

PLANNING COMMISSION REPORT
Regular Agenda – Public Hearing Item:

PC Staff Report
03/24/14

ITEM NO. 1: SPECIAL USE PERMIT FOR A PUMP STATION; 547 MAPLE STREET (SLD)

SUP-14-00007: Consider a Special Use Permit for a Pump Station, located at 547 Maple & 500 Perry St. Submitted by Bartlett & West, for the City of Lawrence, property owner of record.

STAFF RECOMMENDATION: Staff recommends approval of SUP-14-00007, a Special Use Permit for a Pump Station located at 547 Maple Street & 500 Perry Street, a *minor utility*, based upon the findings presented in the body of the staff report and subject to the following condition:

1. Applicant shall provide a revised site plan with the following changes:
 1. Provide a note on the plan that states lighting fixtures shall be provided with a full cut-off fixture and be directed down. Applicant shall provide lighting fixture details for review and approval prior to issuance of a building permit.
2. Submission of final building elevations for review and approval prior to issuance of a building permit.
3. Approval of the Special Use Permit is contingent upon approval of a Floodplain Development Permit. The SUP will be released to Development Services for a building permit after a Floodplain Development Permit application has been approved.

Applicant's Reason for Request:

"The Planning Department has requested a Special Use Permit be submitted to construct a stormwater pump station at this location."

KEY POINTS

- This pump station is a *Minor Utility* which serves more than one specific development; therefore approval is required through a Special Use Permit per Section 20-530 of the Development Code.
- Request is to construct the pump station on property owned by the City of Lawrence.
- This pump station is for a stormwater facility to address localized flooding per concerns listed in the *North Lawrence Drainage Study*; more specifically in System 6.
- This site plan shows both Lots 1 and 2. The proposed improvements will be located on Lot 2. Lot 1 will be retained by the City as open space.
- Funding for project is through the infrastructure sales tax.

FACTORS TO CONSIDER

- Procedural requirements of Section 20-1306; Special Use Permits.
- Improvement is included in the City's Capital Improvement Plan.

ASSOCIATED CASES/OTHER ACTION REQUIRED

Other action required:

- City Commission approval of the Special Use Permit and adoption of ordinance.
- The approved Minor Subdivision document must be recorded with the Register of Deeds Office prior to release of the Special Use Permit for issuance of a building permit.

- Administrative review and approval of Floodplain Development Permit for development activity associated with the pump station.
- Release of Special Use Permit site plan to Development Services for Building Permits.

ATTACHMENTS

1. Site Map
2. Site Plan
3. Similar buildings in North Lawrence
4. Generator Enclosure

PLANS AND STUDIES REQUIRED

- *Traffic Study* – Not required for project.
- *Downstream Sanitary Sewer Analysis* – The City Utility Engineer indicated that a DSSA is not required.
- *Drainage Study* – Not required for project
- *Retail Market Study* – Not applicable to project.

PUBLIC COMMENT

- No public comment was received prior to the printing of this staff report.

GENERAL INFORMATION

Current Zoning and Land Use: OS (Open Space) District; *undeveloped land and unimproved alley, plans to develop southern portion with a City pump station in process.*

Surrounding Zoning and Land Use: To the north: RS7 (Single-Dwelling Residential) District; *Detached Dwellings.*

To the west: RS7 (Single-Dwelling Residential) District; *Detached Dwelling;* and IG (General Industrial) District; *Detached Dwelling and Inoperable Vehicles Storage.*

To the south: IG (General Industrial) District; railroad right-of-way and undeveloped land.

To the east: IG General Industrial) District; *Construction Sales and Services, and Detached Dwelling.*

Summary of Special Use

This Stormwater Pump Station is a *minor utility* that serves development in the area. The pump station will include an above grade pump within a structure and a pad site for a backup generator. The presence of floodplain on the property will require a local floodplain development permit.

The pump station is defined as a *minor utility* in Section 20-1765 of the Development Code:

MINOR UTILITIES. Public utilities that have a local impact on surrounding properties. Typical uses include electrical and gas distribution substations, lift stations, telephone switching boxes, water towers. Excludes 'Wireless Telecommunication Facilities' use types.

This application includes Lot 1 which will remain open space. The lot will be planted with trees and shrubs as a transition between the industrial and residential zones in this area.

This proposed improvement is recommended in the North Lawrence Drainage Study and is part of "System 6". The plan states; *"this system contains the Maple Street Pump Station, which discharges stormwater to the south side of the railroad tracks running south of Maple Street."*

SITE SUMMARY: Includes both Lots 1 and 2. Improvements will be located on Lot 2.		
	Existing	Proposed
Property Area (sq ft):	25,142 SF	25,142 SF
Total Impervious Area (sq ft):	0	2,263 SF
Total Pervious Area (sq ft):	25,142 SF	22,879 SF

This property is being replatted from four lots to two lots. The proposed pump station will be located on Lot 2 (adjacent to Maple Street). Lot 1 will remain as open space.

This proposed development will include an open pit at the north end and a building structure for housing the pump units on the south end and an emergency generator on the east side of the site. The following graphic highlights the major above ground elements of the proposed improvement.

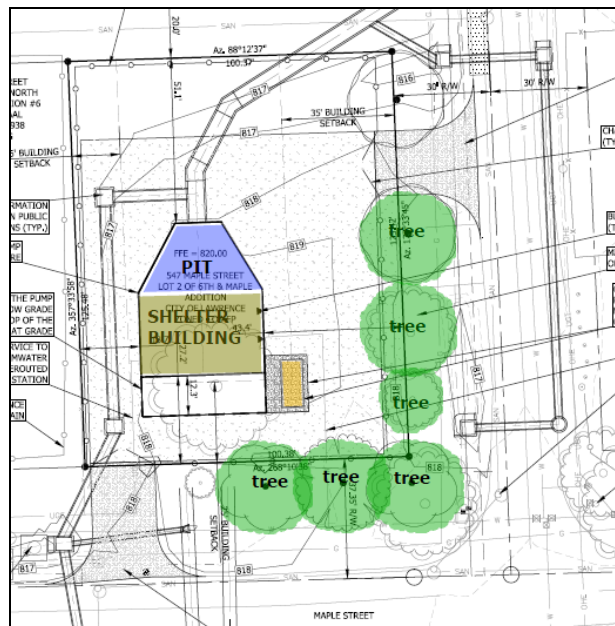


Figure 1: Proposed Site Plan

Street Trees: Street trees are provided along N. 6th Street and Maple Street. The proposed plan is to retain the existing trees and locate underground lines to the east. Street trees are also provided along N. 6th Street and Perry Street for Lot 1 included in the site plan.

Buffer Yard Requirements: This property is zoned OS (Open Space) District. The property abuts OS zoning to the north and IG (General Industrial) District to the east, west and south. With the exception of a residence to the east the surrounding land uses are either industrial or vacant properties. There are no buffer yard requirements for the OS Zoning District.

Screening for the generator must balance the ability to access the equipment for fueling as needed and provide security to the site by being readily visible from the public streets with the need for visual screening/buffering from the street right-of-way and adjacent residence to the east. It may be possible to add shrubs along the fence line along Maple Street and 6th Street to provide some screening of the generator. The following graphic shows the addition of a fence along with shrubs to provide screening. The plan proposes a 6' high chain link fence along the perimeter in addition to safety fencing around the pit area at the interior of the site. Staff recommends decorative fencing be provided along the public right-of-way along N. 6th Street and along Maple Street. This is consistent with industrial design guidelines that would be applicable to similar private development applications.

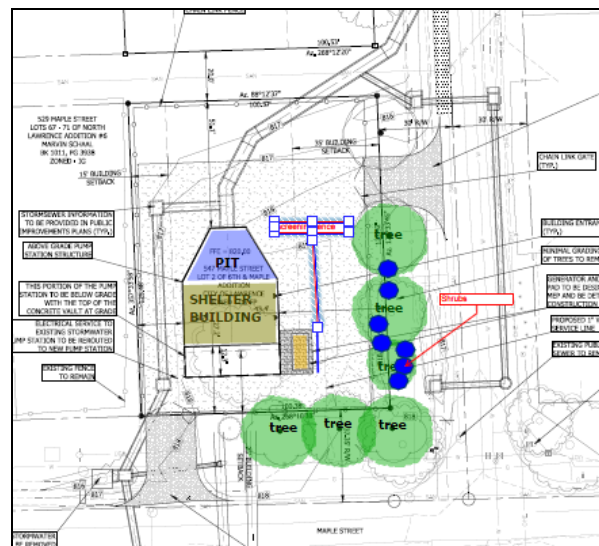


Figure 2: recommended landscape

Lighting

Additional details regarding the site lighting are required. The applicant intends to use building mounted lighting for this site. All lighting fixtures will need to be directed down and be provided with a full cut-off. Staff recommends that, as a condition of approval, prior to the issuance of a building permit, lighting fixture details be provided for staff review and approval.

Applicable Design Guidelines

There are no specific design guidelines applicable to this proposed improvement. Final elevations have not been prepared for this site at this time. the City Stormwater Engineer has indicated that the proposed building will have a similar appearance to other utility pump stations in the immediate area. The following table shows existing pump stations and their general location for a comparison to the proposed facility. The pump station located along N. 2nd Street is most similar to the planned improvement with the open pit and the shelter building. Skylight features provide for crane access to hoist pumps as needed for access or maintenance. The overall building height is estimated to be 15' - 18' tall.

The pump station will be surrounded by an asphalt area to allow full access to the pump station and the pit as needed for maintenance. The City Stormwater Engineer has contacted the North Lawrence Improvement Association representative to advise the neighborhood of the proposed project. Final Elevations of the building will need to be made part of the final plans for the project and are recommended as a condition of approval for submission to the Planning Office for review prior to issuance of a building permit for the structure. Refer to the attached table of similar structure found in North Lawrence.

Access

Vehicular access to this site is provided from two driveways, one from Maple Street and one from N. 6th Street. This access arrangement provides full site circulation to the facility. Driveways are shown as 20' wide consistent with existing access patterns to individual parcels in the area.

Pedestrian Connectivity

There are no public sidewalks along N. 6th Street or Maple Street in this area. The Minor Subdivision notes that the City will install sidewalks when connecting sidewalks are provided in the area. There are no proposed public sidewalks associated with this improvement. The site is not intended as a pedestrian designation and will be fenced to prevent unauthorized access.

Floodplain

This property is located within the regulatory floodplain and is subject to a local floodplain development permit.

Review and Decision-Making Criteria (20-1306(i))

1. WHETHER THE PROPOSED USE COMPLIES WITH ALL APPLICABLE PROVISIONS OF THIS DEVELOPMENT CODE

Applicant's Response: *Yes, City requested OS-FP zoning.*

The proposed use, a *minor utility* which serves more than one subdivision, is an allowed use in the proposed OS (Open Space) District subject to Special Use Permit approval. As the property is encumbered with the Regulatory Floodplain, a Floodplain Development Permit is required per Section 20-1203 and must be approved prior to the release of building permits.

A minimum of one off-street parking space is required for minor utilities. The site will be accessed by utility trucks for routine maintenance and there will be no employees regularly on site; therefore, only one parking space is required. Access to the site is accommodated via concrete driveway approaches from N. 6th Street and from Maple Street. Off-street parking is accommodated within the enclosed area.

A point-by-point illumination array lighting plan is not required. Basic site lighting is proposed for this site. Lighting fixtures will be required to have full cut-off shields. Additional detail on the type of lighting fixtures and means to prevent off-site glare and trespass is required prior to issuance of a building permit for the structure.

The setbacks in the OS District are as follows: Front—the same as front yard for the abutting lot; Interior side adjacent to residential—20 ft; Interior side adjacent to non-residential—15 ft; Rear—0 ft; and Side Exterior--35'. The proposed pump house structure complies with the required building setbacks of the district. The location of the structure is dictated by existing lines to the facility to the south.

The generator pad site is located approximately 30' from N. 6th Street. The generator is an accessory structure in this application. The development code states that accessory equipment shall be located in the rear portion of the property. The Development Code provide the authority for the Planning Director waive certain development standards per section 20-1305 (b)(3)(v).

The location and orientation of the facility design is determined by the existing infrastructure. The placement of the generator on the north (rear) side would interfere with the operation and maintenance of the site.

Staff Finding –As conditioned and with the administrative waiver from the placement of the accessory mechanical equipment, the Special Use Permit site plan complies with the requirements set out in the Development Code.

2. WHETHER THE PROPOSED USE IS COMPATIBLE WITH ADJACENT USES IN TERMS OF SCALE, SITE DESIGN, AND OPERATING CHARACTERISTICS, INCLUDING HOURS OF OPERATION, TRAFFIC GENERATION, LIGHTING, NOISE, ODOR, DUST AND OTHER EXTERNAL IMPACTS

Applicant's Response: *Yes, the area to the west of where the pump station will be constructed (on Lot 2) is a tow yard. The area to the west of Lot 1 is a residential house but this portion of the site will remain undeveloped. See submitted site plan for layout and areas around the site.*

The proposed request is for the construction of a new pump station that includes both below ground and above ground improvements and a 26' deep open pit to stormwater sewer service to the area.

The area along Maple Street is a designated industrial corridor (Union Pacific Railroad Corridor Industrial Area) in *Horizon 2020*. The proposed use will be located on the Maple Street side of the property. The area along Perry Street is residential (west of N. 6th Street). The north lot will remain as open space. Surrounding uses include railroad right-of-way and a vacant parcel to the south, a residence to the east and a tow-lot to the west. The proposed use will be unmanned but needful of vehicular access for service and maintenance. As a result much of the property is required to be paved.

The overall site will have an industrial character with a paved surface surrounding the building similar to other industrial uses along Maple Street.

Staff Finding – The proposed pump station will be compatible with adjacent uses.

3. WHETHER THE PROPOSED USE WILL CAUSE SUBSTANTIAL DIMINUTION IN VALUE OF OTHER PROPERTY IN THE NEIGHBORHOOD IN WHICH IT IS TO BE LOCATED

Applicant's Response: *No, the lot where the pump station will be constructed (Lot 2) is next to a tow yard. The north lot (Lot 1) will be empty and is next to a residential area. See submitted site plan for layout and areas around the site.*

The pump station will reduce flooding in the localized area. The property includes a lot dedicated to open space on the north side (Perry Street) adjacent to the residential uses west of N. 6th Street along Perry Street.

Staff Finding – The construction of this Pump Station is not anticipated to result in any diminution of value of other property in the neighborhood.

4. WHETHER PUBLIC SAFETY, TRANSPORTATION AND UTILITY FACILITIES AND SERVICES WILL BE AVAILABLE TO SERVE THE SUBJECT PROPERTY WHILE MAINTAINING SUFFICIENT LEVELS OF SERVICE FOR EXISTING DEVELOPMENT

The pump station is a public service intended to serve the surrounding area.

Staff Finding – The proposed use, a *minor utility*, is a public service which would serve the surrounding area. Sufficient safety, transportation and utility facilities will be available to serve the subject property.

5. WHETHER ADEQUATE ASSURANCES OF CONTINUING MAINTENANCE HAVE BEEN PROVIDED

This proposed development will be owned and operated by the City of Lawrence. City staff is responsible for continuing site maintenance.

Staff Finding – The site plan will function as the enforcement document to assure that maintenance and use of the property is consistent with the approval.

6. WHETHER THE USE WILL CAUSE SIGNIFICANT ADVERSE IMPACTS ON THE NATURAL ENVIRONMENT

Applicant's Response: *"No, the proposed pump station is being constructed to help alleviate flooding in the area."*

This property is encumbered with floodplain. Adequate oversight will be provided for the protection of the natural environment through the local floodplain management regulations.

Staff Finding – The proposed use, with the protection measures required for properties encumbered by the regulatory floodplain, should not cause significant adverse impacts on the natural environment.

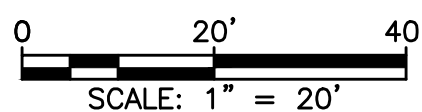
7. WHETHER IT IS APPROPRIATE TO PLACE A TIME LIMIT ON THE PERIOD OF TIME THE PROPOSED USE IS TO BE ALLOWED BY SPECIAL USE PERMIT AND, IF SO WHAT THAT TIME PERIOD SHOULD BE.

Time limits are established on Special Use Permits to permit a periodic review to determine if the use remains compliant with the area or if a rezoning would be appropriate. A pump station is part of necessary infrastructure whose life span will be determined by demand and operational characteristics. It would not be appropriate to place a time limit on this use.

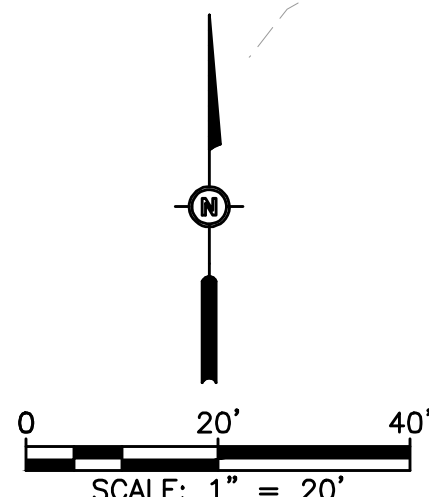
Staff Finding – The project provides necessary infrastructure for surrounding developments; therefore, it would not be appropriate to place a time limit on this use.

Conclusion

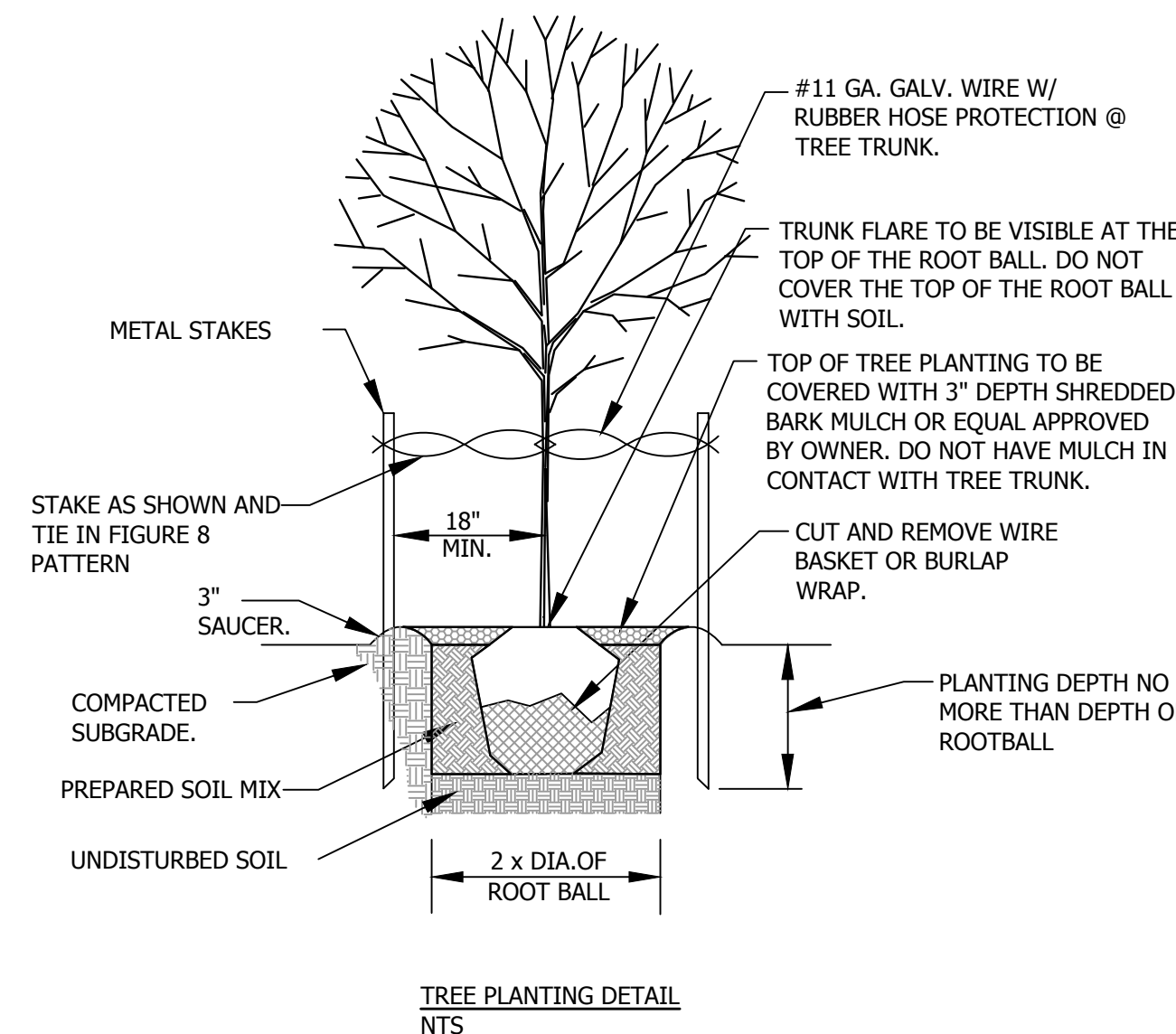
The proposed pump station will positively impact the area by improving stormwater sewer services in the area. The use is compatible with, and appropriate for, this location. Staff recommends approval of the Special Use Permit as conditioned.

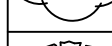





SITE PLAN LAYOUT AND GENERAL NOTES						BARTLETT & WEST JOS. BELLAMY - LAWRENCE KS 66044 PHONE 781.796.4433 FAX 781.795.5961 WWW.BARTWEST.COM	
6TH & MAPLE STOMWATER PUMP STATION FOR THE CITY OF LAWRENCE LAWRENCE, KS							
DESIGNED BY:						CBC	
DRAWN BY:						CBC	
APPROVED BY:						DRA	
DESIGN PROJ#:						18016-001	
CONST PROJ#:						----	
SCALE:						AS NOTED	
DATE:						DEC. 2013	
DRAWING NO:						SP1	
SHEET NO:						1 of 2	



OLIVER
HELM
BK 430
PG 1384
ZONED IG



PLANT SCHEDULE					
TREES	CODE	BOTANICAL NAME / COMMON NAME	CONT	SIZE	QTY
	ACE PAC	Acer truncatum 'Pacific Sunset' TM / Pacific Sunset Maple	B & B	2.5"Cal	2
	ULM CAR	Ulmus x 'Frontier' / American Elm	B & B	2.5"Cal	4
	GLE SH2	Gleditsia triacanthos inermis 'Shademaker' TM / Shademaker Locust	B & B	2.5"Cal	3
	JUN HIL	Juniperus virginiana 'Hillspire' / Hillspire Juniper	Cont.	6' Ht. MIN	11

LANDSCAPE CALCULATIONS

STREET TREES	
6TH STREET: 250.42 LF STREET FRONTAGE/40	= 7 TREES REQUIRED
	= 2 TREES EXISTING
	= 5 TREES PROVIDED
PERRY STREET: 100.43 LF STREET FRONTAGE/40	
	= 3 TREES REQUIRED
	= 1 TREE EXISTING
	= 2 TREES PROVIDED
MAPLE STREET: 100.38 LF STREET FRONTAGE/40	
	= 3 TREES REQUIRED
	= 1 TREE EXISTING
	= 2 TREES PROVIDED

NOT FOR CONSTRUCTION
PLANNING DOCUMENT ONLY

- LANDSCAPE NOTES:**
1. GENERAL CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR FROM DATE OF PROJECT SUBSTANTIAL COMPLETION.
 2. ALL PLANT MATERIALS SHALL MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-2004).
 3. EACH TREE AND SHRUB SHALL BE SECURELY LABELED WITH A WATERPROOF TAG INDICATING BOTANICAL NAME AND COMMON NAME FOR DELIVERY TO SITE.
 4. NO PLANT MATERIAL SHALL BE SUBSTITUTED WITHOUT THE APPROVAL OF THE OWNER. ALL PLANTING LOCATIONS FOR TREES AND SHRUBS SHALL BE FLAGGED BY THE CONTRACTOR AND APPROVED BY THE OWNER, PRIOR TO INSTALLATION.
 5. ALL DISCREPANCIES AND/OR FIELD CHANGES SHALL BE REPORTED TO THE OWNER FOR APPROVAL PRIOR TO IMPLEMENTATION. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS OR OBSTRUCTIONS, LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER BEFORE PLANTING.
 6. THE GENERAL CONTRACTOR SHALL VERIFY LOCATION OF AND PROTECT ALL UTILITIES AND STRUCTURES. DAMAGE TO UTILITIES AND STRUCTURES SHALL BE REPAIRED BY THE GENERAL CONTRACTOR TO THE SATISFACTION OF THE OWNER.
 7. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS ON SITE THROUGHOUT THE CONSTRUCTION PROCESS.
 8. ALL SHRUB AND TREE PLANTING AREAS SHALL BE EXCAVATED AND BACK-FILLED WITH PLANT MIX. DISCARD SUBSOIL REMOVED FROM PLANTING AREA EXCAVATION; DO NOT MIX WITH PLANT MIX OR USE AS BACK-FILL. SEE SHRUB & TREE PLANTING DETAILS FOR COMPLETE PLANTING PREPARATION. PREPARE PLANTING AREAS AND INSTALL PLANTS COMPLETELY, PRIOR TO SEEDING.
 9. PLANT MIX SHALL CONSIST OF TOPSOIL COMPLETELY FREE OF DEBRIS, ROCK IN EXCESS OF 1" IN DIAMETER, STICKS AND CLAY. MIX 80% TOPSOIL WITH 20% CITY COMPOST CITY TO PROVIDE CONTRACTOR TO HAUL FROM CITY WOOD LOT.
 10. ALL SHRUBS SHALL BE INSTALLED IN PROPOSED PLANTING BEDS AND ALL MULCH FOR THE PROJECT TO BE PROVIDED BY THE CITY (RECYCLED HARDWOOD TREE MULCH). CONTRACTOR TO HAUL TO SITE FROM CITY WOOD LOT.
 11. ALL PLANTED SURFACES SHALL RECEIVE EMULSION TYPE, FILM FORMING, ANTI-DESSICANT AGENT DESIGNED TO PERMIT TRANSPIRATION, BUT RETARD EXCESSIVE LOSS OF MOISTURE FROM PLANTS. ANTI-DESSICANT TO BE DELIVERED IN MANUFACTURER'S FULLY IDENTIFIED CONTAINERS AND MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. APPLY PRIOR TO APPLICATION OF MULCH.
 12. ALL DISTURBED AREAS NOT DESIGNATED AS PAVEMENT OR PLANTING BEDS SHALL BE SEEDDED WITH TURF TYPE TALL FESCUE BLEND OR APPROVED EQUIV. AT THE DIRECTION OF THE OWNER. ALL TURF AREAS SHALL CONSIST OF A MINIMUM 8" THICKNESS TOPSOIL FREE OF CLAY, DEBRIS, STICKS OR ROCKS IN EXCESS OF 1" IN DIAMETER. ALL TOPSOIL AREAS SHALL BE FINE GRADED AND RAKED, REMOVING RIDGES AND FILLING DEPRESSIONS AS REQUIRED TO MEET FINISHED GRADES AND CREATE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PRIOR TO SEEDING, MOISTEN PREPARED TOPSOIL IF GROUND IS DRY. AFTER ONE MONTH FOLLOWING SEEDING, APPLY FERTILIZER AT THE MANUFACTURER'S RECOMMENDED RATE FOR NEWLY ESTABLISHED LAWNS. AFTER TWO MONTHS FOLLOWING SEEDING, APPLY GYPNUM AT THE RATE OF 100 LBS. PER 1000 SQ. FEET. THE GENERAL CONTRACTOR SHALL MAINTAIN ALL PLANTED OR TURF AREAS THROUGHOUT THE WARRANTY PERIOD AND SHALL PERFORM OPERATIONS SUCH AS ROLLING, REGRADING, RESEEDING, AND/OR REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH TURF SURFACE, FREE OF ERODED OR BARE AREAS TO THE SATISFACTION OF THE OWNER.
 13. ALL UTILITY INFORMATION SHOWN HEREIN IS BASED ON THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN. THE CONTRACTOR SHALL VERIFY ALL UTILITY DEPTHS AND LOCATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES TO FIELD LOCATE AND/OR ADJUST THEIR UTILITY AS REQUIRED FOR CONSTRUCTION. ALL UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND THE ENGINEER ASSUMES NO LIABILITY FOR SAME.
 14. CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING THE AREAS AND QUANTITIES OF SEED NEEDED FOR OPTIMUM COVERAGE.
 15. ALL EDGING IS A NATURAL EARTH EDGE AS SHOWN, CONSTRUCTED WITH A SHARPSHOOTER OR OTHER SUITABLE IMPLEMENT. LINES AND CURVES SHALL BE CONTINUOUS AND SMOOTH, MEETING THE DESIGN INTENT SHOWN ON THE DRAWINGS.
 16. REMOVE ANY EXCESS SOIL AND DEBRIS FROM AREA AND DISPOSE OF IN AN APPROVED MANNER.
 17. SPACING SHOWN FOR PLANTS IS FOR INFORMATION ONLY AND SHALL BE ADJUSTED AS REQUIRED TO PROVIDE UNIFORM SPACING WITHIN PLANTING BEDS.
 18. PROTECTION MEASURES FOR EXISTING VEGETATION SHOULD INCLUDE A REQUIREMENT THAT THE DRIP-LINE AREA (UNDER THE CANOPY) SHALL BE FENCED WITH CONSTRUCTION FENCING PRIOR TO ANY CONSTRUCTION ACTIVITY IN THE AREA. SIGNAGE INDICATING THAT "NO DEVELOPMENT ACTIVITY INCLUDING GRADING, TRENCHING, OR STORING OF VEHICLES OR MATERIALS MAY OCCUR WITHIN THIS AREA". CONTRACTOR TO PROVIDE PROTECTION FENCING AT TREE DRIP LINE FOR 3 LARGE BUR OAKS & ONE LARGE ELM ON 6TH STREET. CONTRACTOR TO COORDINATE WITH CRYSTAL MEALS TO PROVIDE A FORESTRY STAFF PERSON TO BE PRESENT AT THE TIME OF EXCAVATION NEAR EXISTING TREES.

SITE PLAN LANDSCAPING PLAN AND DETAILS

6TH & MAPLE STOMWATER PUMP STATION FOR THE CITY OF LAWRENCE LAWRENCE, KS

DESIGNED BY:	KED
DRAWN BY:	KED
APPROVED BY:	DRA
DESIGN PROJ:	18016.001
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	DEC. 2013
DRAWING NO:	SP2
SHEET NO:	

544 COLUMBIA - LAWRENCE KS 66049
PHONE 785.749.9452 - FAX 785.749.5961

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Existing Utility Facilities – North Lawrence



Figure 1: N. 2nd Street and Perry Street facility

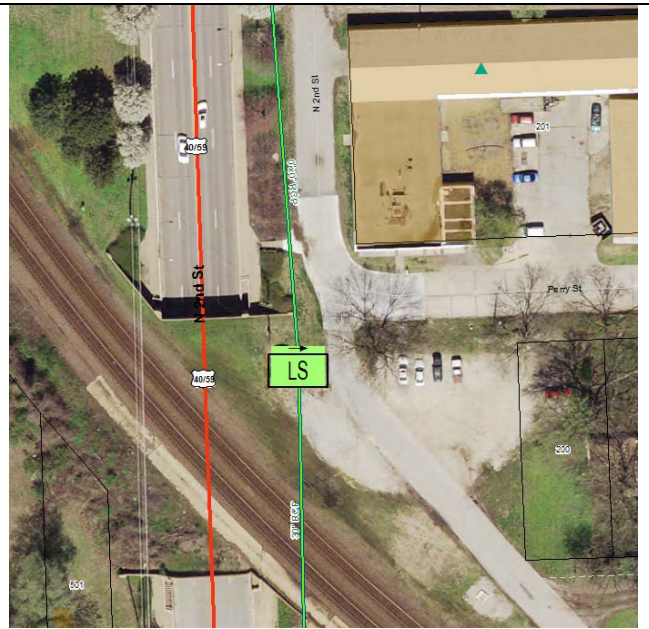


Figure 2: N. 2nd Street and Perry Street location



Figure 3: N. 2nd Street facility

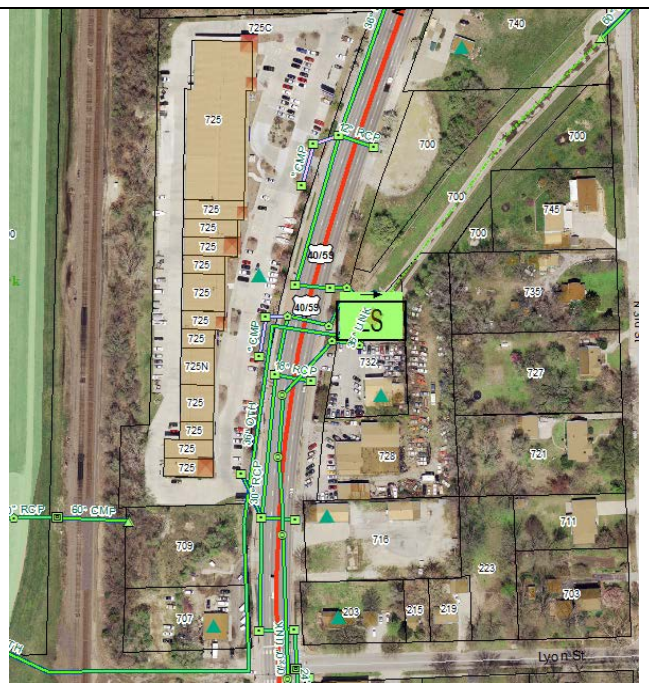


Figure 4: N. 2nd Street location

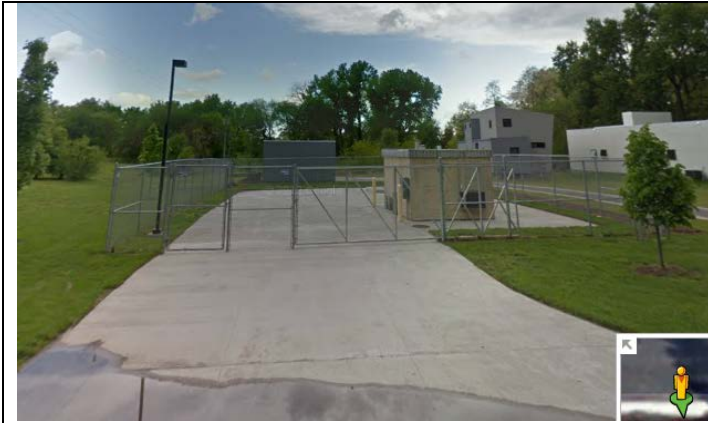


Figure 5: Walnut Street Pump Station No. 2



Figure 6: Walnut Street location

Enclosures and tanks 250-1000 kW gensets



> Specification sheet

Our energy working for you.™



Enclosure standard features

- 14-gauge steel construction (panels)
- Stainless steel hardware
- Zinc phosphate pretreatment, e-coat primer and super durable powder topcoat paint minimize corrosion and color fade
- Package listed to UL 2200
- Designed to satisfy National Electrical Code installation requirements
- Fuel and electrical stub-up area within enclosure perimeter
- Fixed louvers
- Cambered roof prevents water accumulation
- Recessed, lockable doors in two sides
- Retainers hold doors open for easy access
- Enclosed exhaust silencer ensures safety and protects against rust
- Rain cap
- Exterior oil and coolant drains with interior valves for ease of service
- Rodent barriers on inlet
- Non-hydroscopic sound attenuating material
- Side mounted controls and circuit breakers
- Easy access lifting points for spreader bars
- Dual vibration isolation system (250-500 kW)
- Spring vibration isolation system (600-1000 kW)
- Enclosure mounts to lifting base or fuel tank (250-500 kW)
- Enclosure mounts to lifting base (600-1000 kW)
- Factory pre-assembled package
- Designed for outdoor use only
- Externally mounted emergency stop button for operator safety (optional on 250-500 kW)
- Horizontal air discharge to prevent leaf and snow accumulation (600-1000 kW)

Options

- Three levels of sound attenuation
- Motorized louvers to protect from ice and snow accumulation (available on air inlet for all models and on air outlet on level II, 250-500 kW enclosures only)
- Horizontal air discharge, sound level 2 only (250-500 kW)
- Aluminum construction with roll-coated polymer paint
- Wind rated to 150 mph (aluminum enclosures)
- Neutral sandstone paint color (aluminum only)
- Factory mounted battery charger
- External 120 VAC service outlet
- Rain hoods for air inlet (250-500 kW)
- Lifting base in lieu of a sub-base tank (250-500 kW)
 - Pre-wired AC distribution package
 - 100 amp (250-500 kW) or 150 amp (600-1000 kW) main circuit breaker; connected to 120 VAC line-neutral and 208 or 240 VAC line-line, spare breaker positions and capacity for future upgrades (600-1000 kW)
 - GFCI protected internal 120 VAC service receptacle
 - GFCI protected weather proof external 120 volt service receptacle
 - All factory installed AC powered features pre-wired into load center
- Interior lights – 120 volt (600-1000 kW)
- Rain hoods for air inlet (250-500 kW)
- Seismic isolators available (600-1000 kW)

Fuel tanks

Standard sub-base tank features

- UL 142 Listed
- ULC-S601-07 Listed
- NFPA37 compliant
- Dual walled, steel construction
- Emergency tank and rupture basin vents
- Tank mounted mechanical fuel gauge
- Fuel supply and return tubes
- Top mounted leak detection float switch
- Low and high level fuel switches
- Mounting brackets for optional pump and control (250-500 kW)
- Integral lifting points
- Basin drain

Sub-base tank options

- Pre-wired fuel pump and control
- Fuel overfill alarm – internal or external
- Overflow and tank fill plugs
- Five gallon spill fill box – internal or external
- Fill pipe extender
- Local code approvals available

200-500 kW dual wall sub-base fuel tanks – usable operating hours

Genset model (60 Hz)	Gallons/hour at full load	270 gallon tank	300 gallon tank	400 gallon tank	500 gallon tank	600 gallon tank	660 gallon tank	720 gallon tank	850 gallon tank	1470 gallon tank	1700 gallon tank	2100 gallon tank	2525 gallon tank
250 DQDAA	20	13	16	20	24	30	32	37		74			
275 DQDAB	21	12	15	18	22	27	30	34		68			
275 DQHAA	22	12	14	18	21	27	29		39		81		
300 DQDAC	23	11	14	17	20	25	27	31		63			
300 DQHAB	23	11	14	17	20	25	27		36		76		
350 DFEF	24	11	13	16	19	24	26		35		73		104
400 DFEH	27	10	12	14	17	21	23		31		64		92
450 DFEJ	30	9	10	13	15	19	21		28		58		83
500 DFEK	34	8	9	11	14	17	18		25		51		73

Operating hours are measured at 60 Hz, standby rating.

600-1000 kW dual wall sub-base fuel tanks – usable operating hours

Genset model	Gallons/hour at full load	200 gallon tank	660 gallon tank	1000 gallon tank	1500 gallon tank	2000 gallon tank	2400 gallon tank	3000* gallon tank
600 DQCA	42	4	14	23	35	47	57	72
600 DQPAA	45	4	15	22	33	44	53	67
600 DQPAB	50	4	13	20	30	40	48	60
750 DQCB	51	4	12	19	29	39	47	58
750 DQFAA	53	3	11	19	28	37	46	57
800 DQCC	53	3	11	18	28	37	45	57
800 DQFAB	56	3	11	17	26	35	43	53
900 DQFAC	64	3	9	15	23	31	38	47
1000 DQFAD	72	3	8	14	21	27	33	42

*3000 gallon tank offered as an accessory kit

- Operating hours are measured at 60Hz, standby rating.
- Up to 90% fill alarm to comply with NFPA30, operating capacity is reduced by 10%.

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Enclosure package sound pressure levels @ 7 meters dB(A)

Genset model	Weather protective enclosure (F200, F203)	QuietSite Level 1 sound attenuated enclosure (F201, F204)	QuietSite Level 2 sound attenuated enclosure (F202, F205)
250 DQDAA	90	88	72
275 DQDAB	90	88	73
275 DQHAA	86	85	74
300 DFCB	86	84	71
300 DQDAC	90	88	73
300 DQHAB	89	88	76
350 DFCC	87	85	72
350 DFEG	86	85	72
400 DFCE	89	85	73
400 DFEH	87	85	73
450 DFEC	89	85	75
450 DFEJ	88	85	74
500 DFED	90	86	76
500 DFEK	89	87	73
600 DFGB	85	78	74
600 DQCA	86	78	74
600 DQPAA	89	80.7	77.19
600 DQPAB	90	81.36	80.27
750 DFGE	87	80	75
750 DFHA	91	81	77
750 DQCB	87	79	74
750 DQFAA	89	79	75
800 DFHB	91	81	77
800 DQCC	87	79	74
800 DQFAB	89	79	75
900 DFHC	93	83	78
900 DQFAC	89	80	76
1000 DFHD	90	80	76
1000 DQFAD	90	80	76

- All data is 60Hz, full load standby rating, steel enclosures only.
- Data is a measured average of 8 positions.
- Sound levels for aluminum enclosures are approximately 2 dB(A) higher than listed sound levels for steel enclosures.



**250-1000 kW
Weather protective**



**250-1000 kW
QuietSite Level 2**

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Package dimensions of enclosure, exhaust system, and UL tank

250-500 kW

Tank size (gal)	Weather protective package length (in)	QuietSite level 1 package length (in)	QuietSite level 2 package length (in)	Width (in)	Height (in)	Weather protective package weight (lbs)	QuietSite level 1 package weight (lbs)	QuietSite level 2 package weight (lbs)
300	188	188	222	82	104	5648	6073	6991
400	188	188	222	82	106	5833	6258	7176
500	188	188	222	82	108	5956	6381	7299
600	188	188	222	82	111	6116	6541	7459
660	188	188	222	82	113	6235	6660	7578
720	188	188	222	82	114	6174	6599	7517
850	188	188	222	82	118	6529	6954	7872
1470	200	200	200	82	128	7428	7853	8771
1700	234	234	234	82	128	7982	8407	9325
Lifting base	188	188	222	82	100	4335	4760	5678

600-1000 kW

Tank size (gal)	Weather Protective package length (in)	QuietSite level 1 package length (in)	QuietSite level 2 package length (in)	Width (in)	Height (in)	Weather protective package weight (lbs)	QuietSite level 1 package weight (lbs)	QuietSite level 2 package weight (lbs)
200	260	303	315	98	129	10194	13074	14954
660	260	303	315	98	131	9586	12466	14346
1000	260	303	315	98	143	10117	12997	14877
1500	260	303	315	98	145	10677	13557	15437
2000	292	327	327	98	143	11959	14839	16719
2400	338	338	338	98	143	12961	15841	17721

- This weight does not include the generator set. Consult your local Cummins Power Generation distributor or the appropriate generator specification sheet.
- Width is 86" lifting eye to lifting eye (250-500 kW), 102" lifting eye to lifting eye (600-1000 kW).
- Height - Florida, Michigan, and Suffolk add 4" (250-500 kW) or 2" (600-1000 kW) for bottom space.
- Maximum length emergency vent removed.



CSA - The generator set is CSA certified to product class 4215-01.



UL - The generator set is available Listed to UL 2200, Stationary Engine Generator Assemblies. The PowerCommand control is Listed to UL 508 - Category NITW7 for U.S. and Canadian usage.

See your distributor for more information


Americas

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**SUP-14-00007: Special Use Permit for a Stormwater Pump Station
Located at 547 Maple St and the SW corner of Perry St & N 6th St**

Lawrence-Douglas County Planning Office
March 2014

 Subject Property

