

VILLAGE OF WELLINGTON

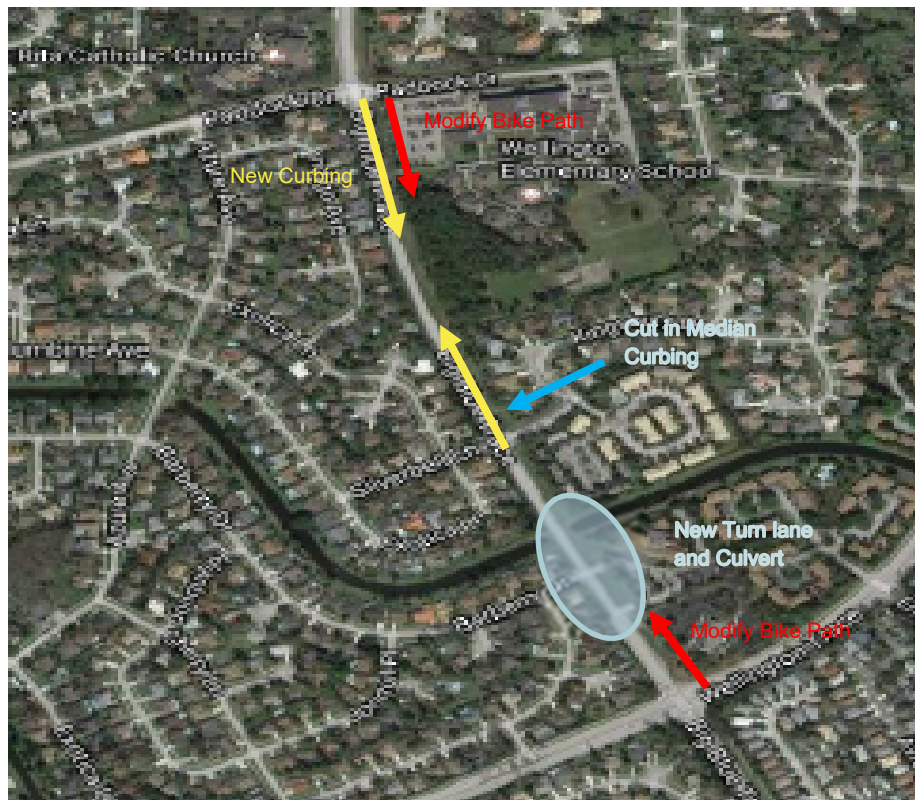
WATER DISTRIBUTION, WASTEWATER COLLECTION, PAVING, GRADING, AND DRAINAGE ENGINEERING SERVICES WORK AUTHORIZATION

TASK ORDER: 2017-03

PROJECT NAME: Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

THIS WORK AUTHORIZATION AUTHORIZES KIMLEY-HORN AND ASSOCIATES, INC. TO PERFORM WORK SET FORTH HEREIN AND IS ISSUED PURSUANT TO THE AGREEMENT FOR CONSULTING SERVICES, BETWEEN WELLINGTON (“CLIENT” OR “VILLAGE”) AND KIMLEY-HORN AND ASSOCIATES, INC. (“KIMLEY-HORN” OR “CONSULTANT”), DATED FEBRUARY 9, 2016 (“AGREEMENT”). ALL TERMS AND CONDITIONS OF SAID AGREEMENT ARE HEREBY INCORPORATED AND MADE PART OF THIS WORK AUTHORIZATION.

The VILLAGE has determined a need for improvements along Big Blue Trace at the intersection of Big Blue Trace and Barberry Drive consisting of a new left turn lane, grading, curbing and sidewalk improvements and culvert replacement. The project’s total length is up to 0.60 miles. These improvements are described in more detail below:



TASK ORDER:	2017-03 (cont'd)
PROJECT NAME:	Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

- Raising the low point of Big Blue Trace adjacent to the Barberry Drive intersection to an elevation of 16.5' NGVD. In areas where achieving the 16.5' elevation creates issues with adjacent properties or extends and expands the project beyond the original intent, it may only be raised to an elevation between 16.0' and 16.5'.
- Adding a new northbound left turn lane at the intersection of Big Blue Trace and Barberry Drive to accommodate traffic congestion and increased demand during peak hours. The limits of the turning lane portion of the project including the proposed turn lane and road elevation adjustment along Big Blue Trace extend approximately 630 feet north and 470 feet south of the Barberry Drive intersection centerline. The project will also extend 100 feet west into Barberry Drive as measured from the centerline of the Big Blue Trace intersection because of the elevation change. The extent of work limits on Barberry will be established to avoid reconstruction of private driveways.
- Adding new curbing in the footprint of the non-traffic area resulting from the development of the proposed left turn lane which will create a new raised curb median for future land scaping (by others).
- Modifying the swale grade on either side of Big Blue trace at turn lane improvements as may be required to accommodate the road elevation changes and turning lane improvements.
- Replacing the existing 48" CMP culvert under Big Blue Trace near Barberry with a new 72" RCP culvert. With the modification of the culvert, the drainage structures and piping to the existing culvert will require realignment and replacement. Overall redesign of the drainage system for roadway and canal is not assumed. Design considers pipe re-routing and reconfiguring only. The new culvert size has been designed by the Village.
- Adding new curbing in the footprint of the existing gored area north of Silver Bell Lane to create a new raised curb median for future landscaping (by others).
- Adding new curbing along each side (East and West) of Big Blue Trace from Silver Bell Lane to Paddock Drive. The new curbing will require flumes to allow water to continue to flow to the adjacent swales without the need for a closed drainage system. With the new curbing, swale modifications will be required to provide positive drainage and the existing wood fence along the sidewalk will need to be relocated to 2 feet from face of curb.
- Providing design of Bike Path Modification from Paddock to Wellington Trace on the East Side. Modifications will require widening of the path to 10 feet from 6 feet and correction of cross slope from 5% to 2%. These widenings and modifications will utilize replacement or overbuild. West Side will not be modified.

TASK ORDER: 2017-03 (cont'd)
PROJECT NAME: Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

- In conjunction with the bike path modifications on the east side of road, the existing swale will require modification / regrading to achieve positive drainage.
- Overlay Big Blue Trace from Paddock to Wellington Trace including new stripping and signing. It is anticipated overlay will be a mill and resurface of the existing roadway and may require some areas of overbuild in the vicinity of the culvert pipe replacement to raise the roadway to the minimum road crown clearance elevation (16.5 NGVD).
- Adding new irrigation sleeves from the east side of Big Blue Trace under road to the proposed curbed medians created for the new turning lane at Barberry for use in a future landscaping contract by others
- Adding new irrigation sleeves from the east side of Big Blue Trace under road at the existing gored area north of Silver Bell Lane for use in a future landscaping contract by others

As part of this Task Order CONSULTANT has been requested to provide the design and permitting services for the above referenced improvements.

SCOPE OF WORK

CONSULTANT will work with VILLAGE staff in the development of construction documents to be used by the VILLAGE to bid the project and to construct the improvements detailed above.

BASE DESIGN SERVICES

A. TYPICAL SECTION DEVELOPMENT

CONSULTANT will review the existing and proposed typical sections at the turning lane area and on either end of the road way section being impacted (one flush shoulder and one curb and gutter section). During this review, CONSULTANT, will consider proposed grade changes.

CONSULTANT will then prepare the proposed typical section for the turn lane widening with swale and sidewalk for the VILLAGE review. CONSULTANT will revise the typical section based on VILLAGE comments and provide the final typical section for use in the design document development.

The proposed turn lane width is 12 feet. The existing road does not have a shoulder for bike lane and the proposed scope will not provide a bike lane either. Design speed may be up to 5 mph above posted speed.

TASK ORDER:	2017-03 (cont'd)
PROJECT NAME:	Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

B. ROADWAY DESIGN (BASE DESIGN SERVICES)

CONSULTANT will do the following roadway design:

1. Geometrics – The proposed turn lane length is 280' plus 50' taper. During this initial task, CONSULTANT will:
 - a. Review the design survey in the office and field and prepare a base map for the proposed design showing overlay limits, new curb limits, bike path/ swale improvement limits and location of irrigation sleeve for future irrigation piping. Based on VILLAGE providing survey for use by CONSULTANT.
 - b. Review lane widths, shoulder widths, alignment, existing profile and cross slopes against design criteria. All work will remain inside the existing right of way.
 - c. Establish a curb profile (after the VILLAGE accepts the typical section) for grade control which may require a variable pavement cross slope and pavement overbuild for the segment between Silver Bell and Paddock Drives.
 - d. Provide special curb profile where necessary to avoid sharp or flat profiles and/or cross slopes.
 - e. Avoid cross slope redesign or correction on through lanes where possible. The existing through lane and intersection geometry will be maintained.
 - f. Prepare and maintain a design documentation file that addresses geometric and design decisions.
 - g. Prepare one opinion of probable construction cost estimate and one update based on historical unit prices.
2. Pavement Design - Design changes and pavement widening or reconstruction will be limited to the left turn lane and the raising of the low point on Big Blue Trace to a minimum of 16.5' NGVD. It is understood that the preparation of a FDOT type pavement design analysis and report will not be required by the Village and existing pavement structure will be matched including in areas of milling and resurfacing.
3. Roadway Plan Sheets – As part of the design documents it is assumed that CONSULTANT will prepare the following design drawings. All design related specifications will be on the plans and reference FDOT and available Village standards.
 - a. One Cover Page

TASK ORDER:	2017-03 (cont'd)
PROJECT NAME:	Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

- b. Two (2) Sheets on 11 x 17 - Preliminary / concept MOT Plans showing culvert road / lane transfers and use requirements, barricading parameters and describing MOT criteria / performance requirements for contractor submittal and design.
- c. Two (2) Sheets on 11 x 17 - Phasing Plan – Used to show overall schedule and scope priorities for completion of the project. (ie. Phase 1 – Curbing / Road work / Culvert Replacement /Turning Lane and Phase 2 – Sodding / Swale Regrade / Fence Relocations)
- d. Five (5) roadway plan sheets at 1"=40' scale on 11x17 size sheet for the project.
- e. Five (5) striping and signage plan sheets at 1"=40' scale on 11x17 size sheet for the project.
- f. One (1) key sheet
- g. Two (2) typical sections
- h. One (1) general notes sheet,
- i. One (1) summary of quantity sheet,
- j. Up to two (2) roadway cross section sheets
- k. Two (2) miscellaneous construction detail sheet (such as details for back of sidewalk treatment, storm water pollution prevention),
- l. One (1) sheet for replacement of the existing 48" CMP culvert under Big Blue Trace with a 72" RCP culvert, and
- m. One (1) drainage detail sheet (for swale modification, etc.).

C. DRAINAGE DESIGN (BASE DESIGN SERVICES)

1. Turning Lane Area - CONSULTANT will prepare design drainage modifications within the roadway drawings for the existing local swale system within the limits of the project to address water quality and quantity provisions as stipulated by permitting agencies. The scope anticipates the system will consist of modification to roadway's existing drainage system (swales) by modifying the existing swales within the limits of road right-of-way and proposed turn lane. CONSULTANT will prepare a brief drainage memo report to summarize the drainage design and calculations.

TASK ORDER:	2017-03 (cont'd)
PROJECT NAME:	Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

2. Culvert Area - CONSULTANT will prepare design drainage modifications adjacent to the culvert area for the existing local piping system within the limits of the culvert footprint to address impacts to pipe routing. The scope anticipates the system will consist of modification to the pipe routing to the existing culvert by realignment and/or replacement. CONSULTANT will prepare a brief drainage memo report to summarize the drainage changes made without design and calculations.

This analysis does not include running any drainage models or calculations for the entire roadway system. Drainage inlet and gutter spread analysis is not included in the scope.

D. PAVEMENT MARKING AND SIGNING (BASE DESIGN SERVICES)

CONSULTANT shall prepare Pavement Marking and Signing Plans as part of the roadway drawing package to conform to the proposed roadway improvements.

EXPANDED DESIGN SERVICES

E. UTILITIES (EXPANDED SERVICES)

CONSULTANT will coordinate with the Utility owners identified on the Sunshine One Call ticket. CONSULTANT will provide copies of construction plans to utility agencies to allow them to mark the location of their existing and proposed facilities on those plans. CONSULTANT will coordinate with a subsurface utility exploration consultant to identify potential conflict locations, review such information when received and propose resolutions for the conflicts. Any proposed relocation agreements will be processed and managed by the Village. Design of any required utility relocations is not included in this scope of services.

F. ENVIRONMENTAL / PERMITTING (EXPANDED SERVICES)

CONSULTANT will meet once with SFWMD and Village of Wellington to coordinate the permitting process. CONSULTANT will assist VILLAGE in preparing a SFWMD drainage permit modification application for the turn lane modifications. CONSULTANT will assist in providing necessary documentation and information for the VILLAGE to obtain this permit. Submittal of the permit application, payment of any related fees, and coordination with the SFWMD after submittal of the application will be performed by the Village. Preparation of drainage maps is not anticipated for this project and excluded from this Scope. Preparation of dredge and fill permits is excluded from this Scope.

TASK ORDER:	2017-03 (cont'd)
PROJECT NAME:	Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

G. GEOTECHNICAL SERVICES

CONSULTANT will employ a sub-consultant, Tierra South Florida, Inc., to provide 4 auger borings to a depth of 6 feet to determine if unsuitable material is present in the proposed widening area and up to two pavement cores.

H. SUBSURFACE UTILITY EXPLORATION SERVICES

CONSULTANT will employ a sub-consultant, Inframap Corp., to complete subsurface utility exploration services. The estimated budget is based on an assumed maximum number of sixteen (16) test holes.

TIME OF COMPLETION

Project Design will be completed in the following time frame from the date of issuance of a Notice to Proceed, but is subject to exceptions for delays, which are beyond the control of CONSULTANT including but not limited to permitting agency and utility owners response times:

- **PRELIMINARY DESIGN / CONCEPT PLAN SET:** Upon receipt of a Notice to Proceed, a Preliminary Design / Concept Plan Set of review documents (PDF emailed to VILLAGE) will be delivered to the VILLAGE within three (3) calendar weeks for a one (1) week review and comment.
- **60% REVIEW SET:** Upon receipt of Preliminary Design / Concept Plan Set review comments, a 60% set of review documents (PDF emailed to VILLAGE) will be delivered to the VILLAGE within eight (8) calendar weeks for a two (2) week review and comment.
- **100% REVIEW SET:** Upon receipt of 60% review comments, a 100% set of review documents (PDF emailed to VILLAGE) will be delivered to the VILLAGE within eight (8) calendar weeks for a two (2) week review and comment.
- **BID SET:** Upon receipt of 100% review comments, a Bid set of documents (PDF emailed to VILLAGE) will be delivered to the VILLAGE within two (2) calendar weeks for distribution to Contractors.

CONSULTANT will participate in up to three (3) design meetings as part of this project. Meetings are assumed to occur at kick-off, after concept plan is developed, after 60% review is completed by VILLAGE and after 100% review is completed by VILLAGE. Meetings to be held at the Village Offices on Forest Hill Blvd.

TASK ORDER:	2017-03 (cont'd)
PROJECT NAME:	Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

ASSUMPTIONS

The following assumptions were made and apply as part of this Task Order:

- Any services not specifically provided for in the above scope, as well as any changes in the scope requested by the VILLAGE, will be considered additional services to this Work Authorization or assumed to be performed by others unless otherwise directed in writing.
- The scope of services shall address design documents only in accordance with the Village Standards as well as the latest State criteria established in the FDOT Greenbook, as applicable.
- All information provided by VILLAGE or others can be relied upon in the performance of professional services required in the Task Order.
- All design related specifications will be on the plans and reference FDOT and available Village standards
- Access to the Site will be provided by VILLAGE or an escort provided where necessary.
- Survey will be provided to CONSULTANT in AutoCad and Microstation format including data point file (TIN file)

The following items are excluded from this Task Order's scope of work:

- CONSULTANT's Bidding and Construction Phase Services
- Topographic Survey services
- Maintenance of traffic plans and layout (other than notes and concept criteria) – See Item B.3.b for MOT scope.
- Geotechnical investigations and reporting beyond those listed above.
- Utility Location utilizing a utility location company beyond those listed above. In addition to the limited locations service only available as-builts and "811" locates service will be used for the general location of utilities.
- Landscape and irrigation system design

TASK ORDER:	2017-03 (cont'd)
PROJECT NAME:	Big Blue Trace and Barberry Drive Left Turn Lane Addition and Culvert Replacement

- Street Lighting Design
 - Signal modification Design
 - FDOT type pavement design analysis and report
 - Development of any drainage models or calculations for the entire roadway system.
 - Drainage inlet and gutter spread analysis.
 - Preparation of drainage maps.
 - Bid document reproduction – Electronic Documents will be transmitted to the VILLAGE.
 - Palm Beach County permitting
 - SFWMD Permit Application permit processing
 - Permitting fees including Building Permits, SFWMD and FDOT.
 - FDOT Permit Application permit processing
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FEE AND BILLING

CONSULTANT will perform above Scope of Services tasks on a lump sum basis as shown in the attachment breakdown. Lump sum fees will be invoiced monthly based upon the overall percentage of services complete to date.

Base Design Services

A. TYPICAL SECTION DEVELOPMENT	\$ 5,070.00
B. ROADWAY DESIGN	\$ 55,565.00
C. DRAINAGE DESIGN	\$ 14,707.50
D. PAVEMENT MARKING AND SIGNING	\$ 5,220.00
<u>EXPENSES (ALLOWANCE – REIMBURSABLE)</u>	<u>\$ 500.00</u>

SUBTOTAL BASE \$ 81,062.50

TASK ORDER: 2017-03 (cont'd)
PROJECT NAME: Big Blue Trace and Barberry Drive Left Turn Lane Addition
and Culvert Replacement

Expanded Design Services

E. UTILITIES	\$ 8,020.00
F. ENVIRONMENTAL / PERMITTING	\$ 10,125.00
G. GEOTECHNICAL SERVICES	
(ALLOWANCE - REIMBURSABLE \$4,000)	\$ 4,940.00
H. SUBSURFACE UTILITY EXPLORATION SERVICES	
(ALLOWANCE - REIMBURSABLE \$7,000)	\$ 7,940.00
SUBTOTAL BASE	\$ 31,025.00
TASK ORDER TOTAL	\$112,087.50

Accepted by:

Village of Wellington

Kimley-Horn and Associates, Inc.



Kevin Schanen, P.E., Vice President

Date: _____

Date: 07/05/17