f 602.957.2838 Tucson, AZ 85701

October 12, 2022

Damon Ballesteros Sr. Program Manager Tucson Unified School District 1010 E. Tenth Street Tucson, AZ 95710

RE: McCorkle K-8 Parking Lot & Pedestrian Bridge Final Design Tucson, AZ **Civil Engineering Services Proposal** 

Damon,

Thank you for the opportunity to submit this proposal to provide civil engineering services. This proposal has been prepared based on our understanding of the project as described in the Project Understanding and Scope of Services sections. We look forward to partnering with your team for a successful project.

### **PROJECT UNDERSTANDING:**

Per discussions with TUSD staff, McCorkle K-8 School currently has a lack of parking for normal school pick-up and drop-off. Parents and staff are parking in a vacant dirt lot to the south and traversing through a drainage wash to access the school. TUSD would like to evaluate the ability to add an additional parking lot along with a pedestrian bridge to allow for safe access to the school.

Dibble in association with TUSD completed a conceptual design phase for this project. A parking lot concept was chosen, and a single span steel truss pedestrian bridge was selected as the bridge of choice. Survey and geotechnical were provided during this conceptual phase.

For this final design phase, Dibble will provide construction level documents to allow for TUSD to bid or utilize their JOC list to construct the project improvements. The new sidewalk and bridge connection will be designed to ADA standards. Parking lot drainage will be sheet flow. Erosion protection controls will be evaluated.

Dibble will utilize local teaming partners to complete this phase for this project. CMG Drainage will provide the drainage and scour analysis for the proposed pedestrian bridge. Contech will provide the structural design for the bridge abutments and associated walls including foundation details. Bridge design details will be provided during the construction phase.

# **CONDITIONS:**

- Project survey was completed during conceptual design phase; no new survey will be provided
- Project geotechnical report was completed during conceptual design phase; no new geotechnical data will be provided
- Submittals will be made via pdf documents and printing if required will be done by others or reimbursed at cost to Dibble
- Submittal and review fees will be paid by Owner at the time of submittal
- Permitting fees will be paid by the Owner (if required)



## **DESIGN STANDARDS/PERMITTING AGENCY**

Design will conform to the following Authorities Having Jurisdiction (AHJ).

- TUSD
- City of Tucson (Floodplain Use Permit Only)

Design will be reviewed and permitted by the following AHJ(s)

- TUSD
- City of Tucson (Floodplain Use Permit Only)

#### SCHEDULE:

• Dibble is prepared to begin immediately and will coordinate with the Owner/Architect to establish a project schedule.

### **SCOPE OF SERVICES:**

#### 1.0 50% Construction Document Phase

#### 1.1 50% Construction Documents

Dibble will prepare Design documents including:

- On-site plans including site demolition plan, civil site plan, grading & drainage plan, utility plan, cross sections, and details
- Design of horizontal control and vertical design & control of the site elements of the project including walls, hardscape, drives, and drainage features
- Coordination with Owner and subconsultants

## 1.2 Meetings & Coordination

• 1 ea. - 2 hour meeting

## 2.0 100% Construction Document Phase

## 2.1 100% Construction Documents

Dibble will prepare Construction Documents including:

- Finalize on-site plans including site demolition plan, civil site plan, grading & drainage plan, utility plan, cross sections, and details
- Finalize design of horizontal control and vertical design & control of the site elements of the project including walls, hardscape, drives, and drainage features
- Coordination with Owner and subconsultants

## 2.2 Meetings & Coordination

• 2 ea. - 2 hour meetings

## 2.3 EOPCC

Dibble will prepare an Engineer's Opinion of Probable Construction Cost for the project

## 3.0 Bid & Permitting Phase Services

# 3.1 Bidding/Permitting

Dibble will perform Bidding/Permitting services including:

- Coordinate AHJ provided civil review comments and meet with AHJ staff to resolve civil comments
- Respond/address AHJ civil comments
- Prepare civil permit resubmittal
- Respond to bidding Contractor/Sub-Contractor civil related questions

## 3.2 Meetings & Coordination

• 1 ea. - 2 hour meeting

## **SUBCONSULTANTS**

# 4.0 CMG Drainage - Drainage

Drainage consultant, CMG Drainage, will perform drainage design for the project (refer to attached proposal)

## 5.0 Contech - Structural

Structural consultant, Contech, will perform structural design for the project (refer to attached proposal)



#### **EXCLUSIONS:**

Unless noted otherwise within the Scope of Services the following services are excluded from this proposal

- Cost of permits or fees
- Survey Services including: Replat/Lot Combinations, ALTA survey, legal descriptions & exhibits
- Traffic study/Traffic impact analysis/Signal design
- Roadway signing & striping design
- Sub-surface exploration (utility potholing)
- Environmental investigations
- Geotechnical investigation
- Pavement section design & percolation tests (To be provided by Geotechnical Engineer)
- Design of off-site/public street, sidewalk, water, or sewer improvements except as noted in this proposal
- Off-site flow analysis, floodplain analysis/modification/permitting, 404 permitting, off-site hydrology/hydraulics study except as noted in this proposal
- Electrical design, mechanical design, natural gas design, landscaping, and irrigation design
- Site structural design including walls except as noted in this proposal
- Street light plan/street light design
- Construction staking/Construction inspection
- As-built survey / Record document preparation
- Certification of finish floor elevation
- NOI (Notice of Intent) application by Contractor

# **FEES:**

1.0	50% Construction Document Phase			\$	6,698
	1.1	50% Construction Docum	nents	\$	5,958
	1.2	Meetings & Coordination		\$	740
2.0	100%	Construction Document Ph	nase	\$	10,198
	2.1	Construction Documents		\$	7,402
	2.2	Meetings & Coordination		\$	1,140
	2.3	EOPCC		\$	1,656
3.0	Bid & F	Permitting Phase Services		\$	2,396
	3.1	Bidding/Permitting		\$	1,656
	3.2	Meetings & Coordination		<u>\$</u>	740
			Subtotal	\$	19,292
SUBC	ONSULT	TANTS			
4.0	CMG D	rainage		\$	12,800
5.0	<del>-</del>			\$	17,900
			Subtotal	\$	30,700
			Project Total	\$	49,992



#### **ADDITIONAL SERVICES:**

If the Consultant/Engineer is required to perform services in addition to those outlined in the Scope of Services, by reason of substantial changes ordered by the Owner or Architect or for any reason beyond the Consultant's/Engineer's control, they are to receive compensation for such services. Compensation for additional services not included in the Scope of Services for the basic services shall be based on time expended. Additional services must be approved by the Owner prior to the start of such work.

Invoices will be submitted monthly based on the percentage of the survey and civil engineering services that are complete. These invoices will be due and payable upon receipt and will be considered past due if not paid within thirty days.

If you have any questions, please feel free to call us at (520) 495-4065.

Sincerely,

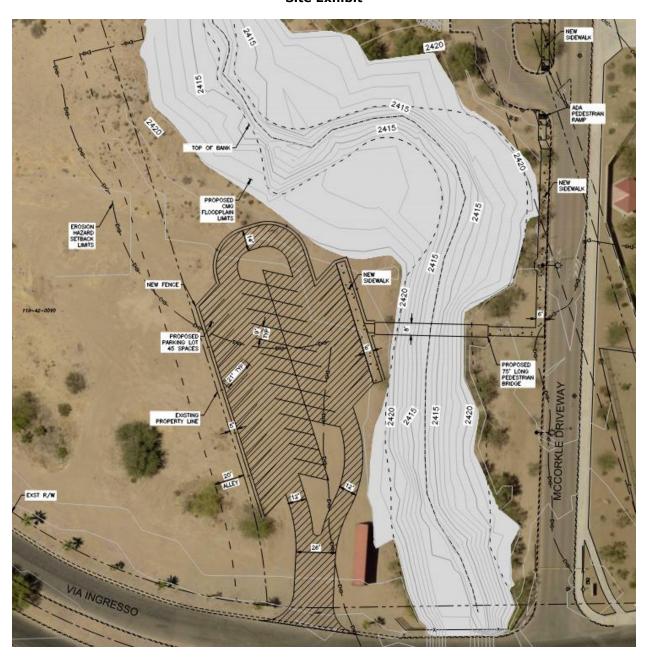
Gregory D. Vega, PE

Vice President, Land Development

Dibble



# Site Exhibit





3555 N MOUNTAIN AVE • TUCSON, AZ 85719 • PHONE: (520) 882-4244 • FAX: (520) 888-1421

September 15, 2022

Greg Vega, PE
Dibble Engineering
177 N Church Ave, Ste 1000
Tucson, Arizona 85701

RE: TUSD McCorkle Academy School Pedestrian Bridge

Drainage Engineering Proposal for Final Design & Floodplain Use Permit (FPUP)

## Dear Greg:

Per your email request from August 29, 2022, CMG Drainage Engineering, Inc. (CMG) has prepared a scope of work and fee estimate for engineering services needed to prepare a drainage report to support final design and construction of a pedestrian bridge over the Old West Branch of the Santa Cruz River (OWBSCR) on the McCorkle School property. Our proposal is based on our 9-7-22 meeting with Loren Makus, COT and previous research CMG has done for the project.

Our research and the results of our COT pre-application meeting have generated the following:

- 1. The OWBSCR has a FEMA floodplain designation with an FIS 100-year discharge of 1657 cfs, measured downstream of the project site at the Ajo Wash confluence. COT has approved use of the 1657 cfs FIS discharge for this project.
- 2. COT will not require a FEMA LOMR if the bridge abutments fall within the effective FEMA floodplain, which is approximately 80 feet wide at the proposed bridge site, as long as the other site improvements are essentially at-grade and will not create a floodplain encroachment situation that could adversely affect adjacent properties. CMG's recent hydraulic analysis from the previous phase of this project has shown the 100-yr floodplain to actually be approximately 50 feet wide at the bridge location. It's our understanding that a 75-foot span bridge is being proposed.
- 3. An FPUP, submitted through COT PDSD's online application portal, will be required, and is included in this scope of work.
- 4. Simple spanning of the FEMA floodplain limits will not extend the bridge abutments outside the Erosion Hazard Setback Limits for the OWBSCR at this location (estimated to be approximately 41 ft from top of bank); therefore, the abutments still need to be extended below the computed scour depth in the wash and the bridge design would need to include an accepted risk that without extensive key-ins or hardened bank protection of both banks, extending upstream to the Via Ingresso culvert, the abutments could be subject to future flanking by lateral migration of the channel.

Based on the above, CMG has developed the following scope of work for drainage engineering services:

# Task 1 – Finalize stream and bridge hydraulics and perform scour analysis

- 1. Update CMG's HEC-RAS hydraulic model to include the final bridge geometry configuration for use in scour analysis computations.
- 2. Determine BFEs & provide low chord design elevations for the new bridge.
- 3. Perform a scour analysis following guidance found in the *Guidelines for Establishing Scour* and *Freeboard for Bridges in Pima County*, August 2012 design manual at the proposed bridge site to determine potential scour depths in support of the bridge design.
- 4. Confirm potential lateral migration limits from CMG's previous erosion hazard setback evaluation.

McCorkle Pedestrian Bridge Drainage Engineering Proposal – Final Design & FPUP September 15, 2022 Page 2

- 5. Prepare a drainage report for the Bridge Construction Plan submittal per TUSD & City of Tucson requirements.
- 6. Coordinate with Dibble and address review comments as needed.

# Task 2 – Acquire FPUP from COT PDSD

- 1. Prepare online application submittal and provide necessary supporting documents to acquire FPUP from COT.
- 2. Submit the FPUP application to COT PDSD through their online application portal.
- 3. Provide additional information and review fees as needed.

# <u>Task 3 – Section 404 Preliminary Jurisdictional Delineation & Non-notification Package</u>

- 1. From field visits, delineate jurisdictional waters affected by the proposed project.
- 2. Prepare a map of jurisdictional waters & PJD package & submit to the US Army Corps.
- 3. Demonstrate compliance with non-notification terms and conditions of the NWP #14.
- 4. Prepare evaluation letter report package for TUSD's records.

CMG proposes to complete the engineering services outlined above on a time & materials basis per the attached rate schedule, not to exceed the following costs (unless a contract modification is authorized):

Task Descriptions	CMG Fee
Task 1: Stream / Bridge Hydraulics & Scour Evaluation	\$6200
Task 2: Acquire FPUP from COT PDSD	\$2600
Task 3: 404 PJD & Non-notification Package	\$4000
Total Fees	\$12,800

## Assumptions:

- COT FPUP application services will not include submittal of geotechnical and/or structural engineering scour mitigation measure design information. If needed, that information will be provided by others, including response to COT review comments on same.
- COT FPUP review fees are estimated to be \$100 or less and will be billed at cost as part
  of Task 2. CMG FPUP services.

Thank you for the opportunity to submit this proposal. Please call with any questions.

Sincerely,

CMG Drainage Engineering, Inc.

Jerald L. Curless, PE

Jerald L. Cruless

Principal

Attachment: CMG Billing Rate Schedule



3555 N. MOUNTAIN AVE. • TUCSON, AZ 85719 • PHONE: (520) 882-4244 • FAX: (520) 888-1421

# CMG DRAINAGE ENGINEERING, INC.

# 2022 Hourly Billing Rates McCorkle Pedestrian Bridge Final Design Support

Item No.	Personnel Classification	Billing Rate
1	Project Principal	\$158
2	Project Manager	\$142
3	Senior Project Engineer / Hydrologist	\$126
4	Project Engineer / Hydrologist	\$109
5	Designer	\$96
6	CAD Technician	\$82
7	Clerical / Administration	\$60

# **Direct Costs**

<u>Document/Plan Reproduction – </u>	Rate	
Outside Vendor Printing & Reproduction Services	At Cost	
In-House Printing & Copies 8½" X 11"	\$0.15/Sheet	
In-House Printing & Copies 11" X 17"	\$0.30/Sheet	



## PROPOSAL FOR PROFESSIONAL SERVICES

Greg Vega P.E. Dibble 177 N. Church Ave. #1000 Tucson. AZ 85701

Date: 9.19.2022

Project: McCorkle Ped Bridge

Location: Tucson, AZ

Contech Engineered Solutions, LLC ("Contech") is pleased to provide the following professional services proposal for Contech Prefabricated Pedestrian bridge and abutment design ("Product") for the above referenced project ("Project"). This proposal, if accepted by Dibble ("Company") within thirty (30) days of the date hereof, shall constitute a binding contract and incorporates by reference Contech's Standard Terms and Conditions for Professional Services. Any different or additional terms or conditions contained in Company's acceptance of this proposal are hereby objected to by Contech and shall have no effect on, and not become part of, the terms and conditions of this Agreement. Additional terms, changes, and alleged subsequent agreements shall not be effective unless signed by Contech's authorized representative.

### I. PROFESSIONAL SERVICES

### Description of Professional Services:

Contech proposes to provide Company the following professional services ("Services") signed and sealed by a Professional Engineer registered in the State of Arizona. Based on the information regarding potential scour at the location of the bridge we anticipate the need for deep foundations.

- Structural design of the Pedestrian Bridge Abutments-Drilled shaft or other deep foundation design.
  - Predesign coordination meetings as required to set bridge and abutment elevations, grades, utility requirements if needed, and any other coordination specific to structure. Provide preliminary and final bridge plan and elevation details.
  - Prepare Contech Construction Drawings (CCD) for the bridge, abutment and associated walls, including foundation details in accordance with the project drawings and information provided by Dibble –( Bridge Assessment by Dibble) and geotechnical report data included in selection report. Abutments will be shallow spread foundations.
  - Prepare structural calculations for the abutments and associated walls.

## Exclusions/Work Provided by Others

Company shall provide Contech with full information regarding the Project's design requirements, including but not limited to project plans (including drainage, grading, and utility plans) and specifications, site topography data, special structural or loading requirements, geotechnical report and soil boring data, hydrological and flood plain data, hydraulic sizing, scour analysis, and any special owner/governing agency requirements.

Contech shall have no responsibility for any permitting, installation or construction activities or services of any kind, shoring design, shoring means and methods, inspections, investigations, reports, or data unless specifically provided in Contech's scope of work above.

## **Anticipated Schedule**

It is anticipated that design will commence upon acceptance of this proposal and receipt of the project information listed above. Contech anticipates design services and deliverables will be provided 4-6 weeks from commencement of work. The drawings will be subject to one review by Company. Revisions required due to errors on Contech plans or omissions from Contech plans will be completed under this scope of services. Any further revisions or changes to the scope of services described will be subject to additional fees.

## Fees for Professional Services

☐ Contech will provide the services outlined above for a lump sum fee of \$17,900 to be billed upon the completion of services. Payment terms are net 30 days from date of invoice.

The professional services provided pursuant to Article I are provided for the express purpose of gaining approval of the use of these Contech Products from the permitting agencies/owners and in the interest of Contech ultimately supplying the prefabricated truss bridge. Contech will grant a limited, non-exclusive license to copy and/or implement such drawings, designs, calculations and deliverables only upon the purchase of the Product from Contech in connection with this Project. Use of the Services with any other structure, manufacturer or project is strictly prohibited and voids any and all representations and warranties, express or implied, related to the Services. Contech expressly disclaims any and all liability related to use of the Services with any other structure, manufacturer or project. To the fullest extent permitted by applicable law, Client agrees to indemnify, defend and hold harmless Contech along with its respective officers, directors, owners, employees and agents from and against all claims, damages, losses, causes of action, suits, judgments and expenses (including but not limited to reasonable attorney's fees) of any person or entity, to the extent arising out of Client's use of the Services with any other structure, manufacturer or project.

Execution of this Proposal constitutes Client's binding commitment to purchase the Product. Pending receipt of the order for the Product, Contech will prepare Fabrication Drawings (if not included in original scope) for approval and fabrication. In addition, Contech will provide supplementary services at no cost with a signed order for the Product. These services may include:

- Minor revisions to Contech Contract Drawings and/or Fabrication Drawings due to approval agency comments.
- Responses to RFI's related to applicable construction and installation processes for the design shown.

A separate contract with Contech's Conditions of Sale for the Product will be provided at time of bid or upon request at time of purchase.

	• •
ACCEPTED this day of, 20,	Respectfully submitted,
subject to all terms and conditions contained herein.	
BUYER:	John Bacigalupi Regional Bridge Consultant
By:	
(Signature) Print Name:	
Title:	
BUYER's PO No.	

We appreciate the opportunity to serve you and look forward to a successful project.

### CONTECH'S STANDARD TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

All professional services, including without limitation, engineering, design services, detailed drawings, training, consulting and analysis, provided by Contech (collectively, the "Services") are subject to the following terms and conditions ("Agreement"). CLIENT'S RIGHT TO ACCEPT THIS OFFER IS LIMITED TO CLIENT'S ASSENT TO THE TERMS AND CONDITIONS PRINTED HEREON AND THE ATTACHED OR ACCOMPANYING AGREEMENT, AND NO TERMS ADDITIONAL TO OR DIFFERENT FROM THOSE IN THIS OFFER ARE BINDING ON CONTECH. THERE ARE NO UNDERSTANDINGS, TERMS, CONDITIONS OR WARRANTIES NOT FULLY EXPRESSED HEREIN. Contech objects to any additional or different terms contained in any documentation submitted by Client.

- 1. SCOPE. The scope of work for the Services to be provided to Client is specifically set forth in Contech's proposal or quote (collectively, "Quote"). If Client requests a change in the scope of the Services to be provided, Contech reserves the right to revise schedules and price. Contech will not be obligated to provide any services which are (a) outside of the scope defined in the applicable documentation; (b) outside its area of expertise; or (c) in violation of any applicable laws, codes or regulations.
- 2. CLIENT OBLIGATIONS. Client shall make available in a timely manner at no charge to Contech all drawings, technical data, measurements, or other information and resources reasonably required by Contech for the performance of the Services. Client will be responsible for, and assumes the risk of any problems resulting from, the content, accuracy, completeness and consistency of all such data, materials and information supplied by Client.
- 4. LIMITED WARRANTY. Contech will provide the Services in accordance with generally accepted industry practices using reasonable care and skill consistent with that ordinarily exercised by members of the industry under similar conditions. However, due to the nature of the Services being provided, Contech cannot fully guarantee the success of Client's project. As such, except as set forth in this Section, Contech makes no warranties or guarantees, whether express, implied, or statutory, regarding or relating to the Services furnished under this Agreement. Contech specifically disclaims all implied warranties of merchantability and fitness for a particular purpose with respect to the Services.
- 5. REMEDY FOR BREACH OF THE LIMITED WARRANTY. The parties acknowledge and agree that the Services are being provided by Contech with the expectation that Contech is not assuming any financial or operational risks of the Client. In the event Contech commits an error with respect to or incorrectly performs the Services, Contech shall use commercially reasonable efforts to correct such error, or re-perform such Services at no cost to Client. Client acknowledges that its sole and exclusive remedy, and Contech's sole and exclusive liability, for any defect or error in the Services shall be correction, re-performance or substitution of such services by Contech.
- 6. LIMITATION OF LIABILITY. Contech's liability for a claim of any kind related to the Services, whether arising under contract, warranty, tort (including negligence), strict liability, products liability or other theory of liability, shall be limited to and not exceed the price paid by Client for Services. In no event shall Contech be liable for any special, indirect, labor, incidental or consequential damages, including without limitation, loss of profits or business interruption or loss of use of equipment, however caused, arising from or related to the Services. Any claim, demand or suit shall be directed and/or asserted only against Contech and not against any of Contech's affiliates, employees, officers or directors.
- 7. DELIVERY/FORCE MAJUERE. Contech shall have no liability for delays or any other breach of its obligations resulting from an Act of God, war, riot, explosion, accident, act of government, work stoppage, default of subcontractor or supplier of materials, or any other cause beyond the reasonable control of Contech.
- 8. CANCELLATION, SUSPENSION OR DELAY. Client agrees to Contech's performance of the Services in accordance with the date shown on the Quote. Client may cancel or suspend or delay by more than 30 days an order for Services only upon written notice and payment to Contech of all labor, material, and other costs incurred by Contech prior to such notice plus 25% administrative charge as reasonable estimate of damages for cancellation, suspension or delay.

- 9. OWNERSHIP. Except as otherwise specifically set forth in the scope of work provided as part of the proposal or quotation, all documents, including drawings, specifications, computer files, electronic media, data, engineering calculations, notes, and other documents and instruments prepared or furnished by Contech (collectively the "Documentation") are owned by and the property of Contech. Contech shall retain all common law, statutory and other reserved rights, including copyright, applicable to the Documentation. The Documentation is not intended or represented to be suitable for use on any other project. Client agrees to indemnify and hold Contech harmless against all claims, damages, losses, and expenses (including reasonable attorneys' fees) arising from or in any way connected with the unauthorized use or modification of the Documentation by Client or any person or entity that acquires or obtains the Documentation from or through Client without the written authorization of Contech. Contech shall have no liability to Client or others for changes made to the Documentation by Client without Contech's prior written approval.
- 10. INDEMNITY. Client shall indemnify and hold Contech harmless from all claims, damages, costs, fees, liabilities, losses, and expenses (including reasonable attorneys' fees and expert fees) as a result of any breach of this Agreement by Client or in connection with the Services by Contech under this Agreement, including without limitation, use of drawings, data or other information. However, in no event shall Client be liable under this provision for claims arising out of the sole negligence or willful misconduct of Contech.
- 11. ASSIGNMENT. Client may not assign the Agreement between Contech and Client without the prior written consent of Contech.
- 12. 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 Contech. Contech's Services are being performed solely for Client's benefit, and no party or entity shall have any claim against Contech because of this Agreement or the performance or nonperformance of the Services.
- 13. INDEPENDENT CONTRACTORS. Each party will be, and act as, an independent contractor and not as an agent or partner of, or joint venture with, the other party for any purpose related to this Agreement or the transactions contemplated by this Agreement, and neither party by virtue of this Agreement will have any right, power, or authority to act or create any obligation, expressed or implied, on behalf of the other party.
- 14. SEVERABILITY. In the event any provision of this Agreement shall be declared invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.
- 15. PERIOD OF LIMITATIONS. Client and Contech agree that a claim of any kind by Client related to the Services must be commenced by Client within one year of accrual of the cause of action or, if less, one year of performance of the Services.
- 16. APPLICABLE LAW. This contract shall be governed by, and construed and enforced in accordance with, the laws of the State of Ohio, without regard to any conflict of laws principles. Client and Contech agree and consent that dispute or legal action arising out of or in connection with this Agreement, including any question regarding its existence, validity or termination, shall be brought and tried exclusively in the Butler County Court of Common Pleas in Hamilton, Ohio or, in the absence of jurisdiction, the federal district court in Cincinnati, Ohio.
- 17. ENTIRE AGREEMENT. This Agreement represents the entire and integrated agreement between Client and Contech and supersedes all prior negotiations, representations or agreements either written or oral. This Agreement may be amended only by written instrument signed by both Client and Contech.