2018 Port Everglades Master/Vision Plan Update

Cruise Charrette

April 30, 2019

Bermello Ajamil & Partners

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2018 Master/Vision Plan Update

Phase 1: Market Assessments

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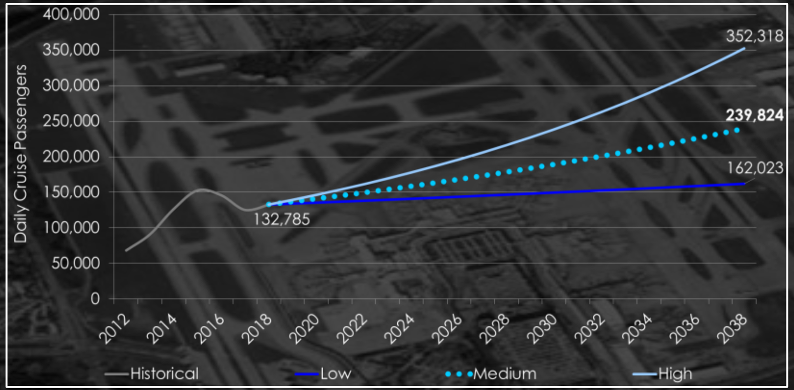
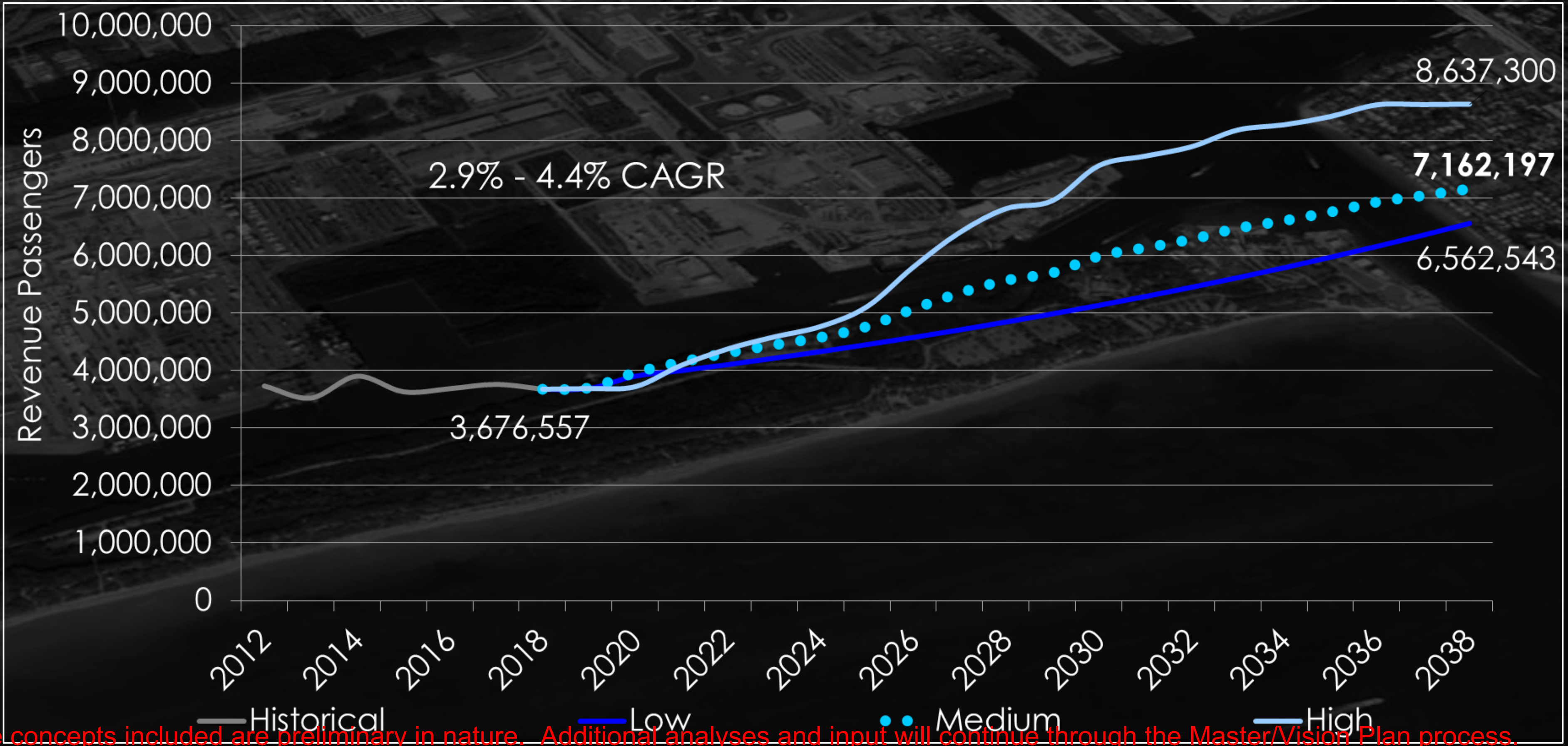
Daily



Multi-Day



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2018 Master/Vision Plan Update

Phase 2: Plan Development

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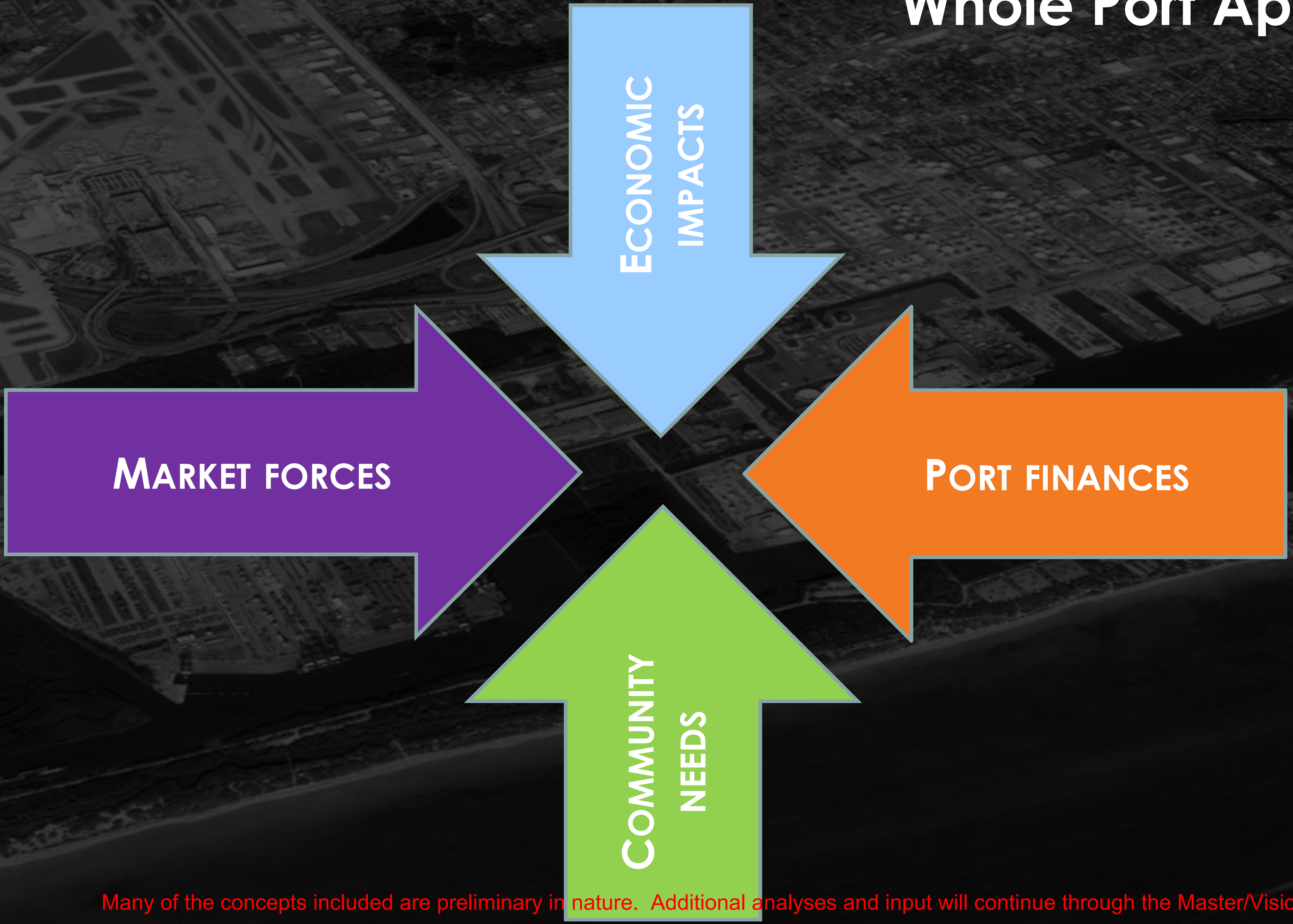
Whole Port Approach



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Major Future Development Considerations

- Market projections for each PEV line of business
- Vessel sizes (cruise, cargo, liquid bulk)
- On-port traffic
- Core trade lanes/source markets, trade policy and macro-economic conditions
- Ongoing PEV improvements (STNE, USACE deepening/widening, etc.)
- Cruise industry expansion and transition to LNG
- Competitive dynamics and developments at other Florida ports
- Technology, industry best practices and supply chain evolution
- Environmental and community impacts
- Return on investment and economic impacts
- Resiliency
- **Demand vs. Capacity**

Current vs. Future Demand/Capacity – LNG Preferred

		Berth Requirements (berths)		KPIs	Δ 2018-2038	Land Requirements (acres)		KPIs	Δ 2018-2038
		2018	2038			2018	2038		
Cruise (including parking)		9.0	10.0		1.0	88.0	109.0		21.0
	Multi-Day	**8.0**	**10.0**			**84.0**	**109.0**		
		467,676	716,220	PAX/berth		44,541	65,708	PAX/acre	
	Daily	**1.0**	**0.0**			**4.0**	**0.0**		
		128,934	n/a	PAX/berth		32,234	n/a	PAX/acre	
Liquid Bulk		3.0	3.0		0.0	23.0	15.0		-8.0
		112,698	118,280	BPD/berth		14,700	23,656	BPD/acre	
Containers		5.5	8.0		2.5	327.0	294.0		-33.0
	Southport (w/ cranes)	**4.0**	**6.0**			**279.0**	**294.0**		
		252,116	330,529	TEUs/berth		3,615	6,947	TEUs/acre	
		80,037	84,751	Moves/crane					
	Southport (w/o cranes)	**0.0**	**2.0**						
		n/a	29,600	TEUs/berth					
	Midport	**1.5**	**0.0**			**48.0**	**0.0**		
		66,667	n/a	TEUs/berth		2,083	n/a	TEUs/acre	
Break-bulk		0.9	0.5		-0.4	14.0	10.0		-4.0
		403,396	409,514	Tons/berth		25,933	20,476	Tons/acre	
Dry Bulk		3.6	1.0		-2.6	16.0	14.0		-2.0
		416,553	1,700,000	Tons/berth		93,724	121,429	Tons/acre	
Automobiles		1.0	0.5		-0.5	9.0	25.0		16.0
		107,208	72,954	CEUs/berth		3,219	1,459	CEUs/acre	
Commercial		n/a	n/a			20.0	13.0		-7.0
		n/a	n/a			n/a	n/a		
Warehousing/Logistics/Miscellaneous		n/a	n/a			46.0	78.0		32.0
		n/a	n/a			n/a	n/a		
Vacant/Other		**n/a**	**n/a**			**99**	**52**		-47.0
		n/a	n/a			n/a	n/a		
Total		**23.0**	**23.0**		**0.0**	**642.0**	**610.0**		**-32.0**

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Current vs. Future Demand/Capacity – LNG Alternative

		Berth Requirements (berths)		KPIs	Δ 2018-2038	Land Requirements (acres)		KPIs	Δ 2018-2038
		2018	2038			2018	2038		
Cruise (including parking)		**9.0**	**10.0**		1.0	**88.0**	**109.0**		21.0
	Multi-Day	**8.0**	**10.0**			**84.0**	**109.0**		
		467,676	716,220	PAX/berth		44,541	65,708	PAX/acre	
	Daily	**1.0**	**0.0**			**4.0**	**0.0**		
		128,934	n/a	PAX/berth		32,234	n/a	PAX/acre	
Liquid Bulk		**3.0**	**3.0**		0.0	**23.0**	**15.0**		-8.0
		112,698	118,280	BPD/berth		14,700	23,656	BPD/acre	
Containers		**5.5**	**8.0**		2.5	**327.0**	**290.0**		-37.0
	Southport (w/ cranes)	**4.0**	**6.0**			**279.0**	**290.0**		
		252,116	330,529	TEUs/berth		3,615	7,043	TEUs/acre	
		80,037	84,751	Moves/crane					
	Southport (w/o cranes)	**0.0**	**2.0**						
		n/a	29,600	TEUs/berth					
	Midport	**1.5**	**0.0**			**48.0**	**0.0**		
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Commercial		n/a	n/a			**20.0**	**13.0**		-7.0
		n/a	n/a			n/a	n/a		
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		n/a	n/a			n/a	n/a		
Vacant/Other		**n/a**	**n/a**			**99**	**52**		-47.0
		n/a	n/a			n/a	n/a		
Total		**23.0**	**23.0**		**0.0**	**642.0**	**606.0**		**-36.0**

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Plan Development – Guiding Principles

- Increase Efficiency
  - Increase effective capacity and minimize intra-port drayage and associated truck trips/costs through operational improvements
  - Consolidate similar operations/operators
    - Southport = containers + logistics + commercial (office)
    - Midport = cruise + ro-ro + dry bulk
    - Northport = liquid bulk/break-bulk + cruise + logistics + CVB/commercial
  - Separate modes of transportation to minimize truck and non-truck traffic
- Preserve Flexibility
  - Meet projected future demand without precluding changes in market conditions over time
    - Berths are the primary asset of all ports
    - Land should be configured to support berth utilization
    - Technology will drive future operations in unexpected ways

Plan Development – Guiding Principles

- Facilitate Integration
  - Integration within the port
    - Cruise/Bulk/Liquid Bulk/Containers/ICTF/Parking/Logistics/Commercial
    - Traffic and transportation
  - Integration between the port and surrounding area
    - FLL-PEV-CVB synergies
    - Logistics (cargo and people)
    - Traffic and transportation
  - Integration across the broader supply chain
    - Cruise: PEV/PortMiami/Port Canaveral/Caribbean destinations
    - Containers: shippers/vessel operators/MTOs/3PLs/trucking community
    - Liquid bulk: critical regional and national energy infrastructure
    - Bulk/break-bulk: regional alternatives and business cycle dynamics

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Phase 2a: Port Projects

Port Projects by Area by Year

	0-5 Year Projects		5-10 Year Projects		10-20 Year Projects	
Northport	T2/T4 Parking Garage	2020	Port Access Road	2025		
	Slip 1 Expansion	2022	Slip 3 Expansion	2026		
	Maintenance Facility Consolidation	2022	LNG Bunkering + Storage Facility	2028		
	Break-bulk Yard	2023				
Midport	T21 Redevelopment	2021	Tracor Basin Fill	2024	Berth 19 Finger Pier	2029
	Ro-Ro Yard Relocation/Expansion	2023	T29	2027	T19/20	2030
			Ro-Ro Yard Expansion	2027	Berths 14/15 Realignment	2037
			T26	2028	Ro-Ro Yard Expansion	2033
					T14/15	2038
Southport	PEV ILC	2020	Phase 9C-1	2025	Phase 9C-2	2029
	3 SPP STS Cranes	2020	Phase 9A-2	2026		
	Phase 9A-1	2021	Griffin Road Extension	2026		
	STNE + 3 SPP STS Cranes	2023	McIntosh Road Realignment	2027		
			Berth 33 Alignment	2028		
			Container Terminal reconfiguration	2028		
Portwide/Other	USACE Deepening & Widening (USCG Relocation)	2022	Shaw Property Development	2024	APM	2035
	Shaw Property Acquisition	2022	USACE Deepening & Widening	2025		
	I-595 Flyover	2022	Commercial Consolidation	2025		
	Former Dynegy Logistics Development	2023				
	Auto Terminal West	2023				

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STATUS QUO

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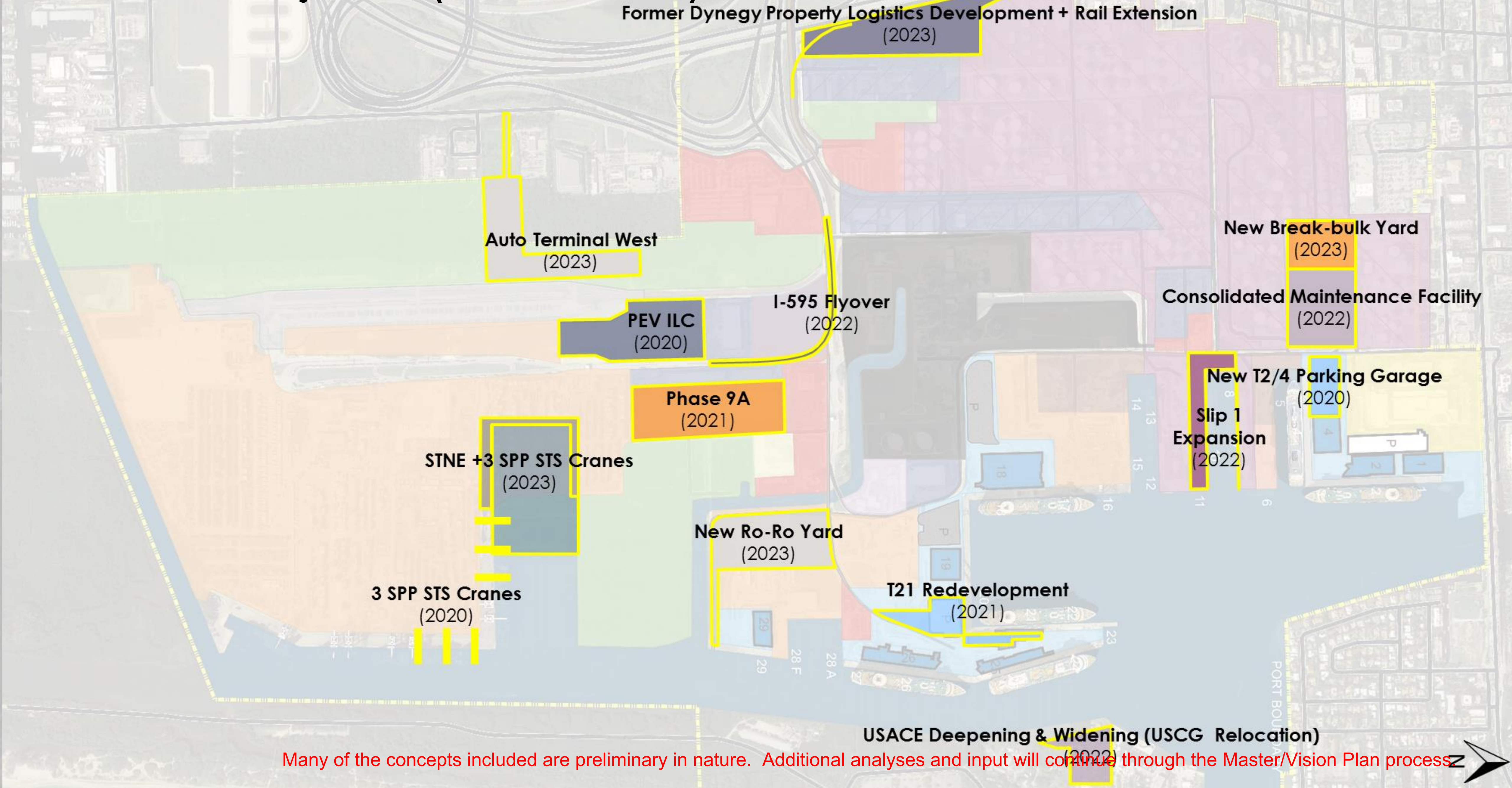
0-5 Year Projects (2019-2023)



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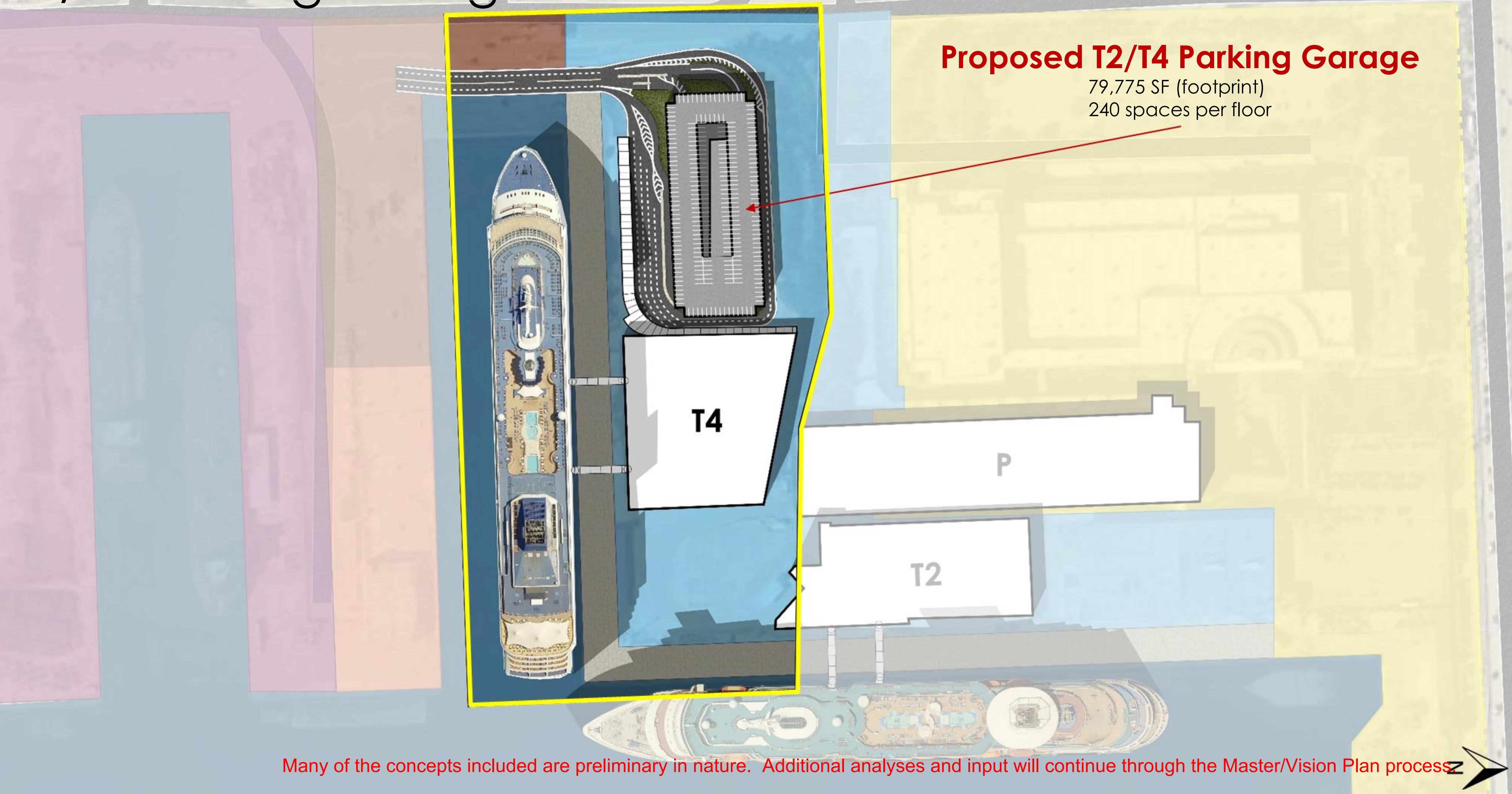
T2/T4 Parking Garage – 2020



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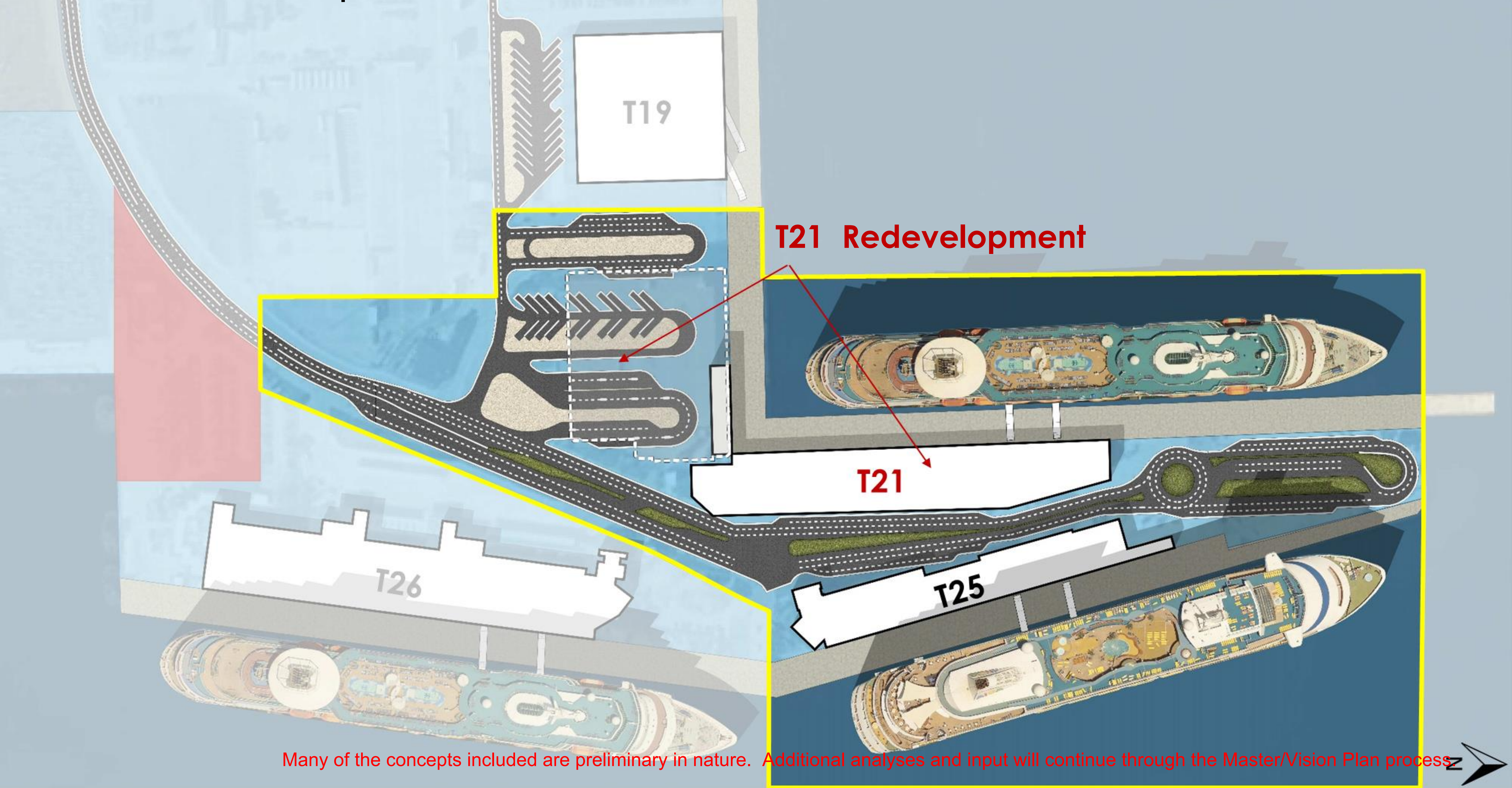
T21 Redevelopment – 2021



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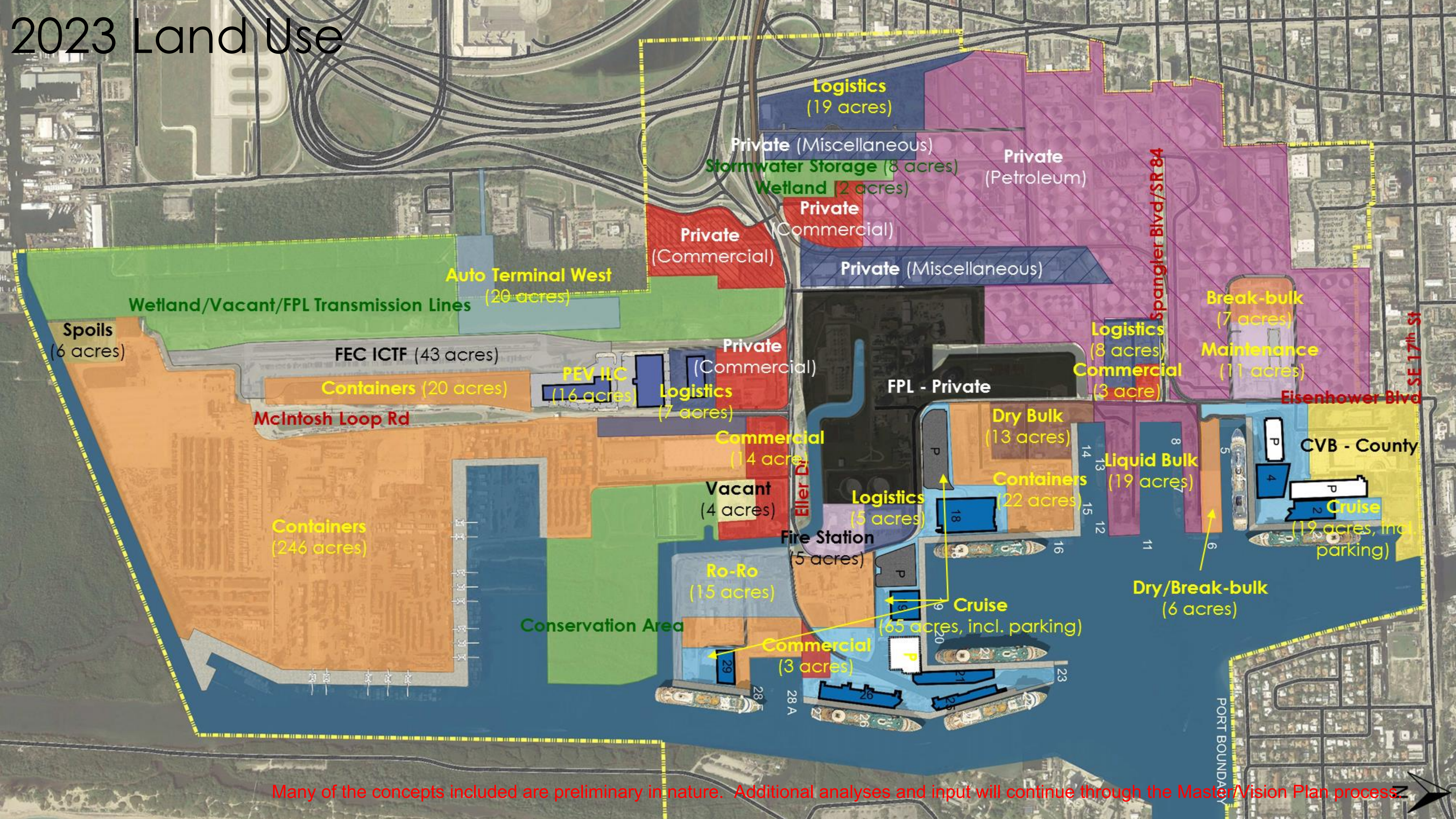
2023 Land Use



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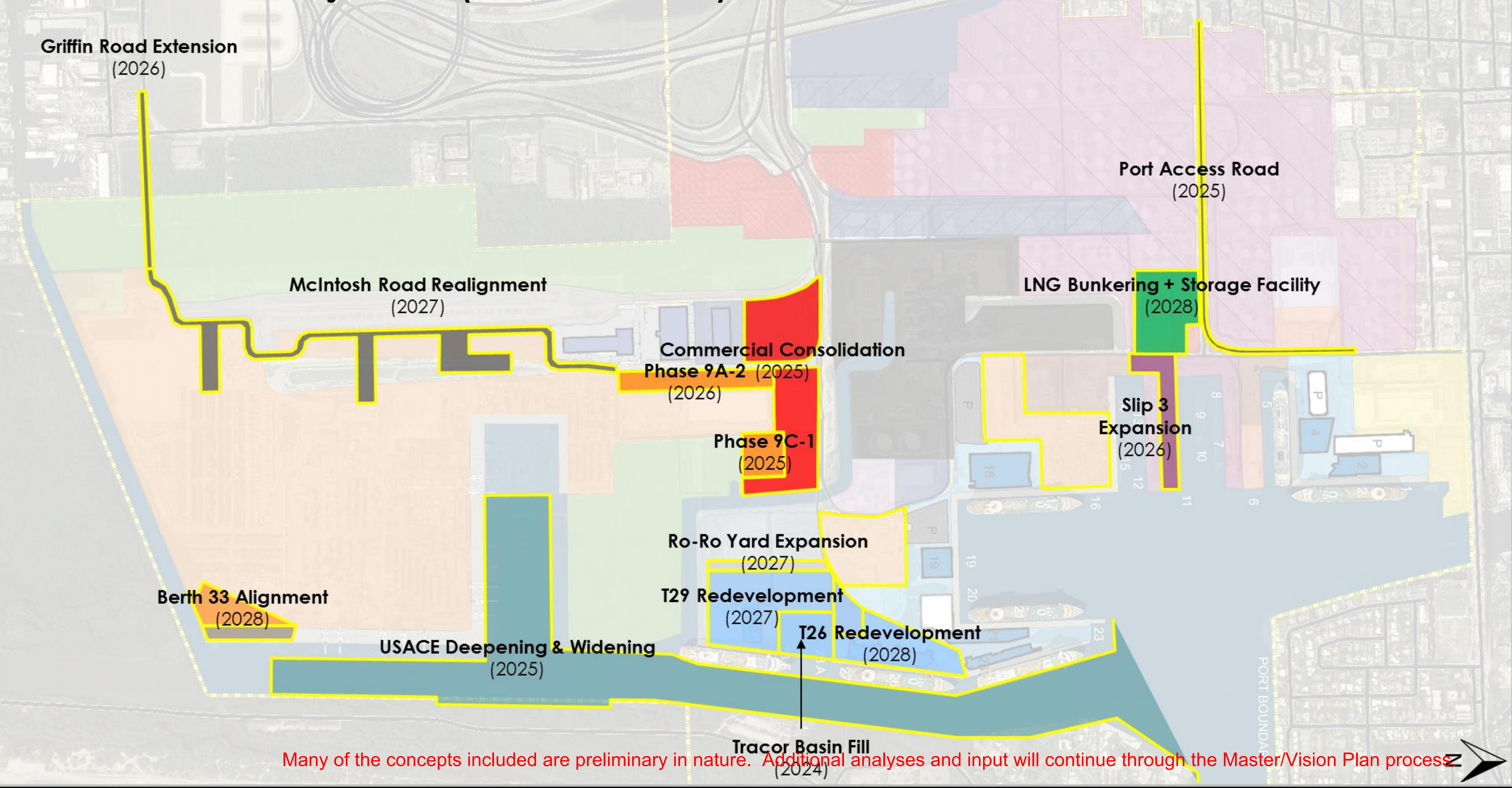
5-10 Year Projects (2024-2028) – LNG Site A



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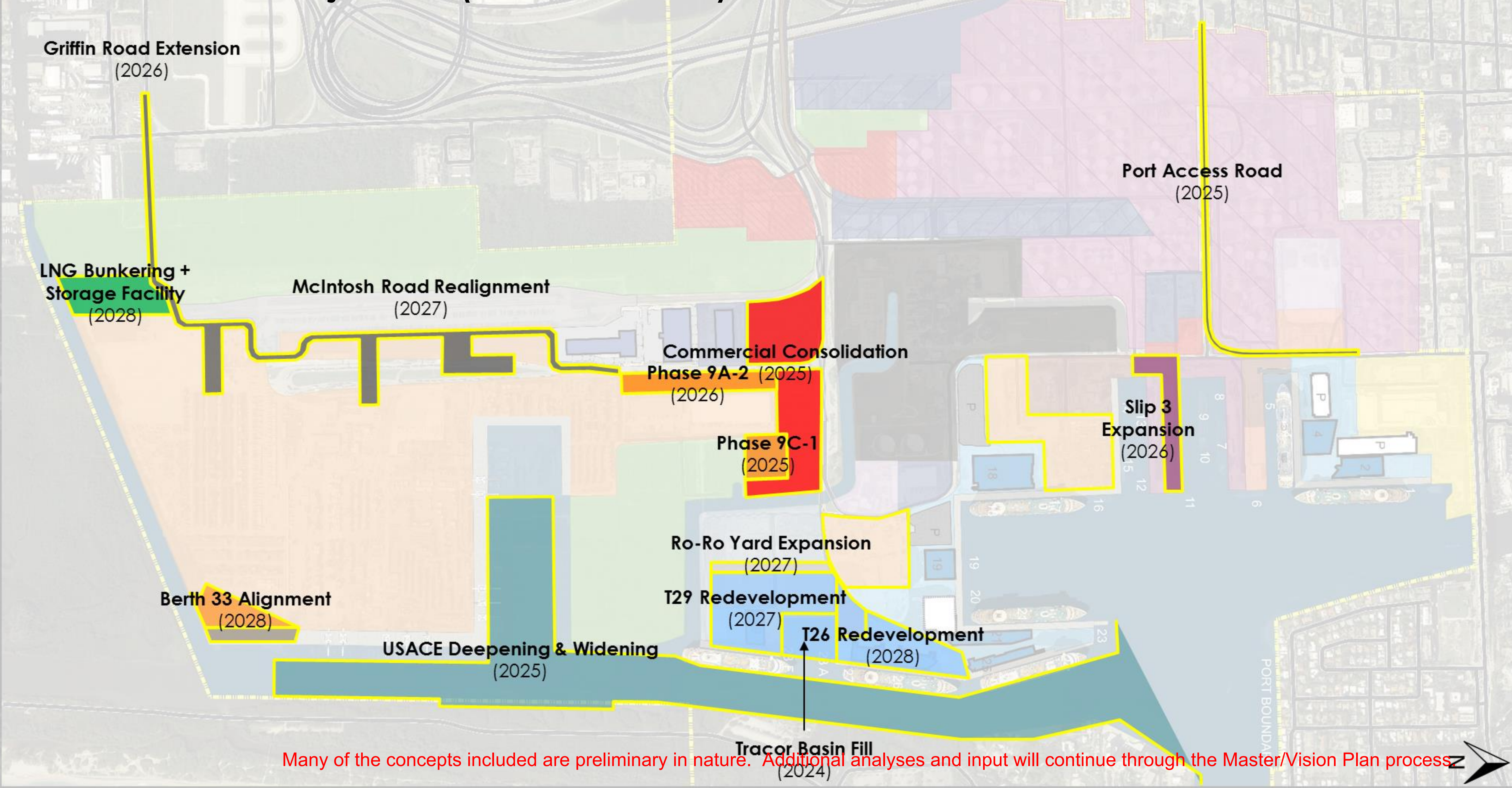
5-10 Year Projects (2024-2028) – LNG Site B



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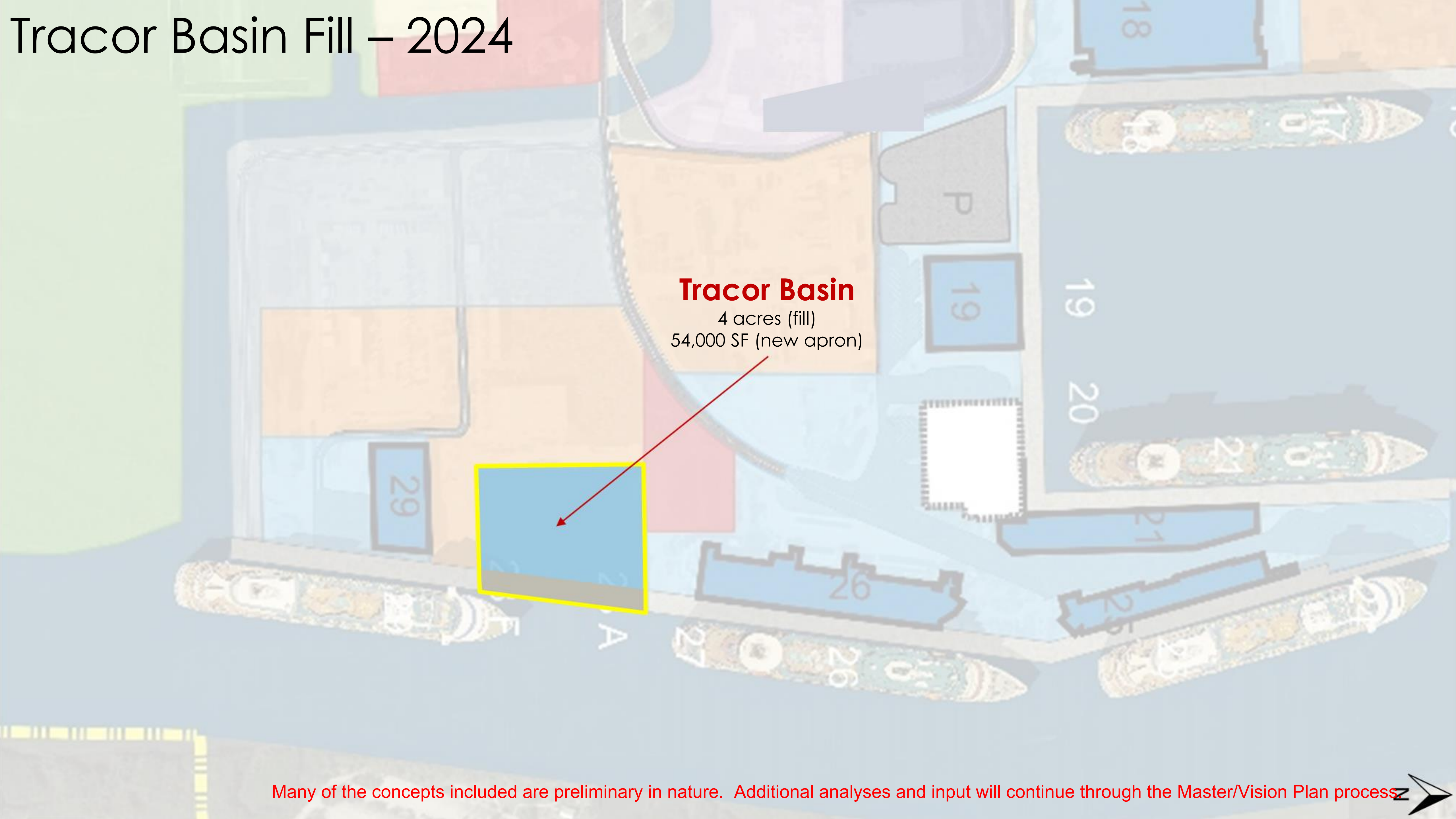
Tracor Basin Fill – 2024



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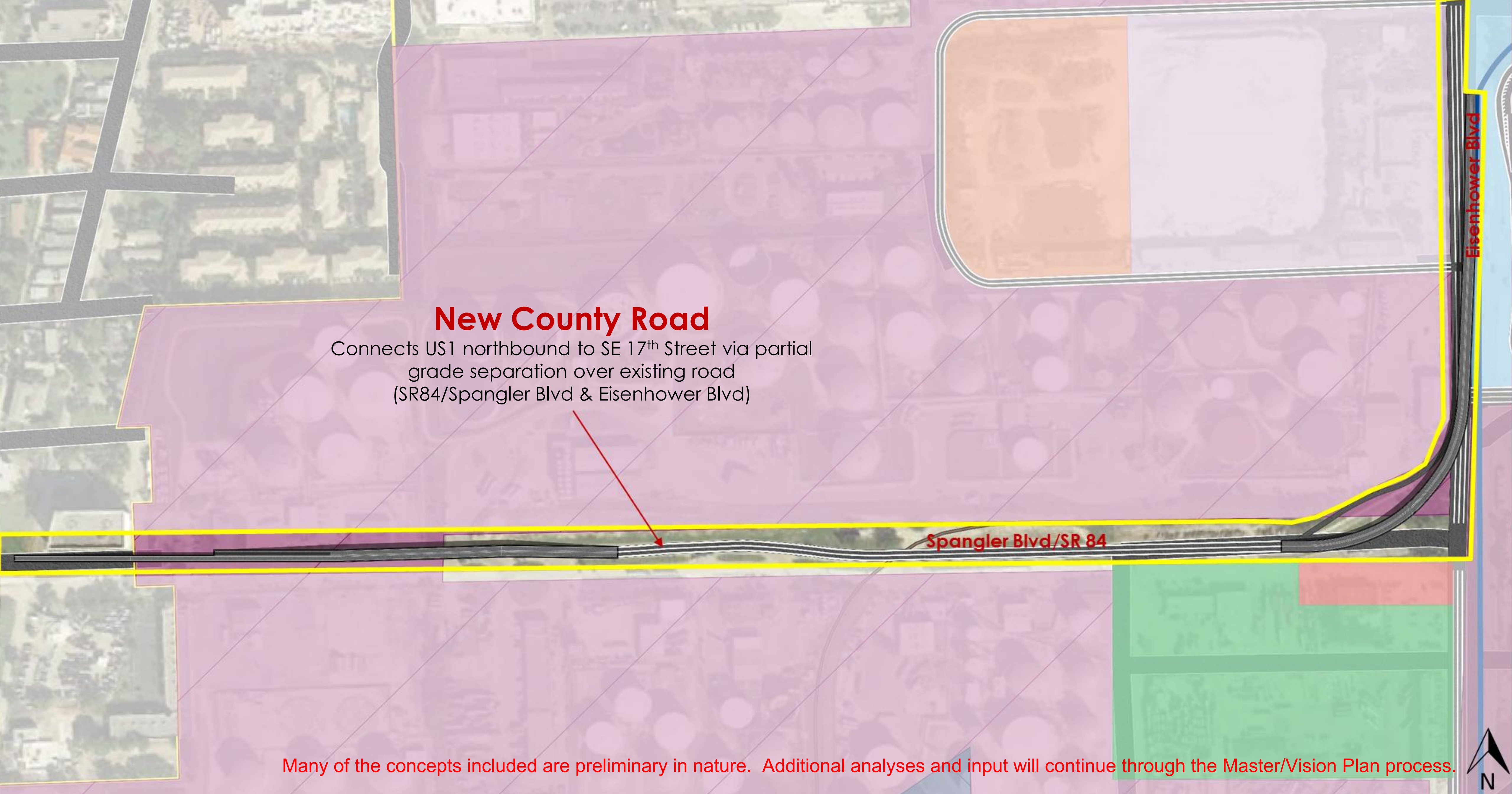
Port Access Road – 2024



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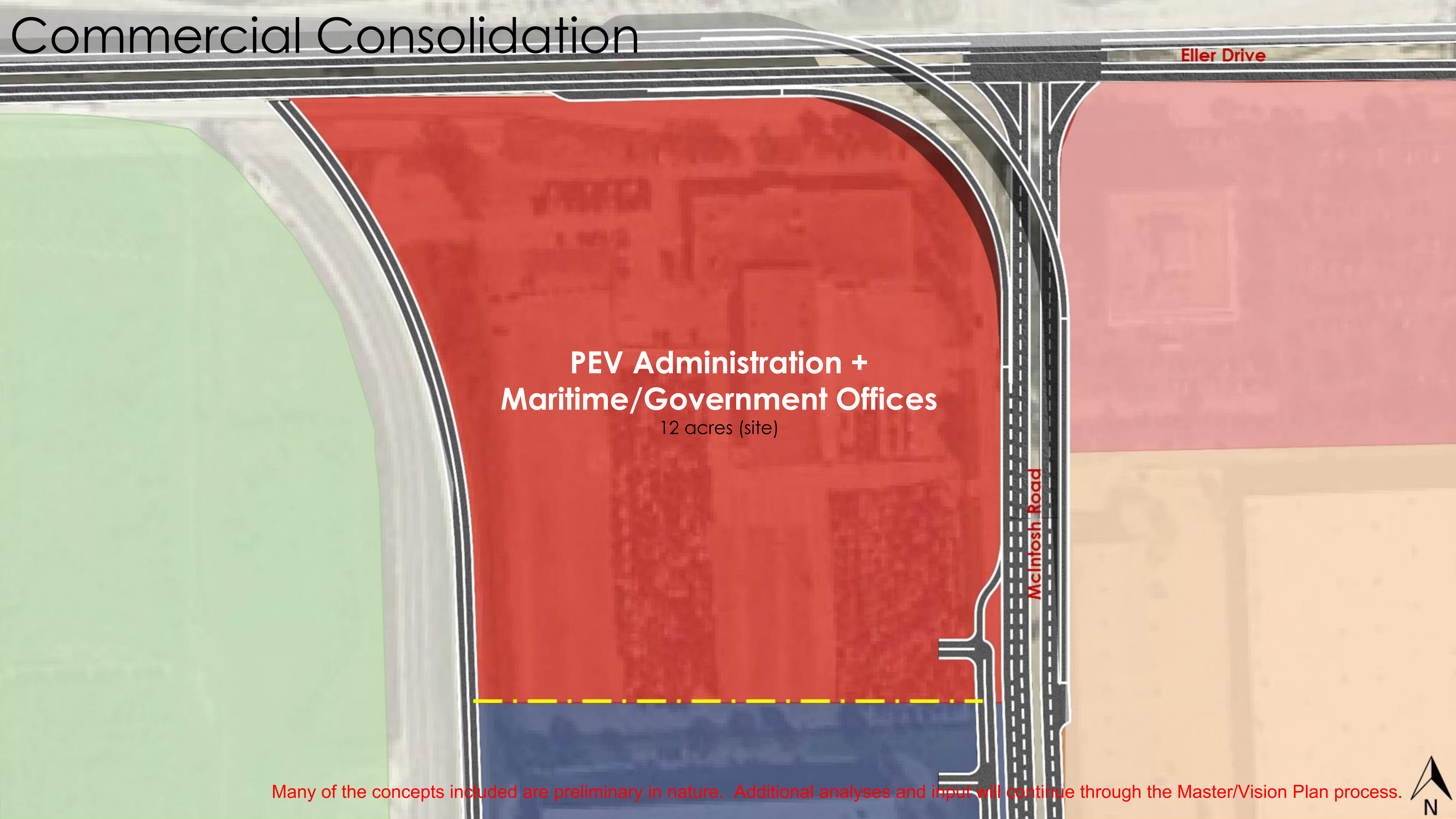
Commercial Consolidation



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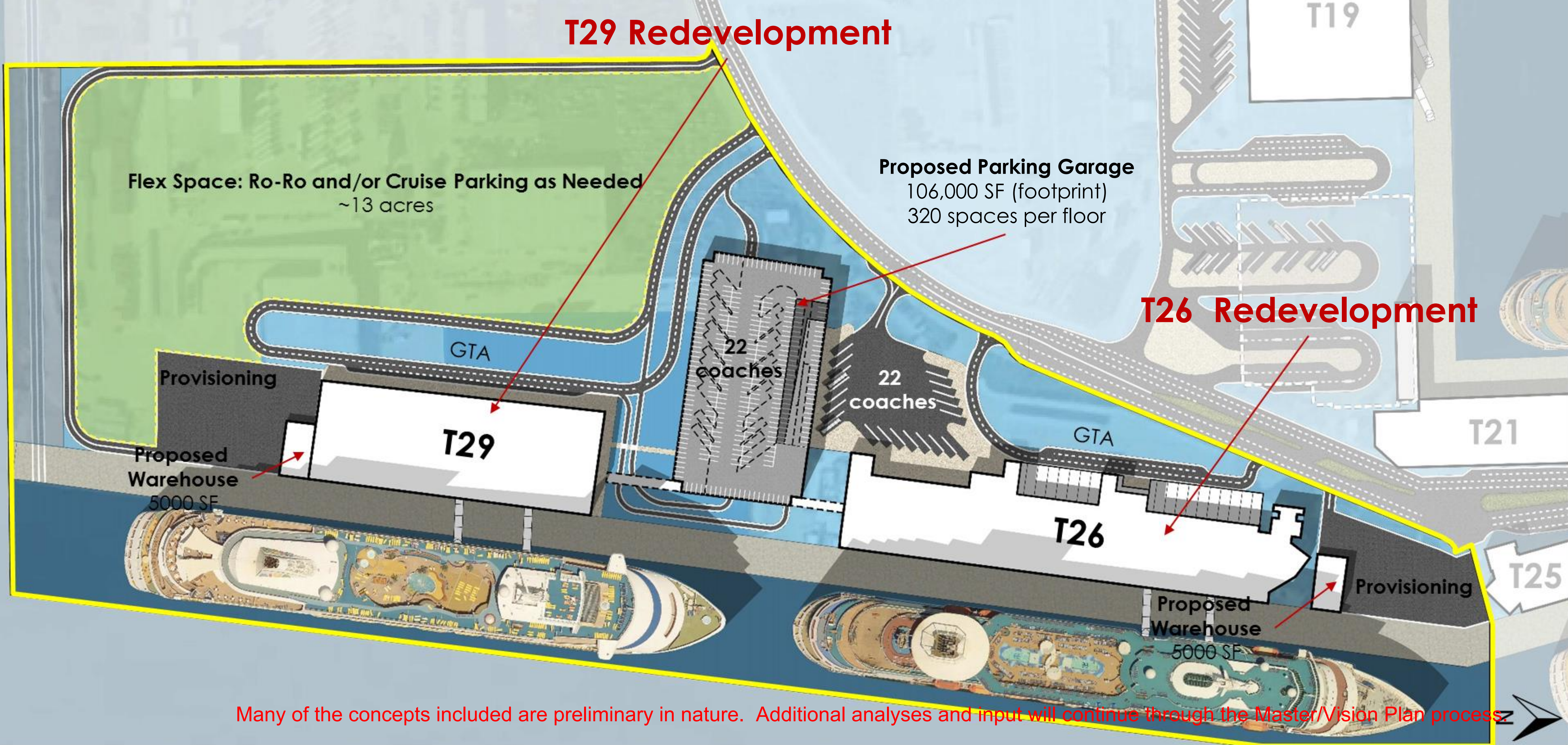
T29 Redevelopment – 2027
T26 Redevelopment – 2028

Alternative A



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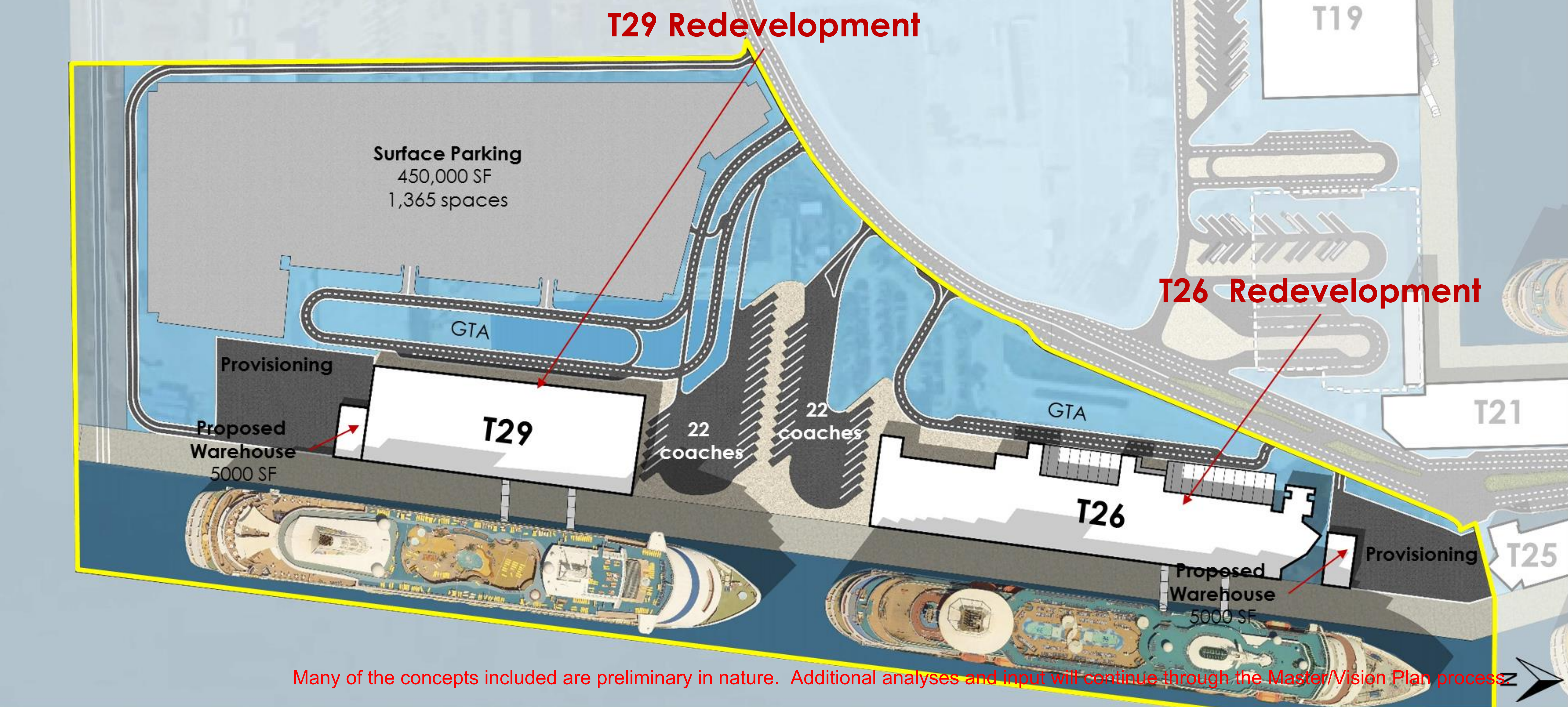
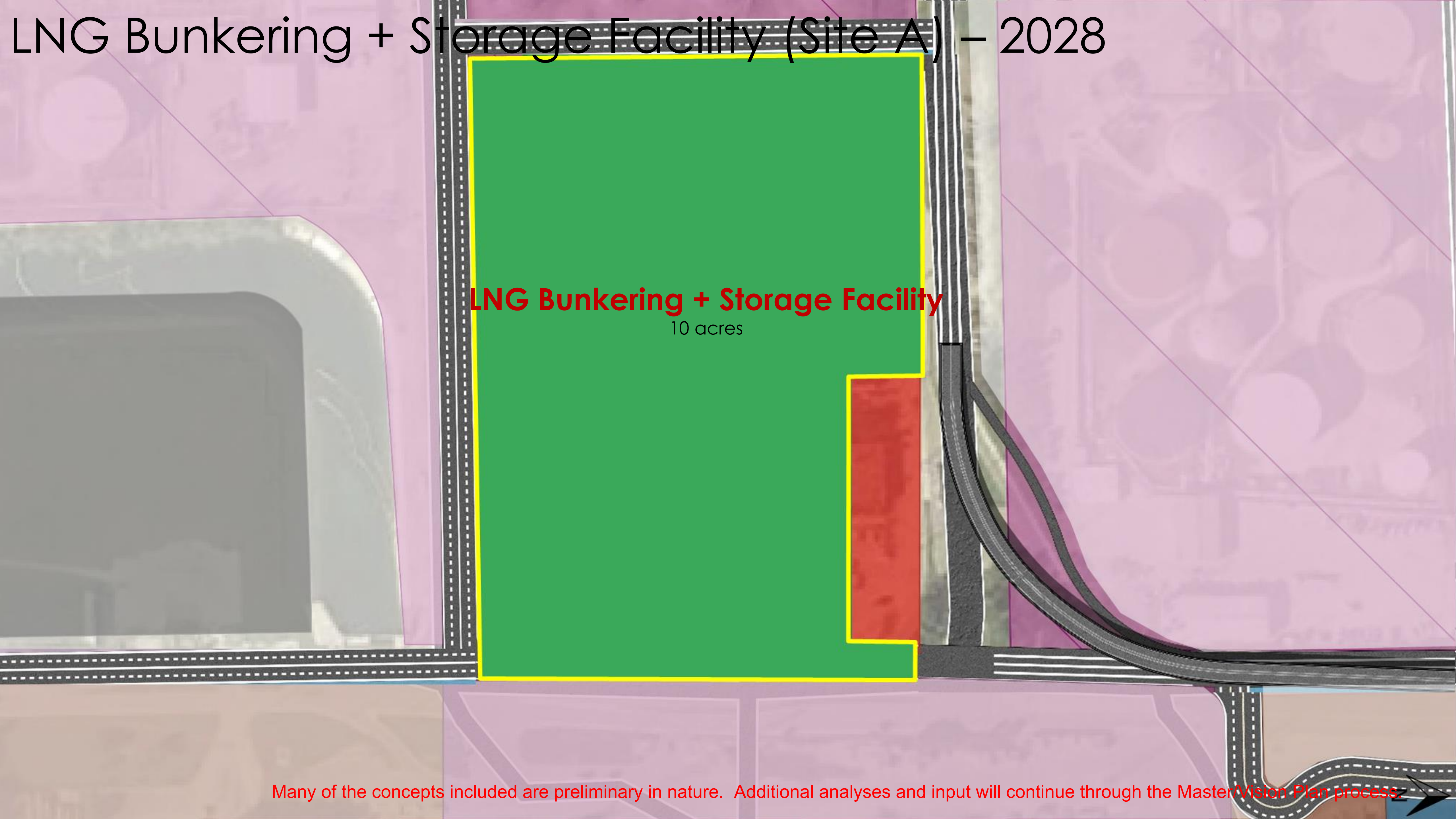
T29 Redevelopment – 2027
T26 Redevelopment – 2028

Alternative B



LNG Bunkering + Storage Facility (Site A) – 2028



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LNG Bunkering + Storage Facility (Site B) – 2028

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2028 Land Use – LNG Site A

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2028 Land Use – LNG Site B

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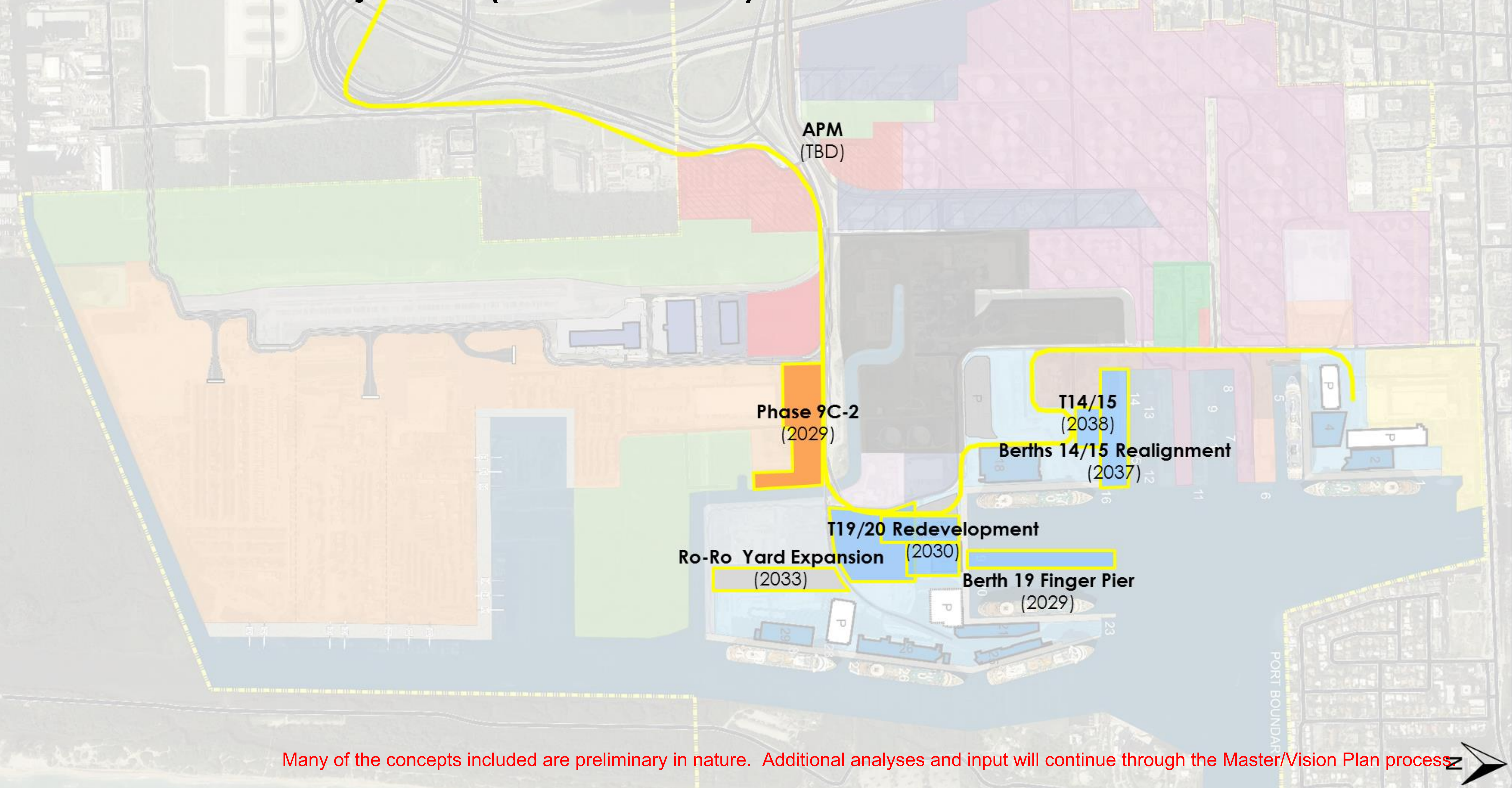
10-20 Year Projects (2029-2038)



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Berth 19 Finger Pier – 2029

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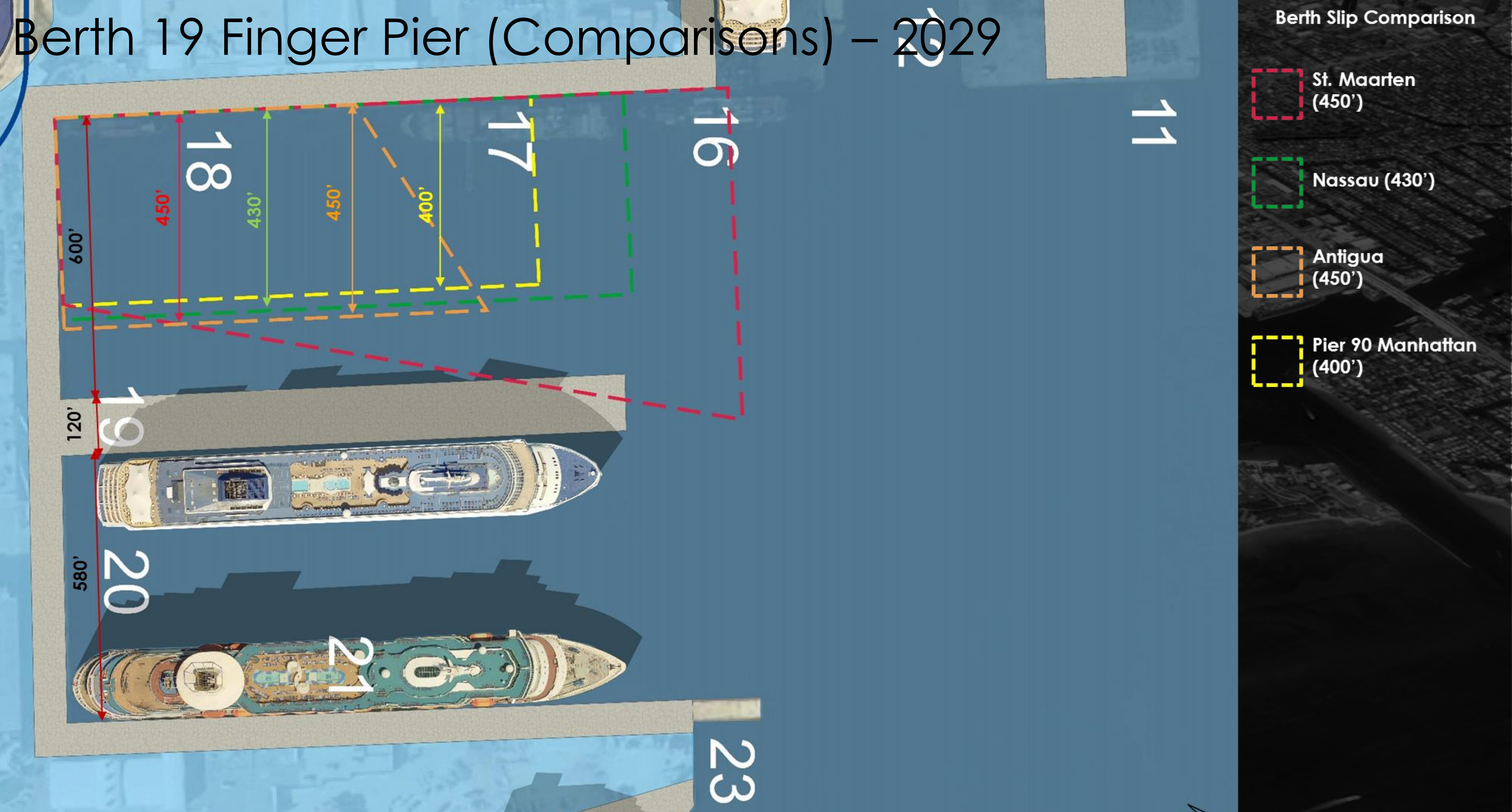
Berth 19 Finger Pier (Comparisons) – 2029



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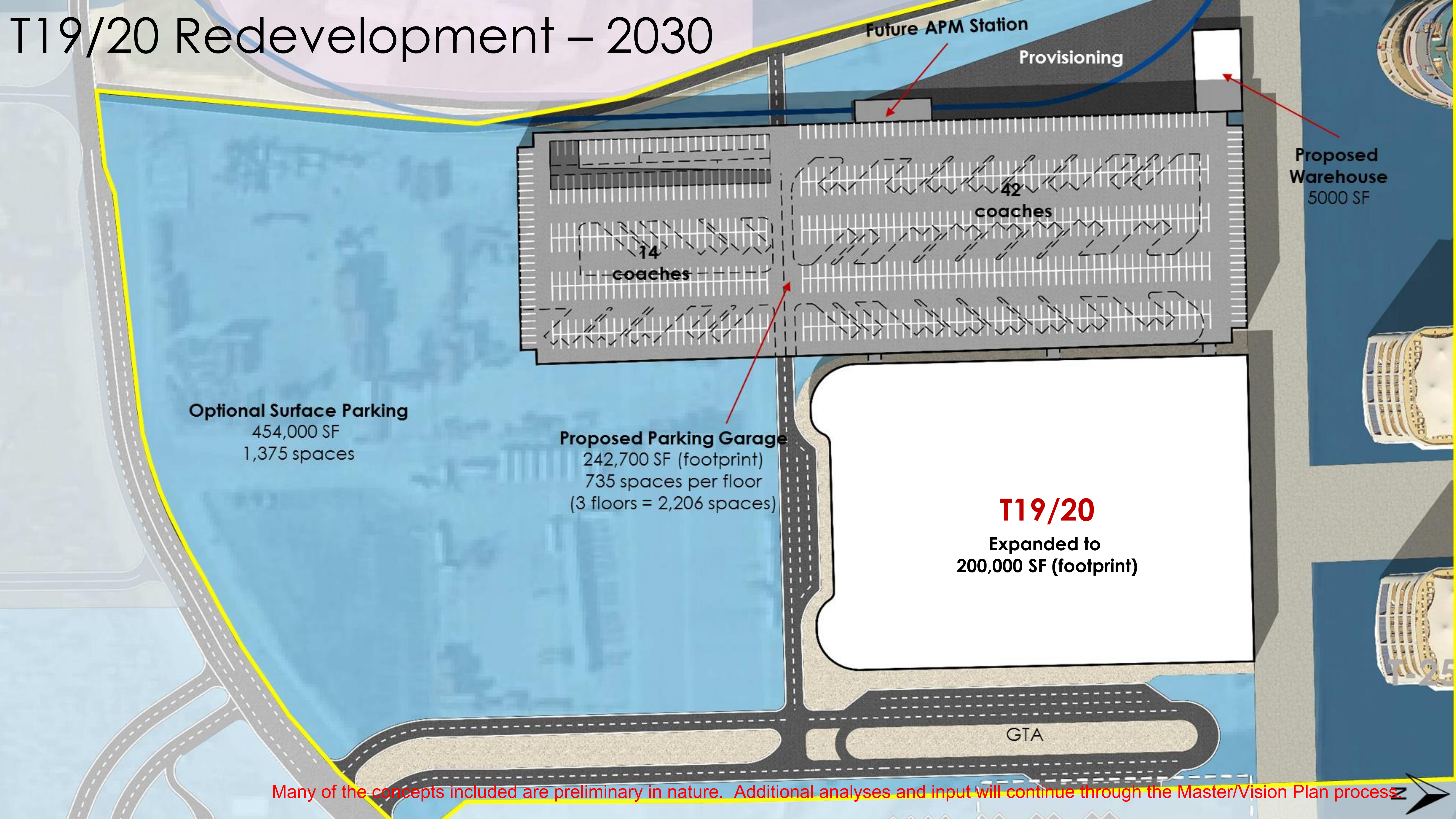
T19/20 Redevelopment – 2030



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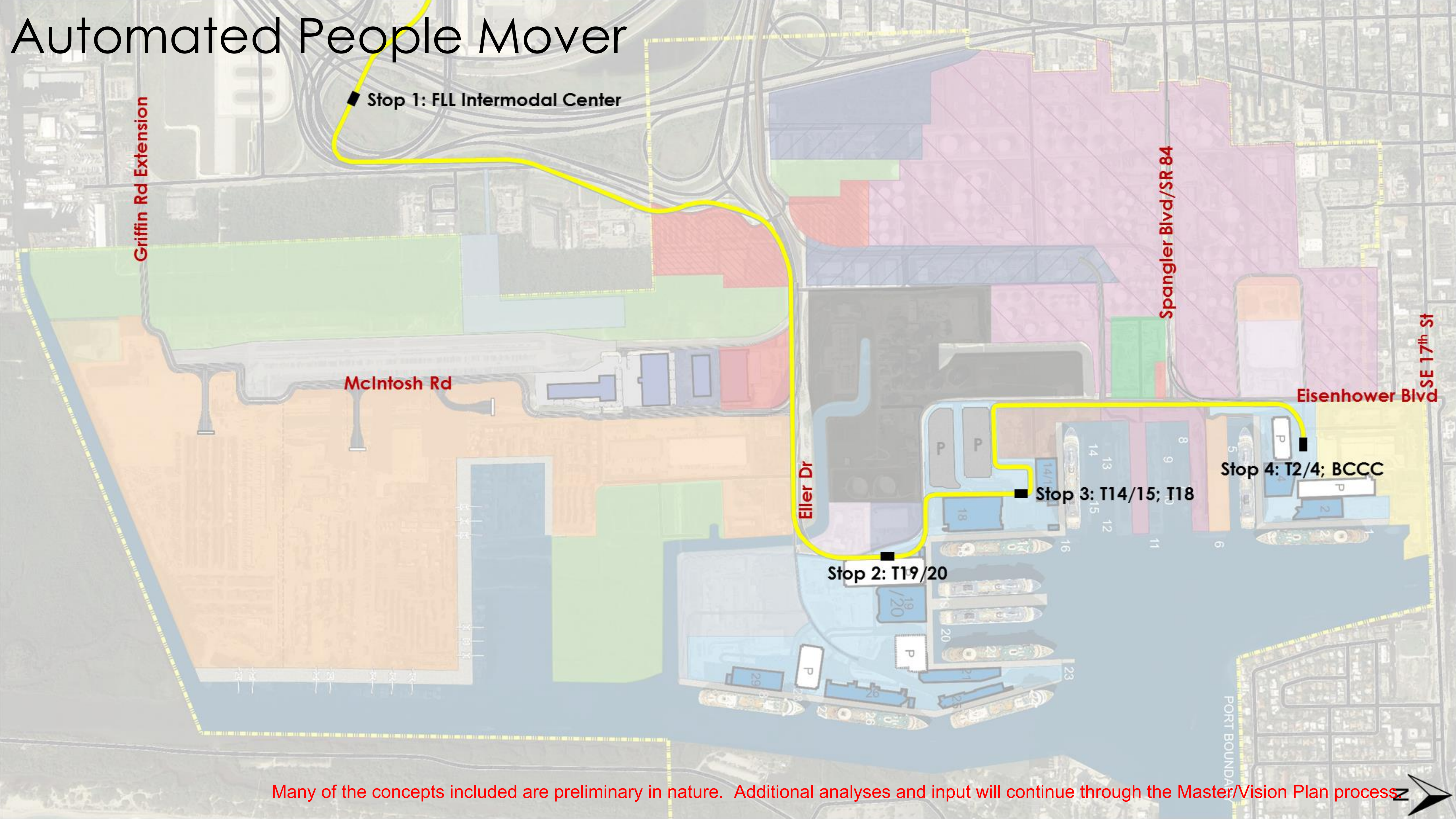
Automated People Mover



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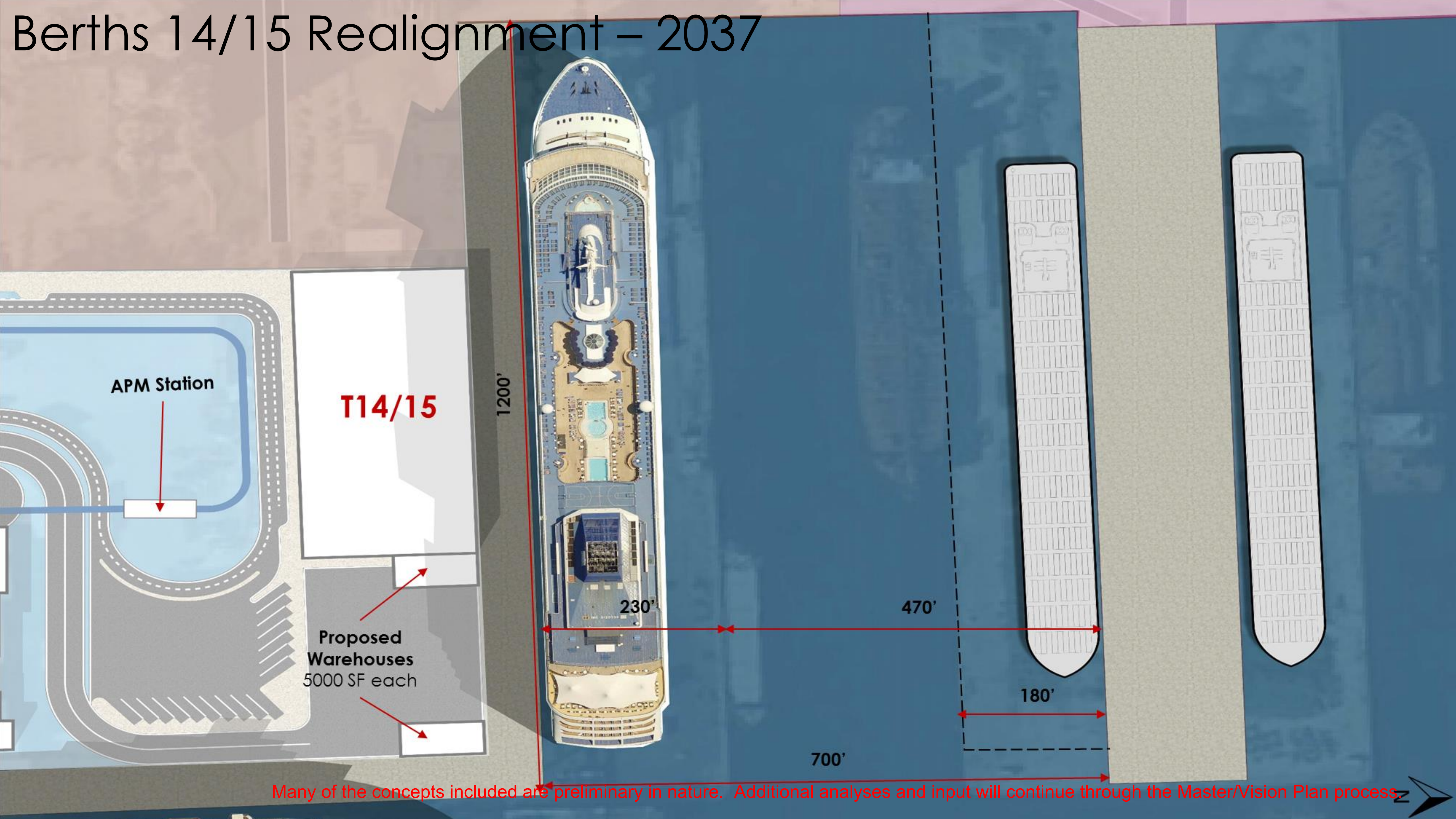
Berths 14/15 Realignment – 2037



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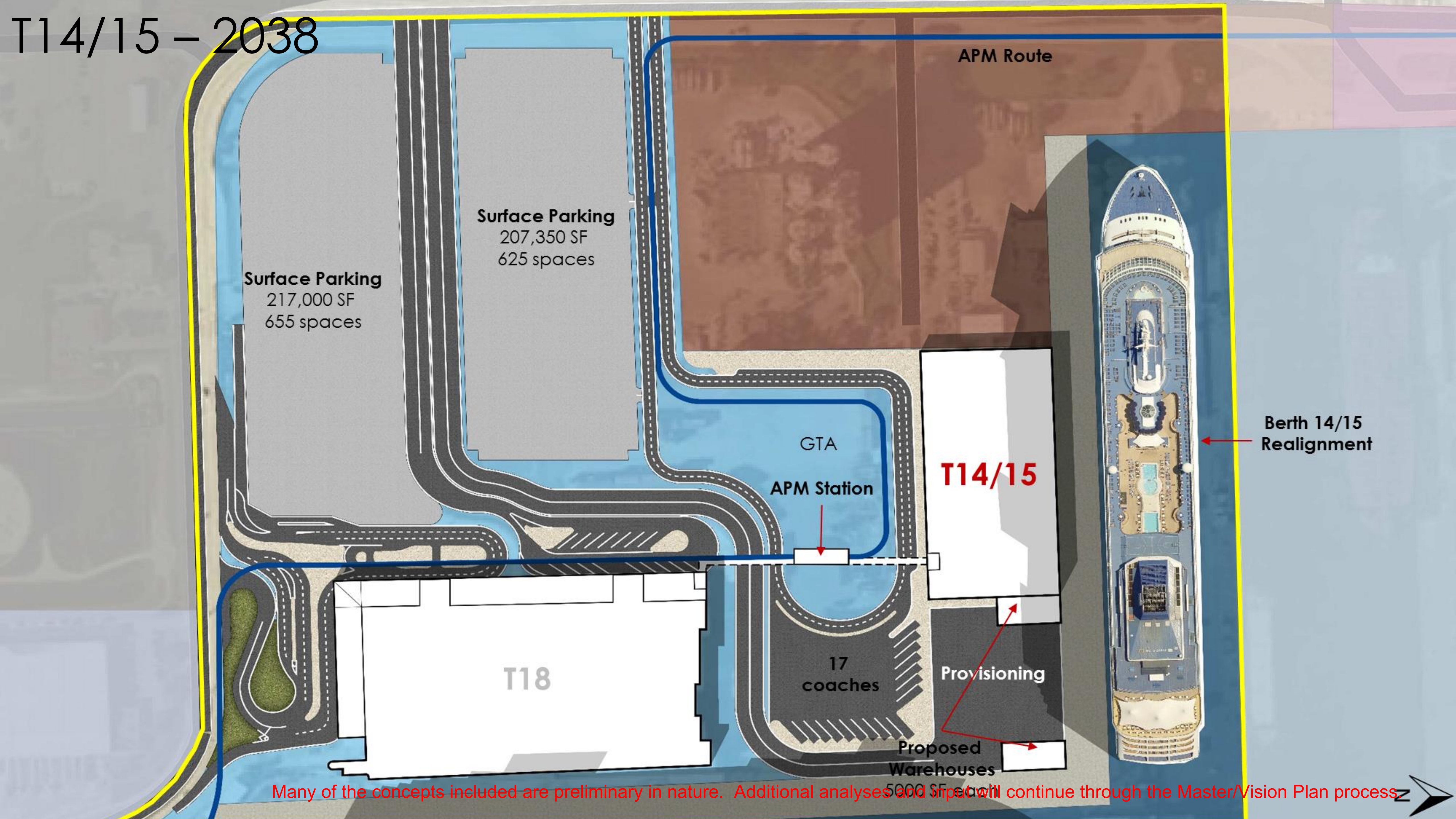
T14/15 – 2038



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2038 Land Use – LNG Site A

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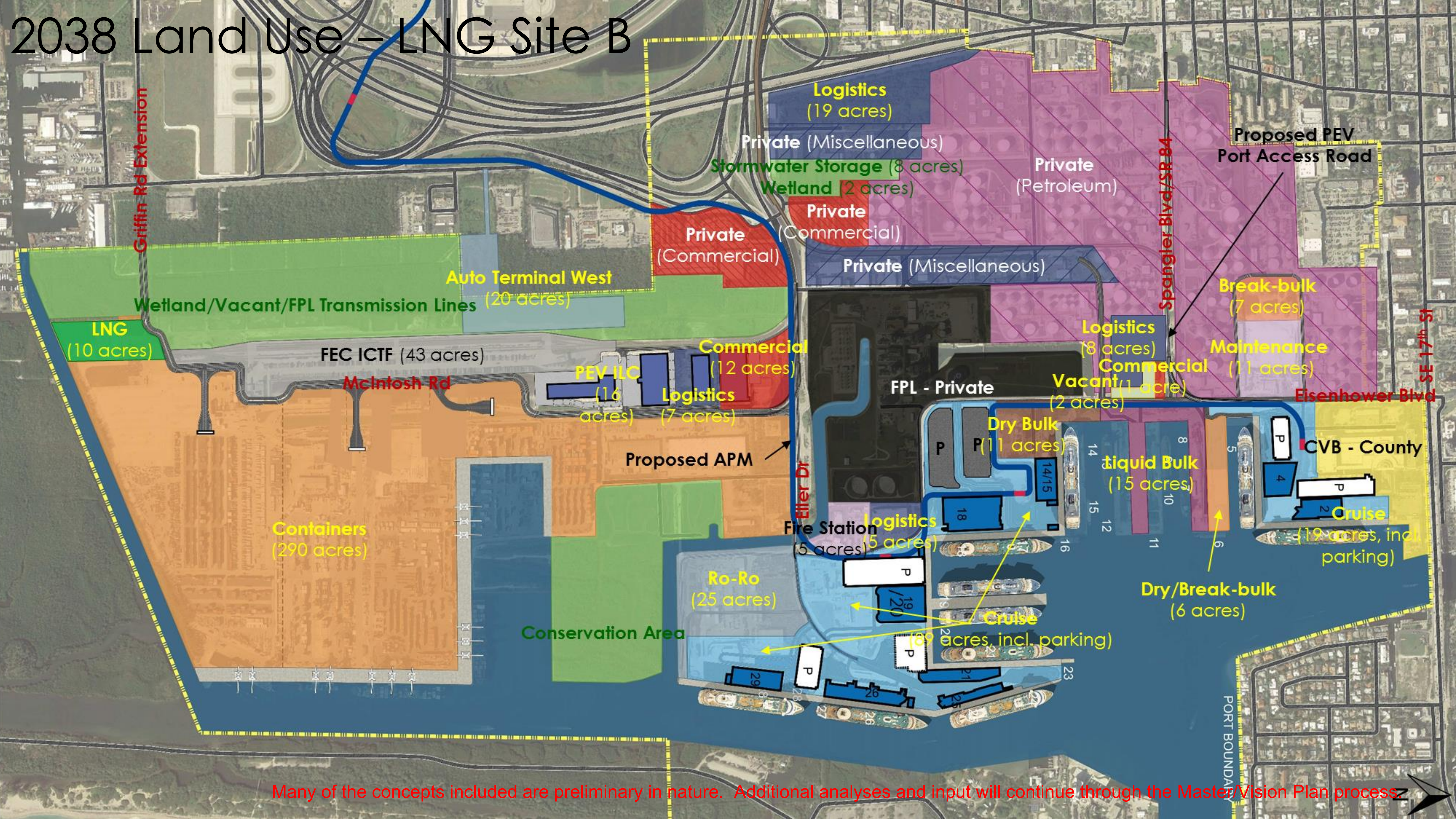
2038 Land Use – LNG Site B



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Issues and Opportunities

- Ability to add berths/acres very limited
  - Prioritization of berth/land use against different criteria required
  - More volume on same footprint required
    - Liquid bulk: steady as she goes
    - Cruise: more berths and percent utilization of berths will need to increase
    - Containers: moves per crane/berth and TEUs per acre need to increase; dwell times need to decrease
    - Bulk/breakbulk: tons/acre need to increase
    - Ro-Ro: high growth market; requires more land
- Regional demand vs. PEV demand
  - Three ports (PEV, PortMiami, Port of Palm Beach) serve the core South Florida market
  - Market conditions will drive future berth and land demand in the region
  - Value proposition, capacity, efficiency and relationships will drive port selection
  - Infrastructure and efficient operations are key to PEV's future success

Immediate Next steps

- Phase 1
  - Phase 1 (Elements 1 and 2) final report delivered in October, 2018
- Phase 2
  - Future development concepts and projects
    - Berth and land demand for each line of business
    - Operational and infrastructure enhancements
    - Commercial and logistics opportunities
    - Traffic and parking
    - Financial evaluation
  - Final recommended plan
  - Strategies for implementation

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