May 12, 2023

Board of Education
Fort Smith Public Schools
Via Email

Re: PEAK Innovation Center

Dear Board Members:

MSE/Halff firmly believes the PEAK Innovation Center is an important asset to the Fort Smith community and the surrounding area. We fully embrace its mission, and we want this facility to be a pillar of pride to you and its users. It has been our pleasure to be a part of the team that helped make this important project a reality! The benefit to our community will surely be felt for decades to come.

The property on which the PEAK Innovation Center is located has some unique drainage challenges that were well known to us before construction began. Some of these have contributed to recent damages from record rainfall events. While there are several complicated factors that contributed to rising waters and subsequent damages at the PEAK facility, it is our concern that some have not been clearly articulated to the school board following these rainfall events. Halff has volunteered, on more than one occasion, to be allowed to present this information at previous School Board meetings, but our efforts were not successful. It is important to us that you have *all* the facts on this matter, so you can make informed decisions going forward.

The most recent school board meeting held on April 24, 2023, again included discussions and commentary without Halff having the benefit of sharing critical information we feel is necessary for you to *fully* understand the progression of events and project details leading up to today. It is for these reasons that we have prepared the following narrative and timeline to better facilitate future discussions of this matter.

HISTORICAL BACKGROUND

The site of the PEAK Innovation Center was formerly known as the Hutcheson Shoe Warehouse until it was later purchased by Walmart Incorporated. Walmart expanded this site in 1985 to include several drainage channels through the site and to add storm drainage pipes in the same channel **(See Exhibit A).** In March of 2019, prior to MSE/Halff beginning site design for this project, Morrison-Shipley completed an aerial survey of the site that showed the 1985 improvements remained unchanged. **(See Exhibit B.)**

TIMELINE

The following Timeline has been assembled to document the sequence of events beginning with initial engineering contract discussions between Morrison-Shipley Engineers, Hoar Program Management (HPM), Corgan Architects (Corgan), and Fort Smith Public Schools (FSPS). In November of 2021, Halff Associates purchased the assets of Morrison-Shipley Engineering, as referenced herein as MSE/Halff.

2018-September 11: Site Test Fit drawings were prepared by Corgan to conceptualize the site layout. This layout included the infilling of both loading docks to remove them. **(See Exhibit C).**

(NOTE: Infilling of the East dock was later Value Engineered (VE'd) out by FSPS/HPM to save money.)

2018-November 13: Greg Shipley of MSE/Halff began discussions with Eric Horstman of Corgan regarding a contract for MSE/Halff to prepare civil plans for the proposed remodeled facility.

2018-November 26: A formal proposal was sent to Eric Horstman at Corgan from Greg Shipley at MSE/Halff which included *only* the design of minor site grading near the building to facilitate localized drainage to the existing earthen channel. Improvements or changes to the existing earthen channel were *excluded* from MSE/Halff's proposal as specifically directed by Eric Horstman at Corgan. Prior to MSE/Halff's preparation of its proposal, Mr. Horstman told Mr. Shipley (paraphrased) the project budget was tight, so minimal funds would be used on site improvements. Please note in the proposal language that Halff clearly identified the drainage channel would remain "as-is" without improvement as specified by Corgan. **(See Exhibit D).** The insignificant fee of $12,485 is reflective of the minimal scope and work expected to be completed by MSE/Halff. This is also evident when compared to the vastly larger fees associated with the civil engineering work completed for improvements as SHS and NHS.

2018-November 27: MSE/Halff received an email from Corgan with comments regarding the proposal provided on 11-26-2018. Corgan's *only* comment was to add fees for Construction Administration. **(See Exhibit E)**. No additional engineering services were requested or included in this proposal.

2018-November 27: MSE/Halff sent an email to Corgan expressing concerns that more *extensive* civil work might be necessary based on email conversations. **(See Exhibit F).**

2018-November 28: MSE/Halff's revised civil proposal to add Construction Phase Services on an "as requested" basis was sent from Greg Shipley to Eric Horstman at Corgan as requested. This added $2,480.00 for Construction Phase Services. NO CHANGES were made to the Civil Engineering fee which remained at $12,485.

2019-January 14: Subsequently, MSE/Halff was asked to provide surveying services for the project, and a revised Surveying proposal was sent to Jay Kirkpatrick (HPM). No additional Engineering services were requested or included in this Proposal. **(See Exhibit G)**.

2019-March: Prior to beginning the design phase for this project, MSE/Halff completed an aerial survey of the site that showed the 1985 improvements unchanged since constructed.

2019-June 13: Kickoff Meeting for Design Phase

2020-Spring: Site demolition begins.

2020-May 4: Water seeping upward through joints in the building slab was reported. Investigations, by others, revealed the absence of a vapor barrier under the 1985 building addition. **(See Exhibit H.)**

2021-January: An underdrain system was installed in an attempt to reduce subsurface water migration under the slab. Later reports to MSE/Halff from FSPS indicated that these drains appear to be successful at limiting the movement of subsurface water under the building slab. **(See Exhibit I).**

2021-September: Discussions began regarding the headwall design near the southeast corner of the building. Due to a miscommunication of scope by Corgan, the design of said headwall was *never* completed by Corgan's structural engineering consultant. It was not included in MSE/Halff's scope. **(See Exhibit J).**

2021-October: Following discussions regarding design for the headwall replacement between Corgan and their structural engineering consultant, an alternate design was considered due to the anticipated cost of

the original design concept. As a result, MSE/Halff presented options, even though it was not in our scope, for concrete end section treatments to maintain the existing metal culvert under the existing driveway. **(Exhibit K)**

2021-November 3: MSE/Halff received an email from Corgan **(Exhibit L1)** with concerns over the cost for the proposed pipe-end treatment, **(Exhibit K)**, along with an estimate for same from Turn Key Construction Management (Turn Key), the PEAK's general contractor. **(Exhibit L2)**

2021-December 5: MSE/Halff received an email from Corgan regarding a request by FSPS staff to install two (2) 42-inch concrete storm drainage pipes in the existing open channel. It was understood based on the discussion this was being explored to create a "safer" conditions for students. MSE/Halff *did not* approve this request. A meeting was requested for the following day to discuss our concerns. **(See Exhibit M).**

2021-December 6th: Travis Brisendine and Aaron St. Amant of MSE/Halff met with Mr. Shaffer (FSPS), Angie Stutsman (Corgan), and Graham Sharum (Childers Architect) to discuss two (2) remedial options that were suggested by FSPS, and one (1) possible solution presented by MSE/Halff. MSE/Halff expressed concerns at this meeting regarding the *inadequacy* of *either* of the two options suggested by FSPS. MSE/Halff expressed preference for the solution that proposed a concrete box culvert approximately sized at 9-foot wide and 8-foot tall based on current knowledge of site hydrology/hydraulics, *without* the benefit of a detailed study. *Neither* a detailed drainage study *nor* a fully engineered design was requested of MSE/Halff at that time. **(See Exhibit N).**

2021-December/2022-January: *Despite* concerns expressed by MSE/Halff in the December 6th meeting, and in a follow-up email, the two (2) 42-inch storm drainpipes were installed as shown on **Exhibit O.** MSE/Halff *did not* complete any design work before the two (2) 42-inch pipes were installed.

2022-June 7: MSE/Halff was notified by Mr. Shaffer that water had entered the building at various locations following significant rainfall events in the area. The original plans included a concrete trickle channel that was intended to be built along the north face of the building. The intent of this trickle channel is to improve the conveyance of surface drainage from that area due to the flat slopes present. During a site visit MSE/Halff noticed that the trickle channel had not been constructed. When inquired about, we were informed that this concrete channel may have been omitted as a cost savings item.

2022-June 8: MSE/Halff was contacted again by Mr. Shaffer who informed MSE/Halff that construction crews left plywood forms in place inside the drainage structure shown on **Exhibit O.** This appeared to be the primary cause of some of the building flooding that occurred on June 7th.

2022-June 9: Mr. Shaffer requested MSE/Halff investigate the June 7th rain event to assist him with his presentation to the BOE during an upcoming meeting.

2022 – June 27th: MSE/Halff attended the regularly scheduled FSPS BOE meeting where Mr. Shaffer presented a timeline of events regarding the June 7th rainfall event. The BOE requested additional information as well as possible drainage solutions to mitigate future drainage issues. Following the meeting, Mr. Shaffer requested MSE/Halff to prepare a formal presentation for the BOE regarding possible solutions.

2022 – August 12th: MSE/Halff met with Mr. Shaffer to develop a plan to present findings of the drainage analysis to the BOE during its next scheduled meeting. MSE/Halff left the meeting with the understanding it would be presenting, *in full*, four options along with associated background information to the BOE.

2022-August 22nd: MSE/Halff arrived at Mr. Shaffer's office in advance of the BOE meeting to review the presentation. MSE/Halff prepared a detailed presentation that provided important background information related to the site drainage, as well as information related to the various options MSE/Halff had analyzed. This presentation was submitted to Mr. Shaffer prior to arrival, and it was understood by MSE/Halff that our presentation would be added to Mr. Shaffer's own slides for our presentation purposes. Following our arrival, Mr. Shaffer informed MSE/Halff that he "trimmed down" our presentation to be more "concise." The trimmed-out sections included the background information, leaving only the slides that contained our options for drainage improvement. We felt the information trimmed out was beneficial for the BOE to gain a full understanding of the site history as well as project timeline and construction.

Mr. Shaffer led the presentation, and MSE/Halff presented on the possible drainage improvements. As expected, the BOE had many questions and concerns after the presentation. The BOE decided to table the item and requested additional information regarding the options and their efficacy before moving forward to select an option.

2022-Fall: MSE/Halff was not asked to attend any further BOE meetings for the remainder of 2022. MSE/Halff understood that it was waiting for direction from Mr. Shaffer or Mr. Joseph Velasquez on how FSPS wanted to proceed regarding the options presented.

2022-November: Mr. Shaffer informed MSE/Halff that FSPS had selected "option 4" to address the drainage issues. This option had an original cost opinion of approximately $1.1 million which included filling and reconstruction of the east parking lot, excavation of a detention pond, and miscellaneous drainage improvements in the area. The exhibit presented for this option is attached as **Exhibit P**.

In addition to improvements included in “option 4”, Mr. Shaffer requested additional parking lot expansion improvements be included for which an additional $300,000 was budgeted by FSPS for this addition. No consultation was requested from MSE/Halff regarding the cost of the additional parking. However, MSE/Halff expressed concern at this time that the $1.4 million budget may be *insufficient* to complete the proposed drainage improvements along with the requested additional parking.

2022-December: MSE/Halff met with FSPS staff bi-weekly to finalize the scope for the chosen drainage improvements. MSE/Halff again expressed concerns that scope changes being requested could *exceed* the $1.4 million construction allocation.

2023-Febuary 2nd: The proposal for the design of the drainage and parking lot improvements was executed and MSE/Halff’s design work began. Design progress was continuously discussed with FSPS representatives at bi-weekly meetings.

2023 March 15th: During one of the Bi-weekly meetings, Nabholz Construction (The CM selected for the project by FSPS) presented their preliminary pricing estimate based upon 60% plans created by MSE/Halff. The total estimate submitted by Nabholz was approximately $3.3 million. Allen Deaver with MSE/Halff asked Mr. Shaffer if the scope should be scaled back to bring the project back into budget, but we were instructed to continue as planned and that the project could be phased and constructed as the district had the funds.

2023-March 24th: PEAK experienced another significant rain event. MSE/Halff representatives arrived on site at 8:45 a.m. to investigate the conditions following the event. Shawn Shaffer and representatives from Nabholz arrived on site shortly after to tour the facility and surrounding site to assess any potential flood-related damage. Mr. Shaffer reported that water entered the facility through joints in the floor slab and from several locations near the roof. It appeared that no storm water entered the building due to ponding water outside the building, however, significant ponding was present in the northeast parking lot.

While on site, MSE/Halff expressed to Mr. Shaffer that the installation of the two (2) 42-inch pipes could be aggravating drainage at the site and recommended removing them as soon as possible. Mr. Shaffer agreed.

2023-April: Nabholz prepared an updated cost estimate based upon *90% plans* of the full build out (option 4, plus the additional parking) as submitted by MSE/Halff. Nabholz’s new estimate was $3.9 million.

2023-April 24th: MSE/Halff attended the regularly scheduled BOE meeting where Mr. Shaffer presented the timeline of events for the March 24th storm event to the BOE. Mr. Velasquez presented an overview of the design plans and the associated cost estimate from Nabholz. The item was tabled due to budget concerns.

CONCLUSION

It is our belief that important information regarding MSE/Halff's 4.5-year involvement in the PEAK project has not been *fully* presented to the BOE. MSE/Halff was not hired as a drainage consultant nor tasked with drainage design until this year. Furthermore, FSPS budget constraints as well as project timelines led to *alternative* drainage remedies that were *not* recommended by MSE/Halff. We hope the narrative above along with the attached exhibits provide clarity and help give context to how our role in this project has evolved.

MSE/Halff representatives will attend the board meeting on May 22nd to answer questions. We request the opportunity to provide a short presentation summarizing the above-described timeline. We can either present this information during the PEAK project discussion or the Citizens forum, if needed. We are providing this information to *each* of you directly, in advance of the May meeting, in hope that you have *adequate* time to review and prepare questions prior to the meeting. We look forward to a collaborative discussion and hope to better understand and address your concerns.

Respectfully,
Halff Associates, Inc. *(formerly Morrison-Shipley Engineers, Inc.)*

Travis Brisendine, P.E.
Vice President & Fort Smith Operations Manager

EXHIBIT A

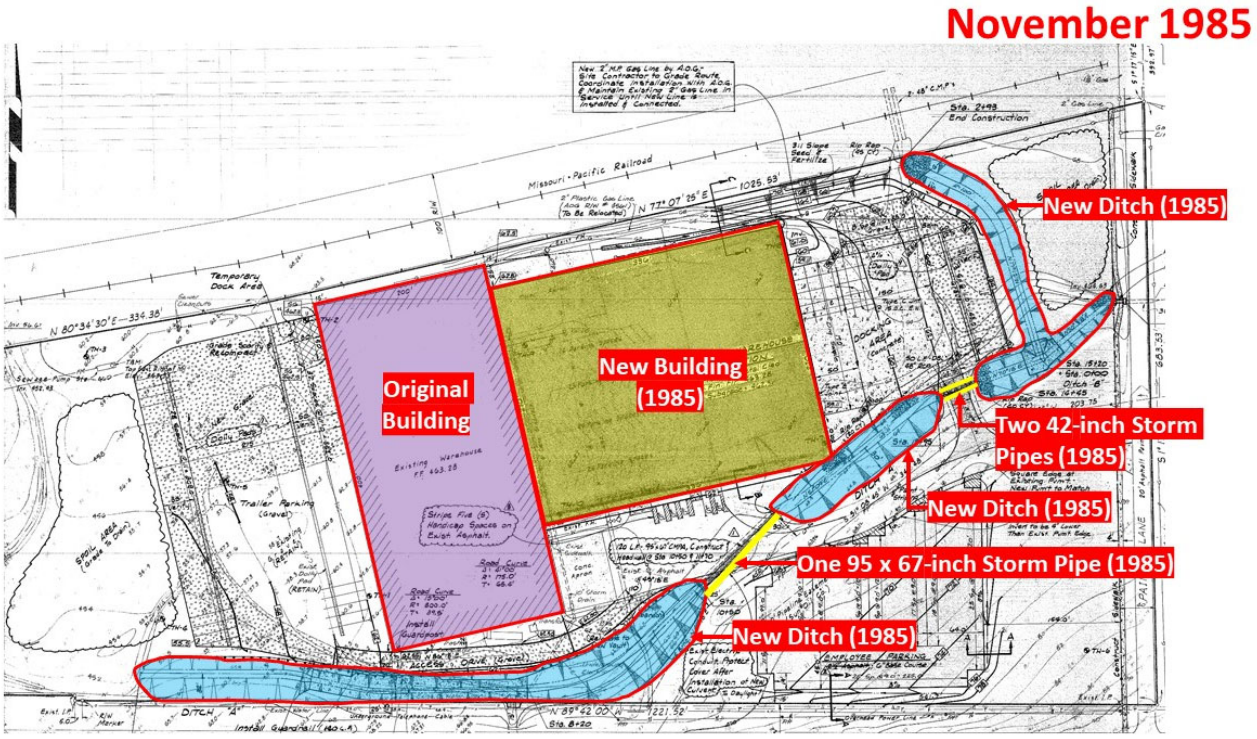

EXHIBIT B

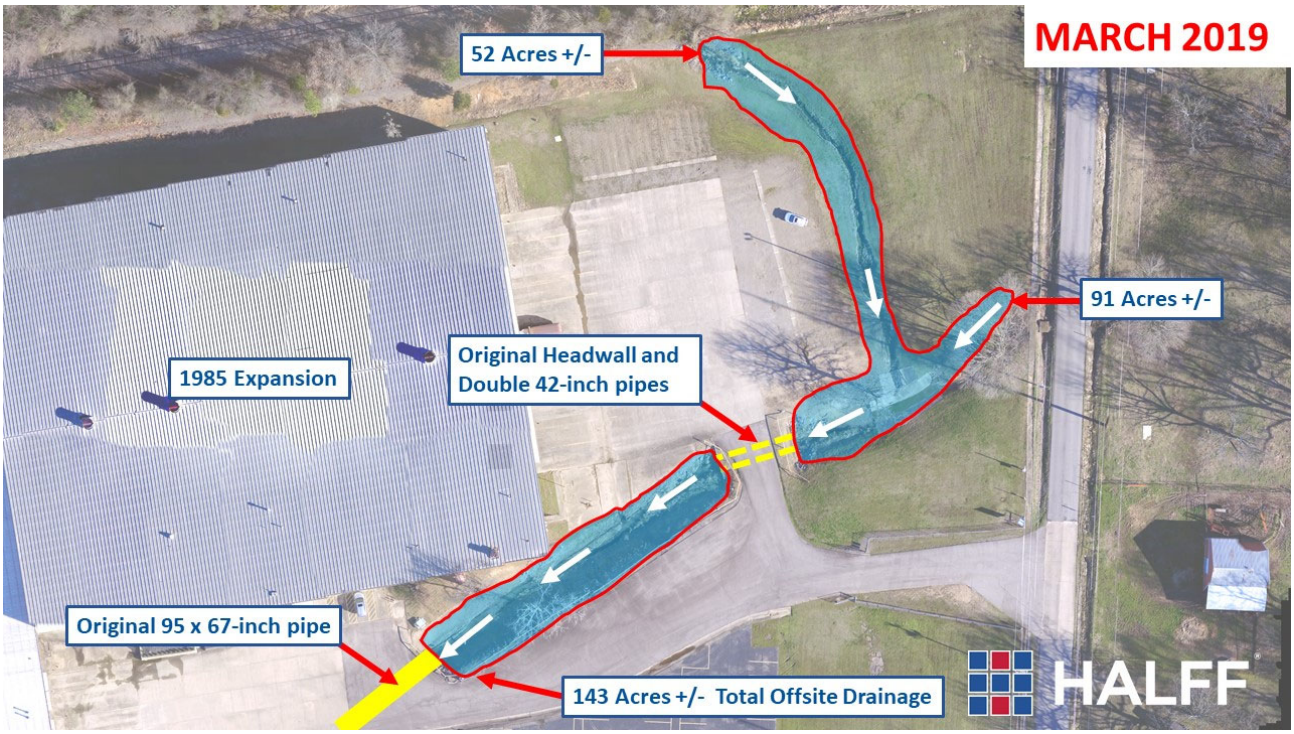

EXHIBIT C

SITE PLAN - 1:100

SITE TEST FIT
FORT SMITH - CTE
11 SEPTEMBER 2018

CORGAN

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EXHIBIT D

MORRISON SHIPLEY
ENGINEERS INC.

November 26, 2018

Mr. Eric Horstman, AIA
Corgan
401 N Houston Street
Dallas, TX 75202

RE: Proposal for Civil Engineering Services
Fort Smith Public Schools – Career and Technology Center (CTC)
Fort Smith, Arkansas

Dear Eric,

First off, congratulations to Corgan for your selection by FSPS, and thank you for including Morrison-Shipley on your team! Having worked in Dallas the past five years, I have admired Corgan's work (notably at State Farm and Toyota), so I am honored to have the opportunity to work with you guys.

PROJECT UNDERSTANDING

It is understood that the project includes a re-development of the former Walmart (Hutcheson Shoe) warehouses located at the NWQ of Painter Lane and South Zero Street (Arkansas Hwy 255) in Fort Smith. Based on our previous discussions, it understood that the western warehouse (running north-south), approximately 80,000 SF, will be re-developed as the CTC Center while the eastern warehouse (running east-west), approximately 90,000 SF, will remain undeveloped and may be converted into an elementary school in the future.

It is further understood that exterior improvements will include reconstruction of the facades of both warehouses, including removal of the overhead doors at the existing truck docks. Additionally, the site grades will be raised approximately four (4) feet along the east-facing

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FORT SMITH AR 72903
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EXHIBIT D (CONTINUED)

sides to fill the existing truck wells in order provide at-grade access to the buildings. Such re-grading will likely necessitate minor drainage improvements to re-direct localized runoff but same is not expected to increase runoff or the current area of impervious paving.

Next, it is understood that the existing drainage channel proceeding from Painter Lane across the site will remain as-is without improvement. Given that future site improvements are not expected to increase the area of impervious surfaces, the post-development runoff should be less than or equal to the pre-developed flows. As such, this Proposal does NOT include the design of detention facilities. However, it is cautioned that detention remains a possibility based on the final site layout that is ultimately approved by the City. If detention becomes a project requirement, we will negotiate a separate fee with you based on the scope of work that is determined at that time.

Further, we understand that the existing parking area to the south of the structure and the entrance driveway off Painter Lane will be left in-place as they now exist with the exception of areas where grade modifications will necessitate new paving – primarily in the truck docks and adjacent to same. We will not fully know these locations until after detailed design work starts, but we understand these are to be kept to a minimum. Also, a fire lane will be routed around the buildings and such shall be of appropriate construction to support the weight of a fire truck – in this case gravel, asphalt, or PC concrete. Selection of the surface will be made based on recommendations in the geotechnical investigation being performed by others.

We have also discussed a second driveway onto Zero Street, although this is not firm at this time. Because of that, we are excluding it from this Proposal, and our services to design this can be negotiated separately if it is needed.

Regarding site utilities, it is assumed that utility service mains already serve the building. However, we have included some time in our Proposal to coordinate any changes with the utility providers, and we will show their routings on a Site Utility Plan up to a point five (5) feet from the face of the structures.

Last, we understand that survey work is not to be included within this Proposal. We will need to obtain topographic data in various locations to complete our work – most notably at the

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EXHIBIT D (CONTINUED)

truck docks and along the east and north sides for routing the fire lane. We have posed this question to HPM for their direction.

If any of our understandings are in error or require clarification, please advise, so that we can revise this Proposal accordingly before it is executed.

SCOPE OF SERVICES

Morrison-Shipley will provide the following civil engineering and related services under this Proposal in accordance with the following:

1. **DEVELOPMENT PLAN** preparation for submittal to the City of Fort Smith Planning Commission, if required. Such will be completed in accordance with the City's Unified Development Ordinance (UDO). Such will include a Conditional Use Permit applications and representation for a school in an Industrial 1 (I-1) zoning.

2. **SITE CIVIL PLANS** for redevelopment of the site in a format suitable for obtaining a building permit from the City of Fort Smith. Such will include the following:

    a. Pre-Design site visits and investigations
    b. Assemble and review existing site plans, utility plans, and other land records
    c. Review of existing City water and sewer facilities and franchise utilities
    d. Prepare Site Demolition Plans
    e. Prepare Site Dimensions and Horizontal Control Plan
    f. Prepare Grading and Drainage Plans
    g. Prepare Paving and Striping Plans
    h. Prepare Site Utility Plans with utilities connected at the main or source and extended to a point five (5) feet from the building façade.
    i. Prepare SW3P for contractor's use *(NOI submittal to state not required since less than five (5) acres will be undisturbed)*
    j. Prepare Erosion Control Plans
    k. Prepare Details for all Plans above
    l. Landscape and Irrigation plans

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EXHIBIT D (CONTINUED)

m. Coordinate Electrical Site Lighting subconsultant plans with Civil plans
n. Coordinate improvements with the City of Fort Smith, including approvals necessary to obtain a building permit
o. Prepare Specifications either to be shown on our plans OR MSE making red-line revisions to your MasterSpec (or similar) specifications.
p. Address contractor questions during the bidding phase and preparation of addendums, if required.

3. **REIMBURSABLE EXPENSES** including Printing, Shipping, and Arkansas One-Call Locate Fees, among others, will be charged at our actual cost and will be billed in addition to the fees stated below.

4. **CONSTRUCTION PHASE SERVICES** will be provided only when requested, to include the following services: address contractor RFI's, construction observation, project meetings, construction staking, construction surveys, record drawings, etc. for this project, we have budgeted two (2) hours for a Principal Engineer, eight (8) hours for a Sr. Project Manager, and twelve (12) hours of Construction Observer. If additional time is requested, such will be billed in accordance with our hourly billing rates attached to this Proposal.

EXCLUSIONS

1. Surveys
2. Rezoning and variances
3. Geotechnical investigation
4. Offsite improvements including: roadway improvements, drainage improvements, and utility extensions/upgrades
5. Detention facilities
6. Drainage improvements through the site
7. Site Lighting plans
8. Traffic studies
9. AHTD driveway permitting
10. Fees payable to outside parties for reviews, permitting, etc.
11. Record Drawings

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EXHIBIT E

From: Eric Horstman <Eric.Horstman@corgan.com>
Sent: Tuesday, November 27, 2018 4:11 PM
To: Greg Shipley <GShipley@MorrisonShipley.com>
Cc: Travis Brisendine <tbrisendine@MorrisonShipley.com>
Subject: RE: FSPS - CTC Civil proposal

Hi Greg,
We have reviewed your proposal and it looks good, with one request: can you estimate CA visits and cost? We need to start with a hard number to work towards, we understand if scope changes or you get called out to the site more often, we can adjust. But we do want to fix the fee to start.
Thanks,
Eric

EXHIBIT F

From: Greg Shipley
To: Eric Horstman
Cc: Travis Brisendine
Subject: RE: FSPS - CTC Civil proposal
Date: Tuesday, November 27, 2018 9:21:00 PM

Eric,

I will add the CA in the morning and get the revised Proposal back over to you.

FYI… I spoke with Jay Kirkpatrick today, and he felt like the civil on this project was "significant". Based on the work you and I discussed, and as I qualified in the Proposal, we didn't see this as a difficult job. If I have misunderstood the scope you expect or excluded something that you think needs to be in the scope, please advise. One big assumption we made was that all utilities exist on the site. If you think upgrades or modifications (relocations) will be required, I need to add fee for that.

Also, we will be submitting a separate proposal to FSPS for the survey work per Jay's request.

Thanks Eric.

Greg

GREG SHIPLEY PE
MORRISON-SHIPLEY ENGINEERS INC

5750 GENESIS CT STE 100
FRISCO TX 75034
972 472 2009 OFFICE
479 883 4185 CELL

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EXHIBIT G

MORRISON SHIPLEY
Civil Engineers

January 14, 2019 *(revised 3/1/19)*

(VIA E-MAIL)

Fort Smith Public School District
c/o Jay Kirkpatrick
Hoar Program Management
3100 Monticello Avenue Ste 575
Dallas, TX 75201

RE: ***Surveying Proposal for FSPS CTE Center***
5900 Painter Lane - Fort Smith, AR

Dear Jay,

Per our previous discussion, Morrison-Shipley Engineers, Inc. (MSE) is providing this Proposal for boundary and topographic surveying services for the CTE project. Previously, we submitted our civil engineering proposal to Corgan, and Eric Horstman asked that we direct the surveying Proposal to the Owner.

Project Understanding

MSE understands that the Fort Smith Public School District would like for us to provide the surveying services necessary to develop a Boundary & Topographic survey for our use in providing civil engineering services for the CTE project. Based on discussions with Mr. Horstman, and as noted in our previous civil proposal, it is understood that minimal sitework will be performed with the exception of fill to be placed in the two truck dock areas. Additionally, it is understood that a truck-accessible fire route will be required around the buildings' perimeter. This Proposal is based on capturing the survey data necessary to complete these two design tasks.

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EXHIBIT G (Continued)

It is also understood that improvements to the drainage channel and paved parking lot located south of the access drive leading from Painter Lane will NOT be made, so we have excluded surveying these areas from this Proposal. It is possible that these areas may require surveying to complete our civil design work depending on the limits of grading that result from the final scope of work developed by Corgan. We recommend including these areas at the time the other survey work is performed for expediency and completeness of the data, but please recognize that additional fees will apply.

Scope of Services

Please refer to Exhibit A below. MSE will collect site feature and topographic data within the areas **shown in yellow** and will also confirm the property boundary **shown as the green line**. The existing drainage channel on the southern edge of the property **shown in red** and the paved parking lot are excluded from this scope of services. The excluded channel and parking area can be surveyed, if requested, and the fees listed separately below will apply.

It is the intent of this Proposal that the field data will be collected adequate for the purpose of producing a complete base drawing for grading design and site plans, in .DWG format, that will include the perimeter of the existing structures, their finished floor elevations, existing utilities serving the site, topography at a one-foot contour interval, and the property boundary. We specifically exclude platting or re-platting of the property, construction staking, and post-construction or ALTA surveys.

Exhibit A

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EXHIBIT H

From: Eric Horstman <Eric.Horstman@corgan.com>
Sent: Monday, May 4, 2020 5:25 PM
To: Scott Ditto <sditto@hpmleadership.com>; George Watts <gwatts@hpmleadership.com>; pwalters@hpmleadership.com
Cc: Rebekah Gallagher <Rebekah.Gallagher@corgan.com>; Angie Stutsman <Angie.Stutsman@corgan.com>; Greg Burrows - Burrows & Associates (glburrows@burrowsengineers.net) <glburrows@burrowsengineers.net>; Graham Sharum <GSharum@childersarchitect.com>; Greg Shipley <GShipley@MorrisonShipley.com>; Chris Johnson <Chris.Johnson@corgan.com>; Eric Horstman <Eric.Horstman@corgan.com>
Subject: PEAK - Water up thru slab

Hi guys,
We are aware that HPM has been investigating the water coming up thru the slab at PEAK for some time now. Recent borings have confirmed the suspicion that while the oldest half of the building was constructed over a vapor barrier, the "newer" portion was not.
We are investigating potential "negative side" (on top of existing slab) water barriers for this slab, however given that this building was never conditioned, we are concerned that once HVAC is turned on, the problem will get much worse as the conditioned air lower humidity draws moisture up into the interior of the building.
Did your investigations reveal anything that we can use in our approach of this problem?
Please set up a conference call to discuss potential actions at your earliest convenience.
Thanks,
Eric

EXHIBIT I

RE: PEAK - Water thru Slab

EH

Eric Horstman <Eric.Horstman@corgan.com>
To Aaron St. Amant
Cc Graham Sharum, AIA - LEED AP - NCARB; Angie Stutsman

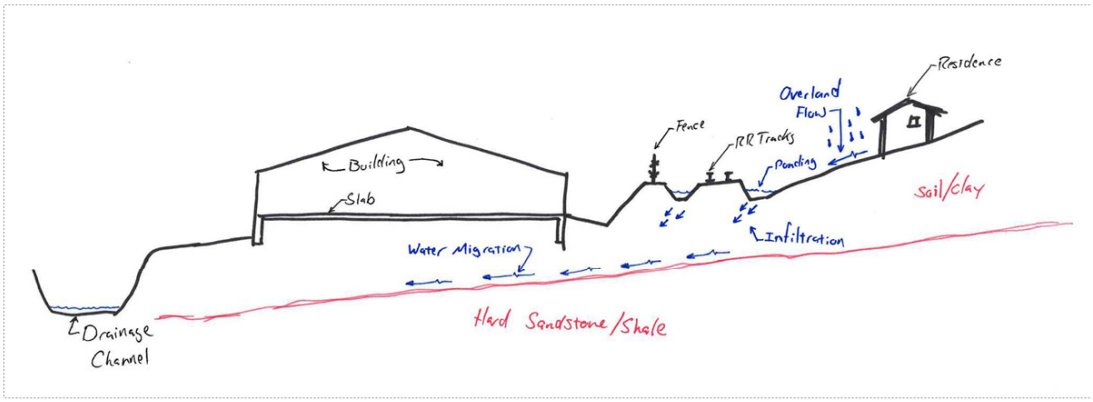
Reply | Reply All | Forward | ...

Wed 1/27/2021 4:08 PM

My recommendation remains unchanged following today's site visit. According to geotechnical reports dated May 2020, boring logs indicate hard material at depths of approximately 5 feet on the north side of the building with increasing depths moving to the south. Furthermore, water measurements noted in boring logs indicate dry material at the time of drilling with only a couple exceptions. Though some borings did indicate water present after 24-hours in roughly half of the holes at depths of 2 to 7 feet below grade. The remainder were either dry or not measured. Of course, the bore logs tell an incomplete story due to the nature of this type of testing and the inability to develop a more comprehensive picture of the underground strata. For this reason, my recommendation is as follows:

1. Install underdrains per the revised plans as these will be necessary regardless of any additional measures being entertained. This installation will be keyed into the hard strata and laid at 0.2% slope. An increase in pipe size will be necessary at any tie-in points from an internal drain system.
2. Connect the roof drains to an underdrain system and route to drainage channel as shown on the recently revised plans.
3. Installation of the concrete lined ditch is advised to complete this system but may be deferred until later in the construction process unless large amounts of surface ponding is observed.
4. Efficacy of this system should be evaluated following seven (7) days of observation. Other construction activity may continue nornally.

Borrowing a page from Erics book, I have included a couple of sketches to illustrate my findings and my suggested drain design. See revised "Draft" copy of the revised plan.



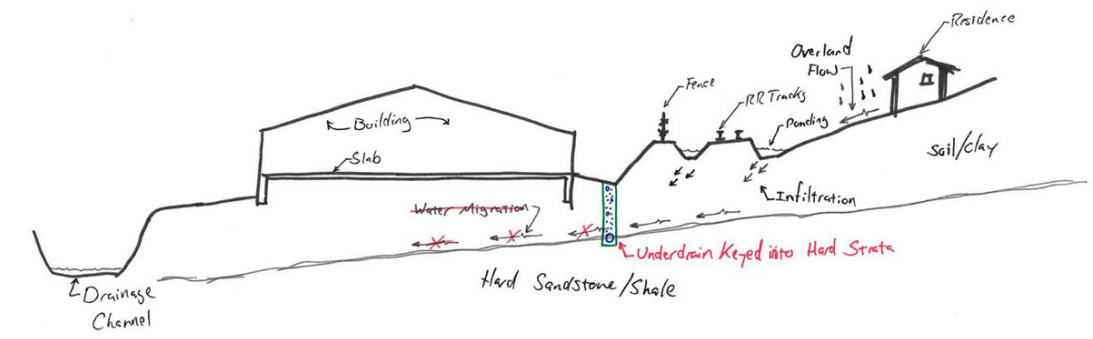


EXHIBIT J

EXHIBIT K

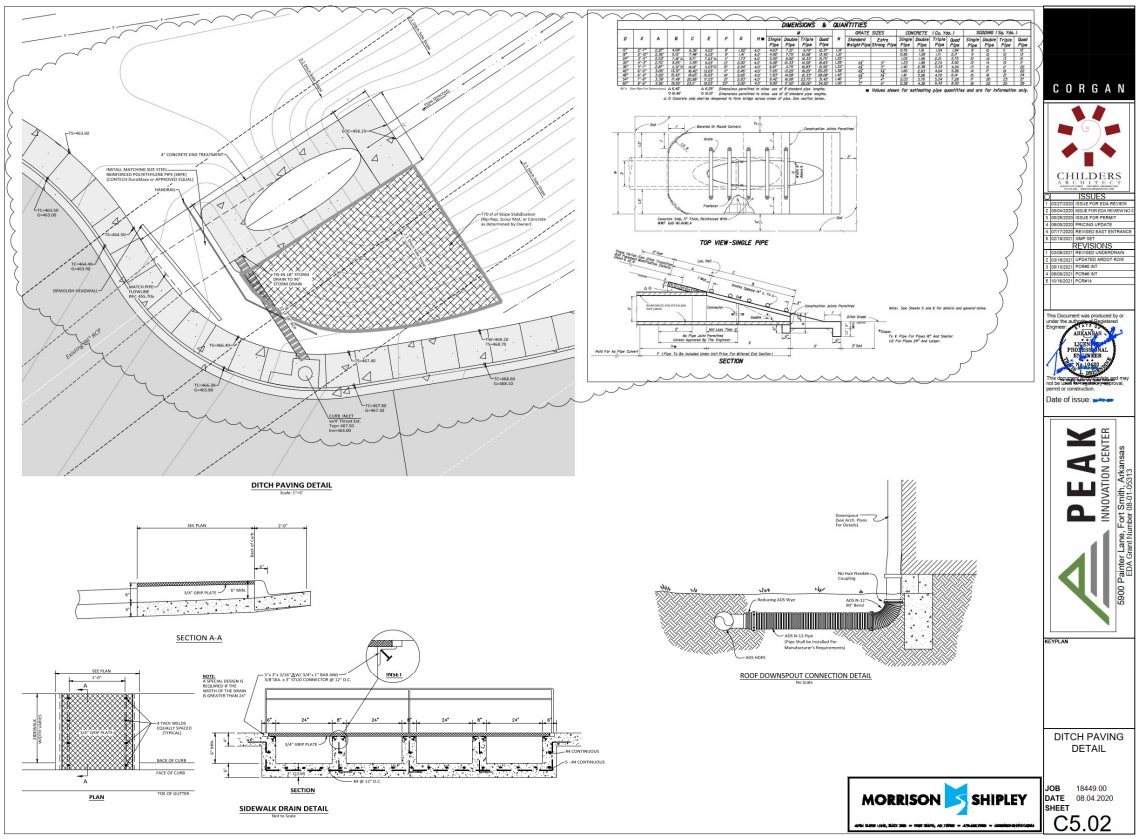
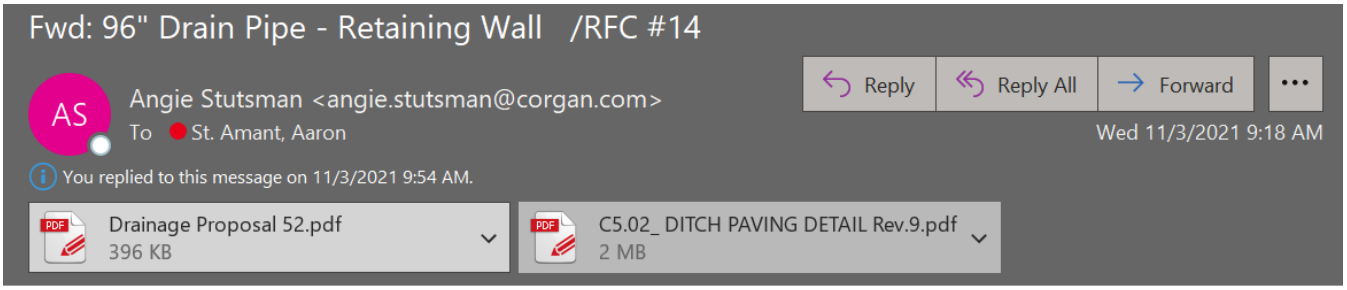


EXHIBIT L1



This is incredibly expensive. What are your thoughts?

Begin forwarded message:

From: Michael Martin <michael@tkcmgt.com>
Date: November 3, 2021 at 8:55:15 AM CDT
To: Angie Stutsman <Angie.Stutsman@corgan.com>
Cc: "Aaron St. Amant" <astamant@morrisonshipley.com>, Danny Haynal <dhaynal@tkcmgt.com>, Eric Stipins <eric.stipins@tkcmgt.com>, Angelica Connelly <aconnelly@tkcmgt.com>, Eric Shaffer <eshaffer@fortsmithschools.org>
Subject: 96" Drain Pipe - Retaining Wall /RFC #14

Angie,
Attached is the proposal for the modification / extension to the 96" drain pipe at the south elevation. As you can see the cots for this are probably prohibitive.
I would refer back to RFI #145 requesting a "structural design" particular to the wing walls " as indicated on plan sheet IS3.01 . In order to build this retaining wall.
If the new proposal is not accepted (I don't know why it would) we need to move forward on the retaining wall structural design and approval as this is now affecting the critical path, holding up the remaining curb / gutter and sidewalk finishes.
Maybe since Morrison Shipley has partnered with Halff , this could be accomplished through them?

W."Michael" Martin
Sr. Project Manger
Turn Key Construction Management, Inc.
(479) 709-0044
Cell (479) 652-5370

halff

EXHIBIT L2

TURN KEY
CONSTRUCTION MANAGEMENT

Proposal

Project:	PEAK Innovation Center/ Interior Package	**Proposal No:**	53
Architect:	CORGAN	**Date:**	11.3.2021
Attention:	Angie Stutsman	**TKC Project #**	20003

Description :

PCR #14

Installation of large drain piping and concrete collar with bar grates per the attached Morrison Shipley	65,095.53
Tie in of existing (previsously installed) 22 lf of 18" RCP to new 96" drain pipe	4,429.00
770 Sf of Rip Rap w/ fabric	7,489.00
770 Sf of reinforced concrete slope protection	15,173.60
Net Costs	92,187.13
Sales Tax	0.00
Sub Total	92,187.13
General Cond	0.00
Sub Total	92,187.13
Gen. Liability	548.51
Sub- Total	92,735.64
Builders Risk	528.59
Sub Total	93,264.24
OH&P @5%	4,663.21
Sub Total	97,927.45
Bond	1,269.14
Total	99,196.59
Grand Total :	**99,196.59**

NOTE: 8 week lead time on materials availability

W. Michael Martin
Sr. Project Manager
Turn Key Construction Management, Inc.

halff

EXHIBIT M

From: St. Amant, Aaron
To: Angie Stutsman
Cc: gsharum@childersarchitect.com; taylor.lukasek@corgan.com
Subject: Re: Peak Drainage Pipe Meeting Follow Up
Date: Sunday, December 5, 2021 9:02:19 PM

No. I did not speak with him. We need to schedule a meeting to discuss the storm drain options and explain the associated risk. We can do the is at your earliest convenience.

Get Outlook for iOS

Aaron St. Amant
Project Manager
Morrison-Shipley Halff

O: (479) 397-0313

Halff.com | LinkedIn | Facebook | Twitter | Instagram | YouTube

From: Angie Stutsman <angie.stutsman@corgan.com>
Sent: Sunday, December 5, 2021 8:59:54 PM
To: St. Amant, Aaron <aSt.Amant@Halff.com>
Cc: gsharum@childersarchitect.com <gsharum@childersarchitect.com>; taylor.lukasek@corgan.com <taylor.lukasek@corgan.com>
Subject: RE: Peak Drainage Pipe Meeting Follow Up

I know you called me and said you were working on this. Do you have any update for us? Shawn Shaffer is under the impression that we got an approval of the 42". Did you tell him?

From: Angie Stutsman
Sent: Wednesday, December 1, 2021 5:03 PM
To: St. Amant, Aaron <aSt.Amant@Halff.com>
Cc: gsharum@childersarchitect.com; Taylor Lukasek <Taylor.Lukasek@corgan.com>
Subject: RE: Peak Drainage Pipe Meeting Follow Up

Hey Aaron,

Turnkey priced the 2: 42" pipes and the district is ready to approve ASAP to keep us moving. Can you provide feedback on if you think the 42" size will work or if we need to increase them to 48"?

Thanks!

halff

EXHIBIT N

From: St. Amant, Aaron
To: Angie Stutsman
Cc: eshaffer@fortsmithschools.org; Brisendine, Travis; Deaver, Allen; gsharum@childersarchitect.com
Subject: PEAK Drainage
Date: Wednesday, December 8, 2021 9:16:20 AM

Shawn,

As discussed in our meeting on Monday, December 6th, see the following summary:

During a meeting with Shawn Sheffer of the Fort Smith Public School system and Angie Stutsman from Corgan Architects, options were discussed to install an underground storm drain system near the southeast corner of the PEAK Innovation Center. This request has been made to facilitate the filling-in of the drainage channel at that location and would require the extension of an existing 96"+/- steel reinforced plastic pipe (SRPP). Options for satisfying this request include the construction of a junction box at the upstream end of the existing 96" storm drain to facilitate the transition to a pipe of different size and material as described below:

- Option #1 would include the installation of two 42-inch storm drains that would extend up to the southeast corner of the building.
- Option #2 would include the installation of two 48-inch storm drains that would extend up to the southeast corner of the building.
- Option #3 would include extending the junction box upstream as a reinforced box culvert (or extending the existing pipe).

We have some concerns for both Option #1 and #2 due to the decrease in capacity in both of these scenarios. While we have not yet completed a detailed study of the subject area, it is our concern that following extreme rainfall events this decrease in capacity may cause temporary inundation of the truck dock area located east of the building. While it is not expected to cause flooding levels that would enter the facility, the extent of any inundation caused by the decreased capacity cannot be known until such a study is completed. The 48-inch pipe sizes mentioned in Option#2 is certainly better than the 42-inch option mentioned in Option#1, but both options result in a decrease in capacity. However, Option #3 would include a reinforced concrete box culvert (RBC) that would extend upstream to a similar location as noted in Options 1 and 2. This RBC would be sized approximately 9-foot wide and 8-foot tall and would provide a similar drainage capacity as the existing downstream SRPP. Conversely, the SRPP could be extended to a concrete headwall structure at the upstream terminus noted above. Variation of Option #3 is the preferred approach to ensure adequate drainage.

As discussed, we will perform a drainage analysis to evaluate the feasibility and impact of all three options described above. We will create a new hourly phase in our current contract for these analyses unless specified otherwise by Shawn Shaffer or the Fort Smith school system. Please advise.

EXHIBIT O

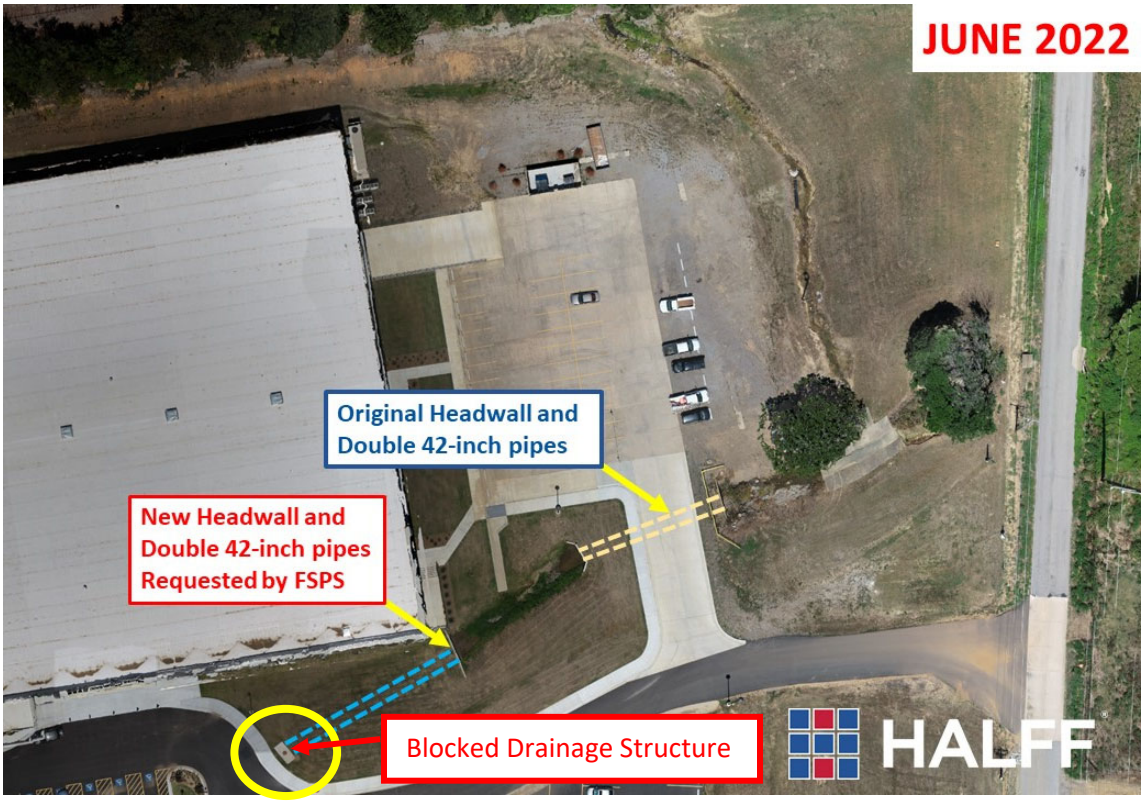
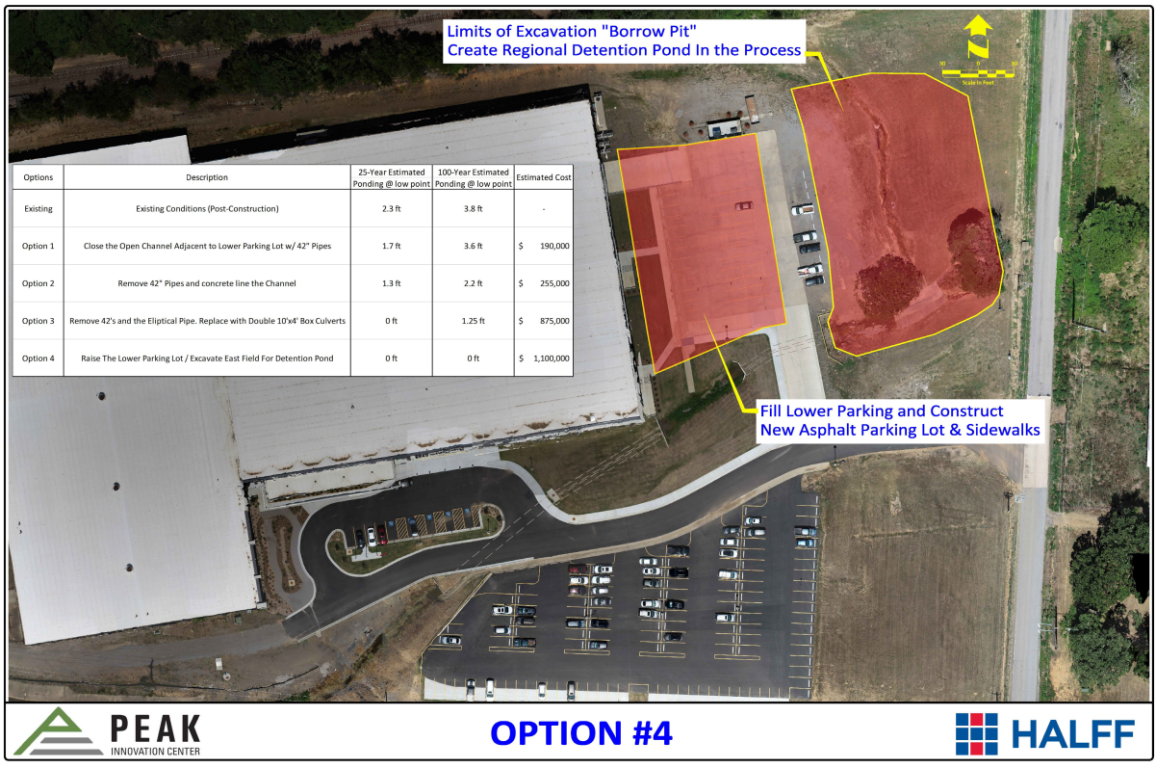


EXHIBIT P



Options	Description	25-Year Estimated Ponding @ low point	100-Year Estimated Ponding @ low point	Estimated Cost
Existing	Existing Conditions (Post-Construction)	2.3 ft	3.8 ft	-
Option 1	Close the Open Channel Adjacent to Lower Parking Lot w/ 42" Pipes	1.7 ft	3.6 ft	$ 190,000
Option 2	Remove 42" Pipes and concrete line the Channel	1.3 ft	2.2 ft	$ 255,000
Option 3	Remove 42's and the Eliptical Pipe. Replace with Double 10'x4' Box Culverts	0 ft	1.25 ft	$ 875,000
Option 4	Raise The Lower Parking Lot / Excavate East Field For Detention Pond	0 ft	0 ft	$ 1,100,000