

May 31, 2024

Mr. Manny Windhorst
Pavement Manager Program Manager
Town of Mead
441 Third Street
Mead, CO 80542

Re: WCR7 Improvements – WCR38 to Ball Aerospace (22-100-019-05)

Dear Manny -

Wilson & Company is pleased to submit this proposal, through our Town of Mead 2022 On-Call Contract, to provide Topographic Survey and Design Services for the WCR7 Improvements project. Figure 1, below, shows the area of improvement from WCR38 to Ball Aerospace Drive. This project will be a cost share between the Town of Mead and the Town of Berthoud.



Figure 1 – Weld County Road 7 (WCR7)

Background

The Town of Mead would like to pave Weld County Road 7 (WCR7) between WCR38 and Ball Aerospace Drive. WCR7 is identified in the Town's Master Transportation Plan as a future, 2-lane major arterial. We are assuming a modified cross section that will fit within the 60' existing ROW, consisting of a 24' to 32' wide asphalt paved roadway with 3:1 side slope and a borrow ditch on each side will be the section used for this project. The existing gravel roadway was measured in the field in various locations and is approximately 24'

wide. We are assuming the road profile will remain relatively close to existing conditions. Utility locates have been included in the scope as well as an allowance for formal SUE in the event existing utilities will be impacted. The construction of this project is anticipated to be funded with a grant and administered as a CDOT Local Agency project. There are some items that cannot be completed (i.e. environmental clearances), until there is a project in CDOT's system. This proposal assumes these tasks will be needed, but the timing will need to be coordinated as design progresses.

Topographic Survey

An engineering-grade topographic survey will be performed, as shown in Figure 1 above, of the existing CR7 right-of-way including a wider section at the WCR38 and Ball Aerospace intersections. Six control points will be established from which field efforts will be conducted. Control values will be referenced to a modified Colorado North Zone 0501 State Plane Coordinate System (aka "ground" system) with elevations based upon North American Vertical Datum of 1988 (NAVD88) and tied to a National Geodetic Survey (NGS) vertical benchmark.

Triunity will provide 811 locates throughout the corridor during the topo effort.

At present, it is our understanding that the right-of-way is mostly 60' wide (30' on either side of the section lines), but with additional 20' conveyances affecting two land divisions – one being the additional 20' of right-of-way existing on the westerly side of Margil Farms First Filing (northeast corner of the intersection of CR7/CR38), the second being the additional 20' of right-of-way existing on the westerly side of Berthoud Technological Center Filing One. The topographic survey itself will be confined to the County Roads 7 and 38 right-of-way regions, excepting the westerly +/-100' of Ball Aerospace Drive which will be surveyed. The results of the topographic survey and County Road 7 right-of-way determination will be delivered as v2023 Civil3d .dwg and .pdf drawing files.

Acquisitions are not anticipated at this time. The base property map will show existing right of way based on section lines and plats and deeds available from Weld County. No other boundary determination is anticipated or included at this time.

Issues Exhibit and Site Walk

Wilson & Company will prepare an Issues Exhibit to be used in a site walk with the Town of Mead, prior to design efforts. The project paving area is approximately 9,200 LF (1.87 Miles) which includes 4,000 LF in the Town of Berthoud and 5,200 LF in the Town of Mead. During the site walk, emphasis will be placed on areas of drainage concerns, existing and potential proposed culverts, roadside ditches, the roadway profile, and driveway connection points. Prior to design work, Wilson & Company and the Town review the Town's Street Design Criteria (Table 300-1) and document the project approach. After the project approach has been agreed upon, Wilson & Company will prepare a Preliminary Design Exhibit.

Preliminary Design Exhibit

The preliminary design exhibit will provide an overview of the proposed roadway improvements including proposed drainage flow paths, grading limits, centerline profile and potential utility conflicts. These exhibits will be in 24x36 format and used as the basis for the final design phase. Wilson & Company will submit the exhibits to the Town for review and discussion.

Subsurface Utility Engineering (SUE) Allowance

Triunity, Inc. will be a subconsultant to Wilson & Company and provide utility locates and SUE services for the project. A line item with an estimate of Quality Level B SUE services and 10 potholes has been included. It will become clear during the preliminary design if these services are needed for the completion of final design.

Roadway Drainage Design

The site walk and preliminary design effort will help to determine the effort required for drainage design along the roadway. With any new roadway, it is important to fix any known drainage issue and confirm that the project will do no harm to adjacent properties. There are irrigation facilities in the area that may be using existing roadside swales for tailwater or delivery, and there is one large draw that crosses WCR7 approximately 3,500' south of Ball Aerospace Drive. We are assuming this existing culvert will be lengthened and the improvements will be contained within the existing right-of-way. A drainage report with existing and proposed conditions and design considerations will be prepared for the project. With the rural road section, it will not be possible to add stormwater quality facilities for the project.

Geotechnical Engineering Services

Geocal Geosciences and Engineering will be a subconsultant to Wilson & Company and provide drilling operations, laboratory testing and geotechnical reporting services for the project. Geocal will conduct 12 geotechnical bores for new pavement and slope fill areas to a depth of 10 feet. Geocal will provide traffic control, which is assumed to be a one-lane closure, and secure necessary permits with the Town of Mead and the Town of Berthoud. No permitting with Weld County is anticipated. Soil and bedrock samples will be analyzed in the laboratory. Geotechnical reporting will include site geology, proposed construction conditions, review of field and lab results, subsurface conditions, and pavement design recommendations.

Environmental Services

Wilson & Company Environmental Lead, Jon Chesser, CEP, has experience as an environmental program and project manager for CDOT Region 1 and Headquarters for 11 years, where he led numerous multidisciplinary teams to successfully deliver environmental services for both CDOT and local agencies. Our team understands how to complete the environmental analysis and clearance process for this project administered by the Town, including compliance with federal, state, and local requirements. We have worked with Jacqueline Giles, CDOT Region 4 Local Agency Environmental Program Manager, multiple times in recent years to complete the Categorical Exclusion (CE) process for local agency projects and look forward to working with her again.

Preliminary review of the project area has identified a drainage crossing of WCR 7, Ide and Starboard Ditch, as well as roadside ditches and adjacent black-tailed prairie dog communities throughout this stretch of WCR 7. These resources will require detailed analysis as design is advanced. Our environmental team will collaborate closely with the design team to avoid/minimize potential impacts to these, and any other environmental resources identified. Due to the Town's application for grant funding, NEPA will apply, and we expect to clear the project with a Categorical Exclusion (CE) using CDOT's Form 128 and category C22 for projects that would take place entirely within the existing operational right-of-way. Wilson & Company will work to meet all applicable environmental requirements through project design and construction.

For the purposes of this proposal, we are assuming that a Section 404 permit will not be required at the ditch crossing. Additionally, we are assuming that the project will not require a Type 1 noise analysis for CDOT since the project will not be adding additional capacity and will remain as a 2-lane roadway similar to existing conditions.

Final Design Phase (Construction Documents)

After the completion of the preliminary design review, Town staff comments will be addressed and incorporated into the Final Design Plans. The project will proceed to Final Design (Construction Documents) with bi-weekly / monthly meetings with Town staff. Tasks that will be completed with this phase of design include:

- Construction Documents
 - Cover, General Notes, and Typical Sections
 - Topographic Survey
 - Demolition Plan
 - Horizontal Control Plan
 - Roadway Plan and Centerline Profile
 - Cross Sections
 - Cross Culvert Profiles
 - Drainage and Grading Plan
 - Stormwater Management Plans and Notes (CDOT)
 - Signing and Striping Plans
 - Erosion and Sedimentation Control Plans
 - Details
- Project coordination meetings and reviews with Town staff.
- Construction Administration allowance for design questions during construction.
- Deliverables – Topographic Survey, Issues Exhibit, Drainage Report and Final Design Plans.

Bid Documents and Construction Administration

Wilson & Company will prepare final quantities, project special provisions, and a cost estimate for the bid package. We will prepare the Bid Form and attend the pre-bid meeting to assist the Town in presenting the project to potential bidders. Wilson & Company will support the Town if Bid Addenda are necessary and develop the Bid Tabulation for all bids received.

During the construction phase of the project, Wilson & Company will be available for monthly site visits during construction, RFI responses, and submittal reviews. Wilson & Company will participate in the substantial completion walkthrough and prepare a punch list record.

- Deliverables – Final Quantities, Specifications, Cost Estimate, Bid Assistance, and Bid Tabulation

Schedule and Fee

Assuming a Notice to Proceed (NTP) is given June 15, 2024, we anticipate completion dates as follow:

- Topographic Survey, Site Walk, and Exhibits - June 15 through October 15, 2024
- Construction Documents, Town Staff Review, and Bid Documents – October 15, 2024 through August 1, 2025
- The above assumptions may change depending on grant funding timing.

Assumptions and Exclusions

- All proposed design and construction work will be contained to the public right-of-way.
- Property and easement acquisitions are not anticipated. Right of way will be mapped based on section lines and plats and deeds available from Weld County.
- CDOT Right-of-Way plans and temporary / permanent easements acquisitions are not included at this time.
- Traffic engineering is not included at this time and can be added to the scope if needed.
- Minimal Construction Administration services are included. An allowance is shown in the fees provided.
- Inspection (Observation) services, field quantity measurements, and pay estimates are not included at this time and can be added to the scope if needed.
- Water quality facilities are not anticipated at this time.
- Public outreach services are not anticipated at this time.
- Major drainage structures and structural design are not anticipated at this time. Drainage crossings will be RCP pipe with end sections and will fit in existing right of way.

The total fee proposed for this work order is a “not to exceed fee” of \$474,390. A breakdown of the anticipated hours and fees is attached. Thank you for your time in reviewing this proposal. Please call me if you have any questions.

Sincerely,



Tim Kemp, PE
CA Practice Lead
Accepted by:



Scott Waterman, PE
Vice President

Authorized Signature
Town of Mead

Printed Name

Date

	Kemp PM	Weier QA/QC	Schneider Drainage	Lofton Roadway	Fischer EIT	Enviro Team	Dieffenbach Survey	Wilson & Company	Triunity (SUE)	Geocal (Geotech)	Total
WCR7 Improvements - WCR38 to Ball Aerospace (22-100-019-05)	\$ 220	\$ 160	\$ 150	\$ 140	\$ 120	\$ 170	\$ 160				
Weld County Road 7 (WCR38 to Ball Aerospace) (42-week duration)											
Topographic Survey and Utility Locates							\$ 27,500	\$ 27,500	\$ 2,750		\$ 30,250
Drainage Research, Site Walk, Issues Exhibit	24		40	40	60			\$ 24,080			\$ 24,080
Preliminary Design Exhibit	24		24	40	80			\$ 24,080			\$ 24,080
SUE Allowance (Quality Level B Locates + 10 Potholes)							\$ 5,000	\$ 5,000	\$ 45,000		\$ 50,000
Roadway Drainage Design	16	24	120	60	80			\$ 43,360			\$ 43,360
Geotechnical Engineering Services								\$ -		\$ 43,500	\$ 43,500
Environmental Services						264		\$ 44,880			\$ 44,880
Final Design Plans	40	40	120	120	240			\$ 78,800			\$ 78,800
Project Management, Meetings, Coordination, QC	80	80	32	32	48	24		\$ 49,520			\$ 49,520
Bid Documents	16	60	16	8	60			\$ 23,840			\$ 23,840
Force Account								\$ 50,000			\$ 50,000
Construction Administration Allowance	24				40			\$ 10,080			\$ 10,080
Wilson & Company Expenses Allowance								\$ 2,000			\$ 2,000
Grand Total	224	204	352	300	608	288		\$ 383,140	\$ 47,750	\$ 43,500	\$ 474,390