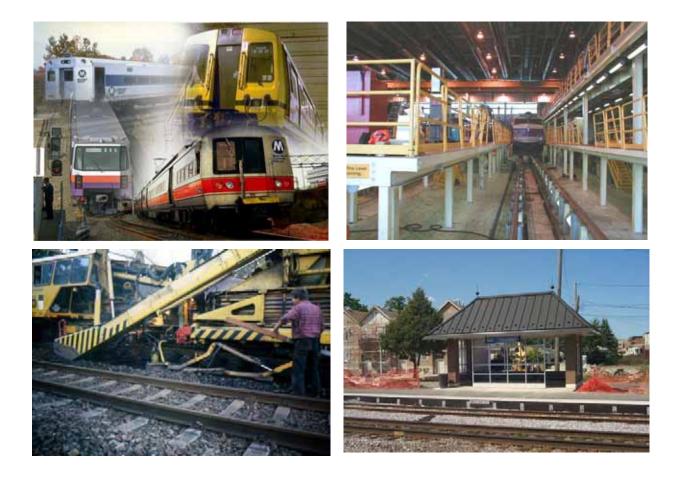


ALTERNATIVE TRANSIT SYSTEM CONCEPTS: Estimated Capital, Operations & Maintenance Costs



TECHNICAL MEMORANDUM

DECEMBER 2007

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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.

			#	Capital	Cost Per
Transit	Length	#	Revenue	Costs	Mile
Alternative	(Miles)	Stations	Vehicles	\$ Billions	\$ 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

Table 1: 2007 Rail Transit Capital Cost Summary

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.

December, 2007 Capital, O&M Cost Approach and Assumptions

)	-		
		Length	Dir Route	AM and PM Peak Headway	Midday Off-Peak Headway	Evening Off-Peak Headway	Weekend Off-Peak Headway	Average	Cycle Travel
		(miles)	Miles	6am to 9am & 3pm to 6pm	9am to 4pm	7pm to 1am	6am to 1am	Speed	Time
	Blue Line	27.85	55.70	10 min	12 min	15 min	15 min	15 mph	223 min
LRT	LRT Red Line	31.65	63.31	10 min	12 min	15 min	15 min	15 mph	253 min
	Green Line	7.81	15.61	10 min	12 min	15 min	15 min	15 mph	62 min
	I-40	26.09	52.18	30 min				30 mph	104 min
aU	Purple	26.37	52.74	30 min	60 min		60 min	30 mph	105 min
	Orange	29.49	58.99	30 min				30 mph	118 min
	Red/Pink	17.56	35.12	30 min	60 min		60 min	30 mph	70 min

Table 2: Service Characteristics and Operating Assumptions



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 reestimated 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.

Service]	Light Rail			Comm	uter Rail	
Characteristic	Blue	Red	Green	I-4	Purple	Orange	Red
	Line	Line	Line				
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

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

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.



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

Table 4: Light Rail O&M Unit Costs

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.

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

Table 5: Commuter Rail O&M Unit Costs

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.

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

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

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)

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

Concept A

TR-Airport TR-Airport TR-Cypress SI: TR-Cypress SI: I 2 3 4 5 5 Artor 12 Ceracy Basin Ceracy Basin SI: 2 3 4 5 5 Meib: Ceracy Basin Ceracy Basin SI: Ceracy Basin Ceracy Basin SI: 2 3 4 5 Meib: Parkway Stations: 1 0 <th>_</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th> </th>	_							
Image:	own TR-Ybor City	TR-North	lorth	TR-University	TR-Temple Terrace			
Altron table Altron table Cenergia to cenergia Cenergia to cenergia Cenergia to parkway to that Cenergia to that Cenerg	1		6	10	1			
Length (Mie): 1.1 0.9 0.5 2.9 1.9 Number of Stations: Number of Stations: 0 1 1 3 1 Number of Stations: Number of Stations: 0 1 1 3 1 Number of Stations: Number of Stations: 0 1 1 3 1 Number of Stations: Number of Stations: 0 1 1 3 1 Number of Revenue Vehicles: 0 1 1 3 1 1 Cubeway Strack ELEMENTS 2.2.88 50.00 50.00 50.00 50.00 10.01 Gudeway: Atgrade exclusive failows cross-traffic) 50.00 50.00 50.00 50.00 50.00 10.02 Gudeway: Atgrade exclusive failows cross-traffic) 50.00 50.00 50.00 50.00 50.00 50.00 10.03 Gudeway: Atgrade structure 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 <td< th=""><th>d. to Nebraska Ave. to Ave. CSX N/S split</th><th> CSX N/S split to Busch Blvd </th><th>Busch Blvd. to 30th St./ Fowler Ave.</th><th>30th St./Fowler E Ave. to Bearss Ave.</th><th>East of 30th St (to be deleted)</th><th>Maintenance Facility</th><th>Vehicles</th><th>Alternative Total</th></td<>	d. to Nebraska Ave. to Ave. CSX N/S split	 CSX N/S split to Busch Blvd 	Busch Blvd. to 30th St./ Fowler Ave.	30th St./Fowler E Ave. to Bearss Ave.	East of 30th St (to be deleted)	Maintenance Facility	Vehicles	Alternative Total
Number of Stations: 0 1 3 1 Number of Revenue Vehicles: Number of Revenue Vehicles: 3 1 3 1 Number of Revenue Vehicles: Stations: 8 9	1.7	5.3	3.0	1.9	2.0			
Number of Revenue Verticies: Southous Southo	2	5	2	4	2			
GUDEWAX & TRACK ELEMENTS South Stark South Sta							54	
Guideway: Al-grade exclusive right-of-way 53.22 52.68 50.00 50.00 Guideway: Al-grade exclusive right-of-way Guideway: Al-grade semi-exclusive (allows cross-traffic) 50.00								
Guideway: Al-grade semi-exclusive (allows cross-traffic) \$0.00 \$0.00 \$2.36 \$14.70 Guideway: Al-grade semi-exclusive (allows cross-traffic) \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Al-grade in mixed traffic \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Al-grade in mixed traffic \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Vurderground cut & cover \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Underground cut & cover \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Underground cut & cover \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Vinderground cut funel \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$3.03 \$5.03	3 \$15.78	\$9.01	\$0.00	\$6.08			\$44.83
Guideway: Al-grade in mixed traffic 50.00 50.00 50.00 50.00 Guideway: Mail structure 50.78 50.00 50.00 50.00 50.00 Guideway: Mail structure 50.00 50.00 50.00 50.00 50.00 Guideway: Underground cuts cover 50.00 50.00 50.00 50.00 50.00 Guideway: Underground cuts 50.00 50.00 50.00 50.00 50.00	\$0.00 \$0.00		\$0.00	\$8.87	\$0.00			\$34.72
Guideway: Aerial structure \$0.78 \$0.00 \$			\$0.00	\$0.00	\$0.00			\$0.00
Guideway: Bull-tup fil \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Underground cut & cover \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Underground tunnel \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Underground tunnel \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Retained cut or fil \$0.00 \$0.00 \$0.00 \$0.00			\$0.00	\$0.00	\$0.00			\$6.63
Guideway: Undergraund cut & cover \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Undergraund tunnel \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Undergraund tunnel \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00			\$0.00	\$0.00	\$0.00			\$0.00
Guideway: Underground tunnel \$0.00 \$0.00 \$0.00 \$0.00 Guideway: Retained out or fill \$0.00 \$0.00 \$0.00 \$0.00			\$0.00	\$0.00	\$0.00			\$0.00
Gudeway: Retained cut or 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
Track: Direct fixation \$0.00 \$0.00 \$0.00 \$0.00			\$0.00	\$0.00	\$0.00			\$0.79
\$3.00 \$0.00 \$3.03 \$17.06 \$			\$0.00	\$11.42	\$0.00			\$42.85
\$3.16 \$2.63 \$0.00 \$0.00		4 \$15.49	\$8.84	\$0.00	\$5.96			\$43.99
\$0.46 \$2.56	\$0.53 \$0.74		\$1.33	\$1.71	\$0.89			\$13.15
10.13 Track: Vibration and noise dampening \$0.19 \$0.16 \$0.00 \$0.00 \$0.00	\$0.18 \$0.30	0 \$0.93	\$0.53	\$0.00	\$0.36			\$2.64
Subtotal Category 10 \$7,93 \$5.86 \$5.84 \$24.32 \$21.83	\$11.95 \$11.00	0 \$35.85	\$19.70	\$22.00	\$13.29			\$189.59
20 STATIONS, STOPS, TERMINALS, INTERMODAL								
2001 At-grade station, stop, shelter, mail, terminal, platform \$0.00 \$3.60 \$3.60 \$3.60 \$3.60	\$10.80 \$7.20	0 \$18.00	\$7.20	\$14.40	\$7.20			\$85.20
\$0.00 \$0.00 \$0.00 \$0.00			\$0.00	\$0.00	\$0.00			\$0.00
Underground station, stop, shelter, mail, terminal, platform \$0,00 \$0,00 \$0,00 \$0,00 \$0.00			\$0.00	\$0.00	\$0.00			\$0.00
Other stations, landings, terrminals: Intermodal, ferry, trolley, etc. \$0.00 \$0.00 \$0.00 \$0.00							_	2.50
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			\$0.00 \$0.00 \$0.00
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			00.00 \$0.00 \$0.00 \$0.00
20.06 Automobile parking multi-story structure \$0.00			00 [.] 05 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00

Concept A

Hillsborough County MPO Transit Study System Planning	Tampa Rail Transit	Capital Cost Estimate
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					(2007 Dollars in Millions)	llions)								
	TR-	TR-Airport		TR-Cypress St.		TR-Downtown	TR-Ybor City	TR-	TR-North	TR-University	TR-Temple Terrace			
CAT No.	1 Airport Sta to George Bean Parkway	2 George Bean Parkway to Trask St along Spruce	3 Spruce St to Cypress St along Trask St	4 Trask to Armenia/ Howard Couplet	4 5 Trask to Armenia / Cypress Howard Couplet to UT/ N. Blvd.	6 UT/N. Blvd. to Nebraska Ave.	7 Nebraska Ave. to CSX N/S split	8 CSX N/S split to Busch Blvd	9 Busch Blvd. to 30th St./ Fowler Ave.	10 30th St./ Fowler Ave. to Bearss Ave.	11 East of 30th St (to be deleted)	Maintenance Facility	Vehicles	Alternative Total
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS		ż												
												\$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	\$0.65	\$0.25	\$0.35	\$1.10	\$0.62	\$0.66	\$0.42			\$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			\$31.69
40.03 Haz. mat'l, contam'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			\$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			\$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			\$0.83
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			\$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			\$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			\$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			\$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			\$36.09
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			\$17.77
50.03 Traction power supply: substations	\$2.99	\$1.50	\$1.50	\$4.49	\$2.99	\$2.99	\$2.99	\$8.97	\$5.98	\$2.99	\$4.49			\$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			\$1.39
50.05 Communications	\$1.61	\$1.89	\$1.32	\$5.90	\$3.35	\$3.38	\$3.62	\$10.66	\$5.57	\$5.10	\$4.13			\$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			\$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
Subtotal Category 50	\$7.20	\$5.64	\$4.39	\$20.29	\$11.33	\$9.78	\$10.94	\$33.35	\$19.14	\$13.85	\$13.79			\$149.70

Appendix A

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\$642.39

\$103.57

\$41.58

\$74.38

\$55.23

\$99.39

\$32.49

\$35.06

\$54.09

\$92.83

\$19.07

\$17.41

\$17.29

Subtotal Construction Costs

Concept A

Hillsborough County MPO Transit Study

					System Planning Tampa Rail Transit	ng 1sit								
					Capital Cost Estimate (2007 Dollars in Millions)	mate Ilions)								
		TR-Airport		TR-Cypress St.		TR-Downtown	TR-Ybor City	TR-North	orth	TR-University	TR-Temple Terrace			
CAT No.	1 Airport Sta to George Bean Parkway	2 to George Bean an Parkway to Trask St along Spruce St.	3 an Spruce St to rask Cypress St along uce Trask St	4 Trask to Armenia/ ig Howard Couplet	5 / Armenia / Cypress to UT/ N. Blvd.	6 UT/N. Blvd. to Nebraska Ave.	7 Nebraska Ave. to CSX N/S split	8 CSX N/S split to Busch Blvd	9 Busch Blvd. to 30th St./ Fowler Ave.	10 30th St/Fowler Ave. to Bearss Ave.	11 East of 30th St (to be deleted)	Maintenance Facility	Vehicles	Alternative Total
60 ROW, LAND, EXISTING IMPROVEMENTS														
60.01 Purchase or lease of real estate						\$3.50	\$5.37	\$16.90	\$9.61	\$6.08	\$6.48	\$12.00		\$83.01
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		\$83.01
70 VEHICLES														
70.01 Streetcar													\$213.84	\$213.84
Subtotal Vehicles													\$213.84	\$213.84
80 PROFESSIONAL SERVICES														
80.01 Preliminary Engineering	4.0% \$0	\$0.69 \$	\$0.70 \$0.76	6 \$3.71	\$2.16	\$1.40	\$1.30	\$3.98	\$2.21	\$2.98	\$1.66	\$4.14		\$25.70
80.02 Final Design	6.0% \$1	\$1.04 \$	\$1.04 \$1.14	4 \$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	5.0% \$0	\$0.86 \$	\$0.87 \$0.95	35 \$4.64	\$2.70	\$1.75	\$1.62	\$4.97	\$2.76	\$3.72	\$2.08	\$5.18		\$32.12
80.04 Construction Administration & Management	8.0% \$1	\$1.38 \$	\$1.39 \$1.53	53 \$7.43	\$4.33	\$2.80	\$2.60	\$7.95	\$4.42	\$5.95	\$3.33	\$8.29		\$51.39
80.05 Insurance	2.0% \$0	\$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.	3.0% \$0	\$0.52 \$	\$0.52 \$0.57	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	3.0% \$0	\$0.52 \$	\$0.52 \$0.57	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	1.0% \$0	\$0.17 \$	\$0.17 \$0.19	9 \$0.93	\$0.54	\$0.35	\$0.32	\$0.99	\$0.55	\$0.74	\$0.42	\$1.04		\$6.42
Subtotal Professional Services	\$2 TS	\$5.53 \$	\$5.57 \$6.10	10 \$29.71	\$17.31	\$11.22	\$10.40	\$31.80	\$17.67	\$23.80	\$13.30	\$33.14	\$0.00	\$205.56
90 UNALLOCATED CONTINGENCY	10.0% \$2	\$2.63	\$2.58 \$2.68	\$13.16	\$7.74	\$4.98	\$4.82	\$14.81	\$8.25	\$10.43	\$6.14	\$14.87	\$21.38	\$114.48

\$14.87 \$163.59

\$6.14 \$67.50

\$10.43 \$114.69

\$8.25 \$90.76

\$14.81 \$162.90

\$4.82 \$53.07

\$4.98 \$54.76

\$7.74 \$85.18

\$13.16 \$144.79

\$2.68 \$29.46

\$2.58 \$28.43

\$2.63 \$28.94

Project Total

\$235.22 \$1,259.28

Appendix A

4

		Sys	ounty MPO Trans tem Planning TR-Airport	-				
RAN	SIT MODE: LRT	Airport Sta to	o George Bean Pa	arkway				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI	MENTS						
10.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	
	Double Track	At Grade - Ballasted, Open Element Total	5,724 5,724	RF RF	\$450	\$2,575,800 \$2,575,800	25%	\$3,219,7 \$3,219,7
10 02	2 Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
10.02	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
10.03	Guideway: At-grade in mixed							
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street Element Total	0	RF RF	\$680	\$0 \$0	25%	
			· · ·			φ		
10.04	Guideway: Aerial structure	Duides Dellasted		0.5	A- - - - - - - - - -		0.001	
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0 \$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	A-
	Double Track	Aerial - Direct Fixation Over Water Element Total	100 100	RF RF	\$6,000	\$600,000 \$600,000	30%	\$780,0 \$780,0
10.05	o Guideway: Built-up fill							
10.05	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0 \$0	25%	
	Double Hack	Element Total	0	RF	ψυυυ	\$0 \$0	2070	:
10.06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF	. ,	\$0		
10.07	Guideway: Underground tun	nel						
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	
		Element Total	0	RF		\$0		
10.08	Guideway: Retained cut or fil							
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted Element Total	0	RF RF	\$3,200	\$0 \$0	30%	
			· · ·			ţŭ		
0.09	Track: Direct fixation	Direct Firstian Treak	0	DE		Č .	4 50/	
	Single Track	Direct Fixation Track	0	RF	\$405	\$0 \$01.000	15%	¢00.4
	Double Track	Direct Fixation Track Element Total	100 100	RF RF	\$810	\$81,000 \$81,000	15%	\$93,1 \$93,1
10.40	Trook Embaddad							,
10.10	Track: Embedded Single Track	Embedded Track		PE	\$490	¢0	15%	
	Double Track	Embedded Track	0 0	RF RF	\$490 \$980	\$0 \$0	15% 15%	
		Element Total	0	RF	φθου	\$0 \$0	15%	
0 11	Track: Ballasted							
0.11	Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
		Ballasted Track						
	Double Track	Dallasleu Hauk	5,724	RF	\$480	\$2,747,520	15%	\$3,159,6

		TR-A	Planning Airport	-	y			
	SIT MODE: LRT	Airport Sta to Ge	orge Bean Pa	arkway				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10.12	Track: Special (switches, tur		4.50/			\$404.070	450/	* 407 0
		Special Trackwork (15% of Track Cost) Element Total	15%	LS		\$424,278 \$424,278	15%	\$487,92 \$487,92
		Liement Total	i	L3		φ 4 24,270		φ407,52
10.13	Track: Vibration and noise d	lampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$164,851	15%	\$189,5
		Cost)						
		Element Total	1	LS		\$164,851		\$189,5
20	STATIONS, STOPS, TERMI	NALS, INTERMODAL						
20.01	At-grade station, stop, shelte	r, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	:
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0 \$0	20%	
		Center Platform Station Element Total	0	EA EA	\$3,000,000	\$0 \$0	20%	
		Element i otal	U	EA		Ф О		
20.02	Aerial station, stop, shelter, r	nall, terminal, platform						
	· · · · · · · · · · · · · · · · · · ·	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03	Underground station, stop, sl							
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%	
-0.01		ninals: Intermodal, ferry, trolley, etc. N/A Element Total	1	LS		\$0		
20.05	Joint development							
20.05	Joint development	N/A						
20.05	Joint development	N/A Element Total	1	LS		\$0		
	Joint development Automobile parking multi-stor	Element Total						
	·	Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
	·	Element Total			\$12,000		20%	:
20.06	·	Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator	0	STL	\$12,000	\$0 \$0 \$0	20%	 ; ;
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator Escalator	0 1 0 0	STL LS EA EA		\$0 \$0 \$0 \$0 \$0		: : :
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator	<u>0</u> 1 0	STL LS EA	\$200,000	\$0 \$0 \$0	20%	:
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	:
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork	0 1 0 0 1	STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0	20% 20%	
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	\$223,2
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low	0 1 0 0 1 5,724	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	\$223,2: \$6,50
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 5,724 100	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000	20% 20% 30% 30%	\$223,2 \$6,5
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 5,724 100 0	STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000 \$0	20% 20% 30% 30%	\$223,2 \$6,5
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 5,724 100 0	STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000 \$0	20% 20% 30% 30%	 ; ;
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 5,724 100 0 5,824	STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000 \$0 \$176,720	20% 20% 30% 30% 30%	\$223,2 \$6,5 \$229,7
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total Domolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High	0 1 0 0 1 5,724 100 0 5,824 5,724 100 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000 \$0 \$176,720 \$801,360 \$34,000 \$0	20% 20% 30% 30% 30%	\$223,2 \$6,5 \$229,7 \$1,041,7/ \$44,2
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total Domolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total Utility Relocation Allowance - Low Utility Relocation Allowance - Median	0 1 0 0 1 5,724 100 0 5,824 5,724 100	STL LS EA EA LS LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000 \$0 \$176,720 \$801,360 \$34,000	20% 20% 30% 30% 30% 30%	\$223,2 \$6,5 \$229,7 \$1,041,7/ \$44,2
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total DONDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total m Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	0 1 0 0 1 5,724 100 0 5,824 5,724 100 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000 \$0 \$176,720 \$801,360 \$34,000 \$0	20% 20% 30% 30% 30% 30%	\$223,2 \$6,5 \$229,7 \$229,7
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total Domolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High	0 1 0 0 1 5,724 100 0 5,824 5,724 100 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$171,720 \$5,000 \$0 \$176,720 \$801,360 \$34,000 \$0	20% 20% 30% 30% 30% 30%	\$223,2: \$6,5i \$229,7: \$1,041,7i \$44,2i

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

CAT STATOMIC DESCRIPTION UNIT BASE ALLOTO TOTO 40.04 Environmental Mitigation, e.g. welfands, historioschenologin, parks Environmental Mitigation, e.g. welfands, historioschenologin, parks S201_200_97 S201_200_97 S271 40.04 Environmental Mitigation, e.g. welfands, historioschenologin, parks Environmental Mitigation, e.g. welfands, historioschenologin, parks S201_200_97 S371 40.05 Site structures including relating wells, cound wells Element Total 1 LS S201_200_97 S371 40.06 Protestrian / bike access and accommodation, landrcaping Element Total 1 LS S45.92 20% S37 40.06 Protestrian / bike access and accommodation, landrcaping Landrcaping Allowance - Mith 100 RF S45.92 20% S37.92 40.07 Automotic (1v) of <i>Classopy</i> Sistorion 11 LS S45.00 S45.92 S42.92 S45.9	[RANS	SIT MODE: LRT	Airport Sta to Ge	orge Bean Pa	arkway				
48.04 Environmental miligation, e.g. weltands, National Miligation, Maxanoo 5.022 RF 5.0 3.01 5.03 5.02 8.01 40.05 Site structures including retaining wells, sound wells Retaining a Sound Vall Allowance (10% of Ballisstot Trad. Longh) 67.2 RF 5.00 4.5.792 30% 5371 40.05 Site structures including retaining wells, sound wells Retaining Allowance (10% of Ballisstot Trad. Longh) 1 1.5 4.5.792 30% 5532 40.05 Podestrian / bike access and accommodation, landscapping Allowance - Well Allowance - Wells 0.722 RF 515 385.600 30% 5111 Landscaping Allowance - Well Allowance - Wells 1.0 5.724 RF 515 385.600 30% 5111 Landscaping Allowance - High 0 RF 525 32.00 30% 514 40.07 Automotale, bus, van accessame Allowance Allow - Eull 1 L.5 510 30% 64 30% 54 540 50 50% 576 526 520 550 560 500	CAT	STATIONING	D DESCRIPTION	ΟΤΥ	UNIT				TOTAL
Element Total 1 LS \$201,200 \$377 00,05 Site structures including retaining & Sound Wall Alowance (10% of Bellased Total Length) 672 RF \$80 \$45,702 30% 555 00,06 Pedestrian / blue access and accommodation, Indiscoping Landscaping Allowance - Median 100 RF \$345 555 555,860 20% \$151 0.06 Pedestrian / blue access and accommodation, Indiscoping Landscaping Allowance - Heigh 100 RF \$345 520 30% \$55 0.07 Autonobile, bus, via accessways including roads, parting lots Readway Modultactors Allow - Full Readway Modultactors Allow - Full \$160 10.07 Autonobile, bus, via accessways including roads, parting lots Readway Modultactors Allow - Full Readway Modultactors Allow - Full \$160 10.07 Autonobile, bus, via accessways including roads, parting lots 0 SFT \$500 \$00 \$00% 10.08 Temporary Facilites and other indirect costs during construction 0 SFT \$540 \$151,924 \$95 50 SYSTEMS Double Track Signal System									
10.05 Sile structures including retaining walls, sound walls Retaining & Sound Yall Allowance (10% of Ballisted Treck Length) 672 RF \$90 \$45,792 30% \$55 10.06 Petiestrian / bite access and accommodation, lundscaping 1 L5 \$46,792 \$55 10.06 Petiestrian / bite access and accommodation, lundscaping 5,724 RF \$15 \$85,860 30% \$111 10.06 Petiestrian / bite access and accommodation, lundscaping 6 RF \$22 \$2,000 30% \$111 10.07 Autorik (1% of Guideway & Stations) 1% 5 \$12,000 \$0 \$0% \$111 10.07 Autorik (1% of Guideway & Stations) 1% 1 L5 \$120,000 \$0 30% \$111 10.07 Autorik (1% of Guideway & Stations) 1% L5 \$100 \$			Enviromental Mitigation Allowance	5,824	RF	\$50	\$291,200	30%	\$378,56
Relating A Sound Wall Allowance (10% of Balling A Sound Wall Allowance) - Kedian (10% of Balling Allowance) - Kedian (10% of Category 40) - Kedia			Element Total	1	LS		\$291,200		\$378,56
Relating A Sound Wall Allowance (10% of Balling A Sound Wall Allowance) - Kedian (10% of Balling Allowance) - Kedian (10% of Category 40) - Kedia	40.05	Site structures including	retaining walls, sound walls						
Balasted Track Length) 572 PF 980 946,792 30% 557 40.06 Pedestrian / bike access and accommodation, indescaping Landscaping Allowance - Kedian 1 LS 545,792 557 40.06 Pedestrian / organizations 5,724 RF \$15 552,552,503 30% \$11 Landscaping Allowance - Kedian 100 RF \$325 \$25,000 300% \$44 Landscaping Allowance - Kedian 1 LS \$120,118 \$150 40.07 Automobile, bus, van accessways including mats, parking tots Readway Modifications Allow AC Paving 0 EA \$50,000 \$0 30% 40.07 Automobile, bus, van accessways including mats, parking tots Readway Modifications Allow AC Paving 0 EA \$50,000 \$0 30% 40.08 Temporary Facilities and other Indirect costs during construction Temporary Facilities (5% of Category 40) 5.0% \$70,284 25% \$90 50.01 Train control and signals Signal System 0 RF \$260 \$1,51,240 \$1,74 <td>10.00</td> <td>one of detailed moldaring</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	10.00	one of detailed moldaring							
Element Total 1 LS 545,792 553 40.06 Pedestrian / bike access and accommodation, landscaping 1 LS 545,792 553 40.06 Pedestrian / bike access and accommodation, landscaping 100 RF \$15 \$895,860 30% \$111 Landscaping Allowance - Median 100 RF \$240 \$50 30% \$41 Antoxic (1% of Caldway & Stations) 1% \$31,788 30% \$44 \$517.058 30% \$44 40.07 Automobile, bus, van accessways including roads, parking lots Roadway Modifications Allow - AC Paving (mci. Card & Statioway & Stations) 1% \$51,758.8 30% \$50 30% 40.08 Temporary Facilities and other indirect cast during construction 1 LS \$79,284 584 \$50 50.01 Traffic signals and crossing protection Temporary Facilities and crossing protection 1 LS \$79,284 \$54 \$17,47 50.02 Traffic signals and crossing protection Traffic signals and crossing protection 1 LS \$79,000 <td< td=""><td></td><td></td><td>-</td><td>572</td><td>RF</td><td>\$80</td><td>\$45 792</td><td>30%</td><td>\$59,53</td></td<>			-	572	RF	\$80	\$45 792	30%	\$59,53
Landscaping Allowance - Markan Landscaping Allowance - Meligin Pedestrain Coregonal Markan Pedestrain Coregonal Stations) Action (1% of Cuidwawg & Stations) Melione - Meligin and Stations - Meligin and Stations Readway Modifications Allow ACI Paving (Incl. Curls & Sidewalls) Melione - Meligin and Stations - Meligin and Stations - Stations - Stations - Stations - Stations - Meligin and Stations - Meligina - Meligi						400		0070	\$59,53
Landscaping Allowance - Low 6,724 RF 815 \$25,820 30% \$11 Landscaping Allowance - High 0 RF \$25 \$5,200 30% \$25 Landscaping Allowance - High 0 RF \$40 \$0 30% \$30% Artwork (1% of Guideway & Stations) 1% \$31,758 30% \$44 Element Total 1 LS \$120,118 \$16 40.07 Automobile, bus, van accessways including roads, parking lots Roadway Modifications Allow - AC Paving (ind. Curb & Stdewalk) 0 \$F \$30 \$50 30% Period Lot & Stdewalk 0 \$F \$30 \$50 30% Period Lot & Stdewalk 0 \$F \$30 \$50 \$000 Period Lot & Stdewalk 0 \$F \$30 \$50 \$00% Period Lot & Stdewalk 0 \$F \$30 \$50 \$00 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$5									
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$\begin{tabular}{ c c c c c } \hline Track & Signal System & 0 & RF & $240 & $50 & 15\% & $50.001 & $719.284 & $838 & $50.01 & $719.284 & $838 & $50.01 & $719.284 & $819.$									
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Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 15% \$2,990 50.04 Traction power distribution: catenary and third rail 2 EA \$2,600,000 \$2,990 50.04 Traction power distribution: catenary and third rail 2 EA \$2,600,000 \$2,990 50.04 Track OCS System - Standard 0 RF \$240 \$0 15% Double Track OCS System - Standard 5,824 RF \$260 \$1,514,240 15% \$1,741 Element Total 5,824 RF \$260 \$1,397,760 15% \$1,607 50.05 Communications 0 EA \$500,000 \$0 15% 50.05 Communication, Line 5,824 RF \$240 \$1,397,760 15% \$1,607 50.06 Fare collection system and equipment Element Total 1 LS \$1,397,760 \$1,607 50.06 Fare collection - 1 Platform 0 EA \$400,000 \$0 15% <t< td=""><td></td><td></td><td>Element Total</td><td>3</td><td>EA</td><td></td><td>\$750,000</td><td></td><td>\$862,50</td></t<>			Element Total	3	EA		\$750,000		\$862,50
Element Total 2 EA \$2,600,000 \$2,990 50.04 Traction power distribution: catenary and third rail 0 RF \$240 \$0 15% Single Track OCS System - Standard 0 RF \$260 \$1,514,240 15% \$1,741 Double Track OCS System - Standard 5,824 RF \$260 \$1,314,240 15% \$1,741 Element Total 5,824 RF \$260 \$1,397,760 15% \$1,741 Element Total 5,824 RF \$260 \$1,397,760 15% \$1,607 50.05 Communication, Line 5,824 RF \$240 \$1,397,760 15% \$1,607 Communication, Station 0 EA \$500,000 \$0 15% 50.06 Fare collection system and equipment Fare Collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1	50.03	Traction power supply:	substations						
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Double Track OCS System - Standard 5,824 RF \$260 \$1,514,240 15% \$1,741 Element Total 5,824 RF \$0 \$1,397,760 15% \$1,607 \$0 \$6,824 RF \$240 \$1,397,760 15% \$1,607 \$0 \$0 \$15% \$1,607 \$0 \$6,824 RF \$240 \$1,397,760 15% \$1,607 \$0 \$1,397,760 \$15% \$1,607 \$1,607 \$1,607 \$1,607 \$1,507 \$1,607 \$1,507 \$1,607	50.04	Traction power distribution	on: catenary and third rail						
Element Total 5,824 RF \$0 50.05 Communications Communication, Line 5,824 RF \$240 \$1,397,760 15% \$1,607 Communication, Station 0 EA \$50,000 \$0 15% Element Total 1 LS \$1,397,760 \$1,607 50.06 Fare collection system and equipment Element Total 1 LS \$1,397,760 \$1,607 50.06 Fare collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$0 \$0 15% 50.07 Central Control N/A N/A N/A N/A		Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	\$
50.05 Communications Element Total 5,824 RF \$0 50.05 Communications Communication, Line 5,824 RF \$240 \$1,397,760 15% \$1,607 Communication, Station 0 EA \$500,000 \$0 15% Element Total 1 LS \$1,397,760 \$1,607 50.06 Fare collection system and equipment Element Total 1 LS \$1,397,760 \$1,607 50.06 Fare collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$0 \$0 55.07 50.07 Central Control N/A N/A Image: Collection of the control image: Contro				5,824			\$1,514,240		\$1,741,37
Communication, Line 5,824 RF \$240 \$1,397,760 15% \$1,607 Communication, Station 0 EA \$500,000 \$0 15% \$1,607 50.06 Fare collection system and equipment 1 LS \$1,397,760 15% \$1,607 50.06 Fare collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% 50.07 Central Control N/A I LS \$0 \$0			Element Total	5,824					\$
Communication, Line 5,824 RF \$240 \$1,397,760 15% \$1,607 Communication, Station 0 EA \$500,000 \$0 15% \$1,607 50.06 Fare collection system and equipment 1 LS \$1,397,760 15% \$1,607 50.06 Fare collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% 50.07 Central Control N/A I LS \$0 \$0	50.05	Communications							
Communication, Station 0 EA \$500,000 \$0 15% Element Total 1 LS \$1,397,760 \$1,607 50.06 Fare collection system and equipment Fare Collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$4400,000 \$0 15% Element Total 1 LS \$0 \$0 15% 50.07 Central Control N/A	00.00	Communications	Communication, Line	5,824	RF	\$240	\$1,397,760	15%	\$1,607,42
Element Total 1 LS \$1,397,760 \$1,607 50.06 Fare collection system and equipment Fare Collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$0 \$0 55.07 50.07 Central Control N/A N/A N/A N/A N/A N/A									\$
Fare Collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$0 50.07 Central Control N/A N/A \$1 LS \$0			· · · · · · · · · · · · · · · · · · ·			<i><i><i></i></i></i>		10,0	\$1,607,42
Fare Collection - 1 Platform 0 EA \$220,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$0 50.07 Central Control N/A	50.09	Fare collection system a	ad equipment						
Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$0 50.07 Central Control N/A N/A N/A N/A	00.00	Fare collection system a		٥	F۵	\$220.000	¢0	15%	\$
50.07 Central Control N/A									
50.07 Central Control						φ4 00,000		13%	\$
Ν/Α				·	_,		ŶŬ		Ŷ
	50.07	Central Control							
					10		¢0		\$

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

CAT	STATIO	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60 RC	OW, LAND, EXI	STING IMF	PROVEMENTS						
0.01 Pu	irchase or lease	of real est	ate						
			Right of Way Allowance - At Grade	5,724	RF	\$400	\$2,289,600	50%	\$3,434,40
			Right of Way Allowance - Aerial	100	RF	\$300	\$30,000	50%	\$45,00
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	9
			Element Total	5,824	RF		\$2,319,600		\$3,479,40

		Sys	ounty MPO Trans stem Planning TR-Airport av to Trask St alo	-	e St			
	SIT MODE: LRT			ng spruc				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT		BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI							
0.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	#0.070.0
	Double Track	At Grade - Ballasted, Open Element Total	4,761	RF RF	\$450	\$2,142,450 \$2,142,450	25%	\$2,678,0 \$2,678,0
10.02	Guideway: At-grade semi-ex		0	DE	¢440	# 0	059/	
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0 \$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580 \$580	\$ 0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
0.03	Guideway: At-grade in mixed		_					
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$ 0	25%	
	Double Track	At Grade - Embedded, In-Street Element Total	0	RF RF	\$680	\$0 \$0	25%	
0.04	Guideway: Aerial structure	Bridge - Ballasted	0	DE	¢0,000	Ф О	0.0%	
	Single Track		0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF		\$0		
0.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	
		Element Total	0	RF		\$U		
0.06	Guideway: Underground cut	& cover Subway - Direct Fixation	0	DE	¢40.000		050/	
	Single Track		0	RF	\$10,000 \$15,500	\$0 \$0	35%	
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$15,500	\$0 \$0	35%	
0.07	Guideway: Underground tuni		0	DE	¢40.000	# 0	05%	
	Single Track		0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$20,000	\$0 \$0	35%	
0.08	Guideway: Retained cut or fil	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0 \$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF RF	\$2,800 \$8,000	\$0 \$0	30% 30%	
	Double Track	Retained Cut - Direct Fixation Retained Fill - Ballasted	0	RF	\$8,000 \$3,200	\$0 \$0	30% 30%	
		Element Total	0	RF	\$3,200	\$0 \$0	30%	
- <u>^</u>	Table Direct front							
0.09	Track: Direct fixation Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF	· · ·	\$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track	0	RF	\$980	\$0 \$0	15%	
		Element Total	0	RF		\$0		
0.11	Track: Ballasted							
	Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	4,761	RF	\$480	\$2,285,280	15%	\$2,628,
	Boable Hack	Element Total	4,761	RF	 	\$2,285,280	1070	\$2,628,

		-	ty MPO Trans Planning Airport	sit Study	/			
RANS	SIT MODE: LRT	George Bean Parkway to	•	ng Spru	ce St.			
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10.12	Track: Special (switches, tur	·	450/			A O 40 T OO	450/	\$204.0 4
		Special Trackwork (15% of Track Cost)	15%	10		\$342,792 \$342,792	15%	\$394,2
		Element Total	I	LS		\$342,79Z		\$394,21
10 13	Track: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$137,117	15%	\$157,68
		Cost)						
		Element Total	1	LS		\$137,117		\$157,68
20	STATIONS, STOPS, TERMI							
	At-grade station, stop, shelte	-						
	J	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	9
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	:
		Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,00
		Element Total	1	EA		\$3,000,000		\$3,600,0
20.02	Aerial station, stop, shelter, n	· · · ·		_	• • • • • •			
		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0 \$0	25%	
		Side Platform Station - 2 Platforms Center Platform Station	0	EA	\$18,000,000	\$0 \$0	25% 25%	
		Element Total	0	EA EA	\$15,000,000	\$0 \$0	25%	
		Liement rotar	0	LA		φυ		·
20.03	Underground station, stop, sl	nelter, mall, terminal, platform						
	0 , 1,	Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	:
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	:
		Element Total	0	EA		\$0		5
	• •••••••••••••••••••••••••••••••••••							
20.04	Other stations, landings, term	ninals: Intermodal, ferry, trolley, etc.						
		N/A Element Total	1	LS		\$0		S
		Lichicht Fotal	1	LU		φυ		,
20.05	Joint development							
20.05	Joint development	N/A						
20.05	Joint development	N/A Element Total	1	LS		\$0		
20.05	Joint development		1	LS		\$0		
	Joint development Automobile parking multi-stor	Element Total	1	LS		\$0		Ş
	·	Element Total y structure Parking Garage	1	STL	\$12,000	\$0	20%	5
	·	Element Total			\$12,000		20%	\$
20.06	Automobile parking multi-stor	Element Total y structure Parking Garage		STL	\$12,000	\$0	20%	5
20.06	·	Element Total y structure Parking Garage Element Total	<u>0</u> 1	STL LS		\$0 \$0		
20.06	Automobile parking multi-stor	Element Total y structure Parking Garage		STL LS EA	\$200,000	\$0 \$0 \$0	20%	
20.06	Automobile parking multi-stor	Element Total y structure Parking Garage Element Total Eleavator	<u>0</u> 1 0	STL LS		\$0 \$0		Ş
20.06	Automobile parking multi-stor	Element Total y structure Parking Garage Element Total Eleavator Escalator	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	<u> </u>
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	: : :
20.06 20.07 40	Automobile parking multi-stor	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork	0 1 0 0 1	STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0	20% 20%	2
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low	0 1 0 0 1 4,761	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30%	\$185,6
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 4,761 0	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$142,830 \$0	20% 20% 30% 30%	\$185,6
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	0 1 0 0 1 4,761 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$0 \$0	20% 20% 30%	\$185,67
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 4,761 0	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$142,830 \$0	20% 20% 30% 30%	\$185,6°
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 4,761 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$0 \$0	20% 20% 30% 30%	\$185,6°
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 4,761 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$142,830	20% 20% 30% 30% 30%	\$185,67 \$185,67
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 4,761 0 0 4,761	STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$0 \$0	20% 20% 30% 30%	\$185,67 \$185,67 \$185,67 \$866,50
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 4,761 0 0 4,761 4,761	STL LS EA EA LS LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$142,830 \$0 \$142,830 \$0 \$142,830	20% 20% 30% 30% 30%	\$ \$ \$ \$185,67
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total NUTIONS ork Demolition Allowance - High Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Median	0 1 0 0 1 4,761 0 0 4,761 4,761 0	STL LS EA EA LS LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$0 \$142,830 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$185,67 \$185,67 \$185,67 \$866,50
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total Number of the total Demolition Allowance - High Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High	0 1 0 0 1 4,761 0 4,761 4,761 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$0 \$142,830 \$0 \$142,830 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$185,67 \$185,67 \$185,67 \$866,50
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocation	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total oval/mitigation, ground water treatments	0 1 0 0 1 4,761 0 4,761 4,761 0 0 4,761	STL LS EA EA LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340 \$570	\$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$142,830 \$142,830 \$666,540 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30% 30%	\$185,67 \$185,67 \$185,67 \$866,50 \$866,50
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocation	Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total NUTIONS ork Demolition Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	0 1 0 0 1 4,761 0 4,761 4,761 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$142,830 \$0 \$0 \$142,830 \$0 \$142,830 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$185,67 \$185,67 \$185,67 \$866,50

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

CAT	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.04	Environmental mitigation, e.g	. wetlands, historic/archeologic, parks	4 764	DE	¢.c.o	¢000.0E0	20%	¢200.465
		Enviromental Mitigation Allowance Element Total	4,761	RF LS	\$50	\$238,050 \$238,050	30%	\$309,465 \$309,465
		Lichicht Fotal	1	LO		φ200,000		φ000,400
40.05	Site structures including retai	ning 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		4 704	DE	¢4 F	* 74 445	201/	¢00.040
		Landscaping Allowance - Low	4,761 0	RF RF	\$15 \$25	\$71,415 \$0	30% 30%	\$92,840 \$0
		Landscaping Allowance - Median Landscaping Allowance - High	0	RF	\$23 \$40	\$0 \$0	30%	\$0 \$0
		Pedestrain Overpasses	0	EA	\$800,000	\$0 \$0	30%	\$0 \$0
		Artwork (1% of Guideway & Stations)	1%	LA	ψ000,000	\$51,425	30%	\$66,852
		Element Total	1	LS		\$122,840	0070	\$159,691
1						÷,		••••••
40.07	Automobile, bus, van access	ways including roads, parking lots						
		Roadway Modifications Allow Full		-	A=			
		Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow AC Paving	2	05	* ~~	* •	0.001	* -
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0 \$100,000	30%	\$0 \$520,000
		Parking Lots Element Total	100	STL LS	\$4,000	\$400,000 \$400,000	30%	\$520,000 \$520,000
		Element Total	I	L3		\$400,000		\$520,000
40.08	Temporary Facilities and othe	er indirect costs during construction						
10.00	remperary racindee and ear	Temporary Facilities (5% of Category 40)	5.0%			\$85,178	25%	\$106,473
		Element Total	1	LS		\$85,178	2070	\$106,473
		Element Total	1	LO		φ0 0 ,170		φ100,+70
		Element rotai	I	LO		φ0 3 ,170		ψ100, 1 10
50	SYSTEMS	Element i otai	I	LS		φ03,170		φ100,470
	Train control and signals				\$240		15%	
	Train control and signals Single Track	Signal System	0	RF	\$240 \$260	\$0	<mark>15%</mark> 15%	\$0
	Train control and signals		0 4,761		<mark>\$240</mark> \$260	<mark>\$0</mark> \$1,237,860	<mark>15%</mark> 15%	\$0 \$1,423,539
	Train control and signals Single Track	Signal System Signal System	0	RF RF		\$0		\$0 \$1,423,539
50.01	Train control and signals Single Track	Signal System Signal System Element Total	0 4,761	RF RF		\$0 \$1,237,860		
50.01	Train control and signals <mark>Single Track</mark> Double Track	Signal System Signal System Element Total	0 4,761	RF RF		\$0 \$1,237,860		<mark>\$0</mark> \$1,423,539
50.01	Train control and signals <mark>Single Track</mark> Double Track	Signal System Signal System Element Total	0 <u>4,761</u> 4,761	RF RF RF	\$260	\$0 \$1,237,860 \$1,237,860	15%	\$0 \$1,423,539 \$1,423,539
50.01	Train control and signals <mark>Single Track</mark> Double Track	Signal System Signal System Element Total protection Traffic Signal	0 <u>4,761</u> 4,761 0	RF RF RF EA	\$260 \$150,000	\$0 \$1,237,860 \$1,237,860 \$1,237,860 \$0	15%	\$0 \$1,423,539 \$1,423,539 \$1,423,539 \$0
50.01	Train control and signals Single Track Double Track Traffic signals and crossing p	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total	0 4,761 4,761 0 2	RF RF EA EA	\$260 \$150,000	\$0 \$1,237,860 \$1,237,860 \$1,237,860 \$0 \$500,000	15%	\$0 \$1,423,539 \$1,423,539 \$1,423,539 \$0 \$575,000
50.01	Train control and signals <mark>Single Track</mark> Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations	0 4,761 4,761 0 2 2	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000	15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000
50.01	Train control and signals Single Track Double Track Traffic signals and crossing p	Signal System Signal System Element Total orotection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation	0 4,761 4,761 0 2	RF RF EA EA EA EA	\$260 \$150,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000	15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000
50.01	Train control and signals Single Track Double Track Traffic signals and crossing p	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations	0 4,761 4,761 0 2 2	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000	15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total	0 4,761 4,761 0 2 2	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000	15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail	0 4,761 4,761 0 2 2 1 1	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000	15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$1,495,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard	0 4,761 4,761 0 2 2 2 1 1	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$0	15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard	0 4,761 4,761 0 2 2 2 1 1 1 1 0 4,761	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard	0 4,761 4,761 0 2 2 2 1 1	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$0	15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard	0 4,761 4,761 0 2 2 2 1 1 1 1 0 4,761	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard	0 4,761 4,761 0 2 2 2 1 1 1 1 0 4,761	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Element Total	0 4,761 4,761 0 2 2 2 1 1 1 1 0 4,761 4,761	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$0 \$0	15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,0000 \$1,495,0000 \$1,495,000 \$1,400,000 \$1,400,000 \$1,400,000 \$1,400,
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line	0 4,761 4,761 0 2 2 2 1 1 1 1 0 4,761 4,761	RF RF EA EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$0 \$1,237,860 \$1,237,860 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860\$1,237,860 \$1,237,860\$1,237,860 \$1,237,860\$1	15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$100 \$100 \$100 \$100 \$100 \$100 \$100
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station	0 4,761 4,761 0 2 2 2 1 1 1 1 0 4,761 4,761	RF RF EA EA EA EA EA RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$0 \$1,237,860 \$1,237,860 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860	15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: o Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	0 4,761 4,761 0 2 2 2 1 1 1 1 0 4,761 4,761	RF RF EA EA EA EA EA RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$0 \$1,237,860 \$1,237,860 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860 \$0 \$1,237,860	15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000 \$1,889,036
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: of Single Track Double Track Communications	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total quipment Fare Collection - 1 Platform	0 4,761 4,761 0 2 2 2 1 1 1 1 4,761 4,761 4,761 1 1	RF RF EA EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$0 \$1,237,860 \$1,237,860 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,142,640 \$500,000 \$1,642,640 \$220,000	15% 15% 15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000 \$1,889,036
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: of Single Track Double Track Communications	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total quipment Fare Collection - 1 Platform Fare Collection - 2 Platform	0 4,761 4,761 0 2 2 2 1 1 1 1 4,761 4,761 4,761 1 1 1 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,142,640 \$500,000 \$1,642,640 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000 \$1,889,036 \$253,000 \$0
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: of Single Track Double Track Communications	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total quipment Fare Collection - 1 Platform	0 4,761 4,761 0 2 2 2 1 1 1 1 4,761 4,761 4,761 1 1	RF RF EA EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$0 \$1,237,860 \$1,237,860 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,142,640 \$500,000 \$1,642,640 \$220,000	15% 15% 15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000 \$1,889,036 \$253,000
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: of Single Track Double Track Communications Fare collection system and en	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total quipment Fare Collection - 1 Platform Fare Collection - 2 Platform	0 4,761 4,761 0 2 2 2 1 1 1 1 4,761 4,761 4,761 1 1 1 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,142,640 \$500,000 \$1,642,640 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000 \$1,889,036 \$253,000 \$0
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: of Single Track Double Track Communications	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total quipment Fare Collection - 1 Platform Fare Collection - 2 Platform Element Total	0 4,761 4,761 0 2 2 2 1 1 1 1 4,761 4,761 4,761 1 1 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,142,640 \$500,000 \$1,642,640 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000 \$1,889,036 \$253,000 \$0
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs Traction power distribution: of Single Track Double Track Communications Fare collection system and en	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total tations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total quipment Fare Collection - 1 Platform Fare Collection - 2 Platform	0 4,761 4,761 0 2 2 2 1 1 1 1 4,761 4,761 4,761 1 1 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$0 \$1,237,860 \$1,237,860 \$0 \$500,000 \$500,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,237,860 \$0 \$1,142,640 \$500,000 \$1,642,640 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$0 \$1,423,539 \$1,423,539 \$0 \$575,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,423,539 \$0 \$1,314,036 \$575,000 \$1,889,036 \$253,000 \$0

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

CAT	STATIO	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
	OW, LAND, EXI								
60.01 P	urchase or lease	of real est	ate						
			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

		Sys	ounty MPO Trans stem Planning	sit Study				
RAN	SIT MODE: LRT		R-Cypress St. Typress St along	Trask St				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	GUIDEWAY & TRACK ELE							
10.01	Guideway: At-grade exclusiv		0	05	0050	A -0	05%	
	Single Track Double Track	At Grade - Ballasted, Open At Grade - Ballasted, Open	0 0	RF RF	<mark>\$350</mark> \$450	<mark>\$0</mark> \$0	25% 25%	
		Element Total	0	RF	\$450	\$0 \$0	23%	
10.02	Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	2,692	RF	\$700	\$1,884,400	25%	\$2,355,5
		Element Total	2,692	RF		\$1,884,400		\$2,355,5
10.03	Guideway: At-grade in mixed	I traffic At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Single Track Double Track	At Grade - Embedded, In-Street	0	RF RF	\$560 \$680	\$ 0 \$0	25% 25%	
		Element Total	0	RF	ΦΟΟΟ	\$0 \$0	2J /0	
10.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water Element Total	0	RF RF	\$6,000	\$0 \$0	30%	
			·			φ		
10.05	Guideway: Built-up fill	At Grade - Ballasted, Built-up	0	RF	¢400	0.9	259/	
	Single Track Double Track	At Grade - Ballasted, Built-up	0	RF RF	\$480 \$600	<mark>\$0</mark> \$0	<mark>25%</mark> 25%	
	Double Track	Element Total	0	RF	φυυυ	\$0 \$0	2376	
10.06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
10.07	Guideway: Underground tun							
	Single Track			RF	\$12,000	\$0		
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$20,000	\$0 \$0	35%	
10.09	Guideway: Retained cut or fi							
10.00	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF	. ,	\$0		
0.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track Element Total	0	RF RF	\$810	\$0 \$0	15%	
		Liononi Totai	0			ψυ		
10.10	Track: Embedded	Fuch added Treads						
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track Element Total	2,692 2,692	RF RF	\$980	\$2,638,160 \$2,638,160	15%	\$3,033,8 \$3,033,8
10 11	Track: Ballasted							
	Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	0	RF	\$480	\$0	15%	
		Element Total	0	RF		\$0		

		-	ty MPO Trans Planning press St.	sit Study	/			
	SIT MODE: LRT	Spruce St to Cypre	ess St along	Frask St				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0 4 0	Treak Createl (quitabas tu	met de l						
10.12	Track: Special (switches, tur	Special Trackwork (15% of Track Cost)	15%			\$395,724	15%	\$455,0
		Element Total	10,0	LS		\$395,724	1070	\$455,0
						. ,		. ,
10.13	Track: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$0	15%	
		Cost)				* 2		
		Element Total	1	LS		\$0		
20	STATIONS, STOPS, TERMI	NALS. INTERMODAL						
	At-grade station, stop, shelte	-						
	• •	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,0
		Element Total	1	EA		\$3,000,000		\$3,600,0
20 02	Aerial station, stop, shelter, r	nall terminal platform						
20.02		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03	Underground station, stop, s	helter, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%	
20.04	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc. <u>N/A</u> Element Total	1	LS		\$0		
20.05	Joint development	N/A						
		Element Total	1	LS		\$0		
20.06	Automobile parking multi-sto	ry structure						
		Parking Garage	0	STL	\$12,000	\$0	20%	
		Element Total	1	LS		\$0		
	Elevators, escalators							
20.07					¢000.000	\$0	20%	
20.07	Elevators, escalators	Eleavator	0	EA	\$200,000			
20.07		Eleavator Escalator	0 0	EA EA	\$200,000 \$450,000	\$0 \$0	20%	:
20.07							20%	
40	SITEWORK & SPECIAL CO	Escalator Element Total	0	EA		\$0	20%	
40		Escalator Element Total	0	EA LS	\$450,000	\$0 \$0		
40	SITEWORK & SPECIAL CO	Escalator Element Total INDITIONS ork Demolition Allowance - Low	0 1 0	EA LS RF	\$450,000	\$0 \$0 \$0	30%	:
40	SITEWORK & SPECIAL CO	Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 2,692	EA LS RF RF	\$450,000 \$30 \$50	\$0 \$0 \$0 \$134,600	30% 30%	\$174,9
40	SITEWORK & SPECIAL CO	Escalator Element Total INDITIONS ork Demolition Allowance - Low	0 1 0	EA LS RF	\$450,000	\$0 \$0 \$0	30%	\$174,9
40 40.01	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 2,692 0	EA LS RF RF RF	\$450,000 \$30 \$50	\$0 \$0 \$0 \$134,600 \$0	30% 30%	\$174,9
40 40.01	SITEWORK & SPECIAL CO	Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 2,692 0 2,692	EA LS RF RF RF RF	\$450,000 \$30 \$50 \$90	\$0 \$0 \$134,600 \$134,600 \$134,600	30% 30% 30%	\$174,9 \$174,9
40 40.01	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low	0 1 2,692 0 2,692 0 0	EA LS RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$134,600 \$134,600 \$134,600 \$0	30% 30% 30% 30%	\$174,9 \$174,9
40 40.01	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median	0 1 2,692 0 2,692 0 2,692	EA LS RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$134,600 \$134,600 \$134,600 \$0 \$915,280	30% 30% 30% 30% 30%	\$174,9 \$174,9 \$1,189,8
40 40.01	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low	0 1 2,692 0 2,692 0 0	EA LS RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$134,600 \$134,600 \$134,600 \$0	30% 30% 30% 30%	\$174,9 \$174,9
40 40.01 40.02	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Escalator Element Total INDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	0 1 2,692 0 2,692 0 2,692 0 2,692 0	EA LS RF RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$134,600 \$134,600 \$134,600 \$134,600 \$0 \$915,280 \$0 \$0	30% 30% 30% 30% 30%	\$174,9 \$174,9 \$1,189,8
40 40.01 40.02	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Escalator Element Total INDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - Median Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total noval/mitigation, ground water treatments	0 1 2,692 0 2,692 0 2,692 0 2,692	EA LS RF RF RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140 \$340 \$570	\$0 \$0 \$134,600 \$134,600 \$134,600 \$915,280 \$915,280	30% 30% 30% 30% 30% 30%	\$174,9 \$174,9 \$1,189,8 \$1,189,8
40 40.01 40.02	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Escalator Element Total INDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	0 1 2,692 0 2,692 0 2,692 0 2,692 0	EA LS RF RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$134,600 \$134,600 \$134,600 \$134,600 \$0 \$915,280 \$0 \$0	30% 30% 30% 30% 30%	\$174,9 \$174,9 \$1,189,8

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

NO. BEGN END DESCRIPTION QTV UNIT COST			Spruce St to Cypro	ess St along	Trask St				
NO. BECIN END DESCRIPTION QTV UNIT COST COST CONTGY Q 80.04 Environmental miligation, aprixame, instrict and models, parts Environmental Miligation Allowance 2,092 RF 550 \$114.600 30% Environmental Miligation Allowance 2,092 RF 550 \$114.600 30% Environmental Miligation Allowance 1 LS \$134.600 30% 40.05 Site structures including retaining walls, sound Wallis Retaining & Sound Wall Allowance (10% of Balassella Trixik Lenging Environmental Miligation Allowance 1 LS \$30 500 30% 40.06 Pedestrian / bale access and accommodation, Indicacaping Allowance - Media 2,092 RF \$30 30% Environmental Militation Station (10% of Balasset and Compasses and Balowance - High 0 RF \$30.00 \$30 30% Environmental Militation Station (10% of Balasset and Compasses and Balowance High 0 RF \$30.00 \$10.80 30% Environmental Militation Station (10% of Balasset and Station (10% of Calleway Militation Station - Full Interviewed militation (10% of Calleway Militation Station - Full Interviewed and Militation Station - Full Interviewed militati							DASE	ALLOTD	TOTAL
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Retaining & Sound Wall Allowance (10% of Ballester Track Length) O RF St0 S0 00.05 Pedestrian / bike access and accommodation, landscaping Landscaping Allowance - Median 2.692 RF \$515 \$50 30%, Landscaping Allowance - Median 2.692 RF \$255 \$57,300 30%, Landscaping Allowance - Median 2.692 RF \$265 \$57,300 30%, S03 Attorn (1% of Culdway & Stations) 1% S44 \$30,00 \$58,330%, Attorn (1% of Culdway & Stations) 1% \$48,844 30%, Attorn (1% of Culdway & Stations) 1% \$48,000 30%, Attorn (1% of Culdway & Stations) 3 EA \$50,000 \$150,000 30%, Attorn (1% of Culdway Construction 3 EA \$50,000 30%, Attorn (1% of Culdway Construction 3 EA \$162,135 25%, Attal (1% of Callsopy 40) 5.0%, Bill (1% of Callsopy 40) 5.0%, Bill (1% of Callsopy 40) 5.0%, Bill (1% of Callsop 46, 600 1% A \$162,135 25%, Attal (1% of Callsop 46, 600			Element Total	1	LS		\$134,600		\$174,98
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Landscaping Allowance - Low 0 PF \$15 \$5 00 30%, Landscaping Allowance - High 2,69 2F \$25 \$67,300 30%, Pediastran Overpasses 0 EA \$200,000 \$30 30%, Artwork (1% of Guideway & Stations) 1%, Element Total 1 LS \$116,144 10.07 Automobile, bus, van accessways including roads, parking Jots Roodway Modifications Allow AC Paving Fondoway Modifications Allow AC Paving (incl. Curb & Stidwalk) Element Total 1 LS \$50,000 30%, Parking Los 10.08 Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40) 5.0% Element Total 1 LS \$192,135 50 SYSTEMS 60.02 Traffic signals and crossing protection Traffic Signal System 2, 2692 RF \$260 \$669,920 15% Crossing Protection Traffic Signal System 2, 2692 RF \$260 \$669,920 15% Crossing Protection Traffic Signal System 2, 2692 RF \$260 \$669,920 15% Crossing Protection Traffic Signal System 2, 2692 RF \$260 \$669,920 15% Crossing Protection Traffic Signal System 3, 26A \$150,000 \$13,00,000 15% Crossing Protection Traffic Signal Crossing Protection Traffic Signal 2, 262 RF \$260 \$669,920 15% Element Total 1 EA \$1,00,000 \$1,00,000 15% Crossing Protection Element Total 2, 262 RF \$260 \$669,920 15% Sould Traction power supply: substation Element Total 1 EA \$1,00,000 \$1,00,000 15% Communication, Line 2,622 RF \$260 \$664,666 15% Communication Line 2,622 RF \$260 \$664,666 15% Communication Station 1 EA \$220,000 \$220,000 15% Element Total 1 LS \$220,000 \$220,000 15% Element Total 1 LS \$220,000 \$15% Communication Station 1 Platform Fare Collection - Platform 1 EA \$220,000 \$220,000 15% Element Total 1 LS \$220,000 \$15% Communi			Element Total	1	LS		\$0		
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(incl. Curb & Sidewalk) 64,608 SF \$30 \$1,33,240 30%, st 30,00 Parking Lots 100 STL \$4,000 \$10,000 30%, st 30,000 31,300,000 15%, st 30,000 30%, st			Roadway Modifications Allow AC Paving	-			•••••		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				64.608	SF	\$30	\$1.938.240	30%	\$2,519,7
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$\begin{tabular}{ c c c c c } \hline Track & Signal System & 0 & RF & S240 & S0 & 15\% \\ \hline S0.01 & Train control and signals & Signal System & 0 & RF & S240 & S0 & 15\% \\ \hline Double Track & Signal System & 2.692 & RF & S260 & S699.920 \\ \hline S0.02 & Traffic signals and crossing protection & Traffic Signal & 3 & EA & $150.000 & $450.000 & 15\% \\ \hline Crossing Protection & 0 & EA & $150.000 & $450.000 & 15\% \\ \hline Crossing Protection & 0 & EA & $150.000 & $450.000 & 15\% \\ \hline Crossing Protection & 0 & EA & $150.000 & $450.000 & 15\% \\ \hline Element Total & 3 & EA & $150.000 & $450.000 & 15\% \\ \hline Crossing Protection & 0 & EA & $150.000 & $150.000 & $15\% \\ \hline Element Total & 3 & EA & $150.000 & $15\% & $15\% \\ \hline S0.03 & Traction power supply: substations & $$Traction power supply: substations & $$Traction power supply: catenary and third rail $$Single Track & OCS System - Standard & 0 & RF & $240 & $0 & 15\% \\ \hline S0.04 & Traction power distribution: catenary and third rail $$Single Track & OCS System - Standard & $$2.692 & RF & $$260 & $$699.920 & 15\% \\ \hline S0.05 & Communications & $$Communications & $$Communication, Line & $$$2.692 & RF & $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$. ,			\$3,234,7
$\begin{tabular}{ c c c c c } \hline Track & Signal System & 0 & RF & S240 & S0 & 15\% \\ \hline S0.01 & Train control and signals & Signal System & 0 & RF & S240 & S0 & 15\% \\ \hline Double Track & Signal System & 2.692 & RF & S260 & S699.920 \\ \hline S0.02 & Traffic signals and crossing protection & Traffic Signal & 3 & EA & $150.000 & $450.000 & 15\% \\ \hline Crossing Protection & 0 & EA & $150.000 & $450.000 & 15\% \\ \hline Crossing Protection & 0 & EA & $150.000 & $450.000 & 15\% \\ \hline Crossing Protection & 0 & EA & $150.000 & $150.000 & $15\% \\ \hline S0.03 & Traction power supply: substations & Traction power supply: substations & Traction power supply: substations & Traction power distribution: catenary and third rail & EA & $1,300.000 & $1,300.000 & 15\% & $1,300.000 & $15\% & $1,300.000 & $1,50\% & $1,$	10.08	Temporary Facilities and	other indirect costs during construction						
50 SYSTEMS 50.01 Train control and signals Single Track Signal System 0 RF \$240 \$0 15% Double Track Signal System 2.692 RF \$260 \$699.920 15% 50.02 Traffic signals and crossing protection 2.692 RF \$260 \$450,000 15% 50.03 Traffic signals and crossing protection 0 Element Total 2.692 RF \$260,000 \$450,000 15% 50.03 Traction power supply: substations Traction Power, Substation 1 EA \$1,300,000 \$15% \$ 50.04 Traction power distribution: catenary and third rail 1 EA \$1,300,000 \$\$ \$ 50.05 Communication, Line 2.692 RF \$260 \$699,920 15% 50.05 Communication, Line 2.692 RF \$260 \$699,920 15% 50.05 Communication, Line 2.692 RF \$260 \$699,920 15%		· · · · · · · · · · · · · · · · · · ·	-	5.0%			\$192,135	25%	\$240,1
Single Track Signal System 0 RF \$240 \$0 15% Double Track Signal System 2,692 RF \$260 \$699,920 15% 50.02 Traffic signals and crossing protection Traffic Signal 3 EA \$15,000 \$450,000 15% Crossing Protection 0 EA \$250,000 \$50 15% Crossing Protection 0 EA \$250,000 \$50 15% 50.03 Traction power supply: substations Traction power supply: substations Traction power supply: substations Traction power distribution: catenary and third rail Element Total 1 EA \$1,300,000 \$15% 50.04 Traction power distribution: catenary and third rail Element Total 2.692 RF \$260 \$699,920 15% 50.04 Cross System - Standard 0.0 RF \$240 \$690,920 15% 50.05 Communication, Line 2.692 RF \$0 15% 50.06 Fare collection system and equipment Element Total					LS				\$240,10
Double Track Signal System 2,692 RF \$260 \$699,920 15% 50.02 Traffic signals and crossing protection Traffic Signal 3 EA \$150,000 \$450,000 15% Crossing Protection 0 EA \$250,000 \$450,000 15% Crossing Protection 0 EA \$250,000 \$450,000 15% 50.03 Traction power supply: substations Itement Total 1 EA \$1,300,000 15% 50.04 Traction power supply: substations Itement Total 1 EA \$1,300,000 15% 50.05 Cost System - Standard 0 RF \$240 \$0 15% 50.05 Communication, Line 2,692 RF \$260 \$699,920 15% 50.05 Communication, Line 2,692 RF \$240 \$0 15% 50.06 Fare collection system and equipment Itement Total 1 EA \$50,000 15% 60.07 Central Control <t< th=""><th>50.01</th><th>•</th><th></th><th>0</th><th>RF</th><th>\$240</th><th>\$0</th><th>15%</th><th>ę</th></t<>	50.01	•		0	RF	\$240	\$0	15%	ę
Element Total 2,692 RF \$699,920 50.02 Traffic signals and crossing protection Traffic Signal 3 EA \$150,000 \$450,000 15% Crossing Protection 0 EA \$250,000 \$0 15% 50.03 Traction power supply: substations Itement Total 3 EA \$1,300,000 15% 50.04 Traction power supply: substations Itement Total 1 EA \$1,300,000 15% 50.04 Traction power distribution: catenary and third rail Itement Total 1 EA \$1,300,000 \$ 50.05 Communication, Line 2,692 RF \$260 \$699,920 15% 50.05 Communication, Line 2,692 RF \$260 \$699,920 15% 50.05 Communication, Line 2,692 RF \$240 \$646,080 15% 50.06 Fare collection - 1 Platform 1 EA \$500,000 15% 50.06 Fare collection - 2 Platform 0 EA \$400,0									\$804,90
Traffic Signal 3 EA \$150,000 \$450,000 15% Crossing Protection 0 EA \$250,000 \$0 15% 50.03 Traction power supply: substations Traction Power, Substation 1 EA \$1,300,000 \$15% 50.04 Traction power distribution: catenary and third rail 1 EA \$1,300,000 15% \$ 50.04 Track OCS System - Standard 0 RF \$240 \$0 15% 50.05 Communications Element Total 2,692 RF \$260 \$699,920 15% 50.05 Communication, Line 2,692 RF \$240 \$646,080 15% 50.05 Communication, Line 2,692 RF \$240 \$646,080 15% 50.06 Fare collection system and equipment 1 LS \$1,146,080 \$ 50.06 Fare collection - 1 Platform 1 EA \$20,000 \$220,000 15% 50.07 Central Control 1									\$804,90
Traffic Signal 3 EA \$150,000 \$450,000 15% Crossing Protection 0 EA \$250,000 \$0 15% 50.03 Traction power supply: substations Traction Power, Substation 1 EA \$1,300,000 \$15% 50.04 Traction power distribution: catenary and third rail 1 EA \$1,300,000 15% \$ 50.04 Track OCS System - Standard 0 RF \$240 \$0 15% 50.05 Communications Element Total 2,692 RF \$260 \$699,920 15% 50.05 Communication, Line 2,692 RF \$240 \$646,080 15% 50.05 Communication, Line 2,692 RF \$240 \$646,080 15% 50.06 Fare collection system and equipment 1 LS \$1,146,080 \$ 50.06 Fare collection - 1 Platform 1 EA \$20,000 \$220,000 15% 50.07 Central Control 1	50 02	Traffic signals and crossi	ng protection						
$\frac{Crossing Protection}{Element Total} 0 EA $250,000 $0 15\%$ $\frac{Crossing Protection}{Element Total} 3 EA $450,000 $0 15\%$ $\frac{Traction power supply: substations}{Traction power supply: substation} 1 EA $1,300,000 $1,300,000 15\% $$ $\frac{Traction Power, Substation}{Element Total} 1 EA $1,300,000 $15\% $$ $\frac{S0.04 Traction power distribution: catenary and third rail}{Single Track OCS System - Standard 0 RF $240 $0 15\% Double Track OCS System - Standard 2,692 RF $260 $699,920 15\% Element Total 2,692 RF $260 $699,920 15\% Element Total 2,692 RF $0 $0 $15\% $$ $Communication, Line 2,692 RF $240 $646,080 15\% $$ $\frac{Communication, Station 1 EA $500,000 $500,000 $15\% $$ $\frac{Communication, Station 1 EA $500,000 $500,000 $15\% $$ $\frac{Fare Collection - 1 Platform 1 EA $220,000 $220,000 $15\% $$ $\frac{Fare Collection - 2 Platform 0 EA $400,000 $0 15\% $$ $\frac{Fare Collection - 2 Platform 1 LS $220,000 $220,000 $15\% $$ $\frac{Fare Collection - 1 Platform 1 LS $220,000 $220,000 $15\% $$ $\frac{Fare Collection - 1 Platform 1 LS $220,000 $220,000 $15\% $$ $\frac{Fare Collection - 1 Platform 1 LS $220,000 $220,000 $15\% $$	00.02	inamo elgnalo ana el cool		3	EA	\$150.000	\$450.000	15%	\$517,50
Element Total 3 EA \$450,000 50.03 Traction power supply: substations Traction Power, Substation 1 EA \$1,300,000 \$1,300,000 15% \$ 50.04 Traction power distribution: catenary and third rail 1 EA \$1,300,000 \$ \$ 50.04 Track OCS System - Standard 0 RF \$240 \$0 15% Double Track OCS System - Standard 2,692 RF \$260 \$699,920 15% Element Total 2,692 RF \$260 \$699,920 15% Element Total 2,692 RF \$260 \$699,920 15% 50.05 Communications Element Total 2,692 RF \$20 \$646,080 15% 50.05 Communications Element Total 1 LS \$1,146,080 \$ 50.06 Fare collection system and equipment Fare Collection - 1 Platform 1 EA \$220,000 15% Element Total 1 LS \$220,000 \$ 15%			•						¢011,0
$\frac{\text{Traction Power, Substation}}{\text{Element Total}} 1 \frac{\text{EA}}{\text{EA}} \frac{\$1,300,000}{\$1,300,000} \frac{\$15\%}{\$1,300,000} \frac{\$1}{\$5\%} \frac{\$}{\$1}$				-		+			\$517,5
$\frac{\text{Traction Power, Substation}}{\text{Element Total}} 1 \frac{\text{EA}}{\text{EA}} \frac{\$1,300,000}{\$1,300,000} \frac{\$15\%}{\$1,300,000} \frac{\$1}{\$5\%} \frac{\$}{\$1}$	50.03	Traction power supply: s	ubstations						
50.04 Traction power distribution: catenary and third rail Single Track OCS System - Standard 0 RF \$240 \$0 15% Double Track OCS System - Standard 2,692 RF \$260 \$699,920 15% 50.05 Communications Element Total 2,692 RF \$240 \$646,080 15% 50.05 Communications Communication, Line 2,692 RF \$240 \$646,080 15% 50.06 Fare collection system and equipment I Element Total 1 LS \$1,146,080 \$ 50.06 Fare collection system and equipment Fare Collection - 1 Platform 1 EA \$220,000 \$220,000 15% 50.07 Central Control N/A N/A I LS \$220,000 \$				1	EA	\$1,300,000	\$1,300,000	15%	\$1,495,00
Single Track OCS System - Standard 0 RF \$240 \$0 15% Double Track OCS System - Standard 2,692 RF \$260 \$699,920 15% 50.05 Communications Element Total 2,692 RF \$240 \$646,080 15% 50.05 Communication, Line 2,692 RF \$240 \$646,080 15% Communication, Station 1 EA \$500,000 \$550,000 15% 50.06 Fare collection system and equipment I LS \$1,146,080 \$ 50.06 Fare collection - 1 Platform 1 EA \$220,000 \$220,000 15% 50.07 Central Control I ILS \$220,000 \$220,000 15%			Element Total	1	EA		\$1,300,000		\$1,495,0
Double Track OCS System - Standard 2,692 RF \$260 \$699,920 15% 50.05 Communications Element Total 2,692 RF \$0 \$0 50.05 Communications Communication, Line 2,692 RF \$240 \$646,080 15% Communication, Station 1 EA \$50,000 \$500,000 15% 50.06 Fare collection system and equipment 1 LS \$1,146,080 \$ 50.06 Fare collection - 1 Platform 1 EA \$220,000 \$220,000 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% 50.07 Central Control N/A N/A N/A \$ \$	50.04	Traction power distribution	on: catenary and third rail						
Element Total 2,692 RF \$0 50.05 Communications Communication, Line 2,692 RF \$240 \$646,080 15% Communication, Line 2,692 RF \$240 \$646,080 15% Communication, Station 1 EA \$50,000 \$500,000 15% Element Total 1 LS \$1,146,080 \$ 50.06 Fare collection system and equipment Fare Collection - 1 Platform 1 EA \$220,000 \$220,000 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$220,000 \$220,000 \$ 50.07 Central Control N/A N/A \$ \$ \$		Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	
50.05 Communications Communication, Line 2,692 RF \$240 \$646,080 15% Communication, Station 1 EA \$500,000 \$500,000 15% Element Total 1 LS \$1,146,080 \$ 50.06 Fare collection system and equipment Fare Collection - 1 Platform 1 EA \$220,000 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% 50.07 Central Control N/A N/A N/A N/A N/A		Double Track	OCS System - Standard	2,692		\$260	\$699,920	15%	\$804,90
Communication, Line 2,692 RF \$240 \$646,080 15% Communication, Station 1 EA \$500,000 15% Element Total 1 LS \$1,146,080 \$\$ 50.06 Fare collection system and equipment Fare Collection - 1 Platform 1 EA \$220,000 \$220,000 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% 50.07 Central Control N/A N/A N/A \$220,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 <td< td=""><td></td><td></td><td>Element Total</td><td>2,692</td><td>RF</td><td></td><td>\$0</td><td></td><td>ç</td></td<>			Element Total	2,692	RF		\$0		ç
Communication, Station 1 EA \$500,000 \$500,000 15% 50.06 Fare collection system and equipment 1 LS \$1,146,080 \$ 50.06 Fare collection - 1 Platform 1 EA \$220,000 \$220,000 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% 50.07 Central Control N/A N/A N/A \$ \$	50.05	Communications							
Element Total 1 LS \$1,146,080 \$ 50.06 Fare collection system and equipment Fare Collection - 1 Platform 1 EA \$220,000 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$220,000 \$50.07 50.07 Central Control N/A N/A N/A									\$742,99
50.06 Fare collection system and equipment 1 EA \$220,000 15% Fare Collection - 1 Platform 0 EA \$400,000 \$0 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$220,000 \$220,000 50.07 Central Control N/A N/A N/A N/A						\$500,000		15%	\$575,00
Fare Collection - 1 Platform 1 EA \$220,000 \$220,000 15% Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$220,000 \$20,000 50.07 Central Control N/A N/A Subscription Subscription			Element Total	1	LS		\$1,146,080		\$1,317,99
Fare Collection - 2 Platform 0 EA \$400,000 \$0 15% Element Total 1 LS \$220,000 50.07 Central Control N/A	50.06	Fare collection system ar							
Element Total 1 LS \$220,000 50.07 Central Control N/A									\$253,00
50.07 Central Control N/A				-		\$400,000		15%	\$253.0
N/A			Element i otal	1	19		φ∠∠U,UUU		\$253,00
	50.07	Central Control	N//A						
				4	19		¢∩		9
				1	LO		Ф О		

TOTAL

ALLCTD

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

UNIT

BASE

TRANSIT	MODE: LRT		
CAT	STATIO	DNING	
NO.	BEGIN	END	DES

NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60	ROW, LAND, EXI		POVEMENTS						
	Purchase or lease								
			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

		Sys TF	ounty MPO Trans stem Planning R-Cypress St. nenia/ Howard Co	-				
	SIT MODE: LRT			upier				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT		BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE							
10.01	Guideway: At-grade exclusive				A 050	A .	0.50	
	Single Track Double Track	At Grade - Ballasted, Open At Grade - Ballasted, Open	0 0	RF RF	\$350 \$450	<mark>\$0</mark> \$0	25%	<mark>\$</mark> \$
	Double Track	Element Total	0	RF	\$450	\$0 \$0	25%	\$ \$
10.02	Guideway: At-grade semi-exe	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	9
	Single Track	At Grade - Embedded, In-Street	5,040	RF	\$580	\$2,923,200	25%	\$3,654,00
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	\$
	Double Track	At Grade - Embedded, In-Street	12,621	RF	\$700	\$8,834,700	25%	\$11,043,37
		Element Total	15,141	RF		\$11,757,900		\$14,697,37
10.03	Guideway: At-grade in mixed			55	0 500	A 0	050	
	Single Track	At Grade - Embedded, In-Street At Grade - Embedded, In-Street	0	RF	\$560 \$680	\$0 \$0	25%	.
	Double Track	At Grade - Embedded, In-Street Element Total	0 0	RF RF	\$680	\$0 \$0	25%	
10.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	9
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	:
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	:
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	:
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	:
		Element Total	0	RF		\$0		5
10.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	9
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	9
10.06	Guideway: Underground cut	8 covor						
10.00	Single Track	Subway - Direct Fixation	0	RF	\$10.000	\$0	35%	9
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
10.07	Guideway: Underground tunr	nel						
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	9
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	:
		Element Total	0	RF		\$0		5
10.08	Guideway: Retained cut or fil							
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0 \$0	30%	
	Double Track	Retained Fill - Ballasted Element Total	0	RF RF	\$3,200	\$0 \$0	30%	
0 00	Track: Direct fixation							
5.03	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0 \$0	15%	
		Element Total	0	RF	<i>\\</i>	\$0 \$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	5,040	RF	\$490	\$2,469,600	15%	\$2,840,04
	Double Track	Embedded Track Element Total	12,621	RF RF	\$980	\$12,368,580	15%	\$14,223,8 \$17,063,9
		Element Total	15,141	ιζΕ		\$14,838,180		φι/,υσο,91
0.11	Track: Ballasted Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	egio ridon		0	1.11	Ψ2-τ0	ψŪ	1070	
	Double Track	Ballasted Track	0	RF	\$480	\$0	15%	:

		TR-Cy	Planning press St.	-	/			
	SIT MODE: LRT	Trask to Armeni	a/ Howard Co	ouplet				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.40								
10.12	Track: Special (switches, tur	Special Trackwork (15% of Track Cost)	15%			\$2,225,727	15%	\$2,559,58
		Element Total	1370	LS		\$2,225,727	1378	\$2,559,58
			·	20		<i>\</i>		42,000,00
10.13	Track: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$0	15%	
		Cost)						
		Element Total	1	LS		\$0		:
20	STATIONS, STOPS, TERMI	NALS INTERMODAL						
	At-grade station, stop, shelte							
		Side Platform Station - 1 Platform	1	EA	\$2,000,000	\$2,000,000	20%	\$2,400,0
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,0
		Element Total	3	EA		\$8,000,000		\$9,600,0
20 00	Aorial station atom shaller	nall terminal platform						
20.02	Aerial station, stop, shelter, r	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$12,000,000	\$0 \$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03	Underground station, stop, sl	helter, mall, terminal, platform						
	0 , 1,	Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	
		Element Total	0	EA		\$0		ę
20.04	Other stations, landings, tern							
20.04	Other stations, landings, tern	N/A	1	10		¢0.		
20.04	Other stations, landings, tern		1	LS		\$0		
		N/A	1	LS		\$0		ţ
	Other stations, landings, tern Joint development	N/A	1	LS		\$0		
		N/A Element Total	1	LS		\$0 \$0		
20.05		N/A Element Total N/A Element Total						
20.05	Joint development	N/A Element Total N/A Element Total			\$12,000		20%	
20.05	Joint development	N/A Element Total N/A Element Total	1	LS	\$12,000	\$0	20%	:
20.05 20.06	Joint development Automobile parking multi-sto	N/A Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0	20%	
20.05 20.06	Joint development	N/A Element Total N/A Element Total ry structure Parking Garage Element Total	1 0 1	LS STL LS		\$0 \$0 \$0		
20.05 20.06	Joint development Automobile parking multi-sto	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator	1 0 1	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	
20.05 20.06	Joint development Automobile parking multi-sto	N/A Element Total N/A Element Total ry structure Parking Garage Element Total	1 0 1	LS STL LS		\$0 \$0 \$0		
20.05 20.06	Joint development Automobile parking multi-sto	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	: : : :
20.05 20.06 20.07 40	Joint development Automobile parking multi-stor Elevators, escalators	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	
20.05 20.06 20.07 40	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	2 2 2 2 2 2 2
20.05 20.06 20.07 40	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 1 0 0 15,141	LS STL LS EA EA EA S RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$984,10
20.05 20.06 20.07 40	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	1 0 1 0 0 1 1 5,141 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
20.05 20.06 20.07 40	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 1 0 0 15,141	LS STL LS EA EA EA S RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$984,11
20.05 20.06 20.07 40 40.01	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 1 5,141 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$984, 1
20.05 20.06 20.07 40 40.01	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total N/A Element Total ry structure Parking Garage Parking Garage Element Total Eleavator Element Total Eleavator Element Total NDITIONS Element Total ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low	1 0 1 0 0 15,141 0 15,141 0 15,141	LS STL LS EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$0	20% 20% 30% 30% 30%	\$984,16 \$984,16
20.05 20.06 20.07 40 40.01	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total N/A Element Total ry structure Parking Garage Parking Garage Element Total Eleavator Element Total Eleavator Element Total NDITIONS Element Total Ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Low	1 0 1 0 0 15,141 0 15,141 0 15,141	LS STL LS EA EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050	20% 20% 30% 30% 30% 30%	\$984,11 \$984,11 \$984,11
20.05 20.06 20.07 40 40.01	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High	1 0 1 0 0 15,141 0 15,141 0 15,141 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30%	\$984,11 \$984,11 \$984,11 \$984,11
20.05 20.06 20.07 40 40.01	Joint development Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total N/A Element Total ry structure Parking Garage Parking Garage Element Total Eleavator Element Total Eleavator Element Total NDITIONS Element Total Ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Low	1 0 1 0 0 15,141 0 15,141 0 15,141	LS STL LS EA EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050	20% 20% 30% 30% 30% 30%	\$984,11 \$984,11 \$984,11 \$984,11
20.05 20.06 20.07 40 40.01	Joint development Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	N/A Element Total N/A Element Total ny structure Parking Garage Parking Garage Element Total Eleavator Escalator Element Total Element Total NDITIONS Element Total Ork Demolition Allowance - Low Demolition Allowance - High Element Total N Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	1 0 1 0 0 15,141 0 15,141 0 15,141 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$984,11 \$984,11 \$984,11 \$984,11
20.05 20.06 20.07 40 40.01 40.02	Joint development Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	N/A Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High	1 0 1 0 0 15,141 0 15,141 0 15,141 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$757,050 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$984,16 \$984,16

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

		TR-Cy Trask to Armen	/press St. ia/ Howard Co	ouplet				
	SIT MODE: LRT			Jupier				
CAT NO.	STATIONING BEGIN END	D DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
0.04	Environmental mitigation,	e.g. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	15,141	RF	\$50	\$757,050	30%	\$984,10
		Element Total	1	LS		\$757,050		\$984,10
0.05	Site structures including r	retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	0	RF	\$80	\$0	30%	
		Element Total	1	LS		\$0		
10.06	Pedestrian / bike access	and accommodation, landscaping						
		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	
		Landscaping Allowance - Median	15,141	RF	\$25	\$378,525	30%	\$492,0
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	
		Artwork (1% of Guideway & Stations)	1%		. ,	\$197,579	30%	\$256,8
		Element Total	1	LS		\$576,104		\$748,9
0.07	Automobile, bus, van acc	essways including roads, parking lots						
		Roadway Modifications Allow Full Intersection	45		¢50,000	¢750.000	200/	¢075.0
			15	EA	\$50,000	\$750,000	30%	\$975,0
		Roadway Modifications Allow AC Paving	100.001	05	* ~~	* 40 7 4 5 000	0.001	\$40 F00 0
		(incl. Curb & Sidewalk)	423,864	SF	\$30	\$12,715,920	30%	\$16,530,6
		Parking Lots	0	STL	\$4,000	\$0	30%	A 1
		Element Total	1	LS		\$13,465,920		\$17,505,6
0.08	Temporary Facilities and	other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$1,050,344	25%	\$1,312,9
		Element Total	1	LS		\$1,050,344		\$1,312,9
50 50.01	SYSTEMS Train control and signals Single Track	Signal System	5,040	RF	\$240	\$1,209,600	15%	\$1,391,04
	Double Track	Signal System	12,621	RF	\$260	\$3,281,460	15%	\$3,773,6
		Element Total	15,141	RF	ψ200	\$4,491,060	1370	\$5,164,7
	Treffic sizzale and erecai							
0.02	Traffic signals and crossin		45		# 450.000	A O 050 000	4.50/	\$0 507 5
		Traffic Signal	15	EA	\$150,000	\$2,250,000	15%	\$2,587,5
		Crossing Protection	0	EA	\$250,000	\$0	15%	<u> </u>
		Element Total	15	EA		\$2,250,000		\$2,587,5
50.03	Traction power supply: si							
		Traction Power, Substation	3	EA	\$1,300,000	\$3,900,000	15%	\$4,485,0
		Element Total	3	EA		\$3,900,000		\$4,485,0
50.04	Traction power distributio	n: catenary and third rail						
	Single Track	OCS System - Standard	5,040	RF	\$240	\$1,209,600	15%	\$1,391,0
	Double Track	OCS System - Standard	12,621	RF	\$260	\$3,281,460	15%	\$3,773,6
		Element Total	15,141	RF		\$1,209,600		\$1,391,0
60.05	Communications							
		Communication, Line	15,141	RF	\$240	\$3,633,840	15%	\$4,178,9
		Communication, Station	3	EA	\$500,000	\$1,500,000	15%	\$1,725,0
		Element Total	1	LS		\$5,133,840		\$5,903,9
50.06	Fare collection system an	nd equipment						
	-	Fare Collection - 1 Platform	3	EA	\$220,000	\$660,000	15%	\$759,0
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	+,-
		Element Total	1	LS	,	\$660,000		\$759,0
50.07	Central Control							
0.07		N/A						
		Element Total	1	LS		\$0		

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

CAT	STATIC	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60 F	ROW, LAND, EX	STING IMP	PROVEMENTS						
60.01 F	Purchase or lease	e of real est	ate						
			Right of Way Allowance - At Grade	15,141	RF	\$400	\$6,056,400	50%	\$9,084,60
			Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$
			Element Total	15,141	RF		\$6,056,400		\$9,084,60

		Sys	ounty MPO Trans tem Planning t-Cypress St. ypress to UT/ N.	-				
	SIT MODE: LRT STATIONING		,,		UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10	GUIDEWAY & TRACK ELE							
10.01	Guideway: At-grade exclusiv			05	0050	# 0	05%	
	Single Track Double Track	At Grade - Ballasted, Open At Grade - Ballasted, Open	0 0	RF RF	\$350 \$450	<mark>\$0</mark> \$0	25% 25%	9
	Double Track	Element Total	0	RF	\$450	\$0 \$0	25%	
10.02	2 Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	10,057	RF	\$700	\$7,039,900	25%	\$8,799,8
		Element Total	10,057	RF		\$7,039,900		\$8,799,8
10.03	Guideway: At-grade in mixed							
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street Element Total	0	RF RF	\$680	\$0 \$0	25%	
10.04	Guidoway, Acrial structure							
10.04	Guideway: Aerial structure	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$8,200 \$4,600	\$0 \$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0 \$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0 \$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0 \$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$5,500 \$6,000	\$0 \$0	30%	
	Double Hack	Element Total	0	RF	\$0,000	\$0 \$0	30%	
10 05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	:
		Element Total	0	RF		\$0		:
10.06	Guideway: Underground cut							
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
0.07	Guideway: Underground tun	nel Subway - Direct Fixation						
					A (A A A A		0 = 0 /	
	Single Track		0	RF	\$12,000	\$ 0	35%	
	Double Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0	RF RF RF	\$12,000 \$20,000	\$0 \$0 \$0	35% 35%	
10.08	Double Track	Subway - Direct Fixation Element Total		RF		\$0		
10.08	Double Track Guideway: Retained cut or fi	Subway - Direct Fixation Element Total	0	RF RF	\$20,000	\$0 \$0	35%	
10.08	Double Track Guideway: Retained cut or fi Single Track	Subway - Direct Fixation Element Total	0	RF RF RF	\$20,000 \$6,800	\$0 \$0 \$0	35% 30%	
0.08	Double Track Guideway: Retained cut or fi Single Track Single Track	Subway - Direct Fixation Element Total II Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0	RF RF RF RF	\$20,000 \$6,800 \$2,800	\$0 \$0 \$0 \$0 \$0	35% 30% 30%	
10.08	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation	0 0 0 0	RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000	\$0 \$0 \$0 \$0 \$0	35% 30% 30% 30%	
10.08	Double Track Guideway: Retained cut or fi Single Track Single Track	Subway - Direct Fixation Element Total II Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0	RF RF RF RF	\$20,000 \$6,800 \$2,800	\$0 \$0 \$0 \$0 \$0	35% 30% 30%	
	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0 0 0	RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30%	
	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0 0 0	RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30%	
	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Double Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total	0 0 0 0 0 0	RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30%	
	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track	0 0 0 0 0 0	RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30% 15%	
0.09	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track	Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30% 15%	
0.09	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track	Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$3,200 \$405 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30% 15%	
0.09	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total	0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30% 15%	\$11,334,2
0.09	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total	0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15% 15%	\$11,334,2
0.09	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track Double Track Track: Embedded Single Track Double Track Track: Embedded Single Track Double Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total Embedded Track Embedded Track Element Total	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$3,200 \$405 \$810 \$490 \$980	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15% 15%	\$11,334,2 \$11,334,2
10.09	Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Direct fixation Single Track Double Track Double Track Double Track Double Track Double Track Double Track Track: Embedded Single Track Double Track	Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total Embedded Track Embedded Track	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15% 15%	

		TR-Cy	Planning press St.	-	/			
RANS	SIT MODE: LRT	Armenia / Cypre	ess to UT/ N.	Blvd.				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10.12	Track: Special (switches, tur	-	150/			¢1 479 270	15%	¢1 700 11
		Special Trackwork (15% of Track Cost) Element Total	15%	LS		\$1,478,379 \$1,478,379	13%	\$1,700,13 \$1,700,13
		Element rotar		LO		ψ1,470,075		ψ1,700,10
10.13	Track: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$0	15%	:
		Cost)						
		Element Total	1	LS		\$0		:
20	STATIONS, STOPS, TERMI	NALS INTERMODAL						
	At-grade station, stop, shelte	-						
		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	:
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	:
		Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,00
		Element Total	1	EA		\$3,000,000		\$3,600,00
20 02	Aerial station, stop, shelter, r	nall terminal platform						
_0.02	. end otation, stop, sheller, f	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	:
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	:
		Element Total	0	EA		\$0		:
20.03	Underground station, stop, sl	helter, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	:
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%	
20.04	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc.						
		N/A Element Total	1	LS		\$0		
		N/A Element Total	1	LS		\$0		
20.05	Joint development		1	LS		\$0		
20.05	Joint development	Element Total						
20.05	Joint development	Element Total	1	LS		\$0 \$0		
	Joint development Automobile parking multi-sto	Element Total N/A Element Total						
		Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0	20%	:
		Element Total N/A Element Total ry structure	1	LS	\$12,000	\$0	20%	
20.06	Automobile parking multi-sto	Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0	20%	:
20.06		Element Total N/A Element Total ry structure Parking Garage Element Total	1 0 1	LS STL LS		\$0 \$0 \$0		
20.06	Automobile parking multi-sto	Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000 \$200,000 \$450,000	\$0	20% 20% 20%	<u> </u>
20.06	Automobile parking multi-sto	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator	1 0 1	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS	1 0 1 0 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	<u> </u>
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 1	LS STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20%	2 2 2 2 2 2 2
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low	1 0 1 0 0 1 1 0 0	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 1	LS STL LS EA EA EA S RF RF	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30%	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 0 0 10,057	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30%	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 0 10,057 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$502,850 \$0	20% 20% 30% 30%	\$653,70
20.06 20.07 40 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 0,057 0 10,057	LS STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$502,850 \$0 \$502,850	20% 20% 30% 30% 30%	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 0 10,057 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$502,850 \$0	20% 20% 30% 30%	<u> </u>
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low	1 0 1 0 0 10,057 0 10,057 0 0	LS STL LS EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850	20% 20% 30% 30% 30%	\$653,70 \$653,70 \$653,70 \$4,445,11
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Low Utility Relocation Allowance - Low	1 0 1 0 0 10,057 0 10,057	LS STL LS EA EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850	20% 20% 30% 30% 30% 30%	\$653,7/ \$653,7/ \$653,7/
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total N Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	1 0 1 0 0 0 10,057 0 10,057 0 10,057 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$653,7(\$653,7(\$653,7(\$4,445,15
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Itility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High	1 0 1 0 0 0 10,057 0 10,057 0 10,057 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$502,850 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$653,70 \$653,70

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

Armenia / Cypress to UT/N. Bivd. RANSIT MODE: LRT Valuation Static Colspan="2">No DESCRIPTION QTV UNIT BASE A0.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks COST COST <th>ALLCTD CONTGY 30% 30% 30% 30% 30% 30% 30% 30% 30%</th> <th>TOTAL COST \$653,70 \$653,70 \$653,70 \$326,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,8555 \$356,8555 \$356,8555 \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$\$356,8555\$ \$356,8555\$\$3565\$ \$356,8555</th>	ALLCTD CONTGY 30% 30% 30% 30% 30% 30% 30% 30% 30%	TOTAL COST \$653,70 \$653,70 \$653,70 \$326,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,85 \$356,8555 \$356,8555 \$356,8555 \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$ \$356,8555\$\$356,8555\$ \$356,8555\$\$3565\$ \$356,8555
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$\frac{\text{Intersection}}{\text{Roadway Modifications Allow AC Paving}}{(incl. Curb & Sidewalk)} 241,368 SF $$30 $$7,241,040 \\ \hline Parking Lots 0 STL $$4,000 $$10 $$100 $$	30%	\$9,413,35
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$(incl. Curb & Sidewalk) \\ Parking Lots 0 & STL & $4,000 & $5TL \\ Parking Lots 0 & STL & $4,000 & $5TL \\ Felement Total 1 & LS & $7,741,040 \\ 1 & LS & $7,741,040 \\ 1 & LS & $635,954 \\ \hline \\ 1 & LS & $1,500,000 \\ \hline \\ 1 & LS & $1,500$		9
Parking Lots0STL\$4,000\$040.08Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40)5.0%\$635,95250SYSTEMSElement Total1LS\$635,95250.01Train control and signalsSignal System0RF\$240\$6Single TrackSignal System0.057RF\$260\$2,614,820Double TrackSignal System10,057RF\$260\$2,614,82050.02Traffic signals and crossing protection Crossing Protection10EA\$150,000\$1,500,00050.03Traction power supply: substations2EA\$1,300,000\$2,600,000Element Total10EA\$1,500,000\$2,600,000Element Total10EA\$1,500,000\$2,600,000Element Total10EA\$1,500,000\$2,600,00050.03Traction power supply: substations2EA\$1,300,000\$2,600,000Element Total2EA\$2,600,000\$2,600,000Element Total2EA\$2,600,000Element Total2EA\$2,600,000Element Total2EA\$2,600,000Element Total2EA\$2,600,000Element Total2EA\$2,600,000Element Total2EA\$2,600,000Element Total2EA\$2,600,000Element Total2EA\$2,600,000Element		9
40.08 Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40) 5.0% \$635,954 50 SYSTEMS Element Total 1 LS \$635,954 50 SYSTEMS Signal System 0 RF \$240 \$635,954 50.01 Train control and signals Signal System 0 RF \$240 \$635,954 50.02 Traffic signals and crossing protection Traffic Signal 10,057 RF \$260 \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$00 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000	30%	
40.08 Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40) 5.0% \$635,954 50 SYSTEMS 1 LS \$635,954 50.01 Train control and signals 5 \$1 LS \$240 \$1 50.01 Train control and signals 5 \$1 LS \$220 \$2,614,820 50.01 Track Signal System 0 RF \$220 \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 50.02 Traffic Signal 10 EA \$150,000 \$1,500,000 50.02 Traffic Signal 10 EA \$150,000 \$1,500,000 50.02 Traffic Signal 10 EA \$150,000 \$1,500,000 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 50.03 Traction Power, Substation 2 EA \$1,300,000 \$2,600,000		\$10,063,35
Temporary Facilities (5% of Category 40) 5.0% \$635,954 50 SYSTEMS 1 LS \$635,954 50.01 Train control and signals 50.01 Train control and signals 0 RF \$240 \$00 Single Track Signal System 0 RF \$240 \$00 Double Track Signal System 10,057 RF \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 Element Total 10 EA \$1,500,000 \$1,500,000 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000		
50 SYSTEMS 50.01 Train control and signals Single Track Signal System Double Track Signal System 10,057 RF \$2,601,4820 50.02 Traffic signals and crossing protection Traffic Signal 10 Element Total 2 Element Tota		
50 SYSTEMS 50.01 Train control and signals Single Track Signal System 0 RF \$240 \$0 Double Track Signal System 10,057 RF \$260 \$2,614,820 Double Track Signal System 10,057 RF \$2,614,820 50.02 Traffic signals and crossing protection Element Total 10,057 RF \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$0 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000	25%	\$794,94
Single Track Signal System 0 RF \$240 \$260 Double Track Signal System 10,057 RF \$260 \$2,614,820 50.02 Traffic signals and crossing protection Element Total 10,057 RF \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$0 \$0 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000 \$2,600,000		\$794,94
Signal System 0 RF \$240 \$6 Double Track Signal System 10,057 RF \$260 \$2,614,820 50.02 Traffic signals and crossing protection Element Total 10,057 RF \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$0 \$0 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000 \$2,600,000		
Double Track Signal System 10,057 RF \$260 \$2,614,820 50.02 Traffic signals and crossing protection 10,057 RF \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$0 Element Total 10 EA \$1,500,000 \$0 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000		
Element Total 10,057 RF \$2,614,820 50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$0 Element Total 10 EA \$150,000 \$1,500,000 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000	15%	9
50.02 Traffic signals and crossing protection Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$6 Element Total 10 EA \$1,500,000 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 Element Total 2 EA \$1,300,000 \$2,600,000	15%	\$3,007,04
Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$6 Element Total 10 EA \$1,500,000 \$6 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000		\$3,007,04
Traffic Signal 10 EA \$150,000 \$1,500,000 Crossing Protection 0 EA \$250,000 \$6 Element Total 10 EA \$1,500,000 \$6 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000		
Crossing Protection 0 EA \$250,000 \$0 Element Total 10 EA \$1,500,000 \$0 50.03 Traction power supply: substations Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$1,300,000 \$2,600,000	15%	\$1,725,00
Element Total10EA\$1,500,00050.03 Traction power supply: substationsTraction Power, Substation2EA\$1,300,000\$2,600,000Element Total2EA\$2,600,000\$2,600,000	15%	Ş
Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$2,600,000 \$2,		\$1,725,00
Traction Power, Substation 2 EA \$1,300,000 \$2,600,000 Element Total 2 EA \$2,600,000 \$2,		
Element Total 2 EA \$2,600,000	15%	\$2,990,00
50.04 Traction power distribution: catenary and third rail		\$2,990,00
50.04 Traction power distribution: catenary and third rail		
Single Track OCS System - Standard 0 RF \$240 \$6	15%	d
Single Track OCS System - Standard 0 RF \$240 \$0 Double Track OCS System - Standard 10,057 RF \$260 \$2,614,820	<mark>15%</mark> 15%	\$3,007,04
Double frack OCS System - Standard 10,057 RF \$2,00 \$2,01 \$	13%	\$3,007,04
50.05 Communications Communication, Line 10,057 RF \$240 \$2,413,680	15%	\$2,775,73
Communication, Station 1 EA \$500,000 \$500,000	15%	\$575,00
Element Total 1 LS \$2,913,680	1070	\$3,350,73
50.06 Fare collection system and equipment		
50.06 Fare collection system and equipment Fare Collection - 1 Platform 1 EA \$220,000 \$220,000	15%	\$253,00
Fare Collection - 1 Platform 1 EA \$220,000 \$200,000 \$200,		\$253,UU
Element Total 1 LS \$220,000		\$253,00
		ψ200,00
50.07 Central Control		
N/A Element Total 1 LS \$(
	15%	

TOTAL COST

Hillsborough County MPO Transit Study System Planning TR-Cypress St. Armenia / Cypress to UT/ N. Blvd. ALLCTD CONTGY UNIT COST STATIONING BASE END DESCRIPTION QTY UNIT COST

60 ROW, LAND, EXISTING IMPROVEMENTS

TRANSIT MODE: LRT

BEGIN

CAT NO.

	NOW, EARD, EXISTING IMP NOVEMENTS						
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

		Sys Ti	ounty MPO Trans stem Planning R-Downtown /d. to Nebraska A	-				
RAN	SIT MODE: LRT	01/ N. BA	u. to Nebraska A	ve.				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
10.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	
	Double Track	At Grade - Ballasted, Open	5,386	RF	\$450	\$2,423,700	25%	\$3,029,6
		Element Total	5,386	RF		\$2,423,700		\$3,029,6
10.02	Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
10.03	Guideway: At-grade in mixed	d traffic						
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	
		Element Total	0	RF		\$0		
10.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	600	RF	\$6,000	\$3,600,000	30%	\$4,680,0
		Element Total	600	RF		\$3,600,000		\$4,680,0
10 05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	
		Element Total	0	RF		\$0		
10.06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
10.07	Guideway: Underground tun	nel						
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	
		Element Total	0	RF		\$0		
10.08	Guideway: Retained cut or fi	11						
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF		\$0		
10 Იዓ	Track: Direct fixation							
2.50	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	600	RF	\$810	\$486,000	15%	\$558,9
		Element Total	600	RF		\$486,000		\$558,9
	Track: Embedded							
10 10	HAUK. LINDEQUEU	Fuch a data di Tara da	0	RF	\$490	\$0	15%	
10.10				KE	\$490			
10.10	Single Track	Embedded Track		RE	0202	ድሳ	150/	
10.10		Embedded Track Embedded Track Element Total	0 0	RF RF	\$980	\$0 \$0	15%	
	<mark>Single Track</mark> Double Track	Embedded Track	0		\$980		15%	
	Single Track Double Track Track: Ballasted	Embedded Track Element Total	<u>0</u> 0	RF		\$0		
	<mark>Single Track</mark> Double Track	Embedded Track	0		\$980 \$240 \$480		15% 15% 15%	\$2,973,0

		TR-Do	Planning	-	/			
	T MODE: LRT	UT/ N. Blvd. to	o Nebraska A	ve.				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.12 Tı	rack: Special (switches, tur							
		Special Trackwork (15% of Track Cost)	15%	10		\$460,692 \$460.692	15%	\$529,7
		Element Total	1	LS		\$460,692		\$529,7
10.13 Ti	rack: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$155,117	15%	\$178,3
		Cost)						
		Element Total	1	LS		\$155,117		\$178,3
20 S [.]	TATIONS, STOPS, TERMI	NALS. INTERMODAL						
	t-grade station, stop, shelte	-						
	· • ·	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	3	EA	\$3,000,000	\$9,000,000	20%	\$10,800,0
		Element Total	3	EA		\$9,000,000		\$10,800,0
00 02 1	verial station, stop, shelter, r	nall terminal nlatform						
.0.02 A	אפוומו אמווטוו, אוטף, אושונפר, ר	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$12,000,000	\$0 \$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA	. , ,	\$0		
20.03 U	Inderground station. stop. sl	helter, mall, terminal, platform						
	5	Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	
		Element Total	0	EA		\$0		
20.04 O	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc.						
		N/A Element Total	1	LS		\$0		
		Lionont rotal		20		ψŪ		
20.05 Jo	oint development							
		N/A						
		Element Total	1	LS		\$0		
20.06 A	utomobile parking multi-sto	,						
		Parking Garage	0	STL	\$12,000	\$0	20%	
		Element Total	1	LS		\$0		
20.07 F	levators, escalators					\$0		
20.07 EI	levators, escalators			LS	\$200.000		20%	
20.07 EI	Elevators, escalators	Element Total	1		\$200,000 \$450,000	\$0 \$0 \$0	20% 20%	
20.07 EI	levators, escalators	Element Total	1	LS EA		\$0		
	ilevators, escalators	Element Total Eleavator Escalator Element Total	1 0 0	LS EA EA		\$0 \$0		
40 S		Element Total Eleavator Escalator Element Total INDITIONS ork	1 0 0 1	LS EA EA LS	\$450,000	\$0 \$0 \$0	20%	
40 SI	ITEWORK & SPECIAL CO	Element Total Eleavator Escalator Element Total INDITIONS ork Demolition Allowance - Low	1 0 0 1 5,386	LS EA EA LS RF	\$450,000 \$30	\$0 \$0 \$0 \$161,580	20%	\$210,0
40 S	ITEWORK & SPECIAL CO	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 0 1 5,386 600	LS EA EA LS RF RF	\$450,000 \$30 \$50	\$0 \$0 \$0 \$161,580 \$30,000	20% 30% 30%	\$210,0 \$39,0
40 S	ITEWORK & SPECIAL CO	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	1 0 0 1 5,386 600 0	LS EA EA LS RF RF RF	\$450,000 \$30	\$0 \$0 \$0 \$0 \$161,580 \$30,000 \$0	20%	\$210,0 \$39,0
40 S	ITEWORK & SPECIAL CO	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 0 1 5,386 600	LS EA EA LS RF RF	\$450,000 \$30 \$50	\$0 \$0 \$0 \$161,580 \$30,000	20% 30% 30%	\$210,0 \$39,0
40 S 10.01 D	ITEWORK & SPECIAL CO	Element Total Eleavator Escalator Element Total INDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 0 1 5,386 600 0	LS EA EA LS RF RF RF	\$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$161,580 \$30,000 \$0	20% 30% 30%	\$210,0 \$39,0
40 S 0.01 D	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Eleavator Escalator Element Total INDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 0 1 5,386 600 0	LS EA EA LS RF RF RF	\$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$161,580 \$30,000 \$0	20% 30% 30%	\$210,0 \$39,0 \$249,0
40 S 0.01 D	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total N Utility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 0 1 5,386 600 0 5,986	LS EA EA LS RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$161,580 \$30,000 \$0 \$191,580	20% 30% 30% 30%	\$210,0 \$39,0 \$249,0 \$980,2
40 S 0.01 D	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Ilement Total N Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High	1 0 0 1 5,386 600 0 5,986 5,386 600 0	LS EA EA LS RF RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$161,580 \$30,000 \$0 \$191,580 \$754,040 \$204,000 \$0 \$0	20% 30% 30% 30%	\$210,(\$39,C \$249,C \$980,2 \$265,2
40 S 0.01 D	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total N Utility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 0 1 5,386 600 0 5,986 5,386 600	LS EA EA LS RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$161,580 \$30,000 \$0 \$191,580 \$754,040 \$204,000	20% 30% 30% 30% 30%	\$210,(\$39,C \$249,C \$980,2 \$265,2
40 S 40.01 D	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Ilement Total N Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - Median Utility Relocation Allowance - High	1 0 0 1 5,386 600 0 5,986 5,386 600 0	LS EA EA LS RF RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$161,580 \$30,000 \$0 \$191,580 \$754,040 \$204,000 \$0 \$0	20% 30% 30% 30% 30%	\$210,0 \$39,0 \$249,0 \$980,2 \$265,2
40 S 40.01 D 40.02 Si	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total N Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	1 0 0 1 5,386 600 0 5,986 5,386 600 0	LS EA EA LS RF RF RF RF RF RF RF	\$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$161,580 \$30,000 \$0 \$191,580 \$754,040 \$204,000 \$0 \$0	20% 30% 30% 30% 30%	\$210,0 \$39,0

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

FRAN		UT/ N. Blvd. to						
CAT	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN EN	D DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10.04	Environmental mitigation	, e.g. wetlands, historic/archeologic, parks	=		4 50	A AAA AAA	0.004	* ****
		Enviromental Mitigation Allowance	5,986	RF	\$50	\$299,300	30%	\$389,09
		Element Total	1	LS		\$299,300		\$389,09
40.05	Site structures including	retaining walls, sound walls						
	Ū.	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	539	RF	\$80	\$43,088	30%	\$56,01
		Element Total	1	LS		\$43,088		\$56,01
10 06	Pedestrian / bike access	and accommodation, landscaping						
10.00		Landscaping Allowance - Low	5,386	RF	\$15	\$80,790	30%	\$105,02
		Landscaping Allowance - Median	600	RF	\$25	\$15,000	30%	\$19,50
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	9
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	5
		Artwork (1% of Guideway & Stations)	1%			\$150,237	30%	\$195,30
		Element Total	1	LS		\$246,027		\$319,83
40.07	Automobile, bus, van acc	essways including roads, parking lots						
		Roadway Modifications Allow Full Intersection	0	EA	\$50,000	\$0	30%	\$
		Roadway Modifications Allow AC Paving	0	EA	\$50,000	2 0	30%	4
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$
		Parking Lots	0	STL	\$4,000	\$0 \$0	30%	\$
		Element Total	1	LS	φ4,000	\$0 \$0	5070	\$
10 08	Temporany Eacilities and	other indirect costs during construction						
40.00	remporary raciilles and	Temporary Facilities (5% of Category 40)	5.0%			\$92,888	25%	\$116,11
		Element Total	<u> </u>	LS		\$92,888	2376	\$116,11
50	SYSTEMS							
	Train control and signals	Signal System	0	RF	\$240	\$0	15%	s
		Signal System Signal System	0 5,986	RF RF	<mark>\$240</mark> \$260	<mark>\$0</mark> \$1,556,360	<mark>15%</mark> 15%	
	Train control and signals Single Track							\$1,789,81
50.01	Train control and signals Single Track	Signal System Element Total	5,986	RF		\$1,556,360		\$1,789,81
50.01	Train control and signals <mark>Single Track</mark> Double Track	Signal System Element Total	5,986	RF		\$1,556,360		\$1,789,81 \$1,789,81
50.01	Train control and signals <mark>Single Track</mark> Double Track	Signal System Element Total ng protection	5,986 5,986	RF RF	\$260	\$1,556,360 \$1,556,360	15%	\$1,789,81 \$1,789,81 \$1,789,81
50.01	Train control and signals <mark>Single Track</mark> Double Track	Signal System Element Total ng protection Traffic Signal	<u>5,986</u> 5,986 0	RF RF EA	\$260 \$150,000	\$1,556,360 \$1,556,360 \$0	15%	\$1,789,81 \$1,789,81 \$ \$862,50
50.01 50.02	Train control and signals <mark>Single Track</mark> Double Track	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total	5,986 5,986 0 3	RF RF EA EA	\$260 \$150,000	\$1,556,360 \$1,556,360 \$0 \$750,000	15%	\$1,789,81 \$1,789,81 \$ \$862,50
50.01 50.02	Train control and signals Single Track Double Track Traffic signals and crossi	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total	5,986 5,986 0 3	RF RF EA EA	\$260 \$150,000	\$1,556,360 \$1,556,360 \$0 \$750,000	15%	\$1,789,81 \$1,789,81 \$ \$862,50 \$862,50
50.01 50.02	Train control and signals Single Track Double Track Traffic signals and crossi	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total	5,986 5,986 0 3 3	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000	15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$862,50
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail	5,986 5,986 0 3 3 2	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000 \$2,600,000	15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard	5,986 5,986 0 3 3 2	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$2,600,000	15% 15% 15%	\$ \$1,789,81 \$1,789,81 \$ \$862,50 \$862,50 \$862,50 \$2,990,00 \$2,990,00
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard	5,986 5,986 0 3 3 3 2 2 2 2 0 5,986	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000	\$1,556,360 \$1,556,360 \$0 \$750,000 \$2,600,000 \$2,600,000 \$2,600,000 \$1,556,360	15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard	5,986 5,986 0 3 3 2 2 2 0	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$2,600,000	15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard	5,986 5,986 0 3 3 3 2 2 2 2 0 5,986	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,556,360 \$1,556,360 \$0 \$750,000 \$2,600,000 \$2,600,000 \$2,600,000 \$1,556,360	15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line	5,986 5,986 0 3 3 3 2 2 2 2 0 5,986 5,986	RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640	15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,652,13
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station	5,986 5,986 0 3 3 3 2 2 2 2 0 5,986 5,986	RF EA EA EA EA EA RF RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640 \$1,500,000	15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,652,13 \$1,652,13
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line	5,986 5,986 0 3 3 3 2 2 2 2 0 5,986 5,986	RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640	15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,652,13 \$1,652,13
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	5,986 5,986 0 3 3 3 2 2 2 2 0 5,986 5,986	RF EA EA EA EA EA RF RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$1,556,360 \$1,556,360 \$0 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640 \$1,500,000	15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,789,81 \$1,652,13 \$1,725,00 \$3,377,13
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total substations Traction Power, Substation OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total nd equipment Fare Collection - 1 Platform	5,986 5,986 0 3 3 2 2 2 2 2 2 2 2 2 5,986 5,986 5,986 3 1 1 3	RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,556,360 \$1,556,360 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640 \$1,500,000 \$2,936,640 \$660,000	15% 15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,789,81 \$1,652,13 \$1,725,00 \$3,377,13 \$759,00
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total nd equipment Fare Collection - 1 Platform Fare Collection - 2 Platform	5,986 5,986 0 3 3 2 2 2 2 2 2 2 2 2 0 5,986 5,986 5,986 3 1 1 3 0	RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$1,556,360 \$1,556,360 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640 \$1,500,000 \$2,936,640 \$660,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,652,13 \$1,725,00 \$3,377,13 \$759,00 \$
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total substations Traction Power, Substation OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total nd equipment Fare Collection - 1 Platform	5,986 5,986 0 3 3 2 2 2 2 2 2 2 2 2 5,986 5,986 5,986 3 1 1 3	RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,556,360 \$1,556,360 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640 \$1,500,000 \$2,936,640 \$660,000	15% 15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$862,50 \$2,990,00 \$2,990,00
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total nd equipment Fare Collection - 1 Platform Fare Collection - 2 Platform	5,986 5,986 0 3 3 2 2 2 2 2 2 2 2 2 0 5,986 5,986 5,986 3 1 1 3 0	RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,556,360 \$1,556,360 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640 \$1,500,000 \$2,936,640 \$660,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,652,13 \$1,725,00 \$3,377,13 \$759,00 \$
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossid Traction power supply: s Traction power distribution Single Track Double Track Communications Fare collection system and	Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total substations Traction Power, Substation Element Total substations Traction Power, Substation Element Total on: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total nd equipment Fare Collection - 1 Platform Fare Collection - 2 Platform	5,986 5,986 0 3 3 2 2 2 2 2 2 2 2 2 0 5,986 5,986 5,986 3 1 1 3 0	RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,556,360 \$1,556,360 \$750,000 \$750,000 \$2,600,000 \$2,600,000 \$1,556,360 \$0 \$1,436,640 \$1,500,000 \$2,936,640 \$660,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$1,789,81 \$1,789,81 \$862,50 \$862,50 \$2,990,00 \$2,990,00 \$2,990,00 \$1,789,81 \$1,652,13 \$1,725,00 \$3,377,13 \$759,00 \$

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

CAT	STATIO	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60 R	OW, LAND, EXI	STING IM	PROVEMENTS						
	urchase or lease								
			Right of Way Allowance - At Grade	5,386	RF	\$400	\$2,154,400	50%	\$3,231,60
			Right of Way Allowance - Aerial	600	RF	\$300	\$180,000	50%	\$270,00
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	9
			Element Total	5,986	RF		\$2,334,400		\$3,501,60

		- Sys Ti	ounty MPO Trans atem Planning R-Ybor City Ave. to CSX N/S	-				
RAN	SIT MODE: LRT	Nedraska /	Ave. to CSX N/S	split				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI	MENTS						
10.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	9
	Double Track	At Grade - Ballasted, Open Element Total	8,944 8,944	RF RF	\$450	\$4,024,800 \$4,024,800	25%	\$5,031,00 \$5,031,00
10 02	Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	:
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	:
		Element Total	0	RF		\$0		ę
10.03	Guideway: At-grade in mixed							
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street Element Total	0 0	RF RF	\$680	\$0 \$0	25%	
10 04	Guideway: Aerial structure							
+	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF		\$0		
10.05	Guideway: Built-up fill				-			
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0 0	RF RF	\$600	\$0 \$0	25%	:
10.06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
0.07	Guideway: Underground tuni							
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$20,000	\$0 \$0	35%	
10.08	Guideway: Retained cut or fil	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$0,800 \$2,800	\$0 \$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0 \$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF	. ,	\$0		
0.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF		\$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track Element Total	0	RF RF	\$980	\$0 \$0	15%	
			0	ſϚΓ		ΦŪ		
0.11	Track: Ballasted Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	8,944	RF	\$480	\$4,293,120	15%	\$4,937,0
		Element Total	8,944	RF		\$4,293,120		\$4,937,0

		-	ty MPO Trans Planning oor City	sit Study				
BVNG	IT MODE: LRT	Nebraska Ave.	-	split				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.40.7	Taraha Orasial (awitahaa tar							
0.12	Track: Special (switches, tur	nouts) Special Trackwork (15% of Track Cost)	15%			\$643.968	15%	\$740,56
		Element Total	1370	LS		\$643,968	1378	\$740,50
						,		,.
10.13	Track: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$257,587	15%	\$296,2
		Cost)				* 057 507		* 000 0
		Element Total	1	LS		\$257,587		\$296,23
20 \$	STATIONS, STOPS, TERMI	NALS. INTERMODAL						
	At-grade station, stop, shelte							
	· · ·	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	:
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,0
		Element Total	2	EA		\$6,000,000		\$7,200,0
20.02	Aerial station, stop, shelter, r	nall terminal platform						
20.02 /	nonar station, stop, sherter, r	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03 l	Underground station, stop, sl	helter, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0 \$0	30%	
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%	
20.04 (Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc.						
		Element Total	1	LS		\$0		:
20.05	Joint development							
		N/A						
		Element Total	1	LS		\$0		
20.06 /	Automobile parking multi-sto				A 40,000	^		
		Parking Garage Element Total	0	STL LS	\$12,000	\$0 \$0	20%	
		Element Total	I	L5		\$ 0		
20.07 E	Elevators, escalators							
-		Eleavator	0	EA	\$200,000	\$0	20%	
		Escalator	0	EA	\$450,000	\$0	20%	
		Element Total	1	LS		\$0		:
		NDITIONS						
	SITEWORK & SPECIAL CO						20%	\$348,8
	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	ork	8 0 <i>1 4</i>	PF	¢20	¢268 320		φJ40,0
		ork Demolition Allowance - Low	8,944 0	RF RF	\$30 \$50	\$268,320 \$0	30% 30%	1
		ork	8,944 0 0	RF RF RF	\$30 \$50 \$90	\$268,320 \$0 \$0	30% 30% 30%	
		ork Demolition Allowance - Low Demolition Allowance - Median	0	RF	\$50	\$0	30%	
40.01 [ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0	RF RF	\$50	\$0 \$0	30%	
40.01 [Demolition, Clearing, Earthw	ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0	RF RF	\$50	\$0 \$0	30%	\$348,8
40.01 [Demolition, Clearing, Earthw	ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 0 8,944	RF RF RF	\$50 \$90	\$0 \$0 \$268,320	30% 30%	\$348,8
40.01 [Demolition, Clearing, Earthw	ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High	0 0 8,944 8,944 0 0	RF RF RF RF RF RF	\$50 \$90 \$140	\$0 \$0 \$268,320 \$1,252,160 \$0 \$0 \$0	30% 30% 30%	\$348,8 \$1,627,8
40.01 [Demolition, Clearing, Earthw	ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 0 8,944 8,944 0	RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$0 \$268,320 \$1,252,160 \$0	30% 30% 30% 30%	\$348,8 \$1,627,8
40.01 [40.02 \$	Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total oval/mitigation, ground water treatments	0 0 8,944 8,944 0 0	RF RF RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$0 \$268,320 \$1,252,160 \$0 \$0 \$0	30% 30% 30% 30%	\$348,8 \$1,627,8
40.01 [40.02 {	Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	0 0 8,944 8,944 0 0	RF RF RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$0 \$268,320 \$1,252,160 \$0 \$0 \$0	30% 30% 30% 30%	\$348,8 \$1,627,8

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

		Nebraska Ave.		-				
CAT	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN ENI		QTY	UNIT	COST	COST	CONTGY	COST
10.04	Environmental mitigation,	e.g. wetlands, historic/archeologic, parks	0.044		\$ 50	* 4 4 7 000	000/	\$504.00
		Enviromental Mitigation Allowance Element Total	8,944	RF LS	\$50	\$447,200 \$447,200	30%	\$581,36 \$581,36
		Lienient Total		20		φττι,200		φου 1,00
40.05	Site structures including r	etaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	894	RF LS	\$80	\$71,552	30%	\$93,01
		Element Total	I	LS		\$71,552		\$93,01
40.06	Pedestrian / bike access	and accommodation, landscaping						
		Landscaping Allowance - Low	8,944	RF	\$15	\$134,160	30%	\$174,40
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$
		Artwork (1% of Guideway & Stations) Element Total	<u>1%</u> 1	LS		\$100,248 \$234,408	30%	\$130,322 \$304,730
		Element i otai	1	LO		φ 2 34,400		\$304,73C
40 07	Automobile bus van acc	essways including roads, parking lots						
.0.07		Roadway Modifications Allow Full						
		Intersection	0	EA	\$50,000	\$0	30%	\$
		Roadway Modifications Allow AC Paving			,			
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$
		Parking Lots	0	STL	\$4,000	\$0	30%	\$0
		Element Total	1	LS		\$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 50.01	SYSTEMS Train control and signals Single Track	Element Total Signal System	1	LS RF	\$240	\$122,626 \$ 0	15%	\$153,283 \$153,283
	Train control and signals	Signal System Signal System	0 8,944	RF RF	<mark>\$240</mark> \$260	<mark>\$0</mark> \$2,325,440	<mark>15%</mark> 15%	\$
	Train control and signals Single Track	Signal System	0	RF		\$0		\$ \$2,674,25
50.01	Train control and signals Single Track	Signal System Signal System Element Total	0 8,944	RF RF		<mark>\$0</mark> \$2,325,440		\$ \$2,674,25
50.01	Train control and signals Single Track Double Track	Signal System Signal System Element Total	0 8,944	RF RF		<mark>\$0</mark> \$2,325,440		\$2,674,256 \$2,674,256 \$2,674,256
50.01	Train control and signals Single Track Double Track	Signal System Signal System Element Total	0 8,944 8,944	RF RF RF	\$260	\$0 \$2,325,440 \$2,325,440	15%	\$ \$2,674,250 \$2,674,250 \$2,674,250
50.01	Train control and signals Single Track Double Track	Signal System Signal System Element Total ng protection Traffic Signal	0 8,944 8,944 0	RF RF RF EA	\$260 \$150,000	\$0 \$2,325,440 \$2,325,440 \$2,325,440	15%	
50.01 50.02	Train control and signals Single Track Double Track	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total	0 8,944 8,944 0 4	RF RF RF EA EA	\$260 \$150,000	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000	15%	\$ \$2,674,250 \$2,674,250 \$1,150,000
50.01 50.02	Train control and signals Single Track Double Track Traffic signals and crossi	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total	0 8,944 8,944 0 4	RF RF RF EA EA	\$260 \$150,000	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000	15%	\$2,674,25 \$2,674,25 \$2,674,25 \$1,150,00 \$1,150,00
50.01 50.02	Train control and signals Single Track Double Track Traffic signals and crossi	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations	0 8,944 8,944 0 4 4	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000	15% 15% 15%	\$2,674,25 \$2,674,25 \$2,674,25 \$1,150,00 \$1,150,00 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total	0 8,944 8,944 0 4 4 2	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000	15% 15% 15%	\$2,674,25 \$2,674,25 \$2,674,25 \$1,150,00 \$1,150,00 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail	0 8,944 8,944 0 4 4 2	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000	15% 15% 15%	\$ \$2,674,25 \$2,674,25 \$ \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distributio	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total	0 8,944 8,944 0 4 4 2 2 2	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000	15% 15% 15% 15%	\$ \$2,674,250 \$2,674,250 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distributio Single Track	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard	0 8,944 8,944 0 4 4 2 2 2 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000	15% 15% 15% 15%	\$2,674,256 \$2,674,256 \$2,674,256 \$1,150,000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distributio Single Track	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard	0 8,944 8,944 0 4 2 2 2 2 2 0 8,944	RF RF EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000	15% 15% 15% 15%	\$ \$2,674,250 \$2,674,250 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossis Traction power supply: s Traction power distribution Single Track Double Track	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard	0 8,944 8,944 0 4 2 2 2 2 2 0 8,944	RF RF EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,325,440 \$0 \$2,325,440 \$0 \$2,325,440	15% 15% 15% 15%	\$ \$2,674,250 \$2,674,250 \$1,150,000 \$1,150,000 \$2,990,000 \$2,900,0000\$}
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossis Traction power supply: s Traction power distribution Single Track Double Track	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard Element Total	0 8,944 8,944 0 4 4 2 2 2 2 0 8,944 8,944	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,325,440 \$0 \$2,325,440 \$0 \$2,146,560 \$1,000,000	15% 15% 15% 15% 15%	\$2,674,25 \$2,674,25 \$1,150,00 \$1,150,00 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,000,000,000 \$2,000,000,000 \$2,000,000,000 \$2,000,000,000,000 \$2,000,000,000,000,000 \$2,000,000,000,000,000,000,000,000,000,0
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossis Traction power supply: s Traction power distribution Single Track Double Track	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard Element Total Communication, Line	0 8,944 8,944 0 4 4 2 2 2 2 2 0 8,944 8,944 8,944	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,325,440 \$0 \$2,325,440 \$0 \$2,325,440	15% 15% 15% 15% 15%	\$2,674,25 \$2,674,25 \$1,150,00 \$1,150,00 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,000,000,000 \$2,000,000,000 \$2,000,000,000 \$2,000,000,000,000 \$2,000,000,000,000,000 \$2,000,000,000,000,000,000,000,000,000,0
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossis Traction power supply: s Traction power distribution Single Track Double Track	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	0 8,944 8,944 0 4 4 2 2 2 2 2 2 0 8,944 8,944 8,944 2	RF RF EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,325,440 \$0 \$2,325,440 \$0 \$2,146,560 \$1,000,000	15% 15% 15% 15% 15%	\$2,674,25 \$2,674,25 \$2,674,25 \$ \$1,150,00 \$1,150,00 \$2,990,000 \$2,990,00 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,000,000,000 \$2,000,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000,000 \$2,000,000,000 \$2,000,000,000,000 \$2,000,000,000,000 \$2,000,000,000,000,000,000,000,000,000,0
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total dequipment Fare Collection - 1 Platform	0 8,944 8,944 0 4 4 2 2 2 2 2 2 0 8,944 8,944 8,944 2 1 2	RF RF EA EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,325,440 \$0 \$2,146,560 \$1,000,000 \$3,146,560 \$440,000	15% 15% 15% 15% 15% 15% 15%	\$2,674,25 \$2,674,25 \$2,674,25 \$ \$1,150,00 \$1,150,00 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000,000 \$2,900,000,000 \$2,900,000,000,000,000 \$2,900,000,000,000,000,000,000,000,000,00
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total dequipment Fare Collection - 1 Platform Fare Collection - 2 Platform	0 8,944 8,944 0 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 1 8,944 8,944 8,944 2 1 1 2 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,25,440 \$0 \$2,325,440 \$0 \$2,146,560 \$1,000,000 \$3,146,560 \$440,000 \$0	15% 15% 15% 15% 15% 15%	\$2,674,25 \$2,674,25 \$2,674,25 \$ \$1,150,00 \$1,150,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,674,25 \$ \$2,468,54 \$1,150,00 \$3,618,54 \$506,00 \$
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total dequipment Fare Collection - 1 Platform	0 8,944 8,944 0 4 4 2 2 2 2 2 2 0 8,944 8,944 8,944 2 1 2	RF RF EA EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,325,440 \$0 \$2,146,560 \$1,000,000 \$3,146,560 \$440,000	15% 15% 15% 15% 15% 15% 15%	\$ \$2,674,25 \$2,674,25 \$ \$1,150,00 \$1,150,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,990,00 \$2,674,25 \$ \$2,468,54 \$1,150,00 \$3,618,54 \$506,00 \$
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total dequipment Fare Collection - 1 Platform Fare Collection - 2 Platform	0 8,944 8,944 0 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 1 8,944 8,944 8,944 2 1 1 2 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,25,440 \$0 \$2,325,440 \$0 \$2,146,560 \$1,000,000 \$3,146,560 \$440,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$2,674,255 \$2,674,256 \$2,674,256 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,674,256 \$1,150,000 \$3,618,544 \$506,000 \$
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossid Traction power supply: s Traction power distribution Single Track Double Track Communications Fare collection system ar	Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total dequipment Fare Collection - 1 Platform Fare Collection - 2 Platform	0 8,944 8,944 0 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 1 8,944 8,944 8,944 2 1 1 2 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$0 \$2,325,440 \$2,325,440 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,25,440 \$0 \$2,325,440 \$0 \$2,146,560 \$1,000,000 \$3,146,560 \$440,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$ \$2,674,250 \$2,674,250 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000

Hillsborough County MPO Transit Study System Planning TR-Ybor City Nebraska Ave. to CSX N/S split TRANSIT MODE: LRT STATIONING CAT UNIT BASE ALLCTD TOTAL NO. BEGIN END DESCRIPTION QTY UNIT COST COST CONTGY COST 60 ROW, LAND, EXISTING IMPROVEMENTS 60.01 Purchase or lease of real estate Right of Way Allowance - At Grade \$3,577,600 \$5,366,400 8,944 RF \$400 50% Right of Way Allowance - Aerial 0 RF \$300 \$0 50% \$0 Right of Way Allowance - Underground RF \$250 50% \$0 0 \$0 Element Total \$5,366,400 8,944 RF \$3,577,600

		-	ounty MPO Trans stem Planning TR-North	sit Study				
RAN	SIT MODE: LRT	CSX N/S	split to Busch Bl	vd				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI	MENTS						
10.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	¢45 300 0
	Double Track	At Grade - Ballasted, Open Element Total	28,058 28,058	RF RF	\$450	\$12,626,100 \$12,626,100	25%	\$15,782,6 \$15,782,6
10.02	e Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
10.03	Guideway: At-grade in mixed		0	DE	# 500	¢.0.	05%	
	Single Track Double Track	At Grade - Embedded, In-Street At Grade - Embedded, In-Street	0	RF RF	\$560 \$680	\$0 \$0	25%	
	DOUDIE HACK	Element Total	0 0	RF	\$680	\$0 \$0	25%	
10.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	150	RF	\$6,000	\$900,000	30%	\$1,170,0
		Element Total	150	RF		\$900,000		\$1,170,0
10.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	
10.06	Guideway: Underground cut	& cover						
10.00	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF	,	\$0		
10.07	Guideway: Underground tuni							
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$20,000	\$0 \$0	35%	
			0	T N		ψυ		
10.08	Guideway: Retained cut or fil Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0 \$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF	+-,	\$0		
10.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	150	RF	\$810	\$121,500	15%	\$139,7
		Element Total	150	RF		\$121,500		\$139,7
10.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track Element Total	0	RF RF	\$980	\$0 \$0	15%	
			0	IN		φΟ		
10.11	Track: Ballasted Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	28,058	RF	\$480	\$13,467,840	15%	\$15,488,0
		Element Total	28,058	RF		\$13,467,840		\$15,488,0

		-	ity MPO Trans Planning -North	sit Study	/			
		CSX N/S spli	t to Busch Bl	vd				
CAT	T MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.12 T	Frack: Special (switches, tur	nouts) Special Trackwork (15% of Track Cost)	15%			\$2,038,401	15%	\$2.344.1
		Element Total	13 /8	LS		\$2,038,401	13 /0	\$2,344,1
			•	20		¢2,000,101		<i>Q2,01.1,1</i>
10.13 T	Frack: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$808,070	15%	\$929,2
		Cost)	1	10		¢000.070		¢000.0
		Element Total	1	LS		\$808,070		\$929,2
20 5	STATIONS, STOPS, TERMI							
	At-grade station, stop, shelte							
	· • ·	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	5	EA	\$3,000,000	\$15,000,000	20%	\$18,000,0
		Element Total	5	EA		\$15,000,000		\$18,000,0
20.02 4	Aerial station, stop, shelter, n	nall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03 L	Jnderground station, stop, sl	helter, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%	
20.04 C	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc. N/A Element Total	1	LS		\$0		
		Lienont rotar		20		ψυ		
20.05 J	loint development							
		N/A				* 0		
		Element Total	1	LS		\$0		
20.06 A	Automobile parking multi-stor			071	\$ 40,000	^	000/	
		Parking Garage Element Total	0	STL LS	\$12,000	\$0 \$0	20%	
				20		ţ.		
20.07 E	Elevators, escalators							
		Eleavator	0	EA	\$200,000	\$0 \$0	20%	
		Escalator Element Total	0	EA LS	\$450,000	\$0 \$0	20%	
		Liement Total	1	20		ψυ		
	SITEWORK & SPECIAL CO							
40.01 C	Demolition, Clearing, Earthwe		a		.	AA · · · - · ·	0.051	A · ·
		Demolition Allowance - Low Demolition Allowance - Median	28,058	RF	\$30 \$50	\$841,740 \$7,500	30%	\$1,094,2 \$0.7
		Demolition Allowance - Median Demolition Allowance - High	150 0	RF RF	\$50 \$90	\$7,500 \$0	30% 30%	\$9,7
		Element Total	28,208	RF	ψυυ	\$849,240	5070	\$1,104,0
0.02 5	Site Utilities, Utility Relocation				* · · · -	AC 222	6	A- · · · ·
		Utility Relocation Allowance - Low	28,058	RF	\$140 \$240	\$3,928,120	30%	\$5,106,5
		Utility Relocation Allowance - Median Utility Relocation Allowance - High	150 0	RF RF	\$340 \$570	\$51,000 \$0	30% 30%	\$66,3
		Element Total	28,208	RF	φυτυ	\$3,979,120	50 /0	\$5,172,8
0.00		oval/mitigation, ground water treatments						
10.03 H	haz. mat'i, contam'd soil rem		20 200	PE	¢00	¢567 160	200/	¢700 4
40.03 H	haz. mati, contam'o soli rem	Hazardous Material Removal Allowance Element Total	28,208	RF LS	\$20	\$564,160 \$564,160	30%	\$733,4 \$733,4

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

CAT	T MODE: LRT STATIONING		6 71/		UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10.04 E	nvironmental mitigation, e.	g. wetlands, historic/archeologic, parks	28,208	RF	\$50	\$1,410,400	30%	¢1 022 52
		Enviromental Mitigation Allowance Element Total	20,200	LS	\$ <u>5</u> 0	\$1,410,400	30%	\$1,833,52 \$1,833,52
		Liement Total	1	LO		ψ1,410,400		ψ1,000,02
40.05 S	Site structures including reta	ining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	2,806	RF	\$80	\$224,464	30%	\$291,80
		Element Total	1	LS		\$224,464		\$291,80
40.06 P	Pedestrian / bike access and	d accommodation, landscaping	20.050	DE	¢15	¢400.070	200/	¢E47.40
		Landscaping Allowance - Low Landscaping Allowance - Median	28,058 150	RF RF	\$15 \$25	\$420,870 \$3,750	30% 30%	\$547,13 \$4,87
		Landscaping Allowance - High	0	RF	\$23 \$40	\$3,730 \$0	30%	\$4,07 \$1
		Pedestrain Overpasses	0	EA	\$800,000	\$0 \$0	30%	\$(
		Artwork (1% of Guideway & Stations)	1%	273	4000,000	\$285,261	30%	\$370,839
		Element Total	1	LS		\$709,881	0070	\$922,845
40.07 A	Automobile, bus, van access	sways 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 T	Cemporary Facilities and oth	er indirect costs during construction						
		0						
		Temporary Facilities (5% of Category 40)	5.0%			\$446,863	25%	\$558,579
	SYSTEMS	Temporary Facilities (5% of Category 40) Element Total	<u>5.0%</u> 1	LS		\$446,863 \$446,863	25%	\$558,579 \$558,579
50.01 T	SYSTEMS Frain control and signals Single Track			LS	\$240		25%	\$558,579
50.01 T S	Frain control and signals	Element Total	1		<mark>\$240</mark> \$260	\$446,863		\$558,579 \$0 \$0
50.01 T <mark>S</mark>	Frain control and signals Single Track	Element Total	1	RF		\$446,863	15%	\$558,579 \$6 \$8,434,192
50.01 T <mark>S</mark> D	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 28,208	RF RF		\$446,863 \$0 \$7,334,080	15%	\$558,579 \$6 \$8,434,192
50.01 T <mark>S</mark> D	Frain control and signals Single Track	Element Total Signal System Signal System Element Total protection	0 28,208 28,208	RF RF RF	\$260	\$446,863 \$0 \$7,334,080 \$7,334,080	<mark>15%</mark> 15%	\$558,579 \$0 \$8,434,192 \$8,434,192
50.01 T <mark>S</mark> D	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 28,208	RF RF		\$446,863 \$0 \$7,334,080	15%	\$558,579 \$0 \$8,434,192 \$8,434,192 \$8,434,192
50.01 T <mark>S</mark> D	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total protection Traffic Signal	0 28,208 28,208 0	RF RF RF EA	\$260 \$150,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$0	15% 15% 15%	\$558,579 \$0 \$8,434,192 \$8,434,192
50.01 T S 50.02 T	Train control and signals Single Track Double Track Fraffic signals and crossing	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total	1 0 28,208 28,208 0 14	RF RF RF EA EA	\$260 \$150,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000	15% 15% 15%	\$558,579 \$6,434,192 \$8,434,192 \$8,434,192 \$8,434,025,000
50.01 T S 50.02 T	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations	1 0 28,208 28,208 0 14 14	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000	15% 15% 15% 15%	\$558,579 \$6,434,192 \$8,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000
50.01 T S 50.02 T	Train control and signals Single Track Double Track Fraffic signals and crossing	Element Total Signal System Signal System Element Total Protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation	1 0 28,208 28,208 0 14 14 14	RF RF EA EA EA EA	\$260 \$150,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000	15% 15% 15%	\$558,579 \$6 \$8,434,192 \$8,434,192 \$8,434,192 \$6 \$4,025,000 \$4,025,000 \$8,970,000
50.01 T S 50.02 T	Train control and signals Single Track Double Track Fraffic signals and crossing	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations	1 0 28,208 28,208 0 14 14	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000	15% 15% 15% 15%	\$558,579 \$6,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$8,970,000
50.01 T S 50.02 T 50.03 T	Train control and signals Single Track Double Track Fraffic signals and crossing	Element Total Signal System Signal System Element Total Protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total	1 0 28,208 28,208 0 14 14 14	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000	15% 15% 15% 15%	\$558,579 \$6,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$8,970,000
50.01 T S 50.02 T 50.03 T 50.04 T	Train control and signals Single Track Double Track Traffic signals and crossing p Traction power supply: subs	Element Total Signal System Signal System Element Total Protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total	1 0 28,208 28,208 0 14 14 14	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000	15% 15% 15% 15%	\$558,579 \$6,434,192 \$8,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$8,970,000 \$8,970,000
50.01 T S 50.02 T 50.03 T 50.04 T S	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Traction power distribution:	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail	0 28,208 28,208 0 14 14 14 6 6	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000	15% 15% 15% 15%	\$558,579 \$8,434,192 \$8,434,192 \$8,434,192 \$8,434,192 \$8,434,025,000 \$4,025,000 \$4,025,000 \$8,970,000 \$8,970,000
50.01 T S 50.02 T 50.03 T 50.04 T S	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Fraction power distribution: Single Track	Signal System Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard	0 28,208 28,208 0 14 14 14 6 6 6	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$558,579 \$0 \$8,434,192 \$8,434,192 \$8,434,192 \$0 \$4,025,000
50.01 T S 50.02 T 50.03 T 50.04 T S C	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Fraction power distribution: Single Track	Signal System Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard	0 28,208 28,208 0 14 14 14 6 6 6 6 0 28,208	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$558,579 \$8,434,192 \$8,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$4,025,000 \$4,025,000 \$4,025,000 \$4,025,000 \$4,025,000 \$4,025,000 \$4,025,000 \$4,025,000 \$8,970,000 \$8,970,000 \$8,970,000
50.01 T S 50.02 T 50.03 T 50.04 T S C	Train control and signals Single Track Double Track Traffic signals and crossing Fraction power supply: subs Fraction power distribution: Single Track Double Track	Signal System Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard	0 28,208 28,208 0 14 14 14 6 6 6 6 0 28,208	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$558,579 \$8,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$8,970,000 \$8,970,000 \$8,970,000
50.01 T S 50.02 T 50.03 T 50.04 T S C	Train control and signals Single Track Double Track Traffic signals and crossing Fraction power supply: subs Fraction power distribution: Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station	1 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$3,500,000 \$7,800,000 \$7,800,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$3,500,000 \$7,800,000 \$0,800 \$0,800,000 \$7,800,000 \$0,900 \$0,900 \$0,900,000 \$7,800,000 \$0,900,000,000 \$0,900,000,000 \$0,900,000,000,00000 \$0,900,000,000,000,000 \$0,900,000,000,0000 \$0,900,000,000,000,000,000,000,000,000000	15% 15% 15% 15% 15%	\$558,579 \$8,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$8,970,000 \$1,
50.01 T S 50.02 T 50.03 T 50.04 T S C	Train control and signals Single Track Double Track Traffic signals and crossing Fraction power supply: subs Fraction power distribution: Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line	1 0 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,334,080 \$0 \$7,334,080 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$00 \$2 \$0 \$000\$ \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$000\$ \$2 \$0 \$0 \$000\$ \$2 \$0 \$000\$ \$2 \$000\$ \$2 \$0 \$2 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15% 15% 15%	\$558,579 \$8,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$8,970,000
50.01 T S0.02 T 50.03 T 50.04 T S0.04 C S0.05 C	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Traction power distribution: Single Track Double Track Communications	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	1 0 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208 5	RF RF EA EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,334,080 \$0 \$6,769,920 \$2,500,000	15% 15% 15% 15% 15% 15%	\$558,579 \$8,434,192 \$8,434,192 \$8,434,192 \$4,025,000 \$4,025,000 \$8,970,000 \$1,
50.01 T 50.02 T 50.03 T 50.04 T 50.04 C	Train control and signals Single Track Double Track Traffic signals and crossing Fraction power supply: subs Fraction power distribution: Single Track Double Track	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	1 0 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208 5	RF RF EA EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$446,863 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$2,500,000 \$9,269,920	15% 15% 15% 15% 15% 15% 15% 15% 15% 15% 15%	\$558,579 \$8,434,199 \$8,434,199 \$8,434,199 \$8,434,199 \$4,025,000 \$4,025,000 \$4,025,000 \$8,970,000 \$1,025,000 \$1,000\$\$1,
50.01 T 50.02 T 50.03 T 50.04 T 50.04 C	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Traction power distribution: Single Track Double Track Communications	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	1 0 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208 28,208 5 1	RF RF EA EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,334,080 \$0 \$6,769,920 \$2,500,000	15% 15% 15% 15% 15% 15%	\$558,579 \$8,434,199 \$8,434,199 \$8,434,199 \$4,025,000 \$4,025,000 \$8,970,000 \$1,
50.01 T 50.02 T 50.03 T 50.04 T 50.04 C	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Traction power distribution: Single Track Double Track Communications	Signal System Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total equipment Fare Collection - 1 Platform	1 0 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208 28,208 5 1 5	RF RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,334,080 \$0 \$6,769,920 \$2,500,000 \$9,269,920 \$1,100,000	15% 15% 15% 15% 15% 15% 15% 15%	\$558,579 \$8,434,199 \$8,434,199 \$8,434,199 \$8,434,199 \$4,025,000 \$4,025,000 \$8,970,000 \$1,265,000\$}
50.01 T 50.02 T 50.03 T 50.04 T 50.05 C 50.05 F	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Fraction power distribution: Single Track Double Track Communications Fare collection system and e	Signal System Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total equipment Fare Collection - 1 Platform Fare Collection - 2 Platform	1 28,208 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208 5 1 5 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,334,080 \$0 \$6,769,920 \$2,500,000 \$9,269,920 \$1,100,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$558,579 \$8,434,199 \$8,434,199 \$8,434,199 \$8,434,199 \$4,025,000 \$4,025,000 \$8,970,000 \$1,265,000\$}
50.01 T 50.02 T 50.03 T 50.04 T 50.05 C 50.05 F	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Traction power distribution: Single Track Double Track Communications	Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total sequipment Fare Collection - 1 Platform Fare Collection - 2 Platform Element Total	1 28,208 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208 5 1 5 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,334,080 \$0 \$6,769,920 \$2,500,000 \$9,269,920 \$1,100,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$558,57 \$8,434,19 \$8,434,19 \$8,434,19 \$4,025,00 \$4,025,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$1,265,00 \$1,265,00 \$1,265,00
50.01 T 50.02 T 50.03 T 50.04 T 50.05 C 50.06 F	Train control and signals Single Track Double Track Traffic signals and crossing (Traction power supply: subs Fraction power distribution: Single Track Double Track Communications Fare collection system and e	Signal System Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations Traction Power, Substation Element Total stations Traction Power, Substation Element Total catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total equipment Fare Collection - 1 Platform Fare Collection - 2 Platform	1 28,208 28,208 28,208 0 14 14 14 6 6 6 0 28,208 28,208 28,208 5 1 5 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$446,863 \$0 \$7,334,080 \$7,334,080 \$7,334,080 \$3,500,000 \$3,500,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,334,080 \$0 \$6,769,920 \$2,500,000 \$9,269,920 \$1,100,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$558,579 \$8,434,199 \$8,434,199 \$8,434,199 \$8,434,199 \$4,025,000 \$4,025,000 \$8,970,000 \$1,265,000 \$1,265,000

Hillsborough County MPO Transit Study System Planning TR-North CSX N/S split to Busch Blvd TRANSIT MODE: LRT STATIONING CAT UNIT BASE ALLCTD TOTAL NO. END DESCRIPTION QTY UNIT COST COST CONTGY COST BEGIN 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 50% \$0 \$0 Element Total 28,208 RF \$11,268,200 \$16,902,300

		Sys	ounty MPO Trans stem Planning TR-North	-				
RAN	SIT MODE: LRT	Busch Blvd.	to 30th St./ Fowle	er Ave.				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI	MENTS						
10.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	1 0,000,1
	Double Track	At Grade - Ballasted, Open Element Total	16,011 16,011	RF RF	\$450	\$7,204,950 \$7,204,950	25%	\$9,006,1 \$9,006,1
10.02	e Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
10.03	Guideway: At-grade in mixed			25	A 500	A A	0.5%	
	Single Track	At Grade - Embedded, In-Street At Grade - Embedded, In-Street	0	RF	\$560 \$690	\$0 \$0	25%	
	Double Track	At Grade - Embedded, In-Street Element Total	0 0	RF RF	\$680	\$0 \$0	25%	
0.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF		\$0		
0.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	
10.06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
0.07	Guideway: Underground tuni							
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$20,000	\$0 \$0	35%	
			0			ψŪ		
0.08	Guideway: Retained cut or fil Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0 \$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0 \$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF		\$0		
0.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF		\$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track Element Total	0	RF RF	\$980	\$0 \$0	15%	
o 4 ·	Teache Dall is i		0			40		
U.11	Track: Ballasted Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	16,011	RF	\$480	\$7,685,280	15%	\$8,838,0
		Element Total	16,011	RF		\$7,685,280		\$8,838,0

		-	ty MPO Trans Planning North	sit Study	y			
DANG	IT MODE: LRT	Busch Blvd. to 3	0th St./ Fowle	er Ave.				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0 12 1	Track: Special (switches, tur	noute)						
0.12 1	Track. Special (Switches, tui	Special Trackwork (15% of Track Cost)	15%			\$1,152,792	15%	\$1,325,7
		Element Total	1	LS		\$1,152,792		\$1,325,7
10.13 1	Track: Vibration and noise d							
		Vibration Allowance (6% of Ballasted Track Cost)	6%			\$461,117	15%	\$530,2
		Element Total	1	LS		\$461,117		\$530,2
				20		Q 10 1,1 1		\$000, <u></u>
20 6								
	STATIONS, STOPS, TERMI At-grade station, stop, shelte							
20.017	a grado otation, otop, onotio	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	:
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,00
		Element Total	2	EA		\$6,000,000		\$7,200,00
20.02./	Aerial station, stop, shelter, r	all terminal platform						
20.02 F	ional station, stop, sheller, f	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03.1	Indorground station stop of	nelter, mall, terminal, platform						
20.03 (Sinderground station, stop, si	Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0 \$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	
		Element Total	0	EA		\$0		:
20.04 0	Other stations, landings, torn	single: Intermedial formy trailing ato						
20.04 (Julier stations, landings, tern	inals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		ļ
20.05 J	Joint development							
		N/A	4	1.0		* 0		Ş
		Element Total	1	LS		\$0		;
20.06 A	Automobile parking multi-sto	y structure						
		Parking Garage	0	STL	\$12,000	\$0	20%	:
		Element Total	1	LS		\$0		
20 07 F	Elevators, escalators							
20.07 L		Eleavator	0	EA	\$200,000	\$0	20%	:
		Escalator	0	EA	\$450,000	\$0	20%	:
		Element Total	1	LS		\$0		ç
40 0								
	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw							
40.01 L	Demonition, Cleaning, Lantinw	Demolition Allowance - Low	16,011	RF	\$30	\$480,330	30%	\$624,42
		Demolition Allowance - Median	0	RF	\$50	\$0	30%	¢02.,.
		Demolition Allowance - High	0	RF	\$90	\$0	30%	:
		Element Total	16,011	RF		\$480,330		\$624,42
40.00	Site Utilities, Utility Relocatio	n Utility Relocation Allowance - Low	16,011	RF	\$140	\$2,241,540	30%	\$2,914,0
40.02 \$		-	0	RF	\$340	\$2,241,340 \$0	30%	φ2,914,00
40.02 \$		Utility Relocation Allowance - Median	2		\$570	\$0 \$0	30%	
40.02 S		Utility Relocation Allowance - Median Utility Relocation Allowance - High	0	RF	\$J70	φυ		
40.02 S		-	0 16,011	RF	\$J70	\$2,241,540		
		Utility Relocation Allowance - High Element Total			<i>4310</i>			
	Haz. mat'l, contam'd soil rem	Utility Relocation Allowance - High Element Total oval/mitigation, ground water treatments	16,011	RF		\$2,241,540		\$2,914,00
	Haz. mat'l, contam'd soil rem	Utility Relocation Allowance - High Element Total			\$20		30%	

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

CAT NO.			οτν	UNIT	UNIT COST	BASE	ALLCTD	TOTAL COST
-	BEGIN ENI	D DESCRIPTION , e.g. wetlands, historic/archeologic, parks	QTY	UNIT	0001	COST	CONTGY	COST
0.01	Environmental magadon	Enviromental Mitigation Allowance	16,011	RF	\$50	\$800,550	30%	\$1,040,7 ²
		Element Total	1	LS		\$800,550		\$1,040,71
10.05	Site structures including	retaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	1 001	DE	¢oo	£400.000	30%	¢466 5
		Element Total	1,601	RF LS	\$80	\$128,088 \$128,088	30%	\$166,5 ⁻ \$166,5 ⁻
						. ,		. ,.
10.06	Pedestrian / bike access	and accommodation, landscaping						
		Landscaping Allowance - Low	16,011	RF	\$15	\$240,165	30%	\$312,2
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	
		Landscaping Allowance - High	0	RF EA	\$40 \$800,000	\$0 \$0	30% 30%	5
		Pedestrain Overpasses Artwork (1% of Guideway & Stations)	1%	EA	\$800,000	ہ ں \$132,050	30%	\$171,66
		Element Total	1	LS		\$372,215	0070	\$483,87
ł0.07	Automobile, bus, van acc	essways including roads, parking lots						
		Roadway Modifications Allow Full Intersection	0	EA	\$50,000	\$0	30%	9
		Roadway Modifications Allow AC Paving	0	EA	\$50,000	4 0	30%	
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	9
		Parking Lots	600	STL	\$4,000	\$2,400,000	30%	\$3,120,00
		Element Total	1	LS		\$2,400,000		\$3,120,00
10.08	I emporary Facilities and	other indirect costs during construction						
		•	E 00/			¢007447	050/	#404 4
50	SYSTEMS	Temporary Facilities (5% of Category 40) Element Total	<u>5.0%</u> 1	LS		\$337,147 \$337,147	25%	\$421,43 \$421,43
50	SYSTEMS Train control and signals	Temporary Facilities (5% of Category 40) Element Total	1		\$240	\$337,147		\$421,43
50	SYSTEMS Train control and signals Single Track	Temporary Facilities (5% of Category 40) Element Total Signal System	1	RF	\$240 \$260	\$337,147	15%	\$421,43
50	SYSTEMS Train control and signals	Temporary Facilities (5% of Category 40) Element Total	1		<mark>\$240</mark> \$260	\$337,147		\$421,43 \$421,43 \$4,787,28
50 50.01	SYSTEMS Train control and signals Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total	1 0 16,011	RF RF		\$337,147 \$0 \$4,162,860	15%	\$421,43 \$421,43 \$4,787,28
50 50.01	SYSTEMS Train control and signals Single Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total	0 16,011 16,011	RF RF RF	\$260	\$337,147 \$0 \$4,162,860 \$4,162,860	<mark>15%</mark> 15%	\$421,43 \$421,43 \$4,787,28 \$4,787,28
50 50.01	SYSTEMS Train control and signals Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal	0 <u>16,011</u> 16,011 0	RF RF RF EA	\$260 \$150,000	\$337,147 \$0 \$4,162,860 \$4,162,860 \$0	15% 15% 15%	\$421,43 \$421,43 \$4,787,28 \$4,787,28 \$4,787,28
50 50.01	SYSTEMS Train control and signals Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total	0 16,011 16,011	RF RF RF	\$260	\$337,147 \$0 \$4,162,860 \$4,162,860	<mark>15%</mark> 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00
50 50.01	SYSTEMS Train control and signals Single Track Double Track	Signal System Signal System Signal System Element Total Image: Signal System Element Total Image: Signal System Construction Traffic Signal Crossing Protection	1 0 16,011 16,011 0 8	RF RF RF EA EA	\$260 \$150,000	\$337,147 \$0 \$4,162,860 \$4,162,860 \$4,162,860 \$0 \$2,000,000	15% 15% 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00
50 50.01	SYSTEMS Train control and signals Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total	1 0 16,011 16,011 0 8	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$337,147 \$0 \$4,162,860 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000	15% 15% 15% 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00
50 50.01	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi	Signal System Signal System Signal System Element Total Image: Signal System Element Total Image: Signal System Crossing Protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation	1 0 16,011 16,011 0 8	RF RF EA EA EA EA	\$260 \$150,000	\$337,147 \$0 \$4,162,860 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000	15% 15% 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,000
50 50.01	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total	1 0 16,011 16,011 0 8	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$337,147 \$0 \$4,162,860 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000	15% 15% 15% 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,000
50 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total	1 0 16,011 16,011 0 8	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$337,147 \$0 \$4,162,860 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000	15% 15% 15% 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,000
50 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s	Signal System Signal System Signal System Element Total Image: Signal System Image: Signal System	1 0 16,011 16,011 0 8	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000	\$337,147 \$0 \$4,162,860 \$4,162,860 \$4,162,860 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000	15% 15% 15% 15%	\$421,43 \$4,787,22 \$4,787,22 \$4,787,22 \$4,787,22 \$2,300,00 \$2,300,00 \$5,980,00 \$5,980,00
50 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total Internet Total	1 0 16,011 16,011 0 8 8 8 4 4 4 4 0 16,011	RF RF EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000	15% 15% 15% 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00
50 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distributic Single Track	Signal System Signal System Signal System Element Total Image: Signal System Image: Signal System	1 0 16,011 16,011 0 8 8 8 4 4 4 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$337,147 \$0 \$4,162,860 \$4,162,860 \$4,162,860 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000	15% 15% 15% 15% 15%	\$421,43 \$4,787,22 \$4,787,22 \$4,787,22 \$4,787,22 \$ \$2,300,00 \$2,300,00 \$5,980,00 \$5,980,00 \$5,980,00
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distributic Single Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total Internet Total	1 0 16,011 16,011 0 8 8 8 4 4 4 4 0 16,011	RF RF EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000	15% 15% 15% 15% 15%	\$421,43 \$4,787,26 \$4,787,26 \$4,787,26 \$2,300,00 \$2,300,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total Internet Total	1 0 16,011 16,011 0 8 8 8 4 4 4 4 0 16,011	RF RF EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000	15% 15% 15% 15% 15%	\$421,43 \$4,787,26 \$4,787,26 \$4,787,26 \$2,300,00 \$2,300,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total un: catenary and third rail OCS System - Standard OCS System - Standard Cost System - Standard Communication, Line Communication, Station	1 0 16,011 16,011 0 8 8 4 4 4 0 16,011 16,011 16,011 2	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$3,842,640 \$1,000,000	15% 15% 15% 15% 15%	\$421,43 \$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,000\$\$5,980,0
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total un: catenary and third rail OCS System - Standard OCS System - Standard Communication, Line	1 0 16,011 16,011 0 8 8 4 4 4 0 16,011 16,011 16,011	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$337,147 \$337,147 \$0 \$4,162,860 \$4,162,860 \$2,000,000 \$2,000,000 \$5,200,0000 \$5,200,0000 \$5,200,0000 \$5,200,00000 \$5,200,00000 \$5,200,000000000000000000000000000000000	15% 15% 15% 15% 15% 15%	\$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,000 \$5,980,0000\$5,980,0000\$5,980,000\$5,980,0000\$5,980,000\$5,900,000\$5,900,000\$5,900,000\$5,900,000\$5,900,000\$5,900,000\$5,900,000\$5,900,000\$5,900,000\$5,900,000\$5
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total un: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	1 0 16,011 16,011 0 8 8 4 4 4 0 16,011 16,011 16,011 2	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$3,842,640 \$1,000,000	15% 15% 15% 15% 15% 15%	\$421,43 \$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,000\$\$5,980,000\$\$5,900,000\$\$5,900\$\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$\$5,900\$
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total un: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	1 0 16,011 16,011 0 8 8 4 4 4 4 0 16,011 16,011 16,011 2 1	RF RF EA EA EA EA EA EA EA EA RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$4,162,860 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$3,842,640 \$1,000,000 \$4,842,640	15% 15% 15% 15% 15% 15% 15%	\$421,43 \$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$5,980,000\$\$5,980,000\$\$5,980,000\$\$5,980,000\$\$5,980,000\$\$5,550,000\$\$
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total un: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total	1 0 16,011 16,011 0 8 8 4 4 4 0 16,011 16,011 16,011 2	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$3,842,640 \$1,000,000	15% 15% 15% 15% 15% 15%	\$421,43 \$421,43 \$4,787,26 \$4,787,26 \$4,787,26 \$2,300,00 \$5,980,000\$\$5,980,000\$\$5,980,000\$\$5,980,000\$\$5,980,000\$\$5,980,000\$\$5,560,000\$\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$\$5,560,000\$\$5,560,000\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$5,560,000\$\$\$
50 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total Ing protection Traffic Signal Crossing Protection Element Total ubstation Traction Power, Substation Traction Power, Substation Traction Power, Substation Element Total OCS System - Standard OCS System - Standard OCS System - Standard OCS System - Standard Communication, Line Communication, Station Element Total Memory Total Memory Total	1 0 16,011 16,011 0 8 8 4 4 4 4 0 16,011 16,011 16,011 2 1 2	RF RF EA EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$3,842,640 \$1,000,000 \$4,842,640 \$440,000	15% 15% 15% 15% 15% 15% 15% 15%	\$421,43 \$421,43 \$4,787,28 \$4,787,28 \$4,787,28 \$2,300,00 \$2,300,00 \$5,980,000\$\$5,980,000\$\$5,900,000\$\$5,900\$\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$5,900\$\$\$5,900\$
50 50.01 50.02 50.03 50.04 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications Fare collection system an	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total Ing protection Traffic Signal Crossing Protection Traffic Signal Crossing Protection Element Total ubstation Traction Power, Substation Traction Power, Substation Traction Power, Substation OCS System - Standard Communication, Line Communication, Station Element Total Memory Total Memory Total Total Description - 1 Platform Fare Collection - 1 Platform	1 0 16,011 16,011 0 8 8 4 4 4 4 0 16,011 16,011 16,011 2 1 2 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$4,162,860 \$0 \$4,162,860 \$0 \$4,162,860 \$0 \$4,162,860 \$0 \$2,000,000 \$5,200,000 \$4,162,860 \$0 \$4,162,860 \$0 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$0 \$4,162,860 \$0 \$0 \$0 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$0 \$4,162,860 \$0 \$0 \$5,200,000 \$0 \$0 \$0 \$0 \$1,162,860 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15% 15% 15% 15% 15%	\$421,43 \$4,787,24 \$4,787,24 \$4,787,24 \$2,300,00 \$2,300,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,980,00 \$5,569,00 \$5,569,00 \$5,569,00
50 50.01 50.02 50.03 50.04 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total Ing protection Traffic Signal Crossing Protection Traffic Signal Crossing Protection Element Total ubstation Traction Power, Substation Traction Power, Substation Traction Power, Substation OCS System - Standard Communication, Line Communication, Station Element Total Memory Total Memory Total Total Description - 1 Platform Fare Collection - 1 Platform	1 0 16,011 16,011 0 8 8 4 4 4 4 0 16,011 16,011 16,011 2 1 2 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$337,147 \$337,147 \$4,162,860 \$4,162,860 \$0 \$2,000,000 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$4,162,860 \$0 \$4,162,860 \$0 \$4,162,860 \$0 \$4,162,860 \$0 \$2,000,000 \$5,200,000 \$4,162,860 \$0 \$4,162,860 \$0 \$2,000,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$0 \$4,162,860 \$0 \$0 \$0 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$5,200,000 \$0 \$4,162,860 \$0 \$0 \$5,200,000 \$0 \$0 \$0 \$0 \$1,162,860 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15% 15% 15% 15% 15%	\$421,4: \$4,787,21 \$4,787,21 \$4,787,21 \$2,300,00 \$2,300,00 \$5,980,00 \$5,960,00 \$5,960,00 \$5,960,00 \$5,960,00 \$5,960,00 \$5,960,000\$\$5,900\$\$5,900,000\$\$

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

CAT	STATIO	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60 F	ROW, LAND, EXI	STING IM	PROVEMENTS						
60.01 F	ourchase or lease	of real est	tate						
			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

		Sys T	ounty MPO Trans stem Planning R-University	-				
RAN	SIT MODE: LRT	30th St./ Fow	vler Ave. to Bears	s Ave.				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI							
10.01	Guideway: At-grade exclusiv		_					
	Single Track	At Grade - Ballasted, Open	0		\$350	\$0	25%	e e e e e e e e e e e e e e e e e e e
	Double Track	At Grade - Ballasted, Open Element Total	0 0	RF RF	\$450	\$0 \$0	25%	
10.02	2 Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	10,135	RF	\$700	\$7,094,500	25%	\$8,868,1
		Element Total	10,135	RF		\$7,094,500		\$8,868,1
10.03	Guideway: At-grade in mixed			55	#5 00		0.5%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560 \$680	\$0 \$0	25%	
	Double Track	At Grade - Embedded, In-Street Element Total	0 0	RF RF	\$680	\$0 \$0	25%	
0.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF	. ,	\$0		
0.05	6 Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	
0.06	Guideway: Underground cut	& cover						
0.00	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF	. ,	\$0		
0.07	Guideway: Underground tuni	nel						
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	
		Element Total	0	RF		\$0		
0.08	Guideway: Retained cut or fil			~-	Aa aaa	Aa	0.004	
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track Double Track	Retained Cut - Direct Fixation Retained Fill - Ballasted	0	RF	\$8,000 \$2,200	\$0 \$0	30%	
	Double Track	Element Total	0 0	RF RF	\$3,200	\$0 \$0	30%	
0.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF		\$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track	10,135	RF	\$980	\$9,932,300	15%	\$11,422,1 \$11,422,1
		Element Total	10,135	RF		\$9,932,300		\$11,422,1
0.11	Track: Ballasted Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	0	RF	\$480	\$0	15%	

		TR-Ui	Planning	-	/			
RAN	SIT MODE: LRT	30th St./ Fowler /	Ave. to Bears	s Ave.				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0 12	Track: Special (switches, tur	mouts)						
10.12		Special Trackwork (15% of Track Cost)	15%			\$1,489,845	15%	\$1,713,3
		Element Total	1	LS		\$1,489,845		\$1,713,3
10.13	Track: Vibration and noise d					A A	4.50/	
		Vibration Allowance (6% of Ballasted Track	6%			\$0	15%	
		Cost) Element Total	1	LS		\$0		
		Liement rotar		LO		ψυ		
20	STATIONS, STOPS, TERMI							
	At-grade station, stop, shelte							
	5 · · · · · · · · · · · · · · · · · · ·	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,0
		Element Total	4	EA		\$12,000,000		\$14,400,0
20 02	Aerial station, stop, shelter, r	nall terminal platform						
20.02	Aenai Station, Stop, Sheiter, I	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	ů 0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
0 03	Underground station, stop, sl	helter mall terminal platform						
-0.00		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	
		Element Total	0	EA		\$0		
20.04	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc.						
		N/A						
		Element Total				\$0		
			1	LS				
20.05	loint development		1	15				
20.05	Joint development		1	LS				
20.05	Joint development	N/A Element Total	1	LS		\$0		
		N/A Element Total						
	Joint development Automobile parking multi-sto	N/A Element Total	1	LS	\$12 000	\$0	20%	
		N/A Element Total			\$12,000		20%	
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%	
20.06		N/A Element Total ry structure Parking Garage Element Total	1 0 1	LS STL LS		\$0 \$0 \$0 \$0		
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage Element Total Eleavator	1 0 1	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	:
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator	1 0 1	LS STL LS EA EA		\$0 \$0 \$0 \$0 \$0 \$0 \$0		
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage Element Total Eleavator	1 0 1 0 0 0	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	
20.06 20.07 40	Automobile parking multi-stor Elevators, escalators	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork	1 0 1 0 0 1	LS STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20%	
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low	1 0 1 0 0 1 1	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 1 0 0 10,135	LS STL LS EA EA EA S RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$658,7
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	1 0 1 0 0 1 0 10,135 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30%	\$658,7
20.06 20.07 40	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 1 0 0 10,135	LS STL LS EA EA EA S RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$658,7
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n	1 0 1 0 0 1 0 10,135 0	LS STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$506,750 \$506,750	20% 20% 30% 30% 30%	\$658,7
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low	1 0 1 0 0 10,135 0 10,135	LS STL LS EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$506,750 \$506,750 \$0	20% 20% 30% 30% 30%	\$658,7 \$658,7
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 1 0 0 10,135 0 10,135	LS STL LS EA EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$506,750 \$0 \$506,750 \$0 \$3,445,900	20% 20% 30% 30% 30% 30%	\$658,7 \$658,7 \$4,479,6
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Itility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High	1 0 1 0 0 10,135 0 10,135 0 10,135 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$506,750 \$0 \$506,750 \$0 \$506,750 \$0 \$3,445,900 \$0	20% 20% 30% 30% 30%	\$658,7 \$658,7 \$4,479,6
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 1 0 0 10,135 0 10,135	LS STL LS EA EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$506,750 \$0 \$506,750 \$0 \$3,445,900	20% 20% 30% 30% 30% 30%	\$658,7 \$658,7 \$4,479,6
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Itility Relocation Allowance - Median Utility Relocation Allowance - Median	1 0 1 0 0 10,135 0 10,135 0 10,135 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$506,750 \$0 \$506,750 \$0 \$506,750 \$0 \$3,445,900 \$0	20% 20% 30% 30% 30% 30%	\$658,7 \$658,7 \$4,479,6
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	1 0 1 0 0 10,135 0 10,135 0 10,135 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$506,750 \$0 \$506,750 \$0 \$506,750 \$0 \$3,445,900 \$0	20% 20% 30% 30% 30% 30%	\$658,7

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

			Iniversity					
		30th St./ Fowler	Ave. to Bears	s Ave.				
CAT	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.04	Environmental mitigation, e	e.g. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	10,135	RF	\$50	\$506,750	30%	\$658,775
		Element Total	1	LS		\$506,750		\$658,775
40.05	Site structures including re	staining walls, sound walls						
40.00	One structures including re	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 a	nd accommodation, landscaping	0		¢4 F	¢o	2001	¢o
		Landscaping Allowance - Low Landscaping Allowance - Median	0 10,135	RF RF	\$15 \$25	\$0 \$253,375	30% 30%	\$0 \$329,388
		Landscaping Allowance - High	10,135	RF	\$25 \$40	\$200,370 \$0	30%	\$329,388 \$0
		Pedestrain Overpasses	0	EA	\$800,000	\$0 \$0	30%	\$0 \$0
		Artwork (1% of Guideway & Stations)	1%	LA	4000,000	\$190,945	30%	\$248,229
		Element Total	1	LS		\$444,320		\$577,616
40.07	Automobile bus van assa	ssways including roads, parking lots						
40.07	Automobile, bus, van acce	Roadway Modifications Allow Full						
		Intersection	10	EA	\$50,000	\$500,000	30%	\$650,000
		Roadway Modifications Allow AC Paving	10	273	400,000	<i>\\</i> 000,000	0070	\$000,000
		(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 o	ther 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
	SYSTEMS Train control and signals							
	Single Track	Signal System	0	RF	\$240	\$0	15%	\$0
	Double Track	Signal System Element Total	10,135 10,135	RF RF	\$260	\$2,635,100	15%	\$3,030,365
		Element Total	10,135	ĸŗ		\$2,635,100		\$3,030,365
50.02	Traffic signals and crossing	a protection						
00.02	indino olgitalo and orocom,	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: su		_					
		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	10,135	RF	\$260	\$2,635,100	15%	\$3,030,365
		Element Total	10,135	RF		\$0		\$0
	a							
50.05	Communications	Communication Line	10 405	DE	¢040	¢0 400 400	1 = 0/	¢0 707 000
		Communication, Line Communication, Station	10,135	RF	\$240 \$500,000	\$2,432,400 \$2,000,000	15% 15%	\$2,797,260 \$2,300,000
		Element Total	4	EA LS	\$500,000	\$4,432,400	15%	\$5,097,260
		Elonion rota		_0		÷1,102,400		<i>40,001,200</i>
50.06	Fare collection system and	d 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		10		ሱሳ		<u>^</u>
I		Element Total	1	LS		\$0		\$0

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

CAT	STATIC	DNING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
~~~									
	ROW, LAND, EX								
60.01	Purchase or lease	e of real est							
			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

		Sys TR-1	county MPO Trans stem Planning Femple Terrace 0th St (to be delet					
	SIT MODE: LRT							
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT		BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI	MENTS						
0.01	Guideway: At-grade exclusiv	e right-of-way						
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	
	Double Track	At Grade - Ballasted, Open	10,805	RF	\$450	\$4,862,250	25%	\$6,077,8
		Element Total	10,805	RF		\$4,862,250		\$6,077,8
10.02	2 Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
10.03	Guideway: At-grade in mixed	I traffic						
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	
		Element Total	0	RF		\$0		
10.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF RF	\$6,000	\$0 \$0	30%	
		Element Total	0	RF		\$0		
10.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	
		Element Total	0	RF		\$0		
10.06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
10.07								
10.07	' Guideway: Underground tunr Single Track		0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0 \$0	35%	
		Element Total	0	RF	\$20,000	\$0	0070	
10.08	Guideway: Retained cut or fil							
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track Double Track	Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0	RF RF	\$8,000 \$3,200	\$0 \$0	30% 30%	
	Double Hack	Element Total	0	RF	\$3,200	\$0	30%	
10.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF		\$0		
10.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track	0	RF	\$980	\$0	15%	
		Element Total	0	RF		\$0		
10.11	Track: Ballasted Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	10,805	RF	\$480	\$5,186,400	15%	\$5,964,3

			Planning ble Terrace	-	/			
RANSI	T MODE: LRT	East of 30th 5	t (to be delet	ea)				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10.12 T	rack: Special (switches, tur	,						
		Special Trackwork (15% of Track Cost)	15%			\$777,960	15%	\$894,65
		Element Total	1	LS		\$777,960		\$894,65
10 13 T	rack: Vibration and noise d	lampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$311,184	15%	\$357,86
		Cost)						
		Element Total	1	LS		\$311,184		\$357,86
20 S	STATIONS, STOPS, TERMI	NALS. INTERMODAL						
	At-grade station, stop, shelte	-						
	• •	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	:
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	:
		Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,0
		Element Total	2	EA		\$6,000,000		\$7,200,0
20.02 ^	verial station, stop, shelter, r	mall terminal platform						
LU.UZ A	ושוושו אומוטוו, אוטף, אופונפו, ו	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03 U	Inderground station, stop, s	helter, mall, terminal, platform						
	<b>0</b> <i>i i i</i>	Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	
		Element Total	0	EA		\$0		:
20.04 O	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc.						
		N/A Element Total	1	LS		\$0		
		Lionont rotal	•	20		ψŪ		
20.05 Jo	oint development							
20.05 Jo	oint development	N/A						
20.05 Jo	oint development	N/A Element Total	1	LS		\$0		
	oint development	Element Total	1	LS		\$0		
		Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
		Element Total			\$12,000		20%	:
20.06 A	Nutomobile parking multi-sto	Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
20.06 A		Element Total ry structure Parking Garage Element Total	<u>0</u> 1	STL LS		\$0 \$0		
20.06 A	Nutomobile parking multi-sto	Element Total ry structure Parking Garage	0	STL	\$12,000 \$200,000 \$450,000	\$0	20% 20% 20%	: : :
20.06 A	Nutomobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator	<u>0</u> 1	STL LS EA	\$200,000	\$0 \$0 \$0	20%	2 2 2 2 2 2 2 2
20.06 A 20.07 E	Nutomobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	:
20.06 A 20.07 E <b>40 S</b>	utomobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	:
20.06 A 20.07 E <b>40 S</b>	Lutomobile parking multi-sto Elevators, escalators	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low	0 1 0 0	STL LS EA EA LS RF	\$200,000	\$0 \$0 \$0 \$0 \$0	20% 20% 30%	
20.06 A 20.07 E <b>40 S</b>	Lutomobile parking multi-sto Elevators, escalators	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 1 10,805 0	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$324,150 \$0	20% 20% 30% 30%	\$421,3
20.06 A 20.07 E <b>40 S</b>	Lutomobile parking multi-sto Elevators, escalators	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	0 1 0 0 1 1 10,805 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$0 \$0	20% 20% 30%	\$421,3
20.06 A 20.07 E <b>40 S</b>	Lutomobile parking multi-sto Elevators, escalators	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 1 10,805 0	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$324,150 \$0	20% 20% 30% 30%	\$421,3
20.06 A 20.07 E <b>40 S</b> 40.01 D	utomobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Parking Garage Element Total Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 1 10,805 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$0 \$0	20% 20% 30% 30%	\$421,3
20.06 A 20.07 E <b>40 S</b> 40.01 D	Lutomobile parking multi-sto Elevators, escalators	Element Total Parking Garage Element Total Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 1 10,805 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$0 \$0	20% 20% 30% 30%	\$421,3
20.06 A 20.07 E <b>40 S</b> 40.01 D	utomobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 1 10,805 0 0 10,805	STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$324,150	20% 20% 30% 30% 30%	\$421,3 \$421,3 \$421,3
20.06 A 20.07 E <b>40 S</b> 40.01 D	utomobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total  Utility Relocation Allowance - Low	0 1 0 0 1 1 10,805 0 0 10,805	STL LS EA EA LS LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$324,150 \$324,150 \$1,512,700	20% 20% 30% 30% 30%	\$421,3 \$421,3 \$421,3 \$1,966,5
20.06 A 20.07 E <b>40 S</b> 40.01 D	utomobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         un         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	0 1 0 0 1 1 10,805 0 0 10,805 10,805 0	STL LS EA EA LS LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$324,150 \$324,150 \$324,150 \$324,150 \$324,150 \$324,150 \$324,150 \$324,150 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$421,3 \$421,3 \$421,3 \$1,966,5
20.06 A 20.07 E <b>40 S</b> 40.01 D	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         In         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	0 1 0 0 1 1 10,805 0 0 10,805 10,805 0 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$0 \$324,150 \$0 \$324,150 \$0 \$0 \$324,150 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$421,3 \$421,3 \$421,3 \$1,966,5
20.06 A 20.07 E <b>40 S</b> 40.01 D	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         York         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         In         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median	0 1 0 0 1 1 10,805 0 0 10,805 10,805 0 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$324,150 \$0 \$0 \$324,150 \$0 \$324,150 \$0 \$0 \$324,150 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$421,3 \$421,3

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

CAT	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END		QTY	UNIT	COST	COST	CONTGY	COST
0.04	Environmental mitigation,	e.g. wetlands, historic/archeologic, parks			<b>4</b> =0	<b>AF</b> ( <b>A AF A</b>		<b>A</b> =00.0
		Enviromental Mitigation Allowance	10,805	RF	\$50	\$540,250	30%	\$702,3
		Element Total	1	LS		\$540,250		\$702,3
0.05	Site structures including r	etaining walls, sound walls						
	j.	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	1,081	RF	\$80	\$86,440	30%	\$112,3
		Element Total	1	LS		\$86,440		\$112,3
	<b>B</b> 1 ( ) ( )							
0.06	Pedestrian / bike access a	and accommodation, landscaping Landscaping Allowance - Low	10 005	DE	¢15	¢100.075	200/	¢040.6
		Landscaping Allowance - Low	10,805 0	RF RF	\$15 \$25	\$162,075 \$0	30% 30%	\$210,6
		Landscaping Allowance - High	0	RF	\$23 \$40	\$0 \$0	30%	
		Pedestrain Overpasses	0	EA	\$800,000	\$0 \$0	30%	
		Artwork (1% of Guideway & Stations)	1%	<u>_</u> ,	<i>\\</i>	\$108,623	30%	\$141,2
		Element Total	1	LS		\$270,698	,-	\$351,9
0.07	Automobile, bus, van acc	essways including roads, parking lots						
		Roadway Modifications Allow Full Intersection	0	EA	¢50.000	\$0	30%	
		Roadway Modifications Allow AC Paving	0	EA	\$50,000	<b>Ф</b> О	30%	
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	
		Parking Lots	600	STL	\$30 \$4,000	\$2,400,000	30%	\$3,120,0
		Element Total	1	LS	\$1,000	\$2,400,000	0070	\$3,120,0
0.08	I emporary Facilities and	other indirect costs during construction						
			5 00/			<b>\$007 517</b>	050/	
50	SYSTEMS	Temporary Facilities (5% of Category 40) Element Total	<u>5.0%</u> 1	LS		\$267,517 \$267,517	25%	\$334,39 \$334,39
	Train control and signals	Element Total	1		<b>1</b> 010	\$267,517		\$334,3
	Train control and signals Single Track	Element Total	1	RF	\$240 \$260	\$267,517 \$267,517	15%	\$334,3
	Train control and signals	Element Total	1		<mark>\$240</mark> \$260	\$267,517		\$334,3 \$3,230,6
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 10,805	RF RF		\$267,517 \$0 \$2,809,300	15%	\$334,3 \$3,230,6
50.01	Train control and signals Single Track	Element Total Signal System Signal System Element Total	0 10,805 10,805	RF RF RF	\$260	\$267,517 \$0 \$2,809,300 \$2,809,300	<mark>15%</mark> 15%	\$334,3 \$3,230,6 \$3,230,6
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total rg protection Traffic Signal	0 10,805 10,805 0	RF RF RF EA	\$260 \$150,000	\$267,517 \$0 \$2,809,300 \$2,809,300 \$2,809,300	15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total rg protection Traffic Signal Crossing Protection	0 10,805 10,805 0 5	RF RF EA EA	\$260	\$267,517 \$0 \$2,809,300 \$2,809,300 \$2,809,300 \$0 \$1,250,000	<mark>15%</mark> 15%	\$334,3 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$1,437,5
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total rg protection Traffic Signal	0 10,805 10,805 0	RF RF RF EA	\$260 \$150,000	\$267,517 \$0 \$2,809,300 \$2,809,300 \$2,809,300	15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total ubstations	0 10,805 10,805 0 5 5	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$267,517 \$0 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000	15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5
50.01	Train control and signals Single Track Double Track Traffic signals and crossin	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation	0 10,805 10,805 0 5 5 3	RF RF EA EA EA EA	\$260 \$150,000	\$267,517 \$0 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000	15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0
50.01	Train control and signals Single Track Double Track Traffic signals and crossin	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total ubstations	0 10,805 10,805 0 5 5	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$267,517 \$0 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000	15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$4,485,0
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin	Element Total  Signal System Signal System Element Total  raffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total	0 10,805 10,805 0 5 5 3	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$267,517 \$0 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000	15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$4,485,0
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: so Traction power distribution Single Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard	0 10,805 10,805 0 5 5 3 3 3 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$267,517 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000	15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard	0 10,805 10,805 0 5 5 3 3 3 3 0 10,805	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$267,517 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300	15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$3,230,6
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: so Traction power distribution Single Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard	0 10,805 10,805 0 5 5 3 3 3 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$267,517 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000	15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$3,230,6
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: so Traction power distribution Single Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard	0 10,805 10,805 0 5 5 3 3 3 3 0 10,805	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$267,517 \$2,809,300 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300	15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line	0 10,805 10,805 0 5 3 3 3 0 10,805 10,805 10,805	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$267,517 \$0 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,0000\$}	15% 15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station	1 0 10,805 10,805 0 5 5 3 3 3 3 0 10,805 10,805 10,805 2	RF RF EA EA EA EA EA RF RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$267,517 \$267,517 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$2,809,300 \$3,900,000 \$3,900,000 \$0 \$0 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$1,250,000 \$3,900,000 \$0 \$0 \$1,250,000 \$0 \$1,250,000 \$3,900,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0 \$4,150,0
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line	0 10,805 10,805 0 5 3 3 3 0 10,805 10,805 10,805	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$267,517 \$0 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,0000\$}	15% 15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,00 \$4,50,00 \$4,50,000 \$4,50,000 \$4,50,0000 \$4,50,0000000000000000000000000000000000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  Ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Element Total  Communication, Line Communication, Station Element Total	1 0 10,805 10,805 0 5 5 3 3 3 3 0 10,805 10,805 10,805 2	RF RF EA EA EA EA EA RF RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$267,517 \$267,517 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$2,809,300 \$3,900,000 \$3,900,000 \$0 \$0 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$1,250,000 \$3,900,000 \$0 \$0 \$1,250,000 \$0 \$1,250,000 \$3,900,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,0 \$4,50,00 \$4,50,00 \$4,50,000 \$4,50,000 \$4,50,0000 \$4,50,0000000000000000000000000000000000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  Ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Element Total  Communication, Line Communication, Station Element Total	1 0 10,805 10,805 0 5 5 3 3 3 3 0 10,805 10,805 10,805 2	RF RF EA EA EA EA EA RF RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$267,517 \$267,517 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$0 \$2,809,300 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$2,809,300 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$2,809,300 \$3,900,000 \$3,900,000 \$0 \$0 \$0 \$1,250,000 \$3,900,000 \$3,900,000 \$0 \$1,250,000 \$3,900,000 \$0 \$0 \$1,250,000 \$0 \$1,250,000 \$3,900,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,132,1 \$4,132,1
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment	0 10,805 10,805 0 5 5 3 3 3 3 0 10,805 10,805 10,805 2 10,805 2 10,805 2 10,805 2 10,805	RF RF EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$267,517 \$267,517 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$2,593,200 \$1,000,000 \$3,593,200	15%         15%         15%         15%         15%         15%         15%         15%         15%         15%         15%	\$334,3 \$3,230,6 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,132,1 \$506,0
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform	1 0 10,805 10,805 0 5 5 3 3 3 3 0 10,805 10,805 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 10,805 2 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805	RF RF EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$267,517 \$267,517 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,593,200 \$1,000,000 \$3,593,200 \$440,000	15% 15% 15% 15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$3,230,6
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications Fare collection system an	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         ocs System - Standard         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 10,805 10,805 0 5 5 3 3 3 3 0 10,805 10,805 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 0 10,805 2 0 10,805 2 0 10,805 2 0 10,805 2 0 0 10,805 2 0 0 0 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$267,517 \$267,517 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$2,593,200 \$1,000,000 \$3,593,200 \$440,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$4,485,0 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$2,982,1 \$1,150,0 \$4,132,1 \$506,0
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         ocs System - Standard         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 10,805 10,805 0 5 5 3 3 3 3 0 10,805 10,805 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 10,805 2 0 10,805 2 0 10,805 2 0 10,805 2 0 10,805 2 0 0 10,805 2 0 0 0 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 10,805 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$267,517 \$267,517 \$2,809,300 \$2,809,300 \$1,250,000 \$1,250,000 \$1,250,000 \$3,900,000 \$3,900,000 \$3,900,000 \$2,809,300 \$0 \$2,593,200 \$1,000,000 \$3,593,200 \$440,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$334,3 \$3,230,6 \$3,230,6 \$3,230,6 \$1,437,5 \$1,437,5 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$4,485,0 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$4,485,0 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$3,230,6 \$2,982,1 \$1,150,0 \$4,132,1 \$506,0

### Hillsborough County MPO Transit Study System Planning **TR-Temple Terrace** East of 30th St (to be deleted) TRANSIT MODE: LRT STATIONING CAT UNIT BASE ALLCTD TOTAL NO. BEGIN END DESCRIPTION QTY UNIT COST COST CONTGY COST 60 ROW, LAND, EXISTING IMPROVEMENTS 60.01 Purchase or lease of real estate Right of Way Allowance - At Grade \$4,322,000 10,805 \$6,483,000 RF \$400 50% Right of Way Allowance - Aerial 0 RF \$300 \$0 50% \$0 Right of Way Allowance - Underground 0 RF \$250 50% \$0 \$0 Element Total \$6,483,000 10,805 RF \$4,322,000

# Hillsborough County MPO Transit Study

# System Planning

### Light Rail Transit

### Capital Cost Estimate

## (2007 Dollars in Millions)

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

Concept B

Hillsborough County MPO Transit Study	System Planning
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### Light Rail Transit Capital Cost Estimate

	LR-NE Ext		LR-Brandon Ext		LR-Mac Dill AFB		LR-Westchase	tchase		LR-South Ext			
	-	2	3	4	5	9	7	8	6	10			
CAT No.	Bearss/ 37th towards Pebble Creek (east of I- 75)	Downtown to CL East of Acli Rail (east of Acline CSX main I St) Yard	ne to ine &	East of CSX Cass St in mainline & Y ard to Downtown to Mac Kingsway Dill AFB		Airport to at grade section	Airport (north) to Hillsborough	Hillsborough to CSX	On CSX to west of Sheldon	f Downtown to Big Bend (may need to be deleted)	Maintenance Facility	Vehicles	Atternative Total
Length (Mile):	4.6	2.0	1.4	5.9	5.6	0.0	9.0	3.2	4.4	11.4			40.1
Number of Stations:	4	2	-	9	ø	-	-	2	4	4			33
Number of Revenue Vehicles:												98	86
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	\$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	\$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
10.04 Guideway: Aerial structure	\$0.00	\$0.00	\$0.00	\$6.24	\$0.00	\$20.02	\$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
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			\$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
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			\$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	\$1.86			\$9.84
10.10 Track: Embedded	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3.16	\$0.00	\$0.00			\$3.16
10.11 Track: Ballasted	\$13.46	\$5.71	\$4.21	\$16.80	\$16.36	\$0.44	\$0.00	\$7.47	\$12.87	\$32.16			\$109.48
10.12 Track: Special (switches, turnouts)	\$2.02	\$0.86	\$0.63	\$2.63	\$2.45	\$0.60	\$0.46	\$1.68	\$1.94	\$5.10			\$18.37
10.13 Track: Vibration and noise dampening	\$0.81	\$0.34	\$0.25	\$1.01	\$0.98	\$0.03	\$0.00	\$0.45	\$0.77	\$1.93			\$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			\$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	\$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
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			\$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
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
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
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
Subtotal Category 20	\$14.40	\$7.20	\$3.60	\$21.60	\$28.80	\$3.60	\$58.50	\$7.20	\$14.40	\$14.40			\$173.70

Appendix A

LR-Brandon Ext
2 3 Downtwn to CL East of Acline to Rail (east of Acline CSX main line & St) Yard
\$0.40
\$1.88
\$0.27
\$0.67
\$0.11
\$0.34
\$0.52
\$0.20
\$4.39
\$3.09
\$1.44
\$2.99
\$0.00
\$4.00
\$0.51
\$0.00
\$12.03
\$36.34

Appendix A

				Hillsborough Co	Hillsborough County MPO Transit Study	udy						S	Concept B
				Syste Light	System Planning Light Rail Transit								
				Capital (2007 Dol	Capital Cost Estimate (2007 Dollars in Millions)								
	LR-NE Ext		LR-Brandon Ext		LR-Mac Dill AFB		LR-Westchase	lase		LR-South Ext			
	-	2	ę	4	2	9	7	8	6	10			
CAT No.	Bearss/ 37th towards Pebble Creek (east of I- 75)		Downtown to CL East of Acline to East of CSX Cass St in Rail (east of Acline CSX main line & mainline & Yard to Downtown to Mac St) Yard Kingsway Dtil AFB	East of CSX mainline & Yard to Kingsway		Airport to at grade Airport (north) to section Hillsborough		Hilisborough to On CSX to west of Downtown to Big CSX Sheldon Bend (may need to be deleted) to be deleted)	n CSX to west of Sheldon	Downtown to Big Bend (may need to be deleted)	Maintenance Facility	Vehicles	Alternative Total
60 ROW, LAND, EXISTING IMPROVEMENTS													
60.01 Purchase or lease of real estate	\$14.63	3 \$6.20	\$4.57	\$18.63	\$17.79	\$2.22	\$1.25	\$10.14	\$14.01	\$35.85	\$15.00		\$140.29
Subtotal Right-of-Way	\$14.63	3 \$6.20	\$4.57	\$18.63	\$17.79	\$2.22	\$1.25	\$10.14	\$14.01	\$35.85	\$15.00		\$140.29
70 VEHICLES													
70.01 Streetcar												\$388.08	\$388.08
Subtotal Vehicles												\$388.08	\$388.08
80 PROFESSIONAL SERVICES													
80.01 Preliminary Engineering	4.0% \$4.68	8 \$1.45	\$1.03	\$5.18	\$4.75	\$2.44	\$5.65	\$2.76	\$3.50	\$7.94	\$7.44		\$46.82
80.02 Final Design	6.0% \$7.02	2 \$2.18	\$1.54	\$7.77	\$7.13	\$3.66	\$8.47	\$4.14	\$5.25	\$11.91	\$11.16		\$70.24
80.03 Project Management for Design and Construction	5.0% \$5.85	5 \$1.82	\$1.28	\$6.47	\$5.94	\$3.05	\$7.06	\$3.45	\$4.38	\$9.93	\$9.30		\$58.53
80.04 Construction Administration & Management	8.0% \$9.36	6 \$2.91	\$2.05	\$10.36	\$9.50	\$4.88	\$11.29	\$5.51	\$7.00	\$15.89	\$14.89		\$93.65
80.05 Insurance	2.0% \$2.34	4 \$0.73	\$0.51	\$2.59	\$2.38	\$1.22	\$2.82	\$1.38	\$1.75	\$3.97	\$3.72		\$23.41
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	3.0% \$3.51	1 \$1.09	\$0.77	\$3.88	\$3.56	\$1.83	\$4.24	\$2.07	\$2.63	\$5.96	\$5.58		\$35.12
80.07 Surveys, Testing, Investigation, Inspection	3.0% \$3.51	1 \$1.09	\$0.77	\$3.88	\$3.56	\$1.83	\$4.24	\$2.07	\$2.63	\$5.96	\$5.58		\$35.12
80.08 Start up	1.0% \$1.17	7 \$0.36	\$0.26	\$1.29	\$1.19	\$0.61	\$1.41	\$0.69	\$0.88	\$1.99	\$1.86		\$11.71

Appendix A

\$374.60

\$0.00 \$38.81

\$63.54 \$29.80 \$327.76

\$45.18 \$18.76 \$206.35

\$38.02 \$17.46 \$192.07

\$11.63 \$5.42 \$59.58

\$37.44 \$16.91 \$185.98

Subtotal Professional Services

90 UNALLOCATED CONTINGENCY

\$2,280.95 \$207.36

\$426.89

\$286.68

\$142.52

\$111.24

\$26.06 \$59.54

\$12.96 \$28.01

\$10.11 \$22.06

\$8.28 \$19.54

\$18.95 \$41.42

\$3.85 \$8.22

10.0% S

Project Total

\$208.45

\$42.32

\$91.10

			tem Planning LR-NE Ext					
RAN	ISIT MODE: LRT	Bearss/ 37th toward	ds Pebble Creek	(east of I-	-75)			
NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
0.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0		\$350	\$0	25%	
	Double Track	At Grade - Ballasted, Open	0		\$450	\$0	25%	
		Element Total	0	RF		\$0		
0.02	2 Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	24,384	RF	\$530	\$12,923,520	25%	\$16,154,4
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	24,384	RF		\$12,923,520		\$16,154,4
0.03	3 Guideway: At-grade in mixed	d traffic						
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	
		Element Total	0	RF		\$0		
0.04	4 Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF		\$0	,-	
- 0E	- Cuideureur Duilt un fill							
0.05	5 Guideway: Built-up fill Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0		\$600	\$0 \$0	25%	
		Element Total	0	RF		\$0	2070	
		<b>9</b>						
	6 Guideway: Underground cut	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
0.06	Single Track			RF	\$15,500	\$0	35%	
0.06	Single Track Double Track	Subway - Direct Fixation	0		1 - 7	· · · ·		
0.06	Single Track Double Track	Element Total	0	RF		\$0		
	Double Track	Element Total				\$0		
	Double Track 7 Guideway: Underground tun	Element Total	0	RF	\$12,000		35%	
	Double Track 7 Guideway: Underground tuni Single Track	Element Total nel Subway - Direct Fixation	0	RF RF	\$12,000 \$20,000	\$0	35% 35%	
	Double Track 7 Guideway: Underground tun	Element Total	0	RF	<mark>\$12,000</mark> \$20,000		<mark>35%</mark> 35%	
0.07	Double Track 7 Guideway: Underground tun Single Track Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0	RF RF RF		<mark>\$0</mark> \$0		
0.07	Double Track 7 Guideway: Underground tun Single Track Double Track 8 Guideway: Retained cut or fi	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0 0	RF RF RF RF	\$20,000	\$0 \$0 \$0	35%	
0.07	Double Track         7 Guideway: Underground tuni         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total II Retained Cut - Direct Fixation	0 0 0 0	RF RF RF RF	\$20,000 \$6,800	\$0 \$0 \$0 \$0	35% 30%	
0.07	Double Track         7 Guideway: Underground tuni         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Single Track         Single Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0 0 0	RF RF RF RF RF	\$20,000 \$6,800 \$2,800	\$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30%	
0.07	Double Track         7 Guideway: Underground tuni         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation	0 0 0 0 0 0 0 0	RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30%	
0.07	Double Track         7 Guideway: Underground tuni         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Single Track         Single Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0 0 0	RF RF RF RF RF	\$20,000 \$6,800 \$2,800	\$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30%	
0.07	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track         Double Track         Double Track         Double Track         Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total II Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30%	
0.07	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Incl Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Fill - Ballasted Element Total	0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30%	
).07 ).08	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track         Single Track         Dirack: Direct fixation         Single Track	Element Total Incl Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Fill - Ballasted Element Total III Direct Fixation Track	0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30% 15%	
0.07 0.08	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Incl Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Fill - Ballasted Element Total	0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30%	
0.07 0.08 0.09	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Incl Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15%	
).07 ).08	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15%	
0.07 0.08 0.09	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Gut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total Embedded Track	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15% 15%	
0.07	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total Embedded Track Embedded Track Embedded Track	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15%	
0.07	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Gut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total Embedded Track	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15% 15%	
0.07 0.08 0.09 0.10	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track         Track: Direct fixation         Single Track         Double Track         Track: Embedded         Single Track         Double Track         Track: Embedded         Single Track         Double Track	Element Total  Subway - Direct Fixation Subway - Direct Fixation Element Total  Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Fill - Ballasted Element Total  Direct Fixation Track Direct Fixation Track Element Total  Embedded Track Embedded Track Element Total	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$3,200 \$405 \$810 \$810 \$490 \$980	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15% 15%	
0.07 0.08 0.09 0.10	Double Track         7 Guideway: Underground tun         Single Track         Double Track         3 Guideway: Retained cut or fi         Single Track         Single Track         Double Track         Track: Direct fixation         Single Track         Double Track	Element Total Inel Subway - Direct Fixation Subway - Direct Fixation Element Total III Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total Embedded Track Embedded Track Embedded Track	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	35% 30% 30% 30% 30% 15% 15%	\$13,459,5

		-	ty MPO Trans Planning NE Ext	sit Study	/			
	SIT MODE: LRT	Bearss/ 37th towards P	ebble Creek	(east of	I-75)			
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10.12	Track: Special (switches, tur	·						
		Special Trackwork (15% of Track Cost)	15%			\$1,755,648	15%	\$2,018,99
		Element Total	1	LS		\$1,755,648		\$2,018,99
10 13	Track: Vibration and noise da	ampening						
10.15		Vibration Allowance (6% of Ballasted Track	6%			\$702,259	15%	\$807,5
		Cost)				•••=,==•		+,-
		Element Total	1	LS		\$702,259		\$807,5
	STATIONS, STOPS, TERMI	-						
20.01	At-grade station, stop, shelter	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0 \$0	20%	
		Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,00
		Element Total	4	EA	. ,,	\$12,000,000		\$14,400,00
								. ,
20.02	Aerial station, stop, shelter, n	· · · ·						
		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	:
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	:
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		:
20.03	Underground station, stop, sh	nelter, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	:
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	:
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	5
		Element Total	0	EA		\$0		9
20 04	Other stations landings term	ninals: Intermodal, ferry, trolley, etc.						
20.01	e area etalierie, iariange, terri	N/A						
		Element Total	1	LS		\$0		Ş
			1	LS		\$0		5
20.05	Joint development	Element Total	1	LS		\$0		Ş
20.05	Joint development	Element Total						
20.05	Joint development	Element Total	1	LS		\$0 \$0		
	·	Element Total N/A Element Total						
	Joint development Automobile parking multi-stor	Element Total N/A Element Total y structure	1	LS	\$12.000	\$0	20%	\$
	·	Element Total N/A Element Total			\$12,000		20%	
	·	Element Total N/A Element Total y structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%	
20.06	·	Element Total N/A Element Total y structure Parking Garage Element Total	1	LS STL		\$0 \$0	20%	
20.06	Automobile parking multi-stor	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator	1 0 1	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0	20%	<u> </u>
20.06	Automobile parking multi-stor	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator Escalator	1 0 1 0 0 0	LS STL LS EA EA		\$0 \$0 \$0 \$0 \$0 \$0 \$0		
20.06	Automobile parking multi-stor	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator	1 0 1	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0	20%	
20.06 20.07	Automobile parking multi-stor Elevators, escalators	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS	1 0 1 0 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	: : : :
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS	1 0 1 0 0 0	LS STL LS EA EA	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20%	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork	1 0 1 0 0 1	LS STL LS EA EA LS	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total          N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low	1 0 1 0 0 1	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 1 24,384	LS STL LS EA EA EA S RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$1,584,90
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo	Element Total N/A Element Total y structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 0 24,384 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$1,584,90
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total          N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total	1 0 1 0 0 1 1 0 24,384 0 24,384	LS STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,219,200 \$0 \$1,219,200	20% 20% 30% 30% 30%	\$ \$ \$ \$ \$1,584,96 \$ \$1,584,96
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo	Element Total         N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         NUTIONS         Ork         Demolition Allowance - Howing         Demolition Allowance - High         Element Total         N         Utility Relocation Allowance - Low	1 0 1 0 0 24,384 0 24,384 0 24,384	LS STL LS EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$0	20% 20% 30% 30% 30%	\$1,584,96 \$1,584,96
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo	Element Total         N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	1 0 1 0 0 24,384 0 24,384 0 24,384	LS STL LS EA EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$8,290,560	20% 20% 30% 30% 30% 30%	\$ \$ \$ \$1,584,96 \$ \$1,584,96 \$ \$1,584,96 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo	Element Total         N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total	1 0 1 0 0 0 24,384 0 24,384 0 24,384 0 24,384 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$8,290,560 \$0 \$0	20% 20% 30% 30% 30%	\$ \$ \$ \$1,584,96 \$ \$1,584,96 \$ \$1,584,96 \$ \$ \$1,584,96 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo	Element Total         N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	1 0 1 0 0 24,384 0 24,384 0 24,384	LS STL LS EA EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$8,290,560	20% 20% 30% 30% 30% 30%	\$1,584,90 \$1,584,90 \$1,584,90 \$1,584,90
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo Site Utilities, Utility Relocation	Element Total         N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total	1 0 1 0 0 0 24,384 0 24,384 0 24,384 0 24,384 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$8,290,560 \$0 \$0	20% 20% 30% 30% 30% 30%	\$1,584,96 \$1,584,96 \$1,584,96 \$1,584,96 \$1,584,96 \$10,777,72
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo Site Utilities, Utility Relocation	Element Total         N/A         Element Total         y structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         NUTIONS         ork         Demolition Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	1 0 1 0 0 0 24,384 0 24,384 0 24,384 0 24,384 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$1,219,200 \$0 \$8,290,560 \$0 \$0	20% 20% 30% 30% 30% 30%	\$ \$ \$ \$1,584,96 \$ \$1,584,96 \$ \$1,584,96 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$

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

RAN	SIT MODE: LRT							
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
0.04	Environmental mitigation,	e.g. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	24,384	RF	\$50	\$1,219,200	30%	\$1,584,96
		Element Total	1	LS		\$1,219,200		\$1,584,96
0 05	Site structures including re	etaining walls, sound walls						
10.00		Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	2,438	RF	\$80	\$195,072	30%	\$253,5
		Element Total	1	LS		\$195,072		\$253,5
	Dedectries (bills access)							
10.06	Pedestrian / bike access a	and accommodation, landscaping Landscaping Allowance - Low	0	RF	\$15	\$0	30%	
		Landscaping Allowance - Low	24,384	RF	\$15 \$25	ەن \$609,600	30% 30%	\$792,4
		Landscaping Allowance - High	24,304	RF	\$40	\$003,000 \$0	30%	ψι 52,40
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	
		Artwork (1% of Guideway & Stations)	1%		,	\$249,235	30%	\$324,00
		Element Total	1	LS		\$858,835		\$1,116,48
40.07	Automobile, bus, van acce	essways including roads, parking lots						
		Roadway Modifications Allow Full						
		Intersection	24	EA	\$50,000	\$1,200,000	30%	\$1,560,00
		Roadway Modifications Allow AC Paving						• • • • • •
		(incl. Curb & Sidewalk)	292,608	SF	\$30	\$8,778,240	30%	\$11,411,71
		Parking Lots Element Total	2,000	STL LS	\$4,000	\$8,000,000	30%	\$10,400,00 \$23,371,71
		Element Total	I	L5		\$17,978,240		φ <b>∠</b> 3,371,7
10.08	Temporary Facilities and	other indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$1,512,439	25%	\$1,890,54
50	SYSTEMS	Temporary Facilities (5% of Category 40) Element Total	<u>5.0%</u> 1	LS		\$1,512,439 \$1,512,439	25%	
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track	Element Total	1		\$240	\$1,512,439		\$1,890,54
		Element Total	1	RF	\$240 \$260	\$1,512,439 \$0	15%	\$1,890,54
	Train control and signals Single Track	Element Total	1		<mark>\$240</mark> \$260	\$1,512,439		\$1,890,54 \$ \$7,290,81
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 24,384	RF RF		\$1,512,439 \$0 \$6,339,840	15%	\$1,890,54 \$ \$7,290,8
50.01	Train control and signals Single Track	Element Total Signal System Signal System Element Total	1 0 24,384 24,384	RF RF RF	\$260	\$1,512,439 \$0 \$6,339,840 \$6,339,840	<mark>15%</mark> 15%	\$1,890,54 \$1,890,54 \$7,290,87 \$7,290,87
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total g protection Traffic Signal	1 0 24,384 24,384 24,384	RF RF RF EA	\$260 \$150,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000	15% 15% 15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 24,384 24,384	RF RF RF	\$260	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$0	<mark>15%</mark> 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$
50.01	Train control and signals Single Track Double Track Traffic signals and crossin	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total Element Total	1 0 24,384 24,384 24,384 24 0	RF RF EA EA	\$260 \$150,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000	15% 15% 15%	\$1,890,54 \$7,290,87 \$7,290,87 \$4,140,00
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total ubstations	1 0 24,384 24,384 24,384 24 0 24	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$0 \$3,600,000	15% 15% 15% 15%	\$1,890,54 \$7,290,8 \$7,290,8 \$4,140,00 \$4,140,00
50.01	Train control and signals Single Track Double Track Traffic signals and crossin	Element Total Signal System Signal System Element Total Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation	1 0 24,384 24,384 24,384 0 24 0 24 5	RF RF EA EA EA EA	\$260 \$150,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000	15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00
50.01	Train control and signals Single Track Double Track Traffic signals and crossin	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total ubstations	1 0 24,384 24,384 24,384 24 0 24	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$0 \$3,600,000	15% 15% 15% 15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin	Element Total  Signal System Signal System Element Total  raffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total	1 0 24,384 24,384 24,384 0 24 0 24 5	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000	15% 15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su	Element Total  Signal System Signal System Element Total  raffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total	1 0 24,384 24,384 24,384 0 24 0 24 5	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000	15% 15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution	Element Total  Signal System Signal System Element Total  raffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total	1 0 24,384 24,384 24 0 24 5 5 5 0 24,384	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000	15% 15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track	Element Total  Signal System Signal System Element Total  Instruction Traffic Signal Crossing Protection Element Total  Ubstations Traction Power, Substation Element Total  in: catenary and third rail OCS System - Standard	1 24,384 24,384 24,384 0 24 5 5 5 5	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$0	15% 15% 15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard	1 0 24,384 24,384 24 0 24 5 5 5 0 24,384	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,539,840	15% 15% 15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard	1 0 24,384 24,384 24 0 24 5 5 5 0 24,384	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,539,840	15% 15% 15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total	1 0 24,384 24,384 24 0 24 5 5 5 0 24,384 24,384 24,384	RF RF EA EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,339,840 \$0	15% 15% 15% 15% 15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$7,290,81 \$4,140,00 \$7,290,81 \$4,140,00 \$7,290,81 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290,81 \$7,290
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total  Signal System Signal System Element Total  g protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Element Total  Communication, Line	1 0 24,384 24,384 24 0 24 5 5 5 0 24,384 24,384 24,384	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,339,840 \$0 \$5,852,160	15% 15% 15% 15% 15% 15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$5,290,81 \$5,290,81
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total  Signal System Signal System Element Total  g protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Cost System - Standard Element Total  Communication, Line Communication, Station Element Total	1 0 24,384 24,384 24 0 24 5 5 5 0 24,384 24,384 24,384 24,384 4	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,512,439 \$0 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,339,840 \$0 \$5,852,160 \$2,000,000	15% 15% 15% 15% 15% 15%	\$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$7,290,81 \$5,290,81
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 24,384 24,384 24 0 24 35 5 5 0 24,384 24,384 24,384 24,384 1	RF RF EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$260	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,500,000 \$5,852,160 \$2,000,000 \$7,852,160	15%         15%         15%         15%         15%         15%         15%         15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$7,475,000 \$7,475,000 \$7,475,000 \$7,475,000 \$7,475,000 \$7,290,81 \$7,290,81 \$5,290,81 \$2,300,000 \$9,029,98
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total  Signal System Signal System Element Total  g protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Cocs System - Standard Element Total  Communication, Line Communication, Station Element Total	1 0 24,384 24,384 24 0 24 5 5 5 0 24,384 24,384 24,384 24,384 4	RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,500,000 \$5,852,160 \$2,000,000 \$7,852,160 \$880,000	15% 15% 15% 15% 15% 15% 15% 15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$7,475,000 \$7,475,000 \$7,475,000 \$7,475,000 \$7,475,000 \$7,290,81 \$ \$6,729,98 \$2,300,000 \$9,029,98 \$1,012,000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform	1 24,384 24,384 24 0 24 0 24 35 5 5 0 24,384 24,384 24,384 24,384 1 1 4	RF RF EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$260	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,500,000 \$5,852,160 \$2,000,000 \$7,852,160	15%         15%         15%         15%         15%         15%         15%         15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$7,290,81 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$2,300,00 \$9,029,98 \$1,012,00 \$1,012,00 \$1,012,00
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications Fare collection system an	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         0CS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 24,384 24,384 24 0 24 0 24 5 5 5 0 0 24,384 24,384 24,384 24,384 1 1 4 0	RF RF EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,500,000 \$5,852,160 \$2,000,000 \$7,852,160 \$880,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$1,890,54 \$1,890,54 \$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$1,012,00 \$1,012,00
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         0CS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 24,384 24,384 24 0 24 0 24 5 5 5 0 0 24,384 24,384 24,384 24,384 1 1 4 0	RF RF EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,512,439 \$6,339,840 \$6,339,840 \$3,600,000 \$3,600,000 \$6,500,000 \$6,500,000 \$6,500,000 \$6,500,000 \$5,852,160 \$2,000,000 \$7,852,160 \$880,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$1,890,54 \$1,890,54 \$7,290,81 \$7,290,81 \$4,140,00 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$4,140,00 \$7,290,81 \$4,140,00 \$7,475,00 \$7,475,00 \$7,290,81 \$4,140,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,475,00 \$7,290,81 \$1,000 \$7,475,00 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,00

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

CAT	STATIC	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60 R	OW, LAND, EXI	STING IMI	PROVEMENTS						
60.01 P	urchase or lease	e of real est	tate						
			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

		Sys	ounty MPO Trans stem Planning -Brandon Ext CL Rail (east of A	-				
RAN CAT	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10	GUIDEWAY & TRACK ELEI							
10.01	Guideway: At-grade exclusive				<b>4</b> 050	<b>A</b> .	0.50/	
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	¢с 044 0
	Double Track	At Grade - Ballasted, Open Element Total	10,336 10,336	RF RF	\$450	\$4,651,200 \$4,651,200	25%	\$5,814,0 \$5,814,0
10 02	e Guideway: At-grade semi-exe	clusive (allows cross-traffic)						
10.02	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
10.03	Guideway: At-grade in mixed	I traffic						
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	
		Element Total	0	RF		\$0		
10.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF		\$0		
10.05	Guideway: Built-up fill		_					
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	
0.06	Guideway: Underground cut	& cover						
0.00	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0 \$0	35%	
		Element Total	0	RF	<i><i><i></i></i></i>	\$0		
0.07	Guideway: Underground tunr	nel						
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	
		Element Total	0	RF	. ,	\$0		
0.08	Guideway: Retained cut or fil	Π						
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF		\$0		
0.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF		\$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track Element Total	0	RF RF	\$980	\$0 \$0	15%	
			0	TAL.		φU		
0.11	Track: Ballasted	Ballasted Track	0	RF	\$240	<u> </u>	15%	
10.11	Track: Ballasted Single Track Double Track	Ballasted Track Ballasted Track	0 10,336	RF RF	<mark>\$240</mark> \$480	<mark>\$0</mark> \$4,961,280	<mark>15%</mark> 15%	\$5,705,4

		-	ty MPO Trans Planning Indon Ext	sit Study	1			
RANS	SIT MODE: LRT	Downtown to CL R	ail (east of A	cline St)				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0 12	Track: Special (switches, tur	nouts)						
10.12	Track. Opeolar (Switches, tar	Special Trackwork (15% of Track Cost)	15%			\$744,192	15%	\$855,82
		Element Total	1	LS		\$744,192		\$855,8
10.13	Track: Vibration and noise d							
		Vibration Allowance (6% of Ballasted Track	6%			\$297,677	15%	\$342,3
		Cost) Element Total	1	LS		\$297,677		\$342,3
				LO		φ231,011		ψ0-12,0
20	STATIONS, STOPS, TERMI							
	At-grade station, stop, shelte	-						
	5 · · · · · · · · · · · · · · · · · · ·	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,00
		Element Total	2	EA		\$6,000,000		\$7,200,0
20 02	Aerial station, stop, shelter, n	nall terminal platform						
20.02		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0 \$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03	Underground station stop st	helter, mall, terminal, platform						
_0.00		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	
		Element Total	0	EA		\$0		
20.04	Other stations landings term	ninals: Intermodal, ferry, trolley, etc.						
	g-,g-,	N/A						
		Element Total	1	LS		\$0		:
20.05	Joint development	N/A						
		Element Total	1	LS		\$0		
			·	20		¢0		
20.06	Automobile parking multi-stor	ry structure						
		Parking Garage	0	STL	\$12,000	\$0	20%	
		Element Total	1	LS		\$0		:
20.07	Elevators, escalators							
20.01		Eleavator	0	EA	\$200,000	\$0	20%	
		Escalator	0	EA	\$450,000	\$0	20%	:
		Element Total	1	LS		\$0		
		Liement Total						
40	SITEWORK & SPECIAL CO		Ĭ					
	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	NDITIONS	ľ					
	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	NDITIONS	10,336	RF	\$30	\$310,080	30%	\$403,10
		NDITIONS ork		RF RF	\$30 \$50	\$310,080 \$0	30% 30%	
		NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	10,336 0 0	RF RF		\$0 \$0		\$403,10
		NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	10,336 0	RF	\$50	\$0	30%	
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	10,336 0 0	RF RF	\$50	\$0 \$0	30%	
40.01		NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	10,336 0 0 10,336	RF RF RF	\$50 \$90	\$0 \$0 \$310,080	30% 30%	\$403,10
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	10,336 0 0	RF RF	\$50	\$0 \$0	30%	
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	10,336 0 0 10,336	RF RF RF	\$50 \$90 \$140	\$0 \$0 \$310,080 \$1,447,040	30% 30% 30%	\$403,10 \$1,881,11
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	10,336 0 0 10,336 10,336 0	RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$0 \$310,080 \$1,447,040 \$0	30% 30% 30% 30%	\$403,11 \$1,881,1
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	10,336 0 0 10,336 10,336 0 0	RF RF RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$0 \$310,080 \$1,447,040 \$0 \$0	30% 30% 30% 30%	\$403,11 \$1,881,1
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total oval/mitigation, ground water treatments	10,336 0 0 10,336 0 0 10,336	RF RF RF RF RF RF	\$50 \$90 \$140 \$340 \$570	\$0 \$0 \$310,080 \$1,447,040 \$0 \$0 \$1,447,040	30% 30% 30% 30% 30%	\$403,11 \$1,881,11 \$1,881,11
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	10,336 0 0 10,336 10,336 0 0	RF RF RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$0 \$310,080 \$1,447,040 \$0 \$0	30% 30% 30% 30%	\$403,1 \$1,881,1

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

		Downtown to CL R	all (east of A	01110 01,				
TRANS	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN ENI		QTY	UNIT	COST	COST	CONTGY	COST
40.04	Environmental mitigation,	e.g. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	10,336	RF	\$50	\$516,800	30%	\$671,84
		Element Total	1	LS		\$516,800		\$671,84
40.05	Site structures including r	etaining walls, sound walls						
	g-	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	1,034	RF	\$80	\$82,688	30%	\$107,49
		Element Total	1	LS		\$82,688		\$107,49
40.06	Pedestrian / bike access	and accommodation, landscaping						
		Landscaping Allowance - Low	10,336	RF	\$15	\$155,040	30%	\$201,55
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$
		Pedestrain 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 acc	essways including roads, parking lots Roadway Modifications Allow Full						
		Intersection	0	EA	\$50,000	\$0	30%	\$0
		Roadway Modifications Allow AC Paving	0	LA	ψ00,000	ψυ	5078	ψ
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$0
		Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,000
		Element Total	1	LS	ψ1,000	\$400,000	0070	\$520,000
40.08	Tomporany Excilition and	other indirect costs during construction						
40.00	remporary raciilles and	Temporary Facilities (5% of Category 40)	5.0%			\$161,244	25%	\$201,555
		Element Total	5.0%	LS		\$161,244	23%	\$201,555
50.01	SYSTEMS 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	ψ200	\$2,687,360	1570	\$3,090,464
50.02	Traffic signals and crossi	na protection						
JU.UZ	Tranic signals and crossi							
		Traffic Signal	0	FΔ	\$150,000	02	15%	۹
		Traffic Signal Crossing Protection	0 5	EA FA	\$150,000 \$250,000	\$0 \$1 250 000	15% 15%	
		Traffic Signal Crossing Protection Element Total	0 5 5	EA EA EA	\$150,000 \$250,000	\$0 \$1,250,000 \$1,250,000	15% 15%	\$1,437,500
		Crossing Protection Element Total	5	EA		\$1,250,000		\$1,437,500
50.03	Traction power supply: s	Crossing Protection Element Total	<u>5</u> 5	EA EA	\$250,000	\$1,250,000 \$1,250,000	15%	\$1,437,500 \$1,437,500
50.03	Traction power supply: s	Crossing Protection Element Total ubstations Traction Power, Substation	5 5 2	EA EA EA		\$1,250,000 \$1,250,000 \$2,600,000		\$1,437,500 \$1,437,500 \$2,990,000
50.03	Traction power supply: s	Crossing Protection Element Total	<u>5</u> 5	EA EA	\$250,000	\$1,250,000 \$1,250,000	15%	\$1,437,500 \$1,437,500 \$2,990,000
50.04	Traction power distributio	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail	5 5 2	EA EA EA EA	\$250,000 \$1,300,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000	15%	\$1,437,500 \$1,437,500 \$2,990,000
50.04	Traction power distributio	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard	5 5 2 2 0	EA EA EA EA RF	\$250,000 \$1,300,000 \$240	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$0	15% 15% 15%	\$0 \$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$2,990,000
50.04	Traction power distributio	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard	5 5 2 2 0 10,336	EA EA EA EA RF RF	\$250,000 \$1,300,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360	15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000
50.04	Traction power distributio	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard	5 5 2 2 0	EA EA EA EA RF	\$250,000 \$1,300,000 \$240	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$0	15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000
50.04	Traction power distributio	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard Element Total	5 5 2 2 2 0 10,336 10,336	EA EA EA EA RF RF RF	\$250,000 \$1,300,000 \$240 \$260	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$0	15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,0000\$}
50.04	Traction power distributio Single Track Double Track	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard Element Total Communication, Line	5 5 2 2 2 10,336 10,336	EA EA EA EA RF RF RF	\$250,000 \$1,300,000 \$240 \$260 \$240	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,687,360 \$0 \$2,480,640	15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$0 \$2,852,736
50.04	Traction power distributio Single Track Double Track	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard Element Total	5 5 2 2 2 0 10,336 10,336	EA EA EA EA RF RF RF	\$250,000 \$1,300,000 \$240 \$260	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$0	15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$2,852,736 \$1,150,000
50.04 50.05	Traction power distributio Single Track Double Track Communications	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Element Total Communication, Line Communication, Station Element Total	5 5 2 2 10,336 10,336 10,336 2	EA EA EA EA RF RF RF RF RF EA	\$250,000 \$1,300,000 \$240 \$260 \$240	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,480,640 \$1,000,000	15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$2,852,736 \$1,150,000
50.04 50.05	Traction power distributio Single Track Double Track	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Element Total Communication, Line Communication, Station Element Total	5 5 2 2 2 10,336 10,336 10,336 2 1	EA EA EA EA RF RF RF EA LS	\$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,480,640 \$1,000,000 \$3,480,640	15% 15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$0 \$2,852,736 \$1,150,000 \$4,002,736
50.04 50.05	Traction power distributio Single Track Double Track Communications	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Element Total Communication, Line Communication, Station Element Total	5 5 2 2 2 10,336 10,336 10,336 2 10,336 2 1	EA EA EA EA RF RF EA LS EA	\$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,480,640 \$1,000,000 \$3,480,640 \$440,000	15% 15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$1,150,000 \$4,002,736 \$506,000
50.04 50.05	Traction power distributio Single Track Double Track Communications	Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total         nd equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	5 5 2 2 2 2 10,336 10,336 10,336 2 10,336 2 10,336 2 0	EA EA EA EA RF RF EA LS EA EA EA	\$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,480,640 \$1,000,000 \$3,480,640 \$440,000 \$0	15% 15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$1,150,000 \$4,002,736 \$506,000 \$506,000
50.04 50.05	Traction power distributio Single Track Double Track Communications	Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard Element Total Communication, Line Communication, Station Element Total	5 5 2 2 2 10,336 10,336 10,336 2 10,336 2 1	EA EA EA EA RF RF EA LS EA	\$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,480,640 \$1,000,000 \$3,480,640 \$440,000	15% 15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$1,150,000 \$4,002,736 \$506,000 \$000,500
50.04 50.05 50.06	Traction power distributio Single Track Double Track Communications	Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total         ad equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform         Element Total	5 5 2 2 2 2 10,336 10,336 10,336 2 10,336 2 10,336 2 0	EA EA EA EA RF RF EA LS EA EA EA	\$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,480,640 \$1,000,000 \$3,480,640 \$440,000 \$0	15% 15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$3,090,464 \$3,090,464 \$1,150,000 \$4,002,736 \$506,000 \$506,000
50.04 50.05 50.06	Traction power distributio Single Track Double Track Communications Fare collection system ar	Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total         nd equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	5 5 2 2 2 2 10,336 10,336 10,336 2 10,336 2 10,336 2 0	EA EA EA EA RF RF EA LS EA EA EA	\$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$1,250,000 \$1,250,000 \$2,600,000 \$2,600,000 \$2,687,360 \$0 \$2,480,640 \$1,000,000 \$3,480,640 \$440,000 \$0	15% 15% 15% 15% 15%	\$1,437,500 \$1,437,500 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,0000\$}

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

CAT	STATIC	DNING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60	ROW, LAND, EX	ISTING IM	PROVEMENTS						
60.01	Purchase or lease	e of real est	tate						
			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

_ /	or 1005 1 85	Sys LR	ounty MPO Trans stem Planning -Brandon Ext to CSX main line					
RAN: CAT	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10	GUIDEWAY & TRACK ELEI							
0.01	Guideway: At-grade exclusiv			~-	<b>A050</b>	<b>A</b> .	0.54	
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	<b>0</b> 4 005 40
	Double Track	At Grade - Ballasted, Open Element Total	7,618	RF RF	\$450	\$3,428,100 \$3,428,100	25%	\$4,285,12 \$4,285,12
10.02	Guideway: At-grade semi-ex	alusiva (allowe cross traffic)						
10.02	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0 \$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0 \$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF	<i><i></i></i>	\$0	2070	
10 03	Guideway: At-grade in mixed	Itraffic						
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	
		Element Total	0	RF		\$0 \$0		
0.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF	+-,	\$0		
10 05	Guideway: Built-up fill							
10.00	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	
		Element Total	0	RF		\$0	2070	
10.06	Guideway: Underground cut	& cover						
10.00	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF	,	\$0		
10 07	Guideway: Underground tun	nel						
10.01	Single Track	Subway - Direct Fixation	0	RF	\$12.000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	
		Element Total	0	RF	420,000	\$0	0070	
0.08	Guideway: Retained cut or fil	1						
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF	. ,	\$0		
0.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF		\$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track	0	RF	\$980	\$0 \$0	15%	
		Element Total	0	RF	<b>4000</b>	\$0		
0 11	Track: Ballasted							
0.11	Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	7,618	RF	\$480	\$3,656,640	15%	\$4,205,1
		Element Total	7,618	RF		\$3,656,640		\$4,205,1

			ty MPO Trans Planning ndon Ext	sit Study				
RANS	IT MODE: LRT	East of Acline to C	SX main line	& Yard				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.40.7	Tarahu. Orazial (awitahaa tar							
10.12	Track: Special (switches, tur	nouts) Special Trackwork (15% of Track Cost)	15%			\$548,496	15%	\$630,7
		Element Total	1370	LS		\$548,496	1378	\$630,7
						,		,,
10.13 1	Track: Vibration and noise d	lampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$219,398	15%	\$252,3
		Cost)				<b>\$</b> 040,000		<b>*</b> 050.0
		Element Total	1	LS		\$219,398		\$252,30
20 \$	STATIONS, STOPS, TERMI							
	At-grade station, stop, shelte							
	5, xp,ono	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	
		Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,0
		Element Total	1	EA		\$3,000,000		\$3,600,0
20 02 /	Aerial station, stop, shelter, r	nall terminal platform						
20.02 7	Aerial Station, Stop, Sheiter, I	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03 L	Underground station, stop, sl	helter, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station	0	EA	\$45,000,000	\$0	30%	
20.04.0	Other stations, landings, tarm	Element Total	0	EA		\$0		:
20.04 (	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		:
	Joint development							
20.05 .		N1/A						
20.05 .		N/A						
20.05 .		Element Total	1	LS		\$0		
	Automobile parking multi-sto	Element Total	1	LS		\$0		\$
		Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
		Element Total			\$12,000		20%	; ;
20.06 A	Automobile parking multi-sto	Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
20.06 A		Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	
20.06 A	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total	<u>0</u> 1	STL LS		\$0 \$0		:
20.06 A	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator	<u>0</u> 1 0	STL LS EA	\$200,000	\$0 \$0 \$0	20%	:
20.06 Å 20.07 E <b>40 S</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	:
20.06 Å 20.07 E 40 S	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS ork	0 1 0 0 1	STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0	20% 20%	: : : :
20.06 Å 20.07 E <b>40 S</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS ork Demolition Allowance - Low	0 1 0 0 1 7,618	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	\$297,11
20.06 Å 20.07 E 40 S	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 7,618 0	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$228,540 \$0	20% 20% 30% 30%	\$297,11
20.06 Å 20.07 e <b>40 s</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS ork Demolition Allowance - Low	0 1 0 0 1 7,618	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	\$297,11
20.06 A 20.07 E <b>40 S</b> 40.01 E	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 7,618 0 0	STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$228,540 \$0 \$0 \$0	20% 20% 30% 30%	\$297,1
20.06 A 20.07 E <b>40 S</b> 40.01 E	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n	0 1 0 0 1 7,618 0 0 7,618	STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$228,540 \$0 \$228,540	20% 20% 30% 30% 30%	\$297,10 \$297,10
20.06 A 20.07 E <b>40 S</b> 40.01 E	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 7,618 0 0	STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$228,540 \$0 \$0 \$0	20% 20% 30% 30%	\$297,11
20.06 A 20.07 E <b>40 S</b> 40.01 E	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low	0 1 0 0 1 7,618 0 0 7,618 7,618	STL LS EA EA LS LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$228,540 \$0 \$0 \$228,540 \$0 \$228,540 \$0 \$228,540	20% 20% 30% 30% 30%	\$297,11 \$297,11 \$1,386,4
20.06 A 20.07 E <b>40 S</b> 40.01 E	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	0 1 0 0 1 1 7,618 0 0 7,618 7,618 0	STL LS EA EA LS LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$228,540 \$0 \$0 \$228,540 \$1,066,520 \$0	20% 20% 30% 30% 30% 30%	\$297,11 \$297,11 \$1,386,4
20.06 Å 20.07 E <b>40 S</b> 40.01 E	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	0 1 0 0 1 1 7,618 0 7,618 7,618 0 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$228,540 \$0 \$0 \$228,540 \$0 \$228,540 \$0 \$0 \$228,540 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$297,11 \$297,11 \$1,386,4
20.06 Å 20.07 E <b>40 S</b> 40.01 E	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Low         Utility Relocation Allowance - High	0 1 0 0 1 1 7,618 0 7,618 7,618 0 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$228,540 \$0 \$0 \$228,540 \$0 \$228,540 \$0 \$0 \$228,540 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$297,11 \$297,11 \$1,386,4

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

CAT	SIT MODE: LRT					DASE	ALLOTD	τοται
NO.	STATIONING BEGIN ENI	D DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
40.04	Environmental mitigation	e.g. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	7,618	RF	\$50	\$380,900	30%	\$495,17
		Element Total	1	LS		\$380,900		\$495,17
40.05	Site structures including i	retaining walls, sound walls						
	5	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	762	RF	\$80	\$60,944	30%	\$79,22
		Element Total	1	LS	· · · · · ·	\$60,944		\$79,22
40.06	Pedestrian / bike access	and accommodation, landscaping						
		Landscaping Allowance - Low	7,618	RF	\$15	\$114,270	30%	\$148,55
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	\$
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$
		Artwork (1% of Guideway & Stations)	1%		\$000,000	\$64,281	30%	\$83,56
		Element Total	1	LS		\$178,551	0070	\$232,110
40.07	Automobile, bus, van acc	essways 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	\$ 1,000	\$400,000	0070	\$520,000
40.00								
40.08	I emporary Facilities and	other indirect costs during construction	5.0%			¢400.004	05%	<b>\$454.00</b>
		Temporary Facilities (5% of Category 40)	5.0%			\$123,391	25%	\$154,238
		Element Total	1	LS		\$123,391	2070	\$154,238
<b>50</b> 50.01	SYSTEMS Train control and signals			LS				
	SYSTEMS Train control and signals Single Track	Element Total		LS RF	\$240		15%	\$154,238
	Train control and signals	Element Total	1	RF RF	<mark>\$240</mark> \$260	\$123,391		\$154,238 \$154,238
	Train control and signals Single Track	Element Total	1	RF		\$123,391 \$123,391	15%	\$154,23 \$ \$2,277,78
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 7,618	RF RF		\$123,391 <b>\$0</b> \$1,980,680	15%	\$154,238 \$154,238 \$2,277,782
50.01	Train control and signals Single Track	Element Total Signal System Signal System Element Total	1 0 7,618 7,618	RF RF RF	\$260	\$123,391 \$0 \$1,980,680 \$1,980,680	<mark>15%</mark> 15%	\$154,238 \$ \$2,277,782 \$2,277,782
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total ng protection Traffic Signal	1 0 7,618 7,618 0	RF RF RF EA	\$260 \$150,000	\$123,391 \$0 \$1,980,680 \$1,980,680 \$1,980,680 \$0	15% 15% 15%	\$154,238 \$154,238 \$2,277,782 \$2,277,782 \$2,277,782 \$2,277,782
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 7,618 7,618	RF RF RF	\$260	\$123,391 \$0 \$1,980,680 \$1,980,680	<mark>15%</mark> 15%	
50.01 50.02	Train control and signals Single Track Double Track Traffic signals and crossi	Element Total Signal System Signal System Element Total Reference Total Crossing Protection Element Total Element Total	1 0 7,618 7,618 0 4	RF RF RF EA EA	\$260 \$150,000	\$123,391 \$0 \$1,980,680 \$1,980,680 \$1,980,680 \$0 \$1,000,000	15% 15% 15%	\$154,238 \$2,277,782 \$2,277,782 \$2,277,782 \$1,150,000
50.01 50.02	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total Reference Total Crossing Protection Element Total Ubstations	1 0 7,618 7,618 0 4 4	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$123,391 \$0 \$1,980,680 \$1,980,680 \$1,980,680 \$1,980,680 \$1,980,000 \$1,000,000	15% 15% 15% 15%	\$154,234 \$2,277,782 \$2,277,782 \$2,277,782 \$1,150,000 \$1,150,000
50.01 50.02	Train control and signals Single Track Double Track Traffic signals and crossi	Element Total Signal System Signal System Element Total Reference Total Crossing Protection Element Total Ubstations Traction Power, Substation	1 0 7,618 7,618 0 4	RF RF EA EA EA EA	\$260 \$150,000	\$123,391 \$0 \$1,980,680 \$1,980,680 \$1,980,680 \$1,900,000 \$1,000,000 \$2,600,000	15% 15% 15%	\$154,234 \$2,277,782 \$2,277,782 \$2,277,782 \$1,150,000 \$1,150,000 \$2,990,000
50.01 50.02	Train control and signals Single Track Double Track Traffic signals and crossi	Element Total Signal System Signal System Element Total Reference Total Crossing Protection Element Total Ubstations	1 0 7,618 7,618 0 4 4 2	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$123,391 \$0 \$1,980,680 \$1,980,680 \$1,980,680 \$1,980,680 \$1,980,000 \$1,000,000	15% 15% 15% 15%	\$154,234 \$2,277,782 \$2,277,782 \$2,277,782 \$1,150,000 \$1,150,000 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distributio	Element Total Signal System Signal System Element Total Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail	1 0 7,618 7,618 0 4 4 2 2 2	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$123,391 \$0 \$1,980,680 \$1,980,680 \$1,980,680 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000	15% 15% 15% 15%	\$154,233 \$2,277,783 \$2,277,783 \$2,277,783 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard	1 0 7,618 7,618 0 4 4 2 2 2 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$123,391 \$1,980,680 \$1,980,680 \$1,980,680 \$1,900,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000	15% 15% 15% 15% 15%	\$154,233 \$154,233 \$2,277,782 \$2,277,782 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distributio	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard	1 0 7,618 7,618 0 4 4 2 2 2 2 0 7,618	RF RF EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$123,391 \$1,980,680 \$1,980,680 \$1,980,680 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000	15% 15% 15% 15%	\$154,233 \$154,233 \$2,277,782 \$2,277,782 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard	1 0 7,618 7,618 0 4 4 2 2 2 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$123,391 \$1,980,680 \$1,980,680 \$1,980,680 \$1,900,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000	15% 15% 15% 15% 15%	\$154,233 \$2,277,785 \$2,277,785 \$2,277,785 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track	Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total	1 0 7,618 7,618 0 4 4 2 2 2 0 7,618 7,618	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$0,0000 \$2,600,000 \$0,000,000 \$0,000,000 \$2,600,000 \$0,000,000 \$0,000,000 \$0,000,000 \$0,000,00	15% 15% 15% 15% 15%	\$154,23 \$2,277,78 \$2,277,78 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,977,78 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000000000000000000000000000000000
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Element Total  Communication, Line	1 0 7,618 7,618 0 4 4 2 2 2 0 7,618 7,618 7,618	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$1,980,680 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000,000 \$2,600,000,000 \$2,600,000,000,000 \$2,600,000,000,000,000 \$2,600,000,000,000,0000,000,000,000,000,0	15% 15% 15% 15% 15% 15%	\$154,23 \$2,277,78 \$2,277,78 \$2,277,78 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,0000\$}
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station	1 0 7,618 7,618 0 4 4 2 2 2 0 7,618 7,618	RF RF EA EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$1,980,680 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$1,980,680 \$0 \$1,828,320 \$500,000	15% 15% 15% 15% 15%	\$154,233 \$2,277,782 \$2,277,782 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,0000\$}
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Element Total  Communication, Line	1 0 7,618 7,618 0 4 4 2 2 2 2 0 7,618 7,618 7,618 1	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$1,980,680 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000,000 \$2,600,000,000 \$2,600,000,000,000 \$2,600,000,000,000,000 \$2,600,000,000,000,0000,000,000,000,000,0	15% 15% 15% 15% 15% 15%	\$154,233 \$2,277,782 \$2,277,782 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,0000\$}
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 7,618 7,618 0 4 4 2 2 2 2 0 7,618 7,618 7,618 7,618 1 1	RF RF EA EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$1,980,680 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$1,980,680 \$0 \$1,828,320 \$500,000 \$2,328,320	15%         15%         15%         15%         15%         15%         15%         15%         15%         15%         15%	\$154,233 \$2,277,783 \$2,277,783 \$2,277,783 \$2,277,783 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2,900,0000\$2
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nt equipment         Fare Collection - 1 Platform	1 0 7,618 7,618 0 4 4 2 2 2 2 0 7,618 7,618 7,618 1 1 1	RF RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,328,320 \$20,000	15% 15% 15% 15% 15% 15% 15% 15%	\$154,23 \$2,277,78 \$2,277,78 \$2,277,78 \$2,277,78 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,0000,000 \$2,000,0
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nt equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 7,618 7,618 0 4 4 2 2 2 2 0 7,618 7,618 7,618 1 1 1 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,328,320 \$20,000 \$0 \$0	15%         15%         15%         15%         15%         15%         15%         15%         15%         15%         15%	\$154,23 \$2,277,78 \$2,277,78 \$2,277,78 \$2,277,78 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,0000 \$2,900,000 \$2,900,0000 \$2,900,000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,00000 \$2,900,0000 \$2,900,000000000000000000000000000000000
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nt equipment         Fare Collection - 1 Platform	1 0 7,618 7,618 0 4 4 2 2 2 2 0 7,618 7,618 7,618 1 1 1	RF RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,328,320 \$20,000	15% 15% 15% 15% 15% 15% 15% 15%	\$154,233 \$2,277,783 \$2,277,783 \$2,277,783 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,000000 \$2,900,0000 \$2,900,000000000000000000000000000000000
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nt equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 7,618 7,618 0 4 4 2 2 2 2 0 7,618 7,618 7,618 1 1 1 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,328,320 \$20,000 \$0 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$154,23 \$2,277,78 \$2,277,78 \$2,277,78 \$2,277,78 \$1,150,000 \$1,150,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,990,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,000 \$2,900,0000 \$2,900,000 \$2,900,0000 \$2,900,000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,0000 \$2,900,00000 \$2,900,0000 \$2,900,000000000000000000000000000000000
50.01 50.02 50.03 50.04 50.05 50.06	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications Fare collection system ar	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nt equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 7,618 7,618 0 4 4 2 2 2 2 0 7,618 7,618 7,618 1 1 1 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$123,391 \$123,391 \$1,980,680 \$1,980,680 \$0 \$1,000,000 \$1,000,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,328,320 \$20,000 \$0 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$154,238 \$0 \$2,277,782 \$2,277,782 \$2,277,782 \$0 \$1,150,000

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

TRANSIT	MODE: LRT

CAT	STATIC	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60	ROW, LAND, EX	STING IMI	PROVEMENTS						
60.01	Purchase or lease	e of real est	ate						
			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%	\$C
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$0
			Element Total	7,618	RF		\$3,047,200		\$4,570,800

RAN	SIT MODE: LRT	- Sys LR	ounty MPO Trans stem Planning -Brandon Ext inline & Yard to P	-	,			
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	9
	Double Track	At Grade - Ballasted, Open	29,642	RF	\$450	\$13,338,900	25%	\$16,673,62
		Element Total	29,642	RF		\$13,338,900		\$16,673,62
10.02	Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	:
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	:
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		:
10.03	Guideway: At-grade in mixed				<b>A</b> =00	<b>A</b> A	0.50/	
	Single Track Double Track	At Grade - Embedded, In-Street At Grade - Embedded, In-Street	0	RF	\$560 \$680	\$0 \$0	25%	
		Element Total	0	RF RF	\$680	\$0 \$0	25%	:
10.04	Cuideureur Aeriel etructure							
10.04	Guideway: Aerial structure Single Track	Bridge - Ballasted	0	DE	000 90	ድር	200/	
	Single Track	Aerial - Direct Fixation	0 0	RF RF	\$8,200 \$4,600	\$0 \$0	30% 30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$4,000 \$5,000	\$0 \$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0 \$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0 \$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	800	RF	\$6,000	\$4,800,000	30%	\$6,240,0
		Element Total	800	RF		\$4,800,000		\$6,240,0
10 05	Guideway: Built-up fill							
10.00	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	0
		Element Total	0	RF		\$0		(
10 06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	:
		Element Total	0	RF		\$0		:
10.07	Guideway: Underground tuni	nel						
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	:
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	ç
		Element Total	0	RF		\$0		:
10.08	Guideway: Retained cut or fi	Ш						
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	:
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	1
	Double Track	Retained Fill - Ballasted	800	RF	\$3,200	\$2,560,000	30%	\$3,328,0
		Element Total	800	RF		\$2,560,000		\$3,328,0
10.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	800	RF	\$810	\$648,000	15%	\$745,20
		Element Total	800	RF		\$648,000		\$745,20
	Track: Embedded							
10.10		Embedded Track	0	RF	\$490	\$0	15%	
10.10	Single Track							
10.10	Single Track Double Track	Embedded Track	0	RF	\$980	\$0	15%	
10.10				RF RF	\$980	\$0 \$0	15%	
		Embedded Track Element Total	0		\$980		15%	
	Double Track	Embedded Track	0		\$980 \$240 \$480		15% 15% 15%	

		-	ty MPO Trans Planning ndon Ext	sit Study	1			
	SIT MODE: LRT	East of CSX mainlin	e & Yard to M	Cingswa	у			
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
10.12	Track: Special (switches, tur		150/			¢0.000.004	150/	¢0,600,0
		Special Trackwork (15% of Track Cost) Element Total	15%	LS		\$2,289,024 \$2,289,024	15%	\$2,632,3 \$2,632,3
				20		φ <u>2</u> ,200,021		Ψ2,002,01
10.13	Track: Vibration and noise d	ampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$876,730	15%	\$1,008,23
		Cost)						<u> </u>
		Element Total	1	LS		\$876,730		\$1,008,23
20	STATIONS, STOPS, TERMI	NALS, INTERMODAL						
	At-grade station, stop, shelte	-						
		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	<b>AA A A A A</b>
		Center Platform Station	6	EA	\$3,000,000	\$18,000,000	20%	\$21,600,00
		Element Total	6	EA		\$18,000,000		\$21,600,0
20.02	Aerial station, stop, shelter, r	nall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03	Underground station, stop, sl							
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%	
20.04	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc. <u>N/A</u> Element Total	1	LS		\$0		
20.05	Joint development							
ZU.U:D	Joint development	N1/A						
		N/A Element Total	1	LS		\$0		:
	Automobile parking multi-sto	Element Total	1	LS		\$0		
	Automobile parking multi-sto	Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
	Automobile parking multi-sto	Element Total			\$12,000		20%	:
20.06		Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	
20.06	Automobile parking multi-stor Elevators, escalators	Element Total ry structure Parking Garage	0	STL		\$0 \$0		:
20.06		Element Total ry structure Parking Garage Element Total	0	STL LS	\$12,000 \$200,000 \$450,000	\$0	20% 20% 20%	<u> </u>
20.06		Element Total ry structure Parking Garage Element Total Eleavator	<u>0</u> 1	STL LS EA	\$200,000	\$0 \$0 \$0	20%	:
20.06 20.07 <b>40</b>	Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0	20%	
20.06 20.07 <b>40</b>	Elevators, escalators	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork	0 1 0 0 0	STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0	20% 20%	
20.06 20.07 <b>40</b>	Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low	0 1 0 0 1 29,642	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	\$1,156,0
20.06 20.07 <b>40</b>	Elevators, escalators SITEWORK & SPECIAL CO	Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  ONDITIONS rork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 0	STL LS EA EA LS RF RF	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30%	\$1,156,0 \$104,0
20.06 20.07 <b>40</b>	Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low	0 1 0 0 1 29,642 1,600	STL LS EA EA LS RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$889,260 \$889,260	20% 20% 30%	\$1,156,0 \$104,0
20.06 20.07 <b>40</b> 40.01	Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 29,642 1,600 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$889,260 \$80,000 \$0	20% 20% 30% 30%	\$1,156,0 \$104,0
20.06 20.07 <b>40</b> 40.01	Elevators, escalators SITEWORK & SPECIAL CO	Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 29,642 1,600 0 31,242	STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$889,260 \$889,260 \$80,000 \$0 \$969,260	20% 20% 30% 30% 30%	\$1,156,0 \$104,0 \$1,260,0
20.06 20.07 <b>40</b> 40.01	Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS rork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 29,642 1,600 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$889,260 \$80,000 \$0	20% 20% 30% 30%	\$1,156,03 \$104,00 \$1,260,03 \$5,394,84
20.06 20.07 <b>40</b> 40.01	Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DombitionS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         un         Utility Relocation Allowance - Low	0 1 0 0 1 29,642 1,600 0 31,242 29,642	STL LS EA EA LS LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$889,260 \$80,000 \$0 \$969,260 \$4,149,880	20% 20% 30% 30% 30%	\$1,156,0 \$104,0 \$1,260,0 \$5,394,8 \$707,2
20.06 20.07 <b>40</b> 40.01	Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         Domolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	0 1 0 0 0 1 1 29,642 1,600 0 31,242 29,642 1,600	STL LS EA EA LS LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$889,260 \$80,000 \$0 \$969,260 \$4,149,880 \$544,000	20% 20% 30% 30% 30% 30%	\$1,156,0 \$104,0 \$1,260,0 \$5,394,8 \$707,2
20.06 20.07 <b>40</b> 40.01	Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         Domolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High	0 1 29,642 1,600 0 31,242 29,642 1,600 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$889,260 \$80,000 \$0 \$969,260 \$969,260 \$4,149,880 \$544,000 \$0	20% 20% 30% 30% 30% 30%	\$1,156,0 \$104,0 \$1,260,0 \$5,394,8 \$707,2
20.06 20.07 <b>40</b> 40.01	Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         m         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	0 1 29,642 1,600 0 31,242 29,642 1,600 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$889,260 \$80,000 \$0 \$969,260 \$969,260 \$4,149,880 \$544,000 \$0	20% 20% 30% 30% 30% 30%	

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

RANS	SIT MODE: LRT STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.04	Environmental mitigation,	e.g. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	31,242	RF	\$50	\$1,562,100	30%	\$2,030,73
		Element Total	1	LS		\$1,562,100		\$2,030,73
0.05	Site structures including r	etaining walls, sound walls						
		Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	3,044	RF	\$80	\$243,536	30%	\$316,5
		Element Total	1	LS		\$243,536		\$316,5
0.06	Pedestrian / bike access a	and accommodation, landscaping						
		Landscaping Allowance - Low	29,642	RF	\$15	\$444,630	30%	\$578,0
		Landscaping Allowance - Median	1,600	RF	\$25	\$40,000	30%	\$52,0
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	
		Artwork (1% of Guideway & Stations)	1%			\$386,989	30%	\$503,08
		Element Total	1	LS		\$871,619		\$1,133,10
0.07	Automobile, bus, van acce	essways including roads, parking lots						
		Roadway Modifications Allow Full						
		Intersection	0	EA	\$50,000	\$0	30%	
		Roadway Modifications Allow AC Paving						
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	
		Parking Lots	2,200	STL	\$4,000	\$8,800,000	30%	\$11,440,0
		Element Total	1	LS		\$8,800,000		\$11,440,0
0.08	Temporary Facilities and	other indirect costs during construction						
		<b>3</b> • • • • • • • • • • • • • • • • • • •						
		Temporary Facilities (5% of Category 40)	5.0%			\$888 262	25%	\$1 110 3
50	SYSTEMS	Temporary Facilities (5% of Category 40) Element Total	5.0%	LS		\$888,262 \$888,262	25%	\$1,110,32 \$1,110,32
	Train control and signals	Element Total	1		\$240	\$888,262		\$1,110,3
	Train control and signals Single Track	Element Total	1	RF	\$240 \$260	\$888,262 <b>\$</b> 0	15%	\$1,110,3
	Train control and signals	Element Total	1		\$240 \$260	\$888,262		\$1,110,3 \$9,341,3
0.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 31,242	RF RF		\$888,262 \$0 \$8,122,920	15%	\$1,110,3 \$9,341,3
0.01	Train control and signals Single Track	Element Total Signal System Signal System Element Total	0 31,242 31,242	RF RF RF	\$260	\$888,262 \$0 \$8,122,920 \$8,122,920	<mark>15%</mark> 15%	\$1,110,3; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
0.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total rg protection Traffic Signal	0 <u>31,242</u> 31,242 0	RF RF RF EA	\$260 \$150,000	\$888,262 \$0 \$8,122,920 \$8,122,920 \$8,122,920 \$0	15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3
0.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total Traffic Signal Crossing Protection	0 <u>31,242</u> 31,242 0 15	RF RF EA EA	\$260	\$888,262 \$0 \$8,122,920 \$8,122,920 \$0 \$3,750,000	<mark>15%</mark> 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$9,341,3; \$4,312,5;
0.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total rg protection Traffic Signal	0 <u>31,242</u> 31,242 0	RF RF RF EA	\$260 \$150,000	\$888,262 \$0 \$8,122,920 \$8,122,920 \$8,122,920 \$0	15% 15% 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$9,341,3; \$4,312,5;
0.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total ubstations	0 31,242 31,242 0 15 15	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$888,262 \$0 \$8,122,920 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000	15% 15% 15% 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$9,341,3; \$4,312,5; \$4,312,5;
0.01	Train control and signals Single Track Double Track Traffic signals and crossir	Element Total Signal System Signal System Element Total raffic Signal Crossing Protection Element Total ubstations Traction Power, Substation	0 31,242 31,242 0 15 15 6	RF RF EA EA EA EA	\$260 \$150,000	\$888,262 \$0 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000	15% 15% 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$9,341,3; \$4,312,5; \$4,312,5; \$8,970,00;
0.01	Train control and signals Single Track Double Track Traffic signals and crossir	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total ubstations	0 31,242 31,242 0 15 15	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$888,262 \$0 \$8,122,920 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000	15% 15% 15% 15%	
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution	Element Total  Signal System Signal System Element Total  raffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total  n: catenary and third rail	0 31,242 31,242 31,242 0 15 15 6 6 6	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$888,262 \$0 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000	15% 15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su	Element Total  Signal System Signal System Element Total  g protection Traffic Signal Crossing Protection Element Total  ubstations Traction Power, Substation Element Total	0 31,242 31,242 0 15 15 6	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$888,262 \$0 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512,5 \$4,512
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  Jubstations Traction Power, Substation Element Total  in: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard	0 31,242 31,242 31,242 0 15 15 15 6 6 6 6 31,242	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$888,262 \$8,122,920 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15%	\$1,110,32 \$9,341,33 \$9,341,33 \$9,341,34 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track	Element Total  Signal System Signal System Element Total  raffic Signal Crossing Protection Element Total  Ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard	0 31,242 31,242 31,242 0 15 15 6 6 6 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$888,262 \$0 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$1,110,32 \$9,341,33 \$9,341,34 \$9,341,35 \$4,312,56 \$4,312,56 \$4,312,56 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$4,50 \$
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  Jubstations Traction Power, Substation Element Total  in: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard	0 31,242 31,242 31,242 0 15 15 15 6 6 6 6 31,242	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$888,262 \$8,122,920 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$9,341,3; \$9,341,3; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total  Signal System Signal System Element Total  Ing protection Traffic Signal Crossing Protection Element Total  Jubstations Traction Power, Substation Element Total  in: catenary and third rail OCS System - Standard OCS System - Standard OCS System - Standard	0 31,242 31,242 31,242 0 15 15 15 6 6 6 6 31,242	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$888,262 \$8,122,920 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$9,341,3; \$9,341,3; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$1,32; \$
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         Jubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total	0 31,242 31,242 0 15 15 6 6 6 6 0 31,242 31,242	RF RF EA EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$888,262 \$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080 \$3,000,000	15% 15% 15% 15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,52,00 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,00000 \$4,50,00000 \$4,50,00000 \$4,50,0000000000000000000000000000000000
0.01	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Element Total  Signal System Signal System Element Total  Ing protection Crossing Protection Element Total  Ubstations Traction Power, Substation Element Total  n: catenary and third rail OCS System - Standard OCS System - Standard Element Total  Communication, Line	1 0 31,242 31,242 0 15 15 6 6 6 0 31,242 31,242 31,242	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080	15% 15% 15% 15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,52,00 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,52,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,0000 \$4,50,00000 \$4,50,00000 \$4,50,00000 \$4,50,0000000000000000000000000000000000
0.01 0.02 0.03 0.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 31,242 31,242 0 15 15 6 6 6 0 31,242 31,242 31,242 6	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$888,262 \$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080 \$3,000,000	15% 15% 15% 15% 15% 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$9,341,3; \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$
0.01 0.02 0.03 0.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 31,242 31,242 0 15 15 6 6 6 0 31,242 31,242 31,242 6	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$240	\$888,262 \$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080 \$3,000,000	15% 15% 15% 15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,2,7 \$1,3,450,0 \$1,2,77,7 \$1,2,072,7
0.01 0.02 0.03 0.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment	1 0 31,242 31,242 0 15 15 6 6 6 0 31,242 31,242 31,242 31,242 1 1	RF RF EA EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$888,262 \$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080 \$3,000,000 \$10,498,080	15%         15%         15%         15%         15%         15%         15%         15%         15%         15%         15%	\$1,110,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$8,970,0 \$1,3 \$8,970,0 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,3 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$1,5 \$
0.01 0.02 0.03 0.04	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform	1 0 31,242 31,242 0 15 15 15 6 6 0 31,242 31,242 31,242 31,242 1,242 31,242 6 1 6 6 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6	RF RF EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$888,262 \$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080 \$3,000,000 \$10,498,080 \$1,320,000	15% 15% 15% 15% 15% 15% 15% 15%	\$1,110,3; \$9,341,3; \$9,341,3; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$4,312,5; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$8,970,0; \$9,341,3; \$9,341,3; \$8,970,0; \$8,970,0; \$8,970,0; \$9,341,3; \$9,341,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,3; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4; \$1,4;
0.01 0.02 0.03 0.04 0.05 0.06	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications Fare collection system an	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 31,242 31,242 0 15 15 6 6 6 0 31,242 31,242 31,242 31,242 6 1 6 0 31,242 6 1 1 6 0 31,242 6 0 1 1 1 1 1 1 1 1 1 1 1 1 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$888,262 \$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080 \$3,000,000 \$10,498,080 \$1,320,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312
0.01 0.02 0.03 0.04 0.05 0.06	Train control and signals Single Track Double Track Traffic signals and crossin Traction power supply: su Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 31,242 31,242 0 15 15 6 6 6 0 31,242 31,242 31,242 31,242 6 1 6 0 31,242 6 1 1 6 0 31,242 6 0 1 1 1 1 1 1 1 1 1 1 1 1 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$888,262 \$888,262 \$8,122,920 \$8,122,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,498,080 \$3,000,000 \$10,498,080 \$1,320,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$1,110,3 \$9,341,3 \$9,341,3 \$9,341,3 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312,5 \$4,312

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

CAT	STATIC	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60 R	OW, LAND, EX	STING IMI	PROVEMENTS						
50.01 P	urchase or lease	e of real est	ate						
			Right of Way Allowance - At Grade	30,442	RF	\$400	\$12,176,800	50%	\$18,265,20
			Right of Way Allowance - Aerial	800	RF	\$300	\$240,000	50%	\$360,00
			Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$
			Element Total	31,242	RF		\$12,416,800		\$18,625,20

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RAN	SIT MODE: LRT	Sys	ounty MPO Trans stem Planning -Mac Dill AFB wntown to Mac D	-				
CAT NO.		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELEI	MENTS						
	Guideway: At-grade exclusive							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	
	Double Track	At Grade - Ballasted, Open	29,642	RF	\$450	\$13,338,900	25%	\$16,673,6
		Element Total	29,642	RF		\$13,338,900		\$16,673,6
10.02	2 Guideway: At-grade semi-exe	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%	
		Element Total	0	RF		\$0		
10.03	Guideway: At-grade in mixed	l traffic						
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0	30%	
		Element Total	0	RF		\$0		
0.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0	25%	
		Element Total	0	RF		\$0		
0.06	Guideway: Underground cut	& cover						
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%	
		Element Total	0	RF		\$0		
0.07	Guideway: Underground tunr	nel						
	Single Track		0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	
		Element Total	0	RF		\$0		
0.08	Guideway: Retained cut or fil							
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF		\$0		
0.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	0	RF	\$810	\$0	15%	
		Element Total	0	RF		\$0		
0.10	Track: Embedded							
	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track	0	RF	\$980	\$0	15%	
		Element Total	0	RF		\$0		
0.11	Track: Ballasted							
	Single Track	Ballasted Track	0	RF	\$240	\$0	15%	
	Double Track	Ballasted Track	29,642	RF	\$480	\$14,228,160	15%	\$16,362,3
	Double Hack	Ballaotoa Traolt	29,042		ψ+00	\$14,220,100	10 /0	\$16,362,3

Hillsborough County MPO Transit Study System Planning LR-Mac Dill AFB Cass St in Downtown to Mac Dill AFB									
	SIT MODE: LRT	Cass St in Downto	own to Mac D	ill AFB					
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL	
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST	
0.12	Track: Special (switches, tur		450/			<b>\$0,404,004</b>	450/	¢0.454.0	
		Special Trackwork (15% of Track Cost) Element Total	15%	LS		\$2,134,224 \$2,134,224	15%	\$2,454,3 \$2,454,3	
		Lienent rota	I	20		ψ2,104,224		φ2,404,0	
10.13	Track: Vibration and noise d	lampening							
		Vibration Allowance (6% of Ballasted Track	6%			\$853,690	15%	\$981,7	
		Cost)							
		Element Total	1	LS		\$853,690		\$981,7	
20	STATIONS, STOPS, TERMI	NALS. INTERMODAL							
	At-grade station, stop, shelte								
		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%		
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%		
		Center Platform Station	8	EA	\$3,000,000	\$24,000,000	20%	\$28,800,0	
		Element Total	8	EA		\$24,000,000		\$28,800,0	
20.02	Aerial station, stop, shelter, r	nall, terminal, platform							
		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%		
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%		
		Center Platform Station	0	EA	\$15,000,000	\$0	25%		
		Element Total	0	EA		\$0			
0.03	Underground station, stop, sl	helter, mall, terminal, platform							
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%		
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%		
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%		
20.04	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc. N/A Element Total	1	LS		\$0			
		Element rotar	I	L3		φU			
20.05	Joint development								
20.05	Joint development	N/A							
20.05	Joint development	N/A Element Total	1	LS		\$0			
	Joint development Automobile parking multi-sto	Element Total			<u></u>		0001		
		Element Total ry structure Parking Garage	1 0 1	STL	\$12,000	\$0	20%		
		Element Total			\$12,000		20%		
20.06		Element Total ry structure Parking Garage		STL	\$12,000	\$0	20%		
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator		STL	\$200,000	\$0 \$0 \$0	20%		
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator Escalator	0 1 0 0	STL LS EA EA		\$0 \$0 \$0 \$0 \$0			
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator	<u>0</u> 1 0	STL LS EA	\$200,000	\$0 \$0 \$0	20%		
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%		
20.06 20.07 <b>40</b>	Automobile parking multi-sto	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork	0 1 0 0 1	STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0	20% 20%		
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0	20%	\$1,156,0	
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low	0 1 0 0 1 29,642	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%		
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS rork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 29,642 0	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$889,260 \$0	20% 20% 30% 30%	\$1,156,0	
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total Parking Garage Element Total Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 29,642 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$889,260 \$0 \$0 \$0	20% 20% 30% 30%	\$1,156,0	
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Parking Garage Element Total Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 29,642 0 0	STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$889,260 \$0 \$0 \$0	20% 20% 30% 30%	\$1,156,0	
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         un         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	0 1 0 0 1 29,642 0 0 29,642 29,642 29,642 0	STL LS EA EA LS LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$889,260 \$0 \$889,260 \$889,260 \$4,149,880 \$0	20% 20% 30% 30% 30% 30%	\$1,156,0 \$1,156,0 \$5,394,8	
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         York         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         In         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High	0 1 0 0 1 29,642 0 0 29,642 29,642 29,642 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30%	\$1,156,0 \$1,156,0 \$5,394,8	
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         un         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	0 1 0 0 1 29,642 0 0 29,642 29,642 29,642 0	STL LS EA EA LS LS RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$889,260 \$0 \$889,260 \$889,260 \$4,149,880 \$0	20% 20% 30% 30% 30% 30%	\$1,156,0 \$1,156,0 \$5,394,8	
20.06 20.07 40 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         York         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         In         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High	0 1 0 0 1 29,642 0 0 29,642 29,642 29,642 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$1,156,0 \$1,156,0 \$5,394,8	
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         m         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	0 1 0 0 1 29,642 0 0 29,642 29,642 29,642 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$889,260 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30% 30% 30% 30%	\$1,156,0 \$1,156,0 \$5,394,8	

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

	LR-Mac Dill AFB Cass St in Downtown to Mac Dill AFB										
	SIT MODE: LRT										
CAT NO.	STATIONING BEGIN ENI	D DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST			
0.04	Environmental mitigation	e.g. wetlands, historic/archeologic, parks									
		Enviromental Mitigation Allowance	29,642	RF	\$50	\$1,482,100	30%	\$1,926,73			
		Element Total	1	LS		\$1,482,100		\$1,926,73			
40.05	Site structures including	etaining walls, sound walls									
		Retaining & Sound Wall Allowance (10% of									
		Ballasted Track Length)	2,964	RF	\$80	\$237,136	30%	\$308,27			
		Element Total	1	LS		\$237,136		\$308,27			
40.0E	Pedestrian / bike access	and accommodation, landscaping									
		Landscaping Allowance - Low	29,642	RF	\$15	\$444,630	30%	\$578,0 ²			
		Landscaping Allowance - Median	0	RF	\$25	\$0	30%	9			
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	9			
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	ç			
		Artwork (1% of Guideway & Stations)	1%			\$373,389	30%	\$485,40			
		Element Total	1	LS		\$818,019		\$1,063,42			
10.07	Automobile, bus, van acc	essways including roads, parking lots									
		Roadway Modifications Allow Full			<b>A</b> =0.000	<b>^</b>					
			0	EA	\$50,000	\$0	30%	9			
		Roadway Modifications Allow AC Paving		~-	<b>\$</b> 0.0	<b>^</b>		_			
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$=			
		Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,00			
		Element Total	1	LS		\$4,000,000		\$5,200,00			
40.08	Temporary Facilities and	other indirect costs during construction									
		Temporary Facilities (5% of Category 40)	5.0%			\$608,462	25%				
		Temporary Facilities (5% of Category 40) Element Total	5.0% 1	LS		\$608,462 \$608,462	25%	\$760,57 \$760,57			
50	OVOTENO			LS			25%				
<b>50</b> 50.01	SYSTEMS Train control and signals			LS			25%				
	Train control and signals Single Track	Element Total	1	RF	\$240	\$608,462 \$0	15%	\$760,57			
	Train control and signals	Element Total Signal System Signal System	1 0 29,642	RF RF	<mark>\$240</mark> \$260	\$608,462 \$608,462 \$0 \$7,706,920		\$760,57 \$ \$8,862,95			
	Train control and signals Single Track	Element Total	1	RF		\$608,462 \$0	15%	\$760,57 \$ \$8,862,95			
50.01	Train control and signals Single Track	Element Total Signal System Signal System Element Total ng protection	0 29,642 29,642	RF RF RF	\$260	\$608,462 \$0 \$7,706,920 \$7,706,920	<mark>15%</mark> 15%	\$760,57 \$ \$8,862,95 \$8,862,95			
50.01	Train control and signals <mark>Single Track</mark> Double Track	Element Total Signal System Signal System Element Total ng protection Traffic Signal	0 29,642 29,642 0	RF RF RF EA	\$260 \$150,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0	15% 15% 15%	\$760,57 \$ \$8,862,95 \$8,862,95 \$8,862,95			
50.01	Train control and signals <mark>Single Track</mark> Double Track	Element Total Signal System Signal System Element Total ng protection Traffic Signal Crossing Protection	1 29,642 29,642 0 15	RF RF EA EA	\$260	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000	<mark>15%</mark> 15%	\$760,57 \$ \$8,862,95 \$8,862,95 \$8,862,95 \$ \$4,312,50			
50.01	Train control and signals <mark>Single Track</mark> Double Track	Element Total Signal System Signal System Element Total ng protection Traffic Signal	0 29,642 29,642 0	RF RF RF EA	\$260 \$150,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0	15% 15% 15%	\$760,57 \$ \$8,862,95 \$8,862,95 \$8,862,95 \$ \$4,312,50			
50.01	Train control and signals <mark>Single Track</mark> Double Track	Element Total Signal System Signal System Element Total Reference Total Crossing Protection Element Total Element Total	1 29,642 29,642 0 15	RF RF EA EA	\$260 \$150,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000	15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50			
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total Reference Total Crossing Protection Element Total Element Total	1 29,642 29,642 0 15	RF RF EA EA	\$260 \$150,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000	15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00			
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total Reference Total Crossing Protection Element Total Ubstations	0 29,642 29,642 0 15 15	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000	15% 15% 15% 15%	\$760,57 \$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00			
50.01	Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total	1 0 29,642 29,642 0 15 15 6	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000	15% 15% 15% 15%	\$760,57 \$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00			
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s	Element Total Signal System Signal System Element Total Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total	1 0 29,642 29,642 0 15 15 6	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000	15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00			
50.01	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution	Element Total Signal System Signal System Element Total Traffic Signal Crossing Protection Element Total ubstations Traction Power, Substation Element Total n: catenary and third rail	0 29,642 29,642 29,642 0 <u>15</u> 15 6 6	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000	15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00			
50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track	Element Total Signal System Signal System Element Total Ing protection Traffic Signal Crossing Protection Element Total Ubstations Traction Power, Substation Element Total In: catenary and third rail OCS System - Standard	0 29,642 29,642 29,642 0 <u>15</u> 15 6 6 6 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00			
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard	0 29,642 29,642 0 15 15 6 6 6 0 29,642	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,800,000	15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00			
50.01 50.02 50.03 50.04	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line	1 29,642 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$608,462 \$0 \$7,706,920 \$7,706,920 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,706,920 \$0 \$7,7114,080	15% 15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,0000\$8,970,000 \$8,970,0000\$8,970,0000\$8,970,000\$8,900\$8,900\$8,900\$8,900\$8,900\$8,900\$			
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50.01 50.02 50.03	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line	1 29,642 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$608,462 \$0 \$7,706,920 \$7,706,920 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,706,920 \$0 \$7,7114,080	15% 15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,00			
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642 29,642 8	RF EA EA EA EA EA EA RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$608,462 \$0 \$7,706,920 \$7,706,920 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,706,920 \$0 \$7,114,080 \$4,000,000	15% 15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$8,970,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,00			
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642 29,642 8	RF EA EA EA EA EA EA RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$608,462 \$0 \$7,706,920 \$7,706,920 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,706,920 \$0 \$7,114,080 \$4,000,000	15% 15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,500,000 \$12,781,19			
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642 29,642 29,642 1	RF RF EA EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,706,920 \$0 \$7,114,080 \$4,000,000 \$11,114,080	15%         15%         15%         15%         15%         15%         15%         15%         15%         15%         15%	\$760,57 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$4,50,000 \$12,781,19 \$2,024,000			
50.01 50.02 50.03 50.04 50.05	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         ad equipment         Fare Collection - 1 Platform	1 0 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642 29,642 1 1 8	RF RF EA EA EA EA RF RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,706,920 \$0 \$7,114,080 \$4,000,000 \$11,114,080 \$4,000,000	15% 15% 15% 15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2,024,00 \$2			
50.01 50.02 50.03 50.04 50.06 50.06	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         ad equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 29,642 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642 29,642 8 1 8 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,114,080 \$4,000,000 \$11,114,080 \$1,760,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$760,57			
50.01 50.02 50.03 50.04 50.06 50.06	Train control and signals Single Track Double Track Traffic signals and crossi Traction power supply: s Traction power distribution Single Track Double Track Communications Fare collection system ar	Signal System         Signal System         Signal System         Element Total         ng protection         Traffic Signal         Crossing Protection         Element Total         ubstations         Traction Power, Substation         Element Total         ubstations         Traction Power, Substation         Element Total         n: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         ad equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 29,642 29,642 29,642 0 15 15 6 6 6 0 29,642 29,642 29,642 29,642 8 1 8 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$608,462 \$0 \$7,706,920 \$7,706,920 \$0 \$3,750,000 \$3,750,000 \$7,800,000 \$7,800,000 \$7,800,000 \$7,114,080 \$4,000,000 \$11,114,080 \$1,760,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$760,57 \$8,862,95 \$8,862,95 \$4,312,50 \$4,312,50 \$4,312,50 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$8,970,00 \$2,024,00 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,00			

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

CAT	STATIO	NING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
- CO - D									
	OW, LAND, EXI								
60.01 Pi	urchase or lease	of real est	ate						
			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									
RAN	SIT MODE: LRT		to at grade sectio	'n					
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST	
10	GUIDEWAY & TRACK ELE	MENTS							
10.01	Guideway: At-grade exclusiv								
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%		
	Double Track	At Grade - Ballasted, Open Element Total	0	RF RF	\$450	\$0 \$0	25%		
10 02	2 Guideway: At-grade semi-ex	clusive (allows cross-traffic)							
10.02	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%		
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%		
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%		
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%		
		Element Total	0	RF		\$0			
10.03	Guideway: At-grade in mixed								
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%		
	Double Track	At Grade - Embedded, In-Street Element Total	0	RF RF	\$680	\$0 \$0	25%		
10 በ/	Guideway: Aerial structure								
10.04	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%		
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%		
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%		
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%		
	Double Track	Aerial - Direct Fixation	2,800	RF	\$5,500	\$15,400,000	30%	\$20,020,0	
	Double Track	Aerial - Direct Fixation Over Water	2,000	RF	\$6,000	\$0	30%	φ20,020,0	
		Element Total	2,800	RF	<i>\</i> 0,000	\$15,400,000	0070	\$20,020,0	
10.05	Guideway: Built-up fill								
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%		
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%		
10.00		9							
10.00	Guideway: Underground cut Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%		
	Double Track	Subway - Direct Fixation	489	RF	\$15,500	\$7,579,500	35%	\$10,232,3	
		Element Total	489	RF		\$7,579,500	0070	\$10,232,3	
10.07	′ Guideway: Underground tun								
10.07	' Guideway: Underground tun Single Track	Subway - Direct Fixation		RF	\$12,000	\$0	35%		
10.07		Subway - Direct Fixation Subway - Direct Fixation	<mark>0</mark> 0	RF	<b>\$12,000</b> \$20,000	\$0	<mark>35%</mark> 35%		
10.07	Single Track	Subway - Direct Fixation	0						
	Single Track Double Track Guideway: Retained cut or fi	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0	RF RF	\$20,000	\$0 \$0	35%		
	Single Track Double Track Guideway: Retained cut or fi Single Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	<mark>0</mark> 0	RF		\$0	35% 30%		
	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0	RF RF RF RF	\$20,000	\$0 \$0 \$0 \$0	35%		
	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0 0 0 500	RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000	\$0 \$0 \$0 \$0 \$4,000,000	35% 30% 30% 30%	\$5,200,0	
	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0 0 500 800	RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800	\$0 \$0 \$0 \$4,000,000 \$2,560,000	35% 30% 30%	\$5,200,0 \$3,328,0	
	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0 0 0 500	RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000	\$0 \$0 \$0 \$0 \$4,000,000	35% 30% 30% 30%	\$5,200,0 \$3,328,0	
10.08	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Double Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0 0 0 500 800 1,300	RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000	35% 30% 30% 30% 30%	\$5,200,0 \$3,328,0 \$8,528,0	
10.08	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track	Subway - Direct Fixation Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track	0 0 0 0 500 800 1,300	RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000 \$0	35% 30% 30% 30% 30% 15%	\$5,200,0 \$3,328,0 \$8,528,0	
10.08	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Double Track	Subway - Direct Fixation Subway - Direct Fixation Element Total	0 0 0 0 500 800 1,300	RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000	35% 30% 30% 30% 30%	\$5,200,0 \$3,328,0 \$8,528,0 \$3,529,4	
10.08	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track	Subway - Direct Fixation Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 500 800 1,300	RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000 \$3,069,090	35% 30% 30% 30% 30% 15%	\$5,200,0 \$3,328,0 \$8,528,0 \$3,529,4	
10.08	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded	Subway - Direct Fixation Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 500 800 1,300 0 3,789 3,789	RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405 \$810	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000 \$3,069,090 \$3,069,090	35% 30% 30% 30% 30% 15%	\$5,200,0 \$3,328,0 \$8,528,0 \$3,529,4 \$3,529,4	
10.08	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track	Subway - Direct Fixation         Subway - Direct Fixation         Element Total         II         Retained Cut - Direct Fixation         Retained Fill - Ballasted         Retained Fill - Ballasted         Retained Fill - Ballasted         Element Total         Direct Fixation Track         Direct Fixation Track         Element Total	0 0 0 0 500 800 1,300 0 3,789 3,789 3,789 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000 \$3,069,090 \$3,069,090 \$3,069,090 \$3,069,090 \$3,069,090	35% 30% 30% 30% 30% 15%	\$5,200,0 \$3,328,0 \$8,528,0 \$3,529,4 \$3,529,4	
10.08	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track	Subway - Direct Fixation Subway - Direct Fixation Element Total Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track Element Total	0 0 0 0 500 800 1,300 0 3,789 3,789 3,789	RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$3,200 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000 \$3,069,090 \$3,069,090 \$3,069,090	35% 30% 30% 30% 30% 15% 15%	\$5,200,C \$3,328,C \$8,528,C \$3,529,4 \$3,529,4	
10.08 10.09 10.10	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track Double Track Track: Ballasted	Subway - Direct Fixation         Subway - Direct Fixation         Element Total         II         Retained Cut - Direct Fixation         Retained Fill - Ballasted         Retained Fill - Ballasted         Element Total         Direct Fixation Track         Direct Fixation Track         Element Total         Embedded Track         Element Total	0 0 0 0 0 500 800 1,300 1,300 0 3,789 3,789 3,789 0 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$8,000 \$3,200 \$3,200 \$405 \$810 \$490 \$980	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000 \$6,560,000 \$3,069,090 \$3,069,090 \$3,069,090 \$3,069,090 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	35% 30% 30% 30% 30% 15% 15%	\$5,200,0 \$3,328,0 \$8,528,0 \$3,529,4 \$3,529,4	
10.08 10.09 10.10	Single Track Double Track Guideway: Retained cut or fi Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track Double Track	Subway - Direct Fixation         Subway - Direct Fixation         Element Total         II         Retained Cut - Direct Fixation         Retained Fill - Ballasted         Retained Fill - Ballasted         Retained Fill - Ballasted         Element Total         Direct Fixation Track         Direct Fixation Track         Element Total	0 0 0 0 500 800 1,300 0 3,789 3,789 3,789 0 0 0	RF RF RF RF RF RF RF RF RF RF RF RF	\$20,000 \$6,800 \$2,800 \$3,200 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$4,000,000 \$2,560,000 \$6,560,000 \$3,069,090 \$3,069,090 \$3,069,090 \$3,069,090 \$3,069,090	35% 30% 30% 30% 30% 15% 15%	\$5,200,0 \$3,328,0 \$8,528,0	

System Planning LR-Westchase Airport to at grade section									
DANGI	T MODE: LRT	Airport to at	grade sectio	n					
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL	
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST	
0.12 T	rack: Special (switches, tur	,							
		Special Trackwork (15% of Track Cost) Element Total	15%	LS		\$517,964	15%	\$595,6	
		Element Total	I	LS		\$517,964		\$595,6	
0.13 T	rack: Vibration and noise d	lampening							
		Vibration Allowance (6% of Ballasted Track	6%			\$23,040	15%	\$26,4	
		Cost)							
		Element Total	1	LS		\$23,040		\$26,4	
20 S	TATIONS, STOPS, TERMI	NALS. INTERMODAL							
	t-grade station, stop, shelte	-							
	- , ,,	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%		
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%		
		Center Platform Station	1	EA	\$3,000,000	\$3,000,000	20%	\$3,600,0	
		Element Total	1	EA		\$3,000,000		\$3,600,0	
0 02 4	verial station, stop, shelter, r	nall terminal platform							
0.02 A	אסרומו שמווטוו, שטף, שופונפר, ר	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%		
		Side Platform Station - 2 Platforms	0	EA	\$12,000,000	\$0 \$0	25%		
		Center Platform Station	0	EA	\$15,000,000	\$0	25%		
		Element Total	0	EA		\$0			
0.03 U	Inderground station, stop, s	helter, mall, terminal, platform							
	0 11	Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%		
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%		
		Center Platform Station	0	EA	\$45,000,000	\$0	30%		
		Element Total	0	EA		\$0			
	)ther stations landings torn	ninals: Intermodal, ferry, trolley, etc.							
0.04 0	filler stations, landings, tern								
0.04 0	Siner stations, landings, tern	N/A	1	10		¢0.			
.0.04 0	niner stations, ianulings, tern	N/A Element Total	1	LS		\$0			
	oint development		1	LS		\$0			
			1	LS		\$0			
		Element Total	1	LS		\$0 \$0			
0.05 Jo		Element Total N/A Element Total							
0.05 Jo	oint development	Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%		
0.05 Jo	oint development	Element Total N/A Element Total ry structure	1	LS	\$12,000	\$0	20%		
0.05 Ja 0.06 A	oint development	Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%		
0.05 Ja 0.06 A	oint development	Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%		
0.05 Ja 0.06 A	oint development	Element Total N/A Element Total ry structure Parking Garage Element Total	1 0 1	LS STL LS		\$0 \$0 \$0 \$0			
0.05 Ja 0.06 A	oint development	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator	1 0 1	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0	20%		
0.05 Ja 0.06 A 0.07 E	oint development	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%		
0.05 Ja 0.06 A 0.07 E <b>40 S</b>	oint development automobile parking multi-sto	Element Total          N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total	1 0 1 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20%		
0.05 Ja 0.06 A 0.07 E <b>40 S</b>	oint development automobile parking multi-sto Elevators, escalators	Element Total  N/A  Element Total  ry structure Parking Garage Element Total  Eleavator Elexator Element Total  NDITIONS ork Demolition Allowance - Low	1 0 0 0 1	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%		
0.05 Ja 0.06 A 0.07 E <b>40 S</b>	oint development automobile parking multi-sto Elevators, escalators	Element Total  N/A  Element Total  ry structure Parking Garage Element Total  Eleavator Escalator  Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 1 4,100	LS STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	. ,	
0.05 Ja 0.06 A 0.07 E <b>40 S</b>	oint development automobile parking multi-sto Elevators, escalators	Element Total  N/A  Element Total  ry structure Parking Garage Element Total  Eleavator Escalator  Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	1 0 1 0 0 1 1 0 4,100 489	LS STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010	20% 20% 30%	\$266, \$57, \$222	
0.05 Ja 0.06 A 0.07 E <b>40 S</b>	oint development automobile parking multi-sto Elevators, escalators	Element Total  N/A  Element Total  ry structure Parking Garage Element Total  Eleavator Escalator  Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 1 4,100	LS STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$57,2	
0.05 Ja 0.06 A 0.07 E <b>40 S</b> 0.01 D	oint development automobile parking multi-sto Elevators, escalators	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total	1 0 1 0 0 1 1 0 4,100 489	LS STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010	20% 20% 30% 30%	\$57,2	
0.05 Ja 0.06 A 0.07 E <b>40 S</b> 0.01 D	oint development automobile parking multi-sto Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low	1 0 1 0 0 1 1 0 4,100 489	LS STL LS EA EA LS RF RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010	20% 20% 30% 30%	\$57,2	
0.05 Ja 0.06 A 0.07 E <b>40 S</b> 0.01 D	oint development automobile parking multi-sto Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low	1 0 1 0 0 0 1 1 0 4,100 489 4,589 0 4,100	LS STL LS EA EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010 \$249,010 \$249,010 \$249,010	20% 20% 30% 30% 30% 30%	\$57,2 \$323,7 \$1,812,2	
0.05 Ja 0.06 A 0.07 E <b>40 S</b> 0.01 D	oint development automobile parking multi-sto Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High	1 0 0 0 1 1 0 4,100 489 4,589 0 4,100 489	LS STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010 \$249,010 \$249,010 \$249,010 \$249,010 \$249,010	20% 20% 30% 30% 30%	\$57,; \$323,5 \$1,812,2 \$362,5	
0.05 Ja 0.06 A 0.07 E <b>40 S</b> 0.01 D	oint development automobile parking multi-sto Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low	1 0 1 0 0 0 1 1 0 4,100 489 4,589 0 4,100	LS STL LS EA EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010 \$249,010 \$249,010 \$249,010	20% 20% 30% 30% 30% 30%	\$57,; \$323,5 \$1,812,2 \$362,5	
0.05 Ja 0.06 A 0.07 E 40 S 0.01 D	oint development automobile parking multi-sto Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	1 0 0 0 1 1 0 4,100 489 4,589 0 4,100 489	LS STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010 \$249,010 \$249,010 \$249,010 \$249,010 \$249,010	20% 20% 30% 30% 30% 30%	\$57,; \$323,5 \$1,812,2 \$362,5	
20.05 Ja 20.06 A 20.07 E 40 S 40.01 D	oint development automobile parking multi-sto Elevators, escalators <b>SITEWORK &amp; SPECIAL CO</b> Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High	1 0 0 0 1 1 0 4,100 489 4,589 0 4,100 489	LS STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$205,000 \$44,010 \$249,010 \$249,010 \$249,010 \$249,010 \$249,010	20% 20% 30% 30% 30% 30%	\$57,2 \$323,7	

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

			grade Sectio														
TRAN	SIT MODE: LRT	Airport to at	-				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															
		Enviromental Mitigation Allowance	4,589	RF	\$50	\$229,450	30%	\$298,28									
		Element Total	1	LS		\$229,450		\$298,28									
40.05	Site structures including ret	aining walls, sound walls															
		Retaining & Sound Wall Allowance (10% of															
		Ballasted Track Length)	80	RF	\$80	\$6,400	30%	\$8,32									
		Element Total	1	LS		\$6,400		\$8,32									
	<b>D</b> 1 4 1 4 1																
40.06	Pedestrian / bike access ar	nd accommodation, landscaping	0	05	<b>*</b> 4 <b>-</b>	¢o	20%	¢.									
		Landscaping Allowance - Low Landscaping Allowance - Median	0 4,100	RF RF	\$15 \$25	\$0 \$102,500	30% 30%	\$ \$133,25(									
		Landscaping Allowance - High	4,100	RF	\$23 \$40	\$19,560	30%	\$25,428									
		Pedestrain Overpasses	+03	EA	\$800,000	\$19,500 \$0	30%	φz0,420 \$(									
		Artwork (1% of Guideway & Stations)	1%	273	4000,000	\$325,395	30%	\$423,014									
		Element Total	1	LS		\$447,455		\$581,692									
40.07	Automobile, bus, van acces	ssways including roads, parking lots															
		Roadway Modifications Allow Full			<b>*</b> 50.000	<b>*</b> •	00%										
		Intersection	0	EA	\$50,000	\$0	30%	\$0									
		Roadway Modifications Allow AC Paving (incl. Curb & Sidewalk)	0	05	¢20	¢o	200/	¢									
		Parking Lots	0 1,000	SF STL	\$30 \$4,000	\$0 \$4,000,000	30% 30%	\$0 \$5,200,000									
		Element Total	1,000	LS	94,000	\$4,000,000	30%	\$5,200,000									
		Lionont rotar		20		\$ 1,000,000		<i>\\</i> 0,200,000									
40.08	Temporary Facilities and ot	her indirect costs during construction															
		Temporary Facilities (5% of Category 40)	5.0%			\$334,841	25%	\$418,552									
		Temporary Facilities (5% of Category 40) Element Total	<u>5.0%</u> 1	LS		\$334,841 \$334,841	25%	\$418,552 \$418,552									
50	SYSTEMS Train control and signals	Element Total	1		\$240	\$334,841		\$418,552									
50	SYSTEMS			LS RF RF	\$240 \$260		25% 15% 15%										
50	SYSTEMS Train control and signals Single Track	Element Total	1	RF		\$334,841	15%	\$418,552 \$0 \$1,372,111									
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track	Element Total Signal System Signal System Element Total	1 0 4,589	RF RF		\$334,841 <b>\$0</b> \$1,193,140	15%	\$418,552 \$( \$1,372,111									
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 4,589	RF RF		\$334,841 <b>\$0</b> \$1,193,140	15%	\$418,552 \$( \$1,372,111 \$1,372,111									
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total protection	0 4,589 4,589	RF RF RF	\$260	\$334,841 \$0 \$1,193,140 \$1,193,140	<mark>15%</mark> 15%	\$418,552 \$6									
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total protection Traffic Signal	0 4,589 4,589 0	RF RF RF EA	\$260 \$150,000	\$334,841 \$0 \$1,193,140 \$1,193,140 \$1,93,140 \$0	15% 15% 15%	\$418,552 \$0 \$1,372,111 \$1,372,111 \$1,372,111									
<b>50</b> 50.01 50.02	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total	0 4,589 4,589 0 0	RF RF RF EA EA	\$260 \$150,000	\$334,841 \$0 \$1,193,140 \$1,193,140 \$1,193,140 \$0 \$0 \$0	15% 15% 15%	\$418,552 \$( \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111									
<b>50</b> 50.01 50.02	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total	0 4,589 4,589 0 0	RF RF RF EA EA	\$260 \$150,000	\$334,841 \$0 \$1,193,140 \$1,193,140 \$1,193,140 \$0 \$0 \$0	15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111									
<b>50</b> 50.01 50.02	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total stations	0 4,589 4,589 4,589 0 0 0	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15%	\$418,552 \$0 \$1,372,111 \$1,372,111 \$1,372,111 \$0 \$0 \$0 \$1,495,000									
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub	Element Total Signal System Signal System Element Total protection Traffic Signal Crossing Protection Element Total ostations Traction Power, Substation Element Total	1 0 4,589 4,589 0 0 0 0	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15%	\$418,552 \$0 \$1,372,111 \$1,372,111 \$1,372,111 \$0 \$0 \$0 \$1,495,000									
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution:	Element Total          Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail	1 0 4,589 4,589 0 0 0 1 1	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000	15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$0 \$0 \$1,495,000 \$1,495,000									
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution: Single Track	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard	1 0 4,589 4,589 0 0 0 1 1 1 0	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000									
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution:	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard	1 0 4,589 4,589 0 0 0 1 1 1 0 4,589	RF RF EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$0 \$0 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000									
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution: Single Track	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard	1 0 4,589 4,589 0 0 0 1 1 1 0	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$0 \$0 \$1,495,000 \$1,495,000 \$1,495,000									
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution: Single Track	Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         pstations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total	1 0 4,589 4,589 0 0 0 1 1 1 0 4,589 4,589	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,193,140 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15% 15%	\$418,552 \$6 \$1,372,111 \$1,372,111 \$1,372,111 \$6 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000\$}}									
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution: Single Track Double Track	Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         pstations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line	1 0 4,589 4,589 0 0 0 1 1 1 0 4,589 4,589 4,589	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,193,140 \$0 \$1,193,140 \$0 \$1,193,140 \$0 \$1,193,140 \$0 \$1,193,140 \$0 \$1,193,140 \$0 \$1,193,140 \$0 \$0 \$1,193,140 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,405,000\$}									
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution: Single Track Double Track	Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         pstations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total	1 0 4,589 4,589 0 0 0 1 1 1 0 4,589 4,589	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,193,140 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$0 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000\$}}									
<b>50</b> 50.01 50.02 50.03 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sut Traction power distribution: Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         ostations         Traction Power, Substation         Catenary and third rail         OCS System - Standard         OCS System - Standard         COS System - Standard         Communication, Line         Communication, Station         Element Total	1 0 4,589 4,589 4,589 0 0 0 1 1 1 0 4,589 4,589 4,589 1	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$334,841 \$334,841 \$0 \$1,193,140 \$1,193,140 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,193,140 \$0 \$1,193,140 \$0 \$1,193,140	15% 15% 15% 15% 15% 15%	\$418,552 \$( \$1,372,111 \$1,372,111 \$1,372,111 \$( \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,372,111 \$( \$1,266,564 \$575,000									
<b>50</b> 50.01 50.02 50.03 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution: Single Track Double Track	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total	1 0 4,589 4,589 0 0 0 0 1 1 1 0 4,589 4,589 4,589 1 1	RF RF EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$334,841 \$334,841 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,601,360	15% 15% 15% 15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,372,111 \$1,266,564 \$575,000 \$1,841,564									
<b>50</b> 50.01 50.02 50.03 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sut Traction power distribution: Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         ostations         Traction Power, Substation         Catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         equipment         Fare Collection - 1 Platform	1 0 4,589 4,589 0 0 0 0 1 1 1 0 4,589 4,589 4,589 1 1 1	RF RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$334,841 \$334,841 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,101,360 \$500,000 \$1,601,360 \$220,000	15% 15% 15% 15% 15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,372,111 \$1,266,564 \$575,000 \$1,841,564 \$253,000									
<b>50</b> 50.01 50.02 50.03 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sut Traction power distribution: Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 4,589 4,589 0 0 0 0 1 1 1 0 4,589 4,589 4,589 1 1 1 0	RF RF EA EA EA EA EA EA RF RF EA LS EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$334,841 \$334,841 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,101,360 \$500,000 \$1,601,360 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$418,55; \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,372,111 \$1,266,564 \$575,000 \$1,841,564 \$253,000 \$1,841,564									
<b>50</b> 50.01 50.02 50.03 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sut Traction power distribution: Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         ostations         Traction Power, Substation         Catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         equipment         Fare Collection - 1 Platform	1 0 4,589 4,589 0 0 0 0 1 1 1 0 4,589 4,589 4,589 1 1 1	RF RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$334,841 \$334,841 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,101,360 \$500,000 \$1,601,360 \$220,000	15% 15% 15% 15% 15% 15% 15% 15%	\$418,55; \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,372,111 \$1,266,564 \$575,000 \$1,841,564 \$253,000 \$1,841,564									
<b>50</b> 50.01 50.02 50.03 50.04 50.05 50.06	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sut Traction power distribution: Single Track Double Track Communications	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 4,589 4,589 0 0 0 0 1 1 1 0 4,589 4,589 4,589 1 1 1 0	RF RF EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$334,841 \$334,841 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,101,360 \$500,000 \$1,601,360 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$418,55; \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,372,111 \$1,266,564 \$575,000 \$1,841,564 \$253,000 \$1,841,564									
<b>50</b> 50.01 50.02 50.03 50.04 50.05 50.06	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: sub Traction power distribution: Single Track Double Track Communications Fare collection system and	Signal System         Signal System         Signal System         Element Total         protection         Traffic Signal         Crossing Protection         Element Total         ostations         Traction Power, Substation         Element Total         ostations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 4,589 4,589 0 0 0 0 1 1 1 0 4,589 4,589 4,589 1 1 1 0	RF RF EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$500,000 \$220,000	\$334,841 \$334,841 \$1,193,140 \$1,193,140 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,101,360 \$500,000 \$1,601,360 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$418,552 \$1,372,111 \$1,372,111 \$1,372,111 \$1,372,111 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,372,111 \$0 \$1,266,564 \$575,000									

#### Hillsborough County MPO Transit Study System Planning LR-Westchase Airport to at grade section TRANSIT MODE: LRT STATIONING CAT UNIT BASE ALLCTD TOTAL NO. END DESCRIPTION QTY UNIT COST COST CONTGY COST BEGIN 60 ROW, LAND, EXISTING IMPROVEMENTS 60.01 Purchase or lease of real estate Right of Way Allowance - At Grade \$780,000 1,300 RF \$400 \$520,000 50% \$840,000 \$122,250 \$1,260,000 \$183,375 Right of Way Allowance - Aerial 2,800 RF \$300 50% Right of Way Allowance - Underground RF \$250 50% 489 Element Total 4,589 RF \$1,482,250 \$2,223,375

		Sys Li	Hillsborough County MPO Transit Study System Planning LR-Westchase Airport (north) to Hillsborough									
<b>FRAN</b>	SIT MODE: LRT			ugn								
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST				
10	GUIDEWAY & TRACK ELE	MENTS										
10.01	Guideway: At-grade exclusiv											
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	9				
	Double Track	At Grade - Ballasted, Open Element Total	0	RF RF	\$450	\$0 \$0	25%	:				
10.02	e Guideway: At-grade semi-ex	alusiva (allows cross traffic)										
10.02	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%					
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%					
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	:				
	Double Track	At Grade - Embedded, In-Street	0	RF	\$700	\$0	25%					
		Element Total	0	RF		\$0						
10.03	Guideway: At-grade in mixed											
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%					
	Double Track	At Grade - Embedded, In-Street Element Total	0	RF RF	\$680	\$0 \$0	25%	:				
10.04	Guideway: Aerial structure											
10.04	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%					
	Single Track	Aerial - Direct Fixation	0	RF	\$8,200 \$4,600	\$0 \$0	30%					
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0 \$0	30%					
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0 \$0	30%					
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%					
	Double Track	Aerial - Direct Fixation Over Water	0	RF	\$6,000	\$0 \$0	30%					
		Element Total	0	RF	\$0,000	\$0						
10.05	Guideway: Built-up fill											
	Single Track	At Grade - Ballasted, Built-up	0		\$480	\$0	25%	:				
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	<u> </u>				
40.00		8										
10.00	Guideway: Underground cut Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%					
	Double Track	Subway - Direct Fixation	3,323	RF	\$15,500	\$51,506,500	35%	\$69,533,7				
		Element Total	3,323	RF		\$51,506,500	0070	\$69,533,7				
10.07	Guideway: Underground tun	nel										
	Single Track		0	RF	\$12,000	\$0	35%	:				
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$20,000	\$0 \$0	35%					
			0	Γ.Γ		φυ		``				
10.08	Guideway: Retained cut or fi				<b>Aa a a a</b>	<b>A</b> .	0.001					
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800 \$2,800	\$0 \$0	30%					
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0 \$0	30% 30%					
	Double Track	Retained Cut - Direct Fixation Retained Fill - Ballasted	0	RF	\$8,000 \$3,200	\$0 \$0	30% 30%					
	Double Track	Element Total	0	RF RF	\$3,200	\$0 \$0	30%					
0.09	Track: Direct fixation											
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%					
		Direct Fixation Track	3,323	RF	\$810	\$2,691,630	15%	\$3,095,3				
	Double Track			RF		\$2,691,630		\$3,095,3				
	Double Track	Element Total	3,323	i u								
10 10		Element Total	3,323	i di								
10.10	Track: Embedded				\$490	\$0	15%					
10.10		Embedded Track Embedded Track	0	RF RF	<mark>\$490</mark> \$980	<mark>\$0</mark> \$0	<mark>15%</mark> 15%					
10.10	Track: Embedded <mark>Single Track</mark>	Embedded Track	0	RF								
	Track: Embedded <mark>Single Track</mark> Double Track Track: Ballasted	Embedded Track Embedded Track Element Total	0 0 0	RF RF RF	\$980	\$0 \$0	15%					
	Track: Embedded <mark>Single Track</mark> Double Track	Embedded Track Embedded Track	0	RF RF RF		\$0						

Hillsborough County MPO Transit Study System Planning LR-Westchase Airport (north) to Hillsborough									
RANS	SIT MODE: LRT	Airport (north)	to Hillsboro	ugh					
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL	
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST	
10.12	Track: Special (switches, tur					<b>*</b>	4=04	<b>*</b> • • • • • •	
		Special Trackwork (15% of Track Cost)	15%	10		\$403,745	15%	\$464,30	
		Element Total	I	LS		\$403,745		\$464,30	
10.13	Track: Vibration and noise d	ampening							
		Vibration Allowance (6% of Ballasted Track	6%			\$0	15%	9	
		Cost)							
		Element Total	1	LS		\$0		9	
20	STATIONS, STOPS, TERMI	NALS. INTERMODAL							
	At-grade station, stop, shelte								
	- , ,,	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	9	
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	9	
		Center Platform Station	0	EA	\$3,000,000	\$0	20%	9	
		Element Total	0	EA		\$0			
20 02	Aerial station, stop, shelter, r	nall terminal platform							
20.02	אסחמי שנמוטה, שנטף, שובונים, ו	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	9	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%		
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	Ş	
		Element Total	0	EA		\$0		ç	
20.03	Underground station, stop, sl	pelter mall terminal platform							
20.00		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%		
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0 \$0	30%	5	
		Center Platform Station	1	EA	\$45,000,000	\$45,000,000	30%	\$58,500,00	
		Element Total	1	EA		\$45,000,000		\$58,500,00	
20.04	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc. N/A Element Total	1	LS		\$0		\$	
~~ ~ <b>-</b>									
20.05	Joint development	N1/A							
		N/A Element Total	1	LS		\$0		9	
		Liement i otai	1	LO		ψυ		,	
20.06	Automobile parking multi-sto	ry structure							
		Parking Garage	0	STL	\$12,000	\$0	20%	9	
		Element Total	1	LS		\$0		9	
~~ ~-									
20.07	Elevators, escalators	Eleavator	0	EA	\$200,000	\$0	20%	9	
		Escalator	0	EA	\$200,000 \$450,000	\$0 \$0	20%	9	
		Element Total	1	LS	\$100,000	\$0	2070	9	
		Elonioni i otali							
40	SITEWORK & SPECIAL CO								
	SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	NDITIONS							
		NDITIONS	0	RF	\$30	\$0	30%	9	
		NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	0	RF	\$50	\$0	30%	9	
		NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High	0 3,323	RF RF		\$0 \$299,070		\$ \$ \$388,79	
		NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$ \$388,79	
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 3,323	RF RF	\$50	\$0 \$299,070	30%	\$ \$388,79	
40.01		NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 3,323	RF RF	\$50 \$90	\$0 \$299,070 \$299,070	30% 30%	\$ \$388,79 \$388,79	
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 3,323 3,323	RF RF RF	\$50	\$0 \$299,070	30%	9	
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 <u>3,323</u> 3,323 0	RF RF RF	\$50 \$90 \$140	\$0 <u>\$299,070</u> \$299,070 \$0	30% 30% 30%	\$ \$388,79 \$388,79 \$388,79 \$ \$	
40.01	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 3,323 3,323 0 0	RF RF RF RF	\$50 \$90 \$140 \$340	\$0 <u>\$299,070</u> \$299,070 \$0 \$0	30% 30% 30% 30%	\$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,7	
40.01 40.02	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	0 3,323 3,323 0 0 3,323	RF RF RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$299,070 \$299,070 \$0 \$0 \$1,894,110	30% 30% 30% 30%	\$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$388,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,79 \$395,7	
40.01 40.02	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total oval/mitigation, ground water treatments	0 3,323 3,323 0 0 3,323 3,323 3,323	RF RF RF RF RF RF	\$50 \$90 \$140 \$340 \$570	\$0 \$299,070 \$299,070 \$0 \$0 \$1,894,110 \$1,894,110	30% 30% 30% 30% 30%	\$ \$388,79 \$388,79 \$388,79 \$ \$2,462,34 \$2,462,34	
40.01 40.02	Demolition, Clearing, Earthw	NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total n Utility Relocation Allowance - Low Utility Relocation Allowance - Median Utility Relocation Allowance - High Element Total	0 3,323 3,323 0 0 3,323	RF RF RF RF RF RF	\$50 \$90 \$140 \$340	\$0 \$299,070 \$299,070 \$0 \$0 \$1,894,110	30% 30% 30% 30%	\$388,7 \$388,7 \$2,462,3	

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

LR-Westchase Airport (north) to Hillsborough TRANSIT MODE: LRT									
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL	
NO.	BEGIN EN		QTY	UNIT	COST	COST	CONTGY	COST	
0.04	Environmental mitigation	n, e.g. wetlands, historic/archeologic, parks Enviromental Mitigation Allowance	3,323	RF	\$50	\$166,150	30%	¢215.00	
		Element Total	3,323		90C	\$166,150	30%	\$215,99 \$215,99	
		Liement Total	1	LO		φ100,100		ψ210,99	
40.05	Site structures including	retaining walls, sound walls							
		Retaining & Sound Wall Allowance (10% of							
		Ballasted Track Length)	0	RF	\$80	\$0	30%	\$	
		Element Total	1	LS		\$0		\$	
40.06	Pedestrian / bike access	and accommodation, landscaping							
		Landscaping Allowance - Low	0	RF	\$15	\$0	30%	\$	
		Landscaping Allowance - Median	0	RF	\$25 \$40	\$0 ¢122.020	30%	\$ \$170.70	
		Landscaping Allowance - High Pedestrain Overpasses	3,323 0	RF EA	\$40 \$800,000	\$132,920 \$0	30% 30%	\$172,79 \$	
		Artwork (1% of Guideway & Stations)	1%	LA	\$800,000	\$965,065	30%	پ \$1,254,58	
		Element Total	1	LS		\$1,097,985	0070	\$1,427,38	
				20		ψ1,001,000		ψ1, 121,00	
ŧ0.07	Automobile, bus. van ac	cessways including roads, parking lots							
	, ,	Roadway Modifications Allow Full							
		Intersection	0	EA	\$50,000	\$0	30%	\$	
		Roadway Modifications Allow AC Paving							
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$	
		Parking Lots	100	STL	\$4,000	\$400,000	30%	\$520,00	
		Element Total	1	LS		\$400,000		\$520,000	
40.08	Temporary Facilities and	other indirect costs during construction							
40.08	Temporary Facilities and	l other indirect costs during construction Temporary Facilities (5% of Category 40)	5.0%			\$196.189	25%	\$245.23	
	Temporary Facilities and SYSTEMS	l other indirect costs during construction Temporary Facilities (5% of Category 40) Element Total	<u>5.0%</u> 1	LS		\$196,189 \$196,189	25%		
<b>50</b> 50.01	SYSTEMS Train control and signals	Temporary Facilities (5% of Category 40) Element Total	1		\$240	\$196,189		\$245,23	
<b>50</b> 50.01	SYSTEMS	Temporary Facilities (5% of Category 40) Element Total Signal System	1	RF	\$240 \$260	\$196,189 <b>\$</b> 0	15%	\$245,23 \$	
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track	Temporary Facilities (5% of Category 40) Element Total	1		<mark>\$240</mark> \$260	\$196,189		\$245,23 \$ \$993,57	
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total	1 0 3,323	RF RF		\$196,189 \$0 \$863,980	15%	\$245,23 \$ \$993,57	
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track	Signal System         Signal System         Signal System         Element Total	1 0 3,323 3,323	RF RF RF	\$260	\$196,189 \$0 \$863,980 \$863,980	<mark>15%</mark> 15%	\$245,23 \$ \$993,57 \$993,57	
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Temporary Facilities (5% of Category 40) Element Total Signal System Signal System Element Total	1 0 3,323	RF RF		\$196,189 \$0 \$863,980 \$863,980 \$863,980 \$0	15%	\$245,23 \$993,57 \$993,57 \$993,57	
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Signal System         Signal System         Signal System         Element Total         Image: Signal System         Element Total         Image: Signal System         Traffic Signal	1 0 3,323 3,323 0	RF RF RF EA	\$260 \$150,000	\$196,189 \$0 \$863,980 \$863,980	15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$	
<b>50</b> 50.01 50.02	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross	Signal System         Signal System         Signal System         Element Total         Image: Signal System         Element Total         Element Total         Element Total	1 0 3,323 3,323 0 0	RF RF RF EA EA	\$260 \$150,000	\$196,189 \$0 \$863,980 \$863,980 \$863,980 \$0 \$0	15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02	SYSTEMS Train control and signals Single Track Double Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total	1 0 3,323 3,323 0 0	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$196,189 \$0 \$863,980 \$863,980 \$863,980 \$0 \$0 \$0 \$0	15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross	Signal System         Signal System         Signal System         Element Total         Image: Signal System         Element Total         Element Total         Element Total	1 0 3,323 3,323 0 0 0	RF RF RF EA EA	\$260 \$150,000	\$196,189 \$0 \$863,980 \$863,980 \$863,980 \$0 \$0	15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation	1 0 3,323 3,323 0 0 0 1	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail	1 0 3,323 3,323 0 0 0 1	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15%	\$245,230 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total	1 0 3,323 3,323 0 0 0 1	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15%	\$245,230 \$993,57 \$993,57 \$993,57 \$9 \$1,495,000 \$1,495,000	
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard	1 0 3,323 3,323 0 0 0 0 1 1 1 1 0 3,323	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15%	\$245,236 \$245,236 \$993,577 \$993,577 \$993,577 \$993,577 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000	
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard	1 0 3,323 3,323 0 0 0 0 1 1	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000	15% 15% 15% 15% 15%	\$245,230 \$993,57 \$993,57 \$993,57 \$9 \$1,495,000 \$1,495,000 \$1,495,000	
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total	1 0 3,323 3,323 0 0 0 0 1 1 1 1 0 3,323 3,323	RF RF EA EA EA EA EA RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02 50.03 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         Cemmunication, Line	1 0 3,323 3,323 0 0 0 0 0 1 1 1 1 0 3,323 3,323 3,323 3,323	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000,000 \$1,000,000,000 \$1,000,000,000,000,000 \$1,000,000,000,000,000 \$1,000,000,000,000,000,000,000,000,000,0	15% 15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02 50.03 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station	1 0 3,323 3,323 0 0 0 0 1 1 1 1 1 0 3,323 3,323 3,323 3,323 1	RF RF EA EA EA EA EA RF RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57	
<b>50</b> 50.01 50.02 50.03 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         Cement Total	1 0 3,323 3,323 0 0 0 0 0 1 1 1 1 0 3,323 3,323 3,323 3,323	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000,000 \$1,000,000,000 \$1,000,000,000,000,000 \$1,000,000,000,000,000 \$1,000,000,000,000,000,000,000,000,000,0	15% 15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57	
<b>50</b> 50.01 50.02 50.03 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total	1 0 3,323 3,323 0 0 0 0 1 1 1 1 1 0 3,323 3,323 3,323 3,323 1	RF RF EA EA EA EA EA EA EA EA RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	15% 15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nd equipment         Fare Collection - 1 Platform	1 0 3,323 3,323 0 0 0 0 1 1 1 1 1 0 3,323 3,323 3,323 3,323 1	RF RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,297,520 \$220,000	15% 15% 15% 15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nd equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 3,323 3,323 0 0 0 0 1 1 1 0 3,323 3,323 3,323 3,323 1 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$500,000	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,207,520 \$500,000 \$1,297,520 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,492,140 \$575,000 \$1,492,140 \$253,000 \$	
<b>50</b> 50.01 50.02 50.03 50.04 50.05	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nd equipment         Fare Collection - 1 Platform	1 3,323 3,323 3,323 0 0 0 0 1 1 1 0 3,323 3,323 3,323 1 1 1	RF RF EA EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,297,520 \$220,000	15% 15% 15% 15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
<b>50</b> 50.01 50.02 50.03 50.04 50.05 50.06	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track Communications	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nd equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 3,323 3,323 3,323 0 0 0 0 1 1 1 0 3,323 3,323 3,323 1 1 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,207,520 \$500,000 \$1,297,520 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$245,230 \$993,57 \$993,57 \$993,57 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,495,000 \$1,492,140 \$575,000 \$1,492,140 \$253,000 \$1	
<b>50</b> 50.01 50.02 50.03 50.04 50.05 50.06	SYSTEMS Train control and signals Single Track Double Track Traffic signals and cross Traction power supply: s Traction power distribution Single Track Double Track Communications Fare collection system a	Temporary Facilities (5% of Category 40)         Element Total         Signal System         Signal System         Element Total         ing protection         Traffic Signal         Crossing Protection         Element Total         substations         Traction Power, Substation         Element Total         on: catenary and third rail         OCS System - Standard         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         nd equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 3,323 3,323 3,323 0 0 0 0 1 1 1 0 3,323 3,323 3,323 1 1 1	RF RF EA EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$196,189 \$0 \$863,980 \$863,980 \$0 \$0 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,300,000 \$1,207,520 \$500,000 \$1,297,520 \$220,000 \$0	15% 15% 15% 15% 15% 15% 15% 15%	\$245,23 \$993,57 \$993,57 \$993,57 \$ \$ \$ \$ \$ \$ \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ 993,57 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	

#### Hillsborough County MPO Transit Study System Planning LR-Westchase Airport (north) to Hillsborough TRANSIT MODE: LRT STATIONING CAT UNIT BASE ALLCTD TOTAL NO. BEGIN END DESCRIPTION QTY UNIT COST COST CONTGY COST 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 RF \$250 50% \$1,246,125 3,323 \$830,750 Element Total 3,323 RF \$830,750 \$1,246,125

			ugh County MPO Trans System Planning LR-Westchase Hillsborough to CSX	sit Study				
	SIT MODE: LRT							
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	
	Double Track	At Grade - Ballasted, Open	13,529	RF	\$450	\$6,088,050	25%	\$7,610,0
		Element Total	13,529	RF		\$6,088,050		\$7,610,0
10.02	Guideway: At-grade semi-ex	clusive (allows cross-traffic)						
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%	
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%	
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	2,800	RF	\$700	\$1,960,000	25%	\$2,450,0
		Element Total	2,800	RF		\$1,960,000		\$2,450,0
10.03	Guideway: At-grade in mixed	d traffic						
	Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%	
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%	
		Element Total	0	RF		\$0		
10.04	Guideway: Aerial structure							
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%	
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%	
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%	
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%	
	Double Track	Aerial - Direct Fixation Over Water	100	RF	\$6,000	\$600,000	30%	\$780,0
		Element Total	100	RF		\$600,000		\$780,0
10.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$600	\$0 \$0	25%	
		Element Total	0	RF		\$0		
10.06	Guideway: Underground cut							
	Single Track	Subway - Direct Fixation	0	RF	\$10,000	<b>\$0</b>	35%	
	Double Track	Subway - Direct Fixation Element Total	0	RF RF	\$15,500	\$0 \$0	35%	
		Element rotar	0	КГ		φυ		
10.07	Guideway: Underground tun							
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%	
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%	
		Element Total	0	RF		\$0		
10.08	Guideway: Retained cut or fi	II						
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Direct Fixation	500	RF	\$8,000	\$4,000,000	30%	\$5,200,0
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	500	RF		\$4,000,000		\$5,200,0
10.09	Track: Direct fixation							
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%	
	Double Track	Direct Fixation Track	600	RF	\$810	\$486,000	15%	\$558,9
		Element Total	600	RF		\$486,000		\$558,9
10.10	Track: Embedded							
0	Single Track	Embedded Track	0	RF	\$490	\$0	15%	
	Double Track	Embedded Track	2,800	RF	\$980	\$2,744,000	15%	\$3,155,6
		Element Total	2,800	RF	<i>4000</i>	\$2,744,000		\$3,155,6
	Track: Ballasted							
		Delle start Trank	0	DE	\$240	\$0	15%	
10.11	Single Track	Ballasted Track	0	RF	φ240	<b>4</b> 0	1070	
10.11	Single Track Double Track	Ballasted Track	13,529	RF RF	\$480	\$6,493,920	15%	\$7,468,0 \$7,468,0

		LR-We	Planning estchase	sit Study	1			
RAN	SIT MODE: LRT	Hillsbord	ough to CSX					
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.12	Track: Special (switches, tur		150/			\$1.458.588	150/	¢4 677 0
		Special Trackwork (15% of Track Cost) Element Total	15%	LS		\$1,458,588	15%	\$1,677,3 \$1,677,3
				LO		ψ1,400,000		ψ1,077,0
10.13	Track: Vibration and noise d	lampening						
		Vibration Allowance (6% of Ballasted Track	6%			\$389,635	15%	\$448,0
		Cost)						
		Element Total	1	LS		\$389,635		\$448,08
20	STATIONS, STOPS, TERMI	INALS. INTERMODAL						
	At-grade station, stop, shelte							
	· · ·	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	:
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	:
		Center Platform Station	2	EA	\$3,000,000	\$6,000,000	20%	\$7,200,0
		Element Total	2	EA		\$6,000,000		\$7,200,0
20 02	Aerial station, stop, shelter, r	mall terminal platform						
_0.02		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%	
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%	
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03	Underground station, stop, s	helter, mall, terminal, platform						
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%	
20.04	Other stations, landings, term	ninals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		;
20 05	laint dovalanment							
20.05	Joint development	N/Δ						
20.05	Joint development	N/A Element Total	1	LS		\$0		
		Element Total	1	LS		\$0		
	Joint development Automobile parking multi-sto	Element Total	1	LS	\$12,000	\$0	20%	
		Element Total			\$12,000		20%	:
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage	0	STL	\$12,000	\$0	20%	:
20.06		Element Total ory structure Parking Garage Element Total	<u>0</u> 1	STL LS		\$0 \$0		
20.06	Automobile parking multi-sto	Element Total ry structure Parking Garage	0	STL	\$12,000 \$200,000 \$450,000	\$0	20% 20% 20%	: : :
20.06	Automobile parking multi-sto	Element Total ory structure Parking Garage Element Total Eleavator	<u>0</u> 1 0	STL LS EA	\$200,000	\$0 \$0 \$0	20%	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total Parking Garage Element Total Eleavator Escalator Element Total DNDITIONS	0 1 0 0	STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0	20%	:
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators	Element Total Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS Jork	0 1 0 0 1	STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0	20% 20%	: : : :
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS /ork Demolition Allowance - Low	0 1 0 0 1 1 3,529	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	\$527,6
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS Jork Demolition Allowance - Low Demolition Allowance - Median	0 1 0 0 1 1 3,529 3,400	STL LS EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$170,000	20% 20% 30% 30%	\$527,6i \$221,0i
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total Parking Garage Element Total Eleavator Escalator Element Total ONDITIONS /ork Demolition Allowance - Low	0 1 0 0 1 1 3,529	STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	\$527,6 \$221,0
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total Parking Garage Element Total Eleavator Escalator Element Total  DIDITIONS Nork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 13,529 3,400 0	STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$170,000 \$0	20% 20% 30% 30%	\$527,6 \$221,0
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	Element Total  Parking Garage Element Total  Eleavator Escalator Element Total  DIDITIONS  Vork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 1 3,529 3,400 0 16,929	STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$405,870 \$170,000 \$0 \$575,870	20% 20% 30% 30% 30%	\$527,6 \$221,00 \$748,6
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ary structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DombitionS         vork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         Durbition Allowance - High         Utility Relocation Allowance - Low	0 1 0 0 1 13,529 3,400 0	STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$170,000 \$0 \$575,870 \$1,894,060	20% 20% 30% 30%	\$527,6: \$221,00 \$748,6: \$2,462,2
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total  Parking Garage Element Total  Eleavator Escalator Element Total  DIDITIONS  Vork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	0 1 0 0 1 1 3,529 3,400 0 16,929 13,529	STL LS EA EA LS LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$405,870 \$170,000 \$0 \$575,870	20% 20% 30% 30% 30%	\$527,6 \$221,0 \$748,6 \$2,462,2 \$1,502,8
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ary structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DombitionS         vork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         vork         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median	0 1 0 0 1 1 3,529 3,400 0 16,929 13,529 3,400	STL LS EA EA LS LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$170,000 \$0 \$575,870 \$1,894,060 \$1,156,000	20% 20% 30% 30% 30% 30%	\$527,6 \$221,0 \$748,6 \$2,462,2 \$1,502,8
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         Parking Garage         Element Total         Eleavator         Escalator         Element Total         DONDITIONS         rork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         on         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	0 1 0 0 1 1 3,529 3,400 0 16,929 13,529 3,400 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$170,000 \$0 \$575,870 \$1,894,060 \$1,156,000 \$0	20% 20% 30% 30% 30% 30%	\$527,6 \$221,0 \$748,6 \$2,462,2 \$1,502,8
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         ary structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         Domolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         ON         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High	0 1 0 0 1 1 3,529 3,400 0 16,929 13,529 3,400 0 0	STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$170,000 \$0 \$575,870 \$1,894,060 \$1,156,000 \$0	20% 20% 30% 30% 30% 30%	\$527,6 \$221,00 \$748,6

#### Hillsborough County MPO Transit Study System Planning LR-Westchase Hillsborough to CSX TRANSIT MODE: LRT CAT STATIONING UNIT BASE ALLCTD TOTAL DESCRIPTION UNIT BEGIN END QTY COST COST CONTGY COST NO. 40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks Enviromental Mitigation Allowance 16,929 RF \$50 \$846,450 30% \$1,100,385 Element Total LS \$846,450 \$1,100,385 1 40.05 Site structures including retaining walls, sound walls Retaining & Sound Wall Allowance (10% of Ballasted Track Length) \$140.702 1,353 RF \$80 \$108.232 30% Element Total LS \$108,232 \$140,702 1 40.06 Pedestrian / bike access and accommodation, landscaping \$263,816 Landscaping Allowance - Low 13,529 RF \$15 \$202,935 30% Landscaping Allowance - Median 3,400 RF \$25 \$85,000 30% \$110,500 Landscaping Allowance - High 0 RF \$40 \$0 30% \$0 Pedestrain Overpasses 0 ΕA \$800.000 \$0 30% \$0 Artwork (1% of Guideway & Stations) 1% \$186,481 30% \$242,425 \$474,416 \$616,740 Element Total LS 1 40.07 Automobile, bus, van accessways including roads, parking lots Roadway Modifications Allow. - Full Intersection ΕA \$50.000 \$195,000 3 \$150,000 30% Roadway Modifications Allow. - AC Paving (incl. Curb & Sidewalk) 67,200 SF \$30 \$2,016,000 30% \$2,620,800 Parking Lots 400 \$1,600,000 \$2,080,000 STL \$4.000 30% Element Total LS \$3,766,000 \$4,895,800 1 40.08 Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40) \$457,980 25% \$572,475 5.0% Element Total LS \$457,980 \$572,475 1 SYSTEMS 50 50.01 Train control and signals Signal System \$240 Single Track 0 RF \$0 15% \$0 Signal System 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 \$450,000 \$517,500 Traffic Signal 3 ΕA \$150,000 15% \$250,000 \$2,012,500 **Crossing Protection** 7 ΕA \$1,750,000 15% Element Total 10 ΕA \$2,200,000 \$2,530,000 50.03 Traction power supply: substations Traction Power, Substation \$1,300,000 \$5,200,000 \$5,980,000 4 ΕA 15% \$5,980,000 Element Total 4 ΕA \$5,200,000 50.04 Traction power distribution: catenary and third rail OCS System - Standard RF \$240 Single Track 0 \$0 15% \$0 Double Track OCS System - Standard 16,929 RF \$260 \$4,401,540 15% \$5,061,771 RF Element Total 16,929 \$0 \$0 50.05 Communications Communication, Line 16,929 RF \$240 \$4,062,960 15% \$4,672,404 Communication, Station 2 ΕA \$500,000 \$1,000,000 15% \$1,150,000 Element Total LS \$5,062,960 \$5,822,404 1 50.06 Fare collection system and equipment Fare Collection - 1 Platform 2 ΕA \$220.000 \$440.000 15% \$506.000 Fare Collection - 2 Platform ΕA \$400,000 \$0 \$0 0 15% Element Total IS \$440,000 \$506,000 1 50.07 Central Control N/A Element Total 1 LS \$0 \$0

	Hillsborough County MPO Transit Study									
			2	tem Planning						
				-Westchase						
Hillsborough to CSX										
TRAN	SIT MODE: LRT									
CAT	STATION					UNIT	BASE	ALLCTD	TOTAL	
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST	
60	ROW, LAND, EXIS	TING IMP	ROVEMENTS							
60.01	Purchase or lease of	of real esta	ate							
			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	
I										

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	
10	GUIDEWAY & TRACK ELEI	MENTS							
	Guideway: At-grade exclusive								
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%	:	
	Double Track	At Grade - Ballasted, Open	23,319	RF	\$450	\$10,493,550	25%	\$13,116,93	
		Element Total	23,319	RF		\$10,493,550		\$13,116,9	
10.02	Guideway: At-grade semi-exe	clusive (allows cross-traffic)							
	Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%		
	Single Track	At Grade - Embedded, In-Street	0	RF	\$580	\$0	25%		
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0 \$0	25%		
	Double Track	At Grade - Embedded, In-Street Element Total	0	RF RF	\$700	\$0 \$0	25%		
		Liement Total	0	N.		φυ			
10.03	Guideway: At-grade in mixed		0		<b>¢</b> ECO	<u>۴</u> ۵	050/		
	Single Track Double Track	At Grade - Embedded, In-Street At Grade - Embedded, In-Street	0	RF RF	<mark>\$560</mark> \$680	<mark>\$0</mark> \$0	25% 25%		
		Element Total	0 0	RF RF	ΦΟΩΟ	\$0 \$0	25%		
10 04	Guideway: Aerial structure								
10.04	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%		
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0 \$0	30%		
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%		
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%		
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%		
	Double Track	Aerial - Direct Fixation Over Water	50	RF	\$6,000	\$300,000	30%	\$390,0	
		Element Total	50	RF		\$300,000		\$390,0	
10.05	Guideway: Built-up fill								
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480	\$0	25%		
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%		
		•							
10.06	Guideway: Underground cut	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%		
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%		
		Element Total	0	RF	,	\$0			
10.07	Guideway: Underground tunr	nel							
	Single Track		0	RF	\$12,000	\$0	35%		
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%		
		Element Total	0	RF		\$0			
10.08	Guideway: Retained cut or fil	I							
	Single Track	Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%		
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%		
	Double Track	Retained Cut - Direct Fixation	0	RF	\$8,000	\$0	30%		
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%		
		Element Total	0	RF		\$0			
0.09	Track: Direct fixation								
	Single Track	Direct Fixation Track	0	RF	\$405	\$0	15%		
	Double Track	Direct Fixation Track	50	RF	\$810	\$40,500	15%	\$46,5	
		Element Total	50	RF		\$40,500		\$46,5	
0.10	Track: Embedded								
	Single Track	Embedded Track	0	RF	\$490	\$0	15%		
	Double Track	Embedded Track Element Total	0	RF RF	\$980	\$0 \$0	15%		
			0	INI"		φU			
0.11	Track: Ballasted	Pallacted Track		DE	- <b>0</b> 040	<b>C</b>	159/		
10.11	Track: Ballasted <mark>Single Track</mark> Double Track	Ballasted Track Ballasted Track	0 23,319	RF RF	<mark>\$240</mark> \$480	<mark>\$0</mark> \$11,193,120	<mark>15%</mark> 15%	\$12,872,0	

		LR-We	Planning estchase	-	/					
On CSX to west of Sheldon TRANSIT MODE: LRT										
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL		
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST		
0.12	Track: Special (switches, tur		450/			<b>A</b> 4 005 040	450/	\$4.007 T		
		Special Trackwork (15% of Track Cost) Element Total	15%	LS		\$1,685,043 \$1,685,043	15%	\$1,937,7		
		Liement Total	ļ	L3		φ1,00 <u>3</u> ,043		φ1,937,73		
10.13	Track: Vibration and noise d	ampening								
		Vibration Allowance (6% of Ballasted Track	6%			\$671,587	15%	\$772,3		
		Cost)								
		Element Total	1	LS		\$671,587		\$772,32		
20	STATIONS, STOPS, TERMI	NALS, INTERMODAL								
	At-grade station, stop, shelte									
		Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%			
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%			
		Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,00		
		Element Total	4	EA		\$12,000,000		\$14,400,0		
20.02	Aerial station, stop, shelter, r	nall, terminal, platform								
		Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%			
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0	25%			
		Center Platform Station	0	EA	\$15,000,000	\$0	25%			
		Element Total	0	EA		\$0				
20.03	Underground station, stop, sl	helter, mall, terminal, platform								
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%			
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%			
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%			
20.04	Other stations, landings, tern	ninals: Intermodal, ferry, trolley, etc.								
		Element Total	1	LS		\$0				
20.05	loint development	Element Total	1	LS		\$0		:		
20.05	Joint development		1	LS		\$0		:		
20.05	Joint development	Element Total N/A Element Total	1	LS		\$0				
	Joint development Automobile parking multi-sto	N/A Element Total								
		N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%			
		N/A Element Total	1	LS	\$12,000	\$0	20%			
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%			
20.06		N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%	:		
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator	1 0 1 0 0	LS STL LS EA EA		\$0 \$0 \$0 \$0 \$0 \$0 \$0				
20.06	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage Element Total Eleavator	1 0 1	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0	20%	:		
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%			
20.06 20.07 <b>40</b>	Automobile parking multi-sto	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0 1	LS STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20%			
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total	1 0 1 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20%	\$909,4		
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low	1 0 1 0 0 1 23,319	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20% 30%	\$909,4 \$3,2		
20.06 20.07 <b>40</b>	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 23,319 50	LS STL LS EA EA EA S RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$909,4 \$3,2		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO	N/A Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 23,319 50 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$2,500 \$2,500 \$0	20% 20% 30% 30%	\$909,4 \$3,2		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 23,319 50 0	LS STL LS EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$2,500 \$2,500 \$0	20% 20% 30% 30%			
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total  n Utility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 1 0 0 0 1 23,319 50 0 23,369	LS STL LS EA EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$2,500 \$2,500 \$0 \$702,070	20% 20% 30% 30% 30%	\$909,4 \$3,2 \$912,6		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Itility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 1 23,319 50 23,369 23,319 50 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30% 30%	\$909,4 \$3,2 \$912,6 \$4,244,0 \$22,1		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	N/A Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Element Total  n Utility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 1 0 0 0 1 23,319 50 23,369 23,319 50	LS STL LS EA EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30% 30% 30%	\$909,4 \$3,2 \$912,6 \$4,244,0 \$22,1		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         NULLIVE         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total         Element Total	1 0 1 23,319 50 23,369 23,319 50 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30% 30% 30%	\$909,4 \$3,2 \$912,6 \$4,244,0		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-sto Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw Site Utilities, Utility Relocatio	N/A Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - High Itility Relocation Allowance - Low Utility Relocation Allowance - Median	1 0 1 23,319 50 23,369 23,319 50 0	LS STL LS EA EA EA LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30% 30% 30%	\$909,4 \$3,2 \$912,6 \$4,244,0 \$22,1		

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

			estchase /est of Sheldo	on				
CAT NO.	SIT MODE: LRT STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
		e.g. wetlands, historic/archeologic, parks	5411	UNIT			CONTON	
	Linnennen an indgaderi, e	Enviromental Mitigation Allowance	23,369	RF	\$50	\$1,168,450	30%	\$1,518,98
		Element Total	1	LS		\$1,168,450		\$1,518,98
40.05	Site structures including rel	-						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	0.000	DE	<b>¢</b> 00	\$400 FF0	200/	¢040.54
		Element Total	2,332	RF LS	\$80	\$186,552 \$186,552	30%	\$242,51 \$242,51
						<b>.</b> ,		<b>+</b> ,-
10.06	Pedestrian / bike access ar	nd accommodation, landscaping						
		Landscaping Allowance - Low	23,319	RF	\$15	\$349,785	30%	\$454,72
		Landscaping Allowance - Median	50	RF	\$25	\$1,250	30%	\$1,62
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	ç
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	
		Artwork (1% of Guideway & Stations) Element Total	<u>1%</u> 1	LS		\$227,936	30%	\$296,31
		Element rotal	I	15		\$578,971		\$752,66
0.07	Automobile, bus, van acces	ssways including roads, parking lots						
		Roadway Modifications Allow Full						
		Intersection	0	EA	\$50,000	\$0	30%	
		Roadway Modifications Allow AC Paving			<b>\$</b> 2.2	<b>A a</b>	0.001	
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	¢7.000.00
		Parking Lots Element Total	1,400	STL LS	\$4,000	\$5,600,000 \$5,600,000	30%	\$7,280,00 \$7,280,00
		Liement Total		LU		ψ0,000,000		ψ1,200,00
40.08	Temporary Facilities and of	ther indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%	LS		\$599,254	25%	\$749,06
50	SYSTEMS							
50.01	Train control and signals Single Track	Signal System	0	RF	\$240	\$0	15%	9
	Double Track	Signal System	23,369	RF	\$260	\$6,075,940	15%	\$6,987,33
		Element Total	23,369	RF		\$6,075,940		\$6,987,33
50 02	Traffic signals and crossing	u protection						
0.02		Traffic Signal	0	EA	\$150,000	\$0	15%	S
		Crossing Protection	12	EA	\$250,000	\$3,000,000	15%	\$3,450,00
		Element Total	12	EA		\$3,000,000		\$3,450,00
50.03	Traction power supply: sub							
		Traction Power, Substation	5	EA	\$1,300,000	\$6,500,000	15%	\$7,475,00
		Element Total	5	EA		\$6,500,000		\$7,475,00
50.04	Traction power distribution:	catenary and third rail						
	Single Track	OCS System - Standard	0	RF	\$240	\$0	15%	9
	Double Track	OCS System - Standard	23,369	RF	\$260	\$6,075,940	15%	\$6,987,33
		Element Total	23,369	RF		\$0		\$
50.05	Communications							
		Communication, Line	23,369	RF	\$240	\$5,608,560	15%	\$6,449,84
		Communication, Station	4	EA	\$500,000	\$2,000,000	15%	\$2,300,00
		Element Total	1	LS		\$7,608,560		\$8,749,84
50.06	Fare collection system and	equipment						
		Fare Collection - 1 Platform	4	EA	\$220,000	\$880,000	15%	\$1,012,00
		Fare Collection - 2 Platform	0	EA	\$400,000	\$0	15%	\$
		Element Total	1	LS		\$880,000		\$1,012,00
E0 07	Control Control							
0.07	Central Control	N/A						
		Element Total	1	LS		\$0		\$
						<i>40</i>		

#### Hillsborough County MPO Transit Study System Planning LR-Westchase On CSX to west of Sheldon TRANSIT MODE: LRT STATIONING CAT UNIT BASE ALLCTD TOTAL NO. END DESCRIPTION QTY UNIT COST COST CONTGY COST BEGIN 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 50% \$0 \$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)									
	SIT MODE: LRT STATIONING					DASE	ALLCTD	TOTAL	
CAT NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	BASE COST	CONTGY	COST	
10	GUIDEWAY & TRACK ELE	MENTS							
0.01	Guideway: At-grade exclusiv								
	Single Track	At Grade - Ballasted, Open	0	RF	\$350	\$0	25%		
	Double Track	At Grade - Ballasted, Open Element Total	58,255 58,255	RF RF	\$450	\$26,214,750 \$26,214,750	25%	\$32,768,4 \$32,768,4	
10.00									
10.02	2 Guideway: At-grade semi-ex Single Track	At Grade - Ballasted, In-Street	0	RF	\$440	\$0	25%		
	Single Track	At Grade - Embedded, In-Street	0	RF	\$440 \$580	\$0 \$0	25%		
	Double Track	At Grade - Ballasted, In-Street	0	RF	\$530	\$0 \$0	25%		
	Double Track	At Grade - Embedded, In-Street	0	RF	\$330 \$700	\$0 \$0	25%		
	Double Track	Element Total	0	RF	\$700	\$0 \$0	2376		
10.02	Cuidauau At anada in miua	I traffia							
10.03	3 Guideway: At-grade in mixed Single Track	At Grade - Embedded, In-Street	0	RF	\$560	\$0	25%		
	Double Track	At Grade - Embedded, In-Street	0	RF	\$680	\$0	25%		
		Element Total	0	RF		\$0		:	
10.04	Guideway: Aerial structure								
	Single Track	Bridge - Ballasted	0	RF	\$8,200	\$0	30%	:	
	Single Track	Aerial - Direct Fixation	0	RF	\$4,600	\$0	30%		
	Single Track	Aerial - Direct Fixation Over Water	0	RF	\$5,000	\$0	30%		
	Double Track	Bridge - Ballasted	0	RF	\$12,200	\$0	30%		
	Double Track	Aerial - Direct Fixation	0	RF	\$5,500	\$0	30%		
	Double Track	Aerial - Direct Fixation Over Water	2,000	RF	\$6,000	\$12,000,000	30%	\$15,600,0	
		Element Total	2,000	RF		\$12,000,000		\$15,600,0	
10.05	5 Guideway: Built-up fill								
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$480 \$600	<b>\$0</b>	25%		
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$600	\$0 \$0	25%	:	
10.00		8 agust							
10.00	Guideway: Underground cut Single Track	Subway - Direct Fixation	0	RF	\$10,000	\$0	35%		
	Double Track	Subway - Direct Fixation	0	RF	\$15,500	\$0	35%		
		Element Total	0	RF		\$0			
10.07	Guideway: Underground tun	nel							
	Single Track	Subway - Direct Fixation	0	RF	\$12,000	\$0	35%		
	Double Track	Subway - Direct Fixation	0	RF	\$20,000	\$0	35%		
		Element Total	0	RF		\$0			
10.08	3 Guideway: Retained cut or fi	1							
10.08	Single Track	I Retained Cut - Direct Fixation	0	RF	\$6,800	\$0	30%		
10.08			0 0	RF RF	\$6,800 \$2,800	\$0 \$0	30% 30%		
10.08	Single Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation							
10.08	Single Track Single Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0	RF RF RF	\$2,800	<mark>\$0</mark> \$0 \$0	30%		
10.08	Single Track Single Track Double Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation	0 0	RF RF	<mark>\$2,800</mark> \$8,000	<mark>\$0</mark> \$0	<mark>30%</mark> 30%		
	Single Track Single Track Double Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	<mark>\$0</mark> \$0 \$0	<mark>30%</mark> 30%		
	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%		
	Single Track Single Track Double Track Double Track Track: Direct fixation	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 2,000	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$1,620,000	30% 30% 30%		
	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track	0 0 0 0	RF RF RF RF	\$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0	30% 30% 30% 15%		
10.09	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 2,000	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0 \$0 \$1,620,000	30% 30% 30% 15%	\$1,863,0	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track	Retained Cut - Direct Fixation Retained Fill - Ballasted Retained Cut - Direct Fixation Retained Fill - Ballasted Element Total Direct Fixation Track Direct Fixation Track	0 0 0 0 2,000	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$405	\$0 \$0 \$0 \$0 \$0 \$0 \$1,620,000	30% 30% 30% 15%	\$1,863,0 \$1,863,0	
10.09	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded	Retained Cut - Direct Fixation         Retained Fill - Ballasted         Retained Cut - Direct Fixation         Retained Fill - Ballasted         Element Total         Direct Fixation Track         Direct Fixation Track         Element Total         Element Total         Embedded Track         Embedded Track	0 0 0 0 2,000 2,000 2,000	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$405 \$810	\$0 \$0 \$0 \$0 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,0000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,	30% 30% 30% 15%	\$1,863,0 \$1,863,0	
10.09	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track	Retained Cut - Direct Fixation         Retained Fill - Ballasted         Retained Fill - Ballasted         Element Total         Direct Fixation Track         Direct Fixation Track         Element Total	0 0 0 0 2,000 2,000 2,000	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$0 \$0 \$1,620,000 \$1,620,000 \$1,620,000	30% 30% 30% 15% 15%	\$1,863,0 \$1,863,0	
10.09	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track Double Track Track: Ballasted	Retained Cut - Direct Fixation         Retained Fill - Ballasted         Retained Fill - Ballasted         Element Total         Direct Fixation Track         Direct Fixation Track         Element Total         Element Total	0 0 0 2,000 2,000 2,000	RF RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$405 \$810 \$810 \$980	\$0 \$0 \$0 \$0 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$0 \$0 \$0	30% 30% 30% 15% 15% 15%	\$1,863,0 \$1,863,0	
10.09	Single Track Single Track Double Track Double Track Track: Direct fixation Single Track Double Track Track: Embedded Single Track Double Track	Retained Cut - Direct Fixation         Retained Fill - Ballasted         Retained Cut - Direct Fixation         Retained Fill - Ballasted         Element Total         Direct Fixation Track         Direct Fixation Track         Element Total         Element Total         Embedded Track         Embedded Track	0 0 0 0 2,000 2,000 2,000	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$405 \$810 \$810	\$0 \$0 \$0 \$0 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,000 \$1,620,0000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,620,000\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,600\$1,	30% 30% 30% 15% 15%	\$1,863,0	

	Hillsborough County MPO Transit Study System Planning LR-South Ext									
RAN	SIT MODE: LRT	Downtown to Big Bend		be dele	eted)					
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL		
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST		
10.12	Track: Special (switches, tur	,				• · · · · · ·				
		Special Trackwork (15% of Track Cost) Element Total	15%	1.0		\$4,437,360	15%	\$5,102,96		
		Element Total	1	LS		\$4,437,360		\$5,102,96		
10.13	Track: Vibration and noise d	ampening								
		Vibration Allowance (6% of Ballasted Track	6%			\$1,677,744	15%	\$1,929,40		
		Cost)								
		Element Total	1	LS		\$1,677,744		\$1,929,40		
20	STATIONS, STOPS, TERMI	NALS. INTERMODAL								
	At-grade station, stop, shelte	-								
	- , ,,	Side Platform Station - 1 Platform	0	EA	\$2,000,000	\$0	20%	:		
		Side Platform Station - 2 Platforms	0	EA	\$3,500,000	\$0	20%	Ş		
		Center Platform Station	4	EA	\$3,000,000	\$12,000,000	20%	\$14,400,00		
		Element Total	4	EA		\$12,000,000		\$14,400,00		
20 02	Aerial station, stop, shelter, n	nall terminal platform								
LU.UZ	, ional station, stop, shellel, li	Side Platform Station - 1 Platform	0	EA	\$12,000,000	\$0	25%			
		Side Platform Station - 2 Platforms	0	EA	\$18,000,000	\$0 \$0	25%			
		Center Platform Station	0	EA	\$15,000,000	\$0	25%			
		Element Total	0	EA		\$0		:		
20.03	Underground station, stop, sl	helter, mall, terminal, platform								
		Side Platform Station - 1 Platform	0	EA	\$28,000,000	\$0	30%	:		
		Side Platform Station - 2 Platforms	0	EA	\$52,000,000	\$0	30%	:		
		Center Platform Station Element Total	0	EA EA	\$45,000,000	\$0 \$0	30%			
20.04	Other stations. landings. term	ninals: Intermodal, ferry, trolley, etc.								
	, ,									
		N/A	4	1.0		¢0				
		N/A Element Total	1	LS		\$0		\$		
20.05	Joint development		1	LS		\$0		Ş		
20.05	Joint development	Element Total						\$		
20.05	Joint development	Element Total	1	LS		\$0 \$0				
	Joint development Automobile parking multi-stor	Element Total N/A Element Total ry structure	1	LS		\$0		\$		
		Element Total N/A Element Total ry structure Parking Garage		LS STL	\$12,000	\$0 \$0	20%	\$		
		Element Total N/A Element Total ry structure	1	LS	\$12,000	\$0	20%	\$		
20.06		Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%			
20.06	Automobile parking multi-stor	Element Total N/A Element Total ry structure Parking Garage	1	LS STL	\$12,000	\$0 \$0	20%	; ;		
20.06	Automobile parking multi-stor	Element Total N/A Element Total ry structure Parking Garage Element Total	1 0 1	LS STL LS		\$0 \$0 \$0 \$0				
20.06	Automobile parking multi-stor	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator	1 0 1 0	LS STL LS EA	\$200,000	\$0 \$0 \$0 \$0	20%	9 9 9 9		
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS	1 0 1 0 0	LS STL LS EA EA	\$200,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0	20%			
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork	1 0 1 0 0 1	LS STL LS EA EA LS	\$200,000 \$450,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	20% 20%	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total  N/A  Element Total  ry structure Parking Garage  Element Total  Eleavator Escalator  Element Total  NDITIONS ork Demolition Allowance - Low	1 0 1 0 0 1 58,255	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30%	\$2,271,94		
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total  N/A Element Total  ry structure Parking Garage Element Total  Eleavator Escalator Element Total  NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median	1 0 1 0 0 1 58,255 2,000	LS STL LS EA EA EA LS RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$2,271,94 \$130,00		
20.06 20.07 <b>40</b>	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total  N/A  Element Total  ry structure Parking Garage  Element Total  Eleavator Escalator  Element Total  NDITIONS ork Demolition Allowance - Low	1 0 1 0 0 1 58,255	LS STL LS EA EA LS RF	\$200,000 \$450,000 \$30	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30%	\$2,271,94 \$130,00		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total N/A Element Total ry structure Parking Garage Element Total Eleavator Escalator Element Total NDITIONS ork Demolition Allowance - Low Demolition Allowance - Median Demolition Allowance - High Element Total	1 0 1 0 0 1 58,255 2,000 0	LS STL LS EA EA EA LS RF RF RF	\$200,000 \$450,000 \$30 \$50	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30%	\$2,271,94 \$130,00		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total	1 0 1 0 0 0 1 58,255 2,000 0 60,255	LS STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,747,650 \$100,000 \$0 \$1,847,650	20% 20% 30% 30% 30%	\$2,271,94 \$130,00 \$2,401,94		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total	1 0 1 0 0 0 1 1 58,255 2,000 0 60,255 58,255	LS STL LS EA EA LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,747,650 \$100,000 \$0 \$1,847,650 \$8,155,700	20% 20% 30% 30% 30%	\$2,271,94 \$130,00 \$2,401,94 \$10,602,41		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total	1 0 1 0 0 0 1 58,255 2,000 0 60,255	LS STL LS EA EA LS RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,747,650 \$100,000 \$0 \$1,847,650	20% 20% 30% 30% 30%	\$2,271,94 \$130,00 \$2,401,94 \$10,602,4 \$884,00		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthw	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low	1 0 1 0 0 0 1 1 58,255 2,000 0 60,255 58,255 2,000	LS STL LS EA EA EA LS LS RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	20% 20% 30% 30% 30% 30%	\$2,271,94 \$130,00 \$2,401,94 \$10,602,4 \$884,00		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo Site Utilities, Utility Relocation	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - High         Element Total	1 0 0 0 0 1 58,255 2,000 0 60,255 58,255 2,000 0	LS STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,747,650 \$100,000 \$0 \$1,847,650 \$8,155,700 \$680,000 \$0	20% 20% 30% 30% 30% 30%	\$2,271,94 \$130,00 \$2,401,94 \$10,602,4' \$884,00		
20.06 20.07 <b>40</b> 40.01	Automobile parking multi-stor Elevators, escalators SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo Site Utilities, Utility Relocation	Element Total         N/A         Element Total         ry structure         Parking Garage         Element Total         Eleavator         Escalator         Element Total         NDITIONS         ork         Demolition Allowance - Low         Demolition Allowance - Median         Demolition Allowance - High         Element Total         n         Utility Relocation Allowance - Low         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - Median         Utility Relocation Allowance - High	1 0 0 0 0 1 58,255 2,000 0 60,255 58,255 2,000 0	LS STL LS EA EA LS LS RF RF RF RF RF RF RF RF	\$200,000 \$450,000 \$30 \$50 \$90 \$140 \$340	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,747,650 \$100,000 \$0 \$1,847,650 \$8,155,700 \$680,000 \$0	20% 20% 30% 30% 30% 30%	\$2,271,94 \$130,00 \$2,401,94		

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

CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
		e.g. wetlands, historic/archeologic, parks	QIT	UNIT	031	031	CONTER	031
0.04	Environmental miligation, e	Enviromental Mitigation Allowance	60,255	RF	\$50	\$3,012,750	30%	\$3,916,57
		Element Total	1	LS	400	\$3,012,750	50%	\$3,916,57
			•	20		\$0,012,100		\$0,010,01
10.05	Site structures including re	taining walls, sound walls						
	-	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	5,826	RF	\$80	\$466,040	30%	\$605,85
		Element Total	1	LS		\$466,040		\$605,85
10.06	Pedestrian / bike access a	nd accommodation, landscaping			<b>A</b> 4 <b>-</b>	<b>A</b> 070.005	0.00/	<b>*</b>
		Landscaping Allowance - Low	58,255	RF	\$15 \$25	\$873,825	30%	\$1,135,97 \$65.00
		Landscaping Allowance - Median Landscaping Allowance - High	2,000 0	RF RF	\$25 \$40	\$50,000 \$0	30% 30%	\$65,00 \$
		Pedestrain Overpasses	0	EA	\$40 \$800,000	\$0 \$0	30%	ې \$
		Artwork (1% of Guideway & Stations)	1%	LA	ψ000,000	\$502,148	30%	\$652,79
		Element Total	1/0	LS		\$1,425,973	0070	\$1,853,764
			·	20		ψ1,120,010		ψ1,000,10
10.07	Automobile, bus, van acce	ssways including roads, parking lots						
		Roadway Modifications Allow Full						
		Intersection	0	EA	\$50,000	\$0	30%	\$
		Roadway Modifications Allow AC Paving						
		(incl. Curb & Sidewalk)	0	SF	\$30	\$0	30%	\$
		Parking Lots	1,400	STL	\$4,000	\$5,600,000	30%	\$7,280,00
		Element Total	1	LS		\$5,600,000		\$7,280,00
	Temporary Facilities and o	ther indirect costs during construction						
10.08	romporary r domaoo ana o							
10.08		Temporary Facilities (5% of Category 40)	5.0%			\$1,119,661	25%	
50	SYSTEMS	Temporary Facilities (5% of Category 40) Element Total	<u>5.0%</u> 1	LS		\$1,119,661 \$1,119,661	25%	
50				LS RF	\$240		25% 15%	\$1,399,57
50	SYSTEMS Train control and signals	Element Total	1	RF RF	<mark>\$240</mark> \$260	\$1,119,661		\$1,399,570
50	SYSTEMS Train control and signals Single Track	Element Total	1	RF		\$1,119,661 \$0	15%	\$1,399,57 \$ \$18,016,24
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track	Element Total Signal System Signal System Element Total	1 0 60,255	RF RF		\$1,119,661 \$1,119,661 \$15,666,300	15%	\$1,399,57 \$ \$18,016,24
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total	1 0 60,255	RF RF		\$1,119,661 \$1,119,661 \$15,666,300	15%	\$1,399,57 \$ \$18,016,24 \$18,016,24
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total g protection	0 60,255 60,255	RF RF RF	\$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300	<mark>15%</mark> 15%	\$1,399,576 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total g protection Traffic Signal	0 60,255 60,255 0	RF RF RF EA	\$260 \$150,000	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$0	15% 15% 15%	\$1,399,570 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,337,500
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total	0 60,255 60,255 0 29	RF RF EA EA	\$260 \$150,000	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$0 \$7,250,000	15% 15% 15%	\$1,399,57 \$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$ \$8,337,50
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing	Element Total Signal System Signal System Element Total g protection Traffic Signal Crossing Protection Element Total	0 60,255 60,255 0 29	RF RF EA EA	\$260 \$150,000	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$0 \$7,250,000	15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50
<b>50</b> 50.01	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing	Element Total  Signal System  Signal System  Element Total  g protection  Traffic Signal  Crossing Protection  Element Total  bstations	1 0 60,255 60,255 0 29 29	RF RF EA EA EA	\$260 \$150,000 \$250,000	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000	15% 15% 15% 15%	\$1,399,576 \$1,399,576 \$1,399,576 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$18,016,243 \$17,940,000
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing	Element Total          Signal System         Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total	1 0 60,255 60,255 0 29 29 12	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000	15% 15% 15% 15%	\$1,399,57 \$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$8,337,50 \$17,940,00
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su	Element Total          Signal System         Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total	1 0 60,255 60,255 0 29 29 12	RF RF EA EA EA EA	\$260 \$150,000 \$250,000	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000	15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$ \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution	Element Total          Signal System         Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         Element Total	0 60,255 60,255 0 29 29 12 12	RF RF EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000	15% 15% 15% 15%	\$1,399,576 \$18,016,249 \$18,016,249 \$18,016,249 \$18,016,249 \$8,337,500 \$8,337,500 \$8,337,500 \$17,940,000
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard	1 0 60,255 60,255 0 29 29 12 12 12 0	RF RF EA EA EA EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,600,000	15% 15% 15% 15% 15%	\$1,399,570 \$18,016,244 \$18,016,244 \$18,016,244 \$18,016,244 \$18,016,244 \$18,016,244 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard	1 0 60,255 60,255 0 29 29 12 12 12 12 0 60,255	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,660,300	15% 15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$ \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard	0 60,255 60,255 0 29 29 29 12 12 12 12 0 60,255	RF RF EA EA EA EA EA EA EA RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,660,300	15% 15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,000 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940
<b>50</b> 50.01 50.02 50.03	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track	Element Total  Signal System Signal System Element Total  g protection Traffic Signal Crossing Protection Element Total  bstations Traction Power, Substation Element Total  : catenary and third rail OCS System - Standard OCS System - Standard Element Total	1 0 60,255 60,255 0 29 29 12 12 12 12 0 60,255 60,255 60,255	RF RF EA EA EA EA EA RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,666,300 \$0 \$15,666,300 \$0	15% 15% 15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track	Element Total  Signal System  Signal System  Element Total  g protection  Traffic Signal  Crossing Protection  Element Total  bstations  Traction Power, Substation  Element Total  : catenary and third rail  OCS System - Standard  OCS System - Standard  Element Total  Communication, Line	1 0 60,255 60,255 0 29 29 12 12 12 12 0 60,255 60,255 60,255	RF RF EA EA EA EA EA RF RF RF	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,666,300 \$15,666,300 \$0 \$15,666,300 \$0 \$14,461,200	15% 15% 15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         i: catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total	1 0 60,255 60,255 0 29 29 12 12 12 12 12 0 60,255 60,255 60,255 4	RF RF EA EA EA EA EA RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,666,300 \$0 \$15,666,300 \$0 \$14,461,200 \$2,000,000	15% 15% 15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,00 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         i: catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total	1 0 60,255 60,255 0 29 29 12 12 12 12 12 0 60,255 60,255 60,255 4	RF RF EA EA EA EA EA RF RF RF EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,666,300 \$0 \$15,666,300 \$0 \$14,461,200 \$2,000,000	15% 15% 15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,000 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,03,38 \$2,300,00 \$18,930,38
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         stations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total	1 0 60,255 60,255 0 29 29 12 12 12 12 0 60,255 60,255 60,255 4 1	RF RF EA EA EA EA EA RF RF RF EA LS	\$260 \$150,000 \$250,000 \$1,300,000 \$1,300,000 \$240 \$260 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$7,250,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,660,000 \$15,660,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$15,660,000 \$15,600,000 \$15,666,300 \$15,660,000 \$15,600,000 \$15,600,000 \$15,666,300 \$15,666,300 \$15,666,300 \$15,600,000 \$15,600,000 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$16,461,200 \$16,461,200	15% 15% 15% 15% 15% 15% 15%	\$1,399,57 \$1,399,57 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,00 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000
<b>50</b> 50.01 50.02 50.03 50.04	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         stations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Element Total         Communication, Line         Communication, Station         Element Total         d equipment         Fare Collection - 1 Platform	1 0 60,255 60,255 0 29 29 29 12 12 12 12 12 0 60,255 60,255 60,255 4 1 1 4	RF RF EA EA EA EA RF RF EA LS EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$7,250,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$0 \$15,666,300 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,660,000 \$15,660,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$0 \$15,600,000 \$0 \$15,600,000 \$0 \$0 \$0 \$0 \$15,600,000 \$0 \$0 \$0 \$0 \$15,600,000 \$0 \$0 \$0 \$0 \$0 \$0,000 \$0 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000 \$0,000\$	15% 15% 15% 15% 15% 15% 15% 15%	\$1,399,57 \$18,016,24 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,00 \$17,940,00 \$17,940,00 \$17,940,00 \$18,016,24 \$ \$16,630,38 \$2,300,00 \$18,930,38 \$1,012,00 \$
<b>50</b> 50.01 50.02 50.03 50.04 50.05 50.06	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track Communications Fare collection system and	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         stations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         t equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 60,255 60,255 0 29 29 12 12 12 12 12 0 60,255 60,255 60,255 4 1 4 0 4 0	RF RF EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,660,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$15,660,000 \$15,660,000 \$15,660,000 \$15,660,000 \$15,660,000 \$0 \$15,660,000 \$0 \$15,660,000 \$0 \$0 \$0 \$15,660,000 \$0 \$0 \$0 \$0 \$0 \$15,660,000 \$0 \$0 \$0 \$0 \$15,666,300 \$0 \$0 \$0 \$0 \$2,000,000 \$16,461,200 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15% 15% 15% 15% 15%	\$1,399,570 \$18,016,240 \$18,016,240 \$18,016,240 \$8,337,500 \$8,337,500 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000
<b>50</b> 50.01 50.02 50.03 50.04 50.05 50.06	SYSTEMS Train control and signals Single Track Double Track Traffic signals and crossing Traction power supply: su Traction power distribution Single Track Double Track Communications	Element Total          Signal System         Signal System         Element Total         g protection         Traffic Signal         Crossing Protection         Element Total         bstations         Traction Power, Substation         Element Total         stations         Traction Power, Substation         Element Total         catenary and third rail         OCS System - Standard         OCS System - Standard         Communication, Line         Communication, Station         Element Total         t equipment         Fare Collection - 1 Platform         Fare Collection - 2 Platform	1 0 60,255 60,255 0 29 29 12 12 12 12 12 0 60,255 60,255 60,255 4 1 4 0 4 0	RF RF EA EA EA EA EA RF RF EA LS EA EA EA	\$260 \$150,000 \$250,000 \$1,300,000 \$240 \$260 \$240 \$260 \$240 \$260	\$1,119,661 \$0 \$15,666,300 \$15,666,300 \$7,250,000 \$7,250,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$0 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,666,300 \$15,660,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$15,600,000 \$15,600,000 \$15,600,000 \$15,666,300 \$15,660,000 \$15,660,000 \$15,660,000 \$15,660,000 \$15,660,000 \$0 \$15,660,000 \$0 \$15,660,000 \$0 \$0 \$0 \$15,660,000 \$0 \$0 \$0 \$0 \$0 \$15,660,000 \$0 \$0 \$0 \$0 \$15,666,300 \$0 \$0 \$0 \$0 \$2,000,000 \$16,461,200 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	15% 15% 15% 15% 15% 15% 15% 15%	\$1,399,57 \$1,399,57 \$18,016,24 \$18,016,24 \$8,337,50 \$8,337,50 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$18,016,24 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$17,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$117,940,000 \$118,930,38 \$11,930,38 \$11,012,000 \$11,012,000 \$10,012,000 \$10,012,000 \$10,010,000 \$10,010,000 \$10,010,000 \$10,010,000 \$10,010,000 \$10,010,000 \$10,010,000 \$10,010,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000

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

TRANSIT N	IODE: LRT
CAT	STATIONING

CAT	STATIC	DNING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN	END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
60	ROW, LAND, EX	ISTING IMP	ROVEMENTS						
60.01	Purchase or lease	e of real esta	ate						
			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 COST UNIT ALLCTD TOTAL STATIONING BASE BEGIN END DESCRIPTION QTY UNIT COST COST CONTGY COST ID 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 \$183,750,000 Maintenance Facility (per vehicle) 98 \$1,500,000 \$147,000,000 25% EA \$183,750,000 Element Total 1 LS \$147,000,000 30.04 Storage or Maintenance of Way Building N/A Element Total 1 LS \$0 \$0 30.05 Yard and Yard Track Yard Track 1,000 RF \$240 \$240,000 15% \$276,000 Yard Yard Signal System, Single Track 1,000 RF \$240 \$240,000 15% \$276,000 OCS System Standard, Single Track \$276,000 Yard 1,000 RF \$240 \$240,000 15% Yard Traction Power, Substation ΕA \$1,300,000 \$1,300,000 15% \$1,495,000 1 Element Total \$2,323,000 1 LS \$2,020,000 60 ROW, LAND, EXISTING IMPROVEMENTS 60.01 Purchase or lease of real estate Right of Way Allowance \$10,000,000 \$15,000,000 20 AC \$500,000 50% Element Total 1 LS \$10,000,000 \$15,000,000

	Hillsborough County MPO Transit Study System Planning VEHICLES									
TRAN	ISIT MODE: LRT									
	STATIO	NING		COST			UNIT	BASE	ALLCTD	TOTAL
	BEGIN	END	DESCRIPTION	ID	QTY	UNIT	COST	COST	CONTGY	COST
<b>70</b> 70.01	VEHICLES I 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)

		Alternative
	Description	Total
	Length (Mile):	92.6
	Number of Stations:	16
	Number of Revenue Vehicles:	114
10	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
06	UNALLOCATED CONTINGENCY	\$296.34
	Total Project Cost	\$3,259.72

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Hillsborough County MPO Transit Study	Commuter Rail Transit
System Planning	Capital Cost Estimate

	CR-Tampa Bay	CR-Dwtn West		CR-East	(2007 Dol	(2007 Dollars in Millions) CR-Land O Lakes	Lakes	CR-Dwtn North	CR-Sarasota	rasota	CR-West	est			
		~	e	4	5	g	-	~	σ	10	£	5			
CAT Description	West Shore Dr to Downtown to West Downtown to CL CL Rail (east of St. Pete Shore Dr. Rail (east of Acline Acline S) to 175/ St. Pete Shore Dr. Rail (east of Acline	Shore Dr.	Downtown to CL Rail (east of Acline St)	CL Rail (east of Acline St) to 175/ LRT Sta	US98 at CL	County line/ Hwy 54 to Hwy275	Hwy275 to Hwy580/ CL Railroad	Downtown (Hwy 685) to Hwy 580	CL Rail (east of Acline St) to Big Bend/ LRT Sta	CL Rail (east of Big Bend/ LRT Sta Acline St) to Big to Sarasota/ Bend/ LRT Sta Countyline	Westchase/ County line to west of Sheldon/ LRT	West of Sheldon/ LRT Sta to Hwy580	Maintenance	Vehicles	Alternative
											Sta		Facility		1 0131
Length (Mile):	8.0	6.2	1.8	4.4	18.1	5.9	4.6	5.5	11.4	14.1	3.1	9.6			92.6
Number of Stations:	-	2	0	0	2	2	-	0	4	2	0	2			16
Number of Revenue Vehicles:														114	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	\$5.07	\$15.81			\$130.90
10.02 Guideway: At-grade semi-exclusive (allows 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
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
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	\$2.32	\$0.77			\$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
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
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
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			\$138.32
	\$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
10.11 Track: Ballasted	\$23.27	\$17.47	\$4.62	\$11.39	\$47.37	\$15.46	\$11.90	\$14.35	\$29.80	\$36.87	\$8.09	\$25.05			\$245.64
10.12 Track: Special (switches, turnouts)	\$1.16	\$0.87	\$0.23	\$0.57	\$2.37	\$0.77	\$0.60	\$0.72	\$1.49	\$1.84	\$0.40	\$1.25			\$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
Subtotal Category 10	\$506.05	\$360.67	\$7.77	\$31.29	\$79.68	\$26.00	\$20.02	\$24.13	\$80.43	\$72.63	\$15.88	\$42.89			\$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	\$0.00	\$3.60			\$27.00
20.02 Aerial station, stop, shetter, 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			\$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
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
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	\$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			\$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	\$0.00	\$3.60			<b>\$4</b> 7.31
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

Appendix A

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Normalize in a constrained of the constrained o						Hillsborough Cour	Hillsborough County MPO Transit Study	dy								Concept C
A problem of the						Syster Commute	n Planning vr Rail Transit									
Image: problem         Control (Marcol)         Control (Marcol) <th></th> <th></th> <th></th> <th></th> <th></th> <th>Capital C (2007 Dolla</th> <th>cost Estimate ars in Millions)</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						Capital C (2007 Dolla	cost Estimate ars in Millions)									
Image: constraint of the		$\vdash$	CR-Dwtn West		CR-East		CR-Land O	Lakes	CR-Dwtn North	CR-San	asota	CR-V	/est			
Mutuality for the parameter of the		+	2	e	4	5	9	1	8							
Interface of the second secon		West Shore Dr to D St. Pete	bowntown to West Shore Dr.	<i>(</i> )	CL Rail (east of Acline St) to I75/ LRT Sta		54 to Hwy275	Hwy275 to Hwy580/ CL Railroad	Downtown (Hwy 685) to Hwy 580		Big Bend/ LRT Sta to Sarasota/ Countyline		West of Sheldon/ LRT Sta to Hwy580	Maintenance Facility	Vehicles	Alternative Total
8116         812.3         81.7         84.0         81.4         85.0         81.3         81.7         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.7         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0         81.0 <t< td=""><td>40.01 Demolition, Clearing, Earthwork</td><td>\$1.70</td><td>\$1.90</td><td>\$0.36</td><td>\$0.92</td><td>\$3.74</td><td>\$1.22</td><td>\$0.94</td><td>\$1.13</td><td>\$2.40</td><td>\$2.93</td><td>\$0.64</td><td>\$1.98</td><td></td><td></td><td>\$19.86</td></t<>	40.01 Demolition, Clearing, Earthwork	\$1.70	\$1.90	\$0.36	\$0.92	\$3.74	\$1.22	\$0.94	\$1.13	\$2.40	\$2.93	\$0.64	\$1.98			\$19.86
Ingliter, ground where freatments         S0.8         S0.24         S0.01         S0.14         S0.01	40.02 Site Utilities, Utility Relocation	\$11.56	\$12.23	\$1.70	\$4.40	\$17.44	\$5.69	\$4.38	\$5.28	\$11.49	\$13.75	\$3.02	\$9.23			\$100.17
Indecretion chooling, much and contribution (2010)         S011         S014         S013         S017         S017         S117         S145         S023         S011           much indecending         S004         S014	40.03 Haz. mat'l, contam'd soil 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
int, conditation         50.4         50.3         50.2         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3         50.3		\$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
modulon indicating         560         5450         5021         5066         5222         50.75         50.66         51.76         50.46         50.40           duding match, parking bits         50.2         50.3         50.3         50.3         50.40         51.46         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50.40         50		\$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
Indiring matching particulation         50.5         50.3         50.7         53.3         50.8         57.0         57.1         50.3           excloses during matching matching         51.01         51.00         57.10         57.10         57.16         57.3         50.35           excloses during matching         51.01         51.00         57.10         57.10         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16         57.16		\$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
efficient of intermedian         510         51.0         50.15         50.15         50.16         51.26         51.46         50.26           op/40         22.11         51.00         50.15         53.35         51.64         51.12         51.13         51.76         50.26           op/40         22.11         51.00         53.25         53.35         51.64         51.12         51.13         27.38         51.76         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75	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
(m)         52.10         51.30         53.36         51.64         51.12         51.13         52.73         51.76         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         55.75         5	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
0         56.79         56.20         51.50         53.15         51.54         56.03         53.86         54.67         59.70         51.201         52.63           0         50.00         50.00         50.00         50.00         50.00         50.00         56.33         53.86         54.67         59.70         51.26         51.36           y and third         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00         50.00 <th>Subtotal Category 40</th> <th>\$22.11</th> <th>\$21.80</th> <th>\$3.28</th> <th>\$8.36</th> <th>\$38.85</th> <th>\$16.40</th> <th>\$11.12</th> <th>\$10.13</th> <th>\$27.38</th> <th>\$31.76</th> <th>\$5.75</th> <th>\$19.85</th> <th></th> <th></th> <th>\$216.79</th>	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
Interface         \$100         \$108         \$190         \$226         \$2.76         \$2.76         \$2.60         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00         \$6.00 <th< td=""><td>50.01 Train control and signals</td><td>\$6.79</td><td>\$5.23</td><td>\$1.50</td><td>\$3.71</td><td>\$15.42</td><td>\$5.03</td><td>\$3.88</td><td>\$4.67</td><td>\$9.70</td><td>\$12.01</td><td>\$2.63</td><td>\$8.15</td><td></td><td></td><td>\$78.73</td></th<>	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
800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800         800 <td>50.02 Traffic signals and crossing protection</td> <td>\$0.00</td> <td>\$0.69</td> <td>\$0.86</td> <td>\$1.90</td> <td>\$8.28</td> <td>\$2.76</td> <td>\$2.07</td> <td>\$2.59</td> <td>\$5.00</td> <td>\$6.38</td> <td>\$1.38</td> <td>\$4.31</td> <td></td> <td></td> <td>\$36.23</td>	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
y and thid rai         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0	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
mt         \$0.17         \$0.35         \$0.00         \$0.05         \$0.05         \$0.07         \$0.06         \$0.05         \$0.00         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0.05         \$0	50.05 Communications	\$1.05	\$0.91	\$0.21	\$0.53	\$2.36	\$0.88	\$0.63	\$0.67	\$1.71	\$1.88	\$0.38	\$1.33			\$12.54
x00         x00 <td></td> <td>\$0.17</td> <td>\$0.35</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.35</td> <td>\$0.35</td> <td>\$0.17</td> <td>\$0.00</td> <td>\$0.69</td> <td>\$0.35</td> <td>\$0.00</td> <td>\$0.35</td> <td></td> <td></td> <td>\$2.76</td>		\$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
Jory 50         58.01         \$7.18         \$2.58         58.14         \$2.641         \$3.02         \$6.75         \$7.93         \$17.10         \$20.61         \$4.39           \$557.97         \$411.76         \$13.63         \$46.79         \$148.54         \$55.02         \$39.70         \$42.19         \$128.60         \$26.03           \$557.91         \$11.76         \$13.63         \$46.79         \$148.54         \$55.02         \$39.70         \$42.19         \$128.60         \$26.03           \$557.91         \$102         \$102         \$148.54         \$55.02         \$39.70         \$42.19         \$128.60         \$26.03           \$557.41         \$11.21         \$5561         \$13.70         \$57.48         \$18.76         \$14.44         \$17.41         \$35.565         \$44.63         \$20.80		\$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
<b>537/97 \$411.76 \$13.63 \$45.79 \$148.54 \$55.02 \$39.70 \$42.19 \$132.11 \$128.60 \$26.03</b> \$15.41 \$17.21 \$5.61 \$13.70 \$57.48 \$18.76 \$14.4 \$17.41 \$35.85 \$44.63 \$0.80	Subtotal Category 50	\$8.01	<b>\$</b> 7.18	\$2.58	\$6.14	\$26.41	\$9.02	\$6.75	\$7.93	\$17.10	\$20.61	\$4.39	\$14.14			\$130.25
\$15.41 \$17.21 \$5.61 \$1.370 \$57.48 \$18.76 \$14.44 \$17.41 \$35.55 \$44.69 \$9.80	Subtotal Construction Costs	\$537.97	\$411.76	\$13.63	\$45.79	\$148.54	\$55.02	\$39.70	\$42.19	\$132.11	\$128.60	\$26.03	\$80.48	\$143.05		\$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	89.80 8	\$30.38	\$15.00		\$295.68
- Subviviel Direkt-sciMinu 215.41 217.21 25.24 213.70 257.18 219.74 23.25.25 20.00 230.29	Substal Picktode Visco Strate Source	C15.41	647.24	65.61	¢13.70	667.4B	C10.0	611.14	C17.44	C35 BE	C4463	CO BO	630.38	615 DD		COLF GR

Appendix A

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						Hillsborough Cou	Hillsborough County MPO Transit Study	dy							J	Concept C
						Syster Commut Capital C	System Planning Commuter Rail Transit Capital Cost Estimate									
		- H				(2007 Dol	(2007 Dollars in Millions)			0.00						
	5	CK-Iampa Bay 0		6	UK-East	2	CK-Land U Lakes 6	-	CK-UWIN NORIN	0 CK-San	asota 10	11 11	est 12			
CAT No.	Ŵ	West Shore Dr to Downtown to CL St. Pete Shore Dr. Rail (east of Acline St. Pete Shore Dr. Rail (east of Acline St)	swntown to West Shore Dr. F		CL Rail (east of Acline St) to 175/ LRT Sta	I75/ LRT Sta to US98 at CL	County line/ Hwy 54 to Hwy275	Hwy275 to Hwy580/ CL Railroad	n (Hwy wy 580	east of to Big tT Sta	.RT Sta ota/ line	ase/ to west n/ LRT	West of Sheldon' LRT Sta to Hwy580	Maintenance Facility	Vehicles	Alternative Total
70 VEHICLES																
70.01 Commuter Rail Vehicles															\$285.29	\$285.29
Subtotal Vehicles															\$285.29	\$285.29
80 PROFESSIONAL SERVICES																
80.01 Preliminary Engineering	4.0%	\$21.52	\$16.47	\$0.55	\$1.83	\$5.94	\$2.20	\$1.59	\$1.69	\$5.28	\$5.14	\$1.04	\$3.22	\$5.72		\$72.19
80.02 Final Design	6.0%	\$32.28	\$24.71	\$0.82	\$2.75	\$8.91	\$3.30	\$2.38	\$2.53	\$7.93	\$7.72	\$1.56	\$4.83	\$8.58		\$108.29
80.03 Project Management for Design and Construction	5.0%	\$26.90	\$20.59	\$0.68	\$2.29	\$7.43	\$2.75	\$1.98	\$2.11	\$6.61	\$6.43	\$1.30	\$4.02	\$7.15		\$90.24
80.04 Construction Administration & Management	8.0%	\$43.04	\$32.94	\$1.09	\$3.66	\$11.88	\$4.40	\$3.18	\$3.38	\$10.57	\$10.29	\$2.08	\$6.44	\$11.44		\$144.39
80.05 Insurance	2.0%	\$10.76	\$8.24	\$0.27	\$0.92	\$2.97	\$1.10	\$0.79	\$0.84	\$2.64	\$2.57	\$0.52	\$1.61	\$2.86		\$36.10
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	3.0%	\$16.14	\$12.35	\$0.41	\$1.37	\$4.46	\$1.65	\$1.19	\$1.27	\$3.96	\$3.86	\$0.78	\$2.41	\$4.29		\$54.15
80.07 Surveys, Testing, Investigation, Inspection	3.0%	\$16.14	\$12.35	\$0.41	\$1.37	\$4.46	\$1.65	\$1.19	\$1.27	\$3.96	\$3.86	\$0.78	\$2.41	\$4.29		\$54.15
80.08 Start up	1.0%	\$5.38	\$4.12	\$0.14	\$0.46	\$1.49	\$0.55	\$0.40	\$0.42	\$1.32	\$1.29	\$0.26	\$0.80	\$1.43		\$18.05
Subtotal Professional Services	SI	\$172.15	\$131.76	\$4.36	\$14.65	\$47.53	\$17.61	\$12.70	\$13.50	\$42.27	\$41.15	\$8.33	\$25.75	\$45.78	\$0.00	\$577.56
90 UNALLOCATED CONTINGENCY	10.0%	\$72.55	\$56.07	\$2.36	\$7.41	\$25.36	\$9.14	\$6.68	\$7.31	\$21.02	\$21.44	\$4.42	\$13.66	\$20.38	\$28.53	\$296.34
Project Total		\$798.08	\$616.79	\$25.96	\$81.56	\$278.92	\$100.53	\$73.52	\$80.41	\$231.26	\$235.82	\$48.57	\$150.28	\$224.21	\$313.81	\$3,259.72
															1	

Appendix A

.D V P1			ugh County MPO Tran System Planning CR-Tampa Bay /est Shore Dr to St. Pet					
CAT	SIT MODE: Commuter Rail STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
0.01	Guideway: At-grade exclusiv		0	DE	<b>*0-0</b>	<b>#</b> 0	05%	
	Single Track Double Track	At Grade - Ballasted, Open At Grade - Ballasted, Open	0 0	RF RF	<mark>\$250</mark> \$420	<mark>\$0</mark> \$0	<mark>25%</mark> 25%	:
	Double Hack	Element Total	0	RF	φ420	\$0	23%	
10.02	Guideway: At-grade semi-ex	xclusive (allows cross-traffic)						
		N/A Element Total	0	RF		\$0		:
			0	NE		φυ		
0.03	Guideway: At-grade in mixe	d traffic N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0	RF	\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	
	Double Track	Aerial - Ballasted	1,900	RF	\$15,200	\$28,880,000	30%	\$37,544,0
	Double Track	Aerial - Ballasted Over Water	16,000	RF	\$16,500	\$264,000,000	30%	\$343,200,0
		Element Total	17,900	RF		\$292,880,000		\$380,744,0
0.05	Guideway: Built-up fill				_			
	Single Track	At Grade - Ballasted, Built-up	0		\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$740	\$0 \$0	25%	
0 07	Guideway: Underground tur	nnel						
0.01		N/A						
		N/A Element Total	0	RF		\$0		
	Guideway: Retained cut or f	N/A Element Total						
	Guideway: Retained cut or f Single Track	N/A Element Total fill Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	
	Guideway: Retained cut or f Single Track Single Track	N/A Element Total	0 0	RF RF	\$2,800	\$0 \$0	30%	
	Guideway: Retained cut or f Single Track Single Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0	<mark>30%</mark> 30%	\$100 990 0
	Guideway: Retained cut or f Single Track Single Track	N/A Element Total	0 0	RF RF	\$2,800	\$0 \$0	30%	
10.08	Guideway: Retained cut or f Single Track Single Track Double Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted	0 0 0 24,250	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$77,600,000	<mark>30%</mark> 30%	
10.08	Guideway: Retained cut or f Single Track Single Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 24,250 24,250	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$77,600,000 \$77,600,000	<mark>30%</mark> 30%	
0.08	Guideway: Retained cut or f Single Track Single Track Double Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0 24,250	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$77,600,000	<mark>30%</mark> 30%	
0.09	Guideway: Retained cut or f Single Track Single Track Double Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 24,250 24,250	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$77,600,000 \$77,600,000	<mark>30%</mark> 30%	
0.09	Guideway: Retained cut or f Single Track Single Track Double Track Double Track Double Track Track: Direct fixation	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A	0 0 24,250 24,250	RF RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000	<mark>30%</mark> 30%	
0.08	Guideway: Retained cut or f Single Track Single Track Double Track Double Track Double Track Track: Direct fixation	N/A Element Total Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 24,250 24,250	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$77,600,000 \$77,600,000	<mark>30%</mark> 30%	
0.08 0.09 0.10	Guideway: Retained cut or f Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A	0 0 24,250 24,250 0	RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0	30% 30% 30%	
0.09	Guideway: Retained cut or f Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Ballasted Track	0 0 24,250 24,250 0 0	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0 \$0	30% 30% 30%	\$100,880,0 \$100,880,0
0.08 0.09 0.10	Guideway: Retained cut or f Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	N/A Element Total  Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Element Total  N/A Element Total  N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing	0 0 24,250 24,250 0 0 0	RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30% 15%	\$100,880,0 \$100,880,0
0.08 0.09 0.10	Guideway: Retained cut or f Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Ballasted Track	0 0 24,250 24,250 0 0	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0 \$0	30% 30% 30%	\$100,880,0
0.09 0.10 0.11	Guideway: Retained cut or f Single Track Double Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track - Refurbish Existing	0 0 24,250 24,250 24,250 0 0 0 42,150	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0 \$0 \$0 \$0 \$20,232,000	30% 30% 30% 15%	\$100,880,0
10.08 0.09 0.10 0.11	Guideway: Retained cut or f Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	N/A Element Total  Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total  N/A Element Total  Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total	0 0 24,250 24,250 24,250 0 0 0 42,150	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$70,600,000 \$70,600,000 \$70,600,000 \$70,600,000 \$70,600,000 \$70,600,000 \$00 \$70,600,000 \$00 \$70,600,000 \$00 \$70,600,000 \$00 \$00 \$70,600,000 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$	30% 30% 30% 15% 15%	\$100,880,0 \$23,266,8 \$23,266,8
0.09 0.10 0.11	Guideway: Retained cut or f Single Track Double Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track - Refurbish Existing	0 0 24,250 24,250 24,250 0 0 0 42,150	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0 \$0 \$0 \$0 \$20,232,000	30% 30% 30% 15%	\$100,880,0 \$23,266,8 \$23,266,8 \$1,163,3
10.08 10.09 10.10 10.11	Guideway: Retained cut or f Single Track Double Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track Track: Special (switches, tu	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total Ballasted Track Ballasted Track Ballasted Track Element Total irrnouts) Special Trackwork (5% of Track Cost) Element Total	0 0 24,250 24,250 0 0 0 42,150 42,150 42,150	RF RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0 \$0 \$0 \$20,232,000 \$20,232,000 \$1,011,600	30% 30% 30% 15% 15%	\$100,880,0 \$23,266,8 \$23,266,8 \$1,163,3
10.08 10.09 10.11 10.12	Guideway: Retained cut or f Single Track Double Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	N/A Element Total Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total Ballasted Track Ballasted Track Ballasted Track Element Total irrnouts) Special Trackwork (5% of Track Cost) Element Total	0 0 24,250 24,250 0 0 0 42,150 42,150 42,150	RF RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$77,600,000 \$77,600,000 \$77,600,000 \$77,600,000 \$0 \$0 \$0 \$0 \$20,232,000 \$20,232,000 \$1,011,600	30% 30% 30% 15% 15%	\$100,880,0 \$100,880,0

		CR	ounty MPO Trans tem Planning -Tampa Bay ore Dr to St. Pet	-				
RAN	SIT MODE: Commuter Rail	West of		6				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
20	STATIONS, STOPS, TERMIN							
	At-grade station, stop, shelter							
	•	Center Platform Station	1	EA	\$1,500,000	\$1,500,000	20%	\$1,800,00
		Element Total	1	EA		\$1,500,000		\$1,800,00
20.02	Aerial station, stop, shelter, m	all, terminal, platform Center Platform Station	0		\$15,000,000	¢o	25%	
		Element Total	0	EA EA	\$15,000,000	\$0 \$0	25%	
			Ŭ	<b>L</b> / (		ψu		
20.03	Underground station, stop, sh	elter, mall, terminal, platform N/A						
		Element Total	0	EA		\$0		Ş
20.04	Other stations, landings, term	inals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		9
20.05	Joint development							
		N/A						
		Element Total	1	LS		\$0		9
00.00								
20.06	Automobile parking multi-stor	y structure Parking Garage	0	сті.	¢12.000	\$0	20%	Ş
		Element Total	0	STL LS	\$12,000	\$0 \$0	20%	
			·	20		ψu		·
20.07	Elevators, escalators							
		Eleavator	0	EA	\$200,000	\$0	20%	9
		Escalator	0	EA	\$450,000	\$0 \$0	20%	
		Element Total	1	LS		φU		9
40	SITEWORK & SPECIAL CO	NDITIONS						
40.01	Demolition, Clearing, Earthwo							
		Demolition Allowance - Low	0	RF	\$30	\$0	30%	<u> </u>
		Demolition Allowance - Median	26,150	RF	\$50	\$1,307,500	30%	\$1,699,75
		Demolition Allowance - High Element Total	0 26,150	RF RF	\$90	\$0 \$1,307,500	30%	\$1,699,75
			20,100			ψ1,007,000		ψ1,000,7 0
40.02	Site Utilities, Utility Relocation	1						
		Utility Relocation Allowance - Low	0	RF	\$140	\$0	30%	Ş
		Utility Relocation Allowance - Median	26,150	RF	\$340	\$8,891,000	30%	\$11,558,30
		Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$11 550 00
		Element Total	26,150	RF		\$8,891,000		\$11,558,30
40.03	Haz, mat'l, contam'd soil remo	oval/mitigation, ground water treatments						
		Hazardous Material Removal Allowance	26,150	RF	\$20	\$523,000	30%	\$679,90
		Element Total	1	LS		\$523,000		\$679,90
40.04	Environmental mitigation, e.g	. wetlands, historic/archeologic, parks	00.15-	<b>DC</b>	<b>*</b> · <b>-</b>	\$000 0TC	000/	AE00
		Enviromental Mitigation Allowance Element Total	26,150	RF LS	\$15	\$392,250 \$392,250	30%	\$509,92 \$509,92
			1	10		ψυσε,200		φ00 <i>3</i> ,92
40.05	Site structures including retain	ning walls, sound walls						
	-	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	4,215	RF	\$80	\$337,200	30%	\$438,36
		Element Total	1	LS		\$337,200		\$438,36
10.00	Podestrian / bike cases and	accommodation landscening						
40.06	Pedestrian / bike access and	Accommodation, landscaping Landscaping Allowance - Low	0	RF	\$15	\$0	30%	S
		Landscaping Allowance - Low Landscaping Allowance - Median	26,150	RF	\$25	\$653,750	30%	\$849,87
		Landscaping Allowance - High	20,100	RF	\$40	\$0 \$0	30%	φ0+0,01
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	ş
		Artwork (1% of Guideway & Stations)	1%			\$3,719,800	30%	\$4,835,74
				LS		\$4,373,550		\$5,685,61

		Hillsborough Coun System	ity MPO Tran Planning	sit Study				
		CR-Ta	mpa Bay					
		West Shore	Dr to St. Pet	te				
RANSIT	FMODE: Commuter Rail							
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.07 4.	utamahila hua uan asasas	usus including uppeds, positing late						
40.07 AI	utomobile, bus, van accessi	ways including roads, parking lots Roadway Modifications Allow Full						
		Intersection	0	EA	\$50,000	\$0	30%	¢
		Parking Lots	100	STL	\$30,000 \$4,000	<del>پ</del> و \$400,000	30%	\$ \$520,00
		Element Total	100	LS	\$4,000	\$400,000	30 %	\$520,00
		Element Total	1	LO		\$400,000		\$520,000
40.08 Te	emporary Facilities and othe	er indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$811,225	25%	\$1,014,03
		Element Total	1	LS		\$811,225	2070	\$1,014,03
						<i></i>		<b>.</b> ., <b>.</b> ., <b>.</b> .
	YSTEMS							
50.01 Tr	rain control and signals							
		Signal System	42,150	RF	\$140	\$5,901,000	15%	\$6,786,15
		Element Total	42,150	RF		\$5,901,000		\$6,786,15
50 02 Tr	raffic signals and crossing p	rotection						
00.02 11	rame orginale and crocomy p	Crossing Protection	0	EA	\$150,000	\$0	15%	\$
		Element Total	0	EA	φ100,000	\$0	1070	\$
		Element rotar	0	LA		ψυ		ψ
50.03 Tr	raction power supply: subst	ations						
		N/A						
		Element Total	0	EA		\$0		\$
50.04 Tr	raction power distribution: c	-						
		N/A						
		Element Total	0	RF		\$0		\$
50.05 C	ommunications	Dessences Information System Fiber Ontio	40.450	DE	¢00	¢0.42.000	1 = 0/	¢000 45
		Passenger Information System, Fiber Optic	42,150	RF	\$20 \$70,000	\$843,000	15%	\$969,45
		Passenger Information System, Station Element Total	1	EA LS	\$70,000	\$70,000 \$913,000	15%	\$80,50 \$1,049,95
		Liement Total	1	LO		\$913,000		\$1,049,950
50.06 Fa	are collection system and ed	quipment						
		Fare Collection	1	EA	\$150,000	\$150,000	15%	\$172,50
		Element Total	1	LS	,	\$150,000		\$172,50
50.07 C	entral Control							
		N/A						
		Element Total	1	LS		\$0		\$
~ -								
	OW, LAND, EXISTING IMP urchase or lease of real esta							
00.01 Pl	urchase of lease of real esta	Right of Way Allowance - At Grade	24,250	RF	\$400	\$9,700,000	50%	\$14,550,000
		Right of Way Allowance - Aerial	24,250	RF	\$400 \$300	\$9,700,000 \$570,000	50% 50%	\$14,550,000 \$855,000
		Right of Way Allowance - Underground		RF	\$300 \$250		50% 50%	
			26 150		¢200	\$0	50%	\$15 405 00
		Element Total	26,150	RF		\$10,270,000		\$15,405,00

		CR	tem Planning -Dwtn West					
RAN	SIT MODE: Commuter Rail	Downtown	to West Shore	Dr.				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	8,200	RF	\$250	\$2,050,000	25%	\$2,562,50
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	
		Element Total	8,200	RF		\$2,050,000		\$2,562,5
0.02	Guideway: At-grade semi-ex	xclusive (allows cross-traffic)						
		N/A Element Total	0	RF		\$0		
0.03	Guideway: At-grade in mixe	d traffic						
10.00	Ouldeway. Al-grade in mixe	N/A						
		Element Total	0	RF		\$0		:
10 04	Guideway: Aerial structure							
5.04	Single Track	Aerial - Ballasted	0	RF	\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	
	Double Track	Aerial - Ballasted	15,300	RF	\$15,200	\$232,560,000	30%	\$302,328,0
	Double Track	Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	
		Element Total	15,300	RF		\$232,560,000		\$302,328,0
0.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0		\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$740	\$0 \$0	25%	
0.07	Guideway: Underground tur		0	RF		\$0		
		N/A Element Total	0	RF		\$0		
0.08	Guideway: Retained cut or f	āli						
0.00	Single Track	Retained Cut - Ballasted		RF			0.001	
	Single Track		0	<b>N</b> E	\$6.800	\$0	30%	
		Retained Fill - Ballasted	0 0	RF	\$6,800 \$2,800	\$0 \$0	30% 30%	
	Double Track	Retained Fill - Ballasted Retained Cut - Ballasted						
		Retained Cut - Ballasted Retained Fill - Ballasted	0 0 9,000	RF RF RF	\$2,800	\$0 \$0 \$28,800,000	30%	
	Double Track	Retained Cut - Ballasted	0 0	RF RF	<mark>\$2,800</mark> \$8,000	<mark>\$0</mark> \$0	<mark>30%</mark> 30%	
0.09	Double Track	Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 9,000	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$28,800,000	<mark>30%</mark> 30%	\$37,440,0
0.09	Double Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted	0 0 9,000	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$28,800,000	<mark>30%</mark> 30%	\$37,440,0 \$37,440,0
	Double Track Double Track Track: Direct fixation	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A	0 0 9,000 9,000	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$28,800,000 \$28,800,000	<mark>30%</mark> 30%	
	Double Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 9,000 9,000	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$28,800,000 \$28,800,000	<mark>30%</mark> 30%	\$37,440,0 \$37,440,0
	Double Track Double Track Track: Direct fixation	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A	0 0 9,000 9,000	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$28,800,000 \$28,800,000	<mark>30%</mark> 30%	\$37,440,0 \$37,440,0
0.10	Double Track Double Track Track: Direct fixation Track: Embedded	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 9,000 9,000	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$28,800,000 \$28,800,000 \$28,800,000 \$0	<mark>30%</mark> 30%	\$37,440,0 \$37,440,0
0.10	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 9,000 9,000 0	RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$28,800,000 \$28,800,000 \$0 \$0	30% 30% 30%	\$37,440,0 \$37,440,0
0.10	Double Track Double Track Track: Direct fixation Track: Embedded	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Element Total	0 9,000 9,000 0 0 8,200	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$28,800,000 \$28,800,000 \$28,800,000 \$0	30% 30% 30%	\$37,440,0 \$37,440,0
0.10	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Element Total Ballasted Track	0 0 9,000 9,000 0	RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$28,800,000 \$28,800,000 \$0 \$0 \$0 \$1,968,000	30% 30% 30%	\$37,440,0 \$37,440,0 \$2,263,2 \$1,791,7
0.10	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Ballasted Track Ballasted Track - Refurbish Existing	0 9,000 9,000 0 0 8,200 8,200	RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$28,800,000 \$28,800,000 \$0 \$0 \$0 \$1,968,000 \$1,558,000	30% 30% 30% 15%	\$37,440,0 \$37,440,0 \$2,263,2 \$1,791,7 \$13,413,6
0.10	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total	0 9,000 9,000 0 0 8,200 8,200 24,300	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$28,800,000 \$28,800,000 \$28,800,000 \$0 \$0 \$0 \$0 \$11,968,000 \$11,558,000 \$11,664,000	30% 30% 30% 15%	\$37,440,0 \$37,440,0 \$2,263,2 \$1,791,7 \$13,413,6
0.10	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total	0 9,000 9,000 0 0 8,200 8,200 24,300	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$28,800,000 \$28,800,000 \$28,800,000 \$0 \$0 \$0 \$0 \$11,968,000 \$11,558,000 \$11,664,000	30% 30% 30% 15%	\$37,440,0 \$37,440,0 \$2,263,2 \$1,791,7 \$13,413,6 \$17,468,5
0.10	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total	0 9,000 9,000 0 0 8,200 8,200 24,300 32,500	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$28,800,000 \$28,800,000 \$28,800,000 \$0 \$0 \$0 \$0 \$1,968,000 \$11,558,000 \$11,664,000 \$15,190,000	30% 30% 30% 15% 15%	\$37,440,0 \$37,440,0 \$2,263,2 \$1,791,7 \$13,413,6 \$17,468,5 \$873,4
0.10 0.11 0.12	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track - Refurbish Existing	0 0 9,000 9,000 0 0 8,200 24,300 32,500 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$28,800,000 \$28,800,000 \$28,800,000 \$0 \$0 \$0 \$0 \$1,558,000 \$11,568,000 \$11,664,000 \$115,190,000 \$759,500	30% 30% 30% 15% 15%	\$37,440,0 \$37,440,0 \$37,440,0 \$2,263,2 \$1,791,7 \$13,413,6 \$17,468,5 \$873,4
10.10 10.11 10.12	Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track Track: Special (switches, tu	Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track - Refurbish Existing	0 0 9,000 9,000 0 0 8,200 24,300 32,500 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$28,800,000 \$28,800,000 \$28,800,000 \$0 \$0 \$0 \$0 \$1,558,000 \$11,568,000 \$11,664,000 \$115,190,000 \$759,500	30% 30% 30% 15% 15%	\$37,440,0 \$37,440,0 \$37,440,0 \$2,263,2 \$1,791,7 \$13,413,6 \$17,468,5 \$873,4 \$873,4

		CR-D	n Planning Wtn West	-	1			
	SIT MODE: Commuter Rail	Downtown t	o West Shore	Dr.				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
20	STATIONS, STOPS, TERMI							
	At-grade station, stop, shelte	-						
	· · · · · · · · · · · · · · · · · · ·	Center Platform Station	1	EA	\$1,500,000	\$1,500,000	20%	\$1,800,00
		Element Total	1	EA		\$1,500,000		\$1,800,00
20 02	Aerial station, stop, shelter, n	all terminal platform						
20.02	Aenai station, stop, sheller, n	Center Platform Station	1	EA	\$15,000,000	\$15,000,000	25%	\$18,750,00
		Element Total	1	EA	\$10,000,000	\$15,000,000	2070	\$18,750,00
20.03	Underground station, stop, st	-						
		N/A Element Total	0	EA		\$0		9
			Ŭ	<b>L</b> / (		ψu		
20.04	Other stations, landings, term	ninals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		9
20 05	Joint development							
_0.00	com dovolopmont	N/A						
		Element Total	1	LS		\$0		\$
20.00	Automobile parking multi-stor	a structure						
20.06	Automobile parking multi-stor	Parking Garage	0	STL	\$12,000	\$0	20%	ş
		Element Total	1	LS	¢12,000	\$0	2070	\$
20.07	Elevators, escalators	Eleavator	2	EA	¢200.000	¢400.000	20%	\$480,00
		Eleavator	2	EA	\$200,000 \$450,000	\$400,000 \$900,000	20% 20%	\$480,00 \$1,080,00
		Element Total	1	LS	\$100,000	\$1,300,000	2070	\$1,560,00
40	SITEWORK & SPECIAL CO	NDITIONS						
40.01	Demolition, Clearing, Earthwe				<b>^</b> ~~	<b>*</b> • • • • • • •		<b>AA I A</b>
		Demolition Allowance - Low Demolition Allowance - Median	8,200 24,300	RF RF	\$30 \$50	\$246,000 \$1,215,000	30% 30%	\$319,80 \$1,579,50
		Demolition Allowance - High	24,300	RF	\$30 \$90	\$1,213,000 \$0	30%	φ1,579,50 g
		Element Total	32,500	RF		\$1,461,000	0070	\$1,899,30
40.02	Site Utilities, Utility Relocation					• · · · · • • • • •		• · · · · · ·
		Utility Relocation Allowance - Low	8,200	RF	\$140 \$240	\$1,148,000	30%	\$1,492,40
		Utility Relocation Allowance - Median Utility Relocation Allowance - High	24,300 0	RF RF	\$340 \$570	\$8,262,000 \$0	30% 30%	\$10,740,60 S
		Element Total	32,500	RF		\$9,410,000	0070	\$12,233,00
40.03	Haz. mat'l, contam'd soil rem	oval/mitigation, ground water treatments						
		Hazardous Material Removal Allowance Element Total	32,500	RF LS	\$20	\$650,000 \$650,000	30%	\$845,00 \$845,00
			1	10		ψυσυ,υυυ		φ0 <del>4</del> 0,00
40.04	Environmental mitigation, e.g	. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	32,500	RF	\$15	\$487,500	30%	\$633,75
		Element Total	1	LS		\$487,500		\$633,75
40.05	Site structures including retai	ning walls, sound walls Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	3,250	RF	\$80	\$260,000	30%	\$338,00
		Element Total	1	LS	•	\$260,000		\$338,00
40.00	Deduction (1.1							
40.06	Pedestrian / bike access and		0 000	PE	¢л с	¢400.000	200/	¢450.00
		Landscaping Allowance - Low Landscaping Allowance - Median	8,200 24,300	RF RF	\$15 \$25	\$123,000 \$607,500	30% 30%	\$159,90 \$789,75
		Landscaping Allowance - High	24,300	RF	\$40	\$007,300 \$0	30%	\$109,10
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	9
		Artwork (1% of Guideway & Stations)	1%			\$2,799,100	30%	\$3,638,83
		Element Total	1	LS		\$3,529,600		\$4,588,48

		Hillsborough Coun		sit Study				
			Planning					
			wtn West	_				
		Downtown to	West Shore	Dr.				
	T MODE: Commuter Rail							
CAT	STATIONING	RECORDETION	<b>AT</b> (		UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.07 4	utamahila, hua, yan aaaaa	vova including roada, parking lata						
40.07 A	utomobile, bus, van accessi	ways including roads, parking lots Roadway Modifications Allow Full						
		Intersection	4	EA	\$50,000	\$200,000	30%	\$260,00
		Parking Lots	4	STL	\$30,000 \$4,000	\$200,000 \$0	30%	\$200,00 \$
		Element Total	1	LS	φ4,000	\$200,000	30%	\$260,00
		Element Total	I	LO		\$200,000		φ200,00
40.08 T	emporary Facilities and othe	er indirect costs during construction						
10.00 1	emperary r demines and ente	Temporary Facilities (5% of Category 40)	5.0%			\$799,905	25%	\$999,88
		Element Total	1	LS		\$799,905	2070	\$999,88
		Liement rotar	I	20		φ100,000		\$555,66
	YSTEMS							
50.01 T	rain control and signals							
		Signal System	32,500	RF	\$140	\$4,550,000	15%	\$5,232,50
		Element Total	32,500	RF		\$4,550,000		\$5,232,50
50 02 T	raffic signals and crossing p	rotation						
JU.UZ 1	ranic signals and crossing p		4	E۸	¢150.000	¢600.000	1 5 0/	¢600.00
		Crossing Protection	4	EA	\$150,000	\$600,000	15%	\$690,00
		Element Total	4	EA		\$600,000		\$690,00
50.03 T	raction power supply: subst	ations						
50.05 1	raction power supply. Subst	N/A						
		Element Total	0	EA		\$0		\$
		Lionont rotar	Ũ	273		ψu		Ŷ
50.04 T	raction power distribution: c	catenary and third rail						
		N/A						
		Element Total	0	RF		\$0		\$
50.05 C	communications							
		Passenger Information System, Fiber Optic	32,500	RF	\$20	\$650,000	15%	\$747,50
		Passenger Information System, Station	2	EA	\$70,000	\$140,000	15%	\$161,00
		Element Total	1	LS	. ,	\$790,000		\$908,50
50.06 F	are collection system and ed	quipment						
		Fare Collection	2	EA	\$150,000	\$300,000	15%	\$345,00
		Element Total	1	LS		\$300,000		\$345,00
50.07 C	Central Control	N//A						
		N/A				<i><b></b></i>		
		Element Total	1	LS		\$0		\$
60 R	OW, LAND, EXISTING IMP	PROVEMENTS						
	urchase or lease of real esta							
		Right of Way Allowance - At Grade	17,200	RF	\$400	\$6,880,000	50%	\$10,320,00
		Right of Way Allowance - Aerial	15,300	RF	\$400 \$300	\$4,590,000	50%	\$6,885,00
		Right of Way Allowance - Underground	15,300	RF	\$300 \$250	\$4,590,000 \$0	50%	\$0,000,00 \$
		Element Total	32,500	RF	φ200	\$11,470,000	50 /0	\$17,205,00
			32,000	NE		ΨII, <del>4</del> /U,UUU		
						. , ,		¢,200,00

		-	unty MPO Tran em Planning CR-East	sit Study				
RAN	SIT MODE: Commuter Rail	Downtown to Cl		cline St)				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
0.01	Guideway: At-grade exclusiv	ve right-of-way						
	Single Track	At Grade - Ballasted, Open	9,347	RF	\$250	\$2,336,750	25%	\$2,920,93
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	
		Element Total	9,347	RF		\$2,336,750		\$2,920,9
0.02	Guideway: At-grade semi-ex							
		N/A Element Total	0	RF		\$0		
0.03	Guideway: At-grade in mixed	d traffic						
		N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0		\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	
	Double Track	Aerial - Ballasted	0	RF	\$15,200	\$0	30%	
	Double Track	Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	
		Element Total	0	RF		\$0		
0.05	Guideway: Built-up fill				<b></b>	<b>A</b> A	0.50	
	Single Track	At Grade - Ballasted, Built-up	0		\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$740	\$0 \$0	25%	
0.07	Guideway: Underground tun		0	RF		\$0		
		N/A Element Total	0	RF		\$0		
0.08	Guideway: Retained cut or fi	ili						
	Single Track	Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted	0	RF	\$3,200	\$0	30%	
		Element Total	0	RF		\$0		
0.09	Track: Direct fixation	N/A						
		N/A Element Total	0	RF		\$0		
0.10	Track: Embedded							
		N/A						
		Element Total	0	RF		\$0		
0.11	Track: Ballasted							
	Single Track	Ballasted Track	9,347	RF	\$240	\$2,243,280	15%	\$2,579,7
		Ballasted Track - Refurbish Existing	9,347	RF	\$190	\$1,775,930	15%	\$2,042,3
	Double Track	Ballasted Track	0	RF	\$480	\$0	15%	
		Element Total	9,347	RF		\$4,019,210		\$4,622,0
0.12	Track: Special (switches, tu							
		Special Trackwork (5% of Track Cost) Element Total	<u>5%</u> 1	LS		\$200,961 \$200,961	15%	\$231,1 \$231,1
0.40	Tur du Mil (* * *		I	20		<b>₩200,001</b>		ψ <b>2</b> 01,1
0.13	Track: Vibration and noise of	dampening N/A						
		Element Total	1	LS		\$0		

		-	ty MPO Trans Planning -East	sit Study	/			
		Downtown to CL R		cline St)				
CAT NO.	SIT MODE: Commuter Rail STATIONING BEGIN END	DESCRIPTION	QTY	UNIT		BASE COST	ALLCTD CONTGY	TOTAL COST
				-				
	STATIONS, STOPS, TERMIN At-grade station, stop, shelter							
20.01	, a grade station, stop, shorter	Center Platform Station	0	EA	\$1,500,000	\$0	20%	\$0
		Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, m	nall, terminal, platform						
	••••	Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
		Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, sh	nelter, mall, terminal, platform N/A						
		Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, term	inals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		\$0
20.05	Joint development							
20.00		N/A						
		Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-stor	y 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 \$0	20%	\$0 \$0
		Escalator Element Total	0	EA LS	\$450,000	\$0 \$0	20%	\$0 \$0
<b>40</b>	SITEWORK & SPECIAL CO							
40.01	Demolition, Clearing, Earthwo	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	1						
		Utility Relocation Allowance - Low	9,347 0	RF RF	\$140 \$340	\$1,308,580	30% 30%	\$1,701,154 \$0
		Utility Relocation Allowance - Median Utility Relocation Allowance - High	0	RF	\$570	\$0 \$0	30%	\$0 \$0
		Element Total	9,347	RF		\$1,308,580		\$1,701,154
40.03	Haz. mat'l, contam'd soil remo	oval/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 retain	ning walls, sound walls						
		Retaining & Sound Wall Allowance (10% of			<b>.</b>	<b>A</b> - · ·		A
		Ballasted Track Length) Element Total	935 1	RF LS	\$80	\$74,776 \$74,776	30%	\$97,209 \$97,209
						÷, o		<i>\$</i> 0., <b>2</b> 00
40.06	Pedestrian / bike access and		0.047	<b>DC</b>	<b>A</b> 4E	Ø440.005	200/	\$400.00 <del>-</del>
		Landscaping Allowance - Low Landscaping Allowance - Median	9,347 0	RF RF	\$15 \$25	\$140,205 \$0	30% 30%	\$182,267 \$0
		Landscaping Allowance - High	0	RF	\$40	\$0 \$0	30%	\$0 \$0
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$0
		Artwork (1% of Guideway & Stations)	1%	10		\$23,368	30%	\$30,378
		Element Total	1	LS		\$163,573		\$212,644

		Hillsborough Coun System	Planning	sit Study				
			-East					
		Downtown to CL R		cline St)				
RANS	SIT MODE: Commuter Rail	Downtown to CE K		cime oty				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.07	Automobile, bus, van access	ways including roads, parking lots						
		Roadway Modifications Allow Full						
		Intersection	5	EA	\$50,000	\$250,000	30%	\$325,0
		Parking Lots	0	STL	\$4,000	\$0	30%	
		Element Total	1	LS	. ,	\$250,000		\$325,0
40.08	Temporary Facilities and othe	er indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$120,224	25%	\$150,28
		Element Total	1	LS		\$120,224		\$150,28
50	SYSTEMS							
50.01	Train control and signals							
		Signal System	9,347	RF	\$140	\$1,308,580	15%	\$1,504,86
		Element Total	9,347	RF		\$1,308,580		\$1,504,86
50.02	Traffic signals and crossing p	protection						
	0 01	Crossing Protection	5	EA	\$150,000	\$750,000	15%	\$862,5
		Element Total	5	EA	,	\$750,000		\$862,5
50.03	Traction power supply: subs	tations						
	1 115	N/A						
		Element Total	0	EA		\$0		9
50.04	Traction power distribution:	catenary and third rail						
		N/A						
		Element Total	0	RF		\$0		
50.05	Communications							
		Passenger Information System, Fiber Optic	9,347	RF	\$20	\$186,940	15%	\$214,98
		Passenger Information System, Station	0,011	EA	\$70,000	\$0	15%	¢,oe
		Element Total	1	LS	<i></i>	\$186,940	1070	\$214,98
			·	20		¢.00,0.0		¢2 : 1,00
50.06	Fare collection system and e	auipment						
20.00	. a.o concourt system and c	Fare Collection	0	EA	\$150,000	\$0	15%	Ş
		Element Total	1	LA	÷100,000	\$0	1070	
			'	20		ψŪ		,
50 07	Central Control							
00.07		N/A						
		Element Total	1	LS		\$0		ç
			1	L3		φU		
60	ROW I AND EVICTING	PROVEMENTS						
	ROW, LAND, EXISTING IMP Purchase or lease of real est							
00.01	i uronase or lease or real est	Right of Way Allowance - At Grade	0.047	рг	¢400	¢0 700 000	E00/	¢5 600 00
			9,347	RF	\$400 \$200	\$3,738,800	50%	\$5,608,20
		Right of Way Allowance - Aerial	0	RF	\$300	\$0 \$0	50%	
		Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	¢E 600 00
		Element Total	9,347	RF		\$3,738,800		\$5,608,20
		Element Total	9,347	KF		\$3,738,800		\$ <del>3,000,</del> 2

		-	unty MPO Tran em Planning CR-East	sit Study				
RANS	SIT MODE: Commuter Rail	CL Rail (east of A		LRT Sta				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	22,240	RF	\$250	\$5,560,000	25%	\$6,950,0
	Double Track	At Grade - Ballasted, Open Element Total	0 22.240	RF RF	\$420	\$0 \$5,560,000	25%	\$6,950,0
0 00	Cuidauau At arada aani a		,					+ - , , -
0.02	Guideway: At-grade semi-ex	N/A						
		Element Total	0	RF		\$0		
0.03	Guideway: At-grade in mixed	d traffic N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0	RF	\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	800	RF	\$11,900	\$9,520,000	30%	\$12,376,0
	Double Track	Aerial - Ballasted	0	RF	\$15,200	\$0	30%	
	Double Track	Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	¢40.070.0
		Element Total	800	RF		\$9,520,000		\$12,376,0
	Guideway: Built-up fill Single Track	At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	
0.06	Guideway: Underground cut		-	RF		\$0		
		N/A Element Total	0	RF		\$0		
0.07	Guideway: Underground tun	nol						
0.07	Guideway. Onderground tan	N/A						
		Element Total	0	RF		\$0		
	Guideway: Retained cut or fi							
	Single Track	Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	<b>\$0</b>	30%	
	Double Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted	0 0	RF RF	\$8,000 \$3,200	\$0 \$0	30% 30%	
		Element Total	0	RF	ψ0,200	\$0 \$0	30 %	
0.09	Track: Direct fixation							
		N/A Element Total	0	RF		\$0		
		Lionont rotar	Ū	i ti		ψυ		
0.10	Track: Embedded	N/A						
		N/A Element Total	0	RF		\$0		
			Ū			40		
	Track: Ballasted	Pollosted Treel:	00.015	0-	<b>AC 10</b>		450/	<u> </u>
	Single Track	Ballasted Track Ballasted Track - Refurbish Existing	23,040		\$240 \$100	\$5,529,600 \$4,377,600	15% 15%	\$6,359,0 \$5,034,2
	Double Track	Ballasted Track - Refurbish Existing Ballasted Track	23,040 0	RF RF	\$190 \$480	\$4,377,600 \$0	15% 15%	\$5,034,2
	DOUDIE HIdUN	Element Total	23,040	RF	φ <del>+</del> 0U	\$9,907,200	13 /0	\$11,393,2
0 12	Track: Special (switches, tu	rnouts)						
0.12		Special Trackwork (5% of Track Cost)	5%			\$495,360	15%	\$569,6
0.12		Element Total	1	LS		\$495,360		\$569,6
0.12								
	Track: Vibration and noise of	dampening						
	Track: Vibration and noise of		1	LS		\$0		

			nty MPO Trans n Planning R-East	sit Study	,			
TRAN	SIT MODE: Commuter Rail	CL Rail (east of Ac		LRT Sta	3			
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20	STATIONS, STOPS, TERMIN	NALS. INTERMODAL						
	At-grade station, stop, shelter	-						
		Center Platform Station	0	EA	\$1,500,000	\$0	20%	\$0
		Element Total	0	EA		\$0		\$0
20.02	Aerial station, stop, shelter, m	nall, terminal, platform						
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
		Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, sh	nelter, mall, terminal, platform N/A						
		Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, term	inals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		\$0
20.05	Joint development							
20.05	Joint development	N/A						
		Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-stor	y 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 \$0
		Element Total	I	LS		\$0		φU
40	SITEWORK & SPECIAL CO							
40.01	Demolition, Clearing, Earthwo	ork Demolition Allowance - Low	22,240	RF	\$30	\$667,200	30%	\$867,360
		Demolition Allowance - Median	800	RF	\$50 \$50	\$40,000 \$40,000	30 <i>%</i> 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							
	, <b>,,</b>	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 remo	oval/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 retain	ning walls, sound walls						
		Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length) Element Total	2,304	RF LS	\$80	\$184,320 \$184,320	30%	\$239,616 \$239,616
			1			\$107,020		<i>\</i> <b>2</b> 00,010
40.06	Pedestrian / bike access and		00.040	D-5	<b>MA</b>	¢000.000	200/	¢400.000
		Landscaping Allowance - Low	22,240 800	RF RF	\$15 \$25	\$333,600 \$20,000	30% 30%	\$433,680 \$26,000
		Landscaping Allowance - Median Landscaping Allowance - High	800 0	RF	\$25 \$40	\$20,000 \$0	30% 30%	\$26,000 \$0
		Pedestrain Overpasses	0	EA	\$800,000	\$0 \$0	30 <i>%</i>	\$0 \$0
		•			,			
		Artwork (1% of Guideway & Stations)	1%			\$150,800	30%	\$196,040 \$655,720

		Hillsborough Coun System	ty MPO Tran	sit study				
		-	E-East					
		CL Rail (east of Acl		LRT Sta				
RANSI	T MODE: Commuter Rail							
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.07 4	utomobilo, buo, von occorr	ways including roads, parking lots						
40.07 P	Automobile, bus, van access	Roadway Modifications Allow Full						
		Intersection	11	EA	\$50,000	\$550,000	30%	\$715,00
		Parking Lots	0	STL	\$4,000	\$000,000 \$0	30%	\$1.10,00
		Element Total	1	LS	. ,	\$550,000		\$715,00
40.08 T	emporary Facilities and othe	er indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$306,896	25%	\$383,62
		Element Total	1	LS		\$306,896		\$383,62
	SYSTEMS							
50.01 T	rain control and signals							
		Signal System	23,040	RF	\$140	\$3,225,600	15%	\$3,709,44
		Element Total	23,040	RF		\$3,225,600		\$3,709,44
50.02 T	raffic signals and crossing p	protection						
	0 01	Crossing Protection	11	EA	\$150,000	\$1,650,000	15%	\$1,897,50
		Element Total	11	EA	. ,	\$1,650,000		\$1,897,50
50.03 T	raction power supply: subst							
		N/A	0	<b>F A</b>		¢0		\$
		Element Total	0	EA		\$0		2
50.04 T	raction power distribution: o	catenary and third rail						
		N/A						
		Element Total	0	RF		\$0		\$
50.05 C	Communications	Deserve information Quaters Filter Ortic	00.040	DE	¢00	¢ 400 000	4 5 9/	¢500.00
		Passenger Information System, Fiber Optic Passenger Information System, Station	23,040 0	RF EA	\$20 \$70,000	\$460,800 \$0	15% 15%	\$529,92 \$
		Element Total	1	LA	\$70,000	\$460,800	1376	\$529,92
			•	20		<i>Q</i> 100,000		<i><b>Q</b></i> <b>QZQZQZZZZZZZZZZZZZ</b>
50.06 F	are collection system and e	quipment						
		Fare Collection	0	EA	\$150,000	\$0	15%	\$
		Element Total	1	LS		\$0		\$
50 07 0	Central Control							
50.07 C		N/A						
		Element Total	1	LS		\$0		\$
	ROW, LAND, EXISTING IMP							
60.01 F	Purchase or lease of real esta							
		Right of Way Allowance - At Grade	22,240	RF	\$400	\$8,896,000	50%	\$13,344,00
		Right of Way Allowance - Aerial	800	RF	\$300	\$240,000	50%	\$360,00
		Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	¢12 704 00
		Element Total	23,040	RF		\$9,136,000		\$13,704,00

		Hillsborough C Sys	stem Planning CR-East	sit Study				
	SIT MODE: Commuter Rail	175/ LR1	Sta to US98 at C	L				
CAT NO.		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	95,803	RF	\$250	\$23,950,750	25%	\$29,938,4
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	
		Element Total	95,803	RF		\$23,950,750		\$29,938,4
0.02	2 Guideway: At-grade semi-ex							
		N/A Element Total	0	RF		\$0		
0.03	3 Guideway: At-grade in mixe	d traffic						
		N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0		\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	
	Double Track	Aerial - Ballasted	0	RF	\$15,200	\$0	30%	
	Double Track	Aerial - Ballasted Over Water Element Total	0	RF RF	\$16,500	\$0 \$0	30%	
			·			ψ <b>υ</b>		
0.05	5 Guideway: Built-up fill Single Track	At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	
		Element Total	0	RF		\$0		
0.06	6 Guideway: Underground cut	t & cover						
		N/A						
		Element Total	0	RF		\$0		
0.07	Guideway: Underground tun							
		N/A Element Total	0	RF		\$0		
			· · ·			ψ <b>υ</b>		
	Outstand Details and such as f	ăll						
0.08	3 Guideway: Retained cut or f	Detailed Out, Dellected		~-	<b>Aa a a a</b>	<b>A</b> .	0.001	
0.08	Single Track	Retained Cut - Ballasted	0	RF	\$6,800	\$0 \$0	30%	
0.08	Single Track Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
0.08	Single Track Single Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted	<mark>0</mark> 0	RF RF	<mark>\$2,800</mark> \$8,000	<mark>\$0</mark> \$0	<mark>30%</mark> 30%	
10.08	Single Track Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Single Track Single Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total	0 0 0 0	RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track	0 0 0 0 0 0 95,803	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing	0 0 0 0 0 0 95,803 95,803	RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$18,202,570	30% 30% 30% 15%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track	0 0 0 0 0 0 95,803	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	\$20,932,9
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Element Total	0 0 0 0 0 0 95,803 95,803 0	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$18,202,570 \$0	30% 30% 30% 15%	\$20,932,9
10.09 10.10	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Element Total	0 0 0 0 0 0 95,803 95,803 0 95,803	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$18,202,570 \$18,202,570 \$0 \$41,195,290	30% 30% 30% 15% 15%	\$20,932,9 \$47,374,5
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Element Total	0 0 0 0 0 0 95,803 95,803 0	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$18,202,570 \$0	30% 30% 30% 15%	\$20,932,9 \$47,374,5 \$2,368,7
0.09 0.10 0.11 0.12	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total         urnouts)         Special Trackwork (5% of Track Cost)         Element Total	0 0 0 0 0 0 95,803 95,803 0 95,803 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$22,992,720 \$18,202,570 \$0 \$41,195,290 \$2,059,765	30% 30% 30% 15% 15%	\$20,932,9 \$47,374,5 \$2,368,7
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total         urnouts)         Special Trackwork (5% of Track Cost)         Element Total	0 0 0 0 0 0 95,803 95,803 0 95,803 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$22,992,720 \$18,202,570 \$0 \$41,195,290 \$2,059,765	30% 30% 30% 15% 15%	\$26,441,6 \$20,932,9 \$47,374,5 \$2,368,7 \$2,368,7

			•	unty MPO Trans m Planning R-East	sit Study				
				ta to US98 at C	L				
	SIT MODE: Commuter Rail								
CAT NO.	STATIONING BEGIN END		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	STATIONS, STOPS, TERMI								
20.01	At-grade station, stop, shelter	r, mail, terminal, pi Center Platform		2	EA	\$1,500,000	\$3,000,000	20%	\$3,600,0
		Center riation	Element Total	2	EA	\$1,500,000	\$3,000,000	2078	\$3,600,0
				_			+-,,		+-,,-
20.02	Aerial station, stop, shelter, m								
		Center Platform		0	EA	\$15,000,000	\$0	25%	
			Element Total	0	EA		\$0		
20.03	Underground station, stop, sh	nelter, mall, termina N/A	al, platform						
			Element Total	0	EA		\$0		:
20.04	Other stations, landings, term	inals: Intermodal, N/A	ferry, trolley, etc.						
			Element Total	1	LS		\$0		:
20 05	Joint development								
20.00	som development	N/A							
			Element Total	1	LS		\$0		Ş
20.06	Automobile parking multi-stor			0	0.71	¢40.000	¢o	000/	
		Parking Garage	Element Total	0	STL LS	\$12,000	\$0 \$0	20%	
				1	20		ψυ		
20.07	Elevators, escalators								
		Eleavator		0	EA	\$200,000	\$0	20%	:
		Escalator	Element Total	0	EA LS	\$450,000	\$0 \$0	20%	
			Element Total	I	LS		\$U		
40	SITEWORK & SPECIAL CO	NDITIONS							
40.01	Demolition, Clearing, Earthwo								
		Demolition Allov		95,803	RF	\$30	\$2,874,090	30%	\$3,736,3
		Demolition Allov Demolition Allov		0	RF RF	\$50 \$90	\$0 \$0	30% 30%	
		Demolition Allov	Element Total	95,803	RF	290	\$0	30%	\$3,736,3
				00,000			¢2,01 1,000		<i>\\</i> 0,700,0
40.02	Site Utilities, Utility Relocation	า							
			n Allowance - Low	95,803	RF	\$140	\$13,412,420	30%	\$17,436,14
		•	n Allowance - Median	0	RF	\$340	\$0	30%	:
		Utility Relocation	n Allowance - High Element Total	0 95,803	RF RF	\$570	\$0 \$13,412,420	30%	\$17,436,14
				90,000	ΝF		φ13, <del>4</del> 12,420		φτ <i>ι</i> ,430,14
40.03	Haz. mat'l, contam'd soil rem	oval/mitigation, gro	ound water treatments						
		Hazardous Mate	erial Removal Allowance	95,803	RF	\$20	\$1,916,060	30%	\$2,490,87
			Element Total	1	LS		\$1,916,060		\$2,490,87
10 04	Environmental mitiration	wotlanda historia	Varahaalagia narka						
40.04	Environmental mitigation, e.g		z/archeologic, parks itigation Allowance	95,803	RF	\$15	\$1,437,045	30%	\$1,868,1
			Element Total	1	LS	UΨ	\$1,437,045	0070	\$1,868,1
40.05	Site structures including retai	-							
		-	Ind Wall Allowance (10% of			÷	A=0.5 · · ·	0001	<b>**</b>
		Ballasted Track	Length) Element Total	<u>9,580</u> 1	RF LS	\$80	\$766,424 \$766,424	30%	\$996,35 \$996,35
				I	10		ψr 00,424		φ990,33
40.06	Pedestrian / bike access and	accommodation, l	andscaping						
		Landscaping All	owance - Low	95,803	RF	\$15	\$1,437,045	30%	\$1,868,1
		Landscaping All	owance - Median	0	RF	\$25	\$0	30%	
					<b>DE</b>	¢40	\$0	30%	
		Landscaping All	•	0	RF	\$40			
		Pedestrain Over	•	0 0 1%	EA	\$40 \$800,000	\$0 \$0 \$269,508	30% 30%	\$350,3

$\frac{\text{Temporary Facilities (5% of Category 40)}{\text{Element Total}} 5.0\% \\ Stystems \\ 50.01 Train control and signals \\ \hline Signal System 95,803 \\ Element Total 95,803 \\ Element Total 95,803 \\ Element Total 95,803 \\ RF $140 $13,412,420 $15,424 \\ $13,412,420 $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $15,424 \\ $1$			Hillsborough Coun System		sit study				
IPJ LRT Sta to US98 at CL           CAT         STATIONING BEGIN         OT TAL CAT         STATIONING BEGIN         OT TAL CALCT TO TAL COST         COST         COST         COST         COST         COST         COST         COST           ON Automobile, bus, van accesswape including roads, parking jots. Parking Loss         Statucation Allow - Full Intersection         48         EA         Statucation Allow - Full Intersection         48         EA         Statucation Allow - Full Intersection         48         EA         Statucation Statucation Colspan="2">Statucation Colspan="2">Statucation Statucation Colspan="2">Statucation Colspan="2" <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>									
SAMST MODE: commuter Rail         NO.       BEGIN       END       DESCRIPTION       QTY       UNIT       EASE       ALLCTO       CONTCY       COST       COST       CONTCY       CONTCY       COST         0.07       Automobile, bus, van accessways including roads, parking lots Roadway Modifications Alow Full Intersection       48       EA       \$50,000       \$2,400,000       30%       \$3,120         Parking Lots       1,000       STL       \$4,000,000       30%       \$3,200         Control       Element Total       1       LIS       \$6,400,000       30%       \$5,220         10.08       Temporary Facilities and other indirect costs during construction Temporary Facilities (% of Category 40)       5.0%       \$1,425,630       \$1,425,630       \$1,782         50       SYSTEMS       0.01       Traffic signals and crossing protection       1       LIS       \$1,425,630       \$1,424,000       \$1,64,44         0.02       Traffic signals and crossing protection       48       EA       \$150,000       \$7,200,000       15%       \$8,280         0.03       Traction power supply: substations       NA       Element Total       0       EA       \$50         0.04       Traction power distribution: catenary and third rait       NA					:L				
NO.         BEGN         END         DESCRIPTION         QTY         UNIT         COST         CONTCY         CONTCY         COST         CONT         CONTCY         COST         CONTCY         CONTCY         CONTCY         CONTCY         CONTCY         CONTCY         CONTCY	RANSI	F MODE: Commuter Rail			-				
40.07         Automobile, bus, van accessways including mads, patring lets Roadway Modifications Allow, - Full Intersection Parking Lots         48         EA         \$50,000         \$52,400,000         30%         \$52,200, \$52,200,           40.08         Temporary Facilities and other indirect costs during construction Temporary Facilities and other indirect costs during construction Temporary Facilities (% of Category 40)         5.0%         \$1,425,630         25%         \$1,782,1           50         SYSTEMS         50.01         Train control and signals         \$1,425,630         25%         \$1,782,1           50.02         Train control and signals         Signal System         95,803         RF         \$140         \$13,412,420         15%         \$15,424,1           50.02         Traffic signals and crossing protection         48         EA         \$15,000         \$7,200,000         \$8,280,1           60.03         Traction power supply: substations         NA           \$20         \$15,424,1           60.04         Traction power distribution: catenary and third rall         NA          \$20         \$20,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000         \$2,205,000 <t< th=""><th>CAT</th><th>STATIONING</th><th></th><th></th><th></th><th>UNIT</th><th>BASE</th><th>ALLCTD</th><th>TOTAL</th></t<>	CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
Roadway Modifications Allow, - Full         Horesection         Allow         Full         48         EA         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,000         \$\$0,00	NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
Rodway Modifications Allow Full           Intersection         Allow         Full         Status									
Intersection         48         EA         Section         Science         Science <thscience< th="">         Science         <thscien< td=""><td>40.07 A</td><td>utomobile, bus, van accessv</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thscien<></thscience<>	40.07 A	utomobile, bus, van accessv							
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			•	40	- •	<b>\$50.000</b>	<b>AA</b> 400 000	000/	<b>\$</b> 0,400,00
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%         \$1,425,830         25%         \$1,782, \$1,782,00           50         SYSTEMS         50.01 Train control and signals         \$1,425,830         \$1,425,830         \$1,782, \$1,782,00           50         SYSTEMS         50.01 Train control and signals         \$1,812,420         15%         \$15,424, \$15,424,           50.02 Traffic signals and crossing protection Crossing Protection         48         EA         \$13,412,420         \$15,424, \$15,424,           50.03 Traction power supply: substations         Immon total         48         EA         \$12,0000         \$8,280, \$12,0000           50.04 Traction power distribution: catenary and third rail NA         Immon total         0         EA         \$0           50.05 Communications         NA         S2,056,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260,060         \$2,260									. , ,
40.08 Temporary Facilities and other indirect costs during construction       Temporary Facilities (5% of Category 40)       5.0%       \$1,425,630       25%       \$1,782,         50       SYSTEMS       \$1,425,630       \$1,425,630       \$1,425,630       \$1,782,         50       SYSTEMS       Signal System       95,803       RF       \$140       \$13,412,420       15%       \$15,424,         50.02       Traffic signals and crossing protection       48       EA       \$150,000       \$7,200,000       15%       \$82,880,         50.03       Traction power supply: substations       NA       Element Total       48       EA       \$150,000       \$7,200,000       15%       \$82,880,         50.04       Traction power supply: substations       NA       Element Total       0       EA       \$10,000       \$82,880,         50.05       Communications       NA       Element Total       0       RF       \$20       \$1,916,060       15%, \$22,03, \$1,916,060       \$2,260,060       \$2,260,060       \$2,264,         50.05       Communications       Passenger Information System, Station       2       EA       \$10,000       \$300,000       \$345, \$345, \$345, \$345, \$30,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$300,000       \$345, \$345,			-			\$4,000		30%	
Temporary Facilities (5% of Category 40)         5.0%         \$1,425,630         25%         \$1,782, \$1,782,           50         SYSTEMS         50.01         Train control and signals         Signal System         95,803         RF         \$140         \$13,412,420         15%         \$15,424, \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424			Element Total	1	LO		\$0,400,000		\$6,320,00
Temporary Facilities (5% of Category 40)         5.0%         \$1,425,630         25%         \$1,782, \$1,782,           50         SYSTEMS         50.01         Train control and signals         Signal System         95,803         RF         \$140         \$13,412,420         15%         \$15,424, \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424	40.08 T	emporary Facilities and othe	er indirect costs during construction						
SUBJE         Element Total         1         LS         \$1,425,630         \$1,782,7           50         SYSTEMS         50.01 Train control and signals         Signal System         95,803         RF         \$14.0         \$13,412,420         15%         \$15,424, \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20         \$15,424,20	10.00 1	omporary r domaod and our		5.0%			\$1 425 630	25%	\$1 782 03
30 SYSTEMS           50.11 Train control and signals         Signal System         95,803         RF         \$140         \$13,412,420         \$15,424, \$15,424,           50.02 Traffic signals and crossing protection         48         EA         \$150,000         \$7,200,000         15%         \$8,280, \$8,280, \$15,424,           50.03 Traction power supply: substations         N/A         Element Total         48         EA         \$7,200,000         \$8,280, \$8,280, \$1,916,000         \$8,280, \$1,916,000         \$2,200,000         \$8,280, \$8,280, \$1,916,000         \$8,280, \$1,916,000         \$2,200,000         \$8,280, \$1,916,000         \$1,916,000         \$2,000, \$1,916,000         \$2,000, \$1,916,000         \$2,000, \$1,916,000         \$2,000, \$1,916,000         \$2,203, \$1,916,000         \$2,203, \$1,916,000         \$2,203, \$1,916,000         \$2,204, \$1,916,000         \$2,204, \$1,916,000         \$2,204, \$1,916,000         \$2,204, \$1,916,000					LS			2070	\$1,782,03
50.01         Train control and signals         Signal System         95,803         RF         \$140         \$13,412,420         15%         \$15,424;           50.02         Traffic signals and crossing protection         Crossing Protection         48         EA         \$15,000         \$7,200,000         15%         \$8,280, \$8,280,           50.03         Traction power supply: substations         N/A         Element Total         48         EA         \$17,200,000         \$8,280,           50.04         Traction power distribution: catenary and third rall         N/A         Element Total         0         EA         \$0         \$0           50.05         Communications         Passenger Information System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%, \$2,203, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%, \$24,203, \$140,000         \$156,124,120           50.05         Communications         Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%, \$24,203, \$140,000         \$156,124,120           50.05         Communications         Fare Collection         Station         2         EA         \$70,000         \$140,000         15%, \$345,151,120         \$345,151,120							• • • • • • •		. , - ,
50.01         Train control and signals         Signal System         95,803         RF         \$140         \$13,412,420         15%         \$15,424;           50.02         Traffic signals and crossing protection         Crossing Protection         48         EA         \$15,000         \$7,200,000         15%         \$8,280, S8,280,           50.03         Traction power supply: substations         N/A         Element Total         48         EA         \$17,200,000         15%         \$8,280, S8,280,           50.03         Traction power supply: substations         N/A         Element Total         0         EA         \$0         \$0           50.04         Traction power distribution: catenary and third rall         N/A         Element Total         0         RF         \$0         \$0           50.05         Communications         Passenger Information System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%, \$22,03, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%, \$345, \$161, Element Total         1         LS         \$20,050,000         15%, \$345, \$345, \$300,000         \$346, \$300,000         \$346, \$300,000         \$346, \$300,000         \$346, \$346, \$300,000         \$346, \$300,000         \$346, \$300,000         \$346, \$346, \$300,000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Signal System         95,803         RF         \$140         \$13,412,420         15%         \$15,424; \$15,424           50.02         Traffic signals and crossing protection         Crossing Protection         8         EA         \$150,000         \$7,200,000         15%         \$8,280, \$8,280, \$8,280, \$8,280, \$1,000           50.03         Traction power supply: substations N/A         Element Total         48         EA         \$150,000         \$7,200,000         \$8,280, \$8,280, \$8,280, \$8,280, \$2,000           50.03         Traction power supply: substations N/A         N/A         Element Total         0         EA         \$0           50.04         Traction power distribution: catenary and third rail N/A         N/A         Image: Signal System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%         \$2,203, \$2,056,060         \$2,364, \$161, Element Total         1         LS         \$2,056,060         \$2,364, \$2,056,060         \$2,364, \$2,056,060 <td>50 S</td> <td>YSTEMS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	50 S	YSTEMS							
Element Total         95,803         RF         \$13,412,420         \$15,424,           50.02         Traffic signals and crossing protection         Crossing Protection         48         EA         \$150,000         \$7,200,000         15%         \$8,280,           50.03         Traction power supply: substations         NA           \$0         EA         \$0         \$0         \$8,280,           50.04         Traction power supply: substations         NA          Element Total         0         EA         \$0         \$0         \$0         \$2,203,         \$2,050,000         \$2,820,000         \$2,820,000         \$2,820,000         \$2,820,000         \$2,820,000         \$2,820,000         \$2,820,000         \$2,820,000         \$2,820,000         \$2,050,000         \$2,050,000         \$2,050,000         \$2,050,000         \$2,050,000         \$2,050,000         \$2,203,000         \$2,050,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000         \$2,364,000<	50.01 T	rain control and signals							
50.02       Traffic signals and crossing protection       Image: Crossing Protection       48       EA       \$150,000       \$7,200,000       15%       \$8,280,7         50.03       Traction power supply: substations       N/A       Image: Crossing Protection       Image: Crossing Protection       \$8,280,7         50.03       Traction power supply: substations       N/A       Image: Crossing Protection       \$8,280,7         50.04       Traction power distribution: catenary and third rail       N/A       Image: Crossing Protection       \$8,280,7         50.05       Communications       N/A       Image: Crossing Protection       Image: Crossing Protection       \$1,916,060       15%       \$2,203,7         50.05       Communications       Passenger Information System, Fiber Optic       95,803       RF       \$20       \$1,916,060       15%       \$2,203,7         50.06       Fare collection system and equipment       Element Total       1       LS       \$2,056,060       \$2,364,15         50.07       Central Control       Image: Crossing Provements       Image: Crossing Provements       Image: Crossing Provements       \$300,000       15%       \$345,15         50.07       Central Control       Image: Crossing Provements       Image: Crossing Provements       Image: Crossing Provements       Image: Crossing Pro				,		\$140		15%	\$15,424,28
Element Total         48         EA         \$7,200,000         \$8,280,1           50.03         Traction power supply: substations N/A         Image: Construction of the supply is substations         N/A         Image: Construction of the supply is substations         S0.01         Factor of the supply is substations         S0.01         Factor of the supply is substations         S0.01         Factor of the supply is substations         S0.02         S0.03         Traction power distribution: catenary and third rail         N/A         S0.05         Communications         S0.05         Communications         S0         S0.05         Communications         S0.05         Communications         S0.05         Communications         S0.05         S0.07         S0.05         S0.07         S0.05         S0.07         S0.00         \$140,000         15%         \$2,2036,060         \$2,364,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000         \$345,00         \$300,000<			Element Total	95,803	RF		\$13,412,420		\$15,424,283
Crossing Protection         48         EA         \$150,000         \$7,200,000         15%         \$8,280, \$8,280,           50.03         Traction power supply: substations N/A         NA         S7,200,000         \$8,280,           50.04         Traction power distribution: catenary and third rail N/A         0         EA         \$0           50.04         Traction power distribution: catenary and third rail N/A         NA         S0         S0           50.05         Communications         Passenger Information System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%         \$2,203,064           50.06         Fare collection system and equipment Element Total         0         RF         \$20         \$1,916,060         15%         \$161, 1           50.06         Fare collection system and equipment Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345,1           50.07         Central Control         I         LS         \$300,000         15%         \$345,1           60         ROW, LAND, EXISTING IMPROVEMENTS         I         LS         \$0         50%         \$57,481,7           60.01         Purchase or lease of real estate         Right of Way Allowance - Arical         9,803         RF </td <td>FO 00 T</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	FO 00 T								
Element Total         48         EA         \$7,200,000         \$8,280,1           50.03         Traction power supply: substations N/A         Image: Comparison of the supply is a substation of the supply is a supply is supply is a supply is a s	50.02 I	ramic signals and crossing p		40	Γ.	¢150.000	¢7 000 000	1 = 0/	¢0,000,000
50.03 Traction power supply: substations $\frac{N/A}{}$ Element Total 0 EA \$0 50.04 Traction power distribution: catenary and third rail $\frac{N/A}{}$ Element Total 0 RF \$0 50.05 Communications Passenger Information System, Fiber Optic 95,803 RF \$20 \$1,916,060 15% \$2,203, Passenger Information System, Station 2 EA \$70,000 \$140,000 15% \$161, Element Total 1 LS \$2,056,060 \$2,364, 50.06 Fare collection system and equipment Fare Collection 15% Element Total 1 LS \$300,000 15% \$345, Element Total 1 LS \$300,000 \$3300,000 \$345, 50.07 Central Control N/A Element Total 1 LS \$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, Right of Way Allowance - At Grade 95,803 RF \$300 \$00 50%						\$150,000		15%	
$\frac{N/A}{Element Total} 0 EA $ $50.04 Traction power distribution: catenary and third rail \frac{N/A}{Element Total} 0 RF  50.05 Communications \frac{Passenger Information System, Fiber Optic 95,803 RF  \frac{Passenger Information System, Station 2 EA  \frac{Fare Collection System and equipment}{Element Total} 1 LS  \frac{Fare Collection System and equipment}{Element Total} 1 LS  \frac{Fare Collection System Total}{Element Total} 1 LS  \frac{N/A}{Element Total} 1 LS  \frac{50.07 Central Control}{Element Total} 1 LS  \frac{N/A}{Element Total} 1 LS  \frac{50.07 Central Control}{Element Total} 1 LS  \frac{N/A}{Element Total} 1 LS  \frac{50.07 Central Control}{Element Total} 1 LS  \frac{N/A}{Element Total} 1 LS  \frac{50.07 Central Control}{Element Total} 1 LS  \frac{N/A}{Element Total} 1 LS  \frac{50.07 Central Control}{Element Total} 1 LS  \frac{N/A}{Element Total} 1 LS  \frac{50.07 Central Control}{Element Total} 1 Central Control}  \frac{60.07 Central Control}{Element Total} 0 RF  \frac{52.00 S0}{50\%}  \frac{50.05 Contral Control}{Element Total} 0 RF  \frac{52.00 S0}{50\%}  \frac{50.05 Contral Control}{Element}  \frac{50.05 Contral Control}{Element}  5$			Element I otal	48	EA		\$7,200,000		\$8,280,000
$\frac{N/A}{Element Total} 0 EA $ $50.04 Traction power distribution: catenary and third rail \frac{N/A}{Element Total} 0 RF  50.05 Communications Passenger Information System, Fiber Optic 95,803 RF  \frac{Passenger Information System, Station 2 EA  \frac{Passenger Information System, Total 1 LS  \frac{Passenger Information System, Station 2 EA  \frac{Passenger Information System, $	50 03 T	raction nower supply: subst	tations						
Element Total         0         EA         \$0           50.04 Traction power distribution: catenary and third rail         N/A	00.00 1								
50.04       Traction power distribution: catenary and third rail         N/A       Element Total       0       RF       \$0         50.05       Communications       Passenger Information System, Fiber Optic       95,803       RF       \$20       \$1,916,060       15%       \$2,203, Passenger Information System, Fiber Optic       95,803       RF       \$20       \$1,916,060       15%       \$2,203, Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$2,611, Eigenent Total       1       LS       \$2,056,060       \$2,364, Passenger Information System, Fiber Optic       92,814, Passenger Information System, Station       2       EA       \$150,000       \$300,000       15%       \$2,364, Passenger Information System, Fiber Optic       2       EA       \$150,000       \$300,000       15%       \$2,364, Passenger Information System, Fiber Optic       2       EA       \$150,000       \$300,000       15%       \$2,364, Passenger Information Total       1       LS       \$300,000       \$345, Passenger Information Total       1       LS       \$300,000       \$345, Passenger Information Total       1       LS       \$300,000       \$345, Passenger Information Total       1       LS       \$0       \$0       \$0       \$0       \$0       \$0       \$0       \$0       \$0       \$0				0	EA		\$0		\$
N/A         Element Total         0         RF         \$0           50.05         Communications         Passenger Information System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%         \$2,203, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161, \$161, Element Total         1         LS         \$2,056,060         \$2,364, \$161, Element Total         \$300,000         15%         \$345, \$300,000         \$345, Element Total         1         LS         \$300,000         15%         \$345, \$345, Element Total         \$300,000         15%         \$345, \$345, Element Total         1         LS         \$300,000         \$345, \$300,000         \$345, \$345, \$300,000         \$345, \$300,000         \$345, \$345, \$300,000         \$345, \$300,000									
Element Total         0         RF         \$0           50.05         Communications         Passenger Information System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%         \$2,203, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$2,203, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$2,056,060         \$2,364,           50.06         Fare collection system and equipment Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345,1           50.07         Central Control         I         LS         \$300,000         \$345,1           50.07         Central Control         I         LS         \$300,000         \$345,1           60         ROW, LAND, EXISTING IMPROVEMENTS         I         LS         \$0           60         ROW, LAND, EXISTING IMPROVEMENTS         \$2,003         RF         \$400         \$38,321,200         50%         \$57,481,4           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%	50.04 T	raction power distribution: c	catenary and third rail						
50.05       Communications         9assenger Information System, Fiber Optic       95,803       RF       \$20       \$1,916,060       15%       \$2,203, \$140,000       \$161, \$10,000       \$161, \$10,000       \$140,000       15%       \$161, \$10,000       \$140,000       \$15%       \$12,364, \$1,300,000       \$140,000       \$15%       \$2,364, \$1,300,000       \$15%       \$345, \$300,000       \$345, \$300,000       \$330,000       \$345, \$345, \$300,000       \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$300,000       \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$345, \$300,000       \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$345, \$345, \$300,000       \$345, \$300,000       \$345, \$300,000       \$345, \$300,000       \$345, \$300,000       \$345, \$300,000       \$345, \$300,000			N/A						
Passenger Information System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%         \$2,203, \$141,000           Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161, \$10,000           50.06         Fare collection system and equipment         Element Total         1         LS         \$2,056,060         \$2,364, \$150,000           50.07         Central Control         2         EA         \$150,000         \$300,000         15%         \$345, \$345, \$300,000         \$345, \$345, \$300,000         \$345, \$300,000         \$345, \$345, \$300,000         \$345, \$300,000         \$345, \$345, \$300,000         \$345, \$300,000         \$345, \$345, \$300,000         \$345, \$300,000         \$345, \$300,000         \$345, \$300,000         \$345, \$345, \$300,000         \$345, \$300,000         <			Element Total	0	RF		\$0		\$
Passenger Information System, Fiber Optic         95,803         RF         \$20         \$1,916,060         15%         \$2,203, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161,									
Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161,1           Element Total         1         LS         \$2,056,060         \$2,364,1           50.06         Fare collection system and equipment         Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345,1           50.07         Central Control         I         LS         \$300,000         \$345,1           50.07         Central Control         N/A         I         LS         \$300,000         \$345,1           60         ROW, LAND, EXISTING IMPROVEMENTS         Element Total         1         LS         \$0           60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,4           Right of Way Allowance - Aerial         0         RF         \$300         \$00         50%	50.05 C	ommunications					• · · · · · · · · ·		
Element Total         1         LS         \$2,056,060         \$2,364,           50.06         Fare collection system and equipment         Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345,           50.07         Central Control         I         LS         \$300,000         \$345,           50.07         Central Control         N/A         I         LS         \$300,000         \$345,           60         ROW, LAND, EXISTING IMPROVEMENTS         1         LS         \$0           60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,4           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%									
50.06       Fare collection system and equipment         Fare Collection       2       EA       \$150,000       \$300,000       15%       \$345,         50.07       Central Control       N/A       ILS       \$300,000       \$345,         50.07       Central Control       N/A       ILS       \$0         60       ROW, LAND, EXISTING IMPROVEMENTS       \$0       \$0         60.01       Purchase or lease of real estate       \$1       LS       \$300,000       \$38,321,200       50%       \$57,481,4         Right of Way Allowance - At Grade       95,803       RF       \$400       \$38,321,200       50%       \$57,481,4         Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%         Right of Way Allowance - Underground       0       RF       \$250       \$0       50%						\$70,000		15%	
Fare Collection         2         EA         \$150,000         \$330,000         15%         \$345,1           50.07         Central Control         N/A         I         LS         \$300,000         \$345,1           50.07         Central Control         N/A         I         LS         \$0           60         ROW, LAND, EXISTING IMPROVEMENTS         \$0         \$0         \$0           60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,4           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%           Right of Way Allowance - Underground         0         RF         \$250         \$0         50%			Element Total	I	LS		\$2,056,060		\$2,364,46
Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345,1           50.07         Central Control         N/A         I         LS         \$300,000         \$345,1           50.07         Central Control         N/A         I         LS         \$0           60         ROW, LAND, EXISTING IMPROVEMENTS         \$0         \$0         \$0           60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,400           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%         \$57,481,400           Right of Way Allowance - Underground         0         RF         \$250         \$0         50%	50.06 F	are collection system and ex	quinment						
Element Total         1         LS         \$300,000         \$345,           50.07         Central Control         N/A         ILS         \$0         \$0           60         ROW, LAND, EXISTING IMPROVEMENTS           60.01         Purchase or lease of real estate         \$0         \$0           Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,400           Right of Way Allowance - Aerial         0         RF         \$300         \$00         50%           Right of Way Allowance - Underground         0         RF         \$250         \$00         50%	00.00 F	are concourr system and et		2	EA	\$150 000	\$300.000	15%	\$345,00
50.07 Central Control          50.07 Central Control       N/A         Element Total       1 LS         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%       \$57,481,400 \$38,321,200 50%         Right of Way Allowance - Aerial       0 RF         800 RF       \$250 \$00 50%						÷.00,000			\$345,00
N/A       Element Total       1       LS       \$0         60       ROW, LAND, EXISTING IMPROVEMENTS       \$0       \$0       \$0         60.01       Purchase or lease of real estate       Right of Way Allowance - At Grade       95,803       RF       \$400       \$38,321,200       50%       \$57,481,400         Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%         Right of Way Allowance - Underground       0       RF       \$250       \$0       50%				·	-				,
N/A       Element Total       1       LS       \$0         60       ROW, LAND, EXISTING IMPROVEMENTS       \$0       \$0       \$0         60.01       Purchase or lease of real estate       Right of Way Allowance - At Grade       95,803       RF       \$400       \$38,321,200       50%       \$57,481,400         Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%         Right of Way Allowance - Underground       0       RF       \$250       \$0       50%	50.07 C	entral Control							
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%       \$57,481,400         Right of Way Allowance - Aerial       0       RF       \$300       \$00       \$000         Right of Way Allowance - Underground       0       RF       \$250       \$000       \$000			N/A						
60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,400           Right of Way Allowance - Aerial         0         RF         \$300         \$00         \$50%           Right of Way Allowance - Aerial         0         RF         \$250         \$00         \$00			Element Total	1	LS		\$0		\$
60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,400           Right of Way Allowance - Aerial         0         RF         \$300         \$00         \$50%           Right of Way Allowance - Aerial         0         RF         \$250         \$00         \$00									
Right of Way Allowance - At Grade         95,803         RF         \$400         \$38,321,200         50%         \$57,481,400           Right of Way Allowance - Aerial         0         RF         \$300         \$00         50%           Right of Way Allowance - Underground         0         RF         \$250         \$00         50%									
Right of Way Allowance - Aerial0RF\$300\$050%Right of Way Allowance - Underground0RF\$250\$050%	60.01 P	urchase or lease of real esta							• · · · ·
Right of Way Allowance - Underground0RF\$250\$050%			•						\$57,481,80
			· ·						\$
Element I otal 95,803 RF \$38,321,200 \$57,481,						\$250		50%	\$
			Element Total	95,803	RF		\$38,321,200		\$57,481,80

		CR-L County line	ounty MPO Trans em Planning and O Lakes / Hwy 54 to Hwy					
CAT	SIT MODE: Commuter Rail STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
<b>10</b> 10.01	GUIDEWAY & TRACK ELI Guideway: At-grade exclus							
	Single Track	At Grade - Ballasted, Open	31,266	RF	\$250	\$7,816,500	25%	\$9,770,62
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	
		Element Total	31,266	RF		\$7,816,500		\$9,770,6
0.02	Guideway: At-grade semi-e	exclusive (allows cross-traffic) N/A						
		Element Total	0	RF		\$0		:
0.03	Guideway: At-grade in mixe							
		N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0	RF	\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	
	Double Track	Aerial - Ballasted	0	RF	\$15,200	\$0	30%	
	Double Track	Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	
		Element Total	0	RF		\$0		
0.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	
		Element Total	0	RF		\$0		
0.07	Guideway: Underground tu		0	RF		\$0		
		N/A						
		Element Total	0	RF		\$0		
0.08	Guideway: Retained cut or		0	RF		\$0		
0.08	Guideway: Retained cut or Single Track		0	RF RF	\$6,800	\$0 <b>\$0</b>	30%	
0.08		fill			\$6,800 \$2,800		30% 30%	
0.08	Single Track	fill Retained Cut - Ballasted	0	RF		\$0 \$0 \$0		
10.08	Single Track Single Track	fill           Retained Cut - Ballasted           Retained Fill - Ballasted           Retained Cut - Ballasted           Retained Cut - Ballasted           Retained Fill - Ballasted	0 0 0 0	RF RF RF RF	\$2,800	\$0 \$0 \$0 \$0 \$0	30%	
10.08	Single Track Single Track Double Track	fill Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track	fill Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track Double Track	fill           Retained Cut - Ballasted           Retained Fill - Ballasted           Retained Cut - Ballasted           Retained Cut - Ballasted           Retained Fill - Ballasted	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         N/A	0 0 0 0	RF RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total	0 0 0 0 0	RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	\$9,620,4
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track	0 0 0 0 0 0 0 31,266	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30% 15%	\$8,629,4
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track - Refurbish Existing	0 0 0 0 0 0 0 31,266 31,266	RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,940,540	30% 30% 30% 15%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track	0 0 0 0 0 0 0 31,266	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30% 15%	\$6,831,6
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	fil Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total	0 0 0 0 0 0 0 0 31,266 31,266 0	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	30% 30% 30% 15%	\$6,831,6
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	fil Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total Unrouts)	0 0 0 0 0 0 0 31,266 31,266 0 31,266	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$13,444,380	30% 30% 30% 15% 15%	\$6,831,6 \$15,461,0
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	fill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Ballasted Track         Element Total         urnouts)         Special Trackwork (5% of Track Cost)	0 0 0 0 0 0 0 0 31,266 31,266 0	RF RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,940,540 \$0 \$13,444,380 \$672,219	30% 30% 30% 15%	\$6,831,6 \$15,461,0 \$773,0
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track Track: Special (switches, tr	fil Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track Element Total urnouts) Special Trackwork (5% of Track Cost) Element Total	0 0 0 0 0 0 0 31,266 31,266 0 31,266	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$13,444,380	30% 30% 30% 15% 15%	\$6,831,6 \$15,461,0 \$773,0
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	fil Retained Cut - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total urnouts) Special Trackwork (5% of Track Cost) Element Total	0 0 0 0 0 0 0 31,266 31,266 0 31,266	RF RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,940,540 \$0 \$13,444,380 \$672,219	30% 30% 30% 15% 15%	

			•	nty MPO Trans n Planning nd O Lakes	sit Study				
			County line/	Hwy 54 to Hwy	275				
	SIT MODE: Commuter Rail						DASE	ALLOTD	TOTAL
CAT NO.	STATIONING BEGIN END		DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	COST
20	STATIONS, STOPS, TERMIN	NALS, INTERMOD	DAL						
20.01	At-grade station, stop, shelter			_					
		Center Platform	Element Total	2	EA EA	\$1,500,000	\$3,000,000	20%	\$3,600,00
				2	EA		\$3,000,000		\$3,000,00
20.02	Aerial station, stop, shelter, m	all, terminal, platfo	orm						
		Center Platform		0	EA	\$15,000,000	\$0	25%	:
			Element Total	0	EA		\$0		:
20.03	Underground station, stop, sh	nelter, mall, termina N/A	al, platform						
			Element Total	0	EA		\$0		:
20.04	Other stations, landings, term	iinals: Intermodal, N/A	ferry, trolley, etc.						
			Element Total	1	LS		\$0		:
20.05	Joint development								
		N/A							
			Element Total	1	LS		\$0		:
20.00	Automobilo neutrine multi -t	v otructure							
20.06	Automobile parking multi-stor	y structure Parking Garage		0	STL	\$12,000	\$0	20%	
		· anny Carage	Element Total	1	LS	ψ12,000	\$0	2070	
20.07	Elevators, escalators			-		<b>\$</b> 000 000	<b>*</b> -	000	
		Eleavator Escalator		0	EA EA	\$200,000 \$450,000	\$0 \$0	20% 20%	
			Element Total	1	LS	Ψ+00,000	\$0	20/0	
40	SITEWORK & SPECIAL CO								
40.01	Demolition, Clearing, Earthwo	ork Demolition Allov		31,266	RF	\$30	\$937,980	30%	\$1,219,37
		Demolition Allov		01,200	RF	\$50 \$50	\$0\$, \$00	30%	ψ1,213,5
		Demolition Allov	vance - High	0	RF	\$90	\$0	30%	:
			Element Total	31,266	RF		\$937,980		\$1,219,3
40.00									
+0.02	Site Utilities, Utility Relocation		n Allowance - Low	31,266	RF	\$140	\$4,377,240	30%	\$5,690,4 ²
			n Allowance - Low	31,200 0	RF	\$140	\$4,377,240 \$0	30%	φ <u></u> 5,090,4
			n Allowance - High	0	RF	\$570	\$0	30%	:
			Element Total	31,266	RF		\$4,377,240		\$5,690,4
10.00			und water treatment-						
40.03	Haz. mat'l, contam'd soil remo	• •	ound water treatments erial Removal Allowance	31,266	RF	\$20	\$625,320	30%	\$812,9 [°]
			Element Total	1	LS	φζυ	\$625,320	0070	\$812,9
									,
40.04	Environmental mitigation, e.g		•				<i></i>		
		Enviromental M	Element Total	31,266	RF LS	\$15	\$468,990	30%	\$609,6
			Element Total	1	19		\$468,990		\$609,68
40.05	Site structures including retain	ning walls, sound v	walls						
40.05	Site structures including retai	Retaining & Sou	ind Wall Allowance (10% of						
40.05	Site structures including retai	•	ind Wall Allowance (10% of Length)	3,127	RF	\$80	\$250,128	30%	
40.05	Site structures including retai	Retaining & Sou	ind Wall Allowance (10% of	3,127 1	RF LS	\$80	\$250,128 \$250,128	30%	
		Retaining & Sou Ballasted Track	Ind Wall Allowance (10% of Length) Element Total			\$80		30%	
	Site structures including retain	Retaining & Sou Ballasted Track	Ind Wall Allowance (10% of Length) Element Total andscaping			\$80 \$15		30%	\$325,1
		Retaining & Sou Ballasted Track accommodation, la Landscaping All	Ind Wall Allowance (10% of Length) Element Total andscaping	1	LS		\$250,128		\$325,10 \$609,68
		Retaining & Sou Ballasted Track accommodation, I Landscaping All Landscaping All Landscaping All	Ind Wall Allowance (10% of Length) Element Total andscaping owance - Low owance - Median owance - High	1 31,266 0 0	LS RF RF RF	\$15 \$25 \$40	\$250,128 \$468,990 \$0 \$0	30% 30% 30%	\$325,16 \$609,68
		Retaining & Sou Ballasted Track accommodation, I Landscaping All Landscaping All Landscaping All Pedestrain Over	Ind Wall Allowance (10% of Length) Element Total andscaping owance - Low owance - Median owance - High	1 31,266 0	LS RF RF	\$15 \$25	\$250,128 \$468,990 \$0	30% 30%	\$325,1( \$325,1( \$609,6( \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Branch of Lakker County link/ Hwy 54 6 Hwy 57           Commuter Rail           CAT         STATOMING         END         DESCRIPTION         QTV         UNIT         COST         GOST         CONT(SV         COST           40.07         Automobile, bus, van accessways including roads, parking lots Readvary Modifications Allow - Full Intersection         10         EA         \$50,000         \$800,000         30%         \$51,040           40.03         Temporary Facilities and other indirect costs during construction Temporary Facilities and other indirect costs during construction         Temporary Facilities (S% of Category 40)         5.0%         \$601,841         25%         \$752, \$752, Element Total         1         LS         \$801,841         25%         \$752, \$752, \$801,841         \$752, \$801,841         \$752, \$752, Element Total         1         LS         \$801,841         25%         \$752, \$752, \$801,841         \$752, \$752, \$801,841         \$752, \$752, \$801,841         \$752, \$752, \$752, \$752, \$801,841         \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$752, \$753, \$754, \$754, \$754, \$754, \$754, \$754, \$754, \$754, \$754, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$755, \$7			Hillsborough Coun	Planning	sit Study				
Source real           Cart station with the state of the state state of the			-	-					
SAME         STAT         STAT <th< th=""><th></th><th></th><th></th><th></th><th>275</th><th></th><th></th><th></th><th></th></th<>					275				
CAT         STATIONING BEGIN         DESCRIPTION         OTY         UNIT         COST         COST         CONTRY         COTA           0.07         Automobile, bus, van accessrways including roads, parking lots Rodrowy Modifications Allow, - Full Intersection         16         EA         \$50,000         30%         \$1040           0.07         Automobile, bus, van accessrways including roads, parking lots Rodrowy Modifications Allow, - Full Intersection         16         EA         \$50,000         30%         \$1040           0.08         Temporary Facilities and other indirect costs during construction Temporary Facilities (% of Category 40)         5.0%         \$601,841         25%         \$752           50         SYSTEMS         800.1         1.1S         \$801,841         \$752           50         SYSTEMS         11.2S         \$140         \$4,377,240         15%         \$2,603, \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000 <t< th=""><th>RANSI</th><th>T MODE: Commuter Rail</th><th></th><th>wy 54 to 11wy</th><th>210</th><th></th><th></th><th></th><th></th></t<>	RANSI	T MODE: Commuter Rail		wy 54 to 11wy	210				
NO.         BEGN         END         DESCRIPTION         QTY         UNIT         COST         CONTGY         CONTGY         COST           40.07         Automobile, bus, van accessways including masts, parking lots Readway Modifications Allow - Full Intersection Parking Lots         50.00         \$50,000         \$50,000         \$50,000         \$30%         \$51,000           40.08         Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40) $5.0\%$ \$601,841 $2.5\%$ \$752           50         SYSTEMS         50.01         Transcontrol and signals         Signal System         31,266         RF         \$4,000,000         15%         \$5,033, \$4,377,240         \$55,033, \$4,377,240         \$56,033, \$4,377,240						UNIT	BASE	ALLCTD	τοται
Roadway Modifications Allow Full Intersection Parking Lots         Full (1000         STL         S4,000         30%         S1,040, S4,000,000         30%         S5,200, S5,200, 30%         S5,200, S5,200, S6,240,           40.08 Temporary Facilities and other Indirect costs during construction Temporary Facilities (5% of Category 40)         5.0%         S601,841         25%         S752, S752, Element Total         1         LS         S601,841         25%         S752, S752, S60 SYSTEMS           50.01 Train control and signals         Signal System         31,266         RF         \$140         \$4,377,240         15%         \$5,033, S5,032           50.02 Traffic signals and crossing protection Crossing Protection         16         EA         \$150,000         \$2,400,000         \$2,760, S2,760, S2,760, S2,760,           50.03 Traction power supply: substations N/A         N/A         S2,760, Element Total         0         EA         \$20           50.04 Traction power distribution: catenary and third rail N/A         N/A         S0         S0         \$376, 320         \$380, S880, S9,000         \$385, 514, S9,000         \$390,000         \$394, S9,000         \$394, S9,000         \$394, S9,000         \$394, S9,000         \$394, S9,000         \$394, S9,000         \$394, S9,000         \$394, S9,000         \$390,000         \$394, S9,000         \$394, S9,000         \$390,000 <td< th=""><th></th><th></th><th>DESCRIPTION</th><th>QTY</th><th>UNIT</th><th></th><th></th><th></th><th></th></td<>			DESCRIPTION	QTY	UNIT				
Roadway Modifications Allow Full Intersection         1000         String to the property of the property facilities and other indirect costs during construction           Temporary Facilities and other indirect costs during construction           Temporary Facilities and other indirect costs during construction           Temporary Facilities (5% of Category 40)         50%         Solution           Temporary Facilities (5% of Category 40)         50%         Solution           Temporary Facilities (5% of Category 40)         50%         Solution           Solution         Solution           Solution         Solution           Solution         Solution           Solution         Solution           Solution         Solution           Colspan="2">Solution         Solution           Solution         Solution           Solution         Solution           Solution         Solution           Solution         Solution         Solution									
Roadway Modifications Allow Full         16         EA         \$\$60,000         30%         \$\$1,00, \$\$1,000           Parking Lots         1,000         STL         \$4,000,000         30%         \$\$2,200, \$\$6,240, \$\$60,000           40.03         Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40)         5.0%         \$\$601,841         25%         \$\$752, \$\$752, \$\$100           50         SYSTEMS         \$\$001,771         LS         \$\$601,841         25%         \$\$752, \$\$752, \$\$100         \$\$601,841         25%         \$\$752, \$\$752, \$\$100           50         SYSTEMS         \$\$100,00         \$\$12,860         RF         \$\$140         \$\$4,377,240         15%, \$\$5,033, \$\$0.02           50.02         Traffic signals and crossing protection Crossing Protection         16         EA         \$\$150,000         \$\$2,400,000         \$\$2,760, \$\$2,760, \$\$2,760, \$\$0.03           50.03         Traction power supply: substations         N/A         \$\$2,760, \$\$0.03         \$\$2,760, \$\$0         \$\$2,760, \$\$0.04         \$\$2,760, \$\$0         \$\$2,760, \$\$0.05         \$\$2,400,000         \$\$2,760, \$\$0.05         \$\$0           50.04         Traction power supply: substations         N/A         \$\$0         \$\$0         \$\$0           50.05         Communications         Passenger									
Intersection         16         EA         \$\$90,000         \$\$90,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$00,000         \$\$0	40.07 A	Automobile, bus, van access	ways including roads, parking lots						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			Roadway Modifications Allow Full						
Element Total         1         LS         \$4,800,000         \$6,240,           40.08 Temporary Facilities and other indirect costs during construction Temporary Facilities (%) of Category 40)         5.0%         \$601,841         25%, \$752, Element Total         1         LS         \$601,841         25%, \$752, Element Total         1         LS         \$601,841         25%, \$752, Element Total         \$752, Element Total         1         LS         \$601,841         25%, \$752, Element Total         \$752, Element Total         \$60,1841         25%, \$752, Element Total         \$752, Element Total         \$60,1841         25%, \$752, Element Total         \$752, Element Total         \$752, Element Total         \$60,03, Element Total         \$60,03, Element Total         \$60,03, Element Total         \$60,00,00, \$22,00,00, Element Total         \$60,00,00, \$22,00,00, Element Total         \$60,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00, \$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,00,0,\$22,00,0,0,0,			Intersection	16	EA	\$50,000	\$800,000	30%	\$1,040,00
40.08 Temporary Facilities and other indirect costs during construction       Temporary Facilities (5% of Category 40)       5.0%       \$601.841       25%       \$752,         50 SYSTEMS       Element Total       1       LS       \$801.841       \$25%, \$752,         50 SYSTEMS       Signal System       31.266       RF       \$140       \$4,377,240       \$5,033,         50.02 Traffic signals and crossing protection       Crossing Protection       16       EA       \$150,000       \$2,400,000       \$2,760,         50.03 Traction power supply: substations       NA       Element Total       16       EA       \$150,000       \$2,400,000       \$2,760,         50.04 Traction power supply: substations       NA       Element Total       0       EA       \$10,000       \$2,760,         50.05 Communications       NA       Element Total       0       EA       \$0       \$2,760,         50.05 Communications       Passenger Information System, Fiber Optic       31,266       RF       \$20       \$2,400,000       \$2,400,000       \$3,87,194,         50.05 Communications       Passenger Information System, Station       2       EA       \$70,000       \$140,000,15%, \$3161,       Element Total       1       LS       \$300,000       \$345,         50.06 Fare collection system a			Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,00
$\frac{\text{Temporary Facilities (5\% of Category 40)}{\text{Element Total}} 5.0\% \\ \hline Stystems \\ 50.01 Train control and signals \\ \hline Signal System 31,266 RF $140 $4,377,240 15\% $5,033, \\ \hline Signal System 10tal 31,266 RF $140 $4,377,240 $5,033, \\ \hline Element Total 31,266 RF $140 $4,377,240 $5,033, \\ \hline Stystem 2,2760, \\ \hline Crossing protection 16 EA $150,000 $2,400,000 15\% $2,760, \\ \hline Crossing Protection 16 EA $150,000 $2,400,000 15\% $2,760, \\ \hline Crossing Protection 16 EA $150,000 $2,400,000 15\% $2,760, \\ \hline Crossing Protection 16 EA $150,000 $2,400,000 15\% $2,760, \\ \hline Element Total 16 EA $2,400,000 $52,400,000 $2,760, \\ \hline Crossing Protection 16 EA $150,000 $2,400,000 $15\% $2,760, \\ \hline Crossing Protection 16 EA $150,000 $2,400,000 $15\% $2,760, \\ \hline Straction power supply: substations \\ \hline N/A \\ \hline Element Total 0 EA $0 \\ \hline Straction power distribution: catenary and third rail \\ \hline N/A \\ \hline Element Total 0 RF $0 \\ \hline Communications \\ \hline Passenger Information System, Fiber Optic 31,266 RF $20 $625,320 $15\% $719, \\ \hline Passenger Information System, Station 2 EA $70,000 $140,000 $15\% $3161, \\ \hline Element Total 1 LS $300,000 $15\% $345, \\ \hline State Collection system and equipment [Fare Collection 2 EA $150,000 $300,000 $15\% $345, \\ \hline Element Total 1 LS $300,000 $15\% $345, \\ \hline State Collection $2 EA $150,000 $300,000 $15\% $345, \\ \hline State Collection $2 EA $150,000 $300,000 $15\% $345, \\ \hline Element Total 1 LS $300,000 $3300,000 $3345, \\ \hline State Collection $2 EA $150,000 $300,000 $15\% $345, \\ \hline State Collection $2 EA $150,000 $300,000 $15\% $345, \\ \hline State Collection $2 EA $150,000 $300,000 $15\% $345, \\ \hline State Collection $2 EA $150,000 $300,000 $15\% $345, \\ \hline Element Total 1 LS $300,000 $3300,000 $330,000 $3345, \\ \hline State Collection $2 EA $150,000 $300,000 $15\% $345, \\ \hline State Collection $2 EA $150,000 $300,000 $3300,000 $3345, \\ \hline State Collection $2 EA $150,000 $300,000 $3300,000 $3345, \\ \hline State Collection $2 EA $150,000 $300,000 $3300,000 $3345, \\ \hline State Collection $2 EA $150,000 $300,000 $3300,000 $3345, \\ \hline State Collection $2 EA $150,000 $300,000 $$			Element Total	1	LS		\$4,800,000		\$6,240,00
$\frac{\text{Temporary Facilities (5% of Category 40)}{\text{Element Total}} 5.0\% \\ \hline Stystems \\ 50.01 Train control and signals \\ \hline Signal System 312.66 RF $140 $4.377.240 15\% $5.033. \\ \hline Signal System 312.66 RF $140 $4.377.240 $5.033. \\ \hline Element Total 31.266 RF $140 $4.377.240 $5.033. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 15\% $2.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 15\% $2.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 $52.400.000 $2.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 $52.760. \\ \hline Element Total $16 EA $50.000 $2.400,000 $52.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 $15\% $2.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 $15\% $2.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 $15\% $2.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 $15\% $2.760. \\ \hline Crossing Protection $16 EA $150,000 $2.400,000 $15\% $2.760. \\ \hline Crossing Protection $2.400,000$									
50         SYSTEMS           50.01 Train control and signals         Signal System         31,266         RF         \$14.0         \$4,377,240         15%         \$5,033           50.02 Trafic signals and crossing protection         Itement Total         31,266         RF         \$14.00         \$4,377,240         \$5,033           50.02 Trafic signals and crossing protection         Itement Total         31,266         RF         \$4,377,240         \$5,033           50.03 Traction power supply:         substations         N/A         Itement Total         16         EA         \$150,000         \$2,400,000         \$2,760           50.03 Traction power supply:         substations         N/A         Itement Total         0         EA         \$0           50.04 Traction power distribution:         catenary and third rail         N/A         Itement Total         0         RF         \$0           50.05 Communications         Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$345, 5161, Element Total         1         LS         \$300,000         \$345, 5345, Element Total         1         LS         \$300,000	40.08 1	Cemporary Facilities and othe							
50 SYSTEMS           Signal System         31,266         RF         \$140         \$4,377,240         \$5,033           50.02         Traffic signals and crossing protection         Crossing Protection         16         EA         \$150,000         \$2,400,000         15%         \$2,760.           50.03         Traction power supply: substations         N/A           N/A           Lement Total         16         EA         \$150,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000								25%	\$752,30
50.01         Train control and signals         Signal System         31,266         RF         \$140         \$4,377,240         15%         \$5,033,           50.02         Traffic signals and crossing protection         Crossing Protection         6         Element Total         31,266         RF         \$10,00         \$2,400,000         15%         \$2,760,           50.03         Traction power supply: substations         N/A         \$2,400,000         \$2,400,000         \$2,760,           50.04         Traction power distribution: catenary and third rail         N/A         \$0         \$2,760,           50.05         Communications         N/A         \$0         \$2,760,         \$0           50.05         Communications         Catenary and third rail         N/A         \$0         \$0           N/A         Element Total         0         RF         \$20         \$625,320         15%         \$719,           Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$345,           50.05         Communications         Fare Collection         \$300,000         15%         \$345,           50.06         Fare collection system and equipment         Fare Collection         \$300,000         15% <td></td> <td></td> <td>Element Total</td> <td>1</td> <td>LS</td> <td></td> <td>\$601,841</td> <td></td> <td>\$752,30</td>			Element Total	1	LS		\$601,841		\$752,30
50.01       Train control and signals       Signal System       31,266       RF       \$140       \$4,377,240       15%       \$5,033,         50.02       Traffic signals and crossing protection       Crossing Protection       6       Element Total       31,266       RF       \$10,000       \$2,400,000       15%       \$2,760,         50.03       Traction power supply: substations       N/A       S2,400,000       \$2,400,000       \$2,760,         50.04       Traction power distribution: catenary and third rail       N/A       N/A       \$0       \$2,760,         50.05       Communications       Passenger Information System, Fiber Optic       31,266       RF       \$20       \$625,320       15%       \$719, Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$345, 50.00       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       \$300,000       1									
50.01       Train control and signals       Signal System       31,266       RF       \$140       \$4,377,240       15%       \$5,033,         50.02       Traffic signals and crossing protection       Crossing Protection       6       Element Total       31,266       RF       \$10,000       \$2,400,000       15%       \$2,760,         50.03       Traction power supply: substations       N/A       S2,400,000       \$2,400,000       \$2,760,         50.04       Traction power distribution: catenary and third rail       N/A       N/A       \$0       \$2,760,         50.05       Communications       Passenger Information System, Fiber Optic       31,266       RF       \$20       \$625,320       15%       \$719, Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$345, 50.00       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       Element Total       1       LS       \$300,000       15%       \$345, 50.07       \$300,000       1	50 6	SVSTEMS							
Signal System         31,266         RF         \$140         \$4,377,240         15%         \$5,033, \$5,033,           50.02         Traffic signals and crossing protection         Crossing Protection         6         EA         \$150,000         \$2,400,000         15%         \$2,760, \$2,760,           50.03         Traction power supply: substations         N/A         52,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,760,           50.03         Traction power supply: substations         N/A         Element Total         0         EA         \$2,400,000         \$2,400,000         \$2,400,000         \$2,760,           50.04         Traction power supply: substations         N/A         Element Total         0         EA         \$0         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$2,400,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000         \$3,450,000 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Element Total         31,266         RF         \$4,377,240         \$5,033           50.02         Traffic signals and crossing protection         Crossing Protection         16         EA         \$150,000         \$2,400,000         \$5,760,           50.03         Traction power supply: substations         IElement Total         16         EA         \$2,400,000         \$2,760,           50.03         Traction power supply: substations         NA         IElement Total         0         EA         \$0           50.04         Traction power distribution: catenary and third rail         NA         IElement Total         0         RF         \$0           50.05         Communications         Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, \$140,000         15%         \$141, \$161, \$160,000         \$140,000         15%         \$345, \$300,000         \$345, \$300,000         \$345, \$300,000         \$345, \$300,000         \$345, \$300,000         \$345, \$300,000	00.01		Signal System	31 266	RF	\$140	\$4 377 240	15%	\$5 033 82
50.02       Traffic signals and crossing protection       Crossing Protection       16       EA       \$150,000       \$2,400,000       15%       \$2,760,         50.03       Traction power supply: substations       N/A       Image: Signal S						φ1+0		1070	
Crossing Protection         16         EA         \$150,000         \$2,400,000         15%         \$2,760, \$2,760,           50.03         Traction power supply: substations N/A         NA         S0         S0         S0         S0           50.04         Traction power distribution: catenary and third rail N/A         0         EA         \$0         S0           50.04         Traction power distribution: catenary and third rail N/A         NA         S0         S0           50.05         Communications         Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, \$161, Beament Total         1         LS         \$765,320         \$880, \$160,000         \$140,000         15%         \$181, \$161, Beament Total         1         LS         \$300,000         15%         \$345, \$161, Beament Total         1         LS         \$300,000         15%         \$345, \$345, \$160, S0,000         \$346, \$150,000         \$300,000         15%         \$345, \$345, \$161, Beament Total         1         LS         \$0         \$345, \$300,000         \$345, \$300,000 <t< td=""><td></td><td></td><td>Element rotal</td><td>01,200</td><td></td><td></td><td>ψ+,077,2+0</td><td></td><td>ψ0,000,02</td></t<>			Element rotal	01,200			ψ+,077,2+0		ψ0,000,02
Crossing Protection         16         EA         \$150,000         \$2,400,000         15%         \$2,760, \$2,760,           50.03         Traction power supply: substations N/A         NA         S0         S0         S0         S0           50.04         Traction power distribution: catenary and third rail N/A         0         EA         \$0         S0           50.04         Traction power distribution: catenary and third rail N/A         NA         S0         S0           50.05         Communications         Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, \$161, Beament Total         1         LS         \$765,320         \$880, \$160,000         \$140,000         15%         \$181, \$161, Beament Total         1         LS         \$300,000         15%         \$345, \$161, Beament Total         1         LS         \$300,000         15%         \$345, \$345, \$160, S0,000         \$346, \$150,000         \$300,000         15%         \$345, \$345, \$161, Beament Total         1         LS         \$0         \$345, \$300,000         \$345, \$300,000 <t< td=""><td>50.02 1</td><td>Fraffic signals and crossing p</td><td>protection</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	50.02 1	Fraffic signals and crossing p	protection						
Element Total         16         EA         \$2,400,000         \$2,760,           50.03         Traction power supply: substations N/A         Image: Comparison of the supply is a substation of the supply is a supply is a substation of the supply is a		5 51		16	EA	\$150.000	\$2,400.000	15%	\$2,760,00
50.03 Traction power supply: substations $\frac{N/A}{}$ Element Total 0 EA \$0 50.04 Traction power distribution: catenary and third rail $\frac{N/A}{}$ Element Total 0 RF \$0 50.05 Communications Passenger Information System, Fiber Optic 31,266 RF \$20 \$625,320 15% \$719, Passenger Information System, Station 2 EA \$70,000 \$140,000 15% \$161, Element Total 1 LS \$765,320 \$880, 50.06 Fare collection system and equipment Fare Collection system and equipment Fare Collection $2$ EA \$150,000 \$300,000 15% \$345, $\overline{1 \ Lement Total}$ 1 LS \$300,000 \$345, 50.07 Central Control $\frac{N/A}{}$ Element Total 1 LS \$0 60 ROW, LAND, EXISTING IMPROVEMENTS 60.01 Purchase or lease of real estate Right of Way Allowance - At Grade \$1,266 RF \$400 \$12,506,400 \$0% \$18,759, Right of Way Allowance - At Grade 0 RF \$300 \$0 50% \$10 \$100 \$10 \$10 \$10 \$10 \$10 \$10 \$10 \$1						,			\$2,760,00
$\frac{N/A}{Element Total} 0 EA $ $50.04 Traction power distribution: catenary and third rail \frac{N/A}{Element Total} 0 RF  50.05 Communications \frac{Passenger Information System, Fiber Optic 31,266 RF $20 $625,320 15\% $719, Passenger Information System, Station 2 EA $70,000 $140,000 15\% $161, Element Total 1 LS $706,520 $880, 50.06 Fare collection system and equipment \frac{Fare Collection}{Element Total} 2 EA $150,000 $300,000 15\% $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $15\% $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $15\% $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $15\% $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control  \frac{N/A}{Element Total} 1 LS $300,000 $300,000 $345, 50.07 Central Control $							• • • • • • • •		• , • • , • •
Element Total         0         EA         \$0           50.04 Traction power distribution: catenary and third rail         N/A	50.03 1	Fraction power supply: subst	tations						
50.04       Traction power distribution: catenary and third rail         N/A       Itement Total       0       RF       \$0         50.05       Communications       Passenger Information System, Fiber Optic       31,266       RF       \$20       \$625,320       15%       \$719, Passenger Information System, Fiber Optic       31,266       RF       \$20       \$625,320       15%       \$719, Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$161, Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$161, Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$161, Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$161, Passenger Information System, Station       2       EA       \$150,000       \$300,000       15%       \$345, Station       \$300,000       15%       \$345, Station       \$300,000       \$345, Sta			N/A						
N/A           50.05         Communications           Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, Passenger Information System, Station           Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161, Element Total           50.06         Fare collection system and equipment Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345, Element Total         1         LS         \$300,000         15%         \$345, Element Total         1         LS         \$300,000         \$345, Element Total         \$300,000         \$345, Element Total         1         LS         \$300,000         \$345, Element Total         \$300,000         \$300,000			Element Total	0	EA		\$0		\$
N/A           50.05         Communications           Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, Passenger Information System, Station           Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161, Element Total           50.06         Fare collection system and equipment Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345, Element Total         1         LS         \$300,000         15%         \$345, Element Total         1         LS         \$300,000         \$345, Element Total         \$300,000         \$345, Element Total         1         LS         \$300,000         \$345, Element Total         \$300,000         \$300,000									
Element Total         0         RF         \$0           50.05         Communications         Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161, \$16, \$161, Element Total         1         LS         \$765,320         \$880, \$160,000         \$162,000         \$300,000         \$15%         \$345, \$150,000         \$300,000         15%         \$345, \$300,000         \$3	50.04 1	Fraction power distribution: of	catenary and third rail						
50.05       Communications         Passenger Information System, Fiber Optic       31,266       RF       \$20       \$625,320       15%       \$719, Passenger Information System, Station         Passenger Information System, Station       2       EA       \$70,000       \$140,000       15%       \$161, State, State, S			N/A						
Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161			Element Total	0	RF		\$0		\$
Passenger Information System, Fiber Optic         31,266         RF         \$20         \$625,320         15%         \$719, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161, \$161									
Passenger Information System, Station         2         EA         \$70,000         \$140,000         15%         \$161, Element Total           50.06         Fare collection system and equipment         1         LS         \$765,320         \$880,           50.06         Fare collection system and equipment         2         EA         \$150,000         \$300,000         15%         \$345,           50.07         Central Control         2         Element Total         1         LS         \$300,000         \$345,           50.07         Central Control         N/A         Element Total         1         LS         \$300,000         \$345,           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,           Right of Way Allowance - Aerial         0         RF         \$300         \$00         50%         \$18,759,	50.05 0	Communications							
Element Total       1       LS       \$765,320       \$880,         50.06       Fare collection system and equipment       Fare Collection       2       EA       \$150,000       \$300,000       15%       \$345,         50.07       Central Control       I       LS       \$300,000       \$345,         50.07       Central Control       N/A       I       LS       \$300,000       \$345,         60       ROW, LAND, EXISTING IMPROVEMENTS       Element Total       1       LS       \$0         60       ROW, LAND, EXISTING IMPROVEMENTS       60.01       Purchase or lease of real estate       \$0         Right of Way Allowance - At Grade       31,266       RF       \$400       \$12,506,400       50%       \$18,759,         Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%				31,266	RF	\$20	\$625,320	15%	\$719,11
50.06       Fare collection system and equipment       Fare Collection       2       EA       \$150,000       \$300,000       15%       \$345,         50.07       Central Control       I       LS       \$300,000       \$345,         50.07       Central Control       N/A       I       LS       \$300,000       \$345,         60       ROW, LAND, EXISTING IMPROVEMENTS       Element Total       1       LS       \$0         60.01       Purchase or lease of real estate       Right of Way Allowance - At Grade       31,266       RF       \$400       \$12,506,400       50%       \$18,759,         Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%						\$70,000		15%	\$161,00
Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345, \$345,           50.07         Central Control         N/A         I         LS         \$300,000         \$345,           50.07         Central Control         N/A         I         LS         \$0           60         ROW, LAND, EXISTING IMPROVEMENTS         \$0         \$0         \$0           60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         31,266         RF         \$400         \$12,506,400         50%         \$18,759, Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%         \$18,759, Right of Way Allowance - Underground         0         RF         \$250         \$0         50%         \$18,759, S0%         \$12,506,400         50%         \$18,759, S0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$18,759, S0%         \$18,759, S0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$18,759, S0%         \$18,759, S0%         \$12,506,400         \$0%         <			Element Total	1	LS		\$765,320		\$880,11
Fare Collection         2         EA         \$150,000         \$300,000         15%         \$345, \$345,           50.07         Central Control         N/A         I         LS         \$300,000         \$345,           50.07         Central Control         N/A         I         LS         \$0           60         ROW, LAND, EXISTING IMPROVEMENTS         \$0         \$0         \$0           60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         31,266         RF         \$400         \$12,506,400         50%         \$18,759, Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%         \$18,759, Right of Way Allowance - Underground         0         RF         \$250         \$0         50%									
Element Total         1         LS         \$300,000         \$345,           50.07         Central Control         N/A         ILS         \$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, Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%         \$18,759, Right of Way Allowance - Underground         0         RF         \$250         \$0         50%         \$18,759, S00         \$00         \$0%         \$18,759, S0%         \$18,759, S0%         \$18,759, S0%         \$18,759, S0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400         \$0%         \$12,506,400	50.06 F	are collection system and e				<b>.</b>			
50.07 Central Control          50.07 Central Control       N/A         Element Total       1 LS         60 ROW, LAND, EXISTING IMPROVEMENTS         60.01 Purchase or lease of real estate         Right of Way Allowance - At Grade       31,266         Right of Way Allowance - Aerial       0         Right of Way Allowance - Aerial       0         Right of Way Allowance - Underground       0						\$150,000		15%	\$345,00
N/A       Element Total       1       LS       \$0         60       ROW, LAND, EXISTING IMPROVEMENTS       \$0       \$0       \$0         60.01       Purchase or lease of real estate       Right of Way Allowance - At Grade       31,266       RF       \$400       \$12,506,400       50%       \$18,759, Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%       \$18,759, Right of Way Allowance - Underground       0       RF       \$250       \$0       50%       \$18,759, Right of Way Allowance - Underground       0       RF       \$250       \$0       50%       \$18,759, Right of Way Allowance - Underground       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$0%       \$12,506,400       \$0%       \$0%       \$12,506,400       \$0%       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%			Element Total	1	LS		\$300,000		\$345,00
N/A       Element Total       1       LS       \$0         60       ROW, LAND, EXISTING IMPROVEMENTS       \$0       \$0       \$0         60.01       Purchase or lease of real estate       Right of Way Allowance - At Grade       31,266       RF       \$400       \$12,506,400       50%       \$18,759, Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%       \$18,759, Right of Way Allowance - Underground       0       RF       \$250       \$0       50%       \$18,759, Right of Way Allowance - Underground       0       RF       \$250       \$0       50%       \$18,759, Right of Way Allowance - Underground       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$0%       \$12,506,400       \$0%       \$0%       \$12,506,400       \$0%       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%       \$12,506,400       \$0%		Dentral Orintari							
Element Total       1       LS       \$0         60       ROW, LAND, EXISTING IMPROVEMENTS       50       50         60.01       Purchase or lease of real estate       Right of Way Allowance - At Grade       31,266       RF       \$400       \$12,506,400       50%       \$18,759, Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%         Right of Way Allowance - Aerial       0       RF       \$250       \$0       50%	50.07 (	Jentral Control	N1/A						
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,         Right of Way Allowance - Aerial       0       RF       \$300       \$0       50%         Right of Way Allowance - Underground       0       RF       \$250       \$0       50%							<b>#^</b>		^
60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         31,266         RF         \$400         \$12,506,400         50%         \$18,759,           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%           Right of Way Allowance - Aerial         0         RF         \$250         \$0         50%			Element I otal	1	LO		\$U		\$
60.01         Purchase or lease of real estate         Right of Way Allowance - At Grade         31,266         RF         \$400         \$12,506,400         50%         \$18,759,           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%           Right of Way Allowance - Aerial         0         RF         \$250         \$0         50%	60 5		PROVEMENTS						
Right of Way Allowance - At Grade         31,266         RF         \$400         \$12,506,400         50%         \$18,759,           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%         \$18,759,           Right of Way Allowance - Aerial         0         RF         \$300         \$0         50%           Right of Way Allowance - Underground         0         RF         \$250         \$0         50%									
Right of Way Allowance - Aerial0RF\$300\$050%Right of Way Allowance - Underground0RF\$250\$050%	00.01 1			31 266	PE	\$400	\$12 506 400	50%	\$18 759 60
Right of Way Allowance - Underground0RF\$250\$050%			0 9						\$10,759,00 \$
									4 9
						φ200		50%	
				31,200	κr		φ12,300,400		φ10,709,6U

		CR-L	em Planning .and O Lakes					
RAN	SIT MODE: Commuter Rail	Hwy275 to F	lwy580/ CL Rail	road				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
NO.	BEGIN END	DESCRIPTION	UII	UNIT	0031	0031	CONTET	0031
	GUIDEWAY & TRACK ELE Guideway: At-grade exclusiv							
0.01	Single Track	At Grade - Ballasted, Open	24,071	RF	\$250	\$6,017,750	25%	\$7,522,1
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	<i></i> ,.
		Element Total	24,071	RF	•	\$6,017,750		\$7,522,1
0.02	Guideway: At-grade semi-ex	cclusive (allows cross-traffic)						
		N/A Element Total	0	RF		\$0		
			· ·			¢.		
0.03	Guideway: At-grade in mixe	d traffic N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0		\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	
	Double Track	Aerial - Ballasted	0	RF	\$15,200	\$0	30%	
	Double Track	Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	
		Element Total	0	RF		\$0		
0.05	Guideway: Built-up fill	At Crode Pollosted Duilture		DE	<u></u>		05%	
	Single Track	At Grade - Ballasted, Built-up	0		\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$740	\$0 \$0	25%	
0.07	Guideway: Underground tun	Element Total nnel N/A	0	RF		\$0		
		Element Total	0	RF		\$0		
10.08	Guideway: Retained cut or f	Ϊl						
0.08	Guideway: Retained cut or f Single Track	ill Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	
0.08	Single Track Single Track	Retained Cut - Ballasted Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
0.08	Single Track Single Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted	0 0	RF RF	<mark>\$2,800</mark> \$8,000	<mark>\$0</mark> \$0	<mark>30%</mark> 30%	
10.08	Single Track Single Track	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted	0 0 0	RF RF RF	\$2,800	\$0 \$0 \$0	30%	
	Single Track Single Track Double Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted	0 0	RF RF	<mark>\$2,800</mark> \$8,000	<mark>\$0</mark> \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A	0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A	0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total	0 0 0 0	RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	
0.09 0.10	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track	0 0 0 0 0 0 24,071	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	\$6,643,5 \$6 280 5
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing	0 0 0 0 0 0 24,071 24,071	RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	30% 30% 30% 15%	\$6,643,5 \$5,259,5
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track	0 0 0 0 0 0 24,071	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track         Element Total	0 0 0 0 0 0 24,071 24,071 0	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	30% 30% 30% 15%	\$5,259,5
10.09 10.10	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total	0 0 0 0 0 24,071 24,071 0 24,071	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$10,350,530	30% 30% 30% 15% 15%	\$5,259,5 \$11,903,1
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track         Element Total	0 0 0 0 0 0 24,071 24,071 0	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	30% 30% 30% 15%	\$5,259,5 \$11,903,1 \$595,1
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track         Element Total         Imouts)         Special Trackwork (5% of Track Cost)         Element Total	0 0 0 0 0 24,071 24,071 0 24,071 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$10,350,530 \$517,527	30% 30% 30% 15% 15%	\$5,259,5 \$11,903,7 \$595,7
10.09 10.10 10.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track Track: Special (switches, tu	Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track         Element Total         Imouts)         Special Trackwork (5% of Track Cost)         Element Total	0 0 0 0 0 24,071 24,071 0 24,071 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$10,350,530 \$517,527	30% 30% 30% 15% 15%	\$5,259,5

		s	County MPO Trans System Planning R-Land O Lakes	-	,			
	SIT MODE: Commuter Rail	Hwy275	to Hwy580/ CL Rail	road				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
	STATIONS, STOPS, TERMI	-						
20.01	At-grade station, stop, shelter	, mail, terminal, platform Center Platform Station	1		¢1 500 000	¢1 500 000	20%	¢1 000 00
		Element Total	1	EA EA	\$1,500,000	\$1,500,000 \$1,500,000	20%	\$1,800,00 \$1,800,00
		Lienent Total		LA		ψ1,000,000		φ1,000,00
20.02	Aerial station, stop, shelter, m	all, terminal, platform						
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	
		Element Total	0	EA		\$0		
20.03	Underground station, stop, sh	elter, mall, terminal, platform N/A						
		Element Total	0	EA		\$0		S
20.04	Other stations, landings, term	inals: Intermodal, ferry, trolley, etc.						
		N/A Element Total	1	LS		\$0		Ş
		Element Total	1	10		ΦŪ		3
20.05	Joint development							
		N/A						
		Element Total	1	LS		\$0		\$
20.00	Automobile neuking and the	v structure						
20.06	Automobile parking multi-stor	y structure Parking Garage	0	STL	\$12,000	\$0	20%	\$
		Element Total	1	LS	φ12,000	\$0 \$0	20 /0	ۍ \$
			·			ΨŪ		4
20.07	Elevators, escalators							
		Eleavator	0	EA	\$200,000	\$0	20%	\$
		Escalator	0	EA	\$450,000	\$0 \$0	20%	\$
		Element Total	1	LS		<b>⊅</b> 0		\$
<b>40</b> 40 01	SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo							
2.01		Demolition Allowance - Low	24,071	RF	\$30	\$722,130	30%	\$938,76
		Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$
		Demolition Allowance - High	0	RF	\$90	\$0	30%	\$
		Element Total	24,071	RF		\$722,130		\$938,76
40.02	Site Utilities, Utility Relocation							
-10.0Z	one oundes, ounty relocation	Utility Relocation Allowance - Low	24,071	RF	\$140	\$3,369,940	30%	\$4,380,92
		Utility Relocation Allowance - Median	24,071	RF	\$340	\$0,505,540 \$0	30%	φ <del>4</del> ,000,92 \$
		Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$
		Element Total	24,071	RF		\$3,369,940		\$4,380,92
40.05	11							
40.03	Haz. mat'l, contam'd soil reme	oval/mitigation, ground water treatments Hazardous Material Removal Allowance	04.074	PE	¢00	¢404 400	200/	COF 04
		Element Total	24,071	RF LS	\$20	\$481,420 \$481,420	30%	\$625,84 \$625,84
		Lienen Totar	I	10		Ψ <del>Τ</del> Ο1, <b>Τ</b> ΖΟ		ψ020,04
40.04	Environmental mitigation, e.g	. wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	24,071	RF	\$15	\$361,065	30%	\$469,38
		Element Total	1	LS		\$361,065		\$469,38
40.07	Other administration of the second se	- to a second and the second and the second s						
40.05	Site structures including retain	-	of					
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	2,407	RF	\$80	\$192,568	30%	\$250,33
		Element Total	2,407	LS	ψου	\$192,568	0070	\$250,33
				-		,,		,50
40.06	Pedestrian / bike access and	accommodation, landscaping						
		Landscaping Allowance - Low	24,071	RF	\$15	\$361,065	30%	\$469,38
		Landscaping Allowance - Median	0	RF	\$25	\$0 \$0	30%	\$
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$
			~	<b>F</b> ^	¢000.000	<b>#C</b>	200/	•
		Pedestrain Overpasses Artwork (1% of Guideway & Stations)	0 1%	EA	\$800,000	\$0 \$75,178	30% 30%	\$ \$97,73

		Hillsborough Coun	n Planning	sit Study				
			d O Lakes					
		Hwy275 to Hwy		road				
RANSI	T MODE: Commuter Rail	They 270 to The		load				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.07 A	Automobile, bus, van access	ways including roads, parking lots						
		Roadway Modifications Allow Full						
		Intersection	12	EA	\$50,000	\$600,000	30%	\$780,00
		Parking Lots	500	STL	\$4,000	\$2,000,000	30%	\$2,600,00
		Element Total	1	LS		\$2,600,000		\$3,380,00
40.08 1	Temporary Facilities and othe	er indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$408,168	25%	\$510,21
		Element Total	1	LS		\$408,168		\$510,21
50 S	SYSTEMS							
	Frain control and signals							
	····· ····· ····· ····················	Signal System	24,071	RF	\$140	\$3,369,940	15%	\$3,875,43
		Element Total	24,071	RF		\$3,369,940		\$3,875,43
			,			.,,,		.,,,
50.02 1	Fraffic signals and crossing p	rotection						
		Crossing Protection	12	EA	\$150,000	\$1,800,000	15%	\$2,070,00
		Element Total	12	EA		\$1,800,000		\$2,070,00
50.03 1	Fraction power supply: subst	tations						
		N/A						
		Element Total	0	EA		\$0		\$
50.04 1	Fraction power distribution: of	-						
		N/A				<u>^</u>		
		Element Total	0	RF		\$0		\$
	Demonstrations							
50.05 (	Communications	Descenses Information System Fiber Ontio	24.074	RF	\$20	¢404 400	1 = 0/	¢550.00
		Passenger Information System, Fiber Optic Passenger Information System, Station	24,071		\$20 \$70,000	\$481,420 \$70,000	15% 15%	\$553,63 \$80,50
		Element Total	1	EA LS	\$70,000	\$70,000	15%	\$634,13
		Liement Totai		LO		φ <b>331,420</b>		φ0 <b>0</b> 4,10
50.06 F	Fare collection system and e	quipment						
00.00 1	are concentri system and e	Fare Collection	1	EA	\$150,000	\$150,000	15%	\$172,50
		Element Total	1	LS	φ100,000	\$150,000	1070	\$172,50
				-		,		,,00
50.07 0	Central Control							
		N/A						
		Element Total	1	LS		\$0		\$
	ROW, LAND, EXISTING IMP							
60.01 F	Purchase or lease of real esta							
		Right of Way Allowance - At Grade	24,071	RF	\$400	\$9,628,400	50%	\$14,442,60
		Right of Way Allowance - Aerial	0	RF	\$300	\$0	50%	\$
		Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$
		Element Total	24,071	RF		\$9,628,400		\$14,442,60

		CR-	em Planning Dwtn North					
RAN	SIT MODE: Commuter Rail	Downtown (F	lwy 685) to Hw	y 580				
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
0.01	Guideway: At-grade exclusiv	ve right-of-way						
	Single Track	At Grade - Ballasted, Open	29,014	RF	\$250	\$7,253,500	25%	\$9,066,8
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	
		Element Total	29,014	RF		\$7,253,500		\$9,066,8
0.02	Guideway: At-grade semi-ex							
		N/A Element Total	0	RF		\$0		
0.03	Guideway: At-grade in mixe	d traffic						
		N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0	RF	\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	0	RF	\$11,900	\$0	30%	
	Double Track	Aerial - Ballasted	0	RF	\$15,200	\$0	30%	
	Double Track	Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	
		Element Total	0	RF		\$0		
0.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0		\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up Element Total	0	RF RF	\$740	\$0 \$0	25%	
0.07	Guideway: Underground tun	Element Total Inel N/A	0	RF		\$0		
		Element Total	0	RF		\$0		
0.08	Guideway: Retained cut or f		0	RF		\$0		
0.08	Guideway: Retained cut or f Single Track		0	RF RF	\$6,800	\$0 \$0	30%	
0.08		ill ill			\$6,800 \$2,800		30% 30%	
0.08	Single Track	ill Retained Cut - Ballasted	0	RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0		
0.08	Single Track Single Track	ill           Retained Cut - Ballasted           Retained Fill - Ballasted           Retained Cut - Ballasted           Retained Cut - Ballasted           Retained Fill - Ballasted	0 0 0 0	RF RF RF RF	\$2,800	\$0 \$0 \$0 \$0 \$0	30%	
	Single Track Single Track Double Track Double Track	ill Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted	0 0 0	RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track	ill           Retained Cut - Ballasted           Retained Fill - Ballasted           Retained Cut - Ballasted           Retained Cut - Ballasted           Retained Fill - Ballasted	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
	Single Track Single Track Double Track Double Track	ill Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	III  Retained Cut - Ballasted Retained Fill - Ballasted Retained Cut - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total  N/A Element Total N/A	0 0 0 0	RF RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total	0 0 0 0	RF RF RF RF	<mark>\$2,800</mark> \$8,000	\$0 \$0 \$0 \$0 \$0	<mark>30%</mark> 30%	
D.09 D.10	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	III	0 0 0 0 0	RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	
0.09	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track	0 0 0 0 0 0 0 29,014	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	\$8,007,5
D.09 D.10	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing	0 0 0 0 0 0 0 0 29,014 29,014	RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	30% 30% 30% 15%	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
D.09 D.10	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track	0 0 0 0 0 0 0 29,014	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%	\$6,339,5
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total	0 0 0 0 0 0 0 0 29,014 29,014 0	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	30% 30% 30% 15%	\$6,339,5
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total	0 0 0 0 0 0 0 29,014 29,014 0 29,014	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$12,476,020	30% 30% 30% 15% 15%	\$6,339,5 \$14,347,4
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	ill          Retained Cut - Ballasted         Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total	0 0 0 0 0 0 0 0 29,014 29,014 0	RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	30% 30% 30% 15%	\$6,339,5 \$14,347,4 \$717,3
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	III	0 0 0 0 0 0 0 29,014 29,014 0 29,014 5%	RF RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$12,476,020 \$623,801	30% 30% 30% 15% 15%	\$6,339,5 \$14,347,4 \$717,3
0.09 0.10 0.11	Single Track Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track Track: Special (switches, tu	III	0 0 0 0 0 0 0 29,014 29,014 0 29,014 5%	RF RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$12,476,020 \$623,801	30% 30% 30% 15% 15%	\$8,007,8 \$6,339,5 \$14,347,4 \$717,3 \$717,3

		CR-D	n Planning wtn North	-	/			
RANS	IT MODE: Commuter Rail	Downtown (Hv	vy 685) to Hwy	y 580				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
20	STATIONS, STOPS, TERMIN							
	At-grade station, stop, shelter							
	· • • • • • • • • • • • • • • • • • • •	Center Platform Station	0	EA	\$1,500,000	\$0	20%	\$
		Element Total	0	EA		\$0		\$
20.02	Aerial station, stop, shelter, m	all terminal platform						
20.02		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$
		Element Total	0	EA	+ , ,	\$0		\$
20.03	Underground station, stop, sh	-						
		N/A Element Total	0	EA		\$0		\$
		Liement Fota	Ū	LA		ψυ		Ψ
20.04	Other stations, landings, term	inals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		\$
20.05	Joint development							
	тр. т. т.	N/A						
		Element Total	1	LS		\$0		\$
20.06	Automobile parking multi-stor	vstructure						
20.00	Automobile parking main stor	Parking Garage	0	STL	\$12,000	\$0	20%	\$
		Element Total	1	LS	. ,	\$0		\$
0.07								
20.07	Elevators, escalators	Eleavator	0	EA	\$200,000	\$0	20%	\$
		Escalator	0	EA	\$450,000	\$0	20%	\$
		Element Total	1	LS		\$0		\$0
	SITEWORK & SPECIAL CO							
40.01	Demolition, Clearing, Earthwo	Demolition Allowance - Low	29,014	RF	\$30	\$870,420	30%	\$1,131,54
		Demolition Allowance - Median	0	RF	\$50	\$0	30%	\$
		Demolition Allowance - High	0	RF	\$90	\$0	30%	\$
		Element Total	29,014	RF		\$870,420		\$1,131,54
40.02	Site Utilities, Utility Relocation							
	· · · · · · · · · · · · · · · · · · ·	Utility Relocation Allowance - Low	29,014	RF	\$140	\$4,061,960	30%	\$5,280,54
		Utility Relocation Allowance - Median	0	RF	\$340	\$0	30%	\$
		Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$5,000,54
		Element Total	29,014	RF		\$4,061,960		\$5,280,54
40.03	Haz. mat'l, contam'd soil remo	oval/mitigation, ground water treatments						
		Hazardous Material Removal Allowance	29,014	RF	\$20	\$580,280	30%	\$754,36
		Element Total	1	LS		\$580,280		\$754,36
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
10.05	Site structures including retair	ning walls, sound walls						
40.05	one suructures including retain	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	2,901	RF	\$80	\$232,112	30%	\$301,74
		Element Total	1	LS		\$232,112		\$301,74
10.06	Pedestrian / bike access and	accommodation landscaping						
-0.00	i Guesman / Dike ducess dhu	Landscaping Allowance - Low	29,014	RF	\$15	\$435,210	30%	\$565,77
		Landscaping Allowance - Median	20,011	RF	\$25	\$0	30%	\$000,11
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	\$
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$
		Artwork (1% of Guideway & Stations)	1%	1.0		\$72,535	30%	\$94,29
		Element Total	1	LS		\$507,745		\$660,06

		Hillsborough Coun System	n Planning	SIL SLUDY				
			vtn North					
		Downtown (Hw		v 580				
RANSI	T MODE: Commuter Rail	200000000000000000000000000000000000000	<b>,</b> ,	,				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.0 <i>7 F</i>	Automobile, bus, van access	ways including roads, parking lots Roadway Modifications Allow Full						
		Intersection	15	EA	\$50,000	\$750,000	30%	\$975,00
		Parking Lots	0	STL	\$4,000	\$0\$\$	30%	\$973,00 \$
		Element Total	1	LS	<b> </b>	\$750,000	0070	\$975,00
40.08 T	emporary Facilities and othe	er indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$371,886	25%	\$464,85
		Element Total	1	LS		\$371,886		\$464,85
50 S	SYSTEMS							
50.01 T	rain control and signals							
		Signal System	29,014	RF	\$140	\$4,061,960	15%	\$4,671,25
		Element Total	29,014	RF		\$4,061,960		\$4,671,25
50 02 T	raffic signals and crossing p	protection						
	raine eignale and erecening p	Crossing Protection	15	EA	\$150,000	\$2,250,000	15%	\$2,587,50
		Element Total	15	EA	+ ,	\$2,250,000		\$2,587,50
50.03 T	raction power supply: subs							
		N/A				<u>^</u>		
		Element Total	0	EA		\$0		\$
50.04 T	raction power distribution:	catenary and third rail						
		N/A						
		Element Total	0	RF		\$0		\$
50.05 C	Communications							
		Passenger Information System, Fiber Optic	29,014	RF	\$20	\$580,280	15%	\$667,32
		Passenger Information System, Station Element Total	0	EA LS	\$70,000	\$0 \$580,280	15%	\$667,32
		Element rotar		20		<i>\\\</i> 000,200		φ001,02
50.06 F	are collection system and e	quipment						
		Fare Collection	0	EA	\$150,000	\$0	15%	\$
		Element Total	1	LS		\$0		\$
E0 07 7	Control Control							
50.07 C	Central Control	N/A						
		Element Total	1	LS		\$0		\$
								•
	ROW, LAND, EXISTING IMP							
60.01 F	Purchase or lease of real est				•	<b>•</b> • • • • • • • • •		
		Right of Way Allowance - At Grade	29,014	RF	\$400	\$11,605,600	50%	\$17,408,40
		Right of Way Allowance - Aerial Right of Way Allowance - Underground	0	RF RF	\$300 \$250	\$0 \$0	50%	\$ \$
		Element Total	29,014	RF	¢200	\$0	50%	\$17,408,40

		-	unty MPO Trans em Planning R-Sarasota	sit Study					
ICL Rail (east of Acline St) to Big Bend/ LRT Sta         TRANSIT MODE: commuter Rail         CAT       STATIONING BEGIN       END       DESCRIPTION       QTY       UNIT       BASE       ALLCTD COST       COST       COST <t< th=""></t<>									
САТ	STATIONING	DESCRIPTION	QTY	UNIT				TOTAL COST	
10		MENTS							
		At Grade - Ballasted, Open	58,255	RF	\$250	\$14,563,750	25%	\$18,204,6	
	Double Track				\$420		25%		
		Element Total	58,255	RF		\$14,563,750		\$18,204,6	
0.02	Guideway: At-grade semi-ex								
			0	RF		\$0			
0.03	Guideway: At-grade in mixed	d traffic							
		Element Total	0	RF		\$0			
0.04	Guideway: Aerial structure								
		Aerial - Ballasted	0	RF	\$11,000	<b>\$</b> 0	30%		
								\$30,940,0	
	Double Track				\$16,500		30%	\$30,940,0	
			_, 0			. ,,		, , -	
0.05		At Grade - Ballasted Builtun		PE	¢440	<u> </u>	25%		
					φ+ i φ		2070		
		_							
10.06	Guideway: Underground cut								
			0	RF		\$0			
10.07	Guideway: Underground tun								
			0	RF		\$0			
						•			
10.08	Guideway: Retained cut or fi								
	Single Track	Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%		
	Single Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted	0	RF	\$2,800	\$0	30%		
		Tetalited Out - Dallasted	0		000 8¢				
	Double Track	Retained Fill - Ballasted	0	RF RF	\$8,000 \$3,200	\$0	30%		
	Double Track	Retained Fill - Ballasted Element Total	0 0 0	RF RF RF	\$8,000 \$3,200				
0.09			0	RF		\$0 \$0	30%		
0.09	Double Track Track: Direct fixation		0	RF		\$0 \$0	30%		
0.09		Element Total	0	RF		\$0 \$0	30%		
	Track: Direct fixation	Element Total	0	RF RF		\$0 \$0 \$0	30%		
		Element Total N/A Element Total	0	RF RF		\$0 \$0 \$0	30%		
	Track: Direct fixation	Element Total	0	RF RF		\$0 \$0 \$0	30%		
0.10	Track: Direct fixation Track: Embedded	Element Total N/A Element Total N/A	0 0	RF RF RF		\$0 \$0 \$0	30%		
0.10	Track: Direct fixation Track: Embedded Track: Ballasted	Element Total N/A Element Total N/A Element Total	0 0 0	RF RF RF	\$3,200	\$0 \$0 \$0 \$0 \$0 \$0	30% 30%		
10.10	Track: Direct fixation Track: Embedded	Element Total N/A Element Total N/A	0 0 0 0 0 60,255	RF RF RF RF	\$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$14,461,200	30% 30%	\$16,630,3 \$13,165,7	
0.10	Track: Direct fixation Track: Embedded Track: Ballasted	Element Total N/A Element Total N/A Element Total Ballasted Track	0 0 0	RF RF RF	\$3,200	\$0 \$0 \$0 \$0 \$0 \$0	30% 30%		
0.10	Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing	0 0 0 0 60,255 60,255	RF RF RF RF RF RF	\$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$11,4461,200 \$11,448,450	30% 30% 15%	<mark>\$16,630,3</mark> \$13,165,7	
10.10	Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total Element Total	0 0 0 0 60,255 60,255 0	RF RF RF RF RF RF RF RF	\$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$11,448,450 \$0	30% 30% 15%	<mark>\$16,630,3</mark> \$13,165,7	
10.10	Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total rnouts)	0 0 0 0 60,255 60,255 0 60,255	RF RF RF RF RF RF RF RF	\$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$11,448,450 \$0 \$25,909,650	30% 30% 15% 15%	\$13,165,7 \$29,796,0	
10.10	Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total Element Total	0 0 0 0 60,255 60,255 0	RF RF RF RF RF RF RF RF	\$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$11,448,450 \$0	30% 30% 15%	\$13,165,7	
10.10 10.11 10.12	Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track Track: Special (switches, tur	Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total rnouts) Special Trackwork (5% of Track Cost) Element Total	0 0 0 0 60,255 60,255 0 60,255 5%	RF RF RF RF RF RF RF RF	\$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$14,461,200 \$11,448,450 \$0 \$25,909,650 \$11,295,483	30% 30% 15% 15%	\$13,165,7 \$29,796,0 \$1,489,8	
10.10 10.11 10.12	Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Element Total N/A Element Total N/A Element Total Ballasted Track Ballasted Track - Refurbish Existing Ballasted Track Element Total rnouts) Special Trackwork (5% of Track Cost) Element Total	0 0 0 0 60,255 60,255 0 60,255 5%	RF RF RF RF RF RF RF RF	\$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$14,461,200 \$11,448,450 \$0 \$25,909,650 \$11,295,483	30% 30% 15% 15%	\$13,165,7 \$29,796,0 \$1,489,8	

		-	nty MPO Trans n Planning Sarasota	sit Study	/			
TRANS	SIT MODE: Commuter Rail	CL Rail (east of Aclin		nd/ LRT	Sta			
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20	STATIONS, STOPS, TERMIN	VALS. INTERMODAL						
	At-grade station, stop, shelter	-						
		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, m	· · · ·						
		Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$0
		Element Total	0	EA		\$0		\$0
20.03	Underground station, stop, sh	elter, mall, terminal, platform N/A						
		Element Total	0	EA		\$0		\$0
20.04	Other stations, landings, term	inals: Intermodal, ferry, trolley, etc. N/A						
		Element Total	1	LS		\$0		\$0
20.05	Joint development							
20.00		N/A						
		Element Total	1	LS		\$0		\$0
20.06	Automobile parking multi-stor	y 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 Element Total	0	EA LS	\$450,000	\$0 \$0	20%	\$0 \$0
				20		φυ		φυ
40	SITEWORK & SPECIAL CO							
40.01	Demolition, Clearing, Earthwo	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	1						
		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 Element Total	0 60,255	RF RF	\$570	\$0 \$8,835,700	30%	\$0 \$11,486,410
		Lionen rour	00,200	T G		φ0,000,700		ψ11,400,410
40.03	Haz. mat'l, contam'd soil remo	oval/mitigation, ground water treatments				• · · · · · · · · ·		• ·
		Hazardous Material Removal Allowance Element Total	60,255 1	RF LS	\$20	\$1,205,100 \$1,205,100	30%	\$1,566,630 \$1,566,630
		Lionon rotar		_0		÷.,200,100		÷1,000,000
40.04	Environmental mitigation, e.g	wetlands, historic/archeologic, parks	<i></i>		<b>*</b>	A		<b>A</b>
		Enviromental Mitigation Allowance Element Total	60,255	RF LS	\$15	\$903,825 \$903,825	30%	\$1,174,973 \$1,174,973
						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,
40.05	Site structures including retain	<b>.</b>						
		Retaining & Sound Wall Allowance (10% of Ballasted Track Length)	6,026	RF	\$80	\$482,040	30%	\$626,652
		Element Total	1	LS		\$482,040	5070	\$626,652
40.06	Pedestrian / bike access and	accommodation landscaping						
-0.00	i Guodinan / Dire ducess dilu	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%	10		\$443,638	30%	\$576,729
		Element Total	1	LS		\$1,367,463		\$1,777,701

		-	•	oluuy					
		-	-						
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 STATIONING NO. BEGIN END DESCRIPTION QTY UNIT COST COST CONTGY VO. BEGIN END DESCRIPTION QTY UNIT COST COST CONTGY A0.07 Automobile, bus, van accessways including roads, parking lots Roadway Modifications Allow Fuil Intersection 29 EA \$50,000 \$1,450,000 30% Parking Lots 1,000 STL \$4,000,000 30% Element Total 1 LS \$54,500,000         40.08 Temporary Facilities and other indirect costs during construction Temporary Facilities (5% of Category 40) 5.0% Element Total 1 LS \$1,004,589 25% Element Total 1 LS \$1,004,589 25%         50 SYSTEMS         50.01 Train control and signals         Gignal System 60,255 RF \$140 \$8,435,700 15% Element Total 60,255 RF \$140 \$8,435,700 15% Element Total 29 EA \$150,000 \$4,350,000 15% Element Total 0 RF \$0									
		RECORDETION	071					TOTAL	
NO.	BEGIN END	DESCRIPTION	QIY	UNII	COST	COST	CONTEY	COST	
40.07 A	utomobile, bus, van accessv	ways including roads, parking lots							
		Intersection	29	EA	\$50,000	\$1,450,000	30%	\$1,885,00	
		Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,00	
		Element Total	1	LS		\$5,450,000		\$7,085,00	
40.00 T									
40.08 I	emporary Facilities and othe	•	5.00/			<b></b>	050/	<b>\$4.055 70</b>	
				1.0			25%	\$1,255,73	
		Element Total	1	L5		\$1,004,589		\$1,255,73	
50.01 T	rain control and signals								
					\$140		15%	\$9,701,05	
		Element I otal	60,255	RF		\$8,435,700		\$9,701,05	
50.02 T	raffic signals and crossing p	rotection							
		Crossing Protection	29	EA	\$150,000	\$4,350,000	15%	\$5,002,50	
			29	EA		\$4,350,000		\$5,002,50	
50.03 T	raction power supply: subst								
			0	E۸		02		\$	
		Liement Total	0	LA		φU		Ψ	
50.04 T	raction power distribution: c	atenary and third rail							
		N/A							
		Element Total	0	RF		\$0		\$	
50.05 C	ommunications	Passenger Information System, Fiber Optic	60,255	RF	\$20	\$1,205,100	15%	\$1,385,86	
		Passenger Information System, Fiber Optic Passenger Information System, Station	4	EA	\$20 \$70,000	\$280,000	15%	\$322,00	
		Element Total	1	LS	\$70,000	\$1,485,100	1070	\$1,707,86	
						Ţ.,,		<b>.</b> .,,,.	
50.06 F	are collection system and ec	quipment							
		Fare Collection	4	EA	\$150,000	\$600,000	15%	\$690,00	
		Element Total	1	LS		\$600,000		\$690,00	
50 07 0	entral Control								
00.07		N/A							
		Element Total	1	LS		\$0		\$	
	OW, LAND, EXISTING IMP								
60.01 P	urchase or lease of real esta		F0 0F-	55	<b>*</b>	<b>400 000 00</b> -	5001	<b>AO I O TO T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T O T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T D T T D T T D T T D T T D T T T T T T T T T T</b>	
		Right of Way Allowance - At Grade	58,255	RF	\$400	\$23,302,000	50%	\$34,953,00	
		Right of Way Allowance - Aerial	2,000	RF	\$300 \$350	\$600,000	50%	\$900,00	
		Right of Way Allowance - Underground Element Total	0 60,255	RF RF	\$250	\$0 \$23,902,000	50%	\$35,853,00	
			00,200			φ23,302,000		φ33,633,00	

		-	em Planning	sit Study						
RANS	SIT MODE: Commuter Rail	System Planning CR-Sarasota / UKP strack         Unit of Cost								
CAT NO.		DESCRIPTION	QTY	UNIT				TOTAL COST		
	GUIDEWAY & TRACK ELE									
0.01			70.000	0.5	<b>4050</b>	<b></b>	0.5%	<b>\$00.000</b>		
	Single Track Double Track							<mark>\$23,083,1</mark> 2		
					φ420		2376	\$23,083,1		
0.02	Guideway: At-grade semi-ex	clusive (allows cross-traffic)								
			0	RF		\$0				
0.03	Guideway [.] At-grade in mixed	traffic								
0.00	Culdoway. A grado in mixor									
		Element Total	0	RF		\$0				
0.04	Guideway: Aerial structure									
	Single Track	Aerial - Ballasted	0	RF	<b>\$11,000</b>	\$0	30%			
	Single Track	Aerial - Ballasted Over Water						\$10,829,0		
	Double Track		0	RF	\$15,200	\$0	30%			
	Double Track				\$16,500		30%			
		Element Total	700	RF		\$8,330,000		\$10,829,0		
	Guideway: Built-up fill		_							
	Single Track									
	Double Track				\$740		25%			
0.07	Guideway: Underground tuni	Element Total	0	RF		\$0				
			0	RF		\$0				
0.08	Guideway: Retained cut or fil	I								
	Single Track	Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%			
	Single Track									
	Double Track									
	Double Track				\$3,200		30%			
0.09	Track: Direct fixation									
		N/A								
		Element Total	0	RF		\$0				
0.10	Track: Embedded									
		N/A				<b>*</b> *				
		Element Total	0	RF		\$0				
	Track: Ballasted									
0.11	Single Track	Ballasted Track	74,566	RF	\$240 \$100	\$17,895,840 \$14,407,540	15%	\$20,580,2		
0.11		Ballasted Track - Refurbish Existing	74,566	RF	\$190 \$480	\$14,167,540 \$0	15% 15%	\$16,292,6		
D.11	Doublo Track		0	RF RF	\$480	\$0 \$32,063,380	15%	\$36,872,8		
0.11	Double Track	Ballasted Track Element Total	74,566	1.0						
		Element Total	74,566	i ti						
	Double Track Track: Special (switches, tur	Element Total		ι α		\$1 602 160	15%	¢1 ₽/3 6		
		Element Total	74,566 <u>5%</u> 1	LS		\$1,603,169 \$1,603,169	15%	\$1,843,6 \$1,843,6		
0.12		Element Total mouts) Special Trackwork (5% of Track Cost) Element Total	5%				15%			
0.12	Track: Special (switches, tur	Element Total mouts) Special Trackwork (5% of Track Cost) Element Total	5%				15%			

		-	nty MPO Trans n Planning Sarasota	sit Study	1			
	SIT MODE: Commuter Rail	Big Bend/ LRT Sta t	to Sarasota/ C	ountylir	ie			
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
20	STATIONS, STOPS, TERMIN							
	At-grade station, stop, shelter	-						
	<b>0</b> <i>i i i</i>	Center Platform Station	2	EA	\$1,500,000	\$3,000,000	20%	\$3,600,00
		Element Total	2	EA		\$3,000,000		\$3,600,00
20 02	Aerial station, stop, shelter, m	all terminal platform						
20.02	Actial station, stop, sheller, in	Center Platform Station	0	EA	\$15,000,000	\$0	25%	S
		Element Total	0	EA	,,	\$0		Ş
20.03	Underground station, stop, sh	altar mall tarminal platform						
20.03	onderground station, stop, sn	N/A						
		Element Total	0	EA		\$0		\$
20 04	Other stations landings term	inals: Intermodal, ferry, trolley, etc.						
LU.U4	Caror stations, landings, term	N/A						
		Element Total	1	LS		\$0		ç
20.05	loint dovelonment							
20.05	Joint development	N/A						
		Element Total	1	LS		\$0		\$
	• • • • • • • • • • • • • • • • • • •							
20.06	Automobile parking multi-stor		0	стı	¢12.000	¢0,	200/	c
		Parking Garage Element Total	0	STL LS	\$12,000	\$0 \$0	20%	9
20.07	Elevators, escalators							
		Eleavator	0	EA	\$200,000	\$0	20%	9
		Escalator Element Total	0	EA LS	\$450,000	\$0 \$0	20%	\$
		Liement Total		LO		φυ		4
40	SITEWORK & SPECIAL COM	DITIONS						
40.01	Demolition, Clearing, Earthwo				<b>^</b>			<b>A</b> A AAA <b>T</b>
		Demolition Allowance - Low Demolition Allowance - Median	73,866	RF	\$30 \$50	\$2,215,980 \$35,000	30% 30%	\$2,880,77
		Demolition Allowance - High	700 0	RF RF	\$30 \$90	\$35,000 \$0	30%	\$45,50
		Element Total	74,566	RF		\$2,250,980	0070	\$2,926,27
			,			.,,,		.,,,
40.02	Site Utilities, Utility Relocation							
		Utility Relocation Allowance - Low	73,866	RF	\$140 \$240	\$10,341,240	30%	\$13,443,61
		Utility Relocation Allowance - Median Utility Relocation Allowance - High	700 0	RF RF	\$340 \$570	\$238,000 \$0	30% 30%	\$309,40 \$
		Element Total	74,566	RF	<b>\$370</b>	\$10,579,240	50%	\$13,753,01
			,					,,-
40.03	Haz. mat'l, contam'd soil remo	oval/mitigation, ground water treatments				• • • •		
		Hazardous Material Removal Allowance Element Total	74,566	RF LS	\$20	\$1,491,320 \$1,491,320	30%	\$1,938,71 \$1,938,71
		Element I otal	1	LO		ψ1,491,32U		φ1,930,/1
40.04	Environmental mitigation, e.g.	wetlands, historic/archeologic, parks						
		Enviromental Mitigation Allowance	74,566	RF	\$15	\$1,118,490	30%	\$1,454,03
		Element Total	1	LS		\$1,118,490		\$1,454,03
40 05	Site structures including retair	ning walls, sound walls						
.0.00	Cite of detailes including fetall	Retaining & Sound Wall Allowance (10% of						
		Ballasted Track Length)	7,457	RF	\$80	\$596,528	30%	\$775,48
		Element Total	1	LS		\$596,528		\$775,48
10.00	Dedectrion / bills assess and	accommodation landsconting						
40.06	Pedestrian / bike access and	accommodation, landscaping Landscaping Allowance - Low	73,866	RF	\$15	\$1,107,990	30%	\$1,440,38
		Landscaping Allowance - Low	73,800	RF	\$25	\$1,107,990 \$17,500	30%	\$1,440,30 \$22,75
		Landscaping Allowance - High	0	RF	\$40	\$0	30%	φ22,70
		Pedestrain Overpasses	0	EA	\$800,000	\$0	30%	\$
		Artwork (1% of Guideway & Stations)	1%			\$297,965	30%	\$387,35
		Element Total	1	LS		\$1,423,455		\$1,850,49

		Hillsborough Coun Svstem	Planning	Situty				
		-	arasota					
		Big Bend/ LRT Sta to		ountyline	•			
RANS	IT MODE: Commuter Rail	<b>5</b> • • • • • •						
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
40.07	Automobile, bue ver eccess	vovo including roado, parking lato						
40.07 /	Automobile, bus, van accessi	ways including roads, parking lots Roadway Modifications Allow Full						
		Intersection	37	EA	\$50,000	\$1,850,000	30%	\$2,405,00
		Parking Lots	1,000	STL	\$4,000	\$4,000,000	30%	\$5,200,00
		Element Total	1	LS	\$ 1,000	\$5,850,000		\$7,605,00
40.08	Temporary Facilities and othe	er indirect costs during construction						
		Temporary Facilities (5% of Category 40)	5.0%			\$1,165,501	25%	\$1,456,87
		Element Total	1	LS		\$1,165,501		\$1,456,87
50	SYSTEMS							
50.01	Train control and signals							
		Signal System	74,566	RF	\$140	\$10,439,240	15%	\$12,005,12
		Element Total	74,566	RF		\$10,439,240		\$12,005,12
50 02 -	Traffic signals and crossing p	rotection						
00.02	France signals and crossing p	Crossing Protection	37	EA	\$150,000	\$5,550,000	15%	\$6,382,50
		Element Total	37	EA	\$100,000	\$5,550,000		\$6,382,50
						.,,,		.,,,
50.03 -	Traction power supply: subst	ations						
		N/A						
		Element Total	0	EA		\$0		\$
50.04 -	Traction power distribution: c	ratenary and third rail						
00.04		N/A						
		Element Total	0	RF		\$0		\$
50.05 (	Communications							
		Passenger Information System, Fiber Optic	74,566	RF	\$20	\$1,491,320	15%	\$1,715,01
		Passenger Information System, Station	2	EA	\$70,000	\$140,000	15%	\$161,00
		Element Total	1	LS		\$1,631,320		\$1,876,01
50.06	Fare collection system and ec	nuinment						
00.00	are concourt system and et	Fare Collection	2	EA	\$150,000	\$300,000	15%	\$345,00
		Element Total	1	LS		\$300,000		\$345,00
50.07 (	Central Control							
		N/A Element Total				¢0		^
		Element Total	1	LS		\$0		\$
60 I	ROW, LAND, EXISTING IMP	ROVEMENTS						
	Purchase or lease of real esta							
		Right of Way Allowance - At Grade	73,866	RF	\$400	\$29,546,400	50%	\$44,319,60
		Right of Way Allowance - Aerial	700	RF	\$300	\$210,000	50%	\$315,00
		Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$
		Element Total	74,566	RF		\$29,756,400		\$44,634,60

			unty MPO Trans em Planning CR-West	sit Study						
CR-west Westchase/ County line to west of Sheldon/ LRT Sta TRANSIT MODE: Commuter Rail										
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST		
10	GUIDEWAY & TRACK ELE	MENTS								
0.01	Guideway: At-grade exclusiv	e right-of-way								
	Single Track	At Grade - Ballasted, Open	16,213	RF	\$250	\$4,053,250	25%	\$5,066,50		
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	<b>#</b> E 000 E		
		Element Total	16,213	RF		\$4,053,250		\$5,066,5		
0.02	2 Guideway: At-grade semi-ex	clusive (allows cross-traffic) N/A								
		Element Total	0	RF		\$0				
0.03	Guideway: At-grade in mixed	I traffic								
		N/A								
		Element Total	0	RF		\$0				
0.04	Guideway: Aerial structure									
	Single Track	Aerial - Ballasted	0	RF	\$11,000	\$0	30%			
	Single Track	Aerial - Ballasted Over Water	150	RF	\$11,900	\$1,785,000	30%	\$2,320,5		
	Double Track Double Track	Aerial - Ballasted Aerial - Ballasted Over Water	0	RF	\$15,200	\$0 \$0	30%			
	Double Track	Element Total	0 150	RF RF	\$16,500	\$0 \$1,785,000	30%	\$2,320,5		
0.05	Guideway: Built-up fill									
0.00	Single Track	At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%			
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%			
		Element Total	0	RF		\$0				
0.06	Guideway: Underground cut	& cover								
0.00	o Guidoway. Ghidolgiouna dat	N/A								
		Element Total	0	RF		\$0				
0.07	Guideway: Underground tuni	nel								
0.07	Culdeway. Onderground turn	N/A								
		Element Total	0	RF		\$0				
	Guideway: Retained cut or fi	П								
0.08	Calability. I totalliou out of h			RF	<b>*</b> *****		30%			
0.08	Single Track	Retained Cut - Ballasted	0	<b>N</b> F	\$6.800	\$0	30 /0			
0.08	Single Track Single Track	Retained Cut - Ballasted Retained Fill - Ballasted	0 0	RF	\$6,800 \$2,800	\$0 \$0	30%			
80.0										
10.08	Single Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted	0 0 0	RF RF RF	\$2,800	<mark>\$0</mark> \$0 \$0	30%			
10.08	Single Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted	0	RF RF	\$2,800 \$8,000	<b>\$0</b> \$0	30% 30%			
	Single Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF	\$2,800 \$8,000	<mark>\$0</mark> \$0 \$0	30% 30%			
	Single Track Double Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF RF	\$2,800 \$8,000	\$0 \$0 \$0 \$0	30% 30%			
	Single Track Double Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF	\$2,800 \$8,000	<mark>\$0</mark> \$0 \$0	30% 30%			
0.09	Single Track Double Track Double Track	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF RF	\$2,800 \$8,000	\$0 \$0 \$0 \$0	30% 30%			
0.09	Single Track Double Track Double Track Track: Direct fixation	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total	0 0 0	RF RF RF RF	\$2,800 \$8,000	\$0 \$0 \$0 \$0	30% 30%			
0.09	Single Track Double Track Double Track Track: Direct fixation	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 0	RF RF RF RF	\$2,800 \$8,000	\$0 \$0 \$0 \$0	30% 30%			
0.09	Single Track Double Track Double Track Track: Direct fixation Track: Embedded	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 0	RF RF RF	\$2,800 \$8,000	\$0 \$0 \$0 \$0	30% 30%			
0.09	Single Track Double Track Double Track Track: Direct fixation	Retained Fill - Ballasted Retained Cut - Ballasted Retained Fill - Ballasted Element Total N/A Element Total	0 0 0 0	RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0	30% 30% 30%			
0.09	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total	0 0 0	RF RF RF	\$2,800 \$8,000	\$0 \$0 \$0 \$0	30% 30%	\$4,516,11 \$3,575,3		
0.09	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         Ballasted Track	0 0 0 0 0 0 16,363	RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$3,927,120	30% 30% 30%	\$4,516,1 \$3,575,3		
0.09	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Ballasted Track - Refurbish Existing	0 0 0 0 0 0 16,363 16,363	RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$3,927,120 \$3,108,970	30% 30% 30% 15%	\$4,516,1 \$3,575,3		
0.09 0.10 0.11	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Ballasted Track         Element Total	0 0 0 0 0 0 16,363 16,363 0	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$3,927,120 \$3,108,970 \$0	30% 30% 30% 15%	\$4,516,1 \$3,575,3		
0.09 0.10 0.11	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Element Total         Ballasted Track         Element Total	0 0 0 0 0 0 16,363 16,363 0 16,363	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$3,927,120 \$3,108,970 \$0 \$7,036,090	30% 30% 30% 15%	\$4,516,1 \$3,575,3 \$8,091,5		
0.09 0.10 0.11	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         N/A         Element Total         N/A         Ballasted Track         Ballasted Track         Ballasted Track         Element Total	0 0 0 0 0 0 16,363 16,363 0	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$3,927,120 \$3,108,970 \$0	30% 30% 30% 15% 15%	\$4,516,1 \$3,575,3 \$8,091,5 \$404,5		
0.09 0.10 0.11	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total         mouts)         Special Trackwork (5% of Track Cost)         Element Total	0 0 0 0 0 0 16,363 16,363 0 16,363 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$3,927,120 \$3,108,970 \$0 \$7,036,090 \$351,805	30% 30% 30% 15% 15%	\$4,516,1 \$3,575,3 \$8,091,5 \$404,5		
0.09 0.10 0.11	Single Track Double Track Double Track Track: Direct fixation Track: Embedded Track: Ballasted Single Track Double Track Track: Special (switches, tur	Retained Fill - Ballasted         Retained Cut - Ballasted         Retained Fill - Ballasted         Element Total         N/A         Element Total         Ballasted Track         Ballasted Track - Refurbish Existing         Ballasted Track         Element Total         mouts)         Special Trackwork (5% of Track Cost)         Element Total	0 0 0 0 0 0 16,363 16,363 0 16,363 5%	RF RF RF RF RF RF RF RF RF	\$2,800 \$8,000 \$3,200 \$3,200 \$3,200 \$3,200 \$240 \$190	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$3,927,120 \$3,108,970 \$0 \$7,036,090 \$351,805	30% 30% 30% 15% 15%	\$4,516,1		

Hillsborough County MPO Transit Study System Planning CR-West											
CR-west Westchase/ County line to west of Sheldon/ LRT Sta TRANSIT MODE: Commuter Rail											
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST			
	STATIONS, STOPS, TERMI	-									
20.01	At-grade station, stop, shelter				<b>\$4</b> 500 000	<b>*</b> 2	000/				
		Center Platform Station Element Total	0	EA EA	\$1,500,000	\$0 \$0	20%	\$			
20.02	Aerial station, stop, shelter, n	nall, terminal, platform Center Platform Station	0	EA	\$15,000,000	\$0	25%	9			
		Element Total	0	EA	φ13,000,000	\$0 \$0	2376	4 4			
20.03	Underground station, stop, sh	nelter, mall, terminal, platform N/A									
		Element Total	0	EA		\$0		\$			
20.04	Other stations, landings, term	ninals: Intermodal, ferry, trolley, etc. N/A									
		Element Total	1	LS		\$0		\$			
20.05	loint dovolonment										
∠0.05	Joint development	N/A									
		Element Total	1	LS		\$0		\$			
20 06	Automobile parking multi-stor	v structure									
20.00	ratemobile parting mail etci	Parking Garage	0	STL	\$12,000	\$0	20%	\$			
		Element Total	1	LS		\$0		\$			
20 07	Elevators, escalators										
20.07		Eleavator	0	EA	\$200,000	\$0	20%	\$			
		Escalator	0	EA	\$450,000	\$0	20%	\$			
		Element Total	1	LS		\$0		\$			
<b>40</b> 40.01	SITEWORK & SPECIAL CO Demolition, Clearing, Earthwo										
		Demolition Allowance - Low	16,213	RF	\$30	\$486,390	30%	\$632,30			
		Demolition Allowance - Median Demolition Allowance - High	150 0	RF RF	\$50 \$90	\$7,500 \$0	30% 30%	\$9,75 \$			
		Element Total	16,363	RF	\$90	\$493,890	30%	\$642,05			
			,			•••••		<b>+</b> - · _ <b>,</b> - ·			
40.02	Site Utilities, Utility Relocation		16 0 10	DE	¢140	¢0.000.000	200/	<u> </u>			
		Utility Relocation Allowance - Low Utility Relocation Allowance - Median	16,213 150	RF RF	\$140 \$340	\$2,269,820 \$51,000	30% 30%	\$2,950,76 \$66,30			
		Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	¢00,00			
		Element Total	16,363	RF		\$2,320,820		\$3,017,06			
40 03	Haz mat'l contam'd soil rem	oval/mitigation, ground water treatments									
10.00		Hazardous Material Removal Allowance	16,363	RF	\$20	\$327,260	30%	\$425,43			
		Element Total	1	LS		\$327,260		\$425,43			
40.04	Environmental mitigation e o	. wetlands, historic/archeologic, parks									
		Enviromental Mitigation Allowance	16,363	RF	\$15	\$245,445	30%	\$319,07			
		Element Total	1	LS		\$245,445		\$319,07			
40.05	Site structures including retai	ning walls, sound walls									
		Retaining & Sound Wall Allowance (10% of									
		Ballasted Track Length)	1,636	RF	\$80	\$130,904	30%	\$170,17 \$170,17			
		Element Total	1	LS		\$130,904		\$170,17			
40.06	Pedestrian / bike access and	accommodation, landscaping									
		Landscaping Allowance - Low	16,213	RF	\$15	\$243,195	30%	\$316,15			
		Landscaping Allowance - Median	150	RF	\$25	\$3,750	30%	\$4,87			
		Landscaping Allowance - High Pedestrain Overpasses	0	RF	\$40 \$800 000	\$0 \$0	30% 30%	\$			
		Pedestrain Overpasses Artwork (1% of Guideway & Stations)	0 1%	EA	\$800,000	\$0 \$58,383	30% 30%	\$ \$75,89			
		Element Total	1	LS		\$305,328	0070	\$396,92			

		Hillsborough Coun	ity MPO Tran Planning	sit Study						
			-West							
Westchase/ County line to west of Sheldon/ LRT Sta										
RANS	IT MODE: Commuter Rail									
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL		
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST		
40.07	Automobile, bus, van access	ways including roads, parking lots								
		Roadway Modifications Allow Full Intersection		Ξ.	¢50.000	¢ 400 000	200/	¢500.00		
		Parking Lots	8 0	EA STL	\$50,000 \$4,000	\$400,000 \$0	30% 30%	\$520,00		
		Element Total	1	LS	\$4,000	\$400,000	30%	\$520,00		
		Lionont rotal		20		φ100,000		<i><b>Q020</b>,000</i>		
40.08 -	Temporary Facilities and othe	er indirect costs during construction								
	1	Temporary Facilities (5% of Category 40)	5.0%			\$211,182	25%	\$263,97		
		Element Total	1	LS		\$211,182		\$263,97		
	SYSTEMS									
50.01	Train control and signals	Signal System	16.060	DE	£140	\$2,290,820	1 = 0/	¢0.604.44		
		Signal System Element Total	16,363 16,363	RF RF	\$140	\$2,290,820	15%	\$2,634,44 \$2,634,44		
		Element Total	10,303	КГ		\$2,290,020		φ2,034,44		
50.02	Traffic signals and crossing p	rotection								
00.02	riane eignale and erecomy p	Crossing Protection	8	EA	\$150,000	\$1,200,000	15%	\$1,380,00		
		Element Total	8	EA		\$1,200,000		\$1,380,00		
50.03 -	Traction power supply: subst	tations								
		N/A								
		Element Total	0	EA		\$0		\$		
50.04	Traction power distribution: c	•								
		N/A Element Total	0	RF		\$0		\$		
		Liement Total	0	NE		φυ		φ		
50.05	Communications									
		Passenger Information System, Fiber Optic	16,363	RF	\$20	\$327,260	15%	\$376,34		
		Passenger Information System, Station	0	EA	\$70,000	\$0	15%	\$		
		Element Total	1	LS	. ,	\$327,260		\$376,34		
50.06 I	Fare collection system and ed	quipment								
		Fare Collection	0	EA	\$150,000	\$0	15%	\$		
		Element Total	1	LS		\$0		\$		
E0 07 4	Control Control									
50.07 (	Central Control	N/A								
		Element Total	1	LS		\$0		\$		
		Element rotar	1	20		ΨΟ		Ψ		
60 I	ROW, LAND, EXISTING IMP	PROVEMENTS								
	Purchase or lease of real esta									
		Right of Way Allowance - At Grade	16,213	RF	\$400	\$6,485,200	50%	\$9,727,80		
		Right of Way Allowance - Aerial	150	RF	\$300	\$45,000	50%	\$67,50		
		Right of Way Allowance - Underground	0		\$250	\$0	50%	\$		
		Element Total	16,363	RF		\$6,530,200		\$9,795,30		

		- (	unty MPO Trans em Planning CR-West on/ LRT Sta to H					
	SIT MODE: Commuter Rail							
CAT NO.	STATIONING BEGIN END	DESCRIPTION	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10	GUIDEWAY & TRACK ELE	MENTS						
0.01	Guideway: At-grade exclusiv							
	Single Track	At Grade - Ballasted, Open	50,601	RF	\$250	\$12,650,250	25%	\$15,812,8
	Double Track	At Grade - Ballasted, Open	0	RF	\$420	\$0	25%	
		Element Total	50,601	RF		\$12,650,250		\$15,812,8
0.02	Guideway: At-grade semi-ex							
		N/A Element Total	0	RF		\$0		
0.03	Guideway: At-grade in mixe	d traffic						
10.00	Culdeway. At grade in mixe	N/A						
		Element Total	0	RF		\$0		
0.04	Guideway: Aerial structure							
	Single Track	Aerial - Ballasted	0	RF	\$11,000	\$0	30%	
	Single Track	Aerial - Ballasted Over Water	50	RF	\$11,900	\$595,000	30%	\$773,5
	Double Track	Aerial - Ballasted	0	RF	\$15,200	\$0	30%	
	Double Track	Aerial - Ballasted Over Water	0	RF	\$16,500	\$0	30%	
		Element Total	50	RF		\$595,000		\$773,5
0.05	Guideway: Built-up fill							
	Single Track	At Grade - Ballasted, Built-up	0	RF	\$440	\$0	25%	
	Double Track	At Grade - Ballasted, Built-up	0	RF	\$740	\$0	25%	
		Element Total	0	RF		\$0		
0.07	Guideway: Underground tur		0	RF		\$0		
		N/A Element Total	0	RF		\$0		
10.08	Guideway: Retained cut or f							
	Single Track	Retained Cut - Ballasted	0	RF	\$6,800	\$0	30%	
	Single Track	Retained Fill - Ballasted	0	RF	\$2,800	\$0	30%	
	Double Track	Retained Cut - Ballasted	0	RF	\$8,000	\$0	30%	
	Double Track	Retained Fill - Ballasted Element Total	0	RF RF	\$3,200	\$0 \$0	30%	
			-					
0.09	Track: Direct fixation	N/A						
		Element Total	0	RF		\$0		
0.10	Track: Embedded							
		N/A						
		Element Total	0	RF		\$0		
	Track: Ballastad			RF	\$240	\$12,156,240	15%	\$13,979,6
	Track: Ballasted	Ballasted Track	50 GE4	INF.	φ240		<mark>15%</mark> 15%	\$13,979,6
	Track: Ballasted Single Track	Ballasted Track Ballasted Track - Refurbish Existing	50,651 50,651		¢100	40 633 600		
	Single Track	Ballasted Track - Refurbish Existing	50,651	RF	\$190 \$480	\$9,623,690 \$0		\$T1,007,2
					\$190 \$480	\$9,623,690 \$0 \$21,779,930	15%	\$11,067,2
0.11	Single Track Double Track	Ballasted Track - Refurbish Existing Ballasted Track Element Total	50,651 0	RF RF		\$0		
10.11	Single Track	Ballasted Track - Refurbish Existing Ballasted Track Element Total rrnouts)	50,651 0 50,651	RF RF		\$0 \$21,779,930	15%	\$25,046,9
10.11	Single Track Double Track	Ballasted Track - Refurbish Existing Ballasted Track Element Total irnouts) Special Trackwork (5% of Track Cost)	50,651 0	RF RF RF		\$0 \$21,779,930 \$1,088,997		\$25,046,9
10.11	Single Track Double Track	Ballasted Track - Refurbish Existing Ballasted Track Element Total rrnouts)	50,651 0 50,651 5%	RF RF		\$0 \$21,779,930	15%	\$25,046,9 \$1,252,3
0.11	Single Track Double Track	Ballasted Track - Refurbish Existing Ballasted Track Element Total Irrnouts) Special Trackwork (5% of Track Cost) Element Total dampening	50,651 0 50,651 5%	RF RF RF		\$0 \$21,779,930 \$1,088,997	15%	\$25,046,9
10.11	Single Track Double Track Track: Special (switches, tu	Ballasted Track - Refurbish Existing Ballasted Track Element Total irrnouts) Special Trackwork (5% of Track Cost) Element Total	50,651 0 50,651 5%	RF RF RF		\$0 \$21,779,930 \$1,088,997	15%	\$25,046,9 \$1,252,3

Hillsborough County MPO Transit Study System Planning CR-West									
West of Sheldon/ LRT Sta to Hwy580 TRANSIT MODE: Commuter Rail									
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL	
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST	
	STATIONS, STOPS, TERMIN At-grade station, stop, shelter	-							
20.01	Al-grade station, stop, sheller	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, m	all, terminal, platform Center Platform Station	0	EA	\$15,000,000	\$0	25%	\$	
		Element Total	0	EA	\$15,000,000	<u>\$0</u> \$0	23%	<del>پ</del> \$	
20.03	Underground station, stop, sh	-							
		N/A Element Total	0	EA		\$0		\$	
		Element rotar	Ũ	LA		ψŪ		Ψ	
20.04	Other stations, landings, term	inals: Intermodal, ferry, trolley, etc.							
		N/A		1.0		<b>*</b> <i>c</i>			
		Element Total	1	LS		\$0		\$	
20.05	Joint development								
	•	N/A							
		Element Total	1	LS		\$0		\$	
20.06	Automobile parking multi-story	/ structure							
20.00	Automobile parking multi-story	Parking Garage	0	STL	\$12,000	\$0	20%	\$(	
		Element Total	1	LS	÷:2,000	\$0	2070	\$(	
20.07	Elevators, escalators				<b>A</b> AAA AAA	<b>A A</b>	222/	•	
		Eleavator Escalator	0 0	EA EA	\$200,000 \$450,000	\$0 \$0	20% 20%	\$  \$	
		Element Total	1	LS	\$430,000	\$0	2070	\$(	
40	SITEWORK & SPECIAL COM								
40.01	Demolition, Clearing, Earthwo	rk Demolition Allowance - Low	50,601	RF	\$30	¢1 519 020	30%	\$1,973,43	
		Demolition Allowance - Median	50,601	RF	\$30 \$50	\$1,518,030 \$2,500	30%	\$1,973,43 \$3,25	
		Demolition Allowance - High	0	RF	\$90	\$ <u>0</u>	30%	¢0,20 \$	
		Element Total	50,651	RF		\$1,520,530		\$1,976,68	
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	50,001	RF	\$340	\$17,000	30%	\$22,10	
		Utility Relocation Allowance - High	0	RF	\$570	\$0	30%	\$	
		Element Total	50,651	RF		\$7,101,140		\$9,231,482	
40.00		wel/mitigation, ground water to start							
40.03	naz. mati, contamid soli remo	oval/mitigation, ground water treatments Hazardous Material Removal Allowance	50,651	RF	\$20	\$1,013,020	30%	\$1,316,926	
		Element Total	1	LS	ψ20	\$1,013,020	0070	\$1,316,920	
40.04	Environmental mitigation, e.g.	wetlands, historic/archeologic, parks			<b>.</b>	<b>A-</b>	0.051	<b>A</b>	
		Enviromental Mitigation Allowance Element Total	50,651 1	RF LS	\$15	\$759,765 \$759,765	30%	\$987,69 \$987,69	
			1	10		ψ1 J9,100		ψ907,090	
40.05	Site structures including retain	ning walls, sound walls							
		Retaining & Sound Wall Allowance (10% of							
		Ballasted Track Length)	5,065	RF	\$80	\$405,208	30%	\$526,77	
		Element Total	1	LS		\$405,208		\$526,77	
40.06	Pedestrian / bike access and	accommodation, landscaping							
		Landscaping Allowance - Low	50,601	RF	\$15	\$759,015	30%	\$986,72	
		Landscaping Allowance - Median	50	RF	\$25	\$1,250	30%	\$1,62	
		1 0							
		Landscaping Allowance - High	0	RF	\$40	\$0	30%		
			0 0 1%	RF EA	\$40 \$800,000	\$0 \$0 \$162,453	30% 30% 30%	\$( \$( \$211,188	

		Hillsborough Coun System	nty MPO Trans	ອາເອເມດັ່ງ				
		-	-West					
		۲۳ /West of Sheldon		Jww/580				
RANS	T MODE: Commuter Rail	West of offerdoll		1119500				
CAT	STATIONING				UNIT	BASE	ALLCTD	TOTAL
NO.	BEGIN END	DESCRIPTION	QTY	UNIT	COST	COST	CONTGY	COST
-				_				
40.07 A	Automobile, bus, van access	ways including roads, parking lots						
		Roadway Modifications Allow Full						
		Intersection	25	EA	\$50,000	\$1,250,000	30%	\$1,625,00
		Parking Lots	400	STL	\$4,000	\$1,600,000	30%	\$2,080,00
		Element Total	1	LS		\$2,850,000		\$3,705,000
40.08 1	Femporary Facilities and othe	er 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 5	SYSTEMS							
	Frain control and signals							
00.01	Train control and signals	Signal System	50,651	RF	\$140	\$7,091,140	15%	\$8,154,81 ⁻
		Element Total	50,651	RF	<b></b>	\$7.091.140	1070	\$8,154,81
			00,001			¢,,,,,,,,,,		¢0,101,01
50.02 1	Fraffic signals and crossing p	rotection						
	5	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 1	Fraction power supply: subst	ations						
		N/A						
		Element Total	0	EA		\$0		\$0
50.04 7	Fraction power distribution: c	atenary and third rail						
		N/A						
		Element Total	0	RF		\$0		\$0
50.05 0	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 H	are collection system and e		0	<b>F A</b>	¢450.000	¢000.000	1 5 9/	¢0.45.000
		Fare Collection	2	EA LS	\$150,000	\$300,000	15%	\$345,000
		Element Total	1	LS		\$300,000		\$345,000
50 07 0	Central Control							
JU.U/ (		N/A						
		Element Total	1	LS		\$0		\$(
		Liononi i Otai	I	20		ψ		φ
60 F	ROW, LAND, EXISTING IMP	ROVEMENTS						
	Purchase or lease of real esta							
		Right of Way Allowance - At Grade	50,601	RF	\$400	\$20,240,400	50%	\$30,360,60
		Right of Way Allowance - Aerial	50	RF	\$300	\$15,000	50%	\$22,50
		Right of Way Allowance - Underground	0	RF	\$250	\$0	50%	\$22,00
		Element Total	50,651	RF		\$20,255,400		\$30,383,10
			,			,,		, , ,

## Hillsborough County MPO Transit Study System Planning SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS TRANSIT MODE: Commuter Rail COST UNIT ALLCTD TOTAL STATIONING BASE BEGIN END DESCRIPTION QTY UNIT COST COST CONTGY COST ID 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 \$142,500,000 Maintenance Facility (per vehicle) 114 EA \$1,000,000 \$114,000,000 25% \$142,500,000 Element Total 1 LS \$114,000,000 30.04 Storage or Maintenance of Way Building N/A Element Total 1 LS \$0 \$0 30.05 Yard and Yard Track Yard Track 1,000 RF \$240 \$240,000 15% \$276,000 Yard Yard Signal System, Single Track 1,000 RF \$240 \$240,000 15% \$276,000 \$552,000 Element Total LS \$480,000 1 60 ROW, LAND, EXISTING IMPROVEMENTS 60.01 Purchase or lease of real estate Right of Way Allowance 20 AC \$500,000 \$10,000,000 50% \$15,000,000 \$15,000,000 Element Total LS \$10,000,000 1

	Hillsborough County MPO Transit Study System Planning VEHICLES									
TRAN	SIT MODE: Comm	uter Rail								
	STATIC	ONING		COST			UNIT	BASE	ALLCTD	TOTAL
	BEGIN	END	DESCRIPTION	ID	QTY	UNIT	COST	COST	CONTGY	COST
<b>70</b>	VEHICLES 1 Light Rail									
	5		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

