
AGREEMENT SUPPLEMENT
(Seventh Amendment to Professional Engineering Services Agreement)

1. PARTIES

- 1.1 Parties. The Parties to this Agreement Supplement (“Supplement”) are **Pape-Dawson Consulting Engineers, LLC** (“Engineer”) and **Harris County** (“County”), on behalf of its Harris County Engineering Department (“HCED”). County and Engineer each may also be referred to individually herein as a “Party,” or collectively as the “Parties.”

2. PURPOSE

- 2.1 Agreement Supplement Description. On or about March 26, 2024, the County and Engineer entered into an Agreement for Professional Engineering Services (CAO File 24GEN0585, to Consent to Assignment by Costello, LLC to Pape-Dawson Consulting Engineers, LLC of all its right, title, and interest in and to the Contracts and consents to the assumption by Pape-Dawson Consulting Engineers, LLC of the duties and obligations of Costello, LLC under the Contracts for Professional Engineering Services) to provide improvements to Cypress North Houston Rd - from Perry Rd to Jones Rd - 2014, in Harris County, Precinct 3 (UPIN 15104MF0CD01).
- 2.2 Professional Engineering Services. The professional services to be performed under this Supplement are within the scope of professional engineering, as defined by state law, and will be provided in connection with the professional employment or practice of a person who is licensed or registered as a professional engineer, for the respective professional services. The professional engineering services shall be performed in accordance with Tex. Occ. Code Ann. §§ 1001.001, et. seq, as amended.
- 2.3 Professional Services Procurement Act. The work performed under this Agreement cannot be purchased on the basis of competitive bids since it is encompassed within Texas Government Code § 2254.002(2).

3. SPECIFIC SCOPE OF WORK/SERVICES AND/OR DELIVERABLES

- 3.1 Specific work, products, services, licenses and/or deliverables. Engineer shall provide any specified additional work, products, services, licenses and/or deliverables required to be provided by Engineer and as set out in this Supplement and all referenced attachments incorporated in this Supplement. Engineer shall submit any and all project-related documents and invoices through the cloud-based project management software utilized by HCED for planning and management of all projects using real-time project data.
- 3.2 Certificate of Interested Parties Form 1295. Engineer certifies that it has accurately completed and submitted a notarized Certificate of Interested Parties Form 1295 (“Form 1295”) in accordance with Texas Government Code § 2252.908 and the rules adopted thereunder. Engineer acknowledges that it is responsible for making any and all necessary updates and/or corrections to the applicable Form 1295 during the term of this Agreement. Engineer must either (1) mail the completed Form 1295 to the Harris County Engineering Department at 1111 Fannin Street, 11th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit the form by email to HCEDAdminSvc@harriscountytexas.gov.

4. ADDITIONAL AND SPECIAL REQUIREMENTS

- 4.1 Authority of Harris County Engineer. The Harris County Engineer (“County Engineer”) shall decide any and all questions that may arise as to the interpretation of this Supplement and all questions as to the acceptable fulfillment of this Supplement by Engineer. It is mutually agreed by both Parties that the County

Engineer shall act as referee between the Parties in all questions arising under the terms of this Supplement and that the decisions of the County Engineer shall be final and binding alike on all Parties. If agreed to in writing by Engineer and the County Engineer (or designee), Engineer and the County Engineer may make adjustments to the Scope of Work that do not destroy the purposes of this Supplement. In making the aforementioned adjustments to the Scope of Work, Engineer and the County Engineer may adjust any corresponding firm fixed or maximum prices that neither increase the maximum amount of funds that Harris County Commissioners Court ("Commissioners Court") has authorized to be encumbered nor destroy the purposes of this Supplement. Any of the aforementioned adjustments to the Scope of Work and/or corresponding adjustments to any firm fixed or maximum prices (collectively, "Adjustments") may be reflected by a written Special Amendment to the Scope of Work in this Supplement ("Special Amendment"). Nothing contained in this section shall be construed to authorize the County Engineer to alter, vary, or amend any of the terms or provisions of this Supplement, other than the aforementioned Adjustments. The County Engineer is authorized on behalf of the County to make Adjustments (as defined herein) and execute a corresponding Special Amendment without further action by Commissioners Court. The Harris County Auditor ("County Auditor") is authorized, without further action by Commissioners Court, to certify additional funding for any Adjustments upon execution of a Special Amendment by the County Engineer.

- 4.2 Foreign Terrorists Organizations. In accordance with Tex. Gov't Code Ann. Chapter 2252 Subchapter F, Engineer warrants and represents that, at the time of execution of this Agreement and for the duration of the Term of this Agreement and any Renewal Terms, Engineer does not appear on the Texas State Comptroller's list of companies known to have contracts with or provide supplies or services to a foreign terrorist organization.
- 4.3 Anti-Boycott. In accordance with Tex. Gov't Code Ann. § 2270.002, Engineer warrants and represents that it does not boycott Israel and agrees that it will not boycott Israel during the term of this contract.

5. FUNDING, COMPENSATION AND/OR BASIS FOR PAYMENT, METHOD, AND LIMITATIONS

- 5.1 Payments/Compensation. For and in consideration of the work, products, services, licenses or deliverables provided under this Supplement and during the term of this Supplement, subject to the limitations in this Supplement, County shall pay Engineer in accordance with the fee schedule and rates specified in this Supplement, including in the Attachments up to the total maximum amount specifically appropriated, encumbered, and then certified as available by the County Auditor.
- 5.2 Funding and Appropriations Limit. County shall have no obligation to pay for and Engineer shall have no obligation to provide any work, products, services, licenses and/or deliverables until sufficient funds are certified by the County Auditor. County intends to initially appropriate, encumber, and certify as available by the County Auditor the total maximum sum of **Eighty-Six Thousand Nine Hundred Ninety-Five and 00/100 Dollars (\$86,995.00)** to pay and discharge any and all liabilities that County may incur arising out of this Supplement. Any other provision notwithstanding, County shall never be liable to pay Engineer any greater amount under this Supplement than is specifically appropriated, encumbered, and then certified as available by the County Auditor.
- 5.3 Auditor's Certification of Funds. The issuance of a purchase order pursuant to this Agreement represents certification by the Harris County Auditor that funds, in the amount of the purchase order total, are available to satisfy all financial obligations of Harris County hereunder.
- 5.4 Funding Out/Non-Appropriation. It is further understood that pursuant to Local Government Code Chapter 111, when and if the work, products, services, licenses and/or deliverables and charges provided for herein are equal to or exceed the amounts certified available, Engineer is authorized to terminate some or all of Engineer's work, products, services, licenses and/or deliverables under this Supplement unless the County

Auditor certifies that additional funds are available, in which event Engineer agrees to continue to provide the products, services and/or deliverables to the extent funds are available. When all the funds certified by the County Auditor, together with any additional funds thereafter certified, are expended, County will have no further liability, and the sole and exclusive remedy of Engineer will be to immediately terminate this Supplement unless the County Auditor certifies additional funds.

6. INSURANCE

6.1 Coverage and Limits. During the Term of this Agreement and any extensions thereto, Engineer at its sole cost and expense shall provide insurance of such type and with such terms and limits as may be reasonably associated with this Agreement. As a minimum, Engineer shall provide and maintain the following coverage and limits:

- (a) Workers Compensation, as required by the laws of Texas, and Employers' Liability, as well as All States, United States Longshore & Harbor Workers Compensation Act and other endorsements, if applicable to the Project, and in accordance with state law.

Employers' Liability

(i)	Each Accident	\$1,000,000
(ii)	Disease – Each Employee	\$1,000,000
(iii)	Policy Limit	\$1,000,000

- (b) Commercial General Liability, including but not limited to, the coverage indicated below. This policy will provide coverage for personal and bodily injury, including death, and for property damage, and include an endorsement for contractual liability. Coverage shall not exclude or limit the Products/Completed Operations, Contractual Liability, or Cross Liability. Where exposure exists, County may require coverage for watercraft, blasting, collapse, explosions, blowout, cratering, underground damage, pollution, and other coverage. County shall be named Additional Insured on primary/non-contributory basis.

(i)	Each Occurrence	\$1,000,000
(ii)	Personal and Advertising Injury	\$1,000,000
(iii)	Products/Completed Operations	\$1,000,000
(iv)	General Aggregate (per project)	\$1,000,000

- (c) Professional Liability/Errors and Omissions, in an amount not less than One Million Dollars (\$1,000,000) per claim and in the aggregate.
- (d) Umbrella/Excess Liability in an amount not less than One Million Dollars (\$1,000,000) per occurrence and in the aggregate. County shall be named Additional Insured on primary/non-contributory basis.
- (e) Automobile Liability insurance to include Engineer's liability for death, bodily injury, and property damage resulting from Engineer's activities covering use of owned, hired, and non-owned vehicles, with combined single limit of not less than One Million Dollars (\$1,000,000) for each accident. County shall be named Additional Insured on primary/non-contributory basis.

- (f) Any other coverage required of Engineer pursuant to statute.

6.2 Delivery of Policies. Immediately upon execution of this Agreement and before any Services are commenced by Engineer, Engineer shall provide County evidence of all of the above coverage on forms and with insurers acceptable to County. Engineer must maintain a valid Certificate of Insurance as described

herein on file with County at all times during the term of this Agreement. Engineer must either (1) mail the Certificate of Insurance to the Harris County Engineering Department at 1111 Fannin Street, 11th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit it by email to HCEDAdminSvcs@harriscountytexas.gov.

6.2.1 Issuers of Policies. Coverage shall be issued by company(s) licensed by the Texas Department of Insurance to do business in Texas, unless said coverage is not available or economically feasible except through an excess or surplus lines company, in which case the company(s) should be registered to do business in Texas. Companies shall have an A.M. Best rating of at least A-VII.

6.2.2 Certificates of Insurance. Engineer shall provide unaltered Certificates of Insurance which evidence the required coverage and endorsements and satisfy the following requirements:

- (a) Be less than 12 months old;
- (b) Include all pertinent identification information for the Insurer, including the company name and address, policy number, NAIC number or AMB number, and an authorized signature;
- (c) Include the Project name and reference numbers and indicates the name and address of the Project Manager in the Certificate Holder Box; and
- (d) Be appropriately marked to accurately identify:
 - (i) All coverage and limits of the policy;
 - (ii) Effective and expiration dates;
 - (iii) Waivers of subrogation, endorsement of primary insurance and additional insured language, as described herein.

6.2.3 Certified Copies of Policies and Endorsements. Upon request, Engineer shall furnish certified copies of insurance policies and endorsements to County.

6.2.4 Renewal Certificates. Renewal certificates are due to County at least thirty (30) days prior to the expiration of the current policies.

6.2.5 Subcontractors. If any part of the Agreement is sublet, insurance shall be provided by or on behalf of any subcontractor, and shall be sufficient to cover their portion of the Agreement. Engineer shall furnish evidence of such insurance to County as well.

6.3 Additional Insured. Engineer shall include County and its respective officers, directors, agents, and employees as an Additional Insured on the Commercial General Liability, Automobile Liability, and Umbrella/Excess Liability insurance certificates. Engineer's coverage shall be primary insurance to any similar insurance maintained by County and must contain an endorsement stating such. Coverage to County as an Additional Insured on any of Engineer's insurance coverage shall not be subject to any deductible.

6.4 Deductibles. Engineer shall be responsible for and pay any claims or losses to the extent of any deductible amounts applicable under all such policies and waives any claim it may have for the same against County, its officers, directors, agents, or employees.

6.5 Claims-made Policies. All insurance policies written on a claims-made basis, including Professional Liability/Errors and Omissions, shall be maintained for a minimum of two (2) years following completion of all services under this Agreement ("Extended Reporting Period"). Engineer shall obtain or maintain full prior acts coverage at least to the effective date of this Agreement in the event of a carrier or policy change.

- 6.6 Waiver of Subrogation. Engineer waives any claim or right of subrogation to recover against County, its officers, directors, agents, and employees (“Waiver of Subrogation”). Each policy required under this Agreement must contain a Waiver of Subrogation endorsement.
- 6.7 Notice of Cancellation, Non-Renewal, or Material Change. Engineer shall provide County with thirty (30) days’ minimum written notification in the event of cancellation, non-renewal, or material change to any or all of the required coverage.
- 6.8 Remedies for Noncompliance. Failure to comply with any part of this Section is a material breach of this Agreement. Engineer could immediately, and without notice, have all compensation withheld or suspended, be suspended from providing further Services, or be terminated from this Agreement for any lapse in coverage or material change in coverage which causes Engineer to be in noncompliance with the requirements of this Section.

7. TERM OF THE SUPPLEMENT

- 7.1 Time Period. The time period for performance (Term) of this Supplement shall begin upon execution of all the Parties and end on the later date of (a) Project completion or (b) one year minus a day from execution of all the Parties.

8. TERMINATION PROVISIONS

- 8.1 Determination of Material and Non-Material Breaches. County Engineer shall determine whether a breach of this Supplement by either Party is material or non-material. County Engineer’s determination shall be final and binding alike on all Parties.
- 8.2 Non-Material Breaches. If either Party refuses or fails to perform any of its non-material obligations in this Supplement, the other Party may give written notice of the failure. If the breaching Party fails or refuses to cure the failure of any non-material obligation in the notice within ten (10) calendar days after notice is given, the other Party may terminate this Supplement immediately. HCED is authorized to give notice for County.
- 8.3 Material Breaches
- 8.3.1 Suspension. HCED may suspend this Supplement immediately for any material breach by giving a notice of suspension. As soon as the notice of suspension is received, Engineer shall discontinue all services in connection with the performance of this Supplement. HCED is authorized to suspend on behalf of County.
- 8.3.2 Termination. The County may terminate this Supplement for a material breach at any time by notice in writing to the Engineer.
- 8.4 No Waiver of Remedies. The provisions in this Section are not intended to waive or preclude any other remedies the Parties may otherwise have in law, equity, or elsewhere in this Supplement. The right to terminate for material or non-material breaches is in addition to and not in lieu of any other remedies.
- 8.5 Termination Statement. As soon as practicable after receiving notice of termination, Engineer must submit a statement or invoice to HCED that complies with the requirements in this Supplement. This statement or invoice must show in detail the unbilled/uninvoiced services performed for County under this Supplement

to the date of termination. If the payments were to be made in lump sums and services were rendered after the last lump sum payment, the statement or invoice shall reflect the prorated amount due.

- 8.6 Return of Documents after Termination. If permitted by law and any established ethical requirements applicable to specific professionals, Engineer shall promptly deliver to HCED all completed or partially-completed work product, designs, data, information, and documents prepared under this Supplement on behalf of County. Within two (2) business days after the effective date of termination, Engineer shall return to HCED all records, files, documents, notes and other items in Engineer's possession, if any, relating to any assignments or work that Engineer has undertaken or been given under this Supplement, if permitted by law and any established ethical requirements applicable to specific professionals. Engineer shall deliver to HCED all completed or partially-completed designs, drawings and specifications prepared under this Supplement, including the original electronic file format. Nothing in this section is intended to require Engineer to surrender Engineer's own records to HCED after termination.
- 8.7 Supplement Transition. In the event the Supplement ends by either expiration or termination prior to the end of its Term, the County may elect to name a replacement Engineer. Upon such occurrence, Engineer shall, at the request of the County, assist in the transition of Engineer's responsibilities under the Supplement. Engineer acknowledges its responsibility to cooperate fully with the replacement engineer and the County to ensure a smooth and timely transition. Such transitional period shall not extend more than ninety (90) days beyond the expiration/termination date of the Supplement, or any extension thereof. During any transition period, all other terms and conditions of the Supplement shall remain in full force and effect as originally written.

9. INDEMNIFICATION

- 9.1 No Waiver of Governmental Immunity. County does not waive any immunity or defense on behalf of itself, its employees or agents as a result of the execution of this Supplement.

10. MISCELLANEOUS

- 10.1 All the terms of the attached Agreement that are not in conflict with the terms of this Supplement shall remain the same and shall apply to this Supplement.
- 10.2 Exhibit List. The following attachments are a part of this Supplement:
- Exhibit A-7. Scope of Construction Phase Services
 - Exhibit B-7. Immediate Prior Fully Executed Agreement and Amendments
 - Exhibit C-7. Compensation for Professional Services
 - Exhibit D-7. Engineer Team Acknowledgments
- 10.3 Electronic or Facsimile Signatures and Duplicate Originals. Pursuant to the requirements of the Uniform Electronic Transactions Act in Chapter 322 of the Texas Business and Commerce Code and the Federal Electronic Signatures in Global and National Commerce Act (beginning at 15 U.S.C. Section 7001), the Parties have agreed that the transactions under this Supplement may be conducted by electronic means. Pursuant to these statutes, this Supplement may not be denied legal effect or enforceability solely because it is in electronic form or because it contains an electronic signature. This Supplement may be executed in duplicate counterparts and with electronic or facsimile signatures with the same effect as if the signatures were on the same document. Each multiple original of this document shall be deemed an original, but all multiple copies together shall constitute one and the same instrument.

- 10.4 Signatory Authorized to Execute Supplement. The person executing this Supplement on behalf of each Party represents that he or she is duly authorized by the policy of the Party's governing body to legally obligate and execute this Supplement on behalf of the Party.
- 10.5 Original Agreement Attached. The original agreement(s) being supplemented is/are attached.
- 10.6 Notices. Any notice required to be given under this Supplement ("Notice") may be given by hand delivery or certified United States Mail, postage prepaid, return receipt requested, addressed to the Parties at the following:

ENGINEER: Vernon W. Hegwood, P.E.
Vice President, Public Infrastructure
Pape-Dawson Consulting Engineers, LLC
2107 CityWest Boulevard, Third Floor
Houston, TX 77042
Email: vhegwood@pape-dawson.com

COUNTY: Dr. Milton Rahman, PhD, P.E., PMP, CFM, ENV SP
Executive Director & County Engineer
Harris County Engineering Department
1111 Fannin Street, 11th Floor
Houston, TX 77002
Email: AgreementInfo@harriscountytexas.gov


All other communications may be sent by electronic means or in the same manner as Notices described herein.

[EXECUTION PAGE FOLLOWS]

HARRIS COUNTY


PAPE-DAWSON CONSULTING ENGINEERS, LLC

By: _____
Lina Hidalgo
Harris County Judge

By:  _____
Dustin O'Neal, P.E.
Managing Principal

APPROVED AS TO FORM:

CHRISTIAN D. MENELEE
Harris County Attorney

By:  _____
Stanley Sun
Assistant County Attorney
CAO File Number: 25GEN1071

SCOPE OF WORK

3.P DESIGN PHASE

At the request of the County and Precinct Pape-Dawson will review the design of the vertical alignment from approximately station 38+80 to approximately station 54+75. This amendment will include the review of the vertical alignment, 4 or 5 intersections (depending on actual adjustments limits), 1 driveway, drainage maps, drainage calculations, cross sections, and earthwork. All updates will be incorporated into the 3rd design submittal along with response to comments from the County on our second design submittal.

SURVEY

2S.750 Proposed ROW Maps (Cat. 1A, Cond. 23) (\$3,000.00/parcel)

Prepare parcel map exhibits and metes and bounds descriptions for need parcels and TCEs as described. This will include one additional parcel and 14 TCEs in the area of the berm.

Deliverables: Signed, sealed, and dated Parcel Map and Metes and Bounds; Signed, sealed, and dated revised Right-of-Way Map.

2S.750C Survey Coordination

Coordination of the survey firm to complete the parcel map exhibits and metes and bounds descriptions for need parcels and TCEs as described. This will fee will be limited to 10% of the sub fee.



Harris County, Texas

1001 Preston St., Suite 934
Houston, Texas 77002

Commissioners Court

Request for Court Action

File #: 23-0134

Agenda Date: 1/10/2023

Agenda #: 29.

Department: County Engineer

Department Head/Elected Official: Milton Rahman, PhD., P.E., PMP, CFM, County Engineer

Regular or Supplemental RCA: Regular RCA

Type of Request: Contract - Amendment

Project ID (if applicable): 15104MF0CD01

Vendor/Entity Legal Name (if applicable): Costello, Inc.

MWDBE Contracted Goal (if applicable): N/A

MWDBE Current Participation (if applicable): 19%

Justification for 0% MWDBE Participation Goal: N/A - project was awarded prior to launch of County's M/WBE Program

	YES	NO	ABSTAIN
Judge Lina Hidalgo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Rodney Ellis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Adrian Garcia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Tom S. Ramsey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Lesley Briones	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Request Summary (Agenda Caption):

Request for approval to execute an amendment with Costello, Inc. in the amount of \$722,961.00 for Professional Engineering Services for the study, design and bid phases to complete the PS&E package for the construction of Cypress North Houston Road between Jones Road and FM 1960 as a four-lane concrete curb and gutter roadway, UPIN 15104MF0CD01, Precinct 3, MWDBE Current Participation 19%.

Background and Discussion:

Due to redistricting, Precinct 3 updated the project scope which resulted in an amendment to the project agreement.

Expected Impact:

Costello, Inc. will be able to execute the new project requirements.

Alternative Options:

Consultant will not be able to proceed with rescoped tasks.

Alignment with Goal(s):

- ☐ Justice and Safety
- ☐ Economic Opportunity
- ☐ Housing
- ☐ Public Health
- ☒ Transportation
- ☐ Flooding
- ☐ Environment

Presented to Commissioners Court

January 10, 2023

Approve: G/R

File #: 23-0134

Agenda Date: 1/10/2023

Agenda #: 29.

_ Governance and Customer Service

Prior Court Action (if any):

Date	Agenda Item #	Action Taken
8/12/2014	p. 9; 1.e.4.h	Recommendation for authorization to negotiate with: Costello, Inc., for engineering services in connection with improvements of Cypress North Houston Road from Jones Road to FM-1960 in Precinct 4 (UPIN 15104MF0CD01).
2/24/2015	p. 5; 1.e.2.d	Recommendation that the County Judge execute amendments/agreements with: Costello, Inc., in the amount of \$552,557 for engineering services in connection with the study, design, and bid phases to construct Cypress North Houston Road between Jones Road and FM-1960 as a four-lane concrete curb and gutter roadway in Precinct 4 (UPIN 15104MF0CD01).
8/23/2016	p. 4; 1.a.2.c.10	Recommendation that the County Judge execute amendments/agreements with: Costello, Inc., in the additional amount of \$111,575 for engineering services for the study, design, and bid phases to complete the PS&E package in connection with construction of Cypress North Houston Road between Jones Road and FM-1960 as a four-lane concrete curb and gutter roadway in Precinct 4 (UPIN 15104MF0CD01).
5/23/2017	p. 5; 1.m.2	Transmittal of: A study report prepared by Costello, Inc., for roadway and drainage improvements on Cypress North Houston Road between Jones Road and FM-1960 in Precinct 4, and that the consultant be authorized to proceed with the design phase (UPIN 15104MF0CD01).
1/30/2018	p. 2; 1.e.4	Recommendation that the County Judge execute amendments/agreements with: Costello, Inc., in the additional amount of \$58,937 for engineering services for the study, design, and bid phases to complete the PS&E package in connection with construction of Cypress North Houston Road between Jones Road and FM-1960 as a four-lane concrete curb and gutter roadway in Precinct 4 (UPIN 15104MF0CD01).
4/28/2020	p. 3; 1.g.11	Recommendation that the County Judge execute amendments/agreements with: Costello, Inc., in the additional amount of \$44,786 for engineering services for the study, design, and bid phases to complete the PS&E package for construction of Cypress North Houston Road between Jones Road and FM-1960 as a four-lane concrete curb and gutter roadway in Precinct 4 (UPIN 15104MF0CD01).
6/8/2021	p. 7; 45	Recommendation for authorization to execute an Interlocal agreement with Northwest Harris County Municipal Utility District No. 9 to correct the encroachment of the berms (approximately 1,000' east of Jones Road on Cypress North Houston Road) during roadway construction and construct the berm adjacent to the road to add additional stormwater detention capacity and all related appurtenances, for Cypress North Houston Road, UPIN 15104MF0CD01, Precinct 4.
7/20/2021	p. 11; 98	Recommendation that the County Judge execute an amendment to an agreement with Costello, Inc., in the amount of \$145,700 to increase the limit of appropriation available in order that the County Engineer may authorize the Engineer to perform further Professional Engineering Services for improvements to Cypress North Houston Road, UPIN 15104MF0CD01, Precinct 4.
1/4/2022	p. 4; 24	Request for approval to execute an amendment with Costello, Inc. in the amount of \$199,200.00 for Professional Engineering Services for study, design and bid phase services for improvements to Cypress North Houston Road between Jones Road and FM 1960 as a four-lane concrete curb and gutter roadway, UPIN 15104MF0CD01, Precinct 4.

File #: 23-0134**Agenda Date:** 1/10/2023**Agenda #:** 29.**Location:** Cypress North Houston Rd - from Perry Rd to Jones Rd

Address (if applicable):

Precinct(s): Precinct 3

Fiscal and Personnel Summary

Service Name	Professional Services		
	FY 23	FY 24	Next 3 FYs
Incremental Expenditures (do NOT write values in thousands or millions)			
Labor Expenditures	\$	\$	\$
Non-Labor Expenditures	\$722,961.00	\$	\$
Total Incremental Expenditures	\$722,961.00	\$	\$
Funding Sources (do NOT write values in thousands or millions)			
Existing Budget			
Other	\$722,961.00	\$	\$
Choose an item.	\$	\$	\$
Choose an item.	\$	\$	\$
Total Current Budget	\$722,961.00	\$	\$
Additional Budget Requested			
Choose an item.	\$	\$	\$
Choose an item.	\$	\$	\$
Choose an item.	\$	\$	\$
Total Additional Budget Requested	\$	\$	\$
Total Funding Sources	\$722,961.00	\$	\$
Personnel (Fill out section only if requesting new PCNs)			
Current Position Count for Service	-	-	-
Additional Positions Requested	-	-	-
Total Personnel	-	-	-

Anticipated Court Date: January 10, 2023**Anticipated Implementation Date (if different from Court date):** N/A**Emergency/Disaster Recovery Note:** Not an emergency, disaster, or COVID-19 related item**Contact(s) name, title, department:** Joy Ogunnubi, Project Manager, CIP**Attachments** (if applicable): Amendment Contract Documents

AGREEMENT SUPPLEMENT

(Sixth Amendment to Professional Engineering Services Agreement)

1. PARTIES

- 1.1 **Parties.** The Parties to this Agreement Supplement ("Supplement") are **Costello, Inc.** ("Engineer") and **Harris County** ("County"), on behalf of its Harris County Engineering Department ("HCED"). County and Engineer each may also be referred to individually herein as a "Party," or collectively as the "Parties."

2. PURPOSE

- 2.1 **Agreement Supplement Description.** On or about February 24, 2015, the County and Engineer entered into an Agreement for Engineering Services (CAO File 15GEN0273, Purchase Order # P244265) ("Agreement") for the study, design and bid phases to complete the PS&E package for the construction of Cypress North Houston Road between Jones Road and FM 1960 as a four-lane concrete curb and gutter roadway located in Harris County, Precinct 3, previously Precinct 4, ("Project"). On or about August 23, 2016, the Parties amended the Agreement (CAO File Number 16GEN1252) to increase the limit of appropriations from a maximum appropriation of \$552,557.00 to \$664,132.00. On or about January 30, 2018, the Parties amended the Agreement (CAO File Number 18GEN0043) a second time to increase the limit of appropriations from a maximum appropriation of \$664,132.00 to \$723,069.00. On or about April 28, 2020, the Parties amended the Agreement (CAO File Number 20GEN1098) a third time to increase the limit of appropriations from a maximum appropriation of \$723,069.00 to \$767,854.60. On or about July 20, 2021, the Parties amended the Agreement (CAO File Number 21GEN1912) a fourth time to increase the limit of appropriations from a maximum appropriation of \$767,854.60 to \$913,554.60. On or about January 4, 2022, the Parties amended the Agreement (CAO File Number 21GEN3657, Purchase Order # HCNTY-0000002614), a fifth time to increase the limit of appropriations from a maximum appropriation of \$913,554.60 to \$1,112,754.60. The Parties have agreed that additional Professional Engineering Services is required to complete the project with improvements to Cypress North Houston Road from Perry Road to Jones Road. Therefore, the Parties desire to amend the Agreement (Purchase Order # HCNTY 46857) a sixth time to increase the limit of appropriations from a maximum appropriation of \$1,112,754.60 to \$1,835,715.60 to fund the additional work (UPIN 15104MF0CD01).
- 2.2 **Professional Engineering Services.** The professional services to be performed under this Supplement are within the scope of professional engineering, as defined by state law, and will be provided in connection with the professional employment or practice of a person who is licensed or registered as a professional engineer, for the respective professional services. The professional engineering services shall be performed in accordance with Tex. Occ. Code Ann. §§ 1001.001, et. seq, as amended.
- 2.3 **Professional Services Procurement Act.** The work performed under this Agreement cannot be purchased on the basis of competitive bids since it is encompassed within Texas Government Code §2254.002(2).

3. SPECIFIC SCOPE OF WORK/SERVICES AND/OR DELIVERABLES

- 3.1 **Specific work, products, services, licenses and/or deliverables.** Engineer shall provide any specified additional work, products, services, licenses and/or deliverables required to be provided by Engineer and as set out in this Supplement and all referenced attachments incorporated in this Supplement. Engineer shall submit any and all project-related documents and invoices through the cloud-based project management software utilized by HCED for planning and management of all projects using real-time project data.
- 3.2 **Certificate of Interested Parties Form 1295.** Engineer certifies that it has accurately completed and submitted a notarized Certificate of Interested Parties Form 1295 ("Form 1295") in accordance with Texas Government Code §2252.908 and the rules adopted thereunder. Engineer acknowledges that it is responsible for making any and all necessary updates and/or corrections to the applicable Form 1295 during the term of this Agreement. Engineer must either (1) mail the completed Form 1295 to the Harris County

Engineering Department at 1111 Fannin, 11th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit the form by email to HCEDAdminSvc@hcpid.org.

4. ADDITIONAL AND SPECIAL REQUIREMENTS

- 4.1 Authority of Harris County Engineer. The Harris County Engineer ("County Engineer") shall decide any and all questions that may arise as to the interpretation of this Supplement and all questions as to the acceptable fulfillment of this Supplement by Engineer. It is mutually agreed by both Parties that the County Engineer shall act as referee between the Parties in all questions arising under the terms of this Supplement and that the decisions of the County Engineer shall be final and binding alike on all Parties. If agreed to in writing by Engineer and the County Engineer (or designee), Engineer and the County Engineer may make adjustments to the Scope of Work that do not destroy the purposes of this Supplement. In making the aforementioned adjustments to the Scope of Work, Engineer and the County Engineer may adjust any corresponding firm fixed or maximum prices that neither increase the maximum amount of funds that Harris County Commissioners Court ("Commissioners Court") has authorized to be encumbered nor destroy the purposes of this Supplement. Any of the aforementioned adjustments to the Scope of Work and/or corresponding adjustments to any firm fixed or maximum prices (collectively, "Adjustments") may be reflected by a written Special Amendment to the Scope of Work in this Supplement ("Special Amendment"). Nothing contained in this section shall be construed to authorize the County Engineer to alter, vary, or amend any of the terms or provisions of this Supplement, other than the aforementioned Adjustments. The County Engineer is authorized on behalf of the County to make Adjustments (as defined herein) and execute a corresponding Special Amendment without further action by Commissioners Court. The Harris County Auditor ("County Auditor") is authorized, without further action by Commissioners Court, to certify additional funding for any Adjustments upon execution of a Special Amendment by the County Engineer.
- 4.2 Foreign Terrorists Organizations. In accordance with Tex. Gov't Code Ann. Chapter 2252 Subchapter F, Engineer warrants and represents that, at the time of execution of this Agreement and for the duration of the Term of this Agreement and any Renewal Terms, Engineer does not appear on the Texas State Comptroller's list of companies known to have contracts with or provide supplies or services to a foreign terrorist organization.
- 4.3 Anti-Boycott. In accordance with Tex. Gov't Code Ann. § 2270.002, Engineer warrants and represents that it does not boycott Israel and agrees that it will not boycott Israel during the term of this contract.

5. FUNDING, COMPENSATION AND/OR BASIS FOR PAYMENT, METHOD, AND LIMITATIONS

- 5.1 Payments/Compensation. For and in consideration of the work, products, services, licenses or deliverables provided under this Supplement and during the term of this Supplement, subject to the limitations in this Supplement, County shall pay Engineer in accordance with the fee schedule and rates specified in this Supplement, including in the Attachments up to the total maximum amount specifically appropriated, encumbered, and then certified as available by the County Auditor.
- 5.2 Funding and Appropriations Limit. County shall have no obligation to pay for and Engineer shall have no obligation to provide any work, products, services, licenses and/or deliverables until sufficient funds are certified by the County Auditor. County intends to initially appropriate, encumber, and certify as available by the County Auditor the total maximum sum of **SEVEN HUNDRED TWENTY-TWO NINE HUNDRED SIXTY-ONE AND NO/100 DOLLARS (\$722,961.00)** to pay and discharge any and all liabilities that County may incur arising out of this Supplement. Any other provision notwithstanding, County shall never be liable to pay Engineer any greater amount under this Supplement than is specifically appropriated, encumbered, and then certified as available by the County Auditor.
- 5.3 Auditor's Certification of Funds. The issuance of a purchase order pursuant to this Agreement represents certification by the Harris County Auditor that funds, in the amount of the purchase order total, are available to satisfy all financial obligations of Harris County hereunder.
- 5.4 Funding Out/Non-Appropriation. It is further understood that pursuant to Local Government Code Chapter 111, when and if the work, products, services, licenses and/or deliverables and charges provided for herein

are equal to or exceed the amounts certified available, Engineer is authorized to terminate some or all of Engineer's work, products, services, licenses and/or deliverables under this Supplement unless the County Auditor certifies that additional funds are available, in which event Engineer agrees to continue to provide the products, services and/or deliverables to the extent funds are available. When all the funds certified by the County Auditor, together with any additional funds thereafter certified, are expended, County will have no further liability, and the sole and exclusive remedy of Engineer will be to immediately terminate this Supplement unless the County Auditor certifies additional funds.

6. INSURANCE

6.1 Coverage and Limits. During the Term of this Agreement and any extensions thereto, Engineer at its sole cost and expense shall provide insurance of such type and with such terms and limits as may be reasonably associated with this Agreement. As a minimum, Engineer shall provide and maintain the following coverage and limits:

- (a) Workers Compensation, as required by the laws of Texas, and Employers' Liability, as well as All States, United States Longshore & Harbor Workers Compensation Act and other endorsements, if applicable to the Project, and in accordance with state law.

Employers' Liability

(i)	Each Accident	\$1,000,000
(ii)	Disease – Each Employee	\$1,000,000
(iii)	Policy Limit	\$1,000,000

- (b) Commercial General Liability, including but not limited to, the coverage indicated below. This policy will provide coverage for personal and bodily injury, including death, and for property damage, and include an endorsement for contractual liability. Coverage shall not exclude or limit the Products/Completed Operations, Contractual Liability, or Cross Liability. Where exposure exists, County may require coverage for watercraft, blasting, collapse, explosions, blowout, cratering, underground damage, pollution, and other coverage. County shall be named Additional Insured on primary/non-contributory basis.

(i)	Each Occurrence	\$1,000,000
(ii)	Personal and Advertising Injury	\$1,000,000
(iii)	Products/Completed Operations	\$1,000,000
(iv)	General Aggregate (per project)	\$1,000,000

- (c) Professional Liability/Errors and Omissions, in an amount not less than One Million Dollars (\$1,000,000) per claim and in the aggregate.
- (d) Umbrella/Excess Liability in an amount not less than One Million Dollars (\$1,000,000) per occurrence and in the aggregate. County shall be named Additional Insured on primary/non-contributory basis.
- (e) Automobile Liability insurance to include Engineer's liability for death, bodily injury, and property damage resulting from Engineer's activities covering use of owned, hired, and non-owned vehicles, with combined single limit of not less than One Million Dollars (\$1,000,000) for each accident. County shall be named Additional Insured on primary/non-contributory basis.
- (f) Any other coverage required of Engineer pursuant to statute.

6.2 Delivery of Policies. Immediately upon execution of this Agreement and before any Services are commenced by Engineer, Engineer shall provide County evidence of all of the above coverage on forms and with insurers acceptable to County. Engineer must maintain a valid Certificate of Insurance as described herein on file with County at all times during the term of this Agreement. Engineer must either (1) mail the Certificate of Insurance to the Harris County Engineering Department at 1111 Fannin, 11th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit it by email to HCEAdminSvc@hccpid.org.

- 6.2.1 Issuers of Policies. Coverage shall be issued by company(s) licensed by the Texas Department of Insurance to do business in Texas, unless said coverage is not available or economically feasible except through an excess or surplus lines company, in which case the company(s) should be registered to do business in Texas. Companies shall have an A.M. Best rating of at least A-VII.
- 6.2.2 Certificates of Insurance. Engineer shall provide unaltered Certificates of Insurance which evidence the required coverage and endorsements and satisfy the following requirements:
- (a) Be less than 12 months old;
 - (b) Include all pertinent identification information for the Insurer, including the company name and address, policy number, NAIC number or AMB number, and an authorized signature;
 - (c) Include the Project name and reference numbers and indicates the name and address of the Project Manager in the Certificate Holder Box; and
 - (d) Be appropriately marked to accurately identify:
 - (i) All coverage and limits of the policy;
 - (ii) Effective and expiration dates;
 - (iii) Waivers of subrogation, endorsement of primary insurance and additional insured language, as described herein.
- 6.2.3 Certified Copies of Policies and Endorsements. Upon request, Engineer shall furnish certified copies of insurance policies and endorsements to County.
- 6.2.4 Renewal Certificates. Renewal certificates are due to County at least thirty (30) days prior to the expiration of the current policies.
- 6.2.5 Subcontractors. If any part of the Agreement is sublet, insurance shall be provided by or on behalf of any subcontractor, and shall be sufficient to cover their portion of the Agreement. Engineer shall furnish evidence of such insurance to County as well.
- 6.3 Additional Insured. Engineer shall include County and its respective officers, directors, agents, and employees as an Additional Insured on the Commercial General Liability, Automobile Liability, and Umbrella/Excess Liability insurance certificates. Engineer's coverage shall be primary insurance to any similar insurance maintained by County and must contain an endorsement stating such. Coverage to County as an Additional Insured on any of Engineer's insurance coverage shall not be subject to any deductible.
- 6.4 Deductibles. Engineer shall be responsible for and pay any claims or losses to the extent of any deductible amounts applicable under all such policies and waives any claim it may have for the same against County, its officers, directors, agents, or employees.
- 6.5 Claims-made Policies. All insurance policies written on a claims-made basis, including Professional Liability/Errors and Omissions, shall be maintained for a minimum of two (2) years following completion of all services under this Agreement ("Extended Reporting Period"). Engineer shall obtain or maintain full prior acts coverage at least to the effective date of this Agreement in the event of a carrier or policy change.
- 6.6 Waiver of Subrogation. Engineer waives any claim or right of subrogation to recover against County, its officers, directors, agents, and employees ("Waiver of Subrogation"). Each policy required under this Agreement must contain a Waiver of Subrogation endorsement.
- 6.7 Notice of Cancellation, Non-Renewal, or Material Change. Engineer shall provide County with thirty (30) days' minimum written notification in the event of cancellation, non-renewal, or material change to any or all of the required coverage.
- 6.8 Remedies for Noncompliance. Failure to comply with any part of this Section is a material breach of this Agreement. Engineer could immediately, and without notice, have all compensation withheld or suspended, be suspended from providing further Services, or be terminated from this Agreement for any lapse in

coverage or material change in coverage which causes Engineer to be in noncompliance with the requirements of this Section.

7. TERM OF THE SUPPLEMENT

- 7.1 Time Period. The time period for performance (Term) of this Supplement shall begin upon execution of all the Parties and end on the later date of (a) Project completion or (b) a year minus a day from execution of all the Parties.

8. TERMINATION PROVISIONS

- 8.1 Determination of Material and Non-Material Breaches. County Engineer shall determine whether a breach of this Supplement by either Party is material or non-material. County Engineer's determination shall be final and binding alike on all Parties.
- 8.2 Non-Material Breaches. If either Party refuses or fails to perform any of its non-material obligations in this Supplement, the other Party may give written notice of the failure. If the breaching Party fails or refuses to cure the failure of any non-material obligation in the notice within ten (10) calendar days after notice is given, the other Party may terminate this Supplement immediately. HCED is authorized to give notice for County.
- 8.3 Material Breaches
- 8.3.1 Suspension. HCED may suspend this Supplement immediately for any material breach by giving a notice of suspension. As soon as the notice of suspension is received, Engineer shall discontinue all services in connection with the performance of this Supplement. HCED is authorized to suspend on behalf of County.
- 8.3.2 Termination. The County may terminate this Supplement for a material breach at any time by notice in writing to the Engineer.
- 8.4 No Waiver of Remedies. The provisions in this Section are not intended to waive or preclude any other remedies the Parties may otherwise have in law, equity, or elsewhere in this Supplement. The right to terminate for material or non-material breaches is in addition to and not in lieu of any other remedies.
- 8.5 Termination Statement. As soon as practicable after receiving notice of termination, Engineer must submit a statement or invoice to HCED that complies with the requirements in this Supplement. This statement or invoice must show in detail the unbilled/uninvoiced services performed for County under this Supplement to the date of termination. If the payments were to be made in lump sums and services were rendered after the last lump sum payment, the statement or invoice shall reflect the prorated amount due.
- 8.6 Return of Documents after Termination. If permitted by law and any established ethical requirements applicable to specific professionals, Engineer shall promptly deliver to HCED all completed or partially-completed work product, designs, data, information, and documents prepared under this Supplement on behalf of County. Within two (2) business days after the effective date of termination, Engineer shall return to HCED all records, files, documents, notes and other items in Engineer's possession, if any, relating to any assignments or work that Engineer has undertaken or been given under this Supplement, if permitted by law and any established ethical requirements applicable to specific professionals. Engineer shall deliver to HCED all completed or partially-completed designs, drawings and specifications prepared under this Supplement, including the original electronic file format. Nothing in this section is intended to require Engineer to surrender Engineer's own records to HCED after termination.
- 8.7 Supplement Transition. In the event the Supplement ends by either expiration or termination prior to the end of its Term, the County may elect to name a replacement Engineer. Upon such occurrence, Engineer shall, at the request of the County, assist in the transition of Engineer's responsibilities under the Supplement. Engineer acknowledges its responsibility to cooperate fully with the replacement engineer and

the County to ensure a smooth and timely transition. Such transitional period shall not extend more than ninety (90) days beyond the expiration/termination date of the Supplement, or any extension thereof. During any transition period, all other terms and conditions of the Supplement shall remain in full force and effect as originally written.

9. INDEMNIFICATION

- 9.1 No Waiver of Governmental Immunity. County does not waive any immunity or defense on behalf of itself, its employees or agents as a result of the execution of this Supplement.

10. MISCELLANEOUS


- 10.1 All the terms of the attached Agreement that are not in conflict with the terms of this Supplement shall remain the same and shall apply to this Supplement.
- 10.2 Exhibit List. The following attachments are a part of this Supplement:
- Exhibit A-6. Scope of Services
Exhibit B-6. Fifth, Fourth, Third, Second, First Agreement Supplement and Original Professional Services Agreement
Exhibit C-6. Compensation for Professional Services
Exhibit D-6. Engineer Team Acknowledgments
- 10.3 Electronic or Facsimile Signatures and Duplicate Originals. Pursuant to the requirements of the Uniform Electronic Transactions Act in Chapter 322 of the Texas Business and Commerce Code and the Federal Electronic Signatures in Global and National Commerce Act (beginning at 15 U.S.C. Section 7001), the Parties have agreed that the transactions under this Supplement may be conducted by electronic means. Pursuant to these statutes, this Supplement may not be denied legal effect or enforceability solely because it is in electronic form or because it contains an electronic signature. This Supplement may be executed in duplicate counterparts and with electronic or facsimile signatures with the same effect as if the signatures were on the same document. Each multiple original of this document shall be deemed an original, but all multiple copies together shall constitute one and the same instrument.
- 10.4 Signatory Authorized to Execute Supplement. The person executing this Supplement on behalf of each Party represents that he or she is duly authorized by the policy of the Party's governing body to legally obligate and execute this Supplement on behalf of the Party.
- 10.5 Original Agreement Attached. The original agreement(s) being supplemented is/are attached.
- 10.6 Notices. Any notice required to be given under this Supplement ("Notice") may be given by hand delivery or certified United States Mail, postage prepaid, return receipt requested, addressed to the Parties at the following:

ENGINEER: Vernon W. Hegwood, P.E.
Vice Preseident, Public Infrastructure
Costello, Inc.
2107 Citywest Blvd., 3rd Floor
Houston, TX 77042-2827
Email: vhegwood@costelloinc.com

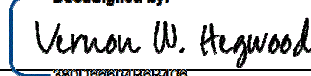
COUNTY: Dr. Milton Rahman, PhD, P.E., PMP, CFM, ENV SP
Executive Director & County Engineer
Harris County Engineering Department
1111 Fannin, Floor 11
Houston, TX 77002
Email: AgreementInfo@hcpid.org

All other communications may be sent by electronic means or in the same manner as Notices described herein.

HARRIS COUNTY

By:  _____
Lina Hidalgo
Harris County Judge

COSTELLO, INC.


By:  _____
Vernon W. Hegwood, P.E.
Vice President, Public Infrastructure

APPROVED AS TO FORM:

ATTEST:

CHRISTIAN D. MENEFE
Harris County Attorney

By: _____
Secretary

By:  _____
Tiffany Bangs
Assistant County Attorney
CAO File Number: 22GEN4306

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

SCOPE OF WORK

Road Name: Cypress North Houston Rd

Road Classification: Thoroughfare

Project Limits: Jones Rd to Perry Rd

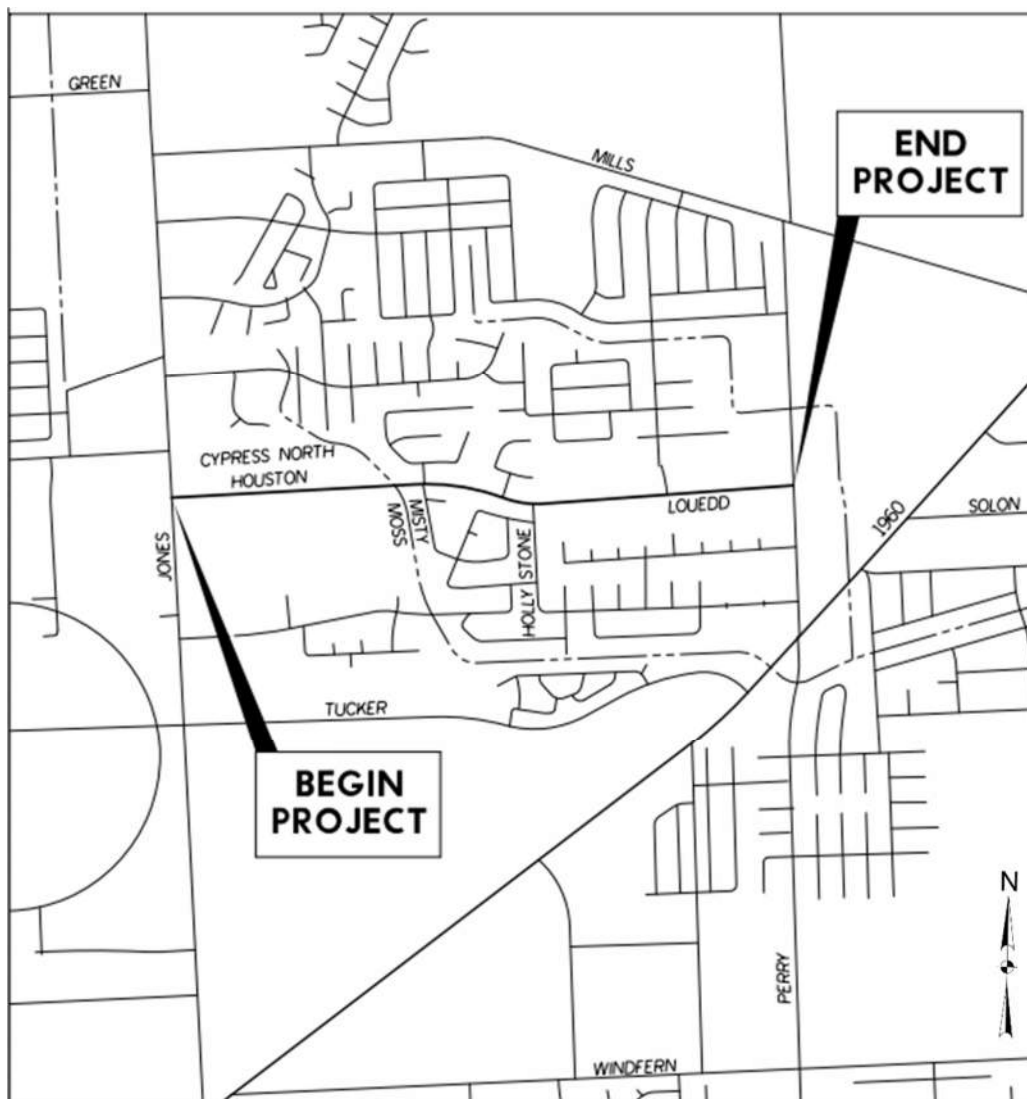
Project Length: Approx. 1.28 mi

Precinct Number: 3

Adjacent/Affected Agencies: None

Project Description: **Road reconstruction from 2 lane asphalt to 4 lane divided concrete curb and gutter section**

Project Map:



Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

Conditions:

	Existing	Proposed
Roadway Type	Asphalt	Concrete with curb and gutter
ROW Width	Varies 80 ft to 100 ft	100 ft
Travel Lanes	2-Lane	4-Lane Divided Boulevard Section
Median	N/A	32 ft typical
Cross Streets	Jones Rd Rockharbor Ln Misty Moss Ln Marwood Estates Dr Hollystone Dr Perry Rd	Jones Rd Rockharbor Ln Misty Moss Ln Marwood Estates Dr Hollystone Dr Perry Rd
Drainage System	Open Ditch	Storm Sewer
Outfalls	NWHCMUD #9 Greens Bayou Perry Rd Storm Sewer System	NWHCMUD #9 Greens Bayou Perry Rd Storm Sewer System
Detention Method	Segment 1 – Detention Pond	Segment 1 – Detention Pond Segment 3 – Detention Pond
Bridge	N/A	N/A
Traffic Signals	Jones Rd Perry Rd	Misty Moss Ln - new Autumn Mills Dr – new Perry Rd - modification
Left Turn Lanes	WB LTL at Jones Rd	Extend WB LTL at Jones Rd to 150 ft WB LTL at Schroeder Oak Ct with 100 ft storage WB LTL at Rockharbor Ln with 150 ft storage WB and EB LTL's at Misty Moss Ln with 200 ft storage EB LTL at Marwood Estates Dr with 150 ft storage WB LTL at Hollystone Dr with 100 ft storage EB LTL at Autumn Mills Dr with 200 ft storage Dual EB LTL's at Perry Rd NB LTL along Perry Rd with 250 ft storage

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

Right Turn Lanes	N/A	N/A
Sidewalks or Trails	N/A	5 ft wide WB and EB from Jones Rd to Perry Rd
Bike Lanes	N/A	N/A
Impacted Parcels	N/A	3
Railroad crossings	N/A	N/A
Pipeline Crossings	2	2

General Roadway

- Complete the remaining two (2) lanes of a standard four(4) lane concrete boulevard in 100-ft. right of way with 32-ft raised medians and underground storm sewer. **This geometry change affects 7 of 15 P&P Sheets.**
- Roadside ditches behind back of curb are not preferred.
 - Shallow swales are only allowed where the top of the curb is higher than the ROW elevation or to capture offsite sheet flow.
 - This profile change affects 11 of 15 P&P Sheets.
- Please utilize Standard Operating Procedures for all transitions. Any exceptions to standards are noted within the information below.
- Project limits have been updated.
 - The eastern project limit will be Perry Rd.
 - The Western project limit remains Jones Rd.
- The previously proposed segment of roadway from FM 1960 to Perry Rd. is no longer included in the project scope.
- Alignment should include standard 2,000-ft. curves, or as close as possible, within proposed right-of-way.
 - Transitions between 100-ft. and 80-ft right-of-way are not preferable.

Traffic

- Design and construct a mast arm traffic signal with pedestrian appurtenances at Autumn Mill Dr. and Misty Moss Ln. as warranted in the traffic signal warrant analysis following the approval of the study report.
- Convert the traffic signal at Cypress North Houston Rd. and Perry Rd. intersection from span wire to mast arm with pedestrian appurtenances.
 - Include extension of northbound left turn lane on Perry Rd. to 250-ft.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

- Cypress North Houston rd. eastbound at Perry Rd. intersection will be two turn lanes with standard width median. Pending HCED traffic recommendation.
 - A southbound left turn lane on Perry Rd. is no longer necessary with revised project limits.
- The previously proposed traffic signal at FM 1960 and Cypress North Houston Rd. is removed from the updated scope.

Turn Lanes

- Extend westbound LTL at Jones Rd. to 150-ft.
- Westbound LTL with 100-ft. storage at Schroeder Oak Ct.
- Westbound LTL with 150-ft. storage at Rockharbor Ln.
- Eastbound and westbound LTLs with 200-ft storage at Misty Moss Ln.
- Eastbound LTL with 150-ft storage at Marwood Estates Dr.
- Westbound LTL with 100-ft storage at Hollystone Dr.
- Eastbound LTL with 200-ft storage Autumn Mill Dr.
- Dual Eastbound LTL's at Perry Rd.
- Northbound LTL on Perry Rd with 250-ft storage.
- Verify all storage and transition lengths meet the requirements of the Harris County/City of Houston Geometric Design Guidelines.

Sidewalks

- Include 5-ft. sidewalks on both sides of Cypress North Houston Rd. along the entire project limit.

Adjacent Segments

- At Perry Rd. and Jones Rd. intersections, utilize record roadway and drainage drawings and survey data to tie-in appropriately.
- Show existing pavement grade lines on plan and profile sheets.

Drainage

- Evaluate additional detention or shared detention near Greens Bayou.
- The use of pumped detention is an option, to be ultimately maintained by Precinct 3.
- Determine if the RCP at the crossing over Greens Bayou can be extended to avoid the use of guardrail.
- Evaluate options for drainage to bypass Perry Rd. to existing or future shared detention on the east side of Perry Rd.
- LID features are not to be used as substitute for detention.

ROW

- Verify existing right-of-away and make appropriate recommendations to satisfy the requirement for 100-ft right-of-away along the entire project.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

- Ensure UVEs, TCEs, and easement requirements are satisfied; make appropriate recommendations, as necessary.
 - TCEs may be necessary as optional services.
- Evaluate right-of-way acquisition east of Perry Rd. for drainage and detention if necessary.

Project Coordination

- Coordinate detention at Greens Bayou with NWHC MUD 9 if necessary.
- Coordinate drainage with Emerald Forest Utility District east of Perry Rd. if necessary.

A. Project Management

Engineer shall provide the project management of the project from initiation to completion.

1. Coordination with Subconsultants

Coordinate, monitor and manage the project Subconsultants per determined project duration. The Prime shall ensure all components in the Scope of Work are being met by monitoring progress and taking corrective action when necessary.

2. Schedule

Provide a detailed project baseline schedule, indicating milestones, major activities and deliverables for HCED Project Manager to review and comment as part of proposal submittal. The schedule shall reflect assumed review times necessary by the agency/ies involved. During the execution of the project the Engineer shall maintain and update the schedule. Adjustments shall be made, if necessary, due to changing circumstances.

3. Status Reports

Prepare status reports of project progress and submit to HCED by the end of the month regardless of invoicing submittals.

4. Permits and Agreements (Interlocal, Utility, Railroad, etc.)

Engineer shall review, comment, and provide Interpose No Objection (INO) concurrence or Agreement documentation as required.

Deliverables: Updated Project Schedule; Risk Assessment Summary and Risk Plan (if applicable); Cash Flow Spreadsheet (if applicable), Project Status Report, and Invoices; Interpose No Objection letters; Agreement Documents

2.P STUDY PHASE

Engineer shall perform all Study Phase outlined tasks in accordance to all adopted Harris County standards, guidelines, and specifications.

The Scope of Work for the Study Phase:

A. Alignment Study (Updated)

Engineer shall evaluate alignment options using the current Harris County Geometric Design Guidelines. Engineer shall optimize their findings by evaluating alignment impacts to existing structures such as signals, utilities and property, environmental impacts, ROW acquisitions costs, and existing and impacts to existing and proposed drainage. The Engineer shall review specific scoping items for preparation of the Drainage Meeting at the end of the Alignment Meeting. A value

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

analysis/Engineering of the recommended option shall be presented to HCED at the Alignment Meeting.

Once the alignment is approved by the Precinct, the Engineer will proceed with the Sight Triangle Analysis at the applicable cross streets.

Alignment Meeting Deliverables:

- 34" Wide Roll Plot (Plan View at a 1" = 40' scale) containing the following information:
 - Alignment alternatives with horizontal alignment data
 - Curve data on the schematic
 - Proposed planimetrics (back of curb, medians, median openings, turn lanes, etc.). All subject to change in the design phase.
 - Aerial photography
 - Existing ROW
 - Potential proposed ROW
 - Proposed clearances to structures
 - Outfall structures and channel crossings
 - Typical section(s) of the proposed design
 - Construction and routine maintenance costs
- KMZ of project with alignment alternatives provided to HCED prior to the meeting.
- Meeting agendas, meeting minutes and action items for each meeting in electronic format submitted to HCED prior to distribution.

B. Drainage Study (Updated)

Engineer shall update the drainage report as described under Item 2D.400 Drainage Report.

C. Right-of-Way (ROW) Meeting

The purpose of this meeting is to discuss and agree upon the construction sequencing, overall construction zone and the temporary drainage as needed. The discussion of the high-level traffic control plan (TCP) and the previous decisions made at the alignment and drainage meetings shall support identification of ROW acquisition needs. A parcel by parcel analysis on the needs for ROW acquisition shall follow the construction sequencing discussion. Development of the Metes and Bounds (Proposed ROW Maps) shall be authorized following the conclusion of the meeting.

TCP Deliverables at ROW Meeting: (UPDATED)

- 34" Wide Roll Plot (Plan View at a 1" = 40' scale) containing the following information:
 - Proposed planimetrics (back of curb, medians, turn lanes, etc.). All subject to change in the design phase.
 - Aerial photography
 - Existing ROW
 - Potential proposed ROW
 - Construction sequencing patterns to illustrate phasing
 - Preliminary TCP typical sections
 - Temporary drainage structures
- Word Narrative of the construction sequencing for the project including temporary drainage and paving.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

- NOTE it is the intent to keep traffic control concept as currently designed. This is contingent on approval to construct NEW storm sewer trunkline in early phases. Particularly, the trunkline must be located in the south half of the boulevard section from Greens Bayou to Perry Road. This will eliminate need for significant TCP revisions/effort.

ROW Deliverables at ROW Meeting:

- 34" Wide Roll Plot (Plan View at a 1" = 40' scale) containing the following information:
 - Proposed planimetrics (back of curb, medians, turn lanes, etc.) All subject to change in the design phase.
 - Aerial photography
 - Existing ROW including utility easements
 - Potential proposed ROW
 - Proposed detention pond(s)
 - Outfall structures and other utilities impacted by ROW
 - Temporary construction easements
 - Parcel data
 - Topographical survey data
 - Existing metes & bounds
 - Proposed unobstructed visual easements (UVEs) and corner clips
 - Critical structure impacts
- KMZ of project with TCP and ROW with parcel descriptions, provided to HCED prior to the meeting.
- Meeting Agendas, Meeting Minutes and Action Items for each meeting in electronic format submitted to HCED prior to distribution.

D. Utility Coordination (Updated)

The surveyor shall contact 811 to locate utilities, record that information, and establish a Utility Conflict Table containing the following information at a minimum:

- Conflict number
- Station and offset
- Name of utility
- Contact information (name, address, phone, email)
- Type of utility
- Utility notification date and type
- Conflict type
- Anticipated date of conflict clearance

The Engineer shall provide the updated Utility Conflict Table for review.

Utility Deliverables:

- Utility Conflict Table
- KMZ of project with utilities on individual levels, provided to HCED prior to the meeting.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

3.P DESIGN PHASE

The Engineer shall respond to comments provided by the County and shall prepare design deliverables as outlined below.

A. First Submittal

1. Complete Plans ready to be sealed by a Professional Engineer
2. KMZ of project, including alignment, ROW, TCP, drainage, utilities, etc.
3. Cost Estimate
4. Attachment L
5. Attachment M
6. Report File
7. Utility Conflict Table
8. Online Bidding Sheet
9. RGP Application (if required)

A Construction Field Walk Meeting will be held after the First Submittal.

B. Second Submittal (Third Submittal if necessary)

1. Complete Plans sealed by a Professional Engineer
2. KMZ of project, including alignment, ROW, TCP, drainage, utilities, etc.
3. Cost Estimate
4. Attachment L
5. Attachment M
6. Report File
7. Utility Conflict Table
8. Online Bidding Sheet
9. RGP Application (if required)

C. Utility Signatures & Agency Approvals

During Final Design the Engineer shall include utility notes and signature blocks on the plans and obtain signatures. The TCP shall be in accordance with engineering best practices, the guidelines of the TMUTCD, and HCED requirements.

D. TCP Meeting (Updated)

The purpose of this meeting is to discuss and agree upon the final construction sequencing, overall construction zone and the temporary drainage as needed. **NOTE: In order to minimize revisions to current TCP concept, the NEW storm sewer trunkline must be located in the south half of the boulevard section from Greens Bayou to Perry Road. If not possible, major revisions to TCP will need to be covered by supplemental agreement.**

Deliverables:

- 34" Wide Roll Plots (Plan View at a 1" = 40' scale) for each construction phase containing the following information:
 - Updated information from the TCP Deliverable at the ROW Meeting

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

- Proposed detention pond(s)
- Outfall structures and utilities
- Temporary construction easements
- Callouts for major businesses, schools, churches, and other places of interest
- Temporary pavement, channelization, and signage
- Legend
- KMZs of each TCP phase provided to HCED prior to the meeting.
- Meeting Agendas, Meeting Minutes and Action Items for each meeting in electronic format submitted to HCED prior to distribution.

HCED shall continue coordination with other jurisdictional agencies including Harris County Flood Control District and the City of Houston in order to obtain approvals or required permitting.

Guidelines and Specifications

- *Regulations of Harris County, Texas for the Approval and Acceptance of Infrastructure, September 29, 2020 (or later version if applicable)*
https://www.eng.hctx.net/Portals/23/Publications/Appr_Mods_HC_Infra_Subdiv_Reg.pdf
- *Guidelines for Engineers having Engineering Contracts with Harris County, Texas for the Design of Roads and Bridges and the Preparation of Plans and Specifications, August 23, 1988. (or later version if applicable)* <http://www.eng.hctx.net/Portals/22/Publications/capital-improvements/guidelines/1988-Guidelines-repro-PDG.pdf>
- *The Texas Manual on Uniform Traffic Control Devices*
<http://www.txdot.gov/government/enforcement/signage/tmutcd.html>
- *Harris County Flood Control District Technical Manuals.* <https://www.hcfcd.org/Technical-Manuals/all-documents?folderId=8625&view=gridview&pageSize=10>
- *Harris County Public Infrastructure Department Storm Water Quality Guidance Document for New Development/Redevelopment Projects, April 4, 2004 (or later version if applicable)*
http://www.eng.hctx.net/Portals/23/Publications/SWQ_manual_residential_devel.pdf
- *Harris County Storm Water Management Handbook for Construction Activities*
http://www.cleanwaterways.org/downloads/professional/construction_handbook_full.pdf
- *Harris County Storm Water Quality Management Regulations 2004 (or later version if applicable)* http://www.hcpid.org/permits/docs/swq_regs.pdf
- *Right-of-Way Description and Alignment Map Guideline, October 1990 (or later version if applicable)* http://www.eng.hctx.net/Portals/22/Publications/capital-improvements/guidelines/row_description_and_alignment_map_guidelines.pdf
- *Harris County Public Infrastructure Department Traffic Control Guidelines*
http://www.eng.hctx.net/Portals/22/Publications/professional-services/standard-traffic/tcp_guidelines.PDF
- *Rules of Harris County, Including the Harris County Toll Road Authority, A Division of Harris County, and the Harris County Flood Control District for the Construction of Facilities Within Harris County and the Harris County Flood Control District Rights-of Way, October 1, 2020 (or later version if applicable)* <https://www.eng.hctx.net/Portals/23/Publications/Construction-in-HC-or-HCFCD-ROW-Regs.pdf>

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

DRAINAGE

The drainage design shall be completed under the latest approved version of the guidelines of the HCFCF Policy Criteria & Procedure Manual.

Guidelines and Specifications

- *Harris County Flood Control District (HCFCF) Policy, Criteria and Procedures Manual (PCPM) Interim Guidelines and Criteria for Atlas 14 Implementation, July 2019 (or later version if applicable)*
- *HCFCF PCPM (July 2019 Interim Version), Appendix A-10 - Roadway Impacts and Mitigation Example*
- *HCFCF Memorandum dated October 21, 2019 – Roadway Detention Estimates with Atlas 14 Rainfall Updates, PCPM Appendix A, Example A.10.*
- *HCFCF Memorandum dated March 19, 2020 – Review of Conditional letters of Map Revision (CLOMRs) for Harris County Bridge Projects*
- *HCFCF Hydrology & Hydraulics Guidance Manual (HHGM), December 2009 (or later version if applicable).*
- *Other local references as applicable.*

2D.400 Drainage Report (Updated)

All work shall be in accordance with Atlas 14 Data.

This scope of work will provide for an updated drainage impact analysis report to determine the drainage improvements required for the construction of improvements for Cypress North Houston Segments 1, 2, and 3. A previous DIA and Atlas 14 update letter has been provided which provided a drainage and detention design and analysis to allow for an open ditch drainage system along Cypress North Houston with detention provided within the roadside ditch improvements. In addition, Segment 3 utilized a low impact development solution with a LID ditch feature in the median of the proposed roadway. Per direction from the Precinct, a new roadway design with standard curb and gutter/underground storm sewer is desired for the roadway which will necessitate a new drainage and detention analysis.

This updated analysis will provide a comprehensive report that updates all segments to Atlas 14 and the latest HCFCF methodologies as presented in the HCFCF Policy, Criteria, and Procedures Manual dated 2019. Additionally, the Harris County Floodplain Management Policies will be utilized for any potential improvements performed within the effective FEMA floodplains. Please note, current FEMA policy requires no-rise certification and HCED policy is to provide a Conditional Letter of Map Revision (CLOMR) for any work within a floodway. This DIA will address the floodway analysis required for the P100-00-00 and P161-00-00 improvements by performing to provide the no-rise certification as part of the DIA. Any FEMA permitting (CLOMR, LOMR, LOMR-F, etc.) is not part of this scope of work.

The existing roadway corridor is very limited with drainage outfall capacity served by roadside ditch drainage that is undersized for the 100-year storm event. This analysis will determine main trunk storm

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

sewer sizing (for reaches that require 100-year design) and detention pond mitigation volumes necessary to mitigate impacts for the Atlas 14 2, 10, and 100-year, 24-hour design storm events. Upon determination of the required volumes for the design storm events, additional volume will be considered to provide additional flood reductions associated with the improvements.

An existing condition analysis will be prepared for the two major outfall locations. For the local drainage conditions, an XP-STORM model will be developed of the roadside ditch system within the existing right-of-way to set existing peak water surface elevations and discharge rates into Greens Bayou and P161-00-00 for the 2, 10, and 100-year design storm events. This will include utilizing the 2-dimensional capabilities to simulate the existing sheet flow patterns for each Segment, particularly outside of the existing right-of-way. For the Greens Bayou crossing, the effective FEMA model will be utilized to evaluate the hydraulics for the proposed improvements to demonstrate no adverse impacts, either upstream or downstream of the roadway. Since the FEMA model does not include an Atlas 14 evaluation, the TP-40 500-year floodplain will be analyzed in accordance with HC floodplain management guidelines. Additionally, the floodway analysis will be simulated to facilitate a no-rise certification letter.

A more detailed description of the approach for each Segment is provided below:

Segment 1 and 2: Proposed storm sewer systems will collect flows and discharge directly to Greens Bayou. The NWHC MUD 9 detention pond will be expanded to provide the necessary detention volume to mitigate the impacts. A stormwater pump will be evaluated to provide additional detention volume if the pond top area cannot provide the required mitigation volume. An XP-STORM model of the existing and proposed main trunk drainage system will be developed to evaluate the increase in peak flow from the roadway due to the conversion from roadside ditch to storm sewer. The existing detention pond will be expanded to mitigate the increase in flow to Greens Bayou.

Of particular concern is the Marwood Estates development that is north of the existing road and due to its age, does not have any on site detention. The subdivision outflows into the upstream end of the roadside ditch system, ultimately to Greens Bayou. Improvement needs are limited by a pipeline crossing Cypress North Houston Rd just downstream of the location of Marwood outfall point which limits the ability to collect within conventional underground storm sewer, and ability to set design grades for extreme event overflows.

Three (3) proposed alternatives for the Marwood Estates drainage system will be investigated and provided to the Precinct for their review. If a viable improvement alternative is selected by the Precinct, the chosen final improvements alternative will be detailed design within the hydraulic model to determine final design parameters to achieve a no-adverse impact analysis.

Segment 3: This portion of the proposed Cypress North Houston Rd drains to the existing Perry Road storm drainage system. As part of the previous study, an existing condition 1D/2D model has been

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

developed which simulated the flooding conditions along Cypress North Houston Rd and Perry Road and P161-00-00 to Greens Bayou. This model will be utilized as a basis to evaluate detention improvements required to construct this segment of the roadway. Per the Precinct direction, the Cypress North Houston Rd storm sewer will discharge directly to P161-00-00 (east of Perry Road) through future Cypress North Houston Rd right-of-way bisecting the Perry Road drainage system. A portion of Perry Road may need to be diverted into the Cypress North Houston Rd system. Three (3) alternatives will be investigated which includes proposed detention basin, underground detention, and a combination of the two. Alternatives will be presented to the Precinct for their review and selection. Once a final alternative has been established, detailed hydraulic analysis will be done to size final volumes and drainage sizing.

Greens Bayou Road Crossing: For the Greens Bayou crossing, the effective FEMA HEC-RAS model will be utilized to evaluate the hydraulics for the proposed improvements to demonstrate no adverse impacts, either upstream or downstream of the roadway. Since the FEMA model does not include an Atlas 14 evaluation, the TP-40 500-year floodplain will be analyzed in accordance with Harris County floodplain management guidelines. Additionally, the floodway analysis will be simulated to facilitate a no-rise certification letter.

Technical Report: A technical report will be prepared to include a technical narrative, pertinent hydrologic and hydraulic computations, exhibits, tables, and applicable background information. This submittal will include a no-rise certification to ensure compliance with the FEMA requirements for work within a floodway.

Agency Review: this budget provides for addressing a maximum of three (3) HCED and HCFCD rounds of review. After each submittal review, HCED can facilitate a meeting with HCFCD to ensure the team is clear on expectations. Additional reviews beyond three (3), will be considered as change in scope.

Deliverable: Final Drainage Report

3DP.451 Optional Additional Services – Pond Design and Pump Station

Upon authorization, provide detention pond design as required for drainage mitigation.

Electrical Design for Stormwater Pump Station

- A. Engineer shall investigate options for power supply as well as permits and coordination required from electricity provider.
- B. Coordination with the pump station engineer for electrical requirements.
- C. Design Plans
 - a. Basis of Estimate
 - b. Proposed Design including power supply of the pump station from the available power distribution system near the site.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

- c. Standard Drawing Details
 - d. Upon HCED request, engineer shall include back up power into the design.
- D. SOLS from electrical provider
 - a. Field meeting at the beginning of design.
 - b. Electrical design shall be completed in accordance with applicable electrical codes and sealed by a Texas Professional Engineer.
- E. Electrical Coordination
 - a. Engineer shall coordinate with the electrical engineer consultant and the pump station engineer of record for the completion of the Electrical engineering tasks, which shall be included in the Design Plans.

Deliverables: Signed and Sealed Electrical Plans, Specifications, Bid Sheet, SOLS

ENVIRONMENTAL (UPDATED)

Basic Tasks

2E.500 Phase I Environmental Site Assessment (ESA)

Environmental Professionals shall perform a Phase I Environmental Site Assessment (ESA) for the existing and proposed ROW, including detention pond sites and outfalls. The Phase I ESA shall be in accordance with current ASTM standards. The Phase I ESA shall determine whether known or possible contamination might be in the project area and encountered during construction.

Deliverable: Phase I ESA Report

2E.501 Wetland Delineation and Approved Jurisdictional Determination

Biologists shall prepare a Wetland Delineation Report for the proposed ROW, detention pond sites, channel improvements, and outfalls. Project area shall be delineated using the 1987 Corps of Engineers Wetlands Delineation Manual, Atlantic and Gulf Coastal Plain Regional Supplement, and appropriate Regulatory Guidance Letters (RGLs). Field data shall be collected following the current USACE - Galveston District's Standard Operating Procedures concerning global positioning system (GPS) surveys. Non-wetland waters (e.g., streams, bayous, drainage channels, etc.) shall be identified and delineated by locating the ordinary high-water mark (OHWM). HCED will submit the delineation report to the USACE for verification and jurisdictional determination. Field verification of the wetland delineation report will be required by USACE. A Wetland Biologist will attend this field meeting with USACE and HCED, and make report revisions as directed by the USACE PM.

Deliverables: Wetland Delineation Report; AJD Forms; Shape Files

2E.502 Threatened & Endangered Species Habitat Survey

Biologists shall evaluate the proposed project area to determine whether it contains any habitats suitable to support federally or state listed threatened and endangered (T&E) species, bald eagles, or migratory birds. Prior to going into the field, the biologist shall review U.S. Fish & Wildlife Service's Information for Planning and Consultation (iPaC) and Texas Parks and Wildlife's Rare, Threatened, and Endangered Species of Texas to determine habitat needs. No species-specific presence/absence surveys are proposed as part of this scope of work.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

Deliverables: Threatened/Endangered Species Habitat Assessment Report

2E.503 Cultural Resources Desktop Analysis

Professional Archeologists shall conduct background review identifying recorded historical and archeological sites within and around the project corridor-based records obtained from the Texas Archeological Research Laboratory (TARL) and the Texas Historical Commission (THC). All archeological properties listed on the National Register of Historic Places (NRHP) and the State Archeological Landmarks (SAL) shall be identified. The background review shall include recommendations regarding the need for an intensive cultural resources survey. HCED will submit the CR Desktop Survey to THC for review and concurrence.

Deliverables: Cultural Resources Desktop Analysis; Constraints Map

Optional Additional Tasks

E.552 Regional General Permit

Prepare *Pre-Construction Notification Form 1* for USACE Authorization under Harris County Engineering Department Regional General Permit SWG-2011-00629. The PCN will be accompanied by a delineation report; an assessment for federal threatened and endangered species; an assessment of cultural or historic resources; and a compensatory mitigation plan, if required. Include all drawings and environmental documents listed on the Form 1 checklist. HCED will submit the PCN to the USACE for review and authorization

Deliverables: HCED RGP SWG-2011-00629 Form 1; Attachments

E.500C – 564C Environmental Coordination

Engineer shall coordinate with environmental provider to complete the tasks, which shall be included in the Study Phase Report or Design Plans.

SURVEY (UPDATED)

All surveying activities and deliverables performed by and or for Harris County Engineering Department (HCED) shall be performed in accordance with the most current laws and minimum standards of practice as promulgated by the Texas Board of Professional Engineers and Land Surveyors (TBPELS). This document shall not reduce or minimize state laws in any way. TBPELS minimum standards of practice shall be applicable wherein this document does not cover scoped work.

The Texas Society of Professional Surveyors (TSPS) developed the Manual of Practice for Land Surveying in the State of Texas, which has long been identified and accepted as the standard level of care for Land Surveying in the State of Texas. Furthermore, the TSPS Manual has developed various categories of Land Surveying, identifying standards and specifications for each. The TSPS manual can be found here: <https://www.tsps.org/page/eManualofPractice>.

2S.700 Existing Right-of-Way Maps (Cat. 1B, Cond. 2)

A. Provide deed research to determine existing rights-of-ways throughout the project routes.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

- B. Tie in property corners and block corners to define the existing rights-of-ways.
- C. Prepare right-of-way map of the existing right-of-way in accordance with TSPS Category 1B, Condition II standards and conform to Harris County Standards.

Deliverables: Signed, sealed, and dated right-of-way map of the existing rights-of-ways; Title reports

2S.701 Topographic Survey (Cat. 6, Cond. 21)

- A. Perform topographic survey for 350 linear feet of Greens Bayou with all intersections along this route, and for additional side streets as noted:
 - i. **N/A**
- B. Perform topographic survey at the following intersections for traffic signals:
 - i. **N/A**
- C. Survey to include 25 feet outside of the right-of-way and up to 60 feet outside right-of-way for objects (obstructions), except those that are behind brick walls and buildings.
- D. Establish elevations and locations of physical features including buildings, structures, signs, power poles, curbs, driveways, water meters, manholes, pedestals, ponds, light poles, etc. within the proposed and existing right-of-way. Overhead crossing utilities shall be limited to the low chord elevation.
- E. Provide pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines and driveway culverts. Top of rim or top of grate and flow line elevations shall be recorded on all inlets, manholes and drainage structures.
- F. Locate Ornamental trees or Landscape trees with a diameter of 4" and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on natural vegetation areas.
- G. Provide SUE Level C per ASCE SUE Guidelines
 - i. Perform Texas One Call for underground utility locations to mark utilities within the existing right-of-way and existing easements within the take area.
 - ii. Locate markings provided by One-Call and "visible" utilities within 25 feet of the proposed and or existing right-of-way.
 - iii. Include locations of electrical risers as a CAD callout and layer in the survey deliverable.
- H. Provide SUE Level D per ASCE SUE Guidelines
 - i. Obtain utility maps from Comcast, CenterPoint Energy, and AT&T.
 - ii. Obtain utility maps from other utilities not limited to waterline, sewer, MUD, pipelines
- I. Locate utility markings or test holes provided by SUE providers.
- J. Locate soil borings.
- K. Provide all traffic control, labor, and equipment for the Traffic Control Plan (TCP) while performing field services in compliance with the regulations of the most recent edition of the "Texas Manual on Uniform Traffic Control Devices" and HCD Standards.
- L. Prepare utility conflict table, to include risers.
- M. Attend Field Topo Verification Meeting to visibly check that all topo items are currently located as per the field notes. Objectives to be achieved during the field topo verification meeting include impacts that could affect the alignment alternatives have on the Right of Way, existing structures such as signals, utilities, and property, environmental impacts and impacts to existing and proposed improvements.
- N. Provide/meet all railroad survey requirements needed for the railroad review of the project.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

Deliverables: CAD file (AutoCAD .dwg format) along with ASCII point file, DTM with 1-foot contours and TIN file and XML file with break lines; 22"x34" 1" = 20' plan sheets for the topo field walk (6 copies)

2S.702 Control

- A. Horizontal Survey Control shall be referenced to the Texas State Plane Coordinate System, South Central Zone, NAD83.
- B. Vertical Control shall be based on the nearest existing Harris Reference Marker, NAVD 1988, 2001 Adj.
- C. Provide adequate number of control points that are set and recoverable.
- D. Request information from HCED for directions on tying controls to adjacent projects.

Deliverables: Survey Control Map and three-point sketches, signed and sealed by a Texas RPLS.

S.750 Proposed ROW Maps (Cat. 1A, Cond. 23) (\$3,000.00/parcel)

Prepare parcel map exhibits and metes and bounds descriptions

Deliverables: Signed, sealed, and dated Parcel Map and Metes and Bounds; Signed, sealed, and dated revised Right-of-Way Map.

S.752 Topographic Survey – Detention Pond (Cat. 6, Cond. 21)

- A. Cross sections shall be obtained at 100 feet intervals along the detention pond and shall extend 25 feet beyond the existing right-of-way lines and 60 feet for Structures as applicable.
- B. Survey to include 25 feet outside of the right-of-way and up to 60 feet outside right-of-way for objects (obstructions), except those that are behind brick walls and buildings.
- C. Establish elevations and locations of physical features including buildings, structures, signs, power poles, curbs, driveways, water meters, manholes, pedestals, ponds, light poles, etc. within the proposed and existing right-of-way. Overhead crossing utilities shall be limited to the low chord elevation.
- D. Perform Texas One Call for underground utility locations to mark utilities within the existing right-of-way and existing easements within the take area.
- E. Obtain utility maps from CenterPoint Energy and AT&T.
- F. Locate markings provided by One-Call and "visible" utilities within 25 feet of the proposed and or existing right-of-way.
- G. Provide pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines and driveway culverts. Top of rim or top of grate and flow line elevations shall be recorded on all inlets, manholes and drainage structures.
- H. Locate Ornamental trees or Landscape trees with a diameter of 4" and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on natural vegetation areas.
- I. Locate soil borings.
- J. Horizontal control shall be referenced to the Texas Coordinate System, South Central Zone, North American Datum 1983 (2011 Adjustment) as processed against NGS CORS and Leica Smartnet Network.

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

- K. Vertical control shall be established and referenced to the North American Vertical Datum (NAVD) 1988 (2001 adjustment) as established by local Harris County Reference Marks.
- L. Establish survey baselines and temporary benchmarks.

Deliverables: CAD file (AutoCAD .dwg format) along with ASCII point file, DTM with 1-foot contours and TIN file and XML file with break lines; 22"x34" 1" = 20' plan sheets for the topo field walk; signed, sealed, and dated Control Maps with three-point reference drawings.

S.700C – D760C Survey Coordination

Consultant shall coordinate with the survey provider for the completion of the Surveying tasks, which shall be included in the Study Phase Report or Design Plans.

TRAFFIC (UPDATED)

T.801 Signal Design

A. Design Plans

- Traffic Signal and Utility Notes
- Basis of Estimate
- Existing Conditions Layout
- Proposed Traffic Signal Layout including Wiring Chart
- Proposed Traffic Signal Elevations
- Permanent Signing & Pavement Markings
- Standard Drawing Details with design tables to be complete
 - Mast Arm Assembly Details (100 mph Wind Zone)
 - Mast Arm Foundation (100 mph Wind Zone)
 - Luminaire Arm Details (100 mph Wind Zone)
 - Pedestrian Signal and Pole Installation Details
 - Traffic Control Plan sheet with table filled out for the posted speed limit.

B. Service outlet location and data statement from electrical provider

C. Field meeting at the 50% level. Provide Preliminary Signal Layout and signal pole calculations prior to meeting. Controller cabinet location to be finalized at 50% meeting.

Deliverables: Signal Plans, Service Outlet Location & Data Statement (SOLS)

T.805 Sight Distance Triangle Evaluation and Exhibits (Updated)

Engineer shall re-evaluate all street (private and public) intersections with revised geometry in project limits and create exhibits that depict both 15' and 25' setbacks to evaluate need and area required for Unobstructed Visibility Easements (UVEs) or for Road ROW/corner clips. At signals, sight triangles are to be evaluated for right turn on red.

Deliverables: Sight Distance Triangle Exhibits

T.800C – 810C Traffic Coordination

Project Cypress North Houston Rd from Perry Rd to Jones Rd - 2014

UPIN 15104MFOCD01

EXHIBIT A – Amendment #6

Engineer shall coordinate with the traffic provider for the completion of the Traffic tasks, which shall be included in the Study Phase Report or Design Plans.

VARIOUS

3V.903 TDLR

Register the project with Texas Department of Licensing and Regulation. Review plans and provide comments for adherence to Texas Accessibility Standards.

Deliverables: TDLR Project Number and review comments. Provide inspection prior to substantial completion.

3V.903C Various Coordination

Engineer shall coordinate with the TDLR provider for the completion of the tasks.

DESIGN CHANGE AFFECTS TABLE

Plan Section	Design Change Affects
Project Layouts	Not much change
Clearing & Grubbing	Not much change
Exist Typ Section	Not much change
Proposed Typ Section	Significant changes eliminating transitions, ditches, median shifts
Gen Notes	Not much change
Survey Control	Consider reusing as much as possible
Demo	Not much change
Drainage Are Map	Significant changes
Hydraulic Calcs	Total change
P&P Sheets	Significant changes
	- Road section geometry changes 7 of 15 sheets (sheet 4-10)
	- Remove ditch in border areas requires change to sheets 5-end to drain ROW
	- Requires storm sewer system design for entire length
Side Street P&P	Significant changes
	- One changed geometry
	- All need profile changes
Drainage Laterals	All changed
Detention Pond	All new
Standards	No significant change
Culvert Layouts	Significant changes
SWQMP	Remove landscape
TCP	Effort based on approval of storm trunkline in south boulevard East of Greens Bayou
Signing & Pav Marking	Change required in roadway geometry change areas, 7 of 15 sheets
Signal Design	Complete change to mast arm, geometry changes at Misty Moss
SW3P	Significant changes, protect new drainage system
ROW Maps	Recommend only where more ROW is needed

EXHIBIT C-7 - Compensation for Professional Services
Harris County Engineering Department
Cypress North Houston Rd - from Perry Rd to Jones Rd - 2014
Precinct #, UPIN 15104MF0CD01
Construction Cost Estimate: \$17,225,667.00

2.P	Pre-Design Phase	\$ -
------------	-------------------------	------

3.P	Design Phase	\$ 40,795.00
------------	---------------------	--------------

4.P	Bid Phase	\$ -
------------	------------------	------

Drainage

2D.400	Drainage Report	\$ -	
2D.401C	Drainage Coordination	\$ -	
2D.402	Drainage Letter	\$ -	
2D.402C	Drainage Coordination	\$ -	
			\$ -

Environmental

2E.500	Phase I ESA	\$ -	
2E.500C	Environmental Coordination	\$ -	
	Wetland Delineation and Approved Jurisdictional		
2E.501	Determination	\$ -	
2E.501C	Environmental Coordination	\$ -	
2E.502	Threatened & Endangered Species Habitat Survey	\$ -	
2E.502C	Environmental Coordination	\$ -	
2E.503	Cultural Resources Desktop Survey	\$ -	
2E.503C	Environmental Coordination	\$ -	
			\$ -

Geotechnical

2G.600	Roadway - Report	\$ -	
2G.600C	Geotechnical Coordination	\$ -	
			\$ -

Survey

2S.700	Existing Right-of-Way Maps (Cat. 1B Condition II)	\$ -	
2S.700C	Survey Coordination	\$ -	
2S.701	Topographic Survey (Cat. 6 Condition II)	\$ -	
2S.701C	Survey Coordination	\$ -	
			\$ -

Traffic

2T.805	Sight Distance Triangle Evaluation and Exhibits	\$	-
2T.805C	Traffic Coordination	\$	-
2T.806	All-Way Stop Warrant Study	\$	-
2T.806C	Traffic Coordination	\$	-
2T.807	Traffic Control Plan	\$	-
2T.807C	Traffic Coordination	\$	-
			\$ -

Subtotal Basic Services**\$ 40,795.00****Optional Additional Services including, but not limited to:**

2.P.150	Change Drawings	\$	-
3.P.251	Sidewalk	\$	-
3.P.252	Street Lights	\$	-
3DP.451	Detention Pond (Pump Station Electrical Design)	\$	-
3DP.450	FEMA Conditional Letter of Map Revisions (CLOMR)	\$	-
3DP.451	Pond Design (\$7,500/acre)	\$	-
2E.551	Archeology Pedestrian Survey	\$	-
2E.551C	Environmental Coordination	\$	-
2E.552	Nationwide Permit		
2E.552C	Environmental Coordination	\$	-
	Detention Pond - Report (12,500/acre for first 3 and 3,000/acre after that)	\$	-
2G.650			
2G.650C	Geotechnical Coordination	\$	-
2S.750	Proposed ROW Maps (Cat. 1A, Cond. II.) (\$3000.00/parcel)	\$	42,000.00
2S.750C	Survey Coordination	\$	4,200.00
2S.751	Level A SUE (\$XXX/pothole)	\$	-
2S.751C	Survey Coordination	\$	-
	Boundary ROW Survey of Proposed Detention Pond (Land Title Survey)	\$	-
2S.756			
2S.756C	Survey Coordination	\$	-
	Topographic Survey- Detention Pond (Cat. 6, Cond. II.) (\$2736.00/acre)	\$	-
2S.752			
2S.752C	Survey Coordination	\$	-
2SP.754	Encroachment Table	\$	-

Subtotal Optional Additional Services**\$ 46,200.00****TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)****\$ 86,995.00**



EXHIBIT D-7: ENGINEER TEAM ACKNOWLEDGMENTS

1. The following is the group of providers selected to perform the obligations described in the Agreement.

2. If any firm listed below actively holds certification in any of the following categories, that information shall be identified in the table under "Special Designation" Box:
 - ☐ MWBE (Minority and Women Owned Business Enterprise)
 - ☐ HUB (Historically Underutilized Business)
 - ☐ DBE (Disadvantaged Business Enterprise)

3. Also, all contract values must be identified in the table under "Contract Value".

Responsibility	Firm	NAICS Code	Special Designation	Contract Value (M/WBE)	Contract Value (Non M/WBE)
Prime	Pape-Dawson Engineers	541330			\$44,995.00
Surveying	Kuo & Associates	541370	MBE, DBE	\$42,000.00	
Geotechnical	Terracon Consultants, Inc	541330			
Environmental	Hollaway Environmental + Communications	540133	HUB, WBE, DBE	\$0.00	
Traffic Engineering	Gunda Corporation	540133			
Drainage	Costello, Inc	540133			
Other	TDLR (RAS)	540133			
Total				\$42,000.00	\$44,995.00

Total Contract Value in dollars:

\$86,995.00

Percent of contract in dollars allocated to (MWBE, HUB, or DBE) Consultants:

48.28%

- ☐ The Engineer understands that it is solely responsible and liable to the County for the completion of all obligations under the Agreement.

- ☐ A proposed decrease in the contract value for any MWBE, HUB, or DBE listed on this Exhibit must be approved by the Department of Economic Equity and Opportunity (DEEO).

ORDER OF COMMISSIONERS COURT

The Commissioners Court of Harris County, Texas, met in regular session at its regular term at the Harris County Administration Building in the City of Houston, Texas, on _____, with all members present except _____.

A quorum was present. Among other business, the following was transacted:

ORDER AUTHORIZING AGREEMENT SUPPLEMENT BETWEEN HARRIS COUNTY AND PAPE-DAWSON CONSULTING ENGINEERS, LLC FOR SEVENTH AMENDMENT TO PROFESSIONAL ENGINEERING SERVICES AGREEMENT

Commissioner _____ introduced an order and moved that Commissioners Court adopt the order. Commissioner _____ seconded the motion for adoption of the order. The motion, carrying with it the adoption of the order, prevailed by the following vote:

	Yes	No	Abstain
Judge Lina Hidalgo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Rodney Ellis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Adrian Garcia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Tom S. Ramsey, P.E.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Lesley Briones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The meeting chair announced that the motion had duly and lawfully carried, and this order was duly and lawfully adopted. The order adopted follows:

IT IS ORDERED that:

1. The Harris County Judge is authorized to execute the attached Agreement Supplement between **Harris County** and **Pape-Dawson Consulting Engineers, LLC** for Seventh Amendment to Professional Engineering Services Agreement. The attached Supplement, including any addendums, may be executed with an electronic or facsimile signature. The Harris County Engineering Department is authorized to request the Harris County Purchasing Agent to expend up to **\$86,995.00** in consideration of the work, products, services, licenses and/or deliverables provided under this Supplement.
2. The Harris County Engineering Department and all other Harris County officials and employees are authorized to do any and all things necessary or convenient to accomplish the purpose of this Order.