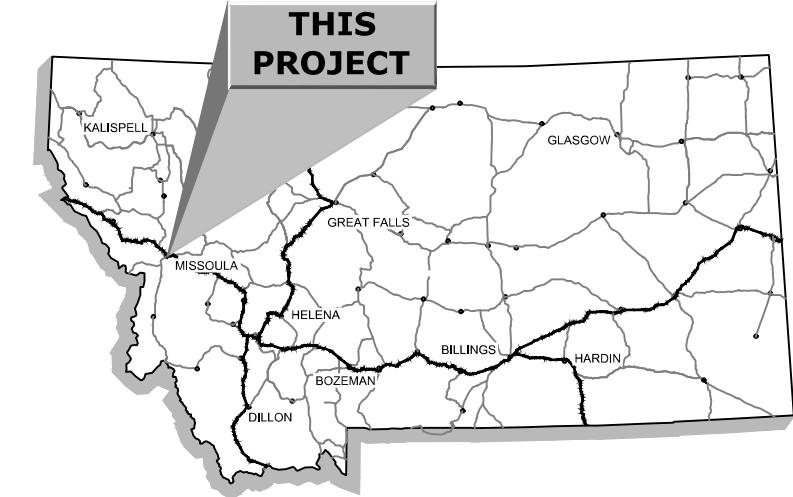




CONSTRUCTION PLANS FOR:
**DUNCAN DRIVE
 TRAILHEAD PROJECT**

DJ&A PROJECT # 7603

CITY OF MISSOULA, MONTANA



LOCATION MAP

INDEX TO SHEETS

NO.	DESCRIPTION
1	COVER
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3	ABBREVIATIONS
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10	GENERAL CIVIL DETAILS
11	DETAILS
12	VEHICLE TRACKING

APPROVED FOR CONSTRUCTION



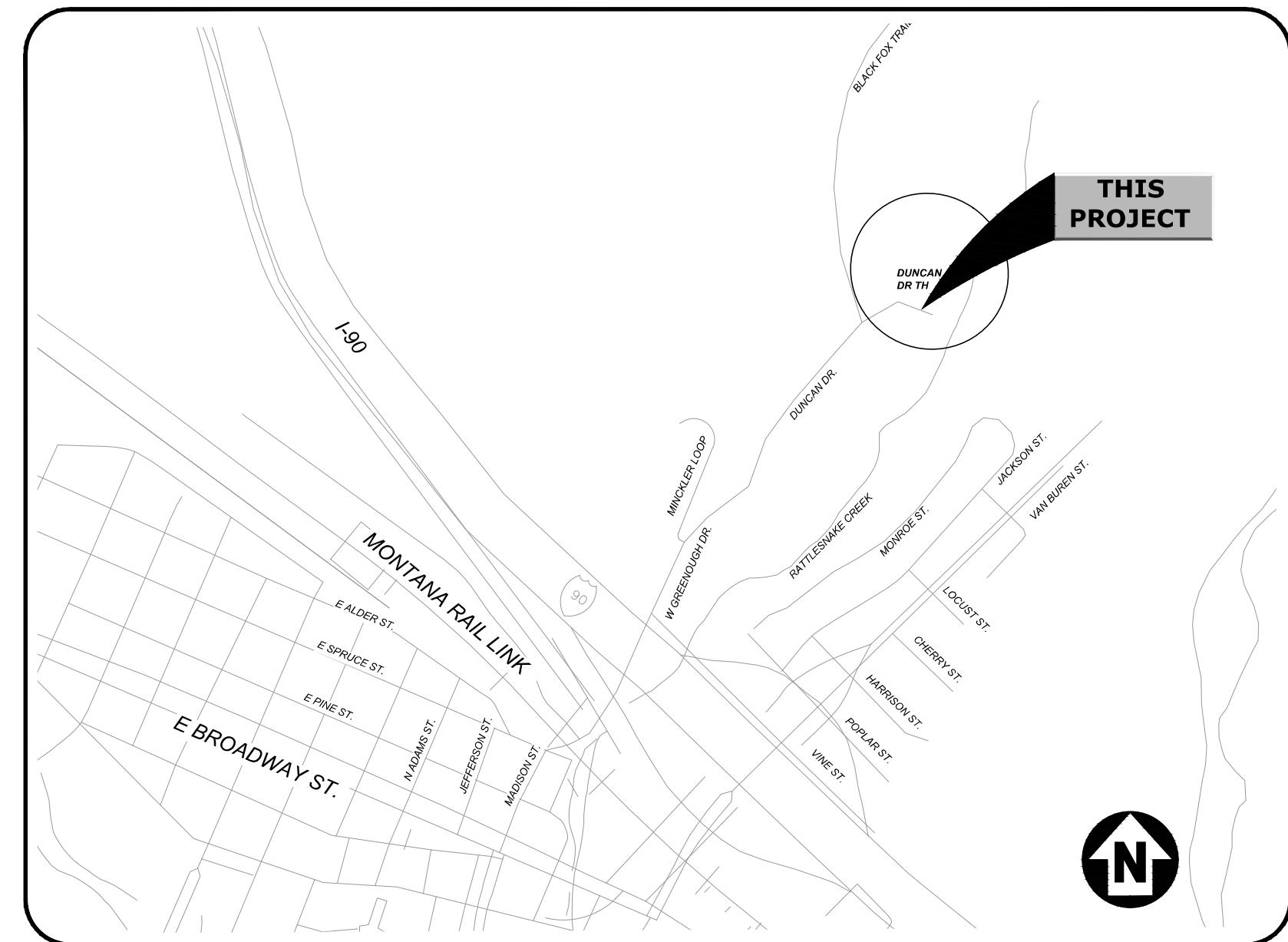
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PROJECT MANAGER
DESIGN ENGINEER

**DJ
&A**

ENGINEERS
PLANNERS
SURVEYORS



Emily Gillespie
07.01.2025



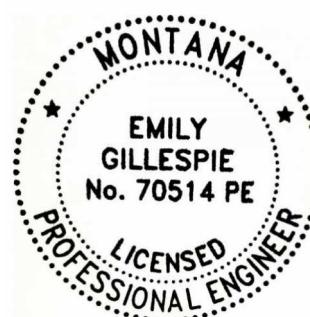
AREA MAP
No Scale

EXISTING - LINE TYPE LEGEND

—	SURVEY PROJECT MAIN PROPERTY LOT LINE
— — — — —	SURVEY ADJACENT LOT PROPERTY LINE
R/W	SURVEY RIGHT OF WAY LINE
— · · · ·	EDGE OF ASPHALT
— — — — —	EDGE OF GRAVEL/ DIRT ROAD
— — — — —	ROAD/SITE/PARKING STRIPING
— · · · ·	ROAD SHOULDER
— — — — —	CULVERT PIPE - 2D MULTI LINE FOR PLANIMETRIC ONLY
— — — — —	GATE
— · · · · — — — — —	OHP — — — — — OHP — — OVERHEAD POWER LINE
— · · · · — — — — —	UGT — — — — — UGT — — UNDERGROUND TELEPHONE LINE
— — — — —	3200 — — — — — MAJOR CONTOUR LINE WITH CONTOUR LABEL
— — — — —	MINOR CONTOUR LINE
— · · · · — — — — —	DRAINAGE DITCH OR SWALE
— * — * — * — * — * — * —	BARB WIRE TYPE SPECIFIC
	ASPHALT HATCH & ASPHALT EDGE
	GRAVEL/DIRT HATCH & GRAVEL/DIRT EDGE

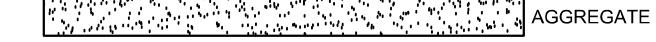
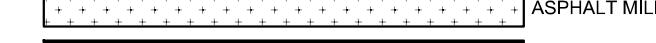
SYMBOLS

	OVERHEAD UTILITY POLE
	TELEPHONE/COMMUNICATIONS PEDESTAL
	ROUND STORM SUMP OR CATCH BASIN - OPEN INFLOW LID
	MISCELLANEOUS MANHOLE
	ADA DESIGNATED PARKING SPOT
	SIGN (SINGLE POST)
	SIGN (MULTIPLE POSTS)
	ROAD SIGN - DELINEATOR
	GUY WIRE (THE GROUND CONNECTION POINT)
	CONIFEROUS TREE (AS NOTED)
	MAILBOX LOCATION
	ROCK RETAINER
	CONCRETE WHEELSTOP
	SURVEY CONTROL POINT
	LANDSCAPE BOULDER
	3 PANEL KIOSK



Emily Gillespie
06.12.2025

PROPOSED - LINE TYPE LEGEND

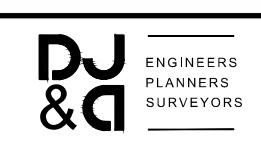
— — — — —	LIMITS OF DISTURBANCE
— — — — —	EDGE OF AGGREGATE
— — — — —	EDGE OF ASPHALT
— · · · ·	FENCE - JACK-LEG FENCE
— — — — —	EDGE OF GRAVEL/ DIRT ROAD
3200 — — — — —	MAJOR CONTOUR LINE WITH CONTOUR LABEL
— — — — —	MINOR CONTOUR LINE
— — — — —	STORMWATER SWALE/DEPRESSION
	AGGREGATE HATCH & AGGREGATE EDGE
	ASPHALT MILLING HATCH & ASPHALT MILLING EDGE
	ASPHALT HATCH & ASPHALT EDGE

GENERAL NOTES

- SPECIFICATIONS:** CONSTRUCT THE PROJECT IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS, THE CITY OF MISSOULA STANDARD DETAILS AND DRAWINGS, AND THE MCPWSS MANUAL. THE PROJECT SPECIFICATIONS ARE DERIVED FROM THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS (MPWSS) AND HAVE BEEN REVISED AND SUPPLEMENTED FOR THIS PROJECT.
- DRAWING COORDINATE SYSTEM:** MONTANA (2500)
DRAWING UNITS: INT. FEET
DRAWING HORIZONTAL/GEOMETRIC DATUM: NAD83
DRAWING VERTICAL DATUM: NAVD 88
GEI0D: 18
HELD CP-1 WITH OPUS POST-PROCESSED POSITION FOR HZ AND VT. BROUGHT TO GROUND AT CP-1. CSF=0.99922989.
- DISPOSAL:** ALL MATERIALS DESIGNATED FOR REMOVAL BECOME THE PROPERTY OF THE CONTRACTOR UPON REMOVAL AND ARE TO BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. PROPER DISPOSAL OF MATERIALS DESIGNATED FOR REMOVAL ARE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT UNLESS OTHERWISE NOTED.
- EXISTING UTILITIES:** UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. NOT ALL UTILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES THAT MAY BE IMPACTED BY THIS PROJECT. REFER TO PROJECT SPECIFICATION SECTION 01041 FOR UTILITY COMPANY CONTACT INFORMATION AND COORDINATION REQUIREMENTS.
- COORDINATION WITH LANDOWNERS:** IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH LANDOWNERS AND BUSINESS OWNERS ADJACENT TO THE PROJECT TO SCHEDULE WORK THAT MAY AFFECT ACCESS TO THEIR PROPERTIES.
- SETTING SIGNS:** SET STREET SIGNS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE CITY OF MISSOULA STANDARD DETAILS, AND COMMUNITY DEVELOPMENT PLANNING AND INNOVATION (CDPI). THE CONTRACTOR SHALL CONTACT CHAD PANCAKE, CITY OF MISSOULA TRAFFIC SERVICES, AT (406) 552-6372, TO COORDINATE SIGN INSTALLATION PROCEDURES AND SIGN LOCATIONS PRIOR TO INSTALLATION OF ALL SIGNS.
- PERMIT COSTS:** CITY OF MISSOULA DEVELOPMENT SERVICES WILL CALCULATE PERMIT COSTS, CONTRACTOR TO VERIFY.
- PLOT IN COLOR:** PLANS ARE MEANT TO BE PLOTTED IN COLOR, LINES MAY BE SHOWN IN RED TO INDICATE DEMOLITION ACTIVITY.
- EVERY ATTEMPT HAS BEEN MADE TO ENSURE THE ACCURACY OF THE DRAWINGS THROUGH FIELD VERIFICATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EXISTING CONDITIONS, SIZES, QUANTITIES, & TO COORDINATE ALL ASPECTS OF THE PROJECT BEFORE CONSTRUCTION, ORDERING, AND INSTALLATION OF ANY COMPONENT. NOTIFY THE CITY IMMEDIATELY FOR WRITTEN CLARIFICATION IF ANY DISCREPANCY EXISTS.**
- DRAWINGS CONTAINED WITHIN THESE DOCUMENTS ARE ABBREVIATED IN NATURE. THE CONTRACTOR IS EXPECTED TO USE QUALITY, ACCEPTABLE, CONSTRUCTION PRACTICES & TECHNIQUES FOR THE EXTENT AND TYPE OF WORK DESCRIBED HEREIN.**
- CONTRACTOR IS TO REFER TO ALL DRAWINGS, SPECIFICATIONS, AND REQUIREMENTS OF CONTRACT INCLUDED FOR DESCRIPTION OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL REQUIREMENTS AMONG THE DRAWINGS, SPECIFICATIONS, REQUIREMENTS OF CONTRACT, THE WORK OF ALL THEIR EMPLOYEES, SUB-CONTRACTORS, SUB-SUB-CONTRACTORS, AND ANY PERSON OR TRADE PARTICIPATING IN ANY ASPECT OF WORK.**
- THE CONTRACTOR SHALL NOT INTRODUCE OR TRANSPORT EXOTIC OR NON-NATIVE PLANTS INTO THE PROJECT AREA.**
- STRIP TOPSOIL AND STOCKPILE FOR REPLACEMENT AS SPECIFIED IN ALL AREAS OF EXCAVATION OR DISTURBANCE. STOCKPILE ANY EXCESS TOPSOIL IN THE LOCATION SHOWN ON THE PLANS.**
- RESTORE ALL SURFACES DISTURBED AS SPECIFIED AND SHOWN ON THE CONSTRUCTION DRAWINGS.**
- ALL MINOR OBSTRUCTIONS MAY NOT BE SHOWN ON THE PROJECT PLANS. THE CONTRACTOR SHALL REVIEW THE SITE PLANS AND DETERMINE THE CONDITIONS WITH REGARD TO THE EXISTENCE OF TREES, BOULDERS, SIDEWALKS, CULVERTS, UTILITIES, AND OTHER SITE IMPROVEMENTS AND MISC. OBSTACLES THAT MAY INTERFERE WITH CONSTRUCTION PRIOR TO SUBMITTING PROPOSALS.**

REVISION	DATE	DESCRIPTION
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DESIGNER	KD	PROJ. NO.	7603
DRAWN	KD	DATE	06.12.2025
CHECKED	FG	SURVEYED	DJA & P.C.



DUNCAN DRIVE TRAILHEAD
MISSOULA, MONTANA

GENERAL NOTES & LEGEND

SHEET	
2	12

ABBREVIATIONS

ALTERNATE	alt.	FRONT FACE OF CURB PAN	FF
AND	&	FLOW LINE	FL
AND SO FORTH (ET CETERA)	etc.	QUANTITIES	quant.
APPROXIMATE	approx.	RADIUS	R
ASPHALT	asph.	RADIUS POINT	RAD PT.
AT	@	RAIL ROAD	R-R
BEGIN VERTICAL CURVE ELEVATION	BVCE	RED PLASTIC CAP	RPC
BEGIN VERTICAL CURVE STATION	BVCS	REQUIRED	reqd.
BENCH MARK	BM	RECYCLED ASPHALT PAVEMENT	RAP
BLUE PLASTIC CAP	BPC	RIGHT	RT
CENTERLINE	CL, C/L	RIGHT-OF-WAY	R/W
CLEAR	clr.	ROAD	rd.
CONTROL POINT	CP	SECOND (ANGULAR)	"
CORRUGATED	corr.	SIDEWALK	s/w
CORRUGATED METAL PIPE	CMP	SOUTH	S
CUBIC YARD	CY	SPECIFICATION	spec.
CUBIC FEET	ft ³ , cf	SQUARE	sq
CULVERT	culv.	SQUARE FOOT	ft ² , ft ² or sf
CURVE DELTA	Δ	SQUARE YARD	SY
DEGREE	°, deg.	STANDARD	std
DIAMETER	dia., D, Ø	STREET	St
DRAWING(S)	drwg(s).	STATION	STA
DRIVE	dr	SUPERELEVATION RATE	e
EACH	each	SYMMETRICAL	sym.
EAST	E	TANGENT	tan.
ELEVATION	elev., el.	TEMPORARY BENCH MARK	TBM
ENGINEER(S)	engr(s).	TOP BACK OF CURB	TBC
END VERTICAL CURVE ELEVATION	EVCE	TYPICAL	typ.
END VERTICAL CURVE STATION	EVCS	VERTICAL CURVE LENGTH	VC
EXCAVATION	exc.	VERTICAL POINT OF INTERSECTION	VPI
EXPANSION JOINT	exp. jt.	WEST	W
FINISHED GRADE	FG		
FOOT (MEASUREMENT)	ft. or '		
FOUND	FND		
GALVANIZED GAGE (GAUGE)	galv. ga.		
HEXAGON	hex.		
INSIDE DIAMETER	ID		
INVERT	Inv.		
INVERT ELEVATION	IE		
LEFT	LT		
LENGTH OF CURVE	L		
LINEAL FOOT	LF		
LIMITS OF DISTURBANCE	LOD		
LOOP	LP		
LUMP SUM	LS		
MILES	m		
MAXIMUM	max.		
MINUTE(S) (ANGULAR)	'		
MINIMUM	min.		
MISCELLANEOUS	misc.		
MONUMENT	mon.		
NORMAL CROWN	nc		
NORTH	N		
NUMBER	no.		
OUTSIDE DIAMETER	OD		
PAVEMENT	pvmnt.		
PERCENT	pct. or %		
PERFORATE	perf.		
POINT OF COMPOUND CURVE	PCC		
POINT OF CURVE	PC		
POINT ON CURVE	POC		
POINT OF INTERSECTION	PI		
POINT OF REVERSE CURVE	PRC		
POINT ON TANGENT	POT		
POINT OF TANGENT	PT		
POINT OF VERTICAL INTERSECTION	PVI		
QUANTITIES	quant.		
SCHEDULE	sch.		
SLOPE DESIGNATION	horizontal:vertical		

REVISION	DATE	DESCRIPTION
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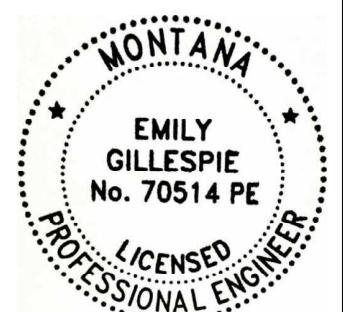
DESIGNER	KD	PROJ. NO.	7603
DRAWN	KD	DATE	06.12.2025
CHECKED	FG	SURVEYED	DJ&A, P.C.



DUNCAN DRIVE TRAILHEAD
MISSOULA, MONTANA

ABBREVIATIONS

SHEET	
OF	12
3	12



Emily Gillespie
06.12.2025

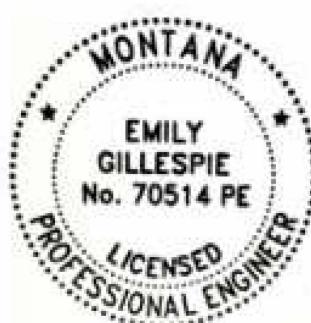
SUMMARY OF ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
M1	MOBILIZATION	LS	1
M2	TEMPORARY CONSTRUCTION FENCING	LS	1
M3	MISCELLANEOUS WORK	LS	1

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
A1	TEMPORARY TRAFFIC CONTROL	LS	1
A2	SOIL EROSION AND POLLUTION CONTROL	LS	1
A3	CLEARING AND GRUBBING	LS	1
A4	REMOVE EXISTING BITUMINOUS PAVEMENT	SY	9
A5	REMOVE EXISTING TREE STUMPS	EA	9
A6	REMOVE EXISTING GATE	EA	1
A7	REMOVE EXISTING FENCING	LF	200
A8	EARTHWORK	LS	1
A9	CRUSHED AGGREGATE COURSE, 3/4" MINUS (PARKING LOT)	CY	170
A10	ASPHALT MILLINGS (PARKING AREA, 5" THICK)	SF	3130
A11	ASPHALT PAVEMENT (ROADWAY, 3" THICK)	SF	6010
A12	TENSAR NX750 GEOGRID	SF	9140
A13	NON-WOVEN GEOTEXTILE	SF	9140
A14	CRUSHED AGGREGATE COURSE, 3/4" MINUS (PLAZA + TRAIL)	CY	17
A15	CONCRETE WHEELSTOP	EA	16
A16	PAVEMENT MARKINGS, ROADWAY/PARKING LOT	LS	1
A17	ONE WAY SIGN SYSTEM	EA	1
A18	ADA PARKING SIGN SYSTEM	EA	1
A19	TOPSOIL PLACEMENT	SY	1150

NOTE: LUMPSUM EARTHWORK TO INCLUDE ANY OVER EXCAVATION AND REMOVAL OF UNSUITABLE SOIL PER THE GEOTECHNICAL REPORT, SEE GRADING PLAN FOR ADDITIONAL INFORMATION.

* COMPACTED IN-PLACE. NOT FULLY ADJUSTED FOR SHRINK/SWELL.



Emily Gillespie
07.01.2025

REVISION	DATE	DESCRIPTION
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DESIGNER	KD	PROJ. NO.	7603
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ENGINEERS
PLANNERS
SURVEYORS

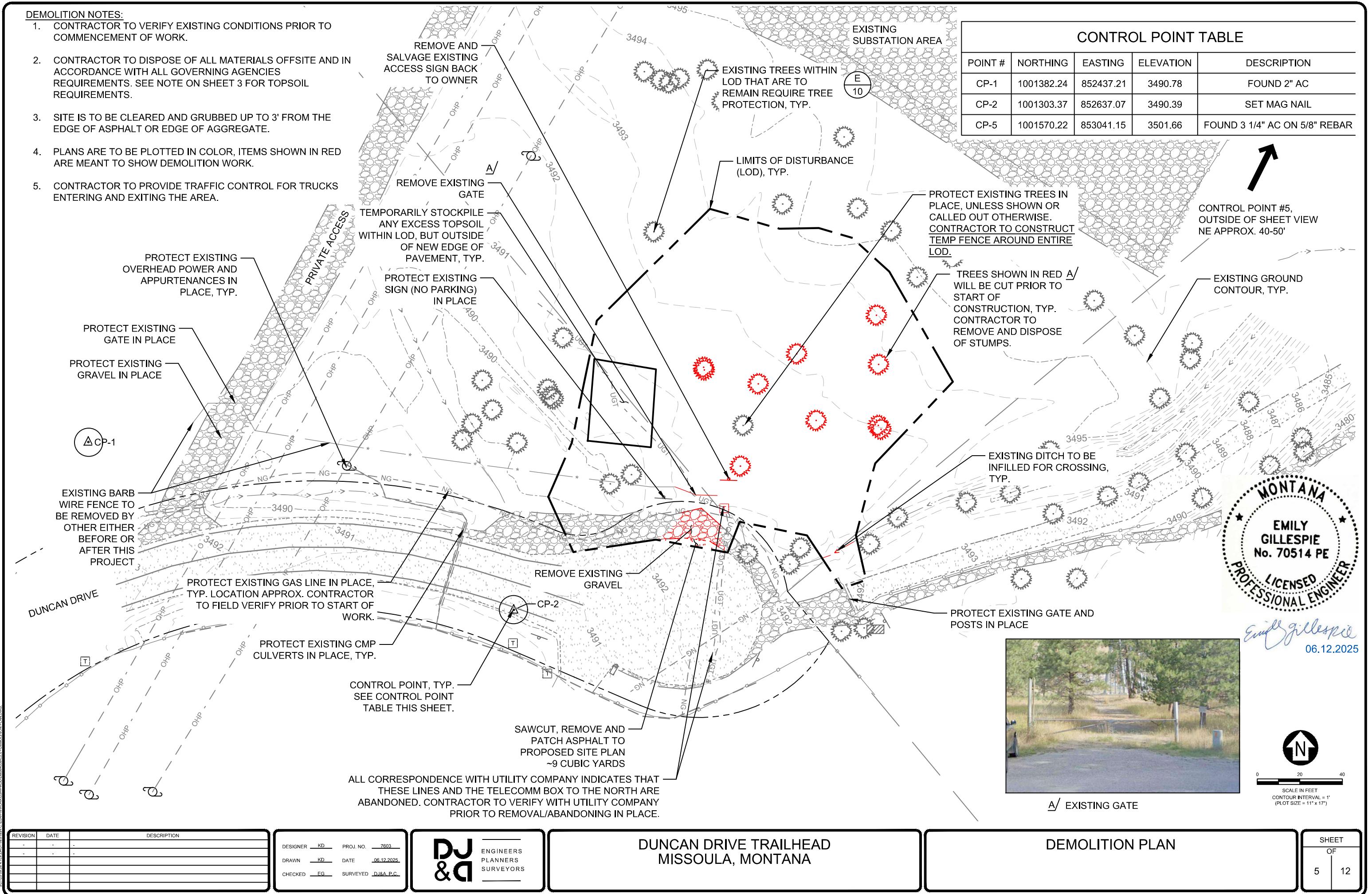
DUNCAN DRIVE TRAILHEAD
MISSOULA, MONTANA

PROJECT QUANTITIES

SHEET OF	
4	12

DEMOLITION NOTES:

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. CONTRACTOR TO DISPOSE OF ALL MATERIALS OFFSITE AND IN ACCORDANCE WITH ALL GOVERNING AGENCIES REQUIREMENTS. SEE NOTE ON SHEET 3 FOR TOPSOIL REQUIREMENTS.
3. SITE IS TO BE CLEARED AND GRUBBED UP TO 3' FROM THE EDGE OF ASPHALT OR EDGE OF AGGREGATE.
4. PLANS ARE TO BE PLOTTED IN COLOR, ITEMS SHOWN IN RED ARE MEANT TO SHOW DEMOLITION WORK.
5. CONTRACTOR TO PROVIDE TRAFFIC CONTROL FOR TRUCKS ENTERING AND EXITING THE AREA.



SITE NOTES:

1. UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES WITHIN THE PROJECT LIMITS.
2. CONTRACTOR TO SAW CUT, TACK AND JOIN BETWEEN EXISTING AND PROPOSED ASPHALT SECTIONS.
3. WORK BY OTHERS IS SHOWN WITHIN THE PROPOSED DISTURBANCE LIMITS. CONTRACTOR WILL NOT BE RESPONSIBLE FOR WORK CALLED OUT TO BE DONE BY OTHERS. WORK BY OTHERS IS GRAYED BACK AND SHOWN FOR CONCEPTUAL UNDERSTANDING ONLY.
4. CONTRACTOR STAGING AND STOCKPILING OF MATERIALS IS APPROVED WITHIN LIMITS OF DISTURBANCE.

EXERCISE CAUTION WHEN OPERATING AROUND POWER POLE, PROTECT IN PLACE.

FUTURE AGGREGATE TRAIL BY OTHERS

PRIVATE ACCESS

EXISTING GROUND CONTOUR, TYP.

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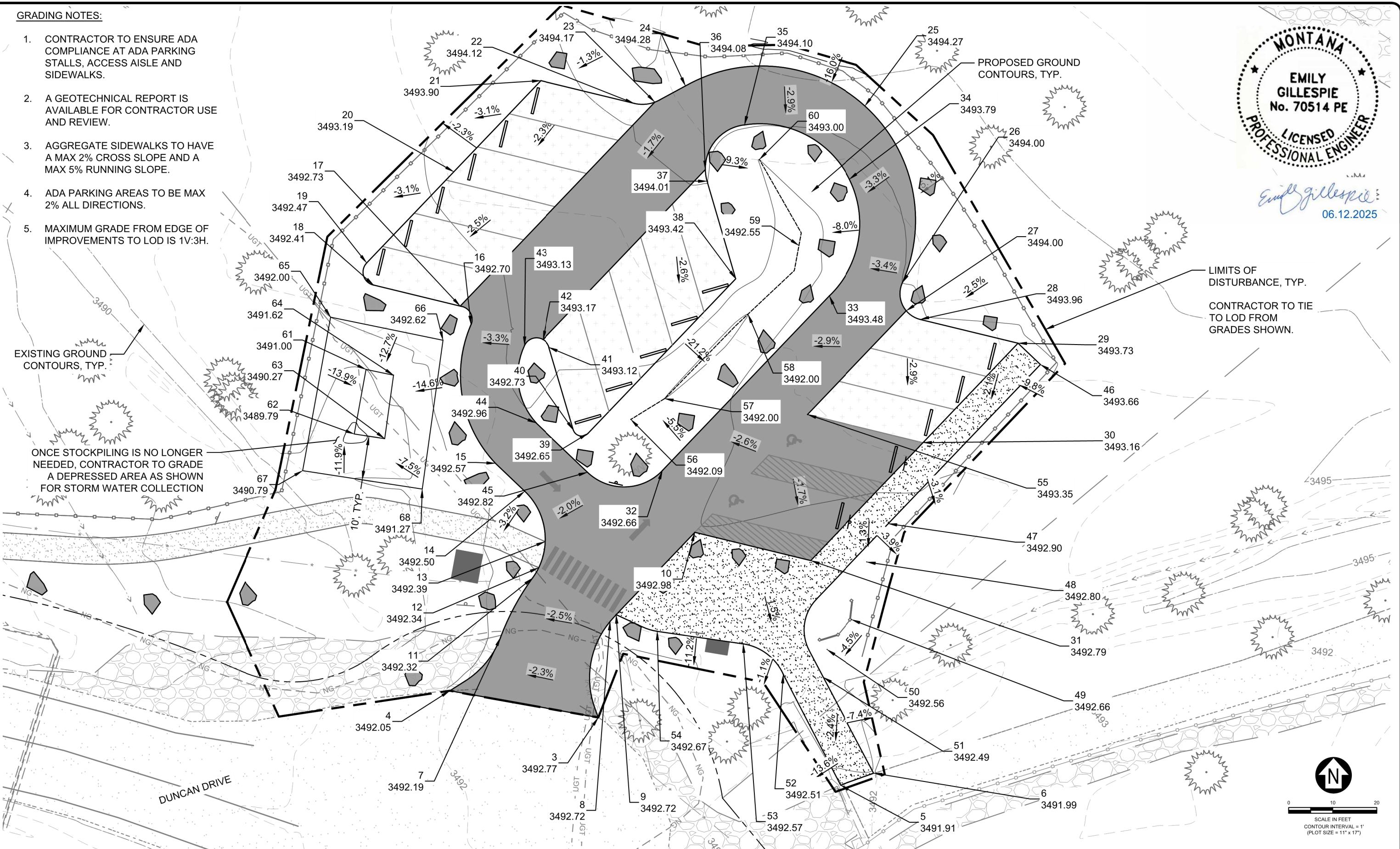
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</div

GRADING NOTES:

1. CONTRACTOR TO ENSURE ADA COMPLIANCE AT ADA PARKING STALLS, ACCESS AISLE AND SIDEWALKS.
2. A GEOTECHNICAL REPORT IS AVAILABLE FOR CONTRACTOR USE AND REVIEW.
3. AGGREGATE SIDEWALKS TO HAVE A MAX 2% CROSS SLOPE AND A MAX 5% RUNNING SLOPE.
4. ADA PARKING AREAS TO BE MAX 2% ALL DIRECTIONS.
5. MAXIMUM GRADE FROM EDGE OF IMPROVEMENTS TO LOD IS 1V:3H.



REVISION	DATE	DESCRIPTION
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-	-	-

DESIGNER KD	PROJ. NO. 7603
DRAWN KD	DATE 06.12.2025
CHECKED EG	SURVEYED DJ&A, P.C.



ENGINEERS
PLANNERS
SURVEYORS

DUNCAN DRIVE TRAILHEAD
MISSOULA, MONTANA

GRADING PLAN

SHEET OF	12
7	12

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
3	1001330.32	852737.56	3492.77	TIE TO EXISTING
4	1001336.39	852703.83	3492.05	TIE TO EXISTING
5	1001314.98	852792.43	3491.91	TIE TO EXISTING
6	1001317.71	852799.98	3491.99	TIE TO EXISTING
7	1001348.48	852715.32	3492.19	EOA
8	1001352.11	852740.24	3492.72	EOA
9	1001353.64	852741.60	3492.72	EOA
10	1001372.29	852759.41	3492.98	EOA
11	1001361.92	852722.55	3492.32	EOA
12	1001364.28	852723.95	3492.34	EOA
13	1001370.20	852725.42	3492.39	EOA
14	1001381.61	852720.79	3492.50	EOA
15	1001387.94	852714.16	3492.57	EOA
16	1001419.39	852708.62	3492.70	EOA
17	1001423.59	852706.19	3492.73	EOA/EOAM
18	1001428.36	852686.58	3492.41	EOAM
19	1001433.37	852685.00	3492.47	EOAM
20	1001454.05	852704.74	3493.19	EOAM
21	1001474.72	852724.47	3493.90	EOAM
22	1001469.56	852745.65	3494.12	EOAM
23	1001469.85	852750.36	3494.17	EOA/EOAM
24	1001473.50	852757.28	3494.28	EOA
25	1001468.96	852798.02	3494.27	EOA
26	1001428.84	852806.48	3494.00	EOA
27	1001422.53	852807.38	3494.00	EOAM

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
28	1001420.57	852810.55	3493.96	EOAM
29	1001415.18	852832.69	3493.73	EOA/EOT
30	1001392.63	852811.16	3493.16	EOA/EOT
31	1001365.90	852785.67	3492.79	EOA
32	1001386.32	852752.06	3492.66	EOA
33	1001425.92	852789.88	3493.48	EOA
34	1001452.34	852794.47	3493.79	EOA
35	1001464.66	852770.66	3494.10	EOA
36	1001454.55	852761.79	3494.08	EOA/EOAM
37	1001451.91	852762.19	3494.01	EOAM
38	1001429.78	852768.67	3493.42	EOAM
39	1001394.75	852735.23	3492.65	EOAM
40	1001395.50	852731.89	3492.73	EOAM
41	1001414.24	852726.34	3493.12	EOAM
42	1001415.99	852724.97	3493.17	EOA/EOAM
43	1001414.67	852720.75	3493.13	EOA
44	1001397.08	852723.41	3492.96	EOA
45	1001385.92	852735.09	3492.82	EOA
46	1001410.35	852837.76	3493.66	EOT
47	1001374.27	852803.31	3492.90	EOT
48	1001365.57	852798.44	3492.80	EOT
49	1001352.52	852794.99	3492.66	EOT
50	1001345.72	852789.36	3492.56	EOT
51	1001339.43	852788.52	3492.49	EOT
52	1001340.09	852779.45	3492.51	EOT

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
53	1001347.01	852770.37	3492.57	EOT
54	1001349.86	852750.90	3492.67	EOT
55	1001399.02	852784.93	3493.35	EOA
56	1001397.90	852744.92	3492.09	FG
57	1001402.62	852752.58	3492.00	FG
58	1001421.73	852771.46	3492.00	FG
59	1001437.31	852782.98	3492.55	FG
60	1001456.83	852774.03	3493.00	FG
61	1001409.23	852684.85	3491.00	FG
62	1001394.60	852682.19	3489.79	FG
63	1001393.54	852689.09	3490.27	FG
64	1001407.94	852691.09	3491.62	FG
65	1001421.09	852676.84	3492.00	FG
66	1001415.84	852702.28	3492.62	FG
67	1001386.28	852670.51	3490.79	FG
68	1001382.11	852697.59	3491.27	FG

POINT TABLE ABBREVIATIONS:

EOA: EDGE OF ASPHALT

EOAM: EDGE OF ASPHALT MILLINGS

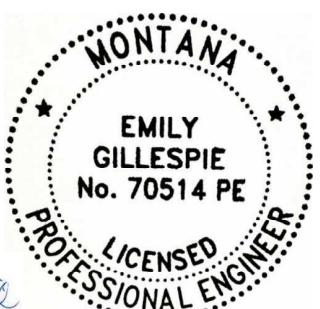
EOT: EDGE OF AGGREGATE TRAIL/PLAZA

FG: FINISHED GRADE

GEOTECHNICAL REPORT INFO:

CONTRACTOR IS TO REVIEW AND FAMILIARIZE THEMSELVES WITH THE GEOTECHNICAL RECOMMENDATIONS FOR THIS PROJECT.

CONTRACTOR TO REMOVE UNSUITABLE TOPSOIL UNDERNEATH THE DRIVE LOOP AND PARKING STALL AREAS AND THEN BACKFILL AS REQUIRED. THIS DEPTH OF UNSUITABLE TOPSOIL VARIES ACROSS THE SITE. ASSUMING AN AVERAGE 12" DEPTH OF REMOVAL RESULTS IN A CUT OF APPROX. 340 CUBIC YARDS. CONTRACTOR SHALL BE PREPARED TO DEAL WITH THIS OVER EX AND BACKFILL OF UNSUITABLE MATERIALS PER THE GEOTECHNICAL REPORT.



Cut/Fill Summary

FOR INFORMATIONAL PURPOSES ONLY, DOES NOT ACCOUNT FOR OVER EX. ONLY COMPARES FINISHED GRADE VS EXISTING GRADE

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
EG VS FG	0.800	1.200	20232.11 Sq. Ft.	49.71 Cu. Yd.	203.67 Cu. Yd.	153.96 Cu. Yd.<Fill>
Totals			20232.11 Sq. Ft.	49.71 Cu. Yd.	203.67 Cu. Yd.	153.96 Cu. Yd.<Fill>

Emily Gillespie
06.12.2025

REVISION	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

DESIGNER <u>KD</u>	PROJ. NO. <u>7603</u>
DRAWN <u>KD</u>	DATE <u>06.12.2025</u>
CHECKED <u>FG</u>	SURVEYED <u>DJ&A, P.C.</u>

ENGINEERS
PLANNERS
SURVEYORS

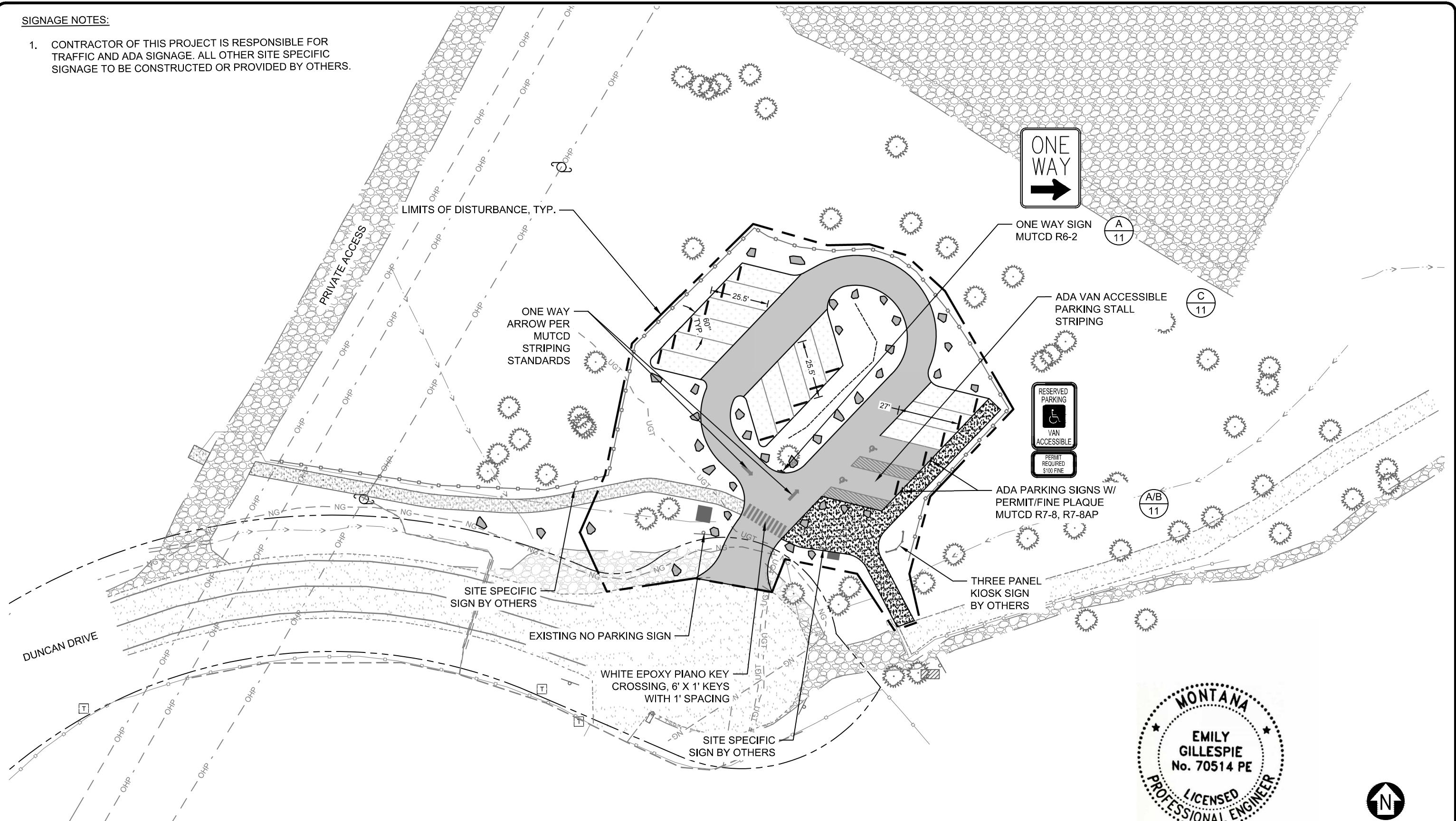
DUNCAN DRIVE TRAILHEAD
MISSOULA, MONTANA

POINT TABLE

SHEET	
OF	12
8	12

SIGNAGE NOTES:

1. CONTRACTOR OF THIS PROJECT IS RESPONSIBLE FOR TRAFFIC AND ADA SIGNAGE. ALL OTHER SITE SPECIFIC SIGNAGE TO BE CONSTRUCTED OR PROVIDED BY OTHERS.



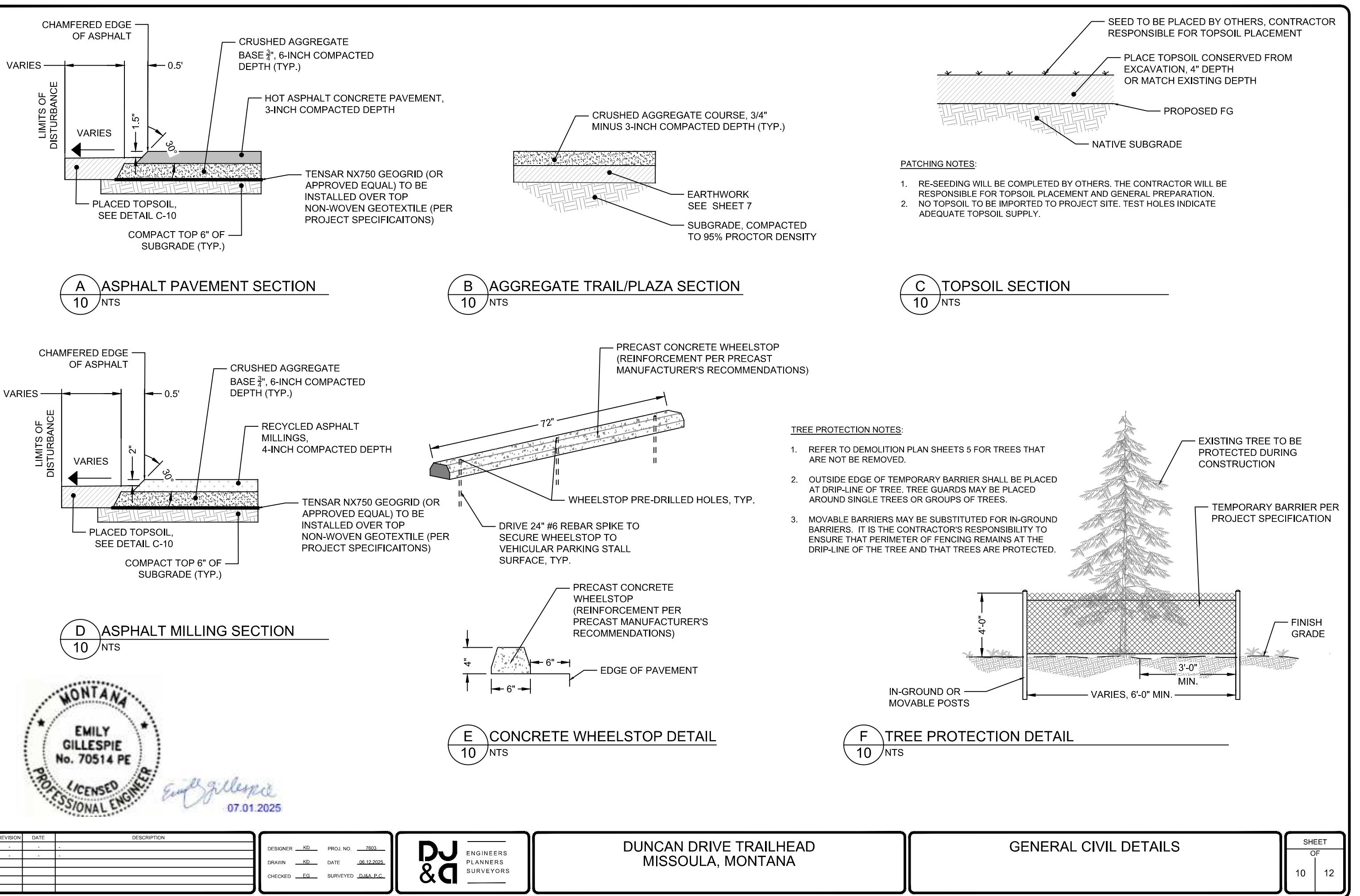
REVISION	DATE	DESCRIPTION
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-	-	-

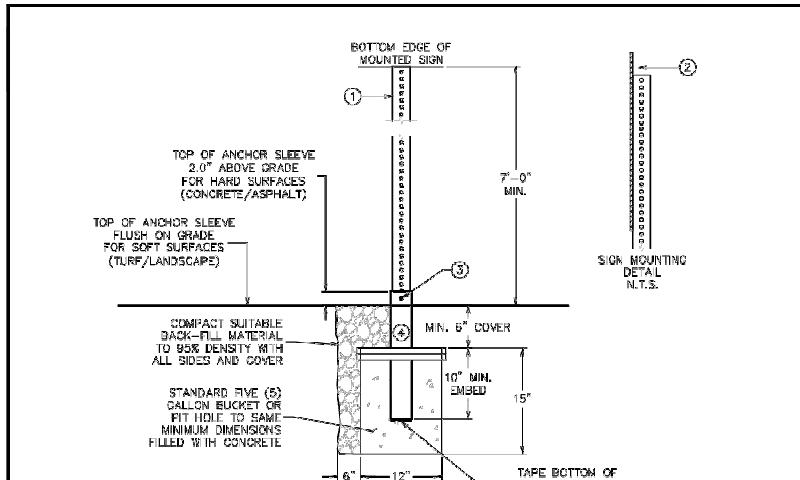


DUNCAN DRIVE TRAILHEAD
MISSOULA, MONTANA

SIGNAGE & STRIPING PLAN

SHEET	
9	12





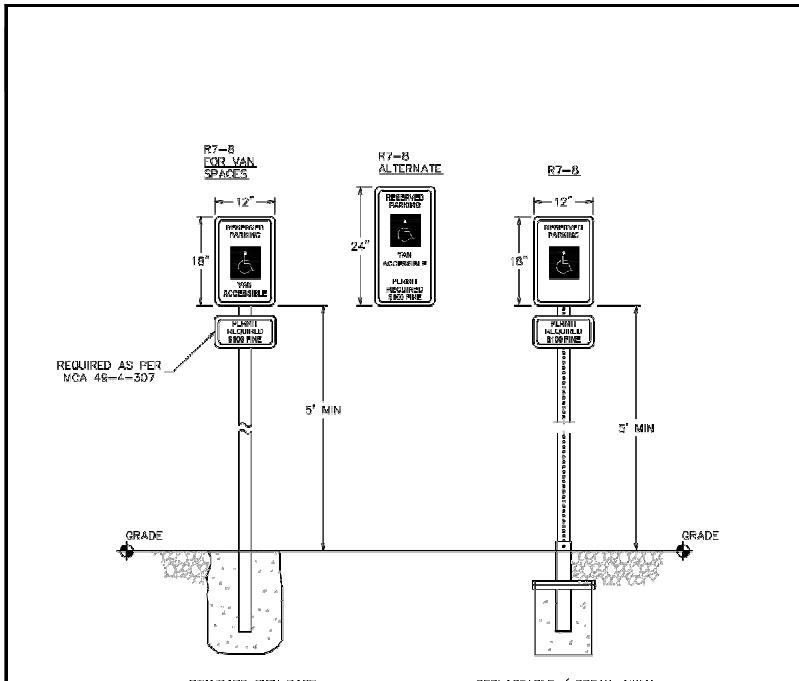
KEYED NOTES:

- ① 2" 12 GAUGE TELESPAR® PERFORATED STEEL SQUARE TUBING SIGN POST, OR CITY ENGINEER APPROVED EQUIVALENT, SHALL BE USED FOR ALL SIGN INSTALLATIONS UPON/WITHIN THE HIGH-CLASS (Y) (UNLESS SIGN AREA (SO - FT) EXCEEDS YIELD ACCORDING TO AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS). TELESPAR® FOR EQUAL MATERIAL SPECIFICATIONS: STEEL CONFORMING TO ASTM A-1011 GRADE 30 AND GALVANIZING CONFORMING TO ASTM A-523.
- ② SET SIGN FLUSH WITH OR ABOVE TOP OF POST. TOP OF SIGN SHALL NOT BE PLACED BELOW TOP OF POST. SIGN SHOULD BE FULLY SUPPORTED BY POST.
- ③ FASTEN SIGN POST TO THROUGH-DRILLED ANCHOR SLEEVE WITH 5/16" X 3" GRADE 2 BOLT WITH FLAT WASHERS AND NYLON-INSERT LOCK NUT. PLACE BOLT 1" BELOW THE TOP OF ANCHOR SLEEVE.
- ④ GALVANIZED 2-1/2" X 2-1/2" X 16" LONG (MIN.) 7 GAUGE NON-PERFORATED STEEL SQUARE TUBING ANCHOR SLEEVE.

GENERAL NOTES:

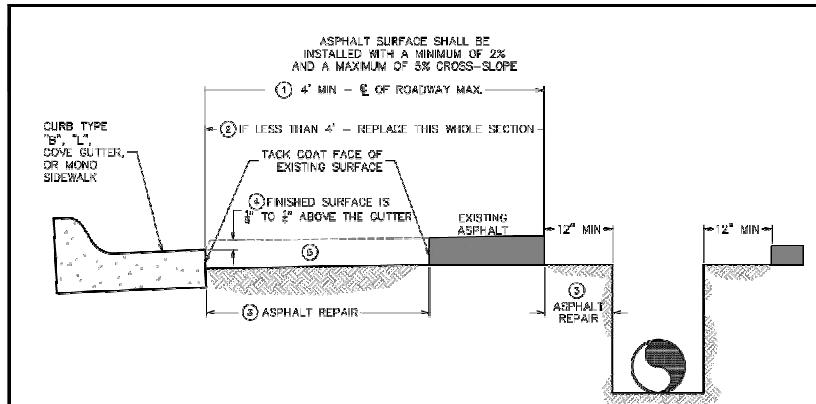
1. ALL SIGNS SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), MOST CURRENT VERSION, REVISION AND / OR SUPPLEMENT, FOR SIGN MATERIAL(S), SIZE, THICKNESS, SHAPE, COLOR(S), MESSAGE, SYMBOLLOGY* AND RETROREFLECTIVITY.
2. ALL SIGNS LOCATED UPON / WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE SLEEVE-MOUNTED FOR BREAKAWAY AND REPLACEABILITY.
3. FINAL SIGN LOCATION AND / OR PLACEMENT SHALL BE IN ACCORDANCE WITH THE MUTCD AND AS DETERMINED AND APPROVED BY THE CITY ENGINEER OR SIGN SHOP SUPERVISOR.
4. 2-1/2" 12 GAUGE SHALL BE USED FOR LARGER SIGN AREA INSTALLATIONS. THE CITY ENGINEER MAY REQUIRE ALTERNATE SIZES, GAUGES, ETC. BASED ON SIGN SURFACE AREA.

 MINNEAPOLIS Engineering Division	Typical Boulevard Sign Base Public Right-of-Way	Approved By City Engineer Kevin J. Slovacek 	Approved: 01/27/1999 Revised: 01/01/2023	STD - 720
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GENERAL NOTE

1. R7-8 SIGNAGE SHALL BE EITHER POST MOUNTED OR WALL MOUNTED IF WALL IS AT THE BACK OF SIDEWALK.
2. R7-8 SIGNAGE SHALL BE LOCATED TWO FOOT, SIX INCH (2'-6") MINIMUM UP TO TWELVE FOOT (12'-0") MAXIMUM FROM CURB FACE, FACE OF MONOLITHIC SIDEWALK, OR ANY OTHER POINT OF CURB.



KEYED NOTES

- ① ASPHALT SHALL BE CUT & REMOVED TO AN EXTENT WHERE THE ASPHALT PATCH IS A MINIMUM OF FOUR (4') FEET FROM THE FACE OF THE GUTTER PAN AND MAY REQUIRE ADDITIONAL WIDTH (UP TO CENTERLINE), AS REQUIRED BY THE CITY ENGINEER. THE 4' MINIMUM ASPHALT REPLACEMENT IS REQUIRED TO ENSURE ADEQUATE COMPACTION IS ACHIEVED.
- ② IF THE ASPHALT CUT LINE FOR A TRENCH PATCH IS LESS THAN FOUR (4') FEET FROM THE FACE OF EXISTING GUTTER PAN, EDGE OF EXISTING ASPHALT, OR A SEAM, REMOVE AND REPLACE THE ENTIRE ASPHALT SECTION BETWEEN THE TRENCH CUT LINE AND EDGE OF THE FACE OF THE GUTTER PAN, ASPHALT, OR SEAM.
- ③ FOR ASPHALT REPAIR SECTION SEE CITY OF MISSOULA MODIFICATIONS TO MOPNS SECTION 02230
- ④ FINISHED ASPHALT SURFACE SHALL BE $\frac{1}{8}$ " TO $\frac{1}{4}$ " ABOVE GUTTER LIP
- ⑤ ASPHALT SURFACE: FOR THICKNESS SEE TABLE 7-2 IN MOPNS

GENERAL NOTES

1. ASPHALT SURFACE SHALL BE SQUARE CUT (PARALLEL AND/OR PERPENDICULAR TO CURB OR EDGE OF ASPHALT).
2. ALL ASPHALT PATCH JOINTS SHALL BE SEALED IN ACCORDANCE WITH CITY OF MISSOULA STANDARD MODIFICATIONS TO MPWSS SECTION 202310.
3. FOR SHORT SPANS OF CURB REPLACEMENT, EXISTING ASPHALT EDGE MAY BE USED AS A FRONT FORM IF EXISTING ASPHALT IS SOUND AND SQUARE FACED, AND ONLY UPON PRIOR APPROVAL BY THE CITY ENGINEER.

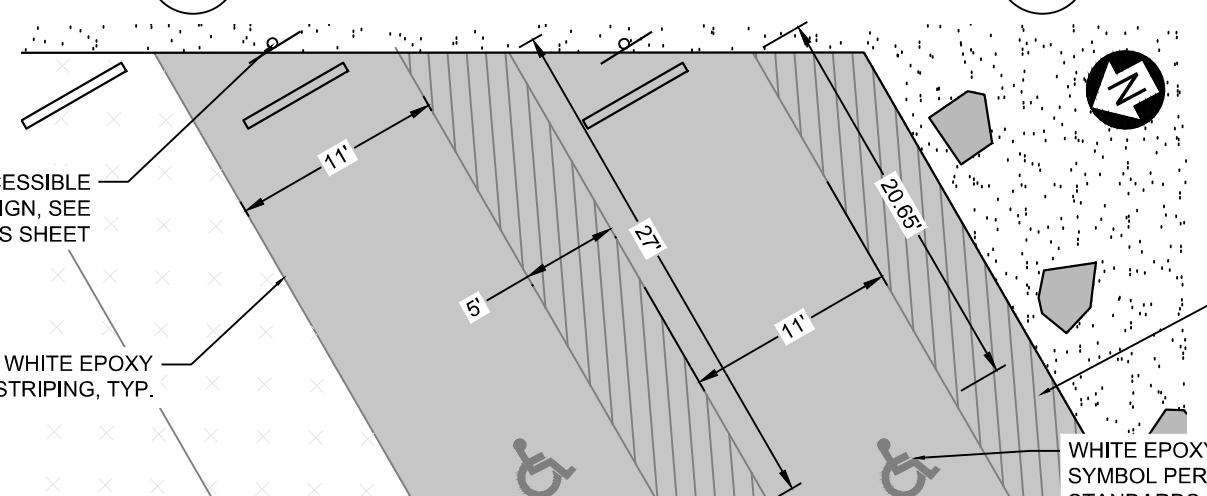
	Asphalt Cutting, Removal and Replacement		
Engineering Division		Approved By City Engineer Kevin J. Slolyard	Adopted: 02/06/1986 Revised: 01/01/2024

A SIGN FOUNDATION DETAIL

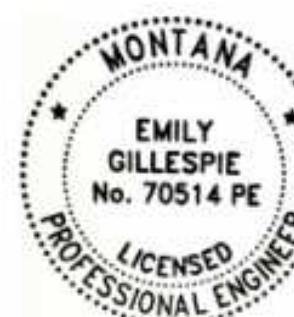
11 NT

B ADA SIGNAGE DETAIL

11



C ADA PARKING STALL DETAILS
11 NTS



DESIGNER KD PROJ. NO. 7603
DRAWN KD DATE 06.12.2025
CHECKED EG SURVEYED DJ&A, P.C.



ENGINEERS
PLANNERS
SURVEYORS

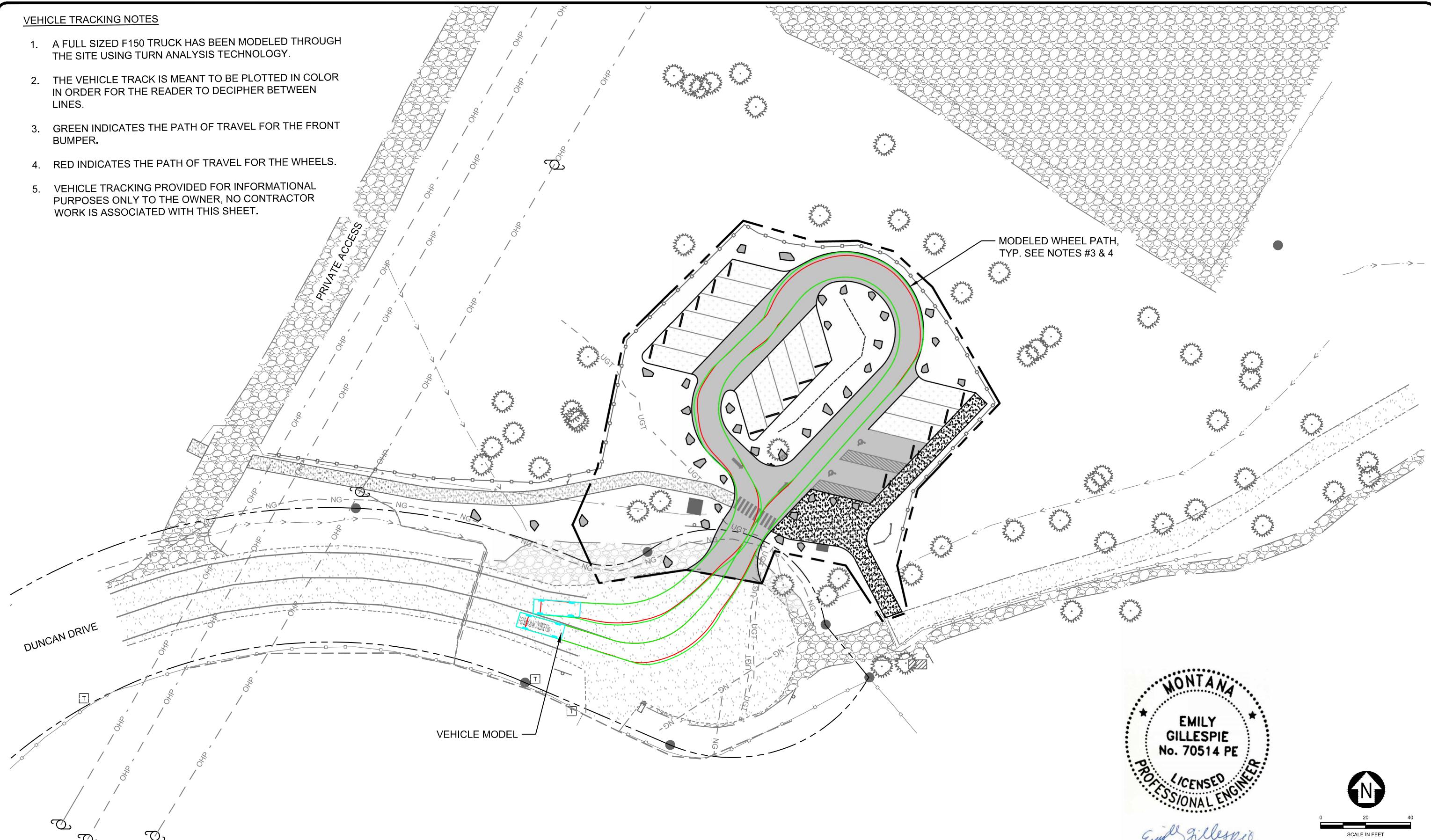
DUNCAN DRIVE TRAILHEAD MISSOULA, MONTANA

DETAILS

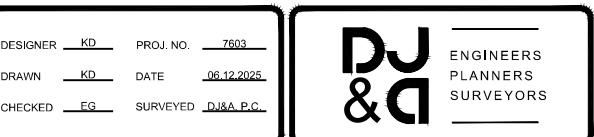
SHEET
OF
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VEHICLE TRACKING NOTES

1. A FULL SIZED F150 TRUCK HAS BEEN MODELED THROUGH THE SITE USING TURN ANALYSIS TECHNOLOGY.
2. THE VEHICLE TRACK IS MEANT TO BE PLOTTED IN COLOR IN ORDER FOR THE READER TO DECIPIER BETWEEN LINES.
3. GREEN INDICATES THE PATH OF TRAVEL FOR THE FRONT BUMPER.
4. RED INDICATES THE PATH OF TRAVEL FOR THE WHEELS.
5. VEHICLE TRACKING PROVIDED FOR INFORMATIONAL PURPOSES ONLY TO THE OWNER, NO CONTRACTOR WORK IS ASSOCIATED WITH THIS SHEET.



REVISION	DATE	DESCRIPTION
-	-	-
-	-	-



DUNCAN DRIVE TRAILHEAD
MISSOULA, MONTANA

NO CONTRACTOR WORK REQUIRED THIS SHEET
VEHICLE TRACKING

SHEET	
12	12