



ALTERNATIVE TRANSIT SYSTEM CONCEPTS: ESTIMATED CAPITAL, OPERATIONS & MAINTENANCE COSTS



TECHNICAL MEMORANDUM

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BACKGROUND

In November 2006, the Hillsborough Metropolitan Planning Organization (MPO) commenced the MPO Transit Study to assess transit service needs in Hillsborough County in the context of mobility, economic vitality and overall quality of life. Through an iterative process of public visioning and values workshops, stakeholder meetings, technical committee review, and local government oversight, the MPO advanced a series of three conceptual rail transit scenarios along with a grid of Bus Rapid Transit (BRT) and complimentary bus support service.

The three conceptual rail transit scenarios consisted of:

- **Concept A – Tampa Rail:** Concept A revisited the Tampa Rail project as described in the December 2002 Final EIS.
- **Concept B – Light Rail:** Concept B included Concept A with light rail extensions to serve other geographic areas of Hillsborough County such as Southshore, the Airport, New Tampa, and Brandon.
- **Concept C – Commuter Rail:** Concept C consisted of traditional diesel locomotive driven commuter coaches serving areas north to the Polk County line, west to Pinellas County, east to Plant City, and along the Southshore to the Manatee County line.

The purpose of this technical memorandum is to document the approach, assumptions, and estimated capital and operating costs for the rail elements of **Concepts A, B & C**. Complimentary bus service including BRT, local, express and non fixed route bus systems are not addressed in this memorandum.

CAPITAL COST ASSUMPTIONS AND APPROACH

The capital cost estimate prepared for the Hillsborough MPO Transit System Plan is first and foremost, a planning level estimate. Planning level estimates are based on broad and geographically homogeneous data regarding alignment, grade, and transit system elements. At the planning level, specific information regarding physical conditions, engineering design, and environmental constraints are unknown or in some cases assumed. The planning level approach for transportation is also referred to as a systems level of analysis. The transportation emphasis at the planning or systems level addresses broad goals of mobility, connectivity, land use, environmental sensitivity, and community input. The following critical project analyses and investigations have not been developed for this planning level of system plan development:

- Engineering design,
- Geotechnical analysis,
- Geometrically rectified survey and mapping,
- Environmental assessment (exception - Tampa Rail Final EIS, Dec 2002),
- Property appraisal,
- Legal review,
- Construction peer review.

Conceptual alignments on aerial based photo images (GIS shape files) were received from Renaissance Planning Group (RPG) and were adjusted by PB Americas (PB). The conceptual alignments consisted of **Concept A** - Tampa Rail, **Concept B** - Tampa Rail with extensions, and **Concept C** - Commuter Rail. PB used planning and engineering judgment to re-align the conceptual locations provided by RPG.

The consequences of this exercise resulted in alignment shifts which provided the following benefits:

- Place the light rail and commuter rail alignments within or adjacent to existing roadway and/or freight rail alignments,
- Eliminate or avoid major commercial and institutional structures,
- Facilitate more economical water body crossings,
- Minimize or avoid major residential takings, park facilities, and natural resource features.

Quantities were computed for the adjusted rail alignments utilizing GIS techniques. Stations were counted from those locations provided by RPG. Stream, river, and bay crossings were computed and special situations such as elevated crossings and vehicle maintenance facilities were factored in. Unit costs were determined utilizing PB's nationwide library of transit cost categories. Unit costs were also localized to consider Tampa conditions. The capital cost estimating professional in charge of the effort is stationed in Orlando. Thus, ready access to local bid data was considered in the determination of unit costs.

STANDARD COST CATEGORIES

Each of the transit lines was broken down into logical segments. To the extent possible, the segments reflected homogenous land use, terrain, and construction conditions. Unit costs were assigned to the quantities within each segment and

compiled to determine segment costs. Segments were then assembled to determine transit line costs for each major **Concept (A, B & C)**. Segments were compiled and identified in a Map Book which illustrated the alignment and stations locations on an aerial image. Spreadsheets were developed using the Federal Transit Administration's (FTA) Standard Cost Categories of transit cost elements. The FTA Standard Cost Categories are common practice in developing capital costs for FTA funding applications; also know as a Full funding Grant Agreement (FFGA). Major cost categories include;

Cost Category 10, Guideway and Track

Cost Category 20, Stations, Stops, Terminals, and Intermodal Facilities

Cost Category 30, Support Facilities; Yards, Shops, and Administrative Buildings

Cost Category 40, Sitework and Special Conditions

Cost Category 50, Systems; Train Control, Signals, Power, Communications, Fare Collection

Cost Category 60, Right of Way (ROW), Land, Existing Improvements

Cost Category 70, Vehicles

Cost Category 80, Professional Services

Cost Category 90, Unallocated Contingency

Unit costs were applied to each of the estimated quantities of cost categories listed above to arrive at a base cost. To account for lack of precision in development of the quantities and the unit costs, a contingency is allocated to the base cost in the amount of 15% to 30% depending upon the complexity of the cost category or uncertainty regarding the location and field conditions associated with the cost category elements. Totals were calculated for all elements within each transit alternative to arrive at an estimated Construction Cost Subtotal.

Cost Category 60 elements, Right of Way (ROW) and property acquisition costs, include not only property and easements, but the process of property acquisition which includes appraisal services, property negotiations, transfer and realtor fees, taxes, legal, and potential condemnation fees. At the systems planning stage, ROW is estimated using rail route foot unit cost allowances differentiated into three alignment categories; at-grade, aerial, and underground. A contingency of 50% was added to acknowledge the higher level of uncertainty

and unknowns typically associated with property valuation for projects at this stage of evaluation.

Light rail and commuter rail vehicle requirements (Cost Category 70) are actually determined from the product of estimated transit ridership and a more detailed train operations and performance plan. This is generally not available at the systems planning level. For Light Rail technology, a rule of thumb of 2 vehicles per rail mile was applied to calculate the number of LRT vehicles to include in the estimate. A factor of 20% was also included to account for spare vehicles, a standard industry practice. For commuter rail technology, a rule of thumb of 0.5 vehicles per rail mile was applied to calculate the number of coach car vehicles, including the same allowance of 20% for spare cars. In addition a factor of 50% of the coach car quantity was included as an allowance for cab cars, as well as a factor of 50% for diesel locomotives. Typically a start up commuter rail train set includes a locomotive, one or more coach cars, and a cab coach. Each of these units in the train set has a different cost. No attempt has been made to distinguish between single level and bi-level commuter rail coaches.

Cost Category 80, Professional Services are commonly called soft costs. The term soft cost is actually a misnomer as Professional Services are often the hardest costs to estimate, particularly at the systems planning level. Soft costs can be significant project cost elements. They include professional engineering, architectural, and planning services for design and project development. Additional soft costs are identified as project management, construction management, insurance, legal, surveys, testing, and start up. These costs are factored as a percentage of construction costs and range individually from 1% to 8% of construction. Soft cost can be found in the standard cost category 80, Professional Services.

Cost Category 90, Unallocated Contingency, accounts for project uncertainty and risk at the early systems planning level of development. It is calculated at 10% of Construction, ROW, and Professional Services.

In summary, total estimated project cost consist of Construction costs (Guideways, Stations, Support Facilities, Sitework, and Systems), ROW costs, Vehicle Costs, Professional Services, and Unallocated Contingency. All costs reflect mid-calendar year 2007 cost. No attempt has been made to account for actual year of expenditure and the impact of inflation upon a projected build year. It is important to account for and acknowledge the actual year of expenditure as the planning level estimate for 2007 is just a preliminary estimate and considerably more information and time will pass before a more precise estimate can be advanced.

CAPITAL COST SUMMARY

A summary of 2007 Capital Costs for **Concepts A, B, and C** is provided in Table 1.

Table 1: 2007 Rail Transit Capital Cost Summary

Transit Alternative	Length (Miles)	# Stations	# Revenue Vehicles	Capital Costs \$ Billions	Cost Per Mile \$ Millions
A – LRT ¹	22.5	24	54	\$1.259	\$55.97
B – LRT Extended	40.1	33	98	\$2.281	\$56.88
C – Commuter Rail	92.6	16	114	\$3.260	\$35.20

1. Final EIS dated December 2002 estimated capital costs at \$985.7 million.

OPERATIONS AND MAINTENANCE COST ASSUMPTIONS AND APPROACH

Operations and maintenance (O&M) costs include a wide range of ongoing and re-occurring costs which are necessary to maintain daily operation of a transit system. O&M costs typically include labor, labor fringe benefits (overhead), power, fuel, train & non-train maintenance, special services, materials, supplies, casualty and liability insurance, and general administration. As re-occurring expenses O&M costs are offsetting charges against revenue, thus affecting the agency's income statement. Capital costs are assets and are reflected in the agency's balance sheet.

Similar to the Capital Cost exercise, the O&M cost estimate prepared for the Hillsborough MPO Transit System Plan is a planning level estimate. Planning level estimates for O&M are based on estimated operating scenarios and a sampling of representative transit systems. At the planning level, specific information regarding train performance and operations, schedules, dispatching protocol, and stringline analyses of two way train constraints are unknown.

ALIGNMENT, SERVICE CHARACTERISTICS, AND OPERATING DETAILS

In estimating the O&M costs for the proposed LRT routes in 2050, the following three alignments were used:

- Blue Line: starting at West Park Village station and terminating at Brandon Blvd station
- Red Line: starting in St. Petersburg, Florida and terminating at I-75/Bruce B Downs Blvd station

- Green Line: starting at Interbay Blvd station and terminating at North Blvd in Tampa downtown

The following four lines were used for the commuter rail operating scenario in 2050:

- I-4 Corridor: starting at the Downtown Tampa (Marion St) station and terminating at Plant City station
- Purple Line: starting at the Downtown Tampa (Marion St) station and terminating at Plant City station
- Orange Line: starting at the Downtown Tampa (Marion St) station and terminating at Tamiami Trail station
- Red Line: starting at the Downtown Tampa (Marion St) station and terminating at Land O' Lakes Blvd station

Table 2 provides the basis for the lengths, peak/off-peak travel times, and speeds used.

Table 2: Service Characteristics and Operating Assumptions

	Length (miles)	Dir Route Miles	AM and PM Peak Headway	Midday Off-Peak Headway	Evening Off-Peak Headway	Weekend Off-Peak Headway	Average Speed	Cycle Travel Time
			6am to 9am & 3pm to 6pm	9am to 4pm	7pm to 1am	6am to 1am		
LRT	Blue Line	55.70	10 min	12 min	15 min	15 min	15 mph	223 min
	Red Line	31.65	10 min	12 min	15 min	15 min	15 mph	253 min
	Green Line	7.81	10 min	12 min	15 min	15 min	15 mph	62 min
CR	I-40	52.18	30 min				30 mph	104 min
	Purple	26.37	30 min	60 min		60 min	30 mph	105 min
	Orange	29.49	30 min				30 mph	118 min
	Red/Pink	17.56	30 min	60 min		60 min	30 mph	70 min

These assumptions were derived from the Technical Memorandum entitled “Service Characteristics for Proposed Transit Corridors” dated July 9, 2007 prepared by PB. Since the service characteristics were created before the final alternative alignments were established, headways, and speeds were re-estimated to determine operating needs. Cycle travel times are planning level estimates calculated by dividing cycle travel distance by average speed.

Given the service characteristics, peak vehicles, annual revenue miles, and annual revenue hours were estimated as illustrated in Table 3: Estimates of Vehicle Miles, Vehicle Hours, and Peak Vehicles.

Table 3: Estimates of Vehicle Miles, Vehicle Hours, and Peak Vehicles

Service Characteristic	Light Rail			Commuter Rail			
	Blue Line	Red Line	Green Line	I-4	Purple	Orange	Red
Total Annual Vehicles-Miles	1,821,207	2,069,918	510,525	159,667	371,581	180,507	247,417
Total Annual Vehicle-Hours	123,405	140,590	39,520	6,120	13,870	6,120	12,340
Peak Vehicles Required	23	26	7	4	4	4	3

ESTIMATED O&M ANNUAL COST

Two models were used to estimate annual O&M costs: one model approximates Light Rail Transit operation and another model simulates Commuter Rail operation.

Light Rail Model

FTA data maintained in the National Transit Database was used to determine cost and efficiency characteristics for the LRT model. Some additional costs from Broward County Transit (BCT) were used. Cost characteristics for 16 LRT operations in the U.S. in 2004 were analyzed to estimate annual cost factors for peak vehicles, annual revenue miles, annual revenue hours, and directional route miles. The table below demonstrates the model used for the calculation of O&M costs. The numbers listed below are in 2004 dollars. The O&M estimates in the last section of this memo are converted to 2007 dollars. An additional 2% was added on for taxes and other miscellaneous expenses.

Table 4: Light Rail O&M Unit Costs

Vehicle Operations		
Labor - Admin. & Scheduling	\$31.15	Vehicle Hours
Labor - Operator Wages & Fringes	\$36.71	Vehicle Hours
Propulsion Power - demand	\$6,247.13	Peak Vehicles
Propulsion Power - energy	\$0.68	Vehicle Miles

Maintenance		
Labor - Train Maintenance	\$2.52	Vehicle Miles
Labor - Non Train Maintenance	\$39,797.20	Dir Rte Miles
Services	\$111,114.50	Peak Vehicles
Materials and Supplies	\$1.38	Vehicle Miles

Other		
Casualty and Liability	\$6.32	Vehicle Hours
Labor - General Administration	\$31,733.83	Peak Vehicles

Commuter Rail Model

The Commuter Rail O&M cost model is based on the Light Rail model because it is expected that many of the cost characteristics would be similar. The labor costs associated with vehicle operations (including administration, scheduling, operator wages, and fringes) are assumed to be similar between LRT and Commuter Rail operations. This would mean staffing plans for Commuter Rail operations very similar to what would be used in an LRT environment. Specifically, this means one person operating the vehicle during normal operations. Larger Commuter Rail systems with train set consists of 3 or more coaches can carry additional staff (conductor), but it is unlikely that this would occur in Hillsborough until the system matured in the later years of the planning horizon.

Propulsion costs for Commuter Rail operations are expected to differ from LRT, and the unit cost is specific to Commuter Rail. Regarding maintenance costs, the only line item that is adjusted is the non-vehicle maintenance labor costs, which

are suspected to be lower for Commuter Rail operations because of the lack of a catenary system to maintain. This difference between Commuter Rail and LRT operations could also mean lower vehicle maintenance costs and lower maintenance materials and supplies, although these numbers are not adjusted in the model. Other costs (namely insurance and general administrative costs) are assumed to be similar, regardless of Commuter Rail or LRT mode.

Below, Table 5: Commuter Rail O&M Unit Costs, demonstrates the CR model used for the calculation of O&M costs. The numbers below are in 2006 dollars and the O&M estimates in the last section of this memo are converted to 2007 dollars. An additional 5% was added on for taxes and other miscellaneous expenses.

Table 5: Commuter Rail O&M Unit Costs

Vehicle Operations		
Labor - Admin. & Scheduling	\$10.79	Vehicle hours
Labor - Operator Wages & Fringes	\$41.34	Vehicle hours
Propulsion Power	\$2.38	Vehicle miles

Maintenance		
Labor - Train Maintenance	\$2.29	Vehicle miles
Labor - Non Train Maintenance	\$73,294.00	Dir Rte Miles
Services	\$55,872.00	Peak vehicles
Materials and Supplies	\$2.19	Vehicle miles

Other		
Casualty and Liability	\$6.81	Vehicle hours
Labor - General Administration	\$43,223.00	Peak vehicles

O&M COST SUMMARY

Cost of annual operating and maintenance of the LRT and CR network are expected be \$91 million in 2007 dollars as illustrated in Table 6.

Table 6: 2007 O&M Costs for Commuter and Light Rail Transit

		Total O&M Cost (2007 Dollars)
Light Rail	Blue Line	\$26,065,000
	Red Line	\$29,629,000
	Green Line	\$7,812,000
Commuter Rail	I-40	\$6,358,000
	Purple	\$8,546,000
	Orange	\$7,078,000
	Red	\$5,933,000
Total		\$91,421,000

APPENDIX A

DETAILED CAPITAL COST ESTIMATES

CONCEPT A – 48 PAGES

CONCEPT B – 46 PAGES

CONCEPT C – 42 PAGES

Hillsborough County MPO Transit Study
System Planning
Tampa Rail Transit
Capital Cost Estimate
(2007 Dollars in Millions)

Description	Alternative Total
Length (Mile):	22.5
Number of Stations:	24
Number of Revenue Vehicles:	54
10 GUIDEWAY & TRACK ELEMENTS	\$189.59
20 STATIONS, STOPS, TERMINALS, INTERMODAL	\$85.20
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	\$103.57
40 SITEWORK & SPECIAL CONDITIONS	\$114.32
50 SYSTEMS	\$149.70
Construction Subtotal (Sum Categories 10 - 50)	\$642.39
60 ROW, LAND, EXISTING IMPROVEMENTS	\$83.01
70 VEHICLES	\$213.84
80 PROFESSIONAL SERVICES	\$205.56
90 UNALLOCATED CONTINGENCY	\$114.48
Total Project Cost	\$1,259.28

Hillsborough County MPO Transit Study
System Planning
Tampa Rail Transit
Capital Cost Estimate
(2007 Dollars in Millions)

CAT No.	Description	TR-Station											Alternative Total						
		1	2	3	4	5	6	7	8	9	10	11							
		TR-Airport	TR-Cypress St.	TR-Cypress St. to George Ben Parkway to Trask St along Spruce St.	Trask to Armentia / Howard Couplet to UT/N. Blvd.	UT/N. Blvd. to Nebraska Ave.	TR-Downtown	TR-Ybor City	CSX/MS split to Nebraska Ave. to CSX/MS split	CSX/N/S split to Busch Blvd	TR-North	Bush Blvd. to 30th St./Fowler Ave.	TR-University	30th St./Fowler Ave. to Bearrs Ave.	TR-Temple Terrace	East of 30th St. (to be deleted)	Maintenance Facility	Vehicles	
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS																		
30.01	Administration Building: Office, sales, storage, revenue counting																\$0.00		\$0.00
30.02	Light Maintenance Facility																\$0.00		\$0.00
30.03	Heavy Maintenance Facility																\$101.25		\$101.25
30.04	Storage or Maintenance of Way Building																\$0.00		\$0.00
30.05	Yard and Yard Track																\$2.32		\$2.32
	Subtotal Category 30																\$103.57		\$103.57
40	SITEWORK & SPECIAL CONDITIONS																		
40.01	Demolition, Clearing, Earthwork	\$0.23	\$0.19	\$0.17	\$0.98	\$0.85	\$0.25	\$0.35	\$1.10	\$0.62	\$0.66	\$0.42	\$0.66	\$0.42	\$0.42	\$0.42	\$0.00	\$0.00	\$5.63
40.02	Site Utilities, Utility Relocation	\$1.09	\$0.87	\$1.19	\$6.69	\$4.45	\$1.25	\$1.63	\$5.17	\$2.91	\$4.48	\$1.97	\$4.48	\$1.97	\$1.97	\$1.97	\$0.00	\$0.00	\$31.69
40.03	Haz. mat'l. contain'd soil removal/mitigation, ground water treatments	\$0.15	\$0.12	\$0.07	\$0.39	\$0.26	\$0.16	\$0.23	\$0.73	\$0.42	\$0.26	\$0.28	\$0.26	\$0.26	\$0.28	\$0.28	\$0.00	\$0.00	\$3.08
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$0.38	\$0.31	\$0.17	\$0.98	\$0.65	\$0.39	\$0.58	\$1.83	\$1.04	\$0.66	\$0.70	\$0.66	\$0.66	\$0.70	\$0.70	\$0.00	\$0.00	\$7.71
40.05	Site structures including retaining walls, sound walls	\$0.06	\$0.05	\$0.00	\$0.00	\$0.00	\$0.06	\$0.09	\$0.29	\$0.17	\$0.00	\$0.11	\$0.00	\$0.00	\$0.11	\$0.11	\$0.00	\$0.00	\$0.83
40.06	Pedestrian / bike access and accommodation, landscaping	\$0.16	\$0.16	\$0.15	\$0.75	\$0.46	\$0.32	\$0.30	\$0.92	\$0.48	\$0.58	\$0.35	\$0.58	\$0.35	\$0.35	\$0.35	\$0.00	\$0.00	\$4.63
40.07	Automobile, bus, van accessways including roads, parking lots	\$0.00	\$0.52	\$3.23	\$17.51	\$10.06	\$0.00	\$0.00	\$1.56	\$3.12	\$16.38	\$3.12	\$16.38	\$3.12	\$3.12	\$3.12	\$0.00	\$0.00	\$55.50
40.08	Temporary Facilities and other indirect costs during construction	\$0.10	\$0.11	\$0.24	\$1.31	\$0.79	\$0.12	\$0.15	\$0.56	\$0.42	\$1.11	\$0.33	\$1.11	\$0.33	\$0.33	\$0.33	\$0.00	\$0.00	\$5.24
	Subtotal Category 40	\$2.16	\$2.32	\$5.24	\$28.62	\$17.33	\$2.53	\$3.34	\$12.18	\$9.19	\$24.12	\$7.29	\$24.12	\$7.29	\$7.29	\$7.29	\$0.00	\$0.00	\$114.32
50	SYSTEMS																		
50.01	Train control and signals	\$1.74	\$1.42	\$0.80	\$5.16	\$3.01	\$1.79	\$2.67	\$8.43	\$4.79	\$3.03	\$3.23	\$3.03	\$3.23	\$3.23	\$3.23	\$0.00	\$0.00	\$38.09
50.02	Traffic signals and crossing protection	\$0.86	\$0.58	\$0.52	\$2.59	\$1.73	\$0.86	\$1.15	\$4.03	\$2.30	\$1.73	\$1.44	\$1.73	\$1.44	\$1.44	\$1.44	\$0.00	\$0.00	\$17.77
50.03	Traction power supply: substations	\$2.89	\$1.50	\$1.50	\$4.49	\$2.99	\$2.99	\$2.99	\$8.97	\$5.98	\$2.99	\$4.49	\$2.99	\$4.49	\$4.49	\$4.49	\$0.00	\$0.00	\$41.86
50.04	Traction power distribution: catenary and third rail	\$0.00	\$0.00	\$0.00	\$1.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.39
50.05	Communications	\$1.61	\$1.89	\$1.32	\$5.90	\$3.35	\$3.38	\$3.62	\$10.86	\$5.57	\$5.10	\$4.13	\$5.10	\$4.13	\$4.13	\$4.13	\$0.00	\$0.00	\$46.52
50.06	Fare collection system and equipment	\$0.00	\$0.25	\$0.25	\$0.76	\$0.25	\$0.76	\$0.51	\$1.27	\$0.51	\$1.01	\$0.51	\$1.01	\$0.51	\$0.51	\$0.51	\$0.00	\$0.00	\$6.07
50.07	Central Control	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Subtotal Category 50	\$7.20	\$5.64	\$4.39	\$20.29	\$11.33	\$8.78	\$10.94	\$33.35	\$19.14	\$19.85	\$13.79	\$19.85	\$13.79	\$13.79	\$13.79	\$0.00	\$0.00	\$149.70
	Subtotal Construction Costs	\$17.29	\$17.41	\$19.07	\$82.83	\$44.09	\$35.06	\$32.49	\$99.39	\$55.23	\$74.38	\$41.56	\$74.38	\$41.56	\$41.56	\$41.56	\$0.00	\$0.00	\$642.39

Hillsborough County MPO Transit Study
 System Planning
 Tampa Rail Transit
 Capital Cost Estimate
 (2007 Dollars in Millions)

CAT No.	Description	TR-Station											Alternative Total	
		1	2	3	4	5	6	7	8	9	10	11		
		TR-Airport	TR-Cypress St.	TR-Downtown	TR-Ybor City	TR-North	TR-University	TR-Temple Terrace	Maintenance Facility	Vehicles				
60	ROW, LAND, EXISTING IMPROVEMENTS													
	60.01 Purchase or lease of real estate	\$3.48	\$2.86	\$1.62	\$9.08	\$6.03	\$3.50	\$5.37	\$16.90	\$9.61	\$6.08	\$6.48	\$12.00	\$85.01
	Subtotal Right-of-Way	\$3.48	\$2.86	\$1.62	\$9.08	\$6.03	\$3.50	\$5.37	\$16.90	\$9.61	\$6.08	\$6.48	\$12.00	\$85.01
70	VEHICLES													
	70.01 Streetcar													\$213.84
	Subtotal Vehicles													\$213.84
80	PROFESSIONAL SERVICES													
	80.01 Preliminary Engineering	\$0.69	\$0.70	\$0.76	\$3.71	\$2.16	\$1.40	\$1.30	\$3.99	\$2.21	\$2.98	\$1.66	\$4.14	\$25.70
	80.02 Final Design	\$1.04	\$1.04	\$1.14	\$5.57	\$3.25	\$2.10	\$1.95	\$5.96	\$3.31	\$4.46	\$2.49	\$6.21	\$38.54
	80.03 Project Management for Design and Construction	\$0.86	\$0.87	\$0.95	\$4.64	\$2.70	\$1.75	\$1.62	\$4.97	\$2.76	\$5.72	\$2.08	\$5.18	\$32.12
	80.04 Construction Administration & Management	\$1.38	\$1.39	\$1.53	\$7.43	\$4.33	\$2.80	\$2.60	\$7.95	\$4.42	\$5.95	\$3.33	\$8.29	\$51.39
	80.05 Insurance	\$0.35	\$0.35	\$0.38	\$1.86	\$1.08	\$0.70	\$0.65	\$1.99	\$1.10	\$1.49	\$0.83	\$2.07	\$12.85
	80.06 Legal, Permits, Review Fees by other agencies, cities, etc.	\$0.52	\$0.52	\$0.57	\$2.79	\$1.62	\$1.05	\$0.97	\$2.98	\$1.66	\$2.23	\$1.25	\$3.11	\$19.27
	80.07 Surveys, Testing, Investigation, Inspection	\$0.52	\$0.52	\$0.57	\$2.79	\$1.62	\$1.05	\$0.97	\$2.98	\$1.66	\$2.23	\$1.25	\$3.11	\$19.27
	80.08 Start up	\$0.17	\$0.17	\$0.19	\$0.93	\$0.54	\$0.35	\$0.32	\$0.99	\$0.55	\$0.74	\$0.42	\$1.04	\$6.42
	Subtotal Professional Services	\$5.53	\$5.57	\$6.10	\$29.71	\$17.31	\$11.22	\$10.40	\$31.80	\$17.67	\$23.80	\$13.30	\$33.14	\$205.56
90	UNALLOCATED CONTINGENCY	\$2.63	\$2.58	\$2.68	\$13.16	\$7.74	\$4.98	\$4.82	\$14.81	\$8.25	\$10.43	\$6.14	\$14.87	\$114.48
	Project Total	\$28.94	\$28.43	\$29.46	\$144.79	\$85.18	\$54.76	\$53.07	\$162.90	\$90.76	\$114.69	\$67.50	\$163.99	\$1,299.28

Hillsborough County MPO Transit Study
 System Planning
 TR-Airport
 Airport Sta to George Bean Parkway

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	5,724	RF	\$450	\$2,575,800	25%	\$3,219,750
			Element Total	5,724	RF		\$2,575,800		\$3,219,750
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	100	RF	\$6,000	\$600,000	30%	\$780,000
			Element Total	100	RF		\$600,000		\$780,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	100	RF	\$810	\$81,000	15%	\$93,150
			Element Total	100	RF		\$81,000		\$93,150
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	5,724	RF	\$480	\$2,747,520	15%	\$3,159,648
			Element Total	5,724	RF		\$2,747,520		\$3,159,648

Hillsborough County MPO Transit Study
 System Planning
 TR-Airport
 Airport Sta to George Bean Parkway

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$424,278	15%	\$487,920
			Element Total	1	LS		\$424,278		\$487,920
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$164,851	15%	\$189,579
			Element Total	1	LS		\$164,851		\$189,579
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	0	EA	\$3,000,000	\$0	20%	\$0
			Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	5,724	RF	\$30	\$171,720	30%	\$223,236
			Demolition Allowance - Median	100	RF	\$50	\$5,000	30%	\$6,500
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	5,824	RF		\$176,720		\$229,736
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	5,724	RF	\$140	\$801,360	30%	\$1,041,768
			Utility Relocation Allowance - Median	100	RF	\$340	\$34,000	30%	\$44,200
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	5,824	RF		\$835,360		\$1,085,968
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	5,824	RF	\$20	\$116,480	30%	\$151,424
			Element Total	1	LS		\$116,480		\$151,424

Hillsborough County MPO Transit Study
 System Planning
 TR-Airport
 Airport Sta to George Bean Parkway

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Environmental Mitigation Allowance	5,824	RF	\$50	\$291,200	30%	\$378,560
			Element Total	1	LS		\$291,200		\$378,560
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	572	RF	\$80	\$45,792	30%	\$59,530
			Element Total	1	LS		\$45,792		\$59,530
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	5,724	RF	\$15	\$85,860	30%	\$111,618
			Landscaping Allowance - Median	100	RF	\$25	\$2,500	30%	\$3,250
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$31,758	30%	\$41,285
			Element Total	1	LS		\$120,118		\$156,153
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
			Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
			Parking Lots	0	STL	\$4,000	\$0	30%	\$0
			Element Total	1	LS		\$0		\$0
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$79,284	25%	\$99,104
			Element Total	1	LS		\$79,284		\$99,104
50 SYSTEMS									
50.01	Train control and signals		Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track		Signal System	5,824	RF	\$260	\$1,514,240	15%	\$1,741,376
			Element Total	5,824	RF		\$1,514,240		\$1,741,376
50.02	Traffic signals and crossing protection		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
			Crossing Protection	3	EA	\$250,000	\$750,000	15%	\$862,500
			Element Total	3	EA		\$750,000		\$862,500
50.03	Traction power supply: substations		Traction Power, Substation	2	EA	\$1,300,000	\$2,600,000	15%	\$2,990,000
			Element Total	2	EA		\$2,600,000		\$2,990,000
50.04	Traction power distribution: catenary and third rail		OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track		OCS System - Standard	5,824	RF	\$260	\$1,514,240	15%	\$1,741,376
			Element Total	5,824	RF		\$0		\$0
50.05	Communications		Communication, Line	5,824	RF	\$240	\$1,397,760	15%	\$1,607,424
			Communication, Station	0	EA	\$500,000	\$0	15%	\$0
			Element Total	1	LS		\$1,397,760		\$1,607,424
50.06	Fare collection system and equipment		Fare Collection - 1 Platform	0	EA	\$220,000	\$0	15%	\$0
			Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
50.07	Central Control		N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Airport
 Airport Sta to George Bean Parkway

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	5,724	RF	\$400	\$2,289,600	50%	\$3,434,400
			Right of Way Allowance - Aerial	100	RF	\$300	\$30,000	50%	\$45,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	5,824	RF		\$2,319,600		\$3,479,400

**Hillsborough County MPO Transit Study
System Planning
TR-Airport
George Bean Parkway to Trask St along Spruce St.**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTG	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	4,761	RF	\$450	\$2,142,450	25%	\$2,678,063
			Element Total	4,761	RF		\$2,142,450		\$2,678,063
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	4,761	RF	\$480	\$2,285,280	15%	\$2,628,072
			Element Total	4,761	RF		\$2,285,280		\$2,628,072

**Hillsborough County MPO Transit Study
System Planning
TR-Airport
George Bean Parkway to Trask St along Spruce St.**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$342,792	15%	\$394,211
			Element Total	1	LS		\$342,792		\$394,211
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$137,117	15%	\$157,684
			Element Total	1	LS		\$137,117		\$157,684
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,000
			Element Total	1	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	4,761	RF	\$30	\$142,830	30%	\$185,679
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	4,761	RF		\$142,830		\$185,679
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	4,761	RF	\$140	\$666,540	30%	\$866,502
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	4,761	RF		\$666,540		\$866,502
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	4,761	RF	\$20	\$95,220	30%	\$123,786
			Element Total	1	LS		\$95,220		\$123,786

**Hillsborough County MPO Transit Study
System Planning
TR-Airport
George Bean Parkway to Trask St along Spruce St.**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Environmental Mitigation Allowance	4,761	RF	\$50	\$238,050	30%	\$309,465
			Element Total	1	LS		\$238,050		\$309,465
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	476	RF	\$80	\$38,088	30%	\$49,514
			Element Total	1	LS		\$38,088		\$49,514
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	4,761	RF	\$15	\$71,415	30%	\$92,840
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$51,425	30%	\$66,852
			Element Total	1	LS		\$122,840		\$159,691
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
			Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
			Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,000
			Element Total	1	LS		\$400,000		\$520,000
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$85,178	25%	\$106,473
			Element Total	1	LS		\$85,178		\$106,473
50 SYSTEMS									
50.01	Train control and signals		Signal System	0	RF	\$240	\$0	15%	\$0
	Single Track		Signal System	4,761	RF	\$260	\$1,237,860	15%	\$1,423,539
	Double Track		Element Total	4,761	RF		\$1,237,860		\$1,423,539
50.02	Traffic signals and crossing protection		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
			Crossing Protection	2	EA	\$250,000	\$500,000	15%	\$575,000
			Element Total	2	EA		\$500,000		\$575,000
50.03	Traction power supply: substations		Traction Power, Substation	1	EA	\$1,300,000	\$1,300,000	15%	\$1,495,000
			Element Total	1	EA		\$1,300,000		\$1,495,000
50.04	Traction power distribution: catenary and third rail		OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Single Track		OCS System - Standard	4,761	RF	\$260	\$1,237,860	15%	\$1,423,539
	Double Track		Element Total	4,761	RF		\$0		\$0
50.05	Communications		Communication, Line	4,761	RF	\$240	\$1,142,640	15%	\$1,314,036
			Communication, Station	1	EA	\$500,000	\$500,000	15%	\$575,000
			Element Total	1	LS		\$1,642,640		\$1,889,036
50.06	Fare collection system and equipment		Fare Collection - 1 Platform	1	EA	\$220,000	\$220,000	15%	\$253,000
			Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
			Element Total	1	LS		\$220,000		\$253,000
50.07	Central Control		N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
System Planning
TR-Airport
George Bean Parkway to Trask St along Spruce St.

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	4,761	RF	\$400	\$1,904,400	50%	\$2,856,600
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	4,761	RF		\$1,904,400		\$2,856,600

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Spruce St to Cypress St along Trask St

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$450	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	2,692	RF	\$700	\$1,884,400	25%	\$2,355,500
			Element Total	2,692	RF		\$1,884,400		\$2,355,500
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	2,692	RF	\$980	\$2,638,160	15%	\$3,033,884
			Element Total	2,692	RF		\$2,638,160		\$3,033,884
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Spruce St to Cypress St along Trask St

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$395,724	15%	\$455,083
			Element Total	1	LS		\$395,724		\$455,083
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,000
			Element Total	1	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	2,692	RF	\$50	\$134,600	30%	\$174,980
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	2,692	RF		\$134,600		\$174,980
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	2,692	RF	\$340	\$915,280	30%	\$1,189,864
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	2,692	RF		\$915,280		\$1,189,864
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	2,692	RF	\$20	\$53,840	30%	\$69,992
			Element Total	1	LS		\$53,840		\$69,992

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Spruce St to Cypress St along Trask St

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	2,692	RF	\$50	\$134,600	30%	\$174,980
		Element Total	1	LS		\$134,600		\$174,980
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	0	RF	\$80	\$0	30%	\$0
		Element Total	1	LS		\$0		\$0
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
		Landscaping Allowance - Median	2,692	RF	\$25	\$67,300	30%	\$87,490
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$48,844	30%	\$63,497
		Element Total	1	LS		\$116,144		\$150,987
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	3	EA	\$50,000	\$150,000	30%	\$195,000
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	64,608	SF	\$30	\$1,938,240	30%	\$2,519,712
		Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,000
		Element Total	1	LS		\$2,488,240		\$3,234,712
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$192,135	25%	\$240,169
		Element Total	1	LS		\$192,135		\$240,169
50		SYSTEMS						
50.01		Train control and signals						
	Single Track	Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track	Signal System	2,692	RF	\$260	\$699,920	15%	\$804,908
		Element Total	2,692	RF		\$699,920		\$804,908
50.02		Traffic signals and crossing protection						
		Traffic Signal	3	EA	\$150,000	\$450,000	15%	\$517,500
		Crossing Protection	0	EA	\$250,000	\$0	15%	\$0
		Element Total	3	EA		\$450,000		\$517,500
50.03		Traction power supply: substations						
		Traction Power, Substation	1	EA	\$1,300,000	\$1,300,000	15%	\$1,495,000
		Element Total	1	EA		\$1,300,000		\$1,495,000
50.04		Traction power distribution: catenary and third rail						
	Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track	OCS System - Standard	2,692	RF	\$260	\$699,920	15%	\$804,908
		Element Total	2,692	RF		\$0		\$0
50.05		Communications						
		Communication, Line	2,692	RF	\$240	\$646,080	15%	\$742,992
		Communication, Station	1	EA	\$500,000	\$500,000	15%	\$575,000
		Element Total	1	LS		\$1,146,080		\$1,317,992
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	1	EA	\$220,000	\$220,000	15%	\$253,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$220,000		\$253,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Spruce St to Cypress St along Trask St

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	2,692	RF	\$400	\$1,076,800	50%	\$1,615,200
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	2,692	RF		\$1,076,800		\$1,615,200

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Trask to Armenia/ Howard Couplet

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$450	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	5,040	RF	\$580	\$2,923,200	25%	\$3,654,000
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	12,621	RF	\$700	\$8,834,700	25%	\$11,043,375
			Element Total	15,141	RF		\$11,757,900		\$14,697,375
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	5,040	RF	\$490	\$2,469,600	15%	\$2,840,040
	Double Track		Embedded Track	12,621	RF	\$980	\$12,368,580	15%	\$14,223,867
			Element Total	15,141	RF		\$14,838,180		\$17,063,907
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Trask to Armenia/ Howard Couplet

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$2,225,727	15%	\$2,559,586
			Element Total	1	LS		\$2,225,727		\$2,559,586
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	1	EA	\$2,000,000	\$2,000,000	20%	\$2,400,000
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,000
			Element Total	3	EA		\$8,000,000		\$9,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	15,141	RF	\$50	\$757,050	30%	\$984,165
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	15,141	RF		\$757,050		\$984,165
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	15,141	RF	\$340	\$5,147,940	30%	\$6,692,322
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	15,141	RF		\$5,147,940		\$6,692,322
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	15,141	RF	\$20	\$302,820	30%	\$393,666
			Element Total	1	LS		\$302,820		\$393,666

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Trask to Armenia/ Howard Couplet

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	15,141	RF	\$50	\$757,050	30%	\$984,165
		Element Total	1	LS		\$757,050		\$984,165
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	0	RF	\$80	\$0	30%	\$0
		Element Total	1	LS		\$0		\$0
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
		Landscaping Allowance - Median	15,141	RF	\$25	\$378,525	30%	\$492,083
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$197,579	30%	\$256,853
		Element Total	1	LS		\$576,104		\$748,935
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	15	EA	\$50,000	\$750,000	30%	\$975,000
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	423,864	SF	\$30	\$12,715,920	30%	\$16,530,696
		Parking Lots	0	STL	\$4,000	\$0	30%	\$0
		Element Total	1	LS		\$13,465,920		\$17,505,696
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$1,050,344	25%	\$1,312,930
		Element Total	1	LS		\$1,050,344		\$1,312,930
50		SYSTEMS						
50.01		Train control and signals						
	Single Track	Signal System	5,040	RF	\$240	\$1,209,600	15%	\$1,391,040
	Double Track	Signal System	12,621	RF	\$260	\$3,281,460	15%	\$3,773,679
		Element Total	15,141	RF		\$4,491,060		\$5,164,719
50.02		Traffic signals and crossing protection						
		Traffic Signal	15	EA	\$150,000	\$2,250,000	15%	\$2,587,500
		Crossing Protection	0	EA	\$250,000	\$0	15%	\$0
		Element Total	15	EA		\$2,250,000		\$2,587,500
50.03		Traction power supply: substations						
		Traction Power, Substation	3	EA	\$1,300,000	\$3,900,000	15%	\$4,485,000
		Element Total	3	EA		\$3,900,000		\$4,485,000
50.04		Traction power distribution: catenary and third rail						
	Single Track	OCS System - Standard	5,040	RF	\$240	\$1,209,600	15%	\$1,391,040
	Double Track	OCS System - Standard	12,621	RF	\$260	\$3,281,460	15%	\$3,773,679
		Element Total	15,141	RF		\$1,209,600		\$1,391,040
50.05		Communications						
		Communication, Line	15,141	RF	\$240	\$3,633,840	15%	\$4,178,916
		Communication, Station	3	EA	\$500,000	\$1,500,000	15%	\$1,725,000
		Element Total	1	LS		\$5,133,840		\$5,903,916
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	3	EA	\$220,000	\$660,000	15%	\$759,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$660,000		\$759,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Trask to Armenia/ Howard Couplet

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	15,141	RF	\$400	\$6,056,400	50%	\$9,084,600
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	15,141	RF		\$6,056,400		\$9,084,600

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Armenia / Cypress to UT/ N. Blvd.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$450	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	10,057	RF	\$700	\$7,039,900	25%	\$8,799,875
			Element Total	10,057	RF		\$7,039,900		\$8,799,875
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	10,057	RF	\$980	\$9,855,860	15%	\$11,334,239
			Element Total	10,057	RF		\$9,855,860		\$11,334,239
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Armenia / Cypress to UT/ N. Blvd.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$1,478,379	15%	\$1,700,136
			Element Total	1	LS		\$1,478,379		\$1,700,136
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,000
			Element Total	1	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	10,057	RF	\$50	\$502,850	30%	\$653,705
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	10,057	RF		\$502,850		\$653,705
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	10,057	RF	\$340	\$3,419,380	30%	\$4,445,194
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	10,057	RF		\$3,419,380		\$4,445,194
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	10,057	RF	\$20	\$201,140	30%	\$261,482
			Element Total	1	LS		\$201,140		\$261,482

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Armenia / Cypress to UT/ N. Blvd.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	10,057	RF	\$50	\$502,850	30%	\$653,705
		Element Total	1	LS		\$502,850		\$653,705
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	0	RF	\$80	\$0	30%	\$0
		Element Total	1	LS		\$0		\$0
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
		Landscaping Allowance - Median	10,057	RF	\$25	\$251,425	30%	\$326,853
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$100,399	30%	\$130,519
		Element Total	1	LS		\$351,824		\$457,371
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	10	EA	\$50,000	\$500,000	30%	\$650,000
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	241,368	SF	\$30	\$7,241,040	30%	\$9,413,352
		Parking Lots	0	STL	\$4,000	\$0	30%	\$0
		Element Total	1	LS		\$7,741,040		\$10,063,352
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$635,954	25%	\$794,943
		Element Total	1	LS		\$635,954		\$794,943
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	10,057	RF	\$260	\$2,614,820	15%	\$3,007,043
		Element Total	10,057	RF		\$2,614,820		\$3,007,043
50.02		Traffic signals and crossing protection						
		Traffic Signal	10	EA	\$150,000	\$1,500,000	15%	\$1,725,000
		Crossing Protection	0	EA	\$250,000	\$0	15%	\$0
		Element Total	10	EA		\$1,500,000		\$1,725,000
50.03		Traction power supply: substations						
		Traction Power, Substation	2	EA	\$1,300,000	\$2,600,000	15%	\$2,990,000
		Element Total	2	EA		\$2,600,000		\$2,990,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	10,057	RF	\$260	\$2,614,820	15%	\$3,007,043
		Element Total	10,057	RF		\$0		\$0
50.05		Communications						
		Communication, Line	10,057	RF	\$240	\$2,413,680	15%	\$2,775,732
		Communication, Station	1	EA	\$500,000	\$500,000	15%	\$575,000
		Element Total	1	LS		\$2,913,680		\$3,350,732
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	1	EA	\$220,000	\$220,000	15%	\$253,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$220,000		\$253,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Cypress St.
 Armenia / Cypress to UT/ N. Blvd.

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	10,057	RF	\$400	\$4,022,800	50%	\$6,034,200
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	10,057	RF		\$4,022,800		\$6,034,200

Hillsborough County MPO Transit Study
 System Planning
 TR-Downtown
 UT/ N. Blvd. to Nebraska Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	5,386	RF	\$450	\$2,423,700	25%	\$3,029,625
			Element Total	5,386	RF		\$2,423,700		\$3,029,625
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	600	RF	\$6,000	\$3,600,000	30%	\$4,680,000
			Element Total	600	RF		\$3,600,000		\$4,680,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	600	RF	\$810	\$486,000	15%	\$558,900
			Element Total	600	RF		\$486,000		\$558,900
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	5,386	RF	\$480	\$2,585,280	15%	\$2,973,072
			Element Total	5,386	RF		\$2,585,280		\$2,973,072

Hillsborough County MPO Transit Study
 System Planning
 TR-Downtown
 UT/ N. Blvd. to Nebraska Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$460,692	15%	\$529,796
			Element Total	1	LS		\$460,692		\$529,796
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$155,117	15%	\$178,384
			Element Total	1	LS		\$155,117		\$178,384
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	3	EA	\$3,000,000	\$9,000,000	20%	\$10,800,000
			Element Total	3	EA		\$9,000,000		\$10,800,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	5,386	RF	\$30	\$161,580	30%	\$210,054
			Demolition Allowance - Median	600	RF	\$50	\$30,000	30%	\$39,000
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	5,986	RF		\$191,580		\$249,054
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	5,386	RF	\$140	\$754,040	30%	\$980,252
			Utility Relocation Allowance - Median	600	RF	\$340	\$204,000	30%	\$265,200
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	5,986	RF		\$958,040		\$1,245,452
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	5,986	RF	\$20	\$119,720	30%	\$155,636
			Element Total	1	LS		\$119,720		\$155,636

Hillsborough County MPO Transit Study
 System Planning
 TR-Downtown
 UT/ N. Blvd. to Nebraska Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	5,986	RF	\$50	\$299,300	30%	\$389,090
		Element Total	1	LS		\$299,300		\$389,090
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	539	RF	\$80	\$43,088	30%	\$56,014
		Element Total	1	LS		\$43,088		\$56,014
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	5,386	RF	\$15	\$80,790	30%	\$105,027
		Landscaping Allowance - Median	600	RF	\$25	\$15,000	30%	\$19,500
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$150,237	30%	\$195,308
		Element Total	1	LS		\$246,027		\$319,835
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	0	STL	\$4,000	\$0	30%	\$0
		Element Total	1	LS		\$0		\$0
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$92,888	25%	\$116,110
		Element Total	1	LS		\$92,888		\$116,110
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	5,986	RF	\$260	\$1,556,360	15%	\$1,789,814
		Element Total	5,986	RF		\$1,556,360		\$1,789,814
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	3	EA	\$250,000	\$750,000	15%	\$862,500
		Element Total	3	EA		\$750,000		\$862,500
50.03		Traction power supply: substations						
		Traction Power, Substation	2	EA	\$1,300,000	\$2,600,000	15%	\$2,990,000
		Element Total	2	EA		\$2,600,000		\$2,990,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	5,986	RF	\$260	\$1,556,360	15%	\$1,789,814
		Element Total	5,986	RF		\$0		\$0
50.05		Communications						
		Communication, Line	5,986	RF	\$240	\$1,436,640	15%	\$1,652,136
		Communication, Station	3	EA	\$500,000	\$1,500,000	15%	\$1,725,000
		Element Total	1	LS		\$2,936,640		\$3,377,136
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	3	EA	\$220,000	\$660,000	15%	\$759,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$660,000		\$759,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Downtown
 UT/ N. Blvd. to Nebraska Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	5,386	RF	\$400	\$2,154,400	50%	\$3,231,600
			Right of Way Allowance - Aerial	600	RF	\$300	\$180,000	50%	\$270,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	5,986	RF		\$2,334,400		\$3,501,600

Hillsborough County MPO Transit Study
 System Planning
 TR-Ybor City
 Nebraska Ave. to CSX N/S split

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	8,944	RF	\$450	\$4,024,800	25%	\$5,031,000
			Element Total	8,944	RF		\$4,024,800		\$5,031,000
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	8,944	RF	\$480	\$4,293,120	15%	\$4,937,088
			Element Total	8,944	RF		\$4,293,120		\$4,937,088

Hillsborough County MPO Transit Study
 System Planning
 TR-Ybor City
 Nebraska Ave. to CSX N/S split

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$643,968	15%	\$740,563
			Element Total	1	LS		\$643,968		\$740,563
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$257,587	15%	\$296,225
			Element Total	1	LS		\$257,587		\$296,225
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,000
			Element Total	2	EA		\$6,000,000		\$7,200,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	8,944	RF	\$30	\$268,320	30%	\$348,816
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	8,944	RF		\$268,320		\$348,816
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	8,944	RF	\$140	\$1,252,160	30%	\$1,627,808
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	8,944	RF		\$1,252,160		\$1,627,808
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	8,944	RF	\$20	\$178,880	30%	\$232,544
			Element Total	1	LS		\$178,880		\$232,544

Hillsborough County MPO Transit Study
 System Planning
 TR-Ybor City
 Nebraska Ave. to CSX N/S split

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	8,944	RF	\$50	\$447,200	30%	\$581,360
		Element Total	1	LS		\$447,200		\$581,360
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	894	RF	\$80	\$71,552	30%	\$93,018
		Element Total	1	LS		\$71,552		\$93,018
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	8,944	RF	\$15	\$134,160	30%	\$174,408
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$100,248	30%	\$130,322
		Element Total	1	LS		\$234,408		\$304,730
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	0	STL	\$4,000	\$0	30%	\$0
		Element Total	1	LS		\$0		\$0
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$122,626	25%	\$153,283
		Element Total	1	LS		\$122,626		\$153,283
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	8,944	RF	\$260	\$2,325,440	15%	\$2,674,256
		Element Total	8,944	RF		\$2,325,440		\$2,674,256
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	4	EA	\$250,000	\$1,000,000	15%	\$1,150,000
		Element Total	4	EA		\$1,000,000		\$1,150,000
50.03		Traction power supply: substations						
		Traction Power, Substation	2	EA	\$1,300,000	\$2,600,000	15%	\$2,990,000
		Element Total	2	EA		\$2,600,000		\$2,990,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	8,944	RF	\$260	\$2,325,440	15%	\$2,674,256
		Element Total	8,944	RF		\$0		\$0
50.05		Communications						
		Communication, Line	8,944	RF	\$240	\$2,146,560	15%	\$2,468,544
		Communication, Station	2	EA	\$500,000	\$1,000,000	15%	\$1,150,000
		Element Total	1	LS		\$3,146,560		\$3,618,544
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	2	EA	\$220,000	\$440,000	15%	\$506,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$440,000		\$506,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Ybor City
 Nebraska Ave. to CSX N/S split

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	8,944	RF	\$400	\$3,577,600	50%	\$5,366,400
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	8,944	RF		\$3,577,600		\$5,366,400

Hillsborough County MPO Transit Study
System Planning
TR-North
CSX N/S split to Busch Blvd

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTG	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	28,058	RF	\$450	\$12,626,100	25%	\$15,782,625
			Element Total	28,058	RF		\$12,626,100		\$15,782,625
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	150	RF	\$6,000	\$900,000	30%	\$1,170,000
			Element Total	150	RF		\$900,000		\$1,170,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	150	RF	\$810	\$121,500	15%	\$139,725
			Element Total	150	RF		\$121,500		\$139,725
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	28,058	RF	\$480	\$13,467,840	15%	\$15,488,016
			Element Total	28,058	RF		\$13,467,840		\$15,488,016

Hillsborough County MPO Transit Study
 System Planning
 TR-North
 CSX N/S split to Busch Blvd

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$2,038,401	15%	\$2,344,161
			Element Total	1	LS		\$2,038,401		\$2,344,161
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$808,070	15%	\$929,281
			Element Total	1	LS		\$808,070		\$929,281
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	5	EA	\$3,000,000	\$15,000,000	20%	\$18,000,000
			Element Total	5	EA		\$15,000,000		\$18,000,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	28,058	RF	\$30	\$841,740	30%	\$1,094,262
			Demolition Allowance - Median	150	RF	\$50	\$7,500	30%	\$9,750
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	28,208	RF		\$849,240		\$1,104,012
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	28,058	RF	\$140	\$3,928,120	30%	\$5,106,556
			Utility Relocation Allowance - Median	150	RF	\$340	\$51,000	30%	\$66,300
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	28,208	RF		\$3,979,120		\$5,172,856
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	28,208	RF	\$20	\$564,160	30%	\$733,408
			Element Total	1	LS		\$564,160		\$733,408

Hillsborough County MPO Transit Study
 System Planning
 TR-North
 CSX N/S split to Busch Blvd

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	28,208	RF	\$50	\$1,410,400	30%	\$1,833,520
		Element Total	1	LS		\$1,410,400		\$1,833,520
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,806	RF	\$80	\$224,464	30%	\$291,803
		Element Total	1	LS		\$224,464		\$291,803
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	28,058	RF	\$15	\$420,870	30%	\$547,131
		Landscaping Allowance - Median	150	RF	\$25	\$3,750	30%	\$4,875
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$285,261	30%	\$370,839
		Element Total	1	LS		\$709,881		\$922,845
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	300	STL	\$4,000	\$1,200,000	30%	\$1,560,000
		Element Total	1	LS		\$1,200,000		\$1,560,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$446,863	25%	\$558,579
		Element Total	1	LS		\$446,863		\$558,579
50		SYSTEMS						
50.01		Train control and signals						
	Single Track	Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track	Signal System	28,208	RF	\$260	\$7,334,080	15%	\$8,434,192
		Element Total	28,208	RF		\$7,334,080		\$8,434,192
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	14	EA	\$250,000	\$3,500,000	15%	\$4,025,000
		Element Total	14	EA		\$3,500,000		\$4,025,000
50.03		Traction power supply: substations						
		Traction Power, Substation	6	EA	\$1,300,000	\$7,800,000	15%	\$8,970,000
		Element Total	6	EA		\$7,800,000		\$8,970,000
50.04		Traction power distribution: catenary and third rail						
	Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track	OCS System - Standard	28,208	RF	\$260	\$7,334,080	15%	\$8,434,192
		Element Total	28,208	RF		\$0		\$0
50.05		Communications						
		Communication, Line	28,208	RF	\$240	\$6,769,920	15%	\$7,785,408
		Communication, Station	5	EA	\$500,000	\$2,500,000	15%	\$2,875,000
		Element Total	1	LS		\$9,269,920		\$10,660,408
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	5	EA	\$220,000	\$1,100,000	15%	\$1,265,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$1,100,000		\$1,265,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-North
 CSX N/S split to Busch Blvd

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	28,058	RF	\$400	\$11,223,200	50%	\$16,834,800
			Right of Way Allowance - Aerial	150	RF	\$300	\$45,000	50%	\$67,500
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	28,208	RF		\$11,268,200		\$16,902,300

Hillsborough County MPO Transit Study
 System Planning
 TR-North
 Busch Blvd. to 30th St./ Fowler Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	16,011	RF	\$450	\$7,204,950	25%	\$9,006,188
			Element Total	16,011	RF		\$7,204,950		\$9,006,188
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	16,011	RF	\$480	\$7,685,280	15%	\$8,838,072
			Element Total	16,011	RF		\$7,685,280		\$8,838,072

Hillsborough County MPO Transit Study
 System Planning
 TR-North
 Busch Blvd. to 30th St./ Fowler Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$1,152,792	15%	\$1,325,711
			Element Total	1	LS		\$1,152,792		\$1,325,711
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$461,117	15%	\$530,284
			Element Total	1	LS		\$461,117		\$530,284
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,000
			Element Total	2	EA		\$6,000,000		\$7,200,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	16,011	RF	\$30	\$480,330	30%	\$624,429
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	16,011	RF		\$480,330		\$624,429
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	16,011	RF	\$140	\$2,241,540	30%	\$2,914,002
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	16,011	RF		\$2,241,540		\$2,914,002
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	16,011	RF	\$20	\$320,220	30%	\$416,286
			Element Total	1	LS		\$320,220		\$416,286

Hillsborough County MPO Transit Study
 System Planning
 TR-North
 Busch Blvd. to 30th St./ Fowler Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	16,011	RF	\$50	\$800,550	30%	\$1,040,715
		Element Total	1	LS		\$800,550		\$1,040,715
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	1,601	RF	\$80	\$128,088	30%	\$166,514
		Element Total	1	LS		\$128,088		\$166,514
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	16,011	RF	\$15	\$240,165	30%	\$312,215
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$132,050	30%	\$171,664
		Element Total	1	LS		\$372,215		\$483,879
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	600	STL	\$4,000	\$2,400,000	30%	\$3,120,000
		Element Total	1	LS		\$2,400,000		\$3,120,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$337,147	25%	\$421,434
		Element Total	1	LS		\$337,147		\$421,434
50		SYSTEMS						
50.01		Train control and signals						
	Single Track	Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track	Signal System	16,011	RF	\$260	\$4,162,860	15%	\$4,787,289
		Element Total	16,011	RF		\$4,162,860		\$4,787,289
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	8	EA	\$250,000	\$2,000,000	15%	\$2,300,000
		Element Total	8	EA		\$2,000,000		\$2,300,000
50.03		Traction power supply: substations						
		Traction Power, Substation	4	EA	\$1,300,000	\$5,200,000	15%	\$5,980,000
		Element Total	4	EA		\$5,200,000		\$5,980,000
50.04		Traction power distribution: catenary and third rail						
	Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track	OCS System - Standard	16,011	RF	\$260	\$4,162,860	15%	\$4,787,289
		Element Total	16,011	RF		\$0		\$0
50.05		Communications						
		Communication, Line	16,011	RF	\$240	\$3,842,640	15%	\$4,419,036
		Communication, Station	2	EA	\$500,000	\$1,000,000	15%	\$1,150,000
		Element Total	1	LS		\$4,842,640		\$5,569,036
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	2	EA	\$220,000	\$440,000	15%	\$506,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$440,000		\$506,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-North
 Busch Blvd. to 30th St./ Fowler Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	16,011	RF	\$400	\$6,404,400	50%	\$9,606,600
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	16,011	RF		\$6,404,400		\$9,606,600

Hillsborough County MPO Transit Study
 System Planning
 TR-University
 30th St./ Fowler Ave. to Bearss Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTG	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$450	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	10,135	RF	\$700	\$7,094,500	25%	\$8,868,125
			Element Total	10,135	RF		\$7,094,500		\$8,868,125
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	10,135	RF	\$980	\$9,932,300	15%	\$11,422,145
			Element Total	10,135	RF		\$9,932,300		\$11,422,145
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-University
 30th St./ Fowler Ave. to Bearss Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$1,489,845	15%	\$1,713,322
			Element Total	1	LS		\$1,489,845		\$1,713,322
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,000
			Element Total	4	EA		\$12,000,000		\$14,400,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	10,135	RF	\$50	\$506,750	30%	\$658,775
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	10,135	RF		\$506,750		\$658,775
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	10,135	RF	\$340	\$3,445,900	30%	\$4,479,670
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	10,135	RF		\$3,445,900		\$4,479,670
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	10,135	RF	\$20	\$202,700	30%	\$263,510
			Element Total	1	LS		\$202,700		\$263,510

Hillsborough County MPO Transit Study
 System Planning
 TR-University
 30th St./ Fowler Ave. to Bearss Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	10,135	RF	\$50	\$506,750	30%	\$658,775
		Element Total	1	LS		\$506,750		\$658,775
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	0	RF	\$80	\$0	30%	\$0
		Element Total	1	LS		\$0		\$0
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
		Landscaping Allowance - Median	10,135	RF	\$25	\$253,375	30%	\$329,388
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$190,945	30%	\$248,229
		Element Total	1	LS		\$444,320		\$577,616
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	10	EA	\$50,000	\$500,000	30%	\$650,000
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	243,240	SF	\$30	\$7,297,200	30%	\$9,486,360
		Parking Lots	1,200	STL	\$4,000	\$4,800,000	30%	\$6,240,000
		Element Total	1	LS		\$12,597,200		\$16,376,360
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$885,181	25%	\$1,106,476
		Element Total	1	LS		\$885,181		\$1,106,476
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	10,135	RF	\$260	\$2,635,100	15%	\$3,030,365
		Element Total	10,135	RF		\$2,635,100		\$3,030,365
50.02		Traffic signals and crossing protection						
		Traffic Signal	10	EA	\$150,000	\$1,500,000	15%	\$1,725,000
		Crossing Protection	0	EA	\$250,000	\$0	15%	\$0
		Element Total	10	EA		\$1,500,000		\$1,725,000
50.03		Traction power supply: substations						
		Traction Power, Substation	2	EA	\$1,300,000	\$2,600,000	15%	\$2,990,000
		Element Total	2	EA		\$2,600,000		\$2,990,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	10,135	RF	\$260	\$2,635,100	15%	\$3,030,365
		Element Total	10,135	RF		\$0		\$0
50.05		Communications						
		Communication, Line	10,135	RF	\$240	\$2,432,400	15%	\$2,797,260
		Communication, Station	4	EA	\$500,000	\$2,000,000	15%	\$2,300,000
		Element Total	1	LS		\$4,432,400		\$5,097,260
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	4	EA	\$220,000	\$880,000	15%	\$1,012,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$880,000		\$1,012,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-University
 30th St./ Fowler Ave. to Bearss Ave.

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	10,135	RF	\$400	\$4,054,000	50%	\$6,081,000
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	10,135	RF		\$4,054,000		\$6,081,000

Hillsborough County MPO Transit Study
 System Planning
 TR-Temple Terrace
 East of 30th St (to be deleted)

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTG	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	10,805	RF	\$450	\$4,862,250	25%	\$6,077,813
			Element Total	10,805	RF		\$4,862,250		\$6,077,813
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	10,805	RF	\$480	\$5,186,400	15%	\$5,964,360
			Element Total	10,805	RF		\$5,186,400		\$5,964,360

Hillsborough County MPO Transit Study
 System Planning
 TR-Temple Terrace
 East of 30th St (to be deleted)

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$777,960	15%	\$894,654
			Element Total	1	LS		\$777,960		\$894,654
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$311,184	15%	\$357,862
			Element Total	1	LS		\$311,184		\$357,862
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,000
			Element Total	2	EA		\$6,000,000		\$7,200,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	10,805	RF	\$30	\$324,150	30%	\$421,395
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	10,805	RF		\$324,150		\$421,395
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	10,805	RF	\$140	\$1,512,700	30%	\$1,966,510
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	10,805	RF		\$1,512,700		\$1,966,510
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	10,805	RF	\$20	\$216,100	30%	\$280,930
			Element Total	1	LS		\$216,100		\$280,930

Hillsborough County MPO Transit Study
System Planning
TR-Temple Terrace
East of 30th St (to be deleted)

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Environmental Mitigation Allowance	10,805	RF	\$50	\$540,250	30%	\$702,325
			Element Total	1	LS		\$540,250		\$702,325
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	1,081	RF	\$80	\$86,440	30%	\$112,372
			Element Total	1	LS		\$86,440		\$112,372
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	10,805	RF	\$15	\$162,075	30%	\$210,698
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$108,623	30%	\$141,209
			Element Total	1	LS		\$270,698		\$351,907
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
			Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
			Parking Lots	600	STL	\$4,000	\$2,400,000	30%	\$3,120,000
			Element Total	1	LS		\$2,400,000		\$3,120,000
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$267,517	25%	\$334,396
			Element Total	1	LS		\$267,517		\$334,396
50	SYSTEMS								
50.01	Train control and signals		Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track		Signal System	10,805	RF	\$260	\$2,809,300	15%	\$3,230,695
			Element Total	10,805	RF		\$2,809,300		\$3,230,695
50.02	Traffic signals and crossing protection		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
			Crossing Protection	5	EA	\$250,000	\$1,250,000	15%	\$1,437,500
			Element Total	5	EA		\$1,250,000		\$1,437,500
50.03	Traction power supply: substations		Traction Power, Substation	3	EA	\$1,300,000	\$3,900,000	15%	\$4,485,000
			Element Total	3	EA		\$3,900,000		\$4,485,000
50.04	Traction power distribution: catenary and third rail		OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track		OCS System - Standard	10,805	RF	\$260	\$2,809,300	15%	\$3,230,695
			Element Total	10,805	RF		\$0		\$0
50.05	Communications		Communication, Line	10,805	RF	\$240	\$2,593,200	15%	\$2,982,180
			Communication, Station	2	EA	\$500,000	\$1,000,000	15%	\$1,150,000
			Element Total	1	LS		\$3,593,200		\$4,132,180
50.06	Fare collection system and equipment		Fare Collection - 1 Platform	2	EA	\$220,000	\$440,000	15%	\$506,000
			Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
			Element Total	1	LS		\$440,000		\$506,000
50.07	Central Control		N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 TR-Temple Terrace
 East of 30th St (to be deleted)

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	10,805	RF	\$400	\$4,322,000	50%	\$6,483,000
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	10,805	RF		\$4,322,000		\$6,483,000

Hillsborough County MPO Transit Study
 System Planning
 Light Rail Transit
 Capital Cost Estimate
 (2007 Dollars in Millions)

Description	Alternative Total
Length (Mile):	40.1
Number of Stations:	33
Number of Revenue Vehicles:	98
10 GUIDEWAY & TRACK ELEMENTS	\$402.81
20 STATIONS, STOPS, TERMINALS, INTERMODAL	\$173.70
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	\$186.07
40 SITEWORK & SPECIAL CONDITIONS	\$163.55
50 SYSTEMS	\$244.49
Construction Subtotal (Sum Categories 10 - 50)	\$1,170.62
60 ROW, LAND, EXISTING IMPROVEMENTS	\$140.29
70 VEHICLES	\$388.08
80 PROFESSIONAL SERVICES	\$374.60
90 UNALLOCATED CONTINGENCY	\$207.36
Total Project Cost	\$2,280.95

Hillsborough County MPO Transit Study
System Planning
Light Rail Transit
Capital Cost Estimate
(2007 Dollars in Millions)

CAT No.	Description	LR-NE Ext										LR-South Ext	Alternative Total
		1	2	3	4	5	6	7	8	9	10		
	Beauss' 37th towards Pebble Creek (east of I-75)	4.6	2.0	1.4	5.9	5.6	0.9	0.6	3.2	4.4	11.4		40.1
	Length (Mile):	4	2	1	6	8	1	1	2	4	4		33
	Number of Stations:												98
	Number of Revenue Vehicles:												
10	GUIDEWAY & TRACK ELEMENTS												
10.01	Guideway: At-grade exclusive right-of-way	\$0.00	\$5.81	\$4.29	\$16.67	\$16.67	\$0.00	\$0.00	\$0.00	\$7.61	\$13.12	\$32.77	\$96.94
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$16.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2.45	\$0.00	\$0.00	\$18.60
10.03	Guideway: At-grade in mixed traffic	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.04	Guideway: Aerial structure	\$0.00	\$0.00	\$0.00	\$6.24	\$0.00	\$20.02	\$0.00	\$0.00	\$0.78	\$0.39	\$15.60	\$43.03
10.05	Guideway: Built-up fill	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.06	Guideway: Underground cut & cover	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10.23	\$69.53	\$0.00	\$0.00	\$0.00	\$0.00	\$79.77
10.07	Guideway: Underground tunnel	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.08	Guideway: Retained cut or fill	\$0.00	\$0.00	\$0.00	\$3.33	\$0.00	\$8.53	\$0.00	\$5.20	\$0.00	\$0.00	\$0.00	\$17.06
10.09	Track: Direct fixation	\$0.00	\$0.00	\$0.00	\$0.75	\$0.00	\$3.53	\$3.10	\$0.56	\$0.05	\$0.00	\$1.86	\$9.84
10.10	Track: Embedded	\$13.46	\$5.71	\$0.00	\$0.00	\$0.00	\$0.44	\$0.00	\$3.16	\$7.47	\$12.87	\$32.16	\$3.16
10.11	Track: Ballasted	\$2.02	\$0.86	\$0.63	\$2.63	\$2.45	\$0.60	\$0.46	\$1.68	\$1.94	\$5.10	\$5.10	\$109.48
10.12	Track: Special (switches, turnouts)	\$0.81	\$0.34	\$0.25	\$1.01	\$0.98	\$0.03	\$0.00	\$0.45	\$0.77	\$1.93	\$1.93	\$18.37
10.13	Track: Vibration and noise dampening												\$6.57
	Subtotal Category 10	\$32.44	\$12.72	\$9.37	\$47.43	\$36.47	\$43.37	\$73.09	\$29.35	\$29.14	\$89.42	\$89.42	\$402.81
20	STATIONS, STOPS, TERMINALS, INTERMODAL												
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$14.40	\$7.20	\$3.60	\$21.60	\$28.80	\$3.60	\$0.00	\$0.00	\$7.20	\$14.40	\$14.40	\$115.20
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.03	Underground station, stop, shelter, mall, terminal, platform	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$58.50	\$0.00	\$0.00	\$0.00	\$0.00	\$58.50
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.05	Joint development	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.06	Automobile parking multi-story structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.07	Elevators, escalators	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Subtotal Category 20	\$14.40	\$7.20	\$3.60	\$21.60	\$28.80	\$3.60	\$58.50	\$7.20	\$14.40	\$14.40	\$14.40	\$173.70

Hillsborough County MPO Transit Study
System Planning
Light Rail Transit
Capital Cost Estimate
(2007 Dollars in Millions)

CAT No.	Description	LR-NE Ext										LR-South Ext	Alternative Total
		1	2	3	4	5	6	7	8	9	10		
		Beauss' 37th towards Pebble Creek (east of I-75)	Downtown to CL Rail (east of Aciline St)	East of Aciline to CSX mainline & Yard	East of CSX mainline & Yard to Kingsway	Cass St In Downtown to Mac Dill AFB	Airport to at grade section	Hillsborough to Airport (north) to Hillsborough	Hillsborough to CSX	On CSX to west of Sheldon	Downtown to Big Bend (may need to be deleted)		
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS												
30.01	Administration Building: Office, sales, storage, revenue counting												
30.02	Light Maintenance Facility												
30.03	Heavy Maintenance Facility												
30.04	Storage or Maintenance of Way Building												
30.05	Yard and Yard Track												
	Subtotal Category 30												
40	SITWORK & SPECIAL CONDITIONS												
40.01	Demolition, Clearing, Earthwork												
40.02	Site Utilities, Utility Relocation												
40.03	Haz. mat'l, contain'd soil removal/mitigation, ground water treatments												
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks												
40.05	Site structures including retaining walls, sound walls												
40.06	Pedestrian / bike access and accommodation, landscaping												
40.07	Automobile, bus, van accessways including roads, parking lots												
40.08	Temporary Facilities and other indirect costs during construction												
	Subtotal Category 40												
50	SYSTEMS												
50.01	Train control and signals												
50.02	Traffic signals and crossing protection												
50.03	Traction power supply: substations												
50.04	Traction power distribution: catenary and third rail												
50.05	Communications												
50.06	Fare collection system and equipment												
50.07	Central Control												
	Subtotal Category 50												
	Subtotal Construction Costs												

Hillsborough County MPO Transit Study
 System Planning
 Light Rail Transit
 Capital Cost Estimate
 (2007 Dollars in Millions)

CAT No.	Description	1	2	3	4	5	6	7	8	9	10	Alternative Total
60	ROW, LAND, EXISTING IMPROVEMENTS											
60.01	Purchase or lease of real estate	\$14.63	\$6.20	\$4.57	\$18.63	\$17.79	\$2.22	\$1.25	\$10.14	\$14.01	\$35.85	\$140.29
	Subtotal Right-of-Way	\$14.63	\$6.20	\$4.57	\$18.63	\$17.79	\$2.22	\$1.25	\$10.14	\$14.01	\$35.85	\$140.29
70	VEHICLES											
70.01	Streetcar											\$388.08
	Subtotal Vehicles											\$388.08
80	PROFESSIONAL SERVICES											
80.01	Preliminary Engineering	4.0%	\$1.45	\$1.03	\$5.18	\$4.75	\$2.44	\$5.65	\$2.76	\$3.50	\$7.94	\$46.82
80.02	Final Design	6.0%	\$2.18	\$1.54	\$7.77	\$7.13	\$3.66	\$8.47	\$4.14	\$5.25	\$11.91	\$70.24
80.03	Project Management for Design and Construction	5.0%	\$1.82	\$1.28	\$6.47	\$5.94	\$3.05	\$7.06	\$3.45	\$4.38	\$9.93	\$68.53
80.04	Construction Administration & Management	8.0%	\$2.91	\$2.05	\$10.36	\$9.50	\$4.88	\$11.29	\$5.51	\$7.00	\$15.89	\$93.65
80.05	Insurance	2.0%	\$0.73	\$0.51	\$2.59	\$2.38	\$1.22	\$2.82	\$1.38	\$1.75	\$3.97	\$23.41
80.06	Legal, Permits, Review Fees by other agencies, cities, etc.	3.0%	\$1.09	\$0.77	\$3.88	\$3.56	\$1.83	\$4.24	\$2.07	\$2.63	\$5.96	\$35.12
80.07	Surveys, Testing, Investigation, Inspection	3.0%	\$1.09	\$0.77	\$3.88	\$3.56	\$1.83	\$4.24	\$2.07	\$2.63	\$5.96	\$35.12
80.08	Start up	1.0%	\$0.36	\$0.26	\$1.29	\$1.19	\$0.61	\$1.41	\$0.69	\$0.88	\$1.99	\$11.71
	Subtotal Professional Services	LS	\$11.63	\$8.22	\$41.42	\$38.02	\$19.54	\$45.18	\$22.06	\$28.01	\$63.54	\$374.60
90	UNALLOCATED CONTINGENCY	10.0%	\$5.42	\$3.85	\$18.95	\$17.46	\$8.28	\$18.76	\$10.11	\$12.96	\$29.80	\$207.36
	Project Total		\$185.98	\$42.32	\$208.45	\$192.07	\$91.10	\$206.35	\$111.24	\$142.52	\$327.76	\$2,280.95

**Hillsborough County MPO Transit Study
System Planning
LR-NE Ext
Bearss/ 37th towards Pebble Creek (east of I-75)**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTG	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$450	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	24,384	RF	\$530	\$12,923,520	25%	\$16,154,400
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	24,384	RF		\$12,923,520		\$16,154,400
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	24,384	RF	\$480	\$11,704,320	15%	\$13,459,968
			Element Total	24,384	RF		\$11,704,320		\$13,459,968

**Hillsborough County MPO Transit Study
System Planning
LR-NE Ext
Bearss/ 37th towards Pebble Creek (east of I-75)**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$1,755,648	15%	\$2,018,995
			Element Total	1	LS		\$1,755,648		\$2,018,995
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$702,259	15%	\$807,598
			Element Total	1	LS		\$702,259		\$807,598
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,000
			Element Total	4	EA		\$12,000,000		\$14,400,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	24,384	RF	\$50	\$1,219,200	30%	\$1,584,960
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	24,384	RF		\$1,219,200		\$1,584,960
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	24,384	RF	\$340	\$8,290,560	30%	\$10,777,728
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	24,384	RF		\$8,290,560		\$10,777,728
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	24,384	RF	\$20	\$487,680	30%	\$633,984
			Element Total	1	LS		\$487,680		\$633,984

**Hillsborough County MPO Transit Study
System Planning
LR-NE Ext
Bearss/ 37th towards Pebble Creek (east of I-75)**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Environmental Mitigation Allowance	24,384	RF	\$50	\$1,219,200	30%	\$1,584,960
			Element Total	1	LS		\$1,219,200		\$1,584,960
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,438	RF	\$80	\$195,072	30%	\$253,594
			Element Total	1	LS		\$195,072		\$253,594
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
			Landscaping Allowance - Median	24,384	RF	\$25	\$609,600	30%	\$792,480
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$249,235	30%	\$324,006
			Element Total	1	LS		\$858,835		\$1,116,486
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full Intersection	24	EA	\$50,000	\$1,200,000	30%	\$1,560,000
			Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	292,608	SF	\$30	\$8,778,240	30%	\$11,411,712
			Parking Lots	2,000	STL	\$4,000	\$8,000,000	30%	\$10,400,000
			Element Total	1	LS		\$17,978,240		\$23,371,712
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$1,512,439	25%	\$1,890,549
			Element Total	1	LS		\$1,512,439		\$1,890,549
50 SYSTEMS									
50.01	Train control and signals		Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track		Signal System	24,384	RF	\$260	\$6,339,840	15%	\$7,290,816
			Element Total	24,384	RF		\$6,339,840		\$7,290,816
50.02	Traffic signals and crossing protection		Traffic Signal	24	EA	\$150,000	\$3,600,000	15%	\$4,140,000
			Crossing Protection	0	EA	\$250,000	\$0	15%	\$0
			Element Total	24	EA		\$3,600,000		\$4,140,000
50.03	Traction power supply: substations		Traction Power, Substation	5	EA	\$1,300,000	\$6,500,000	15%	\$7,475,000
			Element Total	5	EA		\$6,500,000		\$7,475,000
50.04	Traction power distribution: catenary and third rail		OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track		OCS System - Standard	24,384	RF	\$260	\$6,339,840	15%	\$7,290,816
			Element Total	24,384	RF		\$0		\$0
50.05	Communications		Communication, Line	24,384	RF	\$240	\$5,852,160	15%	\$6,729,984
			Communication, Station	4	EA	\$500,000	\$2,000,000	15%	\$2,300,000
			Element Total	1	LS		\$7,852,160		\$9,029,984
50.06	Fare collection system and equipment		Fare Collection - 1 Platform	4	EA	\$220,000	\$880,000	15%	\$1,012,000
			Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
			Element Total	1	LS		\$880,000		\$1,012,000
50.07	Central Control		N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-NE Ext
 Bearss/ 37th towards Pebble Creek (east of I-75)

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	24,384	RF	\$400	\$9,753,600	50%	\$14,630,400
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	24,384	RF		\$9,753,600		\$14,630,400

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 Downtown to CL Rail (east of Acline St)

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	10,336	RF	\$450	\$4,651,200	25%	\$5,814,000
			Element Total	10,336	RF		\$4,651,200		\$5,814,000
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	10,336	RF	\$480	\$4,961,280	15%	\$5,705,472
			Element Total	10,336	RF		\$4,961,280		\$5,705,472

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 Downtown to CL Rail (east of Acline St)

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$744,192	15%	\$855,821
			Element Total	1	LS		\$744,192		\$855,821
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$297,677	15%	\$342,328
			Element Total	1	LS		\$297,677		\$342,328
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,000
			Element Total	2	EA		\$6,000,000		\$7,200,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	10,336	RF	\$30	\$310,080	30%	\$403,104
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	10,336	RF		\$310,080		\$403,104
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	10,336	RF	\$140	\$1,447,040	30%	\$1,881,152
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	10,336	RF		\$1,447,040		\$1,881,152
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	10,336	RF	\$20	\$206,720	30%	\$268,736
			Element Total	1	LS		\$206,720		\$268,736

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 Downtown to CL Rail (east of Acline St)

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	10,336	RF	\$50	\$516,800	30%	\$671,840
		Element Total	1	LS		\$516,800		\$671,840
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	1,034	RF	\$80	\$82,688	30%	\$107,494
		Element Total	1	LS		\$82,688		\$107,494
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	10,336	RF	\$15	\$155,040	30%	\$201,552
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$106,512	30%	\$138,466
		Element Total	1	LS		\$261,552		\$340,018
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,000
		Element Total	1	LS		\$400,000		\$520,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$161,244	25%	\$201,555
		Element Total	1	LS		\$161,244		\$201,555
50		SYSTEMS						
50.01		Train control and signals						
	Single Track	Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track	Signal System	10,336	RF	\$260	\$2,687,360	15%	\$3,090,464
		Element Total	10,336	RF		\$2,687,360		\$3,090,464
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	5	EA	\$250,000	\$1,250,000	15%	\$1,437,500
		Element Total	5	EA		\$1,250,000		\$1,437,500
50.03		Traction power supply: substations						
		Traction Power, Substation	2	EA	\$1,300,000	\$2,600,000	15%	\$2,990,000
		Element Total	2	EA		\$2,600,000		\$2,990,000
50.04		Traction power distribution: catenary and third rail						
	Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track	OCS System - Standard	10,336	RF	\$260	\$2,687,360	15%	\$3,090,464
		Element Total	10,336	RF		\$0		\$0
50.05		Communications						
		Communication, Line	10,336	RF	\$240	\$2,480,640	15%	\$2,852,736
		Communication, Station	2	EA	\$500,000	\$1,000,000	15%	\$1,150,000
		Element Total	1	LS		\$3,480,640		\$4,002,736
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	2	EA	\$220,000	\$440,000	15%	\$506,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$440,000		\$506,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 Downtown to CL Rail (east of Acline St)

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	10,336	RF	\$400	\$4,134,400	50%	\$6,201,600
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	10,336	RF		\$4,134,400		\$6,201,600

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 East of Acline to CSX main line & Yard

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	7,618	RF	\$450	\$3,428,100	25%	\$4,285,125
			Element Total	7,618	RF		\$3,428,100		\$4,285,125
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	7,618	RF	\$480	\$3,656,640	15%	\$4,205,136
			Element Total	7,618	RF		\$3,656,640		\$4,205,136

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 East of Acline to CSX main line & Yard

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$548,496	15%	\$630,770
			Element Total	1	LS		\$548,496		\$630,770
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$219,398	15%	\$252,308
			Element Total	1	LS		\$219,398		\$252,308
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,000
			Element Total	1	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	7,618	RF	\$30	\$228,540	30%	\$297,102
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	7,618	RF		\$228,540		\$297,102
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	7,618	RF	\$140	\$1,066,520	30%	\$1,386,476
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	7,618	RF		\$1,066,520		\$1,386,476
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	7,618	RF	\$20	\$152,360	30%	\$198,068
			Element Total	1	LS		\$152,360		\$198,068

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 East of Acline to CSX main line & Yard

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	7,618	RF	\$50	\$380,900	30%	\$495,170
		Element Total	1	LS		\$380,900		\$495,170
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	762	RF	\$80	\$60,944	30%	\$79,227
		Element Total	1	LS		\$60,944		\$79,227
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	7,618	RF	\$15	\$114,270	30%	\$148,551
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$64,281	30%	\$83,565
		Element Total	1	LS		\$178,551		\$232,116
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,000
		Element Total	1	LS		\$400,000		\$520,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$123,391	25%	\$154,238
		Element Total	1	LS		\$123,391		\$154,238
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	7,618	RF	\$260	\$1,980,680	15%	\$2,277,782
		Element Total	7,618	RF		\$1,980,680		\$2,277,782
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	4	EA	\$250,000	\$1,000,000	15%	\$1,150,000
		Element Total	4	EA		\$1,000,000		\$1,150,000
50.03		Traction power supply: substations						
		Traction Power, Substation	2	EA	\$1,300,000	\$2,600,000	15%	\$2,990,000
		Element Total	2	EA		\$2,600,000		\$2,990,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	7,618	RF	\$260	\$1,980,680	15%	\$2,277,782
		Element Total	7,618	RF		\$0		\$0
50.05		Communications						
		Communication, Line	7,618	RF	\$240	\$1,828,320	15%	\$2,102,568
		Communication, Station	1	EA	\$500,000	\$500,000	15%	\$575,000
		Element Total	1	LS		\$2,328,320		\$2,677,568
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	1	EA	\$220,000	\$220,000	15%	\$253,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$220,000		\$253,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 East of Acline to CSX main line & Yard

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	7,618	RF	\$400	\$3,047,200	50%	\$4,570,800
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	7,618	RF		\$3,047,200		\$4,570,800

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 East of CSX mainline & Yard to Kingsway

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	29,642	RF	\$450	\$13,338,900	25%	\$16,673,625
			Element Total	29,642	RF		\$13,338,900		\$16,673,625
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	800	RF	\$6,000	\$4,800,000	30%	\$6,240,000
			Element Total	800	RF		\$4,800,000		\$6,240,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	800	RF	\$3,200	\$2,560,000	30%	\$3,328,000
			Element Total	800	RF		\$2,560,000		\$3,328,000
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	800	RF	\$810	\$648,000	15%	\$745,200
			Element Total	800	RF		\$648,000		\$745,200
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	30,442	RF	\$480	\$14,612,160	15%	\$16,803,984
			Element Total	30,442	RF		\$14,612,160		\$16,803,984

**Hillsborough County MPO Transit Study
System Planning
LR-Brandon Ext
East of CSX mainline & Yard to Kingsway**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$2,289,024	15%	\$2,632,378
			Element Total	1	LS		\$2,289,024		\$2,632,378
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$876,730	15%	\$1,008,239
			Element Total	1	LS		\$876,730		\$1,008,239
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	6	EA	\$3,000,000	\$18,000,000	20%	\$21,600,000
			Element Total	6	EA		\$18,000,000		\$21,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	29,642	RF	\$30	\$889,260	30%	\$1,156,038
			Demolition Allowance - Median	1,600	RF	\$50	\$80,000	30%	\$104,000
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	31,242	RF		\$969,260		\$1,260,038
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	29,642	RF	\$140	\$4,149,880	30%	\$5,394,844
			Utility Relocation Allowance - Median	1,600	RF	\$340	\$544,000	30%	\$707,200
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	31,242	RF		\$4,693,880		\$6,102,044
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	31,242	RF	\$20	\$624,840	30%	\$812,292
			Element Total	1	LS		\$624,840		\$812,292

Hillsborough County MPO Transit Study
System Planning
LR-Brandon Ext
East of CSX mainline & Yard to Kingsway

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	31,242	RF	\$50	\$1,562,100	30%	\$2,030,730
		Element Total	1	LS		\$1,562,100		\$2,030,730
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	3,044	RF	\$80	\$243,536	30%	\$316,597
		Element Total	1	LS		\$243,536		\$316,597
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	29,642	RF	\$15	\$444,630	30%	\$578,019
		Landscaping Allowance - Median	1,600	RF	\$25	\$40,000	30%	\$52,000
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$386,989	30%	\$503,086
		Element Total	1	LS		\$871,619		\$1,133,105
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	2,200	STL	\$4,000	\$8,800,000	30%	\$11,440,000
		Element Total	1	LS		\$8,800,000		\$11,440,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$888,262	25%	\$1,110,327
		Element Total	1	LS		\$888,262		\$1,110,327
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	31,242	RF	\$260	\$8,122,920	15%	\$9,341,358
		Element Total	31,242	RF		\$8,122,920		\$9,341,358
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	15	EA	\$250,000	\$3,750,000	15%	\$4,312,500
		Element Total	15	EA		\$3,750,000		\$4,312,500
50.03		Traction power supply: substations						
		Traction Power, Substation	6	EA	\$1,300,000	\$7,800,000	15%	\$8,970,000
		Element Total	6	EA		\$7,800,000		\$8,970,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	31,242	RF	\$260	\$8,122,920	15%	\$9,341,358
		Element Total	31,242	RF		\$0		\$0
50.05		Communications						
		Communication, Line	31,242	RF	\$240	\$7,498,080	15%	\$8,622,792
		Communication, Station	6	EA	\$500,000	\$3,000,000	15%	\$3,450,000
		Element Total	1	LS		\$10,498,080		\$12,072,792
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	6	EA	\$220,000	\$1,320,000	15%	\$1,518,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$1,320,000		\$1,518,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Brandon Ext
 East of CSX mainline & Yard to Kingsway

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	30,442	RF	\$400	\$12,176,800	50%	\$18,265,200
			Right of Way Allowance - Aerial	800	RF	\$300	\$240,000	50%	\$360,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	31,242	RF		\$12,416,800		\$18,625,200

Hillsborough County MPO Transit Study
 System Planning
 LR-Mac Dill AFB
 Cass St in Downtown to Mac Dill AFB

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	29,642	RF	\$450	\$13,338,900	25%	\$16,673,625
			Element Total	29,642	RF		\$13,338,900		\$16,673,625
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	0	RF	\$810	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	29,642	RF	\$480	\$14,228,160	15%	\$16,362,384
			Element Total	29,642	RF		\$14,228,160		\$16,362,384

Hillsborough County MPO Transit Study
 System Planning
 LR-Mac Dill AFB
 Cass St in Downtown to Mac Dill AFB

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$2,134,224	15%	\$2,454,358
			Element Total	1	LS		\$2,134,224		\$2,454,358
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$853,690	15%	\$981,743
			Element Total	1	LS		\$853,690		\$981,743
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	8	EA	\$3,000,000	\$24,000,000	20%	\$28,800,000
			Element Total	8	EA		\$24,000,000		\$28,800,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	29,642	RF	\$30	\$889,260	30%	\$1,156,038
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	29,642	RF		\$889,260		\$1,156,038
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	29,642	RF	\$140	\$4,149,880	30%	\$5,394,844
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	29,642	RF		\$4,149,880		\$5,394,844
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	29,642	RF	\$20	\$592,840	30%	\$770,692
			Element Total	1	LS		\$592,840		\$770,692

Hillsborough County MPO Transit Study
 System Planning
 LR-Mac Dill AFB
 Cass St in Downtown to Mac Dill AFB

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	29,642	RF	\$50	\$1,482,100	30%	\$1,926,730
		Element Total	1	LS		\$1,482,100		\$1,926,730
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,964	RF	\$80	\$237,136	30%	\$308,277
		Element Total	1	LS		\$237,136		\$308,277
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	29,642	RF	\$15	\$444,630	30%	\$578,019
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$373,389	30%	\$485,406
		Element Total	1	LS		\$818,019		\$1,063,425
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,000
		Element Total	1	LS		\$4,000,000		\$5,200,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$608,462	25%	\$760,577
		Element Total	1	LS		\$608,462		\$760,577
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	29,642	RF	\$260	\$7,706,920	15%	\$8,862,958
		Element Total	29,642	RF		\$7,706,920		\$8,862,958
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	15	EA	\$250,000	\$3,750,000	15%	\$4,312,500
		Element Total	15	EA		\$3,750,000		\$4,312,500
50.03		Traction power supply: substations						
		Traction Power, Substation	6	EA	\$1,300,000	\$7,800,000	15%	\$8,970,000
		Element Total	6	EA		\$7,800,000		\$8,970,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	29,642	RF	\$260	\$7,706,920	15%	\$8,862,958
		Element Total	29,642	RF		\$0		\$0
50.05		Communications						
		Communication, Line	29,642	RF	\$240	\$7,114,080	15%	\$8,181,192
		Communication, Station	8	EA	\$500,000	\$4,000,000	15%	\$4,600,000
		Element Total	1	LS		\$11,114,080		\$12,781,192
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	8	EA	\$220,000	\$1,760,000	15%	\$2,024,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$1,760,000		\$2,024,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Mac Dill AFB
 Cass St in Downtown to Mac Dill AFB

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	29,642	RF	\$400	\$11,856,800	50%	\$17,785,200
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	29,642	RF		\$11,856,800		\$17,785,200

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Airport to at grade section

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$450	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	2,800	RF	\$5,500	\$15,400,000	30%	\$20,020,000
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	2,800	RF		\$15,400,000		\$20,020,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	489	RF	\$15,500	\$7,579,500	35%	\$10,232,325
			Element Total	489	RF		\$7,579,500		\$10,232,325
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	500	RF	\$8,000	\$4,000,000	30%	\$5,200,000
	Double Track		Retained Fill - Ballasted	800	RF	\$3,200	\$2,560,000	30%	\$3,328,000
			Element Total	1,300	RF		\$6,560,000		\$8,528,000
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	3,789	RF	\$810	\$3,069,090	15%	\$3,529,454
			Element Total	3,789	RF		\$3,069,090		\$3,529,454
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	800	RF	\$480	\$384,000	15%	\$441,600
			Element Total	800	RF		\$384,000		\$441,600

**Hillsborough County MPO Transit Study
System Planning
LR-Westchase
Airport to at grade section**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$517,964	15%	\$595,658
			Element Total	1	LS		\$517,964		\$595,658
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$23,040	15%	\$26,496
			Element Total	1	LS		\$23,040		\$26,496
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,000
			Element Total	1	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	4,100	RF	\$50	\$205,000	30%	\$266,500
			Demolition Allowance - High	489	RF	\$90	\$44,010	30%	\$57,213
			Element Total	4,589	RF		\$249,010		\$323,713
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	4,100	RF	\$340	\$1,394,000	30%	\$1,812,200
			Utility Relocation Allowance - High	489	RF	\$570	\$278,730	30%	\$362,349
			Element Total	4,589	RF		\$1,672,730		\$2,174,549
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	4,589	RF	\$20	\$91,780	30%	\$119,314
			Element Total	1	LS		\$91,780		\$119,314

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Airport to at grade section

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	4,589	RF	\$50	\$229,450	30%	\$298,285
		Element Total	1	LS		\$229,450		\$298,285
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	80	RF	\$80	\$6,400	30%	\$8,320
		Element Total	1	LS		\$6,400		\$8,320
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
		Landscaping Allowance - Median	4,100	RF	\$25	\$102,500	30%	\$133,250
		Landscaping Allowance - High	489	RF	\$40	\$19,560	30%	\$25,428
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$325,395	30%	\$423,014
		Element Total	1	LS		\$447,455		\$581,692
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,000
		Element Total	1	LS		\$4,000,000		\$5,200,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$334,841	25%	\$418,552
		Element Total	1	LS		\$334,841		\$418,552
50		SYSTEMS						
50.01		Train control and signals						
	Single Track	Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track	Signal System	4,589	RF	\$260	\$1,193,140	15%	\$1,372,111
		Element Total	4,589	RF		\$1,193,140		\$1,372,111
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	0	EA	\$250,000	\$0	15%	\$0
		Element Total	0	EA		\$0		\$0
50.03		Traction power supply: substations						
		Traction Power, Substation	1	EA	\$1,300,000	\$1,300,000	15%	\$1,495,000
		Element Total	1	EA		\$1,300,000		\$1,495,000
50.04		Traction power distribution: catenary and third rail						
	Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Double Track	OCS System - Standard	4,589	RF	\$260	\$1,193,140	15%	\$1,372,111
		Element Total	4,589	RF		\$0		\$0
50.05		Communications						
		Communication, Line	4,589	RF	\$240	\$1,101,360	15%	\$1,266,564
		Communication, Station	1	EA	\$500,000	\$500,000	15%	\$575,000
		Element Total	1	LS		\$1,601,360		\$1,841,564
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	1	EA	\$220,000	\$220,000	15%	\$253,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$220,000		\$253,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Airport to at grade section

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	1,300	RF	\$400	\$520,000	50%	\$780,000
			Right of Way Allowance - Aerial	2,800	RF	\$300	\$840,000	50%	\$1,260,000
			Right of Way Allowance - Underground	489	RF	\$250	\$122,250	50%	\$183,375
			Element Total	4,589	RF		\$1,482,250		\$2,223,375

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Airport (north) to Hillsborough

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTG	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$450	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	3,323	RF	\$15,500	\$51,506,500	35%	\$69,533,775
			Element Total	3,323	RF		\$51,506,500		\$69,533,775
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	3,323	RF	\$810	\$2,691,630	15%	\$3,095,375
			Element Total	3,323	RF		\$2,691,630		\$3,095,375
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Airport (north) to Hillsborough

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$403,745	15%	\$464,306
			Element Total	1	LS		\$403,745		\$464,306
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	0	EA	\$3,000,000	\$0	20%	\$0
			Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	1	EA	\$45,000,000	\$45,000,000	30%	\$58,500,000
			Element Total	1	EA		\$45,000,000		\$58,500,000
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	3,323	RF	\$90	\$299,070	30%	\$388,791
			Element Total	3,323	RF		\$299,070		\$388,791
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	3,323	RF	\$570	\$1,894,110	30%	\$2,462,343
			Element Total	3,323	RF		\$1,894,110		\$2,462,343
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	3,323	RF	\$20	\$66,460	30%	\$86,398
			Element Total	1	LS		\$66,460		\$86,398

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Airport (north) to Hillsborough

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Environmental Mitigation Allowance	3,323	RF	\$50	\$166,150	30%	\$215,995
			Element Total	1	LS		\$166,150		\$215,995
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	0	RF	\$80	\$0	30%	\$0
			Element Total	1	LS		\$0		\$0
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	3,323	RF	\$40	\$132,920	30%	\$172,796
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$965,065	30%	\$1,254,585
			Element Total	1	LS		\$1,097,985		\$1,427,381
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
			Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
			Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,000
			Element Total	1	LS		\$400,000		\$520,000
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$196,189	25%	\$245,236
			Element Total	1	LS		\$196,189		\$245,236
50 SYSTEMS									
50.01	Train control and signals		Single Track Signal System	0	RF	\$240	\$0	15%	\$0
			Double Track Signal System	3,323	RF	\$260	\$863,980	15%	\$993,577
			Element Total	3,323	RF		\$863,980		\$993,577
50.02	Traffic signals and crossing protection		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
			Crossing Protection	0	EA	\$250,000	\$0	15%	\$0
			Element Total	0	EA		\$0		\$0
50.03	Traction power supply: substations		Traction Power, Substation	1	EA	\$1,300,000	\$1,300,000	15%	\$1,495,000
			Element Total	1	EA		\$1,300,000		\$1,495,000
50.04	Traction power distribution: catenary and third rail		Single Track OCS System - Standard	0	RF	\$240	\$0	15%	\$0
			Double Track OCS System - Standard	3,323	RF	\$260	\$863,980	15%	\$993,577
			Element Total	3,323	RF		\$0		\$0
50.05	Communications		Communication, Line	3,323	RF	\$240	\$797,520	15%	\$917,148
			Communication, Station	1	EA	\$500,000	\$500,000	15%	\$575,000
			Element Total	1	LS		\$1,297,520		\$1,492,148
50.06	Fare collection system and equipment		Fare Collection - 1 Platform	1	EA	\$220,000	\$220,000	15%	\$253,000
			Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
			Element Total	1	LS		\$220,000		\$253,000
50.07	Central Control		N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Airport (north) to Hillsborough

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	0	RF	\$400	\$0	50%	\$0
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	3,323	RF	\$250	\$830,750	50%	\$1,246,125
			Element Total	3,323	RF		\$830,750		\$1,246,125

Hillsborough County MPO Transit Study
System Planning
LR-Westchase
Hillsborough to CSX

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	13,529	RF	\$450	\$6,088,050	25%	\$7,610,063
			Element Total	13,529	RF		\$6,088,050		\$7,610,063
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	2,800	RF	\$700	\$1,960,000	25%	\$2,450,000
			Element Total	2,800	RF		\$1,960,000		\$2,450,000
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	100	RF	\$6,000	\$600,000	30%	\$780,000
			Element Total	100	RF		\$600,000		\$780,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	500	RF	\$8,000	\$4,000,000	30%	\$5,200,000
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	500	RF		\$4,000,000		\$5,200,000
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	600	RF	\$810	\$486,000	15%	\$558,900
			Element Total	600	RF		\$486,000		\$558,900
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	2,800	RF	\$980	\$2,744,000	15%	\$3,155,600
			Element Total	2,800	RF		\$2,744,000		\$3,155,600
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	13,529	RF	\$480	\$6,493,920	15%	\$7,468,008
			Element Total	13,529	RF		\$6,493,920		\$7,468,008

Hillsborough County MPO Transit Study
System Planning
LR-Westchase
Hillsborough to CSX

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$1,458,588	15%	\$1,677,376
			Element Total	1	LS		\$1,458,588		\$1,677,376
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$389,635	15%	\$448,080
			Element Total	1	LS		\$389,635		\$448,080
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,000
			Element Total	2	EA		\$6,000,000		\$7,200,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	13,529	RF	\$30	\$405,870	30%	\$527,631
			Demolition Allowance - Median	3,400	RF	\$50	\$170,000	30%	\$221,000
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	16,929	RF		\$575,870		\$748,631
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	13,529	RF	\$140	\$1,894,060	30%	\$2,462,278
			Utility Relocation Allowance - Median	3,400	RF	\$340	\$1,156,000	30%	\$1,502,800
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	16,929	RF		\$3,050,060		\$3,965,078
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	16,929	RF	\$20	\$338,580	30%	\$440,154
			Element Total	1	LS		\$338,580		\$440,154

Hillsborough County MPO Transit Study
System Planning
LR-Westchase
Hillsborough to CSX

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Environmental Mitigation Allowance	16,929	RF	\$50	\$846,450	30%	\$1,100,385
			Element Total	1	LS		\$846,450		\$1,100,385
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	1,353	RF	\$80	\$108,232	30%	\$140,702
			Element Total	1	LS		\$108,232		\$140,702
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	13,529	RF	\$15	\$202,935	30%	\$263,816
			Landscaping Allowance - Median	3,400	RF	\$25	\$85,000	30%	\$110,500
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$186,481	30%	\$242,425
			Element Total	1	LS		\$474,416		\$616,740
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full Intersection	3	EA	\$50,000	\$150,000	30%	\$195,000
			Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	67,200	SF	\$30	\$2,016,000	30%	\$2,620,800
			Parking Lots	400	STL	\$4,000	\$1,600,000	30%	\$2,080,000
			Element Total	1	LS		\$3,766,000		\$4,895,800
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$457,980	25%	\$572,475
			Element Total	1	LS		\$457,980		\$572,475
50	SYSTEMS								
50.01	Train control and signals		Single Track	0	RF	\$240	\$0	15%	\$0
			Double Track	16,929	RF	\$260	\$4,401,540	15%	\$5,061,771
			Element Total	16,929	RF		\$4,401,540		\$5,061,771
50.02	Traffic signals and crossing protection		Traffic Signal	3	EA	\$150,000	\$450,000	15%	\$517,500
			Crossing Protection	7	EA	\$250,000	\$1,750,000	15%	\$2,012,500
			Element Total	10	EA		\$2,200,000		\$2,530,000
50.03	Traction power supply: substations		Traction Power, Substation	4	EA	\$1,300,000	\$5,200,000	15%	\$5,980,000
			Element Total	4	EA		\$5,200,000		\$5,980,000
50.04	Traction power distribution: catenary and third rail		Single Track	0	RF	\$240	\$0	15%	\$0
			Double Track	16,929	RF	\$260	\$4,401,540	15%	\$5,061,771
			Element Total	16,929	RF		\$0		\$0
50.05	Communications		Communication, Line	16,929	RF	\$240	\$4,062,960	15%	\$4,672,404
			Communication, Station	2	EA	\$500,000	\$1,000,000	15%	\$1,150,000
			Element Total	1	LS		\$5,062,960		\$5,822,404
50.06	Fare collection system and equipment		Fare Collection - 1 Platform	2	EA	\$220,000	\$440,000	15%	\$506,000
			Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
			Element Total	1	LS		\$440,000		\$506,000
50.07	Central Control		N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 Hillsborough to CSX

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTCY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	16,829	RF	\$400	\$6,731,600	50%	\$10,097,400
			Right of Way Allowance - Aerial	100	RF	\$300	\$30,000	50%	\$45,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	16,929	RF		\$6,761,600		\$10,142,400

Hillsborough County MPO Transit Study
System Planning
LR-Westchase
On CSX to west of Sheldon

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	23,319	RF	\$450	\$10,493,550	25%	\$13,116,938
			Element Total	23,319	RF		\$10,493,550		\$13,116,938
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	50	RF	\$6,000	\$300,000	30%	\$390,000
			Element Total	50	RF		\$300,000		\$390,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	50	RF	\$810	\$40,500	15%	\$46,575
			Element Total	50	RF		\$40,500		\$46,575
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	23,319	RF	\$480	\$11,193,120	15%	\$12,872,088
			Element Total	23,319	RF		\$11,193,120		\$12,872,088

Hillsborough County MPO Transit Study
System Planning
LR-Westchase
On CSX to west of Sheldon

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$1,685,043	15%	\$1,937,799
			Element Total	1	LS		\$1,685,043		\$1,937,799
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$671,587	15%	\$772,325
			Element Total	1	LS		\$671,587		\$772,325
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,000
			Element Total	4	EA		\$12,000,000		\$14,400,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	23,319	RF	\$30	\$699,570	30%	\$909,441
			Demolition Allowance - Median	50	RF	\$50	\$2,500	30%	\$3,250
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	23,369	RF		\$702,070		\$912,691
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	23,319	RF	\$140	\$3,264,660	30%	\$4,244,058
			Utility Relocation Allowance - Median	50	RF	\$340	\$17,000	30%	\$22,100
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	23,369	RF		\$3,281,660		\$4,266,158
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	23,369	RF	\$20	\$467,380	30%	\$607,594
			Element Total	1	LS		\$467,380		\$607,594

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 On CSX to west of Sheldon

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Environmental Mitigation Allowance	23,369	RF	\$50	\$1,168,450	30%	\$1,518,985
			Element Total	1	LS		\$1,168,450		\$1,518,985
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,332	RF	\$80	\$186,552	30%	\$242,518
			Element Total	1	LS		\$186,552		\$242,518
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	23,319	RF	\$15	\$349,785	30%	\$454,721
			Landscaping Allowance - Median	50	RF	\$25	\$1,250	30%	\$1,625
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$227,936	30%	\$296,316
			Element Total	1	LS		\$578,971		\$752,662
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
			Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
			Parking Lots	1,400	STL	\$4,000	\$5,600,000	30%	\$7,280,000
			Element Total	1	LS		\$5,600,000		\$7,280,000
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$599,254	25%	\$749,068
			Element Total	1	LS		\$599,254		\$749,068
50 SYSTEMS									
50.01	Train control and signals		Signal System	0	RF	\$240	\$0	15%	\$0
	Single Track		Signal System	23,369	RF	\$260	\$6,075,940	15%	\$6,987,331
	Double Track		Signal System	23,369	RF		\$6,075,940		\$6,987,331
			Element Total	23,369	RF		\$6,075,940		\$6,987,331
50.02	Traffic signals and crossing protection		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
			Crossing Protection	12	EA	\$250,000	\$3,000,000	15%	\$3,450,000
			Element Total	12	EA		\$3,000,000		\$3,450,000
50.03	Traction power supply: substations		Traction Power, Substation	5	EA	\$1,300,000	\$6,500,000	15%	\$7,475,000
			Element Total	5	EA		\$6,500,000		\$7,475,000
50.04	Traction power distribution: catenary and third rail		OCS System - Standard	0	RF	\$240	\$0	15%	\$0
	Single Track		OCS System - Standard	23,369	RF	\$260	\$6,075,940	15%	\$6,987,331
	Double Track		OCS System - Standard	23,369	RF		\$0		\$0
			Element Total	23,369	RF		\$0		\$0
50.05	Communications		Communication, Line	23,369	RF	\$240	\$5,608,560	15%	\$6,449,844
			Communication, Station	4	EA	\$500,000	\$2,000,000	15%	\$2,300,000
			Element Total	1	LS		\$7,608,560		\$8,749,844
50.06	Fare collection system and equipment		Fare Collection - 1 Platform	4	EA	\$220,000	\$880,000	15%	\$1,012,000
			Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
			Element Total	1	LS		\$880,000		\$1,012,000
50.07	Central Control		N/A				\$0		\$0
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-Westchase
 On CSX to west of Sheldon

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	23,319	RF	\$400	\$9,327,600	50%	\$13,991,400
			Right of Way Allowance - Aerial	50	RF	\$300	\$15,000	50%	\$22,500
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	23,369	RF		\$9,342,600		\$14,013,900

**Hillsborough County MPO Transit Study
System Planning
LR-South Ext
Downtown to Big Bend (may need to be deleted)**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	58,255	RF	\$450	\$26,214,750	25%	\$32,768,438
			Element Total	58,255	RF		\$26,214,750		\$32,768,438
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
	Single Track		At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	\$0
	Single Track		At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	\$0
	Double Track		At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
	Single Track		At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	\$0
	Double Track		At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Bridge - Ballasted	0	RF	\$8,200	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	\$0
	Single Track		Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	\$0
	Double Track		Bridge - Ballasted	0	RF	\$12,200	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	\$0
	Double Track		Aerial - Direct Fixation Over Water	2,000	RF	\$6,000	\$12,000,000	30%	\$15,600,000
			Element Total	2,000	RF		\$12,000,000		\$15,600,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
	Single Track		Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
	Single Track		Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	\$0
	Double Track		Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	\$0
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
	Single Track		Direct Fixation Track	0	RF	\$405	\$0	15%	\$0
	Double Track		Direct Fixation Track	2,000	RF	\$810	\$1,620,000	15%	\$1,863,000
			Element Total	2,000	RF		\$1,620,000		\$1,863,000
10.10	Track: Embedded								
	Single Track		Embedded Track	0	RF	\$490	\$0	15%	\$0
	Double Track		Embedded Track	0	RF	\$980	\$0	15%	\$0
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
	Double Track		Ballasted Track	58,255	RF	\$480	\$27,962,400	15%	\$32,156,760
			Element Total	58,255	RF		\$27,962,400		\$32,156,760

**Hillsborough County MPO Transit Study
System Planning
LR-South Ext
Downtown to Big Bend (may need to be deleted)**

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, turnouts)		Special Trackwork (15% of Track Cost)	15%			\$4,437,360	15%	\$5,102,964
			Element Total	1	LS		\$4,437,360		\$5,102,964
10.13	Track: Vibration and noise dampening		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$1,677,744	15%	\$1,929,406
			Element Total	1	LS		\$1,677,744		\$1,929,406
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	\$0
			Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,000
			Element Total	4	EA		\$12,000,000		\$14,400,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	\$0
			Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	\$0
			Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	\$0
			Center Platform Station	0	EA	\$45,000,000	\$0	30%	\$0
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	58,255	RF	\$30	\$1,747,650	30%	\$2,271,945
			Demolition Allowance - Median	2,000	RF	\$50	\$100,000	30%	\$130,000
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	60,255	RF		\$1,847,650		\$2,401,945
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	58,255	RF	\$140	\$8,155,700	30%	\$10,602,410
			Utility Relocation Allowance - Median	2,000	RF	\$340	\$680,000	30%	\$884,000
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	60,255	RF		\$8,835,700		\$11,486,410
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	60,255	RF	\$20	\$1,205,100	30%	\$1,566,630
			Element Total	1	LS		\$1,205,100		\$1,566,630

Hillsborough County MPO Transit Study
 System Planning
 LR-South Ext
 Downtown to Big Bend (may need to be deleted)

TRANSIT MODE: LRT

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04		Environmental mitigation, e.g. wetlands, historic/archeologic, parks						
		Environmental Mitigation Allowance	60,255	RF	\$50	\$3,012,750	30%	\$3,916,575
		Element Total	1	LS		\$3,012,750		\$3,916,575
40.05		Site structures including retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	5,826	RF	\$80	\$466,040	30%	\$605,852
		Element Total	1	LS		\$466,040		\$605,852
40.06		Pedestrian / bike access and accommodation, landscaping						
		Landscaping Allowance - Low	58,255	RF	\$15	\$873,825	30%	\$1,135,973
		Landscaping Allowance - Median	2,000	RF	\$25	\$50,000	30%	\$65,000
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
		Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%			\$502,148	30%	\$652,792
		Element Total	1	LS		\$1,425,973		\$1,853,764
40.07		Automobile, bus, van accessways including roads, parking lots						
		Roadway Modifications Allow. - Full Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	1,400	STL	\$4,000	\$5,600,000	30%	\$7,280,000
		Element Total	1	LS		\$5,600,000		\$7,280,000
40.08		Temporary Facilities and other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$1,119,661	25%	\$1,399,576
		Element Total	1	LS		\$1,119,661		\$1,399,576
50		SYSTEMS						
50.01		Train control and signals						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	60,255	RF	\$260	\$15,666,300	15%	\$18,016,245
		Element Total	60,255	RF		\$15,666,300		\$18,016,245
50.02		Traffic signals and crossing protection						
		Traffic Signal	0	EA	\$150,000	\$0	15%	\$0
		Crossing Protection	29	EA	\$250,000	\$7,250,000	15%	\$8,337,500
		Element Total	29	EA		\$7,250,000		\$8,337,500
50.03		Traction power supply: substations						
		Traction Power, Substation	12	EA	\$1,300,000	\$15,600,000	15%	\$17,940,000
		Element Total	12	EA		\$15,600,000		\$17,940,000
50.04		Traction power distribution: catenary and third rail						
		Single Track	0	RF	\$240	\$0	15%	\$0
		Double Track	60,255	RF	\$260	\$15,666,300	15%	\$18,016,245
		Element Total	60,255	RF		\$0		\$0
50.05		Communications						
		Communication, Line	60,255	RF	\$240	\$14,461,200	15%	\$16,630,380
		Communication, Station	4	EA	\$500,000	\$2,000,000	15%	\$2,300,000
		Element Total	1	LS		\$16,461,200		\$18,930,380
50.06		Fare collection system and equipment						
		Fare Collection - 1 Platform	4	EA	\$220,000	\$880,000	15%	\$1,012,000
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$0
		Element Total	1	LS		\$880,000		\$1,012,000
50.07		Central Control						
		N/A						
		Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 LR-South Ext
 Downtown to Big Bend (may need to be deleted)

TRANSIT MODE: LRT

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
60	ROW, LAND, EXISTING IMPROVEMENTS								
60.01	Purchase or lease of real estate								
			Right of Way Allowance - At Grade	58,255	RF	\$400	\$23,302,000	50%	\$34,953,000
			Right of Way Allowance - Aerial	2,000	RF	\$300	\$600,000	50%	\$900,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	60,255	RF		\$23,902,000		\$35,853,000

**Hillsborough County MPO Transit Study
System Planning
SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**

TRANSIT MODE: LRT

STATIONING		DESCRIPTION	COST		UNIT	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY				
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS								
30.01 Administration Building: Office, sales, storage, revenue counting		N/A						
		Element Total		1	LS	\$0		\$0
30.02 Light Maintenance Facility		N/A						
		Element Total		1	LS	\$0		\$0
30.03 Heavy Maintenance Facility		Maintenance Facility (per vehicle)		98	EA	\$1,500,000	25%	\$183,750,000
		Element Total		1	LS	\$147,000,000		\$183,750,000
30.04 Storage or Maintenance of Way Building		N/A						
		Element Total		1	LS	\$0		\$0
30.05 Yard and Yard Track								
Yard		Yard Track		1,000	RF	\$240	15%	\$276,000
Yard		Signal System, Single Track		1,000	RF	\$240	15%	\$276,000
Yard		OCS System Standard, Single Track		1,000	RF	\$240	15%	\$276,000
Yard		Traction Power, Substation		1	EA	\$1,300,000	15%	\$1,495,000
		Element Total		1	LS	\$2,020,000		\$2,323,000
60 ROW, LAND, EXISTING IMPROVEMENTS								
60.01 Purchase or lease of real estate		Right of Way Allowance		20	AC	\$500,000	50%	\$15,000,000
		Element Total		1	LS	\$10,000,000		\$15,000,000

Hillsborough County MPO Transit Study
 System Planning
 VEHICLES

TRANSIT MODE: LRT

STATIONING		DESCRIPTION	COST		UNIT		BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY	UNIT	COST			
70 VEHICLES									
70.01 Light Rail									
		Light Rail Vehicle		98	EA	\$3,600,000	\$352,800,000	10%	\$388,080,000

Hillsborough County MPO Transit Study
 System Planning
 Commuter Rail Transit
 Capital Cost Estimate
 (2007 Dollars in Millions)

Description	Alternative Total
Length (Mile):	92.6
Number of Stations:	16
Number of Revenue Vehicles:	114
10 GUIDEWAY & TRACK ELEMENTS	\$1,267.46
20 STATIONS, STOPS, TERMINALS, INTERMODAL	\$47.31
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	\$143.05
40 SITEWORK & SPECIAL CONDITIONS	\$216.79
50 SYSTEMS	\$130.25
Construction Subtotal (Sum Categories 10 - 50)	\$1,804.86
60 ROW, LAND, EXISTING IMPROVEMENTS	\$295.68
70 VEHICLES	\$285.29
80 PROFESSIONAL SERVICES	\$577.56
90 UNALLOCATED CONTINGENCY	\$296.34
Total Project Cost	\$3,259.72

Hillsborough County MPO Transit Study

System Planning

Commuter Rail Transit

Capital Cost Estimate

(2007 Dollars in Millions)

CAT No.	Description	CR-Dollars in Millions												Alternative Total	
		1	2	3	4	5	6	7	8	9	10	11	12		
		CR-Tampa Bay	CR-Dwtn West	CR-East	CR-East	CR-East	CR-Land O Lakes	CR-Dwtn North	CR-Sarasota	CR-Sarasota	CR-West	CR-West			
		West Shore Dr to St. Pete	Downtown to West Shore Dr.	CL Rail (east of Aciline St) to 175/ LRT Sta	CL Rail (east of Aciline St) to 175/ LRT Sta	175/ LRT Sta to US98 at CL	County line/ Hwy 54 to Hwy275	Hwy275 to Hwy580 CL Railroad	Downtown (Hwy 685) to Hwy 580	CL Rail (east of Aciline St) to Big Bend/ LRT Sta	Big Bend/ LRT Sta to Sarasota Countyline	Westchase/ County line to west of Sheldon/ LRT Sta	West of Sheldon/ LRT Sta to Hwy580	Maintenance Facility	Vehicles
	Length (Mile):	8.0	6.2	1.8	4.4	18.1	5.9	4.6	11.4	14.1	3.1	9.6			
	Number of Stations:	1	2	0	0	2	2	1	4	2	0	2			
	Number of Revenue Vehicles:													114	
10	GUIDEWAY & TRACK ELEMENTS														
10.01	Guideway: At-grade exclusive right-of-way	\$0.00	\$2.56	\$2.92	\$6.95	\$29.94	\$9.77	\$7.52	\$9.07	\$18.20	\$23.08	\$15.81	\$0.00	\$0.00	\$130.90
10.02	Guideway: At-grade semi-exclusive (follows cross-traffic)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.03	Guideway: At-grade in mixed traffic	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.04	Guideway: Aerial structure	\$380.74	\$302.33	\$0.00	\$12.38	\$0.00	\$0.00	\$0.00	\$0.00	\$30.94	\$10.83	\$0.77	\$0.00	\$0.00	\$740.31
10.05	Guideway: Built-up fill	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.06	Guideway: Underground cut & cover	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.07	Guideway: Underground tunnel	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.08	Guideway: Retained cut or fill	\$100.88	\$37.44	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$138.32
10.09	Track: Direct fixation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.10	Track: Embedded	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10.11	Track: Ballasted	\$23.27	\$17.47	\$4.62	\$11.39	\$47.37	\$16.46	\$11.90	\$14.35	\$29.80	\$36.87	\$25.05	\$0.00	\$0.00	\$245.64
10.12	Track: Special (switches, turnouts)	\$11.16	\$0.87	\$0.23	\$0.57	\$2.37	\$0.77	\$0.60	\$0.72	\$1.49	\$1.84	\$1.25	\$0.00	\$0.00	\$12.28
10.13	Track: Vibration and noise dampening	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Subtotal Category 10	\$506.05	\$380.67	\$7.77	\$31.29	\$79.68	\$26.00	\$20.02	\$24.13	\$80.43	\$72.63	\$15.88	\$42.89	\$0.00	\$1,267.46
20	STATIONS, STOPS, TERMINALS, INTERMODAL														
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$1.80	\$1.80	\$0.00	\$0.00	\$3.60	\$3.60	\$1.80	\$0.00	\$7.20	\$3.60	\$3.60	\$0.00	\$0.00	\$27.00
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0.00	\$18.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.75
20.03	Underground station, stop, shelter, mall, terminal, platform	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.05	Joint development	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.06	Automobile parking multi-story structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
20.07	Elevators, escalators	\$0.00	\$1.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.56
	Subtotal Category 20	\$1.80	\$22.11	\$0.00	\$0.00	\$3.60	\$3.60	\$1.80	\$0.00	\$7.20	\$3.60	\$3.60	\$0.00	\$0.00	\$47.31
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS														
30.01	Administration Building: Office, sales, storage, revenue counting													\$0.00	\$0.00
30.02	Light Maintenance Facility													\$0.00	\$0.00
30.03	Heavy Maintenance Facility													\$142.50	\$142.50
30.04	Storage or Maintenance of Way Building													\$0.00	\$0.00
30.05	Yard and Yard Track													\$0.55	\$0.55
	Subtotal Category 30													\$143.05	\$143.05

Hillsborough County MPO Transit Study

System Planning

Commuter Rail Transit

Capital Cost Estimate

(2007 Dollars in Millions)

CAT No.	Description	CR - Dollars in Millions												Alternative Total			
		1	2	3	4	5	6	7	8	9	10	11	12				
		CR-Tampa Bay	CR-Dwn West	CR-East	CR-Land O Lakes	CR-Dwn North	CR-Sarasota	CR-West									
		West Shore Dr to St. Pete	Downtown to West Shore Dr.	Downtown to CL Rail (east of Aciline St)	CL Rail (east of Aciline St) to US98 at CL	County line/ Hwy 54 to Hwy275	Hwy275 to Hwy580 CL Railroad	Downtown (Hwy 685) to Hwy 580	CL Rail (east of Aciline St) to Big Bend/LRT Sta	Big Bend/ LRT Sta to Sarasota/ Countyline	Westchase/ County line to west of Sheldon/LRT Sta	West of Sheldon/ LRT Sta to Hwy580	Maintenance Facility	Vehicles			
40	SITWORK & SPECIAL CONDITIONS																
40.01	Demolition, Clearing, Earthwork	\$1.70	\$1.80	\$0.36	\$0.92	\$3.74	\$1.22	\$0.94	\$1.13	\$2.40	\$2.93	\$0.64	\$1.98	\$19.86			
40.02	Site Utilities, Utility Relocation	\$11.56	\$12.23	\$1.70	\$4.40	\$17.44	\$6.69	\$4.38	\$5.28	\$11.49	\$13.75	\$3.02	\$9.23	\$100.17			
40.03	Haz. mat'l, contaminant removal/mitigation, ground water treatments	\$0.68	\$0.85	\$0.24	\$0.60	\$2.49	\$0.81	\$0.63	\$0.75	\$1.57	\$1.94	\$0.43	\$1.32	\$12.30			
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$0.51	\$0.63	\$0.18	\$0.45	\$1.87	\$0.61	\$0.47	\$0.57	\$1.17	\$1.45	\$0.32	\$0.99	\$9.22			
40.05	Site structures including retaining walls, sound walls	\$0.44	\$0.34	\$0.10	\$0.24	\$1.00	\$0.33	\$0.25	\$0.30	\$0.63	\$0.78	\$0.17	\$0.53	\$5.09			
40.06	Pedestrian / bike access and accommodation, landscaping	\$5.69	\$4.59	\$0.21	\$0.66	\$2.22	\$0.75	\$0.57	\$0.66	\$1.78	\$1.85	\$0.40	\$1.20	\$20.56			
40.07	Automobile, bus, van accessways including roads, parking lots	\$0.52	\$0.26	\$0.33	\$0.72	\$8.32	\$6.24	\$3.38	\$0.98	\$7.09	\$7.61	\$0.52	\$3.71	\$39.65			
40.08	Temporary Facilities and other indirect costs during construction	\$1.01	\$1.00	\$0.15	\$0.38	\$1.78	\$0.75	\$0.51	\$0.46	\$1.26	\$1.46	\$0.26	\$0.91	\$9.94			
	Subtotal Category 40	\$22.11	\$21.80	\$3.28	\$8.36	\$38.85	\$16.40	\$11.12	\$10.13	\$27.38	\$31.76	\$5.75	\$19.85	\$216.79			
50	SYSTEMS																
50.01	Train control and signals	\$6.79	\$5.23	\$1.50	\$3.71	\$15.42	\$5.03	\$3.88	\$4.67	\$9.70	\$12.01	\$2.63	\$8.15	\$78.73			
50.02	Traffic signals and crossing protection	\$0.00	\$0.69	\$0.86	\$1.90	\$8.28	\$2.76	\$2.07	\$2.59	\$5.00	\$6.38	\$1.38	\$4.31	\$36.23			
50.03	Traction power supply: substations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
50.04	Traction power distribution: catenary and third rail	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
50.05	Communications	\$1.05	\$0.91	\$0.21	\$0.53	\$2.36	\$0.88	\$0.67	\$0.87	\$1.71	\$1.88	\$0.38	\$1.33	\$12.54			
50.06	Fare collection system and equipment	\$0.17	\$0.35	\$0.00	\$0.00	\$0.35	\$0.35	\$0.17	\$0.00	\$0.69	\$0.35	\$0.00	\$0.35	\$2.76			
50.07	Central Control	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
	Subtotal Category 50	\$8.01	\$7.18	\$2.88	\$6.14	\$26.41	\$9.02	\$6.75	\$7.93	\$17.10	\$20.61	\$4.39	\$14.14	\$130.25			
	Subtotal Construction Costs	\$537.97	\$411.76	\$13.63	\$45.79	\$148.54	\$56.02	\$39.70	\$42.19	\$132.11	\$128.60	\$26.03	\$80.48	\$1,804.86			
60	ROW, LAND, EXISTING IMPROVEMENTS																
60.01	Purchase or lease of real estate	\$15.41	\$17.21	\$5.61	\$13.70	\$57.48	\$18.76	\$14.44	\$17.41	\$35.85	\$44.63	\$9.80	\$30.38	\$296.68			
	Subtotal Right-of-Way	\$15.41	\$17.21	\$5.61	\$13.70	\$57.48	\$18.76	\$14.44	\$17.41	\$35.85	\$44.63	\$9.80	\$30.38	\$296.68			

Hillsborough County MPO Transit Study
System Planning
CR-Tampa Bay
West Shore Dr to St. Pete

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	0	RF	\$250	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	\$0
	Double Track		Aerial - Ballasted	1,900	RF	\$15,200	\$28,880,000	30%	\$37,544,000
	Double Track		Aerial - Ballasted Over Water	16,000	RF	\$16,500	\$264,000,000	30%	\$343,200,000
			Element Total	17,900	RF		\$292,880,000		\$380,744,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	24,250	RF	\$3,200	\$77,600,000	30%	\$100,880,000
			Element Total	24,250	RF		\$77,600,000		\$100,880,000
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	0	RF	\$240	\$0	15%	\$0
			Ballasted Track - Refurbish Existing	0	RF	\$190	\$0	15%	\$0
	Double Track		Ballasted Track	42,150	RF	\$480	\$20,232,000	15%	\$23,266,800
			Element Total	42,150	RF		\$20,232,000		\$23,266,800
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$1,011,600	15%	\$1,163,340
			Element Total	1	LS		\$1,011,600		\$1,163,340
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-Tampa Bay
 West Shore Dr to St. Pete

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	1	EA	\$1,500,000	\$1,500,000	20%	\$1,800,000
			Element Total	1	EA		\$1,500,000		\$1,800,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	0	RF	\$30	\$0	30%	\$0
			Demolition Allowance - Median	26,150	RF	\$50	\$1,307,500	30%	\$1,699,750
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	26,150	RF		\$1,307,500		\$1,699,750
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	\$0
			Utility Relocation Allowance - Median	26,150	RF	\$340	\$8,891,000	30%	\$11,558,300
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	26,150	RF		\$8,891,000		\$11,558,300
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	26,150	RF	\$20	\$523,000	30%	\$679,900
			Element Total	1	LS		\$523,000		\$679,900
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	26,150	RF	\$15	\$392,250	30%	\$509,925
			Element Total	1	LS		\$392,250		\$509,925
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	4,215	RF	\$80	\$337,200	30%	\$438,360
			Element Total	1	LS		\$337,200		\$438,360
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$0
			Landscaping Allowance - Median	26,150	RF	\$25	\$653,750	30%	\$849,875
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$3,719,800	30%	\$4,835,740
			Element Total	1	LS		\$4,373,550		\$5,685,615

Hillsborough County MPO Transit Study
 System Planning
 CR-Tampa Bay
 West Shore Dr to St. Pete

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	0	EA	\$50,000	\$0	30%	\$0
			Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,000
			Element Total	1	LS		\$400,000		\$520,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$811,225	25%	\$1,014,031
			Element Total	1	LS		\$811,225		\$1,014,031
50			SYSTEMS						
50.01			Train control and signals						
			Signal System	42,150	RF	\$140	\$5,901,000	15%	\$6,786,150
			Element Total	42,150	RF		\$5,901,000		\$6,786,150
50.02			Traffic signals and crossing protection						
			Crossing Protection	0	EA	\$150,000	\$0	15%	\$0
			Element Total	0	EA		\$0		\$0
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	42,150	RF	\$20	\$843,000	15%	\$969,450
			Passenger Information System, Station	1	EA	\$70,000	\$70,000	15%	\$80,500
			Element Total	1	LS		\$913,000		\$1,049,950
50.06			Fare collection system and equipment						
			Fare Collection	1	EA	\$150,000	\$150,000	15%	\$172,500
			Element Total	1	LS		\$150,000		\$172,500
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60			ROW, LAND, EXISTING IMPROVEMENTS						
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	24,250	RF	\$400	\$9,700,000	50%	\$14,550,000
			Right of Way Allowance - Aerial	1,900	RF	\$300	\$570,000	50%	\$855,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	26,150	RF		\$10,270,000		\$15,405,000

Hillsborough County MPO Transit Study
System Planning
CR-Dwtn West
Downtown to West Shore Dr.

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	8,200	RF	\$250	\$2,050,000	25%	\$2,562,500
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	8,200	RF		\$2,050,000		\$2,562,500
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	\$0
	Double Track		Aerial - Ballasted	15,300	RF	\$15,200	\$232,560,000	30%	\$302,328,000
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	15,300	RF		\$232,560,000		\$302,328,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	9,000	RF	\$3,200	\$28,800,000	30%	\$37,440,000
			Element Total	9,000	RF		\$28,800,000		\$37,440,000
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	8,200	RF	\$240	\$1,968,000	15%	\$2,263,200
			Ballasted Track - Refurbish Existing	8,200	RF	\$190	\$1,558,000	15%	\$1,791,700
	Double Track		Ballasted Track	24,300	RF	\$480	\$11,664,000	15%	\$13,413,600
			Element Total	32,500	RF		\$15,190,000		\$17,468,500
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$759,500	15%	\$873,425
			Element Total	1	LS		\$759,500		\$873,425
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
System Planning
CR-Dwtn West
Downtown to West Shore Dr.

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
BEGIN	END								
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	1	EA	\$1,500,000	\$1,500,000	20%	\$1,800,000
			Element Total	1	EA		\$1,500,000		\$1,800,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	1	EA	\$15,000,000	\$15,000,000	25%	\$18,750,000
			Element Total	1	EA		\$15,000,000		\$18,750,000
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	2	EA	\$200,000	\$400,000	20%	\$480,000
			Escalator	2	EA	\$450,000	\$900,000	20%	\$1,080,000
			Element Total	1	LS		\$1,300,000		\$1,560,000
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	8,200	RF	\$30	\$246,000	30%	\$319,800
			Demolition Allowance - Median	24,300	RF	\$50	\$1,215,000	30%	\$1,579,500
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	32,500	RF		\$1,461,000		\$1,899,300
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	8,200	RF	\$140	\$1,148,000	30%	\$1,492,400
			Utility Relocation Allowance - Median	24,300	RF	\$340	\$8,262,000	30%	\$10,740,600
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	32,500	RF		\$9,410,000		\$12,233,000
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	32,500	RF	\$20	\$650,000	30%	\$845,000
			Element Total	1	LS		\$650,000		\$845,000
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	32,500	RF	\$15	\$487,500	30%	\$633,750
			Element Total	1	LS		\$487,500		\$633,750
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	3,250	RF	\$80	\$260,000	30%	\$338,000
			Element Total	1	LS		\$260,000		\$338,000
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	8,200	RF	\$15	\$123,000	30%	\$159,900
			Landscaping Allowance - Median	24,300	RF	\$25	\$607,500	30%	\$789,750
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$2,799,100	30%	\$3,638,830
			Element Total	1	LS		\$3,529,600		\$4,588,480

Hillsborough County MPO Transit Study
 System Planning
 CR-Dwtn West
 Downtown to West Shore Dr.

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	4	EA	\$50,000	\$200,000	30%	\$260,000
			Parking Lots	0	STL	\$4,000	\$0	30%	\$0
			Element Total	1	LS		\$200,000		\$260,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$799,905	25%	\$999,881
			Element Total	1	LS		\$799,905		\$999,881
50			SYSTEMS						
50.01			Train control and signals						
			Signal System	32,500	RF	\$140	\$4,550,000	15%	\$5,232,500
			Element Total	32,500	RF		\$4,550,000		\$5,232,500
50.02			Traffic signals and crossing protection						
			Crossing Protection	4	EA	\$150,000	\$600,000	15%	\$690,000
			Element Total	4	EA		\$600,000		\$690,000
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	32,500	RF	\$20	\$650,000	15%	\$747,500
			Passenger Information System, Station	2	EA	\$70,000	\$140,000	15%	\$161,000
			Element Total	1	LS		\$790,000		\$908,500
50.06			Fare collection system and equipment						
			Fare Collection	2	EA	\$150,000	\$300,000	15%	\$345,000
			Element Total	1	LS		\$300,000		\$345,000
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60			ROW, LAND, EXISTING IMPROVEMENTS						
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	17,200	RF	\$400	\$6,880,000	50%	\$10,320,000
			Right of Way Allowance - Aerial	15,300	RF	\$300	\$4,590,000	50%	\$6,885,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	32,500	RF		\$11,470,000		\$17,205,000

Hillsborough County MPO Transit Study
System Planning
CR-East
Downtown to CL Rail (east of Acline St)

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	9,347	RF	\$250	\$2,336,750	25%	\$2,920,938
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	9,347	RF		\$2,336,750		\$2,920,938
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	\$0
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	9,347	RF	\$240	\$2,243,280	15%	\$2,579,772
			Ballasted Track - Refurbish Existing	9,347	RF	\$190	\$1,775,930	15%	\$2,042,320
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	9,347	RF		\$4,019,210		\$4,622,092
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$200,961	15%	\$231,105
			Element Total	1	LS		\$200,961		\$231,105
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-East
 Downtown to CL Rail (east of Acline St)

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$1,500,000	\$0	20%	\$0
			Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	9,347	RF	\$30	\$280,410	30%	\$364,533
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	9,347	RF		\$280,410		\$364,533
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	9,347	RF	\$140	\$1,308,580	30%	\$1,701,154
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	9,347	RF		\$1,308,580		\$1,701,154
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	9,347	RF	\$20	\$186,940	30%	\$243,022
			Element Total	1	LS		\$186,940		\$243,022
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	9,347	RF	\$15	\$140,205	30%	\$182,267
			Element Total	1	LS		\$140,205		\$182,267
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	935	RF	\$80	\$74,776	30%	\$97,209
			Element Total	1	LS		\$74,776		\$97,209
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	9,347	RF	\$15	\$140,205	30%	\$182,267
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$23,368	30%	\$30,378
			Element Total	1	LS		\$163,573		\$212,644

**Hillsborough County MPO Transit Study
System Planning
CR-East
Downtown to CL Rail (east of Acline St)**

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	5	EA	\$50,000	\$250,000	30%	\$325,000
			Parking Lots	0	STL	\$4,000	\$0	30%	\$0
			Element Total	1	LS		\$250,000		\$325,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$120,224	25%	\$150,280
			Element Total	1	LS		\$120,224		\$150,280
50 SYSTEMS									
50.01			Train control and signals						
			Signal System	9,347	RF	\$140	\$1,308,580	15%	\$1,504,867
			Element Total	9,347	RF		\$1,308,580		\$1,504,867
50.02			Traffic signals and crossing protection						
			Crossing Protection	5	EA	\$150,000	\$750,000	15%	\$862,500
			Element Total	5	EA		\$750,000		\$862,500
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	9,347	RF	\$20	\$186,940	15%	\$214,981
			Passenger Information System, Station	0	EA	\$70,000	\$0	15%	\$0
			Element Total	1	LS		\$186,940		\$214,981
50.06			Fare collection system and equipment						
			Fare Collection	0	EA	\$150,000	\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	9,347	RF	\$400	\$3,738,800	50%	\$5,608,200
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	9,347	RF		\$3,738,800		\$5,608,200

Hillsborough County MPO Transit Study
 System Planning
 CR-East
 CL Rail (east of Acline St) to I75/ LRT Sta

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	22,240	RF	\$250	\$5,560,000	25%	\$6,950,000
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	22,240	RF		\$5,560,000		\$6,950,000
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	800	RF	\$11,900	\$9,520,000	30%	\$12,376,000
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	800	RF		\$9,520,000		\$12,376,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	23,040	RF	\$240	\$5,529,600	15%	\$6,359,040
			Ballasted Track - Refurbish Existing	23,040	RF	\$190	\$4,377,600	15%	\$5,034,240
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	23,040	RF		\$9,907,200		\$11,393,280
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$495,360	15%	\$569,664
			Element Total	1	LS		\$495,360		\$569,664
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-East
 CL Rail (east of Acline St) to I75/ LRT Sta

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$1,500,000	\$0	20%	\$0
			Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A	1	LS		\$0		\$0
20.05	Joint development		N/A	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	22,240	RF	\$30	\$667,200	30%	\$867,360
			Demolition Allowance - Median	800	RF	\$50	\$40,000	30%	\$52,000
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	23,040	RF		\$707,200		\$919,360
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	22,240	RF	\$140	\$3,113,600	30%	\$4,047,680
			Utility Relocation Allowance - Median	800	RF	\$340	\$272,000	30%	\$353,600
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	23,040	RF		\$3,385,600		\$4,401,280
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	23,040	RF	\$20	\$460,800	30%	\$599,040
			Element Total	1	LS		\$460,800		\$599,040
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	23,040	RF	\$15	\$345,600	30%	\$449,280
			Element Total	1	LS		\$345,600		\$449,280
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,304	RF	\$80	\$184,320	30%	\$239,616
			Element Total	1	LS		\$184,320		\$239,616
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	22,240	RF	\$15	\$333,600	30%	\$433,680
			Landscaping Allowance - Median	800	RF	\$25	\$20,000	30%	\$26,000
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$150,800	30%	\$196,040
			Element Total	1	LS		\$504,400		\$655,720

**Hillsborough County MPO Transit Study
System Planning
CR-East
CL Rail (east of Acline St) to I75/ LRT Sta**

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
	BEGIN	END							
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full						
			Intersection	11	EA	\$50,000	\$550,000	30%	\$715,000
			Parking Lots	0	STL	\$4,000	\$0	30%	\$0
			Element Total	1	LS		\$550,000		\$715,000
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$306,896	25%	\$383,620
			Element Total	1	LS		\$306,896		\$383,620
50 SYSTEMS									
50.01	Train control and signals		Signal System	23,040	RF	\$140	\$3,225,600	15%	\$3,709,440
			Element Total	23,040	RF		\$3,225,600		\$3,709,440
50.02	Traffic signals and crossing protection		Crossing Protection	11	EA	\$150,000	\$1,650,000	15%	\$1,897,500
			Element Total	11	EA		\$1,650,000		\$1,897,500
50.03	Traction power supply: substations		N/A				\$0		\$0
			Element Total	0	EA		\$0		\$0
50.04	Traction power distribution: catenary and third rail		N/A				\$0		\$0
			Element Total	0	RF		\$0		\$0
50.05	Communications		Passenger Information System, Fiber Optic	23,040	RF	\$20	\$460,800	15%	\$529,920
			Passenger Information System, Station	0	EA	\$70,000	\$0	15%	\$0
			Element Total	1	LS		\$460,800		\$529,920
50.06	Fare collection system and equipment		Fare Collection	0	EA	\$150,000	\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
50.07	Central Control		N/A				\$0		\$0
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate		Right of Way Allowance - At Grade	22,240	RF	\$400	\$8,896,000	50%	\$13,344,000
			Right of Way Allowance - Aerial	800	RF	\$300	\$240,000	50%	\$360,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	23,040	RF		\$9,136,000		\$13,704,000

Hillsborough County MPO Transit Study
System Planning
CR-East
I75/ LRT Sta to US98 at CL

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	95,803	RF	\$250	\$23,950,750	25%	\$29,938,438
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	95,803	RF		\$23,950,750		\$29,938,438
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	\$0
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	95,803	RF	\$240	\$22,992,720	15%	\$26,441,628
			Ballasted Track - Refurbish Existing	95,803	RF	\$190	\$18,202,570	15%	\$20,932,956
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	95,803	RF		\$41,195,290		\$47,374,584
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$2,059,765	15%	\$2,368,729
			Element Total	1	LS		\$2,059,765		\$2,368,729
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
System Planning
CR-East
I75/ LRT Sta to US98 at CL

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
	BEGIN	END							
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	2	EA	\$1,500,000	\$3,000,000	20%	\$3,600,000
			Element Total	2	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	95,803	RF	\$30	\$2,874,090	30%	\$3,736,317
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	95,803	RF		\$2,874,090		\$3,736,317
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	95,803	RF	\$140	\$13,412,420	30%	\$17,436,146
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	95,803	RF		\$13,412,420		\$17,436,146
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	95,803	RF	\$20	\$1,916,060	30%	\$2,490,878
			Element Total	1	LS		\$1,916,060		\$2,490,878
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	95,803	RF	\$15	\$1,437,045	30%	\$1,868,159
			Element Total	1	LS		\$1,437,045		\$1,868,159
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	9,580	RF	\$80	\$766,424	30%	\$996,351
			Element Total	1	LS		\$766,424		\$996,351
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	95,803	RF	\$15	\$1,437,045	30%	\$1,868,159
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$269,508	30%	\$350,360
			Element Total	1	LS		\$1,706,553		\$2,218,518

**Hillsborough County MPO Transit Study
System Planning
CR-East
I75/ LRT Sta to US98 at CL**

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
	BEGIN	END							
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	48	EA	\$50,000	\$2,400,000	30%	\$3,120,000
			Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,000
			Element Total	1	LS		\$6,400,000		\$8,320,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$1,425,630	25%	\$1,782,037
			Element Total	1	LS		\$1,425,630		\$1,782,037
50 SYSTEMS									
50.01			Train control and signals						
			Signal System	95,803	RF	\$140	\$13,412,420	15%	\$15,424,283
			Element Total	95,803	RF		\$13,412,420		\$15,424,283
50.02			Traffic signals and crossing protection						
			Crossing Protection	48	EA	\$150,000	\$7,200,000	15%	\$8,280,000
			Element Total	48	EA		\$7,200,000		\$8,280,000
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	95,803	RF	\$20	\$1,916,060	15%	\$2,203,469
			Passenger Information System, Station	2	EA	\$70,000	\$140,000	15%	\$161,000
			Element Total	1	LS		\$2,056,060		\$2,364,469
50.06			Fare collection system and equipment						
			Fare Collection	2	EA	\$150,000	\$300,000	15%	\$345,000
			Element Total	1	LS		\$300,000		\$345,000
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	95,803	RF	\$400	\$38,321,200	50%	\$57,481,800
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	95,803	RF		\$38,321,200		\$57,481,800

Hillsborough County MPO Transit Study
 System Planning
 CR-Land O Lakes
 County line/ Hwy 54 to Hwy275

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	31,266	RF	\$250	\$7,816,500	25%	\$9,770,625
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	31,266	RF		\$7,816,500		\$9,770,625
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	\$0
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	31,266	RF	\$240	\$7,503,840	15%	\$8,629,416
			Ballasted Track - Refurbish Existing	31,266	RF	\$190	\$5,940,540	15%	\$6,831,621
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	31,266	RF		\$13,444,380		\$15,461,037
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$672,219	15%	\$773,052
			Element Total	1	LS		\$672,219		\$773,052
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-Land O Lakes
 County line/ Hwy 54 to Hwy275

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
	BEGIN	END							
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	2	EA	\$1,500,000	\$3,000,000	20%	\$3,600,000
			Element Total	2	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A	1	LS		\$0		\$0
20.05	Joint development		N/A	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	31,266	RF	\$30	\$937,980	30%	\$1,219,374
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	31,266	RF		\$937,980		\$1,219,374
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	31,266	RF	\$140	\$4,377,240	30%	\$5,690,412
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	31,266	RF		\$4,377,240		\$5,690,412
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	31,266	RF	\$20	\$625,320	30%	\$812,916
			Element Total	1	LS		\$625,320		\$812,916
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	31,266	RF	\$15	\$468,990	30%	\$609,687
			Element Total	1	LS		\$468,990		\$609,687
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	3,127	RF	\$80	\$250,128	30%	\$325,166
			Element Total	1	LS		\$250,128		\$325,166
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	31,266	RF	\$15	\$468,990	30%	\$609,687
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$108,165	30%	\$140,615
			Element Total	1	LS		\$577,155		\$750,302

Hillsborough County MPO Transit Study
 System Planning
 CR-Land O Lakes
 County line/ Hwy 54 to Hwy275

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	16	EA	\$50,000	\$800,000	30%	\$1,040,000
			Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,000
			Element Total	1	LS		\$4,800,000		\$6,240,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$601,841	25%	\$752,301
			Element Total	1	LS		\$601,841		\$752,301
50			SYSTEMS						
50.01			Train control and signals						
			Signal System	31,266	RF	\$140	\$4,377,240	15%	\$5,033,826
			Element Total	31,266	RF		\$4,377,240		\$5,033,826
50.02			Traffic signals and crossing protection						
			Crossing Protection	16	EA	\$150,000	\$2,400,000	15%	\$2,760,000
			Element Total	16	EA		\$2,400,000		\$2,760,000
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	31,266	RF	\$20	\$625,320	15%	\$719,118
			Passenger Information System, Station	2	EA	\$70,000	\$140,000	15%	\$161,000
			Element Total	1	LS		\$765,320		\$880,118
50.06			Fare collection system and equipment						
			Fare Collection	2	EA	\$150,000	\$300,000	15%	\$345,000
			Element Total	1	LS		\$300,000		\$345,000
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60			ROW, LAND, EXISTING IMPROVEMENTS						
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	31,266	RF	\$400	\$12,506,400	50%	\$18,759,600
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	31,266	RF		\$12,506,400		\$18,759,600

Hillsborough County MPO Transit Study
 System Planning
 CR-Land O Lakes
 Hwy275 to Hwy580/ CL Railroad

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	24,071	RF	\$250	\$6,017,750	25%	\$7,522,188
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	24,071	RF		\$6,017,750		\$7,522,188
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	\$0
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	24,071	RF	\$240	\$5,777,040	15%	\$6,643,596
			Ballasted Track - Refurbish Existing	24,071	RF	\$190	\$4,573,490	15%	\$5,259,514
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	24,071	RF		\$10,350,530		\$11,903,110
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$517,527	15%	\$595,155
			Element Total	1	LS		\$517,527		\$595,155
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-Land O Lakes
 Hwy275 to Hwy580/ CL Railroad

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	1	EA	\$1,500,000	\$1,500,000	20%	\$1,800,000
			Element Total	1	EA		\$1,500,000		\$1,800,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	24,071	RF	\$30	\$722,130	30%	\$938,769
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	24,071	RF		\$722,130		\$938,769
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	24,071	RF	\$140	\$3,369,940	30%	\$4,380,922
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	24,071	RF		\$3,369,940		\$4,380,922
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	24,071	RF	\$20	\$481,420	30%	\$625,846
			Element Total	1	LS		\$481,420		\$625,846
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	24,071	RF	\$15	\$361,065	30%	\$469,385
			Element Total	1	LS		\$361,065		\$469,385
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,407	RF	\$80	\$192,568	30%	\$250,338
			Element Total	1	LS		\$192,568		\$250,338
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	24,071	RF	\$15	\$361,065	30%	\$469,385
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$75,178	30%	\$97,731
			Element Total	1	LS		\$436,243		\$567,115

Hillsborough County MPO Transit Study
 System Planning
 CR-Land O Lakes
 Hwy275 to Hwy580/ CL Railroad

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	12	EA	\$50,000	\$600,000	30%	\$780,000
			Parking Lots	500	STL	\$4,000	\$2,000,000	30%	\$2,600,000
			Element Total	1	LS		\$2,600,000		\$3,380,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$408,168	25%	\$510,210
			Element Total	1	LS		\$408,168		\$510,210
50			SYSTEMS						
50.01			Train control and signals						
			Signal System	24,071	RF	\$140	\$3,369,940	15%	\$3,875,431
			Element Total	24,071	RF		\$3,369,940		\$3,875,431
50.02			Traffic signals and crossing protection						
			Crossing Protection	12	EA	\$150,000	\$1,800,000	15%	\$2,070,000
			Element Total	12	EA		\$1,800,000		\$2,070,000
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	24,071	RF	\$20	\$481,420	15%	\$553,633
			Passenger Information System, Station	1	EA	\$70,000	\$70,000	15%	\$80,500
			Element Total	1	LS		\$551,420		\$634,133
50.06			Fare collection system and equipment						
			Fare Collection	1	EA	\$150,000	\$150,000	15%	\$172,500
			Element Total	1	LS		\$150,000		\$172,500
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60			ROW, LAND, EXISTING IMPROVEMENTS						
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	24,071	RF	\$400	\$9,628,400	50%	\$14,442,600
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	24,071	RF		\$9,628,400		\$14,442,600

Hillsborough County MPO Transit Study
 System Planning
 CR-Dwtn North
 Downtown (Hwy 685) to Hwy 580

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	29,014	RF	\$250	\$7,253,500	25%	\$9,066,875
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	29,014	RF		\$7,253,500		\$9,066,875
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	\$0
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	29,014	RF	\$240	\$6,963,360	15%	\$8,007,864
			Ballasted Track - Refurbish Existing	29,014	RF	\$190	\$5,512,660	15%	\$6,339,559
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	29,014	RF		\$12,476,020		\$14,347,423
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$623,801	15%	\$717,371
			Element Total	1	LS		\$623,801		\$717,371
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-Dwtn North
 Downtown (Hwy 685) to Hwy 580

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END							
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$1,500,000	\$0	20%	\$0
			Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	29,014	RF	\$30	\$870,420	30%	\$1,131,546
			Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$0
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	29,014	RF		\$870,420		\$1,131,546
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	29,014	RF	\$140	\$4,061,960	30%	\$5,280,548
			Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$0
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	29,014	RF		\$4,061,960		\$5,280,548
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	29,014	RF	\$20	\$580,280	30%	\$754,364
			Element Total	1	LS		\$580,280		\$754,364
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	29,014	RF	\$15	\$435,210	30%	\$565,773
			Element Total	1	LS		\$435,210		\$565,773
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,901	RF	\$80	\$232,112	30%	\$301,746
			Element Total	1	LS		\$232,112		\$301,746
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	29,014	RF	\$15	\$435,210	30%	\$565,773
			Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$0
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$72,535	30%	\$94,296
			Element Total	1	LS		\$507,745		\$660,069

Hillsborough County MPO Transit Study
 System Planning
 CR-Dwtn North
 Downtown (Hwy 685) to Hwy 580

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	15	EA	\$50,000	\$750,000	30%	\$975,000
			Parking Lots	0	STL	\$4,000	\$0	30%	\$0
			Element Total	1	LS		\$750,000		\$975,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$371,886	25%	\$464,858
			Element Total	1	LS		\$371,886		\$464,858
50 SYSTEMS									
50.01			Train control and signals						
			Signal System	29,014	RF	\$140	\$4,061,960	15%	\$4,671,254
			Element Total	29,014	RF		\$4,061,960		\$4,671,254
50.02			Traffic signals and crossing protection						
			Crossing Protection	15	EA	\$150,000	\$2,250,000	15%	\$2,587,500
			Element Total	15	EA		\$2,250,000		\$2,587,500
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	29,014	RF	\$20	\$580,280	15%	\$667,322
			Passenger Information System, Station	0	EA	\$70,000	\$0	15%	\$0
			Element Total	1	LS		\$580,280		\$667,322
50.06			Fare collection system and equipment						
			Fare Collection	0	EA	\$150,000	\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	29,014	RF	\$400	\$11,605,600	50%	\$17,408,400
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$0
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	29,014	RF		\$11,605,600		\$17,408,400

Hillsborough County MPO Transit Study
 System Planning
 CR-Sarasota
 CL Rail (east of Acline St) to Big Bend/ LRT Sta

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	58,255	RF	\$250	\$14,563,750	25%	\$18,204,688
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	58,255	RF		\$14,563,750		\$18,204,688
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	2,000	RF	\$11,900	\$23,800,000	30%	\$30,940,000
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	2,000	RF		\$23,800,000		\$30,940,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	60,255	RF	\$240	\$14,461,200	15%	\$16,630,380
			Ballasted Track - Refurbish Existing	60,255	RF	\$190	\$11,448,450	15%	\$13,165,718
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	60,255	RF		\$25,909,650		\$29,796,098
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$1,295,483	15%	\$1,489,805
			Element Total	1	LS		\$1,295,483		\$1,489,805
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

**Hillsborough County MPO Transit Study
System Planning
CR-Sarasota
CL Rail (east of Acline St) to Big Bend/ LRT Sta**

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
	BEGIN	END							
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	4	EA	\$1,500,000	\$6,000,000	20%	\$7,200,000
			Element Total	4	EA		\$6,000,000		\$7,200,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	58,255	RF	\$30	\$1,747,650	30%	\$2,271,945
			Demolition Allowance - Median	2,000	RF	\$50	\$100,000	30%	\$130,000
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	60,255	RF		\$1,847,650		\$2,401,945
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	58,255	RF	\$140	\$8,155,700	30%	\$10,602,410
			Utility Relocation Allowance - Median	2,000	RF	\$340	\$680,000	30%	\$884,000
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	60,255	RF		\$8,835,700		\$11,486,410
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	60,255	RF	\$20	\$1,205,100	30%	\$1,566,630
			Element Total	1	LS		\$1,205,100		\$1,566,630
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	60,255	RF	\$15	\$903,825	30%	\$1,174,973
			Element Total	1	LS		\$903,825		\$1,174,973
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	6,026	RF	\$80	\$482,040	30%	\$626,652
			Element Total	1	LS		\$482,040		\$626,652
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	58,255	RF	\$15	\$873,825	30%	\$1,135,973
			Landscaping Allowance - Median	2,000	RF	\$25	\$50,000	30%	\$65,000
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$443,638	30%	\$576,729
			Element Total	1	LS		\$1,367,463		\$1,777,701

**Hillsborough County MPO Transit Study
System Planning
CR-Sarasota
CL Rail (east of Acline St) to Big Bend/ LRT Sta**

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONGTY	TOTAL COST
	BEGIN	END							
40.07	Automobile, bus, van accessways including roads, parking lots		Roadway Modifications Allow. - Full						
			Intersection	29	EA	\$50,000	\$1,450,000	30%	\$1,885,000
			Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,000
			Element Total	1	LS		\$5,450,000		\$7,085,000
40.08	Temporary Facilities and other indirect costs during construction		Temporary Facilities (5% of Category 40)	5.0%			\$1,004,589	25%	\$1,255,736
			Element Total	1	LS		\$1,004,589		\$1,255,736
50 SYSTEMS									
50.01	Train control and signals		Signal System	60,255	RF	\$140	\$8,435,700	15%	\$9,701,055
			Element Total	60,255	RF		\$8,435,700		\$9,701,055
50.02	Traffic signals and crossing protection		Crossing Protection	29	EA	\$150,000	\$4,350,000	15%	\$5,002,500
			Element Total	29	EA		\$4,350,000		\$5,002,500
50.03	Traction power supply: substations		N/A						
			Element Total	0	EA		\$0		\$0
50.04	Traction power distribution: catenary and third rail		N/A						
			Element Total	0	RF		\$0		\$0
50.05	Communications		Passenger Information System, Fiber Optic	60,255	RF	\$20	\$1,205,100	15%	\$1,385,865
			Passenger Information System, Station	4	EA	\$70,000	\$280,000	15%	\$322,000
			Element Total	1	LS		\$1,485,100		\$1,707,865
50.06	Fare collection system and equipment		Fare Collection	4	EA	\$150,000	\$600,000	15%	\$690,000
			Element Total	1	LS		\$600,000		\$690,000
50.07	Central Control		N/A						
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01	Purchase or lease of real estate		Right of Way Allowance - At Grade	58,255	RF	\$400	\$23,302,000	50%	\$34,953,000
			Right of Way Allowance - Aerial	2,000	RF	\$300	\$600,000	50%	\$900,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	60,255	RF		\$23,902,000		\$35,853,000

Hillsborough County MPO Transit Study
 System Planning
 CR-Sarasota
 Big Bend/ LRT Sta to Sarasota/ Countyline

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	73,866	RF	\$250	\$18,466,500	25%	\$23,083,125
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	73,866	RF		\$18,466,500		\$23,083,125
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	700	RF	\$11,900	\$8,330,000	30%	\$10,829,000
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	700	RF		\$8,330,000		\$10,829,000
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	74,566	RF	\$240	\$17,895,840	15%	\$20,580,216
			Ballasted Track - Refurbish Existing	74,566	RF	\$190	\$14,167,540	15%	\$16,292,671
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	74,566	RF		\$32,063,380		\$36,872,887
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$1,603,169	15%	\$1,843,644
			Element Total	1	LS		\$1,603,169		\$1,843,644
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-Sarasota
 Big Bend/ LRT Sta to Sarasota/ Countyline

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	2	EA	\$1,500,000	\$3,000,000	20%	\$3,600,000
			Element Total	2	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A	1	LS		\$0		\$0
20.05	Joint development		N/A	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	73,866	RF	\$30	\$2,215,980	30%	\$2,880,774
			Demolition Allowance - Median	700	RF	\$50	\$35,000	30%	\$45,500
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	74,566	RF		\$2,250,980		\$2,926,274
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	73,866	RF	\$140	\$10,341,240	30%	\$13,443,612
			Utility Relocation Allowance - Median	700	RF	\$340	\$238,000	30%	\$309,400
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	74,566	RF		\$10,579,240		\$13,753,012
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	74,566	RF	\$20	\$1,491,320	30%	\$1,938,716
			Element Total	1	LS		\$1,491,320		\$1,938,716
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	74,566	RF	\$15	\$1,118,490	30%	\$1,454,037
			Element Total	1	LS		\$1,118,490		\$1,454,037
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	7,457	RF	\$80	\$596,528	30%	\$775,486
			Element Total	1	LS		\$596,528		\$775,486
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	73,866	RF	\$15	\$1,107,990	30%	\$1,440,387
			Landscaping Allowance - Median	700	RF	\$25	\$17,500	30%	\$22,750
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$297,965	30%	\$387,355
			Element Total	1	LS		\$1,423,455		\$1,850,492

**Hillsborough County MPO Transit Study
System Planning
CR-Sarasota
Big Bend/ LRT Sta to Sarasota/ Countyline**

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	37	EA	\$50,000	\$1,850,000	30%	\$2,405,000
			Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,000
			Element Total	1	LS		\$5,850,000		\$7,605,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$1,165,501	25%	\$1,456,876
			Element Total	1	LS		\$1,165,501		\$1,456,876
50 SYSTEMS									
50.01			Train control and signals						
			Signal System	74,566	RF	\$140	\$10,439,240	15%	\$12,005,126
			Element Total	74,566	RF		\$10,439,240		\$12,005,126
50.02			Traffic signals and crossing protection						
			Crossing Protection	37	EA	\$150,000	\$5,550,000	15%	\$6,382,500
			Element Total	37	EA		\$5,550,000		\$6,382,500
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	74,566	RF	\$20	\$1,491,320	15%	\$1,715,018
			Passenger Information System, Station	2	EA	\$70,000	\$140,000	15%	\$161,000
			Element Total	1	LS		\$1,631,320		\$1,876,018
50.06			Fare collection system and equipment						
			Fare Collection	2	EA	\$150,000	\$300,000	15%	\$345,000
			Element Total	1	LS		\$300,000		\$345,000
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	73,866	RF	\$400	\$29,546,400	50%	\$44,319,600
			Right of Way Allowance - Aerial	700	RF	\$300	\$210,000	50%	\$315,000
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	74,566	RF		\$29,756,400		\$44,634,600

Hillsborough County MPO Transit Study
System Planning
CR-West

Westchase/ County line to west of Sheldon/ LRT Sta

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	16,213	RF	\$250	\$4,053,250	25%	\$5,066,563
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	16,213	RF		\$4,053,250		\$5,066,563
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	150	RF	\$11,900	\$1,785,000	30%	\$2,320,500
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	150	RF		\$1,785,000		\$2,320,500
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	16,363	RF	\$240	\$3,927,120	15%	\$4,516,188
			Ballasted Track - Refurbish Existing	16,363	RF	\$190	\$3,108,970	15%	\$3,575,316
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	16,363	RF		\$7,036,090		\$8,091,504
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$351,805	15%	\$404,575
			Element Total	1	LS		\$351,805		\$404,575
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
System Planning
CR-West

Westchase/ County line to west of Sheldon/ LRT Sta

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$1,500,000	\$0	20%	\$0
			Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	16,213	RF	\$30	\$486,390	30%	\$632,307
			Demolition Allowance - Median	150	RF	\$50	\$7,500	30%	\$9,750
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	16,363	RF		\$493,890		\$642,057
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	16,213	RF	\$140	\$2,269,820	30%	\$2,950,766
			Utility Relocation Allowance - Median	150	RF	\$340	\$51,000	30%	\$66,300
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	16,363	RF		\$2,320,820		\$3,017,066
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	16,363	RF	\$20	\$327,260	30%	\$425,438
			Element Total	1	LS		\$327,260		\$425,438
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	16,363	RF	\$15	\$245,445	30%	\$319,079
			Element Total	1	LS		\$245,445		\$319,079
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	1,636	RF	\$80	\$130,904	30%	\$170,175
			Element Total	1	LS		\$130,904		\$170,175
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	16,213	RF	\$15	\$243,195	30%	\$316,154
			Landscaping Allowance - Median	150	RF	\$25	\$3,750	30%	\$4,875
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$58,383	30%	\$75,897
			Element Total	1	LS		\$305,328		\$396,926

Hillsborough County MPO Transit Study
System Planning
CR-West

Westchase/ County line to west of Sheldon/ LRT Sta

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	8	EA	\$50,000	\$400,000	30%	\$520,000
			Parking Lots	0	STL	\$4,000	\$0	30%	\$0
			Element Total	1	LS		\$400,000		\$520,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$211,182	25%	\$263,978
			Element Total	1	LS		\$211,182		\$263,978
50 SYSTEMS									
50.01			Train control and signals						
			Signal System	16,363	RF	\$140	\$2,290,820	15%	\$2,634,443
			Element Total	16,363	RF		\$2,290,820		\$2,634,443
50.02			Traffic signals and crossing protection						
			Crossing Protection	8	EA	\$150,000	\$1,200,000	15%	\$1,380,000
			Element Total	8	EA		\$1,200,000		\$1,380,000
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	16,363	RF	\$20	\$327,260	15%	\$376,349
			Passenger Information System, Station	0	EA	\$70,000	\$0	15%	\$0
			Element Total	1	LS		\$327,260		\$376,349
50.06			Fare collection system and equipment						
			Fare Collection	0	EA	\$150,000	\$0	15%	\$0
			Element Total	1	LS		\$0		\$0
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	16,213	RF	\$400	\$6,485,200	50%	\$9,727,800
			Right of Way Allowance - Aerial	150	RF	\$300	\$45,000	50%	\$67,500
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	16,363	RF		\$6,530,200		\$9,795,300

Hillsborough County MPO Transit Study
System Planning
CR-West
West of Sheldon/ LRT Sta to Hwy580

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS									
10.01	Guideway: At-grade exclusive right-of-way								
	Single Track		At Grade - Ballasted, Open	50,601	RF	\$250	\$12,650,250	25%	\$15,812,813
	Double Track		At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	\$0
			Element Total	50,601	RF		\$12,650,250		\$15,812,813
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)								
			N/A						
			Element Total	0	RF		\$0		\$0
10.03	Guideway: At-grade in mixed traffic								
			N/A						
			Element Total	0	RF		\$0		\$0
10.04	Guideway: Aerial structure								
	Single Track		Aerial - Ballasted	0	RF	\$11,000	\$0	30%	\$0
	Single Track		Aerial - Ballasted Over Water	50	RF	\$11,900	\$595,000	30%	\$773,500
	Double Track		Aerial - Ballasted	0	RF	\$15,200	\$0	30%	\$0
	Double Track		Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	\$0
			Element Total	50	RF		\$595,000		\$773,500
10.05	Guideway: Built-up fill								
	Single Track		At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	\$0
	Double Track		At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	\$0
			Element Total	0	RF		\$0		\$0
10.06	Guideway: Underground cut & cover								
			N/A						
			Element Total	0	RF		\$0		\$0
10.07	Guideway: Underground tunnel								
			N/A						
			Element Total	0	RF		\$0		\$0
10.08	Guideway: Retained cut or fill								
	Single Track		Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	\$0
	Single Track		Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	\$0
	Double Track		Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	\$0
	Double Track		Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	\$0
			Element Total	0	RF		\$0		\$0
10.09	Track: Direct fixation								
			N/A						
			Element Total	0	RF		\$0		\$0
10.10	Track: Embedded								
			N/A						
			Element Total	0	RF		\$0		\$0
10.11	Track: Ballasted								
	Single Track		Ballasted Track	50,651	RF	\$240	\$12,156,240	15%	\$13,979,676
			Ballasted Track - Refurbish Existing	50,651	RF	\$190	\$9,623,690	15%	\$11,067,244
	Double Track		Ballasted Track	0	RF	\$480	\$0	15%	\$0
			Element Total	50,651	RF		\$21,779,930		\$25,046,920
10.12	Track: Special (switches, turnouts)								
			Special Trackwork (5% of Track Cost)	5%			\$1,088,997	15%	\$1,252,346
			Element Total	1	LS		\$1,088,997		\$1,252,346
10.13	Track: Vibration and noise dampening								
			N/A						
			Element Total	1	LS		\$0		\$0

Hillsborough County MPO Transit Study
 System Planning
 CR-West
 West of Sheldon/ LRT Sta to Hwy580

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
	BEGIN	END							
20 STATIONS, STOPS, TERMINALS, INTERMODAL									
20.01	At-grade station, stop, shelter, mall, terminal, platform		Center Platform Station	2	EA	\$1,500,000	\$3,000,000	20%	\$3,600,000
			Element Total	2	EA		\$3,000,000		\$3,600,000
20.02	Aerial station, stop, shelter, mall, terminal, platform		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
			Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, shelter, mall, terminal, platform		N/A						
			Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		N/A						
			Element Total	1	LS		\$0		\$0
20.05	Joint development		N/A						
			Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-story structure		Parking Garage	0	STL	\$12,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
20.07	Elevators, escalators		Eleavator	0	EA	\$200,000	\$0	20%	\$0
			Escalator	0	EA	\$450,000	\$0	20%	\$0
			Element Total	1	LS		\$0		\$0
40 SITEWORK & SPECIAL CONDITIONS									
40.01	Demolition, Clearing, Earthwork		Demolition Allowance - Low	50,601	RF	\$30	\$1,518,030	30%	\$1,973,439
			Demolition Allowance - Median	50	RF	\$50	\$2,500	30%	\$3,250
			Demolition Allowance - High	0	RF	\$90	\$0	30%	\$0
			Element Total	50,651	RF		\$1,520,530		\$1,976,689
40.02	Site Utilities, Utility Relocation		Utility Relocation Allowance - Low	50,601	RF	\$140	\$7,084,140	30%	\$9,209,382
			Utility Relocation Allowance - Median	50	RF	\$340	\$17,000	30%	\$22,100
			Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$0
			Element Total	50,651	RF		\$7,101,140		\$9,231,482
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		Hazardous Material Removal Allowance	50,651	RF	\$20	\$1,013,020	30%	\$1,316,926
			Element Total	1	LS		\$1,013,020		\$1,316,926
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		Enviromental Mitigation Allowance	50,651	RF	\$15	\$759,765	30%	\$987,695
			Element Total	1	LS		\$759,765		\$987,695
40.05	Site structures including retaining walls, sound walls		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	5,065	RF	\$80	\$405,208	30%	\$526,770
			Element Total	1	LS		\$405,208		\$526,770
40.06	Pedestrian / bike access and accommodation, landscaping		Landscaping Allowance - Low	50,601	RF	\$15	\$759,015	30%	\$986,720
			Landscaping Allowance - Median	50	RF	\$25	\$1,250	30%	\$1,625
			Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$0
			Pedestrian Overpasses	0	EA	\$800,000	\$0	30%	\$0
			Artwork (1% of Guideway & Stations)	1%			\$162,453	30%	\$211,188
			Element Total	1	LS		\$922,718		\$1,199,533

Hillsborough County MPO Transit Study
 System Planning
 CR-West
 West of Sheldon/ LRT Sta to Hwy580

TRANSIT MODE: Commuter Rail

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
40.07			Automobile, bus, van accessways including roads, parking lots						
			Roadway Modifications Allow. - Full						
			Intersection	25	EA	\$50,000	\$1,250,000	30%	\$1,625,000
			Parking Lots	400	STL	\$4,000	\$1,600,000	30%	\$2,080,000
			Element Total	1	LS		\$2,850,000		\$3,705,000
40.08			Temporary Facilities and other indirect costs during construction						
			Temporary Facilities (5% of Category 40)	5.0%			\$728,619	25%	\$910,774
			Element Total	1	LS		\$728,619		\$910,774
50 SYSTEMS									
50.01			Train control and signals						
			Signal System	50,651	RF	\$140	\$7,091,140	15%	\$8,154,811
			Element Total	50,651	RF		\$7,091,140		\$8,154,811
50.02			Traffic signals and crossing protection						
			Crossing Protection	25	EA	\$150,000	\$3,750,000	15%	\$4,312,500
			Element Total	25	EA		\$3,750,000		\$4,312,500
50.03			Traction power supply: substations						
			N/A						
			Element Total	0	EA		\$0		\$0
50.04			Traction power distribution: catenary and third rail						
			N/A						
			Element Total	0	RF		\$0		\$0
50.05			Communications						
			Passenger Information System, Fiber Optic	50,651	RF	\$20	\$1,013,020	15%	\$1,164,973
			Passenger Information System, Station	2	EA	\$70,000	\$140,000	15%	\$161,000
			Element Total	1	LS		\$1,153,020		\$1,325,973
50.06			Fare collection system and equipment						
			Fare Collection	2	EA	\$150,000	\$300,000	15%	\$345,000
			Element Total	1	LS		\$300,000		\$345,000
50.07			Central Control						
			N/A						
			Element Total	1	LS		\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS									
60.01			Purchase or lease of real estate						
			Right of Way Allowance - At Grade	50,601	RF	\$400	\$20,240,400	50%	\$30,360,600
			Right of Way Allowance - Aerial	50	RF	\$300	\$15,000	50%	\$22,500
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	50,651	RF		\$20,255,400		\$30,383,100

**Hillsborough County MPO Transit Study
System Planning
SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**

TRANSIT MODE: Commuter Rail

STATIONING		DESCRIPTION	COST		UNIT	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY				
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS								
30.01 Administration Building: Office, sales, storage, revenue counting								
		N/A						
		Element Total		1	LS	\$0		\$0
30.02 Light Maintenance Facility								
		N/A						
		Element Total		1	LS	\$0		\$0
30.03 Heavy Maintenance Facility								
		Maintenance Facility (per vehicle)		114	EA	\$1,000,000	25%	\$142,500,000
		Element Total		1	LS	\$114,000,000		\$142,500,000
30.04 Storage or Maintenance of Way Building								
		N/A						
		Element Total		1	LS	\$0		\$0
30.05 Yard and Yard Track								
Yard		Yard Track		1,000	RF	\$240	15%	\$276,000
Yard		Signal System, Single Track		1,000	RF	\$240	15%	\$276,000
		Element Total		1	LS	\$480,000		\$552,000
60 ROW, LAND, EXISTING IMPROVEMENTS								
60.01 Purchase or lease of real estate								
		Right of Way Allowance		20	AC	\$500,000	50%	\$15,000,000
		Element Total		1	LS	\$10,000,000		\$15,000,000

Hillsborough County MPO Transit Study
System Planning
VEHICLES

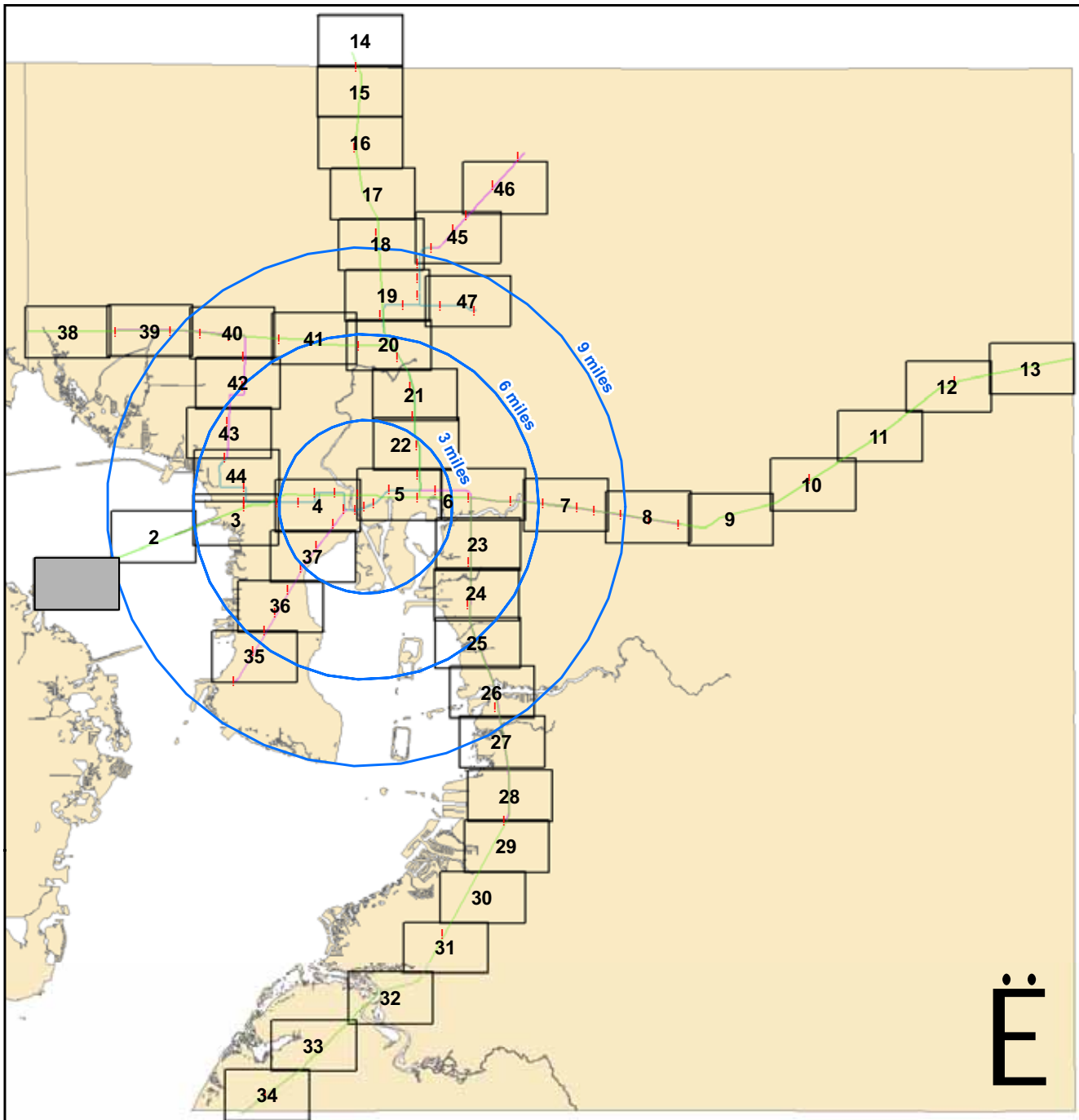
TRANSIT MODE: Commuter Rail

STATIONING		DESCRIPTION	COST		UNIT		BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY	UNIT	COST			
70 VEHICLES									
70.01 Light Rail									
		Diesel Locomotive	VH10	29	EA	\$2,500,000	\$71,250,000	10%	\$78,375,000
		Commuter Coach Car	VH11	57	EA	\$2,100,000	\$119,700,000	10%	\$131,670,000
		Commuter Cab Car	VH12	29	EA	\$2,400,000	\$68,400,000	10%	\$75,240,000
		Element Total		114	EA		\$259,350,000		\$285,285,000

APPENDIX B

Mapbooks

MAPBOOK A, B & C CONCEPTS – 48 PAGES



- ! Stations
- Commuter Rail
- Light Rail
- Tampa Rail
- Map Book Page




Map Book Pages for Rail Lines

Commuter Rail: 1 - 34, 38, 39, 40, 41, 44
Light Rail: 4 - 8, 23 - 28, 35, 36, 37, 39, 40, 42, 43 - 46
Tampa Rail: 3, 4, 5, 18 - 22, 43, 44, 45, 47



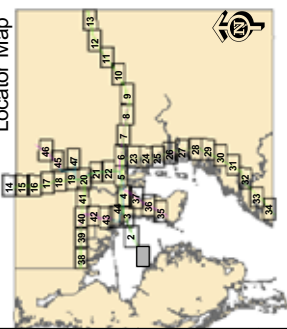
**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1' = 1,000"

Locator Map





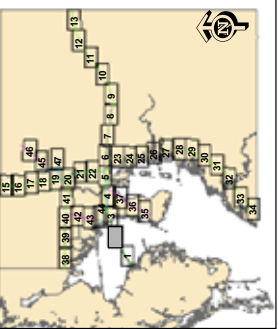
**Hillsborough County
MPO Transit Study**

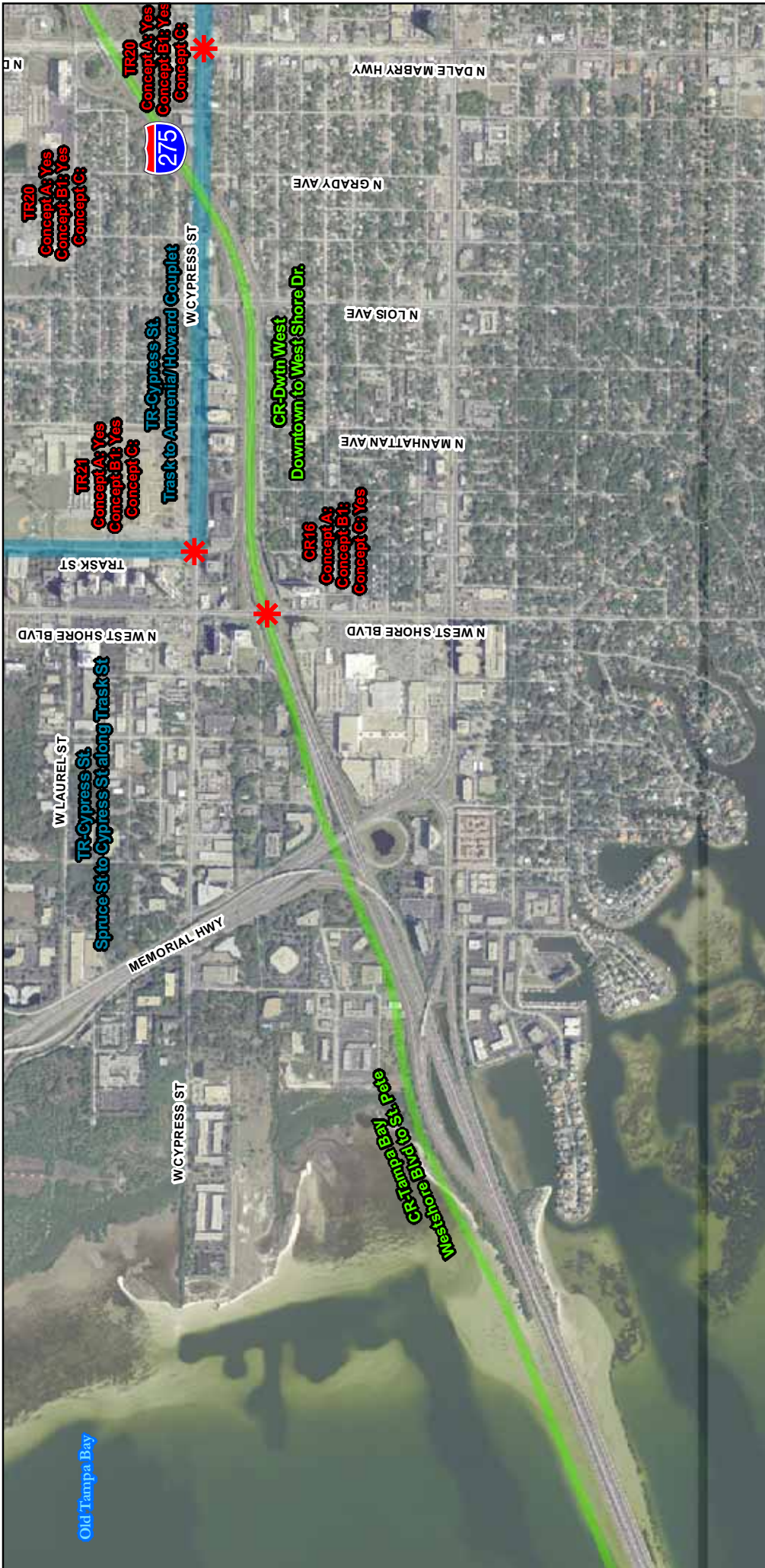
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1' = 1,000"

Locator Map





Old Tampa Bay

W LAUREL ST

TR-Cypress St
Spruce St to Cypress St along Trask St

TRASK ST
N WEST SHORE BLVD

MEMORIAL HWY

W CYPRESS ST

CR Tampa Bay
Westshore Blvd to St. Pete

N WEST SHORE BLVD

CR16
Concept A: Yes
Concept B1: Yes
Concept C: Yes

N MANHATTAN AVE

CR-Dwtn West
Downtown to West Shore Dr.

N LOIS AVE

N GRADY AVE

N DALE MABRY HWY

N

TR20
Concept A: Yes
Concept B1: Yes
Concept C:

TR21
Concept A: Yes
Concept B1: Yes
Concept C:

TR-Cypress St
Trask to Armenia/Howard Couplet

W CYPRESS ST

TR20
Concept A: Yes
Concept B1: Yes
Concept C:



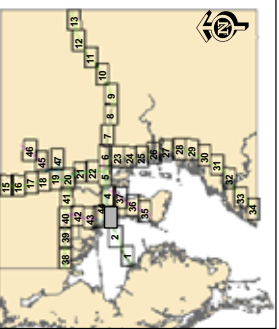
Hillsborough County
MPO Transit Study

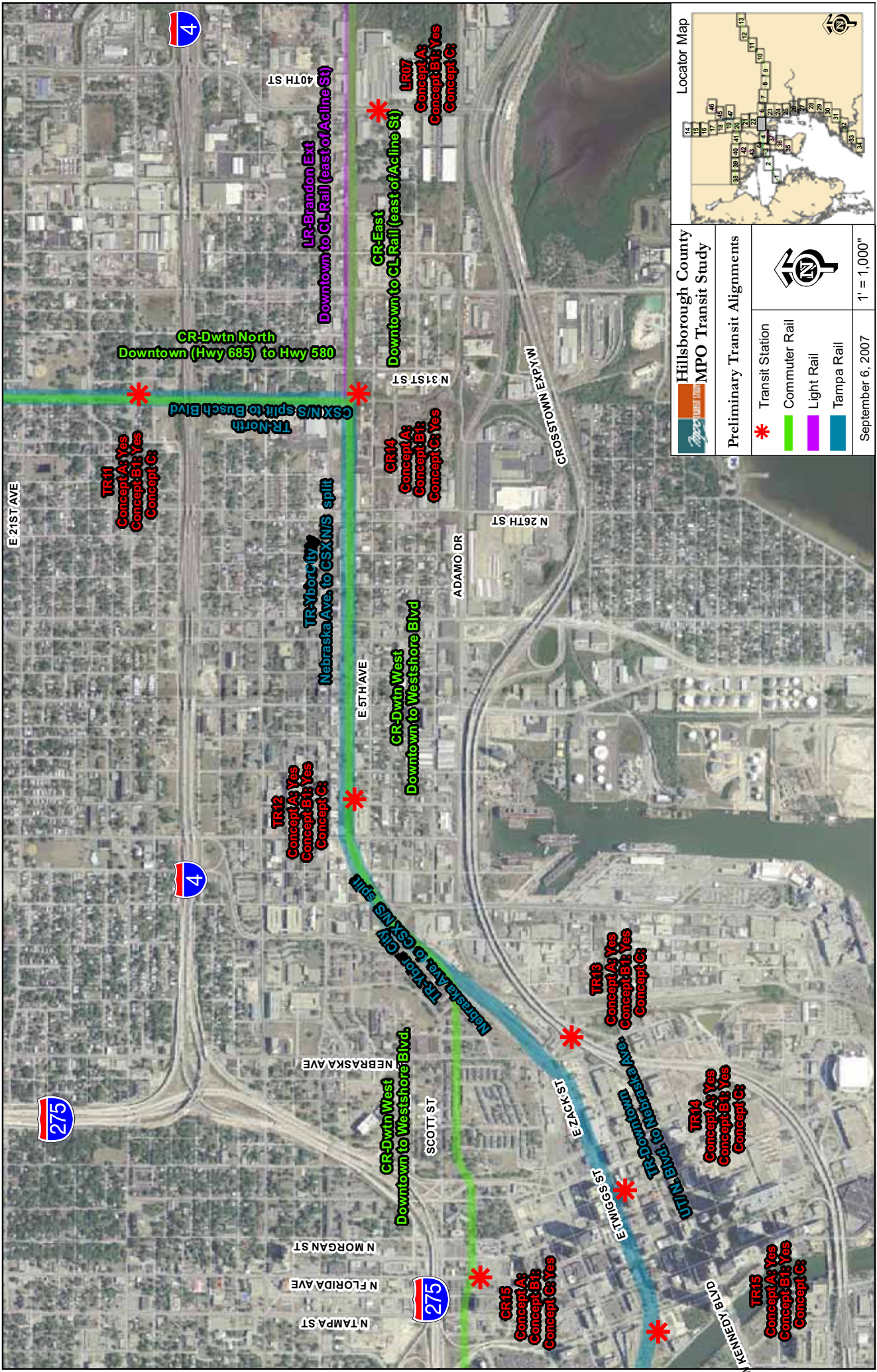
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Bay

September 6, 2007
1" = 1,000"

Locator Map





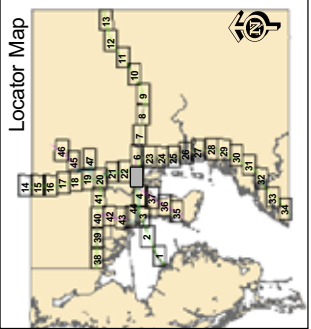
Hillsborough County MPO Transit Study

Preliminary Transit Alignments

- Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail

September 6, 2007

1" = 1,000"



E 21ST AVE



CR-Dwtn North
Downtown (Hwy 685) to Hwy 580

LR-Brandon Ext
Downtown to CL Rail (east of Acline St)

CR-East
Downtown to CL Rail (east of Acline St)

LR07
Concept A: Yes
Concept B: Yes
Concept C:

TR11
Concept A: Yes
Concept B: Yes
Concept C:

TR-North
CSX/N/S split to Busch Blvd

TR-Vibrant
Nebraska Ave. to CSX/N/S split

GR-Dwtn West
Downtown to Westshore Blvd

TR12
Concept A: Yes
Concept B: Yes
Concept C:

TR-Town City
Nebraska Ave to CSX/N/S split

GR-Dwtn West
Downtown to Westshore Blvd.

TR13
Concept A: Yes
Concept B: Yes
Concept C:

TR-Downtown
UTIN Blvd to Nebraska Ave.

TR14
Concept A: Yes
Concept B: Yes
Concept C:

N TAMPA ST
N FLORIDA AVE
N MORGAN ST

CR15
Concept A: Yes
Concept B: Yes
Concept C: Yes

TR15
Concept A: Yes
Concept B: Yes
Concept C:

40TH ST

N 31ST ST

N 26TH ST

E 5TH AVE

ADAMO DR

NEBRASKA AVE

SCOTT ST

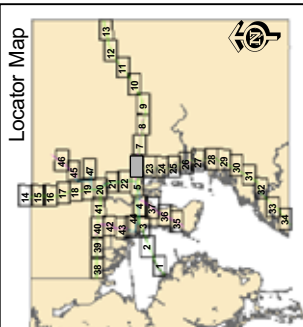
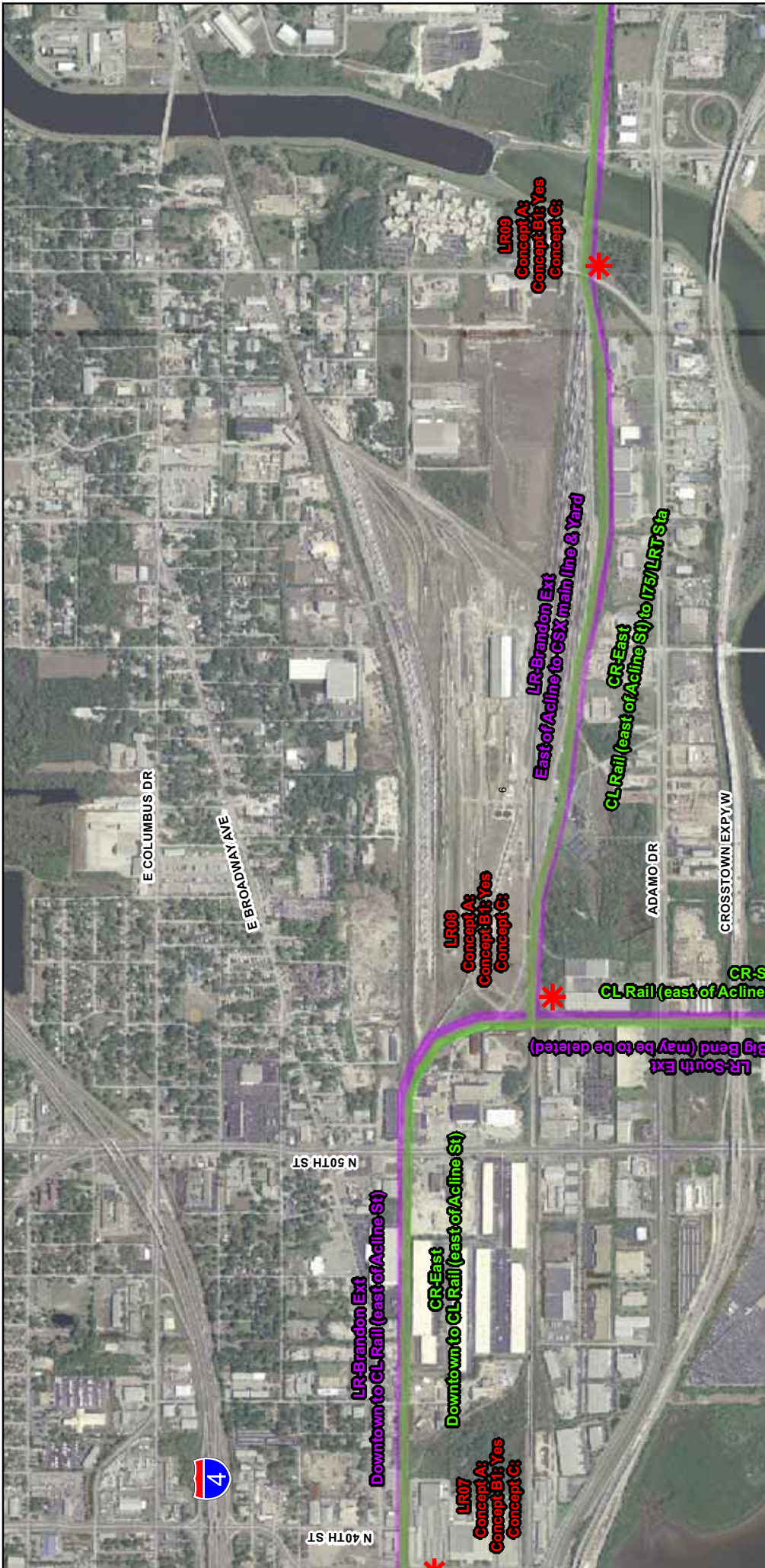
E JACK ST

EMIGES ST

W KENNEDY BLVD

W VILLYEY LN

Locator Map



Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

- Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail

September 6, 2007

1" = 1,000"

N 40TH ST

N 50TH ST

S 50TH ST

E COLUMBUS DR

E BROADWAY AVE

ADAMO DR

CROSSTOWN EXPY W

LR-Brandon Ext
Downtown to CL Rail (east of Acline St)

CR-East
Downtown to CL Rail (east of Acline St)

LR07
Concept A: Yes
Concept B1: Yes
Concept C:

LR08
Concept A: Yes
Concept B1: Yes
Concept C:

LR-South Ext
Downtown to Big Bend (may be to be deleted)

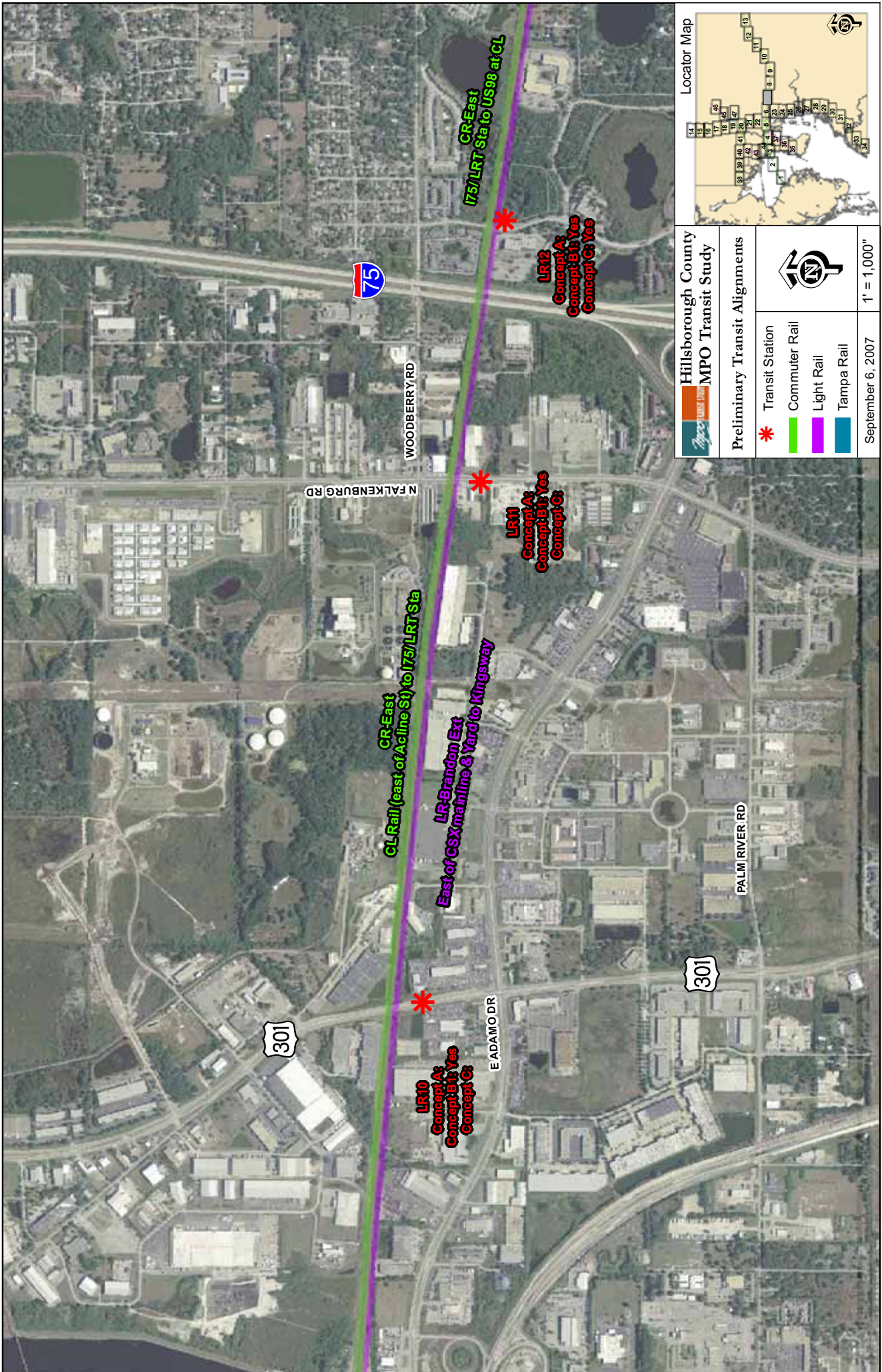
CR-Sarasota
CL Rail (east of Acline St) to Big Bend/ LRT Sta

LR-Brandon Ext
East of Acline to CSX main line & Yard

CR-East
CL Rail (east of Acline St) to ITS/LRT Sta

LR09
Concept A: Yes
Concept B1: Yes
Concept C:





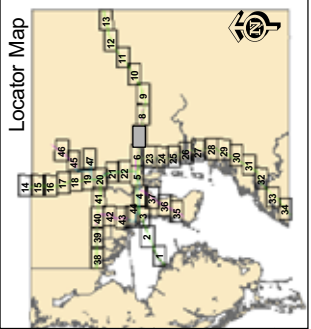
Hillsborough County
MPO Transit Study

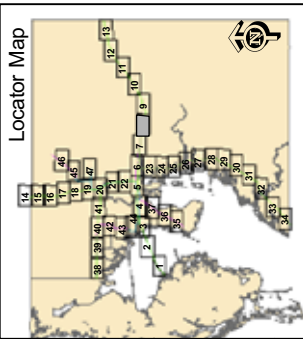
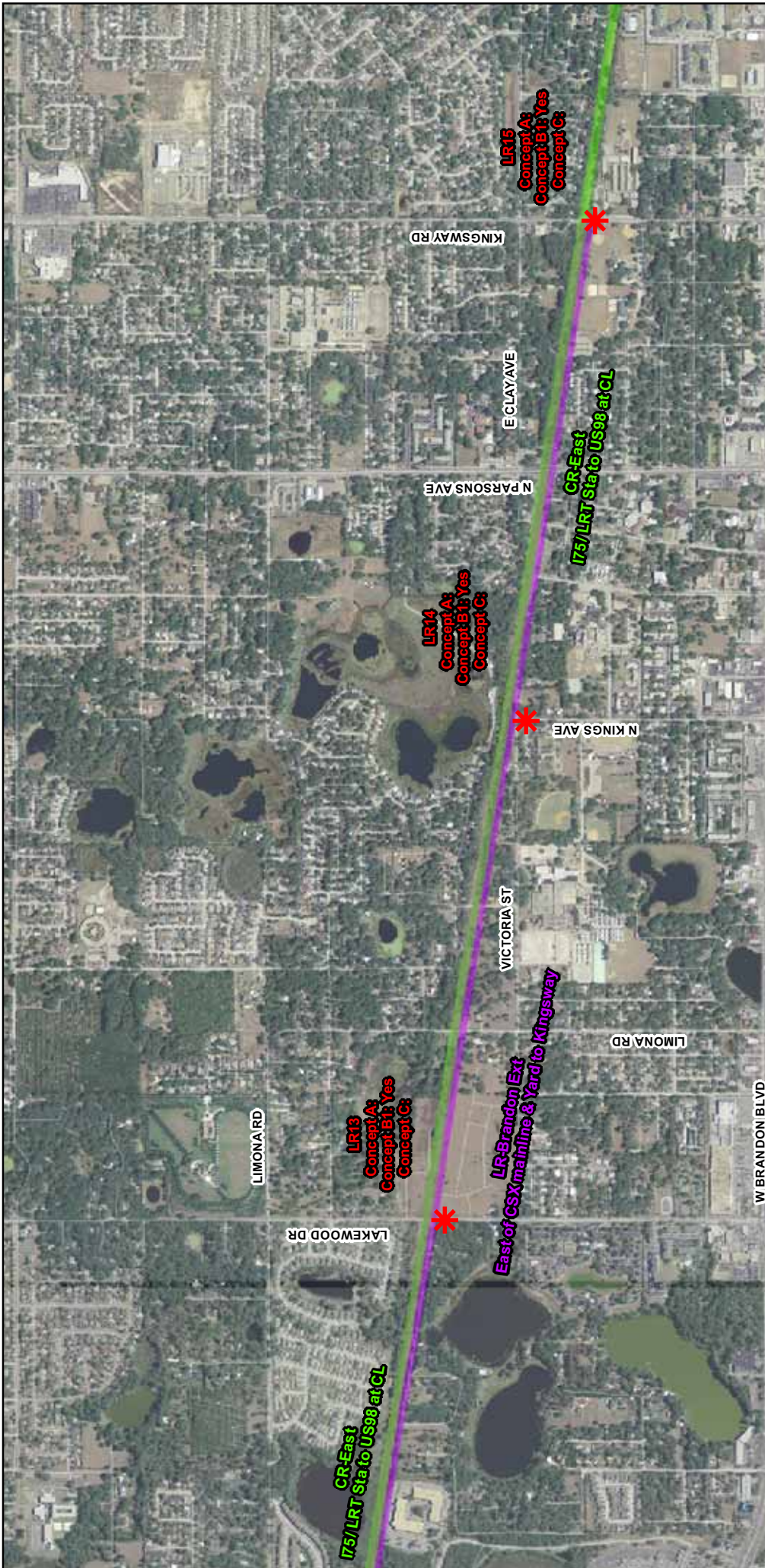
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"





**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"



**CR-East
1751/NT Sta 60.0/598 at CL**

**Hillsborough County
MPO Transit Study**

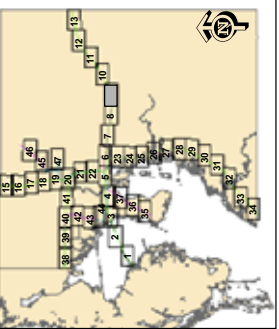


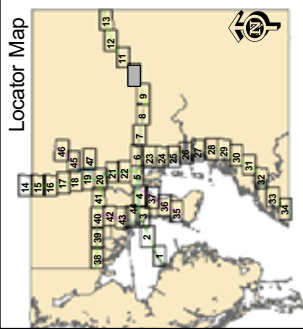
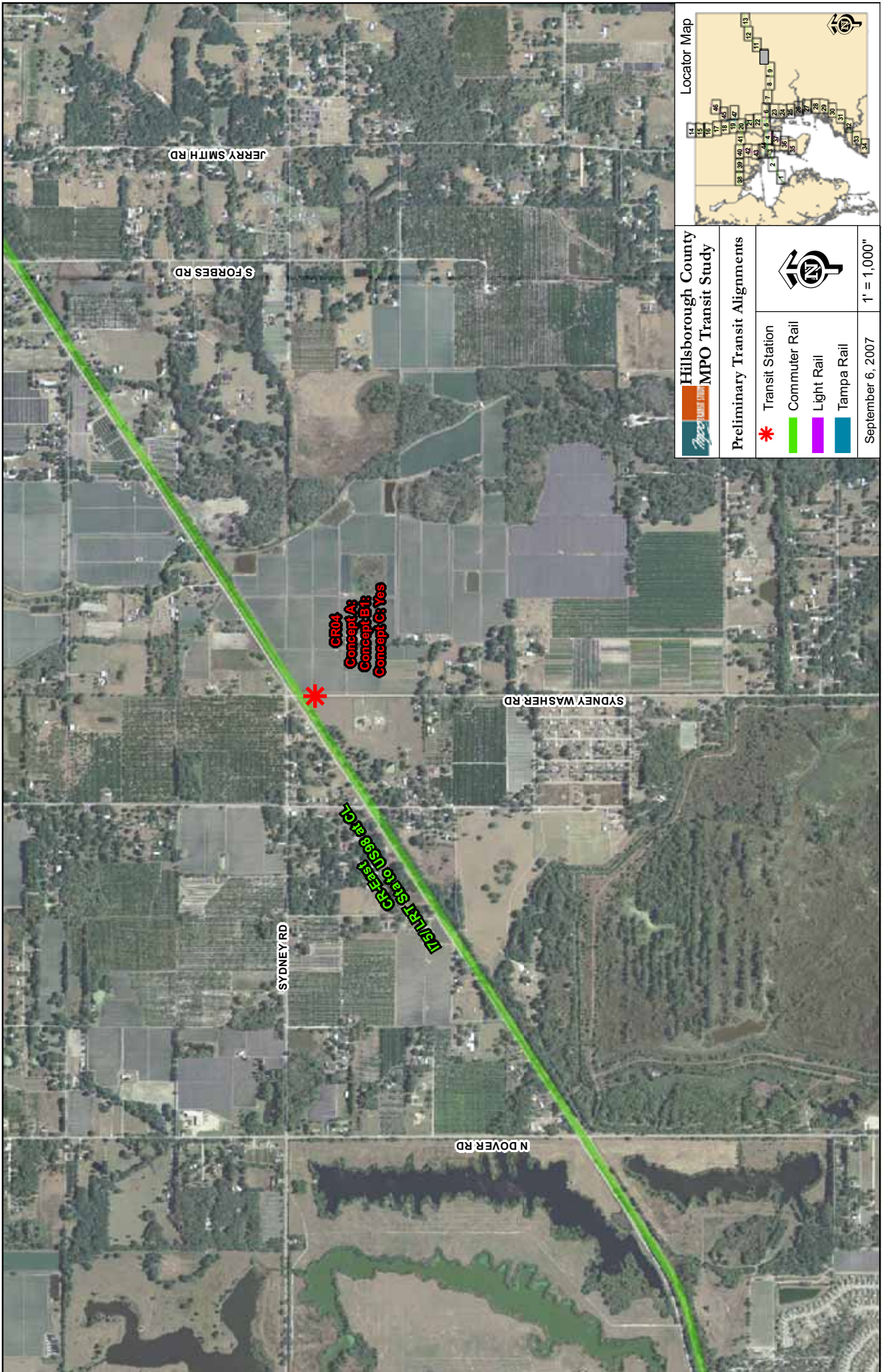
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1" = 1,000"

Locator Map





**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"

JERRY SMITH RD

S FORBES RD

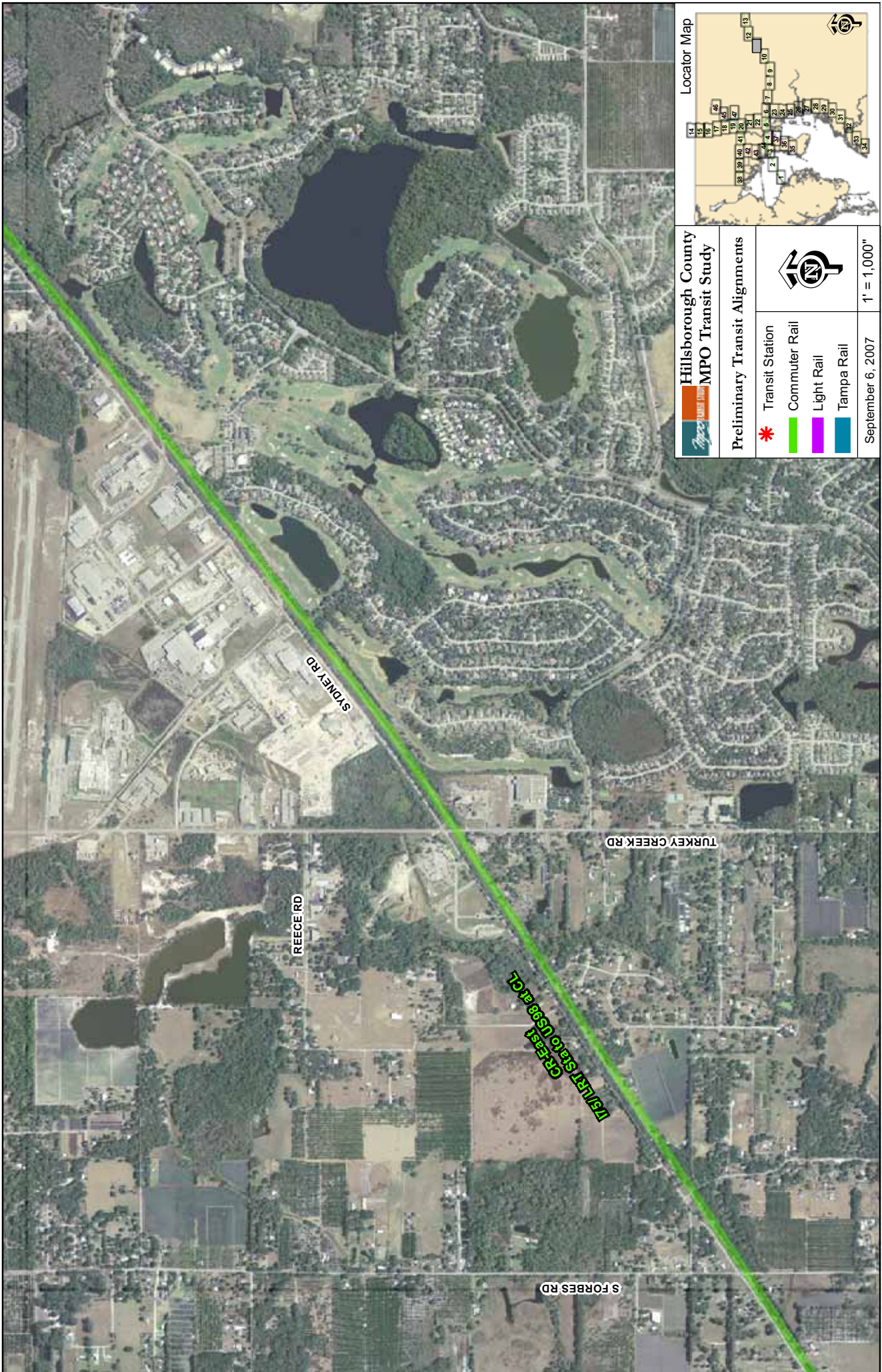
**CR04
Concept A:
Concept B:
Concept C: Yes**

SYDNEY WASHER RD

SYDNEY RD





TRAIL STATION US98 at CL

N DOVER RD



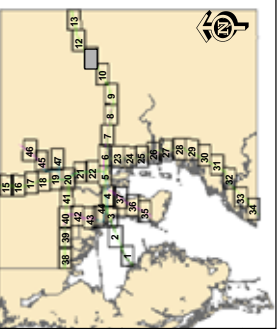
**Hillsborough County
MPO Transit Study**

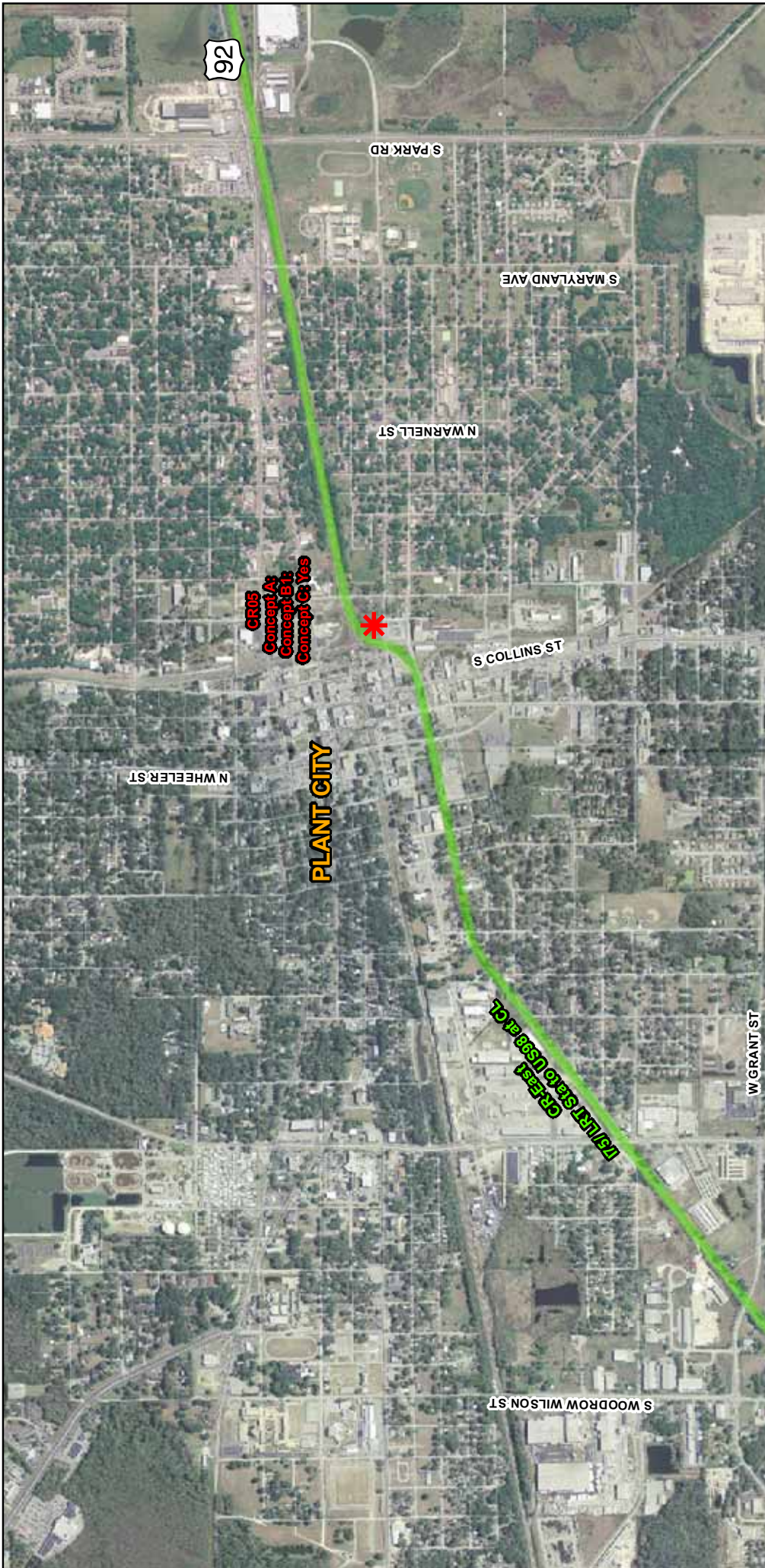
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1" = 1,000"

Locator Map





CR05
Concept A:
Concept B:
Concept C: Yes

PLANT CITY

92

S PARK RD

S MARYLAND AVE

N WARNELL ST

S COLLINS ST

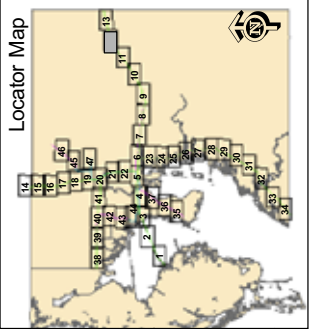
N WHEELER ST

W GRANT ST

S ALEXANDER ST

S WOODROW WILSON ST

DA/LRT STATION US94 CL



Hillsborough County
 MPO Transit Study

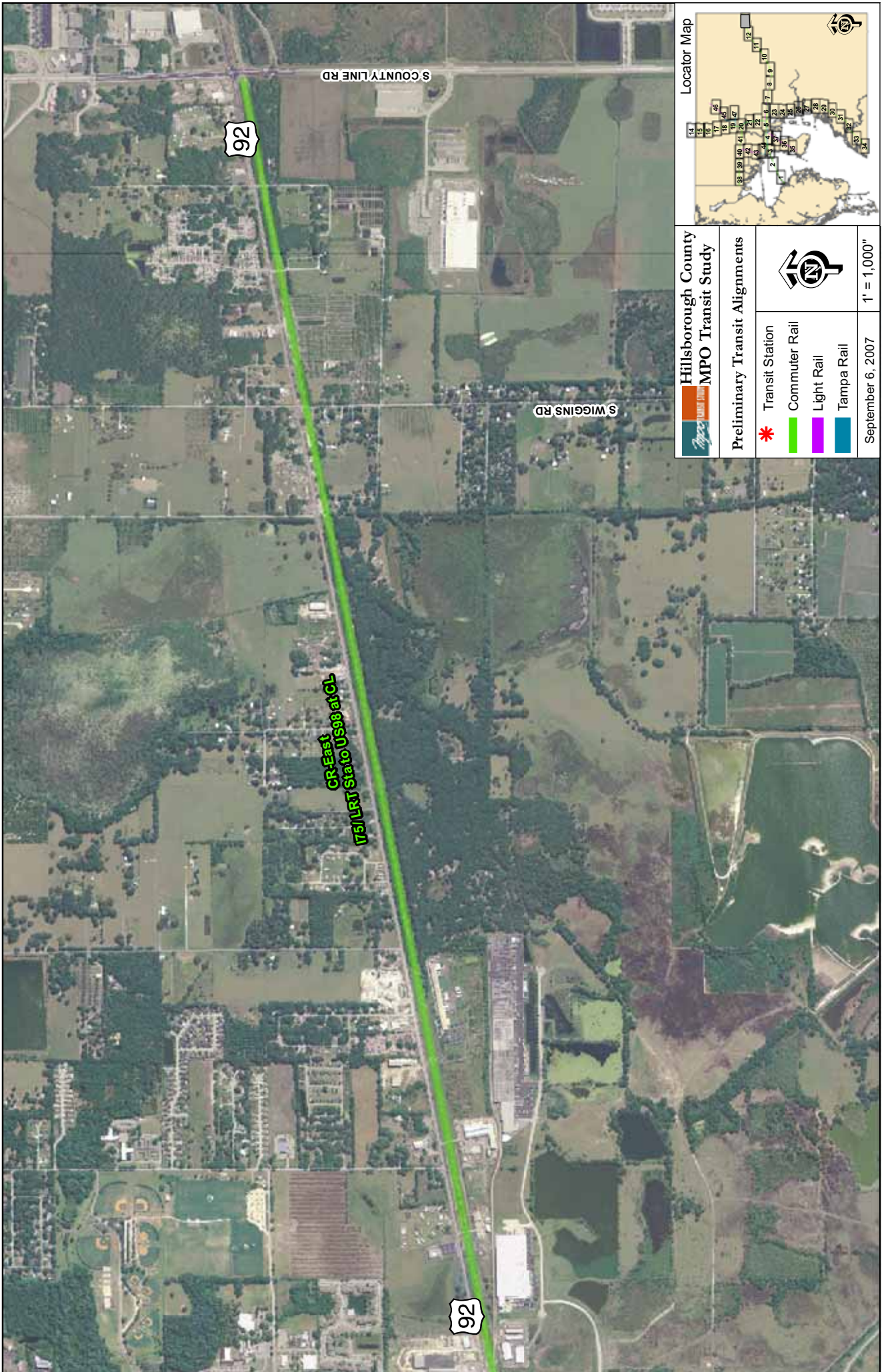


Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

1" = 1,000"

September 6, 2007

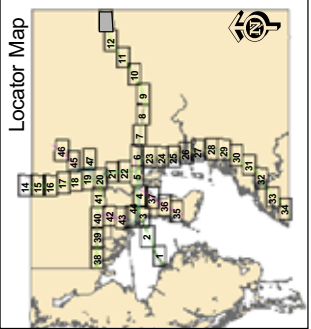


Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1" = 1,000"



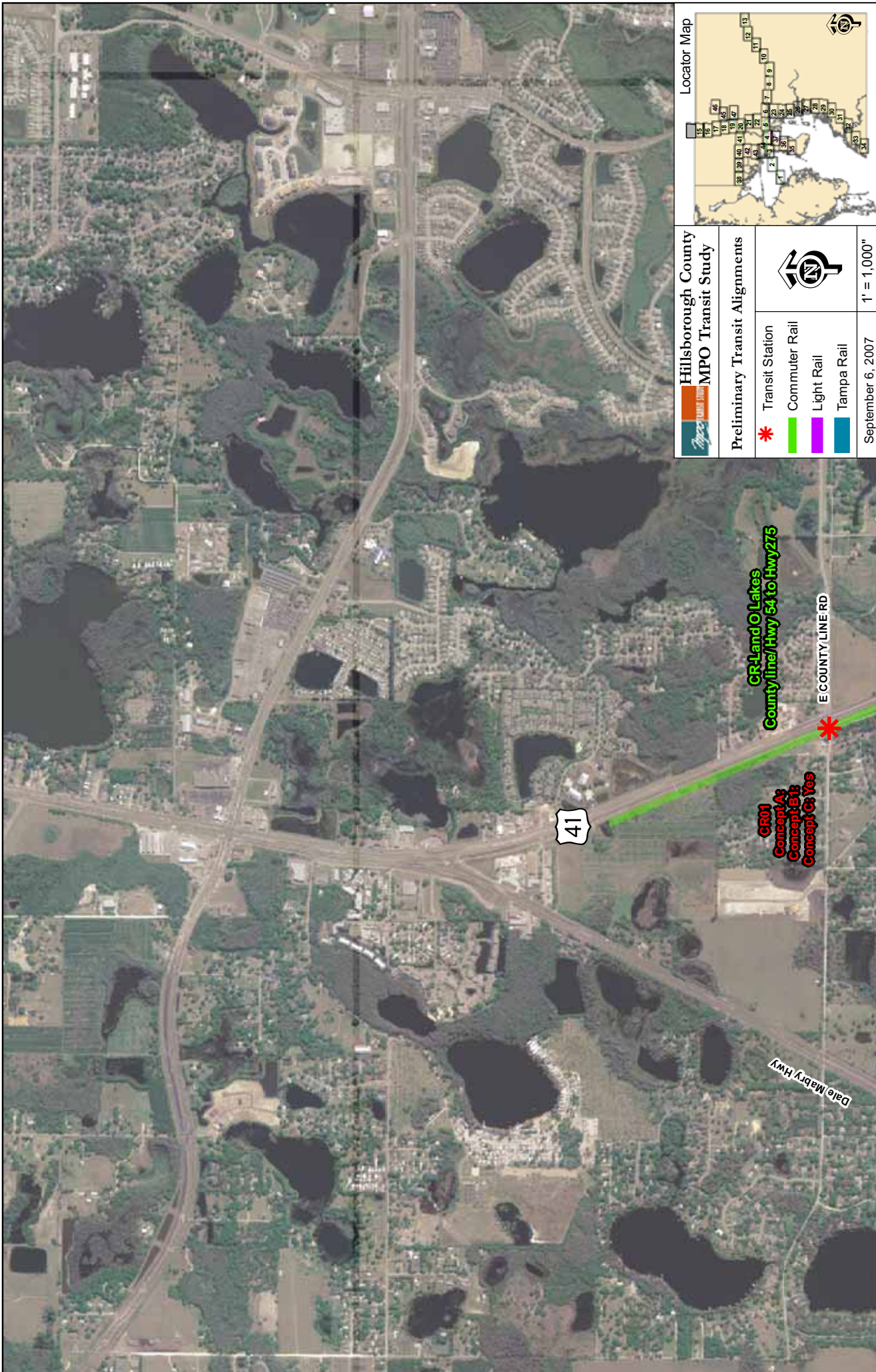
CR-East
I75/LRJ State Us88 at CL

S COUNTY LINE RD

S WIGGINS RD

92

92



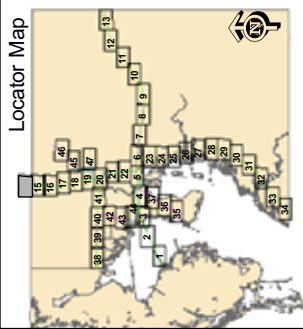
**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

- * Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail

September 6, 2007

1" = 1,000"



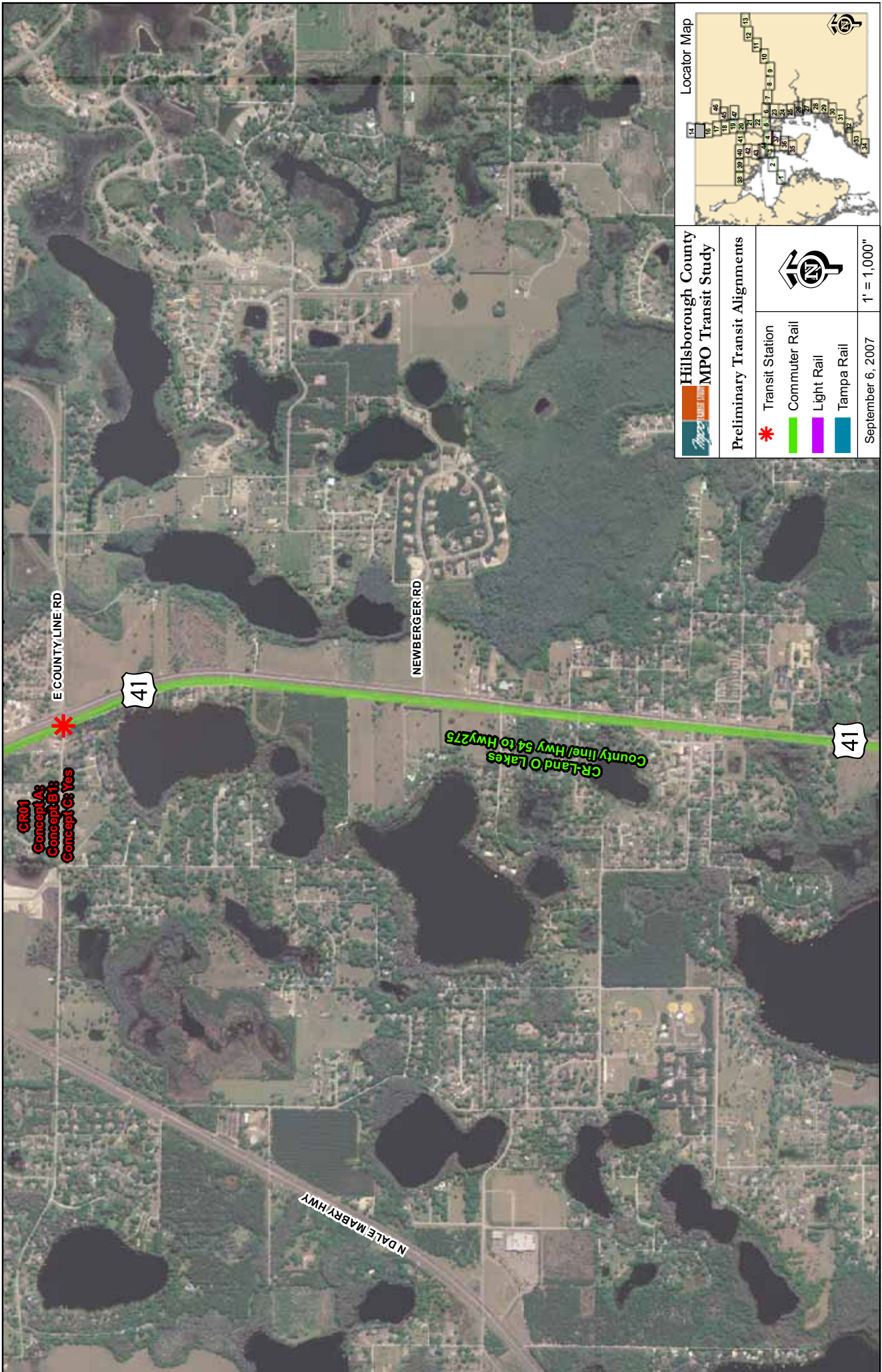
**CR-Land O Lakes
Countyline/Hwy 54 to Hwy 275**

E COUNTY LINE RD

41

**CR01
Concept A:
Concept B1:
Concept C: Yes**

Date Maby Hwy



CR01
Concept A:
Concept B1:
Concept C: Yes

E COUNTY LINE RD

41

NEWBERGER RD

CR-Land O Lakes
 County line/ Hwy 54 to Hwy 275

DALE MABRY HWY

41

Hillsborough County
MPO Transit Study

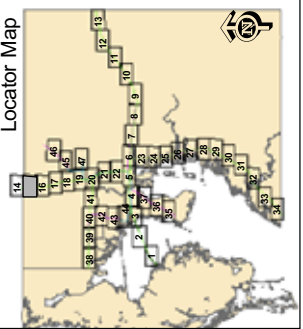
Preliminary Transit Alignments

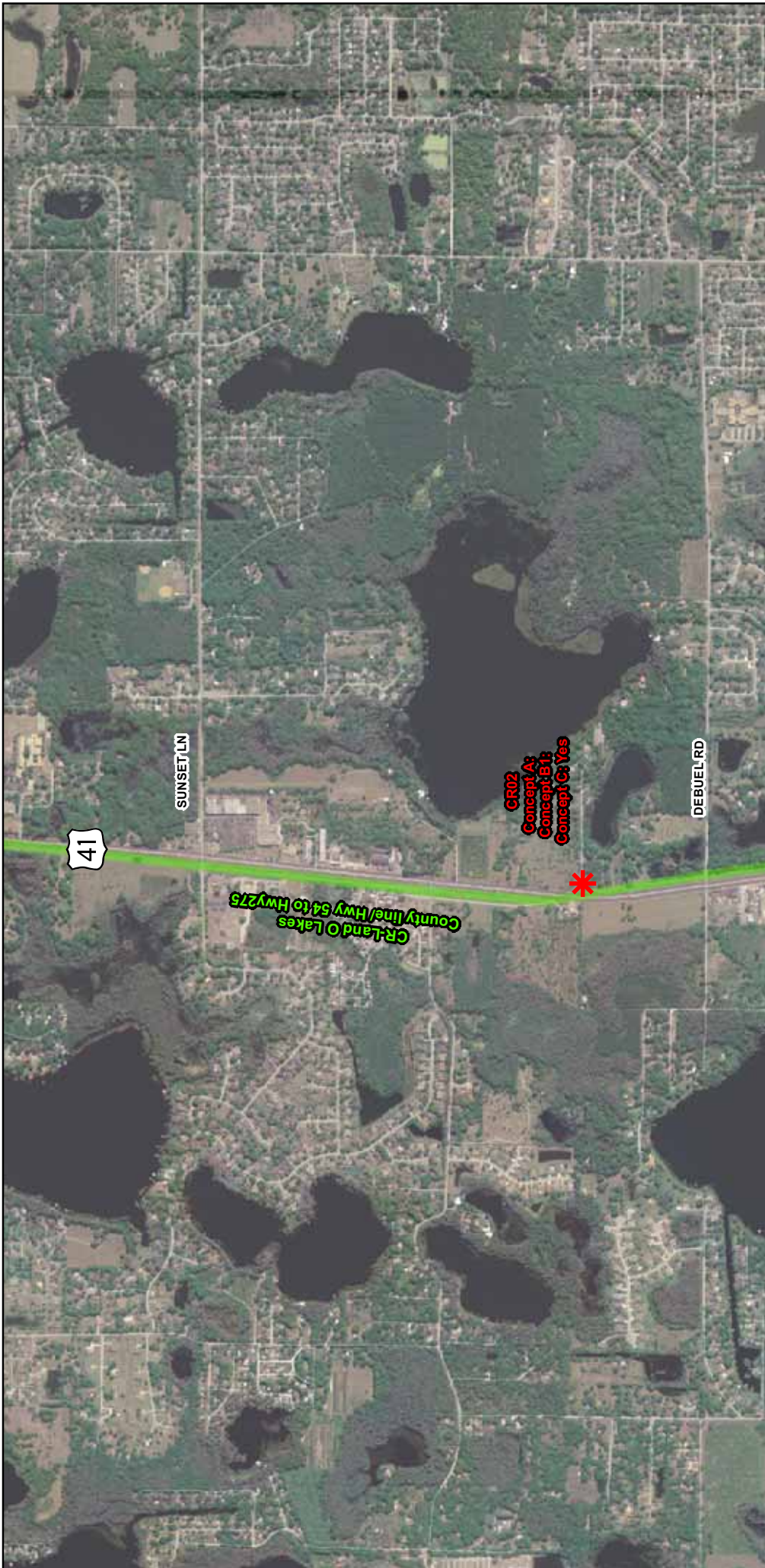
	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail



September 6, 2007
 1" = 1,000"

Locator Map





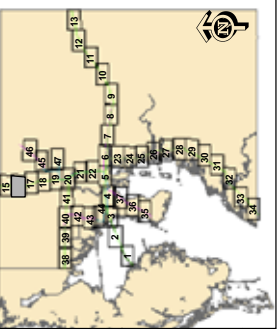
Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1" = 1,000"

Locator Map



CR-Land O Lakes
County line/Hwy 54 to Hwy 275

CR02
Concept A:
Concept B:
Concept C: Yes

SUNSET LN

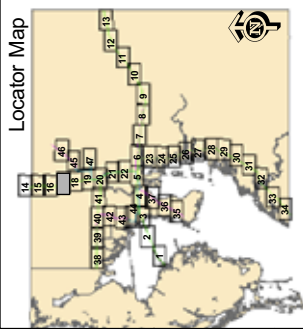
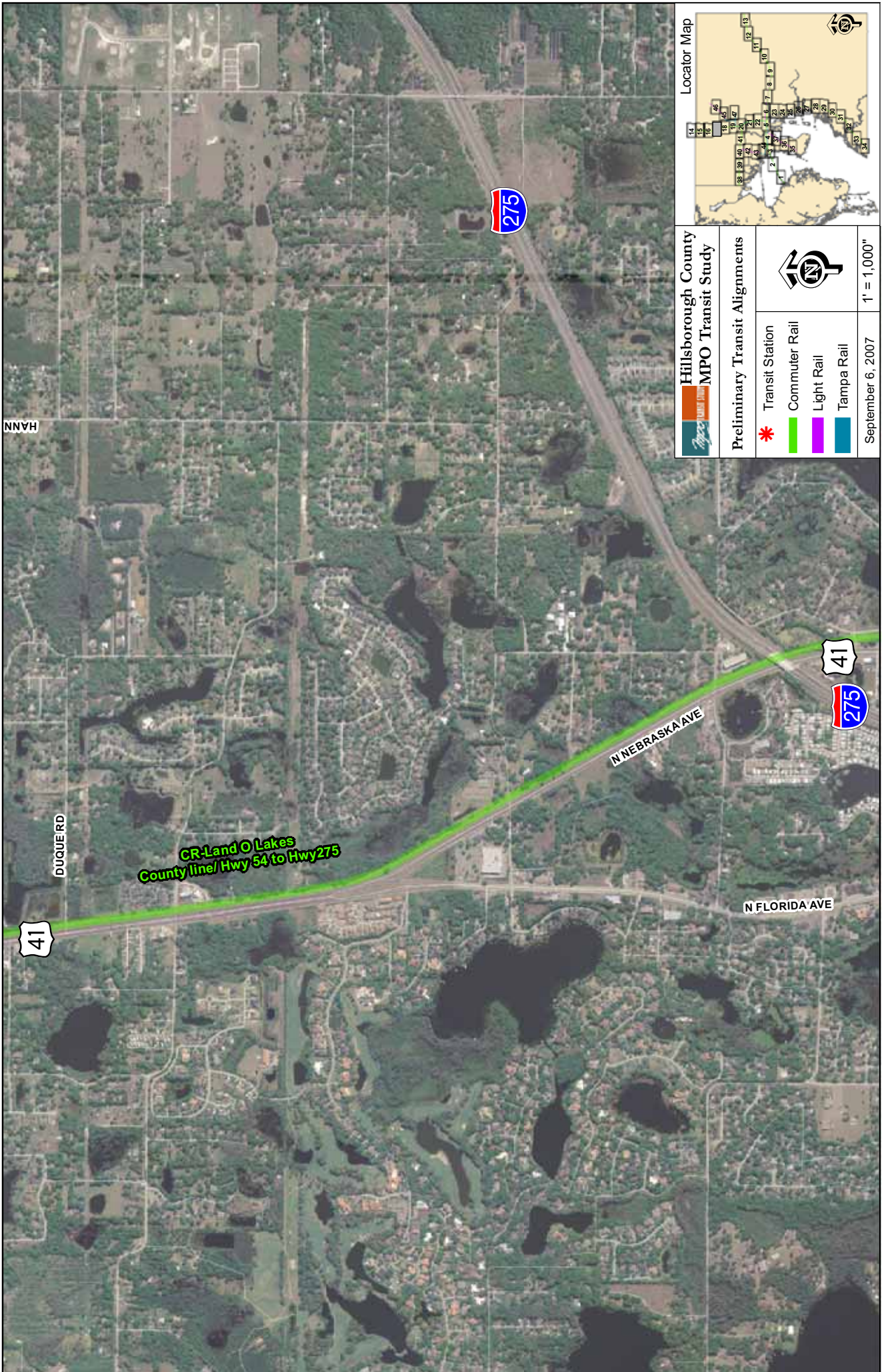
DEBUELL RD

DUQUE RD

SIMMONS RD

41

41



**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"

NNVH

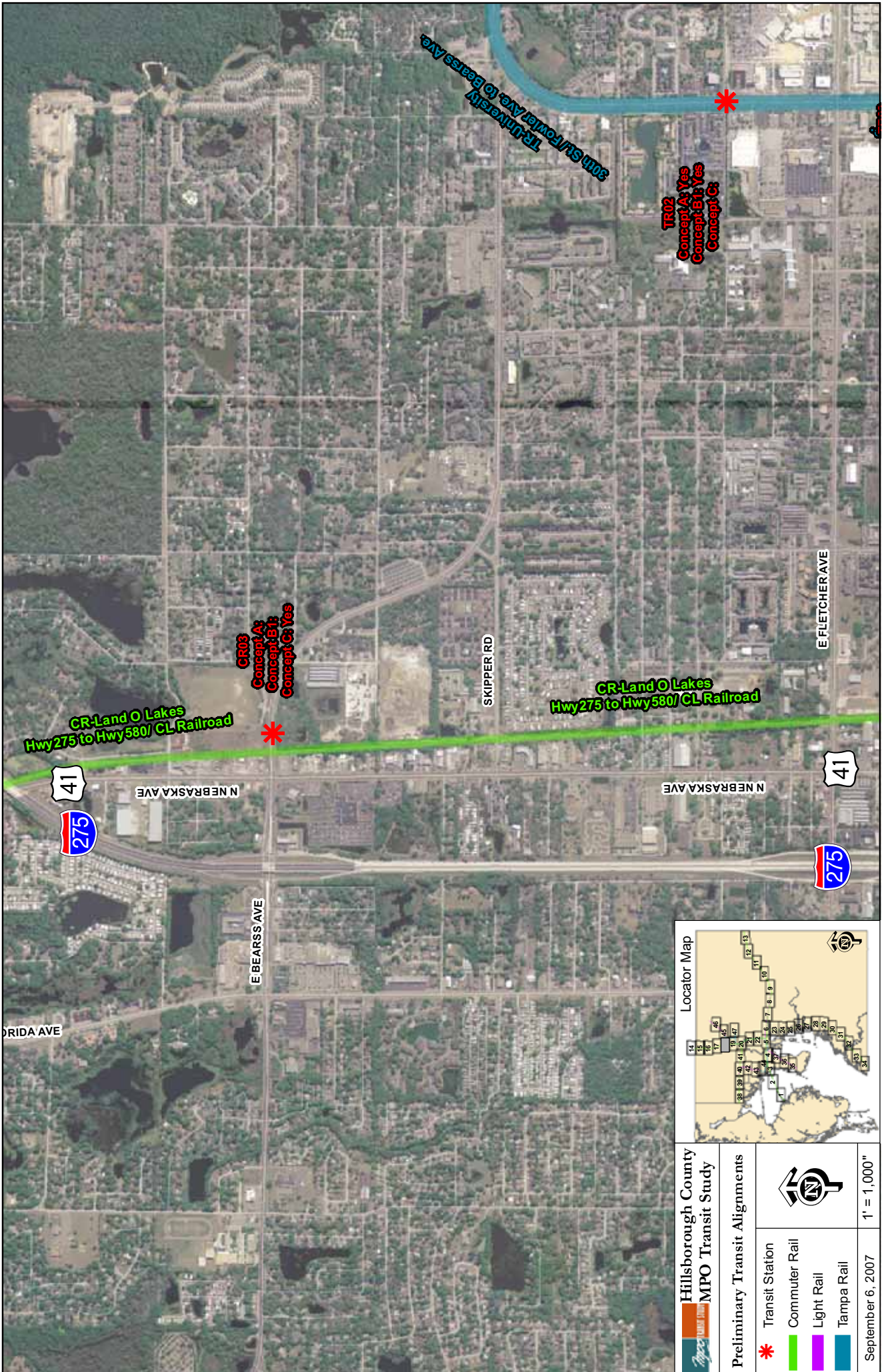
DUQUERD

**CR-Land O Lakes
County line/ Hwy 54 to Hwy 275**

N NEBRASKA AVE

N FLORIDA AVE



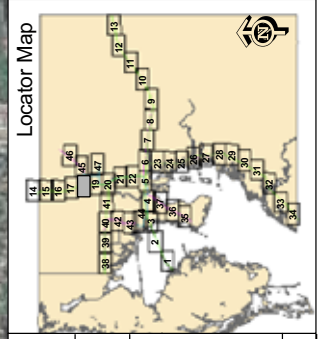


TR02
 Concept A: Yes
 Concept B: Yes
 Concept C:

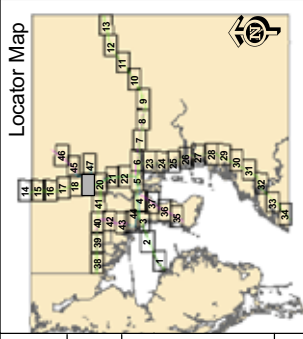
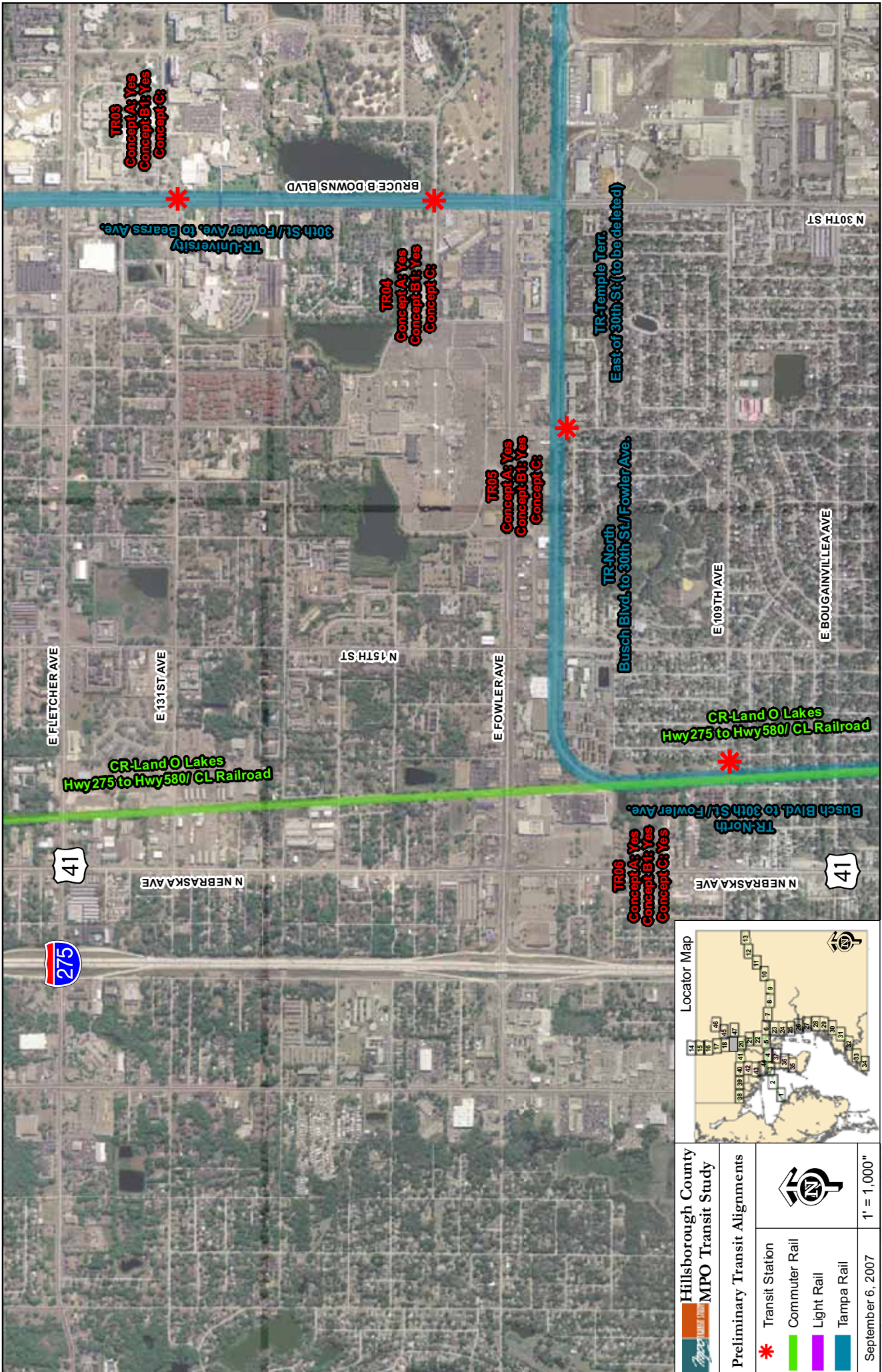
CR03
 Concept A:
 Concept B:
 Concept C: Yes

CR-Land O Lakes
 Hwy 275 to Hwy 580/ CL Railroad

CR-Land O Lakes
 Hwy 275 to Hwy 580/ CL Railroad



Hillsborough County MPO Transit Study		
Preliminary Transit Alignments		
*	Transit Station Commuter Rail Light Rail Tampa Rail	1' = 1,000"
September 6, 2007		

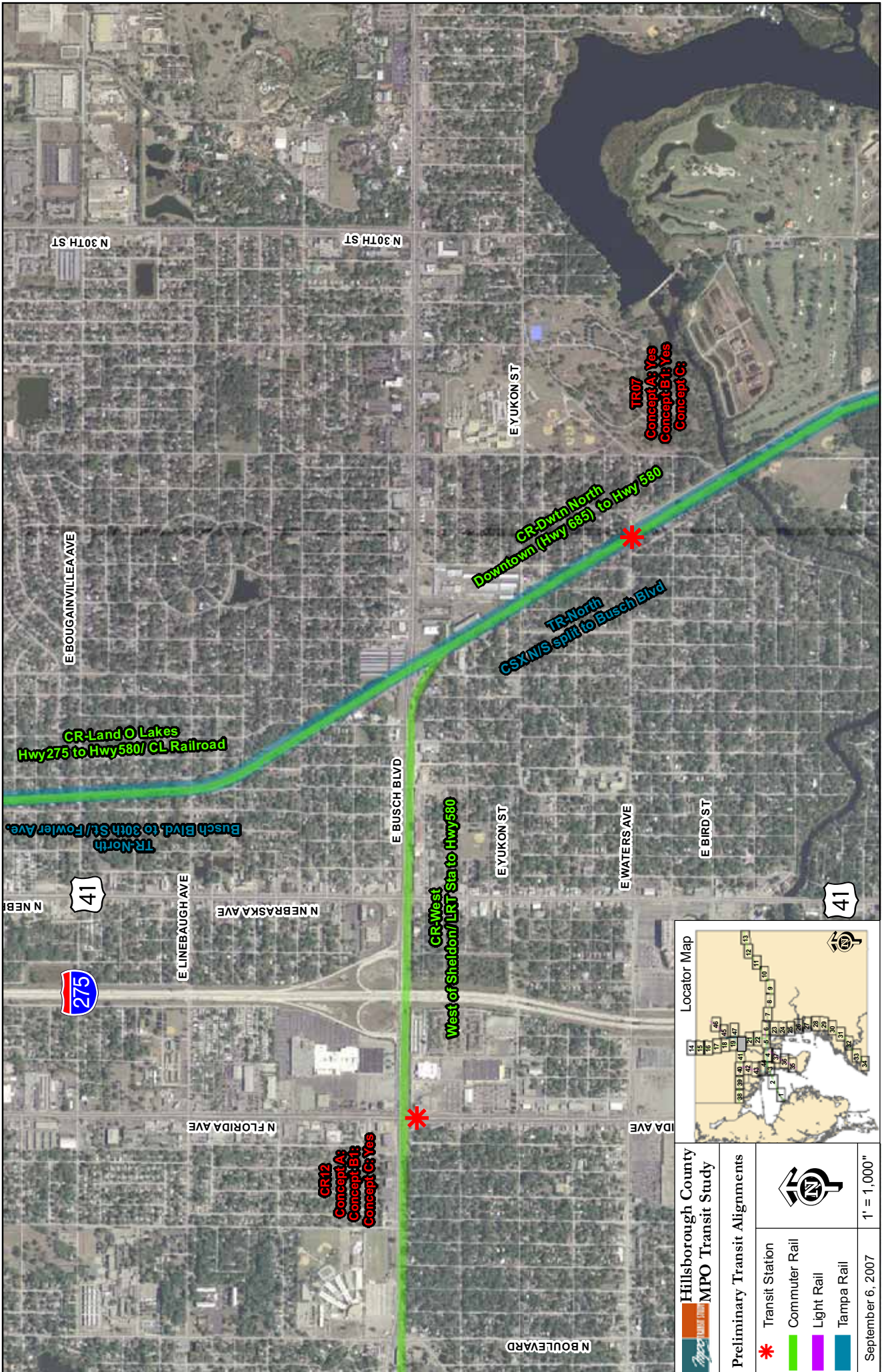


**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

- Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail

1" = 1,000"
September 6, 2007



N 30TH ST

N 30TH ST

E BOUGAINVILLEA AVE

E YUKON ST

TR07
Concept A: Yes
Concept B: Yes
Concept C:

CR-Dwin North
Downtown (Hwy 685) to Hwy 580

TR-North
CSX/IN/S split to Busch Blvd

CR-Land O Lakes
Hwy 275 to Hwy 580/ CL Railroad

Busch Blvd. to 30th St./Fowler Ave.
TR-North

E BUSCH BLVD

CR-West
West of Sheldon/LRT Sta to Hwy 580

E YUKON ST

E WATERS AVE

E BIRD ST

41

E LINEBAUGH AVE

N NEBRASKA AVE

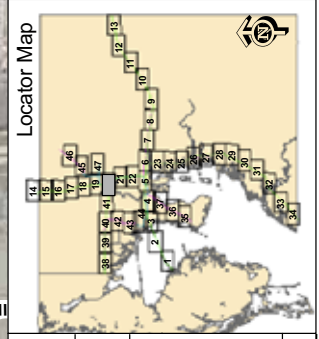
275

41

N FLORIDA AVE

CR12
Concept A:
Concept B:
Concept C: Yes

N BOULEVARD



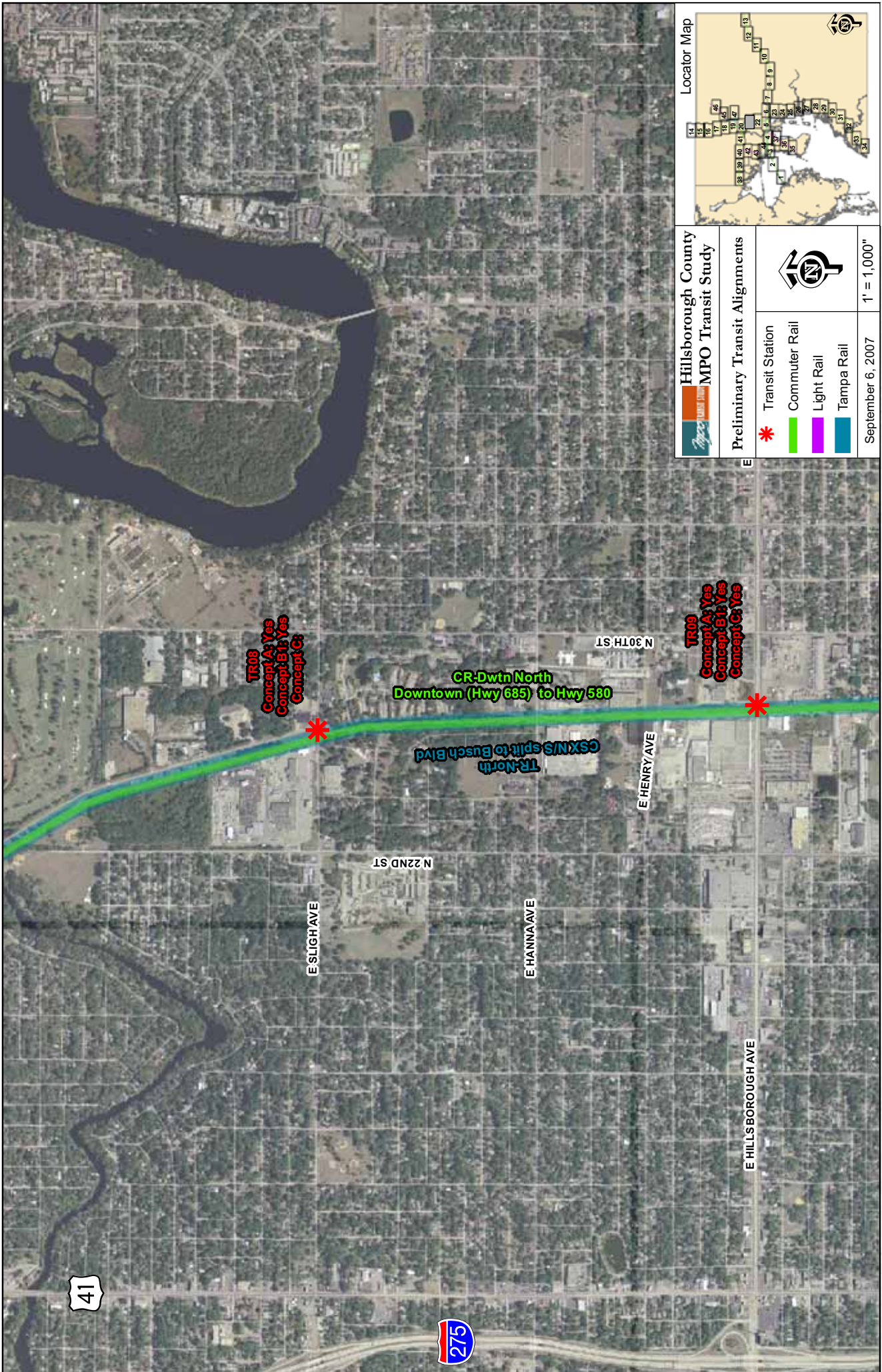
Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

- Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail

1" = 1,000"

September 6, 2007



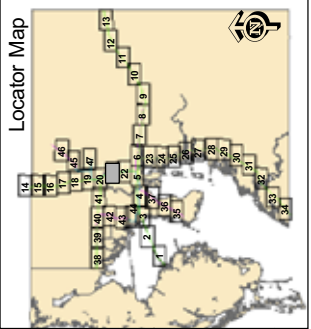
Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

- Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail

September 6, 2007

1" = 1,000"



TR08
 Concept A: Yes
 Concept B: Yes
 Concept C:

TR09
 Concept A: Yes
 Concept B: Yes
 Concept C: Yes

CR-Dwtn North
 Downtown (Hwy 685) to Hwy 580

TR-North
 GSXN/S split to Busch Blvd

41

275

E SLIGH AVE

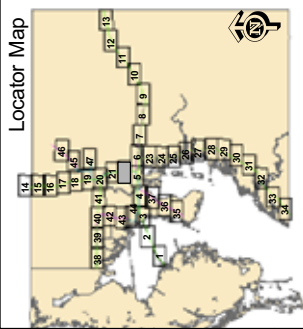
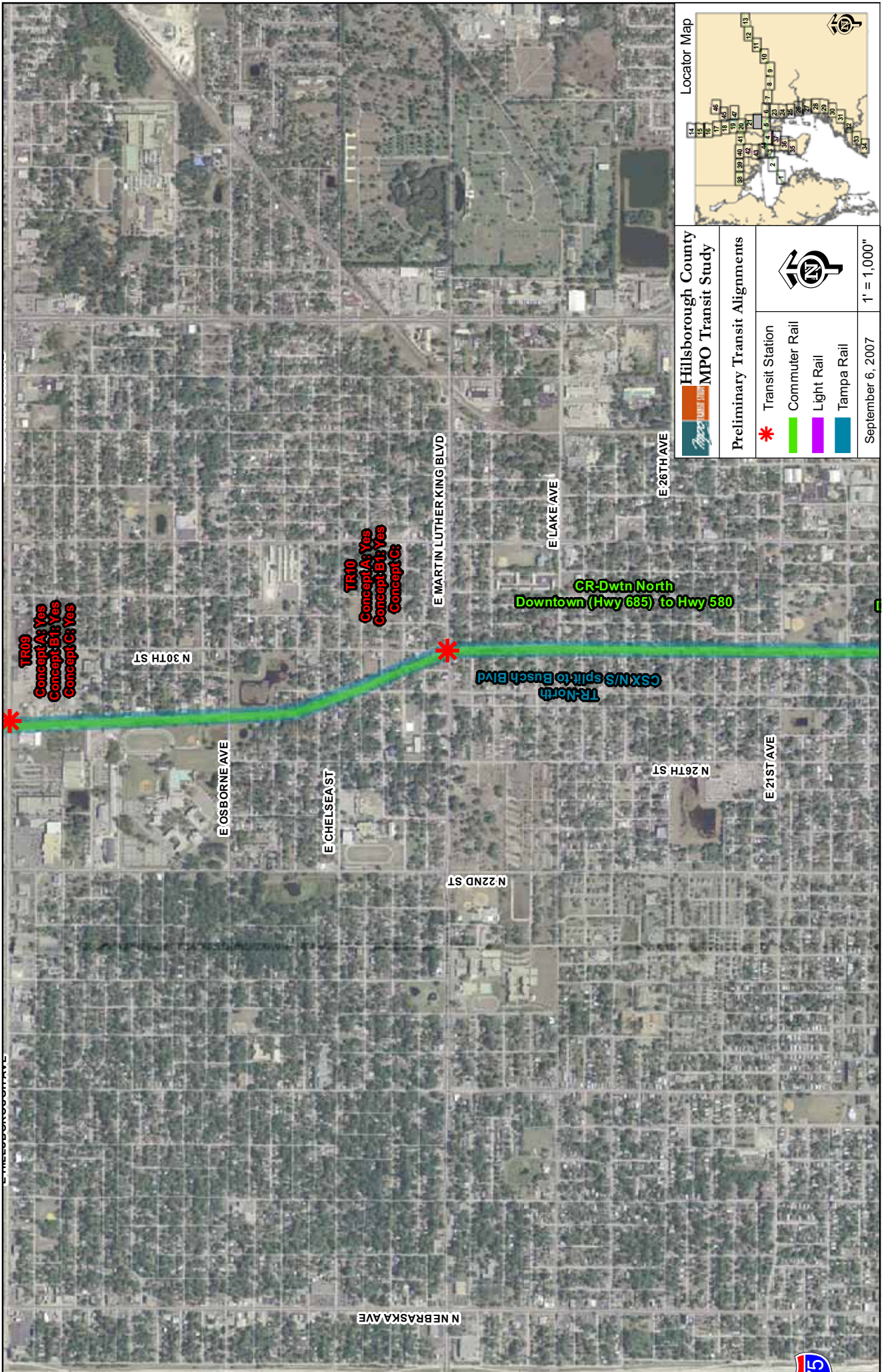
E HANNA AVE

E HENRY AVE

E HILLSBOROUGH AVE

N 22ND ST

N 30TH ST



Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

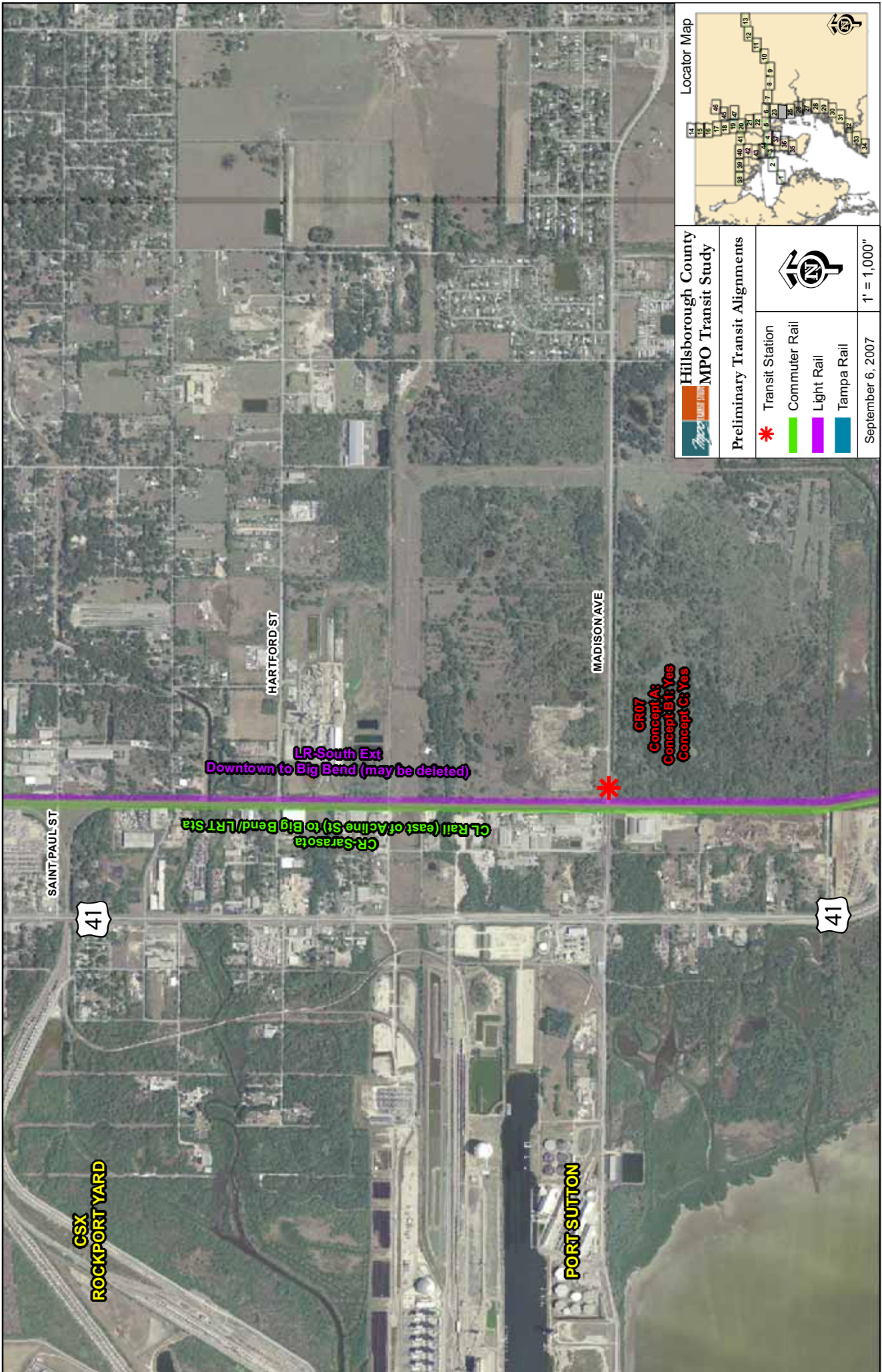
	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"

LETTERS DO NOT COUNT





SAINT PAUL ST

41

CSX
ROCKPORT YARD

HARTFORD ST

LR-South Ext
Downtown to Big Bend (may be deleted)

CR-Sarasota
CL Rail (east of Accline St) to Big Bend/LRT Sta

MADISON AVE

CR07
Concept A: Yes
Concept B: Yes
Concept C: Yes

41

PORT SUTTON

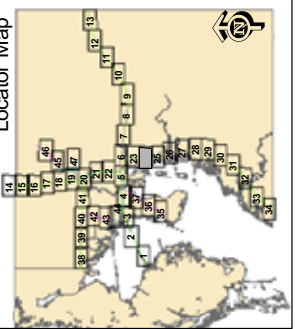
Hillsborough County
MPO Transit Study

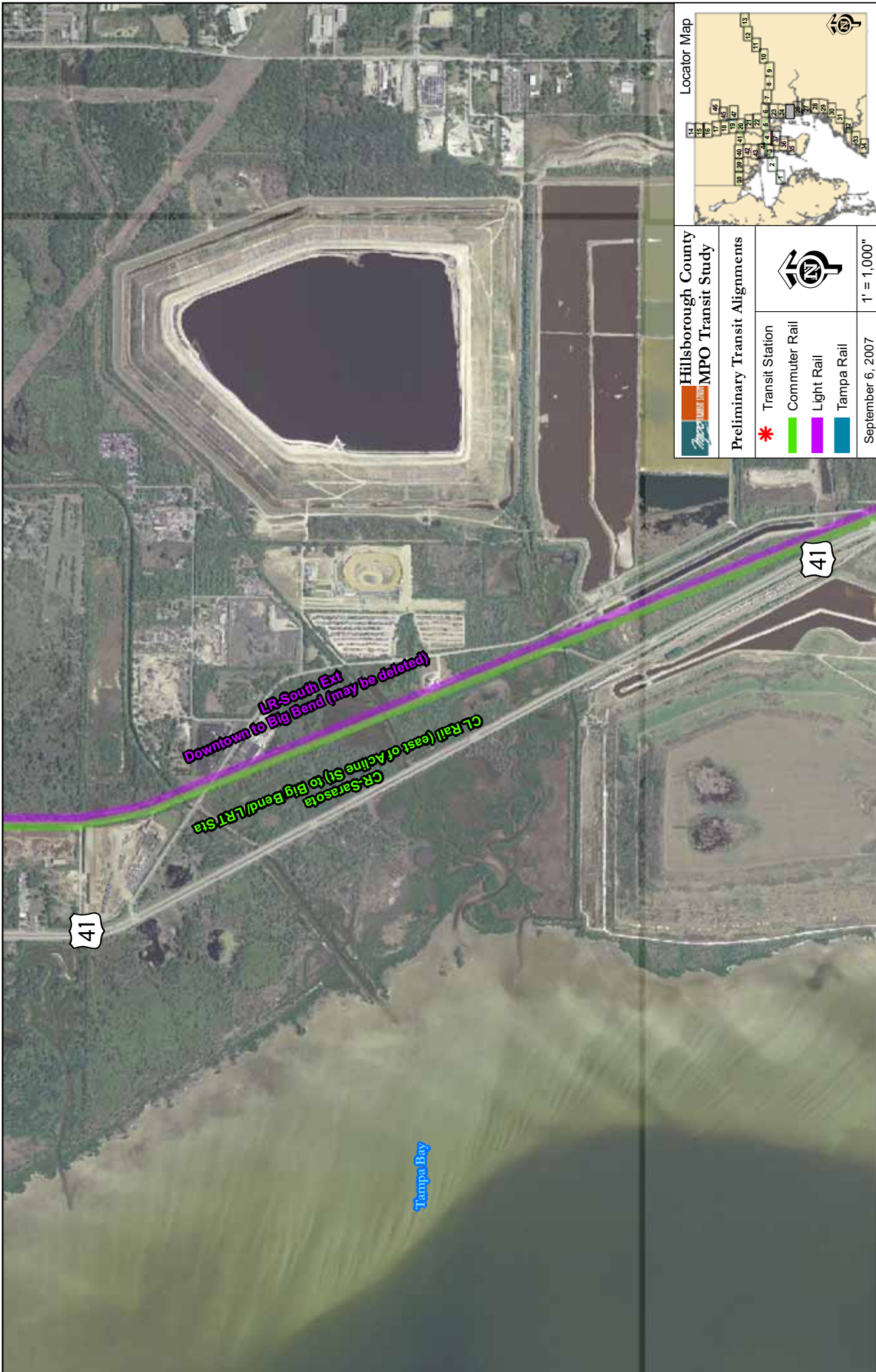
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1" = 1,000"





Locator Map





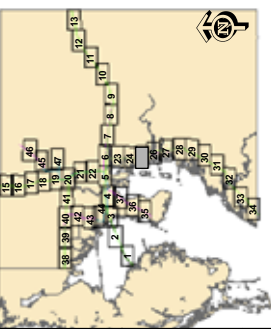
**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Bay

September 6, 2007
1" = 1,000"

Locator Map

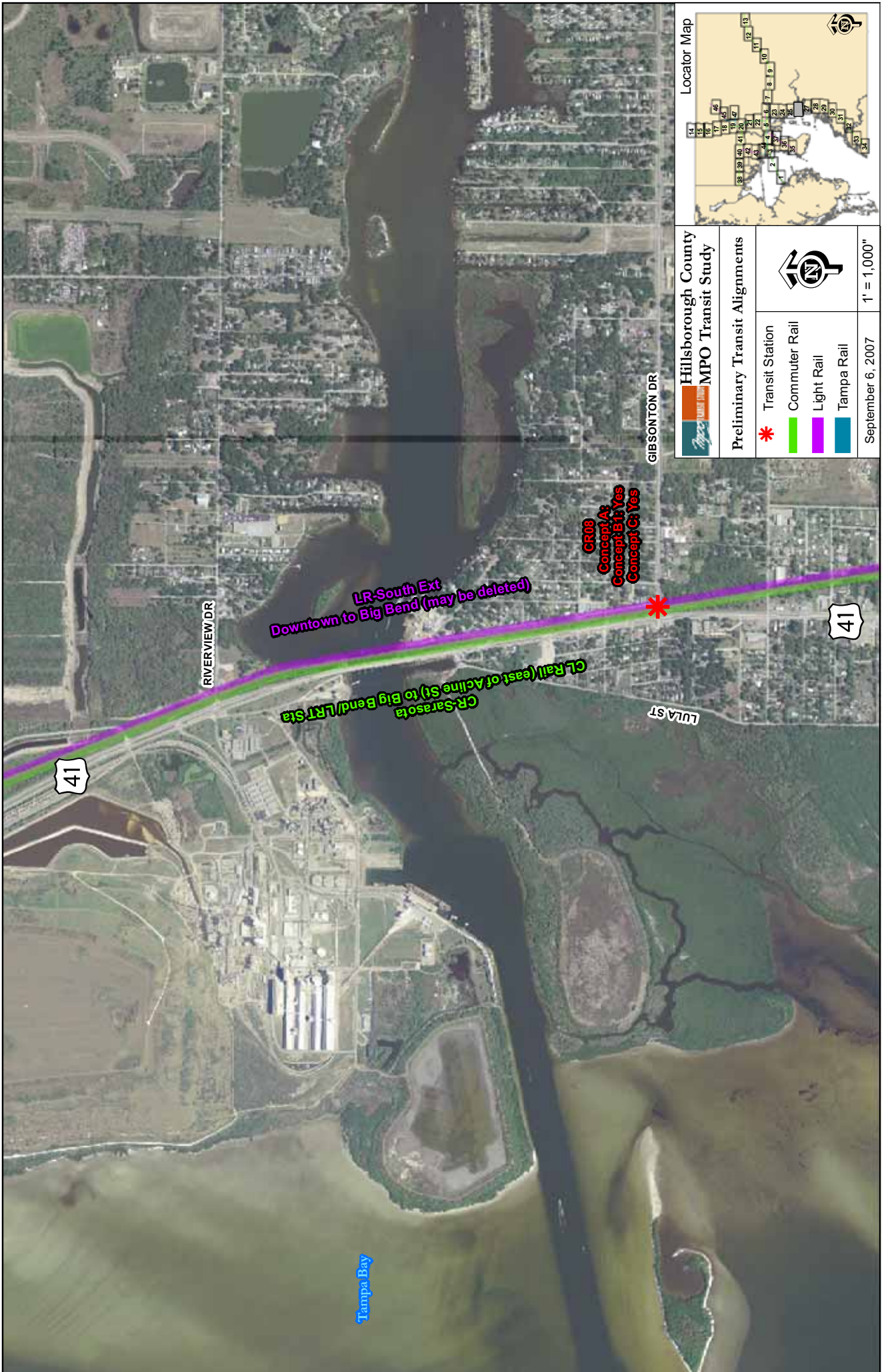


Tampa Bay

41

41

LR-South Ext
Downtown to Big Bend (may be deleted)
CR-Sarasota
CL Rail (east of Aciline St) to Big Bend/LRT Sta

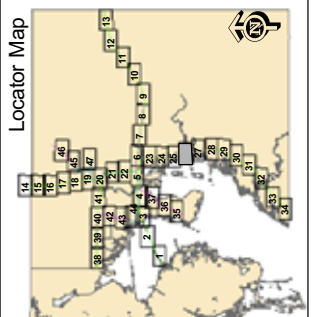


Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
1" = 1,000"



Tampa Bay

RIVERVIEW DR

GIBSONTON DR

LULA ST

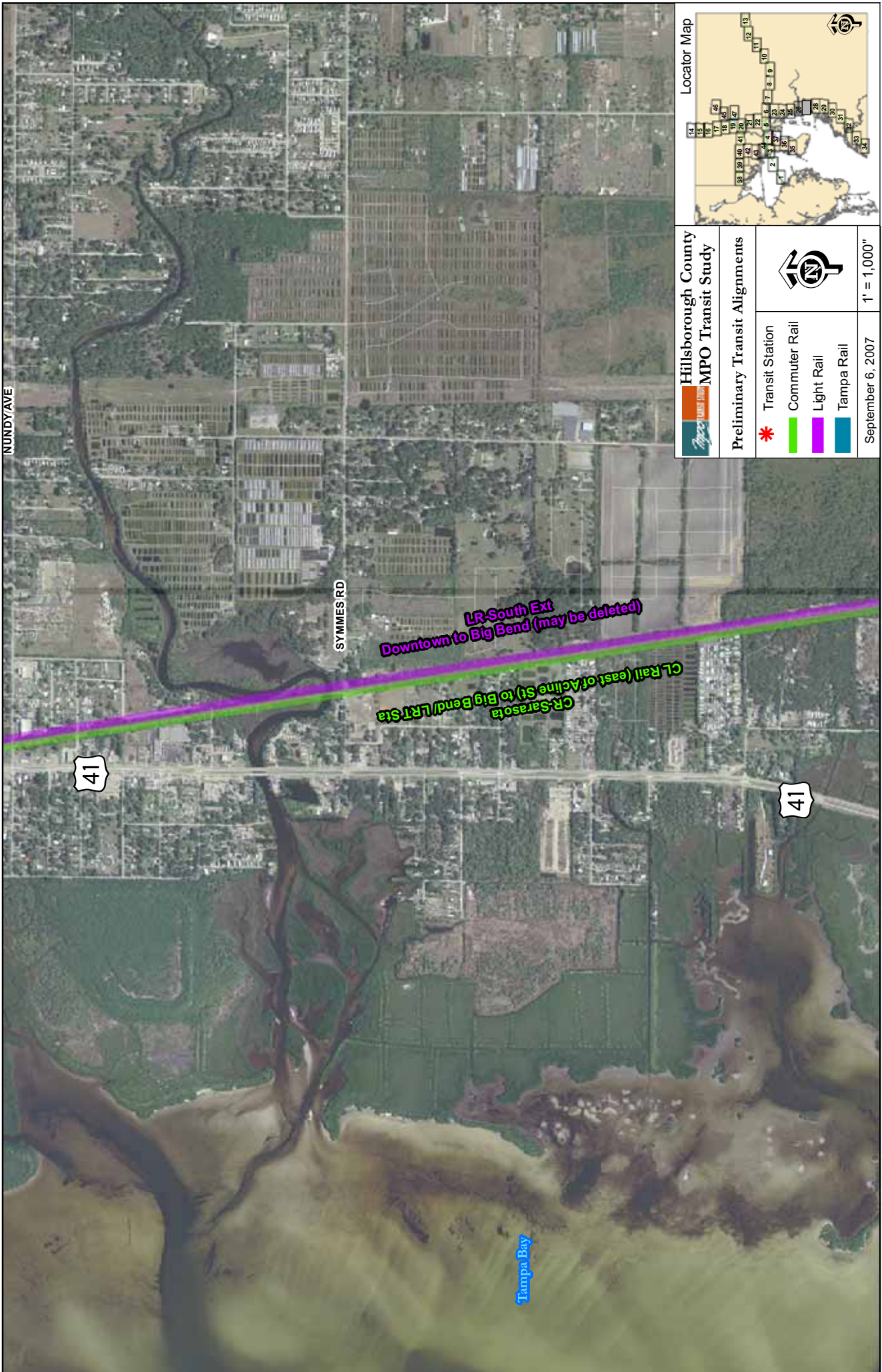
LR-South Ext
Downtown to Big Bend (may be deleted)

CR-Sarasota
(east of Acline St) to Big Bend/LRT Sta

CR08
Concept A: Yes
Concept B: Yes
Concept C: Yes

41

41



NUNDY AVE

SYMMES RD

Tampa Bay

41



41

LR-South Ext
Downtown to Big Bend (may be deleted)

CR-Sarasota
(east of Acline St) to Big Bend/LRT Sta

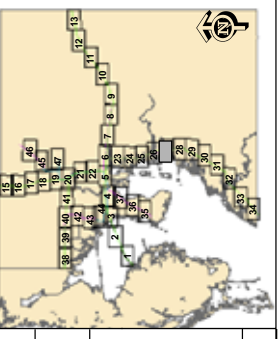
Hillsborough County
MPO Transit Study

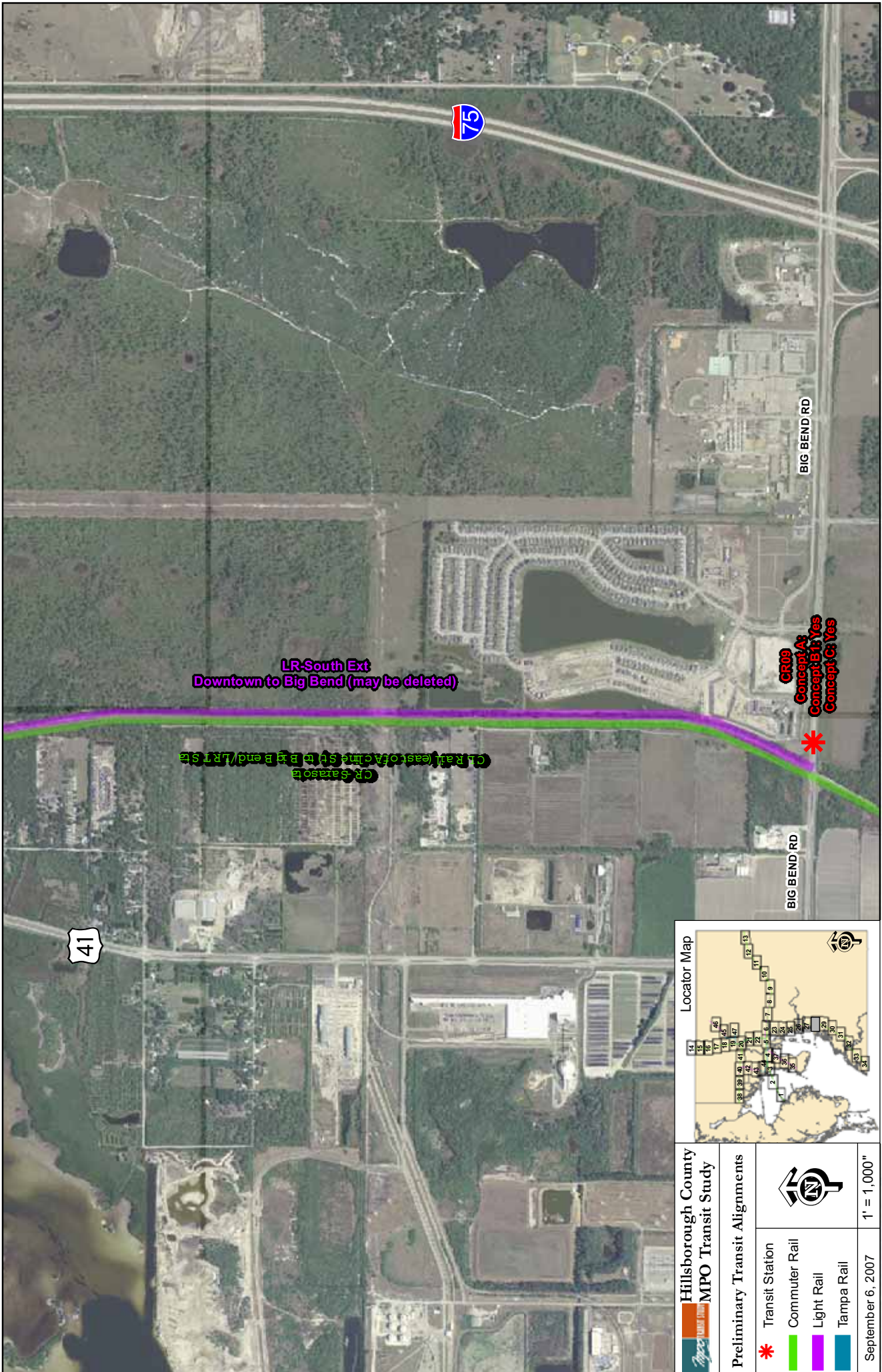
Preliminary Transit Alignments

-  Transit Station
-  Commuter Rail
-  Light Rail
-  Tampa Rail

September 6, 2007
1" = 1,000"

Locator Map





41

75

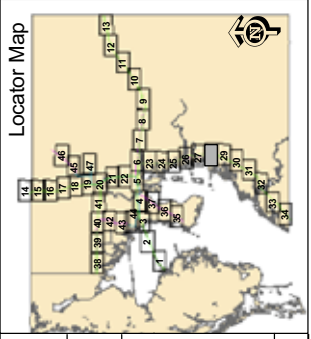
LR-South Ext
Downtown to Big Bend (may be deleted)

CR Sarasota
C.L. Rail (east of A.C. Line St) to Big Bend/LRT Sta

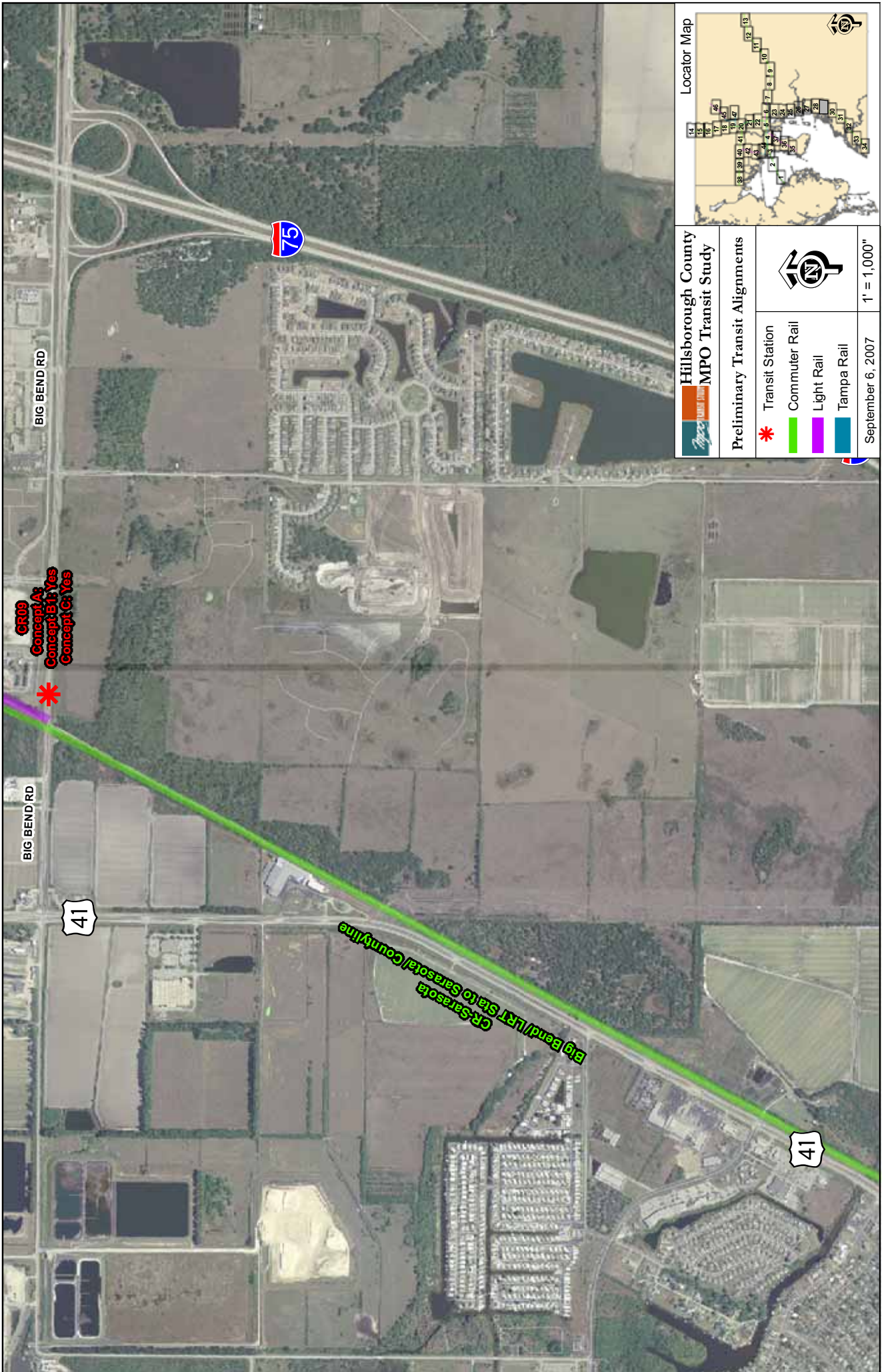
CR09
Concept A: Yes
Concept B: Yes
Concept C: Yes

BIG BEND RD

BIG BEND RD



		Hillsborough County MPO Transit Study	
Preliminary Transit Alignments			
	Transit Station		
	Commuter Rail		
	Light Rail		
	Tampa Rail		
		September 6, 2007	
		1" = 1,000"	



CR09
Concept A: Yes
Concept B: Yes
Concept C: Yes

BIG BEND RD

BIG BEND RD

41

41

75

CR-Sarasota/LRT Sta to Sarasota/Countyline

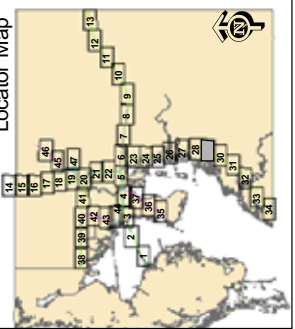
**Hillsborough County
 MPO Transit Study**

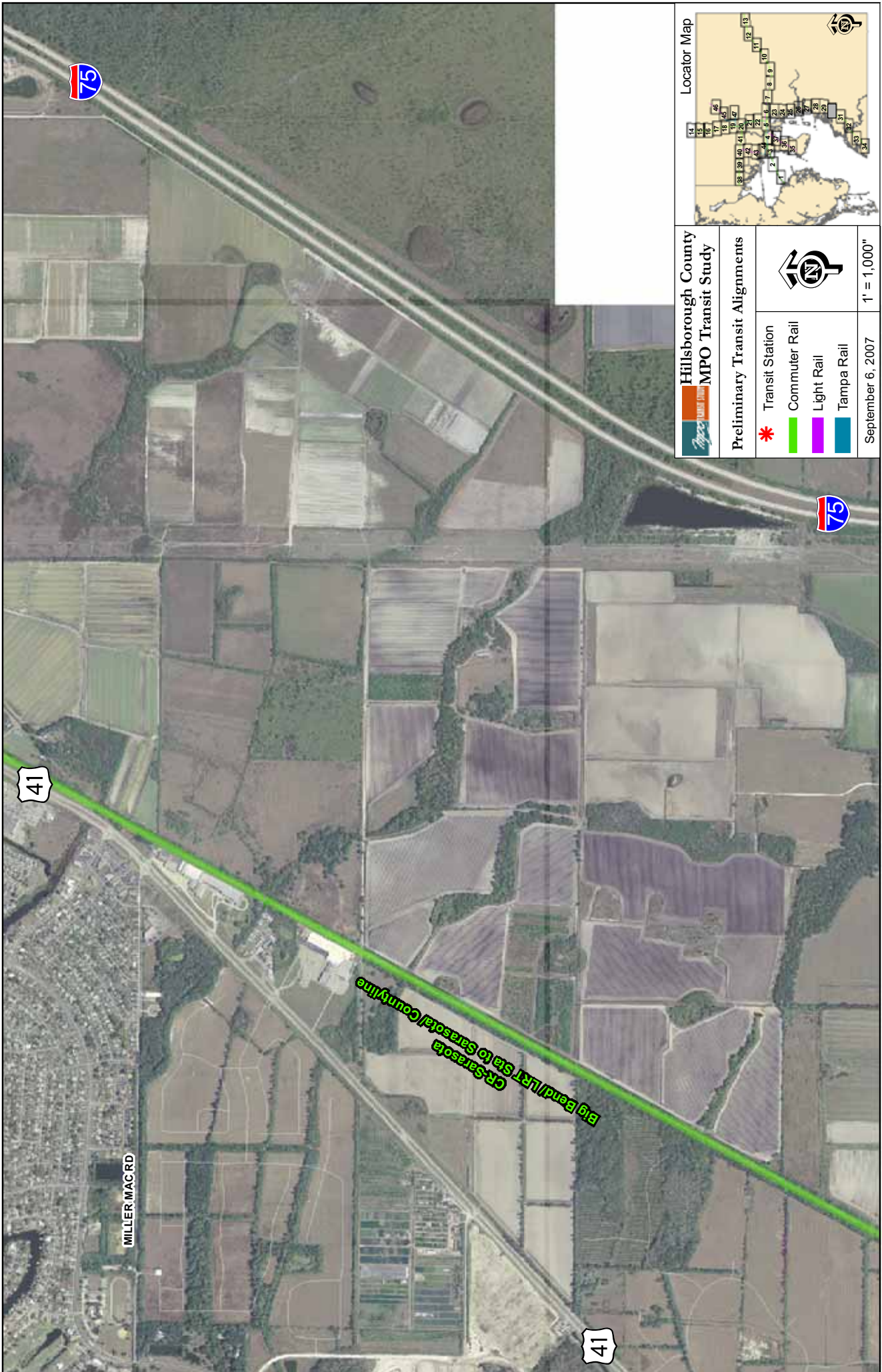
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007
 1" = 1,000'

Locator Map





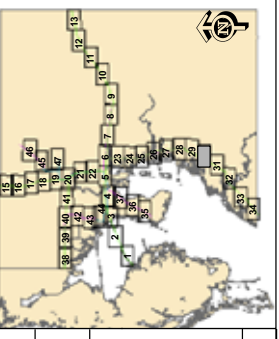
**Hillsborough County
MPO Transit Study**

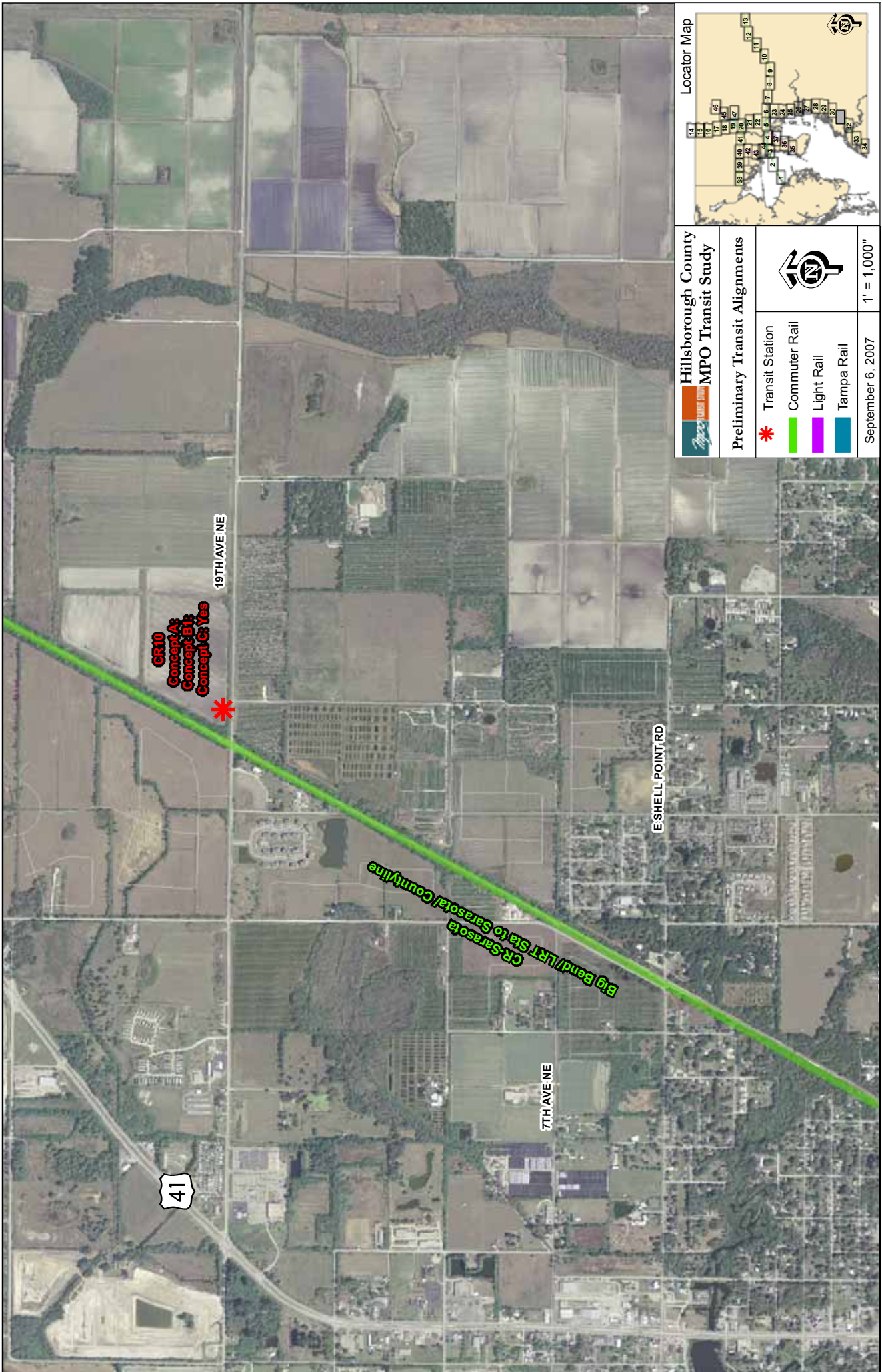
Preliminary Transit Alignments

- * Transit Station
- █ Commuter Rail
- █ Light Rail
- █ Tampa Rail

September 6, 2007
1" = 1,000"

Locator Map





CR10
Concept A:
Concept B:
Concept C: Yes

19TH AVE NE

7TH AVE NE

E SHELL POINT RD

CR-Sarasota LRT Sta to Sarasota/Countyline



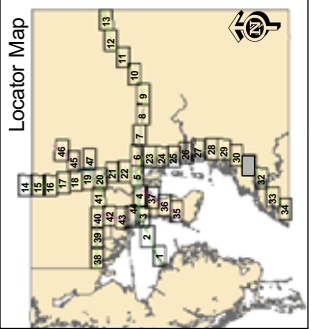
Hillsborough County
 MPO Transit Study

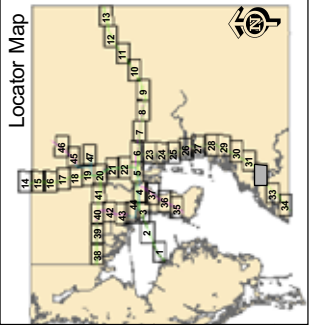
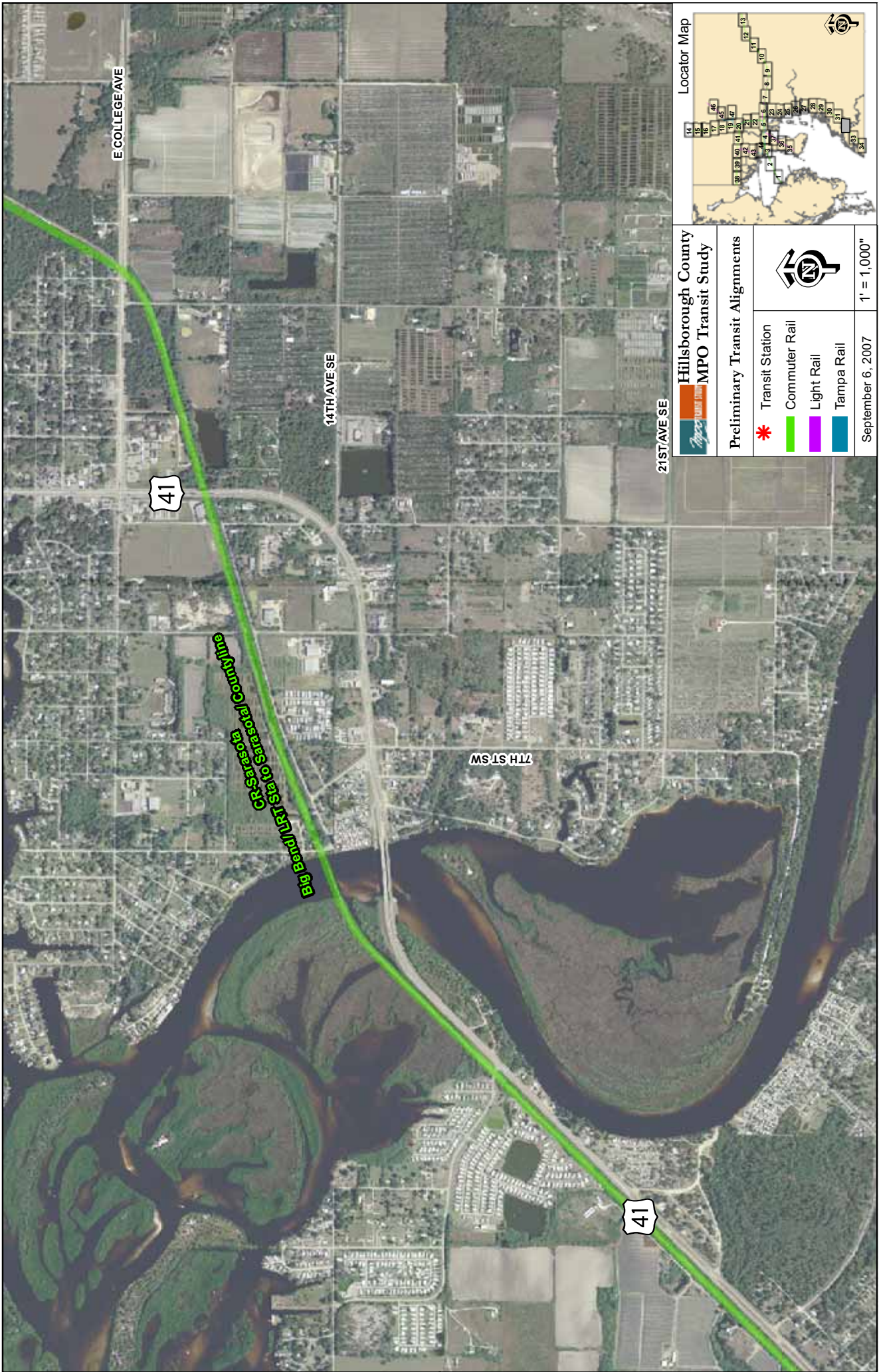
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"





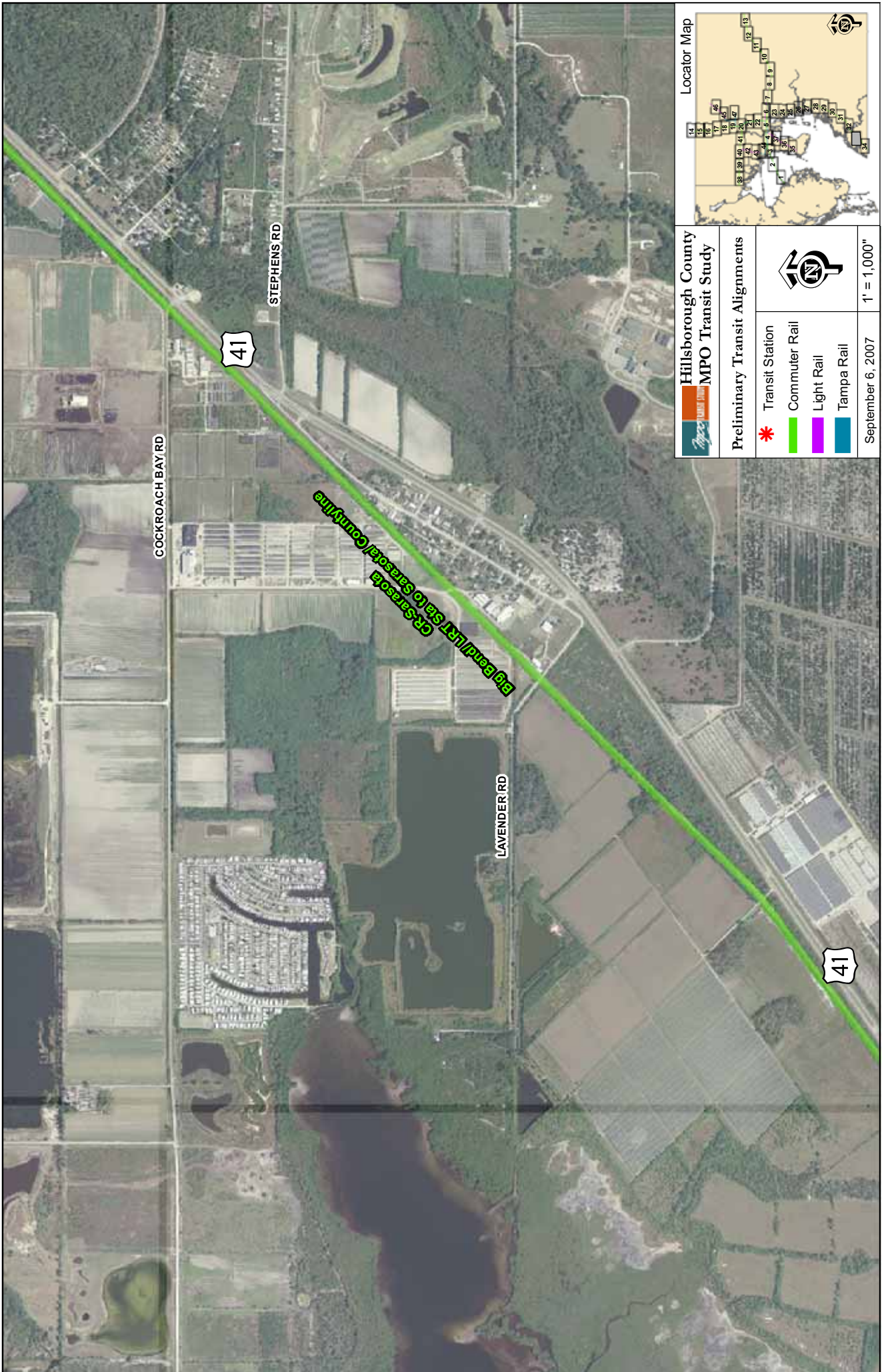
**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

- Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail





September 6, 2007

1" = 1,000"

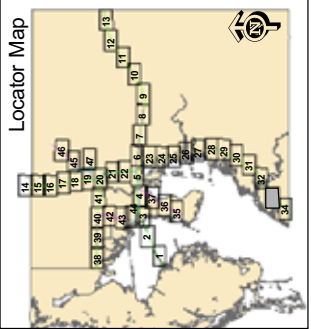


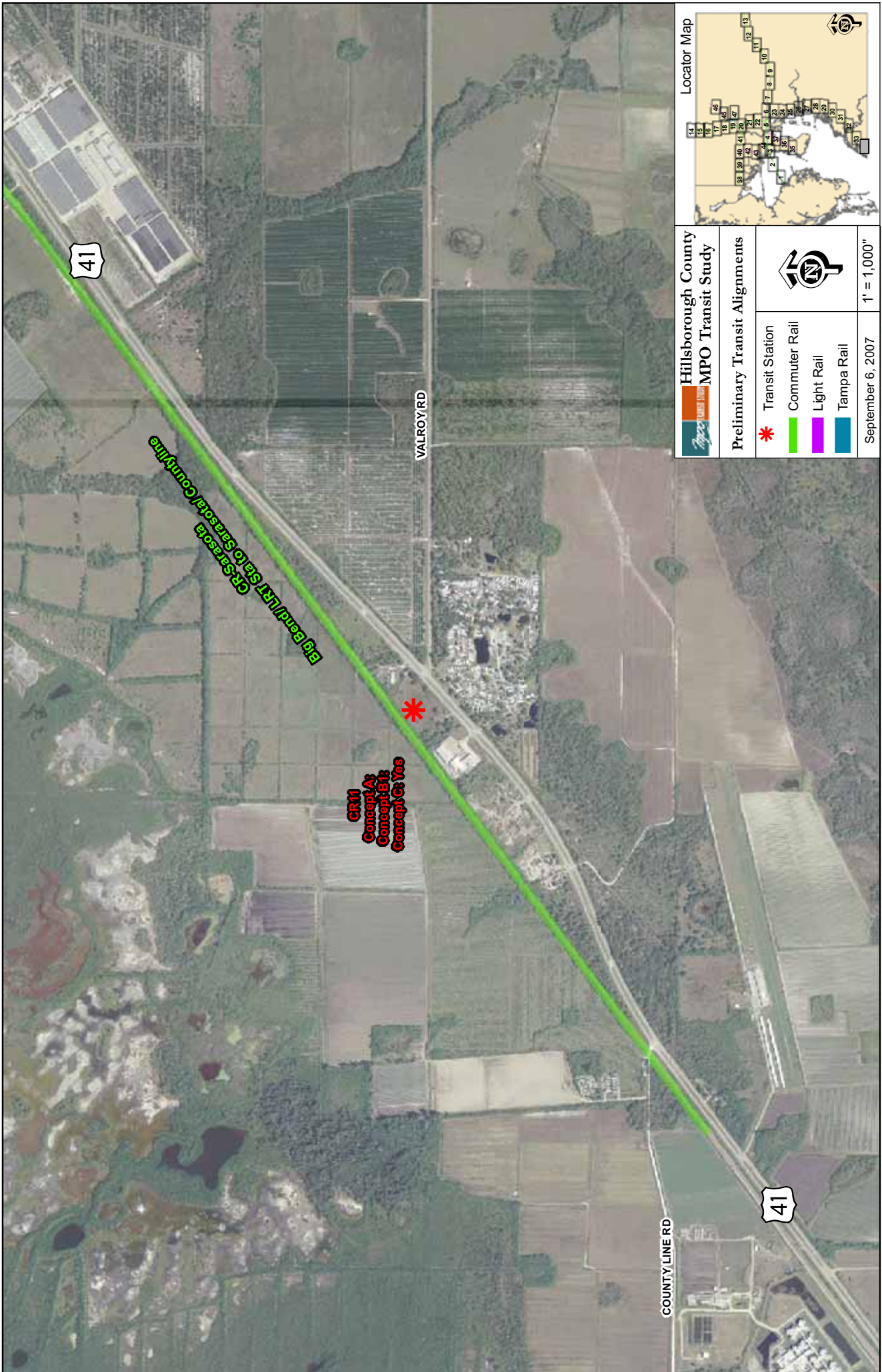
Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

-  Transit Station
-  Commuter Rail
-  Light Rail
-  Tampa Rail

September 6, 2007
1" = 1,000"





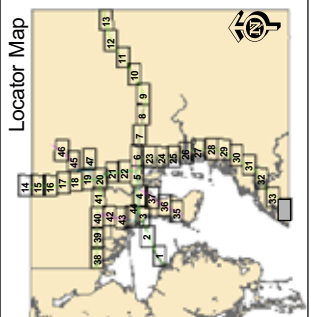
Hillsborough County
MPO Transit Study

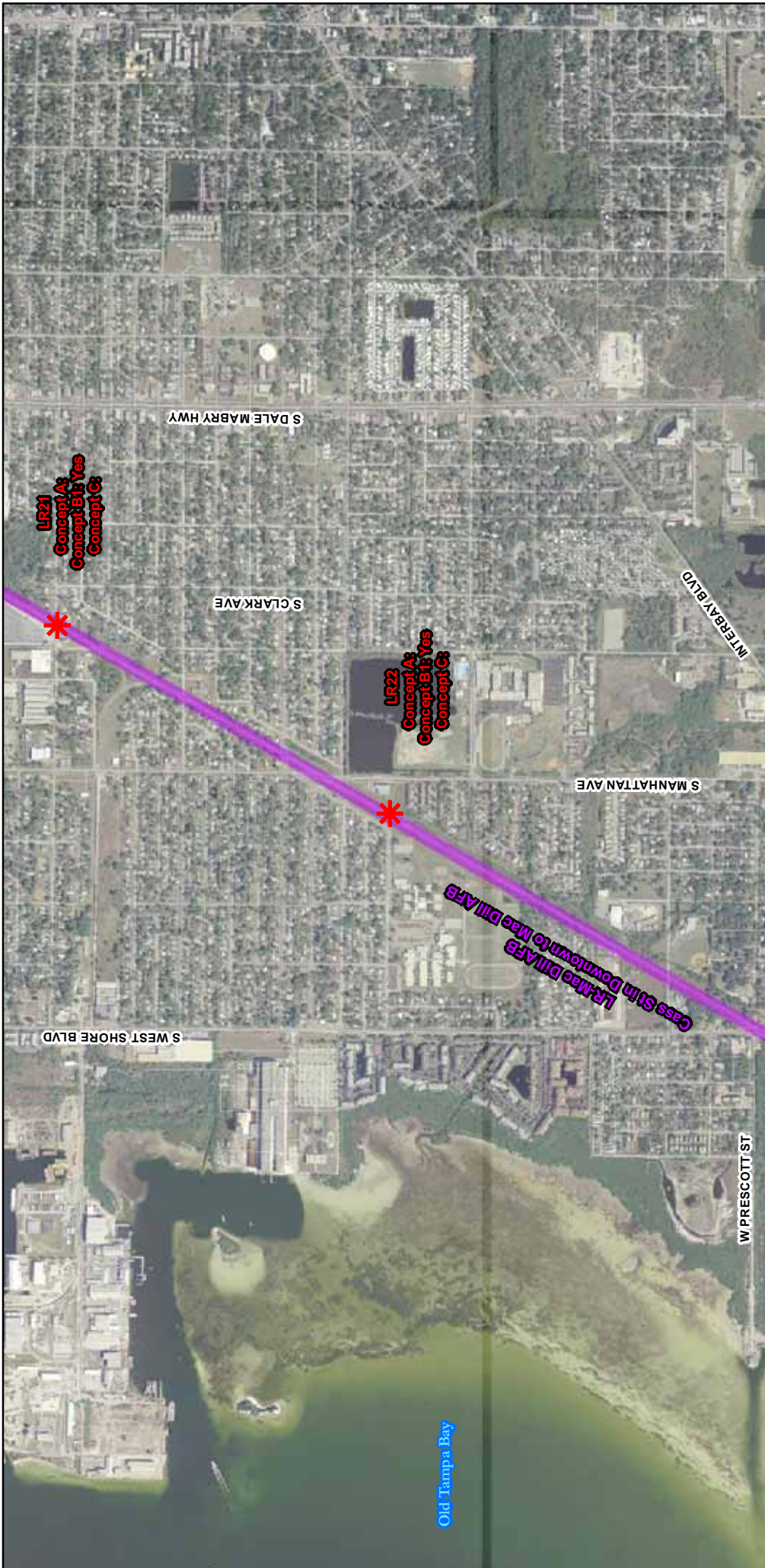
Preliminary Transit Alignments

- Transit Station
- Commuter Rail
- Light Rail
- Tampa Rail

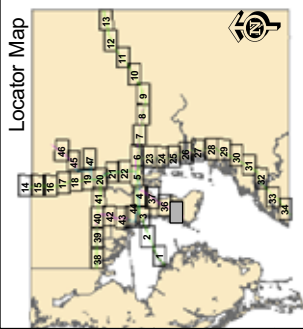
September 6, 2007

1" = 1,000"





Hillsborough County
MPO Transit Study



Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"

Old Tampa Bay

LR21
Concept A;
Concept B; Yes
Concept C;

LR22
Concept A;
Concept B; Yes
Concept C;

LR23
Concept A;
Concept B; Yes
Concept C;

LR-Mac DillA/B
Cass St in Downtown to Mac DillA/B

S WEST SHORE BLVD

S CLARK AVE

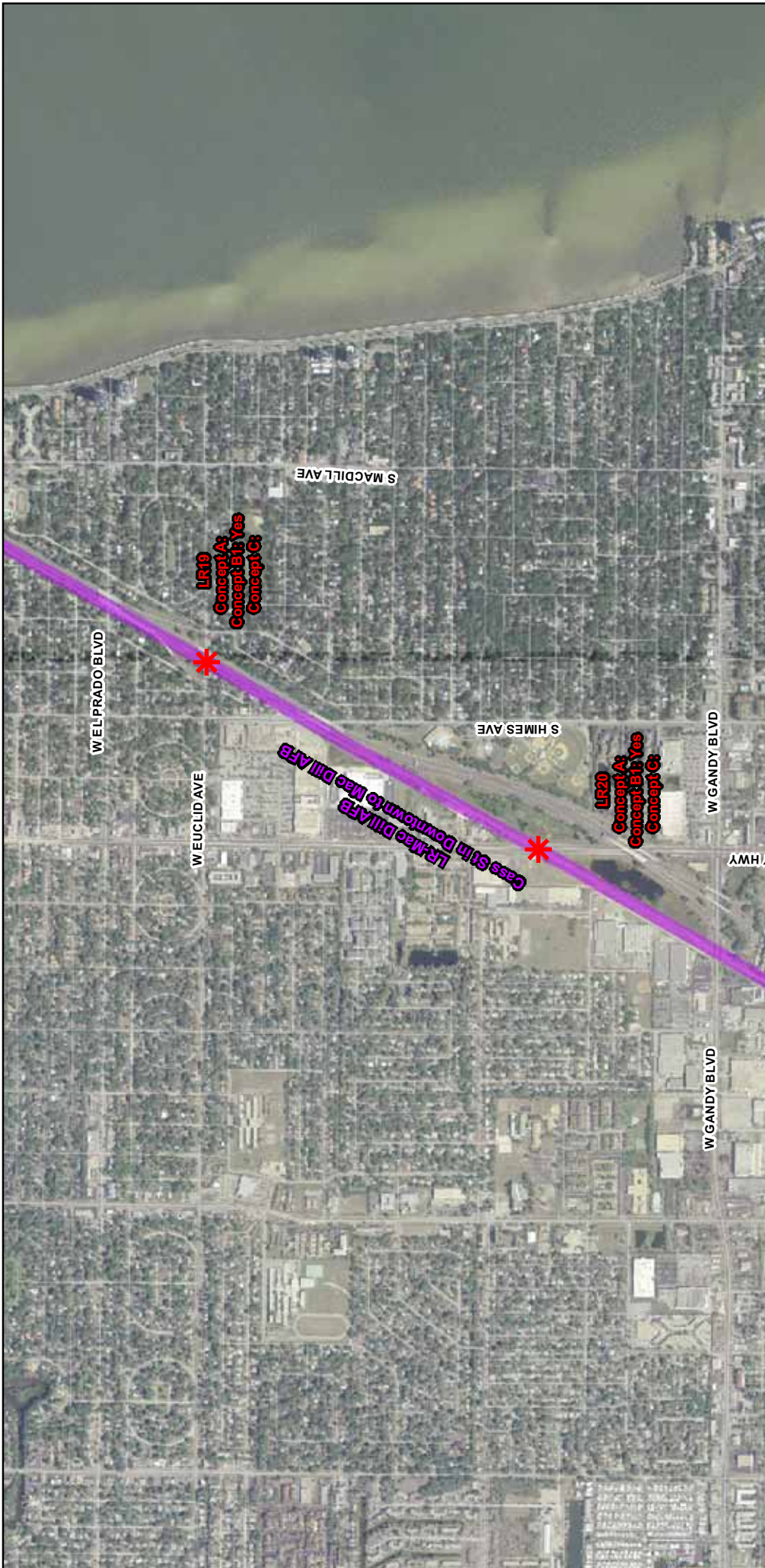
S MANHATTAN AVE

INTERBAY BLVD

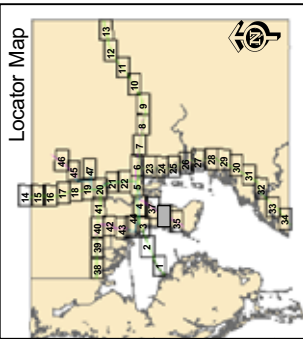
W PRESCOTT ST

W INGRAHAM ST

S DALE MABRY HWY



Hillsborough County
MPO Transit Study

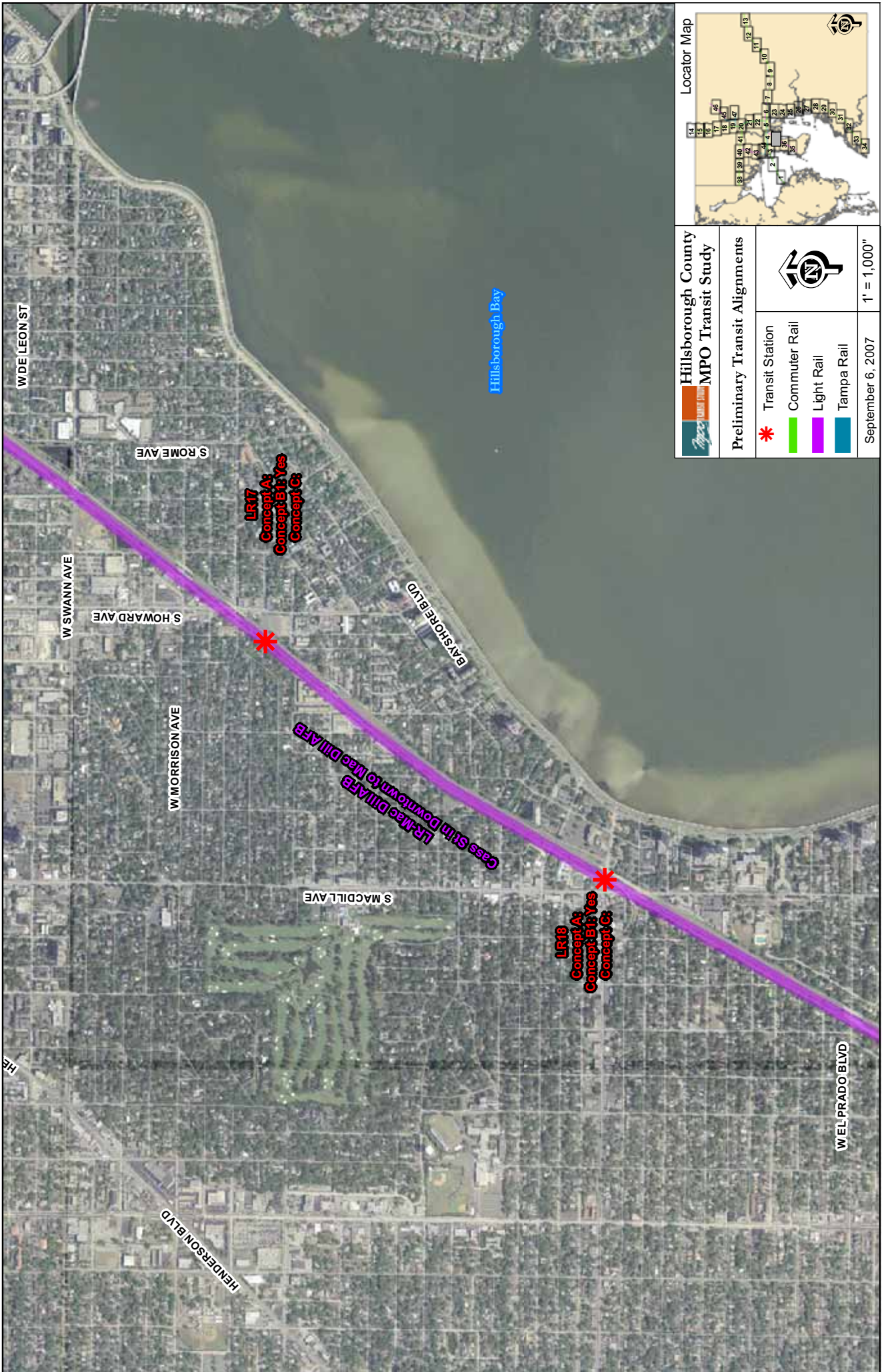


Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

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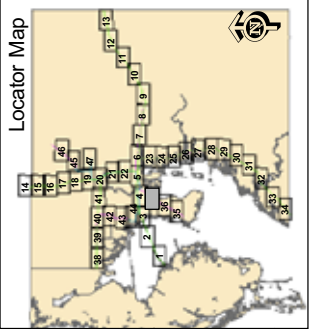


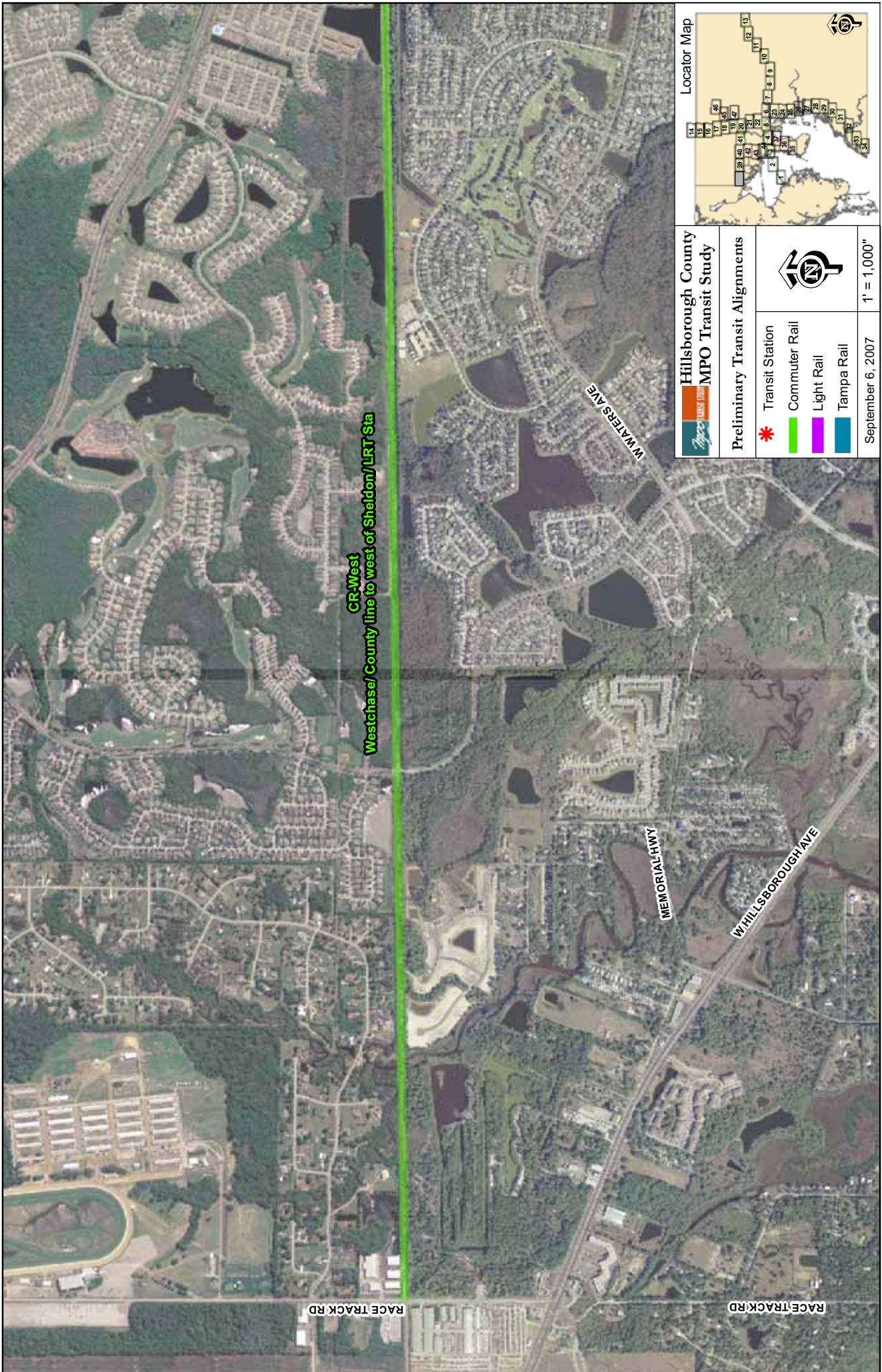
Hillsborough County
MPO Transit Study

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September 6, 2007
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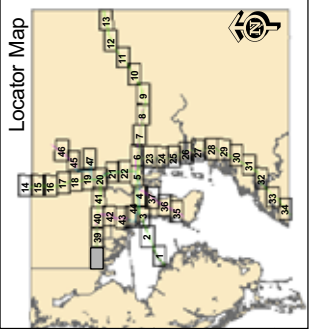


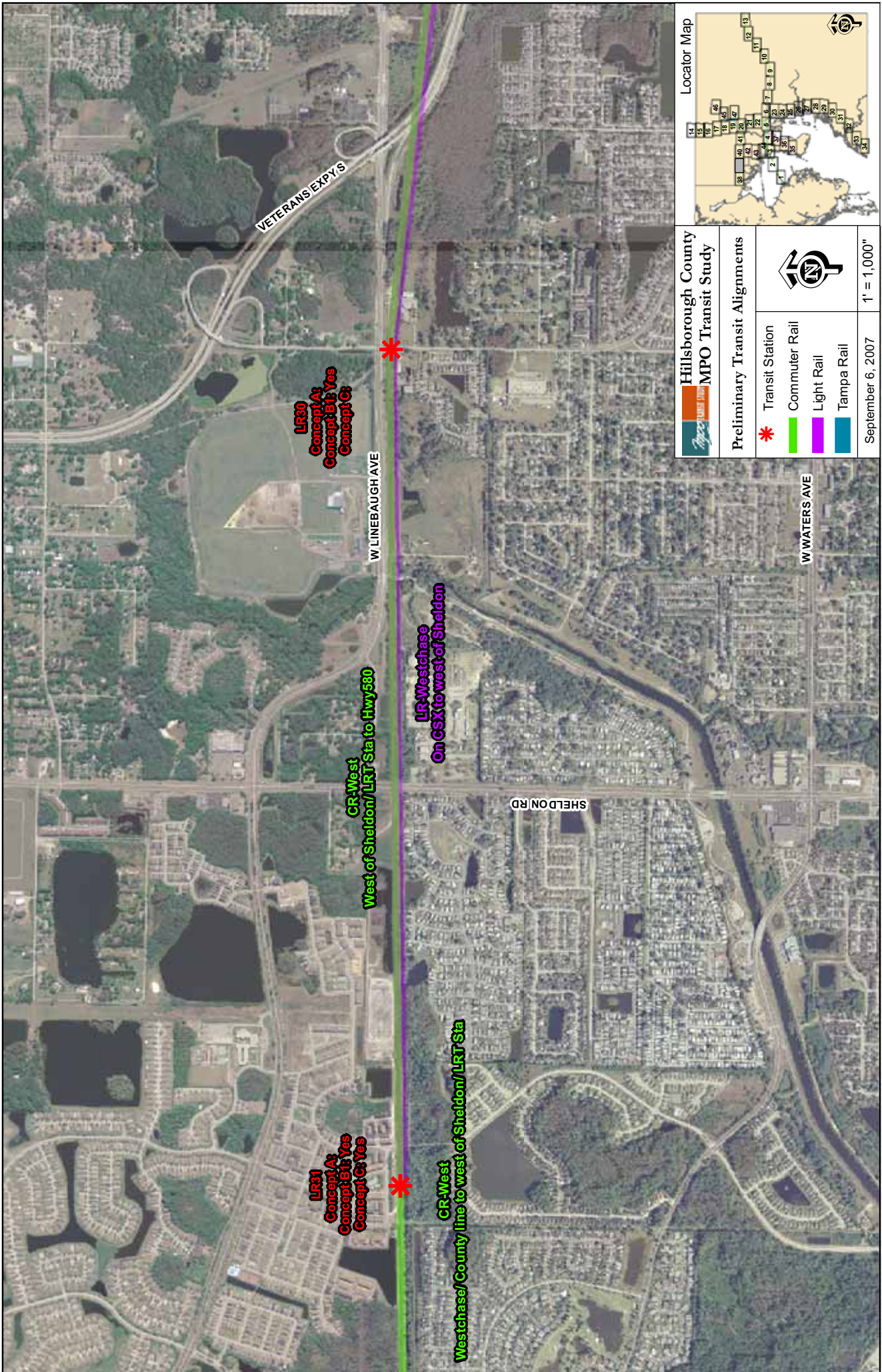
**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

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September 6, 2007
1" = 1,000"





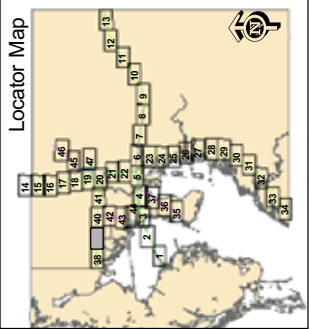
**Hillsborough County
MPO Transit Study**

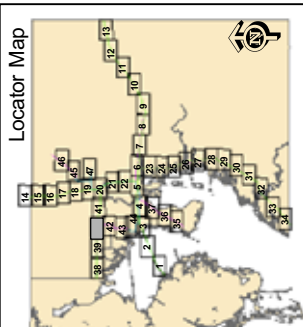
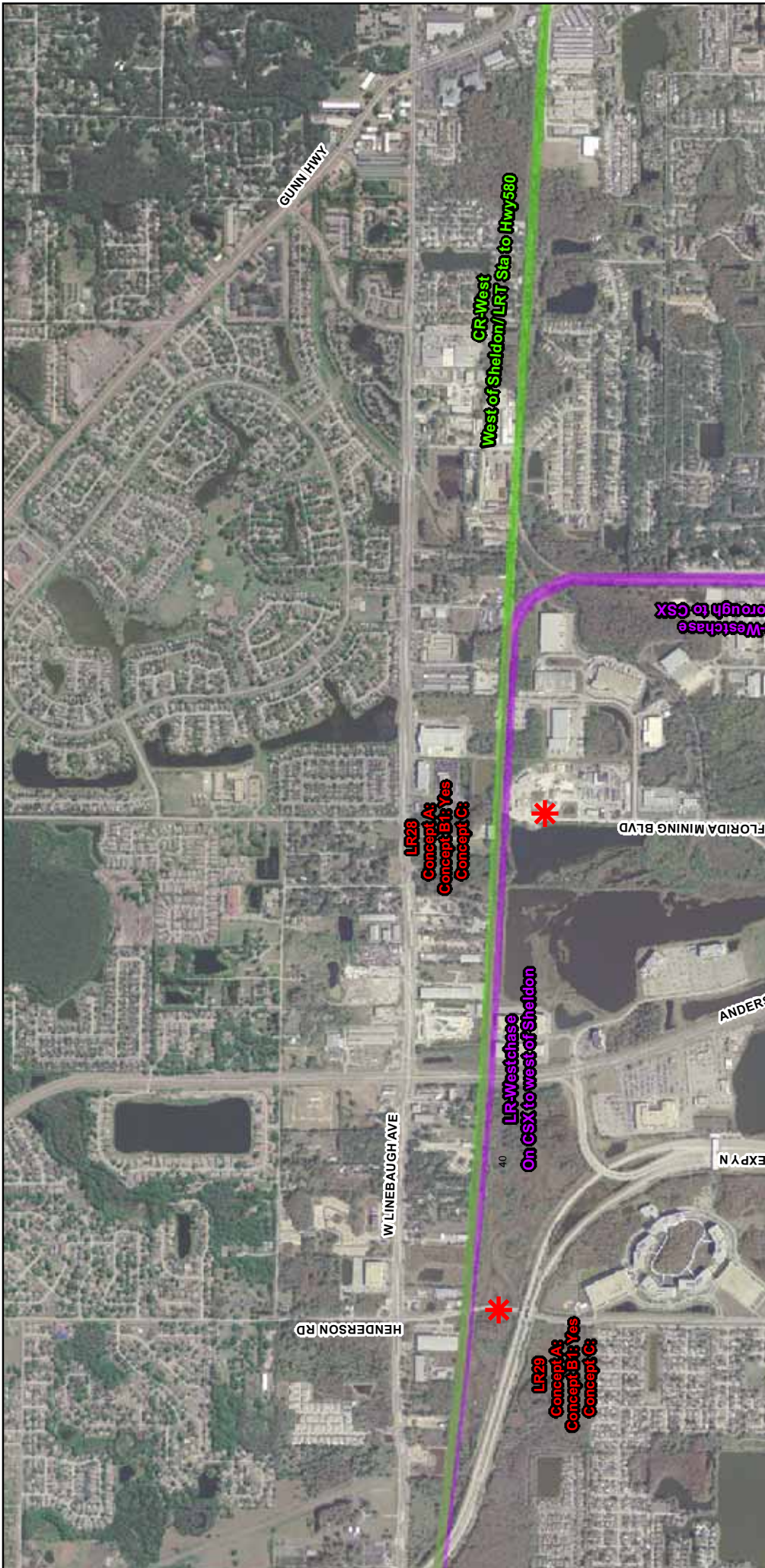
Preliminary Transit Alignments

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	Commuter Rail
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September 6, 2007

1' = 1,000"





Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

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September 6, 2007

1" = 1,000"

GUNN HWY

CR-West
West of Sheldon/LRT Sta to Hwy 580

LR28
Concept A:
Concept B1: Yes
Concept C:

40
LR-Westchase
On CSX to west of Sheldon

LR29
Concept A:
Concept B1: Yes
Concept C:

LR-Westchase
to CSX

LR27
Concept A:
Concept B1: Yes
Concept C:

HENDERSON RD

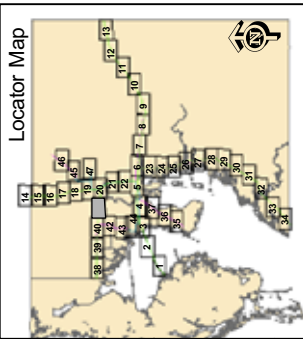
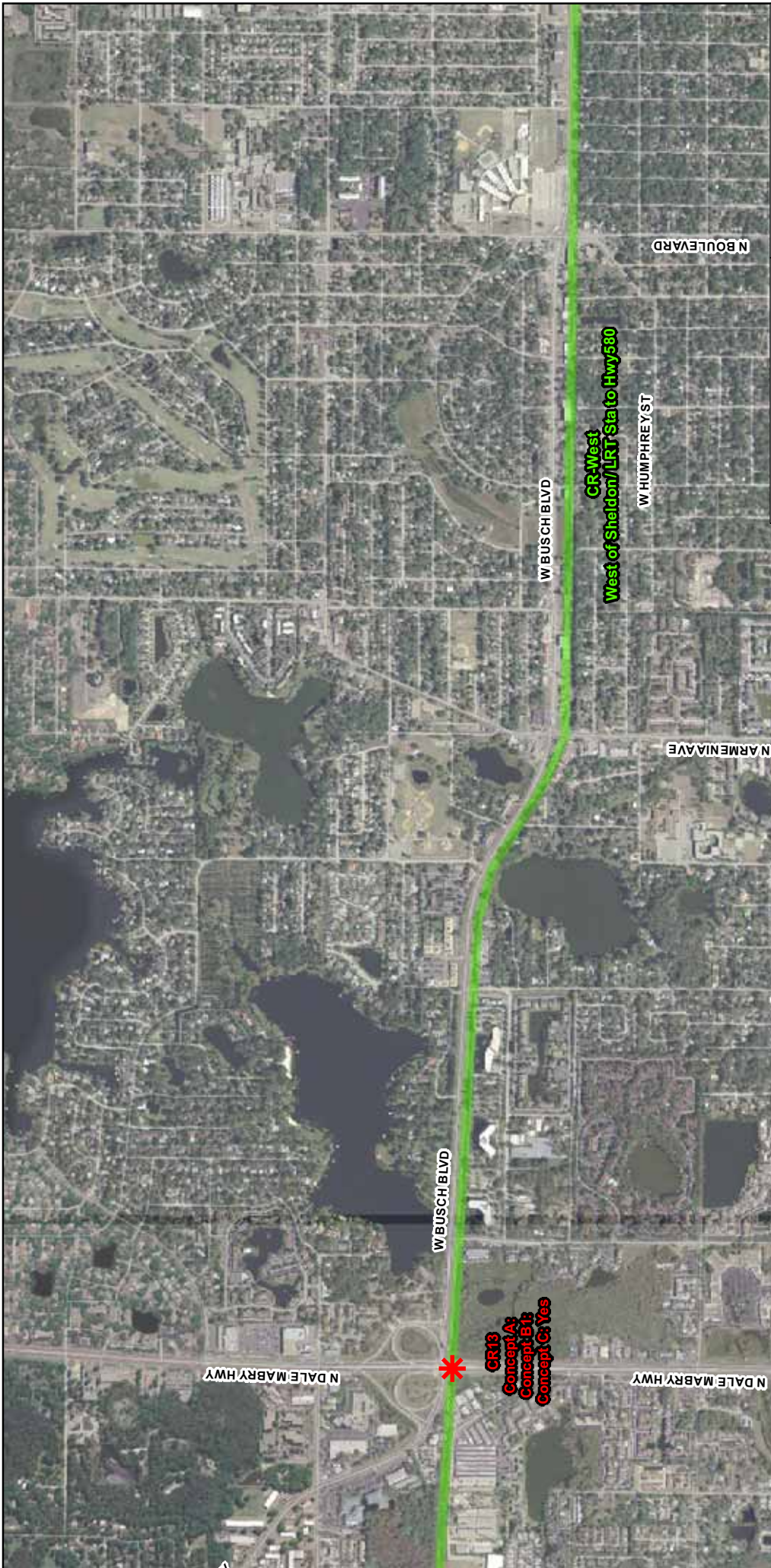
W LINEBAUGH AVE

ANDERSON RD

VETERANS EXPY N

FLORIDA MINING BLVD

W WATERS AVE



Hillsborough County
MPO Transit Study

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September 6, 2007

1" = 1,000"

CR-West
West of Sheldon/LRT Sta to Hwy 580

CR13
Concept A:
Concept B1:
Concept C: Yes

N DALE MABRY HWY

W BUSCH BLVD

N ARMENIA AVE

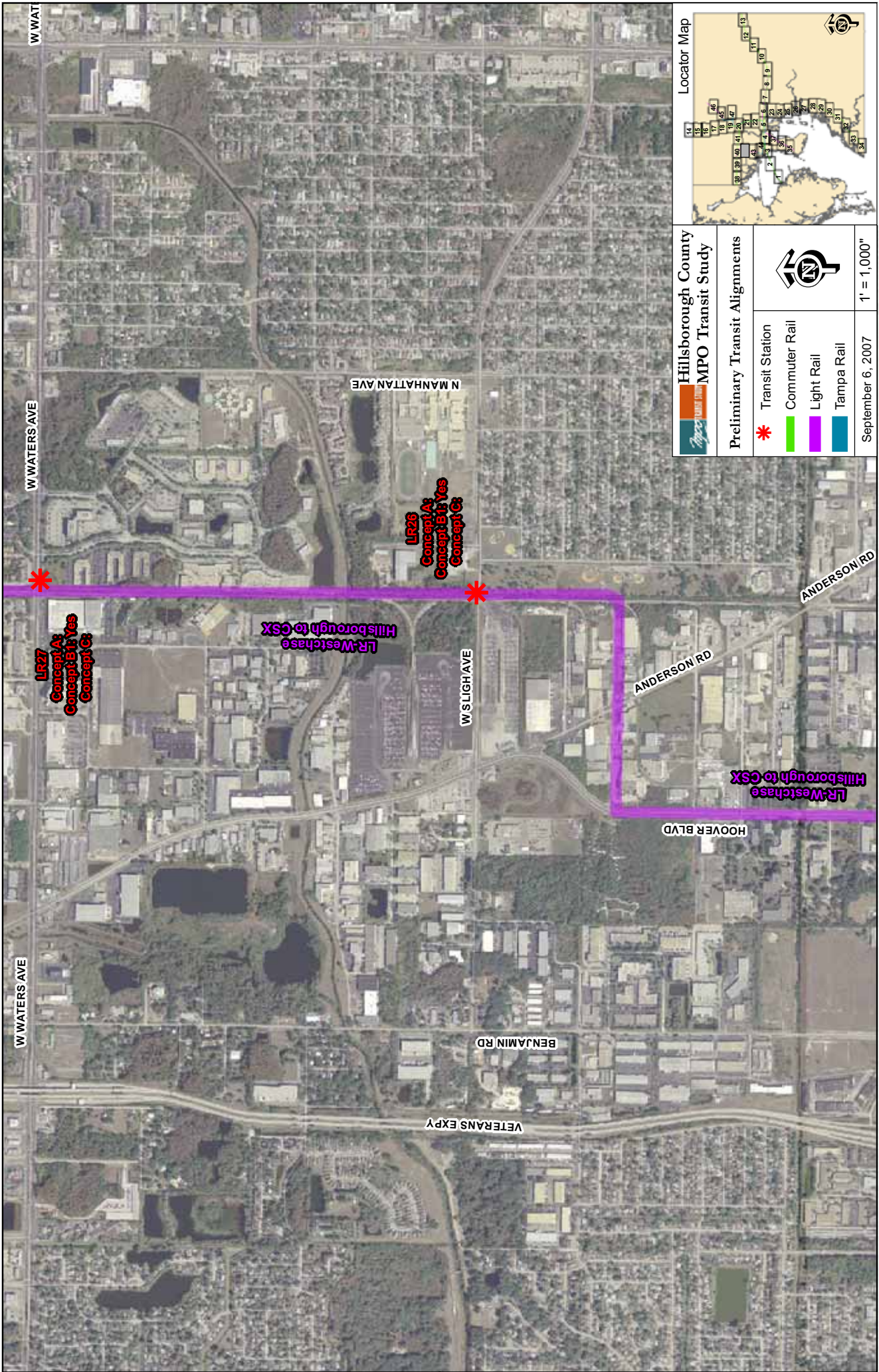
W HUMPHREY ST

W BUSCH BLVD

N BOULEVARD

W WATERS AVE

N DALE MABRY HWY



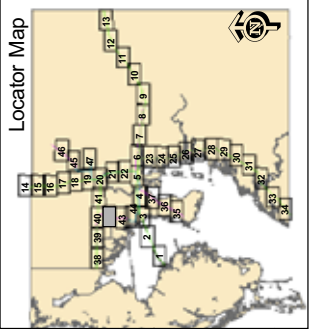
Hillsborough County MPO Transit Study

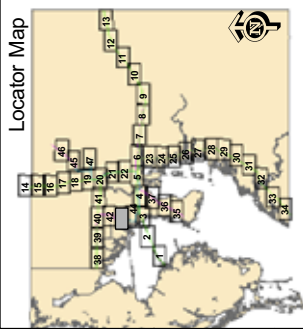
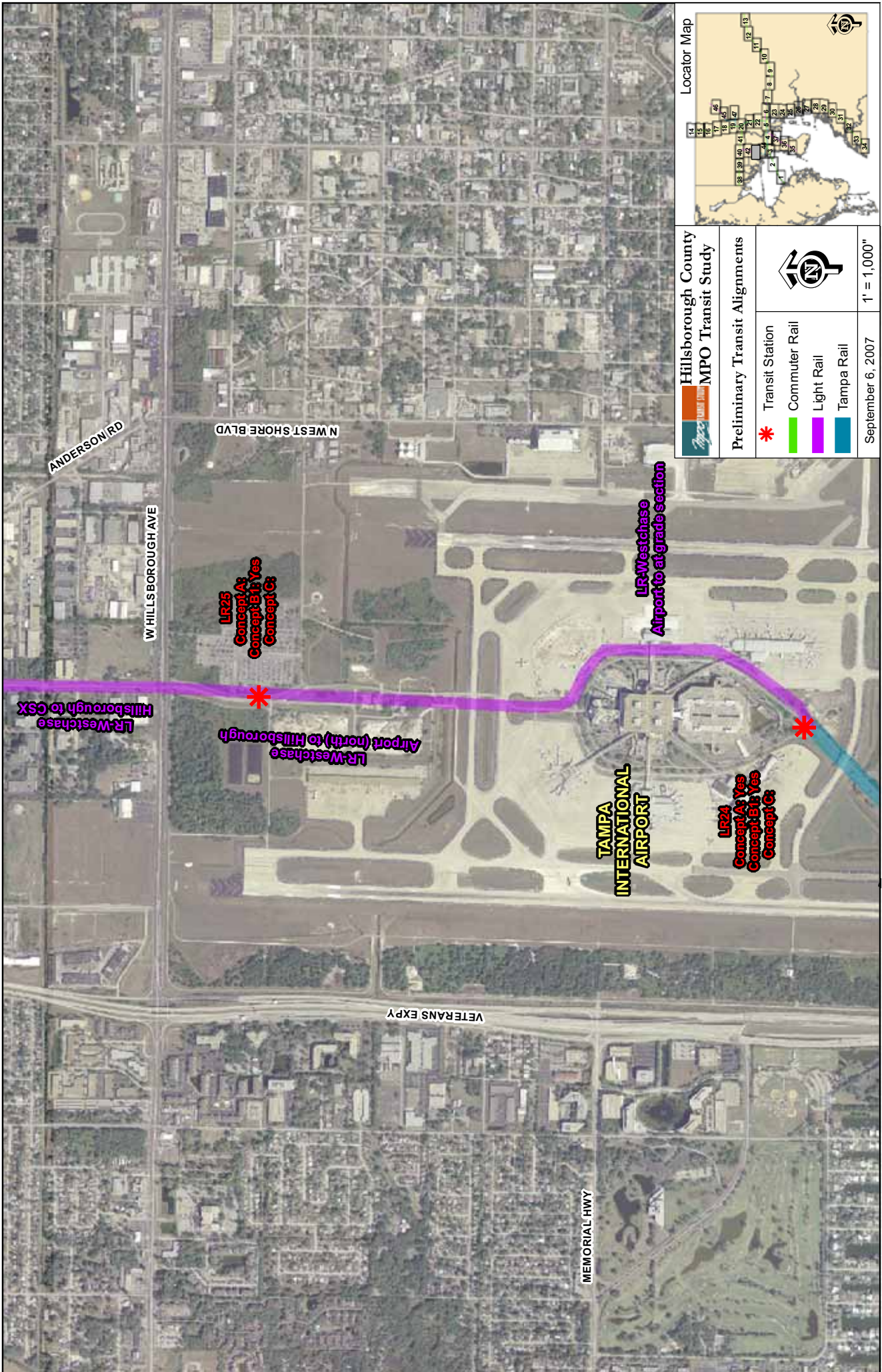
Preliminary Transit Alignments

	Transit Station
	Commuter Rail
	Light Rail
	Tampa Rail

September 6, 2007

1" = 1,000"





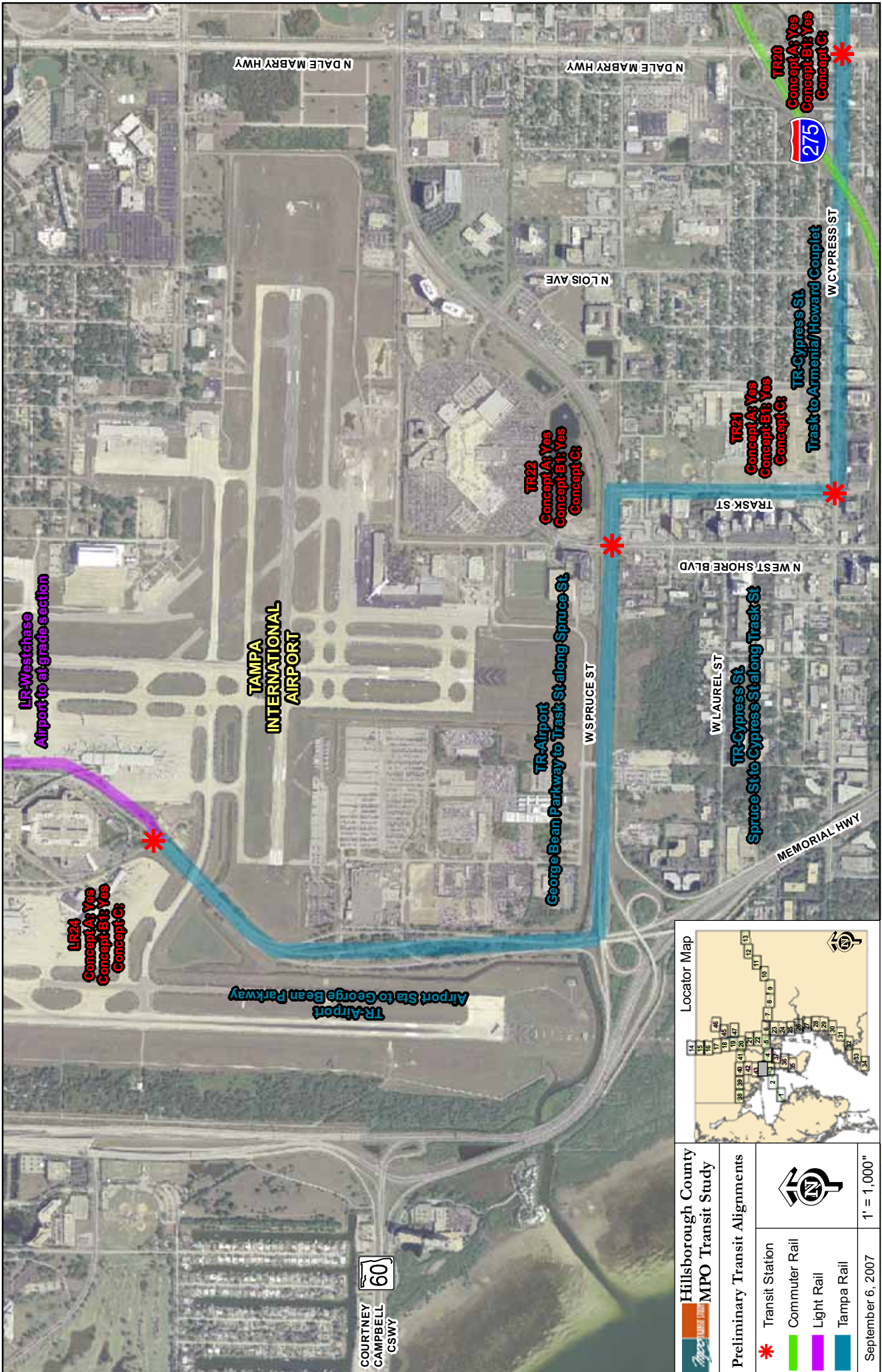
Hillsborough County
MPO Transit Study

Preliminary Transit Alignments

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September 6, 2007

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LR-Westchase
Airport to at grade section

TR24
Concept A: Yes
Concept B: Yes
Concept C:

TR-Airport
Airport Sta to George Bean Parkway

TAMPA
INTERNATIONAL
AIRPORT

TR-Airport
George Bean Parkway to Trask St along Spruce St

TR22
Concept A: Yes
Concept B: Yes
Concept C:

TR-Cypress St
Spruce St to Cypress St along Trask St

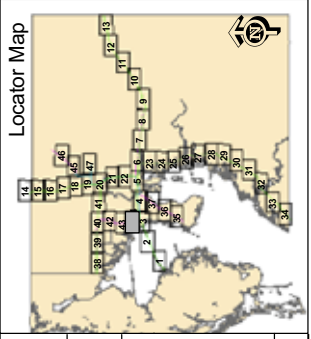
TR21
Concept A: Yes
Concept B: Yes
Concept C:

TR-Cypress St
Trask to Armentia/Howard Couplet

TR20
Concept A: Yes
Concept B: Yes
Concept C:



COURTNEY
CAMPBELL
CSWY



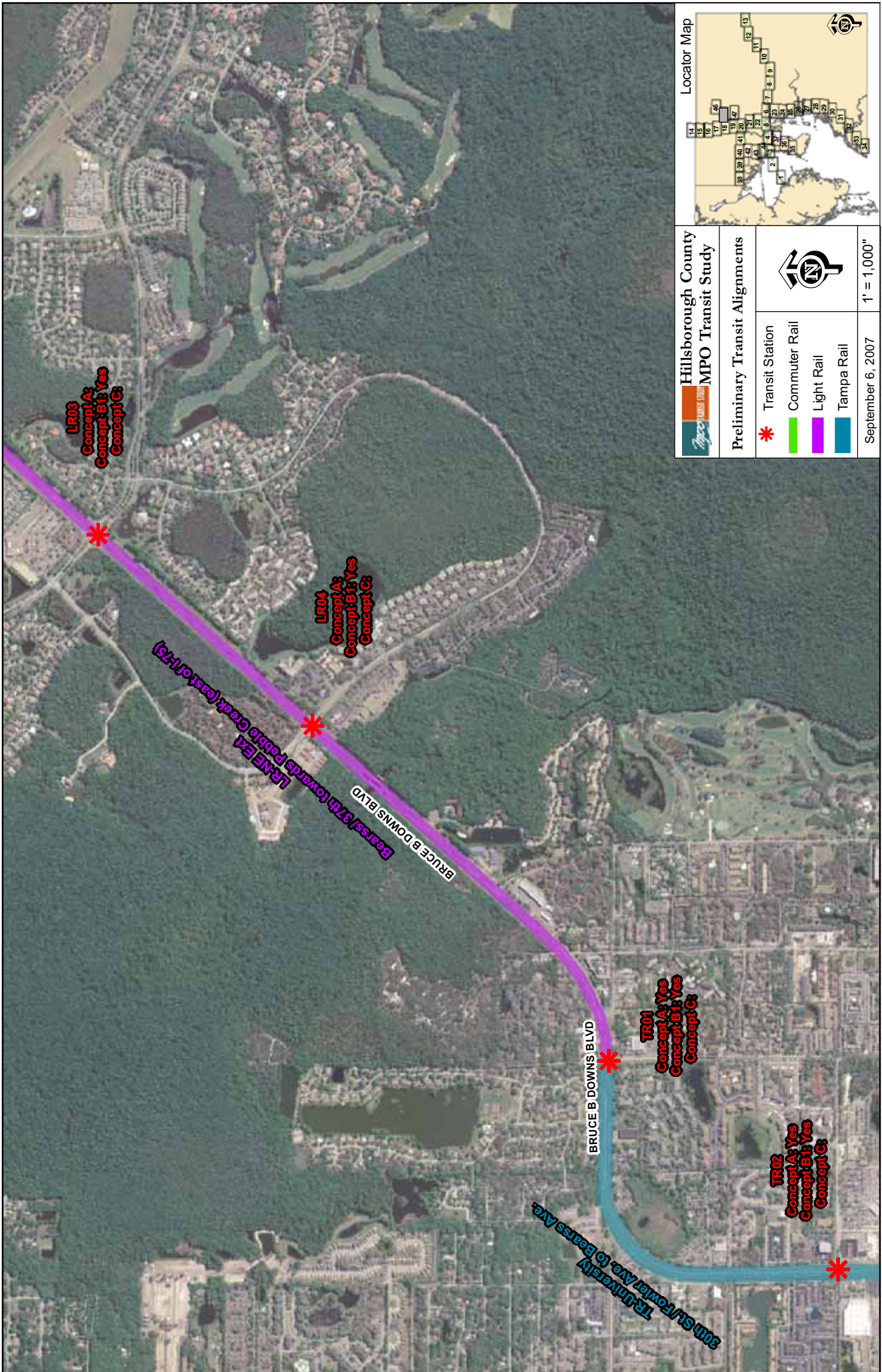
Hillsborough County
MPO Transit Study

Preliminary Transit Alignments



- * Transit Station
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September 6, 2007
1" = 1,000"



LR03
 Concept A: Yes
 Concept B: Yes
 Concept C:

LR04
 Concept A: Yes
 Concept B: Yes
 Concept C:

TR01
 Concept A: Yes
 Concept B: Yes
 Concept C:

TR02
 Concept A: Yes
 Concept B: Yes
 Concept C:

TR03
 Concept A: Yes
 Concept B: Yes
 Concept C:

BRUCE B DOWNS BLVD
 Bears/37th towards Pebble Creek (east of I-9)
 LR-NE Ext

30th St/ Fowler Ave. to Bears Ave.
 BRUCE B DOWNS BLVD

Hillsborough County
 MPO Transit Study

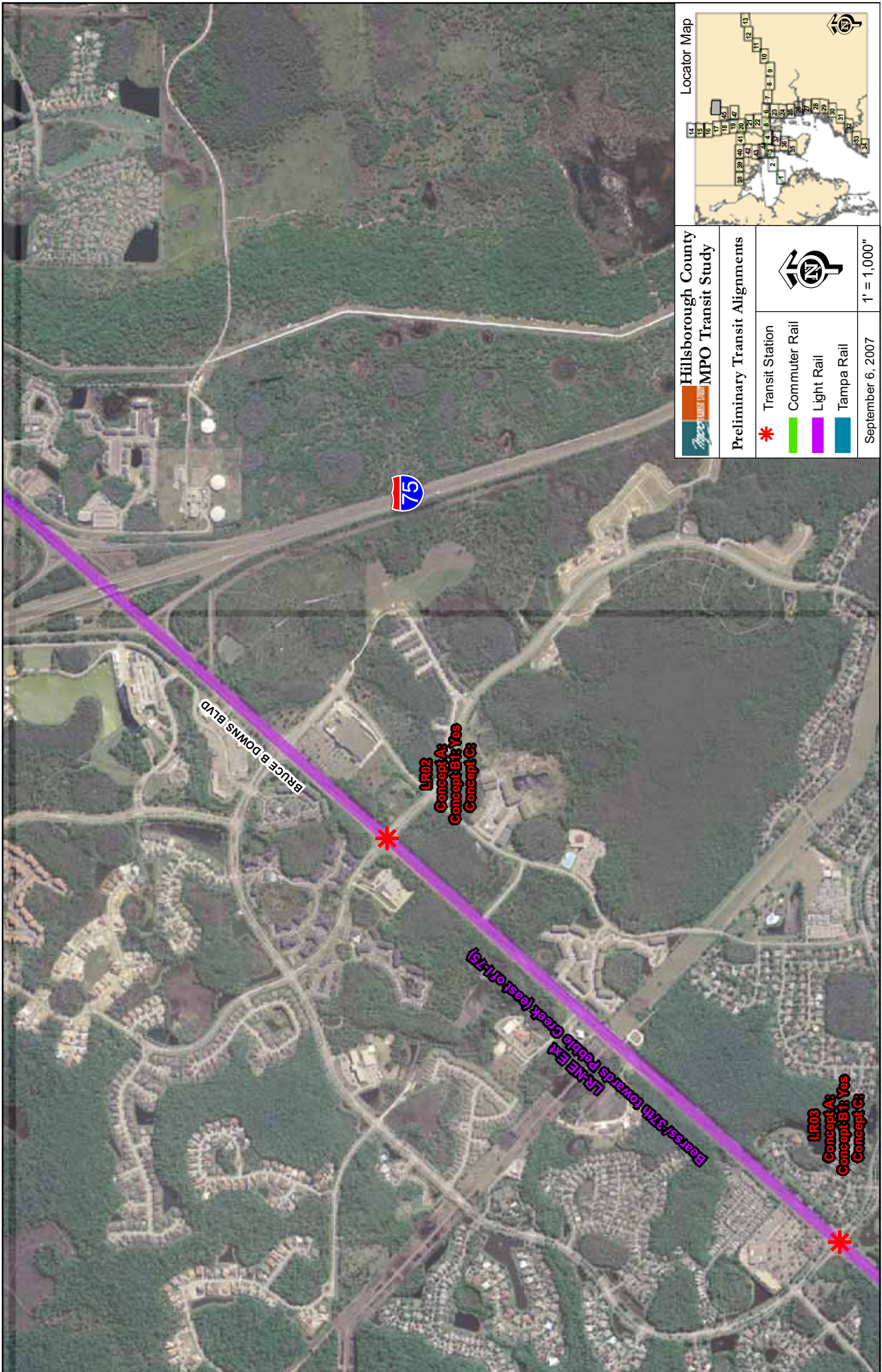
Preliminary Transit Alignments

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September 6, 2007





1' = 1,000"

Locator Map



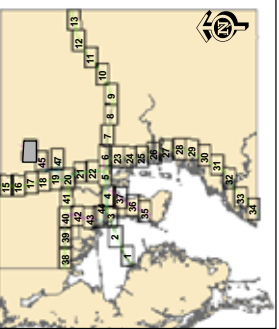
**Hillsborough County
MPO Transit Study**

Preliminary Transit Alignments

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Locator Map



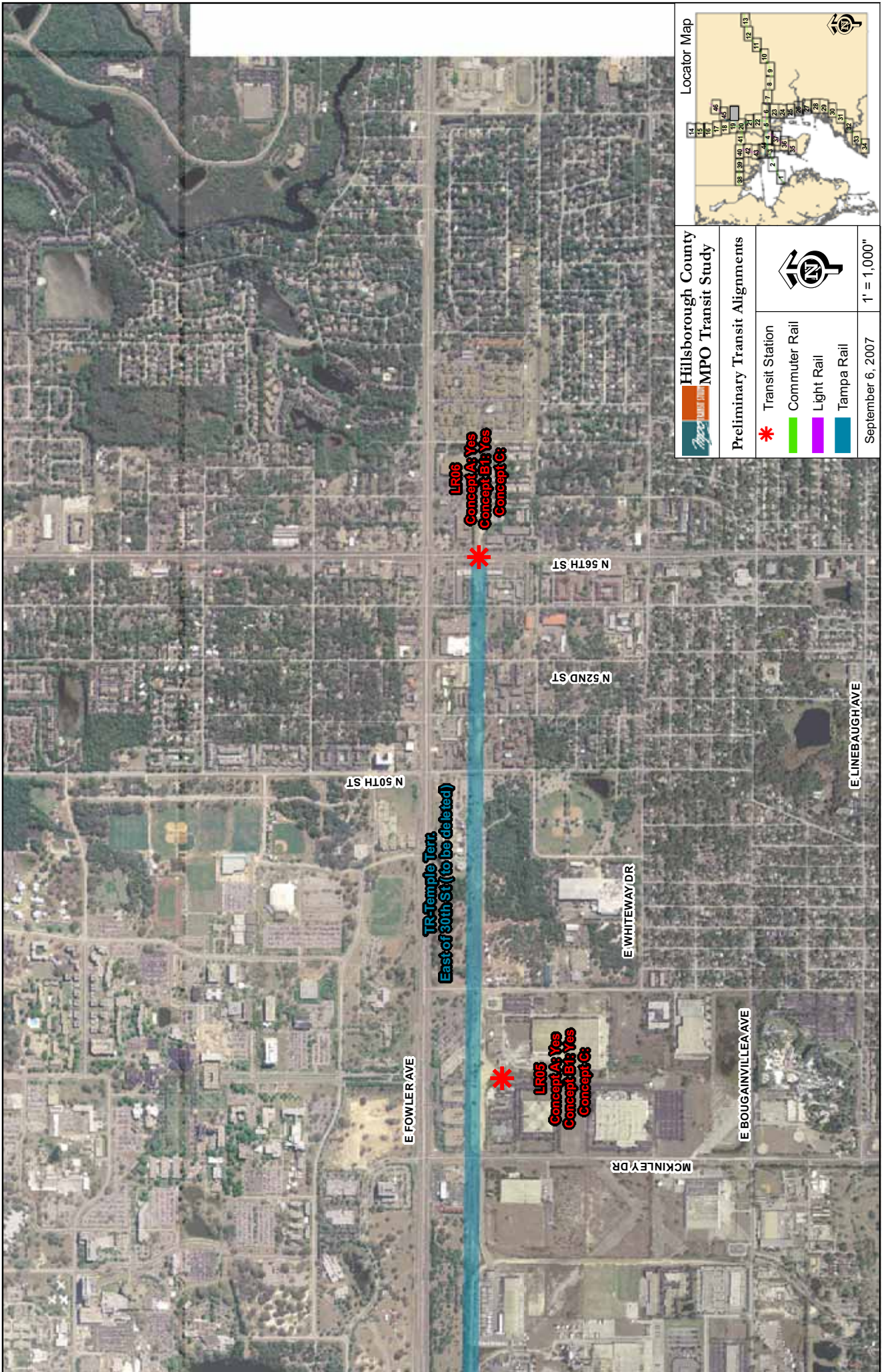
BRUCE B. DOWNS BLVD



LR02
Concept A:
Concept B: Yes
Concept C:

BRUCE B. DOWNS BLVD
LR NE Ext
towards Pebble Creek (east of I-75)

LR03
Concept A:
Concept B: Yes
Concept C:



**TR-Temple Terr.
East of 30th St. (to be deleted)**

**LR05
Concept A: Yes
Concept B: Yes
Concept C: Yes**

**LR06
Concept A: Yes
Concept B: Yes
Concept C: Yes**

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September 6, 2007

1" = 1,000'

Locator Map