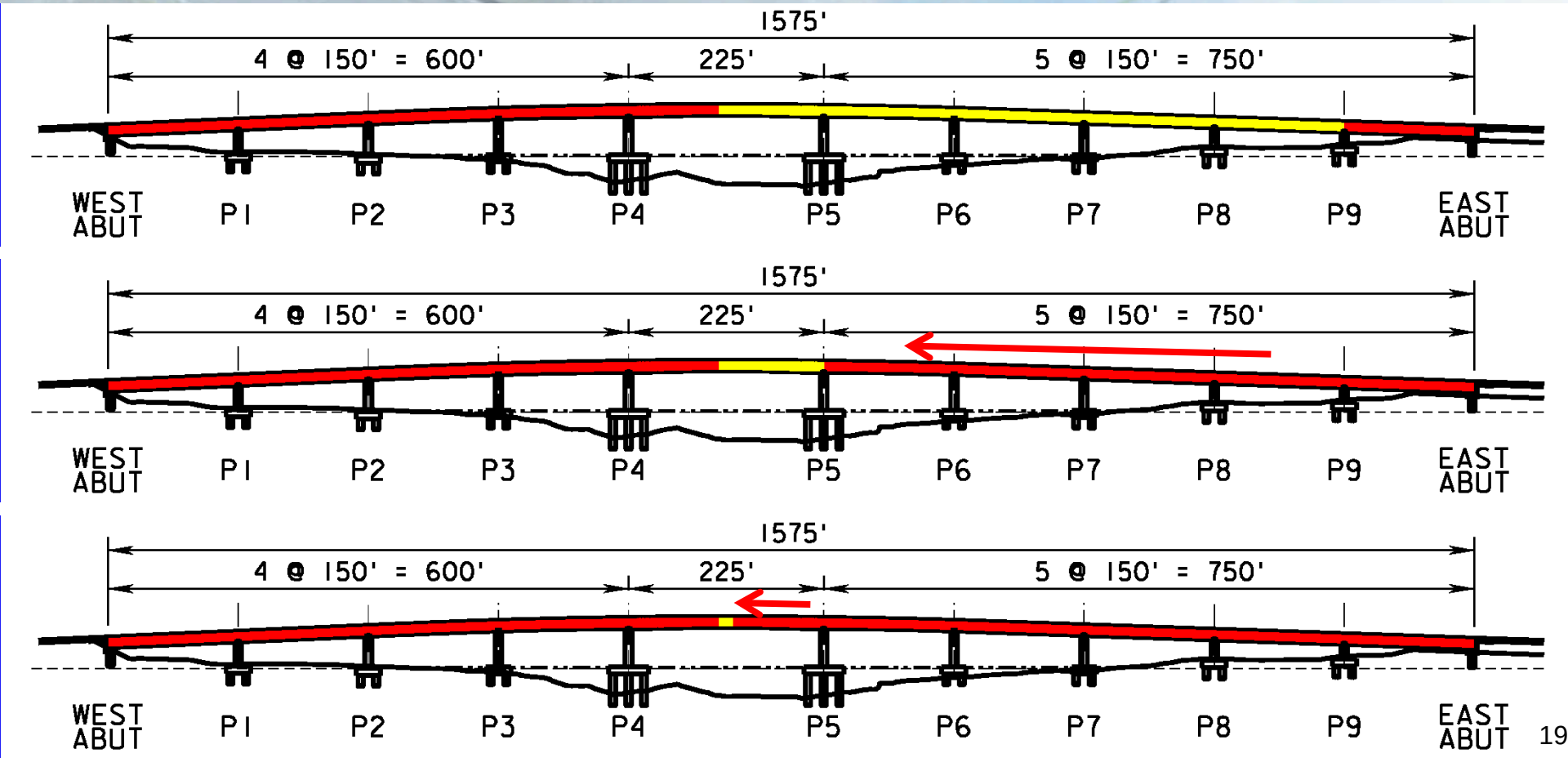
Erection Scheme Option A - Land Based Delivery

- Build from West Abutment to Channel
  - Span 1 – Span by Span
  - Spans 2 to 4 – Span by Span
  - South Half of Span 5 – Uni-Directional Cantilever (truss in Span 4)



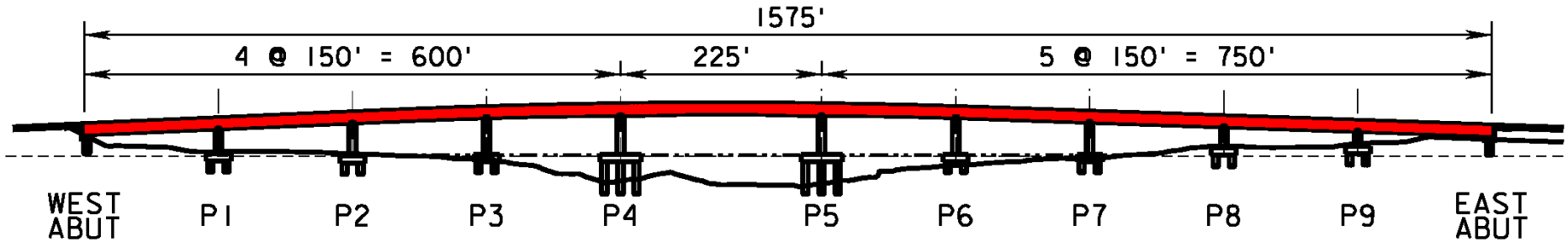
Erection Scheme Option A - Land Based Delivery

- Build from East Abutment to Channel
  - Span 10 – Span by Span
  - Spans 9 to 6 – Span by Span
  - North Half of Span 5 – Uni-Directional Cantilever (truss in Span 6)



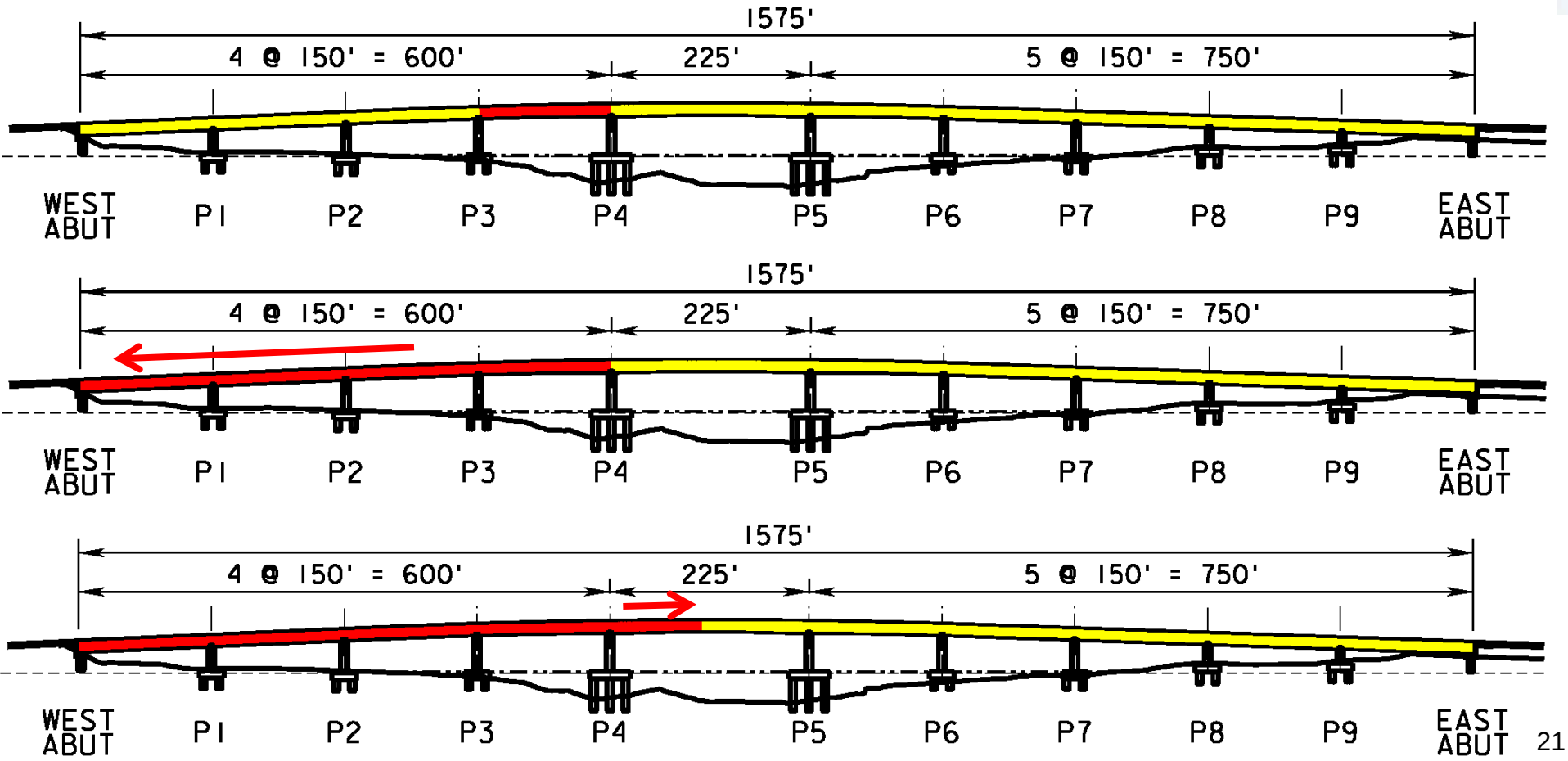
Erection Scheme Option A - Land Based Delivery

Complete with CJ at midspan over channel



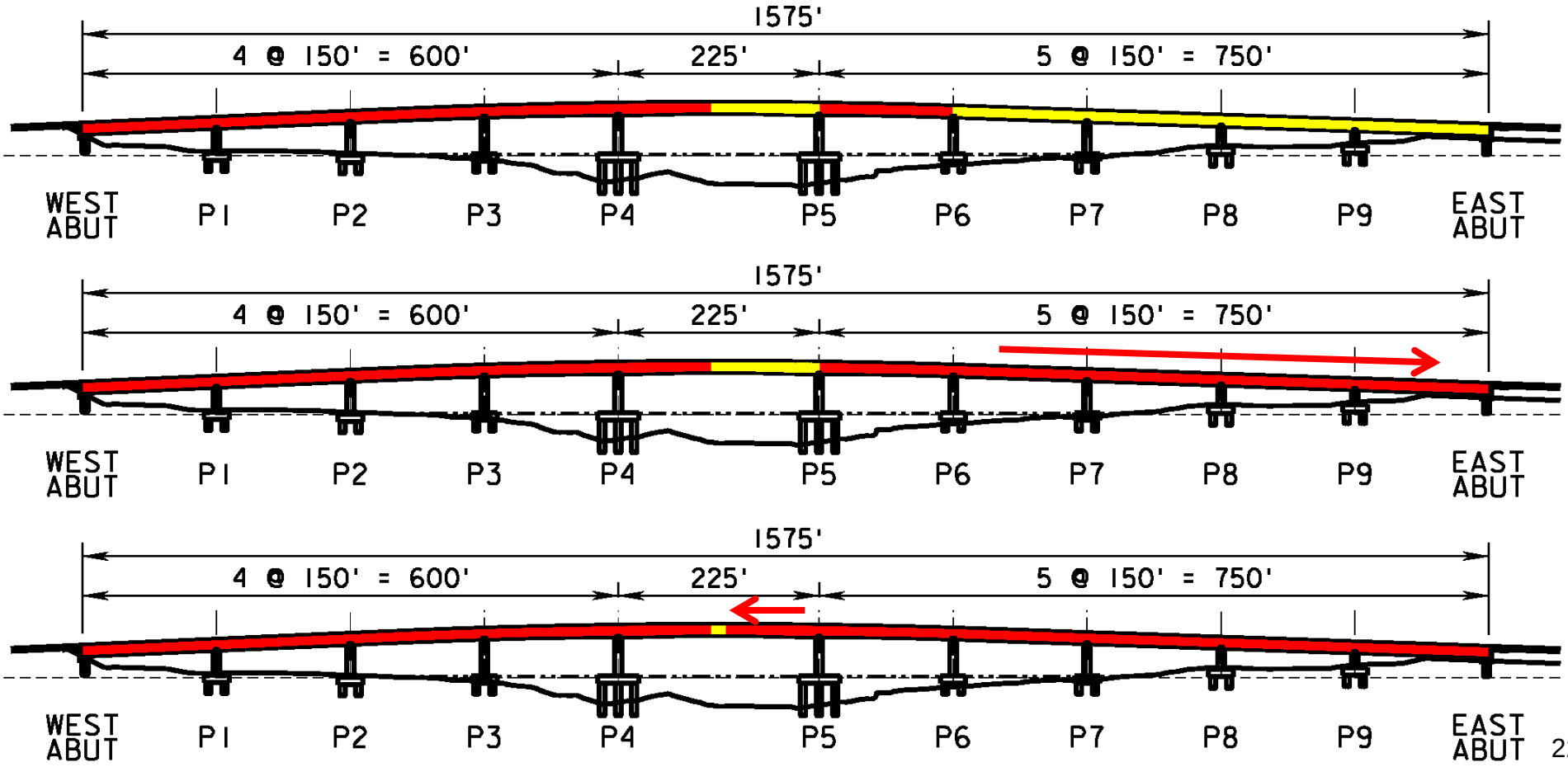
Erection Scheme Option B - Water Based Delivery

- Build from Channel to West Abutment
  - Span 4 – Span by Span
  - Spans 3 to 1 – Span by Span
  - South Half of Span 5 – Uni-Directional Cantilever (truss in Span 4)



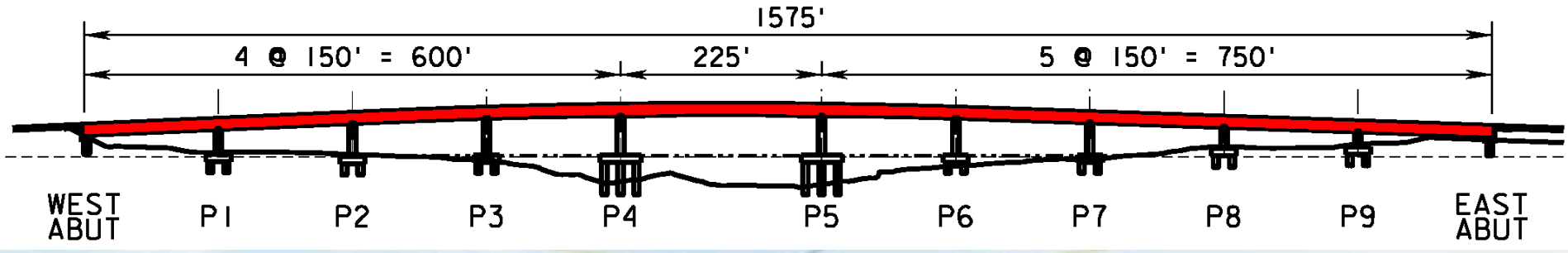
Erection Scheme Option B - Water Based Delivery

- Build from Channel to East Abutment
  - Span 6 – Span by Span
  - Spans 7 to 10 – Span by Span
  - North Half of Span 5 – Uni-Directional Cantilever (truss in Span 6)



Erection Scheme Option B - Water Based Delivery

Complete with CJ at midspan over channel



CRR Reinforcing Steel

- Most of Reinforcing Steel in bridge is CRR Class I (Low Carbon/Chromium)
- Small amount of CRR Class III (Solid Stainless) – located in piers to conceal accent lighting for piers
- No Black Reinforcing Steel in bridge

Pier Orientation: Curves Alternating Sides

Lesner Bridge – Stain

- All visible surfaces of box girder, piers, footings, abutments, barriers, curbs & MSE walls to be stained per specifications – stain color same as local beach sand.

Railing Details: Deep Sea Blue