

GENERAL

- Lineal foot measurements shown on the plans are horizontal measurements, not slope measurements. All payments shall be made on horizontal measurements.
- No geological information is shown on these plans.
- The utility locations shown on these plans are taken from utility company records and are approximate only. They do not constitute actual field locations. The contractor shall verify the location and depth of all utilities prior to construction.
- The contractor shall adhere to the provisions of the Senate Bill Number 583,78th General Assembly of the State of Missouri. The bill requires that any person of firm doing excavation on public right-of-way do so only after giving notice to, and obtaining information from, utility companies. State law requires 48 hours advance notice. The names and telephone numbers of utility companies, even if only remotely involved with this project are provided. Prior to commencement of work, the contractor shall notify all those companies which have facilities in the near vicinity of the construction to be performed.
- All waste material resulting from the project shall be disposed of off-site by the contractor.
- All excavation shall be unclassified. No separate payment will be made for rock excavation.
- The contractor shall control the erosion and siltation during all phases construction, and he shall keep the streets clean of mud and debris.
- All manholes, catch basins, utility valves and meter pits to be adjusted or rebuilt to grade as required. All existing utilities shall be adjusted as required.
- Subgrade soil for all concrete structures, regardless of the type or location, shall be firm, dense and thoroughly compacted and consolidated; shall be free from muck and mud, and shall be sufficiently stable to remain firm and intact under the feet of the workmen or machinery engaged in subgrade surfacing, laying reinforcing steel, and depositing concrete thereon. In all cases where subsoil is mucky or works into mud or muck during such operation, a seal course of either concrete or rock shall be placed below subgrade to provide a firm base for working and for placing the floor slab.
- The contractor is responsible for providing all surveying that may be required.
- Easements indicated on these drawings will be provided for on the final plat and properly dimensions. Easements outside the platted area will be provided for by separate documents prior to issuance of a construction permit.

STREETS & STORM SEWER

- All construction shall follow the City of Lee's Summit Design and Construction Manual as adopted by Ordinance 5813.
- High Density Plastic Pipe (HDPE) shall conform to A.A.S.H.T.O. M-294.
- Reinforced Concrete Pipe (RCP) shall conform to ASTM Designation C-76-62T (Class III).
- Curb Return Radius, 15' minimum unless shown otherwise.
- The top 6" of roadway subgrade shall be undercut and compacted to minimum 95% of maximum density at optimum moisture as determined by AASHTO T99, Method B. Contractor shall provide for moisture-density and relative density tests on roadway subgrade by an accepted testing firm. Contractor shall provide for in-place density test on compacted subgrade by an accepted testing firm. In-place density test shall be conducted every 50-feet along the proposed roadway. Contractor shall provide testing results to Engineer.
- All Flared End Sections shall be installed with Toe Wall. (See Toe Wall Detail on Storm Sewer Detail Sheet)

WATER

- All construction shall follow the City of Lee's Summit Design and Construction Manual as adopted by Ordinance 5813 and with all the requirements of the Missouri Department of Health and Missouri Clean Water Commission.
- Class 50 Ductile Iron Pipe or C900 pipe shall be used per city specifications
- All fittings shall be lined inside and out with an asphaltic base or bitumastic coating, and shall be megatag.
- Fire Hydrants shall be Watrous Pacer WG-67 with non-rising stem or approved equal by the City Engineer. Hydrants shall have 5 1/4" valve with 4 1/2" pumper nozzle and 2-2 1/2" hose nozzles (left hand opening).
- Gate Valves to be on city approved product list valves 12 inches and larger shall be Butterfly valves manufactured by the Henry Pratt Company or City Engineer Approved equal Left hand opening minimum 200# testing AWWA.
- Valve boxes shall be Clay & Bailey # P1108 or any on city approved product list. All boxes to be installed out of pavement areas.
- Water lines are to be constructed to a depth of 4 feet below and back of street curbs. Street grading is to be complete prior to waterline placement.
- Easements for water lines located outside the platted area will be provided for by separate documents after the Final Plat is recorded.
- All tees, bends, plugs, valves and hydrants shall be provided with reaction blocking. Pre-cast blocks shall not be used.
- After water mains have been laid and partially backfilled, they shall be subject to a hydrostatic pressure test of not less than 150 psi in accordance with AWWA C605. The line shall be pressurized to test pressure and closed for two hours. At the end of the two-hour period, the line shall be depressurized and the volume of water required to restore pressure shall be measured. The maximum amount of water to restore pressure shall be 0.5 gallons per 1000 feet of tested main. Testing shall be done by Contractor in presence of Engineer.
- Before connecting to City water mains and prior to wet tap, the new main shall be disinfected in accordance with AWWA C651. A 1 percent solution of chlorine shall be pumped into the water main, such that the water in the line will not have less than 25 mg/l of free chlorine. At the end of a 24 hour period, the water shall be tested to ensure that at least 10 mg/l of free chlorine. After satisfactory testing of chlorination, the main shall be flushed. Disinfection testing and flushing shall be done by Contractor in presence of Engineer.
- After final flushing and before the pipeline is placed in service, two samples shall be collected and shall be tested for bacteriological quality in accordance with the State Department of Health or other regulatory agency. Satisfactory results for both samples is required for successful completion of bacteriological testing. Contractor shall conduct all testing and provide testing results to Engineer.
- Sample Taps must be included in the new line, no less than two (2) feet no more than ten (10) feet from where the new water line connects to the existing lines at each end.
- A representative of the city water department must be present for:
 - Disinfecting
 - Pressure Testing
 - Bacteria Testing (a minimum of three required at prescribed locations to be determined by the water dept.)

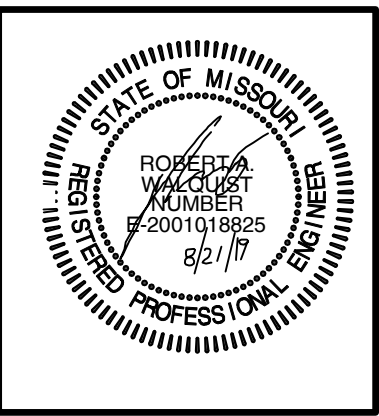
CIVIL PLANS FOR

I-470 BUSINESS AND TECHNOLOGY CENTER LOT 13A

A REPLAT OF LOTS 13, 14, 21, & 22 OF I-470 BUSINESS AND TECHNOLOGY CENTER SECTION 20, TOWNSHIP 48, RANGE 31 LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

ADDRESS: 2700 MCBRAINE DR

DEVELOPER:
BLUE SPRINGS SAFETY STORAGE LLC
1120 NW EAGLE RIDGE BLVD.
GRAIN VALLEY, MISSOURI 64029
Ph.# 816-229-8115



SHEET INDEX

- C100 CIVIL PLANS COVER SHEET
- C101 SITE SURVEY
- C200 FINAL DEVELOPMENT LAYOUT
- C201 SITE LANDSCAPING PLAN
- C210 SITE DETAIL SHEET
- C300 SITE GRADING PLAN
- C301 SITE ESC PHASE 1 & 2 PLAN
- C302 SITE ESC DETAILS
- C303 SITE ESC DETAILS
- C400 SITE STORM DRAINAGE PLAN AND CALCULATION
- C401 STORM LINE 1 THRU 5
- C402 STORM LINE DETAILS
- C600 PUBLIC WATER MAIN IMPROVEMENT PLAN
- C601 PUBLIC WATER MAIN DETAILS
- C700 SITE UTILITY PLAN

LEGAL DESCRIPTION:
I-470 BUSINESS AND TECHNOLOGY CENTER LOT 13A
A REPLAT OF LOTS 13, 14, 21, & 22 OF I-470 BUSINESS
AND TECHNOLOGY CENTER A SUBDIVISION IN LEE'S
SUMMIT, JACKSON COUNTY, MISSOURI

UTILITY NOTES:

- SANITARY SEWER**
NO NEW PUBLIC MAINS ARE PROPOSED.
CONTRACTOR SHALL LOCATE ALL EXISTING SEWER
LATERALS AND CAPED PER CITY REQUIREMENTS.
A NEW LATERAL SHALL BE INSTALLED AS SHOWN
- STORM SYSTEM**
ALL STORM SEWER WILL REMAIN PRIVATE AND WILL
TIE TO EXISTING PUBLIC STORM SYSTEM AT EXISTING
INLETS ONLY.
DOWN SPOUT SHALL BE COLLECTED AND ROUTED TO
PRIVATE OF PUBLIC STRUCTURE
- WATER CONNECTION**
NO NEW WATER MAIN OR HYDRANTS ARE PROPOSED
DOMESTIC METER SHALL BE PLACED AS SHOWN
FIRE LINE SHALL BE LOCATED AS SHOWN.

PERVIOUS VS IMPERVIOUS CALCULATIONS

LOT SIZE	179,505 SF
IMPERVIOUS SURFACES	
BUILDINGS (PORCHES)	68,222 SF
DRIVES/PARKING	
WALKS/MISC.	78,310 SF
TOTAL	146,532 SF
CALCULATIONS	
-/- =	82% IMPERVIOUS
	18% PERVIOUS (GREEN)

SITE DATA TABLE:

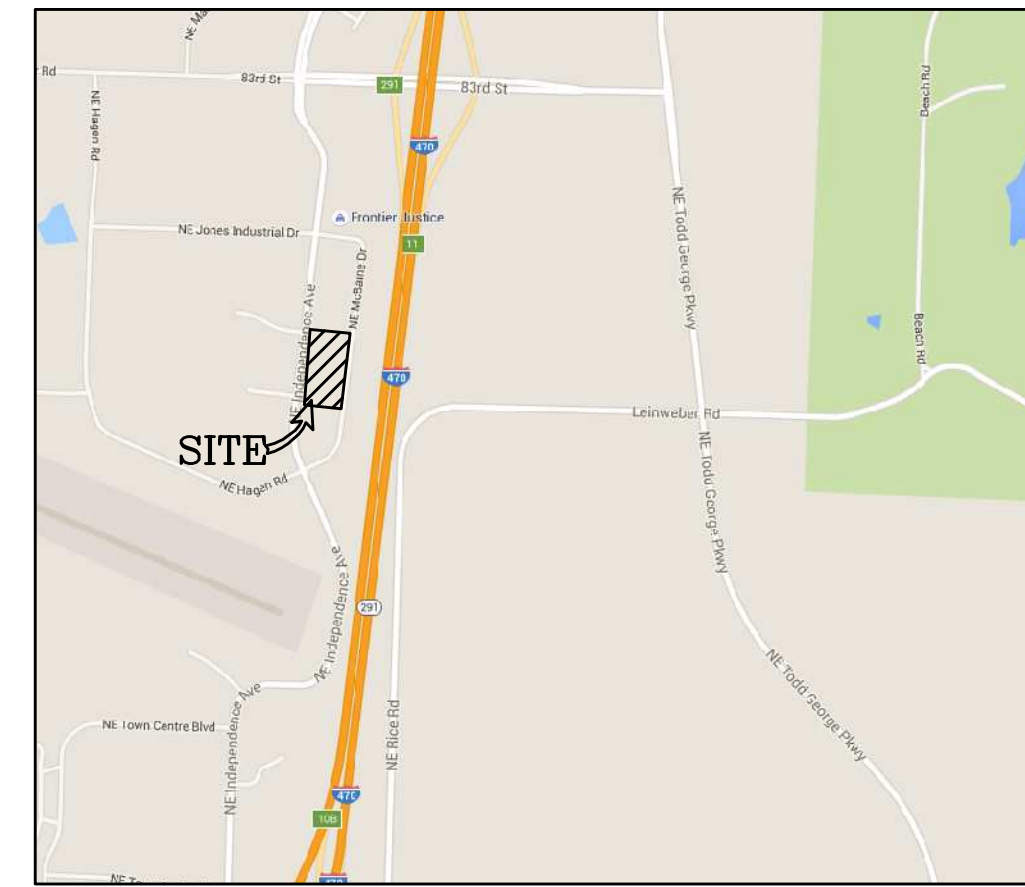
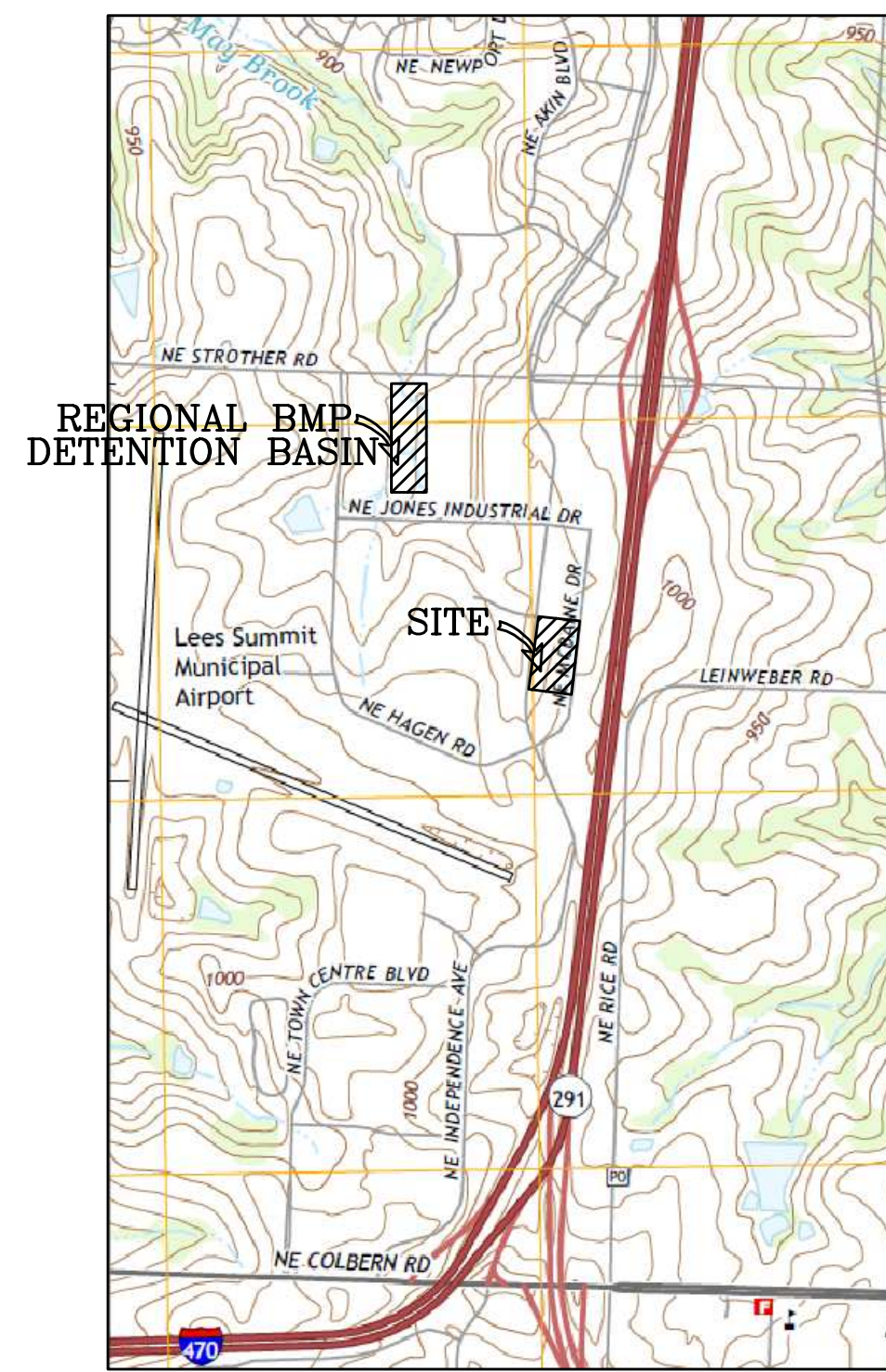
- EXISTING ZONING = PMIX
- LAND USE = INDUSTRIAL WAREHOUSE USES
- TOTAL LOT AREA = 179,505 sf = 4.12ac
- TOTAL BUILDING FOOTAGE = 68,222sf
- FLOOR AREA RATION (FAR) = 68,222 / 179,505 = 0.38 = 38%
- ESTIMATED 15% OFFICE = 10,136sf
- PARKING STALLS
REQUIRED STALL = 4 PER 1,000sf OFFICE
(10,136 / 1,000) = 40 STALLS
1 PER 1,000sf WAREHOUSE
(57,436 / 1,000) = 57 STALLS
TOTAL REQUIRED = 97
- PROPOSED STALLS
STANDARD 20'X9' STALLS = 99
ADA 20'X9' STALL WITH ISLE = 4
TOTAL = 103 STALLS
- TOTAL GREENS SPACE 33,620sf = 19%

**PRIVATE IMPROVEMENTS
NOT FOR BIDS.**

- CURB = 2,247sf
- CONCRETE HEAVY = 36,645sf
- CONCRETE LIGHT = 16,487sf
- SITE SIDEWALK / CURB WALK = 3,549sf
- CITY SIDEWALK = 2,436sf

**PUBLIC IMPROVEMENTS
NOT FOR BIDS.**

- CITY SIDEWALK = 2,436sf
- PUBLIC FIRE HYDRANT = 1
- 6" WATER MAIN = 67 L.F.



LOCATION MAP



NFIP
FIRM
FLOOD INSURANCE RATE MAP
JACKSON COUNTY,
MISSOURI
AND INCORPORATED AREAS

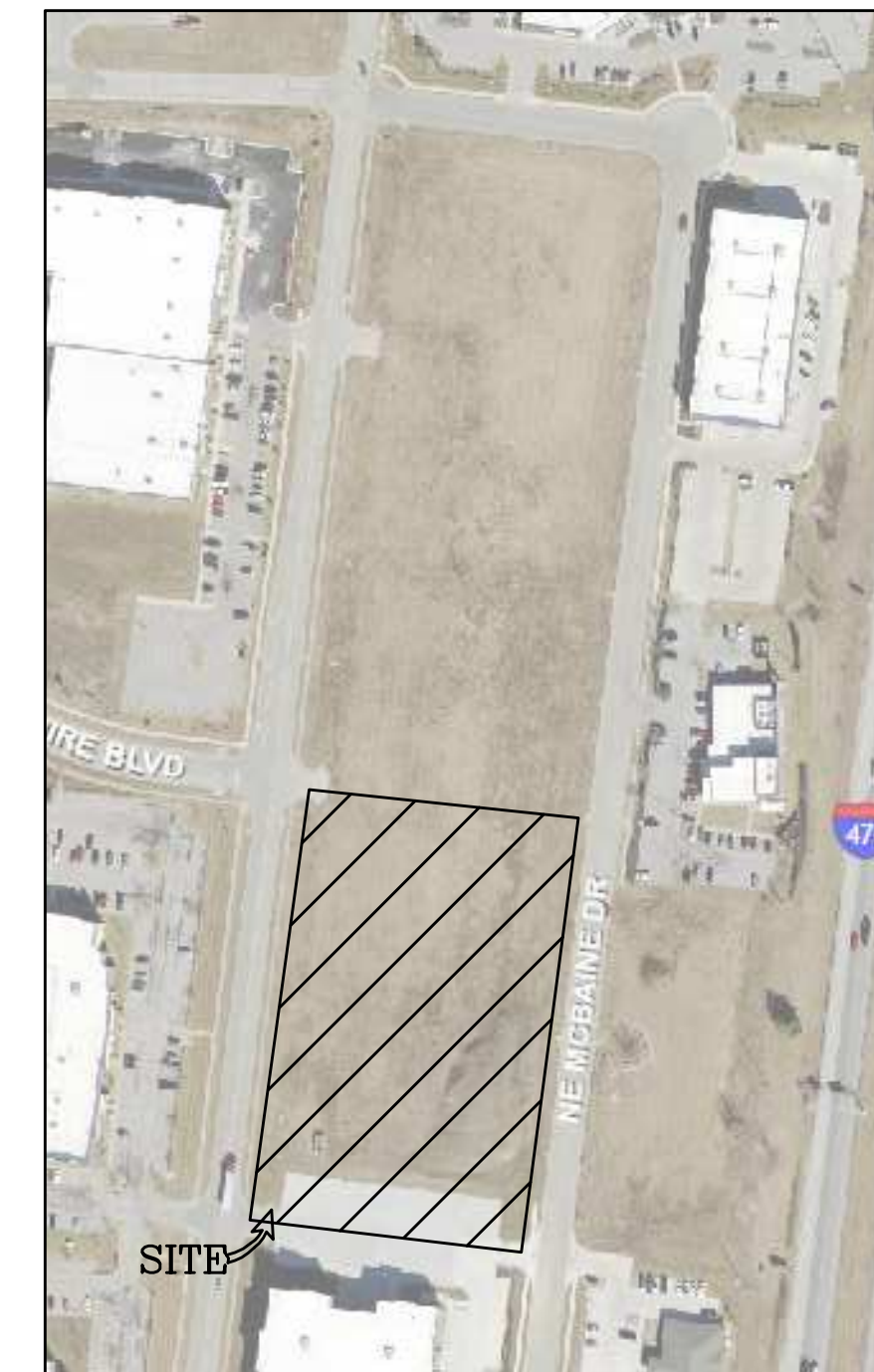
PANEL 430 OF 625
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COMMUNITY	NUMBER	ENGL	SUFEX
JACKSON COUNTY	2960	000	0
LEE'S SUMMIT	2674	000	0
LOT 13A			

MAP NUMBER
2909SC0430G
MAP REVISED
JANUARY 20, 2017
Federal Emergency Management Agency

Note to User: The Map Number shown herein should be used when placing map orders, the Community Number shown above should be used on insurance applications by the subject community.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT Ch-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.map.fema.gov



UTILITIES

<p>LEE'S SUMMIT PUBLIC WORKS 220 SE GREEN STREET LEE'S SUMMIT, MISSOURI 64063 (816) 969-1800</p> <p>KANSAS CITY POWER & LIGHT CO. P.O. BOX 219330 KANSAS CITY, MO 64121-9330 (816) 471-5275</p> <p>MISSOURI ONE-CALL 1-800-344-7483</p>	<p>MO GAS ENERGY P.O. BOX 219255 KANSAS CITY, MO 64141 (816) 756-5252</p> <p>TELEPHONE COMPANY CENTURY LINK P.O. BOX 2961 PHOENIX, AZ 85062 (800) 788-3600</p>
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**BEFORE YOU
DIG - DRILL - BLAST**



Call
1-800-344-7483 (MISSOURI)
1-800-344-7233 (KANSAS)

PROJECT CONTACTS: ROBERT WALQUIST, P.E.
821 NE COLUMBUS ST
LEE'S SUMMIT, MISSOURI 64063
Phone: (816) 550-5675

CIVIL PLANS COVER SHEET

I-470 LOT 13A
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

Quist Engineering, Inc
Civil Engineering for Residential &
Commercial Site Development
821 NE Columbus St
Lee's Summit, Missouri 64063
Phone: (816) 550-5675
email: rwalquist@quistengineering.com

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REVISIONS
7-24-19
8-7-19
8-21-19

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C100

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