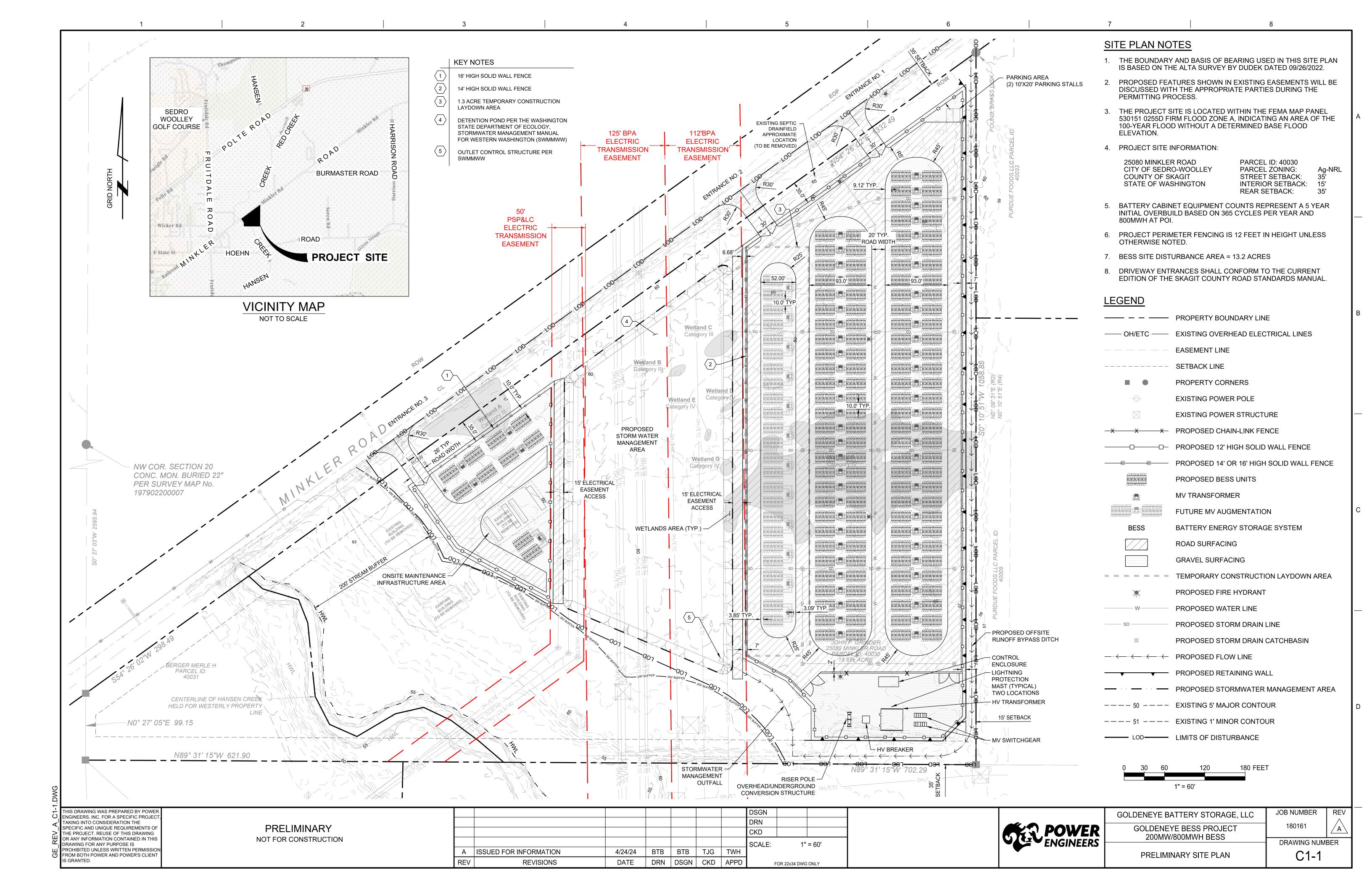
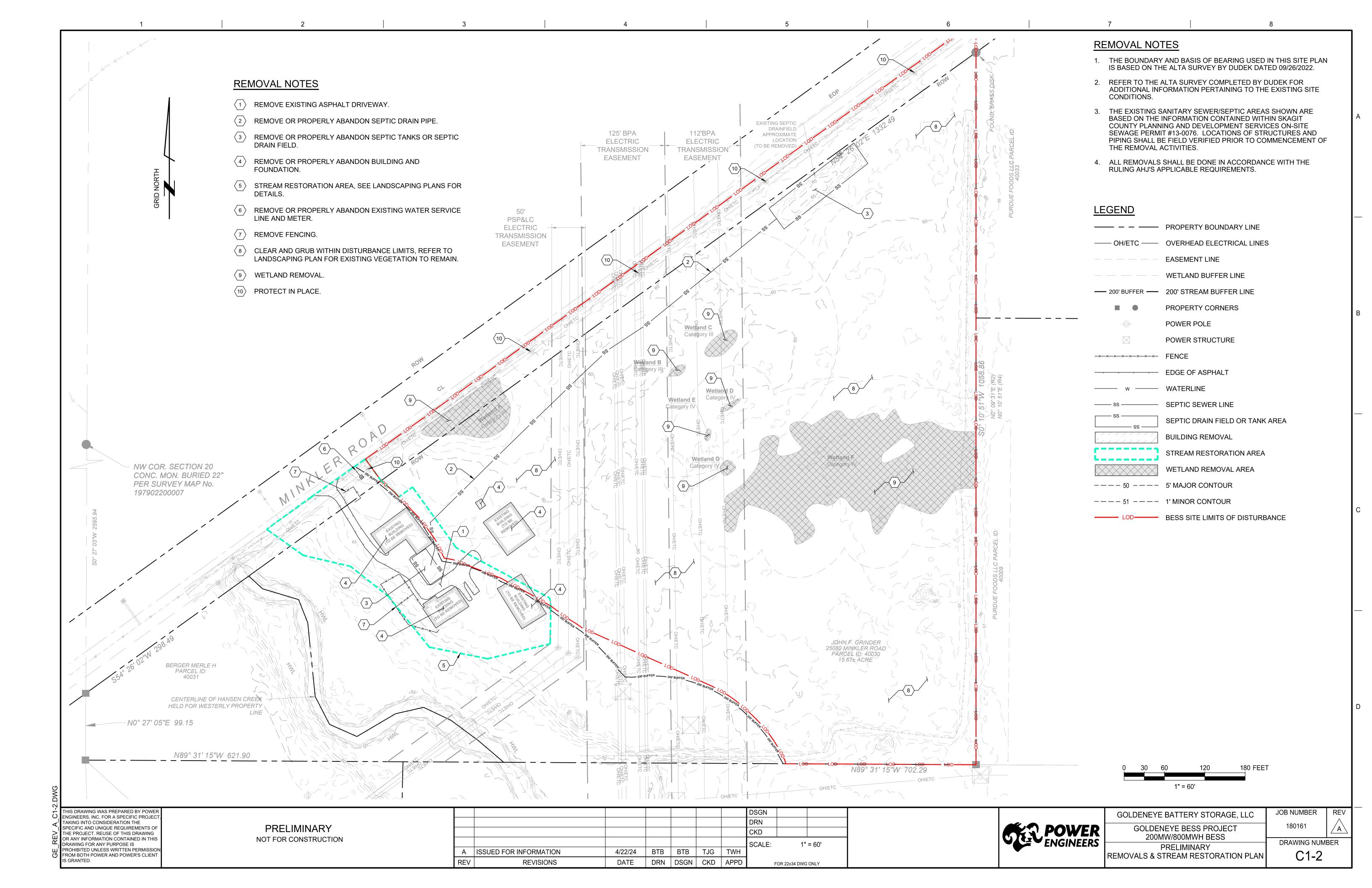
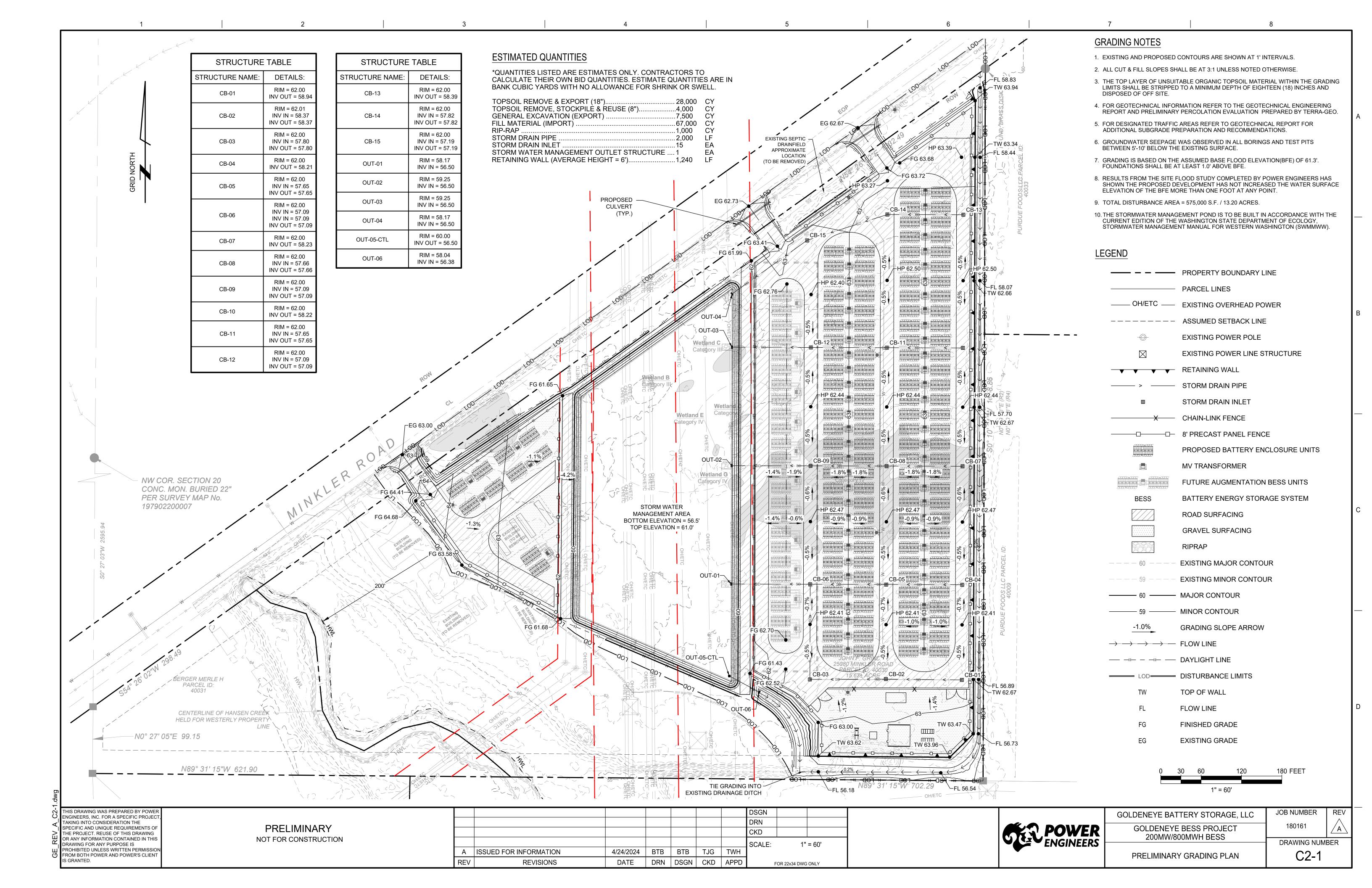
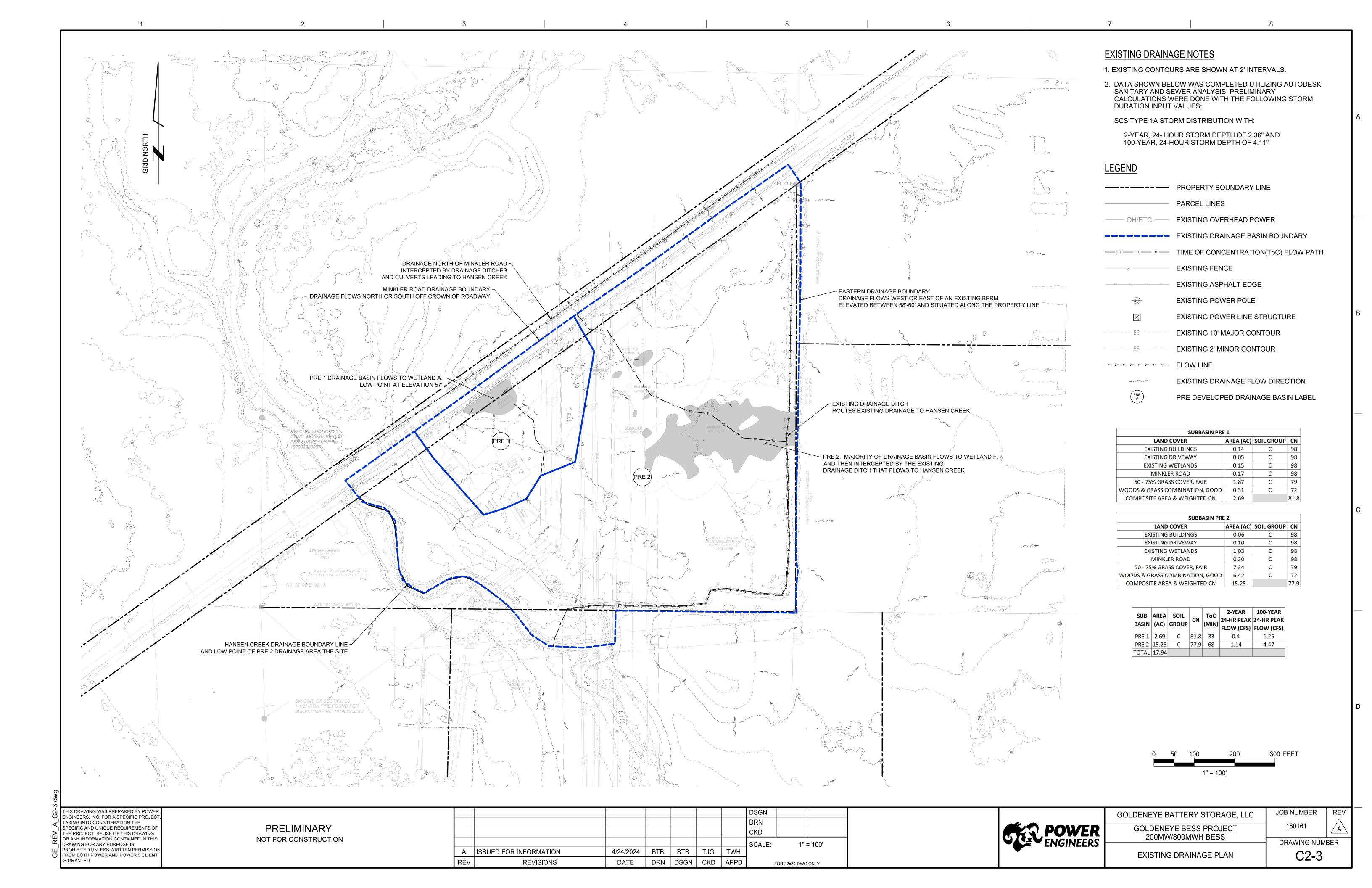
# ATTACHMENT B: CIVIL ENGINEERING DRAWINGS

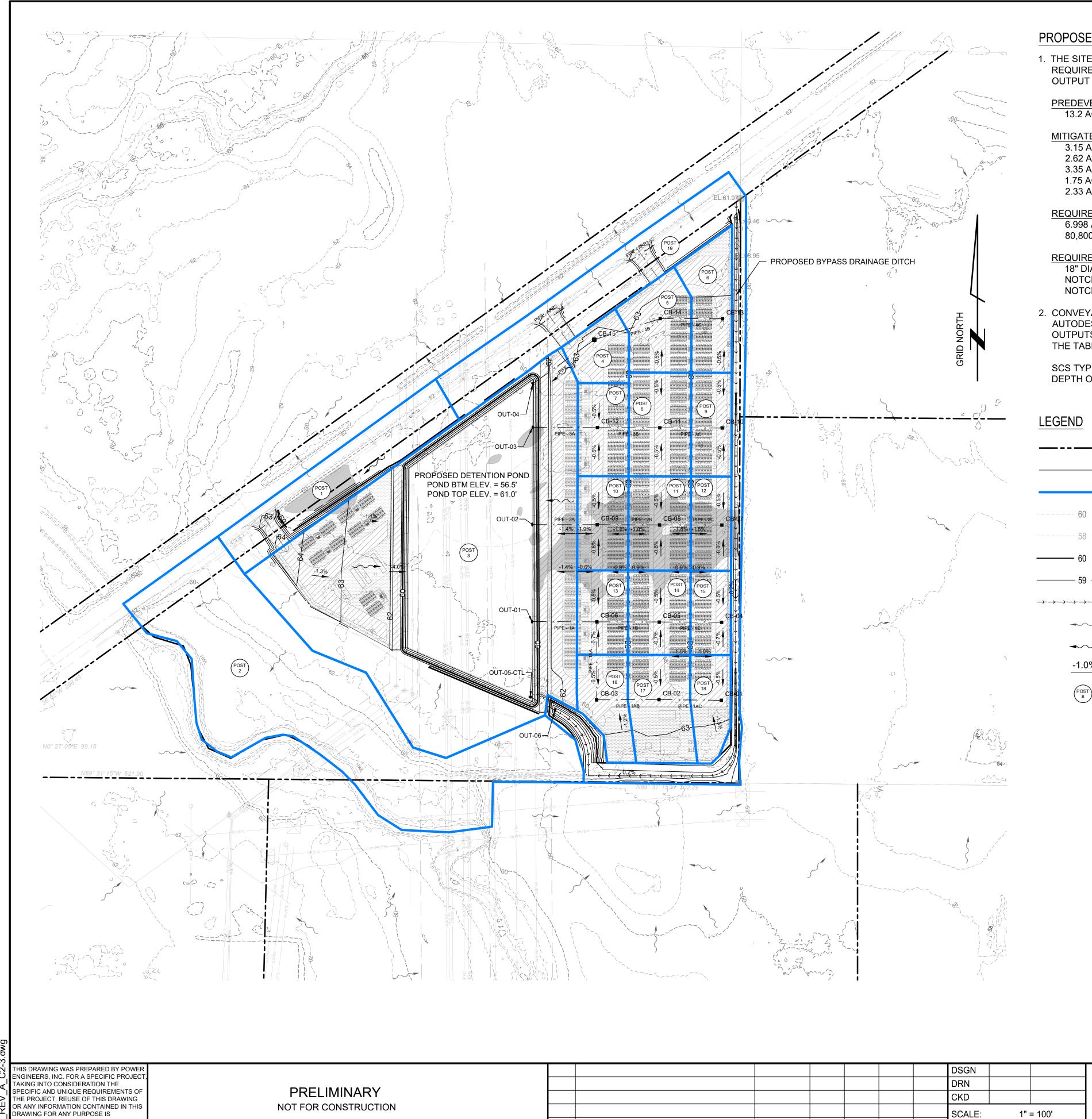












A ISSUED FOR INFORMATION

**REVISIONS** 

4/24/2024 | BTB | BTB | TJG | TWH

DATE DRN DSGN CKD APPD

FOR 22x34 DWG ONLY

PROHIBITED UNLESS WRITTEN PERMISSION

FROM BOTH POWER AND POWER'S CLIENT IS GRANTED.

## PROPOSED DRAINAGE NOTES

1. THE SITE WAS MODELED WITH WWHM2012 TO PRELIMINARILY SIZE THE REQUIRED DETENTION POND VOLUME. SOFTWARE INPUTS AND **OUTPUT SHOWN BELOW:** 

#### PREDEVELOPED AREA:

13.2 ACRES C, FOREST FLAT, (PERVIOUS)

#### MITIGATED AREA:

3.15 ACRES C, LAWN, STEEP, (PERVIOUS) 2.62 ACRES ROADS/FLAT, (IMPERVIOUS) 3.35 ACRES ROOF TOPS/FLAT, (IMPERVIOUS) 1.75 ACRES PARKING/FLAT, (IMPERVIOUS) 2.33 ACRES POND, (IMPERVIOUS)

#### REQUIRED POND SIZE:

6.998 AC-FT POND VOLUME AT RISER HEAD, 80,800 SF POND BOTTOM, 4.5' DEEP W/3:1 SIDE SLOPES

## REQUIRED OUTLET STRUCTURE:

18" DIAMETER, 3.5' RISER HEIGHT, RECTANGULAR NOTCHED RISER WITH 1.905' HEIGHT BY .111' WIDTH NOTCH AND 2.51" DIAMETER ORIFICE.

2. CONVEYANCE DEVICES WERE PRELIMINARILY SIZED UTILIZING AUTODESK SANITARY AND SEWER ANALYSIS. SOFTWARE INPUTS AND OUTPUTS SHOWN IN THE INFORMATION SHOWN BELOW AND WITHIN THE TABLES ON THIS SHEET:

SCS TYPE 1A STORM DISTRIBUTION WITH 100-YEAR, 24-HOUR STORM DEPTH OF 4.11".

———— PROPERTY BOUNDARY LINE PARCEL LINES PROPOSED DRAINAGE BASIN BOUNDARY **EXISTING 10' MAJOR CONTOUR EXISTING 2' MINOR CONTOUR** 

> PROPOSED 5' MAJOR CONTOUR PROPOSED 1' MINOR CONTOUR

#### → → → → → → FLOW LINE

EXISTING DRAINAGE FLOW DIRECTION

PROPOSED DRAINAGE FLOW DIRECTION

**GRADING SLOPE** 

## POST DEVELOPED DRAINAGE BASIN LABEL

## SUB-BASIN AREA DRAINAGE DETAILS

SUB BASIN	AREA (AC)	SOIL GROUP	CN	ToC (MIN)	2-YEAR 24-HR PEAK FLOW (CFS)	100-YEAR 24-HR PEAK FLOW (CFS)
POST 1	0.94	С	92	6	0.38	0.79
POST 2	3.38	С	77	6	0.33	1.34
POST 3	5.97	С	98	6	3.27	5.85
POST 4	0.26	С	98	6	0.14	0.26
POST 5	0.44	С	98	6	0.24	0.43
POST 6	0.43	С	98	6	0.24	0.43
POST 7	0.36	С	98	6	0.20	0.35
POST 8	0.49	С	98	6	0.27	0.48
POST 9	0.32	С	98	6	0.18	0.31
POST 10	0.36	С	98	6	0.20	0.36
POST 11	0.44	С	98	6	0.24	0.43
POST 12	0.29	С	98	6	0.16	0.28
POST 13	0.32	С	98	6	0.18	0.32
POST 14	0.40	С	98	6	0.22	0.39
POST 15	0.26	С	98	6	0.14	0.25
POST 16	0.35	С	98	6	0.19	0.34
POST 17	0.51	С	98	6	0.28	0.49
POST 18	0.29	С	98	6	0.16	0.29
POST 19	2.13	С	92	24	0.83	1.75
TOTAL	17.94					

## PIPE DRAINAGE DETAILS

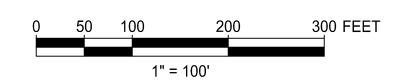
		100-YEAR	100-YEAR	DESIGN	MAX FLOW/	MAX FLOW
PIPE	PIPE	24-HR PEAK	24-HR PEAK	FLOW	DESIGN FLOW	
NAME	DIAMETER	FLOW	VELOCITY	CAPACITY	RATIO	DEPTH RATIO
	(IN)	(CFS)	(FPS)	(CFS)	KATIO	DEFINATIO
<b>1</b> A	12	2.07	4.15	2.73	0.76	0.93
1AA	12	1.12	2.38	2.73	0.41	0.58
1AB	12	0.78	2.56	2.73	0.29	0.41
1AC	12	0.29	1.47	2.73	0.11	0.3
1B	12	0.64	1.55	2.72	0.23	0.57
1C	12	0.25	1.48	2.72	0.09	0.27
2A	12	1.07	2.85	2.74	0.39	0.93
2B	12	0.71	2.41	2.73	0.26	0.57
2C	12	0.28	1.56	2.73	0.1	0.28
3A	12	1.14	2.95	2.74	0.42	0.93
3B	12	0.79	2.47	2.73	0.29	0.57
3C	12	0.31	1.57	2.72	0.12	0.3
4A	12	1.12	2.93	2.73	0.41	0.88
4B	12	0.86	2.67	2.73	0.31	0.44
4C	12	0.43	1.87	2.73	0.16	0.33

## POND DRAINAGE DETAILS

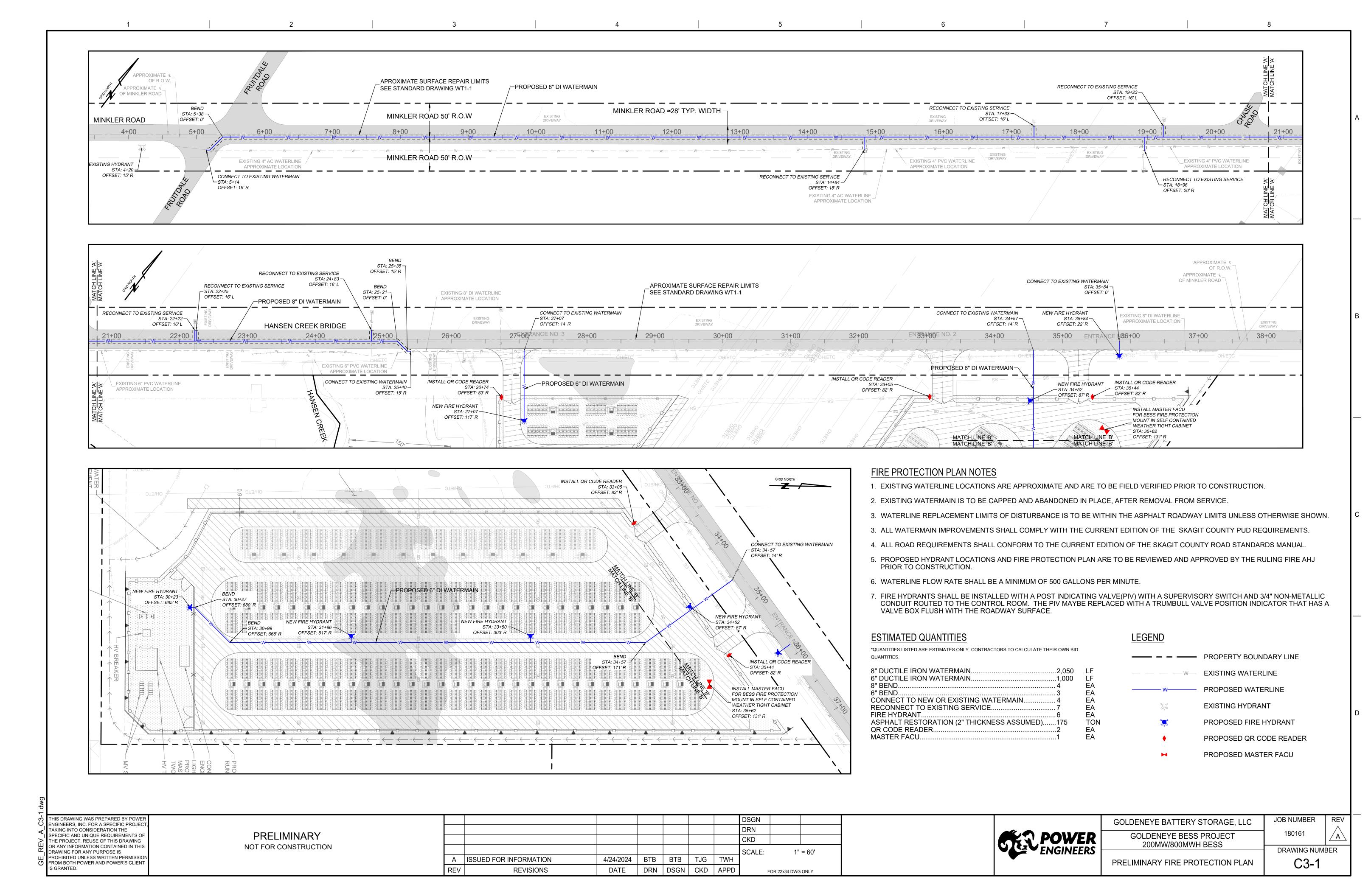
					100-YEAR		
ENJENIT			POND	100-YEAR	24-HR PEAK	100-YEAR	
EMENT ID	INVERT	TOTAL	воттом	24-HR PEAK	LATERAL	24-HR PEAK	
ID	<b>ELEVATION</b>	DEPTH	AREA	INFLOW	INFLOW	OUTFLOW	
	(FT)	(FT)	(ACRES)	(CFS)	(CFS)	(CFS)	
POND	56.5	4.5	2.33	11.23	5.84	0.20	

# BYPASS DITCH DRAINAGE DETAILS

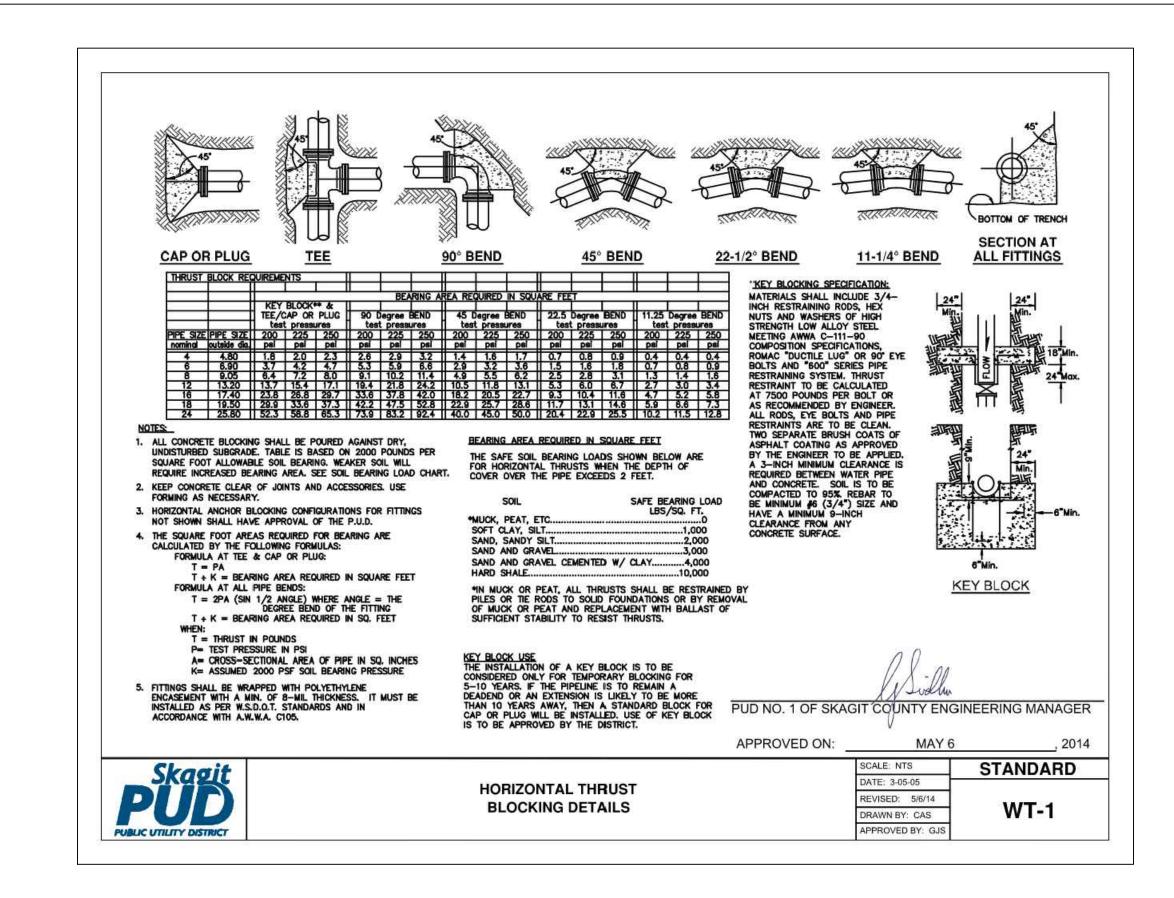
ELEMENT ID	AVERAGE SLOPE (%)	CHANNEL TYPE	CHANNEL HEIGHT (FT)	CHANNEL WIDTH (FT)	100-YEAR 24-HR PEAK FLOW (CFS)	100-YEAR 24-HR PEAK VELOCITY (FPS)	DESIGN FLOW CAPACITY (CFS)	MAX FLOW DEPTH / TOTAL FLOW DEPTH RATIO
BY-PASS DITCH	• •	TRAPEZOIDAL	1.00	10.00	1.28	1.00	10.05	0.37

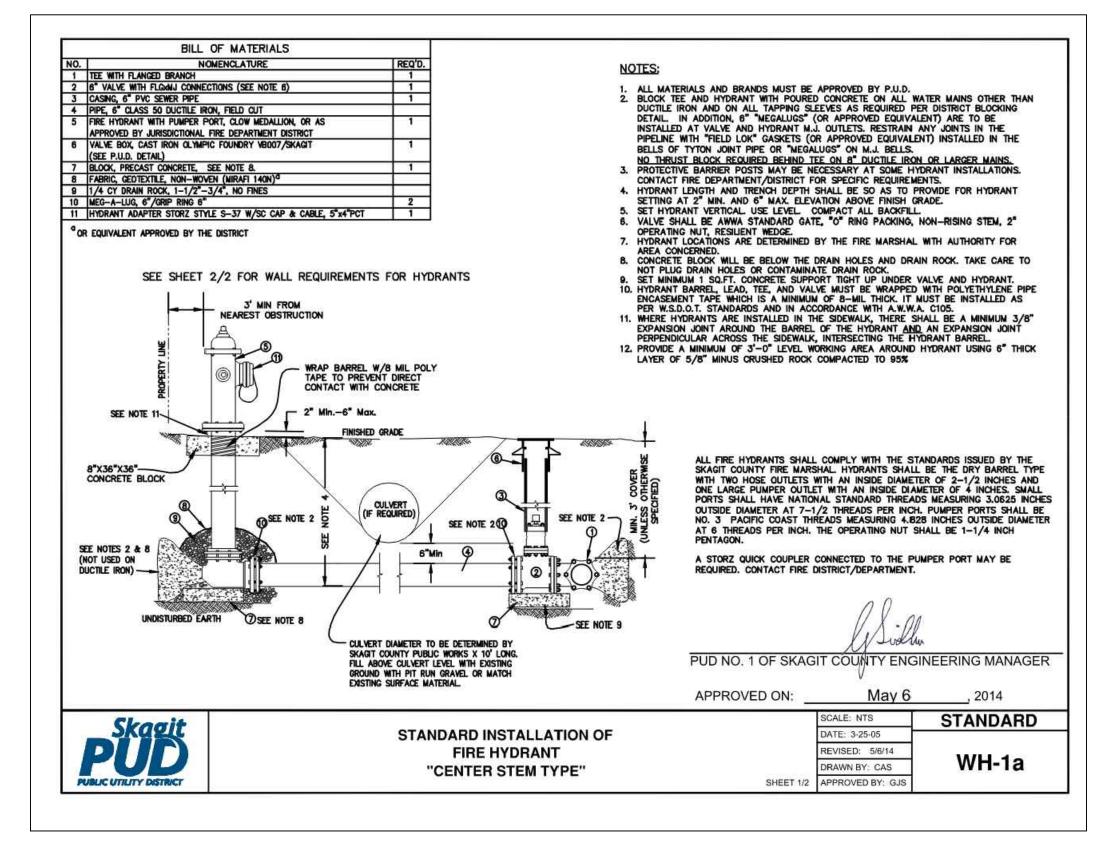


DLDENEYE BATTERY STORAGE, LLC	JOB NUMBER	RE
,	400404	/
GOLDENEYE BESS PROJECT	180161	//
200MW/800MWH BESS		
	DRAWING NUMI	BER
PROPOSED DRAINAGE PLAN	C2-4	
FINOFOSED DIVAINAGE FLAIN	<u> </u>	



6' ASSUMED FOR SURFACE RESTORATION -REQUIREMENTS, SEE APPLICABLE MUNICIPALITY DETAIL FOR TRENCH BACKFILL -COVER REQUIREMENTS, SEE APPLICABLE PER PLANS MUNICIPALITY DETAIL 4.0' TRENCH DEPTH MIN. 10 GAUGE SOLID CORE -NSULATED COPPER TRACER WIRE ORANGE 2" DIA, SCH, 40 PVC OR -6" MIN. 2" HDPE SDR-9 ORANGE CONDUIT FOR FIBER OPTIC CABLE (IF REQUIRED) 10 GAUGE SOLID CORE -INSULATED COPPER TRACER WIRE BLUE GRAVEL BACKFILL FOR PIPE -ZONE BEDDING, MAX, SIZE OF 24" MIN. — 1-1/2", PER WSDOT 9-03.12(3) MAX.=DIA+18" PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER 1. DEPTH OF BEDDING BELOW PIPE DEPENDANT ON SOIL CONDITIONS. CONSULT WITH ENGINEER. SEPTEMBER 9 APPROVED ON: SCALE: 1" = 1' STANDARD DATE: 11-15-11 TYPICAL TRENCH SECTION REVISED: 9/8/22 WT1-1 DRAWN BY: JLB APPROVED BY: MCH





THIS DRAWING WAS PREPARED BY POWER ENGINEERS, INC. FOR A SPECIFIC PROJECT TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH POWER AND POWER'S CLIENT IS GRANTED.

**PRELIMINARY** 

NOT FOR CONSTRUCTION

							DSGN			
							DRN			
							CKD			
							SCALE:	N	ONE	
Α	ISSUED FOR INFORMATION	4/24/2024	втв	ВТВ	TJG	TWH				
REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD	FOR 22x34 DWG ONLY		ONLY	

	POWER ENGINEERS
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GOLDENEYE BATTERY STORAGE, LLC	JOB NUMBER	REV
GOLDENEYE BESS PROJECT 200MW/800MWH BESS	180161	A
20010100/0001010011 BE33	DRAWING NUM	BER
PRELIMINARY FIRE PROTECTION PLAN DETAILS	C3-2	