



PROFESSIONAL SERVICES AGREEMENT

For

Oralabor Gateway Trail SW State Street Grade Separated Crossing

and

SW Oralabor Road and SW State Street Safety Improvements

City of Ankeny
Public Works Department
1210 NW Prairie Ridge Drive
Ankeny, IA, 50023
515-963-3520

Jason Lastovica, P.E., Project Manager
HR Green, Inc.
5525 Merle Hay Road
Suite 200
Johnston, IA, 50131
515-657-5263

February 7, 2022

TABLE OF CONTENTS

1.0	PROJECT UNDERSTANDING
2.0	SCOPE OF SERVICES
3.0	SCHEDULE AND DELIVERABLES INCLUDED IN THIS AGREEMENT
4.0	ITEMS NOT INCLUDED IN THIS AGREEMENT
5.0	SERVICES BY OTHERS
6.0	CLIENT RESPONSIBILITIES
7.0	PROFESSIONAL SERVICES FEE
8.0	TERMS AND CONDITIONS
EXHIBIT A	CITY OF ANKENY INSURANCE REQUIREMENTS FOR PROFESSIONAL SERVICES
EXHIBIT B	HR GREEN BILLING RATE SCHEDULE (EFFECTIVE JANUARY 1, 2022)
EXHIBIT C	PROJECT SURVEY LIMITS
EXHIBIT D	SW ORALABOR ROAD AND SW STATE STREET INTERSECTION IMPROVEMENTS
EXHIBIT E	GEOTECHNICAL ENGINEERING SERVICES ANTICIPATED EXPLORATION PLAN



THIS **AGREEMENT** is between the City of Ankeny (hereafter "CLIENT") and HR GREEN, INC. (hereafter "COMPANY").

1.0 PROJECT UNDERSTANDING

1.1 General Understanding

THIS AGREEMENT includes the preliminary and final design of two projects at the intersection of SW Oralabor Road (IA 415 / IA 160) and SW State Street (IA 415) in the City of Ankeny.

- The first project includes the preliminary and final design of turn lane and traffic signal improvements at the intersection of SW Oralabor Road and SW State Street (hereafter "INTERSECTION PROJECT").
- The second project includes the design of a grade separated crossing of Oralabor Gateway Trail at SW State Street (hereafter "TRAIL PROJECT").

1.2 Project Criteria and Assumptions

- Design of the TRAIL PROJECT will be based on the preferred alternative determined during the Feasibility Study phase of a separate AGREEMENT.
- The TRAIL PROJECT is programmed with Surface Transportation Block Grant Transportation Alternative Program (STBG – TAP) funds.
- Design of the INTERSECTION PROJECT will be based on the illustrative concept (Exhibit D) included in the Application for Iowa's Clean Air Attainment Program (ICAAP) dated September 29, 2021 and prepared by COMPANY.
- Development and design of the projects will follow the Iowa Department of Transportation (DOT) Federal-Aid Project Development Guide for Local Public Agencies.
- The projects will be combined in a single plan set with multiple Divisions for respective bid items and specifications. Iowa DOT will administer the bid letting process.
- Acquisition of permanent right-of-way, permanent easements, and temporary construction easements is anticipated.
- Adjustment or relocation of existing utilities will be required.
- Coordination with the US Army Corps of Engineers (USACE) may be required to complete a jurisdictional determination of potential right-of-way wetlands and potential mitigation requirements.

2.0 SCOPE OF SERVICES

CLIENT agrees to employ COMPANY to perform the following services:

- Phase 1.0 – Project Management and Administration
- Phase 2.0 – Survey and Mapping
- Phase 3.0 – Utility Coordination
- Phase 4.0 – Pre-Design Concept
- Phase 5.0 – Preliminary Design
- Phase 6.0 – Right-of-Way and Easements

- Phase 7.0 – Project Information Meeting
- Phase 8.0 – Geotechnical Engineering Services
- Phase 9.0 – Final Design
- Phase 10.0 – Pre-Letting Support

Each of these Phases of professional services is described in the following pages.

2.1 Phase 1.0 – Project Management and Administration

COMPANY will perform the following project management and administration services to deliver the project.

2.1.1 Administration and Controls

Prepare a Project Management Plan which includes communication protocols, schedule, work plan and a Quality Control Plan. COMPANY will monitor project progress in conformance with the Project Management Plan and design Quality Control reviews are completed in accordance with the Quality Control Plan.

2.1.2 Progress Reporting and Invoicing

Prepare twelve (12) invoices and progress reports which describe services complete for the period, budget status, and any outstanding items critical to project delivery.

2.1.3 Communications and Meetings

Participate in recurring phone and email correspondence with CLIENT and Iowa DOT for the AGREEMENT duration (12 months).

Conduct one (1) internal project kick-off meeting and recurring internal coordination meetings with core team members to discuss project progress, schedule, and budget. COMPANY anticipates twelve (12) formal internal project coordination meetings.

This task includes four (4) formal project status meetings with CLIENT. Meetings will involve two (2) representatives of COMPANY, to be held at either COMPANY's or CLIENT's location, or hosted by COMPANY online. COMPANY will prepare an agenda and distribute minutes for each meeting.

2.2 Phase 2.0 – Survey and Mapping

COMPANY will partner with a subconsultant, Nilles Associates, Inc. (hereafter "NILLES") to perform topographic survey, right-of-way survey, and survey base mapping. Survey and mapping will supplement data collected for the TRAIL PROJECT during the Feasibility Study phase of a separate AGREEMENT. Topographic survey will include features within existing right-of-way and just beyond the existing right-of-way to understand the terrain and existing features immediately adjacent to anticipated project limits. The extent of the right-of-way survey and mapping will be as necessary to establish existing right-of-way and easements and will be performed under the supervision of NILLES' Professional Land Surveyor licensed in the State of Iowa.

2.2.1 Survey

COMPANY shall provide survey generally described below and identified in EXHIBIT C.

- Along SW Oralabor Road from 1,000 feet west of the SW State Street intersection to 1,000 feet east of the SW State Street intersection (approximately 2,000 linear feet).



Total width is approximately 100 feet from the south edge of pavement to just beyond the existing north right-of-way.

- Along SW State Street from 800 feet north of the SW Oralabor Road intersection to 1,200 feet south of the SW Oralabor Road intersection (approximately 2,000 linear feet). Total width is approximately 200 feet.

Permit

COMPANY has confirmed with Iowa DOT that survey activities for the INTERSECTION PROJECT will be allowed under Permit No. 77A-2021-046. Permit No. 77A-2021-046 is the active permit for work authorized in Iowa DOT right-of-way for the TRAIL PROJECT during the Feasibility Study phase of a separate AGREEMENT.

Right-of-Entry

Right-of-Entry is not anticipated for adjacent parcels. Survey of features near existing right-of-way will not be invasive and generally within the effective roadway borders.

Ground Control

Iowa Regional Coordinate System Zone 8 NAD83 (2011) and North American Vertical Datum of 1988 (NAVD88) IA RTN US Survey Feet will be used. Narrative explaining how horizontal control points and vertical datum were determined will be prepared. This narrative will be included in the Preliminary Plans, Check Plans, and Final Plans.

- *Horizontal Control* – Locate existing survey control points established along the roadways within the project area. Establish additional control points (minimum of 4) along the project extents as necessary. The additional control points will be referenced to physical features.
- *Vertical Control* – Locate existing benchmarks established along roadways within the project area. Establish additional benchmarks (minimum of 4) and elevations of control points.

Topographic Survey

Utilizing project control established by the COMPANY, NILLES shall provide topographic survey. Iowa DOT feature codes will be used for survey on the project and identify the following:

- Locate topographic features within the project limits. These items include trees, shrubs, fences, parking lots, retaining walls, signs, ground break lines etc.
- Locate streets, driveways, sidewalks, pedestrian curb ramps, curb and gutter, etc. Existing joints will be located near proposed pavement tie-in locations. The type of material shall be noted (e.g. concrete, asphalt, etc.).
- Locate storm sewer intakes, storm sewer manholes, driveway pipes, roadway cross culverts, sanitary sewer manholes, water valves, hydrants, traffic and fiber handholes, light poles, traffic signal poles, and cabinets.

Right-of-Way Survey

Utilizing project control established by the COMPANY, NILLES shall provide right-of-way survey services generally described below:

- Research City and County records including right-of-way strip maps, subdivision plats, section corner ties and surveys and locate existing boundary corner monuments.
- Determine ownership of the properties affected by the project and establish property lines, right-of-way lines, section lines, and easements.

Utility Survey

Field survey the horizontal locations of private utilities and public utility systems based on surface visible features (e.g. telephone pedestals, power poles, guy wires, electric transformer boxes, cable television pedestals, light poles and luminaries, valves, utility accesses and vaults, etc.), flags and marks by utility owners, and test holes.

Intakes and manholes will be opened to measure the structure's dimensions (length, width, and depth); direction of flow and sizes of each pipe; the flow line elevations of each pipe; and to determine the types of structure and pipe materials.

Field Books

Field books will be prepared and describe typical field information associated with field conditions, control point and benchmark information, and unique topographic features. In addition to information and data typically included with survey field books, sketches of storm sewer structures and roadway cross culverts will include:

- Accurate identification of pipe sizes, shapes, flow lines, and materials.
- Location of casting(s) in relation to center of structure or walls.
- "Assessment of Condition" ("Good" / "Fair" / "Poor") for the structure and visible portions of connecting pipes, including identification of structure materials (e.g. concrete block, cast-in-place concrete, corrugated metal pipe, brick, etc.)

2.2.2 Mapping

Base Mapping and Digital Terrain Modeling

A Base Map and Digital Terrain Model (DTM) will be used by COMPANY for the design of the proposed improvements. A combined Base Map and DTM will be created by NILLES that includes previously acquired data for the TRAIL PROJECT with data collected for the INTERSECTION PROJECT.

- *Base Map* – Prepare a MicroStation CAD drawing that contains survey line-work, symbols, and drawings of features that were located as part of the topographic and utility surveys. Public and private utility locations will be based on surface visible features and locations marked by owners in the field in coordination with maps obtained from utility companies. The CAD drawing file will comply with Iowa DOT Design Manual protocols.
- *Digital Terrain Model* – Create a DTM to display ground contours at one-foot (major) and 0.2 foot (minor) intervals in the Base Map Contours Model. The DTM and base map will be used for the design of the proposed improvements.

Right-of-Way Mapping

Right-of-Way Survey will be mapped to establish existing right-of-way and easements under the supervision of NILLES' Professional Land Surveyor licensed in the State of Iowa.

- Review property ownership information from public records and add property owner names to the project mapping for public display and plan preparation purposes.

- Prepare necessary section corner certificates.
- Prepare CAD files in Bentley MicroStation with property lines, roadway right-of-way lines, section lines, and easements as shown on existing plats and other documents of record along with the land corner monuments and property pins located in the field.

2.3 Phase 3.0 – Utility Coordination

2.3.1 Utility Identification

COMPANY will coordinate with Iowa One Call to identify utilities within the INTERSECTION PROJECT footprint which require notification. COMPANY will contact public and private utility owners of record to request current maps of facilities within the project area. COMPANY will review utility maps provided by facility owners for consistency with field locates. Information obtained will supplement and be combined with utility information collected for the TRAIL PROJECT during the Feasibility Study phase as part of a separate AGREEMENT.

2.3.2 Conflict Identification

COMPANY will identify potential utility conflicts based on the surface locates provided by Iowa One Call service providers, utility survey of surface visible utility features, mapping and record drawings provided by utility owners, and the preliminary design developed for the projects. COMPANY will provide copies of Preliminary Plans and will coordinate with utility companies to advise the utility companies of the nature and extent of the proposed improvements and potential conflicts.

2.3.3 Meetings

COMPANY will conduct the following coordination meetings with facility owners. COMPANY will prepare an agenda and document discussions and decisions in meeting minutes and distribute minutes to participants.

- One (1) joint utility coordination meeting will be conducted at the conclusion of **Phase 5.0 – Preliminary Design**.
- One (1) focus coordination meeting with MidAmerican Energy to discuss potential impacts to underground gas and electric lines.
- One (1) joint utility coordination meeting will be conducted in advance of the Check Plans milestone submittal to document relocation plans developed by utility owners.

2.3.4 Test Holes

COMPANY will employ the services of a qualified SUBCONTRACTOR, Badger Daylighting, Inc. (hereafter "BADGER") to perform vacuum excavation to spot check existing underground utilities near the location of the proposed improvements. Vacuum excavation test holes will validate the horizontal and vertical location of mapped utilities for the purposes of determining potential utility conflicts and validating traffic signal pole locations. This Scope of Services includes up to eight (8) vacuum excavation test holes.

BADGER will be required to independently coordinate with Iowa One Call to confirm the presence of utilities prior to vacuum excavation. BADGER will be required to independently coordinate with Iowa DOT to obtain the appropriate permit(s) to perform vacuum excavation within right-of-way and perform work in compliance with the terms and conditions of the permit.



2.3.5 Relocation Plan Review

COMPANY will file franchise utility relocation plans, review relocation plans, and coordinate CLIENT relocation plan review. CLIENT will coordinate franchise utility relocation permitting for the north leg of SW State Street which is situated within City of Ankeny right-of-way.

Utility owners will be required to coordinate with Iowa DOT independently to obtain a permit for work on SW Oralabor Road and the south leg of SW State Street through submittal of ***Iowa DOT Form 810025 – Application for use of Highway Right-of-Way for Utilities Accommodations***. SW Oralabor Road and the south leg of SW State Street are situated within Iowa DOT right-of-way.

2.4 Phase 4.0 – Pre-Design Concept

COMPANY will perform environmental review, agency coordination, and prepare ***Iowa DOT Form 517001 – Concept Statement for LPA Federal-Aid Projects*** to initiate Iowa DOT project review in compliance with the Iowa DOT Federal-Aid Project Development Guide for Local Public Agencies (LPA) and with applicable Instructional Memorandums (I.M.).

2.4.1 Concept Statement

COMPANY will prepare ***Iowa DOT Form 517001 – Concept Statement for LPA Federal-Aid Projects*** and ***Iowa DOT Form 760006 – Park, Recreation Land, and Wildlife and Waterfowl Refuge Section (4f) Determination*** to document the type, location, programmed and anticipated costs, environmental impacts, and design criteria for the projects. Design criteria for the projects will be based on SUDAS, Iowa DOT, and other applicable sources with input from CLIENT and Iowa DOT. The following will be performed to document design criteria and constraints within ***Iowa DOT Form 517001 – Concept Statement for LPA Federal-Aid Projects***:

- Prepare map(s) of projects and vicinity and determine functional classifications.
- Establish and evaluate geometric elements of the proposed improvements.
- Determine project areas to be closed to traffic and detour alternatives.
- Evaluate maintenance of pedestrian and bicycle traffic during construction.
- Identify potential design exceptions for sight distance, clearances, etc.

2.4.2 Wetland Delineation

The Wetland Delineation Report will describe results of a wetland delineation of the site conducted by the COMPANY using methods in the ***1987 USACE Wetlands Delineation Manual*** and ***2010 Regional Supplement to the USACE Wetland Delineation Manual: Midwest Region***. Wetland boundaries will be recorded using sub-meter accuracy GPS and drawn on high-resolution aerial photographs. The report will include an introduction, background information review, observed site conditions including wetland descriptions, site photographs, and figures depicting wetland delineated wetland boundaries. COMPANY may request a jurisdictional determination from USACE, if necessary.

2.4.3 Habitat Assessment

A Habitat Assessment will be completed to identify potential habitat for species on the US Fish and Wildlife's Section 7 Technical Assistance website (<http://www.fws.gov/midwest/endangered/>) known to occur in Polk County, Iowa. The report will include conclusions regarding the presence of potential habitat for species on the Polk County. The Habitat Assessment will support the completion of ***Iowa DOT Form 760005 – Determination of Effect for Threatened & Endangered Species***.

2.4.4 Cultural Resources Review

COMPANY will coordinate with CLIENT to request that Iowa DOT Location and Environment Bureau (LEB) perform a review of the projects and issue cultural resources clearance due to the disturbed and developed nature of the site. The projects will require new right-of-way and easement; however, impacts to historic properties or archaeological sites are not anticipated. This Scope of Services does not include a Cultural Resources Field Investigation and Report.

2.4.5 Quality Control Reviews

Perform technical reviews in accordance with the project Quality Control Plan. Quality Control Reviews will be performed prior to milestone submittals for the technical reports and forms prepared during **Phase 4.0 – Pre-Design Concept**. Technical reviews will be performed by the Project Manager and experienced subject matter experts to check for accuracy and completeness of documents.

2.5 Phase 5.0 – Preliminary Design

COMPANY will perform preliminary design services for both the INTERSECTION PROJECT and the TRAIL PROJECT, including the preparation of Preliminary Plans depicting the proposed improvements in a single set of plans. COMPANY will submit Preliminary Plans to CLIENT in advance of a submittal to Iowa DOT to establish final right-of-way and easements, coordinate utility relocations, and conduct a Project Information Meeting. Following CLIENT review of Preliminary Plans and initiation of right-of-way and easement acquisitions COMPANY will revise Preliminary Plans and submit to Iowa DOT for review and comment. The work tasks to be performed by COMPANY as part of this Phase are described below.

2.5.1 Preliminary Roadway

Roadway Typical Sections and Details

Typical sections and typical details for the INTERSECTION PROJECT will be prepared to represent the appropriate width and longitudinal jointing layout of SW Oralabor Road and SW State Street based on Exhibit D. Typical section elements shown on B Sheets will include lane widths, curb and gutter sections, median width, cross slope, sidewalk width and slope, and parking area width and slope. COMPANY will develop preliminary typical cross sections and details for inclusion in the Preliminary Plans based on collaboration with CLIENT.

Roadway Plan and Profile

Establish preliminary existing horizontal alignments and vertical profiles based on the topographic survey and available as-built record drawing information. The existing alignments and profiles will be used for design and construction of the proposed INTERSECTION PROJECT improvements.

Horizontal alignment, vertical profile, and other information pertinent to roadway grading and paving, such as ditch grades, will be depicted on the D Sheets (SW Oralabor Road) and E Sheets (SW State Street).

Roadway Modeling and Cross Sections

COMPANY will integrate alignments and profiles, CLIENT approved typical cross sections, and existing terrain to prepare a preliminary roadway model and cross sections for inclusion in the Preliminary Plans. Cross sections will be created for SW Oralabor Road (W Sheets) and SW State Street (X Sheets) at 25-foot intervals and at geometric break points, transition points, entrance centerlines, storm sewer intakes, and pipe cross culverts using Bentley MicroStation and Geopak OpenRoads software.

2.5.2 Preliminary Intersection

Intersection Layout

As part of the INTERSECTION PROJECT, COMPANY will design the intersection of SW Oralabor Road and SW State Street based on Exhibit D. COMPANY will develop the geometric layout modifications for the intersection. Intersection geometric (horizontal and vertical) and pedestrian facility designs will consider the TRAIL PROJECT and will be coordinated with task **2.5.7 Preliminary Traffic Signal**. Intersection returns will be evaluated to accommodate a WB-67 design vehicle.

Sidewalks and Curb Ramps Layout

Develop the design for the sidewalk and pedestrian curb ramps depicted in Exhibit D. Verify compliance with the current "Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way" (PROWAG) and Iowa DOT and SUDAS design standards. Determine geometrics, running slopes, cross slopes, landing areas, level operating spaces, and elevations for sidewalk and pedestrian curb ramps along with coordinating the locations and elevations of pedestrian push buttons. Intersection sidewalk and curb ramp layouts and traffic signal pole bases and push button poles will be shown on S Sheets. Final calculations (cross slopes, running slopes, etc.) shown in the Sidewalk Compliance Tabulation will be prepared during **Phase 9.0 – Final Design**.

2.5.3 Preliminary Private Entrance

COMPANY will design one (1) SW State Street private access for the Hy-Vee property located near the northwest corner of SW Oralabor Road and SW State Street intersection. Horizontal alignment and vertical profile will be depicted on a SW State Street preliminary plan and profile E Sheet.

2.5.4 Preliminary Trail

Trail Typical Sections and Details

Typical sections and typical details for the TRAIL PROJECT will be prepared to represent the appropriate width and pavement section of Oralabor Gateway Trail and relationship to adjacent retaining walls and side slopes. COMPANY will develop preliminary typical cross sections and details for inclusion in the Preliminary Plans based on collaboration with CLIENT.

Trail Plan and Profile

Establish preliminary horizontal alignments and vertical profiles for the TRAIL PROJECT based on the Functional Design completed during the Feasibility Study phase as part of a separate AGREEMENT.

Horizontal alignment, vertical profile, and other information pertinent to Oralabor Gateway Trail grading and paving, such as ditch grades, will be depicted on K Sheets.

Trail Modeling and Cross Sections

COMPANY will integrate trail alignments and profiles, CLIENT approved typical cross sections, and existing terrain to prepare a preliminary trail model and cross sections for inclusion in the Preliminary Plans. Cross sections will be created for Oralabor Gateway Trail (Y Sheets) at 25-foot intervals and at geometric break points, transition points, box culvert tunnel openings, and pipe cross culverts using Bentley MicroStation and Geopak OpenRoads software.

2.5.5 Preliminary Construction Staging and Traffic Control

Develop a preliminary construction staging plan and preliminary traffic control notes. Maintenance of vehicular traffic will be developed and analyzed to accommodate construction sequencing for both projects and temporary shoring requirements for construction of the TRAIL PROJECT. Design of temporary shoring for the purposes of constructing the TRAIL PROJECT box culvert tunnel under SW State Street is not included in this Scope of Services and will be the responsibility of the awarded Contractor.

2.5.6 Preliminary Drainage

A preliminary storm sewer, culvert layout, and drainage design will be developed, in general accordance with SUDAS Stormwater Management Criteria and Iowa DOT Design Manual. The design will be based on the Feasibility Study completed as part of a separate AGREEMENT. The preliminary drainage design will include the primary components:

Storm Sewer and Subdrains

Storm sewer designs will be performed for the projects using Bentley Geopak Drainage stormwater modeling software and depicted in the Preliminary Plans. Storm sewer computations will be validated with independent manual calculations. Storm sewer structure types, pipe sizes and lengths, and outlet revetment will be specified on M Sheets. Green Infrastructure BMPs and detention are not included in the Scope of Services for THIS AGREEMENT. A preliminary subdrain and RCB trench drain layout will also be depicted on the M Sheets.

Culverts and Ditches

Analysis of existing and proposed overland flow and ditch conveyance near the intersection of SW Oralabor Road and SW State Street using Bentley Geopak Drainage stormwater modeling software. COMPANY will delineate drainage areas in the vicinity of the project for the corridors and will rely on record data provided by CLIENT. Ditches grades, culvert structure types, sizes and lengths, and revetment measures will be specified on D Sheets, E Sheets, and K Sheets. Ditch sections will be depicted in the cross sections (W Sheets, X Sheets, and Y Sheets).

2.5.7 Preliminary Traffic Signal

Design will involve a new traffic signal system on SW Oralabor Road at SW State Street. Design will include new traffic signal poles, handholes, signal heads, detection, conduit and wiring, and pedestrian pushbutton poles. The traffic signal system and approach lane geometry will be based on the information contained within the Application for ICAAP funding dated September 29, 2021 for the INTERSECTION PROJECT and prepared by COMPANY.

It is understood that CLIENT will provide traffic signal timing adjustments as necessary to the awarded Contractor as part of the traffic signal turn-on process. Development of traffic signal phasing/timing tables are not anticipated and are not included within this Scope of Services.

The traffic signal system design for the intersection of SW Oralabor Road at SW State Street will be based on the following assumptions:

- New traffic signal cabinet / controller (location to be determined as part of design process).
- Power service connection to be developed and coordinated with electric service provider (location to be determined as part of design process).
- Pedestrian push buttons and pedestrian signal heads will be included on traffic signal poles at three at-grade crossings.
- New stand-alone pedestrian push button and/or pedestrian signal poles is anticipated.

- Traffic signal poles will be combination traffic signal / lighting galvanized steel poles.
- New stock equipment will be used for proposed equipment.
- Design/or modification of fiber optic cables or other means of traffic signal system interconnect is anticipated.
 - Interconnect design will consist of design of conduit/handhole routing along SW Oralabor Road and SW State Street.
 - Design will include the installation of fiber optic cables, tracer wire, and pull rope within dedicated 2 inch conduit pathway as necessary to tie-into the existing fiber optic cable.
 - Interconnect design will be at the outside plant fiber optic cable level.
 - Splicing and fiber optic termination documents will be needed and will be provided by CLIENT in coordination with the COMPANY.
 - If sufficient slack length of fiber optic cable does not exist, a handhole containing outside plant splice enclosure may be necessary.
- The use of video vehicle detection is anticipated.
- Pan/tilt/zoom traffic monitoring camera is anticipated.
- The installation of Opticom emergency vehicle preemption (EVP) equipment is anticipated.
- Existing overhead power lines/poles will remain as currently constructed; no utility relocation coordination or plan production (other than traffic signal power service) is included within the traffic signal design Scope of Services.
- Combination traffic signal/light poles will be used – including both traffic signal head mast arm and luminaire mast arm – Pole style/finish consistent with proposed aesthetics of corridor (anticipated to be galvanized – not painted black). Photometric analysis of the two intersecting corridors in the vicinity of the intersection will be necessary and this work is covered in this Scope of Services.
- The signal design will also include supplemental traffic signs to be installed as part of the traffic signal system. This includes but is not limited to street name signs, turn arrow plaques, and pedestrian signs.
- Traffic counts and/or traffic capacity analysis from COMPANY will not be required and is not included in this Scope of Services.
- Design of temporary traffic signal plans during the staged construction of the intersection is included in the Scope of Services. Signal phasing diagrams (including suggested timings) will not be completed as part of the preliminary submittal. A standard temporary traffic signal detail sheet will be included within the plans. Use of wooden span-wire poles for temporary supports is anticipated. Due to intersection size, span lengths of approximately 170' to 180' are anticipated.

Site Visits

Two (2) site visits will be conducted specifically to support traffic signal design. These site visits will involve one (1) representative of COMPANY.

Traffic Signal Plans

COMPANY will prepare traffic signal plans for the intersection of SW Oralabor Road at SW State Street. The preliminary permanent traffic signal plans are anticipated to include:

- General notes and legend sheet (1 sheet)
- Traffic signal plan sheet (1 sheet)
- Temporary traffic signal plan sheet (1 sheet)
- Fiber optic layout sheet (1 sheet)
- Conduit and wiring layout sheet (1 sheet)
- Typical details sheet (1 sheet)

The traffic signal layouts will include location of proposed traffic signal and pedestrian poles, power source, vehicle and pedestrian signal heads, pedestrian push buttons, controller cabinet, conduit, and handholes.

The traffic signal wiring diagram callouts/annotations, fiber optic cable termination/splicing details/notes, traffic signal tabulations, and Public Interest Finding (PIF) memorandum will be completed as part of **Phase 9.0 – Final Design**.

2.5.8 Preliminary Structures

Underpass Tunnel

The TRAIL PROJECT underpass structure will be a modified structure based on the Iowa DOT Reinforced Concrete Pedestrian Tunnel Standards. The Tunnel Standards will be modified based on the Feasibility Study completed as part of a separate AGREEMENT. One (1) RCB will pass parallel to SW Oralabor Road under SW State Street. The ends of the RCB will be incorporated into sheet pile retaining walls. It is anticipated that non-standard flared wingwalls and aprons will be used to transition to the sheet pile retaining walls. It is assumed the underpass structure will include aesthetic details, such as concrete form liners, and lighting similar to other recently constructed projects in Ankeny. The use of form liners on the RCB walls will eliminate the consideration of a precast RCB alternative. Structure details will be coordinated with the Iowa DOT and require concurrence on the TS&L from Iowa DOT prior to proceeding with **Phase 9.0 – Final Design**.

COMPANY will prepare and include One (1) RCB Situation Plan Type, Size, and Location (TS&L) V Sheet for the RCB in the Preliminary Plans. One (1) Site Plan V Sheet will be prepared for the project vicinity to provide perspective on the relationship of the overall project to the structure.

Retaining Walls

COMPANY will layout sheet pile retaining walls based on the Feasibility Study completed as part of a separate AGREEMENT. It is assumed that sheet pile walls of varying lengths will be required at each corner of the underpass structure and that the exposed surfaces of the sheet pile walls will have an aesthetic concrete façade.

2.5.9 Preliminary Plans

COMPANY will prepare one (1) set of Preliminary Plans (50%). The Preliminary Plans will include both projects and will be submitted for CLIENT and Iowa DOT review and comment. COMPANY will address one (1) round of CLIENT and Iowa DOT comments. The following sheets will be included in the Preliminary Plans submittal.

- Title Sheet and Location Map Sheet (A Sheets)
- Preliminary Typical Cross Sections (B Sheets)
- Preliminary Quantities (C Sheets)
- Preliminary Plan and Profile for SW Oralabor Road (D Sheets)
- Preliminary Plan and Profile for SW State Street (E Sheets)
- Survey and Mapping Information and Alignment Data (G Sheets)
- Preliminary Right-of-Way and Easements Layout (H Sheets)
- Preliminary Construction Staging, Temporary Traffic Control, and Detour Maps (J Sheets)
- Preliminary Plan and Profile for Oralabor Gateway Trail (K Sheets)
- Preliminary Storm Sewer Plan (M Sheets)
- Preliminary Traffic Signal Plan and Fiber Optic Layout (N Sheets)
- Preliminary Sidewalk Plans (S Sheets)
- Existing Utility Mapping (U Sheets)

- Preliminary RCB Situation Plan TS&L and Site Plan (V Sheets)
- Preliminary Cross Sections for SW Oralabor Road (W Sheets)
- Preliminary Cross Sections for SW State Street (X Sheets)
- Preliminary Cross Sections for Oralabor Gateway Trail (X Sheets)

2.5.10 Preliminary Bid Items and OPCC

Determine preliminary quantities and bid items and prepare a preliminary Opinion of Probable Construction Cost (OPCC) for the project. The OPCC will be based on preliminary estimated quantities for major construction items and recent City of Ankeny and Iowa DOT bid tabs.

2.5.11 Preliminary Field Review

Review of Preliminary Plans at the project site with CLIENT to discuss key issues and design elements, including pavement reconstruction limits, drainage design, utility installations, pedestrian facility, and traffic signal improvements. The review will be held to identify necessary adjustments and items to be carried into **Phase 9.0 – Final Design**. It is assumed three (3) representatives of COMPANY will participate in the field review with CLIENT.

2.5.12 Preliminary Design Quality Control Reviews

Perform technical reviews in accordance with the project Quality Control Plan. Quality Control Reviews will be performed prior to the Preliminary Plans milestone submittal by the Project Manager and experienced professional engineers to check for accuracy of engineering design, constructability of the project, and completeness of plans. This task includes time for COMPANY to coordinate comment resolution with CLIENT and Iowa DOT based on one (1) round of review comments received following submittal of Preliminary Plans.

2.6 Phase 6.0 – Right-of-Way and Easements

COMPANY will determine permanent right-of-way and permanent and temporary easement requirements for the projects. COMPANY will partner with a subconsultant, Nilles Associates, Inc. (hereafter "NILLES") to prepare right-of-way plats and easement exhibits.

2.6.1 Right-of-Way Layout

COMPANY will determine the proposed right-of-way and permanent and temporary easements necessary to construct, operate, and maintain existing and proposed CLIENT and Iowa DOT infrastructure. The preliminary right-of-way layout and easement limits will be displayed on Preliminary H Sheets and submitted to CLIENT as part of the Preliminary Plans submittal. Final H Sheets will be prepared following CLIENT review of Preliminary H Sheets and included in the Preliminary Plans submitted to Iowa DOT. Final H Sheets will depict final right-of-way and easement lines and will also be included in the Check Plans and Final Plans for information only. COMPANY anticipates proposed right-of-way and easement determination on four (4) properties.

2.6.2 Platting and Exhibits

COMPANY will partner with NILLES to prepare proposed temporary construction easement exhibits and right-of-way and permanent easement plats and associated legal descriptions for use in acquiring property necessary to construct, operate, and maintain existing and proposed Iowa DOT and CLIENT infrastructure. The Scope of Services as part of THIS AGREEMENT includes:

- Up to two (2) Right-of-Way Plats and Legal Descriptions
- Up to two (2) Permanent Easement Plats and Legal Descriptions
- Up to two (4) Temporary Easement Exhibits

Acquisition plats and legal descriptions shall comply with the requirements of Iowa Code and will be certified by NILES' Professional Land Surveyor preparing the documents.

2.6.3 Right-of-Way Quality Control Reviews

Quality Control Reviews will be performed to verify existing and proposed right-of-way and easement lines; correctness of property owner information and legal descriptions; and accuracy and completeness of H Sheets, plats, and exhibits.

2.7 Phase 7.0 – Project Information Meeting

Includes one (1) Project Information Meeting (PIM) involving two (2) representatives of COMPANY following submittal of Preliminary Plans. COMPANY will provide two (2) plotted exhibits for the PIM.

CLIENT will determine affected residents and businesses requiring notification by mailed letter, prepare, and mail meeting notification letters to affected property owners, and organize meeting location. COMPANY will document discussions and comments received by affected property owners at the PIM to consider in development of final design.

Refinement of PIM scroll plot exhibits following the meeting is not included in this Scope of Services. Individual property owner coordination is not included in this Scope of Services. Presentations or preparation of handouts are not included in this Scope of Services.

2.8 Phase 8.0 – Geotechnical Engineering Services

COMPANY will partner with a subconsultant, Terracon Consultants, Inc. (hereafter "TERRACON"), to perform geotechnical field explorations, laboratory testing, and engineering analyses necessary to provide recommendations for structural fill, subgrade treatment, lateral earth pressures for sheet pile wall design, and subsurface drainage for consideration in the TRAIL PROJECT. Services are based on the preferred alternative developed during the Feasibility Study phase of a separate AGREEMENT, which included a RCB pedestrian tunnel under SW State Street and sheet pile retaining walls. Excavation of depths at approximately 12 feet are anticipated. TERRACON will provide a Geotechnical Engineering Report summarizing existing conditions, engineering analyses, and recommendations. TERRACON will also provide symbolized results of the drilling and testing in Iowa DOT format added to digital drawings to create soils plan and profile sheets (SPS Sheets) for the TRAIL PROJECT.

2.8.1 Field Exploration

TERRACON will layout one (1) boring and obtain ground surface elevations at the boring location using a survey level and rod in reference to the nearest benchmark(s). COMPANY will validate elevations based on existing terrain data. The boring is summarized below:

Planned Location	Number of Borings ¹	Planned Boring Depth (BGS) ²	No. of Pavement Cores
West of SW State Street and South of SW Oralabor Road	1	30 feet	0
1. See Exhibit E for anticipated exploration plan. 2. BGS = below existing ground surface.			

Subsurface Exploration Procedures

TERRACON will advance the soil boring with a drilling rig using continuous flight solid stem augers. Six (6) samples will be obtained in the upper 15 feet of the boring and at intervals of five feet thereafter. Soil sampling is typically performed using thin-wall tube and / or split-barrel sampling procedures. The samples will be placed in appropriate containers and taken to TERRACON laboratory for testing. TERRACON will observe and record groundwater levels during and shortly after completion of drilling and sampling. A temporary piezometer pipe will be installed in the borehole. The temporary piezometer is anticipated to consist of a screened section of PVC pipe and solid riser pipe. The depth of the temporary piezometer is anticipated to be less than 20 feet. The TERRACON exploration team will prepare field logs as part of the drilling operations, which will include sampling depths, penetration distances, and other sampling information. These field logs will include visual descriptions of the materials encountered during drilling and the driller's interpretation of the subsurface conditions between samples.

Site Access

The proposed boring location is situated within existing Iowa DOT roadway right-of-way. Should the proposed locations shown in Exhibit E be moved to private property at the request of CLIENT, TERRACON will coordinate access to Iowa DOT right-of-way with an adjacent property owner. TERRACON will confirm with Iowa DOT that geotechnical activities for the TRAIL PROJECT will be allowed under Permit No. 77A-2021-046. Permit No. 77A-2021-046 is the active permit for work completed for the TRAIL PROJECT during the Feasibility Study phase of a separate AGREEMENT. A new permit will be acquired by TERRACON, if necessary.

Traffic Control

TERRACON will retain a traffic control subcontractor to facilitate drilling for this project. The costs for implementing traffic control measures in accordance with FHWA MUTCD such as signs, traffic cones, and flaggers, as needed to protect the travelling public and TERRACON's work area(s) are included in THIS AGREEMENT.

Ground Disturbance

TERRACON will take reasonable efforts to reduce damage to properties. However, it should be understood that in the normal course of field exploration, disturbance could occur (e.g., muddying the ground surface, penetrations through pavements, etc.). THIS AGREEMENT Scope of Services does not include services associated with repair of existing landscapes or pavements to existing conditions and is limited to backfilling and patching one (1) borehole.

The borehole will be backfilled after the temporary piezometer pipe is removed. TERRACON anticipates a two week duration for the piezometer pipe to remain in place. Excess auger cuttings will be dispersed in the adjacent ditches. Because backfill material often settles below the surface after a period of time, TERRACON recommends the borehole be checked periodically and backfilled by CLIENT. TERRACON can provide this service as part of a separate AMENDMENT.

Safety

TERRACON assumes there are no environmental concerns at this project site that would create health or safety hazards associated with the exploration program. Standard OSHA Level D Personal Protection Equipment (PPE) is considered appropriate for the exploration program.

Phase 8.0 – Geotechnical Engineering Services does not include environmental site assessment services, but identification of unusual or unnatural materials encountered while drilling will be noted on the boring log and summarized in the Geotechnical Engineering Report.

TERRACON will submit a ticket request through Iowa One-Call for utility location services. The location of the proposed boring may deviate from Exhibit E based on the locations of utilities marked by Iowa One-Call service providers. TERRACON will not proceed with the boring until locations have been marked by Iowa One-Call service providers. **Phase 8.0 – Geotechnical Engineering Services** does not include subsurface utility exploration.

2.8.2 Laboratory Testing

TERRACON will review field data and assign various laboratory tests to better understand select engineering properties of various strata. The anticipated laboratory tests for this project include:

- Description of Soils
- Water Content
- Unit Weight
- Unconfined Compressive Strength
- Atterberg Limits
- Grain Size Analysis

The laboratory testing program includes examination of soil samples. Based on the material's texture and plasticity, TERRACON will describe and classify the soil samples in general accordance with the Unified Soil Classification System (USCS).

2.8.3 Geotechnical Engineering Report

Results of **2.8.1 Field Exploration** and **2.8.2 Laboratory Testing** will be reviewed and summarized by a professional engineer in a Geotechnical Engineering Report. The Geotechnical Engineering Report will include the following:

- Boring log with field and laboratory data.
- Stratification based on visual soil descriptions.
- Groundwater levels observed during and after the completion of drilling.
- Site Location and Exploration Plan.
- Subsurface exploration procedures.
- Description of subsurface conditions.
- Earthwork construction, including:
 - Excavation and subgrade preparation.
 - Cut and fill construction.
 - Structural fill material types.
 - Structural fill compaction criteria.
- Global slope stability analysis (one location)
- Lateral earth pressure recommendations for sheet pile wall design
- Subsurface drainage recommendations for box culvert

2.9 Phase 9.0 – Final Design

Upon CLIENT's acceptance of the Preliminary Plans comment resolution and Iowa DOT environmental clearances, COMPANY shall subsequently proceed with **Phase 9.0 – Final Design**. The services to be performed by COMPANY as part of this Phase are described below.

2.9.1 Final Roadway

A final roadway design for the INTERSECTION PROJECT will be developed based on the design developed during **Phase 5.0 – Preliminary Design**. The final roadway design will include the primary components:



Roadway Typical Sections and Details

Finalize proposed typical sections (B Sheets) from the Preliminary Plans to reflect roadway widths, turn lane limits, sidewalk construction limits, roadside design, and final ditch designs. Typical details will also be finalized and included in the B Sheets.

Roadway Plan and Profile

Existing horizontal alignments and vertical profiles based on the topographic survey and available as-built record drawing information are considered complete in the Preliminary Plans. Horizontal alignment, vertical profile, and other information pertinent to roadway grading and paving will be finalized and depicted on the D Sheets (SW Oralabor Road) and E Sheets (SW State Street).

Roadway Geometrics and Jointing

COMPANY will prepare a final geometric and jointing plan for the complete project due to the frequent changes in typical sections and roadway construction tie-ins. Cross slopes, taper transition points, limits of curbs, shoulder transitions, and a jointing will be depicted on L Sheets.

Roadway Modeling and Cross Sections

COMPANY will finalize the roadway model and cross sections for inclusion in the Final Plans. Cross sections will be finalized for SW Oralabor Road (W Sheets) and SW State Street (X Sheets) at 25-foot intervals and at geometric break points, transition points, entrance centerlines, storm sewer intakes, and pipe cross culverts using Bentley MicroStation and Geopak OpenRoads software. COMPANY will incorporate intersection geometrics into a detailed intersection model to validate intersection construction limits, crossing slopes, and longitudinal slopes. Earthwork computations will be performed using the final cross sections and provided in a Tabulation of Earthwork (T Sheets).

2.9.2 Final Intersections

COMPANY will prepare final intersection and sidewalk layouts for the INTERSECTION PROJECT, including geometrics, staking, and joining, and Sidewalk Compliance Tabulations.

Geometrics, Staking, and Jointing

Determine final pavement elevations, curb return profiles, and jointing details at the SW Oralabor Road and SW State Street intersection. Intersection geometrics, staking, and jointing will be shown on L Sheets.

Sidewalks and Pedestrian Curb Ramps

Finalize the design for the sidewalk and pedestrian curb ramps developed during **Phase 5.0 – Preliminary Design**. Verify compliance with the current “Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way” (PROWAG) and SUDAS design standards. Determine the final geometrics, running slopes, cross slopes, landing areas, level operating spaces, and elevations for sidewalk and pedestrian curb ramps along with coordinating the locations and elevations of pedestrian push buttons. Intersection sidewalk and curb ramp calculations will be shown on the Sidewalk Compliance Tabulations (S Sheets).

2.9.3 Final Private Entrance

COMPANY will finalize the design of one (1) SW State Street private access for the Hy-Vee property located near the northwest corner of SW Oralabor Road and SW State Street intersection. Final design will be depicted on a SW State Street preliminary plan and profile E Sheet.

2.9.4 Final Trail

Typical sections and typical details for the TRAIL PROJECT will be finalized by COMPANY based on comment resolution of the Preliminary Plans. COMPANY will finalize horizontal alignments and vertical profiles depicted on K Sheets for the TRAIL PROJECT based on comment resolution of the Preliminary Plans. COMPANY will finalize the trail model and cross sections. Earthwork computations will be performed using the final cross sections and provided in a Tabulation of Earthwork (T Sheets).

2.9.5 Final Construction Staging and Traffic Control

Refine the construction staging, maintenance of access plans and traffic control plan developed during **Phase 5.0 – Preliminary Design**. Maintenance of vehicular traffic will be finalized with layout of temporary traffic control devices in accordance with FHWA MUTCD. COMPANY will finalize detours due to any intersection or roadway segment closures being considered for overnight closures for installation of traffic signal poles and mast arms and installation of temporary shoring. Temporary shoring requirements for construction of the TRAIL PROJECT will be shown in both plan and section views included in the staging and traffic control portion of the plans. In addition, the final pedestrian tunnel plans will include two situation plan sheets. The situation plan sheets will show temporary shoring for each stage of construction in both the longitudinal section as well as the plan views. The design of temporary shoring will be the responsibility of the Contractor.

This task also includes layout of permanent pavement markings and small sign assemblies in the J Sheets in accordance with CLIENT and Iowa DOT standards and the FHWA MUTCD.

2.9.6 Final Drainage

COMPANY will finalize storm sewers, culvert layouts, and drainage designs based on comment resolution of Preliminary Plans. The final drainage design will include the primary components:

Storm Sewer and Subdrains

Storm sewer designs, subdrains, trench drains, and revetment will be finalized and shown on M Sheets.

Culverts and Ditches

Overland flow and ditch conveyance near the intersection of SW Oralabor Road and SW State will be finalized. Ditches grades, culvert structure types, sizes and lengths, and revetment measures will be specified on D Sheets, E Sheets, and K Sheets. Ditch sections will be depicted in the cross sections (W Sheets, X Sheets, and Y Sheets).

2.9.7 Final Traffic Signal

This task includes the preparation of final traffic signal plans for the intersection of SW Oralabor Road and SW State Street. COMPANY will refine the traffic signal design plans, developed during **Phase 5.0 – Preliminary Design**. Determine final traffic signal locations, wiring, and pedestrian accommodations and develop vehicle detection sheets. Tie-in to existing traffic signal interconnection along both the SW Oralabor Road and SW State Street corridors will be required as part of the project.

Design of temporary traffic signal plans for the staged construction of the intersection is included in the Scope of Services. Wiring diagrams will be provided. Temporary traffic signal wiring will be considered incidental to the lump sum bid item for each temporary traffic signal. Signal phasing diagrams and signal head placement adjustment layouts, if needed, will also be prepared for

each construction stage. A standard temporary traffic signal detail sheet will be included within the plans. Use of wooden span-wire poles for temporary supports is anticipated. Due to intersection size, span lengths of approximately 170' to 180' are anticipated.

COMPANY will coordinate with the local utility company on power supply to the traffic signal systems. COMPANY anticipates utilizing the existing power service location for the intersection. Power service coordination will remain at a high level with the intent that the Contractor will be responsible for final power service coordination details.

It is understood that CLIENT will provide traffic signal timing values as necessary to the Contractor as part of the traffic signal turn-on process; thus the development of traffic signal timing tables are not anticipated and not included within this Scope of Services.

It is understood that the project does involve the use of State or Federal funding, and thus the preparation of a Public Interest Finding (PIF) memorandum will be required. COMPANY will prepare ***Iowa DOT Form 810071 – Agreement for Approval of a Traffic Control Device.***

2.9.8 Final Lighting

Develop a street lighting layout based on MidAmerican Energy's standard street lighting equipment to accommodate the widening of SW Oralabor Road and SW State Street. COMPANY anticipates a street lighting layout with alternating north / south pole locations along SW Oralabor Road, alternating east / west pole locations along SW State Street. The lighting layout will include luminaires located on top of the traffic signal structures at each corner of the signalized intersection of SW Oralabor Road and SW State Street. COMPANY will evaluate box culvert tunnel and tunnel approach lighting and coordinate a power source.

COMPANY will perform a photometric analysis, per City of Ankeny lighting policy, to calculate and illustrate the resulting illumination of the layout. Finalize the wattage, mounting height, and location of lighting poles based on the standard street lighting equipment and structures typically supplied by MidAmerican Energy and City of Ankeny's roadway illumination policy.

Street lighting layout sheets (P Sheets) will be included in the plans for information only. Plans will include a station / offset table for street light locations. Final street lighting layout will be used as the basis for MidAmerican Energy to perform final design of the street lighting system and develop a cost proposal to construct the street lighting system within the project area. CLIENT will review and approve the photometric analysis and final lighting layout for MidAmerican Energy design and construction.

2.9.9 Final Structures

Underpass Tunnel

This task includes the effort to verify the concrete dimensions and design the reinforcing steel for the TRAIL PROJECT underpass structure. The design will be based on modified Iowa DOT Reinforced Concrete Pedestrian Tunnel Standard details and modified Iowa DOT single Reinforced Concrete Box Culvert Standard details. This task will also include the effort to design modifications to the standards to accommodate aesthetic form liners; determine the geometry for the tunnel sections for each stage of construction; the design of non-standard, flared, cast-in-place wing walls; the layout of lighting and conduit for the lighting in the underpass structure and the layout of safety rail to protect the ends of the underpass structure and the tops of the walls.

Retaining Walls

This task includes the effort to finalize the design of the sheet pile retaining walls including the effort to perform structural analysis and design of the sheet pile sections as well as the concrete façade and the details required to connect the sheet pile walls to the underpass wings.

2.9.10 Final Erosion Control and SWPPP

Finalize locations and types of temporary and permanent erosion control measures to be used on the project. COMPANY will identify drainage basins associated with disturbed areas on R Sheets. COMPANY will indicate location of erosion control devices and areas to be seeded on R Sheets. Tabulations of erosion control measures and a Storm Water Pollution Prevention Plan (SWPPP) will be provided in RC Sheets.

2.9.11 Special Layouts and Details

COMPANY will prepare special layouts and details on U Sheets for the following:

Removal Plan

COMPANY will prepare a separate removal plan to depict removal of existing pavements, drainage structures, entrances, sidewalks, and similar infrastructure.

Grading Plan

COMPANY will prepare a separate grading plan to depict the special grading associated with the TRAIL PROJECT. Proposed grading lines, ground intercept lines, break lines, and slope labels will be included.

Existing Utilities Mapping

Existing Utilities Mapping (for information only) will be based on utility survey of surface visible utility features, Iowa One Call locates, and test holes performed as part of task **2.3.4 Test Holes**.

2.9.12 Final Plans

COMPANY will prepare bid-ready Check Plans (95%) for CLIENT and Iowa DOT review and comment. COMPANY will address one (1) round of CLIENT and Iowa DOT comments from the Check Plans submittal and prepare Final Plans (100%) for an Iowa DOT Bid Letting. The following sheets will be included in the Check Plans and Final Plans.

- Title Sheet and Location Map Sheet (A Sheets)
- Typical Cross Sections and Details (B Sheets)
- Quantities, Estimate Reference Information, and General Information (C Sheets)
- Plan and Profile for SW Oralabor Road (D Sheets)
- Plan and Profile for SW State Street (E Sheets)
- Survey and Mapping Information and Alignment Data (G Sheets)
- Right-of-Way and Easement Layout (H Sheets)
- Construction Staging, Detour Maps, and Temporary Traffic Control (J Sheets)
- Permanent Traffic Control Pavement Markings and Signing (J Sheets)
- Plan and Profile for Oralabor Gateway Trail (K Sheets)
- Geometrics, Staking, and Jointing (L Sheets)
- Storm Sewer and Drainage Plan (M Sheets)
- Traffic Signal Plan and Fiber Optic Layout (N Sheets)
- Lighting Plan (P Sheets)
- Erosion Control and SWPPP (RC Sheets)

- Erosion Control Basins and Devices (R Sheets)
- Sidewalk and Pedestrian Ramp Plan and Sidewalk Compliance (S Sheets)
- Soils Plan and Profile (SPS Sheets)
- Tabulation of Earthwork (T Sheets)
- Removal Plan (U Sheets)
- Grading Plan (U Sheets)
- RCB Situation Plan TS&L, Site Plan, and Details (V Sheets)
- Sheet Pile Retaining Wall Layouts and Details (V Sheets)
- Cross Sections for SW Oralabor Road (W Sheets)
- Cross Sections for SW State Street (X Sheets)
- Cross Sections for Oralabor Gateway Trail (X Sheets)

2.9.13 Final Bid Items and OPCC

Determine final bid items using the standard bid items provided by Iowa DOT. Prepare and verify quantity calculations for bid items. Prepare estimate reference information based on Iowa DOT specifications.

Prepare final Opinion of Probable Construction Cost (OPCC) for the project. The OPCC will be based on estimated quantities for construction bid items. The OPCC will be submitted to Iowa DOT through the Transportation Project Management System (TPMS) Project Development application at the Check Plans and Final Plans milestones.

2.9.14 Final Design Quality Control Reviews

Quality Control Reviews will be performed prior to Check Plans and Final Plans milestone submittals by the Project Manager and experienced Project Engineers. Reviewers will check for accuracy of engineering design, constructability of the project, completeness of plans, and appropriate specifications and bid items.

2.10 Phase 10.0 – Pre-Letting Support

COMPANY will perform the following tasks related to project permitting and bid letting. COMPANY will provide technical criteria, written descriptions, design data and prepare the permit applications on behalf of CLIENT. Any fees for the permits, licenses or other costs associated with the permits and approvals will be invoiced to CLIENT as reimbursable expenses. Iowa DOT will administer the letting process.

2.10.1 Permits

Due to the proposed improvements, it is assumed one (1) permit application will be submitted to the Iowa Department of Natural Resources (DNR) and three (3) permit applications will be submitted to the Iowa DOT.

- National Pollutant Discharge Elimination System (NPDES) Permit Application.
- Iowa DOT Form 810028 – Application to Perform Work Within State Right-of-Way
- Iowa DOT Form 531051 – 511 Request Form
- Iowa DOT Form 810071 – Agreement for Approval of a Traffic Control Device
- Iowa DOT Form 810025 – Application for use of Highway Right-of-Way for Utilities Accommodations

2.10.2 Project Development Certification

COMPANY will prepare **Iowa DOT Form 730002 – Project Development Certification** to document clearances required to initiate the Iowa DOT letting process.



2.10.3 Clarifications and Addenda

COMPANY will support CLIENT and Iowa DOT by providing clarification of design intent and responding to contractor questions during the letting period. COMPANY will prepare plan addenda, if necessary, during the letting period. A maximum of two (2) addenda are included in this Scope of Services.

3.0 SCHEDULE AND DELIVERABLES INCLUDED IN THIS AGREEMENT

3.1 Schedule

The following schedule includes estimated milestone dates for the Scope of Services included under this AGREEMENT and accommodates an Iowa DOT letting schedule as defined by I.M. 3.010. The schedule includes reasonable allowances for review and approval times required by CLIENT and Iowa DOT. This schedule shall be equitably adjusted as the project progresses, allowing for changes in the scope of the project requested by CLIENT or for delays or other causes beyond the control of COMPANY.

• Concept Statement Submittal to CLIENT	February 8, 2022
• Concept Statement Submittal to Iowa DOT	February 15, 2022
• Preliminary Plans (50%) Submittal to CLIENT	April 19, 2022
• Joint Utility Coordination Meeting	May 3, 2022
• Right-of-Way and Easement H Sheets Submittal to CLIENT	May 10, 2022
• Right-of-Way Plats and Easement Exhibits Submittal to CLIENT	May 24, 2022
• Project Information Meeting (PIM)	June 14, 2022
• Preliminary Plans (50%) Submittal to Iowa DOT	July 19, 2022
• Check Plans (95%) Submittal to CLIENT	August 30, 2022
• Check Plans (95%) Submittal to Iowa DOT	October 4, 2022
• Final Plans (100%) Submittal to CLIENT	October 18, 2022
• Final Plans (100%) Submittal to Iowa DOT	November 15, 2022
• Bid Letting	February 21, 2023

3.2 Deliverables

The following deliverables are included with this Scope of Services.

- Iowa DOT Form 517001 – Concept Statement for LPA Federal-Aid Projects
- Iowa DOT Form 760005 – Determination of Effect for Threatened & Endangered Species
- Iowa DOT Form 760006 – Park, Recreation Land, and Wildlife and Waterfowl Refuge Section (4f) Determination
- Preliminary Plans prepared on 11" X 17" sheets in PDF format
- Right-of-Way and Easement H Sheets
- Right-of-way and Permanent Easement Plats and Legal Descriptions
- Temporary Easement Exhibits and Descriptions
- Project Information Meeting Scroll Plot Exhibits (2)
- Final Geotechnical Engineering Report
- Check Plans (95%) prepared on 11" X 17" sheets in PDF format
- Check Plans (95%) Bid Items
- Check Plans Checklist (I.M. 3.500 Attachment A)
- Check Plans Checklist (I.M. 3.700 Attachment B)
- Final Plans (100%) prepared on 11" X 17" sheets in PDF format
- Final Plans (100%) Bid Items
- Final Plans (100%) prepared on 11" X 17" hard copy sheets (5)



- NPDES Permit Application
- Iowa DOT Form 810028 – Application to Perform Work Within State Right-of-Way
- Iowa DOT Form 531051 – 511 Request Form
- Iowa DOT Form 810025 – Application for use of Highway Right-of-Way for Utilities
- Iowa DOT Form 810071 – Agreement for Approval of a Traffic Control Device
- Iowa DOT Form 730002 – Project Development Certification

Submittals to Iowa DOT will be completed through the TPMS Project Development application.

4.0 ITEMS NOT INCLUDED IN THIS AGREEMENT

The following items are not included as part of this AGREEMENT:

- Cultural resource investigations and reports.
- Evaluation of aesthetic treatments.
- Traffic data collection, volume forecasting, and operations analysis.
- Stormwater routing analysis and detention basin design.
- Property Appraisals, Acquisition Compensation Estimates, and Parcel Files
- Presentation at City Council Meetings.
- Coordination and meetings with property owners, local interest groups, or public.
- Construction observation and administration services.
- Construction survey and staking.
- Costs associated with project delay or scope changes outside the control of COMPANY.

Supplemental services not included in this AGREEMENT can be provided by COMPANY as part of an AMENDMENT, or under a separate AGREEMENT, if desired.

5.0 SERVICES BY OTHERS

COMPANY will rely on a SUBCONSULTANT for the following items:

- **Phase 2.0 – Survey and Mapping**
- **Phase 6.0 – Right-of-Way and Easements**
- **Phase 8.0 – Geotechnical Engineering Services**

COMPANY will rely on a SUBCONTRACTOR for the following items:

- **Phase 2.3.4 – Test Holes**

6.0 CLIENT RESPONSIBILITIES

COMPANY will rely on CLIENT for the following items:

- Payment processing for property acquisition.
- Coordination and meetings with property owners, local interest groups, or public.
- Property Appraisals, Acquisition Compensation Estimates, and Parcel Files
- Acquisition of right-of-way and easements.
- Presentation at City Council Meetings.
- Mail Project Information letter and PIM notices to property owners and business.
- Signature authority and expense reimbursement for required permit applications.
- Approve Invoice Payment Applications.



7.0 PROFESSIONAL SERVICES FEE

7.1 Fees

The fee for services will be based on COMPANY standard hourly rates (EXHIBIT B) current at the time AGREEMENT is signed. Standard hourly rates are subject to change upon 30 days' written notice. Non-salary expenses directly attributable to the project such as: (i) living and traveling expenses of employees when away from the home office on business connected with the project; (ii) identifiable communication expenses; (iii) identifiable reproduction costs applicable to the work; and (iv) outside services will be charged in accordance with the rates current at the time the service is done.

7.2 Invoices

Invoices for COMPANY's services shall be submitted, on a monthly basis. Invoices shall be due and payable upon receipt. If any invoice is not paid within 15 days, COMPANY may, without waiving any claim or right against the CLIENT, and without liability whatsoever to the CLIENT, suspend or terminate the performance of services. Accounts unpaid 30 days after the invoice date may be subject to a monthly service charge of 1.5% (or the maximum legal rate) on the unpaid balance. In the event that any portion of an account remains unpaid 60 days after the billing, COMPANY may institute collection action and the CLIENT shall pay all costs of collection, including reasonable attorney's fees.

7.3 Extra Services

Any services required but not included as part of this AGREEMENT shall be considered extra services. Extra services will be billed on a Time and Material basis with prior approval of the CLIENT.

7.4 Exclusion

This fee does not include attendance at any meetings or public hearings other than those specifically listed in the Scope of Services. These service items are considered extra and are billed separately on an hourly basis.

7.5 Payment

CLIENT AGREES to pay COMPANY on a Time and Material basis with a Not-to-Exceed fee of \$355,700 summed as follows:

	TOTAL	TRAIL PROJECT	INTERSECTION PROJECT
Phase 1.0 – Project Management and Administration	\$ 32,000	\$ 16,000	\$ 16,000
Phase 2.0 – Survey and Mapping	\$ 24,600		\$ 24,600
Phase 3.0 – Utility Coordination	\$ 22,200	\$ 11,100	\$ 11,100
Phase 4.0 – Pre-Design Concept	\$ 8,600	\$ 8,600	
Phase 5.0 – Preliminary Design	\$ 90,000	\$ 40,000	\$ 50,000
Phase 6.0 – Right-of-Way and Easements	\$ 9,400	\$ 3,700	\$ 5,700
Phase 7.0 – Project Information Meeting	\$ 3,800	\$ 1,900	\$ 1,900
Phase 8.0 – Geotechnical Engineering Services	\$ 10,700	\$ 10,700	
Phase 9.0 – Final Design	\$ 150,000	\$ 76,000	\$ 74,000
Phase 10.0 – Pre-Letting Support	\$ 4,400	\$ 2,600	\$ 1,800
Total	\$ 355,700	\$ 170,600	\$ 185,100

The summary above is provided for information purposes. Fees for each Phase may be reallocated to other Phases based on project workflow. Invoices will not be divided or separated for individual projects.



8.0 TERMS AND CONDITIONS

The following Terms and Conditions are incorporated into this AGREEMENT and made a part of it.

8.1 Standard of Care

Services provided by COMPANY under this AGREEMENT will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing at the same time and in the same or similar locality.

8.2 Entire Agreement

This AGREEMENT and its attachments constitute the entire understanding between CLIENT and COMPANY relating to COMPANY's services. Any prior or contemporaneous agreements, promises, negotiations, or representations not expressly set forth herein are of no effect. Subsequent modifications or amendments to this AGREEMENT shall be in writing and signed by the parties to this AGREEMENT. If the CLIENT, its officers, agents, or employees request COMPANY to perform extra services pursuant to this AGREEMENT, CLIENT will pay for the additional services even though an additional written agreement is not issued or signed.

8.3 Time Limit and Commencement of Services

This AGREEMENT must be executed within ninety (90) days to be accepted under the terms set forth herein. The services will be commenced immediately upon receipt of this signed AGREEMENT.

8.4 Suspension of Services

If the Project or the COMPANY'S services are suspended by the CLIENT for more than thirty (30) calendar days, consecutive or in the aggregate, over the term of this AGREEMENT, the COMPANY shall be compensated for all services performed and reimbursable expenses incurred prior to the receipt of notice of suspension. In addition, upon resumption of services, the CLIENT shall compensate the COMPANY for expenses incurred as a result of the suspension and resumption of its services, and the COMPANY'S schedule and fees for the remainder of the Project shall be equitably adjusted.

If the COMPANY'S services are suspended for more than ninety (90) days, consecutive or in the aggregate, the COMPANY may terminate this AGREEMENT upon giving not less than five (5) calendar days' written notice to the CLIENT.

If the CLIENT is in breach of this AGREEMENT, the COMPANY may suspend performance of services upon five (5) calendar days' notice to the CLIENT. The COMPANY shall have no liability to the CLIENT, and the CLIENT agrees to make no claim for any delay or damage as a result of such suspension caused by any breach of this AGREEMENT by the CLIENT. Upon receipt of payment in full of all outstanding sums due from the CLIENT, or curing of such other breach which caused the COMPANY to suspend services, the COMPANY shall resume services and there shall be an equitable adjustment to the remaining project schedule and fees as a result of the suspension.

8.5 Books and Accounts

COMPANY will maintain books and accounts of payroll costs, travel, subsistence, field, and incidental expenses for a period of five (5) years. Said books and accounts will be available at all reasonable times for examination by CLIENT at the corporate office of COMPANY during that time.

8.6 Insurance

COMPANY will maintain insurance for claims under the Worker's Compensation Laws, and from General Liability and Automobile claims for bodily injury, death, or property damage, and Professional Liability insurance caused by the negligent performance by COMPANY's employees of the functions and services required under this AGREEMENT.

8.7 Termination or Abandonment

Either party has the option to terminate this AGREEMENT. In the event of failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party, then the obligation to provide further services under this AGREEMENT may be terminated upon seven (7) days' written notice. If any portion of the services is terminated or abandoned by CLIENT, the provisions of this Schedule of Fees and Conditions in regard to compensation and payment shall apply insofar as possible to that portion of the services not terminated or abandoned. If said termination occurs prior to completion of any phase of the project, the fee for



services performed during such phase shall be based on COMPANY's reasonable estimate of the portion of such phase completed prior to said termination, plus a reasonable amount to reimburse COMPANY for termination costs.

8.8 Waiver

COMPANY's waiver of any term, condition, or covenant or breach of any term, condition, or covenant, shall not constitute a waiver of any other term, condition, or covenant, or the breach thereof.

8.9 Severability

If any provision of this AGREEMENT is declared invalid, illegal, or incapable of being enforced by any Court of competent jurisdiction, all of the remaining provisions of this AGREEMENT shall nevertheless continue in full force and effect, and no provision shall be deemed dependent upon any other provision unless so expressed herein.

8.10 Successors and Assigns

All of the terms, conditions, and provisions hereof shall inure to the benefit of and are binding upon the parties hereto, and their respective successors and assigns, provided, however, that no assignment of this AGREEMENT shall be made without written consent of the parties to this AGREEMENT.

8.11 Third-Party Beneficiaries

Nothing contained in this AGREEMENT shall create a contractual relationship with or a cause of action in favor of a third party against either the CLIENT or the COMPANY. The COMPANY's services under this AGREEMENT are being performed solely for the CLIENT's benefit, and no other party or entity shall have any claim against the COMPANY because of this AGREEMENT or the performance or nonperformance of services hereunder. The CLIENT and COMPANY agree to require a similar provision in all contracts with contractors, subcontractors, sub-consultants, vendors and other entities involved in this project to carry out the intent of this provision.

8.12 Governing Law and Jurisdiction

The CLIENT and the COMPANY agree that this AGREEMENT and any legal actions concerning its validity, interpretation and performance shall be governed by the laws of the State of Iowa without regard to any conflict of law provisions, which may apply the laws of other jurisdictions.

It is further agreed that any legal action between the CLIENT and the COMPANY arising out of this AGREEMENT or the performance of the services shall be brought in a court of competent jurisdiction in the State of Iowa.

8.13 Dispute Resolution

Mediation. In an effort to resolve any conflicts that arise during the design or construction of the project or following the completion of the project, the CLIENT and COMPANY agree that all disputes between them arising out of or relating to this AGREEMENT shall be submitted to non-binding mediation unless the parties mutually agree otherwise. The CLIENT and COMPANY further agree to include a similar mediation provision in all agreements with independent contractors and consultants retained for the project and to require all independent contractors and consultants also to include a similar mediation provision in all agreements with subcontractors, sub-consultants, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.

8.14 Attorney's Fees

If litigation arises for purposes of collecting fees or expenses due under this AGREEMENT, the Court in such litigation shall award reasonable costs and expenses, including attorney fees, to the party justly entitled thereto. In awarding attorney fees, the Court shall not be bound by any Court fee schedule, but shall, in the interest of justice, award the full amount of costs, expenses, and attorney fees paid or incurred in good faith.

8.15 Ownership of Instruments of Service

All reports, plans, specifications, field data, field notes, laboratory test data, calculations, estimates and other documents including all documents on electronic media prepared by COMPANY as instruments of service shall remain the property of COMPANY. COMPANY shall retain these records for a period of five (5) years following completion/submission of the records, during which period they will be made available to the CLIENT at all reasonable times.



8.16 Reuse of Documents

All project documents including, but not limited to, plans and specifications furnished by COMPANY under this project are intended for use on this project only. Any reuse, without specific written verification or adoption by COMPANY, shall be at the CLIENT's sole risk, and CLIENT shall defend, indemnify and hold harmless COMPANY from all claims, damages and expenses including attorneys' fees arising out of or resulting therefrom.

Under no circumstances shall delivery of electronic files for use by the CLIENT be deemed a sale by the COMPANY, and the COMPANY makes no warranties, either express or implied, of merchantability and fitness for any particular purpose. In no event shall the COMPANY be liable for indirect or consequential damages as a result of the CLIENT's use or reuse of the electronic files.

8.17 Failure to Abide by Design Documents or To Obtain Guidance

The CLIENT agrees that it would be unfair to hold COMPANY liable for problems that might occur should COMPANY'S plans, specifications or design intents not be followed, or for problems resulting from others' failure to obtain and/or follow COMPANY'S guidance with respect to any errors, omissions, inconsistencies, ambiguities or conflicts which are detected or alleged to exist in or as a consequence of implementing COMPANY'S plans, specifications or other instruments of service. Accordingly, the CLIENT waives any claim against COMPANY, and agrees to defend, indemnify and hold COMPANY harmless from any claim for injury or losses that results from failure to follow COMPANY'S plans, specifications or design intent, or for failure to obtain and/or follow COMPANY'S guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities or conflicts contained within or arising as a result of implementing COMPANY'S plans, specifications or other instruments of service. The CLIENT also agrees to compensate COMPANY for any time spent and expenses incurred remedying CLIENT's failures according to COMPANY'S prevailing fee schedule and expense reimbursement policy.

8.18 Opinion of Probable Construction Cost

As part of the Deliverables, COMPANY may submit to the CLIENT an opinion of probable cost required to construct work recommended, designed, or specified by COMPANY, if required by CLIENT. COMPANY is not a construction cost estimator or construction contractor, nor should COMPANY'S rendering an opinion of probable construction costs be considered equivalent to the nature and extent of service a construction cost estimator or construction contractor would provide. This requires COMPANY to make a number of assumptions as to actual conditions that will be encountered on site; the specific decisions of other design professionals engaged; the means and methods of construction the contractor will employ; the cost and extent of labor, equipment and materials the contractor will employ; contractor's techniques in determining prices and market conditions at the time, and other factors over which COMPANY has no control. Given the assumptions which must be made, COMPANY cannot guarantee the accuracy of its opinions of cost, and in recognition of that fact, the CLIENT waives any claim against COMPANY relative to the accuracy of COMPANY'S opinion of probable construction cost.

8.19 Design Information in Electronic Form

Because electronic file information can be easily altered, corrupted, or modified by other parties, either intentionally or inadvertently, without notice or indication, COMPANY reserves the right to remove itself from its ownership and/or involvement in the material from each electronic medium not held in its possession. CLIENT shall retain copies of the work performed by COMPANY in electronic form only for information and use by CLIENT for the specific purpose for which COMPANY was engaged. Said material shall not be used by CLIENT or transferred to any other party, for use in other projects, additions to this project, or any other purpose for which the material was not strictly intended by COMPANY without COMPANY's express written permission. Any unauthorized use or reuse or modifications of this material shall be at CLIENT'S sole risk. Furthermore, the CLIENT agrees to defend, indemnify, and hold COMPANY harmless from all claims, injuries, damages, losses, expenses, and attorneys' fees arising out of the modification or reuse of these materials.

The CLIENT recognizes that designs, plans, and data stored on electronic media including, but not limited to computer disk, magnetic tape, or files transferred via email, may be subject to undetectable alteration and/or uncontrollable deterioration. The CLIENT, therefore, agrees that COMPANY shall not be liable for the completeness or accuracy of any materials provided on electronic media after a 30-day inspection period, during which time COMPANY shall correct any errors detected by the CLIENT to complete the design in accordance with the intent of the contract and specifications. After 40 days, at the request of the CLIENT, COMPANY shall submit a final set of sealed drawings, and any additional services to be performed by COMPANY relative to the



submitted electronic materials shall be subject to separate agreement. The CLIENT is aware that differences may exist between the electronic files delivered and the printed hard-copy construction documents. In the event of a conflict between the signed construction documents prepared by the COMPANY and electronic files, the signed or sealed hard-copy construction documents shall govern.

8.20 Information Provided by Others

The CLIENT shall furnish, at the CLIENT's expense, all information, requirements, reports, data, surveys and instructions required by this AGREEMENT. The COMPANY may use such information, requirements, reports, data, surveys and instructions in performing its services and is entitled to rely upon the accuracy and completeness thereof. The COMPANY shall not be held responsible for any errors or omissions that may arise as a result of erroneous or incomplete information provided by the CLIENT and/or the CLIENT's consultants and contractors.

COMPANY is not responsible for accuracy of any plans, surveys or information of any type including electronic media prepared by any other consultants, etc. provided to COMPANY for use in preparation of plans. The CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold harmless the COMPANY from any damages, liabilities, or costs, including reasonable attorneys' fees and defense costs, arising out of or connected in any way with the services performed by other consultants engaged by the CLIENT.

COMPANY is not responsible for accuracy of topographic surveys provided by others. A field check of a topographic survey provided by others will not be done under this AGREEMENT unless indicated in the Scope of Services.

8.21 Force Majeure

The CLIENT agrees that the COMPANY is not responsible for damages arising directly or indirectly from any delays for causes beyond the COMPANY's control. CLIENT agrees to defend, indemnify, and hold COMPANY, its consultants, agents, and employees harmless from any and all liability, other than that caused by the negligent acts, errors, or omissions of COMPANY, arising out of or resulting from the same. For purposes of this AGREEMENT, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions or other natural disasters or acts of God; fires, riots, war or other emergencies; disease epidemic or pandemic; failure of any government agency to act in a timely manner; failure of performance by the CLIENT or the CLIENT'S contractors or consultants; or discovery of any hazardous substances or differing site conditions. Severe weather disruptions include but are not limited to extensive rain, high winds, snow greater than two (2) inches and ice. In addition, if the delays resulting from any such causes increase the cost or time required by the COMPANY to perform its services in an orderly and efficient manner, the COMPANY shall be entitled to a reasonable adjustment in schedule and compensation.

8.22 Job Site Visits and Safety

Neither the professional activities of COMPANY, nor the presence of COMPANY'S employees and sub-consultants at a construction site, shall relieve the general contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. COMPANY and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The CLIENT agrees that the general contractor is solely responsible for job site safety and warrants that this intent shall be made evident in the CLIENT's AGREEMENT with the general contractor. The CLIENT also agrees that the CLIENT, COMPANY and COMPANY'S consultants shall be indemnified and shall be made additional insureds on the general contractor's and all subcontractor's general liability policies on a primary and non-contributory basis.

8.23 Hazardous Materials

CLIENT hereby understands and agrees that COMPANY has not created nor contributed to the creation or existence of any or all types of hazardous or toxic wastes, materials, chemical compounds, or substances, or any other type of environmental hazard or pollution, whether latent or patent, at CLIENT's premises, or in connection with or related to this project with respect to which COMPANY has been retained to provide professional services. The compensation to be paid COMPANY for said professional services is in no way commensurate with, and has not been calculated with reference to, the potential risk of injury or loss which may be caused by the exposure of persons or property to such substances or conditions. Therefore, to the fullest extent permitted by law, CLIENT agrees to defend, indemnify, and hold COMPANY, its officers, directors,

employees, and consultants, harmless from and against any and all claims, damages, and expenses, whether direct, indirect, or consequential, including, but not limited to, attorney fees and Court costs, arising out of, or resulting from the discharge, escape, release, or saturation of smoke, vapors, soot, fumes, acid, alkalis, toxic chemicals, liquids gases, or any other materials, irritants, contaminants, or pollutants in or into the atmosphere, or on, onto, upon, in, or into the surface or subsurface of soil, water, or watercourses, objects, or any tangible or intangible matter, whether sudden or not.

It is acknowledged by both parties that COMPANY'S Scope of Services does not include any services related to asbestos or hazardous or toxic materials. In the event COMPANY or any other party encounters asbestos or hazardous or toxic materials at the job site, or should it become known in any way that such materials may be present at the job site or any adjacent areas that may affect the performance of COMPANY'S services, COMPANY may, at its option and without liability for consequential or any other damages, suspend performance of services on the project until the CLIENT retains appropriate specialist consultant(s) or contractor(s) to identify, abate and/or remove the asbestos or hazardous or toxic materials, and warrants that the job site is in full compliance with applicable laws and regulations.

Nothing contained within this AGREEMENT shall be construed or interpreted as requiring COMPANY to assume the status of a generator, storer, transporter, treater, or disposal facility as those terms appear within the Resource Conservation and Recovery Act, 42 U.S.C.A., §6901 et seq., as amended, or within any State statute governing the generation, treatment, storage, and disposal of waste.

8.24 Certificate of Merit

The CLIENT shall make no claim for professional negligence, either directly or in a third party claim, against COMPANY unless the CLIENT has first provided COMPANY with a written certification executed by an independent design professional currently practicing in the same discipline as COMPANY and licensed in the State in which the claim arises. This certification shall: a) contain the name and license number of the certifier; b) specify each and every act or omission that the certifier contends is a violation of the standard of care expected of a design professional performing professional services under similar circumstances; and c) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation. This certificate shall be provided to COMPANY not less than thirty (30) calendar days prior to the presentation of any claim or the institution of any judicial proceeding.

8.25 Indemnification

The COMPANY agrees, to the fullest extent permitted by law, to indemnify and hold harmless the CLIENT, its officers, directors and employees (collectively, the CLIENT) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the COMPANY's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom the COMPANY is legally liable.

The CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold harmless the COMPANY, its officers, directors, employees and subconsultants (collectively, the COMPANY) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the CLIENT's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the CLIENT is legally liable.

Neither the CLIENT nor the COMPANY shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence or for the negligence of others.

8.26 Municipal Advisor

The COMPANY is not a Municipal Advisor registered with the Security and Exchange Commission (SEC) as defined in the Dodd-Frank Wall Street Reform and Consumer Protection Act. When the CLIENT is a municipal entity as defined by said Act, and the CLIENT requires project financing information for the services performed under this AGREEMENT, the CLIENT will provide the COMPANY with a letter detailing who their independent registered municipal advisor is and that the CLIENT will rely on the advice of such advisor. A sample letter can be provided to the CLIENT upon request.



This AGREEMENT is approved and accepted by the CLIENT and COMPANY upon both parties signing and dating the AGREEMENT. Services will not begin until COMPANY receives a signed agreement. COMPANY's services shall be limited to those expressly set forth in this AGREEMENT and COMPANY shall have no other obligations or responsibilities for the Project except as agreed to in writing. The effective date of the AGREEMENT shall be the last date entered below.

Sincerely,

HR GREEN, INC.

Jason Lastovica, P.E.

Author Name

Approved by:

A handwritten signature in blue ink, appearing to read 'David Maxwell', written over a horizontal line.

Printed/Typed Name:

David Maxwell

Title: Vice President

Date: 1/28/2022

CITY OF ANKENY

Accepted by:

A handwritten signature in blue ink, appearing to read 'Mark E. Holm', written over a horizontal line.

Printed/Typed Name:

Mark E. Holm

Title: Mayor

Date: 2-7-22

Attest:

A handwritten signature in blue ink, appearing to read 'Denise L. Hoy', written over a horizontal line.

Printed/Typed Name:

Denise L. Hoy

Title: City Clerk

Date: 2-7-22

EXHIBIT A

City of Ankeny Insurance Requirements for Professional Services

1. HR Green, Inc. _____ shall furnish a signed Certificate of Insurance to the City of Ankeny, Iowa for the coverage required in Exhibit A prior to commencing work and at the end of the project if the term of work is longer than 60 days. Providers presenting annual certificate shall present a Certificate at the end of each project with the final billing. Each Certificate shall be prepared on the most current ACORD form approved by the Iowa Department of Insurance or an equivalent. Each Certificate shall include a statement under Description of Operations as to why issued. Eg: Project # _____ or Lease of premises at _____ or construction of _____.
2. All policies of insurance required hereunder shall be with a carrier authorized to do business in Iowa and all carriers shall have a rating of A or better in the current A.M. Best's Rating Guide.
3. Each Certificate shall be furnished to the contracting department of the City of Ankeny.
4. Failure to provide minimum coverage shall not be deemed a waiver of these requirements by the City of Ankeny. Failure to obtain or maintain the required insurance shall be considered a material breach of this agreement.
5. Subcontractors and sub subcontractor performing work or service shall provide a Certificate of Insurance in accord with Exhibit A.
6. All required endorsements to various policies shall be attached to Certificate of Insurance.
7. Whenever a specific ISO form is listed, an equivalent form may be substituted subject to the provider identifying and listing in writing all deviations and exclusions that differ from the ISO form.
8. Provider shall be required to carry the minimum coverage / limits, or greater if required by law or other legal agreement, in Exhibit A.
9. Whenever an ISO form is referenced the current edition of the form must be used.
10. By requiring such insurance, the City of Ankeny shall not be deemed or construed to have assessed the risk that may be applicable to the Contractor its agents, representatives, employees, or sub-consultants under this Contract. The insurance requirements herein for this Contract in no way limit the indemnity covenants contained in the Contract.
11. The City of Ankeny in no way warrants that the limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, its agents, representatives, employees, or subcontractors. The Contractor shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverages. The Contractor is not relieved of any liability or other obligations assumed or pursuant to the Contract by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types.

Exhibit A

A) COMMERCIAL GENERAL LIABILITY

General Aggregate Limit	\$ 2,000,000
Products-Completed Operations Aggregate Limit	\$ 2,000,000
Personal and Advertising Injury Limit	\$ 1,000,000
Each Occurrence	\$ 1,000,000
Fire Damage Limit (any one occurrence)	\$ 50,000
Medical Payments	\$ 5,000

- a) Coverage shall be written on an occurrence, not claims made, form. All deviations from the standard ISO commercial general liability form CG 0001, or Business owners form BP 0002, shall be clearly identified.
- b) Include ISO endorsement form CG 25 04 "Designated Location(s) General Aggregate Limit" or CG 25 03 "Designated Construction Project (s) General Aggregate Limit" as appropriate.
- c) Include endorsement indicating that coverage is primary and non-contributory.
- d) Include endorsement to preserve Governmental Immunity. (Sample attached).
- e) Include an endorsement that deletes any fellow employee exclusion.
- f) Include additional insured endorsement for:
The City of Ankeny, including all its elected and appointed officials, all its employees and volunteers, all its boards, commissions and/or authorities and their board members, employees and volunteers. Use ISO form CG 2026.

B) AUTOMOBILE LIABILITY \$ 1,000,000 (Combined Single Limit)

C) WORKERS' COMPENSATION & EMPLOYERS LIABILITY

Statutory benefits covering all employees injured on the job by accident or disease as prescribed by Iowa Code Chapter 85 as amended.

Coverage A	Statutory – State of Iowa
Coverage B	Employers Liability

Each Accident	\$100,000
Each Employee-Disease	\$100,000
Policy Limit-Disease	\$500,000

Policy shall include an endorsement providing a waiver of subrogation to the City of Ankeny. Coverage B limits shall be greater if required by Umbrella Carrier.

D) UMBRELLA LIABILITY \$ 2,000,000

Umbrella liability coverage must be at least following form with the underlying policies included herein.

E) PROFESSIONAL LIABILITY

\$ 2,000,000

- The Contractor shall maintain Errors and Omissions Liability covering negligent acts, errors and/or omissions, including design errors of the Contractor for damage sustained by reason of or in the course of operations under this Contract. ~~The policy/coverages shall be amended to include the following:~~

~~Amendment of any Contractual Liability Exclusion to state: "This exclusion does not apply to any liability of others which you assume under a written contract provided such liability is caused by your negligent acts."~~

- In the event that any professional liability insurance required by this Contract is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning at the time work under this Contract is completed.
- Policy shall contain a waiver of subrogation against the City of Ankeny.

F) CONTRACTOR'S ENVIRONMENTAL LIABILITY

\$ 2,000,000

- Applicable if Professional Services performed includes Environmental activities included but not limited to: use or application of hazardous materials, environmental testing, monitoring, assessment or cleanup, transportation of hazardous materials, pesticide spraying and certain recycling and waste reduction activities.

Preservation of Governmental Immunities Endorsement

1. Nonwaiver of Governmental Immunity. The insurance carrier expressly agrees and states that the purchase of this policy and the including of the City of Ankeny, Iowa as an Additional Insured does not waive any of the defenses of governmental immunity available to the City of Ankeny, Iowa under Code of Iowa Section 670.4 as it now exists and as it may be amended from time to time.
2. Claims Coverage. The insurance carrier further agrees that this policy of insurance shall cover only those claims not subject to the defense of governmental immunity under the Code of Iowa Section 670.4 as it now exists and as it may be amended from time to time. Those claims not subject to Code of Iowa Section 670.4 shall be covered by the terms and conditions of this insurance policy.
3. Assertion of Governmental Immunity. The City of Ankeny, Iowa shall be responsible for asserting any defense of governmental immunity, and may do so at any time and shall do so upon the timely written request of the insurance carrier.
4. Non-Denial of Coverage. The insurance carrier shall not deny coverage under this policy and the insurance carrier shall not deny any of the rights and benefits accruing to the City of Ankeny, Iowa under this policy for reasons of governmental immunity unless and until a court of competent jurisdiction has ruled in favor of the defense(s) of governmental immunity asserted by the City of Ankeny, Iowa.
5. No Other Change in Policy. The above preservation of governmental immunities shall not otherwise change or alter the coverage available under this policy.

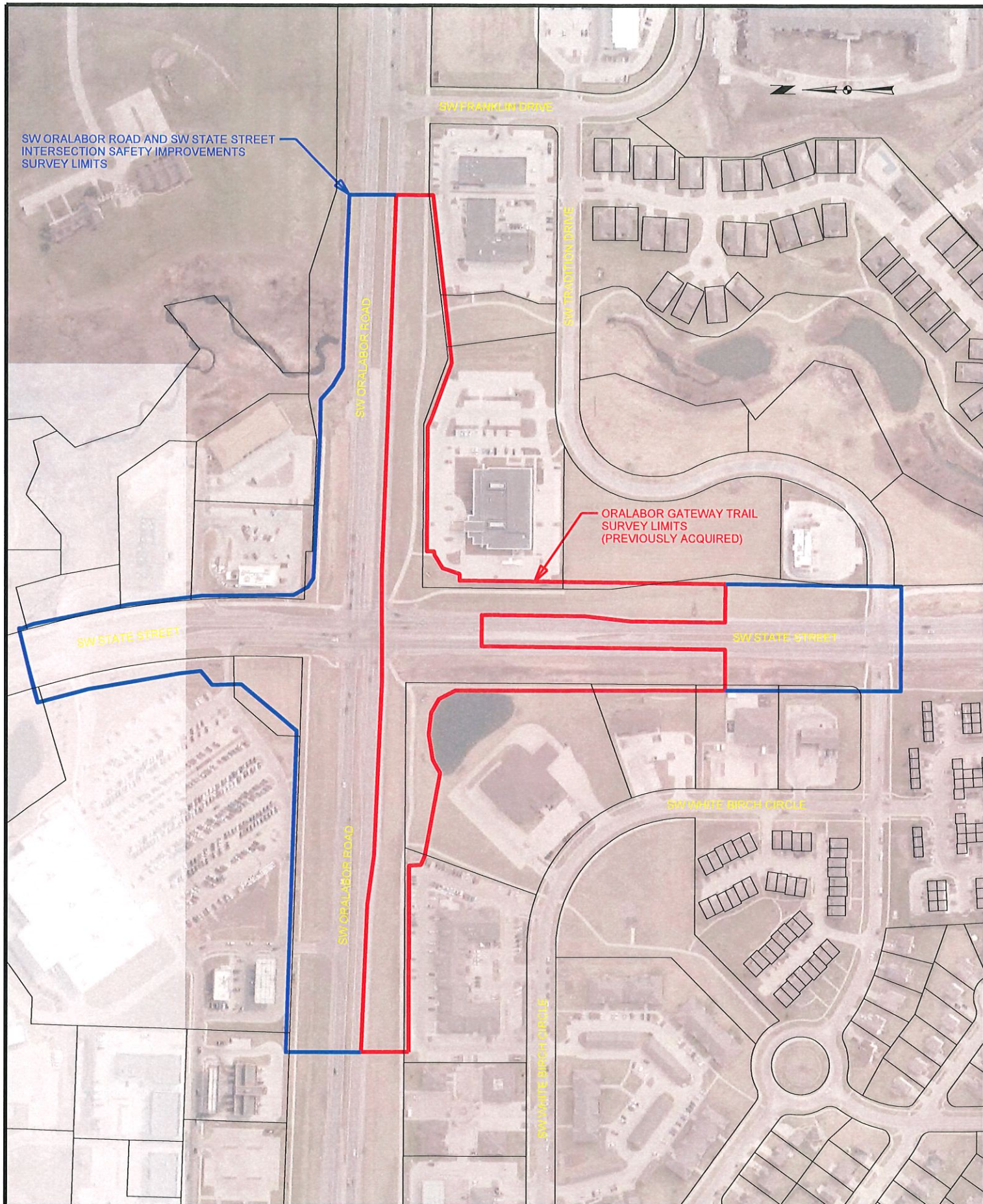


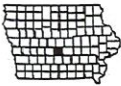
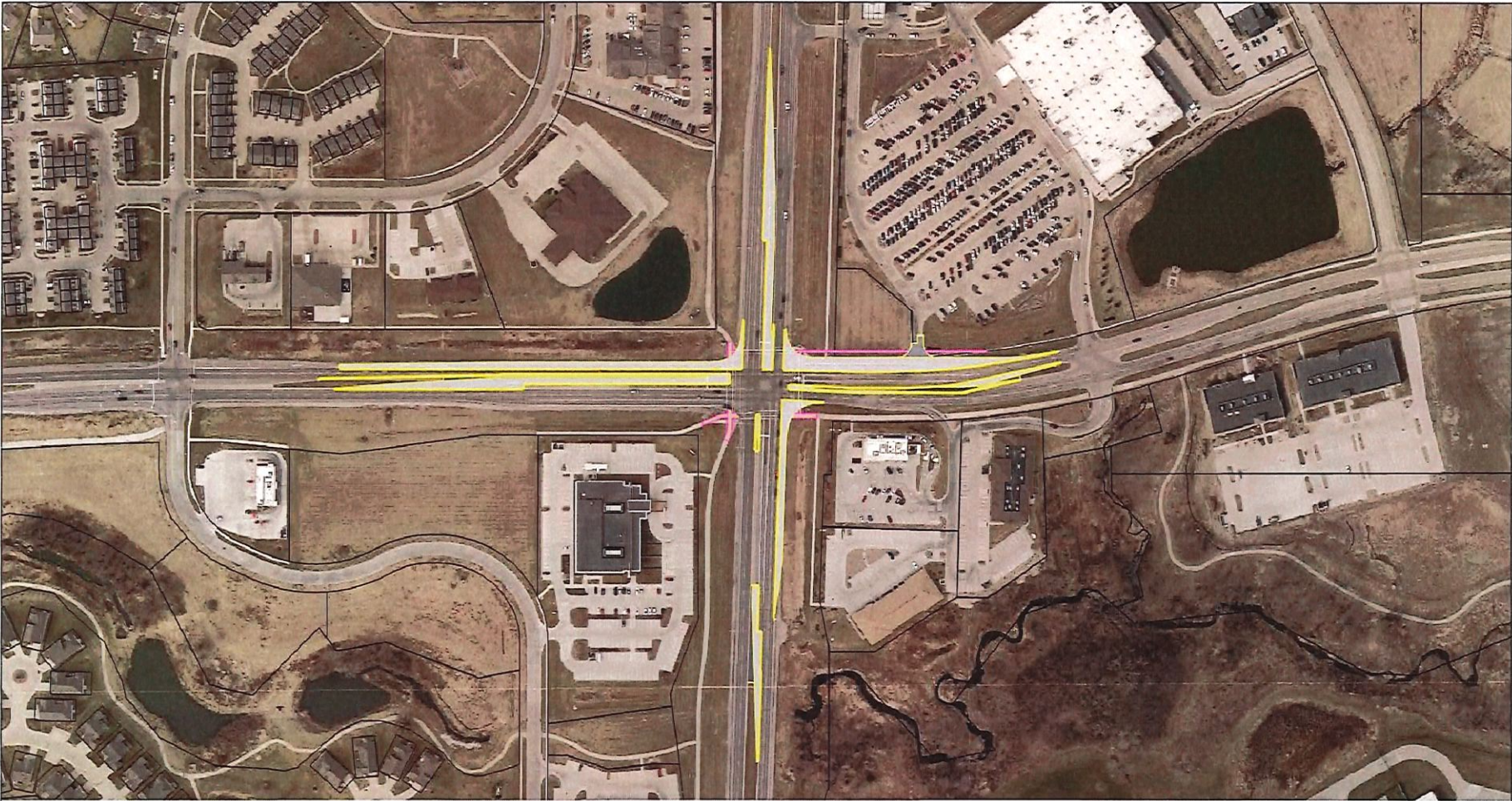
EXHIBIT B
HR GREEN
Billing Rate Schedule
Effective January 1, 2022

Professional Services	Billing Rate Range
Principal	\$215- \$310
Senior Professional	\$195- \$300
Professional	\$125- \$200
Junior Professional	\$85- \$145
Senior Technician	\$120- \$160
Technician	\$75- \$130
Senior Field Personnel	\$140- \$205
Field Personnel	\$90- \$170
Junior Field Personnel	\$75- \$100
Administrative Coordinator	\$70-\$115
Administrative	\$65- \$100
Corporate Admin	\$80- \$150
Operators/Interns	\$50- \$120

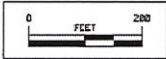
Reimbursable Expenses

1. Auto mileage will be charged per the standard mileage reimbursement rate established by the Internal Revenue Service. Survey and construction vehicle mileage will be charged on the basis of \$0.85 per mile.





LEGEND:
— APPROXIMATE RIGHT-OF-WAY



SW ORALABOR ROAD & SW STATE STREET
INTERSECTION IMPROVEMENTS
ANKENY, IOWA

JULY 2020
SECTION C

* FOR ILLUSTRATIVE PURPOSES ONLY

EXHIBIT E – ANTICIPATED EXPLORATION PLAN

Oralabor Gateway RCB Culvert ■ Ankeny, Iowa

November 5, 2021 ■ Terracon Proposal No. P08215093_SA1

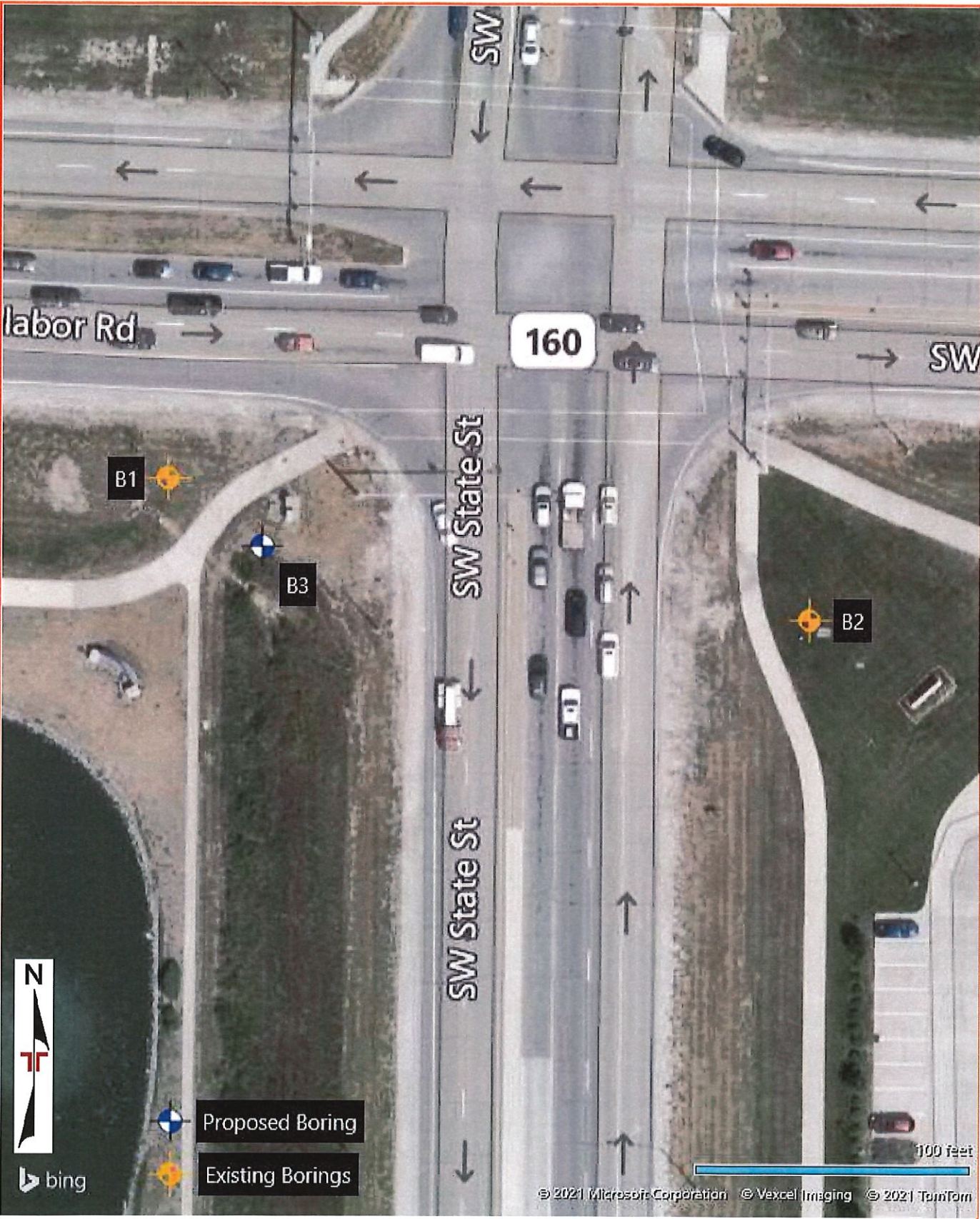


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS