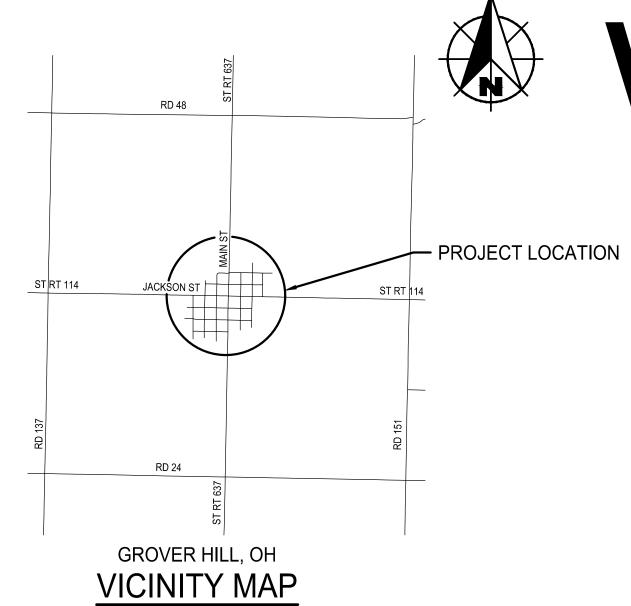
# WASTEWATER SYSTEM IMPROVEMENTS FOR THE VILLAGE OF GROVER HILL, OHIO





STATE LOCATION MAP

SCALE: NONE



More than a Project™

OHIO
80 State Route 103, Suite A
Bluffton, Ohio 45817
Phone: (419) 358-0521
www.wesslerengineering.com

PROJECT NO. 701218-04-001

DRAWINGS PREPARED FOR:

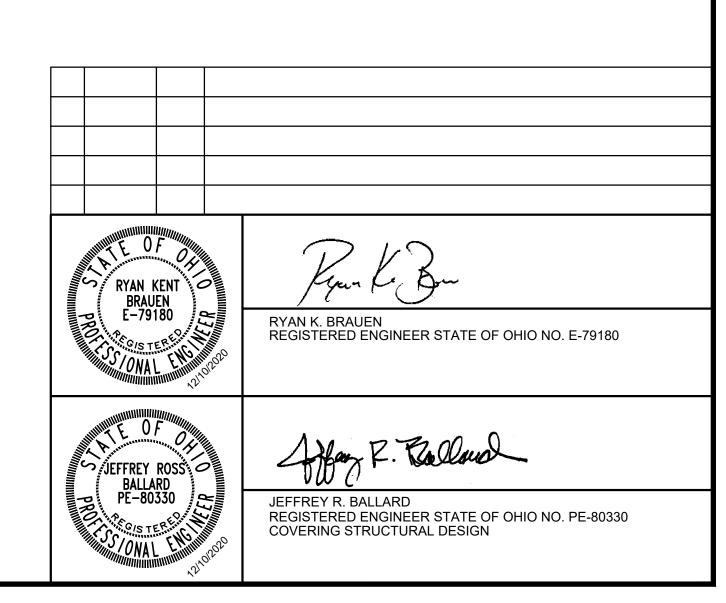
VILLAGE COUNCIL

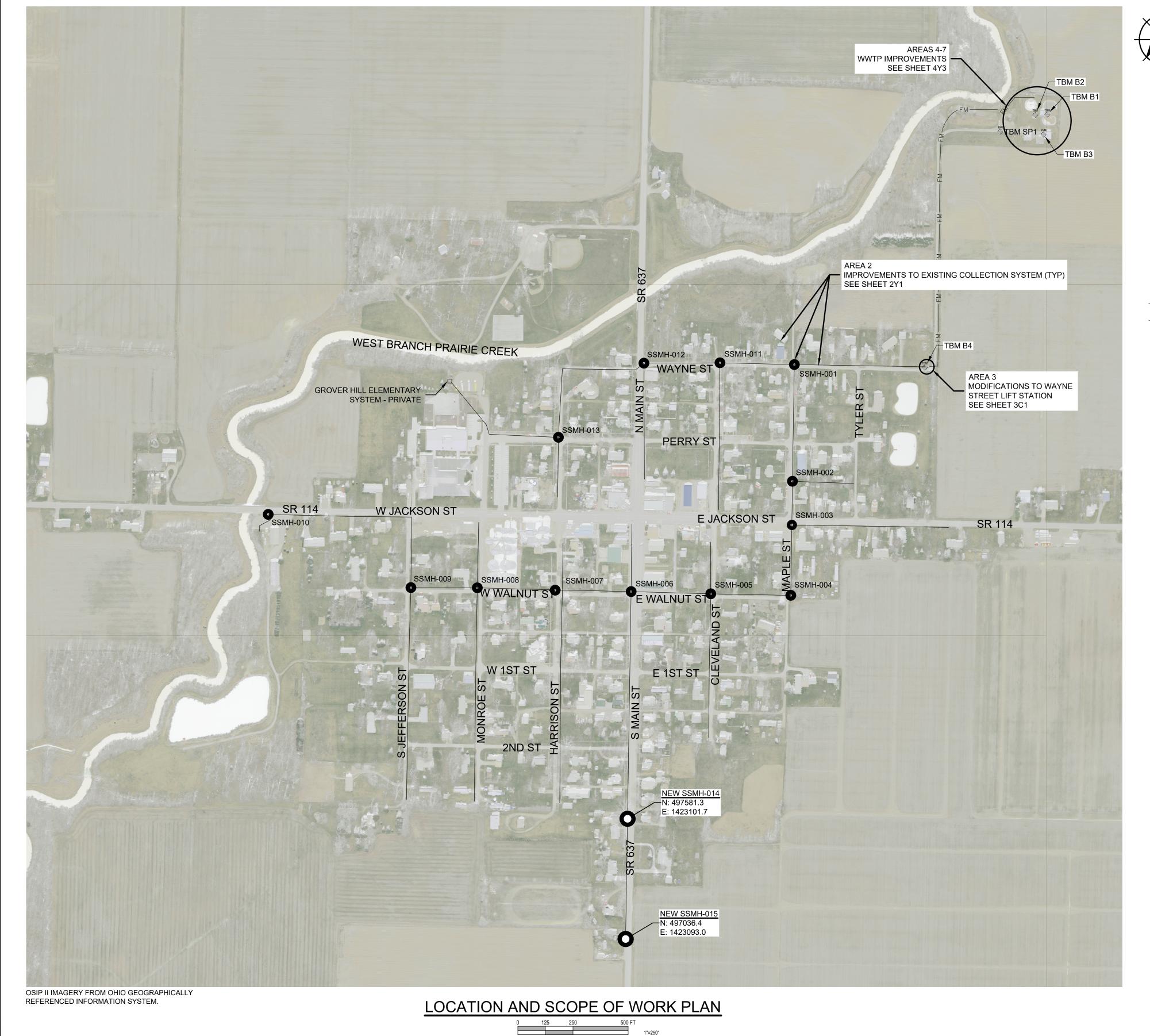
JOHN MOON, MAYOR
JESSIE LEWIS, MEMBER
DEWAYNE HINCHCLIFF, MEMBER
TRUDY WILKIN, MEMBER
PATRICK COMER, MEMBER
SHANNON COMER, MEMBER
TRACY POLING, MEMBER
SUSAN MOON, FISCAL OFFICER

PAULDING COUNTY COMMISIONERS

MARK HOLTSBERRY ROY KLOPFENSTEIN TONY ZARTMAN

**DECEMBER 2020** 







<u>LEGEND</u>

**EX MANHOLE** 

**NEW MANHOLE** 

- EX GRAVITY SEWER —— FM —— EX FORCE MAIN

SHEET TYPE DEFINITIONS: G - GENERAL D - DEMOLITION A - ARCHITECTURAL C - CIVIL/PROCESS S - STRUCTURAL H - HEATING, VENTILATION AND AIR CONDITIONING P - PLUMBING E - ELECTRICAL N - INSTRUMENTATION AND CONTROL Y - SITE R - RESTORATION GENERAL INFORMATION (AREA 1) 1G1 TITLE SHEET 1G2 DRAWING INDEX, AND LOCATION AND SCOPE OF WORK PLAN 1G3 GENERAL NOTES, UTILITIES, ABBREVIATIONS AND LEGEND 1E1 ELECTRICAL SYMBOLS & ABBREVIATIONS COLLECTION SYSTEM (AREA 2) 2Y1 COLLECTION SYSTEM OVERVIEW 2Y2 COLLECTION SYSTEM PARTIAL SITE PLAN - NORTHWEST 2Y3 COLLECTION SYSTEM PARTIAL SITE PLAN - SOUTHWEST 2Y4 COLLECTION SYSTEM PARTIAL SITE PLAN - NORTHEAST 2Y5 COLLECTION SYSTEM PARTIAL SITE PLAN - SOUTHEAST 2Y6 SEPTIC TANK DETAILS
2Y7 SEPTIC TANK DETAILS
2Y8 SEPTIC TANK DETAILS WAYNE STREET LIFT STATION (AREA 3) 3C1 WAYNE STREET LIFT STATION - DEMOLITION AND MODIFICATION PLANS AND SECTIONS 3E1 LIFT STATION - ELECTRICAL MODIFICATIONS 4G1 WWTP - PARITAL HYDRAULIC PROFILE AND FLOW DIAGRAM 4Y1 WWTP - EXISTING SITE PLAN 4Y2 WWTP - DEMOLITION SITE PLAN 4Y3 WWTP - NEW SITE PLAN 4C1 WWTP - PLANT DRAIN LIFT STATION MODIFCATION PLAN AND SECTION 4C2 WWTP - MODIFICATIONS AT EXISTING FLOW SPLITTER MANHOLE AND EFFLUENT STRUCTURES 4C3 WWTP - UV DISINFECTION SYSTEM PLANS AND SECTION 4E1 WWTP - ELECTRICAL SITE PLAN SLUDGE DEWATERING (AREA 5) 5C1 SLUDGE DEWATERING - STORAGE BUILDING DEMOLITION PLAN 5C2 | SLUDGE DEWATERING - STORAGE BUILDING MODIFICATION PLAN AND SECTIONS 5S1 SLUDGE DEWATERING - DEWATERING PAD PLAN, SECTIONS AND DETAILS 5E1 SLUDGE DEWATERING - STORAGE BUILDING POWER PLAN MISCELLANEOUS DETAILS (AREA 6) 6C1 MISCELLANEOUS DETAILS 6C2 MISCELLANEOUS DETAILS ELECTRICAL (AREA 7) 7E1 ELECTRICAL SINGLE LINE

DRAWING INDEX

## HORIZONTAL AND VERTICAL **CONTROL INFORMATION**

- NOTES:

  1. A FIELD SURVEY WAS PERFORMED IN DECEMBER 2019.
  2. COORDINATES (OHIO STATE PLANE, NORTH ZONE, NAD 83) AND ELEVATIONS (NAVD 88)
- 3. UNITS ARE U.S. SURVEY FEET.
- 4. CONTROL POINTS WERE SET USING GPS.
- 5. ALL ELEVATIONS WERE VERIFIED UTILIZING A ROBOTIC TOTAL STATION.

1. TBM NO. SP1 - MAG NAIL CONTROL POINT SET IN ASPHALT DRIVE WEST OF WWTP GATE.

- 2. TBM NO. B1 OLD SQUARE CUT IN EAST-WEST LEDGE OF AERATION BASIN
- 3. TBM NO. B2 X CUT IN CONCRETE NORTHEAST LEDGE OF CLARIFIER
- 4. TBM NO. B3 X CUT IN CONCRETE NNE OF DEWATERING BUILDING WEST GARAGE DOOR
- 5. TBM NO. B4 SW CORNER OUTSIDE OF LID FRAME OF WEST LIFT STATION MANHOLE

						=250	
CALE VERIFICATION	DRAWN BY	MRE	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	
AR IS ONE INCH LONG ON	CHECKED BY	ANW					RYAN KE
ORIGINAL DRAWING	APPROVED BY	RKB	_				RYAN KE BRAUEN E-7918
	ISSUE DATE						DAR GIGTER
	DECEMBER 2020						- INTERIOR ON A L
	PROJECT NUMBER						
	70121	8-04-001					Kenk

WESSLER ENGINEERING More than a Project™

## **WASTEWATER SYSTEM IMPROVEMENTS**

VILLAGE OF GROVER HILL, OHIO

DRAWING INDEX, AND LOCATION AND SCOPE OF WORK PLAN

PAGE NO.

SHEET NO.

		VIOTINI		ND	
CVMDOL		SYMBOL	G FEATURES LEGE	1	DESCRIPTION
SYMBOL	DESCRIPTION  BENCH MARK	©IS (INIBOL	DESCRIPTION	SYMBOL	DESCRIPTION  EASEMENT - CONSTRUCTION/PERMANENT
ТВМ	TEMPORARY BENCH MARK	EM	ELECTRIC METER		LOT BOUNDARY
SB 01					
•	SOIL BORING LOCATION	AC	AIR CONDITIONING UNIT	P. —	PROPERTY BOUNDARY
•	DRILL HOLE IN CONCRETE/HARRISON MONUMENT	XXX XXX	UTILITY RISER (DEFINED BY UTILITY)  UTILITY PEDESTAL (DEFINED BY UTILITY)		RIGHT-OF-WAY - TEMPORARY/PERMANENT SECTION BOUNDARY
 @	CONTROL POINT (SET/FOUND)	×	UTILITY MARKER (DEFINED BY UTILITY)		WETLANDS
	MAGNETIC NAIL (SET/FOUND)			040	
(MG)	BOAT SPIKE (SET/FOUND)		JOINT POWER/TELEPHONE POLE	049	CONTOUR - INTERMEDIATE ELEVATION
BS	· · · · · · · · · · · · · · · · · · ·		LIGHT POLE	850	CONTOUR - INDEX ELEVATION
(PK)	PK NAIL (SET/FOUND)	P	LIGHT ON POWER POLE	OHE OHE	OVERHEAD ELECTRIC
(RS)	RAILROAD SPIKE (SET/FOUND)		LIGHT ON JOINT POLE	OHC	OVERHEAD CABLE TV
R/W	R/W MARKER - CONCRETE/GRANITE/STONE	P	POWER POLE	OHT OHT	OVERHEAD TELEPHONE
<u> </u>	IRON PIPE/IRON PIN/REBAR (WITH DIAMETER)	T	TELEPHONE POLE	UGC — UGC —	UNDERGROUND CABLE TV
(BP)	BRASS PLUG	Ţ.	LAMP POST	UGE UGE	UNDERGROUND ELECTRIC
© 	CABLE TV MANHOLE	$\rightarrow$	GUY ANCHOR	UGF UGF	UNDERGROUND FIBER OPTIC
<u>E</u>	ELECTRIC MANHOLE	-①	GUY POLE OR STUB	G — G — G —	GAS MAIN
G	GAS MANHOLE		CONTROLLER CABINET	DGDG	DIGESTER GAS
0	OTHER MANHOLE	(FP)	FLAG POLE	P —— P ——— P ———	PETROLEUM MAIN
T	TELEPHONE MANHOLE	0	POST	UGT — UGT —	UNDERGROUND TELEPHONE
TEL	TELEPHONE VAULT	•	GROUND LIGHT	w w	WATER MAIN
	TRAFFIC MANHOLE	M	MAILBOX	www	WATER SERVICE
$\oplus$	TRAFFIC HANDHOLE	MM	DOUBLE/MULTIPLE MAILBOX		FORCEMAIN
<b>W</b>	WATER MANHOLE		MAST ARM POLE		GRAVITY SEWER PIPE
A	AIR RELEASE VALVE		TRAFFIC SIGNAL STRAIN POLE		PLANT CHLORINE PIPE
<u>\$</u>	SANITARY SEWER MANHOLE		SIGNAL LOOP DETECTOR BOX		TOP OF BANK/TOE OF SLOPE
<b>D</b>	DRAINAGE/STORM SEWER MANHOLE	0	SIGNAL LOOP DETECTOR LOOP		CENTERLINE OF DITCH/SWALE/STREAM
c o	SANITARY SEWER CLEANOUT	-	SIGN - SINGLE POST		FENCE - FIELD
ST	SEPTIC TANK	-0-0	SIGN - DOUBLE POST	-0-0-0-0-0-0-0-0-0	FENCE - METAL
(V)	VALVE VAULT		SIGN - RAILROAD SIGNAL		FENCE - WOOD
	BEEHIVE INLET		SIGN - RAILROAD CROSSING	0 0 0 0 0	GUARDRAIL
	CURB INLET	$\odot$	BUSH		STREAM
	DROP INLET	A	STUMP		TREE/BRUSH LINE
	CATCH BASIN	**	TREE - CONIFEROUS		
D\$	DOWNSPOUT		TREE - DECIDUOUS		
GM	GAS METER	©	ROCK OUTCROP		
GV	GAS VALVE	5 <sup>A</sup>	SATELLITE		
o s o	GAS SERVICE VALVE	SPH	SPRINKLER CONTROL VALVE		I
PV	PETROLEUM VALVE	NW C	WATER METER	Ohio Utilities	<b>Protection Service</b>
~	PETROLEUM SHUTOFF VALVE	w ×	WATER VALVE		
(GMW)	GAS STATION MONITORING WELL	ns <sub>o</sub>	WATER SERVICE VALVE		
(GFC)	GAS STATION FILL CAP	<u> </u>	WATER WELL		
(GW)	NATURAL GAS WELL/STORAGE WELL	(ww)	WET WELL	before y	ou dia
9 P.4	WATORAL OAG WELL/OTORAGE WELL	(W W)	**L 1 **LLL		

FIRE HYDRANT

PROCESS VALVE

701218-04-001

\*NOTE: THIS TABLE IS A LISTING OF TYPICAL EXISTING SYMBOLS AND MAY NOT INCLUDE ALL EXISTING

SYMBOLS FOUND WITHIN THIS PLAN SET. ALL PROPOSED ITEMS WILL BE CALLED OUT ON THEIR PLAN

SHEETS. IF A QUESTION ARISES ON THE MEANING OF ANY SYMBOL NOT LISTED IN THIS TABLE, PLEASE

CONTACT THE ENGINEER FOR CLARIFICATION. THE SYMBOLS ARE NOT TO SCALE.

SPRINKLER HEAD

YARD HYDRANT

UTILITY CONTACTS

**ELECTRIC** AMERICAN ELECTRIC POWER OHIO 1-800-672-2231

**SEWER** VILLAGE OF GROVER HILL 104 SOUTH MAIN STREET GROVER HILL, OHIO 45849 419-234-7630 ATTN: JOHN MOON, MAYOR OTEC COMMUNICATION COMPANY 245 3RD STREET OTTOVILLE, OHIO 45876 567-204-6880 ATTN: DALE HONIGFORD, PLAT SUPERVISOR 419-796-0000

ENGINEER FOR CLARIFICATION.

**TELEPHONE** TDS TELECOM 88 EAST RICE STREET CONTINENTAL, OHIO 45831 419-889-7055 ATTN: DAN WATSON, SENIOR FIELD SERVICE TECHNICIAN 419-796-0131 ATTN: CHAD SPEAR, TECHNICIAN

TABLE OF ABBREVIATIONS

DESCRIPTION

AMERICAN SOCIETY OF TESTING MATERIALS MA EX

ABOVE FINISHED FLOOR

**ALUMINUM** 

APPARENT

**ASPHALT** 

AVENUE

AVERAGE

BUILDING

BOULEVARD

BENCHMARK

CLEANOUT

CAST IRON

CENTER LINE

CONCRETE

CORNER

CONTINUOUS

CONTROL POINT

CRUSHED STONE

CUBIC YARD

DUCTILE IRON

DEPTH

DOUBLE

DRIVE

EACH

DIAMETER

DUCTILE IRON PIPE

EASTING, EAST

EACH FACE

EACH WAY

LELEVATION

EXPANSION

FORCE MAIN

FOUND

FOOTING

GALVANIZED

HORIZONTAL

HOT MIX ASPHALT

INSIDE DIAMETER

INVERT ELEVATION

TRANSPORTATION

INSTRUMENT

INDIANA DEPARTMENT OF

INCORPORATED

FEET

EXISTING

DUCTILE IRON PIPE SIZE

EAST JORDAN IRON WORKS

FINISH FLOOR ELEVATION

GLOBAL POSITIONING SYSTEM

HIGH DENSITY POLYETHYLENE

COLD MIX ASPHALT

CORRUGATED METAL PIPE

CONCRETE MASONRY UNIT

CORRUGATED PLASTIC PIPE

DUCTILE IRON MECHANICAL JOINT

**ASSOCIATES** 

APPROXIMATE(LY)

**ABBREVIATION** 

ALUM

APP

ASPH

**ASSOC** 

**ASTM** 

AVE

AVG

**BLDG** 

BLVD

СМА

CMP

CMU

CONC

CONT

CNR

CPP

CYD

DI MJ

**GALV** 

HDPE

HORIZ

CR STN

**APPROX** 

**ABBREVIATION** 

ISPC

MATL

MAX

MIN

MISC

NGS

NO.

OD

POLY

POT

PSI

PVC

ROW

RCP

RD

SST

SVA

SCHED

SDR

SECT

SHT

SQ

SRF

STA

SYD

TBM

TYP

USGS

**VERT** 

VLV

WSE

\*NOTE: THIS TABLE IS A LISTING OF TYPICAL ABBREVIATIONS AND MAY NOT INCLUDE ALL ABBREVIATIONS FOUND WITHIN THIS

PLAN SET. IF A QUESTION ARISES ON THE MEANING OF AN ABBREVIATION NOT LISTED IN THIS TABLE, PLEASE CONTACT THE

**SPECS** 

DESCRIPTION

IRON PIPE SIZE

COORDINATE

LINEAR FEET

LIFT STATION

MATERIAL

MAXIMUM

MANHOLE

MINIMUM

NUMBER

POINT

RADIUS

SOUTH

RIGHT-OF-WAY

STATE ROUTE

SOIL BORING

SCHEDULE

**SECTION** 

SHEET

SQUARE

STREET

STATION

TYPICAL

VERTICAL

WIDTH, WEST

VALVE

SQUARE YARD

TOP OF CASTING

**SQUARE FEET** 

SPECIFICATION(S)

STATE REVOLVING FUND

TEMPORARY BENCHMARK

US GEOLOGICAL SURVEY

WATER SURFACE ELEVATION

STAINLESS STEEL

SERVICE VALVE ASSEMBLY

STANDARD DIMENSION RATIO

ON CENTER

MATCH EXISTING

MISCELLANEOUS

NORTHING, NORTH

OUTSIDE DIAMETER

POINT OF INTERSECTION

POUNDS PER SQUARE INCH

REINFORCED CONCRETE PIPE

POLYETHYLENE

POINT ON TANGENT

POLYVINYL CHLORIDE

NATIONAL GEODETIC SURVEY

MECHANICAL JOINT

POUND(S)

LANE

INDIANA STATE PLANE

**GENERAL NOTES:** 

1. NOTIFY THE ENGINEER IF ANY CONFLICTING INFORMATION BECOMES APPARENT IN THE CONTRACT DOCUMENTS AS SOON AS POSSIBLE AND PRIOR TO THE COMMENCEMENT OF ANY WORK IN THE VICINITY OF OR RELATIVE TO THE APPARENT CONFLICT SO THAT CLARIFICATION MAY OCCUR PRIOR TO CONSTRUCTION. 2. ANY ALTERATIONS TO THESE DRAWINGS NOT AUTHORIZED BY WESSLER ENGINEERING AND NOT IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND RECORDS ON FILE AT WESSLER ENGINEERING SHALL RELIEVE WESSLER ENGINEERING OF ANY RESPONSIBILITY FOR THE ACCURACY OF THE DRAWINGS. 3. USE CAUTION DURING THE EXECUTION OF WORK TO PREVENT DAMAGE TO STATE, COUNTY, MUNICIPAL, AND PRIVATE PROPERTY. REPAIR ALL DAMAGES AS A RESULT OF OPERATIONS. INCLUDING DAMAGE TO DRAINAGE STRUCTURES, FIELD TILES, PUBLIC/PRIVATE ROADS, AND LANDSCAPING (INCLUDING FENCING). REPAIR AND REPLACE DAMAGED ITEMS AT NO ADDITIONAL COST TO THE OWNER. PERFORM ALL REPAIR AND REPLACEMENT WORK TO THE SATISFACTION OF THE PERMITTING AGENCY. THE OWNER AND THE ENGINEER. 4. TAKE CARE TO AVOID DAMAGE TO PAVED AREAS WHICH ARE NOT SPECIFICALLY CALLED OUT FOR REPAIR OR REPLACEMENT. REPAIR, OR REPLACE ALL SUCH PAVEMENTS WHICH ARE DAMAGED BY CONSTRUCTION ACTIVITIES AND CONSTRUCTION TRAFFIC AT NO ADDITIONAL COST TO THE OWNER 5. OBTAIN ALL TEMPORARY EASEMENTS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT AT NO ADDITIONAL COST TO THE OWNER 6. COMPLY WITH ALL APPLICABLE PERMITS AND REGULATIONS. APPLICABLE PERMITS ISSUED TO THE OWNER WILL BE MADE AVAILABLE TO THE CONTRACTOR. CONTACT ALL APPLICABLE PERMITTING AGENCIES WITHIN THE TIME PERIOD SPECIFIED BY THAT AGENCY PRIOR TO BEGINNING CONSTRUCTION. 7. PRIVATE WELLS EXIST THROUGHOUT THE PROJECT LIMITS AND LOCATIONS WERE NOT LOCATED BY WESSLER ENGINEERING. IDENTIFY AND PROTECT WELLS WITHIN THE PROJECT AREA. 8. ALL EXISTING AND NEW UTILITY INFORMATION, INCLUDING BUT NOT LIMITED TO LOCATION, SIZE AND INVERT ELEVATION, IS SHOWN BASED UPON AVAILABLE INFORMATION. THE ENGINEER DOES NOT GUARANTEE OR ASSUME SUCH INFORMATION TO BE TRUE, ACCURATE, ALL INCLUSIVE OR EVEN APPROXIMATE. CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY. CONTACT NON-MEMBER UTILITIES DIRECTLY. 9. DETERMINE WHICH UTILITIES MAY CONFLICT WITH WORK AND VERIFY THEIR LOCATION, SIZE AND ELEVATION PRIOR TO CONSTRUCTION AND DETERMINE IF THERE ARE ANY DISCREPANCIES OR CONFLICTS. IF ANY DISCREPANCIES OR CONFLICTS ARE DISCOVERED, NOTIFY THE ENGINEER AS SOON AS POSSIBLE. 10. EXISTING UTILITY SERVICE LINES TO INDIVIDUAL CUSTOMERS MAY NOT BE SHOWN ON THE DRAWINGS. ASSUME THAT UNDERGROUND SERVICE LINES FOR ALL UTILITIES EXIST TO EACH PROPERTY ALONG THE ROUTE OF THE PLANNED IMPROVEMENTS. POINT OF CURVE (BEGIN CURVE) 11. COORDINATE ALL WORK WITH THE RESPECTIVE UTILITIES. SCHEDULE WORK ACCORDINGLY, AND NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY. 12. COORDINATE PLANNED UTILITY SERVICE INTERRUPTIONS WITH THE RESPECTIVE UTILITIES AND THE UTILITIES' AFFECTED CUSTOMERS. SERVICE INTERRUPTIONS SHOULD NOT LAST MORE THAN EIGHT (8) HOURS. GIVE WRITTEN NOTICE TO ALL AFFECTED UTILITY CUSTOMERS AND PROPERTY OWNERS AT LEAST TWENTY-FOUR (24) HOURS BUT NOT MORE THAN SEVENTY-TWO (72) HOURS PRIOR TO ANY PLANNED INTERRUPTION OF UTILITY SERVICE. POINT OF TANGENT (END CURVE) 13. USE CAUTION DURING THE EXECUTION OF WORK TO PREVENT DAMAGE TO EXISTING UTILITIES. REPAIR OR REPLACE ALL PUBLIC AND PRIVATE FACILITIES DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS. 14. BRACE AND PROTECT ALL UTILITY POLES AND EXISTING STRUCTURES ADJACENT TO NEW EXCAVATIONS. UTILITY POLE BRACING SHALL BE AS DIRECTED BY THE GOVERNING UTILITY. 15. MAINTAIN EXISTING STORMWATER DRAINAGE FOR THE ENTIRE DURATION OF THE PROJECT. 16. DO NOT DISTURB EXISTING MANHOLES OR INLETS, UNLESS NOTED OTHERWISE. 17. ALL EQUIPMENT, APPURTENANCES AND PIPING REMOVED AS PART OF THE DEMOLITION SHALL FIRST BE OFFERED TO THE OWNER FOR SALVAGE. DELIVER SALVAGED ITEMS SELECTED BY OWNER TO A LOCATION DESIGNATED BY THE OWNER OR ENGINEER. IN THE EVENT THE OWNER DOES NOT ELECT TO KEEP THE REMOVED ITEMS, REMOVE SUCH ITEMS FROM THE SITE AND DISPOSE OF AT A LOCATION APPROVED FOR SUCH DISPOSAL AT THE CONTRACTOR'S EXPENSE. 18. COORDINATE STAGING AREA LOCATIONS WITH THE OWNER. STREETS FOR INDIRECT ACCESS. WATER AS NECESSARY AND/OR AS DIRECTED BY THE OWNER. 21. PLACE NEW ASPHALT PAVEMENT FLUSH WITH ADA RAMPS. THROUGHOUT THE PLANT SITE

19. ALL CONSTRUCTION TRAFFIC SHALL USE MAJOR ROADS. NO CONSTRUCTION TRAFFIC SHALL USE LOCAL

20. TO CONTROL DUST, REMOVE SOIL FROM STREETS USED BY CONSTRUCTION TRAFFIC DAILY, VACUUM AND

22. ALL EXISTING PIPING MAY NOT BE SHOWN. REFERENCE EXISTING RECORD DRAWINGS ON FILE WITH THE OWNER AND WESSLER ENGINEERING FOR ADDITIONAL INFORMATION OF EXISTING PIPING AND CONDUIT

23. THE WORK SHOWN ON THESE DRAWINGS IS OCCURRING ON A PLANT SITE AND ON PRIVATE PROPERTY VIA EASEMENTS IN WHICH BURIED ELECTRICAL CONDUIT AND SMALL PIPING MAY EXIST THROUGHOUT AND IN THE VICINITY OF THE PROJECT AND MAY NOT BE SHOWN ON THESE DRAWINGS. EXPECT TO ENCOUNTER BURIED ELECTRICAL AND COMMUNICATIONS WIRING, WITH OR WITHOUT CONDUIT, SMALL PIPING, AND FIELD TILE WHILE DIGGING ON THIS SITE.

24. NEW PIPING CARRYING LIQUIDS SHALL HAVE MINIMUM COVER AS DEFINED IN THE MISCELLANEOUS SITE DETAILS OR SPECIFICATIONS, UNLESS SPECIFIC ELEVATIONS ON THE DRAWINGS INDICATE OTHERWISE.

25. INSPECT THE SITE PRIOR TO BIDDING TO UNDERSTAND THE EXTENT OF THE WORK INVOLVED AND ADJUST BID ACCORDINGLY.

26. COMPLETELY REMOVE UNDERGROUND PIPING THAT HAS PREVIOUSLY BEEN OR WILL BE TAKEN OUT OF SERVICE, IN CONFLICT WITH THE NEW WORK. UNLESS OTHERWISE NOTED, ABANDON IN PLACE ALL UNDERGROUND PIPING NOT IN CONFLICT WITH THE NEW WORK. DO NOT LEAVE ABANDONED PIPING LIVE. SEE SPECIFICATION SECTION 02050 FOR DEMOLITION PROCEDURES. SEE SPECIFICATION SECTION 01550 FOR PLANT OPERATIONS DURING CONSTRUCTION FOR COORDINATION OF DEMOLITION WORK AND NEW CONSTRUCTION

27. ALL EQUIPMENT TO BE REMOVED THAT HAS ELECTRICAL COMPONENTS, CONDUIT AND WIRING, OR SMALL PIPING CONNECTED SHALL HAVE THE ELECTRICAL COMPONENTS AND SMALL PIPING REMOVED BACK TO THE

28. LENGTHS OF SEWERS AS SHOWN ON THE DRAWINGS AND INDICATED AS LINEAR FEET (LF) ARE FROM CENTER

29. NORTHING AND EASTING INFORMATION IS GIVEN AT CENTER OF STRUCTURE UNLESS OTHERWISE NOTED. 30. PLACE NO. 8 CRUSHED AGGREGATE BETWEEN PIPES AT ALL PIPE CROSSINGS TO PREVENT PIPE SETTLEMENT UNLESS SHOWN OTHERWISE.

31. VERIFY EXISTING SEWER INVERTS AND LOCATIONS PRIOR TO CONSTRUCTION AND DETERMINE IF THERE ARE ANY DISCREPANCIES OR CONFLICTS. 32. ADJUST SEWER LATERALS AS NECESSARY TO AVOID CONFLICTS. LATERALS THAT REQUIRE FIELD

ADJUSTMENT SHALL BE LAID AT THE MINIMUM SLOPE AS SPECIFIED IN THE DRAWINGS AND SPECIFICATIONS. 33. ALL SANITARY SEWER PIPE, INCLUDING GRAVITY SEWERS, LATERAL WYES AND SERVICE LATERAL PIPE LOCATED WITHIN 50 FEET OF PRIVATE WELLS SHALL BE SDR 21 PVC WATER GRADE PRESSURE PIPE UNLESS SPECIFICALLY INDICATED OTHERWISE. ALL SANITARY SEWER PIPE, INCLUDING GRAVITY SEWERS, LATERAL WYES AND SERVICE LATERAL PIPE NOT LOCATED WITHIN 50 FEET OF PRIVATE WELLS SHALL BE SDR 35 PVC

SEWER GRADE PIPE, UNLESS SPECIFICALLY INDICATED OTHERWISE. 34. RESET ALL MAILBOXES AND SIGNS DISTURBED BY CONSTRUCTION ACTIVITIES.

35. IF REQUIRED, PLACE TEMPORARY OVERNIGHT AGGREGATE WEDGES AT DRIVEWAYS TO ALLOW PROPERTY

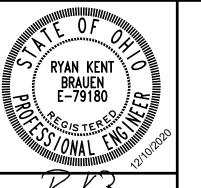
REFER TO SITE STORM WATER POLLUTION PREVENTION PLAN (SWP3), DEVELOPED IN ACCORDANCE WITH OHIO GENERAL PERMIT OHC000005, FOR SITE CONDITIONS, POTENTIAL SOURCES OF POLLUTION, AND

SEDIMENT AND EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPS). THE SWP3 SHALL BE RETAINED ON-SITE AND AVAILABLE UPON REQUEST OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) OR A LOCAL REGULATORY AGENCY. ALL ENTITIES INVOLVED IN PLAN IMPLEMENTATION, INCLUDING CONTRACTORS AND SUBCONTRACTORS MUST SIGN THIS PLAN AS DOCUMENTATION THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THIS PLAN. 2. A COPY OF THE ODOT PERMIT AND APPROVED PLANS SHALL BE ON SITE AT ALL TIME WHILE WORK IS

BEING PERFORMED WITHIN THE STATE'S RIGHT-OF-WAY. COUNTY MANAGER OR APPROPRIATE ASSOCIATE SHALL BE CONTACTED 24 HOURS IN ADVANCE OF STARTING ANY WORK. INSTALL AND MAINTAIN CONCRETE WASHOUT AREAS AT ALL CONCRETE WORK LOCATIONS. REFER TO

SITE STORM WATER POLLUTION PREVENTION PLAN (SWP3) FOR SPECIFICATIONS. 4. INSTALL AND MAINTAIN INLET PROTECTION ON ALL STORM SEWER INLETS RECEIVING RUNOFF FROM DISTURBED AREAS, INCLUDING SEPTIC TANK, MANHOLE, LIFT STATION, AND WWTP LOCATIONS. REFER TO SITE STORM WATER POLLUTION PREVENTION PLAN (SWP3) FOR SPECIFICATIONS.

ATTN: BILL HONIGFORD, GENERAL MANAGER DATE INITIALS MRE REVISION DESCRIPTIONS SCALE VERIFICATION DRAWN BY ANW CHECKED BY BAR IS ONE INCH LONG ON ORIGINAL DRAWING BRAUEN PPROVED BY DECEMBER 2020 PROJECT NUMBER



**WESSLER ENGINEERING** More than a Project<sup>n</sup>

VILLAGE OF GROVER HILL, OHIO

**WASTEWATER SYSTEM IMPROVEMENTS** 

SHEET NO.

GENERAL NOTES, UTILITIES, ABBREVIATIONS AND LEGEND

#### **ELECTRICAL SYMBOLS**

<b>≠</b> 9	DASH SYMBOL INDICATES PARTICULAR OUTLET OR DEVICE TO BE REMOVED AND CIRCUITRY MADE CONTINUOUS WHERE REQUIRED.
⇒E ⇔E	EXISTING OUTLET OR DEVICE TO REMAIN. MAINTAIN EXISTING CIRCUITING.
<ul><li>•</li><li>•</li><li>•</li></ul>	ELECTRICAL CONNECTION
φ	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE)
φ	20A-125V SINGLE RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE)
•	20A-125V DOUBLE DUPLEX RECEPTACLE. NEMA 5-20R, (18" MH UNLESS NOTED OTHERWISE) TWO GANG ASSEMBLY
n n	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (46" MH UNLESS NOTED OTHERWISE)
⊕GFI	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE)
₩P	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R (HORIZONTAL 18" MH UNLESS NOTED OTHERWISE) WITH TAYMAC #10310 STANDARD COVER, VERTICAL MOUNT.
WP/GF	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE), WITH TAYMAC #20310 STANDARD COVER, VERTICAL MOUNT.
J	JUNCTION BOX.
↔	SINGLE POLE SWITCH (46" MH UNLESS NOTED OTHERWISE)
M⇔	FLUSH FRACTIONAL HORSEPOWER MOTOR STARTER WITH NEON PILOT LIGHT. ONE—GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE)
H⇔	HP RATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE)
<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	CIRCUIT BREAKER PANEL, FLUSH MOUNTED
_	CIRCUIT BREAKER PANEL, SURFACE MOUNTED
_	POWER PANEL OR SWITCHBOARD, SURFACE MOUNTED
PB	PULL BOX
ㅁ	DISCONNECT SWITCH
	MOTOR STARTER
⊠ <sup>1</sup>	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH
0	ELECTRIC MOTOR

#### GENERAL FLOOR PLAN NOTES

B E2	DETAIL: B = DETAIL DESIGNATION. E2 = SHEET WHERE DETAIL IS LOCATED.
1 E2	SECTION: 1 = SECTION DESIGNATION. E2 = SHEET WHERE SECTION IS LOCATED.
3	PLAN NOTE. APPLIES ONLY TO THE SHEET WHICH IT IS SHOWN UNLESS NOTED OTHERWISE.
3	DETAIL NOTE. APPLIES ONLY TO THE ASSOCIATED DETAIL.
	WIRE & CONDUIT IN WALL OR ABOVE CEILING.
	WIRE & CONDUIT IN OR BELOW FLOOR SLAB OR BELOW GRADE
	CONDUIT TO BE REMOVED
=== EXISTING	EXISTING WIRE & CONDUIT
X-1,3	EACH ARROWHEAD REPRESENTS ONE COMPLETE CIRCUIT. "X" DENOTES PANEL NAME; NUMBER(S) DENOTES CIRCUIT(S).

NOTE: ALL SYMBOLS AND ABBREVIATIONS ARE SUBJECT TO MODIFICATIONS ON OTHER DRAWINGS.

ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.

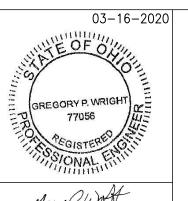
ABB	REVIATIONS
ADJ AF AFCI AFF AFG ALT AP APPROX ARCH	- ACCESS - ADJUSTABLE - ARC FAULT CIRCUIT INTERUPTER - ARC FAULT CIRCUIT INTERUPTER - ABOVE FINISHED FLOOR TO BOTTOM OF ITEM - ABOVE FINISHED GRADE TO BOTTOM OF ITEM - ALTERNATE - ACCESS PANEL - APPROXIMATE - ARCHITECT OR ARCHITECTURAL - ASSEMBLY - AUTOMATIC TRANSFER SWITCH
BOE BOT	<ul><li>BUILDING</li><li>BOTTOM OF EQUIPMENT</li><li>BOTTOM</li><li>BETWEEN</li></ul>
CFCI CKT CLG CONN CONTR CTR	<ul> <li>CONTRACTOR FURNISHED CONTRACTOR INSTALLED</li> <li>CIRCUIT</li> <li>CEILING</li> <li>CONNECT OR CONNECTION</li> <li>CONTRACTOR</li> <li>CENTER</li> </ul>
DET DIA DIM DIV DN	<ul> <li>DEPTH</li> <li>DETAIL</li> <li>DIAMETER</li> <li>DIMENSION</li> <li>DIVISION</li> <li>DOWN</li> <li>DRAWING</li> </ul>
ELEV EM EQ EQS EQUIP	<ul> <li>EACH</li> <li>ELECTRICAL CONTRACTOR (DIVISION 26)</li> <li>ELEVATION OR ELEVATOR</li> <li>EMERGENCY</li> <li>EQUIPMENT SUPPLIER</li> <li>EQUIPMENT</li> <li>EQUIPMENT</li> <li>EXISTING TO REMAIN</li> <li>EXISTING</li> <li>EXTERIOR</li> </ul>
FF FLR FT FTG	<ul><li>FINISHED FLOOR ELEVATION</li><li>FLOOR</li><li>FEET</li><li>FOOTING</li></ul>
GC GF GFCI GFFT	<ul> <li>GENERAL CONTRACTOR</li> <li>GROUND FAULT CIRCUIT INTERRUPTER</li> <li>GOVERNMENT FURNISHED CONTRACTOR INSTALLED</li> <li>GROUND FAULT FEED THRU</li> </ul>
HC HP HVAC IN	<ul> <li>HVAC CONTRACTOR (DIVISION 23)</li> <li>HORSE POWER OR HIGH POINT</li> <li>HEATING, VENTILATING, AND AIR CONDITIONING</li> <li>INCHES</li> </ul>
L LBS	<ul><li>LENGTH</li><li>POUNDS</li></ul>
MFR MH MIN MISC	<ul> <li>MAXIMUM</li> <li>MANUFACTURER</li> <li>MANHOLE OR MOUNTING HEIGHT TO CENTER LINE OF ITEM</li> <li>MINIMUM OR MINUTE</li> <li>MISCELLANEOUS</li> <li>MOUNTED</li> <li>MOUNTING</li> </ul>
	<ul><li>NOT IN CONTRACT</li><li>NOMINAL</li><li>NOT TO SCALE</li></ul>
OD OFCI OFOI	<ul><li>OUTSIDE DIAMETER</li><li>OWNER FURNISHED CONTRACTOR INSTALLED</li><li>OWNER FURNISHED OWNER INSTALLED</li></ul>
PC PLBG	<ul><li>PLUMBING CONTRACTOR (DIVISION 22)</li><li>PLUMBING</li></ul>
	<ul><li>RECESSED</li><li>REQUIRED</li><li>ROUGH-IN</li></ul>
S SC SCH SHT SPEC SQ STD STRUC SUC	<ul> <li>SURFACE MOUNTED</li> <li>SECURITY CONTRACTOR</li> <li>SCHEDULE</li> <li>SHEET</li> <li>SPECIFICATIONS</li> <li>SQUARE</li> <li>STANDARD</li> <li>STRUCTURAL OR STRUCTURE</li> <li>SITE UTILITY CONTRACTOR</li> </ul>
TOE TYP	- TOP OF EQUIPMENT - TYPICAL

UNO - UNLESS NOTED OTHERWISE

W/ – WITH W/O – WITHOUT WP – WEATHERPROOF



ALE VERIFICATION	DRAWN BY	MPH	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
IS ONE INCH LONG ON	CHECKED BY	AWM				
ORIGINAL DRAWING			1			
•	APPROVED BY					
	ISSUE DATE  MARCH 2020					
PROJECT NUMBER		1				
	701218	8-04-001				





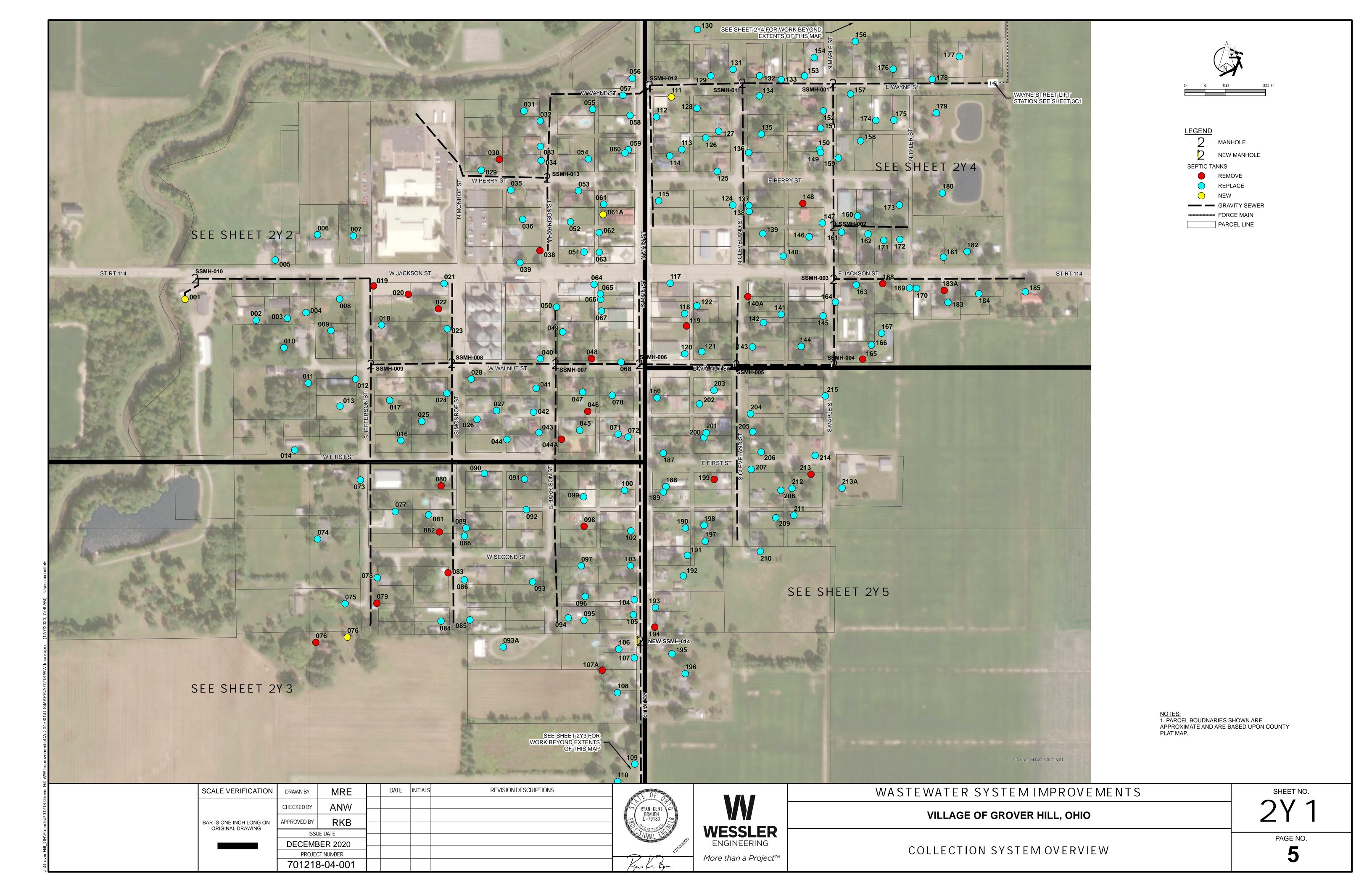


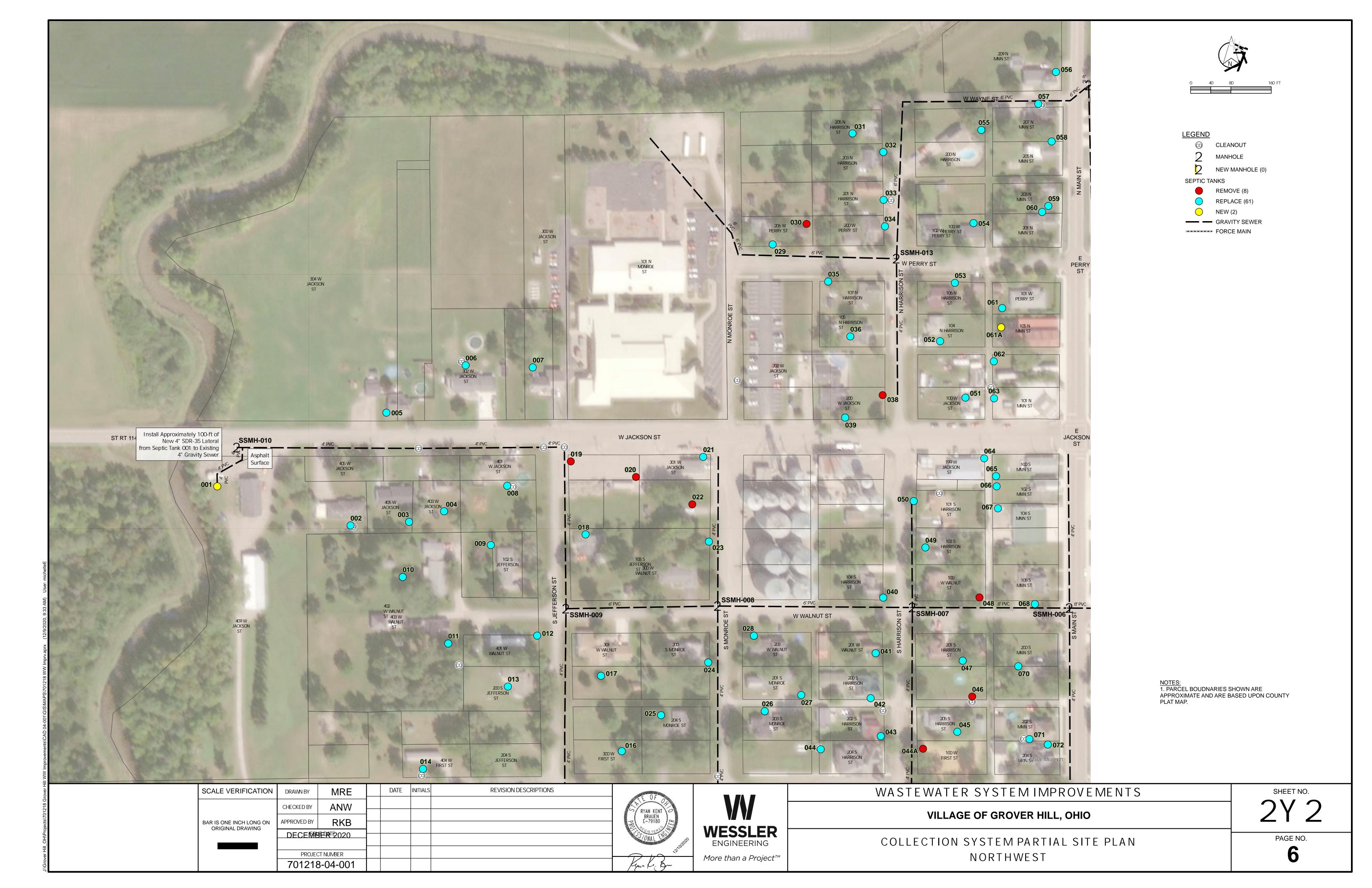
VILLAGE OF GROVER HILL, OHIO

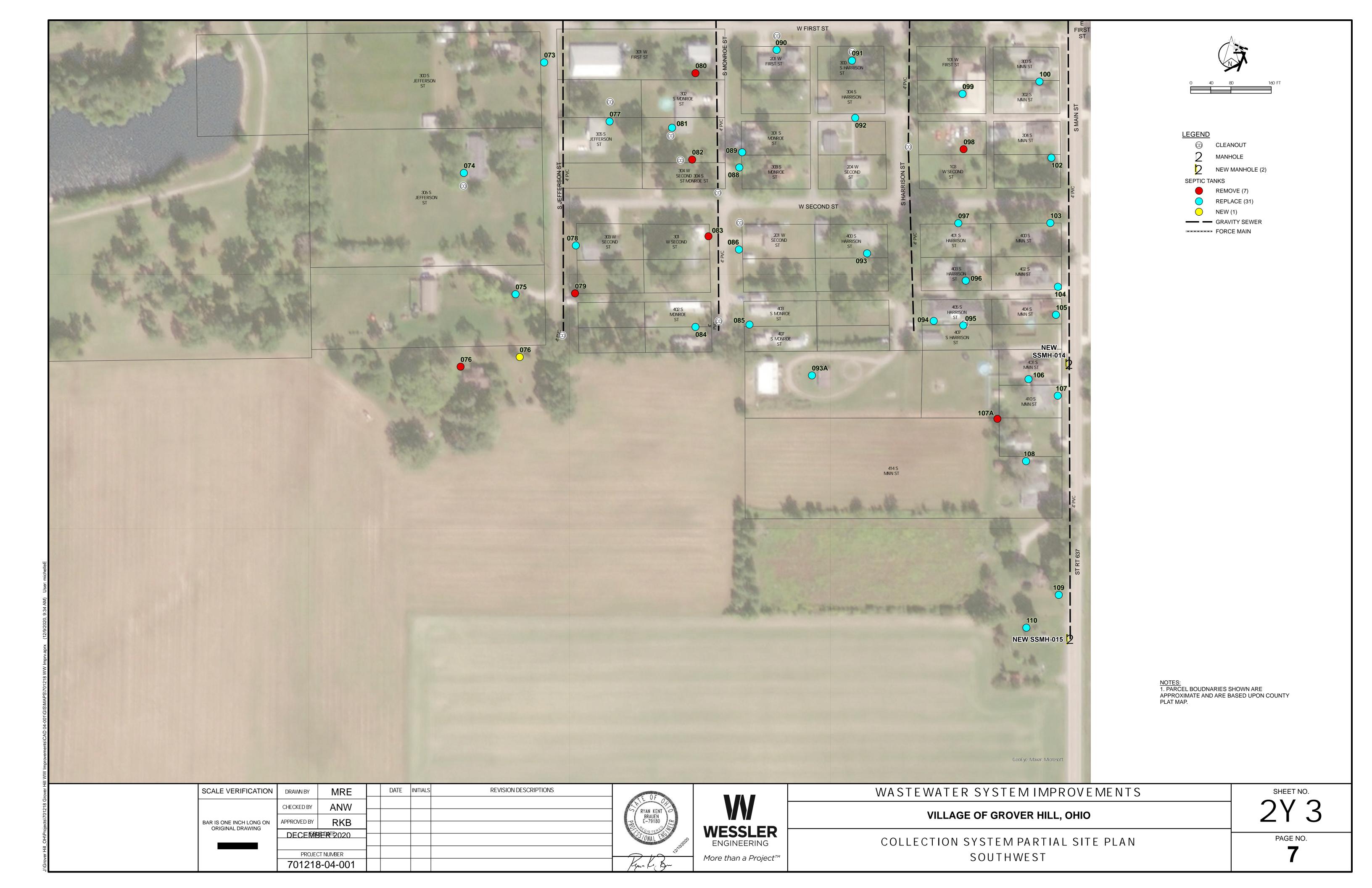
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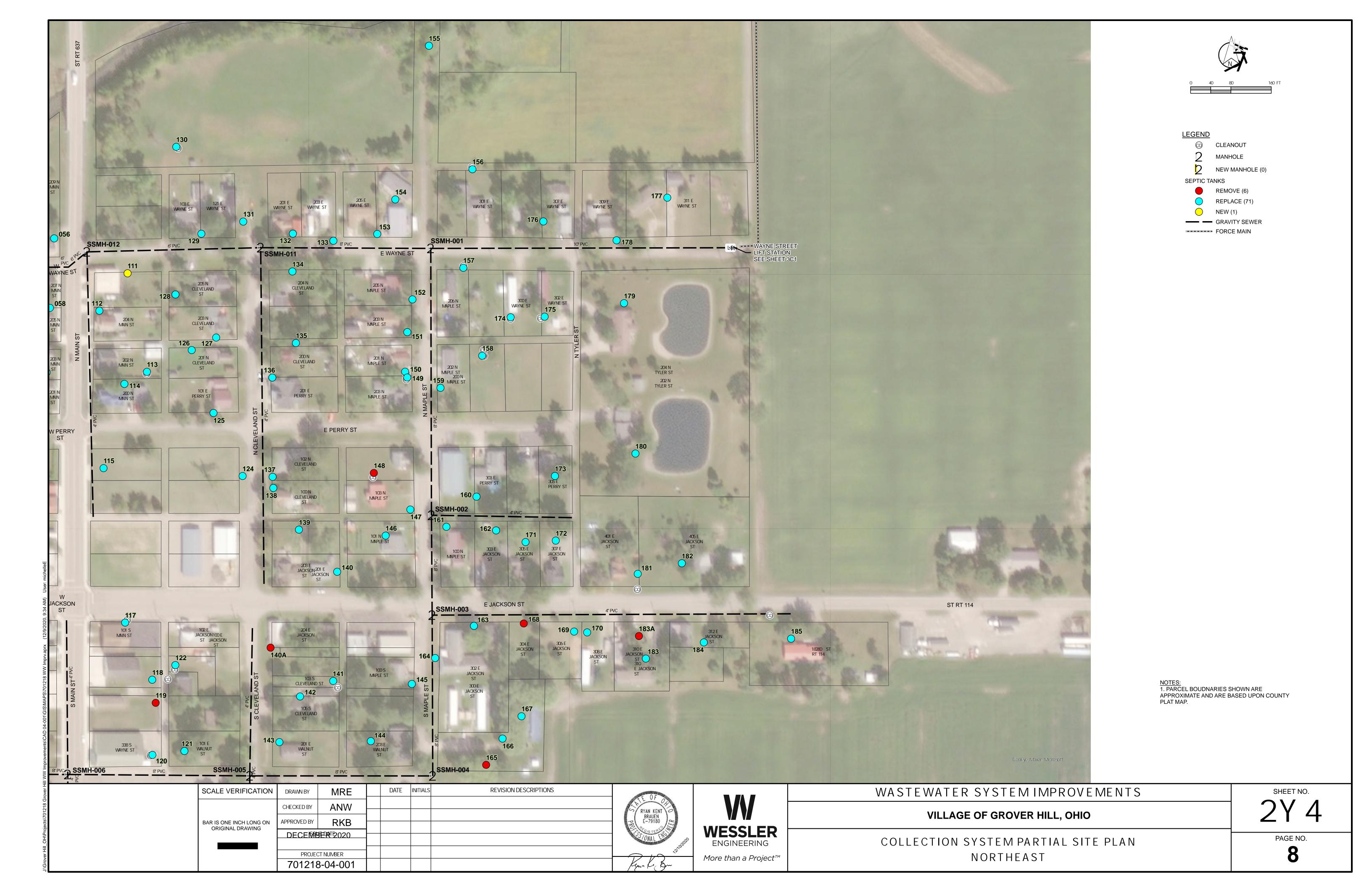
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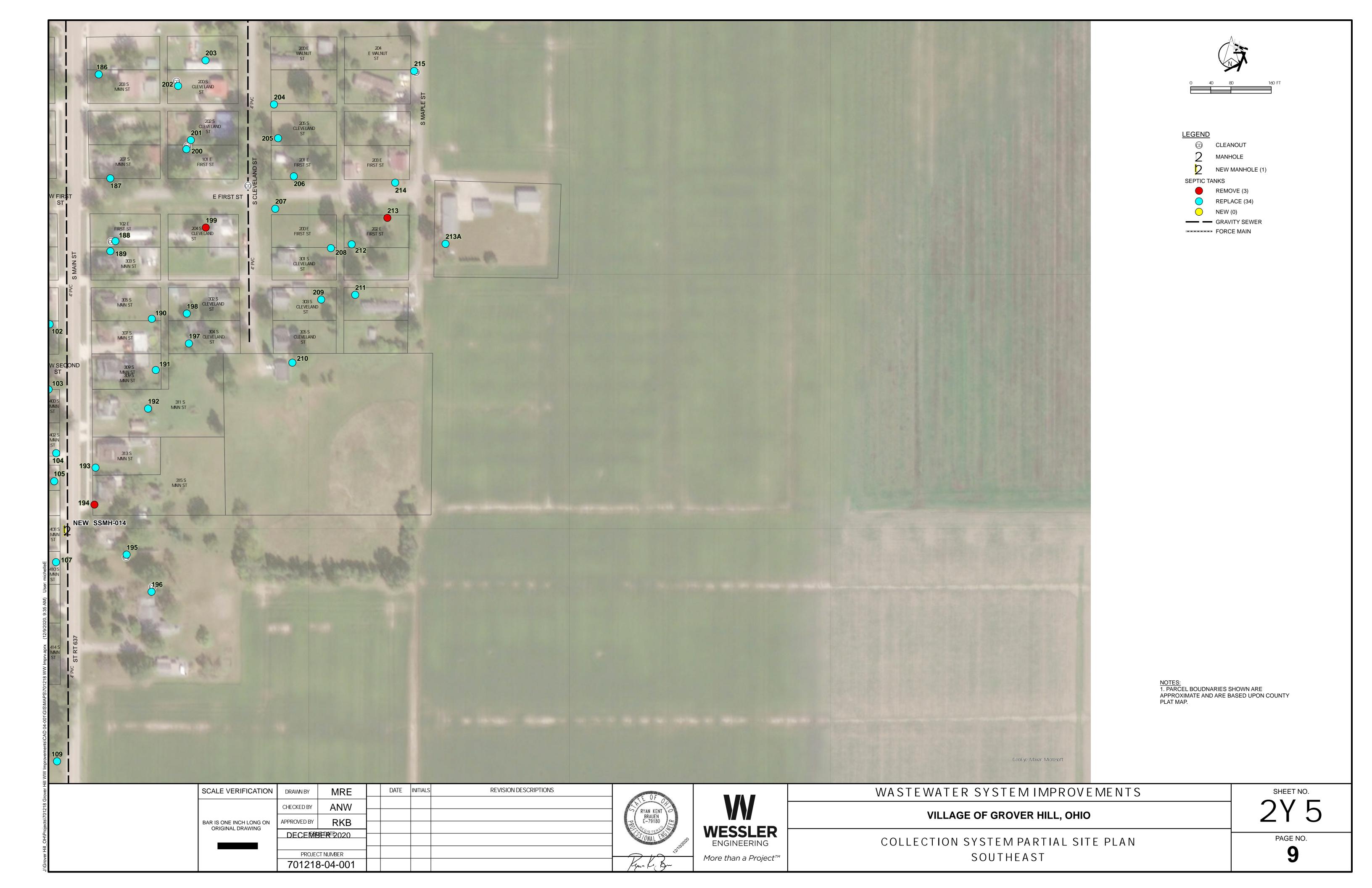
ELECTRICAL SYMBOLS & ABBREVIATIONS



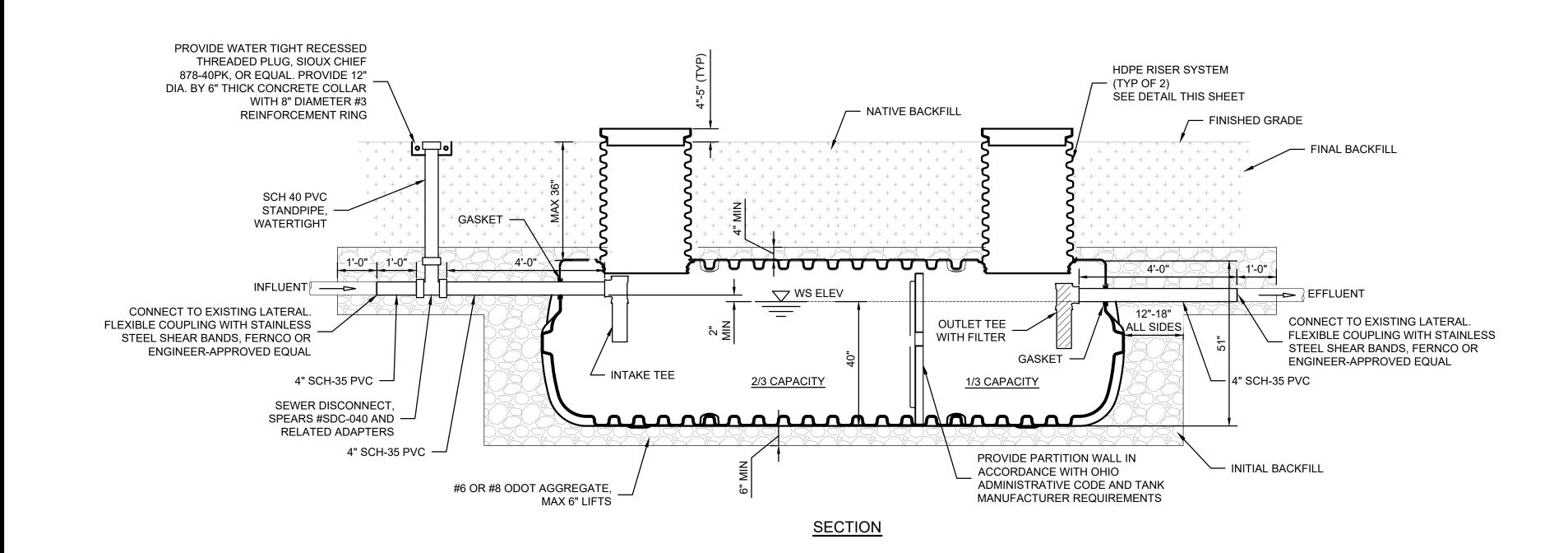




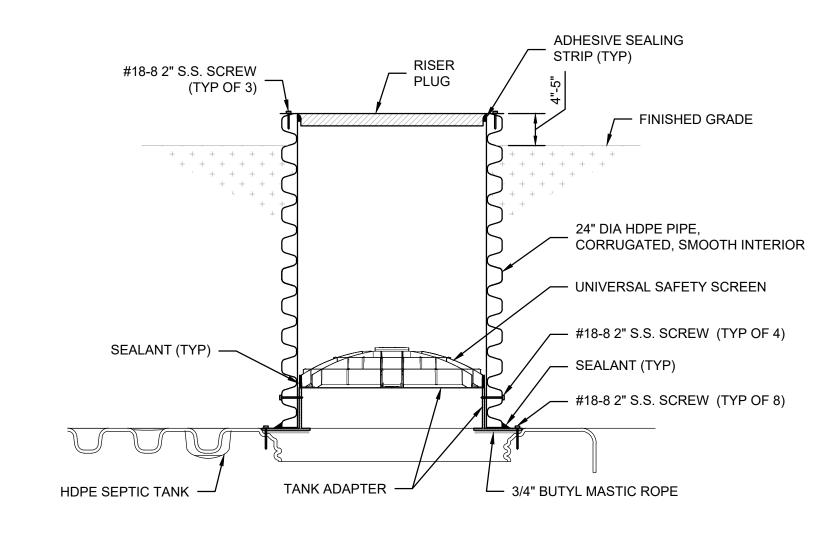




TOP PLAN



HDPE, 1500 SCALE: 1/2" = 1'-0"



HDPE RISER SYSTEM

SCALE VERIFICATION	DRAWN BY	MRE	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	THE OF OF
BAR IS ONE INCH LONG ON	CHECKED BY	ANW					RYAN KENT
ORIGINAL DRAWING	APPROVED BY	RKB					RYAN KENT BRAUEN E-79180
	ISSUE DATE  DECEMBER 2020  PROJECT NUMBER		<u> </u>				COSTERED S
							SONAL EMPHINISTER
		3-04-001					Frank Bru

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WASTEWATER SYSTEM IMPROVEMENTS

VILLAGE OF GROVER HILL, OHIO

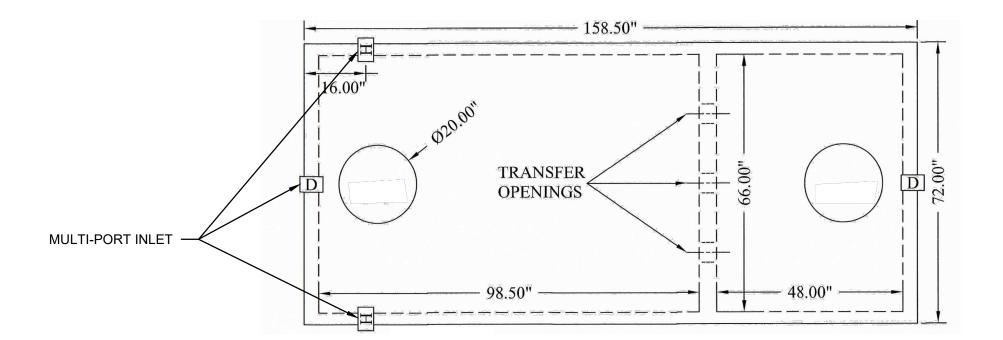
**2Y6** 

PAGE NO.

SHEET NO.

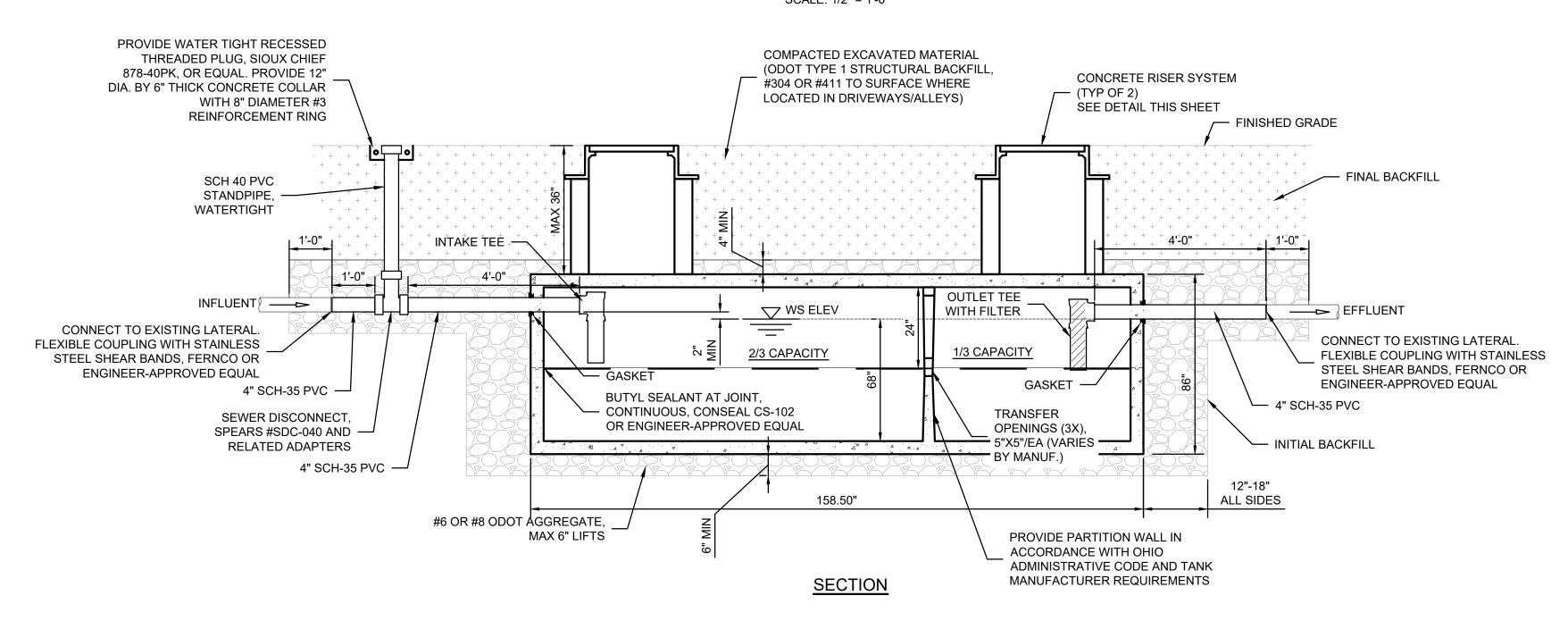
SEPTIC TANK DETAILS

10



#### TOP PLAN

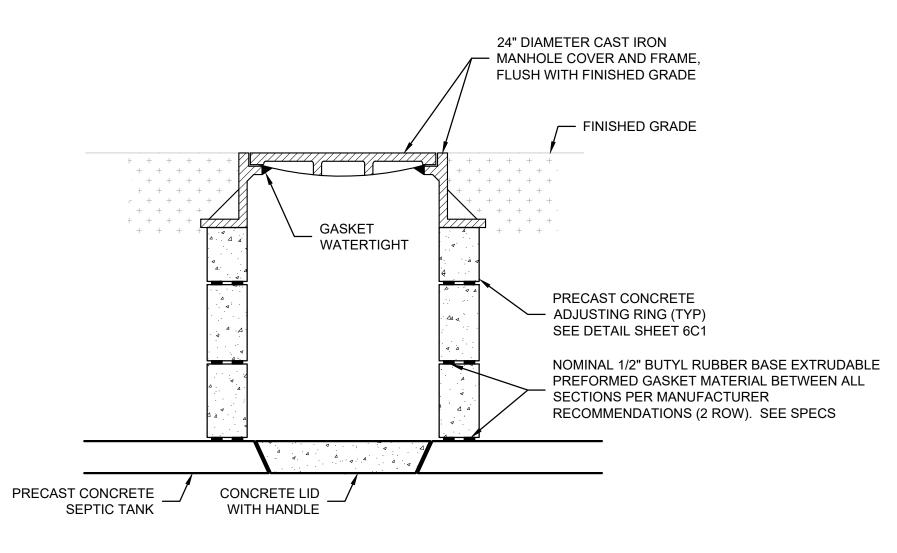
SCALE: 1/2" = 1'-0"



PRECAST, 2500
SCALE: 1/2" = 1'-0"

NOTES:

1. DIMENSIONS VARY BY MANUFACTURER.



CONCRETE RISER SYSTEM SCALE: 1" = 1'-0"

SCALE VERIFICATION	DRAWN BY	MRE	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	RYAN KENT
BAR IS ONE INCH LONG ON	CHECKED BY	ANW					DVAN KENT
ORIGINAL DRAWING	APPROVED BY	RKB					BRAUEN E-79180
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	701218	3-04-001					Kyur K &

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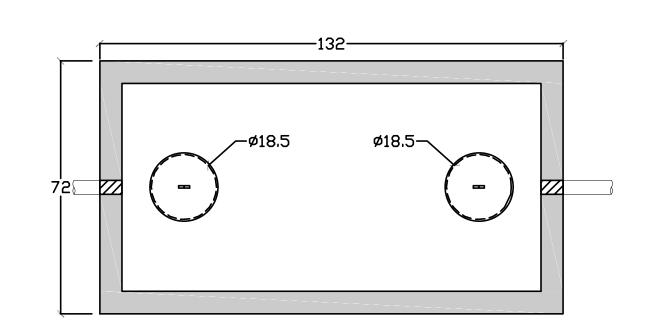
WASTEWATER	<b>SYSTEM</b>	<b>IMPROVEMENTS</b>

VILLAGE OF GROVER HILL, OHIO

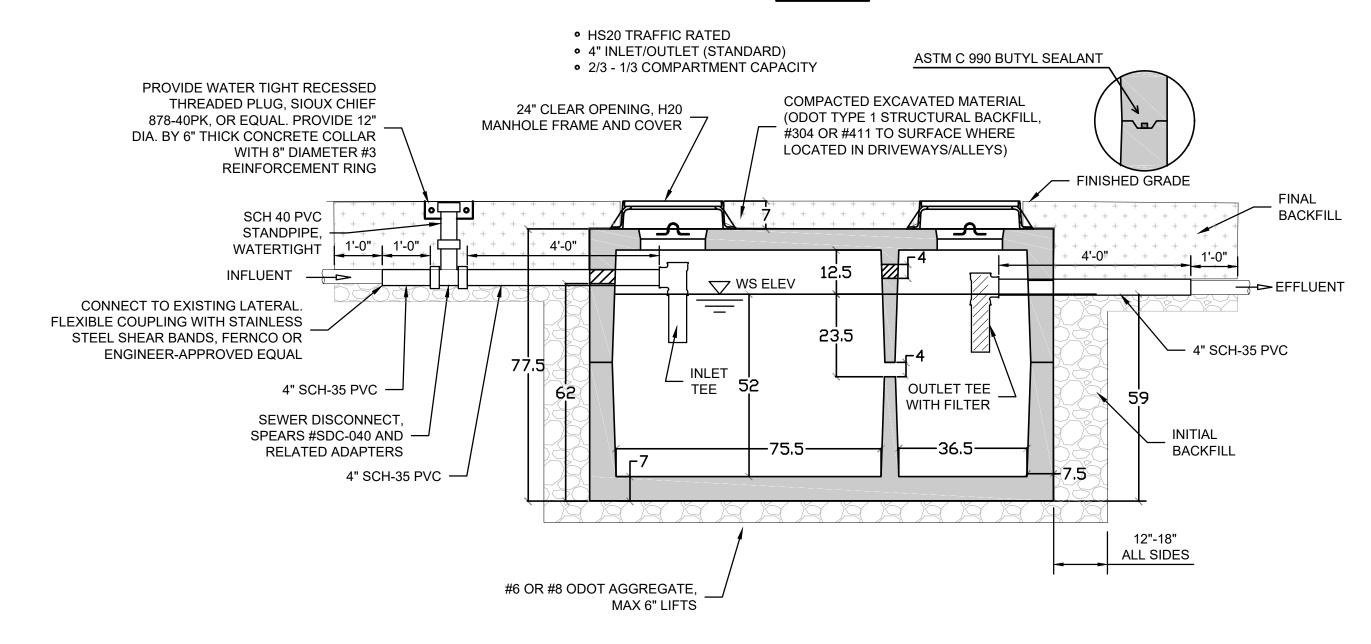
**SEPTIC TANK DETAILS** 

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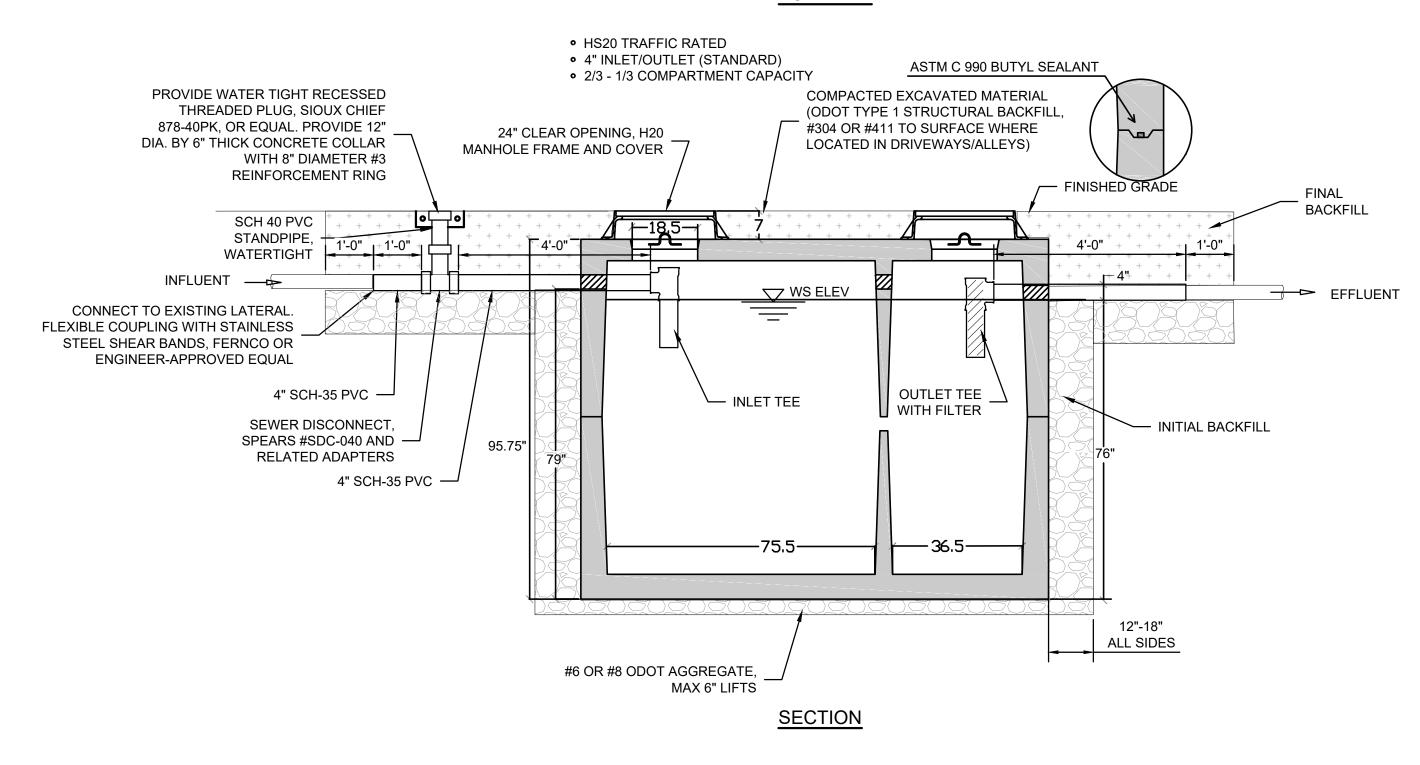
#### TOP PLAN



SECTION

H-20 PRECAST, 1500
SCALE: NONE

#### TOP PLAN



H-20 PRECAST, 2000
SCALE: NONE

NOTES:

1. DIMENSIONS VARY BY MANUFACTURER.

2. PROVIDE 'CONCRETE RISER SYSTEM' AS REQUIRED TO MATCH FINISHED GRADE. (TYPICAL ALL ACCESS OPENINGS FOR PRECAST SEPTIC TANKS)

SCALE VERIFICATION DRAWN BY MRE NO. DATE INITIALS REVISION DESCRIPTIONS

BAR IS ONE INCH LONG ON ORIGINAL DRAWING APPROVED BY RKB

ISSUE DATE

NO. DATE INITIALS REVISION DESCRIPTIONS

RYAN KEN BRAUEN E-79180

DECEMBER 2020

PROJECT NUMBER

701218-04-001

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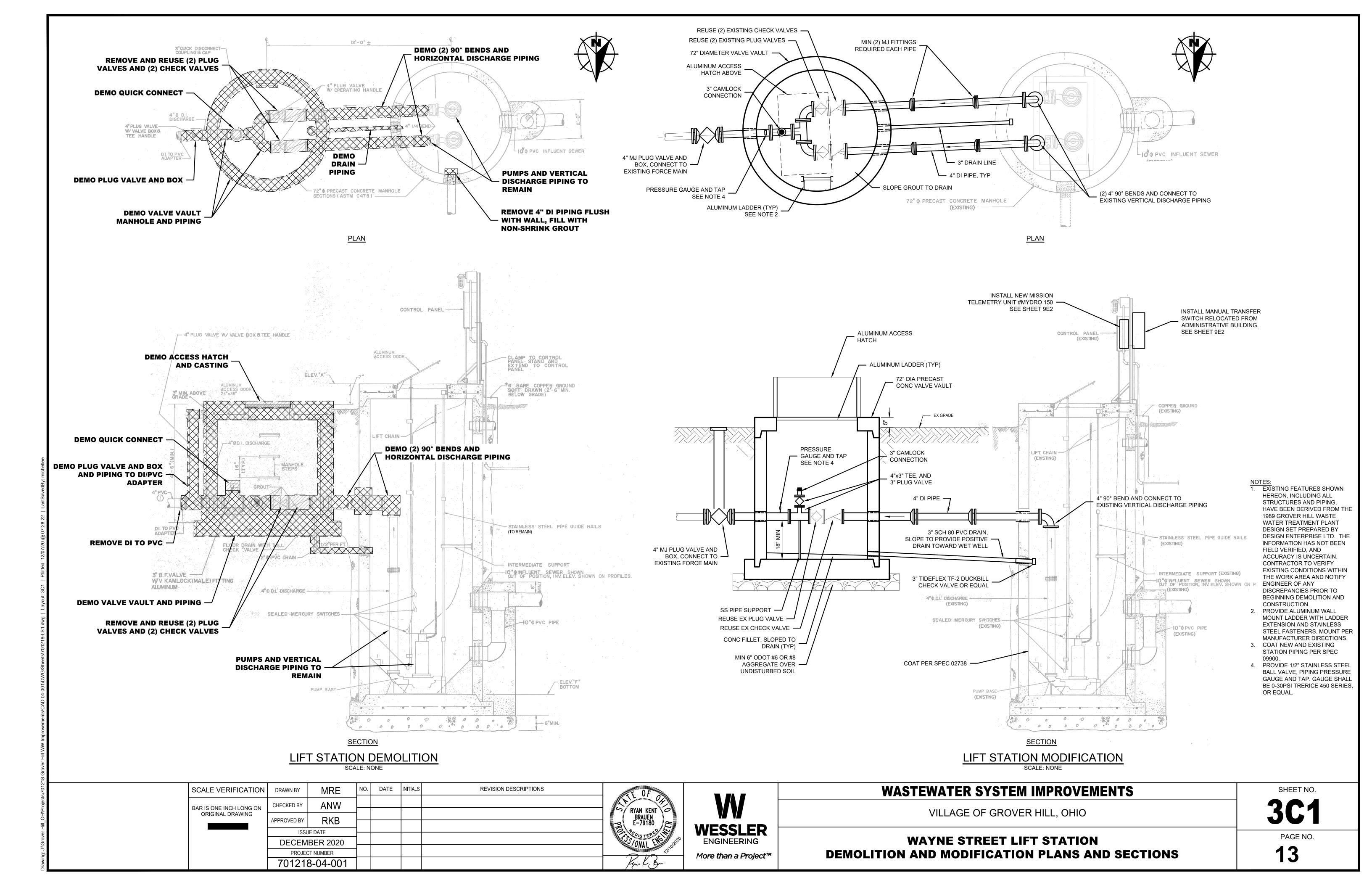
**WASTEWATER SYSTEM IMPROVEMENTS** 

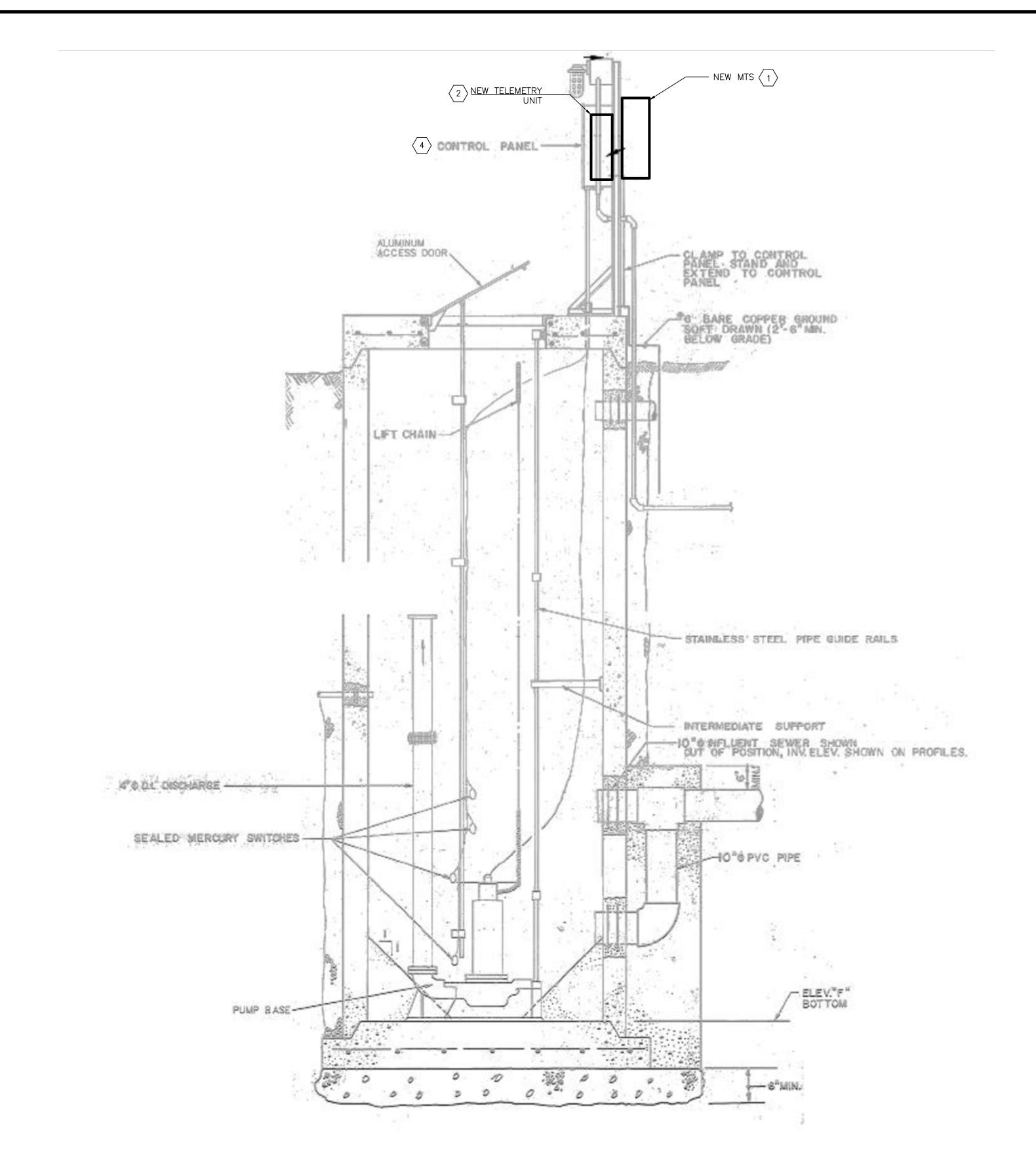
VILLAGE OF GROVER HILL, OHIO

SEPTIC TANK DETAILS

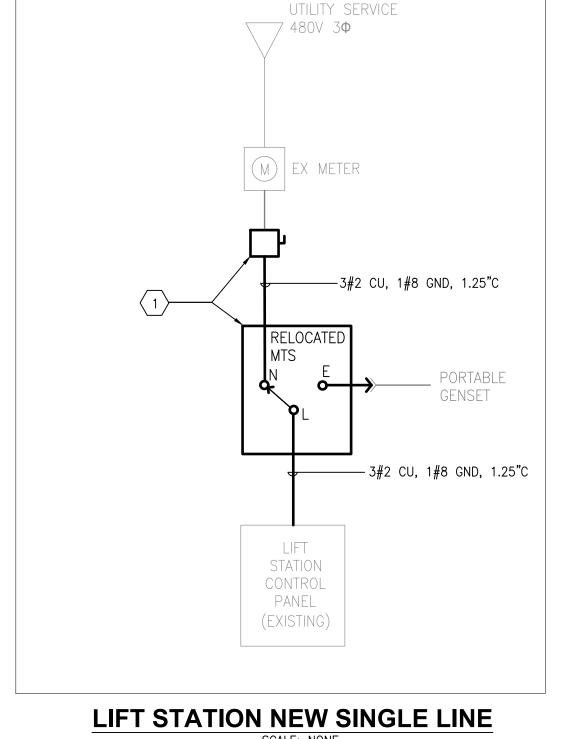
2Y8

1













LIFT STATION EXISTING PIPE SCALE: NONE

#### NOTES

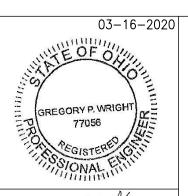
- REPLACE EXISTING POLE MOUNTED DISCONNECT WITH NEW 100A, FUSED DISCONNECT. PROVIDE NEW LIGHTNING ARRESTOR TO MATCH EXISTING. REUSE EXISTING FUSES FROM DISCONNECT REMOVED. WIRING AND CONDUIT BETWEEN METER BOX AND DISCONNECT. UTILIZE EXISTING GROUNDING ELECTRODE CONDUCTOR AT THE DISCONNECT. INSTALL 100A MANUAL TRANSFER SWITCH RELOCATED FROM ADMINISTRATIVE BUILDING ON THE BACK SIDE OF THE MOUNTING RACK. PROVIDE NEW WIRING AND CONDUIT PER ONE-LINE BETWEEN DISCONNECT, MTS AND EXISTING CONTROL PANEL AS REQUIRED.
- 2. PROVIDE NEW TELEMETRY UNIT AT LIFT STATION FOR REMOTE ALARM NOTIFICATION. UTILIZE MISSION COMMUNICATION #MYDRO 150, NEMA 4X ENCLOSURE. PROVIDE UNINTERRUPTIBLE POWER SUPPLY TO PROVIDE 10-MIN, RIDE-THROUGH FOR TELEMETRY UNIT. TELEMETRY UNIT TO BE MOUNTED ON EITHER SIDE OF EXISTING CONTROL PANEL. PROVIDE 120V POWER TO TELEMETRY UNIT FROM CONTROL PANEL. PROVIDE MOUNTING HARDWARE AS REQUIRED AND SIGNAL WIRING FOR THE FOLLOWING:
  - a. HIGH-LEVEL ALARM b. PUMP 1 (ON/OFF)
  - c. PUMP 2 (ON/OFF)
  - d. PUMP 1 FAULT
  - e. PUMP 2 FAULT f. POWER FAILURE

PROVIDE SERVICES TO SETUP TELEMETRY UNIT FOR COMPLETE OPERATION.

- 3. PROVIDE CAP FOR CONDUIT DOWN TO PUMP MOTORS.
- 4. CONDUIT FOR PUMP WIRING TO BE SEALED TO PREVENT INFILTRATION OF FUMES INTO PANEL FROM THE CLASS 1 DIV 1 AREA WHICH IS THE



NO. DATE INITIALS REVISION DESCRIPTIONS SCALE VERIFICATION DRAWN BY **AWM** CHECKED BY BAR IS ONE INCH LONG ON ORIGINAL DRAWING APPROVED BY ISSUE DATE MARCH 2020 PROJECT NUMBER 701218-04-001





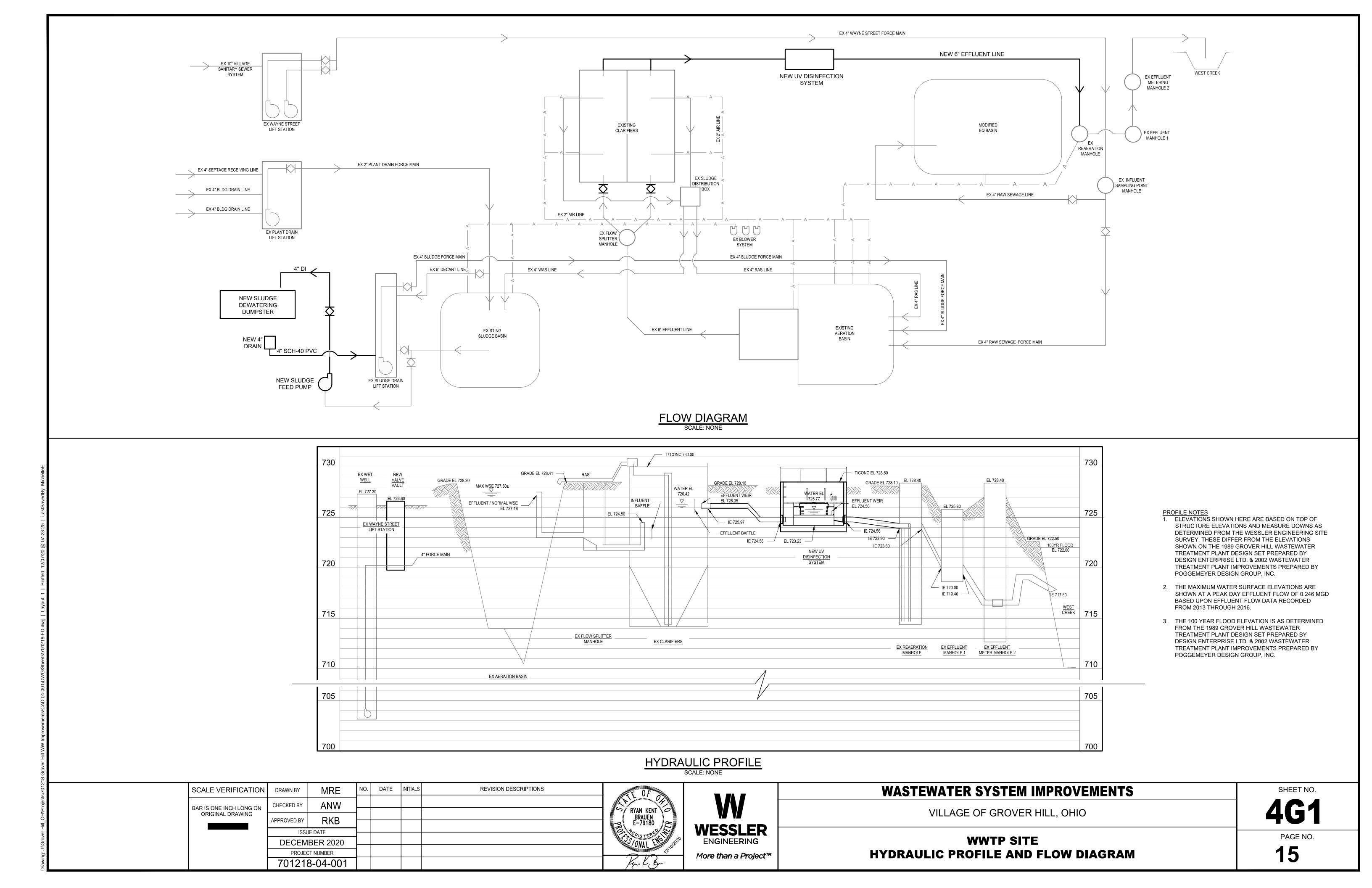
WASTEWATER SYSTEM IMPROVEMENTS

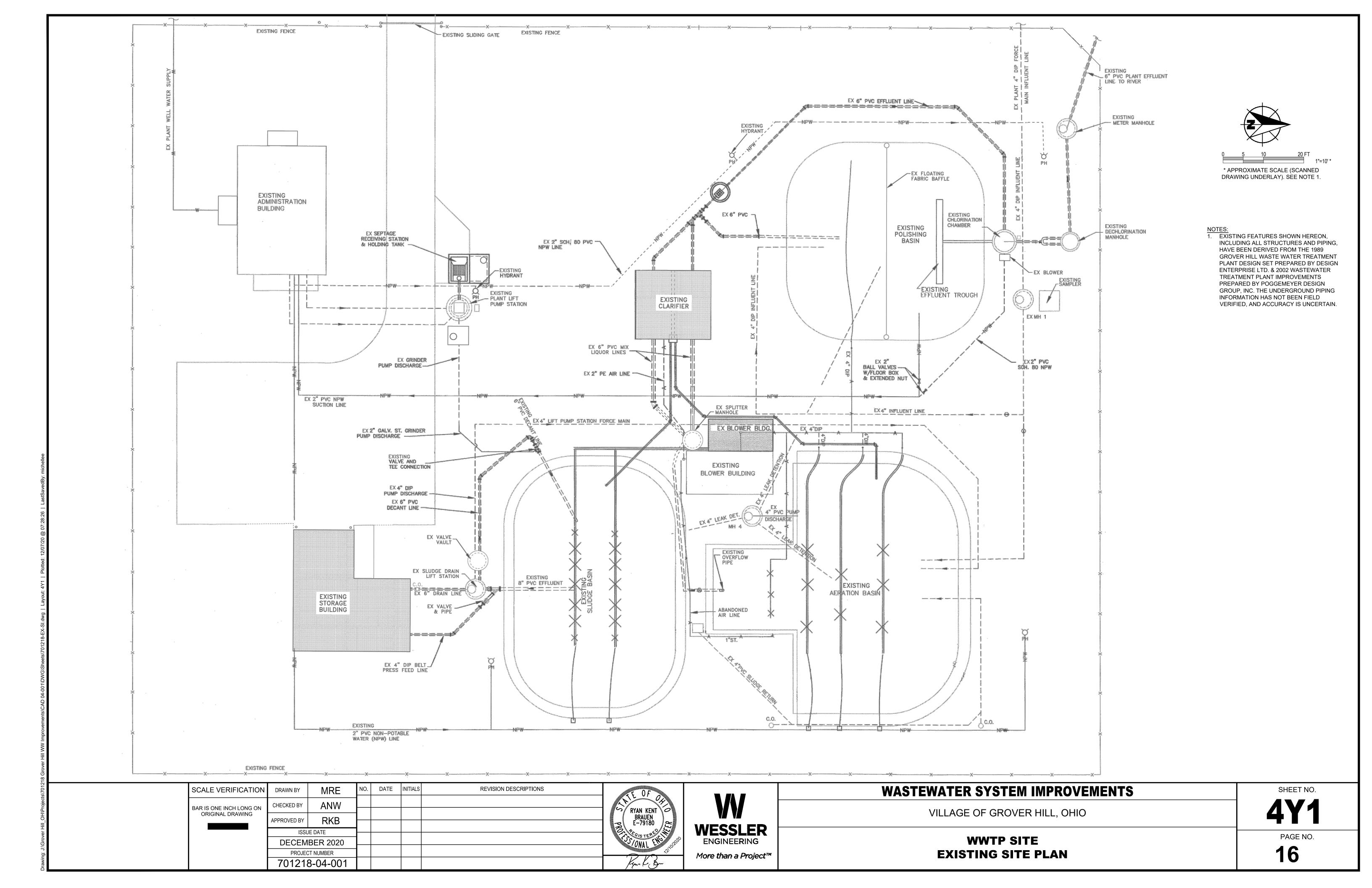
VILLAGE OF GROVER HILL, OHIO

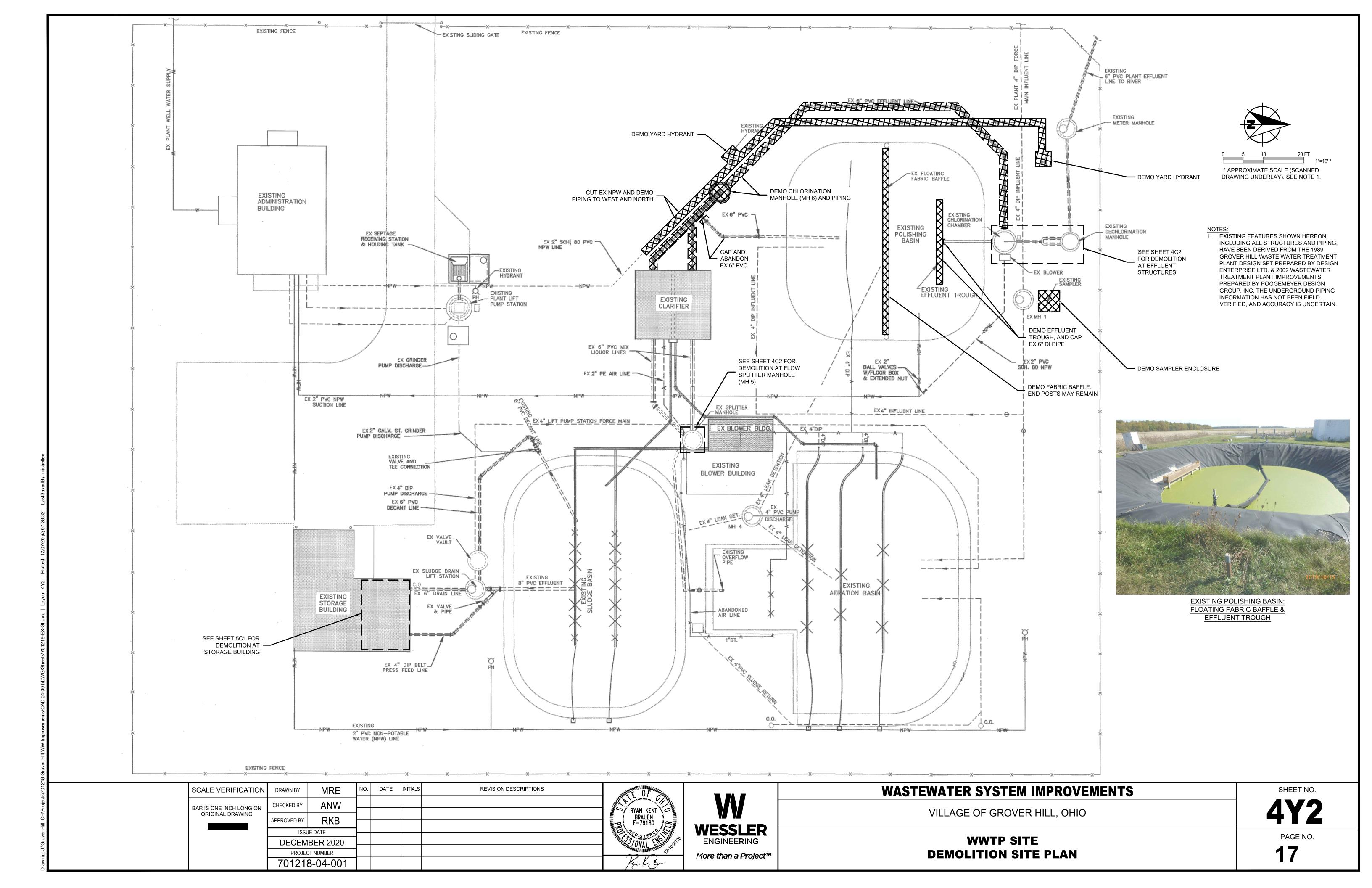
3E1

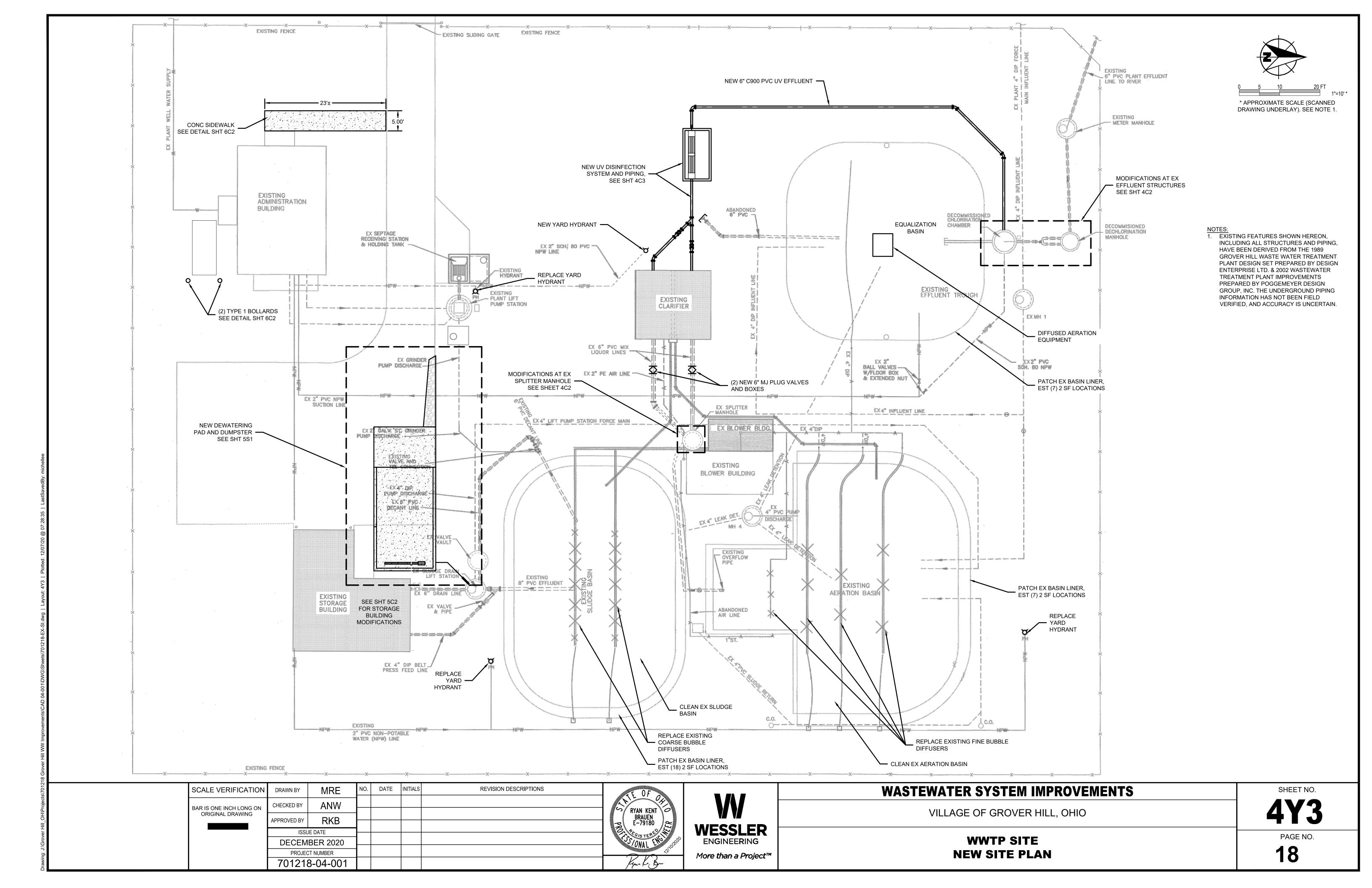
SHEET NO.

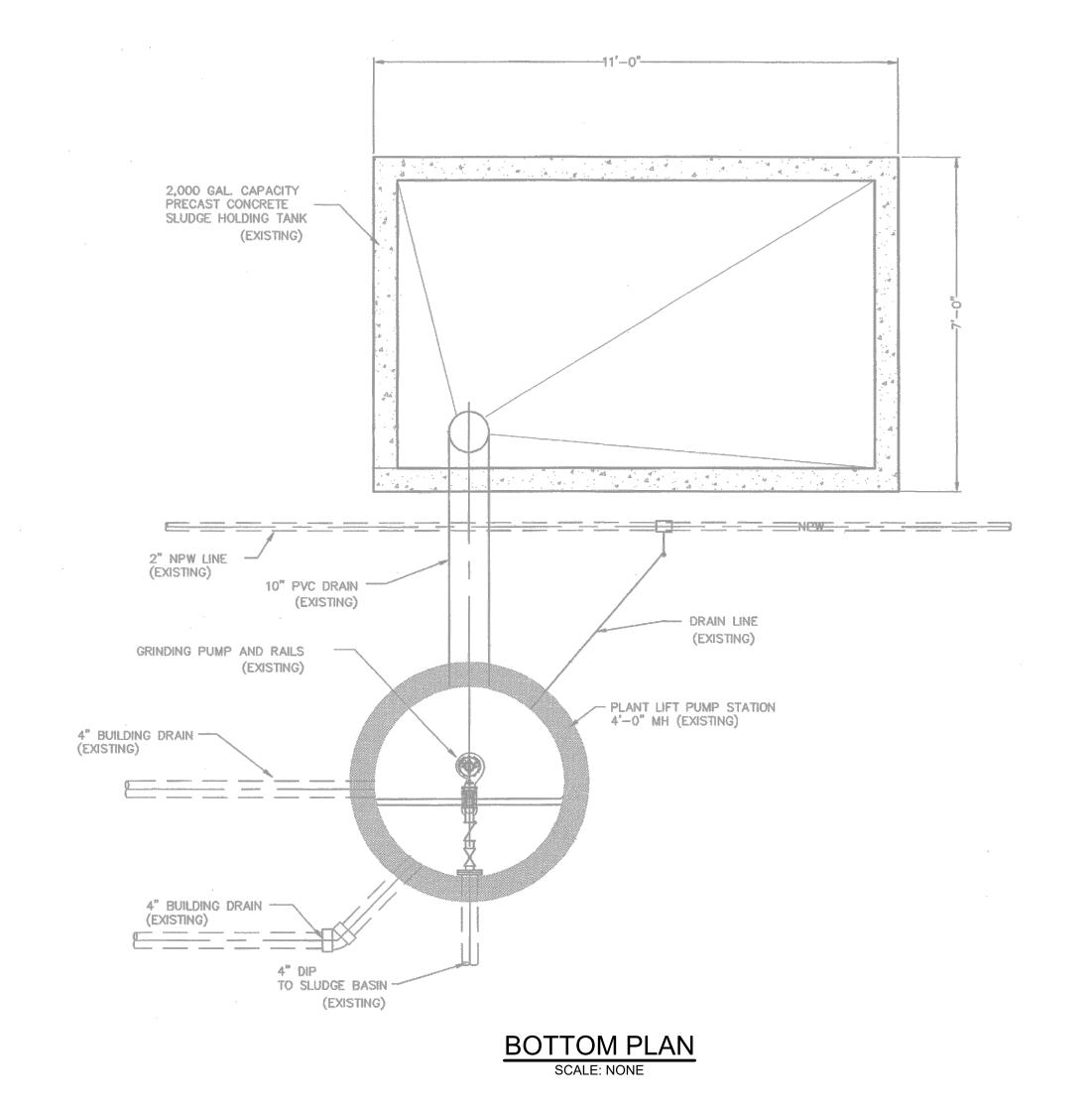
**LIFT STATION - ELECTRICAL MODIFICATIONS** 

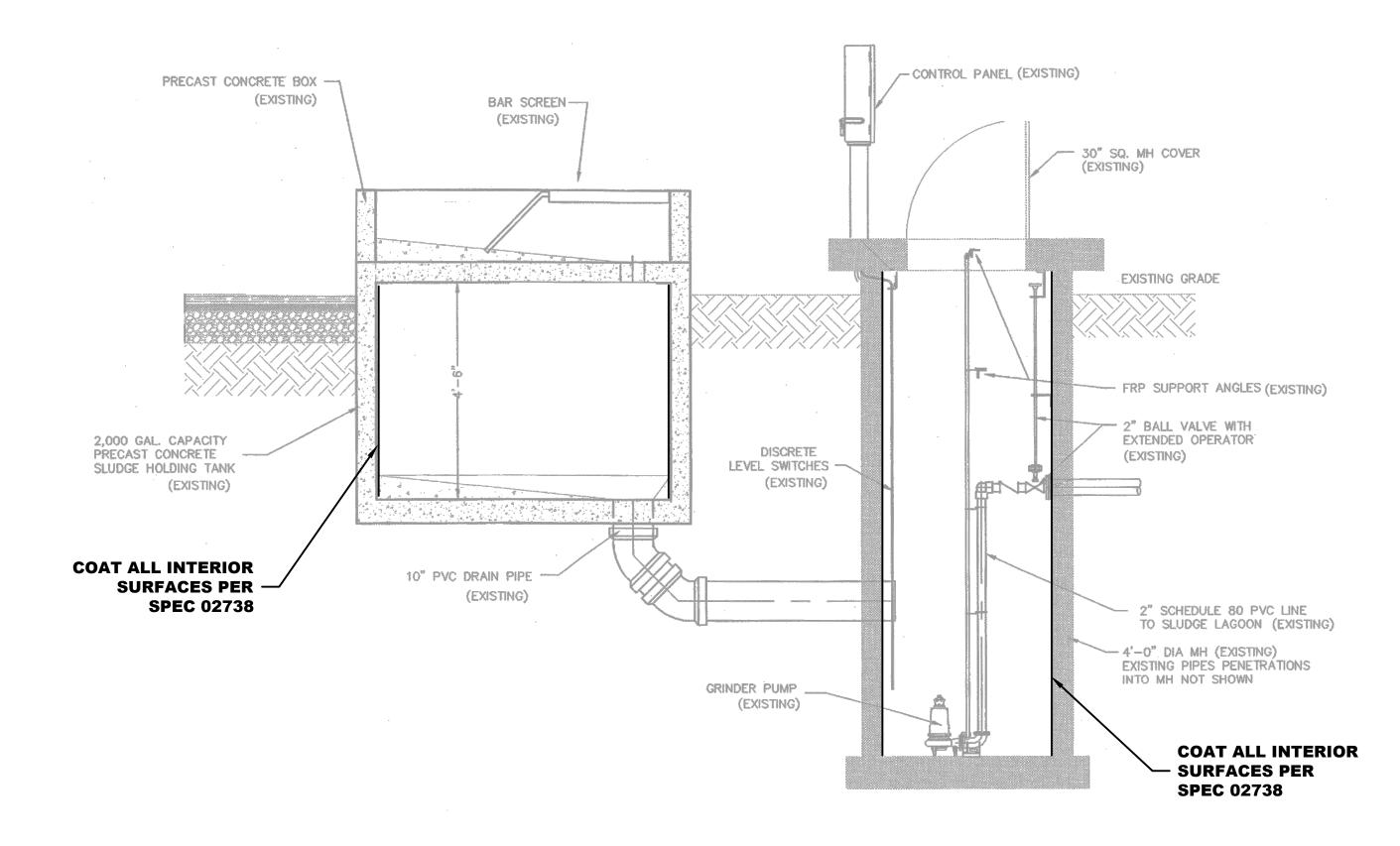












SECTION SCALE: NONE

NOTES:

1. EXISTING FEATURES SHOWN HEREON, INCLUDING ALL STRUCTURES AND PIPING, HAVE BEEN DERIVED FROM THE 1989 GROVER HILL WASTE WATER TREATMENT PLANT DESIGN SET PREPARED BY DESIGN ENTERPRISE LTD. & 2002 WASTEWATER TREATMENT PLANT IMPROVEMENTS PREPARED BY POGGEMEYER DESIGN GROUP, INC.

PREPARED BY POGGEMEYER DESIGN GROUP, INC.
THE INFORMATION HAS NOT BEEN FIELD VERIFIED,
AND ACCURACY IS UNCERTAIN.CONTRACTOR TO
VERIFY EXISTING CONDITIONS WITHIN THE WORK
AREA AND NOTIFY ENGINEER OF ANY
DISCREPANCIES PRIOR TO BEGINNING
DEMOLITION AND CONSTRUCTION.

SCALE VERIFICATION	DRAWN BY	MRE	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	THE OF
BAR IS ONE INCH LONG ON	CHECKED BY	ANW					RYAN KENT
ORIGINAL DRAWING	APPROVED BY	RKB					RYAN KENT N BRAUEN E-79180
	ISSUE DATE  DECEMBER 2020  PROJECT NUMBER		<u> </u>				O/S TEREDA
							SONAL ENGLISH
	70121	8-04-001					Kyur K. Bru

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## **WASTEWATER SYSTEM IMPROVEMENTS**

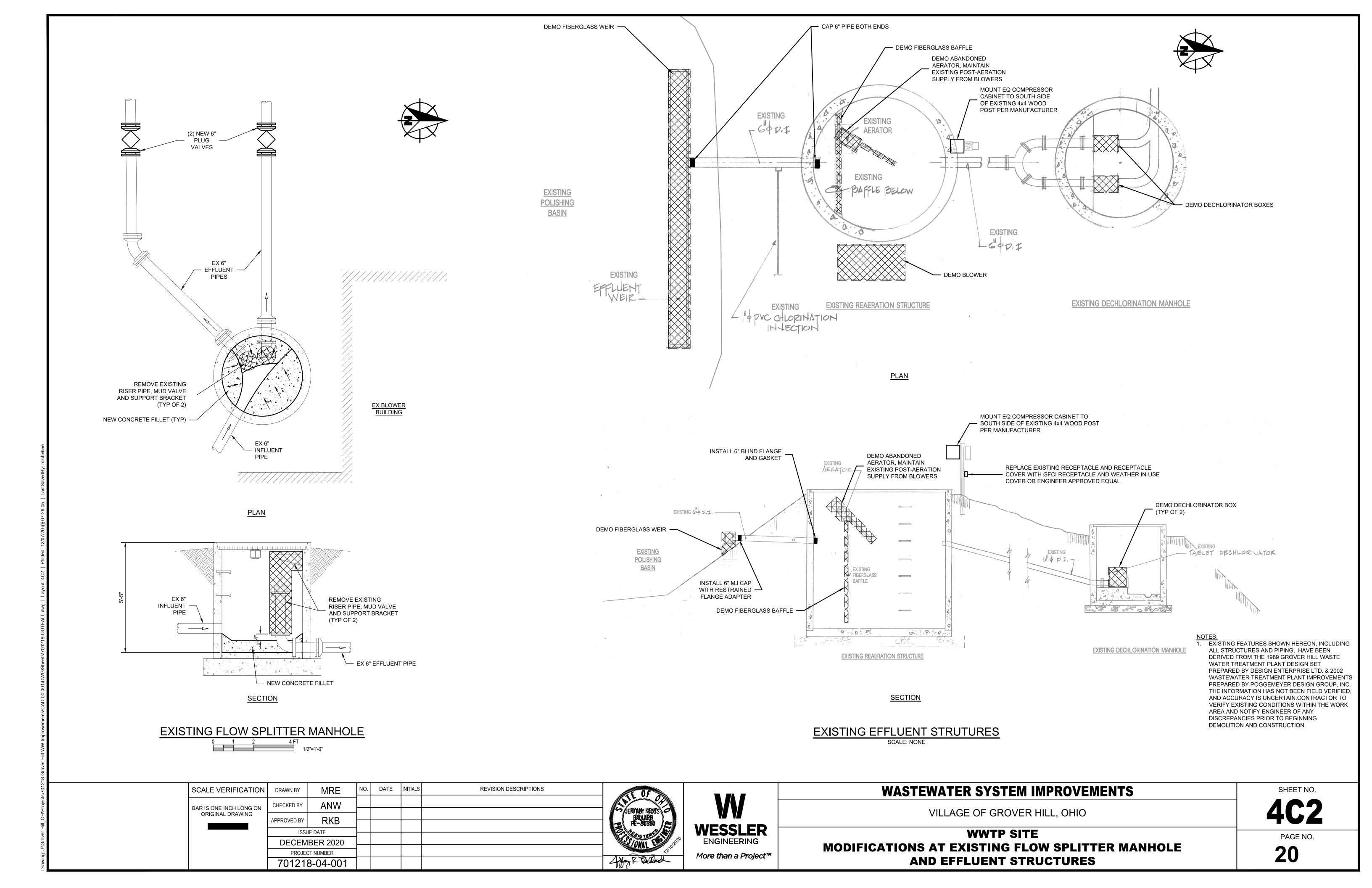
VILLAGE OF GROVER HILL, OHIO

WWTP SITE

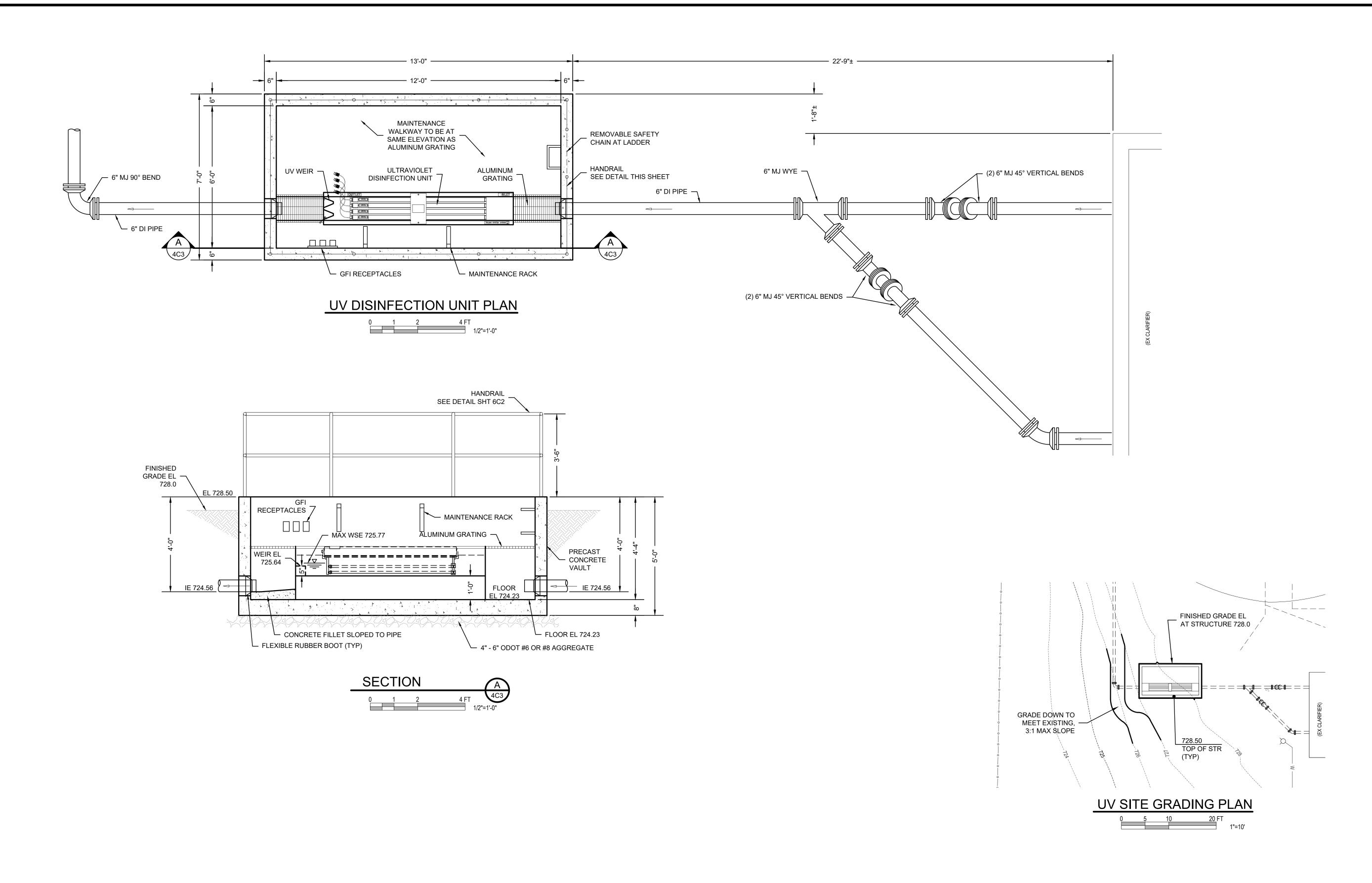
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PLANT DRAIN LIFT STATION MODIFICATION PLAN AND SECTION







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	DECEMBER 2020						SISTER THE TOP OF THE PROPERTY
	PROJEC	PROJECT NUMBER					Julian Stron
	70121	8-04-001					Kyur K. Bru

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WASTEWATER SYSTEM IMPROVEMENTS

VILLAGE OF GROVER HILL, OHIO

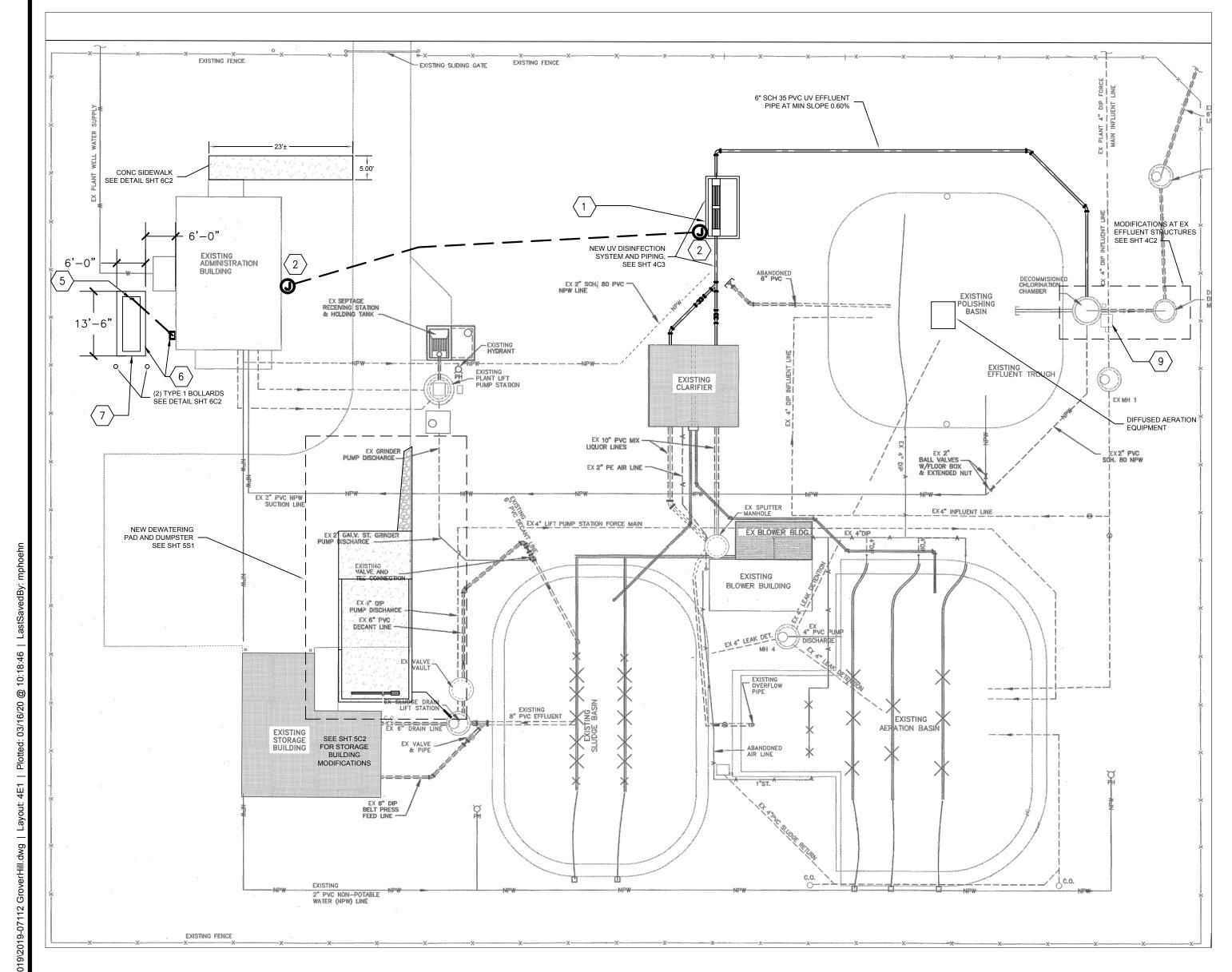
WWTP SITE
UV DISINFECTION SYSTEM PLANS AND SECTION

SHEET NO.

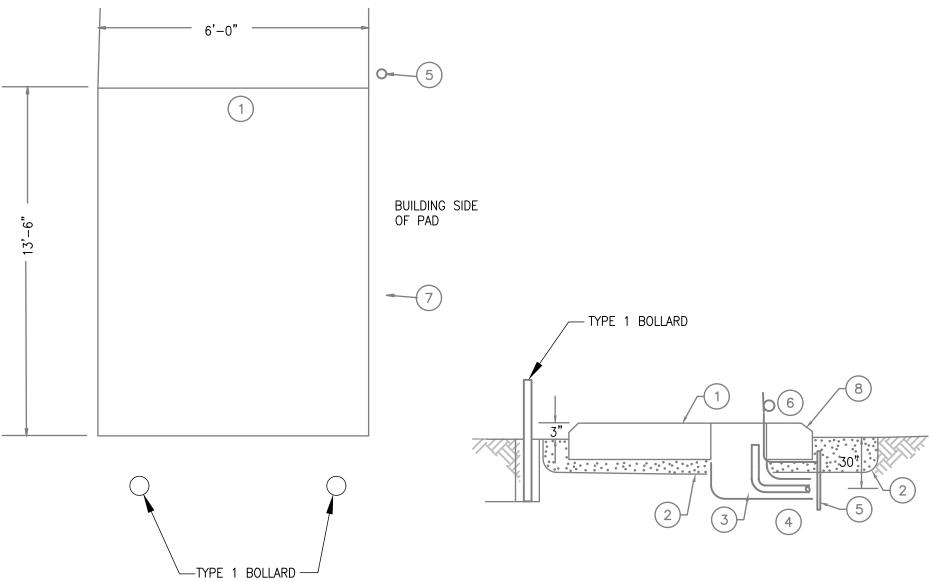
4C3

#### **GENERAL NOTES**

A. ALL UNDERGROUND CONDUIT ROUTING SHOWN ARE DIAGRAMMATIC AND SHOULD NOT BE USED FOR EXACT PLACEMENT. FIELD VERIFY EXACT ROUTING WITH ENGINEER PRIOR TO EXCAVATION.



**ELECTRICAL SITE PLAN** 



#### **DETAIL NOTES**

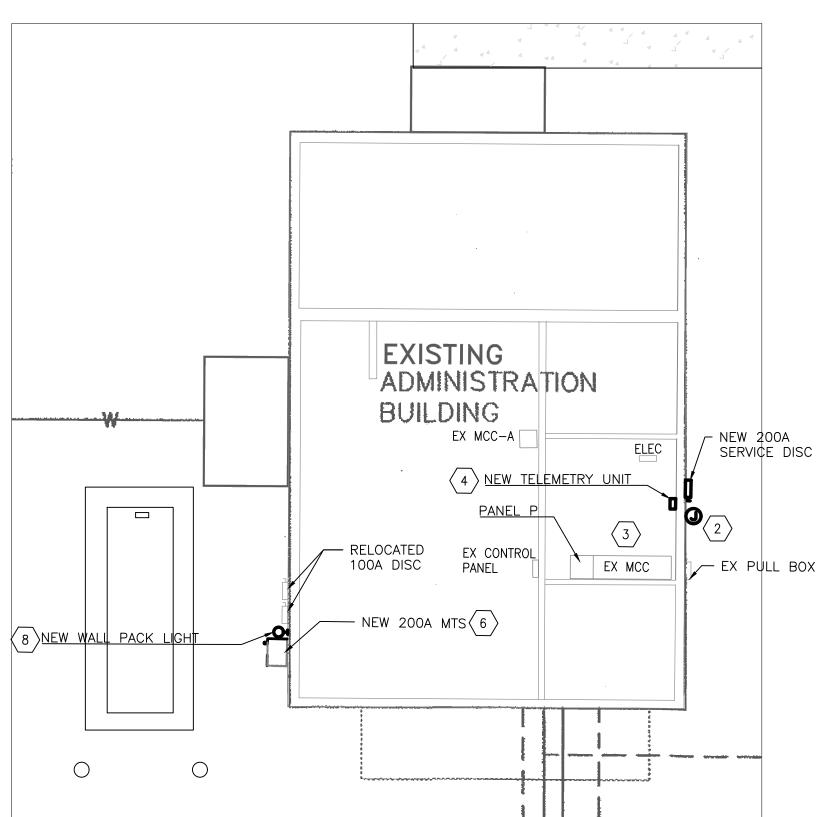
- 1 CONCRETE PAD OF 9" THICKNESS AND OPENINGS AS RECOMMENDED BY SUPPLIER OF GENERATOR. 1/2"DIA. REINF. 12"CC BOTH WAYS.
- 2 PEA GRAVEL UNDER CONCRETE PAD 12" MINIMUM AND TO EXTEND 2 FT. BEYOND EDGE OF PAD (12"DEEP).
- 3 SEE PLAN AND SCHEDULES FOR NUMBER AND SIZE OF CONDUIT.
- 4 ALL UNDERGROUND CONDUITS TO HAVE LONG SWEEPING BENDS, PROPER ADAPTER FROM PVC TO RIGID METALLIC CONDUIT AND STUB 3" ABOVE CONCRETE PAD.
- 5 5/8" X 10 FT. GROUND RODS UNLESS OTHERWISE SHOWN.
- 6 5 FT. #1/0 BARE COPPER GROUNDING PIGTAIL.
- 7 CONCRETE PAD TO BE MINIMUM 5' AWAY FROM BUILDING.
- 8 EXPOSED CONCRETE SURFACES TO HAVE RUBBED FINISH AND 3/4" CHAMFERED

#### **GENERAL DETAIL NOTES**

COORDINATE EXACT CONCRETE PAD SIZE, OPENINGS AND OTHER REQUIREMENTS TO EXTEND EDGE OF CONCRETE 12" BEYOND EQUIPMENT. ALL SIDES OF EQUIPMENT PAD SHALL BE MAINTAINED RECTANGULAR WITH RUBBED FINISH AND CHAMFERED EDGE. REFER TO SPEC SECTION 26 27 13. COORDINATE EXACT ORIENTATION OF EQUIPMENT WITH POWER CO. PRIOR TO EXCAVATION AND PROVIDE ACCORDINGLY.

#### **NEW CONCRETE PAD LAYOUT**

SCALE: NONE



#### **ADMINISTRATIVE BUILDING PLAN**

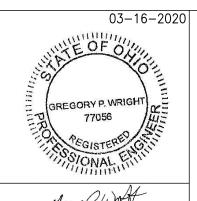
SCALE: 3/16"=1'

#### **NOTES**

- 1. REMOVE EXISTING CHLORINATION EQUIPMENT AND INSTALL NEW UV SYSTEM. CONFIRM WITH ENGINEER THAT UV DISINFECTION SYSTEM IS TO BE TROJAN UV PTP MODEL#3200K. COORDINATE LOCATION OF EQUIPMENT WITH OWNER PRIOR TO ROUGH-IN. COORDINATE INSTALLATION OF SYSTEM WITH TROJAN MANUFACTURER REPRESENTATIVE. PROVIDE 120V/20A CIRCUIT IN 3/4"C UNDERGROUND FROM AVAILABLE BREAKER IN PANEL P TO POWER THE TWO GFI RECEPTACLES INCLUDED WITH THE EQUIPMENT. PROVIDE NEMA 3R J-BOX IN PIT TO DISTRIBUTE POWER TO RECEPTACLES. COORDINATE EXACT LOCATION OF RECEPTACLES AND J-BOX WITH ENGINEER PRIOR TO ROUGH-IN.
- 2. PROVIDE NEMA 4X J-BOX IN UV SYSTEM PIT AND NEMA 4X J-BOX ON OUTSIDE OF ADMINISTRATIVE BUILDING ON OPPOSITE SIDE OF WALL SHARED WITH THE ELECTRICAL ROOM, INCLUDING 1" SPARE CONDUIT WITH PULL STRING, CONNECTING THEM FOR FUTURE MONITORING SYSTEM. COORDINATE WITH ENGINEER FOR EXACT LOCATIONS OF J-BOXES AND CONDUIT ROUTING.
- 3. ADMINISTRATIVE BUILDING AND ELECTRICAL ROOM LAYOUT IS SCHEMATIC IN NATURE AND MAY NOT MATCH EXISTING CONDITIONS EXACTLY. FIELD COORDINATE ALL ROUTING OF WIRING AND CONDUIT INTO BUILDING AS NEEDED. COORDINATE NEW ELECTRICAL EQUIPMENT LOCATIONS IN ADMINISTRATIVE BUILDING WITH ENGINEER PRIOR TO ROUGH-IN.
- 4. DISCONNECT AND REPLACE OLD TELEMETRY SYSTEM WITH NEW MISSION, NEMA 1, MYDRO 150 TELEMETRY SYSTEM ENCLOSURE AND WIRE ACCORDINGLY. TIE IN EXISTING SENSOR LINES AS REQUIRED. PROVIDE UNINTERRUPTIBLE POWER SUPPLY TO PROVIDE 10-MIN. RIDE-THROUGH FOR TELEMETRY UNIT. PROVIDE SERVICES TO SETUP TELEMETRY UNIT FOR COMPLETE OPERATION.
- 5. COORDINATE ROUTING OF CONDUIT TO GENERATOR ELECTRICAL STUB-UP AREA WITH GENERATOR MANUFACTURER. PROVIDE 120V POWER, INCLUDING WIRING AND CONDUIT, FROM AVAILABLE BREAKER IN PANEL P TO GENERATOR FOR WATER JACKET HEATER AND BATTERY CHARGER.
- 6. PROVIDE 100kW, 480/277V, 3Φ OUTDOOR, DIESEL GENERATOR W/ ENCLOSURE, 24 HOUR TANK CAPACITY AND MTS. UTILIZE CATERPILLAR #D100 GENERATOR AND ASCO 300 SERIES NON-AUTOMATIC 200A, TRANSFER SWITCH W/ STRIP HEATER AS BASIS OF DESIGN. MTS TO BE FULLY ENCLOSED IN A NEMA 3R ENCLOSURE. CONDUIT BETWEEN GENERATOR AND NEW MTS TO BE UNDERGROUND. REMAINING CONDUIT TO BE RUN THROUGH BUILDING OVERHEAD TO EXISTING MCC'S. FIELD COORDINATE WITH ENGINEER ROUTING OF CONDUIT PRIOR TO ROUGH-IN. REFER TO NEW SINGLE LINE ON SHEET 9E1 FOR WIRE AND CONDUIT SIZING. PROVIDE REMOTE ENGINE STOP BUTTON AT ENTRY TO OUTSIDE ENCLOSURE. CONNECT TO ENGINE CONTROLS FOR SHUTDOWN. REFER TO GENERATOR SPEC FOR MORE SPECIFIC REQUIREMENTS.
- 7. CONCRETE PAD SIZE AND THICKNESS IS BASED ON CATERPILLAR GENERATOR AS BASIS OF DESIGN. COORDINATE WITH GENERATOR MANUFACTURER SELECTED FOR CONCRETE PAD REQUIREMENTS.
- 8. PROVIDE NEW LED WALL PACK WITH PHOTOCELL TO ILLUMINATE AREA. UTILIZE LITHONIA #TWP-LED-ALO-30K-T3M-MVOLT-PE-SF-DWXHD AS BASIS OF DESIGN. PROVIDE WIRING AND CONDUIT AS REQUIRED AND TIE INTO EXISTING ADMINISTRATIVE BUILDING LIGHTING CIRCUIT. LIGHT TO BE WIRED AHEAD OF ANY SWITCH. FIXTURE LUMEN LEVEL IS ADJUSTABLE. COORDINATE LUMEN LEVEL SETTING WITH OWNER.
- 9. UTILIZE EXISTING DISCONNECT FOR POWER TO NEW 120V DIFFUSER. INTERCEPT FEEDER CONDUIT PRIOR TO ENTERING MCC AND REROUTE TO PANEL P. PROVIDE NEW 2#10, 1#10 GND WIRE BETWEEN PANEL P AND NEW

**HEAPY** 

DATE | INITIALS | SCALE VERIFICATION | DRAWN BY REVISION DESCRIPTIONS **AWM** CHECKED BY BAR IS ONE INCH LONG ON ORIGINAL DRAWING APPROVED BY ISSUE DATE MARCH 2020 PROJECT NUMBER 701218-04-001



WESSLER **ENGINEERING** More than a Project™ WASTEWATER SYSTEM IMPROVEMENTS

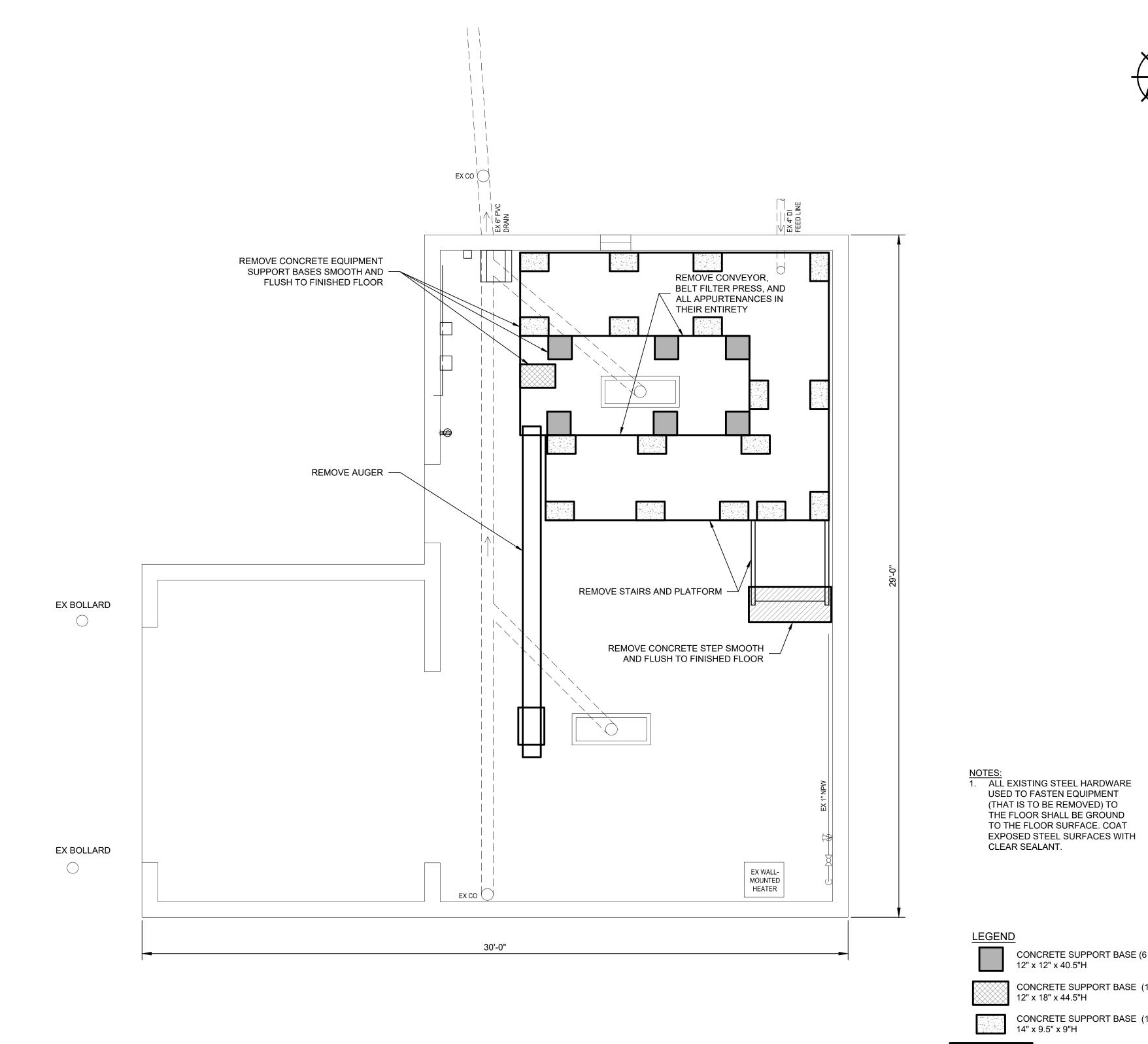
VILLAGE OF GROVER HILL, OHIO

SHEET NO.

**WWTP - ELECTRICAL SITE PLAN** 

**4E1** 





STORAGE BUILDING DEMOLITION

<u>LEGEND</u>

CONCRETE SUPPORT BASE (6 EA) 12" x 12" x 40.5"H

CONCRETE SUPPORT BASE (1 EA) 12" x 18" x 44.5"H

CONCRETE SUPPORT BASE (16 EA) 14" x 9.5" x 9"H

CONCRETE STEP (1 EA) 42" x 18" x 9"H

SCALE VERIFICATION	DRAWN BY	MRE	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	, iii
BAR IS ONE INCH LONG ON	CHECKED BY	ANW					PROMINING
ORIGINAL DRAWING	APPROVED BY	RKB					/////////P
	DECEMBER 2020						
	701218-04-001						

	W
	<b>WESSLER</b>
٥	ENGINEERING
	More than a Project™

WASTEW	ATER SY	STEM IN	<b>MPROVEME</b>	ENTS

VILLAGE OF GROVER HILL, OHIO

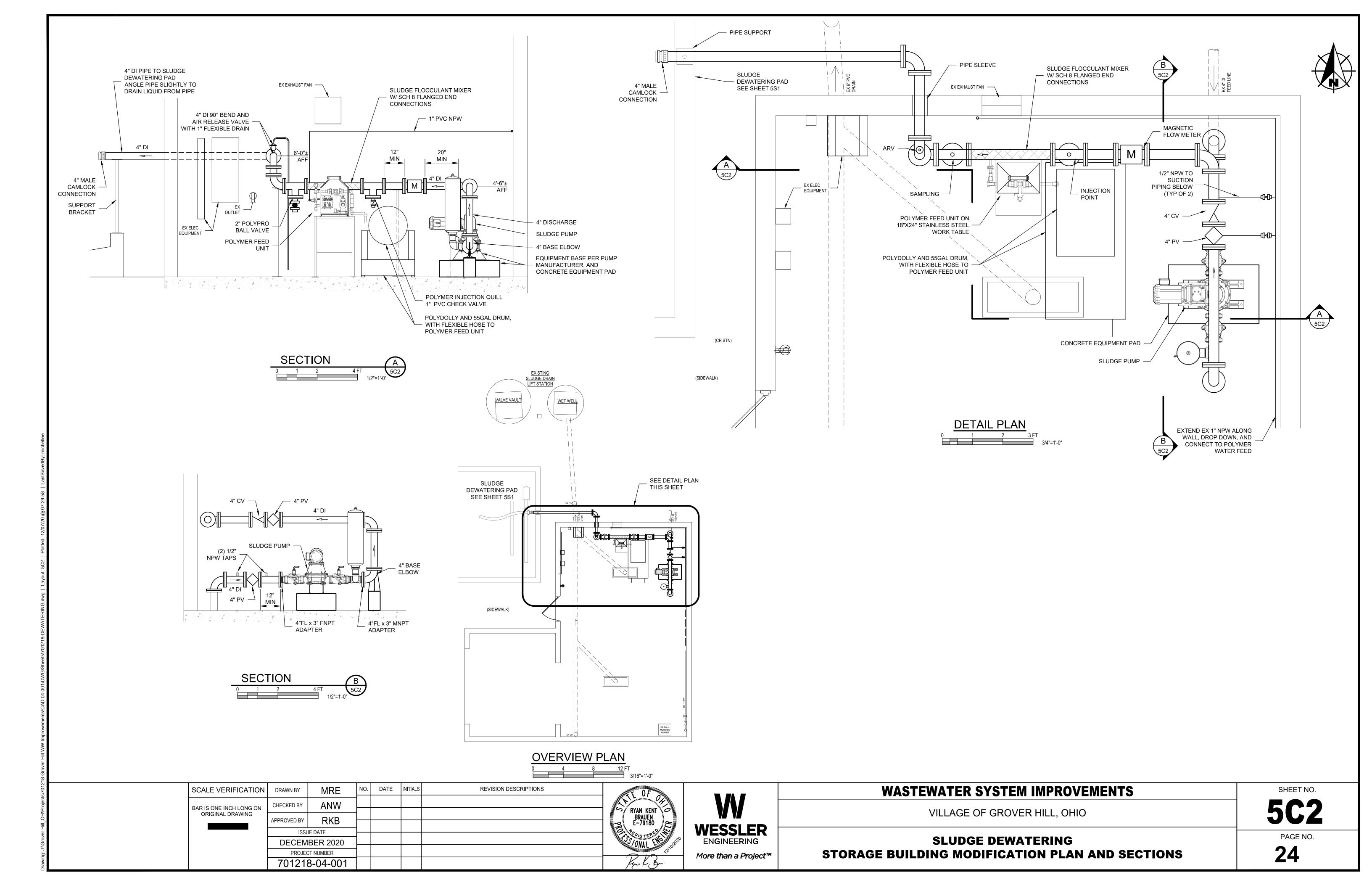
STORAGE BUILDING DEMOLITION PLAN

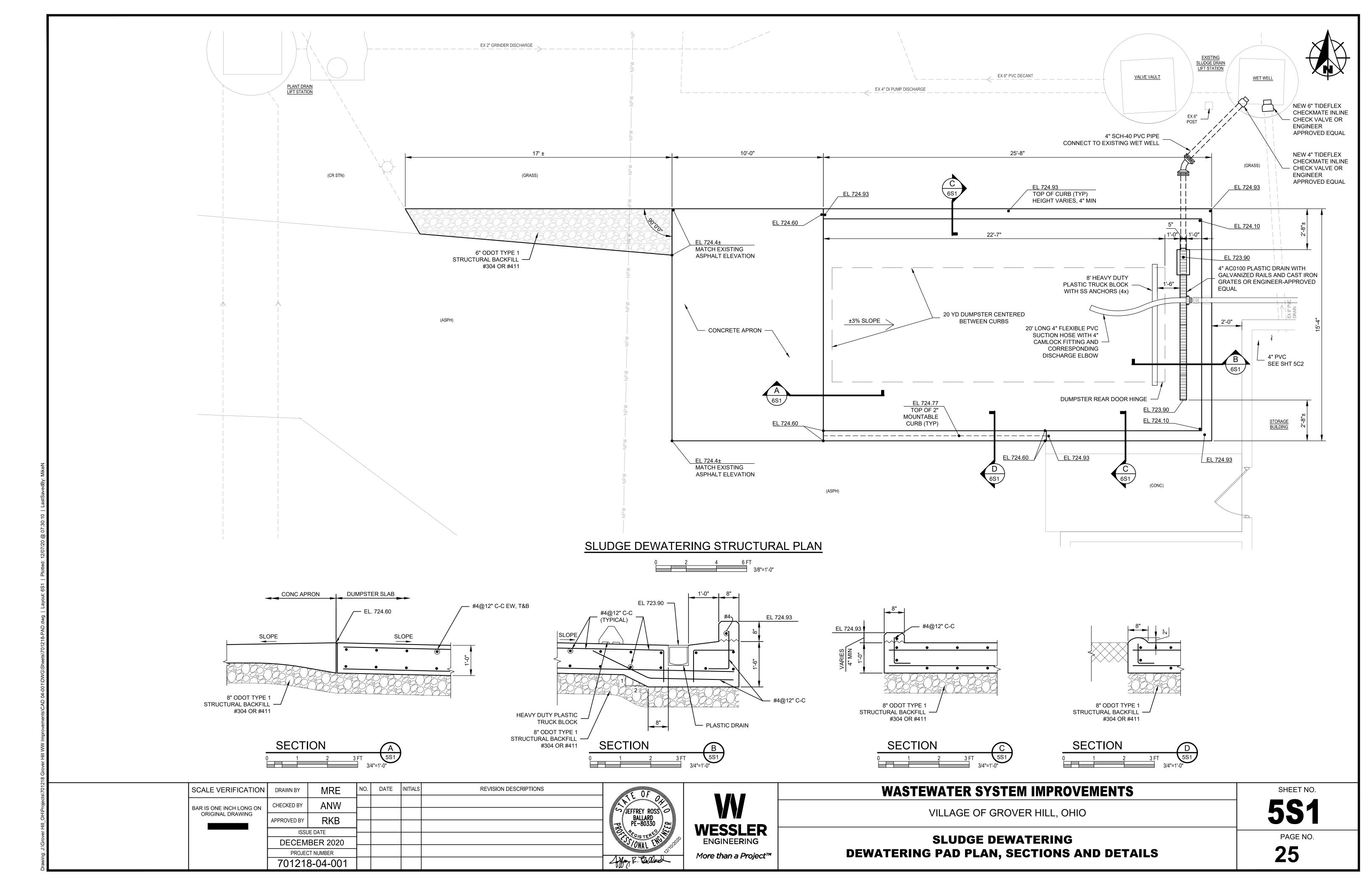
**SLUDGE DEWATERING** 

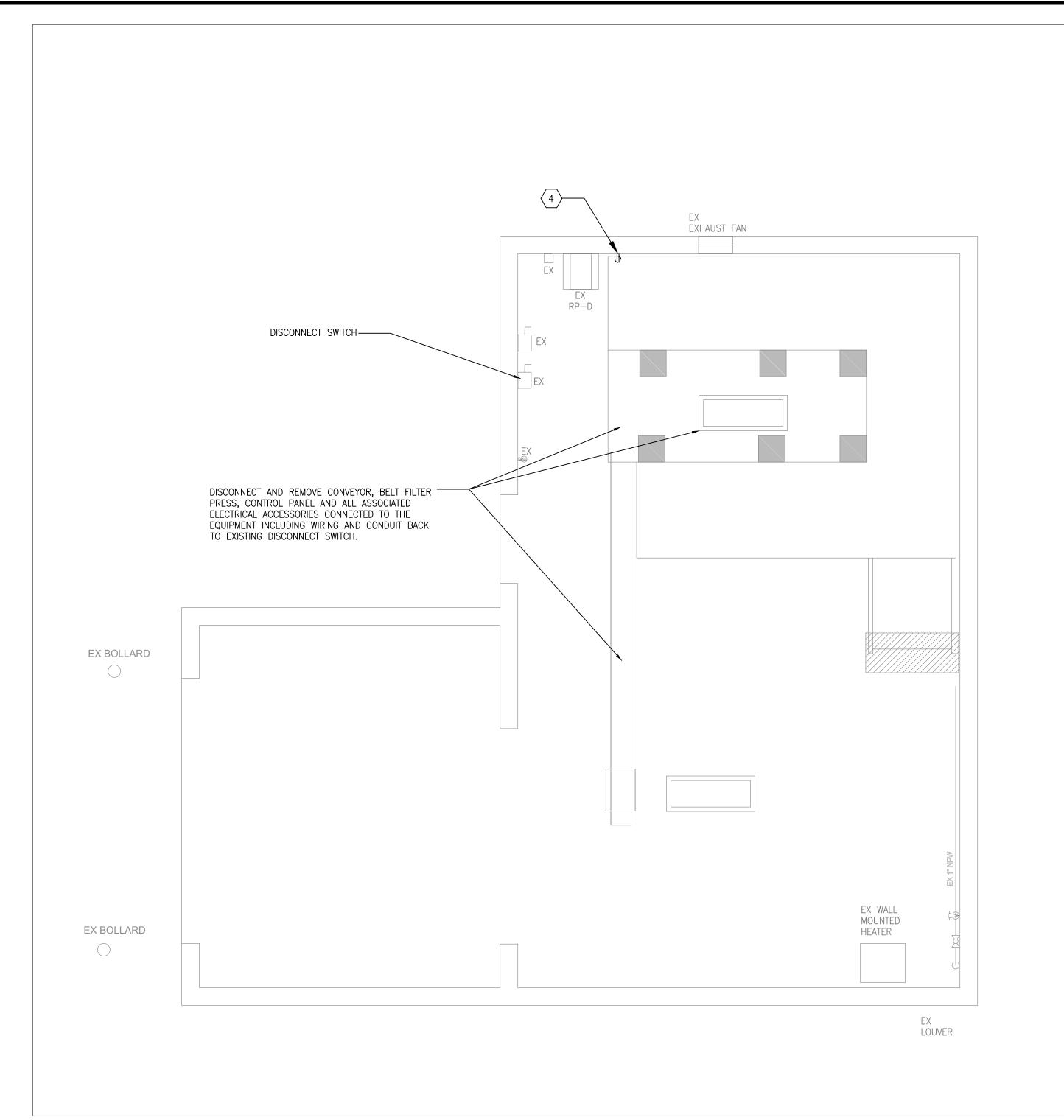
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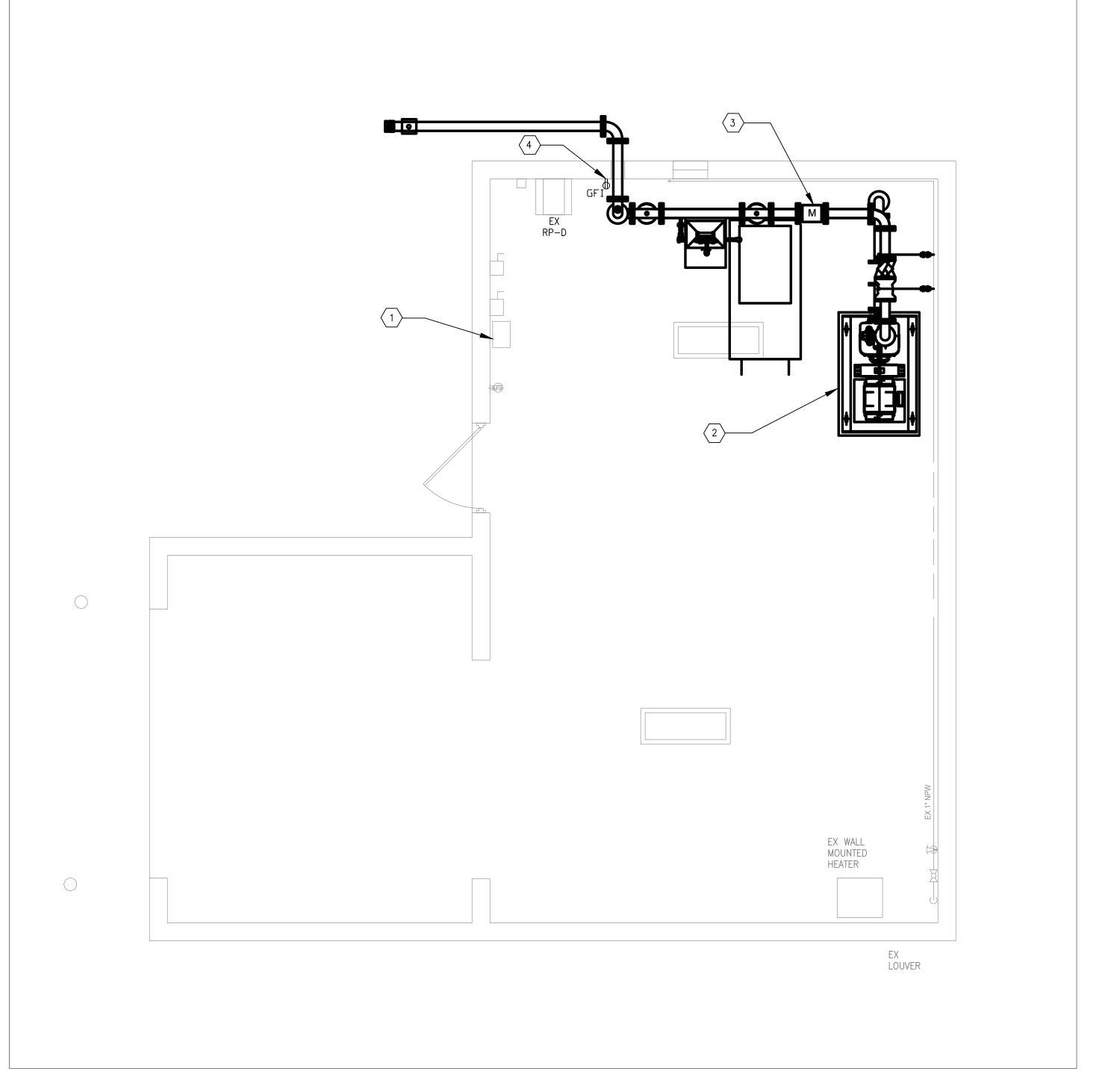
SHEET NO.

**23** 









## SLUDGE DEWATERING STORAGE BUILDING ELECTRICAL DEMO PLAN

SCALE: 3/8"=1'

# NOTES

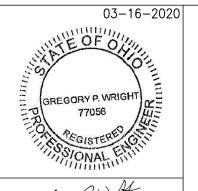
- 1. INSTALL VARIABLE FREQUENCY DRIVE (VFD) PROVIDED BY OTHERS IN APPROXIMATE LOCATION SHOWN. COORDINATE EXACT LOCATION OF INVERTER WITH ENGINEER PRIOR TO ROUGH-IN.
- 2. PROVIDE POWER, WIRING, AND CONDUIT BETWEEN EXISTING DISCONNECT THROUGH VFD TO NEW SLUDGE PUMP MOTOR AS REQUIRED, INCLUDING ANY ASSOCIATED CONTROL WIRING WITH FLOW METER. COORDINATE WITH PUMP MANUFACTURER FOR ELECTRICAL REQUIREMENTS.
- 3. PROVIDE 120V POWER TO FLOW METER FROM PANEL RP-D.
- 4. EXISTING RECEPTACLE TO BE REPLACED WITH NEW GFCI TYPE RECEPTACLE. EXISTING DOCUMENTATION SHOWS THAT THIS RECEPTACLE IS POWERED THROUGH CONTROL PANEL TO BE REMOVED. PROVIDE NEW CIRCUIT FROM RP-D IF REQUIRED. FIELD VERIFY PRIOR TO BIDDING. NOTE: RECEPTACLE TO PROVIDE POWER FOR POLYMER FEED.

#### SLUDGE DEWATERING STORAGE BUILDING ELECTRICAL POWER PLAN

SCALE: 3/8"=1'



NO. DATE INITIALS REVISION DESCRIPTIONS SCALE VERIFICATION DRAWN BY **AWM** CHECKED BY BAR IS ONE INCH LONG ON ORIGINAL DRAWING APPROVED BY ISSUE DATE MARCH 2020 PROJECT NUMBER 701218-04-001





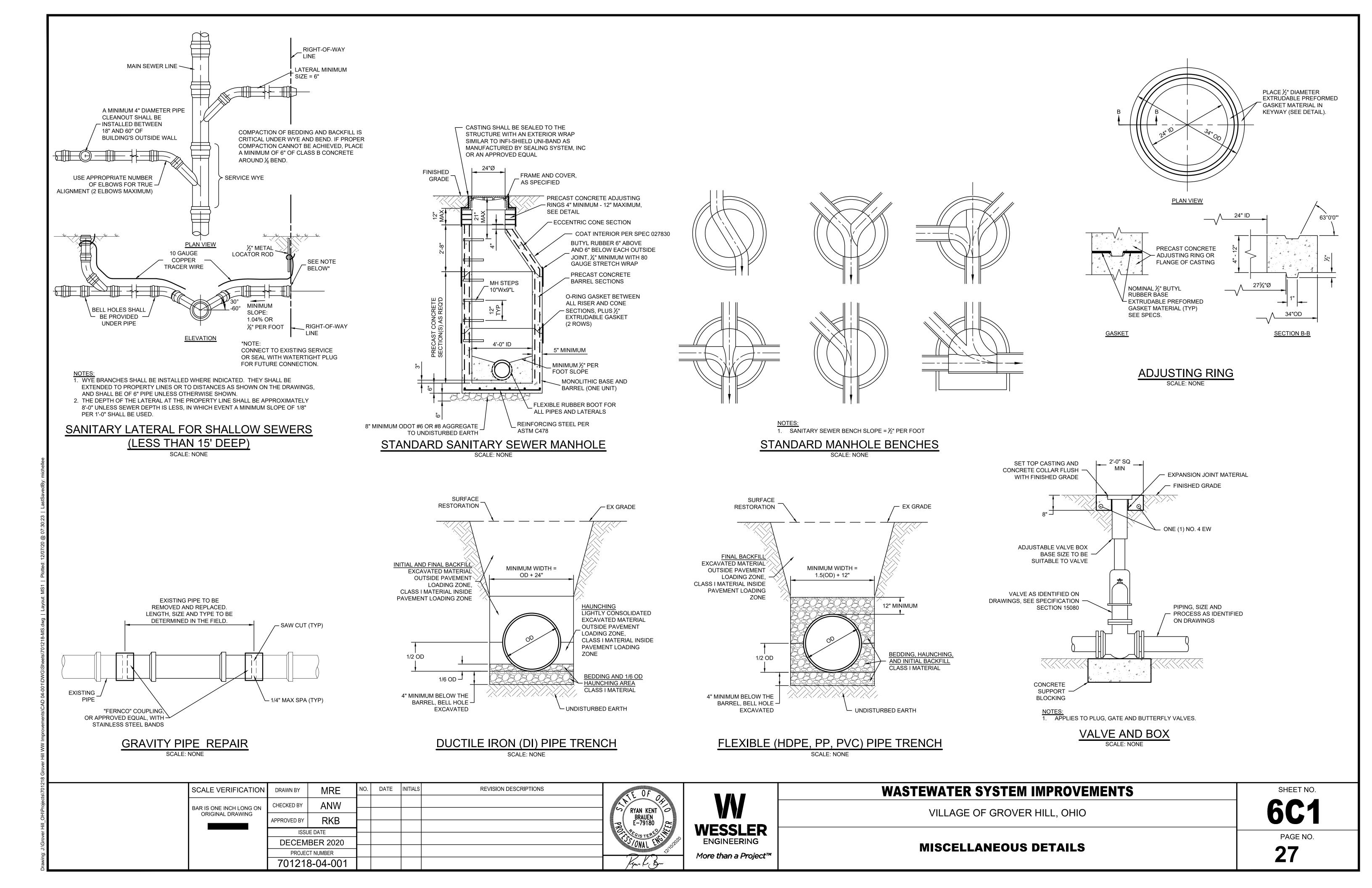
WASTEWATER SYSTEM IMPROVEMENTS

VILLAGE OF GROVER HILL, OHIO

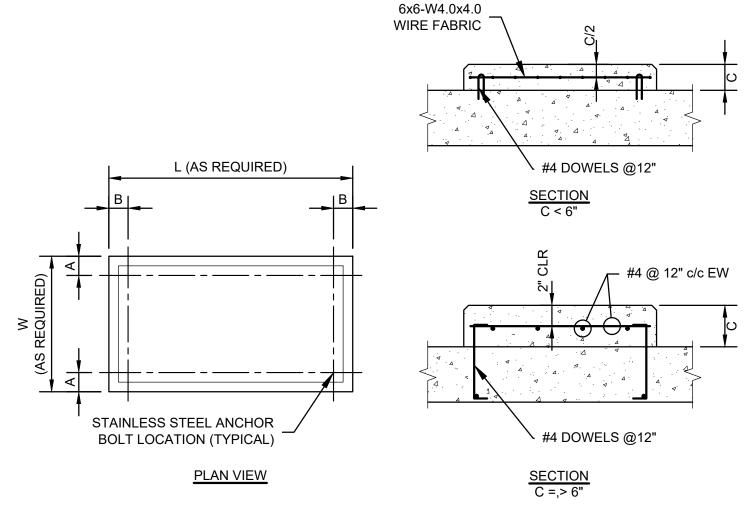
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SHEET NO.

SLUDGE DEWATERING - STORAGE BUILDING POWER PLAN



# CRUSHED STONE DRIVE

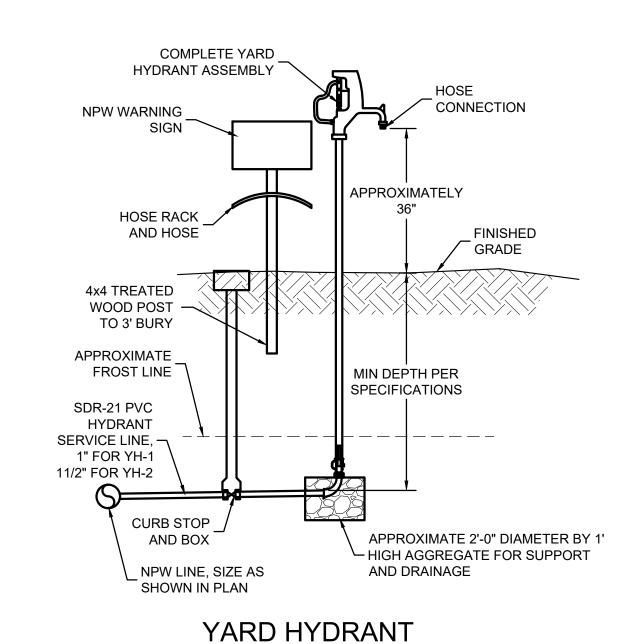


#### NOTE:

1. DIMENSIONS 'A' & 'B' SHALL BE AS REQ'D BY THE EQUIPMENT, BUT NOT LESS THAN 6". EQUIPMENT PAD HEIGHT SHALL BE AS SHOWN ON THE PLANS OR AS REQUIRED TO SET THE EQUIPEMENT AT THE REQUIRED ELEVATION, BUT NOT LESS THAN 4".

### INTERIOR EQUIPMENT BASE DETAIL

SCALE: 1" = 1'-0"



SCALE: NONE

1. MOUNT HANDRAIL ON TOP OR SIDE AS INDICATED ON THE DRAWINGS. MOUNT WITH STAINLESS STEEL EXPANSION ANCHORS, SIZED AS RECOMMNEDED BY THE HANDRAIL MANUFACTURER. 2. TOP MOUNTED HANDRAIL SHOWN AS OFFSET ON DRAWINGS, SHALL BE OFFSET FROM WALL EDGE AS DIMENSIONED IN THIS DETAIL. CENTER ALL OTHER TOP MOUNTED HANDRAIL.

**FACIA FLANGE** 

MOUNTING

**BRACKET** 

**EQUAL** 

**EQUAL** 

SIDE MOUNT

3'-6"

1 1/2" DIAMETER ALUMINUM RAILS —

4 1/2" DIAMETER

ALUMINUM BASE

PLATE

AND POST

**EQUAL** 

EQUAL

**TOP MOUNT** 

3'-6"

1 1/2" DIAMETER

ALUMINUM RAILS -AND POST

# 2-RAIL HANDRAIL

#### SEASONAL SOIL PROTECTION CHART

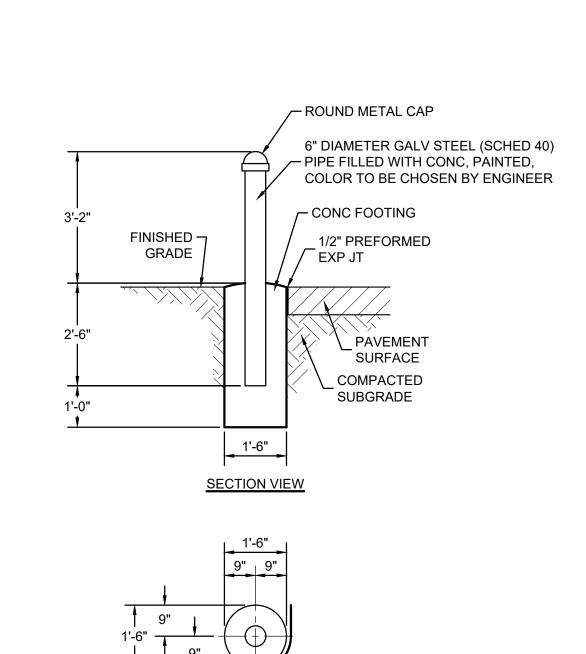
STABILIZATION   J. PRACTICE	AN   FEB   MAR   AF	PR   MAY   JUN   JUL	AUG   SEP   OCT	NOV   DEC
PERMANENT SEEDING	N-	A-	<b>──</b> ∀	
DORMANT K—	Вй			и <u>В</u> —и
TEMPORARY SEEDING	N	C	——⋈ ⋈—————————————————————————————————	
SODDING	K	E-	<b>───</b> ∀	
MULCHING ⋈—		F		N

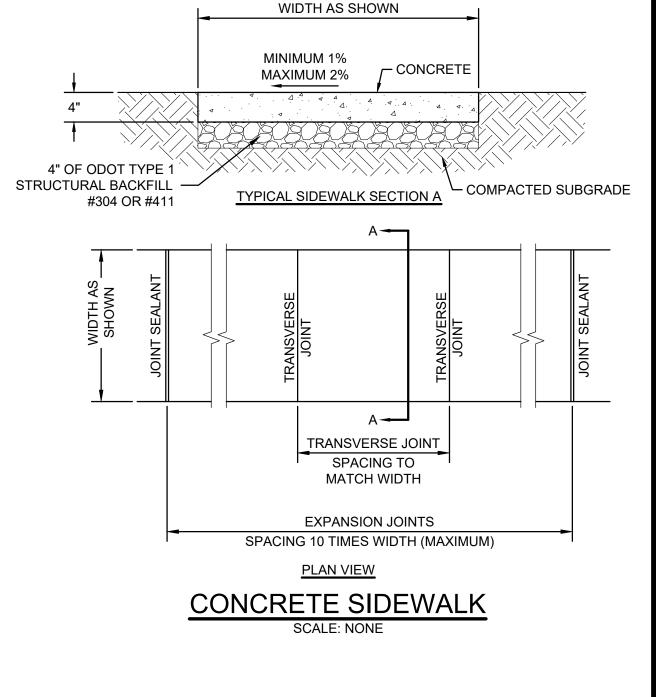
- A. = KENTUCKY BLUEGRASS AND PERENNIAL RYEGRASS 100 LB/ACRE
- B. = KENTUCKY BLUEGRASS AND PERENNIAL RYEGRASS 150 LB/ACRE. PREPARE SEEDBED PRIOR TO NOV 20 C. = MIX 1 (128 LB/ACRE OATS, 40 LB/ACRE TALL FESCUE, 40 LB/ACRE ANNUAL RYEGRASS), MIX 2 (40 LB/ACRE PERENNIAL RYEGRASS, 40 LB/ACRE TALL FESCUE, 40 LB/ACRE ANNUAL RYEGRASS), MIX 3 (55 LB/ACRE ANNUAL RYEGRASS, 142 LB/ACRE PERENNIAL RYEGRASS, 17 LB/ACRE CREEPING RED FESCUE, 17 LB/ACRE KENTUCKY BLUEGRASS), OR MIX 4 (128 LB/ACRE OATS, 40 LB/ACRE TALL FESCUE, 40 LB/ACRE ANNUAL RYEGRASS)
- D. =MIX 5 (112 LB/ACRE RYE, 40 LB/ACRE TALL FESCUE, 40 LB/ACRE ANNUAL RYEGRASS), MIX 6 (120 LB/ACRE WHEAT, 40 LB/ACRE TALL FESCUE, 40 LB/ACRE ANNUAL RYEGRASS), MIX 7 (40 LB/ACRE PERENNIAL RYE, 40 LB/ACRE TALL FESCUE, 40 LB/ACRE ANNUAL RYEGRASS), OR MIX 8 (40 LB/ACRE ANNUAL RYEGRASS, 40 LB/ACRE PERENNIAL RYEGRASS, 40 LB/ACRE CREEPING RED FESCUE, 40 LB/ACRE KENTUCKY **BLUEGRASS**)
- E. = SOD
- F. = ANCHORED STRAW/HAY (2 TONS/ACRE) OR WOOD CELLULOSE FIBER (750 LB/ACRE) OR WOOD MULCH/CHIPS (10 TONS/ACRE)

- IRRIGATION NEEDED DURING MAY THROUGH SEPTEMBER.
- IRRIGATION NEEDED FOR 2 TO 4 WEEKS AFTER APPLYING SOD. ANCHORED MULCH IS REQUIRED FOR PERMANENT, DORMANT AND TEMPORARY SEEDING.
- OPTIMUM SEEDING DATES PROVIDED. DATES MAY BE EXTENDED OR SHORTENED BASED ON PROJECT
- SEED MIXTURES PROVIDED FOR LAWNS AND HIGH MAINTENANCE AREAS.
- ADDITIONAL REQUIREMENTS AND INFORMATION ARE LOCATED IN THE OHIO DEPT. OF NATURAL RESOURCES RAINWATER AND LAND DEVELOPMENT MANUAL.

701218-04-001

- INSPECT WITHIN 24 HOURS OF EACH 0.5-INCH RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.
- CHECK FOR EROSION AND MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
- MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (70% DENSITY). 4. RESEED, FERTILIZE OR APPLY MULCH WHERE NECESSARY.





TYPE 1 BOLLARD

MRE DATE INITIALS REVISION DESCRIPTIONS SCALE VERIFICATION DRAWN BY ANW CHECKED BY BAR IS ONE INCH LONG ON RYAN KENT ORIGINAL DRAWING BRAUEN APPROVED BY E-79180 ISSUE DATE DECEMBER 2020 PROJECT NUMBER

**WESSLER ENGINEERING** More than a Project™ **WASTEWATER SYSTEM IMPROVEMENTS** 

1/2" EXP JT AT

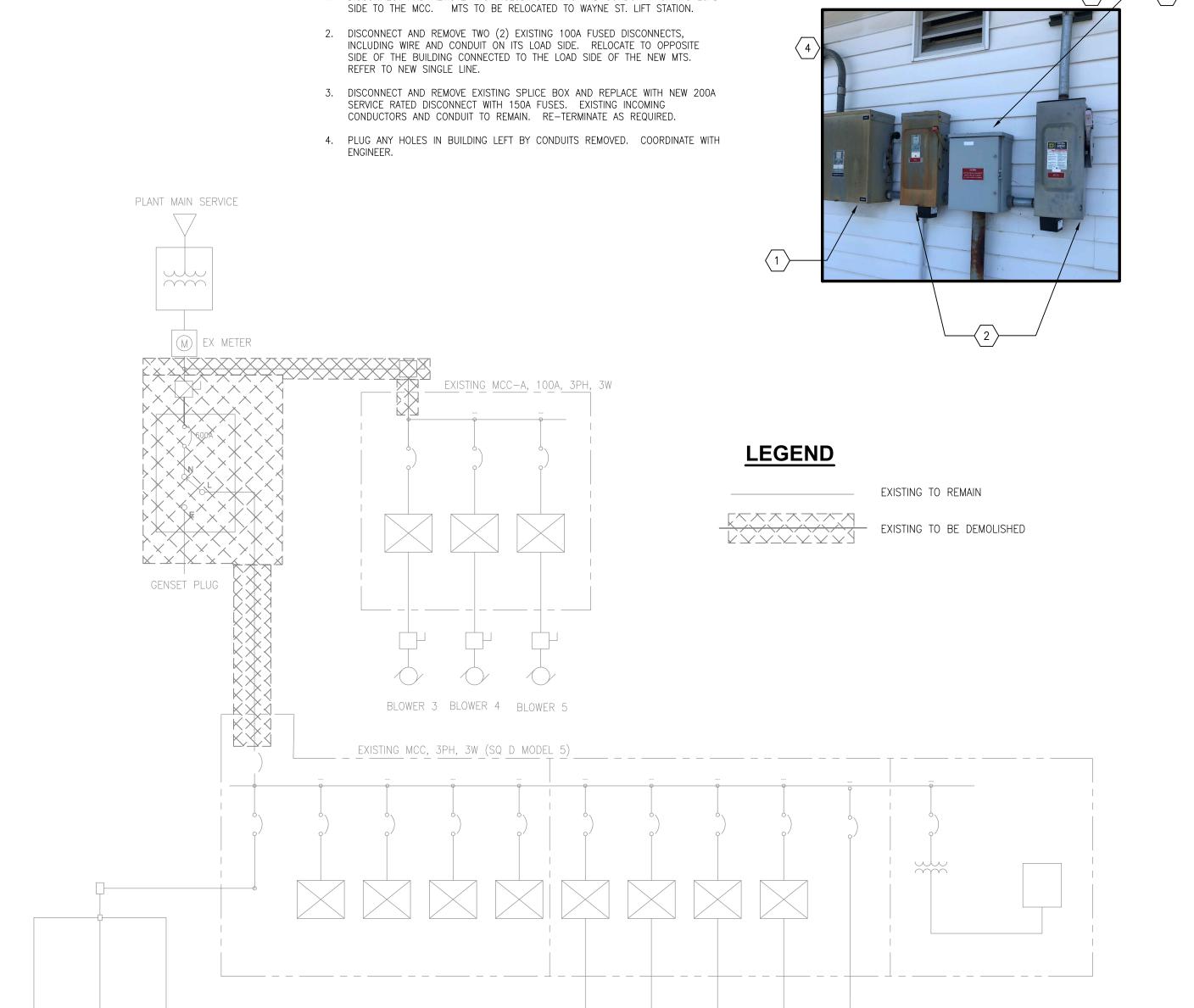
- CONTACT WITH

CONC OR ASPH

VILLAGE OF GROVER HILL, OHIO

SHEET NO.

**MISCELLANEOUS DETAILS** 



**DEMOLITION NOTES** 

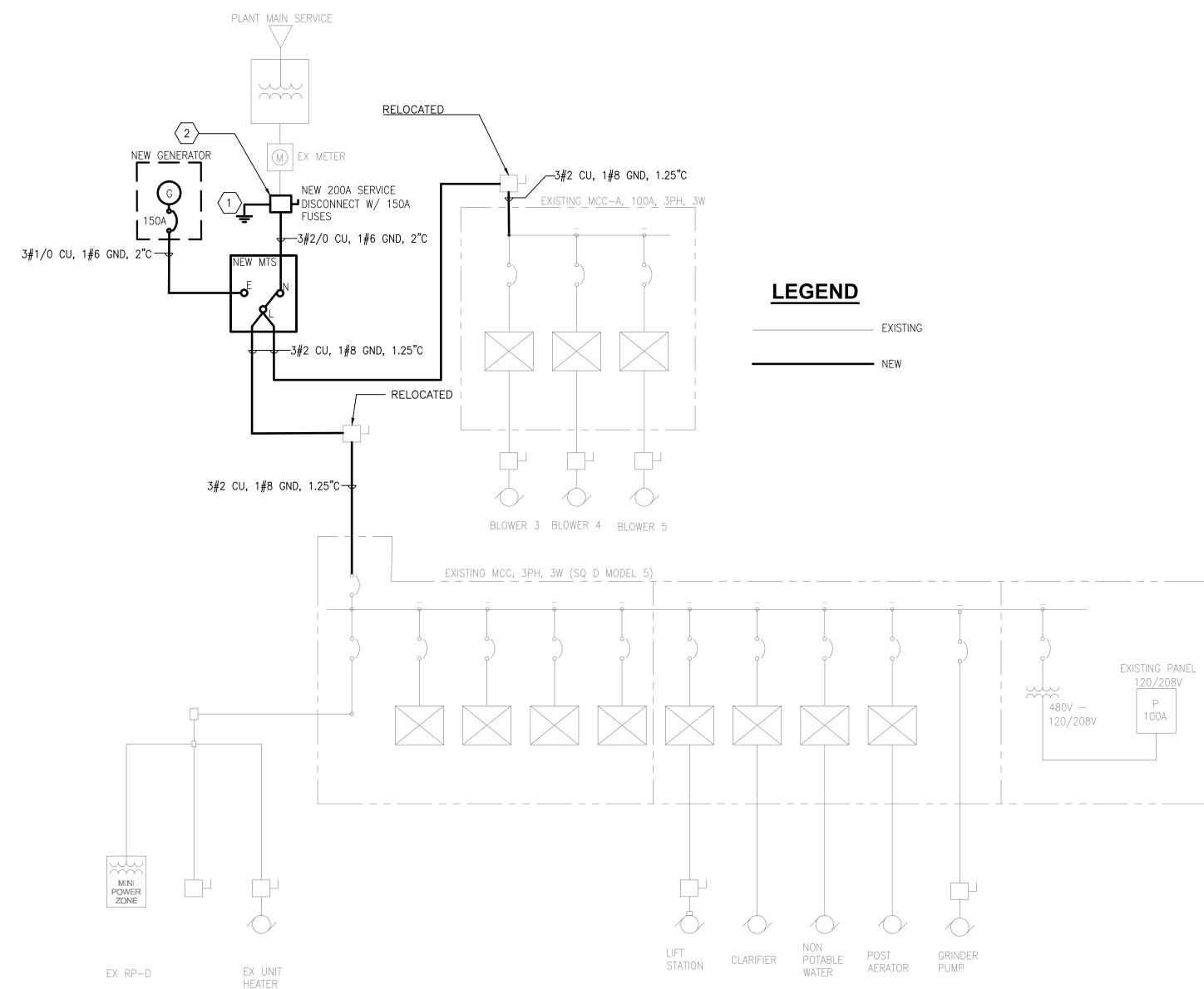
1. DISCONNECT AND REMOVE MTS INCLUDING WIRING AND CONDUIT FROM ITS LOAD

EXISTING SINGLE LINE
SCALE: NONE



PROVIDE GROUNDING ELECTRODE CONDUCTOR PER NEC TABLE 250.66.
 FIELD VERIFY INCOMING SERVICE CONDUCTORS. PROVIDE NEW 10' X 3/4" GROUND ELECTRODE.

2. PROVIDE NEW LIGHTNING ARRESTOR WITH DISCONNECT.



NEW SINGLE LINE
SCALE: NONE



SCALE VERIFICATION DRAWN BY MPH NO. DATE INITIALS REVISION DESCRIPTIONS

BAR IS ONE INCH LONG ON ORIGINAL DRAWING APPROVED BY

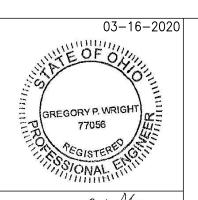
ISSUE DATE

MARCH 2020

PROJECT NUMBER

701218-04-001

LIFT STATION CLARIFIER NON POTABLE POST GRINDER WATER AERATOR PUMP





WASTEWATER SYSTEM IMPROVEMENTS	

VILLAGE OF GROVER HILL, OHIO

**7E1** 

SHEET NO.

**ELECTRICAL SINGLE LINE**