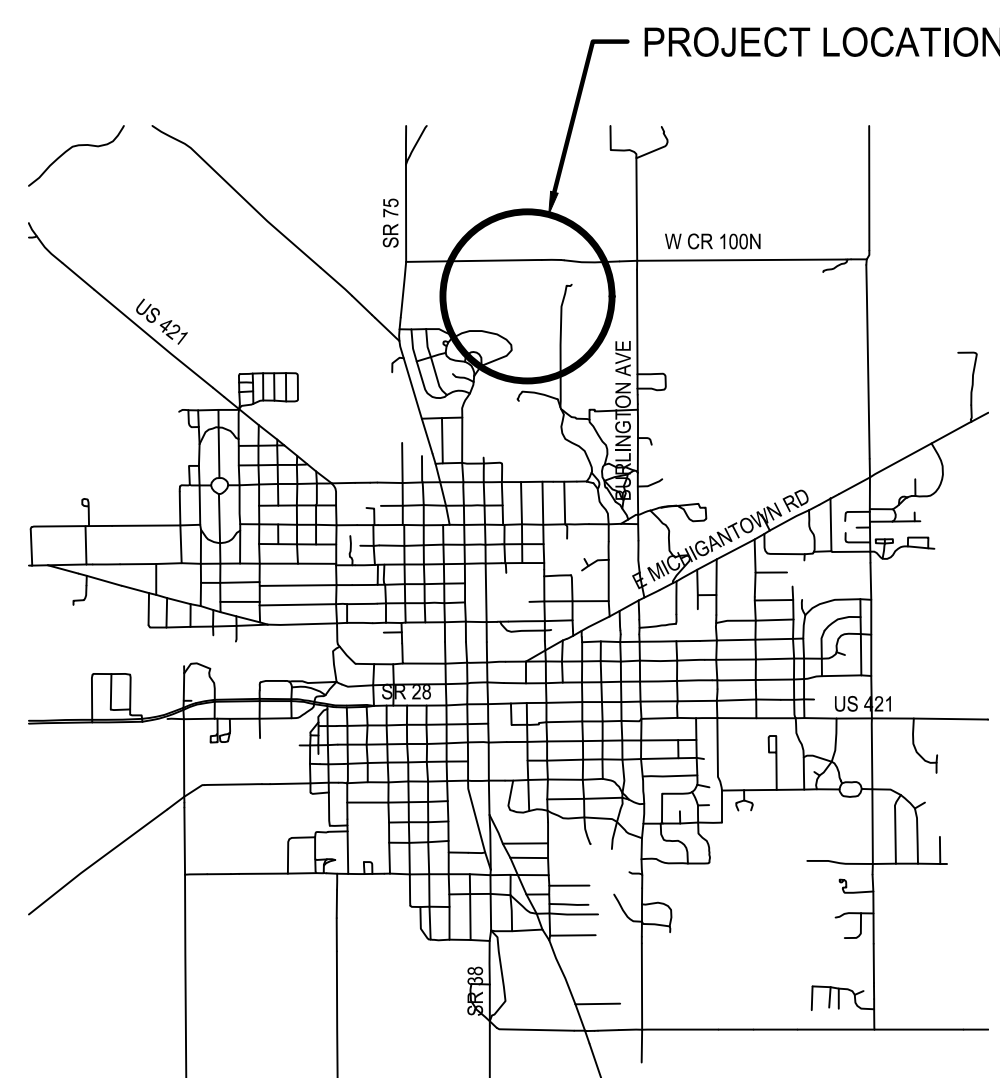


WASTEWATER SYSTEM EXPANSION

FOR THE

CITY OF FRANKFORT, INDIANA

CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN



FRANKFORT
VICINITY MAP
SCALE: NONE



STATE LOCATION MAP
SCALE: NONE



More than a Project™

INDIANAPOLIS
6219 South East Street
Indianapolis, Indiana 46227
Phone: (317) 788-4551 - Fax: (317) 788-4553
www.wesslerengineering.com

PROJECT NO. 193216-04-001

CITY COUNCIL

JUDITH SHEETS

MAYOR

MEGAN SHEETS

MEMBER

MICHAEL BRITE

MEMBER

STEVE BEARDSLEY

MEMBER

JOE PALMER

MEMBER

ERIC WOODS

MEMBER

BRANDT FULLER

MEMBER

CLARENCE WARTHAN

MEMBER

UTILITIES SERVICE BOARD

~~MIKE KELLEY~~

PRESIDENT

KENT BREWER

VICE PRESIDENT

RICK GUNYON

MEMBER

MIKE REEDER

MEMBER

JOE ROOT

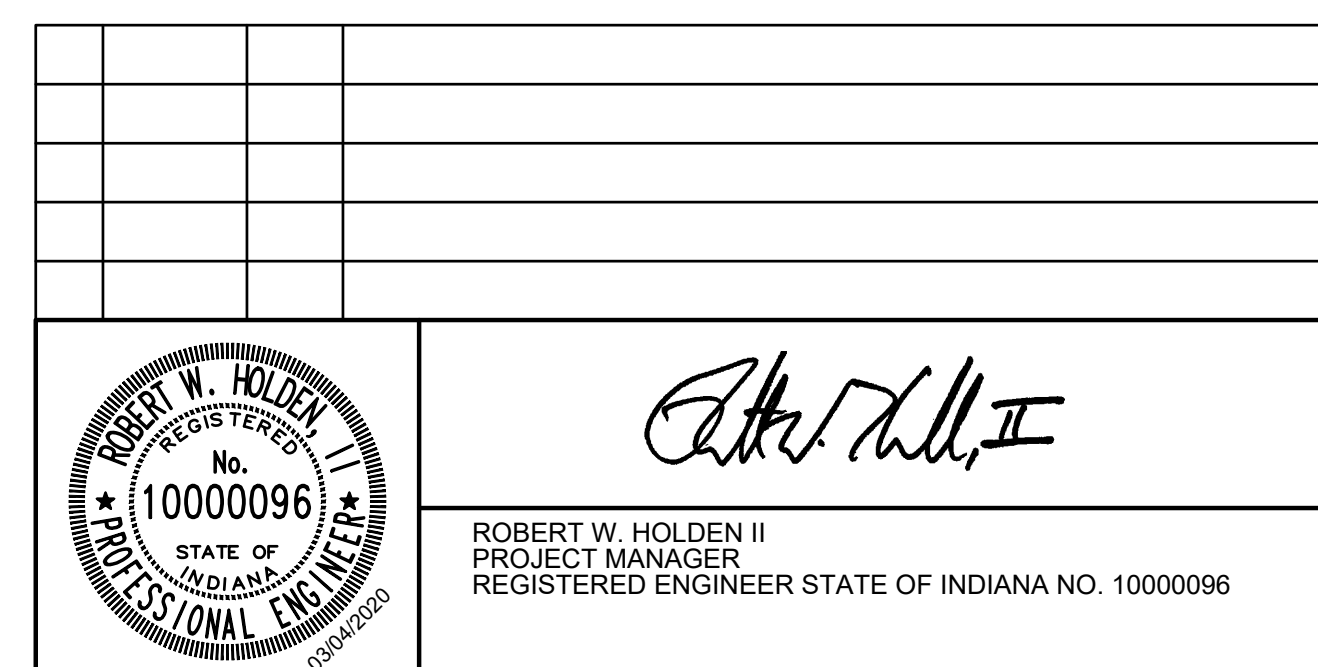
MEMBER

WASTEWATER SUPERINTENDENT

MIKE BECK

JOE PALMER	MEME
ERIC WOODS	MEME
BRANDT FULLER	MEME
CLARENCE WARTHAN	MEME

MARCH 2020



Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-001\DWG\Sheets\Area 1 - Gen\1\G-SS-PART B.dwg | Layout: LOCATION AND SCOPE OF WORK PLAN-1.dwg | Plotter: 03/04/20 @ 09:00:14 | LastSavedBy: jasonw



LOCATION AND SCOPE OF WORK PLAN



HORIZONTAL AND VERTICAL
CONTROL INFORMATION

- NOTES:
1. A FIELD SURVEY WAS PERFORMED IN FEBRUARY 2019.
 2. COORDINATES (INDIANA STATE PLANE, WEST ZONE, NAD 83) AND ARE BASED ON INCORS.
 3. ELEVATIONS (NGVD 29) ARE BASED ON THE WWTP TBM.
 4. UNITS ARE U.S. SURVEY FEET.
 5. CONTROL POINTS WERE SET USING GPS.

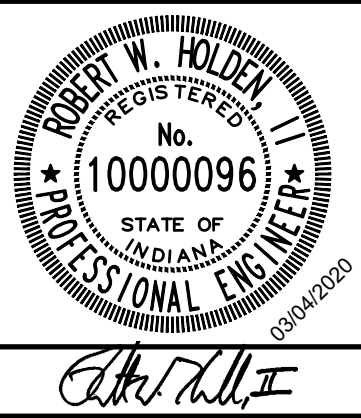
- BENCHMARK DESCRIPTION:
1. TBM NO. 1 - SQUARE CUT IN TOP OF EAST CONCRETE WALL OF PARSHALL FLUME STRUCTURE, LOWER WALL SECTION, ADJACENT TO EAST MOST ACCESS STAIRS. EL 840.06



DRAWING INDEX - PART B	
FRANKFORT CR 200W LIFT STATION AND FORCE MAIN	
GENERAL INFORMATION	
1	TITLE SHEET
2	LOCATION, SCOPE OF WORK PLAN AND DRAWING INDEX
3	PLAN NOTES UTILITIES ABBREVIATION AND LEGEND
LIFT STATION	
4	SITE DEMOLITION PLAN
5	DEMOLITION PLAN AND SECTION
6	SITE MODIFICATIONS PLAN
7	MODIFICATIONS PLAN
8	MODIFICATIONS SECTIONS
FORCE MAINS	
9	NEW 20" FORCE MAIN PLAN AND PROFILE
10	NEW 20" FORCE MAIN PLAN AND PROFILE
11	NEW 20" FORCE MAIN PLAN AND PROFILE
12	NEW 20" FORCE MAIN PLAN AND PROFILE
13	NEW 20" FORCE MAIN PLAN AND PROFILE
14	NEW 20" FORCE MAIN PLAN AND PROFILE
15	NEW 20" FORCE MAIN PLAN AND PROFILE
16	NEW 20" FORCE MAIN PLAN AND PROFILE
17	NEW 20" FORCE MAIN PLAN AND PROFILE
18	NEW 20" FORCE MAIN PLAN AND PROFILE
19	NEW 20" FORCE MAIN PLAN AND PROFILE
20	NEW 20" FORCE MAIN PLAN AND PROFILE
21	NEW 20" FORCE MAIN PLAN AND PROFILE
22	NEW 20" FORCE MAIN PLAN AND PROFILE
23	NEW 20" FORCE MAIN PLAN AND PROFILE
24	NEW 20" FORCE MAIN PLAN AND PROFILE
MISCELLANEOUS DETAILS	
25	MISCELLANEOUS DETAILS
26	MISCELLANEOUS DETAILS
EROSION CONTROL DETAILS	
27	EROSION CONTROL DETAILS
28	EROSION CONTROL DETAILS
ELECTRICAL SHEETS	
29	ELECTRICAL PLAN AND SECTION

CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1839869.36	3113471.26	831.2	5/8" REBAR
2	1839609.39	3113471.95	829.1	5/8" REBAR
3	1839637.76	3113135.43	836.1	5/8" REBAR
4	1839665.64	3112798.56	837.3	5/8" REBAR
5	1839696.71	3112398.28	835.9	5/8" REBAR
6	1839594.27	3111045.53	840.1	5/8" REBAR
7	1839276.53	3111029.15	841.8	5/8" REBAR
8	1838724.00	3111189.84	842.1	5/8" REBAR
9	1838745.77	3110690.91	844.5	5/8" REBAR
10	1839112.26	3110679.18	841.0	5/8" REBAR
11	1839621.21	3113334.04	833.0	5/8" REBAR
12	1838867.92	3107406.39	846.3	5/8" REBAR
13	1838968.91	3107023.12	846.2	5/8" REBAR
14	1838524.14	3106738.83	838.4	5/8" REBAR
15	1836489.41	3103440.62	850.2	5/8" REBAR
16	1836769.30	3103441.79	849.1	5/8" REBAR

SCALE VERIFICATION	DRAWN BY	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING <div></div>	CHECKED BY JRW				
	APPROVED BY RWH				
	ISSUE DATE				
	MARCH 2020				
	PROJECT NUMBER 193216-04-001				



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
LOCATION, SCOPE OF WORK PLAN AND DRAWING INDEX

SHEET NO.
02
TOTAL SHEETS
29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD 04-001\DWG\Sheets\Area 1 - Gen\1-GS-PART B.dwg | Layout: PLAN NOTES UTILITIES ABBREVIATION AND LEGEND-1GS | Plotter: 03/04/20 @ 09:00:16 | LastSavedBy: Jason W

EXISTING FEATURES LEGEND					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	BENCH MARK		CISTERN		EASEMENT - CONSTRUCTION/PERMANENT
	TEMPORARY BENCH MARK		ELECTRIC METER		LOT BOUNDARY
	SOIL BORING LOCATION		AIR CONDITIONING UNIT		PROPERTY BOUNDARY
	SECTION CORNER		UTILITY RISER (DEFINED BY UTILITY)		RIGHT-OF-WAY - TEMPORARY/PERMANENT
	DRILL HOLE IN CONCRETE/HARRISON MONUMENT		UTILITY PEDESTAL (DEFINED BY UTILITY)		SECTION BOUNDARY
	CONTROL POINT (SET/FOUND)		UTILITY MARKER (DEFINED BY UTILITY)		WETLANDS
	MAGNETIC NAIL (SET/FOUND)		JOINT POWER/TELEPHONE POLE		CONTOUR - INTERMEDIATE ELEVATION
	BOAT SPIKE (SET/FOUND)		LIGHT POLE		CONTOUR - INDEX ELEVATION
	PK NAIL (SET/FOUND)		LIGHT ON POWER POLE		OVERHEAD ELECTRIC
	RAILROAD SPIKE (SET/FOUND)		LIGHT ON JOINT POLE		OVERHEAD CABLE TV
	R/W MARKER - CONCRETE/GRANITE/STONE		POWER POLE		OVERHEAD TELEPHONE
	IRON PIPE/IRON PIN/REBAR (WITH DIAMETER)		TELEPHONE POLE		UNDERGROUND CABLE TV
	BRASS PLUG		LAMP POST		UNDERGROUND ELECTRIC
	CABLE TV MANHOLE		GUY ANCHOR		UNDERGROUND FIBER OPTIC
	ELECTRIC MANHOLE		GUY POLE OR STUB		GAS MAIN
	GAS MANHOLE		CONTROLLER CABINET		DIGESTER GAS
	OTHER MANHOLE		FLAG POLE		PETROLEUM MAIN
	TELEPHONE MANHOLE		POST		UNDERGROUND TELEPHONE
	TELEPHONE VAULT		GROUND LIGHT		WATER MAIN
	TRAFFIC MANHOLE		MAILBOX		WATER SERVICE
	TRAFFIC HANDHOLE		DOUBLE/MULTIPLE MAILBOX		FORCEMAIN
	WATER MANHOLE		MAST ARM POLE		GRAVITY SEWER PIPE
	AIR RELEASE VALVE		TRAFFIC SIGNAL STRAIN POLE		PLANT CHLORINE PIPE
	SANITARY SEWER MANHOLE		SIGNAL LOOP DETECTOR BOX		TOP OF BANK/TOE OF SLOPE
	DRAINAGE/STORM SEWER MANHOLE		SIGNAL LOOP DETECTOR LOOP		CENTERLINE OF DITCH/SWALE/STREAM
	SANITARY SEWER CLEANOUT		SIGN - SINGLE POST		FENCE - FIELD
	SEPTIC TANK		SIGN - DOUBLE POST		FENCE - METAL
	VALVE VAULT		SIGN - RAILROAD SIGNAL		FENCE - WOOD
	BEEHIVE INLET		SIGN - RAILROAD CROSSING		GUARDRAIL
	CURB INLET		BUSH		STREAM
	DROP INLET		STUMP		TREE/BRUSH LINE
	CATCH BASIN		TREE - CONIFEROUS		NON-POTABLE WATER
	DOWNSPOUT		TREE - DECIDUOUS		
	GAS METER		ROCK OUTCROP		
	GAS VALVE		SATELLITE		
	GAS SERVICE VALVE		SPRINKLER CONTROL VALVE		
	PETROLEUM VALVE		WATER METER		
	PETROLEUM SHUTOFF VALVE		WATER VALVE		
	GAS STATION MONITORING WELL		WATER SERVICE VALVE		
	GAS STATION FILL CAP		WATER WELL		
	NATURAL GAS WELL/STORAGE WELL		WET WELL		
	SPRINKLER HEAD		FIRE HYDRANT		
	YARD HYDRANT		PROCESS VALVE		

*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.

TABLE OF ABBREVIATIONS			
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	IPS	IRON PIPE SIZE
ALUM	ALUMINUM	ISPC	INDIANA STATE PLANE COORDINATE
APP	APPARENT	LB	POUND(S)
APPROX	APPROXIMATE(LY)	LF	LINEAR FEET
ASPH	ASPHALT	LN	LANE
ASSOC	ASSOCIATES	LS	LIFT STATION
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	MA EX	MATCH EXISTING
AVE	AVENUE	MJ	MECHANICAL JOINT
AVG	AVERAGE	MATL	MATERIAL
BLDG	BUILDING	MAX	MAXIMUM
BLVD	BOULEVARD	MH	MANHOLE
BM	BENCHMARK	MIN	MINIMUM
CO	CLEANOUT	MISC	MISCELLANEOUS
CI	CAST IRON	N	NORTHING, NORTH
CL	CENTER LINE	NGS	NATIONAL GEODETIC SURVEY
CMA	COLD MIX ASPHALT	NO.	NUMBER
CMP	CORRUGATED METAL PIPE	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OD	OUTSIDE DIAMETER
CONC	CONCRETE	PC	POINT OF CURVE (BEGIN CURVE)
CONT	CONTINUOUS	POLY	POLYETHYLENE
CNR	CORNER	PI	POINT OF INTERSECTION
CP	CONTROL POINT	POT	POINT ON TANGENT
CPP	CORRUGATED PLASTIC PIPE	PT	POINT OF TANGENT (END CURVE)
CR STN	CRUSHED STONE	PSI	POUNDS PER SQUARE INCH
CYD	CUBIC YARD	PT	POINT
D	DEPTH	PVC	POLYVINYL CHLORIDE
DI	DUCTILE IRON	R	RADIUS
DI MJ	DUCTILE IRON MECHANICAL JOINT	RO	RIGHT-OF-WAY
DBL	DOUBLE	RC	REINFORCED CONCRETE PIPE
DIA	DIAMETER	RD	ROAD
DIP	DUCTILE IRON PIPE	S	SOUTH
DIPS	DUCTILE IRON PIPE SIZE	SR	STATE ROUTE
DR	DRIVE	SST	STAINLESS STEEL
E	EASTING, EAST	SVA	SERVICE VALVE ASSEMBLY
EF	EACH FACE	SB	SOIL BORING
EW	EACH WAY	SCHED	SCHEDULE
EA	EACH	SDR	STANDARD DIMENSION RATIO
EJ	EAST JORDAN RAILWORKS	SECT	SECTION
EL	ELEVATION	SF	SQUARE FEET
EX	EXISTING	SHT	SHEET
EXP	EXTENSION	SPECS	SPECIFICATION(S)
FFE	FINISH FLOOR ELEVATION	SQ	SQUARE
FM	FORCE MAIN	SRF	STATE REVOLVING FUND
FND	FOUND	ST	STREET
FT	FEET	STA	STATION
FTG	FOOTING	SYD	SQUARE YARD
GAL	GALVANIZED	TBM	TEMPORARY BENCHMARK
GPS	GLOBAL POSITIONING SYSTEM	TC	TOP OF CASTING
HMA	HOT MIX ASPHALT	TYP	TYPICAL
HDPE	HIGH DENSITY POLYETHYLENE	USGS	US GEOLOGICAL SURVEY
HORIZ	HORIZONTAL	VERT	VERTICAL
ID	INSIDE DIAMETER	VLV	VALVE
IE	INVERT ELEVATION	W	WIDTH, WEST
INC	INCORPORATED	WSE	WATER SURFACE ELEVATION
INDOT	INDIANA DEPARTMENT OF TRANSPORTATION	YR	YEAR
INSTR	INSTRUMENT		
INV	INVERT		

*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 ENGINEER FOR CLARIFICATION.

UTILITY CONTACTS

WATER

FRANKFORT WATER WORKS
260 E WASHINGTON STREET
FRANKFORT, INDIANA 46041
(765) 654-5566

GAS

VECTREN
500 N HOAKE
FRANKFORT, INDIANA 46041
(765) 449-5721

SEWER

CITY OF FRANKFORT
300 N COLUMBIA STREET
FRANKFORT, INDIANA 46041
(765) 654-8343

ELECTRIC

CITY OF FRANKFORT CITY LIGHT & POWER
1000 WASHINGTON AVENUE
FRANKFORT, INDIANA 46041
(765) 659-3362


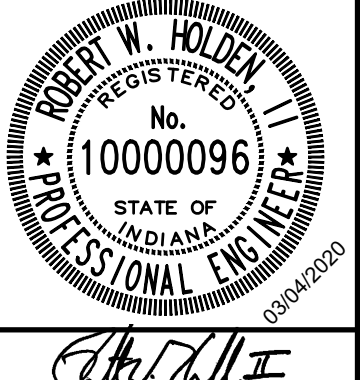
TELEPHONE

SBC
1450 WASHINGTON AVENUE
FRANKFORT, INDIANA 46041
(800) 382-5544

GENERAL NOTES:

- 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.
- 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.
- 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 LANDSCAPE (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.
- TAKE CARE TO AVOID DAMAGE TO PAVED AREAS WHICH ARE NOT SPECIFICALLY CALLED OUT FOR REPAIR OR REPLACEMENT. REPAIR, OR REPLACE ALL PAVEMENTS WHICH ARE DAMAGED BY CONSTRUCTION ACTIVITIES AND CONSTRUCTION TRAFFIC AT NO ADDITIONAL COST TO THE OWNER.
- OBTAIN ALL TEMPORARY EASEMENTS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
- 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.
- ALL PRIVATE WELL LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. FIELD VERIFY AND DETERMINE EXACT LOCATIONS OF ALL PRIVATE WELLS IN THE PROJECT AREA.
- 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 INDIANA UNDERGROUND PLANT PROTECTION SERVICE (IUPPS) AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY. CONTACT NON-MEMBER UTILITIES DIRECTLY. 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.
- 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.
- 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.
- COORDINATE PLANNED UTILITY SERVICE INTERRUPTIONS WITH THE RESPECTIVE UTILITIES AND THE UTILITIES' AFFECTED CUSTOMERS. SERVICE INTERRUPTIONS SHOULD NOT LAST MORE THAN FOUR (4) 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.
- 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.
- BRACE AND PROTECT ALL UTILITY POLES AND EXISTING STRUCTURES ADJACENT TO NEW EXCAVATIONS. UTILITY POLE BRACING SHALL BE AS DIRECTED BY THE GOVERNING UTILITY.
- MAINTAIN EXISTING STORMWATER DRAINAGE FOR THE ENTIRE DURATION OF THE PROJECT.
- DO NOT DISTURB EXISTING MANHOLES OR INLETS, UNLESS NOTED OTHERWISE.
- 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.
- COORDINATE STAGING AREA LOCATIONS WITH THE OWNER.
- ALL CONSTRUCTION TRAFFIC SHALL USE MAJOR ROADS. NO CONSTRUCTION TRAFFIC SHALL USE LOCAL STREETS FOR INDIRECT ACCESS.
- TO CONTROL DUST, REMOVE SOIL FROM STREETS USED BY CONSTRUCTION TRAFFIC DAILY, VACUUM AND WATER AS NECESSARY AND/OR AS DIRECTED BY THE OWNER.
- PLACE NEW ASPHALT PAVEMENT FLUSH WITH ADA RAMPS.
- 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 THROUGHOUT THE PLANT SITE.
- THE WORK SHOWN ON THESE DRAWINGS IS OCCURRING ON A PLANT SITE 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.
- NEW PIPING CARRYING LIQUIDS SHALL HAVE MINIMUM COVER AS DEFINED IN THE MISCELLANEOUS SITE DETAILS, UNLESS SPECIFIC ELEVATIONS ON THE DRAWINGS INDICATE OTHERWISE.
- INSPECT THE SITE PRIOR TO BIDDING TO UNDERSTAND THE EXTENT OF THE DEMOLITION WORK INVOLVED AND ADJUST BID ACCORDINGLY.
- 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.
- 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 SOURCE.
- LENGTHS OF SEWERS AS SHOWN ON THE DRAWINGS AND INDICATED AS LINEAR FEET (LF) ARE FROM CENTER TO CENTER OF STRUCTURES.
- NORTHING AND EASTING INFORMATION IS GIVEN AT CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
- PLACE NO. 8 CRUSHED AGGREGATE BETWEEN PIPES AT ALL PIPE CROSSINGS TO PREVENT PIPE SETTLEMENT UNLESS SHOWN OTHERWISE.
- VERIFY EXISTING SEWER INVERTS AND LOCATIONS PRIOR TO CONSTRUCTION AND DETERMINE IF THERE ARE ANY DISCREPANCIES OR CONFLICTS.
- 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.
- INSTALL SEWER SERVICE LATERALS TO THE RIGHT-OF-WAY OR EDGE OF EASEMENT. (CLIENT DEPENDANT)
- 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.
- RESET ALL MAILBOXES AND SIGNS DISTURBED BY CONSTRUCTION ACTIVITIES.
- IF REQUIRED, PLACE TEMPORARY OVERNIGHT AGGREGATE WEDGES AT DRIVEWAYS TO ALLOW PROPERTY OWNER ACCESS.
- INDIANAPOLIS DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS DATED 2016 (OR CURRENT EDITION) SHALL BE USED REGARDING ALL WORK WITHIN INDOT RIGHT-OF-WAY.

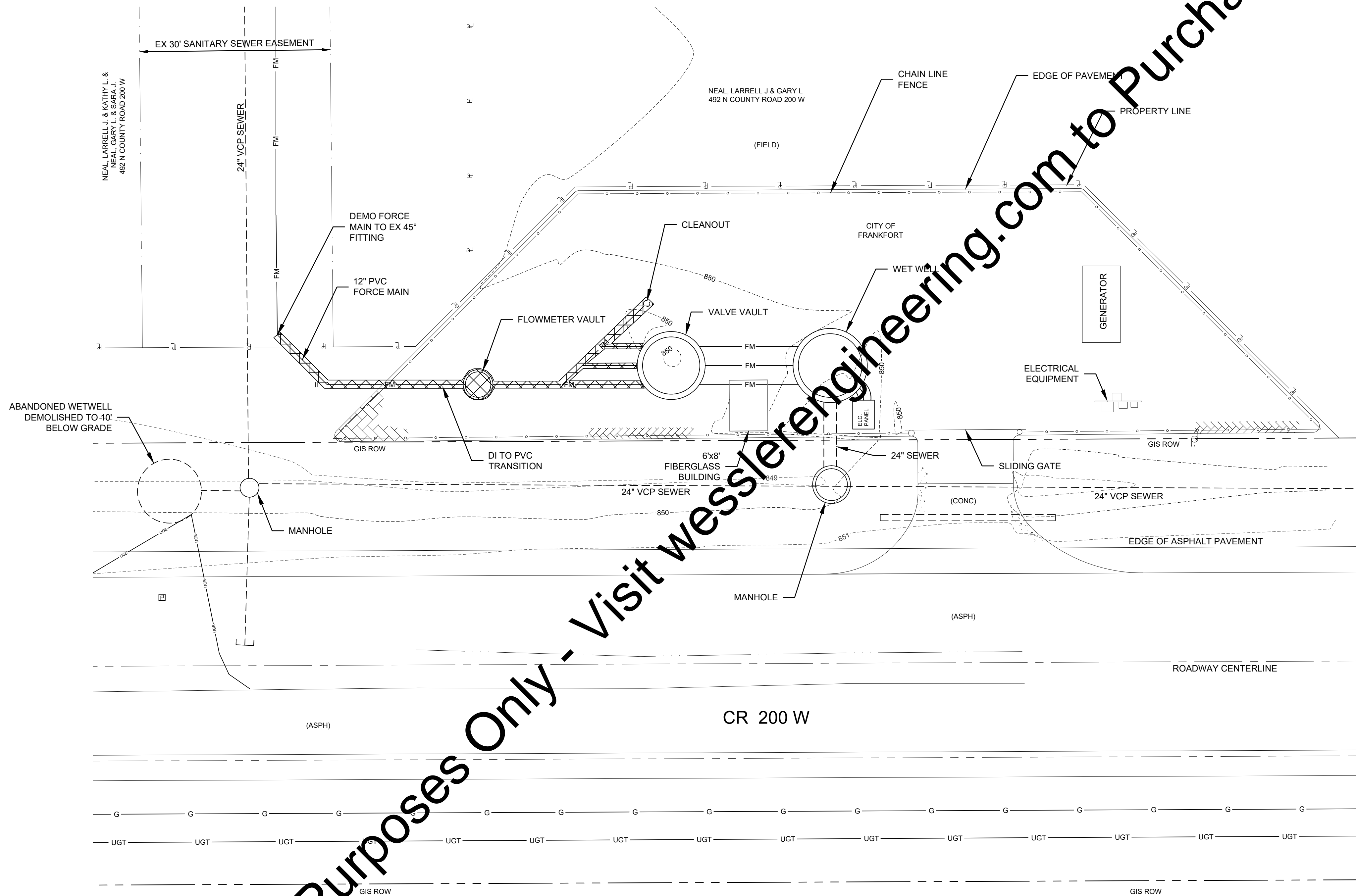
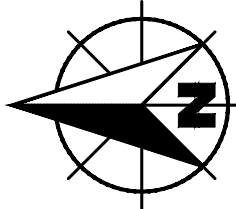
SCALE VERIFICATION		DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	JRW					
	APPROVED BY	RWH					
	ISSUE DATE						
	MARCH 2020						
	PROJECT NUMBER						
		193216-04-001					



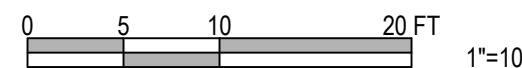
WASTEWATER SYSTEM EXPANSION	
CITY OF FRANKFORT, INDIANA CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN	
PLAN NOTES UTILITIES ABBREVIATION AND LEGEND	

SHEET NO.	03
TOTAL SHEETS	29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD 04-001\DWG\Sheets\Area 2 - Site\2LS - CR200W.dwg | Layout: SITE PLAN | Plotted: 03/04/20 @ 09:00:32 | LastSavedBy: RyanM



SITE DEMOLITION PLAN



LEGEND

- EXISTING FEATURES TO REMAIN
- EXISTING FEATURES TO BE DEMOLISHED

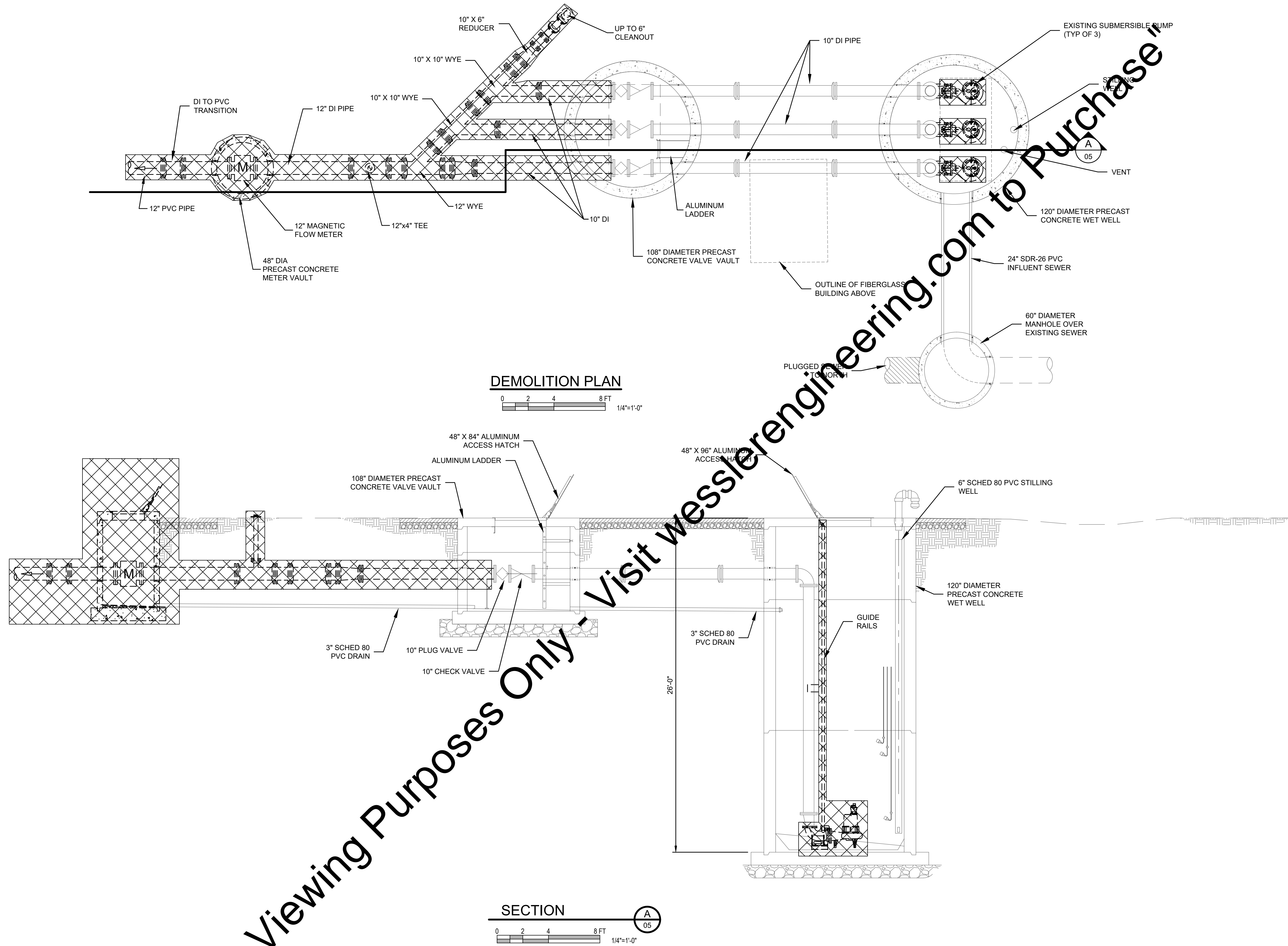
SCALE VERIFICATION	DRAWN BY	TW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	PR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



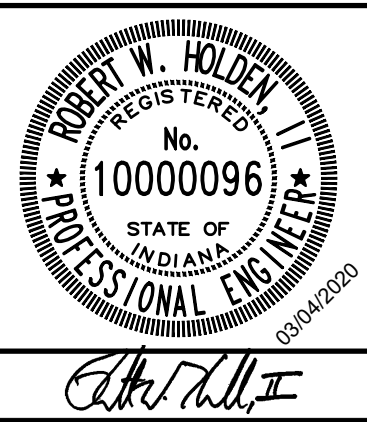
WASTEWATER SYSTEM EXPANSION	
CITY OF FRANKFORT, INDIANA	
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN	
SITE DEMOLITION PLAN	

SHEET NO.	04
TOTAL SHEETS	
	29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-001\DWG\Sheets\Area 2 - Site\2LS - CR200W.dwg | Layout: Demo Plans | Plotted: 03/04/20 @ 09:00:35 | LastSavedBy: RyanM



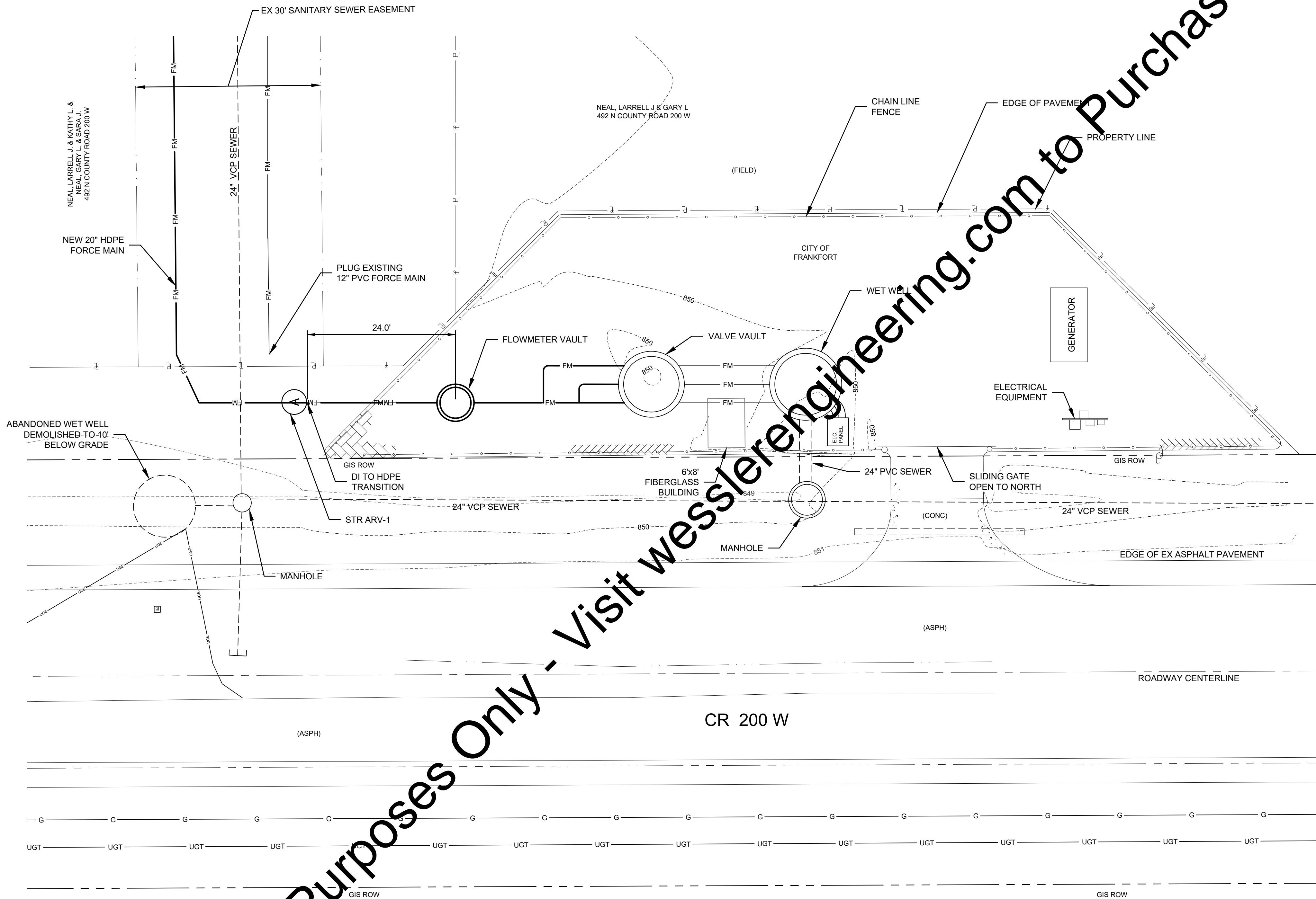
SCALE VERIFICATION	DRAWN BY	TW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING	CHECKED BY	PR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



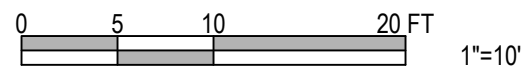
WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
DEMOLITION PLAN AND SECTION


SHEET NO.
05
TOTAL SHEETS
29

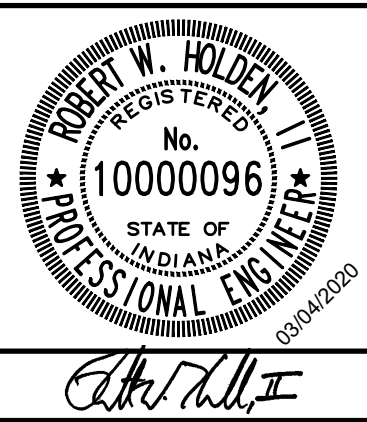
Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD 04-001\DWG\Sheets\Area 2 - Site\2LS - CR200W.dwg | Layout: SITE PLAN MOD | Plotted: 03/04/20 @ 09:10:36 | LastSavedBy: RyanM



SITE MODIFICATIONS PLAN



SCALE VERIFICATION	DRAWN BY	TW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	CHECKED BY	PR				
	APPROVED BY	RWH				
	ISSUE DATE					
	PROJECT NUMBER					
	193216-04-001					



WASTEWATER SYSTEM EXPANSION	
CITY OF FRANKFORT, INDIANA	
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN	
SITE MODIFICATIONS PLAN	

SHEET NO.	06
TOTAL SHEETS	29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-001\DWG\Sheets\Area 2 - Site\2LS - CR200W.dwg | Layout: Mod Plans | Plotted: 03/04/20 @ 09:00:38 | LastSavedBy: RyanM

NEW 3'-0" x 3'-0"
ALUMINUM HATCH

NEW 60" Ø METER VAULT

108" DIAMETER PRECAST
CONCRETE VALVE VAULT

48" X 84"
ALUMINUM
ACCESS HATCH

HOIST SOCKET
(TYP OF 2)

4" SCHED 80 PVC
VENT WITH BIRD
SCREEN

STILLING WELL
COVER

ALUMINUM
ACCESS HATCH

120" DIAMETER PRECAST
CONCRETE WET WELL

FIBERGLASS BUILDING

60" DIAMETER
MANHOLE OVER
EXISTING SEWER

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

NEW 20" DI PIPE

NEW 20" MAG METER

DI TRANSITION TO HDPE
AS SHOWN ON SHT 06

NEW 20" MJ PLUG VALVE

NEW BYPASS
CONNECTION

NEW (2) 20"x10"
MJ TEE

NEW 10" 90 DEG
MJ x MJ

NEW 10" 90 DEG
MJ x PE

NEW 10" DI PIPE

108" DIAMETER PRECAST
CONCRETE VALVE VAULT

ALUMINUM
LADDER

NEW 20"x10"
MJ x PE REDUCER

OUTLINE OF
HATCH ABOVE

10" DI PIPE

NEW PUMP NO. 3

VENT

STILLING
WELL

NEW PUMP NO. 2

NEW PUMP NO. 1

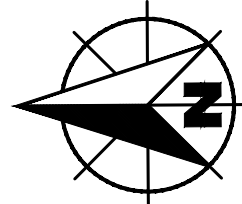
120" DIA PRECAST
CONCRETE WET WELL

EXISTING PLUGGED
SEWER TO NORTH

24" SDR-26 PVC
INFLUENT SEWER

EXISTING 24"
VCP SEWER

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



NOTES:

1. THE PUMP EQUIPMENT FOR THE WET WELL, INCLUDING PUMPS, GUIDE RAILS, AND SUPPORT BRACKETS, SHALL BE FURNISHED BY THE SAME MANUFACTURER. SEE SPECIFICATION SECTION 11200. PUMP CONTROLS AND CONTROL PANELS SHALL BE AS DESCRIBED IN THE ELECTRICAL DRAWINGS AND SPECIFICATION SECTION 11200.
2. INSTALL CONCRETE FILLET INTO THE BOTTOM OF THE WET WELL PER PUMP MANUFACTURER'S RECOMMENDATIONS.
3. ALL NUTS, BOLTS AND HARDWARE IN ALL LOCATIONS, AND BRACKETS, SUPPORTS AND ALL OTHER APPURTENANCES IN WET WELL SHALL BE 316 STAINLESS STEEL UNLESS SPECIFICATION INDICATES OTHERWISE OR AS DIRECTED BY ENGINEER.

SCALE VERIFICATION

DRAWN BY

TWH

NO.

DATE

INITIALS

REVISION DESCRIPTIONS

BAR IS ONE INCH LONG ON
ORIGINAL DRAWING

CHECKED BY

PRJ

APPROVED BY

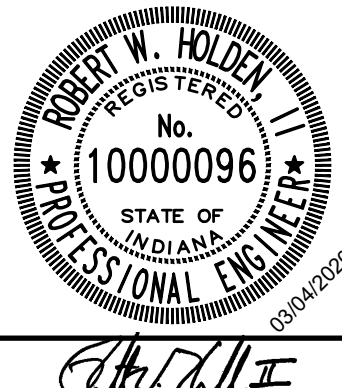
RWH

ISSUE DATE

MARCH 2020

PROJECT NUMBER

193216-04-001



WASTEWATER SYSTEM EXPANSION

CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

MODIFICATION PLANS

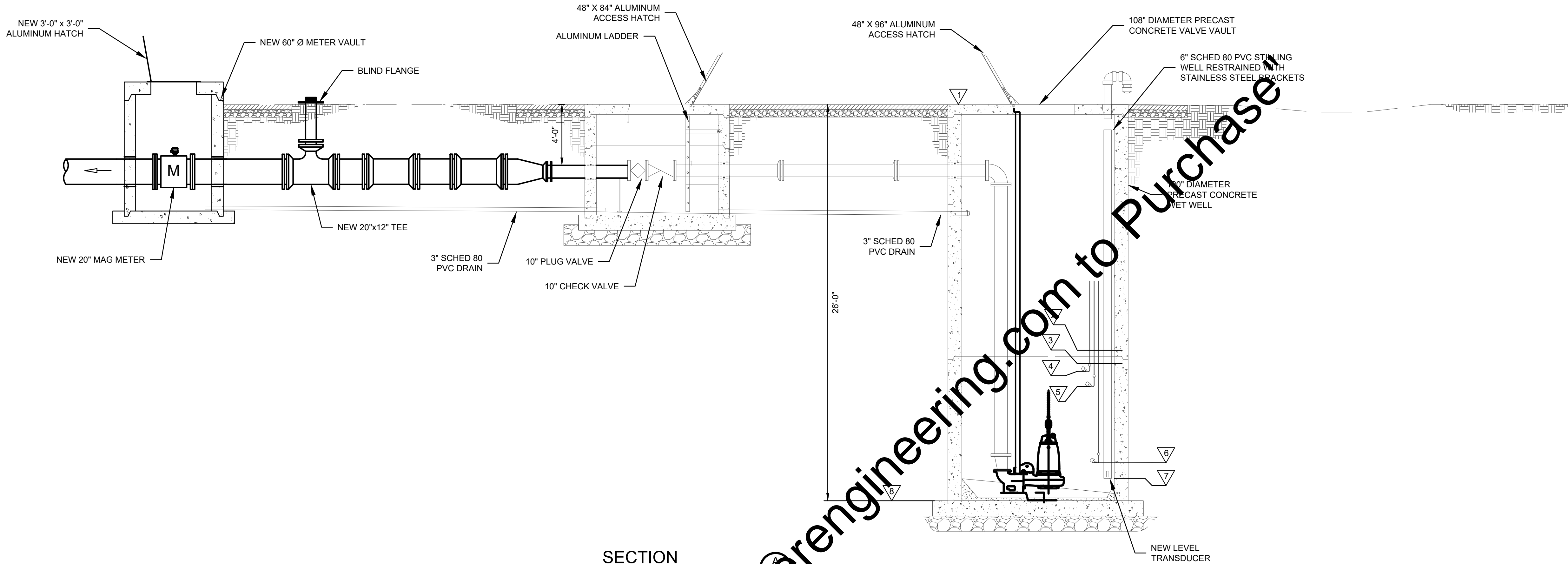
SHEET NO.

07

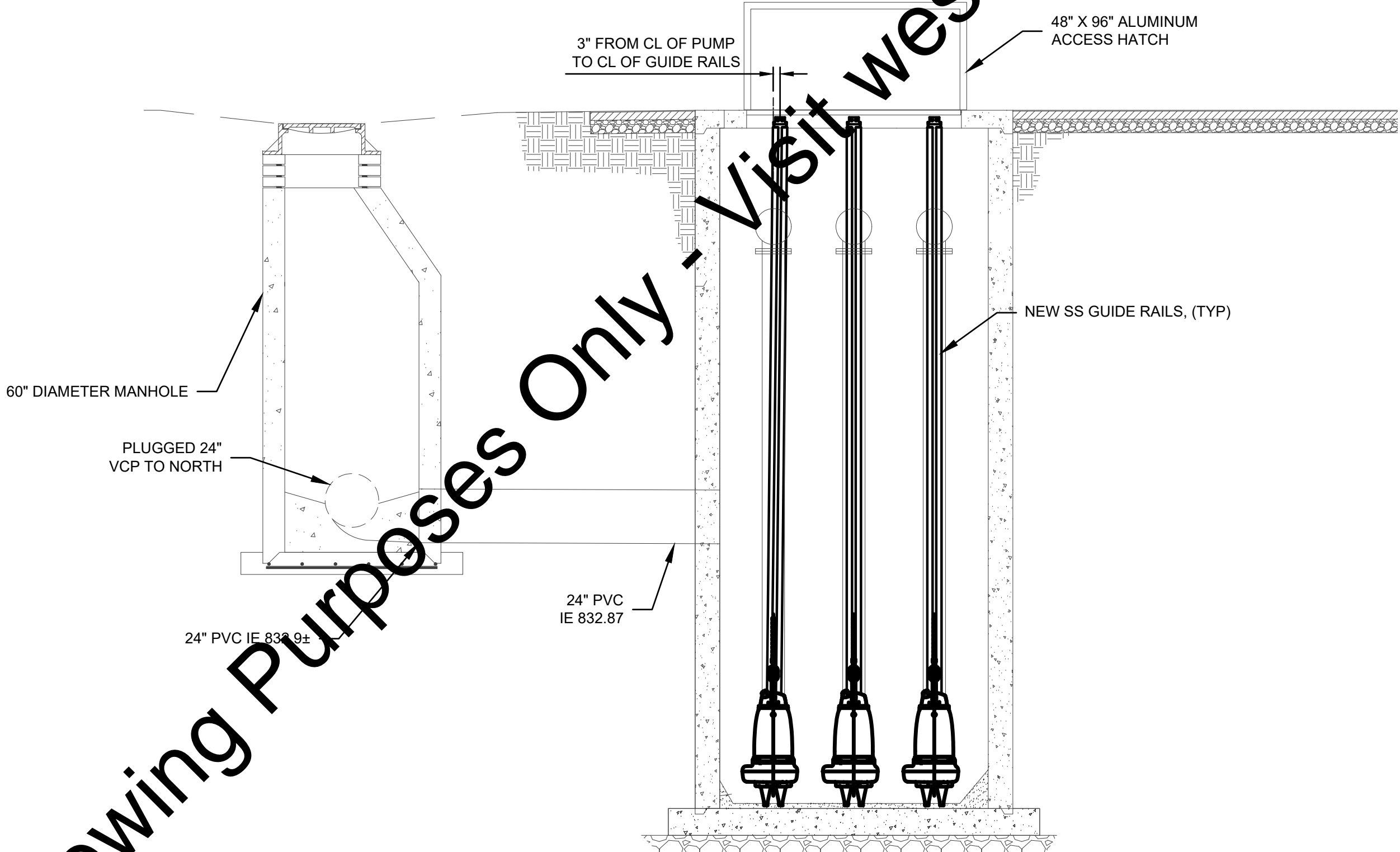
TOTAL SHEETS

29

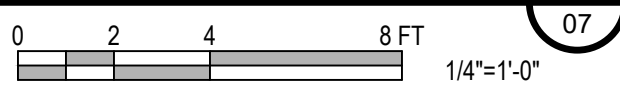
Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD 04-001\DWG\Sheets\Area 2 - Site\2LS - CR200W.dwg | Layout: SECTION | Plotted: 03/04/20 @ 09:00:41 | LastSavedBy: RyanM




SECTION

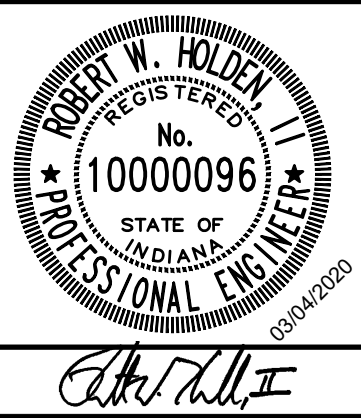


SECTION



LIFT STATION SCHEDULE		
MARK	DESCRIPTION	LIFT STATION
▽1	TOP ELEVATION	849.00
▽2	SEWER INVERT ELEVATION	832.87
▽3	HIGH WATER ALARM	832.00
▽4	BOTH PUMPS ON	831.50
▽5	LEAD PUMP ON	830.50
▽6	BOTH PUMPS OFF	825.00
▽7	LOW WATER ALARM	824.50
▽8	BOTTOM ELEVATION	823.00
	FM HIGH POINT	845.00
	FM SIZE	20", 12,880 LF
	STATIC LIFT	20.00
	H/L (C=120)	51.76'
	ESTIMATE TDH	70.76
	GPM	3000
	MOTOR HP	60
	MOTOR RPM	1170
	PHASE/VOLT	3/460

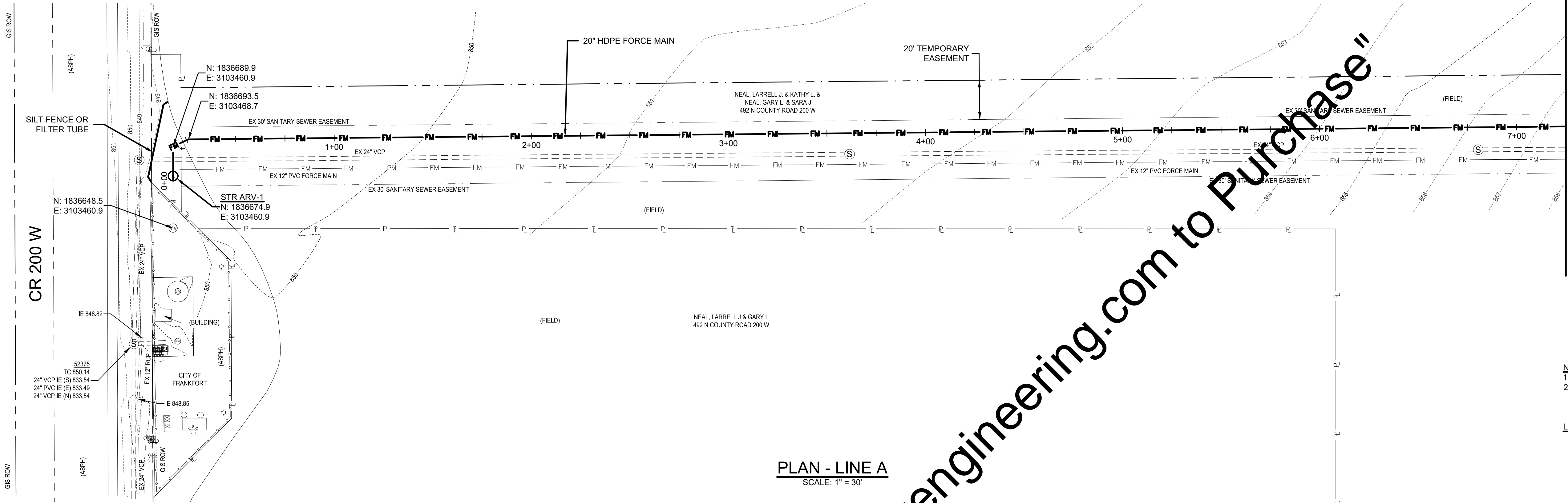
SCALE VERIFICATION	DRAWN BY	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	TWH				
	CHECKED BY: PRI				
	APPROVED BY: RWH				
	ISSUE DATE				
	MARCH 2020				
	PROJECT NUMBER				
	193216-04-001				



WASTEWATER SYSTEM EXPANSION	
CITY OF FRANKFORT, INDIANA	
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN	
MODIFICATION SECTIONS	

SHEET NO.	08
TOTAL SHEETS	29

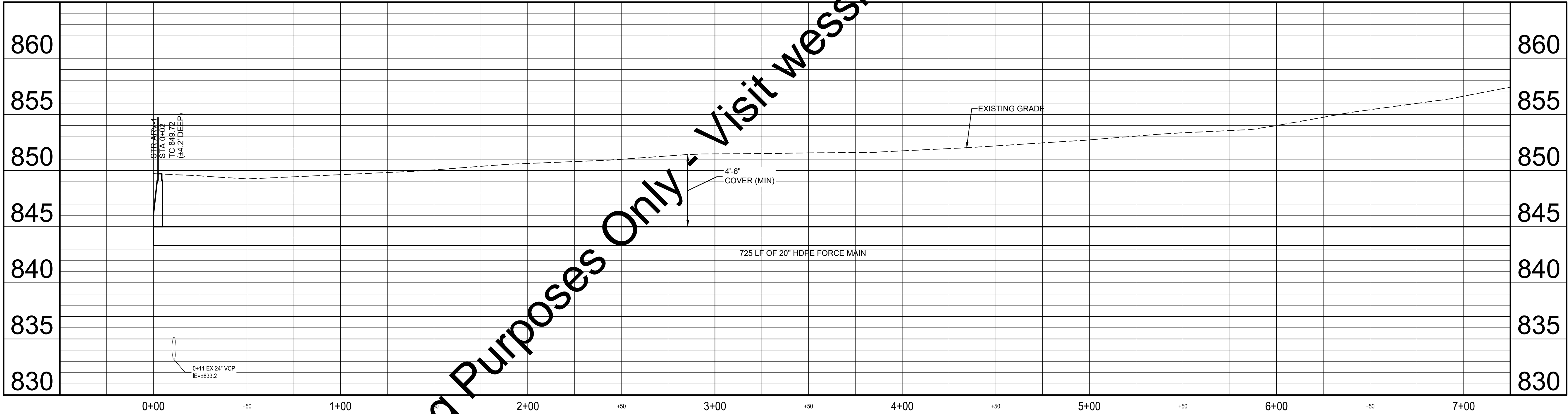
Drawing: J:\Frankfort\Projects\193216 Frankfort WWTWP Exp\CAD\04-04-01\DWG\Sheets\Area 2 - Site\21 - PP.dwg | Ploated: 03/04/20 @ 09:01:26 | LastSavedBy: Jason W



PLAN - LINE A
SCALE: 1" = 30'

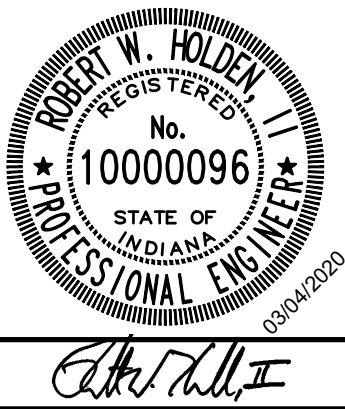
- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

- LEGEND
- INLET PROTECTION
 - FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

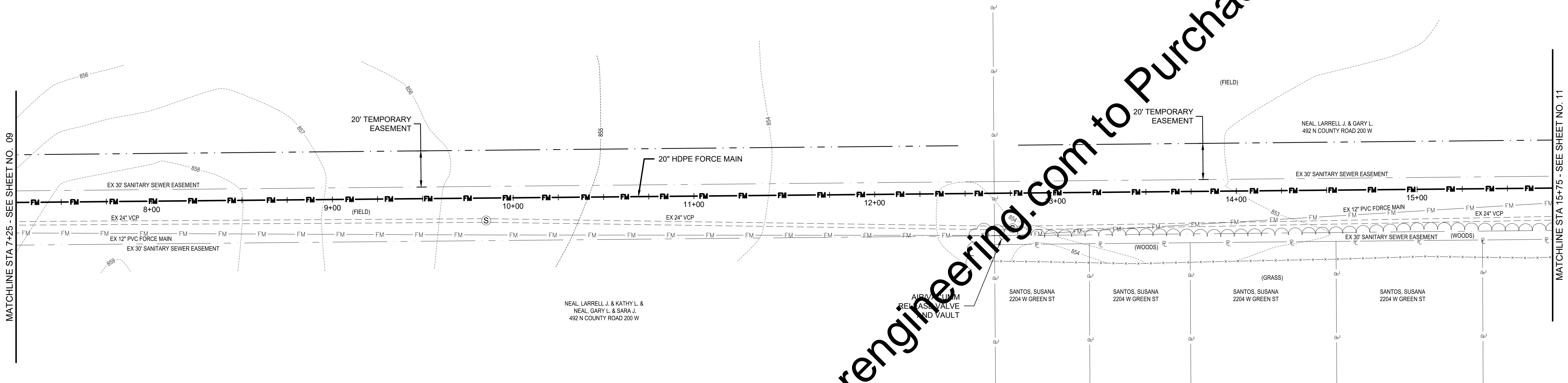
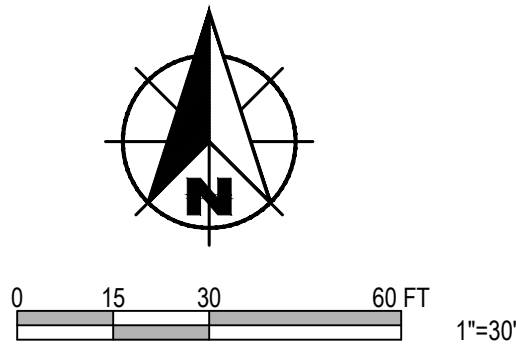
SCALE VERIFICATION BAR IS ONE INCH LONG ON ORIGINAL DRAWING —	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



WASTEWATER SYSTEM EXPANSION	
CITY OF FRANKFORT, INDIANA CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN	
NEW 20" FORCE MAIN PLAN AND PROFILE	

SHEET NO.	09
TOTAL SHEETS	29

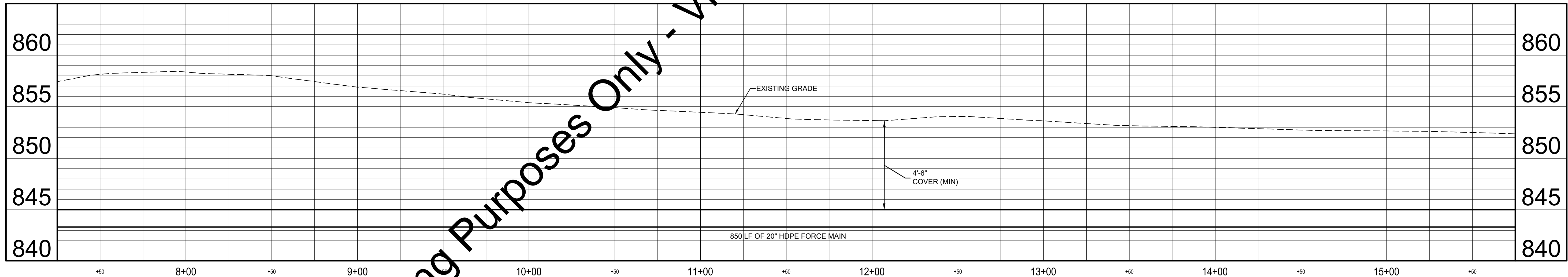
Drawing: J:\Frankfort\Projects\193216 Frankfort WWTWP Exp\CAD\04-001\DWG\Sheets\Area 2 - Sheet21 - PP.dwg | Layout: 02 | Plotted: 03/04/20 @ 09:01:41 | LastSavedBy: JasonW



PLAN - LINE A
SCALE: 1" = 30'

- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

- LEGEND
- INLET PROTECTION
 - FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE	MARCH 2020				
	PROJECT NUMBER	193216-04-001				

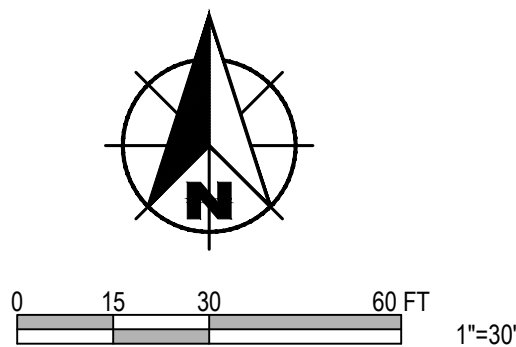
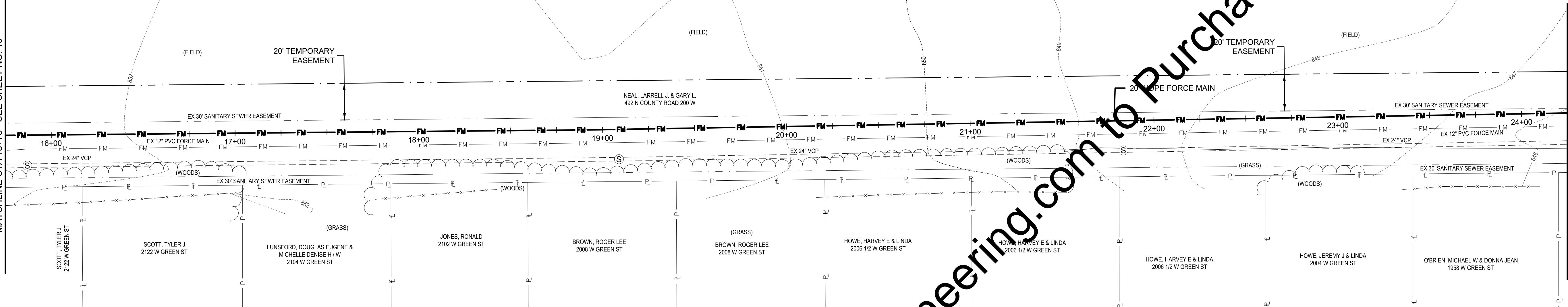


WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
NEW 20" FORCE MAIN PLAN AND PROFILE

SHEET NO.
10
TOTAL SHEETS
29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTWP Exp\CAD\04-001\DWG\Sheets\Area 2 - Sheet21 - PP.dwg | Layout: 03 | Plotted: 03/04/20 @ 09:01:57 | LastSavedBy: Jason W

MATCHLINE STA 15+75 - SEE SHEET NO. 10



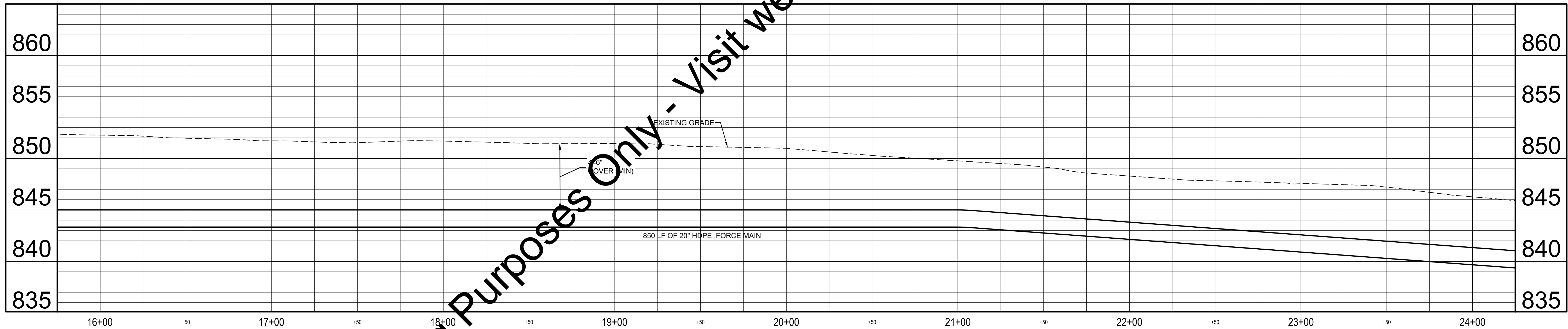
PLAN - LINE A
SCALE: 1" = 30'

NOTES:


- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
- PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

LEGEND

- INLET PROTECTION
- FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

NEW 20" FORCE MAIN PLAN AND PROFILE

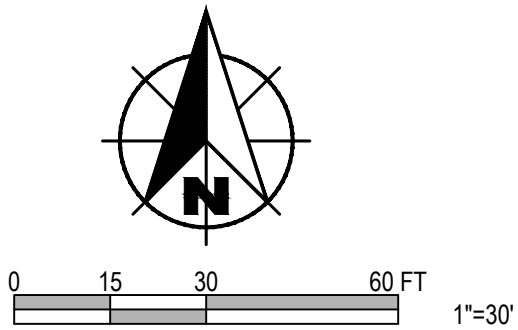
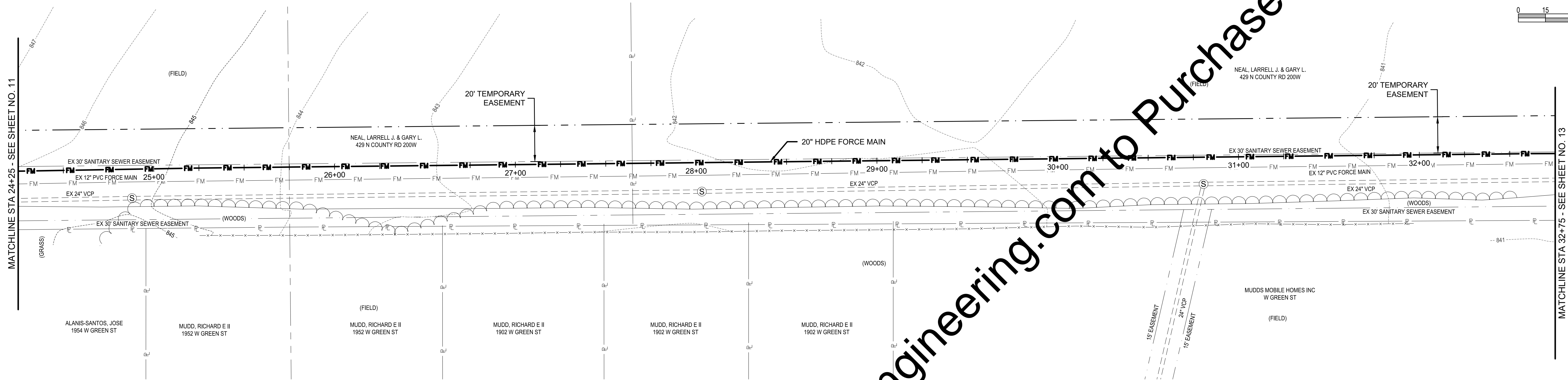
SHEET NO.

11

TOTAL SHEETS

29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-01\DWG\Sheets\Area 2 - Sheet21 - PP.dwg | Layout: 04 | Plotted: 03/04/20 @ 09:02:12 | LastSavedBy: Jason W

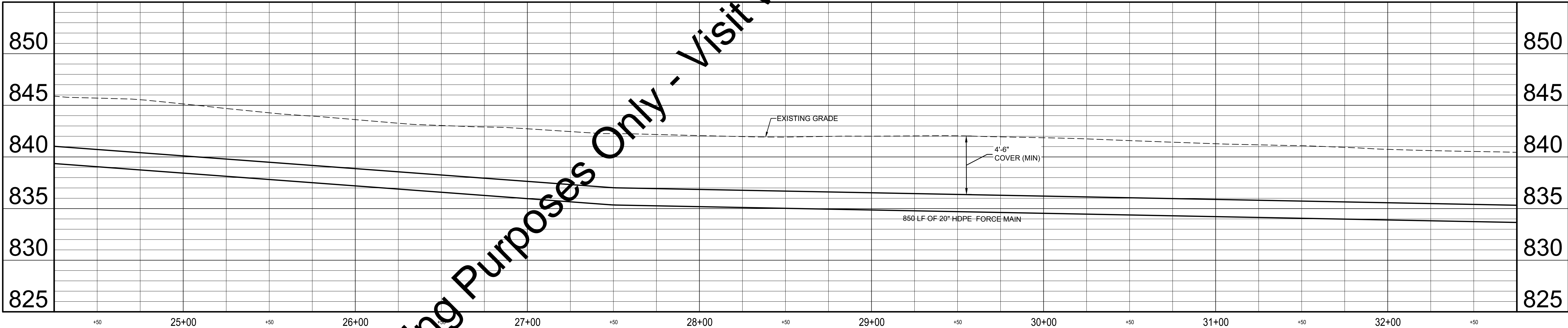


PLAN - LINE A
SCALE: 1" = 30'

- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

LEGEND

- INLET PROTECTION
- FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

NEW 20" FORCE MAIN PLAN AND PROFILE

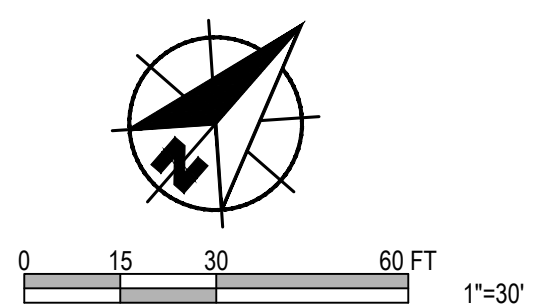
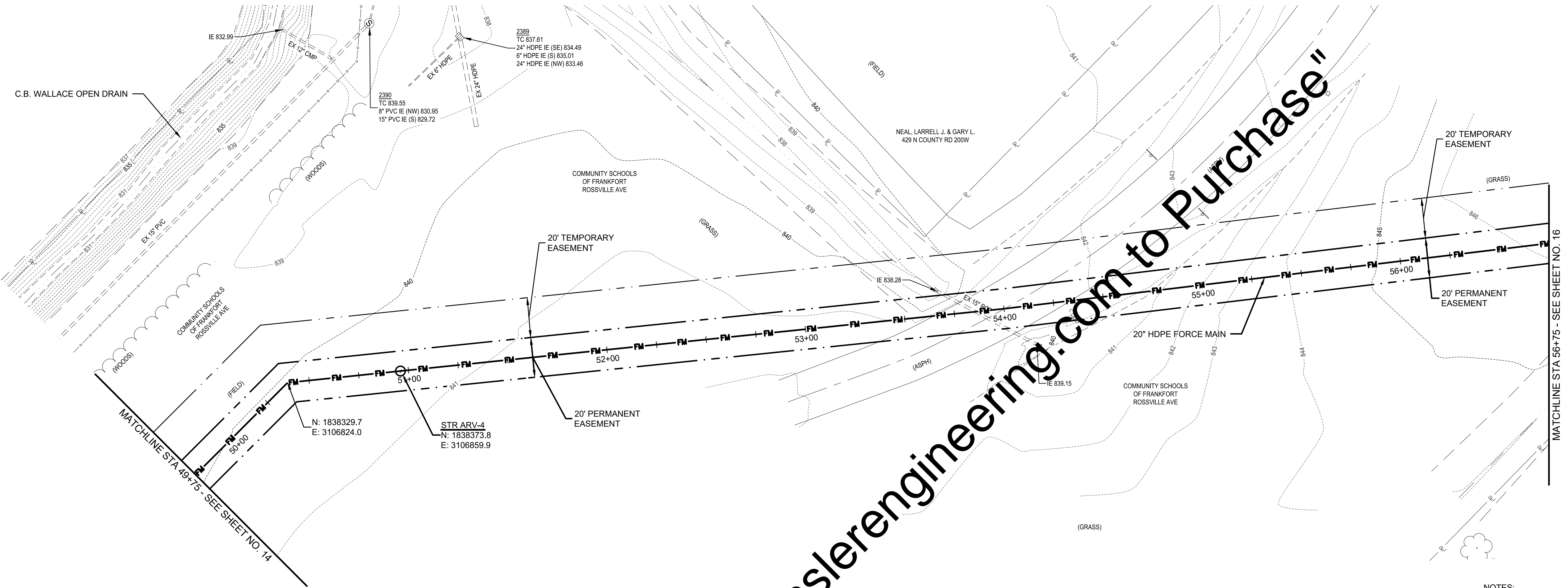
SHEET NO.

12

TOTAL SHEETS

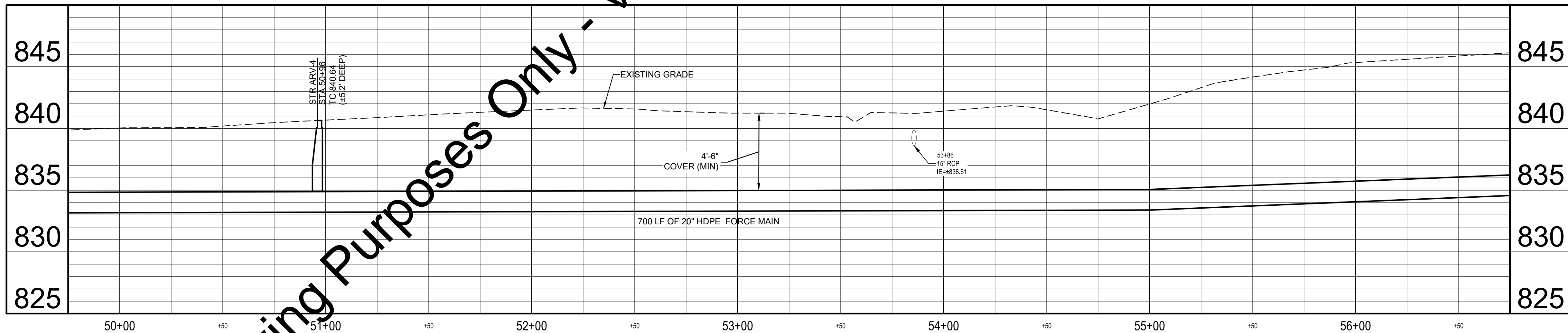
29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-001\DWG\Sheets\Area 2 - Site\21 - PP.dwg | Layout: 07 | Plotted: 03/04/20 @ 09:02:51 | LastSavedBy: JasonW



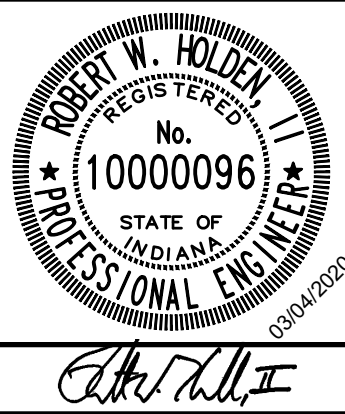
- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

- LEGEND
- INLET PROTECTION
 - FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

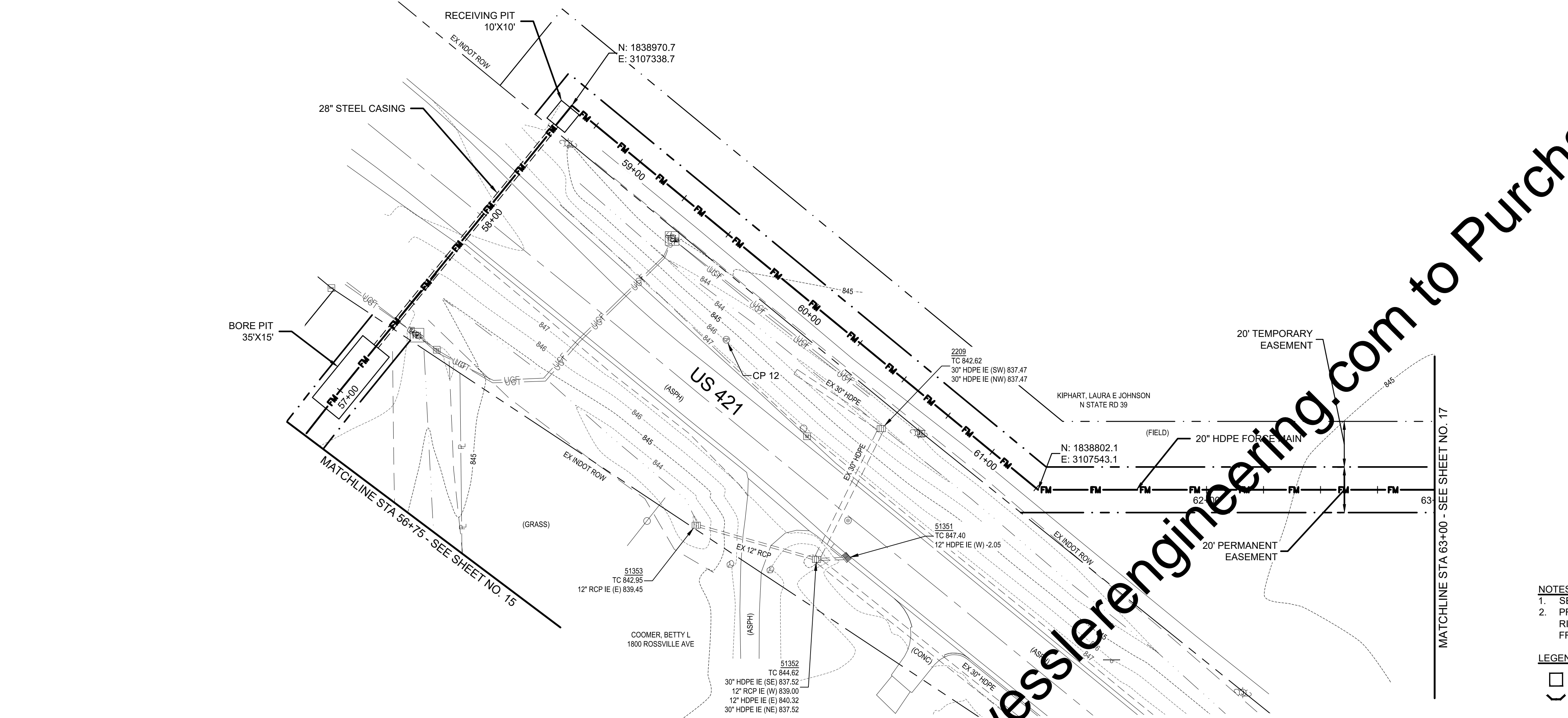
SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE	MARCH 2020				
	PROJECT NUMBER	193216-04-001				



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
NEW 20" FORCE MAIN PLAN AND PROFILE

SHEET NO.
15
TOTAL SHEETS
29

Drawing: J:\Frankfort\Projects\193216-Frankfort WWTTP Exp\CAD\04-001\DWG\Sheets\Area 2 - Site\21 - PP.dwg | Layout: 08 | Plotted: 03/04/20 @ 09:03:05 | LastSavedBy: JasonW



- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

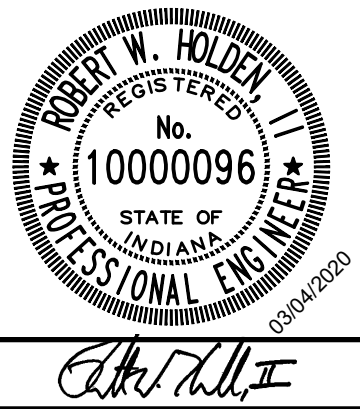
- LEGEND
- INLET PROTECTION
 - FILTER TUBE



PLAN - LINE A
SCALE: 1" = 30'

PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

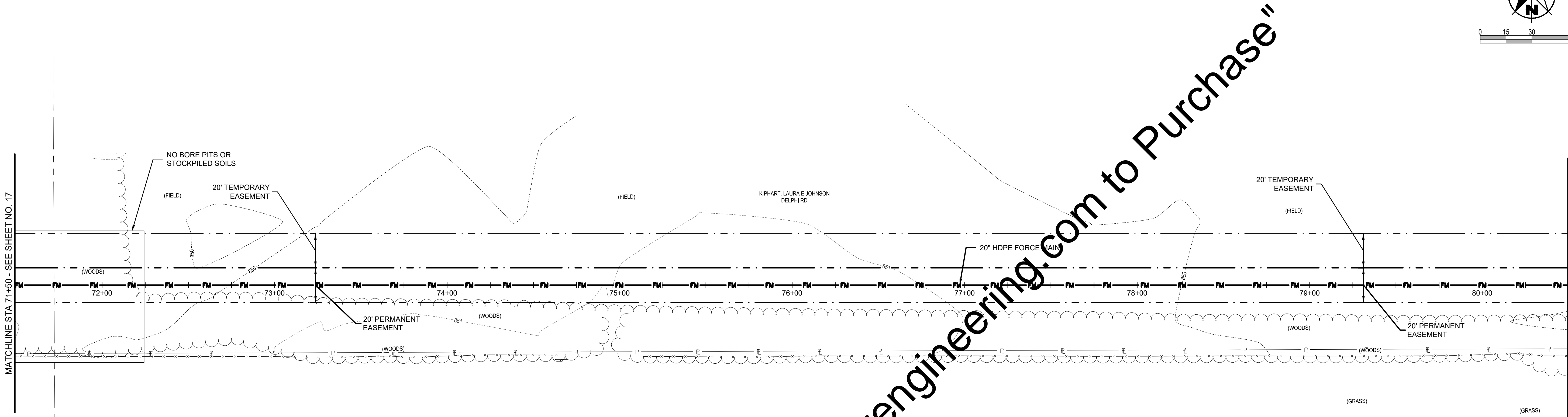
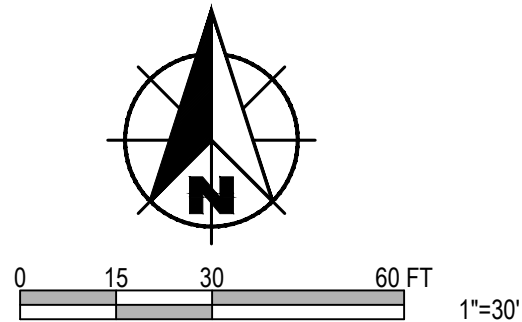
SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
NEW 20" FORCE MAIN PLAN AND PROFILE

SHEET NO.
16
TOTAL SHEETS
29

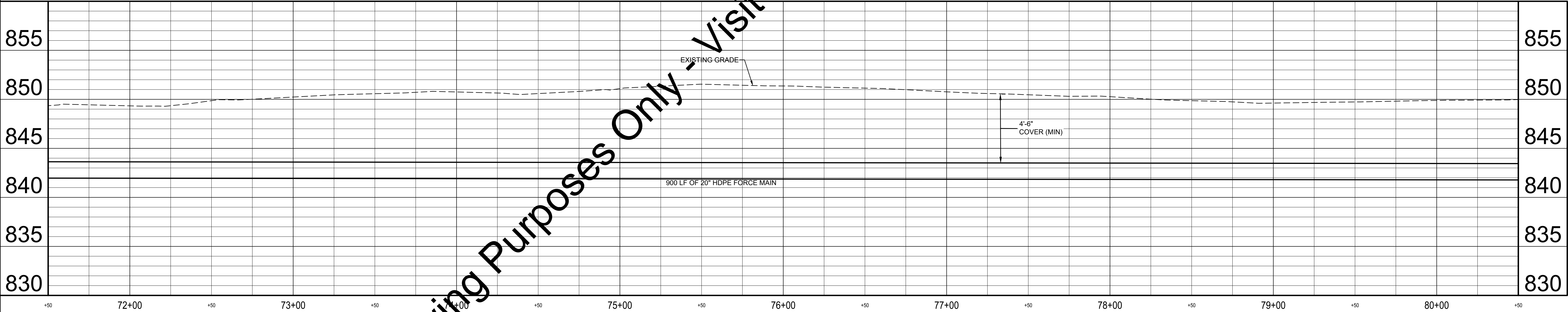
Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-01\DWG\Sheets\Area 2 - Sheet21 - PP.dwg | Layout: 10 | Plotted: 03/04/20 @ 09:03:29 | LastSavedBy: JasonW




PLAN - LINE A
SCALE: 1" = 30'

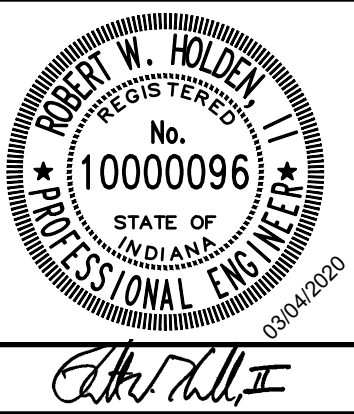
- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

- LEGEND
- INLET PROTECTION
 - FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE	MARCH 2020				
	PROJECT NUMBER	193216-04-001				



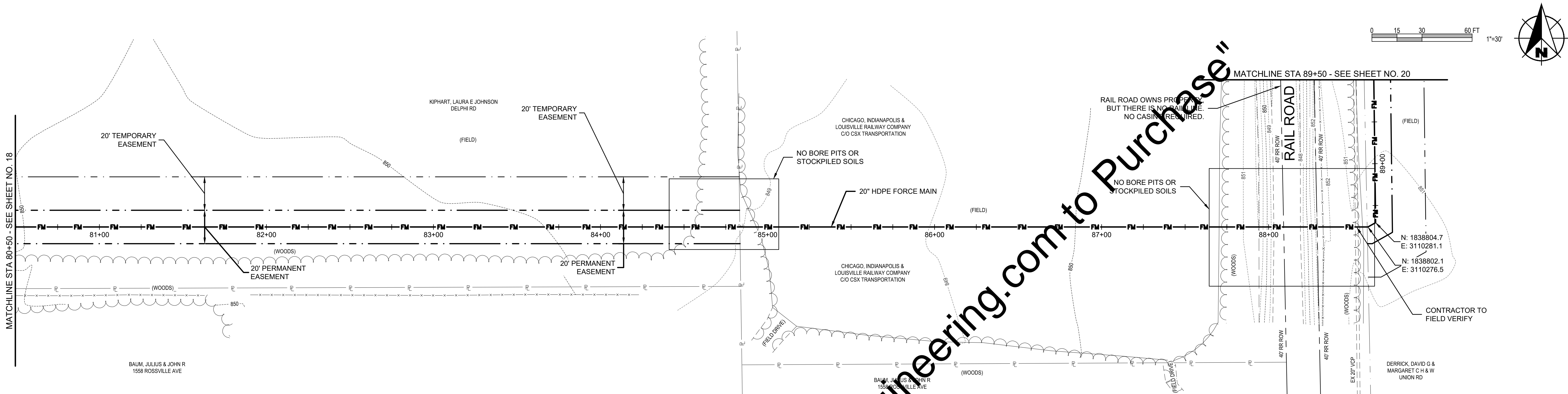
W
WESSLER
ENGINEERING
More than a Project™

WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

NEW 20" FORCE MAIN PLAN AND PROFILE

SHEET NO.
18
TOTAL SHEETS
29

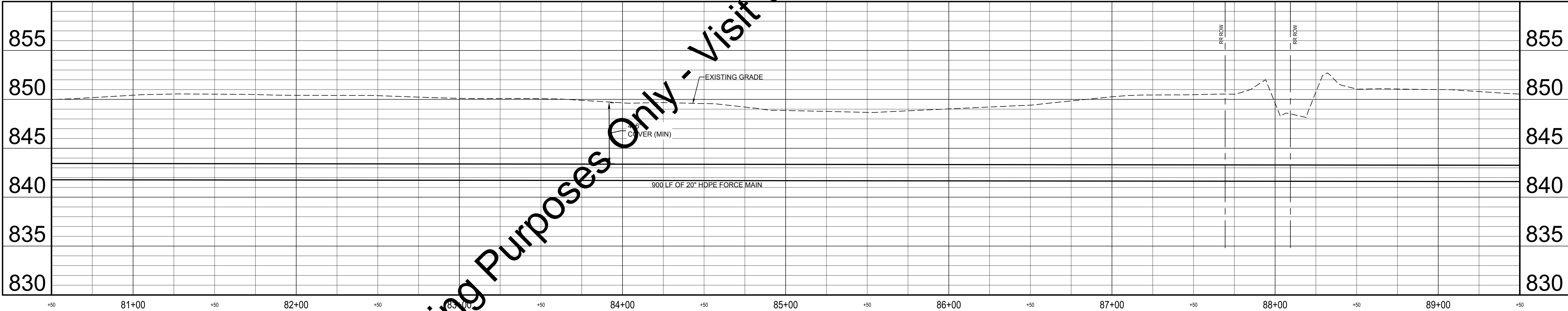
Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-01\DWG\Sheets\Area 2 - Site\21 - PP.dwg | Layout: 11 | Plotted: 03/04/20 @ 09:03:36 | LastSavedBy: JasonW



PLAN - LINE A
SCALE: 1" = 30'

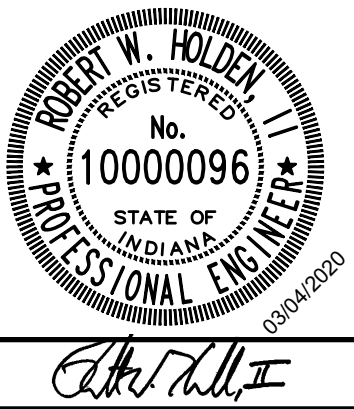
- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

- LEGEND
- INLET PROTECTION
 - FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE	MARCH 2020				
	PROJECT NUMBER	193216-04-001				



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
NEW 20" FORCE MAIN PLAN AND PROFILE

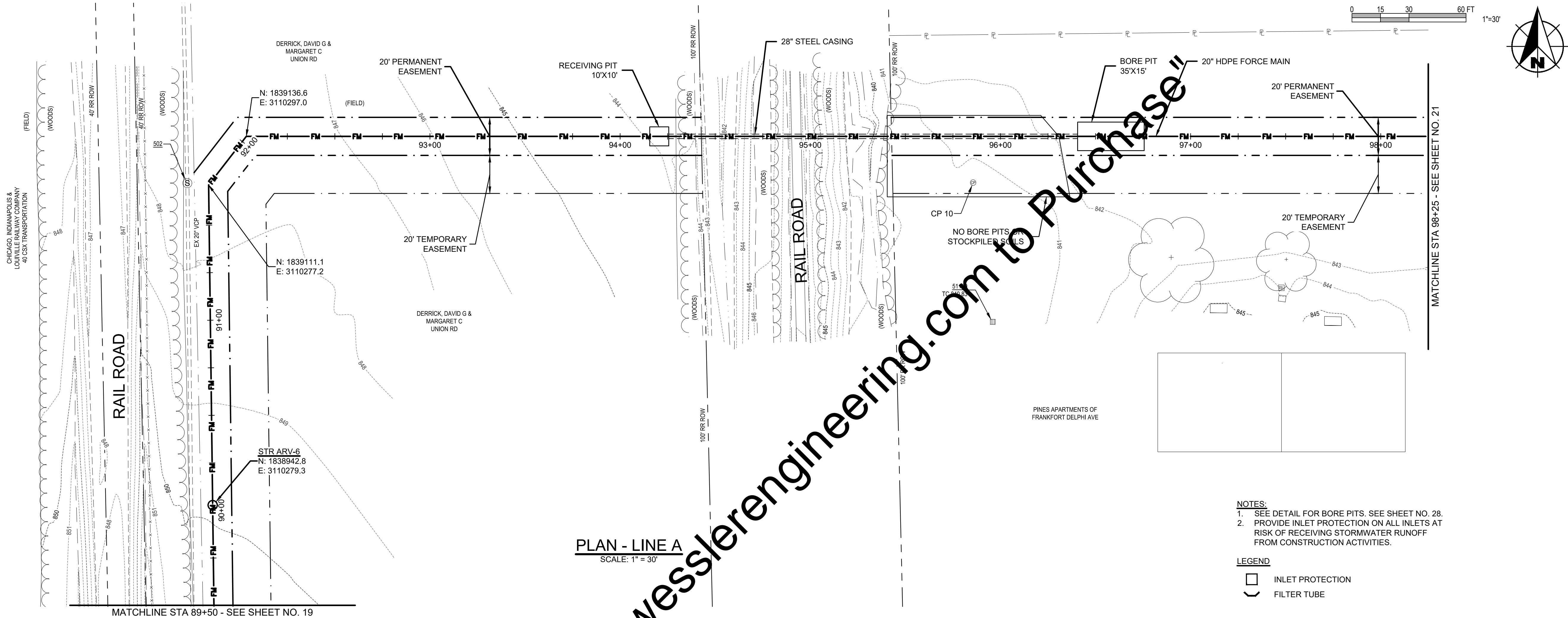
SHEET NO.

19

TOTAL SHEETS

29

Drawing: J:\Frankfort\Projects\193216-Frankfort WWT\PP-CA\04-01\DWG\Sheets\Area 2 - Sheet21 - PP.dwg | Layout: 12 | Plotted: 03/04/20 @ 09:03:49 | LastSavedBy: JasonW

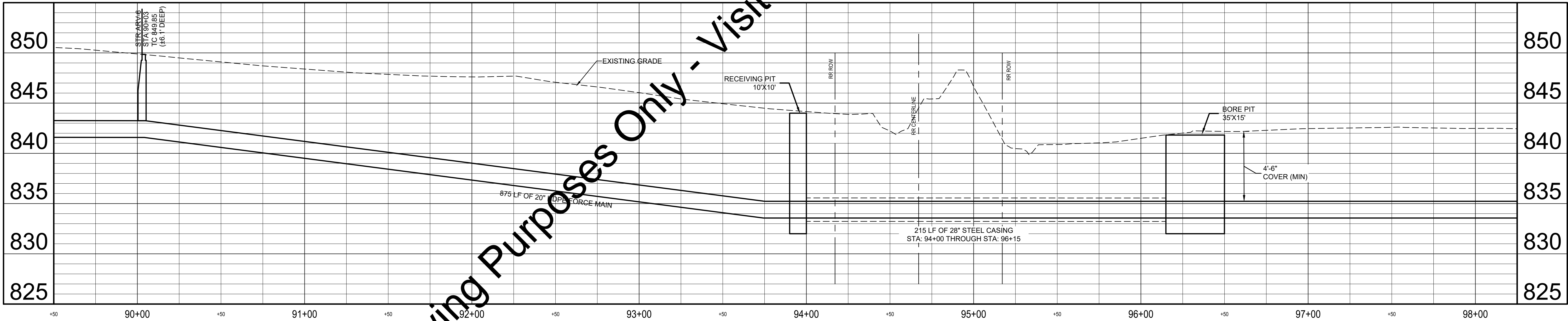


PLAN - LINE A
SCALE: 1" = 30'

- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

LEGEND

- INLET PROTECTION
- FILTER TUBE



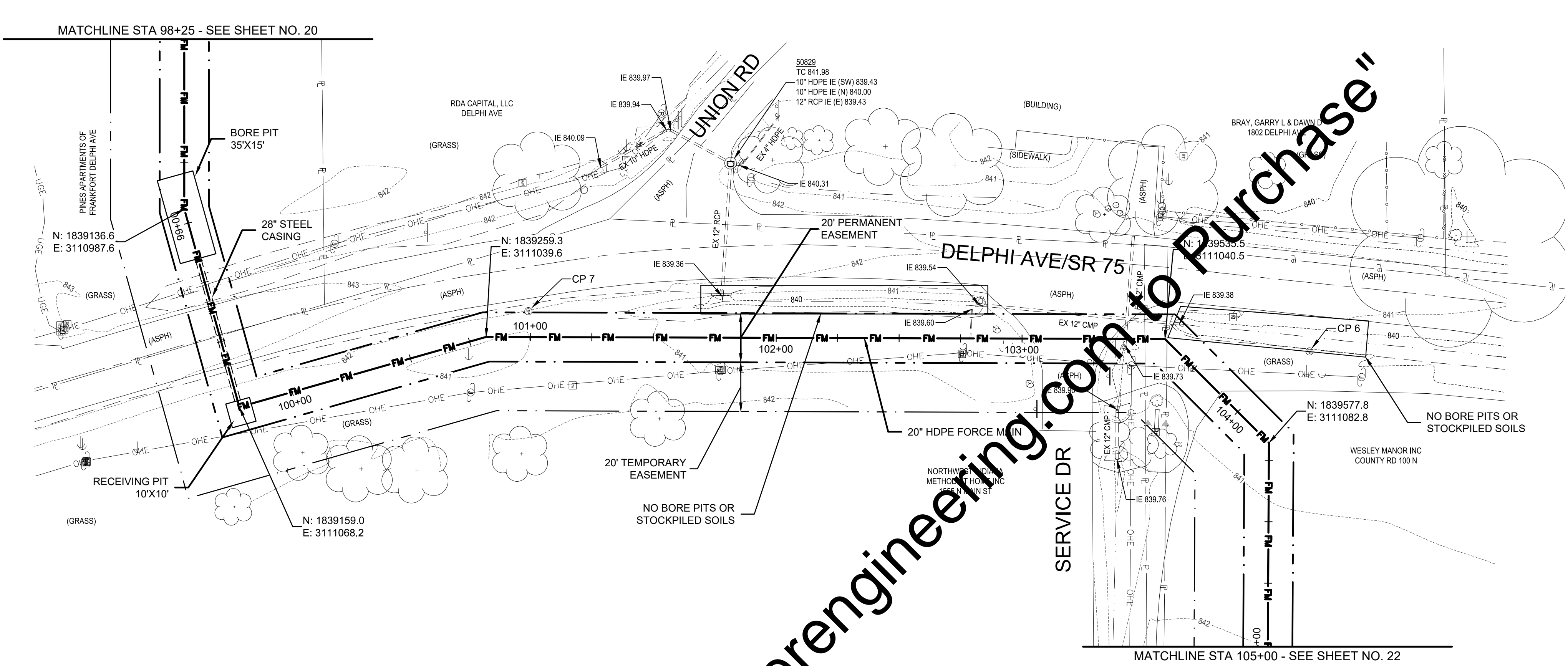
PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE	MARCH 2020				
	PROJECT NUMBER	193216-04-001				



WASTEWATER SYSTEM EXPANSION	SHEET NO.
CITY OF FRANKFORT, INDIANA CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN	20
NEW 20" FORCE MAIN PLAN AND PROFILE	TOTAL SHEETS
	29

Drawing: J:\Frankfort\Projects\193216-Frankfort WWTTP Exp\CAD\04-001\DWG\Sheets\Area 2 - Site\21 - PP.dwg | Layout: 13 | Plotted: 03/04/20 @ 09:03:57 | LastSavedBy: JasonW

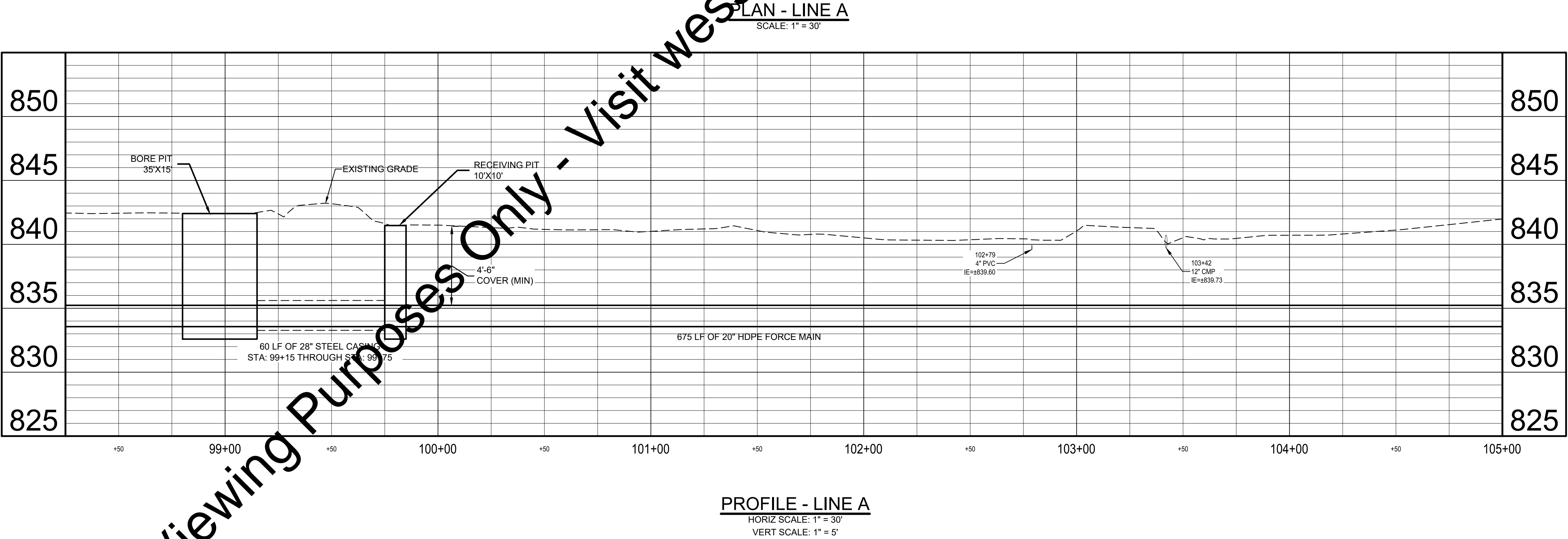


NOTES:

- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
- PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

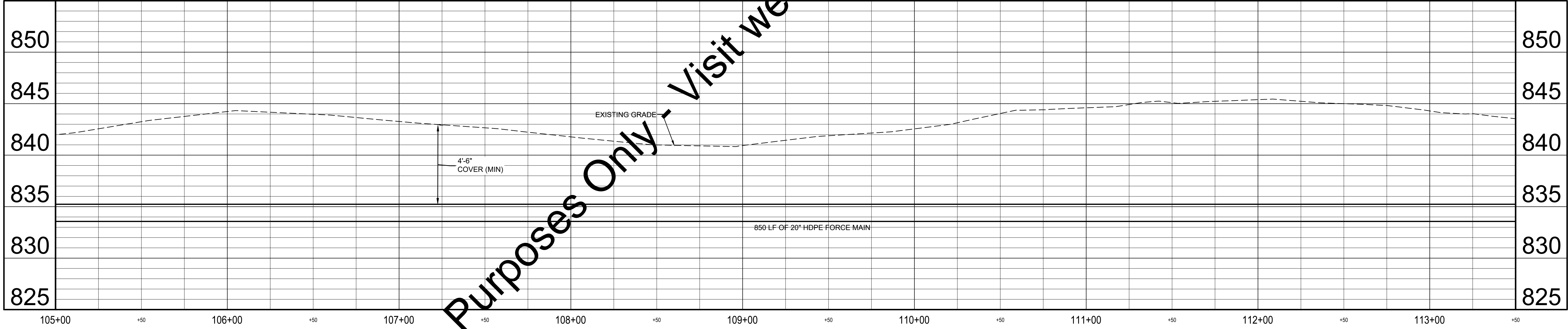
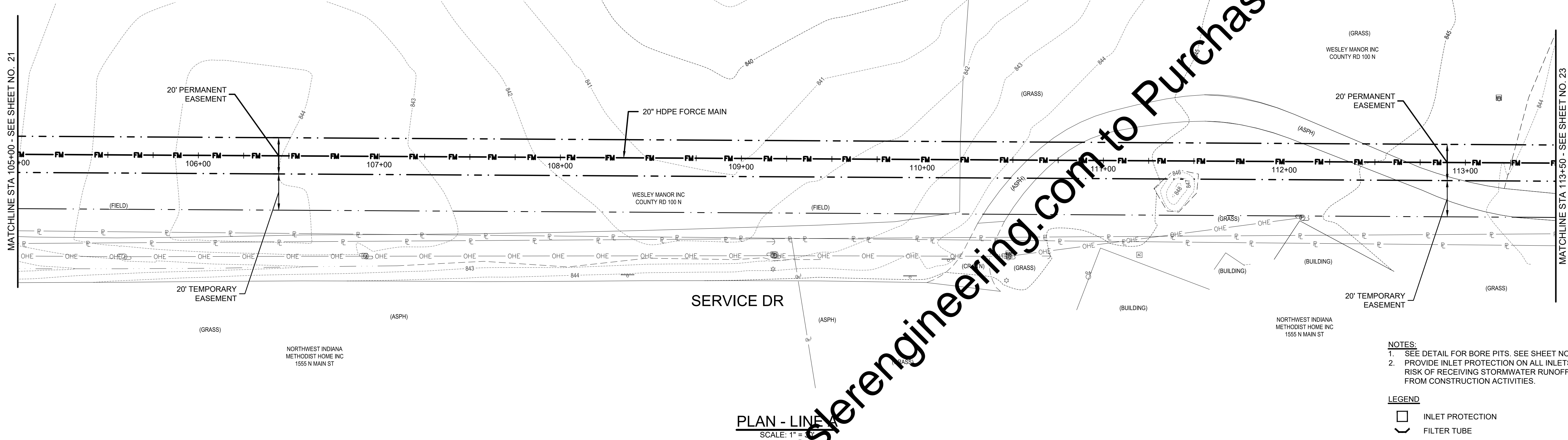
LEGEND

- INLET PROTECTION
- FILTER TUBE




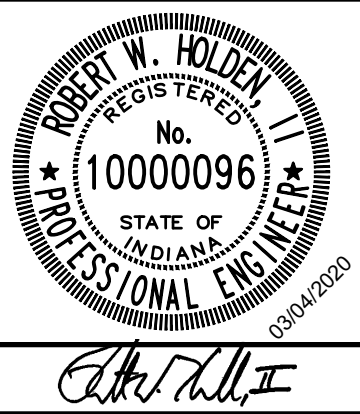
<div>SCALE VERIFICATION</div> <div>BAR IS ONE INCH LONG ON ORIGINAL DRAWING</div> <div></div>	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	<div>ROBERT W. HOLDEN REGISTERED No. 10000096 STATE OF INDIANA PROFESSIONAL ENGINEER 03/04/2020</div> <div>W WESSLER ENGINEERING <i>More than a Project™</i></div>	WASTEWATER SYSTEM EXPANSION		SHEET NO.	
	CHECKED BY	BR						CITY OF FRANKFORT, INDIANA		21	
	APPROVED BY	RWH						CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN		TOTAL SHEETS	
	ISSUE DATE									29	
	PROJECT NUMBER							NEW 20" FORCE MAIN PLAN AND PROFILE			
								193216-04-001			

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-04-01\DWG\Sheets\Area 2 - Sheet21 - PP.dwg | Layout: 14 | Plotted: 03/04/20 @ 09:04:08 | LastSavedBy: JasonW



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER	193216-04-001				

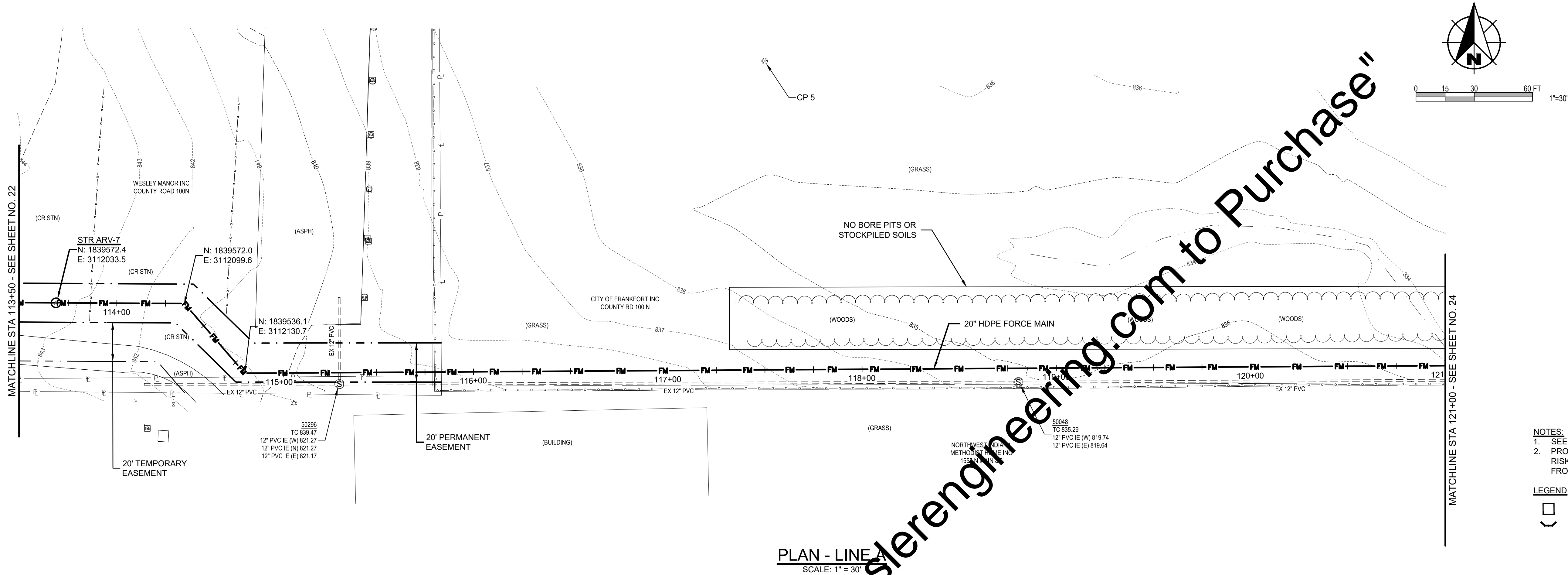


WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

NEW 20" FORCE MAIN PLAN AND PROFILE

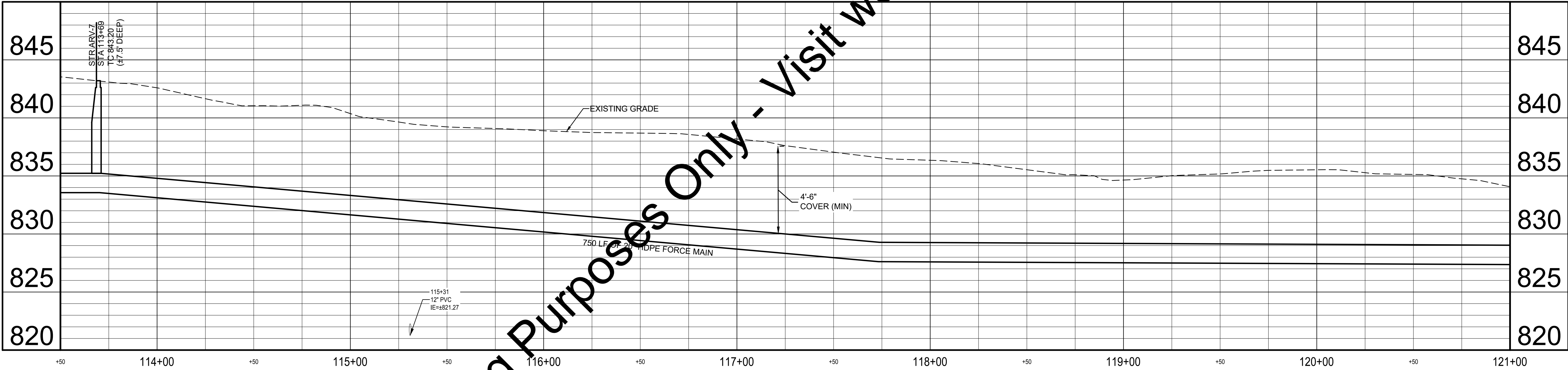
SHEET NO.	22
TOTAL SHEETS	29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD\04-001\DWG\Sheets\Area 2 - Site2\1 - PP.dwg | Layout: 15 | Plotted: 03/04/20 @ 09:04:20 | LastSavedBy: JasonW



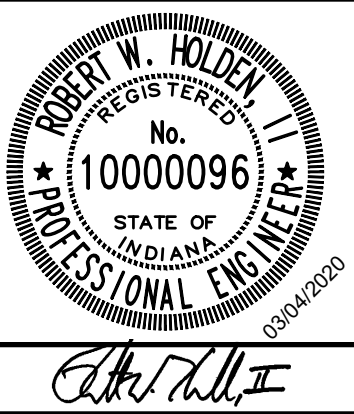
- NOTES:
- SEE DETAIL FOR BORE PITS. SEE SHEET NO. 28.
 - PROVIDE INLET PROTECTION ON ALL INLETS AT RISK OF RECEIVING STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITIES.

- LEGEND
- INLET PROTECTION
 - FILTER TUBE



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
	CHECKED BY	BR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
BAR IS ONE INCH LONG ON ORIGINAL DRAWING		PROJECT NUMBER				
		193216-04-001				



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

NEW 20" FORCE MAIN PLAN AND PROFILE

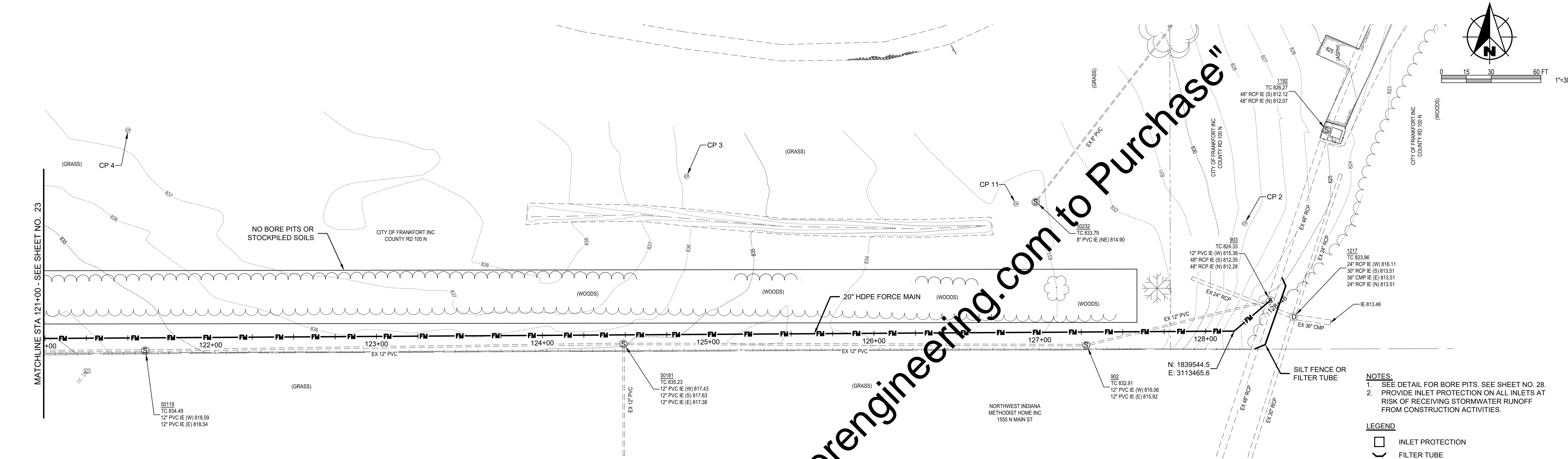
SHEET NO.

23

TOTAL SHEETS

29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CA04-04-001 DWG\Sheets\Area 2 - Sheet21 - PP.dwg | Layout: 16 | Plotted: 03/04/20 @ 09:04:32 | LastSavedBy: JasonW



PLAN - LINE A
SCALE: 1" = 30'



PROFILE - LINE A
HORIZ SCALE: 1" = 30'
VERT SCALE: 1" = 5'

SCALE VERIFICATION		DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	
BAR IS ONE INCH LONG ON ORIGINAL DRAWING <div></div>	CHECKED BY	BR						
	APPROVED BY	RWH						
	ISSUE DATE							
	MARCH 2020							
	PROJECT NUMBER							
		193216-04-001						



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

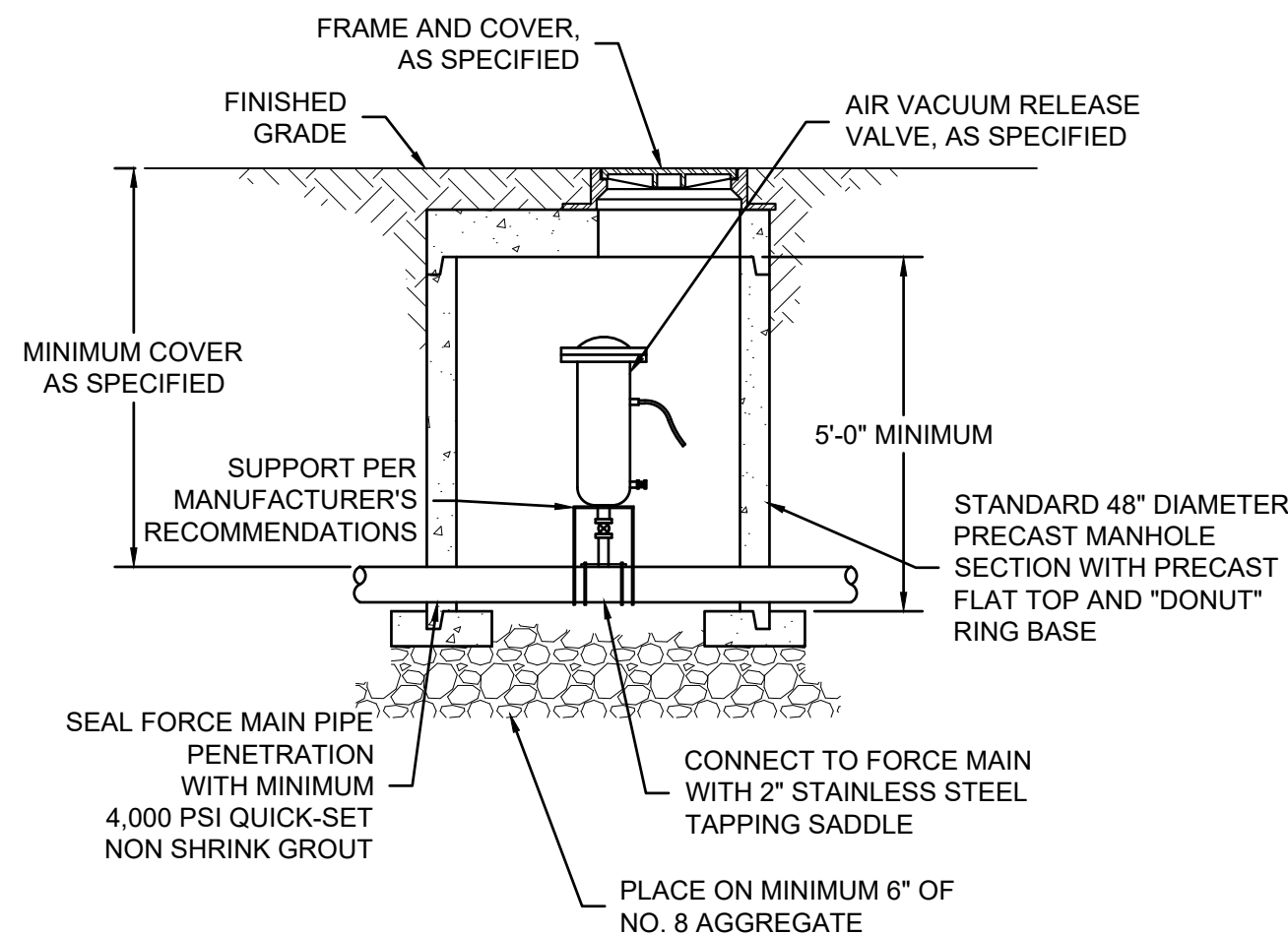
NEW 20" FORCE MAIN PLAN AND PROFILE

SHEET NO.

24

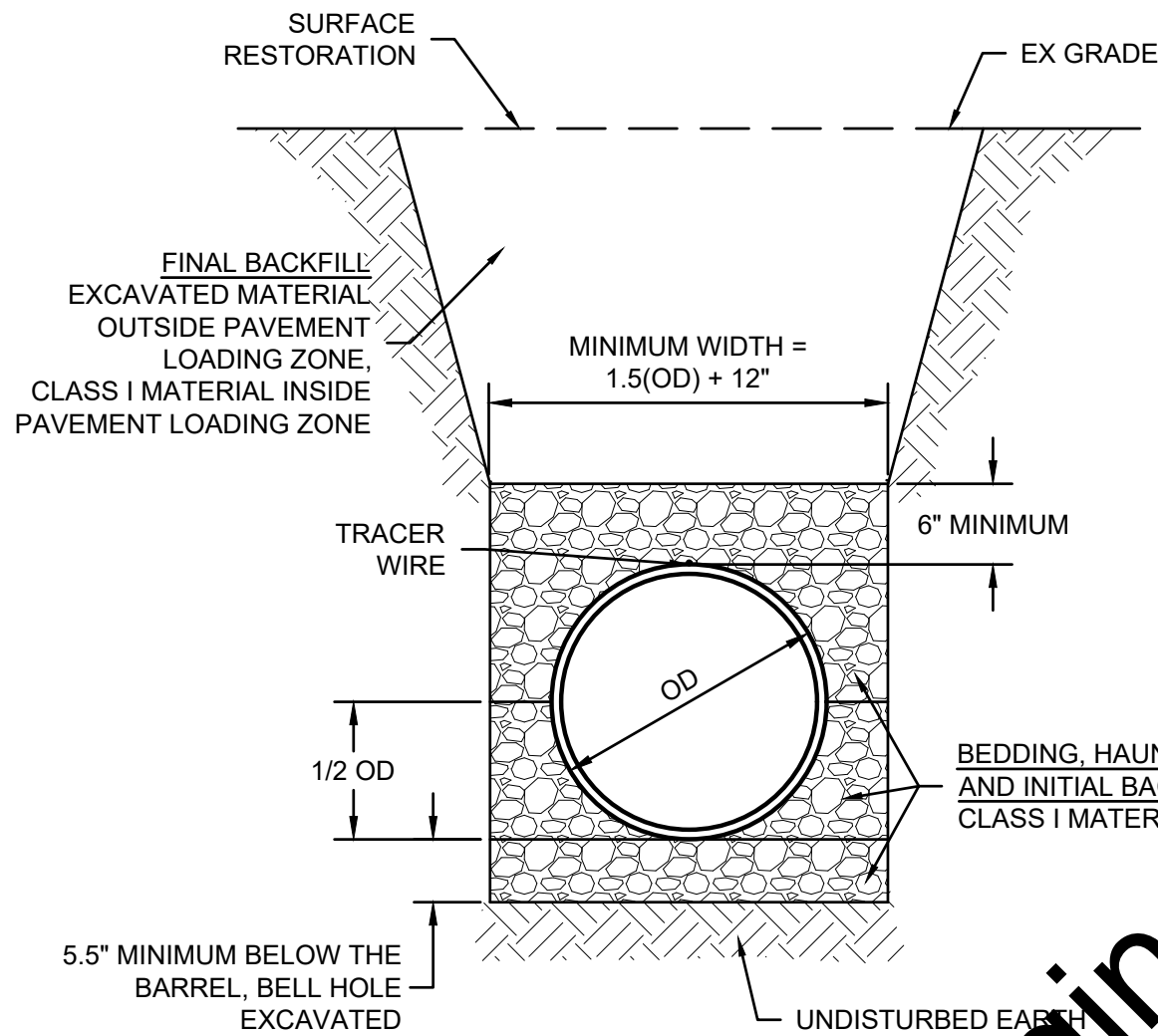
TOTAL SHEETS

29

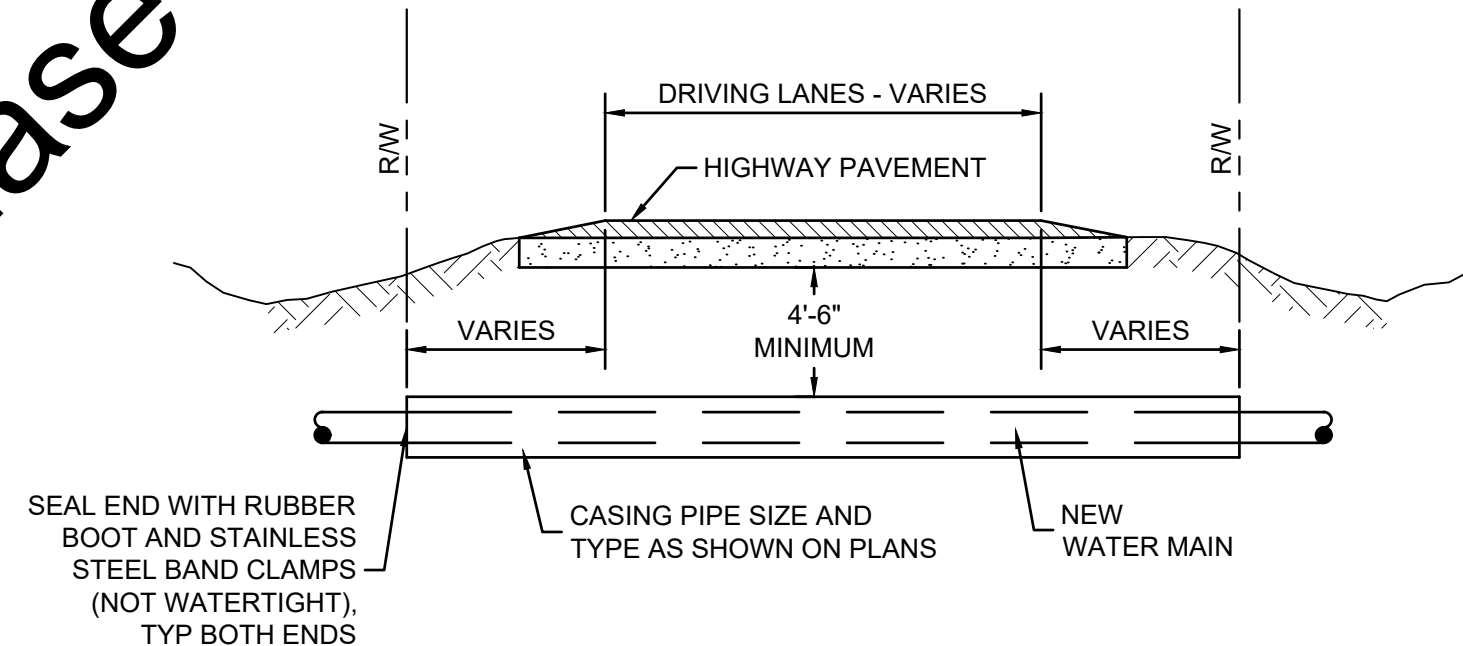


- NOTES:
1. THE CONTRACTOR SHALL DETERMINE THE REQUIRED FORCE MAIN DEPTH AT THE STRUCTURE TO ENSURE THAT THE VALVE VAULT STRUCTURE DOES NOT EXTEND ABOVE FINISHED GRADE.
 2. LOCATION OF AIR/VACUUM RELEASE STRUCTURES ARE APPROXIMATE. THE FINAL LOCATION TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT THE HIGH ELEVATION POINT OF THE FORCE MAIN.

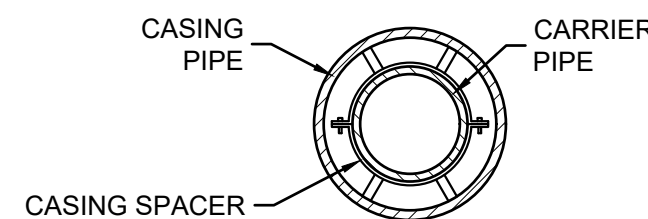
**AIR/VACUUM RELEASE
VALVE AND VAULT**
SCALE: NONE



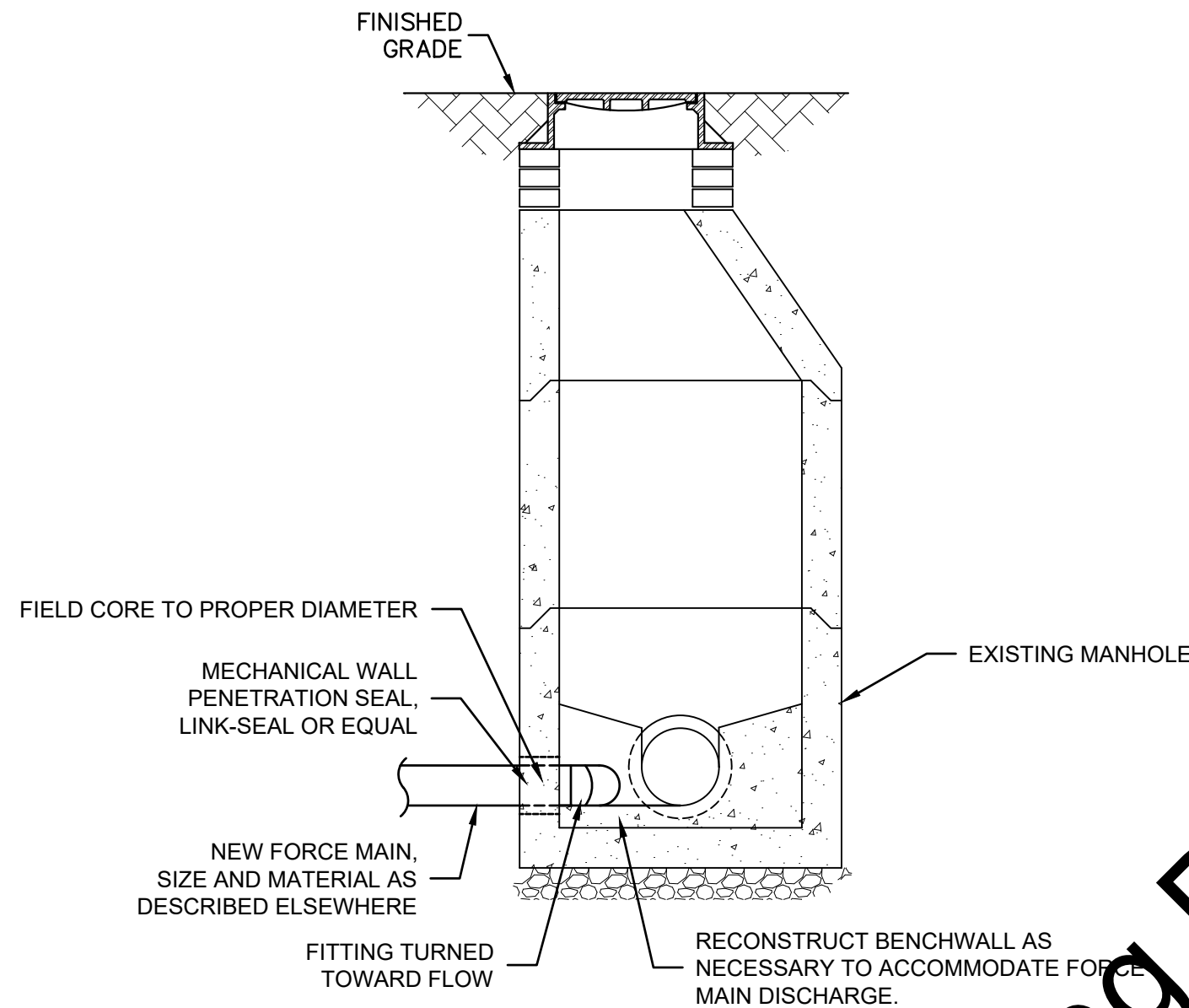
PLASTIC PIPE TRENCH (PRESSURE)
SCALE: NONE



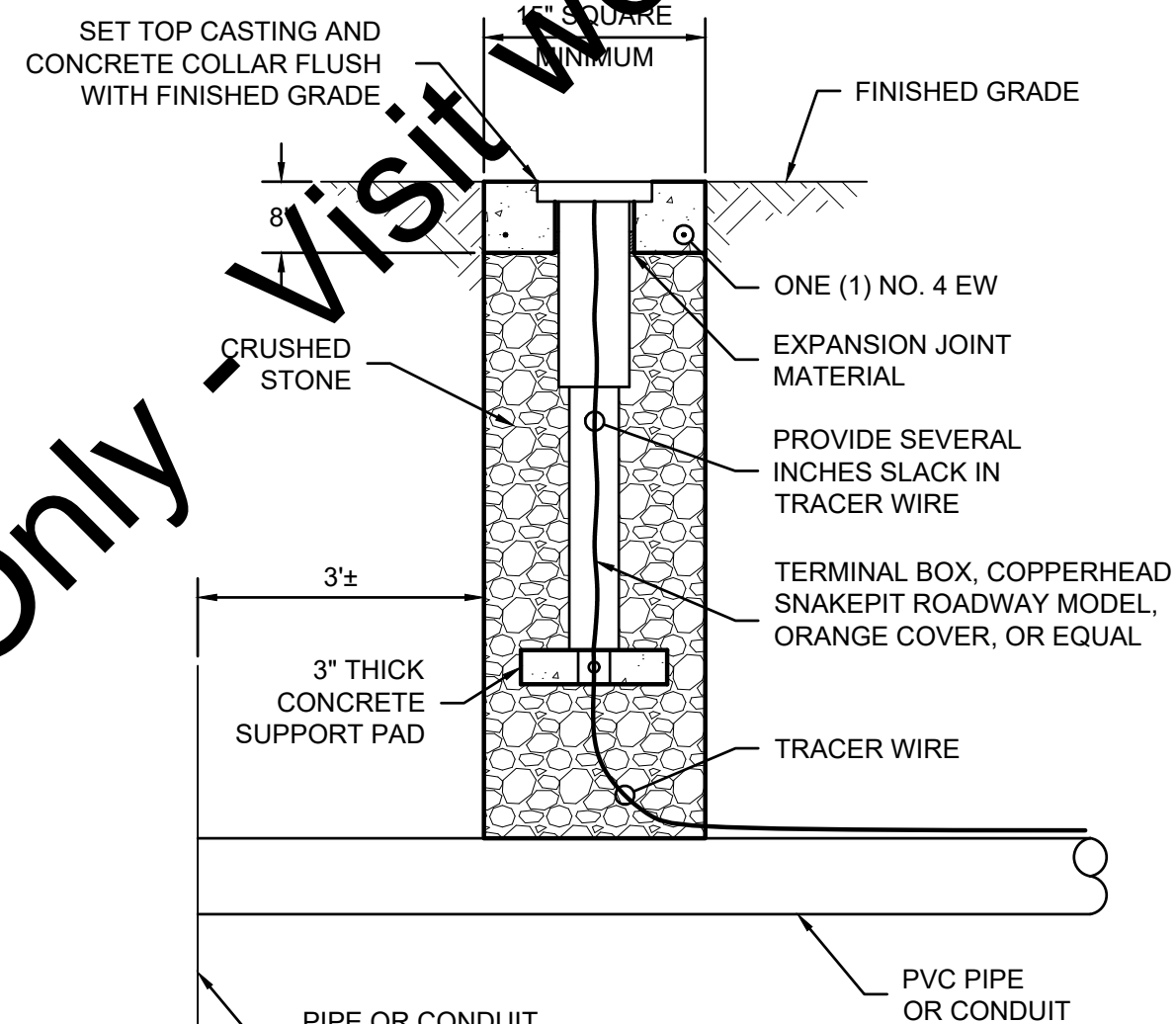
CASING PIPE
SCALE: NONE



CASING SPACER
SCALE: NONE

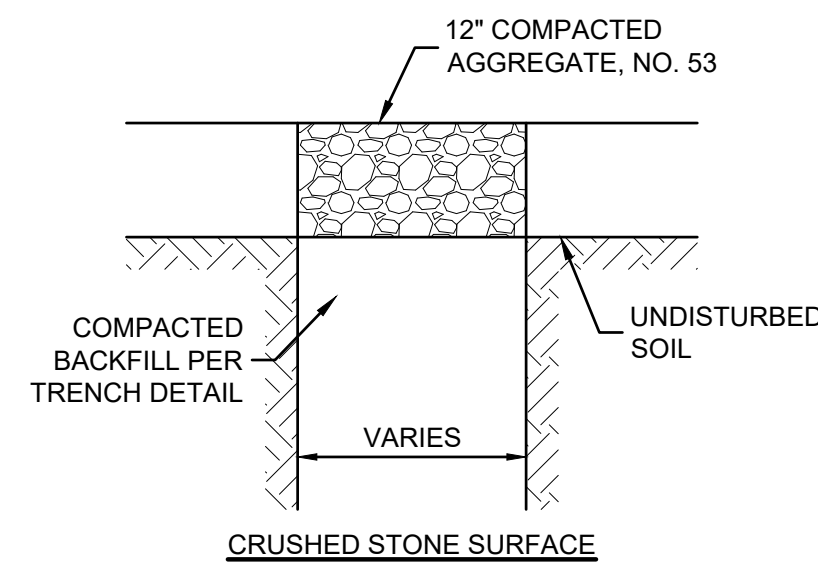


FORCE MAIN CONNECTION AT MANHOLE
SCALE: NONE

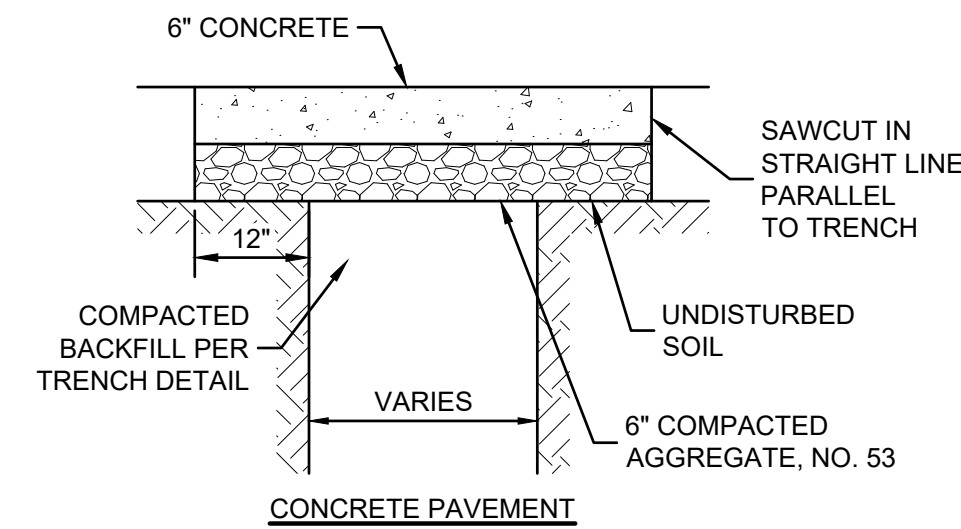


- NOTES:
1. CONCRETE COLLAR NOT REQUIRED IF LOCATED IN CONCRETE PAVEMENT.

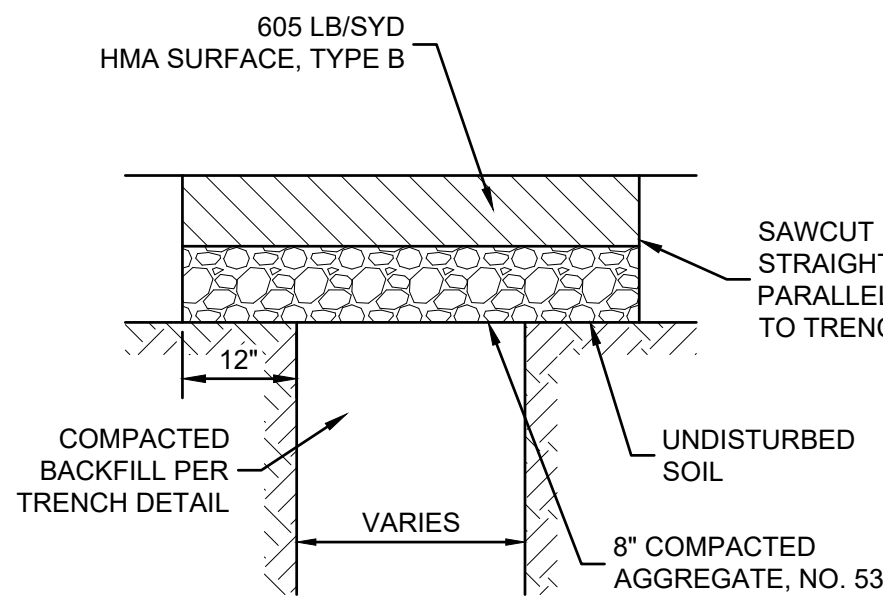
TRACER WIRE TERMINAL BOX
SCALE: NONE



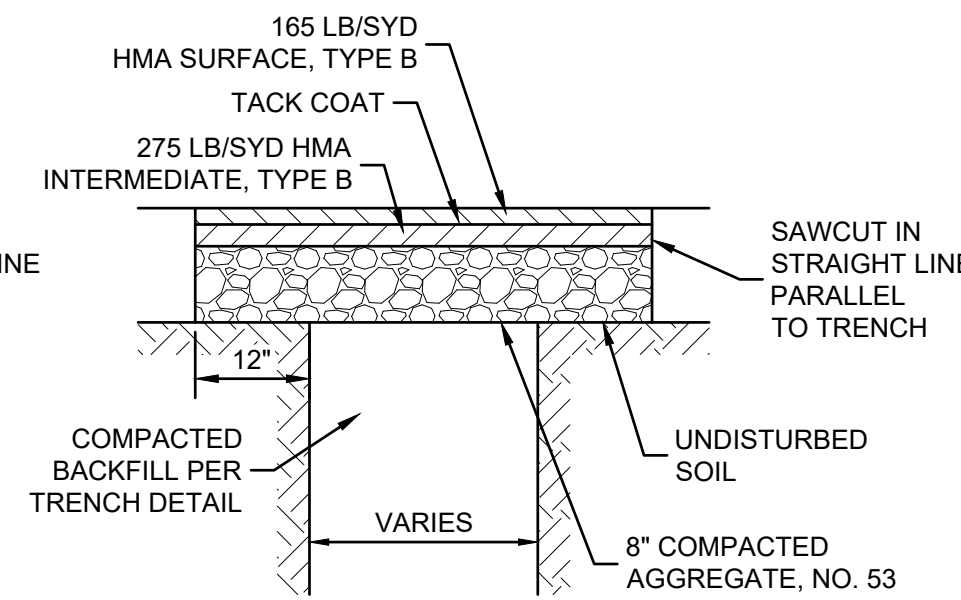
CRUSHED STONE SURFACE



CONCRETE PAVEMENT




ASPHALT PAVEMENT STREETS



ASPHALT PAVEMENT DRIVEWAYS

PAVEMENT REPAIR
SCALE: NONE

SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING 	CHECKED BY	DR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
MISCELLANEOUS DETAILS

SHEET NO.

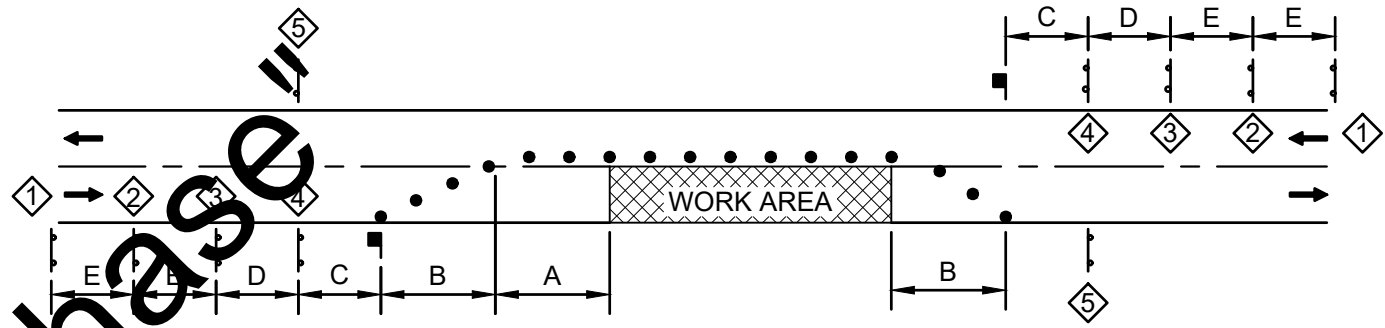
25

TOTAL SHEETS

29

Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD 04-001\DWG\Sheets\Area 16 - MD\6C-MISC.DTL.S - PART B.dwg | Layout: 02 | Plotted: 03/04/20 @ 10:04:42 | LastSavedBy: Jason W

- WORK AREA(S)
- TYPE A CONSTRUCTION WARNING LIGHT
- WORKSITE ADDED PENALTY (G20-7) ONLY FOR INDOT ROADS
- "ROAD WORK AHEAD" (W20-1) OR "UTILITY WORK AHEAD" (W21-7)
- "ONE LANE ROAD AHEAD" (W20-4)
- FLAGGER SIGN (W20-7)
- "END ROAD WORK" (G20-2)
- BARRICADE TYPE IIIIB
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW DIRECTION
- ROAD CLOSURE SIGN ASSEMBLY, INCLUDES R11-2, BARRICADE TYPE IIIIB, AND TYPE B CONSTRUCTION WARNING LIGHT
- FLAGGER
- SIGN, FACING LEFT
- SIGN, FACING RIGHT



TEMPORARY FLAGGER OPERATION

SCALE: NONE

TRAFFIC CONTROL LEGEND

SCALE: NONE

TRAFFIC CONTROL NOTES:

1. PROVIDE SIGNS AND PLACEMENT OF SIGNS IN COMPLIANCE WITH THE MUTCD (LATEST EDITION) AND THE CURRENT INDOT STANDARDS.
2. WHEN ADDITIONAL WORKING SPACE IS NEEDED, UTILIZE THE FLAGGER OPERATION DETAIL TO MAINTAIN ONE TRAVEL LANE IN EACH DIRECTION.
3. COVER SIGNS 3 AND 4 WHEN WORK IS NOT IN PROGRESS.
4. DURING CONSTRUCTION MINIMIZE DAMAGE TO THE EXISTING PAVEMENT, DRIVES, AND CURBS.
5. IF LOCAL ROAD CLOSURE IS NEEDED, SUBMIT A DETAILED DETOUR ROUTE PLAN AND TIMELINE FOR APPROVAL 2 WEEKS PRIOR TO ANY CLOSURES.
6. PROTECTION OF AND ACCESS FOR PEDESTRIANS MUST BE MAINTAINED DURING CONSTRUCTION.
7. COORDINATE CLOSURES WITH ALL IMPACTED EMERGENCY AGENCIES AND SCHOOL DISTRICTS.

SPEED (MPH)	DISTANCE (FEET)				
	A	B	C	D	E
20 OR LESS	120	100	100	100	100
25	160	100	100	100	100
30	200	100	100	100	100
35	280	100	350	350	350
40	320	100	350	350	350
45	360	100	500	500	500
50	440	100	500	500	500
55	520	100	500	500	500
60	600	100	1,000	1,600	2,640
65	680	100	1,000	1,600	2,640
70	760	100	1,000	1,600	2,640

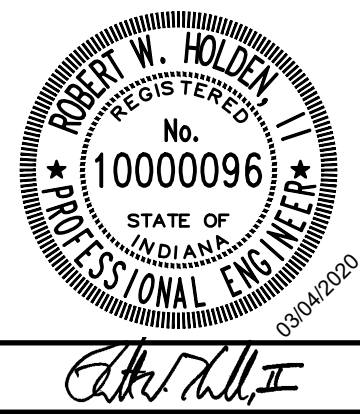
NOTES:

1. DISTANCES SHOWN ARE APPROXIMATE. ADJUST SIGN FOR CURVES, HILLS, INTERSECTIONS, DRIVEWAYS, ETC TO IMPROVE SIGN VISIBILITY.
2. THE SPACING OF CHANNELIZING DEVICES SHOULD BE A DISTANCE IN FEET EQUAL TO THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH USED FOR TANGENT CHANNELIZATION.

ADVANCE WARNING SIGN AND
FLAGGER OPERATION SPACING

SCALE: NONE

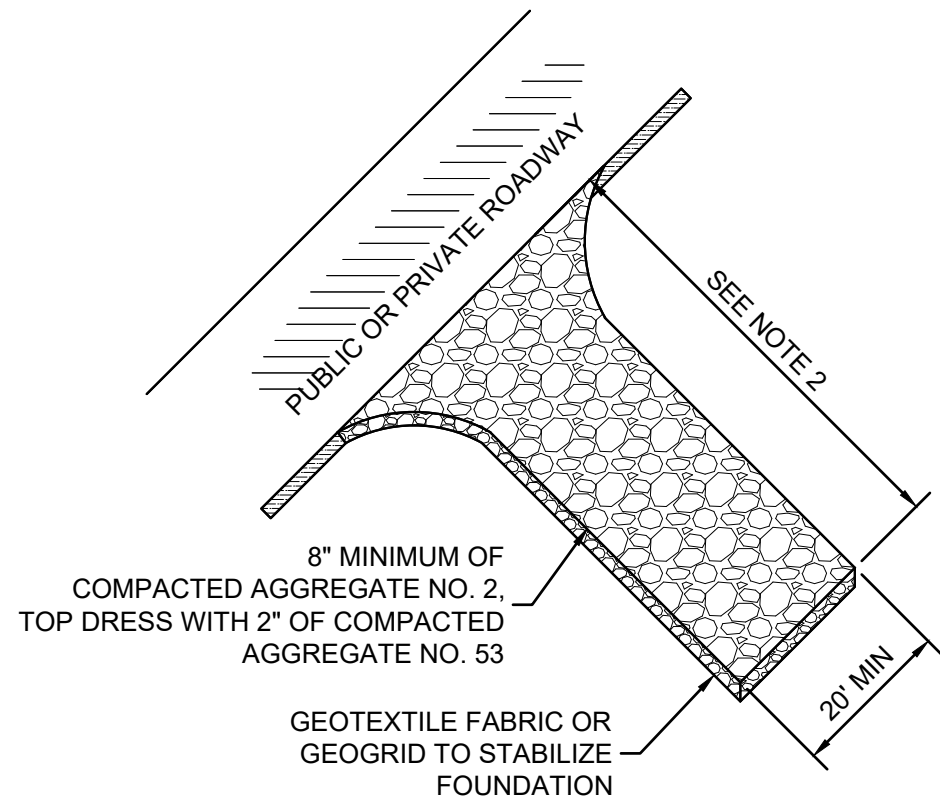
SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING <div></div>	CHECKED BY	PR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER	193216-04-001				



WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
MISCELLANEOUS DETAILS

SHEET NO.
26
TOTAL SHEETS
29

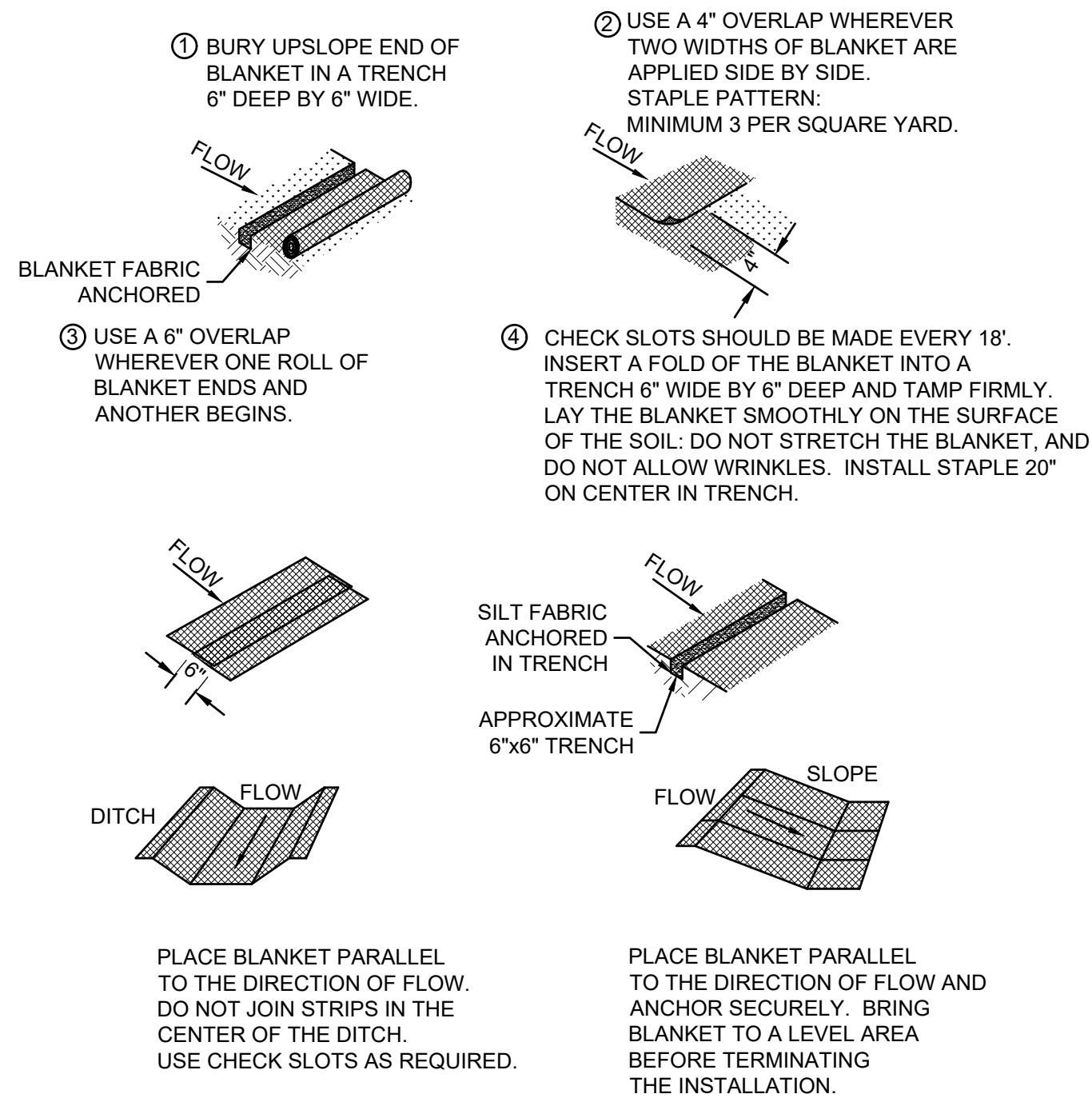
Drawing: J:\Frankfort\Projects\193216 Frankfort WWTP Exp\CAD-04-001\DWG\Sheets\Area 16 - MD\16C-CD-DTL1.dwg | Layout: 01 | Plotted: 03/04/20 @ 09:04:50 | LastSavedBy: JasonW



- NOTES:**
1. PLACE CONSTRUCTION ENTRANCE AS SHOWN ON THE PLANS AND AT ALL TEMPORARY CONSTRUCTION DRIVES THAT ARE INSTALLED.
 2. FOR LARGE SITES (2 ACRES OR LARGER) THE MINIMUM LENGTH IS 150'. FOR SMALLER SITES (LESS THAN 2 ACRES) THE MINIMUM LENGTH IS 50'.
 3. PROVIDE CULVERT OR OTHER METHODS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- MAINTENANCE:**
1. INSPECT DAILY AND REPLACE DISPLACED STONE.
 2. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED ONTO ADJACENT ROADWAY.
 3. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 4. AT COMPLETION OF PROJECT COMPLETELY REMOVE AND RESTORE SITE TO ORIGINAL CONDITIONS, OR AS APPLICABLE USE FOR BASE OF NEW PERMANENT DRIVE, MAINTAINING DESIGN ELEVATIONS AND SECTION.

CONSTRUCTION ENTRANCE

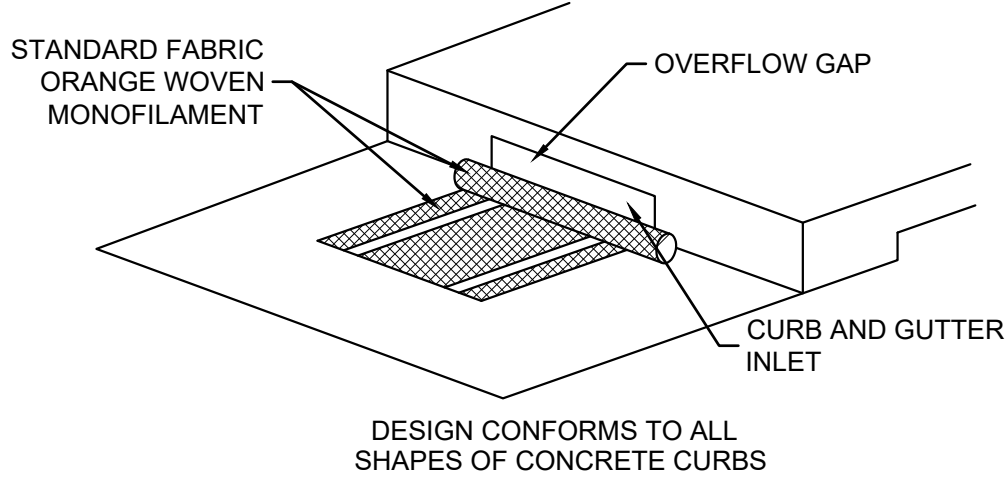
SCALE: NONE



- PRODUCT:**
1. NORTH AMERICAN GREEN SC150, OR EQUAL.
- NOTES:**
1. PROTECT THE SLOPES WITH AN EROSION CONTROL BLANKET WHERE CONSTRUCTION DISTURBS SLOPES EQUAL OR STEEPER THAN 3:1.
- MAINTENANCE:**
1. INSPECT FOR EROSION AFTER EACH STORM EVENT DURING VEGETATION ESTABLISHMENT, AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.
 2. IF ANY AREAS SHOW EROSION, PULL BACK THAT PORTION OF THE BLANKET, ADD SOIL, RESEED, RELAY AND STAPLE THE BLANKET.
 3. CHECK AREAS PERIODICALLY AFTER VEGETATION ESTABLISHMENT.

EROSION CONTROL BLANKET

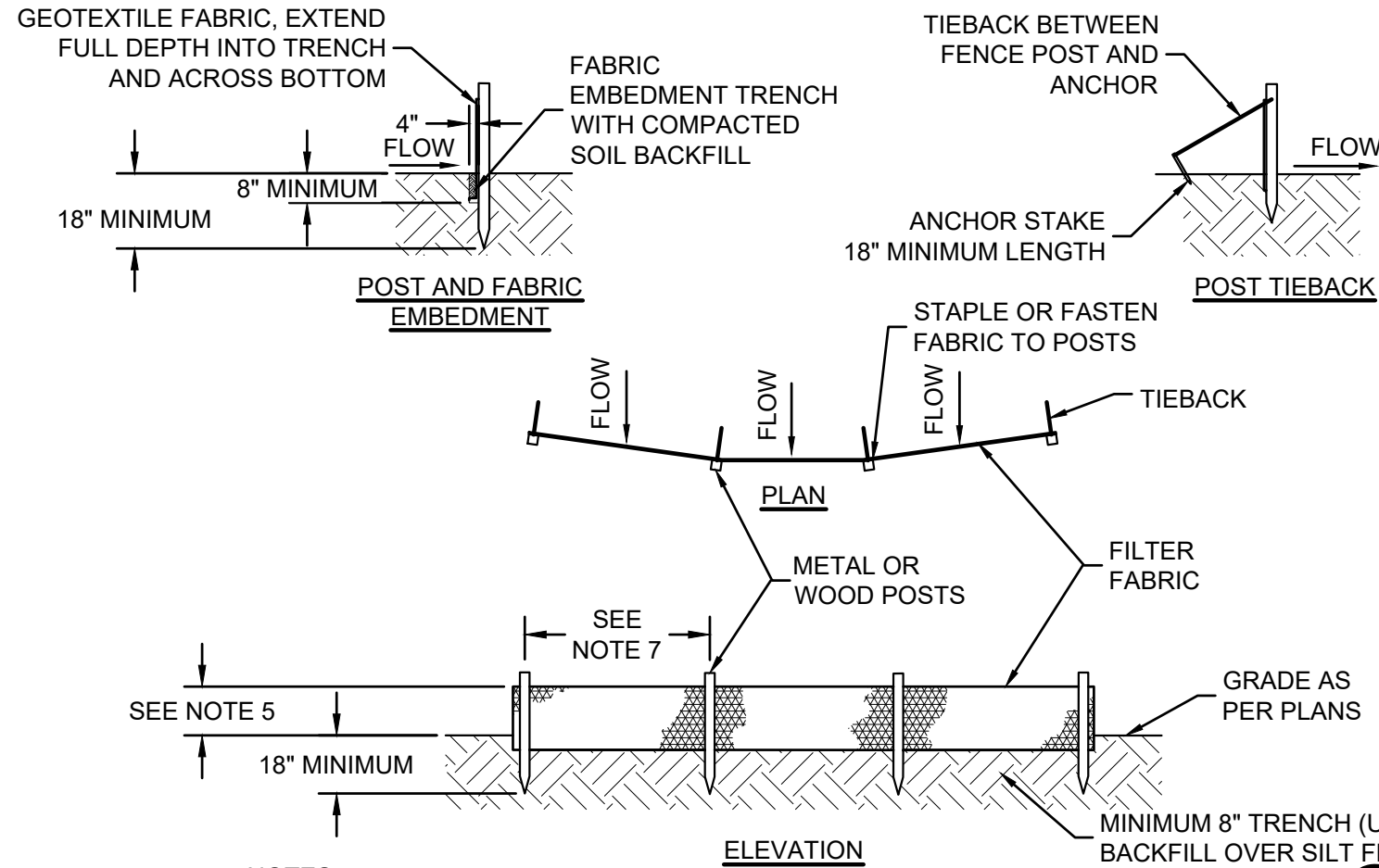
SCALE: NONE



- PRODUCT:**
1. DANDY CURB SACK, OR APPROVED EQUAL.
- INSTALLATION:**
1. REMOVE THE GRATE FROM THE CATCH BASIN AND STAND ON END.
 2. CRADLE THE GRATE BETWEEN THE UPPER AND LOWER STRAPS.
 3. INSERT THE GRATE INTO THE INLET WITH THE LIFTING DEVICES. LOWER BACK EDGE WITH TUBE INTO PLACE. TUBE SHOULD PARTIALLY BLOCK THE CURB HOOD OPENING.
- MAINTENANCE:**
1. REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT.
 2. REMOVE THE SEDIMENT THAT HAS ACCUMULATED WITHIN THE FABRIC AS NEEDED.
 3. INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.

CURB AND GUTTER INLET PROTECTION

SCALE: NONE



- NOTES:**
1. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF WOVEN OR NON-WOVEN TEXTILE FABRIC AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS:
 - a. TEXTILE STRENGTH AT 20% (MAXIMUM) ELONGATION, PER ASTM D4632.
 - b. WOVEN EXTRA STRENGTH - 50 LB/LINEAR INCH (MINIMUM), NON-WOVEN EXTRA STRENGTH - 70 LB/LINCH (MINIMUM).
 - c. WOVEN STANDARD STRENGTH - 30 LB/LINEAR INCH (MINIMUM), NON-WOVEN STANDARD STRENGTH - 50 LB/LINCH (MINIMUM).
 - d. APPARENT OPENING SIZE (AOS) (U.S. SIEVE) - NO. 30 PARTICLE SIZE OF 600 microns (MAXIMUM), ASTM D4751.
 - e. PERMITTIVITY - 0.05 S⁻¹ (MAXIMUM), ASTM D4491.
 2. POSTS FOR SILT FENCES SHALL BE EITHER 2"x2" SQUARE WOOD OR EQUIVALENT METAL POSTS WITH A MINIMUM LENGTH OF 5'. METAL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.
 3. ANCHOR STAKES FOR SILT FENCES SHALL BE 1"x2" WOOD (PULVERIZED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 18".
 4. WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 42" IN HEIGHT, A MINIMUM OF 14 GAUGE, AND SHALL HAVE A MAXIMUM MESH SPACING OF 6".
 5. THE HEIGHT OF THE BARRIER SHALL BE A MINIMUM OF 18" AND A MAXIMUM OF 30".
 6. THE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER FABRIC SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP, AND SECURELY SEALED.
 7. POSTS SHALL BE SPACED A MAXIMUM OF 18" APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 18"). WHEN STANDARD STRENGTH FABRIC IS USED WITH THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 8'.
 8. THE SPACING OF TIEBACKS SHALL EQUAL THE SPACING OF THE POSTS. ADDITIONAL POST DEPTH OR TIEBACKS MAY BE REQUIRED IN UNSTABLE SOIL.
 9. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE AND A MINIMUM OF 8" DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
 10. WHEN STANDARD STRENGTH FILTER FABRIC IS USED WITH A WIRE MESH SUPPORT FENCE IT SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY 1" WIRE STAPLES, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2" AND SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE.
 11. THE STANDARD STRENGTH FILTER FABRIC, WITHOUT A WIRE MESH SUPPORT FENCE, SHALL BE STAPLED OR WIRED TO THE FENCE AND A MINIMUM 8" OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE. DO NOT STAPLE FILTER FABRIC TO EXISTING TREES.
 12. WHEN EXTRA STRENGTH FILTER FABRIC OR BURLAP AND POST SPACING IS LESS THAN THE MAXIMUM SPECIFIED SPACING OF 6" THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED.
 13. BACKFILL THE TRENCH AND COMPACT THE SOIL OVER THE FILTER FABRIC.
 14. REMOVE SILT FENCES WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
 15. SILT FENCE SHALL NOT BE USED AS A DIVERSION AND SHALL NOT BE INSTALLED ACROSS A STREAM, CHANNEL, DITCH, SWALE, ETC.
- MAINTENANCE:**
1. INSPECT AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. INSPECT AT LEAST ONCE EVERY 7 CALENDAR DAYS.
 2. REPLACE OR REPAIR FABRIC IMMEDIATELY IF IT DECOMPOSES OR IS INEFFECTIVE.
 3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.
 4. SPREAD ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED AND DRESS TO CONFORM WITH THE FINISHED GRADING.

SILT FENCE

SCALE: NONE

EROSION CONTROL SCHEDULE	
CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
NOTIFY IDEM RULE 5 COORDINATOR (317-233-1864), CLINTON COUNTY SURVEYOR (765-659-6300) AND CLINTON COUNTY SWCD (765-659-1223) TWO WORKING DAYS PRECEDING THE BEGINNING OF STARTING CONSTRUCTION. POST THE CONTACT INFORMATION AT THE CONSTRUCTION ENTRANCE. INCLUDE A COPY OF THE NOTICE OF INTENT (NOI) AND THE ONSITE PERSON WHO IS RESPONSIBLE FOR IMPLEMENTING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHOULD BE AVAILABLE FOR WEEKLY SITE INSPECTION REPORTS MUST BE AVAILABLE WITHIN 48 HOURS OF REQUEST.	WITHIN 48 HOURS PRIOR TO STARTING CONSTRUCTION.
CONSTRUCTION ACCESS - ENTRANCE TO SITE, CONSTRUCTION ROUTES, AREAS DESIGNATED FOR EQUIPMENT PARKING OR MATERIAL STAGING.	THIS IS THE FIRST LAND-DISTURBING ACTIVITY. AS SOON AS CONSTRUCTION BEGINS, STABILIZE ANY BARE AREAS WITH AGGREGATE AND TEMPORARY VEGETATION.
SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SILT FENCE.	AFTER CONSTRUCTION IS ACCESSED, BASINS SHALL BE INSTALLED, WITH THE ADDITION OF MORE TRAPS AND BARRIERS AS NEEDED DURING GRADING.
RUNOFF CONTROL - DIVERSIONS, PERIMETER PROTECTION, CHECK DAMS, OUTLET PROTECTION.	RUNOFF CONTROL PRACTICES SHALL BE INSTALLED AFTER THE INSTALLATION OF SEDIMENT TRAPS AND BEFORE LAND GRADING. ADDITIONAL RUNOFF CONTROL MEASURES MAY BE INSTALLED DURING GRADING.
RUNOFF CONVEYANCE SYSTEM - STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS.	AS NECESSARY, STABILIZE STREAM BANKS AND SIDE SLOPES OF RUNOFF SYSTEMS AS SOON AS POSSIBLE. USE EROSION CONTROL BLANKETS OR SLOPE DRAINS TO PREVENT EROSION. INSTALL INLET PROTECTION TO PREVENT SEDIMENTS FROM ENTERING STORM DRAINAGE SYSTEMS. PROTECT STORM OUTLETS TO PREVENT EROSION.
LAND CLEARING AND GRADING - SITE PREPARATION (CUTTING, FILLING, AND GRADING, SEDIMENT TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING).	IMPLEMENT CLEARING AND GRADING AFTER INSTALLATION OF SEDIMENT TRAPS AND RUNOFF CONTROL MEASURES, AND INSTALL ADDITIONAL CONTROL MEASURES AS GRADING CONTINUES. CLEAR BORROW AND DISPOSAL AREAS AS NEEDED, AND MARK TREES AND BUFFER AREAS FOR PRESERVATION.
SURFACE STABILIZATION - TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP, EROSION CONTROL BLANKET.	APPLY TEMPORARY OR PERMANENT STABILIZING MEASURES IMMEDIATELY TO ANY DISTURBED AREAS WHERE WORK HAS BEEN EITHER COMPLETED OR DELAYED.
CONSTRUCTION - STRUCTURES, UTILITIES, PAVING.	DURING CONSTRUCTION, INSTALL ANY EROSION AND SEDIMENTATION CONTROL MEASURES THAT ARE NEEDED.
LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.	THIS IS THE LAST CONSTRUCTION PHASE. STABILIZE ALL DISTURBED AREAS, INCLUDING BORROW AND SPOIL AREAS, AND REMOVE ALL TEMPORARY CONTROL MEASURES. A UNIFORM DENSITY OF 70% VEGETATED COVER IS REQUIRED.

EROSION CONTROL SCHEDULE

SCALE: NONE

SEASONAL SOIL PROTECTION CHART

STABILIZATION PRACTICE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING												
DORMANT SEEDING												
TEMPORARY SEEDING												
SODDING												
MULCHING												

- A. = KENTUCKY BLUEGRASS 40 LB/ACRE
B. = KENTUCKY BLUEGRASS 210 LB/ACRE
C. = SPRING OATS 100 LB/ACRE (1" PLANTING DEPTH)
D. = WHEAT OR RYE 150 LB/ACRE (1" - 1.5" PLANTING DEPTH)
E. = ANNUAL RYEGRASS 40 LB/ACRE (1/4" PLANTING DEPTH)
F. = SOD
G. = ANCHORED STRAW/HAY (2 TONS/ACRE) OR WOOD FIBER/CELLULOSE (1 TON/ACRE)

- NOTES:**
1. IRRIGATION NEEDED DURING MAY THROUGH SEPTEMBER.
 2. IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.
 3. ANCHORED MULCH IS REQUIRED FOR PERMANENT, DORMANT AND TEMPORARY SEEDING.
 4. OPTIMUM SEEDING DATES PROVIDED. DATES MAY BE EXTENDED OR SHORTENED BASED ON PROJECT LOCATION.
 5. SEED MIXTURES PROVIDED FOR LAWNS AND HIGH MAINTENANCE AREAS.
- MAINTENANCE:**
1. INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.
 2. CHECK FOR EROSION AND MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
 3. MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (70% DENSITY).
 4. RESEED, FERTILIZE OR APPLY MULCH WHERE NECESSARY.

WASTEWATER SYSTEM EXPANSION

CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN

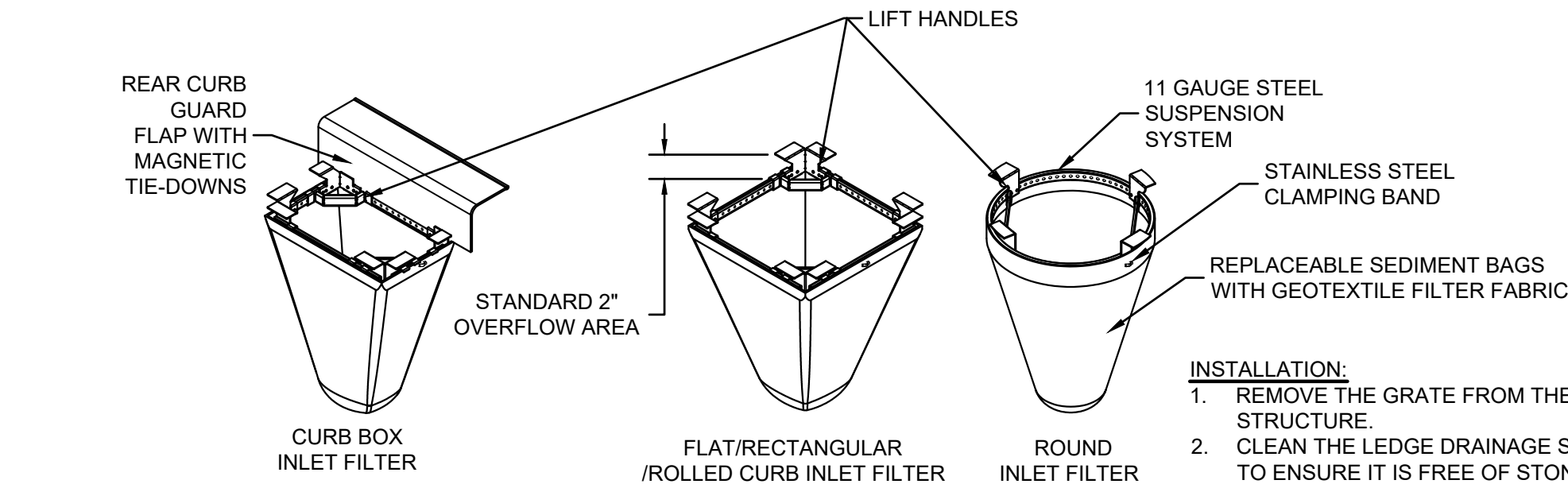
EROSION CONTROL DETAILS

SHEET NO.

27

TOTAL SHEETS

29

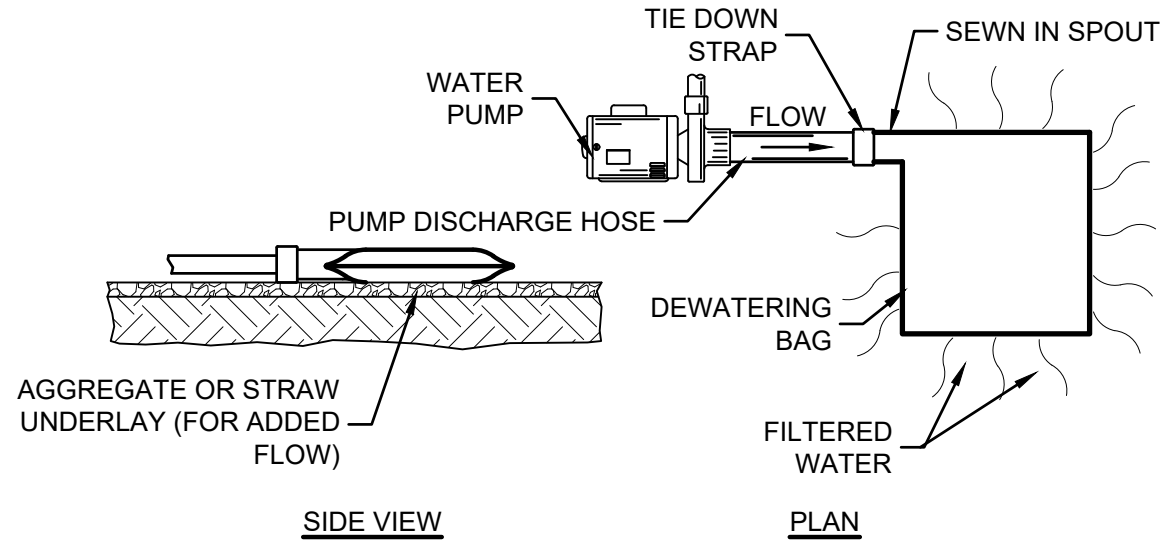


INLET FILTER SPECIFICATIONS		
WOVEN GEOTEXTILE SEDIMENT BAG SPECS (2 FT VOL)		
MATERIAL PROPERTY	TEST METHOD	VALUE (AVG)
GRAB TENSILE	ASTM D4632	255 X 275
PUNCTURE STRENGTH	ASTM D4833	135 LB
TRAPEZOIDAL TEAR	ASTM D4533	75 LB
UV RESISTANCE	ASTM D4355	90%
APP OPEN SIZE (AOS)	ASTM D4751	NO. 20 SIEVE
PERMITTIVITY	ASTM D4491	1.5 S ⁻¹
WATER FLOW RATE	ASTM D4491	200 GPM/SQFT
SEDIMENT REMOVAL EFFICIENCY (8% MIX)	ASTM D7351	82%

SOURCE: FLEX STORM INLET FILTER

INLET PROTECTION

SCALE: NONE



MECHANICAL PROPERTIES	TEST METHOD	UNITS	INDUSTRY STANDARD
GRAB TENSILE STRENGTH	ASTM D4632	kN (LB)	0.9 (205) X 0.9 (205)
GRAB TENSILE ELONGATION	ASTM D4632	%	50 X 50
PUNCTURE STRENGTH	ASTM D4833	kN (LB)	0.58 (130)
MULLEN BURST STRENGTH	ASTM D3786	kPa (PSI)	2618 (380)
TRAPEZOID TEAR STRENGTH	ASTM D4533	kN (LB)	0.36 (80) X 0.36 (80)
UV RESISTANCE	ASTM D4355	%	70
APPARENT OPENING SIZE	ASTM D4751	Mm (US STD SIEVE)	0.180 (80)
FLOW RATE	ASTM D4491	1/MIN/M ² (GAL/MIN/FT ²)	3866 (95)
PERMITTIVITY	ASTM D4491	S ⁻¹	1.2

MAINTENANCE:

- DURING THE ACTIVE DEWATERING PROCESS, INSPECTION OF THE PUMPING BAG SHOULD BE REVIEWED FREQUENTLY. SPECIAL ATTENTION SHOULD BE PAID TO THE BUFFER AREA FOR ANY SIGN OF EROSION AND CONCENTRATION OF FLOW. OBSERVE WHERE POSSIBLE THE VISUAL QUALITY OF THE EFFLUENT AND DETERMINE IF ADDITIONAL TREATMENT CAN BE PROVIDED.
- DISPOSE OF ACCUMULATED SEDIMENT REMOVED DURING PUMPING OPERATIONS IN CONFORMANCE WITH THE SPECIFICATIONS.
- REPLACE THE BAG OR DISPOSE OF SILT WHEN HALF FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE FLOW RATE TO AN IMPRACTICAL RATE.

SOURCE:
KRISTAR
DANDY DEWATERING BAG
SEDCATCH

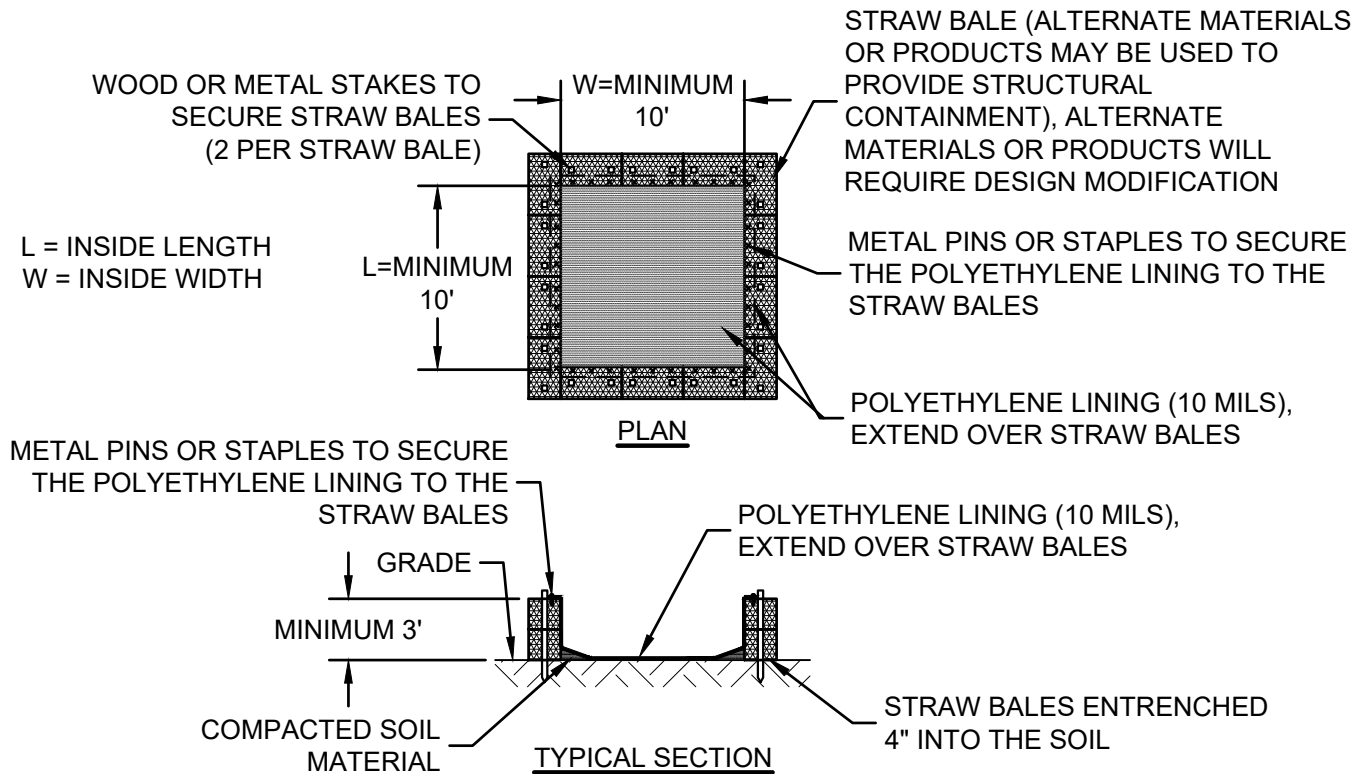
PUMPING BAG

SCALE: NONE

- INSTALLATION:**
- REMOVE THE GRATE FROM THE DRAINAGE STRUCTURE.
 - CLEAN THE LEDGE DRAINAGE STRUCTURE TO ENSURE IT IS FREE OF STONE AND DIRT. DROP IN THE INLET FILTER THROUGH THE CLEAR OPENING AND BE SURE THE SUSPENSION HANGERS REST FIRMLY ON THE INSIDE LEDGE.
 - REPLACE THE GRATE.
 - FOR CURB BOX INLET FILTERS: INSERT INLET FILTER AS DESCRIBED ABOVE IN COMBINATION WITH THE CURB BOX FLAP IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

MAINTENANCE:

- INSPECT THE INLET FILTER DAILY AND AFTER EACH STORM EVENT AND EMPTY IF THE SEDIMENT BAG IS MORE THAN HALF FILLED WITH SEDIMENT AND DEBRIS, OR AS DIRECTED BY THE ENGINEER.
- REMOVE THE GRATE AND LIFT THE INLET FILTER FROM THE DRAINAGE STRUCTURE. DISPOSE OF ACCUMULATED SEDIMENTS AND DEBRIS PROPERLY. MATERIAL SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM.
- REMOVE ANY CAKED ON SILT FROM THE SEDIMENT BAG AND REVERSE FLUSH THE BAG FOR OPTIMAL FILTRATION.
- REPLACE THE BAG IF THE INNER FILTER MEMBRANE IS TORN.



NOTES:

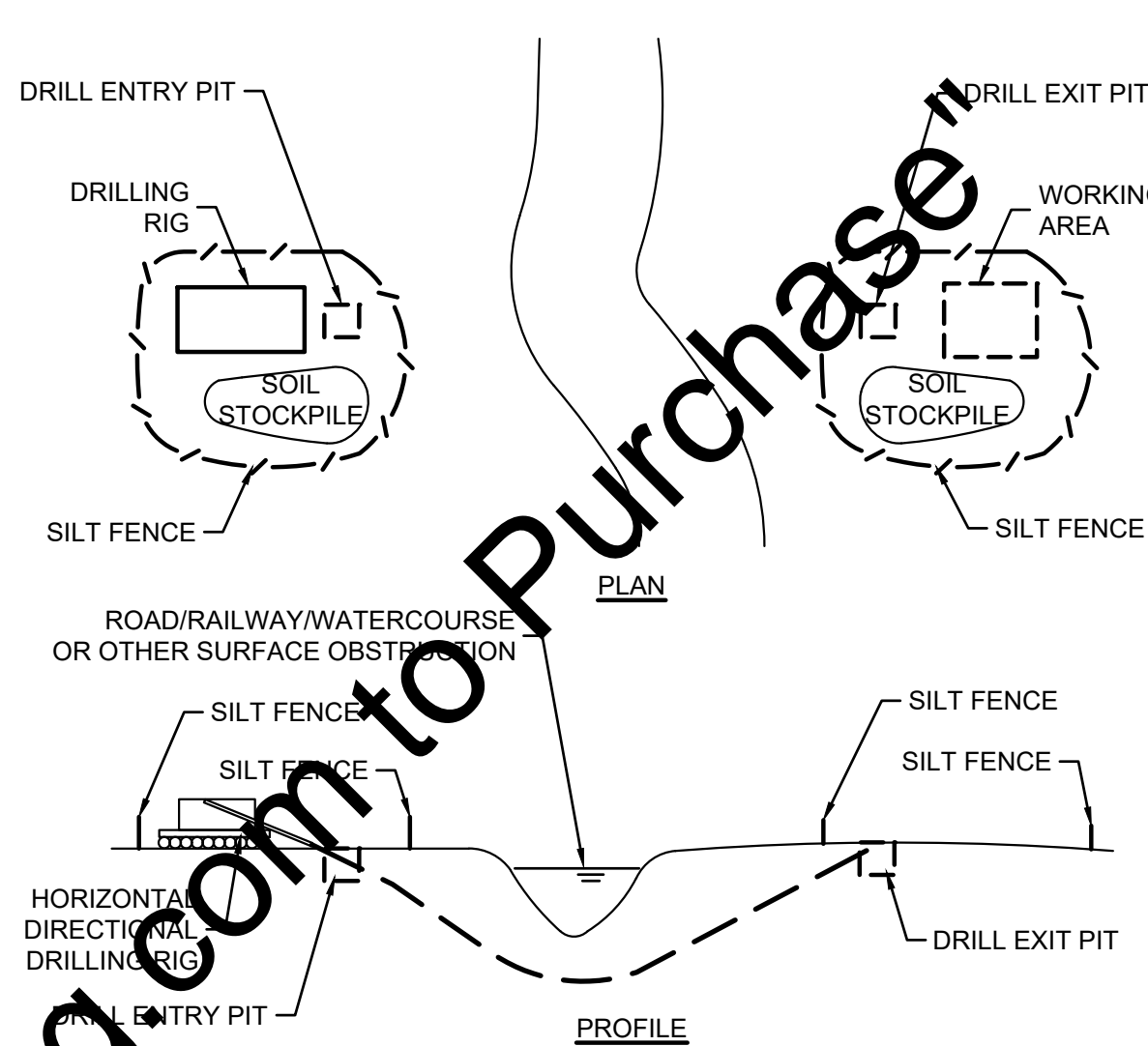
- LOCATE WASHOUTS AT LEAST 50' FROM ANY CREEKS, WETLANDS, DITCHES, KARST FEATURES, OR STORM DRAIN/CONVEYANCES.
- WASHOUT PROCEDURES:**
- DO NOT LEAVE EXCESS MUD IN THE CHUTES OR HOPPER AFTER POURING CONCRETE. MAKE EVERY EFFORT TO EMPTY THE CHUTE AND HOPPER AT THE POUR. THE LESS MATERIAL LEFT IN THE CHUTES AND HOPPER, THE QUICKER AND EASIER THE CLEANOUT. SMALL AMOUNTS OF EXCESS CONCRETE (NOT WASHOUT WATER) MAY BE DISPOSED OF IN AREAS THAT WILL NOT FLOW TO AN AREA THAT IS TO BE PROTECTED.
 - SCRAPE AS MUCH MATERIAL FROM THE CHUTES AS POSSIBLE BEFORE WASHING THEM. USE NON-WATER CLEANING METHODS TO MINIMIZE THE CHANCE FOR WASTE TO FLOW OFF SITE.
 - STOP WASHING OUT IN AN AREA IF YOU OBSERVE WATER RUNNING OFF THE DESIGNATED AREA OR IF THE WATER IS NOT BEING CONTAINED WITHIN THE WASHOUT AREA.
 - DO NOT BACK FLUSH EQUIPMENT AT THE PROJECT SITE.
 - DO NOT USE ADDITIVES WITH WASH WATER.
 - DO NOT WASH OUT OR DRAIN WASTE WATERS TO STORM DRAINS, WETLANDS, STREAMS, RIVERS, CREEKS, DITCHES OR STREETS.

MAINTENANCE:

- MAINTENANCE REQUIREMENTS PROVIDED IN SPECIFICATIONS.

CONCRETE WASHOUT

SCALE: NONE

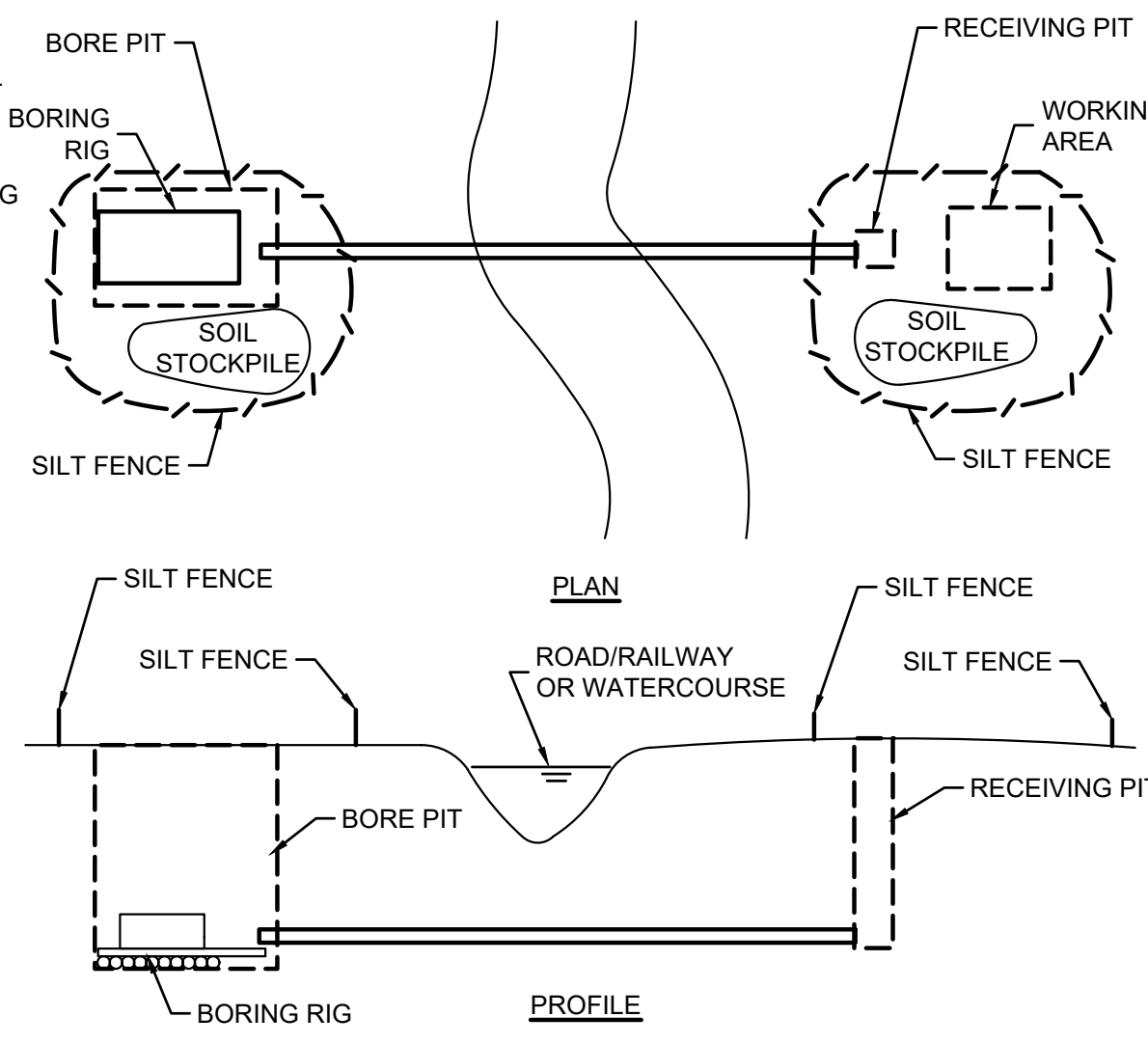


- INSTALL SILT FENCE PRIOR TO ANY EXCAVATION.**
- FILTER WATER FROM BORE PIT DEWATERING, AND DO NOT DIRECTLY DISCHARGE TO ANY DITCH, STREAM, WETLAND OR STORM WATER CONVEYANCE. REFER TO PUMPING BAG DETAIL.
 - PLACE SOIL STOCKPILES WITHIN THE SILT FENCE BOUNDARY.
 - SOIL FROM STOCKPILES SHALL BE USED FOR BACKFILL OR DISPOSED OF PROPERLY.
 - RESEED AND MULCH ALL DISTURBED SOIL SURFACES.
 - ENVIRONMENTAL PROTECTION TO BE PROVIDED AS NECESSARY TO CONTAIN ANY DRILLING FLUID SPILLS.

- MAINTENANCE:**
- INSPECT SILT FENCE BARRIERS AFTER EACH RAINFALL, AND REPAIR OR REPLACE IMMEDIATELY.
 - REMOVE SEDIMENT DEPOSITS FROM THE SILT FENCE AFTER STORM EVENTS.

HORIZONTAL DIRECTIONAL DRILLING

SCALE: NONE



NOTES:

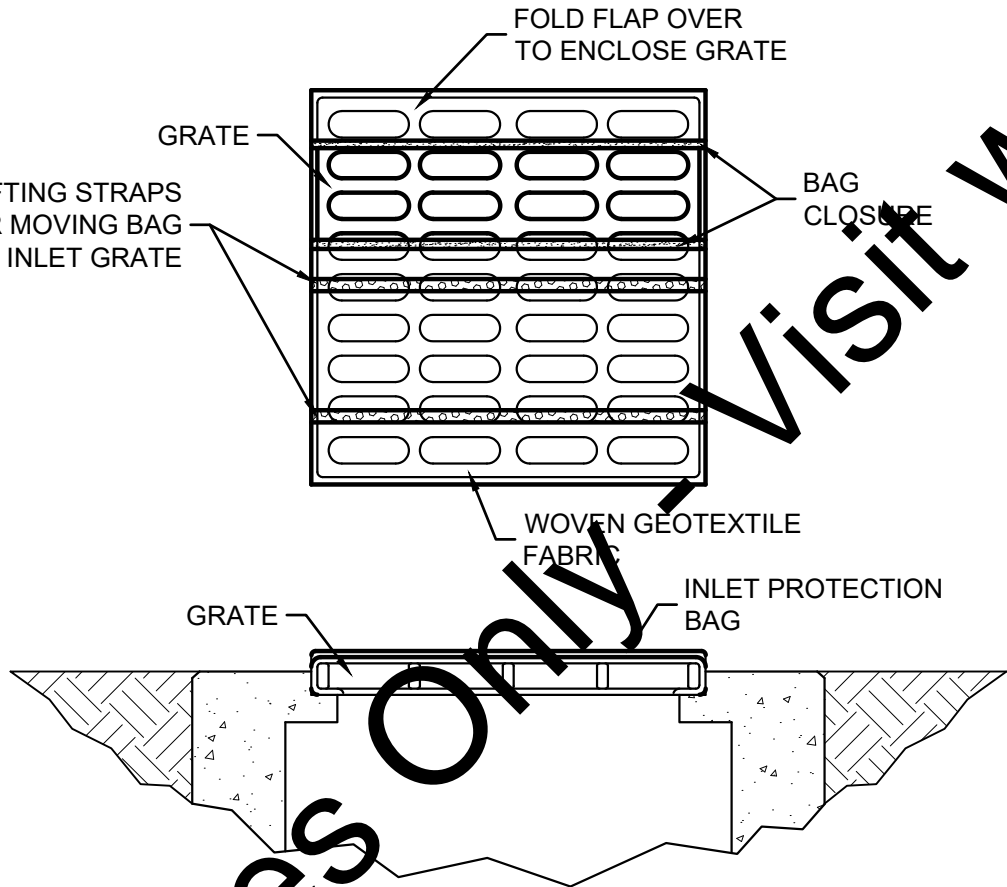
- INSTALL SILT FENCE PRIOR TO ANY EXCAVATION.
- FILTER WATER FROM BORE PIT DEWATERING, AND DO NOT DIRECTLY DISCHARGE TO ANY DITCH, STREAM, WETLAND OR STORM WATER CONVEYANCE. REFER TO PUMPING BAG DETAIL.
- PLACE SOIL STOCKPILES WITHIN THE SILT FENCE BOUNDARY.
- SOIL FROM STOCKPILES SHALL BE USED FOR BACKFILL OR DISPOSED OF PROPERLY.
- RESEED AND MULCH ALL DISTURBED SOIL SURFACES.
- PROVIDE ENVIRONMENTAL PROTECTION AS NECESSARY TO CONTAIN ANY DRILLING FLUID SPILLS.

MAINTENANCE:

- INSPECT SILT FENCE BARRIERS AFTER EACH RAINFALL. REPAIR OR REPLACE IMMEDIATELY.
- REMOVE SEDIMENT DEPOSITS FROM THE SILT FENCE AFTER STORM EVENTS.

HORIZONTAL BORED CROSSING

SCALE: NONE



PRODUCT:

- DANDY BAG OR APPROVED EQUAL.

INSTALLATION:

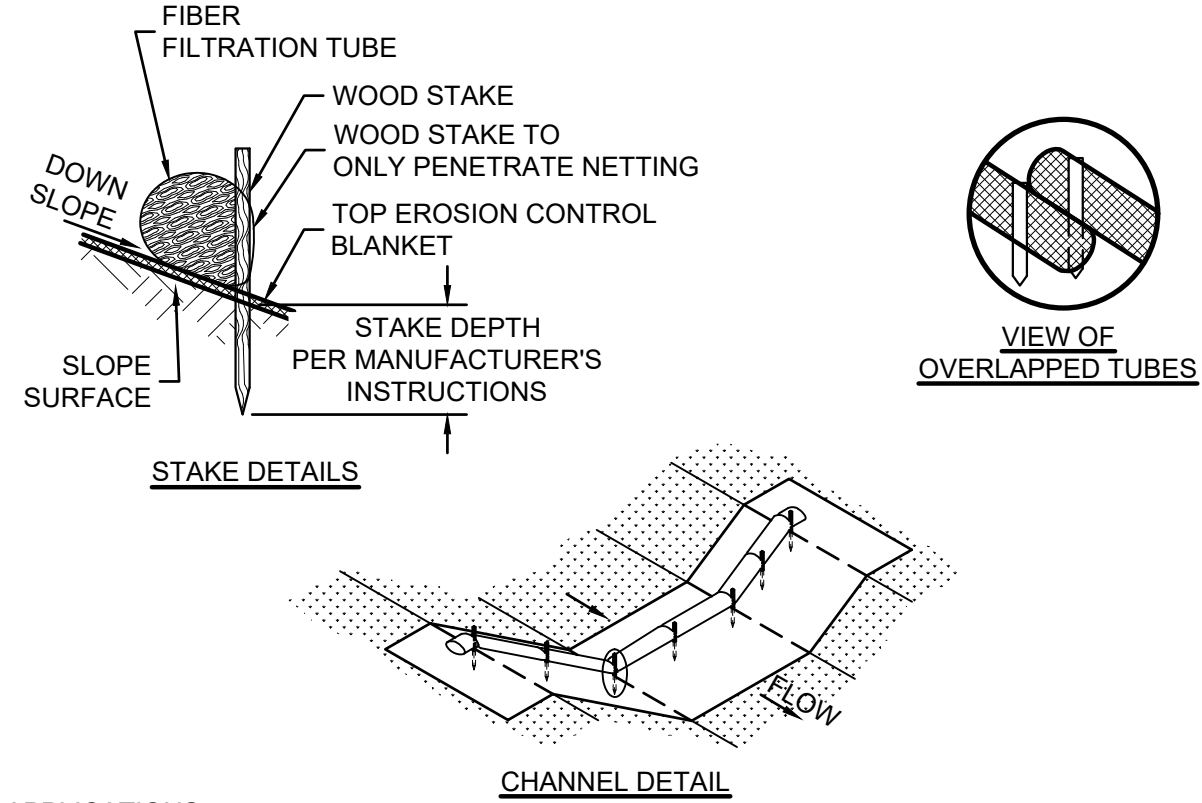
- STANDS ON END.
- SLIDING THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. INCLUDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME.

MAINTENANCE:

- REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT.
- REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE INLET PROTECTION BAG AS NEEDED.
- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND ONCE EVERY 7 CALENDAR DAYS.

INLET PROTECTION BAG

SCALE: NONE



APPLICATIONS:

- DOWN-GRADIENT OF A PROJECT LIMITS.
- ACROSS DITCHES OR SWALES.
- TO SLOW FLOWS AND FILTER SEDIMENTS.

INSTALLATION:

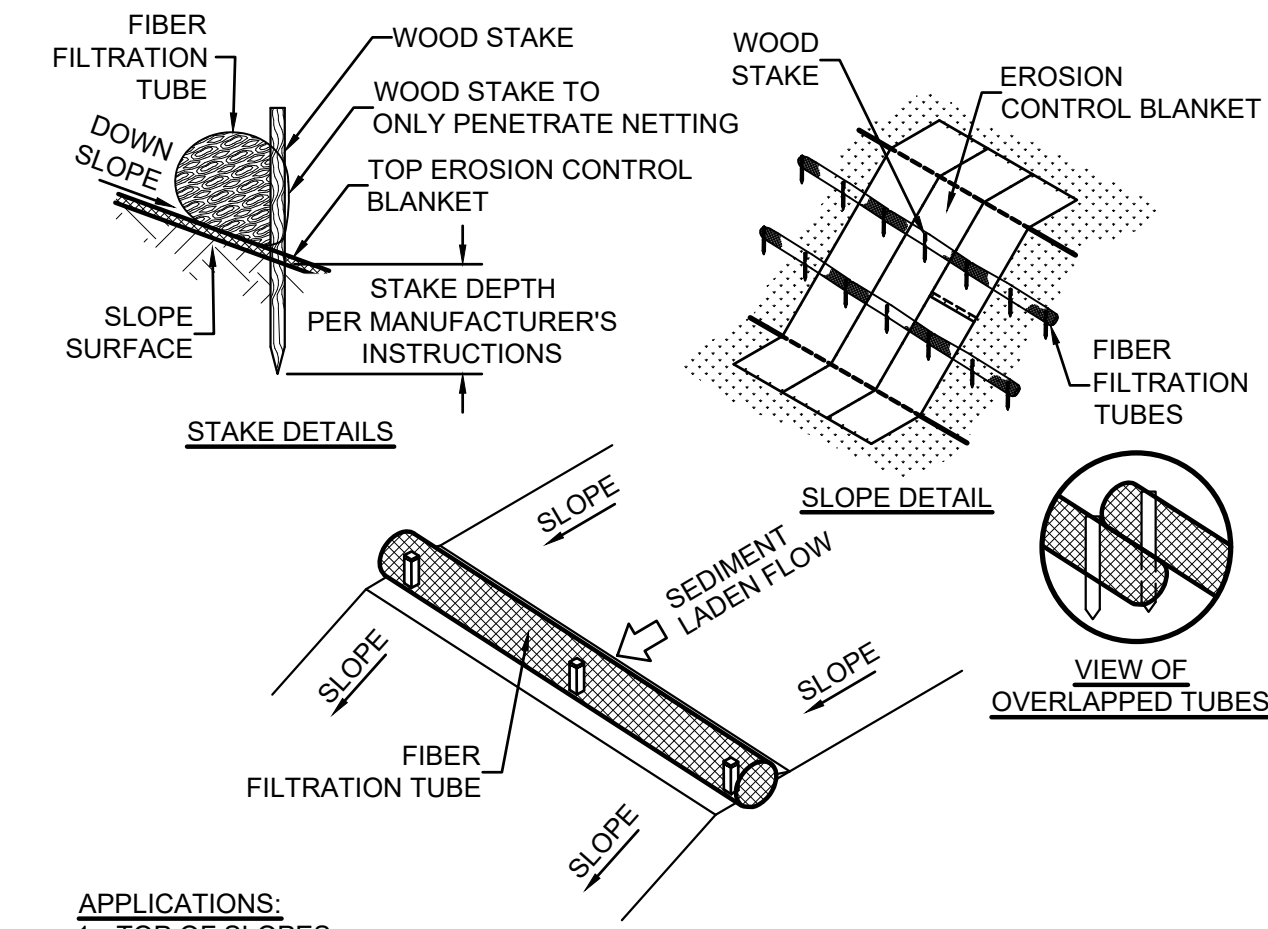
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- USE THE APPROPRIATE SIZE, LENGTH AND DISTANCE BETWEEN TUBES AS SPECIFIED BY THE MANUFACTURER.
- ENTRENCH PER MANUFACTURER'S INSTRUCTIONS.

MAINTENANCE:

- REMOVE ALL ACCUMULATED SEDIMENT WHEN IT REACHES 1/4 THE HEIGHT OF THE TUBE.
- REPAIR ERODED AND DAMAGED AREAS.
- IF PONDING BECOMES EXCESSIVE DUE TO REDUCED FILTERING CAPACITY, REMOVE THE TUBE AND EITHER RECONSTRUCT OR REPLACE WITH NEW PRODUCT.
- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.

FIBER FILTRATION TUBES - CHANNEL

SCALE: NONE



APPLICATIONS:

- TOP OF SLOPES.
- AT PROJECT PERIMETER.

INSTALLATION:

- INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- USE THE APPROPRIATE SIZE, LENGTH AND DISTANCE BETWEEN TUBES AS SPECIFIED BY THE MANUFACTURER.
- ENTRENCH PER MANUFACTURER'S INSTRUCTIONS.

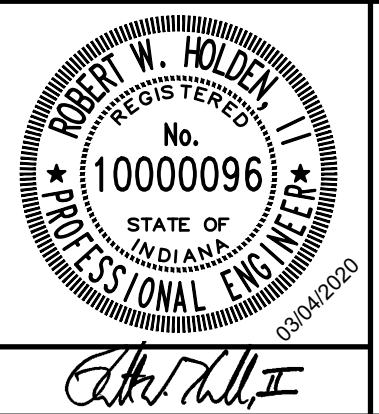
MAINTENANCE:

- REMOVE ALL ACCUMULATED SEDIMENT WHEN IT REACHES 1/4 THE HEIGHT OF THE TUBE.
- REPAIR ERODED AND DAMAGED AREAS.
- IF PONDING BECOMES EXCESSIVE DUE TO REDUCED FILTERING CAPACITY, REMOVE THE TUBE AND EITHER RECONSTRUCT OR REPLACE WITH NEW PRODUCT.
- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS.

FIBER FILTRATION TUBES - SLOPE

SCALE: NONE

SCALE VERIFICATION	DRAWN BY	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING	CHECKED BY	JRW			
	APPROVED BY	RWH			
	ISSUE DATE				
	MARCH 2020				
	PROJECT NUMBER				
		193216-04-001			



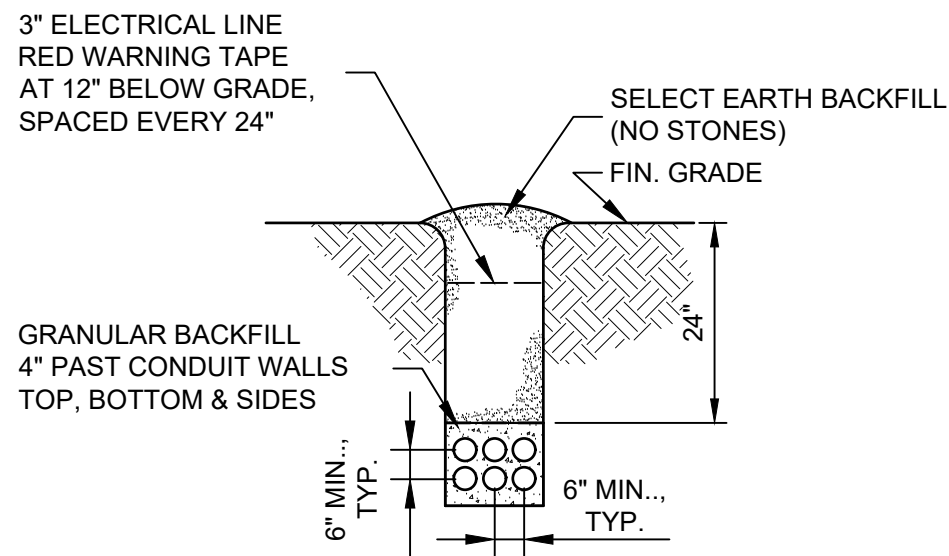
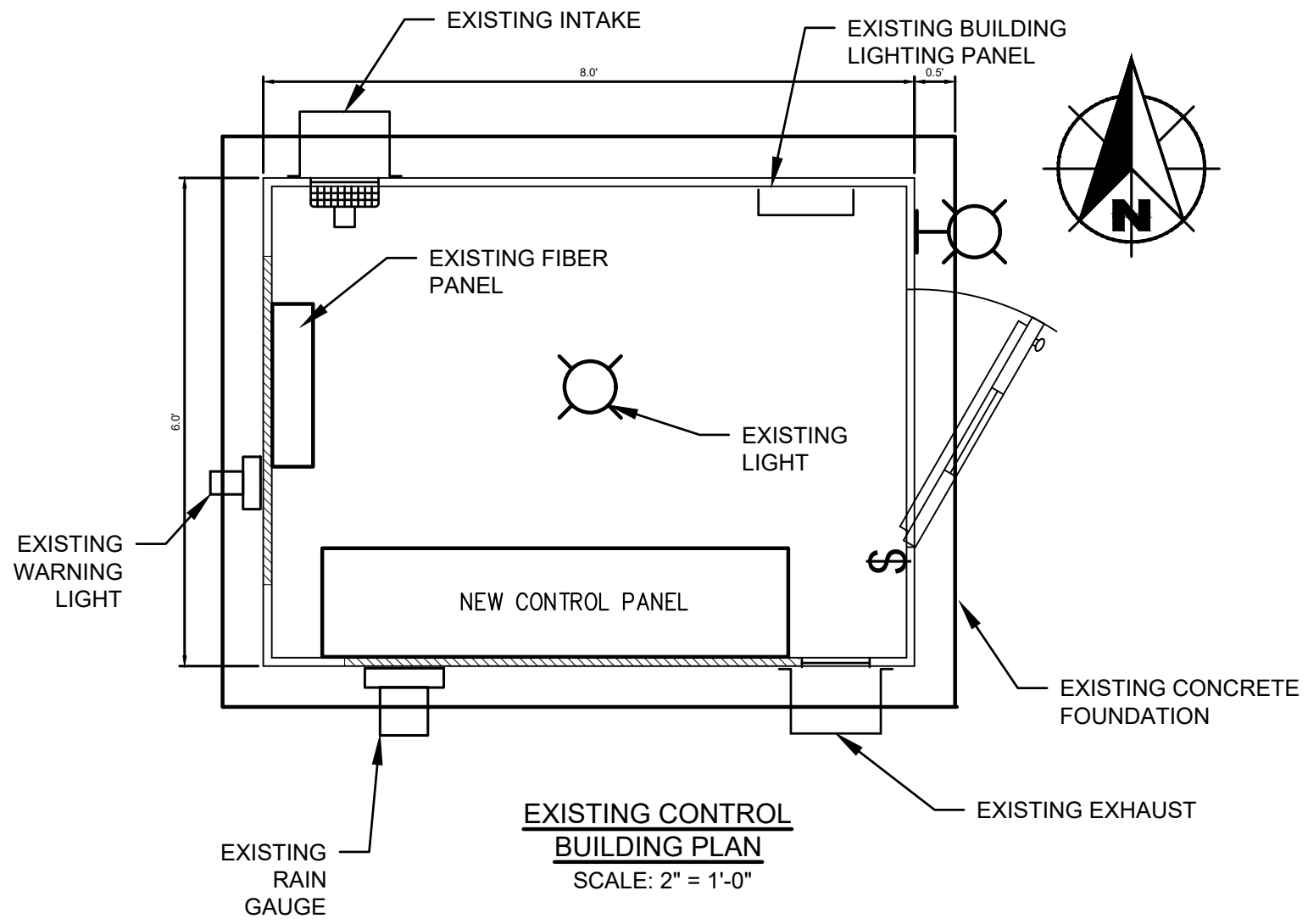
WASTEWATER SYSTEM EXPANSION
CITY OF FRANKFORT, INDIANA
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN
EROSION CONTROL DETAILS

SHEET NO.

28

TOTAL SHEETS

29

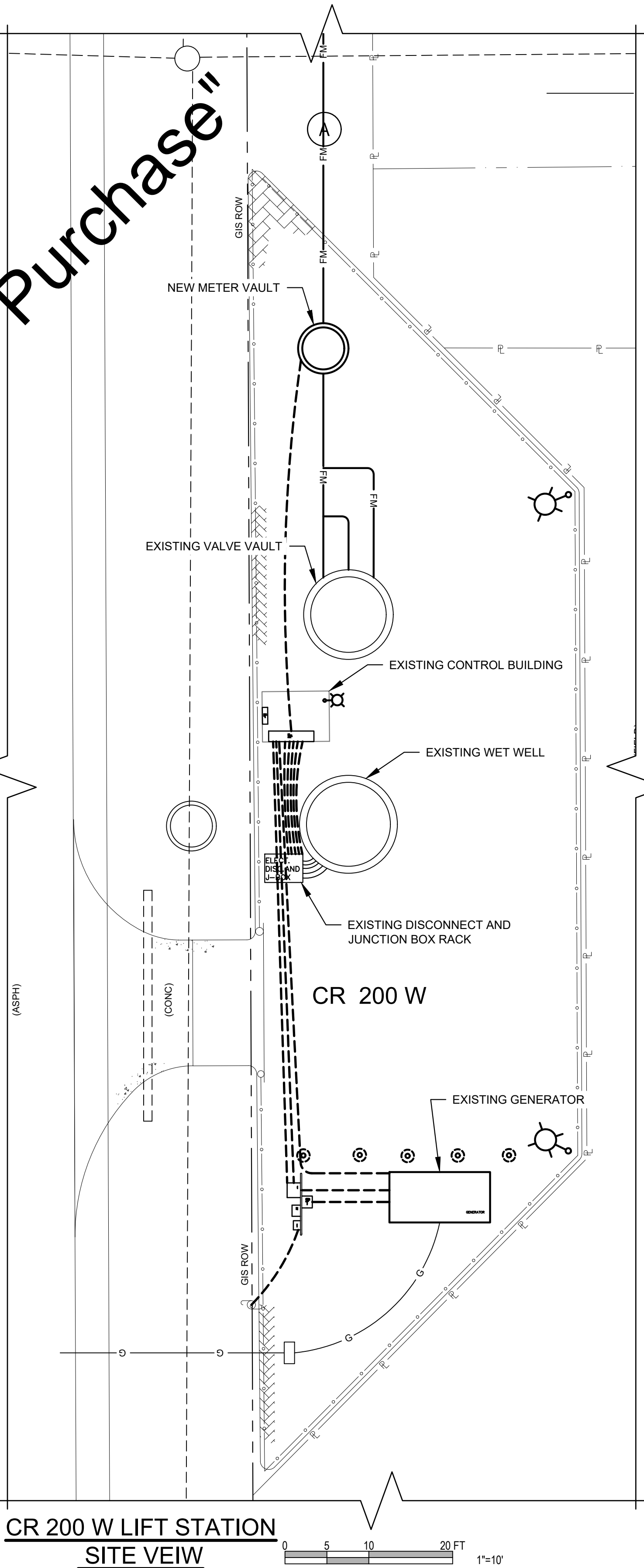
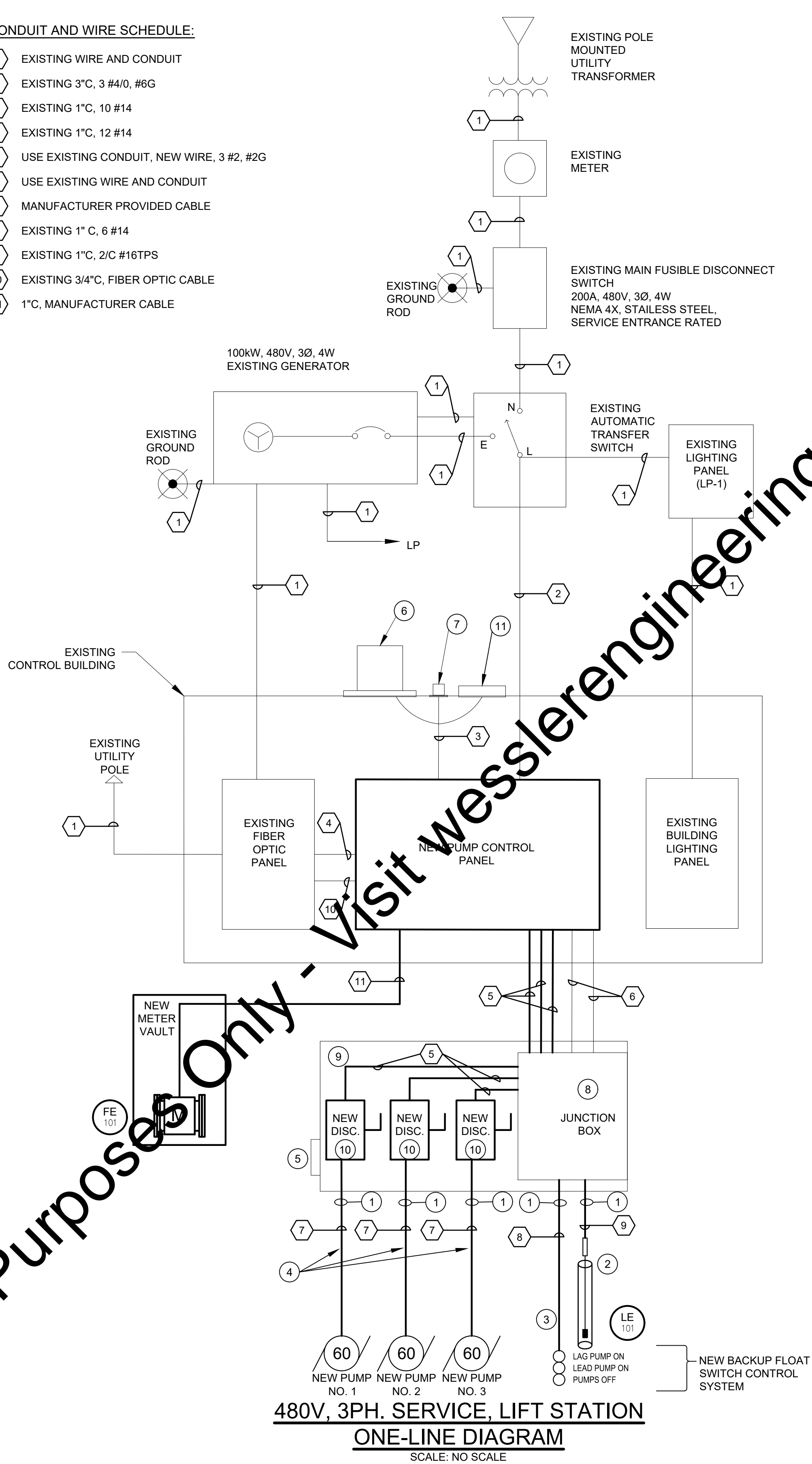


KEYED NOTES:

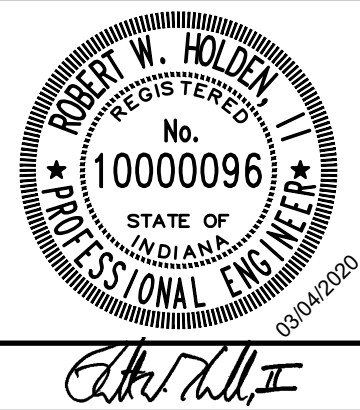
- 1 EXISTING CONDUITS FOR PUMP CABLES, FLOAT CABLES & SUBMERSIBLE PRESSURE TRANSMITTER. FURNISHED AND INSTALLED BY THE CONTRACTOR
- 2 LEVEL SENSOR CABLE AND STAINLESS STEEL SUPPORT CABLE. PVC STILLING TUBE MOUNTED TO THE SIDE OF THE WELL AND SUPPORTED EVERY 5' WITH 316 STAINLESS STEEL HARDWARE. POSITION STILLING TUBE SO THAT LEVEL SENSOR MAY BE PULLED UP THROUGH HATCH. SUBMERSIBLE LEVEL TRANSMITTER TO BE LOCATED BELOW THE LOWEST FLOAT SWITCH.
- 3 WEIGHTED CABLE SET AND THREE FLOAT SWITCHES, FURNISHED BY PUMP MANUFACTURER, INSTALLED BY CONTRACTOR.
- 4 STAINLESS STEEL STRAIN RELIEF CABLE GRIP AND STAINLESS STEEL HOOK FOR SUPPORT OF ALL POWER AND CONTROL CABLES IN THE WET WELL, ACCESSIBLE FROM WET WELL HATCH.
- 5 PORTABLE MIXER RECEPTACLE, SEE PUMP SPECIFICATION
- 6 RAIN GAUGE, FURNISHED WITH PUMP CONTROL PANEL
- 7 HIGH LEVEL ALARM BEACON
- 8 RE-USE EXISTING ELECTRICAL JUNCTION BOX
- 9 RE-USE EXISTING MOUNTING INFRASTRUCTURE, REMOVE EXISTING DISCONNECT SWITCHS
- 10 100A, 480V, NEMA 4X S.S. DISCONNECT SWITCH.
- 11 DEMOLITION HORN IF PRESENT.

CONDUIT AND WIRE SCHEDULE:

- 1 EXISTING WIRE AND CONDUIT
- 2 EXISTING 3"C, 3 #4/0, #6G
- 3 EXISTING 1"C, 10 #14
- 4 EXISTING 1"C, 12 #14
- 5 USE EXISTING CONDUIT, NEW WIRE, 3 #2, #2G
- 6 USE EXISTING WIRE AND CONDUIT
- 7 MANUFACTURER PROVIDED CABLE
- 8 EXISTING 1" C, 6 #14
- 9 EXISTING 1"C, 2/C #16TPS
- 10 EXISTING 3/4"C, FIBER OPTIC CABLE
- 11 1"C, MANUFACTURER CABLE



SCALE VERIFICATION	DRAWN BY	TW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS
BAR IS ONE INCH LONG ON ORIGINAL DRAWING	CHECKED BY	DR				
	APPROVED BY	RWH				
	ISSUE DATE					
	MARCH 2020					
	PROJECT NUMBER					
	193216-04-001					



WASTEWATER SYSTEM EXPANSION	
CITY OF FRANKFORT, INDIANA	
CONTRACT B - CR 200W LIFT STATION AND FORCE MAIN	
ELECTRICAL PLAN AND SECTION	

SHEET NO.	29
TOTAL SHEETS	29