



# BRANDON



CORRIDORS & MIXED-USE  
CENTERS PILOT PROJECT

## Socio-economic Data Modification Recommendations

*Technical Memo 6*

Prepared by:

**HDR**

On behalf of:



Hillsborough MPO  
Metropolitan Planning  
for Transportation



Hillsborough County  
City-County  
Planning Commission

August 11, 2017

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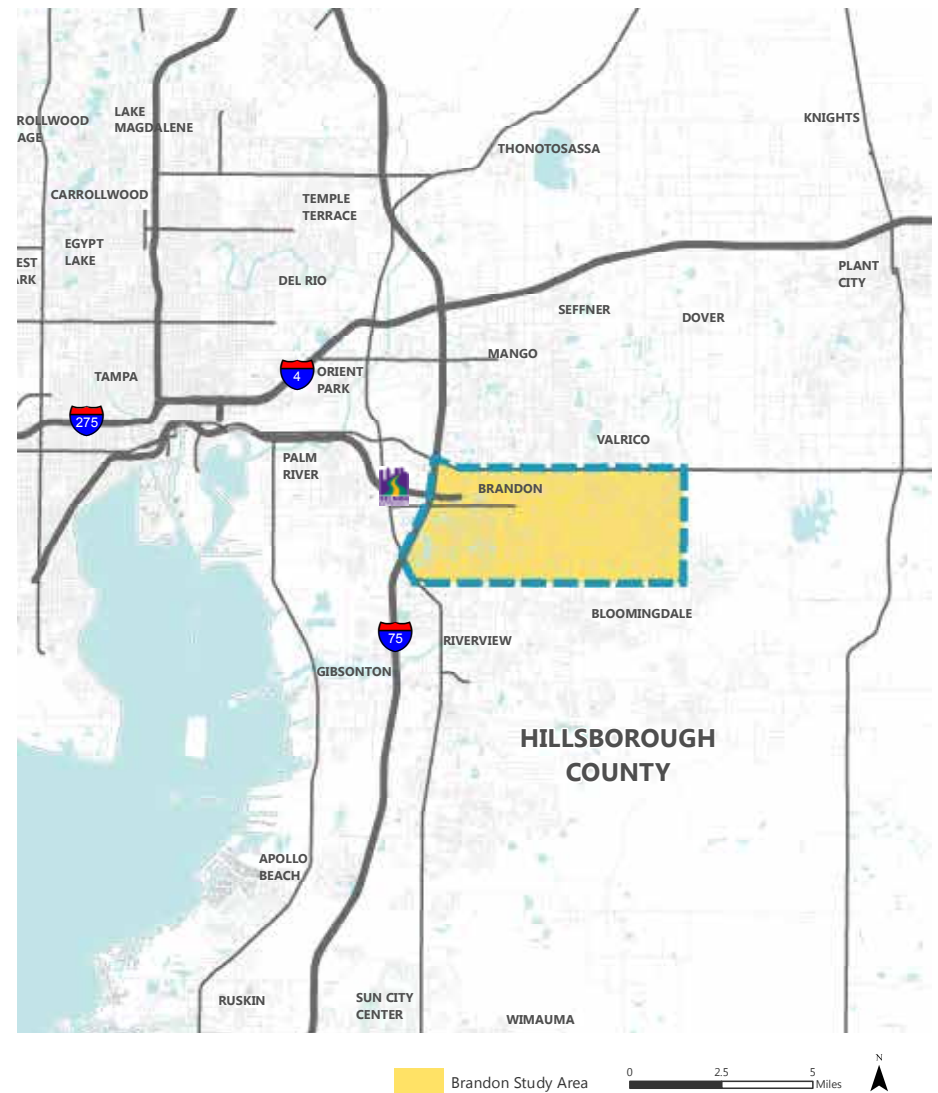
# 1. INTRODUCTION

The Brandon Corridors and Mixed-Use Centers Study is joint pilot project from the Hillsborough County Metropolitan Planning Organization (MPO) and the Hillsborough County City-County Planning Commission (Planning Commission). The purpose of the study is to better coordinate the envisioned land use pattern with planned transportation improvements along major corridors within the Brandon Study Area. As shown in Figure 1, the study area is located at a key location within eastern Hillsborough County. The study area is a three-mile by six-mile area located east of Interstate 75 (I-75) between State Road 60 (SR 60)/Brandon Boulevard and Bloomingdale Avenue. The eastern limit of the study area is Dover Road/Little Road.

This technical memorandum summarizes the study team’s efforts to evaluate how the study area’s supply of sites with development and redevelopment potential can support projected increases in population and employment. The analysis in this tech memo builds upon *Technical Memo 4: Development and Redevelopment Potential Assessment*. As part of that process, the study team evaluated Hillsborough County Property Appraiser data regarding land use, recent construction, development intensity, value, and environmental constraints for the Brandon Study Area and the immediately adjacent area.

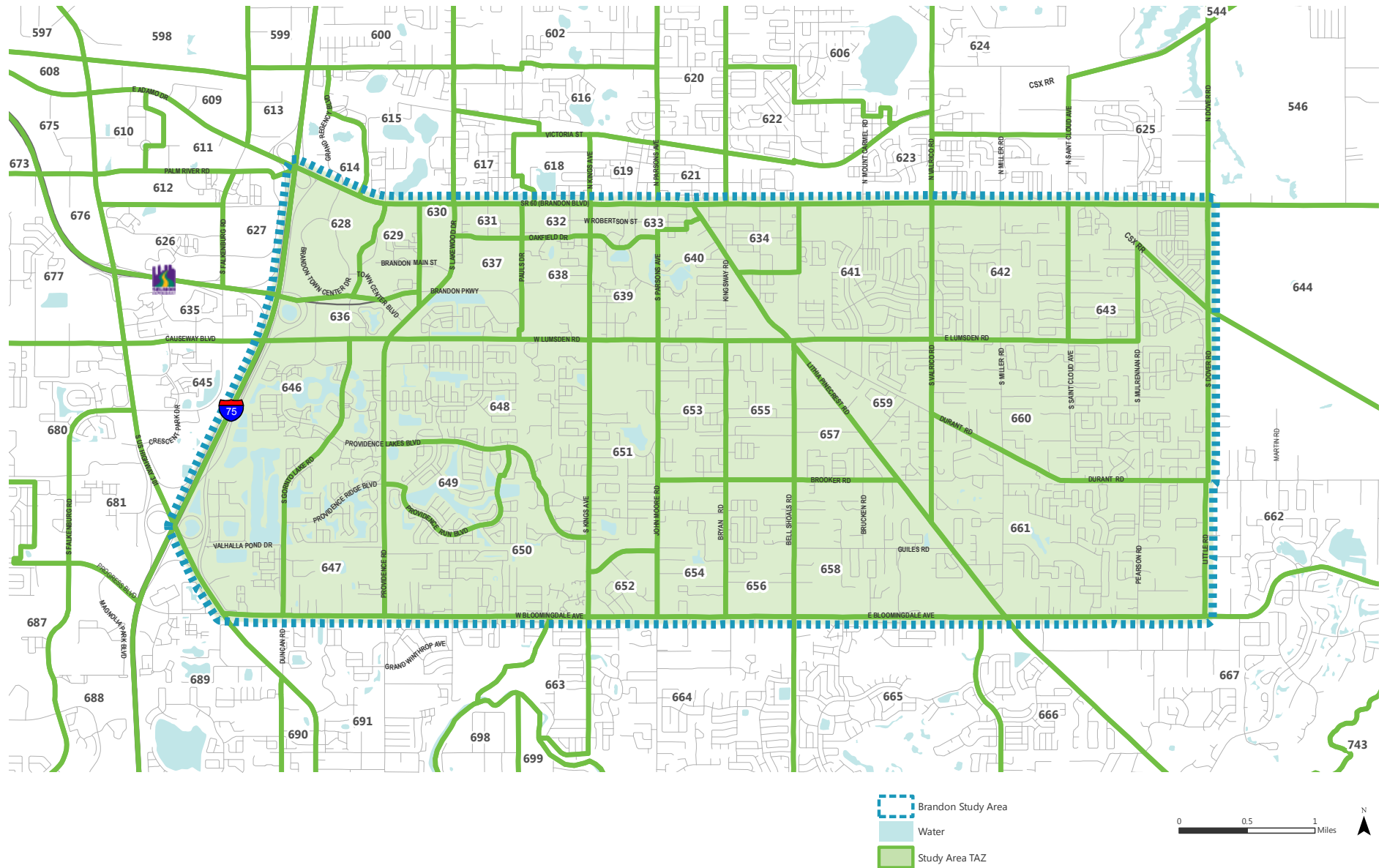
For this memo, the study team prepared a traffic analysis zone (TAZ)-based development demand analysis to evaluate the potential for available land within the study area to accommodate projected changes in population and employment. The memo concludes with recommendations for adjustments to the Tampa Bay Regional Planning Model 2040 population and employment projections for the study area TAZs based on the demand analysis.

Figure 1. Study Area Regional Context Map



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Figure 2. Brandon Study Area Traffic Analysis Zones (TAZ)





## 2. SUPPLY & DEMAND ANALYSIS

### 2.1 Overview

Using the results of development and redevelopment potential analysis, the study team prepared a traffic analysis zone (TAZ)-based development demand analysis to evaluate the potential for available land within study area. As shown in Figure 2, the analysis was conducted for the 31 TAZs within the Brandon Study Area. Described in the following narrative, the analysis included several steps:

- Identify land available (i.e., supply) for development or redevelopment for each TAZ;
- Review projected demographic changes for each TAZ based on regional population and employment projections (i.e., demand);
- Estimate land requirements to accommodate demographic projections using several development factors; and
- Assess the surplus or deficit in land area to accommodate projections for each TAZ.

### 2.2 Identify Available Land

The first step in the development demand analysis was to use the sites previously identified as having development or redevelopment potential as the basis for understanding the available land or supply within the Study Area’s TAZs. This assessment of Hillsborough County Property Appraiser data considered land use, development intensity, and building and land values, as well as environmental constraints that could limit the potential. The analysis identified the location of undeveloped parcels with development potential and developed parcels with redevelopment potential due to low building value or existing development intensity. Environmental constraints were also identified as part of this analysis to determine how much unconstrained land was available after taking into account the location of surface water, stormwater facilities, wetlands, or flood hazard areas.

Within the 31 TAZs, there are 2,629 acres of unconstrained land with development or redevelopment potential. A summary of the land available for redevelopment or development by TAZ is shown in Table 1. These sites and environmental constraints are shown on Figure 3.

**Table 1. Development/Redevelopment Potential Summary By TAZ**

TAZ	All Parcels		Sites with Redevelopment Potential			Sites with Development Potential			All Sites		
	# Parcels	Acres	# Parcels	Acres	Unconst. Acres	# Parcels	Acres	Unconst. Acres	# Parcels	Acres	Unconst. Acres
<b>628</b>	45	272	9	37	22	1	5	5	10	42	27
<b>629</b>	22	165	3	13	11	1	22	22	4	35	33
<b>630</b>	20	85	3	24	5	4	18	11	7	43	15
<b>631</b>	70	65	10	7	7	10	10	9	20	17	16
<b>632</b>	62	80	2	1	1	8	40	40	10	41	41
<b>633</b>	141	96	12	2	2	8	4	4	20	6	6

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TAZ	All Parcels		Sites with Redevelopment Potential			Sites with Development Potential			All Sites		
	# Parcels	Acres	# Parcels	Acres	Unconst. Acres	# Parcels	Acres	Unconst. Acres	# Parcels	Acres	Unconst. Acres
634	351	161	7	9	9	4	4	4	11	13	13
636	30	106	0	0	0	5	44	38	5	44	38
637	505	248	5	82	48	3	14	14	8	96	63
638	363	221	6	40	19	6	53	42	12	93	61
639	355	198	18	20	18	5	21	21	23	41	39
640	664	318	39	39	30	7	34	20	46	72	50
641	1,802	668	252	64	64	12	100	93	264	164	157
642	1,285	546	23	50	50	11	29	24	34	80	74
643	701	473	66	46	46	40	179	169	106	225	215
646	2,148	822	29	347	64	2	17	16	31	364	80
647	922	646	101	84	43	9	77	64	110	161	107
648	2,657	766	35	27	16	4	25	23	39	51	38
649	848	244	1	7	0	0	0	0	1	7	0
650	1,734	702	38	46	36	20	39	36	58	85	72
651	848	485	14	89	14	3	21	17	17	110	31
652	167	112	7	8	8	2	2	2	9	10	10
653	647	283	7	20	20	2	20	20	9	41	41
654	449	295	22	46	35	9	37	37	31	83	73
655	433	288	20	23	23	1	4	4	21	27	27
656	503	278	7	37	20	6	16	16	13	53	36
657	363	237	48	16	16	1	1	1	49	16	16
658	811	670	55	107	91	7	57	56	62	164	147
659	737	387	19	38	38	3	6	6	22	44	44
660	3,020	1,133	74	52	52	35	79	79	109	131	131
661	2,152	1,283	62	73	73	18	73	72	80	145	144
<b>TOTAL</b>	<b>24,855</b>	<b>12,332</b>	<b>994</b>	<b>1,456</b>	<b>881</b>	<b>247</b>	<b>1,049</b>	<b>963</b>	<b>1,241</b>	<b>2,505</b>	<b>1,844</b>

Source: TBRPM, HDR





## 2.3 Review Projected Demographic Changes

Using data available in the Tampa Bay Regional Planning Model (TBRPM), the study team then calculated and reviewed projected changes in employment and population for each of the 31 TAZs in the study area. As shown in Table 2, the study area’s population is projected to increase by 11,027 persons and the number of jobs is projected to increase by 11,457 from 2015 to 2040.

For each TAZ, the study team reviewed the 2025 and 2040 projections for employment and population allocations and determined that some adjustments were needed. The proposed modifications were based on an evaluation of current development intensities and densities, existing Future Land Use designations, an evaluation of existing and planned development, the results from the market analysis (*Technical Memo 2: Market Analysis*), and the assessment of available land.

The adjusted projections for the study area TAZs are also shown in Table 2. Adjusted projections for each of the 31 TAZs is shown in Table 3. The adjusted projections show a smaller population and employment increase between 2015 and 2040, with an increase of 9,730 persons and 7,904 jobs.

**Table 2. TBRPM Population & Employment Projections**

Brandon Study Area TAZs	Projections			Change		
	2015	2025	2040	2015-2025	2025-2040	2015-2040
<b>TBRPM Population &amp; Employment Projections</b>						
Population	76,050	82,341	87,077	6,291	4,736	11,027
Employment	29,337	34,055	40,794	4,718	6,739	11,457
<b>Adjusted Population &amp; Employment Projections</b>						
Population	76,050	79,942	85,780	3,892	5,838	9,730
Employment	29,337	32,499	37,241	3,162	4,742	7,904

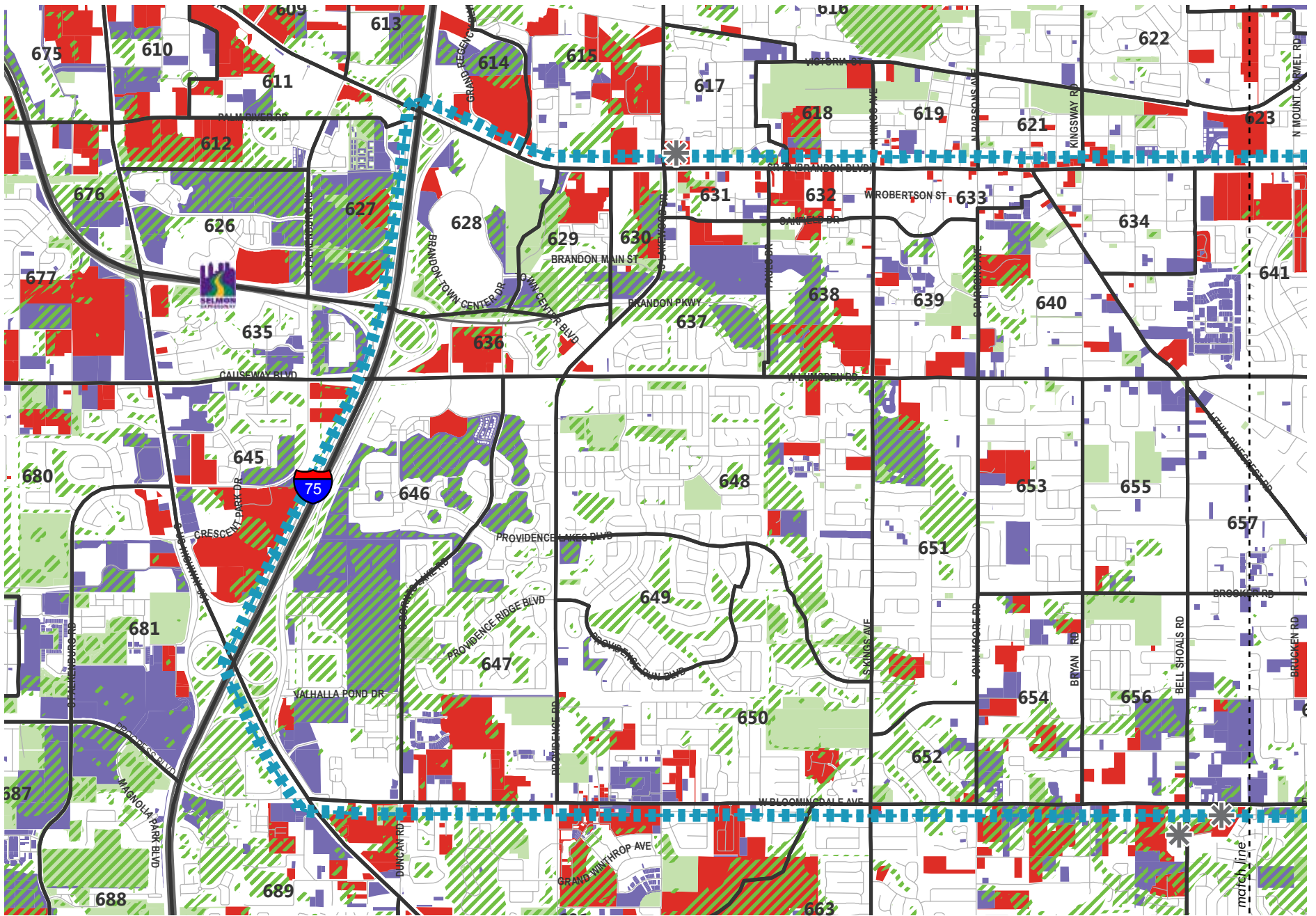
Source: TBRPM, HDR

## 2.4 Estimate Land Required for Projected Employment

The next step was to estimate the land area required to support projected changes in employment by TAZ between 2015 and 2040. This step was accomplished by applying occupancy factors to estimate required building space and development yield factors to estimate required land area to serve the projected employment.







- **Occupancy Factor.** To estimate building space required, an **occupancy factor of 200 square feet of building space per employee** was applied to the employment projections. (*Note: the 200 sf per employee was the weighted average reported in Technical Memo 2: Market Analysis.*) For one TAZ located North of Bloomingdale between Bell Shoals Road and Lithia-Pinecrest Road (TAZ 658), an **occupancy factor of 500 square feet** was applied to account for the projected retail development that has higher square footage per employee.
- **Vacancy Factor.** A **vacancy factor of 10 percent** was also applied to further estimate the square feet of building space.
- **Development Intensity Factor.** To estimate land area required, a development intensity factor (floor area ratio, or FAR) was applied to the building space requirement. This FAR is typical of suburban areas and accounts for development typologies served by surface parking and open stormwater facilities. To account for general differences in development intensity and character by area, a **higher intensity factor (0.5 FAR)** was applied to 12 TAZs west of Kings Avenue and south of SR 60. A **lower intensity factor (0.25 FAR)** was applied to the other TAZs east of Kings Avenue. (*Note: the FAR factors are based on an evaluation of existing commercial FARs within the study area.*)

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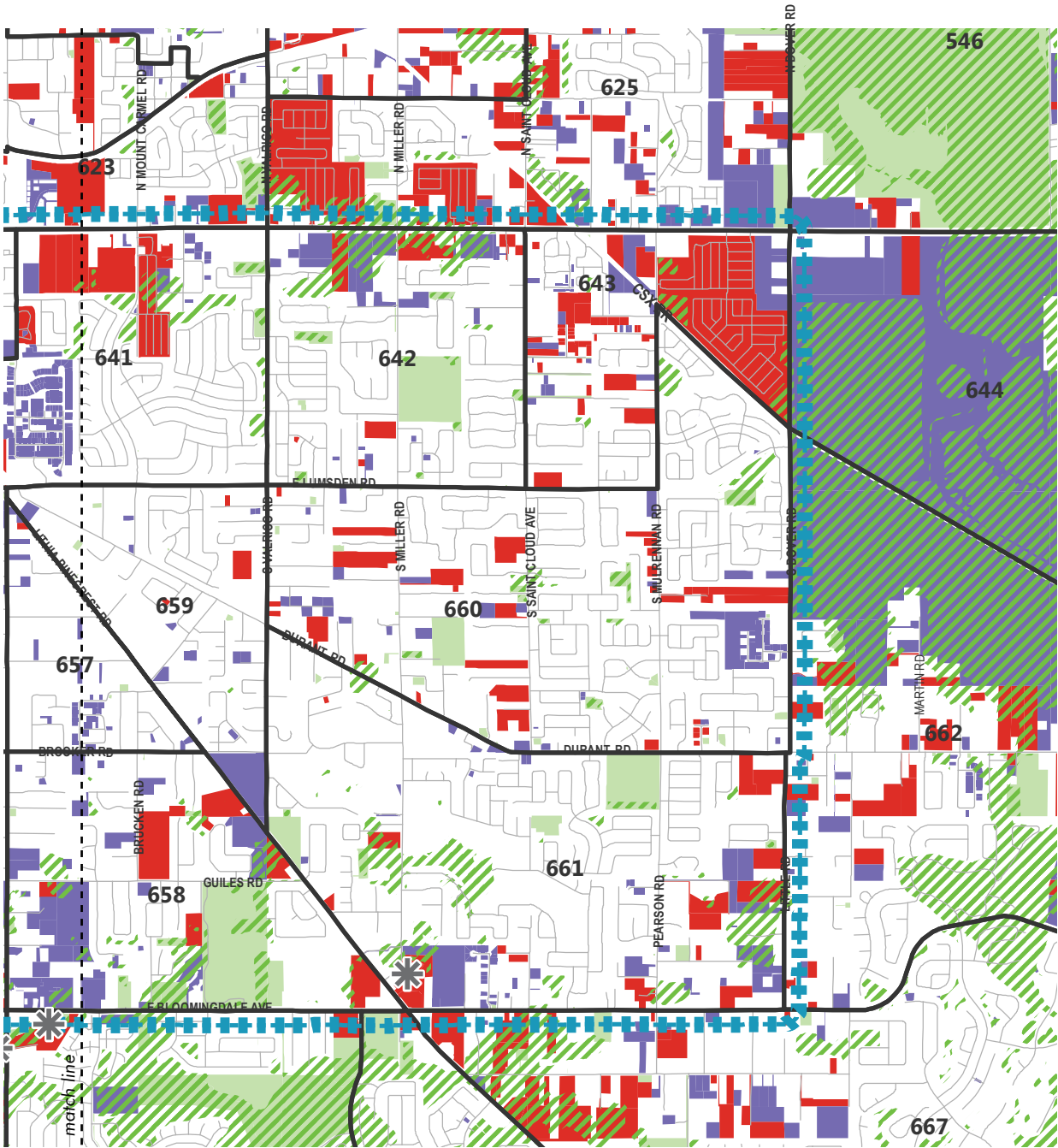




**Figure 3. Sites with Development/Redevelopment Potential by TAZ**

-  Brandon Study Area
-  TAZ Boundary
-  Environmental Constraint (wetland, water, fl
-  Public Ownership/ROW/Cemetery/HOA
-  Parcel with Development Potential
-  Parcel with Redevelopment Potential
-  Vacant Building

0 0.5 1 Miles



## 2.5 Estimate Land Required for Projected Population

The team then estimated the acreage of land required to support projected changes in population by TAZ between 2015 and 2040. This step was accomplished by applying a persons per household factor to estimate the number of dwelling units and a density factor to estimate required land area for residential land and population growth.

- **Occupancy Factor.** To estimate the number of required dwelling units, an **occupancy factor of 2.2 persons per household** was applied to the total population change projected for 2025 and 2040. *(Note: the 2.51 persons per household was the average household size reported in the Market Potentials report.)*
- **Vacancy Factor.** A vacancy factor of 10 percent was also applied to further estimate the number of dwelling units.
- **Dwelling Units Per Gross Acre Factor.** To estimate the land area required to support the population changes, a dwelling units per gross acre factor was applied to the total number of required dwelling units. This factor was based on the character of existing development and the allowable densities under the existing future land use categories within each TAZ. To account for general differences in development density and character by area, **higher density factors (13 to 23 dwelling units per gross acre)** were applied to TAZs on the western edge of the study area along I-75, along SR 60 west of Lithia Pinecrest Road, and north of Lumsden Road to the west of Brandon Parkway. **Lower density factors (3 to 8 dwelling units per gross acre)** were applied to the other TAZs in the more residential areas of the study area. *(Note: the average number of dwelling units per gross acre is 2.03 for all TAZs within the study area.)*

## 2.6 Assess Supply & Demand

To estimate the surplus or deficit in land area to accommodate projected increases in population and employment, the land area requirements to accommodate projected employment and population were combined and compared against the land area identified as undeveloped or as having redevelopment potential. A **net supply factor of 30 percent** was applied to account for roadways, stormwater, and other considerations that would reduce the developable area of any particular site.

The results of the supply and demand analysis by TAZ are shown in Table 3. Based on the net supply of available land and the adjusted population and employment projections for 2040, a surplus of 354 acres is anticipated for the entire study area.



**Table 3. Supply and Demand Analysis by TAZ**

TAZ	TBRPM Projected Change to Population & Employment (2015-2040)		Adjusted Change to Population & Employment (2015-2040)		Land Required to Accommodate Adjusted Projected Change (Acres)			Available Land (Acres)		
	Pop.	Emp.	Pop.	Emp.	Pop.	Emp.	Total Demand	Existing Supply*	Net (30% of Existing)	Surplus/Deficit
<b>628</b>	376	3,112	451	1,245	9.8	12.6	22.4	27.1	19.0	(3.4)
<b>629</b>	154	340	154	1,020	5.9	10.3	16.2	33.1	23.2	6.9
<b>630</b>	152	18	456	198	9.9	2.0	11.9	15.0	10.5	(1.4)
<b>631</b>	80	108	80	108	3.1	1.1	4.2	15.7	11.0	6.8
<b>632</b>	83	30	415	330	16.0	3.3	19.3	41.3	28.9	9.6
<b>633</b>	69	28	69	28	2.7	0.3	2.9	6.0	4.2	1.3
<b>634</b>	120	25	60	25	7.5	0.3	7.8	13.0	9.1	1.4
<b>636</b>	92	550	18	110	0.5	1.1	1.6	37.7	26.4	24.8
<b>637</b>	1,116	457	1,116	1,828	24.3	18.5	42.7	62.7	43.9	1.1
<b>638</b>	342	86	445	172	27.8	1.7	29.5	60.8	42.5	13.0
<b>639</b>	272	137	272	548	22.7	5.5	28.2	38.9	27.2	(1.0)
<b>640</b>	216	111	216	111	27.0	1.1	28.1	50.1	35.1	7.0
<b>641</b>	1,286	90	1,286	360	107.2	7.3	114.4	157.1	110.0	(4.4)
<b>642</b>	421	47	105	188	13.2	3.8	17.0	74.4	52.1	35.1
<b>643</b>	258	14	258	49	32.3	1.0	33.2	214.8	150.4	117.1
<b>646</b>	878	4,774	439	477	16.9	9.6	26.5	79.7	55.8	29.3
<b>647</b>	589	691	589	242	73.6	4.9	78.5	107.2	75.0	(3.5)
<b>648</b>	329	25	165	25	20.6	0.5	21.1	38.2	26.7	5.7
<b>649</b>	20	41	20	41	2.5	0.8	3.3	0.0	0.0	(3.3)
<b>650</b>	330	75	330	75	41.3	1.5	42.8	71.8	50.3	7.5
<b>651</b>	61	43	61	43	7.6	0.9	8.5	31.1	21.7	13.2
<b>652</b>	25	201	25	20	3.1	0.4	3.5	10.1	7.1	3.6
<b>653</b>	241	211	193	21	32.1	0.4	32.6	40.6	28.4	(4.2)
<b>654</b>	271	24	271	24	45.2	0.5	45.7	72.6	50.8	5.2

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TAZ	TBRPM Projected Change to Population & Employment (2015-2040)		Adjusted Change to Population & Employment (2015-2040)		Land Required to Accommodate Adjusted Projected Change (Acres)			Available Land (Acres)		
	Pop.	Emp.	Pop.	Emp.	Pop.	Emp.	Total Demand	Existing Supply*	Net (30% of Existing)	Surplus/Deficit
<b>655</b>	124	4	124	4	20.7	0.1	20.7	26.5	18.6	(2.2)
<b>656</b>	72	14	72	14	6.0	0.3	6.3	36.0	25.2	18.9
<b>657</b>	183	24	92	24	15.3	0.5	15.7	16.3	11.4	(4.3)
<b>658</b>	1,421	97	1,137	340	94.7	17.1	111.9	146.7	102.7	(9.2)
<b>659</b>	177	7	177	14	29.5	0.3	29.8	43.6	30.5	0.7
<b>660</b>	606	24	303	24	50.5	0.5	51.0	131.3	91.9	40.9
<b>661</b>	663	49	332	196	55.3	4.0	59.2	144.4	101.1	41.9
<b>TOTAL</b>	11,027	11,457	9,730	7,904	824.4	112.2	936.6	1,843.8	1290.7	354.1

Source: TBRPM, HDR

Notes: (\*) Existing Land Supply is based on analysis completed as part of Technical Memo 4: Development and Redevelopment Potential Assessment



### 3. SOURCES

- Tampa Bay Regional Transportation Analysis, Tampa Bay Regional Planning Model (TBRPM) v8.1, <http://www.tbrta.com/downloads.aspx>