



February 27, 2018

Ivan Cabrera
Transportation Planner
City of Hollywood
Community Redevelopment Agency
1948 Harrison Street
Hollywood, FL 33020

Re: Professional Consulting Services for the Young Circle Roadway Design Project – Data Collection, Stakeholder Meetings, VISSIM Illustrative Simulation, and Conceptual Planning-Level Cost Estimates

Dear Mr. Cabrera:

Marlin Engineering, Inc. (CONSULTANT) proposes to provide the services identified below pursuant to the Professional Services Agreement provided by the City of Hollywood Community Redevelopment Agency (“CRA”) for Traffic Engineering Services dated February 13, 2018.

I. General

The project will consist of providing data collection services, stakeholder meetings, VISSIM illustrative traffic simulation, and conceptual planning-level cost estimates for the Young Circle Roadway Design Project.

The scope of work outlines the effort required which will be in accordance with Florida Department of Transportation (FDOT) Standards and Specifications.

II. Scope of Work

Task 1 - Traffic Counts

The CONSULTANT will provide the following existing traffic data:

72-Hour Bi-directional traffic counts up to (25) locations on the Young Circle roadway and surrounding streets:

1. N 19th Avenue between Polk Street and Taylor Street
 2. SR 5 (US 1) (N Federal Hwy) between Polk Street and Taylor Street
 3. N 17th Avenue between Polk Street and Taylor Street
 4. Polk Street between N 19th Avenue and SR 5 (US 1) (N Federal Hwy)
 5. Polk Street between SR 5 (US 1) (N Federal Hwy) and N 17th Avenue
 6. Tyler Street between N 20th Avenue and N 19th Avenue
 7. Tyler Street between SR 5 (US 1) NB (Young Circle) and N 17th Avenue
 8. Tyler Street between N 17th Avenue and N 16th Avenue
 9. SR 5 (US 1) SB (Young Circle) between Tyler Street and SR 820 (Hollywood Blvd)
 10. SR 820 (Hollywood Blvd) between N/S 20th Avenue and N/S 19th Avenue
 11. SR 5 (US 1) SB (Young Circle) between SR 820 (Hollywood Blvd) and Harrison Street
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12. SR 5 (US 1) NB (Young Circle) between Tyler Street and Harrison Street
13. SR 820 (Hollywood Blvd) between N/S 17th Avenue and N/S 16th Avenue
14. Harrison Street between S 20th Avenue and S 19th Avenue
15. Harrison Street between SR 5 (US 1) NB (Young Circle) and S 17th Avenue
16. Harrison Street between S 17th Avenue and S 16th Avenue
17. Van Buren Street between S 19th Avenue and SR 5 (US 1) (S Federal Hwy)
18. Van Buren Street between SR 5 (US 1) (S Federal Hwy) and S 17th Avenue
19. S 19th Avenue between Van Buren Street and Jackson Street
20. SR 5 (US 1) (S Federal Hwy) between Van Buren Street and Jackson Street
21. S 17th Avenue between Van Buren Street and Jackson Street
22. -25. Additional locations as determined to be necessary

Turning movement counts for the AM, mid-day, PM, and up to one (1) special event, agreed upon by the CRA staff (such as during Saturday evening) peak periods at the following 39 intersections:

:

1. SR 5 (US 1) (N Federal Hwy) at Young Circle- north intersection
2. SR 5 (US 1) (S Federal Hwy) at Young Circle- south intersection
3. SR 5 (US 1) (Young Circle) at SR 820 EB (Harrison Street) east intersection
4. SR 5 (US 1) (Young Circle) at Harrison Street- west intersection
5. SR 5 (US 1) (Young Circle) at SR 820 (Hollywood Blvd)
6. SR 5 (US 1) (Young Circle) at SR 820 WB (Tyler Street) east intersection
7. SR 5 (US 1) (Young Circle) at Tyler Street- west intersection
8. SR 5 (US 1) (N Federal Hwy) at Polk Street
9. SR 5 (US 1) (S Federal Hwy) at Van Buren Street
10. Polk Street at N 19th Avenue
11. Tyler Street at N 19th Avenue
12. SR 820 (Hollywood Boulevard) at N 19th Avenue
13. Harrison Street at N/S 19th Avenue
14. Van Buren Street at S 19th Avenue
15. Polk Street at N 17th Avenue
16. SR 820 WB (Tyler Street) at N 17th Avenue
17. SR 820 (Hollywood Boulevard) T- intersection east of Young Circle
18. SR 820 EB (Harrison Street) at S 17th Avenue
19. S 17th Avenue at Van Buren Street
20. Polk Street at N 16th Avenue
21. Tyler Street at N 16th Avenue
22. SR 820 (Hollywood Boulevard) at N 16th Avenue
23. Harrison Street at S 16th Avenue
24. Van Buren Street at S 16th Avenue
25. All parking lot entrances/exits which adjoin Young Circle (15 locations)

Turning movement counts will include percentage of heavy vehicles and bicycle and pedestrian counts.

Origin-Destination will be collected for one typical (1) week which would include an agreed-upon "special event". Bluetooth detectors will be placed at the following 17 locations:

1. SR 5 (US 1) (N Federal Hwy) between Polk Street and Taylor Street
2. Polk Street between SR 5 (US 1) (N Federal Hwy) and N 19th Avenue
3. Polk Street between SR 5 (US 1) (N Federal Hwy) and N 17th Avenue
4. Tyler Street between N 20th Avenue and N 19th Avenue
5. Tyler Street between N 17th Avenue and N 16th Avenue



6. SR 820 (Hollywood Boulevard) between N/S 20th Avenue and N/S 19th Avenue
7. SR 820 (Hollywood Boulevard) between N/S 17th Avenue and N/S 16th Avenue
8. Harrison Street between S 20th Avenue and S 19th Avenue
9. Harrison Street between S 17th Avenue and S 16th Avenue
10. N 19th Avenue between Polk Street and Taylor Street
11. S 19th Avenue between Van Buren Street and Jackson Street
12. N 17th Avenue between Polk Street and Taylor Street
13. S 17th Avenue between Van Buren Street and Jackson Street
14. SR 5 (US 1) (S Federal Hwy) between Van Buren Street and Jackson Street
15. SR 5 (US 1) (Young Circle) between Harrison Street and Tyler Street (east side of circle)
16. SR 5 (US 1) (Young Circle) between SR 820 (Hollywood Boulevard) and Tyler Street
17. SR 5 (US 1) (Young Circle) between SR 820 (Hollywood Boulevard) and Harrison Street

It is understood that the placements of Bluetooth detectors may impact the accuracy of collected data. All efforts will be made so that origin-destination pairs and travel times can be clearly identified. All efforts will be made so that data collection effort will be within the same period. Data will be used to assign trip distribution/project traffic volumes onto the alternatives (to be completed under a future task).

Vehicle Classification Counts on Roadway Segments

The Florida Department of Transportation will provide vehicle classification data for this Project.

Pedestrian, Bicycle and Other Multimodal Data

The CONSULTANT will provide multimodal data for this Project. The CONSULTANT will collect the following additional transportation data:

Bicycle and pedestrian counts as necessary in addition to the counts collected during the turning movement counts

Travel patterns or origin-destination (OD) survey, as described

Transit data (bus route, schedule, span of service, boarding/alighting by stop, and APC/AVL data as available from Broward County Transit)

Truck percentages and observations

Deliverables shall be the following:

- Traffic data report including all data collected above
- O-D data analysis report

Meetings for Scope Development/Deliverable Review with Stakeholders

- Meet with Hollywood CRA staff to better understand objectives, motivations, and priorities
- Meet with City of Hollywood staff to better understand objectives, motivations, and priorities
- Meet with Toole Design Group staff to review all alternatives considered and understand pros/cons and evaluation criteria
- Meet with FDOT staff to review initial scope
- Meet with Broward MPO staff to review initial scope
- Meet with FDOT staff to review initial methodologies
- Meet with FDOT staff to review proposed methodologies
- Meet with Hollywood CRA and City staff to review scope and traffic analysis methodologies
- Meet with FDOT staff to review deliverables including traffic data and O-D Report
- Meet with Hollywood CRA, City, Broward MPO, and FDOT regarding funding opportunities



VISSIM Simulation for Illustrative Purposes

The CONSULTANT will provide a VISSIM microsimulation model for illustrative purposes only, so that it can be visually demonstrated to the CRA an approximation of how the preferred Toole Design Group alternative would operate. The CONSULTANT will take the traffic counts, and using available growth data and results from the O-D data, distribute AM peak and PM peak hour traffic onto the preferred alternative. Two alternatives will be simulated for the opening year. The first alternative will have two lanes in the outer direction and one lane in the inner direction of the Young Circle complex, and the second alternative would have one lane in each direction of the complex. In addition, a simulation of existing conditions would be included. It is emphasized that this work is for illustrative purposes only, and this work will not be included in the actual, in-depth traffic analysis that will be done under a separate work order. This work will not be included in any official traffic documents. In addition, a meeting will be held with the CRA to demonstrate the simulations.

Conceptual Cost Estimates

The CONSULTANT will provide conceptual, planning-level cost estimates for the Toole Design Group preferred alternative and any other alternatives requested by the CITY, for informational use only.

III. Subconsultants

The below listed subconsultants will assist in the performance of the Work.

Subconsultant Name	Specialty or Expertise
via planning, inc.	Traffic Engineering

IV. Schedule of Work – Time of Performance

The anticipated length of service for Task 1 shall be six (6) weeks commencing after the Notice to Proceed. CONSULTANT shall submit the Deliverables and perform the Work as depicted in the table below.

SCHEDULE OF DELIVERABLES			
Task or Activity ID#	Major Task, Sub-Task, Activity, or Deliverables	Duration	Delivery Date
1	Data Collection/Mtgs for Scope Development and	10 weeks	
	Deliverable Review/VISSIM Illustrative Simulation/		
	Conceptual Planning-Level Cost Estimates		



V. Compensation

CONSULTANT shall perform the work detailed in this Proposal for a Total fee of \$146,246.00 and 25 cents. The CRA shall not be liable for any fee, cost, expense or reimbursable expense or other compensation beyond this amount unless approved in a supplemental work order.

SUMMARY OF COMPENSATION			
Task or Activity ID #	Task Name and/or Activity Description	Fee Amount	Fee Basis
1	Data Collection/Meetings with Stakeholders/VISSIM Illustrative Simulation	\$146,246.00	Lump Sum/Not to Exceed
	Total	\$146,246.00	

VI. Exclusions from Basic Services

N/A

VII. Additional Services

Line item to cover any additional data collection efforts as necessary, as requested by the Hollywood CRA or FDOT, or other stakeholders. Additional services and unforeseen circumstances beyond established scope shall be negotiated in good faith and at the sole discretion of the CRA.

VIII. CRA Furnished Documents & Data

The following information or documents are to be provided by the CRA: Historical Traffic Data



IX. Project Manager

CONSULTANT's Project Manager for this Project will be Mr. Jose Santiago, P.E.

Submitted by: _____
Jose Santiago, P.E.
Marlin Engineering

Reviewed and approval in concept recommended by:

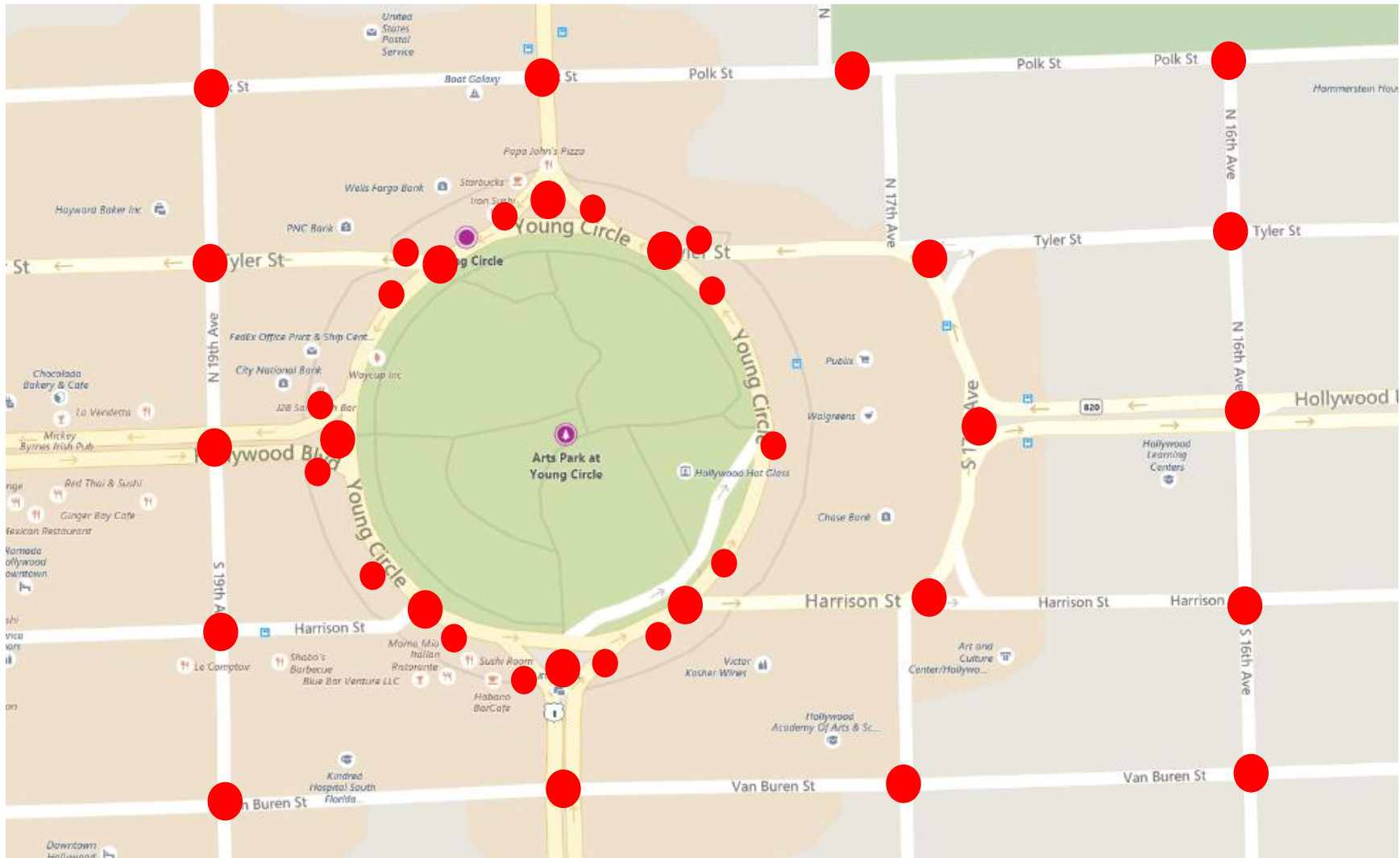
Executive Director

Procurement Manager

City Manager

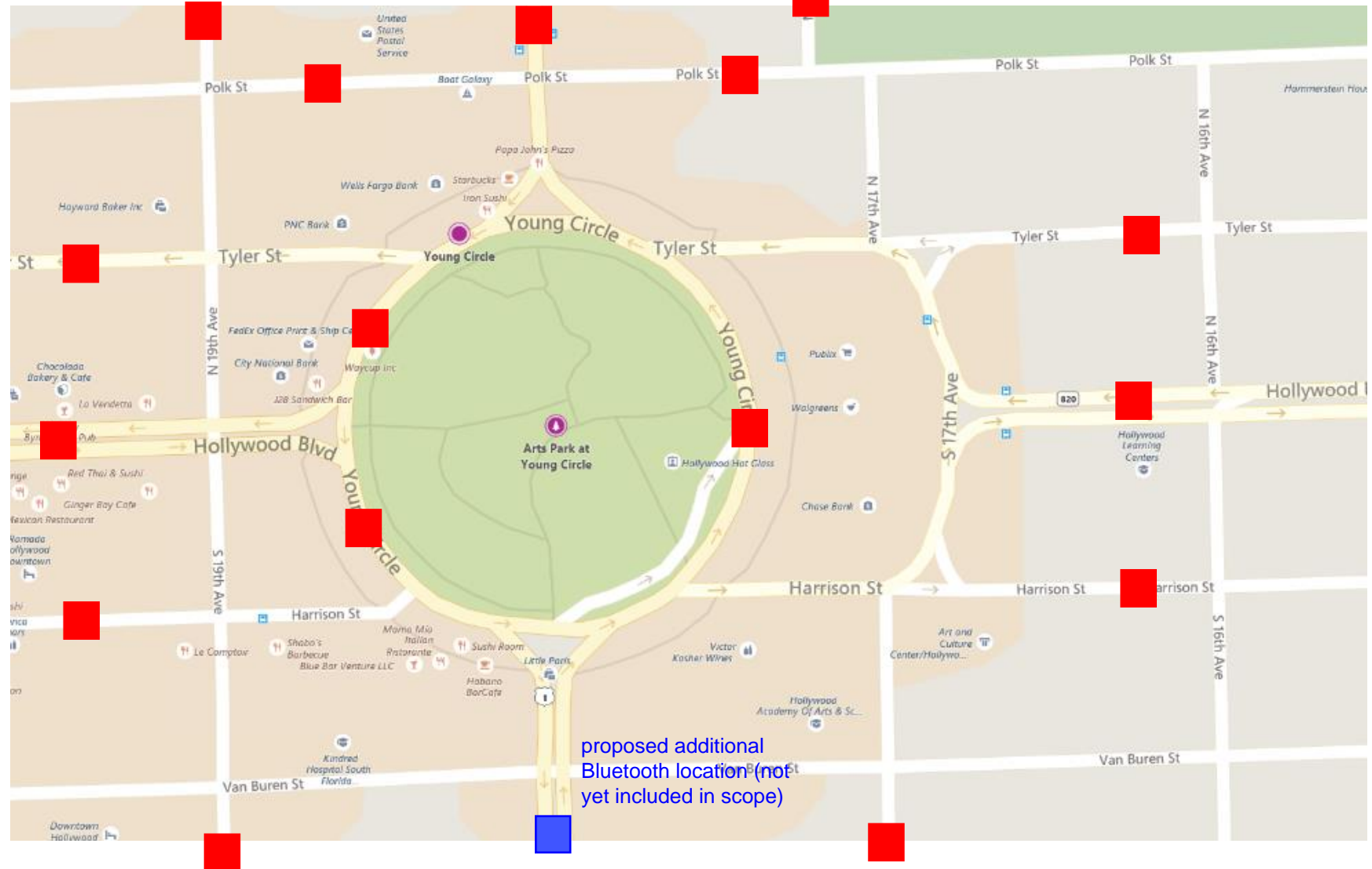


TMC locations



Turning movement counts will include vehicle classification, and bicycle and pedestrian counts
Turning movement counts for the AM, mid-day, PM, and up to one (1) special event (such as during a Saturday evening) peak periods

BlueTooth locations

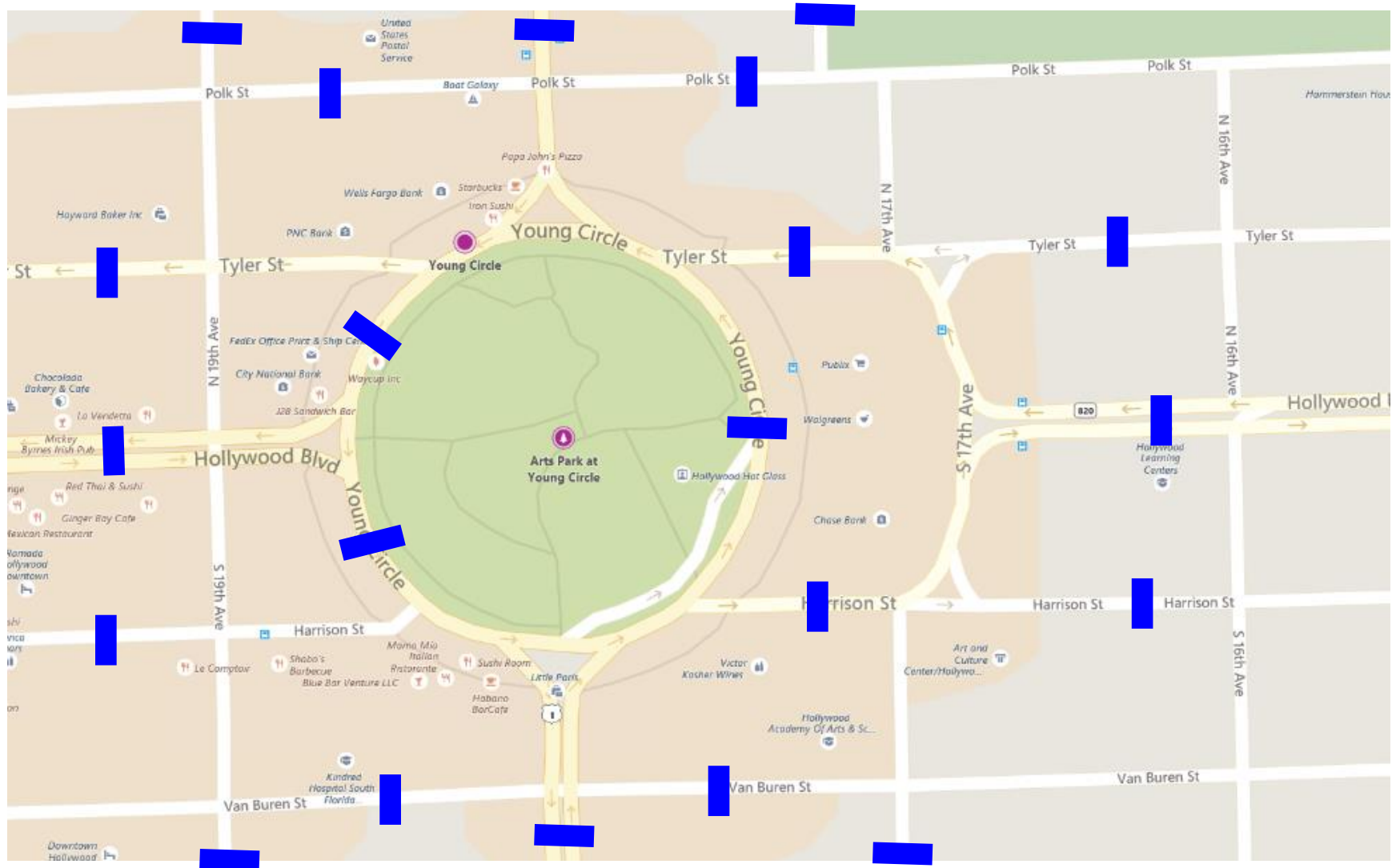


Origin-Destination will be collected one week including a special event (such as during a Saturday evening) peak periods

All efforts will be made so that data collection effort will be within the same period. Data will be used to assign trip distribution/project traffic volumes onto the alternatives

Proposed 72-hour bi-directional traffic count locations (not yet included in scope)

Daily count locations



72 Hour Bi-directional traffic counts

Hollywood CRA - Young Circle Data Collection & Stakeholders Scoping Meetings
February 27, 2018

Description	Project Manager	Senior Engineer	Senior Traffic Engineer	Project Engineer	Engineering Technician	Clerical	Total
	\$175.00	\$160.00	\$150.00	\$125.00	\$90.00	\$50.00	
Traffic Data Collection							
72-Hour Bi-directional traffic counts at 25 locations- see below			2		2		4
Turning Movement Counts at 39 locations- see below			2		2		4
Origin-Destination (Bluetooth) at 17 locations- see below			2		2		4
Transit Data Collection			1	4	8		13
Field Observations during AM, MID, PM, Special Event			16				16
O-D Data Analysis	2	2	8	12	24		48
Traffic Data Report	2	2	4			2	10
Stakeholder Meeting for Scope Development							
Hollywood CRA	2	2					4
City of Hollywood	2	2					4
Toole Design Group	2	2					4
Florida Department of Transportation- Initial Scope	3	3					6
Broward MPO	2	2					4
Florida Department of Transportation- Initial Methodologies	3	3					6
Florida Department of Transportation- Proposed Methodologies	3	3					6
Hollywood CRA and City of Hollywood to review scope & methodologies	3	3					6
Hollywood CRA, City of Hollywood, Broward MPO, FDOT funding opportunities	3	3					6
Total	27.0	27.0	35.0	16.0	38.0	2.0	145.0
	\$4,725.00	\$4,320.00	\$5,250.00	\$2,000.00	\$3,420.00	\$100.00	\$19,815.00

Subconsultant- via planning

Attend meetings listed above

Thuha Nguyen Lyew, PE, PTOE & Shing Tsoi, PE, PTOE \$ 6,360.00

Subconsultant- Blue Mac

Bluetooth device technical assistance \$ 2,500.00

Data Collection- Turning Movement Counts

39 locations at \$1,017.91/each \$ 39,698.48

Miovision turning movement counts data processing

39 locations at \$235.68/each \$ 9,191.52

72-hour Bi-directional Traffic Counts

25 locations at 473.44/each \$ 11,836.00

O-D (Bluetooth)

17 locations at \$1,250.00/each \$ 21,250.00

Cost Estimates

Conceptual High-Level Cost Estimates \$ 5,000.00

Additional Services Placeholder

Covers additional data collection as needed (if requested by FDOT, etc) or other services \$ 10,000.00

VISSIM illustrative simulation for exist condition and Toole Design Group preferred

Refer to attached \$ 20,595.00

TOTAL \$146,246.00

Hollywood CRA - VISSIM Simulation- for illustrative purposes
 February 27, 2018

Description	Project Manager	Senior Engineer	Senior Traffic Engineer	Project Engineer	Engineering Technician	Clerical	Total
	\$175.00	\$160.00	\$150.00	\$125.00	\$90.00	\$50.00	
VISSIM Simulation (for illustrative purposes only prior to alternatives analysis)							
VISSIM model of existing condition			20		60		80
VISSIM model of Toole Design Group preferred alternative- 1 lane each direction			20		60		80
VISSIM model of Toole Design Group preferred alternative- 2 lanes on outer direction			5		20		25
Meeting with Hollywood CRA to demonstrate models	3		3		3		9
Total	3.0	0.0	48.0	0.0	143.0	0.0	194.0
	\$525.00	\$0.00	\$7,200.00	\$0.00	\$12,870.00	\$0.00	\$20,595.00

TOTAL \$ 20,595.00