

48 5/28/10

AGREEMENT FOR PROFESSIONAL ENGINEERING DESIGN SERVICES

THIS AGREEMENT, made and entered into this 31 day of March, 2010 by and between the County of Jackson, Missouri hereinafter referred to as "County" and HNTB Corporation, hereinafter referred to as "Engineer."

WITNESSETH:

WHEREAS, County requires design engineering services in connection with the following improvement: Improvements to Lee's Summit Road (40 Hwy to Anderson Road); and,

WHEREAS, County desires to enter into an Agreement with Engineer to perform Design services as aforementioned; and,

WHEREAS, Engineer represents that the firm is equipped, competent, and able to undertake such an assignment;

NOW, THEREFORE, in consideration of the mutual covenants and considerations herein contained, IT IS HEREBY AGREED by the parties hereto as follows:

ARTICLE I – SCOPE OF SERVICE TO BE PROVIDED BY THE ENGINEER:

Engineer, upon receipt of written notice from the County that this Agreement has been approved, will furnish the necessary engineering and related services as stipulated in the attached proposal from the Engineer in Exhibit A, dated _____, 2010 page 1 through page 50 and Exhibit A Scope of Services dated _____, 2010 page 1 through page 50 (the "Scope of Services").

ARTICLE II - ADDITIONAL SERVICES:

The County reserves the right to request additional work, based on changed or unforeseen conditions which require changes and work beyond the scope of this Agreement. In this event, an Addendum to this Agreement shall be negotiated by the parties, setting forth the scope, budget and schedule, and executed by both parties prior to performing the additional changed work or incurring any additional cost therefore. Any change in compensation will be covered in the Addendum.

ARTICLE III – PROJECT ASSUMPTIONS

The County and the Engineer acknowledge that the Scope of Services described in ARTICLE I above was developed based on the following assumptions:

FILED

MAR 31 2010

MARY JO SPINO
COUNTY CLERK

- A. The Engineer, for design standard reference, shall consider the latest editions and revision of the following publications:**
- a. **AASHTO “A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS.”**
 - b. **Local Public Agency Manual as published by MoDOT.**
 - c. **AASHTO Roadside Design Guide.**
 - d. Most recent edition of the City of Kansas City’s Design Standards
 - e. Most recent edition of Design Standards for the Kansas City Chapter of the American Public Works Association.
- B. Review and approval of each Engineer’s submittal, by the County, shall constitute acceptance of the design issues used to develop the proposed plan to that stage. In addition, approval of each submittal stage will constitute authorization to proceed with additional design based on approved issues. Changes requested by the County to approved issues will constitute additional services to be negotiated between all parties.**
- C. The County will acquire all necessary access permits from property owners for Engineer or their subconsultants to perform geotechnical, inspection, and land surveying services associated with this project.
- D. The Engineer will gather all necessary title work, deeds, plats, etc. as required for the completion of the project and the preparation of the right-of-way and easement plans and descriptions as identified in the Scope of Services.
- E. All submittal fees associated with this project, including but not limited to, government review fees, and environmental and archeological studies, will be paid for by the County.
- F. Specific services not included in this agreement are noted in the Scope of Services:

Services other than those stipulated in the scope of services listed in Article I or in conflict with the assumptions listed above shall constitute additional services not covered under this Agreement. The County shall retain the right to request additional services, based on changed or unforeseen conditions. In that event, an Addendum, in accordance with Article II to this Agreement shall be executed prior to performing the additional change in work or incurring any additional cost thereof. Any change in compensation will be covered in the Addendum.

ARTICLE IV - SCOPE OF SERVICES TO BE PROVIDED BY THE COUNTY:

The County agrees to furnish information and have work done without cost to the Engineer as follows:

1. Make available to the Engineer existing records, maps, plans, and other data possessed by County when such are necessary, advisable or helpful to the Engineer in

- the completion of his work under this Agreement. The County shall furnish a copy of property ownership information from County tax records.
2. Provide Standard County/City forms and/or standard plans as required including contractual sections for bid document.
 3. Pay publishing costs for advertisements of notices, public hearings, request for bids, and other similar items. Pay for all permits and licenses that may be required by local, state or federal authorities. Secure the necessary land, easements and right-of-way required for the project.
 4. Designate a representative who will serve as their primary point of contact and who will be authorized to act for and on behalf of the County throughout completion of the services covered by this Agreement.
 5. Examine all studies and drafts developed by the Engineer, obtain reviews by other agencies involved and render decisions thereon in a prompt manner so as not to delay the Engineer.
 6. Make County/City's facilities available to Engineer as required for performance of the Services under this Agreement, and provide labor and safety equipment required for access.

ARTICLE V - PERIOD OF SERVICE:

The Engineer will commence the Scope of Services within two (2) weeks after receiving Notice-to-Proceed from the County. The general phases of the Scope of Services will be completed in accordance with the attached Schedule, which was submitted by the Engineer, marked Exhibit B, unless terminated sooner.

- A. Data Acquisition and Pre-Design Services: Data acquisition, Surveying and other Pre-Design Services are to be completed within 90 calendar days after receipt of Notice to Proceed.
- B. Preliminary Construction Plan Preparation: Preliminary Construction Plan Preparation to be completed within 180 calendar days after receipt of Notice to Proceed.
- C. Right-of-Way Plan Preparation: Right-of-Way Plan Preparation to be completed within 90 calendar days after review and approval by the County of the Preliminary Construction Plans.
- D. Final Plans and Construction Documents: Final Plans and Construction Documents to be completed within 240 calendar days after review and approval by the County of the Preliminary Construction Plans.
- E. Bid Phase Services: Bid Phase Services will be conducted concurrently with a bid schedule as established by the County. This bid schedule is assumed to be no more than 30 calendar days.

F. Construction Phase Services: The construction duration is assumed to be 20 months. Observation for construction activities required beyond this assumed duration or in excess of the average two visits per month will be considered additional services.

The above times are exclusive to review time by other agencies and exclusive to time needed to acquire rights-of-way. The County will grant time extensions for unavoidable delays beyond the reasonable control of the Engineer. The Engineer, stating fully the reasons for the request, should make requests for extensions of time in writing.

ARTICLE VI - PROGRESS SCHEDULE:

The contracting parties agree that time is of the essence. Each month the Engineer shall submit a Progress Report to the County. In general, the Report shall be included with the Engineer's monthly invoice submittal. The Progress Report will be in the form of either a bar graph or a Critical Path Method (CPM) Schedule. It shall include scheduled periods for each of the major tasks (Preliminary Design Phase, Right-of-Way Acquisition Phase, Final Design Phase, Bidding Phase, and Construction Phase) into which the Engineer's Scope of Services are divided. Each Scope of Services major task shall be assigned a percentage of the total work upon which progress can be reported. The total percentage completed shall be shown. The schedule periods shall also include a time allowance for review and approvals by the County, City and or MoDOT (when applicable). Assume four (4) weeks review time for County on each submittal.

ARTICLE VII - COVENANT AGAINST CONTINGENT FEES:

The Engineer warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Engineer, to solicit or secure this Agreement and that he has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the County shall have the right to annul this Agreement without liability or, in its discretion, to deduct from the Agreement the price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee plus reasonable attorney's fees.

ARTICLE VIII - SUBLETTING ASSIGNMENT:

No portion of the Scope of Services covered by this Agreement, except as provided herein, shall be sublet or transferred without the written consent of the County. The subletting of the Scope of Services shall in no way relieve the Engineer of its primary responsibility for the quality and performance of the Scope of Services.

ARTICLE IX - PROFESSIONAL ENDORSEMENT:

All plans, specifications and other documents prepared by the Engineer shall be endorsed by the Engineer and shall reflect the name and seal of the Professional Engineer endorsing the work.

ARTICLE X - STANDARD OF CARE

Engineer warrants that he shall perform the Scope of Services in accordance with the care, skill and diligence normally practiced by recognized engineering firms currently in the performance of services of a similar nature. If, during the two year period following the earlier of completion or termination of the Services it is shown there is an error in the Services caused solely by the Engineer's failure to meet such standards, and County has promptly notified Engineer of any such error within that period, Engineer shall perform, at Engineer's cost, such corrective engineering services as may be reasonably necessary to remedy such error.

Engineer shall not be responsible for construction means, methods, or safety in connection with the project; failure of any contractor, subcontractor, vendor, or other project participant, not under contract to Engineer.

ARTICLE XI - MISCELLANEOUS PROVISIONS:

The following miscellaneous provisions are agreed to by both parties to this Agreement.

1. Inspection of Documents.

The Engineer shall maintain all records, survey notes, design documents, cost and accounting records, construction records and other records pertaining to the Scope of Services under this Agreement and to the project covered by this Agreement, for a period of not less than three (3) years following final payment. An authorized representative of the County shall have access to the records for inspection, during regular working hours at the Engineer's place of business. County shall have the right to audit and inspect Engineer's records and accounts covering costs hereunder upon advance notice at all reasonable times during the performance of the Services and for a period of three (3) years after the acceptance thereof. Engineer shall not be required to keep records of or provide access to those of its costs expressed as fixed rates, a lump sum, or of costs which are expressed in terms of percentages of other costs.

2. Conferences, Visits to Site, Inspection of Work.

A representative of the County shall have the privilege of inspecting and reviewing the work being done by the Engineer and consulting with its staff at any time. Conferences are to be held at the request of the County or the Engineer.

3. Accuracy of Work. The Engineer shall be responsible for the accuracy of the Scope of Services and shall promptly make necessary revisions or corrections resulting solely from errors and omissions on the part of the Engineer, without additional compensation.

Acceptance of the Scope of Services by the County will not relieve the Engineer of the responsibility for subsequent correction of any such errors and the clarification of any ambiguities during construction. The Engineer shall give immediate attention to these revisions or corrections so there will be a minimum of delay to the project or to the contractor.

4. Relationship with Others. The Engineer shall cooperate fully with engineers on adjacent projects, municipalities, local government officials, public utility companies, and others as may be directed by the County. This shall include attendance at meetings, discussions and hearings, as may be requested by the County; furnishing plans and other data as may be reasonably requested from time to time by the County, and compliance with all directives issued by the County.
5. Ownership of Documents. Plans, electronic data, and maps and specifications first prepared as a deliverable under this Agreement for the sole benefit of the County shall be delivered to and become the property of the County upon termination or completion of the Scope of Services. Basic survey notes, design computations and other data first prepared under this Agreement shall be made available to the County upon request. All such information first produced as a deliverable under this Agreement shall be available for use by the County without restriction or limitation on its use. If the County incorporates any portion of the information into a project other than that for which it was performed, the County shall save the Engineer harmless from any claims and liabilities resulting from such use.
6. Termination. Engineer or the County may terminate this Agreement by giving written notice to the other party. Termination of this Agreement shall not constitute a waiver of the rights or obligations which County or Engineer may be entitled to receive or be obligated to perform under this Agreement. Should this Agreement terminate, all books, brochures, flier, lists, and all other County materials must be delivered and returned by the Engineer to the County within 15 calendar days of the demand of the County.

If the Agreement is terminated due to the Engineer's Scope of Service being unsatisfactory in the judgment of the County, or if the Engineer fails to prosecute the work with due diligence, provided Engineer has been given fourteen (14) calendar days from the notice of termination to cure or submit a plan for cure acceptable to the County, the County may procure completion of the work in such manner as it deems to be in the best interest of the County. The Engineer will be responsible for any excess cost, above that this Agreement or any damages the County may sustain by reason of the termination of this Agreement due to unsatisfactory performance or prosecution of the Services; provided, however, that payment of such excess cost and damages shall not unjustly enrich the County.

7. Successors and Assigns. The County and the Engineer each bind themselves, their successors, executors, administrators, and assigns to the other party to this Agreement,

and to the successors, executors, administrators, and assigns of such other party in respect to all covenants of this Agreement.

8. Compliance with Laws. The Engineer shall keep itself fully informed of all existing and current applicable regulations of the County, State, and Federal laws which in any way limit or control the actions or operations of those engaged upon the Scope of Services, or affecting the materials supplied to or by them. It shall at all times observe and comply with all applicable ordinance, laws, and regulations, and shall protect and indemnify the County against any judgments, claims or liability caused by any violations of the same by Engineer.

The Engineer's attention is directed to Chapter 296, Section 296.010, to Section 296.070, inclusive RSMo 2000, as amended, "Discriminatory Employment Practices," and to Section 644.4, Jackson County Code, 1984, which provides as follows:

644.4 Subcontractors, Agreements with Contractors

The contractor will require that all contracts between it and subcontractors shall contain the following provisions.

a. Not Discriminate

The subcontractor shall not discriminate against any qualified person because of her or his race, color, national origin, religion, age, sex or handicap in recruitment and recruitment advertising, employment, upgrading, promotion, demotion or transfer, lay-off or termination, rates of pay or other forms of compensation, other terms of conditions of employment and selection for training including apprenticeship.

b. Inspection by County Contract Review Officer (CRO)

The subcontractor will permit, on reasonable notice and at reasonable times, the CRO to visit its premises, inspect and copy thereon its business records, survey its work forces and interview its employees, as may be necessary to verify compliance with this chapter and implementation of the affirmative action plan of the Subcontractor. The subcontractor further agrees to furnish such future information as may be reasonably required of it within ten (10) working day of the date it is requested in writing by the CRO.

9. Nondiscrimination. The Engineer, with regard to the Scope of Services performed by it after award and prior to completion of this Agreement, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors. The Engineer will comply with Title VI of the Civil Rights Act of 1964, as amended. More specifically, the Engineer will comply with the regulations of the Department of Transportation relative to nondiscrimination in federally assisted programs of the Department of Transportation, as contained in 49 CFR 21 through Appendix H and 23 CFR 710.405(b), which are herein incorporated by reference and made a part of this

Agreement. In all solicitations either by competitive bidding or negotiation made by the Engineer for work to be performed under subcontract, including procurement of materials or equipment, each potential subcontractor or supplier shall be notified of the Engineer's obligations under this Agreement and the regulations relative to nondiscrimination on the grounds of color, race or national origin.

10. Independent Contractor. The Engineer shall work as an independent contractor and not as an employee of the County. The Engineer shall be subject to the direction of the County only as to the result to be accomplished and not as to the means and methods for accomplishing the result. The Engineer shall report all earnings received hereunder as gross income, and be responsible for its own Federal, State, and City withholding taxes and all other taxes, and operate its business independent of the business of the County except as required by this Agreement.
11. Severability. If any covenant or other provision of this Agreement is invalid, or incapable of being enforced, by reasons of any rule of law or public policy, all other conditions and provision of this Agreement shall nevertheless remain in full force and effect and no covenant or provision shall be deemed dependent upon any other covenant or provision unless as expressed herein.
12. Incorporation. This Agreement along with the Engineer's attached Scope of Services and fee breakdown, incorporates the entire understanding and agreement of the parties.
13. Decisions Under this Agreement. The County will determine the acceptability of work performed under this Agreement, and will decide all questions which may arise concerning the project. The County's decision shall be final and conclusive.
14. Breach of Contract. The prevailing party, in whole or in part, shall be entitled to reimbursement for all costs and reasonable attorneys' fees in any legal action brought against the other party based on a breach of this Agreement.
15. Safety Requirements. Engineer shall make every reasonable effort to perform the Services in a manner complying with all applicable safety legislation and with applicable environmental laws, rules, and regulation in force at the time of development of designs. Engineer shall also be responsible for the safety of its own employees at all times during the performance of any Request for Services.
16. Purchase Orders. In the event the County uses a purchase order form to administer this Agreement, the use of such form shall be for convenience purposes only and any typed provision in conflict with the terms of this Agreement and all-preprinted terms and conditions contained in or on such forms shall be deemed stricken and null and void.

ARTICLE XII - INSURANCE AND INDEMNIFICATION:

PROFESSIONAL LIABILITY: The Consultant Firm shall secure Professional Liability insurance coverage with limits of \$1,000,000 each claim/\$1,000,000 aggregate.

The County understands that we cannot be a named insured on this coverage and that it is available only in a “claims made” form.

INSURANCE

Engineer shall procure and maintain in effect throughout this duration of the contract insurance coverages not less than the types and amounts specified in this section. If due to the nature of the goods and/or services provided by the Engineer are such that they may be excluded from coverage listed below, an addendum shall be made to the contract requesting coverage and limits required (Professional Liability, Work on bodies of water, Garage or tow services, Liquor liability are some examples).

All subcontractors of the Engineer are required to carry the same coverages and limits as the Engineer. All Liability policies required are to be written on an “occurrence” basis unless an agreement, in writing is made with Jackson County.

1. COMMERCIAL GENERAL LIABILITY

Commercial General Liability Insurance: with limits of not less than \$1,000,000 per occurrence and \$2,000,000 Annual Aggregate (both General and Products-Completed Operations). Aggregate shall be on a “per project” basis where more than one project is to be performed by the contractor under this contract. Policy shall include Severability of Interests coverage applying to Additional Insured and also include Contractual Liability with no limitation endorsements. Policy shall include \$100,000 limit each occurrence for Damage Rented Premises, \$1,000,000 limit each occurrence for Personal & Advertising injury liability, \$5,000 Medial Expense (any one person), and Employee Benefits Liability coverage with a \$1,000,000 limit.

2. COMMERCIAL AUTOMOBILE LIABILITY

Commercial Automobile Liability Insurance: with a limit not less than \$1,000,000 Combined Single Limit for Bodily Injury and Property Damage Limit (each accident), covering owned, hired, borrowed, and non owned vehicles. Coverage shall be provided on “an auto” basis and be on a Commercial Business Auto form, or acceptable equivalent, and will protect against claims arising out of the operations of motor vehicles in connection with this contract.

3. WORKERS COMPENSATION AND EMPLOYERS LIABILITY COVERAGE

Engineer shall provide coverage for Workers Compensation and Employers Liability for all claims by employees of the Engineer or by anyone for whose acts it may be liable under the statutes of the State of Missouri with limits of:

-Workers Compensations	Statutory
-Employers Liability	\$500,000 each accident
	\$500,000 Disease-each employee
	\$500,000 Disease-Policy limit

4. EXCESS/UMBRELLA LIABILITY COVERAGE

Engineer shall provide Excess/Umbrella liability, on an occurrence basis, with \$10,000 Retention, to provide coverage limits over all liability coverages listed above, at a limit not less than \$1,000,000 each occurrence and \$1,000,000 Aggregate.

5. ADDITIONAL INSURED & CERTIFICATE OF INSURANCE

The Commercial General and Automobile Liability Insurance specified above shall provide that Jackson County Missouri and its agencies, officials, officers, and employees, while acting within the scope of their authority, will be named as additional insured for the services performed under this contract.

A Certificate of Insurance shall be filed with the County's Director of Purchasing within 10 calendar days of the date when requested or before commencement of the work that are acceptable to the Director that the insurance requirements (a sample of an acceptable Certificate is attached) have been satisfied. The Certificate shall contain a provision that the policies may not be cancelled by the insurance carrier without 30 days written notice of cancellation, 10 days for non-payment of premium, to Jackson County. In the case of multi-year, renewable, or extended term on the contract; Contractor must supply the Director with current Certificate(s) on any coverages mentioned above with Thirty (30) days prior to the expiration date of coverage(s). The Director of Purchasing may request copies of the Contractor's insurance policies for verification of coverages.

6. QUALIFICATIONS INSURANCE CARRIERS

All insurance coverage must be written by companies that have an A. M. Best's rating of "B+V" or better or Lloyd's of London, and are licensed and approved by the State of Missouri to do business in Missouri.

7. FAILURE TO MAINTAIN INSURANCE COVERAGE

Regardless of any approval by Jackson County, it is the responsibility of the contractor to maintain the required insurance coverage in force at all times; its failure to do so will not relieve it of any contractual obligation or responsibility. In the event of

Contractor's failure to maintain the required insurance in effect, Jackson County may order Contractor to stop work immediately and, upon 10 days notice and an opportunity to cure, may pursue its remedies for breach of this contract as provided for herein and by law.

FILING OF CERTIFICATES OF INSURANCE AND POLICIES WITH THE COUNTY

The Engineer shall file with the County upon request a copy of all policies of insurance required under the Agreement.

Within ten (10) calendar days of the date when requested or before commencement of the work, Engineer shall file with the County's Public Works Director Certificates acceptable to him of the insurance required by the Agreement. These certificates shall contain a provision that coverage's afforded under the policies will not be canceled until at least thirty (30) days prior written notice of cancellation has been given to the County's Public Works Department Director. Failure to so file these certificates is a breach hereof.

INDEMNIFICATION:

The Engineer agrees to indemnify, defend and save harmless the County, against all damages to property, structures and utilities together with all damages arising out of personal injury, including accidental death to the extent caused by the Engineer's negligent or willful acts, errors or omissions or the negligent or willful acts, errors or omissions of the Engineer's subcontractors, agents or employees, in the performance of Scope of Services under this Agreement.

ARTICLE XIII - PAYMENTS TO THE ENGINEER:

For the Scope of Services performed by Engineer under this Agreement and as full compensation therefore, and for all expenditures made and all expenses incurred by Engineer in connection with this Agreement, except as otherwise expressly provided herein, subject to conformance with all provisions of this Agreement, County will pay Engineer as follows:

1. County will pay a not-to-exceed fee of \$ 780,372, as compensation for Engineer's services and expenses as set forth in the Engineer's attached Scope of Services and Rate Schedule. Rates are subject to an annual adjustment to take place every July.
2. The Engineer will present invoices to the County on a monthly basis setting forth the total effort expended on an hourly basis based on the Rate Schedule and all actual reasonable expenses incurred and allowed under this contract. The invoice shall be approved by The Director of Public Works who will recommend payment to the Engineer. All invoices shall be accompanied by a Progress Report prepared in accordance with Article VI of this Agreement.

3. Invoices shall be due and payable upon approval by The Director of Public Works within 30 days of receipt. The County shall give written notice of any disputed amount within 10 days of receiving the invoice and shall pay the remaining amount. Invoice amounts not paid within 30 days after receipt shall accrue interest at the rate of 1.5% per month (or the maximum rate permitted by law, if less), with payments applied first to accrued interest and then to unpaid principal.

ARTICLE XIV – ENCLOSURES & ATTACHMENTS

Engineer's Proposal to Provide Engineering Services and Current Rate Schedule
(Exhibit A and Exhibit A Breakdown).
Project Schedule (Exhibit B).

IN WITNESS WHEREOF, Jackson County, Missouri, has caused these presents to be executed in its behalf by its duly authorized agent; and the Engineer has hereunto set it hand and seal.

Approved by: *Michael D. Sanders*
Michael D. Sanders
County Executive

Recommended by: *Jerry A. Page*
Jerry A. Page, P.E.
Director of Public Works

Approved to form this 31 day of March, 2010

William G. Snyder
William G. Snyder
ACTING COUNTY COUNSELOR

ATTEST:
Mary B. Spino
CLERK OF COUNTY LEGISLATURE

By: *Jerry A. Page*
HNTB Corporation

REVENUE CERTIFICATE

I hereby certify that there is a balance otherwise unencumbered to the credit of the appropriation to which this Agreement is chargeable, and a cash balance otherwise unencumbered in the treasury from which payment is to be made, each sufficient to meet the obligation of \$ 780,372.⁰⁰ which is hereby authorized.

Date *March 24, 2010* *[Signature]*
Finance Director

Account Code 004 - 1507 - 58040 \$ 300,000
400 - 1540 - 58070 \$ 480,372
1507 2010001

Tax ID # _____

HNTB

**Improvements to Lee's Summit Road (40 Highway to Anderson Road)
HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)
Jackson County Project No. 3122**

PROJECT DESCRIPTION

This project includes topographic survey, preliminary, right-of-way, and final design, environmental and permitting services, construction documents/plan and engineer's estimate preparation, public involvement support, bidding and advertising services, and design services during construction. This project will include improvements to bring Lee's Summit Road, currently a two-lane facility with open ditches, in accordance with the preliminary design criteria developed by the project core team (Jackson County Public Works, City of Kansas City, MO, and City of Lee's Summit, MO) for a Secondary Arterial (45 MPH). These improvements include widening the roadway to a three-lane section with a 5' bike lane on each side, curb and gutter, an enclosed storm sewer system, a 5' concrete sidewalk on the west, an 8' multi-use trail on the east, and street lighting. In addition, this project will include replacing the existing 2-lane bridge over the Little Blue River with a three-span bridge. Near the river crossing, the project will include a connection from the 8-ft multi-use trail into the proposed Little Blue Trace Trail (under design by others). At this time, the proposed bridge is assumed to be a three-lane section and including the 5-ft sidewalk and the 8-ft multi-use trail. Lastly, the project will include investigation and implementation of up to 3 water quality BMP options (rain gardens) for the corridor.

This project will also include the following traffic engineering features: pavement marking plans, roadway signing plans, construction sequencing and traffic control plans (up to 4 phases of construction), and roadway lighting plans. There are assumed to be no signalized intersections for vehicles or pedestrians, so no design of traffic signals or pedestrian crossing signals are included.

HNTB Geotechnical will develop the subsurface exploration plan for this project and subcontract with TSI Engineering Inc. for the execution of the field exploration and laboratory testing portion of the plan. Upon completion of the drilling and sampling, HNTB will assign laboratory testing, complete design recommendations for the three-span bridge, roadways, retaining walls and produce the Geotechnical Investigation Report. HNTB will prepare the drawings for inclusion in the bridge plans presenting the subsurface information, provide management and review of TSI efforts, and provide Geotechnical quality control of final bridge, retaining wall, and roadway plans.

PROJECT LIMITS

The limits of the project on Lee's Summit Road begin at approximately 1400' south of the Anderson Road intersection and extend north to 48th Terrace (approximately 1.4 miles) in Kansas City, MO. The project will include the intersections of Anderson Road, Phelps Road, 54th Street, Downey Avenue, 52nd Street, 49th Terrace, and 48th Street Terrace. The project will terminate at the first commercial entrance north of Space Center Drive to the south, and the north curb returns of the 48th Street intersection. The limits of the project may also include up to 300-ft of re-alignment of Phelps Road. In addition, this project will include tying the proposed 8-ft multi-use trail into the proposed Little Blue Trace Trail at the bridge. This trail connection is planned on the east side of Lee's Summit Road. It is assumed that the future roadway alignment of the improvements to Lee's Summit Road will be adjacent to or within the existing roadway corridor. The improvements and widening will generally occur by either widening balanced on the east and west side, or shifted completely to either side. It is anticipated that ultimately the preferred alignment may be a combination of the above stated options. However, it is not anticipated that any alignment options in the section of the Little Blue River Crossing will be studied a.) on the upstream side of the existing bridge, or b.) outside of or beyond a corridor adjacent to the existing bridge on the downstream side.

EXHIBIT A - Scope of Services

PROPOSED SCHEDULE AND MILESTONE DATES (see exhibit B)

Notice to Proceed - March 1, 2010
Preliminary Plan Submittal - September 1, 2010
Right-of-Way Plan Submittal - December 1, 2010
90% (Pre-Final) Plan Submittal - April 1, 2011
Final PS&E Plan Submittal - May 1, 2011

SUBCONSULTANTS

Topo Survey, Utility potholing/vacuum excavation, R/W Documents/tract maps and legals - **Trekk Design Group**
Title O&E's - **First American Title Company**
Geotechnical Field Investigation and Percolation testing- **TSi Engineering**
Cultural Resources (for NEPA support) - **ARC Inc.**

DELIVERABLES

Exhibits for public meetings and transcripts of public meetings
Preliminary Plans
Right of Way Plans, Tract Maps, and Legal Descriptions
90% (Pre-Final) Plans
Final Plans
Record Drawings after construction

DESIGN GUIDELINES AND REFERENCES

MoDOT Local Public Agency Manual
American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of
Highways and Streets, 2004 Edition
Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition
American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide, Current Edition
American Public Works Association (APWA) Standard Specifications and Design Criteria, Division V
American Public Works Association (APWA) Section 5100, 5200, and 5600, and Storm Drainage BMP Manual, August 2009
Edition
American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of
Bicycle Facilities
Lee's Summit Corridor Study, Colbern Road to 40 Highway, 2007

LEE'S SUMMIT ROAD DESIGN CRITERIA

Roadway Classification: Secondary Arterial
Design Speed: 45 MPH
Posted Speed: 40 MPH
Right-of-Way Width: 100 Feet (Typ.)
Typical Section (3 Lanes):
Lane Width: 11 Feet
Bike Lane Width: 5 Feet
Parkway Width: 6 Feet (Typ.)
Sidewalk Width: 5 Feet (on W. side) At Back-of-Curb, 8 Feet
Multi-Use Path: 8 Feet (Min.)
Multi-Use Path Separation: 6 Feet (Min.) (w/o Protection).
Clear Zone: 10 Feet (Abs. Min. 2.5 Feet behind Curb)

EXHIBIT A - Scope of Services

LEE'S SUMMIT ROAD DESIGN CRITERIA (CONT.)

Hydrology:

Rainfall Method: Rational (< 5 Acres), Unit Hydrograph (>5 Acres)

Frequency: 10-Year (Enclosed), 50-Year (Culverts)

Time of Concentration: 5 Minutes (Min.)

K: 1.0 (10-Year), 1.2 (50-Year)

Inlet Type: APWA Type 2

Maximum Allowable Spread: 10-Year Return

Pipe Velocity: 3 ft/s (Min.), 20 ft/s (Max.)

Pipe Slope: 1.0% (Min.)

Reinforced Concrete Boxes: HS20-44 Loading, Max. Head 2' below Top of Curb

Open Channel: 50-Year Return Period w/ Overflow System Capable of Conveing 100-Year Storm w/ 1' of Freeboard

EXHIBIT A - Scope of Services

HNTB

Project Assumptions

ASSUMPTIONS FOR BASIC SERVICES

- Design and construction documents to use English units.
- Preliminary project design criteria based on data provided by Jackson County during the scoping phase(See attached).
- County will provide necessary right-of-entry for surveyors, geotechnical investigations, vacuum excavators, etc.
County will provide available as-built plans for the bridge and all existing storm sewers, water lines, sanitary lines in the corridor.
- County and KCMO will provide documentation on any known easements for public utilities.
- Does not include any public or private utility relocation design or construction documents, including waterlines or sanitary
- Does not include monument reconstruction plans or details.
- Jackson County be responsible for advertising, bidding, and letting the construction phase. HNTB will perform limited bidding services and will provide design services during construction including limited question answering/consultation and bridge, storm sewer, and street lighting shop drawing review.

ROADWAY

- Assume typical section includes 3-11 ft. traffic lanes with 2-5 ft. bike lanes, a 5 ft. wide sidewalk on the west, and an 8 ft. multi-use trail on the east. The out-to-out bridge width will be approximately 58'-8" and length between 225 to 275-ft.
- HNTB will utilize the traffic study and the resulting recommendations from the August 2007 Corridor Concept Report.
- Assumes no temporary structures will be required for detouring or staging traffic.

BRIDGE

- Assume 3-span prestressed girder bridge on tangent.
- Assume integral end bents and no MSE walls.
- Bridge design and specifications will meet the standard requirements of KCMO and MoDOT.
- Bridge design will be based on the 2007 AASHTO LRFD 4th Edition and 2008 interims and MoDOT's EPG.
- KCMO standard Special Aggregate Concrete mix will be used in the deck, rails and approach slabs. MCIB concrete mix will be used elsewhere in the structure.
- Box culverts, utility lines, sign foundations and borrow areas are not included in the Geotechnical Design scope.

HYDRAULICS & HYDROLOGY

- Jackson County will need Floodplain Administrator's (KCMO) approval not to file CLOMR or LOMR (Not included). At the time of scoping this project, KCMO has indicated that the city (as the floodplain administrator) will not request the design consultant to include preparing the CLOMR and eventually the LOMR for the new bridge over the Little Blue River.
- HEC-RAS model will be obtained from FEMA.
 - Hydrology will come directly from the FEMA HEC-RAS model (Not calculated separately).
 - Current hydraulic cross-sections will be derived from FEMA RAS model and surveys.

ENVIRONMENTAL

- The County will not seek federal funding as the scope of services begin. However, the county may elect to pursue federal funding in the future.
- MoDOT's preliminary indication is that a Noise Analysis will not be necessary because no additional travel lanes are being added and the distance that lanes would be moved closer to residences is minimal. MoDOT will make a final determination when they review the project.
 - An individual Section 6(f) Evaluation will most likely be necessary since 6(f) Land and Water Conservation Funds were used for land acquisition of Little Blue Trace Park. Property appraisals will be necessary (by others) in order to comply

EXHIBIT A - Scope of Services

with the necessary replacement land provision if that becomes a requirement.

- Kansas City and Independence Stream Buffer Ordinances apply to the Little Blue River & some tributaries.
- Some minor stream buffer mitigation along the Little Blue River may be required depending on impacts to those areas.
- A Section 404 Nationwide Permit #14 would apply, while a Section 404 Individual Permit would not apply.
- 404 Permit mitigation requirements, if any, will be through payments into mitigation banks. If on-site mitigation is desired by the County, those design, construction, and monitoring/maintenance services will be additional and will be based on the type and amount of mitigation required.
- The 404 Permit is a federal action which would require Section 106 clearance at the impacted water resource areas. There could be a potentially significant historic site (eligible for the National Register) at an old stone bridge/culvert crossing. If an NRHP eligible resource is "adversely" impacted, a Memorandum of Agreement (MOA) with mitigation stipulations would be necessary.

PUBLIC INVOLVEMENT

- The county will be responsible for meeting space reservation and any rental fees required.
- The county will produce and mail all meeting notices.
- The county will be responsible for meeting advertisements.

URBAN PLANNING

- Does not include any landscaping plans for medians, adjacent R/W, or County owned land near the new bridge.
- With certain curb & gutter requirements, the BMP's are limited to: Rain gardens Infiltration Trenches and a Water Quality Impoundment in the Little Blue River oxbow.

DELIVERABLES

- Submitted plan sheets will be 22" x 34" (full-sized) and 11" x 17" (half-sized).
- Reproduction costs include the following review sets:

Preliminary Plan Submittal:

County: 2 half-sized plan sets, 1 CD of PDF plan set
City: 2 half-sized plan sets, 1 CD of PDF plan set
MoDOT: 1 half-sized plan set, 1 CD of PDF plan set
Utilities: 1 half-sized plan set each (Assume 8)

Right-of-Way Plan Submittal:

County: 2 half-sized plan sets, 1 CD of PDF plan set
City: 2 half-sized plan sets, 1 CD of PDF plan set
MoDOT: 1 half-sized plan set, 1 CD of PDF plan set
Utilities: 1 half-sized plan set each (Assume 8)
Appraiser/ROW Acquisition Agent: 2 half-sized plan sets

Pre-Final (90%) and Final PS&E Plan Submittal:

County: 2 half-sized plan sets, 1 CD of PDF plan set (1st submittal)
City: 2 half-sized plan sets, 1 CD of PDF plan set (1st submittal)
MoDOT: 1 half-sized plan sets, 1 CD of PDF plan set (1st submittal)
County: 2 half-sized plan sets, 1 CD of PDF plan set (2nd submittal)
City: 2 half-sized plan sets, 1 CD of PDF plan set (2nd submittal)
MoDOT: 1 half-sized plan sets, 1 CD of PDF plan set (2nd submittal)
Utilities: 1 half-sized plan set each (Assume 8) (1 submittal only)

Bidding/Construction Phase:

County: 5 full-sized plan sets, 1 full-size Mylar plan set, 1 CD of CADD files and PDF plan set



**HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)
Jackson County Project No. 3122**

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Task Summary	Direct Labor	
	Hours	Cost
Roadway and Surface Drainage Design	2,727	\$245,319
Geotechnical	280	\$29,852
Bridge	1,336	\$130,887
Hydraulics and Hydrology	341	\$38,212
Environmental / NEPA	428	\$42,784
Public Involvement	56	\$3,560
Lighting	274	\$27,694
Urban Planning - Project Sustainability and Green Design Solutions	184	\$18,608
Project Management, Meetings, Utility Coordination, and Quality Assurance	372	\$41,440
SUBTOTAL (LABOR - DESIGN ONLY)	5,998	\$578,356

HNTB DIRECT EXPENSES

Expense Item	Cost
Roadway and Surface Drainage Design	\$8,030
Geotechnical	\$400
Bridge	\$400
Hydraulics and Hydrology	\$800
Environmental / NEPA	\$340
Public Involvement	\$0
Lighting	\$150
Urban Planning - Project Sustainability and Green Design Solution	\$0
Project Management, Meetings, Utility Coordination, and Quality Assurance	\$0
SUBTOTAL (DIRECT EXPENSES)	\$10,120

HNTB SUBCONSULTANT EXPENSES

Expense Item	Cost
Trekk Design Group (Survey)	\$47,160
Trekk Design Group (Vacuum Excavation)	\$24,640
First American Title Company	\$9,350
TSi	\$68,676
ARC Inc.	\$5,670
SUBTOTAL (SUBCONSULTANT EXPENSES)	\$155,496

TOTAL (DESIGN AND EXPENSES ONLY) =	\$743,972
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HNTB DESIGN SERVICES DURING CONSTRUCTION

Task Summary	Direct Labor	
	Hours	Cost
Design Services During Construction (Labor + Expenses)	304	\$36,400

GRAND TOTAL (WITH DESIGN SERVICES DURING CONSTRUCTION) =	\$780,372
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HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items	Principal	Project Manager	Senior Engineer	Design Engineer	Design Engineer II	Tech.	TOTAL
Roadway and Surface Drainage Design							
Data Collection Site reconnaissance and photo documentation of project topography, adjacent properties, existing drainage structures and water features, and unique features existing conditions					8		8
SUBTOTAL	0	0	0	0	8	0	8
Concept Study							
Develop alignment and/or widening alternatives (HA and VA) (up to 2) based on pros/cons meeting with County, data from proposal, and 1-week alignment study (48th Terrace to Space Center Entrance)	1	12		16	64	40	133
Prepare conceptual grading template to be used during alignment alternative development. Identify potential retaining walls, total acquisitions, and major grading impacts for measuring alignment options.		10		2	40	4	56
Develop drainage concept plan for proposed roadway improvements. Determine inlet locations, enclosed system outfalls to existing features, and utilization of current ditch network and existing culverts. Provide an analysis of how and where existing ditch network and adjacent water features (detention ponds, wetland areas) may be maintained.	1	10			8	2	21
Consider and summarize surface drainage, utility impacts, and right-of way impacts for alignment options in a several page technical memorandum (Space Center to 48th Terrace). Develop LSR decision matrix and review final results with County.	1	18		26	16	4	65
SUBTOTAL	3	50	0	44	128	50	275
Preliminary Design							
Preliminary Geometries							
Finalize preferred horizontal and vertical alignment for LSR that minimizes impacts to adjacent properties, satisfies the Little Blue River hydraulic (elevation) criteria, and preferred bridge		4		8	16	2	30
Finalize concept stage horizontal alignment connections and vertical alignments for all LSR sidestreets (E. 48th Terr., E. 49th Terr., E. 52nd Terr., Downey Ave., E. 54th St., Phelps Rd., Anderson Ave.) Document results and provide to the County for approval of all geometry (sidestreets and intersections).		4		32	16	1	53
Based on proposed widening improvements, perform a preliminary assessment of the ability to tie into all existing commercial and residential entrances along LSR. Document and provide memo to Jackson County of results of analysis of feasibility of entrance tie-ins based on the proposed 3-lane roadway footprint (assume 22 entrances on LSR).		4		22	8	4	38
Prepare a Design Variance Letter or design compliance letter for Jackson County project documentation.		2			4		6
Preliminary Plan and Profile Sheets							
Prepare cover sheet.					2	6	8
LSR and sidestreet typical sections. (Assumes 11' lanes and 5' on-street bike lanes, 8' trail (east), and 5' sidewalk (west) as per County's request. Asphalt will be used for LSR and all sidestreets. See preliminary design criteria for design typical section parameters.	1				8	16	25
Create Alignment Detail and Sheet Layout sheet. Includes LSR and all sidestreets.					6	8	14
1. Plan sheets (for total project including LSR and 5 sidestreets)		2			16	60	78
a. Scale (1"=20'), North arrow and sheet name indicated.							
b. Show stationing and necessary dimensioning							
c. Show mainline, sidestreet and driveway baseline and geometric information.							
d. Show proposed easements with labeling							
e. Show tract numbers and ownership information.							
f. Indicate removal items and approximate construction limits							
2. Profile sheets (for total project including LSR and 5 sidestreets)		2			24	72	98
a. Scale (H: 1"=20'; V: 1"=5') and sheet name indicated.							
b. Existing groundline and proposed grade lines shown.							
c. Profile and curve information with stationing and elevation call-offs							
d. Roadway cross slope and/or super transition information indicated on LSR and on all sidestreet tie-in locations							
e. Import existing utilities into DTM. Display all existing utility information in plan view and major utility crossings in profile view.							
f. Show all existing roadway boring data on profile view.							
Prepare all residential and commercial entrance profile plan sheets (assume 22 entrances located from LSR)	2				4	16	22
Prepare preliminary intersection detail sheets (assume 5 intersections) (no curb returns modeled at preliminary) (show 2-D layout of sidewalk ramps at preliminary at sidestreet intersections)	2			2	8	16	28
Preliminary Pavement Marking							
Proposed pavement marking indicated on 1"=50' scale plan sheets. Pavement marking and signing to include on-street bicycle lanes. Pavement marking to include intersection layout for 5 sidestreets. Including project specific general notes and details.	1			4	15	21	41
Preliminary Traffic Control for Construction Plans - Assumes 2 lanes of traffic will need to be maintained at all times on LSR during construction and sidestreets may only be closed for temporary time periods.							
General notes and construction sequencing descriptions of work.	1			2	4	2	9
Sidestreet detour route signing sheets (for small duration closure of sidestreet connections during construction)	1			2	4	4	11
Preliminary traffic control phasing sheets at 1"=50' scale. (Assume 2 to 3 phases of construction)	2			2	24	24	52
a. Includes phased sequence of construction / maintenance of traffic notes.							
b. Typical sections of phased construction indicating lane widths, temporary widening widths, channelization, and temporary striping.							
c. Temporary pavement markings and signage shown.							
Cross Sections every 50 feet at 1"=10' H and 1"=5' V.							
Create roadway grading templates and roadway model to represent the roadway cross section(s) and pavement section(s) throughout the project.					24	2	26
Analysis of critical grading situations, need for retaining walls, avoidance of unique property features and areas of "not to disturb" requirements. Determination of areas where the parkway slope should vary to maximum allowable values to avoid or minimize grading impacts to adjacent	2			6	36	4	48



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items	Principal	Project Manager	Senior Engineer	Design Engineer	Design Engineer II	Tech.	TOTAL
Roadway and Surface Drainage Design							
Prepare recommendation for temporary easement needs, permanent LSR Right-of-Way, and retaining walls to reduce/minimize impacts.		4		4	16	16	40
Evaluation of the selected alignment preliminary grading limits. Meet with Jackson County and determine the recommended total acquisitions, retaining wall needs, and temporary construction easement limits.							0
Develop preliminary cross sections.					2	16	18
Edit cross sections as needed for special situations, variable grading, to display major existing utility components.	1				4	8	13
Annotate cross sections with the profile grade, and roadway, parkway and backslope slopes.					2	10	12
Preliminary retaining wall profiles. Assume 3 total retaining walls on the project (2 integral or segmental retaining cut walls up to 3.5' in height, and 1 MSE fill wall at a max. 10-ft. ht.) Handrails will not be required on cut walls.	2		4		8	8	22
Quantities / Cost Estimate							
Develop preliminary construction quantities (does not include itemized summary tables at this stage).	2			24	32		58
Develop preliminary opinion of probable project costs itemized by unit of work, including contingency. Does not include costs for right-of-way and easement acquisition.	2			4	8		14
Surface Drainage Design							
Field reconnaissance. (hours in roadway above)							0
Determine drainage areas and inlet spacing. Create drainage area map. Calculate pavement spread and determine inlet top elevations.	2			24	80	16	122
Determine pipe network layout and perform storm sewer pipe design calculations.				24	80		104
Generate pipe profiles. Include existing/proposed groundlines; existing utility crossings, structure numbers, stations, offsets, and top elevations; pipe numbers, types, sizes, lengths, and slopes; design year hydraulic grade line (HGL) at each inlet.				8	16	80	104
Determine area inlet types and sizes (5). Determine culvert types and sizes and perform outlet protection calculations. Generate culvert profiles (6).	2			4	20	4	28
				8	64	8	82
Design pipes for driveway crossings (5).				4	16	4	24
Determine ditch flowlines. Place ditch profile(s) on roadway profile sheet(s) and cross-sections.	2			2	8	4	16
SUBTOTAL	0	47	4	186	575	432	1244
Right-of-Way Plans							
Address Jackson County, KCMO, and MoDOT review comments from preliminary plan submittal.		4			32	40	76
SUBTOTAL	0	4	0	0	32	40	76
Final Plans							
Final PS&E Plans							
Finalize cover sheet and index of sheets.					3	6	9
Finalize typical sections for sidestreets and for LSR. (Assumes 11' lanes, on-street bike lanes, and no median as per County's request. Asphalt will be used, but typical sections for a concrete section will be developed).	2				2	12	16
Final survey reference sheet.					1	1	2
Final Geometrics							
Finalize horizontal alignment for LSR and all sideroads (assume E. 48th Terr., E. 49th Terr., E. 52nd Terr., Downey Ave., E. 54th St., Phelps Rd., Anderson Ave.)	1			1	2		4
Finalize vertical alignment for LSR and all 5 sideroads that minimizes impacts to adjacent properties and existing utilities.	2			1	4		7
a. Includes final design consideration and documentation for intersection sight distance at all 5 sideroad locations and commercial entrance locations.							
Finalize horizontal and vertical alignment for all residential and commercial entrances on LSR (assume 22).	1			2	8		11
Final Plan and Profile Sheets							
Plan sheets. (LSR and all sidestreets)		5			18	66	89
a. Update stationing, necessary dimensioning, construction notes, grading limits, mainline, sidestreet and entrance baseline and geometric information.							
b. Update existing easements, and proposed easements with labeling based on development, review comments, and title report update(s).							
c. Finalize all roadway construction notes and call-offs.							
Profile sheets. (LSR and all sidestreets)	2				12	22	36
a. Update existing groundline and proposed grade lines to reflect horizontal alignment							
b. Final profile and curve information with stationing and elevation call-offs.							
c. Final roadway cross slope and/or super transition information indicated.							
Show and note finalized construction (grading) limits on plans. (includes special grading notes)				1	2	6	9
Final Pavement Marking and Signing Plans							
Finalize preliminary plans with proposed pavement marking and signing indicated with location notes, dimensions and stationing as needed. (includes LSR and all sideroad markings. Assumes no pavement marking on trails).	2				16	16	34
Includes project specific general notes and details.					2	2	4
Final Traffic Control for Construction Plans- Assumes 2 lanes of traffic will need to be maintained at all times on LSR during construction and sidestreets may only be closed for temporary time periods.							
Update project specific traffic control general notes and County/KCMO standard details.	2				2	2	6
Final LSR phased sequence of construction advanced signing plans and alternate route plans.	2				5	3	10
Final traffic control phasing sheets at 1"=50' scale. (assume 3 to 4 construction phases for the construction of bridge and roadway for LSR)	16			34	16	40	106
a. Includes phased sequence of construction / maintenance of traffic notes.							
b. Typical sections of phased construction indicating lane widths, temporary widening widths, channelization, and temporary striping.							



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items	Principal	Project Manager	Senior Engineer	Design Engineer	Design Engineer II	Tech.	TOTAL
Roadway and Surface Drainage Design							
c. Temporary pavement markings and signage noted.							
d. Special construction notes and details for items such as installing and removing temporary drainage structures.							
Cross Sections every 50 feet at 1"=10' H and 1"=5' V.							
Finalize roadway templates and proposed DTM model to represent the roadway cross section(s) and pavement section(s) throughout the project.		2		2	32	2	38
Include variable parkway grading area(s) in model (using sidewalk profiles where applicable).					8	2	10
Modify preliminary cross sections sheets including final grading limits and roadway model. Includes annotation and special grading situations. Add cut and fill areas to cross section sheets. Includes LSR and all sidestreets.		4		20	2	40	66
Edit cross sections as needed (includes match lines for driveways and intersections of side streets).					2	6	8
Quantities / Cost Estimate							
Finalize construction quantities and quantity summary tables for insertion into the plans.		4		60	20	32	116
Develop preliminary opinion of probable project costs itemized by unit of work, including contingency. Does not include costs for right-of-way and easement acquisition.		2		4	4		10
Surface Drainage Design							
Address City, County, and MoDOT drainage comments. Adjust layout and calculations as needed and update profiles.		4	24		40	40	108
Complete drainage calculation sheet and insert into plan set.			4		8	8	20
Determine RCB joint locations and design fill heights (2).		2	4		12		18
Determine permanent ditch erosion control protection.			4		16		20
Final Erosion Control Plans							
Develop final phased erosion and sediment control (ESC) plans meeting APWA requirements. Does not include bridge-specific ESC plans. Assumes up to 2 phases of erosion control.			6		40	46	92
a. Develop BMP's and strategies for ESC efforts particular to this project. Create plan sheets (with narrative and construction notes) that parallel the traffic control phasing, establishing the original layout of the phased erosion control plans.							
b. Create standard (APWA) detail sheets.							
c. Check design for 2-year return interval (hydraulic analysis).							
d. Develop phased ESC quantities and include summary table of these for each phase.							
e. Create ESC special provisions for contract documents.							
f. Review design with Jackson County staff and make requested revisions.							
g. Quality Assurance.							
Prepare SWPPP permit documents, project description, and standard details for erosion control measures.					8	8	16
Miscellaneous Design							
Design guardrail projection for pedestrian trails and/or roadway sections adjacent to Little Blue River on-bow, steep roadside ditches, or other steep slope locations. Prepare guardrail plans and details.		2		8	2	12	24
Design bridge end protection for proposed bridge over Little Blue River. (assume bridge protection for 45 mph design will be used). Prepare CSB or guardrail plans for transitions off the proposed bridge at the Little Blue River.		2		8	2	12	24
Finalize intersection detail sheets with pavement dimensions, stations, and offsets indicated. Also includes curb return stations, elevations of back of curb, curb type (wet/dry), and drainage flow arrows. Assumes up to 5 intersections.		2		20	8	20	50
f. Design sidewalk ramp elevations and layout per City ADA complying ramps (assumes 2 ramps per intersection or 10 total ramps at 4 hours each).				16	2	16	34
Final detail sheets (assumes City standards are used).		1			2	12	15
Final subsurface drainage design (edge drain layout, edge drain pipe details).		1		1	8	8	18
Final retaining wall profiles. Assumes 1 MSE fill wall (up to 10-ft in ht.) and no more than 2 integral or segmental retaining cut walls up to 3.5' in height and less than 400' in length total. Handrails will not be required on integral walls.		2		2	12	6	22
Compile technical specifications (TS) for the project bidding manual.		6		8	24		38
Bidding and Advertising							
Attend pre-bid meeting and pre-construction meetings.		12	12				24
Assist County with preparing written addenda (assumes 1) to the bidding documents. Assumes only minor plan or specification revisions.		4			6		10
SUBTOTAL	0	85	54	188	351	446	1124
ROADWAY SUBTOTAL	3	186	58	418	1094	968	2727
2010 LABOR BILLING RATE (\$/Hour)	\$199.00	\$160.00	\$134.00	\$95.00	\$100.00	\$60.00	
ROADWAY SUBTOTAL COST	\$597	\$29,760	\$7,772	\$39,710	\$109,400	\$58,080	\$245,319

EXPENSES:	
Travel	\$630
Printing	\$7,400
Total Expenses	\$8,030



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items	Dept. Head	Senior Engineer	Design Engineer	Tech.	TOTAL
Geotechnical					
Data Collection					
Subsurface Investigation					
Prepare Subsurface Exploration Program		3	5	8	16
Develop Boring Coordinates for Surveys		4	5		9
Develop Working Soil Profiles		2	3	10	15
Laboratory Soil Test Assignments and Coordination with Geotechnical Subconsultant		5	5		10
Meetings with Designers and Geotechnical Subconsultant	4	5			9
Management and Coordination of Geotechnical Subconsultant	4	6	16		26
SUBTOTAL	8	25	34	18	85
Concept Study					
SUBTOTAL	0	0	0	0	0
Preliminary Design					
Geotechnical Report with summary of subsurface conditions and recommendations for the bridge foundations, roadway/pavements, subgrade preparation, slopes stability, cut, fill and embankment, ground improvement, and settlement analysis of soft soils of the Little Blue River Valley		8	35	8	51
Meetings with Designers	3	5			8
Subsurface Information for TS&L Submittal		2	4	14	20
Quality Assurance	5				5
Develop Retaining Wall Plans at Abutments and/or Embankments, as necessary	2	3	8	18	31
SUBTOTAL	10	18	47	40	115
Right-of-Way Plans					
SUBTOTAL	0	0	0	0	0
Final Plans					
Boring Sheets for Bridge Plans		2	5	20	27
Coordination with Designers	2	3	8		13
Assistance with Final Plans and Specifications		3	5		8
Quality Assurance	4				4
Final Plans and Specifications for retaining walls	2	8		18	28
SUBTOTAL	8	16	18	38	80
GEOTECH. SUBTOTAL	26	59	99	96	280
2010 LABOR BILLING RATE (\$/Hour)	\$179.00	\$134.00	\$100.00	\$77.00	
GEOTECH. SUBTOTAL COST	\$4,654	\$7,906	\$9,900	\$7,392	\$29,852

EXPENSES:	
Travel	\$200
Printing	\$200
Total Expenses	\$400



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items		Section Head	Task Manager/ Senior Engineer	Junior Engineer	Tech.	TOTAL
Bridge						
Data Collection For Conceptual Bridge Design						
	Site Reconnaissance & Data Collection	4	8		8	20
	SUBTOTAL	4	8	0	8	20
Concept Study						
Bridge Typical Section						
	Assist other disciplines in determining the proposed typical section. Determine roadway and shoulder widths, bike lane widths, sidewalk widths, raised sidewalks vs. at grade sidewalks, barrier rail types and pedestrian fence types. Coordinate bridge elements with proposed lighting and drainage requirements. Determine if signing will be required on bridge.	4	4		8	16
	Assist the Transportation, Geotechnical and Hydraulics sections to determine basic bridge geometry requirements, waterway opening and clearance requirements and foundation options for various structure types. Select a maximum of two structure types and perform life-cycle costs comparisons.	4	4		8	16
	Quality control	2				2
	SUBTOTAL	10	8	0	16	34
Preliminary Bridge Design						
	Develop Design Criteria	2	4			6
	Establish Horiz & Vert Geometrics	2	8	8		18
	Establish Construction Phasing	2	4	4		10
	General Plan and Elevation	2	6		24	32
	Typical Section	2	6		12	20
	Preliminary Cost Estimate	2	2			4
	Quality Control	2	4			6
	SUBTOTAL	14	34	12	36	96
Right-of-Way Design						
	SUBTOTAL	0	0	0	0	0
Final Design						
	Superstructure Design		38	76		114
	Substructure Design		50	100		150
	Live Load Ratings					0
	Develop Construction Details		82	222	430	734
	Quality Control / Quality Assurance	8	24			32
	Final Geometry and Clearances		4	4		8
	Management	15	15			30
	Meetings / Coordination	8	24			32
	Project Archiving			2	4	6
	Final Quantities & Cost Estimate		4	16	32	52
	Prepare SI&A (Structural Inventory & Appraisal)	2	2			4
	Specifications	8	8			16
	Geotechnical Coordination		8			8
	SUBTOTAL	41	259	420	466	1186
BRIDGE SUBTOTAL		69	309	432	526	1336
2010 LABOR BILLING RATE (\$/Hour)		\$173.00	\$130.00	\$102.00	\$66.00	
BRIDGE SUBTOTAL COST		\$11,937	\$40,170	\$44,064	\$34,716	\$130,887

EXPENSES:	
Travel	\$100
Printing	\$300
Total Expenses	\$400



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items		Task Manager	Design Engineer	Tech.	Clerical	TOTAL
Hydraulics and Hydrology						
	Data Collection					
	Site Reconnaissance (2 visits) to verify conditions for modeling.	6	6			12
	Prepare Survey Request for hydraulic cross-sections.	3	2			5
	Coordination to obtain current hydraulic model from FEMA	9	2		2	13
	Prepare project survey surface and field surveyed cross-sections for extrapolating existing condition hydraulic cross-sections.	2	6	6		14
	SUBTOTAL	20	16	6	2	44
	Concept Study					
	Prepare "Existing Conditions" model	4	32	4		40
	Prepare one (1) conceptual alternative "Proposed Project" models and refine the selected	4	24	4		32
	SUBTOTAL	8	56	8	0	72
	Preliminary Design					
	Support environmental Permitting efforts with hydraulic information and coordinate with geotechnical design	6	2			8
	Prepare Draft Floodplain Development Permit	2	6	2	2	12
	Prepare Draft No-Rise Certification form	2	6	2	2	12
	Calculate Scour for the proposed LBR bridge	8	40	4		52
	Prepare Draft Bridge Hydraulics and Scour Report	2	12	4	4	22
	Quality Assurance of Little Blue River Hydraulic design	12	4	4		20
	SUBTOTAL	32	70	16	8	126
	Right-of-Way Plans					
	SUBTOTAL	0	0	0	0	0
	Final Plans					
	Support environmental Permitting efforts with hydraulic information	4	2			6
	Refine "Project" model to comply with "no rise" water surface requirements.	8	24			32
	Prepare Floodplain Development Permit	1	2	1	1	5
	Prepare No-Rise Certification form	1	2	1	1	5
	Refine Scour Calculations for the proposed LBR bridge	4	20	4		28
	Prepare Bridge Hydraulics and Scour Report	1	6	2	2	11
	Quality Assurance / Quality Control / Project Reviews	8	2	2		12
	SUBTOTAL	27	58	10	4	99
	HYDRAULICS & HYDROLOGY SUBTOTAL	87	200	40	14	341
	2010 LABOR BILLING RATE (\$/Hour)	\$160.00	\$103.00	\$72.00	\$58.00	
	HYDRAULICS & HYDROLOGY SUBTOTAL COST	\$13,920	\$20,600	\$2,880	\$812	\$38,212

EXPENSES:		
Travel		\$100
Printing		\$300
FEMA RAS Model		\$400
Total Expenses		\$800



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items			Section / Project Manager	Sr. Planner / Task Manager	Jr. Planner / Tech.	TOTAL
Environmental / NEPA BASIC SERVICES						
		Data Collection				
		SUBTOTAL	0	0	0	0
		Concept Study				
		Stream & Wetland Investigation & Report				
		Data Collection (USGS, NRCS soils info, NWI info)		2	2	4
		Field delineations of water resources & photos		12	12	24
		Prepare wetland delineation forms & photo sheets		8	16	24
		Prepare stream and pond data forms & photo sheets		4	2	6
		Prepare Jurisdictional Determination forms & assessments		2	8	10
		Prepare text, divider pages, & acreage tables for report		4	12	16
		Prepare GIS mapping, exhibits, labels, plan views for report		4	16	20
		Prepare Stream/Wetland Summary Report (PDFs, printing, binding, and submittal to Corps of Engineers & client.		4	8	12
		QA/QC	4			4
		SUBTOTAL	4	40	76	120
		Preliminary Design				
		Environmental Coordination				
		Coordination with Cultural sub & review of cultural reports, and follow through to obtain Section 106 clearance.		12	4	16
		Attend meetings (internal, County/City, MoDOT, Core Team)		16		16
		QA/QC				0
						0
		Memorandum of Agreement (for "Adverse Effect" to NRHP Eligible Resources) (can be used with Programmatic 4(f) or Individual 4(f))				
		If needed, this work involves preparation of a Memorandum of Agreement that specifies mitigation measures; additional coordination/correspondence with the SHPO, MoDOT, and FHWA to develop the MOA; and coordination with the cultural resources subconsultant to perform the MOA stipulations.		8	16	24
		(If Applicable) Section 6(f) Evaluation				
		Prepare background & introduction text, describe proposed action, explain purpose and need.		4	8	12
		Describe 6(f) property. Include location, ownership, size, function, access, existing and planned facilities, usage, unusual characteristics, and sources of federal funding (6f).		4	4	8
		Prepare photos, maps, and exhibits to show the 6(f) property in relation to the project and the impacts resulting from the Preferred Alternative and other alternatives (show construction limits		4	12	16
		Discuss alternatives, avoidance, impacts & cost comparisons.		8		8
		Discuss all measures available to minimize impacts to the 6(f) property.		4		4
		Additional coordination with the County Parks & Recreation department, the US Dept. of Interior, & MDNR to present impacts and mitigation measures, and prepare letters requesting approval.		8	8	16
		Prepare text for the basis of concluding that there are no feasible and prudent alternatives to the use of the 6(f) land.		4	4	8
		Prepare text to discuss and demonstrate how the Preferred Alternative results in the least harm and includes all possible planning to minimize harm to the 6(f) property, including mitigation measures and replacement land.		4	4	8
		Summarize formal coordination and assemble all letters and documents for inclusion in the 6(f) evaluation document.		4	4	8
		Prepare submittals for County P&R, MDNR and DOI. (generate PDFs, print, collate)		4	16	20
		QA/QC	6			6
		(If Applicable) Replacement Land for 6(f)				
		Additional coordination with County P&R, MDNR, & USDOJ to find and approve replacement land. (Impacted land and replacement land must be appraised also - by others)		12	4	16
		Prepare additional text to include description and evaluation of the replacement land.		12		12
		Section 404 Nationwide Permit				



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items			Section / Project Manager	Sr. Planner / Task Manager	Jr. Planner / Tech.	TOTAL
Environmental / NEPA BASIC SERVICES						
		Gather data for, and prepare 404 permit application (NWP)		4	4	8
		Prepare plan & cross-section exhibits showing impacts to jurisdictional streams/wetlands		2	12	14
		Determine impact quantities and prepare impact tables for surface area and volume of fill material impacts to jurisdictional waters		2	4	6
		Prepare Missouri Stream Mitigation Forms for stream mitigation requirements		4		4
		Prepare cover letter for application submittal, including statement of mitigation proposal		4		4
		Meeting with Corps of Engineers & Client		2		2
		Maintain correspondence with Corps & MoDOT		4		4
		QA/QC	4			4
		KC & Independence Stream Buffer Zone Delineations				
		Additional field investigation for Mature Riparian Vegetation assessment (done at same field visit for stream & wetland investigations). Fill out forms and use GPS to mark boundaries.		8	8	16
		Download Stream Buffer Zone boundary files and develop prelim & final Stream Buffer Plans (with labels) for City submittal.		8	16	24
		Determine stream buffer zone impacts and determine mitigation requirements based on mitigation ratios.		2	4	6
		Coordinate with surveyor to get legal description of stream buffer area, and coordinate the preparation of Deed Restriction or Conservation Easement documents for legal protection of		8		8
		QA/QC	2			2
		SUBTOTAL	12	156	132	300
		Right-of-Way Plans				
		SUBTOTAL	0	0	0	0
		Final Plans				
		Stream Buffer Mitigation Plan Coordination				
		Coordinate with Urban Planning in development of Stream Buffer Mitigation Plans and		6		6
		NPDES Permit Assistance				
		Provide information to engineering for NPDES permit			2	2
		SUBTOTAL	0	6	2	8
		ENVIRONMENTAL / NEPA SUBTOTAL	16	202	210	428
		2010 LABOR BILLING RATE (\$/Hour)	\$167.00	\$131.00	\$65.00	
		ENVIRONMENTAL / NEPA SUBTOTAL COST	\$2,672	\$26,462	\$13,650	\$42,784

EXPENSES:	
Travel	\$90
Printing	\$250
Total Expenses	\$340



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items			PI Mgr	Clerical	TOTAL
Public Involvement					
		Data Collection			
		SUBTOTAL	0	0	0
		Concept Study			
		Stakeholder Meeting/Public Meeting #1			
		This meeting can be used to hold a focused workshop for stakeholders, including property owners and public officials OR, conduct a public meeting in an open house format to present a preferred concept design. In either case, the client will be responsible for producing and sending meeting notices, advertising, as well as reserving meeting space. HNTB will provide staffing, exhibits, comment forms, and transcripts.	4	24	16
		SUBTOTAL	4	24	28
		Preliminary Design			
		SUBTOTAL	0	0	0
		Right-of-Way Plans			
		Public Meeting #2			
		HNTB will attend a public meeting in an open house format to present a preferred concept design within ROW plans. The client will be responsible for producing and sending meeting notices, advertising, as well as reserving meeting space. HNTB will provide staffing, exhibits, comment forms, and transcripts.	4	24	28
		SUBTOTAL	4	24	28
		Final Plans			
		SUBTOTAL	0	0	0
		PUBLIC INVOLVEMENT SUBTOTAL	8	48	56
		2010 LABOR BILLING RATE (\$/Hour)	\$79.00	\$61.00	
		PUBLIC INVOLVEMENT SUBTOTAL COST	\$632	\$2,928	\$3,560

EXPENSES:	
Total Expenses	\$0



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items			Senior Engineer	Design Engineer	Tech.	TOTAL
Lighting						
		Data Collection				
		SUBTOTAL	0	0	0	0
		Concept Study				
		SUBTOTAL	0	0	0	0
		Preliminary Design				
		SUBTOTAL	0	0	0	0
		Right-of-Way Plans				
		SUBTOTAL	0	0	0	0
		Final Plans				
		Coordinate with KCMO and KCPL for design of elec. services and lighting design.		16		16
		Perform Illuminations calculations and submit to KCMO.		26		26
		Perform circuit calculations.		17		17
		Develop final design plan sheets for lighting layout.		28		28
		Develop specifications and general notes.		14		14
		Prepare lighting plans		25	60	85
		Determine pay items and prepare quantities.		14		14
		Prepare standard KCMO lighting detail sheets.		14	16	30
		Coordination, Management and Meetings	12	8	8	28
		QA/QC	12	0	4	16
		SUBTOTAL	24	162	88	274
LIGHTING SUBTOTAL			24	162	88	274
2010 LABOR BILLING RATE (\$/Hour)			\$165.00	\$115.00	\$58.00	
LIGHTING SUBTOTAL COST			\$3,960	\$18,630	\$5,104	\$27,694

EXPENSES:	
Printing	\$150
Total Expenses	\$150



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items			Project Manager	Design LA	TOTAL
Urban Planning - Project Sustainability and Green Design Solutions					
		Data Collection			
		SUBTOTAL	0	0	0
		Concept Study			
		Design rain garden - BMP plantings - up to 3 locations	8	12	20
		Permitting: prepare preliminary landscape plans for mitigation	20	60	80
		SUBTOTAL	28	72	100
		Preliminary Design			
		SUBTOTAL	0	0	0
		Right-of-Way Plans			
		SUBTOTAL	0	0	0
		Final Plans			
		Prepare Landscape plans for BMP for surface drainage (Rain Gardens, assume 3)	4	20	24
		Prepare final landscape plans for mitigation	20	40	60
		SUBTOTAL	24	60	84
		URBAN PLANNING SUBTOTAL	52	132	184
		2010 LABOR BILLING RATE (\$/Hour)	\$137.00	\$87.00	
		URBAN PLANNING SUBTOTAL COST	\$7,124	\$11,484	\$18,608

EXPENSES:	
Total Expenses	\$0



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items		Principal	Section / Project Manager	Senior Engineer	Design Engineer	Jr. Planner / Tech.	TOTAL
Project Management, Meetings, Utility Coordination, and Quality Assurance							
Data Collection							
	Prepare and confirm final project design criteria for Roadway/Bridge/Hydraulics/Hydrology/Surface Drainage based on preliminary design criteria provided by Jackson County.		2	6	6		14
	Prepare and mail out KCMO "Public Improvement Notice No. 1". Collect data based on responses from utility owners		2		6	32	40
	SUBTOTAL	0	4	6	12	32	54
Concept Study							
	SUBTOTAL	0	0	0	0	0	0
Preliminary Design							
	Attend Project Kickoff Meeting with Jackson County and KCMO		10		6		16
	Attend concept alignment study - geometry recommendation meeting		2		6		8
	Attend concept study - finalize project horizontal/vertical geometry meeting		2		6		8
	Attend Preliminary Plan review meeting (Jackson County, KCMO)		4		8		12
	Attend and prepare for Preliminary Phase Public Meeting No. 1		8		8	8	24
	Management and coordination of sub-consultant work, invoicing, and development of sub-consultant agreements	2	8				10
	Quality assurance of final plan submittal and routine coordination/management of disciplines thru final design (Jan 2010 to Aug 2010)	6	16				22
	Prepare and mail out KCMO "Public Improvement Notice No. 2"		1		1	2	4
	Hold utility coordination meeting to discuss preliminary planned improvements, existing utilities and potential conflicts and resolutions		6		8	4	18
	SUBTOTAL	8	57	0	43	14	122
Right-of-Way Plans							
	Attend and prepare for Right of Way Phase Public Meeting No. 2 (DESIGN TEAM)		8		8	8	24
	Attend Meeting with the County to review the preliminary Right of Way documents prior to		2		4		6
	Attend meeting with County to discuss traffic control/sequencing plan for approval		2		2		4
	Prepare and mail out KCMO "Public Improvement Notice No. 3"		1		8	2	11
	Distribute plans to utility companies and conduct the second Utility Meeting. Prepare meeting minutes.		2		8	4	14
	Receive proposed relocation plans from utility companies and assemble into "PROPOSED UTILITY RELOCATION PLANS". Includes up to 3 facilities.		2		20	20	42
	Distribute "RELOCATION PLANS" to the utility owners				2	12	14
	Conduct one meeting to discuss "RELOCATION PLANS"		6		8		14
	SUBTOTAL	0	23	0	60	46	129
Final Plans							
	Quality assurance of final plan submittal and routine coordination/management of disciplines thru final design (Dec 2010 to Sept 2011)	4	16				20
	Attend pre-final plan review meeting with Jackson County		2		6		8
	Management and coordination of sub-consultant work, invoicing, and development of sub-consultant agreements						0
	General Coordination with utility owners during final design (includes phone calls, emails, coordination outside of formal meetings)		12		16	2	30
	Prepare and mail out KCMO "Public Improvement Notice No. 4".		1		4	4	9
	SUBTOTAL	4	31	0	26	6	67
PROJECT MANAGEMENT & COORDINATION SUBTOTAL		12	115	6	141	98	372
2010 LABOR BILLING RATE (\$/Hour)		\$199.00	\$160.00	\$112.00	\$100.00	\$60.00	
PROJECT MANAGEMENT & COORDINATION SUBTOTAL COST		\$2,388	\$18,400	\$672	\$14,100	\$5,880	\$41,440

EXPENSES:	
Total Expenses	\$0



HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items	Dept. Head	Section / Project Manager	Senior Engineer	Design Engineer	Jr. Planner / Tech.	TOTAL
Design Services During Construction						
Bridge						
Attend Pre-Construction Meeting		2	4			6
General Consultation & Plan Interpretation		8	16	16	8	48
Review Miscellaneous Submittals		2	16	16		34
SUBTOTAL	0	12	36	32	8	88
Roadway						
Respond to questions during construction. Assumes phone calls, emails, and site visits taking on average 2 hours a week for 64 weeks (assuming 16 months of construction during 2 year construction schedule).		40		88		128
Attend pre-construction meeting	2	2		4		8
Prepare minor plan revisions as necessitated by conditions encountered in the field during construction. Major changes which are beyond the scope of these services shall be negotiated as additional services in a separate supplemental agreement.				40	40	80
SUBTOTAL	2	42	0	132	40	216
PROJECT MANAGEMENT & COORDINATION SUBTOTAL	2	54	36	164	48	304
2012 LABOR BILLING RATE (\$/Hour)	\$204.00	\$168.00	\$121.00	\$110.00	\$79.00	
PROJECT MANAGEMENT & COORDINATION SUBTOTAL COST	\$408	\$9,072	\$4,356	\$18,040	\$3,792	\$35,668

EXPENSES:		
Travel		\$200
Printing		\$532
Total Expenses		\$732

DESIGN SERVICES DURING CONSTRUCTION (LABOR + EXPENSES)	\$36,400
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HNTB

HNTB Job No. 49917: Improvements to Lee's Summit Road (40 Highway to Anderson Road)

PERSON-HOUR TASK BREAKOUT FOR: HNTB SUMMARY

Items			EXPENSES
Subconsultant Expenses			
		Survey	
	•	Trekk Design Group (Survey)	\$47,160
	•	Trekk Design Group (Vacuum Excavation)	\$24,640
	•	First American Title Company (Title O & E's)	\$9,350
		SUBTOTAL	\$81,150
		Geotechnical	
	•	TSi (Bridge Borings)	\$35,343
	•	TSi (Roadway Borings)	\$20,436
	•	TSi (Retaining Wall Borings)	\$9,497
	•	TSi (Percolation Test)	\$3,400
		SUBTOTAL	\$68,676
		Environmental	
	•	ARC, Inc. St. Louis (Cultural Resources)	\$3,170
	•	ARC Inc. St. Louis (Cultural Resources- MOA Mitigation)	\$2,500
		SUBTOTAL	\$5,670
		SUBCONSULTANT EXPENSES TOTAL	\$155,496

EXHIBIT A TREKK Scope of Services Surveying and Potholing

1.0 Description of Work

CONSULTANT will conduct a topographic survey of the Lee's Summit Road from Anderson Road to East 48th Street Terrace. The CONSULTANT will conduct a bridge survey for the replacement of the bridge over the Little Blue Trace River.

CONSULTANT will conduct "potholing" in six (6) locations to locate existing water main under the pavement. CONSULTANT will conduct "potholing" in twenty-eight (28) locations to locate existing MGE gas mains within the right of way. CONSULTANT will provide surveying information for each location. CONSULTANT will provide all labor, material and oversight for "potholing" activities.

2.0 Topographic Surveys

CONSULTANT shall perform a topographic survey of the project limits and locate existing ground elevations, grade breaks, and significant topographic features such as trees, signs, fences, structures, sidewalks and driveways, existing storm and sanitary sewer facilities, size and type of manholes and pipes, direction of flow, top elevations and flowlines. Any visible utilities and marked buried utilities, locate up to 50 geotechnical borings after they are drilled, locate KCMO water lines, 16" MGE gas line, and 8" MGE gas line (assumes 34 locations); Includes coordination with vac truck to obtain depths of existing utilities. Locations will be coordinated with the ENGINEER.

CONSULTANT shall prepare a base map at a 1"=20' including surveyed topographic information, contours at 2' intervals, existing right of way, property lines, easements, subdivisions, quarter section information, owners names, existing utility information as determined from surveyed utility locates and visible features and/or facility maps. Prepare and check legal descriptions and tract map exhibits for right of way acquisition process (assumes 52 tracts). County will provide the latest right-of-way document templates in digital format.

CONSULTANT shall prepare any updates to existing easements, and proposed easements with labeling based on development, review comments, and title report update(s).

3.0 Bridge Survey

CONSULTANT shall perform a bridge survey including cross-sections taken immediately upstream and downstream of the structure fascia. Also valley and channel sections taken upstream and downstream of the bridge as follows (totaling 7 cross-sections); two structure span lengths (if conduit, sum of spans) upstream of the structure, four structure span lengths upstream of the structure, two structure span lengths downstream of the structure, four structure span lengths downstream of the structure, eight structure span lengths downstream of the structure. Hydraulic structures on the same stream which fall within the extents of this section coverage will be surveyed. Profile shots taken at flow-line breaks in grade with a maximum distance between shots being 200 ft, within the extents of the furthest cross-section upstream and downstream. Determine the location of Ordinary High Water (OHW). This is the regular high flow which prevents vegetation from growing, near the stream.

4.0 Utility Locates

CONSULTANT shall locate and stake pothole locations identified by ENGINEER and CONSULTANT. Utility locates shall be ordered by CONSULTANT prior to excavation. CONSULTANT shall complete six (6) potholes through vacuum excavation, up to 6 feet of depth, refusal or top of existing water main. CONSULTANT shall complete twenty-eight (28) potholes through vacuum excavation, up to 5 feet of depth, refusal or top of existing gas main. A 1 1/2 – inch PVC pipe will be placed on the top of the existing gas main and extend beyond the ground surface. The depth to the existing gas main will be marked on the PVC pipe and will be later surveyed by CONSULTANT. On-site oversight of the potholing shall be provided by the CONSULTANT. The pavement cuts will be made in a 12” diameter and epoxied back in place after the vacuum excavation is completed. Excavations will be backfilled as required by City standards.

January 22, 2010



Mr. Todd Dwyer, P.E.
HNTB CORPORATION
715 Kirk Drive
Kansas City, Missouri 64105

**Re: Proposal for Subsurface Exploration and Geotechnical Engineering Services
Lee's Summit Road Improvements
Kansas City, Missouri
TSi Engineering Proposal KCM09060**

Dear Mr. Dwyer:

TSi Engineering, Inc. (TSi) is pleased to submit this proposal to HNTB Corporation (HNTB) to perform subsurface exploration and limited geotechnical engineering services for the planned improvements to Lee's Summit Road in Kansas City, Missouri. We have visited the site to observe current site conditions and access for drilling equipment.

The geotechnical engineering work for this project will be divided between TSi and HNTB. TSi will direct the subsurface investigation in the field, complete the laboratory testing, and compile a "data" report. HNTB will plan the subsurface investigation, complete the geotechnical engineering analysis, and write the project's geotechnical engineering report.

PROJECT DESCRIPTION

We understand that the project will consist of widening Lee's Summit Road to two lanes with a turn lane from NW Space Center Drive to East 48th Terrace. The project will also include a new bridge crossing the Little Blue River.

Lee's Summit Road in this area is currently two lanes with no shoulders, and is lined with drainage ditches and trees. Overhead electric lines exist on both shoulders of the road for much of the project. The land surrounding the road includes completed commercial and residential developments, grass pastures, cropland, and densely wooded areas. Standing water was observed on both sides of the road during our site visit.

The area where Lee's Summit road crosses the Little Blue River is heavily wooded. Tree clearing may be necessary depending on the final boring locations. Access to the proposed boring locations to the southeast of the existing bridge will be via private property. HNTB will provide the access agreement with the owner of the property.

TSi Engineering, Inc.
1600 Genessee Street, Suite 960
Kansas City, Missouri 64102
(816) 283-3838 fax: (816) 283-3938

Mr. Todd Dwyer
HNTB CORPORATION
January 22, 2010
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The project is within the flood plain of the Little Blue River. Based on previous experience in the project area, subsurface conditions likely consist of 50 to 80 feet of alluvial soils overlying a cyclic sequence of shale and limestone bedrock. The alluvium consists of soft silty clay, with some sand and gravel at depth.

SCOPE OF SERVICES

FIELD EXPLORATION

The field exploration section assumes that an extended lane closure on Lee's Summit Road will be approved by the City of Kansas City, Missouri, so TSi will be able to access HNTB's requested locations. If we are not able to secure a lane closure permit, the field exploration cannot be completed at the requested locations, and HNTB and TSi must create a new field exploration plan. The new field exploration plan will have different costs which will have to be determined at that time.

HNTB has developed a subsurface exploration program consisting of 8 bridge borings, 25 roadway borings, and 3 retaining wall borings. The bridge borings will be advanced to auger refusal on hard bedrock. Four bridge borings will be continued 15 feet into hard bedrock using coring methods or by augering into hard shale. The roadway borings will be advanced to a depth of 10 feet, and the retaining wall borings will be advanced to a depth of 40 feet. If auger refusal on bedrock is encountered in the roadway or retaining wall borings within the planned depth, the boring will be terminated at that depth.

TSi will also complete percolation testing at four sites, two test per site. HNTB requested a less formal method of percolation testing which involves digging a uniform hole, presoaking the soil, then measuring the rate in which the water drops. The percolation testing will not be performed according to ASTM standards.

TSi will obtain the necessary permits from the City of Kansas City, Missouri, to work on their right-of-way. Because this work is for infrastructure improvements within the City, our fees presented below are based on them not charging fees for these permits. Some boring locations will require traffic control, including extended lane closures, to provide safe drill rig access. TSi will plan the traffic control, rent and set up the necessary equipment, provide flagmen, and obtain the necessary permits.

Extensive tree clearing is not planned as part of this work. If a staked boring location is within a wooded area or on a slope, it will be offset to the nearest accessible location.

Three samples will be obtained from each boring in the upper 10 feet and at a 5-foot interval after that. Split-barrel samples will be collected in the borings. In place of select split-barrel

Mr. Todd Dwyer
HNTB CORPORATION
January 22, 2010
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samples in cohesive soils thin walled tube samples (3.0 inch diameter) will be collected instead. In select borings, bulk samples of auger cuttings will be collected (approx. 80 lbs each).

Water levels in the boreholes will be recorded at completion of the boring, and then the borings will be backfilled with auger cuttings. TSi will record water levels 24 hours after completion of the boring, at select locations. In deeper borings or when groundwater is encountered, borings will be backfilled with bentonite pellets. In paved areas, the pavement will be patched with cold mix asphalt.

The field explorations will be conducted under the continuous field supervision of an engineer or geologist from TSi.

HNTB will arrange for surveyors to stake the boring locations prior to our starting the field work. Those surveyors will also determine the ground surface elevations at each boring location. If it is necessary to offset a boring from the staked location, we will note the offset distance and direction, and estimate the elevation difference between the final and surveyed locations.

LABORATORY TESTING

A laboratory test program will be performed on soil and rock samples recovered from the borings to determine their engineering characteristics. After each boring is completed, a preliminary log will be provided to HNTB. HNTB will then determine which tests are to be completed on which sample. Laboratory tests will include visual classification, natural moisture content, dry unit weight, Atterberg limits, grain size analysis (sieve and hydrometer), unconfined compression (soil and rock), triaxial compression, standard Proctor compaction, and/or consolidation tests. Consolidation tests will include preparation of dial reading vs. time plots for each load increment.

GEOTECHNICAL DATA REPORT

Based on our understanding of the project and on the scope of work proposed, the geotechnical data report prepared by TSi will address the following considerations:

- Subsurface conditions at boring locations, including logs of each boring
- Laboratory test results

FEES

TSi's services for the project will be provided on a unit fee basis. Based on the scope of work provided above and assuming no unanticipated subsurface conditions are encountered, the estimated total fees for the bridge, roadway, and retaining wall explorations are \$35,343.00, \$20,436.00, and \$9,497.00, respectively. The estimated fee for the percolation testing as previously described is \$3,400. Based upon the complete scope of work for the project and

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Mr. Todd Dwyer
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January 22, 2010
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assuming no unanticipated subsurface conditions are encountered, the estimated total fee is \$68,676.00. The total fee will be adjusted for the final scope of work based on the attached unit fee schedule. If site conditions are encountered during the exploration that warrant additional work, we will notify you and discuss the necessary scope modification. Submittal of the written data report will complete the services to be provided under this proposal.

We understand that our firm's participation in this project will be credited as MBE participation on the project. TSi will hire a subcontractor to provide a drill rig and to complete a portion of the laboratory testing. The Owner may not allow a portion or all of that subcontract to be included in the MBE credit of the project. Details of our subcontracted work can be provided if requested.

ASSUMPTIONS / CLARIFICATIONS

In preparing this proposal, TSi has made the following assumptions:

1. All land for the project is on public right-of-way (City of Kansas City, Missouri). However, privately owned land southeast of the bridge location will have to be crossed to access the borings. HNTB will notify the landowner of our work for permission to access the boring locations.
2. TSi will contact Missouri One-Call locating service regarding member utilities. A 48-hour time period is required by Missouri One-Call to clear utilities. We must be informed of the location of any other private underground utility lines (e.g. irrigation, exterior lighting, data) at the sites by their owner prior to starting our field work.
3. The roadway borings will be backfilled with auger cuttings and cold patch. Boring in vegetated areas will be backfilled and any excess cuttings mounded over the borings. We have included a small allowance for the cost of other restoration of the site such as filling in tire ruts or planting grass, and will take reasonable precautions to minimize disturbance by the drilling activities. Borehole backfill may settle over time, requiring the property owner to place additional backfill.

SCHEDULE

Fieldwork can begin within one to two weeks of receiving written notice to proceed and staking of the boring locations, weather permitting. The field exploration will take approximately 20 working days to complete, shorter if two drill rigs can be mobilized at the same time. After the field work is completed, HNTB will select samples for laboratory testing. Laboratory testing should be complete approximately three weeks following requests from HNTB. Our geotechnical data report should be available within one week following completion of the laboratory testing. We will provide preliminary information at all stages by e-mail.

TSi Engineering, Inc.
1600 Genessee Street, Suite 960
Kansas City, Missouri 64102
(816) 283-3838 fax: (816) 283-3938



**Lee's Summit Road
Kansas City, Missouri
Unit Fee Schedule and Total Fee Estimate
Bridge**



Valid for work completed prior to Dec. 31, 2010

	Unit Cost		Qty	PROPOSED	
					Amount
<u>Labor (Project Set Up / Report Preparation)</u>					
Geotechnical Engineer	\$ 135.00	hour	35	\$	4,725.00
Geotechnical engineer time is for writing data report and overall project management.					
Field Engineer / Geologist	\$ 70.00	hour	53	\$	3,710.00
Field engineer / geologist time is for coordinating utility locating services, planning subsurface exploration, planning traffic control, obtaining permits, logging borings, preparing boring, and preparing subsurface cross sections.					
Administration (invoicing, report printing)	\$ 46.00	hour	5	\$	230.00
Mileage	\$ 0.60	mile	240	\$	144.00
			subtotal	\$	8,809.00
<u>Field Exploration</u>					
Drill Rig Mobilization (1 ATV)	\$ 480.00	Each	1	\$	480.00
Traffic Control	\$ 4,000.00	lump sum	0	\$	-
All Terrain Vehicle Surcharge	\$ 140.00	day	6	\$	840.00
Drilling in Soil and Backfilling 0-50' Depth	\$ 10.00	lin. ft.	450	\$	4,500.00
Drilling in Soil and Backfilling 50-100' Depth	\$ 12.00	lin. ft.	165	\$	1,980.00
Rock Coring, 0 - 50' Depth	\$ 46.00	lin. ft.	0	\$	-
Rock Coring, 50 - 100' Depth	\$ 55.00	lin. ft.	60	\$	3,300.00
Backfilling with Bentonite Pellets or Grout	\$ 7.00	lin. ft.	200	\$	1,400.00
Standard Penetration Test Samples	\$ 21.00	each	43	\$	903.00
Thin Wall Tube Samples (3.0 inch diam.)	\$ 33.00	each	80	\$	2,640.00
Bulk Samples (2 buckets / 80 lb each)	\$ 60.00	each	0	\$	-
Backhoe for Test Pits	\$ 850.00	day	0	\$	-
Dozer for Tree Clearing	\$ 1,100.00	day	0	\$	-
Site Access & Restoration	\$ 1,500.00	allowance	1	\$	1,500.00
Standby Time for Drill Crew and Rig	\$ 170.00	each	0	\$	-
			subtotal	\$	17,543.00
<u>Laboratory Testing of Samples</u>					
Moisture Content	\$ 7.00	each	123	\$	861.00
Organic Content	\$ 36.00	each	0	\$	-
Liquid and Plastic Limits	\$ 78.00	each	10	\$	780.00
Dry Unit Weight	\$ 28.00	each	80	\$	2,240.00
Percent Passing #200 Sieve	\$ 45.00	each	0	\$	-
Sieve Analysis-(Mechanical Wash)	\$ 80.00	each	2	\$	160.00
Hydrometer	\$ 80.00	each	2	\$	160.00
Standard Proctor	\$ 205.00	each	2	\$	410.00
Unconfined Compression - Soil	\$ 60.00	each	10	\$	600.00
Unconfined Compression - Rock	\$ 80.00	each	6	\$	480.00
Triaxial Compression - UU	\$ 90.00	each point	0	\$	-
Triaxial Compression - CU	\$ 250.00	each point	6	\$	1,500.00
One-dimensional Consolidation (including dial vs time plots)	\$ 600.00	each	3	\$	1,800.00
			subtotal	\$	8,991.00
Total Fee Estimate				\$	35,343.00

**Lee's Summit Road
Kansas City, Missouri
Unit Fee Schedule and Total Fee Estimate
Roadway**



Valid for work completed prior to Dec. 31, 2010

	Unit Cost		Qty	PROPOSED	
					Amount
<u>Labor (Project Set Up / Report Preparation)</u>					
Geotechnical Engineer	\$ 135.00	hour	20	\$	2,700.00
Geotechnical engineer time is for writing data report and overall project management.					
Field Engineer / Geologist	\$ 70.00	hour	48	\$	3,360.00
Field engineer / geologist time is for coordinating utility locating services, planning subsurface exploration, planning traffic control, obtaining permits, logging borings, preparing boring, and preparing subsurface cross sections.					
Administration (invoicing, report printing)	\$ 46.00	hour	5	\$	230.00
Mileage	\$ 0.60	mile	320	\$	192.00
			subtotal	\$	6,482.00
<u>Field Exploration</u>					
Drill Rig Mobilization (2 truck rigs)	\$ 480.00	Each	2	\$	960.00
Traffic Control	\$ 4,000.00	lump sum	1	\$	4,000.00
All Terrain Vehicle Surcharge	\$ 140.00	day	0	\$	-
Core and Patch Pavement	\$ 60.00	each	6	\$	360.00
Drill & Patch Pavement	\$ 40.00	each	25	\$	1,000.00
Auger Probes (drilling with no sampling), 0 to 50' Depth	\$ 9.00	lin. ft.	0	\$	-
Drilling in Soil and Backfilling 0-50' Depth	\$ 10.00	lin. ft.	250	\$	2,500.00
Drilling in Soil and Backfilling 50-100' Depth	\$ 12.00	lin. ft.	0	\$	-
Rock Coring, 0 - 50' Depth	\$ 46.00	lin. ft.	0	\$	-
Rock Coring, 50 - 100' Depth	\$ 55.00	lin. ft.	0	\$	-
Backfilling with Bentonite Pellets or Grout	\$ 7.00	lin. ft.	100	\$	700.00
Standard Penetration Test Samples	\$ 21.00	each	10	\$	210.00
Thin Wall Tube Samples (3.0 inch diam.)	\$ 33.00	each	40	\$	1,320.00
Bulk Samples (2 buckets / 80 lb each)	\$ 60.00	each	2	\$	120.00
Backhoe for Test Pits	\$ 850.00	day	0	\$	-
Dozer for Tree Clearing	\$ 1,100.00	day	0	\$	-
Site Restoration	\$ 1,200.00	allowance	0	\$	-
Standby Time for Drill Crew and Rig	\$ 170.00	each	0	\$	-
			subtotal	\$	11,170.00
<u>Laboratory Testing of Samples</u>					
Moisture Content	\$ 7.00	each	50	\$	350.00
Organic Content	\$ 36.00	each	0	\$	-
Liquid and Plastic Limits	\$ 78.00	each	3	\$	234.00
Dry Unit Weight	\$ 28.00	each	40	\$	1,120.00
Percent Passing #200 Sieve	\$ 45.00	each	0	\$	-
Sieve Analysis-(Mechanical Wash)	\$ 80.00	each	0	\$	-
Hydrometer	\$ 80.00	each	0	\$	-
Standard Proctor	\$ 205.00	each	2	\$	410.00
California Bearing Ratio (CBR)	\$ 185.00	each	2	\$	370.00
Unconfined Compression - Soil	\$ 60.00	each	5	\$	300.00
Unconfined Compression - Rock	\$ 80.00	each	0	\$	-
Triaxial Compression - UU	\$ 90.00	each point	0	\$	-
Triaxial Compression - CU	\$ 250.00	each point	0	\$	-
One-dimensional Consolidation (including dial vs time plots)	\$ 600.00	each	0	\$	-
			subtotal	\$	2,784.00
Total Fee Estimate				\$	20,436.00

**Lee's Summit Road
Kansas City, Missouri
Unit Fee Schedule and Total Fee Estimate
Retaining Walls along Roadway**



Valid for work completed prior to Dec. 31, 2010

	Unit Cost	PROPOSED	
		Qty	Amount
<u>Labor (Project Set Up / Report Preparation)</u>			
Geotechnical Engineer	\$ 135.00	hour	15 \$ 2,025.00
Geotechnical engineer time is for writing data report and overall project management.			
Field Engineer / Geologist	\$ 70.00	hour	24 \$ 1,680.00
Field engineer / geologist time is for coordinating utility locating services, planning subsurface exploration, planning traffic control, obtaining permits, logging borings, preparing boring, and preparing subsurface cross sections.			
Administration (invoicing, report printing)	\$ 46.00	hour	5 \$ 230.00
Mileage	\$ 0.60	mile	120 \$ 72.00
			subtotal \$ 4,007.00
<u>Field Exploration</u>			
Drill Rig Mobilization (1 truck rig)	\$ 480.00	Each	1 \$ 480.00
Traffic Control	\$ 2,000.00	lump sum	0 \$ -
All Terrain Vehicle Surcharge	\$ 140.00	day	0 \$ -
Core and Patch Pavement	\$ 60.00	each	0 \$ -
Auger Probes (drilling with no sampling), 0 to 50' Depth	\$ 9.00	lin. ft.	0 \$ -
Drilling in Soil and Backfilling 0-50' Depth	\$ 10.00	lin. ft.	120 \$ 1,200.00
Drilling in Soil and Backfilling 50-100' Depth	\$ 12.00	lin. ft.	0 \$ -
Rock Coring, 0 - 50' Depth	\$ 46.00	lin. ft.	0 \$ -
Rock Coring, 50 - 100' Depth	\$ 55.00	lin. ft.	0 \$ -
Backfilling with Bentonite Pellets or Grout	\$ 7.00	lin. ft.	0 \$ -
Standard Penetration Test Samples	\$ 21.00	each	0 \$ -
Thin Wall Tube Samples (3.0 inch diam.)	\$ 33.00	each	24 \$ 792.00
Bulk Samples (2 buckets / 80 lb each)	\$ 60.00	each	0 \$ -
Backhoe for Test Pits	\$ 850.00	day	0 \$ -
Dozer for Tree Clearing	\$ 1,100.00	day	0 \$ -
Site Restoration	\$ 600.00	allowance	1 \$ 600.00
Standby Time for Drill Crew and Rig	\$ 170.00	each	0 \$ -
			subtotal \$ 3,072.00
<u>Laboratory Testing of Samples</u>			
Moisture Content	\$ 7.00	each	0 \$ -
Organic Content	\$ 36.00	each	0 \$ -
Liquid and Plastic Limits	\$ 78.00	each	2 \$ 156.00
Dry Unit Weight	\$ 28.00	each	24 \$ 672.00
Percent Passing #200 Sieve	\$ 45.00	each	0 \$ -
Sieve Analysis-(Mechanical Wash)	\$ 80.00	each	0 \$ -
Hydrometer	\$ 80.00	each	0 \$ -
Standard Proctor	\$ 205.00	each	0 \$ -
Unconfined Compression - Soil	\$ 60.00	each	4 \$ 240.00
Unconfined Compression - Rock	\$ 80.00	each	0 \$ -
Triaxial Compression - UU	\$ 90.00	each point	0 \$ -
Triaxial Compression - CU	\$ 250.00	each point	3 \$ 750.00
One-dimensional Consolidation (including dial vs time plots)	\$ 600.00	each	1 \$ 600.00
			subtotal \$ 2,418.00
		Total Fee Estimate	\$ 9,497.00

Compensation Proposal for O & E Reports for HNTB
Lee's Summit Road (Anderson Road to E 48th Terrace)

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Cost</u>
	<u>Cost</u>	5	\$ 225.00	\$ 1,125.00
1.	O & E Report (approx. January 30, 2010)	54	Ea. \$ 125.00	\$ 6,750.00
2.	O & E Report update (Late 2010 – Early 2011)	59	Ea. \$ 25.00	\$ 1,475.00
3.	Other costs:			
				<u>\$ 9,350.00</u>
Total Estimated Compensation				

RAMC
 Signature

Richard L. McLaughlin 11/13/09
 Name (Printed or Typed) Date

Chief Title Officer
 Title

First American Title
 Company

4420 S. Noland Rd Suite A
 Address

Independence Mo 64055
 Telephone

(816) 410-2334



Archaeological Research Center
of St. Louis, Inc.

2812 Woodson Road
St. Louis, Missouri 63114
Telephone: 314-426-2577
Fax: 314-426-2599
E-mail: archcen@sbcglobal.net
Website: www.arc-stl.com
In Illinois:
140 N. Main Street
P.O. Box 241
Hecker, IL 62248

November 13, 2009

Tim Flagler
HNTB
715 Kirk Drive
Kansas City, MO 64105

Dear Mr. Flagler,

We can perform a cultural resource survey of the 1 ½ mile road widening of Lees Summit Road in Lees Summit, Jackson County, Missouri for a cost of **\$3,160.00**. The survey will be performed according to current federal and state guidelines, and consist of the following steps:

- 1.) An archival search will be performed in order to identify any previously recorded cultural resources (prehistoric or historic archaeological sites, historic architecture or bridges, and cemeteries) within and a mile around the project area. Research will include a brief review of the local prehistory and history, with more detailed site specific information if necessary. Information will be obtained from the Missouri Department of Natural Resources, State Historic Preservation Office, in Jefferson City, the Missouri Historical Society, St. Louis, and other local historical archives or libraries, as needed.
- 2.) A field survey will be conducted in order to identify any previously unknown archaeological sites and to assess the condition of any previously recorded sites that may be within the proposed tract. When surface visibility is greater than 30%, the ground will be directly observed for cultural materials. When surface visibility is less than 30%, shovel tests measuring approximately 40 x 40 cm will be excavated. The excavated soil will be examined for cultural materials and replaced. If an archaeological site is identified, its boundaries will be determined and a collection of artifacts will be taken in order to determine site function and temporal affiliation. The archaeological sites will be marked using GPS units and incorporated into ArcGIS 9.3.1.



Specializing in Cultural Resource Management Studies of Prehistoric and Historic Properties

- 3.) An architectural survey will be conducted to assess all buildings, structures, bridges, and cultural landscapes that may exist within or adjacent to the construction corridor for the proposed road widening project. For properties containing at least one building dating prior to 1959, at least one photograph will be taken of the building. Additional photographs will be necessary at farmsteads to show the various buildings/structures. For properties containing at least one building determined to be eligible for inclusion into the National Register of Historic Places (NRHP), a SHPO Historic Building Inventory Form will be completed. All of the buildings on this property will be described on this form and the history of the property will be researched. For modern buildings constructed after 1959, no photograph or information will be taken, but their locations will be noted on aerial or topographic maps.
- 4.) If archaeological materials are collected, they will be returned to the ARC lab for analysis. Materials will then be packaged and sent, along with notes and photographs, to the curation facility at the Museum Support Center in Columbia in compliance with federal guidelines. Curation fees are an additional one time fee.
- 5.) A report will be prepared detailing our findings and recommendations according to guidelines established by SHPO. Copies of the report will be submitted to HNTB and the Missouri SHPO for review.

The archival search, survey, and report preparation should take approximately five to ten business days to complete, weather permitting.

The Archaeological Research Center of St. Louis, Inc. was formed in 1994 from the staff of the University of Missouri-St. Louis, Archaeological Services. We have extensive experience in cultural resource management studies across Missouri and Illinois including Phase I surveys, Phase II testings, Phase III data recovery investigations, archival research, architectural evaluations, and the removal of human remains. Predominately women owned, our firm has Disadvantaged Business Enterprise status with various agencies. We carry all necessary insurance, including the Errors and Omissions required for many federally funded projects. We employ only trained professionals, not students or volunteers, insuring that projects are conducted accurately, efficiently, and in accordance with state and federal standards.

We understand construction schedules frequently depend upon completion of preliminary investigations and ARC is committed to completing work in a timely manner. We have a good working relationship with the State Historic Preservation Office that enables us to assist our clients throughout the Section 106 process.

Should you accept this proposal, we can schedule the survey as soon as a contract has been executed. We appreciate the opportunity to bid on this project and look forward to working with you. If you have any questions, please do not hesitate to contact us either via phone at (314) 426-2577 or via e-mail at archcen@sbcglobal.net.

Sincerely,

A handwritten signature in black ink that reads "Meredith McLaughlin". The signature is written in a cursive style with a prominent initial "M".

Meredith McLaughlin



Archaeological Research Center
of St. Louis, Inc.

2812 Woodson Road
St. Louis, Missouri 63114
Telephone: 314-426-2577
Fax:: 314-426-2599
E-mail: archcen@sbcglobal.net
Website: www.arc-stl.com

LETTER OF AGREEMENT

With the signature and concurrence of you or your authorized representative, this letter serves as a memorandum of agreement between HNTB and the Archaeological Research Center of St. Louis, Inc. (ARC) whereby ARC will provide staff and supervision to perform a Phase II documentation of a stone culvert in Kansas City, Missouri. A report detailing the results of this documentation will be prepared and sent to HNTB.; MDNR, State Historic Preservation Office; and any other pertinent agencies for review.

ARC will provide all personnel, facilities, equipment, insurance, and professional expertise necessary to accomplish this investigation according to state and federal guidelines. The mutually agreed fee for these services is **\$2,500.00**. ARC will submit an invoice for payment along with the draft report. Payment is to be made within 30 days after receipt of the invoice.

Archaeological Research Center
of St. Louis, Inc.

HNTB

Janet E. Kneller

Signature

President

Title

Name & Title

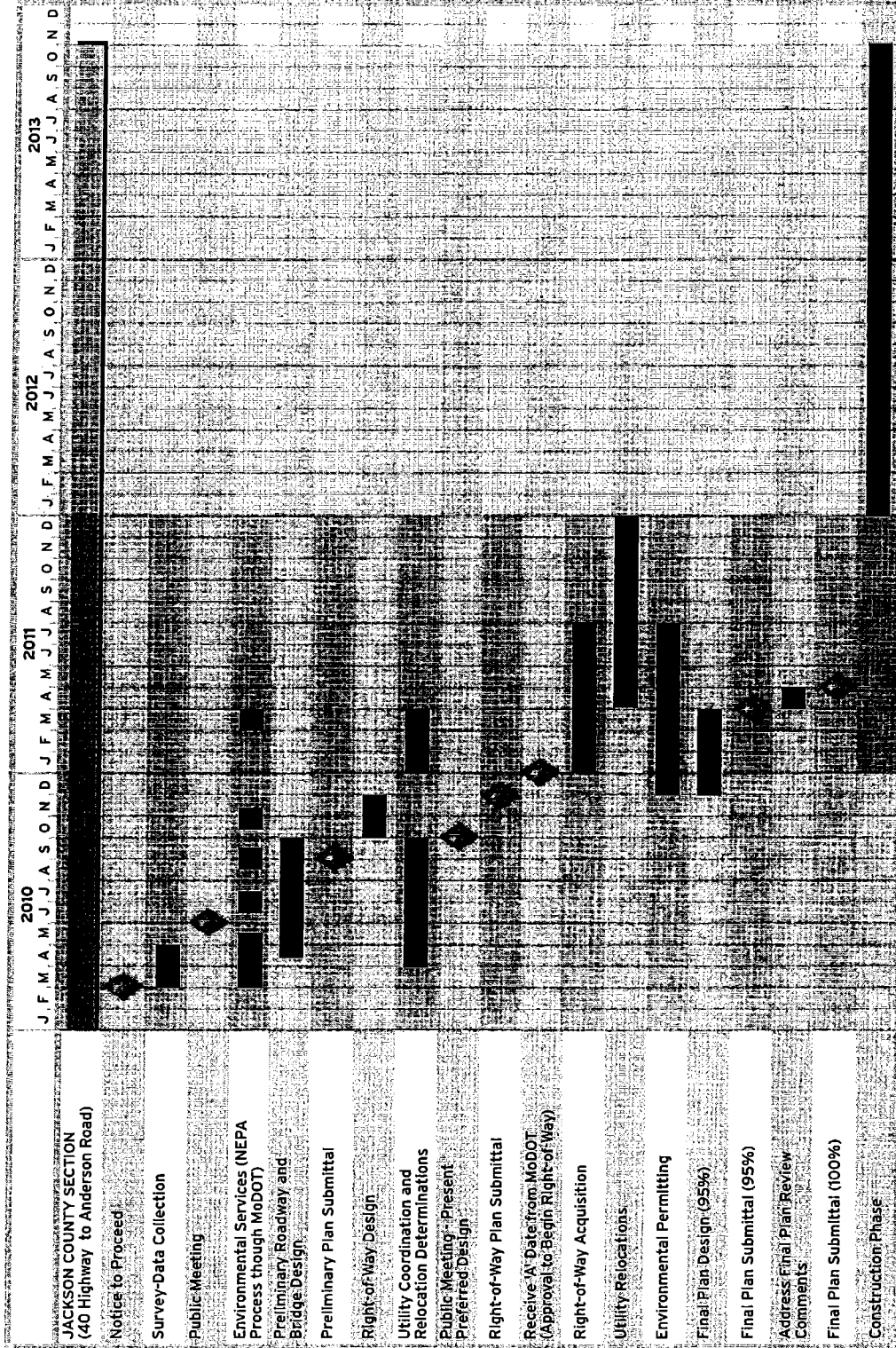
January 29, 2010

Date

Date

EXHIBIT 'B'

Improvements to Lee's Summit Road, 40 Highway to Anderson Road ■ County Project No. 3122



■ PRELIMINARY DESIGN

 ▨ ROW ACQUISITION/UTILITY RELOCATIONS/FINAL DESIGN

 ▩ CONSTRUCTION

 ◆ MILESTONE ACTIVITY

PROPOSED SCHEDULE

January 20, 2010

HNTB