

MEMORANDUM

July 8, 2014

TO: Honorable Mayor and City Commission

VIA: Kenneth Fields, City Manager

FROM: Tom Moran, Utilities Director
Sarah B. Kirkland, Utilities Projects Administrator

SUBJECT: Engineering Services for the SR 60 Westerly Water and Sanitary Force Main

SYNOPSIS: The approval of the contract authorizes Kimley-Horn and Associates, Inc. to provide engineering services for the SR 60 westerly water and sewer force main route extension for \$394,639.30.

RECOMMENDATION

It is recommended that the City Commission take the following action:

1. Approve the contract with Kimley-Horn and Associates, Inc. for \$394,639.30.
2. Authorize the City Manager to execute the appropriate documents on behalf of the City regarding this service.

BACKGROUND

In an attempt to expand the city's utilities system westward towards the limits of the City's utility service area boundary, several factors had to be considered prior to development and construction of those utilities. The commission approved at its December 17, 2013 city commission meeting to enter into a contract with Kimley-Horn & Associates to perform a preliminary route analysis to determine the most cost effective route. This contract allowed Kimley-Horn & Associates the opportunity to work with staff to determine future water and wastewater demand estimates, identify up to three possible routes (to be determined by city staff), preliminary pipe size determination, and lift station and booster station sizing and location. The engineering staff assigned to the project, from Kimley-Horn & Associates brought before the commission on June 3, 2014 the results of the route analysis to seek additional commission direction. It was at this time that the commission recommended that the project was to continue forward and in depth engineering and design should take place.

Staff, therefore, recommends the City Commission to approve the contract with Kimley-Horn and Associates, Inc. for \$394,639.30, and authorize the City Manager to execute the appropriate documents on the City's behalf in regards to this service.

OPTIONS

Choose not to approve the contract with Kimley-Horn and Associates, Inc. for the engineering and possibly miss any opportunity for development of the SR 60 West corridor.

FISCAL IMPACT

\$575,000.00 is in the FY'2013-2014 Capital Improvements Budget for the engineering services for the facilitation of this westward expansion.

ATTACHMENTS

Kimley-Horn and Associates, Inc. contract



EXHIBIT A

CONSULTING SERVICES AUTHORIZATION
TO THE
MASTER CONSULTING AGREEMENT #12-348

SR 60 WESTERLY POTABLE WATER AND SANITARY FORCE MAIN EXTENSION

PROJECT UNDERSTANDING

1. The Client is proposing to extend a sanitary sewer force main and a potable water main approximately 4.6 miles westerly along SR 60 towards the limits of the Lake Wales utility service area boundary. The utility mains are to be utilized by potential future development and existing customers along the route.
2. The route is conceptually shown on the drawing dated May 21, 2014 and presented to the City Commission on June 3, 2014. (The exact route will be determined during design (north or south side of right of way, directional bore locations, etc.)
3. During the City Commission meeting on June 3, the City elected to proceed with route Option A, which utilizes an existing easement through private property. The City elected to proceed with a 12" diameter water main and an 8" diameter sanitary sewer force main.
4. The water main connection point will be an existing 12" water main on Mulberry Street, then through the City cemetery, the WWTF site, and a private easement to the airport property. The water main will then continue north and west through the airport property eventually out to SR 60 at Airport Road. The water main will then continue westerly on SR 60 to a terminal point near the CSX railroad crossing. Fire Hydrants, air release valves, pigging ports, and gate valves will be spaced accordingly.
5. The sanitary sewer force main connection point will be at the existing WWTF and will then follow basically the same route as the water main.
6. The route through the Airport Property will consider the master plan; however this proposal does not include designing water or sewer services for the airport property except as specifically stated under Task 2 below.
7. It appears that insufficient right of way may exist along portions of the proposed route. Assistance/survey coordination with obtaining utility easements on private property and preparation of legal documents (including legal descriptions and sketches) will be billed as an additional service. It is unknown at this time what involvement will be required.
8. It is assumed that temporary or permanent wetland impacts are not proposed within the scope of this project.

SCOPE OF SERVICES

TASK 1 – SURVEYING

KHA will contract with a Florida Licensed Surveyor to perform the following services:

- A. Provide a topographic survey with 50' cross sections (and at any direction change) from right of way to right of way of Hwy 60 and the Route A per the attached conceptual plan. All trees larger than 6" will be located.
- B. The survey will show utilities with surface evidence along the route, as well as utility marks as delineated by requesting through Sunshine State One Call and any wetland flags staked by Kimey-Horn. Power poles and overhead wires will be located.
- C. Vertical Datum will be based on NAVD 88.
- D. The Survey will be provided in Florida West State Plane Coordinate System (NAD83).
- E. Control will be set along the route at 500 foot intervals.
- F. Survey will include right of way location and verification.
- G. Survey will be produced using RTK GPS and total station methods.
- H. Survey will depict any easement locations provided by the City.
- I. Deliverables will consist of 5 signed and sealed surveys, an AUTOCAD file of the survey, and a PDF of the signed, sealed survey.
- J. Maintenance of Traffic if required to perform Surveying Services, will be the responsibility of the Surveyor.
- K. Prepare easement and description sketch required by Duke Energy regarding the Lift Station.

TASK 2 – SANITARY SEWER FORCE MAIN AND POTABLE WATER MAIN DESIGN AND CONSTRUCTION PLANS

- A. KHA will prepare construction plans on 11"x17" sheets (per FDOT requirements) for the bid phase and construction phase of the proposed two (2) utility line extensions.
- B. Design plans will be submitted for City review and comment at the 30%, 60%, and 90% stage. KHA will meet with the City to discuss the proposed design route and permitting requirements for the utility lines at each submittal.
- C. KHA will review City record drawings of the existing water main and sanitary sewer force main to determine connection/tie in requirements.
- D. The plans will contain horizontal and vertical information of the proposed water and sewer main, as well as the City of Lake Wales typical standard utility details and specifications. The proposed water and sewer main will be designed in accordance with the current Florida Department of Environmental Protection, Polk County Health Department, and City of Lake Wales requirements.
- E. KHA will identify and request apparent utility and construction easement requirements at the 60% submittal. If required, as an additional service, a proposal will be requested from the surveyor to write the legal descriptions and prepare the exhibits for City use.

- F. KHA will prepare a storm water pollution prevention plan for the proposed utility extensions.
- G. Geotechnical Soil borings will be performed to serve as a basis for unsuitable soil estimates and to determine the approximate SHWT elevation.
- H. KHA will present the 60% plans to the City during a public workshop. The 60% plans will be shown on (3) 24"x36" drawings for presentation purposes.
- I. KHA will design a sewer manhole and provide a gravity line to a new lift station within the airport property. It is understood that the Mobile Home Park, the General Aviation Terminal and the National Guard will connect to the manhole in the future. Gravity lines from the three mentioned uses to the manhole will not be designed.
- J. KHA will design a new lift station on the airport property. The exact location will be determined. The lift station and the gravity lines mentioned in Task I above can be optional bid items if the City chooses.
- K. KHA will forward a copy of the 30% plans to Hoyle, Tanner and Associates, Inc., the City's Airport Consultants to request input on the utility route through the airport.

TASK 3 – AGENCY SUBMITTAL AND RESPONSES

Under this Task KHA will prepare permit application packages to the following agencies:

1. Florida Department of Environmental Protection (FDEP) – Sanitary Sewer Force Main
2. Polk County Health Department - Potable Water Distribution System
3. FDEP - National Point Discharge Elimination System NOI (NPDES)
4. Polk County – Right of Way Permits (Directional drill under County roadways if necessary)
5. FDOT – Right of Way Permit
6. Applicable Railroad Authority (Florida Midland Railroad) for Jack and Bore
7. SWFWMD General Permit for installation of utility lines (Section 62-330-453)

KHA will coordinate with the agencies listed above with regard to the application submittal packages and will respond to up to two (2) rounds of comments that are reasonable and relevant. Additional responses beyond those outlined above may be considered Additional Services.

TASK 4 – SUBCONSULTANT COORDINATION

KHA will provide coordination services with a Licensed Surveyor to provide a topographic and right of way survey, and pick up the Sunshine One Call locates and information obtained during the SUE work. KHA will also provide coordination services with a Geotechnical firm to provide both SUE (subsurface utility engineering) and soil borings.

TASK 5 – UNDERGROUND UTILITY LOCATES AND GEOTECHNICAL SOIL BORINGS

KHA will contract with a licensed geotechnical firm (KCI Technologies or KCI) to perform the following services:

Subsurface Utility Engineering Services

- perform vacuum excavation for up to twenty (20) subsurface utility engineering (SUE) holes 6 ft. deep by 2 ft. wide by 15 ft. long;
- perform a subsurface utility investigation at designated locations along the utility route;
- coordinate with the surveyor to pick up utilities observed during the investigation;
- coordinate with Sunshine One-Call to have utilities flagged in the area prior to digging; and,
- SUE holes are to be placed approximately 1,200 ft apart.

Geotechnical Engineering Services

- coordinating underground utility locates through the one-call utility notification center prior to field exploration services;
- advancing twenty-one (21) soil borings to a depth of 6 ft along the project alignment to evaluate subsurface soil and ground-water table conditions;
- performing corrosion series testing on subsoil sample to classify;
- backfilling with drill cuttings and/or grouting per applicable local regulatory requirements;
- performing laboratory assessment and classification testing on selected samples, as necessary;
- compiling field exploration and laboratory testing data, as well as ground-water conditions; and,
- providing a plan sheet depicting the soil boring results signed and sealed by a principal or duly authorized official of the firm.
- Maintenance of Traffic, if required to perform the services required under Task 5 will be the responsibility of KCI Technologies, Inc.

TASK 6 – ENVIRONMENTAL SERVICES

A. Natural Resource Assessment and Wetland Delineation

Kimley-Horn will conduct a Natural Resource Assessment to identify wetlands and surface waters and upland habitats (including potential sensitive habitats) along the proposed utility route and will evaluate the potential for usage by listed species. In preparing this assessment, the Kimley-Horn will conduct the following tasks:

- Review readily available natural resource documentation, previous environmental studies (provided by client), and listed species information;
- Request and review information from the Florida Natural Areas Inventory (FNAI) and the Florida Fish and Wildlife Conservation Commission (FWC) regarding known occurrences of listed species on and in the vicinity of the subject property;
- Request and review information from the State Historic Preservation Officer (SHPO) regarding historic and archaeological resources.
- Review the Flood Insurance Rate Map (FIRM) to determine if the project is within the 100 year floodplain.

Following the review of the database information a site visit will be conducted. During the site visit the habitat types will be mapped on an aerial photograph. During the site reconnaissance, wetlands will be field flagged in accordance with the US Army Corps of Engineers *1987 Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region*. Field data sheets will be prepared and information will be collected regarding the quality of wetlands for use in permitting. The location of the wetland flags will be provided to the project surveyor, as noted in Task 1. Kimley-Horn will prepare for and meet with Southwest Florida Water Management District and the US Army Corps of Engineers to review the wetland limits. This scope assumes that separate field meetings will be conducted for a total of 2 meetings.

B. Gopher Tortoise and Preliminary Sand Skink Survey

During the site reconnaissance conducted under Task A, pedestrian surveys will be conducted to identify gopher tortoises and sand skinks. Pedestrian transects covering at least 15% of suitable gopher tortoise habitat will be conducted in accordance with FWC guidelines. Gopher tortoise burrows will be identified and classified as abandoned or potentially occupied and mapped using GPS.

In addition, Kimley-Horn will conduct a preliminary review of the proposed utility route within the areas mapped as sand skink soils above and elevation of 82 feet NGVD and the immediate surrounding area. There are five areas mapped as potential sand skink soils. The purpose of the site visit is to determine if there is suitable habitat for sand skinks and to observe the on-site soils for signs of sand skink activity. Following the site visit, Kimley-Horn will schedule a meeting with the US Fish and Wildlife Service (USFWS) to discuss the current conditions of the site and determine if further survey, analysis or permitting will be required.

C. Report

Following the field evaluation and listed species surveys conducted in Tasks 6A and 6B, the Kimley-Horn will prepare a report summarizing our findings, permit requirements and additional surveys (beyond what was conducted in Task B) or evaluations required, if applicable. The report will contain evaluations of the findings, meeting synopsis and recommendations. These additional services could include listed species surveys, archaeological or historical surveys, etc. The following maps will also be prepared which can be used for permitting:

- Land cover map classifying the habitats on-site based on the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) and showing approximate acreage of each land cover. The acreage of upland and wetland habitats shown will be approximate based on aerial interpretation.
- Prepare a soils map,
- FIRM Map,
- Location map and
- Quadrangle Map

TASK 7 – ELECTRICAL SERVICES

KHA will contract with New Power Consulting, Inc. (New Power) to provide electrical services as follows:

- A. Conduct one site visit to coordinate the new utility service with Duke Energy (including any easement required by Duke Energy)
- B. Provide General Sizing and specifications
- C. Provide 100% construction review documents
- D. Attend one design review meeting with the City of Lake Wales.
- E. Provide 100% electrical permit drawings for bid phase purposes. The Production of the Electrical Construction Drawings for bid and permitting purposes will be in collaboration with New Powers engineering Consultants Wilson and Girgenti, LLC. Specifications will be on the drawings.
- F. Respond to pre-bid questions and assist with pre-bid electrical RFI's.
- G. Respond to building department comments.

TASK 8 – BID DOCUMENT PREPARATION AND BID COMPARISON

KHA will prepare and assemble construction bidding documents, including specifications for the subject Work. KHA will attend a Pre-Bid meeting and will respond to requests for information for contractor's clarification. KHA will review the bids from prospective bidders and provide a recommendation for contractor selection based on responsiveness and lowest bidder.

TASK 9 – ADDITIONAL SERVICES

KHA will, at the request of the City, perform additional services not included in the above scope. The additional services will be billed on an hourly plus expenses basis, in accordance with the previously approved KHA rate schedule. Written requests from the Client will be considered as authorization to invoice for time and materials to perform any such services. These services may include, but are not limited to the following:

- A. Attendance at meetings or any other coordination not specifically included in the Scope of Services.
- B. Any engineering consulting service that is not specifically identified in the above Scope of Services.
- C. Construction Phase Services including value engineering (*Part of Construction Contract*)
- D. Construction Survey services (Construction Layout, etc.).(*Contractor's responsibility during construction*)
- E. Work to prepare legal descriptions and sketches for utility or construction easements. (*to be determined if required by survey*)
- F. Flood Studies (*to be determined if required by survey*)
- G. Wetland Impacts
- H. Coordination with agencies other than those specifically listed under Task 3.
- I. Additional Geotechnical Services and SUE Services.
- J. Structural Design.
- K. Hydraulic Studies.
- L. Booster Pumping Stations or Additional Lift Stations. .
- M. Sand Skink Cover Board Survey (Optional – Additional Service, if the USFWS determines during the meeting under Task 6B that a cover board survey is required).
Kimley-Horn will perform a cover board survey in accordance with the Skink Survey Protocol

dated April 4, 2011 as determined by the USFWS. This scope assumes that the meeting with USFWS in Task 6 above is sufficient and no additional meetings are required. Cover boards (2 ft x 2 ft) will be placed with a minimum density of 40 boards per acre of suitable habitat onsite between March 1 and May 15. Cover boards will be placed in areas of bare sand or sparse vegetation adjacent to leaf litter or other detritus ensuring full contact of the cover board with the soil surface. The cover boards shall be allowed to acclimate for 7 days before the first sampling event. A total of 4 sampling events/site visits will be conducted and the results recorded on field data sheets. Cover boards will be lifted and checked for tracks a minimum of once a week for 4 consecutive weeks. Once tracks are found within the project area the survey will be ended. However, in order to confirm that no skinks are present, the survey must run for 4 consecutive weeks.

Upon completion of the survey Kimley-Horn will prepare a survey report documenting the results. The report will contain project and habitat description, a habitat map, photographs of cover boards and tracks, and field data sheets that include the dates, weather conditions, and any tracks or skinks observed during the survey. Note that the fees in this contract are assuming that no sand skinks will be found and that sand skink permitting is not required. Estimated fees from KHA for the cover board survey is \$24,740.00.

N. Gopher Tortoise Permitting (Optional – Additional Service, if required).

If gopher tortoise burrows are found within the corridor and cannot be avoided (25 foot radius from burrow), then a permit will be required from FWC for relocation of gopher tortoises. Kimley-Horn will prepare the on-line gopher tortoise application and respond to one Request for Additional Information. Kimley-Horn will attend one meeting with FWC in the field. The application will include detailed maps of the burrow locations.

O. Gopher Tortoise Relocation (Optional – Additional Services, if required)

Per Florida Fish and Wildlife Conservation Commission (FWC) Gopher Tortoise Permitting Guidelines (Guidelines), a 100% survey is required 90 days prior to the start of construction. Kimley-Horn will conduct the 100% survey. Application fees include \$200 for the first 5 tortoises/10 burrows and \$300 for every additional tortoise/2 burrows after that. For budgeting purposes it can be assumed that the application cost will be \$200. If more than 10 burrows are identified during the 100% survey, the Client shall be notified of additional anticipated cost. Offsite mitigation banks charge between \$750-\$850/tortoise. For budgeting purposes, it can be assumed that the site will require 5 gopher tortoises to be relocated (10 burrows at 50% occupancy), or approximately \$4,000.

Per the guidelines, the 100% survey is only valid for 90 days. If more than 90 days elapses between 100% and project construction, another 100% survey will be required. If a second survey is required this will be considered an additional service. Kimley-Horn will conduct the relocation with the assistance of a backhoe. For budgeting purposes it is assumed a maximum of 2 days will be required for the relocation. (Note: the contractor will be responsible for providing the backhoe and operator for the excavation activities. The cost of the backhoe and operator are not included in this scope of services. Kimley-Horn shall meet the contractor onsite after installation of BMPs for the proposed project. It is understood that if BMPs, such as silt fence, are not in place at the time of the relocation, there is the potential for gopher tortoises from surrounding property to migrate into the construction area and require additional site visits to relocate. Additional site visits are not included in this scope but can be provided as an additional service. Relocation is expected to cost approximately \$1500-\$2000/tortoise. Any fees for permit application, offsite relocation area and the cost of the back hoe operator shall be paid by the Client. Estimated fees from KHA for Tasks 9N and 9O are \$8,200.00.

COMPLIANCE WITH LAW AND CODES

The Consultant shall exercise the professional standard of care in its efforts to comply with laws and regulations in effect as of the date of this Agreement. Design changes made necessary by unexpected interpretations or changes in laws or regulations shall entitle the Consultant to reasonable adjustments in schedule and compensation. The Client acknowledges that the laws and regulations of various governmental entities having jurisdiction over the project are sometimes in conflict, and in that circumstance the Consultant's sole obligation is to exercise the professional standard of care in an effort to resolve such conflicts.

Consultant And Client Agree To The Following General Schedule:

KHA will provide the services described in the scope of services in an expeditious manner based upon an agreed schedule.

For the Services set forth above, Client shall pay Consultant the following compensation:

KHA will perform the Services described in the Scope of Services for the labor fees described below:

Task	Labor Fee
Task 1 - Surveying	Lump Sum: \$39,000.00
Task 2 – Construction Plans	Lump Sum: \$206,675.00
Task 3 – Agency Submittal and Response	Lump Sum: \$37,940.00
Task 4 – SubConsultant Coordination	Lump Sum: \$10,915.00
Task 5 – Underground Utility Locates and Geotechnical (\$18,000 SUE, \$4,500 geotech)	Lump Sum: \$23,100.00
Task 6 – Environmental Services	Lump Sum: \$17,148.00
Task 7 – Electrical Services	Lump Sum: \$4,600.00
Task 8 – Bid Document Preparation	Lump Sum: \$19,385.00
Task 9 – Additional Services	Hourly as requested

KHA will perform the Scope of Services in Tasks 1-8 for a lump sum labor fee of **\$394,639.30

KHA will perform the Scope of services in Task 9 if requested by the City, on a labor fee plus expense basis.

Reimbursable expenses will be billed based upon the City reimbursable schedule provided in Master Consulting Agreement #12-348 dated November 1, 2012.

**An allowance in the amount of 10% is included for additional services. This allowance shall only be used at the direction of the City with written approval of Public Works Director or City Manager.

Sub consultant Fees: (Included above):

Please list for each task the sub used and the fee

Topographic and Right of Way Survey (Peavey and Associates, Inc.)	Task 1	\$39,000.00
Underground Utility Locates and Soil Borings (KCI Technologies)	Task 5	\$23,100.00
Electrical Engineering (New Power Consulting, Inc.)	Task 7	\$ 4,600.00

All permitting, application, and similar project fees will be paid directly by the Client.


Consultant's fees shall be paid per the master consulting agreement.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written

CITY OF LAKE WALES

KIMLEY-HORN AND ASSOCIATES, INC.

BY: _____

BY:  _____
Mark E. Wilson, P.E.

ITS: _____

ITS: Vice-President

ATTEST: _____

ATTEST:  _____
Elisa Turner, P.E., CFM

DATE: _____

DATE: 6/30/2014