

Phase 24 Wastewater System Improvements CONTRACT 2: Collection System Improvements

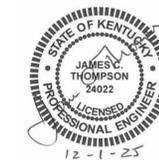
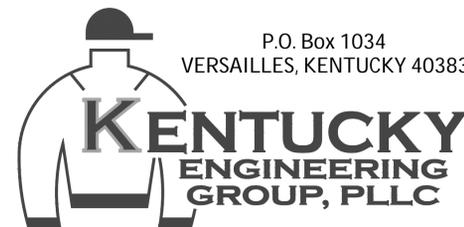
KIA LOAN # A24-007



For The

Columbia/Adair Utilities District

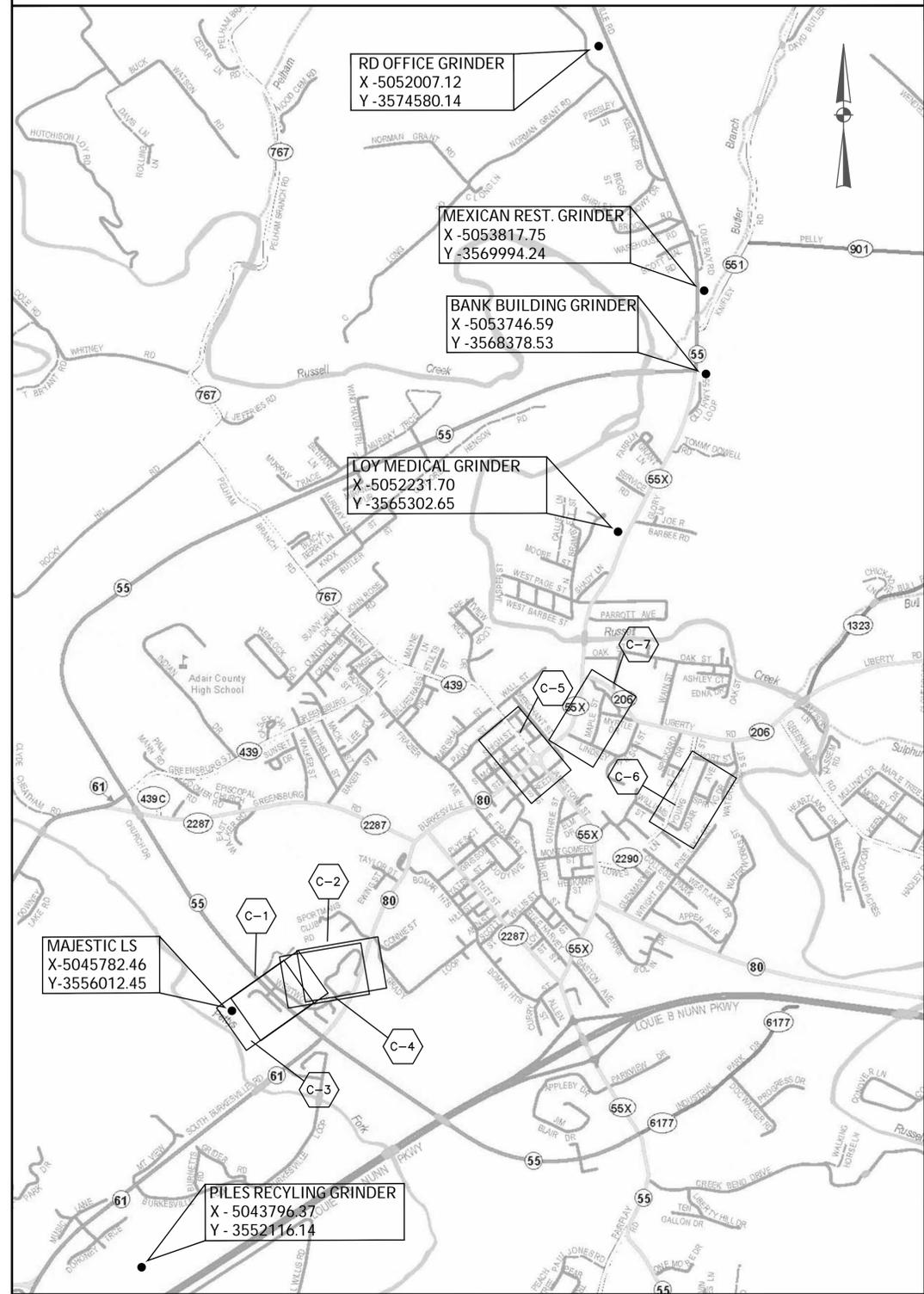
SEPTEMBER 2025



PROJECT NO. 24006

BID DOCUMENTS

PROJECT LOCATION MAP



COLUMBIA
NOT TO SCALE

DRAWING LEGEND

---	PROPERTY LINE
EOP	EDGE OF PAVEMENT
INV.	INVERT
STA.	STATION
EX/EXIST.	EXISTING
M.H.	MANHOLE
(WT)	WATER TIGHT
P.P.	POWER POLE
CAVV	COMBINATION AIR AND VACUUM RELEASE VALVE
⊕	GRINDER PUMP STATION
—	PROPOSED FORCE MAIN
—●—	PROPOSED SANITARY SEWER
—△—	PROPOSED COMBINATION AIR AND VACUUM RELEASE VALVE
—	EXISTING UTILITIES
●	PROPOSED CLEANOUT
○	EXISTING MANHOLE
■	PROPOSED PUMP STATION
→	DIRECTION OF FLOW
⊕	PLAN SHEET NUMBER
□	PLAN SHEET COVERAGE

UTILITIES

BUD - Before You Dig
1-800-752-6007
or DIAL 811

NOTE:
IN ACCORDANCE WITH KENTUCKY STATE LAW, ANY ACTIVITY THAT RESULTS IN MOVEMENT, PLACEMENT, BORING, PROBING OR DIGGING IN OR ON THE GROUND SHALL CONTACT THE ONE CALL CENTER FOR UNDERGROUND UTILITY LOCATIONS.

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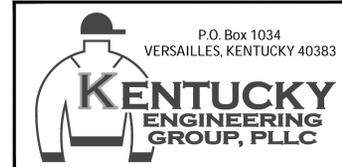
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THIS DRAWING WAS PREPARED AT THE SCALE INDICATED. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE DRAWING OR TITLE BLOCK TO DETERMINE THE ACTUAL SCALE.

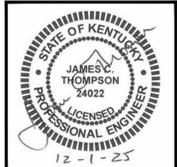
NO.	DATE	REVISIONS	BY

DATE:	SEPTEMBER 2025
PROJECT MGR:	JCT
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
2025 © Kentucky Engineering Group, PLLC	



PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
FOR THE
COLUMBIA-ADAIR UTILITIES DISTRICT

PROJECT LOCATION MAP,
UTILITIES,
LEGEND and INDEX OF
DRAWINGS



PROJECT NO.	24006
SHEET NO.	G-1

BID DOCUMENTS

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SANITARY SEWER CONSTRUCTION NOTES	
1.	THE GRAVITY SEWER SHALL BE PLACED AT THE TOE OF THE SLOPE, THE BASE OF THE CUT, THE BOTTOM OF THE DITCH OR 5 FT. BEHIND THE GUARDRAIL IF THERE IS A MINIMUM OF 10 FT. OF SHOULDER. WHERE THE LINE IS TO BE PLACED SHALL BE NOTED ON EACH PLAN SHEET.
2.	THE GRAVITY SEWER SHALL GO AROUND OR UNDER ANY DRAINAGE STRUCTURES AND NOT OVER THEM.
3.	ANY DRAINAGE STRUCTURE THAT IS DAMAGED MUST BE RESTORED.
4.	ANY ENTRANCE PIPE UNDER 15" THAT IS REMOVED AND REPLACED MUST BE REPLACED WITH A 15" CMP OR LARGER IF NEEDED.
5.	CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND THE ENGINEER TWO WORKING DAYS (MINIMUM) BEFORE BEGINNING CONSTRUCTION.
6.	CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH CITY, COUNTY AND STATE REQUIREMENTS.
7.	THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION.
8.	ALL CONSTRUCTION AND INSTALLATION OF MATERIALS BEING USED SHALL BE IN CONFORMANCE WITH THE PLANS PREPARED BY THE ENGINEER OF RECORD. SUBSTITUTION AND DEVIATION SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.
9.	THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND OTHER IMPROVEMENTS SHOWN ON THESE PLANS AND ALL OTHER UTILITIES AND OTHER IMPROVEMENTS NOT SHOWN. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS OF UTILITIES AND OTHER IMPROVEMENTS DAMAGED DURING CONSTRUCTION.
10.	SANITARY SEWER SLOPES ARE BASED ON THE DIFFERENCE OF ELEVATION AND DISTANCE BETWEEN M.H. CENTERLINES. (I.E. 345.60 @ 0.002 ft/ft)
11.	ALL MANHOLES SHALL BE CONSTRUCTED WITH THE COVER FLUSH WITH THE EXISTING GRADE.
12.	ALL FORCE MAIN SHALL BE PVC, CLASS 200, SDR 21 UNLESS OTHERWISE NOTED ON THE PLANS.
13.	ALL GRAVITY SEWER SHALL BE PVC, SDR 35 UNLESS OTHERWISE NOTED ON THE PLANS.
14.	UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR FITTINGS. THE FITTINGS INCLUDED BUT NOT LIMITED TO ARE: TEES, BENDS, PLUGS, REDUCERS, CROSSES, COUPLINGS, ETC. CONTRACTORS SHALL INCLUDE THE COST OF THESE ITEMS IN THE UNIT PRICE FOR THE PIPE.
15.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE K.D.O.T. RIGHT-OF-WAY STAKED BEFORE CONSTRUCTION BEGINS.
16.	EXISTING UTILITIES HAVE BEEN SHOWN IN AN APPROXIMATE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH A REPRESENTATIVE WHEN WORKING NEAR EXISTING UTILITIES.
17.	PROVIDE 36" MINIMUM COVER FOR ALL GRAVITY SEWER. PROVIDE 42" MINIMUM COVER FOR ALL GRAVITY SEWER IN KDOT R/W.
18.	ROCK SOUNDINGS WERE NOT PERFORMED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO DETERMINE SUBSURFACE CONDITIONS.
19.	SANITARY SEWER SERVICE LINES SHALL BE SIX (6) INCH DIAMETER AND TERMINATE WITH A WATERTIGHT PLUG EXTENDING TWO FEET INSIDE PROPERTY LINE.
20.	A MINIMUM SLOPE OF 1/8 INCH PER FOOT AND NOT MORE THAN 1/4 INCH PER FOOT SHALL BE USED ON ALL SERVICE LATERALS, AND A MINIMUM COVER OF 18 INCHES.
21.	ALL EXISTING PRIVATE SANITARY SEWERS AND PRIVATE SEPTIC TANKS MUST BE MAINTAINED IN OPERATING ORDER DURING CONSTRUCTION OF THE NEW SANITARY SEWER SYSTEM. AFTER CONSTRUCTION OF THE TRUNK LINES IS COMPLETE AND TESTED, CONNECTIONS FOR EACH RESIDENCE MAY BEGIN.
22.	CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE EXACT LOCATION OF THE SEWER SERVICE LINE AT EACH HOUSE. THE LATERAL FROM THE MAIN SHALL BE PAID PER LINEAR FOOT. THE ACTUAL CONNECTION TO THE SERVICE LATERAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
23.	ALL SERVICE LATERALS INSTALLED FROM THE SEWER MAIN TO THE CONNECTION POINT SHALL BE INSTALLED BY A LICENSED PLUMBER AND IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES.
FINAL CLEANUP AND RESTORATION	
UNLESS SPECIFICALLY APPROVED BY THE OWNER AND ENGINEER, CLEANUP OF DISTURBED AREAS SHALL BE KEPT CURRENT WITH CONSTRUCTION AND RESTORATION EFFORTS BY THE CONTRACTOR INITIATED NO LONGER THAN SEVEN (7) DAYS AFTER THE TRENCH EXCAVATION WORK HAS STARTED. ALL EXCAVATED MATERIAL NOT REQUIRED FOR BACKFILLING OF THE TRENCH AND ANY LARGE ROCKS, STONES OR DEBRIS SHALL BE REMOVED FROM THE SITE, AND SHALL NOT BE A BURDEN TO THE PROPERTY OWNER(S) AND/OR ADJACENT PROPERTIES. THE CONTRACTOR MAY WINDROW OR TRACK-IN THE EXCAVATED MATERIAL OVER THE TRENCH PRIOR TO FINAL CLEANUP TO ALLOW FOR AND TO ASSIST IN THE INITIAL SETTLEMENT OF THE TRENCH. ALL DISTURBED AREAS MUST BE SEEDED AT LEAST WITH A TEMPORARY SEED MIX IF FOR SOME REASON THE AREA CANNOT BE PERMANENTLY SEEDED WITHIN TWO (2) WEEKS.	

GENERAL NOTES	
1.	GENERAL PROJECT REQUIREMENTS - IN THE EVENT OF A CONFLICT BETWEEN ANY PORTION OF THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
2.	PROJECT COMMUNICATIONS / INSPECTION - THE ENGINEER SHALL BE THE OWNER'S DESIGNATED SITE REPRESENTATIVE. ALL COMMUNICATION FROM THE CONTRACTOR AND TO THE CONTRACTOR, SHALL BE THROUGH THE ENGINEER.
3.	SAFETY - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL SELECT THE MEANS, METHODS, SEQUENCES, AND TECHNIQUES OF CONSTRUCTION HE DEEMS APPROPRIATE FOR ACCOMPLISHING THE WORK IN A SAFE MANNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO PERSONS AND PROPERTY RESULTING FROM HIS ACTIVITIES.
4.	EMERGENCY SHUTOFF - THE CONTRACTOR SHALL LOCATE EXISTING WATER AND GAS VALVES PRIOR TO STARTING WORK SO THAT IN THE EVENT OF AN EMERGENCY THE UTILITY SERVICE MAY BE QUICKLY SHUT OFF.
5.	EASEMENTS AND RIGHT-OF-WAY - THE OWNER IS RESPONSIBLE FOR THE PROCUREMENT OF ALL PERMANENT EASEMENTS NECESSARY OR REQUIRED FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY EASEMENTS FOR HIS STAGING AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBSERVE THE CONDITIONS OF THESE AGREEMENTS AND CONFINE HIS ACTIVITIES TO THE LIMITS OF THE EASEMENTS. CONTRACTOR TO OBTAIN COPIES OF EASEMENTS OBTAINED BY OWNER AND ABIDE BY THE CONDITIONS OF THESE EASEMENTS DURING CONSTRUCTION.
6.	EXCAVATION - IT SHALL BE DISTINCTLY UNDERSTOOD THAT ANY REFERENCE TO ROCK, EARTH, OR ANY OTHER MATERIALS ON THE PLANS WHETHER IN NUMBERS, WORDS, LETTERS, OR LINES, IS SOLELY FOR THE OWNER'S INFORMATION AND SHALL NOT BE TAKEN AS AN INDICATION OF CLASSIFIED EXCAVATION OR THE QUANTITY OF EITHER ROCK, EARTH OR ANY OTHER MATERIAL INVOLVED. THE BIDDER MUST DRAW HIS OWN CONCLUSIONS AS TO THE CONDITIONS TO BE ENCOUNTERED. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION NECESSARY OR REQUIRED FOR COMPLETION OF THE PROJECT. THIS WORK SHALL INCLUDE THE REMOVAL AND PROPER DISPOSAL OF ALL MATERIALS OF WHATEVER NATURE ENCOUNTERED. EXCAVATION FOR UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK AND SHALL NOT BE MEASURED FOR PAYMENT.
7.	TOTAL SITE RESPONSIBILITY - IN OCCUPYING THE SITE AND COMMENCING WORK IN ACCORDANCE WITH THE NOTICE TO PROCEED, THE CONTRACTOR ASSUMES TOTAL AND COMPLETE RESPONSIBILITY FOR THE WORK UNTIL FINAL PAYMENT AND RELEASE OF CLAIMS. ANY PORTION OF THE WORK DAMAGED IN THIS TIME PERIOD BY ACTS OF GOD, OR ACTS OF THE OWNER, ACTS OF OTHER CONTRACTORS, FIRES, FLOODS, EPIDEMICS, QUARANTINE, STRIKES, FREIGHT EMBARGOS, VANDALISM AND ABNORMAL WEATHER SHALL BE CORRECTED, REPAIRED, OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
8.	ACCESS TO WORK - THE ENGINEER, HIS REPRESENTATIVES, AND REPRESENTATIVES OF THE OWNER SHALL HAVE FULL ACCESS TO THE WORK AT ALL TIMES.
9.	BLASTING - NO BLASTING SHALL BE ALLOWED ON THIS PROJECT.
10.	BURNING - BURNING SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL ORDINANCES.
11.	WASTE AREAS - THE CONTRACTOR WILL NECESSARILY GENERATE WASTE MATERIALS IN THE FORM OF BRUSH CLIPPINGS, OVERSIZE BOULDERS, MUCK, ETC. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN DETAILING THE MANNER IN WHICH WASTE MATERIALS WILL BE HANDLED. THE CONTRACTOR SHALL STRICTLY COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS PERTAINING TO THE DISPOSITION OF CONSTRUCTION RELATED WASTE PRODUCTS. IN NO EVENT SHALL WASTE MATERIALS BE PLACED IN A REGULATORY FLOODWAY (OR FLOODPLAIN) WITHOUT A DOW PERMIT TO CONSTRUCT ALONG OR ACROSS A STREAM. OWNER WILL NOT ASSUME RESPONSIBILITY FOR WASTE AREAS.
12.	SILT CONTROL - THE CONTRACTOR SHALL CONDUCT HIS WORK IN AN ENVIRONMENTALLY SOUND MANNER AND SHALL UTILIZE "BEST MANAGEMENT PRACTICES" TO MINIMIZE EROSION. THE CONTRACTOR SHALL HOLD HARMLESS THE OWNER FROM ANY VIOLATIONS ASSOCIATED WITH THE CLEAN WATER ACT.
13.	DRAINAGE - CONTRACTOR SHALL MAINTAIN DRAINAGE WORK AREAS DURING ALL PHASES OF CONSTRUCTION. THE OWNER MAY DIRECT THE CONTRACTOR TO CONSTRUCT DITCHES OR BERMS TO ALLEVIATE SITE DRAINAGE PROBLEMS. CONSTRUCTION AND MAINTENANCE OF MINOR DRAINAGE WORKS SHALL BE CONSIDERED AN INTEGRAL PART OF THE OVERALL ACCOMPLISHMENTS OF THE PROJECT AND SHALL NOT BE MEASURED FOR SEPERATE PAYMENT.
14.	ADHERENCE TO PERMITS - PERMITS REQUIRED BY THE OWNER ARE: <ul style="list-style-type: none"> a. DIVISION OF WATER CONSTRUCTION PERMIT FOR SEWER LINE EXTENSIONS. b. DEPARTMENT OF HIGHWAYS ENCROACHMENT PERMIT WHERE APPLICABLE. <p>THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN STRICT ACCORDANCE WITH THESE PERMITS AT ALL TIMES. IN PARTICULAR, THE CONTRACTOR SHALL STRICTLY OBSERVE THE 401 WATER QUALITIES CERTIFICATION KEY REQUIREMENTS OF THE 401 CERTIFICATION WHICH INCLUDE:</p> <ul style="list-style-type: none"> a. RE-VEGETATION AND CLEANUP OF AREA ADJACENT TO STREAMS SHALL OCCUR CONCURRENTLY WITH THE PROGRESS OF THE WORK. CONCURRENTLY IS HEREIN DEFINED TO MEAN THAT RE-VEGETATION AND CLEANUP. b. BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED. TO MINIMIZE SEDIMENT RUNOFF AND SOIL EROSION TO THE WATER COURSE. c. EXTREME CARE SHALL BE TAKEN TO PREVENT SPILLS OF FUELS AND LUBRICANT INTO WATERCOURSES. EQUIPMENT WORKS FROM THE STREAM BANK.
15.	EXISTING UTILITIES AND UNDERGROUND FACILITIES - THE CONTRACTOR'S ATTENTION IS CALLED TO THE PRESENCE OF EXISTING UTILITIES IN CLOSE PROXIMITY TO THE PROJECT SITE. THE CONTRACTOR IS ADVISED TO CAREFULLY REVIEW THE PROJECT REQUIREMENTS REGARDING UTILITY RELOCATIONS. THE CONTRACTOR CAN CALL 1-800-752-6007 A MINIMUM OF TWO AND NO MORE THAN TEN BUSINESS DAYS PRIOR TO EXCAVATION FOR INFORMATION ON THE LOCATION OF EXISTING UNDERGROUND UTILITIES WHICH SUBSCRIBE TO THE BEFORE-U-DIG (BUD) SERVICE. ALL UTILITY REPAIR AND RELOCATION WORK SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK. THE EXISTING CONTRACTOR MUST MAKE DILIGENT EFFORT TO MAINTAIN THE SERVICE OF EXISTING UTILITIES. THE CONTRACTOR SHALL PROVIDE BY-PASS PUMPING OF WASTEWATER TO THE NEAREST PUBLIC SANITARY SEWER WHENEVER HIS ACTIVITIES INTERRUPT THE FLOW OF AN EXISTING SANITARY WASTEWATER DISPOSAL FACILITY (SEWER, SEPTIC TANK, LEACH FIELD, ETC.) BY-PASS PUMPING SHALL BE CONSIDERED AN INCIDENTAL PART OF THE PIPE LAYING ACTIVITY AND SHALL NOT BE MEASURED FOR SEPERATE PAYMENT.

GENERAL NOTES (continued)	
16.	REPLACEMENT OF EXISTING FACILITIES - THE CONTRACTOR SHALL REPLACE EXISTING ENTRANCE PIPES, RETAINING WALLS, CATCH BASINS, FENCES AND OTHER PROPERTY IMPROVEMENTS, DITCHES, ETC., THAT ARE DAMAGED BY CONSTRUCTION UNLESS SAID FACILITIES ARE SPECIFICALLY SHOWN TO BE REMOVED. IN PARTICULAR, ALL DRAINAGE DITCHES SHALL BE RESTORED TO A CONDITION EQUAL OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION. UNLESS SAID FACILITY REPLACEMENT IS IDENTIFIED AS A PAY ITEM IN THE DESIGN DRAWINGS OR TECHNICAL SPECIFICATIONS, THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF LAYING PIPE AND SHALL NOT BE MEASURED FOR PAYMENT
17.	DAMAGE TO GUARDRAILS, SIGNS, FENCES, STORM DRAINS, ETC. - ALL GUARDRAIL, SIGNS, FENCES, STORM DRAINS, ETC., DAMAGED AS A RESULT OF THE CONSTRUCTION SHALL BE RESTORED IN LIKE KIND AND CHARACTER TO THE SATISFACTION OF THE OWNER. UNLESS SAID REPLACEMENT IS IDENTIFIED AS A PAY ITEM IN THE DESIGN DRAWINGS OR TECHNICAL SPECIFICATIONS, THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF LAYING PIPE AND SHALL NOT BE MEASURED FOR PAYMENT.
18.	STREAM CROSSING - THE LAST EIGHTEEN (18) INCHES OF BACKFILL IN ALL STREAM BEDS SHALL CONSIST OF KENTUCKY DEPARTMENT OF HIGHWAY CHANNEL LINING CLASS III UNLESS OTHERWISE NOTED.
19.	THRUST BLOCKS - CONCRETE THRUST BLOCKS OR 'KICKER' BLOCKS SHALL BE INSTALLED IN ALL PRESSURIZED LINES AT INTERSECTION AND CHANGES OF DIRECTION TO RESIST FORCES ACTING UPON THE PIPELINE. THRUST BLOCKS ARE CONSIDERED INCIDENTAL TO THE PIPELINE
20.	ANCHORS - CONCRETE ANCHORS SHALL BE PROVIDED WHEN THE PIPE SLOPE IS TWENTY (20) PERCENT OR GREATER. ANCHORS ARE CONSIDERED INCIDENTAL TO THE PIPELINE INSTALLATION.
21.	SEPARATION OF WATER AND SEWER - HORIZONTAL- SEWERS SHALL BE LAID AT LEAST TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THIS DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF FIELD CONDITIONS DO NOT ALLOW THIS SEPARATION, THE SEWER SHALL BE LOCATED SUCH THAT THE CROWN OF THE SEWER PIPE IS EIGHTEEN (18) INCHES BELOW THE INVERT OF THE WATER LINE. IF FIELD CONDITIONS DO NOT ALLOW THIS CONDITION TO BE MET THEN THE SEWER SHALL BE CONSTRUCTED OF MECHANICAL JOINT DUCTILE IRON PIPE (PRESSURE TESTED TO 150 PSI) AND ENCASED IN CONCRETE.
22.	CROSSING - SEWERS SHALL CROSS UNDER WATER MAINS WITH A MINIMUM OF EIGHTEEN (18) INCHES OF SEPARATION BETWEEN THE CROWN OF THE SEWER AND THE INVERT OF THE WATER MAIN. IF FIELD CONDITIONS ARE SUCH THAT THIS SEPARATION CAN NOT BE MAINTAINED, THE SEWER SHALL BE CONSTRUCTED OF MECHANICAL JOINT DUCTILE IRON PIPE WHICH SHALL BE PRESSURE TESTED TO 150 PSI. THE DUCTILE IRON PIPE MUST BE CENTERED ON THE CROSSING SO THAT THE JOINTS ARE AT LEAST TEN (10) FEET ON EITHER SIDE OF THE CROSSING. NO SEPARATE PAYMENT SHALL BE MADE FOR WORK TO INSURE COMPLIANCE WITH THIS SEPARATION CRITERION. MAINTENANCE OF ADEQUATE SEPARATION SHALL BE CONSIDERED AN INTEGRAL PART OF THE UNIT PRICE BID FOR SEWER PIPE.
23.	TESTING - THE SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS IN THE PRESENCE OF THE ENGINEER AND THE OWNER.
24.	NOTICE - THE CONTRACTOR SHALL NOT MOVE EQUIPMENT OR MATERIAL TO THE WORK SITE, NOR BEGIN ANY CONSTRUCTION PRIOR TO THE DATE SPECIFIED IN THE 'NOTICE TO PROCEED'. THE CONTRACTOR MUST NOTIFY THE OWNER AND ENGINEER PRIOR TO OCCUPYING THE SITE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TECHNICAL SPECIFICATIONS.
25.	TRAFFIC CONTROL - THE CONTRACTOR'S WORK WILL DISTURB NUMEROUS PRIVATE DRIVEWAYS AND SUBSTANTIAL PORTIONS OF PUBLIC THOROUGHFARES. THE TERRAIN DOES NOT LEND ITSELF TO DETOURS. CONSEQUENTLY, THE CONTRACTOR MUST OBSERVE THE FOLLOWING TRAFFIC PRINCIPLES: <ul style="list-style-type: none"> a. ACCESS TO RESIDENCE DRIVE MAY NOT BE INTERRUPTED FOR MORE THAN THREE (3) HOURS AT ANY ONE TIME b. ACCESS TO ALL DRIVEWAYS AND PUBLIC THOROUGHFARES MUST BE RESTORED AT THE END OF EACH WORKDAY. c. WORK WITHIN THE LIMITS OF PUBLIC THROUGHFARE MAY ONLY BE CONDUCTED BETWEEN THE HOURS OF 8:30 A.M. AND 12:00 NOON, BETWEEN 12:30 P.M. AND 3:30 P.M., AND BETWEEN 6:00 P.M. AND 9:30 P.M. THE CONTRACTOR MUST POST SIGNS ADJACENT TO THE WORK STATING THE ROADWAY WILL BE CLOSED DURING THE POSTED HOURS AT LEAST ONE (1) DAY IN ADVANCE OF THE PROPOSED ROAD CLOSURE. d. THE CONTRACTOR MUST MAKE SPECIAL PROVISIONS FOR ACCESS FOR EMERGENCY VEHICLES: POLICE, FIRE AND AMBULANCE. e. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY DEVICES IN THE FORM OF SIGNS, FLASHERS, BARRICADES, ETC. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CLAIMS ARISING FROM THE PUBLIC WITH RESPECT TO HIS TRAFFIC CONTROL ACTIVITIES.
26.	SEEDING - ALL DISTURBED AREAS SHALL BE SEEDED IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.
27.	PROTECTION OF TREES - CARE SHALL BE TAKEN DURING CONSTRUCTION TO AVOID DAMAGE TO VEGETATION. ORNAMENTAL SHRUBBERY AND TREE BRANCHES SHALL BE TEMPORARILY TIED BACK, WHERE APPROPRIATE, TO MINIMIZE DAMAGE. TREES WHICH RECEIVE DAMAGE TO THE BRANCHES SHALL BE TRIMMED OF THOSE BRANCHES TO IMPROVE THE APPEARANCE OF THE TREE. TREE TRUNKS RECEIVING DAMAGE FROM EQUIPMENT SHALL BE TREATED WITH A TREE DRESSING.

KYDOH NOTES	
1.	IN SOME LOCATIONS, KYDOH HAS A WIDE CLEARLY DELINEATED RIGHT-OF-WAY, ON RELATIVELY LEVEL GROUND. CONTRACTOR SHALL CONSTRUCT SANITARY SEWER AS AS POSSIBLE TO THE BACK SIDE OF THE RIGHT-OF-WAY IN THESE AREAS.
2.	TRACK VEHICLES MUST BE ISOLATED FROM PAVEMENT WITH AN EARTH CUSHION OR PROTECTIVE MAT. IN NO EVENT SHALL TRACK VEHICLES BE OPERATED DIRECTLY ON PAVED SURFACES.
3.	NO VALVES (OR AIR RELEASES) IN HIGHWAY DITCHES VALVES SHALL BE FIELD LOCATED (PREFERABLY IN THE EDGES OF DRIVEWAYS OF THE BACK SIDE OF ENTRANCE PIPES).
4.	ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE CURRENT KYDOH STANDARD DRAWINGS AND THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
5.	ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE KYDOH ENCROACHMENT PERMIT ISSUED FOR THE PROJECT. THE CONTRACTOR SHALL MAINTAIN A COPY OF THIS PERMIT ON SITE AT ALL TIMES.
6.	ALL ITEMS OF WORK NECESSARY TO MAINTAIN AND CONTROL TRAFFIC SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
7.	THE CONTRACTOR SHALL COMPLETELY COVER ANY SIGNS, EITHER EXISTING, PERMANENT, OR TEMPORARY, WHICH DO NOT APPLY TO THE CURRENT TRAFFIC PHASING, AND SHALL MAINTAIN THE COVERING UNTIL THE SIGNS ARE APPLICABLE OR ARE REMOVED.
8.	IN GENERAL, ALL TRAFFIC CONTROL DEVICES SHALL BE PLACED STARTING AND PROCEEDING IN THE DIRECTION OF FLOW OF TRAFFIC AND REMOVED STARTING AND PROCEEDING IN THE DIRECTION OPPOSITE TO THE FLOW OF TRAFFIC.
9.	IF TRAFFIC SHOULD BE STOPPED DUE TO CONSTRUCTION OPERATIONS, AND AN EMERGENCY VEHICLE ON AN OFFICIAL EMERGENCY RUN ARRIVES ON THE SCENE, THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE PASSAGE OF THAT VEHICLE AS QUICKLY AS POSSIBLE.
10.	PROVIDE 36" MINIMUM COVER FOR ALL GRAVITY SEWER AND FORCE MAINS.
11.	PROVIDE 42" MINIMUM COVER FOR ALL GRAVITY SEWER AND FORCE MAINS IN KDOT R/W.

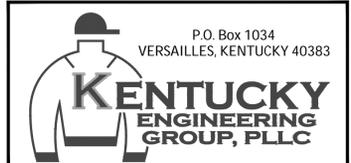
CONTAMINATION PREVENTION REQUIREMENTS	
1.	ALL PIPING, VALVES, FITTINGS, ETC. DELIVERED TO THE JOB SITE SHALL BE STORED ELEVATED ABOVE THE GROUND AND SHALL BE COVERED WITH PLASTIC, TARPS OR SIMILAR MEANS TO PROTECT FROM EXPOSURE TO DUST AND DEBRIS.
2.	ALL PIPING, FITTINGS AND VALVES SHALL BE THOROUGHLY CLEANED OF DUST, DIRT AND DEPOSITS BY SWABBING OR OTHER MEANS ACCEPTABLE TO THE OWNER. EACH COMPONENT SHALL BE CLEANED ON THE SAME DAY IT IS TO BE INSTALLED.
3.	ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH AN APPROVED WATERTIGHT PLUG AT THE END OF EACH DAY WHEN PIPE LAYING HAS STOPPED, OR FOR OTHER REASONS SUCH AS REST OR MEAL BREAKS.

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER THIS DRAWING WITHOUT WRITTEN PERMISSION FROM KENTUCKY ENGINEERING GROUP, PLLC AND ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER.

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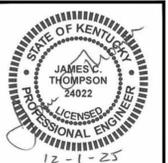
NO.	DATE	REVISIONS	BY

DATE:	SEPTEMBER 2025
PROJECT MGR:	JCT
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS FOR THE COLUMBIA-ADAIR UTILITIES DISTRICT

GENERAL NOTES



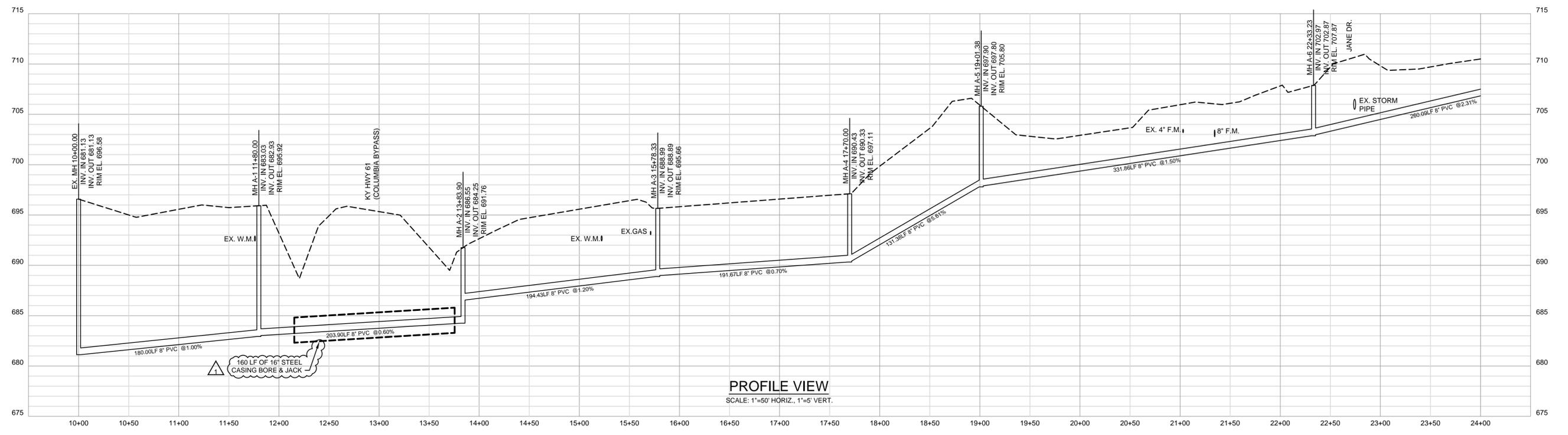
PROJECT NO.	24006
SHEET NO.	G-2

BID DOCUMENTS



GENERAL NOTES:

- EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO INSTALLATION OF SEWER MAIN & NOTIFY ENGINEER OF ANY DISCREPANCIES.



PROFILE VIEW
SCALE: 1"=50' HORIZ, 1"=5' VERT.

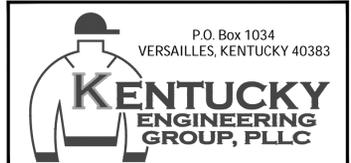
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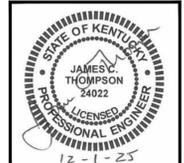
NO.	DATE	REVISIONS	BY
1	9/15/25	ADDENDUM No. 1	JCT

DATE: SEPTEMBER 2025
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
FOR THE
COLUMBIA-ADAIR UTILITIES DISTRICT

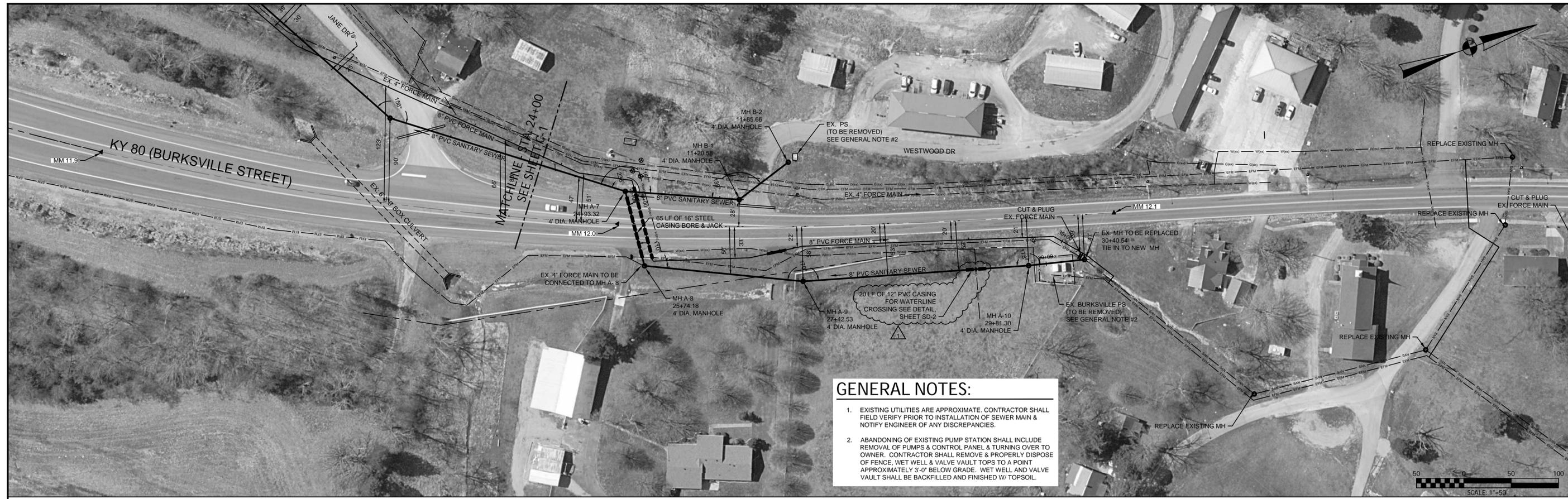
PLAN & PROFILE
GRAVITY SEWER LINE 'A'
STA. 10+00 TO 24+00



PROJECT NO.
24006

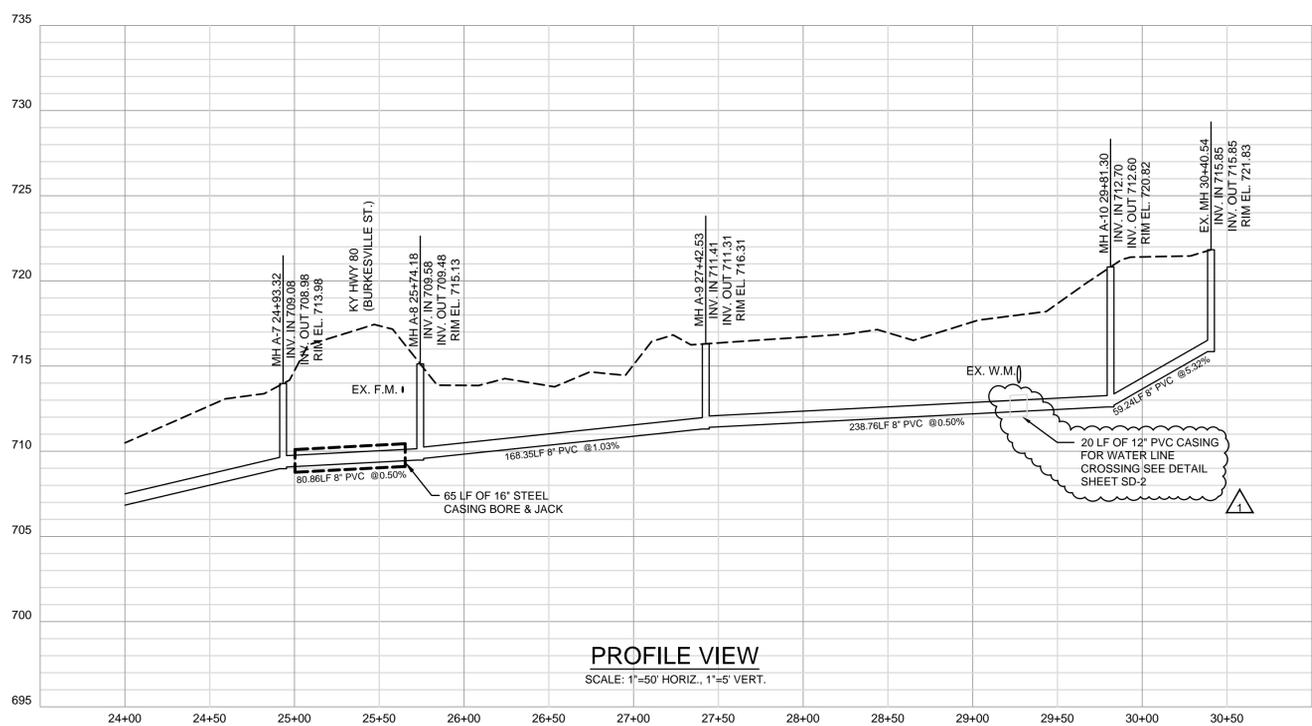
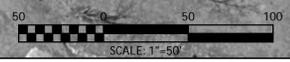
SHEET NO.
C-1

BID DOCUMENTS

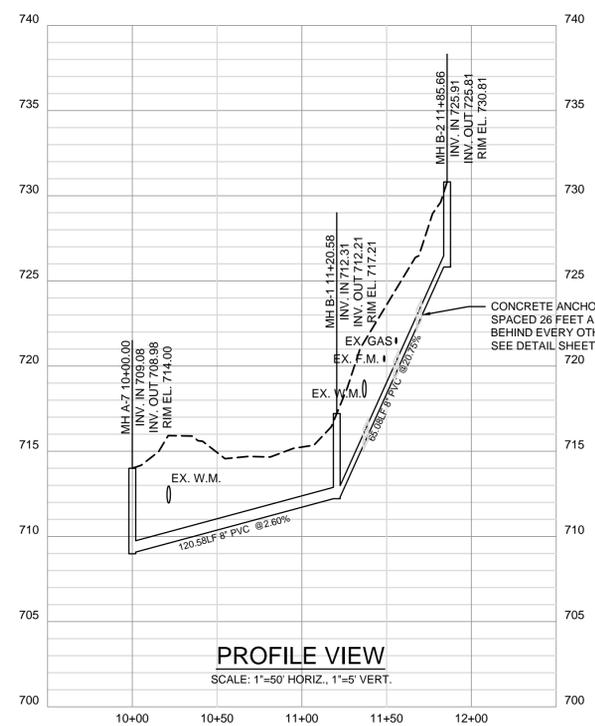


GENERAL NOTES:

- EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO INSTALLATION OF SEWER MAIN & NOTIFY ENGINEER OF ANY DISCREPANCIES.
- ABANDONING OF EXISTING PUMP STATION SHALL INCLUDE REMOVAL OF PUMPS & CONTROL PANEL & TURNING OVER TO OWNER. CONTRACTOR SHALL REMOVE & PROPERLY DISPOSE OF FENCE, WET WELL & VALVE VAULT TOPS TO A POINT APPROXIMATELY 3'-0\"/>



PROFILE VIEW
SCALE: 1"=50' HORIZ., 1"=5' VERT.



PROFILE VIEW
SCALE: 1"=50' HORIZ., 1"=5' VERT.

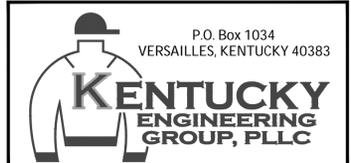
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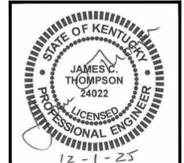
NO.	DATE	REVISIONS	BY
1	9/15/25	ADDENDUM No. 1	JCT

DATE: SEPTEMBER 2025
PROJECT MGR: JCT
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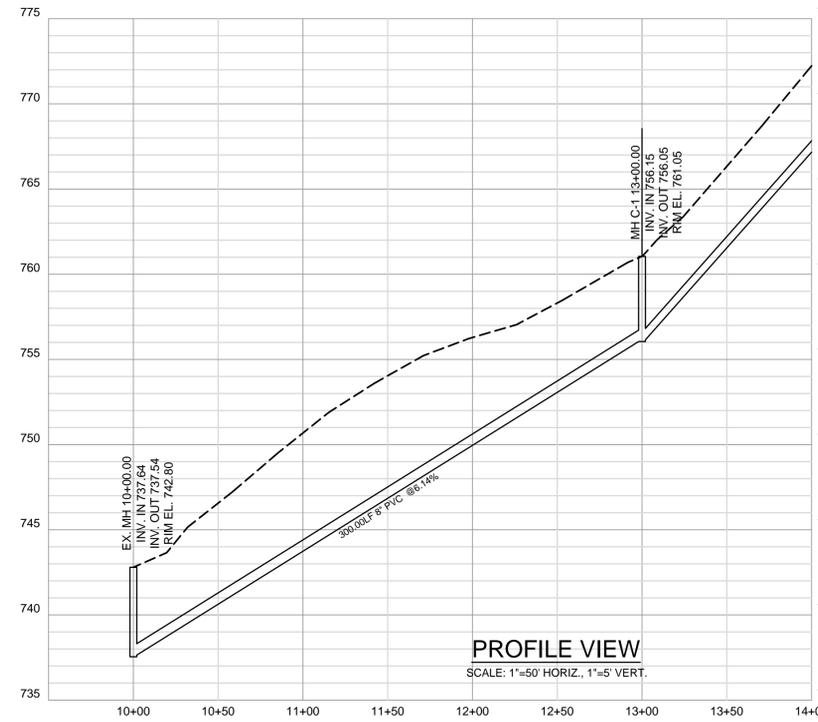
PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
FOR THE
COLUMBIA-ADAIR UTILITIES DISTRICT

PLAN & PROFILE GRAVITY SEWER LINE 'A' STA. 24+00 TO 30+40.54 GRAVITY SEWER LINE 'B' STA. 10+00 TO 11+85.66

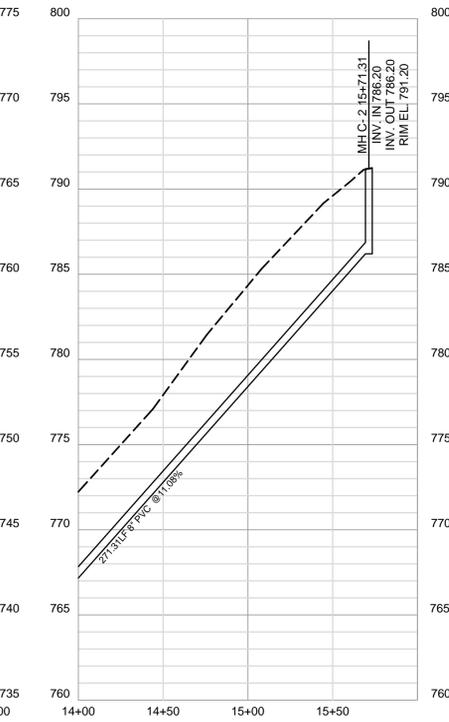


PROJECT NO. 24006
SHEET NO. C-2

BID DOCUMENTS



PROFILE VIEW
SCALE: 1"=50' HORIZ., 1"=5' VERT.



PROFILE VIEW
SCALE: 1"=50' HORIZ., 1"=5' VERT.

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NO.	DATE	REVISIONS	BY

DATE:	SEPTEMBER 2025
PROJECT MGR:	JCT
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
FOR THE
COLUMBIA-ADAIR UTILITIES DISTRICT

PLAN & PROFILE GRAVITY SEWER LINE 'C'
STA. 10+00 TO 15+71.31
GRAVITY SEWER LINE 'D'
STA. 10+00 TO 13+07.22



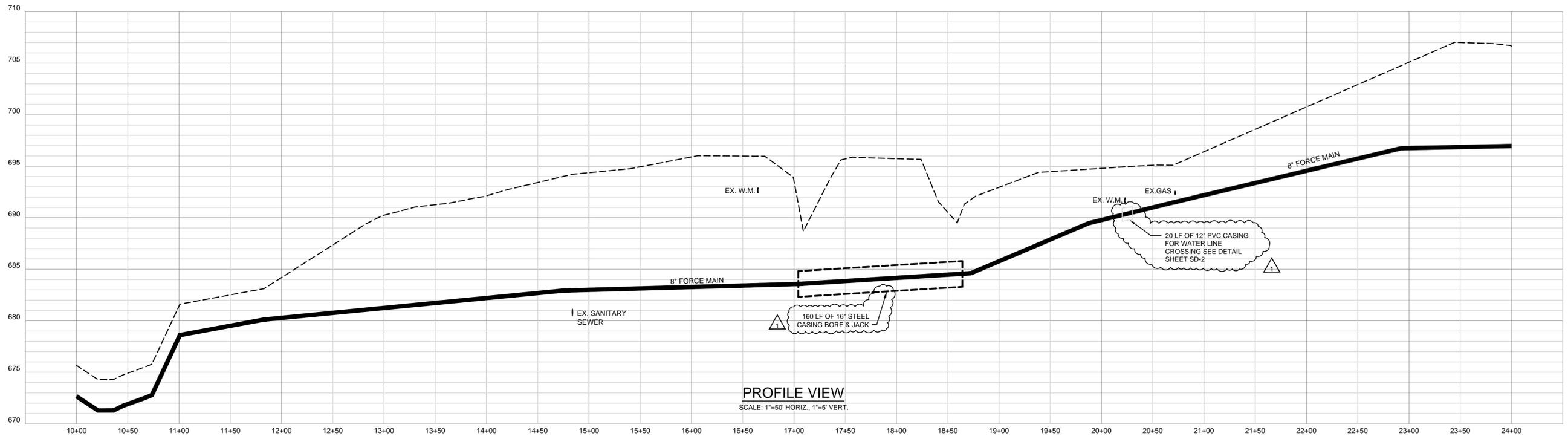
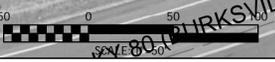
PROJECT NO.	24006
SHEET NO.	C-3

BID DOCUMENTS



GENERAL NOTES:

- EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO INSTALLATION OF SEWER MAIN & NOTIFY ENGINEER OF ANY DISCREPANCIES.



PROFILE VIEW
SCALE: 1"=50' HORIZ., 1"=5' VERT.

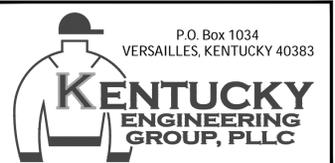
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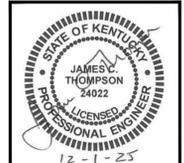
NO.	DATE	REVISIONS	BY
1	9/15/25	ADDENDUM No. 1	JCT

DATE: SEPTEMBER 2025
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
 FOR THE
 COLUMBIA-ADAIR UTILITIES DISTRICT

FORCE MAIN PLAN & PROFILE
 STA. 10+00 TO 24+00



PROJECT NO.
24006

SHEET NO.
C-4

BID DOCUMENTS

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GENERAL NOTES:

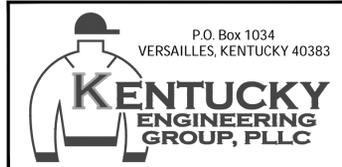
1. CONTRACTOR SHALL VERIFY ALL SERVICE LATERAL LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION OF SEWER. ANY CONFLICTS SHALL BE BROUGHT TO THE OWNER/ENGINEER'S ATTENTION IMMEDIATELY.
2. CONTRACTOR TO RECONNECT LATERALS TO MANHOLES.
3. SEE SHEET C-12 FOR REHABILITATION WORK IN AREA AND COORDINATE.
4. CONTRACTOR RESPONSIBLE FOR MAINTAINING SERVICE DURING THE REHABILITATION OF THE EXISTING.
3. CONTRACTOR TO UNCOVER EX. MHS AND VERIFY ALL DEPTHS PRIOR TO CONSTRUCTION.
4. SEE SPEC SECTION 99998 FOR MANHOLE REHABILITATION INFORMATION
5. SEE SPEC SECTION 99999 FOR MAIN LINE REHABILITATION INFORMATION

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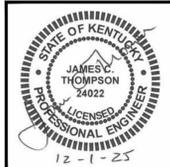
NO.	DATE	REVISIONS	BY

DATE:	SEPTEMBER 2025
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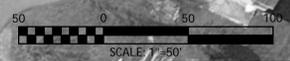
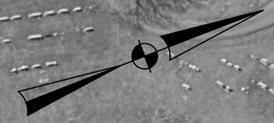
PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
FOR THE
COLUMBIA-ADAIR UTILITIES DISTRICT

**YOUNG STREET - ADAIR AVENUE
SANITARY SEWER REHABILITATION**



PROJECT NO.	24006
SHEET NO.	C-6

BID DOCUMENTS



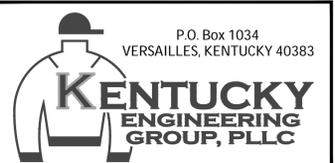
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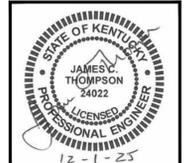
NO.	DATE	REVISIONS	BY

DATE: SEPTEMBER 2025
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
 FOR THE
 COLUMBIA-ADAIR UTILITIES DISTRICT

LINDSEY WILSON STREET -
 CAMPBELLVILLE SREET
 SANITARY SEWER REHABILITATION



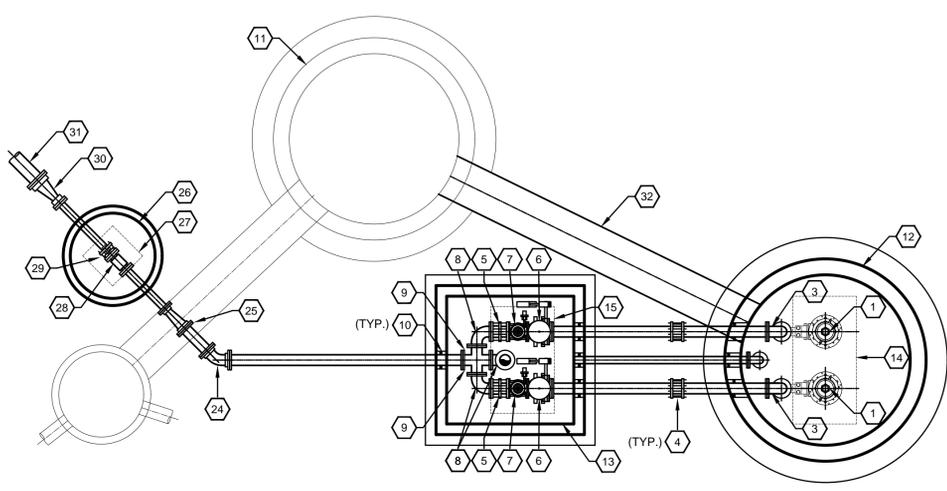
PROJECT NO.
24006

SHEET NO.
C-7

BID DOCUMENTS

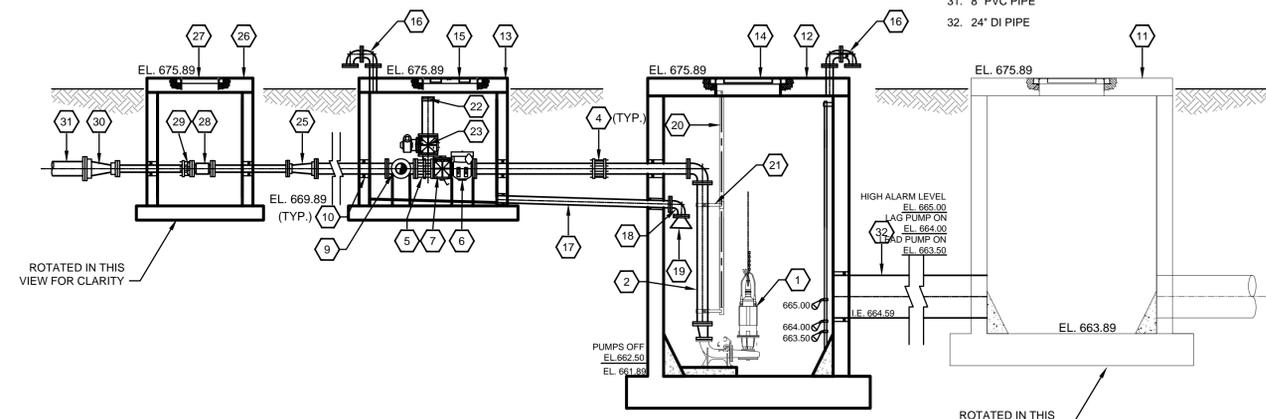
REFERENCE NOTES:

1. SUBMERSIBLE PUMP
2. 6" X 4" ECCENTRIC DI REDUCER
3. 6" DI 90° ELBOW
4. 6" FLEXIBLE COUPLING
5. 6" DISMANTLING JOINT ADAPTER
6. 6" SWING CHECK VALVE
7. 6" PLUG VALVE
8. 6" DI 90° ELBOW
9. 6" DI CROSS
10. LINK SEAL OR EQUAL
11. EX. 8'-0" DIA. CONCRETE WET WELL
12. 8'-0" DIA. PRECAST CONCRETE WET WELL
13. 6'-0" X 6'-0" PRECAST CONCRETE VALVE VAULT
14. 36" X 72" WATERTIGHT ALUMINUM ACCESS HATCH W/ FALL PROTECTION GRATING (SIZE TO BE CONFIRMED WITH PUMP MANUFACTURER)
15. 36" X 60" WATERTIGHT ALUMINUM ACCESS HATCH
16. 4" VENT W/ SST SCREEN
17. 4" DI DRAIN
18. 4" DI 90° ELBOW
19. 4" TIDEFLEX CHECK VALVE OR EQUAL
20. SST GUIDE RAILS
21. SST GUIDE RAIL SUPPORT BRACKETS
22. 6" CAMLOCK QUICK CONNECT
23. 6" PLUG VALVE
24. 6" DI MJ 45° ELBOW
25. 6" X 4" DI MJ REDUCER
26. 4'-0" DIA. PRECAST CONCRETE MANHOLE
27. 2'-0" X 2'-0" WATERTIGHT ALUMINUM ACCESS HATCH
28. 4" MAGNETIC FLOW METER (RELOCATED FROM EX. METER VAULT)
29. 4" FLANGE COUPLING ADAPTER
30. 8" X 4" DI MJ REDUCER
31. 8" PVC PIPE
32. 24" DI PIPE



NEW MAJESTIC PUMP STATION PLAN

SCALE: 1/4"=1'-0"



NEW MAJESTIC PUMP STATION SECTION

SCALE: 1/4"=1'-0"



GENERAL NOTES:

1. ACCESS HATCHES SHALL BE SUPPLIED BY THE PUMP MANUFACTURER/SUPPLIER IN COORDINATION WITH THE SPECIFIED PUMPS. DIMENSIONS SHOWN ARE MINIMUM PROVIDED BUT MAY BE INCREASED AS REQUIRED BY PUMP MANUFACTURER
2. COORDINATE SIZE & TYPE OF EMERGENCY PUMP CONNECTIONS W/ACTUAL PUMP REQUIREMENTS.
3. ALL CONCRETE TO BE PROVIDED BY A PRECAST SUPPLIER. ANTI-FLOTATION CALCS WITH A MINIMUM SAFETY FACTOR OF 1.2 SHALL BE PROVIDED. ANY REQUIRED BALLAST SHALL BE PROVIDED AND ANCHORED PER PRE-CASTER'S RECOMMENDATION.
4. WATER PROOF HATCHES SHALL BE PLUMBED AND DRAINED TO DAYLIGHT.
5. ALL NECESSARY ELECTRICAL MODIFICATIONS (WIRING, BREAKERS, CONDUIT, ECT.) SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY AND INSTALL AS NEEDED.
6. ACCESS ROAD SHALL BE MAINTAINED DURING CONSTRUCTION AND SHALL BE REPLACED TO PRECONSTRUCTION CONDITIONS UPON COMPLETION.
7. DEMOLITION OF EXISTING PUMP STATION SHALL INCLUDE REMOVAL OF PUMPS, PIPING, RAILS & CONTROL PANEL & TURNING OVER TO OWNER. CONTRACTOR SHALL REMOVE & PROPERLY DISPOSE OF EX. VALVE VAULT TOP TO A POINT APPROXIMATELY 3'-0" BELOW GRADE. EX. VALVE VAULT SHALL BE BACKFILLED AND FINISHED W/ TOPSOIL.

REFERENCE NOTES:

1. EXISTING VALVE VAULT (TO BE DEMOLISHED)
2. EXISTING METER VAULT (METER TO BE RELOCATED)
3. EXISTING 8'-0" DIA. WET WELL
4. 8'-0" DIA. PRECAST WET WELL
5. 6'-0" X 6'-0" PRECAST CONCRETE VALVE VAULT
6. CONNECT EX. WET WELL TO NEW WET WELL W/24" DI PIPE
7. 4'-0" DIA. PRECAST MANHOLE FOR METER VAULT
8. 8" X 4" DI TEE
9. 8" DI MJ 45° ELBOW
10. 8" PVC FORCE MAIN
11. 4" PVC PIPE
12. CONNECT TO EX. 4" FORCE MAIN
13. EMERGENCY GENERATOR

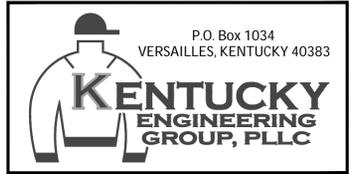
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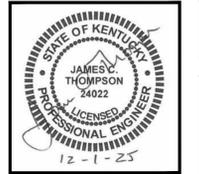
NO.	DATE	REVISIONS	BY

DATE:	SEPTEMBER 2025
PROJECT MGR:	JCT
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
FOR THE
COLUMBIA-ADAIR UTILITIES DISTRICT

MAJESTIC PUMP STATION
SITE PLAN
PLAN & SECTION



PROJECT NO.	24006
SHEET NO.	C-8

BID DOCUMENTS

- REFERENCE NOTES:
1. REMOVE EXISTING PIPING AND ELECTRICAL FROM CONCRETE STATION.
 2. EXISTING 4" PVC LATERAL CONTRACTOR TO VERIFY SIZE AND INVERT ELEVATION
 3. EXISTING 240 VOLT ELECTRICAL
 4. EXISTING CONTROL PANEL TO BE REMOVE AND REPLACE
 5. CONNECT TO EX. 2 FORCE MAIN WITH 2-INCH BALL VALVE 2-INCH BRASS CHECK VALVE AND BOX
 6. CORE EXISTING WET WELL STRUCTURE INSTALL 6-INCH PVC. CONNECT PVC TO NEW GRINDER STATION
 7. APPROXIMATE LOCATION OF NEW GRINDER STATION SEE DETAIL SHEET C-11

LATITUDE 37°04'39.39",
LONGITUDE -085°19'47.83"

PYLES RECYCLING GRINDER

SCALE: 1" = 20'

- GENERAL NOTES:
1. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR BY-PASS PUMPING DURING CONSTRUCTION

- REFERENCE NOTES:
1. REMOVE EXISTING PIPING AND ELECTRICAL FROM CONCRETE STATION.
 2. EXISTING 4" PVC LATERAL CONTRACTOR TO VERIFY SIZE AND INVERT ELEVATION
 3. EXISTING 240 VOLT ELECTRICAL
 4. EXISTING CONTROL PANEL TO BE REMOVE AND REPLACE
 5. CONNECT TO EX. 2 FORCE MAIN WITH 2-INCH BALL VALVE 2-INCH BRASS CHECK VALVE AND BOX
 6. CORE EXISTING WET WELL STRUCTURE INSTALL 6-INCH PVC. CONNECT PVC TO NEW GRINDER STATION
 7. APPROXIMATE LOCATION OF NEW GRINDER STATION SEE DETAIL SHEET C-11

LATITUDE 37°07'35.60",
LONGITUDE -085°17'43.08"

MEXICAN RESTAURANT GRINDER

SCALE: 1" = 20'

- GENERAL NOTES:
1. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR BY-PASS PUMPING DURING CONSTRUCTION

KY 55 (BY-PASS.)

KY 55 (CAMPBELLVILLE RD.)

- REFERENCE NOTES:
1. REMOVE EXISTING PIPING AND ELECTRICAL FROM CONCRETE STATION.
 2. EXISTING 4" PVC LATERAL CONTRACTOR TO VERIFY SIZE AND INVERT ELEVATION
 3. EXISTING 240 VOLT ELECTRICAL
 4. EXISTING CONTROL PANEL TO BE REMOVE AND REPLACE
 5. CONNECT TO EX. 2 FORCE MAIN WITH 2-INCH VALVE AND BRASS CHECK VALVE CONTRACTOR TO VERIFY SIZE AND ELEVATION
 6. CORE EXISTING WET WELL STRUCTURE INSTALL 6-INCH PVC. CONNECT PVC TO NEW GRINDER STATION
 7. APPROXIMATE LOCATION OF NEW GRINDER STATION SEE DETAIL SHEET C-11

LATITUDE 37°07'19.71",
LONGITUDE -085°17'44.01"

BANK BUILDING GRINDER

SCALE: 1" = 20'

- GENERAL NOTES:
1. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR BY-PASS PUMPING DURING CONSTRUCTION

- REFERENCE NOTES:
1. REMOVE EXISTING PIPING AND ELECTRICAL FROM CONCRETE STATION.
 2. EXISTING 4" PVC LATERAL CONTRACTOR TO VERIFY SIZE AND INVERT ELEVATION
 3. EXISTING 240 VOLT ELECTRICAL
 4. EXISTING CONTROL PANEL TO BE REMOVE AND REPLACE
 5. CONNECT TO EX. 2 FORCE MAIN WITH 2-INCH BALL VALVE 2-INCH BRASS CHECK VALVE AND BOX
 6. CORE EXISTING WET WELL STRUCTURE INSTALL 6-INCH PVC. CONNECT PVC TO NEW GRINDER STATION
 7. APPROXIMATE LOCATION OF NEW GRINDER STATION SEE DETAIL SHEET C-11

LATITUDE 37°06'49.35",
LONGITUDE -085°18'02.86"

LLOYD MEDICAL GRINDER

SCALE: 1" = 20'

- GENERAL NOTES:
1. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR BY-PASS PUMPING DURING CONSTRUCTION

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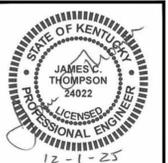
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1	9/17/25	ADDENDUM No. 1	JCT

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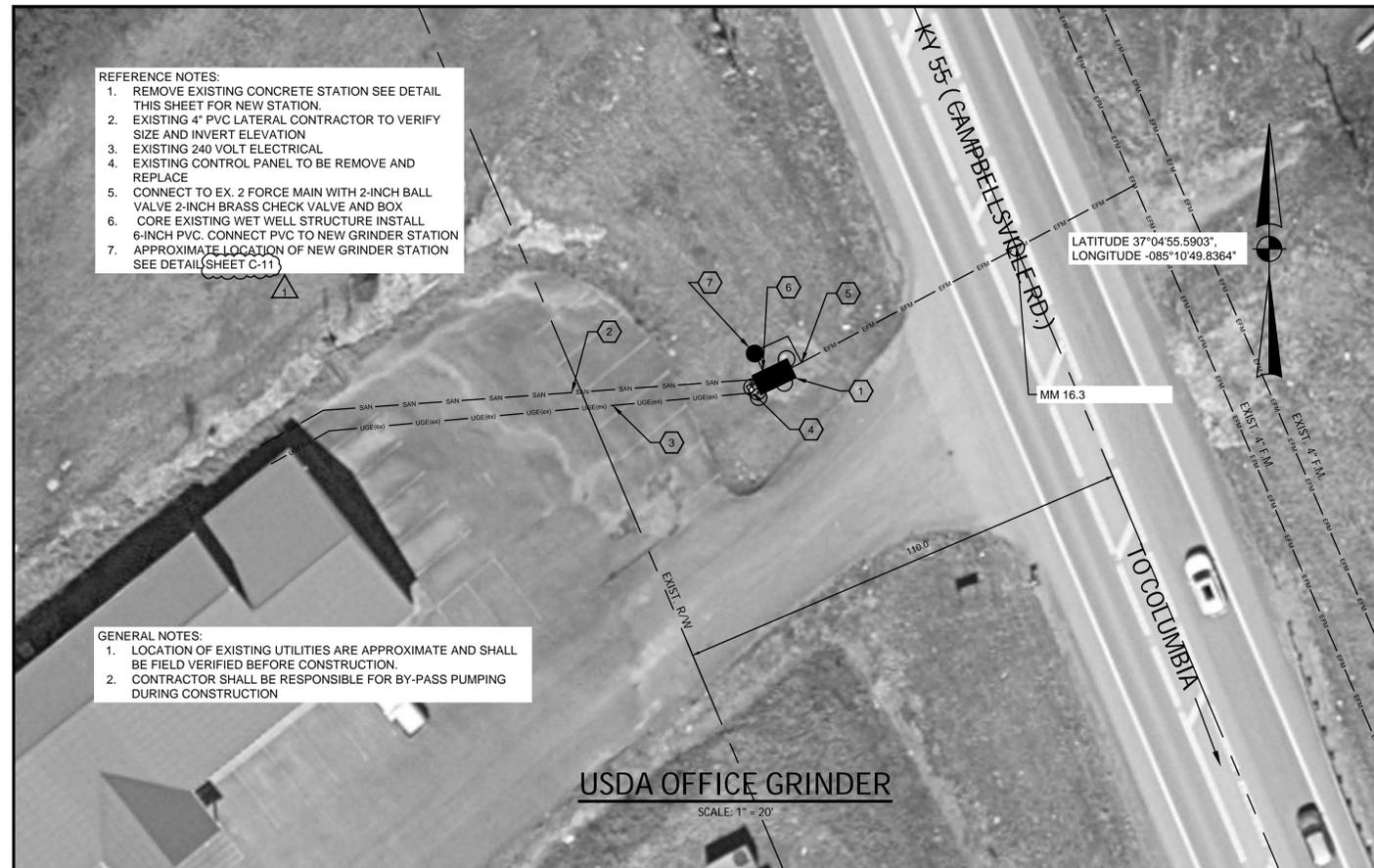
PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS FOR THE COLUMBIA-ADAIR UTILITIES DISTRICT

GRINDER PUMP SITE PLANS



PROJECT NO.	24006
SHEET NO.	C-9

BID DOCUMENTS



- REFERENCE NOTES:
1. REMOVE EXISTING CONCRETE STATION SEE DETAIL THIS SHEET FOR NEW STATION.
 2. EXISTING 4" PVC LATERAL CONTRACTOR TO VERIFY SIZE AND INVERT ELEVATION
 3. EXISTING 240 VOLT ELECTRICAL
 4. EXISTING CONTROL PANEL TO BE REMOVE AND REPLACE
 5. CONNECT TO EX. 2 FORCE MAIN WITH 2-INCH BALL VALVE 2-INCH BRASS CHECK VALVE AND BOX
 6. CORE EXISTING WET WELL STRUCTURE INSTALL 6-INCH PVC. CONNECT PVC TO NEW GRINDER STATION
 7. APPROXIMATE LOCATION OF NEW GRINDER STATION SEE DETAIL(SHEET C-11)

- GENERAL NOTES:
1. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR BY-PASS PUMPING DURING CONSTRUCTION

USDA OFFICE GRINDER

SCALE: 1" = 20'

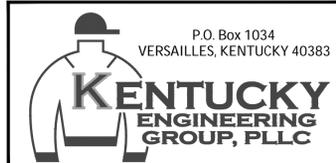
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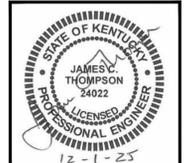
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS FOR THE COLUMBIA-ADAIR UTILITIES DISTRICT

GRINDER PUMPS SITE PLANS



PROJECT NO.	24006
SHEET NO.	C-10

BID DOCUMENTS

GENERAL NOTES:

- SCOPE: ALL WORK DEPICTED, OR IMPLIED ON THIS SHEET SHALL BE INCLUDED IN THE CONTRACTOR'S LUMP SUM PRICE FOR RESIDENTIAL WASTEWATER PUMP STATION COMPLETE, IN PLACE.
- ACCESSORIES: PROVIDE ACCESSORIES IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.
- LAYOUT: CONTRACTOR IS TO COORDINATE LOCATION OF EACH RESIDENTIAL PUMPING STATION WITH THE HOMEOWNER OR BUSINESS PRIOR TO STATION INSTALLATION THE CONTRACTOR IS TO PREPARE AND SUBMIT, FOR THE ENGINEER'S APPROVAL, A DRAWING SHOWING THE PROPOSED LOCATION OF THE PUMPING STATION AND CONTROL PANEL.
- SHOP DRAWING: CONTRACTOR IS TO SUBMIT SHOP DRAWINGS SPECIFIC TO EQUIPMENT SELECTED.
- CONTROL PANEL: CONTRACTOR TO PROVIDE A COMPLETE PUMP CONTROL PANEL AND CONTRACT UTILITY COMPANY TO SETUP POWER TO OPERATE SAME. CONTRACTOR'S INSTALLATION OF ALL ELECTRICAL CONTROL FACILITIES SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE. ALL PERMITS NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM SHALL BE OBTAINED BY THE CONTRACTOR (IN THE OWNER'S NAME) FROM THE AUTHORITIES GOVERNING SUCH WORK.
- CONTROL PANEL LOCATION: THE CONTROL PANEL MAY BE MOUNTED ON A POLE OR DIRECTLY ON AN OUTDOOR WALL SURFACE (PREFERRED). THE MOUNTING LOCATION SELECTED MUST BE VISIBLE FROM THE PUMPING STATION AND PROVIDE GENERAL VISIBILITY TO THE OCCUPANTS OF THE BUILDING.
- SUPPLY CABLE: A SUPPLY CABLE (32 FT.) AND CORD GRIP SHALL BE PROVIDED WITH THE PUMPING STATION FOR ELECTRICAL CONNECTION BETWEEN THE STATION AND THE CONTROL PANEL. ALL ELECTRICAL WIRING MUST BE IN ACCORDANCE WITH LOCAL CODES.
- SUPPLY CABLE COVER: A MINIMUM OF 24 INCHES OF GROUND COVER IS MAINTAINED. THESE PORTIONS OF THE CABLE WITH LESS THAN 24 INCHES OF COVER MUST BE HOUSED IN A SUITABLE PROTECTIVE CONDUIT. LEAVE A 6 TO 12 INCH LOOP OF SUPPLY CABLE NEAR THE STATION AND CONTROL PANEL TO ACCOMMODATE FOR SETTLEMENT OF THE SOIL.
- INLET PIPE: THE CENTER OF THE INLET PIPE MUST BE A MINIMUM OF 30 INCHES FROM THE BOTTOM OF THE TANK.
- SUBMERSIBLE PUMPING UNITS: SUBMERSIBLE GRINDER PUMPING UNITS MEETING THE REQUIREMENTS OF THE TECHNICAL SPECIFICATIONS.
- PUMP DISCHARGE: PIPING INCLUDED IN THE LUMP SUM PRICE FOR THE PUMP STATION ENDS AT THE CONNECTION TO THE PRIMARY FORCE MAIN. CONTRACTOR SHALL PROVIDE NECESSARY STAINLESS STEEL BUSHINGS TO ADAPT DISCHARGE PIPING.
- FINISH GRADE: THE FINISHED GRADE SHOULD BE ONE (1) INCH BELOW THE UPPER FLANGE ON THE FIBERGLASS TANK. THE FINISHED GRADE SHOULD BE SLOPED DOWN FROM THE STATION TO EXISTING GRADE.
- CONCRETE BALLAST: A CONCRETE BALLAST SHOULD BE CAST IN PLACE AROUND THE TANK IN THE EXCAVATION (AS SHOWN IN FIG. 1). THE TANK SHOULD BE FILLED WITH WATER, TO A LEVEL ABOVE THE SPECIFIED BALLAST HEIGHT TO PREVENT SHIFTING DURING THE CONCRETE POUR. ALTERNATIVELY, PRE-CAST CONCRETE MAY BE USED AROUND THE TANK BOTTOM FOR BALLAST (SEE FIG. 1). IF THIS BALLAST METHOD IS USED, LIFTING HOOKS MUST BE ANCHORED IN THE CONCRETE TO SUPPORT SUBSEQUENT HANDLING OF THE TANK. THE LIFTING HOOKS MUST BE ADEQUATE TO SUPPORT THE COMBINED WEIGHT OF THE TANK AND THE CONCRETE BALLAST.
- HOUSE CONNECTION: CONTRACTOR MUST USE SMOKE TEST PRIOR TO CONNECTING PUMP STATIONS UP TO HOMES. CONTRACTOR'S LICENSED PLUMBER SHALL COMPLETE THE LAST 10 FEET OF INFLUENT SEWER AND CONNECTION TO PUMP PIT.
- STATION DEPTH: IN THE EVENT SITE CONDITIONS REQUIRE THE DEPTH TO EXCEED FIVE (5) FEET, CONTRACTOR SHALL INSTALL EXTENSION RINGS AS NECESSARY TO COMPLETE THE INSTALLATION.

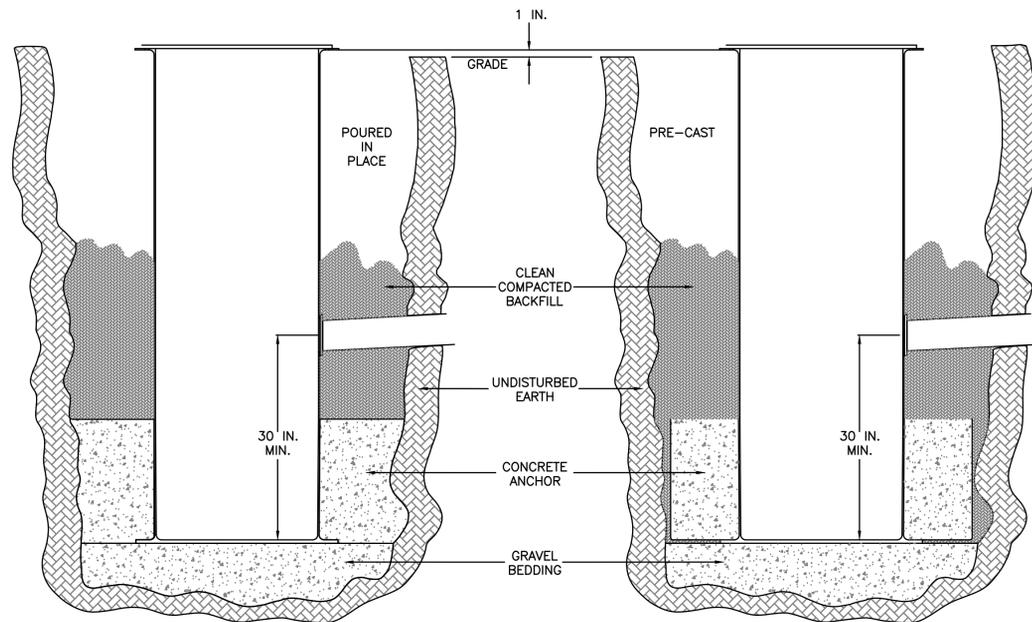
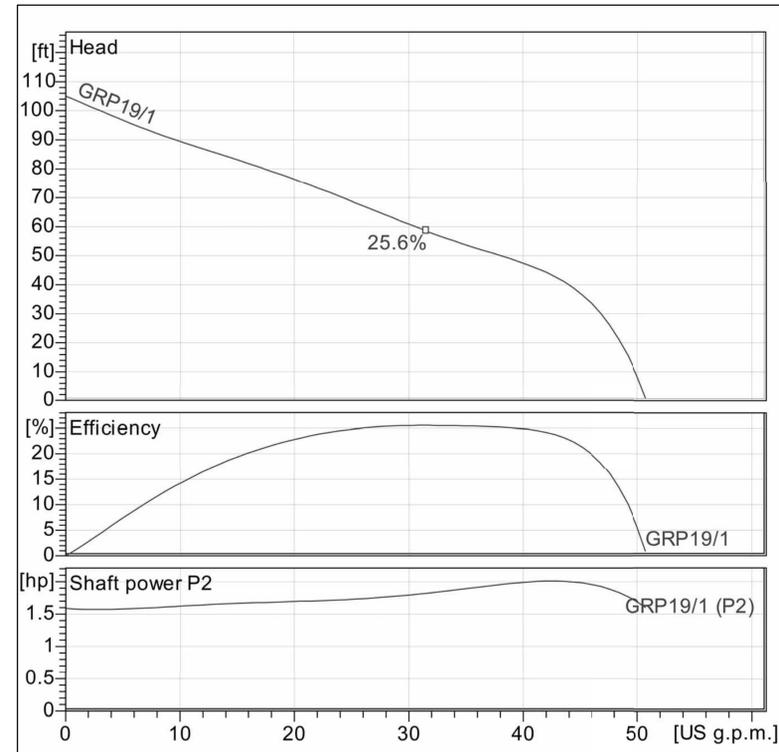


FIG. 1 - TANK INSTALLATION
NOT TO SCALE



GRINDER PUMP NOTES:

- BASIS OF DESIGN IS THE HOMA BRAND GRP19 GRINDER PUMP. ALTERNATIVE PUMPS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AT LEAST 7 DAYS PRIOR TO BID OPENING FOR REVIEW.
- PUMP SHALL BE 2 HP WITH A SHUT OFF HEAD OF 102' TDH.
- PRICE SHALL INCLUDE SPARE PARTS

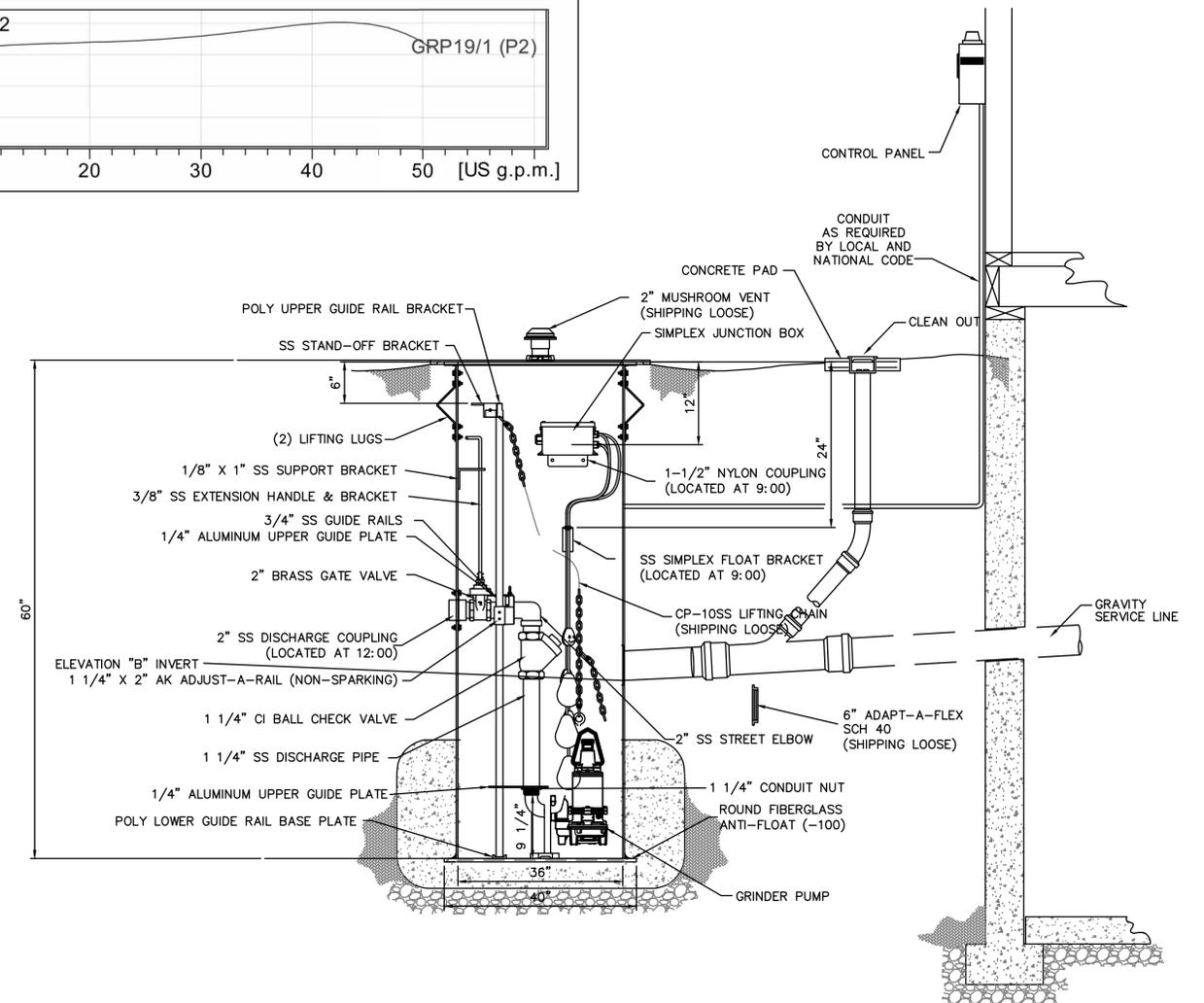


FIG. 2 - TYPICAL SECTION INSTALLATION
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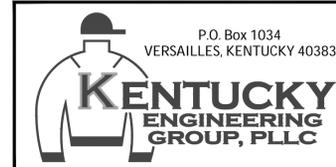
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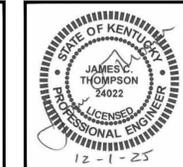
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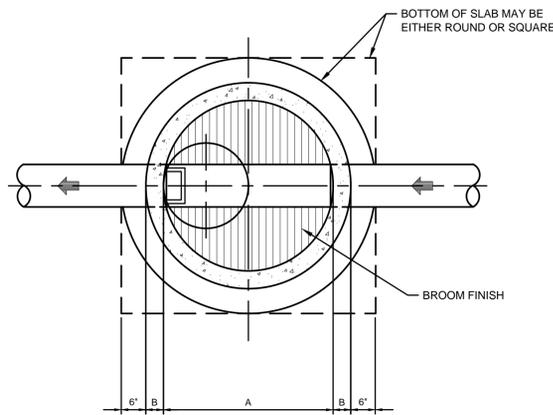
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IMPROVEMENTS
FOR THE
COLUMBIA-ADAIR UTILITIES DISTRICT

GRINDER STATION DETAILS



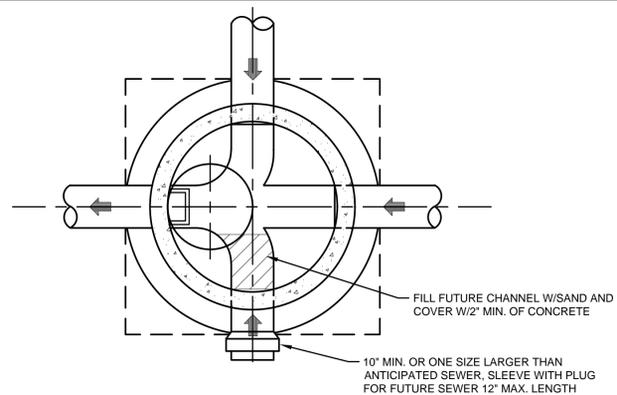
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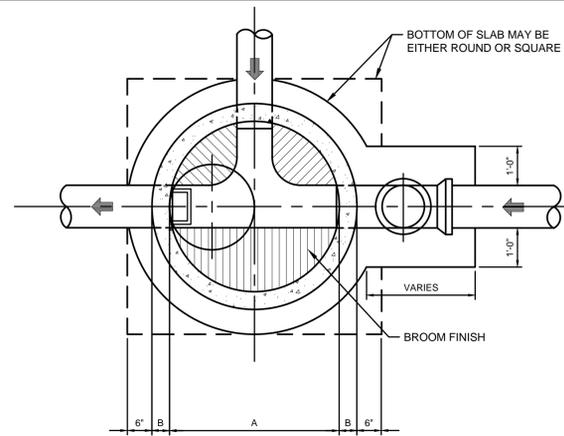
TYPICAL MAHMHOLE BASE - PLAN

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JUNCTION MAHMHOLE BASE - PLAN

NOT TO SCALE

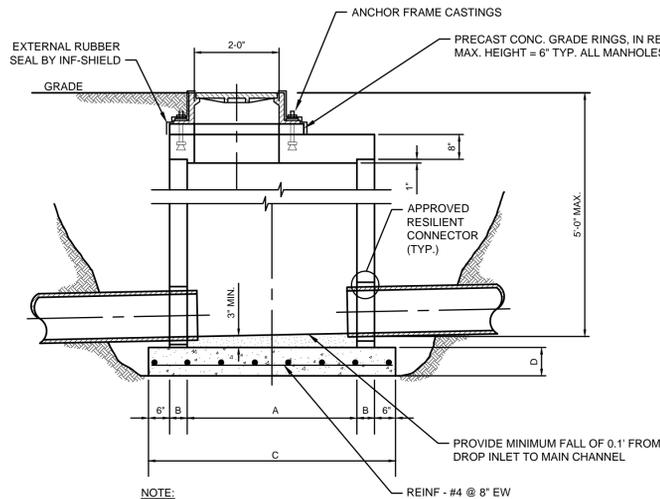


DROP MAHMHOLE BASE - PLAN

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GENERAL NOTES:

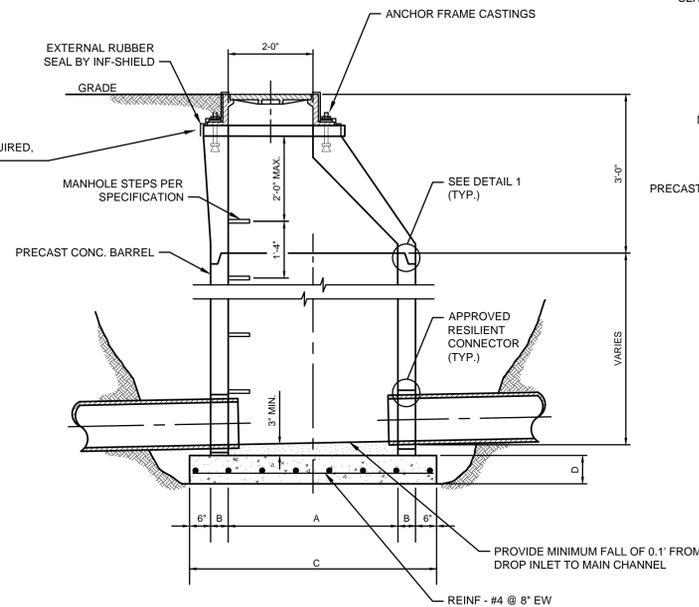
1. REINFORCED BASE AND TOP SLABS SHALL BE 3500 P.S.I. CONCRETE.
2. PRECAST CONC BARRELS FOR MANHOLES 12 FEET OR LESS IN DEPTH SHALL CONFORM TO ASTM STANDARD SPECIFICATIONS C-76, TABLE 2 WALL B, WITH A MINIMUM CONCRETE STRENGTH OF 4000 P.S.I., TABLE 3 PRECAST CONC BARRELS SHALL BE USED FOR MANHOLES OVER 12 FEET IN DEPTH.
3. MANHOLE FRAME CASTINGS SHALL BE SECURELY ANCHORED TO THE MANHOLE. ANCHORING SHALL BE BY MEANS OF 1/2" DIAMETER STAINLESS STEEL WEDGE ANCHOR. WEDGE ANCHORS SHALL ONLY BE PLACED IN THE CONE SECTION OR FLAT TOP SLAB, WITH ANCHOR ROD PASSING THRU GRADE RING AND FRAME CASTING.
4. MANHOLE JOINTS TO BE WRAPPED WITH EXTERNAL RUBBER WRAP.
5. DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. DESIGN OF PRECAST STRUCTURES SHALL BE BY PRECAST CONCRETE MANUFACTURER. CALCULATIONS SHALL BE SUBMITTED SUPPORTING THE PROPOSED DESIGN THICKNESS, DIMENSIONS, UPLIFT/BUOYANCY FORCES, AND REINFORCEMENT FOR EACH STRUCTURE IN ACCORDANCE WITH SPECIFICATIONS SECTION 03400 PRECAST STRUCTURES.
6. THE CONTRACTOR SHALL COORDINATE THE O.D. OF THE PROCESS PIPING WITH THE PRECAST CONCRETE MANUFACTURER.
7. MANHOLES SHALL INCLUDE A CRYSTALLINE WATERPROOF ADDITIVE, XYPEX CHEMICAL CORPORATION OR APPROVED EQUAL.



SHALLOW MANHOLE - SECTION

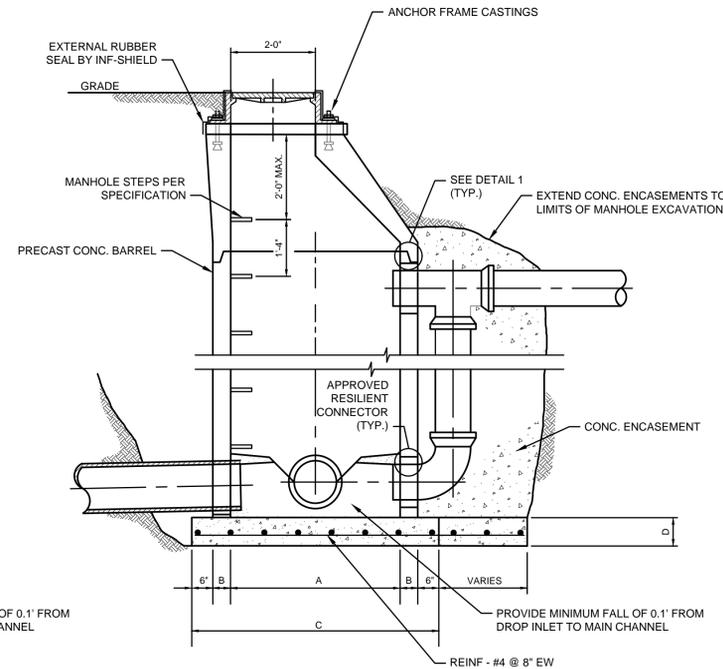
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NOTE:
ALL STANDARD MANHOLE REQUIREMENTS MUST BE MET
MANHOLES 4'-0" AND LESS IN DEPTH
REINF - #4 @ 8" EW



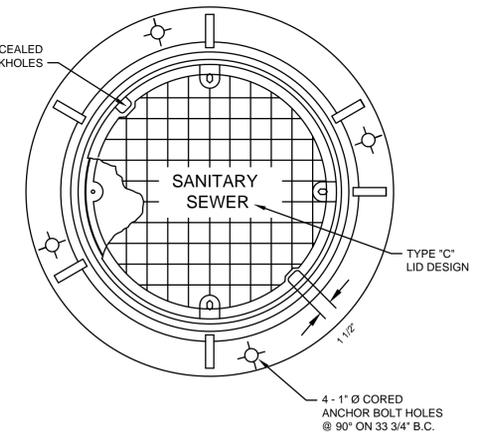
STANDARD MANHOLE - SECTION

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DROP MANHOLE

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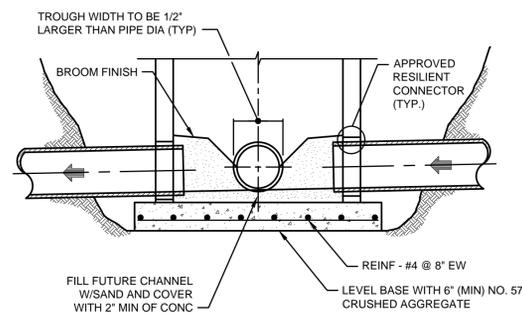


STANDARD MANHOLE FRAME and COVER

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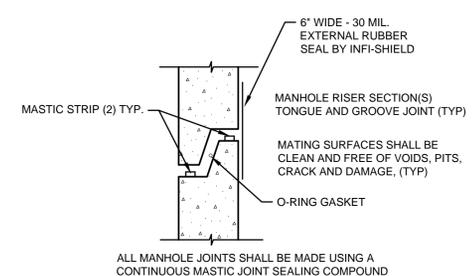
MANHOLE DIMENSIONS SCHEDULE				
INSIDE MH DIA.	A	B	C	
4'-0"	4'-0"	5"	5'-10"	
5'-0"	5'-0"	6"	7'-0"	
6'-0"	6'-0"	7"	8'-2"	

MANHOLE DEPTH	D
0' - 10'	6"
10' - 15'	8"
15' - 20'	10"
20' - 25'	12"
25' - 30'	14"



JUNCTION MANHOLE BASE - SECTION

NOT TO SCALE



1 DETAIL

NOT TO SCALE

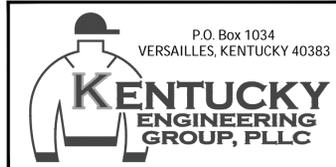
ALL MANHOLE JOINTS SHALL BE MADE USING A CONTINUOUS MASTIC JOINT SEALING COMPOUND

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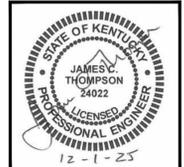
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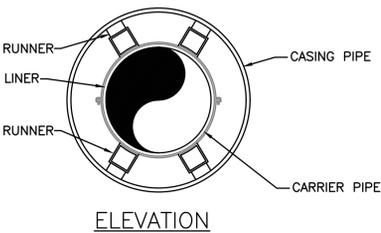
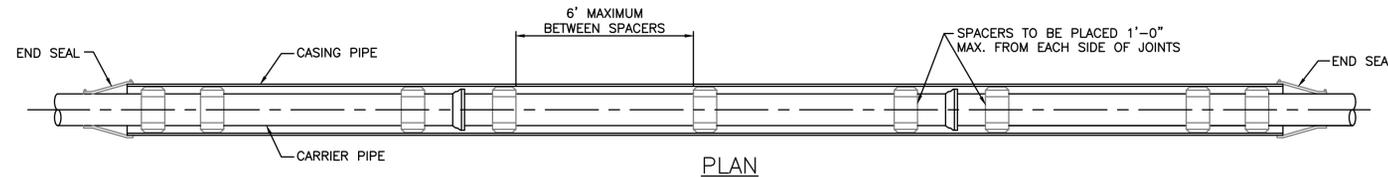
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS
FOR THE
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STANDARD DETAILS



PROJECT NO.	24006
SHEET NO.	SD-1

BID DOCUMENTS



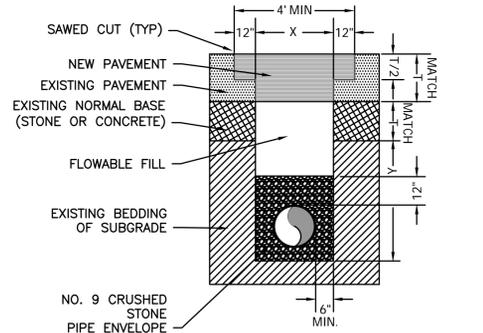
NOTES:

1. ALL JOINTS SHALL BE SOLIDLY WELDED. END OF CASING SHALL BE SEALED AFTER LINE HAS BEEN INSTALLED AND TESTED.
2. MINIMUM DEPTHS MAY INCREASE IN AREAS WHICH REQUIRE MINIMUM SEPARATION WITH OTHER FACILITIES.
3. OPEN TRENCH NO CLOSER THAN THE DITCHLINE OR TOE OF FILL FROM THE EDGE OF THE PAVEMENT OR AS DIRECTED BY STATE, COUNTY OR MUNICIPAL SPECIFICATIONS.
4. HIGHWAY CROSSINGS SHALL UTILIZE STEEL CASING PIPE. STEEL CASING PIPES 4" AND LESS SHALL BE NEW SCHEDULE 40. STEEL CASING PIPES LARGER THAN 4" SHALL HAVE MINIMUM WALL THICKNESS OF 0.25". ALL BORED AND JACKED ENCASEMENT PIPE SHALL BE INSTALLED IN BORE HOLES NO LARGER THAN THE OUTSIDE DIAMETER OF THE ENCASEMENT PIPE.
5. ENCASEMENT PIPE TO BE PAID PER LINEAR FOOT OF SEWER MAIN ENCASED

ENCASEMENT PIPE SPACER DETAIL

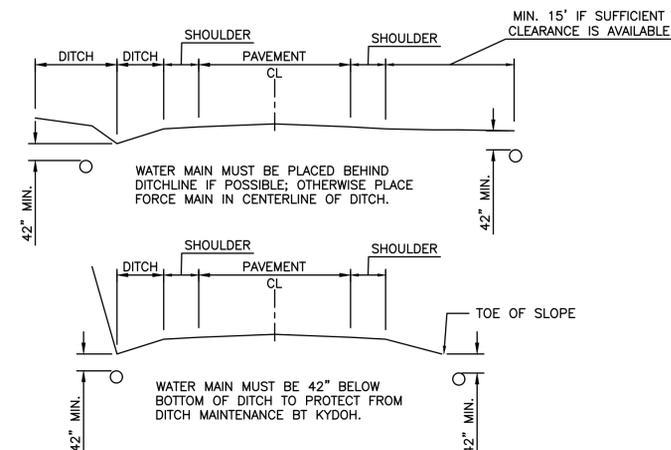
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CASING PIPE SCHEDULE		
CARRIER PIPE SIZE	CASING PIPE SIZE	MINIMUM WALL THICKNESS (INCHES)
2"	6"	0.250
3"	8"	0.250
4"	12"	0.250
6"	14"	0.312
8"	16"	0.312
10"	18"	0.312
12"	20"	0.375
14"	24"	0.375
16"	26"	0.500
20"	30"	0.500
24"	34"	0.500
30"	40"	0.500



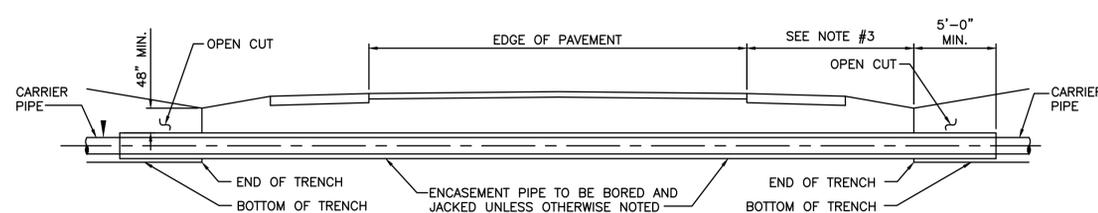
KDOT BELOW PAVEMENT FORCE MAIN BEDDING & BACKFILL

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TYPICAL CONSTRUCTION ON KYDOH RIGHTS OF WAYS

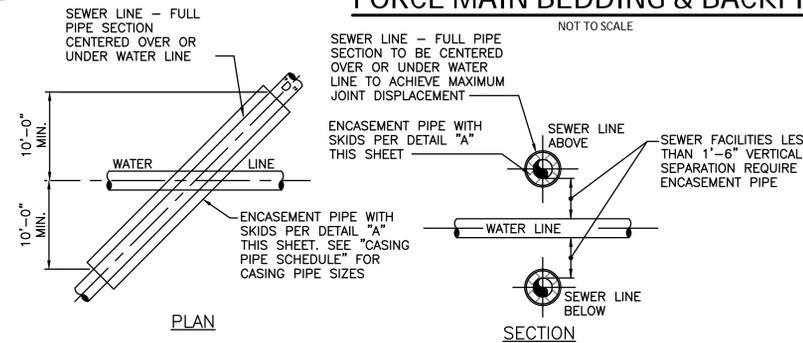
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CROSS SECTION OF ENCASED ROAD CROSSING - TYPICAL

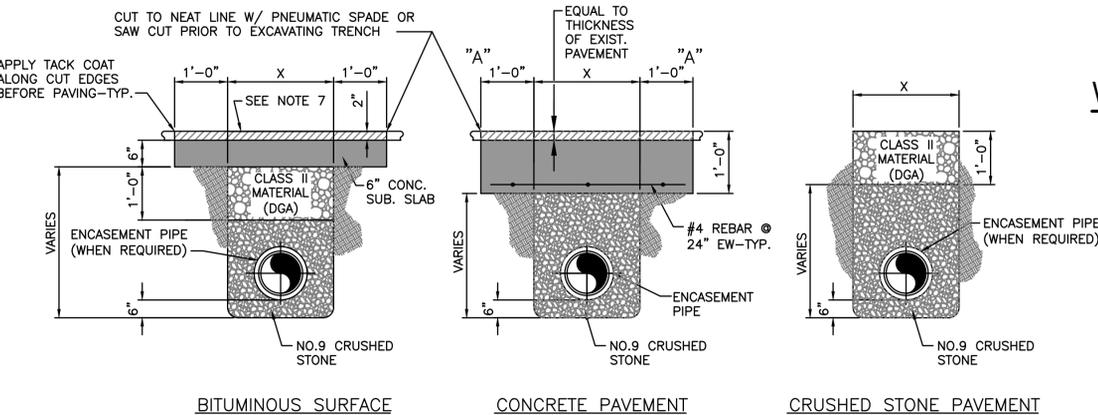
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- NOTE:**
1. SEE DETAIL "A" FOR PLACEMENT OF CARRIER PIPE IN CASING PIPE



WATER/SANITARY SEWER CROSSING - ENCASEMENT

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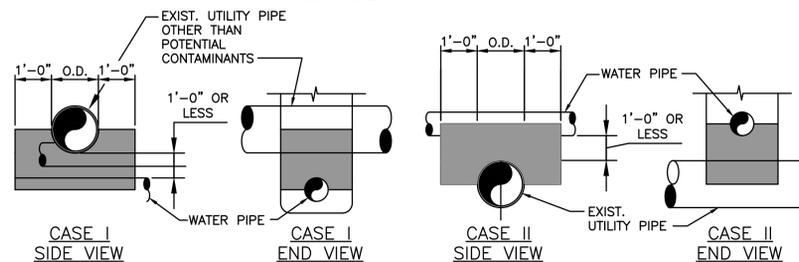


NEW PAVEMENT & PAVEMENT REPLACEMENT TRENCH DETAILS

NOT TO SCALE

NOTES:

1. REPLACE BITUMINOUS PAVEMENT WITH SAME TYPE AND THICKNESS (2" MIN.) AS EXISTING PAVEMENT.
2. IF ROCK IS ENCOUNTERED, A MINIMUM OF 6" NO.9 CRUSHED STONE MUST BE PLACED UNDER THE PIPE.
3. X = MAX. WIDTH OF TRENCH AT SURFACE UNDER NORMAL CONDITIONS (3" + PIPE O.D.)
4. FROM POINTS "A" TO NEAREST JOINT OR BREAK IN PAVEMENT MUST BE AT LEAST SIX (6) FEET OR MORE. IF LESS THAN SIX (6) FEET, REMOVE PAVEMENT TO JOINT OR BREAK AND REPLACE ENTIRE SLAB. NO.610 CRUSHED STONE MAY BE SUBSTITUTED FOR MECHANICALLY TAMPED EARTH BACKFILL WITH PRIOR APPROVAL OF THE ENGINEER.
5. SEE DETAIL "A" FOR PLACEMENT OF CARRIER PIPE IN CASING PIPE
6. 1" SAW CUT OUTSIDE OF TRENCH LINES, BITUMINOUS PATCH PLACED IN 2" LIFTS WITH TACK COAT ON EACH SIDE, EACH LIFT COMPACTED WITH SMALL ROLLER.
- 7.



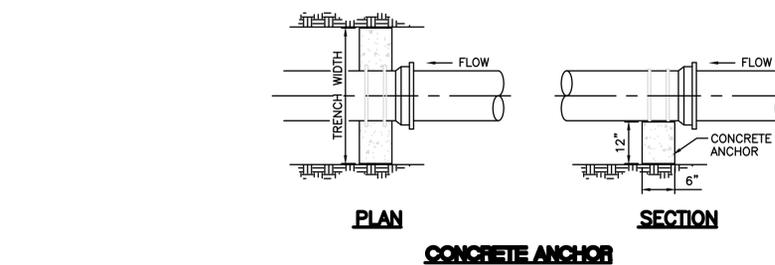
NOTES:

1. CONCRETE SEPARATOR SHALL BE USED WHEN CLEARANCE BETWEEN WATER LINE AND UTILITY PIPE IS 12" OR LESS.
2. "UTILITY PIPE" INCLUDES UNDERGROUND WATER, NATURAL GAS, TELEPHONE, ELECTRICAL CONDUITS, STORM SEWER OR TYPICALLY NON-CONTAMINATING FACILITIES. WHEN CROSSING SANITARY SEWER OR POTENTIAL CONTAMINANTS SEE DETAIL "WATER/SANITARY SEWER CROSSING".
3. STEEL ENCASEMENT PIPE MAY BE USED IN LIEU OF CONCRETE ENCASEMENT AS SHOWN IN WATER/SANITARY SEWER CROSSING - ENCASEMENT DETAIL.

W = WIDTH OF CONC. FROM UNDISTURBED

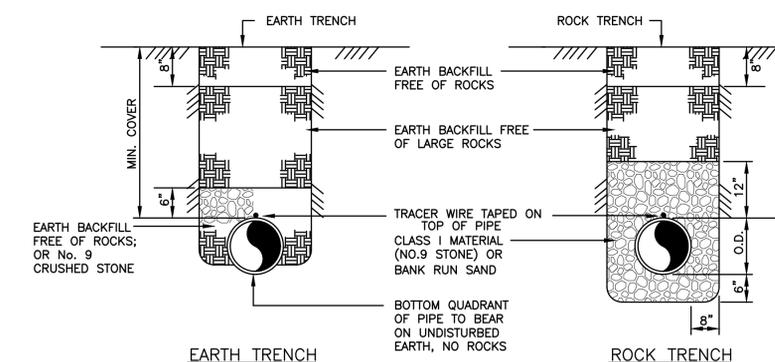
UTILITY CROSSING CONCRETE SEPARATOR

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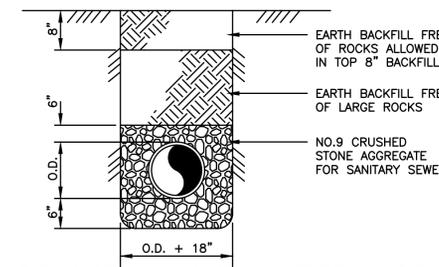
CONCRETE ANCHOR

NOT TO SCALE



PRESSURE PIPE / FORCE MAIN TYPICAL - BEDDING AND BACKFILL

NOT TO SCALE



TYPICAL GRAVITY MAIN & LATERAL SEWER TRENCH DETAIL

NOT TO SCALE

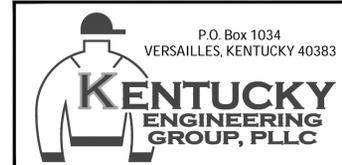
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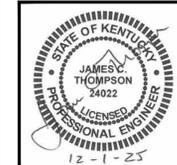
NO.	DATE	REVISIONS	BY

DATE:	SEPTEMBER 2025
PROJECT MGR:	JCT
DRAWN BY:	JAB
CHECKED BY:	JCT
SCALE:	AS NOTED
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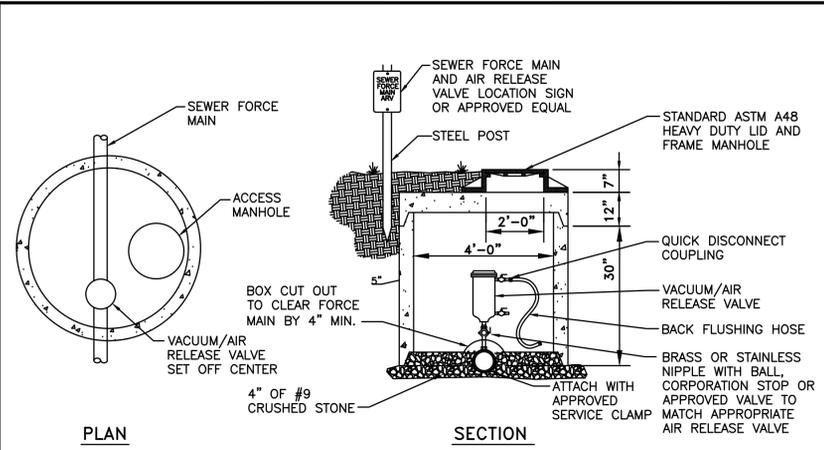
PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS FOR THE COLUMBIA-ADAIR UTILITIES DISTRICT

STANDARD DETAILS



PROJECT NO.	24006
SHEET NO.	SD-2

BID DOCUMENTS



SEWER VACUUM/AIR RELEASE VALVE AND BOXES

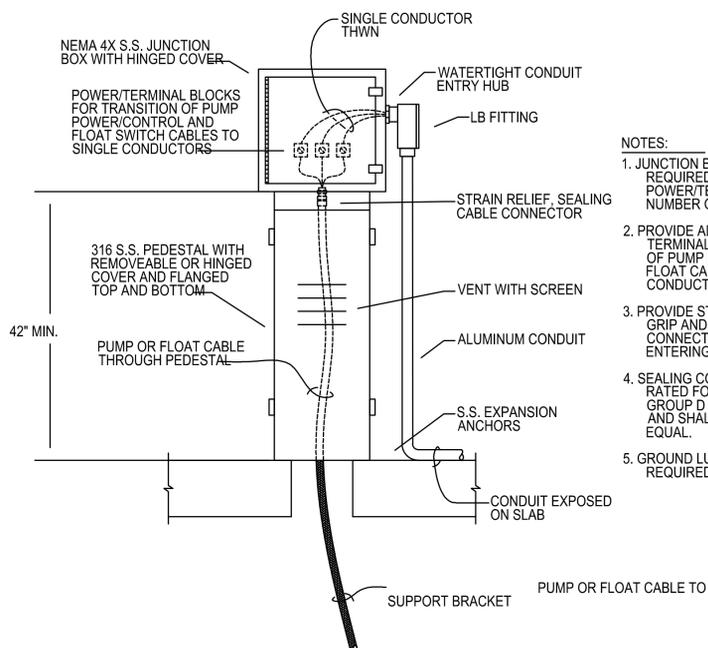
AIR RELEASE VALVES SHALL BE THE COMBINED VACUUM AND AIR RELEASE TYPE AND SHALL BE EQUIPPED WITH STAINLESS STEEL OR PLASTIC BODY AND COVER, STAINLESS STEEL FLOAT, BUNA-N SEAT AND BRONZE LINKAGE. BACK FLUSHING ATTACHMENTS INCLUDE: ONE 2" NPT ISOLATION BALL VALVE WITH LEVER, ONE 1" BLOW OFF BALL VALVE WITH LEVER, AND ONE 1/2" NPT FLUSH BALL VALVE WITH QUICK DISCONNECT COUPLING. ALL WITH CONNECTION NIPPLES AND A HOSE FOR BACK FLUSHING. VALVE SHALL HAVE A 1" STAINLESS STEEL THREADED INLET AND BE SUITABLE FOR 150 PSI WORKING PRESSURE. VALVE SHALL BE A.R.I. D-020 OR APPROVED EQUAL.

AT HIGH POINTS IN SEWER FORCE MAINS WHERE AIR CAN ACCUMULATE, PROVISIONS SHALL BE MADE TO REMOVE THE AIR BY MEANS OF VACUUM/AIR RELIEF VALVE. AUTOMATIC VACUUM/AIR RELIEF VALVES SHALL NOT BE USED IN SITUATIONS WHERE FLOODING OF THE MANHOLE OR CHAMBER MAY OCCUR. THEY SHALL BE CONNECTED TO THE FORCE MAIN BY A CORPORATION STOP WITH INSIDE I.P.S. THREADED OUTLET. THE INLET PIPE TO THE VACUUM/AIR RELEASE VALVE SHALL BE ASTM B43 EXTRA STRONG SEAMLESS RED BRASS PIPE WITH I.P.S. MALE THREADED ENDS OR EQUAL IN STAINLESS STEEL. ISOLATION VALVE WILL BE A STAINLESS BALL VALVE WITH LEVER.

THE VACUUM/AIR RELEASE VALVE BOX OR CHAMBER SHALL BE A 30" CONCRETE BARREL SECTION WITH A 4' INSIDE DIA. AS PER ASTM C-478 SPECIFICATIONS. THE TOP SLAB SHALL BE A 4'-10" DIA. X 12" WITH A OFF SET 2' HOLE AS PER ASTM C-478-93 SPECIFICATIONS. THE CONCRETE BARREL SECTION SHALL BE SET ON NO. 9 CRUSHED STONE OR GRAVEL BASE. THE VACUUM/AIR RELEASE VALVE SHALL BE SET OFF CENTER IN THE CHAMBER DUE TO ACCESS. MANHOLE LID SHALL BE SET LEVEL WITH GRADE AND MARKED WITH A SEWER FORCE MAIN SIGN.

FORCE MAIN VACUUM/AIR RELEASE VALVE & BOX

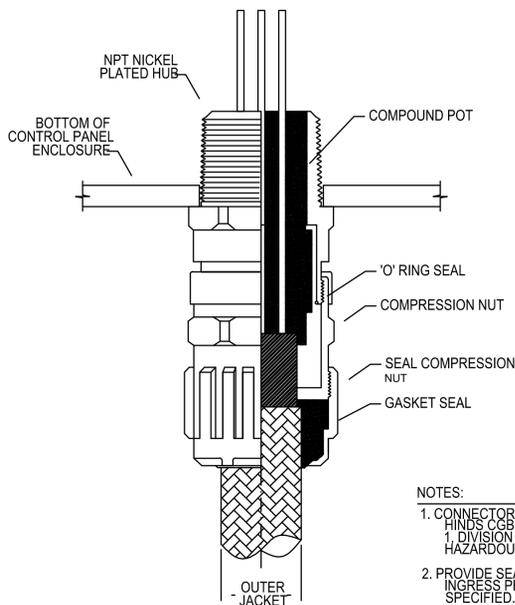
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PUMP CABLE WET WELL JUNCTION BOX

NOT TO SCALE

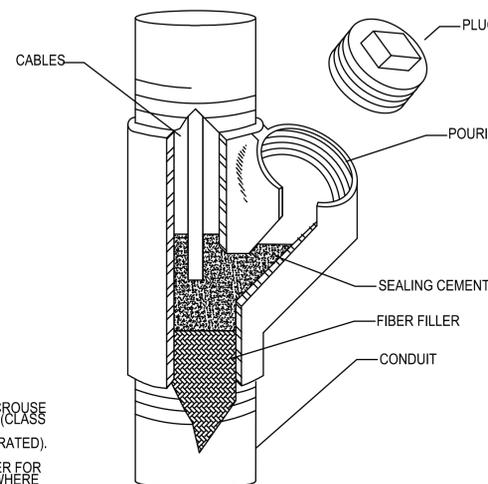
- NOTES:
1. JUNCTION BOX SHALL BE SIZED AS REQUIRED TO ACCOMMODATE POWER/TERMINAL BLOCKS AND NUMBER OF CABLES.
 2. PROVIDE ADEQUATE POWER AND TERMINAL BLOCKS FOR TRANSITION OF PUMP POWER/CONTROL OR FLOAT CABLES TO SINGLE CONDUCTORS.
 3. PROVIDE STRAIN RELIEF CABLE GRIP AND SEALING CABLE CONNECTORS FOR ALL CABLES ENTERING WETWELL.
 4. SEALING CONNECTORS SHALL BE RATED FOR CLASS I, DIVISION 2, GROUP D HAZARDOUS LOCATIONS AND SHALL BE HAWKE 710, OR EQUAL.
 5. GROUND LUG IS NOT SHOWN, BUT IS REQUIRED.



PUMP POWER AND CONTROL CABLE GLAND CONNECTION

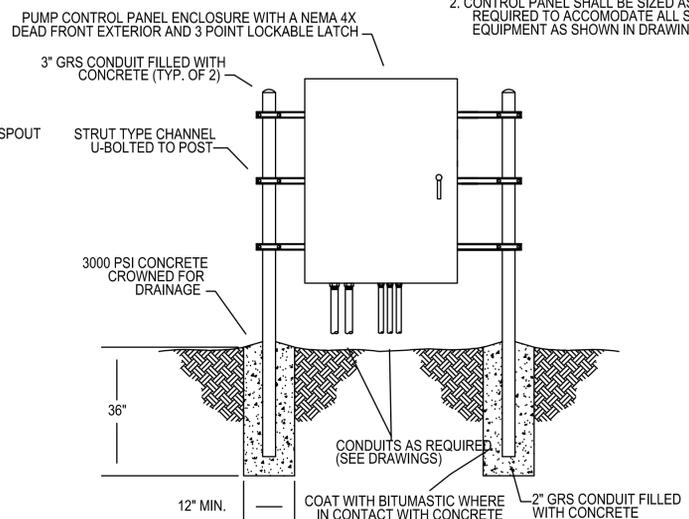
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- NOTES:
1. CONNECTORS SHALL BE CROUSE HINDS CGRS OR EQUAL (CLASS 1 DIVISION 2 GROUP D HAZARDOUS LOCATION RATED).
 2. PROVIDE SEALING WASHER FOR INGRESS PROTECTION WHERE SPECIFIED.



CONDUIT SEAL FITTING

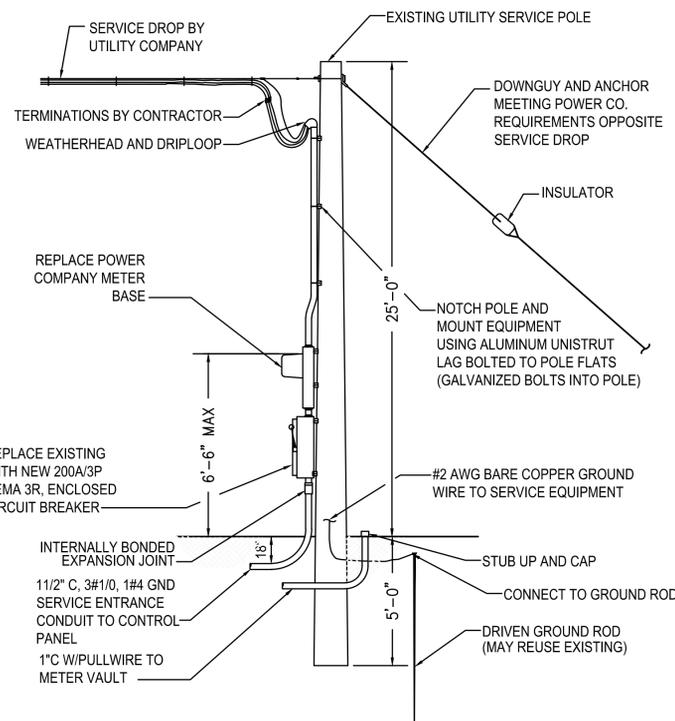
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EQUIPMENT RACK (TYPICAL)

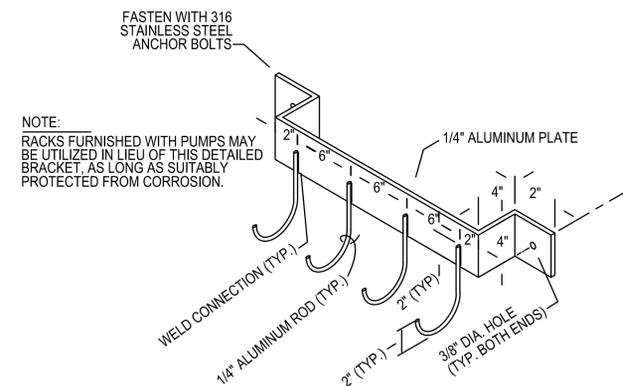
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- NOTE:
1. NOTE THAT ALL ENCLOSURES SHALL BE RACK MOUNTED WHERE POSSIBLE.
 2. CONTROL PANEL SHALL BE SIZED AS REQUIRED TO ACCOMMODATE ALL SPECIFIED EQUIPMENT AS SHOWN IN DRAWINGS.



SERVICE / ANTENNA POLE DETAIL

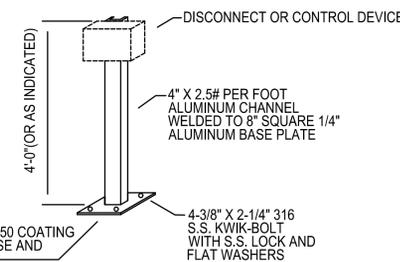
NOT TO SCALE



LEVEL SENSOR HOLDER

NOT TO SCALE

- NOTE:
- RACKS FURNISHED WITH PUMPS MAY BE UTILIZED IN LIEU OF THIS DETAILED BRACKET, AS LONG AS SUITABLY PROTECTED FROM CORROSION.



EQUIPMENT SUPPORT BRACKET

NOT TO SCALE

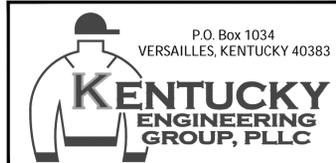
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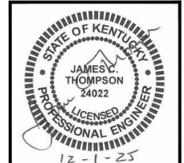
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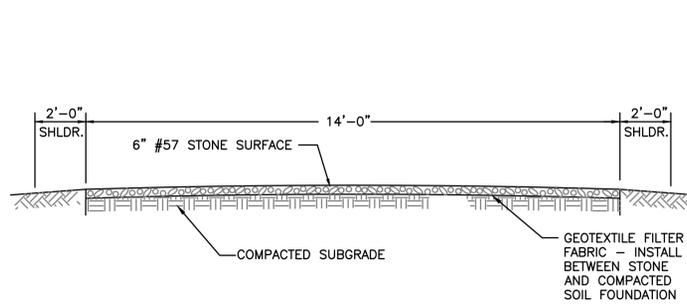
PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS FOR THE COLUMBIA-ADAIR UTILITIES DISTRICT

ELECTRICAL DETAILS



PROJECT NO.	24006
SHEET NO.	SD-3

BID DOCUMENTS

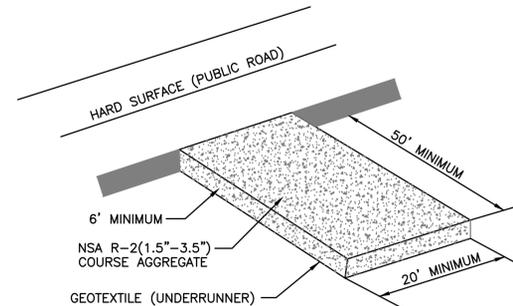


CONSTRUCTION ROAD STABILIZATION

NOT TO SCALE

NOTES:

- TREES, STUMPS, ROOTS, BRUSH, WEEDS, AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED FROM THE WORK AREA.
- UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ROADBED AND PARKING AREAS.
- GRADING, SUBGRADE PREPARATION, AND COMPACTION SHALL BE DONE AS NEEDED. FILL MATERIAL SHALL BE DEPOSITED IN LAYERS NOT TO EXCEED 9 INCHES AND COMPACTED WITH THE CONTROLLED MOVEMENT OF COMPACTING AND EARTH MOVING EQUIPMENT.
- THE ROADBED SHALL BE GRADED TO THE REQUIRED ELEVATION. SUBGRADE PREPARATION AND PLACEMENT OF THE SURFACE COURSE SHALL BE IN ACCORDANCE WITH SOUND ROADWAY CONSTRUCTION.
- ALL CUT AND FILLS SHALL BE 2:1 OR FLATTER TO THE EXTENT POSSIBLE.
- WATER BREAKS OR BARS MAY BE USED TO CONTROL SURFACE RUNOFF.
- ROADS SHALL BE LAID OUT ACCORDING TO GOOD LANDSCAPE MANAGEMENT PRINCIPLES.
- ALL ROADSIDE DITCHES, CUTS, FILLS, AND DISTURBED AREAS ADJACENT TO ROADS SHALL BE STABILIZED WITH APPROPRIATE TEMPORARY OR PERMANENT VEGETATION.



NOTES:

- A STABILIZED ENTRANCE PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
- GEOTEXTILE (KYTC TYPE III) SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

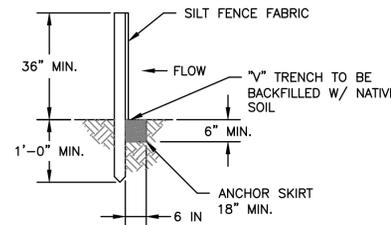
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EROSION CONTROL NOTES

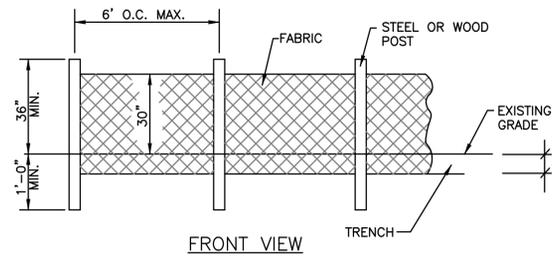
- A KPDES STORMWATER PERMIT IS REQUIRED FOR THIS PROJECT. COVERAGE STARTS WHEN THE KY DIVISION OF WATER ACKNOWLEDGES RECEIPT OF A NOTICE OF INTENT FOR COVERAGE.
- THE KPDES PERMIT REQUIRES THAT THE PERMITTEE SHALL MINIMIZE DISTURBANCE AND THE PERIOD OF TIME THAT THE DISTURBED AREA IS WITHOUT STABILIZATION PRACTICES.
- FINAL STABILIZATION SHALL BEGIN WITHIN 14 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR HAVE BEEN SUSPENDED FOR MORE THAN 180 DAYS. WHEN SNOW COVER CAUSES DELAYS, STABILIZATION SHALL BEGIN AS SOON AS POSSIBLE. STABILIZATION PRACTICES INCLUDE SEEDING, MULCHING, PLACING SOD, PLANTING TREES OR SHRUBS, AND USING GEOTEXTILE FABRICS AND OTHER APPROPRIATE MEASURES. SEEDING RATES, DATES, AND MATERIALS MAY BE OBTAINED FROM THE LOCAL NATURAL RESOURCES CONSERVATION SERVICE FIELD OFFICE.
- FOR ALL CRITICAL AREAS (WITHIN 25' OF A STREAM), SOIL STABILIZATION TECHNIQUES SHALL BE IMPLEMENTED WITHIN 24 HOURS OR AS SOON AS PRACTICAL AFTER COMPLETION OF GRADING OR DISTURBANCE. TEMPORARY STABILIZATION PRACTICES SHALL BE INITIATED WITHIN 14 DAYS OF CESSATION OF CONSTRUCTION ACTIVITIES.
- A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE DEVELOPED AND IMPLEMENTED AS OUTLINED IN THE KPDES STORMWATER PERMIT KYR 10.
- SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE PROPERLY DESIGNED.
- SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE INSTALLED DURING THE INITIAL GRADING AT LOCATIONS THAT WILL PROVIDE THE BEST PROTECTION FROM OFF-SITE DAMAGES.
- ALL SLOPES EXCEEDING 3:1 SHALL HAVE EXTRA SLOPE PROTECTION SUCH AS NETTING.
- A MULTI-PURPOSE BASIN USED FOR A SEDIMENT TRAP THAT IS THEN CONVERTED TO A DETENTION/RETENTION BASIN SHALL BE DREDGED PERIODICALLY DURING CONSTRUCTION ACTIVITIES AND AFTER STABILIZATION IN ORDER TO PROVIDE ADEQUATE STORAGE.
- INLET PROTECTION IS REQUIRED TO MINIMIZE DISCHARGE OF SEDIMENT LADEN WATER.
- SITE PERIMETER CONTROLS ARE REQUIRED AND SHALL BE INSTALLED TO PREVENT THE DEPOSIT OF SOIL AND DEBRIS FROM GRADED SURFACES ONTO PUBLIC STREETS, INTO DRAINAGE CHANNELS OR SEWERS, OR ONTO ADJOINING LAND.
- EROSION CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIRED, CONTRACTOR SHALL PROVIDE ADDITIONAL CONTROL AND REVISE THE CONTROLS AS NEEDED.

INSPECTIONS AND MAINTENANCE

- ALL EROSION CONTROL MEASURES, DISCHARGE LOCATIONS, VEHICLE EXITS, DISTURBED AREAS OF THE SITE, AND MATERIALS STORAGE AREAS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. EACH INSPECTION MUST BE DOCUMENTED IN ACCORDANCE WITH THE KPDES GENERAL PERMIT FOR STORMWATER POINT SOURCE DISCHARGES FROM CONSTRUCTION ACTIVITIES (KYR10).
- SEDIMENT ACCUMULATED AT THE SILT FENCES, INLET PROTECTION AREAS, AND OTHER SILT CHECK DEVICES SHOULD BE REMOVED NO LATER THAN WHEN IT REACHES 1/3 HEIGHT OF THE FENCE OR 9 INCHES MAXIMUM.
- SEDIMENT MUST BE REMOVED FROM ANY SEDIMENT BASINS WHEN THE NO MORE THAN 1/3 VOLUME HAS BEEN FILLED WITH COLLECTED SEDIMENT.
- ALL REQUIRED REPAIRS ARE TO BE MADE IMMEDIATELY.
- REMOVED SEDIMENT MUST BE SPREAD AND VEGETATED OR OTHERWISE STABILIZED IN A MANNER THAT DOES NOT RESULT IN MUDDY RUNOFF TO NEARBY DITCHES AND WATERBODIES.
- INSPECT THE CONSTRUCTION ENTRANCE DAILY TO ENSURE NO TRACKING OR DIRT ONTO LOCAL ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS MUST BE REMOVED IMMEDIATELY. SEE NOTE 3 FOR HANDLING OF REMOVED SEDIMENT.
- MAINTAIN THE ENTRANCE AS NECESSARY TO PREVENT TRACKING OF DIRT.



TRENCH DETAIL FOR SILT FENCE

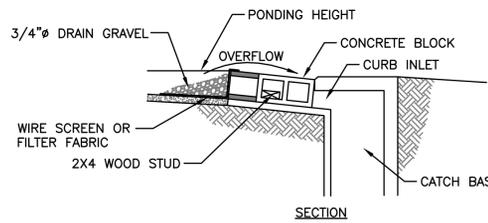
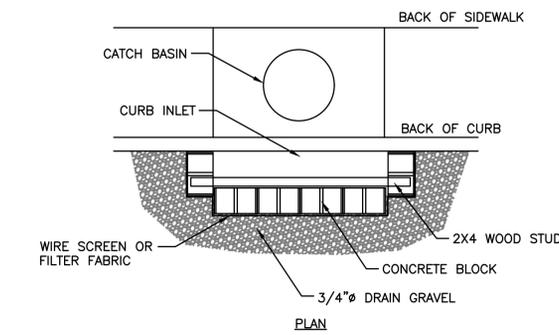


SEDIMENT BARRIER

NOT TO SCALE

NOTES:

- GEOTEXTILE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE OF THE BARRIER. WHEN JOINTS CANNOT BE AVOID, GEOTEXTILE FABRIC SHALL BE SPICED TOGETHER ONLY AT A POST WITH 3 FOOT MIN. OVERLAP, AND SECURELY SEALED.
- POSTED SHALL BE AT LEAST 5 FEET IN LENGTH
- STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE AND FABRIC.
- WOOD POSTS SHALL BE 2 INCHES BY 2 INCHES OR EQUIVALENT. STEEL POSTS SHALL BE 1/33 LBS PER LINEAR FOOT.
- IF REQUIRED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH IN LENGTH, WIRE TIES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE
- TURN SILT FENCE UP SLOPE AT ENDS.

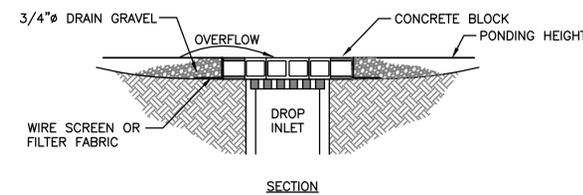
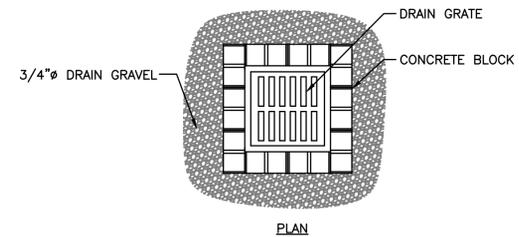


NOTES:

- USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET SEGMENT WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
- BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
- INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER

NOT TO SCALE

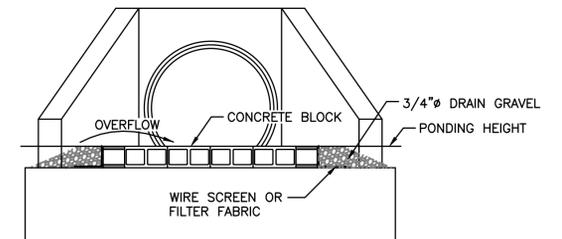
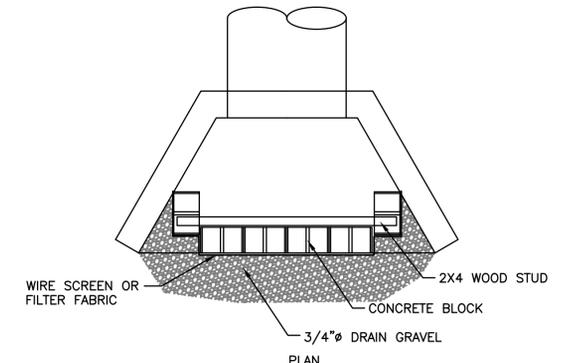


NOTES:

- DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5% SLOPE)
- EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
- THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

DROP INLET SEDIMENT BARRIER

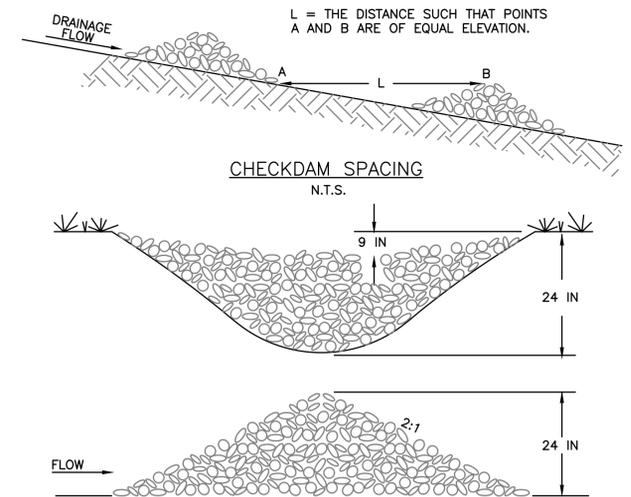
NOT TO SCALE



NOTES:

CULVERT INLET SEDIMENT BARRIER

NOT TO SCALE



NOTES:

- ROCK CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED 5 TO 10 INCH STONE. MECHANICAL OR HAND PLACEMENTS SHALL BE REQUIRED TO ENSURE COMPLETE COVERAGE OF THE ENTIRE WIDTH OF DITCH OR SWALE AND THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
- INSPECT BEHIND RIPRAP CHECKDAM DAILY AND CLEAN WHEN COLLECTED DEBRIS EXCEEDS HALF OF ITS DEPTH.

ROCK CHECK DAM

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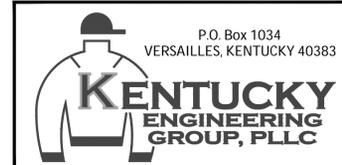
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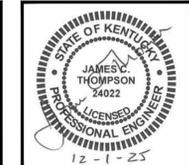
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SCALE:	AS NOTED
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PHASE 24 WASTEWATER SYSTEM IMPROVEMENTS FOR THE COLUMBIA-ADAIR UTILITIES DISTRICT

EROSION CONTROL DETAILS



PROJECT NO.	24006
SHEET NO.	SD-4

BID DOCUMENTS