

Vicinity Map

Benchmark

BM #1: City of Wichita disc top of headwall of RCBC 660± east of the SE Cor. of the SE1/4, SEC. 22, TWP. 27-S, R-2-W. Elev. = 1410.27 NAVD88

BM #2: 60d step nail in utility pole 28' east of Q 162nd St. W. and 26' north of Q of Maple. Elev. = 1417.99 NAVD88

BM #3: City of Wichita disc on top of north headwall of RCBC under Maple 175' west of the 151st Street North. Elev. = 1390.57 NAVD88

Inspector: Edgardo Flores
 Contractor: McCullough
 Company: City Of Wichita
 Superintendent: Rob
 C900 6": 2520 LF
 Air Release: 3ea

SANITARY SEWER IMPROVEMENTS

to serve

PIKE ADDITION

Lift Station Address: 15500 W. Maple

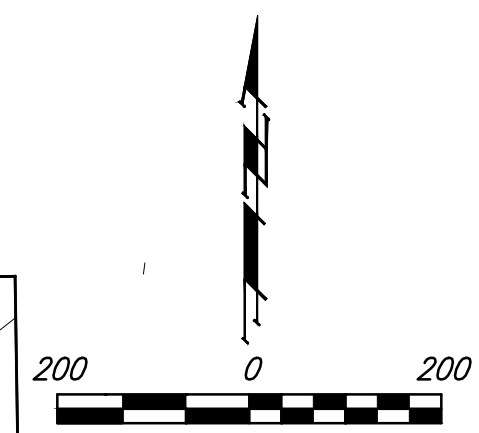
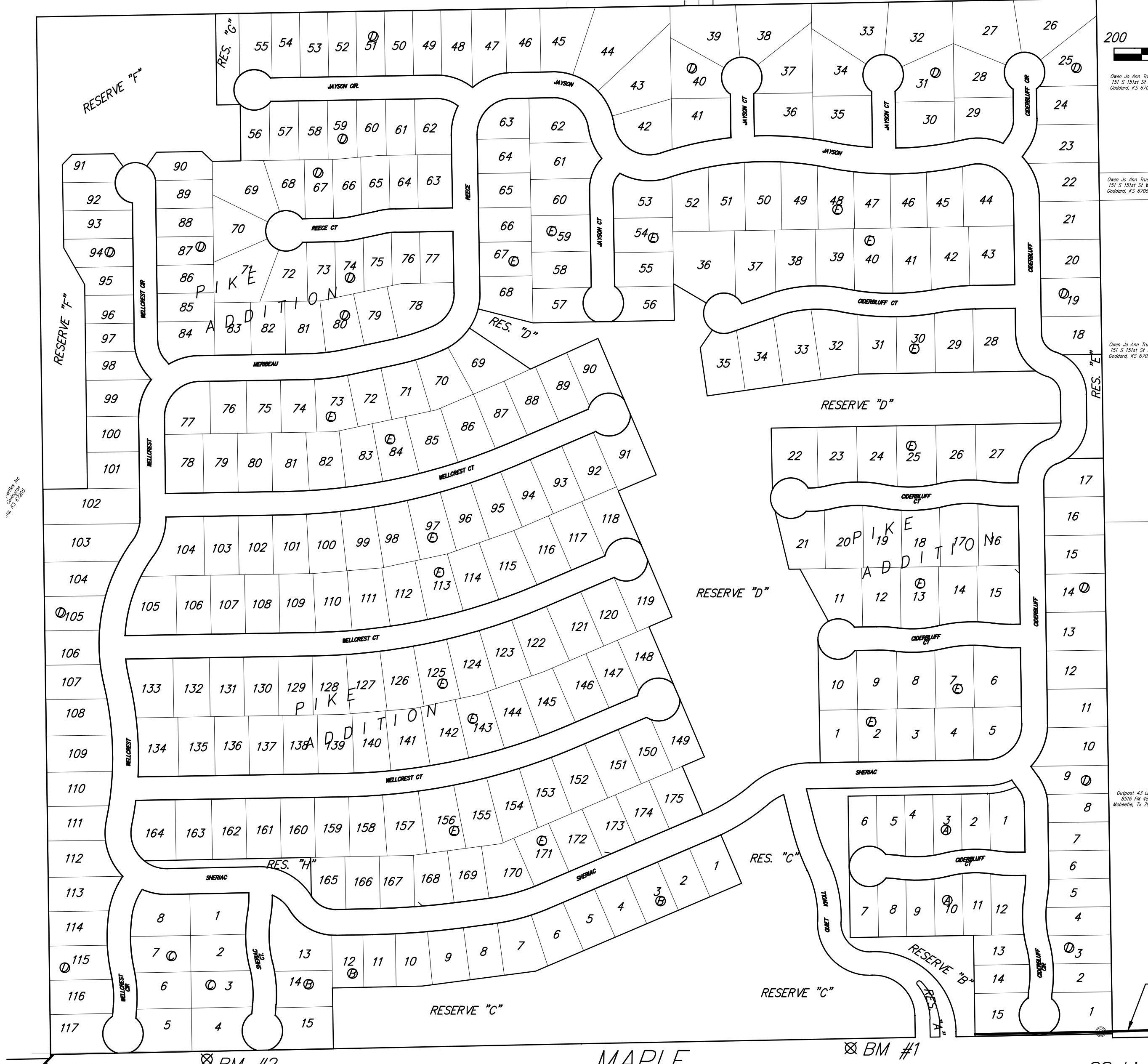
CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer
 Project Number 468-2019-005340
 O.C.A. Number 629320

B. Woods - City of Wichita, Field Project Engineer
 Final Acceptance Date: 8/13/2021
 Completion Date: As-built
 : apr 4/21/2022

Sheet Index

Title Sheet	1
SS Line 1 Plan/Profile	2
SS Line 2 Plan/Profile	3
Forcemain Plan/Profile	4-6
Forcemain Connection	7
Pump Station Details	8-11
Pump Control Details	12-13
Precast SS Manhole Detail	14
Manhole Frame & Cover Detail	15
Erosion Control Plan	16-16a
Erosion Control BMP Details	17-21
Coordinate Sheet	22-23
Copy of Plat	24



GENERAL NOTES:

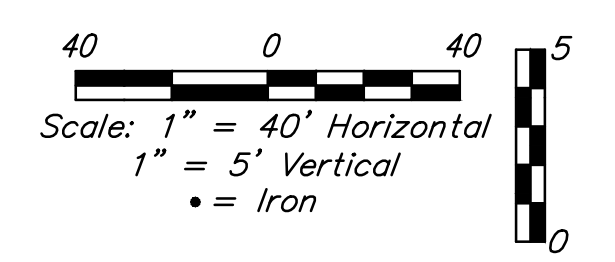
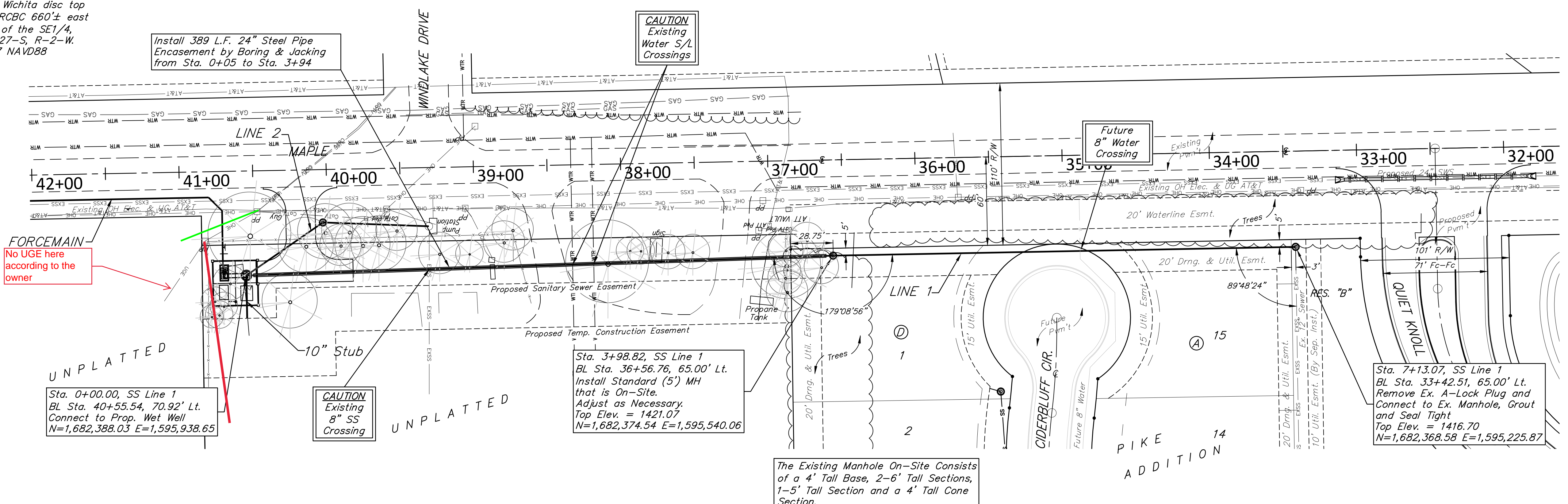
- Contractor will be required to provide notice to utility companies a minimum of seventy-two (72) hours prior to any excavation, as follows:
 Kansas One-Call 687-2470
 The Contractor must notify the following in case of an emergency:
 AT&T 1-800-246-8464
 Black Hills Energy 1-800-694-8989
 City of Wichita Water & Sewer 1-316-219-8921
 City of Wichita Stormwater 1-316-268-4090
 City of Wichita Traffic 1-316-268-4034
 Cox Communications 1-888-249-3530
 Kansas Gas Service 1-888-482-4950
 Westar Energy 1-800-544-4857
- Utility service lines, poles, etc. are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain will require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits will require additional archaeological investigations unless buried in a previously approved borrow location.
- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the City Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days notice prior to start of construction.
- The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
- A portion of excess excavated material shall be mounded around manholes which extend more than one (1) foot above the existing ground. Such mound shall be constructed with new development a six (6) foot diameter flat top with 4 to 1 side slopes down to the original ground. The elevation of the flat top of the mound shall be 0.4 foot below the top to the manhole.
- Contractor shall limit the extent of trench openings overnight and weekends to less than 50 feet.
- The Contractor shall protect from damage and support existing utilities through construction as approved by the utility owner and the Engineer at the contractor's expense.
- All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and const. entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita. Maintenance and/or replacement of erosion control measures to be paid by L.S. bid item "Maintain Existing BMPs".
- All elevations shown are NAVD 88.
- All stubs and capped pipes shall be located with green plastic tape in the same manner as risers.
- Connecting to Existing Manholes:
 Prior to laying sewer lines using existing stubs in existing manholes, the Contractor shall expose and verify the elevation, grade and alignment of existing stubs and notify the Engineer of any deviation from the plans. Where the stub is unusable due to elevation grade or alignment, the Contractor shall remove the stub and plug the hole, and reshape the existing manhole invert to provide smooth flow. Where connection to an existing manhole that does not have an existing stub, the Contractor shall core cut into existing manhole wall to re-establish connection using approved water stop gasket, and reshape the existing manhole invert to provide smooth flow. The cost of connect to existing manholes is incidental to the project.
- Contractor shall provide positive drainage away from all manhole covers.
- The Contractor shall prevent any construction debris from entering the existing sanitary sewer during construction.
- All of Maple Street R/W that has been disturbed by construction shall be seeded and mulched as follows:
 Seed -- Kansas Premium Fescue Blend; 8 lbs. PLS/1000 Sq. Ft.
 Annual Rye grass; 3 lbs./1000 Sq. Ft.
 Fertilizer -- 12-24-12 Ratio; 45 Lbs./Ac.
 Mulch -- 2 Tons Prairie Hay/Ac.
 All other disturbed areas within street R/W and lots are to be seeded as follows:
 Seed -- Rye grass; 5 lbs./1000 Sq. Ft.
 All costs associated with seeding including mobilization, preparation of ground, seeding, fertilizing, mulching, etc. shall be included in the L.S. bid item "Seeding".
 An additional bid item for "Seeding, Temporary" has been included and may be used at the discretion of the design engineer. Temporary seed shall be Annual Rye at 5 lbs./1000 Sq. Ft. unless otherwise noted and shall be planted when permanent seed or sod cannot be used due to seasonal limitations. If the "Seeding, Temporary" bid item is not used, 100% of the pay item will be deducted from the contract. All costs associated with temporary seeding including mobilization, preparation of ground, seeding, etc., shall be included in the L.S. bid item "Seeding, Temporary".
- The developer for this project is Jay W. Russell, P.O. Box 75337, Wichita, KS 67272 (316)722-2417 jwrussell1105@cloud.com

Sept 2019

Baughman
 Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

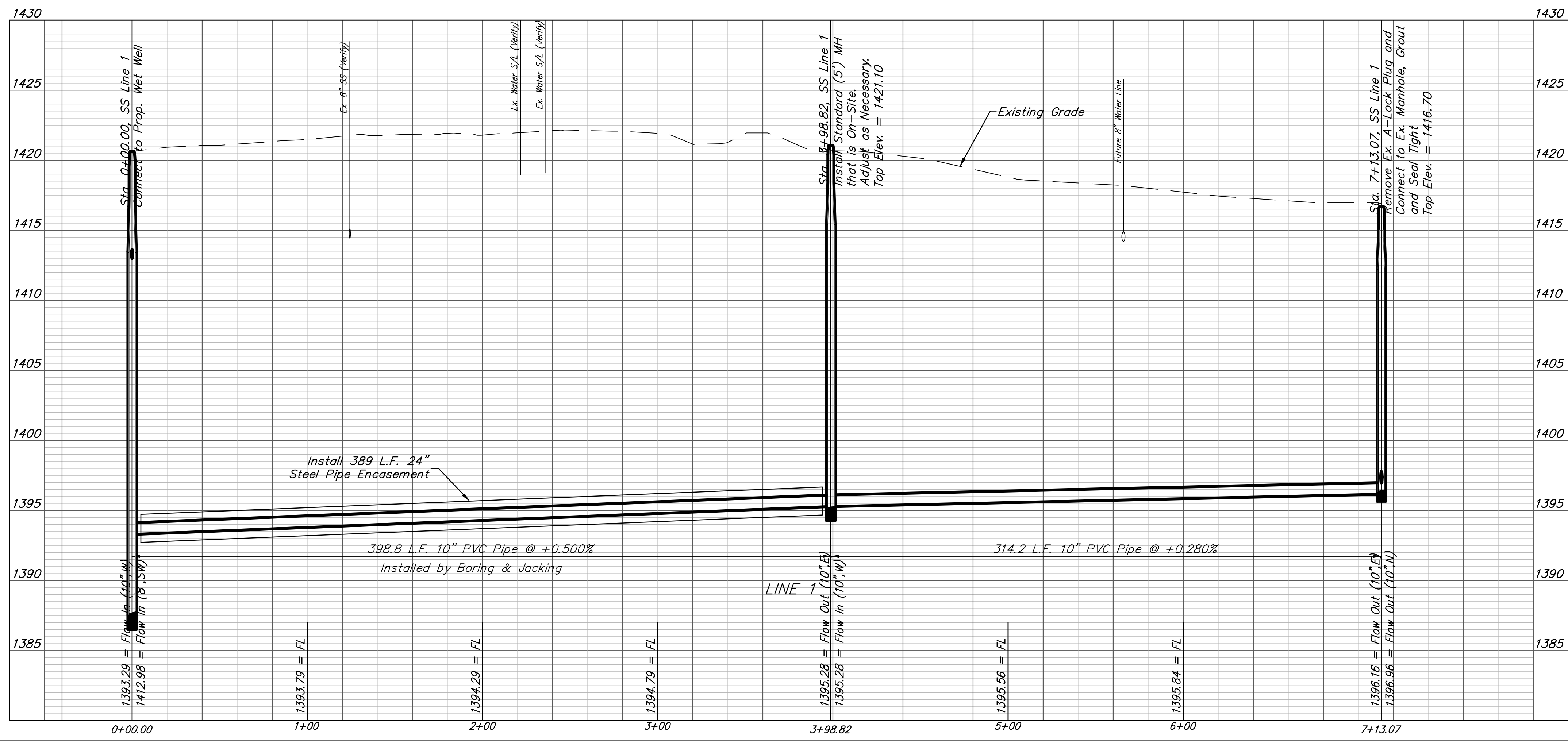
E:\Projects\Pike Addition \Engineering\Phase 1\SS Main 1901-E171\Base-Pump Station.dwg

BENCHMARK:
 BM #1: City of Wichita disc top
 of headwall of RCBC 660± east
 of the SE Cor. of the SE1/4,
 SEC. 22, TWP. 27-S, R-2-W.
 Elev. = 1410.27 NAVD88

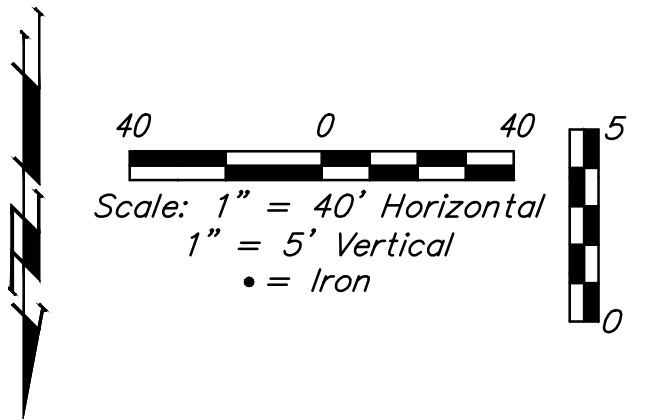
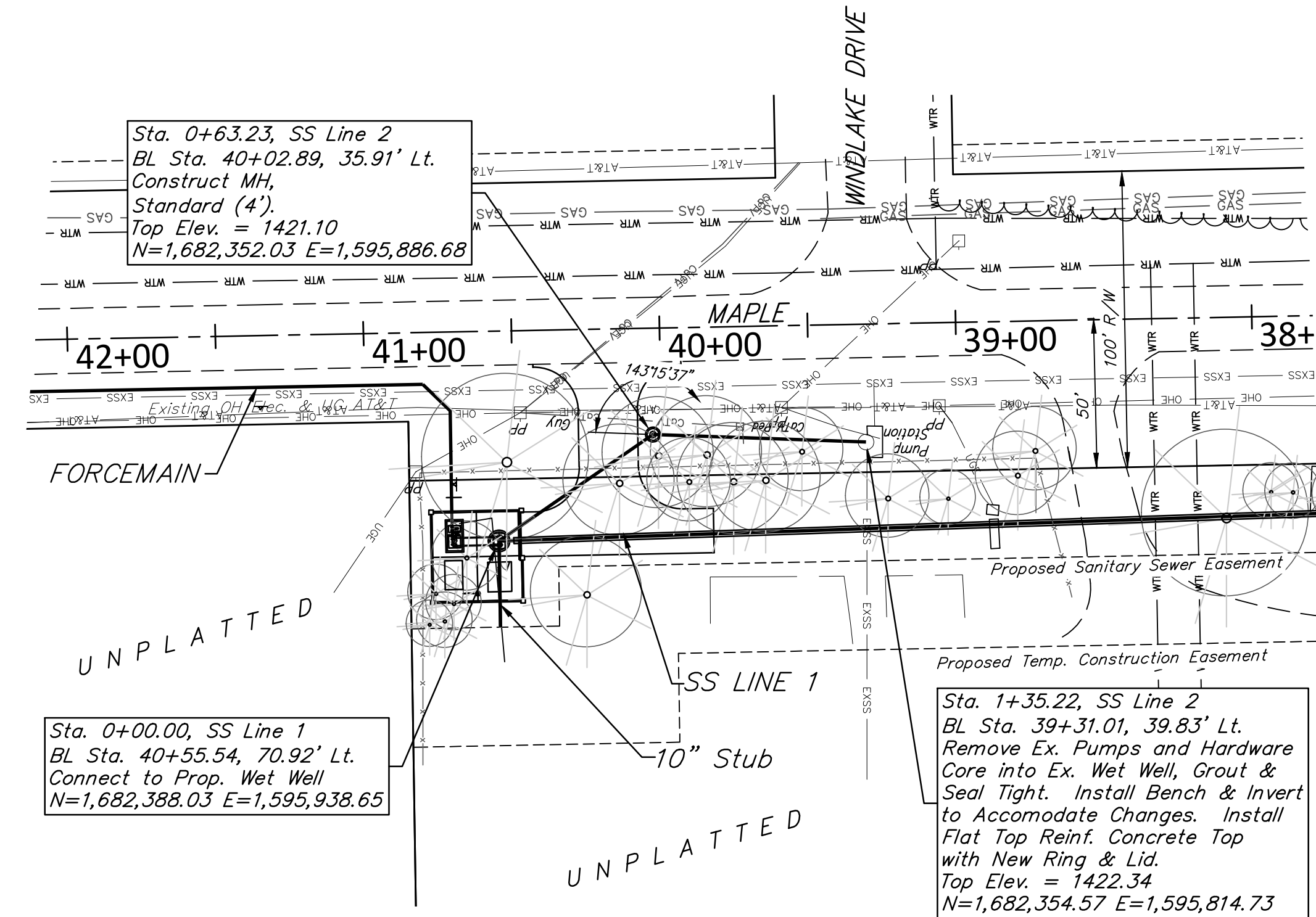


Trees in conflict with sanitary sewer construction to be removed by contractor. To be paid for as lump sum bid item "Site Clearing"

All other trees shall remain and be protected from damage during construction. Overhanging limbs shall be trimmed by the Contractor using a chain saw only as necessary for construction and with approval of the Engineer. Cost of tree trimming to be included in bid item "Site Clearing"

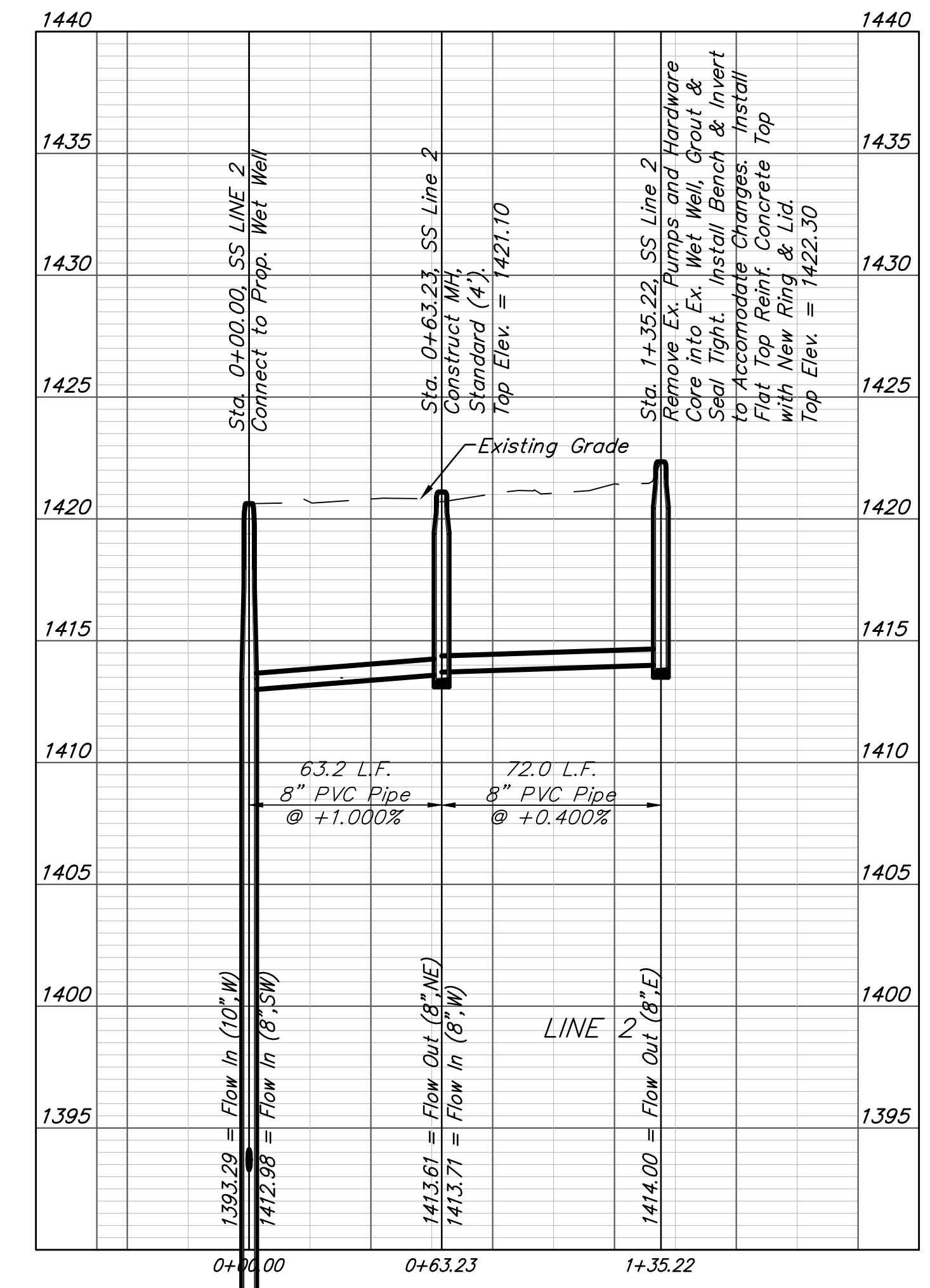


BENCHMARK:
 BM #1: City of Wichita disc top
 of headwall of RCBC 660± east
 of the SE Cor. of the SE1/4,
 SEC. 22, TWP. 27-S, R-2-W.
 Elev. = 1410.27 NAVD88

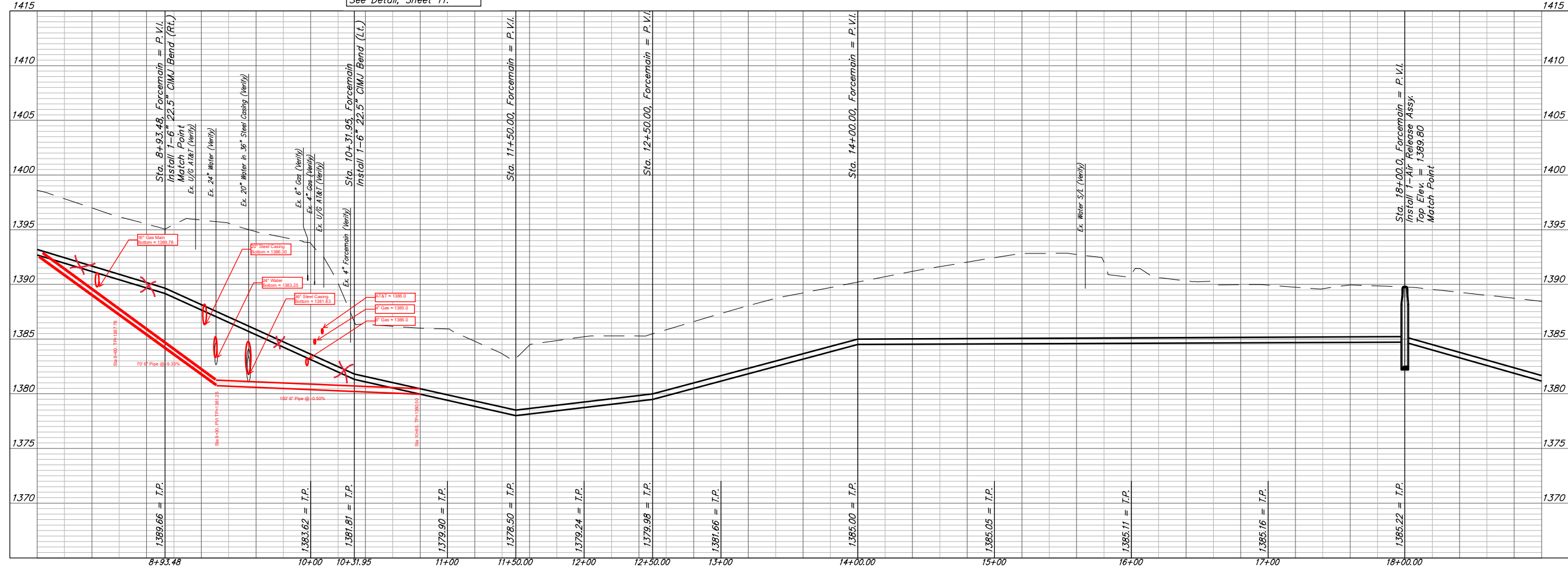
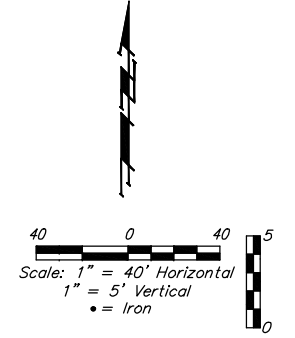
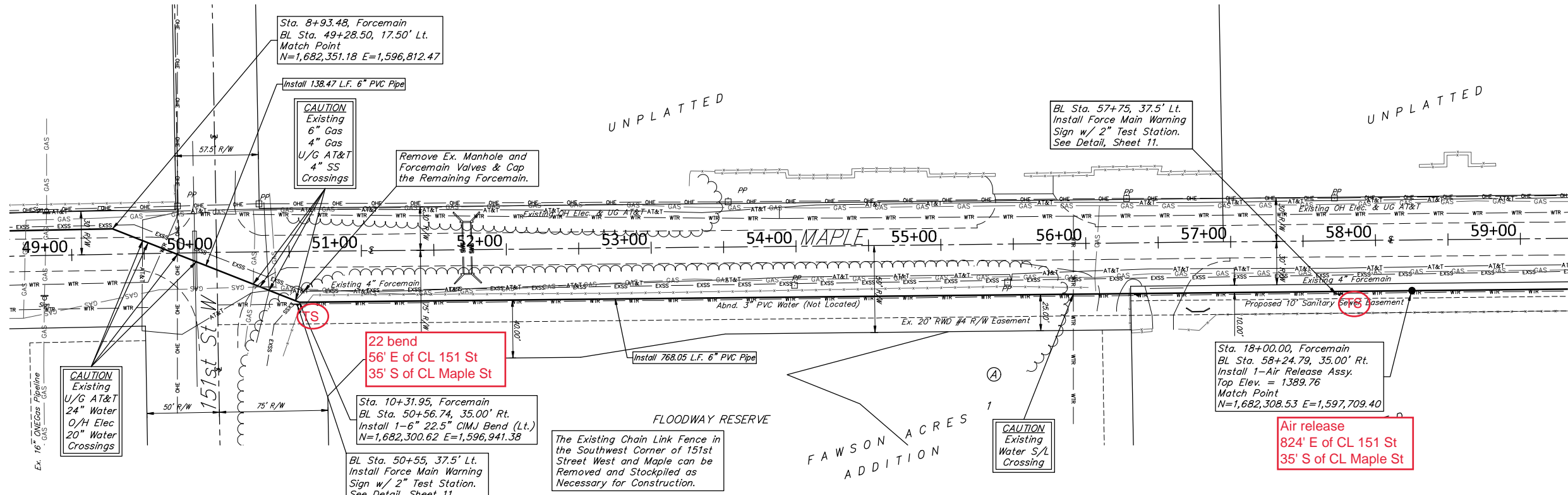


All Cost Associated with Removing the Existing Pump Station and Converting the Existing Wet Well into a Manhole Shall be **SUBSIDIARY** to the Lump Sum Bid Item "Wet Well Conversion".

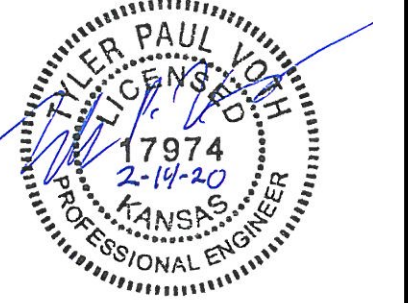
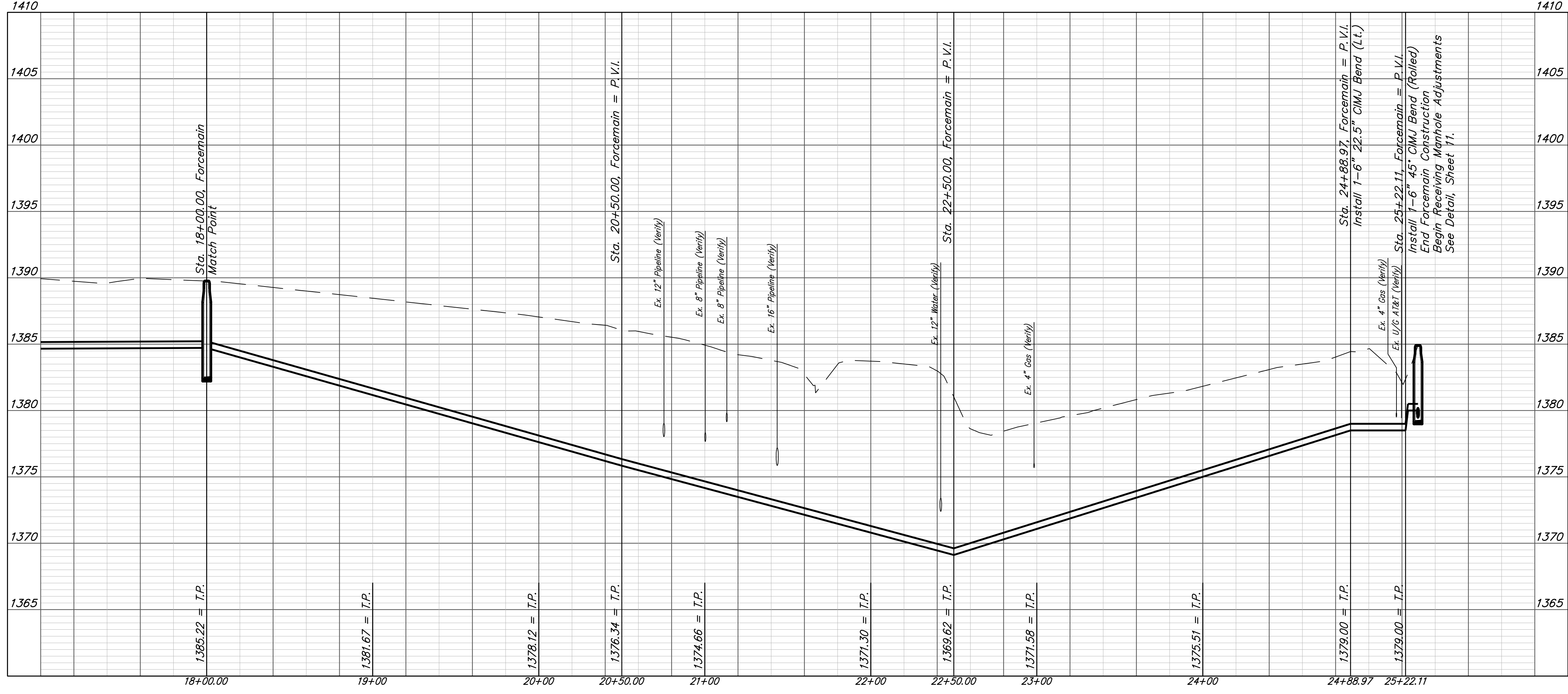
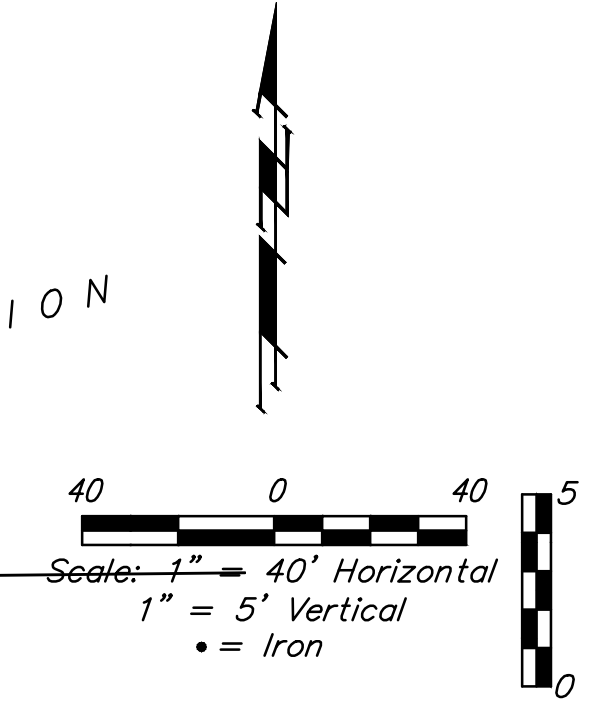
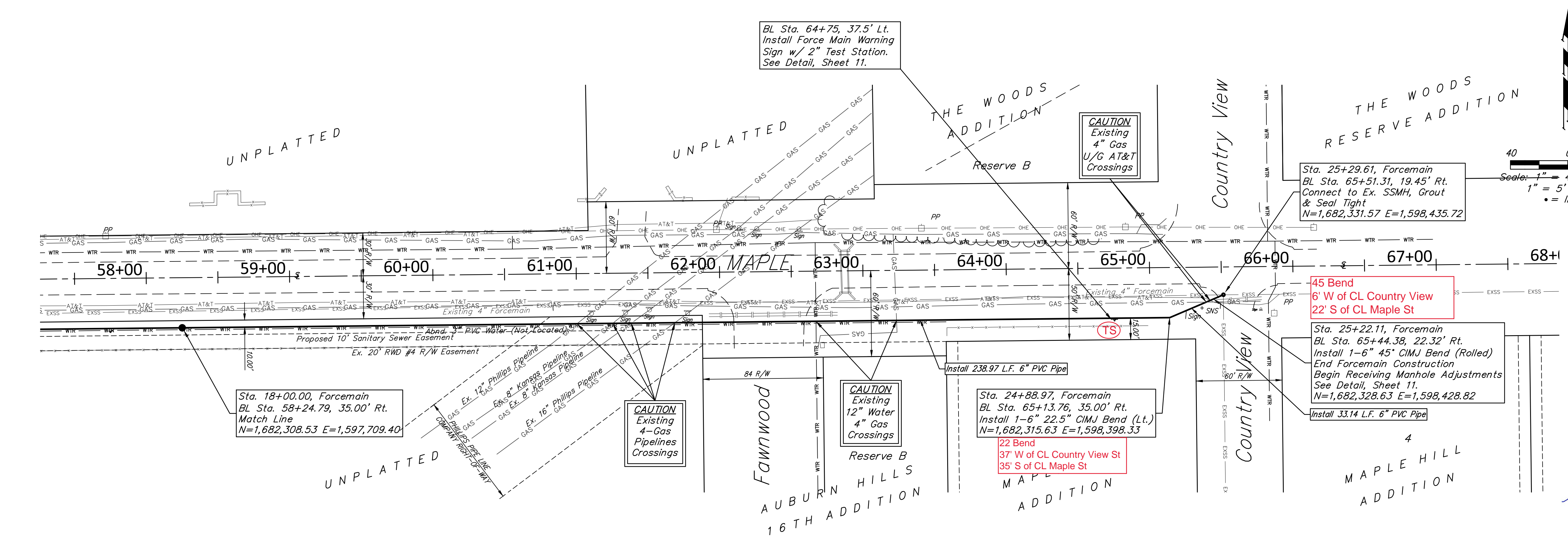
The Existing Pump Station Shall Remain in Service Until the Proposed Lift Station is in Service.



BENCHMARK:
 BM #3: City of Wichita disc on top of north headwall of RCBC under Maple 175' west of the 151st Street North.
 Elev. = 1390.57 NAVD88

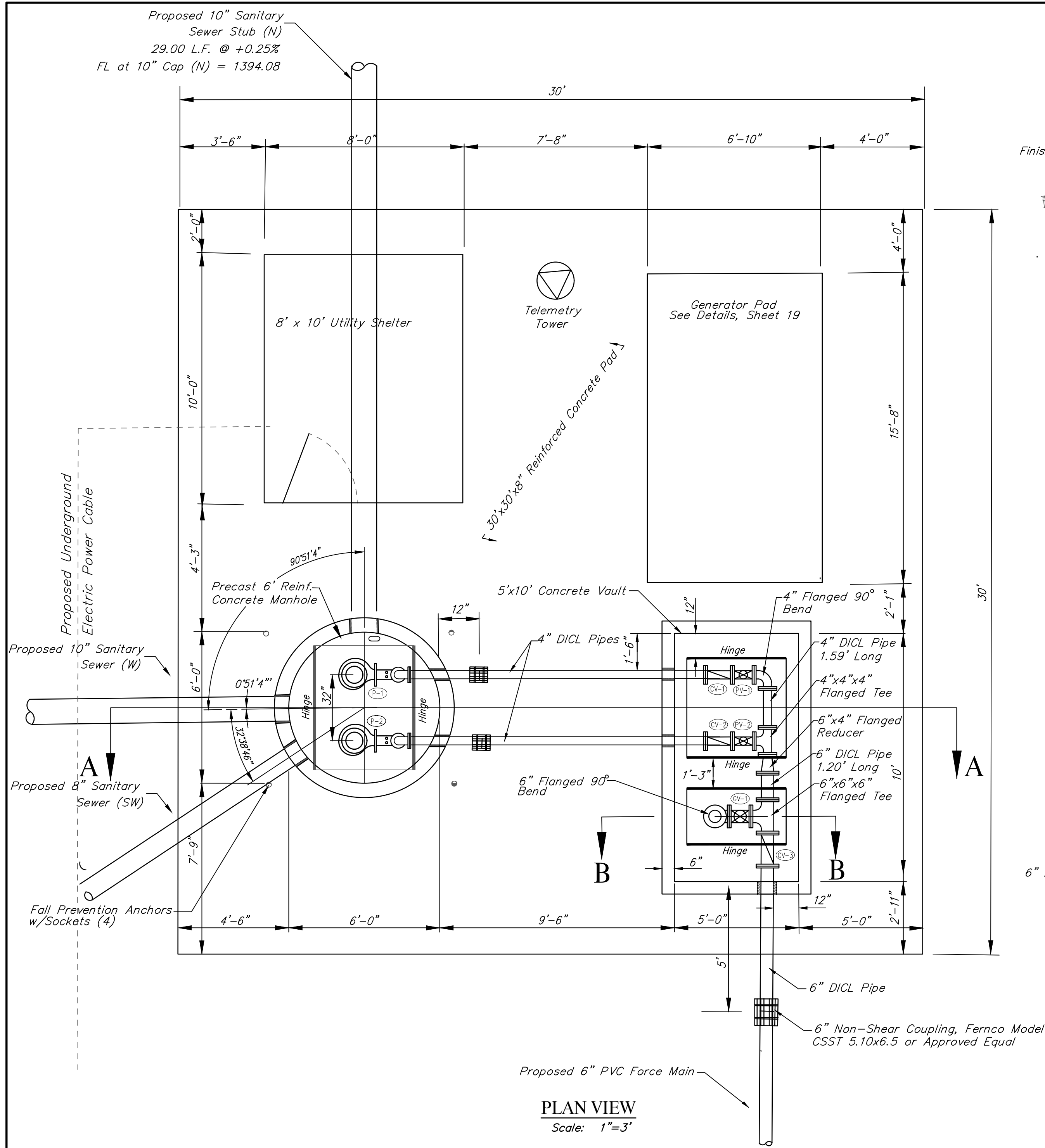


BENCHMARK:
 BM #3: City of Wichita disc on top of north headwall of RCBC under Maple 175' west of the 151st Street North.
 Elev. = 1390.57 NAVD88

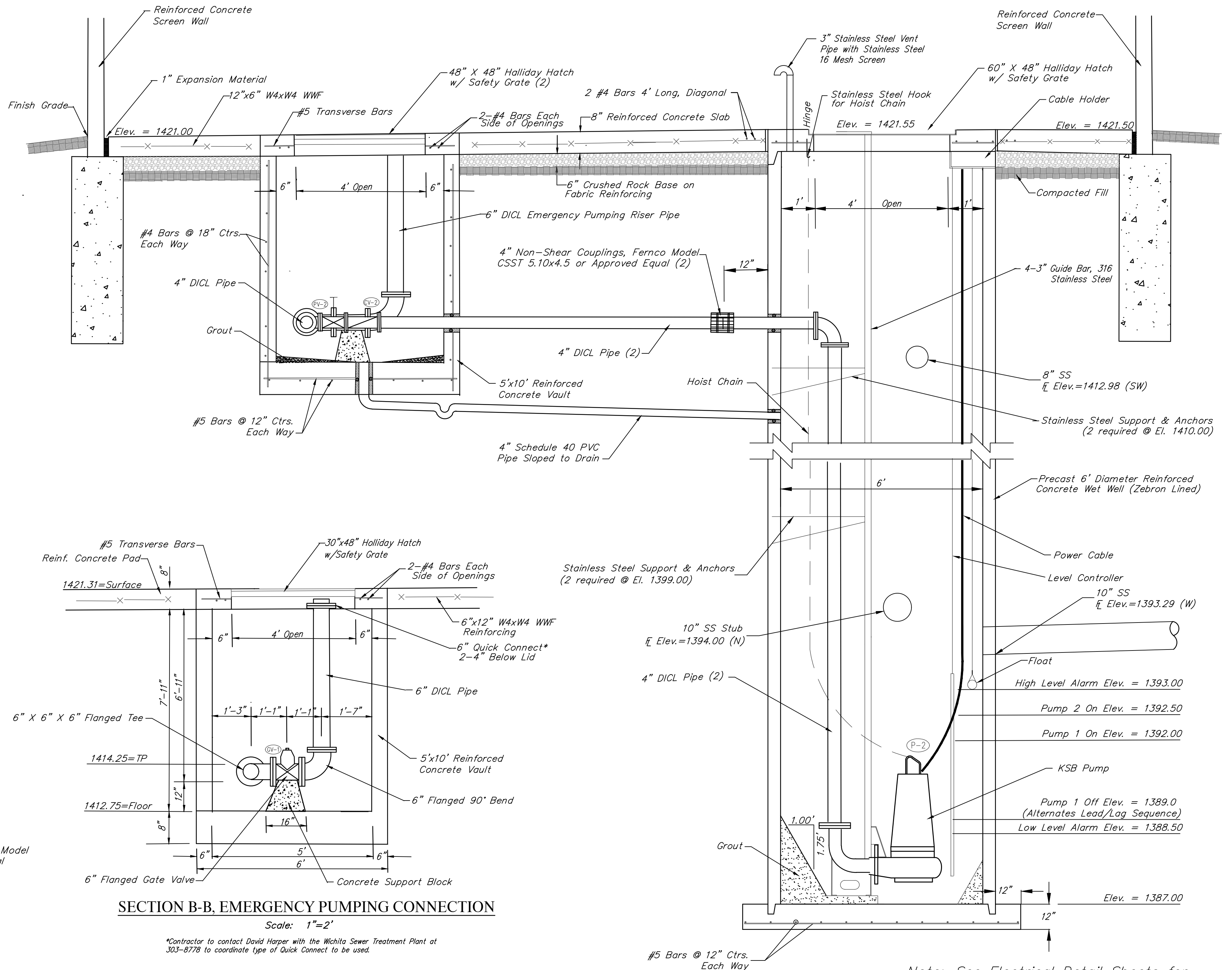


Baughman Company, P.A.
 1518 N. Wakarusa St., Wichita, KS 67211 P: 316.262.0149
 ENGINEERING, SURVEYING, PLANNING, LANDSCAPE ARCHITECTURE
 Tyler Paul Lough, P.E.
 License No. 17974
 State of Kansas
 Date: 02/20

PIKE ADDITION
FORCE MAIN
 PUMP STATION AND FORCE MAIN



PLAN VIEW
Scale: 1"=3'



SECTION B-B, EMERGENCY PUMPING CONNECTION
Scale: 1"=2'

*Contractor to contact David Harper with the Wichita Sewer Treatment Plant at 303-8778 to coordinate type of Quick Connect to be used.

- The Price Bid for Furnishing and Installing the Lift Station, including the Wet Well, Valve Vault, and Other Miscellaneous Appurtenances, Shall Include All Costs for Furnishing and Installing the Lift Station as Indicated in the Plans Complete in Place and in Operation. This Price Shall Include the Cost of Constructing and/or Installing Compacted Subgrade, Concrete Pavement, Electrical Conduit, Electrical Wiring, Disconnect Switch, Pump Controls, Electrical Power Supply, Finished Grading, Concrete Slump Block Wall, and any Other Incidentals Necessary to Complete the Work and Place the Lift Station into Satisfactory Operation. The Price Bid Shall Include All Sanitary Sewer Pipe and Force Main Extended Outside the Slab as Shown in the Site Plan and Details.
- All Force Main Piping Shall be Ductile Iron (Flanged) to 5' Outside the Structures, Unless Otherwise Noted. All Interior Piping Shall be Cement Lined and Epoxy Coated Ductile Iron Pipe.
- Pipe Penetrations Thru the Wet Well, Valve Vault, and Concrete Pad Shall be Grouted Watertight With Non-Shrink Grout and Water Stop Gaskets as Required.
- The Contractor shall perform an Exfiltration Test on the complete Wet Well. The Wet Well shall be tested individually by securely plugging all inlet and outlet pipes. The Wet Well shall be filled to its full depth and then observed for at least six (6) hours. Exfiltration loss from the 6-foot diameter Wet Well shall not exceed the rate of 1.70 Gallons per foot of Wet Well depth per day. If exfiltration exceeds the maximum limits, the Contractor shall repair the leaks and defects, and then retest.
- The Contractor shall support all piping inside the Wet Well and Valve Vault as required.
- All hardware inside the Wet Well and Valve Vault, including but not limited to the Guide Bar, Hoist Chain, Chain Catch, etc. shall be stainless steel. 316 Stainless Steel shall be used when available, otherwise 304 Stainless Steel is acceptable. Nylon Rope will not be allowed in the Wet Well.
- Wet Well and Valve Vault design shall be subject to the same design requirements as Precast Manholes.
- The interior of the Wet Well shall be lined Zebon 386 or approved equal.
- Backfill around the Wet Well and under the Valve Vault and Pad shall be a low volume change material compacted to 95% ASTM D-1557.
- The Contractor shall coordinate with Evergy to extend electric services to the Pump Station Site. The Contractor shall verify the electrical service costs & requirements PRIOR to Bidding. ALL COST INCURRED TO EXTEND SERVICES TO THE SITE SHALL BE INCLUDED IN LUMP SUM BID ITEM "PUMP STATION MODULE".
- The Contractor shall verify all requirements and dimensions of the Generator Pad with the Generator Supplier prior to construction.

- No Electrical Connections will be Allowed within the Wetwell.
- Contact David Harper with the City of Wichita Sewer Treatment Plant at 303-8778 PRIOR to Lift Station Start-up.
- Contractor shall install 4 Fall Prevention Anchors at locations as shown outside of Hatch on above drawing. Anchors shall be 3M/Sala Model 2100169 Pair--in-Place Detent Anchor w/ Socket or approved equal.

PLUG VALVE SCHEDULE

MARK	LOCATION	STATUS	SIZE	FITTINGS	OPERATOR
PV-1	VALVE VAULT	NEW	4"	FLANGE	GEARED OPERATOR W/ EXTENSION & 2" NUT
PV-2	VALVE VAULT	NEW	4"	FLANGE	GEARED OPERATOR W/ EXTENSION & 2" NUT

GATE VALVE SCHEDULE

MARK	LOCATION	STATUS	SIZE	FITTINGS	OPERATOR
GV-1	VALVE VAULT	NEW	6"	FLANGE	GEARED OPERATOR W/ EXTENSION & 2" NUT

CHECK VALVE SCHEDULE

MARK	LOCATION	STATUS	SIZE	FITTINGS	OPERATOR
CV-1	VALVE VAULT	NEW	4"	FLANGE	LEVER & SPRING
CV-2	VALVE VAULT	NEW	4"	FLANGE	LEVER & SPRING
CV-3	VALVE VAULT	NEW	6"	FLANGE	LEVER & SPRING

PUMP SCHEDULE

MARK	TYPE	GPM	HEAD (FT)	EFF. %	HP	RPM	ELECT.
P-1	SUBMERSIBLE	413	71.6	49.5% MIN.	20.0	1750	460/60/3
P-2	SUBMERSIBLE	413	71.6	49.5% MIN.	20.0	1750	460/60/3



SECTION A-A
No Scale

Note: See Electrical Detail Sheets for Pump Control Wiring & Enclosures.

Baughman Pike Addition
PUMP STATION
Sanitary Sewer Improvements

Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 F 316-262-7271 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER	DESIGN	DRAWN
REVISIONS:	TPV	Staff
	APPROVED	DATE
	TPV	02/20
	SCALE	Noted
	SHEET	

8 OF 24

E:\Projects\Pike Addition_Engineering Phase 1\SS Main 1941-E171\Bse-Pump Station.dwg