

SCOPE OF SERVICES
City of Hollywood

Project Name: Water Main Replacement Program: Hollywood Boulevard to Sheridan Street from N. 31st Avenue to N. 35th Avenue
Project Number: 16-5135

I. BACKGROUND

The City of Hollywood (City) has requested Atkins to prepare a scope of work (SOW) to provide professional engineering services for the following areas:

Overall Project Limits

- Phase A – Water Main Replacement Program
- Phase B – Reuse Water Main Extension along Johnson Street (N. Park Road to N. 56th Avenue)
- Phase C – Water Main Replacement along Johnson Street (N. 35th Avenue to N. 56th Avenue)

This SOW has been prepared in accordance with the Professional Services Agreement for engineering consulting services between the City of Hollywood and Atkins for water, wastewater, and stormwater projects presented to the City Commission and approved on February 27, 2003, under Resolution R-2003-03, and amended on July 16, 2012, under resolution R-2012-152.

II. OBJECTIVES

The main objective of this SOW is to outline the contract terms and conditions for professional engineering services for the design and preparation of construction documents, regulatory assistance, bid and award assistance, and limited support services during the construction phase.

- Phase A - Citywide Water Main Replacement Program includes the installation of an estimated 92,400 LF (17.5 miles) of water mains, service stub-outs, and fire hydrants. The linear footage of water main replacement includes 41,600 LF (7.88 miles) of principal roads and 50,800 LF (9.62 miles) of alleyway.
- Phase B – Reuse Water Main Extension includes the installation of an estimated 8,000 LF (1.5 miles) of reclaimed water main along Johnson Street
- Phase C – Water Main Replacement includes the installation of an estimated 6,900 LF (1.31 miles) of potable water main, stub-outs, fire hydrants, and valves along Johnson Street.

The total amount of pipe designed inside the overall project limits is 107,300 LF (20.3 miles).

III. PROJECT LOCATION

The project boundaries for the Phase A - Water Main Replacement Program are delineated by the municipal public rights-of-way lying within the following area within Hollywood, Broward County, Florida, bounded as follows (See **Figure 1**):

On the north: By Sheridan Street (not included)
 On the east: By N. 31st Avenue
 On the south: By Hollywood Boulevard (SR 820) (8-inch water main only)
 On the west: By N. 35th Avenue

Figure 1. Location map for Phase A - Water Main Replacement Program



The project boundaries for Phase B – Reuse Water Main Extension is along Johnson Street, from N. 56th Avenue to N. Park Road. There is an existing reclaimed water main at N. Park Road and Johnson Street to connect to. See **Figure 2**.

The project boundaries for Phase C – Water Main Extension is along Johnson Street, from N. 56th Avenue to N. 35th Avenue. There is an existing potable water main at N. 35th Avenue and Johnson Street to connect to. See **Figure 2**.

Figure 2. Location map for Phase A – Reuse Water Main Extension and Phase C- Water Main Replacement along Johnson Street



IV. SCOPE OF WORK

Design, engineering and construction management

Atkins will provide the following design and engineering services as part of this SOW:

- Preparation of 60, 90, and 100 percent submittal packages, including drawings and specifications, for upgrade of existing potable pressure mains and valves and potable fire line, potable hydrant lines, and fire hydrants as indicated in the utility atlas provided by the City.
- Upgrade of any existing fire hydrants to the City's current specification as identified by City staff.
- Additional fire hydrants as needed to achieve the maximum hydrant spacing allowed by the City of Hollywood Fire Department.
- Regulatory support to obtain the necessary permits including Broward County Health Department, Transportation and Public Works Department, City of Hollywood Planning and Development Services, and Florida Department of Transportation (FDOT), as required.
- Profiles for proposed water mains to be provided.
- Bid support consisting of reviewing and responding to any request for information (RFI) and confirming quantities during procurement process.
- Limited construction administration support during the construction phase.
- Verification that all deliverables meet Quality Assurance/Quality Control (QA/QC) protocols including review, update, and approval of documents for accuracy.

Project management

Atkins will provide overall project management services and coordination with the City project manager (PM) and City staff, including attending meetings, reviewing existing information, and performing the following tasks upon receipt of notice to proceed:

- Coordinate with City PM for kickoff and update meetings and attend public meetings at City's request.
- Provide a project schedule from design through permitting and construction.
- Contact utility owners/providers and request any available records and information depicting the locations and configuration of existing utilities within and around the project area.
- Catalog any utility record drawings and responses received from utility companies and track in a utility matrix.
- Perform site visits to verify the information on the route survey provided by surveyor, and to photograph and make notations regarding existing conditions.
- Identify any existing traffic signs which, in the opinion of Atkins, are found to be leaning or not in acceptable condition.
- Prepare a permit tracking matrix with agency names, permit types, permit/approval numbers, and issue dates.
- Using the topographic route survey, overlay the "best available" locations of existing underground utilities in CAD and create a base map on which the design will be developed.
- Using the CAD base map as background, develop the horizontal alignment for the proposed mains including points of connection and interconnection (as directed by the City), fittings, valves, air release valves, and deflections.

PROJECT ASSUMPTIONS

This SOW has been prepared considering the following project assumptions:

- A hydraulic analysis for the City’s water distribution system, including the project area, was prepared by others. If required for permitting, copies of the hydraulic analysis will be provided by the City.
- Plans for maintenance of traffic (MOT) during construction will be prepared by the contractor and are not included in this scope of work.
- City will provide a GIS shapefile containing all existing water main alignments and points of connection on the individual properties.
- City will also provide a water meter data base spreadsheet which includes each individual meter id and corresponding parcel with address
- Contractor will be responsible for obtaining permission for access from homeowners prior to starting construction.
- All existing properties within the project area that are on private septic systems, if any, will remain as such.
- Site will be accessible to truck-mounted drilling equipment and underground utilities will be cleared by the contractor.
- Assistance with right-of-way (ROW)/easement title searches or acquisition is not included in this SOW.
- Closed water distribution loops will be provided only when there is existing available right-of-way.
- Pipe material will be C900/C905 PVC as preferred material by the City. Any studies to evaluate alternate materials may be performed as an additional service.
- Proposed mains will be installed mainly via conventional open trench method.
- Survey will include the south ROW to center line of Sheridan Street.
- Survey will include the full width ROW of Hollywood Boulevard.
- Along streets and alleys where there are several existing parallel potable water mains, the mains will be abandoned and replaced with a single water main of appropriate diameter.
- City will provide stormwater improvement plans in AutoCAD format that will be shown for clarity and conflict avoidance in the plans. No engineering, design, permitting, or construction administration oversight is included for the stormwater system in this SOW.
- All three phases of this project will bid at the same time and not be broken out into multiple bids.

WORK BREAKDOWN SCHEDULE

This project will encompass 11 major tasks, separated into Phase 1: Design (Task 1-7), Phase 2: Construction (Task 8-10) and Reimbursable Expenses (Task 11).

Task	Description
Phase 1: Design	
1	Work plan, kickoff meeting, and monthly update meetings
2	Geotechnical services
3	Topographic survey services
4	Final Design – Phase A Water Main Replacement Program
5	Final Design – Phase B Reuse Water Main Extension
6	Final Design – Phase C Water Main Replacement
7	Permitting Phase Services

Task	Description
Phase 2: Construction	
8	Bid Phase Services
9	Limited construction administration services
10	Record drawings
Reimbursable expenses	
11	Reimbursable Expenses

Atkins will perform these tasks as detailed in the following sections.

The Atkins project manager (PM) will assemble a team of qualified individuals to monitor the progress and review and QA/QC deliverables from this project. The Atkins PM will be the point of contact for any technical issues related to this project and will be responsible for distributing project deliverables to the City PM.

Task 1: Project Management

Subtask 1.1. Work plan and kickoff meeting

Atkins will prepare a project work plan to describe the project tasks, responsibilities and assignments for tasks, technical and financial controls, and project schedule.

The work plan will be presented at a kickoff meeting to review and discuss the plan, including the project schedule, deliverables, individual and team responsibilities, subconsultants, lines of communication, and payment schedule as well as the overall project mission, goals, and objectives. At the conclusion of the meeting, the work plan and project schedule will be adjusted, as necessary, and the Atkins PM will provide meeting notes.

Subtask 1.2 – Monthly update meetings

Atkins staff will meet periodically on a monthly schedule with the City PM to discuss project updates and confirm project schedule, financial statements, and deliverables, as necessary.

Deliverables

- Atkins will prepare kick off meeting notes and submit to the City for review.
- Atkins will prepare meeting notes after each monthly update meeting.

Task 2: Subconsultants

Subtask 2.1 – Geotechnical services

Geotechnical services for the project will be provided by a sub-consultant to Atkins. The scope of geotechnical services will include performing 60 (sixty) SPT standard penetration test (SPT) borings in general accordance with ASTM D-1586 specifications to a depth of 10 feet each, to cover the project area (refer to Attachment B- Nutting Engineering quote). At the completion of the on-site work, soil samples will be returned to the sub-consultant laboratory, who will provide an engineering report including a description of its findings and general trenching and backfill recommendations, if required. In order to provide information concerning the engineering properties of the soils, it is anticipated that tests may be performed to determine natural water content, organic content, and sieve analysis on representative soil samples collected from the field. The

engineering report will include graphic logs of the test borings and a test boring location plan. See **Attachment A** for a copy of the geotechnical services proposal.

Subtask 2.1 – Deliverable

Atkins will provide two hard copies, signed and sealed by a professional engineer, and one electronic (pdf) file of the geotechnical report.

Task 3: Survey

Subtask 3.1 – Topographic route survey for Phase A Water Main Replacement Program

Atkins will provide a topographic survey which is necessary in order to determine certain details for water main replacements within the areas more fully detailed in the General Description of Project Area. Accordingly, ATKINS will undertake the following progressive steps:

1. Conduct research for data with the Broward County Records Division and other public agencies as necessary to develop historical background of project with respect to the underlying plats of record.
2. Perform field recovery of horizontal and vertical survey control as required for the project area. Construction control points will be placed and referenced to the North American Vertical Datum of 1988 (NAVD88) for elevations and the North American Datum of 1983 (NAD83) for horizontal locations. These will be referenced as such in the electronic files.
3. Topographic survey with 1 foot contours shall include the following:
 - a. Full width right of way of all roadways and alleyways inside the project area. Survey shall extend 1 foot on each side of the right of way for all roadways and alleyways where possible. We will not attempt to enter areas along alleyways that are obstructed by walls, fences, or other barriers rendering inaccessibility.
 - b. Full width right of way of Hollywood Boulevard (SR 820), N. 31st Avenue, and N. 35th Avenue.
 - c. Along Sheridan Street, the east bound travel lanes, plus the entire median (concrete or landscaped), and 20 feet south of the southern right of way.
4. Benchmarks at the beginning and end of all streets/alleys and every 1,000 feet between.
5. Contact and coordinate with Sunshine State One Call to obtain design tickets and ground markings. A summarized list of contacts of utility owners' representatives with their full name, title, address, email address and phone number will be generated from the Sunshine state One Call responses.
6. Subsurface locations of utilities will be performed by Atkins using the best methods for SUE mapping to the best extent.
7. Locate all visible surface indications of utilities and hardscape, including but not limited to utility castings, water meters, backflow preventers, valves, driveways (including type of construction), trees (with trunk diameter over to 4 inches), sidewalks, pavements, curbs, gutters, medians, and other significant features within the project area. A list of water meter discrepancies (found vs. not found) will be generated during the QC process. A copy of the list will be submitted to the City and to the EOR for further action and recommendations.
8. Locate all signs, signals, mailboxes, poles, overhead utility lines, fences, and walls with material compositions of same.
9. Acquire elevations for rims, grates, and inverts of all pipes, catch basins, and manholes within the project area. Atkins will also measure elevations of ROW lines, back of sidewalks, bottom of swales edges/centerline of pavements, and high/low points for the project area at 100-foot intervals throughout. Elevations will also be acquired 20 feet beyond each ROW line.
10. A Civil 3D surface (version 2015 or higher) developed from the acquired field data.

11. Survey will be provided following the City of Hollywood Department of Public Utilities Cad Drawings Standards, dated March 11, 2016.

QUALIFICATIONS:

1. All field and office efforts in connection with this project will be performed in strict accordance with the applicable provisions of the “Standards of Practice for Land Surveying in the State of Florida”, pursuant to Rule 5J-17, Florida Administrative Code.
2. This Survey will not constitute a Boundary Survey of the Right of Way Lines or that of properties that abut the project area.
3. Unless otherwise noted, topographic improvements for abutting properties will not be located or shown.
4. Together with the SUE effort, the mapping of underground utilities will be based on documents provided by the utility agencies having franchises within the Project Area. Said documents will be obtained through the Sunshine State One Call System for design tickets only. No warranty is made that the utility agencies will provide all as-built maps of the subsurface fixtures that may exist within the Project Area.
5. Underlying matters of title will not be addressed. If this service is required, it will be considered supplemental to this proposal and subject to fee negotiation.
6. Requests for service not specifically enumerated in this Letter of Proposal will be addressed via separate response if so required.
7. This proposal is based on using mobile scanner technology in order to collect data. Doing so represents a considerable cost savings as compared to conventional survey techniques as well as improved completion of survey tasks. See **Attachment B** for a copy of mobile scanner proposal.
8. Client to provide letters of access to facilitate rights of entry onto private property to perform the enumerated tasks set forth therein.

Subtask 3.1 – Deliverables

- Atkins will provide three (3) certified hard copies of topographic survey maps, drawn to an adequate scale in English units of measurement, and one (1) electronic copies in CD format for design purposes.

Subtask 3.2 – Topographic route survey for Phase B Reuse Water Main Extension

Atkins will provide a topographic survey which is necessary in order to determine certain details for water main replacements within the areas more fully detailed in the General Description of Project Area. Accordingly, ATKINS will undertake the following progressive steps:

1. Conduct research for data with the Broward County Records Division and other public agencies as necessary to develop historical background of project with respect to the underlying plats of record.
2. Perform field recovery of horizontal and vertical survey control as required for the project area. Construction control points will be placed and referenced to the North American Vertical Datum of 1988 (NAVD88) for elevations and the North American Datum of 1983 (NAD83) for horizontal locations. These will be referenced as such in the electronic files.
3. Topographic survey with 1 foot contours shall include the following:
 - a. Full width right of way of all roadways and alleyways inside the project area. Survey shall extend 5 feet on each side of the right of way for all roadways and alleyways where possible. We will

- not attempt to enter areas along alleyways that are obstructed by walls, fences, or other barriers rendering inaccessibility.
4. Benchmarks at the beginning and end of all streets/alleys and every 1,000 feet between.
 5. Contact and coordinate with Sunshine State One Call to obtain design tickets and ground markings. A summarized list of contacts of utility owners' representatives with their full name, title, address, email address and phone number will be generated from the Sunshine State One Call responses.
 6. Subsurface locations of utilities will be performed by Atkins using the best methods for SUE mapping to the best extent.
 7. Locate all visible surface indications of utilities and hardscape, including but not limited to utility castings, water meters, backflow preventers, valves, driveways (including type of construction), trees (with trunk diameter over to 4 inches), sidewalks, pavements, curbs, gutters, medians, and other significant features within the project area. A list of water meter discrepancies (found vs. not found) will be generated during the QC process. A copy of the list will be submitted to the City and to the EOR for further action and recommendations.
 8. Locate all signs, signals, mailboxes, poles, overhead utility lines, fences, and walls with material compositions of same.
 9. Acquire elevations for rims, grates, and inverts of all pipes, catch basins, and manholes within the project area. Atkins will also measure elevations of ROW lines, back of sidewalks, bottom of swales edges/centerline of pavements, and high/low points for the project area at 100-foot intervals throughout. Elevations will also be acquired 20 feet beyond each ROW line.
 10. A Civil 3D surface (version 2015 or higher) developed from the acquired field data.
 11. Survey will be provided following the City of Hollywood Department of Public Utilities Cad Drawings Standards, dated March 11, 2016.

QUALIFICATIONS:

1. All field and office efforts in connection with this project will be performed in strict accordance with the applicable provisions of the "Standards of Practice for Land Surveying in the State of Florida", pursuant to Rule 5J-17, Florida Administrative Code.
2. This Survey will not constitute a Boundary Survey of the Right of Way Lines or that of properties that abut the project area.
3. Unless otherwise noted, topographic improvements for abutting properties will not be located or shown.
4. Together with the SUE effort, the mapping of underground utilities will be based on documents provided by the utility agencies having franchises within the Project Area. Said documents will be obtained through the Sunshine State One Call System for design tickets only. No warranty is made that the utility agencies will provide all as-built maps of the subsurface fixtures that may exist within the Project Area.
5. Underlying matters of title will not be addressed. If this service is required, it will be considered supplemental to this proposal and subject to fee negotiation.
6. Requests for service not specifically enumerated in this Letter of Proposal will be addressed via separate response if so required.
7. This proposal is based on using terrestrial scanner technology in order to collect data. Doing so represents a considerable cost savings as compared to conventional survey techniques as well as improved completion of survey tasks.
8. Client to provide letters of access to facilitate rights of entry onto private property to perform the enumerated tasks set forth therein.

Subtask 3.2 – Deliverables

- Atkins will provide three (3) certified hard copies of topographic survey maps, drawn to an adequate scale in English units of measurement, and one (1) electronic copies in CD format for design purposes.

Task 4: Final Design – Phase A Water Main Replacement Program

Subtask 4.1 – Review Survey for Completeness

Atkins staff will take the final survey product and complete a project area walkthrough to verify the survey for completeness. Specific items to be verified include, but are not limited to, driveway material, signage, trees, water meter locations, fire department locations, backflow preventers, etc. Atkins will prepare a technical memorandum listing all water meter in the City database in the project area, street address, parcel ID, and folio number. Atkins will prepare a parcel map identifying the location of missing water meters.

Subtask 4.2 – Development of 60% Submittal Package

Upon completion of Tasks 2 and 3, Atkins will prepare a 60% submittal package denoting the horizontal and vertical alignment for the proposed mains and will provide project-specific construction notes and details as follows:

- Atkins will provide drawings for further refining of the proposed horizontal alignment of the system.
- Based on existing utility information gathered, Atkins will identify locations where proposed water mains cross existing utilities. Profiles will be provided only at the locations of utility crossings and not along the entire main alignment. Profiles will depict “best available” locations, depths and sizes of existing underground utilities that cross, and may be in potential conflict with, the proposed mains.
- In areas of potential conflicts between the proposed mains and existing utilities, Atkins may identify those utilities for which available record (as-built) information is not sufficient to anticipate whether there is potential for conflict. Atkins will perform subsurface utility engineering (SUE) services to attempt to accurately identify the size, depth, and horizontal location of the underground utility. Test holes are not included in this SOW.
- Profile views will indicate proposed installation depths, vertical separation from existing utility crossings, vertical deflections or fittings, joint and pipe restraints, and recommended locations.
- Atkins will meet with City staff to discuss the proposed horizontal and vertical alignments, pipe sizes and materials, methods of installation (open cut, HDD, B&J) and potential service interruptions.

Upon review of the proposed vertical alignment by the City PM, Atkins will prepare 60% submittal package consisting of the following:

- Cover sheet with City information (names of City officials, Commissioners, project and contract numbers, etc.)
- Refine general notes sheet(s)
- Refine system key map
- Plan and profile sheets @ 1:20 scale
- Pavement and markings restoration plans
- Standard detail sheets and miscellaneous construction details

Atkins will submit the 60% submittal package to the City for review. Atkins will attend and prepare meeting notes from the 60% submittal review meeting. Atkins will address one round of review and will incorporate the comments in the 90% submittal package (Subtask 4.3).

Subtask 4.2 – Deliverables

- Atkins will provide three (3) sets of the 60 percent construction drawings (24-inch x 36-inch) in hard copy format, three (3) sets of specifications, one (1) CD with electronic files (AutoCAD, PDF, and Microsoft Word), and an updated project schedule.

Subtask 4.3 – Development of 90% submittal package

Atkins will address the 60% review comments provided in Subtask 4.2 and incorporate these as revisions to the 60% Submittal package.

Atkins will prepare a 90% submittal package and submit to the City for review. Additionally, Atkins will provide the preliminary engineer’s opinion of probable construction costs for proposed improvements.

Atkins will attend and prepare meeting notes from the 90% submittal review meeting. Atkins will address one round of review and will incorporate the comments in the 100% submittal package (Subtask 4.4).

Subtask 4.3 – Deliverables

- Atkins will provide three (3) sets of the 90 percent construction drawings (24-inch x 36-inch) in hard copy format, three (3) sets of specifications, one (1) CD with electronic files (AutoCAD, PDF, and Microsoft Word), a preliminary engineer’s opinion of probable construction cost for the proposed improvements, and an updated project schedule.

Subtask 4.4 – Develop 100% Submittal Package

Atkins will address the 90% review comments provided in Subtask 4.3 and incorporate these as revisions to the 100% Submittal package. Atkins will address review comments from the regulatory agencies and incorporate them in the 100% Submittal package.

Atkins will prepare a 100% submittal package and submit to the City for review. Additionally, Atkins will update the preliminary engineer’s opinion of probable construction costs for proposed improvements.

Atkins will address City comments on the 100% Submittal Package and incorporate one final round of revisions to produce the Bid Ready Submittal package. The Bid Ready Submittal Package will be signed and sealed.

Subtask 4.4 – Deliverables

- Atkins will provide three (3) sets of the 100% construction drawings (24-inch x 36-inch) in hard copy format, three (3) sets of specifications, one (1) CD with electronic files (AutoCAD, PDF, and Microsoft Word), an updated engineer’s opinion of probably construction cost, and an updated project schedule.
- Atkins will provide one (1) set of signed and sealed 100% construction drawings and specifications to the City for use in the Bidding Process.

Task 5: Final Design – Phase B Reuse Water Main Extension

Subtask 5.1 – Development of 60% Submittal Package

Upon completion of Tasks 2 and 3, Atkins will prepare a 60% submittal package denoting the horizontal and vertical alignment for the proposed mains and will provide project-specific construction notes and details as follows:

- Atkins will provide drawings for further refining of the proposed horizontal alignment of the system.
- Based on existing utility information gathered, Atkins will identify locations where proposed water mains cross existing utilities. Profiles will be provided only at the locations of utility crossings and not along the entire main alignment. Profiles will depict “best available” locations, depths and sizes of existing underground utilities that cross, and may be in potential conflict with, the proposed mains.
- In areas of potential conflicts between the proposed mains and existing utilities, Atkins may identify those utilities for which available record (as-built) information is not sufficient to anticipate whether there is potential for conflict. Atkins will perform subsurface utility engineering (SUE) services to attempt to accurately identify the size, depth, and horizontal location of the underground utility. Test holes are not included in this SOW.
- Profile views will indicate proposed installation depths, vertical separation from existing utility crossings, vertical deflections or fittings, joint and pipe restraints, and recommended locations.
- Atkins will meet with City staff to discuss the proposed horizontal and vertical alignments, pipe sizes and materials, methods of installation (open cut, HDD, B&J) and potential service interruptions.

Upon review of the proposed vertical alignment by the City PM, Atkins will prepare 60% submittal package consisting of the following:

- Cover sheet with City information (names of City officials, Commissioners, project and contract numbers, etc.)
- Refine general notes sheet(s)
- Refine system key map
- Plan and profile sheets @ 1:20 scale
- Pavement and markings restoration plans
- Standard detail sheets and miscellaneous construction details

Atkins will submit the 60% submittal package to the City for review. Atkins will attend and prepare meeting notes from the 60% submittal review meeting. Atkins will address one round of review and will incorporate the comments in the 90% submittal package (Subtask 5.2).

Subtask 5.1 – Deliverables

- No additional deliverables will be provided. The Phase B Reuse Water Main Extension will be shown in the 60% deliverable described in Subtask 4.1

Subtask 5.2 – Development of 90% submittal package

Atkins will address the 60% review comments provided in Subtask 5.1 and incorporate these as revisions to the 60% Submittal package.

Atkins will prepare a 90% submittal package and submit to the City for review. Additionally, Atkins will provide the preliminary engineer’s opinion of probable construction costs for proposed improvements.

Atkins will attend and prepare meeting notes from the 90% submittal review meeting. Atkins will address one round of review and will incorporate the comments in the 100% submittal package (Subtask 5.3).

Subtask 5.2 – Deliverables

- No additional deliverables will be provided. The Phase B Reuse Water Main Extension will be shown in the 90% deliverable described in Subtask 4.2

Subtask 5.3 – Develop 100% Submittal Package

Atkins will address the 90% review comments provided in Subtask 5.2 and incorporate these as revisions to the 100% Submittal package. Atkins will address review comments from the regulatory agencies and incorporate them in the 100% Submittal package.

Atkins will prepare a 100% submittal package and submit to the City for review. Additionally, Atkins will update the preliminary engineer’s opinion of probable construction costs for proposed improvements.

Atkins will address City comments on the 100% Submittal Package and incorporate one final round of revisions to produce the Bid Ready Submittal package. The Bid Ready Submittal Package will be signed and sealed.

Subtask 5.3 – Deliverables

- No additional deliverables will be provided. The Phase B Reuse Water Main Extension will be shown in the 100% deliverable described in Subtask 4.3

Task 6: Final Design – Phase C Water Main Replacement

Subtask 6.1 – Development of 60% Submittal Package

Upon completion of Tasks 2 and 3, Atkins will prepare a 60% submittal package denoting the horizontal and vertical alignment for the proposed mains and will provide project-specific construction notes and details as follows:

- Atkins will provide drawings for further refining of the proposed horizontal alignment of the system.
- Based on existing utility information gathered, Atkins will identify locations where proposed water mains cross existing utilities. Profiles will be provided only at the locations of utility crossings and not along the entire main alignment. Profiles will depict “best available” locations, depths and sizes of existing underground utilities that cross, and may be in potential conflict with, the proposed mains.
- In areas of potential conflicts between the proposed mains and existing utilities, Atkins may identify those utilities for which available record (as-built) information is not sufficient to anticipate whether there is potential for conflict. Atkins will perform subsurface utility engineering (SUE) services to attempt to accurately identify the size, depth, and horizontal location of the underground utility. Test holes are not included in this SOW.
- Profile views will indicate proposed installation depths, vertical separation from existing utility crossings, vertical deflections or fittings, joint and pipe restraints, and recommended locations.

- Atkins will meet with City staff to discuss the proposed horizontal and vertical alignments, pipe sizes and materials, methods of installation (open cut, HDD, B&J) and potential service interruptions.

Upon review of the proposed vertical alignment by the City PM, Atkins will prepare 60% submittal package consisting of the following:

- Cover sheet with City information (names of City officials, Commissioners, project and contract numbers, etc.)
- Refine general notes sheet(s)
- Refine system key map
- Plan and profile sheets @ 1:20 scale
- Pavement and markings restoration plans
- Standard detail sheets and miscellaneous construction details

Atkins will submit the 60% submittal package to the City for review. Atkins will attend and prepare meeting notes from the 60% submittal review meeting. Atkins will address one round of review and will incorporate the comments in the 90% submittal package (Subtask 6.2).

Subtask 6.1 – Deliverables

- No additional deliverables will be provided. The Phase C Water Main Replacement will be shown in the 60% deliverable described in Subtask 4.1

Subtask 6.2 – Development of 90% submittal package

Atkins will address the 60% review comments provided in Subtask 6.1 and incorporate these as revisions to the 60% Submittal package.

Atkins will prepare a 90% submittal package and submit to the City for review. Additionally, Atkins will provide the preliminary engineer's opinion of probable construction costs for proposed improvements.

Atkins will attend and prepare meeting notes from the 90% submittal review meeting. Atkins will address one round of review and will incorporate the comments in the 100% submittal package (Subtask 6.3).

Subtask 6.2 – Deliverables

- No additional deliverables will be provided. The Phase C Water Main Replacement will be shown in the 90% deliverable described in Subtask 4.2

Subtask 6.3 – Develop 100% Submittal Package

Atkins will address the 90% review comments provided in Subtask 6.2 and incorporate these as revisions to the 100% Submittal package. Atkins will address review comments from the regulatory agencies and incorporate them in the 100% Submittal package.

Atkins will prepare a 100% submittal package and submit to the City for review. Additionally, Atkins will update the preliminary engineer's opinion of probable construction costs for proposed improvements.

Atkins will address City comments on the 100% Submittal Package and incorporate one final round of revisions to produce the Bid Ready Submittal package. The Bid Ready Submittal Package will be signed and sealed.

Subtask 6.3 – Deliverables

- No additional deliverables will be provided. The Phase C Water Main Replacement will be shown in the 100% deliverable described in Subtask 4.3

Task 7: Permitting Phase Services

Subtask 7.1 – Regulatory Assistance

Once the City has approved the 90 percent construction drawings, Atkins will submit plans to the regulatory agencies identified in this Task to begin the regulatory process.

Atkins will assist the City by preparing and submitting permit applications, forms, fee schedule, supporting documents, and plans for review to the following regulatory agencies, as needed:

1. Broward County Health Department
2. City of Hollywood Planning & Development Services Department
3. Broward County Transportation Department
4. Florida Department of Transportation (FDOT), ROW coordination for Sheridan Street (SR 822), and Hollywood Boulevard (SR 820).

Atkins will address review comments and requests for information from each referenced permitting agency and revised the drawings accordingly to successfully obtain the permits.

Subtask 7.1 – Deliverable

- Atkins will provide a regulatory summary report, copies of all permit packages, and requests for additional information coordination as needed.

Task 8: Bid Phase Services

Subtask 8.1 – Bid Phase Services

Upon completion of Tasks 2–6, Atkins will submit the technical specification package and standard City “front-end” documents provided by the City in electronic (MS Word) format. Atkins will update these documents accordingly to make them site and project-specific and incorporating into the bid document for the project in pdf format.

During the bid and award phase of the construction contract, Atkins will provide the following services:

- Prepare for attend one pre-bid meeting to address questions from potential bidders.
- Respond in writing to technical questions from qualified bidders and assist to issue bid addenda.
- Assist the City with tabulation of all contractor bids.
- Perform reference checks on prospective contractors.
- Prepare a bid evaluation document to review with the City and recommend of award.

Subtask 8.1 – Deliverables

- Atkins will provide pre-bid meeting notes, a bid evaluation packet, and a recommendation of award letter to the City.

Task 9: Limited Construction Phase Services

Subtask 9.1 – Construction Administration

Construction Administration – The ENGINEER will participate in construction administration activities such as telephone conversations, coordination with key project personnel, and up to five (5) meetings requested and conducted by the City’s Project Manager.

Subtask 9.2 – Conformed Documents

Conformed Documents – The ENGINEER will conform the bidding documents to include changes by addenda during the bid period.

Subtask 9.3 – Preconstruction Meeting

Preconstruction Meeting – The ENGINEER will prepare for and attend a preconstruction conference conducted by City. ENGINEER will prepare meeting minutes.

Subtask 9.4 – Shop Drawing Submittal review

Submittal Review – The ENGINEER shall review shop drawings for general conformance with the plans and specifications. It is estimated that the contractor will submit up to thirty (30) shop drawings.

Subtask 9.5 – Request for Additional Information review

Request for Additional Information (RAI’s) – The ENGINEER shall provide clarifications and interpretations of the plans and specifications as requested by the City.

Subtask 9.6 – Monthly Construction Meetings/Site Visits

Periodic Site Visits and Project Progress Meetings – The ENGINEER shall visit the project site at intervals appropriate to the various stages of construction, to observe the progress and quality of the construction and its general conformance with the contract documents and attend monthly progress meetings. For budgeting purposes, it is assumed that during the construction schedule, the ENGINEER will visit the project site up to 18 times during the peak construction period and based on estimated 18 months construction period will attend 18 progress meetings.

Subtask 9.7 – Change Order Review

Change Orders – ENGINEER will assist in preparation of three (3) change orders. A limited budget is provided to assist in preparation of drawings, sketches and specifications for requesting a proposal from the contractor and reviewing of contractor’s proposal.

Subtask 9.8 – Substantial Completion Review

Substantial Completion Review – Perform one (1) field review of the Project with the City to confirm substantial completion in accordance with the contract documents. The ENGINEER will assist with preparation of list, based on the substantial completion review.

Subtask 9.9 – Final Inspection Review

Final Inspection – The ENGINEER will perform one (1) final inspection of the project with the City to recommend the City’s acceptance in accordance with the contract documents.

Subtask 9.10 – Permit Close-out

Provide inspection and complete required forms for BCHD clearances, BCHCED, BCTED, and FDOT to close out permits and place new potable water mains in service. Multiple clearances are anticipated for this project, based on the size of the project.

Task 9– Deliverables

- Atkins will attend a pre-construction meeting and provide meeting notes, inspection logs, and punch-lists as identified in the task description and will provide the engineer’s certificate of completion for the water system.

Task 10 – Record drawings

Upon completion of Tasks 2–9 Atkins will develop the final site plan showing the location and layout of the piping, and will provide three sets of signed/sealed record drawings for the City of Hollywood’s files.

Task 10 – Deliverables

- Atkins will provide three sets of sealed and approved of record drawings.

Task 11 – Reimbursable expenses

Atkins will invoice the City of Hollywood for operating expenses, including printing, photocopying, mailing, Federal Express and other miscellaneous expenses incurred during the preparation of Tasks 1 through 9, as needed.

Task 11 – Deliverables

- Atkins will provide invoices for expenses as required on a monthly basis.

Additional services not included in the scope of work for this project

If authorized by City in writing, Atkins will provide additional services that may be required above and beyond those described in Tasks 1–10, in accordance with this agreement. Additional services may include the following:

- Assistance with acquisitions of easements and/or right-of-way
- Hydraulic modeling
- Public information services and advertisement of public meetings
- Preparation of board-mounted exhibits and renderings for presentations and public meetings
- Relocations/modifications of existing utilities, other than existing water mains, within the project area
- Roadway design and cross sections
- Document preparation for bid of pavement and restoration plans, sections and details beyond of what is shown on the regular bid documents for pipe replacement.
- Maintenance of traffic plans (MOT plans).
- Design of sanitary sewer systems
- Meetings in excess of those described in the preceding tasks
- Environmental testing and engineering services

- Basis of design report (BODR), feasibility, and/or route studies
- Dewatering plans
- Design of corrosion protection systems
- Structural design calculations
- Permitting (other than identified in Task 7)
- Creation of a contract document
- Changes in project extents or main alignments after geotechnical testing services have commenced
- Fire prevention analysis/modeling to ensure proper spacing and fire flows are available upon completion of the project.
- Any other services not specifically listed in Tasks 1–10.

VII. Schedule

The requested professional services will commence with receipt of a letter of authorization from the City, and will be completed as noted in **Table 1**.

Table 1. Tentative schedule

Task	Completed by	Duration
Design		
NTP received	April 5, 2017	
Work plan and kick off meeting	April 19, 2017	2 week
Topographic survey	August 7, 2017	24 weeks
60% submittal	November 27, 2017	16 weeks
City of Hollywood review	January 1, 2017	4 weeks
Submit permit applications	January 1, 2017	
90% submittal	February 5, 2018	5 weeks
City of Hollywood review	February 19, 2018	2 weeks
100% submittal	March 5, 2018	2 weeks
City of Hollywood review	April 2, 2018	4 weeks
Permitting completed	April 9, 2018	
Design Phase duration		12 months
Construction		
Construction and bid documents	April 30, 2018	4 weeks
Limited construction and administration services	November 1, 2019	18 months
Record drawings	December 1, 2019	4 weeks
Construction Phase duration		20 months

Note: Survey will be phased to help the schedule. The design team will start 60% design in completed phases while the survey for other phases are completed.

VIII. Summary of compensation

For the scope of services enumerated in Tasks 1–11, the total LUMP SUM fee is **\$1,172,908**. The breakdown of these fees is shown in **Attachment C**.

Task	Description	Cost
1	Project Management	\$ 40,536
2	Subconsultants (Geotech)	\$ 12,975
3.1	Survey – Phase A (Water Main Replacement)	\$ 445,530
3.2	Survey – Phase B (Reuse Water Main Extension)	\$ 52,916
4	Final Design Services – Phase A Water Main Replacement Program	\$ 381,136
5	Final Design Services – Phase B Reuse Water Main Extension	\$ 39,229
6	Final Design Services – Phase C Water Main Replacement	\$ 33,732
7	Permitting Phase Services	\$ 28,480
8	Bid Phase Services	\$ 18,948
9	Limited Construction Phase Services	\$ 76,978
10	Record Drawings	\$ 17,448
11	Reimbursables	\$ 25,000
	Total lump sum	\$ 1,172,908

Attachment A – Geotech Proposal

February 23, 2017

Revised: 3/16/2017

*Miami Dade County Tier 2 CBE
Palm Beach County SBE
SFWMD SBE
Small Business Administration SBE
for Federal Projects*

Atkins Global

Attn: Mr. Chad Setzer, P.E.

482 S. Keller Road

Orlando, FL 32810

Phone: 407.806.4120/ Cell: 407.201.0969/ Email: chad.setzer@atkinsglobal.com

Re: Proposal/Agreement for Geotechnical Exploration
Water Main and Sewer Replacement
Sheridan S. to Hollywood Blvd. & N. 35th Ave. to N. 31st Ave.
Hollywood, FL

Dear Mr. Setzer:

Nutting Engineers of Florida, Inc. (NE) is pleased to present this proposal/agreement for performing geotechnical engineering services at the referenced project.

Per your email dated February 22, 2017 which included an aerial photograph of the designated area with test locations identified, we understand that plans for this project include the installation of water mains and sewer lines at the referenced area described above. The water mains and sewer lines will be installed via open trench. No directional drills are currently planned for this segment. Based on your request for proposal and our understanding of the project, we propose the following scope of work and fee schedule.

SCOPE OF WORK

We propose to perform 60 Standard Penetration Test (SPT) borings in general accordance with ASTM D-1586 specifications to depth of ten feet each at locations identified by Atkins Global personnel.

At the completion of the on-site work, the soil samples will be returned to our laboratory. We will provide an engineering report including a description of our findings and general trenching and backfill recommendations, if required. In order to provide information concerning the engineering properties of the soils recovered, it is anticipated that tests may be performed to determine natural water content, organic content, and sieve analysis on representative soil samples collected from the field. The engineering report will include graphic logs of the test borings and a test boring location plan. We assume the site is accessible to truck mounted drilling equipment and that underground utilities will be cleared by Call Sunshine prior to our performing the on-site work.

FEE SCHEDULE

The above-indicated scope of work will be performed for an estimated cost of \$12,975.00 based on the following rates and quantities:

Tech. site visit, boring layout, utility clearance	Lump Sum	\$1,500.00
Mobilization of equipment/crew	4 @ \$250.00	\$1,000.00
SPT borings* (truck mounted drill rig)	Lump Sum	\$7,500.00 (min)
Casing	Lump Sum	\$1,200.00
Soil classification/ laboratory analysis	Lump Sum	\$500.00
Project Engineer	Lump Sum	\$1,000.00
Principal Engineer	Lump Sum	\$125.00
Clerical/Admin. for report preparation	Lump Sum	\$150.00

*If loose or deleterious soil is encountered it may be necessary to extend the soil boring(s).

Additional requested and authorized services beyond those described above will be provided at customary unit rates with expenses at cost +20%.

We currently anticipate starting this work within approximately four business days of receiving written authorization to proceed. The on-site work should take approximately five to six business days to complete. The geotechnical report should be available within approximately 10 to 15 business days after the on-site work is completed.

NE has been offering geotechnical engineering, environmental sciences, materials testing, and structural inspection services for 49 years in South Florida during which time we have worked on many similar projects. Our commitment to practical, cost effective solutions supported by responsive client services distinguishes our firm and enables us to solve your most demanding technical challenges. Another value added component NE brings to your project is our staff of experienced professionals including engineering geologists, geotechnical engineers, environmental specialists, field personnel who are certified and have been trained to provide a wide range of consulting services, and our dedicated administrative staff.

Our laboratory is checked annually by the Construction Materials Engineering Council (CMEC) and the American Association of State Highway & Transportation Officials (AASHTO) and is certified to perform geotechnical engineering and materials testing services for the Florida Department of Transportation (FDOT). Note that we carry one million dollar professional liability and one million dollar general liability insurance.

Thank you for providing us the opportunity to present this proposal/agreement. We look forward to working with you on this and future projects.

Atkins Global
Water Main and Sewer Replacement geo
Sheridan St. to Hollywood Blvd. & N 35 Ave. to N. 31 Ave., Hollywood

Respectfully submitted,
NUTTING ENGINEERS OF FLORIDA, INC.

Scott Ersland
Division Manager

Richard C. Wohlfarth, P.E.
Director of Engineering

Reports and invoices will be addressed to the client as listed below unless other instructions are provided in writing with this executed proposal. The undersigned, as an authorized representative of the entity listed below, approves this proposal and agrees to be bound by the terms and conditions contained in this proposal. Deposit amounts are collected at time of written authorization to proceed. If you are a first time client, we request that the balance due for these services be paid at the time of report completion. Once your account is established, our terms are net 30 days. Any invoices over 30 days will be assessed a 1 1/2 percent service charge per month until paid in full.

PLEASE ENTER INFORMATION LEGIBLY BELOW SO IT CAN BE UTILIZED FOR PROJECT SET-UP:

SIGNATURE: _____ DATE: _____

PRINT NAME: _____ TITLE: _____

COMPANY NAME: _____

ADDRESS: _____

PHONE: _____ FAX: _____

EMAIL: _____

Atkins WM Repl Sheridan St. to Hollywood Blvd. & N 35 Ave. to N. 31 Ave Hywd geo 2-23-17 rev 3-16-17

General Terms and Conditions

For the purpose of this project, the addressee of this proposal will be known as the Client. The client is expected to furnish NUTTING ENGINEERS OF FLORIDA, INC. ("NE"), with accurate information including sketch of survey and/or site plan, construction drawings/specifications as appropriate, details of proposed construction including the proposed structural system and loads or existing construction problem information and site accessibility information as appropriate. Other information requirements may be detailed in the enclosed proposal. IF ANY CONDITIONS CHANGE such as building layout, loading, project specifications/design, or unusual site conditions are observed, NE should be notified immediately in writing about the changed condition for possible review and comment. Should the Client wish to impose other conditions and requirements beyond those contained in this proposal such as in a separate contract, we reserve the option to modify contract language, fee amounts, to remove our proposal from consideration or other measures as may be indicated.

Delivery – Scheduled upon receipt of written authorization to proceed and deposit unless other arrangements are agreed to in writing. Additional report copies can be provided for a nominal fee to the Client. NE will exercise appropriate measures to ensure project completion within a reasonable time frame subject to existing workloads. However, NE will not be held responsible for unavailability of necessary project data and site access within the time frame agreed upon for the investigation. Project delivery may be delayed if the ENTIRE signed proposal and deposit are not received in a timely manner. The ENTIRE signed quotation should be returned along with the requested project information. This unsigned proposal is valid for 60 days.

Payment - No deposit required with signed agreement. Directing NE to proceed with the work shall constitute acceptance of the terms of NE's proposal and these General Terms and Conditions. Balance due upon delivery of report. Interest at the rate of 18% per annum or the highest rate allowable by law whichever is less, will be added to all amounts not paid within 30 days after date of invoice. All attorney fees and expenses associated with collection of past due invoices will be paid by Client.

Insurance – NE maintains Workers' Compensation and Employer's Liability Insurance in conformance with state law. In addition, we maintain Comprehensive General Liability Insurance and Automobile Liability Insurance with bodily injury limits of \$1,000,000.00 and property damage limits of \$1,000,000.00. A certificate of insurance can be supplied evidencing such coverage which contains a clause providing that fifteen days written notice be given prior to cancellation.

Right-of-Entry - Unless otherwise agreed, Client will furnish right-of-entry on the property for NE to make the planned borings, surveys, and/or explorations. NE will not be responsible for removing fences, earth berms, vegetation or other obstructions for purposes of our investigation. NE will take reasonable precautions to minimize damage to the property caused by its equipment and sampling procedures, but the cost of restoration or damage which may result from the planned operations is not included in the contracted amount. If Client desires to restore the property to its former condition, NE will accomplish this and add the cost to its fee. Client agrees to waive all claims arising from or related to the failure to provide NE with proper access to conduct its work.

Damage to Existing Man-made Objects - It shall be the responsibility of the Owner or his duly authorized representative to disclose the presence and accurate location of all hidden or obscure man-made objects relative to routes of access, field tests, sampling, or boring locations. When cautioned, advised or given data in writing that reveal the presence or potential

Atkins Global

Water Main and Sewer Replacement geo

Sheridan St. to Hollywood Blvd. & N 35 Ave. to N. 31 Ave., Hollywood

presence of underground or over-ground obstructions, such as utilities, septic tanks, etc., NE will give special instructions to its field personnel. In addition, Client waives any claim against NE arising from damage to existing man-made objects.

Warranty and Limitation of Liability - NE shall perform services for Client in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of competent consultants practicing in the same or a similar locality as the project. In the event any portion of the services fails to comply with this warranty obligation and NE is promptly notified in writing prior to one year after completion of such portion of the services, NE will re-perform such portion of the services, or if re-performance is impracticable, NE will refund the amount of compensation paid to NE for such portion of the services. This warranty is in lieu of all other warranties. No other warranty, expressed or implied, including warranties of merchantability and fitness for a particular purpose is made or intended by the proposal for consulting services, by furnishing an oral response of the findings made or by any representations made regarding the services included in this agreement. In no event shall NE or any of its professional employees be liable for any special, indirect, incidental or consequential loss or damages, including but not limited to impact and delay claims. The remedies set forth herein are exclusive and the total liability of consultant whether in contract, tort (including negligence whether sole or concurrent), or otherwise arising out of, connected with or resulting from the services provided pursuant to this Agreement shall not exceed the total fees paid by Client or \$50,000.00, whichever is greater. At additional cost, Client may obtain a higher limit prior to commencement of services.

PURSUANT TO §558.0035, FLORIDA STATUTES, NE'S INDIVIDUAL EMPLOYEES AND/OR AGENTS MAY NOT HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE ARISING OUT OF, CONNECTED WITH, OR RESULTING FROM THEIR SERVICES PROVIDED PURSUANT TO THIS AGREEMENT.

Indemnification – Client agrees to defend, indemnify and save harmless NE from all claims, including negligence claims, suits, losses, personal injuries, death and property liability resulting from NE's performance of the proposed work, whether such claims or damages are caused in part by NE, and agrees to reimburse NE for expenses in connection with any such claims or suits, including reasonable attorney's fees. Client's obligation to indemnify is limited to \$2 million per occurrence, which Client agrees bears a reasonable commercial relationship to the Work undertaken by NE. Client further agrees that these general conditions are a part of the Work's specifications or bid documents, if any.

Sampling or Testing Location - Unless specifically stated to the contrary, the unit fees included in this proposal do not include costs associated with professional land surveying of the site or the accurate horizontal and vertical locations of tests. Field tests or boring locations described in our report or shown on our sketches are based on specific information furnished to us by others and/or estimates made in the field by our technicians. Such dimensions, depths or elevations should be considered as approximations unless otherwise stated in the report. It is understood that all drilling locations are accessible to conventional truck mounted drilling equipment unless otherwise specified by the client. If unscheduled remobilizations or use of portable or all terrain equipment is required additional charges will apply. NE will attempt to clear utilities at our excavation/test locations by manual drilling to 3' below land surface (BLS). Any utilities/obstructions present at client specified test locations or below 3' BLS will be the responsibility of the client.

Sample Handling and Retention – Generally soil test samples are retained for approximately three months after which time they will be discarded unless written instructions to the contrary are received from the client.

Legal Jurisdiction - The parties agree that any actions brought to enforce any provision of this Agreement shall only be brought in a court of competent jurisdiction located in Palm Beach County, Florida. Any and all causes of action arising out of NE's performance of the Work, including but not limited to claims for indemnity, contribution and equitable subrogation, shall be deemed to have accrued and the applicable statutes of limitations shall commence to run not later than the date of NE's last invoice for the Work performed hereunder.

Force Majeure - NE shall not be held responsible for any delay or failure in performance of any part of this Agreement to the extent such delay or failure is caused by fire, flood, explosion, war, strike, embargo, government requirement, civil or military authority, acts of God, act or omission of subcontractors, carriers, client or other similar causes beyond its control.

Documents - NE shall be entitled to rely upon the accuracy and completeness of all surveys, reports and information furnished by the client. If conditions different from those described in our report are found at the site, NE should be notified in writing immediately upon discovery. NE reserves the right to revise conclusions and recommendations presented in the final report should additional information regarding the project become available. All permits will be obtained by others unless otherwise specified in this proposal or in writing to NE. NE has no liability for consequences of information not provided or unavailable or otherwise not reviewed or known from the normal sources customarily examined by NE in such investigations within the time frame allowed for this investigation under this agreement. The client, entities identified in writing on the address portion of our report, design team professionals engaged by our client and building official staff are entitled to use and rely upon NE'S reports for purposes of the current project. Other parties are not authorized to use or rely upon NE'S reports unless NE so states in writing.

NE - General Contract Terms and Conditions Dec 2015

cc: Richard C. Wohlfarth, P.E. – Director of Engineering
Kristina Berryman – Business Development Manager

Atkins WM Repl Sheridan St. to Hollywood Blvd. & N 35 Ave. to N. 31 Ave Hywd geo 2-23-17 rev 3-16-17

Attachment B – Mobile Scanner Proposal

February 24, 2017

Atkins
2001 NW 107th Avenue
Miami FL, 33172
305.514.3376



Attn: Roberto Mantecon
E: Roberto.Mantecon@atkinsglobal.com

Re: Survey Proposal
City of Hollywood, FL

Dear Mr. Mantecon,

EMC, Inc. (EMC) appreciates the opportunity to submit this proposal to provide Mobile LiDAR Surveying Services for the above referenced project. The purpose of this survey is to provide Atkins with a Mobile LiDAR Survey. This proposal outlines our understanding of the project and scope of services, and provides a lump sum for our services.

A. Project Information

Site Location

Item	Description
Location	This Project is located in Hollywood FL
Sites to Survey	Survey will cover area as shown in provided KMZ file

Project Description

Item	Description
Mobile LiDAR System	Riegl VMX 450
RTK GPS System	Trimble R8-3



B. Scope of Services

The services to be provided by EMC are summarized in the following paragraphs.

Field Survey

It is our understanding that the project area is located in Hollywood FL and we are to survey the area listed below. We will collect all data using our Riegl VMX 450 Mobile LiDAR and will use the Atkins provided control points to process the point cloud. If needed we can offer Extraction Services on a lump sum or hourly basis at \$85 dollars per hour but is not included in this proposal.

LIMITS:

- a. Full width right of way of all roadways and alleyways inside the project area. Survey shall extend 20 feet on each side of the right of way for all roadways and alleyways when possible.
- b. Full width right of way of Hollywood Boulevard (SR 820), N. 31st Avenue, and N. 35th Street plus 20 feet on each side of the right of way if possible.
- c. Along Sheridan Street, the east bound travel lanes, plus the entire median (concrete or landscaped), and 20 feet south of the southern right of way.

Conditions/Items to be provided by Client

The Client agrees to Provide EMC with the following Prior to start of the survey:

- Right of Entry onto the Site
- Project Limits
- Any available plans & specs or digital files of the project
- Coordinate System to be used
- Template Information if needed
- Required Due Date for Submittals

Schedule

For this project we can mobilize within 7 Days of NTP and will provide Calibrated point cloud within 7 business days of field completion pending receipt of control from Atkins.



C. Compensation

City of Hollywood Survey

Task	Land Surveying Services			Total
	Rate	Unit	Required	
Laser Scan Survey from Grenada MS	Lump Sum	LS	1	\$25,518.50

Unless instructed otherwise, the invoice will be sent to your attention at the address listed above.

Should it be necessary to expand our services beyond those outlined in this proposal, we will notify you, then send a supplemental proposal stating the additional services and fees. We will not proceed without your authorization, as evidenced by your signature on the Supplement Agreement Form.

D. Authorization

This proposal may be accepted by executing the agreement in the space provided below and returning one copy along to EMC. This proposal is valid only if authorized within 30 days from the listed proposal date.

We appreciate the opportunity to provide this proposal and look forward to the opportunity of working with you.

Sincerely,

EMC, Inc.

Josh Mattox
Chief Operating Officer

Accepted BY: _____

Date: _____

Attachment C – Overall Budget

Attachment C
City of Hollywood - Water Main Replacement Project
Project Number: 16-5135

Task Description	Technical Advisory Staff	Project Manager	Junior Engineer	Sr. Architect	Secretary	Principal Surveyor	Surveyor Manager	Surveyor II	CADD Technician	Survey Crew (Four Man Team)	Screw Crew SUE (Two Man Team)	Total	Individual Task Total	TOTAL BASE LABOR	TOTAL SUBS/ODC
Labor Rate	186.00	143.00	77.00	106.00	40.00	183.00	96.00	75.00	56.00	194.00	194.00				
Task 1 - Project Management															
1.1 Work Plan and Kickoff Meeting	8	24	24	8	8							72			\$7,936
1.2 Monthly progress meetings		100	100	100								300			\$32,600
												Total=	\$40,536		
Task 2 - Subconsultants															
2.1 Geotech												0			\$0
												Total=	\$12,975		\$12,975
Task 3a - Survey (Phase A)															
3a.1 Survey - Topo						75	356	1164	418	894		2907			\$332,045
3a.2 Survey - Topo Sub															\$25,518
3a.3 Survey - SUE						4	40	8	136		350	538			\$80,688
												Total=	\$445,530		
Task 3b - Survey (Phase B)															
3b.1 Survey - Topo						20	34	124	32	128		337			\$42,671
3b.2 Survey - SUE							10	2	8		40	60			\$9,318
												Total=	\$52,916		
Task 4 - Final Design Services - Phase A Water Main Replacement Program															
4.1 Review Survey for Completeness		40	160	160								360			\$35,000
4.2 60% Submittal	32	120	600	1200	32							1984			\$197,792
4.3 90% Submittal	16	60	300	600	16							992			\$98,896
4.4 100% Submittal	8	30	150	300	8							496			\$49,448
												Total=	\$381,136		
Task 5 - Final Design Services - Phase B Reuse Water Main Extension															
5.1 60% Submittal	8	20	60	120	8							216			\$22,008
5.2 90% Submittal	4	12	30	60	4							110			\$11,290
5.3 100% Submittal	2	8	15	30	2							57			\$5,931
												Total=	\$39,229		
Task 6 - Final Design Services - Phase C Water Main Replacement															
6.1 60% Submittal	8	24	48	96	8							184			\$19,112
6.2 90% Submittal	4	12	24	48	4							92			\$9,556
6.3 100% Submittal	2	8	12	24	2							48			\$5,064
												Total=	\$33,732		
Task 7 - Permitting Phase Services															
7.1 Broward County Health Department	2	12	24	24	16							78			\$7,120
7.2 Broward County Transportation Department	2	12	24	24	16							78			\$7,120
7.3 City of Hollywood Planning and Development	2	12	24	24	16							78			\$7,120
7.4 Florida Department of Transportation	2	12	24	24	16							78			\$7,120
												Total=	\$28,480		
Task 8 - Bid Phase Services															
8.1 Prepare/Provide Bid Ready Documents to City for distribution to bidders		8	12	24	8							52			\$4,932
8.2 Attend a pre-bid meeting	8	8	12	8								36			\$4,404
8.3 Address RAI from prospective bidders	4	12	8	4								28			\$2,504
8.4 Prepare addenda	8	12	8	4								32			\$3,076
8.5 Perform reference checks on prospective bidders	4	12										16			\$1,496
8.6 Prepare bid evaluation for City	4	12										16			\$1,496
8.7 Prepare recommendation of award letter	4	4			4							12			\$1,040
												Total=	\$18,948		
Task 9 - Construction Phase Services															
9.1 Construction Administration	8	8	8	8	8							40			\$4,416
9.2 Preparation of conformed documents, minutes.	8	8	8	8	24							40			\$4,304
9.4 Review Shop Drawings.	20	80			40							32			\$2,928
9.5 Review and respond to RAIs from Contractor meetings.	10	20			10							40			\$3,370
orders.	96	96	96	96								288			\$31,296
9.8 Conduct Substantial Completion Inspection and prepare list of outstanding items to be completed.	8	16	8	16								32			\$2,696
9.9 Conduct Final Completion Inspection	8	16	8	8								44			\$3,556
9.10 Prepare and submit BCHD clearance applications.	8	8	8	8								40			\$3,544
9.11 Prepare permit close-outs	8	16	24	24								72			\$2,080
												Total=	\$76,978		\$8,168
Task 10 - Record Drawings															
10.1 Record Drawings	8	20	60	80								168			\$17,448
												Total=	\$17,448		
Task 11 - Reimbursables															
Reimbursable Expenses															
GRAND TOTAL HOURS	132	764	2051	3146	282	99	440	1298	594	1022	390	10217			\$25,000
GRAND TOTAL \$	\$24,552	\$109,252	\$157,927	\$333,476	\$11,280	\$18,026	\$42,192	\$97,313	\$33,264	\$198,268	\$75,660	\$1,101,209		\$1,101,209	\$71,699

Grand Total \$1,172,908