Parkhill

March 9, 2022

Cody Maberry
Director of Community Services
City of Keller
P.O. Box 770
Keller, Texas 76248

Re: Professional Services Proposal for Keller Sports Park Renovations

Dear Mr. Maberry:

Thank you for the opportunity to submit a Proposal for Parkhill (A/E) and to work with the City of Keller (OWNER). The following outlines the Scope of Services and Project Understanding of the Keller Sports Park Renovations.

SCOPE OF SERVICES

Recently, the City of Keller hired Parkhill to develop a Conceptual Master Plan. During the design process, a series of Construction Area options were developed to determine the Phase I Construction Scope. Items determined to be in Phase I are defined in the Project Summary Elements and further detailed in Exhibit "A".

The Scope of Work is to include Landscape Architectural, Engineering, and Architectural Services for the Design of Keller Sports Park Renovations, located within Keller Sports Park at 265 Golden Triangle Blvd., Keller, Texas 76248.

PROJECT UNDERSTANDING

A. This Project consists of Design Development Plans, Construction Documents, Bidding and Contract Administration/Construction Observation Services for Phase I of the Keller Sports Park Renovations. The proposed development will include improvements to the existing sports complex including, but not limited to, fields, spectator amenities, restrooms, utilities, and drainage improvements.
B. A/E shall perform for OWNER Basic Services for the Phase of Project to which this Proposal applies. Services include professional consultation, advice and furnishing Civil, Structural, Mechanical, and Electrical Engineering Services; Surveying; Architectural; Landscape Architectural Services; Geotechnical Investigation, Irrigation, and Flood Plain Analysis.
C. Project Construction Budget for the Basic Services provided by A/E will be based on $26,000,000 separate from soft cost. Soft Cost include Professional Services and other expenses unless amended by OWNER.
D. For purposes of this Proposal and its Exhibits, the term "A/E," where appropriate, shall be interchangeable with the terms "Landscape Architect", "Architect", "Engineer", or "Consultant." Parkhill is a firm composed of practicing Planners, Registered Engineers, Registered Architects, and Registered Landscape Architects. The firm does not represent itself solely as an Engineer, as a Practitioner of Landscape Architecture or Architecture as defined in the applicable State of Texas registration laws.
E. The following consumer information is required by Architects and Landscape Architects Registration Law, Article 249c, VTCS: The Texas Board of Architectural Examiners has jurisdiction over individuals licensed under the above named Act. Their address and telephone number are: 8213 Shoal Creek Blvd., Suite 107, Austin, Texas 78758-7589; 512.458.4126.

255 North Center Street | Suite 200 | Arlington, Texas 76011 | 817.649.3216 Parkhill.com

PARK ELEMENTS

A. The items listed below are general categories of renovation and improvements to the Keller Sports Park. Reference Exhibit "A" for a list of items approved by the Keller Task Force, within each Construction Area, defined in the Conceptual Master Plan. It is understood that elements may be omitted in order to meet the Project Construction Budget with approval by OWNER. The program of development for Phase I shall include, but not be limited to, the following elements:

1. General Items.
2. Earthwork.
3. Roadway/Parking and Corresponding Lighting.
4. Utilities (Water, Sewer, Electrical, Data/Phone).
5. Site Paving.
6. Structures.
7. Athletic Fields.
8. Site Enhancements.

PART I – PREDESIGN SERVICES

A. TOPOGRAPHIC SURVEY

A/E will provide a Topographic Survey for preparation of the Construction Documents. The survey will provide a minimum contour interval of one foot, show the existing facilities, nearby utilities, trees as defined by the Tree Preservation Ordinance, adjacent parking lots/drive aisles, adjacent streets, and other miscellaneous items. This survey will comply with standard City of Keller requirements.

Deliverables: Digital Files (AutoCAD & PDF) of Topographic Survey

B. GEOTECHNICAL INVESTIGATION & REPORT

A/E will secure the services of an independent geotechnical engineering company to investigate the engineering properties of the soils and to make recommendations on the Design of the building foundation(s), paving, light pole foundations, post-tension slabs, synthetic turf fields. etc., for a total of eleven geotechnical borings. Reference Geotechnical Investigation & Report described in Exhibit "B".

Deliverables: Digital File (PDF) of the Geotechnical Report.

C. HYDRAULIC AND HYDROLOGY SERVICES

The proposed grading of the multipurpose field construction area at the north end of the site will require a flood study/downstream assessment impact analysis.

It is anticipated that a Conditional Letter of Map Revision will not be required and is not included in our proposed fee.
Reference Hydrologic and Hydraulic Services described in Exhibit "B".

D. CULTURAL RESOURCES/ENVIRONMENTAL STUDIES

The proposed grading of the multipurpose field construction area at the north end of the site will potentially disturb the stream and adjacent area that runs through that portion of the site. The following are the anticipated studies related to any existing stream disturbances:

1. Delineation of Water of the United States and Section 404 Permit Review.
2. Cultural Resources Survey and Coordination.
3. Nation Wide Permit 42 Pre-Construction Notification.

Reference Cultural Resources/Environmental Studies described in Exhibit “B”.

PART II – DESIGN PHASE

A. Design Development Phase

1. Based upon the approved Conceptual Master Planning Documents and adjustments authorized by OWNER in the Program, Schedule, or Project Construction Budget, A/E shall prepare, for approval by OWNER, Design Documents consisting of Drawings and other documents to fix and describe the size and character of Project, with regard to site, architectural, civil, structural, mechanical, electrical, and plumbing systems, materials and such other elements as may be appropriate. Design Development Phase deliverables shall include, but not be limited to, the following:

   - Plan views in appropriate scale.
   - Sections where appropriate.
   - Floor plans and elevations where appropriate.
   - Preliminary mechanical schematic and Design loads.
   - Preliminary electrical and plumbing schematic with Design loads.
   - Preliminary utility schematics.
   - Preliminary drainage layout.
   - Informal plan submittals via email throughout process for review/comment by OWNER staff.
   - Opinion of Probable Construction Cost (OPCC).

2. Coordinate with appropriate governmental authorities and provide information requested for compliance with applicable codes, ordinances, and laws. If necessary, make revisions necessary to obtain compliance or approval.

3. A/E shall submit Plans and Opinion of Probable Construction Cost to OWNER via PDF Files throughout the process for review/comment by OWNER.

4. Meet with OWNER to discuss plans and Opinions of Probable Construction Cost.

5. Distribute the Plans to local utility companies, if necessary, to obtain information regarding impacts to their facilities and potential new service connections and easements. Consider how impacts may affect the Project Construction Budget.

6. Public Meetings shall include two Keller Task Force meetings or, if preferred, two joint sessions of the Park Board and City Council.

B. Construction Documents Phase

Based on OWNER approved Design Development Documents and related predesign documents, A/E will further develop plans, coordinate the various park elements and systems, develop construction details, and prepare the material/technical specifications setting forth in detail the requirements for construction of the Project. A/E will meet all applicable City of Keller design and construction standards, coordinate Plans with City Departments, meet all applicable state regulations, and submit Construction Documents to OWNER for review.

Deliverables: 50% CD Design Review Submittal, 75% CD Design Review Submittal, 95% CD Design Review Submittal, Issue for Bid Construction Documents, Project Manual (Front End

Documents & Technical Specifications), updated Opinion of Probable Construction Cost, and Meetings with City Staff (as necessary).

1. A/E will provide/perform the following Construction Documents Phase Services:

- All Drawings and details will be produced in AutoCAD. All specifications will be produced in MS Word.
- Construction Documents deliverables shall include, but not limited to, these Contract Documents:
  - Plan sheets illustrating plans, elevations, sections, and details of construction.
  - Technical Specifications.
  - Provide graphic products in electronic file format (PDF).
- Bid options will be developed to allow the OWNER to choose the options that best fit their overall budget.
- Construction Documents shall be submitted to OWNER for final approval prior to an issuance of building permit.

C. Bidding Phase

1. A/E will provide/perform the following Bidding Phase Services:

- Answer questions from Bidders and prepare addenda as necessary.
- Review “or-equal” submittals from Bidders.
- Attend pre-bid meeting.
- Attend bid opening.
- Assist OWNER in pre-qualification of bidders.
- Assist OWNER Staff in a pre-construction conference.
- Plan distributions and printing shall be provided by OWNER’s representative. A/E shall provide original documents to OWNER’s representative for reproduction.

D. Construction Contract Administration Phase

1. A/E will provide/perform the following Construction Contract Administration Phase Services:

- Visit the site at intervals appropriate to the stage of construction or as otherwise agreed by OWNER and A/E in writing to become familiar with the progress and quality of Work completed, and to determine, in general, if the Work is being performed in a manner indicating Work, when completed, will be in accordance with the Contract Documents. However, A/E will not be required to make exhaustive or continuous on-site observations to check the quality or quantity of Work. On the basis of on-site observations as Landscape Architect, A/E will keep OWNER informed of the progress and quality of Work. Generally, site observation visits will be made twice a month.
  - Should nonconforming or defective Work be observed, A/E will endeavor to immediately inform OWNER’S representative that conforming or remedial action is required.
  - The number of site observation visits to be provided by representative A/E at times in the judgment of OWNER’S representative appropriate to the works, or as otherwise requested by the OWNER shall not exceed an aggregate total of 35 visits over the period of Contractor’s Construction Contract.
  - Site observation visits provided by A/E as necessary to correct errors or omissions in the Plans will not accrue against the visits described above.
- Review shop drawings and other submittal information for the purpose of ascertaining conformance with the design intent and Construction Documents. Provide OWNER all product submittals and/or cut sheets used on Project.
- Provide written responses for information or clarification.
- Prepare change orders, if required.
- Assist OWNER in conducting the substantial completion and final completion observations.

2. Status During Construction.
   Except as expressly stated in the Scope of Work, A/E shall not, and shall not be responsible to supervise, direct or have control over Work of OWNER's Contractors, subcontractors or other service or material providers, including any designated general contractor of OWNER or any subcontractors thereof (generally and collectively referred to as "Contractors") nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by Contractors nor for the Contractor's safety precautions or programs in connection with Work. These rights and responsibilities are soley those of and between OWNER and the applicable Contractors. OWNER agrees that A/E is not responsible for the jobsite condition or on-site worker safety, except as otherwise expressly stated in the Scope of Work.

   Except, and unless prohibited by applicable law, A/E shall not be responsible for any acts or omissions of the Contractors, including any subcontractor, any entity performing any portions of Work or any agents or employee of any of them. A/E does not guarantee the performance of any of the Contractors and shall not be responsible for the Contractors failure to perform their applicable Work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

E. Record Drawing

1. A/E will provide/perform the following Record Drawing Phase Services:

   - A/E will transfer information provided by the Contractor (As Built/markups) after construction is complete. The (As Built/markups) will be provided to Parkhill by the Contractor, by means of digital files (AutoCAD/REVIT & PDF). A/E will produce Record Drawings from these files to submit to Owner for their records.

ADDITIONAL SERVICES

The following services are not included as Basic Services in this Agreement but are available to City upon written authorization and mutual agreement:

- If the Project Construction Budget of $26,000,000.00 is increased or the Scope is increased beyond that established in Exhibit A, to include said changes shall be considered Additional Services, and compensation for A/E's services shall be adjusted appropriately according to the magnitude of the change. All changes in service shall be agreed to in writing by both OWNER and A/E prior to any additional services being provided.
- Assistance by A/E to OWNER in the resolution of construction-contract disputes between OWNER and its Contractor, or contract-related claims against the OWNER, are not part of the Scope of this Proposal. However, such services may be provided as Additional Services by separate Agreement or Amendment, as provided for herein, to this Agreement.
- Field surveying or production of related maps for purposes of determining off-site utility locations, or construction control and layout.
- Storm Water Pollution Prevention Plan (SWPPP).
- Preparation of Plats, Boundary Survey Documents or Easement Exhibits.
- Project Website.
- Plat Easements/R.O.W. Documents.
- 3-D Animation of Design Development Phase Drawings.
- Traffic Impact Analysis / Traffic Engineering Report or Studies.
- Plan Distribution and Printing.

EXCLUSIONS

The intent of this Scope of Services is to include only the services specifically listed herein for this Project. Services specifically excluded from this Scope of Services include, but are not limited to, the following:

- Fees for permits and advertising.
- Full-time or otherwise more frequent than provided as Basic Services and detailed observation of Contractor's Work in Progress.

ITEMS AND SERVICES TO BE PROVIDED BY OWNER

OWNER will provide the following services to A/E in the performance of the Project upon request:

- Inspection services during construction.
- Existing data OWNER has on file concerning the Project, if available.
- As-Built Plans for existing facilities and/or utilities, if available.
- Assist A/E in obtaining any required data and information from local utility companies, as necessary.
- Give prompt written notice to A/E whenever OWNER observes or otherwise becomes aware of any development that affects the scope of timing of A/E's services.
- Advertisement of all public meetings and provision of meeting facilities.

REIMBURSABLE EXPENSES

Reimbursable expenses will be billed at invoice cost plus 15% markup for handling costs. Reimbursable expenses include, but are not limited to, travel, postage, shipping, reproductions/copies, color plots, prints, accessibility review, and inspection fees, reproduction of Contract Documents, and reports. We are proposing reimbursable expenses budget of $8,000.00. This amount shall not be exceeded without prior written approval of the Director of Community Services, Assistant City Manager, or City Manager.

DESIGN CONTINGENCY

An allowance for OWNER'S use in the event that Additional Services or otherwise unforeseen Basic Services beyond those listed in the Scope of Services would be needed for the benefit of the Project (i.e. Public Meetings, Site Plan Submittal, Related Studies, etc.). This allowance will be entirely controlled by OWNER and its use will be authorized only in writing as an Amendment to the Architectural/Engineering Services Contract prior to the performance of services. We are proposing Design Contingency Allowance of $50,000. This amount shall not be exceeded without prior written approval of the Director of Community Services, Assistant City Manager, or City Manager.

COMPENSATION

Compensation for the Basic Services rendered by A/E shall be a lump sum of $2,274,300.00, plus a Design Contingency allowance and reimbursable expenses. This fee is based upon the Project description and Project Construction Budget stated above. Should the Project Construction Budget increase by more than $300,000.00 then the fee will be adjusted equitably.

The Basic Services fee shall be invoiced monthly based on the percent of Work completed. Monthly payments for Services will be distributed by phases as follows:

ITEMIZED COMPENSATION

PreDesign Phase	
Topographic Survey	$75,000
Geotechnical Investigation	$22,500
Hydraulic and Hydrologic Services	
• Preliminary Flood Study	$47,500
Cultural Resources and Environmental Services	
• Delineation of Waters of the United Sates and Section 404 Permit Review	$6,900
• Cultural Resources Survey and Coordination	$14,475
• Cultural Resources Site Recording	$2,875
• Nation Wide Permit 42 Pre-Construction Notification	$13,800
• Permit Coordination with USACE and OWNER	$3,450
Subtotal – PreDesign Phase	$186,500
Design Phase	
Design Development	$485,500
Construction Documents	$936,500
Bidding	$67,000
Construction Contract Administration	$568,800
Record Drawings	$30,000
Subtotal – Design Phase	$2,087,800
Subtotal Basic Services	$2,274,300
Reimbursable Expenses	$8,000
Design Contingency Allowance	$50,000
Total	$2,332,300

If this Proposal meets your expectations, you may indicate your acceptance by returning one signed copy along with the Agreement to our office. Upon receipt, we will consider these executed documents as authorization to proceed.

We appreciate the opportunity to provide Professional Services to you and look forward to the successful completion of your Project. If you have any questions or concerns, please contact me at 817.649.3216.

Sincerely,

PARKHILL

By _____
Victor W. Baxter, RLA
Director of Business Development
for Landscape Architecture

VB/CW/clw
Enclosures

CITY OF KELLER

Accepted By _____

Title _____

Date _____

Parkhill
Hourly Rate Schedule
January 1, 2022 through December 31, 2022

Client: City of Keller **Project:** Keller Sports Park Renovations

Agreement Date: March 9, 2022 **Location:** 265 Golden Triangle Blvd., Keller, Tx. 76248

CLASSIFICATION	HOURLY RATE
SUPPORT STAFF I	$68.00
SUPPORT STAFF II	$79.00
SUPPORT STAFF III	$109.00
SUPPORT STAFF IV	$116.00
SUPPORT STAFF V	$129.00
SUPPORT STAFF VI	$139.00
PROFESSIONAL LEVEL I	
Architect	$137.00
Civil Engineer	$142.00
Electrical Engineer	$145.00
Interior Designer	$130.00
Landscape Architect	$130.00
Mechanical Engineer	$142.00
Structural Engineer	$136.00
Surveyor I	$103.00
Other Professional	$128.00
PROFESSIONAL LEVEL II	
Architect	$147.00
Civil Engineer	$159.00
Electrical Engineer	$164.00
Interior Designer	$137.00
Landscape Architect	$137.00
Mechanical Engineer	$164.00
Structural Engineer	$154.00
Surveyor II	$115.00
Other Professional	$135.00

CLASSIFICATION	HOURLY RATE
PROFESSIONAL LEVEL III	
Architect	$167.00
Civil Engineer	$197.00
Electrical Engineer	$191.00
Interior Designer	$150.00
Landscape Architect	$162.00
Mechanical Engineer	$191.00
Structural Engineer	$189.00
Surveyor III	$134.00
Other Professional	$147.00
PROFESSIONAL LEVEL IV	
Architect	$205.00
Civil Engineer	$230.00
Electrical Engineer	$225.00
Interior Designer	$164.00
Landscape Architect	$175.00
Mechanical Engineer	$225.00
Structural Engineer	$219.00
Surveyor IV	$154.00
Other Professional	$174.00
PROFESSIONAL LEVEL V	
Architect	$249.00
Civil Engineer	$277.00
Electrical Engineer	$275.00
Interior Designer	$197.00
Landscape Architect	$213.00
Mechanical Engineer	$275.00
Structural Engineer	$264.00
Professional Surveyor V	$181.00
Other Professional	$194.00

CLASSIFICATION	HOURLY RATE
PROFESSIONAL LEVEL VI	
Architect	$277.00
Civil Engineer	$298.00
Electrical Engineer	$311.00
Interior Designer	$239.00
Landscape Architect	$257.00
Mechanical Engineer	$311.00
Structural Engineer	$285.00
Professional Surveyor VI	$218.00
Other Professional	$234.00
PROFESSIONAL LEVEL VII	
Architect	$356.00
Civil Engineer	$356.00
Electrical Engineer	$356.00
Interior Designer	$268.00
Landscape Architect	$356.00
Mechanical Engineer	$356.00
Structural Engineer	$356.00
Professional Surveyor VII	$241.00
Other Professional	$356.00

Expenses: Reimbursement for expenses as listed, but not limited to, incurred in connection with services, will be at cost plus 15 percent for items such as:

1. Maps, photographs, postage, phone, reproductions, printing, equipment rental, and special supplies related to the services.
2. Consultants, soils engineers, surveyors, contractors, and other outside services.
3. Rented vehicles, local public transportation and taxis, road toll fees, travel, and subsistence.
4. Special or job-specific fees, insurance, permits, and licenses applicable to work services.
5. Mileage at IRS-approved rate.

Rate for professional staff for legal proceedings or as expert witnesses will be a rate one-and-a-half times these Hourly Rates. Excise and gross receipt taxes, if any, will be added as an expense.

Foregoing Schedule of Charges is incorporated into the Agreement for Services provided, effective January 1, 2022 through December 31, 2022. After December 31, 2022, invoices will reflect the Schedule of Charges currently in effect.

KELLER SPORTS PARK RENOVATION

City of Keller, Texas
Construction Area Summary

Exhibit "A"

Parkhill

Feb 2022

Construction Area 'A.1a' Natural Grass

No.	Item
1	**Drainage Channel (300 LF)** Earthwork (20' w. bottom / 8:1 slope sides / 3' deep) Pilot Chanel (6' wide) (4) 8x5 Box Culvert Rip Rap Transition Slope stabilization (stabilized rip rap) Solid Sod Turfgrass Irrigation
2	**Roadway & Parking**
3	**Site Paving** 5" Concrete Paving - Sidewalk / Bleacher Pad
4	**Electrical** Parking and Pedestrian Lighting
5	**Multi-Use Field 400'x225' (natural grass) w/ 20' boundary** Field Lighting 8' Chainlink Fence Concrete Fence Edging Soil Amendments TIF 419 Solid Sod Turfgrass Irrigation
6	**General Landscape** Soil Amendments Turfgrass Irrigation

Construction Area 'A.1a' Enhanced

No.	Item
1	**General Site Amenity Allowances** Pavement Enhancements Bleacher Shade Structure General Site Enhancement

Construction Area 'B' Synthetic

No.	Item
1	**Site Paving** 5" Concrete Paving - Sidewalk / Bleacher Pad
2	**Electrical** Miscellaneous Electrical
3	**Multi-Use/Soccer Field 360'x210' (synthetic)** Soccer Goals Synthetic Turf (incl. turf, drainage) includes 20' boundary

Construction Area 'B' Synthetic Grass - Enhanced

No.	Item
1	**General Site Amenity Allowances** Bleacher Shade Structure General Site Enhancement

Construction Area 'B' - Existing Facility Upgrades

No.	Item
1	**Multi-Use/Soccer Field 360'x210'** Backstop (Straight post w/ net and mowstrip) 6' Chainlink Fence- Vinyl (north / south each side) Concrete Edge

Construction Area 'C'

No.	Item
1	**Roadway & Parking** Landscape/Irrigation
2	**Site Paving** 5" Concrete Paving - Sidewalk / Bleacher Pad
3	**Landscape**
4	**Ex. Equestrian Arena Improvements** Arena soil enhancements Press Box (not accessible - see TDLR 206.2.7) (20'x12') Misc. Items Seating- Grandstands (100)
5	**Architecture** Restroom/Concession (30x50) (incl. foundation, MEP, etc.)
6	**General Site Amenities**

Construction Area 'E'

No.	Item
1	**250' F.L. BB Field (infield & fl syn / outfield extended)** Trench Drain 8' Chainlink Fence w/ Vinyl w/ Conc Edging Tiff 419 Solid Sod Turfgrass w/ Amendments and Irrigation Synthetic Grass - Infield / Foul lines
2	**Ex 250' F.L. Baseball Field (infield & foul line synthetic)** Trench Drain Synthetic Grass - Infield / Foul lines
3	**Ex 300' F.L. Baseball Field (infield & foul line synthetic)** Trench Drain Synthetic Grass - Infield / Foul lines

Construction Area 'E' Enhanced

No.	Item
1	**250' F.L. Baseball Field** Dugout (includes fencing, roof, bench, bat rack, etc.) Scorekeepers Stand
2	**Ex 250' F.L. Baseball Field** Dugout (includes fencing, roof, bench, bat rack, etc.) Scorekeepers Stand
3	**Ex 300' F.L. Baseball Field** Dugout (includes fencing, roof, bench, bat rack, etc.) Scorekeepers Stand
4	**General Site Amenities Allowance** Building/Site/Pavement Enhancements Soft Toss Station

Construction Area 'E' - Ex. Facility Upgrade

No.	Item
1	**250' F.L. Baseball Field (infield & fl synthetic / outfield extended)** 25' Net Backstop 8' Chainlink Fence w/ Vinyl & Conc Edging
2	**Ex 250' F.L. Baseball Field (infield & foul line synthetic)** 25' Net Backstop 8' Chainlink Fence w/ Vinyl & Conc Edging
3	**Ex 300' F.L. Baseball Field (infield & foul line synthetic)** 30' Net Backstop 8' Chainlink Fence w/ Vinyl & Conc Edging
4	**Ex Softball Field - 200' FL** 25' Net Backstop 8' Chainlink Fence w/ Vinyl & Conc Edging
5	**Ex Softball Field - 300' FL** 25' Net Backstop 8' Chainlink Fence w/ Vinyl & Conc Edging

Construction Area 'F'

No.	Item
1	**Site Paving** 5" Concrete Paving - Sidewalk / Plaza area
2	**175' F.L. Baseball Field** Dugout w/ Roof, etc. 3-row Conc. Terraced Bleachers Bleacher Shade Structure 25' Net Backstop 6' Chainlink Fence w/ Vinyl, Windscreen & Conc Edging Sports Lighting Tiff 419 Solid Sod Turfgrass w/ Amendments and Irrigation Synthetic Grass - Infield / Foul lines
3	**Existing Field Renovation - 175' F.L. Baseball Field** Dugout w/ Roof, etc. 3-row Conc. Terraced Bleachers Bleacher Shade Structure 25' Net Backstop 6' Chainlink Fence w/ Vinyl, Windscreen & Conc Edging Scorekeepers Stand & Scoreboard Sports Lighting Tiff 419 Solid Sod Turfgrass, Irrigation, Soil (outfield) Synthetic Grass - Infield / Foul lines Wall at outfield fence
4	**Ex. Field Reno - 135' F.L. Baseball Field (Miracle League)** Dugout w/ Roof, etc. 3-row Conc. Terraced Bleachers Bleacher Shade Structure 20' Net Backstop 6' Chainlink Fence w/ Vinyl, Windscreen & Conc Edging Scorekeepers Stand & Scoreboard Sports Lighting Synthetic Grass - Infield / Foul lines
5	**Landscape** Turfgrass / Amendments & Irrigation
6	**Baseball Fields Architecture** Restroom/Concession/Storage (1500 sf)

Construction Area 'F' Enhanced

No.	Item
1	**General Site Amenity Allowances** Fence screening to hide yard 12' Double Gate - At KYA storage area 5' Gate - At KYA storage area Pavement Enhancements Soft Toss Station Drive/ Parking / Pedestrian Lighting Existing Maintenance Building/Area Renovations Added Field House Square Footage for Meetings General Site Enhancement

Construction Area 'G'

No.	Item
1	**Roadway & Parking** Parking Ped. Crossing
2	**Site Paving** 5" Concrete Paving - Sidewalk / Plaza area
3	**Electrical**
4	**Multi-Use Field 400'x225' (natural grass)** Bleacher Shade Structure 6' Chainlink Fence w/ Vinyl Concrete Fence Edging TIF 419 Solid Sod Turfgrass with Amendments
5	**175' F.L. Baseball Field Overlay** Dugout w/ Roof, etc. 3-row Conc. Terraced Bleachers (w/ metal bleacher attached) Bleacher Shade Structure 25' Net Backstop 6' Chainlink Fence w/ Vinyl, Windscreen & Conc Edging Scorekeepers Stand & Scoreboard
6	**General Landscape** Turf / Soil Amendments / Irrigation

Construction Area 'G' Enhanced

No.	Item
1	**General Site Amenity Allowances** Pavement Enhancements Soft Toss Station General Site Enhancement

Construction Area 'H'

No.	Item
1	**Site Paving** 5" Paving - Sidewalk / Bleacher Pad /Parking
2	**Ex Lacrosse Field** Backstop (Straight post w/ net and mowstrip) (north only)

Construction Area 'H' Enhanced

No.	Item
1	**General Site Amenity Allowances** Backstop Benches (purchased by Owner) 5-Row Bleachers (purchased by Owner) Bleacher Shade Structure Field Lighting General Site Enhancement

Construction Area 'I'

No.	Item
1	**Parking - Pedestrian Connection** West - Includeds Demo, Concrete,Landscape/Irrigation Central- Includeds Demo, Concrete,Landscape/Irrigation East- Includeds Demo, Concrete,Landscape/Irrigation
2	**Electrical** Miscellaneous Electrical
3	**EX Soccer Pad - C** 5" Concrete Paving - Sidewalk / Bleacher Pad
4	**EX Soccer Pad - B** 5" Concrete Paving - Sidewalk / Bleacher Pad

Construction Area 'I' Enhanced

No.	Item
1	**General Site Amenity Allowances** Pavement Enhancements Bleacher Shade Structure Drive Pole w/Single Fixture Parking Pole w/Double Fixture Pedestrian Light Poles General Building Enhancement General Site Enhancement

Construction Area 'I' - Existing Facility Upgrades

No.	Item
1	**EX Soccer Pad - D & E** Backstop (Straight post w/ net and mowstrip) (north / south) 6' Chainlink Fence-Vinyl Concrete Edge
2	**EX Soccer Pad - C** Backstop (Straight post w/ net and mowstrip) (north / south) 6' Chainlink Fence- Vinyl Concrete Edge
3	**EX Soccer Pad - B** Backstop (Straight post w/ net and mowstrip) (north / south) 6' Chainlink Fence-Black Vinyl Concrete Edge
4	**Fencing South of RR/Concession Building** 6' Chainlink Fence-Black Vinyl Concrete Edge

Exhibit "A"

Keller Sports Park Concept
Opinion of Probable Construction Costs

Area	Existing Facilities Upgrade Total	Base Cost Total	Synthetic Upgrade Subtotal	Enhancement Subtotal	Total
Area A.1a	-	$2,700,000		$700,000	$3,400,000
Area A.1b		$7,400,000	$3,200,000	$800,000	$11,400,000
Area A.2	-	$12,000,000	$1,800,000	$1,500,000	$15,300,000
Area B	$200,000	-	$2,500,000	$480,000	$3,180,000
Area C	-	$1,700,000	-	$400,000	$2,100,000
Area D	-	$2,500,000	-	-	$2,500,000
Area E	$1,070,000	$3,000,000	-	$2,800,000	$6,870,000
Area F	-	$6,200,000	-	$2,900,000	$9,100,000
Area G	-	$3,500,000	-	$590,000	$4,090,000
Area H	-	$130,000	-	$840,000	$970,000
Area I	$440,000	$390,000	-	$2,800,000	$3,630,000

Parking Count

Channel Drainage

507 Existing North Parking Spaces
608 Proposed North Parking Spaces
1,115 Subtotal / 14 Fields = 79 Spaces per Field

or

Alternate - Subsurface Drainage

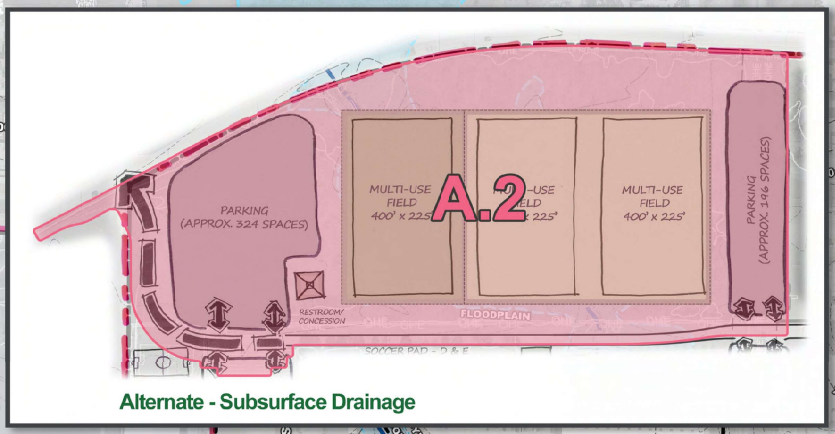
507 Existing North Parking Spaces
643 Proposed North Parking Spaces
1,150 Subtotal / 14 Fields = 82 Spaces per Field

+

655 Existing South Parking Spaces
143 Proposed South Parking Spaces
798 Subtotal / 14 Fields = 57 Spaces per Field

=

1,913 Total Parking Spaces (Channel Drainage)
1,948 Total Parking Spaces (Subsurface Drainage)



Alternate - Subsurface Drainage

City of KELLER

Keller Sports Park

Construction Areas/Phasing

February 2022

Parkhill | Schrickel Rollins

OPINION OF PROBABLE CONSTRUCTION COST (Summary)
Keller Sports Park Master Plan
Keller, Texas

Exhibit "A"

Parkhill
Feb 2022

Construction Areas	Existing Facilities Upgrade Total	Base Cost Total	Synthetic Upgrade Subtotal	Enhancement Subtotal	Total	Task Force Approved Option Phase 1	Descriptions	User Group
Construction Area 'A.1a'	$ -	$ 2,700,000	$ -	$ 700,000	$ 3,400,000	$ 2,920,000	Rugby Field (Natural Grass) with 75 Parking Spots and Enhancements	ARC/KLA/KSA/KYA
Construction Area 'A.1b'	$ -	$ 7,400,000	$ 3,200,000	$ 800,000	$ 11,400,000		*Delete following Enhancements (Entry Gate Monuments, Bike Rack, Trash Receptacles, Picnic Stations, Drinking Fountain, Boulders, Dumpster Enclosures, Park Entry Monument Signs, Secondary Monuments, Wayfinding Signage, 5-Row Bleachers, Pipe Rail Fence at Perimeter)*	
Construction Area 'A.2'	$ -	$ 12,000,000	$ 1,800,000	$ 1,500,000	$ 15,300,000			
Construction Area 'B'	$ 200,000	$ -	$ 2,500,000	$ 480,000	$ 3,180,000	$ 3,120,000	Soccer Field - Convert Field to Syn Turf, Base Cost and Enhancement	KSA
							Delete the following Enhancements (Trash Receptacles, Picnic Stations)	
Construction Area 'C'	$ -	$ 1,700,000	$ -	$ 400,000	$ 2,100,000	$ 1,700,000	Rodeo Arena - Soil Enhancements, Press Box, Grandstands, Restroom/Conc	Equestrian/KLA
* Option- Arena Cover (includes lighting)		$ 1,950,000					*Delete the following Enhancements (Trash Receptacles, Picnic Stations, Drinking Fountain, Boulders, Dumpster Enclosures, Secondary Monuments, Bleacher Shade Structure, Site Enhancements)*	
Construction Area 'D'	$ -	$ 2,500,000	$ -	$ -	$ 2,500,000	$ -		CoK
Construction Area 'E'	$ 1,070,000	$ 3,000,000	$ -	$ 2,800,000	$ 6,870,000	$ 4,770,000	250' FL (+) Baseball Fields - Ex. Facility Upgrades, Base Cost and Enhancements	KYA
							Delete the following Core Items (All Electrical, Bases & Pitching Rubber, Foul Poles)	
							Delete the following Enhancement Items (Bleacher Shade Structures, Scoreboards, Entry gate monuments, Bike Racks, Trash Receptacles, Picnic Stations, Benches, Secondary Monuments)	
Construction Area 'F'	$ -	$ 6,200,000	$ -	$ 2,900,000	$ 9,100,000	$ 7,300,000	175' FL Baseball Fields - Base Cost and Enhancements	KYA
* Option - Basketball Court (single court)		$ 6,500,000					*Delete the following Core Items (Concrete Paving for Firelane, Landscape/Irrigation, Shade Trees, Ornamental Trees, Shrubs & Grasses, Entry Gate Monuments, Playground, Trash Receptacles, Picnic Stations, Benches, Drinking Fountain)*	
* Option - Basketball Court (double court)		$ 12,400,000						
* Option - Public Art (Allowance)		$ 330,000					*Delete following Enhancements(Entry Gate Monuments Upgrades, Additional Playground Features, Bike Rack, Trash Receptacles, Picnic Stations, Drinking Fountain, Boulders, Benches, Sliding Gate Revisions at Maint. Yard, 6' screen fence at Yard for KYA materials, Secondary Monument, Windscreen at Outfield Fence)*	
Construction Area 'G'	$ -	$ 3,500,000	$ -	$ 590,000	$ 4,090,000	$ 2,990,000	Multi-Use 400'x225' (Grass) with 175' FL Baseball Overlay and Associated Items	KYA/ARC
							Delete the following Core Items (Field Lighting and Irrigation at Multiuse Field, Shade Trees, Ornamental Trees, Shrubs & Grasses, Entry Gate Monuments, Bike Rack, Trash Receptacles, Picnic Stations, Benches, Drinking Fountain)	
							Delete following Enhancements (Entry Gate Monuments Upgrades, Bike Rack, Trash Receptacles, Picnic Stations, Benches, Drinking Fountain, Boulders, Windscreen at Outfield Fence)	
Construction Area 'H'	$ -	$ 130,000	$ -	$ 840,000	$ 970,000	$ 910,000	Lacrosse Facility - Base Cost and Enhancements	KLA
							Delete the following Enhancements (Trash Receptacles, Picnic Stations)	
Construction Area 'I'	$ 440,000	$ 390,000	$ -	$ 2,800,000	$ 3,630,000	$ 2,330,000	Soccer Fields - Ex. Facilities Upgrades, Base Cost and Enhancements	KSA
							Delete the following Enhancements (Bike Rack, Trash Receptacles, Picnic Stations, Drinking Fountain, Boulders, Secondary Monuments, Wayfinding Signage, 5-Row Bleacher, Field Lighting for Soccer Field 'F', Pedestrian Bridge)	
Opinion of Probable Construction Cost - A.1	**$ 1,710,000**	**$ 20,120,000**	**$ 2,500,000**	**$ 11,510,000**	**$ 35,840,000**	**$ 26,040,000**		
Opinion of Probable Construction Cost - A.2	**$ 1,710,000**	**$ 29,420,000**	**$ 4,300,000**	**$ 12,310,000**	**$ 47,740,000**			
Difference Between A.1 - A.2	**$ -**	**$ (9,300,000)**	**$ (1,800,000)**	**$ (800,000)**	**$ (11,900,000)**			

Option items within Construction Areas 'C' & 'F' are not included within the Construction Area totals.

* The Opinion of Probable Construction Cost shown above does not include Soft Costs (survey, geotechnical studies, hydrology studies, architectural & engineering design fees, Owner Contingency, etc.) land acquisition or impact/permitting fees associated with construction in the City of Keller, Texas.

* Total Project Budget = $25,000,000.00 including Soft Cost.

* Soft Cost typically range from 10% - 13.5% of the total budgeted cost for the project. For the purposes of budgeting, the higher number should be used leaving approximately $21,700,000 for the construction budget.

Introduction

Waters of the United States

Jurisdictional waters of the United States are protected under guidelines outlined in Sections 401 and 404 of the Clean Water Act (CWA), and in Executive Order 11990 (Protection of Wetlands). The U.S. Army Corps of Engineers (USACE) has the primary regulatory authority for enforcing Section 404 requirements for waters of the United States., including wetlands. Examples of common waters of the United States include:

- All waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section. The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

Activities requiring construction (i.e., earthwork, placing fill, excavating, constructing dams, diverting creeks, channelizing creeks, etc.) within waters of the United States generally require a permit from the USACE. The type of permit depends upon the activity and the water resources affected. Typical permits include Nationwide Permits, Regional General Permits, Letter of Permission Permits, and Individual Permits, ranked from simple to complex.

Cultural Resources

Section 106 of the National Historical Preservation Act (NHPA)
The National Historic Preservation Act (NHPA; 54 U.S. Code [USC] 300101), specifically Section 106 of the NHPA (54 USC 306108) requires the State Historic Preservation Officer (SHPO), an official appointed in each State or territory, to administer and coordinate historic preservation activities, and to review and comment on all actions licensed by the federal government that will have an effect on properties listed in the National Register of Historic Places (NRHP), or eligible for such listing. Per 36 Code of Federal Regulations Part 800 (36 CFR 800), the federal agency responsible for overseeing the action must make a reasonable and good faith effort to identify cultural resources. Federal actions include, but are not limited to, construction, rehabilitation, repair projects, demolition, licenses, permits, loans, loan guarantees, grants, and federal property transfers. Appendices B and C of 33 CFR 325 establish the procedures followed by the U.S. Army Corps of Engineers (USACE) to fulfill the requirements set forth in the NHPA, National Environmental Policy Act (NEPA), and other applicable historic preservation laws as they relate to the USACE regulatory program.

As the proposed project will have impacts to a water of the United States (WOUS), the project will require authorization under Section 404 of the CWA NWP for each WOUS crossing. Each WOUS crossing by the proposed project must meet the requirements of the NWP GC 20 – *Historic Properties*. Subsequently, even if the impacts to USACE-jurisdictional crossings will be less than the threshold that would require a pre-construction notification (PCN) to the USACE, the project at each crossing must comply with GC 20, which requires non-federal permittees to submit a PCN to the USACE if the authorized activity may have the potential to cause effects to any historic properties listed on or potentially eligible for listing on the NRHP, including previously unidentified properties. Per GC 20, if an archeological site is located within USACE jurisdiction and if the associated WOUS feature is impacted, USACE coordination through the submittal of a PCN would be required prior to construction.

Antiquities Code of Texas (ACT)
As the City of Melissa is considered a political subdivision of the State of Texas under Section 52, Article III, or Section 59, Article XVI, of the Texas Constitution, the City is required to comply with the Antiquities Code of Texas (ACT). The ACT, as outlined in the Texas Administrative Code (TAC) Title 13 Part II and the Texas Natural Resource Code (TNRC) Title 9 Chapter 191, requires that political subdivisions notify the THC at least 30 days in advance prior to any project that may affect potential or designated archeological sites. While advance project review by the THC is required for undertakings with more than 5 acres (ac) or 5,000 cubic yards of ground disturbance, the THC can still request project information and/or an archeological survey in advance of more minor ground disturbances since all publicly sponsored projects must comply with the ACT. If the activity occurs inside a designated historic district, affects a recorded archeological site, or requires on-site investigations, the project will need to be reviewed by the THC, regardless of project size.

Location

The project site is the Keller Sports Park in the City of Keller, Tarrant County, Texas. The park is approximately 150 acres located at the southwest corner of Golden Triangle Boulevard and Sports Parkway. The limits of the project site is limited to the undeveloped portion north of were provided to Integrated Environmental Solutions, LLC (IES) on 26 April 2018. The graphic below provides a depiction of the project limits.

Description of Services

Task 1 – Delineation of Waters of the United States and Section 404 Permit Review

IES will provide professional services to delineate all waters of the United States, including wetlands, within the project site. IES wetland ecologist will delineate the jurisdictional limits of the streams based on 33 Code of Federal Regulations (CFR) 328.3[e] and delineate the jurisdictional limits of any wetlands based on the 1987 USACE Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0), and any current Regulatory Guidance Letters. The boundaries of all of these water features identified in the field will be recorded with a Global Positioning System that is capable of sub-meter accuracy. After the delineation is completed, IES will digitize these waters of the United States for use by the engineer/client for planning, impact calculation, and illustration purposes. This delineation will be provided to the engineer/client for inclusion in their engineering plans to avoid and minimize impacts to waters of the United States. A meeting will be held with the engineer/client to review the delineation, proposed project, and provide limitations associated with the available Section 404 permits. The deliverable for Task 1 is a letter report that summarizes the delineation of the site. The letter report will include:

- Delineation map of the jurisdictional waters of the United States;
- Routine Wetland Determination Data Forms completed for all potential wetlands (including any questionable wetlands);
- Representative photographs of upland and jurisdictional sites;
- Descriptions of the site and each jurisdictional area (i.e., soils, plant communities, historic land use, stream characteristics, and ultimately the quality);
- Determinations as to significant nexus for all wetlands and non-relatively permanent waters within the study limits; and
- Definitions of a water of the United States and whether each water/wetland feature meet a definition (i.e., IES' opinion as to whether they are jurisdictional);
- Conditional assessment of the tributary quality utilizing Texas Rapid Assessment Method; and
- Cost opinion of compensatory mitigation for channelizing the tributary.

Task 2 - Cultural Resources Survey and Coordination

2.1 – Antiquities Permit and Pre-Field Coordination

Once a notice-to-proceed (NTP) has been acquired, IES will immediately start the application process to obtain a Texas Antiquities Permit. Before submittal to the THC, the completed permit applications will be signed by our Principal Investigator (PI) and will then be forwarded to the Client for review, and then to the Project Sponsor for signature as landowner and project sponsor. Once the permit has all the necessary signatures, IES will submit the permit to the THC for approval. Concurrently, IES will begin coordinating with the Client to streamline fieldwork once the permit has been received. Upon issuance of the permit, IES will begin fieldwork.

2.2 – Phase I Intensive Pedestrian Survey

Prior to conducting field work, IES will perform a cultural resources desktop review/archival research of the proposed project area including performing preliminary research into previously recorded archaeological or historical sites and previous cultural resources surveys in or adjacent to the area to determine the potential for encountering significant cultural resources within the project area. The pedestrian survey will consist of a multiple transect scheme that will provide a 100 percent coverage of the project area. During the survey judgmental shovel testing will be conducted within areas that have potential for containing archeological materials. Shovel tests will be excavated to 80 centimeters (cm) or the bottom of culturally sterile deposits, whichever is encountered first. Based on the project area's anticipated dimensions, IES anticipates that approximately six shovel tests would be excavated during the pedestrian survey. However, shovel tests numbers could vary based on the amount of disturbance, exposed bedrock or culturally sterile soil, ground visibility, and steep slope that are within the project area, or if archeological site(s) are encountered. If an archeological site or standing historic-period structure is encountered within the project area, the cultural site will be assessed according to statewide standards. Once the site has been sufficiently recorded, the data will be processed at the IES office in McKinney, Texas to determine the site's overall significance and potential eligibility for the NRHP.

2.3 – Laboratory Analysis and Technical Report

Once Task 2.2 is complete, IES will draft a technical report containing the project description, background information, methodology used, results of field investigations, and a summary with site eligibility recommendations. This document will serve as a stand-alone report that will be submitted to the THC for review under the ACT. If a CWA Section 404 permit is required, the report will be sent concurrently to the USACE to satisfy Section 106 requirements. Upon acceptance of the report by the THC/State Historic Preservation Officer (SHPO), IES will print and distribute the appropriate number of final copies of the report in compliance with the terms of the Texas Antiquities Permit. Finally, all artifacts collected and records generated will be curated at the TARL at The University of Texas at Austin.

Option A – Nationwide Permit 42 Pre-Construction Notification

It has been determined that the project will be required to submit a PCN to the USACE under General Condition 32 of the NWP program. IES will provide professional services to (1) prepare and submit an NWP 42 – *Recreational Facilities* PCN for the proposed project, and (2) provide coordination with the USACE Fort Worth District.

Although this project may only have minor impacts (i.e., those that are allowed under the NWP program), the NWP PCN must detail the planning process, the components of the project, impacts to waters of the United States as a result of the proposed project, and compensatory mitigation for those unavoidable impacts. The cornerstone of the NWP PCN would be to detail the ecological features of the waters of the United States present on the site and how these ecological features relate to the functional condition of the waters. IES would detail these ecological functions and values based on the current condition of the site. Once these baseline conditions are accepted by the USACE, these will be the functions and values that will be mitigated for. All permit applications to the USACE require mitigation for unavoidable impacts to waters of the United States. There are three forms of mitigation which are primarily identified and conducted during project planning: avoidance, minimization, and compensatory. Avoidance and minimization mitigation strategies must be completed and documented before any permit is authorized by the USACE. Although the project does not have significant impacts, there are still requirements, by law, that there are no net loss of the functions and values of jurisdictional waters. To accomplish this goal, the USACE and EPA have issued guidance stating their preference for the use of mitigation banks. To reduce the losses associated with in-stream impacts, the Fort Worth District recently published their guidance for Stream Mitigation Method, which places preference to mitigation in mitigation banks with instream credits. IES will calculate the mitigation requirements following this guidance and coordinate with the client on the cost aspects of this component of the project.

Utilizing the USACE standard form for NWP 42 PCN submittals, IES will be assemble and submit the following to the USACE:

- Description of the proposed action;
- Description of the site, including a delineation of the waters of the United States;
    - Functional assessment;
    - Wetland data forms;
    - Representative photographs; and
    - Supporting illustrations;
- Alternatives analysis to the proposed action that do not impact waters of the United States;
- Description of the project's avoidance and minimization efforts;
- Quantitative and qualitative description of the unavoidable impacts to the waters of the United States; and
- Proposed conceptual mitigation plan through the use of available mitigation banks (if required).

Information Furnished by Client

The client (or its representative) will provide rights of entry to the site and digital data of the boundary files, aerial photography, and topography (if available). IES will require plan and profile designs of the impacts to waters of the United States, design of how the water will be routed through/around the site, site plans of the project, alternatives for this site and for other locations. Rights of

Exhibit "B"
Geotechnical Services

LANDTEC ENGINEERS

Geotechnical & Environmental Engineering
Construction Materials Testing
Laboratory Testing

January 20, 2022
Proposal No. 4377

Clint Wofford, RLA
Landscape Architect | Associate
Parkhill

cwofford@parkhill.com

RE: Proposal for Geotechnical Engineering Exploration and Report
Keller Sports Park
Keller, Texas

Dear Clint:

LandTec is pleased to submit this proposal for a geotechnical engineering exploration and report for the proposed improvements to Keller Sports Park in Keller, Texas.

Based on the map provided, we understand the park site is located along the south side of Golden Triangle Blvd. between the Walmart, Sams Club, and the Union Pacific Railroad. The planned park will include restroom/concession buildings, shade structures, synthetic turf fields, and parking lot paving.

Our proposed scope of work includes exploring subsurface soil conditions, obtaining physical soil properties by laboratory testing, and providing geotechnical recommendations for the proposed construction.

1.0 SCOPE OF BASIC SERVICES

LandTec proposes the following *basic services* to provide a geotechnical engineering report.

To locate the borings on the property, a scaled site plan with proposed locations for parking, restroom/concession, shade structures, and synthetic turf fields etc. will be needed. An AutoCAD civil drawing would be helpful in obtaining coordinates for locating the borings with our Trimble GPS survey equipment. This also allows us to provide coordinates and elevations on the boring logs.

The drawing should also identify utilities in the vicinity of the borings. All miscellaneous utilities including those placed at the park by the City of Keller Parks Department should also be shown on the drawing. During the staking of the boring locations a representative of the City of Keller Parks Department with knowledge of underground utilities should be onsite to observe the location of the borings and approve the location.

Any locations that are in question as to being clear of utilities, will need to have the location moved or Ground Penetrating Radar (GPR) will need to be used to locate the utilities. If GPR is required, the section on Compensation has the estimated cost for these services.

1.1 Field Exploration

- LandTec will stake the boring locations and coordinate the clearance of underground utility locations in accordance with the State of Texas 811 DIGTESS requirement. Currently utility locations are taking 3 to 5 days due to the work backlog of the various locator sub-contractors providing services to the 811 system.

- Drill five (5) borings with a truck mounted drill rig to depths of approximately 25 feet in the structure areas identified on the drawing provided to LandTec.

- **Option:** An option to drill six (6) additional borings on proposed synthetic turf fields to depths of approximately 15 feet with a truck mounted drill rig is included as a line-item option in the Compensation section. The cost for the additional 6 borings represents the cost if the borings are made at the same time as the other borings while the drill crew is already on site.

- Obtain relatively undisturbed thin-walled tube samples and standard penetration or cone penetrometer test as appropriate for the soils encountered.

- Observe for shallow subsurface seepage (if present during drilling) and record level.

- Backfill boreholes with cuttings upon completion (not grouted).

1.2 Laboratory Testing

Selected laboratory testing will be conducted on samples that are reasonably representative of the materials obtained from the field exploration. The tests will evaluate and classify the soils, identify subsurface site characteristics, and provide data for analysis. The tests include Atterberg limits, percent passing #200 mesh sieve, unconfined compression, moisture, unit dry weight and swell tests.

We will retain soil and rock samples for 60 days after completion of laboratory testing. Further storage or transfer of samples can be made at owner expense upon written request.

1.3 Engineering Analysis and Report

A geotechnical engineering report will be prepared for the project. Information to be provided in the report is as follows:

- A plan of borings illustrating the approximate location of each boring.

- A log of each boring indicating the boring number, depth of each strata, soil classification and description, and shallow subsurface seepage information as observed during drilling.
- Discussion of the field exploration and laboratory testing.
- Discussion of subsurface conditions including soil, rock, and groundwater.
- Determine the Potential Vertical Soil Movement using Method Tex-124-E Potential Vertical Rise (PVR) procedure using soil classification and moisture content tests and by using swell tests.
- Recommendations for post-tensioned slab-on-grade foundations including allowable soil bearing values, and depth below grade.
- Seismic Site Class as defined by the latest version of IBC 2015, Section 1613.
- Recommendations (if necessary) for subgrade preparation below building pads using moisture conditioning to achieve a reduction in the amount of soil movement and other criteria that may be required by the client.
- Earthwork recommendations including placement, compaction, moisture content and testing.
- Recommendations for the synthetic turf fields including the use of moisture conditioning the soils to reduce the amount of soil movement; and the use of moisture barriers to limit the loss of moisture below the field. We will also need to know the desired Potential Vertical Rise (PVR) requirement per the synthetic turf installer.
- Recommendations for pavement and subgrade treatment for parking and drives, anticipating reinforced concrete pavement will be used.
- General earthwork recommendations including placement, compaction, moisture content and testing.
- Provide a PDF of the final geotechnical engineering report, signed and sealed by a Texas Registered Professional Engineer.

2.0 ADDITIONAL SERVICES

The following services are not included in the *Basic Services* and will be considered as *Additional Services*, when required or requested:

- Drilling footage more than the amount in Basic Services.
- Borings will be drilled and samples with a truck mounted drill rig.

- Use of an all-terrain drill rig to perform the borings has not been included in our cost.
- The services of specialty sub consultants or other special outside services other than those described in Basic Services.
- Any costs, including equipment replacement where applicable, associated with decontamination of personnel or equipment because of encountering hazardous or toxic materials at the site.
- Slope Stability Analysis
- Phase I and / or Phase II Environmental Site Assessments
- Our scope of services does not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air on or below, or around this site
- Any other services not specifically included in *Basic Services.*

Parkhill
Attn: Larry Stone, P.E.
255 N. Center Street, Suite 100
Arlington, TX 76011

Re: Flood Study–Big Bear Creek Unnamed Tributary
Project Name – Keller Sports Park, Keller, TX

Dear Mr. Stone:

Cardinal Strategies Engineering Services, LLC ("Cardinal") received a request for proposal from you on March 1, 2022 to prepare a Flood Study submittal for the Keller Sports Park project along Big Bear Creek Unnamed Tributary in Keller, TX.

A previous proposal had last been prepared in May 2018 for a reduced scope from the previous proposal from October and November of 2017. The reduced scope only included the evaluation of one of the unnamed tributaries along the northwestern side of the overall park area and is now updated to collect and review additional data from studies immediately upstream of the site. The tributary is a Zone A stream and a FEMA CLOMR is not needed. A FEMA LOMR proposal can be prepared once construction activities are complete with this phase.

The City of Keller requires a Flood Study of the proposed project for the 1-YR, 10-YR, and 100-YR fully developed storm frequencies. The study will include both hydrologic and hydraulic impacts from the planned site improvements.

Based on the information available for the site, Cardinal has developed the following scope of services and a cost estimate for the Keller Sports Park Flood Study on Big Bear Creek Unnamed Tributary.

Phase 1 – Flood Study

1. Conduct one site visit
2. Collect latest H&H models that represent this watershed. Models from surrounding developments will be collected.
3. Collect information on upstream detention ponds throughout the watershed, particularly along the unnamed tribs upstream of Golden Triangle Blvd.
4. Collect plans on Golden Triangle Blvd. from TxDOT regarding the multiple crossings just upstream of the project.
5. Update the HMS model using latest version of HEC-HMS and update rainfall for NOAA Atlas 14
6. Analyze the 1-YR, 10-YR, 50-YR, 100-YR, and 500-YR storm events for both existing watershed development and ultimate watershed development.
7. Update model to reflect proposed project for both existing and ultimate conditions.
8. Collect latest H&H models that represent this stream.
9. Using the latest version of HEC-RAS, create the existing conditions hydraulic model for the study stream and run the required frequency storm events. Use a normal depth slope for the boundary condition and check against the 100-YR BFEs along Big Bear Creek for mapping purposes.
10. Modify the existing models to reflect proposed improvements from the Master Planned

Park site concept plan.
11. Make adjustments to the design to meet project goals and CITY criteria.
12. Evaluate impacts to the creek through the project site for Phase 1
13. Determine if valley storage compensation is required based on hydrologic and hydraulic impacts.
14. Determine if detention nis required based on proposed improvements and hydrologic analysis.
15. Prepare a technical report to summarize the findings.

Data requirements to be provided by others to complete the Phase 1 include:

- Topographic survey of site (CAD and PDF format NAD83) - Parkhill

Deliverable - Cardinal will provide 2 hard copies and a digital copy of the Report to Parkhill for submission to the City of Keller for review.

The Cardinal cost estimate does not include the following items:

1. Attendance at City Council Meetings
2. Field Surveys
3. Environmental permitting
4. Detention pond design or analysis
5. Additional H&H modeling or assessment outside that scoped
6. Coordination with any entities other than City of Keller and FEMA
7. Updates to the flood study or any additional coordination with Keller due to changes to the site or grading plan
8. Development of a FEMA CLOMR or LOMR submittal

It is assumed that Parkhill will provide all field survey data to develop the Flood Study along Big Bear Creek Unnamed Tributary for the subject development.

This cost proposal includes responding to review comments from the City of Keller regarding the Flood Study that fall within the scope of work as described above.

In the event that there are review comments from the City of Keller that fall outside the scope of work, Cardinal will bill Parkhill at $200/hour to respond to those comments and the actual cost with a 5% mark up for the Flood Study package reproduction and delivery costs.

In the event additional scope is requested by Parkhill and a proposal is not requested, Cardinal will invoice Parkhill at a rate of $200/hour for additional scope items and the actual cost with a 5% mark up for reproduction and delivery direct costs.