



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

March 9, 2020

City of Gahanna
Public Service & Engineering
200 S. Hamilton Road
Gahanna, Ohio 43230

ATTN: John Moorehead, P.E.
City Engineer

RE: Proposal-Agreement for Surveying and Engineering Services
Gahanna Creekside Facility
81 and 101 Mill Street
Gahanna, Ohio
DLZ Proposal No.: CO20001930

Dear Mr. Moorehead:

DLZ Ohio, Inc. (DLZ) understands that the City of Gahanna's (the City's) Creekside Facility, located at 81 and 101 Mill Street, was constructed circa 2006. The facility consists of a City-owned underground parking garage; above grade privately-owned business and residential structures; and various site amenities such as outdoor dining areas and park features. Given the age of the facility, its proximity to the adjacent Big Walnut Creek, and in order to assist the City with keeping their internal documentation up to date, the City has requested a proposal from DLZ for surveying services, hydraulic & hydrology (H&H) modeling, and geotechnical and structural engineering associated with the underground parking garage. Based on our discussions with the City we understand that other features at the project site, including the privately-owned businesses, residences, and site amenities, are not to be included with respect to the requested services.

This Proposal-Agreement presents our anticipated scope of services, schedule, and fees for the proposed work. For the purposes of this Proposal-Agreement, all services will be performed in accordance with the standard of care and prevailing practices of the engineering industry for similar type projects. It was assumed that accurate "as-built" documentation (e.g. record plans, technical specifications) associated with the Creekside Facility will be provided to DLZ as needed in order to perform the scope of services presented below. Based on the information provided above, and our understanding of the work required, we propose the following scope of services.

SURVEYING SCOPE OF SERVICES

The properties described above include Franklin County Auditor's Parcel Numbers 025-000034, 025-006694, 025-000120, 025-000208, and 025-000069. DLZ proposes the following survey-related tasks to help support the H&H modeling and geotechnical and structural engineering services:

- The survey will be based on the Ohio State Plane Coordinate System, South Zone NAD 83(2011) and NAVD 88 and tied into the Franklin County Engineers Geodetic Control.
- Develop up to eight (8) floodplain cross sections at locations and intervals recommended by the engineering staff to supplement and support the existing Federal Emergency Management Agency (FEMA) floodplain model.
 - The cross sections will be obtained both upstream and downstream of the Granville Street Bridge, which is situated just south of the Creekside Facility.
- Verify finished floor elevations of the underground parking garage and first floor of the buildings associated with the Creekside Facility.
- Verify elevations and dimensions of the buildings' at-grade openings (e.g. doors, parking garage vehicular access points).
- Measure the upstream opening of the Granville Street Bridge.
- Locate the geotechnical borings and provide horizontal and vertical locations.
- Deliverables will consist of cad drawings and pdfs that present the findings of the field surveys described above.

HYDRAULIC AND HYDROLOGY SCOPE OF SERVICES

DLZ proposes the following H&H-related tasks for the project:

- Review and obtain FEMA information for Big Walnut Creek, which is situated adjacent to the Creekside Facility.
 - DLZ has already obtained the effective FEMA hydraulic (HEC) model for this reach of Big Walnut Creek and has determined that the results match the FEMA-published information (within 0.1 feet).
 - Create an effective hydraulic model using HEC-RAS, which is the current hydraulic modeling software that is compatible with HEC-2. The model may need to be fine-tuned in order to obtain 100-year water levels that are close to the published information.
 - Create a corrected effective hydraulic model to more accurately represent the conditions at the site prior to construction of the Creekside Facility.
 - Use field survey information created by DLZ to develop an effective hydraulic model that represents the conditions at the site after construction of the Creekside Facility.
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- Compare the base flood (100-year) elevations between the pre- and post-construction conditions. If the post-construction base flood elevations are the same or lower, a “No Rise Certification” will be issued.
- If the post-construction flood elevations are higher than the associated pre-construction conditions, then alternatives would need to be pursued to reduce the 100-year water levels through the reach. Effort is included with this proposal for the development of up to three concept-level alternatives.

STRUCTURAL ENGINEERING SCOPE OF SERVICES

DLZ proposes the following structural engineering tasks for the project, which will be performed in accordance with FEMA requirements:

- Evaluation of parking garage existing floodproofing measures.
 - No structural calculations are anticipated as part of this task.
- Structural evaluation of parking garage existing temporary closures.
- Structural evaluation of parking garage existing floor slabs.
 - The structural calculations will consist of a simplified buoyant force analysis of a rectangular floor slab section bounded by four support columns.
- Structural evaluation of parking garage existing below-grade walls.
 - The structural calculations will consist of a simplified analysis of a rectangular wall slab section subjected to lateral loading and bounded by two vertical wall columns and the garage and first floor slabs.
- Suitability of existing foundation elements relative to the underlying soils conditions.
 - This proposal does not include effort associated with determining the actual capacity of the foundation elements, nor the actual structural loads applied to the foundation elements.
- Evaluation of existing backflow prevention and below grade sump pump systems.
- Evaluation of other below-grade utility services and penetrations.

The evaluations presentation above will be based on the appropriate ground and surface water elevations as determined by the H&H and geotechnical evaluations. However, the water elevation used in the evaluations will not exceed the base flood (100-year) water level at the site.

If the existing floodproofing measures and structural elements meet FEMA requirements, a “Floodproofing Certificate” and associated documentation will be issued. If any existing floodproofing measure or structural elements are not in compliance with FEMA requirements, up to three concept-level alternatives will be provided for each deficient element.

GEOTECHNICAL SCOPE OF SERVICES AND ASSUMPTIONS THERETO

I. Subsurface Exploration

1. Coordinate with City of Gahanna personnel to establish drill rig access into the site. For the purposes of this proposal it was assumed that all drilling will take place on City property. It was also assumed that DLZ will have full access to the site and that any permits or rights-of-entry will be provided by others at no additional cost to DLZ. Any additional work required to prepare the site for drilling will be reimbursed at the unit rate of \$200/hour for “standby time.” Any required additional equipment rental (e.g. dozer) will be treated as a reimbursable expense billed at cost plus 10%.
 2. Stake the boring locations in the field. Five (5) soil borings are proposed as part of this work, with each soil boring extending to a depth of 30 feet. The borings will be drilled at the following general locations (exact borehole locations will depend on drill rig access to the site and existing features):
 - Three borings will be drilled on the west side of the facility, between the parking garage and Big Walnut Creek.
 - One boring will be drilled on the north side of the parking garage.
 - One boring will be drilled on the south side of the parking garage.
 3. Based on our knowledge of the local geology, this should result in each soil boring penetrating no less than five feet into the very stiff to hard silty clay (i.e. low permeability) soils at the site.
 4. Notify the state/local utility locating services whose jurisdiction the project falls under and coordinate with on-site personnel with respect to the locations of any private utilities at the project site. DLZ assumes no responsibility for utilities unmarked by state/local/private agencies. For borings marked/required within 5-feet of utility markings, soft digging (vacuum extraction) will be required. Costs associated with soft digging are not included in this Proposal-Agreement but will be treated as a reimbursable expense billed at cost plus 10%.
 5. No effort is included in this Proposal-Agreement for any significant on-site safety training for DLZ field personnel. DLZ assumes that, prior to commencing field work, we will be made aware of and notified in writing of any site-specific safety hazards, procedural requirements, and protocols related to this scope of services and project.
 6. The cost estimate assumes that all boring locations can be accessed and drilled using one truck-mounted drill rig under a single field mobilization.
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7. Environmental sampling, testing, and engineering are not included with this geotechnical exploration scope of services and cost estimate.
 8. Based on our knowledge of the local geology, bedrock at the site is anticipated to be at a depth of greater than 100 feet below existing grades. Therefore, it is assumed bedrock will not be encountered during the exploration, and no effort is assumed for coring bedrock.
 9. Traffic control will be provided using signs and cones for temporary closures, including to pedestrian traffic at the site.
 10. DLZ will provide a field geologist to log the borings and samples.
 11. All borings will be advanced using conventional hollow stem augering/mud rotary techniques and sampled using a standard 2-inch OD, 1.375-inch ID split spoon sampler in general accordance with ASTM D-1586 Standard Penetration Test (SPT) Method. The borings will be sampled continuously to a depth of 6 feet below the existing subgrade elevation, then at 2.5-foot sampling intervals to the completion depth of the borings (30 feet).
 12. It was assumed that the borings will be advanced through the existing pavement via coring of the pavement materials. Existing surface materials will be measured on the side wall of each borehole.
 13. In all borings, standard penetration data will be developed as warranted and representative samples preserved for geotechnical laboratory testing.
 14. Record water observations during drilling and measure the water levels in the borings at the completion of drilling.
 15. One vibrating wire piezometer (VWP) will be installed in each of the five boreholes to measure groundwater pressures/elevations along three sides of the below-grade parking garage structure. Each VWP sensor will be calibrated in the laboratory and zeroed in the field during installation. All VWP's will be installed using the "fully grouted" method and will be protected with flush-top, bolt-down lids. Fully grouted VWPs is a common piezometer installation technique used by the U.S. Army Corps of Engineers.
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16. DLZ also proposes to install a VWP in each of two core holes drilled through the existing parking garage floor slab. These VWPs would be used to measure hydrostatic uplift pressures directly beneath the parking garage. DLZ has considerable experience with this sort of field instrumentation and testing, having performed similar services for several government agencies. Based on available information, the parking garage floor slab consists of a nine-inch (max) slab on grade with welded wire fabric reinforcement (i.e. the floor slab is not post-tensioned). DLZ would core through the floor slab and install the VWPs in the underlying gravel base.
17. Instrumentation will be installed in Big Walnut Creek to measure the creek water level.
18. All instrumentation will be automated so that groundwater and creek level data can be collected at regular intervals and at a reduced cost to the City (e.g. no need for return visits to the site to manually read the piezometers). Upon completion of the readings the VWPs will be left in place (not removed or abandoned) for future use by the City.
19. All excess soil cuttings and fluids will be spread on site.
20. Precautions will be taken to minimize ground disturbance at the boring locations, and the site will be restored as nearly as possible to its “pre-work” conditions.
21. All field work will be performed Monday through Friday, between the hours of 8 am and 5 pm. Work cancellation less than 50 miles from the site within four hours of mobilization will be assessed four hours of standby time. Work beyond 50 miles will be assessed eight hours of standby time.
22. In the event non-penetrable objects/layers, environmental conditions/issues, or delays to production are encountered while DLZ is mobilized to the site that are out of DLZ’s control, they will be reimbursed to DLZ as standby time.
23. DLZ reserves the right to stop work in the event that non-DLZ personnel are on site without proper personal protection equipment (PPE) or if other safety concerns are identified.
24. DLZ will remove all tooling from the borehole immediately upon completion of drilling. If DLZ is directed to leave the tooling in the ground and it is lost, becomes unrecoverable, or is damaged, said tooling will be treated as a reimbursable expense.

II. Laboratory Testing

1. In the laboratory all samples will be classified in general accordance with the Unified Soil Classification System (USCS).
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2. Laboratory testing will include moisture content determinations, particle-size analyses, and plasticity determinations of a limited number of samples considered to be representative of the subsurface materials encountered by the borings.
3. Up to two (2) permeability tests on relatively undisturbed (Shelby tube) samples of the low permeability soils will also be performed provided that material suitable for this type of sampling and testing is actually encountered during drilling.
4. Formal boring logs will be prepared using the field logs and the results of laboratory testing.
5. All samples will be stored in our laboratory for six months.

ENGINEERING ANALYSES, REPORT, AND DOCUMENTATION

Upon completion of the geotechnical field exploration, geotechnical laboratory testing, surveying, H&H analyses, and geotechnical and structural engineering, DLZ will prepare a written report that will include the findings, conclusions, and recommendations for the project. The following will be included in the report:

- Observations of the site reconnaissance and results of the borings and the laboratory testing.
 - Groundwater considerations as they may affect the analyses. This includes groundwater data and information associated with the vibrating wire piezometer readings.
 - Other aspects of the soil conditions at the site that may affect the design or construction of the project.
 - Results of the field survey as described above.
 - Results of the H&H analyses as described above. If warranted, a No Rise Certification will be provided.
 - Results of the geotechnical and structural evaluations described above. If warranted, a Floodproofing Certificate will be provided.
 - If a No Rise Certification or Floodproofing Certificate cannot be issued for the project, DLZ will provide up to three concept-level remediation designs per identified deficiency for consideration by the City. It is our understanding that the City will consider these options and possibly move forward with final design of preferred options under a separate phase of this project.
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COST ESTIMATE AND SCHEDULE

The total project cost for the scope of services outlined above is presented in the lump sum amount of \$177,337.50. This amount includes budget for concept-level remediation designs (if needed). DLZ will not exceed the total estimated project cost without prior written approval from the City of Gahanna.

The time schedule is anticipated to permit mobilization for the field surveying services and geotechnical drilling within three weeks following authorization to proceed, with a written Findings Report submitted approximately four weeks after the final piezometer readings are taken. If concept-level remediation designs are needed, a report addendum presenting the concept level designs will be submitted to the City within approximately three weeks after submittal of the Findings Report.

STANDARD TERMS AND CONDITIONS

The Standard Terms and Conditions enclosed as Exhibit A are incorporated into and made part of this Proposal-Agreement. The "Client" referred to in the Standard Terms and Conditions means "the City of Gahanna, Ohio."

CLOSING

If the Scope of Work contained herein meets with your approval, DLZ will commence work upon receipt of a written "Notice to Proceed" in the form of a Purchase Order referencing this proposal or this proposal-agreement signed by an authorized individual from your office, which subsequently can be faxed, e-mailed, and/or mailed to our office.



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Survey and Engineering Services
Gahanna Creekside Facility
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We look forward to working with the City of Gahanna on this important project. Please feel free to contact us at your earliest convenience if you have any questions or comments.

Respectfully submitted,

DLZ OHIO, INC.

Robert Kirkley, P.E.
President

AGREED AND ACCEPTED:

Authorized Signature and Date

Printed Name

Title

Company/Agency

Attachments:
Exhibit A: Standard Terms and Conditions

EXHIBIT A
DLZ'S STANDARD TERMS AND CONDITIONS

1. INVOICES AND PAYMENT: Unless the parties have agreed otherwise, DLZ will submit monthly invoices to CLIENT for services performed in the prior month. Except to the extent CLIENT disputes in good faith all or a portion of a DLZ invoice, CLIENT will pay DLZ the invoiced amount within thirty (30) days from the date of the invoice; and, in default of such payment, agrees to pay all cost of collection, including reasonable attorney's fees, regardless of whether legal action is initiated. Invoiced amounts not in dispute will accrue interest at eight percent (8%) per annum after they have been outstanding for over thirty (30) days. If an invoiced amount not in dispute remains unpaid sixty (60) days after the date of the invoice, DLZ may, upon giving seven (7) days written notice of its intent to do so, suspend all project services until all unpaid invoiced amounts not in dispute are paid in full. If an invoice remains unpaid ninety (90) days after the date of the invoice, DLZ may, upon giving seven (7) days written notice of its intent to do so, declare CLIENT to be in breach of this agreement.

2. CONSTRUCTION SERVICES: If DLZ's scope of services includes providing professional services during the project's construction phase, DLZ will not have control over or be responsible for contractor means, methods, techniques, sequences, procedures, or schedule, or the contractor's failure to comply with the construction contract documents or applicable laws, ordinances, rules or regulations. If DLZ provides construction inspection or observation services, DLZ will report to CLIENT all contractor deviations from the construction contract documents that come to DLZ's attention. However, such services are solely intended to enable DLZ to maintain familiarity with, and keep CLIENT informed of, the general progress and quality of the contractor's work, and not to require DLZ to perform exhaustive inspections of contractor work for its compliance with the construction contract documents, which shall remain solely contractor's responsibility.

3. CHANGES IN REQUIREMENTS: In the event additional services are required due to a change, after the date of this agreement, in CLIENT's requirements, or in the applicable law, standards, or governmental requirements or policies, DLZ will be entitled to additional compensation for such additional services.

4. SURVEY STAKING: If DLZ's scope of services includes survey layout, DLZ will not be responsible for subsequent disturbances of its layout except to the extent caused by DLZ or persons for whom it is responsible.

5. MISCELLANEOUS EXPENSES: Except to the extent otherwise provided in this agreement, CLIENT is responsible for all third-party fees and charges including, without limitation, fees and charges for inspections, zoning or annexation applications, assessments, soils engineering, soils testing, aerial topography, permits, rights-of-entry, bond premiums, title company charges, blueprint and reproduction costs, and all other third-party fees and charges.

6. CHANGE OF SCOPE: DLZ's scope of services in this agreement is based on facts known at the time of execution of this agreement, including, if applicable, information supplied by CLIENT. DLZ will promptly notify CLIENT in writing of any perceived changes to its scope of services required by new information or by persons or circumstances beyond DLZ's control, and the parties shall negotiate modifications to this agreement before DLZ begins performance of the revised scope.

7. SAFETY: DLZ will take reasonable steps to protect the safety of its employees, and to perform its services in a safe manner. DLZ is not responsible for project safety other than with regard to its own services.

8. REUSE OF PROJECT DELIVERABLES: CLIENT's use of any project documents or DLZ deliverables, including electronic media, for any purpose other than that for which such documents or deliverables were originally prepared, or alternation of such documents or deliverables without written verification or adaption by DLZ for the specific purpose intended, will be at CLIENT's sole risk.

9. OPINIONS OF CONSTRUCTION COST: Any opinion of construction costs prepared by DLZ is supplied for the general guidance of the CLIENT only. Since DLZ has no control over competitive bidding or market conditions, DLZ cannot guarantee the accuracy of such opinions as compared to contractor bids or actual cost to CLIENT.

10. INSURANCE: During the performance of its services and for two years thereafter, DLZ will maintain the following minimum insurance coverage: General Liability- \$1,000,000 per occurrence, \$2,000,000 general aggregate, \$2,000,000 products/completed operations aggregate, \$1,000,000 personal/advertising injury aggregate; Automobile Liability- \$1,000,000 combined single limit; Workers Compensation and Employers Liability- in conformance with statutory requirements, and \$1,000,000 employers liability; and Professional Liability- \$2,000,000 per claim and in the aggregate. Certificates evidencing such coverage will be provided to CLIENT upon request. If DLZ is providing construction phase services, CLIENT agrees to require its contractor to include DLZ as an additional insured on the contractor's General Liability and Automobile Liability insurance policies, and DLZ's above-listed coverage will be excess over the contractor's coverage, which will be primary.

11. INDEMNITY: To the fullest extent permitted by law, each of the parties agrees to indemnify and save harmless the other party from and against all liability, damages, and expenses, including reasonable attorney's fees, sustained by the other party by reason of injury or death to persons or damage to tangible property, to the proportionate extent caused by the negligent acts or omissions of the indemnifying party or its employees.

12. CONSEQUENTIAL DAMAGES: Neither party will be liable to the other for consequential, special, incidental, indirect, liquidated, or punitive damages.

13. LIABILITY: No employee of DLZ or of its parent, subsidiary, or affiliated companies will be personally liable to CLIENT. DLZ's total liability to CLIENT, and any coverage of CLIENT as an additional insured under any of DLZ's insurance policies, for injuries, claims, losses, expenses or damages arising out of DLZ's services or this agreement from any causes including, but not limited to, DLZ's negligence, error, omissions, strict liability, or breach of contract, will not exceed the total compensation received by DLZ under this agreement.

14. DISPUTES: Any claim or controversy arising out of or relevant to this agreement, or the breach thereof, shall be settled by binding arbitration in the state in which the project is located, in accordance with the rules of the American Arbitration Association, and judgment upon any award rendered by the arbitrator(s) may be rendered in any court having jurisdiction thereof.

15. STATUTE OF LIMITATIONS: The parties agree that the time period for bringing claims regarding DLZ's Service's under this agreement expires on the earlier of one year after completion of the project, or two years after completion of DLZ's project services.

16. DELAYS: DLZ is not responsible for delays caused by persons or circumstances for which DLZ is not responsible.

17. SHOP DRAWINGS: If DLZ's scope of services includes reviewing shop drawings, such reviews are solely with regard to their general conformance with the design concept, and not for the purpose of reviewing or approving their accuracy, completeness, dimensions, quantities, constructability, compatibility with other construction components, or compliance with the requirements of the construction contract documents, all of which remain the contractor's responsibility. DLZ is not responsible for reviewing or approving the contractor's safety precautions or construction means, methods, sequences or procedures.

18. ACCEPTANCE: Both parties will consider DLZ's initiation of services prior to execution of this agreement in order to accommodate CLIENT, at CLIENT's request, as CLIENT's formal acceptance of all of the terms and conditions in this agreement.

19. STANDARD OF CARE: DLZ will perform its services with the care and skill ordinarily exercised by members of its profession currently practicing under similar conditions in the same locale. DLZ does not make, and expressly disclaims, any other warranties, express or implied, relating to its services including, without limitation, warranties of merchantability and fitness for a particular purpose. DLZ shall be entitled to rely on all CLIENT-provided information except to the extent otherwise stated in the agreement.