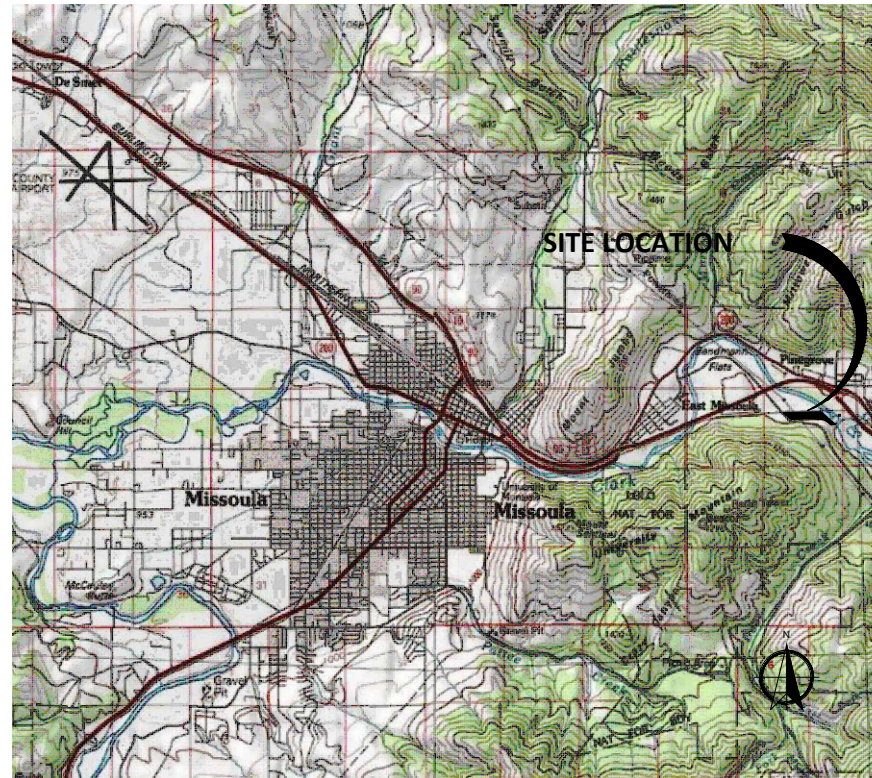


# BANDMANN FLATS TRAILHEAD MILLTOWN STATE PARK BONNER, MONTANA

## GENERAL NOTES




- 1) ALL WORK SHALL CONFORM TO THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS, SIXTH EDITION, APRIL 2010 AS AMENDED BY THE SPECIAL PROVISIONS IN THE PROJECT MANUAL.
- 2) CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, AND DEPTH OF ALL UTILITIES INCLUDING ALL SERVICES TO ALL PROPERTIES. THESE DRAWINGS MAY NOT SHOW ALL FACILITIES. THE DEPTHS OF ALL EXISTING UTILITIES ARE UNKNOWN. BURIED UTILITIES SHOWN ON THIS SITE ARE BASED ON AVAILABLE RECORDS AND UTILITY LOCATOR PAINT MARKS. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
- 3) CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM MISSOULA COUNTY, STATE OF MONTANA, AND UTILITY COMPANIES PRIOR TO STARTING WORK.
- 4) ALL CONCRETE AREAS ARE DESIGNED TO HAVE A 2.0% MAXIMUM CROSS SLOPE UNLESS OTHERWISE SHOWN ON THE PLANS.
- 5) ALL MATERIALS AND WORKMANSHIP OF IMPROVEMENTS SHALL MEET OR EXCEED ADA AS WELL AS STATE AND LOCAL REGULATIONS. WHERE THERE IS A CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARD, THE HIGHER QUALITY STANDARD SHALL APPLY.
- 6) CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THE PROJECT AND BEGINNING CONSTRUCTION.
- 7) GRADING AND SLOPE INFORMATION PRESENTED IN THIS PLAN SET IS BASED ON DESIGN GRADES AND BEST AVAILABLE MAPPING INFORMATION. EXISTING ELEVATIONS AT TIE IN POINT ELEVATIONS SHALL BE VERIFIED PRIOR TO INSTALLATION OF EXTERIOR IMPROVEMENTS. NOTIFY ENGINEER IF DIFFERENT CONDITIONS ARE FOUND. CONTRACTOR RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE AND ADA COMPLIANCE FOR CONSTRUCTED IMPROVEMENTS.
- 8) THIS PLAN IS TO BE USED TO ASSIST THE CONTRACTOR IN HORIZONTAL LOCATION DURING THE STAKING AND LAYOUT. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCY BETWEEN THE GIVEN DATA AND THE INTENT SHOWN BY THE DRAWINGS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION.

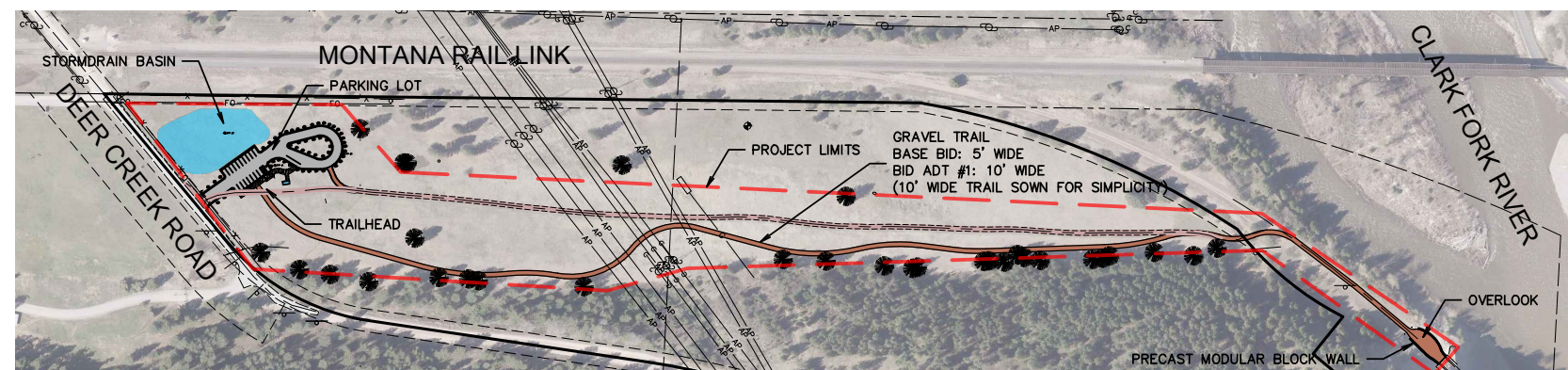


VICINITY MAP  
NO SCALE

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 <b>QUALITY ASSURANCE</b>	
<b>JLG</b> PROJECT MANAGER	<b>5/11/21</b> QA APPROVAL DATE
 QUALITY ASSURANCE COORDINATOR	<b>76507</b> CITY PROJECT NUMBER
 PEER REVIEWER	<b>19-06-29</b> WGM PROJECT NUMBER



PROJECT OVERVIEW



## COVER SHEET



PROJECT: 19-06-29  
FILE No: 190629CV.DWG  
FILE PATH  
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LAYOUT: C1.0  
SURVEYED: WGM GROUP  
DESIGN: SGE  
DRAFT: SGE  
APPROVE: JLG  
DATE: MAY 11, 2021

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CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:



**MONTANA STATE PARKS**

**BANDMANN FLATS TRAILHEAD  
REGION 2**

**FWP #76507**

**SHEET: C1.0**

**GENERAL NOTES - EXISTING CONDITIONS:**

- NOT ALL NOT ALL EXISTING SITE CONSTRUCTION AND ELEMENTS ARE SHOWN ON DRAWING. CONTRACTOR TO VISIT SITE AND FAMILIARIZE THEMSELVES WITH NEW CONSTRUCTION PLANS FOR ALL REQUIRED DEMOLITION. DRAWINGS ARE DIAGRAMMATIC.
- EXISTING UNDERGROUND INSTALLATIONS AND PRIVATE UTILITIES SHOWN ARE FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF DESIGN. ACCURACY OF SUCH INFORMATION IS NOT GUARANTEED AND SHALL BE VERIFIED BY THE CONTRACTOR. SERVICE LINES (i.e. WATER, POWER, SEWER, GAS, COMMUNICATIONS, DATA, IRRIGATION) MAY NOT BE BURIED AT EVEN DEPTHS OR AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL NOTIFY EACH UTILITY COMPANY PRIOR TO EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY LOCATES.THESE DRAWINGS MAY NOT SHOW ALL FACILITIES WITHIN THE PROJECT LIMITS.
- ALL POWER, TELEPHONE, AND OTHER UTILITIES WHICH ARE NOT PLANNED TO BE RELOCATED, WHICH INTERFERE WITH THE CONSTRUCTION SHALL BE REMOVED OR RELOCATED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE WORK WITH THE APPROPRIATE UTILITY COMPANY.
- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.

**SURFACE RESTORATION NOTES:**

- RESTORE ALL DISTURBED AREAS WITH GRASS SEED. PROVIDE FOREST MIX: 40% MOUNTAIN BROME, 35% BLUEBUNCH WHEATGRASS, 15% WESTERN WHEATGRASS, AND 10% ROUGH FESCUE. BROADCAST SEED AT 5 LBS/1,000 SF. SEEDING TO OCCUR BETWEEN OCTOBER 15 AND MAY 15 TO ALLOW ESTABLISHMENT FROM NATURAL PRECIPITATION. PROVIDE A MINIMUM 6" DEPTH OF TOPSOIL FOR ALL AREAS TO RECEIVE SEED. TOPSOIL TO BE GENERATED FROM ONSITE EXCESS.
- ALL DISTURBED AND GRADED AREAS THAT DO NOT HAVE OTHER PLANNED FINISH SURFACES SHALL BE FINISHED WITH A MINIMUM OF 6" OF TOPSOIL GENERATED FROM THE SITE. TOPSOIL MAY BE THICKER, IF APPROVED BY THE ENGINEER, TO WASTE EXCESS TOPSOIL. TOPSOIL SHALL BE UNIFORMLY GRADED AND RACKED PRIOR TO SEEDING.

**SURVEY NOTES:**

- BASIS OF BEARINGS:  
GRID NORTH OF MONTANA STATE PLANE COORDINATE SYSTEM (FIPS2500) – NAD83(2011)(EPOCH:2010.0000)
- VERTICAL DATUM:  
NORTH AMERICAN VERTICAL DATUM OF 1988
- BOUNDARY LINE WORK SHOWN HEREON IS RECORD PER CERTIFICATE OF SURVEY NO. 6283, TRANSLATED AND ROTATED TO FOUND MONUMENTS AND IS TO BE USED FOR MAPPING/PLANNING PURPOSES.

**COUNTY APPROACH PERMIT:**

- CONTRACTOR TO OBTAIN APPROACH PERMIT FROM MISSOULA COUNTY PRIOR TO START OF CONSTRUCTION.
- ALL APPROACH WORK, CONSTRUCTION AND DETAIL SHALL BE AS SPECIFIED IN THE COUNTY APPROACH PERMIT.

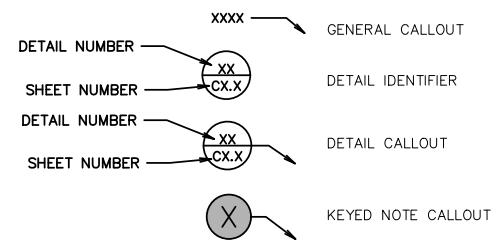
**ON-SITE SPECIAL BORROW FOR EMBANKMENT:**

- THE DRAINAGE BASIN IS DESIGNATED AS AN ON-SITE SPECIAL BORROW AREA FOR NECESSARY EMBANKMENT. THE BOTTOM OF THE BASIN (ELEVATION 3267) SHALL BE UNIFORMLY OVEREXCAVATED TO GENERATE SUITABLE EMBANKMENT MATERIAL FOR USE IN THE ACCESS ROAD, PARKING LOT AND TRAIL AREAS. ONCE OVEREXCAVATION IS COMPLETE FOR GENERATING SUITABLE BORROW MATERIAL, THE BOTTOM AND SIDES OF THE BORROW AREA/DRAINAGE BASIN SHALL BE UNIFORMLY GRADED AND FINISHED PER THE SURFACE RESTORATION NOTES. SLOPES AROUND THE DRAINAGE BASIN SHALL BE FINISHED TO A 12:1 SLOPE. THE BOTTOM ELEVATION OF THE DRAINAGE BASIN MAY BE LESS THAN THE PLANNED ELEVATION OF 3267.

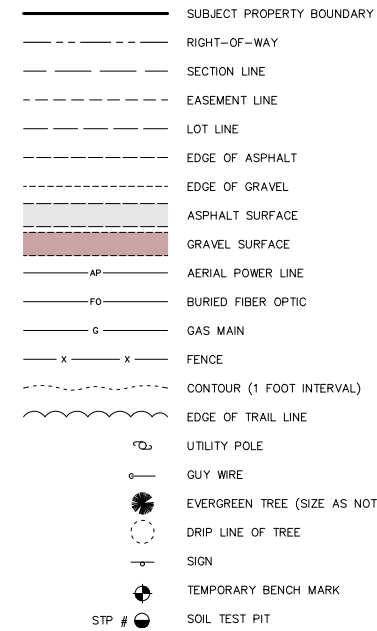
**ABBREVIATIONS**

Ø	DIAMETER	DEPT	DEPARTMENT	G	GAS	N	NORTH	SECT	SECTION
Ⓜ	AT	BLS	DRILL HOLE (SOIL BORING)	GA	GAUGE	N.I.C.	NOT IN CONTRACT	SF	SQUARE FOOT/FEET
AB	ANCHOR BOLT, AGGREGATE BASE	DI	DUCTILE IRON, DRAIN INLET	GALV	GALVANIZED	NO.	NUMBER	SS	SANITARY SEWER, STAINLESS STEEL
AC	ASBESTOS CEMENT	DIA	DIAMETER	GPM	GALLONS PER MINUTE	NPT	NATIONAL PIPE THREAD	STA	STATION
AF	ABOVE FINISHED FLOOR	DIMJ	DUCTILE IRON MECHANICAL JOINT	GSP	GALVANIZED STEEL PIPE	NTS	NOT TO SCALE	STD	STANDARD
AL	ALUMINUM	DIP	DUCTILE IRON PIPE	GV	GATE VALVE			STL	STEEL, STEEL PIPE
ANC	ANCHOR	DR	DRAIN, DIMENSION RATIO			OAL	OVERALL LENGTH	T	TELEPHONE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	DWG	DRAWING	HD	HEAVY DUTY; HOT-DIPPED	OC	ON CENTER	TBC	TOP OF BACK CURB
APPROX	APPROXIMATELY	EA	EACH	HDR	HEADER	OD	OUTSIDE DIAMETER	TBM	TEMPORARY BENCH MARK
AWWA	AMERICAN WATER WORKS ASSOCIATION	EFF	EFFLUENT	HDPE	HIGH DENSITY POLYETHYLENE PIPE	OF	OUTSIDE FACE, OVERFLOW	TEMP	TEMPERATURE, TEMPORARY
		ELEV	ELEVATION	HGT	HEIGHT	OH	OVERHEAD POWER	TOW	TOP OF WALL
BF	BLIND FLANGE	EVC	END VERTICAL CURVE	HT	HEIGHT	PC	POINT OF CURVATURE	TP	TEST PIT
BFF	BELOW FINISH FLOOR	EW	EACH WAY	HYD	FIRE HYDRANT	PE	PLAIN END	TV	CABLE TELEVISION
BV	BUTTERFLY VALVE	EXT	EXTERIOR	IBC	INTERNATIONAL BUILDING CODE	PH	PHONE	TYP	TYPICAL
BLDG	BUILDING	EXIST	EXISTING	ID	INSIDE DIAMETER	PI	POINT OF INTERSECTION	UG	UNDERGROUND
BM	BENCH MARK	FAB	FABRICATION	IN	INCH	PROP	PROPERTY, PROPOSED	UGP	UNDERGROUND POWER
BOC	BACK OF CURB	FC	FLEXIBLE COUPLING	INF	INFLUENT	PSI	POUNDS PER SQUARE INCH	UPC	UNIFORM PLUMBING CODE
BV	BALL VALVE	FCA	FLANGED COUPLING ADAPTER	INT	INTERIOR, INTERSECTION	PT	POINT OF TANGENCY		
BVC	BEGIN VERTICAL CURVE	FDN	FOUNDATION	INV	INVERT	PVC	POLYVINYL CHLORIDE PLASTIC	V	VENT, VOLT, VALVE
		FETS	FLARED END TERMINAL SECTION	LB(S)	POUND(S)	PVI	POINT OF VERTICAL INTERSECTION	VERT	VERTICAL
C	CHANNEL, CENTER	FF	FINISHED FLOOR	LF	LINEAL FOOT, LINEAR FEET			VLV	VALVE
CI	CAST IRON, CURB INLET	FG	FINISH GRADE	LT	LEFT	R	RADIUS	W	WATER, WEST
CIP	CAST IRON PIPE, CAST-IN-PLACE	FL	FLOOR, FLANGE, FLOW LINE			RCB	REINFORCED CONCRETE BOX	W/	WITH
CIPP	CURED-IN-PLACE PIPE	FM	FORCE MAIN			RCP	REINFORCED CONCRETE PIPE	w/o	WITHOUT
CL	CENTERLINE	FO	FIBER OPTIC			ROW	RIGHT-OF-WAY	WS	WATER SURFACE, WATER STOP
CLR	CLEAR	FOC	FACE OF CURB, FACE OF CONCRETE			RT	RIGHT	wv	WATER VALVE
CMP	CORRUGATED METAL PIPE	FPT	FEMALE PIPE THREAD			R/W	RIGHT-OF-WAY, RACEWAY	WWF	WELDED WIRE FABRIC
CO	CLEANOUT	FTG	FOOTING						
CP	CONTROL POINT	FT	FOOT, FEET			S	SLOPE	X	USED AS A VARIABLE
CPE	CORRUGATED POLYETHYLENE PIPE			MAX	MAXIMUM	SCH	SCHEDULE	YD	YARD
CPLG	COUPLING			MC	MECHANICAL COUPLING	SD	STORM DRAIN		
CPVC	CHLORINATED POLYVINYL CHLORIDE			MDT	MONTANA DEPT. OF TRANSPORTATION	SDR	STANDARD DIMENSION RATIO		
CSP	CORRUGATED STEEL PIPE			MECH	MECHANICAL				
CV	CHECK VALVE			MFR	MANUFACTURER				
CY	CUBIC YARDS			MH	MANHOLE				
				MIN	MINIMUM, MINUTE				
				MJ	MECHANICAL JOINT				
				MPWSS	MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS				

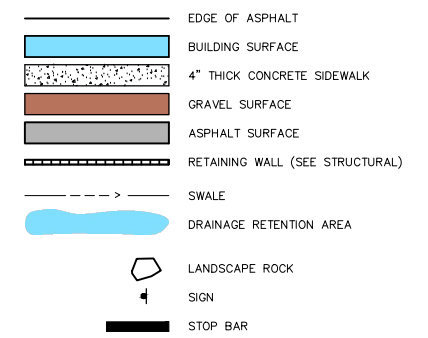
**SYMBOLS**



**LEGEND-EXISTING**



**LEGEND-PROPOSED**



**GENERAL NOTES - SITE GRADING:**

- GRADING AND SLOPE INFORMATION PRESENTED ON THESE PLANS IS BASED ON DESIGN GRADES AND BEST AVAILABLE MAPPING INFORMATION. EXISTING ELEVATIONS AT TIE IN POINTS AND AS-CONSTRUCTED FINISH FLOOR ELEVATIONS SHALL BE VERIFIED PRIOR TO INSTALLATION OF EXTERIOR IMPROVEMENTS. NOTIFY ENGINEER IF DIFFERENT CONDITIONS ARE FOUND. CONTRACTOR RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS. CONTRACTOR ALSO RESPONSIBLE FOR ADA COMPLIANCE FOR CONSTRUCTED IMPROVEMENTS.
- WHERE NEW CURB AND GUTTER, ASPHALT OR CONCRETE SURFACE IS BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OR CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY: PRIOR TO PLACEMENT OF ANY SURFACE IMPROVEMENTS THE CONTRACTOR SHALL HAVE ENGINEER VERIFY THE GRADE AND CROSS SLOPE OF EXISTING SURFACE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NEW IMPROVEMENT CONSTRUCTION WITHOUT THE APPROVAL OF THE ENGINEER.
- THIS PLAN IS TO BE USED TO ASSIST THE CONTRACTOR IN HORIZONTAL LOCATION DURING THE STAKING AND LAYOUT. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCY BETWEEN THE GIVEN DATA AND THE INTENT AS SHOWN BY THE DRAWING, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION.
- ENSURE ALL SURFACES ADJACENT TO BUILDING ARE GRADED AND FINISHED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING FOUNDATION AND EXTERIOR WALLS.
- ENSURE HARDSCAPE AND/OR LANDSCAPE SURFACES SURROUNDING DRAINAGE INTAKES PROVIDE POSITIVE DRAINAGE TOWARDS THE INTAKE.
- ENSURE ACCESSIBLE PARKING SPACES ARE IN COMPLIANCE WITH ADA STANDARDS. ENSURE ALL SLOPES ARE LESS THAN 2% IN ALL DIRECTIONS.
- ENSURE ACCESSIBLE ROUTE TO BUILDINGS COMPLY WITH ALL ADA REQUIREMENTS: LANDING AREAS-LESS THAN 2% SLOPE IN ALL DIRECTIONS, OTHER AREAS-LESS THAN 5% RUNNING SLOPE AND LESS THAN 2% CROSS SLOPE.

DEPTH (FT)	STP #1	STP #2	STP #3
0 - 1.5	TOP SOIL	TOP SOIL	TOP SOIL
1.5 - 2.5	DARK BROWN GRAVEL/COBBLES SANDY LOAM COURSE FRAGMENTS	DARK BROWN GRAVEL/COBBLES SANDY LOAM COURSE FRAGMENTS	SANDY LOAM
2.5 - 4.5	DARK BROWN GRAVEL/COBBLES SANDY LOAM COURSE FRAGMENTS	DARK BROWN GRAVEL/COBBLES SANDY LOAM COURSE FRAGMENTS	DARK BROWN GRAVEL/COBBLES SANDY LOAM COURSE FRAGMENTS



Know what's below. Call before you dig.

CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES. WGM GROUP, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL AND VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

**GENERAL NOTES AND SYMBOLS**



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DATE: MAY 11, 2021

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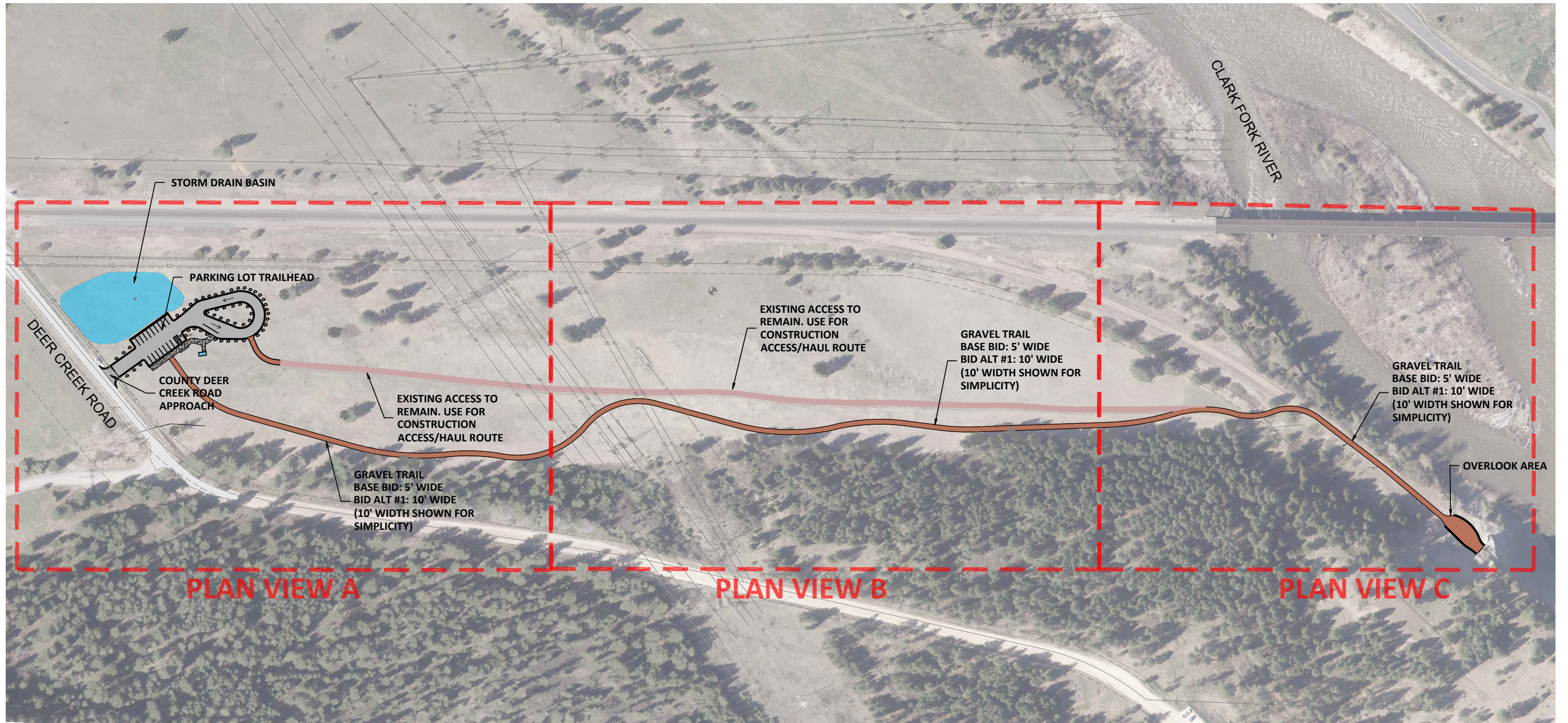


MONTANA STATE PARKS

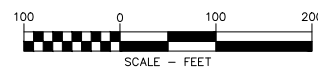
BANDMANN FLATS TRAILHEAD REGION 2

FWP #76507

SHEET: C1.1



OVERALL SITE PLAN



OVERALL SITE PLAN	
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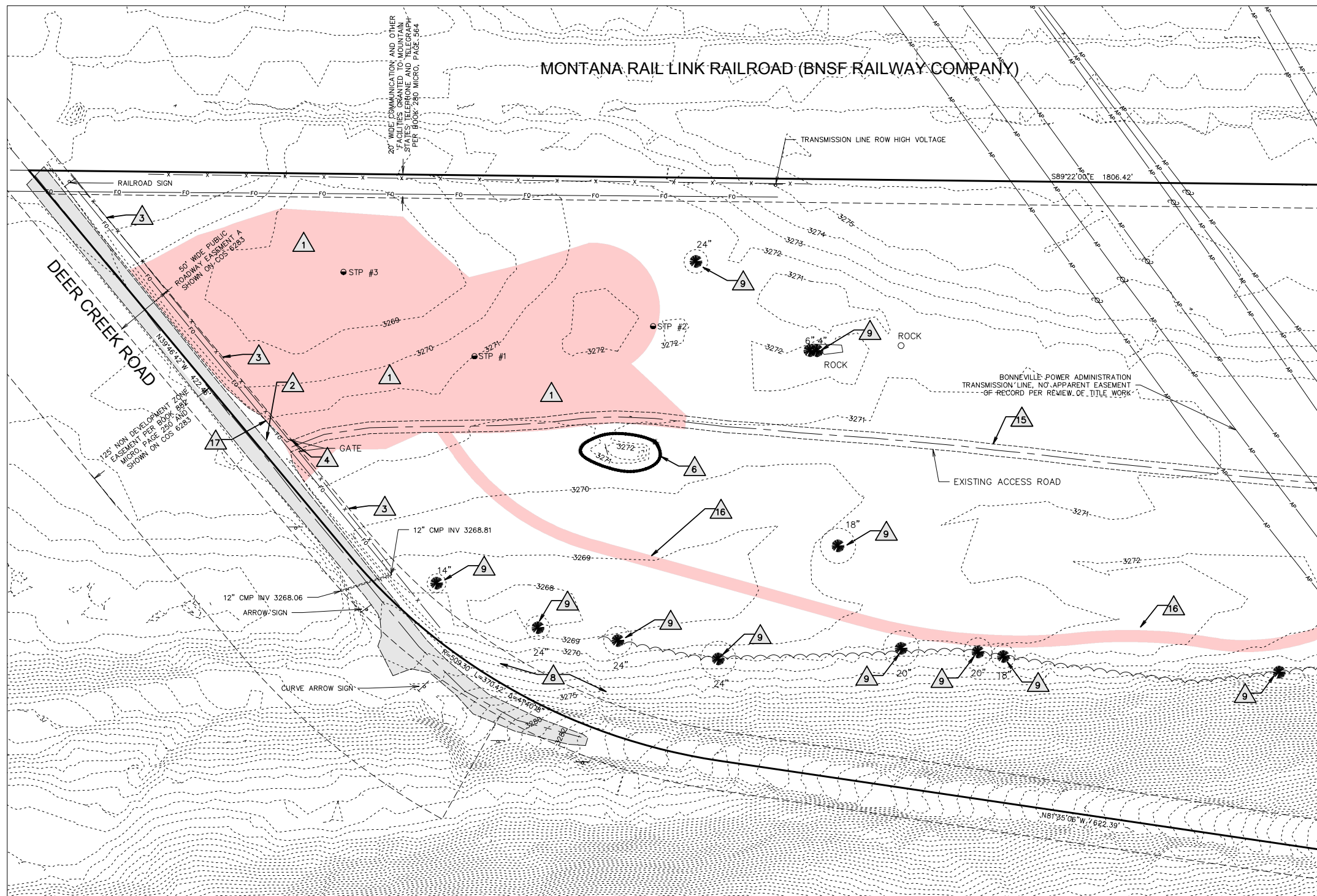
**MONTANA STATE PARKS**

**BANDMANN FLATS TRAILHEAD  
REGION 2**

**FWP #76507**

**SHEET: C1.2**

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PLAN VIEW A

MATCH LINE - SEE SHEET C1.4

**LEGEND-DEMOLITION**

TOPSOIL REMOVAL AREA

**DEMOLITION GENERAL NOTES:**

1. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO START OF DEMOLITION WORK AND COORDINATE ANY SERVICE SHUT OFF WITH THE APPROPRIATE UTILITY PROVIDER.
2. ALL ITEMS NOT SPECIFICALLY NOTED FOR SALVAGE AND/OR REUSE SHALL BE APPROPRIATELY DISPOSED OF OFF SITE.
3. ASPHALT AND CONCRETE MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
4. ALL AREAS EXCAVATED AND/OR DISTURBED DURING DEMOLITION OR REMOVAL OF BURIED ITEMS SHALL BE BACK FILL WITH APPROVED GRAVEL FILL. COMPACT BACKFILL MATERIAL TO 95% MAXIMUM THEORETICAL DENSITY.
5. CONTRACTOR RESPONSIBLE FOR PROTECTING ALL EXISTING ITEMS NOT SPECIFICALLY NOTED FOR DEMOLITION. ANY ITEMS NOT IDENTIFIED FOR DEMOLITION AND DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR EXPENSE.
6. STRIP ALL TOPSOIL WITHIN THE LIMIT OF ALL BUILDING FOUNDATIONS, ASPHALT AND CONCRETE SURFACES, AND OTHER AREAS SPECIFIED ON THE PLANS.
7. ALL EXISTING ON SITE TREES NOT IDENTIFIED TO BE REMOVED SHALL BE PROTECTED IN PLACE.
8. REMOVAL OF TREES INCLUDES REMOVAL OF THE STUMP AND ROOT BALL.
9. ANY EXISTING TREE, NOT NOTED TO BE REMOVED, THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REVIEWED BY A CERTIFIED ARBORIST FOR REPAIR ACTION TO BE TAKEN.
10. ALL TREE PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST.
11. CONTRACTOR IS ENCOURAGED TO DOCUMENT EXISTING SITE CONDITIONS WITH PHOTOS AND/OR VIDEO PRIOR TO START OF CONSTRUCTION.

**SALVAGE AND DEMOLITION KEY NOTES:**

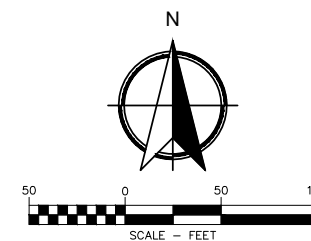
1. STRIP EXISTING GRASS AND TOPSOIL FROM ALL PROPOSED SURFACE IMPROVEMENT AREAS. STOCKPILE TOPSOIL FOR ON-SITE REUSE. COORDINATE STOCKPILE LOCATION WITH ENGINEER. ANTICIPATED TOPSOIL DEPTH OF EXISTING TOPSOIL IS 18 INCHES.
2. SAW CUT EXISTING ASPHALT AS NECESSARY TO PROVIDE A SMOOTH EDGE FOR MATCHING NEW ASPHALT PAVEMENT PER MISSOULA COUNTY APPROACH PERMIT REQUIREMENTS.
3. EXISTING BARB WIRE FENCE AND POST ALONG DEER CREEK ROAD TO REMAIN IN PLACE.
4. REMOVE EXISTING STEEL GATE AND POST AND SALVAGE FOR RE-USE AND INSTALLATION AS SHOWN ON THE PLANS. REMOVE BARBED WIRE FENCE AS NECESSARY FOR NEW ACCESS ROAD AND INSTALL "H" PANELS ON EACH SIDE OF ACCESS FOR FENCE TERMINATION. COORDINATE FENCE REMOVAL AND "H" PANEL INSTALLATION WITH ENGINEER.
5. REMOVE EXISTING SIGN AND BASE. SALVAGE ALL SIGNS FOR OWNER REUSE. COORDINATE WITH ENGINEER.
6. PROTECT EXISTING ROCK PILE IN PLACE AND DO NOT DISTURB.
7. REMOVE TREE/SHRUB AND ROOTS. REMOVAL SHALL INCLUDE COMPLETE REMOVAL OF STUMP AND ROOTS AND FILLING IN DEPRESSION WITH SUITABLE SOIL FILL.
8. CLEAR VEGETATION FOR PARKING LOT INTERSECTION SIGHT DISTANCE. CLEAR BRUSH AND PRUNE TREE BRANCHES TO 6 FEET ABOVE GROUND SURFACE. COORDINATE WITH OWNER AND ENGINEER ON VEGETATION TO BE REMOVED.
9. PROTECT EXISTING TREE. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. CONTRACTOR SHALL OBTAIN PERMISSION TO ENTER FROM LANDSCAPE ARCHITECT PRIOR TO CONDUCTING WORK WITHIN PLANT PROTECTION ZONES.
10. CLEAR BRUSH, GROUND COVER AND TREES IN THE AREA OF THE NEW PATH. COORDINATE WITH ENGINEER ON VEGETATION TO BE REMOVED.
11. REMOVE APPROXIMATELY 251 C.Y. OF ROCK SLUFF AND FINISH TO THE CONTOURS SHOWN. SEE GRADING PLAN. POORLY GRADED GRAVEL FROM THIS AREA TO BE USED AS FILL MATERIAL FOR PATH, PARKING LOT, AND/OR WALL BACKFILL. OVER SIZED ROCKS TO BE STOCKPILED ON THE SITE IN AN AREA APPROVED BY THE ENGINEER, OR REMOVED FROM THE SITE -- WHICHEVER THE CONTRACTOR CHOOSES.
12. REMOVE APPROXIMATELY 34 C.Y. OF ROCK SLUFF AND FINISH TO THE CONTOURS SHOWN. SEE GRADING PLAN. POORLY GRADED GRAVEL FROM THIS AREA TO BE USED AS FILL MATERIAL FOR PATH, PARKING LOT, AND/OR WALL BACKFILL. OVER SIZED ROCKS TO BE STOCKPILED ON THE SITE IN AN AREA APPROVED BY THE ENGINEER, OR REMOVED FROM THE SITE -- WHICHEVER THE CONTRACTOR CHOOSES.
13. REMOVE APPROXIMATELY 112 C.Y. OF ROCK SLUFF AND FINISH TO THE CONTOURS SHOWN. SEE GRADING PLAN. POORLY GRADED GRAVEL FROM THIS AREA TO BE USED AS FILL MATERIAL FOR PATH, PARKING LOT, AND/OR WALL BACKFILL. OVER SIZED ROCKS TO BE STOCKPILED ON THE SITE IN AN AREA APPROVED BY THE ENGINEER, OR REMOVED FROM THE SITE -- WHICHEVER THE CONTRACTOR CHOOSES.
14. REMOVE WOOD POST.
15. EXISTING ACCESS ROAD TO REMAIN. PROTECT IN PLACE.
16. STRIP EXISTING GRASS AND TOPSOIL FROM ALL TRAIL IMPROVEMENT AREAS. TOPSOIL MAY BE PLACED ADJACENT TO THE NEW TRAIL, SPREAD OUT AND GRADED TO FACILITATE SURFACE DRAINAGE AND NOT CREATE A LOW AREA ON EITHER SIDE OF TRAIL.
17. PROTECT EXISTING UTILITIES.

DEMOLITION PLAN - PLAN VIEW A



**WGM GROUP**  
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PROJECT: 19-06-29  
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SURVEYED: WGM GROUP  
DESIGN: SGE  
DRAFT: SGE  
APPROVE: JLG  
DATE: MAY 11, 2021



**BANDMANN FLATS TRAILHEAD  
REGION 2**

**FWP #76507**

**SHEET: C1.3**

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**LEGEND-DEMOLITION**

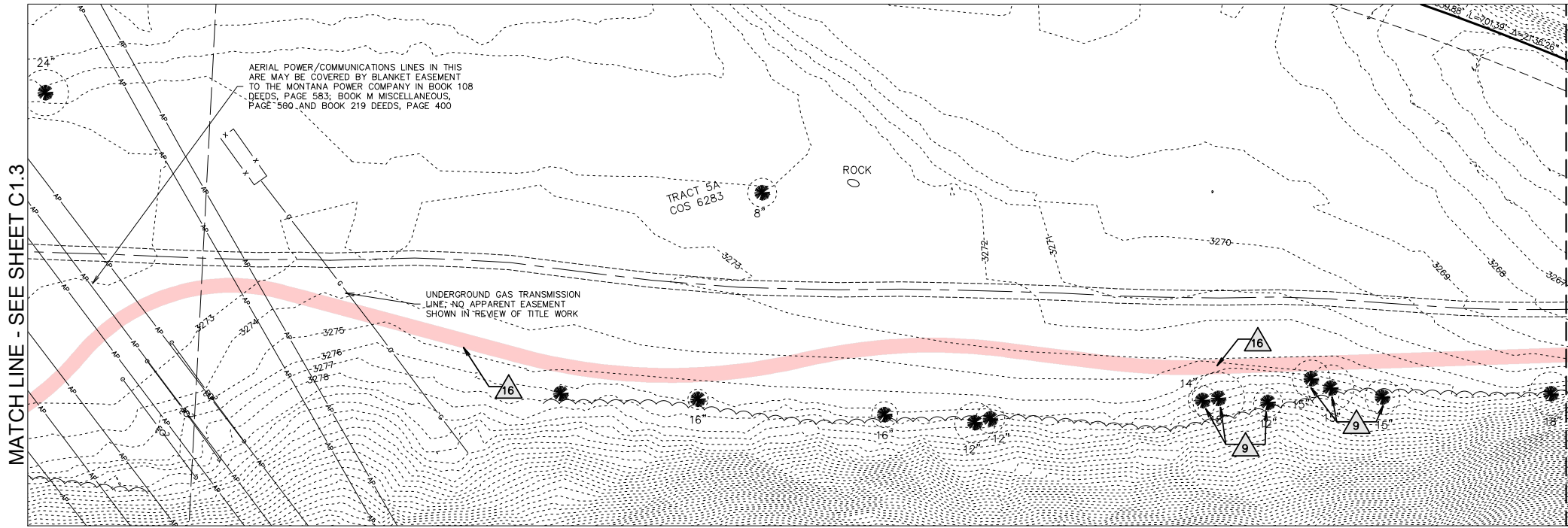
 TOPSOIL REMOVAL AREA

**DEMOLITION GENERAL NOTES:**

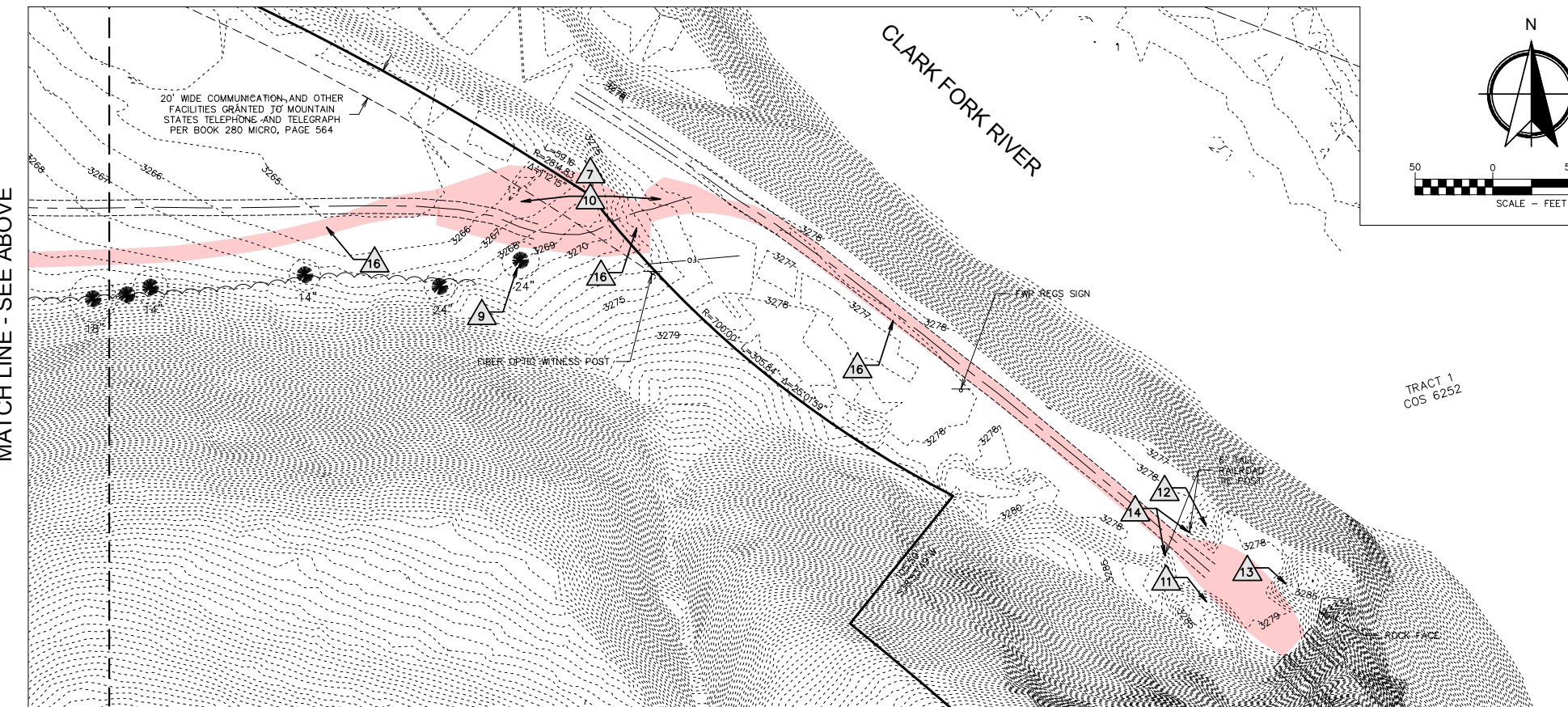
1. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO START OF DEMOLITION WORK AND COORDINATE ANY SERVICE SHUT OFF WITH THE APPROPRIATE UTILITY PROVIDER.
2. ALL ITEMS NOT SPECIFICALLY NOTED FOR SALVAGE AND/OR REUSE SHALL BE APPROPRIATELY DISPOSED OF OFF SITE.
3. ASPHALT AND CONCRETE MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
4. ALL AREAS EXCAVATED AND/OR DISTURBED DURING DEMOLITION OR REMOVAL OF BURIED ITEMS SHALL BE BACK FILL WITH APPROVED GRAVEL FILL. COMPACT BACKFILL MATERIAL TO 95% MAXIMUM THEORETICAL DENSITY.
5. CONTRACTOR RESPONSIBLE FOR PROTECTING ALL EXISTING ITEMS NOT SPECIFICALLY NOTED FOR DEMOLITION. ANY ITEMS NOT IDENTIFIED FOR DEMOLITION AND DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR EXPENSE.
6. STRIP ALL TOPSOIL WITHIN THE LIMIT OF ALL BUILDING FOUNDATIONS, ASPHALT AND CONCRETE SURFACES, AND OTHER AREAS SPECIFIED ON THE PLANS.
7. ALL EXISTING ON SITE TREES NOT IDENTIFIED TO BE REMOVED SHALL BE PROTECTED IN PLACE.
8. REMOVAL OF TREES INCLUDES REMOVAL OF THE STUMP AND ROOT BALL.
9. ANY EXISTING TREE, NOT NOTED TO BE REMOVED, THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REVIEWED BY A CERTIFIED ARBORIST FOR REPAIR ACTION TO BE TAKEN.
10. ALL TREE PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST.
11. CONTRACTOR IS ENCOURAGED TO DOCUMENT EXISTING SITE CONDITIONS WITH PHOTOS AND/OR VIDEO PRIOR TO START OF CONSTRUCTION.

**SALVAGE AND DEMOLITION KEY NOTES:**

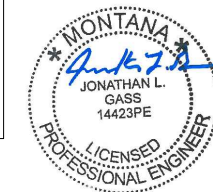
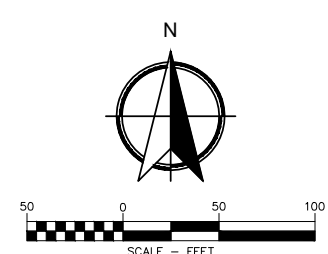
1. STRIP EXISTING GRASS AND TOPSOIL FROM ALL PROPOSED SURFACE IMPROVEMENT AREAS. STOCKPILE TOPSOIL FOR ON-SITE REUSE. COORDINATE STOCKPILE LOCATION WITH ENGINEER. ANTICIPATED TOPSOIL DEPTH OF EXISTING TOPSOIL IS 18 INCHES.
2. SAW CUT EXISTING ASPHALT AS NECESSARY TO PROVIDE A SMOOTH EDGE FOR MATCHING NEW ASPHALT PAVEMENT PER MISSOULA COUNTY APPROACH PERMIT REQUIREMENTS.
3. EXISTING BARB WIRE FENCE AND POST ALONG DEER CREEK ROAD TO REMAIN IN PLACE.
4. REMOVE EXISTING STEEL GATE AND POST AND SALVAGE FOR RE-USE AND INSTALLATION AS SHOWN ON THE PLANS. REMOVE BARBED WIRE FENCE AS NECESSARY FOR NEW ACCESS ROAD AND INSTALL "H" PANELS ON EACH SIDE OF ACCESS FOR FENCE TERMINATION. COORDINATE FENCE REMOVAL AND "H" PANEL INSTALLATION WITH ENGINEER.
5. REMOVE EXISTING SIGN AND BASE. SALVAGE ALL SIGNS FOR OWNER REUSE. COORDINATE WITH ENGINEER.
6. PROTECT EXISTING ROCK PILE IN PLACE AND DO NOT DISTURB.
7. REMOVE TREE/SHRUB AND ROOTS. REMOVAL SHALL INCLUDE COMPLETE REMOVAL OF STUMP AND ROOTS AND FILLING IN DEPRESSION WITH SUITABLE SOIL FILL.
8. CLEAR VEGETATION FOR PARKING LOT INTERSECTION SIGHT DISTANCE. CLEAR BRUSH AND PRUNE TREE BRANCHES TO 6 FEET ABOVE GROUND SURFACE. COORDINATE WITH OWNER AND ENGINEER ON VEGETATION TO BE REMOVED.
9. PROTECT EXISTING TREE. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. CONTRACTOR SHALL OBTAIN PERMISSION TO ENTER FROM LANDSCAPE ARCHITECT PRIOR TO CONDUCTING WORK WITHIN PLANT PROTECTION ZONES.
10. CLEAR BRUSH, GROUND COVER AND TREES IN THE AREA OF THE NEW PATH. COORDINATE WITH ENGINEER ON VEGETATION TO BE REMOVED.
11. REMOVE APPROXIMATELY 251 C.Y. OF ROCK SLUFF AND FINISH TO THE CONTOURS SHOWN. SEE GRADING PLAN. POORLY GRADED GRAVEL FROM THIS AREA TO BE USED AS FILL MATERIAL FOR PATH, PARKING LOT, AND/OR WALL BACKFILL. OVER SIZED ROCKS TO BE STOCKPILED ON THE SITE IN AN AREA APPROVED BY THE ENGINEER, OR REMOVED FROM THE SITE -- WHICHEVER THE CONTRACTOR CHOOSES.
12. REMOVE APPROXIMATELY 34 C.Y. OF ROCK SLUFF AND FINISH TO THE CONTOURS SHOWN. SEE GRADING PLAN. POORLY GRADED GRAVEL FROM THIS AREA TO BE USED AS FILL MATERIAL FOR PATH, PARKING LOT, AND/OR WALL BACKFILL. OVER SIZED ROCKS TO BE STOCKPILED ON THE SITE IN AN AREA APPROVED BY THE ENGINEER, OR REMOVED FROM THE SITE -- WHICHEVER THE CONTRACTOR CHOOSES.
13. REMOVE APPROXIMATELY 112 C.Y. OF ROCK SLUFF AND FINISH TO THE CONTOURS SHOWN. SEE GRADING PLAN. POORLY GRADED GRAVEL FROM THIS AREA TO BE USED AS FILL MATERIAL FOR PATH, PARKING LOT, AND/OR WALL BACKFILL. OVER SIZED ROCKS TO BE STOCKPILED ON THE SITE IN AN AREA APPROVED BY THE ENGINEER, OR REMOVED FROM THE SITE -- WHICHEVER THE CONTRACTOR CHOOSES.
14. REMOVE WOOD POST.
15. EXISTING ACCESS ROAD TO REMAIN. PROTECT IN PLACE.
16. STRIP EXISTING GRASS AND TOPSOIL FROM ALL TRAIL IMPROVEMENT AREAS. TOPSOIL MAY BE PLACED ADJACENT TO THE NEW TRAIL, SPREAD OUT AND GRADED TO FACILITATE SURFACE DRAINAGE AND NOT CREATE A LOW AREA ON EITHER SIDE OF TRAIL.
17. PROTECT EXISTING UTILITIES.



PLAN VIEW B



PLAN VIEW C



**DEMOLITION PLAN -- PLAN VIEW B & C**



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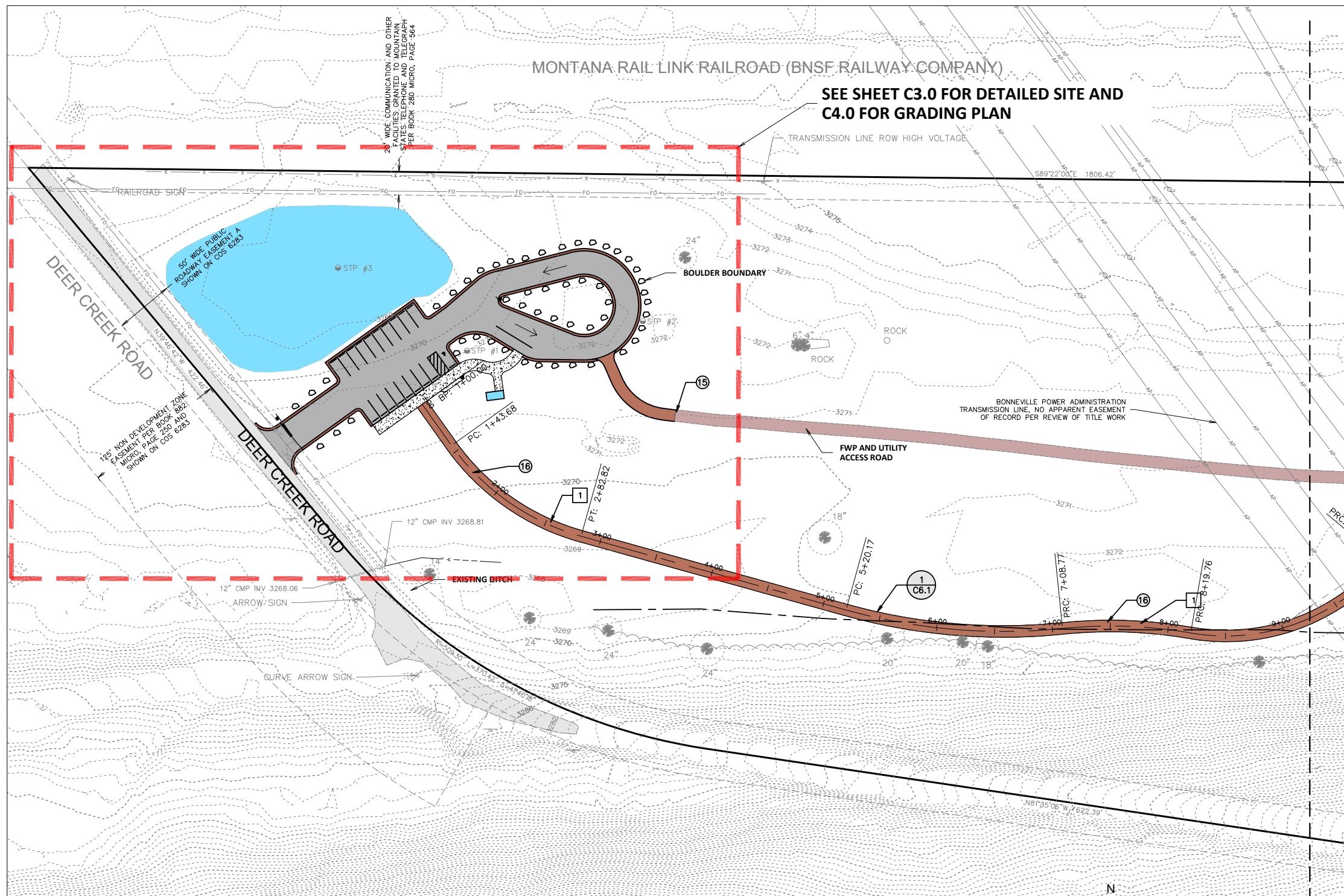
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**BANDMANN FLATS TRAILHEAD  
 REGION 2**

**FWP #76507**

**SHEET: C1.4**



PLAN VIEW A

**SITE IMPROVEMENTS KEY NOTES:**

- ① MATCH EXISTING ASPHALT. PROVIDE CLEAN FACE EDGE ON EXISTING AND APPLY TACK COAT IN ACCORDANCE WITH MISSOULA COUNTY APPROACH PERMIT REQUIREMENTS.
- ② APPLY WHITE PAVEMENT MARKING STOP BAR.
- ③ INSTALL STOP SIGN.
- ④ INSTALL WHITE STRIPE PAVEMENT MARKINGS (TYPICAL)
- ⑤ INSTALL PIN DOWN CURB AT LOCATIONS SHOWN ON THE PLANS.
- ⑥ INSTALL 10' WIDE CONCRETE SIDEWALK PER DETAILS.
- ⑦ INSTALL 7' SIDEWALK PER DETAILS.
- ⑧ CONTRACTOR TO PROVIDE SITE PREP, EXCAVATION, GRADING AND BACKFILL FOR VAULT LATRINE. VAULT LATRINE ASSEMBLY TO BE SUPPLIED, DELIVERED AND INSTALLED BY THE OWNER. CONTRACTOR TO COORDINATE WORK WITH THE OWNER.
- ⑨ WIDEN CONCRETE SIDEWALK TO PROVIDE KIOSK AREA. KIOSKS TO BE INSTALLED BY THE OWNER. COORDINATE WITH OWNER FOR ANY REQUIRED BASE PLATE INSTALLATION PRIOR TO POURING CONCRETE.
- ⑩ PLACE BOULDERS AROUND THE PERIMETER OF THE PARKING AND DRIVE LANES, APPROXIMATELY 40 FT DIAMETER BOULDERS. BOULDERS TO BE GENERATED FROM THE SITE OR DELIVERED TO THE SITE BY THE OWNER (TYPICAL).
- ⑪ INSTALL ADA PARKING SIGN.
- ⑫ INSTALL ISLAND DIRECTION TRAFFIC SIGN.
- ⑬ INSTALL SALVAGED STEEL GATE FROM EXISTING ENTRANCE. PROVIDE NEW CONCRETE BASES FOR MOUNTING POSTS. COORDINATE GATE LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
- ⑭ INSTALL 10' WIDE GRAVEL ACCESS ROAD.
- ⑮ MATCH GRADE WITH EXISTING ACCESS ROAD.
- ⑯ GRAVEL TRAIL  
BASE BID: 5' WIDE  
BID ALT #1: 10' WIDE  
(10' WIDTH SHOWN FOR SIMPLICITY)
- ⑰ INSTALL GATE POST FOR FUTURE GATE. PROVIDE 30' SPACING BETWEEN THE TWO POTS ON EITHER SIDE OF THE ACCESS.
- ⑱ INSTALL PIPE GATE POST PER DETAIL.

**SITE GRADING KEY NOTES:**

- ① GRAVEL TRAIL ELEVATION TO BE SET TO GENERALLY MATCH ADJACENT EXISTING GROUND WITH A CROSS SLOPE LESS THAN 2% DRAINING FROM SOUTH TO NORTH. FILL SLOPES TYING INTO ADJACENT GROUND SHALL BE GRADED SO DRAINAGE IS ACROSS THE TRAIL WITH NO LOW POINTS ON THE UP HILL SIDE OF THE TRAIL AND DRAINING AWAY FROM THE TRAIL ON THE DOWN HILL SIDE.
- ② GRADE SHALLOW SWALE TO DIRECT EXISTING SURFACE RUNOFF TO EXISTING CULVERT. REGRADE LOW POINT TO ENSURE POSITIVE DRAINAGE TO THE SWALE AND CULVERT INLET.
- ③ GRADE 2 FOOT HIGH BERM WITH 5 FOOT TOP AND 4:1 SIDE SLOPES TO DIRECT EXISTING SURFACE RUNOFF TO THE EXISTING CULVERT. ONSITE TOPSOIL TO BE USED FOR THE BERM CONSTRUCTION.
- ④ GRADE DRAINAGE BASIN AS SHOWN WITH THE FINISH GRADE CONTOURS. BASIN STORAGE TO BE A MINIMUM OF 2,200 CUBIC FEET. STORAGE VOLUME IS THE DIFFERENCE BETWEEN THE PRE-CONSTRUCTION AND POST CONSTRUCTION CONDITIONS FOR THE 100-YEAR, 24-HOUR STORM EVENT.
- ⑤ FINISH EXISTING BARE GROUND AREAS ON EITHER SIDE OF THE NEW TRAIL WITH 6" OF TOPSOIL AND SEED.
- ⑥ THE DRAINAGE BASIN IS A DESIGNATED SPECIAL BARROW AREA. SEE NOTES ON SHEET C1.1.

MATCH LINE - SEE SHEET C2.1

**SITE AND GRADING PLAN - PLAN VIEW A**



**WGM GROUP**  
WWW.WGMGROUP.COM

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DRAFT: SGE  
APPROVE: JLG  
DATE: MAY 11, 2021



**MONTANA STATE PARKS**

**BANDMANN FLATS TRAILHEAD  
REGION 2**

**FWP #76507**

**SHEET: C2.0**

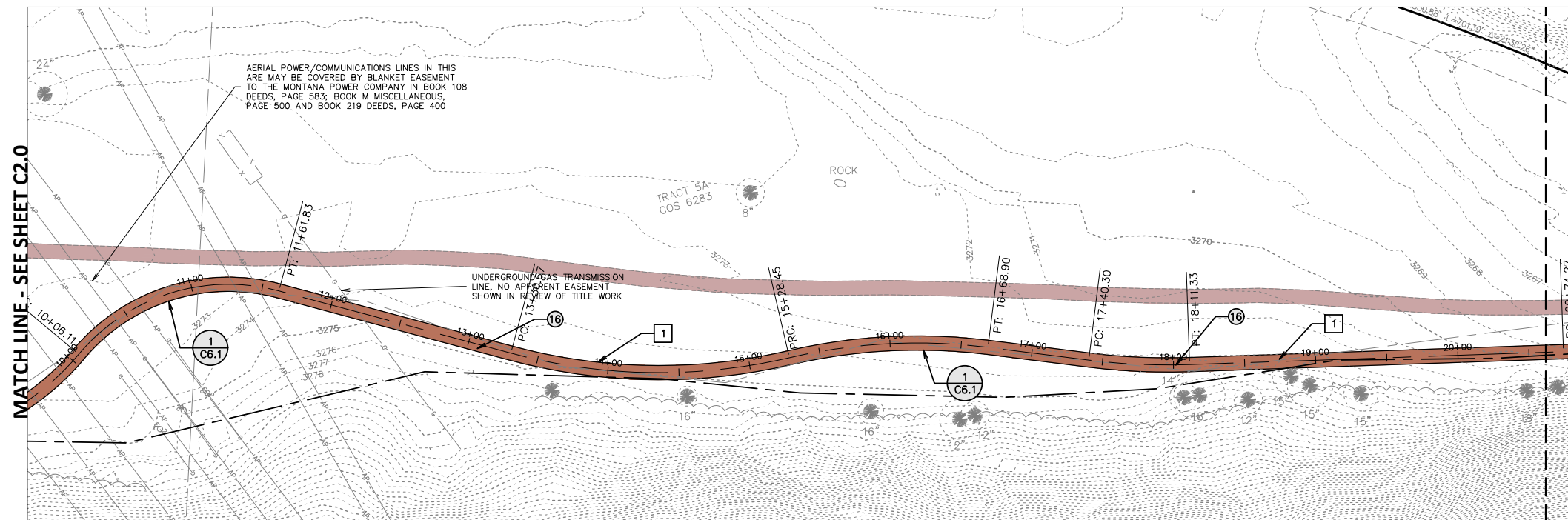
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**SITE IMPROVEMENTS KEY NOTES:**

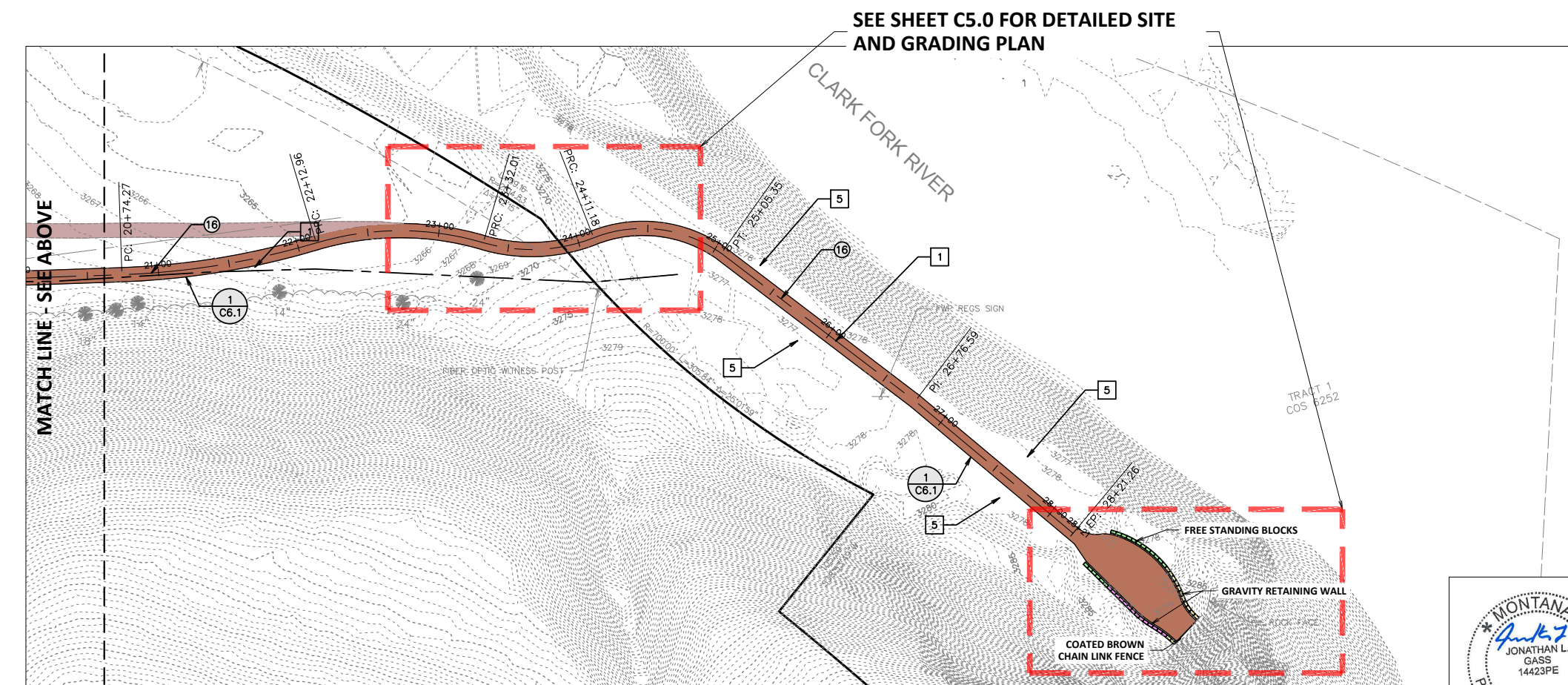
- ① MATCH EXISTING ASPHALT. PROVIDE CLEAN FACE EDGE ON EXISTING AND APPLY TACK COAT IN ACCORDANCE WITH MISSOULA COUNTY APPROACH PERMIT REQUIREMENTS.
- ② APPLY WHITE PAVEMENT MARKING STOP BAR.
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- ⑧ CONTRACTOR TO PROVIDE SITE PREP, EXCAVATION, GRADING AND BACKFILL FOR VAULT LATRINE. VAULT LATRINE ASSEMBLY TO BE SUPPLIED, DELIVERED AND INSTALLED BY THE OWNER. CONTRACTOR TO COORDINATE WORK WITH THE OWNER.
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- ⑩ PLACE BOULDERS AROUND THE PERIMETER OF THE PARKING AND DRIVE LANES, APPROXIMATELY 40 FT DIAMETER BOULDERS. BOULDERS TO BE GENERATED FROM THE SITE OR DELIVERED TO THE SITE BY THE OWNER (TYPICAL).
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- ⑭ INSTALL 10' WIDE GRAVEL ACCESS ROAD.
- ⑮ MATCH GRADE WITH EXISTING ACCESS ROAD.
- ⑯ GRAVEL TRAIL  
BASE BID: 5' WIDE  
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(10' WIDTH SHOWN FOR SIMPLICITY)
- ⑰ INSTALL GATE POST FOR FUTURE GATE. PROVIDE 30' SPACING BETWEEN THE TWO POTS ON EITHER SIDE OF THE ACCESS.
- ⑱ INSTALL PIPE GATE POST PER DETAIL.

**SITE GRADING KEY NOTES:**

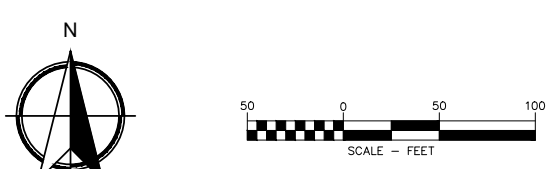
- ① GRAVEL TRAIL ELEVATION TO BE SET TO GENERALLY MATCH ADJACENT EXISTING GROUND WITH A CROSS SLOPE LESS THAN 2% DRAINING FROM SOUTH TO NORTH. FILL SLOPES TYING INTO ADJACENT GROUND SHALL BE GRADED SO DRAINAGE IS ACROSS THE TRAIL WITH NO LOW POINTS ON THE UP HILL SIDE OF THE TRAIL AND DRAINING AWAY FROM THE TRAIL ON THE DOWN HILL SIDE.
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- ④ GRADE DRAINAGE BASIN AS SHOWN WITH THE FINISH GRADE CONTOURS. BASIN STORAGE TO BE A MINIMUM OF 2,200 CUBIC FEET. STORAGE VOLUME IS THE DIFFERENCE BETWEEN THE PRE-CONSTRUCTION AND POST CONSTRUCTION CONDITIONS FOR THE 100-YEAR, 24-HOUR STORM EVENT.
- ⑤ FINISH EXISTING BARE GROUND AREAS ON EITHER SIDE OF THE NEW TRAIL WITH 6" OF TOPSOIL AND SEED.
- ⑥ THE DRAINAGE BASIN IS A DESIGNATED SPECIAL BARROW AREA. SEE NOTES ON SHEET C1.1.



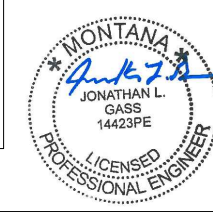
PLAN VIEW B



PLAN VIEW C



**SITE AND GRADING PLAN - PLAN VIEW B & C**



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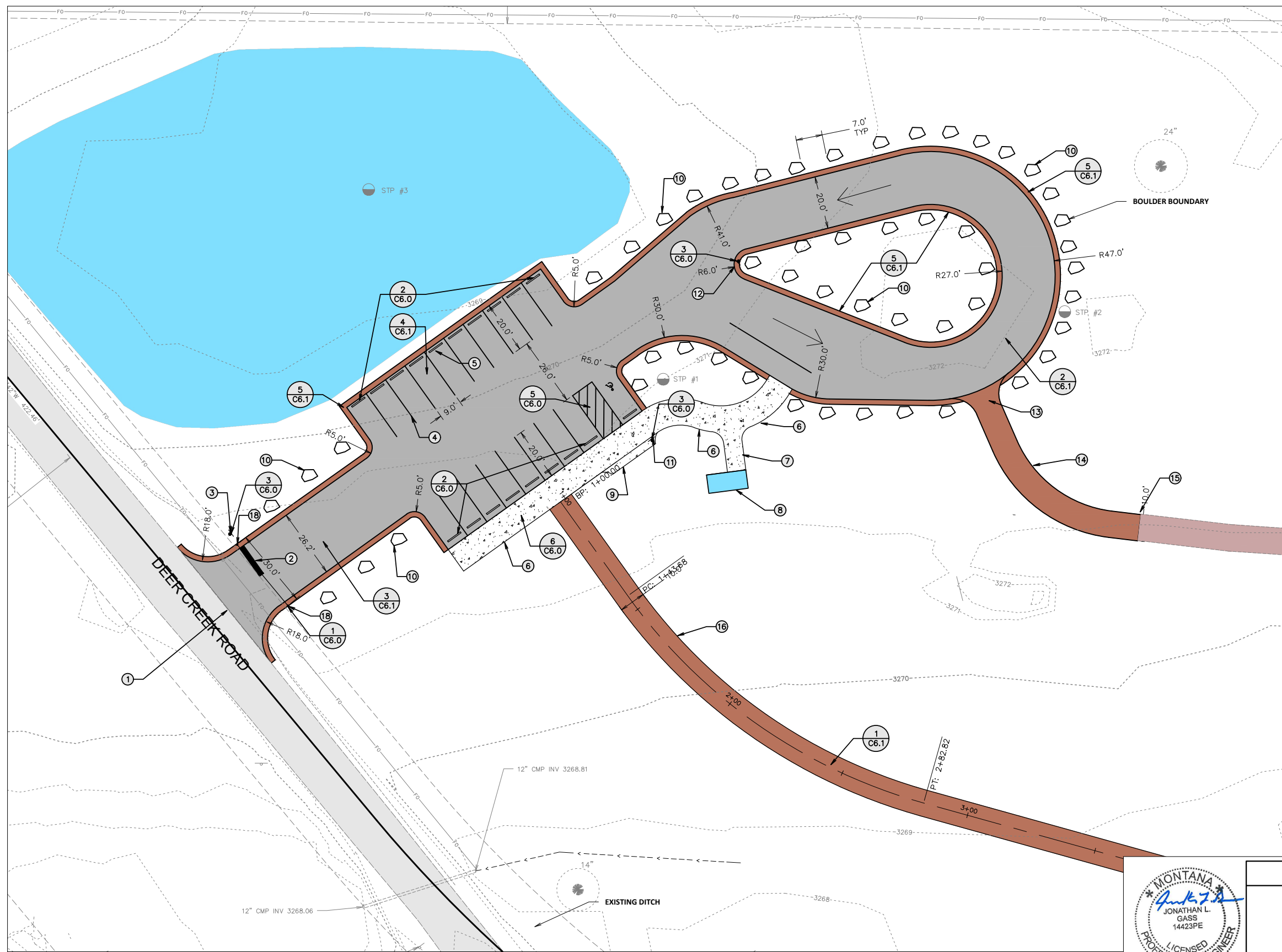
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**BANDMANN FLATS TRAILHEAD  
REGION 2**

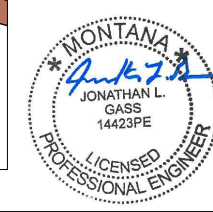
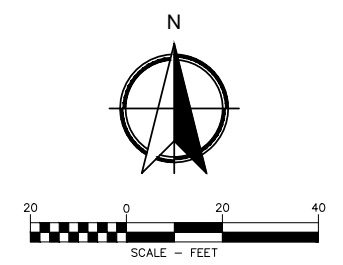
**FWP #76507**

**SHEET: C2.1**



**SITE IMPROVEMENTS KEY NOTES:**

- 1 MATCH EXISTING ASPHALT. PROVIDE CLEAN FACE EDGE ON EXISTING AND APPLY TACK COAT IN ACCORDANCE WITH MISSOULA COUNTY APPROACH PERMIT REQUIREMENTS.
- 2 APPLY WHITE PAVEMENT MARKING STOP BAR.
- 3 INSTALL STOP SIGN.
- 4 INSTALL WHITE STRIPE PAVEMENT MARKINGS (TYPICAL)
- 5 INSTALL PIN DOWN CURB AT LOCATIONS SHOWN ON THE PLANS.
- 6 INSTALL 10' WIDE CONCRETE SIDEWALK PER DETAILS.
- 7 INSTALL 7' SIDEWALK PER DETAILS.
- 8 CONTRACTOR TO PROVIDE SITE PREP, EXCAVATION, GRADING AND BACKFILL FOR VAULT LATRINE. VAULT LATRINE ASSEMBLY TO BE SUPPLIED, DELIVERED AND INSTALLED BY THE OWNER. CONTRACTOR TO COORDINATE WORK WITH THE OWNER.
- 9 WIDEN CONCRETE SIDEWALK TO PROVIDE KIOSK AREA. KIOSKS TO BE INSTALLED BY THE OWNER. COORDINATE WITH OWNER FOR ANY REQUIRED BASE PLATE INSTALLATION PRIOR TO POURING CONCRETE.
- 10 PLACE BOULDERS AROUND THE PERIMETER OF THE PARKING AND DRIVE LANES. APPROXIMATELY 40 FT DIAMETER BOULDERS. BOULDERS TO BE GENERATED FROM THE SITE OR DELIVERED TO THE SITE BY THE OWNER (TYPICAL).
- 11 INSTALL ADA PARKING SIGN.
- 12 INSTALL ISLAND DIRECTION TRAFFIC SIGN.
- 13 INSTALL SALVAGED STEEL GATE FROM EXISTING ENTRANCE. PROVIDE NEW CONCRETE BASES FOR MOUNTING POSTS. COORDINATE GATE LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
- 14 INSTALL 10' WIDE GRAVEL ACCESS ROAD.
- 15 MATCH GRADE WITH EXISTING ACCESS ROAD.
- 16 GRAVEL TRAIL  
BASE BID: 5' WIDE  
BID ALT #1: 10' WIDE  
(10' WIDTH SHOWN FOR SIMPLICITY)
- 17 INSTALL GATE POST FOR FUTURE GATE. PROVIDE 30' SPACING BETWEEN THE TWO POTS ON EITHER SIDE OF THE ACCESS.
- 18 INSTALL PIPE GATE POST PER DETAIL.



**TRAIL HEAD DETAILED SITE PLAN**



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 DATE: MAY 11, 2021

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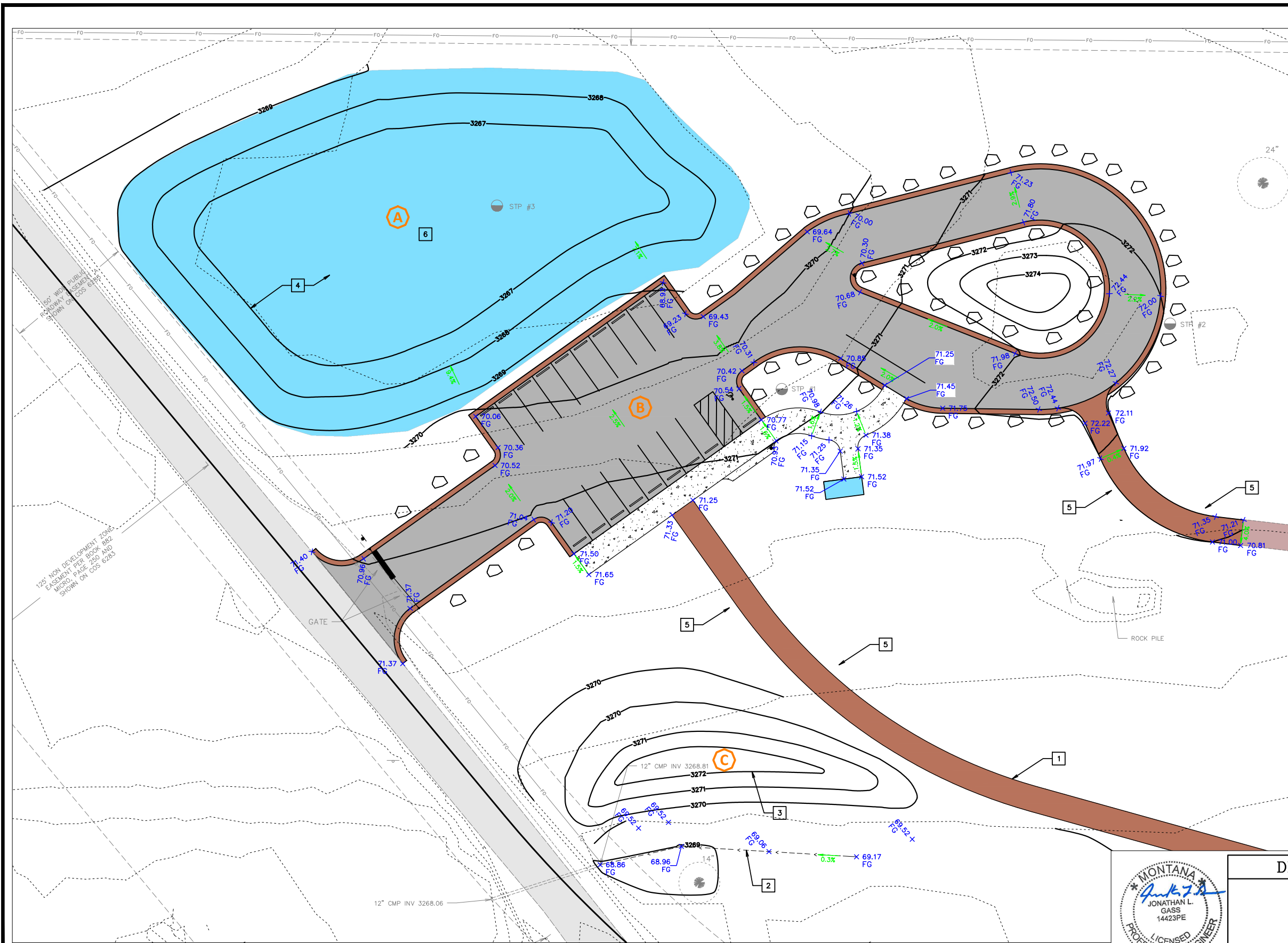


**BANDMANN FLATS TRAILHEAD  
 REGION 2**

**FWP #76507**

**SHEET: C3.0**



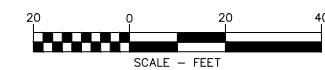


**SITE GRADING KEY NOTES:**

- 1 GRAVEL TRAIL ELEVATION TO BE SET TO GENERALLY MATCH ADJACENT EXISTING GROUND WITH A CROSS SLOPE LESS THAN 2% DRAINING FROM SOUTH TO NORTH. FILL SLOPES TYING INTO ADJACENT GROUND SHALL BE GRADED SO DRAINAGE IS ACROSS THE TRAIL WITH NO LOW POINTS ON THE UP HILL SIDE OF THE TRAIL AND DRAINING AWAY FROM THE TRAIL ON THE DOWN HILL SIDE.
- 2 GRADE SHALLOW SWALE TO DIRECT EXISTING SURFACE RUNOFF TO EXISTING CULVERT. REGRADE LOW POINT TO ENSURE POSITIVE DRAINAGE TO THE SWALE AND CULVERT INLET.
- 3 GRADE 2 FOOT HIGH BERM WITH 5 FOOT TOP AND 4:1 SIDE SLOPES TO DIRECT EXISTING SURFACE RUNOFF TO THE EXISTING CULVERT. ONSITE TOPSOIL TO BE USED FOR THE BERM CONSTRUCTION.
- 4 GRADE DRAINAGE BASIN AS SHOWN WITH THE FINISH GRADE CONTOURS REPRESENTING THE TOPSOIL SURFACE ELEVATIONS.. BASIN STORAGE TO BE A MINIMUM OF 2,200 CUBIC FEET. STORAGE VOLUME IS THE DIFFERENCE BETWEEN THE PRE-CONSTRUCTION AND POST CONSTRUCTION CONDITIONS FOR THE 100-YEAR, 24-HOUR STORM EVENT.
- 5 FINISH EXISTING BARE GROUND AREAS ON EITHER SIDE OF THE NEW TRAIL WITH 6" OF TOPSOIL AND SEED.
- 6 THE DRAINAGE BASIN IS A DESIGNATED SPECIAL BARROW AREA. SEE NOTES ON SHEET C1.1.

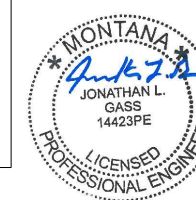
**LEGEND-GRADING**

- X 195.50 PROPOSED FINISH GRADE (+3000')
- 1.4% PROPOSED SLOPE
- EXISTING CONTOUR (1 FOOT INTERVAL)
- PROPOSED CONTOUR (1 FOOT INTERVAL)
- RIM SUMP RIM ELEVATION
- SW TOP OF SIDEWALK
- ME MATCH EXISTING
- FG FINISH GRADE
- FF FINISH FLOOR
- TW TOP OF WALL



AREA	DESCRIPTION	CUT (CY)	FILL (CY)	NOTES
A	DRAINAGE BASIN	1106.0 C.Y.	5.3 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
B	ACCESS ROAD, PARKING AREA & CONCRETE SIDEWALK	658.2 C.Y.	37.1 C.Y.	CUT/FILL QUANTITIES TO SUBGRADE ELEVATION
C	BERM SOUTH OF PARKING LOT	19.0 C.Y.	590.3 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
D	TRAIL FILL AREA (STA 22+50 TO 24+50)	14.9 C.Y.	321.9 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
E	NORTH WALL AREA	136.2 C.Y.	88.7 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
F	SOUTH WALL AREA	230.1 C.Y.	63.3 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS

**DETAILED TRAIL HEAD GRADING PLAN**



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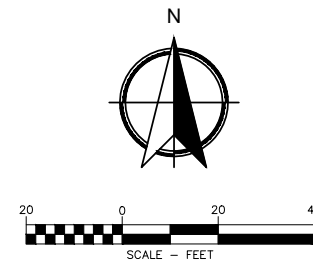
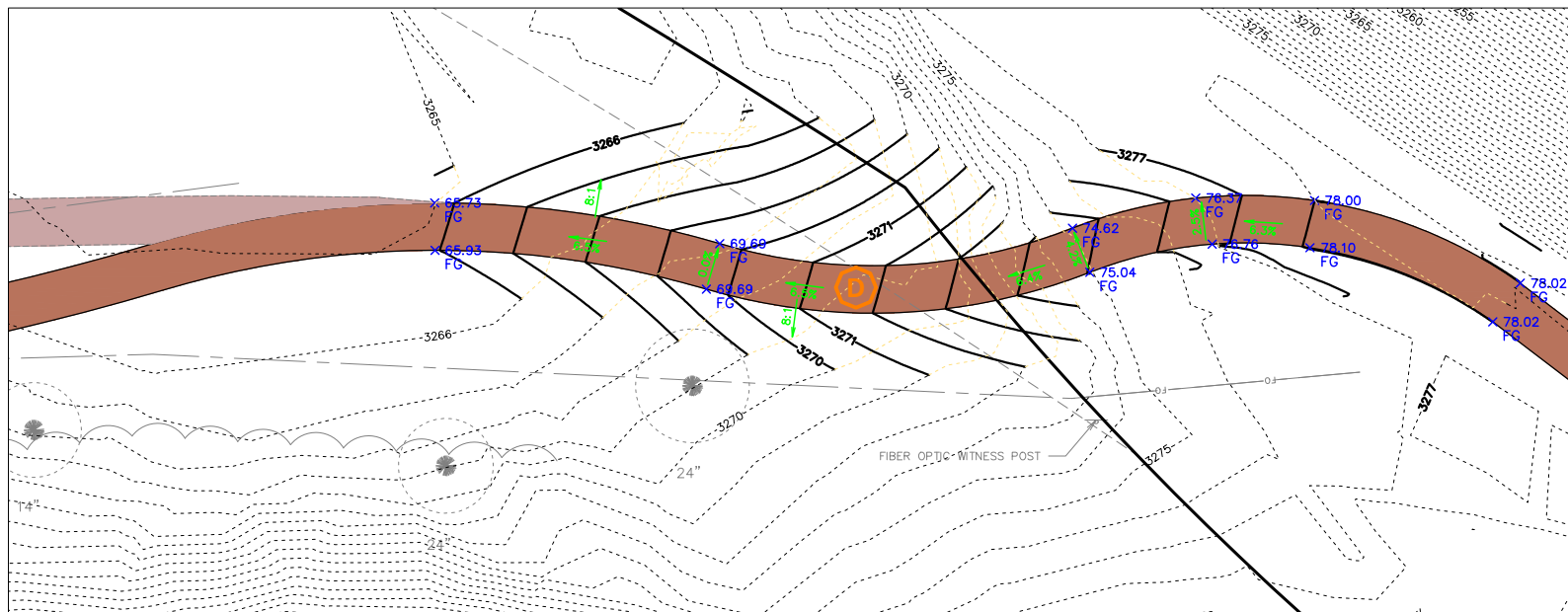
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**BANDMANN FLATS TRAILHEAD REGION 2**

**FWP #76507**

**SHEET: C4.0**

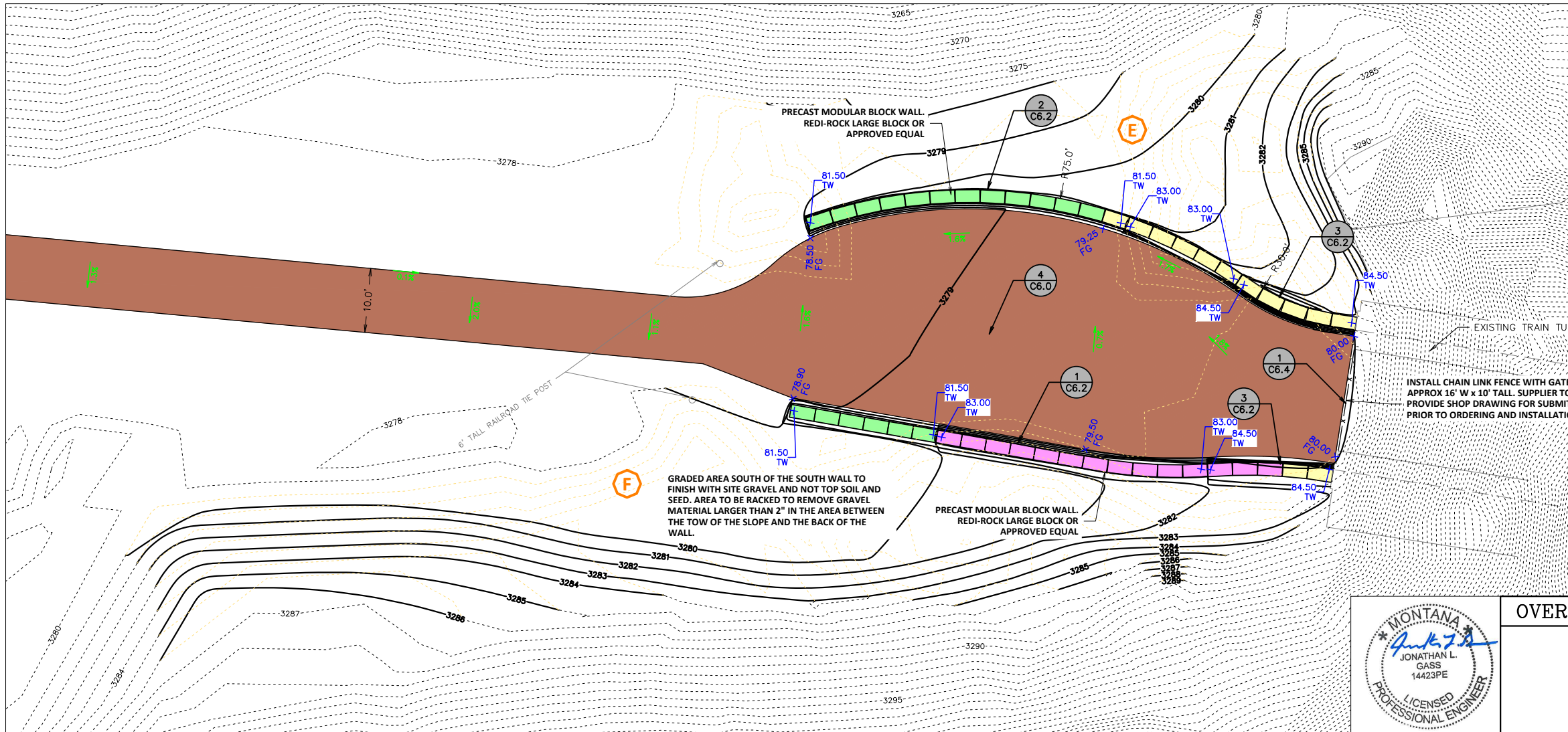


**LEGEND-GRADING**

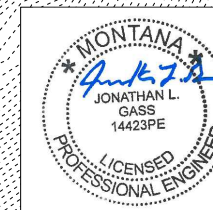
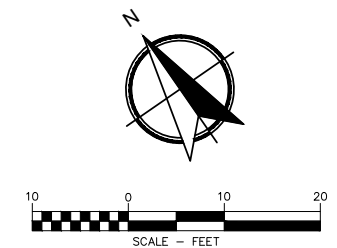
- X 195.50 PROPOSED FINISH GRADE (+3000')
- 1.4% PROPOSED SLOPE
- - - - - EXISTING CONTOUR (1 FOOT INTERVAL)
- - - - - PROPOSED CONTOUR (1 FOOT INTERVAL)
- RIM SUMP RIM ELEVATION
- SW TOP OF SIDEWALK
- ME MATCH EXISTING
- FG FINISH GRADE
- FF FINISH FLOOR
- TW TOP OF WALL

**PRECAST MODULAR BLOCK WALL LEGEND**

- PRECAST MODULAR FREE STANDING WALL
- PRECAST MODULAR BLOCK WALL 'A'
- PRECAST MODULAR BLOCK WALL 'B'



AREA	DESCRIPTION	CUT (CY)	FILL (CY)	NOTES
A	DRAINAGE BASIN	1106.0 C.Y.	5.3 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
B	ACCESS ROAD, PARKING AREA & CONCRETE SIDEWALK	658.2 C.Y.	37.1 C.Y.	CUT/FILL QUANTITIES TO SUBGRADE ELEVATION
C	BERM SOUTH OF PARKING LOT	19.0 C.Y.	590.3 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
D	TRAIL FILL AREA (STA 22+50 TO 24+50)	14.9 C.Y.	321.9 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
E	NORTH WALL AREA	136.2 C.Y.	88.7 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS
F	SOUTH WALL AREA	230.1 C.Y.	63.3 C.Y.	CUT/FILL QUANTITIES TO FINISH GRADE ELEVATIONS



**OVERLOOK DETAILED SITE AND GRADING PLAN**



PROJECT: 19-06-29  
 FILE No: 190629GP.DWG  
 FILE PATH  
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 LAYOUT: C3.3  
 SURVEYED: WGM GROUP  
 DESIGN: SGE  
 DRAFT: SGE  
 APPROVE: JLG  
 DATE: MAY 11, 2021

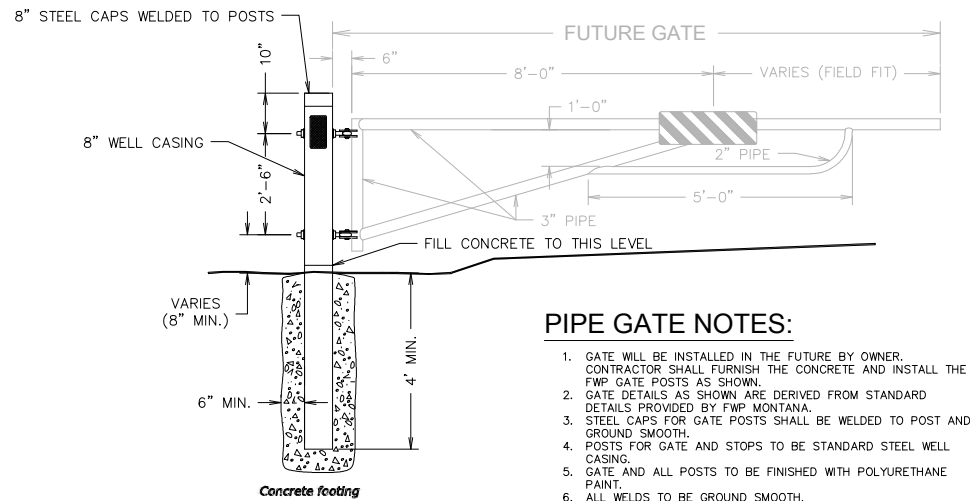
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**BANDMANN FLATS TRAILHEAD REGION 2**

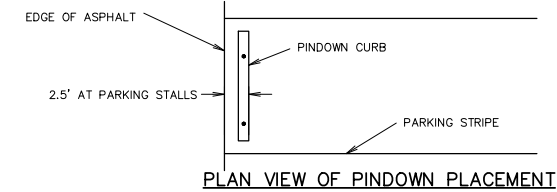
**FWP #76507**

**SHEET: C5.0**

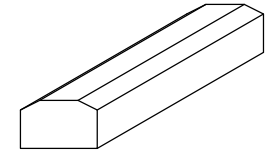


- PIPE GATE NOTES:**
- GATE WILL BE INSTALLED IN THE FUTURE BY OWNER. CONTRACTOR SHALL FURNISH THE CONCRETE AND INSTALL THE FWP GATE POSTS AS SHOWN.
  - GATE DETAILS AS SHOWN ARE DERIVED FROM STANDARD DETAILS PROVIDED BY FWP MONTANA.
  - STEEL CAPS FOR GATE POSTS SHALL BE WELDED TO POST AND GROUND SMOOTH.
  - POSTS FOR GATE AND STOPS TO BE STANDARD STEEL WELL CASING.
  - GATE AND ALL POSTS TO BE FINISHED WITH POLYURETHANE PAINT.
  - ALL WELDS TO BE GROUND SMOOTH.

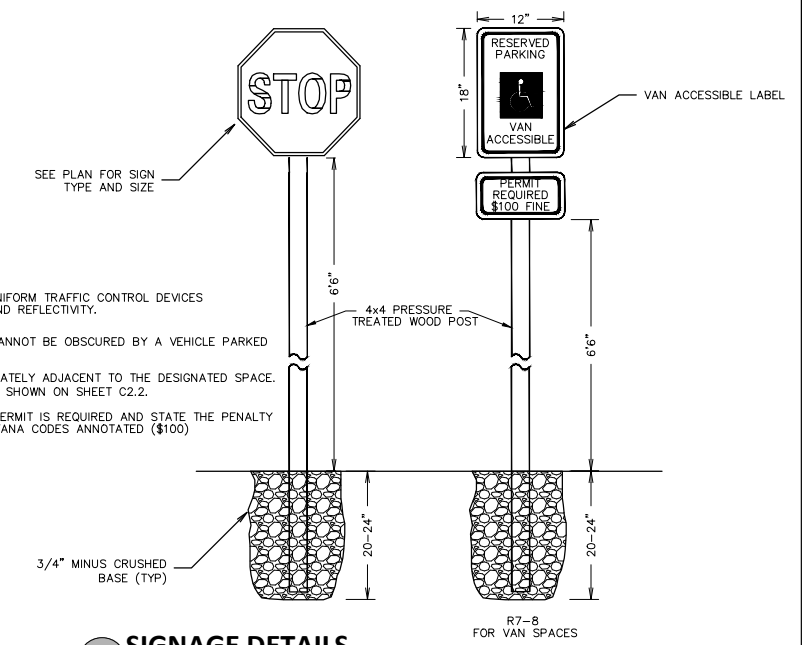
**1 PIPE GATE POST DETAIL**  
C6.0 NO SCALE



CURB SHALL BE ANCHORED TO ASPHALT WITH 2 NO. 5 X 18" REBAR



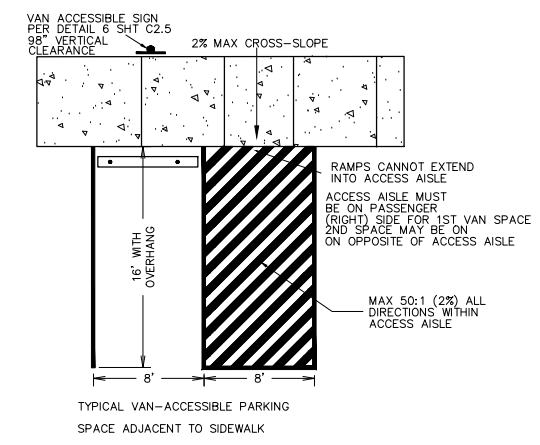
**2 PIN DOWN CURB**  
C6.0 NO SCALE



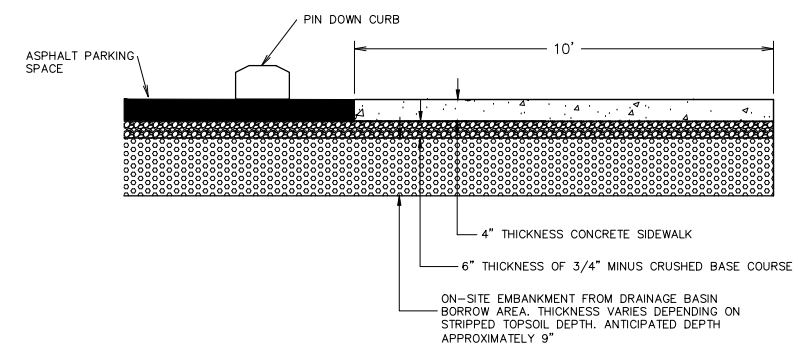
- SIGN NOTES:**
- ALL SIGNS MUST MEET MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES STANDARDS FOR SIGN COLORS, SIZES, AND REFLECTIVITY.
  - SIGNS SHALL BE LOCATED SO THEY CANNOT BE OBTSCURED BY A VEHICLE PARKED IN THE SPACE.
  - ADA SIGNS SHALL BE LOCATED IMMEDIATELY ADJACENT TO THE DESIGNATED SPACE. OTHER SIGNS SHALL BE MOUNTED WHERE SHOWN ON SHEET C2.2.
  - ADA SIGNS SHALL INDICATE THAT A PERMIT IS REQUIRED AND STATE THE PENALTY FOR VIOLATION AS ESTABLISHED IN MONTANA CODES ANNOTATED (\$100)

**3 SIGNAGE DETAILS**  
C6.0 NO SCALE

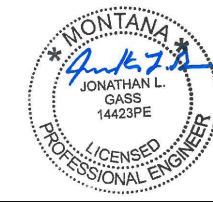
**4 NOT USED**  
C6.0 NO SCALE



**5 ACCESSIBLE PARKING SPACES**  
C6.0 NO SCALE



**6 SIDEWALK SECTION**  
C6.0 NOT TO SCALE



DETAILS	
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	FILE No: 190629DT.DWG
	FILE PATH
	W:\PROJECTS\190629\CAD DATA\DESIGN
	LAYOUT: C6.0
	SURVEYED: WGM GROUP
DESIGN: SGE	
DRAFT: SGE	
APPROVE: JLG	
DATE: MAY 11, 2021	

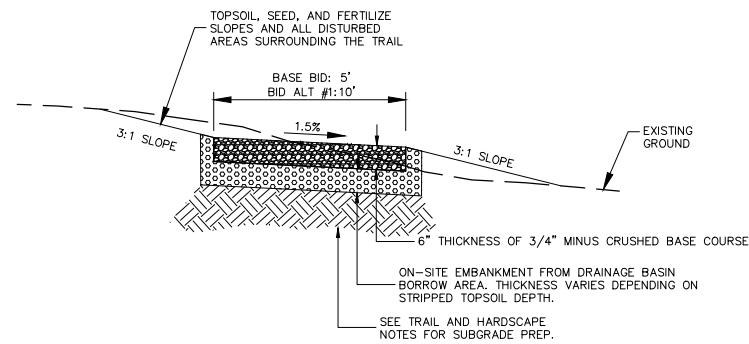
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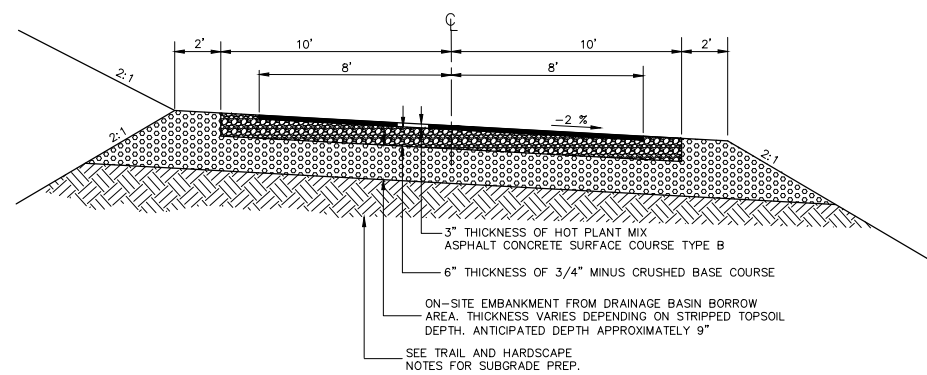
**BANDMANN FLATS TRAILHEAD**  
REGION 2

**FWP #76507**

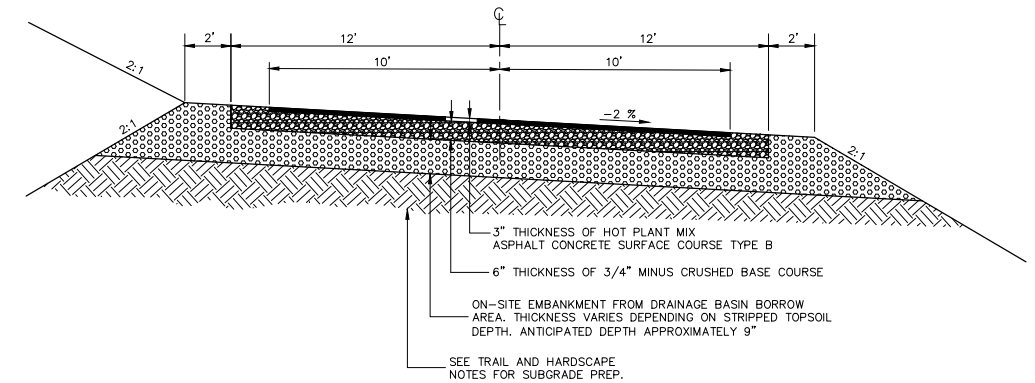
**SHEET: C6.0**



**1 TYPICAL TRAIL GRAVEL SURFACE**  
C6.1 NO SCALE



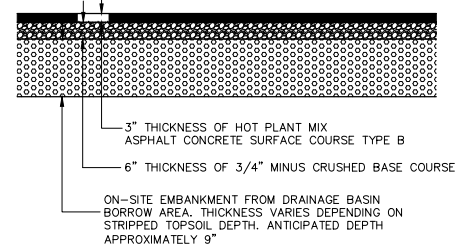
**2 TYPICAL ONE-WAY TRAFFIC ROAD SECTION**  
C6.1 NO SCALE



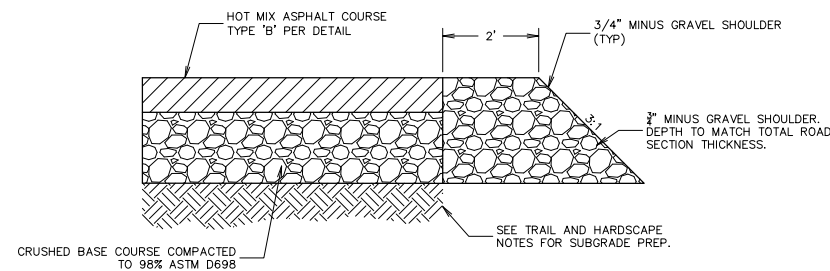
**3 TYPICAL TWO-WAY TRAFFIC ROAD SECTION**  
C6.1 NO SCALE

**TRAIL AND HARDSCAPE NOTES:**

1. ENSURE ALL TOPSOIL AND VEGETATION IS REMOVE AND SUBGRADE CONSISTS OF NATIVE GRAVEL.
2. SCARIFY, MOISTURE CONDITION, AND RECOMPACT TOP 12" OF SUBGRADE TO 95% ASTM D698 PROCTOR DENSITY. PROOF ROLL ALL SUBGRADE IN PRESENCE OF ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO PLACING GRAVEL.
3. PROOF ROLL ALL SUBGRADE AREAS. OWNER'S REPRESENTATIVE SHALL BE PRESENT TO OBSERVE PROOF ROLLING. UNSTABLE AREAS SHALL BE REPAIRED.
4. APPLY SOIL STERILANT TO ALL PREPARED HARDSCAPE BASE GRAVEL IMMEDIATELY AHEAD OF PLACING CONCRETE OR ASPHALT SURFACE.
5. ALL BASE GRAVEL SHALL BE COMPACTED TO 95% ASTM D698.



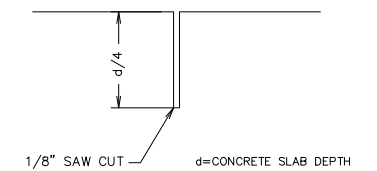
**4 TYPICAL PARKING LOT PAVEMENT SECTION**  
C6.1 NO SCALE



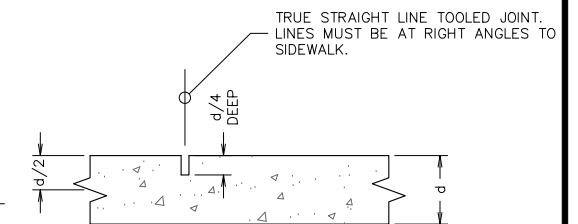
**5 TYPICAL GRAVEL SHOULDER**  
C6.1 NO SCALE

**JOINTING NOTES:**

1. INSTALL CONTRACTION JOINTS, EXPANSION JOINTS, AND ISOLATION JOINTS PER APPROVED JOINTING PLAN.
2. CONTRACTION JOINTS SHALL BE ONE-FOURTH (1/4) THE CONCRETE THICKNESS. CONTRACTION JOINTS SHALL BE SAW CUT JOINTS AND RUN WITHIN 4 TO 12 HOURS AFTER THE CONCRETE HAS BEEN FINISHED.
3. EXPANSION JOINTS OF ONE-HALF (1/2") INCH THICK MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING LOCATIONS:
  1. EVERY ONE HUNDRED (100') FEET OF RIBBON CURB.
  2. P.C.S AND P.T.S OF CURVES.
  3. GRADE BREAKS.
  4. ALL EXPANSION JOINTS SHALL BE PLACED FLUSH OR JUST BELOW TOP FINISHED SURFACE OF SIDEWALK.
  5. ALL EXPANSION JOINTS SHALL BE FULL DEPTH, FULL WIDTH AND PINNED IN PLACE BEFORE THE FORMS WILL BE APPROVED.
  6. AT LOCATIONS SHOWN ON THE PLANS.
4. ISOLATION JOINTS SHALL BE INSTALLED PER THE DETAIL WHERE INDICATED ON THE JOINTING PLAN.
5. CONTRACTOR TO SUBMIT CONCRETE POUR SEQUENCING PLAN AND JOINTING CONSTRUCTION PLAN. PLAN TO BE APPROVED BY ENGINEER PRIOR TO CONSTRUCTION.
6. TOOLED CONTRACTION JOINTS ONLY ALLOWED WHERE SHOWN ON THE DRAWING OR IN LOCATIONS PRE-APPROVED BY THE ENGINEER.
7. FIELD MODIFICATIONS TO JOINTING PLAN BY ENGINEER TO BE ANTICIPATED.
8. ALL JOINTING TO BE UNIFORM, APPROPRIATELY SPACED AND PARALLEL OR PERPENDICULAR TO ADJACENT JOINTS (UNLESS ON CURVED PORTIONS ON WALKWAYS). JOINTING WILL BE VISUALLY INSPECTED FOR UNIFORMITY BY THE ENGINEER. AREAS OF CONCRETE JOINTING DETERMINED TO BE UNACCEPTABLE WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
9. DOWELED CONSTRUCTION JOINTS TO BE PROVIDED BETWEEN CONCRETE COLD JOINTS WHERE SHOWN ON THE PLANS.



**SAWCUT CONTRACTION JOINT**



**TOOLED CONTRACTION JOINT**

**6 CONTRACTION JOINT**  
C6.1 NO SCALE



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FILE No: 190629D.DWG  
FILE PATH  
W:\PROJECTS\190629\CAD DATA\DESIGN  
LAYOUT: C6.1  
SURVEYED: WGM GROUP  
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DATE: MAY 11, 2021

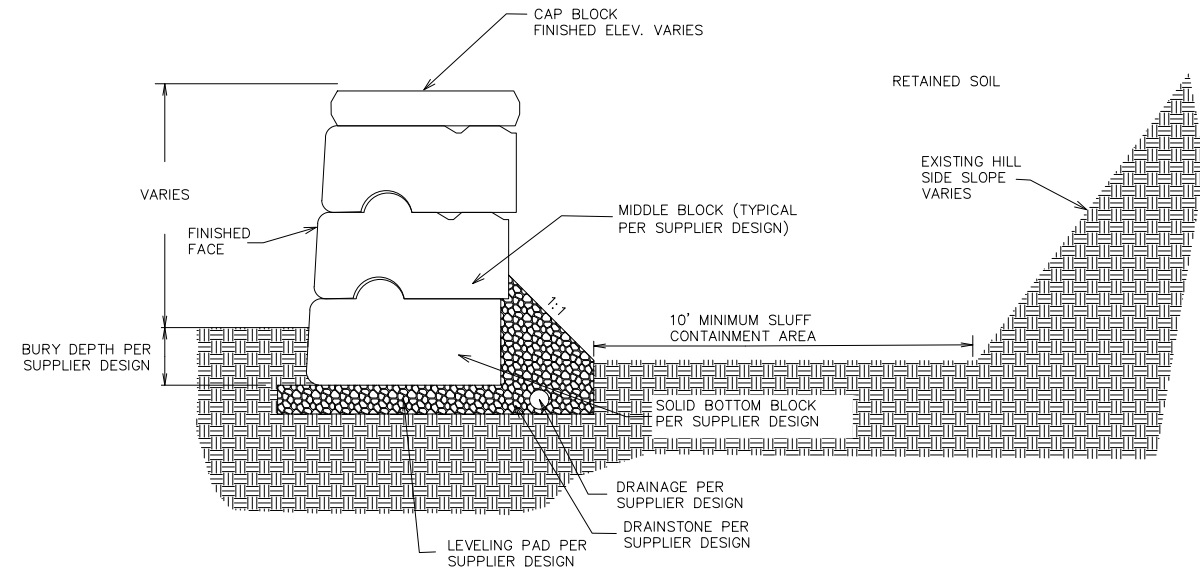
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**BANDMANN FLATS TRAILHEAD  
REGION 2**

**FWP #76507**

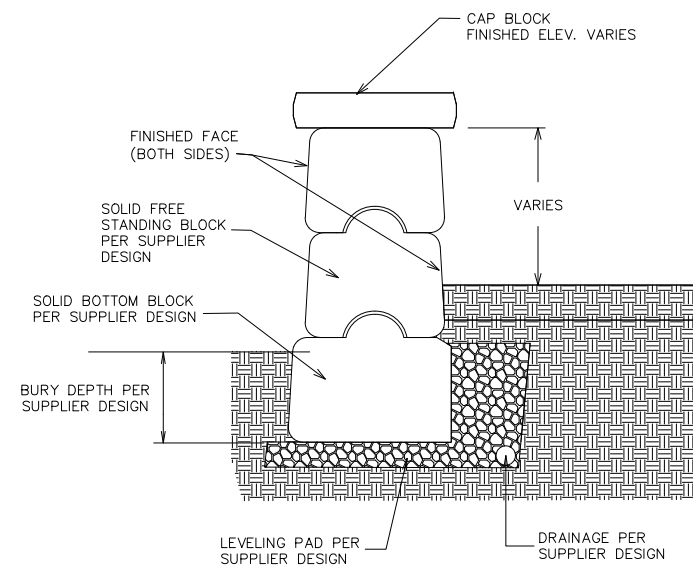
**SHEET: C6.1**



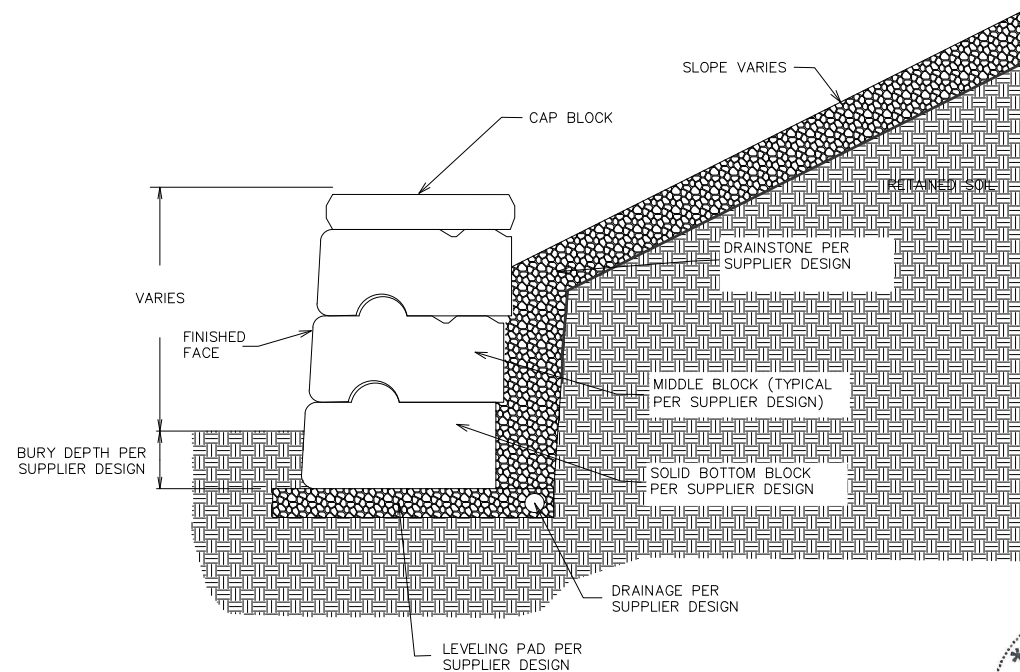
1 PRECAST MODULAR BLOCK WALL 'A' DETAIL  
NO SCALE

**PRECAST MODULAR BLOCK WALL GENERAL NOTES:**

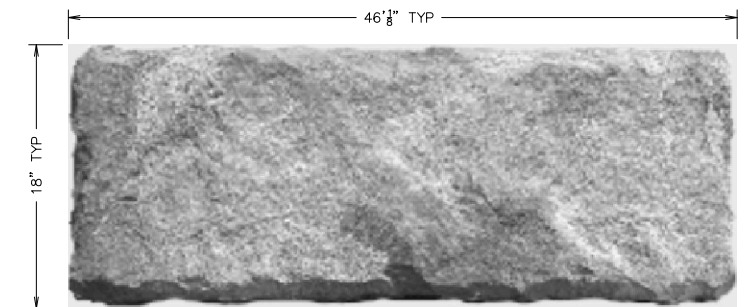
1. THE WALL PLAN LAYOUT AND ELEVATIONS ARE CONCEPTUAL TO PROVIDE AN OVERVIEW OF THE WALL IMPROVEMENT. FINAL WALL DESIGNS SHALL BE PREPARED BY THE WALL SUPPLIER AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MONTANA. FINAL STAMPED WALL DESIGN PLANS SHALL SUBMITTED AS A DEFERRED SUBMITTAL FOR REVIEW AND APPROVAL BY THE AND ENGINEER.
2. INTENT OF THE PRECAST MODULAR BLOCK WALL:  
 THE INTENT OF THE SOUTH WALL IS TO PREVENT SLUFF FROM THE EXISTING HILL SIDE FROM ENTERING THE PATH AREAS. WALL SHALL ALLOW FOR A MINIMUM 10 FOOT MAINTENANCE ZONE BEHIND THE WALL TO ALLOW FOR THE OWNER TO PERIODICALLY ACCESS THE AREA WITH A SMALL FRONT-END LOADER TO REMOVE SLUFF MATERIAL. THE EASTERN PORTION OF THE WALL MAY BE SINGLE SIDE FINISHED BLOCKS IN AREAS THAT WILL NOT BE VISIBLE FROM THE PATH AREAS. THE WESTERN PORTION OF THE WALL SHALL BE DOUBLE SIDE FINISH FREESTANDING BLOCKS WITH A FINISHED END FOR AESTHETICAL PURPOSE.  
 THE INTENT OF THE NORTH WALL IS TO PREVENT SLUFF FROM THE EXISTING HILLSIDE AT THE EASTERN PORTION OF THE WALL FROM ENTERING THE PATH AREA AND TO PROVIDE A FREESTANDING BARRIER ALONG THE CENTRAL AND WESTERN PORTION OF THE WALL. THE FREESTANDING WALL SHALL BE FINISHED ON BOTH SIDES WITH A FINISHED END.
3. WALL SHALL BE IN ACCORDANCE WITH SPECIFICATION IN THE PROJECT MANUAL.
4. WALL TO BE INSTALLED PER SUPPLIER DESIGN, REQUIREMENTS AND DETAILS.
5. FOR BIDDING BASIS OF DESIGN, EXISTING SUBGRADE SOILS SHALL BE GRAVEL WITH A BEARING CAPACITY OF 3,000 PSF. WALL SUPPLIER SHALL PROVIDE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MONTANA VERIFYING OR PROVIDING A DIFFERENT BEARING CAPACITY FOR THE EXISTING SOILS TO BE USED FOR THE WALL DESIGN.
6. ANTI-GRAFFITI COATING TO BE APPLIED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.



2 PRECAST MODULAR FREE STANDING WALL  
NO SCALE

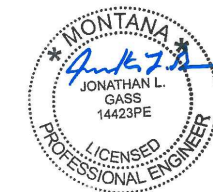



3 PRECAST MODULAR BLOCK WALL 'B' DETAIL  
NO SCALE



4 TYPICAL REDI-ROCK BLOCK  
NO SCALE

FACE PATTERN: LIMESTONE  
 COLOR: TO BE SELECTED BY OWNER PRIOR TO CONTRACTOR ORDERING MATERIAL



<b>PRECAST MODULAR BLOCK WALL DETAIL</b>	
 <b>WGM GROUP</b> WWW.WGMGROUP.COM	PROJECT: 19-06-29 FILE No: 190629DT.DWG FILE PATH W:\PROJECTS\190629\CAD DATA\DESIGN LAYOUT: C6.2 SURVEYED: WGM GROUP DESIGN: SGE DRAFT: SGE APPROVE: JLG DATE: MAY 11, 2021

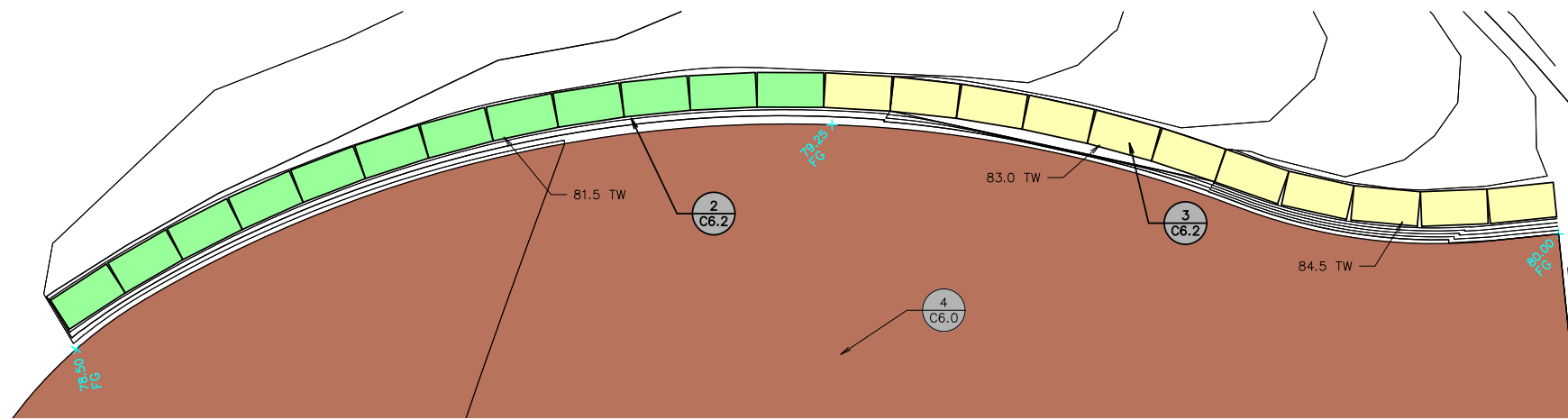
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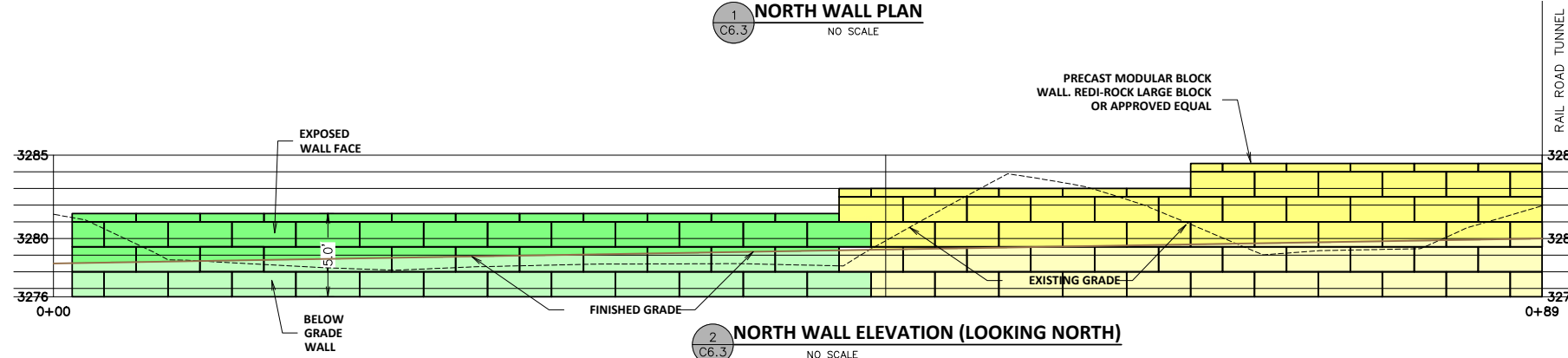
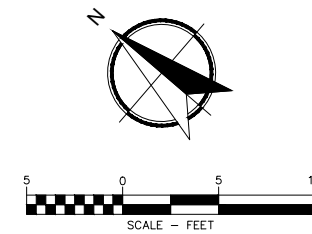
**BANDMANN FLATS TRAILHEAD  
 REGION 2**

**FWP #76507**

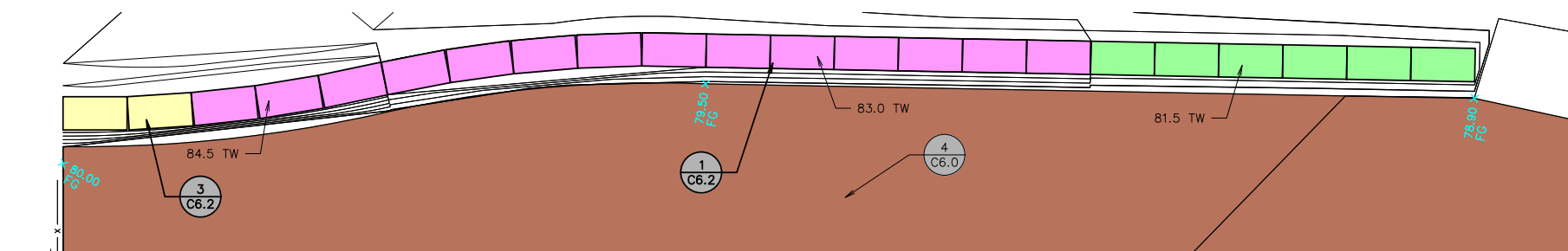
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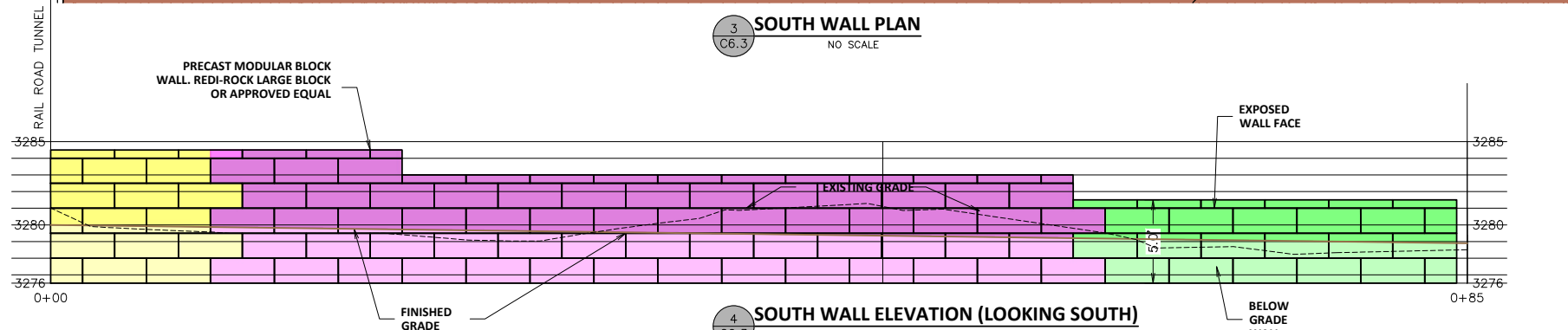
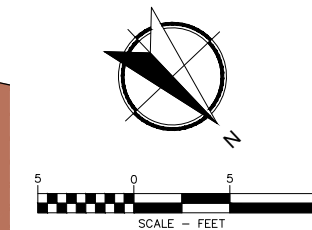
1 NORTH WALL PLAN  
C6.3 NO SCALE



2 NORTH WALL ELEVATION (LOOKING NORTH)  
C6.3 NO SCALE



3 SOUTH WALL PLAN  
C6.3 NO SCALE



4 SOUTH WALL ELEVATION (LOOKING SOUTH)  
C6.3 NO SCALE

**PRECAST MODULAR BLOCK WALL GENERAL NOTES:**

1. THE WALL PLAN LAYOUT AND ELEVATIONS ARE CONCEPTUAL TO PROVIDE AN OVERVIEW OF THE WALL IMPROVEMENT. FINAL WALL DESIGNS SHALL BE PREPARED BY THE WALL SUPPLIER AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MONTANA. FINAL STAMPED WALL DESIGN PLANS SHALL SUBMITTED AS A DEFERRED SUBMITTAL FOR REVIEW AND APPROVAL BY THE AND ENGINEER.
2. INTENT OF THE PRECAST MODULAR BLOCK WALL:  
  
THE INTENT OF THE SOUTH WALL IS TO PREVENT SLUFF FROM THE EXISTING HILL SIDE FROM ENTERING THE PATH AREAS. WALL SHALL ALLOW FOR A MINIMUM 10 FOOT MAINTENANCE ZONE BEHIND THE WALL TO ALLOW FOR THE OWNER TO PERIODICALLY ACCESS THE AREA WITH A SMALL FRONT-END LOADER TO REMOVE SLUFF MATERIAL. THE EASTERN PORTION OF THE WALL MAY BE SINGLE SIDE FINISHED BLOCKS IN AREAS THAT WILL NOT BE VISIBLE FROM THE PATH AREAS. THE WESTERN PORTION OF THE WALL SHALL BE DOUBLE SIDE FINISH FREESTANDING BLOCKS WITH A FINISHED END FOR AESTHETICAL PURPOSE.  
  
THE INTENT OF THE NORTH WALL IS TO PREVENT SLUFF FROM THE EXISTING HILLSIDE AT THE EASTERN PORTION OF THE WALL FROM ENTERING THE PATH AREA AND TO PROVIDE A FREESTANDING BARRIER ALONG THE CENTRAL AND WESTERN PORTION OF THE WALL. THE FREESTANDING WALL SHALL BE FINISHED ON BOTH SIDES WITH A FINISHED END.
3. WALL SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
4. WALL TO BE INSTALLED PER SUPPLIER DESIGN, REQUIREMENTS AND DETAILS.

**PRECAST MODULAR BLOCK WALL LEGEND**

- PRECAST MODULAR FREE STANDING WALL
- PRECAST MODULAR BLOCK WALL 'A'
- PRECAST MODULAR BLOCK WALL 'B'



**PRECAST MODULAR BLOCK WALL DETAIL**



PROJECT: 19-06-29  
 FILE No: 190629DT.DWG  
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 SURVEYED: WGM GROUP  
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 APPROVE: JLG  
 DATE: MAY 11, 2021

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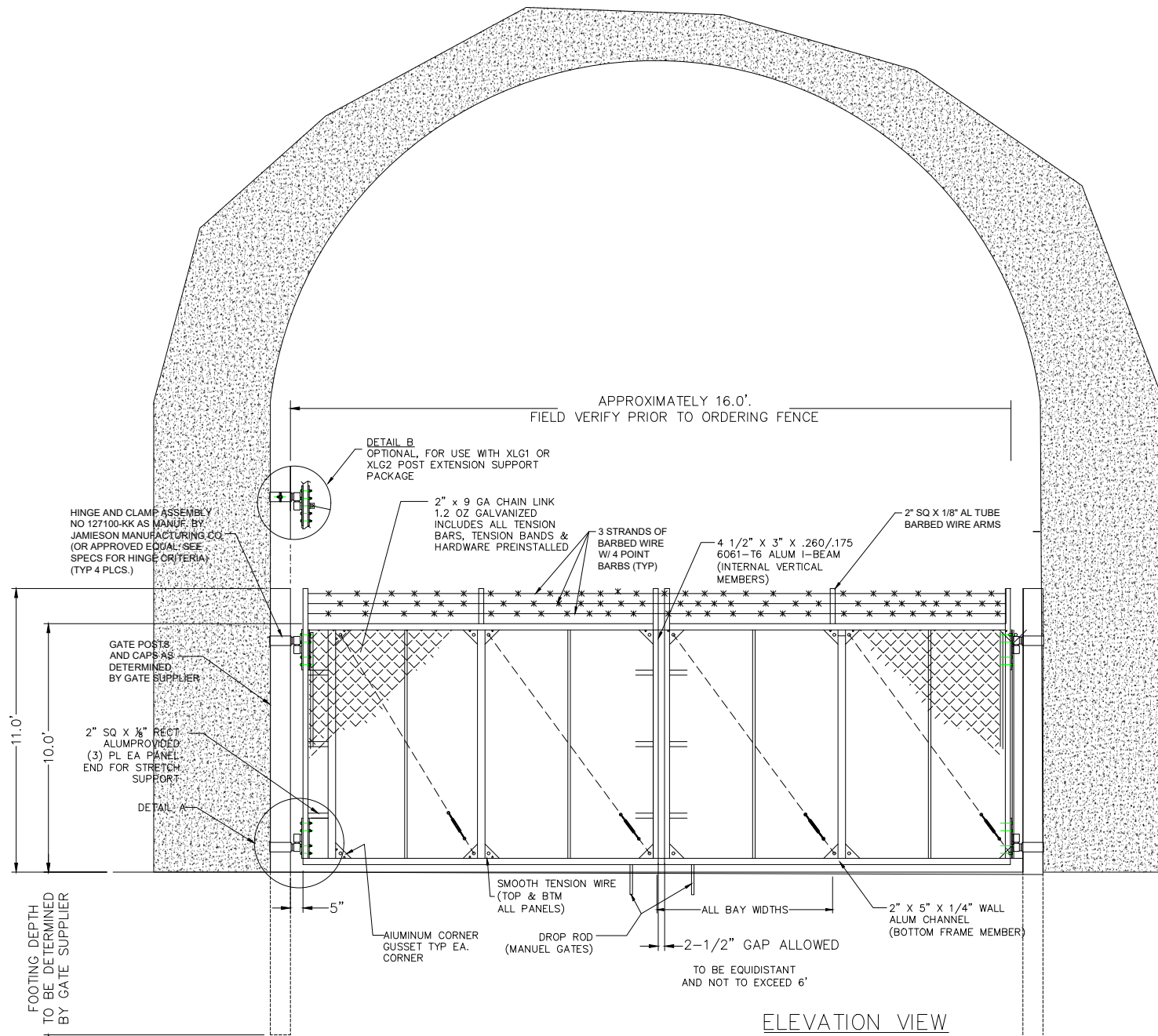


**MONTANA STATE PARKS**

**BANDMANN FLATS TRAILHEAD REGION 2**

**FWP #76507**

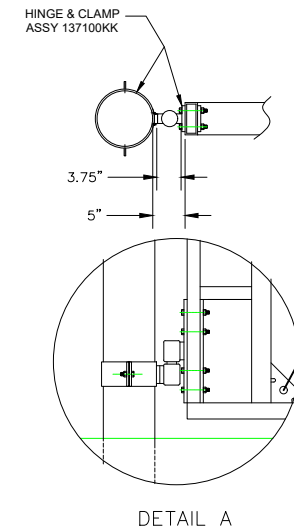
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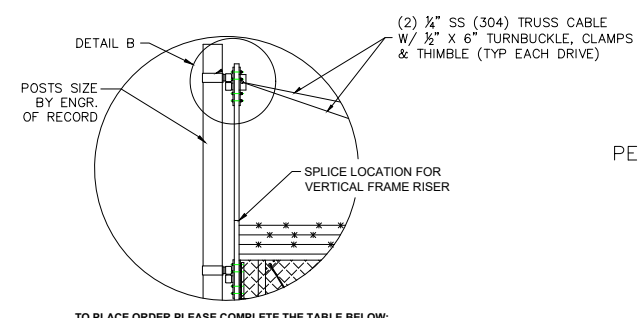
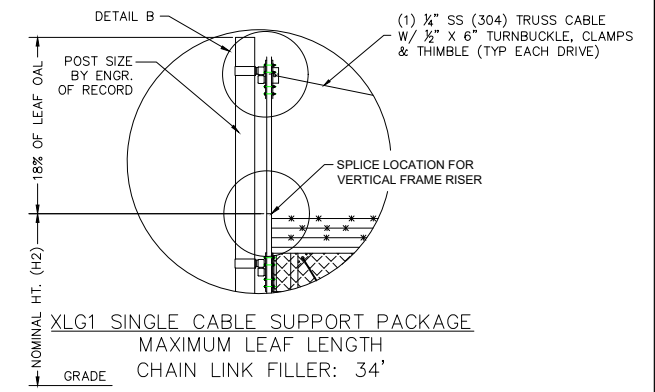
**ELEVATION VIEW**  
 MAXIMUM LEAF LENGTH  
 WITHOUT CABLE SUPPORT  
 CHAIN LINK FILLER: 24'

NOTE: EXTENDED LENGTH AND/OR HEAVY GATE LEAFS MAY REQUIRE JOB-SPECIFIC ENGINEERING CALCULATIONS FOR POST SIZE & SUPPORT (SUCH AS A DEADMAN, ETC).

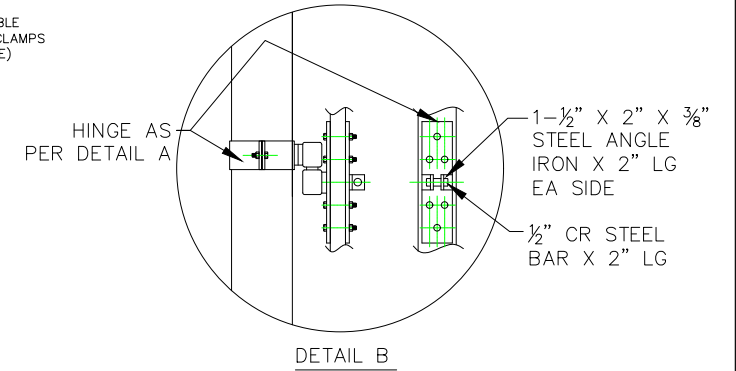
- NOTES:
- FENCE SHALL BE AS MANUFACTURED BY JAMISON FENCE SUPPLY SERIES 8650 LARGE OPENING SWING GATE, OR APPROVED EQUAL.
  - ALL FENCING COMPONENTS TO BE BROWN VINYL COATED.
  - FRAME MATERIAL GRADE AS PER WRITTEN SPECIFICATIONS
  - POSTS AVAILABLE AS OPTION.
  - SPECIFY POST SIZE & TYPE AT TIME OF ORDER FOR APPROPRIATE HARDWARE.
  - SPECIFICATIONS SHOWN CAN BE CHANGED BY THE MANUFACTURER ONLY.
  - ALL MATERIAL SHOWN SHALL BE NEW ALUMINUM UNLESS OTHERWISE NOTED.
  - 2" x 9 GA. GALVANIZED CHAINLINK FABRIC TO COVER THE ENTIRE LENGTH OF GATE.
  - OPTIONAL FILLER MATERIALS AVAILIABLE UPON REQUEST.



**DETAIL A**  
 HINGE & CLAMP ASSEMBLY PART NUMBER 137100-KK AS MANUF BY JAMIESON MANUFACTURING CO. MOUNT WITH 1/2"-13 X 6" SS HEX BOLTS & NYLOK NUTS



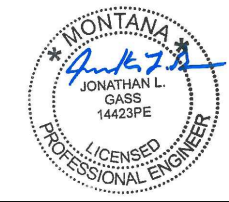
**XLG2 DOUBLE CABLE SUPPORT PACKAGE**  
 MAXIMUM LEAF LENGTH  
 CHAIN LINK FILLER: 60'



**XLG SUPPORT PACKAGE**  
 SUSPENSION CABLE & BRACKET ASSEMBLY  
 AS MANUFACTURED BY JAMIESON MANUFACTURING CO.

CUSTOMER GATE CRITERIA				
NOMINAL HT. (H1)	NOMINAL HT. (H2)	SINGLE SWING (GO)	DOUBLE SWING (GO)	POST SIZE
1	11.0			
DRAWN		J HARVEY	12/16/13	JAMIESON MANUFACTURING CO. 4221 PLATINUM WAY, DALLAS, TX 75237 Ph: (713) 434-7907 / (888) 286-3362 email: gates@jamiesonfence.com www.jamiesonfence.com
CHECKED		JK	12/16/13	
APPROVED				
SHEET		OF 2		
TITLE		SERIES 8650 LARGE OPENING SWING GATES CHAIN LINK FILLER TO 60' MAX GATE		
SIZE		D	SCALE	NO SCALE
REV			NO	REV A

**XLG SUPPORT PACKAGES**



<b>WGM GROUP</b> WWW.WGMGROUP.COM		<b>DETAILS</b> PROJECT: 19-06-29 FILE No: 190629D.DWG FILE PATH W:\PROJECTS\190629\CAD DATA\DESIGN LAYOUT: C6.4 SURVEYED: WGM GROUP DESIGN: SGE DRAFT: SGE APPROVE: JLG DATE: MAY 11, 2021
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1  
 C6.4  
**TUNNEL GATE DETAIL**  
 NO SCALE

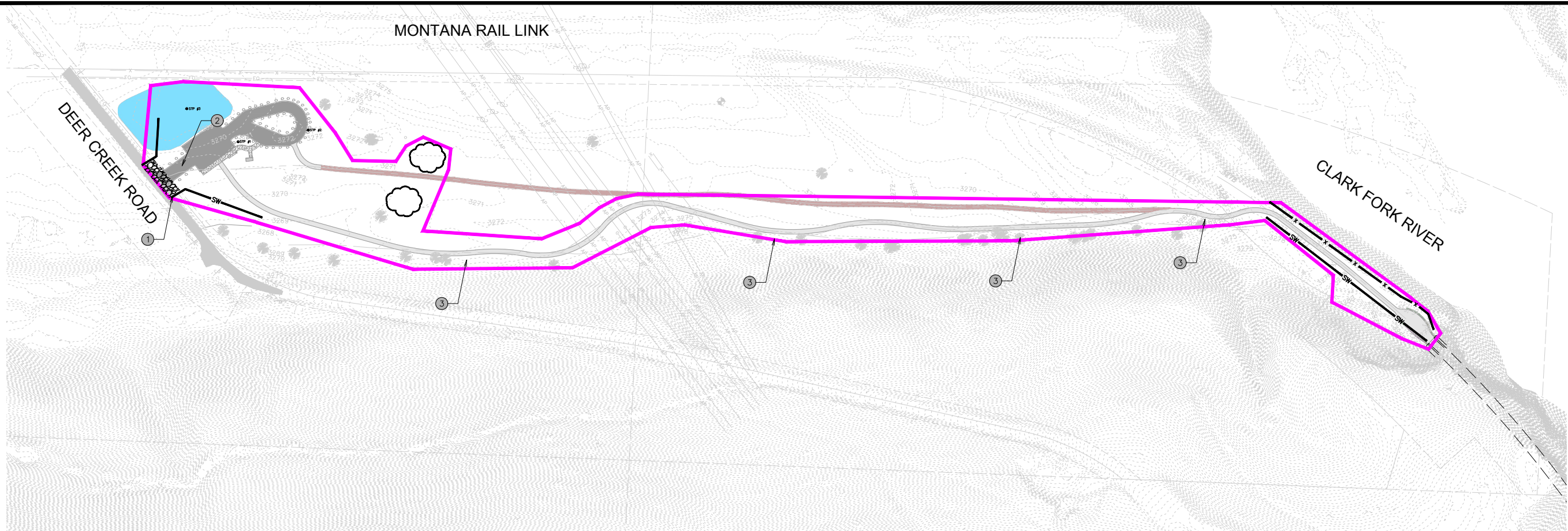
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CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:



**BANDMANN FLATS TRAILHEAD**  
**REGION 2**

**FWP #76507**

**SHEET: C6.4**

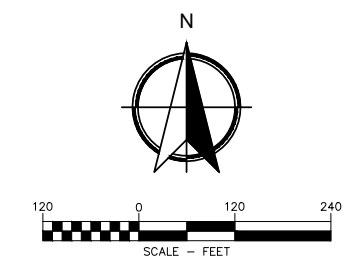


**GENERAL NOTES:**

1. THE ANTICIPATED DISTURBED AREA FOR THIS PROJECT IS GREATER THAN 1 ACRE. THEREFORE THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ALL REQUIREMENTS OF THE 2018 "GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" (GENERAL PERMIT) AUTHORIZED UNDER MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM.
2. THE CONTRACTOR SHALL BE THE SWPPP PERMITEE AND PAY FEES FOR THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO BE IN COMPLIANCE WITH MDEQ. THE CONTRACTOR SHALL REVIEW AND HAVE AN UNDERSTANDING OF THE PLAN'S INTENT FOR PROVIDING EROSION AND SEDIMENT CONTROL.
3. LAND DISTURBING ACTIVITY SHALL NOT COMMENCE UNTIL MDEQ ISSUES THE SWPPP ACKNOWLEDGEMENT.
4. THIS EROSION CONTROL PLAN IS TO BE USED AS A GUIDE. IT IS THE SWPPP ADMINISTRATOR'S DUTY TO MODIFY OR UPDATE THE EROSION CONTROL PLAN TO MATCH THE SWPPP NARRATIVE AND THE ACTUAL BMPs INSTALLED ON-SITE AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) FORM IS SUBMITTED TO MDEQ.
5. EVALUATE SUITABILITY OF GRAVEL CONSTRUCTION ENTRANCE PROTECTION. IF ARRANGEMENT SHOWN ON THIS SHEET IS NOT SUITABLE, AN ALTERNATE METHOD SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. CONTRACTOR TO PREVENT UNTREATED RUNOFF FROM LEAVING THE SITE. ADDITIONAL BMPs MAY BE NECESSARY.
7. CONTRACTOR TO PREVENT POLLUTING THE AIR WITH DUST AND PARTICULATE MATTER. PROVIDE WATER FOR DUST CONTROL AS NECESSARY.
8. THE CONTRACTOR IS TO BE RESPONSIBLE FOR INSTALLING, INSPECTING, MAINTAINING, PRESERVING AND EVALUATING THE PERFORMANCE OF ALL EROSION CONTROL MEASURES.
9. THE CONTRACTOR IS TO BE RESPONSIBLE FOR PERFORMING ALL MONITORING, REPORTING, AND RECORDS RETENTION REQUIREMENTS PER PART 2.3 OF THE GENERAL PERMIT. THIS INCLUDES, BUT MAY NOT BE LIMITED TO ATTACHMENT B- SELF INSPECTION FORM.
10. THE CONTRACTOR MUST HAVE ON-SITE AT ALL TIMES AND IMMEDIATELY AVAILABLE DURING CONSTRUCTION THE FOLLOWING: 1) COPY OF THE 2018 GENERAL PERMIT, 2) A COPY OF THE COMPLETED NOTICE OF INTENT (NOI) FORM, 3) A COPY OF THE NOI RECEIPT CONFIRMATION LETTER FROM THE DEPARTMENT OF ENVIRONMENTAL QUALITY, 4) A LIST OF POTENTIAL POLLUTANT SOURCES AND BMP SELECTION FOR EACH, 5) AN UP TO DATE COPY OF THE SWPPP INCLUDING MAP DOCUMENTING ANY FIELD CHANGES, 6) BMP INSTALLATION AND DESIGN STANDARDS FOR ALL BMPs INSTALLED AND DETAILED IN THE SWPPP, 7) SELF INSPECTION RECORDS, 8) ALL REPORTS OF NON-COMPLIANCE.
11. CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES AND/OR FINES THAT MAY RESULT FROM RUNOFF FROM THIS SITE PRIOR TO FINAL STABILIZATION.
12. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT THE WARRANTY PERIOD, AND UNTIL FINAL STABILIZATION OF THE SITE IS REACHED AS DEFINED IN THE CONSTRUCTION GENERAL PERMIT PART 3.8. THE CONTRACTOR IS THEN RESPONSIBLE FOR REMOVING EROSION CONTROL MEASURES AND SUBMITTING THE NOT TO MDEQ AND PROVIDING A COPY, ALONG WITH THE NOT RECEIPT LETTER FROM MDEQ, TO THE PROJECT ENGINEER AND CITY OF MISSOULA.
13. ALL DISTURBED AREAS SHALL BE SEEDED OR PAVED WITHIN 14 DAYS OF FINAL GRADING. SHOULD CONSTRUCTION OF AN AREA STOP FOR LONGER THAN 14 DAYS, THE AREA SHOULD BE TEMPORARILY SEEDED OR STABILIZED IN ANOTHER ACCEPTABLE MANNER.
14. CONTRACTOR SHALL DESIGNATE THE LOCATION OF ALL DUMPSTERS, FUELING/MAINTENANCE AREAS, AND PORTABLE TOILETS. PORTABLE TOILETS TO BE SECURED TO GROUND TO PREVENT TIPPING/SPILLING.
15. CONSTRUCTION TRASH/LITTER MUST BE THOROUGHLY CLEANED-UP AND PROPERLY DISPOSED OF ON A DAILY BASIS.
16. CONTRACTOR TO PROVIDE PROPER MATERIAL AND EQUIPMENT MANAGEMENT AND STORAGE, AND WASTE LOCATION ONSITE OR PROVIDE OFFSITE DISPOSAL.

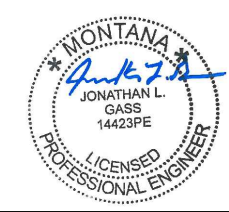
**STORMWATER PLAN GUIDANCE KEY NOTES:**

- ① CONTRACTOR MUST LIMIT SEDIMENT TRACKING ONTO PUBLIC AND PRIVATE STREETS. CONTRACTOR RESPONSIBLE FOR REMOVING ANY SEDIMENT TRACKED ONTO HARD SURFACES DURING CONSTRUCTION. CONTRACTOR TO STREET SWEEP AS NECESSARY.
- ② INSTALL TRACK PADS TO PREVENT SEDIMENT TRACK-OUT PRIOR TO STARTING MAJOR EXCAVATION WORK. IF SHOWN LOCATIONS ARE NOT SUITABLE THIS PLAN MUST BE UPDATED WITH THE NEW LOCATION(S). SEE DETAIL SHEET.
- ③ LIMIT EARTH DISTURBING ACTIVITIES NEAR THE BOUNDARY OF THE SITE TO PRESERVE EXISTING VEGETATION AND PROVIDE VEGETATIVE BUFFER. IF SLOPES STEEPER THAN 3:1 ARE DISTURBED, SURFACE ROUGHEN AND TEMPORARILY SEED.



**EROSION CONTROL LEGEND**

- LIMITS OF CONSTRUCTION
- CONSTRUCTION ENTRANCE
- SILT FENCE
- STRAW WATTLE
- INLET PROTECTION
- SOIL STOCKPILE



<b>PRELIMINARY EROSION CONTROL PLAN</b>	
	PROJECT: 19-06-29 FILE No: 190629EC.DWG FILE PATH: W:\PROJECTS\190629\CAD DATA\DESIGN LAYOUT: C7.0 SURVEYED: WGM GROUP DESIGN: SGE DRAFT: SGE APPROVE: JLG DATE: MAY 11, 2021

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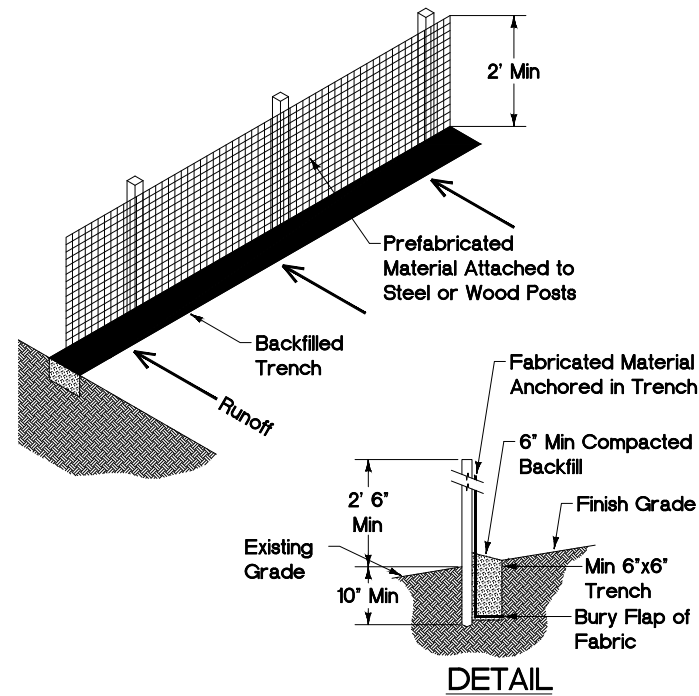


**BANDMANN FLATS TRAILHEAD  
REGION 2**

**FWP #76507**

**SHEET: C7.0**

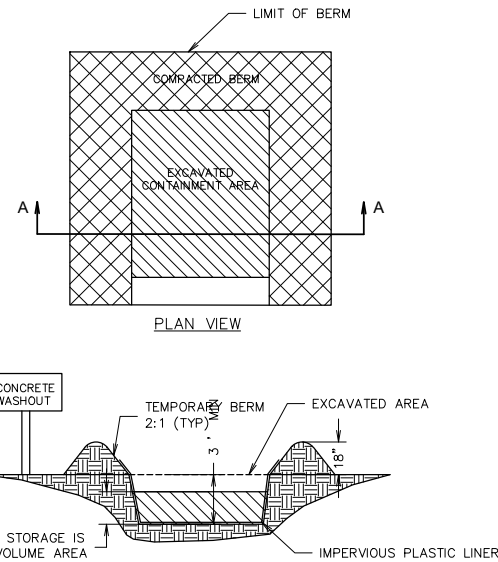
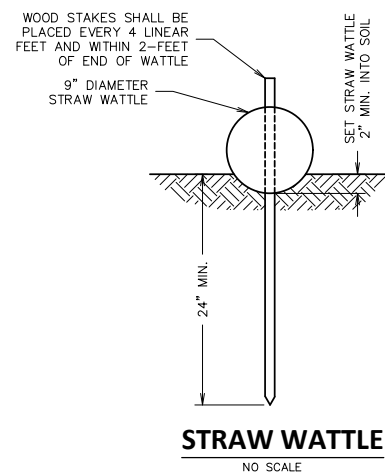




**Notes:**

1. Silt fence shall be installed before any earth removal or excavation takes place.
2. Set posts maximum 8 feet on center and excavate 6"x6" trench upslope along the line of posts.
3. Attach filter fabric to posts and extend it into trench.
4. Backfill and compact excavated soil.

**SILT FENCE INSTALLATION**

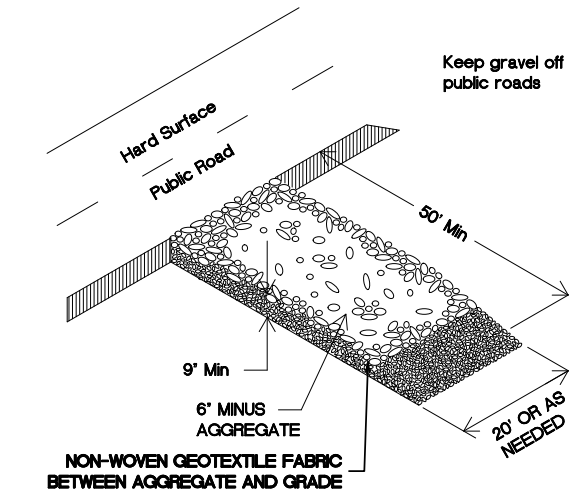


NOTE: LIQUID AND SOLID WASTE FROM CONCRETE OPERATIONS IS A SIGNIFICANT POLLUTANT SOURCE WITH THE HIGH PH AND ARRAY OF CHEMICALS IT CONTAINS. CONCRETE WASHOUTS AND SLURRY CANNOT BE WASTED TO THE GROUND WITHOUT CONTAINMENT. A DESIGNATED, FUNCTIONAL CONCRETE WASHOUT AREA NEEDS TO BE CONSTRUCTED AND MAINTAINED IN A FULLY FUNCTIONAL CONDITION TO APPROPRIATELY MANAGE LIQUID WASTES GENERATED FROM CONCRETE OPERATIONS.

**CONCRETE WASHOUT AREA**  
NO SCALE

**Definition**  
A stone stabilized pad located at points of vehicular ingress and egress on a construction site

**Purpose**  
To reduce the amount of mud transported onto public roads by motor vehicles or runoff



**CONSTRUCTION ENTRANCE**



**PRELIMINARY EROSION CONTROL DETAILS**



PROJECT: 19-06-29  
FILE No: 190629EC.DWG  
FILE\_PATH  
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LAYOUT: C7.1  
SURVEYED: WGM GROUP  
DESIGN: SGE  
DRAFT: SGE  
APPROVE: JLG  
DATE: MAY 11, 2021

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**MONTANA STATE PARKS**

**BANDMANN FLATS TRAILHEAD REGION 2**

**FWP #76507**

**SHEET: C7.1**