



MEMORANDUM 22-170

To: City Council
Through: Rob Dumouchel, City Manager
From: Janette Keiser, PE, Public Works Director
Date: October 4, 2022
Subject: Award of Heath Street Design Contract

Issue: The purpose of this memorandum is to request approval to issue a design contract to Kinney Engineering for the design of the Heath Street Pavement Restoration Project.

Background: The City Council appropriated \$500,000 to the Pavement Restoration Program (Ord 22-26) and in Resolution 2-052, authorized multiple task orders for the design of various projects including:

| | | |
|---------------------------|--------------------|-----------------|
| • Bay Avenue, B St & E St | Kinney Engineering | \$69,925 |
| • Ohlson Lane/Bunnell Ave | Nelson Engineering | \$55,518 |
| • Island View Court | HDL Engineering | \$69,320 |
| • Grind & Pave Specs | HDL Engineering | <u>\$ 8,680</u> |
| | | \$197,443 |

Our original assumption was that we would be able to avoid complete road reconstructions and instead accomplish pavement restoration using “grind/pave” techniques or some similar less intrusive and less expense strategy. We thought our available funding would go further. What we are finding with the design work that has proceeded so far, is that each of the roads we had hoped to restore, require more intensive work that we had planned. For example, the original conceptual cost estimate for the restoration of Bay Avenue, B St & E St was \$430,000, which involved mostly grinding the existing pavement and using it to repave the street. The current cost estimate is just over \$1 million, because the entire roadside drainage system needs to be re-established. For example, the existing culverts are seriously corroded. We are researching cost savings measures, such as using a chip/seal surface rather than a traditional asphalt surface, but the project will likely cost more than originally conceived.

In the case of Ohlson Lane/Bunnell Ave, there are substantial issues related to drainage, parking, traffic control and potentially, sidewalks. We are still in the process of working with the neighborhood to scope the project. The original estimate was \$560,000. The costs will probably be twice that.

The other street that was on the list of restoration is Heath Street. We had not yet asked for authorization to award a task order for the design of Heath Street because we were waiting to see how the other projects unfolded. It is now obvious we need to seriously prioritize the functional criticality and budget implications of the road reconstruction that is needed, which moves Heath Street, as one of Homer’s busiest streets, to the forefront. We need a reliable cost estimate for Heath Street. Thus, we would like to proceed with the design work sooner rather than later.

We asked HDL Engineering and Kinney Engineering, two engineering companies to which the City issued Term Contracts, to provide proposals to do the design work for Heath Street. One included geotechnical and drainage investigation and the other did not. The extra cost for the geotechnical and drainage investigation is worth the money because something is happening on Heath Street – there are shallow ruts in the pavement, caused by subgrade failure. The additional investigation work will identify the cause of this failure so it can be addressed during the design. When you reconcile the scopes of work, the estimated costs for the HDL proposal and Kinney proposal are similar. We've elected to award the contract to Kinney Engineering because there is benefit in having the work performed by a local engineer.

Recommendation:

That the City Council authorize the award of a contract to design the Heath Street Pavement Restoration Project to Kinney Engineering in the not to exceed amount of \$140,472, using monies already appropriated to the Pavement Restoration Program.

TO: Jan Keiser, P.E. (COH Public Works Director)

FROM: Randy Kinney, P.E. (Project Manager), Leon Galbraith, P.E. (Project Engineer)

DATE: October 4, 2022

SUBJECT: Heath Street Geotechnical Investigation Recommendations

The Heath Street project recommendation for a geotechnical investigation is based on two factors:

1. The record drawings provided to KE by the City of Homer do not contain any bore hole or soils investigation logs. We do not have a good idea of what the soil directly under the pavement looks like or consists of, especially at deeper depths. There is typically concern within the Homer area of underlying soft and compressible soils such as peat.
2. There is visible pavement and curb damage on the lower 800' of Heath Street, indicated by deep rutting and frost heaving curb/storm drain structures. The pavement surface has "flattened" in this area and there is no longer any crown or cross slope directing runoff to the curb lines. In a recent site visit with Paul (COH M&O), this area was of particular concern, and it was discussed how valuable a soils investigation would be to confirm the roadway backfill and subgrade in this location as a dig out here is likely needed.

The record drawing typical section for Heath Street (below) indicates 28" of Type IIA with 3" of D-1 and 3" of asphalt. From observations, this roadway carries a large percentage of heavy truck traffic as well as higher volumes of Homer year-round studded tire traffic. Geotextile fabric was included but Geogrid for lateral strength was not. Verifying the existing subgrade conditions in as many locations as possible with boreholes will help us determine the applicability of the COH 2011 Standard Construction Specification typical section. The Geotechnical investigation contractor will be on site for a complete day and has estimated being able to drill 5-6 boreholes at approximately 15' depth.

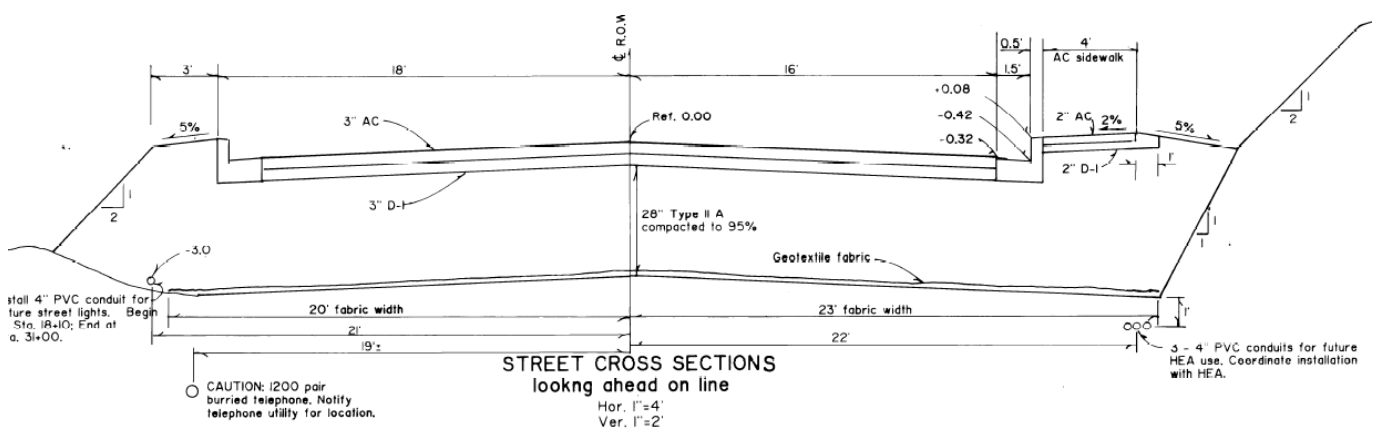


Figure 1: Heath Street As-built Typical Section

PRICE PER TASK SUMMARY

| | | | | | | | | |
|---|-------------|--|--------------------------|--|-------------------|-------------------------------|----------------------------|----------------------------|
| FIRM: Kinney Engineering, LLC | | | | PROJECT TITLE: Heath Street Reconstruction | | | DATE: 10/4/2022 | |
| GROUP | TASK | TASK NAME | LABOR (or FP) | EXPENSES | TOTAL COST | FIRM'S TOTAL PRICE | *SUB- CONTRACTS | PRICE PLUS SUBS |
| A | 1 | Survey and Geotechnical Report | \$ 14,125.00 | \$ 15,479.10 | \$ 29,604.10 | \$ 29,604.10 | \$11,340 | \$ 40,944.10 |
| A | 2 | 35% Plans and Cost Estimate | \$ 38,327.50 | \$ 105.00 | \$ 38,432.50 | \$ 38,432.50 | \$ - | \$ 38,432.50 |
| A | 3 | 100% Plans, Cost Estimate and Technical Specifications | \$ 60,990.50 | \$ 105.00 | \$ 61,095.50 | \$ 61,095.50 | \$ - | \$ 61,095.50 |
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| <p>*Subcontractors for negotiated professional or technical services, products, etc. (Commodity items available to the general public at market prices, equipment use, and unit priced items are generally included in estimate as expenses.)</p> | | | | | | | | |
| ESTIMATED TOTALS | | | LABOR (or FP) | EXPENSES | TOTAL COST | FIRM'S TOTAL PRICE | *SUB- CONTRACTS | PRICE PLUS SUBS |
| FOR FIRM: | | | \$ 113,443.00 | \$ 15,689.10 | \$ 129,132.10 | \$ 129,132.10 | \$ 11,340.00 | \$ 140,472.10 |

COST ESTIMATE PER TASK

| FIRM: Kinney Engineering, LLC | | | | PROJECT TITLE: Heath Street Reconstruction | | | | | | | | | | |
|--|--|------------------------------------|--|--|------------------------------------|---|--|--------|----------------|--------|--------|--------|--------|--------|
| TASK NO: 1 | TASK DESCRIPTION: Survey and Geotechnical Report | | | | | | | | DATE: 4-Oct-22 | | | | | |
| GROUP: A | METHOD OF PAYMENT: F <input type="checkbox"/> FPI <input type="checkbox"/> T&E <input checked="" type="checkbox"/> CPFF <input type="checkbox"/> | | | | | | PREPARED BY: Leon Galbraith / Randy Kinney | | | | | | | |
| SUB-TASK NO. | SUB-TASK DESCRIPTION | LABOR HOURS PER JOB CLASSIFICATION | | | | | | | | | | | | |
| | | Princ. Eng. (Kinney) | Senior Professional Engineer 1 (Galbraith) | Senior Professional Engineer 3 (Woster) | Professional Engineer JR (Halcomb) | CADD Technician - Sr | Sr. Elec Engineer (Parker) | | | | | | | |
| 1.1 | Survey Deliverables Review & Coordination | 2 | 2 | | | 4 | | | | | | | | |
| 1.2 | Geotechnical Investigation (5 to 6 boreholes) | 1 | 16 | | | | | | | | | | | |
| 1.3 | Geotechnical / Pavement Analysis and Report | 2 | 4 | 30 | 16 | 4 | | | | | | | | |
| TOTAL LABOR HOURS | | 5 | 22 | 30 | 16 | 8 | | | | | | | | |
| * LABOR RATES (\$/HR) | | \$245.00 | \$170.00 | \$200.00 | \$135.00 | \$125.00 | | | | | | | | |
| LABOR COSTS (\$) | | \$1,225.00 | \$3,740.00 | \$6,000.00 | \$2,160.00 | \$1,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| EXPENSES | | | | | | COMMENTS: | | | | | | | | |
| SUB-TASK NO. | ITEM(S) | QUANTITY | UNIT PRICE | TOTAL PRICE | | 1. Survey KE Time to coordinate, review and cleanup sub's survey CAD files. 2. Geotechnical Drilling Expense includes traffic control and all driller's expenses for 5-6 boreholes. 3. Leon will coordinate, observe and ensure sample collection for drilling operations. 4. City of Homer will request locates prior to drilling and survey efforts. | | | | | | | | |
| | Discovery Geotechnical Drilling Boreholes | 1 | \$12,142.00 | \$12,142.00 | | | | | | | | | | |
| | Soil Testing (AK Test Lab or other) | 1 | \$2,500.00 | \$2,500.00 | | | | | | | | | | |
| | Misc | 1 | \$100.00 | \$100.00 | | | | | | | | | | |
| | | | | \$0.00 | | | | | | | | | | |
| | | | | \$0.00 | | FIRM'S TOTAL COST OF LABOR (or Fixed Price): | | | | | | | | |
| | | | | \$0.00 | | IF CPFF, TOTAL INDIRECT COST @ 0.00% | | | | | | | | |
| | | | | | | TOTAL EXPENSES: \$14,742 | | | | | | | | |
| SUB-CONTRACTORS: Firm Initials and Price Per Task | | | | | | FIRM'S TOTAL EXPENSES + 5% Markup: \$15,479 | | | | | | | | |
| FIRM: | Geovera Surveys | | | | | FIRM'S TOTAL COST (no Subcontracts or Fee) \$29,604 | | | | | | | | |
| AMOUNT: | \$10,800 | | | | | TOTAL SUBCONTRACTOR PRICES +5% Markup: \$11,340 | | | | | | | | |

COST ESTIMATE PER TASK

| FIRM: Kinney Engineering, LLC | | | | | PROJECT TITLE: Heath Street Reconstruction | | | | | | | | | | | |
|--|---|--|------------------------------------|--|---|------------------------------------|--|----------------------------|----------------|--------|--------|--------|--------|------------|-----------------|------------|
| TASK NO: | 2 | TASK DESCRIPTION: 35% Plans and Cost Estimate | | | | | | | DATE: 4-Oct-22 | | | | | | | |
| GROUP: | A | METHOD OF PAYMENT: FP <input type="checkbox"/> FPF <input type="checkbox"/> T& <input checked="" type="checkbox"/> CPFF <input type="checkbox"/> | | | | | PREPARED BY: Leon Galbraith / Randy Kinney | | | | | | | | | |
| SUB-TASK NO. | SUB-TASK DESCRIPTION | Sheets | LABOR HOURS PER JOB CLASSIFICATION | | | | | | | | | | | | | |
| | | | Princ. Eng. (Kinney) | Senior Professional Engineer 1 (Galbraith) | Senior Professional Engineer 3 (Woster) | Professional Engineer JR (Halcomb) | CADD Technician - Sr | Sr. Elec Engineer (Parker) | | | | | | | | |
| 2.0 | 35% Plans and Cost Estimate | | 4 | | | | | | | | | | | | | |
| 2.1 | Drawings | 25 | | | | | | | | | | | | | | |
| | Cover Sheet, 1 sheet | 1 | 0.5 | 2 | | | | 4 | | | | | | | | |
| | Key Map, 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Legend / Abbreviations, 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Notes, 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Estimate of Quantities, 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Pay Item Summary Tables, 2 sheets | 2 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Typical Sections, 1 sheet | 1 | 1.5 | 6 | | | | 22 | | | | | | | | |
| | Roadway and Storm Drain Plan & Profile, 6 sheets | 6 | 10.5 | 42 | | | | 158 | | | | | | | | |
| | Signing and Striping and Illumination plans, 3 sheets | 3 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Sign Summary, 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Intersection / Approach Typ Plans 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Review Std. Dwgs, Determine Applicability | | Not in 35% Submittal | | | | | | | | | | | | | |
| | Additional Road / Drainage Details 2 sheets | 2 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Fire Hydrant Replacement Detail 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Light fixture retrofit & LC Summary 1 sheet | 1 | Not in 35% Submittal | | | | | | | | | | | | | |
| | Cross Sections | 2 | Not in 35% Submittal | | | | | | | | | | | | | |
| 2.2 | Specifications | | Not in 35% Submittal | | | | | | | | | | | | | |
| 2.3 | Cost Estimates | | 1 | 12 | | | 4 | | | | | | | | | |
| TOTAL LABOR HOURS | | | 17.5 | 62 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| * LABOR RATES (\$/HR) | | | \$245.00 | \$170.00 | \$0.00 | \$0.00 | \$125.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | |
| LABOR COSTS (\$) | | | \$4,287.50 | \$10,540.00 | \$0.00 | \$0.00 | \$23,500.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | |
| EXPENSES | | | | | | | | | | | | | | | | |
| SUB-TASK NO. | ITEM(S) | QUANTITY | UNIT PRICE | TOTAL PRICE | COMMENTS: 1. Project Length = 2,600'. All Plan views will be 1"=40' on 11 x 17 sheet size to keep plan views at approximately 450' per sheet. 2. Drainage improvements include replacing storm drain catch basins ONLY. NO storm drain manholes and NO storm drain pipes. 3. No ADEC permitting included. | | | | | | | | | | | |
| | Misc Costs | 1 | \$100.00 | \$100.00 | | | | | | | | | | | | |
| | | | | \$0.00 | | | | | | | | | | | | |
| | | | | \$0.00 | | | | | | | | | | | | |
| | | | | \$0.00 | | | | | | | | | | | | |
| | | | | \$0.00 | FIRM'S TOTAL COST OF LABOR (or Fixed Price): | | | | | | | | | | \$38,328 | |
| | | | | \$0.00 | IF CPFF, TOTAL INDIRECT COST @ | | | | | | | | | | 0.00% | \$0 |
| | | | | | FIRM'S TOTAL EXPENSES + 5% Markup: | | | | | | | | | | \$105 | |
| | | | | | FIRM'S TOTAL COST (no Subcontracts or Fee) | | | | | | | | | | \$38,433 | |
| SUB-CONTRACTORS: Firm Initials and Price Per Task | | | | | | | | | | | | | | | | |
| FIRM: | | | | | | | | | | | | | | | | |
| AMOUNT: | | | | | | | | | | | | | | \$0 | | |

COST ESTIMATE PER TASK

| FIRM: Kinney Engineering, LLC | | | | PROJECT TITLE: Heath Street Reconstruction | | | | | | | | | | | | | | | |
|--|--|--------|------------------------------------|---|---|------------------------------------|--|---|------------------|------------------------|--------|--|--------|--------|--------|------------|--|--|--|
| TASK NO: 3 | TASK DESCRIPTION: 100% Plans, Cost Estimate and Technical Specifications | | | | | | | | | DATE: 10/4/2022 | | | | | | | | | |
| GROUP: A | METHOD OF PAYMENT: FP <input type="checkbox"/> FPPE <input type="checkbox"/> T& <input checked="" type="checkbox"/> CPFF <input type="checkbox"/> | | | | | | PREPARED BY: Leon Galbraith, Randy Kinney | | | | | | | | | | | | |
| SUB-TASK NO. | SUB-TASK DESCRIPTION | Sheets | LABOR HOURS PER JOB CLASSIFICATION | | | | | | | | | | | | | | | | |
| | | | Princ. Eng. (Kinney) | Senior Professional Engineer 1 (Galbraith) | Senior Professional Engineer 3 (Woster) | Professional Engineer JR (Halcomb) | CADD Technician - Sr | Sr. Elec Engineer (Parker) | | | | | | | | | | | |
| 3.0 | 100% Plans, Cost Estimate and Technical Specifications | | 8 | | | | | | | | | | | | | | | | |
| 3.1 | Design team review meeting & address 35% comments | | 4 | 4 | | | | | | | | | | | | | | | |
| 3.2 | Drawings 25 | | | | | | | | | | | | | | | | | | |
| | Cover Sheet, 1 sheet | 1.00 | 0.5 | 2 | | | | 4 | | | | | | | | | | | |
| | Key Map, 1 sheet | 1.00 | 0.5 | 2 | | | | 6 | | | | | | | | | | | |
| | Legend / Abbreviations, 1 sheet | 1.00 | 0.5 | 2 | | | | 6 | | | | | | | | | | | |
| | Notes, 1 sheet | 1.00 | 0.5 | 2 | | | | 6 | | | | | | | | | | | |
| | Estimate of Quantities, 1 sheet | 1.00 | 0.5 | 2 | | | | 6 | | | | | | | | | | | |
| | Pay Item Summary Tables, 2 sheets | 2.00 | 1 | 4 | | | | 12 | | | | | | | | | | | |
| | Typical Sections, 1 sheet | 1.00 | 0.5 | 2 | | | | 10 | | | | | | | | | | | |
| | | - | | | | | | | | | | | | | | | | | |
| | Roadway and Storm Drain Plan & Profile, 6 sheets | 6.00 | 4.5 | 18 | | | | 68 | | | | | | | | | | | |
| | Signing and Striping and Illumination plans, 3 sheets | 3.00 | 3 | 12 | | | | 46 | | | | | | | | | | | |
| | Sign Summary, 1 sheet | 1.00 | 0.5 | 2 | | | | 6 | | | | | | | | | | | |
| | Intersection / Approach Typ Plans 1 sheet | 1.00 | 1 | 4 | | | | 16 | | | | | | | | | | | |
| | Review Std. Dwgs, Determine Applicability | - | 0.5 | 2 | | | | 2 | | | | | | | | | | | |
| | Additional Road / Drainage Details 2 sheets | 2.00 | 1 | 4 | | | | 12 | | | | | | | | | | | |
| | Fire Hydrant Replacement Detail 1 sheet | 1.00 | 0.5 | 2 | | | | 6 | | | | | | | | | | | |
| | Light fixture retrofit & LC Summary 1 sheet | 1.00 | 0.5 | 2 | | | | 6 | 8 | | | | | | | | | | |
| | Cross Sections | 2.00 | 1 | 4 | | | | 12 | | | | | | | | | | | |
| 3.3 | DOT ROW Approach Permit(s) | | | 4 | | | | 8 | | | | | | | | | | | |
| 3.4 | QA / QC Review & address comments | | 8 | 8 | | | | 8 | | | | | | | | | | | |
| 3.5 | Technical Specifications | | 2 | 12 | | | | | | | | | | | | | | | |
| 3.6 | Cost Estimates | | 2 | 12 | | | | 8 | | | | | | | | | | | |
| TOTAL LABOR HOURS | | | 40.5 | 106 | 0 | 0 | 248 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| * LABOR RATES (\$/HR) | | | \$245.00 | \$170.00 | \$0.00 | \$0.00 | \$125.00 | \$256.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | | | |
| LABOR COSTS (\$) | | | \$9,922.50 | \$18,020.00 | \$0.00 | \$0.00 | \$31,000.00 | \$2,048.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | | | |
| EXPENSES | | | | | | | | | | | | COMMENTS: 1. Project Length = 2,600'. All Plan views will be 1"=40' on 11 x 17 sheet size to keep plan views at approximately 450' per sheet. 2. Drainage improvements include replacing storm drain catch basins and lead pipes only. No storm drain manholes and no storm drain trunk pipes. 3. No ADEC permitting included. | | | | | | | |
| SUB-TASK NO. | ITEM(S) | | | | | QUANTITY | UNIT PRICE | TOTAL PRICE | | | | | | | | | | | |
| | Misc Costs | | | | | 1 | \$100.00 | \$100.00 | | | | | | | | | | | |
| | | | | | | | | \$0.00 | | | | | | | | | | | |
| | | | | | | | | \$0.00 | | | | | | | | | | | |
| | | | | | | | | \$0.00 | | | | | | | | | | | |
| | | | | | | | | \$0.00 | | | | | | | | | | | |
| | | | | | | | | FIRM'S TOTAL COST OF LABOR (or Fixed Price): | \$60,991 | | | | | | | | | | |
| | | | | | | | | IF CPFF, TOTAL INDIRECT COST @ | 0.00% \$0 | | | | | | | | | | |
| | | | | | | | | TOTAL EXPENSES: | \$100 | | | | | | | | | | |
| SUB-CONTRACTORS: Firm Initials and Price Per Task | | | | | | | | FIRM'S TOTAL EXPENSES + 5% Markup: | | | | \$105 | | | | | | | |
| | | | | | | | | FIRM'S TOTAL COST (no Subcontracts or Fee) | | | | \$61,096 | | | | | | | |
| FIRM: | | | | | | | | | | | | TOTAL SUBCONTRACTOR PRICES +5% Markup: | | | | \$0 | | | |
| AMOUNT: | | | | | | | | | | | | | | | | | | | |