# AGENDA

## BOARD OF MAYOR AND ALDERMEN
## WORK SESSION

## Monday, August 19, 2019, 4:30 p.m.
## City Hall, 225 W. Center St., Council Room, 2nd Floor

**Board of Mayor and Aldermen**

Mayor Patrick W. Shull, Presiding
Vice Mayor Colette George
Alderman Jennifer Adler
Alderman Betsy Cooper
Alderman Darrell Duncan
Alderman Tommy Olterman
Alderman James Phillips

**Leadership Team**

Chris McCartt, City Manager
Ryan McReynolds, Assistant City Manager for Operations
J. Michael Billingsley, City Attorney
Sid Cox, City Recorder/Chief Financial Officer
Scott Boyd, Fire Chief
David Quillin, Police Chief
George DeCroes, Human Resources Director
Heather Cook, Communications Director

1. Call to Order
2. Roll Call
3. Census Count Committee – Kevin Flanary
4. Library Strategic Planning Process – Chris Markley
5. Review of Items on August 20, 2019 Business Meeting Agenda
6. Adjourn

**Next Work Session, Tues., Sept. 3, 4pm: MeadowView Annual Report, The Inventor Center**

***Citizens wishing to comment on agenda items please come to the podium and state your name and address. Please limit your comments to five minutes. Thank you.***

# City of Kingsport

## Project Status in Pictures

*August 20, 2019*

**1 Bays Mountain Road Paving**
*The asphalt pavement resurfacing project has started on Bays Mountain Park Road.*

**2 Greenbelt - Eastern Extension**
*Current project work includes logging, rough grading and concrete pier installation for a future bridge.*

**3 DBHS**
*The paving, asphalt markings, and traffic circle project work have been completed.*

**4 Kingsport Aquatic Center**
*Current project work includes excavation and foundation preparation for the pump control housing.*

# Status Updates on Active Projects sorted by Cost

| Estimated Cost | Project Owner | Project Name | Project Description | Completion Date | CurrentStatus |
|---|---|---|---|---|---|
| $7,500,000.00 | Ryan McReynolds | **SR 347 (Rock Springs Road) [State &MTPO funded]** | TDOT Managed, joint funded reconstruction of the State portion of Rock Springs Road | 12/31/2021 | Preliminary plans expected Summer 2019. |
| $6,000,000.00 | Michael Thompson | **Main Street Rebuild** | The reconstruction of Main Street from Sullivan Street to Clay Street. [City & MTPO Funded] | 6/1/2021 | MOU approval by BMA July 2019. |
| $4,400,000.00 | Niki Ensor | **WWTP Electrical Improvements** | Design of wastewater treatment plant improvements. Project includes replacement of the Main Switchgear, Switchgear SB-1 and related equipment at the wastewater treatment plant. | 12/31/2020 | Plans and specification have been finalized. Target bid date set for January 2020. Following rebid of West Kingsport. |
| $3,867,000.00 | Chad Austin | **Border Regions Sewer Extensions** | Sewer extensions to serve the Border Regions Annexations in the vicinity of Tri-Cities Crossing and Fordtown Rd. | 2/17/2020 | Bid will be opened for Areas 1 and 2 on September 4th. |
| $3,750,000.00 | Niki Ensor | **Chemical Feed Design** | Design of WTP Chemical Feed improvements. Project will include new facilities for pre and post chemical feed and implementation of bulk bleach for disinfection. | 11/1/2020 | Awaiting proposal for final design and construction phase services. Funding included in FY20 CIP. |
| $3,740,000.00 | Niki Ensor | **West Kingsport Forcemain and Pump Station Improvements** | Elimination of Pendragon SLS (#120) with gravity. Rehab of West Kingsport SLS (#119) and installation of new forcemain to the WWTP. | 6/1/2020 | Tenative bid date set for September 9th pending TDEC approval of project changes. |
| $3,200,000.00 | Ryan McReynolds | **City Hall Relocation - Phase 1** | Renovations of floors 3 thru 6 for the consolidation of City offices to one location at 415 Broad Street. | 6/1/2020 | Working to execute contract. Once it is executed a preconstruction meeting will be scheduled. |
| $2,888,300.00 | Niki Ensor | **Water & Wastewater Facilities SCADA/Telemetry Project** | Design and installation of SCADA/Telemetry system that will serve both water and sewer plants, sewer lift stations, water pump stations and boosters, along with monitoring in the distribution and collection systems. | 4/1/2020 | 8/8/19 - Held progress meeting. Sewer SCADA - Finish installing pads and racks for equipment at SLS. Water SCADA - received FCC radio authorization for water sites. Will begin radio pathway study. |
| $2,300,000.00 | Ryan McReynolds | **Justice Center Renovations** | Renovations and expansion of Justice Center that will accommodate court space and county offices currently residing in City Hall. | 12/31/2020 | Cain Rash West has been meeting with KPD to access current and future needs. Continue to work on layouts to best utilize space and maintain functionality. |
| $1,074,738.00 | Chad Austin | **Phase 4 Water Improvements** | Waterline replacement in Sullivan Gardens area on Ridge Road, Maplewood Street, Mill Creek Road, Clover Bottom Drive, Clearview Street, Creekmore Drive, and Rosemont Street. | 2/16/2020 | Ridge Road line passed testing. Trench paving underway. |
| $1,044,000.00 | Kitty Frazier | **Kingsport Greenbelt Extension from Rotherwood Drive to Lewis Lane** | This project will build an extension of the Kingsport Greenbelt walking and biking path west from the end of the current Greenbelt at Rotherwood Drive to Lewis Lane on West Stone Drive (State Route 1). | 5/31/2024 | Awaiting Notice to proceed with the environmental document from TDOT. |



Text in blue denotes changes in the past two weeks. Red box denotes past due, yellow box denotes due within 30 days, green denotes due more than 30 days

| Estimated Cost | Project Owner | Project Name | Project Description | Completion Date | CurrentStatus |
|---|---|---|---|---|---|
| $997,475.00 | Michael Thompson | **Stone Drive - Phase 1 (SR 1, US 11W) Sidewalk Improvements** | Construction of sidewalk along Stone Drive from Stonebrook Place Pvt. Dr. to American Way where current sidewalk gaps exist. Includes work to make existing driveways ADA accessible. [95% State Funded 5% City] | 8/31/2020 | Working to finalize the right of way phase of this project. |
| $937,442.00 | Kitty Frazier | **Kingsport Greenbelt - Eastern Extension - Phase 1 (2019-C6)** | New 1 mile long Greenbelt section from the 0.4 mile marker (bottom of the hill from Exchange Place) to Cleek Road. [Fed. Grant & City funded] | 11/1/2019 | Foundations and Piers for Elevated Boardwalk installed. |
| $661,140.00 | Michael Thompson | **Stone Drive - Phase 2 (SR 1, US 11W) Sidewalk Improvements** | Construction of sidewalk along Stone Drive from Stonebrook Place Pvt. Dr. to Lynn Garden Dr. [95% State Funded 5%] | 8/31/2020 | Working to finalize right of way phase. |
| $577,000.00 | Niki Ensor | **Tri-County Tank Replacement Project** | Replacement of 160,000 gallon steel water storage tank in Tri-County Pressure Zone, located on Big Ridge Rd. | 7/1/2019 | Still awaiting response from Frizzell/Eastern Tank and their Engineer to address the letter dated July 26th from Barge for Remediatin Plan to rpair tank moving forward. |
| $481,183.00 | Ryan McReynolds | **Wilcox Bridge (Wilcox Dr. & E. Sullivan St.)** | Bridge re-painting and landscaping | 11/1/2019 | Preconstruction meeting scheduled for August 16th. |
| $415,000.00 | Chad Austin | **SR 93- Fall Branch section (TDOT)** | TDOT project to improve State Route 93 in the Fall Branch area. Impacted waterlines in this area will be are to be relocated as part of the TDOT project. | 7/30/2021 | |
| $352,000.00 | Chad Austin | **SR 93- Horse Creek/Derby Drive Section (TDOT)** | TDOT project to improve State Route 93 in the Horse Creek/Derby Drive area. Project also includes improvements with the intersection with Derby Drive, along with a new bridge crossing Horse Creek. Impacted waterlines in this area will be are to be reloc | 8/31/2022 | TDOT "B Date" package due date pushed back to 5/28/2021; anticipated letting December 2021 |



Text in blue denotes changes in the past two weeks. Red box denotes past due, yellow box denotes due within 30 days, green denotes due more than 30 days

# Status Updates on Active Projects sorted by Completion Date

| Estimated Cost | Project Owner | Project Name | Project Description | Completion Date | CurrentStatus |
|---|---|---|---|---|---|
| $577,000.00 | Niki Ensor | **Tri-County Tank Replacement Project** | Replacement of 160,000 gallon steel water storage tank in Tri-County Pressure Zone, located on Big Ridge Rd. | 7/1/2019 | Still awaiting response from Frizzell/Eastern Tank and their Engineer to address the letter dated July 26th from Barge for Remediatin Plan to rpair tank moving forward. |
| $937,442.00 | Kitty Frazier | **Kingsport Greenbelt - Eastern Extension - Phase 1 (2019-C6)** | New 1 mile long Greenbelt section from the 0.4 mile marker (bottom of the hill from Exchange Place) to Cleek Road. [Fed. Grant & City funded] | 11/1/2019 | Foundations and Piers for Elevated Boardwalk installed. |
| $481,183.00 | Ryan McReynolds | **Wilcox Bridge (Wilcox Dr. & E. Sullivan St.)** | Bridge re-painting and landscaping | 11/1/2019 | Preconstruction meeting scheduled for August 16th. |
| $1,074,738.00 | Chad Austin | **Phase 4 Water Improvements** | Waterline replacement in Sullivan Gardens area on Ridge Road, Maplewood Street, Mill Creek Road, Clover Bottom Drive, Clearview Street, Creekmore Drive, and Rosemont Street. | 2/16/2020 | Ridge Road line passed testing. Trench paving underway. |
| $3,867,000.00 | Chad Austin | **Border Regions Sewer Extensions** | Sewer extensions to serve the Border Regions Annexations in the vicinity of Tri-Cities Crossing and Fordtown Rd. | 2/17/2020 | Bid will be opened for Areas 1 and 2 on September 4th. |
| $2,888,300.00 | Niki Ensor | **Water & Wastewater Facilities SCADA/Telemetry Project** | Design and installation of SCADA/Telemetry system that will serve both water and sewer plants, sewer lift stations, water pump stations and boosters, along with monitoring in the distribution and collection systems. | 4/1/2020 | 8/8/19 - Held progress meeting. Sewer SCADA - Finish installing pads and racks for equipment at SLS. Water SCADA - received FCC radio authorization for water sites. Will begin radio pathway study. |
| $3,740,000.00 | Niki Ensor | **West Kingsport Forcemain and Pump Station Improvements** | Elimination of Pendragon SLS (#120) with gravity. Rehab of West Kingsport SLS (#119) and installation of new forcemain to the WWTP. | 6/1/2020 | Tenative bid date set for September 9th pending TDEC approval of project changes. |
| $3,200,000.00 | Ryan McReynolds | **City Hall Relocation - Phase 1** | Renovations of floors 3 thru 6 for the consolidation of City offices to one location at 415 Broad Street. | 6/1/2020 | Working to execute contract. Once it is executed a preconstruction meeting will be scheduled. |
| $661,140.00 | Michael Thompson | **Stone Drive - Phase 2 (SR 1, US 11W) Sidewalk Improvements** | Construction of sidewalk along Stone Drive from Stonebrook Place Pvt. Dr. to Lynn Garden Dr. [95% State Funded 5%] | 8/31/2020 | Working to finalize right of way phase. |
| $997,475.00 | Michael Thompson | **Stone Drive - Phase 1 (SR 1, US 11W) Sidewalk Improvements** | Construction of sidewalk along Stone Drive from Stonebrook Place Pvt. Dr. to American Way where current sidewalk gaps exist. Includes work to make existing driveways ADA accessible. [95% State Funded 5% City] | 8/31/2020 | Working to finalize the right of way phase of this project. |
| $3,750,000.00 | Niki Ensor | **Chemical Feed Design** | Design of WTP Chemical Feed improvements. Project will include new facilities for pre and post chemical feed and implementation of bulk bleach for disinfection. | 11/1/2020 | Awaiting proposal for final design and construction phase services. Funding included in FY20 CIP. |



Text in blue denotes changes in the past two weeks. Red box denotes past due, yellow box denotes due within 30 days, green denotes due more than 30 days

| Estimated Cost | Project Owner | Project Name | Project Description | Completion Date | CurrentStatus |
|---|---|---|---|---|---|
| $4,400,000.00 | Niki Ensor | **WWTP Electrical Improvements** | Design of wastewater treatment plant improvements. Project includes replacement of the Main Switchgear, Switchgear SB-1 and related equipment at the wastewater treatment plant. | 12/31/2020 | Plans and specification have been finalized. Target bid date set for January 2020. Following rebid of West Kingsport. |
| $2,300,000.00 | Ryan McReynolds | **Justice Center Renovations** | Renovations and expansion of Justice Center that will accommodate court space and county offices currently residing in City Hall. | 12/31/2020 | Cain Rash West has been meeting with KPD to access current and future needs. Continue to work on layouts to best utilize space and maintain functionality. |
| $6,000,000.00 | Michael Thompson | **Main Street Rebuild** | The reconstruction of Main Street from Sullivan Street to Clay Street. [City & MTPO Funded] | 6/1/2021 | MOU approval by BMA July 2019. |
| $415,000.00 | Chad Austin | **SR 93- Fall Branch section (TDOT)** | TDOT project to improve State Route 93 in the Fall Branch area. Impacted waterlines in this area will be are to be relocated as part of the TDOT project. | 7/30/2021 | |
| $7,500,000.00 | Ryan McReynolds | **SR 347 (Rock Springs Road) [State &MTPO funded]** | TDOT Managed, joint funded reconstruction of the State portion of Rock Springs Road | 12/31/2021 | Preliminary plans expected Summer 2019. |
| $352,000.00 | Chad Austin | **SR 93- Horse Creek/Derby Drive Section (TDOT)** | TDOT project to improve State Route 93 in the Horse Creek/Derby Drive area. Project also includes improvements with the intersection with Derby Drive, along with a new bridge crossing Horse Creek. Impacted waterlines in this area will be are to be reloc | 8/31/2022 | TDOT "B Date" package due date pushed back to 5/28/2021; anticipated letting December 2021 |
| $1,044,000.00 | Kitty Frazier | **Kingsport Greenbelt Extension from Rotherwood Drive to Lewis Lane** | This project will build an extension of the Kingsport Greenbelt walking and biking path west from the end of the current Greenbelt at Rotherwood Drive to Lewis Lane on West Stone Drive (State Route 1). | 5/31/2024 | Awaiting Notice to proceed with the environmental document from TDOT. |



Text in blue denotes changes in the past two weeks. Red box denotes past due, yellow box denotes due within 30 days, green denotes due more than 30 days

# BMA Report, August 19, 2019

## ***Kingsport Employee Wellness, George DeCroes***

| | 01/01/2019 – 7/31/2019 | 08/01/2019 – 08/14/2019 |
|---|---|---|
| Total Utilization | 94.0% | 92.4% |
| City – Active Employees | 61.5% | 62.7% |
| City – Dependents | 30.4% | 33.0% |
| City – Retirees | 2.1% | 2.0% |
| Extended-Patient Services/Other | 0.3% | 0.6% |
| Work Comp | 0.3% | 0.0% |
| No Show | 5.4% | 1.7% |

## ***Worker's Compensation, Terri Evans***

For the month of July 2019, the city had four (4) recordable worker's compensation claims that involved lost time or restricted duty. Of the four (4) claims involved one (1) was lost time and three (3) were restricted duty.

# AGENDA

## BOARD OF MAYOR AND ALDERMEN

## BUSINESS MEETING

**Tuesday, August 20, 2019, 7:00 p.m.**
**City Hall, 225 W. Center St., Courtroom, 2nd Floor**

**Board of Mayor and Aldermen**

Mayor Patrick W. Shull, Presiding
Vice Mayor Colette George
Alderman Jennifer Adler
Alderman Betsy Cooper
Alderman Darrell Duncan
Alderman Tommy Olterman
Alderman James Phillips

**City Administration**

Chris McCartt, City Manager
Ryan McReynolds, Assistant City Manager of Operations
J. Michael Billingsley, City Attorney
Sid Cox, City Recorder/Chief Financial Officer
David Quillin, Police Chief
Scott Boyd, Fire Chief
George DeCroes, Human Resources Director
Heather Cook, Communications Director

**I. CALL TO ORDER**

**II.A. PLEDGE OF ALLEGIANCE TO THE FLAG** – Led by New Vision Youth

**II.B. INVOCATION** – Pastor Tiger Brooks, Indian Springs Baptist Church, Glenwood Campus

**III. ROLL CALL**

**IV.A. RECOGNITIONS & PRESENTATIONS**

1. Keep Kingsport Beautiful Beautification Awards (Alderman Adler)

**IV.B. APPOINTMENTS**

None

## V. APPROVAL OF MINUTES

1. Work Session – August 5, 2019
2. Business Meeting – August 6, 2019

## VI. COMMUNITY INTEREST ITEMS

### A. PUBLIC HEARINGS

None

### COMMENT

Citizens may speak on agenda items. When you come to the podium, please state your name and address and sign the register that is provided. You are encouraged to keep your comments non-personal in nature, and they should be limited to five minutes. A total of thirty minutes is allocated for public comment during this part of the agenda.

### B. BUSINESS MATTERS REQUIRING FIRST READING

1. Accept the State of Tennessee Department of Environment and Conservation Local Parks and Recreation Fund Grant and Appropriate Funds (AF: 187-2019) (Chris McCartt)
    - Ordinance – First Reading

### C. BUSINESS MATTERS REQUIRING FINAL ADOPTION

1. Budget Adjustment Ordinance for FY19 (AF: 152-2019) (Chris McCartt)
    - Ordinance – Second Reading & Final Adoption

### D. OTHER BUSINESS

1. Execute an Agreement with Frontier Health for Counseling Services for Kingsport City Schools (AF: 195-2019) (David Frye)
    - Resolution

2. Enter into Agreement with Sterling Project Development (AF: 196-2019) (Chris McCartt)
    - Resolution

## VII. CONSENT AGENDA

1. Execute a Signatory Authority Form Allowing the Chief of Police or His Designee to Complete the Application and, if Awarded, Grant Reports as Required by the U.S. Department of Justice for the Edward Byrne Memorial Justice Assistance Grant JAG #2019-H4006-TN-DJ (AF: 189-2019) (David Quillin)
    - Resolution

2. Approve Issuance of Certificate of Compliance for Retail Food Stores to Sell Wine (AF: 190-2019) (Sid Cox)
    - Certificate of Compliance

3. Award the Bid for Robinson Middle School Roof Replacement to Davis Brothers Roofing, Inc. (AF: 191-2019) (David Frye)
    - Resolution

4. Execute an Amendment to the Contract between the City of Kingsport and Advanced Disposal Services (AF: 194-2019) (Ryan McReynolds)
    - Resolution

5. Proposed Stormwater Annual Compliance Report (AF: 192-2019) (Ryan McReynolds)
    - Resolution

## VIII. COMMUNICATIONS

A. City Manager
B. Mayor and Board Members
C. Visitors

**Citizens may speak on issue-oriented items. When you come to the podium, please state your name and address and sign the register that is provided. You are encouraged to keep your comments non-personal in nature, and they should be limited to five minutes.**

## IX. ADJOURN

# Minutes of the Regular Work Session of the Board of Mayor and Aldermen, City of Kingsport, Tennessee
Monday, August 5, 2019, 4:30 PM
Council Room – City Hall

PRESENT: Board of Mayor and Aldermen
Mayor Patrick W. Shull, Presiding
Alderman Jennifer Adler
Alderman Betsy Cooper
Alderman Darrell Duncan
Alderman Colette George
Alderman Tommy Olterman
Alderman James Phillips

City Administration
Chris McCartt, City Manager
J. Michael Billingsley, City Attorney
Sidney H. Cox, City Recorder

**1. CALL TO ORDER:** 4:30 p.m. by Mayor Patrick W. Shull.

**2. ROLL CALL:** By Deputy City Recorder Marshall.

**3. CAREHERE CLINIC REVIEW.** Ben Baker presented this item, highlighting the savings to the city in both time and money, as well as the trend towards improved health. Some discussion ensued as he answered questions from the board members.

**4. OPPORTUNITY ZONES.** Mr. Jason Hudson gave a presentation on this item and answered questions. He stated this program opens doors to investment that otherwise wouldn't be there. He explained the rules, strenths and weaknesses, pointing out strategy and organization are the keys to success. Discussion followed.

**5. REVIEW OF AGENDA ITEMS ON THE AUGUST 6, 2019 REGULAR BUSINESS MEETING AGENDA.** City Manager Fleming and members of staff gave a summary or presentation for each item on the proposed agenda. The following items were discussed at greater length or received specific questions or concerns.

**VI.D.3 Bid Award to Construction Partners for City Hall Relocation - Phase 1** (AF: 181-2019). Assistant City Manager McReynolds provided details on this item, noting the history of the project that began under the previous board under the strategic facilities plan. There was considerable discussion. Alderman Duncan pointed out the city had acquired this building at $37 a square foot

Vice-Mayor George inquired about the BMA's input regarding city commissions and boards. City Manager McCartt gave details on the history of this process and the changes being made.

**Minutes of the Regular Work Session of the Board of Mayor and Aldermen of Kingsport, Tennessee, Monday, August 5, 2019**

**6. ADJOURN.** Seeing no other matters presented for discussion at this work session, Vice-Mayor McIntire adjourned the meeting at 6:28 p.m.

| | |
|---|---|
| ANGELA MARSHALL<br>Deputy City Recorder | PATRICK W. SHULL<br>Mayor |

# Minutes of the Regular Business Meeting of the Board of Mayor and Aldermen of the City of Kingsport, Tennessee
Tuesday, August 6, 2019, 7:00 PM
Large Court Room – City Hall

PRESENT:

Board of Mayor and Aldermen

Mayor Pat Shull, Presiding
Vice Mayor Colette George
Alderman Jennifer Adler
Alderman Betsy Cooper
Alderman Darrell Duncan
Alderman Tommy Olterman
Alderman James Phillips

City Administration

Chris McCartt, City Manager
J. Michael Billingsley, City Attorney
Sidney H. Cox, City Recorder/Chief Financial Officer

**I. CALL TO ORDER:** 7:00 p.m., by Mayor Pat Shull.

**II.A. PLEDGE OF ALLEGIANCE TO THE FLAG**: Ken Weems.

**II.B. INVOCATION**: Pastor Rick Meade, Lynn Garden Baptist Church.

**III. ROLL CALL:** By City Recorder Cox. All Present.

**IV.A. RECOGNITIONS AND PRESENTATIONS.**

1. Healthy Kingsport Platinum Partner and Platinum Partner Plus
2. Kingsport Area Sullivan County Commissioners, Districts 6-11
3. National Farmers Market

**IV.B. APPOINTMENTS/REAPPOINTMENTS.**

**1. Reappointment and Appointment to Petworks** (AF: 184-2019) (Mayor Shull).

Motion/Second: Olterman/Cooper, to approve:
REAPPOINTMENT OF TOM PARHAM AND APPOINTMENT OF JEFF FLEMING TO ***PETWORKS***. BOTH ARE TWO-YEAR TERMS EFFECTIVE IMMEDIATELY AND EXPIRING ON JULY 1, 2021.
Passed: All present voting "aye."

**2. Reappointments to the Public Art Committee** (AF: 185-2019) (Mayor Shull).

Motion/Second: Olterman/Cooper, to approve:

REAPPOINTMENTS OF BRUCE SHINE, BRAD HOOVER AND JOE ZOELLER TO SERVE A THREE-YEAR TERM ON THE ***PUBLIC ART COMMITTEE.*** ALL REAPPOINTMENTS ARE EFFECTIVE IMMEDIATELY AND EXPIRE JULY 31, 2022.
Passed: All present voting "aye."

**3. Reappointments to the Parks & Recreation Advisory Committee** (AF: 186-2019) (Mayor Shull).

Motion/Second: Olterman/Cooper, to approve:
REAPPOINTMENTS OF BOB JACK, PAM MAHAFFEY AND BRAD HOOVER TO SERVE A THREE-YEAR TERM ON THE ***PARKS & RECREATION ADVISORY COMMITTEE*** EFFECTIVE IMMEDIATELY AND EXPIRING JULY 31, 2022.
Passed: All present voting "aye."

## V. APPROVAL OF MINUTES.

Motion/Second: Phillips/Adler, to approve minutes for the following meetings:
A. July 15, 2019 Regular Work Session
B. July 16, 2019 Regular Business Meeting
Approved: All present voting "aye."

## VI. COMMUNITY INTEREST ITEMS.

### A. PUBLIC HEARINGS. None.

**PUBLIC COMMENT.** Mayor Shull invited citizens in attendance to speak about any of the remaining agenda items. There being no one coming forward to speak, the Mayor closed the public comment segment.

### B. BUSINESS MATTERS REQUIRING FIRST READING.

**1. Budget Adjustment Ordinance for FY19** (AF: 152-2019) (Chris McCartt).

Motion/Second: Duncan/George, to pass:
AN ORDINANCE TO AMEND THE AQUATIC CENTER FUND AND THE GENERAL PROJECT FUND BUDGETS FOR THE YEAR ENDING JUNE 30, 2019; AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE
Passed on first reading: All present voting "aye."

### C. BUSINESS MATTERS REQUIRING FINAL ADOPTION.

**1. Vacate a Portion of West Sullivan Street Right-of-Way** (AF: 167-2019) (Nathan Woods).

Motion/Second: George/Cooper, to pass:
**ORDINANCE NO. 6809**, AN ORDINANCE TO VACATE A PORTION OF W. SULLIVAN STREET RIGHT-OF-WAY SITUATED IN THE CITY, ELEVENTH CIVIL DISTRICT OF SULLIVAN COUNTY; AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE
Passed on second reading in a roll call vote: Adler, Cooper, Duncan, George, Olterman and Shull voting "aye" with Phillips "abstaining."

**2. Vacate a Portion of Buckingham Court Right-of-Way** (AF: 168-2019) (Nathan Woods).

Motion/Second: Cooper/George, to pass:
**ORDINANCE NO. 6810**, AN ORDINANCE TO VACATE A PORTION OF BUCKINGHAM CT. RIGHT-OF-WAY SITUATED IN THE CITY, ELEVENTH CIVIL DISTRICT OF SULLIVAN COUNTY; AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE
Passed on second reading in a roll call vote: Adler, Cooper, Duncan, George, Olterman, Phillips and Shull voting "aye."

**3. Amend FY20 General Purpose School Fund and the General Project Fund Budgets** (AF: 174-2019) (David Frye, Andy True).

Motion/Second: Duncan/George, to pass:
**ORDINANCE NO. 6811**, AN ORDINANCE TO AMEND THE GENERAL PURPOSE SCHOOL FUND AND THE GENERAL PROJECTS FUND BUDGETS FOR THE FISCAL YEAR ENDING JUNE 30, 2020; AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE
Passed on second reading in a roll call vote: Adler, Cooper, Duncan, George, Olterman, Phillips and Shull voting "aye."

**4. Budget Adjustment Ordinance for FY20** (AF: 176-2019) (Chris McCartt).

Motion/Second: George/Cooper, to pass:
**ORDINANCE NO. 6812**, AN ORDINANCE TO AMEND THE GENERAL FUND AND GENERAL PROJECT FUND FOR THE YEAR ENDING JUNE 30, 2020; AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE
Passed on second reading in a roll call vote: Adler, Cooper, Duncan, George, Olterman, Phillips and Shull voting "aye."

**5. Enter into a Materials Agreement with The Edinburgh Group, LLC Related to the Cottages at Edinburgh Phase 1 of the Edinburgh Development and an Ordinance to Appropriate the Funds** (AF: 157-2019) (Ryan McReynolds).

Motion/Second: Cooper/Phillips, to pass:
**ORDINANCE NO. 6813**, AN ORDINANCE TO AMEND THE WATER AND SEWER PROJECT FUNDS BY TRANSFERRING FUNDS TO THE COTTAGES AT EDINBURGH

PHASE 1 MATERIALS AGREEMENT PROJECTS (WA2050 AND SW2050); AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE
Passed on second reading in a roll call vote: Adler, Cooper, Duncan, George, Olterman, Phillips and Shull voting "aye."

Motion/Second: George/Duncan, to pass:
**Resolution No. 2020-026**, A RESOLUTION AUTHORIZING THE MAYOR TO ENTER INTO A MATERIALS AGREEMENT WITH DANNY KARST RELATED TO COTTAGES AT EDINBURG PHASE I OF THE EDINBURG DEVELOPMENT AND AUTHORIZING THE MAYOR TO SIGN ALL DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE AGREEMENT
Passed: All present voting "aye."

**D. OTHER BUSINESS.**

**1. Contractual Agreement with Tennessee Department of Transportation for Reimbursement of Annual Operation Expenses for FY19-20** (AF: 177-2019) (Chris Campbell).

Motion/Second: Adler/George, to pass:
**Resolution No. 2020-027**, A RESOLUTION APPROVING A REIMBURSEMENT CONTRACT WITH THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR THE CITY'S TRANSIT SYSTEM OPERATING EXPENDITURES FOR FISCAL YEAR 2019-2020; AND AUTHORIZING THE MAYOR TO EXECUTE THE CONTRACT AND ALL OTHER DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE CONTRACT
Passed: All present voting "aye."

**2. Grant for $23,540 from Department of Justice Edward Byrne Memorial Justice Assistance Program (JAG) FY19 Local Solicitation** (AF: 182-2019) (David Quillin).

Motion/Second: Adler/Phillips, to pass:
**Resolution No. 2020-028**, A RESOLUTION APPROVING AN APPLICATION FOR AND RECEIPT OF A FISCAL YEAR 2019 LOCAL SOLICITATION GRANT FROM THE UNITED STATES DEPARTMENT OF JUSTICE BUREAU OF JUSTICE ASSISTANCE EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT PROGRAM AND AUTHORIZING THE MAYOR TO EXECUTE ALL DOCUMENTS NECESSARY AND PROPER FOR SUCH APPLICATION AND RECEIPT OF GRANT FUNDS
Passed: All present voting "aye."

**3. Bid Award to Construction Partners for City Hall Relocation - Phase 1** (AF: 181-2019) (Ryan McReynolds).

Motion/Second: George/Duncan, to pass:

**Resolution No. 2020-029**, A RESOLUTION AWARDING THE BID FOR THE CITY HALL RELOCATION PHASE 1 TO CONSTRUCTION PARTNERS AND AUTHORIZING THE MAYOR TO SIGN AN AGREEMENT FOR THE SAME AND ALL DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE AGREEMENT
Passed: All present voting "aye."

**4. Partner with the American Red Cross for their Centennial Campaign** (AF: 183-2019) (Chris McCartt).

Motion/Second: Adler/Phillips, to pass:
**Resolution No. 2020-030**, A RESOLUTION APPROVING A FIRST ADDENDUM TO THE LICENSED TRAINING PROVIDER AGREEMENT WITH THE AMERICAN RED CROSS FOR THEIR CENTENNIAL CAMPAIGN AND AUTHORIZING THE MAYOR TO EXECUTE THE ADDENDUM AND ALL OTHER DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE ADDENDUM
Passed: All present voting "aye."

**5. Amend Personnel Policies and Procedures** (AF: 178-2019) (George DeCroes).

Motion/Second: Cooper/George, to pass:
**Resolution No. 2020-031**, A RESOLUTION AMENDING RESOLUTION NO. 2008-213, A SICK LEAVE POLICY FOR CITY EMPLOYEES
Passed: All present voting "aye."

Motion/Second: Cooper/George, to pass:
**Resolution No. 2020-032**, A RESOLUTION AMENDING RESOLUTION NO. 2008-096, A CRIMINAL INVESTIGATION POLICY FOR CITY EMPLOYEES
Passed: All present voting "aye."

Motion/Second: Cooper/George, to pass:
**Resolution No. 2020-033**, A RESOLUTION AMENDING RESOLUTION NO. 2017-041, EMPLOYMENT POLICY FOR CITY EMPLOYEES
Passed: All present voting "aye."

Motion/Second: Cooper/George, to pass:
**Resolution No. 2020-034**, A RESOLUTION AMENDING RESOLUTION NO. 2017-215, VACATION LEAVE POLICY FOR CITY EMPLOYEES
Passed: All present voting "aye."

**VII. CONSENT AGENDA.**
***(These items are considered under one motion with a roll call vote.)***

Motion/Second: Olterman/George, to adopt:

**1. Section 5307 Operations Grant from the Federal Transit Administration and U.S. Department of Transportation** (AF: 179-2019) (Chris Campbell).

Pass:
**Resolution No. 2020-035**, A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE ALL DOCUMENTS NECESSARY AND PROPER TO APPLY FOR AND RECEIVE FEDERAL TRANSIT ADMINISTRATION SECTION 5307 FUNDS FROM THE U.S. DEPARTMENT OF TRANSPORTATION FOR FISCAL YEAR 2019-2020
Passed: All present voting "aye."

**2. Approval of Easements and Rights-of-Way** (AF: 180-2019) (Ryan McReynolds).

Approve:
EASEMENTS AND RIGHTS-OF-WAY
Passed: All present voting "aye."

**3. Amend the Community Agreement with Keep Kingsport Beautiful** (AF: 188-2019) (Chris McCartt).

Pass:
**Resolution No. 2020-036**, A RESOLUTION APPROVING AN AMENDMENT TO THE AGREEMENT WITH KEEP KINGSPORT BEAUTIFUL; AUTHORIZING THE MAYOR TO EXECUTE THE AMENDMENT; AND ALL OTHER DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE AMENDMENT
Passed: All present voting "aye."

**VIII. COMMUNICATIONS.**

**A. CITY MANAGER.** Mr. McCartt recognized Dawn Melton for her work as the project manager on the DB addition. He also recognized Kristie Leonard for her efforts with the Farmers Market, noting it was National Farmers Market Week.

**B. MAYOR AND BOARD MEMBERS.** Alderman Phillips commented the efficient event meeting process Kristie Leonard has established. He also invited everyone to the Lo Country Boil this weekend, noting it is the biggest fundraiser for the Netherland Inn Association. Alderman Adler commented on the upcoming Evenings at the Market event, pointing out how hard the vendors work to be able participate. She also mentioned the Miracle Field that will be constructed at Brick Yard Park, noting the ongoing fundraising challenge to close the gap. Alderman Olterman stated high schools were getting ready for football and to go support them. Alderman Duncan stated the Kingsport Theatre Guild would be opening its 72nd season this weekend with West Side Story and the use of a live orchestra. He also pointed out it was going to be a busy

weekend with the World Long Drive tour at Meadowview including the Tennessee Big Shots, the Golf Channel and concerts. Alderman Cooper commented the school year had gotten off to a good start. Alderman George commented on the wonderful Funfest and again thanked public works as well as the police, fire and first responders. She mentioned the Bristol Race coming up as well as the PETWORKS Fur Ball in September. Mayor Shull mentioned the Boys and Girls Club fundraiser this Friday at St. Dominic's and stated there was lots to do in Kingsport that bring families and the community together.

**C. VISITORS.** Lisa Haynes commented on the Lynn Garden community. Tim Sanders commented on the roads.

**IX. ADJOURN.** Seeing no other business for consideration at this meeting, Mayor Shull adjourned the meeting at 8:43 p.m.

| | |
|---|---|
| ANGELA MARSHALL | PATRICK W. SHULL |
| Deputy City Recorder | Mayor |

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Accept the State of Tennessee Department of Environment and Conservation Local Parks and Recreation Fund Grant and Appropriate Funds

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

Action Form No.: AF-187-2019
Work Session: August 19, 2019
First Reading: August 20, 2019

Final Adoption: September 3, 2019
Staff Work By: Kitty Frazier
Presentation By: Chris McCartt

---

**Recommendation:**
Approve the Ordinance.

**Executive Summary:**
The City of Kingsport has been awarded a $250,000 grant from the State of TN Department of Environment and Conservation. The grant will provide improvements to both Borden Park (new tennis court lights) and Preston Forest Park (new parking lot and walking trail). Each of these improvements will upgrade the neighborhood parks and recreation opportunities for the community. The grant requires a 50/50 match of $250,000 included as part of the FY20 CIP. The project must be completed within 2 years of the project contract date. The Mayor's signature will be required on various grant documents throughout the term of the project (contract, budget revisions, sub contract documents, bid documents, procurement activity documents, reimbursement requests, project completion certification documents, end of year reports, and other related grant documents). This grant project is recommended and supported by the Kingsport Parks and Recreation Advisory Committee.

**Attachments:**
1. Ordinance
2. LPRF Contract

Funding source appropriate and funds are available: JP

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

PRE-FILED
CITY RECORDER

ORDINANCE NO. _____

AN ORDINANCE TO AMEND THE GENERAL PROJECT FUND BUDGET BY APPROPRIATING GRANT FUNDS RECEIVED FROM THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION FOR THE YEAR ENDING JUNE 30, 2020; AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE

BE IT ORDAINED BY THE CITY OF KINGSPORT, as follows:

SECTION I. That the General Project Fund budget be amended by appropriating grant funds received from the State of Tennessee Department of Environment and Conservation in the amount of $250,000 to the LPRF Grant (GP2022). The grant will provide improvements to both Borden Park and Preston Forest Park. The grant requires a 50/50 match and is provided for in the FY20 CIP Bond Issue.

| **Account Number/Description:** | **Budget** | **Incr/<Decr>** | **New Budget** |
|---|---|---|---|
| **Fund 311: General Project Fund** | | | |
| **LPRF Grant (GP2022)** | | | |
| **Revenues:** | **$** | **$** | **$** |
| 311-0000-332-7201 LPRF Grant | 0 | 250,000 | 250,000 |
| ***Totals:*** | **0** | **250,000** | **250,000** |
| **Expenditures:** | **$** | **$** | **$** |
| 311-0000-601-9003 Improvements | 0 | 250,000 | 250,000 |
| ***Totals:*** | **0** | **250,000** | **250,000** |

SECTION II. That this Ordinance shall take effect from and after its date of passage, as the law direct, the welfare of the City of Kingsport, Tennessee requiring it.

_____
PATRICK W. SHULL, Mayor

ATTEST:

_____
ANGIE MARSHALL
Deputy City Recorder

APPROVED AS TO FORM:

_____
J. MICHAEL BILLINGSLEY, City Attorney

PASSED ON 1ST READING: _____

PASSED ON 2ND READING: _____

# GOVERNMENTAL GRANT CONTRACT

(cost reimbursement grant contract with a federal or Tennessee local governmental entity or their agents and instrumentalities)

| Begin Date | End Date | Agency Tracking # | Edison ID |
|---|---|---|---|
| October 1, 2019 | September 30, 2021 | 32701-03877 | PO_____ |

| Grantee Legal Entity Name | Edison Vendor ID |
|---|---|
| City of Kingsport | 1562 |

**Subrecipient or Contractor**

☒ Subrecipient

☐ Contractor

**CFDA #: N/A**

**Grantee's fiscal year end – June 30**

**Service Caption** (one line only)

Local Park and Recreation Fund grant for 2018 LPRF Kingsport Neighborhood Parks Renovations

**Funding —**

| FY | State | Federal | Interdepartmental | Other | TOTAL Grant Contract Amount |
|---|---|---|---|---|---|
| 2020 | $250,000.00 | | | | $250,000.00 |
| 2021 | | | | | |
| 2022 | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL:** | **$250,000.00** | | | | **$250,000.00** |

**Grantee Selection Process Summary**

☒ Competitive Selection

Grant applications are competitively scored based on criteria in an Open Project Selection Process (OPSP) found in the Local Park and Recreation Fund Application Manual. Applications receiving the highest scores are awarded grants. The grant amount awarded is based on the amount requested by the grantee, with consideration of eligibility.

☐ Non-competitive Selection

**Budget Officer Confirmation:** There is a balance in the appropriation from which obligations hereunder are required to be paid that is not already encumbered to pay other obligations

Scott Sommer /SP

*CPO USE – GG*

*Edison ID 60850*

| Speed Chart (optional) | Account Code (optional) |
|---|---|
| **EN00016412** | **71302000** - Cities |

327.19

**GRANT CONTRACT**
**BETWEEN THE STATE OF TENNESSEE,**
**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION**
**AND**
**CITY OF KINGSPORT**

This grant contract ("Grant Contract"), by and between the State of Tennessee, Tennessee Department of Environment and Conservation, hereinafter referred to as the "State" or the "Grantor State Agency" and City of Kingsport, hereinafter referred to as the "Grantee," is for the provision of Neighborhood Parks Renovations, as further defined in the "SCOPE OF SERVICES AND DELIVERABLES."

Grantee Edison Vendor ID #: 0000001562

A.1. The Grantee shall provide the scope of services and deliverables ("Scope") as required, described, and detailed in this Grant Contract.

A.2. The Grantee shall implement the following activities: (1) ☐ land acquisition for local parks, natural areas, greenways; (2) ☐ land acquisition for recreational facilities; (3) ☐ trail development; and (4) ☒ capital projects in parks, natural areas, and greenways. Further details are provided in Attachment A.

A.3. The Grantee agrees to comply with the provisions of the Local Park and Recreation Fund Manual.

A.4. The Grantee has been provided a copy of the Local Park and Recreation Fund Manual.

A.5. Work completed under this grant is subject to inspection by the Park and Recreation Technical Advisory Service (PARTAS).

**B. TERM OF CONTRACT:**

B.1. This Grant Contract shall be effective on October 1, 2019 ("Effective Date") and extend for a period of twenty-four (24) months after the Effective Date ("Term"). The State shall have no obligation to the Grantee for fulfillment of the Scope outside the Term.

B.2. Term Extension. It is understood and agreed that the State may extend the Term an additional period of time, not to exceed one hundred-eighty (180) days beyond the expiration date of this Grant Contract, under the same terms and conditions. In no event, however, shall the maximum Term, including all extensions or renewals, exceed a total of sixty (60) months.

**C. PAYMENT TERMS AND CONDITIONS:**

C.1. Maximum Liability. In no event shall the maximum liability of the State under this Grant Contract exceed Two-Hundred-Fifty Thousand Dollars ($250,000.00) ("Maximum Liability"). The Grant Budget, attached and incorporated as Attachment A is the maximum amount due the Grantee under this Grant Contract. The Grant Budget line-items include, but are not limited to, all applicable taxes, fees, overhead, and all other direct and indirect costs incurred or to be incurred by the Grantee.

C.2. Compensation Firm. The Maximum Liability of the State is not subject to escalation for any reason unless amended. The Grant Budget amounts are firm for the duration of the Grant Contract and are not subject to escalation for any reason unless amended, except as provided in Section C.6.

C.3. Payment Methodology. The Grantee shall be reimbursed for actual, reasonable, and necessary costs based upon the Grant Budget, not to exceed the Maximum Liability established in Section

C.1 Upon progress toward the completion of the Scope, as described in Section A of this Grant Contract, the Grantee shall submit invoices prior to any reimbursement of allowable costs.

C.4 Travel Compensation. Reimbursement to the Grantee for travel, meals, or lodging shall be subject to amounts and limitations specified in the "State Comprehensive Travel Regulations," as they are amended from time to time, and shall be contingent upon and limited by the Grant Budget funding for said reimbursement.

C.5 Invoice Requirements. The Grantee shall invoice the State no more often than monthly, with all necessary supporting documentation, and present such to:

Tennessee Department of Environment and Conservation
Recreation Educational Services
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243

a. Each invoice shall clearly and accurately detail all of the following required information (calculations must be extended and totaled correctly).

(1) Invoice/Reference Number (assigned by the Grantee).
(2) Invoice Date.
(3) Invoice Period (to which the reimbursement request is applicable).
(4) Grant Contract Number (assigned by the State).
(5) Grantor: Tennessee Department of Environment and Conservation, Recreation Educational Services Division.
(6) Grantor Number (assigned by the Grantee to the above-referenced Grantor).
(7) Grantee Name.
(8) Grantee Tennessee Edison Registration ID Number Referenced in Preamble of this Grant Contract.
(9) Grantee Remittance Address.
(10) Grantee Contact for Invoice Questions (name, phone, or fax).
(11) Itemization of Reimbursement Requested for the Invoice Period— it must detail, at minimum, all of the following:

i. The amount requested by Grant Budget line-item (including any travel expenditure reimbursement requested and for which documentation and receipts, as required by "State Comprehensive Travel Regulations," are attached to the invoice).
ii. The amount reimbursed by Grant Budget line-item to date.
iii. The total amount reimbursed under the Grant Contract to date.
iv. The total amount requested (all line-items) for the Invoice Period.

b. The Grantee understands and agrees to all of the following.

(1) An invoice under this Grant Contract shall include only reimbursement requests for actual, reasonable, and necessary expenditures required in the delivery of service described by this Grant Contract and shall be subject to the Grant Budget and any other provision of this Grant Contract relating to allowable reimbursements.
(2) An invoice under this Grant Contract shall not include any reimbursement request for future expenditures.
(3) An invoice under this Grant Contract shall initiate the timeframe for reimbursement only when the State is in receipt of the invoice, and the invoice meets the minimum requirements of this section C.5.

C.6. Budget Line-item: Expenditures, reimbursements, and payments under this Grant Contract shall adhere to the Grant Budget. The Grantee may request revisions of Grant Budget line-items by letter, giving full details supporting such request, provided that such revisions do not increase

total Grant Budget amount. Grant Budget line-item revisions may not be made without prior, written approval of the State in which the terms of the approved revisions are explicitly set forth. Any increase in the total Grant Budget amount shall require a Grant Contract amendment.

C.7 Disbursement Reconciliation and Close Out. The Grantee shall submit any final invoice and a grant disbursement reconciliation report within sixty (60) days of the Grant Contract end date and in form and substance acceptable to the State.

a. The Grant Budget specifies a Grantee Match Requirement and the final grant disbursement reconciliation report shall detail all Grantee expenditures recorded to meet this requirement.

i. No Grantee expenditure shall be recorded and reported toward meeting a Grantee Match Requirement of more than one grant contract with the State.

ii. The final grant disbursement reconciliation report shall specifically detail the exact amount of any Grantee failure to meet a Match Requirement, and the maximum total amount reimbursable by the State pursuant to this Grant Contract, as detailed by the Grant Budget column "Grant Contract," shall be reduced by the amount that the Grantee failed to contribute to the Total Project as budgeted.

b. If total disbursements by the State pursuant to this Grant Contract exceed the amounts permitted by the section C, payment terms and conditions of this Grant Contract (including any adjustment pursuant to subsection a.ii. above), the Grantee shall refund the difference to the State. The Grantee shall submit the refund with the final grant disbursement reconciliation report.

c. The State shall not be responsible for the payment of any invoice submitted to the state after the grant disbursement reconciliation report. The State will not deem any Grantee costs submitted for reimbursement after the grant disbursement reconciliation report to be allowable and reimbursable by the State, and such invoices will NOT be paid.

d. The Grantee's failure to provide a final grant disbursement reconciliation report to the state as required shall result in the Grantee being deemed ineligible for reimbursement under this Grant Contract, and the Grantee shall be required to refund any and all payments by the state pursuant to this Grant Contract.

e. The Grantee must close out its accounting records at the end of the contract period in such a way that reimbursable expenditures and revenue collections are NOT carried forward.

C.8. Indirect Cost. Should the Grantee request reimbursement for indirect costs, the Grantee must submit to the State a copy of the indirect cost rate approved by the cognizant federal agency or the cognizant state agency, as applicable. The Grantee will be reimbursed for indirect costs in accordance with the approved indirect cost rate and amounts and limitations specified in the attached Grant Budget. Once the Grantee makes an election and treats a given cost as direct or indirect, it must apply that treatment consistently and may not change during the Term. Any changes in the approved indirect cost rate must have prior approval of the cognizant federal agency or the cognizant state agency, as applicable. If the indirect cost rate is provisional during the Term, once the rate becomes final, the Grantee agrees to remit any overpayment of funds to the State, and subject to the availability of funds the State agrees to remit any underpayment to the Grantee.

C.9. Cost Allocation. If any part of the costs to be reimbursed under this Grant Contract are joint costs involving allocation to more than one program or activity, such costs shall be allocated and reported in accordance with the provisions of Department of Finance and Administration Policy Statement 03 or any amendments or revisions made to this policy statement during the Term.

C.10. Payment of Invoice. A payment by the State shall not prejudice the State's right to object to or question any reimbursement, invoice, or related matter. A payment by the State shall not be construed as acceptance of any part of the work or service provided or as approval of any amount as an allowable cost.

C.11. Non-allowable Costs. Any amounts payable to the Grantee shall be subject to reduction for amounts included in any invoice or payment that are determined by the State, on the basis of audits or monitoring conducted in accordance with the terms of this Grant Contract, to constitute unallowable costs.

C.12. State's Right to Set Off. The State reserves the right to set off or deduct from amounts that are or shall become due and payable to the Grantee under this Grant Contract or under any other agreement between the Grantee and the State of Tennessee under which the Grantee has a right to receive payment from the State.

C.13. Prerequisite Documentation. The Grantee shall not invoice the State under this Grant Contract until the State has received the following, properly completed documentation.

a. The Grantee shall complete, sign, and return to the State an "Authorization Agreement for Automatic Deposit (ACH Credits) Form" provided by the State. By doing so, the Grantee acknowledges and agrees that, once this form is received by the State, all payments to the Grantee under this or any other grant contract will be made by automated clearing house ("ACH").

b. The Grantee shall complete, sign, and return to the State the State-provided W-9 form. The taxpayer identification number on the W-9 form must be the same as the Grantee's Federal Employer Identification Number or Social Security Number referenced in the Grantee's Edison registration information.

**D. STANDARD TERMS AND CONDITIONS:**

D.1 Required Approvals. The State is not bound by this Grant Contract until it is signed by the parties and approved by appropriate officials in accordance with applicable Tennessee laws and regulations (depending upon the specifics of this Grant Contract, the officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury)

D.2. Modification and Amendment. This Grant Contract may be modified only by a written amendment signed by all parties and approved by the officials who approved the Grant Contract and, depending upon the specifics of the Grant Contract as amended, any additional officials required by Tennessee laws and regulations (the officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

D.3. Termination for Convenience. The State may terminate this Grant Contract without cause for any reason. A termination for convenience shall not be a breach of this Grant Contract by the State. The State shall give the Grantee at least thirty (30) days written notice before the effective termination date. The Grantee shall be entitled to compensation for authorized expenditures and satisfactory services completed as of the termination date, but in no event shall the State be liable to the Grantee for compensation for any service that has not been rendered. The final decision as to the amount for which the State is liable shall be determined by the State. The Grantee shall not have any right to any actual general, special, incidental, consequential, or any other damages whatsoever of any description or amount for the State's exercise of its right to terminate for convenience.

D.4. Termination for Cause. If the Grantee fails to properly perform its obligations under this Grant Contract, or if the Grantee violates any terms of this Grant Contract, the State shall have the right to immediately terminate this Grant Contract and withhold payments in excess of fair

compensation for completed services Notwithstanding the exercise of the State's right to terminate this Grant Contract for cause, the Grantee shall not be relieved of liability to the State for damages sustained by virtue of any breach of this Grant Contract by the Grantee.

D.5. Subcontracting. The Grantee shall not assign this Grant Contract or enter into a subcontract for any of the services performed under this Grant Contract without obtaining the prior written approval of the State. If such subcontracts are approved by the State, each shall contain, at a minimum, sections of this Grant Contract pertaining to "Conflicts of Interest," "Lobbying," "Nondiscrimination," "Public Accountability," "Public Notice," and "Records" (as identified by the section headings). Notwithstanding any use of approved subcontractors, the Grantee shall remain responsible for all work performed.

D.6. Conflicts of Interest. The Grantee warrants that no part of the total Grant Contract Amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Grantee in connection with any work contemplated or performed relative to this Grant Contract.

D.7. Lobbying. The Grantee certifies, to the best of its knowledge and belief, that:

a. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

b. If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this contract, grant, loan, or cooperative agreement, the Grantee shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

c. The Grantee shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into and is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352.

D.8. Communications and Contacts. All instructions, notices, consents, demands, or other communications required or contemplated by this Grant Contract shall be in writing and shall be made by certified, first class mail, return receipt requested and postage prepaid, by overnight courier service with an asset tracking system, or by email or facsimile transmission with recipient confirmation. All communications, regardless of method of transmission, shall be addressed to the respective party as set out below:
The State:

Gerald F. Parish, Jr., Director
Recreation Educational Services Division
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243
Email Address: Gerald.Parish@tn.gov

Telephone #: (615) 532-0748
FAX #: (615) 532-0732

The Grantee:

Honorable John Clark
Mayor, City of Kingsport
225 West Center Street
Kingsport, TN 37660
Email Address: johnclark@kingsporttn.gov
Telephone #: (423) 229-9400
FAX #: (423) 229-9350
CC: Kitty Frazier, Parks and Recreation Manager

A change to the above contact information requires written notice to the person designated by the other party to receive notice.

All instructions, notices, consents, demands, or other communications shall be considered effectively given upon receipt or recipient confirmation as may be required.

D.9. Subject to Funds Availability. This Grant Contract is subject to the appropriation and availability of State or Federal funds. In the event that the funds are not appropriated or are otherwise unavailable, the State reserves the right to terminate this Grant Contract upon written notice to the Grantee. The State's right to terminate this Grant Contract due to lack of funds is not a breach of this Grant Contract by the State. Upon receipt of the written notice, the Grantee shall cease all work associated with the Grant Contract. Should such an event occur, the Grantee shall be entitled to compensation for all satisfactory and authorized services completed as of the termination date. Upon such termination, the Grantee shall have no right to recover from the State any actual, general, special, incidental, consequential, or any other damages whatsoever of any description or amount.

D.10. Nondiscrimination. The Grantee hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Grant Contract or in the employment practices of the Grantee on the grounds of handicap or disability, age, race, color, religion, sex, national origin, or any other classification protected by federal, Tennessee state constitutional, or statutory law. The Grantee shall, upon request, show proof of nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.

D.11. HIPAA Compliance. The State and the Grantee shall comply with obligations under the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Health Information Technology for Economic and Clinical Health Act (HITECH) and any other relevant laws and regulations regarding privacy (collectively the "Privacy Rules"). The obligations set forth in this Section shall survive the termination of this Grant Contract.

a. The Grantee warrants to the State that it is familiar with the requirements of the Privacy Rules and will comply with all applicable HIPAA requirements in the course of this Grant Contract.

b. The Grantee warrants that it will cooperate with the State, including cooperation and coordination with State privacy officials and other compliance officers required by the Privacy Rules, in the course of performance of this Grant Contract so that both parties will be in compliance with the Privacy Rules.

c. The State and the Grantee will sign documents, including but not limited to business associate agreements, as required by the Privacy Rules and that are reasonably necessary to keep the State and the Grantee in compliance with the Privacy Rules. This

provision shall not apply if information received by the State under this Grant Contract is NOT "protected health information" as defined by the Privacy Rules, or if the Privacy Rules permit the State to receive such information without entering into a business associate agreement or signing another such document.

D.12. Public Accountability. If the Grantee is subject to Tenn. Code Ann. § 8-4-401 *et seq.*, or if this Grant Contract involves the provision of services to citizens by the Grantee on behalf of the State, the Grantee agrees to establish a system through which recipients of services may present grievances about the operation of the service program. The Grantee shall also display in a prominent place, located near the passageway through which the public enters in order to receive Grant supported services, a sign at least eleven inches (11") in height and seventeen inches (17") in width stating:

NOTICE: THIS AGENCY IS A RECIPIENT OF TAXPAYER FUNDING. IF YOU OBSERVE AN AGENCY DIRECTOR OR EMPLOYEE ENGAGING IN ANY ACTIVITY WHICH YOU CONSIDER TO BE ILLEGAL, IMPROPER, OR WASTEFUL, PLEASE CALL THE STATE COMPTROLLER'S TOLL-FREE HOTLINE: 1-800-232-5454.

The sign shall be on the form prescribed by the Comptroller of the Treasury. The Grantor State Agency shall obtain copies of the sign from the Comptroller of the Treasury, and upon request from the Grantee, provide Grantee with any necessary signs.

D.13. Public Notice. All notices, informational pamphlets, press releases, research reports, signs, and similar public notices prepared and released by the Grantee in relation to this Grant Contract shall include the statement, "This project is funded under a grant contract with the State of Tennessee." All notices by the Grantee in relation to this Grant Contract shall be approved by the State.

D.14. Licensure. The Grantee, its employees, and any approved subcontractor shall be licensed pursuant to all applicable federal, state, and local laws, ordinances, rules, and regulations and shall upon request provide proof of all licenses.

D.15. Records. The Grantee and any approved subcontractor shall maintain documentation for all charges under this Grant Contract. The books, records, and documents of the Grantee and any approved subcontractor, insofar as they relate to work performed or money received under this Grant Contract, shall be maintained in accordance with applicable Tennessee law. In no case shall the records be maintained for a period of less than five (5) full years from the date of the final payment. The Grantee's records shall be subject to audit at any reasonable time and upon reasonable notice by the Grantor State Agency, the Comptroller of the Treasury, or their duly appointed representatives.

The records shall be maintained in accordance with Governmental Accounting Standards Board (GASB) Accounting Standards or the Financial Accounting Standards Board (FASB) Accounting Standards Codification, as applicable, and any related AICPA Industry Audit and Accounting guides.

In addition, documentation of grant applications, budgets, reports, awards, and expenditures will be maintained in accordance with U.S. Office of Management and Budget's *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

Grant expenditures shall be made in accordance with local government purchasing policies and procedures and purchasing procedures for local governments authorized under state law.

The Grantee shall also comply with any recordkeeping and reporting requirements prescribed by the Tennessee Comptroller of the Treasury.

The Grantee shall establish a system of internal controls that utilize the COSO Internal Control - Integrated Framework model as the basic foundation for the internal control system. The Grantee shall incorporate any additional Comptroller of the Treasury directives into its internal control system.

Any other required records or reports which are not contemplated in the above standards shall follow the format designated by the head of the Grantor State Agency, the Central Procurement Office, or the Commissioner of Finance and Administration of the State of Tennessee.

D.16. Monitoring. The Grantee's activities conducted and records maintained pursuant to this Grant Contract shall be subject to monitoring and evaluation by the State, the Comptroller of the Treasury, or their duly appointed representatives.

D.17. Progress Reports. The Grantee shall submit brief, periodic, progress reports to the State as requested.

D.18. Annual and Final Reports. The Grantee shall submit, within three (3) months of the conclusion of each year of the Term, an annual report. For grant contracts with a term of less than one (1) year, the Grantee shall submit a final report within three (3) months of the conclusion of the Term. For grant contracts with multiyear terms, the final report will take the place of the annual report for the final year of the Term. The Grantee shall submit annual and final reports to the Grantor State Agency and the Department of Finance and Administration ("F&A"). Send electronic copies of annual and final reports to F&A at fa.audit@tn.gov. At minimum, annual and final reports shall include: (a) the Grantee's name; (b) the Grant Contract's Edison identification number, Term, and total amount; (c) a narrative section that describes the program's goals, outcomes, successes and setbacks, whether the Grantee used benchmarks or indicators to determine progress, and whether any proposed activities were not completed; and (d) other relevant details requested by the Grantor State Agency. Annual and final report documents to be completed by the Grantee shall appear on the Grantor State Agency's website or as an attachment to the Grant Contract.

D.19. Audit Report. The Grantee shall be audited in accordance with applicable Tennessee law.

If the Grantee is subject to an audit under this provision, then the Grantee shall complete Attachment B.

When a federal single audit is required, the audit shall be performed in accordance with U.S. Office of Management and Budget's *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

A copy of the audit report shall be provided to the Comptroller by the licensed, independent public accountant. Audit reports shall be made available to the public.

D.20 Procurement. If other terms of this Grant Contract allow reimbursement for the cost of goods, materials, supplies, equipment, or contracted services, such procurement shall be made on a competitive basis, including the use of competitive bidding procedures, where practical. The Grantee shall maintain documentation for the basis of each procurement for which reimbursement is paid pursuant to this Grant Contract. In each instance where it is determined that use of a competitive procurement method is not practical, supporting documentation shall include a written justification for the decision and for use of a non-competitive procurement. If the Grantee is a subrecipient, the Grantee shall comply with 2 C.F.R. §§ 200.317—300.326 when procuring property and services under a federal award.

The Grantee shall obtain prior approval from the State before purchasing any equipment under this Grant Contract.

For purposes of this Grant Contract, the term "equipment" shall include any article of nonexpendable, tangible, personal property having a useful life of more than one year and an acquisition cost which equals or exceeds five thousand dollars ($5,000.00).

D.21. Strict Performance. Failure by any party to this Grant Contract to insist in any one or more cases upon the strict performance of any of the terms, covenants, conditions, or provisions of this Grant Contract is not a waiver or relinquishment of any term, covenant, condition, or provision. No term or condition of this Grant Contract shall be held to be waived, modified, or deleted except by a written amendment signed by the parties.

D.22. Independent Contractor. The parties shall not act as employees, partners, joint venturers, or associates of one another in the performance of this Grant Contract. The parties acknowledge that they are independent contracting entities and that nothing in this Grant Contract shall be construed to create a principal/agent relationship or to allow either to exercise control or direction over the manner or method by which the other transacts its business affairs or provides its usual services. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purpose whatsoever.

D.23. Limitation of State's Liability. The State shall have no liability except as specifically provided in this Grant Contract. In no event will the State be liable to the Grantee or any other party for any lost revenues, lost profits, loss of business, loss of grant funding, decrease in the value of any securities or cash position, time, money, goodwill, or any indirect, special, incidental, punitive, exemplary or consequential damages of any nature, whether based on warranty, contract, statute, regulation, tort (including but not limited to negligence), or any other legal theory that may arise under this Grant Contract or otherwise. The State's total liability under this Grant Contract (including any exhibits, schedules, amendments or other attachments to the Contract) or otherwise shall under no circumstances exceed the Maximum Liability originally established in Section C.1 of this Grant Contract. This limitation of liability is cumulative and not per incident.

D.24. Force Majeure. "Force Majeure Event" means fire, flood, earthquake, elements of nature or acts of God, wars, riots, civil disorders, rebellions or revolutions, acts of terrorism or any other similar cause beyond the reasonable control of the party except to the extent that the non-performing party is at fault in failing to prevent or causing the default or delay, and provided that the default or delay cannot reasonably be circumvented by the non-performing party through the use of alternate sources, workaround plans or other means. A strike, lockout or labor dispute shall not excuse either party from its obligations under this Grant Contract. Except as set forth in this Section, any failure or delay by a party in the performance of its obligations under this Grant Contract arising from a Force Majeure Event is not a default under this Grant Contract or grounds for termination. The non-performing party will be excused from performing those obligations directly affected by the Force Majeure Event, and only for as long as the Force Majeure Event continues, provided that the party continues to use diligent, good faith efforts to resume performance without delay. The occurrence of a Force Majeure Event affecting Grantee's representatives, suppliers, subcontractors, customers or business apart from this Grant Contract is not a Force Majeure Event under this Grant Contract. Grantee will promptly notify the State of any delay caused by a Force Majeure Event (to be confirmed in a written notice to the State within one (1) day of the inception of the delay) that a Force Majeure Event has occurred, and will describe in reasonable detail the nature of the Force Majeure Event. If any Force Majeure Event results in a delay in Grantee's performance longer than forty-eight (48) hours, the State may, upon notice to Grantee: (a) cease payment of the fees until Grantee resumes performance of the affected obligations; or (b) immediately terminate this Grant Contract or any purchase order, in whole or in part, without further payment except for fees then due and payable. Grantee will not increase its charges under this Grant Contract or charge the State any fees other than those provided for in this Grant Contract as the result of a Force Majeure Event.

D.25. Tennessee Department of Revenue Registration. The Grantee shall comply with all applicable registration requirements contained in Tenn. Code Ann. §§ 67-6-601 – 608. Compliance with applicable registration requirements is a material requirement of this Grant Contract.

D.26. **Reserved.**

D.27. No Acquisition of Equipment or Motor Vehicles. This Grant Contract does not involve the acquisition and disposition of equipment or motor vehicles acquired with funds provided under this Grant Contract.

D.28. State and Federal Compliance. The Grantee shall comply with all applicable state and federal laws and regulations in the performance of this Grant Contract. The U.S. Office of Management and Budget's Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards is available here: http://www.ecfr.gov/cgi-bin/text-idx?SID=c6b2f053952359ba94470ad3a7c1a975&tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl

D.29. Governing Law. This Grant Contract shall be governed by and construed in accordance with the laws of the State of Tennessee. The Grantee agrees that it will be subject to the exclusive jurisdiction of the courts of the State of Tennessee in actions that may arise under this Grant Contract. The Grantee acknowledges and agrees that any rights or claims against the State of Tennessee or its employees hereunder, and any remedies arising there from, shall be subject to and limited to those rights and remedies, if any, available under Tenn. Code Ann. §§ 9-8-101 through 9-8-407.

D.30. Completeness. This Grant Contract is complete and contains the entire understanding between the parties relating to the subject matter contained herein, including all the terms and conditions agreed to by the parties. This Grant Contract supersedes any and all prior understandings, representations, negotiations, or agreements between the parties, whether written or oral.

D.31. Severability. If any terms and conditions of this Grant Contract are held to be invalid or unenforceable as a matter of law, the other terms and conditions shall not be affected and shall remain in full force and effect. To this end, the terms and conditions of this Grant Contract are declared severable.

D.32. Headings. Section headings are for reference purposes only and shall not be construed as part of this Grant Contract.

D.33. Iran Divestment Act. The requirements of Tenn. Code Ann. § 12-12-101, *et seq.*, addressing contracting with persons as defined at Tenn. Code Ann. §12-12-103(5) that engage in investment activities in Iran, shall be a material provision of this Grant Contract. The Grantee certifies, under penalty of perjury, that to the best of its knowledge and belief that it is not on the list created pursuant to Tenn. Code Ann. § 12-12-106.

D.34. Debarment and Suspension. The Grantee certifies, to the best of its knowledge and belief, that it, its current and future principals, its current and future subcontractors and their principals:

a. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency;

b. have not within a three (3) year period preceding this Grant Contract been convicted of, or had a civil judgment rendered against them from commission of fraud, or a criminal offence in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or grant under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c. are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) with commission of any of the offenses detailed in section b. of this certification; and

d. have not within a three (3) year period preceding this Grant Contract had one or more public transactions (federal, state, or local) terminated for cause or default.

The Grantee shall provide immediate written notice to the State if at any time it learns that there was an earlier failure to disclose information or that due to changed circumstances, its principals or the principals of its subcontractors are excluded or disqualified, or presently fall under any of the prohibitions of sections a-d.

## E. SPECIAL TERMS AND CONDITIONS:

E.1. Conflicting Terms and Conditions. Should any of these special terms and conditions conflict with any other terms and conditions of this Grant Contract, the special terms and conditions shall be subordinate to the Grant Contract's other terms and conditions.

E.2. Environmental Tobacco Smoke. Pursuant to the provisions of the federal "Pro-Children Act of 1994" and the "Children's Act for Clean Indoor Air of 1995," Tenn. Code Ann. §§ 39-17-1601 through 1606, the Grantee shall prohibit smoking of tobacco products within any indoor premises in which services are provided to individuals under the age of eighteen (18) years. The Grantee shall post "no smoking" signs in appropriate, permanent sites within such premises. This prohibition shall be applicable during all hours, not just the hours in which children are present. Violators of the prohibition may be subject to civil penalties and fines. This prohibition shall apply to and be made part of any subcontract related to this Grant Contract.

E.3. The Grantee shall provide a drug-free workplace pursuant to the "Drug-Free Workplace Act," 41 U.S.C. §§ 8101 through 8106, and its accompanying regulations.

**IN WITNESS WHEREOF,**

**CITY OF KINGSPORT:**

_____

**GRANTEE SIGNATURE** **DATE**

_____

**PRINTED NAME AND TITLE OF GRANTEE SIGNATORY (above)**

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION:**

_____

**DAVID W. SALYERS, P.E., COMMISSIONER** **DATE**

**ATTACHMENT A**

Page 1

| GRANT BUDGET | | | | |
|---|---|---|---|---|
| **City of Kingsport – Local Park and Recreation Fund** | | | | |
| **The Grant Budget line-item amounts below shall be applicable only to expenses incurred during the following applicable period:** | | | | |
| **BEGIN: October 1, 2019** | | **END: September 30, 2021** | | |
| **POLICY 03 Object Line-item Reference** | **EXPENSE OBJECT LINE-ITEM CATEGORY [1]** | **GRANT CONTRACT** | **GRANTEE MATCH** | **TOTAL PROJECT** |
| 1. 2 | Salaries, Benefits & Taxes | 0.00 | 0.00 | 0.00 |
| 4, 15 | Professional Fee, Grant & Award [2] | $8,750.00 | $8,750.00 | $17,500.00 |
| 5, 6, 7, 8, 9, 10 | Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications | 0.00 | 0.00 | 0.00 |
| 11. 12 | Travel, Conferences & Meetings | 0.00 | 0.00 | 0.00 |
| 13 | Interest [2] | 0.00 | 0.00 | 0.00 |
| 14 | Insurance | 0.00 | 0.00 | 0.00 |
| 16 | Specific Assistance To Individuals | 0.00 | 0.00 | 0.00 |
| 17 | Depreciation [2] | 0.00 | 0.00 | 0.00 |
| 18 | Other Non-Personnel [2] | 0.00 | 0.00 | 0.00 |
| 20 | Capital Purchase [2] | $241,250.00 | $241,250.00 | $482,500.00 |
| 22 | Indirect Cost | 0.00 | 0.00 | 0.00 |
| 24 | In-Kind Expense | 0.00 | 0.00 | 0.00 |
| n/a | Grantee Match Requirement (for any amount of the required Grantee Match that is not specifically delineated by budget line-items above) | 0.00 | 0.00 | 0.00 |
| 25 | **GRAND TOTAL** | **$250,000.00** | **$250,000.00** | **$500,000.00** |

[1] Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, *Uniform Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A* (posted on the Internet at: http://www.tn.gov/finance/topic/fa-policyinfo).

[2] Applicable detail follows this page if line-item is funded.

[3] A Grantee Match Requirement is detailed by this Grant Budget, and the maximum total amount reimbursable by the State pursuant to this Grant Contract, as detailed by the "Grant Contract" column above, shall be reduced by the amount of any Grantee failure to meet the Match Requirement.

**CITY OF KINGSPORT**
**ATTACHMENT A**
**Page 2**

**GRANT BUDGET LINE-ITEM DETAIL:**

| PROFESSIONAL FEE, GRANT & AWARD | AMOUNT |
|---|---|
| A/E Fees | $17,500.00 |
| **TOTAL** | **$17,500.00** |

| CAPITAL PURCHASE | AMOUNT |
|---|---|
| Replace tennis court lighting at Bordon Park | $240,500.00 |
| New Lighting at Parking Lot at Forest Park | $196,000.00 |
| ADA Compliant Walkway connector approximately 320 lf x 5' wide, Hardsurfaced trail approximately 780 lf x 8' wide at Forest Park | $26,000.00 |
| Amenities: Benches, Picnic Tables, Water Fountain, and Trash Receptacles at Forest Park | $15,000.00 |
| Landscaping at Forest Park | $5,000.00 |
| **TOTAL** | **$482,500.00** |

**ATTACHMENT B**

**Parent Child Information**

***The Grantee should complete this form and submit it with the Grant Contract. The Grantee should submit only one, completed "Parent Child Information" document to the State during the Grantee's fiscal year.***

"Parent" means an entity whose IRS filing contains the information of at least one other entity.

"Child" means an entity whose information is contained in another entity's IRS filing.

Grantee's Edison Vendor ID number:

Is Kingsport a parent? Yes ☐ No ☐

If yes, provide the name and Edison Vendor ID number, if applicable, of any child entities.

Is Kingsport a child? Yes ☐ No ☐

If yes, complete the fields below.

Parent entity's name: _____

Parent entity's tax identification number: _____

Note: If the parent entity's tax identification number is a social security number, this form must be submitted via US mail to:

Central Procurement Office, Grants Program Manager
3rd Floor, WRS Tennessee Tower
312 Rosa L Parks Avenue
Nashville, TN 37243

Parent entity's contact information

Name of primary contact person: _____

Address: _____

Phone number: _____

Email address: _____

Parent entity's Edison Vendor ID number, if applicable: _____

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Budget Adjustment Ordinance for FY19

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

Action Form No.: AF-152-2019
Work Session: August 5, 2019
First Reading: August 6, 2019

Final Adoption: August 20, 2019
Staff Work By: Judy Smith
Presentation By: Chris McCartt

---

**Recommendation:**
Approve the Ordinance.

**Executive Summary:**
The budget adjustment ordinance will appropriate $31,816 as a donation from Visit Kingsport to the Aquatic Center budget for a speaker system and transfer $32,300 to the new City Hall project for the HVAC upgrade.

**Attachments:**
1. Ordinance

Funding source appropriate and funds are available: JR

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Budget Adjustment Ordinance for FY19

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

Action Form No.: AF-152-2019
Work Session: August 5, 2019
First Reading: August 6, 2019

Final Adoption: August 20, 2019
Staff Work By: Judy Smith
Presentation By: Chris McCartt

---

**Recommendation:**
Approve the Ordinance.

**Executive Summary:**
The budget adjustment ordinance will appropriate $31,816 as a donation from Visit Kingsport to the Aquatic Center budget for a speaker system and transfer $32,300 to the new City Hall project for the HVAC upgrade.

**Attachments:**
1. Ordinance

Funding source appropriate and funds are available: Je

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

PRE-FILED
CITY RECORDER

ORDINANCE NO. _____

AN ORDINANCE TO AMEND THE AQUATIC CENTER FUND AND THE GENERAL PROJECT FUND BUDGETS FOR THE YEAR ENDING JUNE 30, 2019; AND TO FIX THE EFFECTIVE DATE OF THIS ORDINANCE

BE IT ORDAINED BY THE CITY OF KINGSPORT, as follows:

SECTION I. That the General Project Fund budget be amended by transferring $32,300 from the IT Back Office Improvement project (GP1904) to the Court/Public Facility Plan project (GP1820) for the HVAC Server Upgrade and that the Aquatic Center Fund be amended by appropriating $31,816 donation from Visit Kingsport for a speaker system.

| **Account Number/Description:** | **Budget** | **Incr/<Decr>** | **New Budget** |
|---|---|---|---|
| **Fund 311: General Project Fund** | | | |
| **Court/Public Facility Pln(GP1820)** | | | |
| **Revenues:** | $ | $ | $ |
| 311-0000-368-1055 Series 2017 A GO | 1,078,687 | 0 | 1,078,687 |
| 311-0000-368-1056 Series 2018 A GO | 3,649,223 | 32,300 | 3,681,523 |
| 311-0000-368-2101 Premium From Bond Sale | 308,178 | 0 | 308,178 |
| 311-0000-391-0100 From General Fund | 2,750,000 | 0 | 2,750,000 |
| ***Totals:*** | **7,786,088** | **32,300** | **7,818,388** |
| **Expenditures:** | $ | $ | $ |
| 311-0000-601-2020 Professional Consultant | 8,000 | 0 | 8,000 |
| 311-0000-601-2022 Construction Contracts | 10,000 | 0 | 10,000 |
| 311-0000-601-2023 Arch/Eng/Landscaping | 406,200 | 0 | 406,200 |
| 311-0000-601-2030 Electric Service | 20,000 | 11,036 | 31,036 |
| 311-0000-601-2033 Water and Sewer Service | 15,000 | (6,036) | 8,964 |
| 311-0000-601-2034 Telephone Service | 5,000 | (5,000) | 0 |
| 311-0000-601-4041 Bond Expense | 136,088 | 0 | 136,088 |
| 311-0000-601-9002 Buildings | 2,827,493 | 0 | 2,827,493 |
| 311-0000-601-9003 Improvements | 0 | 32,300 | 32,300 |
| 311-0000-601-9006 Purchases Over $5,000 | 4,358,307 | 0 | 4,358,307 |
| ***Totals:*** | **7,786,088** | **32,300** | **7,818,388** |
| **Fund 311: General Project Fund** | | | |
| **IT Back Off Improvements (GP1904)** | | | |
| **Revenues:** | $ | $ | $ |
| 311-0000-368-1056 Series 2018 A GO | 355,060 | (32,300) | 322,760 |

| | | | | |
|---|---|---|---|---|
| 311-0000-368-2101 | Premium From Bond Sale | 13,182 | 0 | 13,182 |
| | ***Totals:*** | **368,242** | **(32,300)** | **335,942** |
| **Expenditures:** | | **$** | **$** | **$** |
| 311-0000-601-3020 | Operating Supplies & Tools | 100,000 | 0 | 100,000 |
| 311-0000-601-4041 | Bond Expense | 8,242 | 0 | 8,242 |
| 311-0000-601-9006 | Purchases Over $5,000 | 260,000 | (32,300) | 227,700 |
| | ***Totals:*** | **368,242** | **(32,300)** | **335,942** |

| | | | | |
|---|---|---|---|---|
| **Fund 419: Aquatic Center Fund** | | | | |
| **Revenues:** | | **$** | **$** | **$** |
| 419-0000-364-3000 | From Non-Profit Group | 0 | 31,816 | 31,816 |
| | ***Totals:*** | **0** | **31,816** | **31,816** |

| | | | | |
|---|---|---|---|---|
| **Fund 419: Aquatic Center Fund** | | | | |
| **Expenditures:** | | **$** | **$** | **$** |
| 419-5019-501-9006 | Purchases Over $5,000 | 26,954 | 31,816 | 58,770 |
| | ***Totals:*** | **26,954** | **31,816** | **58,770** |

SECTION II. That this Ordinance shall take effect from and after its date of passage, as the law direct, the welfare of the City of Kingsport, Tennessee requiring it.

_____
PATRICK W. SHULL, Mayor

ATTEST:

_____
SIDNEY H. COX, City Recorder

APPROVED AS TO FORM:

_____
J. MICHAEL BILLINGSLEY, City Attorney

PASSED ON 1ST READING:
PASSED ON 2ND READING:

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Execute an Agreement with Frontier Health for Counseling Services for Kingsport City Schools

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

Action Form No.: AF-195-2019
Work Session: August 19, 2019
First Reading: N/A

Final Adoption: August 20, 2019
Staff Work By: Committee
Presentation By: D. Frye

---

**Recommendation:**
Approve the Resolution.

**Executive Summary:**
The administration of Kingsport City Schools desires to enter into this agreement for the purpose of continuing current services of Holston Children and Youth Services/Frontier Health for alcohol and drug prevention, education, intervention, consultation and training services to school administration, staff, and students. It is recommended that approval be given to execute an agreement with Frontier Health for a total of $120,400.00 for counseling services for the Kingsport City Schools.

Funding for this agreement is contained in Account 141-7154-711.03-99 of the 2019-2020 FY budget.

**Attachments:**
1. Resolution
2. Agreement

Funding source appropriate and funds are available: Je

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

RESOLUTION NO. _____

A RESOLUTION APPROVING AN AGREEMENT WITH FRONTIER HEALTH FOR COUNSELING SERVICES FOR KINGSPORT CITY SCHOOLS AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT AND ALL OTHER DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE AGREEMENT

WHEREAS, Kingsport City Schools currently receives services from Holston Children and Youth Services/Frontier Health for alcohol and drug prevention, education, intervention, consultation and training services to school administration, staff, and students; and

WHEREAS, the city would like to continue these services; and

WHEREAS, the cost for the services is $120,400.00 and funding is available in account 141-7154-711.03-99 of the School budget.

Now therefore,

BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN AS FOLLOWS:

SECTION I. That an agreement with Holston Children and Youth Services/Frontier Health is approved.

SECTION II. That the mayor, or in his absence, incapacity, or failure to act, the vice-mayor, is authorized and directed to execute, in a form approved by the city attorney and subject to the requirements of Article X, Section 10 of the Charter of the City of Kingsport, the agreement with Holston Children and Youth Services/Frontier Health and all other documents necessary and proper, and to take such acts as necessary, to effectuate the purpose of the agreement or this resolution, said agreement being as follows:

FRONTIER HEALTH
Holston Children and Youth Services
And
City of Kingsport for its KINGSPORT CITY SCHOOLS CONTRACTUAL AGREEMENT
LOCAL PROGRAM
SY 2019-2020

PARTIES:
Holston Children and Youth Services/Frontier Health and the City of Kingsport for its Kingsport City Schools are the parties to this agreement for alcohol and drug prevention and student assistance services.

AGREEMENT:
For, and in consideration of mutual advantages occurring to each of the parties hereto, said parties have agreed and do hereby obligate and bind themselves as follows:

A. In accordance with school safety and mental health service needs, Frontier Health will provide the personnel to deliver Student Assistance services to all referred students.

B. Counseling services will be provided on a full-time basis with the following guidelines:

a. Counselors will be available at Dobyns-Bennett High School, John Sevier and Ross N. Robinson Middle Schools four and a half (4.5) days per week.

b. Frontier Health will provide Kingsport City School System the necessary education, training, supervision, consultation, and other resources to school personnel for the purpose of instituting ongoing substance abuse prevention to K-12 students

c. Frontier Health will assist students and their families in accessing additional behavioral health services which may be indicated to insure student safety and well-being.

C. Frontier Health will provide training, supervision and oversight for all contracted mental health services, participate in management team meetings, actively participate in the collaboration with all partners, and provide all information needed for the evaluation of this project. Evidence-based and

trauma informed practices selected and described in this project will be implemented in coordination with Kingsport City Schools.

D. Payment for services described in section B will be $120,400.00 for the contract period. This includes all salary costs, fringe benefits, supplies, clinical supervision, and professional liability insurance and travel.

E. The contract sum is to be paid in three installments: September 1, 2019, December 1, 2019, and March 1, 2020

F. Frontier Health will hold the Kingsport Board of Education, its employees, agents and assigns harmless from any negligent wrongful acts, omissions, misfeasance, or malfeasance on the part of its officers, agents, or employees in the performance of its duties and responsibilities pursuant to the terms and provisions of this Contract, and shall maintain liability insurance in an amount not less than $1,000,000, and provide evidence of such insurance to the Kingsport City Board of Education.

G. Frontier Health warrants that all employees and/or agents who will provide services under this Contract are duly certified, trained and licensed and accredited to offer and perform such services and that such employees and/or agents have undergone appropriate background checks and are fit to perform these services.

H. Frontier Health and all employees and agents utilized in the performance of this Contract agree to carry and maintain adequate professional and/or liability insurance to provide coverage for Frontier Health's conduct and duties in the fulfillment of this Contract. Frontier Health agrees that it will hold the Kingsport City Board of Education, its employees, agents and assigns harmless from any negligent wrongful acts, omissions, misfeasance, or malfeasance on the part of its officers, agents, or employees in the performance of its duties and responsibilities pursuant to the terms and provisions of this Contract.

I. Individuals engaged by Frontier Health to perform services under this Contract shall not be considered employees of the Kingsport City School System and shall not be entitled to any benefits or compensation arising there from, other than those specifically provided for under this Contract.

J. The further development and alteration of these services will be reviewed and negotiated formally in April of each year by designated personnel of Holston Children and Youth Services/Frontier Health and the Kingsport City School System. Changes in services rendered by joint examination will be communicated to all appropriate personnel.

ASSURANCES:

Both parties agree to comply with the following statutes, regulations, standards, policies and procedures in the operation of the program which is the subject of this Contract:

A. All applicable federal and state laws and regulations for the assurance of the individual rights of clients served by the program.

B. In accordance with Titles VI and VII of the Civil Rights Act of 1964, as amended, Sections 503 and 504 of Rehabilitation Act of 1978, as amended, and Age Discrimination Act of 1975, and subsequent amendments, and regulations developed pursuant thereto, to the effect that no person shall, on the grounds of handicap, race, sex, age, religious affiliation, or national origin be excluded from participation in, or be denied benefits of, or be otherwise subject to discrimination in the performance of this Contract or in the employment practices of either party.

OTHER PROVISIONS:

A. This Contract, together with the other agreements specifically required herein, represents the entire agreement between the parties. All previous communications between parties, either verbal or written, are hereby superseded or abrogated. Any modification or deletion of any of the terms and conditions of the agreement shall not be binding unless assented to by all parties in writing.

B. This Contract shall be effective as of July 1, 2019 through June 30, 2020.

C. This Contract may be terminated by either party by giving written notice to the other at least thirty (30) days before the effective date of termination. In that event, the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed as of the termination date.

[Acknowledgements Deleted for Inclusion in this Resolution]

SECTION III. That the mayor is further authorized to make such changes approved by the mayor and the city attorney to the agreement set out herein that do not substantially alter the material provisions of the agreement, and the execution thereof by the mayor and the city attorney is conclusive evidence of the approval of such changes.

SECTION IV. That the board finds that the actions authorized by this resolution are for a public purpose and will promote the health, comfort and prosperity of the citizens of the city.

SECTION V. That this resolution shall take effect from and after its adoption, the public welfare requiring it.

ADOPTED this the 20th day of August, 2019.

_____
PATRICK W. SHULL, MAYOR

ATTEST:

_____
SIDNEY H. COX, CITY RECORDER

APPROVED AS TO FORM:

_____
J. MICHAEL BILLINGSLEY, CITY ATTORNEY

**FRONTIER HEALTH**
**Holston Children and Youth Services**
**And**
**CITY OF KINGSPORT FOR ITS**
**KINGSPORT CITY SCHOOLS**

# CONTRACTUAL AGREEMENT

**Local Program**
**SY 2019-2020**

**PARTIES:**

Holston Children and Youth Services/Frontier Health and the City of Kingsport for its Kingsport City Schools are the parties to this agreement for alcohol and drug prevention and student assistance services.

**AGREEMENT:**

For, and in consideration of mutual advantages occurring to each of the parties hereto, said parties have agreed and do hereby obligate and bind themselves as follows:

A. In accordance with school safety and mental health service needs, Frontier Health will provide the personnel to deliver Student Assistance services to all referred students.

B. Counseling services will be provided on a full-time basis with the following guidelines:

   a. Counselors will be available at Dobyns-Bennett High School, John Sevier and Ross N. Robinson Middle Schools four and a half (4.5) days per week.

   b. Frontier Health will provide Kingsport City School System the necessary education, training, supervision, consultation, and other resources to school personnel for the purpose of instituting ongoing substance abuse prevention to K-12 students

   c. Frontier Health will assist students and their families in accessing additional behavioral health services which may be indicated to insure student safety and well-being.

C. Frontier Health will provide training, supervision and oversight for all contracted mental health services, participate in management team meetings, actively participate in the collaboration with all partners, and provide all information needed for the evaluation of this project. Evidence-based and trauma informed practices selected and described in this project will be implemented in coordination with Kingsport City Schools.

D. Payment for services described in section B will be $120,400.00 for the contract period. This includes all salary costs, fringe benefits, supplies, clinical supervision, and professional liability insurance and travel.

E. The contract sum is to be paid in three installments: September 1, 2019, December 1, 2019, and March 1, 2020.

F. Frontier Health will hold the Kingsport Board of Education, its employees, agents and assigns harmless from any negligent wrongful acts, omissions, misfeasance, or malfeasance on the part of its officers, agents, or employees in the performance of its duties and responsibilities pursuant to the terms and provisions of this Contract, and shall maintain liability insurance in an amount not less than $1,000,000, and provide evidence of such insurance to the Kingsport City Board of Education.

G. Frontier Health warrants that all employees and/or agents who will provide services under this Contract are duly certified, trained and licensed and accredited to offer and perform such services and that such employees and/or agents have undergone appropriate background checks and are fit to perform these services.

H. Frontier Health and all employees and agents utilized in the performance of this Contract agree to carry and maintain adequate professional and/or liability insurance to provide coverage for Frontier Health's conduct and duties in the fulfillment of this Contract. Frontier Health agrees that it will hold the Kingsport City Board of Education, its employees, agents and assigns harmless from any negligent wrongful acts, omissions, misfeasance, or malfeasance on the part of its officers, agents, or employees in the performance of its duties and responsibilities pursuant to the terms and provisions of this Contract.

I. Individuals engaged by Frontier Health to perform services under this Contract shall not be considered employees of the Kingsport City School System and shall not be entitled to any benefits or compensation arising there from, other than those specifically provided for under this Contract.

J. The further development and alteration of these services will be reviewed and negotiated formally in April of each year by designated personnel of Holston Children and Youth Services/Frontier Health and the Kingsport City School System. Changes in services rendered by joint examination will be communicated to all appropriate personnel.

**ASSURANCES:**

Both parties agree to comply with the following statutes, regulations, standards, policies and procedures in the operation of the program which is the subject of this Contract:

A. All applicable federal and state laws and regulations for the assurance of the individual rights of clients served by the program.

B. In accordance with Titles VI and VII of the Civil Rights Act of 1964, as amended, Sections 503 and 504 of Rehabilitation Act of 1978, as amended, and Age Discrimination Act of 1975, and subsequent amendments, and regulations developed pursuant thereto, to the effect that no person shall, on the grounds of handicap, race, sex, age, religious affiliation, or national origin be excluded from participation in, or be denied benefits of, or be otherwise subject to discrimination in the performance of this Contract or in the employment practices of either party.

**OTHER PROVISIONS:**

A. This Contract, together with the other agreements specifically required herein, represents the entire agreement between the parties. All previous communications between parties, either verbal or written, are hereby superseded or abrogated. Any modification or deletion of any of the terms and conditions of the agreement shall not be binding unless assented to by all parties in writing.

B. This Contract shall be effective as of July 1, 2019 through June 30, 2020.

C. This Contract may be terminated by either party by giving written notice to the other at least thirty (30) days before the effective date of termination. In that event, the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed as of the termination date.

IN **WITNESS WHEREOF,** this agreement is executed by the parties through their authorized officers or representatives.

_____ _____

President, Frontier Health Date

_____ _____

Mayor, City of Kingsport Date

APPROVED AS TO FORM

_____

City Attorney

ATTEST

_____

City Recorder

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Enter into Agreement with Sterling Project Development

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

Action Form No.: AF-196-2019
Work Session: August 19, 2019
First Reading: N/A

Final Adoption: August 20, 2019
Staff Work By: Chris McCartt
Presentation By: Chris McCartt

---

**Recommendation:**
Approve the Resolution

**Executive Summary:**
In FY 19 the Board of Mayor and Aldermen requested City staff move forward with a feasibility study for the proposed outdoor venue as described in the One Kingsport Summit. As a result the City contracted with Sterling Project Development (SPD) over the course of several months to develop a feasibility study, see attached. Based upon the findings of the feasibility study it is recommended that the BMA enter into a second phase which will further analyze the former General Shale site for development and will build off of the work done to date. In addition to a more in depth geotechnical evaluation the proposed study will also evaluate additional development scenarios which are; 1) use as a passive park, 2) residential development coupled with a passive park, 3) complete residential use, 4) development of a business park, and 5) continued analysis of an outdoor venue. Once a development path is decided upon SPD will help the City evaluate development opportunities including those involving Opportunity Zone funding.

The total cost for this work is $150,000 with funding coming from the One Kingsport project. Our anticipated date of completion is December 2019.

**Attachments:**
1. Resolution
2. Feasibility Study
3. Phase II Proposal

Funding source appropriate and funds are available: JS

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

RESOLUTION NO. _____

A RESOLUTION APPROVING AN AGREEMENT WITH STERLING PROJECT DEVELOPMENT AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT AND ALL OTHER DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE AGREEMENT

WHEREAS, the board approved an agreement with Sterling Project Development (SPD) to do a feasibility study for the proposed outdoor venue proposed by the One Kingsport Summit; and

WHEREAS, it is now recommended to move into a second phase of the study that will further analyze the former General Shale site for development and will build off of the work done to date; and

WHEREAS, total cost for this work is $150,000.00 with funding coming from the One Kingsport project and the anticipated date of completion is December 2019.

Now therefore,

BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN AS FOLLOWS:

SECTION I. That an agreement with Sterling Project Development (SPD) is approved.

SECTION II. That the mayor, or in his absence, incapacity, or failure to act, the vice-mayor, is authorized and directed to execute, in a form approved by the city attorney and subject to the requirements of Article X, Section 10 of the Charter of the City of Kingsport, the agreement with Sterling Project Development (SPD) and all other documents necessary and proper, and to take such acts as necessary, to effectuate the purpose of the agreement or this resolution.

SECTION III. That the mayor is further authorized to make such changes approved by the mayor and the city attorney to the agreement that do not substantially alter the material provisions of the agreement, and the execution thereof by the mayor and the city attorney is conclusive evidence of the approval of such changes.

SECTION IV. That the board finds that the actions authorized by this resolution are for a public purpose and will promote the health, comfort and prosperity of the citizens of the city.

SECTION V. That this resolution shall take effect from and after its adoption, the public welfare requiring it.

ADOPTED this the 20th day of August, 2019.

_____
PATRICK W. SHULL, MAYOR

ATTEST:

_____
SIDNEY H. COX, CITY RECORDER

APPROVED AS TO FORM:

_____
J. MICHAEL BILLINGSLEY, CITY ATTORNEY

STERLING PROJECT DEVELOPMENT

SPD

# PROPOSAL FOR THE PROVISION OF STRATEGIC PLANNING SERVICES

**FOR**

**THE CITY OF KINGSPORT**

**regarding**

**REDEVELOPMENT OF THE FORMER GENERAL SHALE SITE**

August 16th, 2019

4 World Trade Center, New York, NY 10007 212-485-4460

**STERLING** PROJECT DEVELOPMENT

SPD

August 16th, 2019

City of Kingsport
C/O Chris McCartt - City Manager
225 W Center Street
Kingsport TN 37660

**Re: Strategic Planning Services for the Redevelopment of the General Shale Site**

Dear Mr. McCartt:

We would like to thank you for again considering Sterling Project Development ("SPD") as The City of Kingsport's Consultant regarding the potential redevelopment of the former General Shale site. This work engagement will build upon our feasibility study work that was done on a potential multi-purpose stadium. . We are very interested in continuing our working relationship.

We fully understand the depth of the responsibility to be placed upon our shoulders as your project consultant. We stand ready to engender the same elements of leadership and cooperation on your behalf as we have for so many other valued clients.

Our detailed proposal, as well as team credentials and relevant project experience are attached. Should you require further information, please feel free to contact me or Michael Cantor. Thank you again for your consideration.

Very Truly Yours,

*Richard Browne*

Richard Browne - Partner

Cc: Michael Cantor

4 World Trade Center, New York, NY 10007 212-485-4460

**STERLING** PROJECT DEVELOPMENT

SPD

August 16th, 2019

City of Kingsport
C/O City Manager Chris McCartt
225 W Center Street
Kingsport TN 37660

**Re: Feasibility Study Proposal - Potential Baseball Stadium - Kingsport, TN**

Dear Mr. McCartt:

Per our recent conversation, Sterling Project Development Group, LLC (herein, "the Consultant" or "SPD") proposes to provide project consulting services in support of The City of Kingsport's (herein the 'Client") redevelopment of the former general shale site (the "project"). At Client's sole option, the scope of our services shall include the following:

**Scope of Work**

Phase I (8 - 10 weeks from authorization to proceed)

i) SPD to retain and guide development team to complete a comprehensive geotechnical evaluation of the entire 37 +/- acres to better assess the soil suitability issue that was identified by BARGE in the initial scope of work. The design will take into account strategically placed boring locations based on the likelihood of ultimate development options.
   a. Outline the infrastructure costs necessary for the City to provide sites suitable for development.
   b. Conceptual Grading and Utility Design for each scenario.

ii) SPD to retain a consultant to perform a market study to evaluate potential residential / office market demand for the site to better aid the City in future decision making.

iii) SPD to present the following development scenario's, high level estimated development costs, and potential returns based on market data provided by the aforementioned market study and aided by a cost estimating consultant.
   a. Grasslands – return site to grasslands and have areas of passive park
   b. Residential lay-out with passive park (same passive park as above scenario)
   c. Complete residential lay-out with no passive park
   d. Business Park – lay out site to be home to Business Park, use existing market comps to evaluate development cost and potential return.
   e. Outdoor Event Center / Commercial Pad Lay-Out (previously performed) with "PUD" development capability

Phase II (8 weeks)

***Once a direction is decided upon, help the City of Kingsport run an RFEI / RFP process for interested development parties & help source / evaluate QOZ funding opportunities. This step is intended to create the master plan vision / deck to go out the marketplace for private sector development.***

i) SPD to advise the City of Kingsport in the RFEI / RFP process for interested parties to take part in the development of the 37 +/- acre site.

ii) SPD to advise the City of Kingsport in the negotiation and deal making process with the City's selected interested party – including potential event center operator (if applicable), residential developers & commercial development parties.

**FEE PROPOSAL**

Lump Sum Fee of $150,000. Payment shall be made in three equal installments of $50,000, with the first being payable within 30 days of the commencement of our assignment, 2nd payment within 75 days of the commencement of our assignment, and the final payment due upon issuance of RFEI / RFP. Additional fee for services beyond the Lump Sum Fee will be discussed in good faith should the engagement continue November 15th, 2019.

The proposed Fee includes any and all reasonable and customary out of pocket expenses incurred by our office, including blueprinting (for our own internal use), telephone, messenger and overnight delivery services that we initiate, transportation, lodging and parking, etc. Costs for any third-party consultants or sub-consultants to be utilized on this Project are included in this proposal.

**TERMINATION**

Client may terminate this Agreement at any time upon ten (10) days prior written notice (effective at the end of any calendar month) and payment of any and all of the unpaid Fee due and owing through the effective date of termination. SPD may terminate this Agreement for cause upon 30 days prior written notice. With respect to SPD's right to terminate, "Cause" shall mean (i) Non-payment of the Fee for a period of sixty (60) days or more, (ii) a sale or transfer or change of control of Client as it relates to this Project, (iii) Client's abandonment of the Project, (iv) the repeated failure of Client to respond to SPD.

**GOVERNING LAW**

The internal laws of the State of New York shall govern this Agreement.

## INDEMNITY AND INSURANCE

***Client and Consultant hereby indemnify old hold each other harmless from and against any third-party claims caused by the acts or omissions of the other. Client and Consultant hereby expressly agree that the Consultant's liability to the Client for any and all claims, losses, injuries, costs, expenses (including attorney's fees) or damages arising out of, in connection with or related to the Consultant's work on the Project or performance of the services shall be limited to the greater of the amount of the Fee paid to Consultant or the amount of professional liability insurance proceeds paid in connection with such claim. Subject to the limitations set forth above, in the event legal action is brought by either party against the other, the prevailing party shall be reimbursed by the other for the prevailing party's legal expenses, in addition to any sum pursuant to a judgment or settlement. Such legal expenses shall include reasonable attorney's fees, court costs and expert witness fees.***

Please confirm your understanding of the foregoing by signing below and returning a copy to our office. In the meantime, should you have any questions or wish to clarify any issues, please do not hesitate to call.

Sincerely,

*Richard Browne*

Richard Browne
Principal

approved:

_____

Client

## STAFFING / BIOS

**Richard Browne (Partner)** has enjoyed equally successful careers over the past 30 years as a builder, commercial building owner and project consultant. From 1983 to 2001, Mr. Browne primarily worked as an owner / operator of in excess of one million square feet of family-owned real estate properties in Chicago and New York. Mr. Browne was responsible for all aspects of leasing, financing, management, construction and operation at the properties. Mr. Browne then sold the properties to an outside investor in 2001.

In his role has a real estate development manager and advisor, Mr. Browne has been involved in over $8 billion worth of construction and development projects throughout the United States and Europe. Notable clients include The New York Mets, The Minnesota Twins, Starwood Capital Group, Oak Tree Capital, The Green Bay Packers, Angelo Gordon and Company, The Brooklyn Navy Yard, and many others.

From 2005 through 2010, Mr. Browne served as Owner's Representative to Queens Ballpark Company, L.L.C, which spearheaded the financing, development and construction of Citi Field, the home of the New York Mets. This $800 million ballpark, which was completed on schedule and under budget, is regarded as one of the premier sports and entertainment facilities in the country.

In 2010, Richard partnered with Sterling Equities to form Sterling Project Development Group, a national construction and development advisory firm that is currently providing project management and advisory services to over 100 clients in over 20 states, the Caribbean and Europe.

**Michael Cantor (Project Executive)** has a unique educational and professional background that makes him a very valuable member of a project team involved in sports projects located on municipal properties. Mr. Cantor has consulted for a number of professional sports franchises and municipalities with regards to sports facilities, economic and real estate development. Select clients / projects include:

- Detroit Red Wings and their recent $650 million arena development in Downtown Detroit.
- Willets Point, $3 billion mixed-use development surrounding Citi Field in Flushing, NY.
- Green Bay Packers regarding real estate development adjacent to Lambeau Field.
- The City of Hamilton (ON), regarding the development of a 30,000 seat (CFL) professional football stadium
- The University of Nevada – Las Vegas regarding the development of a 60,000 seat football and mega events stadium (and ancillary development)
- St. Lucie County (FL), and City of Edmonton (Canada) concerning planning, financing, and economic and real estate development around sports facilities.

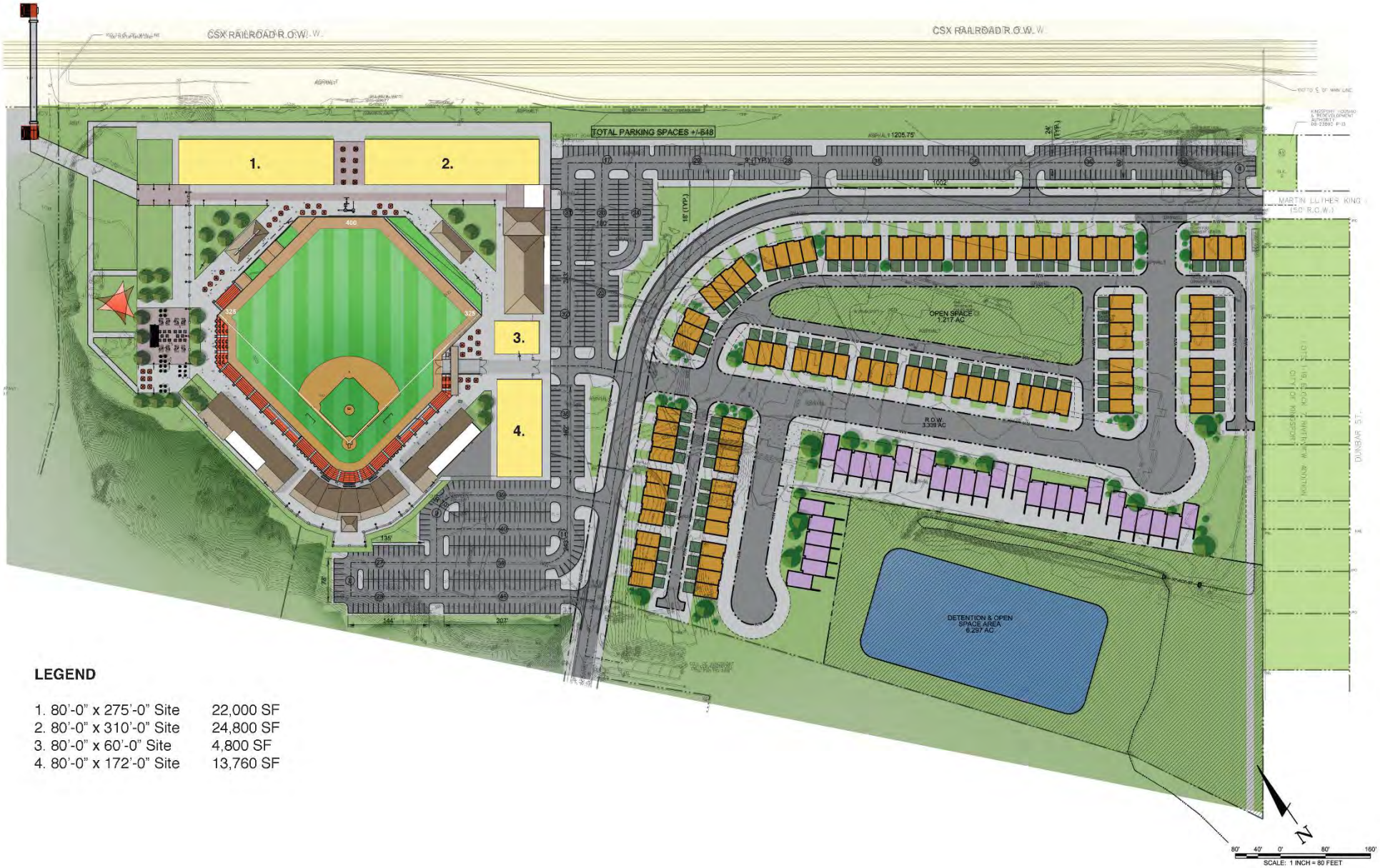
Mr. Cantor received his Ph.D. in Sport Management & Urban Planning at the University of Michigan. He holds a Master of Urban Planning in Economic Development from the Taubman College of Architecture & Urban Planning at the University of Michigan, and a Bachelor of Arts from the School of Kinesiology at the University of Michigan.

# City of Kingsport
# Multi-Use Outdoor Event Center Feasibility Study

Re-Submission: July 1st, 2019
Prepared by Sterling Project Development

2012 – Former General Shale

# Former General Shale Site – Multi-Use Event Center Master Plan

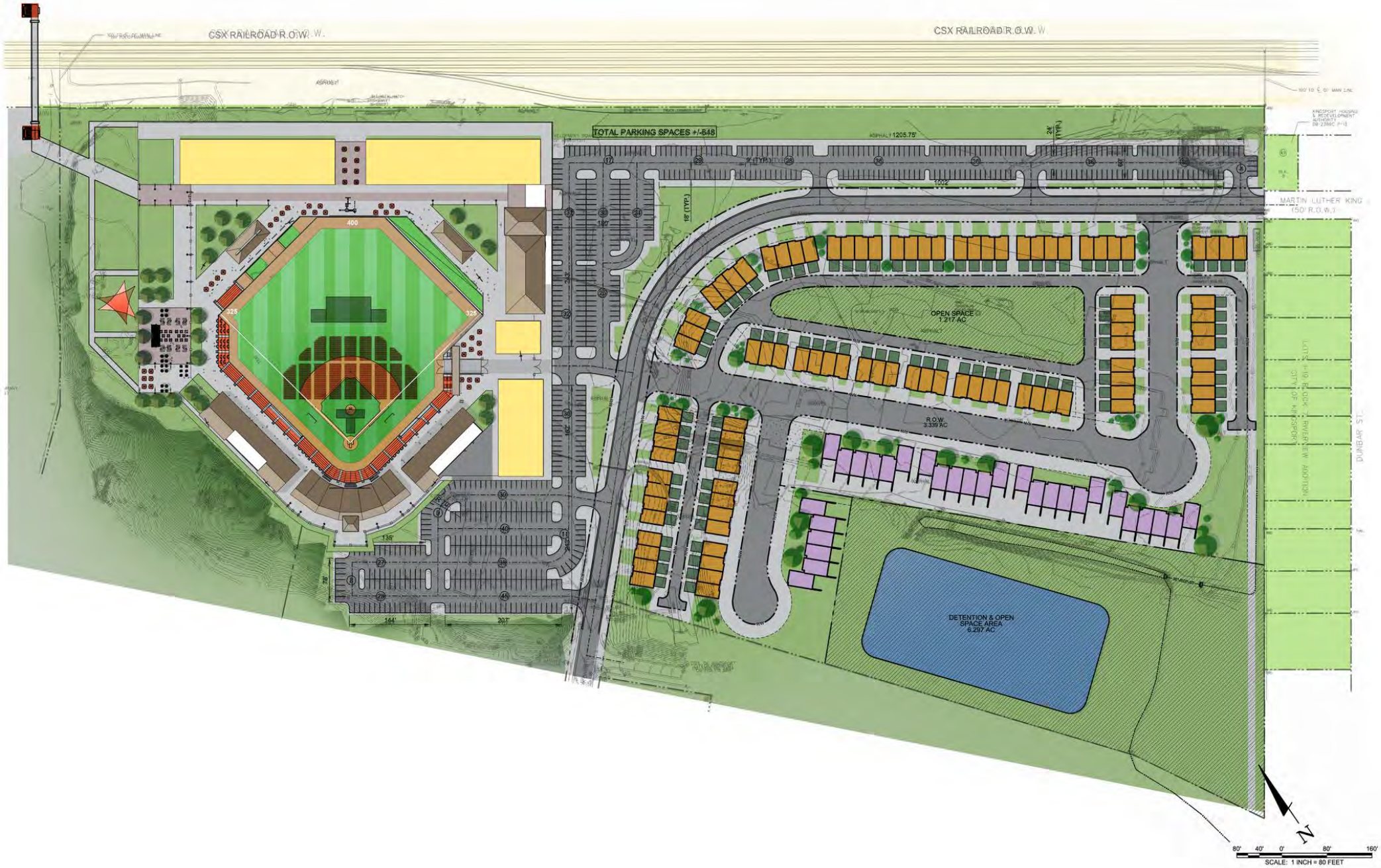



**LEGEND**

| | |
|---|---|
| 1. 80'-0" x 275'-0" Site | 22,000 SF |
| 2. 80'-0" x 310'-0" Site | 24,800 SF |
| 3. 80'-0" x 60'-0" Site | 4,800 SF |
| 4. 80'-0" x 172'-0" Site | 13,760 SF |



SPD


CSX RAILROAD R.O.W.
CSX RAILROAD R.O.W.
TOTAL PARKING SPACES +/-548
1205.75'
1002'
MARTIN LUTHER KING
(50' R.O.W.)
OPEN SPACE
1.217 AC
R.O.W.
3.339 AC
DETENTION & OPEN
SPACE AREA
6.297 AC
DUNBAR ST.
400
325
325
136'
144'
207'
N
80' 40' 0' 80' 160'
SCALE: 1 INCH = 80 FEET



SPD

# Highlights of Development Program Vision

- Four development-ready pad sites for commercial use. Office, retail, entertainment, food and beverage, or other commercial uses could all fit well with the multi-use events center. Over 100,000 SF of potential development.
- Entry plaza and portal that connects to Main Street via pedestrian bridge; including outdoor activation zone (band stand and games) to be open to the public year round subject to events scheduling.
- Open space for the public.
- Extension of MLK Jr. Drive to Cherokee Street across the CSX railroad, providing direct access to downtown Kingsport.
- 2,500 Seat Multi-Use Event Center; including turf field. Will allow for more flexible programming.
- Parking to accommodate both event days & every day commercial use on site.
- New team executive offices, retail store, team facilities.

# Feasibility Study Team – Consultants retained by SPD

Pendulum Studios
Kansas City, MO

Multi – Use
Event Center Design

Barge Design Solutions
Kingsport, TN

Site Civil Engineering
&
Geotechnical

Denark Construction
Kingsport, TN

Cost Estimate
Peer Review

# Feasibility Study – Site Evaluation

Barge Design Solutions:

- Topographic Survey of Site; Utility Identification. Included as an Addendum to this report.
- Review of existing Littlejohn Engineering Associates Nov 2013 Limited Phase II Environmental Site Assessment
- Geotechnical Report was completed on February 15th, 2019. As included an Addendum to this report.
  - Performed by Foundation Systems as a sub contractor to Barge Design Solutions.
  - Work included site visits, document and map review and twenty-five soil pit excavations.
  - **Key Outcomes**
    - Site contained old fill soil with variable content and consistency, wet/soft native soil, trapped water, and ground water. In many areas the upper fill soil will require at least partial removal to support paved areas and shallow foundations.
    - Soil conditions will likely not be suitable for the support of heavy, multi-story and/or large structures on typical shallow foundations. Deep foundations bearing into bedrock and/or foundations supported on select fill material will be required to support those structures.
    - Report provided for foundational recommendations for future development.
    - Additional more development specific areas will require for study for the design to progress.
    - More detailed site information attached as an appendix to this report.

# Future Residential Development – Program Highlights

SPD approached the townhome site layout to allow for an intensity of use that the design team felt is commensurate with an overall master plan that works for Kingsport based on input from stakeholders. Private developers may feel the site is better suited for more, or less, intensive development. As the City entertains a process for soliciting interest for private development on the site, groups could be asked to propose a vision for development.

**Townhome Layout Highlights**

- 126 Units (could go up to 147 units per Kingsport's PDD regulations)
- Roadways = 1,734 L.F.
- Alley = 2,628 L.F.
- ROW = 3.339 acres
  - Road ROW = 2.139 acres
  - Alley ROW = 1.2 acres
- Park Space = 7.514 Acres
  - Existing Detention Area = 6.297 acres
  - Central Open Space = 1.217 acres
- Total Acreage – 21.375 acres

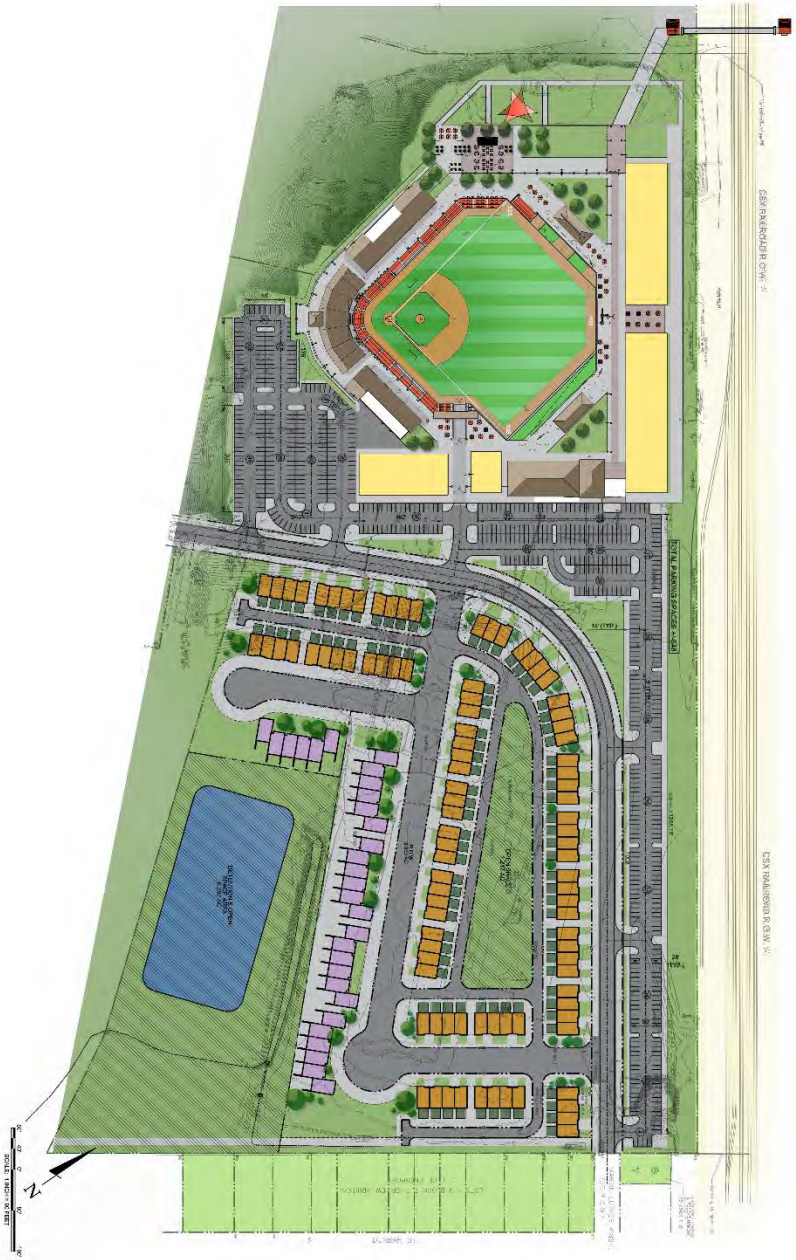
# Feasibility Study – Site Layout & Master Plan Considerations

**Priorities Leading the Master Plan / Design Process:**

- Multi – Use Event Center & Master Plan must be “more than just a baseball stadium”.
- Capable of hosting concerts, shows, festivals, etc. Turf field will be key.
- Facility must work for the Kingsport Mets, but at its heart be designed for intensive use and catalyzing economic development.
- Connect with Main Street via Pedestrian Bridge and encourage excitement about downtown Kingsport.

**Key Attributes to the Master Plan**

- Efficient lay-out of baseball specific infrastructure (less buildings = less cost)
- Create commissary and food/service spaces that will work for both games and event days.
- Easy “load in, load out” for all events.
- Parking must work for baseball and other events without creating an island of asphalt around the facility that isolates its potential to be part of a connected development.
- Future vision for mixes of commercial uses (office, retail, F & B, entertainment) & residential (apartment, townhomes). Develop pad-ready sites for future development with efficient lay out of roadways and site infrastructure for future development.
- Less hard edges on ballpark, encourage daily use through programming and open concourse; connection to public spaces that stay open majority of the year.



# Multi-Use Events Center Site Work and Utility Infrastructure

The overall project site work and infrastructure budget looks to achieve a development-ready site for the events center and adjacent commercial sites for development.

This work includes all necessary grading and erosion control, parking, storm water retention, roadway creation, and utility infrastructure to serve the site.

Utilities have been brought to and through the commercial site to serve the event center, and set up for easy tie-in to the commercial pad sites.

The infrastructure plan has also been set up to accommodate the future residential development on the east side of the arterial roadway. Utilities have been sized appropriately to accommodate future residential development. This has caused an increase in overall project budget for items not directly related to the Events Center. It felt important to put these items in place now when the roadway was being built in order to spend efficiently.

Preparation of the residential site **is not** included in this project budget. Private development would be tasked with developing the site, but infrastructure would be put in place to accept this intensity of development.

# Grading, Utility Design & Geotechnical Report

See Addendum

# Estimated Site Work and Infrastructure Budget

| Kingsport Multi-Use Event Center - Project Budget - May 2019 | | |
|---|---|---|
| Site Work and Infrastructure | | |
| Site Work - Mass Grading and Erosion Control | $ | 3,563,386 |
| Site water, storm, and sanitary | $ | 755,913 |
| Asphalt Paving and Curbs | $ | 425,912 |
| Concrete Flatwork - Plaza and Sidewalks | $ | 741,778 |
| Site Fencing - Pilasters/Aluminum | $ | 222,778 |
| Landscaping | $ | 153,000 |
| **Total Hard Cost Budget** | $ | 5,862,767 |
| | | |
| General Conditions | $ | 175,883 |
| Design Contigency (10%) | $ | 586,277 |
| Construction Contigency (3%) | $ | 175,883 |
| Fees, Insurance, Warranty | $ | 410,394 |
| Payment and Performance Bond | $ | 32,245 |
| **Total Soft Cost Budget** | $ | 1,380,682 |
| | | |
| **Total Site Work and Infrastructure Budget** | **$** | **7,243,449** |
| *Deduct if Excavation left on adjacent site* | *$* | *(2,800,000)* |

- Site work and infrastructure estimates were prepared in conjunction with Denark Construction based off of the 30% Schematic Design work presented to date by Barge Design Solutions and in conjunction with preliminary high level market feedback.
- Significant deduct in place if fill were able to remain on adjacent site.
- Budgets would be refined, and costs could be dialed in if design work were able to proceed.
- Contingencies and budget holds must be put in place with the preliminary nature of design of this project leading to potentially higher costs.

# Multi – Use Event Center Programming

- Event Center Capacity = 2,500 including grass berm seating, 1,750 main bowl; 250 in premium seating including Cabana Deck's; and a hospitality pavilion along the 3rd base line.
- Home, Visitor, and Umpire Locker and Training Rooms
- Executive Offices
- Team Store
- Concessions on 1st and 3rd base concourses
- Outfield hospitality area
- Public Plaza and Gathering Areas open year round
- Maintenance and Groundskeeping Facilities

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Multi – Use Event Center Renderings

# Estimated Multi Use Event Center Budget

| Multi-Use Event Center | | |
|---|---|---|
| Cast-in-place Bowl - Seats, Walls, etc . | $ | 742,416 |
| Concrete | $ | 581,787 |
| Masonry | $ | 1,224,596 |
| Steel | $ | 705,110 |
| Site Railings | $ | 200,570 |
| Finish Carpentry | $ | 10,710 |
| Caulking and Sealants | $ | 58,503 |
| Roofing | $ | 400,998 |
| Aluminum Storefront | $ | 121,727 |
| Drywall and Acoustical | $ | 171,971 |
| Flooring | $ | 29,285 |
| Painting | $ | 95,645 |
| Fire Protection | $ | 112,702 |
| Plubming and HVAC | $ | 828,347 |
| Electrical / Low Voltage | $ | 792,095 |
| General Trades | $ | 119,702 |
| Turf Playing Field | $ | 910,000 |
| Seating | $ | 257,700 |
| Various Gameday Equipment, Fixtures | $ | 450,000 |
| Field Lighting | $ | 350,000 |
| **Total Hard Cost Budget** | **$** | **8,163,864** |
| | | |
| General Conditions | $ | 244,916 |
| Design Contigency (10%) | $ | 816,386 |
| Construction Contigency (3%) | $ | 244,916 |
| Fees, Insurance, Warranty | $ | 571,470 |
| Payment and Performance Bond | $ | 44,901 |
| **Total Soft Cost Budget** | **$** | **1,922,590** |
| | | |
| **Total Multi-Use Event Center Budget** | **$** | **10,086,454** |

# Estimated Total Project Budget

| Summary of Estimated Project Costs - Site, Infrastructure, Event Center | | |
|---|---|---|
| Estimated Total Project Hard Cost | $ | 14,026,631 |
| *Deduct if Excavation left on adjacent site* | *$* | *(2,800,000)* |
| Estimated Total Project Soft Cost + Contingency | $ | 3,303,272 |
| Estimated Total Project Cost | $ | 14,529,903 |

# Sterling Project Development

By way of background, SPD is a full-service development management and advisory firm. SPD is an affiliate of Sterling Equities, a 50-year-old real estate owner/manager and developer based in New York. Its ownership group also owns and operates the New York Mets Baseball Team, as well as SportsNet New York, a regional sports network also based in New York. SPD is currently involved in approximately $20B (hard cost) worth of development projects across its advisory portfolio. We assist approximately 100 clients throughout the United States, as well as in Europe and the Caribbean.

The scope of our assignment was limited to the following areas:
Assess feasibility of proposed multi-use event center to house Appalachian League Baseball Team
Become fully familiar with the site and project stakeholders (geotechnical characteristics, infrastructure)
Meet with Kingsport officials as needed to review assumptions / program
Lead the performance of site investigation
Develop event center program, and overall site schematic design, including conceptual sketches / renderings
Evaluate the site for potential development opportunities
Develop preliminary project budget
Issue report detailing findings

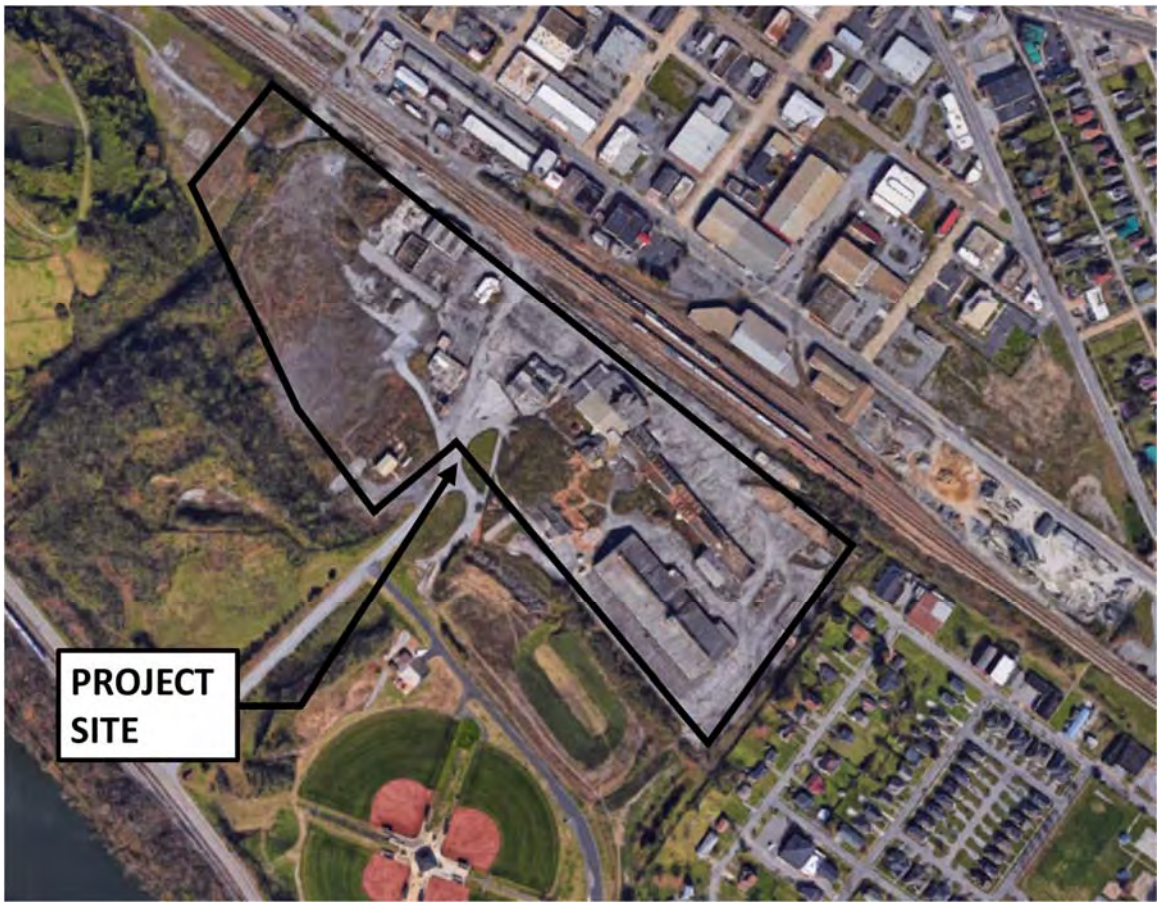
NOTES AND CLARIFICATIONS
SPD assumes the information contained in the above-referenced documents to be accurate and reliable in all material respects.
SPD was not asked to nor have we conducted any due diligence or provide commentary with respect to the potential marketability or the valuation of the subject properties.
SPD was not asked to nor have we conducted any financial due diligence to date
Our findings should not be construed as a legal analysis or opinion.
SPD assumes that all documentation provided to SPD is also on file with our client. Therefore, it is not attached hereto for the sake of brevity.

# City of Kingsport
# Multi-Use Outdoor Event Center Feasibility Study

Addendum

Exhibit #1

# PRELIMINARY GEOTECHNICAL EVALUATION REPORT




## KINGSPORT STADIUM FEASIBILITY STUDY

### OLD GENERAL SHALE SITE
### KINGSPORT, TENNESSEE

**CLIENT: BARGE DESIGN SOLUTIONS**
**REPORT DATE: FEBRUARY 15, 2019**
**FSE PROJECT NUMBER: 219127**

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

**Foundation Systems Engineering, P.C.**
Geotechnical Engineering and Consulting

February 15, 2019

Ms. Jennifer Salyer, PLA
Barge Design Solutions
4 Sheridan Square
Suite 100
Kingsport, Tennessee 37660

**RE: PRELIMINARY GEOTECHNICAL EVALUATION REPORT**
**KINGSPORT STADIUM FEASIBILITY STUDY**
**OLD GENERAL SHALE SITE**
**KINGSPORT, TENNESSEE**
**FSE NO: 219127**

Dear Ms. Salyer:

At your authorization per FSE Proposal No. 18.157, we have completed a preliminary geotechnical evaluation of the above referenced site. The purpose of the exploration was to gather site and subsurface information from which to provide preliminary engineering recommendations concerning site preparation methods, foundation and pavement design and other construction considerations. The following report presents our findings and recommendations. Our services have been provided using the firms of Foundation Systems Engineering, P.C. (FSE), Construction Materials Laboratory (CML), and Longs Construction.

We have appreciated the opportunity to provide our geotechnical engineering and testing services. We offer our engineering and materials testing services as the project continues. If you have any questions regarding the information within this report, please contact us at your convenience.

Sincerely,
Foundation Systems Engineering, P.C.

Nick Cross, EI
Geotechnical Engineer Associate

George R. Cross, P.E.
Senior Geotechnical Engineer
TN State No.: 104229

GEORGE R. CROSS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 104229
STATE OF TENNESSEE
2/15/2019

GRC/NGC/kjm

## TABLE OF CONTENTS

**EXECUTIVE SUMMARY** ..... 1
**SCOPE OF SERVICES** ..... 4
**PROJECT/SITE DESCRIPTION** ..... 6
**SUBSURFACE DESCRIPTION** ..... 8
**LABORATORY TESTING** ..... 10
**LIMITED ENVIRONMENTAL SOIL SCREENING** ..... 13
**PRELIMINARY EVALUATION** ..... 14
**PRELIMINARY SITE GRADING RECOMMENDATIONS** ..... 15
**GENERAL QUALIFICATIONS** ..... 18
**APPENDICIES** ..... 18

Test Pit Location Plan
Test Pit Observation Logs
Area Topographic Map
Area Geology Map
Lab Data
Environmental Test Report
Test Descriptions
General Notes

## EXECUTIVE SUMMARY

This preliminary geotechnical report was performed as part of a feasibility study for potential future development at the old General Shale site in Kingsport, Tennessee. The report includes evaluation of the site and subsurface conditions. At the time of this report, no preliminary site plans for proposed construction were available for review. The proposed construction would include relocating the existing Hunter Wright Stadium to the subject site address within this report.

The geotechnical evaluation consisted of a site reconnaissance, review of available mapping, and placement of twenty-five (25) soil test pit excavations. Field and laboratory testing was performed in order to provide in-situ moisture and classification of the onsite soils.

The soil test pit excavations generally encountered fill and alluvial soils. The fill soils (manmade) encountered at the test locations consist largely of fly ash and brick fragments; as well as, concrete rubble and soil. The fill soils were encountered in variable conditions; generally, however the fill was found with a loose consistency. Two distinct alluvial (native) soil strata were encountered on the site. The upper strata consisted of a red tan gray, sandy clay. Consistency of this soil varied from soft to stiff and moist to wet water content. Beneath this upper stratum a red tan, sand, gravel, and cobble soil was encountered. This soil consistency was estimated to vary from very loose to medium dense and with a wet to very wet water content.

Both trapped (perched) water and ground water was encountered during excavation of the test pits. Trapped water is not related to the water table. This water remains perched, in this case, within the highly permeable/porous fill soil and on top of the less permeable, alluvial clay soil. Trapped water was observed at 12 of the 25 test locations between 1 and 6 feet below the existing ground surface. Ground water was observed at 8 of the 25 test locations and was encountered between 9 and 13 feet below the existing ground surface.

Twenty-three (23) of the test pits were terminated in alluvial soil, at depths varying from 8 to 14 feet in depth. Two (2) of the test pits refused on concrete slabs remaining from previous structures at depths from approximately 1 to 4 feet. Additionally, at some of the test locations, test pit excavations encountered foundations remaining from the previous structures.

Bedrock was not encountered. Based on our experience with the subsurface conditions in the area, bedrock depth varies from 15 to 25 feet. Bedrock is not anticipated to be encountered during site grading and installation of shallow foundations.

In general, the fill soil encountered consisted of substantial amount of fly ash with some brick debris on the western side of the site. Trapped, shallow water is generally trapped at the bottom of this fill type and on the eastern side in locations of loose coarse fill. The fill soil encountered on the middle and eastern side is more of a mix of fly ash, soil and brick/concrete debris in the middle and eastern areas. Some cleaner fill soil, consisting of shaley clay, was encountered on the eastern side of the site.

At TP-17 a chemical, hydrocarbon, odor was detected to the fill soil and a glossy sheen was observed on the surface of the trapped water. Two (2) soil samples were taken at this test location for environmental analysis. One was of the fill soil, from 2 to 4 feet in depth. The other was taken from the native, alluvial soil, from 8 to 11 feet in depth.

The site is located on the south side of downtown Kingsport and to the north of the South Fork Holston River/Industry Drive. The Brickyard Park is adjacent to the property on the south side. Railroad tracks border the site to the north, dividing the subject property and downtown Kingsport. The property has a mildly sloping grade with less than ten (10) feet of elevation change across the site, except for a raised mound area near the center and another at the north corner of the site. The ground cover consists of fly ash, grassed/vegetated, paved asphalt and concrete, concrete rubble (in the areas where the previous structures were present), concrete slab, and exposed soil. A large, open ditch line exists south side of the property and runs west to east, leading towards Dunbar Street.

The USGS topographic mapping of the area shows the site to be mapped between the 1210- and 1240- contour lines with the 1220-foot-contour line intersecting the site, going approximately east to west. Topographic relief is shown to occur going towards downtown, in a general north to south direction across the site. No blue line features are mapped on the site. Mapping provided shows the current ground to fall in elevation generally going from southwest to northeast across the site, in the direction of downtown/railroad tracks. Raised features in the middle and north end of the site do not follow this general trend of topographic relief. Ground surface elevations typically area varying from about 1222 feet to 1215 feet in elevation.

Closed ground depressions, indicative of sinkhole activity were not observed. The shale bedrock geology does not support sinkhole activity.

Some factors to consider for the proposed site grading and use of the site include the presence of old fill soil with variable content and consistency, wet/soft native soil, trapped water, and groundwater. In many areas the upper fill soil will require at least partial removal to support paved areas and shallow foundations.

The soil conditions at the site will not be suitable for the support of heavy, multi-story and larger structures on typical shallow foundations. Deep foundations bearing into bedrock and/or foundations supported on select fill material will be required to support those structures.

It is our assumption that the future development structures will be supported by both shallow foundations and deep foundation. FSE offers two options to allow for support of the structure by shallow foundations. The completed building pad, constructed per recommendations made in this report, will be suitable for support of most one- and two-level structures using typical shallow foundations. Larger structures, e.g. the stadium, may require support on deep foundations. These are foundations which connect the structure directly to the underlying bedrock via foundation elements, typically either micropiles or caissons. These foundational elements transfer the building loads to the bedrock bypassing the soil overburden.

Typical Method 1 (shallow foundations)- In this method the existing fill and soft native soil is removed and replaced with a new fill soil pad. The building is supported on shallow foundations bearing in the new fill soil. The existing soil should be removed from the building area, plus 10 feet beyond the building perimeter to a depth of at least 3 feet below the bottom of foundations, or until the stiff/dense native soil layer is encountered. At the undercut level, the subgrade soil conditions should be evaluated prior to placement of backfill materials. If unsuitable soil conditions are present at the proposed undercut elevation the area should be stabilized using a geogrid reinforcement material (Type 2, biaxial, such as TerraGrid RX1200 or equivalent).

Typical Method 2 (shallow foundations) - In this method select undercuts are performed to allow the foundations to bear directly on the lower, stiff/medium dense alluvial soil. Backfill the over excavated foundations with a select crushed stone (No. 57 gravel) or a controlled low strength

material (flowable fill concrete). If foundation excavations have irregular bottom due to the cobble and boulder sized rocks. A leveling layer of gravel can be used at the bottom of the foundation excavations.

On the prepared locations, the shallow foundations may be designed using an allowable soil bearing capacity of 2000 to 3000 psf. The local soil bearing conditions should be approved by the project geotechnical engineer at the time of foundation construction, prior to concrete placement.

Further evaluation should be performed to provide soil and rock parameters for the design of shallow and deep foundational elements at specific locations on the site. It is recommended this additional evaluation be performed when locations of structures are available.

For the parking and driving areas, perform proofroll testing once area has been stripped of organics and fill soil. Soft zones will be encountered during proofroll at this condition. Stabilize these areas based on specific soil conditions.

The silty sand soil on the site is *highly* moisture sensitive. The shear strength decreases over a small change in the moisture content of the soil. Wet and damp soil will rut and pump under wheel loads. However, these soils were typically encountered at depths that likely won't be reached in future site grading. If they area encountered, in highly trafficked areas, the silt soil may be replaced with the onsite coarse-grained cobble type soil or fine-grained clay soils. If used as a structural fill, measures should be taken to keep the soil moisture dry prior to placement of the pavements and slabs.

Onsite, native, alluvial soils may be suitable to use as a fill material. The onsite fill soils (generally brick and fly ash) will be suitable to use as a fill material in driving/parking and open areas. The existing soil on the site typically varies in moisture from moist to wet. Wet soil that is greater than 2% over its optimum water content will require drying for compaction to achieve specified density.

This report is preliminary in scope and additional geotechnical evaluation is recommended for specific areas of the site as development progresses.

# SCOPE OF SERVICES

## INFORMATION REVIEW

The following documentation pertaining to this project was obtained and reviewed by Foundation Systems Engineering:

- USGS Topographic Mapping - Kingsport, TN Quadrangle (1993)
- Geologic Mapping of the Tennessee, *Geologic Map and Mineral Resources Summary of the Kingsport Quadrangle* (1993)
- Overview Aerial Map
- 2012 International Building Code (IBC)
- Historical Aerial Photographs - Google Earth (1997 to 2015)
- Topographic Survey - Provided by: Barge Design Solution; Dated: 01-28-2019

Topographic Map

A review of USGS topographic mapping for the project area was performed to determine the general site and area topographic conditions and drainage patterns. The USGS mapping is illustrated in the *Area Topographic Map* drawing included with this report.

Geologic Maps

A review of the State of Tennessee geologic mapping was performed to determine the characteristics of the site and regional geology. This information also included descriptions of the seismic conditions.

International Building Code

The 2012 IBC was reviewed in order to determine the estimated seismic design category for the site.

Topographic Survey

The topographic survey provided by Barge Design Solutions was used to estimate the ground surface elevation at the test locations.

## SITE RECONNAISSANCE

The site reconnaissance consisted of walking and driving over the subject site. The site was generally observed for topographic features, drainage patterns, ground surface cover, surface improvements, exposed rock, and signs of ground instability.

## SUBSURFACE EXPLORATION METHODS

Twenty-five (25) soil test pit excavations were advanced up to fourteen (14) feet below ground surface with a trackhoe excavator. Test pit excavations were observed by a geotechnical engineer and soil/subsurface evaluated for type, consistency, and moisture content.

The test pit locations were determined in the field using visual methods based on the information provided. The approximate locations of the soil test pit excavations are illustrated on the *Test Pit Location Plan* drawing provided.

Based on visual observation made during the exploration, a description of the soils encountered at the test locations is included in the attached *Test Pit Observation Record*.

Trapped and groundwater measurements were made at the time of each test pit excavation. The test pit locations were backfilled with soil cuttings.

The test location and elevation information provided in this report was based on approximation methods using the site topographic survey provided. This information should be considered approximate.

## LABORATORY TESTING

Three (3) Atterberg Limits tests were performed on representative samples of soil obtained during exploration. These tests were performed to determine soil plasticity characteristics for soil classification purposes.

Three (3) Particle Size Gradations were performed on representative samples of soil obtained during exploration. These tests were performed to assist in soil classification.

Forty (40) Natural Moisture Content tests were performed on soil samples to determine the in-situ soil moisture contents.

The laboratory test results are included within this report.

# PROJECT/SITE DESCRIPTION

## PROJECT

This preliminary geotechnical report was performed as a feasibility study for potential future development at the old General Shale site in Kingsport, Tennessee. This report includes evaluation of the site and subsurface conditions to provide a description of findings and preliminary recommendations for site development.

At the time of this report, no preliminary site plans for proposed construction were available for review.

This geotechnical evaluation included a review of the site and subsurface conditions to prepare a preliminary geotechnical report that discusses the soil types at the site and results of soil test pit excavations and provides soil test pit logs, test locations, assessment of data obtained, and preliminary engineering recommendations for site preparation including methods to support future construction by shallow foundations. Discussion of factors, including seismic activity/site classification, subsurface water and moisture sensitive soil is provided.

## SITE

The site is located on the south side of downtown Kingsport and to the north of the South Fork Holston Rive/Industry Drive. The Brickyard Park is adjacent to the property on the south side. Railroad tracks border the site to the north, dividing the subject property and downtown Kingsport. The property has a relatively level grade, less than ten (10) feet of elevation change across the site, except for a raised mound area near the center and another at the north corner of the site.

## GROUND COVER AND USAGE

The ground cover consists of fly ash, grassed/vegetated, paved asphalt and concrete, concrete rubble (in the areas where the previous structures were present), concrete slab, and exposed soil. The site is vacant and is not currently being used. The site was once the location of the General Shale brick plant. The structures which were associated with that plant have recently been demolished, sometime since 2015.

## TOPOGRAPHY AND DRAINAGE

The USGS topographic mapping of the area shows the site to be mapped between the 1210- and 1240- contour lines with the 1220-foot-contour line intersecting the site, going approximately east to west. Generally topographic relief is shown to occur going towards downtown, in a general north to south direction across the site. No blue line features are mapped

Mapping provided shows the current ground to fall in elevation generally going from southwest to northeast across the site, in the direction of downtown/railroad tracks. Raised features in the middle and north end of the site do not follow this general trend of topographic relief. Ground surface elevations are mapped to typically vary from about 1222 feet to 1215 feet in elevation.

There are many area drains on the developed portion of the site. Surface water that falls onto the site is directed towards these drains. Some of the water which falls on the site is absorbed into the soil, especially on the undeveloped west side of the property and the demolished building areas. This

water quickly permeates the, typically coarse fill soil, and becomes trapped over the much less permeable, fine-grained alluvial clay soil.

## GEOLOGY

Based on review of available geologic mapping, the project site is located in the Valley and Ridge physiographic province of northeast Tennessee. The mapping indicates that the site is located within the geology of the Sevier Shale formation.

The bedrock of this formation consists primarily of sedimentary shale. The Sevier Shale formation is described as "*Calcareous, bluish-gray shale, weathers yellowish-brown; with thin gray limestone layers; sandstone, siltstone, and locally conglomerate to the east. Thickness 2,000 to 7,000 feet."*

The residual soils and bedrock are mapped to be overlaid by alluvial, water deposited, soils. The alluvial deposits are described as "*Deposits of cobbles, gravels, and finer material mostly above 1,250 ft elevation, some deposits are relatively extensive, up to about 50 ft thick.*"

Our site reconnaissance and review of the USGS topographic mapping of the area did not indicate sinkholes on the site. Karst terrain and sinkholes are not mapped in the near vicinity of the site.

Deposits of alluvial soils placed by the past flow of water on the site are mapped within this area of Kingsport. The soil type was encountered at the test locations. The soil types include silts, clays, sands, gravels, cobbles and boulders. Residual soil and bedrock of the shale formation underlie the alluvial soil deposits.

Seismic Conditions -

The 2012 International Building Code (IBC) Seismic Design Procedure considers the average material properties of the soil and rock within the upper 100 feet of the ground surface. Based on our review of the 2012 IBC Seismic Design Procedures, the results of the preliminary subsurface evaluation and the anticipated method of site preparation, a Site Class C or D is typically designated for sites that include soil over bedrock in this setting.

A location specific Site Class can be determined once locations of planned structures are determined.

## SUBSURFACE DESCRIPTION

The following is a brief summary of the soils encountered at the soil test locations. Additional subsurface details may be seen on the attached *Test Pit Observation Records*. The subsurface stratification indicated on the test pit observation records is approximate and represents our interpretation of the soils encountered at the test locations.

### GROUND COVER

The ground cover on the site at the test locations generally consisted of fly ash, grass vegetation, concrete rubble, paved asphalt and concrete, and exposed soil. The thickness of the ground cover will vary between test locations.

### FILL SOIL

Fill soil was encountered at all the test locations. The fill soil largely consisted of fly ash, brick fragments, construction debris, and shaley clay soil. Consistency varied from soft/loose to very stiff/dense and with a moist to very wet moisture content. The fill soil varied in depth, from 2.5 to 10 feet below existing ground elevation at the test locations.

### ALLUVIAL SOIL

Alluvial (native) soil was encountered at all test pit locations. The soil has been washed into place over time and consists of fine and coarse grain soil and river rocks from gravel to boulder in size

The alluvial soils of the site consist of as low plasticity clays, clayey sands, and gravel-sand-silt mixtures. High plasticity soils may also be present on the site. The soil was generally encountered in a soft/loose to very stiff/dense consistency and a moist to very wet water content.

### BEDROCK

Bedrock was not encountered at any of the test pit locations. Based on our experience with the subsurface conditions in the area, bedrock depth can be expected to vary from 15 to 25 feet.

### TRAPPED WATER

Trapped water was encountered at twelve (12) of the test locations between 1 and 6 feet below existing ground elevations.

### GROUNDWATER

Groundwater was encountered at eight (8) of the test locations between 9 to 13 feet below existing ground elevations.

**Test Pit Summary Table**

| Test Pit Location | Existing Ground Elevation[1] (feet) | Depth of Fill (feet) | Top of Native Soil Elevation[1] (feet) | Depth to Trapped Water (feet) | Depth to Groundwater (feet) |
|---|---|---|---|---|---|
| **TP-1** | 1216 | 1[3] | NA[3] | NA[3] | NA[3] |
| **TP-2** | 1215 | 5 | 1210 | 6 | NA |
| **TP-3** | 1216 | 4 | 1212 | 3.5 | NA |
| **TP-4** | 1219 | 6 | 1213 | 4 | NA[2] |
| **TP-5** | 1219 | 5 | 1213 | 1.5 | NA |
| **TP-6** | 1221 | 2.5 | 1218.5 | NA | NA |
| **TP-7** | 1220 | 5 | 1215 | 2 | NA |
| **TP-8** | 1218 | 5 | 1213 | 3 | NA |
| **TP-9** | 1218 | 3 | 1215 | NA | NA |
| **TP-10** | 1220 | 4 | 1216 | 4 | NA |
| **TP-11** | 1217 | 2.5 | 1214.5 | NA | 10 |
| **TP-12** | 1216 | 4.5 | 1211.5 | NA | 12 |
| **TP-13** | 1217 | 6 | 1211 | NA | NA |
| **TP-14** | 1219 | 3.5 | 1215.5 | NA | 11 |
| **TP-15** | 1218 | 4.5 | 1213.5 | 4.5 | 11 |
| **TP-16** | 1218 | 4 | 1214 | NA | 9 |
| **TP-17** | 1218 | 4 | 1214 | 4 | NA |
| **TP-18** | 1220 | 8 | 1212 | NA | 13 |
| **TP-19** | 1220 | 4 | 1216 | NA | 12 |
| **TP-20** | 1221 | 10 | 1211 | 1 | NA[2] |
| **TP-21** | 1220 | 5.5 | 1214.5 | 4 | NA[2] |
| **TP-22** | 1221 | 8 | 1213 | 3 | NA[2] |
| **TP-23** | 1223 | 10 | 1213 | NA | NA |
| **TP-24** | 1227 | 3.5[3] | NA[3] | NA[3] | NA[3] |
| **TP-25** | 1215 | 2.5 | 1212.5 | NA | 9 |

Notes:

[1]The assigned ground and water elevations should be considered approximate.
[2]Presence of groundwater unable to be determined due to trapped water flooding excavation.
[3]Early test pit refusal on concrete slab. Unable to determine a value.

## LABORATORY TESTING

### NATURAL MOISTURE CONTENT

The Natural Moisture Content tests provide data that assist in evaluating the onsite soil moisture for engineering properties and the amount of moisture conditioning that may be anticipated in order to dry the onsite soils for use as structural fill.

The following table summarizes the Natural Moisture Content Testing:

**Natural Moisture Content Data Summary**

| Test Location | Depth (Feet) | Natural Moisture Content (%) | Test Location | Depth (Feet) | Natural Moisture Content (%) |
|---|---|---|---|---|---|
| **TP-2** | 6.0 | 21.2 | **TP-14** | 11.0 | 13.7 |
| **TP-4** | 1.0 | 43.4 | **TP-15** | 5.0 | 20.9 |
| **TP-5** | 5.5 | 16.4 | **TP-15** | 11.0 | 25.7 |
| **TP-5** | 10.0 | 24.3 | **TP-16** | 5.0 | 21.3 |
| **TP-6** | 3.5 | 18.9 | **TP-16** | 9.0 | 26.2 |
| **TP-6** | 10.0 | 21.9 | **TP-17** | 7.0 | 24.3 |
| **TP-7** | 6.0 | 22.6 | **TP-17** | 11.0 | 23.2 |
| **TP-7** | 11.0 | 23.6 | **TP-18** | 6.0 | 29.0 |
| **TP-8** | 7.0 | 19.5 | **TP-18** | 10.0 | 21.8 |
| **TP-9** | 4.0 | 22.4 | **TP-19** | 5.0 | 18.1 |
| **TP-9** | 10.0 | 21.7 | **TP-19** | 11.0 | 20.6 |
| **TP-10** | 5.0 | 22.9 | **TP-20** | 6.0 | 34.1 |
| **TP-10** | 10.0 | 23.1 | **TP-20** | 11.0 | 23.9 |
| **TP-11** | 4.0-6.0 | 24.0 | **TP-21** | 6.0 | 16.4 |
| **TP-11** | 12.0 | 20.0 | **TP-21** | 10.0 | 21.1 |
| **TP-12** | 6.0 | 20.1 | **TP-22** | 9.0 | 23.3 |
| **TP-12** | 12.0 | 11.6 | **TP-22** | 12.0 | 26.3 |
| **TP-13** | 7.0 | 21.5 | **TP-23** | 8.0 | 16.6 |
| **TP-13** | 13.0 | 25.0 | **TP-23** | 13.0 | 29.6 |
| **TP-14** | 5.0 | 28.4 | **TP-25** | 10.0 | 24.8 |

## SOIL GRADATION TESTING

Three (3) Soil Gradation Tests were performed to determine the soil grain size distribution to assist in soil classification.

The following table summarizes the Soil Gradation Testing:

**Soil Gradation Test Data Summary**

| Test Location | Sample Depth (feet) | % Gravel | % Sand | % Fine Grained Soil |
|---|---|---|---|---|
| **TP-11** | 4.0 - 6.0 | 0.0 | 8.8 | 91.2 |
| **TP-12** | 12.0 | 62.9 | 26.9 | 10.2 |
| **TP-25** | 10.0 | 0.0 | 53.5 | 46.5 |

## ATTERBERG LIMITS

The Atterberg Limits Determination provides the Liquid and Plastic limits for soil classification purposes and to assist in evaluating the soil for engineering properties.

The soil liquid limit is the moisture content at which the soil passes from a plastic to a liquid state. Soil cohesion is negligible at the liquid limit. High liquid limit values (greater than 50) indicate soils of high clay content and low load carrying characteristics.

The soil plastic limit is the moisture content at which the soil changes from a semisolid to a plastic state. Some silts and sands are non-plastic; however, most soils composed of silts and clays do have a plastic limit. The moisture content of silts and clays does have a direct bearing on their load carrying characteristics.

The following table summarizes the Atterberg Limits Determination Testing:

**Atterberg Limits Data Summary**

| Test Location | Sample Depth (Feet) | Natural Moisture Content (%) | Liquid Limit (%) | Plastic Limit (%) | Plasticity Index | USCS Soil Classification |
|---|---|---|---|---|---|---|
| **TP-11** | 4.0 - 6.0 | 24.0 | 34 | 22 | 12 | CL |
| **TP-12** | 12.0 | 20.4 | 20 | 18 | 2 | GM |
| **TP-25** | 10.0 | 15.9 | 25 | 16 | 9 | SC |

## TESTING SUMMARY

The soils generally encountered on the site are classified as low plasticity clays (CL), clayey sands (SC), and gravel-sand-silt mixtures (GM) based on the USCS soil classification system and site observations of the soil at test locations. The soils types have a generally low to medium potential for volume change due to changing moisture contents and loading conditions. The soil types are moisture sensitive and will readily loose strength in a wet condition.

The silty sand soil on the site is *highly* moisture sensitive. The shear strength decreases over a small change in the moisture content of the soil. Wet and damp soil will rut and pump under wheel loads. However, these soils were typically encountered at depths that likely won't be reached in future site grading.

Such soils have fair to good compaction characteristics with compaction typically achieved using a vibratory sheepsfoot or smooth drum roller. Moisture conditioning (drying) will be required to achieve specified compaction density. We anticipate that the onsite soil will generally exist at a moisture content that is generally 0% to 15% above the optimum moisture, as determined by laboratory testing.

With proper moisture conditioning (drying), the non-organic, onsite soil materials will be suitable for reuse as structural fill material. High plasticity soils with high moisture will require extra drying effort and will require heavy disking and extended periods of warm, dry weather.

## LIMITED ENVIRONMENTAL SOIL SCREENING

### SAMPLING AND TESTING PROCEDURE

At test pit TP-17, a chemical, hydrocarbon, type odor was detected and a glossy sheen to the surface of the trapped water within the excavation was visually noted. Two (2) samples were retrieved to allow for an environmental soil screening analysis to determine potential contamination levels. The first sample was of the fill soil, which was the suspected contaminated soil, and was taken from 2 to 4 feet in depth. The second was of the native, native, alluvial soil. This sample was not observed for any signs of contamination but was taken to determine if the potential contaminate extended beyond the fill and into the underlying native soils. This sample was taken from 8 to 11 feet in depth.

The two (2) soil samples were transferred to Pace Analytical for analysis. Samples were analyzed for the presence of volatile organic compounds (VOCs) by method 8260B, semi volatile organic compounds (SVOCs) by method 8270C, polynuclear aromatic hydrocarbons (PAHs) by method 8270C-SIM, and extractable petroleum hydrocarbons (EPHs) by method EPH.

### ANALYSIS RESULTS

Listed below are the detected compounds. A full presentation of the analytical results is included in the appendix.

**TP-17 (2-4)**

**VOCs (mg/kg):** n-Butylbenzene = 0.102, sec-Butylbenzene = 0.0581, tert-Butylbenzene = 0.0127, Isopropylbenzene = 0.0320, n-Propylbenzene = 0.0492

**SVOCs (mg/kg):** Naphthalene = 0.0948, Phenanthrene = 0.0627, Pyrene = 0.0352

**PAHs (mg/kg):** Anthracene = 0.00900, Acenaphthene = 0.00976, Benzo(a)anthracene = 0.0130, Benzo(b)fluoranthene = 0.00980, Benzo(g,h,i)perylene = 0.00605, Chrysene = 0.0179, Fluoranthene = 0.00768, Fluorene = 0.0138, Naphthalene = 0.196, Phenanthrene = 0.0370, Pyrene = 0.0210, 1-Methylnaphthalene = 0.240, 2-Methylnaphthalene = 0.237

**EPHs (mg/kg):** Extractable Petroleum Hydrocarbons = 287, (S) o-Terphenyl = 69.4

**TP-17 (8-11)**

**VOCs (mg/kg):** n-Butylbenzene = 0.0315, sec-Butylbenzene = 0.0185, Isopropylbenzene = 0.00477, n-Propylbenzene = 0.00733

**SVOCs (mg/kg):** none-detected

**PAHs (mg/kg):** none-detected

**EPHs (mg/kg):** Extractable Petroleum Hydrocarbons = 61.2, (S) o-Terphenyl = 63.9

### DISCUSSION

Based on the results of the limited environmental soil screening assessment no impacted soil above applicable TDEC Initial Screening Levels (ISLs) or EPA Hazardous Waste Limits was identified.

## PRELIMINARY EVALUATION

We offer the following comments based on the preliminary geotechnical data gathered during our subsurface evaluation, our site observations, review of available mapping information and preliminary information provided.

### SOIL SUITABILITY

The non-organic, native soils encountered on the site will be suitable for use as structural fill materials. Organic loam and topsoil materials are not suitable for use as structural fill material. These soil types are typically removed from the site or placed in non-structural areas.

The fly ash, brick and other construction debris could be used as fill material under non-structural areas of the site and under parking and drive areas. The material should be broken down to particle sizes of less than 4 inches.

The onsite fill soil will may be required to be removed from under structures and replaced with a suitable fill soil material.

### LIMITATIONS DUE TO SOIL/SITE CONDITIONS

Some factors to consider for the proposed site grading and use of the site include the presence of fill and native soil with variable consistency, wet soil, trapped water and groundwater. The ground water level will vary with periods of wet weather. The upper fill soil will require removal and replacement and/or drying and compaction to support paved areas and foundations.

Bedrock is not anticipated to be encountered during grading and the installation of shallow foundations. Bedrock will be required to support larger structures of the site via deep foundations.

Some pockets of soil contamination may be encountered and would require additional evaluation.

### FOUNDATION TYPES

Based on the site observation and review of the soil test data we anticipate that the site could be developed in a manner to allow building support to typical 1 and 2 story structures on shallow foundations. At this time, we anticipate that on prepared areas, an allowable soil bearing capacity of 2000 to 3000 psf for design. For larger structures, deep foundations will likely be required to allow for building support. Further evaluation should be performed to provide rock parameters for the design of deep foundational elements.

### ADDITIONAL GEOTECHNICAL EVALUATION

Based on our findings, it is our opinion that with owner consideration given to the development risk factors and recommended methods of site/foundation preparations, the site soil is suitable for development for the intended use.

FSE recommends that additional geotechnical exploration be performed on this site as specific areas of development are planned and building sites are determined.

## PRELIMINARY SITE GRADING RECOMMENDATIONS

We offer the following preliminary engineering recommendations based on our site observations and the limited geotechnical data gathered during our subsurface exploration. FSE recommends that additional geotechnical exploration be performed on this site as specific areas of development are planned and building sites are determined.

### SOIL FILL RECOMMENDATIONS

**Engineered Fill Description and Recommended Uses**

| Fill Type[1] | USCS Classification | Acceptable Location for Placement |
|---|---|---|
| Soil | Various (PI<30) | All Locations and elevations |
| Well graded granular | GW[2] | All Locations and elevations |

1. Controlled, compacted fill should consist of approved materials that are free of organic matter, debris, particles greater than 4 inches. Frozen material should not be used and fill should not be placed on a frozen subgrade. Minimum Standard Proctor (ASTM D-698) dry unit weight 90 pcf. Each soil type should be submitted to the geotechnical engineer for evaluation.

| Item | Recommendation |
|---|---|
| Fill Lift Thickness | 8 inches or less in loose thickness when heavy, self-propelled compaction equipment is used |
| | 4 to 6 inches in loose thickness when hand guided equipment (i.e. jumping jack or plate compactor) is used |
| Compaction Requirements (Building Pad Areas) | At least 98% of the materials Standard Proctor maximum dry density (ASTM D 698) |
| Compaction Requirements (Parking/Drive Areast) | At least 95% of the materials Standard Proctor maximum dry density (ASTM D 698) (98% upper 2 feet) |
| Compaction Requirements (General) | Compaction all fill soil plus 5 feet beyond the perimeter in locations supporting structures and drive areas |
| Compaction Requirements (Trench Lines) | Per the above depending upon location/elevation |
| Moisture Content Cohesive Soil | Within the range of -2% below to +3% above the optimum moisture content value per the Standard Proctor test at the time of placement and compaction |
| Testing Frequency | 1 test per 5,000 $ft^2$or less of fill area for each lift. |
| Testing Personnel | A qualified soil technician, under the direction of a geotechnical engineer, should perform the soil density testing. |

## SITE PREPARATION

The areas to be developed should be stripped of all organic material, topsoil and soft/wet soil. After clearing and grubbing is complete, the site should be excavated to subgrade and proofrolled.

The soil subgrade should be proofrolled with a fully loaded dump truck (minimum load of 20 tons) in a slow crossing pattern across the site. Soft or wet soil conditions revealed by proofroll testing or other methods will be encountered. The subgrade should be allowed to dry as much as possible prior to performing the proofroll test. The best methods of subgrade stabilization can be determined in the field at the time of the proofroll evaluation.

Proofroll testing should be performed under the observation of a geotechnical engineer to evaluate the subgrade and provide recommendations for any unsuitable areas encountered.

## SOIL DRYING

Some of the soils planned for excavation and use as fill materials will exist with water contents above the optimum moisture content as determined by the Standard Proctor Density tests. Soil drying will be required to reduce the moisture content prior to compaction. Drying of the onsite fine grained, silt and clay soil will require extended periods of warm, dry weather conditions.

Some methods of soil drying include:

Soil Disking - Soil disking methods can be used to help facilitate soil mixing and aeration. A heavy-duty agricultural disk should be used to aerate the wet soil materials. We recommend the wet soil be spread in a large area in no more than 8-inch thick loose lifts. The soil should remain in a loose state to allow aeration to occur.

After drying has occurred to a point where a crusted surface develops over the soil material, additional disking should be performed again to allow further aeration. This method should be repeated until the moisture content is reduced to that at which the specified soil compaction density can be achieved.

## SITE DRAINAGE

Drainage should be controlled during construction and once the site is completed to prevent ponding of surface water. The high plasticity soil types present are sensitive to increased moisture levels. If necessary, pumps, ditches or other grading methods should be used to prevent ponding surface water.

Completed lifts of compacted fill soil should be sealed with rubber tire vehicle or a smooth drum roller to limit surface water seepage into the soil material.

Ponding water can lead to localized areas of soil loss and the formation of sinkholes at the ground surface. The soil loss typically occurs near areas of shallow or exposed bedrock.

## EXCAVATED EMBANKMENTS

Temporary construction excavations should be sloped or shored in accordance with local, state and federal regulations including OSHA (29 CFR Part 1926) excavation and trench safety. Excavations should be observed and classified by an OSHA competent person.

Permanently excavated slopes in soil should not exceed a slope geometry of 2H:1V up to a maximum height of 10 feet. Additional evaluation should be performed for a slope of greater height. At this time, we recommend that excavated embankments planned for greater than 10 feet in height be designed for a slope geometry of no steeper than 2.0H:1V. For permanently maintained grass or lawn areas, the excavated slopes should not exceed a geometry of 3H:1V to facilitate maintenance.

## FILL EMBANKMENTS

All fill embankments less than 10 feet in height should be constructed with a sloped geometry of no steeper than 2H:1V. All fill embankments greater than 10 feet in height should be evaluated for slope stability. The fill embankments that will be permanently maintained as grassed or lawn areas, should not exceed a slope geometry of 3H:1V.

Fill placed in sloping areas should use a series of horizontal benches or terraces to tie the existing soil and proposed new fill together. The benching operation should begin at the toe of the slope. Benches should be placed as required to ensure that no fill is placed on sloping surfaces. Benched areas should be stripped of organics and soft or wet soil conditions.

Organic soil, topsoil, and soft/wet soil deposits that are located under the proposed fill soil embankments will require removal prior to new soil fill placement in this area. All fill areas should be proofrolled and evaluated under the observation of a geotechnical engineer prior to the initial backfill soil placement.

## GENERAL QUALIFICATIONS

This report has been prepared for the exclusive use of Barge Design Solutions for the planning and development of future construction of the old General Shale site located in Kingsport, Tennessee. This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The conclusions contained in this report are based upon applicable standards of our practice in this geographic area at the time this report was prepared. No other warranty, expressed or implied, is made.

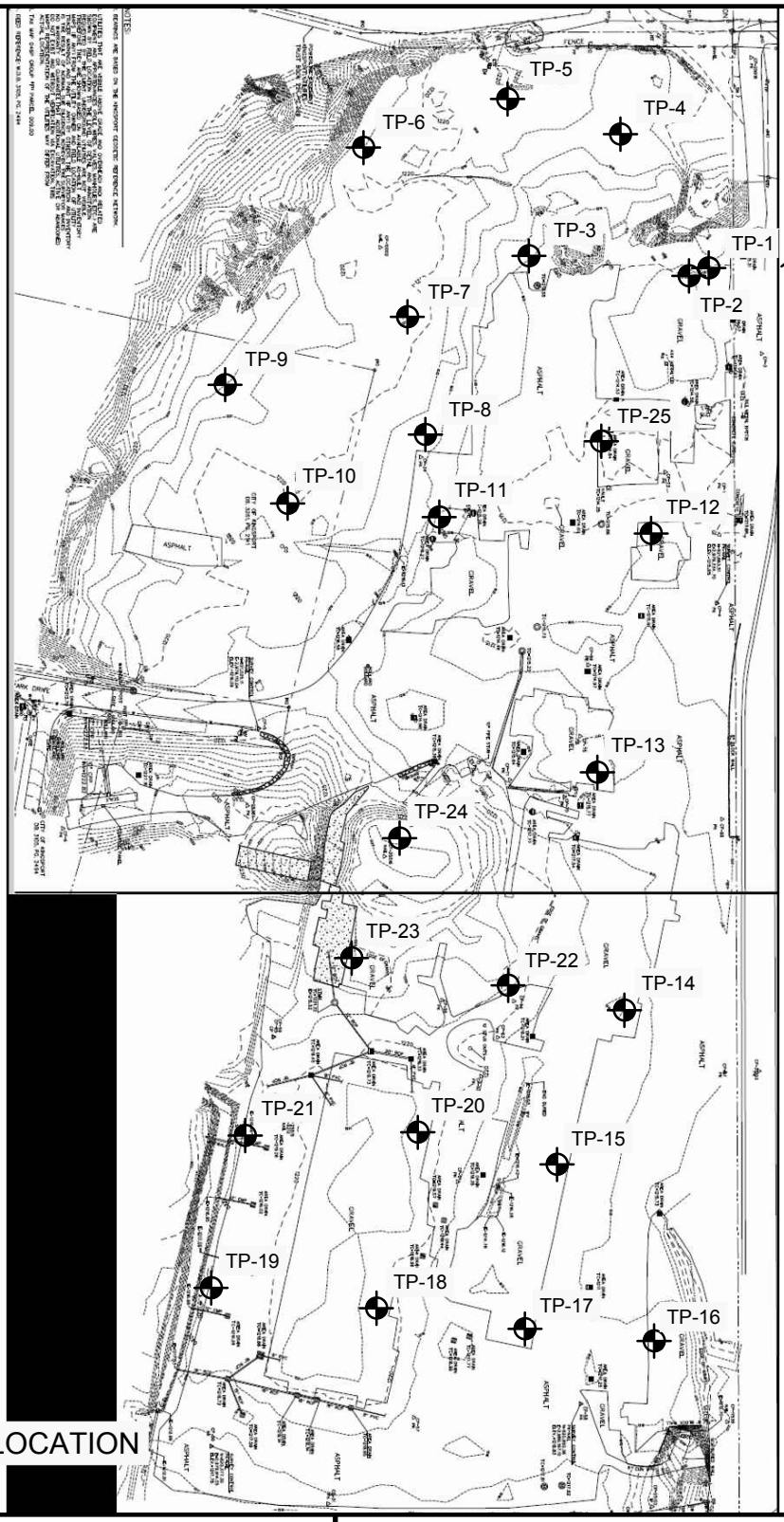
Foundation Systems Engineering, P.C., is not responsible for any claims, damages, or liability associated with any other party's interpretation of this report's subsurface data or reuse of this report's subsurface data or engineering analysis without our express written authorization.

The analyses and professional opinions submitted herein are based, in part, upon the data obtained from the subsurface evaluation. The nature and extent of subsurface variations between the test locations will not become evident until construction. We strongly recommend that the services of a geotechnical engineer be obtained for the construction phase of the project to provide engineering evaluation and testing services.

## APPENDICIES

Test Pit Location Plan
Test Pit Observation Logs
Area Topographic Map
Area Geology Map
Lab Data
Environmental Test Report
Test Descriptions
General Notes

# APPENDICIES




TP-#

TEST PIT LOCATION

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

P.O. BOX 1394
JOHNSON CITY, TN 37605
423-239-9226
www.fsepc.com

# TEST PIT LOCATION PLAN
# KINGSPORT STADIUM FEASIBILITY STUDY - OLD GENERAL SHALE SITE

KINGSPORT, TENNESSEE

FOR: BARGE DESIGN SOLUTIONS

| | | |
|---|---|---|
| DRAWN BY: NGC | NOTES: TEST LOCATIONS ARE APPROXIMATE | |
| PROJ #: 219127 | | |
| SCALE: NONE | DATE: 01/29/2019 | DWG #: TPLP |

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-1** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | George Cross, PE | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1216 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 1.0 | FILL, black sand (fly ash) with concrete and brick fragments | |
| | | |
| | | |

**NOTES: Test pit REFUSED at 1 foot on CONCRETE SLAB. Groundwater NOT ENCOUNTERED at time of excavation.**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-2** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | George Cross, PE | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1215 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.0 | FILL, very moist, black, fly ash with steel pipe and rocks | Loose |
| 2.0 - 5.0 | FILL, brick fragments with some gray tan, wet, clay | Loose/Soft |
| 5.0 - 6.0 | NATIVE, old topsoil/loam layer, wet | Soft |
| 6.0 - 10.0 | ALLUVIAL, wet, gray tan, sandy clay | Soft |
| 10.0 - 14.0 | ALLUVIAL, very moist/wet, gray tan red, sandy clay | Medium/Stiff |

**NOTES: Test pit TERMINATED at 14 feet. Groundwater NOT ENCOUNTERED at time of excavation. Trapped water ENCOUNTERED at 6 feet, over the native clay.**

**DCP TEST RESULTS**

**@2.0' = 3-5-8***

**@4.5' = 4-4-6**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-3** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | George Cross, PE | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1216 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.0 | FILL, very moist, black, fly ash | Loose |
| 2.0 - 3.0 | FILL, black klinker with some brick fragments | Loose |
| 3.0 - 4.0 | FILL, black brown red tan, clay with brick fragment | Soft |
| 4.0 - 6.0 | ALLUVIAL, wet, gray tan, sandy clay | Soft |
| 6.0 - 14.0 | ALLUVIAL, very moist, tan gray, sandy clay | Medium/Stiff |

**NOTES: Test pit TERMINATED at 14 feet. Groundwater NOT ENCOUNTERED at time of excavation. Trapped water ENCOUNTERED at 3.5 feet.**

**DCP TEST RESULTS**

**@2.5' = 1-4-7**

**@4.5' = 2-2-3**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-4** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1219 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 1.0 | FILL, very moist, black, fly ash | Loose/Medium Dense |
| 1.0 - 6.0 | FILL, wet, fly ash and klinker and brick fragments | Loose |
| 6.0 - 8.0 | ALLUVIAL, wet, gray tan, sandy clay | Soft |

**NOTES: Test pit TERMINATED at 8 feet. Groundwater NOT ENCOUNTERED at time of excavation. Trapped water ENCOUNTERED at 4.0 feet.**

**DCP TEST RESULTS**

**@2.0' = 1-5-5**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-5** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1219 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 5.0 | FILL, very moist, gray black, fly ash with brick fragments | Medium Dense |
| 5.0 - 8.0 | ALLUVIAL, wet, tan gray, sandy clay | Soft |
| 8.0 - 12.0 | ALLUVIAL, very moist, gray tan, sandy clay | Stiff |

**NOTES: Test pit TERMINATED at 12 feet. Groundwater NOT ENCOUNTERED at time of excavation. Slight trapped water ENCOUNTERED at 1.5 feet.**

**DCP TEST RESULTS**

**@2.0' = 1-20+***

**@5.5' = 2-2-2**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-6** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1221 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.5 | FILL, wet, black, fly ash | Loose |
| 2.5 - 6.0 | ALLUVIAL, moist, red tan, sandy clay | Stiff/Very Stiff |
| 6.0 - 12.0 | ALLUVIAL, moist/very moist, red gray tan, sandy clay | Medium/Stiff |
| **NOTES: Test pit TERMINATED at 12 feet. Groundwater NOT ENCOUNTERED at time of excavation.** | | |

**DCP TEST RESULTS**

**@2.5' = 10-12-13**

**@6.0' = 5-6-5**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-7** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1220 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.0 | FILL, wet, red black, brick dust/fragments and fly ash | Loose |
| 2.0 - 5.0 | FILL, moist, gray red black, brick fragment, sand/gravel, fly ash, and some soil | Dense |
| 5.0 - 13.0 | ALLUVIAL, wet to very moist, gray tan, sandy clay | Soft to Stiff |

**NOTES: Test pit TERMINATED at 13 feet. Groundwater NOT ENCOUNTERED at time of excavation. Trapped water ENCOUNTERED at 2 feet.**

**DCP TEST RESULTS**

**@2.5' = 20+***

**@5.5' = 2-3-4**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-8** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1218 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.5 | FILL, moist, gray black, fly ash and gravel | Dense |
| 2.5 - 5.0 | FILL, very wet, tan red, brick fragment with clay soil | Loose |
| 5.0 - 12.0 | ALLUVIAL, moist/very moist, gray tan, sandy clay | Stiff |

**NOTES: Test pit TERMINATED at 12 feet. Groundwater NOT ENCOUNTERED at time of excavation. Trapped water ENCOUNTERED at 3 feet.**

**DCP TEST RESULTS**

**@2.5' = 20+***

**@5.5' = 5-7-8**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-9** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1218 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 3.0 | FILL, very moist, red black, brick fragment and fly ash | Loose/Medium Dense |
| 3.0 - 7.0 | ALLUVIAL, very moist/wet, tan gray, sandy clay | Medium |
| 7.0 - 13.0 | ALLUVIAL, moist/very moist, gray tan, sandy clay | Stiff |

**NOTES: Test pit TERMINATED at 13 feet. Groundwater NOT ENCOUNTERED at time of excavation.**

**DCP TEST RESULTS**

**@3.0' = 5-9-15**

**@6.0' = 4-3-4**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-10** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1220 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 4.0 | FILL, wet, red black, fly ash, gravel, and brick fragments | Dense |
| 4.0 - 13.0 | ALLUVIAL, moist/very moist, gray tan, sandy clay | Medium/Stiff |
| | | |

**NOTES: Test pit TERMINATED at 13 feet. Groundwater NOT ENCOUNTERED at time of excavation. Trapped water ENCOUNTERED at 4 feet.**

**DCP TEST RESULTS**

**@2.0' = 10-12-15**

**@6.0' = 6-9-11**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-11** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1217 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.5 | FILL, very moist, red black, brick fragments and fly ash | Medium Dense |
| 2.5 - 10 .0 | ALLUVIAL, very moist/wet, gray tan, sandy clay | Soft/Medium |
| 10.0 - 14.0 | ALLUVIAL, very wet, red tan, sand, gravel, and cobble | Very Loose |

**NOTES: Test pit TERMINATED at 14 feet. Groundwater ENCOUNTERED at 10 feet, at time of excavation.**

**DCP TEST RESULTS**

**@3.0' = 3-3-4**

**@6.0' = 5-6-7**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-12** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | January 31, 2019 | APPROX. ELEVATION: | 1216 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.0 | FILL, topsoil and fly ash | Soft/Loose |
| 2.0 - 4.5 | FILL, moist, red, brick dust and fragments | Loose |
| 4.5 - 10.0 | ALLUVIAL, wet, red gray tan, sandy clay | Soft |
| 10.0 - 12.0 | ALLUVIAL, wet, gray tan, sandy clay and gravel and cobble | Soft/Loose |
| 12.0 - 14.0 | ALLUVIAL, wet, tan, sand, gravel, and cobble | Medium Dense |

**NOTES: Test pit TERMINATED at 14 feet. Groundwater ENCOUNTERED at 12 feet, at time of excavation.**

**DCP TEST RESULTS**

**@2.5' = 1-1-1**

**@5.5' = 2-2-2**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-13** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1217 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 1.0 | FILL, wet, black, clayey silt | Soft |
| 1.0 - 6.0 | FILL, moist, black red, brick dust and fragment with some fly ash | Loose |
| 6.0 - 10.0 | ALLUVIAL, wet, red tan gray, sandy clay | Soft |
| 10.0 - 13.0 | ALLUVIAL, wet, tan gray, sandy clay and gravel and cobble | Soft/Loose |

**NOTES: Test pit TERMINATED at 13 feet. Groundwater NOT ENCOUNTERED at time of excavation.**

**DCP TEST RESULTS**

**@3.0' = 1-4-5**

**@6.0' = 1-1-2**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-14** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1219 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 1.25 | FILL, very moist, black, clay | Soft |
| 1.25 - 2.0 | FILL, very moist, tan, sandy clay with gravel | Stiff |
| 2.0 - 2.5 | ASPHALT | |
| 2.5 - 3.5 | FILL, very moist, black, fly ash and gravel | Medium Dense |
| 3.5 - 5.0 | ALLUVIAL, wet, brown tan, organic loam, sandy silt | Soft |
| 5.0 - 9.0 | ALLUVIAL, very moist/wet, red tan, sandy clay | Medium |
| 9.0 - 12.0 | ALLUVIAL, wet, red tan, sand, gravel, and cobble | Loose |

**NOTES: Test pit TERMINATED at 12 feet. Groundwater ENCOUNTERED at 11 feet, at time of excavation.**

**DCP TEST RESULTS**

**@3.5' = 1-1-2**

**@6.0' = 4-4-5**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-15** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1218 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 1.0 | FILL, concrete fragments | Loose |
| 1.0 - 2.0 | FILL, very moist/wet, tan, sandy clay | Medium |
| 2.0 - 4.5 | FILL, black, cemented fly ash and brick fragment | Dense |
| 4.5 - 11.0 | ALLUVIAL, wet, tan gray, sandy clay | Soft |
| 11.0 - 13.0 | ALLUVIAL, very wet, tan gray, sand, gravel, and cobble | Loose |

**NOTES: Test pit TERMINATED at 13 feet. Groundwater ENCOUNTERED at 11 feet, at time of excavation. Trapped water ENCOUNTERED at 4.5 feet.**

**DCP TEST RESULTS**

**@2.5' = 20+**

**@5.0' = 1-1-1**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-16** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1218 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 4.0 | FILL, concrete fragments, limestone gravel, and brick fragment | Loose |
| 4.0 - 7.0 | ALLUVIAL, wet, red tan, sandy clay | Soft |
| 7.0 - 12.0 | ALLUVIAL, wet, red tan, silt and sand | Soft/Loose |

**NOTES: Test pit TERMINATED at 12 feet. Groundwater ENCOUNTERED at 9 feet, at time of excavation.**

**DCP TEST RESULTS**

**@3.0' = 1-10-5**

**@4.0' = 2-2-3**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-17** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1218 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 1.0 | FILL, concrete fragments | Loose |
| 1.0 - 4.0 | FILL, very moist/wet, gray tan, sandy clay and brick fragment** | Medium |
| 4.0 - 7.0 | ALLUVIAL, wet, tan gray, sandy clay | Soft |
| 7.0 - 10.5 | ALLUVIAL, very moist, tan gray, sandy clay | Medium/Stiff |
| 10.5 - 13.5 | ALLUVIAL, wet, tan gray, silty sand and gravel and cobble | Loose |

**NOTES: Test pit TERMINATED at 13.5 feet. Groundwater NOT ENCOUNTERED at time of excavation. Trapped water ENCOUNTERED at 4 feet. **Contaminated soil observed in the fill soil.**

**DCP TEST RESULTS**

**@2.5' = 4-4-5**

**@5.0' = 2-2-2**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-18** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1220 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 1.0 | FILL, concrete fragments | Loose |
| 1.0 - 8.0 | FILL, very moist, brown tan, shaley clay | Medium/Stiff |
| 8.0 - 12.0 | ALLUVIAL, very moist, red tan gray, clayey sandy silt | Medium/Stiff |
| 12.0 - 14.0 | ALLUVIAL, very moist/wet, tan gray, sandy silt and gravel and cobble | Medium/Stiff/Med. Dense |

**NOTES: Test pit TERMINATED at 14 feet. Groundwater ENCOUNTERED at 13 feet, at time of excavation. Foundation of previous structure ENCOUNTERED during excavation.**

**DCP TEST RESULTS**

**@2.0' = 4-5-6**

**@5.0' = 3-4-5**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-19** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1220 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 0.5 | ASPHALT | |
| 0.5 - 1.0 | AGGREGATE BASESTONE | |
| 1.0 - 4.0 | FILL, brick fragments and topsoil | Medium Dense |
| 4.0 - 12.0 | ALLUVIAL, very moist, red gray tan, sandy clay | Medium/Stiff |

**NOTES: Test pit TERMINATED at 12 feet. Groundwater ENCOUNTERED at 12 feet, at time of excavation.**

**DCP TEST RESULTS**

**@3.0' = 9-9-12**

**@5.0' = 3-3-4**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-20** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1221 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 5.0 | FILL, concrete fragment, rebar, and soil | Loose |
| 5.0 - 10.0 | FILL, very moist, tan, shaley clay | Stiff |
| 10.0 - 13.0 | ALLUVIAL, wet, red tan gray, sandy clay | Soft |

**NOTES: Test pit TERMINATED at 13 feet. Unable to determine if groundwater was encountered. Trapped water ENCOUNTERED at 1 foot.**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-21** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1220 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 0.75 | ASPHALT | |
| 0.75 - 1.5 | AGGREGATE BASESTONE | |
| 1.5 - 3.0 | FILL, brick fragment | Medium Dense |
| 3.0 - 5.5 | FILL, very moist/wet, tan, sandy clay and brick fragment | Medium |
| 5.5 - 12.0 | ALLUVIAL, very moist, tan gray, sandy clay | Medium/Stiff |

**NOTES: Test pit TERMINATED at 12 feet. Unable to determine if groundwater was encountered. Trapped water ENCOUNTERED at 4 feet.**

**DCP TEST RESULTS**

**@3.0' = 4-4-6**

**@5.5' = 4-6-7**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-22** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1221 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 8.0 | FILL, brick fragment, fly ash, topsoil, and limestone gravel | Loose |
| 8.0 - 12.0 | ALLUVIAL, wet, red tan gray, sandy clay | Soft/Medium |
| | | |

**NOTES: Test pit TERMINATED at 12 feet. Unable to determine if groundwater was encountered. Trapped water ENCOUNTERED at 3 feet.**

**DCP TEST RESULTS**

**@2.5' = 4-9-10**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-23** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1223 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 5.0 | FILL, very moist, gray tan black, clay, shaley clay, sand, and brick fragment | Medium/Loose |
| 5.0 - 10.0 | FILL, wet, tan black red, brick fragment and shaley clay | Loose |
| 10.0 - 14.0 | ALLUVIAL, very moist/wet, tan gray, sandy clay | Soft/Medium |

**NOTES: Test pit TERMINATED at 14 feet. Groundwater NOT ENCOUNTERED, at time of excavation.**

**DCP TEST RESULTS**

**@2.5' = 5-9-10**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-24** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1227 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 3.5 | FILL, topsoil, brick fragment, and fly ash | Loose |
| | | |
| | | |

**NOTES: Test pit REFUSED at 3.5 feet on CONCRETE SLAB. Groundwater NOT ENCOUNTERED, at time of excavation.**

# TEST PIT OBSERVATION RECORD

Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

| | | | |
|---|---|---|---|
| **TEST PIT NO:** | **TP-25** | **PROJECT NAME:** | **Kingsport Stadium** |
| EXCAVATOR: | Longs Construction | PROJECT LOCATION: | Kingsport, Tennessee |
| OBSERVED BY: | Nick Cross, EI | FSE PROJECT NO: | 219127 |
| DATE EXCAVATED: | February 1, 2019 | APPROX. ELEVATION: | 1215 |

| DEPTH (FEET) | MATERIAL DESCRIPTION | CONSISTENCY ESTIMATE |
|---|---|---|
| 0.0 - 2.5 | FILL, very moist, black, organic loam, silt | Soft |
| 2.5 - 9.0 | ALLUVIAL, very moist/wet, red tan gray, sandy clay | Medium |
| 9.0 - 12.0 | ALLUVIAL, very wet, tan gray, silty sand | Loose |

**NOTES: Test pit TERMINATED at 12 feet. Groundwater ENCOUNTERED at 9 feet, at time of excavation.**

**DCP TEST RESULTS**

**@3.0' = 7-9-10**

**@5.5' = 3-4-4**

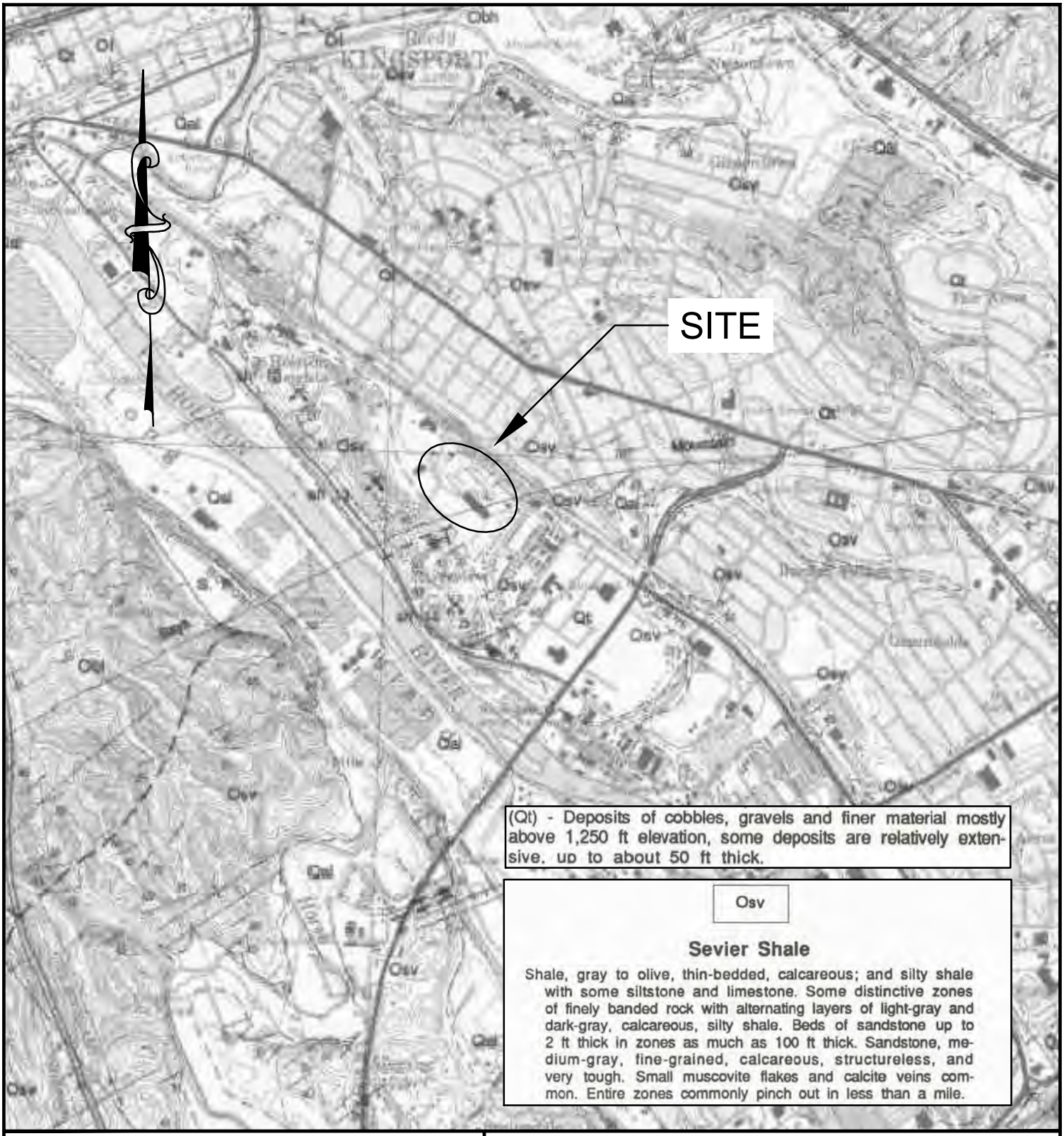
Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

P.O. BOX 1394
JOHNSON CITY, TN 37605
423-239-9226
www.fsepc.com

AREA TOPOGRAPHIC MAP
KINGSPORT STADIUM FEASIBILITY STUDY - OLD GENERAL SHALE SITE
KINGSPORT, TENNESSEE

FOR: BARGE DESIGN SOLUTIONS

| | | |
|---|---|---|
| DRAWN BY: NGC | NOTES: ADAPTED FROM USGS MAPPING | |
| PROJ #: 219127 | PROJECT BOUNDARIES DEPICTED ARE APPROXIMATE | |
| SCALE: NONE | DATE: 01/29/2019 | DWG #: TOPO |




Foundation Systems Engineering, P.C.
Geotechnical Engineering and Consulting

P.O. BOX 1394
JOHNSON CITY, TN 37605
423-239-9226
www.fsepc.com

# AREA GEOLOGY MAP
# KINGSPORT STADIUM FEASIBILITY STUDY - OLD GENERAL SHALE SITE

KINGSPORT, TENNESSEE

FOR: BARGE DESIGN SOLUTIONS

| | | |
|---|---|---|
| DRAWN BY: NGC | NOTES: ADAPTED FROM WV GEOLOGY MAP | |
| PROJ #: 219127 | | |
| SCALE: NONE | DATE: 01/29/2019 | DWG #: GEO |

Llewellyn & Associates, Inc. dba

# Construction Materials Laboratory

Since 1943

Materials Testing / Subsurface Exploration

| | | | |
|---|---|---|---|
| **Client** | Foundation Systems Engineering | **CML File #:** | 719002 |
| **Sample ID** | TP-11 (4.0'-6.0') | **Project:** | Kingsport Ballfields |
| **From:** | On-Site | **Project Location:** | Kingsport, Tenessee |
| **Sample Dates:** | February 4, 2019 | | |
| **Report Date:** | February 12, 2019 | **ASTM Specs** | D-4318 & D-422 |
| **Moisture Content (%):** | 24.0 | | |
| **Total Sample Weight (grams):** | 500 | | |

## GRADATION

| Sieve Size | Percent Retained (%) | Cumlative Percent Retained (%) | Percent Passing (%) |
|---|---|---|---|
| 3" | 0.0 | 0.0 | 100.0 |
| 3/4" | 0.0 | 0.0 | 100.0 |
| No. 4 | 0.0 | 0.0 | 100.0 |
| No. 10 | 0.9 | 0.9 | 99.1 |
| No. 40 | 1.1 | 2.0 | 98.0 |
| No. 200 | 6.8 | 8.8 | 91.2 |
| Pan | 91.2 | 100.0 | 0.0 |

## ATTERBERG LIMITS

| | |
|---|---|
| **Liquid Limit** | 34 |
| **Plastic Limit** | 22 |
| **Plasticity Index** | 12 |
| **USCS Classification** | CL |

Notes:

1. Testing Performed by Mr. Jeff Dorton and Mr. Garry Higgins of CML.

2. Classification based off both soil gradation and atterberg limit analysis

**Reviewed By:** **Allen Browning, MS, PE**

**P.O. Box 5186 - Johnson City, TN 37602 - Phone: (423) 926-0762, Fax : (423) 926-0558**

Llewellyn & Associates, Inc. dba

# Construction Materials Laboratory

Since 1943

Materials Testing / Subsurface Exploration

| | | | |
|---|---|---|---|
| **Client** | Foundation Systems Engineering | **CML File #:** | 719002 |
| **Sample ID** | TP-12 (12.0') | **Project:** | Kingsport Ballfields |
| **From:** | On-Site | **Project Location:** | Kingsport, Tenessee |
| **Sample Dates:** | February 4, 2019 | | |
| **Report Date:** | February 12, 2019 | **ASTM Specs** | D-4318 & D-422 |
| **Moisture Content (%):** | 20.4 | | |
| **Total Sample Weight (grams):** | 500 | | |

## GRADATION

| Sieve Size | Percent Retained (%) | Cumlative Percent Retained (%) | Percent Passing (%) |
|---|---|---|---|
| 3" | 0.0 | 0.0 | 100.0 |
| 3/4" | 30.0 | 30.0 | 70.0 |
| No. 4 | 32.9 | 62.9 | 37.1 |
| No. 10 | 4.0 | 66.9 | 33.1 |
| No. 40 | 10.9 | 77.8 | 22.2 |
| No. 200 | 12.0 | 89.8 | 10.2 |
| Pan | 10.2 | 100.0 | 0.0 |

## ATTERBERG LIMITS

| | |
|---|---|
| **Liquid Limit** | 20 |
| **Plastic Limit** | 18 |
| **Plasticity Index** | 2 |
| **USCS Classification** | ML |

Notes:

1. Testing Performed by Mr. Jeff Dorton and Mr. Garry Higgins of CML.

2. Classification based off both soil gradation and atterberg limit analysis

**Reviewed By: Allen Browning, MS, PE**

**P.O. Box 5186 - Johnson City, TN 37602 - Phone: (423) 926-0762, Fax : (423) 926-0558**

Llewellyn & Associates, Inc. dba

# Construction Materials Laboratory

Since 1943

Materials Testing / Subsurface Exploration

| | | | |
|---|---|---|---|
| **Client** | Foundation Systems Engineering | **CML File #:** | 719002 |
| **Sample ID** | TP-25 (10.0') | **Project:** | Kingsport Ballfields |
| **From:** | On-Site | **Project Location:** | Kingsport, Tenessee |
| **Sample Dates:** | February 4, 2019 | | |
| **Report Date:** | February 12, 2019 | **ASTM Specs** | D-4318 & D-422 |
| **Moisture Content (%):** | 15.9 | | |
| **Total Sample Weight (grams):** | 500 | | |

## GRADATION

| Sieve Size | Percent Retained (%) | Cumlative Percent Retained (%) | Percent Passing (%) |
|---|---|---|---|
| 3" | 0.0 | 0.0 | 100.0 |
| 3/4" | 0.0 | 0.0 | 100.0 |
| No. 4 | 0.0 | 0.0 | 100.0 |
| No. 10 | 0.0 | 0.0 | 100.0 |
| No. 40 | 9.9 | 9.9 | 90.1 |
| No. 200 | 43.6 | 53.5 | 46.5 |
| Pan | 46.5 | 100.0 | 0.0 |

## ATTERBERG LIMITS

| | |
|---|---|
| **Liquid Limit** | 25 |
| **Plastic Limit** | 16 |
| **Plasticity Index** | 9 |
| **USCS Classification** | CL |

Notes:

1. Testing Performed by Mr. Jeff Dorton and Mr. Garry Higgins of CML.

2. Classification based off both soil gradation and atterberg limit analysis

**Reviewed By: Allen Browning, MS, PE**

**P.O. Box 5186 - Johnson City, TN 37602 - Phone: (423) 926-0762, Fax : (423) 926-0558**

Llewellyn & Associates, Inc. dba
Construction Materials Laboratory
Since 1943
Materials Testing / Subsurface Exploration

**CML PROJECT NO:** 719022
**PROJECT NAME:** KINGSPORT BALL FIELD
**PROJECT LOCATION:** KINGSPORT, TENNESSEE
**DATE:** 2/7/19



## SOIL DATA SUMMARY

| Boring Number | Sample Depth (feet) | Moisture Content (%) | Liquid Limit | Plastic Limit | Plasticity Index | Unified Soil Classification |
|---|---|---|---|---|---|---|
| TP-2 | 6.0 | 21.2 | | | | |
| TP-4 | 1.0 | 43.4 | | | | |
| TP-5 | 5.5 | 16.4 | | | | |
| TP-5 | 10.0 | 24.3 | | | | |
| TP-6 | 3.5 | 18.9 | | | | |
| TP-6 | 10.0 | 21.9 | | | | |
| TP-7 | 6.0 | 22.6 | | | | |
| TP-7 | 11.0 | 23.6 | | | | |
| TP-8 | 7.0 | 19.5 | | | | |
| TP-9 | 4.0 | 22.4 | | | | |
| TP-9 | 10.0 | 21.7 | | | | |
| TP-10 | 5.0 | 22.9 | | | | |
| TP-10 | 10.0 | 23.1 | | | | |
| TP-11 | 4.0-6.0 | 24.0 | | | | |
| TP-11 | 12.0 | 20.0 | | | | |
| TP-12 | 6.0 | 20.1 | | | | |
| TP-12 | 12.0 | 11.6 | | | | |
| TP-13 | 7.0 | 21.5 | | | | |
| TP-13 | 11.0 | 25.0 | | | | |
| TP-14 | 5.0 | 28.4 | | | | |
| TP-14 | 11.0 | 13.7 | | | | |
| TP-15 | 5.0 | 20.9 | | | | |
| TP-15 | 11.0 | 25.7 | | | | |
| TP-16 | 5.0 | 21.3 | | | | |
| TP-16 | 9.0 | 26.2 | | | | |
| TP-17 | 7.0 | 24.3 | | | | |
| TP-17 | 11.0 | 23.2 | | | | |
| TP-18 | 6.0 | 29.0 | | | | |
| TP-18 | 10.0 | 21.8 | | | | |
| TP-19 | 5.0 | 18.1 | | | | |
| TP-19 | 11.0 | 20.6 | | | | |
| TP-20 | 6.0 | 34.1 | | | | |
| TP-20 | 11.0 | 23.9 | | | | |
| TP-21 | 6.0 | 16.4 | | | | |
| TP-21 | 10.0 | 21.1 | | | | |
| TP-22 | 9.0 | 23.3 | | | | |
| TP-22 | 12.0 | 26.3 | | | | |
| TP-23 | 8.0 | 16.6 | | | | |
| TP-23 | 13.0 | 29.6 | | | | |
| TP-25 | 10.0 | 24.8 | | | | |

PO Box 5186 - Johnson City, Tennessee, 37602 ● www. http://constructionmaterialslaboratory.com
423-926-0762(p)/423-926-0558(f)

# ANALYTICAL REPORT

February 12, 2019

## Foundation Systems Engineering

| | |
|---|---|
| Sample Delivery Group: | L1067034 |
| Samples Received: | 02/06/2019 |
| Project Number: | |
| Description: | Kingsport Stadium |
| Report To: | Nick Cross<br>2204 Atchley St.<br>Knoxville, TN 37920 |

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

# TABLE OF CONTENTS


| | |
|---|---|
| Cp: Cover Page | 1 |
| Tc: Table of Contents | 2 |
| Ss: Sample Summary | 3 |
| Cn: Case Narrative | 4 |
| Sr: Sample Results | 5 |
| TP-17 8-11 L1067034-01 | 5 |
| TP-17 2-4 L1067034-02 | 8 |
| Qc: Quality Control Summary | 11 |
| Volatile Organic Compounds (GC/MS) by Method 8260B | 11 |
| Semi-Volatile Organic Compounds (GC) by Method EPH | 17 |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C | 18 |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | 23 |
| Gl: Glossary of Terms | 28 |
| Al: Accreditations & Locations | 29 |
| Sc: Sample Chain of Custody | 30 |

## TP-17 8-11 L1067034-01 Solid

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| Nick Cross | 02/01/19 10:30 | 02/06/19 08:45 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260B | WG1233912 | 1 | 02/06/19 17:45 | 02/07/19 18:51 | DWR |
| Semi-Volatile Organic Compounds (GC) by Method EPH | WG1233561 | 1 | 02/06/19 17:03 | 02/06/19 22:32 | KME |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C | WG1233545 | 1 | 02/07/19 15:19 | 02/11/19 20:38 | LEA |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1233547 | 1 | 02/07/19 07:48 | 02/07/19 15:06 | LEA |

## TP-17 2-4 L1067034-02 Solid

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| Nick Cross | 02/01/19 10:00 | 02/06/19 08:45 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC/MS) by Method 8260B | WG1233912 | 1 | 02/06/19 17:45 | 02/07/19 19:11 | DWR |
| Semi-Volatile Organic Compounds (GC) by Method EPH | WG1233561 | 1 | 02/06/19 17:03 | 02/06/19 23:28 | KME |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C | WG1233545 | 1 | 02/07/19 15:19 | 02/11/19 22:29 | SNR |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1234018 | 1 | 02/07/19 16:33 | 02/08/19 04:27 | DMG |

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

## Volatile Organic Compounds (GC/MS) by Method 8260B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Acetone | ND | | 0.0250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Acrylonitrile | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| Benzene | ND | | 0.00100 | 1 | 02/07/2019 18:51 | WG1233912 |
| Bromobenzene | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| Bromodichloromethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Bromoform | ND | | 0.0250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Bromomethane | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| n-Butylbenzene | 0.0315 | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| sec-Butylbenzene | 0.0185 | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| tert-Butylbenzene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| Carbon tetrachloride | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| Chlorobenzene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Chlorodibromomethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Chloroethane | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| Chloroform | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Chloromethane | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| 2-Chlorotoluene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 4-Chlorotoluene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.0250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2-Dibromoethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Dibromomethane | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2-Dichlorobenzene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,3-Dichlorobenzene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,4-Dichlorobenzene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| Dichlorodifluoromethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,1-Dichloroethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2-Dichloroethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,1-Dichloroethene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| cis-1,2-Dichloroethene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| trans-1,2-Dichloroethene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2-Dichloropropane | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,1-Dichloropropene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,3-Dichloropropane | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| cis-1,3-Dichloropropene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| trans-1,3-Dichloropropene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 2,2-Dichloropropane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Di-isopropyl ether | ND | | 0.00100 | 1 | 02/07/2019 18:51 | WG1233912 |
| Ethylbenzene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Hexachloro-1,3-butadiene | ND | | 0.0250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Isopropylbenzene | 0.00477 | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| p-Isopropyltoluene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 2-Butanone (MEK) | ND | | 0.0250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Methylene Chloride | ND | | 0.0250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.0250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Methyl tert-butyl ether | ND | | 0.00100 | 1 | 02/07/2019 18:51 | WG1233912 |
| Naphthalene | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| n-Propylbenzene | 0.00733 | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| Styrene | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,1,2-Trichlorotrifluoroethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Tetrachloroethene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Toluene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2,3-Trichlorobenzene | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2,4-Trichlorobenzene | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,1,1-Trichloroethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |

## Volatile Organic Compounds (GC/MS) by Method 8260B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Trichloroethene | ND | | 0.00100 | 1 | 02/07/2019 18:51 | WG1233912 |
| Trichlorofluoromethane | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2,3-Trichloropropane | ND | | 0.0125 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2,4-Trimethylbenzene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,2,3-Trimethylbenzene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| 1,3,5-Trimethylbenzene | ND | | 0.00500 | 1 | 02/07/2019 18:51 | WG1233912 |
| Vinyl chloride | ND | | 0.00250 | 1 | 02/07/2019 18:51 | WG1233912 |
| Xylenes, Total | ND | | 0.00650 | 1 | 02/07/2019 18:51 | WG1233912 |
| *(S) Toluene-d8* | *104* | | *75.0-131* | | *02/07/2019 18:51* | WG1233912 |
| *(S) 4-Bromofluorobenzene* | *111* | | *67.0-138* | | *02/07/2019 18:51* | WG1233912 |
| *(S) 1,2-Dichloroethane-d4* | *96.7* | | *70.0-130* | | *02/07/2019 18:51* | WG1233912 |

## Semi-Volatile Organic Compounds (GC) by Method EPH

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Extractable Petroleum Hydrocarbon | 61.2 | | 4.00 | 1 | 02/06/2019 22:32 | WG1233561 |
| *(S) o-Terphenyl* | *63.9* | | *18.0-148* | | *02/06/2019 22:32* | WG1233561 |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Acenaphthylene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Anthracene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Benzidine | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Benzo(a)anthracene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Benzo(b)fluoranthene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Benzo(k)fluoranthene | ND | | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Benzo(g,h,i)perylene | ND | | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Benzo(a)pyrene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Bis(2-chlorethoxy)methane | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Bis(2-chloroethyl)ether | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Bis(2-chloroisopropyl)ether | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 4-Bromophenyl-phenylether | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2-Chloronaphthalene | ND | | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 4-Chlorophenyl-phenylether | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Chrysene | ND | | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Dibenz(a,h)anthracene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 3,3-Dichlorobenzidine | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2,4-Dinitrotoluene | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2,6-Dinitrotoluene | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Fluoranthene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Fluorene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Hexachlorobenzene | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Hexachloro-1,3-butadiene | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Hexachlorocyclopentadiene | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Hexachloroethane | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Indeno(1,2,3-cd)pyrene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Isophorone | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Naphthalene | ND | | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Nitrobenzene | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| n-Nitrosodimethylamine | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| n-Nitrosodiphenylamine | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| n-Nitrosodi-n-propylamine | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Phenanthrene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Benzylbutyl phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Bis(2-ethylhexyl)phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Di-n-butyl phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Diethyl phthalate | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Dimethyl phthalate | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Di-n-octyl phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Pyrene | ND | J3 | 0.0333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 1,2,4-Trichlorobenzene | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 4-Chloro-3-methylphenol | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2-Chlorophenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2,4-Dichlorophenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2,4-Dimethylphenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 4,6-Dinitro-2-methylphenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2,4-Dinitrophenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2-Nitrophenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 4-Nitrophenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Pentachlorophenol | ND | J3 | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| Phenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| 2,4,6-Trichlorophenol | ND | | 0.333 | 1 | 02/11/2019 20:38 | WG1233545 |
| *(S) 2-Fluorophenol* | *60.8* | | *12.0-120* | | *02/11/2019 20:38* | WG1233545 |
| *(S) Phenol-d5* | *28.5* | | *10.0-120* | | *02/11/2019 20:38* | WG1233545 |
| *(S) Nitrobenzene-d5* | *49.8* | | *10.0-122* | | *02/11/2019 20:38* | WG1233545 |
| *(S) 2-Fluorobiphenyl* | *48.3* | | *15.0-120* | | *02/11/2019 20:38* | WG1233545 |
| *(S) 2,4,6-Tribromophenol* | *56.8* | | *10.0-127* | | *02/11/2019 20:38* | WG1233545 |
| *(S) p-Terphenyl-d14* | *61.8* | | *10.0-120* | | *02/11/2019 20:38* | WG1233545 |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Anthracene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Acenaphthene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Acenaphthylene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Benzo(a)anthracene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Benzo(a)pyrene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Benzo(b)fluoranthene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Benzo(g,h,i)perylene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Benzo(k)fluoranthene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Chrysene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Dibenz(a,h)anthracene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Fluoranthene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Fluorene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Naphthalene | ND | | 0.0200 | 1 | 02/07/2019 15:06 | WG1233547 |
| Phenanthrene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| Pyrene | ND | | 0.00600 | 1 | 02/07/2019 15:06 | WG1233547 |
| 1-Methylnaphthalene | ND | | 0.0200 | 1 | 02/07/2019 15:06 | WG1233547 |
| 2-Methylnaphthalene | ND | | 0.0200 | 1 | 02/07/2019 15:06 | WG1233547 |
| 2-Chloronaphthalene | ND | | 0.0200 | 1 | 02/07/2019 15:06 | WG1233547 |
| *(S) p-Terphenyl-d14* | *125* | J1 | *23.0-120* | | *02/07/2019 15:06* | WG1233547 |
| *(S) Nitrobenzene-d5* | *91.6* | | *14.0-149* | | *02/07/2019 15:06* | WG1233547 |
| *(S) 2-Fluorobiphenyl* | *93.4* | | *34.0-125* | | *02/07/2019 15:06* | WG1233547 |

**Sample Narrative:**

L1067034-01 WG1233547: Surrogate failure due to matrix interference

## Volatile Organic Compounds (GC/MS) by Method 8260B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Acetone | ND | | 0.0250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Acrylonitrile | ND | | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| Benzene | ND | | 0.00100 | 1 | 02/07/2019 19:11 | WG1233912 |
| Bromobenzene | ND | | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| Bromodichloromethane | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Bromoform | ND | | 0.0250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Bromomethane | ND | J3 | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| n-Butylbenzene | 0.102 | J5 | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| sec-Butylbenzene | 0.0581 | J5 | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| tert-Butylbenzene | 0.0127 | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| Carbon tetrachloride | ND | J3 | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| Chlorobenzene | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Chlorodibromomethane | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Chloroethane | ND | J3 | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| Chloroform | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Chloromethane | ND | J3 | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| 2-Chlorotoluene | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 4-Chlorotoluene | ND | J3 | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2-Dibromo-3-Chloropropane | ND | | 0.0250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2-Dibromoethane | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Dibromomethane | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2-Dichlorobenzene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,3-Dichlorobenzene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,4-Dichlorobenzene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| Dichlorodifluoromethane | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,1-Dichloroethane | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2-Dichloroethane | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,1-Dichloroethene | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| cis-1,2-Dichloroethene | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| trans-1,2-Dichloroethene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2-Dichloropropane | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,1-Dichloropropene | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,3-Dichloropropane | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| cis-1,3-Dichloropropene | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| trans-1,3-Dichloropropene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 2,2-Dichloropropane | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Di-isopropyl ether | ND | | 0.00100 | 1 | 02/07/2019 19:11 | WG1233912 |
| Ethylbenzene | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Hexachloro-1,3-butadiene | ND | | 0.0250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Isopropylbenzene | 0.0320 | J5 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| p-Isopropyltoluene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 2-Butanone (MEK) | ND | | 0.0250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Methylene Chloride | ND | | 0.0250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 0.0250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Methyl tert-butyl ether | ND | | 0.00100 | 1 | 02/07/2019 19:11 | WG1233912 |
| Naphthalene | ND | J5 | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| n-Propylbenzene | 0.0492 | J5 | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| Styrene | ND | | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,1,2,2-Tetrachloroethane | ND | J5 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,1,2-Trichlorotrifluoroethane | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Tetrachloroethene | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Toluene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2,3-Trichlorobenzene | ND | J5 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2,4-Trichlorobenzene | ND | | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,1,1-Trichloroethane | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |

## Volatile Organic Compounds (GC/MS) by Method 8260B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ND | | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Trichloroethene | ND | | 0.00100 | 1 | 02/07/2019 19:11 | WG1233912 |
| Trichlorofluoromethane | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2,3-Trichloropropane | ND | J3 J5 | 0.0125 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2,4-Trimethylbenzene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,2,3-Trimethylbenzene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| 1,3,5-Trimethylbenzene | ND | | 0.00500 | 1 | 02/07/2019 19:11 | WG1233912 |
| Vinyl chloride | ND | J3 | 0.00250 | 1 | 02/07/2019 19:11 | WG1233912 |
| Xylenes, Total | ND | | 0.00650 | 1 | 02/07/2019 19:11 | WG1233912 |
| *(S) Toluene-d8* | *105* | | *75.0-131* | | *02/07/2019 19:11* | WG1233912 |
| *(S) 4-Bromofluorobenzene* | *112* | | *67.0-138* | | *02/07/2019 19:11* | WG1233912 |
| *(S) 1,2-Dichloroethane-d4* | *96.7* | | *70.0-130* | | *02/07/2019 19:11* | WG1233912 |

## Semi-Volatile Organic Compounds (GC) by Method EPH

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Extractable Petroleum Hydrocarbon | 287 | | 4.00 | 1 | 02/06/2019 23:28 | WG1233561 |
| *(S) o-Terphenyl* | *69.4* | | *18.0-148* | | *02/06/2019 23:28* | WG1233561 |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Acenaphthylene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Anthracene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Benzidine | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Benzo(a)anthracene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Benzo(b)fluoranthene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Benzo(k)fluoranthene | ND | | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Benzo(g,h,i)perylene | ND | | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Benzo(a)pyrene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Bis(2-chlorethoxy)methane | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Bis(2-chloroethyl)ether | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Bis(2-chloroisopropyl)ether | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 4-Bromophenyl-phenylether | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2-Chloronaphthalene | ND | | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 4-Chlorophenyl-phenylether | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Chrysene | ND | | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Dibenz(a,h)anthracene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 3,3-Dichlorobenzidine | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2,4-Dinitrotoluene | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2,6-Dinitrotoluene | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Fluoranthene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Fluorene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Hexachlorobenzene | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Hexachloro-1,3-butadiene | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Hexachlorocyclopentadiene | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Hexachloroethane | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Indeno(1,2,3-cd)pyrene | ND | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Isophorone | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Naphthalene | 0.0948 | | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Nitrobenzene | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| n-Nitrosodimethylamine | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| n-Nitrosodiphenylamine | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| n-Nitrosodi-n-propylamine | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Phenanthrene | 0.0627 | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Benzylbutyl phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Bis(2-ethylhexyl)phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Di-n-butyl phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Diethyl phthalate | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Dimethyl phthalate | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Di-n-octyl phthalate | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Pyrene | 0.0352 | J3 | 0.0333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 1,2,4-Trichlorobenzene | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 4-Chloro-3-methylphenol | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2-Chlorophenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2,4-Dichlorophenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2,4-Dimethylphenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 4,6-Dinitro-2-methylphenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2,4-Dinitrophenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2-Nitrophenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 4-Nitrophenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Pentachlorophenol | ND | J3 | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| Phenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| 2,4,6-Trichlorophenol | ND | | 0.333 | 1 | 02/11/2019 22:29 | WG1233545 |
| *(S) 2-Fluorophenol* | *44.7* | | *12.0-120* | | *02/11/2019 22:29* | WG1233545 |
| *(S) Phenol-d5* | *37.5* | | *10.0-120* | | *02/11/2019 22:29* | WG1233545 |
| *(S) Nitrobenzene-d5* | *58.0* | | *10.0-122* | | *02/11/2019 22:29* | WG1233545 |
| *(S) 2-Fluorobiphenyl* | *46.4* | | *15.0-120* | | *02/11/2019 22:29* | WG1233545 |
| *(S) 2,4,6-Tribromophenol* | *49.4* | | *10.0-127* | | *02/11/2019 22:29* | WG1233545 |
| *(S) p-Terphenyl-d14* | *48.6* | | *10.0-120* | | *02/11/2019 22:29* | WG1233545 |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Anthracene | 0.00900 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Acenaphthene | 0.00976 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Acenaphthylene | ND | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Benzo(a)anthracene | 0.0130 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Benzo(a)pyrene | ND | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Benzo(b)fluoranthene | 0.00980 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Benzo(g,h,i)perylene | 0.00605 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Benzo(k)fluoranthene | ND | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Chrysene | 0.0179 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Dibenz(a,h)anthracene | ND | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Fluoranthene | 0.00768 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Fluorene | 0.0138 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Naphthalene | 0.196 | | 0.0200 | 1 | 02/08/2019 04:27 | WG1234018 |
| Phenanthrene | 0.0371 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| Pyrene | 0.0210 | | 0.00600 | 1 | 02/08/2019 04:27 | WG1234018 |
| 1-Methylnaphthalene | 0.240 | | 0.0200 | 1 | 02/08/2019 04:27 | WG1234018 |
| 2-Methylnaphthalene | 0.237 | | 0.0200 | 1 | 02/08/2019 04:27 | WG1234018 |
| 2-Chloronaphthalene | ND | | 0.0200 | 1 | 02/08/2019 04:27 | WG1234018 |
| *(S) p-Terphenyl-d14* | *45.7* | | *23.0-120* | | *02/08/2019 04:27* | WG1234018 |
| *(S) Nitrobenzene-d5* | *94.3* | | *14.0-149* | | *02/08/2019 04:27* | WG1234018 |
| *(S) 2-Fluorobiphenyl* | *53.4* | | *34.0-125* | | *02/08/2019 04:27* | WG1234018 |

## Method Blank (MB)

(MB) R3382072-3 02/07/19 14:18

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|---|---|---|---|---|
| Acetone | 0.0245 | J | 0.0137 | 0.0250 |
| Acrylonitrile | U | | 0.00190 | 0.0125 |
| Benzene | U | | 0.000400 | 0.00100 |
| Bromobenzene | U | | 0.00105 | 0.0125 |
| Bromodichloromethane | U | | 0.000788 | 0.00250 |
| Bromoform | U | | 0.00598 | 0.0250 |
| Bromomethane | U | | 0.00370 | 0.0125 |
| n-Butylbenzene | U | | 0.00384 | 0.0125 |
| sec-Butylbenzene | U | | 0.00253 | 0.0125 |
| tert-Butylbenzene | U | | 0.00155 | 0.00500 |
| Carbon tetrachloride | U | | 0.00108 | 0.00500 |
| Chlorobenzene | U | | 0.000573 | 0.00250 |
| Chlorodibromomethane | U | | 0.000450 | 0.00250 |
| Chloroethane | U | | 0.00108 | 0.00500 |
| Chloroform | U | | 0.000415 | 0.00250 |
| Chloromethane | U | | 0.00139 | 0.0125 |
| 2-Chlorotoluene | U | | 0.000920 | 0.00250 |
| 4-Chlorotoluene | U | | 0.00113 | 0.00500 |
| 1,2-Dibromo-3-Chloropropane | U | | 0.00510 | 0.0250 |
| 1,2-Dibromoethane | U | | 0.000525 | 0.00250 |
| Dibromomethane | U | | 0.00100 | 0.00500 |
| 1,2-Dichlorobenzene | U | | 0.00145 | 0.00500 |
| 1,3-Dichlorobenzene | U | | 0.00170 | 0.00500 |
| 1,4-Dichlorobenzene | U | | 0.00197 | 0.00500 |
| Dichlorodifluoromethane | U | | 0.000818 | 0.00250 |
| 1,1-Dichloroethane | U | | 0.000575 | 0.00250 |
| 1,2-Dichloroethane | U | | 0.000475 | 0.00250 |
| 1,1-Dichloroethene | U | | 0.000500 | 0.00250 |
| cis-1,2-Dichloroethene | U | | 0.000690 | 0.00250 |
| trans-1,2-Dichloroethene | U | | 0.00143 | 0.00500 |
| 1,2-Dichloropropane | U | | 0.00127 | 0.00500 |
| 1,1-Dichloropropene | U | | 0.000700 | 0.00250 |
| 1,3-Dichloropropane | U | | 0.00175 | 0.00500 |
| cis-1,3-Dichloropropene | U | | 0.000678 | 0.00250 |
| trans-1,3-Dichloropropene | U | | 0.00153 | 0.00500 |
| 2,2-Dichloropropane | U | | 0.000793 | 0.00250 |
| Di-isopropyl ether | U | | 0.000350 | 0.00100 |
| Ethylbenzene | U | | 0.000530 | 0.00250 |
| Hexachloro-1,3-butadiene | U | | 0.0127 | 0.0250 |
| Isopropylbenzene | U | | 0.000863 | 0.00250 |

## Method Blank (MB)

(MB) R3382072-3 02/07/19 14:18

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|---|---|---|---|---|
| p-Isopropyltoluene | U | | 0.00233 | 0.00500 |
| 2-Butanone (MEK) | U | | 0.0125 | 0.0250 |
| Methylene Chloride | 0.00912 | J | 0.00664 | 0.0250 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.0100 | 0.0250 |
| Methyl tert-butyl ether | U | | 0.000295 | 0.00100 |
| Naphthalene | U | | 0.00312 | 0.0125 |
| n-Propylbenzene | U | | 0.00118 | 0.00500 |
| Styrene | U | | 0.00273 | 0.0125 |
| 1,1,1,2-Tetrachloroethane | U | | 0.000500 | 0.00250 |
| 1,1,2,2-Tetrachloroethane | U | | 0.000390 | 0.00250 |
| Tetrachloroethene | U | | 0.000700 | 0.00250 |
| Toluene | U | | 0.00125 | 0.00500 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.000675 | 0.00250 |
| 1,2,3-Trichlorobenzene | 0.00170 | J | 0.000625 | 0.00250 |
| 1,2,4-Trichlorobenzene | U | | 0.00482 | 0.0125 |
| 1,1,1-Trichloroethane | U | | 0.000275 | 0.00250 |
| 1,1,2-Trichloroethane | U | | 0.000883 | 0.00250 |
| Trichloroethene | U | | 0.000400 | 0.00100 |
| Trichlorofluoromethane | U | | 0.000500 | 0.00250 |
| 1,2,3-Trichloropropane | U | | 0.00510 | 0.0125 |
| 1,2,3-Trimethylbenzene | U | | 0.00115 | 0.00500 |
| 1,2,4-Trimethylbenzene | U | | 0.00116 | 0.00500 |
| 1,3,5-Trimethylbenzene | U | | 0.00108 | 0.00500 |
| Vinyl chloride | U | | 0.000683 | 0.00250 |
| Xylenes, Total | U | | 0.00478 | 0.00650 |
| *(S) Toluene-d8* | *105* | | | *75.0-131* |
| *(S) 4-Bromofluorobenzene* | *102* | | | *67.0-138* |
| *(S) 1,2-Dichloroethane-d4* | *97.7* | | | *70.0-130* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382072-1 02/07/19 12:19 • (LCSD) R3382072-2 02/07/19 12:38

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.625 | 0.623 | 0.644 | 99.7 | 103 | 10.0-160 | | | 3.28 | 31 |
| Acrylonitrile | 0.625 | 0.644 | 0.633 | 103 | 101 | 45.0-153 | | | 1.58 | 22 |
| Benzene | 0.125 | 0.107 | 0.107 | 85.8 | 85.9 | 70.0-123 | | | 0.103 | 20 |
| Bromobenzene | 0.125 | 0.121 | 0.113 | 96.5 | 90.4 | 73.0-121 | | | 6.50 | 20 |
| Bromodichloromethane | 0.125 | 0.113 | 0.112 | 90.3 | 89.4 | 73.0-121 | | | 0.984 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382072-1 02/07/19 12:19 • (LCSD) R3382072-2 02/07/19 12:38

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromoform | 0.125 | 0.128 | 0.127 | 103 | 101 | 64.0-132 | | | 1.27 | 20 |
| Bromomethane | 0.125 | 0.125 | 0.127 | 100 | 102 | 56.0-147 | | | 1.95 | 20 |
| n-Butylbenzene | 0.125 | 0.126 | 0.127 | 101 | 102 | 68.0-135 | | | 0.837 | 20 |
| sec-Butylbenzene | 0.125 | 0.127 | 0.119 | 102 | 95.4 | 74.0-130 | | | 6.60 | 20 |
| tert-Butylbenzene | 0.125 | 0.124 | 0.117 | 99.0 | 93.9 | 75.0-127 | | | 5.28 | 20 |
| Carbon tetrachloride | 0.125 | 0.137 | 0.137 | 109 | 110 | 66.0-128 | | | 0.606 | 20 |
| Chlorobenzene | 0.125 | 0.118 | 0.116 | 94.4 | 93.1 | 76.0-128 | | | 1.43 | 20 |
| Chlorodibromomethane | 0.125 | 0.128 | 0.126 | 102 | 101 | 74.0-127 | | | 1.09 | 20 |
| Chloroethane | 0.125 | 0.117 | 0.117 | 93.3 | 93.7 | 61.0-134 | | | 0.426 | 20 |
| Chloroform | 0.125 | 0.109 | 0.113 | 87.4 | 90.3 | 72.0-123 | | | 3.28 | 20 |
| Chloromethane | 0.125 | 0.113 | 0.119 | 90.2 | 95.5 | 51.0-138 | | | 5.77 | 20 |
| 2-Chlorotoluene | 0.125 | 0.130 | 0.123 | 104 | 98.3 | 75.0-124 | | | 5.81 | 20 |
| 4-Chlorotoluene | 0.125 | 0.127 | 0.122 | 102 | 97.4 | 75.0-124 | | | 4.38 | 20 |
| 1,2-Dibromo-3-Chloropropane | 0.125 | 0.129 | 0.118 | 103 | 94.1 | 59.0-130 | | | 9.14 | 20 |
| 1,2-Dibromoethane | 0.125 | 0.132 | 0.132 | 106 | 106 | 74.0-128 | | | 0.112 | 20 |
| Dibromomethane | 0.125 | 0.113 | 0.108 | 90.1 | 86.4 | 75.0-122 | | | 4.19 | 20 |
| 1,2-Dichlorobenzene | 0.125 | 0.124 | 0.121 | 99.2 | 97.2 | 76.0-124 | | | 2.08 | 20 |
| 1,3-Dichlorobenzene | 0.125 | 0.120 | 0.116 | 96.2 | 92.6 | 76.0-125 | | | 3.78 | 20 |
| 1,4-Dichlorobenzene | 0.125 | 0.119 | 0.112 | 95.0 | 89.7 | 77.0-121 | | | 5.75 | 20 |
| Dichlorodifluoromethane | 0.125 | 0.144 | 0.150 | 115 | 120 | 43.0-156 | | | 3.75 | 20 |
| 1,1-Dichloroethane | 0.125 | 0.114 | 0.115 | 91.5 | 91.9 | 70.0-127 | | | 0.447 | 20 |
| 1,2-Dichloroethane | 0.125 | 0.124 | 0.126 | 99.1 | 101 | 65.0-131 | | | 1.83 | 20 |
| 1,1-Dichloroethene | 0.125 | 0.122 | 0.129 | 97.7 | 103 | 65.0-131 | | | 5.12 | 20 |
| cis-1,2-Dichloroethene | 0.125 | 0.122 | 0.122 | 97.6 | 97.3 | 73.0-125 | | | 0.316 | 20 |
| trans-1,2-Dichloroethene | 0.125 | 0.105 | 0.109 | 84.0 | 87.2 | 71.0-125 | | | 3.77 | 20 |
| 1,2-Dichloropropane | 0.125 | 0.104 | 0.0988 | 83.4 | 79.0 | 74.0-125 | | | 5.40 | 20 |
| 1,1-Dichloropropene | 0.125 | 0.128 | 0.125 | 102 | 100 | 73.0-125 | | | 1.93 | 20 |
| 1,3-Dichloropropane | 0.125 | 0.116 | 0.114 | 92.6 | 91.5 | 80.0-125 | | | 1.13 | 20 |
| cis-1,3-Dichloropropene | 0.125 | 0.117 | 0.114 | 94.0 | 91.1 | 76.0-127 | | | 3.13 | 20 |
| trans-1,3-Dichloropropene | 0.125 | 0.133 | 0.131 | 106 | 105 | 73.0-127 | | | 1.15 | 20 |
| 2,2-Dichloropropane | 0.125 | 0.148 | 0.147 | 119 | 118 | 59.0-135 | | | 0.546 | 20 |
| Di-isopropyl ether | 0.125 | 0.120 | 0.121 | 96.0 | 96.6 | 60.0-136 | | | 0.567 | 20 |
| Ethylbenzene | 0.125 | 0.124 | 0.125 | 99.4 | 99.7 | 74.0-126 | | | 0.236 | 20 |
| Hexachloro-1,3-butadiene | 0.125 | 0.132 | 0.126 | 106 | 100 | 57.0-150 | | | 5.10 | 20 |
| Isopropylbenzene | 0.125 | 0.155 | 0.152 | 124 | 122 | 72.0-127 | | | 1.81 | 20 |
| p-Isopropyltoluene | 0.125 | 0.133 | 0.128 | 106 | 103 | 72.0-133 | | | 3.51 | 20 |
| 2-Butanone (MEK) | 0.625 | 0.735 | 0.728 | 118 | 116 | 30.0-160 | | | 1.01 | 24 |
| Methylene Chloride | 0.125 | 0.115 | 0.114 | 92.0 | 91.3 | 68.0-123 | | | 0.730 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 0.625 | 0.622 | 0.607 | 99.5 | 97.2 | 56.0-143 | | | 2.32 | 20 |
| Methyl tert-butyl ether | 0.125 | 0.126 | 0.126 | 101 | 101 | 66.0-132 | | | 0.0380 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382072-1 02/07/19 12:19 • (LCSD) R3382072-2 02/07/19 12:38

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | 0.125 | 0.121 | 0.117 | 96.6 | 93.9 | 59.0-130 | | | 2.88 | 20 |
| n-Propylbenzene | 0.125 | 0.130 | 0.123 | 104 | 98.5 | 74.0-126 | | | 5.09 | 20 |
| Styrene | 0.125 | 0.146 | 0.146 | 117 | 117 | 72.0-127 | | | 0.382 | 20 |
| 1,1,1,2-Tetrachloroethane | 0.125 | 0.127 | 0.129 | 101 | 103 | 74.0-129 | | | 1.83 | 20 |
| 1,1,2,2-Tetrachloroethane | 0.125 | 0.117 | 0.109 | 94.0 | 87.0 | 68.0-128 | | | 7.67 | 20 |
| Tetrachloroethene | 0.125 | 0.109 | 0.109 | 87.0 | 86.8 | 70.0-136 | | | 0.228 | 20 |
| Toluene | 0.125 | 0.130 | 0.129 | 104 | 103 | 75.0-121 | | | 0.994 | 20 |
| 1,1,2-Trichlorotrifluoroethane | 0.125 | 0.128 | 0.126 | 102 | 101 | 61.0-139 | | | 1.31 | 20 |
| 1,2,3-Trichlorobenzene | 0.125 | 0.123 | 0.117 | 98.7 | 93.6 | 59.0-139 | | | 5.28 | 20 |
| 1,2,4-Trichlorobenzene | 0.125 | 0.114 | 0.109 | 91.6 | 87.3 | 62.0-137 | | | 4.77 | 20 |
| 1,1,1-Trichloroethane | 0.125 | 0.130 | 0.131 | 104 | 105 | 69.0-126 | | | 1.12 | 20 |
| 1,1,2-Trichloroethane | 0.125 | 0.143 | 0.141 | 114 | 113 | 78.0-123 | | | 1.44 | 20 |
| Trichloroethene | 0.125 | 0.127 | 0.131 | 102 | 105 | 76.0-126 | | | 2.74 | 20 |
| Trichlorofluoromethane | 0.125 | 0.132 | 0.135 | 106 | 108 | 61.0-142 | | | 1.82 | 20 |
| 1,2,3-Trichloropropane | 0.125 | 0.130 | 0.117 | 104 | 93.9 | 67.0-129 | | | 10.5 | 20 |
| 1,2,3-Trimethylbenzene | 0.125 | 0.122 | 0.118 | 97.2 | 94.3 | 74.0-124 | | | 3.05 | 20 |
| 1,2,4-Trimethylbenzene | 0.125 | 0.124 | 0.120 | 99.3 | 96.2 | 70.0-126 | | | 3.15 | 20 |
| 1,3,5-Trimethylbenzene | 0.125 | 0.140 | 0.132 | 112 | 106 | 73.0-127 | | | 5.88 | 20 |
| Vinyl chloride | 0.125 | 0.110 | 0.113 | 87.9 | 90.0 | 63.0-134 | | | 2.34 | 20 |
| Xylenes, Total | 0.375 | 0.367 | 0.368 | 97.9 | 98.1 | 72.0-127 | | | 0.272 | 20 |
| *(S) Toluene-d8* | | | | *104* | *102* | *75.0-131* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | *104* | *107* | *67.0-138* | | | | |
| *(S) 1,2-Dichloroethane-d4* | | | | *102* | *99.6* | *70.0-130* | | | | |

## L1067034-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067034-02 02/07/19 19:11 • (MS) R3382072-4 02/07/19 22:41 • (MSD) R3382072-5 02/07/19 23:00

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.625 | ND | 0.435 | 0.432 | 69.6 | 69.1 | 1 | 10.0-160 | | | 0.709 | 40 |
| Acrylonitrile | 0.625 | ND | 0.614 | 0.661 | 98.2 | 106 | 1 | 10.0-160 | | | 7.35 | 40 |
| Benzene | 0.125 | ND | 0.0679 | 0.0863 | 54.3 | 69.0 | 1 | 10.0-149 | | | 23.8 | 37 |
| Bromobenzene | 0.125 | ND | 0.0934 | 0.0835 | 74.7 | 66.8 | 1 | 10.0-156 | | | 11.1 | 38 |
| Bromodichloromethane | 0.125 | ND | 0.0866 | 0.0958 | 69.3 | 76.6 | 1 | 10.0-143 | | | 10.0 | 37 |
| Bromoform | 0.125 | ND | 0.117 | 0.125 | 93.8 | 99.7 | 1 | 10.0-146 | | | 6.05 | 36 |
| Bromomethane | 0.125 | ND | 0.0515 | 0.0774 | 41.2 | 61.9 | 1 | 10.0-149 | | J3 | 40.2 | 38 |
| n-Butylbenzene | 0.125 | 0.102 | 0.429 | 0.362 | 262 | 208 | 1 | 10.0-160 | J5 | J5 | 16.9 | 40 |
| sec-Butylbenzene | 0.125 | 0.0581 | 0.287 | 0.265 | 183 | 165 | 1 | 10.0-159 | J5 | J5 | 8.15 | 39 |
| tert-Butylbenzene | 0.125 | 0.0127 | 0.137 | 0.139 | 99.3 | 101 | 1 | 10.0-156 | | | 1.20 | 39 |

## L1067034-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067034-02 02/07/19 19:11 • (MS) R3382072-4 02/07/19 22:41 • (MSD) R3382072-5 02/07/19 23:00

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | 0.125 | ND | 0.0741 | 0.119 | 59.3 | 94.9 | 1 | 10.0-145 | | J3 | 46.2 | 37 |
| Chlorobenzene | 0.125 | ND | 0.0872 | 0.119 | 69.7 | 95.2 | 1 | 10.0-152 | | | 30.8 | 39 |
| Chlorodibromomethane | 0.125 | ND | 0.113 | 0.126 | 90.8 | 101 | 1 | 10.0-146 | | | 10.4 | 37 |
| Chloroethane | 0.125 | ND | 0.0493 | 0.0778 | 39.5 | 62.3 | 1 | 10.0-146 | | J3 | 44.8 | 40 |
| Chloroform | 0.125 | ND | 0.0777 | 0.0949 | 62.2 | 75.9 | 1 | 10.0-146 | | | 19.9 | 37 |
| Chloromethane | 0.125 | ND | 0.0567 | 0.0861 | 45.3 | 68.9 | 1 | 10.0-159 | | J3 | 41.3 | 37 |
| 2-Chlorotoluene | 0.125 | ND | 0.134 | 0.0867 | 107 | 69.3 | 1 | 10.0-159 | | J3 | 42.6 | 38 |
| 4-Chlorotoluene | 0.125 | ND | 0.0716 | 0.113 | 57.3 | 90.6 | 1 | 10.0-155 | | J3 | 45.0 | 39 |
| 1,2-Dibromo-3-Chloropropane | 0.125 | ND | 0.142 | 0.116 | 114 | 92.5 | 1 | 10.0-151 | | | 20.7 | 39 |
| 1,2-Dibromoethane | 0.125 | ND | 0.124 | 0.130 | 99.1 | 104 | 1 | 10.0-148 | | | 4.68 | 34 |
| Dibromomethane | 0.125 | ND | 0.0969 | 0.103 | 77.6 | 82.2 | 1 | 10.0-147 | | | 5.77 | 35 |
| 1,2-Dichlorobenzene | 0.125 | ND | 0.103 | 0.0978 | 82.6 | 78.2 | 1 | 10.0-155 | | | 5.47 | 37 |
| 1,3-Dichlorobenzene | 0.125 | ND | 0.0919 | 0.100 | 73.6 | 80.2 | 1 | 10.0-153 | | | 8.64 | 38 |
| 1,4-Dichlorobenzene | 0.125 | ND | 0.0940 | 0.104 | 75.2 | 82.9 | 1 | 10.0-151 | | | 9.71 | 38 |
| Dichlorodifluoromethane | 0.125 | ND | 0.0615 | 0.119 | 49.2 | 94.9 | 1 | 10.0-160 | | J3 | 63.4 | 35 |
| 1,1-Dichloroethane | 0.125 | ND | 0.0718 | 0.0926 | 57.5 | 74.1 | 1 | 10.0-147 | | | 25.3 | 37 |
| 1,2-Dichloroethane | 0.125 | ND | 0.112 | 0.123 | 89.6 | 98.2 | 1 | 10.0-148 | | | 9.08 | 35 |
| 1,1-Dichloroethene | 0.125 | ND | 0.0533 | 0.0929 | 42.7 | 74.4 | 1 | 10.0-155 | | J3 | 54.2 | 37 |
| cis-1,2-Dichloroethene | 0.125 | ND | 0.0807 | 0.105 | 64.5 | 83.6 | 1 | 10.0-149 | | | 25.8 | 37 |
| trans-1,2-Dichloroethene | 0.125 | ND | 0.0554 | 0.0687 | 44.3 | 55.0 | 1 | 10.0-150 | | | 21.4 | 37 |
| 1,2-Dichloropropane | 0.125 | ND | 0.0718 | 0.0918 | 57.4 | 73.4 | 1 | 10.0-148 | | | 24.4 | 37 |
| 1,1-Dichloropropene | 0.125 | ND | 0.0668 | 0.0987 | 53.4 | 78.9 | 1 | 10.0-153 | | J3 | 38.6 | 35 |
| 1,3-Dichloropropane | 0.125 | ND | 0.106 | 0.113 | 84.9 | 90.3 | 1 | 10.0-154 | | | 6.18 | 35 |
| cis-1,3-Dichloropropene | 0.125 | ND | 0.0953 | 0.110 | 76.3 | 88.1 | 1 | 10.0-151 | | | 14.5 | 37 |
| trans-1,3-Dichloropropene | 0.125 | ND | 0.122 | 0.129 | 97.7 | 103 | 1 | 10.0-148 | | | 5.35 | 37 |
| 2,2-Dichloropropane | 0.125 | ND | 0.0709 | 0.106 | 56.8 | 85.1 | 1 | 10.0-138 | | J3 | 40.0 | 36 |
| Di-isopropyl ether | 0.125 | ND | 0.0953 | 0.103 | 76.2 | 82.3 | 1 | 10.0-147 | | | 7.67 | 36 |
| Ethylbenzene | 0.125 | ND | 0.0856 | 0.114 | 68.5 | 91.5 | 1 | 10.0-160 | | | 28.8 | 38 |
| Hexachloro-1,3-butadiene | 0.125 | ND | 0.191 | 0.172 | 152 | 138 | 1 | 10.0-160 | | | 10.1 | 40 |
| Isopropylbenzene | 0.125 | 0.0320 | 0.212 | 0.265 | 144 | 187 | 1 | 10.0-155 | | J5 | 22.5 | 38 |
| p-Isopropyltoluene | 0.125 | ND | 0.113 | 0.140 | 90.1 | 112 | 1 | 10.0-160 | | | 22.0 | 40 |
| 2-Butanone (MEK) | 0.625 | ND | 0.689 | 0.617 | 110 | 98.7 | 1 | 10.0-160 | | | 11.1 | 40 |
| Methylene Chloride | 0.125 | ND | 0.0872 | 0.0939 | 69.7 | 75.1 | 1 | 10.0-141 | | | 7.45 | 37 |
| 4-Methyl-2-pentanone (MIBK) | 0.625 | ND | 0.796 | 0.781 | 127 | 125 | 1 | 10.0-160 | | | 1.89 | 35 |
| Methyl tert-butyl ether | 0.125 | ND | 0.0929 | 0.0985 | 74.4 | 78.8 | 1 | 11.0-147 | | | 5.81 | 35 |
| Naphthalene | 0.125 | ND | 0.773 | 0.731 | 619 | 585 | 1 | 10.0-160 | J5 | J5 | 5.58 | 36 |
| n-Propylbenzene | 0.125 | 0.0492 | 0.255 | 0.233 | 165 | 147 | 1 | 10.0-158 | J5 | | 8.97 | 38 |
| Styrene | 0.125 | ND | 0.107 | 0.135 | 85.9 | 108 | 1 | 10.0-160 | | | 22.7 | 40 |
| 1,1,1,2-Tetrachloroethane | 0.125 | ND | 0.0937 | 0.124 | 75.0 | 99.6 | 1 | 10.0-149 | | | 28.2 | 39 |
| 1,1,2,2-Tetrachloroethane | 0.125 | ND | 0.595 | 0.493 | 476 | 395 | 1 | 10.0-160 | J5 | J5 | 18.8 | 35 |

## L1067034-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067034-02 02/07/19 19:11 • (MS) R3382072-4 02/07/19 22:41 • (MSD) R3382072-5 02/07/19 23:00

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 0.125 | ND | 0.0618 | 0.0912 | 49.4 | 73.0 | 1 | 10.0-156 | | | 38.6 | 39 |
| Toluene | 0.125 | ND | 0.0841 | 0.110 | 67.3 | 88.0 | 1 | 10.0-156 | | | 26.7 | 38 |
| 1,1,2-Trichlorotrifluoroethane | 0.125 | ND | 0.0485 | 0.0967 | 38.8 | 77.4 | 1 | 10.0-160 | | J3 | 66.5 | 36 |
| 1,2,3-Trichlorobenzene | 0.125 | ND | 0.250 | 0.199 | 200 | 159 | 1 | 10.0-160 | J5 | | 22.8 | 40 |
| 1,2,4-Trichlorobenzene | 0.125 | ND | 0.164 | 0.140 | 131 | 112 | 1 | 10.0-160 | | | 15.8 | 40 |
| 1,1,1-Trichloroethane | 0.125 | ND | 0.0760 | 0.112 | 60.8 | 89.4 | 1 | 10.0-144 | | J3 | 38.1 | 35 |
| 1,1,2-Trichloroethane | 0.125 | ND | 0.184 | 0.188 | 147 | 150 | 1 | 10.0-160 | | | 2.15 | 35 |
| Trichloroethene | 0.125 | ND | 0.0805 | 0.109 | 64.4 | 87.0 | 1 | 10.0-156 | | | 29.9 | 38 |
| Trichlorofluoromethane | 0.125 | ND | 0.0553 | 0.109 | 44.2 | 87.0 | 1 | 10.0-160 | | J3 | 65.2 | 40 |
| 1,2,3-Trichloropropane | 0.125 | ND | 0.199 | 0.0882 | 159 | 70.6 | 1 | 10.0-156 | J5 | J3 | 77.0 | 35 |
| 1,2,3-Trimethylbenzene | 0.125 | ND | 0.129 | 0.143 | 103 | 114 | 1 | 10.0-160 | | | 10.1 | 36 |
| 1,2,4-Trimethylbenzene | 0.125 | ND | 0.107 | 0.108 | 85.5 | 86.1 | 1 | 10.0-160 | | | 0.645 | 36 |
| 1,3,5-Trimethylbenzene | 0.125 | ND | 0.107 | 0.113 | 86.0 | 90.8 | 1 | 10.0-160 | | | 5.43 | 38 |
| Vinyl chloride | 0.125 | ND | 0.0503 | 0.0820 | 40.2 | 65.6 | 1 | 10.0-160 | | J3 | 48.0 | 37 |
| Xylenes, Total | 0.375 | ND | 0.249 | 0.355 | 66.5 | 94.7 | 1 | 10.0-160 | | | 34.9 | 38 |
| *(S) Toluene-d8* | | | | | *104* | *98.9* | | *75.0-131* | | | | |
| *(S) 4-Bromofluorobenzene* | | | | | *136* | *114* | | *67.0-138* | | | | |
| *(S) 1,2-Dichloroethane-d4* | | | | | *105* | *110* | | *70.0-130* | | | | |

## Method Blank (MB)

(MB) R3381809-1 02/06/19 21:49

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|---|---|---|---|---|
| Extractable Petroleum Hydrocarbon | U | | 1.05 | 4.00 |
| *(S) o-Terphenyl* | *70.4* | | | *18.0-148* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3381809-2 02/06/19 22:02 • (LCSD) R3381809-3 02/06/19 22:15

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Extractable Petroleum Hydrocarbon | 50.0 | 28.3 | 29.2 | 56.6 | 58.4 | 50.0-150 | | | 3.13 | 20 |
| *(S) o-Terphenyl* | | | | *74.9* | *77.8* | *18.0-148* | | | | |

## Method Blank (MB)

(MB) R3382151-3 02/08/19 01:12

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|---|---|---|---|---|
| Acenaphthene | U | | 0.00642 | 0.0333 |
| Acenaphthylene | U | | 0.00671 | 0.0333 |
| Anthracene | U | | 0.00632 | 0.0333 |
| Benzidine | U | | 0.0637 | 0.333 |
| Benzo(a)anthracene | U | | 0.00428 | 0.0333 |
| Benzo(b)fluoranthene | U | | 0.00695 | 0.0333 |
| Benzo(k)fluoranthene | U | | 0.00582 | 0.0333 |
| Benzo(g,h,i)perylene | U | | 0.00721 | 0.0333 |
| Benzo(a)pyrene | U | | 0.00548 | 0.0333 |
| Bis(2-chlorethoxy)methane | U | | 0.00770 | 0.333 |
| Bis(2-chloroethyl)ether | U | | 0.00896 | 0.333 |
| Bis(2-chloroisopropyl)ether | U | | 0.00760 | 0.333 |
| 4-Bromophenyl-phenylether | U | | 0.0114 | 0.333 |
| 2-Chloronaphthalene | U | | 0.00639 | 0.0333 |
| 4-Chlorophenyl-phenylether | U | | 0.00627 | 0.333 |
| Chrysene | U | | 0.00555 | 0.0333 |
| Dibenz(a,h)anthracene | U | | 0.00821 | 0.0333 |
| 3,3-Dichlorobenzidine | U | | 0.0794 | 0.333 |
| 2,4-Dinitrotoluene | U | | 0.00607 | 0.333 |
| 2,6-Dinitrotoluene | U | | 0.00737 | 0.333 |
| Fluoranthene | U | | 0.00496 | 0.0333 |
| Fluorene | U | | 0.00682 | 0.0333 |
| Hexachlorobenzene | U | | 0.00856 | 0.333 |
| Hexachloro-1,3-butadiene | U | | 0.0100 | 0.333 |
| Hexachlorocyclopentadiene | U | | 0.0587 | 0.333 |
| Hexachloroethane | U | | 0.0134 | 0.333 |
| Indeno(1,2,3-cd)pyrene | U | | 0.00772 | 0.0333 |
| Isophorone | U | | 0.00522 | 0.333 |
| Naphthalene | U | | 0.00889 | 0.0333 |
| Nitrobenzene | U | | 0.00695 | 0.333 |
| n-Nitrosodimethylamine | U | | 0.0647 | 0.333 |
| n-Nitrosodiphenylamine | U | | 0.0900 | 0.333 |
| n-Nitrosodi-n-propylamine | U | | 0.00906 | 0.333 |
| Phenanthrene | U | | 0.00528 | 0.0333 |
| Benzylbutyl phthalate | U | | 0.0103 | 0.333 |
| Bis(2-ethylhexyl)phthalate | U | | 0.0120 | 0.333 |
| Di-n-butyl phthalate | U | | 0.0109 | 0.333 |
| Diethyl phthalate | U | | 0.00691 | 0.333 |
| Dimethyl phthalate | U | | 0.00540 | 0.333 |
| Di-n-octyl phthalate | U | | 0.00907 | 0.333 |

## Method Blank (MB)

(MB) R3382151-3 02/08/19 01:12

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|---|---|---|---|---|
| Pyrene | U | | 0.0123 | 0.0333 |
| 1,2,4-Trichlorobenzene | U | | 0.00876 | 0.333 |
| 4-Chloro-3-methylphenol | U | | 0.00477 | 0.333 |
| 2-Chlorophenol | U | | 0.00831 | 0.333 |
| 2,4-Dichlorophenol | U | | 0.00746 | 0.333 |
| 2,4-Dimethylphenol | U | | 0.0471 | 0.333 |
| 4,6-Dinitro-2-methylphenol | U | | 0.124 | 0.333 |
| 2,4-Dinitrophenol | U | | 0.0980 | 0.333 |
| 2-Nitrophenol | U | | 0.0130 | 0.333 |
| 4-Nitrophenol | U | | 0.0525 | 0.333 |
| Pentachlorophenol | U | | 0.0480 | 0.333 |
| Phenol | U | | 0.00695 | 0.333 |
| 2,4,6-Trichlorophenol | U | | 0.00779 | 0.333 |
| *(S) Nitrobenzene-d5* | *69.1* | | | *10.0-122* |
| *(S) 2-Fluorobiphenyl* | *69.1* | | | *15.0-120* |
| *(S) p-Terphenyl-d14* | *72.4* | | | *10.0-120* |
| *(S) Phenol-d5* | *67.6* | | | *10.0-120* |
| *(S) 2-Fluorophenol* | *79.7* | | | *12.0-120* |
| *(S) 2,4,6-Tribromophenol* | *55.3* | | | *10.0-127* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382151-1 02/08/19 00:03 • (LCSD) R3382151-2 02/08/19 00:26

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.666 | 0.441 | 0.356 | 66.2 | 53.5 | 38.0-120 | | | 21.3 | 22 |
| Acenaphthylene | 0.666 | 0.440 | 0.349 | 66.1 | 52.4 | 40.0-120 | | J3 | 23.1 | 22 |
| Anthracene | 0.666 | 0.451 | 0.351 | 67.7 | 52.7 | 42.0-120 | | J3 | 24.9 | 20 |
| Benzidine | 1.33 | 0.110 | 0.119 | 8.27 | 8.95 | 1.00-120 | | | 7.86 | 40 |
| Benzo(a)anthracene | 0.666 | 0.476 | 0.381 | 71.5 | 57.2 | 44.0-120 | | J3 | 22.2 | 20 |
| Benzo(b)fluoranthene | 0.666 | 0.460 | 0.362 | 69.1 | 54.4 | 43.0-120 | | J3 | 23.8 | 22 |
| Benzo(k)fluoranthene | 0.666 | 0.435 | 0.359 | 65.3 | 53.9 | 44.0-120 | | | 19.1 | 21 |
| Benzo(g,h,i)perylene | 0.666 | 0.518 | 0.417 | 77.8 | 62.6 | 43.0-120 | | | 21.6 | 22 |
| Benzo(a)pyrene | 0.666 | 0.450 | 0.361 | 67.6 | 54.2 | 45.0-120 | | J3 | 21.9 | 20 |
| Bis(2-chlorethoxy)methane | 0.666 | 0.335 | 0.277 | 50.3 | 41.6 | 20.0-120 | | | 19.0 | 23 |
| Bis(2-chloroethyl)ether | 0.666 | 0.410 | 0.323 | 61.6 | 48.5 | 16.0-120 | | | 23.7 | 31 |
| Bis(2-chloroisopropyl)ether | 0.666 | 0.437 | 0.340 | 65.6 | 51.1 | 23.0-120 | | | 25.0 | 30 |
| 4-Bromophenyl-phenylether | 0.666 | 0.465 | 0.356 | 69.8 | 53.5 | 40.0-120 | | J3 | 26.6 | 21 |
| 2-Chloronaphthalene | 0.666 | 0.425 | 0.335 | 63.8 | 50.3 | 35.0-120 | | | 23.7 | 24 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382151-1 02/08/19 00:03 • (LCSD) R3382151-2 02/08/19 00:26

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorophenyl-phenylether | 0.666 | 0.476 | 0.380 | 71.5 | 57.1 | 40.0-120 | | J3 | 22.4 | 22 |
| Chrysene | 0.666 | 0.454 | 0.374 | 68.2 | 56.2 | 43.0-120 | | | 19.3 | 20 |
| Dibenz(a,h)anthracene | 0.666 | 0.481 | 0.382 | 72.2 | 57.4 | 44.0-120 | | J3 | 22.9 | 22 |
| 3,3-Dichlorobenzidine | 1.33 | 0.768 | 0.632 | 57.7 | 47.5 | 28.0-120 | | | 19.4 | 23 |
| 2,4-Dinitrotoluene | 0.666 | 0.506 | 0.410 | 76.0 | 61.6 | 45.0-120 | | | 21.0 | 21 |
| 2,6-Dinitrotoluene | 0.666 | 0.481 | 0.378 | 72.2 | 56.8 | 42.0-120 | | J3 | 24.0 | 21 |
| Fluoranthene | 0.666 | 0.480 | 0.379 | 72.1 | 56.9 | 44.0-120 | | J3 | 23.5 | 21 |
| Fluorene | 0.666 | 0.465 | 0.372 | 69.8 | 55.9 | 41.0-120 | | J3 | 22.2 | 22 |
| Hexachlorobenzene | 0.666 | 0.448 | 0.344 | 67.3 | 51.7 | 39.0-120 | | J3 | 26.3 | 21 |
| Hexachloro-1,3-butadiene | 0.666 | 0.445 | 0.368 | 66.8 | 55.3 | 15.0-120 | | | 18.9 | 28 |
| Hexachlorocyclopentadiene | 0.666 | 0.387 | 0.300 | 58.1 | 45.0 | 15.0-120 | | | 25.3 | 31 |
| Hexachloroethane | 0.666 | 0.436 | 0.342 | 65.5 | 51.4 | 17.0-120 | | | 24.2 | 31 |
| Indeno(1,2,3-cd)pyrene | 0.666 | 0.473 | 0.376 | 71.0 | 56.5 | 45.0-120 | | J3 | 22.9 | 21 |
| Isophorone | 0.666 | 0.343 | 0.281 | 51.5 | 42.2 | 23.0-120 | | | 19.9 | 23 |
| Naphthalene | 0.666 | 0.361 | 0.300 | 54.2 | 45.0 | 18.0-120 | | | 18.5 | 24 |
| Nitrobenzene | 0.666 | 0.349 | 0.287 | 52.4 | 43.1 | 17.0-120 | | | 19.5 | 26 |
| n-Nitrosodimethylamine | 0.666 | 0.378 | 0.302 | 56.8 | 45.3 | 10.0-125 | | | 22.4 | 33 |
| n-Nitrosodiphenylamine | 0.666 | 0.433 | 0.335 | 65.0 | 50.3 | 40.0-120 | | J3 | 25.5 | 21 |
| n-Nitrosodi-n-propylamine | 0.666 | 0.410 | 0.321 | 61.6 | 48.2 | 26.0-120 | | | 24.4 | 27 |
| Phenanthrene | 0.666 | 0.448 | 0.353 | 67.3 | 53.0 | 42.0-120 | | J3 | 23.7 | 20 |
| Benzylbutyl phthalate | 0.666 | 0.424 | 0.339 | 63.7 | 50.9 | 40.0-120 | | J3 | 22.3 | 21 |
| Bis(2-ethylhexyl)phthalate | 0.666 | 0.428 | 0.342 | 64.3 | 51.4 | 41.0-120 | | J3 | 22.3 | 21 |
| Di-n-butyl phthalate | 0.666 | 0.449 | 0.355 | 67.4 | 53.3 | 43.0-120 | | J3 | 23.4 | 20 |
| Diethyl phthalate | 0.666 | 0.450 | 0.369 | 67.6 | 55.4 | 43.0-120 | | | 19.8 | 21 |
| Dimethyl phthalate | 0.666 | 0.456 | 0.366 | 68.5 | 55.0 | 43.0-120 | | | 21.9 | 22 |
| Di-n-octyl phthalate | 0.666 | 0.440 | 0.353 | 66.1 | 53.0 | 40.0-120 | | J3 | 21.9 | 21 |
| Pyrene | 0.666 | 0.465 | 0.371 | 69.8 | 55.7 | 41.0-120 | | J3 | 22.5 | 21 |
| 1,2,4-Trichlorobenzene | 0.666 | 0.385 | 0.320 | 57.8 | 48.0 | 17.0-120 | | | 18.4 | 26 |
| 4-Chloro-3-methylphenol | 0.666 | 0.413 | 0.330 | 62.0 | 49.5 | 28.0-120 | | J3 | 22.3 | 20 |
| 2-Chlorophenol | 0.666 | 0.451 | 0.351 | 67.7 | 52.7 | 28.0-120 | | | 24.9 | 28 |
| 2,4-Dichlorophenol | 0.666 | 0.424 | 0.345 | 63.7 | 51.8 | 25.0-120 | | | 20.5 | 21 |
| 2,4-Dimethylphenol | 0.666 | 0.368 | 0.305 | 55.3 | 45.8 | 15.0-120 | | | 18.7 | 26 |
| 4,6-Dinitro-2-methylphenol | 0.666 | 0.393 | 0.315 | 59.0 | 47.3 | 16.0-120 | | | 22.0 | 33 |
| 2,4-Dinitrophenol | 0.666 | 0.216 | 0.185 | 32.4 | 27.8 | 10.0-120 | | | 15.5 | 40 |
| 2-Nitrophenol | 0.666 | 0.436 | 0.355 | 65.5 | 53.3 | 20.0-120 | | | 20.5 | 25 |
| 4-Nitrophenol | 0.666 | 0.453 | 0.359 | 68.0 | 53.9 | 27.0-120 | | | 23.2 | 24 |
| Pentachlorophenol | 0.666 | 0.406 | 0.288 | 61.0 | 43.2 | 29.0-120 | | J3 | 34.0 | 25 |
| Phenol | 0.666 | 0.399 | 0.309 | 59.9 | 46.4 | 28.0-120 | | | 25.4 | 27 |
| 2,4,6-Trichlorophenol | 0.666 | 0.468 | 0.373 | 70.3 | 56.0 | 37.0-120 | | | 22.6 | 24 |
| *(S) Nitrobenzene-d5* | | | | *55.9* | *44.7* | *10.0-122* | | | | |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382151-1 02/08/19 00:03 • (LCSD) R3382151-2 02/08/19 00:26

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| *(S) 2-Fluorobiphenyl* | | | | *67.0* | *52.6* | *15.0-120* | | | | |
| *(S) p-Terphenyl-d14* | | | | *67.0* | *53.2* | *10.0-120* | | | | |
| *(S) Phenol-d5* | | | | *66.4* | *50.0* | *10.0-120* | | | | |
| *(S) 2-Fluorophenol* | | | | *75.5* | *58.0* | *12.0-120* | | | | |
| *(S) 2,4,6-Tribromophenol* | | | | *59.9* | *44.4* | *10.0-127* | | | | |

## L1067260-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067260-04 02/10/19 21:36 • (MS) R3382642-1 02/10/19 21:54 • (MSD) R3382642-2 02/10/19 22:12

| Analyte | Spike Amount (dry) mg/kg | Original Result (dry) mg/kg | MS Result (dry) mg/kg | MSD Result (dry) mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.819 | U | 0.366 | 0.375 | 44.7 | 45.8 | 1 | 18.0-120 | | | 2.32 | 32 |
| Acenaphthylene | 0.819 | U | 0.359 | 0.370 | 43.8 | 45.2 | 1 | 25.0-120 | | | 3.04 | 32 |
| Anthracene | 0.819 | U | 0.377 | 0.431 | 46.1 | 52.7 | 1 | 22.0-120 | | | 13.4 | 29 |
| Benzidine | 1.63 | U | ND | 0.294 | 0.000 | 18.0 | 1 | 1.00-120 | J6 | J3 | 200 | 40 |
| Benzo(a)anthracene | 0.819 | U | 0.393 | 0.473 | 48.0 | 57.8 | 1 | 25.0-120 | | | 18.4 | 29 |
| Benzo(b)fluoranthene | 0.819 | U | 0.349 | 0.409 | 42.6 | 50.0 | 1 | 19.0-122 | | | 15.9 | 31 |
| Benzo(k)fluoranthene | 0.819 | U | 0.353 | 0.411 | 43.1 | 50.2 | 1 | 23.0-120 | | | 15.1 | 30 |
| Benzo(g,h,i)perylene | 0.819 | U | 0.348 | 0.412 | 42.5 | 50.3 | 1 | 10.0-120 | | | 16.8 | 33 |
| Benzo(a)pyrene | 0.819 | U | 0.356 | 0.412 | 43.5 | 50.3 | 1 | 24.0-120 | | | 14.4 | 30 |
| Bis(2-chlorethoxy)methane | 0.819 | U | 0.296 | 0.288 | 36.2 | 35.1 | 1 | 10.0-120 | | | 2.95 | 34 |
| Bis(2-chloroethyl)ether | 0.819 | U | 0.344 | 0.325 | 42.0 | 39.6 | 1 | 10.0-120 | | | 5.88 | 40 |
| Bis(2-chloroisopropyl)ether | 0.819 | U | 0.325 | 0.305 | 39.6 | 37.2 | 1 | 10.0-120 | | | 6.25 | 40 |
| 4-Bromophenyl-phenylether | 0.819 | U | 0.363 | 0.424 | 44.3 | 51.8 | 1 | 27.0-120 | | | 15.6 | 30 |
| 2-Chloronaphthalene | 0.819 | U | 0.347 | 0.354 | 42.3 | 43.2 | 1 | 20.0-120 | | | 2.11 | 32 |
| 4-Chlorophenyl-phenylether | 0.819 | U | 0.372 | 0.401 | 45.5 | 48.9 | 1 | 24.0-120 | | | 7.31 | 29 |
| Chrysene | 0.819 | U | 0.352 | 0.420 | 42.9 | 51.4 | 1 | 21.0-120 | | | 17.8 | 29 |
| Dibenz(a,h)anthracene | 0.819 | U | 0.343 | 0.413 | 41.9 | 50.5 | 1 | 10.0-120 | | | 18.5 | 32 |
| 3,3-Dichlorobenzidine | 1.63 | U | 0.763 | 0.884 | 46.7 | 54.1 | 1 | 10.0-120 | | | 14.6 | 34 |
| 2,4-Dinitrotoluene | 0.819 | U | 0.424 | 0.465 | 51.8 | 56.8 | 1 | 30.0-120 | | | 9.13 | 31 |
| 2,6-Dinitrotoluene | 0.819 | U | 0.411 | 0.441 | 50.2 | 53.9 | 1 | 25.0-120 | | | 7.22 | 31 |
| Fluoranthene | 0.819 | U | 0.397 | 0.457 | 48.5 | 55.9 | 1 | 18.0-126 | | | 14.1 | 32 |
| Fluorene | 0.819 | U | 0.387 | 0.412 | 47.3 | 50.3 | 1 | 25.0-120 | | | 6.15 | 30 |
| Hexachlorobenzene | 0.819 | U | 0.388 | 0.440 | 47.4 | 53.8 | 1 | 27.0-120 | | | 12.5 | 28 |
| Hexachloro-1,3-butadiene | 0.819 | U | 0.312 | 0.299 | 38.1 | 36.5 | 1 | 10.0-120 | | | 4.43 | 38 |
| Hexachlorocyclopentadiene | 0.819 | U | ND | 0.135 | 0.000 | 16.5 | 1 | 10.0-120 | J6 | J3 | 200 | 40 |
| Hexachloroethane | 0.819 | U | 0.277 | 0.274 | 33.8 | 33.5 | 1 | 10.0-120 | | | 0.893 | 40 |
| Indeno(1,2,3-cd)pyrene | 0.819 | U | 0.349 | 0.414 | 42.6 | 50.6 | 1 | 10.0-120 | | | 17.1 | 32 |
| Isophorone | 0.819 | U | 0.305 | 0.295 | 37.2 | 36.0 | 1 | 13.0-120 | | | 3.28 | 34 |

## L1067260-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067260-04 02/10/19 21:36 • (MS) R3382642-1 02/10/19 21:54 • (MSD) R3382642-2 02/10/19 22:12

| Analyte | Spike Amount (dry) mg/kg | Original Result (dry) mg/kg | MS Result (dry) mg/kg | MSD Result (dry) mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | 0.819 | U | 0.307 | 0.289 | 37.5 | 35.3 | 1 | 10.0-120 | | | 6.19 | 35 |
| Nitrobenzene | 0.819 | U | 0.305 | 0.283 | 37.2 | 34.5 | 1 | 10.0-120 | | | 7.53 | 36 |
| n-Nitrosodimethylamine | 0.819 | U | 0.334 | 0.283 | 40.8 | 34.5 | 1 | 10.0-127 | | | 16.7 | 40 |
| n-Nitrosodiphenylamine | 0.819 | U | 0.354 | 0.388 | 43.2 | 47.4 | 1 | 17.0-120 | | | 9.27 | 29 |
| n-Nitrosodi-n-propylamine | 0.819 | U | 0.328 | 0.323 | 40.1 | 39.5 | 1 | 10.0-120 | | | 1.51 | 37 |
| Phenanthrene | 0.819 | U | 0.380 | 0.427 | 46.4 | 52.1 | 1 | 17.0-120 | | | 11.6 | 31 |
| Benzylbutyl phthalate | 0.819 | U | 0.386 | 0.487 | 47.1 | 59.5 | 1 | 23.0-120 | | | 23.1 | 30 |
| Bis(2-ethylhexyl)phthalate | 0.819 | U | 0.361 | 0.465 | 44.1 | 56.8 | 1 | 17.0-126 | | | 25.0 | 30 |
| Di-n-butyl phthalate | 0.819 | U | 0.376 | 0.479 | 45.9 | 58.6 | 1 | 30.0-120 | | | 24.1 | 29 |
| Diethyl phthalate | 0.819 | U | 0.384 | 0.418 | 46.8 | 51.1 | 1 | 26.0-120 | | | 8.59 | 28 |
| Dimethyl phthalate | 0.819 | U | 0.379 | 0.391 | 46.2 | 47.7 | 1 | 25.0-120 | | | 3.19 | 29 |
| Di-n-octyl phthalate | 0.819 | U | 0.380 | 0.471 | 46.4 | 57.5 | 1 | 21.0-123 | | | 21.4 | 29 |
| Pyrene | 0.819 | U | 0.390 | 0.474 | 47.6 | 58.0 | 1 | 16.0-121 | | | 19.6 | 32 |
| 1,2,4-Trichlorobenzene | 0.819 | U | 0.312 | 0.290 | 38.1 | 35.4 | 1 | 12.0-120 | | | 7.35 | 37 |
| 4-Chloro-3-methylphenol | 0.819 | U | 0.396 | 0.396 | 48.3 | 48.3 | 1 | 15.0-120 | | | 0.000 | 30 |
| 2-Chlorophenol | 0.819 | U | 0.376 | 0.354 | 45.9 | 43.2 | 1 | 15.0-120 | | | 6.06 | 37 |
| 2,4-Dichlorophenol | 0.819 | U | 0.352 | 0.354 | 42.9 | 43.2 | 1 | 20.0-120 | | | 0.697 | 31 |
| 2,4-Dimethylphenol | 0.819 | U | 0.315 | 0.301 | 38.4 | 36.8 | 1 | 10.0-120 | | | 4.39 | 33 |
| 4,6-Dinitro-2-methylphenol | 0.819 | U | 0.500 | 0.591 | 61.1 | 72.2 | 1 | 10.0-120 | | | 16.7 | 39 |
| 2,4-Dinitrophenol | 0.819 | U | 0.482 | 0.533 | 58.9 | 65.2 | 1 | 10.0-121 | | | 10.2 | 40 |
| 2-Nitrophenol | 0.819 | U | 0.390 | 0.369 | 47.6 | 45.0 | 1 | 12.0-120 | | | 5.51 | 39 |
| 4-Nitrophenol | 0.819 | U | 0.406 | 0.465 | 49.5 | 56.8 | 1 | 10.0-137 | | | 13.6 | 32 |
| Pentachlorophenol | 0.819 | U | 0.430 | 0.478 | 52.6 | 58.4 | 1 | 10.0-160 | | | 10.6 | 31 |
| Phenol | 0.819 | U | 0.412 | 0.350 | 50.3 | 42.8 | 1 | 12.0-120 | | | 16.1 | 38 |
| 2,4,6-Trichlorophenol | 0.819 | U | 0.380 | 0.422 | 46.4 | 51.5 | 1 | 19.0-120 | | | 10.4 | 32 |
| *(S) Nitrobenzene-d5* | | | | | *36.9* | *33.9* | | *10.0-122* | | | | |
| *(S) 2-Fluorobiphenyl* | | | | | *40.8* | *39.9* | | *15.0-120* | | | | |
| *(S) p-Terphenyl-d14* | | | | | *44.4* | *54.7* | | *10.0-120* | | | | |
| *(S) Phenol-d5* | | | | | *49.5* | *44.1* | | *10.0-120* | | | | |
| *(S) 2-Fluorophenol* | | | | | *50.6* | *46.5* | | *12.0-120* | | | | |
| *(S) 2,4,6-Tribromophenol* | | | | | *45.2* | *54.5* | | *10.0-127* | | | | |

## Method Blank (MB)

(MB) R3382078-3 02/07/19 11:35

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|---|---|---|---|---|
| Anthracene | U | | 0.000600 | 0.00600 |
| Acenaphthene | U | | 0.000600 | 0.00600 |
| Acenaphthylene | U | | 0.000600 | 0.00600 |
| Benzo(a)anthracene | U | | 0.000600 | 0.00600 |
| Benzo(a)pyrene | U | | 0.000600 | 0.00600 |
| Benzo(b)fluoranthene | U | | 0.000600 | 0.00600 |
| Benzo(g,h,i)perylene | U | | 0.000600 | 0.00600 |
| Benzo(k)fluoranthene | U | | 0.000600 | 0.00600 |
| Chrysene | U | | 0.000600 | 0.00600 |
| Dibenz(a,h)anthracene | U | | 0.000600 | 0.00600 |
| Fluoranthene | U | | 0.000600 | 0.00600 |
| Fluorene | U | | 0.000600 | 0.00600 |
| Indeno(1,2,3-cd)pyrene | U | | 0.000600 | 0.00600 |
| Naphthalene | U | | 0.00200 | 0.0200 |
| Phenanthrene | U | | 0.000600 | 0.00600 |
| Pyrene | U | | 0.000600 | 0.00600 |
| 1-Methylnaphthalene | U | | 0.00200 | 0.0200 |
| 2-Methylnaphthalene | U | | 0.00200 | 0.0200 |
| 2-Chloronaphthalene | U | | 0.00200 | 0.0200 |
| *(S) Nitrobenzene-d5* | *104* | | | *14.0-149* |
| *(S) 2-Fluorobiphenyl* | *105* | | | *34.0-125* |
| *(S) p-Terphenyl-d14* | *106* | | | *23.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382078-1 02/07/19 10:53 • (LCSD) R3382078-2 02/07/19 11:14

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Anthracene | 0.0800 | 0.0676 | 0.0667 | 84.5 | 83.4 | 50.0-126 | | | 1.34 | 20 |
| Acenaphthene | 0.0800 | 0.0621 | 0.0613 | 77.6 | 76.6 | 50.0-120 | | | 1.30 | 20 |
| Acenaphthylene | 0.0800 | 0.0666 | 0.0665 | 83.3 | 83.1 | 50.0-120 | | | 0.150 | 20 |
| Benzo(a)anthracene | 0.0800 | 0.0610 | 0.0598 | 76.3 | 74.8 | 45.0-120 | | | 1.99 | 20 |
| Benzo(a)pyrene | 0.0800 | 0.0561 | 0.0557 | 70.1 | 69.6 | 42.0-120 | | | 0.716 | 20 |
| Benzo(b)fluoranthene | 0.0800 | 0.0541 | 0.0531 | 67.6 | 66.4 | 42.0-121 | | | 1.87 | 20 |
| Benzo(g,h,i)perylene | 0.0800 | 0.0569 | 0.0566 | 71.1 | 70.8 | 45.0-125 | | | 0.529 | 20 |
| Benzo(k)fluoranthene | 0.0800 | 0.0592 | 0.0600 | 74.0 | 75.0 | 49.0-125 | | | 1.34 | 20 |
| Chrysene | 0.0800 | 0.0579 | 0.0583 | 72.4 | 72.9 | 49.0-122 | | | 0.688 | 20 |
| Dibenz(a,h)anthracene | 0.0800 | 0.0584 | 0.0581 | 73.0 | 72.6 | 47.0-125 | | | 0.515 | 20 |
| Fluoranthene | 0.0800 | 0.0613 | 0.0603 | 76.6 | 75.4 | 49.0-129 | | | 1.64 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382078-1 02/07/19 10:53 • (LCSD) R3382078-2 02/07/19 11:14

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Fluorene | 0.0800 | 0.0617 | 0.0610 | 77.1 | 76.3 | 49.0-120 | | | 1.14 | 20 |
| Indeno(1,2,3-cd)pyrene | 0.0800 | 0.0588 | 0.0583 | 73.5 | 72.9 | 46.0-125 | | | 0.854 | 20 |
| Naphthalene | 0.0800 | 0.0572 | 0.0565 | 71.5 | 70.6 | 50.0-120 | | | 1.23 | 20 |
| Phenanthrene | 0.0800 | 0.0602 | 0.0595 | 75.3 | 74.4 | 47.0-120 | | | 1.17 | 20 |
| Pyrene | 0.0800 | 0.0590 | 0.0586 | 73.8 | 73.3 | 43.0-123 | | | 0.680 | 20 |
| 1-Methylnaphthalene | 0.0800 | 0.0600 | 0.0597 | 75.0 | 74.6 | 51.0-121 | | | 0.501 | 20 |
| 2-Methylnaphthalene | 0.0800 | 0.0590 | 0.0592 | 73.8 | 74.0 | 50.0-120 | | | 0.338 | 20 |
| 2-Chloronaphthalene | 0.0800 | 0.0616 | 0.0607 | 77.0 | 75.9 | 50.0-120 | | | 1.47 | 20 |
| *(S) Nitrobenzene-d5* | | | | *88.7* | *86.1* | *14.0-149* | | | | |
| *(S) 2-Fluorobiphenyl* | | | | *84.3* | *83.9* | *34.0-125* | | | | |
| *(S) p-Terphenyl-d14* | | | | *81.2* | *81.5* | *23.0-120* | | | | |

## L1067200-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067200-01 02/07/19 16:30 • (MS) R3382078-4 02/07/19 16:51 • (MSD) R3382078-5 02/07/19 17:12

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anthracene | 0.0800 | U | 0.0619 | 0.0620 | 77.4 | 77.5 | 1 | 10.0-145 | | | 0.161 | 30 |
| Acenaphthene | 0.0800 | 0.0231 | 0.111 | 0.0234 | 110 | 0.375 | 1 | 14.0-127 | | J3 J6 | 130 | 27 |
| Acenaphthylene | 0.0800 | U | 0.121 | 0.198 | 151 | 248 | 1 | 21.0-124 | J5 | J3 J5 | 48.3 | 25 |
| Benzo(a)anthracene | 0.0800 | 0.00114 | 0.0567 | 0.0545 | 69.4 | 66.7 | 1 | 10.0-139 | | | 3.96 | 30 |
| Benzo(a)pyrene | 0.0800 | 0.00225 | 0.0568 | 0.0562 | 68.2 | 67.4 | 1 | 10.0-141 | | | 1.06 | 31 |
| Benzo(b)fluoranthene | 0.0800 | U | 0.0489 | 0.0485 | 61.1 | 60.6 | 1 | 10.0-140 | | | 0.821 | 36 |
| Benzo(g,h,i)perylene | 0.0800 | 0.00450 | 0.0515 | 0.0509 | 58.8 | 58.0 | 1 | 10.0-140 | | | 1.17 | 33 |
| Benzo(k)fluoranthene | 0.0800 | U | 0.0492 | 0.0494 | 61.5 | 61.8 | 1 | 10.0-137 | | | 0.406 | 31 |
| Chrysene | 0.0800 | 0.00201 | 0.0529 | 0.0506 | 63.6 | 60.7 | 1 | 10.0-145 | | | 4.44 | 30 |
| Dibenz(a,h)anthracene | 0.0800 | 0.000838 | 0.0510 | 0.0507 | 62.7 | 62.3 | 1 | 10.0-132 | | | 0.590 | 31 |
| Fluoranthene | 0.0800 | 0.00196 | 0.0531 | 0.0522 | 63.9 | 62.8 | 1 | 10.0-153 | | | 1.71 | 33 |
| Fluorene | 0.0800 | 0.108 | 0.144 | 0.178 | 45.0 | 87.5 | 1 | 11.0-130 | | | 21.1 | 29 |
| Indeno(1,2,3-cd)pyrene | 0.0800 | 0.00147 | 0.0515 | 0.0506 | 62.5 | 61.4 | 1 | 10.0-137 | | | 1.76 | 32 |
| Naphthalene | 0.0800 | U | 1.43 | 1.59 | 1790 | 1990 | 1 | 10.0-135 | J5 | J5 | 10.6 | 27 |
| Phenanthrene | 0.0800 | U | 0.0676 | 0.0700 | 84.5 | 87.5 | 1 | 10.0-144 | | | 3.49 | 31 |
| Pyrene | 0.0800 | 0.00557 | 0.0571 | 0.0554 | 64.4 | 62.3 | 1 | 10.0-148 | | | 3.02 | 35 |
| 1-Methylnaphthalene | 0.0800 | 1.61 | 1.51 | 1.74 | 0.000 | 163 | 1 | 10.0-142 | V | V | 14.2 | 28 |
| 2-Methylnaphthalene | 0.0800 | 3.28 | 2.88 | 3.51 | 0.000 | 288 | 1 | 10.0-137 | V | V | 19.7 | 28 |
| 2-Chloronaphthalene | 0.0800 | U | 0.0298 | 0.0340 | 37.3 | 42.5 | 1 | 29.0-120 | | | 13.2 | 24 |
| *(S) Nitrobenzene-d5* | | | | | *1630* | *2190* | | *14.0-149* | J1 | J1 | | |
| *(S) 2-Fluorobiphenyl* | | | | | *103* | *109* | | *34.0-125* | | | | |
| *(S) p-Terphenyl-d14* | | | | | *71.5* | *71.9* | | *23.0-120* | | | | |

## L1067200-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067200-01 02/07/19 16:30 • (MS) R3382078-4 02/07/19 16:51 • (MSD) R3382078-5 02/07/19 17:12

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

Sample Narrative:

OS: Surrogate failure due to matrix interference

## Method Blank (MB)

(MB) R3382123-3 02/07/19 22:13

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|---|---|---|---|---|
| Anthracene | U | | 0.000600 | 0.00600 |
| Acenaphthene | U | | 0.000600 | 0.00600 |
| Acenaphthylene | U | | 0.000600 | 0.00600 |
| Benzo(a)anthracene | U | | 0.000600 | 0.00600 |
| Benzo(a)pyrene | U | | 0.000600 | 0.00600 |
| Benzo(b)fluoranthene | U | | 0.000600 | 0.00600 |
| Benzo(g,h,i)perylene | U | | 0.000600 | 0.00600 |
| Benzo(k)fluoranthene | U | | 0.000600 | 0.00600 |
| Chrysene | U | | 0.000600 | 0.00600 |
| Dibenz(a,h)anthracene | U | | 0.000600 | 0.00600 |
| Fluoranthene | U | | 0.000600 | 0.00600 |
| Fluorene | U | | 0.000600 | 0.00600 |
| Indeno(1,2,3-cd)pyrene | U | | 0.000600 | 0.00600 |
| Naphthalene | U | | 0.00200 | 0.0200 |
| Phenanthrene | U | | 0.000600 | 0.00600 |
| Pyrene | U | | 0.000600 | 0.00600 |
| 1-Methylnaphthalene | U | | 0.00200 | 0.0200 |
| 2-Methylnaphthalene | U | | 0.00200 | 0.0200 |
| 2-Chloronaphthalene | U | | 0.00200 | 0.0200 |
| *(S) Nitrobenzene-d5* | *87.8* | | | *14.0-149* |
| *(S) 2-Fluorobiphenyl* | *89.8* | | | *34.0-125* |
| *(S) p-Terphenyl-d14* | *83.7* | | | *23.0-120* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382123-1 02/07/19 21:29 • (LCSD) R3382123-2 02/07/19 21:51

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Anthracene | 0.0800 | 0.0648 | 0.0636 | 81.0 | 79.5 | 50.0-126 | | | 1.87 | 20 |
| Acenaphthene | 0.0800 | 0.0610 | 0.0604 | 76.3 | 75.5 | 50.0-120 | | | 0.988 | 20 |
| Acenaphthylene | 0.0800 | 0.0619 | 0.0615 | 77.4 | 76.9 | 50.0-120 | | | 0.648 | 20 |
| Benzo(a)anthracene | 0.0800 | 0.0631 | 0.0627 | 78.9 | 78.4 | 45.0-120 | | | 0.636 | 20 |
| Benzo(a)pyrene | 0.0800 | 0.0584 | 0.0596 | 73.0 | 74.5 | 42.0-120 | | | 2.03 | 20 |
| Benzo(b)fluoranthene | 0.0800 | 0.0595 | 0.0605 | 74.4 | 75.6 | 42.0-121 | | | 1.67 | 20 |
| Benzo(g,h,i)perylene | 0.0800 | 0.0593 | 0.0595 | 74.1 | 74.4 | 45.0-125 | | | 0.337 | 20 |
| Benzo(k)fluoranthene | 0.0800 | 0.0657 | 0.0653 | 82.1 | 81.6 | 49.0-125 | | | 0.611 | 20 |
| Chrysene | 0.0800 | 0.0632 | 0.0635 | 79.0 | 79.4 | 49.0-122 | | | 0.474 | 20 |
| Dibenz(a,h)anthracene | 0.0800 | 0.0636 | 0.0639 | 79.5 | 79.9 | 47.0-125 | | | 0.471 | 20 |
| Fluoranthene | 0.0800 | 0.0736 | 0.0716 | 92.0 | 89.5 | 49.0-129 | | | 2.75 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3382123-1 02/07/19 21:29 • (LCSD) R3382123-2 02/07/19 21:51

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Fluorene | 0.0800 | 0.0612 | 0.0611 | 76.5 | 76.4 | 49.0-120 | | | 0.164 | 20 |
| Indeno(1,2,3-cd)pyrene | 0.0800 | 0.0595 | 0.0599 | 74.4 | 74.9 | 46.0-125 | | | 0.670 | 20 |
| Naphthalene | 0.0800 | 0.0674 | 0.0657 | 84.3 | 82.1 | 50.0-120 | | | 2.55 | 20 |
| Phenanthrene | 0.0800 | 0.0625 | 0.0608 | 78.1 | 76.0 | 47.0-120 | | | 2.76 | 20 |
| Pyrene | 0.0800 | 0.0586 | 0.0581 | 73.3 | 72.6 | 43.0-123 | | | 0.857 | 20 |
| 1-Methylnaphthalene | 0.0800 | 0.0698 | 0.0694 | 87.3 | 86.8 | 51.0-121 | | | 0.575 | 20 |
| 2-Methylnaphthalene | 0.0800 | 0.0691 | 0.0682 | 86.4 | 85.3 | 50.0-120 | | | 1.31 | 20 |
| 2-Chloronaphthalene | 0.0800 | 0.0618 | 0.0617 | 77.3 | 77.1 | 50.0-120 | | | 0.162 | 20 |
| *(S) Nitrobenzene-d5* | | | | *87.4* | *84.4* | *14.0-149* | | | | |
| *(S) 2-Fluorobiphenyl* | | | | *85.5* | *85.7* | *34.0-125* | | | | |
| *(S) p-Terphenyl-d14* | | | | *79.7* | *79.3* | *23.0-120* | | | | |

## L1067615-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1067615-01 02/07/19 22:35 • (MS) R3382123-4 02/07/19 22:57 • (MSD) R3382123-5 02/07/19 23:19

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anthracene | 0.0800 | ND | 0.0492 | 0.0454 | 61.5 | 58.2 | 1 | 10.0-145 | | | 8.03 | 30 |
| Acenaphthene | 0.0800 | ND | 0.0469 | 0.0432 | 58.6 | 55.4 | 1 | 14.0-127 | | | 8.21 | 27 |
| Acenaphthylene | 0.0800 | ND | 0.0479 | 0.0438 | 59.9 | 56.2 | 1 | 21.0-124 | | | 8.94 | 25 |
| Benzo(a)anthracene | 0.0800 | ND | 0.0465 | 0.0418 | 58.1 | 53.6 | 1 | 10.0-139 | | | 10.6 | 30 |
| Benzo(a)pyrene | 0.0800 | ND | 0.0484 | 0.0430 | 60.5 | 55.1 | 1 | 10.0-141 | | | 11.8 | 31 |
| Benzo(b)fluoranthene | 0.0800 | ND | 0.0441 | 0.0405 | 55.1 | 51.9 | 1 | 10.0-140 | | | 8.51 | 36 |
| Benzo(g,h,i)perylene | 0.0800 | ND | 0.0452 | 0.0396 | 56.5 | 50.8 | 1 | 10.0-140 | | | 13.2 | 33 |
| Benzo(k)fluoranthene | 0.0800 | ND | 0.0500 | 0.0430 | 62.5 | 55.1 | 1 | 10.0-137 | | | 15.1 | 31 |
| Chrysene | 0.0800 | ND | 0.0492 | 0.0436 | 61.5 | 55.9 | 1 | 10.0-145 | | | 12.1 | 30 |
| Dibenz(a,h)anthracene | 0.0800 | ND | 0.0494 | 0.0426 | 61.8 | 54.6 | 1 | 10.0-132 | | | 14.8 | 31 |
| Fluoranthene | 0.0800 | ND | 0.0521 | 0.0483 | 65.1 | 61.9 | 1 | 10.0-153 | | | 7.57 | 33 |
| Fluorene | 0.0800 | ND | 0.0464 | 0.0425 | 58.0 | 54.5 | 1 | 11.0-130 | | | 8.77 | 29 |
| Indeno(1,2,3-cd)pyrene | 0.0800 | ND | 0.0450 | 0.0394 | 56.3 | 50.5 | 1 | 10.0-137 | | | 13.3 | 32 |
| Naphthalene | 0.0800 | ND | 0.0549 | 0.0503 | 68.6 | 64.5 | 1 | 10.0-135 | | | 8.75 | 27 |
| Phenanthrene | 0.0800 | ND | 0.0451 | 0.0418 | 56.4 | 53.6 | 1 | 10.0-144 | | | 7.59 | 31 |
| Pyrene | 0.0800 | ND | 0.0419 | 0.0386 | 52.4 | 49.5 | 1 | 10.0-148 | | | 8.20 | 35 |
| 1-Methylnaphthalene | 0.0800 | ND | 0.0557 | 0.0508 | 69.6 | 65.1 | 1 | 10.0-142 | | | 9.20 | 28 |
| 2-Methylnaphthalene | 0.0800 | ND | 0.0549 | 0.0504 | 68.6 | 64.6 | 1 | 10.0-137 | | | 8.55 | 28 |
| 2-Chloronaphthalene | 0.0800 | ND | 0.0487 | 0.0445 | 60.9 | 57.1 | 1 | 29.0-120 | | | 9.01 | 24 |
| *(S) Nitrobenzene-d5* | | | | | *79.5* | *67.8* | | *14.0-149* | | | | |
| *(S) 2-Fluorobiphenyl* | | | | | *78.1* | *66.1* | | *34.0-125* | | | | |
| *(S) p-Terphenyl-d14* | | | | | *67.6* | *56.9* | | *23.0-120* | | | | |

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

## Abbreviations and Definitions

| | |
|---|---|
| (dry) | Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils]. |
| MDL | Method Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J1 | Surrogate recovery limits have been exceeded; values are outside upper control limits. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| J5 | The sample matrix interfered with the ability to make any accurate determination; spike value is high. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

# ACCREDITATIONS & LOCATIONS



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN-03-2002-34 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | n/a |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO00356 |
| Kentucky [1 6] | 90010 | South Carolina | 84004 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana [1] | LA180010 | Texas | T104704245-18-15 |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN00003 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 460132 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |

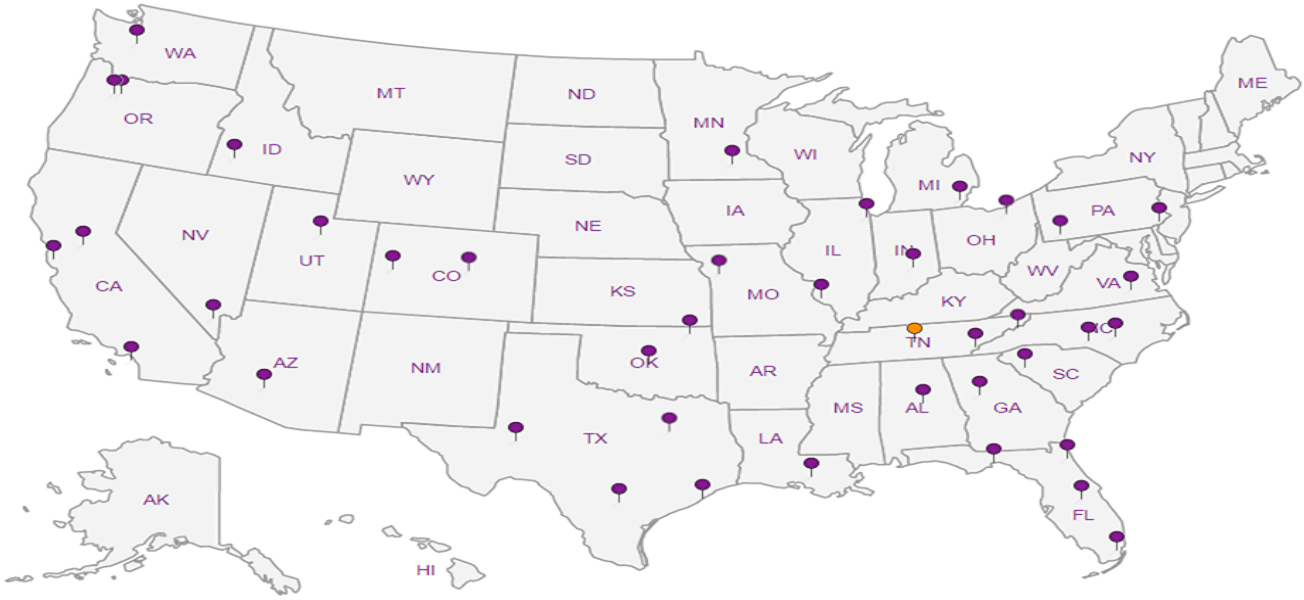
## Third Party Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Foundation Systems Engineering
102 W. Holston Ave.
Johnson City, TN 37604

Billing information: Same

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Nick Cross

Email To: NCROSS@FSEPC.COM

Project Description: Kingsport Stadium

City/State Collected:

Phone: 423-239-9226
Fax:

Client Project #

Lab Project #

L# 1067034

F141

Collected by (print): Nick Cross

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

**Rush?** (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | VOCS 8260 | SVOCS 8270 | PAHS | EPH | | | | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TP-17 | Grab | SS | 8-11' | 2/1/19 | 1030 | 1 | X | X | X | X | | | | | | | 01 |
| TP-17 | ↓ | ↓ | 2-4' | ↓ | 1000 | 1 | X | X | X | X | | | | | | | 02 |

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

RAD SCREEN: <0.5 mR/hr

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | If preservation required by Login: Date/Time |
|---|---|---|---|---|---|
| Nick Cross | 2/5/19 | 1025 | [signature] | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C 0.7+0.1-0.8=2 Bottles Received: 2 | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 02/06/19 Time: 08:45 | Hold: Condition: NCF / OK |

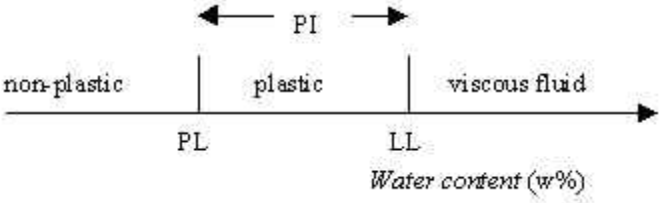
## ATTERBERG LIMITS — ASTM D4318-10

The objective of the Atterberg limits test is to obtain basic index information about the soil used to estimate strength and settlement characteristics. It is the primary form of classification for cohesive soils.

Fine-grained soil is tested to determine the liquid and plastic limits, which are moisture contents that define boundaries between material consistency states. These standardized tests produce comparable numbers used for soil identification, classification and correlations to strength.

The liquid (LL) and plastic (PL) limits define the water content boundaries between non-plastic, plastic and viscous fluid states. The plasticity index (PI) defines the complete range of plastic state. Figure 1 illustrates it nicely.

Figure 1: Atterberg limits illustration.




Liquid Limit (LL)

The liquid limit defines the boundary between plastic and viscous fluid states. It is determined using a standard "Liquid Limit Device," which drops a shallow cupfull of soil 1 cm consistently. When a groove cut through the sample closes 1/2", the number of drops is recorded and a moisture content sample processed.

Repeating the procedure for a total of four drop-count ranges provides enough data to plot on a semi-log scale. From the plot, the moisture content at 25 drops defines the Liquid Limit.

Plastic Limit (PL)

The plastic limit defines the boundary between non-plastic and plastic states. It is determined simply by rolling a thread of soil and adjusting the moisture content until it breaks at 1/8 inch diameter.

# TEST DESCRIPTIONS

## STANDARD PENETRATION TEST (SPT) — ASTM D1586-11

This test uses a thick-walled sample tube, with an outside diameter of 2 inches, an inside diameter of 1 3/8 inches, and a length of around 32 inches. This tube is driven into the ground at the bottom of a borehole by blows from a slide hammer with a weight of 140 lb falling through a distance of 30 in. The sample tube is driven into the ground and then the number of blows needed for the tube to penetrate each 6 inch increment up to a depth of 18 inches is recorded. The sum of the number of blows required for the second and third 6 inches of penetration is termed the "standard penetration resistance" or the "N-value".

In cases where 50 blows are insufficient to advance it through a 6 inch interval the penetration after 50 blows is recorded. The blow count provides an indication of the soil consistency and can be correlated to the bearing capacity of the soil.

## UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) — ASTM D2487

The Unified Soil Classification System (USCS) is a nationally recognized standard for classifying soils in accordance with their engineering properties. The parameters considered in this system are:

- Particle Size
- Water Holding and Plasticity
- Organic Content

The system identifies three major soil divisions; coarse-grained soils, fine-grained soils, and highly organic soils. These three divisions are further subdivided into a total of 15 basic soil groups. Based on the results of visual observations and prescribed laboratory tests, the soil is cataloged into basic soil groups, which include variations of gravel, sands, silty, clays and highly organic soils.

# GENERAL NOTES

## WATER LEVEL MEASUREMENT:

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levelsat other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soil, the accurate determination of groundwater levels may not be suitable with only short-term observations.

## DESCRIPTIVE SOIL CLASSIFICATION:

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine grained soils on the basis of their consistency.

**CONSISTENCY OF FINE-GRAINED SOILS**

| Unconfined Compressive Strength. Qu, psf | Standard Penetration or N-value (55) Blows/Ft. | Consistency |
|---|---|---|
| < 500 | 0 - 1 | Very Soft |
| 500-1,000 | 2 - 4 | Soft |
| 1,000 - 2,000 | 4 - 8 | Medium Stiff |
| 2,000 - 4,000 | 8 - 15 | Stiff |
| 4,000 - 8,000 | 15 - 30 | Very Stiff |
| 8,000+ | > 30 | Hard |

**RELATIVE DENSITY OF COARSE-GRAINED SOILS**

| Standard Penetration or N-value (SS) Blows/Ft. | Relative Density |
|---|---|
| 0 - 3 | Very Loose |
| 4 - 9 | Loose |
| 10 - 29 | Medium Dense |
| 30 - 50 | Dense |
| >50 | Very Dense |

**RELATIVE PROPORTIONS OF SAND AND GRAVEL**

| Descriptive Term(s) of other constituents | Percent of Dry Weight |
|---|---|
| Trace | < 15 |
| With | 15 - 29 |
| Modifier | 30 |

**GRAIN SIZE TERMINOLOGY**

| Major Component of Sample | Particle Size |
|---|---|
| Boulders | Over 12 in. (300mm) |
| Cobbles | 12 in. to 3 in. (300mm to 75mm) |
| Gravel | 3 in. to #4 sieve (75mm to 4.75mm) |
| Sand | #4 to #200 sieve (4.75 to 0.075mm) |
| Silt or Clay | Passing #200 Sieve (0.075mm) |

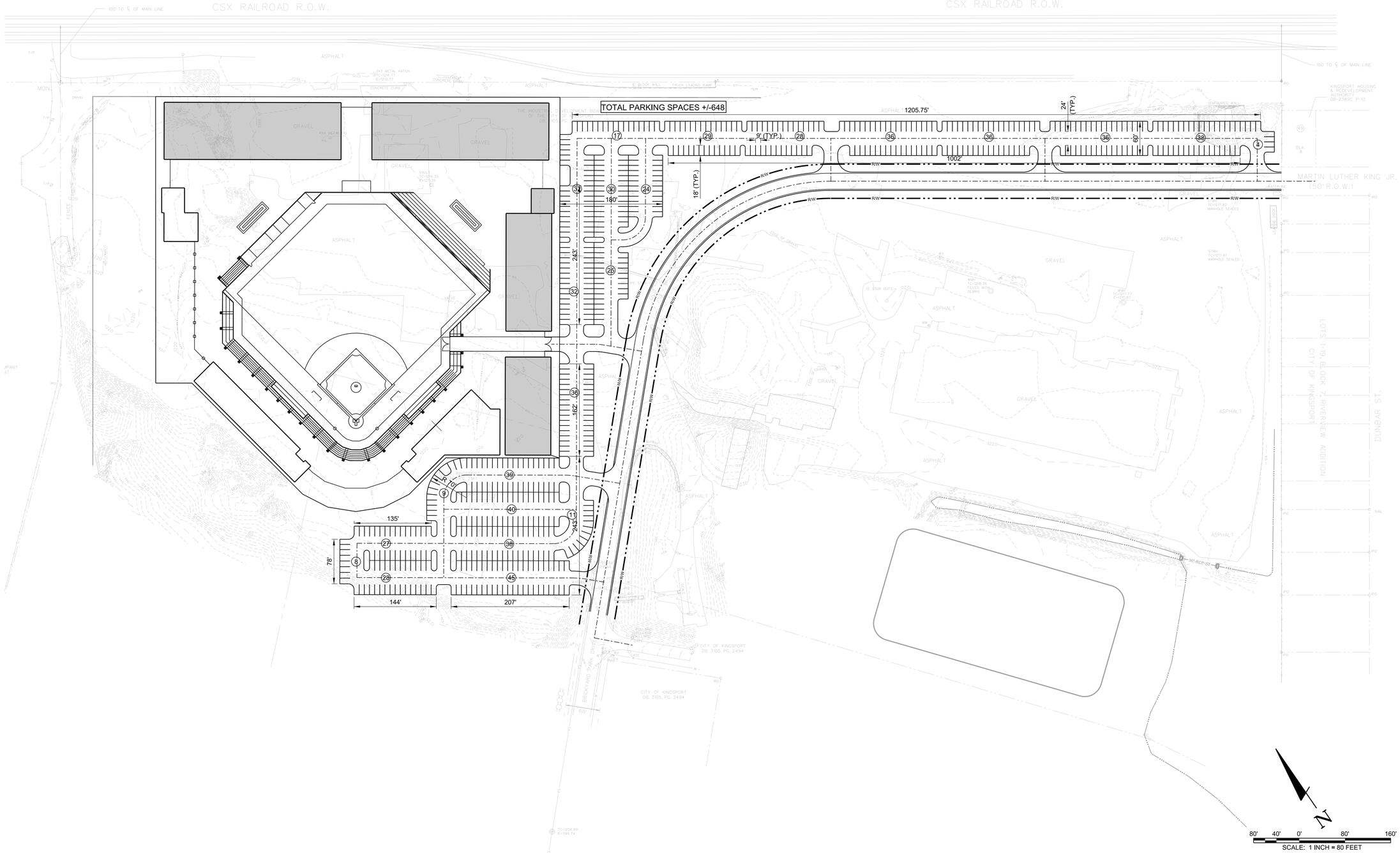
**RELATIVE PROPORTIONS OF FINES**

| Descriptive Term(s) of other constituents | Percent of Dry Weight |
|---|---|
| Trace | <5 |
| With | 5 -12 |
| Modifier | > 12 |

**PLASTICITY DESCRIPTION**

| Term | Plasticity Index |
|---|---|
| Non-plastic | 0 |
| Low | 1 - 10 |
| Medium | 11 - 30 |
| High | > 30 |

Exhibit #2




BARGE DESIGN SOLUTIONS

Four Sheffield Square // Suite 100 // Kingsport, Tennessee 37660
PHONE (423) 247-5020 // FAX (423) 247-6233

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE

# OVERALL SITE PLAN

STERLING PROJECT DEVELOPMENT
KINGSPORT METS STADIUM
KINGSPORT, TENNESSEE

| REV. | DR. | CHK. | REVISION INFORMATION DATE | DESCRIPTION |
|---|---|---|---|---|

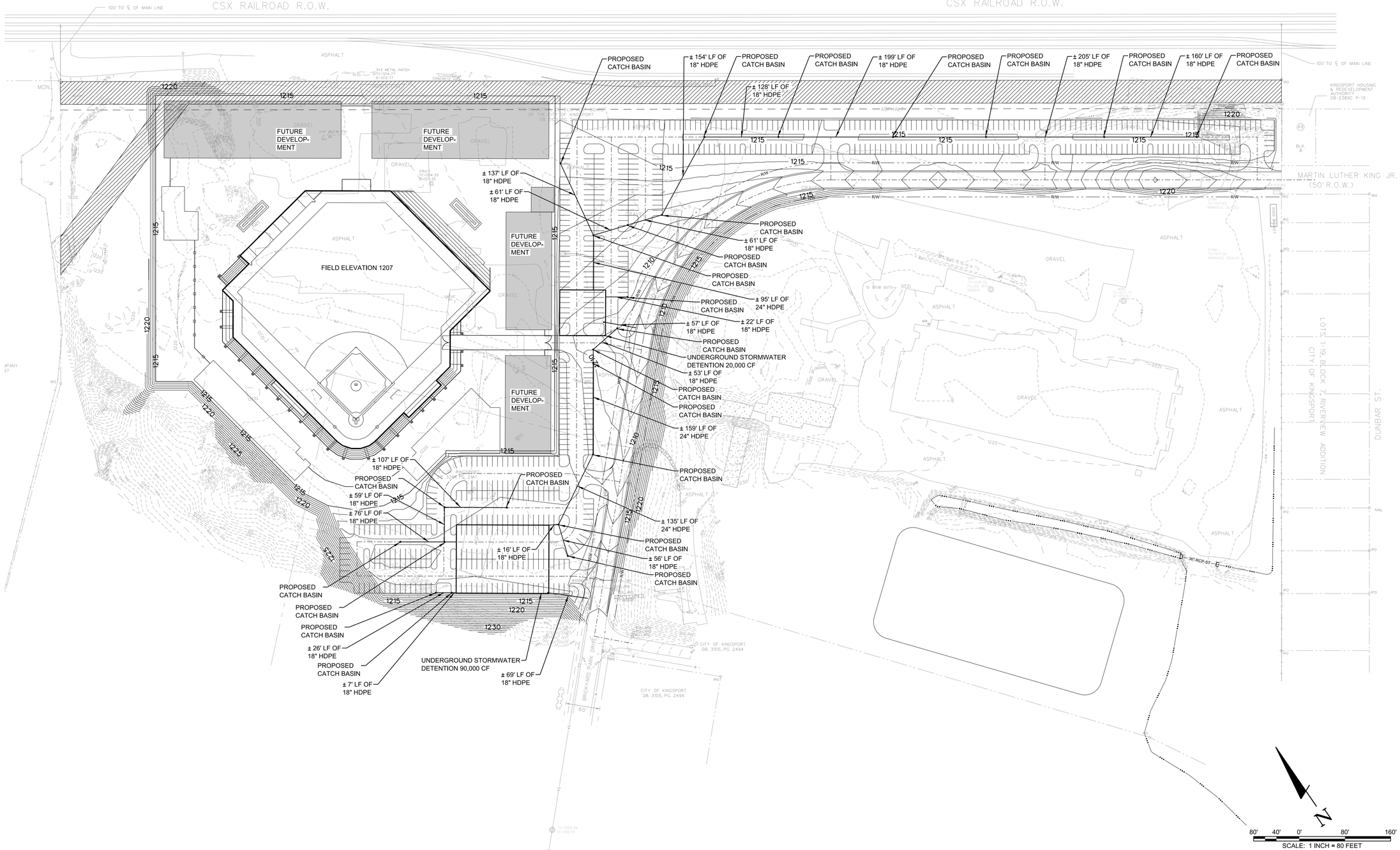
C1.01

FILE NO. 3700700

© Copyright 2019, Barge Design Solutions, Inc. ALL RIGHTS RESERVED

F:\37\37007\3700700\04_CAD\CIVL\PLOT\3700700_C101.dgn

3/14/2019
4:59:40 PM
JFFerraz
LandRes.pen Workspace: LandRes




BARGE DESIGN SOLUTIONS

Four Sheffield Square // Suite 100 // Kingsport, Tennessee 37660
PHONE (423) 247-5020 // FAX (423) 247-6233

PRELIMINARY NOT FOR CONSTRUCTION

DATE

# OVERALL GRADING & DRAINAGE PLAN

STERLING PROJECT DEVELOPMENT
KINGSPORT METS STADIUM
KINGSPORT, TENNESSEE

| REV. | DR. | CHK. | REVISION INFORMATION DATE | DESCRIPTION |
|---|---|---|---|---|

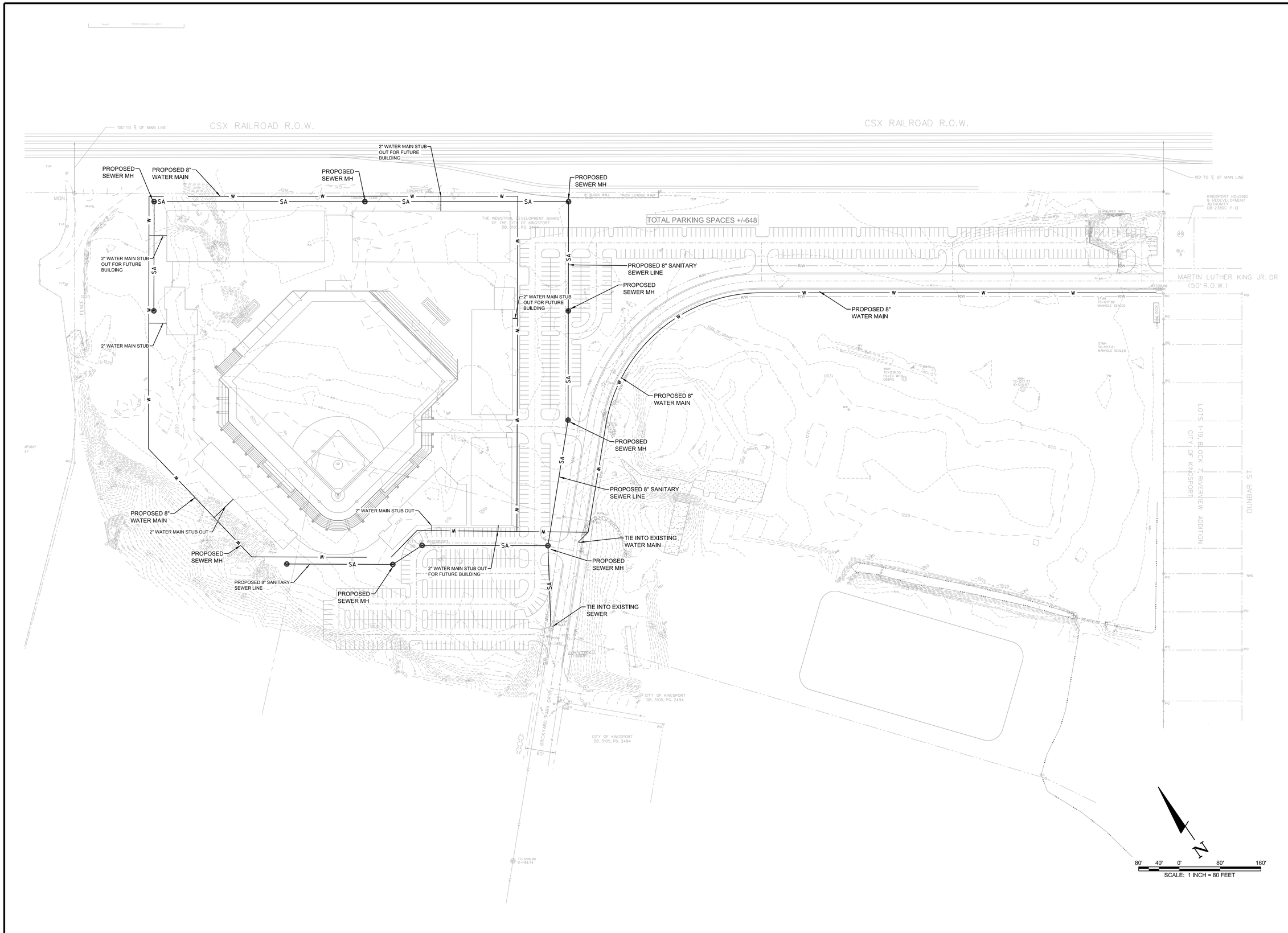
C2.00

FILE NO. 3700700

3/14/2019
4:43:09 PM
JAHaynes
LandRes.pen Workspace: LandRes

F:\37\37007\3700700\04_CAD\CIVL\PLOT\3700700_C200.dgn

© Copyright 2019, Barge Design Solutions, Inc. ALL RIGHTS RESERVED




BARGE DESIGN SOLUTIONS

Four Sherlton Square // Suite 100 // Kingsport, Tennessee 37660
PHONE (423) 247-5220 // FAX (423) 247-6233

PRELIMINARY NOT FOR CONSTRUCTION

DATE

# WATER & SEWER PLAN

STERLING PROJECT DEVELOPMENT

# KINGSPORT METS STADIUM

KINGSPORT, TENNESSEE

| REV. | DR. | CHK. | REVISION INFORMATION DATE | DESCRIPTION |
|---|---|---|---|---|

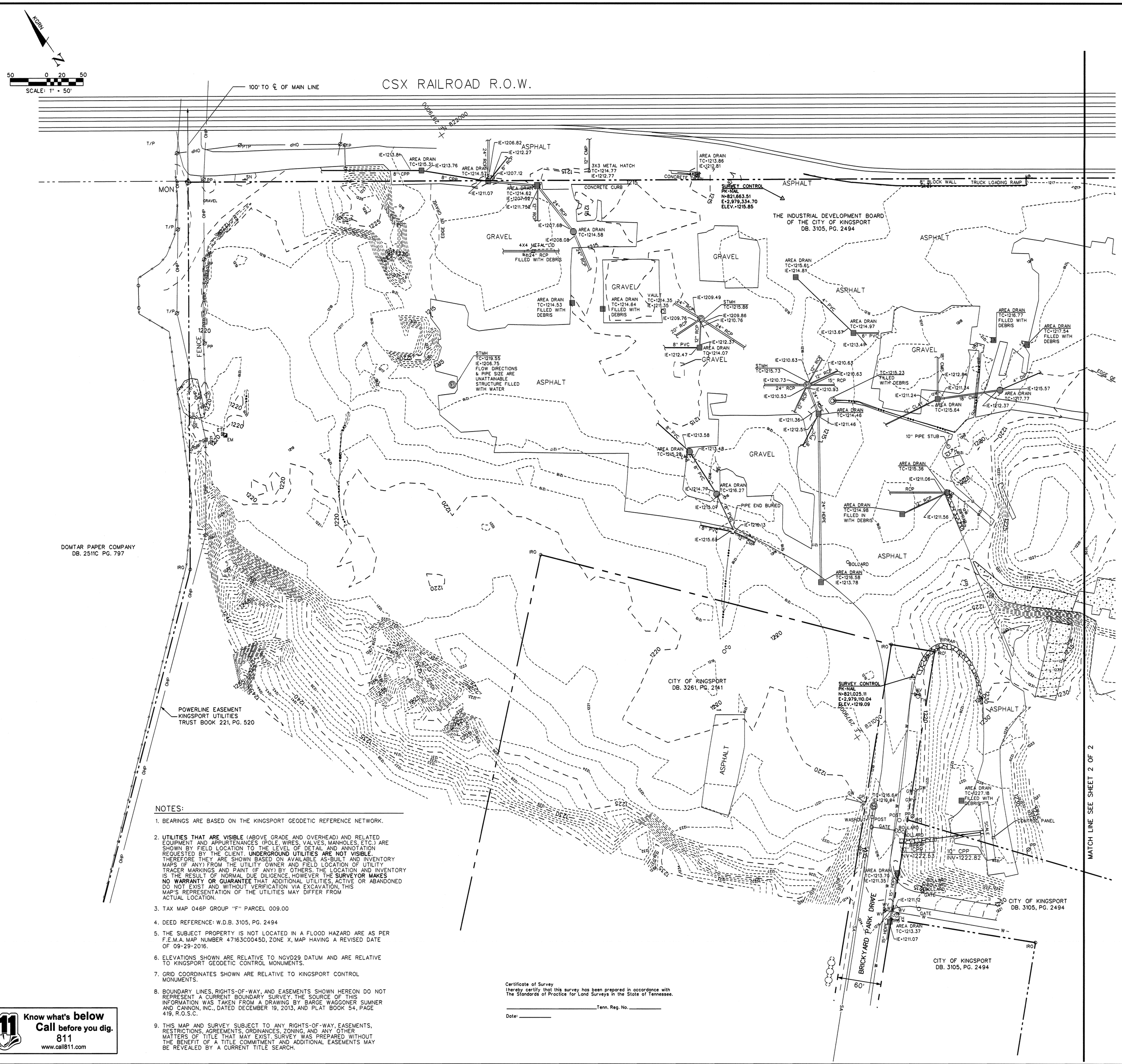
C3.01

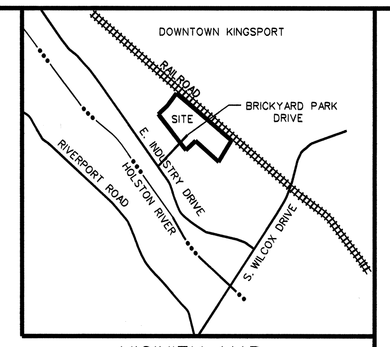
FILE NO. 3700700

© Copyright 2019, Barge Design Solutions, Inc. ALL RIGHTS RESERVED

F:\37\37007\3700700\04_CAD\CIVL\PLOT\3700700_C301.dgn

3/14/2019
4:38:50 PM
Bluebeam PDF
TWGross
LandRes.pen Workspace: LandRes




VICINITY MAP
NOT TO SCALE

**LEGEND**

| | |
|---|---|
| ISN | Iron Spike Set |
| AI | Angle Iron Found |
| PKO | PK Nail Found |
| IRO | Iron Rod Found |
| IRN | Iron Rod Set |
| AC | AC Unit |
| PTP | Power/Tel Pole |
| PP | Power Pole |
| GP | Guy Pole |
| LP | Light Pole |
| GW | Guy Wire |
| | Landscape Lamp |
| MB | Mail Box |
| WM | Water Meter |
| GV | Gas Valve |
| WV | Water Valve |
| FH | Fire Hydrant |
| SN | Sign |
| CO | Clean Out |
| MW | Monitoring Well |
| SS | Sanitary ManHole |
| ST | Storm ManHole |
| WMH | Water ManHole |
| | Concrete |
| GM | Gas Meter |
| SA | Underground Sanitary Sewer |
| ST | Underground Storm Line |
| UGP | Underground Power |
| UGT | Underground Telephone |
| G | Underground Gasline |
| OHPT | Overhead Power/Telephone Line |
| OHP | Overhead Power Line |
| | Ditch |
| | Property Line |
| (N05°58'E-200.00') | Plat Call |
| N05°58'00"E-200.00' | Field Location |
| IE | Invert Elevation |
| RCP | Reinforced Concrete Pipe |
| PVC | Polyvinyl Chloride Pipe |
| CMP | Corrugated Metal Pipe |
| HDPE | High Density Polyethylene |
| DIP | Ductile Iron Pipe |

NOTES:

1. BEARINGS ARE BASED ON THE KINGSPORT GEODETIC REFERENCE NETWORK.
2. **UTILITIES THAT ARE VISIBLE** (ABOVE GRADE AND OVERHEAD) AND RELATED EQUIPMENT AND APPURTENANCES (POLE, WIRES, VALVES, MANHOLES, ETC.) ARE SHOWN BY FIELD LOCATION TO THE LEVEL OF DETAIL AND ANNOTATION REQUESTED BY THE CLIENT. **UNDERGROUND UTILITIES ARE NOT VISIBLE.** THEREFORE THEY ARE SHOWN BASED ON AVAILABLE AS-BUILT AND INVENTORY MAPS (IF ANY) FROM THE UTILITY OWNER AND FIELD LOCATION OF UTILITY TRACER MARKINGS AND PAINT (IF ANY) BY OTHERS. THE LOCATION AND INVENTORY IS THE RESULT OF NORMAL DUE DILIGENCE, HOWEVER THE **SURVEYOR MAKES NO WARRANTY OR GUARANTEE** THAT ADDITIONAL UTILITIES, ACTIVE OR ABANDONED DO NOT EXIST AND WITHOUT VERIFICATION VIA EXCAVATION, THIS MAP'S REPRESENTATION OF THE UTILITIES MAY DIFFER FROM ACTUAL LOCATION.
3. TAX MAP 046P GROUP "F" PARCEL 009.00
4. DEED REFERENCE: W.D.B. 3105, PG. 2494
5. THE SUBJECT PROPERTY IS NOT LOCATED IN A FLOOD HAZARD ARE AS PER F.E.M.A. MAP NUMBER 47163C0045D, ZONE X, MAP HAVING A REVISED DATE OF 09-29-2016.
6. ELEVATIONS SHOWN ARE RELATIVE TO NGVD29 DATUM AND ARE RELATIVE TO KINGSPORT GEODETIC CONTROL MONUMENTS.
7. GRID COORDINATES SHOWN ARE RELATIVE TO KINGSPORT CONTROL MONUMENTS.
8. BOUNDARY LINES, RIGHTS-OF-WAY, AND EASEMENTS SHOWN HEREON DO NOT REPRESENT A CURRENT BOUNDARY SURVEY. THE SOURCE OF THIS INFORMATION WAS TAKEN FROM A DRAWING BY BARGE WAGGONER SUMNER AND CANNON, INC., DATED DECEMBER 19, 2013, AND PLAT BOOK 54, PAGE 419, R.O.S.C.
9. THIS MAP AND SURVEY SUBJECT TO ANY RIGHTS-OF-WAY, EASEMENTS, RESTRICTIONS, AGREEMENTS, ORDINANCES, ZONING, AND ANY OTHER MATTERS OF TITLE THAT MAY EXIST. SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND ADDITIONAL EASEMENTS MAY BE REVEALED BY A CURRENT TITLE SEARCH.

Certificate of Survey
I hereby certify that this survey has been prepared in accordance with The Standards of Practice for Land Surveys in the State of Tennessee.

_____ Tenn. Reg. No. _____

Date: _____

811 Know what's **below** Call **before you dig.** 811 www.call811.com

PREPARED FOR:
STERLING PROJECT DEVELOPMENT
123-01 ROOSEVELT AVENUE
FLUSHING, NEW YORK 11368


BARGE DESIGN SOLUTIONS
Four Sheridan Square | Suite 100 | Kingsport, Tennessee 37660
Phone: (423) 245-0800 | Fax: (423) 245-0801


DAVID B. HILL
REGISTERED LAND SURVEYOR
AGRICULTURE
COMMERCE
TENNESSEE NO. 2634

# TOPOGRAPHIC SURVEY

# BRICKYARD PARK - EXISTING CONDITIONS

CITY OF KINGSPORT, TENNESSEE
11TH CIVIL DISTRICT OF SULLIVAN COUNTY, TENNESSEE

| REV. | DR. | CHK. | DATE | REVISION INFORMATION DESCRIPTION |
|---|---|---|---|---|
| | ABW | DBH | 01-28-2019 | ISSUED FOR REVIEW |

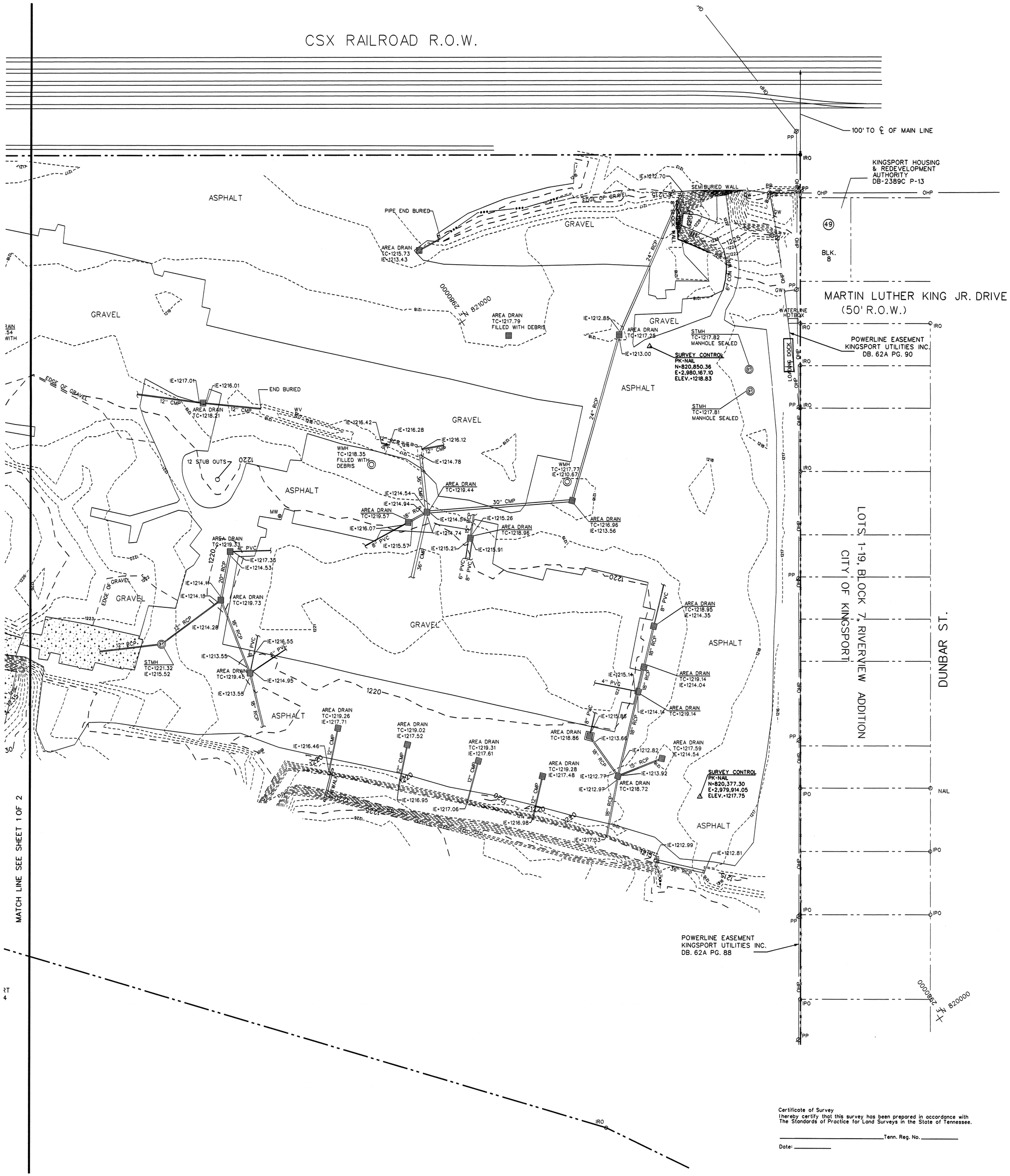
1 of 2

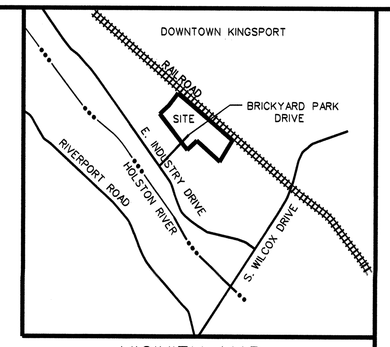
FILE NO. 37007-00

© Copyright 2019, Barge Design Solutions, Inc. ALL RIGHTS RESERVED

2/7/2019
12:51:25 PM
DBHill
LandRes.pen Workspace: LandRes

F:\37\37007\3700700\04_CAD\SURV\Plot\3700700vsp_sht1.dgn




VICINITY MAP
NOT TO SCALE

**LEGEND**

| | |
|---|---|
| ISN | Iron Spike Set |
| AI | Angle Iron Found |
| PKO | PK Nail Found |
| IRO | Iron Rod Found |
| IRN | Iron Rod Set |
| AC | AC Unit |
| PTP | Power/Tel Pole |
| PP | Power Pole |
| GP | Guy Pole |
| LP | Light Pole |
| GW | Guy Wire |
| | Landscape Lamp |
| MB | Mail Box |
| WM | Water Meter |
| GV | Gas Valve |
| WV | Water Valve |
| FH | Fire Hydrant |
| SN | Sign |
| CO | Clean Out |
| MW | Monitoring Well |
| | Sanitary ManHole |
| | Storm ManHole |
| WMH | Water ManHole |
| | Concrete |
| GM | Gas Meter |
| SA | Underground Sanitary Sewer |
| ST | Underground Storm Line |
| UGP | Underground Power |
| UGT | Underground Telephone |
| G | Underground Gasline |
| OHPT | Overhead Power/Telephone Line |
| OHP | Overhead Power Line |
| | Ditch |
| | Property Line |
| (N05°58'E-200.00') | Plat Call |
| N05° 58'00"E-200.00' | Field Location |
| IE | Invert Elevation |
| RCP | Reinforced Concrete Pipe |
| PVC | Polyvinyl Chloride Pipe |
| CMP | Corrugated Metal Pipe |
| HDPE | High Density Polyethylene |
| DIP | Ductile Iron Pipe |

NOTES:

1. BEARINGS ARE BASED ON THE KINGSPORT GEODETIC REFERENCE NETWORK.
2. **UTILITIES THAT ARE VISIBLE** (ABOVE GRADE AND OVERHEAD) AND RELATED EQUIPMENT AND APPURTENANCES (POLE, WIRES, VALVES, MANHOLES, ETC.) ARE SHOWN BY FIELD LOCATION TO THE LEVEL OF DETAIL AND ANNOTATION REQUESTED BY THE CLIENT. **UNDERGROUND UTILITIES ARE NOT VISIBLE**. THEREFORE THEY ARE SHOWN BASED ON AVAILABLE AS-BUILT AND INVENTORY MAPS (IF ANY) FROM THE UTILITY OWNER AND FIELD LOCATION OF UTILITY TRACER MARKINGS AND PAINT (IF ANY) BY OTHERS. THE LOCATION AND INVENTORY IS THE RESULT OF NORMAL DUE DILIGENCE, HOWEVER THE **SURVEYOR MAKES NO WARRANTY OR GUARANTEE** THAT ADDITIONAL UTILITIES, ACTIVE OR ABANDONED DO NOT EXIST AND WITHOUT VERIFICATION VIA EXCAVATION, THIS MAP'S REPRESENTATION OF THE UTILITIES MAY DIFFER FROM ACTUAL LOCATION.
3. TAX MAP 046P GROUP "F" PARCEL 009.00
4. DEED REFERENCE: W.D.B. 3105, PG. 2494
5. THE SUBJECT PROPERTY IS NOT LOCATED IN A FLOOD HAZARD ARE AS PER F.E.M.A. MAP NUMBER 47163C0045D, ZONE X, MAP HAVING A REVISED DATE OF 09-29-2016.
6. ELEVATIONS SHOWN ARE RELATIVE TO NGVD29 DATUM AND ARE RELATIVE TO KINGSPORT GEODETIC CONTROL MONUMENTS.
7. GRID COORDINATES SHOWN ARE RELATIVE TO KINGSPORT CONTROL MONUMENTS.
8. BOUNDARY LINES, RIGHTS-OF-WAY, AND EASEMENTS SHOWN HEREON DO NOT REPRESENT A CURRENT BOUNDARY SURVEY. THE SOURCE OF THIS INFORMATION WAS TAKEN FROM A DRAWING BY BARGE WAGGONER SUMNER AND CANNON, INC., DATED DECEMBER 19, 2013, AND PLAT BOOK 54, PAGE 419, R.O.S.C.
9. THIS MAP AND SURVEY SUBJECT TO ANY RIGHTS-OF-WAY, EASEMENTS, RESTRICTIONS, AGREEMENTS, ORDINANCES, ZONING, AND ANY OTHER MATTERS OF TITLE THAT MAY EXIST. SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND ADDITIONAL EASEMENTS MAY BE REVEALED BY A CURRENT TITLE SEARCH.

Certificate of Survey
I hereby certify that this survey has been prepared in accordance with The Standards of Practice for Land Surveys in the State of Tennessee.

_____ Tenn. Reg. No. _____

Date: _____

PREPARED FOR:
STERLING PROJECT DEVELOPMENT
123-01 ROOSEVELT AVENUE
FLUSHING, NEW YORK 11368

BARGE DESIGN SOLUTIONS
Four Studios Tower I | Suite 100 | Kingsport, Tennessee 37660
PHONE (423) 245-0022 | FAX (423) 245-0225

DAVID B. HILL
REGISTERED LAND SURVEYOR
TENNESSEE NO. 1834

# TOPOGRAPHIC SURVEY
# BRICKYARD PARK - EXISTING CONDITIONS

CITY OF KINGSPORT, TENNESSEE
11TH CIVIL DISTRICT OF SULLIVAN COUNTY, TENNESSEE

| REV. | DR. | CHK. | DATE | REVISION INFORMATION DESCRIPTION |
|---|---|---|---|---|
| | ABW | DBH | 01-28-2019 | ISSUED FOR REVIEW |

2 of 2

FILE NO. 37007-00

© Copyright 2019, Barge Design Solutions, Inc. ALL RIGHTS RESERVED

811 Know what's below Call before you dig. 811 www.call811.com

2/7/2019 12:52:14 PM
DBH8I
LandRes.pen Workspace: LandRes

F:\37\37007\3700700\04_CAD\SURV\Plot\3700700vsp_sht2.dgn

Exhibit #3

# KINGSPORT, TN BALLPARK

CONCEPT DRAFT

Preliminary Program 5/16/19

PENDULUM

© Pendulum Studio LLC 2019, All Rights Reserved

# KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | AREA (SF) |
|---|---|---|
| | EXTERIOR PROGRAMMING - GRADE LEVEL | |
| 0.00 | VIP/Staff/Team Parking | 0 |
| 0.00 | Playing Field Components | 135,000 |
| 0.00 | Service Yard | 400 |
| 4.00 | Kids Fun Zone | 0 |
| 5.00 | Field Maintenance | 192 |
| 9.00 | Concourse Circulation | 40,000 |
| | Sub-Total | 175,592 |
| | ENCLOSED PROGRAMMING - GRADE LEVEL | |
| 2.00 | Food Prep Areas | 4,085 |
| 2.00 | Concession Administration | 173 |
| 4.00 | Retail Sales | 863 |
| 5.00 | Stadium Operations | 377 |
| 5.00 | Field Maintenance | 1,255 |
| 5.00 | Storage | 800 |
| 5.00 | MEP/IT | 200 |
| 6.00 | Front Office Program | 2,149 |
| 6.00 | Box Office Program | 354 |
| 7.00 | Home Team Lockers | 5,630 |
| 7.00 | Visiting Team Lockers | 2,415 |
| 7.00 | Auxiliary Lockers/Dressing | 259 |
| 7.00 | Umpire Lockers | 466 |
| 9.00 | Premium & Operations Entry | 0 |
| 9.00 | Vertical Circulation | 776 |
| | Sub-Total | 19,801 |
| | EXTERIOR PROGRAMMING - MAIN CONCOURSE SEATING BOWL | |
| 1.00 | Lawn Seating | 5,000 |
| 1.00 | Lower Bowl | 12,550 |
| | Sub-Total | 17,550 |
| | ENCLOSED PROGRAMMING - MAIN CONCOURSE | |
| 2.00 | Premium Hospitality | 0 |
| 3.00 | Main Concourse Toilets | 1,713 |
| 3.00 | Specialty Area Toilets | 0 |
| 4.00 | Fan Assistance & Security | 322 |
| 8.00 | Press Box | 1,374 |
| 9.00 | Vertical Circulation | 776 |
| 9.00 | Concourse Circulation | 0 |
| | Sub-Total | 4,185 |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| | | | |
|---|---|---|---|
| | EXTERIOR PROGRAMMING - SUITE CONCOURSE | | |
| 1.00 | Upper Bowl | | 2,930 |
| | Sub-Total | | 2,930 |
| NO. | SPACE | | AREA (SF) |
| | ENCLOSED PROGRAMMING - SUITE CONCOURSE | | |
| 2.00 | Premium Hospitality | | 1,150 |
| 3.00 | Premium Concourse Toilets | | 360 |
| 4.00 | Enclosed Suite Program | | 225 |
| 9.00 | Vertical Circulation | | 776 |
| 9.00 | Concourse Circulation | | 0 |
| | Sub-Total | | 2,511 |
| | GRAND TOTAL EXTERIOR PROGRAM | | 196,072 |
| | TOTAL ENCLOSED PROGRAM | | 26,497 |
| | AREA WALL THICKNESS (8") | 20% | 5,299 |
| | GRAND TOTAL ENCLOSED PROGRAM | | 31,796 |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | PARKING | | | | | |
| 0.01 | VIP/Staff/Team Parking | | EA | 0 | 436 | 0 |
| 0.02 | General Parking | | EA | 0 | 436 | 0 |
| | PLAYING FIELD - EXTERIOR | | | | | |
| 0.03 | Playing Field - Artificial Turf | | EA | 1 | 130,000 | 130,000 |
| | Dugouts | 12' x 75' | EA | 2 | 900 | 1,800 |
| | Bull Pen | 20' x 80' | EA | 2 | 1,600 | 3,200 |
| | Total | | | | | 135,000 |
| | TRUCK LOADING AREA | | | | | |
| 0.04 | Service Yard/Backstop Storage | | EA | 1 | 400 | 400 |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | LAWN SEATING | | | | | |
| 1.00 | Grass Berm Seating | | EA | 500 | 10 | 5,000 |
| | MAIN SEATING BOWL AMENITIES | | | | | |
| 1.10 | Individual Fixed Seats (Standard 21") | | EA | 1,200 | 6 | 7,200 |
| 1.12 | Home Plate Premium Seating (Padded 24") | | EA | 0 | 9 | 0 |
| 1.13 | Deluxe Dugout Group (Home Bullpen Half Rounds) | | EA | 150 | 9 | 1,350 |
| 1.14 | Picnic/Hospitality/Fan Deck (Drink Rail + Stools) | | EA | 200 | 10 | 2000 |
| 1.14 | Picnic/Hospitality/Fan Deck (Picnic Tables) | | EA | 200 | 10 | 2,000 |
| | Total Lower Bowl | | | 1,750 | | 12,550 |
| | PREMIUM BOWL AMENITIES | | | | | |
| 1.20 | Premium Suites (Ticketed Fixed Seats) | 1 | EA | 20 | 25 | 500 |
| 1.21 | Hospitality Pavilion (Home Plate Premium) | | EA | 120 | 15 | 1,800 |
| 1.22 | Cabana Deck (Behind Home Dugout) | | EA | 70 | 9 | 630 |
| 1.23 | Premium Party Deck (Covered + Open Air) | | EA | 0 | 10 | 0 |
| 1.24 | Outfield Rooftop Deck (LF) | | EA | 0 | 6 | 0 |
| | Total Upper Bowl | | | 210 | | 2,930 |
| | Grand Total - Capacity | | | 2,460 | | 20,480 |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | RATIO | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | FOOD PREP AREAS | | | | | |
| 2.01 | Concession Points of Sale | 225 | EA | 10 | 125 | 1,250 |
| 2.02 | Mobile Carts - SEE CIRCULATION | 400 | EA | 6 | 50 | 308 |
| 2.03 | Vendor Commissary | 475 | EA | 5 | 20 | 95 |
| 2.04 | Commissary Storage | | EA | 1 | 1,500 | 1,500 |
| 2.05 | Vendor Cart Storage | | EA | 1 | 400 | 400 |
| 2.06 | Not Used | | EA | 0 | 0 | 0 |
| 2.07 | Not Used | | EA | 0 | 0 | 0 |
| | Sub-Total Food Prep Area | | | | | 3,552 |
| | Circulation | 15% | | | | 533 |
| | Total | | | | | 4,085 |
| | CONCESSION ADMINISTRATION | | | | | |
| 2.10 | Staff Work Area - (*included in admin)* | | EA | 0 | 64 | 0 |
| 2.11 | Enclosed Office - *(Included in admin)* | | EA | 0 | 120 | 0 |
| 2.12 | Open Cubicles - (*included in admin)* | | EA | 0 | 48 | 0 |
| 2.13 | Locker Room - @ Staff Check In | MEN | | 0 | | |
| | | Lockers | EA | 0 | 10 | 0 |
| | | Water Closet | EA | 0 | 40 | 0 |
| | | Urinal | EA | 0 | 40 | 0 |
| | | Lavatory | EA | 0 | 40 | 0 |
| | | Shower | EA | 0 | 12 | 0 |
| | | Sub-Total | | | | 0 |
| | | WOMEN | | 0 | | |
| | | Lockers | EA | 0 | 10 | 0 |
| | | Water Closet | EA | 0 | 40 | 0 |
| | | Lavatory | EA | 0 | 40 | 0 |
| | | Shower | EA | 0 | 12 | 0 |
| | | Sub-Total | | | | 0 |
| 2.14 | Cash Room - @ Controller Office | | EA | 0 | 120 | 0 |
| 2.15 | Count Room | | EA | 0 | 120 | 0 |

© Pendulum Studio LLC 2019, All Rights Reserved

| NO. | SPACE | RATIO | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| 2.16 | Staff Check in | | EA | 1 | 150 | 150 |
| 2.17 | Storage Room | | EA | 0 | 100 | 0 |

© Pendulum Studio LLC 2019, All Rights Reserved

| NO. | SPACE | RATIO | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | CONCESSION ADMINISTRATION - CONTINUED | | | | | |
| | Sub-Total Concession Administration | | | | | 150 |
| | Circulation | 15% | | | | 23 |
| | Total | | | | | 173 |
| | PREMIUM HOSPITALITY AREAS | | | | | |
| 2.20 | Themed Hospitality Area/Bar | Not Enclosed | EA | 0 | 150 | 0 |
| 2.21 | Themed Hospitality - Toilets | MEN | | | | |
| | | Water Closets | EA | 0 | 40 | 0 |
| | | Urinals | EA | 0 | 40 | 0 |
| | | Lavatory | EA | 0 | 20 | 0 |
| | | Sub-Total | | | | 0 |
| | | WOMEN | | | | |
| | | Water Closets | EA | 0 | 40 | 0 |
| | | Lavatory | EA | 0 | 20 | 0 |
| | | Sub-Total | EA | | | 0 |
| 2.22 | General Fan Deck Prep Kitchen | | EA | 0 | 300 | 0 |
| 2.23 | MEP | | EA | 0 | 100 | 0 |
| | Sub-Total Themed Bar - Lower | | | | | 0 |
| | Circulation | 15% | | | | 0 |
| | Total | | | | | 0 |
| 2.30 | Not Used | | EA | 0 | 15 | 0 |
| 2.31 A | Recruiting Room | | EA | 0 | 0 | 0 |
| 2.31 | Recruiting Room Toilets | MEN | | 0 | | |
| | | Water Closets | EA | 40 | 0 | 0 |
| | | Urinals | EA | 40 | 0 | 0 |
| | | Lavatory | EA | 20 | 0 | 0 |
| | | Sub-Total | | | | 0 |
| | | WOMEN | | 0 | | |
| | | Water Closets | EA | 40 | 0 | 0 |
| | | Lavatory | EA | 20 | 0 | 0 |
| | | Sub-Total | | | | 0 |
| 2.32 | Cooking Kitchen | | EA | 1 | 800 | 800 |
| 2.33 | Bulk Storage | | EA | 0 | 200 | 0 |

© Pendulum Studio LLC 2019, All Rights Reserved

| | | | | | | |
|---|---|---|---|---|---|---|
| 2.34 | Premium Level Pantry - Grab & Go | | EA | 1 | 200 | 200 |
| | Sub-Total Club Restaurant - Cabana Level | | | | | 1,000 |
| | Circulation | 15% | | | | 150 |
| | Total | | | | | 1,150 |

SUMMARY

| CATEGORY | AREA (SF) | TYPE |
|---|---|---|
| Food Prep Areas | 4,085 | ENCL |
| Concession Administration | 173 | ENCL |
| Premium Hospitality Areas | 1,150 | ENCL |
| Total | 5,408 | |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | MAIN CONCOURSE | | | | | |
| 3.10 | MEN | 875 | | | | |
| | | Water Closets | EA | 2 | 40 | 78 |
| | | Urinals | EA | 8 | 40 | 318 |
| | | Lavatory | EA | 6 | 40 | 233 |
| | | Sub-Total | | | | 629 |
| 3.11 | WOMEN | 875 | | | | |
| | | Water Closets | EA | 12 | 40 | 467 |
| | | Lavatory | EA | 6 | 40 | 233 |
| | | Sub-Total | | | | 700 |
| 3.12 | FAMILY | | | | | |
| | | Water Closets | EA | 2 | 40 | 80 |
| | | Lavatory | EA | 2 | 40 | 80 |
| | | Sub-Total | | | | 160 |
| | Sub-Total Public Toilets | | | | | 1,489 |
| | Circulation | 15% | | | | 223 |
| | Total | | | | | 1,713 |
| | SPECIALTY AREAS | | | | | |
| 3.13 | Fun Zone - Unisex | Water Closet | EA | 0 | 40 | 0 |
| | | Lavatory | EA | 0 | 40 | 0 |
| | | Sub-Total | | | | 0 |
| | Circulation | 15% | | | | 0 |
| | Total | | | | | 0 |
| | PREMIUM AREA TOILETS | | | | | |
| 3.20 | MEN | 105 | | | | |
| | | Water Closets | EA | 1 | 40 | 40 |
| | | Urinal | EA | 2 | 40 | 80 |
| | | Lavatory | EA | 2 | 40 | 80 |
| | | Sub-Total | | | | 200 |
| 3.21 | WOMEN | 105 | | | | |
| | | Water Closets | EA | 2 | 40 | 80 |
| | | Lavatory | EA | 2 | 40 | 80 |
| | | Sub-Total | | | | 160 |
| | Sub-Total Premium Toilets | | | | | 360 |
| | Circulation | 0% | | | | 0 |
| | Total | | | | | 360 |

© Pendulum Studio LLC 2019, All Rights Reserved

SUMMARY

| CATEGORY | AREA (SF | TYPE |
|---|---|---|
| Main Concourse - Toilets | 1,713 | ENCL |
| Specialty Area - Toilets | 0 | ENCL |
| Premium Concourse - Toilets | 360 | ENCL |
| **Total** | 2,073 | |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | FAN ASSISTANCE & SECURITY | | | | | |
| 4.01 | First Aid Room | | EA | 1 | 200 | 200 |
| 4.02 | First Aid Toilet Room | | | | | |
| | | Water Closet | EA | 1 | 40 | 40 |
| | | Lavatory | EA | 1 | 40 | 40 |
| | | Sub-Total | | | | 80 |
| 4.03 | Fire Command Center (in First Aid) | | EA | 0 | 120 | 0 |
| 4.04 | Fan Assist Booth | | EA | 0 | 200 | 0 |
| 4.05 | Fan Assist Storage | | EA | 0 | 250 | 0 |
| | Sub-Total Fan Assistance & Security | | | | | 280 |
| | Circulation | 15% | | | | 42 |
| | Total | | | | | 322 |
| | RETAIL SALES | | | | | |
| 4.06 | Retail Sales Floor | | EA | 1 | 500 | 500 |
| 4.07 | Retail Long Term Storage | | EA | 1 | 250 | 250 |
| 4.08 | Remote Novelty Stand | | EA | 0 | 185 | 0 |
| | Sub-Total | | | | | 750 |
| | Circulation | 15% | | | | 113 |
| | Total | | | | | 863 |
| | KIDS FUN ZONE | | | | | |
| 4.08 | Exterior Playground | | EA | 0 | 3,000 | 0 |
| 4.09 | Fun Zone Toilets - See Section 3.00 | | EA | 0 | 0 | 0 |
| | ENCLOSED SUITE PROGRAM | | | | | |
| 4.10 | Enclosed Suite *(see premium suites - seating)* | | EA | 1 | 225 | 225 |
| 4.11 | Premium Suties *(Other)* | | EA | 0 | 375 | 0 |
| | Total | | | | | 225 |

© Pendulum Studio LLC 2019, All Rights Reserved

## SUMMARY

| CATEGORY | AREA (SF) | TYPE |
|---|---|---|
| Fan Assistance & Security | 322 | ENCL |
| Retail Sales | 863 | ENCL |
| Enclosed Suite Program | 225 | ENCL |
| **Total** | 1,410 | |
| Kids Fun Zone | 0 | EXT |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | STADIUM OPERATIONS | | | | | |
| 5.01 | Cleaning Administration | | EA | 1 | 200 | 200 |
| 5.02 | Equipment/Uniform Storage | | EA | 0 | 300 | 0 |
| 5.03 | Employee Check In - Included in other | | EA | 0 | 120 | 0 |
| 5.04 | Employee Break Room *(Included Above)* | | EA | 0 | 150 | 0 |
| 5.05 | Trash Compactor- Exterior Spac | 18' x 32' | EA | 0 | 576 | 0 |
| 5.06 | Distributed Janitor Closets | | LS | 2 | 64 | 128 |
| | Sub-Total Stadium Operations | | | | | 328 |
| | Circulation | 15% | | | | 49 |
| | Total | | | | | 377 |
| | FIELD MAINTENANCE - ENCLOSED | | | | | |
| 5.10 | Maintenance Enclosed Work Area | | EA | 1 | 600 | 600 |
| 5.11 | Head Groundskeepers Office | | EA | 1 | 100 | 100 |
| 5.12 | Grounds keeping Lockers | MEN | | | | |
| | | Lockers | EA | 4 | 25 | 100 |
| | | Water Closet | EA | 1 | 40 | 40 |
| | | Urinal | EA | 0 | 40 | 0 |
| | | Lavatory | EA | 1 | 40 | 40 |
| | | Sub-Total | | | | 180 |
| | | WOMEN | | | | |
| | | Lockers | EA | 2 | 25 | 50 |
| | | Water Closets | EA | 1 | 40 | 40 |
| | | Lavatory | EA | 1 | 40 | 40 |
| | | Sub-Total | | | | 130 |
| 5.13 | Unisex Toilet Area | | EA | 1 | 82 | 82 |
| | Sub-Total Field Maintenance - ENCL | | | | | 1,092 |
| | Circulation | 15% | | | | 164 |
| | Total | | | | | 1,255 |
| | FIELD MAINTENANCE - EXTERIOR | | | | | |
| 5.14 | Soil Storage (Bins) | | EA | 3 | 64 | 192 |

© Pendulum Studio LLC 2019, All Rights Reserved

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| 5.15 | Backstop Storage - *(in service yard)* | | EA | 0 | 400 | 0 |
| | Total | | | | | 192 |
| | STORAGE | | | | | |
| 5.16 | Promotional Storage | | EA | 1 | 400 | 400 |
| 5.17 | General Storage | | EA | 1 | 400 | 400 |
| | Sub-Total - Storage | | | | | 800 |
| | Circulation | 0% | | | | 0 |
| | Total | | | | | 800 |
| | MEP/IT | | | | | |
| 5.18 | Fire Suppression Pump Room | | EA | 1 | 200 | 200 |
| 5.19 | MEP Room - Included in other areas | | LS | 0 | 500 | 0 |
| 5.20 | Telecom Clean Room - Included in other areas | | EA | 0 | 80 | 0 |
| 5.21 | Server Room - included in other areas | | EA | 0 | 100 | 0 |
| | Sub-Total - MEP/IT | | | | | 200 |
| | Circulation | 0% | | | | 0 |
| | Total | | | | | 200 |

SUMMARY

| CATEGORY | AREA (SF) | TYPE |
|---|---|---|
| Stadium Operations | 377 | ENCL |
| Field Maintenance | 1,255 | ENCL |
| Storage | 800 | ENCL |
| MEP/IT | 200 | ENCL |
| Total | 2,632 | |
| Field Maintenance | 192 | EXT |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | ADMINISTRATIVE OFFICES | | | | | |
| 6.01 | Lobby/Reception | | EA | 1 | 100 | 100 |
| 6.02 | General Manager | | EA | 1 | 150 | 150 |
| 6.03 | Assistant GM | | EA | 1 | 120 | 120 |
| 6.04 | Controller | | EA | 0 | 120 | 0 |
| 6.05 | Retail Manager | | EA | 0 | 120 | 0 |
| 6.06 | Enclosed Offices | | EA | 1 | 100 | 100 |
| 6.07 | Staff Cubicles | | EA | 8 | 64 | 512 |
| 6.08 | Small Conference/War Room | | EA | 0 | 150 | 0 |
| 6.09 | Large Conference Room | | EA | 1 | 325 | 325 |
| 6.10 | Copy/Break Room | | EA | 1 | 150 | 150 |
| 6.11 | IT - Included in Copy/Break | | EA | 0 | 100 | 0 |
| 6.11 | Administrative Toilets | MEN | | 6 | | |
| | | Water Closets | EA | 2 | 40 | 80 |
| | | Urinal | EA | 2 | 40 | 80 |
| | | Lavatory | EA | 2 | 40 | 80 |
| | | Shower | EA | 0 | 40 | 0 |
| | | Sub-Total | | | | 240 |
| | | WOMEN | | 6 | | |
| | | Water Closets | EA | 3 | 40 | 120 |
| | | Lavatory | EA | 2 | 40 | 80 |
| | | Shower | EA | 0 | 40 | 0 |
| | | Sub-Total | | | | 200 |
| 6.12 | Administrative Storage | | EA | 1 | 150 | 150 |
| 6.12a | Not Used | | LS | 0 | 0 | 0 |
| | Sub-Total - Front Office | | | | | 2,047 |
| | Circulation | 5% | | | | 102 |
| | Total | 15 | | | | 2,149 |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | BOX OFFICE | | | | | |
| 6.13 | Ticket Windows | | EA | 4 | 75 | 308 |
| 6.14 | Ticket Manager Office | | EA | 0 | 120 | 0 |
| 6.15 | Box Office Conference Room | | EA | 0 | 225 | 0 |
| 6.15 | Storage - (*Included in admin)* | | EA | 0 | 75 | 0 |
| | Sub-Total Box Office | | | | | 308 |
| | Circulation | 15% | | | | 46 |
| | Total | | | | | 354 |

SUMMARY

| CATEGORY | AREA (SF) | TYPE |
|---|---|---|
| Front Office Program | 2,149 | ENCL |
| Box Office Program | 354 | ENCL |
| Total | 2,503 | |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | HOME TEAM LOCKERS | | | | | |
| 7.01 | Lockers | | EA | 40 | 25 | 1,000 |
| 7.02 | Home Team Showers | | EA | 6 | 20 | 120 |
| 7.03 | Home Team Toilets | Water Closets | EA | 2 | 40 | 80 |
| | | Urinals | EA | 3 | 40 | 120 |
| | | Lavatory | EA | 3 | 40 | 120 |
| | | Sub-Total | | | | 320 |
| 7.04 | Training Room | | EA | 1 | 450 | 450 |
| 7.05 | Trainer's Office | | EA | 1 | 120 | 120 |
| 7.06 | Hydrotherapy Room - *( included in training)* | | EA | 0 | 150 | 0 |
| 7.07 | Coach/Mgr. Meeting Room | | EA | 1 | 120 | 120 |
| 7.07 | Weight Room | | EA | 1 | 1,000 | 1,000 |
| 7.08 | Equipment Storage | | EA | 1 | 300 | 300 |
| 7.09 | Laundry (Shared) | | EA | 1 | 400 | 400 |
| 7.10 | Kitchen/Team Lounge | | EA | 1 | 200 | 200 |
| 7.11 | Manager's Office | | EA | 1 | 120 | 120 |
| 7.12 | Manager's Locker | | EA | 1 | 150 | 150 |
| 7.13 | Coach Toilet/Shower | Water Closet | EA | 2 | 40 | 80 |
| | | Urinal | EA | 2 | 40 | 80 |
| | (3 Men + 1 Women) | Lavatory | EA | 4 | 40 | 160 |
| | *(4 Men + 2 Women)* | Shower | EA | 6 | 15 | 90 |
| | | Sub-Total | | | | 410 |
| 7.14 | Coaching Lockers *(16 Men + 4 Women)* | | EA | 20 | 40 | 800 |
| 7.15 | Batting Tunnel (Covered) | 20' x 80' | EA | 2 | 1,600 | 3,200 |
| 7.16 | Dugout Tunnel | 5' x 60' | EA | 0 | 315 | 0 |
| 7.17 | Dugout Toilet | Water Closet | EA | 1 | 40 | 40 |
| | | Lavatory | EA | 1 | 40 | 40 |
| | | Drinking Fountain | EA | 1 | 40 | 40 |
| | | Sub-Total | | | | 120 |

© Pendulum Studio LLC 2019, All Rights Reserved

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| 7.17a | Special Storage | | | | | 0 |
| | Sub-Total Home Team Lockers | | | | | 5,630 |
| | Circulation | | | | | 0 |
| | **Total (Excludes Batting Tunnels)** | | | | | 5,630 |
| | VISITING TEAM LOCKERS | | | | | |
| 7.18 | Lockers | | EA | 32 | 25 | 800 |
| 7.19 | Visiting Team Showers | | EA | 6 | 29 | 175 |
| 7.20 | Visiting Team Toilets | Water Closets | EA | 1 | 40 | 40 |
| | | Urinal | EA | 2 | 40 | 80 |
| | | Lavatory | EA | 3 | 20 | 60 |
| | | Sub-Total | | | | 180 |
| 7.21 | Training | | EA | 1 | 200 | 200 |
| 7.22 | Manager Locker | | EA | 1 | 20 | 20 |
| 7.23 | Coaching Lockers *(6 Men + 2 Women)* | | EA | 8 | 25 | 200 |
| 7.24 | Manager/Coaching Toilets | Water Closets | EA | 2 | 40 | 80 |
| | | Urinal | EA | 2 | 40 | 80 |
| | (3 Men + 1 Women) | Lavatory | EA | 4 | 20 | 80 |
| | *(3 Men + 1 Women)* | Shower | EA | 4 | 15 | 60 |
| | | Sub-Total | | | | 300 |
| 7.26 | Kitchen/Lounge | | EA | 1 | 120 | 120 |
| 7.27 | Batting Tunnel | 20' x 80' | EA | 0 | 1,600 | 0 |
| 7.28 | Dugout Tunnel | 5' x 60' | EA | 0 | 315 | 0 |
| 7.29 | Dugout Toilet | Water Closet | EA | 1 | 40 | 40 |
| | | Lavatory | EA | 1 | 40 | 40 |
| | | Drinking Fountain | EA | 1 | 40 | 40 |
| | | Sub-Total | | | | 120 |

© Pendulum Studio LLC 2019, All Rights Reserved

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| 7.25 | Equipment Storage/Meeting Room | | EA | 1 | 300 | 300 |
| | Sub-Total Visiting Team Lockers | | | | | 2,415 |
| | Circulation | | | | | 0 |
| | Total | | | | | 2,415 |
| | AUXILIARY LOCKER/DRESSING ROOMS | | | | | |
| 7.26 | Private Dressing Room | | EA | 0 | 400 | 0 |
| 7.27 | Mascot Dressing Room | | EA | 1 | 150 | 150 |
| 7.28 | VIP Toilets (2) | Water Closet | EA | 1 | 40 | 40 |
| | | Lavatory | EA | 1 | 20 | 20 |
| | | Shower | EA | 1 | 15 | 15 |
| | | Sub-Total | | | | 75 |
| 7.29 | Storage | | EA | 0 | 100 | 0 |
| | Sub-Total Auxiliary Locker/Dressing | | | | | 225 |
| | Circulation | 15% | | | | 34 |
| | Total | | | | | 259 |
| | UMPIRE LOCKER ROOM | | | | | |
| 7.30 | Dressing Area (4 Men + 2 Women) | | EA | 6 | 20 | 120 |
| 7.31 | Umpire Toilets (1 M + 1 W) | Water Closet | EA | 2 | 40 | 80 |
| | *( 1 Men + 1 Woman)* | Urinal | EA | 2 | 40 | 80 |
| | *( 1 Men + 1 Woman)* | Lavatory | EA | 2 | 40 | 80 |
| | *( 2 Men + 1 Woman)* | Shower | EA | 3 | 15 | 45 |
| | | Sub-Total | | | | 285 |
| 7.32 | Storage Closet | | EA | 0 | 100 | 0 |
| | Sub-Total Umpire Locker Room | | | | | 405 |
| | Circulation | 15% | | | | 61 |
| | Total | | | | | 466 |

© Pendulum Studio LLC 2019, All Rights Reserved

## SUMMARY

| CATEGORY | AREA (SF) | TYPE |
|---|---|---|
| Home Team Lockers | 5,630 | ENCL |
| Visiting Team Lockers | 2,415 | ENCL |
| Auxiliary Lockers/Dressing | 259 | ENCL |
| Umpire Lockers | 466 | ENCL |
| Total | 8,770 | |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | SUB-SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|---|
| | PRESS BOX | | | | | |
| 8.01 | Radio Booth | | EA | 2 | 120 | 240 |
| 8.02 | Television Booth | | EA | 0 | 150 | 0 |
| 8.03 | Writing Press | | EA | 4 | 25 | 100 |
| 8.04 | Press Work Room | | EA | 1 | 150 | 150 |
| 8.05 | Scoreboard Control Room | | EA | 1 | 300 | 300 |
| 8.06 | Production Equipment Room | | EA | 1 | 200 | 200 |
| 8.07 | Press Toilets | UNISEX | | | | |
| | | Water Closet | EA | 1 | 40 | 40 |
| | | Lavatory | EA | 1 | 20 | 20 |
| | | Sub-Total | | | | 60 |
| | | UNISEX | | | | |
| | | Water Closet | EA | 1 | 40 | 40 |
| | | Lavatory | EA | 1 | 20 | 20 |
| | | Sub-Total | | | | 60 |
| 8.08 | Press Storage | | EA | 1 | 85 | 85 |
| | Sub-Total Press Box | | | | | 1,195 |
| | Circulation | 15% | | | | 179 |
| | Total | | | | | 1,374 |

SUMMARY

| CATEGORY | AREA (SF) | TYPE |
|---|---|---|
| Press Box | 1,374 | ENCL |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT, TN BALLPARK

Preliminary Program

| NO. | SPACE | UNIT | QTY | SF | TOTAL |
|---|---|---|---|---|---|
| | PREMIUM & OPERATIONS ENTRY | | | | |
| 9.01 | Not Used | EA | 0 | 1,500 | 0 |
| 9.02 | Banquet Lobby | EA | 0 | 351 | 0 |
| 9.03 | Press Lobby | EA | 0 | 100 | 0 |
| | Total | | | | 0 |
| | VERTICAL CIRCULATION | | | | |
| 9.04 | Elevator Towers - all floors | EA | 1 | 200 | 200 |
| 9.05 | Elevator Machine Rooms | EA | 0 | 64 | 0 |
| 9.06 | Stair Towers - Enclosed - all floors | EA | 2 | 288 | 576 |
| | Total | | | | 776 |
| | CONCOURSE CIRCULATION - ENCLOSED | | | | |
| 9.07 | Main Concourse | LS | 0 | 25,000 | 0 |
| 9.08 | Upper Concourse Corridor | LS | 0 | 8,000 | 0 |
| | Total | | | | 0 |
| | CONCOURSE CIRCULATION - EXTERIOR | | | | |
| 9.09 | Outfield Concourse - Exterior | LS | 1 | 40,000 | 40,000 |
| 9.10 | Entry Plaza | LS | 0 | 5,000 | 0 |
| | Total | | | | 40,000 |

© Pendulum Studio LLC 2019, All Rights Reserved

## SUMMARY

| CATEGORY | AREA (SF) | TYPE |
|---|---|---|
| Premium & Operations Entry | 0 | ENCL |
| Vertical Circulation | 776 | ENCL |
| Concourse Circulation | 0 | ENCL |
| **Total** | 776 | |
| Concourse Circulation | 40,000 | EXT |

© Pendulum Studio LLC 2019, All Rights Reserved

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

**Execute a Signatory Authority Form Allowing the Chief of Police or His Designee to Complete the Application and, if Awarded, Grant Reports as Required by the U.S. Department of Justice for the Edward Byrne Memorial Justice Assistance Grant JAG #2019-H4006-TN-DJ**

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

| | | | |
|---|---|---|---|
| Action Form No.: | AF-189-2019 | Final Adoption: | August 20, 2019 |
| Work Session: | August 19, 2019 | Staff Work By: | Capt. Gore |
| First Reading: | N/A | Presentation By: | Chief Quillin |

**Recommendation:**
Approve the Resolution.

**Executive Summary:**
The U.S. Department of Justice requires that the signing authority or their formal designee complete an application as well as, if awarded, annual/semi-annual and/or quarterly documents for grant reporting purposes. Information regarding the formal delegation of such authority must be placed in a file and available on-site for immediate review if requested. While the Department of Justice recognizes that the Mayor as the signing authority may not complete the documents himself, they do require that the individual completing them be "formally" recognized or approved by his office.

**Attachments:**
1. Resolution
2. Signature Consent Form

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A SIGNATURE AUTHORITY CONSENT FORM AND OTHER DOCUMENTS NECESSARY AND PROPER TO THE UNITED STATES DEPARTMENT OF JUSTICE AND TO DESIGNATE THE CHIEF OF POLICE AS THE MAYOR'S DESIGNEE TO EXECUTE GRANT REPORTS AND OTHER DOCUMENTS REQUIRED BY THE GRANTS FROM THE UNITED STATED DEPARTMENT OF JUSTICE

WHEREAS, the United States Department of Justice grants require a new Signature Authority Consent Form for contracts, invoices and other documents involved with the grants; and

WHEREAS, the Signature Authority Consent Form authorizes the mayor to execute formal documents, and to designate an individual as signatory authority "to sign grant documents required for reporting as contracted on behalf" of the city for a specific grant;

Now therefore,

BE IT RESOLVED BY THE, BOARD OF MAYOR AND ALDERMAN AS FOLLOWS:

SECTION I. That the mayor, or in his absence, incapacity, or failure to act, the vice-mayor, is authorized and directed to execute, in a form approved by the city attorney, and subject to the requirements of Article X, Section 10 of the Charter of the City of Kingsport, an Signature Authority Consent Form for contracts, invoices and other documents with the United States Department of Justice, said Signatory Authority Consent Form being generally as follows:

Signatory Authority Consent Form

I, _____ as the _____
Name of Person Granting Signature Authority (Printed) Title of Person Granting Authority

of _____ hereby grant the position(s) below or their
Name of Organization Receiving Grant

designee, signatory authority for the grant awarded by the US Department of Justice, Bureau of Justice Assistance Edward Byrne Memorial JAG #2019-H4006-TN-DJ
Grant year and number

Individuals or positions listed are entitled to sign only grant documents required for reporting as contracted on behalf of my organization for the above listed grant.

_____ _____
Title and Name (printed) Signature

_____ _____
Title and Name (printed) Signature

The above signatory authority granted to the above individuals may be revoked by me or by my organization at any time.

[Acknowledgements Deleted for Inclusion in this Resolution]

SECTION II. That the mayor is authorized to designate the chief of police as the mayor's designee to complete and execute grant reports and other reporting documents, as required by the grant from the United States Department of Justice.

SECTION III. That the board finds that the actions authorized by this resolution are for a public purpose and will promote the health, comfort and prosperity of the citizens of the city.

SECTION IV. That this resolution shall take effect from and after its adoption, the public welfare requiring it.

ADOPTED this the 20th day of August, 2018.

_____
PATRICK W. SHULL, MAYOR

ATTEST:

_____
SIDNEY H. COX, CITY RECORDER

APPROVED AS TO FORM:

_____
J. MIKE BILLINGSLEY, CITY ATTORNEY

Signatory Authority Consent Form

I, ___**Patrick W. Shull** _____ as the _____**Mayor**_____
Name of Person Granting Signature Authority (Printed) Title of Person Granting Authority

of __**City of Kingsport TN**_____ hereby grant the position(s) below or their
Name of Organization Receiving Grant

designee, signatory authority for the application and, if awarded, the required reports for the US Dept. of

Justice, Bureau of Justice Assistance _____**Edward Byrne Memorial JAG FY 2019 Grant**_____.
Grant Name

Individuals or positions listed are entitled to sign only grant documents required for reporting as contracted on behalf of my organization for the above listed grant.

_**Capt. Randall Gore** _____ _____
Title and Name (printed) Signature

_____ _____
Title and Name (printed) Signature

The above signatory authority granted to the above individuals may be revoked by me or by my organization at any time.

_____ _____
Signature of Person Granting Authority Date

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Approve Issuance of Certificate of Compliance for Retail Food Stores to Sell Wine

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager

Action Form No.: AF-190-2019
Work Session: August 19, 2019
First Reading: N/A

Final Adoption: August 20, 2019
Staff Work By: Angie Marshall
Presentation By: Sid Cox

---

**Recommendation:**
Approve the issuance of a Certificate of Compliance to the Dollar General Store #14751 located at 5215 Memorial Boulevard to sell wine.

**Executive Summary:**
A retail food store is required to file an application with the City Recorder for their Certificate of Compliance to sell wine. This Certificate, which must be issued and signed by the Mayor if the business is within a municipality, is a required attachment to the application this business will submit to the Tennessee Alcoholic Beverage Commission to obtain a license to sell wine in a retail food store.

Tennessee Code Annotated, Section 57-3-806 directs municipalities the Certificate must state:

1. The applicant in charge of the business has not been convicted of a felony within the past ten years; and
2. The applicant's business location complies with local zoning laws.

This application has met the requirements of TCA 57-3-806. Police background checks have been conducted with nothing found that would prevent receiving this certificate. Planning has also verified the businesses are properly zoned.

**Attachments:**
None

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Award the Bid for Robinson Middle School Roof Replacement to Davis Brothers Roofing, Inc.

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

| | | | |
|---|---|---|---|
| Action Form No.: | AF-191-2019 | Final Adoption: | August 20, 2019 |
| Work Session: | August 19, 2019 | Staff Work By: | Committee |
| First Reading: | N/A | Presentation By: | David Frye |

**Recommendation:**
Approve the Resolution.

**Executive Summary:**
City of Kingsport for its Kingsport City Schools opened bids on July 2, 2019 for the Roof Replacement at Ross N Robinson Middle School. The advertisement for the Invitation to Bid was published in the Kingsport Times News and the City of Kingsport website on Sunday, June 9, 2019. Five bids were received that ranged from $947,830.00 to $1,840,065.00. The low bid was received from Davis Brothers Roofing, Inc. with a bid of $947,830.00. The recommendation made by the project Architect – James F. Wright, is to accept the low bid submitted by Davis Brothers Roofing and Sheet Metal Fabricators.

The Board of Education approved the recommendation to award the bid to Davis Brothers Roofing and Sheet Metal Fabricators, Inc. on August 13, 2019. It is recommended that the Board of Mayor and Aldermen approve the resolution to award the bid for the Roof Replacement Project at Ross N Robinson Middle School to Davis Brothers Roofing and Metal Fabricators in the amount of $947,830.00 and establish a 6% contingency of $56,870.00 for a project total of $1,004,700.00.

Funding for the project is available in the Robinson Roof Replacement Project account (GP2021 Acct# 311-0000-601-20.22).

**Attachments:**
1. Resolution
2. Bid Tab
3. Recommendation Letter

Funding source appropriate and funds are available: JE

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

RESOLUTION NO. _____

A RESOLUTION AWARDING THE BID FOR THE ROSS N. ROBINSON MIDDLE SCHOOL ROOF REPLACEMENT PROJECT TO DAVIS BROTHERS ROOFING AND SHEET METAL FABRICATORS, INC. AND AUTHORIZING THE MAYOR TO SIGN AN AGREEMENT FOR THE SAME AND ALL DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE AGREEMENT

WHEREAS, bids were opened July 2, 2019, for the Roof Replacement at Ross N. Robinson Middle School project; and

WHEREAS, upon review of the bids, the board finds Davis Brothers Roofing and Sheet Metal Fabricators, Inc. is the lowest responsible compliant bidder meeting specifications for the particular grade or class of material, work or service desired and is in the best interest and advantage to the city, and the City of Kingsport desires to enter into a contract for the roof replacement at Ross N Robinson Middle School from Davis Brothers Roofing and Sheet Metal Fabricators, Inc. at an estimated construction cost of $947,830.00; and

WHEREAS, funding for the project is available in the Robinson Roof Replacement Project Account, (GP2021 Acct# 311-0000-601-20.22).

Now therefore,

BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN AS FOLLOWS:

SECTION I. That the bid for the Roof Replacement at Ross N. Robinson Middle School at an estimated cost of $947,830.00, is awarded to Davis Brothers Roofing and Sheet Metal Fabricators, Inc., and the mayor is authorized to execute an agreement for same and all documents necessary and proper to effectuate the purpose of the agreement.

SECTION II. That the board finds that the actions authorized by this resolution are for a public purpose and will promote the health, comfort and prosperity of the public.

SECTION III. That this resolution shall take effect from and after its adoption, the public welfare requiring it.

ADOPTED this the 20th day of August, 2019.

_____
PATRICK W. SHULL, MAYOR

ATTEST:

_____
SIDNEY H. COX, CITY RECORDER

APPROVED AS TO FORM:

_____
J. MICHAEL BILLINGSLEY, CITY ATTORNEY

MINUTES
BID OPENING
July 2, 2019
4:00 P.M.

Present: Brent Morelock, Procurement Manager; Michelle Ramey, Assistant Procurement Manager, Schools; and Jim Wright, Architect

The Bid Opening was held in the Council Room, City Hall.

The Procurement Manager opened with the following bids:

| ROBINSON MIDDLE SCHOOL ROOF REPLACEMENT | | | | | |
|---|---|---|---|---|---|
| Vendor: | Lump Sum Bid: | Completion Time: | Unit 1: | Unit 2: | Unit 3: |
| E. Cornell Malone Corp. | $1,494,200.00 | 240 Calendar Days | $ 13.00 | $ 15.00 | $6.50 |
| Davis Bros. Roofing & Sheet Metal Fabricators | $ 947,830.00 | 220 Calendar Days | $1,650.00 | $1,200.00 | $5.00 |
| Eskola, LLC | $1,840,065.00 | 200 Calendar Days | $ 18.00 | $ 12.00 | $2.50 |
| Morristown Roofing Co., Inc. | $1,360,960.00 | 270 Calendar Days | $ 5.00 | $ 20.00 | $3.00 |
| AAR of North Carolina, Inc. | $1,217,600.00 | 210 Calendar Days | $ 20.00 | $ 20.00 | $3.50 |

The submitted bids will be evaluated and a recommendation made at a later date.

DBR
DAVIS BROTHERS ROOFING & SHEET METAL FABRICATORS INC.

January 15, 2019

**Michelle,**
**Here is the revised Unit Pricing. I didn't add in my decimal point.**

1. **16.50**
2. **12.00**
3. **5.00**

**Thanks,**
**Mardy Roberts**
**Commercial Project/Production Manager**

Davis Brothers Roofing, INC.
305 Messick Avenue, Church Hill, TN 37642
(o)-423-357-7190
(f)-423-357-3562
(c)-423-765-6059

# BID FORM

To: Procurement Manager
City of Kingsport
Kingsport, Tennessee 37660

Reference: **Roof Replacement**
**ROSS N. ROBINSON • MIDDLE SCHOOL**
1517 Jessee Street • Kingsport, Tennessee

Gentlemen:

I have received the construction Documents for the project referenced above as prepared by James F. Wright · Architect. I also acknowledge receipt of Addenda Nos. 1,2,3, and have included their provisions in my bid. Having examined these Documents, visited the site and being familiar with all requirements to complete the work in strict accordance with the Drawings and Project Manual, I submit the following Bid:

**BASIC BID**

I will Remove and Replace existing EPDM Roofing Systems, as indicated, for the Lump Sum of:

Nine Hundred Forty Seven Thousand Eight Hundred Thirty Dollars ($ 947,830.00).

**UNIT PRICES**

If required, I agree to provide repairs as described in SECTION 01019, based on the following unit costs:

1. Repair Exist. Gypsum Roof Decking: $16.50 per sq. ft.
2. Repair Exist. Fibertex Roof Decking: $12.00 per sq. ft.
3. Replace Exist. Perimeter Wood Nailers. $5.00 per linear ft.

**BID SECURITY**

I have attached to this Bid, Bid Security in the amount five percent (5%) of the Bid.

# MEMORANDUM

TO: Board of Mayor and Aldermen

FROM: David J. Frye, Chief Finance Officer

DATE: August 13, 2019

SUBJECT: Robinson Middle School Roof Replacement

Bids were opened in response to the invitation to bid for the Robinson Middle School Roof Replacement on July 2, 2019. The Lump Sum bids ranged from $947,830.00 to $1,840,065.00. The lowest bid was submitted by Davis Brothers Roofing & Sheet Metal Fabricators ($947,830.00).

The Architect on the project, James F. Wright, has recommended that we accept the compliant low bid from Davis Brothers Roofing & Sheet Metal Fabricators for the Roof Replacement at Robinson Middle School.

Total funding for the project is $1,004,700.00 and will be paid from the Robinson Roof Replacement Project.

| | |
|---|---|
| Bid | $ 947,830.00 |
| Contingency - 6% | $56,870.00 |
| Total | $ 1,004,700.00 |

**JAMES F. WRIGHT • ARCHITECT**
1332 Belmeade Drive Kingsport, Tennessee 37664

July 3, 2019

Michelle Ramey
Asst. Procurement Manager
400 Clinchfield St. Suite 200
Kingsport, TN 37660

Dear Michelle,

Having reviewed all Bids, I recommend that the low bid of $947,830.00, submitted by Davis Brothers Roofing, be accepted and that a Contract be awarded to their firm for the Roof Replacement at Ross N. Robinson Middle School.

James F. Wright • Architect

• Phone: 423.341.8823 • jfwrightarch49@gmail.com

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Execute an Amendment to the Contract between the City of Kingsport and Advanced Disposal Services

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

Action Form No.: AF-194-2019
Work Session: Aug 19, 2019
First Reading: N/A

Final Adoption: Aug 20, 2019
Staff Work By: Ronnie Hammonds
Presentation By: Ryan McReynolds

---

**Recommendation:**
Approve the Resolution

**Executive Summary:**
On August 29, 2012 the City entered into an agreement with Advanced Disposal for the disposal of solid waste. The initial agreement was for a five year term, allowing for five consecutive on year renewals. This allows the City to dispose of solid waste at their facility at a cost of $18.61 per ton. This is the third one year renewal which starts August 30, 2019 and expires on August 30, 2020.

**Attachments:**
1. Resolution
2. Amendment to Agreement

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

RESOLUTION NO. _____

A RESOLUTION APPROVING A THIRD AMENDMENT TO THE AGREEMENT WITH ADVANCED DISPOSAL SERVICES; AUTHORIZING THE MAYOR TO EXECUTE THE AMENDMENT; AND ALL OTHER DOCUMENTS NECESSARY AND PROPER TO EFFECTUATE THE PURPOSE OF THE AMENDMENT

WHEREAS, in August, 2012, the board approved a resolution authorizing the mayor to sign an agreement with Advanced Disposal Services for the disposal of solid waste; and

WHEREAS, the initial agreement was for a five year term, allowing for five consecutive one year renewals; and

WHEREAS, the city would like to amend the original agreement for a third time and renew the agreement for one year from August 30, 2019, to August 29, 2020, at a cost of $18.61 per ton.

Now therefore,

BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN AS FOLLOWS:

SECTION I. That a Third Amendment to the agreement with Advanced Disposal Services for the disposal of solid waste is approved.

SECTION II. That the mayor, or in his absence, incapacity, or failure to act, the vice-mayor, is authorized to execute, in a form approved by the city attorney, and subject to the requirements of Article X, Section 10 of the Charter of the City of Kingsport, a Second Amendment to the agreement with Advanced Disposal Services for the disposal of solid waste and all other documents necessary and proper to effectuate the purpose of the agreement or this resolution, said amendment being generally as follows:

**THIRD AMENDMENT TO THE SOLID WASTE DISPOSAL SERVICES AGREEMENT BETWEEN THE CITY OF KINGSPORT TENNESSEE AND ADVANCED DISPOSAL SERVICES TENNESSEE, LLC**

This Third Amendment ("Amendment") to the Agreement for Solid Waste Disposal Services dated August 29, 2012 (the "Agreement") is made and entered into this day of August 2019 (the "Effective Date") by and between the City of Kingsport, a political subdivision of the State of Tennessee ("City"), and Advanced Disposal Services Tennessee, LLC, a Delaware limited liability company ("Contractor"). Capitalized terms not defined herein shall have the meanings set forth in the Original Agreement.

WHEREAS, the City and Contractor entered into the Agreement which commenced on August 29, 2012 for landfill disposal capacity and the subsequent rates for the disposed material; as amended by the Second Amendment to Solid Waste Disposal Agreement dated August 29, 2017;

WHEREAS, the City and Contractor desire to extend the tenure of the Agreement on the terms and conditions set forth in this Second Amendment; so

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Term. The agreement shall be extended for a period of one (1) year commencing August 30, 2019 and expiring August 29, 2020. There are two (2) remaining one year renewals pending, subject to the conditions stated in the original agreement.

2. Modification of Agreement. Except as expressly set forth herein or as necessary to carry out the terms of this Second Amendment, no amendment of the terms of the Original Agreement is intended hereby and the Agreement and all its terms and conditions shall remain in full force and

effect.

3. Cooperation among the Parties. Whenever consent, action or inaction is required, such Consent, action or inaction will not be unreasonably withheld by either party.

4. Severability. The invalidity of one or more of the phrases, sentences, clauses or Sections contained in this Agreement shall not affect the validity of the remaining portion of the Agreement so long as the material purposes of this Agreement can be determined and effectuated.

5. Entirety. This Second Amendment together with the Agreement including any Exhibits attached thereto contains the entire agreement between the parties as to the matters contained therein. Any oral representations or modifications concerning the Agreement shall be of no force and effect.

[Acknowledgements Deleted for Inclusion in this Resolution]

SECTION III. That the mayor is further authorized to make such changes approved by the mayor and the city attorney to the amendment/agreement set out herein that do not substantially alter the material provisions of the agreement, and the execution thereof by the mayor and the city attorney is conclusive evidence of the approval of such changes.

SECTION IV. That the board finds that the actions authorized by this resolution are for a public purpose and will promote the health, comfort and prosperity of the citizens of the city.

SECTION V. That this resolution shall take effect from and after its adoption, the public welfare requiring it.

ADOPTED this the 20th day of August, 2019.

_____
PATRICK W. SHULL, MAYOR

ATTEST:

_____
SIDNEY H. COX, CITY RECORDER

APPROVED AS TO FORM:

_____
J. MICHAEL BILLINGSLEY, CITY ATTORNEY

**THIRD AMENDMENT TO THE SOLID WASTE DISPOSAL SERVICES AGREEMENT BETWEEN THE CITY OF KINGSPORT TENNESSEE AND ADVANCED DISPOSAL SERVICES TENNESSEE, LLC**

This Third Amendment ("Amendment") to the Agreement for Solid Waste Disposal Services dated August 29, 2012 (the "Agreement") is made and entered into this _____day of August 2019 (the "Effective Date") by and between the City of Kingsport, a political subdivision of the State of Tennessee ("City"), and Advanced Disposal Services Tennessee, LLC, a Delaware limited liability company ("Contractor"). Capitalized terms not defined herein shall have the meanings set forth in the Original Agreement.

WHEREAS, the City and Contractor entered into the Agreement which commenced on August 29, 2012 for landfill disposal capacity and the subsequent rates for the disposed material; as amended by the Second Amendment to Solid Waste Disposal Agreement dated August 29, 2017;

WHEREAS, the City and Contractor desire to extend the tenure of the Agreement on the terms and conditions set forth in this Second Amendment; so

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Term. The agreement shall be extended for a period of one (1) year commencing August 30, 2019 and expiring August 29, 2020. There are two (2) remaining one year renewals pending, subject to the conditions stated in the original agreement.

2. Modification of Agreement. Except as expressly set forth herein or as necessary to carry out the terms of this Second Amendment, no amendment of the terms of the Original Agreement is intended hereby and the Agreement and all its terms and conditions shall remain in full force and effect.

3. Cooperation among the Parties. Whenever consent, action or inaction is required, such Consent, action or inaction will not be unreasonably withheld by either party.

4. Severability. The invalidity of one or more of the phrases, sentences, clauses or Sections contained in this Agreement shall not affect the validity of the remaining portion of the Agreement so long as the material purposes of this Agreement can be determined and effectuated.

5. Entirety. This Second Amendment together with the Agreement including any Exhibits attached thereto contains the entire agreement between the parties as to the matters contained therein. Any oral representations or modifications concerning the Agreement shall be of no force and effect.

(Signatures on following page)

**IN WITNESS WHEREOF**, the parties hereto have caused this Second Amendment to be executed on this ___ day of August 2019.

**CITY OF KINGSPORT**, a political subdivision of the State of Tennessee

_____
Witness

By:_____
Name: _____
Title: _____

_____
Notary Public

Attest:_____

**ADVANCED DISPOSAL SERVICES TENNESSEE, LLC**, a Delaware limited liability company

_____
Witness

By:_____
Name: _____
Title: _____

_____
Notary Public

Attest:_____

KINGSPORT
TENNESSEE

# AGENDA ACTION FORM

## Proposed Stormwater Annual Compliance Report

To: Board of Mayor and Aldermen
From: Chris McCartt, City Manager CM

Action Form No.: AF-192-2019
Work Session: August 19, 2019
First Reading: NA

Final Adoption: August 20, 2019
Staff Work By: David Edwards
Presentation By: Ryan McReynolds

---

**Recommendation:**
Approve the Resolution.

**Executive Summary:**
Kingsport's stormwater permit requires that the municipal separate storm sewer system (MS4) submit an annual report to the Tennessee Department of Environment and Conversation (TDEC) by September 30 of each calendar year that covers the previous compliance year. A requirement states that prior to submitting the annual report to TDEC, the MS4 must publicly present the annual report for suggestions and comment. Therefore on August 12, 2019 the annual report was posted to the city's website at https://www.kingsporttn.gov/wp-content/uploads/2019/08/City-of-Kingsport-MS4-Annual-Report-2019.pdf where the public is invited to submit questions and comments regarding the City of Kingsport's 2019 MS4 Annual Report.

**Attachments:**
1. Resolution
2. Permit Requirements/Activities
3. Proposed Annual Report

| | Y | N | O |
|---|---|---|---|
| Adler | | | |
| Cooper | | | |
| Duncan | | | |
| George | | | |
| Olterman | | | |
| Phillips | | | |
| Shull | | | |

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A STORMWATER ANNUAL COMPLIANCE REPORT REQUIRED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

WHEREAS, the storm water permit the city has from the Tennessee Department of Environment and Conservation requires that the city submit on behalf of its municipal separate storm sewer system an annual report; and

WHEREAS, a public notice to receive suggestions and comments must be issued prior to the adoption of the annual report; and

WHEREAS, on August 12, 2019 the annual report was posted to the city's website at https://www.kingsporttn.gov/wp-content/uploads/2019/08/City-of-Kingsport-MS4-Annual-Report-2019.pdf where the public is invited to submit questions and comments; and

WHEREAS, a public meeting was held by the board of mayor and alderman on the 20th day of August, 2019.

Now, therefore,

BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN AS FOLLOWS:

SECTION I. That the mayor, or in his absence, incapacity, or failure to act, the vice mayor, is authorized and directed to execute, in a form approved by the city attorney, the Stormwater Annual Compliance Report required by the Tennessee Department of Environment and Conservation.

SECTION II. That the board finds that the actions authorized by this resolution are for a public purpose and will promote the health, comfort and prosperity of the citizens of the city.

SECTION III. That this resolution shall take effect from and after its adoption, the public welfare requiring it.

ADOPTED this the 20th day of August, 2019.

_____
PATRICK W. SHULL, MAYOR

ATTEST:

_____
SIDNEY H. COX, CITY RECORDER

APPROVED AS TO FORM:

_____
J. MICHAEL BILLINGSLEY, CITY ATTORNEY

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower,
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

# Phase II Small Municipal Separate Storm Sewer System (MS4) Annual Report

## 1. MS4 Information

| | | |
|---|---|---|
| Name of MS4: City of Kingsport | | MS4 Permit Number: TNS075388 |
| Contact Person: David Edwards | | Email Address: davidedwards@kingsporttn.gov |
| Telephone: (423) 343-9845 | | MS4 Program Web Address: https://www.kingsporttn.gov/water-services/stormwater/ |
| Mailing Address: 225 West Center Street | | |
| City: Kingsport | State: TN | ZIP code: 37660 |

What is the current population of your MS4? 54,076

What is the reporting period for this annual report? July1 2018 to June 30 2019

## 2. Discharges to Waterbodies with Unavailable Parameters or Exceptional Tennessee Waters (Section 3.1)

A. Does your MS4 discharge into waters with unavailable parameters (previously referred to as impaired) for pathogens, nutrients, siltation or other parameters related to stormwater runoff from urbanized areas as listed on TN's most current 303(d) list and/or according to the on-line state GIS mapping tool (tdeconline.tn.gov/dwr/)? If yes, attach a list. ☒ Yes ☐ No

B. Are there established and approved TMDLs (http://www.tn.gov/environment/article/wr-ws-tennessees-total-maximum-daily-load-tmdl-program) with waste load allocations for MS4 discharges in your jurisdiction? If yes, attach a list. ☒ Yes ☐ No

C. Does your MS4 discharge to any Exceptional Tennessee Waters (ETWs - http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34304:4880790061142)? If yes, attach a list. ☐ Yes ☒ No

D. Are you implementing specific Best Management Practices (BMPs) to control pollutant discharges to waterbodies with unavailable parameters or ETWs? If yes, describe the specific practices: Monthly inspection frequency requirement, special pollutant abatement plans for pollutant hot spots, detailed review and approval of stormwater pollution prevention plans. Riparian buffer tree planting, downtown bioretention islands, buffer property deed restrictions. ☒ Yes ☐ No

## 3. Public Education/Outreach and Involvement/Participation (Sections 4.2.1 and 4.2.2)

A. Have you developed a Public Information and Education plan (PIE)? ☒ Yes ☐ No

B. Is your public education program targeting specific pollutants and sources, such as Hot Spots? If yes, describe the specific pollutants and/or sources targeted by your public education program: MS4 and construction site runoff, illicit discharges including septage, sediment, oil and grease, applicators of pesticides, herbicides, and fertilizer, vehicle related fluids and illegal dumping. ☒ Yes ☐ No

C. Do you have a webpage dedicated to your stormwater program? If yes, provide a link/URL: https://www.kingsporttn.gov/water-services/stormwater/ ☒ Yes ☐ No

D. Summarize how you advertise and publicize your public education, outreach, involvement and participation opportunities: Website, Facebook, public notices, billboards, newspaper articles, TNSA, and distribution of materials.

E. Summarize the public education, outreach, involvement and participation activities you completed during this reporting period: Participation in TNSA Facebook ad campaign, Stormy mascot appearances and watershed classes for various elementary school groups, Tranbarger Branch and Madd Branch Clean-ups. Participated in Keep Kingsport Beautiful's Conservation Camp. Distributed 538 stormwater informational activity books to 4th graders in Kingsport City Schools. Distributed "Spotlight on Stormwater" informational booklets to lobbies of City Hall, Building Department, and Engineering Department.

F. Summarize any specific successful outcome(s) (e.g., citizen involvement, pollutant reduction, water quality improvement, etc.) fully or partially attributable to your public education and participation program during this reporting period: Tranbarger Branch clean-up coordinated by in-house staff. Partnered with Keep Kingsport Beautiful on other stream clean-ups and trash pick-ups. Held 1st annual stormdrain art contest which was a great success. 2nd annual stormdrain art contest to be held fall 2019. Art contest received news advertising and story coverage, and billboard advertising. Free rain barrel program planned for fall 2019.

4. Illicit Discharge Detection and Elimination (Section 4.2.3)

A. Have you developed and do you continue to update a storm sewer system map that shows the location of system outfalls where the municipal storm sewer system discharges into waters of the state or conveyances owned or operated by another MS4? ☒ Yes ☐ No

B. If yes, does the map include inputs into the storm sewer collection system, such as the inlets, catch basins, drop structures or other defined contributing points to the sewershed of that outfall, and general direction of stormwater flow? ☒Yes ☐ No

C. How many outfalls have you identified in your storm sewer system? 930

D. Do you have an ordinance, or other regulatory mechanism, that prohibits non-stormwater discharges into your storm sewer system? ☒Yes ☐ No

E. Have you implemented a plan to detect, identify and eliminate non-stormwater discharges, including illegal disposal, throughout the storm sewer system? If yes, provide a summary: Education of the public and targeted employees. Implementing standard operting procedures for municipal operations. Complaint tracking, site plan review, and inspections. ☒ Yes ☐ No

F. How many illicit discharge related complaints were received this reporting period? 2

G. How many illicit discharge investigations were performed this reporting period? 2

H. Of those investigations performed, how many resulted in valid illicit discharges that were addressed and/or eliminated? 2

5. Construction Site Stormwater Runoff Pollutant Control (Section 4.2.4)

A. Do you have an ordinance or other regulatory mechanism requiring:

Construction site operators to implement appropriate erosion prevention and sediment control BMPs consistent with those described in the TDEC EPSC Handbook? ☒ Yes ☐ No

Construction site operators to control wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste? ☒ Yes ☐ No

Design storm and special conditions for unavailable parameters waters or Exceptional Tennessee Waters consistent with those of the current Tennessee Construction General Permit (TNR100000)? ☒ Yes ☐ No

B. Do you have specific procedures for construction site plan (including erosion prevention and sediment BMPs) review and approval? ☒ Yes ☐ No

C. Do you have sanctions to enforce compliance? ☒ Yes ☐ No

D. Do you hold pre-construction meetings with operators of priority construction activities and inspect priority construction sites at least monthly? ☒ Yes ☐ No

E. How many construction sites disturbing at least one acre or greater were active in your jurisdiction this reporting period? 38

F. How many active priority and non-priority construction sites were inspected this reporting period? 38

G. How many construction related complaints were received this reporting period? 11

6. Permanent Stormwater Management at New Development and Redevelopment Projects (Section 4.2.5)

A. Do you have a regulatory mechanism (e.g. ordinance) requiring permanent stormwater pollutant removal for development and redevelopment projects? If no, have you submitted an Implementation Plan to the Division? ☒ Yes ☐ No ☐ Yes ☐ No

B. Do you have an ordinance or other regulatory mechanism requiring:

Site plan review and approval of new and re-development projects? ☒ Yes ☐ No

A process to ensure stormwater control measures (SCMs) are properly installed and maintained? ☒ Yes ☐ No

Permanent water quality riparian buffers? If yes, specify requirements: Refer to Ordinance Section 38-169(d) and Chapter 6 of the Stormwater Management Manual. ☒ Yes ☐ No

C. What is the threshold for development and redevelopment project plans plan review (e.g., all projects, projects disturbing greater than one acre, etc.)? All projects

D. How many development and redevelopment project plans were reviewed for this reporting period? 17

E. How many development and redevelopment project plans were approved? 13

F. How many permanent stormwater related complaints were received this reporting period? 11

G. How many enforcement actions were taken to address improper installation or maintenance? 11

H. Do you have a system to inventory and track the status of all public and private SCMs installed on development and redevelopment projects? ☒ Yes ☐ No

I. Does your program include an off-site stormwater mitigation or payment into public stormwater fund? If yes, specify. _____ ☐ Yes ☒ No

7. Stormwater Management for Municipal Operations (Section 4.2.6)

A. As applicable, have stormwater related operation and maintenance plans that include information related to maintenance activities, schedules and the proper disposal of waste from structural and non-structural stormwater controls been developed and implemented at the following municipal operations:

Streets, roads, highways? ☒ Yes ☐ No

Municipal parking lots? ☒ Yes ☐ No

| | | |
|---|---|---|
| Maintenance and storage yards? | ☒ Yes | ☐ No |
| Fleet or maintenance shops with outdoor storage areas? | ☒ Yes | ☐ No |
| Salt and storage locations? | ☒ Yes | ☐ No |
| Snow disposal areas? | ☐ Yes | ☒ No |
| Waste disposal, storage, and transfer stations? | ☒ Yes | ☐ No |

B. Do you have a training program for employees responsible for municipal operations at facilities within the jurisdiction that handle, generate and/or store materials which constitute a potential pollutant of concern for MS4s? ☒ Yes ☐ No

If yes, are new applicable employees trained within six months, and existing applicable employees trained and/or retrained within the permit term? ☒ Yes ☐ No

8. Reviewing and Updating Stormwater Management Programs (Section 4.4)

A. Describe any revisions to your program implemented during this reporting period including but not limited to:

Modifications or replacement of an ineffective activity/control measure. Switch from TAB to Facebook ads program for Public Education and Outreach

Changes to the program as required by the division to satisfy permit requirements. n/a

Information (e.g. additional acreage, outfalls, BMPs) on newly annexed areas and any resulting updates to your program. No newly annexed areas

B In preparation for this annual report, have you performed an overall assessment of your stormwater management program effectiveness? If yes, summarize the assessment results, and any modifications and improvements scheduled to be implemented in the next reporting period. Stormwater Management Plan available upon request ☒ Yes ☐ No

9 Enforcement Response Plan (Section 4.5)

A. Have you implemented an enforcement response plan that includes progressive enforcement actions to address non-compliance, and allows the maximum penalties specified in TCA 68-221-1106? If no, explain. _____ ☒ Yes ☐ No

B. As applicable, identify which of the following types of enforcement actions (or their equivalent) were used during this reporting period; indicate the number of actions, the minimum measure (e.g., construction, illicit discharge, permanent stormwater management), and note those for which you do not have authority:

| Action | Construction | Permanent Stormwater | Illicit Discharge | In Your ERP? | |
|---|---|---|---|---|---|
| Verbal warnings | #9 | #9 | #2 | ☒ Yes | ☐ No |
| Written notices | #15 | #15 | #_____ | ☒ Yes | ☐ No |
| Citations with administrative penalties | #_____ | #_____ | #_____ | ☒ Yes | ☐ No |
| Stop work orders | #10 | #10 | #_____ | ☒ Yes | ☐ No |
| Withholding of plan approvals or other authorizations | #1 | #1 | #_____ | ☒ Yes | ☐ No |
| Additional Measures | #_____ | #_____ | #_____ | Describe: _____ | |

C. Do you track instances of non-compliance and related enforcement documentation? ☒ Yes ☐ No

D. What were the most common types of non-compliance instances documented during this reporting period? sub-standard installation and maintenance of E&S controls

10 Monitoring, Recordkeeping and reporting (Section 5)

A. Summarize any analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. Continuation of study of Clark and Tranbarger Branch, including E. coli sampling, flow measurement, benthic macroinvertebrate collection and habitat surveys. July 2018 thru June 2019. Data available upon request.

B. Summarize any non-analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. Visual Stream Assessments done for Leslie Br., Madd Br., Miller Br., Tranbarger Br. July/Aug 2018. Visual Stream Assessments done for Gravelly Br., Little Horse Crk., Rock Springs Br. May/June 2019. Information available upon request.

C. If applicable, are monitoring records for activities performed during this reporting period submitted with this report. ☐ Yes ☒ No

11. Certification

This report must be signed by a ranking elected official or by a duly authorized representative of that person. See signatory requirements in sub-part 6.7.2 of the permit.

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

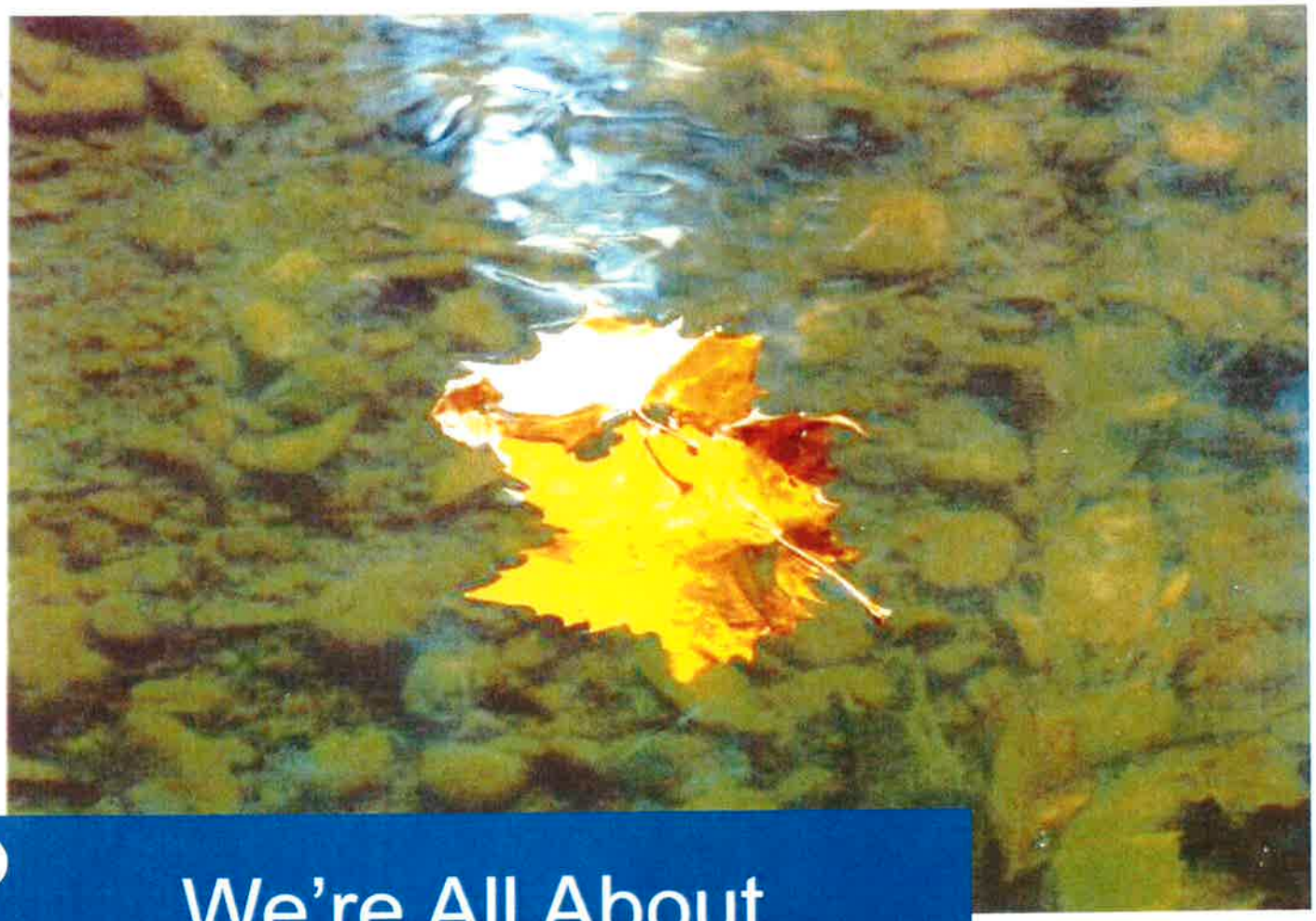
Pat Shull, Mayor
Printed Name and Title

Signature

Date

Annual reports must be submitted by September 30 of each calendar year (Section 5.4) to the appropriate Environmental Field Office (EFO), identified in the table below:

| EFO | Street Address | City | Zip Code | Telephone |
|---|---|---|---|---|
| Chattanooga | 1301 Riverfront Pkwy, Suite 206 | Chattanooga | 37402 | (423) 634-5745 |
| Columbia | 1421 Hampshire Pike | Columbia | 38401 | (931) 380-3371 |
| Cookeville | 1221 South Willow Ave. | Cookeville | 38506 | (931) 520-6688 |
| Jackson | 1625 Hollywood Drive | Jackson | 38305 | (731) 512-1300 |
| Johnson City | 2305 Silverdale Road | Johnson City | 37601 | (423) 854-5400 |
| Knoxville | 3711 Middlebrook Pike | Knoxville | 37921 | (865) 594-6035 |
| Memphis | 8383 Wolf Lake Drive | Bartlett | 38133 | (901) 371-3000 |
| Nashville | 711 R S Gass Boulevard | Nashville | 37216 | (615) 687-7000 |



# We're All About CLEAN Water

KINGSPORT
TENNESSEE

## 2019 MS4 Annual Report

## STORMWATER MANAGEMENT

Solutions. Accomplishments. CLEAN Water

# City of Kingsport Stormwater Utility

**HISTORY** November 2011 the Stormwater Management Utility was established as required by The Federal Clean Water Act for cities with more than 10,000 residents to implement a stormwater program to control and monitor polluted stormwater runoff.

**PURPOSE** To address stormwater pollution and flooding issues allowing the City to reduce runoff contaminants while prioritizing and initiating flood mitigation projects.

The utility is responsible for the operation, construction, maintenance and rehabilitation of stormwater facilities; for stormwater system planning, property acquisition related to stormwater management and for review of stormwater development plans for compliance with federal and state regulations, stormwater management ordinances, policies, procedures and manuals.

**GOALS** Comprehensively examine flooding and stormwater issues in the community;

Established resources and became a Tennessee Department of Environment and Conservation qualified local program, allowing the development community greater flexibility and timeliness in determining how best to meet federal mandates;

Adequately fund stormwater management needs at the lowest possible cost by proactive action;

Reduce flooding;

Improve stream habitat, conditions and water quality. Work toward de-listing of impaired srtreams within the City limits.

**ACTIVITIES / ACCOMPLISHMENTS** In accordance with the City's MS4 NPDES permit the Stormwater Division must file this report with the Tennessee Department of Environment and Conservation (TDEC) to document the activities completed in the past year. The activities noted are within the required program areas of the MS4 permit. The City's permit compliance activities are subject to periodic audits by TDEC.

Many activities have been completed that go beyond the requirements of the NPDES permit. This report provides opportunity for activity updates:

- In 2018 and 2019 the Stormwater Division sponsored stream clean-ups of Tranbarger Branch and Madd Branch. Groups of volunteers gathered multiple pickup truck loads of trash from in and around the creek. The Stormwater Division plans to sponsor yearly stream clean-ups in the future.
- Since 2018 the Stormwater Division's staff biologist has been monitoring water quality in streams within the Kingsport City limits. The City of Kingsport is creating baseline stream monitoring data over and above TDEC requirements. This data will lead to increased understanding of the impairments for individual streams and will better inform decision making regarding projects to restore streams to designated uses.

## ACTIVITIES / ACCOMPLISHMENTS (continued)

- A bio retention basin was installed within the new parking lot at the Veterans Memorial project to remove suspended solids and treat the rainwater before it is discharged to Madd Branch, a 303(d) listed stream.
- Implementation of the 'YourGOV' cell phone app has provided citizens with the ability for real time input of drainage issues and concerns. This app gives citizens a means to notify City staff of drainage problems such as clogged drains and pipes, illicit discharges, and construction site issues. 'YourGov' requests as well as any subsequent repair work by City staff is documented within the Cartegraph asset management system. Cartegraph data allow City leaders to optimize decision making processes and increase level of service to citizens.
- Inspections of certain 'hot spots' before and after significant storm events are managed via the Cartegraph asset management system. Crews are dispatched to inspect and clean obstructions from culverts and catch basins that are known to trap debris.
- Many long standing drainage issues in the City have been resolved since formation of the stormwater utility. The drainage system for the downtown area is controlled by a non-expandable single box culvert, however we are coordinating with the Planning Department as we proceed with the downtown area study.
- In 2019 the City completed the Bloomington Drive culvert replacement project. This project removed a failing multi-barrel box culvert on Gravelly Branch, a 303(d) listed stream, and replaced it with a clear span pre-cast structure so the natural stream channel can be reestablished through the structure.
- In 2018 the City stormwater division partnered with a consultant team to incorporate a stormwater park in the City's downtown area. The stormwater park is part of a larger masterplan and will provide flooding and water quality improvements in the downtown area. Information about the City's masterplan can be found at https://downtownkingsportplan.com/
- Urban forestry program funded through the City's CIP program. In spring 2019 two acres of riparian area along Reedy Creek, a 303(d) listed stream, was planted with native trees. While this project helped to restore riparian buffer along Reedy Creek it also removed this acreage from the City's landscape maintenance area, saving City resources.
- In 2018 the stormwater division teamed with the City's Parks and Rec department and a local consultant to prepare and submit for a Great Urban Parks Grant from the National Recreation and Parks Association. The focus of the grant is design and construction of Green Infrastructure within public park space.
- Rotherwood culvert rehabilitation project. This project sought to rehabilitate two existing 60" metal culverts in the City's Rotherwood Estates neighborhood. Through the use of innovative materials, in-house construction crews were able to rehabilitate the existing culverts in place without any disruption or damage to the existing stream.
- In 2018 the City teamed with a local consultant to begin planning a regenerative stormwater conveyance and outdoor classroom on a City owned parcel adjacent to one of the City's elementary schools. The regenerative stormwater conveyance will provide water quality treatment to 20+ acres of developed land which would otherwise remain untreated. The outdoor classroom will provide educational opportunities for students regarding water quality and the environment.
- City stormwater employees currently hold Board of Directors and Regional Chair leadership positions with the Tennessee Stormwater Association.
- Improvements to come in 2019/2020 include: bioretention projects in the downtown area, rain barrel give away and educational program, continuation of the stream clean-up program and the storm drain art contest, and long-term CIP masterplanning for the Stormwater Division.

## ACTIVITIES / ACCOMPLISHMENTS (continued)

Bloomington Drive culvert replacement

Tranbarger Branch Clean-up 2019

Stormy at Public Works Day 2019

KKB Conservation Camp 2019

We're All About
CLEAN Water