

INDIANA DEPARTMENT OF NATURAL RESOURCES



FERDINAND STATE FOREST

PROJECT NO: CDC 2409631016/ENG2209631441
CAMPGROUND IMPROVEMENTS
BASE BID AND ALTERNATES

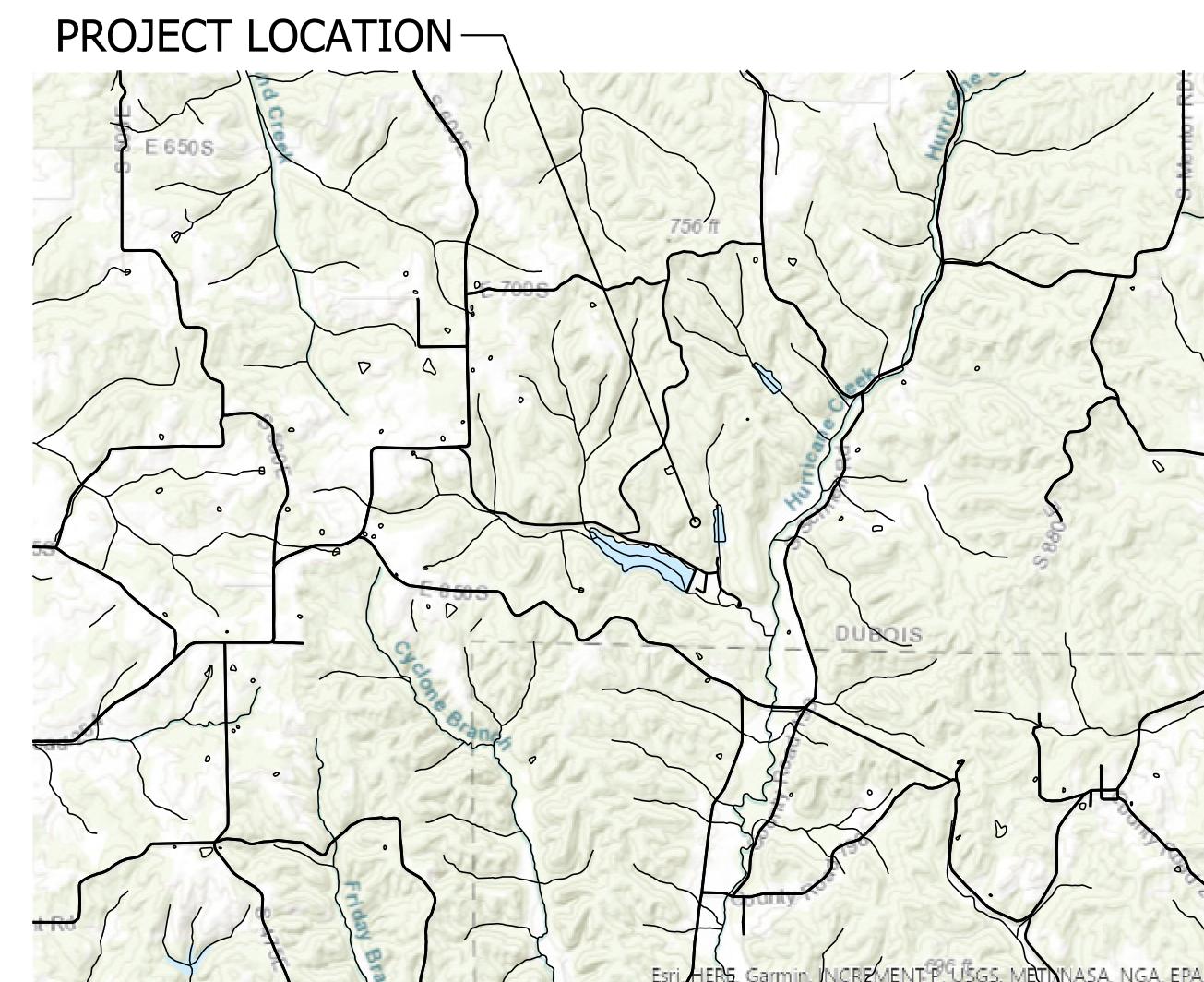


PROJECT LOCATION SHOWN BY
DUBOIS COUNTY

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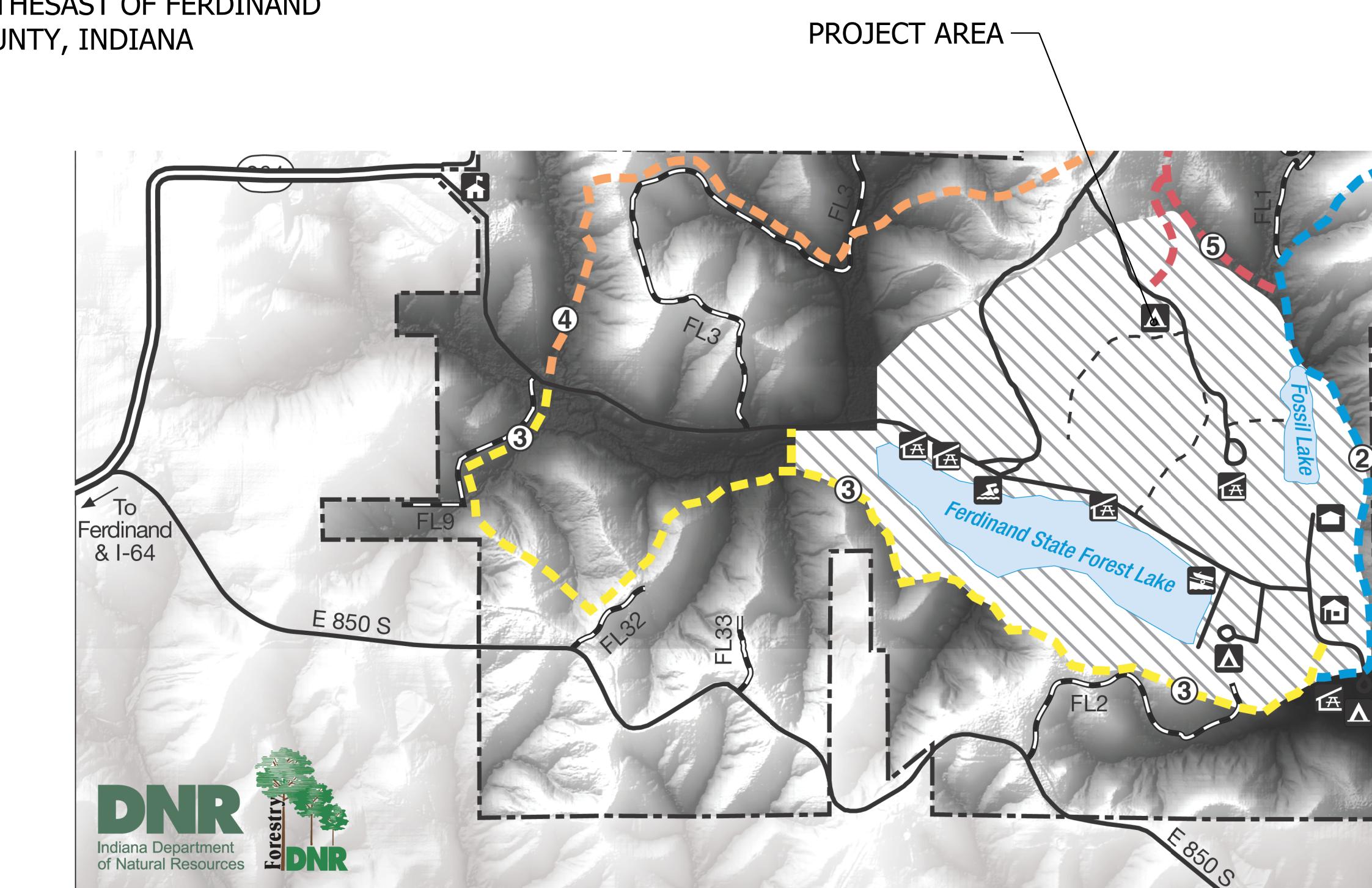
CALL TWO WORKING DAYS BEFORE YOU DIG
Call 811 or 800-382-5544



VICINITY MAP

UTILITIES

Electric Utility
Greg Dilger - Engineering Project Manager, Dubois REC, Inc., Phone: 812-482-1188 office, 812-639-2325 cell



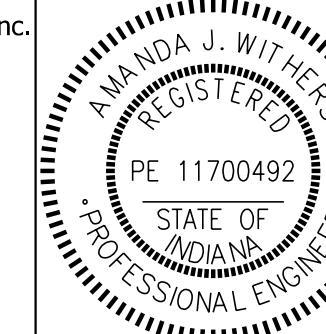
PROJECT AREA

DNR FACILITY MAP

LEGEND	
Road	Fire Tower
Property Boundary	Property Office
FL - Fire Lane*	Campground
Hiking Trail**	Boat Launch
Safety Zone	Picnic Shelter
Swimming	Gatehouse
Residence	Water Areas



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PLANS PREPARED BY: CRAWFORD, MURPHY & TILLY INC.

(317) 298-4500
PHONE NUMBER

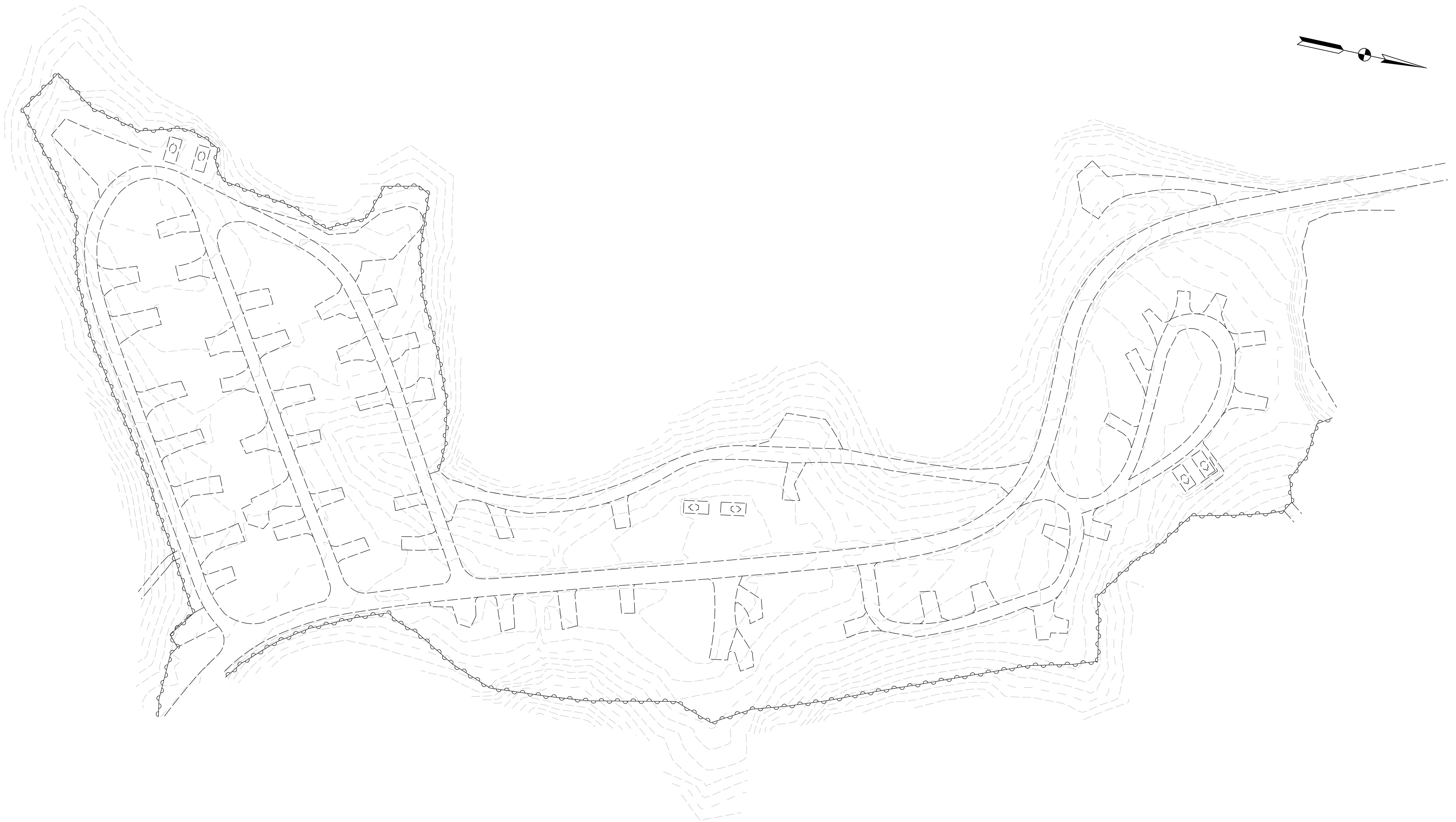
CERTIFIED BY: *Amanda J. Withers*

3/10/2025
DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF NATURAL RESOURCES

DATE

SHEETS	
1	of 28
PROJECT	
CDC 2409631016	



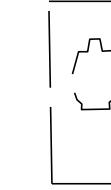
NOTE:

EXISTING ELECTRIC AND WATER UTILITIES
ARE LOCATED NEAR THE CCC SHELTER AT
THE SOUTH END OF THE CAMPGROUND.

LEGEND



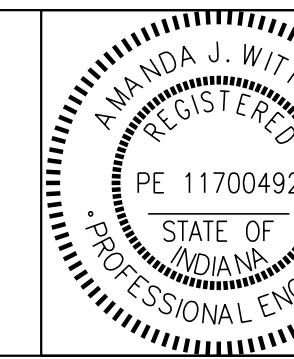
LIGHT



VAULT TOILETS



WATER HYDRANT



RECOMMENDED
FOR APPROVAL

Amanda J. Withers
3/10/2025
DATE

DESIGNED: LNB 3/10/2025 DRAWN: BTS 3/10/2025

CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025

INDIANA DEPARTMENT
OF NATURAL RESOURCES

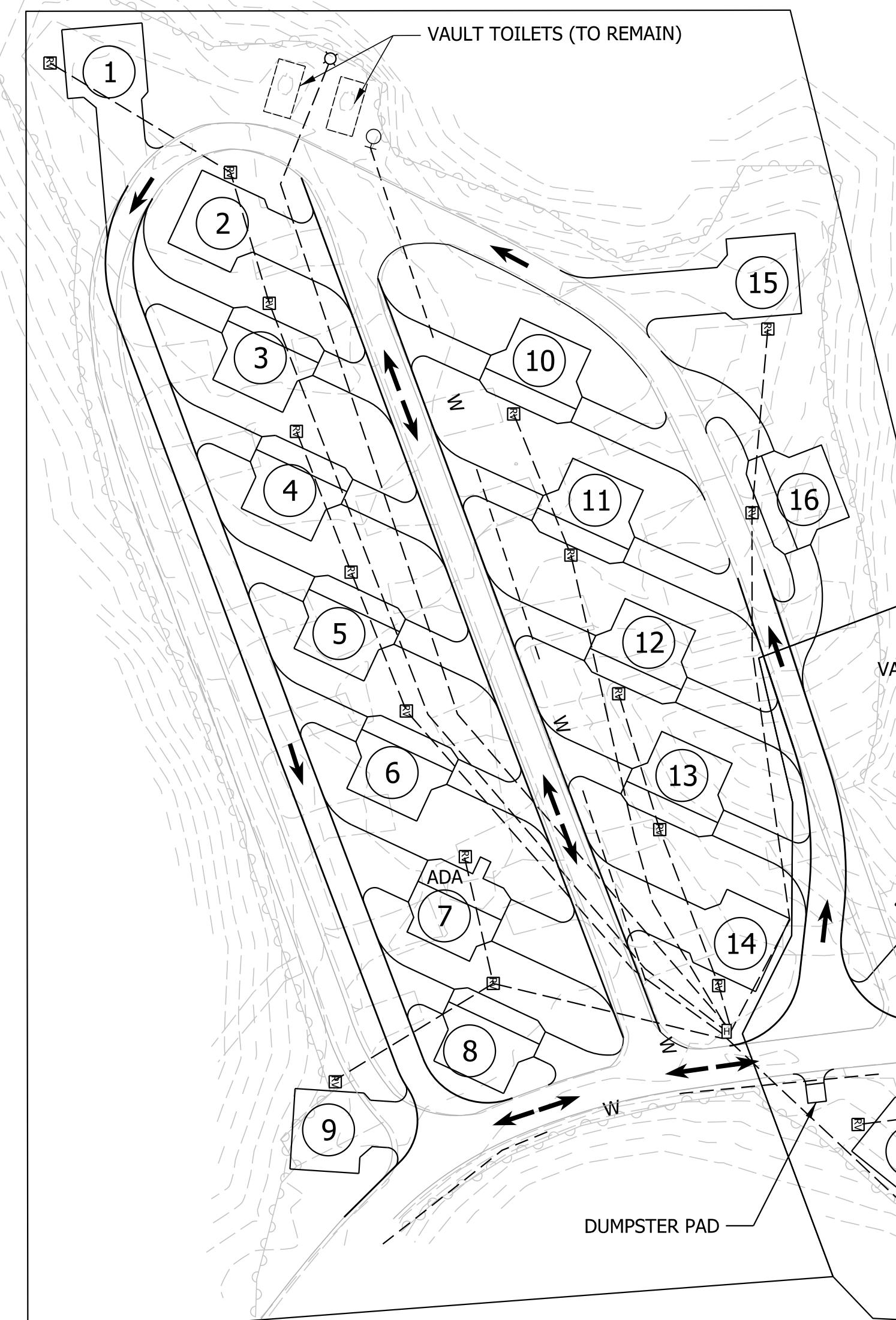
EXISTING OVERALL
SITE PLAN

SCALE
1" = 50'

SHEETS
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PROJECT
CDC 2409631016

BASE BID - COMFORT STATION WITH MOUND SYSTEM AND 6 CAMPSITES AT CENTER (EAST SIDE, 1 VIP, 1 ADA), WATER AND SEWER TO VIP SITE, ELECTRIC TO ALL CAMPSITES AND ELECTRIC WATER AND SEWER TO COMFORT STATION
 ALTERNATE #1 - 6 CAMPSITES AT CENTER (WEST SIDE), ELECTRIC TO CAMPSITES
 ALTERNATE #2 - ADD CAMPSITES #29 AND #30, INCLUDING ELECTRIC AND SITWORK
 ALTERNATE #3 - ADD WATER SERVICES AND HYDRANTS TO ALL 12 CAMPSITES IN BASE BID, ALTERNATE #1 AND #2
 ALTERNATE #4 - 16 CAMPSITES TO SOUTH (1 ADA), ELECTRIC TO CAMPSITES AND WATER TO 2 HYDRANTS AND ROAD WORK
 ALTERNATE #5 - ADD WATER SERVICES AND HYDRANTS TO ALL 16 CAMPSITES IN ALTERNATE #4
 ALTERNATE #6 - 8 CAMPSITES TO NORTH (1 ADA) WITH ELECTRIC AND WATER, WATER TO 2 HYDRANTS AND ASPHALT PAVEMENT
 ALTERNATE #7 - ADD WATER SERVICES AND HYDRANTS TO ALL 8 CAMPSITES IN ALTERNATE #6
 ALTERNATE #8 - ASPHALT ALL GRAVEL ROADS
 ALTERNATE #9 - ASPHALT ALL GRAVEL CAMPSITES

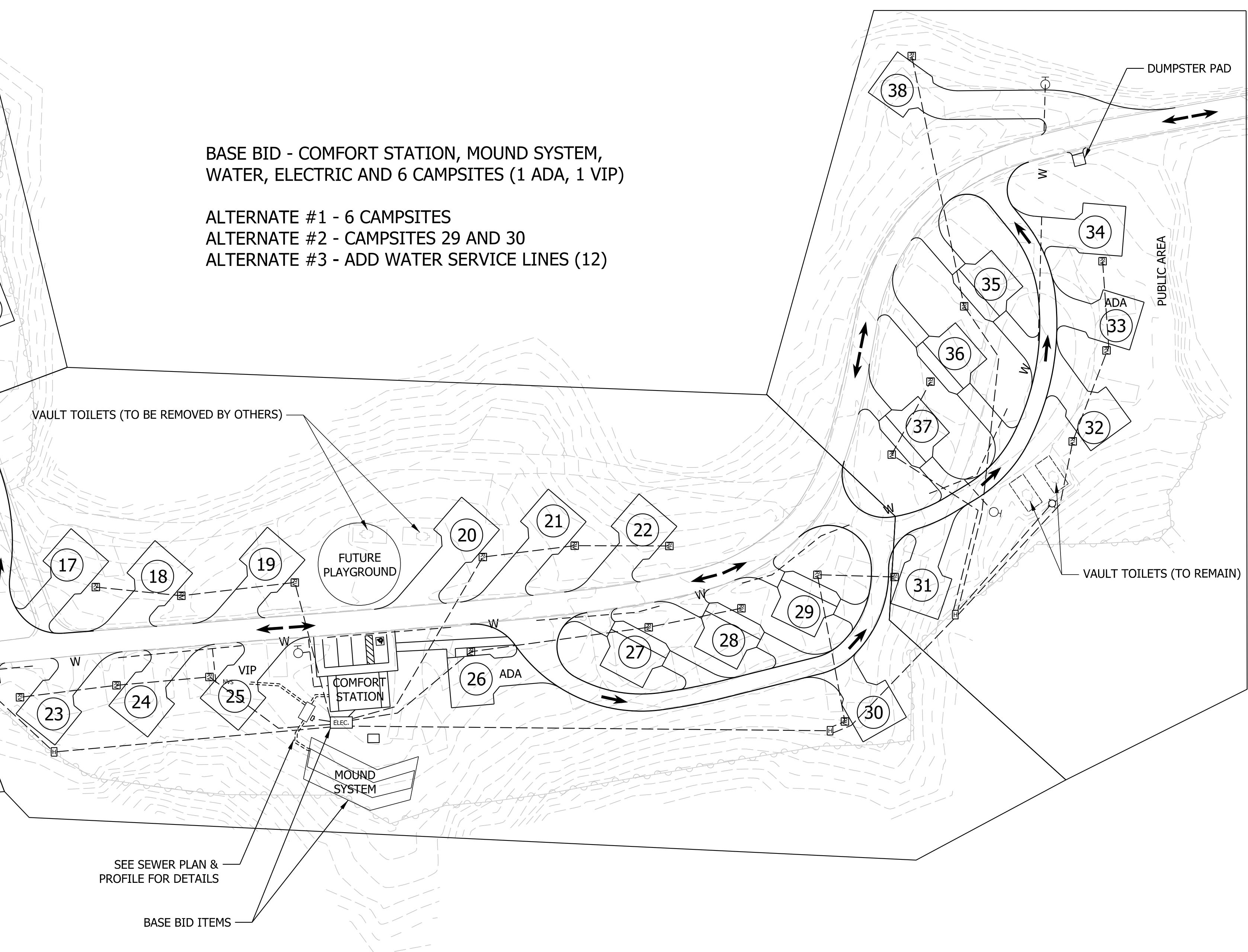
ALTERNATE #4 - 16 CAMPSITES (1 ADA)
 ALTERNATE #5 - ADD WATER SERVICES LINES (16)



BASE BID - COMFORT STATION, MOUND SYSTEM, WATER, ELECTRIC AND 6 CAMPSITES (1 ADA, 1 VIP)

ALTERNATE #1 - 6 CAMPSITES
 ALTERNATE #2 - CAMPSITES 29 AND 30
 ALTERNATE #3 - ADD WATER SERVICE LINES (12)

ALTERNATE #6 - 8 CAMPSITES (1 ADA) AND ASPHALT PAVEMENT
 ALTERNATE #7 - ADD WATER SERVICES LINES (8)



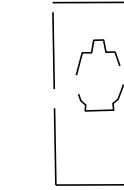
NOTE:

EXISTING ELECTRIC AND WATER UTILITIES ARE LOCATED NEAR THE CCC SHELTER AT THE SOUTH END OF THE CAMPGROUND.

LEGEND



LIGHT



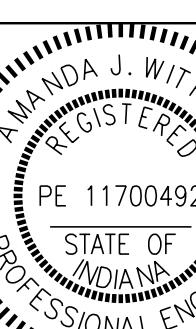
VAULT TOILETS



TRAFFIC FLOW ARROWS

WATER HYDRANT

WATER LINES



RECOMMENDED

FOR APPROVAL

Amanda J. Withers
 3/10/2025

DATE

DESIGNED:

LNB

DRAWN:

BTS

3/10/2025

CHECKED:

AW

3/10/2025

CHECKED:

LNB

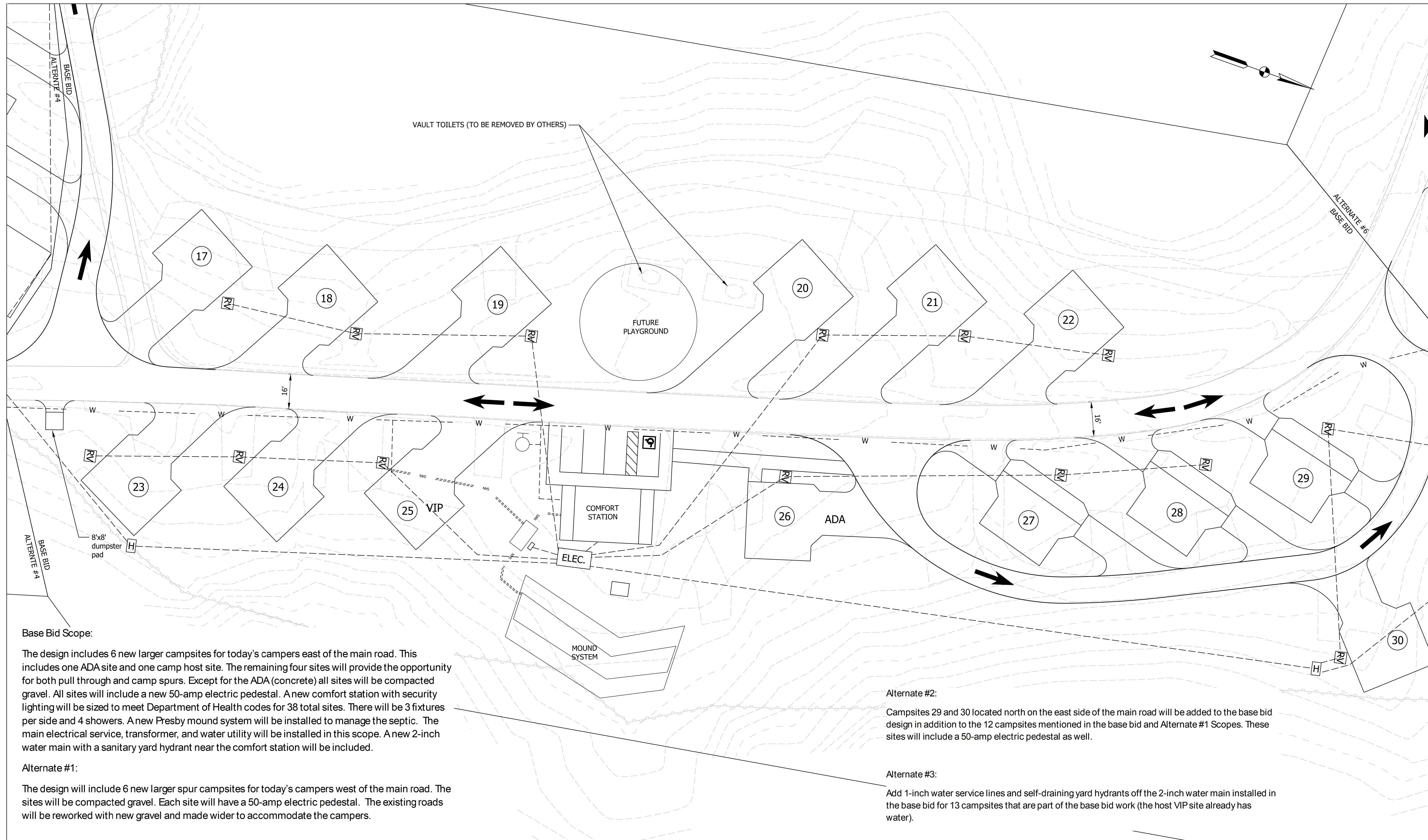
3/10/2025

INDIANA DEPARTMENT OF NATURAL RESOURCES

PROPOSED OVERALL SITE PLAN

SCALE
 1" = 50'

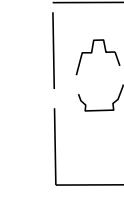
SHEETS
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 PROJECT
 CDC 2409631016



LEGEND

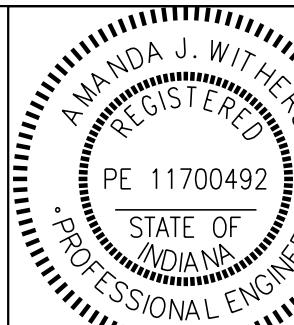


LIGHT



VAULT TOILETS

TRAFFIC FLOW ARROWS



RECOMMENDED

FOR APPROVAL

3/10/2025

DATE

Amanda J. Withers

3/10/2025

3/10/2025

3/10/2025

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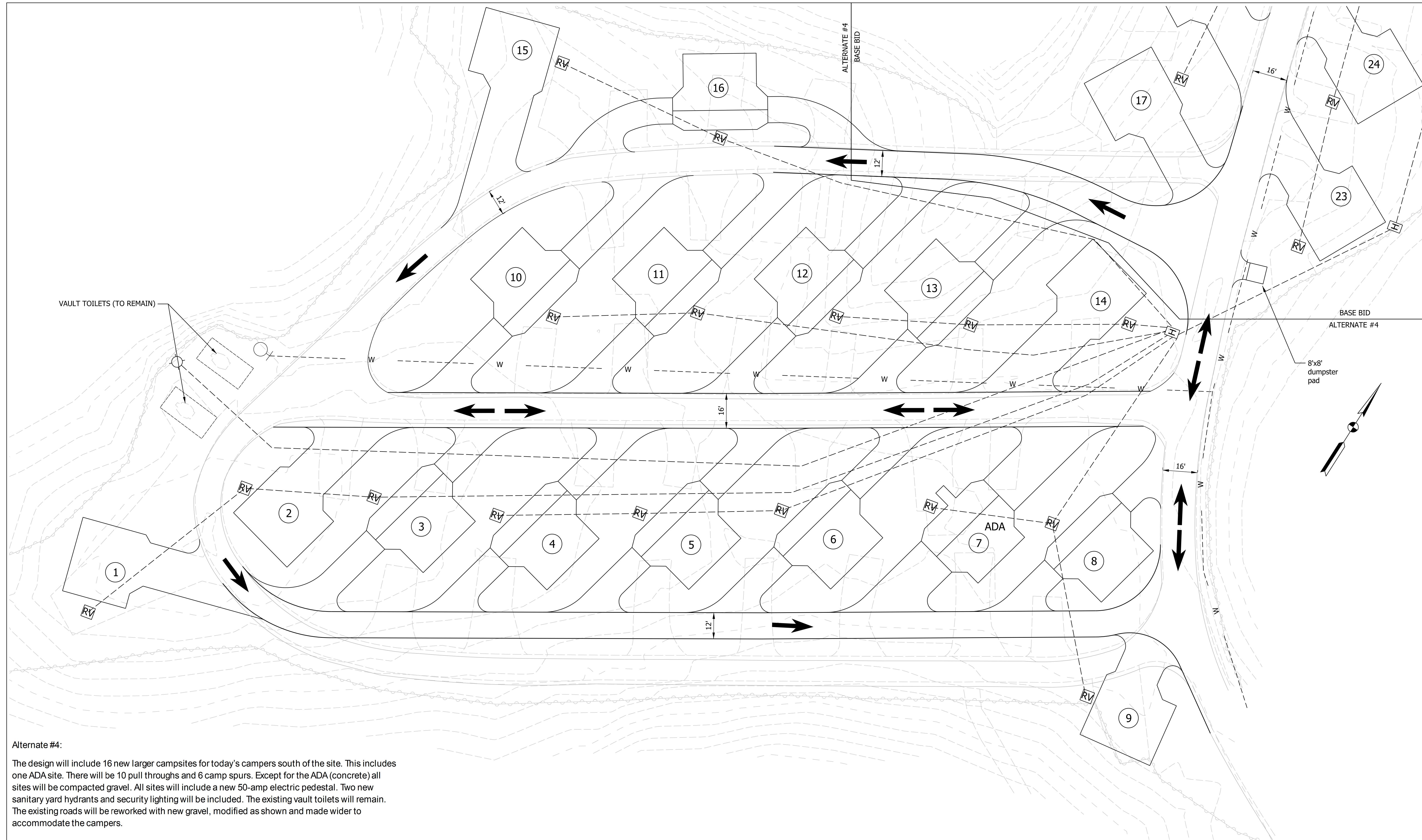
3/10/2025

INDIANA DEPARTMENT
OF NATURAL RESOURCES

PROPOSED SITE PLAN - BASE BID

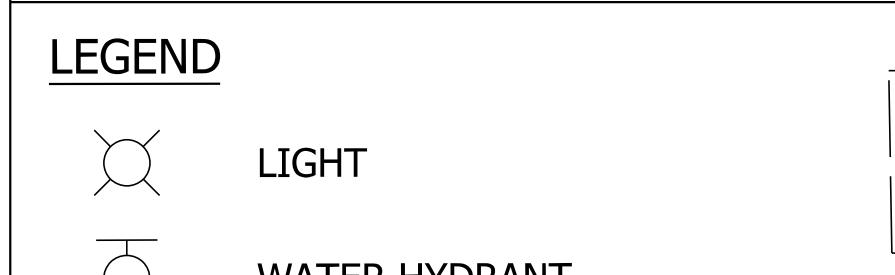
SCALE
1" = 20'

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PROJECT
CDC 2409631016



Alternate #4:

The design will include 16 new larger campsites for today's campers south of the site. This includes one ADA site. There will be 10 pull throughs and 6 camp spurs. Except for the ADA (concrete) all sites will be compacted gravel. All sites will include a new 50-amp electric pedestal. Two new sanitary yard hydrants and security lighting will be included. The existing vault toilets will remain. The existing roads will be reworked with new gravel, modified as shown and made wider to accommodate the campers.



VAULT TOILETS

→ TRAFFIC FLOW ARROWS

— — — W — — — WATER LINE



RECOMMENDED FOR APPROVAL

AMANDA J. WITHERS
APPROVAL

3/10/202

INDIANA DEPARTMENT OF NATURAL RESOURCES

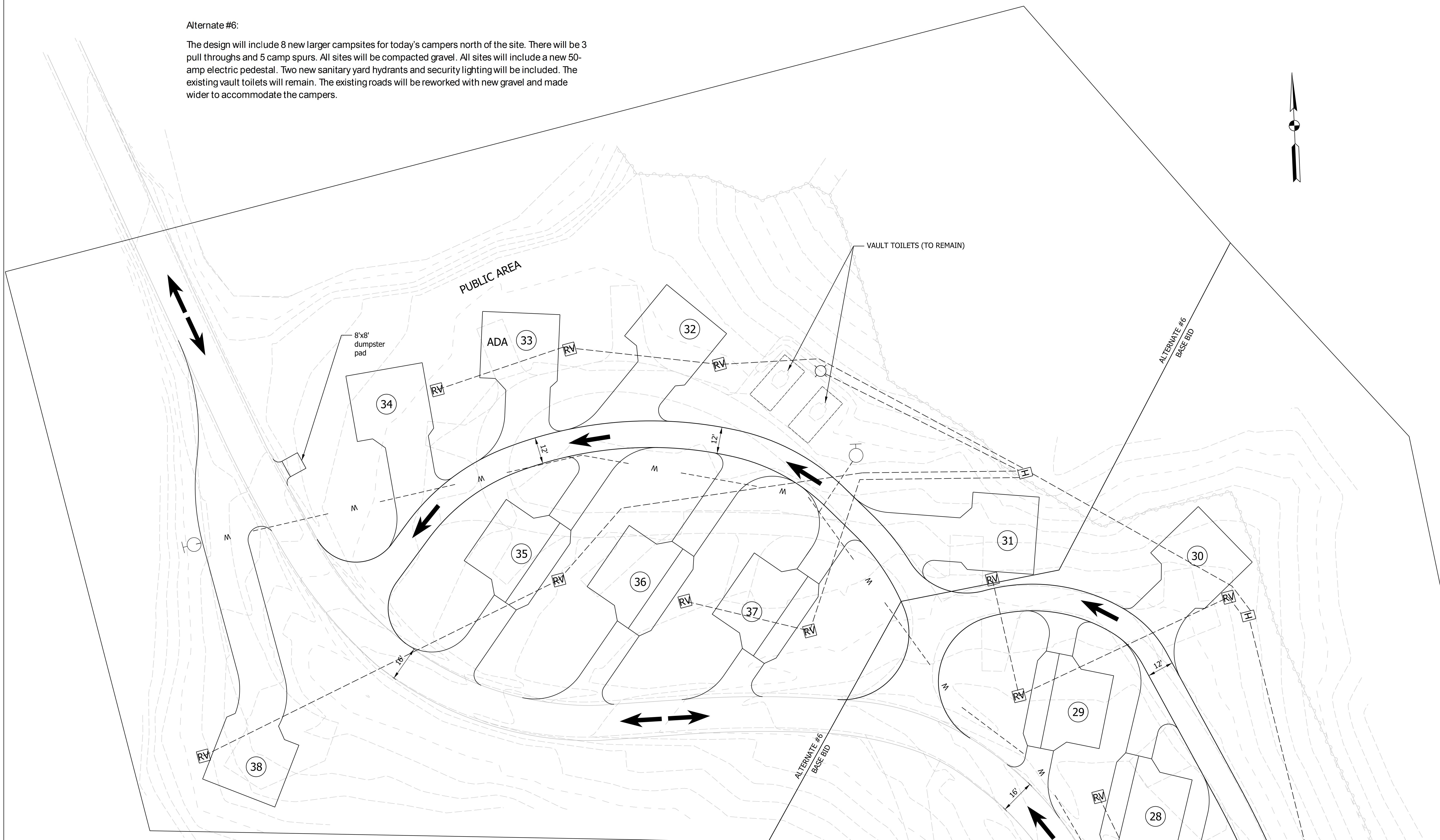
PROPOSED SITE PLAN DETAIL - ALTERNATE #4

SCALE
1" = 20'

SHEETS		
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PROJECT		
CDC 2409631016		

Alternate #6:

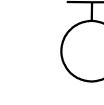
The design will include 8 new larger campsites for today's campers north of the site. There will be 3 pull throughs and 5 camp spurs. All sites will be compacted gravel. All sites will include a new 50-amp electric pedestal. Two new sanitary yard hydrants and security lighting will be included. The existing vault toilets will remain. The existing roads will be reworked with new gravel and made wider to accommodate the campers.



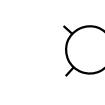
LEGEND



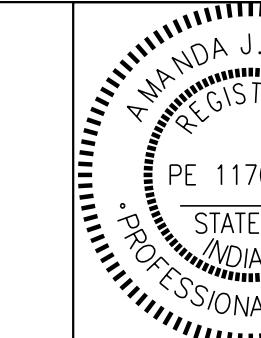
TRAFFIC FLOW ARROWS



HYDRANT



LIGHT POLE



RECOMMENDED

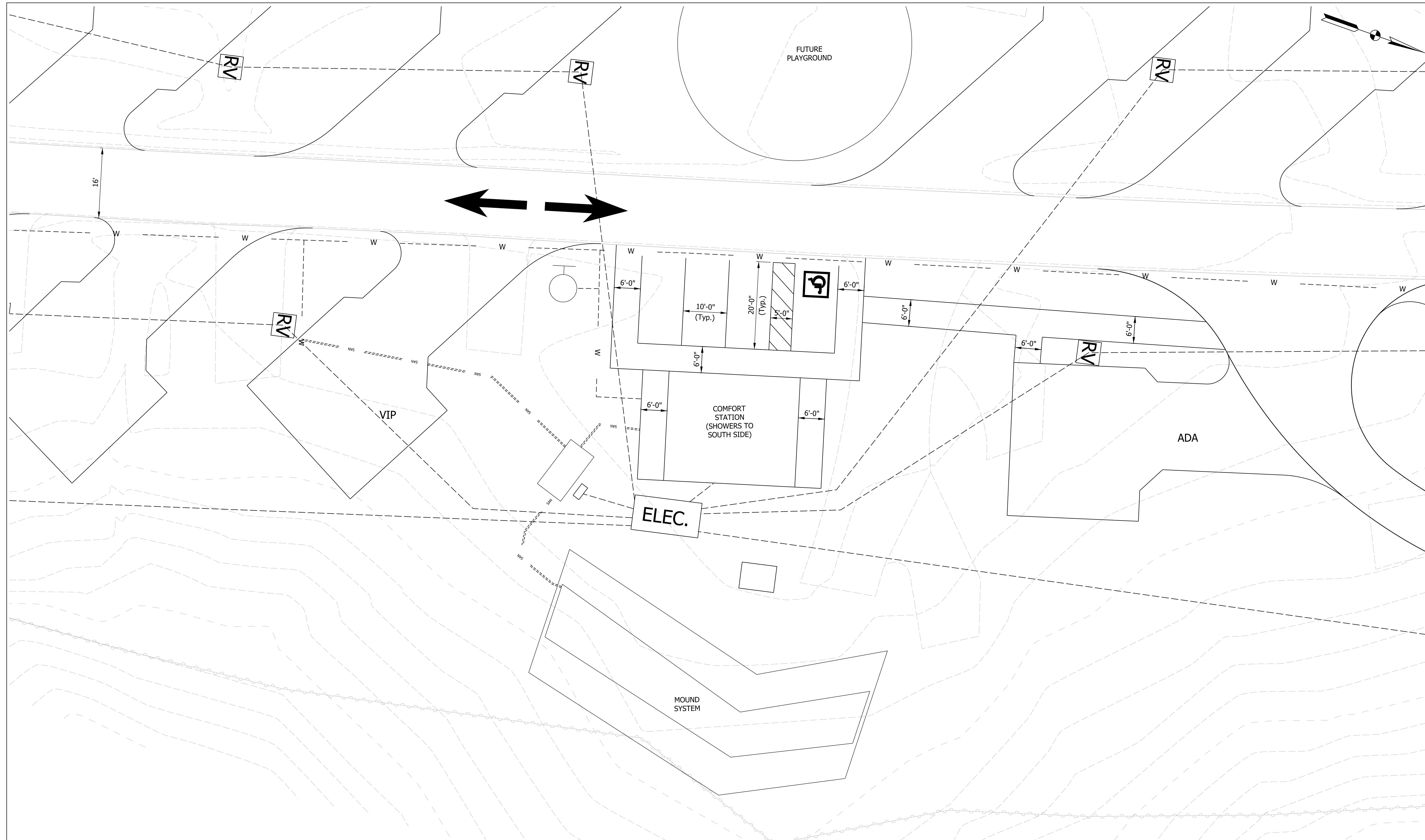
FOR APPROVAL

Amanda J. Withers
3/10/2025
DATE
DESIGNED: LNB 3/10/2025 DRAWN: BTS 3/10/2025
CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025

INDIANA DEPARTMENT
OF NATURAL RESOURCES

SCALE 1" = 20'	
SHEETS	
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PROJECT	
CDC 2409631016	

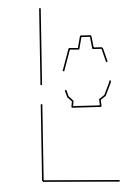
PROPOSED SITE PLAN DETAIL - ALTERNATE #6



LEGEND

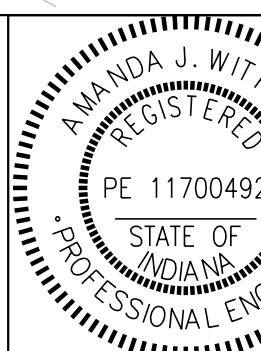


LIGHT



VAULT TOILETS

TRAFFIC FLOW ARROWS



RECOMMENDED
FOR APPROVAL

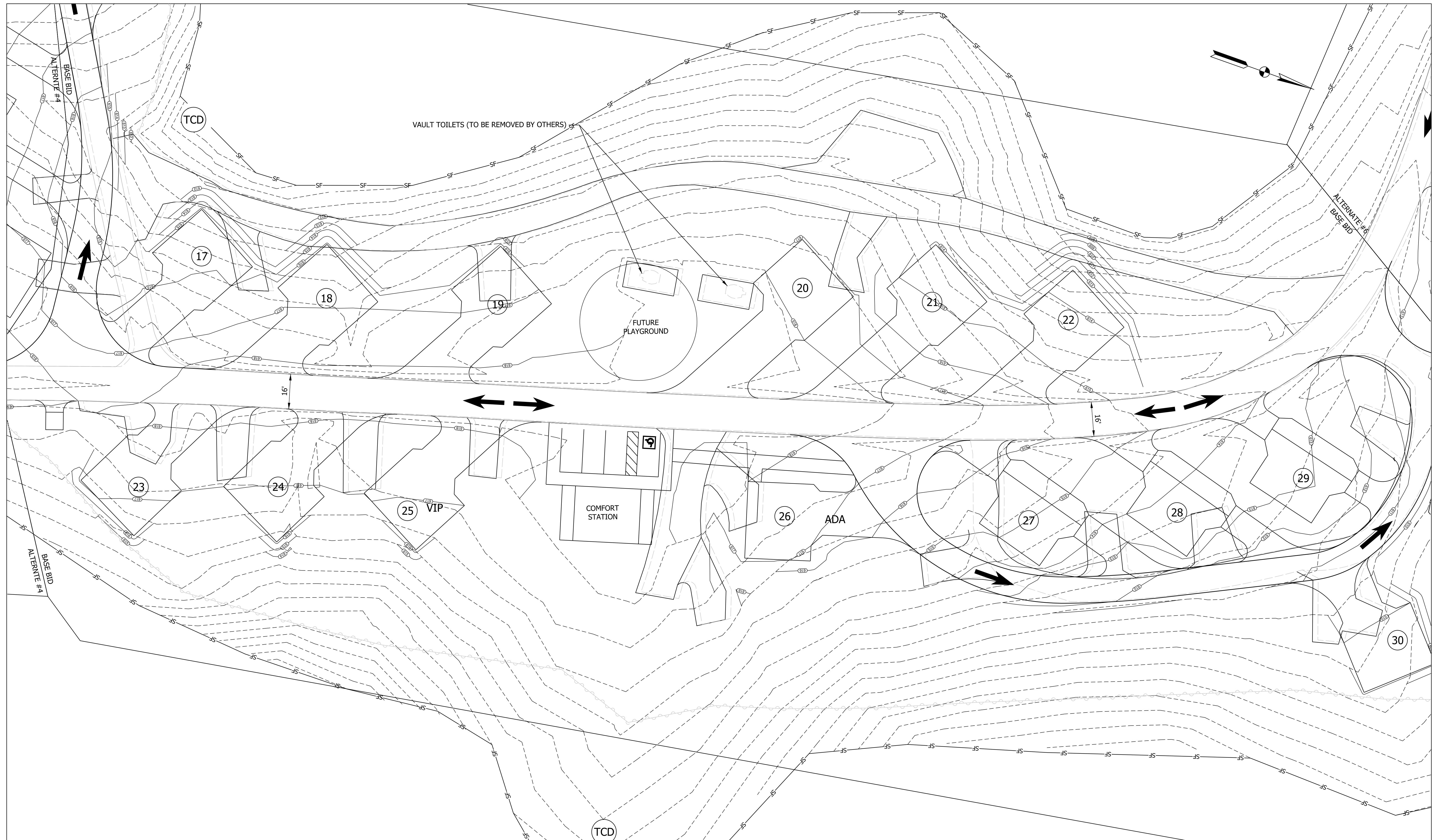
Amanda J. Withers
3/10/2025
DATE
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CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025

INDIANA DEPARTMENT
OF NATURAL RESOURCES

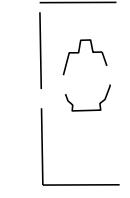
CONSTRUCTION DETAILS - BASE BID

SCALE
1" = 10'

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PROJECT
CDC 2409631016


LEGEND


LIGHT



VAULT TOILETS

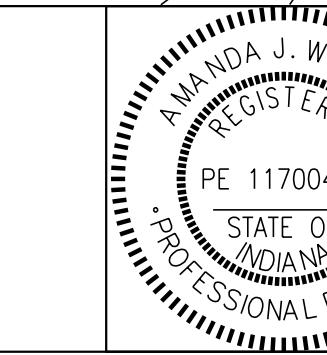
SF SILT FENCE



TRAFFIC FLOW ARROWS



TEMPORARY CHECK DAM



RECOMMENDED

FOR APPROVAL

 Amanda J. Withers
 3/10/2025
 DATE

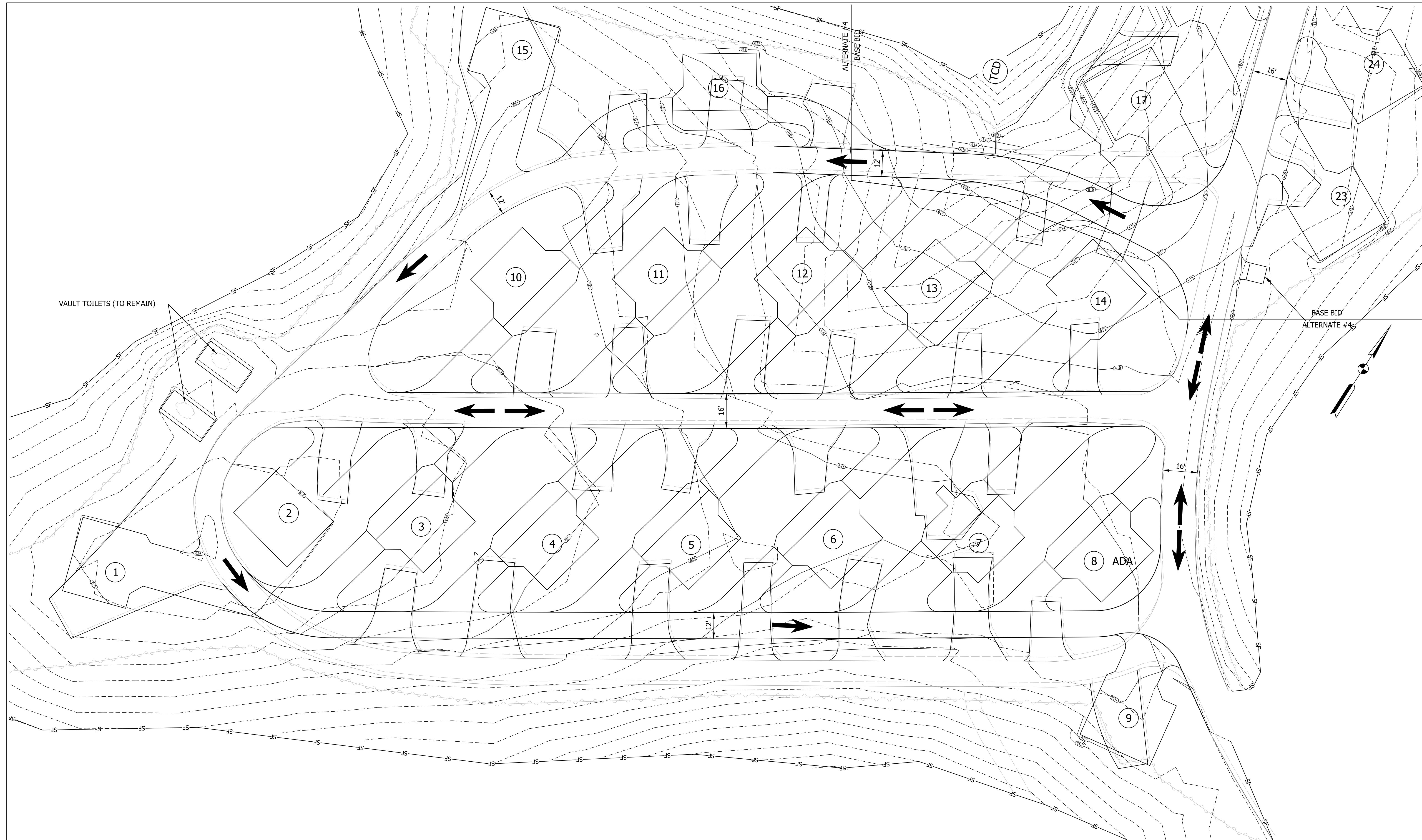
 INDIANA DEPARTMENT
 OF NATURAL RESOURCES

 SCALE
 1" = 20'

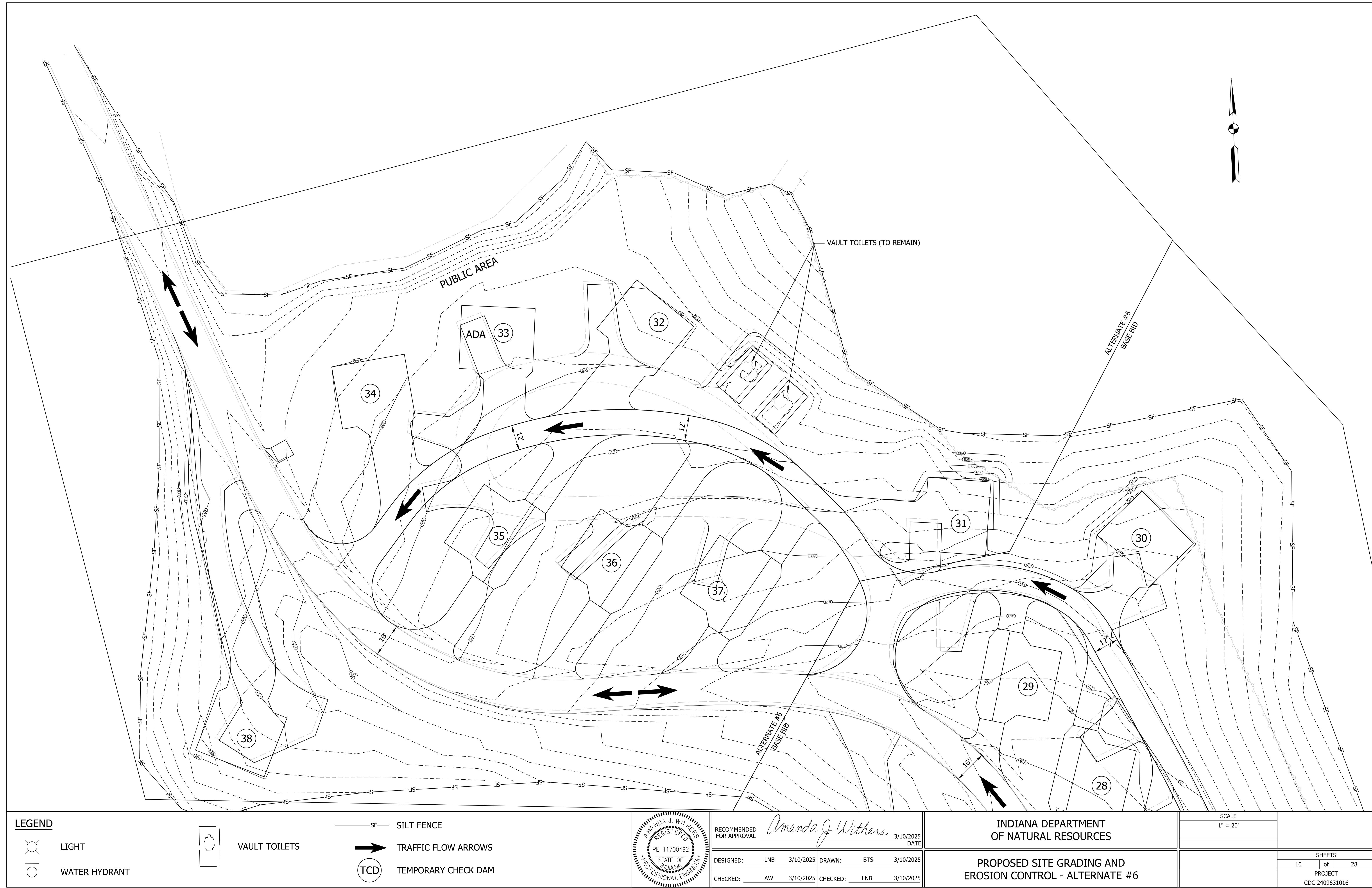
 SHEETS
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 PROJECT
 CDC 2409631016

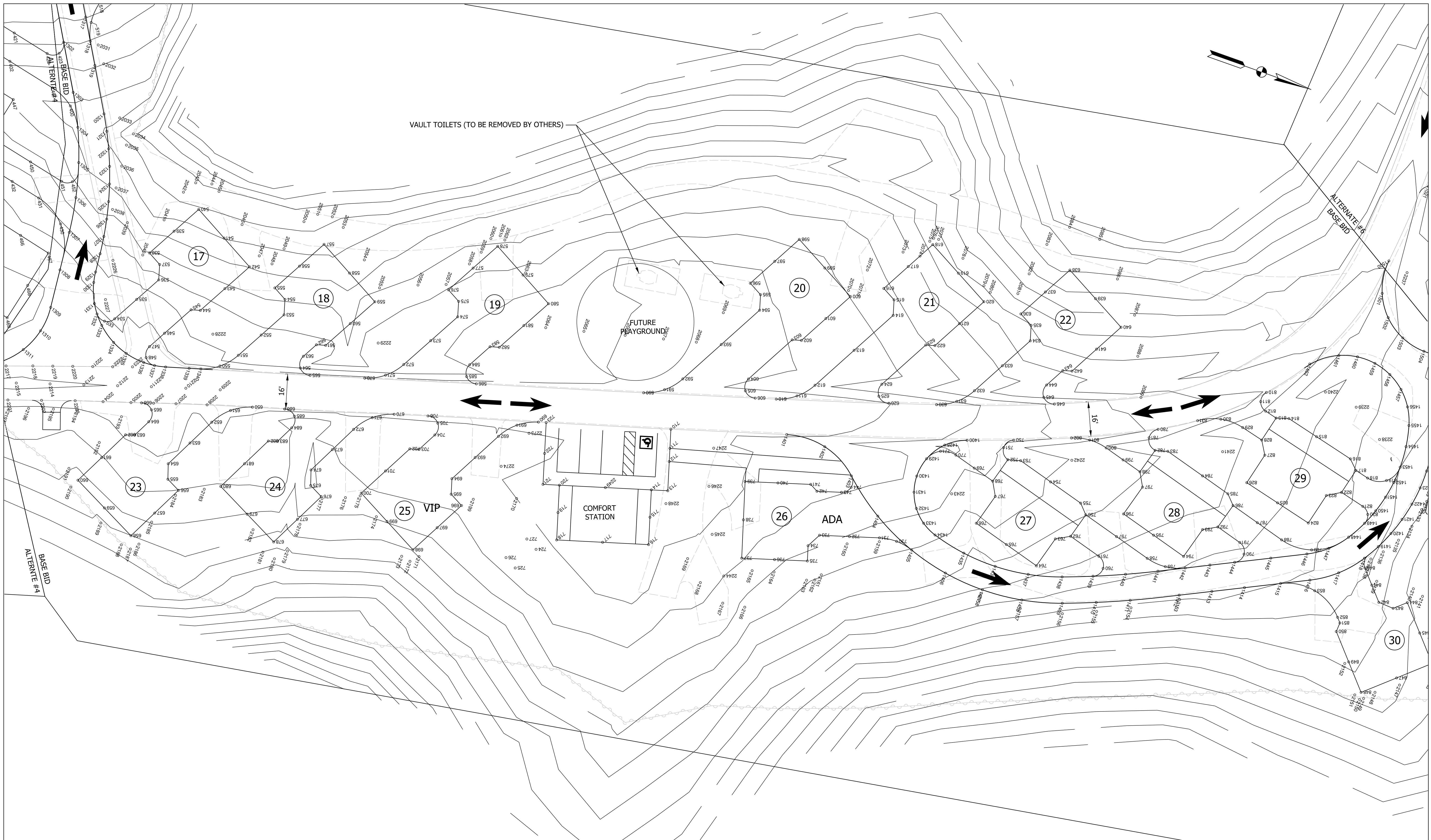
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 CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025

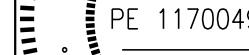
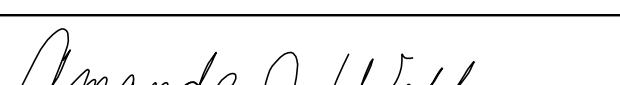
 PROPOSED SITE GRADING AND
 EROSION CONTROL - BASE BID

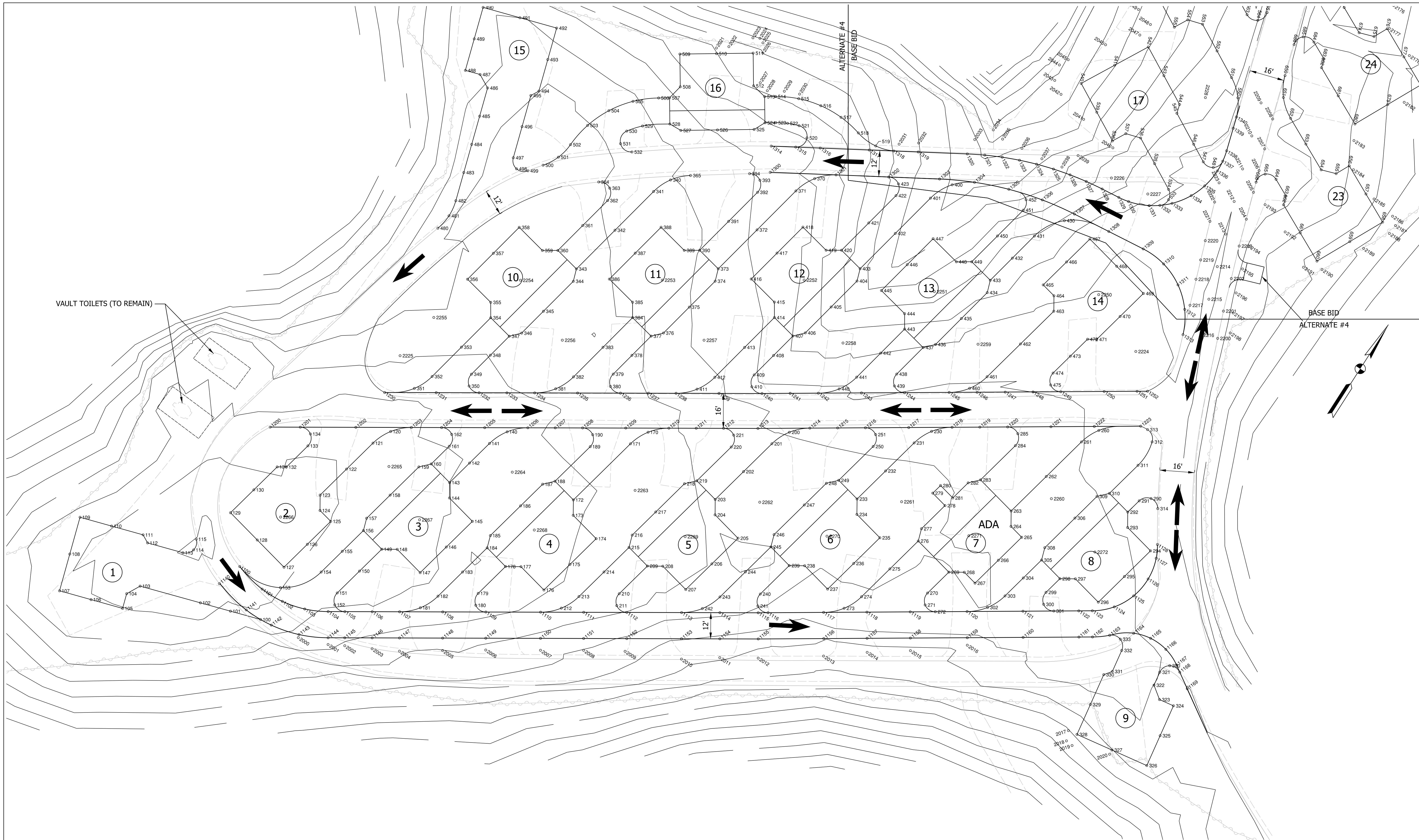


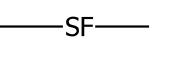
LEGEND  LIGHT  WATER HYDRANT		 SILT FENCE  VAULT TOILETS  TRAFFIC FLOW ARROWS  TEMPORARY CHECK DAM	 RECOMMENDED FOR APPROVAL <i>Amanda J. Withers</i> 3/10/2025	SCALE 1" = 20' DESIGNED: LNB 3/10/2025 DRAWN: BSS 3/10/2025 CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025 PROJECT CC 24963116
				INDIANA DEPARTMENT OF NATURAL RESOURCES PROPOSED SITE GRADING AND EROSION CONTROL - ALTERNATE #4

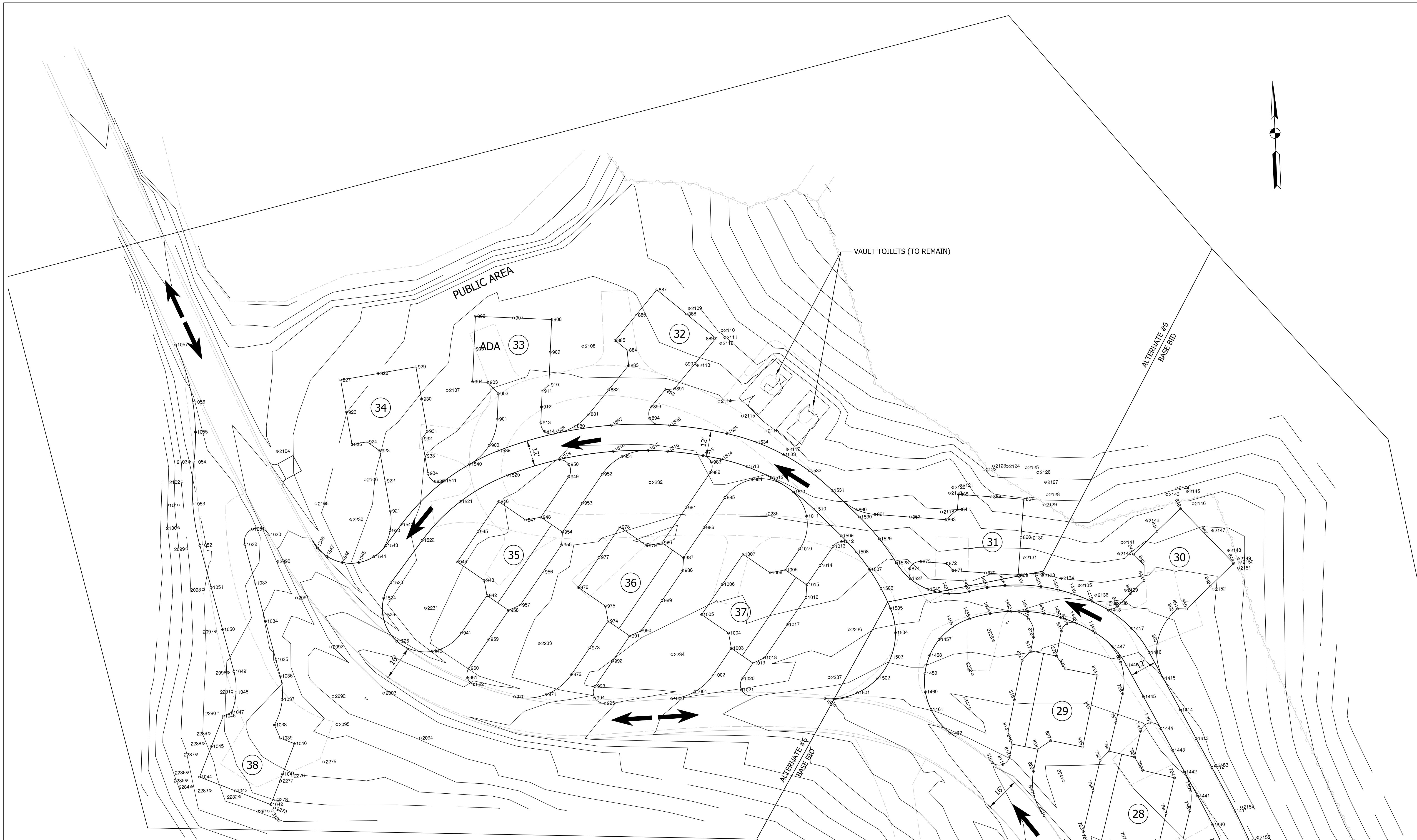




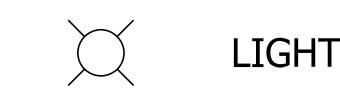
LEGEND  LIGHT  WATER HYDRANT				SILT FENCE
				VAULT TOILETS
				TRAFFIC FLOW ARROWS
				TEMPORARY CHECK DAM
				TCD
INDIANA DEPARTMENT OF NATURAL RESOURCES				
SPOT ELEVATIONS BASEBID				
		RECOMMENDED FOR APPROVAL	SCALE $1'' = 20'$ DATE <i>Amanda J. Withers</i> <i>3/10/2025</i>	
			DESIGNED: <u>LNB</u> <u>3/10/2025</u>	DRAWN: <u>BTS</u> <u>3/10/2025</u>
			1 f 2 PROJECT CC 24963116	1 f 2 PROJECT CC 24963116



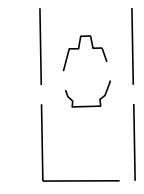
LEGEND  LIGHT  WATER HYDRANT		 VAULT TOILETS	 SILT FENCE
		 TRAFFIC FLOW ARROWS	 TEMPORARY CHECK DAM
		 TCD	
INDIANA DEPARTMENT OF NATURAL RESOURCES			
		SCALE 1" = 20'	
RECOMMENDED FOR APPROVAL		<i>Amanda J. Withers</i> 3/10/2025 DATE	
		DESIGNED: LNB 3/10/2025	DRAWN: BTS 3/10/2025
		1	2
		SPOT ELEVATIONS ALTERNATE #4	PROJECT CC 24963116
		1	2
		AW	LNB
		3/10/2025	3/10/2025



LEGEND



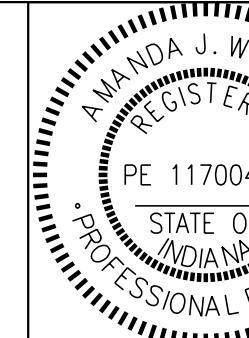
LIGHT



VAULT TOILETS

SF SILT FENCE
TRAFFIC FLOW ARROWS

TCD TEMPORARY CHECK DAM



RECOMMENDED

FOR APPROVAL

Amanda J. Withers
3/10/2025
DATE

DESIGNED:

LNB

3/10/2025

DRAWN:

BTS

3/10/2025

CHECKED:

AW

3/10/2025

CHECKED:

LNB

3/10/2025

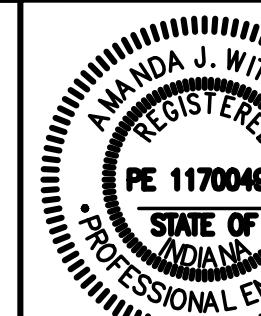
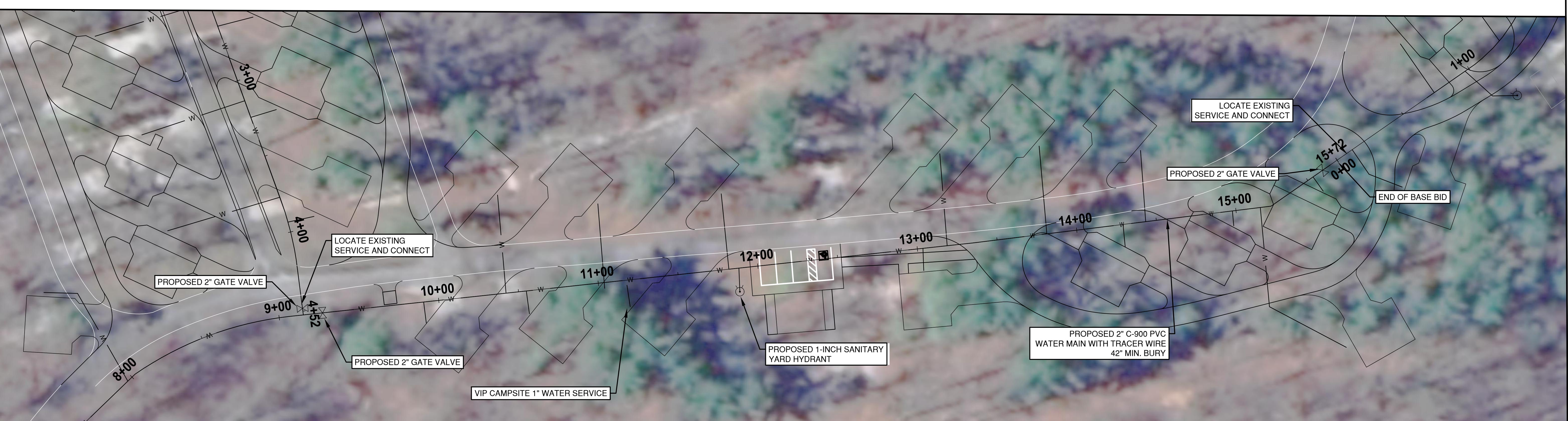
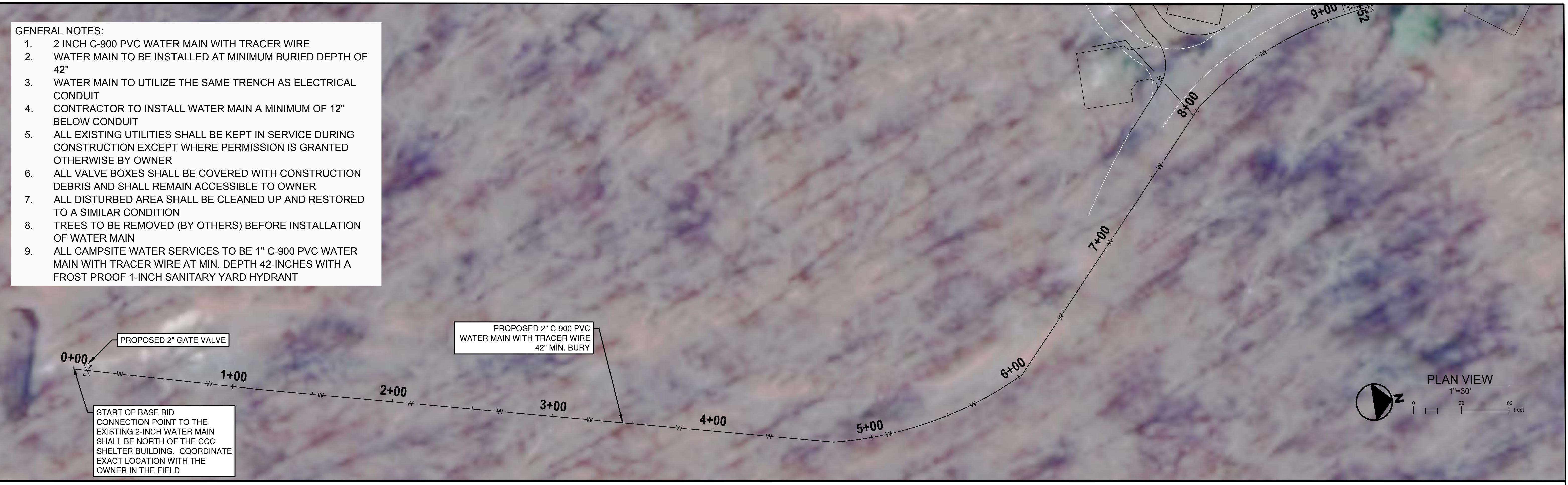
INDIANA DEPARTMENT
OF NATURAL RESOURCES

SPOT ELEVATIONS
ALTERNATE #6

SCALE		
1" = 20'		
SHEETS		
13 of 28		
PROJECT		
CDC 2409631016		

GENERAL NOTES:

1. 2 INCH C-900 PVC WATER MAIN WITH TRACER WIRE
2. WATER MAIN TO BE INSTALLED AT MINIMUM BURIED DEPTH OF 42"
3. WATER MAIN TO UTILIZE THE SAME TRENCH AS ELECTRICAL CONDUIT
4. CONTRACTOR TO INSTALL WATER MAIN A MINIMUM OF 12" BELOW CONDUIT
5. ALL EXISTING UTILITIES SHALL BE KEPT IN SERVICE DURING CONSTRUCTION EXCEPT WHERE PERMISSION IS GRANTED OTHERWISE BY OWNER
6. ALL VALVE BOXES SHALL BE COVERED WITH CONSTRUCTION DEBRIS AND SHALL REMAIN ACCESSIBLE TO OWNER
7. ALL DISTURBED AREA SHALL BE CLEANED UP AND RESTORED TO A SIMILAR CONDITION
8. TREES TO BE REMOVED (BY OTHERS) BEFORE INSTALLATION OF WATER MAIN
9. ALL CAMP SITE WATER SERVICES TO BE 1" C-900 PVC WATER MAIN WITH TRACER WIRE AT MIN. DEPTH 42-INCHES WITH A FROST PROOF 1-INCH SANITARY YARD HYDRANT



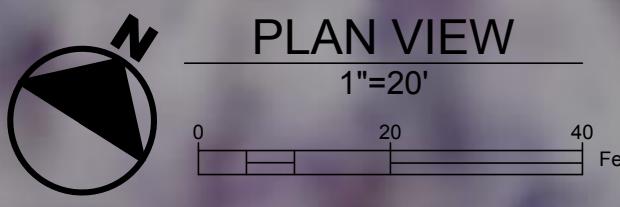
Amanda J. Wittenberg

3/10/202

INDIANA DEPARTMENT OF NATURAL RESOURCES

WATER MAIN PLAN - BASE BID

SHEETS
14 of 28
PROJECT
CDC 2409631016



PROPOSED 1-INCH SANITARY YARD HYDRANT

START OF ALTERNATE #4

0+00

1+00

2+00

3+00

4+00

9+00

PROPOSED 2" C-900 PVC
WATER MAIN WITH TRACER WIRE
42" MIN. BURY

EXISTING 2" GATE VALVE

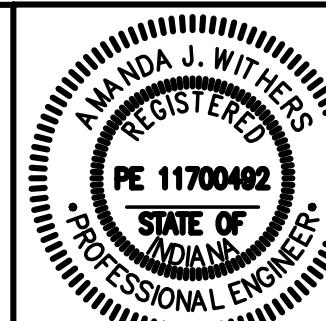
EXISTING 2" GATE VALVE

LOCATE NEW WATER
MAIN SERVICE FROM
BASE BID AND CONNECT

END OF ALTERNATE #4

GENERAL NOTES:

1. 2 INCH C-900 PVC WATER MAIN WITH TRACER WIRE
2. WATER MAIN TO BE INSTALLED AT MINIMUM BURIED DEPTH OF 42"
3. WATER MAIN TO UTILIZE THE SAME TRENCH AS ELECTRICAL CONDUIT
4. CONTRACTOR TO INSTALL WATER MAIN A MINIMUM OF 12" BELOW CONDUIT
5. ALL EXISTING UTILITIES SHALL BE KEPT IN SERVICE DURING CONSTRUCTION EXCEPT WHERE PERMISSION IS GRANTED OTHERWISE BY OWNER
6. ALL VALVE BOXES SHALL BE COVERED WITH CONSTRUCTION DEBRIS AND SHALL REMAIN ACCESSIBLE TO OWNER
7. ALL DISTURBED AREA SHALL BE CLEANED UP AND RESTORED TO A SIMILAR CONDITION
8. TREES TO BE REMOVED (BY OTHERS) BEFORE INSTALLATION OF WATER MAIN
9. ALL CAMPSITE WATER SERVICES TO BE 1" C-900 PVC WATER MAIN WITH TRACER WIRE AT MIN. DEPTH 42-INCHES WITH A FROST PROOF 1-INCH SANITARY YARD HYDRANT



Amanda J. Withers

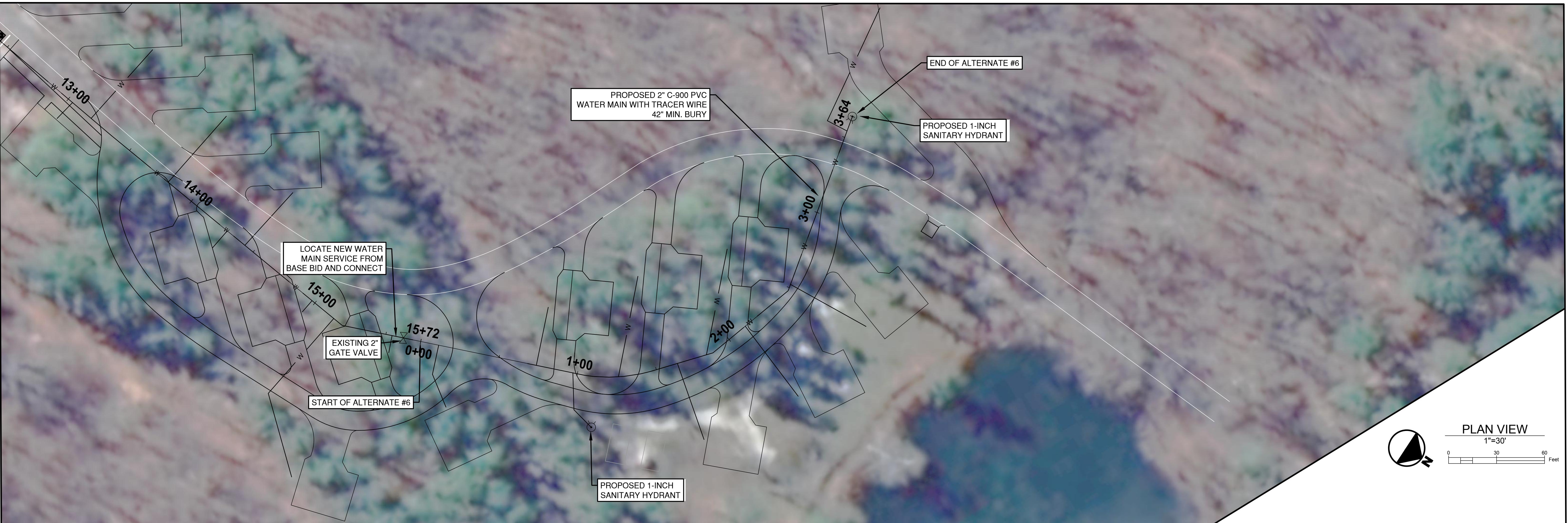
3/10/2025
DATE

DESIGNED: LMR
DRAWN: LMR
CHECKED: AJW
CHECKED: AJW

INDIANA DEPARTMENT
OF NATURAL RESOURCES

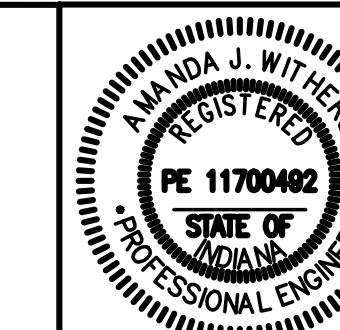
WATER MAIN PLAN - ALTERNATE #4

15 of 28
PROJECT
CDC 2409631016



GENERAL NOTES:

1. 2 INCH C-900 PVC WATER MAIN WITH TRACER WIRE
2. WATER MAIN TO BE INSTALLED AT MINIMUM BURIED DEPTH OF 42"
3. WATER MAIN TO UTILIZE THE SAME TRENCH AS ELECTRICAL CONDUIT
4. CONTRACTOR TO INSTALL WATER MAIN A MINIMUM OF 12" BELOW CONDUIT
5. ALL EXISTING UTILITIES SHALL BE KEPT IN SERVICE DURING CONSTRUCTION EXCEPT WHERE PERMISSION IS GRANTED OTHERWISE BY OWNER
6. ALL VALVE BOXES SHALL BE COVERED WITH CONSTRUCTION DEBRIS AND SHALL REMAIN ACCESSIBLE TO OWNER
7. ALL DISTURBED AREA SHALL BE CLEANED UP AND RESTORED TO A SIMILAR CONDITION
8. TREES TO BE REMOVED (BY OTHERS) BEFORE INSTALLATION OF WATER MAIN
9. ALL CAMPsite WATER SERVICES TO BE 1" C-900 PVC WATER MAIN WITH TRACER WIRE AT MIN. DEPTH 42-INCHES WITH A FROST PROOF 1-INCH SANITARY YARD HYDRANT



Amanda J. Withers

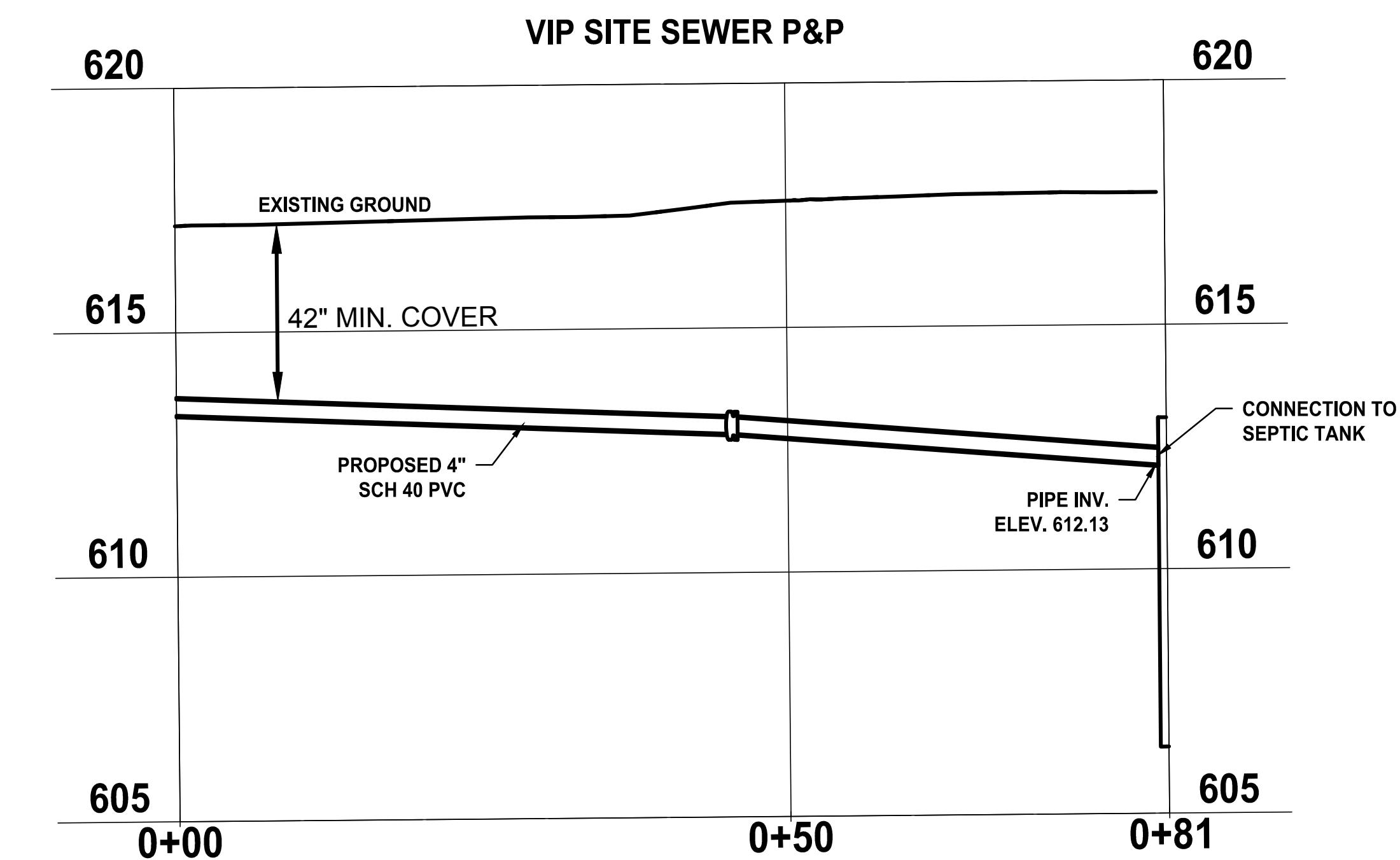
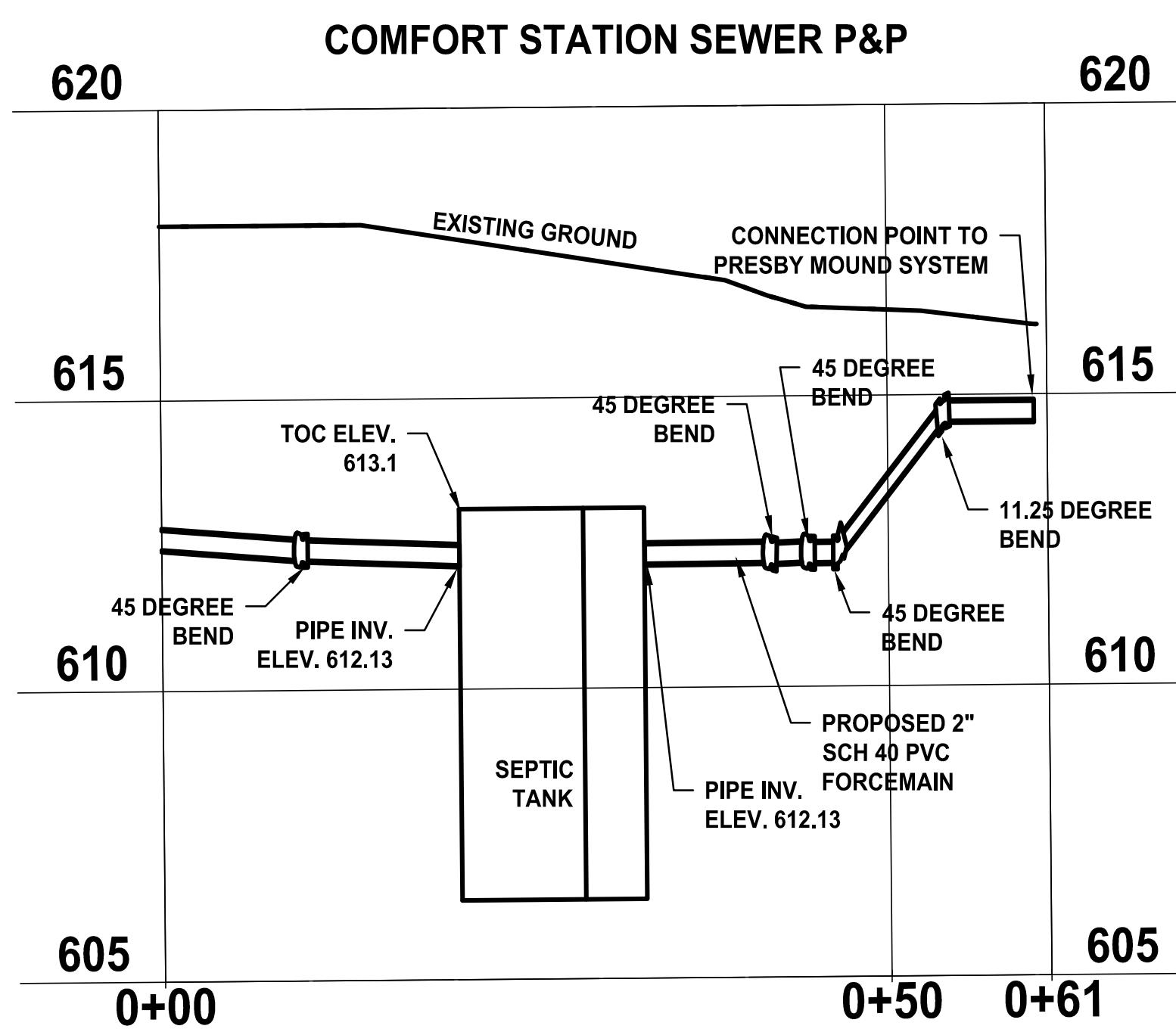
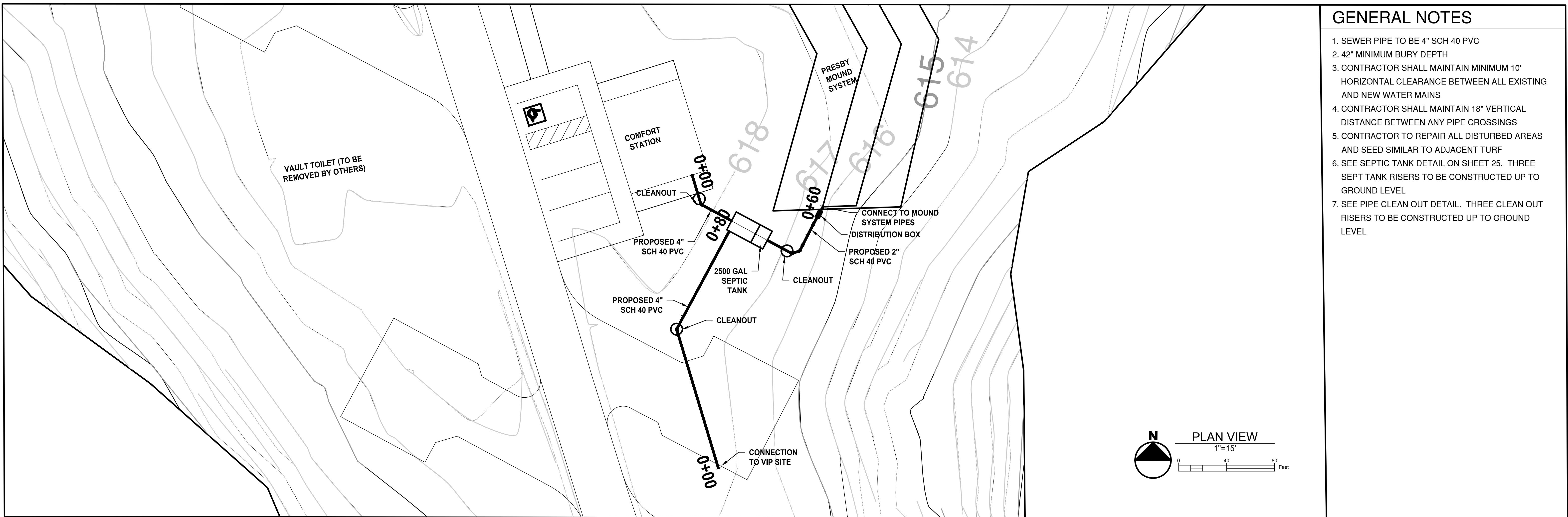
3/10/2025

INDIANA DEPARTMENT
OF NATURAL RESOURCES

WATER MAIN PLAN - ALTERNATE #6

PLAN VIEW
1"=30'
0 30 60 Feet

SHEETS
16 of 28
PROJECT
CDC 2409631016



Amanda J. Wither

3/10/202

DESIGNED: LMR

DRAWN: LMR

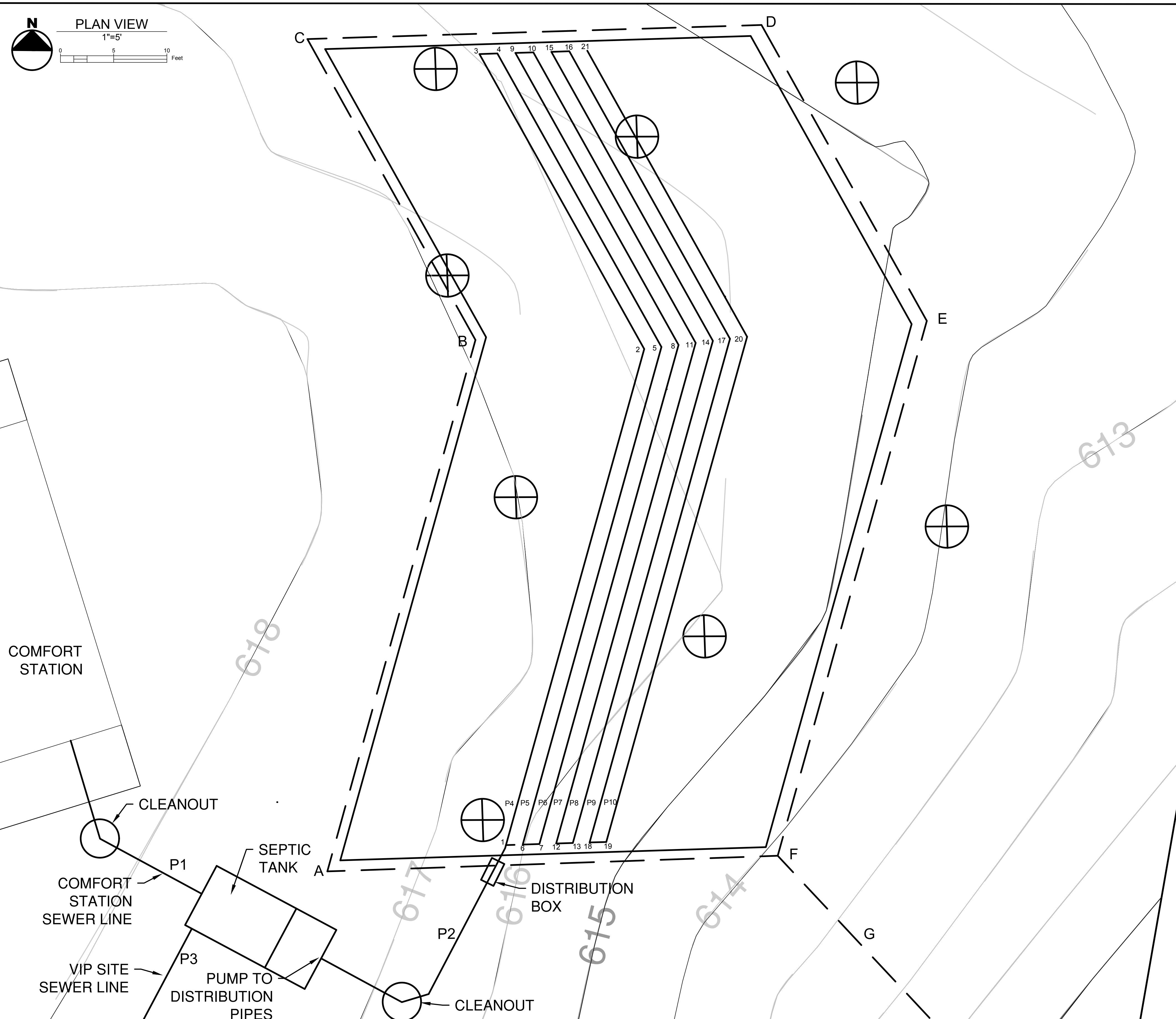
CHECKED: AJW

CHECKED: AJW

INDIANA DEPARTMENT OF NATURAL RESOURCES

SEWER PLAN AND PROFILE

SHEETS
17 of 28
PROJECT
CDC 2409631016



EXISTING GRADE SHOTS OBTAINED ON-SITE ARE PROVIDED FOR THE SOIL ABSORPTION FIELD. THE GRADE SHOTS PROVIDED FOR THE SOIL ABSORPTION FIELD WERE NOT EXTRAPOLATED FROM COMPUTER TOPOGRAPHY FOR THE PURPOSES OF ESTABLISHING CONTOUR LINES

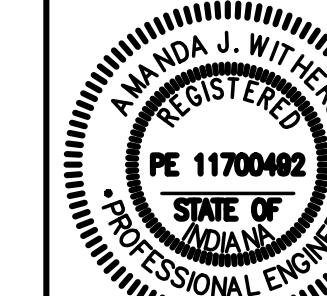
	PIPE	LENGTH (LF)	DIA. (IN)	PIPE SPEC.	POINT NO.	GROUND ELEV.	PIPE INV	SLOPE	BED ELEV.
BUILDING TO SEPTIC	P1	20	4	SCH 40 PVC					612.13 1.50%
SEPTIC TO DISTRIBUTION PIPES	P2	27	2	SCH 40 PVC					614.5
VIP SITE TO SEPTIC	P3	80	4	SCH 40 PVC					612.13 1.48%
PRESBY DISTRIB. PIPE	P4	80	12	Advanced Enviro-Septic Pipe	1	616.2	614.7	0.10%	614.2
	P5	80	12		2	616.38	614.65	0.10%	614.15
	P6	80	12		3	615.97	614.62	0.10%	614.12
	P7	80	12	Advanced Enviro-Septic Pipe	4	615.87	614.62	0.10%	614.12
	P8	80	12		5	616.29	614.59	0.10%	614.09
	P9	80	12		6	616.02	614.54	0.10%	614.04
	P10	80	12	Advanced Enviro-Septic Pipe	7	615.83	614.54	0.10%	614.04
					8	616.21	614.49	0.10%	613.99
					9	615.78	614.46	0.10%	613.96
				Advanced Enviro-Septic Pipe	10	615.71	614.46	0.10%	613.96
					11	616.14	614.43	0.10%	613.93
					12	615.7	614.38	0.10%	613.88
				Advanced Enviro-Septic Pipe	13	615.53	614.38	0.10%	613.88
					14	616.05	614.33	0.10%	613.83
					15	615.64	614.3	0.10%	613.8
				Advanced Enviro-Septic Pipe	16	615.57	614.3	0.10%	613.8
					17	615.97	614.27	0.10%	613.77
					18	615.4	614.22	0.10%	613.72
				Advanced Enviro-Septic Pipe	19	615.26	614.22	0.10%	613.72
					20	615.89	614.17	0.10%	613.67
					21	615.5	614.14	0.10%	613.64

DRAINAGE DEPTH SUMMARY	
A	617.3
B	616.9
C	616.6
D	614.7
E	614.6
F	613.9
G	609.7
GROUND	INVERT

DRAINAGE PIPE SLOPE SUMMARY	
AB	51.8
BC	32.4
CD	42.7
DE	31.84
EF	52.2
AF	42.3
FG	33.9
LENGTH	SLOPE

GENERAL NOTES

- SEE SHEET 17 FOR DETAILS ON P1, P2, & P3
- PRESBY MOUND SYSTEM TO BE INSTALLED AS PER DIRECTION FROM MANUFACTURER
- MINIMUM OF 4-INCHES OF COVER OVER ADVANCED ENVIRO-SEPTIC PIPES
- NO ABANDONED WELLS ON SITE, NO EXISTING WELLS TO BE ABANDONED
- SYSTEM IS 2500+ FEET FROM PROPERTY LINES IN ALL DIRECTIONS



Amanda J. Withers
3/10/2025
DESIGNED: LMR DRAWN: LMR
CHECKED: AJW CHECKED: AJW

INDIANA DEPARTMENT OF NATURAL RESOURCES
SEPTIC SYSTEM SITE PLAN

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PROJECT
CDC 2409631016

GENERAL NOTES

1. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA (CURRENT LOCAL VERSION IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATION WHICH VOID THE U.L. LISTINGS (OR THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.

2. THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THE FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

3. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY DETAIL OF CONSTRUCTION, METHODS, MATERIALS AND EQUIPMENT, OR EXACT LOCATIONS, ROUTING, ETC. THEY INDICATE THE RESULT TO BE ACHIEVED BY THE ASSEMBLAGE OF SEVERAL SYSTEMS FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. DO NOT SCALE THE CONTRACT DOCUMENTS. COORDINATE EXACT EQUIPMENT LOCATIONS WITH THE ARCHITECTURAL AND STRUCTURAL PORTIONS OF THE CONTRACT DOCUMENTS, AS WELL AS FIELD CONDITIONS, APPROVED SHOP DRAWINGS, AND WORK OF ALL OTHER DIVISION/TRADES.

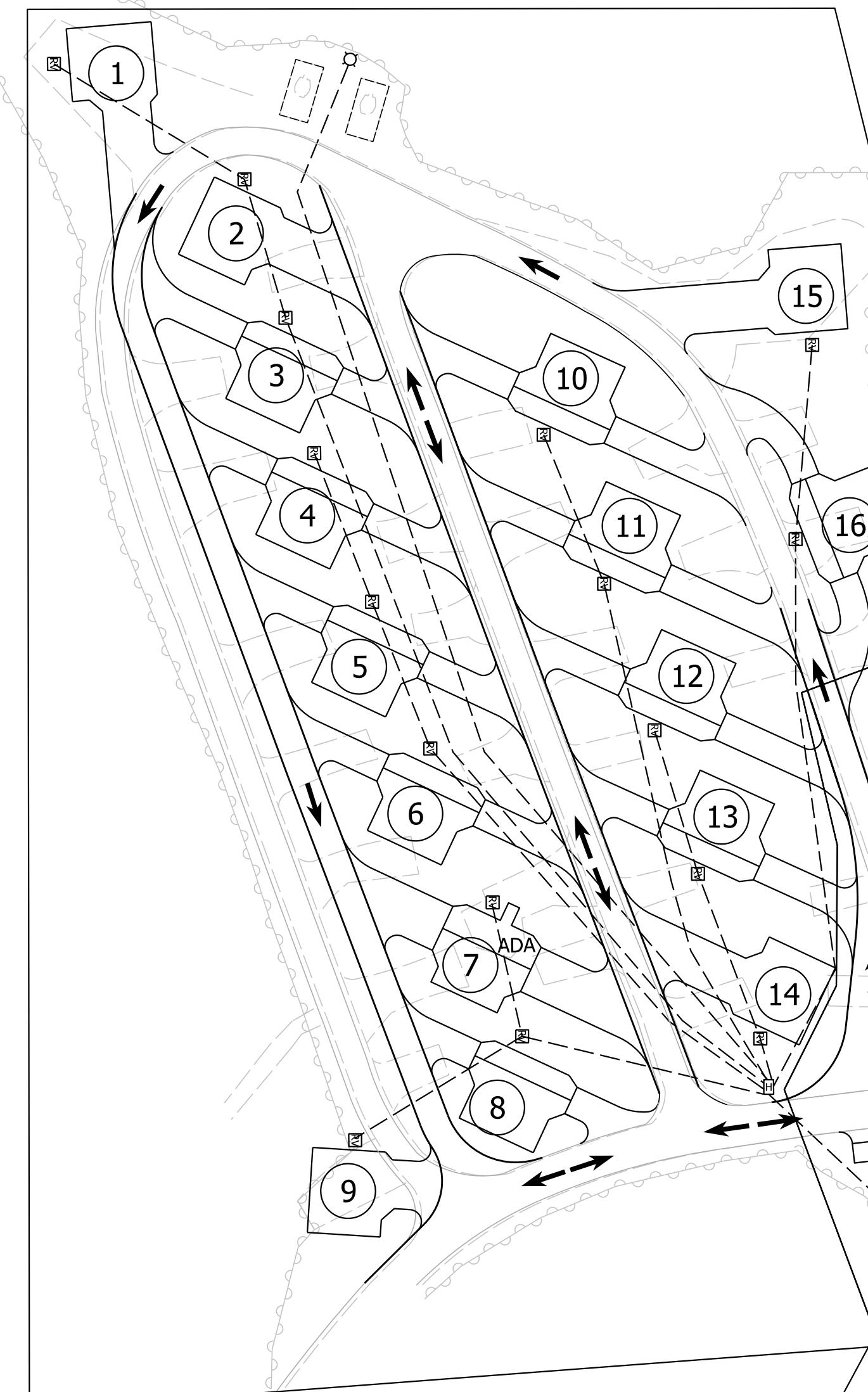
4. PER NEC, NO CONDUIT RUN SHALL HAVE NAY MORE THAN 360 DEGREES OF TOTAL BENDS BETWEEN EQUIPMENT AND OR HANDHOLES. CONTRACTOR SHALL INSTALL ADDITIONAL HANDHOLES AS NECESSARY TO COMPLY WITH THESE REQUIREMENTS.

5. SEE ELECTRICAL ONE-LINE FOR FURTHER INFORMATION ON CONDUIT AND WIRING.

6. CONTRACTOR SHALL EXCAVATE TRENCH AND PROVIDE 2" CONDUIT FOR THE UNDERGROUND PRIMARY FROM EXISTING PADMOUNT SERVICE LOCATED AT THE SOUTH SHELTER HOUSE TO THE PROPOSED TRANSFORMER LOCATION. TRENCH SHALL BE MINIMUM 36".

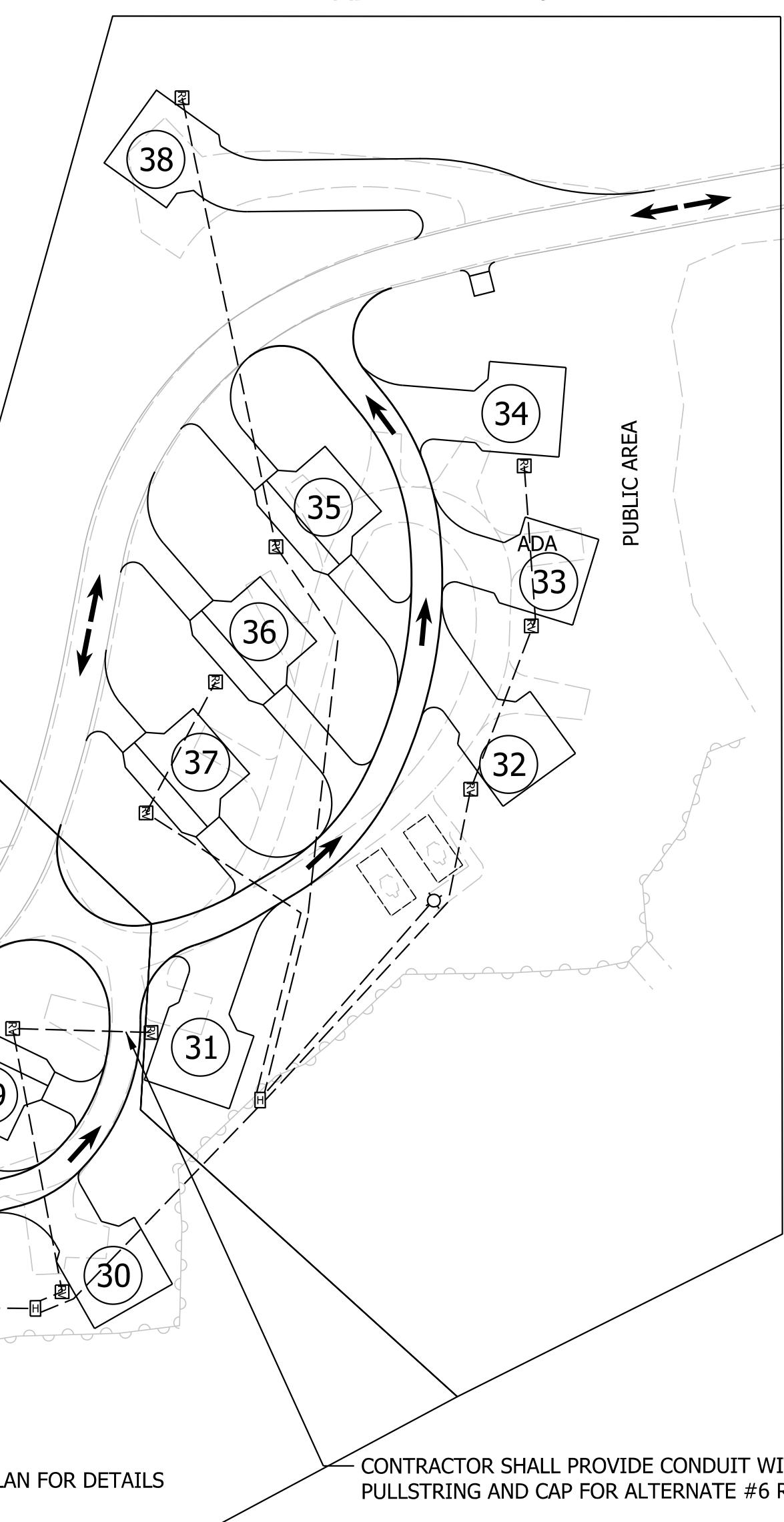
7. ALL SECONDARY CONDUCTORS SHALL BE DIRECT BURIED. SECONDARY CONDUCTORS UNDER ROADS SHALL BE IN CONDUIT.

ALTERNATE #4



BASE BID

ALTERNATE #6



CONTRACTOR SHALL PROVIDE CONDUITS WITH
PULLSTRING AND CAP FOR ALTERNATE #4 RV PEDESTALS

AMANDA J. WITHERS
REGISTERED
PROFESSIONAL ENGINEER
PE 11700492
STATE OF
INDIANA

3/10/2025

DATE

RECOMMENDED
FOR APPROVAL

Amanda J. Withers

3/10/2025

DATE

DESIGNED:

LNB

3/10/2025

DRAWN:

BTS

3/10/2025

CHECKED:

AW

3/10/2025

CHECKED:

LNB

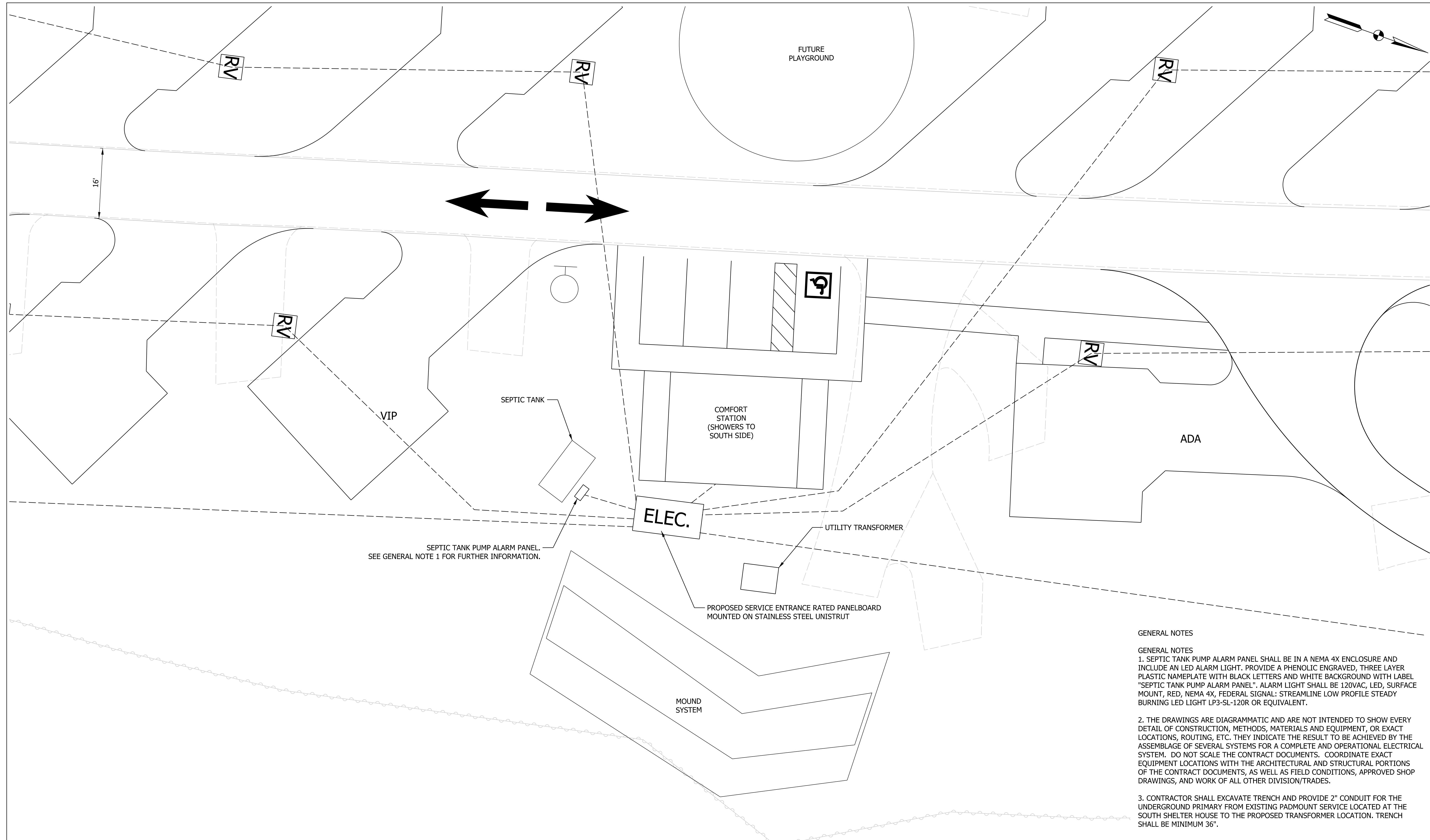
3/10/2025

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OF NATURAL RESOURCES

ELECTRICAL SITE PLAN

SCALE
1" = 50'

SHEETS
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PROJECT
CDC 2409631016



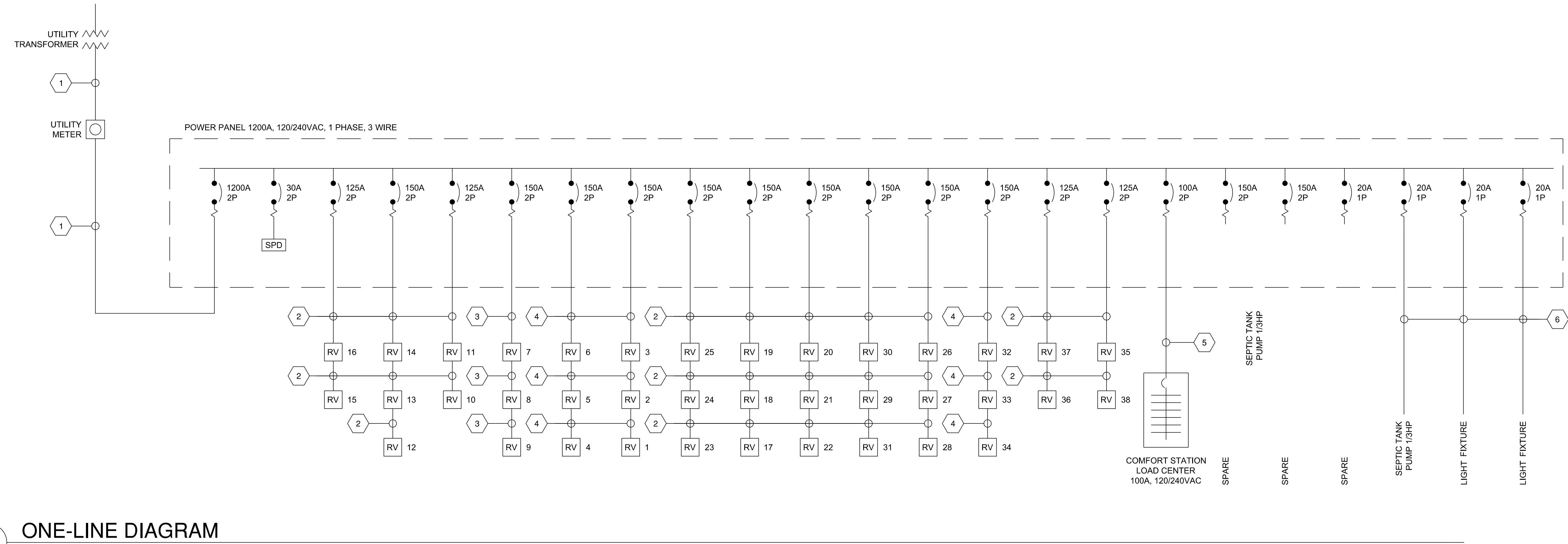
RECOMMENDED FOR APPROVAL

3/10/2025

DATE

DESIGNED: LNB 3/10/2025 DRAWN: BTS 3/10/2025

CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025



ONE-LINE DIAGRAM

KEYED NOTES:

1. TWO 4" CONDUITS EACH WITH 3 - 600KCMIL, 1 - 600KCMIL GROUNDED SERVICE CONDUCTOR.
2. 3 - #1/0 AWG, 1 - #1/0 NEUTRAL, 1 - #6 GND IN 3" CONDUIT.
3. 3 - #2/0 AWG, 1 - #2/0 NEUTRAL, 1 - #4 GND IN 3" CONDUIT.
4. 3 - #3/0 AWG, 1 - #3/0 NEUTRAL, 1 - #4 GND IN 3" CONDUIT.
5. 3 - #3 AWG, 1 - #8 GND IN 1-1/2" CONDUIT.
6. 2 - #10 AWG, 1 - #10 GND IN 1" CONDUIT.

A circular registration stamp with a decorative border. The outer ring contains the text "AMANDA J. WITHERS" at the top and "PROFESSIONAL ENGINEER" at the bottom. The inner circle contains "REGISTERED" at the top and "STATE OF INDIANA" at the bottom. In the center, the identifier "PE 11700492" is prominently displayed.

RECOMMENDED FOR APPROVAL Amanda J. Withers 3/10/2024

• **Table 1** Summary of the main characteristics of the four groups of patients.

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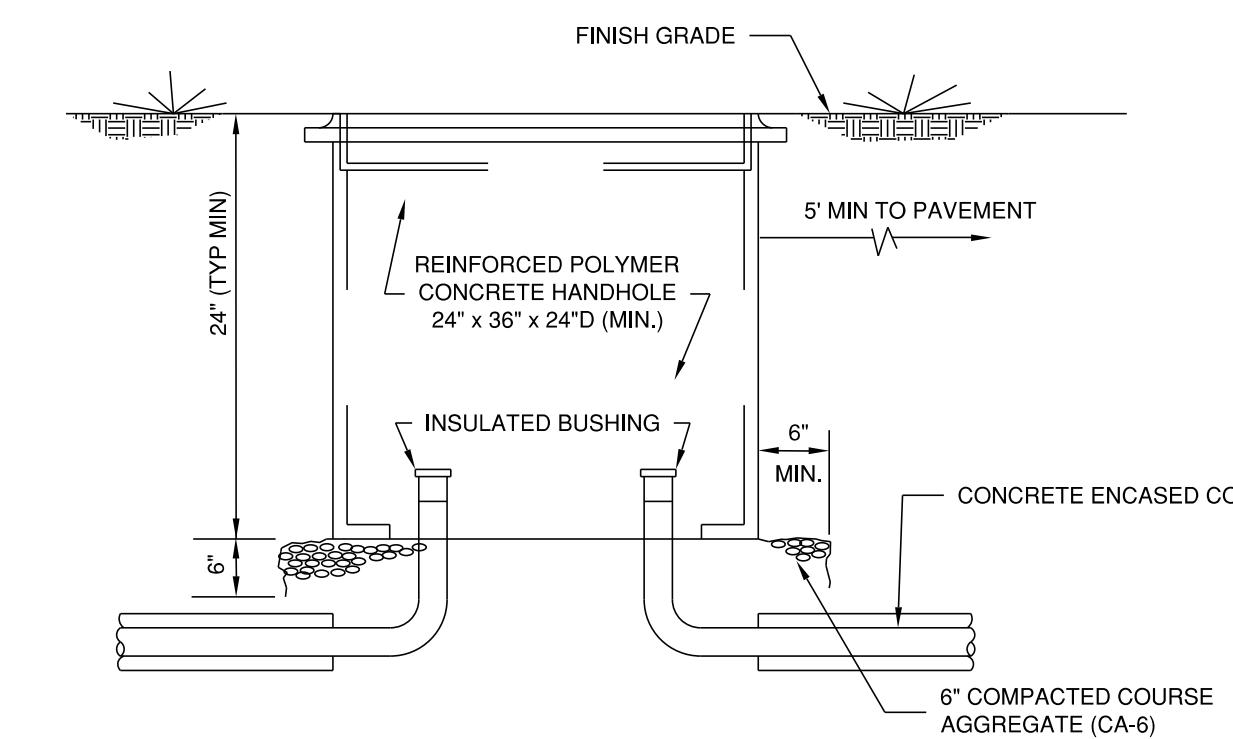
ELECTRICAL DETAILS

SCALE
N.T.S.

SHEETS
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PROJECT
CDC 2409631016

LED LIGHT FIXTURE 4800 LUMENS, 4000K COLOR TEMPERATURE, TYPE III DISTRIBUTION, 120-277V, PHOTOCELL CONTROL, DARK BRONZE IN COLOR

20 FT ROUND TAPERED AL POLE, 0.188 IN WALL THICKNESS, VIBRATION DAMPENER, DARK BRONZE IN COLOR

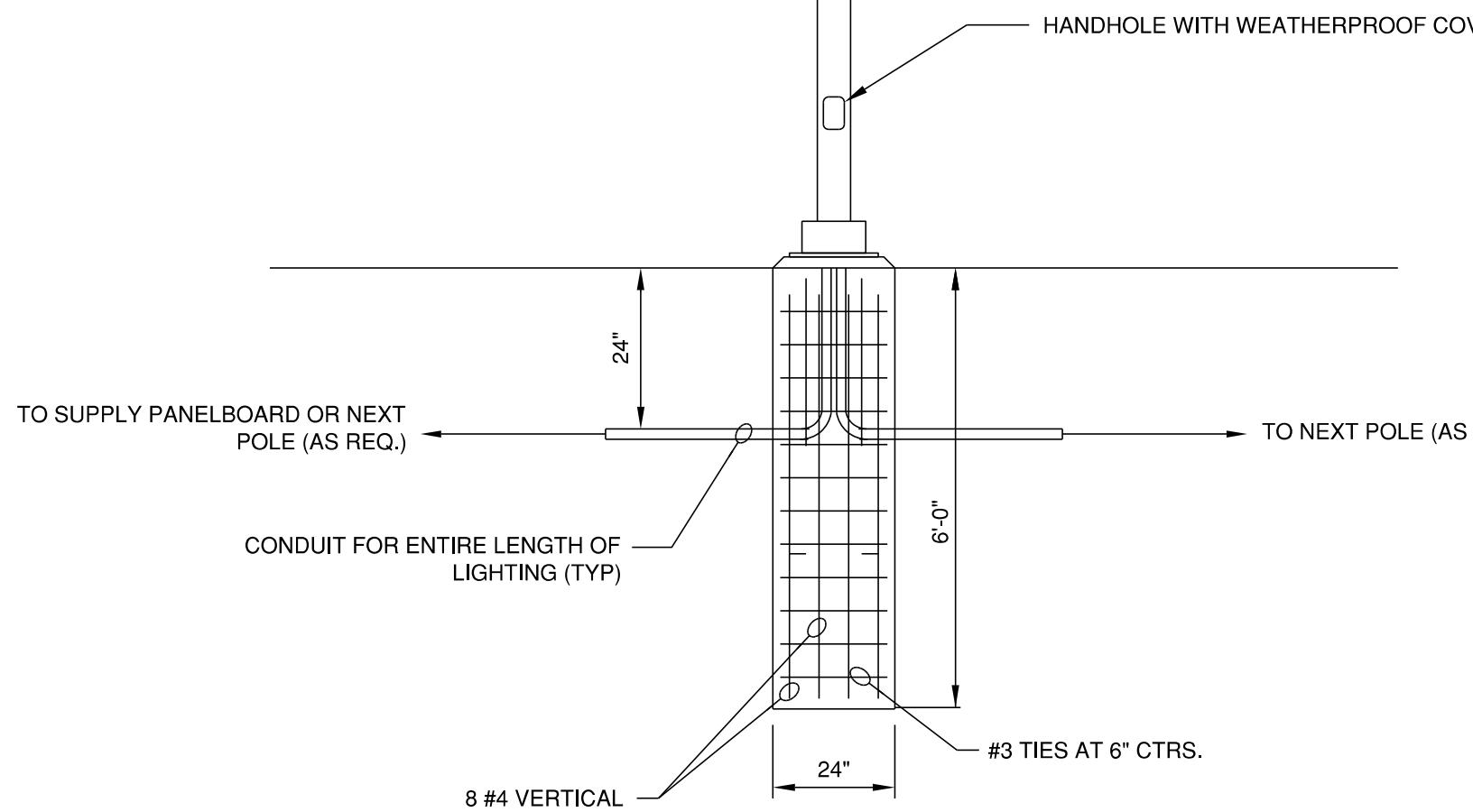


NOTES

1. COVER TO BE LABELED ELECTRICAL OR CONTROLS AS REQUIRED.
2. HEAVY DUTY HAND HOLE AND COVER TO BE RATED ANSI TIER 22.
3. STAINLESS STEEL INSERTS AND BOLTS.
4. PROVIDE LIFTING RING FOR LID REMOVAL.
5. CONDUIT DIMENSIONS AND LOCATIONS AS SHOWN ARE NOT TYPICAL OF EVERY HANHOLE. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CONDUIT OPENING DIMENSIONS AND LOCATIONS FOR EACH HANHOLE.

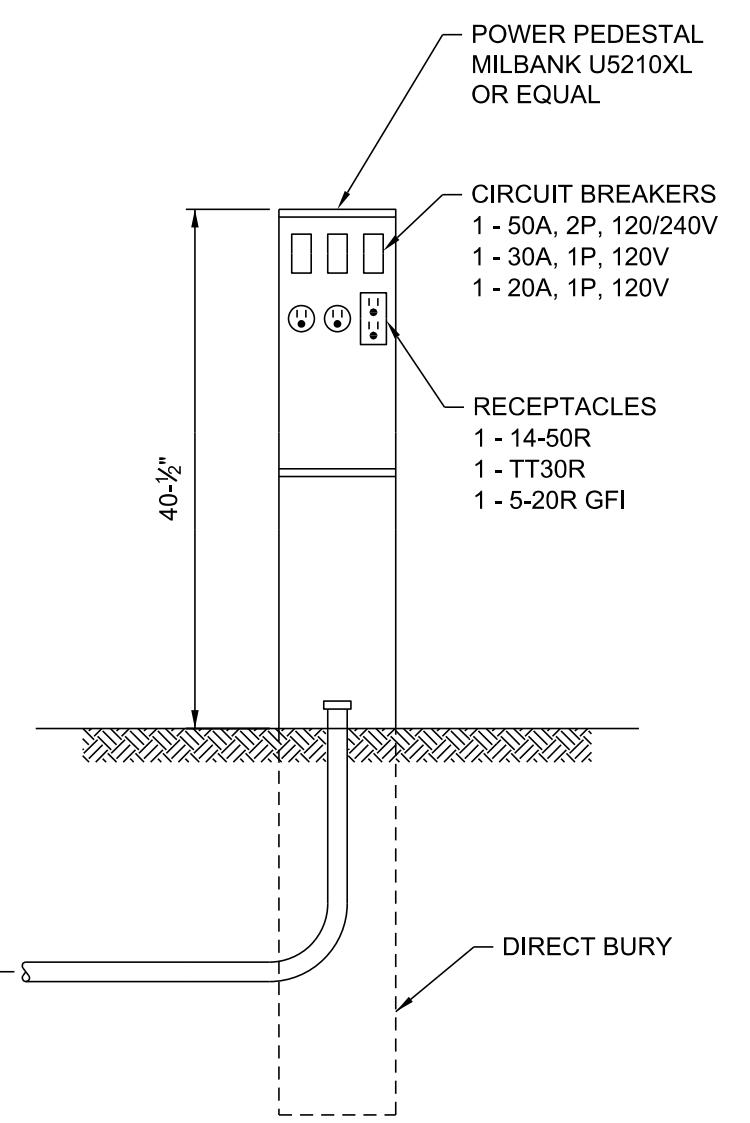
1 ELECTRICAL HANDHOLE DETAIL

N.T.S.



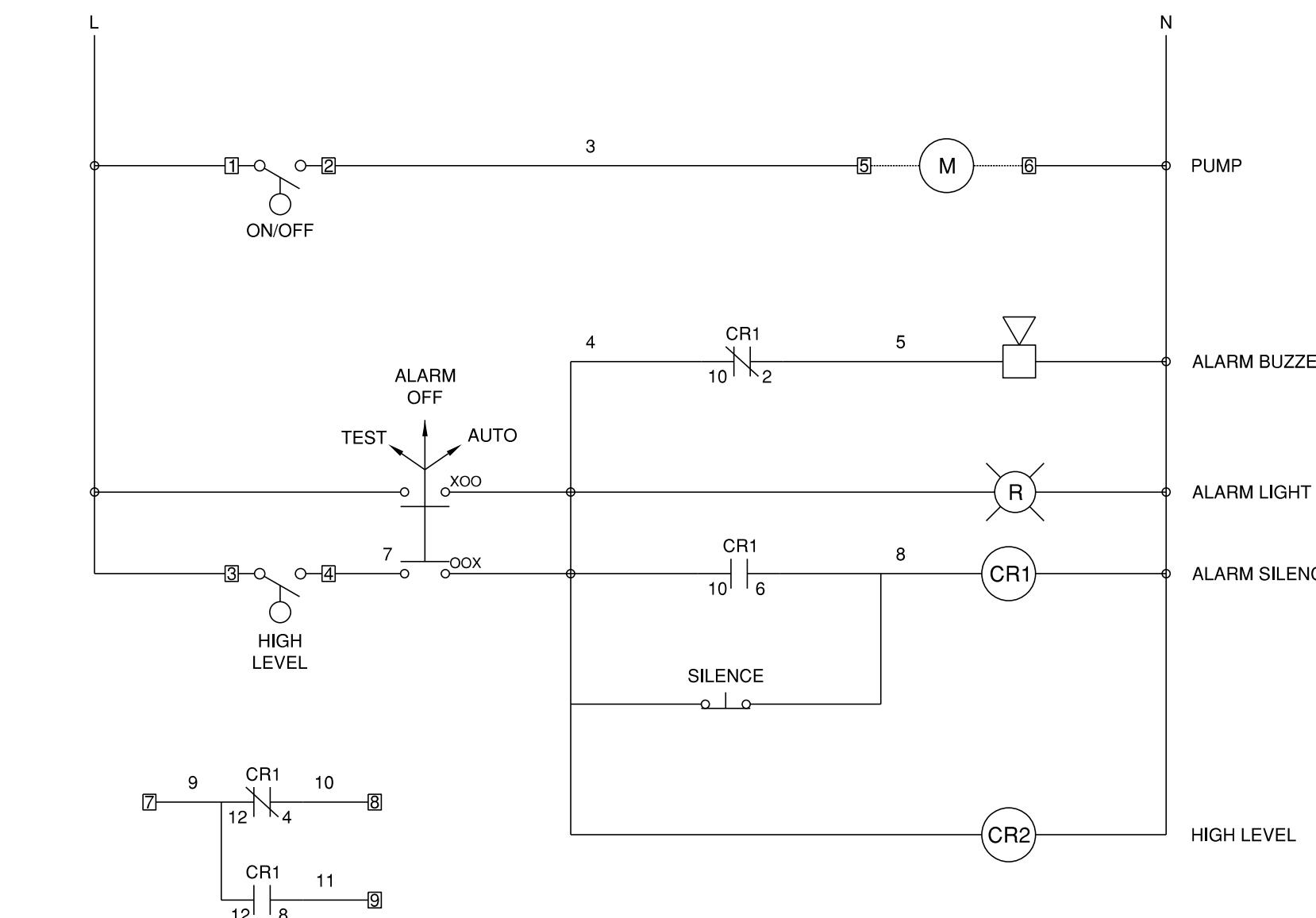
FIXTURE DETAIL

N.T.S.



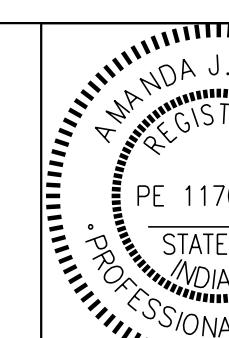
CAMPGROUND/RV PEDESTAL DETAIL

N.T.S.



1 SEPTIC TANK PUMP CONTROL SCHEMATIC

N.T.S.



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FOR APPROVAL

Amanda J. Withers
3/10/2025

DATE

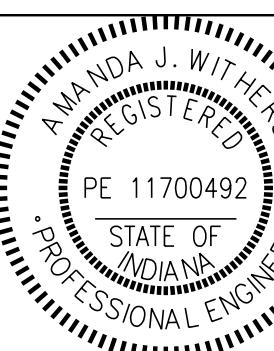
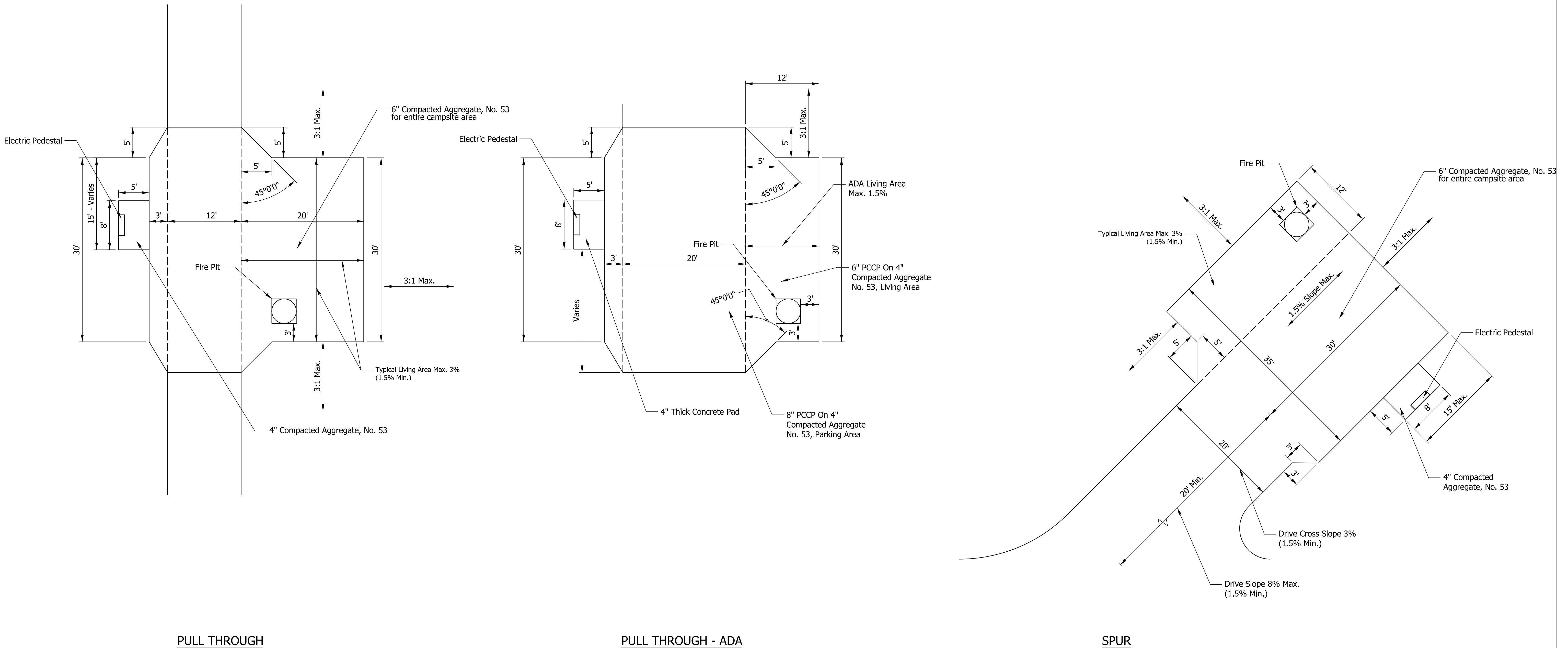
DESIGNED: LNB 3/10/2025 DRAWN: BTS 3/10/2025
CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025

INDIANA DEPARTMENT
OF NATURAL RESOURCES

ELECTRICAL
DETAILS

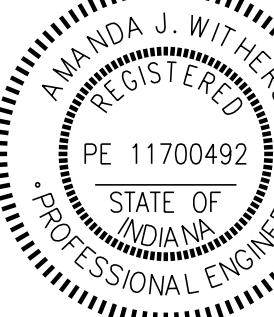
SCALE
N.T.S.

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PROJECT
CDC 2409631016



PULL THROUGH - ADA

SPUR



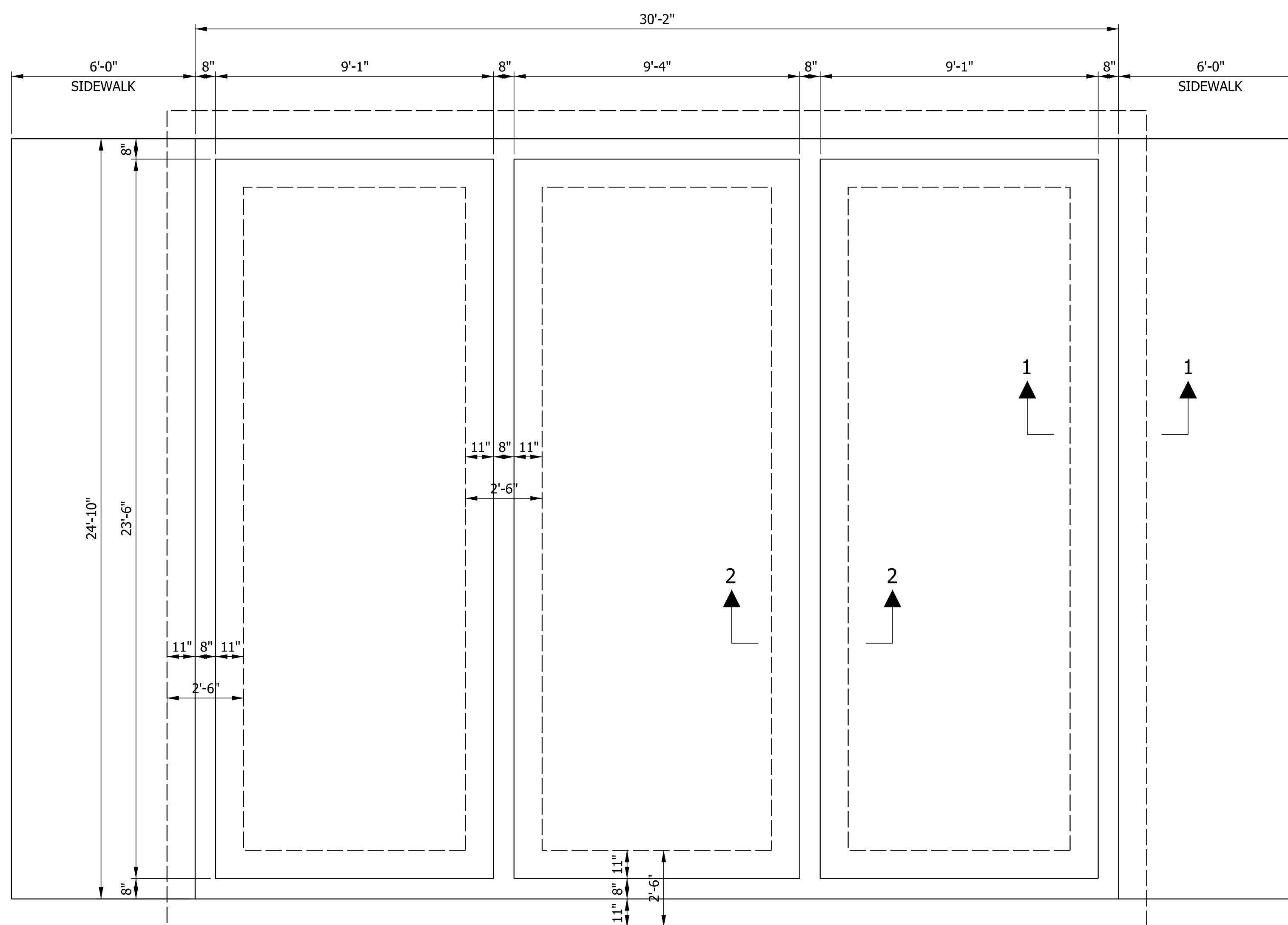
RECOMMENDED FOR APPROVAL	<i>Amanda J. Withers</i>	3/10/2025
DESIGNED:	LNB	3/10/2025
DRAWN:	BTS	3/10/2025
CHECKED:	AW	3/10/2025
CHECKED:	LNB	3/10/2025

INDIANA DEPARTMENT
OF NATURAL RESOURCES

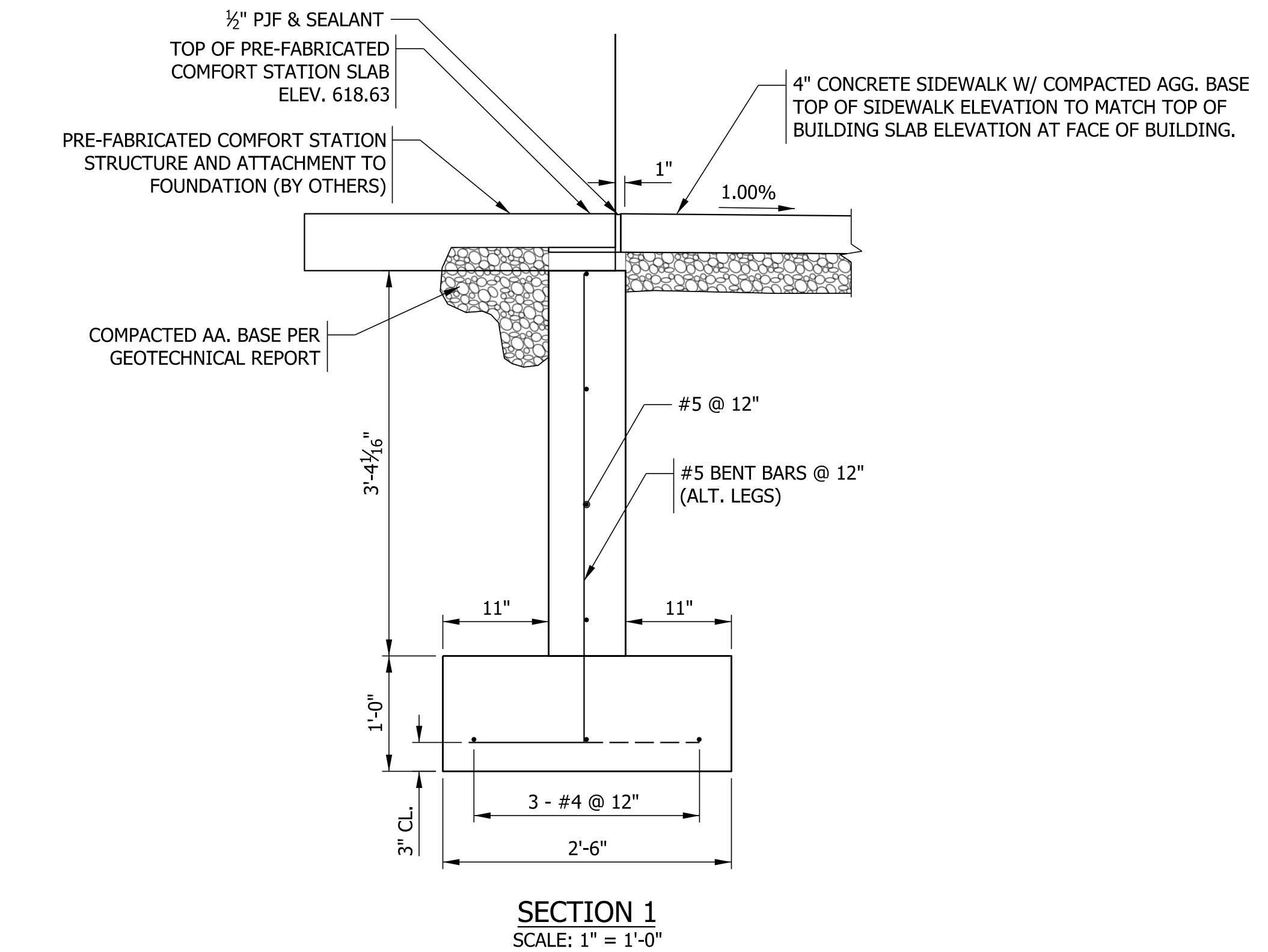
CAMPSITE DETAILS

SCALE
1/8" = 1'

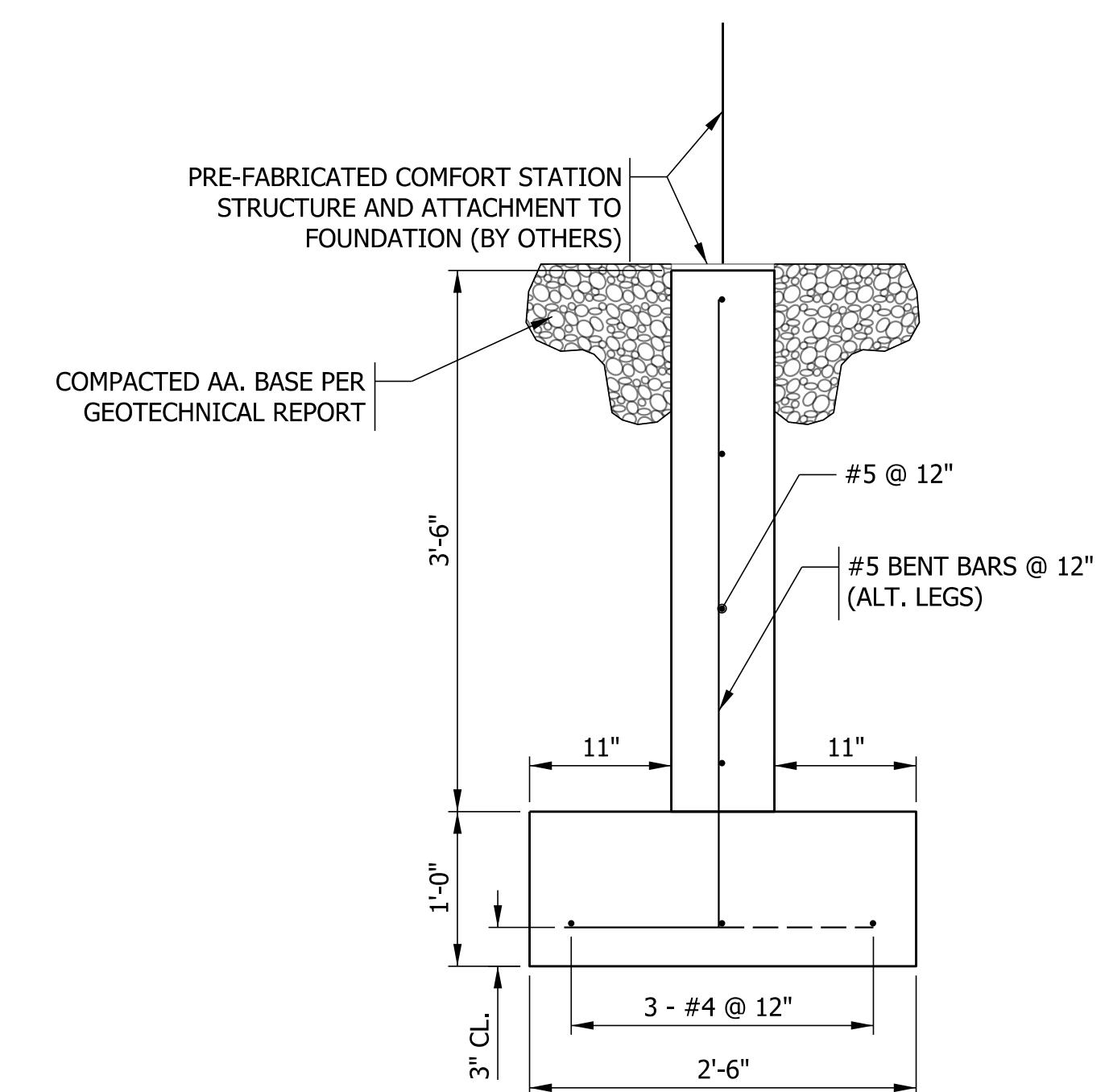
SHEETS
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PROJECT
CDC 2409631016



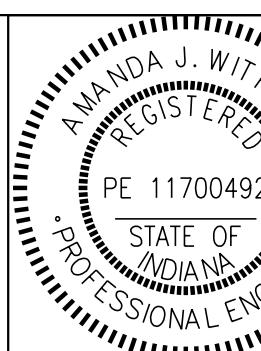
COMFORT STATION FOUNDATION PLAN
SCALE: $\frac{3}{8}$ " = 1'-0"



SECTION 1
SCALE: 1" = 1'-0"



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



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FOR APPROVAL

Amanda J. Withers
3/10/2025
DATE

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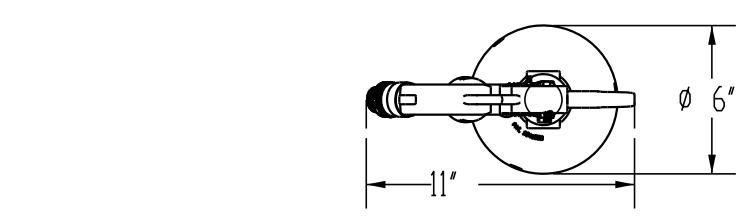
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COMFORT STATION DETAIL

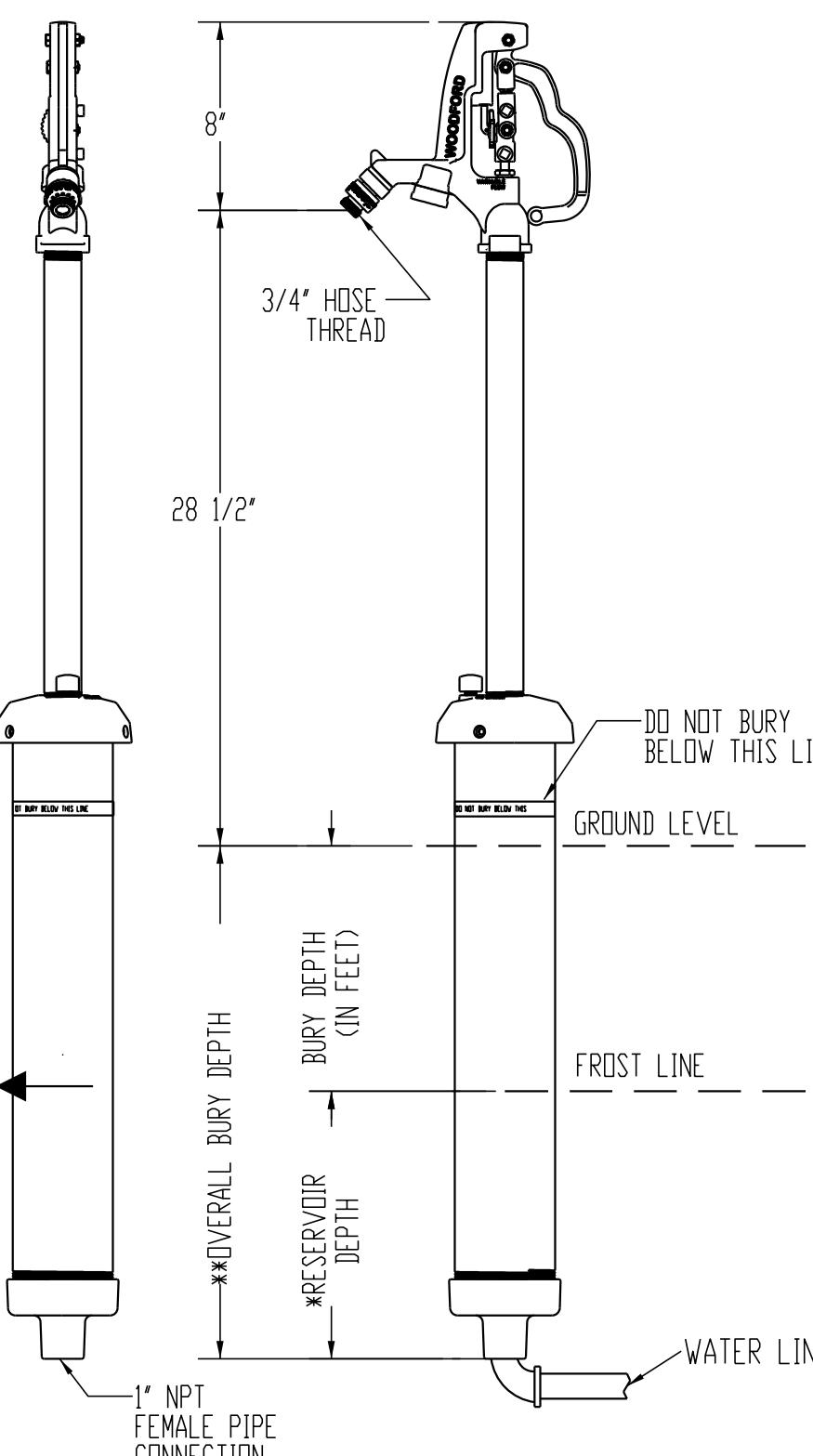
SCALE
AS NOTED

SHEETS
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PROJECT
CDC 2409631016

FOR REFERENCE ONLY
S3
WOODFORD SANITARY YARD HYDRANT
ROUGH-IN DIMENSIONS



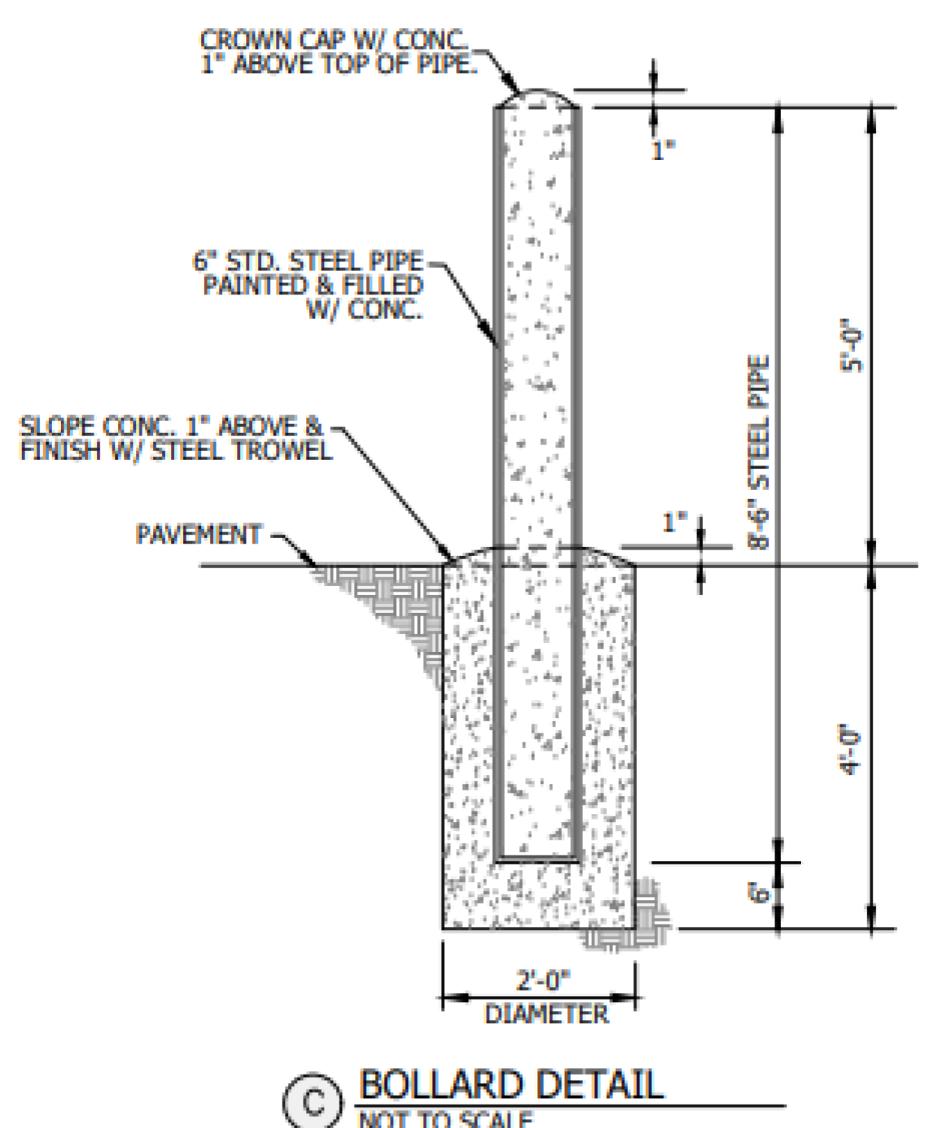
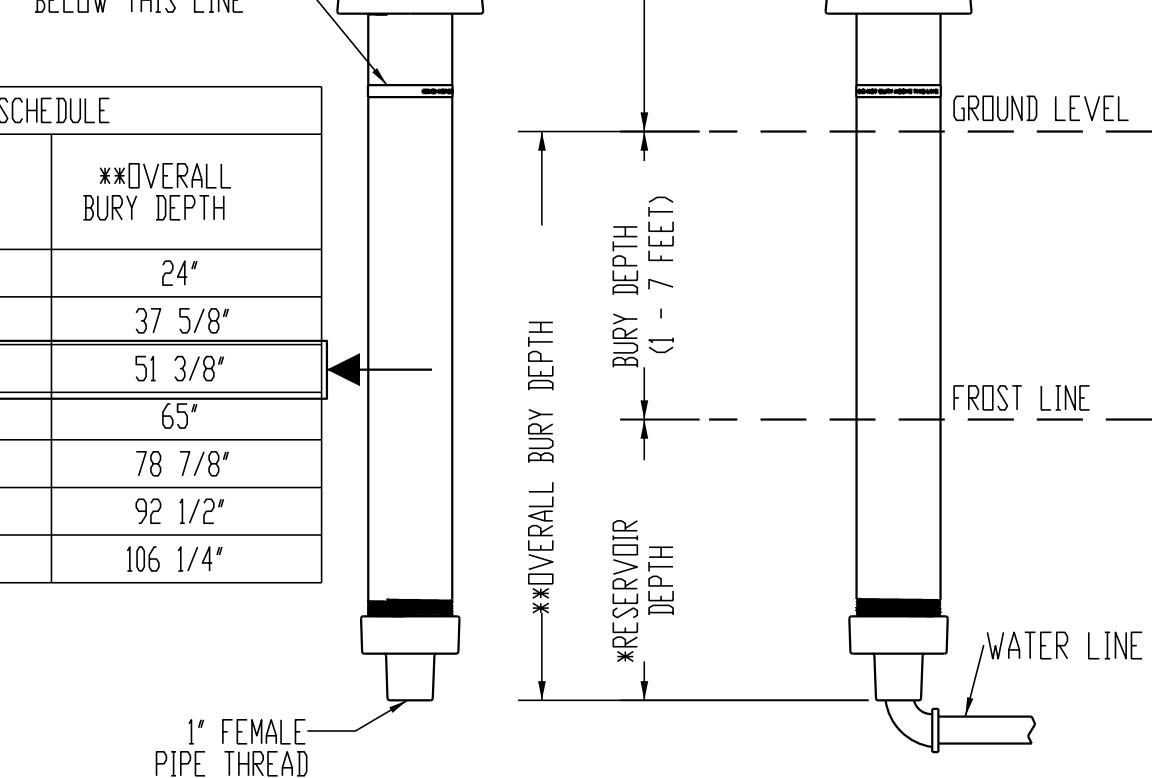
FOR REFERENCE ONLY
S4H
WOODFORD SANITARY YARD HYDRANT
ROUGH-IN DIMENSIONS



S3 BURY DEPTH SCHEDULE		
BURY DEPTH	*RESERVOIR DEPTH	**OVERALL BURY DEPTH
1'	10 1/2"	22 1/2"
2'	11 7/8"	35 7/8"
3'	13 1/4"	49 1/4"
4'	14 5/8"	62 5/8"
5'	16"	76"
6'	17 3/8"	89 3/8"
7'	18 3/4"	102 3/4"

YARD HYDRANT DETAIL
N.T.S.

S4H BURY DEPTH SCHEDULE		
BURY DEPTH	*RESERVOIR DEPTH	**OVERALL BURY DEPTH
1'	12"	24"
2'	13 5/8"	37 5/8"
3'	15 3/8"	51 3/8"
4'	17"	65"
5'	18 7/8"	78 7/8"
6'	20 1/2"	92 1/2"
7'	22 1/4"	106 1/4"

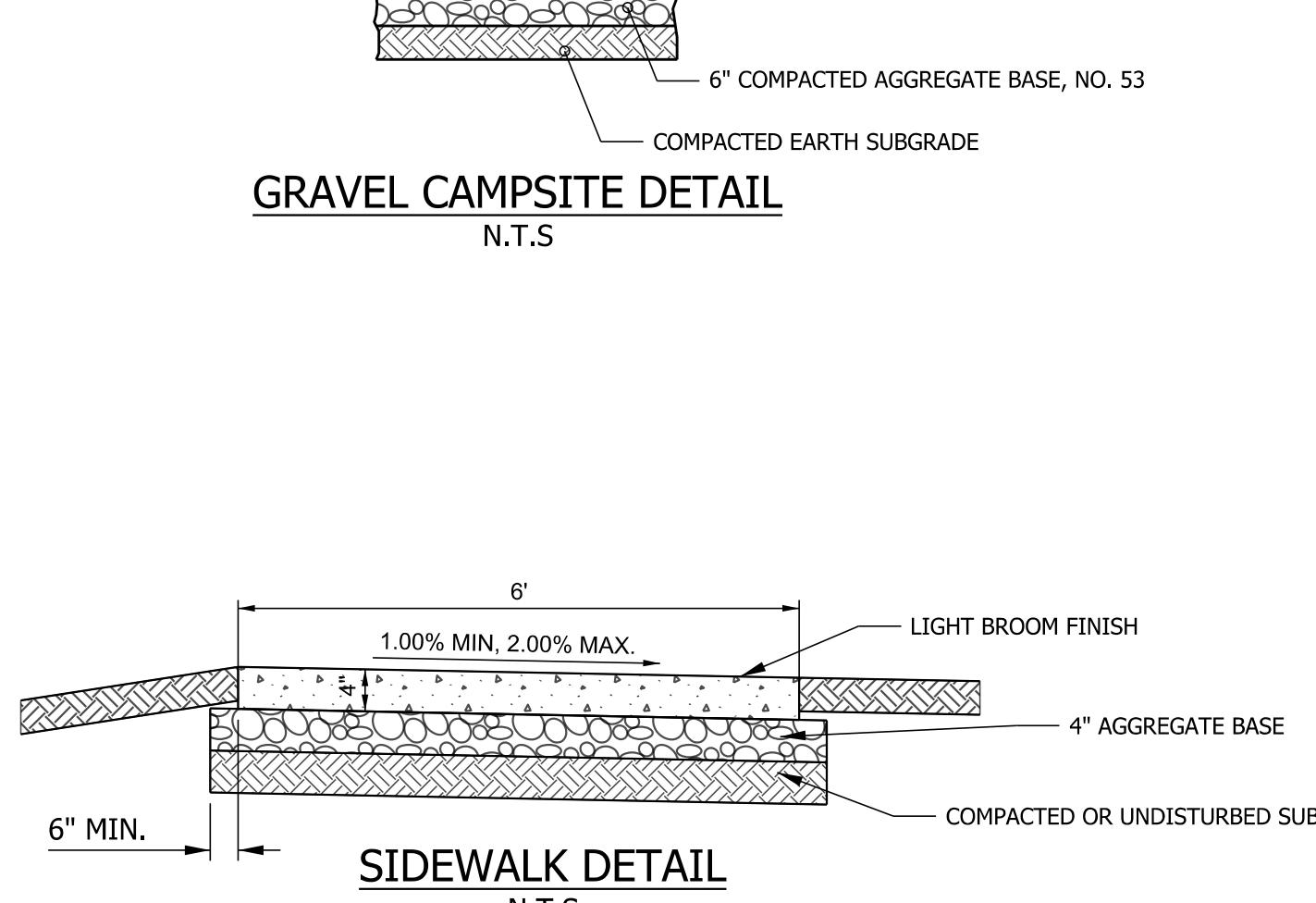


BOLLARD NOTES:

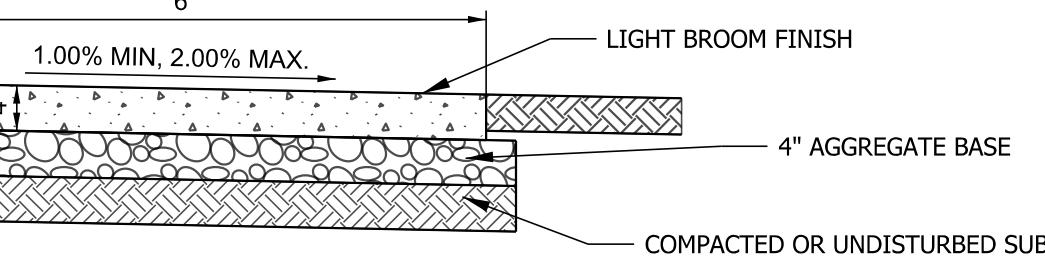
1. PLACE BOLLARDS TO PROTECT THE COMFORT STATION FROM VEHICULAR DAMAGE AT NORTH AND SOUTH ENDS OF PARKING AREA AND SPACED EVERY 5-6 FEET (8 TOTAL)
2. PLACE TWO BOLLARDS AT EACH DUMPSTER PAD LOCATION TO PROTECT DUMPSTERS FROM DAMAGE
3. PLACE A SINGULAR BOLLARD TO MARK EACH PROPOSED 2-INCH GATE VALVE ON THE WATER MAIN
4. PLACE TWO BOLLARDS AT EACH 1-INCH SANITARY YARD HYDRANT (4 TOTAL) NOT ASSOCIATED WITH A CAMPsite

GRAVEL CAMPSITE DETAIL
N.T.S.

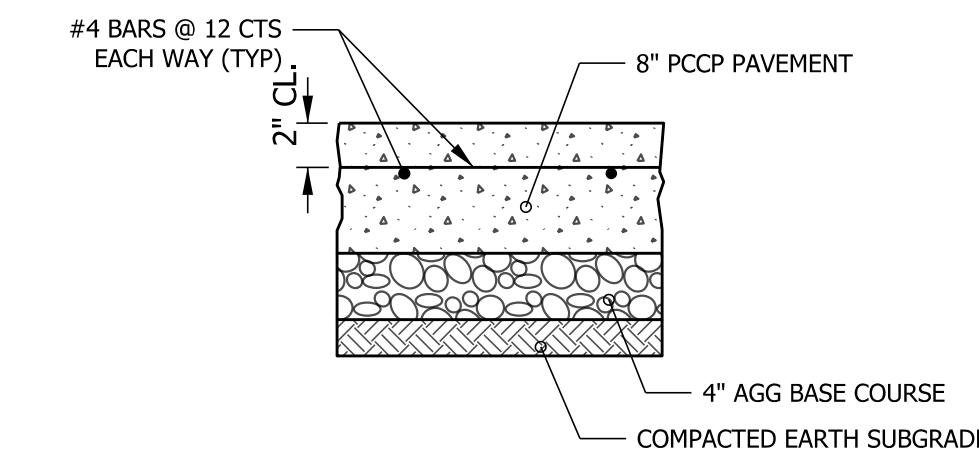
6" COMPACTED AGGREGATE BASE, NO. 53
COMPACTED EARTH SUBGRADE



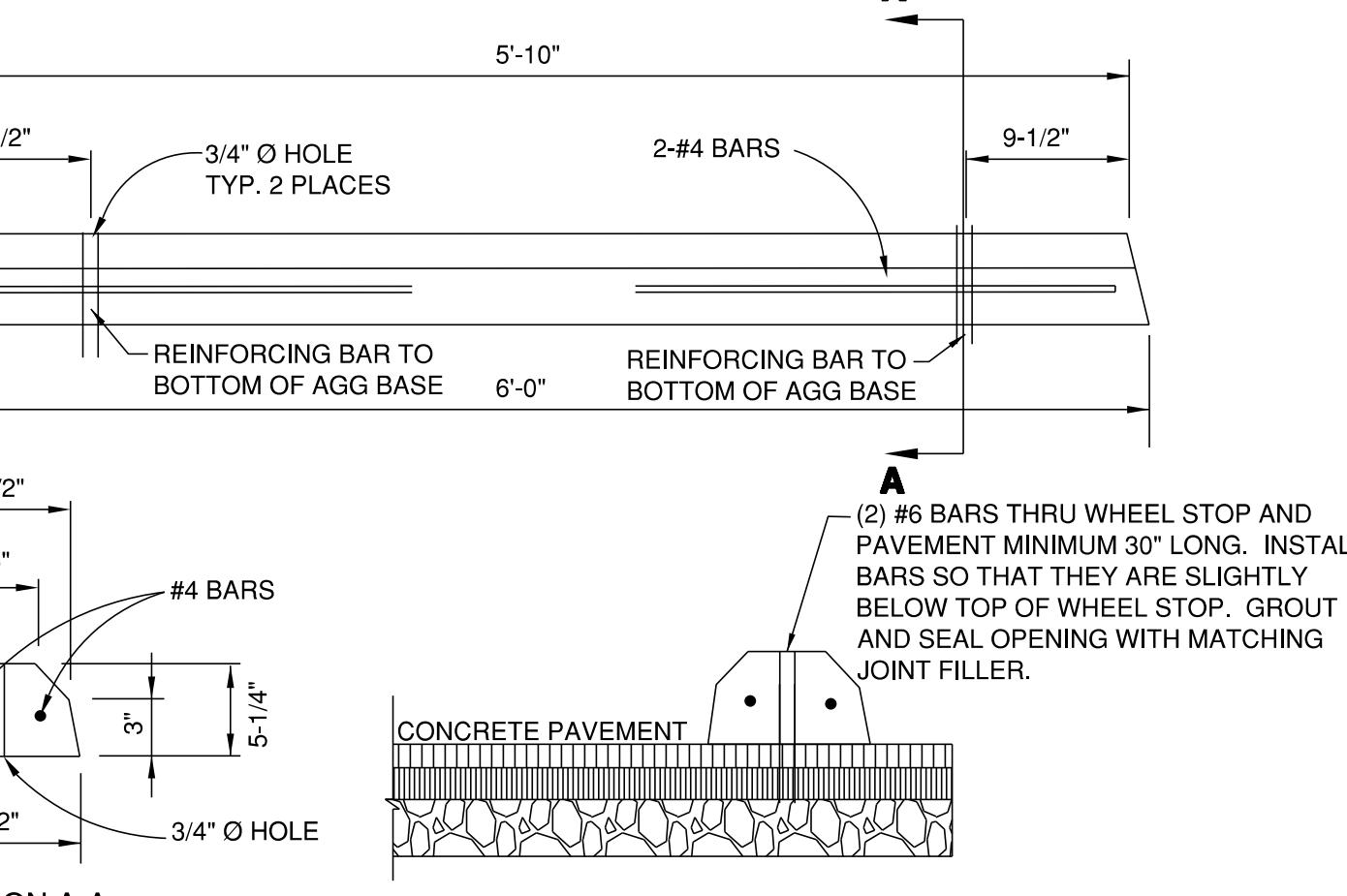
SIDWALK DETAIL
N.T.S.



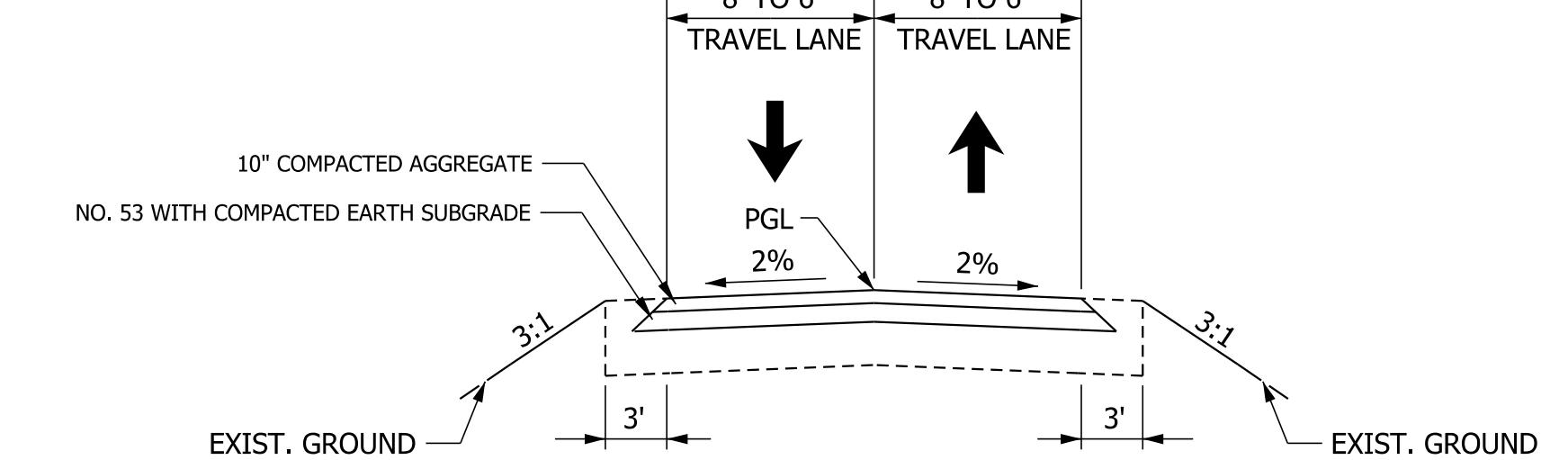
DUMPSTER PAD DETAIL
N.T.S.



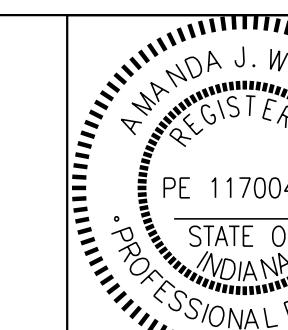
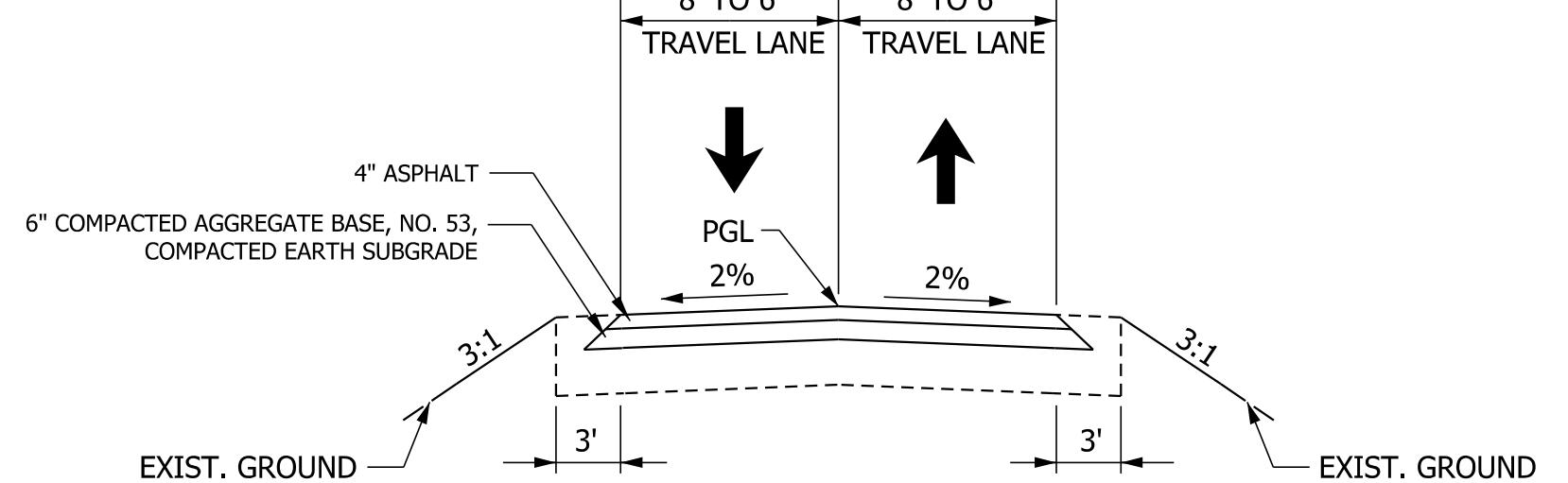
CONCRETE PARKING BLOCK DETAIL
N.T.S.



TYPICAL GRAVEL ROADWAY SECTION



TYPICAL ROADWAY SECTION



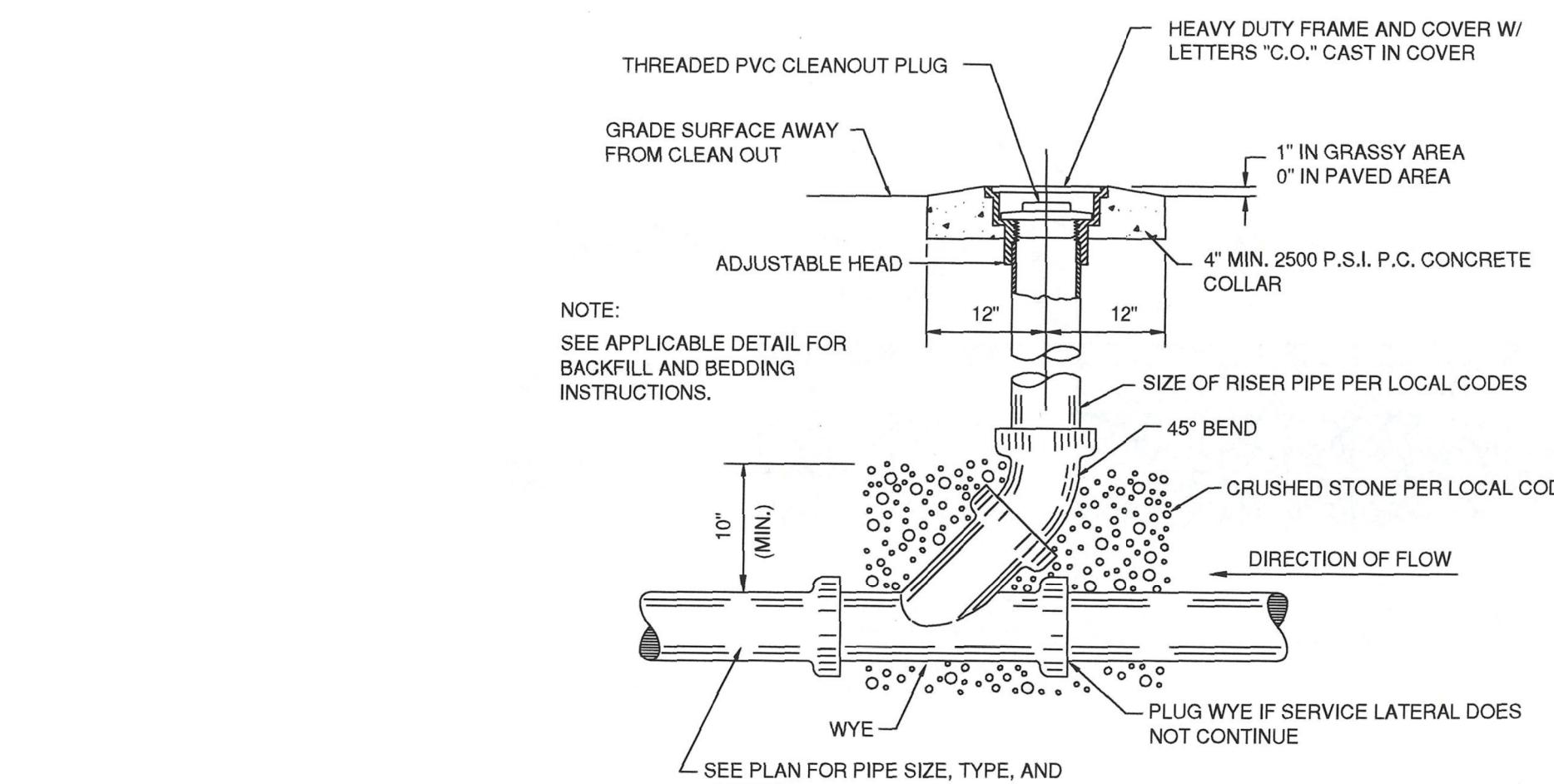
RECOMMENDED FOR APPROVAL *Amanda J. Withers* 3/10/2025
DATE

DESIGNED: LNB 3/10/2025 DRAWN: BTS 3/10/2025
CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025

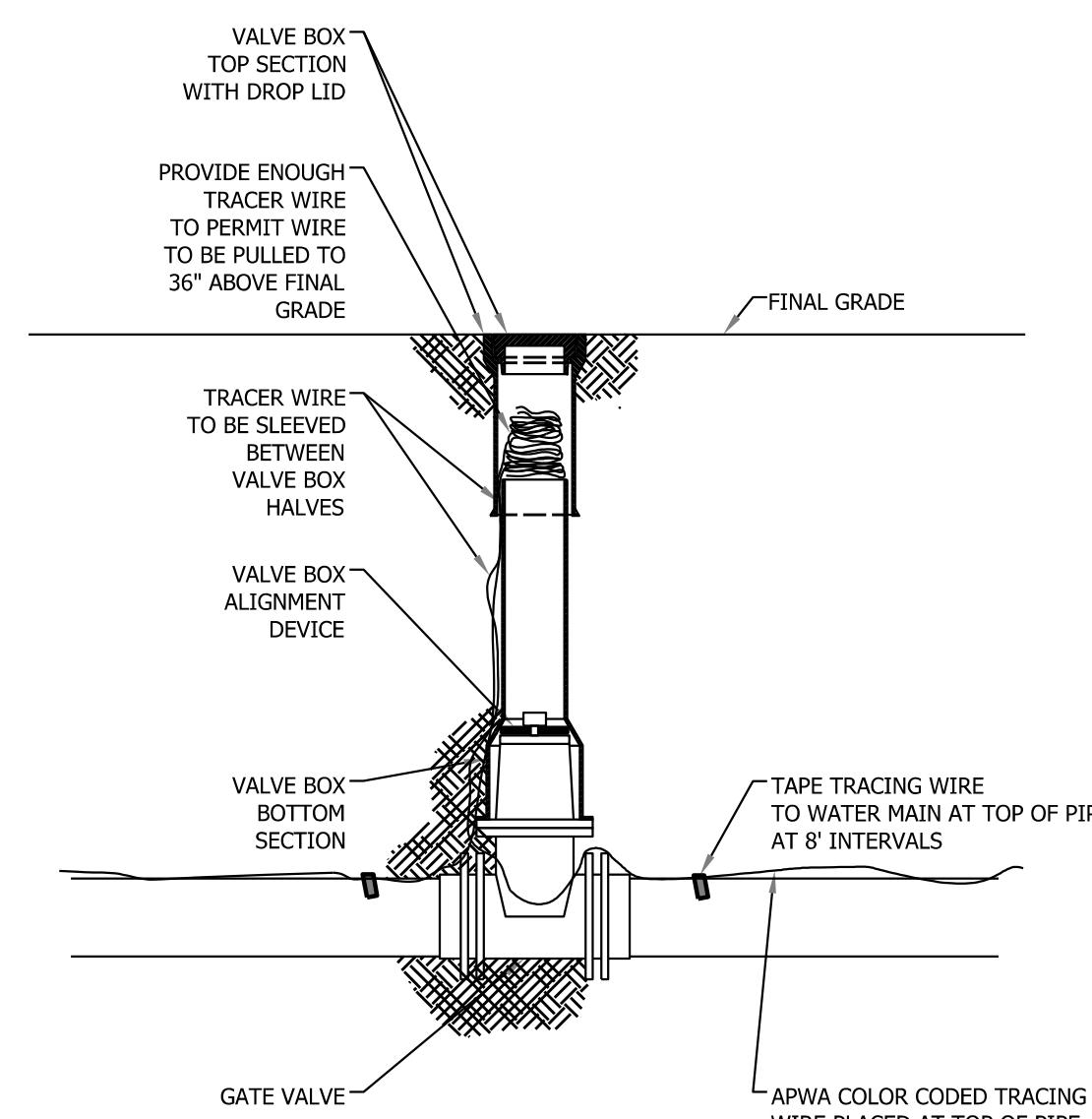
INDIANA DEPARTMENT
OF NATURAL RESOURCES

SITE DETAILS

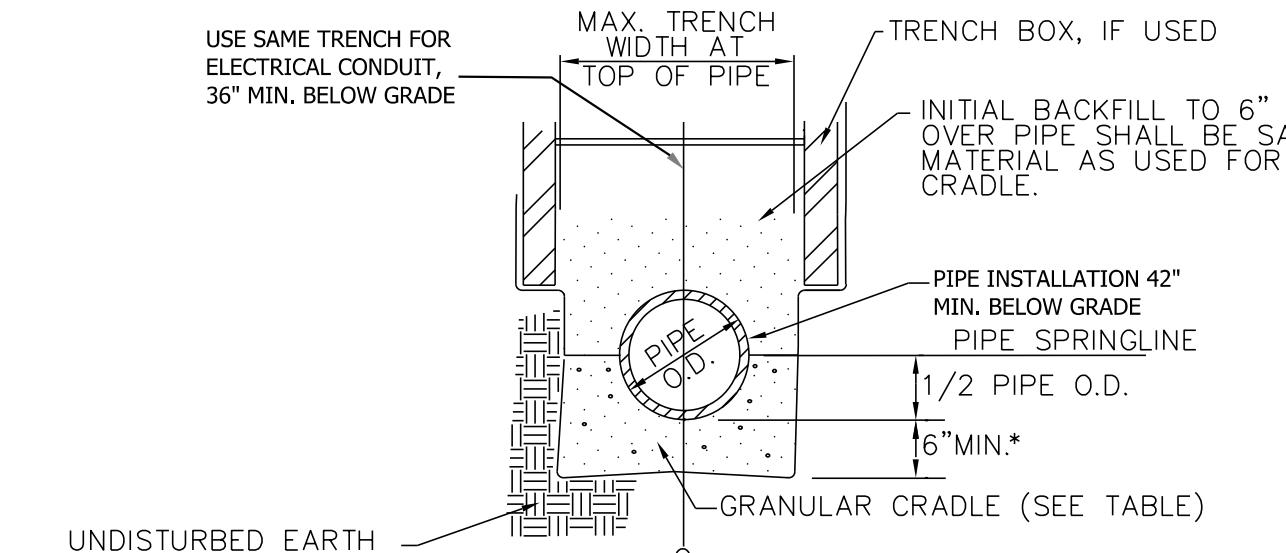
SCALE N.T.S.	
SHEETS 25 of 28	
PROJECT	
CDC 2409631016	



A1 TYPICAL CLEANOUT DETAIL
N.T.S.

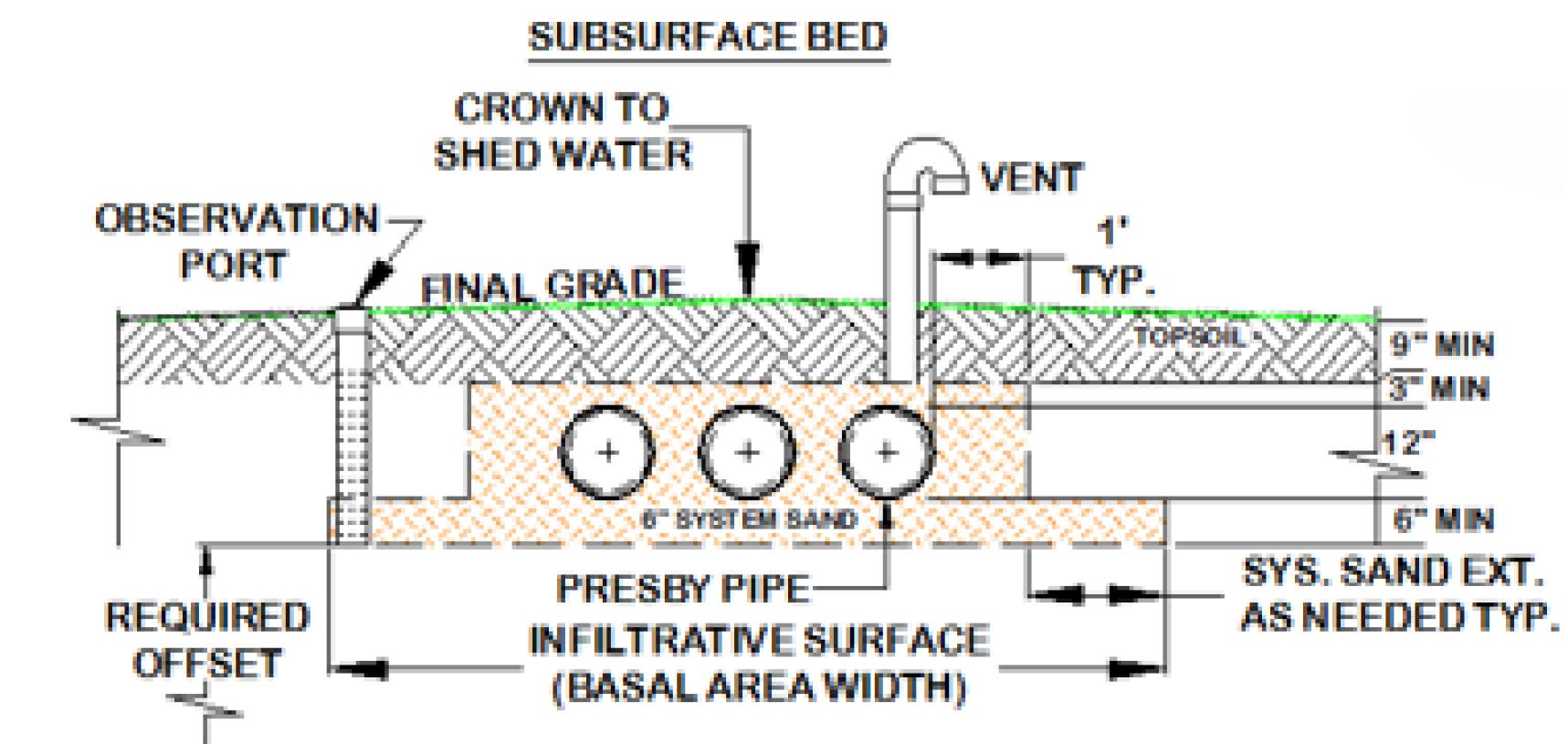
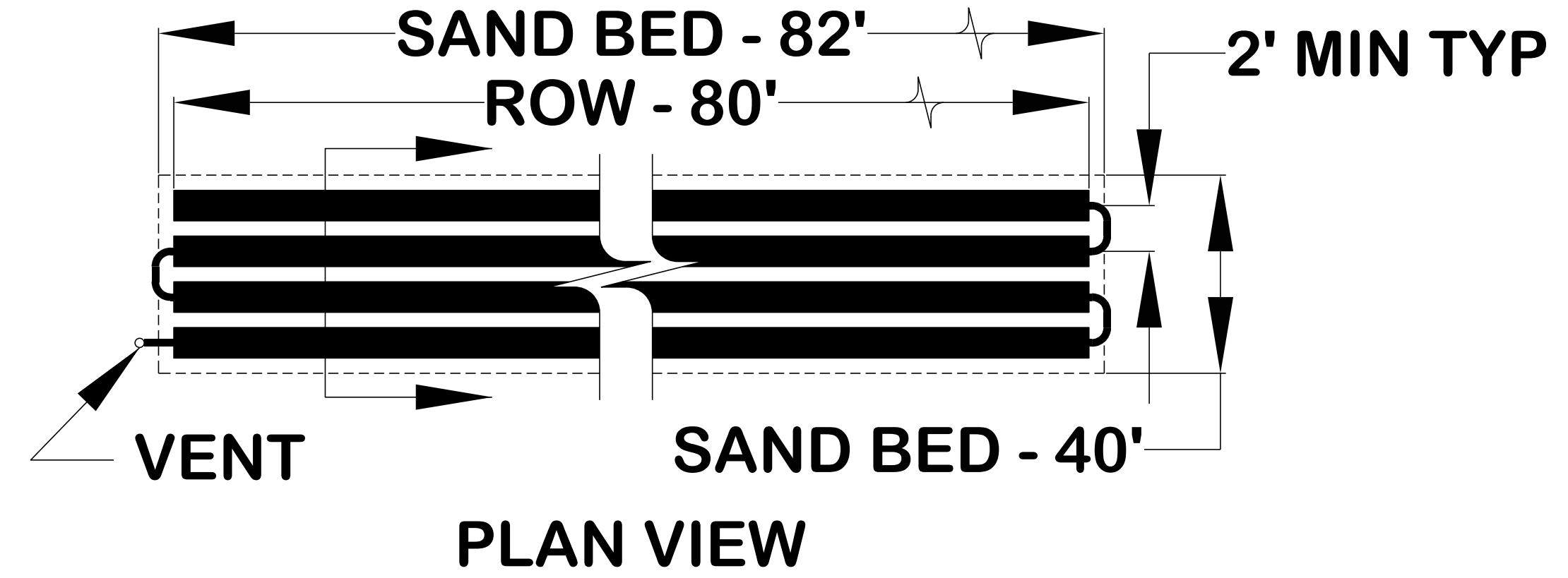


TRACER WIRE DETAIL
NOT TO SCALE



NOTES:
1. FLEXIBLE PIPE MATERIAL IS P.V.C. SOLID WALL PIPE.
2. TYPE OF MATERIAL AND COMPACTION FOR GRANULAR CRADLE AND INITIAL BACKFILL SHALL MEET PROJECT SPECIFICATIONS AND ASTM D2321 (LATEST REVISION)

FLEXIBLE WALL WATERMAIN PIPE
WATERMAIN EMBEDMENT DETAIL
NOT TO SCALE



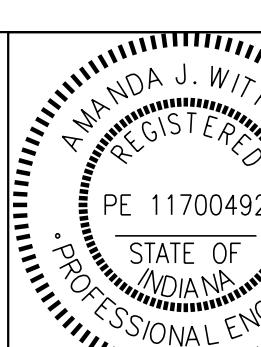
NOTES:

1. NUMBER OF ROWS - 7.
2. ROW LENGTH - 80' AND SAND BED LENGTH - 82'.
3. SYSTEM SAND BED AREA WILL VARY WITH NATIVE SOIL LOADING RATE.
4. DEPTH OF TOPSOIL (MIN 9") IN ACCORDANCE WITH STATE RULES.
5. A MINIMUM OF 6" OF SYSTEM SAND BELOW , 3" OVER AND 6" BETWEEN PEI PIPES
6. PROVIDE DISTRIBUTION BOX WITH 2" 90 DEGREE TURNDOWN



Presby Environmental, Inc.
An Infiltrator Water Technologies Company

PRESBY MOUND SYSTEM
N.T.S.



RECOMMENDED FOR APPROVAL

Amanda J. Withers
3/10/2025
DATE

INDIANA DEPARTMENT OF NATURAL RESOURCES

SCALE
N.T.S.

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PROJECT
CDC 2409631016



STAINLESS STEEL SUMP PUMPS

DS SERIES

The Myers DS Series Stainless Steel Sump Pumps are designed for basement sumps, but are also ideal for dewatering duties in a variety of applications. This versatile pump features stainless steel construction for extreme resistance to corrosive environments and will provide years of superior service.

APPLICATION

Basement sumps, dewatering, and utility.

FEATURES

- ◆ **Versatile Performer:** Ideal for dewatering in construction sites, ponds, pits, tanks and water extraction from foundations and flooded basements.
- ◆ **Stainless Steel Tough:** Stainless steel housing and volute case resist corrosion and withstand the harshest conditions.
- ◆ **Powerful Start Ups:** High-torque, permanent split capacitor (PSC) motor; no relays or starting switches to wear out.
- ◆ **Double Protected Motor:** Long-life carbon/ceramic seal and additional lip seal protect motor against water leakage.
- ◆ **Extended Service:** Fully lubricated bearings and shaft seal for longer service life.
- ◆ **Smooth Operation:** Impeller is designed for clog resistance and effectively handles solids up to 3/4" in diameter.

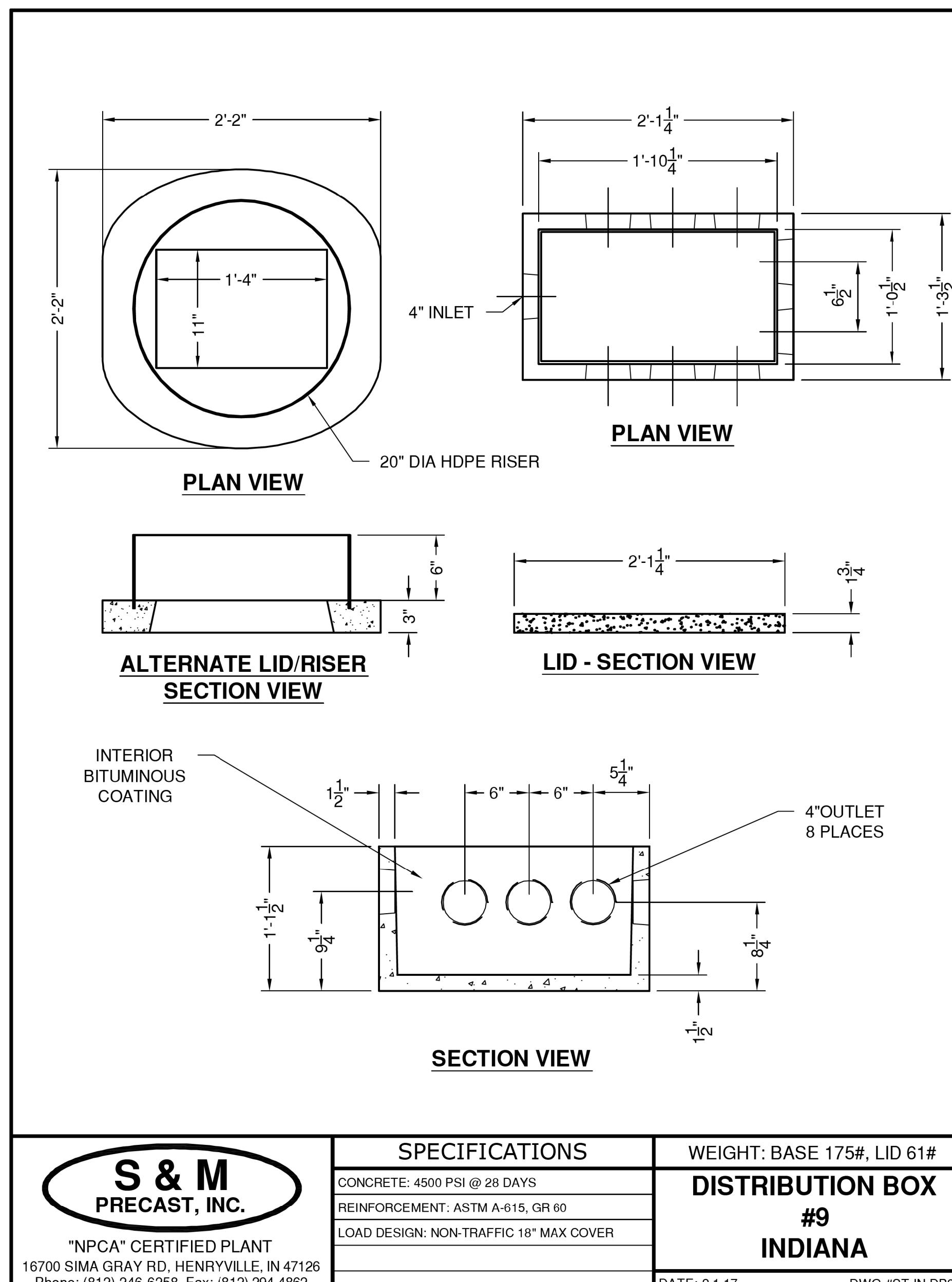


The graph plots Total head in meters (Y-axis, 0 to 7) against Capacity in gallons per minute (X-axis, 0 to 180). Three curves are shown for pump models DS75 (3/4 HP), DS50 (1/2 HP), and DS33 (1/3 HP). The DS75 curve is the highest, followed by DS50, and then DS33.

Capacity (gpm)	DS75 (3/4 HP) Head (m)	DS50 (1/2 HP) Head (m)	DS33 (1/3 HP) Head (m)
0	7.0	6.0	5.0
20	4.5	3.5	2.5
40	2.5	1.8	1.2
60	1.5	1.0	0.6
80	1.0	0.7	0.4
100	0.8	0.5	0.3
120	0.6	0.4	0.2
140	0.4	0.3	0.15
160	0.2	0.2	0.1
180	0.1	0.15	0.05

CATALOG NUMBER	HP	VOLTS	PHASE	AMPS	DISCHARGE NPT	SWITCH TYPE	CORD LENGTH	APPROX. W LBS
DS50P1	1/2	115	1	4.8	1-1/4"	Tethered Automatic*	15'	16

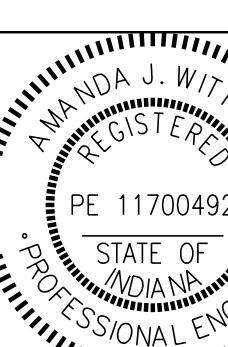
DATA S



 <p>S & M PRECAST, INC.</p> <p>"NPCA" CERTIFIED PLANT 16700 SIMA GRAY RD, HENRYVILLE, IN 47126 Phone: (812) 246-6259 Fax: (812) 204-4862</p>	<p>SPECIFICATIONS</p> <hr/> <p>CONCRETE: 4500 PSI @ 28 DAYS</p> <hr/> <p>REINFORCEMENT: ASTM A-615, GR 60</p> <hr/> <p>LOAD DESIGN: NON-TRAFFIC 18" MAX COVER</p> <hr/>	<p>WEIGHT: BASE 175#, LID 61#</p> <p>DISTRIBUTION BOX #9 INDIANA</p>
		<p>DATE: 01-17</p> <p>DWC #ST. IN DRG</p>

NOTES:

1. PROVIDE PENTAIR MYERS PUMP DS50P1 AS SHOWN OR APPROVED EQUAL THAT DOES NOT EXCEED MAXIMUM 40 GPM (AES MOUND SYSTEM LIMIT).
2. SEE ELECTRICAL SHEETS FOR SEPTIC TANK PUMP ALARM PANEL.
3. PROVIDE AND INSTALL DISTRIBUTION BOX AS SHOWN OR APPROVED EQUAL.
4. PROVIDE AND INSTALL A TRAFFIC-RATED CPRECASONCRETE TWO COMPARTMENT SEPTIC TANK WITH MINIMUM CAPACITY OF 2,320 GALLONS.
5. ACCESS FOR PUMP MAINTENANCE AND REPAIR SHALL BE PROVIDED AS PART OF THE SEPTIC TANK DESIGN THROUGH A RISER TO THE SURFACE.
6. 2-INCH FORCEMAIN TO THE DISTRIBUTION BOX WILL TERMINATE IN A 90-DEGREE BEND DOWN INTO THE D-BOX SET A MINIMUM OF 2-INCHES ABOVE THE BOTTOM OF THE BOX AND WITH A SMALL HOLE DRILLED ON TOP OF THE 90-DEGREE BEND PER AES SYSTEM MANUFACTURERS' RECOMMENDATION



RECOMMENDED FOR APPROVAL *Amanda J. W.*

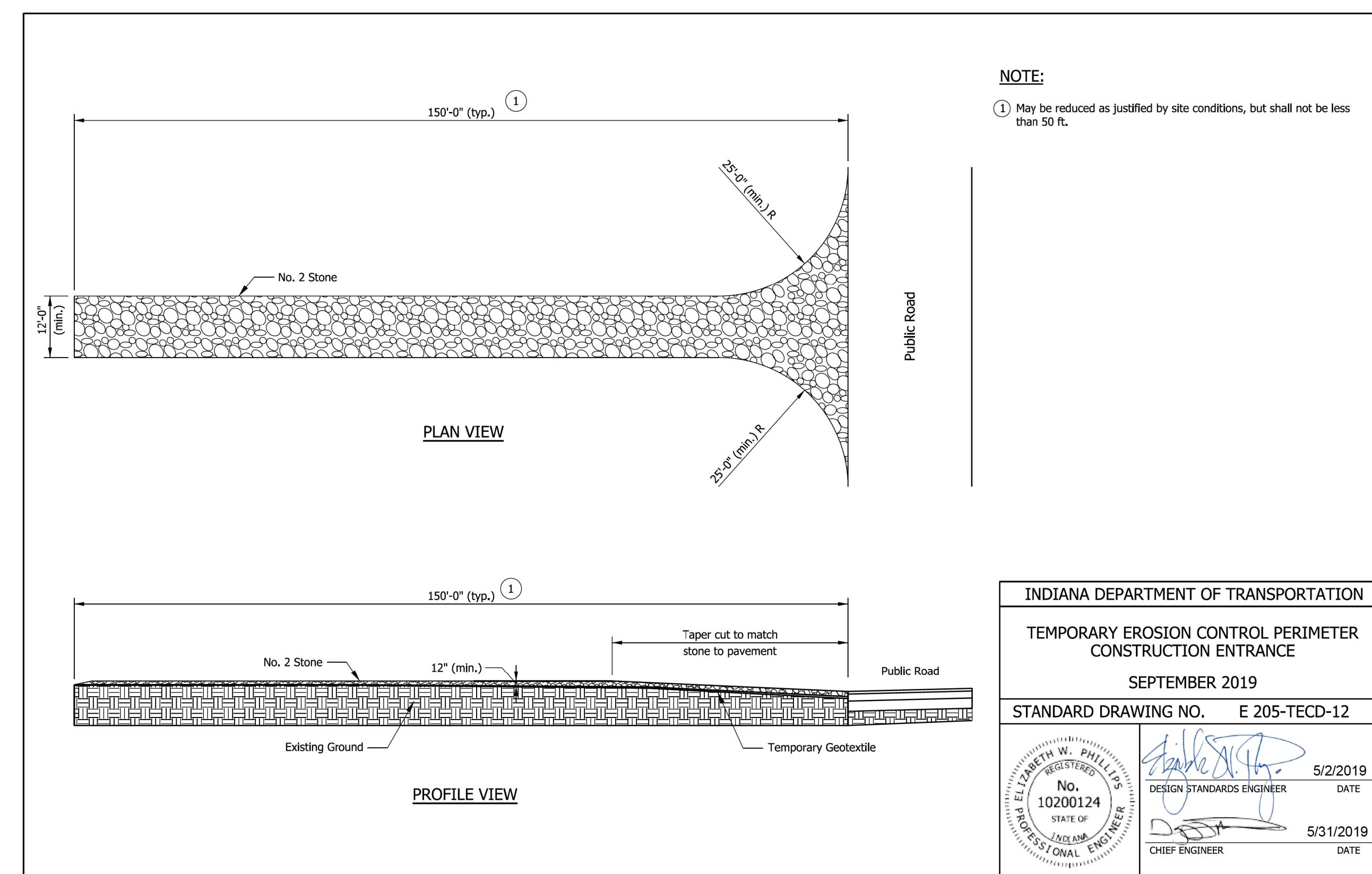
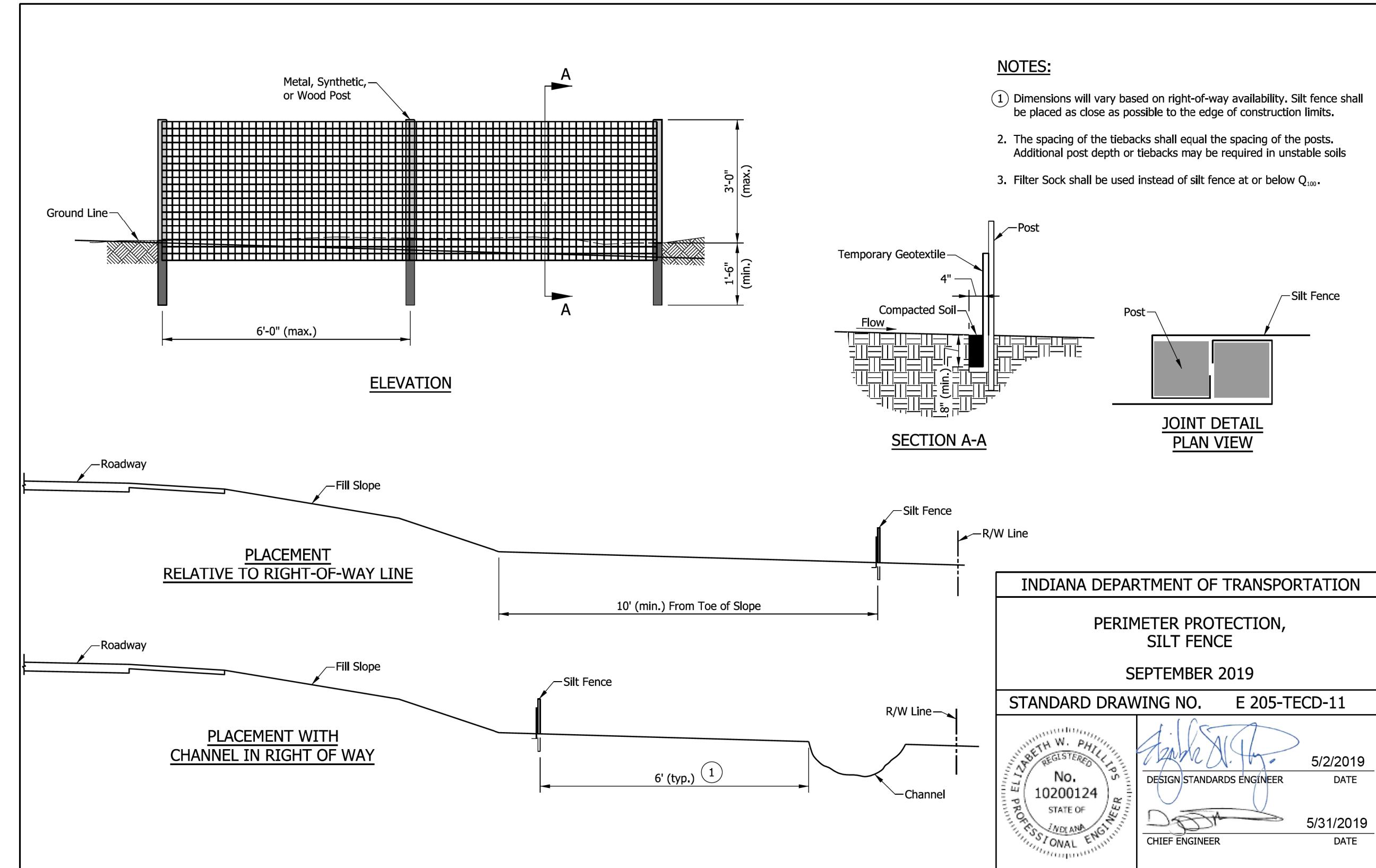
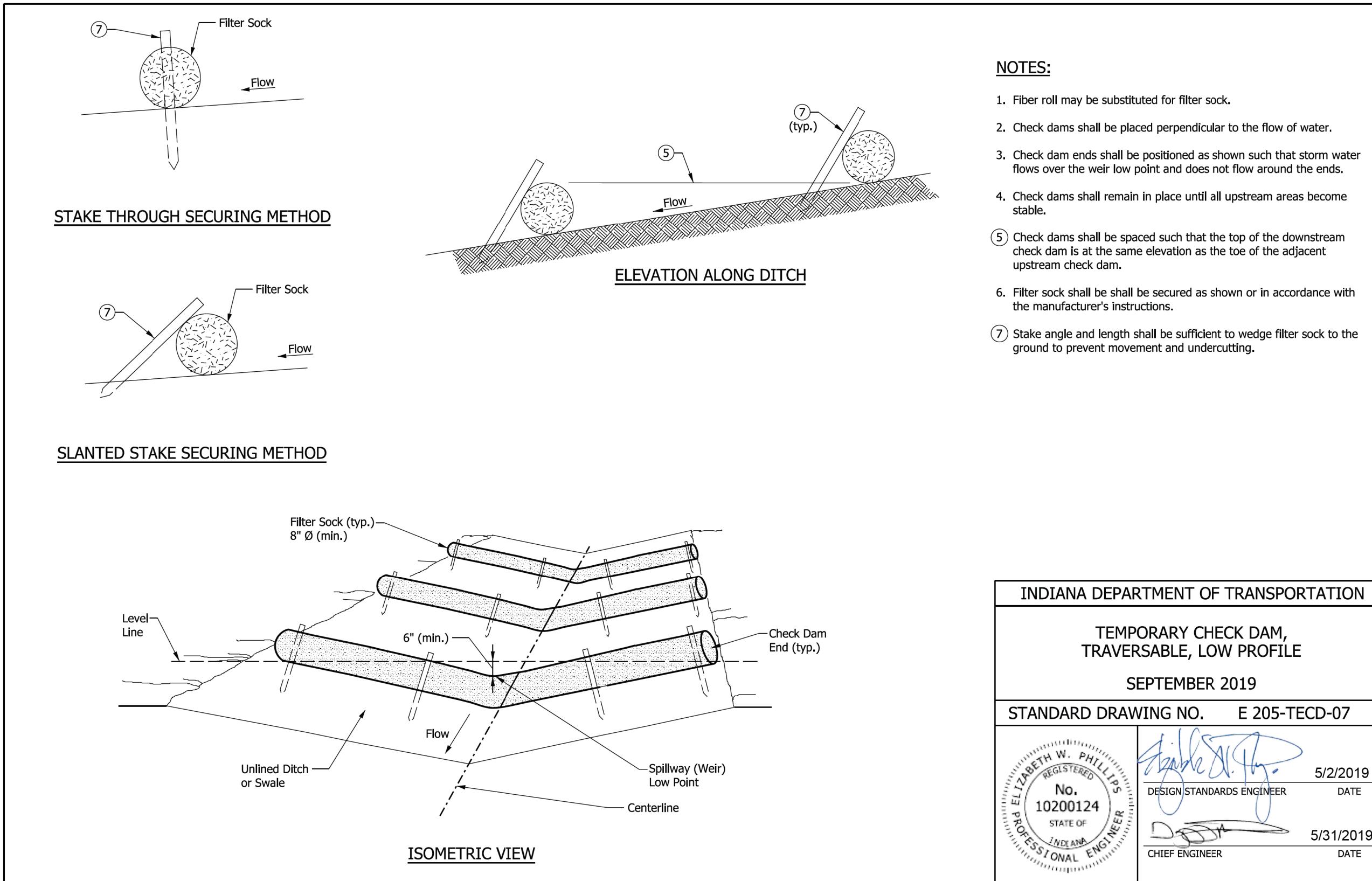
DESIGNED: LNB 3/10/2025 DRAWN:

CHECKED: AW 3/10/2025 CHECKED:

INDIANA DEPARTMENT OF NATURAL RESOURCES

SEPTIC SYSTEM DETAILS

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		Amber J. Withers	3/10/2025 DATE				
DESIGNED: LNB 3/10/2025 DRAWN: BTS 3/10/2025		CHECKED: AW 3/10/2025 CHECKED: LNB 3/10/2025				SHEETS 28 of 28 PROJECT CDC 2409631016	