CAMINO REAL REGIONAL MOBILITY AUTHORITY
BOARD RESOLUTION

WHEREAS, the Camino Real Regional Mobility Authority (CRRMA) and Huitt-Zollars, Inc. (Engineer) entered into a Contract for Engineering Services dated September 11, 2019 (Contract) in order for the Engineer to provide various design services to the CRRMA, as may be requested from time to time, via execution of a Work Authorization; and

WHEREAS, the CRRMA and Engineer now desire to enter into a work authorization pursuant to the Contract, in order for the Engineer to provide design services for the completion of plans for the Valley Chile Road Project, as part of the Regional Mobility Strategy 2020.

NOW, THEREFORE, BE IT RESOLVED BY THE CAMINO REAL REGIONAL MOBILITY AUTHORITY:

THAT, the Executive Director be authorized to execute **Work Authorization No. 2** with Huitt-Zollars, Inc., including any additional documents or materials as may be required, for the provision of design services for the completion of plans for the Valley Chile Road Project.

PASSED AND APPROVED THIS 26TH DAY OF AUGUST 2020.

CAMINO REAL
REGIONAL MOBILITY AUTHORITY

_____
Joyce A. Wilson, Chair

ATTEST:

_____

_____
Board Secretary

APPROVED AS TO CONTENT:

_____
Raymond L. Telles
Executive Director

WORK AUTHORIZATION NO. 2
CONTRACT FOR ENGINEERING SERVICES

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 5 of the Contract for Engineering Services (the Contract) entered into by and between the CAMINO REAL REGIONAL MOBILITY AUTHORITY (the "CRRMA"), and HUITT-ZOLLARS, INC., (the "Engineer"), dated September 11, 2019 (Contract).

PART I. The Engineer will perform engineering services generally described as the preparation of plans, specifications and estimate for the construction project known as the Valley Chile Rd. in accordance with the project description attached hereto and made a part of this Work Authorization. The responsibilities of the CRRMA and the Engineer as well as the Engineer's work schedule are further detailed in **EXHIBIT A** and **EXHIBIT B,** which are attached hereto and made a part of the Work Authorization.

PART II. The maximum amount payable to the Engineer under this Work Authorization is **SEVEN-HUNDRED SEVENTY FOUR THOUSAND NINE HUNDRED TWO AND 04/100 DOLLARS ($774,902.04)** and the method of payment is Specified Rate Basis as set forth in Attachment E of the Contract. This amount is based upon fees set forth in the Contract and the Engineer's Fee Estimate, which is attached hereto and made part of this Work Authorization as **EXHIBIT C**.

PART III. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the Contract.

PART IV. This Work Authorization shall become effective on the last date identified below and shall terminate upon CRRMA final acceptance of the services requested, unless extended by a written amendment to this Work Authorization.

PART V. This Work Authorization does not waive the Parties' responsibilities and obligations provided under the Contract.

IN WITNESS WHEREOF, this Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

HUITT-ZOLLARS, INC.	**CAMINO REAL REGIONAL MOBILITY AUTHORITY**
By: _____	By: _____
Isabel Vasquez, PE	Raymond L. Telles
Vice President	Executive Director
Date: _____	Date: _____

LIST OF EXHIBITS

Exhibit A	Services to be provided by the CRRMA
Exhibit B	Services to be provided by the Engineer
Exhibit C	Fee Schedule/Budget

EXHIBIT A

SERVICES TO BE PROVIDED BY THE CRRMA

The CRRMA shall perform and provide the following in a timely manner so as not to delay the service to be provided by the Engineer:

1. Authorize the Engineer in writing to proceed.

2. Place at Engineer's disposal all reasonably available information pertinent to the project, including previous reports, drawings, specifications or any other data relevant to the project.

3. Designate in writing a person to act as the Authority's representative, such person to have complete authority to transmit instructions, receive information and interpret and define Authority's decisions with respect to the services to be provided by the Engineer.

4. Render decisions and approvals, as soon as reasonably possible to allow for the expeditious performance of the service to be provided by the Engineer.

EXHIBIT B

SERVICES TO BE PROVIDED BY THE ENGINEER

I. PROJECT SUMMARY

Valley Chile Road is an existing 2 lane roadway without a raised median in the Village of Vinton, Texas. The roadway has approximately 60-feet of right-of-way and the project limits are from Doniphan (SH 20) to IH-10. This project will include operational improvements to add a center two-way left center lane and reconstruct the entire roadway with continuously reinforced concrete pavement, drainage improvements, safety illumination, landscaping, sidewalks, utility coordination, and environmental clearance. The project has federal funds attached and will be constructed to TxDOT Standards and requirements. The project is anticipated to let in FY2023.

Professional Services will be provided by the Engineer to produce schematic plan documents (30, 60, and 90%); environmental clearance documentation, utility coordination, and final plans, specifications, and estimates (PS&E) for the roadway improvements. The project includes topographic surveying and geotechnical services and environmental services. The project includes development of roadway geometry, drainage improvements, curb and gutter, limited landscaping in parkways, sidewalks, driveways, safety illumination, document preparation, and design services necessary for the preparation of the schematic and PS&E.

Coordination with the various municipalities as well as El Paso Water, Gas, TxDOT, adjacent businesses, and all utilities is required. The consultant team will identify right-of-way acquisitions for modification to turning radius at Valley Chile and IH-10 and ponding facilities. The consultant team will also be required to prepare a complete bid package, participate during the bid phase (respond to any questions received by prospective bidders and attend a pre-bid conference). Construction engineering and inspection services are not included for this specific project.

II. SERVICES TO BE PROVIDED BY THE ENGINEER

The Engineer will design the project to the latest TxDOT standards, TXDOT 2014 Standard Specifications, and other applicable codes, ordinances, criteria, standards, regulations, policies, guidelines, practices and procedures.

Scheduling of activities below will conform established CRRMA, Village of Vinton, TxDOT and/or other agency review and comment periods for each milestone of the project.

Throughout the course of this project, the consultant team will work at the direction and supervision of the CRRMA's Executive Director and consultants, providing reports and findings, as required. The consultant team will work cooperatively and collaboratively with other governmental agencies and design consultant firms who are responsible for adjacent projects.

The Scope of Services to be provided by the consultant team may include, but is not limited to the following key elements:

- Surveying
- Geotechnical Investigations

- Environmental Documentation
- Schematic Design (30%, 60%, 90%)
- Plans, Specifications, and Estimates (including complete bid package)
- Project Management and Administration
- Utility Coordination
- Other stakeholder coordination

A. Project Management and Administration

The consultant prime, in coordination with the CRRMA, will be responsible for directing and coordinating all activities related to the Project. Project management and administration tasks shall include a Project Management/Work Plan, Progress Reporting, Coordination/Administration, Project Control/Scheduling, and Subconsultant Management. The prime provider's efforts shall include but not limited to the following:

1) Project Management/Work Plan
   a) Develop a Project Management/Work Plan to reflect the following:
      i) organization and responsibilities
      ii) coordination and communication procedures
      iii) coordination meetings
      iv) deliverables
      v) graphic production standards
      vi) quality control (QC) procedures/plan to ensure the accuracy and quality of the deliverables produced other important operational information pertaining to prime provider/CRRMA collaboration.
2) Progress Reporting
   a) Prepare and submit to the CRRMA monthly progress reports of activities completed during reporting period.
   b) Prepare and submit invoices that include financial and DBE participation data. The report shall be submitted as an attachment to the invoice submittal.
3) Coordination/Administration
   a) Prepare and Attend One (1) Kick-off Meeting (Project guidelines, general project requirements, and expectation).
   b) Coordinate with the CRRMA's GEC staff regularly throughout project development.
   c) Compile and maintain a comprehensive Administrative Record.
4) Project Control/Scheduling
   a) Develop and maintain a Master Schedule for the Project indicating tasks/subtasks, critical dates, milestones, deliverables, and review requirements.
   b) Update schedule on a monthly basis.
5) Subconsultant Management
   a) Develop and implement a plan to manage subconsultants (as part of the project management plan).
   b) Prepare subcontracts for subconsultant(s).
   c) Monitor subconsultant activities (staff and schedule).
   d) Review and recommend approval of subconsultant progress reports and invoices.

<u>Deliverables</u>

- Project Management Plan
- Progress Reports and Invoices
- Summaries of all meetings

- Administrative Record
- Project Schedule and monthly updates
- Subconsultant Contracts, Progress Reports and Invoices

B. Surveying

All surveying shall comply with the Professional Land Surveying Practices Act, Article 5282c, Vernon's Texas Civil Statutes. All surveying shall comply with applicable rules promulgated by the Texas Board of Professional Land Surveying. The Manual of Practice published by the Society of Professional Surveyors shall be used as a guide in determining accuracy requirements and procedures to follow. The prime provider's field surveying efforts shall include the following:

1) Project Control
   a) Establish primary and secondary control monuments. The horizontal and vertical datum for the existing control monuments will be as follows:
      i) Horizontal – Texas State Plane Coordinate System of 1983(NAD-83 State Plane Coordinates)
      ii) Vertical – NAVD 88, GEOID 2012A.
2) Ground Survey
   a) Perform ground survey within obscured areas to collect the ground elevations and planimetric features to supplement the GPS and Optical information.
   b) Perform ditch/channel cross-sections at 25-foot intervals along and perpendicular to the creek centerline for a distance of 100 feet left and right of the existing right-of- way (ROW).
   c) Survey the horizontal location of visible aboveground utility appurtenances within the existing ROW.
   d) Survey the horizontal and vertical location of the existing roadway for a distance of 200 feet each side of the Project limits.
   e) Survey to extend 50 feet beyond the ROW each side of the corridor. Survey beyond/outside the ROW will require permission from the impacted property Owner(s). Requests for access from private property Owner(s) and surveys in private property will be the responsibility of the Engineer.
   f) Prepare metes and bounds descriptions of needed ROW parcels along Project. The survey shall include the preparation of the base map, boundary survey, metes and bounds and monumentation.
   g) Prepare the parcel plats, descriptions and boundary calculations.
   h) Prepare the base map on the proposed alignment and existing information.
   i) Provide a boundary, topographic improvements survey for offsite ponding areas. The survey shall include the preparation of the base map, boundary survey, metes and bounds and monumentation.
   j) Provide a boundary, topographic improvements survey for drainage, construction or temporary easements. The survey shall include the preparation of the base map, boundary survey, survey plats, metes and bounds and monumentation.
3) Perform preliminary right-of-way research to determine existing right-of-way limits, restrictions to State ownership and actual property owners.
4) As necessary, acquire permissions for right of entry or other written evidence of permission before entering private property.
5) Prepare property description for each parcel of land to be acquired.

Deliverables

- Final planimetric and topographic base map showing all mapped planimetrics and supplemental field survey data described above.
- Final Triangulated Irregular Network (TIN) file
    - All electronic files shall be fully compatible with the State's MicroStation GeoPak system without further modification or conversion.
    - All MicroStation V8 2D and 3D files will be in U.S. survey feet.
- Complete property descriptions for affected parcels throughout project corridor.
- Contact log and executed right of entry forms
- Monumentation throughout project corridor

Files shall include, as applicable, all features listed on the State's current Photogrammetric Mapping Legend symbology, and level structure shall be in compliance with the State's current Photogrammetric Mapping.

D. Geotechnical Investigation and Pavement Design.

The Engineer shall perform the following services.

1) All geotechnical work should be performed in accordance with the TxDOT's Geotechnical Manual (Mar 2018). All testing shall be performed in accordance with the latest version of the State's Manual of Test Procedures. American Society for Testing Materials (ASTM) test procedures can be used only in the absence of the State's procedures. All soil classification should be done in accordance with the Unified Soil Classification System.

Table 1 Valley Chile Road PS&E Geotechnical Scope

Roadway	Segment Limits	Structure	Assumption	Proposed Borings	Total Drilling Depth (feet)
Valley Chile Rd	SH 20 to IH10 (6,600 ft)	CRCP Pavement & safety lighting	1000 foot spacing between borings	7 @ 15'	105

2) The Engineer shall update the preliminary geotechnical report and provide a signed, sealed and dated geotechnical report which contains, but is not limited to, soil boring locations, boring logs, laboratory test results, generalized subsurface conditions, ground water conditions, analyses and recommendations for pavement and storm sewers. We understand that the proposed storm sewers will have a maximum invert depth of 5 feet below existing grade, and thus 10-foot depth borings will be sufficient to provide bearing capacity recommendations.
3) The Engineer shall sign, seal and date soil boring sheets to be used in the PS&E package. The preparation of soil boring sheets is to be in accordance with the District's standards.
4) The Engineer shall incorporate into the PS&E plans the soil boring data sheets prepared, signed, sealed, and dated by the Engineer. The soil boring sheets shall be in accordance with the State's WINCORE software as can be found on the Texas Department of Transportation website.
5) HVJ shall prepare a TxDOT pavement design report for reconstruction of the existing roadway. The TxDOT CRCPME software will be used to design a continuously reinforced concrete pavement (CRCP) with an HMAC base. The pavement design will consider traffic loads to be reviewed by HVJ based on traffic data counts collected by Huitt-Zollars and TxDOT TP&P Pavement Design outputs which estimate the 30 year Equivalent Single Axle Wheel Loads (ESALs) as provided by CRRMA and TxDOT. HVJ will also use the HVJ geotechnical borings and lab testing results to estimate the composite subgrade modulus, k value for the CRCP design.

The traffic data required includes current and projected traffic counts and truck percentages to review for the pavement reconstruction design and widening to support loads due to industrial businesses developments along this alignment. HVJ will develop design traffic data based on information provided regarding number and types of vehicles anticipated including trucks, which will need to be provided by Huitt-Zollars and CRRMA/TxDOT.

Based on the expected soils conditions within the project limits, HVJ will consider in-situ subgrade types in the pavement design analyses. HVJ will provide one new rigid pavement thickness design with Hot Mix Asphalt Concrete (HMAC) base over stabilized subgrade.

HVJ will prepare and submit a draft pavement design engineering report for review by HZ and CRRMA. The report will contain recommendations for standard TxDOT pavement material specifications, pavement layer thicknesses, and subgrade preparation requirements.

Upon receipt of review comments, HVJ will prepare a final pavement engineering report. HVJ will attend up to three project conference calls with Huitt-Zollars and CRRMA to coordinate/review the pavement design analyses.

HVJ will also review the Huitt-Zollars construction documents at 90% and 100% submittal phases to confirm HVJ's pavement design recommendations are properly addressed and incorporated into the design documents to be issued for bids.

E. Schematic Design

The consultant team will develop the Design Schematic to include, but not be limited to, the following items:

1) Submit design criteria to be used in the design of the Project for approval by CRRMA prior to beginning schematic design work.
2) Complete efforts required to develop roadway elements of the Project, including the preparation of roadway typical sections, horizontal geometric designs, and vertical geometric designs roadway, and construction sequencing plan narrative and typical sections.
3) Roadway lighting locations. Prepare Illumination Warrant study.
4) Existing and Proposed Drainage Structures, offsite ponding areas
5) Preliminary traffic control and sequence of construction plan
6) The Design Schematic shall show, as a minimum:
    a) Typical sections of improvement
    b) Roadway plan and profile and super elevation
    c) Lane lines and arrows indicating the number of lanes
    d) ROW limits:
        i) Provide design cross-sections to verify ROW requirements
        ii) Show existing and proposed ROW limits
        iii) Show existing (if any) and proposed easements
        iv) Show the proposed toe of slope
7) The geometrics, such as pavement cross slopes, lane/shoulder widths, slope rates (for fills and cuts) of the typical sections of proposed roadway, and proposed retaining walls shown in plan view and cross sections.
    a) The current and projected traffic volumes as provided by TxDOT
    b) The control of access lines
    c) Identify utility conflicts/adjustments with sufficient plan and profile information

d) Show existing and proposed drainage and structures

8) Develop Engineer's cost estimate to include construction, ROW, utility relocations, and contingencies.
9) Prepare drainage analysis and maps of the existing and proposed drainage systems.
10) Develop initial aesthetic and landscaping enhancements.
11) Develop Preliminary Engineering Report
12) Review traffic for pedestrian improvements.
13) Perform a preliminary review for ADA compliance.
14) Work cooperatively and collaboratively with other governmental agencies and design consultant firms responsible for adjacent projects.

Deliverables

- Preliminary (30, 60, and 90percent) Design Schematic
- Design Summary Report (DSR)
- Cost Estimate for all phases of Design Schematic submittals
- Technical memorandum on traffic projections methodology, traffic analysis, illumination warrant analysis, drainage analysis, and aesthetics
- Stick diagrams on projected traffic volumes

G. Environmental Document -SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT

1) Environmental Documentation.

The Engineer shall provide a peer review of the environmental documents and provide and provide a summary of findings and recommendations for additional work as may be required. Each environmental service provided by the Engineer shall have a deliverable. Deliverables shall summarize the methods used for the environmental services and shall summarize the results achieved. The summary of results shall be sufficiently detailed to provide satisfactory basis for thorough review by the Village of Vinton, County of El Paso (County), TxDOT (the State), and (where applicable) agencies with regulatory oversight. All deliverables shall meet regulatory requirements for legal sufficiency and shall adhere to the requirements for reports enumerated in the State's NEPA MOU.

Quality Assurance/Quality Control Review
For each deliverable, the Engineer shall perform quality assurance quality control (QA/QC) reviews of environmental documents and on other supporting environmental documentation to determine whether documents conform with:

- Current Environmental Compliance Toolkit guidance published by the State's Environmental Affairs Division and in effect as of the date of receipt of the documents or documentation to be reviewed
- Current state and federal laws, regulations, policies, guidance, agreements, and memoranda of understanding between the State and other state or federal agencies; and
- FHWA and American Association of State Highway and Transportation Officials (AASHTO) guidelines contained in "Improving the Quality of Environmental Documents, A Report of the Joint AASHTO and American Council of Engineering Companies (ACEC) Committee in Cooperation with the Federal Highway Administration" (May 2006) for:
    - Readability, and
    - Use of evidence and data in documents to support conclusions.

Upon request by the Village of Vinton, County and State, the Engineer shall provide documentation that the QA/QC reviews were performed by qualified staff.

a. Deliverables shall contain all data acquired during the environmental service. All deliverables shall be written to be understood by the public and must be in accordance with the State's Environmental Toolkit guidance, documentation standards, current guidelines, policies and procedures.

b. Electronic versions of each deliverable must be written in software which is compatible to the Village of Vinton/County/State and must be provided in a changeable format for future use by the Village of Vinton/County/State. The Engineer shall supplement all hard copy deliverables with electronic copies in searchable Adobe Acrobat™ (.pdf) format, unless another format is specified. Each deliverable shall be a single, searchable .pdf file that mirrors the layout and appearance of the physical deliverable. The Engineer shall deliver the electronic files on CD-R, CD-RW media in Microsoft Windows format, or through the ftp site.

c. Submission of Deliverables
   - Deliverables shall consist of technical reports of environmental services performed in addition to documentation for a Categorical Exclusion (CE) determination, including the preparation of a Request for Classification form to classify the project as an Open Ended (d) list CE, if needed, Environmental Assessment (EA) document, or an Environmental Impact Statement (EIS) when applicable.
   - All deliverables must comply with all applicable state and federal environmental laws, regulations and procedures and include all items listed in the Environmental Document Review Checklist.
   - On the cover page of each technical report prepared under the authority granted by this MOU, and for any memorandum corresponding to any CE determination it makes, the Engineer shall insert the following language in a way that is conspicuous to the reader or include it in a CE project record:

   "The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9.2019, and executed by FHWA and TxDOT."

d. The Village of Vinton/County/State shall provide the Village of Vinton/County/State and other agency comments on draft deliverables to the Engineer. The Engineer shall revise the deliverable:
   - to include any Village of Vinton/County/State commitments, findings, agreements, or determinations (e.g., wetlands, endangered species consultation, Section 106, or Section 4(f)), required for the Transportation Activity as specified by the State.
   - to incorporate the results of public involvement and agency coordination.
   - to reflect mitigation measures resulting from comments received or changes in the Transportation Activity; and
   - include with the revised document a comment response form (matrix) in the format provided by the State.

e. All photographs shall be 3.5" x 5" color presentation printed on matte finish photographic paper or 3.5" x 5" color presentation printed on matte white, premium or photo quality laser or inkjet paper. All photographs shall be well focused and clearly depict details relevant to an evaluation of the project area. Provision of photographs shall be one original print of each image or electronic

presentations of comparable quality. Comparable quality electronic photograph presentations shall be at least 1200 x 1600-pixel resolution. Photographs shall be attached to separately labeled pages that clearly identify project name; project identification (ID) number; address or Universal Transverse Mercator (UTM) of resource; description of the picture and direction of the photographic view. In addition to the hard-copy prints, an electronic version of each will be submitted with the same identification information as the hard-copy.

2) Technical Reports and Documentation

Definition of technical report and documentation for environmental services: a report, checklist, form, or analysis detailing resource-specific studies identified during the process of gathering data to make an environmental decision.

Technical reports and documentation must be produced before an environmental document is prepared in order to identify issues early in the process. The Village of Vinton/County/State will determine what technical reports and documentation will be necessary for any given project. Technical reports and documentation must be prepared for the Village of Vinton/County/State with sufficient detail and clarity to support environmental determination(s). All technical reports shall be compliant with TxDOT Environmental Compliance Toolkits. The environmental document will reference the technical reports.

Environmental technical reports and documentation must include appropriate National Environmental Policy Act of 1969 (NEPA) or federal regulatory language in addition to the purpose and methodology used in delivering the service. Technical reports and forms must include sufficient information to determine the significance of impacts. Some examples of environmental technical reports and documentation are listed below:

- WPD I and II
- Species Impact Form, Table and Tier 1 Assessment
- Air Quality Analysis (Qualitative MSAT, only)
- Archeological Background Study
- Community Impacts Assessment Form
- Hazardous Materials ISA Form
- Historic Resources Project Coordination Request (PCR)
- Surface Water Impact Form and Table
- Wetland Delineation Technical Report, if required
- Notice and Opportunity to Comment Summary, only
- Traffic Noise Analysis

All technical reports and documentation prepared under the authority granted by this MOU, the Engineer shall insert the following language in a way that is conspicuous to the reader or include in a CE project record:

"The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019 and executed by FHWA and TxDOT."

Minimum Deliverables for all documents and technical reports: (Additional deliverables to be identified in a work authorization based on work assigned.)

- Draft Document

- Final Document

3) Categorical Exclusion (CE) Content and Format
   - The CE shall meet the requirements of 23 CFR §771.119 and TAC, Title 43, Part 1, Chapter 2. It is assumed no new ROW would be required, therefore, this scope reflects the preparation of an open-ended CE or c(22) CE.
   - Exhibits to be included in reports or CEs shall not exceed 11" by 17," and shall be in color. Text pages shall be 8.5" by 11". Exhibits and text in reports shall be neat and reproducible via photocopying without loss of legibility. The CE documents shall be reproduced on plain white paper unless otherwise approved in advance in writing by the Village of Vinton/County/State.
   - The CE shall use good quality maps and exhibits and shall incorporate by reference and summarize background data and technical analyses to support the concise discussions of the alternatives and their impacts. The Engineer shall follow the Environmental Compliance Toolkits located on the TxDOT website.

4) Community Impacts

Community Impacts includes environmental justice, limited English proficiency, and other issues as addressed in TxDOT Environmental guidance and toolkits.

The Engineer shall perform Community Impact Assessments including displacements, changes to access and travel pattern, changes to cohesion, and Environmental Justice analysis (in accordance with Executive Order 12898) and Limited English Proficiency analysis (in accordance with Executive Order 13166).

- Compile analysis to meet requirements of TA 6640.8A. Analysis must conform to applicable current State and FHWA guidance.
- Process for Community Impact Assessment should follow guidance provided in TxDOT's Community Impacts Assessment Toolkit.

5) Historic Resource Identification, Evaluation and Documentation Services

The Engineer shall perform limited non-archeological historic-age resource studies related to compliance with Section 106 and Section 110 of the NHPA (36 CFR 800). Such studies include but are not limited to non-archeological historic-age resource surveys. Identification, evaluation, and documentation tasks shall be completed in accordance with the provisions of the Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR Parts 44719 et seq.) and requirements used by those of the National Park Service, and previously published in 36 CFR Part 61 (SOI Standards).

The deliverables shall summarize the methods used for the historic resources studies and shall summarize the results achieved. Each historic resource study shall have a deliverable. The summary of results shall be sufficiently detailed to provide satisfactory basis for thorough review by the State, Texas Historical Commission (THC), and consulting parties. All deliverables shall be in sufficient detail to meet regulatory requirements for legal sufficiency. All deliverables shall be written to be understood by the public and must be in accordance with current TxDOT policies and procedures provided in the TxDOT Environmental Compliance Toolkit.

Historic resource studies shall be performed and documented at sufficient levels to satisfy THC requirements for determining the presence of and documenting historically significant properties in the project Area of Potential Effects (APE) in accordance with 36 CFR 60 and 43 TAC, Part I,

Chapter 2. All reports shall include the names and tasks performed of all historic resource technical experts associated with the project. Performance of non-archeological historic-age resource studies shall include the following tasks as specified in a work authorization. Deliverables shall be transmitted to the Village of Vinton/County/State in electronic format and meet the requirements set for in the State's Environmental Compliance Toolkit.

Project Coordination Request

A Project Coordination Requests (PCR) will be prepared and approved by the Village of Vinton/ County/State to determine if further studies are warranted.

The PCR shall comply with the TxDOT Environmental Compliance Toolkits provided by the State's Environmental Affairs Division in effect as of the date of the receipt of the documents.

- The Engineer shall revise the PCR to address comments by the Village of Vinton/ County/State at no additional cost to the Village of Vinton/County/State and may be required to integrate the findings into another environmental document. The State assumes responsibility for transmitting the findings to the THC and any appropriate consulting parties, and for transmitting THC and consulting parties' comments to the Engineer's Technical Expert. Engineer's Technical Expert is an institution, firm, individual, or team that provides professional scientific services, including but not limited to archeologists, biologists, geologists, historians, or other environmental professions that conduct environmental or cultural assessments required by state or federal law for transportation projects. The State assumes responsibility for any further historic, non-archeological surveys that arise from the findings of the PCR.
- The Engineer shall conduct tasks associated with public involvement as requested during the historic resources reporting phase and conforming to the methodology outlined in the TxDOT Environmental Compliance Toolkits.

The Engineer shall contact interested parties as requested by the State in order to determine local knowledge of historic resources in the project area. Interested parties include but are not limited to: Certified Local Governments, Historic Preservation Offices, Village of Vinton/County Historical Commissions, Main Street Managers, the Historic Bridge Foundation, and other consulting parties. No Historic Resource Survey is included in this scope of work.

6) Archeological Background Studies

- The Background Study shall be produced by a professional archeologist as defined in 13 TAC §26.4(2).
- The Archeological Background Study shall conform to the current Review Standard for Archeological Background Studies, available from the Environmental Compliance Toolkit.
- The Archeological Background Study must define and consider all alternatives selected for detailed study, including all existing right of way, all proposed new right of way, easements (temporary and permanent), and any other project-specific location designated by the State. The Archeological Background study shall consider the likely depth of impacts resulting from the proposed project. The location of all alternatives selected for detailed study shall be presented on a map or maps as part of the Archeological Background Study.
- To conduct the Archeological Background Study, the professional archeologist shall undertake a review of existing data, including, but not limited to, the Texas Archeological Sites Atlas, geologic maps, soil maps, Potential Archeological Liability Map (PALM) of the project area (if applicable), aerial photographs, and historic maps. Based on this review, the Archeological Background Study shall identify and plot on a map the areas that require field investigation to

evaluate the project's effects on archeological resources and cemeteries and shall identify the areas in which the proposed project would have no effect on archeological resources and cemeteries. The Archeological Background Study shall identify any areas proposed for field investigation where impacts are deep, extending beyond three feet in depth. An archeological survey is not included in this scope of work.

7) Air Quality Studies

It is assumed an air quality analysis is not required for this project.

8) Traffic Noise Studies

The Engineer shall perform a traffic noise analysis and computer modeling in accordance with the current version of the State's (FHWA approved) "Guidelines for Analysis and Abatement of Roadway Traffic Noise." For purposes of this scope, it is assumed that only the Build and No Build alternatives will be addressed in the analysis.

The Engineer shall:

- Perform a traffic noise analysis in accordance with the current version of the State's (FHWA approved) "Guidelines for Analysis and Abatement of Roadway Traffic Noise" The current version of the guidance is located on the State's Traffic Noise Toolkit website.
- Comply with all noise policy, guidelines and standards found on the State's Traffic Noise Toolkit website. Upon request, the State will provide the Engineer's Technical Expert with existing and predicted (future) traffic data and, when available, aerial photography.
- By project location site visit, identify adjacent, land use development and photo document representative receivers that might be impacted by highway traffic noise and may benefit from feasible and reasonable noise abatement.
- Determine existing and predicted noise levels for representative receivers, as follows:

For transportation activities not on new location, the Engineer shall take field measurements of existing noise levels, perform computer modeling of existing noise levels and predicted (future) noise levels. Field measurements may be necessary for more complex projects and for model validation purposes. Computer modeling shall be accomplished with the latest FHWA approved Traffic Noise Model (TNM) software program which must be purchased at the expense of the Engineer's Technical Expert from the software distributor. The Engineer shall:

- Identify impacted receivers in accordance with the absolute and relative impact criteria. Consider and evaluate all required noise abatement measures for impacted receivers in accordance with the feasible and reasonable criteria.
- Propose noise abatement measures that are both feasible and reasonable.
- Determine predicted (future) noise impact contours for transportation activities where there is adjacent undeveloped property where residential or commercial development is likely to occur in the near future.

9) Surface Water Analysis Form, Impacts Table, and Wetland Delineation Report

The Surface Water Analysis form shall identify water resources in the project area and assess project-related impacts on those resources. Water resources and issues to be considered include:

- 303(d) listed impaired streams and waterways
- Waters of the U.S., including wetlands

- Floodplains
- Municipal Separate Storm Sewer System (MS4) notification
- Permit requirements (TPDES General Permit; Section 404; Section 10 and others)
- Best Management Practices

In conjunction with development of the Surface Water Analysis Form, wetland delineations shall be performed, as necessary, in accordance with the current USACE Wetlands Delineation Manual (Technical Report Y-87-1). Delineation results shall be documented using TxDOT's Documentation Standard and template for the Waters of the U.S. Delineation Report. If it is determined that a Section 404 Nationwide Permit (NWP) with Pre-Construction Notification (PCN) is required, a supplemental scope and fee will be prepared.

10) Species Analysis Spreadsheet and Form and Tier 1 Site Assessment

The Engineer shall obtain and review the state and federal threatened and endangered species lists, the TPWD list of Species of Greatest Conservation Need, aerial photographs and other available data to assess the potential for the project to impact protected species (including migratory birds). The Engineer shall conduct a site visit to verify habitat and assess conditions and identify migratory bird nesting areas within the project area. The Engineer shall complete the Species Analysis Spreadsheet, Species Analysis Form, and Tier I Site Assessment Form and provide necessary attachments (including attachments required for TPWD coordination, if applicable). For purposes of this scope it is assumed that the proposed project will not impact federally-protected species and no Section 7 consultation will be required. Due to the location of the proposed project, it is also assumed that Farmland Protection Policy Act Form AD-1006, Marine Mammal Protection Act, Coastal Barrier Resources Act, and Essential Fish Habitat requirements do not apply to the project. The forms shall be completed in accordance with guidance provided in TxDOT's Natural Resources Toolkit.

11) Initial Assessment of Hazardous Materials Impacts

The Engineer shall:

- The Engineer shall perform an Initial Site Assessment (ISA) for potential hazardous materials impacts for the limits of the study area. The Engineer is responsible acquiring the latest version of TxDOT's Hazardous Materials Initial Site Assessment (ISA) located in the Hazardous Materials Toolkit (http://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/haz-mat.html).
    - Note: The ISA shall determine the potential for encountering hazardous materials in the study area, including possible environmental liability, increased handling requirements (e.g. soil or groundwater), and potential construction worker health and safety issues.
    - Note: The Engineer is responsible for reviewing and being familiar with the State's guidance related to the development of the ISA and the Hazardous Material process. All guidance and information related to this can be found on the Hazardous Materials Toolkit.
- Produce and submit to the State a completed ISA using the State's ISA Environmental Compliance Toolkit guidance format.
- The Engineer's completed ISA shall include, when applicable, full copies of list search reports, including maps depicting locations, copies of agency file information, photographs, recommendations, and any other supporting information gathered by the Engineer to complete the ISA.

- Based on the ISA information, the Engineer shall provide the State a report discussing the known or potential hazardous materials impacts suitable for inclusion in the environmental document. The report of hazardous materials impacts shall include, when applicable:
    - A concise summary of relevant information gathered during the ISA, including sufficient information to show that the study area for the Transportation Activity was adequately investigated for known or potential hazardous material contamination.
    - A concise description of the scope of the hazardous materials ISA, disclosure of any limitations of the assessment, and a statement indicating who performed the assessment.
    - A concise summary of the findings of the assessment for each alternative considered, along with an opinion of the potential of an identified site to impact the project during construction.
    - A discussion of any commitments recommended for performing further investigation of suspect areas, and justification for postponement of further investigation.
    - A summary of efforts to be employed by the State to avoid or minimize involvement with known or suspected hazardous material contamination sites during construction, and justification for not avoiding contaminated sites within the preferred alternative or corridor alignment.
    - Disclosure of known or suspected hazardous material contamination that is anticipated to be encountered during construction.
    - A discussion of any required or recommended special considerations, contingencies or provisions to handle known or suspected hazardous material contamination during right-of-way negotiation and acquisition, property management, design and construction.
    - A summary of any early coordination or consultation conducted with the regulatory agencies, local entities or property owners.
    - A discussion of any further hazardous materials related coordination with, and approvals or permits required from, the regulatory agencies or other entities.
- Should the findings of the ISA conclude that additional investigation, special considerations, or other commitments from the State are required during future stages of project development, the Engineer shall review those findings and commitments with the State prior to completing the hazardous materials discussion for the environmental document.

12) Public Involvement (23 CFR §771.111)

The Engineer shall:

- Perform public involvement activities in accordance with TAC, Title 43, Part 1, Chapter 2 and 36 CFR 800.2.
- This scope of work includes one Notice and Opportunity to Comment (NOC). No public meetings or hearings are included in this scope of work.
- Compile, maintain and update a mailing list of people, agencies and organizations interested in the Project.
- Prepare the draft and final NOC and letter to elected officials.
- Mail/email NOC and elected officials' letters.
- Compile NOC Summary.

13) Section 4(f) Evaluations.

No Section 4(f) effects are anticipated.

14) Section 6(f) Evaluation

No Section 6(f) effects are anticipated.

15) Reference Documents
The Engineer shall adhere to the content of TxDOT's On-Line Environmental Compliance Toolkit guidance.

H. Plans, Specifications and Estimates (PS&E)

1) As necessary, update traffic data, right of way maps, and other information from previous projects and other activities.
2) Complete the Design Summary Report and hold a Design Conference. This will provide a solid foundation for the design team to commence detailed design work.
3) Initial design
   a) develop traffic control plan/detour plans
   b) obtain environmental permits
   c) incorporate environmental commitments into design
   d) coordinate approval of pavement design
   e) prepare hydrologic/hydraulic reports as necessary
4) Utility Coordination
   a) research and determination of the location of existing utilities
   b) minimization of utility conflicts with the proposed design
   c) coordination with utilities to develop relocation plans
   d) pothole as necessary for potential utility conflicts
   e) develop utility layout plan
   f) prepare and issue minutes for each meeting
   g) obtain utility clearance letters
5) Roadway design
   a) design final vertical and horizontal alignments
   b) develop cross-section and earthwork volumes
   c) detail design elements throughout project including driveway access, bicycle and pedestrian facilities, landscape, planting, irrigation, miscellaneous details
6) Operational design
   a) develop signing and pavement marking plans
   b) develop school zone flasher plan
7) Drainage Design
   a) Prepare drainage area maps
   b) Prepare plan/profile sheets for storm drain systems and outfalls
   c) Select standard details from Village of Vinton/County or TxDOT
   d) Prepare details for non-standard inlets, manholes and junction boxes
   e) Prepare drainage details for outlet protection, outlet structures and utility accommodation structures
   f) Identify pipe strength requirements
   g) Prepare drainage facility quantity summaries
   h) Identify potential utility conflicts
   i) Consider drainage impacts to pedestrian facilities, utilities, driveways, retaining walls and CTBs
   j) Prepare Hydraulic Data Sheets for storm sewer system.
   k) Develop plans for all temporary drainage facilities
8) Traffic control
   a) Prepare traffic control drawings including: line diagrams, detour plans, TCP, general note guidelines for contractors to follow, TCP detail/standards

   b) Compile TCP Details/Standards using available TxDOT Standards
9) Storm Water Pollution Prevention Plan (SW3P)
   a) Prepare SW3P Narrative
   b) Prepare Storm Water Pollution Prevention Plans and Details
10) Final assembly of PS&E Package and supporting documents
   a) complete final construction plans
   b) develop standard and special specifications
   c) develop special provisions
   d) develop cost estimate
   e) develop construction time estimate
   f) develop bid document package
   g) support CRRMA's development of project agreements related to the Project
11) Bid assistance and construction phase services
   a) assist with bid process and provide answers to prospective bidders
   b) during construction, respond to requests for information (RFIs) and perform shop drawing reviews
12) Submit design documents at project milestones (30, 60, 90 and 100%) to all entities with jurisdiction over approval of the project. Coordinate reviews, gather/address comments received from those entities.

Deliverables

- Plans and estimate
- Specification list, specifications, general notes, special provisions, special specifications
- Final signed and sealed construction plans
- 30, 60, 90, 100% Submittals: The engineer will prepare and provide copies of each submittal and corresponding (pdf) files
- QC redlines at 30, 60, 90, 100% design reviews
- Final construction cost estimate
- Final construction schedule time estimate
- Bid document package

I. Utility Coordination

1) Conduct a record research and acquisition of available as-built utility records. This information will be placed on the base map and provided to all utility companies.
2) Designate known utilities throughout the ROW, as provided by utility owners.
3) Conduct utility coordination meetings to review record drawings and proposed improvements with affected utility owners individually at each phase submittal. Utilities that may be affected include: El Paso Electric Company, Texas Gas Services, Paseo Del Este MUD, Spectrum, TW Telecom, ATT-Telephone, AT&T Distribution Cable, MCI, Qwest Communication and others.
4) Prepare and issue minutes for each meeting.
5) Provide base map information to all utility companies at each submittal phase.

PROJECT SCHEDULE

The schedule is based on the following:

- Kick off meeting will be held within **ten (10) days** of the written notice to proceed.
- 30% Schematic Design Documents and Cost Estimate will be submitted within **12 weeks** of NTP.

- Environmental Documents will be submitted within **7 months** of receipt of Owner comments for 30% Schematic Design Documents.
- 60% Schematic Design Documents and Cost Estimate will be submitted within **16 weeks** of receipt of Owner comments.
- Environmental Documents will be submitted within **six (6) months** of receipt of Owner comments for 60% Schematic Design
- 90% Schematic Design Documents and Cost Estimate will be submitted within **six** (**6) weeks** of receipt of Owner comments.
- 30% Design Documents and Cost Estimate will be submitted within **16 weeks** of receipt of Owner comments for 90% Schematic Design.
- 60% Design Documents and Cost Estimate will be submitted within **20 weeks** of receipt of Owner comments.
- 90% Design Documents and Cost Estimate will be submitted within **12 weeks** of receipt of Owner comments.
- Environmental Documents-Notice of Intent and Public Involvement will be completed within **five (5) months** of receipt of Owner comments for 30% Design
- 100% Construction Documents and Construction Cost Estimate will be submitted within **four (4) week**s of receipt of Owner comments.

ADDITIONAL SERVICES
The following items are considered to be additional services: N/A

PROFESSIONAL SERVICE FEES

Compensation for services will be on a Time and Materials basis. The Time and Materials amount not to exceed for the proposed services is ***$774,902.04***.

- Airfare, lodging, travel costs, reproductions, copies, etc. are reimbursable at cost

EXHIBIT C

FEE ESTIMATE

Company	Fee
Huitt-Zollars, Inc.	$454,755.31
Villaverde	$52,825.70
Blanton	$144,462.30
HVJ	$33,777.27
Cobb Fendley	$89,081.47
n/a	$0.00
n/a	$0.00
n/a	$0.00
n/a	$0.00
Total	**$774,902.04**

TASK SUMMARY

Huitt-Zollars
Valley Chile Road Reconstruction
Summary by Task

Task	Huitt-Zollars, Inc.	VillaVerde	Blanton	HVJ	Cobb-Fendley				
A. Project Management	$59,701.52								
B. Surveying	$27,324.04								
D. Geotechnical Investigations	$5,263.82			$17,617.27					
E. Schematic Design	$76,811.49								
F. Drainage Study	$15,159.09								
G. Envirionmental Document	$21,036.06		$135,754.30						
H. Stakeholder Coordination	$0.00								
I. Plans, Specifications and Estimates (PS&E)	$213,817.26	$52,825.70			$18,385.30				
J. Utility Coordination	$17,242.03				$62,944.67				
Sub Totals	**$436,355.31**	**$52,825.70**	**$135,754.30**	**$17,617.27**	**$81,329.97**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Direct Expenses	**$18,400.00**		**$8,708.00**	**$16,160.00**	**$7,751.50**				
Totals	**$454,755.31**	**$52,825.70**	**$144,462.30**	**$33,777.27**	**$89,081.47**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Grand Total				**$774,902.04**					
Participation Percentage	58.69%	6.82%	18.64%	4.36%	11.50%	0.00%	0.00%	0.00%	0.00%
Total DBE Percentage: 29.82%									
DBE	**N**	**Y**	**Y**	**Y**	**N**				
Task									
A. Project Management	$59,701.52	8.25%							
B. Surveying	$27,324.04	3.77%							
C. Right-Of-Way Mapping	$0.00	0.00%							
D. Geotechnical Investigations	$22,881.09	3.16%							
E. Schematic Design	$76,811.49	10.61%							
F. Drainage Study	$15,159.09	2.09%							
G. Envirionmental Document	$156,790.36	21.66%							
H. Stakeholder Coordination	$0.00	0.00%							
I. Plans, Specifications and Estimates (PS&E)	$285,028.26	39.37%							
J. Utility Coordination	$80,186.71	11.08%							
	$723,882.54								

EXHIBIT C

WA # 2 Scope
Valley Chile Road Reconstruction

Huitt-Zollars
Valley Chile Road Reconstruction

Task Description	Principal	Project Engineer	EIT	EIT 2	EIT 3	Quality Manager	Admin / Clerical (Eng)	Public Outreach Manager	Registered Professional Land Surveyor	Survey Technician	2-man Survey Crew (Portal to Portal)	Utilities Field Inspector	Senior Landscape Architect/Planner	Landscape Architect/Planner	Landscape Designer	Project Manager	TOTAL LABOR HOURS	TOTAL LABOR COST
A. Project Management																	316	**$ 59,701.52**
1. Project Management/Work Plan																	34	**$ 8,560.92**
1.1 Develop a Project Management/Work Plan	4						4									8	16	$ 3,575.32
1.2 Develop a Quality Management Plan	4					6	4									4	18	$ 4,985.60
2. Progress Reporting																	84	**$ 14,180.57**
2.1 Prepare and Submit Monthly Progress Reports for CRRMA		4			12		6									20	42	$ 7,090.29
2.1.1 Acitivites Completed																	0	$ -
2.1.2 Initiated and Ongoing Activities																	0	$ -
2.1.3 Planned Activities																	0	$ -
2.1.4 Problems Encountered/Problem Remedies																	0	$ -
2.1.5 Overall Status including Tabulation of Percentage Complete by Task																	0	$ -
2.1.6 Updated Project Schedule																	0	$ -
2.2 Prepare and Submit Invoices		4			12		6									20	42	$ 7,090.29
2.2.1 Financial and DBE Participation																	0	$ -
2.2.2 Hours Worked by Individual																	0	$ -
2.2.3 Hourly Rate																	0	$ -
2.2.4 Monthly Invoice Amount as Compared to Baseline Monthly Estimate																	0	$ -
2.2.5 Monthy Cumulative Invoice Amount as Compared to Baseline Monthly Cumulative Estimate																	0	$ -
2.2.6 Reasons for Deviations from Baseline																	0	$ -
3. Coordination/Administration																	96	**$ 18,277.27**
3.1 Prepare and Attend One (1) Kick-off Meeting (Project guidelines, general project requirement and expectatio	2	2			4											4	12	$ 2,419.76
3.3 Coordinate with CRRMA GEC Staff		4			16											40	60	$ 11,582.08
3.4 Compile and Maintain a Comprehensive Administrative Record							8									16	24	$ 4,275.43
4. Project Control/Scheduling																	20	**$ 3,101.31**
4.1 Develop and Maintain a Master Schedule					8		4									8	20	$ 3,101.31
4.2 Update and Schedule on a Monthly Basis (INCLUDED IN 4.1)																	0	$ -
4.3 Include all CRRMA GEC, TxDOT and other 3rd Party Reviews in the Schedule (INCLUDED IN 4.1)																	0	$ -
5. Subconsultant Management																	82	**$ 15,581.44**
5.1 Develop and Implement Plan to Manage Subconsultants (Part of Project Management Plan)(INCLUDED IN 1.1)																	0	$ -
5.2 Prepare Subcontracts for Subconsultants							12									16	28	$ 4,609.00
5.3 Monitor Subconsultant Activities (staff and schedule)		12														24	36	$ 7,314.96
5.4 Review and Recommend Approval of Subconsultant Progress Reports and Invoices		6														12	18	$ 3,657.48
Deliverables																	0	**$ -**
1. Project Management Plan																	0	$ -
2. Quality Plan																	0	$ -
2. Sumaries of all Meetings																	0	$ -
3. Administrative Record																	0	$ -
4. Project Schedule and Monthly Updates																	0	$ -
5. Subconsultant Contracts, Progress Reports and Invoices																	0	$ -
HOURS SUB-TOTALS	**10**	**32**	**0**	**0**	**52**	**6**	**44**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**172**	**316**	
B. Surveying																	198	**$ 27,324.04**
1. Project Control																	22	**$ 3,500.78**
1.1 **Verify existing control**: Survey will be tied into an existing NGS benchmark and used for the basis of ground survey.									1	2	3					2	8	$ 1,317.27
1.2 **Establish local survey project control:** A minimum of 4 (four) horizontal and vertical control points shall be set along the proposed route, to be utilized for future surveying/construction activities. Control points shall be field and office verified. Control point table with final x-y-z values of the monuments shall be included in the final deliverables.									2	4	6					2	14	$ 2,183.51
Right of Entry Permissions																	24	**$ 3,609.65**
2.1 **Right of Entry Letters:** Research current property owners along the propsoed route, including names and current mailing addresses through the El Paso County Central Appraisal District. Write up a standard right of entry letter requesting permission to enter the property for surveying activities if needed and send to property owners.									10	12						2	24	$ 3,609.65
3. Ground Survey																	176	**$ 23,823.26**
3.1 **Request Texas 811 Utility Line Spots:** Research record utilities and plot record utilities in the base file.									4	16							20	$ 2,248.69
3.2 **Perform Topographic Survey along the proposed route:** Obtain cross-sections at a minimum of 50' intervals from apparent right of way to apparent right of way and extending 25' into properties where possible. Collect planimetric features including but not limited to edge of pavement, fences, walls, sidewalks, curb/gutter, drainage channel and existing pond, visible above ground utilities and significant vegetation. Collect utility line spot markings. Collect enough spot elevations and grade breaks to establish a 1-foot contour interval.									12	50	64					2	128	$ 17,613.04

EXHIBIT C

3.3 **Perform Right of Way Survey:** Research the El Paso County Clerk's Records, El Paso County Central Appraisal District, Texas Department of Transportation Mapping Section and other entities as necessary to make a preliminary determination of the existing right of way lines and ad-joining property lines. Based on this preliminary information, a thorough field search will be conducted to search for existing monumentation. With the record information and the obtained field evidence, a determination will be made by a Texas Registered Professional Land Surveyor on current right of way lines to be incorporated in the base file									10	16						2	28	$ 3,961.52
Deliverables																	0	$ -
1. Final Planimetric and Topographic Base Map																	0	$ -
2. TIN File																	0	$ -
HOURS SUB-TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39**	**100**	**73**	**0**	**0**	**0**	**0**	**10**	**222**	
D. Geotechnical Investigations																	28	**$ 5,263.82**
1. Geotechnical Enginrring Field Investigation																	8	**$ 1,804.14**
1.1 Coordinate with Geotechnical Engineer during field investigation																8	8	$ 1,804.14
2. Geotechnical Design																	20	**$ 3,459.67**
2.1 Coordinate with Geotech for pavement base and pavement thickness for pavement type					6											8	14	$ 2,526.84
2.2 Review Geotechnical Report and provide comments					4											2	6	$ 932.83
HOURS SUB-TOTALS	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**28**	
E. Schematic Design																	546	**$ 76,811.49**
1. Data Collection																	71	**$ 10,280.31**
1.1 Photographic Record																	0	$ -
1.1.1 Collect Data					8											2	10	$ 1,414.63
1.1.2 Document Landmarks Along Existing Corridor					8											2	10	$ 1,414.63
1.1.3 Pepare Photos in .JPG Digitial Format					8											2	10	$ 1,414.63
1.2 Utility/ROW Data																	0	$ -
1.2.1 Acquire all Existing Above and Below Ground Utility Plans and Documents (Public and Private)																	0	$ -
1.2.2 Acquire Listing of Utility Companies to be contacted, and other pertinent information																	0	$ -
1.3 Transportation Reports																	0	$ -
1.3.1 Acquire All Regional Transportation and Mobility Study Reports, Environmental Reports and other Studies Relating to Air Quality, Planning and Land Use, Feasibility Studies, and Construction Plans within Study Area		2			16											8	26	$ 4,048.42
1.4 Municipality Reports/Developments																	0	$ -
1.4.1 Acquire Documents for Proposed Development Along Proposed Route		2			12											1	15	$ 1,988.00
2. Design Criteria																	48	**$ 7,194.77**
2.1 Submit Design Criteria for approval by CRRMA Prior to Beginning of Schematic Design Work		4			32											12	48	$ 7,194.77
2.2 Hold a Design Conference	2	2			6	4										4	18	$ 4,202.23
3. Design Schematic																	359	**$ 47,982.50**
3.1 Typical Sections		2		16	8											4	30	$ 3,951.07
3.2 Lane Lines and Arrows Indicating Number of Lanes		2			24											4	30	$ 4,109.94
3.3 Proposed and Existing ROW Limits																	0	$ -
3.3.1 Design Cross-Sections to Verify ROW Requirements		6		32	12											4	54	$ 6,835.37
3.3.2 Existing and Proposed Easements		4		16	8											4	32	$ 4,268.16
3.3.3 Proposed Toe of Slope																	0	$ -
3.5 Retaining Wall(s) Limits		4			16											4	24	$ 3,463.44
3.6 Geometrics																	0	$ -
3.6.1 Pavement Cross Slopes		4			24											4	32	$ 4,427.03
3.6.2 Lane/Shoulder Widths		6		8	16											4	34	$ 4,664.69
3.6.3 Slope Rates of the Typical Sections (Plan view and Cross Sections)																	0	$ -
3.6.3.1 Roadway		6		32												4	42	$ 5,389.98
3.7 Utility Conflicts/Adjustments (Location and Elevation Information)		6			32											4	42	$ 5,707.71
3.8 Existing and Proposed Drainage Structures		4			32											3	39	$ 5,165.11
4. Other Items																	68	**$ 11,353.91**
4.1 Develop Engineer's Cost Estimate																	0	$ -
4.1.1 Construction		4			24											4	28	$ 4,427.03
4.1.2 ROW																	0	$ -
4.1.3 Utility Relocations		4			24											4	28	$ 4,427.03
4.1.4 Contigencies		4			8											4	12	$ 2,499.84
Deliverables																	0	**$ -**
1. Design Summary Report																	0	$ -
2. Preliminary (30 and 60 Percent) Design Schematic																	0	$ -
3. Cost Estimate																	0	$ -
																	0	$ -
HOURS SUB-TOTALS	**2**	**66**	**0**	**104**	**318**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**82**	**576**	

WA # 2 Scope
Valley Chile Road Reconstruction

F. Drainage Study																	62	**$ 15,159.09**
1. Perform Drainage Study																	48	**$ 12,976.34**
1.1 Determine the drainage requirements for the Project																	0	$ -
1.1.1 Consider the location of retention ponding areas for storing runoff from the project		2			40											6	48	$ 6,488.17
1.1.2 Identify any ROW requirements for locating/constructing new ponding areas and/or drainage appurtenances		2			40											6	48	$ 6,488.17
2. Coordination																	14	**$ 2,182.75**
2.1 Coordinate with County, TxDOT, other municipalities, and adjoining Developers		2			8											4	14	$ 2,182.75
Deliverables																	0	**$ -**
1. Drainage Study Report																	0	$ -
HOURS SUB-TOTALS	**0**	**6**	**0**	**0**	**88**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**110**	
G. Environmental Document																	112	**$ 21,036.06**
1. Stakeholder Involvement Activities																	112	**$ 21,036.06**
1.1 Coordinate with Envrionmental Subconsultant					16											24	40	$ 7,339.62
1.2 Notice and Opporunity to comment-Public involvement					16											24	40	$ 7,339.62
1.3 Review Environmental Documents								24								8	32	$ 6,356.82
Deliverables																	0	**$ -**
1.Environmental Document																	0	$ -
HOURS SUB-TOTALS	**0**	**0**	**0**	**0**	**32**	**0**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**56**	**112**	
I. Plans, Specifications and Estimates (PS&E)																	1595	**$ 213,817.26**
1. Update Information																	6	**$ -**
1.1 Update traffic data, ROW maps, and other information						4										2	6	$ -
2. Design Criteria																	16	**$ 3,961.33**
2.1 Complete Design Summary Report																	0	$ -
2.2 Hold a Design Conference	2	2			4	4										4	16	$ 3,961.33
3. Initial Design																	34	**$ 4,778.77**
3.1 Develop traffic control plan/detour plans		2		8	12											2	24	$ 3,097.68
3.3 Coordinate approval of pavement design		2		2	2											4	10	$ 1,681.10
4. Utility Coordination																	32	**$ 4,905.06**
4.1 Research and determination of the location of existing utilities					2											2	4	$ 691.93
4.2 Minimization of utility conflicts with the proposed design					8											2	10	$ 1,414.63
4.3 Coordination with utilities to develop relocation plans					4											2	6	$ 932.83
4.4 Review Utility Layout Plan					4											2	6	$ 932.83
4.5 Review utility relocation schedule					4											2	6	$ 932.83
5. Roadway Design																	682	**$ 82,986.46**
5.1 Demolition Sheets		4		40	40											4	88	$ 10,775.02
5.2 Vertical and Horizontal Alignments		4		120	38											16	178	$ 22,081.94
5.3 Develop cross-sections and earthwork volumes		4		120	36											8	168	$ 20,036.90
5.4 Detail Design Elements																	0	$ -
5.3.1 Illumination (Review)		2			4											4	10	$ 1,700.96
5.4.2 Driveway Access		4		32	12											4	52	$ 6,518.28
5.4.3 ~~Bicycle~~ and pedestrian facilities		2		80	24											4	110	$ 12,951.55
5.3.4 Landscaping				8									8	24	48	4	92	$ 11,087.31
5.3.5 Miscellaneous Details		4	32		32											4	72	$ 8,609.53
6. Operational Design																	80	**$ 9,811.43**
6.1 Develop signing and pavement marking plans		4		40	32											4	80	$ 9,811.43
7. Drainage Design																	239	**$ 30,679.34**
7.1 Prepare drainage area maps				24	32											4	60	$ 7,408.93
7.3 Prepare plan/profile sheets for storm drain systems and outfalls				36	36											4	76	$ 9,216.97
7.4 Select standard details from County or TxDOT				6	24											2	32	$ 4,004.94
7.5 Prepare details for non-standard inlets, manholes and junction boxes				4	8											2	14	$ 1,856.71
7.6 Prepare drainage details for outlet protection, outlet structures and utility accommodation structures				16	12											4	32	$ 4,115.78
7.7 Identify pipe strength requirements					4											1	5	$ 707.32
7.8 Prepare drainage facility quantity summaries				4	8											2	14	$ 1,856.71
7.9 Identify potential utility conflicts				4	16											2	22	$ 2,820.31
7.10 Consider drainage impacts to pedestrian facilities, utilities, driveways, retaining walls and CTBs					8											2	10	$ 1,414.63
7.11 Prepare Hydraulic Data Sheets for storm sewer system.				4	16											4	24	$ 3,271.34
7.12 Develop plans for all temporary drainage facilities					8											2	10	$ 1,414.63

EXHIBIT C

8.Traffic Control (Review)																	46	$ 8,004.56
8.1 Attend up to two meetings to present and discuss the proposed construction sequence and TCP		2														8	10	$ 2,121.23
8.2 Review traffic control drawings and provide comments					16											8	24	$ 3,731.33
8.3 Attend Safety Review Meeting		2			4											6	12	$ 2,151.99
9. Storm Water Pollution Prevention Plan (SW3P)																	88	$ 11,188.81
9.1 Prepare SW3P Narrative		4		16												4	24	$ 3,304.57
9.2 Prepare Storm Water Pollution Prevention Plans and Details		4		40	16											4	64	$ 7,884.24
10. Final Assembly of PS&E Package																	202	$ 28,596.85
10.1 Complete final construction plans		4		32	8											4	48	$ 6,036.48
10.2 Develop standard and special specifications		4		24	8											4	40	$ 5,152.32
10.3 Develop special provisions		4		8	4											4	20	$ 2,902.21
10.4 Develop cost estimate		4		12	6											4	26	$ 3,585.18
10.5 Develop bid document package		4		24	8	8	8									4	56	$ 8,902.61
10.6 Support CCRMA's develop of project agreements related to the Project		4			4											4	12	$ 2,018.05
12. Bid Assistance																	22	$ 3,805.64
12.1 Assist with bid process and provide answers to prospective bidders					8											8	16	$ 2,767.74
12.2 Attend prebid conference					3											3	6	$ 1,037.90
Deliverables																	148	$ 25,099.02
1. 30, 60, 90, 100% Submittals	4	2		24	4	8										2	44	$ 8,423.15
2. QC redlines at (30, 60, and 90 percent) design reviews		4		8	8	8	8									2	38	$ 6,683.25
3. Preliminary (30 and 60 Percent) Design Review		2		8	4	4										2	20	$ 3,675.65
6. Plans estimate		2		4	4											2	12	$ 1,692.00
7. Specification list, general notes, special provisions, specifications, special specifications		2		4	4											2	12	$ 1,692.00
8. Final signed and sealed construction plans		2		4	4											2	12	$ 1,692.00
9. Bid document package		2		4	4												10	$ 1,240.97
HOURS SUB-TOTALS	**6**	**86**	**32**	**760**	**547**	**32**	**16**	**0**	**0**	**0**	**0**	**0**	**8**	**24**	**48**	**178**	**1737**	
J. Utility Coordination																	110	$ 17,242.03
1. Utility Coordination																	110	$ 17,242.03
1.1 Conduct records research and acquisition of available as-built utility records (Review)					4											4	8	$ 1,383.87
1.3 Attend utility coordination meetings					40											24	64	$ 10,230.40
1.5 Review base map information to all utility companies at each submittal phase					24											6	30	$ 4,243.89
1.6 Review clearance letters and provide copies of documentation to the CRRMA at the Final submittal phase					4											4	8	$ 1,383.87
HOURS SUB-TOTALS	**0**	**0**	**0**	**0**	**72**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**110**	
TOTAL PROJECT HOURS	**18**	**190**	**760**	**864**	**1119**	**42**	**60**	**24**	**39**	**100**	**73**	**0**	**8**	**24**	**48**	**570**	**3939**	
PROJECT TOTALS	**$6,469.22**	**$30,123.36**	**$3,218.90**	**$95,489.31**	**$134,782.78**	**$16,186.48**	**$5,003.58**	**$4,552.67**	**$8,201.68**	**$8,796.82**	**$11,680.00**	**$0.00**	**$1,485.37**	**$3,314.43**	**$4,501.27**	**$128,545.25**	**$462,351.14**	
TOTAL PROJECT % DISTRIBUTION OF STAFF HOURS	**0.46%**	**4.82%**	**19.29%**	**21.93%**	**28.41%**	**1.07%**	**1.52%**	**0.61%**	**0.99%**	**2.54%**	**1.85%**	**0.00%**	**0.20%**	**0.61%**	**1.22%**	**14.47%**		

PROJECT:				
HUITT-ZOLLARS (PRIME)				
OTHER DIRECT EXPENSES				
Other Direct Expenses	**QTY**	**UNITS**	**RATE**	**TOTAL**
Lodging/Hotel (Taxes/fees not included) (Current state rate)	3	night	$150.00	$450.00
Lodging/Hotel Taxes/fees	3	night	$27.00	$81.00
Meals (overnight stay required) (Excluding alcohol)	3	day	$75.00	$225.00
Rental Car (Tax/fees not included)	3	day	$35.00	$105.00
Rental Car Taxes/fees	3	day	$20.00	$60.00
Rental Car Fuel	3	day	$30.00	$90.00
Mileage (Current state rate)	2500	mile	$0.58	$1,450.00
SUV or ATV Rental		day	N/A	N/A
Air Travel	3	each	$690.00	$2,070.00
Parking	3	day	$20.00	$60.00
Taxi/Cab fare	6	each	$15.00	$90.00
Standard Postage (Current state rate)	30	letter	$0.55	$16.50
Overnight express-letter size		each	$30.00	$0.00
Overnight express-oversized box		each	$60.00	$0.00
Courier Services	4	each	$35.00	$140.00
8½"X11" B/W Paper Copies	2000	each	$0.25	$500.00
11"X17" B/W Paper Copies	2000	each	$0.75	$1,500.00
8½"X11" Color Paper Copies	2000	each	$0.50	$1,000.00
11"X17" Color Paper Copies	2000	each	$1.25	$2,500.00
CADD Plotting	250	linear foot	$1.25	$312.50
Digital Ortho Plotting		linear foot	N/A	N/A
Law Enforcement/Uniform Officer		hour/officer	N/A	N/A
Notebooks		each	N/A	N/A
Hazardous Materials Database Search		per search	N/A	N/A
Report Binding	10	each	$25.00	$250.00
Presentation Boards 30'X40" Color Mounted	5	each	$125.00	$625.00
Color Graphics on Foam Board	50	sq. ft.	$12.50	$625.00
Custodian for Public Involvement		event	N/A	N/A
Audio-Visual Equipment Rental (technician included)		event	N/A	N/A
Env. Field Supplies (lathes, stakes, flagging, spray paint, etc.)		day	N/A	N/A
Translator (Engllish to Spanish)		hour	N/A	N/A
Court Reporter		hour	N/A	N/A
Newspaper Advertisement		each	N/A	N/A
Plots (B/W on Bond)		linear foot	$1.50	$0.00
Plots (Color on Bond)	100	linear foot	$2.50	$250.00
Plots (Color on Photographic Paper)		linear foot	$3.50	$0.00
Traffic Counts for Pavement Design	1	LS	$6,000.00	$6,000.00
Other Direct Expense Total				**$18,400.00**

WA # 2 Scope
Valley Chile Road Reconstruction

Blanton & Associates, Inc. Valley Chile Road																			
Task Description	**Senior Project Manager**	**Senior Env. Scientist**	**Noise Specialist**	**Env. Scientist 3**	**Env. Scientist 2**	**Senior NEPA Specialist**	**NEPA Specialist 3**	**Senior Historian**	**Senior Archeologist**	**Field Tech**	**Senior GIS Tech**	**GIS Tech**	**Technical Editor**	**Env. Professional 2**	**Env. Staff 2**	**Env. Staff 1**	**Env. Technician 2**	**TOTAL LABOR HOURS**	**TOTAL LABOR COST**
G. Environmental Process																		1201	**$135,754.30**
																		1201	**$135,754.30**
1.1 WPD I and II and ECOS Assistance	2			32														34	$ 4,221.50
1.2 Waters of the US - Surface Water Technical Table and Form	2	24		24		8					16		8					82	$ 9,874.78
1.3 Waters of the US - Technical Report	2	32		32							32		16					114	$ 13,182.30
1.4 Species Impact Evaluation Form and Table	2			4	40						24		16		4	40		130	$ 14,408.02
1.5 Tier 1 Site Assessment	2			4	24						24		16			24		94	$ 10,065.02
1.6 Historic Resources PCR	2			4				16			32		8				8	70	$ 7,708.54
1.7 Archeological Background Study	4			4					35		34		8					85	$ 8,710.38
1.8 Archeological Antiquities Permit Application and Survey Report																		0	$ -
1.9 Noise Analysis	4		110	4							110		16	32				276	$ 32,073.32
1.10 Community Impacts Assessment	4			40			8				32		16			4		104	$ 11,422.92
1.11 Hazardous Materials Initial Site Assesment	4			40							32		16					92	$ 10,091.48
1.12 Notice and Opportunity to Comment - Public Involvement	8			16							4		16			60		104	$ 12,051.72
1.13 Environmental Document Preparation (EPIC, Checklist, etc)	4			8									4					16	$ 1,944.32
~~10. Environmental Permits~~																		0	$ -
HOURS SUB-TOTALS	**40**	**56**	**110**	**212**	**64**	**8**	**8**	**16**	**35**	**0**	**340**	**0**	**140**	**32**	**4**	**128**	**8**		
TOTAL LABOR COSTS	**$6,657.20**	**$7,692.72**	**$15,110.70**	**$25,762.24**	**$7,100.80**	**$1,046.08**	**$855.92**	**$1,775.20**	**$3,397.80**	**$0.00**	**$35,479.00**	**$0.00**	**$10,725.40**	**$3,106.56**	**$665.72**	**$15,216.64**	**$1,162.32**	**$135,754.30**	
% DISTRIBUTION OF STAFF HOURS	**4.90%**	**5.67%**	**11.13%**	**18.98%**	**5.23%**	**0.77%**	**0.63%**	**1.31%**	**2.50%**	**0.00%**	**26.13%**	**0.00%**	**7.90%**	**2.29%**	**0.49%**	**11.21%**	**0.86%**		
TOTAL PROJECT HOURS	**40**	**56**	**110**	**212**	**64**	**8**	**8**	**16**	**35**	**0**	**340**	**0**	**140**	**32**	**4**	**128**	**8**	**1201**	
PROJECT TOTALS	**$6,657.20**	**$7,692.72**	**$15,110.70**	**$25,762.24**	**$7,100.80**	**$1,046.08**	**$855.92**	**$1,775.20**	**$3,397.80**	**$0.00**	**$35,479.00**	**$0.00**	**$10,725.40**	**$3,106.56**	**$665.72**	**$15,216.64**	**$1,162.32**	**$135,754.30**	
TOTAL PROJECT % DISTRIBUTION OF STAFF HOURS	**4.90%**	**5.67%**	**11.13%**	**18.98%**	**5.23%**	**0.77%**	**0.63%**	**1.31%**	**2.50%**	**0.00%**	**26.13%**	**0.00%**	**7.90%**	**2.29%**	**0.49%**	**11.21%**	**0.86%**		

PROJECT:				
Blanton				
OTHER DIRECT EXPENSES				
Other Direct Expenses	**QTY**	**UNITS**	**RATE**	**TOTAL**
Lodging/Hotel (Taxes/fees not included) (Current state rate)	6	night	96.00	$576.00
Lodging/Hotel Taxes/fees	6	night	40.00	$240.00
Meals (overnight stay required) (Excluding alcohol)	12	day	61.00	$732.00
Rental Car (Tax/fees not included)		day	90.00	$0.00
Rental Car Taxes/fees	8	day	25.00	$200.00
Rental Car Fuel	8	day	20.00	$160.00
Mileage (Current state rate)	2000	mile	0.580	$1,160.00
SUV or ATV Rental	8	day	150.00	$1,200.00
Air Travel	5	each	675.00	$3,375.00
Parking	12	day	25.00	$300.00
Taxi/Cab fare		each	40.00	$0.00
Standard Postage (Current state rate)	50	letter	0.55	$27.50
Overnight express-letter size		each	15.00	$0.00
Overnight express-oversized box		each	25.00	$0.00
Courier Services		each	35.00	$0.00
8½"X11" B/W Paper Copies		each	0.50	$0.00
11"X17" B/W Paper Copies		each	1.00	$0.00
8½"X11" Color Paper Copies	100	each	0.75	$75.00
11"X17" Color Paper Copies	50	each	1.25	$62.50
CADD Plotting		linear foot	1.50	$0.00
Digital Ortho Plotting		linear foot	1.50	$0.00
Law Enforcement/Uniform Officer		hour/officer	80.00	$0.00
Notebooks		each	10.00	$0.00
Hazardous Materials Database Search	1	per search	600.00	$600.00
Report Binding		each	20.00	$0.00
Presentation Boards 30'X40" Color Mounted		each	100.00	$0.00
Color Graphics on Foam Board		sq. ft.	10.00	$0.00
Custodian for Public Involvement		event	300.00	$0.00
Audio-Visual Equipment Rental (technician included)		event	500.00	$0.00
Env. Field Supplies (lathes, stakes, flagging, spray paint, etc.)		day	50.00	$0.00
Translator (Engllish to Spanish)		hour	100.00	$0.00
Court Reporter		hour	250.00	$0.00
Newspaper Advertisement		each	2,000.00	$0.00
Plots (B/W on Bond)		linear foot	1.50	$0.00
Plots (Color on Bond)		linear foot	2.00	$0.00
Plots (Color on Photographic Paper)		linear foot	10.00	$0.00
Backhoe Rental		day	1,200.00	$0.00
Curation		project	1,400.00	$0.00
Other Direct Expense Total				**$8,708.00**

Villaverde, Inc.

Valley Chile Road Reconstruction

TASK DESCRIPTION	MANAGER	QUALITY MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR ENGINEERING TECH	ENGINEERING TECHNICIAN	CADD OPERATOR	SENIOR STRUCTURAL ENGINEER	STRUCTURAL ENGINEER	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS
ROADWAY DESIGN - FC 160 (163)													
MISCELLANEOUS (ROADWAY)													
TRAFFIC CONTROL PLAN, DETOURS & SEQUENCE OF CONSTRUCTION:													
SUMMARY OF TCP QUANTITIES			1		1		8		2				12
PHASES NARRATIVE					2		4					10	16
													0
TCP LINE DIAGRAM			1		1		4		12				18
ADVANCE WARNING SIGN LINE DIAGRAM					2		8		24				34
GENERAL NOTES			1		2		4		2			28	37
SEQUENCE OF CONSTRUCTION			1		2		8		4				15
													0
TYPICAL SECTIONS					1		12		24				37
DETOUR PLAN SHEETS			1		2		24		52				79
CRASH CUSHION SUMMARY SHEET					1								1
TCP PLAN SHEETS			1		4		48		72				125
BC SHEETS					1		2		2				5
TCP SHEETS					1		2		2				5
WZ SHEETS					2		2		2				6
COMPUTE & TABULATE TCP QUANTITIES													0
													0
ILLUMINATION:													0
													0
LIGHTING LAYOUTS			1		16		44		124				185
UNDERPASS LIGHTING													0
TEMPORARY LIGHTING LAYOUTS													0
CIRCUIT DIAGRAMS			1		9		35		32				77
VOLTAGE DROP CALCULATIONS			1		6		12						19
ILLUMINATION STANDARDS					6		12		24				42
COMPUTE & TABULATE IILUMINATION QUANTITIES							6		12			8	26
QUANTITIES, SPECIFICATIONS & ESTIMATE:													
ROADWAY QUANTITY SHEETS													0
COMPUTE & TABULATE TCP QUANTITIES													0
COMPUTE & TABULATE REMOVAL QUANTITIES													0
RETAINING WALL SUMMARIES													0
SUMMARY SHEETS FOR DRIVEWAY, MISCELLANEOUS QUANTITIES, ETC.													0
GENERAL NOTES, SPECIFICATIONS AND PROVISIONS													0
CONSTRUCTION TIME DETERMINATION (PRIMAVERA)													0
CONSTRUCTION COST EST. (30, 60, 90, 95 & FINAL) WITH VARIANCE REPORT													0
	0	0	9	0	59	0	235	0	390	0	0	46	739
TOTAL LABOR COSTS	$0.00	$0.00	$1,138.41	$0.00	$7,090.62	$0.00	$23,436.55	$0.00	$18,790.20	$0.00	$0.00	$2,369.92	$52,825.70
% DISTRIBUTION OF STAFFING	0%	0%	1%	0%	8%	0%	32%	0%	53%	0%	0%	6%	
SUBTOTAL - FC 160 (163)													**$52,825.70**

HVJ Associates, Inc.						
CRRMA TxDOT IDIQ Valley Chile Road (SH 20 to IH 10) Reconstruction, City of Vinton, Texas						
Huitt-Zollars						
Task Description	**SENIOR ENGINEER**	**DESIGN ENGINEER**	**EIT**	**SENIOR ENGINEERING TECHNICIAN**	**ADMIN / CLERICAL (ENG)**	**TOTAL LABOR HOURS**
D. Geotechnical Investigations						88
1. Surface Exploration and Testting						30
1.1 Perform geotechnical engineering investigation					2	2
1.1.1. Conduct subsurface explorations		2	4	20		26
1.1.2 Implement traffic control		2				2
2. Pavement Design						58
2.1 Provide PCC CRCP Design using CRCPME	7	6	8		4	25
2.2 Pavement Design Report	8	9	10		2	29
2.3 Review HZ Submittals for conformance w ith Pavement Design	2		2			4
3. Geotechnical Report						0
1. Geotechnical Report (3 copies) (PE signed and sealed)	2	8	14			
HOURS SUB-TOTALS	**19**	**27**	**38**	**20**	**8**	**112**
TOTAL LABOR COSTS	**$4,072.08**	**$4,807.35**	**$5,638.44**	**$2,176.20**	**$923.20**	**$17,617.27**
% DISTRIBUTION OF STAFF HOURS	**16.96%**	**24.11%**	**33.93%**	**17.86%**	**7.14%**	

PROJECT:				
HVJ ASSOCIATES				
OTHER DIRECT EXPENSES				
Other Direct Expenses	**QTY**	**UNITS**	**RATE**	**TOTAL**
Unconfined Compressive Strength (Soil)	14	each	75.00	$1,050.00
Determining of Moisture Content in Soils	14	each	15.00	$210.00
Determining Liquid Limit of Soils	14	each	38.50	$539.00
Determining Plastic Limit of Soils	14	each	38.50	$539.00
Determining the Amount of Material in Soils Finer than No. 200	14	each	45.00	$630.00
Standard Proctor Test	1	each	150.00	$150.00
CBR Test	3	each	243.00	$729.00
Texas Triaxial Test	1	each	1,500.00	$1,500.00
Sulfate Content	7	each	75.00	$525.00
Calcium Carbonate Content of Soils	7	each	150.00	$1,050.00
Soil Boring/Rock Coring with TCP (< 60 ft.)	105	LF	41.00	$4,305.00
Core/drill operator/technician and coring equipment used to drill flexable and rigid pavment (2-man crew)	1	Trip	350.00	$350.00
(b) 6-in. diameter cores	7	Inch	19.00	$133.00
Borehole Grouting - Bentonite Chips	105	LF	10.00	$1,050.00
Drilling Rig Mobilization/De Mobilization				
Truck Mounted Rig	1	each	650.00	$650.00
Nondestructive Deflection Testing Heavy Falling Weight Deflectometer (HWD)				
(a) Mobilization		Per Mile	4.50	$0.00
(b) FWD Testing (Max. Drop Load 30,000 lb)		Per Day	3,000.00	$0.00
(c) HWD Testing (Max Drop Load Above 30,000 lb)		Per Day	3,250.00	$0.00
Traffic Control Services, Arrow Boards and Attenuator trucks - Small Project (Includes labor, equipment and fuel)	1	Per Day	2,750.00	$2,750.00
Other Direct Expense Total				**$16,160.00**

Worksheet - Huitt-Zollars - UTILITY CONFLICT ANALYSIS & UTILITY COORDINATION - Valley Chile Road

Cobb, Fendley & Associates, Inc.

Task Description	Senior Project Manager	Deputy Project Manager	Project Engineer	Senior Engineering Technician	Engineering Technician	Senior Utilities Coordinator	Utilities Coordinator	TOTAL LABOR HOURS	TOTAL LABOR COST
J. Plans, Specifications and Estimates (PS&E)								146	**$ 18,385.30**
4. Utility Conflict Analysis								146	**$ 18,385.30**
4.1 Research and determination of the location of existing utilities for Minimization of utility conflicts with the proposed design (Cobb-Fendley)						30	20	50	$ 6,957.61
4.2 Develop Utility Layout Plan (Cobb-Fendley)				41	15		10	66	$ 7,179.23
4.3 Develop utility relocation schedule (Cobb-Fendley)						20	10	30	$ 4,248.46
HOURS SUB-TOTALS	**0**	**0**	**0**	**41**	**15**	**50**	**40**	**146**	
TOTAL LABOR COSTS	**$0.00**	**$0.00**	**$0.00**	**$4,670.19**	**$1,339.18**	**$7,696.50**	**$4,679.43**	**$18,385.30**	
% DISTRIBUTION OF STAFF HOURS	**0.00%**	**0.00%**	**0.00%**	**28.08%**	**10.27%**	**34.25%**	**27.40%**		
K. Utility Coordination (Cobb Fendley)								**443**	**$ 62,944.67**
1. Utility Coordination								443	**$ 62,944.67**
1.1. Develop listing of utility companies with contact information							10	10	$ 1,169.86
1.2 Conduct records research and acquisition of available as-built utility records									$ -
1.4 Conduct utility coordination meetings		10				30	40	80	$ 11,329.18
1.5. Provide base map information to all utility companies at each submittal phase		4				10	8	22	$ 3,287.93
1.6. Coordination with utilities to obtain their relocation plans. Prepare and issue minutes for each meeting		7				10	12	29	$ 4,365.43
1.7. Develop a Utility Conflict Matrix to track utility issues and proposed resolutions		8				22	60	90	$ 12,031.08
1.8. Review relocation plans and incorporate into Utility Conflict Matrix						22	40	62	$ 8,065.89
1.9. Assist County in obtaining clearance letters and provide copies of documentation to the CRRMA at the Final submittal phase		8				20	10	38	$ 5,873.94
1.10. Coordinate with utility companies requesting that relocation of their facilities be part of the project construction		10				20	20	50	$ 7,450.17
1.11. Coordinate with El Paso Water Utilities		16				20	26	62	$ 9,371.20
HOURS SUB-TOTALS	**0**	**63**	**0**	**0**	**0**	**154**	**226**	**443**	
TOTAL LABOR COSTS	**$0.00**	**$12,800.69**	**$0.00**	**$0.00**	**$0.00**	**$23,705.22**	**$26,438.76**	**$62,944.67**	
% DISTRIBUTION OF STAFF HOURS	**0.00%**	**12.05%**	**0.00%**	**0.00%**	**0.00%**	**34.80%**	**53.15%**		
TOTAL PROJECT HOURS	**0**	**63**	**0**	**41**	**15**	**204**	**266**	**589**	
PROJECT TOTALS	**$0.00**	**$12,800.69**	**$0.00**	**$4,670.19**	**$1,339.18**	**$31,401.72**	**$31,118.19**	**$96,829.97**	
TOTAL PROJECT % DISTRIBUTION OF STAFF HOURS	**0.00%**	**0.59%**	**0.00%**	**0.38%**	**0.14%**	**2.17%**	**2.98%**		
0.00%	**0.00%**	**0.00%**	**0.00%**	**0.00%**					

PROJECT:				
COBB FENDLEY				
OTHER DIRECT EXPENSES				
Other Direct Expenses	**QTY**	**UNITS**	**RATE**	**TOTAL**
Lodging/Hotel (Taxes/fees not included) (Current state rate)	10	night	96.00	$960.00
Lodging/Hotel Taxes/fees	10	night	40.00	$400.00
Meals (overnight stay required) (Excluding alcohol)	10	day	55.00	$550.00
Rental Car (Tax/fees not included)	10	day	90.00	$900.00
Rental Car Taxes/fees	10	day	25.00	$250.00
Rental Car Fuel	10	day	25.00	$250.00
Mileage (Current state rate)	100	mile	0.565	$56.50
SUV or ATV Rental		day	150.00	$0.00
Air Travel	4	each	675.00	$2,700.00
Parking	10	day	25.00	$250.00
Taxi/Cab fare		each	35.00	$0.00
Standard Postage (Current state rate)		letter	0.55	$0.00
Overnight express-letter size		each	0.55	
Overnight express-oversized box		each	15.00	
Courier Services		each	35.00	$0.00
8½”X11” B/W Paper Copies	500	each	0.20	$100.00
11”X17” B/W Paper Copies	900	each	0.40	$360.00
8½”X11” Color Paper Copies	100	each	0.75	$75.00
11”X17” Color Paper Copies	100	each	1.50	$150.00
CADD Plotting	500	linear foot	1.50	$750.00
Digital Ortho Plotting		linear foot	1.50	$0.00
Law Enforcement/Uniform Officer		hour/officer	75.00	$0.00
Notebooks		each	8.50	$0.00
Hazardous Materials Database Search		per search	N/A	N/A
Report Binding		each	5.00	
Presentation Boards 30'X40" Color Mounted		each	50.00	
Color Graphics on Foam Board		sq. ft.	4.25	
Custodian for Public Involvement		event	75.00	
Audio-Visual Equipment Rental (technician included)		event	500.00	
Env. Field Supplies (lathes, stakes, flagging, spray paint, etc.)		day	35.00	
Translator (Engllish to Spanish)		hour	40.00	
Court Reporter		hour	28.00	
Newspaper Advertisement		each	350.00	
Plots (B/W on Bond)		linear foot	N/A	N/A
Plots (Color on Bond)		linear foot	N/A	N/A
Plots (Color on Photographic Paper)		linear foot	N/A	N/A
Utility Designation (SUE-Level B)	0	linear foot	1.55	$0.00
Other Direct Expense Total				**$7,751.50**