CITY OF HOMER
HOMER, ALASKA

City Manager
Public Works Director

RESOLUTION 24-008

A RESOLUTION OF THE CITY COUNCIL OF HOMER, ALASKA AUTHORIZING A CHANGE ORDER IN THE AMOUNT OF $25,000 TO KINNEY ENGINEERING, LLC'S TASK ORDER NO 22-04 AND AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE THE APPROPRIATE DOCUMENTS.

WHEREAS, Resolution 22-073 authorized a Task Order to Kinney Engineering, LLC ("Kinney"), in the amount of $140,472, to design the Heath Street Pavement Restoration Project, the scope of work for which was confined to the existing geometry of the road; that is, we did not contemplate changing the existing road grade or alignment; and

WHEREAS, The Independent Living Center ("ILC") opined, and demonstrated, that the intersection of Hazel Avenue with Heath Street is not only non-compliant with ADA requirements, it is dangerous for pedestrians because the sidewalk ends abruptly, vehicles speed around the smoothly curved corner from Heath Street onto Hazel Avenue, and there is no ramp that allows wheelchairs or strollers to safely cross Heath Street to the Post Office; allowing us to conclude this important pedestrian crossing point needed to be remedied; and

WHEREAS, We worked with Kinney to engineer possible solutions, which were challenging because it is a mid-block crossing, which sits at one of the steeper portions of the road, and ties into an existing a sidewalk on the east side of Heath Street, requiring us to balance issues relating to visibility, slope, and other geometrical constraints; and

WHEREAS, We eventually settled on a design, which would make the following improvements:

a. Provide an ADA-compliant "landing" for the Hazel Avenue sidewalk where it meets Heath Street, which will give pedestrians, wheelchairs and strollers a place a safe place to cross.
b. Reduce the radius of the curve that flows south from Heath Street to Hazel Avenue, which will require drivers to reduce speed as they go around the curve.
c. Install a painted mid-block crosswalk from the modified sidewalk at the end of Hazel Avenue, across Heath Street to the existing sidewalk on the east side of Heath Street, which will give pedestrians a safe space in which to cross the street and provide for ADA-compliant ramps from the sidewalks to the streets.
d. Install a Rectangular Rapid Flashing Beacon ("RRFB") at the crosswalk, which will increase the visibility of the crosswalk, where the flasher on the beacon will

be activated by a controller mounted at the beginning of the crosswalk on both sides of the street; and

WHEREAS, These improvements will be made at the time the Heath Street Pavement Reconstruction Project is constructed, hopefully within the next couple of years; and

WHEREAS, The engineering solutions developed for this intersection can be replicated at other locations, which is why a line item for "ADA Upgrades to Existing Sidewalks" was inserted into the Road Financial Plan, the HART Fund's budget planning document; and

WHEREAS, We also asked Kinney to do a closer inspection, including taking video camera images of the interior of the existing Heath Street storm drain, which was important to help us understand the condition of the storm drain and make a decision about whether it needed to be replaced; and

WHEREAS, Kinney's itemized costs for this extra work, which is outside of the company's original scope, is $10,751.25 for the intersection/crosswalk modifications and $5,430 for the storm drain inspection, for a total of $16,181.25; and

WHEREAS, Ordinance 23-62 appropriated $25,000 from the HART Road Fund to complete the design of the Heath Street Pavement Restoration Project; and

WHEREAS, This allocation includes a small contingency to address other unforeseen conditions that might arise; and

WHEREAS, Award of this change order is contingent on the adoption of Ordinance 23-62.

NOW THEREFORE, The Homer City Council does hereby authorize issuance of a Change Order in the amount of $25,000 to Kinney Engineering's Task Order No. 22-04 related to the Heath Street Pavement Restoration Project.

PASSED AND ADOPTED by the Homer City Council this 8th day of January, 2024.

CITY OF HOMER

KEN CASTNER, MAYOR

ATTEST:

MELISSA JACOBSEN, MMC, CITY CLERK

Fiscal note: Ordinance 23-62 appropriated $25,000 from HART Roads (160); $25,000 remains.

CC-24-016

MEMORANDUM

Resolution 24-008, A Resolution of the City Council of Homer, Alaska Authorizing a Change Order in the Amount of $25,000 to Kinney Engineering, LLC's Task Order No. 22-04 for the Heath Street Pavement Restoration Project and Authorizing the City Manager to Negotiate and Execute the Appropriate Documents. City Manager/Public Works Director.

Item Type: Backup Memorandum

Prepared For: City Council

Date: November 16, 2023

From: Janette Keiser, PE, Public Works Director/City Engineer

Through: Rob Dumouchel, City Manager

I. Issue:

The purpose of this Memorandum is to request authorization to issue a change order to Kinney Engineering's Task Order 22-04, relating to the Heath Street Pavement Reconstruction Project, for increased costs to design a specialized pedestrian crossing.

II. Background:

Resolution 22-073 authorized a Task Order to Kinney Engineering, LLC ("Kinney") to design the Heath Street Pavement Restoration Project. The scope of work was confined to the existing geometry of the road; that is, we did not contemplate changing the existing road grade or alignment. However, one day we participated in a walk-around with folks from the Independent Living Center ("ILC"). This walk took us from the ILF office on Pioneer Avenue through the Poopdeck Trail system to the sidewalk on Hazel Avenue, which ends at the intersection of Heath Street. The ILC folks opined that the intersection of Hazel Avenue with Heath Street is not only non-compliant with ADA requirements, it is dangerous for pedestrians because the sidewalk ends abruptly, vehicles speed around the smoothly curved corner from Heath Street onto Hazel Avenue, and there is no ramp that allows wheelchairs or strollers to safely cross Heath Street to the Post Office. We realized this important pedestrian crossing point needed to be remedied.

I worked with Kinney to research possible solutions. Engineering a solution was challengning because it is a mid-block corssing, which sits at one of the steeper portions of the road, and ties into an existing sidewalk on the east side of Heath Street. We needed to balance issues relating to visibility, slope, and

other geometrical constraints. We eventually settled on a design, which would make the following improvements:

a. Provide an ADA-compliant "landing" for the Hazel Avenue sidewalk where it meets Heath Street. This will give pedestrians, wheelchairs and strollers a safe place to cross.
b. Reduce the radius of the curve that flows south from Heath Street to Hazel Avenue. This will require drivers to reduce speed as they go around the curve.
c. Install a painted mid-block crosswalk from the modified sidewalk on the east side of Heath Street. This will give pedestrians a safe space in which to cross the street and provide for ADA-compliant ramps from the sidewalks to the streets.
d. Install a Rectangular Rapid Flashing Beacon ("RRFB") at the crosswalk. This will increase the visibility of the crosswalk. One of the primary comments about crosswalks from motorists during the Transportation Outreach, was that the crosswalks needed to be more visible. The flasher on the beacon will be activated by a controller mounted at the beginning of the crosswalk on both sides of the street.

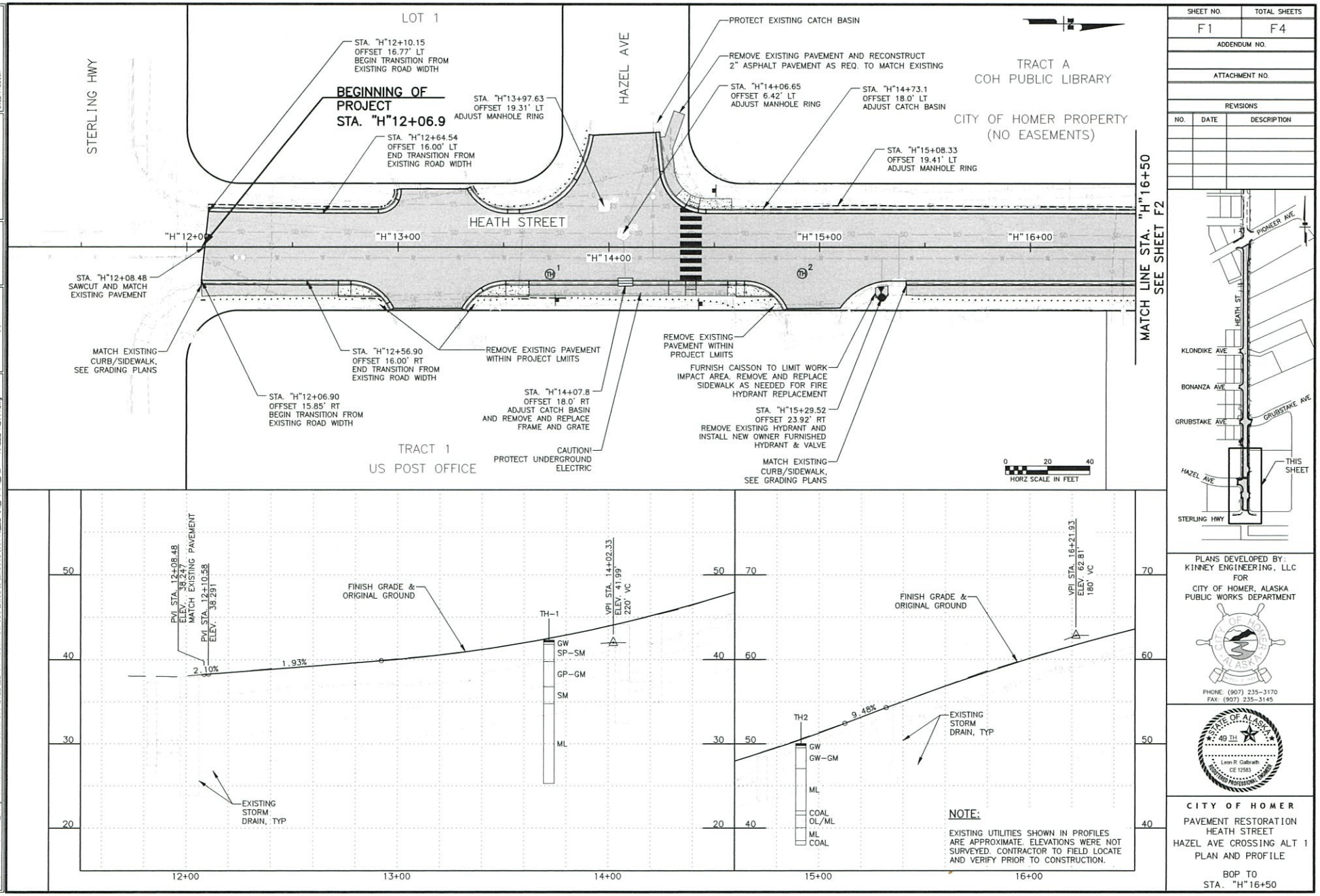
These improvements will be made at the time the Heath Street Pavement Reconstruction Project is constructed, hopefully within the next couple of years. They will substantially increase pedestrian safety at that location. Further, the engineering solutions developed for this intersection can be replicated at other locations. This is one reason a line item for "ADA Upgrades to Existing Sidewalks" was inserted into the Road Financial Plan, the HART Fund's budget planning document.

We also asked Kinney to do a closer inspection, including taking video camera images of the interior of the existing Heath Street storm drain. This was important because it helped us understand the condition of the storm drain and make a decision about whether it needed to be replaced.

Kinney's itemized costs for this extra work, which is outside of the company's original scope, is $10,751.25 for the intersection/crosswalk modifications and $5,430 for the storm drain inspection, for a total of $16,181.25. We are asking for a small contingency to cover other unforeseen circumstances.

Ordinance 23-62 appropriated $25,000 from the HART Roads Fund to complete the design of the Heath Street Pavement Restoration Project.

III. RECOMMENDATION: That the City Council authorize a change order to Kinney Engineering's Task Order No. 22-04, related to the Heath Street Pavement Restoration Project, in the amount of $25,000.



NOTE:

EXISTING UTILITIES SHOWN IN PROFILES ARE APPROXIMATE. ELEVATIONS WERE NOT SURVEYED. CONTRACTOR TO FIELD LOCATE AND VERIFY PRIOR TO CONSTRUCTION.

SHEET NO.	TOTAL SHEETS
F1	F4

ADDENDUM NO.

ATTACHMENT NO.

REVISIONS

NO.	DATE	DESCRIPTION

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
FOR
CITY OF HOMER, ALASKA
PUBLIC WORKS DEPARTMENT

PHONE: (907) 235-3170
FAX: (907) 235-3145

STATE OF ALASKA
49 TH
Leon R Gabriatti
CE 12583
REGISTERED PROFESSIONAL ENGINEER

CITY OF HOMER

PAVEMENT RESTORATION
HEATH STREET
HAZEL AVE CROSSING ALT 1
PLAN AND PROFILE

BOP TO
STA. "H"16+50

PLANS PREPARED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD. SUITE 400 ANCHORAGE, AK 99503 : COA# AECL 1102 PROJECT LOCATION: HOMER, AK

DRAWING LOCATION Z:\PROJECTS\00710_City of Homer Term Contract 2022\22-04 Heath Street\DWGS\C\Sheets\00710_22-04_F1-F4_PAP - HAZEL ALT1.dwg

DRAFTED BY: BILL PADDOCK

SCALE

LAYOUT F1

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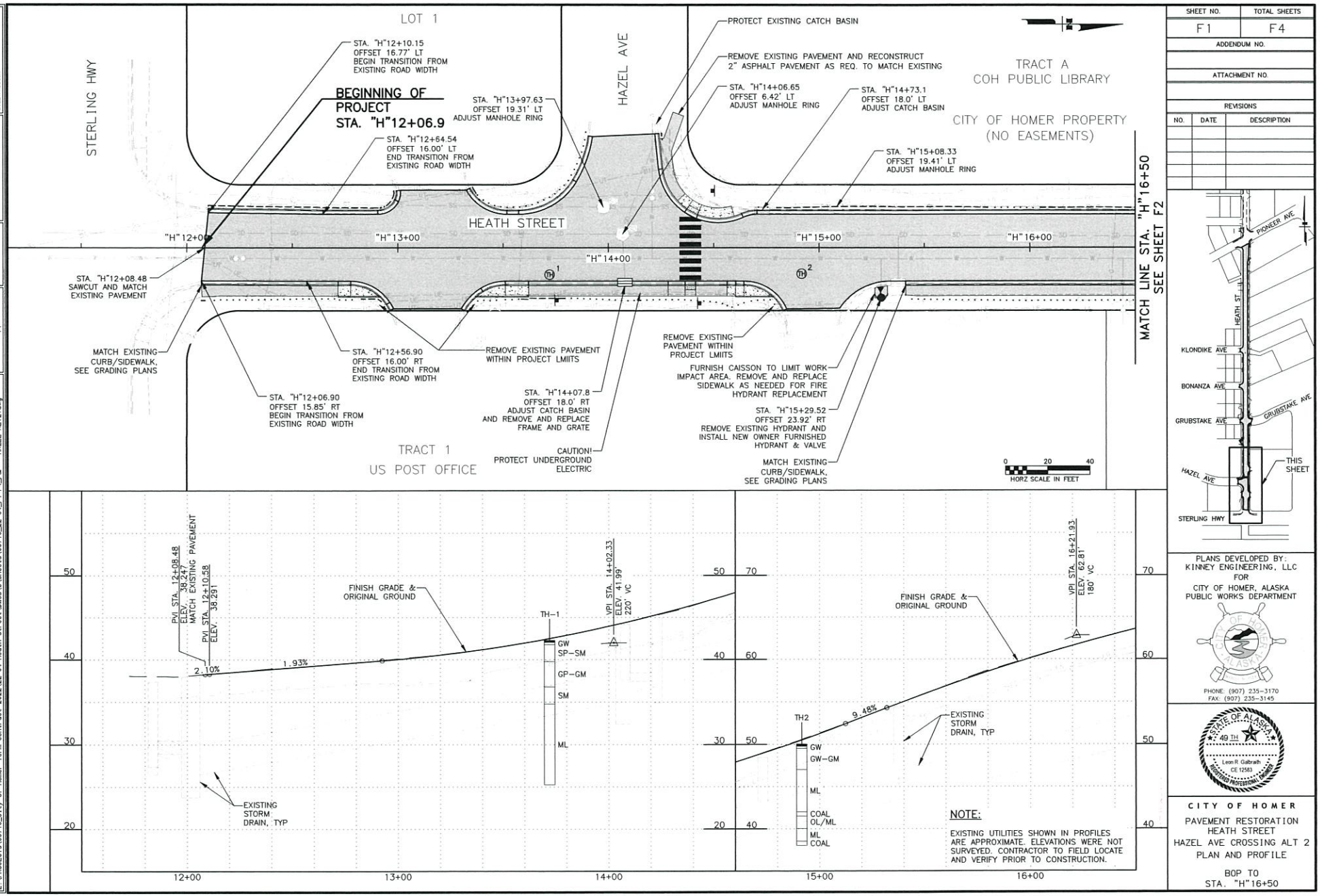

SHEET NO.	TOTAL SHEETS
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PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
FOR
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PUBLIC WORKS DEPARTMENT

PHONE: (907) 235-3170
FAX: (907) 235-3145

Leon R Galbraith
CE 12583
REGISTERED PROFESSIONAL ENGINEER
40 TH

CITY OF HOMER

PAVEMENT RESTORATION
HEATH STREET
HAZEL AVE CROSSING ALT 2
PLAN AND PROFILE

BOP TO
STA. "H"16+50

PLANS PREPARED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD. SUITE 400 ANCHORAGE, AK 99503 : COA# AECL 1102 : PROJECT LOCATION: HOMER, AK

DRAWING LOCATION
Z:\PROJECTS\00710_City of Homer Term Contract 2022\22-04 Heath Street\DWGS\C\Sheets\00710_22-04_F1-F4_P&P - HAZEL ALT2.dwg
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LAYOUT F1
SCALE
DRAFTED BY
BILL HADDOCK

U.S. Department of Transportation
Federal Highway Administration

OFFICE OF SAFETY
Proven Safety Countermeasures

Rectangular Rapid Flashing Beacons (RRFB)

A marked crosswalk or pedestrian warning sign can improve safety for pedestrians crossing the road, but at times may not be sufficient for drivers to visibly locate crossing locations and yield to pedestrians. To enhance pedestrian conspicuity and increase driver awareness at uncontrolled, marked crosswalks, transportation agencies can install a pedestrian actuated Rectangular Rapid Flashing Beacon (RRFB) to accompany a pedestrian warning sign. RRFBs consist of two, rectangular- shaped yellow indications, each with a light-emitting diode (LED)-array-based light source.[1] RRFBs flash with an alternating high frequency when activated to enhance conspicuity of pedestrians at the crossing to drivers.

For more information on using RRFBs, see the Interim Approval in the *Manual on Uniform Traffic Control Devices (MUTCD)*.[1]

Safety Benefits:

RRFBs can reduce crashes up to:

47%

for pedestrian crashes.[4]

RRFBs can increase motorist yielding rates up to:

98%

(varies by speed limit, number of lanes, crossing distance, and time of day).[3]

RRFBs used at a trail crossing. Source: LJB

Applications

The RRFB is applicable to many types of pedestrian crossings but is particularly effective at multilane crossings with speed limits less than 40 miles per hour.[2] Research suggests RRFBs can result in motorist yielding rates as high at 98 percent at marked crosswalks, but varies depending on the location, posted speed limit, pedestrian crossing distance, one- versus two-way road, and the number of travel lanes.[3] RRFBs can also accompany school or trail crossing warning signs.

RRFBs are placed on both sides of a crosswalk below the pedestrian crossing sign and above the diagonal downward arrow plaque pointing at the crossing.[1] The flashing pattern can be activated with pushbuttons or passive (e.g., video or infrared) pedestrian detection, and should be unlit when not activated.

Considerations

Agencies should:[2]

- Install RRFBs in the median rather than the far-side of the roadway if there is a pedestrian refuge or other type of median.
- Use solar-power panels to eliminate the need for a power source.
- Reserve the use of RRFBs for locations with significant pedestrian safety issues, as over-use of RRFB treatments may diminish their effectiveness.

Agencies shall not:[2]

- Use RRFBs without the presence of a pedestrian, school or trail crossing warning sign.
- Use RRFBs for crosswalks across approaches controlled by YIELD signs, STOP signs, traffic control signals, or pedestrian hybrid beacons, except for the approach or egress from a roundabout.

For more information on this and other FHWA Proven Safety Countermeasures, please visit https://highways.dot.gov/safety/proven-safety-countermeasures and https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/techSheetRRFB_2018.pdf.

1 *MUTCD* Interim Approval 21 - RRFBs at Crosswalks.
2 "Rectangular Rapid Flash Beacon" in PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System. FHWA, (2013).
3 Fitzpatrick et al. "Will You Stop for Me? Roadway Design and Traffic Control Device Influences on Drivers Yielding to Pedestrians in a Crosswalk with a Rectangular Rapid-Flashing Beacon." Report No. TTI-CTS-0010. Texas A&M Transportation Institute, (2016).
4 (CMF ID: 9024) NCHRP Research Report 841 Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. (2017).

FHWA-SA-21-053