

# Bridgellation on the I-4/Selmon Expressway Connector

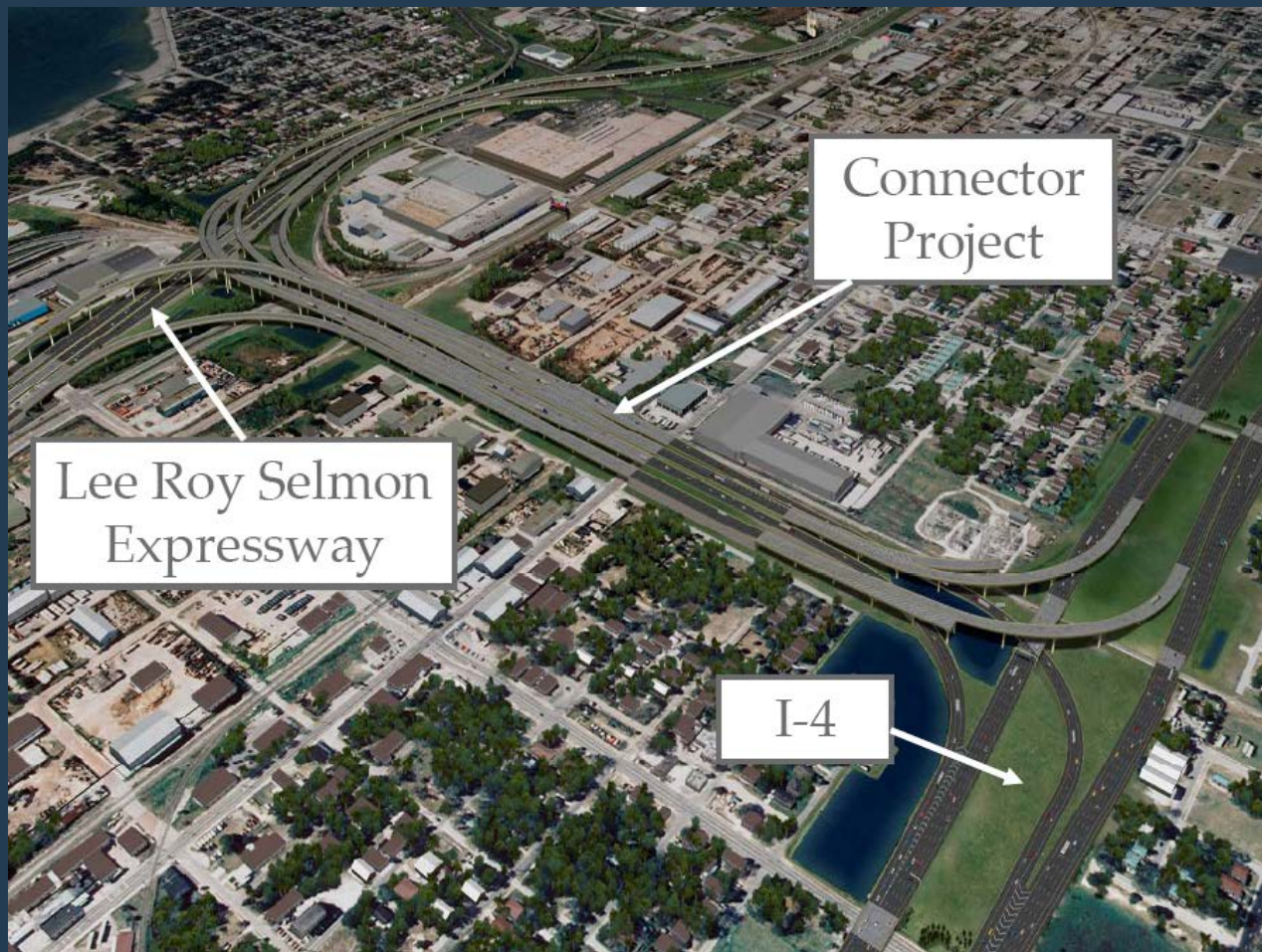
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# Bridgellation \ bridg · e · la · tion \ [brij-ih-ley-shun]

- ***noun***
- a feeling or state of great joy or pride that derives from working on projects composed almost entirely of elevated structure

# Project Vicinity





# Project Perspective





# Consolidated Tolling

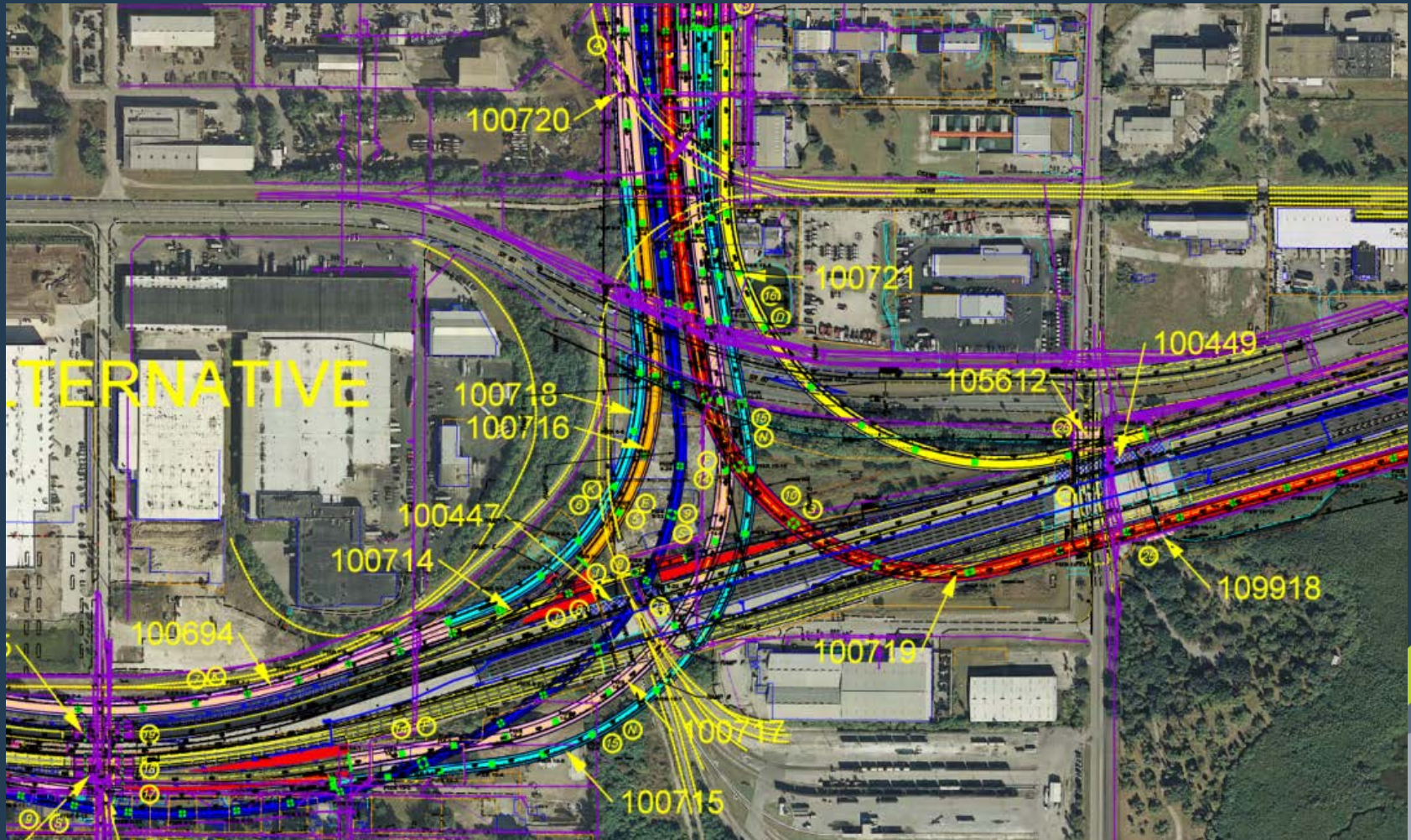


# Project Partners

- Owner – Florida DOT, District 7
- Stakeholders
  - THEA
- Design Team
  - Figg (subconsultant)
  - PB
  - Many, many others



# Limited Space



# Structure Alternatives

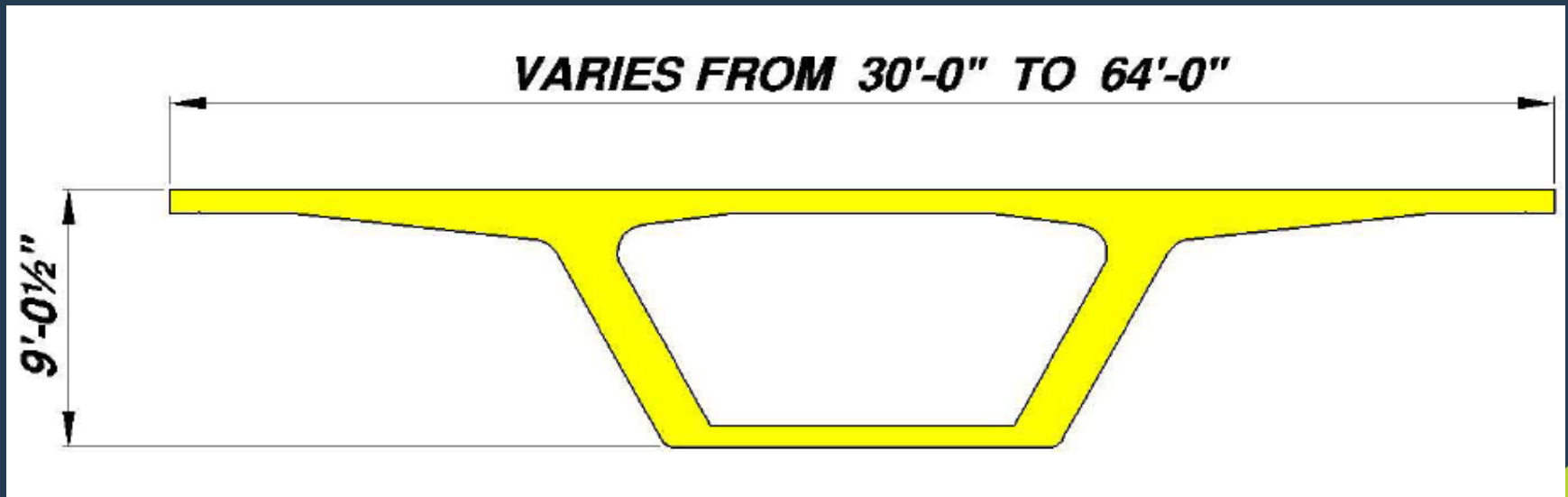
- Multiple complete bid packages
  - AA1 – Steel box girder throughout
  - AA2 – Concrete segmental throughout
  - AA3 – Steel box/concrete bulb-T
  - AA4 – Concrete segmental/bulb-T



# Structures Breakdown (AA4)

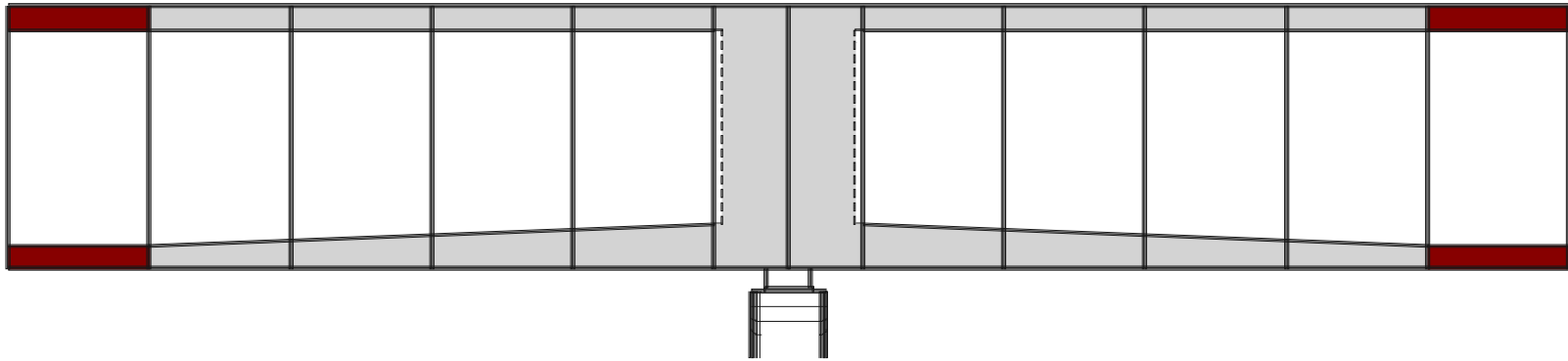
Item	Quantity	UOM	PCL/AW	Kiewit
Superstructure concrete (segmental)	78,409	CY	\$ 28,267,282.00	\$ 86,249,900.00
Superstructure concrete (bulb-T)	16,219	CY	\$ 12,975,440.00	\$ 14,110,791.00
Precast segment production	1	EA	\$ 64,000,000.00	\$ 25,324,500.00
PT strand	6,711,494	LBS	\$ 16,778,735.00	\$ 20,134,482.00
PT bar	767,748	LBS	\$ 3,838,740.00	\$ 921,297.60
Multi-rotational bearings (Various)	241	EA	\$ 4,167,500.00	\$ 2,565,200.00
Substructure concrete	27,843	CY	\$ 22,991,600.00	\$ 19,758,930.00
Drilled shaft 36"	52,841	LF	\$ 17,965,940.00	\$ 9,775,585.00
Reinforcing steel	25,113,528	LBS	\$ 20,090,822.00	\$ 13,812,440.00
Lighting inside box girder	12	EA	\$ 312,000.00	\$ 1,400,000.00
All remaining items	-	-	\$ 55,927,639.40	\$ 49,417,824.00
<b>Total</b>			<b>\$ 247,315,698.40</b>	<b>\$ 243,470,949.60</b>

# Standardized Segment





# Stiffness Variation

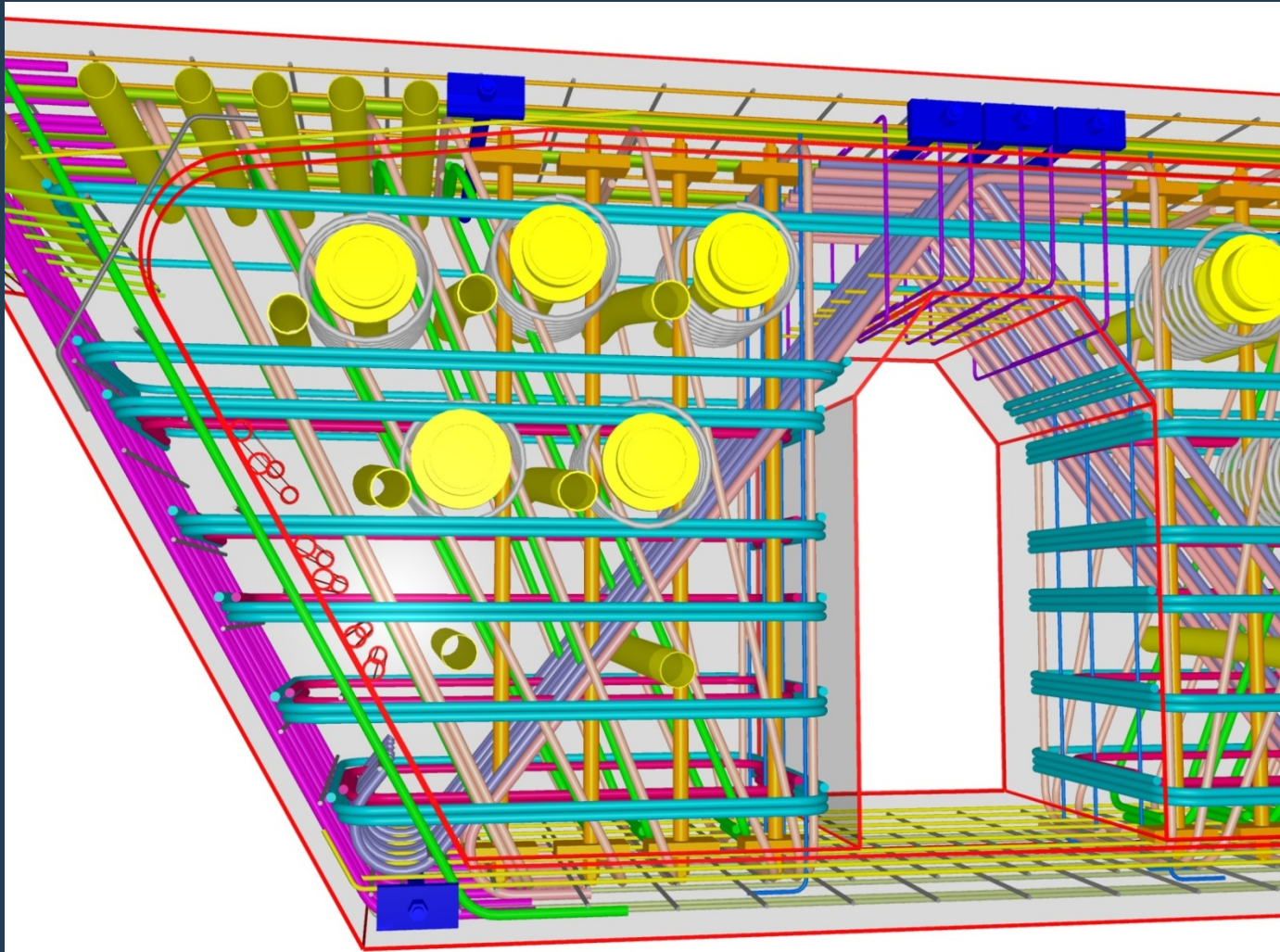


CONCRETE STRENGTH (8.5 KSI)



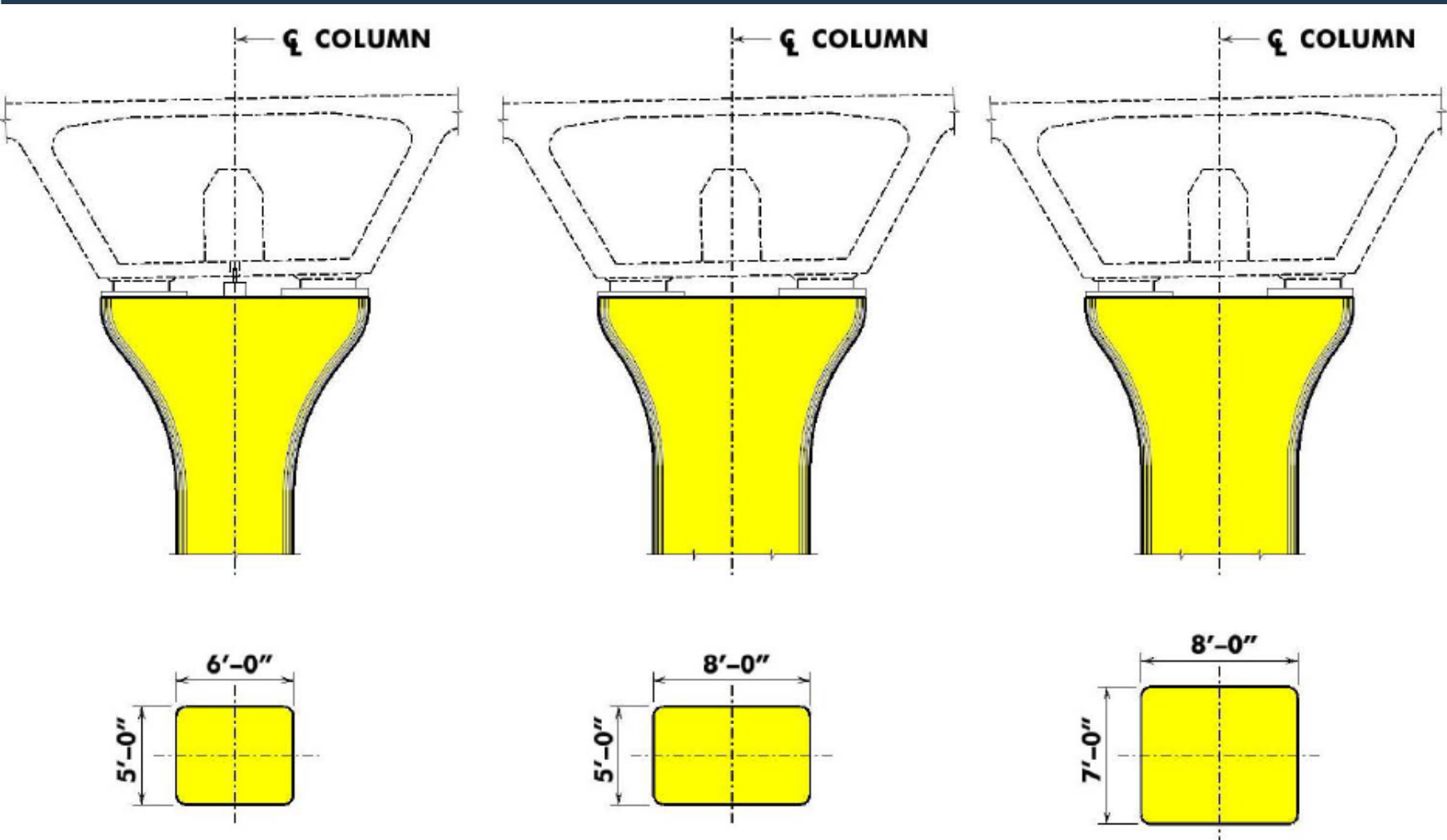
CONCRETE STRENGTH (6.5 KSI)

# Complex Structural System



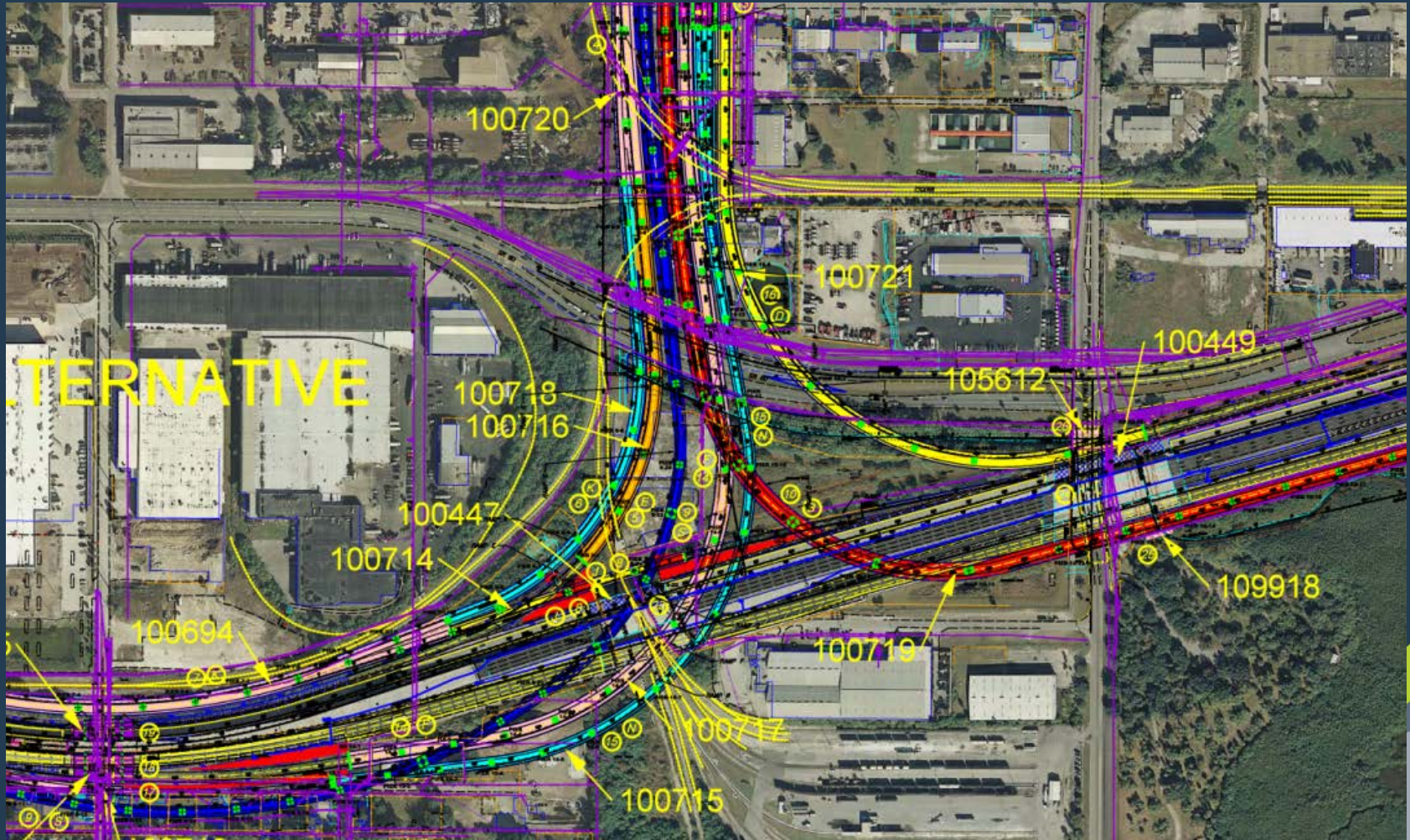


# Standardized Piers



# CONSTRUCTION

# Limited Space





# Limited Space



# Span-by-Span Erection





# Span-by-Span Erection



# Cantilever - Appurtenances





# Cantilever - Crane



# Cantilever – Segment Lifter





# Cantilever – Segment Lifter





# Cantilever Erection





# Progress





# More Progress





# Almost There



# Last Segment (July 26, 2013)



# Summary/Questions