ADDENDUM NUMBER FOUR

LUPTON MILL SITE REMEDIATION

FOR THE CITY OF CHATTANOOGA, TENNESEE

Contract Number E-20-012-201

General Notes

- Bidders should ensure that they completely and accurately fill out Section 00201 Contractor's Identification Form and place it on the front of their bid, as instructed. Every line should be filled out. If the item is "Not Applicable", please fill in "N/A".
- The Contractor shall place pins in concrete at the corners of the Asbestos Landfill area when work is completed in this area such that the exact location of the landfill may be added to the plat of the property as noted in SMP and asbestos specifications.
- This is a high profile project. The Contractor will be responsible for keeping the site secure at all times.
- All bidding contractors must register with purchasing. By registering the contractor will be assured of receiving correspondence (Addendums, correspondence, Q & A, etc.).
- To ensure questions are answered and the information is available to all, the bidding contractor will need to follow the established submittal procedures. Requests and questions will be emailed to City Purchasing who in turn will send to City Engineering. Engineering will ensure requests and questions are answered by the appropriate party.

Q&A

Q. What is the original square footage of the building?

A. A Phase I report prepared prior to the demolition of the building estimates that the building was roughly 455,000 square feet consisting of multiple stories.

Q. What is the estimated quantity of debris that remains on site?

A. The City roughly estimates there is roughly 10,403 CY of loose debris left on site and the volume of the basement is about 16,331 CY.. However, the City maintains that this is a rough estimate and does not guarantee the accuracy of this estimate. The actual remaining debris may be greater than or lesser than the estimate as the estimate does not account for remaining intact structures still needing to be demolished, concrete slabs, walls, towers, supports, etc.

Q. Is the site available for additional visits?

A. Contractors may direct requests for additional site visits to the City of Chattanooga Purchasing Department. The City will make all efforts to accommodate these requests.

Q. Where are the City supplied stockpiles of clean soil located?

A. The first stockpile to be utilized on the bottom lift of the cap is located on site. The second stockpile to be utilized is located at the Chattanooga Riverpark at 4301 Amnicola Highway. The third stockpile to be utilized is located at the Mocassin Bend Wastewater Treatment Plant at 455 Mocassin Bend Road.

Q. Is a shower/decontamination shower required for the project?

A. A shower/decontamination shower is not required, but the contract should provide a space for workers to clean up in order to take breaks/lunch as per OSHA Regulations. Discharge water must be filtered to 5 micron prior to discharging to the sanitary sewer.

Q. Who will be responsible for determining what debris will be placed in the Asbestos Landfill?

A. The City will provide documentation to friable asbestos containing material on site, but ultimately the Contractor will be responsible for segregating material. It is understood that some of the smaller pieces of friable ACM will not make it into the landfill and that non-ACM debris will be in the landfill. The intent is that a good faith effort must be made to get the friable ACM into the landfill.

Q. What is the maximum size that debris must be reduced to?

A. The maximum size for debris is listed in the Limited Geotechnical Engineering Report, Prepared by S&ME and was released in Addendum #001. The maximum particle size is 18".

Q. If Metal should be segregated and recycled, does that mean that the reinforced concrete should actually be reduced to smaller than 18" particle size as listed in the documents?

A. Yes, since metal should be segregated as and recycled as much as possible, reinforced concrete beams and slabs may need to be reduced to a smaller size to accomplish this.

Q. Can you provide more information on the type of geotextile fabric required?

A. The Geotechnical Engineering Report specifies that the geotextile fabric shall be 12oz, non-woven, needle punch filter fabric. Further Specification Section 6200 has been incorporated into the contract.

Q. What are the insurance requirements that Norfolk Southern Railroad will require to be met for work on the right-of-way?

A. Contractor must fulfill all insurance requirements that are listed in the agreement with Norfolk Southern. This agreement has been attached to this Addendum for review.

Q. Can you please provide specifications for fencing?

A. A Fencing Specification Section 323113 has been incorporated into the contract.

Documents hereby incorporated into the contract by this Addendum:

- Specification Section 323113 Galvanized Chain Link Fence and Gates
- Specification Section 6200 Filter Fabric for Separation Stabilization
- Bid Tab
- Norfolk Southern Right-of-Entry Agreement

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September 4, 2020

/s/Justin C. Holland, Administrator
City Of Chattanooga
Department of Public Works

BID SCHEDULE

LUPTON MILL SITE CLEANUP AND REMEDIATION

Project No. E-16-006

City of Chattanooga, Tennessee

Item No.	Description	Unit	Est. No. of Units	Unit Price	Total
1	Mobilization	LS	1		
2	Demolition, Rubblization, and leveling of the debris in the Phase 1 Area - The area in and around the basement building on the eastern end of the site, including a portion of the asphalt to the east of that building, from the southern limits of clearing to the norther property boundary, and west to about 20 feet west of the site specific landfill	LS	1		
3	Demolition, Rubblization, and leveling of the debris in the Phase 2 Area - The area of the original mill wooden flooring, from the edge of the Phase 1 area on the east to the extension of a line from the eastern edge of the existing two-story brick structure, from the edge of the limits of debris fill at the north, southward to the limits of the wooden flooring (north of Phase 4 area) or to the limits of the concrete flooring (north of the Phase 3 area).	LS	1		
4	Demolition, Rubblization, and leveling of the debris in the Phase 3 Area - The area of the concrete flooring, raised wooden flooring, and some exposed ground south of a portion of the original wooden flooring, southward to the southen limits of the project site. This phase includes the concrete flooring of the three-story steel frame structure, but not the removal of the steel frame itself.	LS	1		
5	Demolition, Rubblization, and leveling of the debris in the Phase 4 Area - This area is south of the original wooden flooring, bordered on the east by the concrete building pad of the three story steel structure andon the west by the existing standing two story brick building, and extends southward to the limits of construction. This are includes that area of the existing smokestack, but not include the demolition of the smokestack itself.	LS	1		
6	Demolition and Removal of the existing three-story steel structure on-site, exclusive of the building pad.	LS	1		
7	Demolition and Leveling of the existing smokestack. This pay item is only for getting the smokestack to the ground, where it can be safely rubblized and the debris spread with the other site debris.	LS	1		
8	Demolition and Leveling of the existing two-story brick building. This pay item is only for getting the building to the ground, where it can be safely rubblized and the debris spread with the other site debris.	LS	1		
9	Demolition, Rubblization, and leveling of the debris in the Phase 8 Area - This area is a countinuation of the area of Phase 2, in a westward direction. It is the area of the original wooden flooring, from the edge of Phase 2 to the western extent of woden flooring, and from the edge of the limits of debris fill to he notrh, wouthward to the limits of the wooden flooring, being a horizonatal line extending from the face of the standing two-story brick structure.	LS	1		

10	Demolition, Rubblization, and leveling of the debris in the Phase 9 Area - This area is south of the area of Phase 8 and west of the area of Phase 4. The southern boundary, to the east of the existing gate, is the existing project limits, and to the west of the existing gate, is just south of the existing fenceline.	LS	1			
11	Demolition, Rubblization, and leveling of the debris in the Phase 10 Area - This area is west of the area of Phase 8 and Phase 9. This area may contain some debris, but it is mostly vegetation which needs to be cleared, with an asphalt entrance road and some gravel parking surfaces. There are two existing trees in this area that are to remain unditurbed,	LS	1			
12	Demolition, Rubblization, and leveling of the debris in the Phase 11 Area - This area is east of the area of Phase 1. This area includes the soil which has been stockpiled on site for use as cover material over the rubble. A portion of the existing asphalt needs to remain in place to be used in accessing the property to the south of the project.	LS	1			
13	Construction, maintenance, and closing of an on-site asbestos landfill as shown on the drawings.	LS	1			
SUBTOTAL, DEMOLITION AND RUBBLIZATION						
SITE CAPPING						
14	12 ounce non-woven needle punch filter fabric as required to be placed in cap material (See Section 3.2A in Section 02 41 00, Demolition)	S.Y.	31,000			
15	Moving cap material onsite from eastern end of site	CY	2,871			
16	Hauling cap material onto site from Lupton Mill Soil Stockpile, located at Amnicola Highway (approx distance = 4.5 miles)	CY	5,700			
17	Hauling cap material onto site from Moccasin Bend Waste Water Treatment Plant, located at 455 Mocassin Bend Road. (approx. distance = 8 miles)	CY	12,145			
18	Placing/spreading cap material on site	LS	1			
SUBTOTAL, SITE CAPPING						
FENCING						
19	Remove existing fencing along southern boder of site (approx. 2005 l.f.)	L.F.	2005			
20	Replace existing fencing along southern boder of site (approx. 2005 l.f.) with new 6' high chain link fencing with standard post spacing	L.F.	2005			
21	Install new chain link fence, 5' high along center of driveway through North portion of site, as shown on the plans.	L.F.	1160			
22	replacement chain link drive though gate at south-eastern corner or property to replace the existing gate that is on the railroad ROW	1	EA			
23	6 inch diameter steel bollards, spaced 5 feet on center (between labels 102, sheet D-1)	38	EA			
24	12 foot wide steel pipe access control gate	1	EA			
SUBTOTAL, FENCING						
EROSION AND SEDIMENT CONTROL						
25	Seed and straw (or hydroseed) over cap material (no additional top soil, assumes cover mateial is sufficient)	S.F.	31,000			

26	12" diameter straw wattles for erosion control, installed and maintained	LF	4,000			
27	8" diameter straw wattles for erosion control, installed and maintained	L.F.	1,000			
28	silt fence for erosion control, installed and maintained	L.F.	500			
SUBTOTAL, EROSION AND SEDIMENT CONTROL						
WORK AT OFF-SITE LOCATIONS.						
29	Installation and maintenance of a standard TDEC construction entrance at the Amnicola borrow site	LS	1			
30	Installation and maintenance of a standard TDEC construction entrance at the Moccasin Bend borrow site, if needed	LS	1			
31	Final fine grading, site stabilization, site cleanup, permanent seeding with straw cover at Amnicola borrow site. (Current fill area is approx, 150,000 s.f.)	S.F.	97,973			
32	Final fine grading, site stabilization, site cleanup, permanent seeding with straw cover at MBWWTP site. (Current fill area is approx, 40,000 s.f.)	S.F.	40,000			
33	Silt Fence installation around borrow site excavation as directed by the engineer	L.F.				
SUBTOTAL, CLEANUP AT OFFSITE LOCATIONS						
MISCELLANEOUS ITEMS						
	Classification of non-hazardous containers.	Ea	5			
	Disposal of non-hazardous containers.	Lb	250			
	Classification of hazardous containers.	Ea	5			
	Disposal of hazardous containers.	Lb	250			
SUBTOTAL, MISCELLANEOUS ITEMS						
	TOTAL BID					
ALTERNATE 1						
	One contractor has suggested that, as opposed to spreading the debris across the site, they would like to excavate another large hole and place debris there. Soil excavated from this pit can be used as cover or fill across the site. This alternate is for costs related to excavating this second pit.					
	Excavation of second pit for placement of debris	C.Y.	5000			
	Deduct from Items 2-12 (total) related to cost savings from not spreading debris across the site.	L.S.	1			
	TOTAL ALTERNATE 1					

Section 6200

Filter Fabric for Seperation Stabilization

1.0 GENERAL

This section covers the technical requirements for the manufacturing and installation of a geotextile for Separation Stabilization.

2.0 GEOTEXTILE

2.1 MEASUREMENT

2.1.1 Measurement for the geotextile is in square yards, based upon the locations shown on the contract drawings.
2.1.2 Contractor is responsible for determining actual square yards required accounting for waste, overlaps, damaged materials and repairs.

2.2 REFERENCES

2.2.1 American Society for Testing and Materials (ASTM)
2.2.2 ASTM D 5261, Standard Test Method for Measuring Mass per Unit Area of Geotextiles
2.2.3 ASTM D 4632, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
2.2.4 ASTM D 6241, Standard Test Method for Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe
2.2.5 ASTM D 4533, Standard Test Method for Index Trapezoidal Tearing Strength of Geotextiles
2.2.6 ASTM D 4751, Standard Test Method for Determining Apparent Opening Size of a Geotextile
2.2.7 ASTM D 4491, Standard Test Method for Water Permeability of Geotextiles by Permittivity
2.2.8 ASTM D 4355, Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus
2.2.9 ASTM D 4354, Standard Practice for Sampling of Geosynthetics for Testing
2.2.10 ASTM D 4759, Standard Practice for Determining the Specifications Conformance of Geosynthetics

2.3 GEOTEXTILE PROPERTIES

2.3.1 The geotextile shall be a needle-punched nonwoven made of 100% polypropylene staple filaments that resists ultraviolet and biological deterioration, rotting, naturally encountered basics and acids.

2.3.2 Geotextile shall be produced by a manufacturer participating in the NTPEP PROJECT WORK PLAN FOR GEOTEXTILE MATERIALS FOR HIGHWAY APPLICATIONS.

2.3.3 Geotextile shall meet or exceed the following M.A.R.V. values (unless otherwise indicated) listed in Table 1

Table 1

Property	Method	English	Metric
Weight - Typical	ASTM D-5261	12 oz/yÂ²	407 g/mÂ²
Tensile Strength	ASTM D-4632	300 lbs	1,335 N
Elongation @ Break	ASTM D-4632	50%	50%
Mullen Burst(3)	ASTM D-3786	580 psi	3,999 kPa
Puncture Strength(3)	ASTM D-4833	180 lbs	801 N
CBR Puncture	ASTM D-6241	800 lbs	3,560 N
Trapezoidal Tear	ASTM D-4533	115 lbs	511 N
Apparent Opening Size(1,2)	ASTM D-4751	100 US Sieve	0.15 mm
Permittivity(1)	ASTM D-4491	0.80 Sec^{-1}	0.80 Sec^{-1}
Water Flow Rate(1)	ASTM D-4491	75 g/min/fÂ²	3,0551 l/min/mÂ²
UV Resistance @ 500 Hours	ASTM D-4355	70%	70%

Appendix A - Pre-approved Products:

1) US 300NW
US Fabrics, Inc.
3904 Virginia Ave.
Cincinnati, OH 45245
(800)518-2290
www.usfabrics.com

2.4 LABELING AND PRINTING

2.4.1 Geotextiles shall be labeled per NTPEP GTX-01-15 guidelines.

2.4.2 Each unique geotextile shall be permanently marked with clearly legible print showing, as a minimum, the manufacturing plant or manufacturing plant ID code numbers.

2.4.3 This marking shall be located on the roll edge of the product in the selvedge at a frequency of once per 16.4 ft.

2.4.4 Labels shall be affixed by the product manufacturer to both ends of the outside of the geotextile roll outer wrapping and both ends of the inside of the geotextile roll

core where they are easily visible for inspection, and shall be attached in a manner that would make the label difficult to remove or replace.

2.4.5 As a minimum, the label shall contain the following additional information about the product and its production:

2.4.5.1 The roll number, its production date, AASHTO M288 class(es) the product meets (or "NTPEP listed" if no class applies), and the product name.

2.4.5.2 If the manufacturer is supplying the product to a private label company, the product name is the one that will be used by the private label company.

2.4.5.3 If the permanent mark described above contains all the information required for the labels, the labels on one end of the roll may be eliminated.

2.5 SUBMITTALS

2.5.1 For products which are not pre-approved, the contractor shall provide to the Engineer a certificate stating the name of the manufacturer, product name, style number, chemical composition of the product and other pertinent information to fully describe the geosynthetic. The Certification shall state that the furnished geosynthetic meets MARV requirements of the specification as evaluated under the Manufacturer's quality control program. The Certification shall be attested to by a person having legal authority to bind the Manufacturer.

2.6 QUALITY ASSURANCE

2.6.1 Upon delivery to the project site, the contractor shall examine the geotextile rolls and report any damage or deviations from project specifications to the project engineer.

2.6.1.1 Geotextile rolls shall arrive wrapped in a UV protective film and without deep gashes or punctures resulting from handling.

2.6.2 Before unwrapping and deploying, the contractor shall record on a separate ledger the roll number of every geotextile roll received on the jobsite.

2.6.3 Upon project engineer's request, contractor shall provide actual test results for every roll delivered to the project site.

2.6.4 The project engineer may decide to arrange conformance testing of the rolls delivered to the project site.

2.6.4.1 For this purpose, the engineer shall take a sample three feet (along roll length) by roll width according to ASTM Practice D 4354.

2.6.4.2 The sample shall be rolled (not folded), properly marked, wrapped and sent to an independent, GAI-LAP accredited laboratory for conformance testing.

2.6.4.3 The pass or fail of the conformance test results shall be determined according to ASTM Practice D 4759.

2.6.4.4 Individual conformance test results falling below published minimums shall not soley define failed production.

2.6.4.4.1 “Minimum average roll value” (MARV) requires that 97.5% of all material produced should meet or exceed a given MARV.

2.6.4.4.2 In cases of failure, duplicate tests shall be run on the material in question to determine if the problem is in the test procedure.

2.7 TRANSPORT

2.7.1 Transportation of the geotextile shall be the responsibility of the contractor.

2.7.2 During shipment, the geotextile shall be protected from moisture, ultraviolet radiation, puncture, chemicals that are strong acids or bases, temperatures in excess of 140ºF or other damaging or deleterious conditions.

END OF SECTION

3.0 INSTALLATION

3.1 PREPARE SURFACE

3.1.1 Contractor shall remove all tree stumps and any protruding objects such as large rocks.

3.1.1.1 Depressions shall be filled with a suitable granular material.

3.1.1.2 Smaller stone from an existing driveway or parking lot may be left in place.

3.1.2 Contractor shall replace pockets of very weak soils with select, granular fill.

3.1.3 For areas that consistently hold water:

3.1.3.1 Contractor shall replace the wet pumping soils with select, granular fill.

3.1.3.2 If grading to shed water is not effective, contractor shall install a drainage system or drain tile.

3.2 SMOOTH & LEVEL SUBGRADE

3.2.1 Area shall be graded level as possible.

3.2.2 Contractor shall excavate as shallow as possible to avoid creating areas that will hold water.

3.2.3 For very soft soils, contractor may consider leaving vegetation, roots and topsoil in place.

3.3 PLACE SEPARATION/STABILIZATION GEOTEXTILE

3.3.1 Separation/stabilization geotextile shall be placed directly on the prepared subgrade.

3.3.2 Geotextile shall be rolled out flat in the direction of construction traffic, minimizing folds and creases.

3.3.3 Pins or staples are typically not required to hold the fabric in place.

3.3.2.1 If required, 6 or 12 inch sod staples may be used.

3.4 OVERLAPPING

3.4.1 Soil CBR shall determine if overlapping or sewing is the correct option:

Soil CBR > 3	Minimum overlaps of 1 – 1.5 feet
Soil CBR 1-3	Minimum overlaps of 2 – 3.25 feet
Soil CBR < 0.5	Must be sewn

3.4.2 Geotextile shall be overlapped both side-to-side and end-to-end in the direction of aggregate placement.

3.4.3 Curves may be accomplished by folding or cutting the fabric to conform to the curve.

3.5 PLACE AGGREGATE

3.5.1 Place and compact the aggregate.

3.5.2 Lift thickness shall not be less than 6 inches.

3.5.2.1 Dozer operator may identify areas in need of additional aggregate thickness by observing aggregate layer rutting.

3.5.3 Where possible, the preferred method is to dump aggregate onto the geotextile and push it outward with bulldozer blade tilted slightly upward.

3.5.4 Dump trucks and rubber-tired loaders may be driven directly on the geotextile if lack of space is an issue.

3.5.4.1 Contractor shall avoid quick stops, starts and turns.

3.5.4.2 Contractor shall keep speeds less than 10 mph.

3.5.4.3 Contractor shall observe initial vehicle operation to insure geotextile is not damaged.

3.5.5 Aggregate shall be spread in the same direction as any geotextile overlap to avoid separation between the two pieces.

3.5.6 Contractor shall ensure geotextile is not moved out of position during aggregate spreading.

3.6 AGGREGATE COMPACTION

3.6.1 Intial compaction shall be achieved by walking tracked bulldozer back and forth over the aggregate.

3.6.2 Construction traffic shall work the aggregate until reasonable stability is achieved.

3.6.3 Final compaction shall be achieved by rolling area with vibratory compactor.

3.6.3.1 Initial passes shall be made without vibration.

3.6.3.2 Final passes shall be made with full vibration.

3.6.4 After final compaction, weak areas shall be be filled with additional aggregate and compacted.

3.6.4.1 Ruts shall not be graded down.

3.7 AGGREGATE

3.7.1 Aggregate shall be crushed and angular, ranging from 10% dust (or fines) up to 1 or 2 inches in diameter.

3.7.2 Use of rounded stone is prohibited.

3.8 REPAIR

3.8.1 Damaged areas shall be overlapped according to section 3.4.

3.9 STORAGE

3.9.1 Upon delivery to the project site, the contractor shall insure geotextile rolls are adequately protected from, moisture, ultraviolet radiation, chemicals that are strong acids or bases, temperatures in excess of 140ºF and animal destruction.

3.9.2 If stored outdoors for a prolonged period, contractor shall elevate the geotextile from the ground and cover with a tarpaulin or opaque plastic.

3.9.3 Exposure of the geotextile to the elements following lay down shall be limited to 14 days.

END OF SECTION

SECTION 323113

GALVANIZED CHAIN LINK FENCE AND GATES

PART 1 – GENERAL

1.01 DESCRIPTION

A. This Section includes industrial/commercial chain link fence and gates specifications:
   1. Galvanized steel coated chain link fabric
   2. Galvanized steel framework and fittings
   3. Gates: swing and cantilever slide
   4. Barbed wire
   5. Installation

1.02 REFERENCES

A. ASTM A121 Specification for Metallic-Coated Carbon Steel Barbed Wire
B. ASTM A392 Specification for Zinc-Coated Steel Chain-Link Fence Fabric
C. ASTM A780 Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
D. ASTM F552 Standard Terminology Relating to Chain Link Fencing
E. ASTM F567 Standard Practice for Installation of Chain Link Fence
F. ASTM F626 Specification for Fence Fittings
G. ASTM F900 Specification for Industrial and Commercial Swing Gates
H. ASTM F1043 Specification for Strength and Protective Coatings of Steel Industrial Chain Link Fence Framework
I. ASTM F1083 Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures
J. ASTM F1184 Specification for Industrial and Commercial Horizontal Slide Gates
K. ASTM F2200 Specification for Automated Vehicular Gate Construction
L. UL325 Automatic operators: Door, Drapery, Gate, Louver and Window

1.03 SUBMITTALS

A. Shop drawings: Site plan showing layout of fence location with dimensions, location of gates and opening size, cleared area, elevation of fence, gates, footings and details of attachments.

B. Material samples: When required, provide representative samples of chain link fabric, framework and fittings.

PART 2 -- PRODUCTS

2.01 CHAIN LINK FABRIC

A. Steel Chain Link Fabric: [Height or heights indicated on drawings] <Select from table below and insert ASTM serial designation, mesh size, wire gauge, coating specification, including class and color when applicable, top/bottom selvage >
   1. Zinc-Coated Steel Fabric: ASTM A392 hot dipped galvanized before weaving (GBW) or after weaving (GAW).
      a. Class 1 - 1.2 oz/ft² (366 g/m²)
      b. Class 2 - 2.0 oz/ft² (610 g/m²) <available 9 and 6 gauge>

2. Fabric Selection Table: Steel chain link mesh sizes and gauges produced in one piece widths 3 feet (910 mm) to 12 feet (3660 mm)

Mesh Size In. (mm)	**6 gauge core** 0.192 in.	**9 gauge core** 0.148 in.	**11 gauge core** 0.120 in.	**11 1/2 gauge core** 0.113 in.	**12 Gauge core** 0.105 in.	**Notes**
	4.88 mm	3.76 mm	3.05 mm	2.87 mm	2.67 mm	N/A = Not applicable for
2 (50)	yes	yes	yes	N/A	N/A	industrial/commercial
1 ¾ (44)	yes	yes	yes	N/A	N/A	applications
1 (25)	N/M	yes	yes	N/A	N/A	N/M = Not manufactured
5/8 (16)	N/M	yes	yes	yes	yes*	*12 ga. only per F668
1/2 (13)	N/M	yes	yes	yes	yes*	
3/8 (10)	N/M	N/M	yes	yes	yes*	
	2170 lbf	1290 lbf	850 lbf	750 lbf	650 lbf	Wire Break Strength
	(9650 N)	(5740 N)	(3780 N)	(3340 N)	(2895 N)	

3. Fabric selvage:
   Standard fabric selvage for 2 in (50 mm) mesh 72 in. (1.8 m) high and higher is knuckle finish at BOTH ENDS [K&K].
   Fabric less than 72 in (1.8 m), knuckle finish top and bottom, K&K.

2.02 ROUND STEEL PIPE FENCE FRAMEWORK [Specify option A. or B.]

A. Round steel pipe and rail: Schedule 40 standard weight pipe, in accordance with ASTM F1083, 1.8 oz/ ft² (550 g/m²) hot dip galvanized zinc exterior and 1.8 oz/ft² (550 g/m²) hot dip galvanized zinc interior coating.
   1. Regular Grade: Minimum steel yield strength 30,000 psi (205 MPa)
   2. High Strength Grade (For Posts Greater than 6’ Height): Minimum yield strength 50,000 psi (344 MPa)

B. Round steel pipe and rail: Cold-rolled electric-resistance welded pipe in accordance with ASTM F1043 Materials Design Group IC (LG-40), minimum steel yield strength 50,000 psi (344 MPa). Type B external coating, hot dip galvanized zinc 0.9 oz/ ft² (305 g/m²) with a clear polymeric overcoat, Type D interior 90% zinc-rich coating having a minimum thickness of 0.30 mils (0.0076 mm).

C. Typical post and rail size for normal applications:

Item	Fence Height	Outside *Diameter* Inches (mm)		*F1083 Schedule 40 Weight lb/ft (kg/m)		F1043-IC (LG-40) Weight lb/ft (kg/m)	
Line post	up to 6 ft. (1.8 m)	1.900	(48.3)	2.72	(4.0)	2.28	(3.39)
	over 6 to 8 ft. (1.8 to 2.4 m)	2.375	(60.3)	3.65	(5.4)	3.12	(4.64)
	over 8 to 12 ft. (2.4 to 3.7 m)	2.875	(73.0)	5.79	(8.6)	4.64	(6.91)
	over 12 to 16 ft. (3.7 to 4.9 m)	4.000	(101.6)	9.11	(13.6)	6.56	(9.78)
Terminal post	up to 6 ft. (1.8 m)	2.375	(60.3)	3.65	(5.4)	3.12	(4.64)
	over 6 to 8 ft. (1.8 to 2.4 m)	2.875	(73.0)	5.79	(8.6)	4.64	(6.91)
	over 8 to 12 ft. (2.4 to 3.7 m)	4.000	(101.6)	9.11	(13.6)	6.56	(9.78)
	over 12 to 16 ft. (3.7 to 4.9 m)	6.625	(168.3)	18.97	(28.2)	Not available	
		8.625	(219.1)	28.58	(42.5)	Not available	
Rails		1.660	(42.2)	2.27	(3.4)	1.84	(2.74)

D. Framework Wind Load Caution:
Fences containing windscreens or privacy slats and fences greater than 8 feet (2.4 m) in height using, 1 in. (25 mm) mesh or smaller - recommend a wind load force analysis for post selection and post spacing. See Chain Link Manufactures Institute – Wind Load Guide CLFMI: WLG 2445.

2.03 TENSION WIRE

A. Metallic Coated Steel Marcelled Tension Wire: 7 gauge core (0.177 in.) (4.50 mm) marcelled wire complying with ASTM A824 [Match coating type to that of the chain link fabric]
   1. Type II Zinc-Coated, ASTM A817 Class 4 - 1.2 oz/ft² (366 g/m²)
   2. Type II Zinc-Coated, ASTM A817 Class 5 - 2.0 oz/ft² (610 g/m²)

2.04 BARBED WIRE

A. Metallic Coated Steel Barbed Wire: Comply with ASTM A121, Design Number 12-4-5-14R, double 12-½ gauge (0.099 in.) (2.51 mm) twisted strand wire, with 4 point 14 gauge (0.080 in.) (2.03 mm) round barbs spaced 5 inches (127 mm) on center. Match coating type to that of the chain link fabric.
   1. Coating Type Z - Zinc-coated: Strand wire coating Type Z, Class 3, 0.80 oz/ft² (254 g/m²), barb coating 0.70 oz/ft² (215g/m²).

2.05 FITTINGS

A. Tension and Brace Bands: Galvanized pressed steel complying with ASTM F626, minimum steel thickness of 12 gauge (0.105 in.) (2.67 mm), minimum width of 3/4 in. (19 mm) and minimum zinc coating of 1.20 oz/ft² (366 g/m²). Secure bands with 5/16 in. (7.94 mm) galvanized steel carriage bolts.

B. Terminal Post Caps, Line Post Loop Tops, Rail and Brace Ends, Boulevard Clamps, Rail Sleeves: In compliance to ASTM F626, pressed steel galvanized after fabrication having a minimum zinc coating of 1.20 oz/ft² (366 g/m²).

C. Truss Rod Assembly: In compliance with ASTM F626, 3/8 in. (9.53 mm) or 5/16" (7.94 mm) diameter steel truss rod with a pressed steel tightener, minimum zinc coating of 1.2 oz/ft² (366 g/m²), assembly capable of withstanding a tension of 2,000 lbs. (970 kg).

D. Tension Bars: In compliance with ASTM F626. Galvanized steel one-piece length 2 in. (50 mm) less than the fabric height. Minimum zinc coating 1.2 oz. /ft² (366 g/m²).
   1. *[Bars for 2 in. (50 mm) and 1 ¾ in. (44 mm) mesh shall have a minimum cross section of 3/16 in. (4.8 mm) by 3/4 in. (19 mm)]
   2. *[Bars for 1 in. (25 mm) mesh shall have a cross section of 1/4 in. (6.4 mm) by 3/8 in. (9.5 mm)]
   3. *[Small mesh 3/8 in. (10 mm), 1/2 in. (13 mm) and 5/8 in. (16 mm) shall be attached (sandwiched) to the terminal post using a galvanized steel strap having a minimum cross section of 2 in. (51 mm) by 3/16 in. (4.8 mm) with holes spaced 15 in. (381 mm) on center to accommodate 5/16 in. (7.9 mm) carriage bolts which are to be bolted thru the strap the mesh and thru the terminal post.]

E. Barbed Wire Arms: In compliance with ASTM F626, pressed steel galvanized after fabrication, minimum zinc coating of 1.20 oz. /ft² (366 g/m²), capable of supporting a vertical 250 lb (113 kg) load. [Type I – three strand 45 degree (0.785 rad) arm] [Type II – three strand vertical arm] [Type III – "V" shaped six strand arm]

2.06 TIE WIRE and HOG RINGS

A. 9 gauge core aluminum alloy ties and hog rings per ASTM F626.

2.07 SWING GATES

A. Swing Gates: Galvanized steel pipe welded fabrication in compliance with ASTM F900. Gate frame members 1.900 in. OD (48.3 mm) <Insert pipe specification> [ASTM F 1083 schedule 40 galvanized steel pipe] or [ASTM F1043 Group IC (LG-40) galvanized steel pipe] Frame members spaced no greater than 8 ft. (2440 mm) apart vertically and horizontally. Welded joints protected by applying zinc-rich paint in accordance with ASTM Practice A780. Positive locking gate latch, pressed steel galvanized after fabrication. Galvanized malleable iron or heavy gauge pressed steel post and frame hinges. Provide lockable drop bar and gate holdbacks with double gates. <Match gate fabric to that of the fence system> Gateposts per ASTM F1083

schedule 40 galvanized steel pipe. <Select the gatepost diameter from table 2.9 B> <Insert diameter and weight>

B. Gateposts: Regular Grade ASTM F1083 Schedule 40 pipe

Gate fabric height up to and including 6 ft. (1.2m)		
Gate leaf width	**Post Outside Diameter**	**Weight**
up to 4 ft. (1.2 m)	2.375 in. (60.3 mm)	3.65 lb/ft (5.4 kg/m)
over 4 ft. to 10 ft. (1.2 to 3.05 m)	2.875 in. (73.0 mm)	5.79 lb/ft (8.6 kg/m)
over 10 ft. to 18 ft. (3.05 to 5.5 m)	4.000 in. (101.6 mm)	9.11 lb/ft (13.6 kg/m)
Gate fabric height over 6 ft. to 12 ft. (1.2 to 2.4m)		
Gate leaf width		
up to 6 ft. (1.8 m)	2.875 in. (73.0 mm)	5.79 lb/ft (8.6 kg/m)
over 6 ft. to 12 ft. (1.8 to 3.7 m)	4.000 in. (101.6 mm)	9.11 lb/ft (13.6 kg/m)
over 12 ft. to 18 ft. (2.4 to 5.5 m)	6.625 in. (168.3 mm)	18.97 lb/ft (28.2 kg/m)
over 18 ft. to 24 ft. (5.5 to 7.3 m)	8.625 in. (219.1 mm)	28.58 lb/ft (42.5 kg/m)

2.08 CONCRETE

A. Concrete for post footings shall be Class B.

PART 3 -- EXECUTION

3.01 CLEARING FENCE LINE

A. Clearing: Surveying, clearing, grubbing, grading and removal of debris for the fence line or any required clear areas adjacent to the fence is the responsibility of the Contractor.

3.02 FRAMEWORK INSTALLATION

A. Posts: Posts shall be set plumb in concrete footings in accordance with ASTM F567. Minimum footing depth, 24 in. (609.6 mm) plus an additional 3 in. (76.2 mm) depth for each 1 ft. (305 mm) increase in the fence height over 4 ft. (1220 mm). Minimum footing diameter four times the largest cross section of the post up to a 4.00” (101.6 mm) dimension and three times the largest cross section of post greater than a 4.00” (101.6 mm) dimension. <Insert footing depth and diameter> <Local codes, site soil conditions, local frost depth, fence height and wind load may require larger diameter or deeper footings - See Chain Link Manufactures Institute – Product Guide and Wind Load Guide CLFMI: WLG 2445> Top of concrete footing to be [at grade crowned to shed water away from the post or 6 inches (152 mm) below grade] <Insert footing grade requirement> crowned to shed water away from the post. Line posts installed at intervals not exceeding 10 ft. (3.05 m) on center.

B. Top rail: When specified, install 21 ft. (6.4 m) lengths of rail continuous thru the line post or barb arm loop top. Splice rail using top rail sleeves minimum 6 in. (152 mm) long. Rail shall be secured to the terminal post by a brace band and rail end. Bottom rail or intermediate rail shall be field cut and secured to the line posts using boulevard

clamps or brace band with rail end. <Fences 12 feet (3.66 m) high or higher require mid rail>

C. Terminal posts: End, corner, pull and gate posts shall be braced and trussed for fence 6 ft. (1.8 m) and higher and for fences 5 ft. (1.5 m) in height not having a top rail. The horizontal brace rail and diagonal truss rod shall be installed in accordance with ASTM F567.

D. Tension wire: Shall be installed 4 in. (101.6 mm) up from the bottom of the fabric. Fences without top rail shall have a tension wire installed 4 in. (101.6 mm) down from the top of the fabric. Tension wire to be stretched taut, independently and prior to the fabric, between the terminal posts and secured to the terminal post using a brace band. Secure the tension wire to each line post with a tie wire. <Install the top tension wire through the barb arm loop for fences having barbed wire and no top rail.>

3.03 CHAIN LINK FABRIC INSTALLATION

A. Chain Link Fabric: Install fabric to [outside or inside] of the framework maintaining a ground clearance of no more than 2 inches (50 mm). Attach fabric to the terminal post by threading the tension bar through the fabric; secure the tension bar to the terminal post with tension bands and 5/16 in. (7.94 mm) carriage bolts spaced no greater than 12 inches (304.8mm) on center. Small mesh fabric less than 1 in. (25 mm), attach to terminal post by sandwiching the mesh between the post and a vertical 2 in. wide (50mm) by 3/16 in. (4.76 mm) galvanized steel strap using carriage bolts, bolted thru the bar, mesh and post spaced 15 in. (381 mm) on center. Chain link fabric to be stretched taut free of sag. Fabric to be secured to the line post with tie wires spaced no greater than 12 inches (304.8 mm) on center and to horizontal rail spaced no greater than18 inches (457.2 mm) on center. [Aluminum alloy tie wire shall be installed following ASTM F567: Wrap the tie around the post or rail and attached to a fabric wire picket on each side of the post or rail by twisting the tie wire around the fabric wire picket two full turns, cut off excess wire and bend over to prevent injury.] [Preformed 9 gauge power-fastened wire ties shall be installed following ASTM F626: Wrap the tie a full 360° around the post or rail and fabric wire picket, using a variable speed drill, twist the two ends together three full turns, cut off any excess wire and bend over to prevent injury.] Secure the fabric to the tension wire by crimping hogs rings around a fabric wire picket and tension wire.

3.04 BARBED WIRE INSTALLATION

A. Barbed Wire: Stretched taut between terminal posts and secured in the slots provided on the line post barb arms. Attach each strand of barbed wire to the terminal post using a brace band. <Indicate type of barb arm, Type I, II or III and direction [inward] [outward] for installation of Type I arm. >

3.05 GATE INSTALLATION

A. Swing Gates: Installation of swing gates and gateposts in compliance with ASTM F 567. Direction of swing shall be [inward or outward.] Gates shall be plumb in the closed position having a bottom clearance of 3 in. (76 mm), grade permitting. Hinge and latch offset opening space shall be no greater than 3 in. (76 mm) in the closed position. Double gate drop bar receivers shall be set in a concrete footing minimum 6 in. (152 mm) diameter 24 in. (609.6 mm) deep. Gate leaf holdbacks shall be installed for all double gates. Electrically operated gates must be manufactured and installed in compliance with ASTM F2200 and UL 325.

B. Horizontal Slide Gates: Install according to manufacturer's instructions and in accordance with ASTM F567. Gates shall be plum in the closed position, installed to slide with an initial pull force no greater than 40 lbs. (18.14 kg). Double gate drop bar receivers to be installed in a concrete footing as required by site conditions and codes. Ground clearance shall be 3 in. (76 mm), grade permitting. Electrically operated gate installation must conform to ASTM F2200 and UL 325.

3.06 3.6 NUTS AND BOLTS

A. Bolts: Carriage bolts used for fittings shall be installed with the head on the secure side of the fence. All bolts shall be peened over to prevent removal of the nut.

3.07 ELECTRICAL GROUNDING

A. A licensed electrical contractor shall install grounding.

3.08 CLEAN UP

A. Clean Up: The area of the fence line shall be left neat and free of any debris caused by the installation of the fence.

END OF SECTION

NORFOLK SOUTHERN™

Norfolk Southern Corporation
Law Department
Three Commercial Place
Norfolk, Virginia 23510-9241

Writer's Direct Dial Number

Phone: 757-629-2817
Fax: 757-629-2607
E-mail: Diane.Hogan@nscorp.com

Diane Hogan
Paralegal

April 2, 2019

Ms. Elizabeth Goss
City of Chattanooga
Department of Public Works
1250 Market Street
Suite 2100
Chattanooga, TN 37402

RE: Chattanooga, TN – Right of Entry Agreement between City of Chattanooga and Norfolk Southern Railway Company; Norfolk Southern Law File No. LD201800230

Dear Ms. Goss:

Enclosed is a fully executed Right of Entry Agreement regarding the referenced matter for your file.

If you have any questions, please feel free to contact our office.

Sincerely,

Diane Hogan

Diane Hogan

/dh
Enclosure

NS Law File No. LD201800230

ENVIRONMENTAL RIGHT OF ENTRY AGREEMENT

CITY OF CHATTANOOGA ("Licensee"), a Municipality of the State of Tennessee, has requested that **NORFOLK SOUTHERN RAILWAY COMPANY** ("Company"), a Virginia corporation, grant Licensee permission to enter upon the property of Company adjacent to property of Licensee at 1210 Mercer Street, Chattanooga, County of Hamilton, Tennessee, as indicated on the attached map, marked as Exhibit A (hereinafter referred to as "Property") for the purpose as more particularly described in Exhibit B.

Company, in consideration of the covenants and conditions contained in this Environmental Right of Entry Agreement ("Agreement") and insofar as its right, title and interest permits, grants Licensee permission to enter on the said Property for the purpose stated in the preceding paragraph, subject to the terms and conditions set forth below:

1. Subject to the provisions of T.C.A. sections 29-20-101 *et seq.*, Licensee shall defend and, if found liable, be responsible for paying damages arising from third party claims, suits, liabilities and judgments for personal injuries or damage to property, caused by any activities conducted by Licensee on the herein described property, excepting any such injury, damage or loss caused, in whole or part, by the negligence or fault of the Company.

2. a. All work done hereunder shall be done at Licensee's sole expense. No work shall occur within twenty-five feet of the center line of any track; provided that Company reserves the right to require placement of wells or borings at distances even more than twenty-five feet from the center line of any track if conditions dictate. No drainage condition shall be created or allowed to exist that may be adverse to Company. Licensee's work shall not interfere with the safe and proper support of Company's roadbed and track. All work done hereunder shall occur only during daylight hours at the location of the entry.

   b. All work done hereunder shall be performed by Licensee with such care, diligence and cooperation of Licensee with Company personnel as will avoid accident, damage or harm to persons or property and delays to or interference with operations of Company. If the work is to be performed in the vicinity of railroad facilities, said work shall be performed in accordance with (i) the latest American Railway Engineering and Maintenance Association Guidelines, by reference hereby made a part hereof; and (ii) to the entire satisfaction of Company's Division Engineer or his duly authorized representative.

   c. To the extent any statements in the scope of work included in Exhibit B contradict or are inconsistent with the terms of this Agreement, the terms of this Agreement control.

   d. Licensee agrees to keep a copy of this Agreement at the Property while conducting any of the work contemplated hereunder and to make it available upon demand by any employee or agent of Company.

3. Licensee shall provide notice to Company's Division Engineer Paul Anderson at 304-325-4274 not less than seventy-two hours before Licensee proposes to enter upon Company's property. Licensee understands that additional notice may be required if Company is to provide, at the desired time, any flagging that Company may deem necessary under Paragraph 2 hereof.

4. With the exception of public grade crossings, Licensee shall not cross the tracks of Company with any vehicle unless it shall have executed such separate agreement as shall be provided by Company.

5. It is expressly understood that the initial work covered hereunder is anticipated to take approximately one (1) day, as more fully explained in Exhibit B. Any work outside the scope of work included in Exhibit B will be subject to an amendment of this Agreement.

6. Before entering the Property, Licensee shall secure the permission of any tenant, if any, who is in possession of the Property. Company agrees that Company will assist Licensee in obtaining such consent from any such tenant who otherwise unreasonably withholds consent from Licensee following Licensee's request for such consent.

7. a. Licensee agrees to provide Company with complete copies of the results of the analyses of any samples taken from the Property, along with maps depicting locations of such samples, and any reports generated using such data, as well as any notices or materials submitted to or received from any governmental or quasi-governmental entity relating to the Property. The foregoing sentence includes copies of any waste manifests, profiles, or characterization, as applicable, of impacted soil and/or groundwater removed from the Property. Licensee shall provide to Company documentation, including without limitation location, dimensions, and GPS coordinates, of areas of contamination of the Property and soil and/or groundwater thereunder that is the subject of the investigation and/or cleanup addressed by this Agreement. Licensee also agrees to advise Company of any planned corrective action, closure of any well(s), and any regulatory closure involving the Property. Such materials shall be provided to Company in electronic format, addressed to Company's System Director Environmental Protection, c/o Norfolk Southern Corporation, 1200 Peachtree Street, NE, Box 13, Atlanta, Georgia 30309, or via email address provided by Company.

   b. Except to the extent disclosure is required by court order or applicable law or regulation, Licensee shall maintain the confidentiality of all information pertaining to any environmental tests performed on the Property.

8. Licensee will remove from the Property all soil, fill, debris or other materials (whether solid or liquid) removed during the activities covered by this Agreement, including any such material that is contaminated and/or potentially contaminated. Company assumes no responsibility for any such material and shall not be a signatory on any waste manifests, bills of lading or other documentation concerning this material.

9. No work of any character shall be started on the Property until:

   a. Certificates of Insurance, specifying that the policies are applicable to the particular work, have been furnished to and accepted by Company as evidence that Licensee's contractor and/or subcontractor maintain the following insurance coverages:

      (i) Workers' Compensation Insurance in satisfaction of statutory requirements of the state where the property covered by this agreement is located. Also, Employers' Liability Insurance having limits of not less than $500,000 each accident, $500,000 per disease - policy limit, and $500,000 per disease - each employee.

      (ii) Comprehensive General Liability Insurance having a combined single limit of not less than $2,000,000 per occurrence for all loss, damage, cost and expense, including attorney's fees, arising out of bodily injury, liability and property damage liability during the policy period. Such policy shall be endorsed to name Company as an additional insured and shall include a severability of interests provision. In addition, the policy shall be endorsed to reflect Contractual Liability Insurance specifically relating to the indemnity provisions of this agreement and any exclusion for construction or demolition activities (including installing wells or boring holes, but not for work done by means of a hand augur) conducted within 50 feet of railroad tracks shall be deleted from Licensee's policy.

      (iii) In the event Licensee's contractor and/or subcontractor cannot obtain contractual liability insurance to cover the obligations assumed under this Agreement, Licensee's contractor and/or subcontractor shall procure and furnish to Company either:

         A. a risk financing fee of $1,000.00 (herein called the "Risk Financing Fee"), in exchange for which Company will include the project under Company's Master Railroad Protective Liability Insurance Policy; or

         B. a Railroad Protective Liability Insurance Policy having a combined single limit of $2,000,000 per occurrence and

$6,000,000 in the aggregate applying separately to each annual period. Said policy shall provide coverage for all loss, damage, or expense arising from bodily injury and property damage liability, and physical damage to property attributed to acts or omissions at the job site. Said policy shall name Company as the named insured and the policy shall be underwritten on Insurance Services Offices Form No. CG 00 35 10 01 or its equivalent.

(iv) Automobile Liability Insurance having a combined single limit of not less than $1 million per occurrence. Said policy shall name Company as an additional insured and shall include a severability of interests provision.

b. Company has advised Licensee that limits, form, and substance of insurance policies and certificates of insurance are satisfactory to Company. The original Railroad Protective Liability Insurance Policy if applicable and certificate of liability insurance should be forwarded to Risk Manager, Norfolk Southern Corporation, Three Commercial Place, Norfolk, Virginia, 23510. The furnishing by Licensee of contractor's and/or subcontractor's evidence of insurance and the acceptance of the same by Company is not intended to and shall not reduce, limit, affect, or modify the primary obligations and liabilities of Licensee under the other provisions of this agreement.

c. Authorized representatives of Licensee have met with Company's Division Engineer or his representative and also with a representative of Company's Communications and Signals Department to receive any instructions Company may have concerning Licensee's activities on the Property. Licensee agrees to follow, at its expense, all such instructions, and in such manner as is satisfactory to Company.

d. Licensee represents to Company that Licensee is self-insured up to the amounts set forth in the Tennessee Governmental Tort Liability, Act, T.C.A. § 29-20-101 *et seq.*

10. All insurance or self-insurance described in Paragraph 9 shall be maintained until all work contemplated hereunder has been satisfactorily completed. Insurance companies may cancel or make significant changes in the insurance by permission of Licensee and Company, or upon giving thirty days' written notice to Licensee and Company of their intent to do so.

11. Licensee or its contractor shall secure, at its or their own expense, any permits or licenses required by federal, state, or local laws or ordinances and shall comply with all applicable laws, including without limitation any laws, regulations, standards, and

permit requirements relating to environmental pollution or contamination or to occupational health and safety.

12. Within 30 days of termination of this Agreement or completion of any groundwater sampling project, whichever first occurs, Licensee agrees to remove any well(s) in accordance with state procedures and provide Company evidence of such removal. Removal procedures shall include pulling or reaming the well casing(s) and grouting the hole(s) to ground surface in accordance with U.S. Environmental Protection Agency and state standards and/or guidelines, including at a minimum grouting from the bottom of the borehole/well to the surface. Within 30 days of termination of this Agreement, Licensee also agrees to restore the Property and shall leave it free of debris and holes in the ground and in such condition as is satisfactory to Company.

13. If any mechanics' or materialmen's liens, or similar lien, is asserted against the Property, or any other property of Company, as a result of the exercise of any license herein granted, Licensee shall immediately satisfy, or obtain the release of such lien, all at Licensee's expense.

14. Licensee further agrees to undertake at its sole expense any cleanup of any contamination of the Property and groundwater thereunder that is the subject of the investigation and/or cleanup addressed by this Agreement, or for which Licensee is otherwise responsible under Environmental Laws, and releases Company from any such liability.

15. This Agreement (a) shall not be assigned or transferred without written approval of the Company and (b) may be terminated at will by the Company or Licensee on five days' written notice to the other party and shall terminate automatically one (1) year from the date of this agreement; provided, however, that termination shall not relieve Licensee or its contractors of any obligation or liability incurred prior to such termination and shall not relieve Licensee of any obligation to remove any and all wells and other property of Licensee from the Property and leave the Property in a condition satisfactory to Company.

16. As used herein, the term Licensee shall be deemed to include Licensee and its agents and contractors.

17. If there is a conflict between the terms of another contract and this Agreement concerning this property, Licensee and Company agree that the terms of this Agreement shall control.

18. The provisions of Paragraphs 1, 11, 12, 13, and 14 shall survive the expiration or earlier termination of this Agreement.

NS Law File No. LD201800230

19. If any of the foregoing provisions is held for any reason to be unlawful or unenforceable, the parties intend that only the specific words found to be unlawful or unenforceable are severed and deleted from this agreement and that the balance of the agreement remain a binding enforceable agreement to the fullest extent permitted by law.

Each of the parties therefore has caused this Agreement to be executed by its duly authorized representative.

NORFOLK SOUTHERN RAILWAY COMPANY

Signature: _____

Name: Robert E. Martinez

Title: Vice President

Date: 4/2/19

CITY OF CHATTANOOGA

Signature: _____

Name: Justin Holland

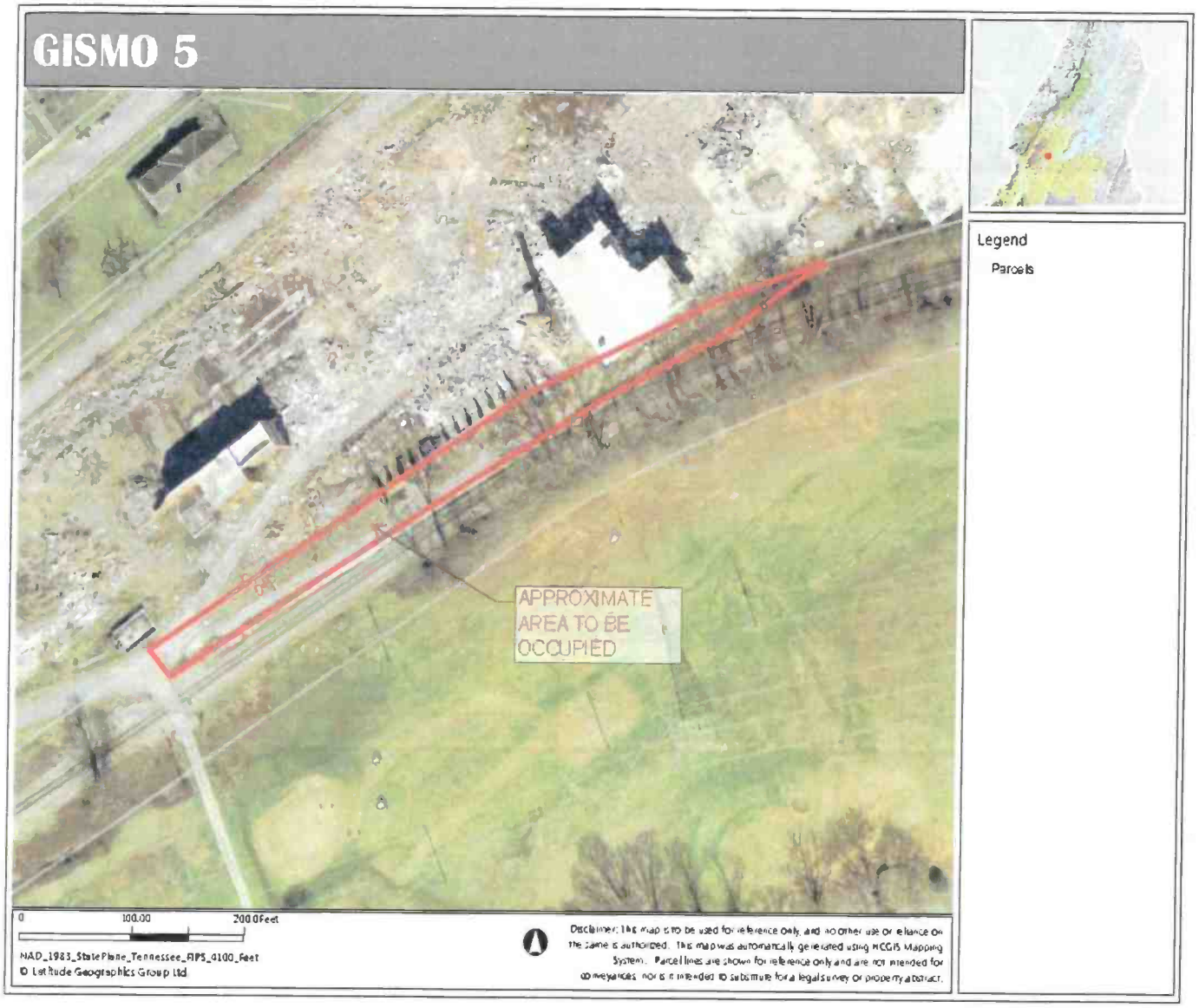
Title: Administrator, Department of Public Works

Date: 3-11-19

NS Law File No. LD201800230

EXHIBIT A
Map

NS Law File No. LD201800230



NS Law File No. LD201800230

Scale: As shown	S&ME	**Proposed Boring Location Plan** **Lupton City Mill** Chattanooga, Tennessee	Figure 1
Checked by: VJH			
Date: 06/16/2017		**Proposal No. 41-1700317**	

NS Law File No. LD201800230

EXHIBIT B
Scope of Work

NS Law File No. LD201800230

❖ SITE INFORMATION

The Former Lupton City Mill ("site") is located at 1210 Mercer Street in Chattanooga, Tennessee. The property was developed and operated by the Dixie Group from around 1923 to 1999 and was then owned and operated by R.L. Stowe Mills, Inc. from 1999 to 2009. The site encompasses roughly 11.86 acres that sits between the currently closed portion of Lupton Drive and the Norfolk Southern Railroad Right of Way.

Following the closure of the mill in 2009, the property was sold to Lupton City LLC. The property owners partially demolished the mill, leaving construction debris onsite. After abandoning the property, the City Of Chattanooga and Hamilton County, Tennessee legally acquired the property through back due taxes in 2018.

❖ PROJECT DESCRIPTION

The City Of Chattanooga ("City") is currently developing a set of construction documents, with guidance from the Tennessee Department of Environment and Conservation ("TDEC") for the demolition and grading of the property. Previous Phase I and Phase II reports have shown the presence of contamination on site. This is likely due to the past use of the site and the exposure of creosote treated wood flooring to the elements after demolition. Several borings (B-1, B-2, B-3, B-7) were taken at or on the Norfolk Southern Railroad Right of Way but within the fence of the property, as shown in Figure 1. The results of testing on these borings are shown in Table 1. TDEC has advised us that for the intended purpose of our site (Greenspace), the only remedial action the City is required to take is to cap the site in order to remove the pathway of exposure.

The City recently discovered that portions of the mill and areas fenced off within the site lie within the limits of the Right of Way. The City, in exchange for waived Right of Entry fees and flagger fees, will demolish the structures within the Right of Way and remove debris from the

area. All debris will remain on City property and will be capped and covered by two feet of clean fill. Additionally, two groundwater monitoring wells that lie in or near the Right of Way will be closed by CTI Engineers in accordance with TDEC guidelines. The portions of the Right of Way that the property is currently encroaching on will ultimately be returned to natural grade and the current fence will be removed. The City will install at their own cost a new fence on the property line.

- PHOTOS

NS Law File No. LD201800230