APPENDIX E
TERMINAL ALTERNATIVES

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TERMINAL SHORT-LIST ALTERNATIVES FULL EVALUATION MATRIX
Lambert-St. Louis International Airport

Criteria Categories	Criteria Definition	Importance[1]		STL Airport Master Plan Terminal Development Concpets - Evaluation Matrix									
		Major Category Weighting	Secondary Category Weighting	Concept I-A-1 Baseline - Existing Two Terminal/ Minimal Build		Concept I-B-1b Existing Two Terminal Operating Alignment		Concept II-B-1 Consolidated Terminal @ T1		Concept II-C-1 Consolidated Terminal between T1 & T2		Concept II-C-2 Consolidated Terminal @ Air Guard Site	
				RAW	WEIGHTED	RAW	WEIGHTED	RAW	WEIGHTED	RAW	WEIGHTED	RAW	WEIGHTED
1 AIRSIDE		20%	100%	0.50	0.75	3.25	3.50	3.75	3.95	3.50	3.65	4.75	4.80
1.1 Meets Required Aircraft Parking Capacity	Provides required net gain in aircraft parking, gates and fleet mix size for 2028		30%	5.00	1.50	5.00	1.50	5.00	1.50	5.00	1.50	5.00	1.50
1.2 Aircraft Gate Use Flexibility	Ability of the concept to provide flexibility of use in aircraft gates, apron and supporting taxilane system for potential fleet mix changes & airline operations		25%	2.00	0.50	4.00	1.00	5.00	1.25	4.00	1.00	5.00	1.25
1.3 Apron/Taxilane Efficiency	Improves taxiway/taxilane flows and minimizes pushback conflicts		25%	-5.00	-1.25	4.00	1.00	4.00	1.00	3.00	0.75	5.00	1.25
1.4 Taxi Distance to Runway Ends & Exits	Concept maintains reasonable taxiing distance to and from runways to terminal gates		20%	0.00	0.00	0.00	0.00	1.00	0.20	2.00	0.40	4.00	0.80
2 TERMINAL		20%	100%	1.75	2.55	3.06	3.80	4.50	4.45	3.81	3.60	4.44	4.60
2.1 Meets Required Terminal Capacity	Terminal footprint provides sufficient depth and width to meet future demand requirements		20%	5.00	1.00	5.00	1.00	5.00	1.00	5.00	1.00	5.00	1.00
2.2 Maximizes Flexibility for Potential Operational Changes	Adaptability of terminal plan to accommodate Code Shares and allow changing missions of airlines throughout the planning period		5%	0.00	0.00	2.00	0.10	5.00	0.25	5.00	0.25	5.00	0.25
2.3 Ability to Meet Primary Stakeholder Missions (airlines)	Accommodates the primary airline operations and missions operating from STL		15%	5.00	0.75	5.00	0.75	5.00	0.75	5.00	0.75	5.00	0.75
2.4 Passenger Convenience & Comfort	Improves spatial LOS, minimizes travel times, walking distances and vertical level changes		30%	2.00	0.80	3.50	1.20	4.00	1.10	1.50	0.40	4.50	1.30
2.4.1 Origin & Destination Traffic			20%	4.00	0.80	5.00	1.00	3.00	0.60	1.00	0.20	4.00	0.80
2.4.2 Connecting Traffic			10%	0.00	0.00	2.00	0.20	5.00	0.50	2.00	0.20	5.00	0.50
2.5 Security Efficiency	Accommodates new security procedures and technologies and minimizes the number of security screening check points.		15%	-1.00	-0.15	3.00	0.45	5.00	0.75	5.00	0.75	5.00	0.75
2.6 Passenger Orientation to Processing	Intuitive wayfinding, clarity of O&D and connecting passengers to easily find their way through the terminal		5%	0.00	0.00	2.00	0.10	5.00	0.25	3.00	0.15	5.00	0.25
2.7 Connectivity to Other Key Facilities	The ability of the concept to provide conveniently situated support facilities to the terminal		5%	3.00	0.15	1.00	0.05	2.00	0.10	3.00	0.15	1.00	0.05
2.8 Concessions Revenue Potential	The ability of the concept to provide passenger exposure to majority of concessions		5%	0.00	0.00	3.00	0.15	5.00	0.25	3.00	0.15	5.00	0.25

Note: 1 Each criteria category is weighted (major and secondary) based on its overall importance. Values are based on the consultants previous project experience with input from the STL client.

Weighted Scoring Scale:
Highest Score = 5.0
Lowest Score = -5.0

Color Scoring Scale:
Green: 5.0 to 2.0 = Good
Yellow: -1.99 to -1.99 = Average
Red: -2.0 to -5.0 = Poor

Source: Landrum & Brown Analysis

TERMINAL SHORT-LIST ALTERNATIVES FULL EVALUATION MATRIX *(Continued)*
Lambert-St. Louis International Airport

Criteria Categories	Criteria Definition	Importance[1] Major Category Weighting	Importance[1] Secondary Category Weighting	Concept I-A-1 Baseline - Existing Two Terminal/ Minimal Build RAW	Concept I-A-1 WEIGHTED	Concept I-B-1b Existing Two Terminal Operating Alignment RAW	Concept I-B-1b WEIGHTED	Concept II-B-1 Consolidated Terminal @ T1 RAW	Concept II-B-1 WEIGHTED	Concept II-C-1 Consolidated Terminal between T1 & T2 RAW	Concept II-C-1 WEIGHTED	Concept II-C-2 Consolidated Terminal @ Air Guard Site RAW	Concept II-C-2 WEIGHTED
				STL Airport Master Plan Terminal Development Concpets - Evaluation Matrix									
3 LANDSIDE		20%	100%	2.50	2.00	2.50	2.00	3.50	3.20	4.50	4.40	5.00	5.00
3.1 Meets Required Curb Capacity and Adequate LOS	Concept meets or exceeds curb requirement in linear frontage (single or double level)/ Level of Service (LOS)		30%	2.00	0.60	2.00	0.60	5.00	1.50	5.00	1.50	5.00	1.50
3.2 Effectiveness of Access/Egress Roads	Concept meets operational efficiency standards (weave distances, min radius curves, sight lines)		30%	2.00	0.60	2.00	0.60	3.00	0.90	3.00	0.90	5.00	1.50
3.3 Ease of Passenger Orientation to Roads	Concept provides for simple roadway decisions with sufficient distances between decision points		30%	1.00	0.30	1.00	0.30	1.00	0.30	5.00	1.50	5.00	1.50
3.4 Provides Easy Access to Mass Transit	Includes ability to conveniently connect to on & off-airport transit systems		10%	5.00	0.50	5.00	0.50	5.00	0.50	5.00	0.50	5.00	0.50
4 IMPLEMENTATION FEASIBILITY		10%	100%	2.50	2.50	1.50	1.50	1.50	1.50	0.75	0.75	-0.75	-0.75
4.1 Ability to Phase Construction/Modifications	Provides a feasible approach to construction phasing while maintaining existing operational capability (no loss of gates, curb, services or utilities)		50%	2.50	1.25	1.50	0.75	1.50	0.75	4.50	2.25	3.50	1.75
4.1.1 Airside/Terminal			25%	5.00	1.25	3.00	0.75	3.00	0.75	5.00	1.25	5.00	1.25
4.1.2 Landside			25%	0.00	0.00	0.00	0.00	0.00	0.00	4.00	1.00	2.00	0.50
4.2 Operational Effectiveness of Initial Phase	Concept's ability to deliver an initial stage of construction that provides needed gate, curb, and terminal capacity that can be practically achieved		50%	2.50	1.25	1.50	0.75	1.50	0.75	-3.00	-1.50	-5.00	-2.50
4.2.1 Airside/Terminal			25%	5.00	1.25	3.00	0.75	3.00	0.75	-1.00	-0.25	-5.00	-1.25
4.2.2 Landside			25%	0.00	0.00	0.00	0.00	0.00	0.00	-5.00	-1.25	-5.00	-1.25
5 ENVIRONMENTAL ISSUES		5%	100%	1.00	1.00	1.00	1.00	1.50	1.50	2.00	2.00	1.50	1.50
5.1 Air and Water Quality	Ability of concept to minimize air and water quality impacts (also during demolition and construction)		50%	3.00	1.50	2.00	1.00	1.00	0.50	-1.00	-0.50	-2.00	-1.00
5.2 Sustainability	Development of new buildings and rehabilitation of existing facilities that meet sustainability goals		50%	-1.00	-0.50	0.00	0.00	2.00	1.00	5.00	2.50	5.00	2.50
6 LAND USE		5%	100%	0.00	0.00	2.00	2.25	4.00	4.25	3.33	3.25	4.67	4.75
6.1 Effective Utilization of Land for Aviation Needs	The concept demonstrates a prudent utilization of the airport's land and facilities for future aviation needs		25%	0.00	0.00	3.00	0.75	4.00	1.00	3.00	0.75	5.00	1.25
6.2 Potential Collateral Development Options	The utilization of land for potential non-aviation revenue development		25%	0.00	0.00	0.00	0.00	3.00	0.75	4.00	1.00	4.00	1.00
6.3 Safeguards Future Long Range Terminal Expansion	Concept provides an ultimate Terminal Area Master Plan (TAMP) expansion path well beyond the 2028 Master Plan forecast horizon that is achievable with minimal impacts		50%	0.00	0.00	3.00	1.50	5.00	2.50	3.00	1.50	5.00	2.50
7 CAPITAL COST		20%	100%	5.00	5.00	3.00	3.00	2.00	2.00	-4.00	-4.00	-5.00	-5.00
7.1 Order of Magnitude Costs	Minimizes development costs relative to benefits		100%	5.00	5.00	3.00	3.00	2.00	2.00	-4.00	-4.00	-5.00	-5.00
TOTAL TERMINAL CONCEPT		100%		1.89	2.36	2.33	2.77	2.96	3.16	1.99	1.87	2.09	2.12
			RANK		3		2		1		5		4

Note: 1 Each criteria category is weighted (major and secondary) based on its overall importance. Values are based on the consultants previous project experience with input from the STL client.

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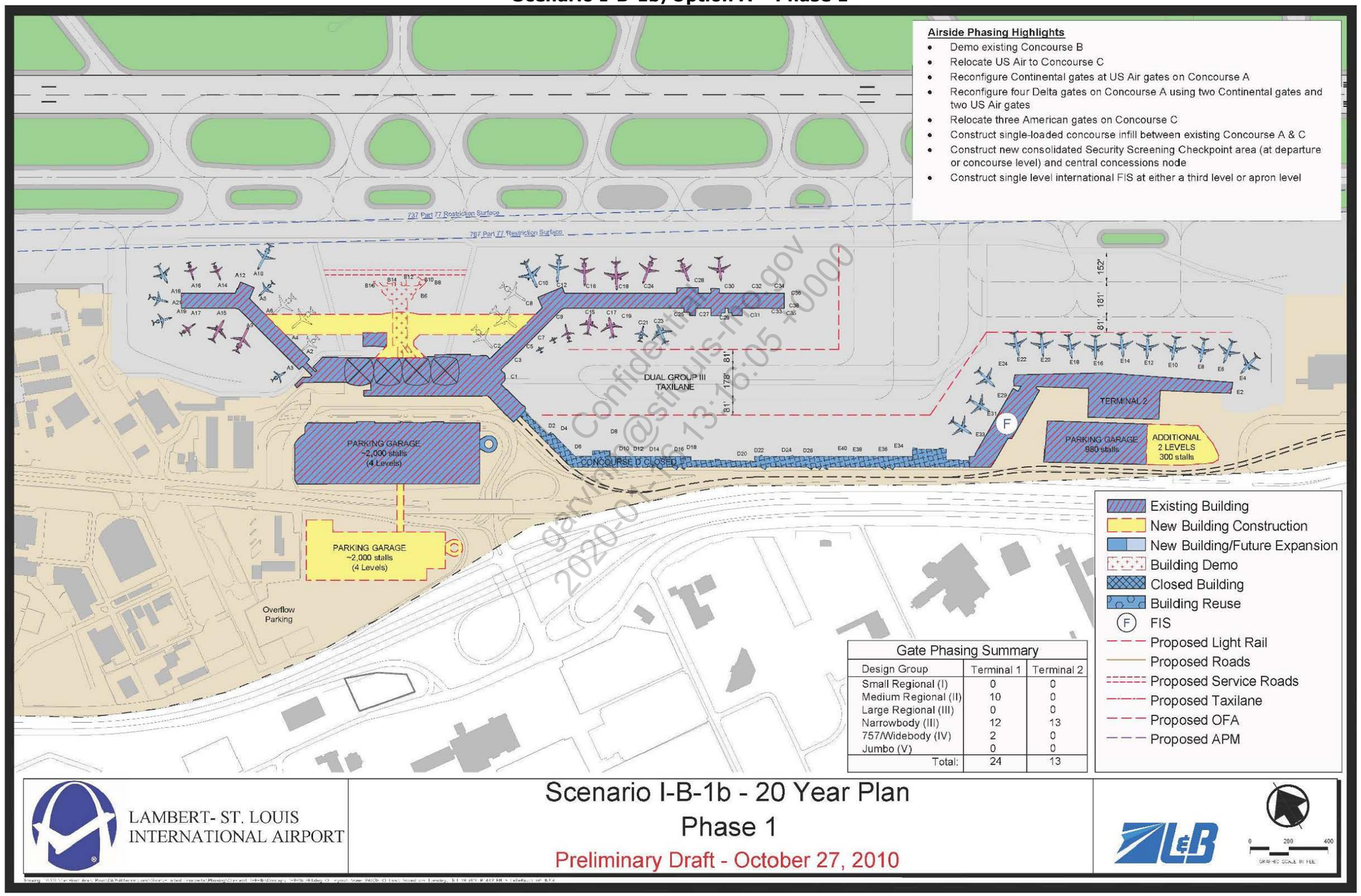
Source: Landrum & Brown Analysis

TERMINAL ALTERNATIVE PHASING
Lambert-St. Louis International Airport

Scenario I-B-1b/Option A – Phase 1



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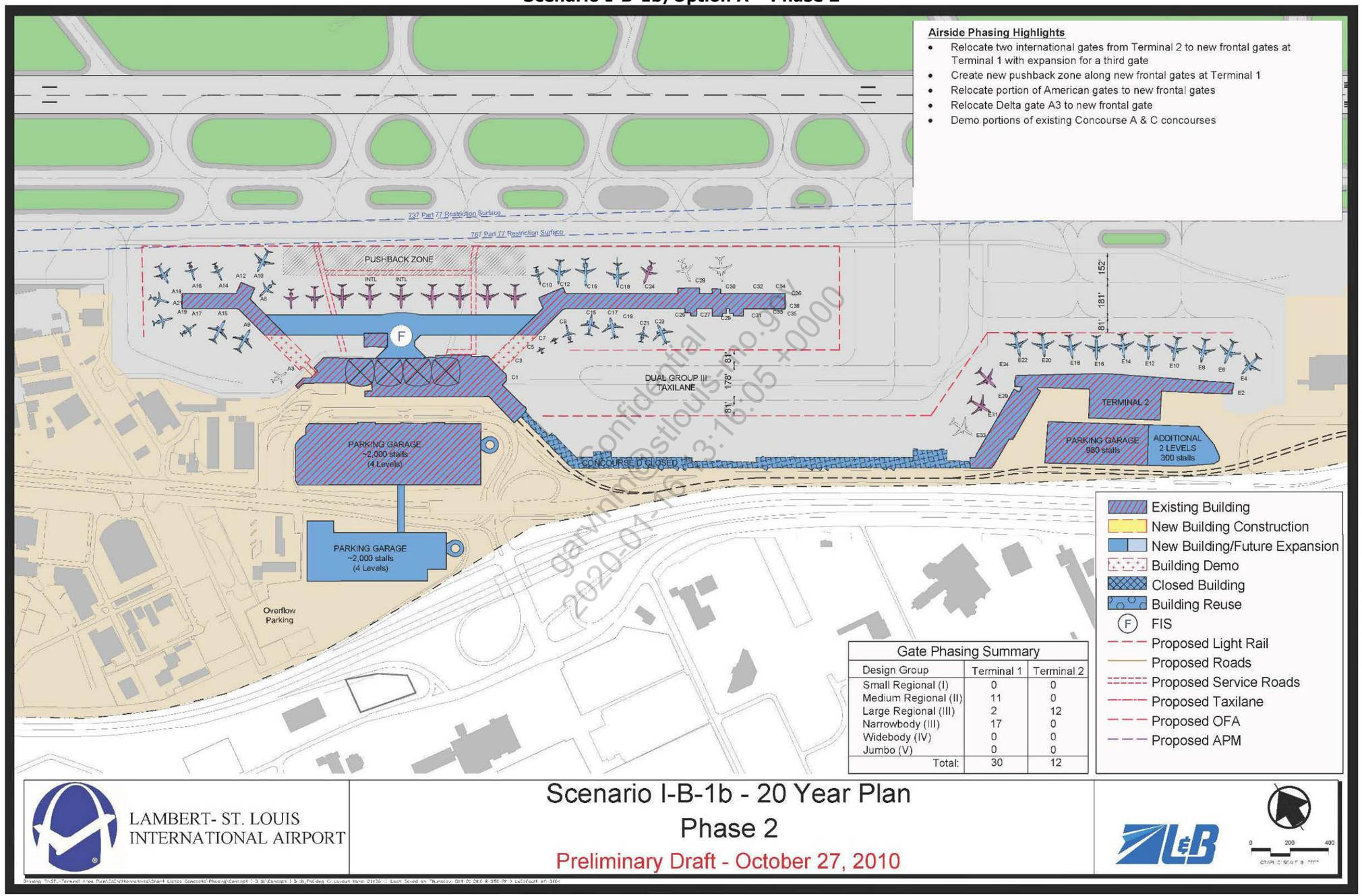
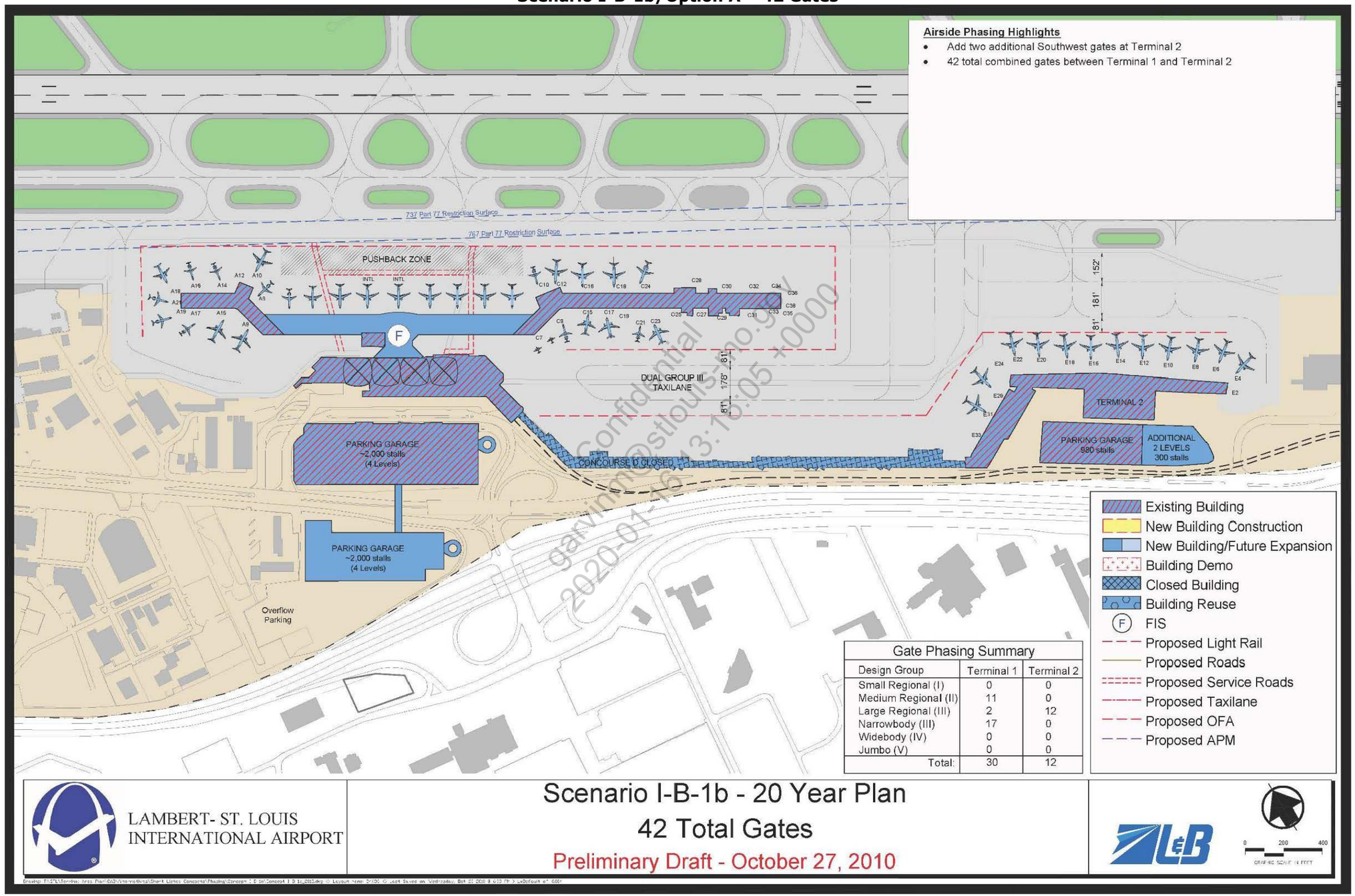


Scenario I-B-1b/Option A – 42 Gates



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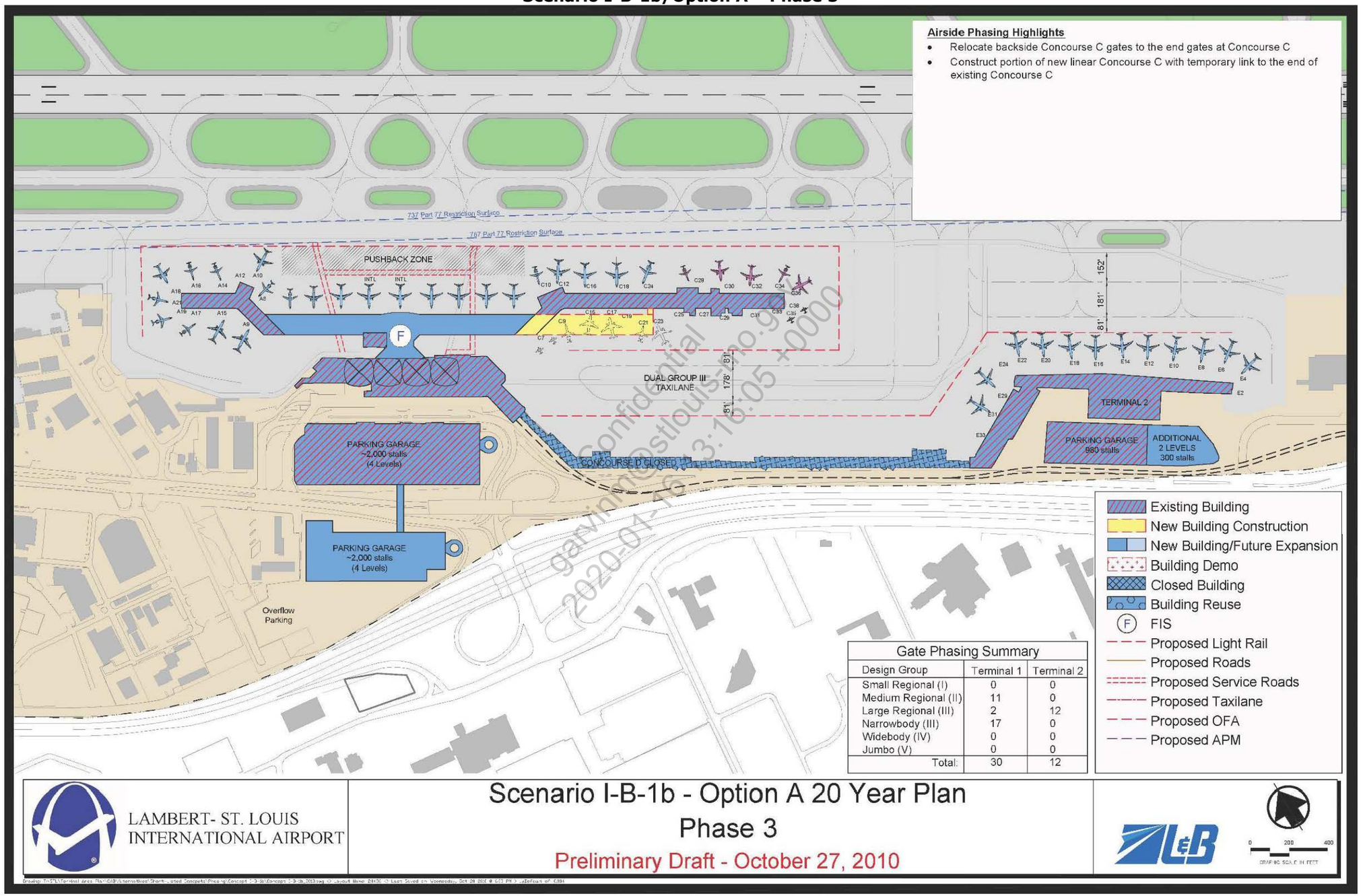

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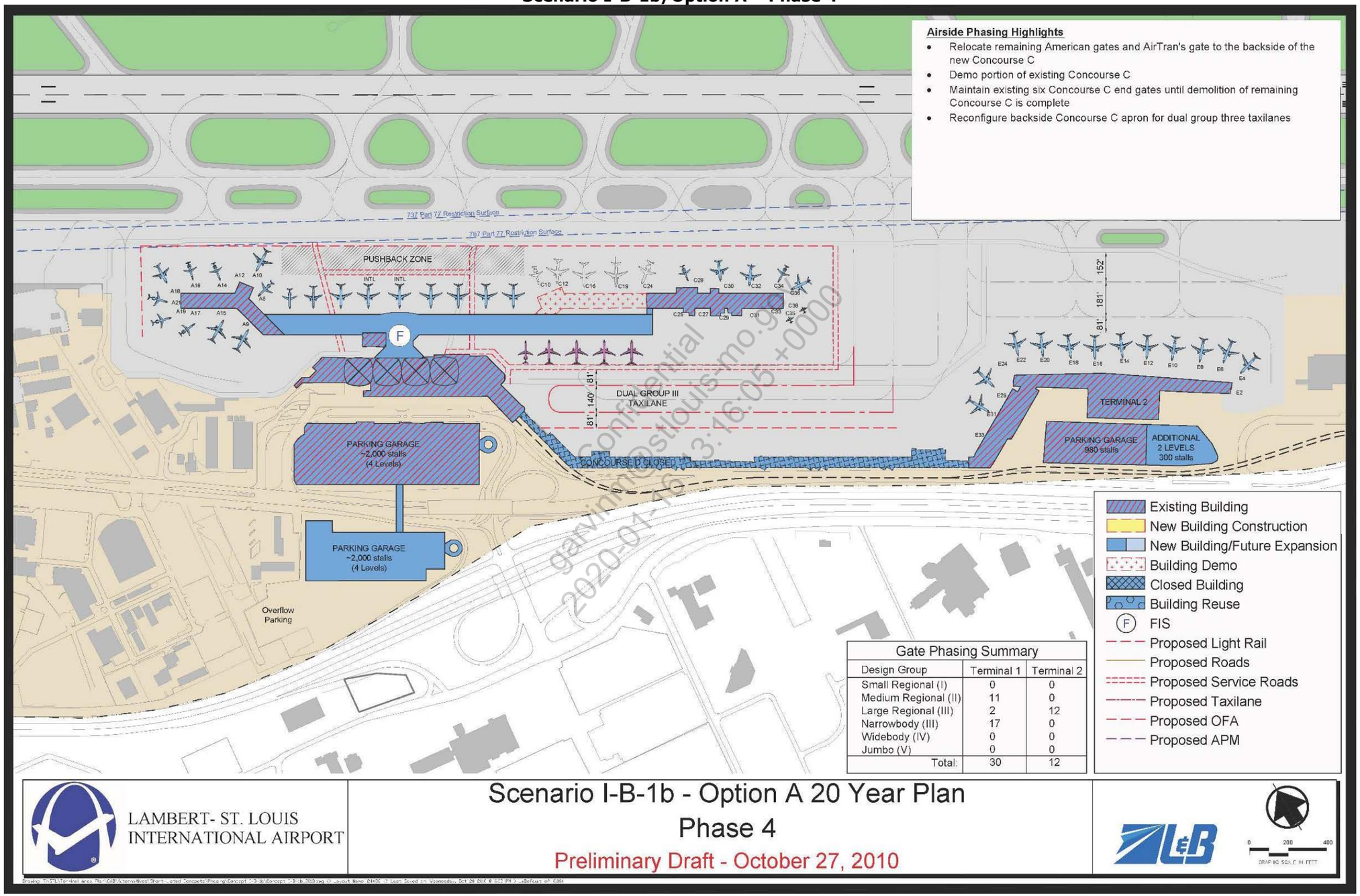

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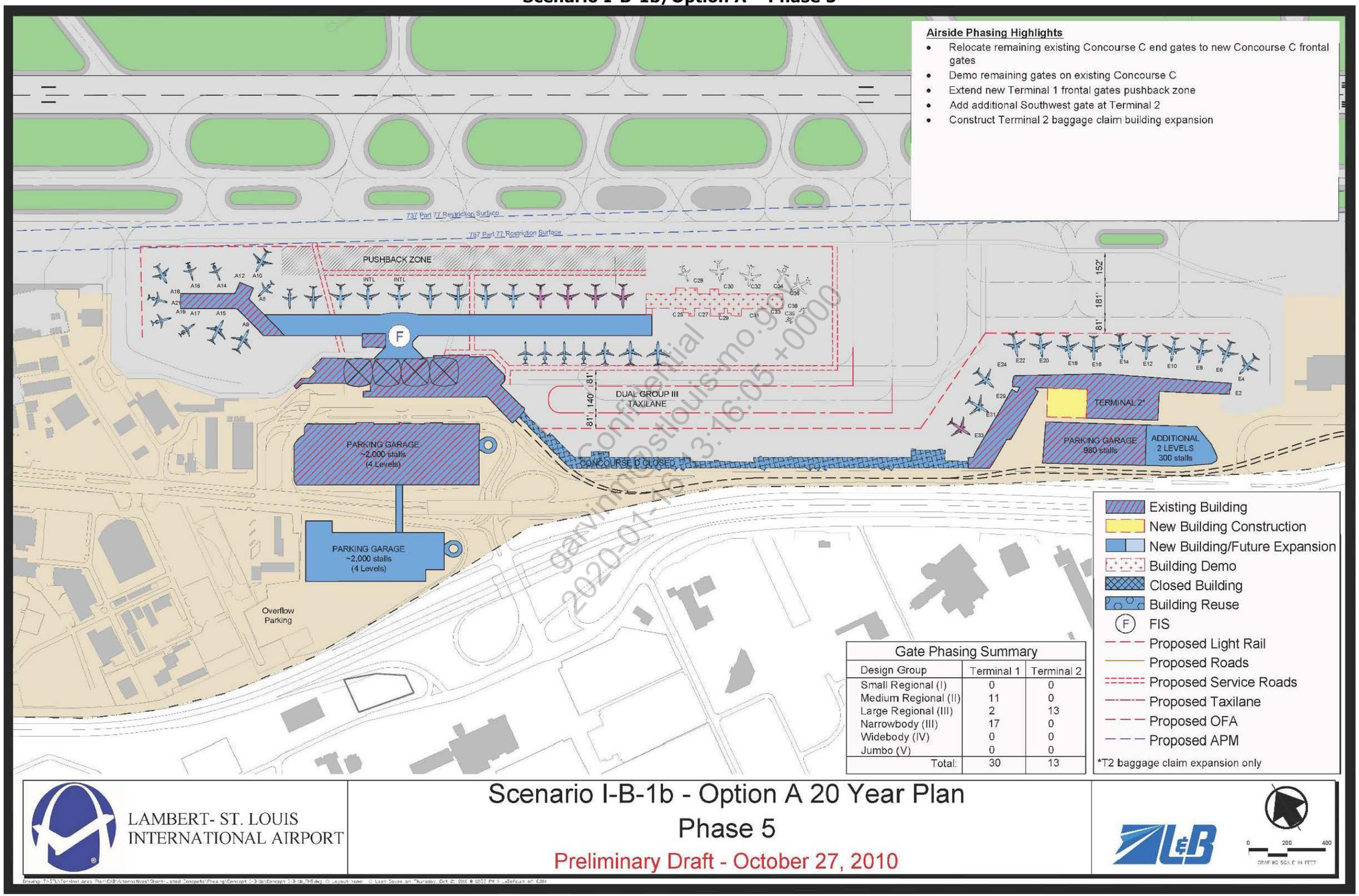

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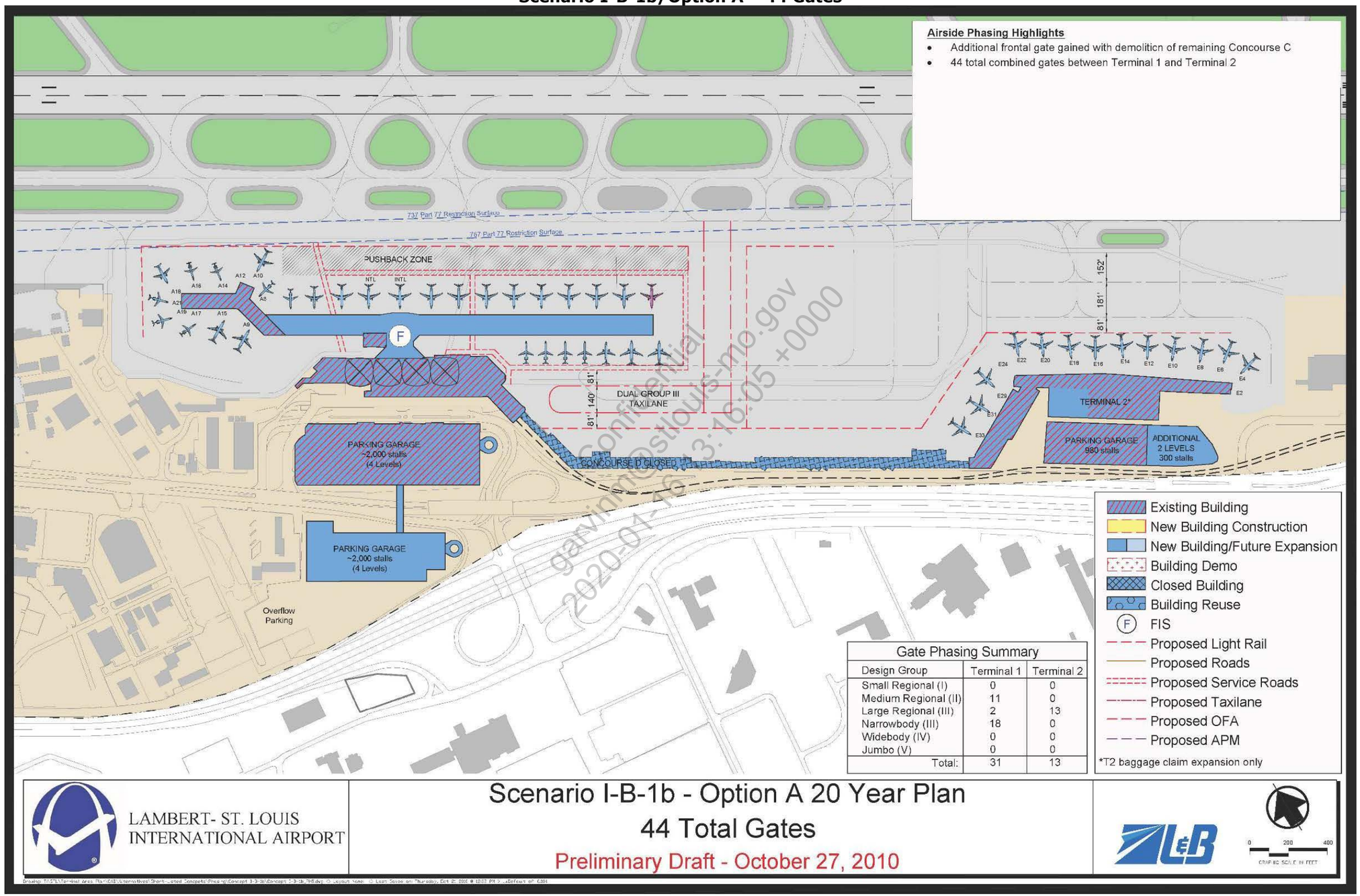

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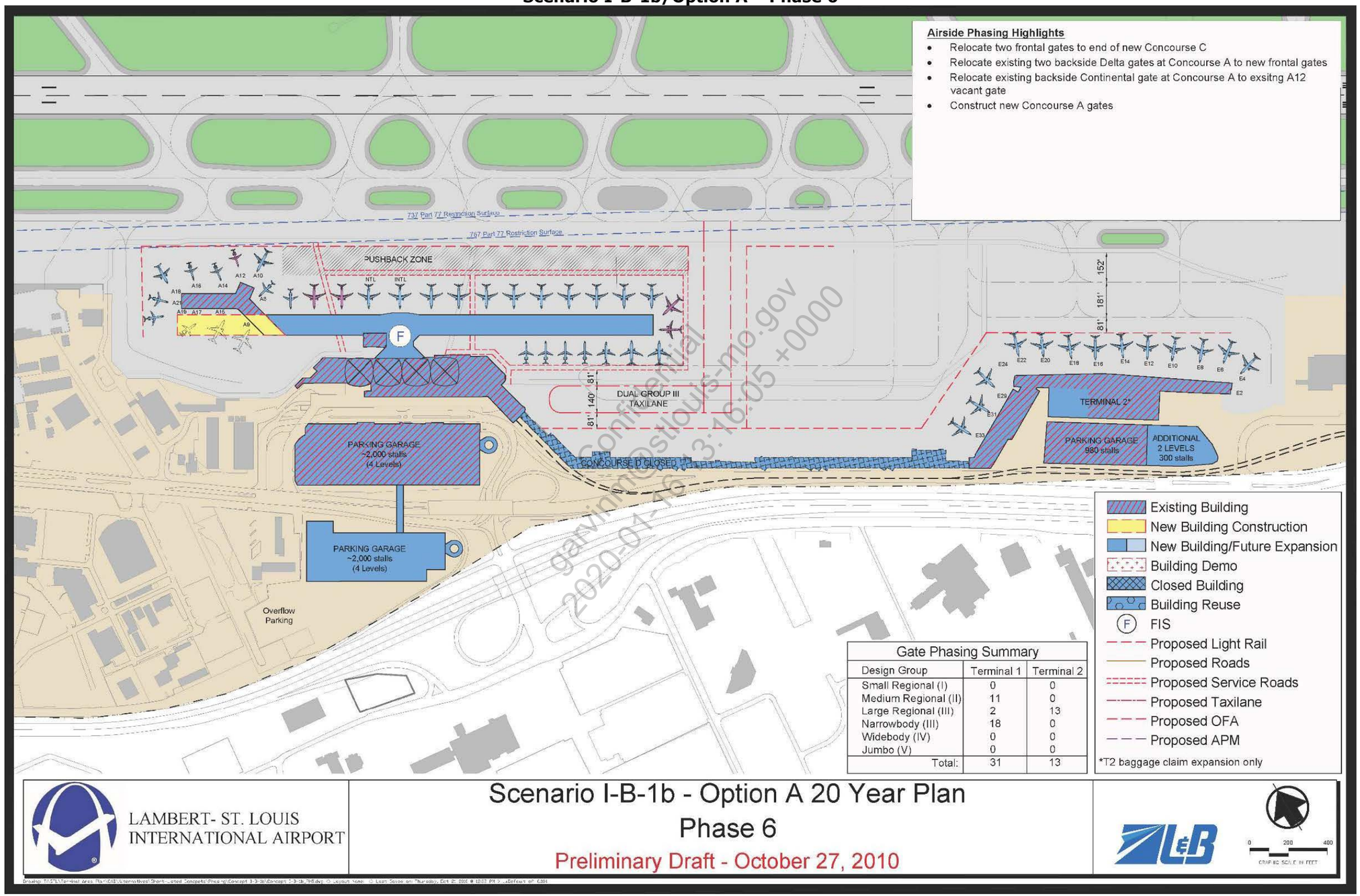

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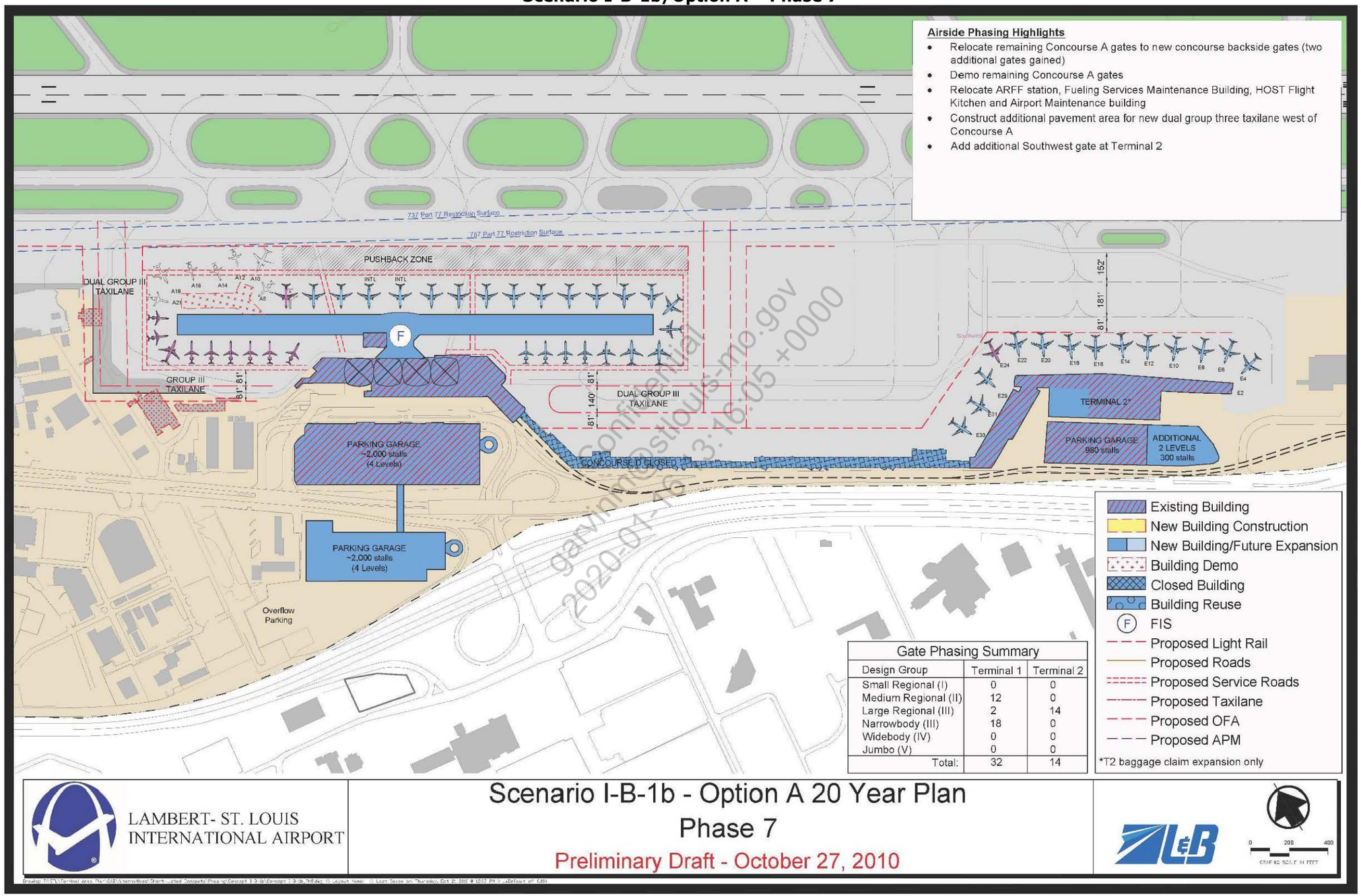
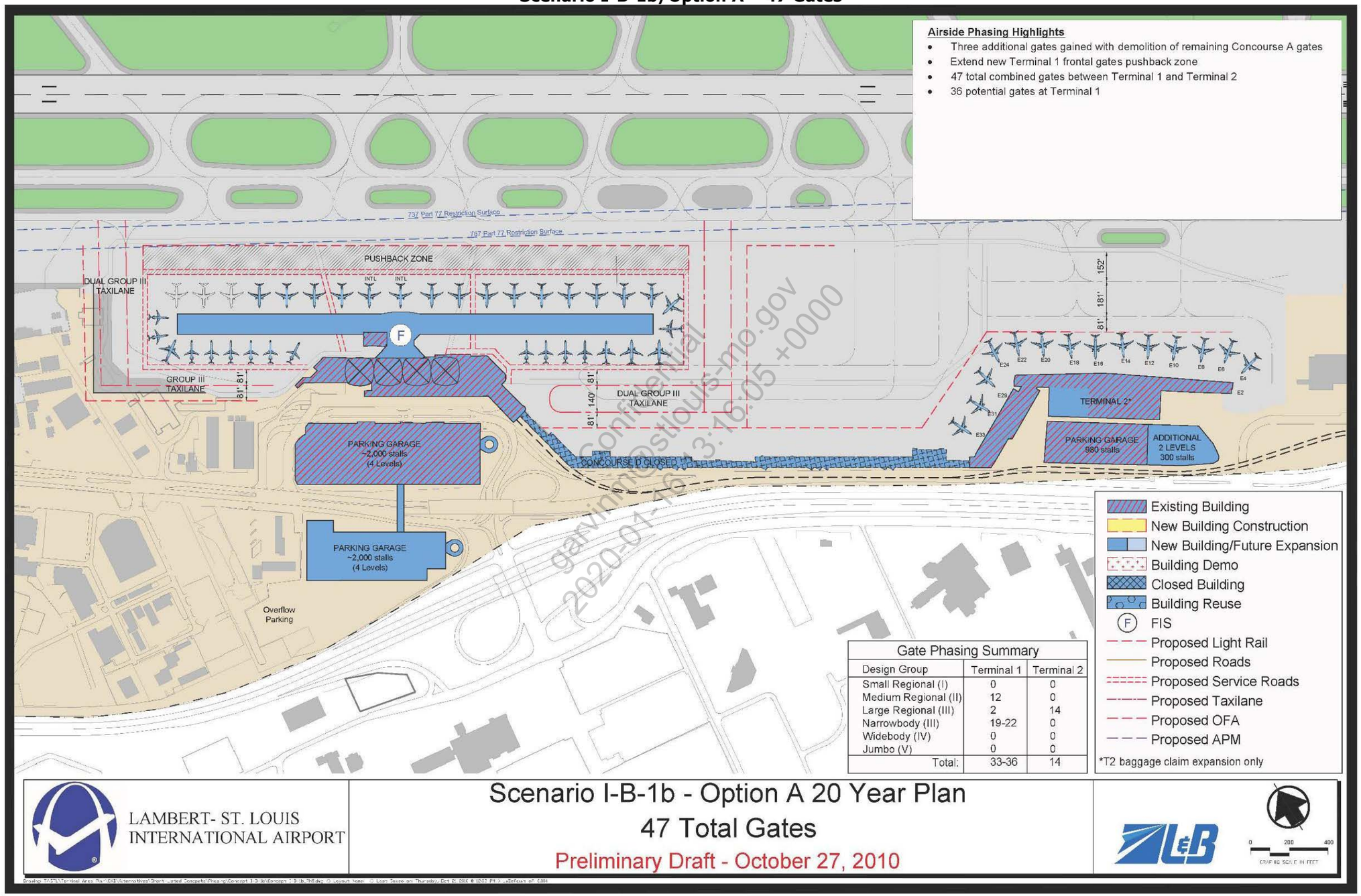
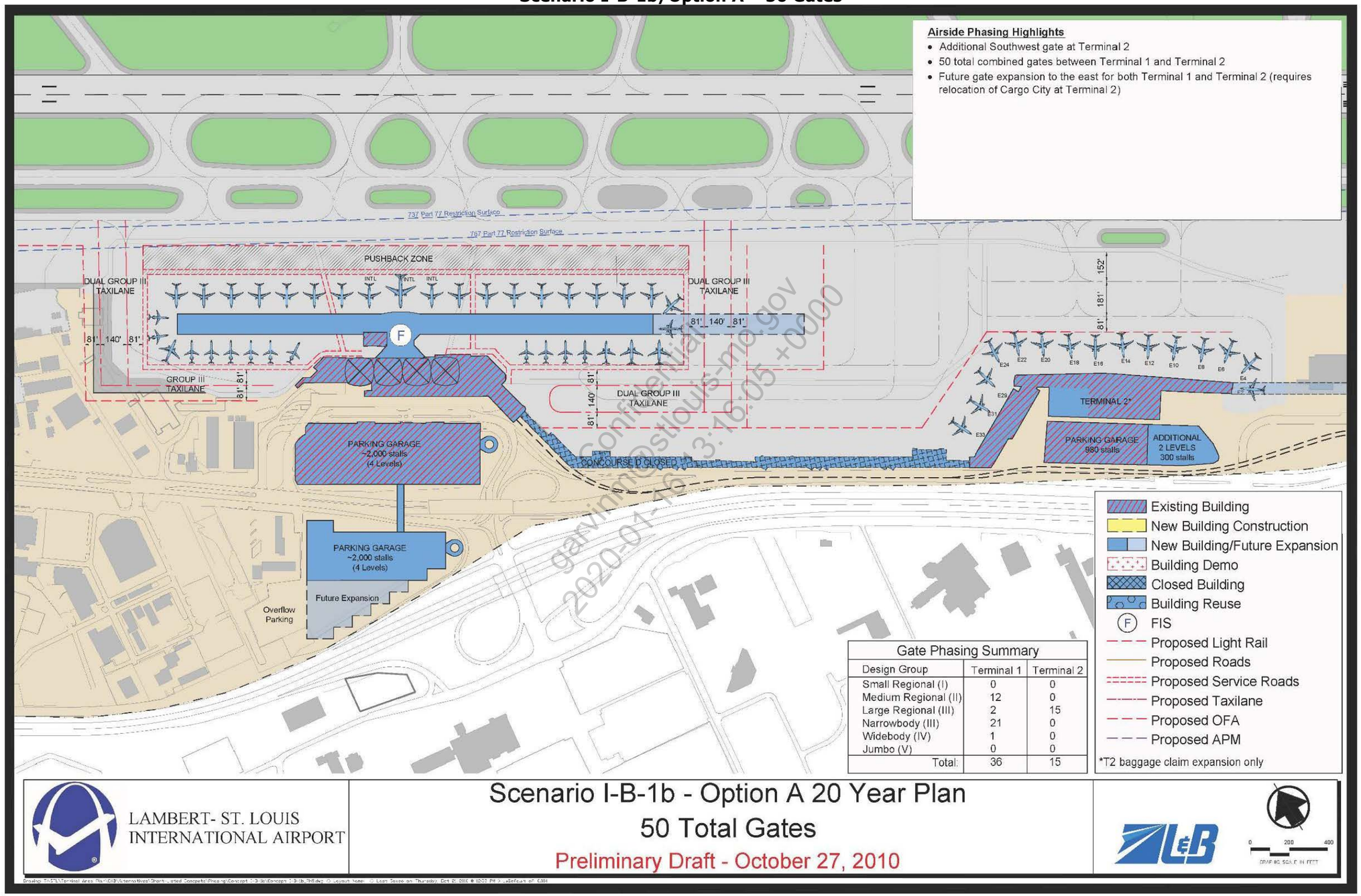


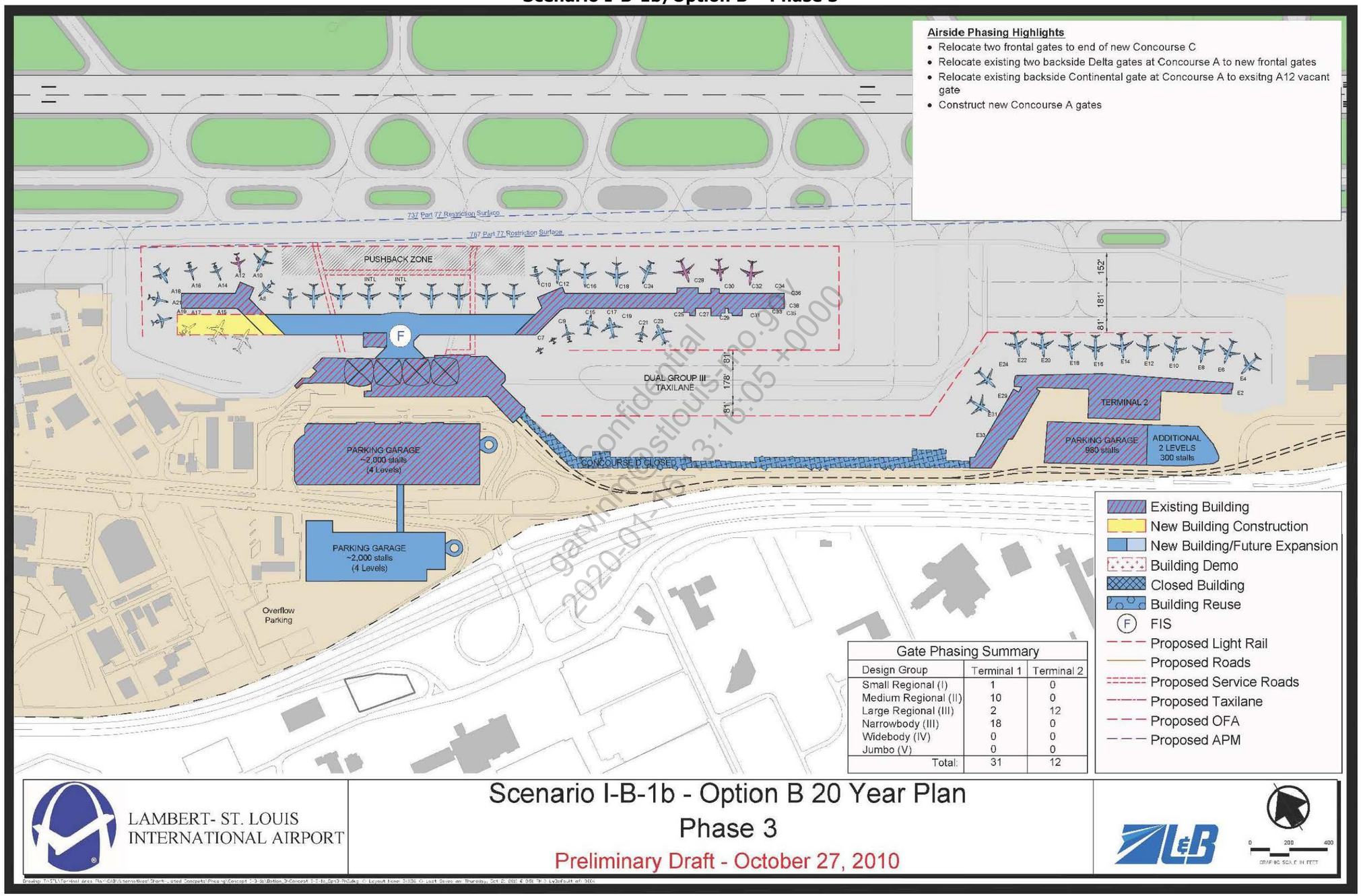
Scenario I-B-1b/Option A – 47 Gates



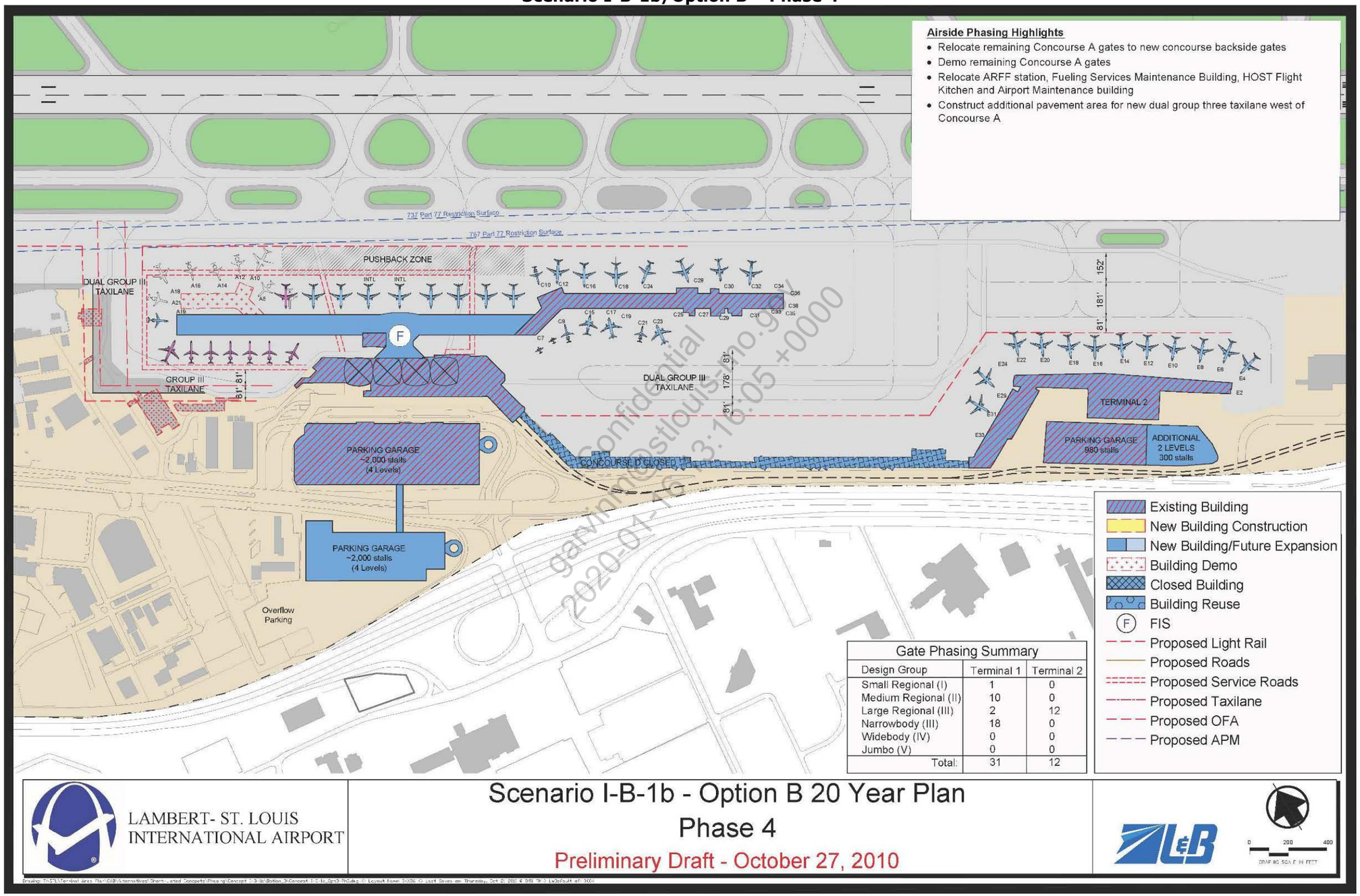
Scenario I-B-1b/Option A – 50 Gates



Scenario I-B-1b/Option B – Phase 3



Scenario I-B-1b/Option B – Phase 4



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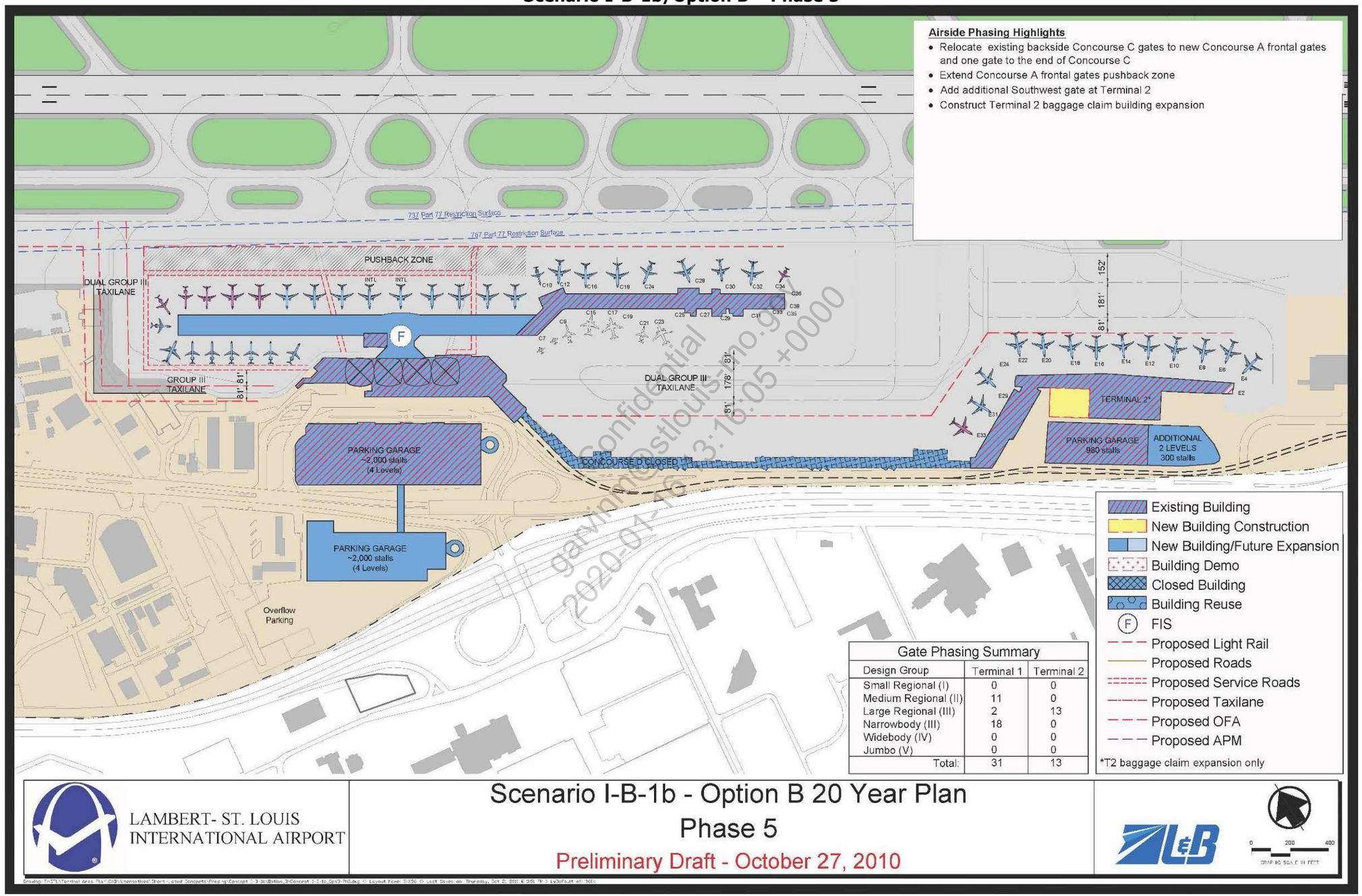

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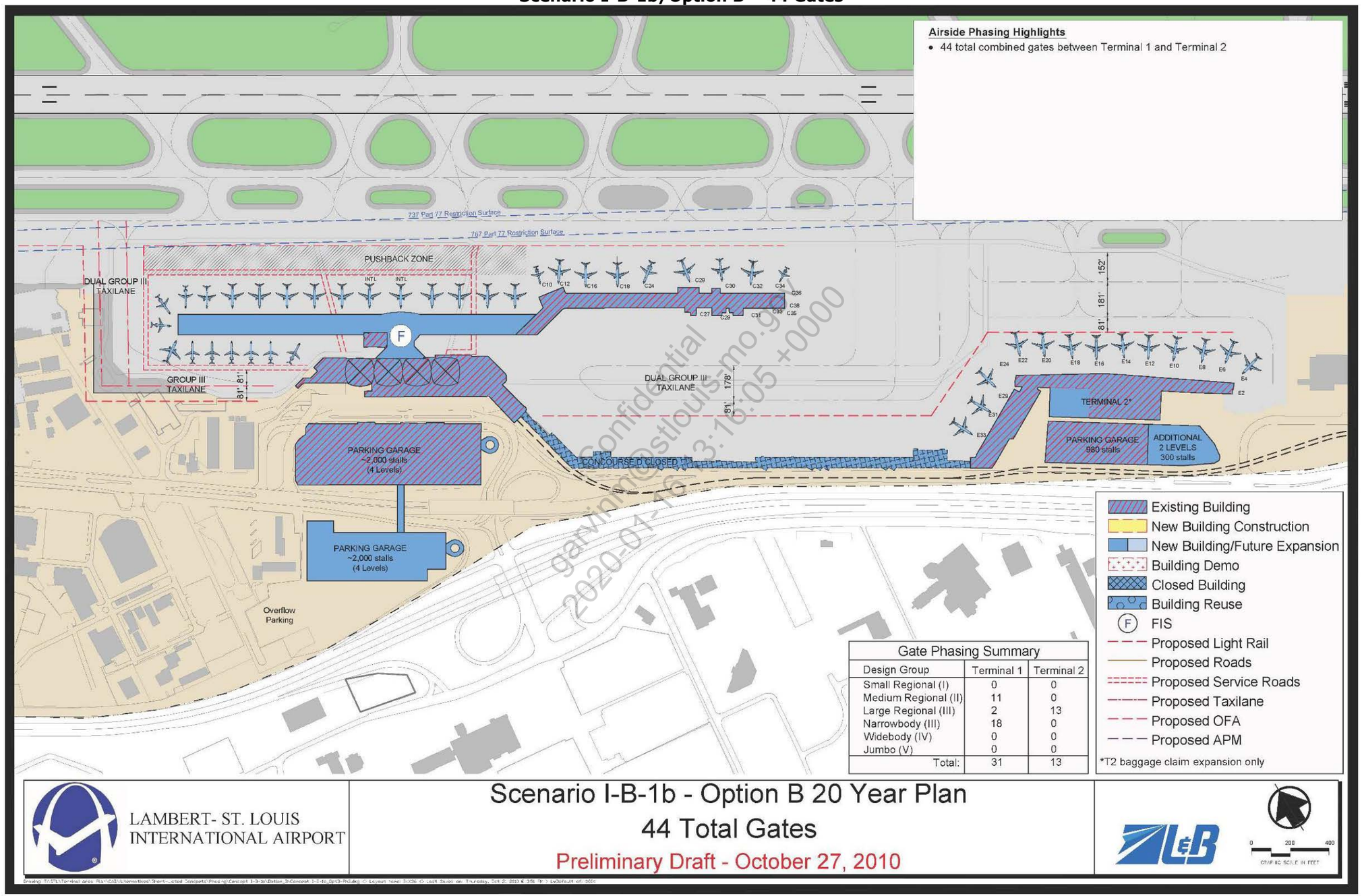

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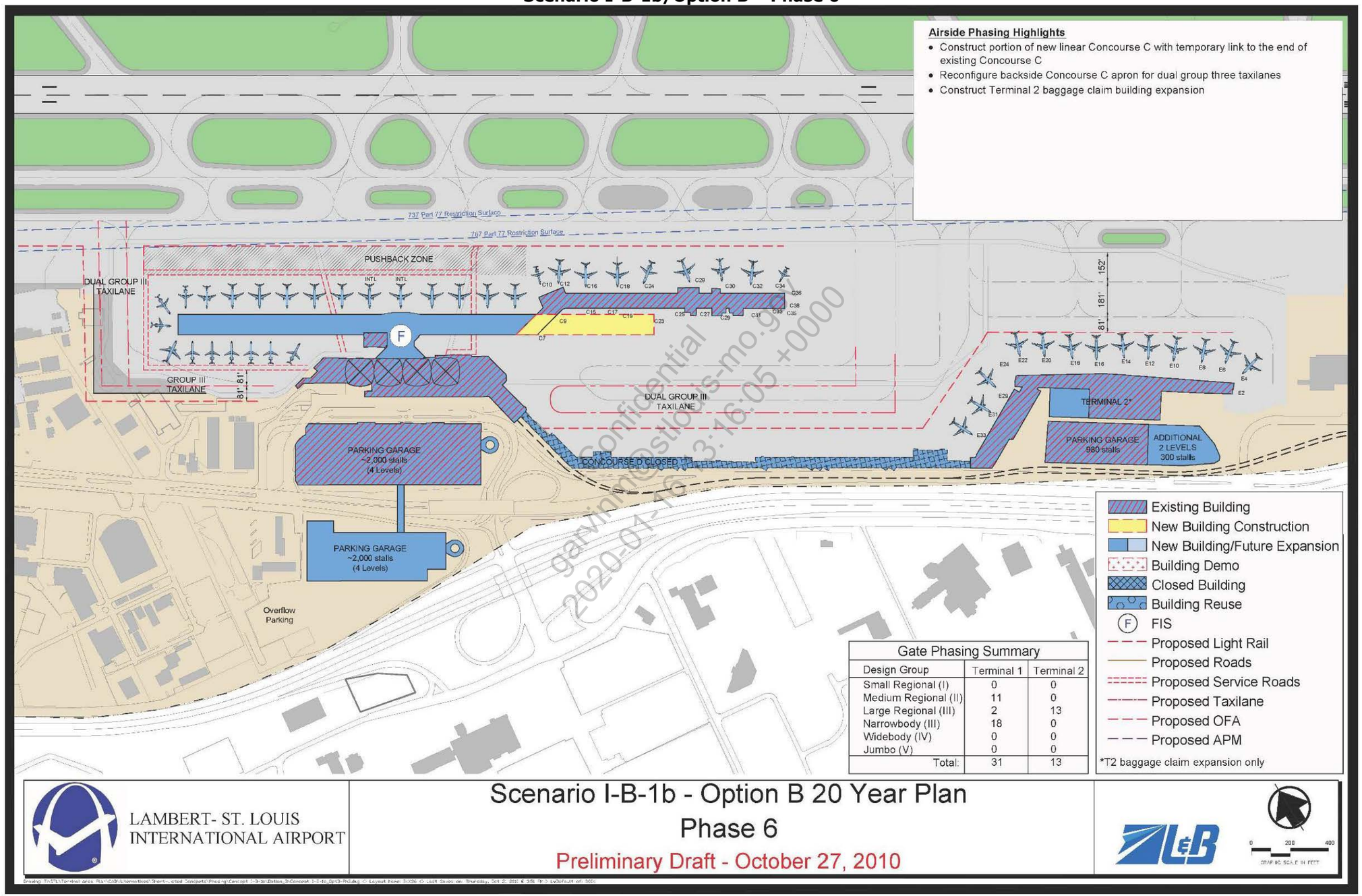
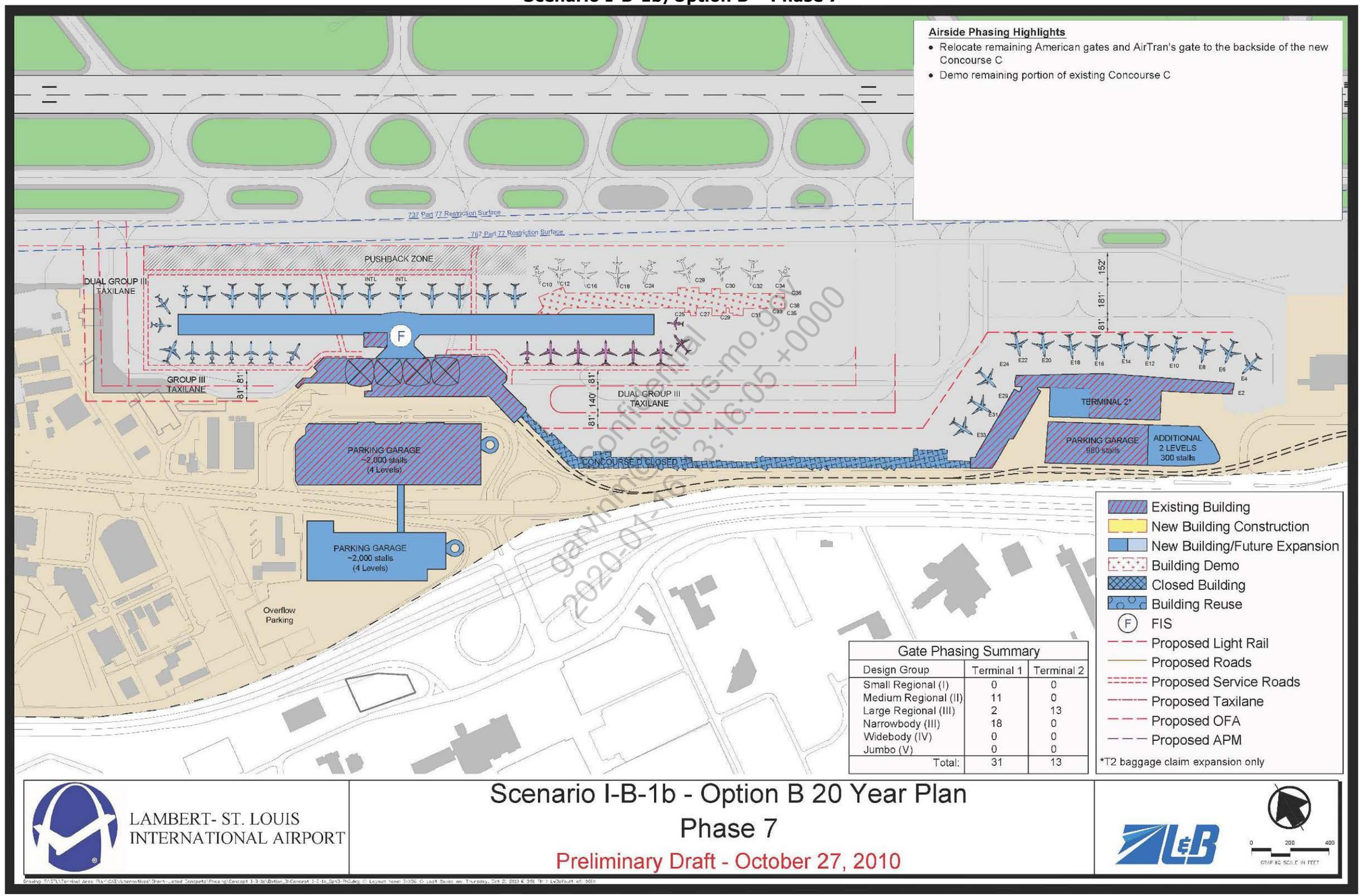
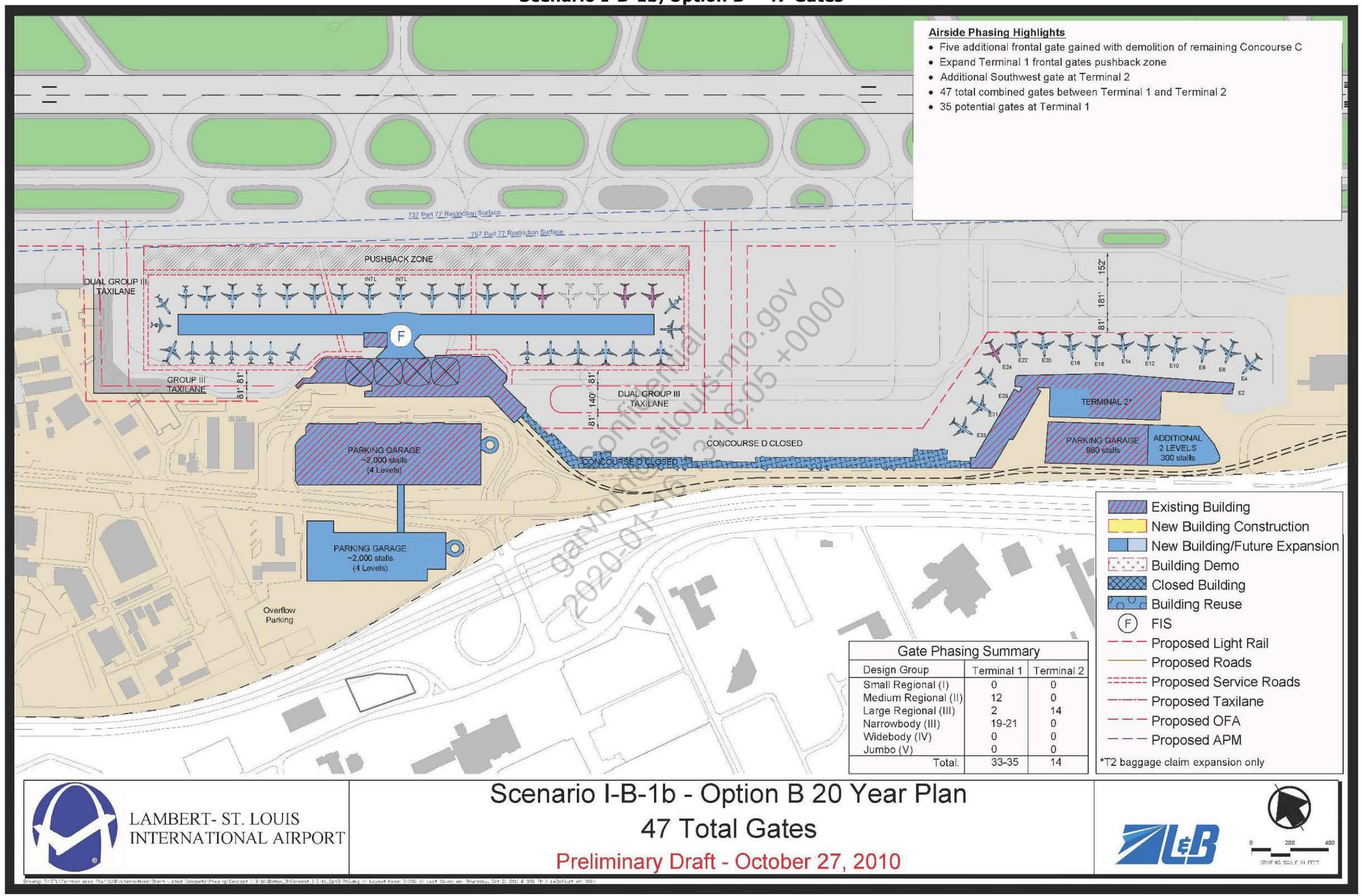


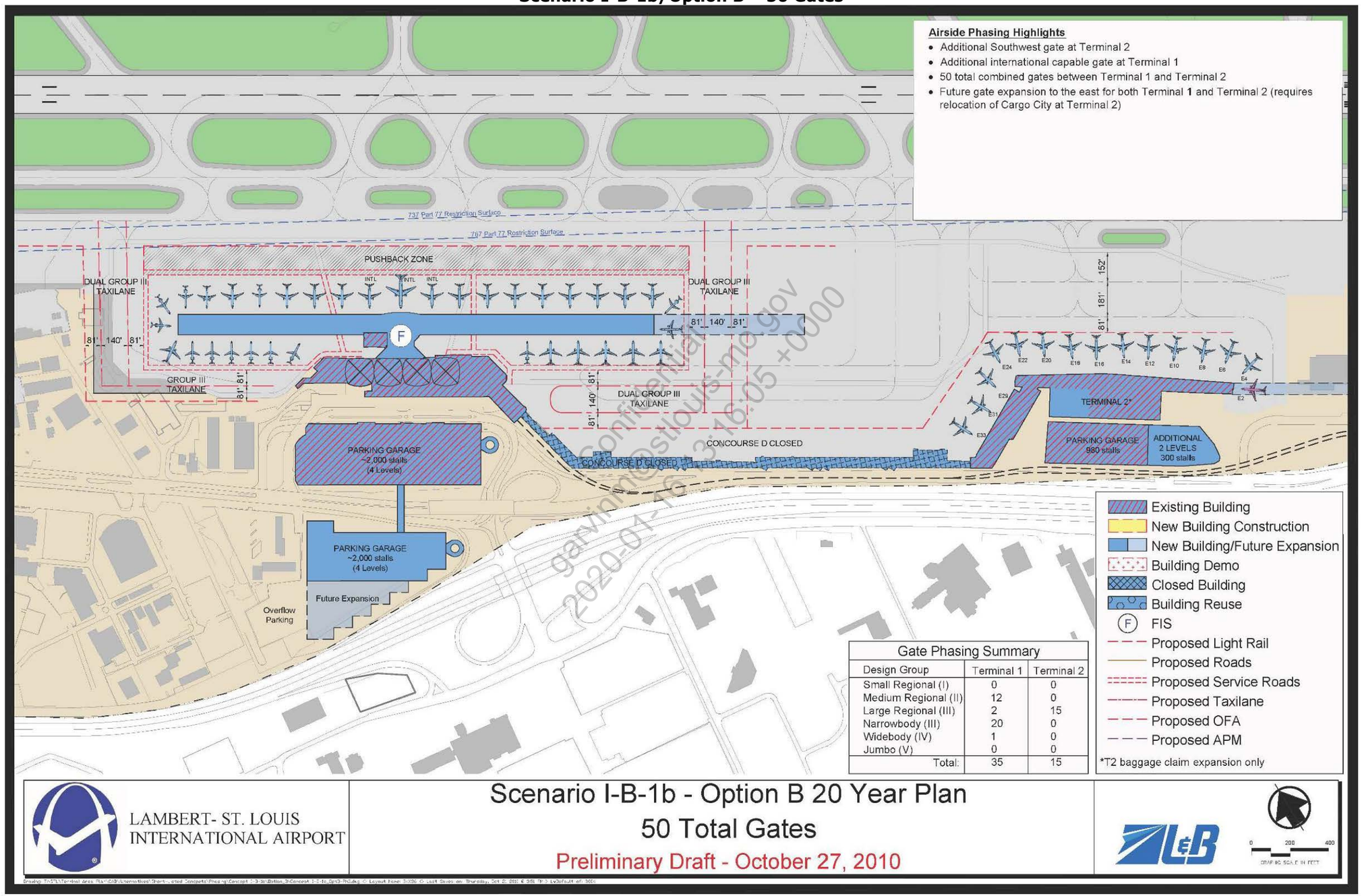
Scenario I-B-1b/Option B – Phase 7



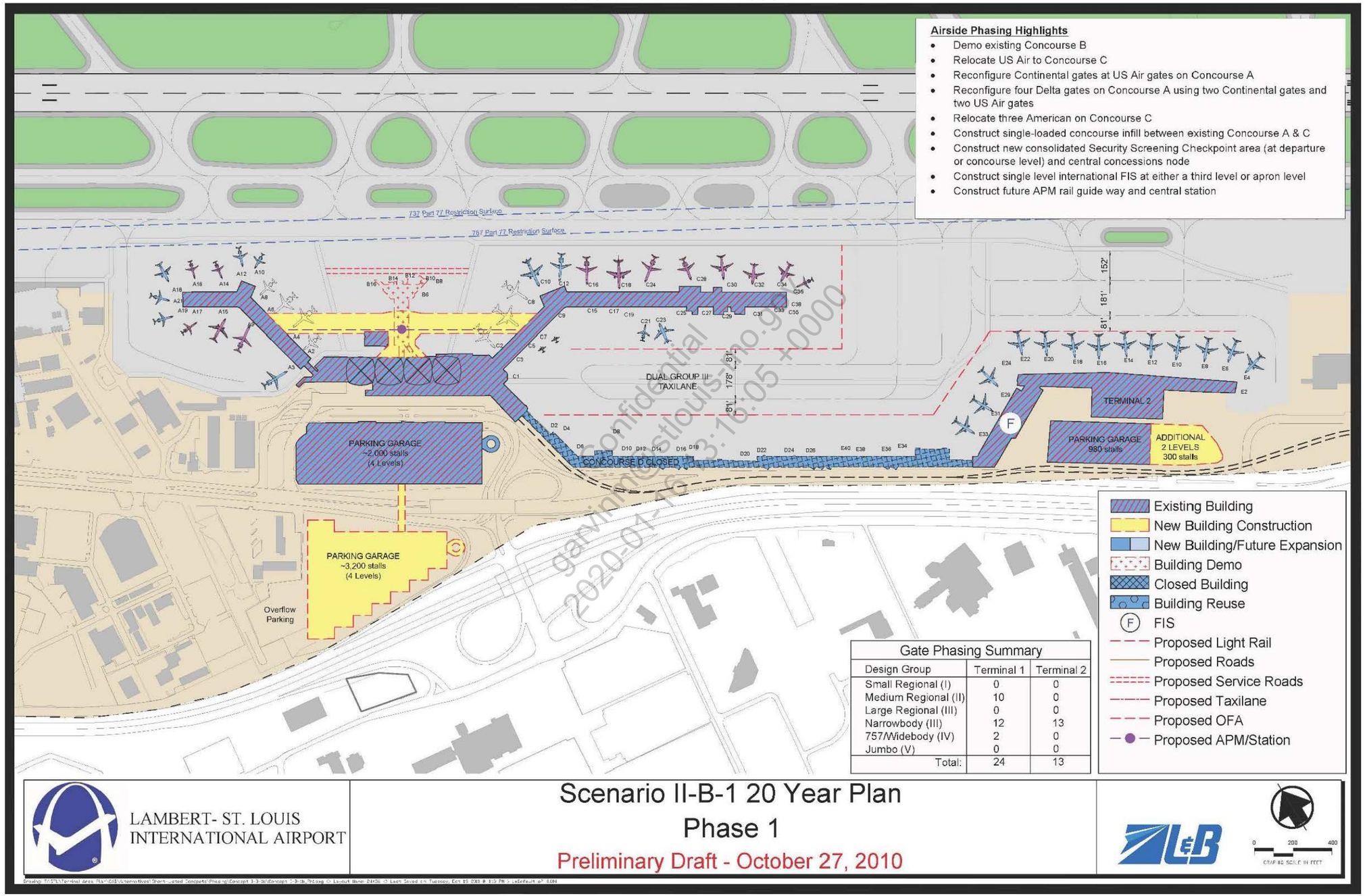
Scenario I-B-1b/Option B – 47 Gates



Scenario I-B-1b/Option B – 50 Gates



Scenario II-B-1 - Phase 1



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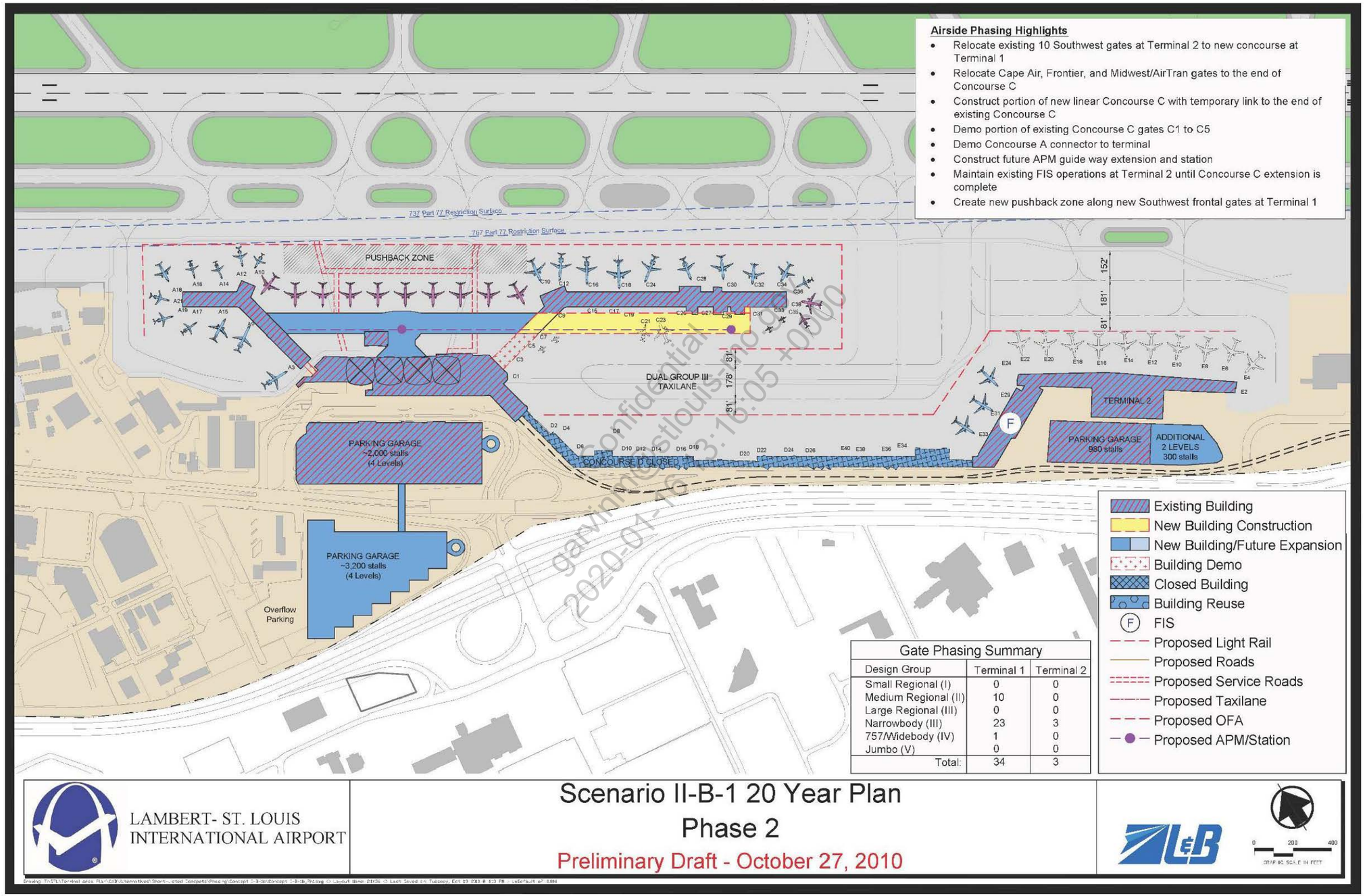

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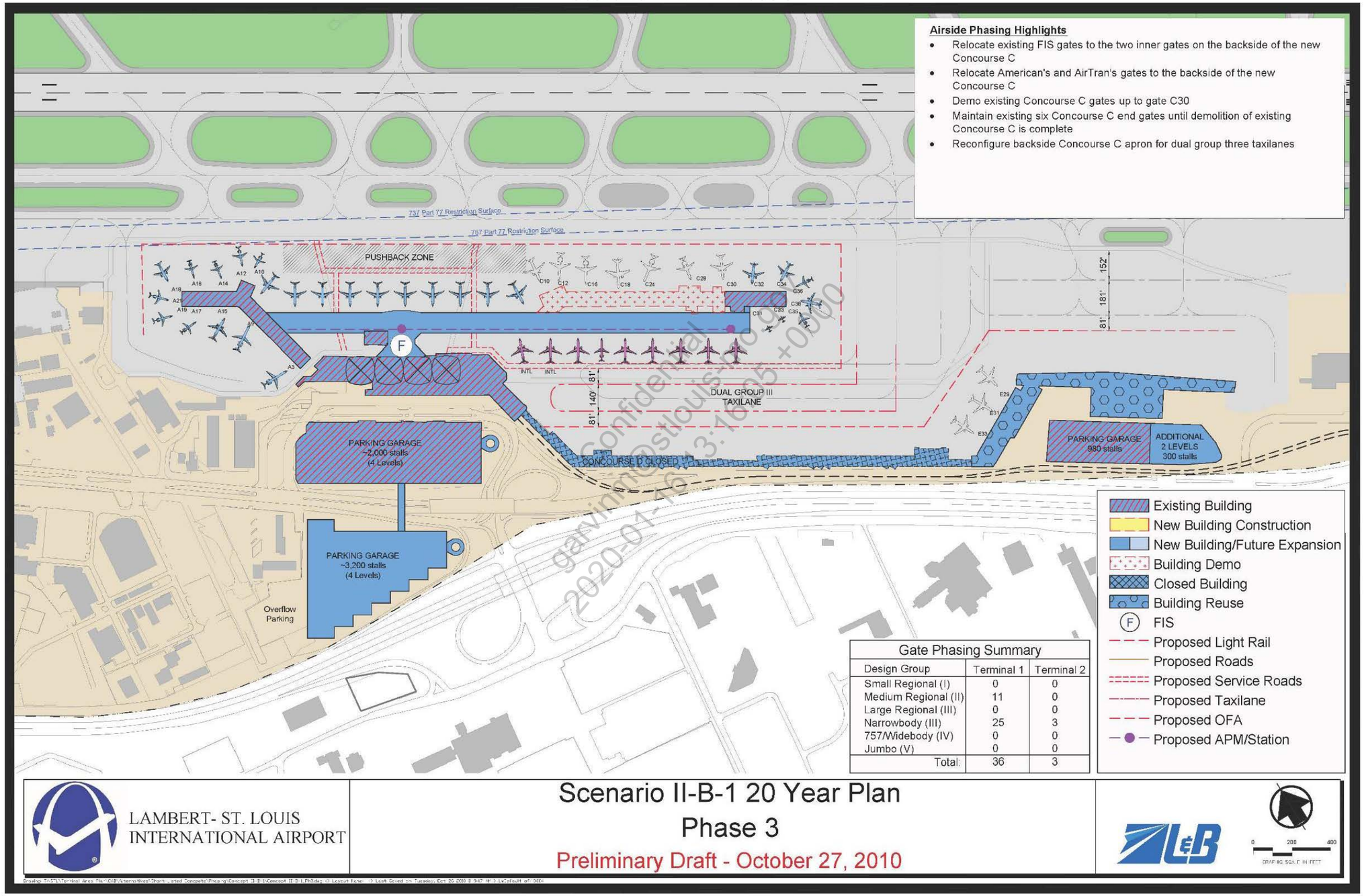

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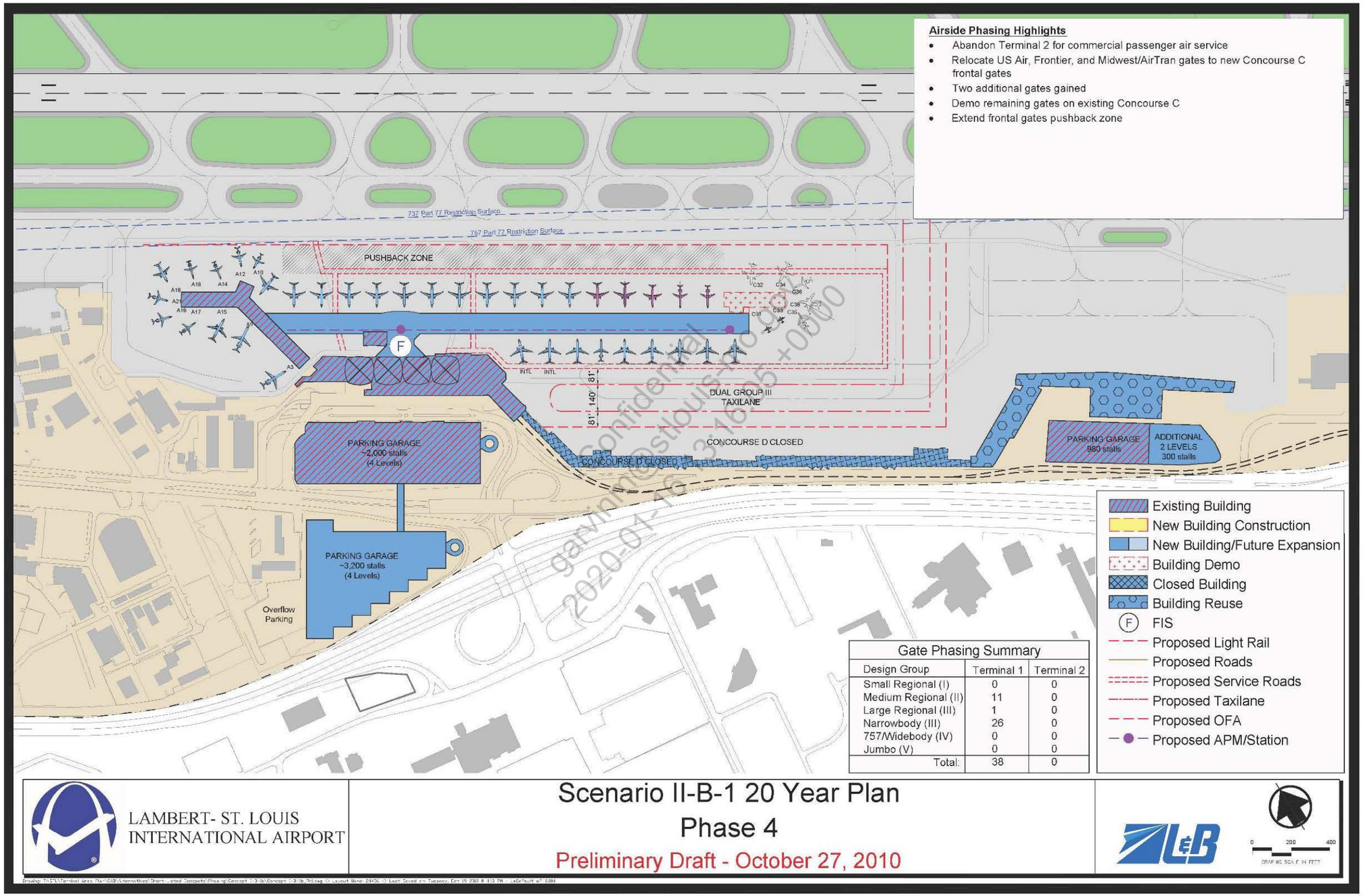
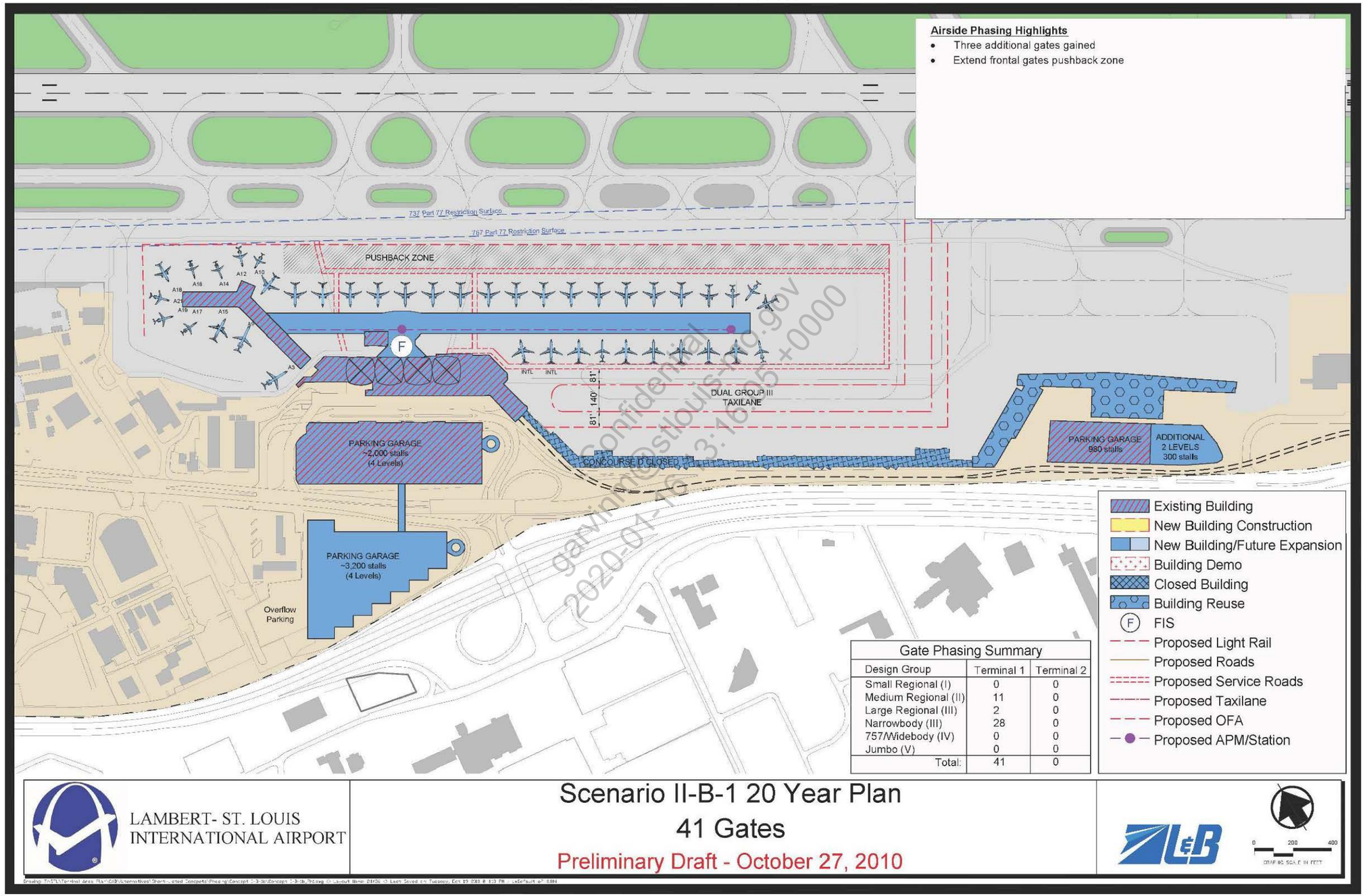


Scenario II-B-1 – 41 Gates



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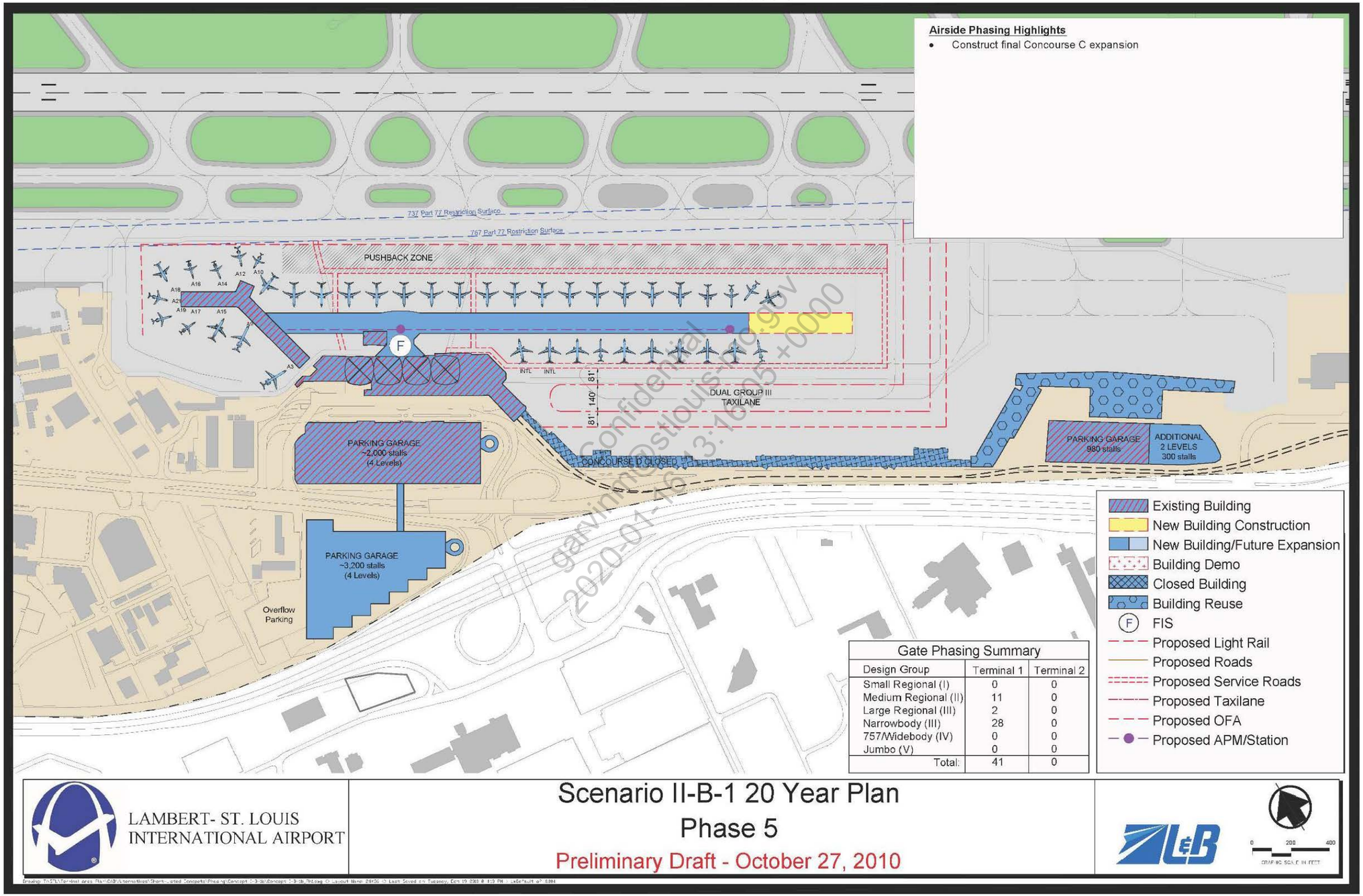

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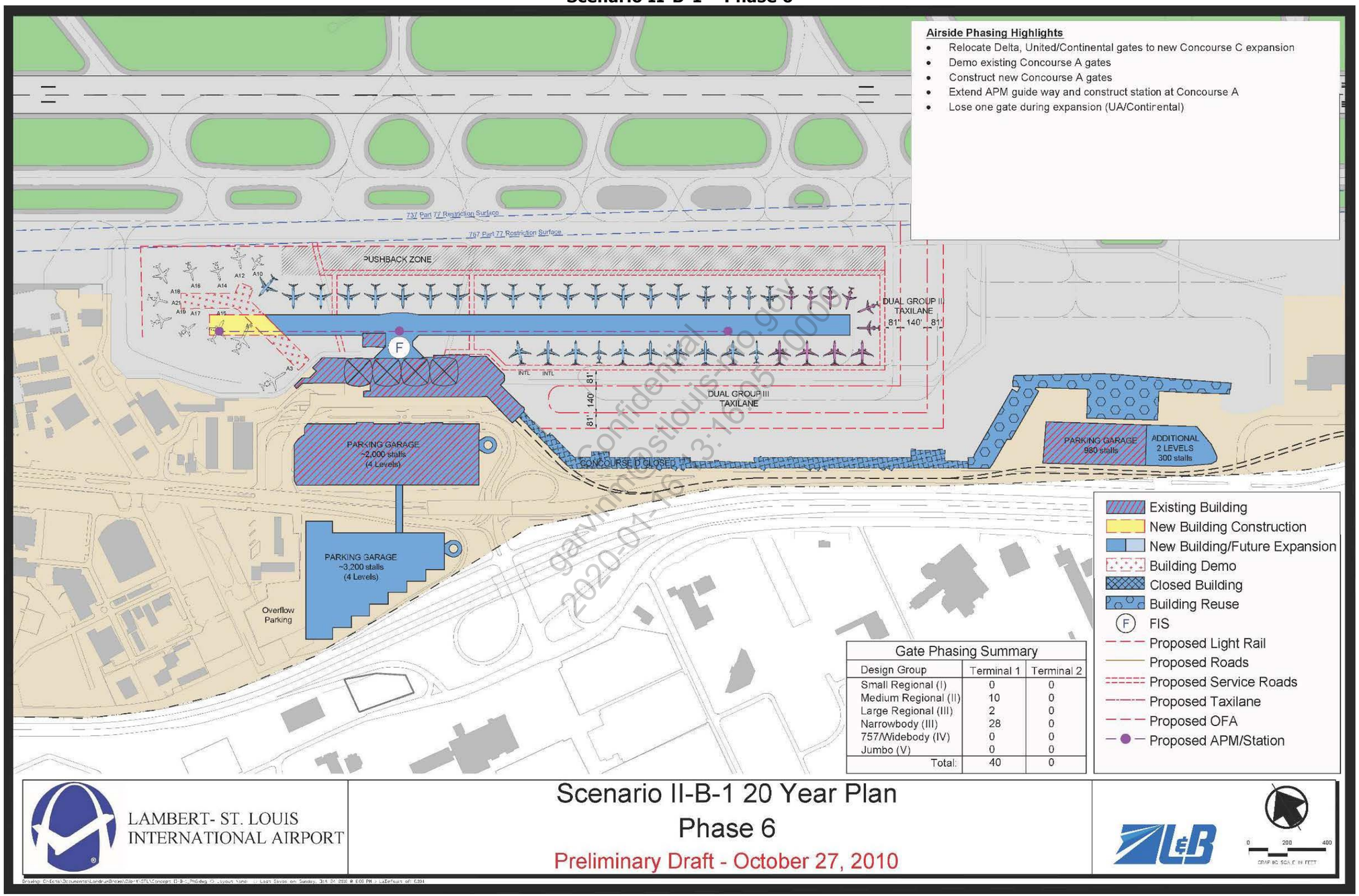
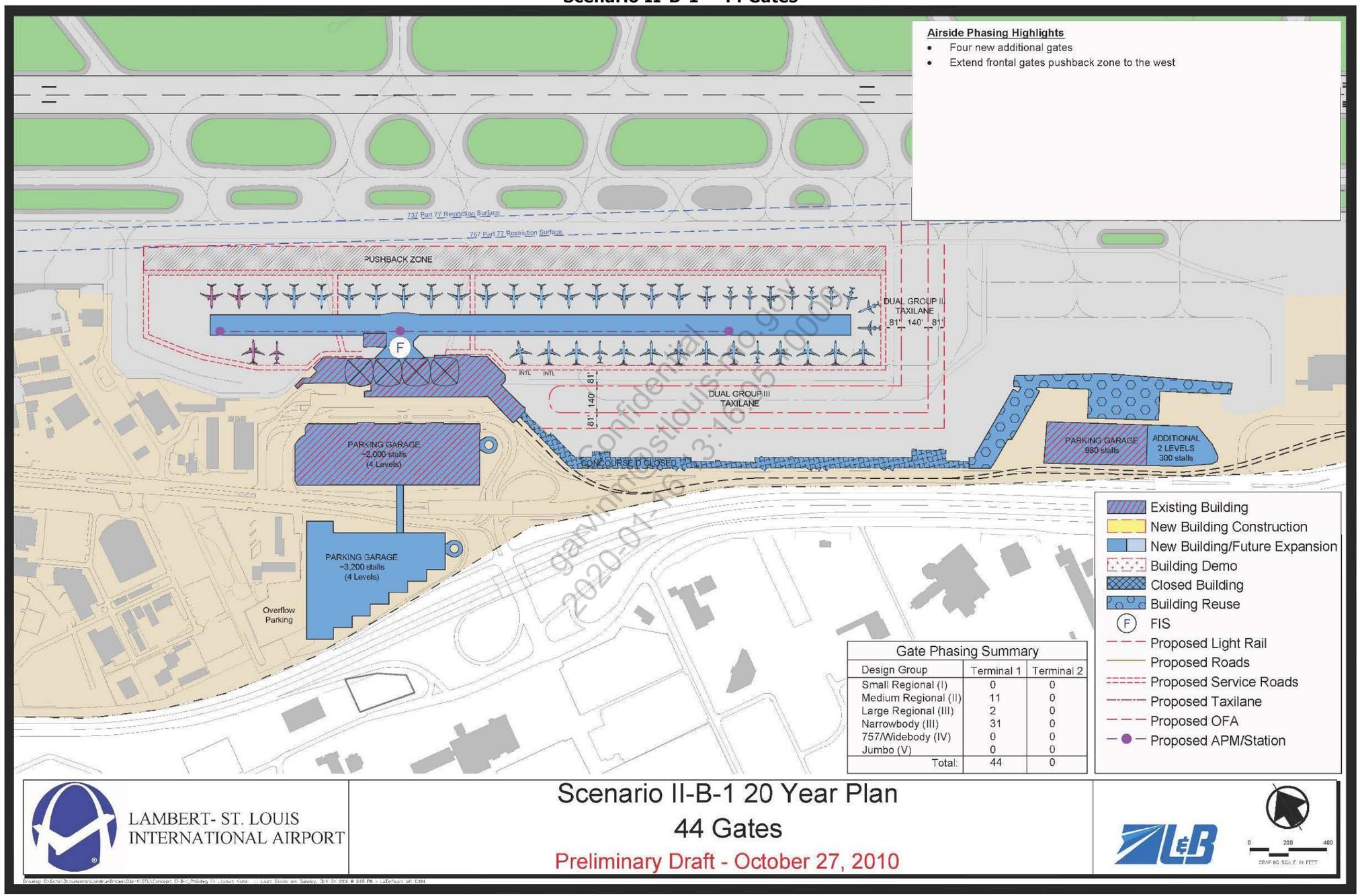


Scenario II-B-1 – 44 Gates



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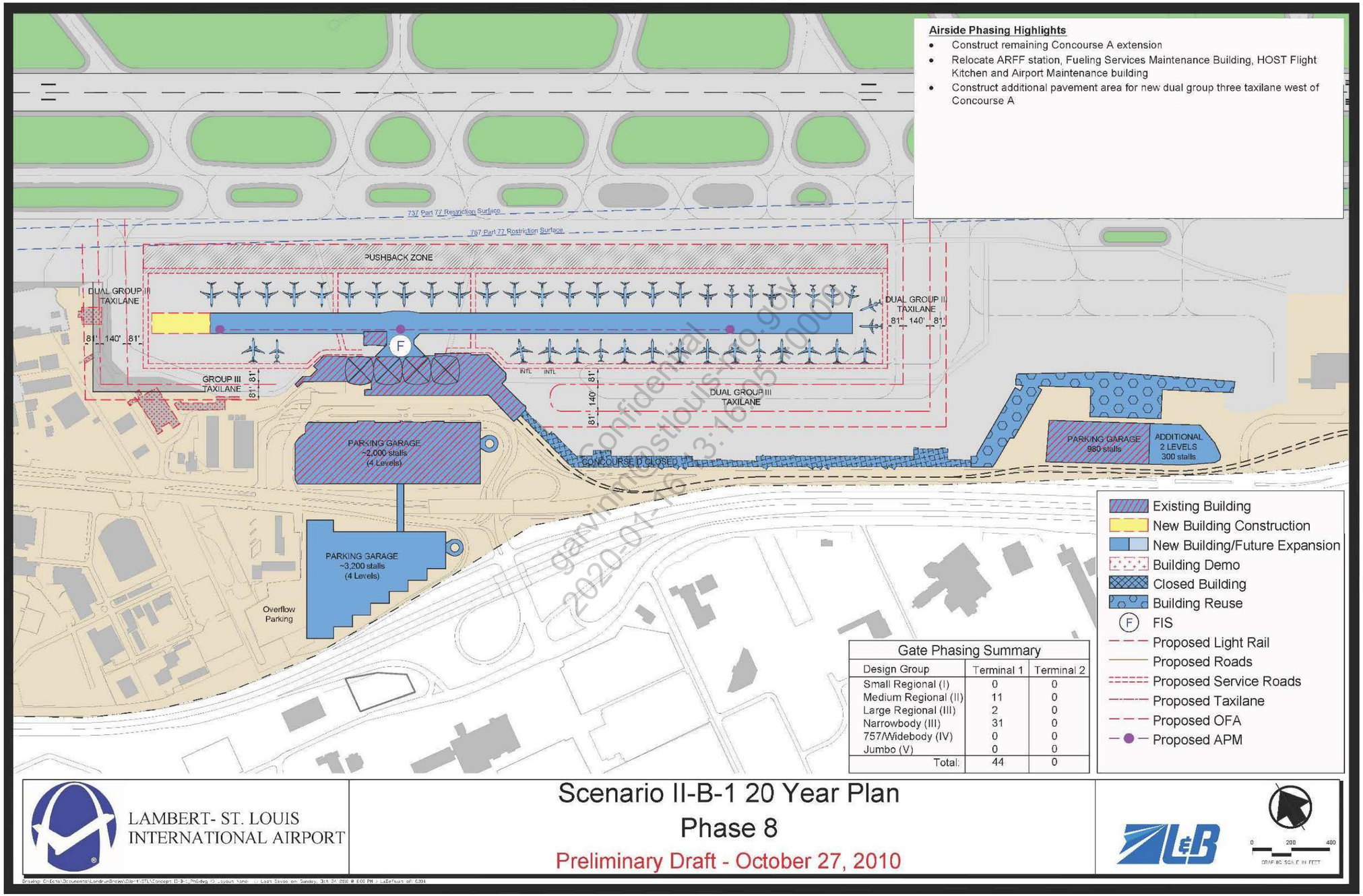
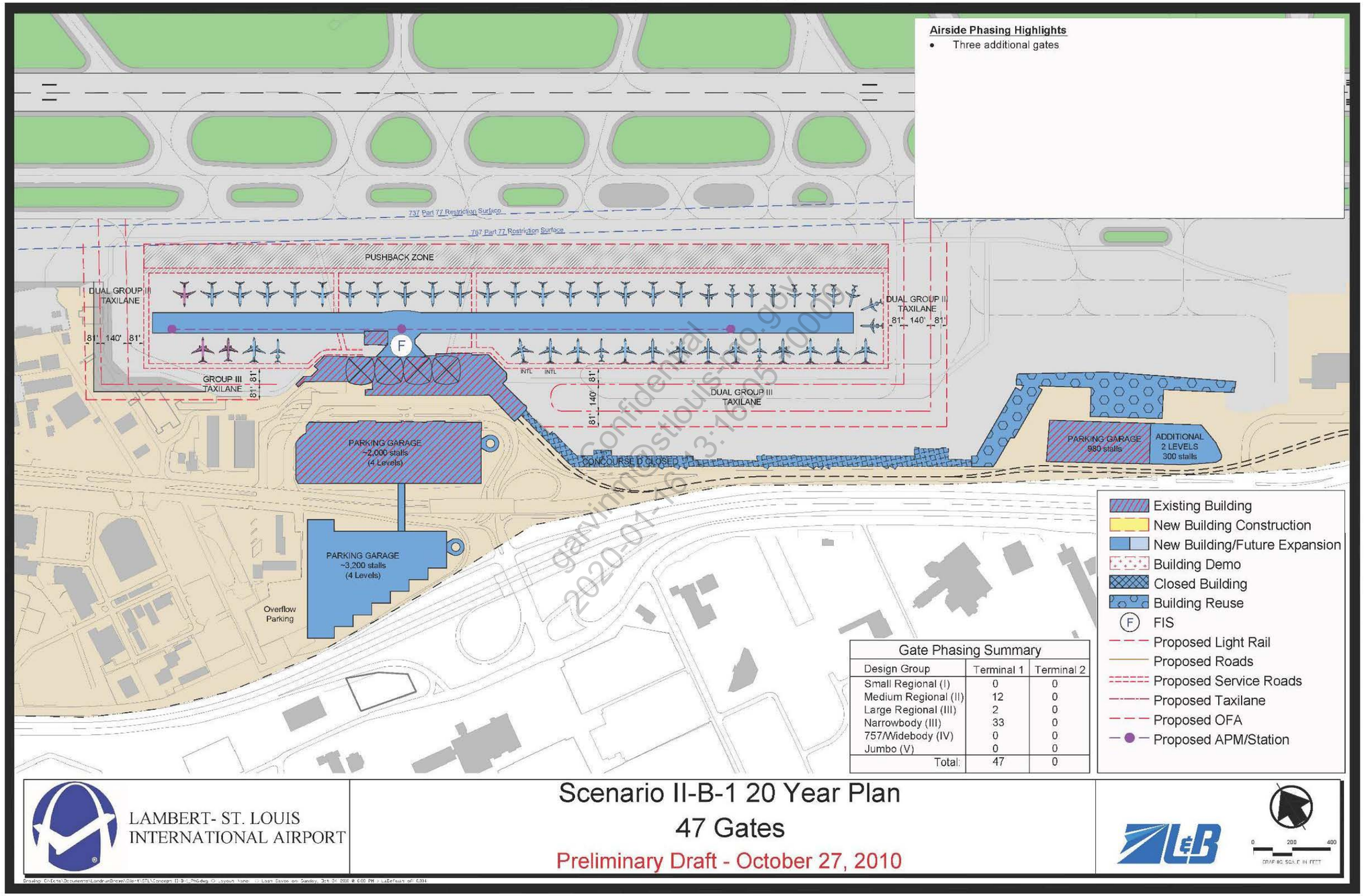


Scenario II-B-1 – 47 Gates



Scenario II-B-1 – 50 Gates