GRAND FALLS TRAIL - TREE CLEARING PROJECT

(RIVERSIDE DR.)

SECTIONS 27, 28, TOWNSHIP 27N, RANGE 33W

CITY OF JOPLIN, MISSOURI

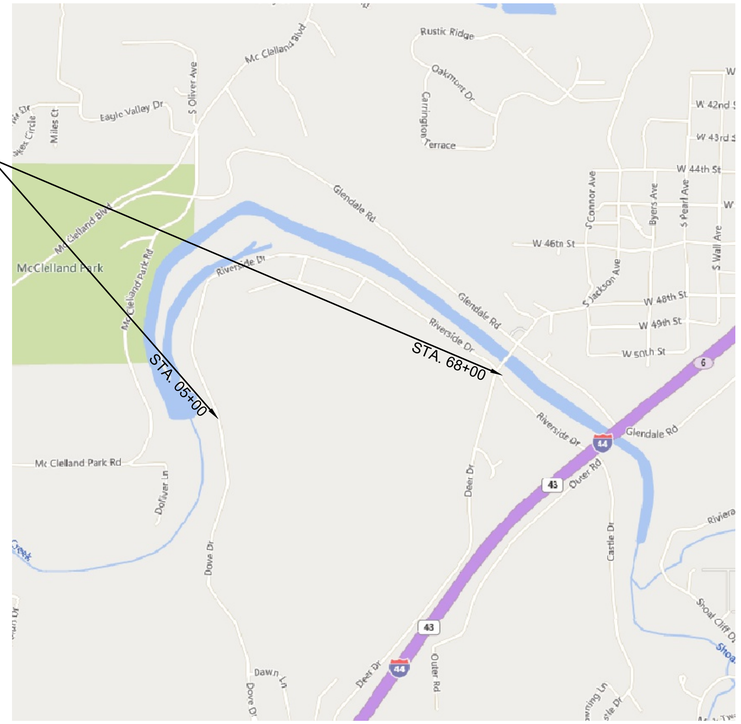
NEWTON COUNTY, MISSOURI

LEGEND

CTL	SURVEY CONTROL POINT		TRAFFIC SIGNAL BOX
	SURVEY BENCHMARK		TRAFFIC SIGNAL MANHOLE
TBM	SURVEY TEMPORARY BENCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER		TRAFFIC SIGNAL POLE
GAR	GAS RISER		TRAFFIC SIGNAL CONTROL BOX
	GAS MANHOLE	TP	TRAFFIC SIGNAL PEDESTAL
GR	GAS REGULATOR		ELECTRIC MANHOLE
	GAS MARKER	EM	ELECTRIC METER
TVP	TELEVISION PEDESTAL	ER	ELECTRIC RISER
	FIBER BOX	E	ELECTRIC BOX
	FIBER PEDESTAL		ELECTRIC CABINET
C	CABLE BOX	J	ELECTRIC JUNCTION BOX
CV	CABLE VAULT	SPH	SPRINKLER HEAD
	TELEPHONE PEDESTAL	SCV	SPRINKLER CONTROL VALVE
	STORM MANHOLE		WATER METER PIT
	STORM GRATE		FIRE HYDRANT
	SANITARY MANHOLE	WM	WATER METER
	YARD LIGHT	WV	WATER VALVE
LTP	LIGHT POLE	FP	FLAG POLE
	POWER POLE		SIGN
LPPP	POWER POLE W/ LIGHT		BOLLARD
	GUY WIRE		WOOD POST
	STUMP		STEEL POST
	BUSH	COL	COLUMN
	EVERGREEN TREE		BORE HOLE
	DECIDUOUS TREE		MAILBOX

- SECTION LINE
- PROPERTY LINE
- CENTER LINE
- PROPOSED ROW LINE
- EXISTING ROW LINE
- UTILITY EASEMENT
- 1371 EXISTING MINOR CONTOUR
- 1371 EXISTING MAJOR CONTOUR
- 1371 PROPOSED MINOR CONTOUR
- 1371 PROPOSED MAJOR CONTOUR
- TEL EXISTING TELEPHONE LINE
- SS EXISTING SANITARY LINE
- EXISTING STORM LINE
- GAS EXISTING GAS LINE
- W EXISTING WATER LINE
- EXISTING CHAIN LINK FENCE
- P-OH EXISTING OVERHEAD ELECTRIC
- FO EXISTING FIBER OPTIC CABLE
- P EXISTING PIPE LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED CHAIN LINK FENCE
- PROPOSED WOOD PRIVACY FENCE
- EXISTING TREELINE
- CONSTRUCTION LIMITS
- UNDERDRAIN

PROJECT LOCATION



LOCATION MAP

NOT TO SCALE

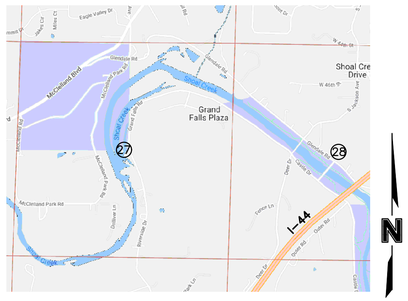
ABBREVIATION TABLE

M.G.	MATCH GRADE
TP	TOP OF PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
CONST.	CONSTRUCT
TBM	TEMPORARY BENCHMARK
C.P.	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
B-B	BACK OF CURB TO BACK OF CURB DIMENSION
℄	CENTERLINE
℄	BASE LINE

DATUM

HORIZONTAL DATUM:
NAD 83
MISSOURI STATE PLANE
WEST ZONE, US FOOT

VERTICAL DATUM:
NAVD 88



SECTION 27, T-27-N, R-33-W
SECTION 28, T-27-N, R-33-W
NEWTON COUNTY, MISSOURI

VICINITY MAP

NOT TO SCALE

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!

INDEX OF SHEETS

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2	GENERAL NOTES
4–7	ALIGNMENT AND SURVEY CONTROL
8–9	TREE REMOVAL PLANS

UTILITIES INFORMATION

ELECTRIC – LIBERTY UTILITIES
ATTN: SHAWN STEPHENS
3400 S. KODIAK ROAD
JOPLIN, MO 64804
(417) 625-4228

NATURAL GAS – SPIRE
ATTN: BAYLEE GODAT
3025 SE CLOVER DR
LEE'S SUMMIT, MO 64082
(816) 334-8075

NATURAL GAS – SOUTHERN STAR
ATTN: MIKE DEGRAEVE
8195 COLE PARKWAY
SHAWNEE, KS 66227
(816) 810-4500

WATER – MISSOURI-AMERICAN WATER CO.
ATTN: DREW DANIELS
2323 DAVIS BLVD.
JOPLIN, MO 64804
(417) 417-0215

TELEPHONE – AT&T
ATTN: JON FISK
321 W. 8TH STREET
JOPLIN, MO 64801
(417) 5295-0840

CABLE TELEVISION – SPARKLIGHT
ATTN: KERI BLEDSOE
2600 DAVIS BLVD.
JOPLIN, MO 64804
(417) 768-9183

FIBER OPTIC – LIBERTY CONNECT
ATTN: LANDON DOBBS
720 SCHIFFERDECKER AVE
JOPLIN, MO 64801
(417) 625-5179

PREPARED & SUBMITTED BY:

OLSSON
1027 S. MAIN STREET
JOPLIN, MISSOURI 64801

MICHAEL MAYFARTH P.E. DATE

I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION.

APPROVED BY:

CITY OF JOPLIN, MISSOURI

CITY ENGINEER DATE

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STATE OF MISSOURI
MICHAEL J. MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
01/14/2026

REVISIONS

REV. NO.	DESCRIPTION	DATE

TITLE SHEET

GRAND FALLS TRAIL PROJECT
TREE CLEARING PLANS

2026

JOPLIN, MO

drawn by: MJM
designed by: MJM
project no.: 022-04049
date: 1/14/2026

SHEET 1 of 9

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GENERAL NOTES:

1. ALL WORK PRESENTED, IMPLIED, AND/OR COMPLETED AS A PART OF THIS PLAN SET SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS OF THE CITY OF JOPLIN UNLESS SPECIFICALLY STATED OTHERWISE. ALL ITEMS AND WORK REFERENCING MODOT STANDARD DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS (APPROVED BY CITY OF JOPLIN) AND ONE (1) COPY OF ALL APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS ON THE SITE AT ALL TIMES.
2. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS AND PAY ALL FEES AS REQUIRED BY THE CONSTRUCTION COVERED IN THESE PLANS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
4. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST VERSION) THROUGHOUT THE PROJECT IN HIGHWAYS, SIDEWALKS, STREETS AND INTERSECTIONS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
6. ALL ELEVATIONS ARE TO NORTH AMERICAN VERTICAL DATUM (N.A.V.D. 1988).
7. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DO A FINAL WALK–THROUGH OF THE CONSTRUCTION SITE.
8. THE CONTRACTOR SHALL SUBMIT WRITTEN REQUEST TO THE ENGINEER FOR APPROVAL OF ALL AREAS TO BE USED FOR STAGING, MOBILIZATION, EQUIPMENT AND MATERIAL STORAGE AND GENERAL PROJECT CONSTRUCTION MANAGEMENT. REQUEST SHALL BE SUBMITTED TO THE ENGINEER WITHIN 5 DAYS OF THE NOTICE TO PROCEED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING GENERAL SAFETY AT AND ADJACENT TO THE PROJECT AREA, INCLUDING THE PERSONAL SAFETY OF THE CONSTRUCTION CREW AND THE GENERAL PUBLIC AND THE SAFETY OF PUBLIC AND PRIVATE PROPERTY. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
10. NO EQUIPMENT OR MATERIAL SHALL BE DEPOSITED ON PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES RESULTING FROM SUCH ACTS AND SHALL REMOVE THE MATERIAL AND RESTORE THE PROPERTY AT THE EXPENSE OF THE CONTRACTOR.
11. CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 7:00 PM UNLESS APPROVED OR DIRECTED BY THE ENGINEER.
12. THE CITY OF JOPLIN SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL DEMOLITION AND REMOVAL ITEMS SUCH AS SIGNAGE, POLES, SIGNAL EQUIPMENT, ETC. THE CONTRACTOR SHALL COORDINATE WITH PUBLIC WORKS FOR A TIME AND LOCATION TO DELIVER THOSE ITEMS TO THE CITY. CONSTRUCTION DEBRIS SUCH AS BROKEN CONCRETE, EXCESS FILL, ETC. SHALL BECOME THE PROPERTY OF THE CONTRACTOR. MATERIAL SHALL BE COMPLETELY REMOVED FROM THE SITE PRIOR TO ACCEPTANCE OF THE PROJECT. ALL MATERIAL SHALL BE DISPOSED OF IN A MANNER THAT IS IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
13. ALL ITEMS REMOVED SHALL BE DISPOSED OFF SITE BY THE CONTRACTOR AS PER CITY OF JOPLIN REQUIREMENTS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL STORM AND SANITARY MANHOLE RIMS TO MATCH THE PROPOSED FINISHED GRADE. THIS ITEM SHALL BE PAID FOR AS EXISTING MANHOLE RIM ADJUSTMENTS (SANITARY & STORM) EACH.
15. MISSOURI AMERICAN WATER SHALL BE RESPONSIBLE FOR ADJUSTING ALL WATER METERS, VALVE BOXES, HYDRANTS, ETC. TO MATCH PROPOSED FINISHED GRADE. THE CONTRACTOR SHALL CONTACT MISSOURI AMERICAN WATER TO COORDINATE THE ADJUSTMENT OF EXISTING WATER FACILITIES.
16. UNLESS SPECIFICALLY STATED OTHERWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL EXISTING METERS, VALVES, VALVE BOXES, BUILDING DRAIN LINES, ETC. TO MATCH FINISHED GRADE. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
17. RIGHT–OF–WAY AND EASEMENTS SHOWN ARE APPROXIMATE, AND DO NOT DEPICT A LEGAL SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXACT LOCATION OF RIGHT–OF–WAY, PROPERTY LINES, AND EASEMENTS AND CONTAINING ACTIVITIES WITHIN THOSE LIMITS.
18. THE CONTRACTOR SHALL PROTECT EXISTING RIGHT–OF–WAY AND SURVEY MONUMENTS. ANY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESET AT THE CONTRACTOR'S EXPENSE BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI.
19. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A SCHEDULE OF OPERATIONS AT THE BEGINNING OF EACH WEEK. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
20. ANY ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES INCLUDING EARTHWORK. THE CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS AS SHOWN ON PLANS.
21. THE PROPOSED CONTOURS REPRESENT TOP OF FINISHED GRADE. QUANTITIES DO NOT TAKE INTO ACCOUNT CORE–OUT OR ANY OVER–EXCAVATION.
22. THE CONTOUR LINES & SPOT ELEVATIONS SHOWN ARE TO FINISH GRADE FOR SURFACE OF PAVEMENT, TOP OF SIDEWALKS AND CURBS, TOP OF FLOOR SLABS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT FOR GRADING LINE ELEVATIONS.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PUBLIC STREETS IN THE VICINITY OF THE JOB SITE CLEAN AND FREE OF ROCKS, SOIL AND DEBRIS. CLEAN STREETS OF CONSTRUCTION DEBRIS DAILY. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF SURFACE EROSION DURING CONSTRUCTIONS AND UNTIL THE OWNER ACCEPTS THE WORK AS COMPLETE. THE CONTRACTOR SHALL UTILIZE AND COMPLY WITH ALL REQUIREMENTS OF THE CITY OF JOPLIN'S LAND DISTURBANCE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). ALL EROSION AND SEDIMENT CONTROL PLANS SHALL BE INCORPORATED INTO THE SWPPP. CONTRACTOR SHALL MAINTAIN THE SWPPP THROUGHOUT THE PROJECT AND COMPLETE THE REQUIRED DOCUMENTATION UNTIL THE SITE IS STABILIZED AND ACCEPTED BY THE ENGINEER. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
25. CONSTRUCTION ACCESS TO THE SITE SHALL BE LIMITED TO THE APPROVED TEMPORARY CONSTRUCTION ENTRANCE(S). TEMPORARY CONSTRUCTION ENTRANCE SHALL HAVE SHOT ROCK FOR ITS SURFACE. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
26. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE ENTIRE CONSTRUCTION PERIOD BY THE CONTRACTOR. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
27. CONTRACTOR TO PROTECT ANY STORM INLETS FROM SEDIMENT THAT TAKE STORM WATER FROM THE AREA OF CONSTRUCTION. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
28. THE DETENTION BASINS, WATER QUALITY BASIN AND STORM WATER CHANNELS (PIPES), IF SHOWN, SHALL BE FUNCTIONING BEFORE ANY OTHER WORK MAY BEGIN.
29. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE APPROVED SEDIMENT AND EROSION CONTROL PLAN (SECP). THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
30. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING BERMS, SILT FENCES, OR OTHER MEANS TO PREVENT ERODED MATERIALS FROM REACHING THE PUBLIC RIGHT–OF–WAY AND ADJACENT PROPERTIES. IN THE EVENT THE PREVENTION MEASURES ARE NOT EFFECTIVE, THE CONTRACTOR SHALL REMOVE ANY DEBRIS, SILT, OR MUD AND RESTORE THE RIGHT–OF–WAY TO ORIGINAL OR BETTER CONDITION. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
31. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DOWNSTREAM EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION. EROSION CONTROL PROCEDURES SHALL BE IN PLACE PRIOR TO BEGINNING GRADING ACTIVITIES. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SEDIMENT CONTROL BARRIERS DURING CONSTRUCTION OR UNTIL THEY ARE RELEASED FROM THIS RESPONSIBILITY BY THE ENGINEER. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
33. THE CONTRACTOR SHALL CLEAN OUT ALL EXISTING AND PROPOSED INLETS, PIPES AND MANHOLES OF DEBRIS AND SEDIMENTATION AT COMPLETION OF SITE WORK. THIS WORK SHALL BE DONE TO THE SATISFACTION OF THE OWNER & ENGINEER. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
34. THE CONTRACTOR IS RESPONSIBLE FOR ATTENDING TO AND CORRECTING UNSUITABLE SOIL CONDITIONS RELATED TO PLOW ZONES, WET SOILS, AND OTHER CONDITIONS. THE UNSUITABLE CONDITIONS MUST BE CORRECTED PER THE GEOTECHNICAL ENGINEER'S REPORT, WHERE REQUIRED, TO MEET PROJECT NEEDS.
35. THE SUBGRADE SOILS BENEATH THE PAVEMENT SECTION SHALL BE OVER EXCAVATED SUFFICIENTLY TO INSTALL THE NEW PAVEMENT SECTION.
36. IF THE CONTRACTOR'S OPERATIONS CAUSE AN UNSATISFACTORY SUBGRADE, THE CONTRACTOR SHALL RESTORE THE SUBGRADE TO A SATISFACTORY CONDITION AT THE CONTRACTOR'S EXPENSE.
37. STRIPPINGS ARE TO BE STOCKPILED. FOLLOWING THE COMPLETION OF THE GRADING, THIS TOPSOIL SHALL BE USED AS FILL MATERIAL ON ALL LANDSCAPED AREAS. IF STOCKPILE IS INACTIVE FOR MORE THAN 14 DAYS, STABILIZE OR PROTECT THE PERIMETER AS PER CITY OF JOPLIN "EROSION AND SEDIMENT CONTROL GUIDELINES". THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.
38. ALL HERBACEOUS VEGETATION SHALL BE REMOVED FROM WITHIN THE LIMITS OF THE GRADING AND REDISTRIBUTED WITH THE TOPSOIL. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
39. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN IN THE PLANS, NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL OR 1 FOOT VERTICAL IN 2 FEET HORIZONTAL IN GUARDRAIL AREAS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
40. ALL BACK FILL SHALL BE TAMPED. BACK FILL WITHIN THE RIGHT–OF–WAY SHALL BE COMPACTED TO 95% MAX. DENSITY AS PER ASTM–D698 (STANDARD PROCTOR COMPACTION). THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
41. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1–800–DIG–RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
42. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO ACTUAL LOCATION OF EXISTING FACILITIES. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
43. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN WITHIN THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIRS OF SUCH STRUCTURES WHEN BROKEN OR OTHERWISE DAMAGED BY CONSTRUCTION ACTIVITIES. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
44. ALL TRENCHING SHALL BE IN ACCORDANCE WITH SECTION 1700 OF THE JOPLIN STANDARD SPECIFICATIONS. NO SEPARATE MEASUREMENTS AND PAYMENT WILL BE MADE FOR TRENCH EXCAVATION AND BACKFILL REQUIRED FOR STORM SEWER CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF MATERIAL FROM STORM SEWER TRENCHING. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
45. CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE CONVEYANCE DURING CONSTRUCTION. NO PIPES OR RCB'S SHALL BE ABANDONED OR FILLED WITH FLOWABLE FILL UNTIL THE NEW STORM SEWER PIPE IS CONSTRUCTED AND CONNECTIONS ARE COMPLETE.
46. ALL ACTIVE DRAIN LINES (PUBLIC OR PRIVATE) THAT ARE CONNECTED TO THE EXISTING STORM SEWER SYSTEM TO BE REMOVED SHALL BE EXTENDED AND CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. IT IS ANTICIPATED THAT PRIVATE ROOF DRAINS AND/OR FOUNDATION DRAINS MAY NEED TO BE EXTENDED TO CONTINUE TO FUNCTION PROPERLY. ALL CONNECTIONS TO PROPOSED STORM SYSTEM THAT ARE NOT EXPLICITLY SHOWN AND IDENTIFIED ON THE BID FORM WILL BE CONSIDERED SUBSIDIARY TO THE PROPOSED STORM SEWER PIPE.
47. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRECAST CONCRETE STRUCTURES AND PIPE FOR REVIEW AND APPROVAL BY THE PROJECT ENGINEER. THE SHOP DRAWINGS MUST BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI. THE CONTRACTOR MUST RECEIVE APPROVAL OF THE SUBMITTED SHOP DRAWINGS PRIOR TO FABRICATION. FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION.
48. DESIGN PROFESSIONAL SHALL REVIEW SHOP DRAWINGS OR SAMPLES FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPTS ON THE PROJECT AND FOR COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS, AND SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. THE DESIGN PROFESSIONAL'S REVIEW SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS IN WRITING CALLED DESIGN PROFESSIONAL'S ATTENTION TO EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND DESIGN PROFESSIONAL HAS GIVEN WRITTEN APPROVAL OF EACH SUCH VARIATION BY SPECIFIC WRITTEN NOTATION THEREOF INCORPORATED INTO OR ACCOMPANYING THE SHOP DRAWING OR SAMPLE; NOR WILL ANY APPROVAL BY THE DESIGN PROFESSIONAL RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS WITH CONFORMANCE TO CONTRACT DOCUMENTS.

   BEFORE SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE DETERMINED AND VERIFIED:
   - A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
   - B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
   - C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
   - D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.

   ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY REVIEWED THE SUBMISSION AND CHECKED ALL DATA AND DETAILS. BY CONTRACTOR SIGNATURE, CONTRACTOR CERTIFIES SHOP DRAWING CONFORMANCE AND ACCURACY TO THE CONTRACT DOCUMENTS.
49. THE CONTRACTOR SHALL MAINTAIN AND COORDINATE OWNER, TENANT, DELIVERY AND EMERGENCY VEHICULAR AND/OR PEDESTRIAN ACCESS TO ALL RESIDENCES AT ALL TIMES IN ACCORDANCE WITH THE CITY OF JOPLIN, ADA, PROWAG, AND MUTCD REQUIREMENTS, INCLUDING TEMPORARY ACCESS AND SAFETY REQUIREMENTS TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
50. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF CONTAMINATED MATERIAL IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REQUIREMENTS AND AS DETAILED IN JSP 1200–01.

TREE PRESERVATION NOTES:

1. MAINTAIN TREE PROTECTION FENCING AT THE DRIPLINE (IN ALL DIRECTIONS). THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
2. NO EQUIPMENT, MATERIALS, AND/OR DEBRIS SHALL BE STORED WITHIN THE TREE PROTECTION FENCING. THIS INCLUDES DURING THE INSTALLATION AND REMOVAL OF THE TREE PROTECTION FENCING.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY OR IN THE PRESENCE OF AN APPROVED LICENSED ARBORIST.
4. IF PROJECT REQUIRES AN ACCESS ROAD WITHIN THE DRIPLINE OF A TREE, PROVIDE A MINIMUM 12" OF MULCH FOR THE ACCESS ROAD. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.
5. IF CONSTRUCTION ACTIVITIES REQUIRE WORK TO CROSS THE DRIPLINE, BORE MINIMUM 4' BELOW GROUND SURFACE THE DISTANCE OF THE DRIPLINE. IF BORING 4' CANNOT BE ACHIEVED CONTACT APPROVED LICENSED ARBORIST IMMEDIATELY TO MONITOR WORK. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

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STATE OF MISSOURI
MICHAEL JOSEPH MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
01/14/2026

REVISIONS

REV. NO.	DATE	DESCRIPTION

GENERAL NOTES

GRAND FALLS TRAIL PROJECT
TREE CLEARING PLANS

JOPLIN, MO

2026

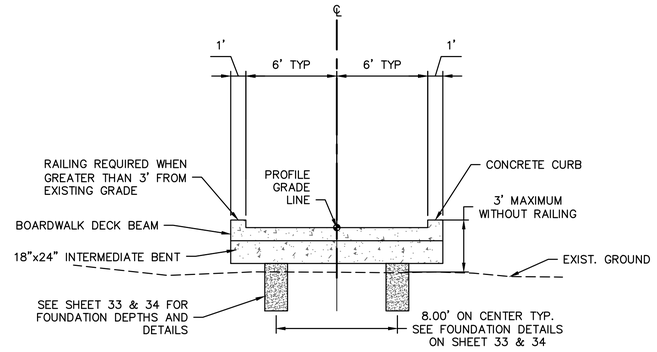
drawn by: MJM
designed by: MJM
project no.: 022-04049
date: 1/14/2026

SHEET
2 of 9

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DATE: Jan 14, 2026 2:20pm USER: mmayfarth

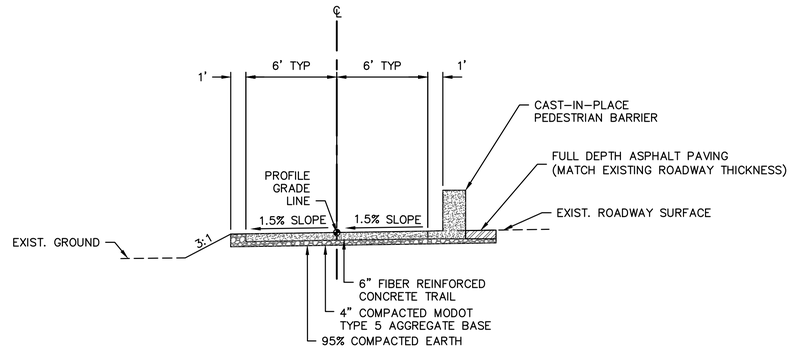
FOR REFERENCE ONLY

TYPICAL SECTIONS FOR GRAND FALLS TRAIL PROJECT



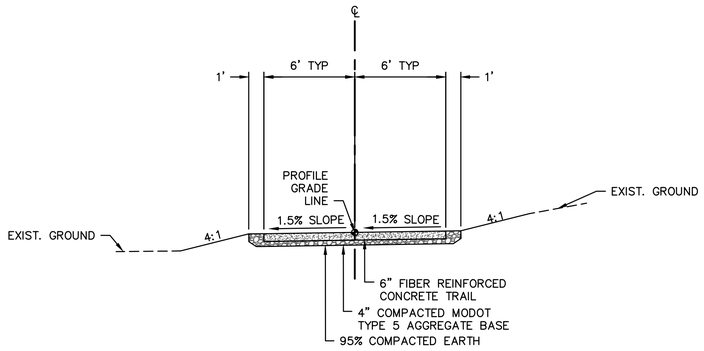
GRAND FALLS TRAIL ELEVATED PEDESTRIAN BRIDGE SECTION

STA. 05+90 TO STA. 18+25
NOT TO SCALE



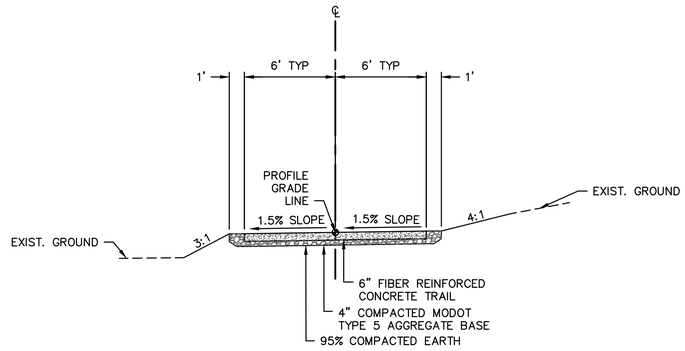
GRAND FALLS TRAIL BARRIER WALL SECTION

STA. 21+10 TO STA. 25+20
NOT TO SCALE



GRAND FALLS TRAIL TYPICAL SECTION

STA. 17+50 TO STA. 20+50
STA. 24+50 TO STA. 25+50
STA. 30+00 TO STA. 68+02
NOT TO SCALE



GRAND FALLS TRAIL ALTERNATIVE SLOPE SECTION

STA. 25+50 TO STA. 30+00
NOT TO SCALE

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STATE OF MISSOURI
MICHAEL J. MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
01/14/2026

REVISIONS

REV. NO.	DATE	DESCRIPTION

TYPICAL SECTIONS

GRAND FALLS TRAIL PROJECT
TREE CLEARING PLANS

JOPLIN, MO

2026

drawn by: MJM
designed by: MJM
project no.: 022-04049
date: 1/14/2026

SHEET
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ALIGNMENT AND SURVEY CONTROL

GRAND FALLS TRAIL PROJECT
TREE CLEARING PLANS

JOPLIN, MO

2026

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GRAND FALLS TRAIL

NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L1		5+00.00 5+34.10	315131.4676 315118.9577	2776806.1598 2776774.4367	34.10'	S68°28'42"W			
C1	PC= PI= PT=	5+34.10 5+50.43 5+63.29	315118.9577 315112.9656 315124.0216	2776774.4367 2776759.2416 2776747.2183	29.18'	N79°27'39"W	64°07'17"	16.33'	26.08'
L2		5+63.29 6+44.70	315124.0216 315179.1295	2776747.2183 2776687.2884	81.42'	N47°24'01"W			
C2	PC= PI= PT=	6+44.70 6+71.23 6+96.13	315179.1295 315197.0850 315222.9511	2776687.2884 2776667.7617 2776661.8763	51.43'	N30°06'34"W	34°34'54"	26.53'	85.22'
C3	PC= PI= PT=	6+96.13 7+02.19 7+08.23	315222.9511 315228.8517 315234.8466	2776661.8763 2776660.5337 2776659.7083	12.10'	N10°19'44"W	4°58'46"	6.05'	139.18'
C4	PC= PI= PT=	7+08.23 7+41.69 7+74.79	315234.8466 315267.9958 315298.9127	2776659.7083 2776655.1443 2776642.3445	66.56'	N15°09'52"W	14°39'02"	33.46'	260.30'
L3		7+74.79 8+98.00	315298.9127 315412.7520	2776642.3445 2776595.2143	123.21'	N22°29'23"W			
C5	PC= PI= PT=	8+98.00 9+74.37 10+49.46	315412.7520 315483.3182 315541.2011	2776595.2143 2776565.9995 2776516.1733	151.46'	N31°36'22"W	18°13'56"	76.37'	475.96'
L4		10+49.46 10+80.86	315541.2011 315565.0004	2776516.1733 2776495.6866	31.40'	N40°43'20"W			
C6	PC= PI= PT=	10+80.86 12+02.53 13+04.92	315565.0004 315657.2145 315774.8983	2776495.6866 2776416.3078 2776447.2096	224.06'	N13°00'17"W	55°26'06"	121.67'	231.58'
C7	PC= PI= PT=	13+04.92 13+89.85 14+73.20	315774.8983 315857.0411 315941.7199	2776447.2096 2776468.7789 2776462.2855	168.28'	N5°09'50"E	19°05'52"	84.93'	504.86'
C8	PC= PI= PT=	14+73.20 16+07.62 17+38.15	315941.7199 316075.7508 316202.4764	2776462.2855 2776452.0075 2776496.8469	264.95'	N7°33'01"E	23°52'14"	134.42'	635.95'
L5		17+38.15 18+65.84	316202.4764 316322.8535	2776496.8469 2776539.4401	127.69'	N19°29'07"E			
C9	PC= PI= PT=	18+65.84 18+75.23 18+84.60	316322.8535 316331.7038 316340.2218	2776539.4401 2776542.5716 2776546.5184	18.76'	N22°10'22"E	5°22'30"	9.39'	200.00'
L6		18+84.60 20+83.93	316340.2218 316521.0818	2776546.5184 2776630.3185	199.33'	N24°51'37"E			
C10	PC= PI= PT=	20+83.93 21+05.94 21+27.67	316521.0818 316541.0521 316562.7899	2776630.3185 2776639.5716 2776643.0211	43.74'	N16°56'19"E	15°50'37"	22.01'	158.18'
C11	PC= PI= PT=	21+27.67 23+40.44 25+17.75	316562.7899 316772.9333 316860.0280	2776643.0211 2776676.3677 2776870.4986	390.08'	N37°25'37"E	56°49'13"	212.77'	393.35'
L7		25+17.75 25+21.89	316860.0280 316861.7214	2776870.4986 2776874.2730	4.14'	N65°50'14"E			
C12	PC= PI= PT=	25+21.89 26+05.55 26+89.13	316861.7214 316895.9659 316924.3389	2776874.2730 2776950.6027 2777029.3039	167.24'	N68°00'22"E	4°20'16"	83.66'	2208.97'
L8		26+89.13 33+24.45	316924.3389 317139.8078	2777029.3039 2777626.9718	635.32'	N70°10'30"E			
C13	PC= PI= PT=	33+24.45 33+87.97 34+51.23	317139.8078 317161.3508 317173.2648	2777626.9718 2777686.7277 2777749.1211	126.78'	N74°40'56"E	9°00'52"	63.52'	805.80'
C14	PC= PI= PT=	34+51.23 37+23.72 39+78.62	317173.2648 317224.3738 317110.3401	2777749.1211 2778016.7773 2778264.2613	527.39'	S83°02'09"E	35°32'58"	272.49'	850.00'

GRAND FALLS TRAIL

NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L9		39+78.62 40+57.47	317110.3401 317077.3412	2778264.2613 2778335.8780	78.85'	S65°15'40"E			
C15	PC= PI= PT=	40+57.47 41+63.14 42+67.36	317077.3412 317033.1200 317017.8500	2778335.8780 2778431.8500 2778536.4107	209.89'	S73°28'34"E	16°25'49"	105.67'	731.93'
C16	PC= PI= PT=	42+67.36 43+77.88 44+84.46	317017.8500 317001.8796 316938.9172	2778536.4107 2778645.7674 2778736.5952	217.10'	S68°28'50"E	26°25'16"	110.52'	470.80'
C17	PC= PI= PT=	44+84.46 46+27.07 47+68.61	316938.9172 316857.6754 316802.8008	2778736.5952 2778853.7922 2778985.4134	284.14'	S61°19'09"E	12°05'53"	142.60'	1345.69'
C18	PC= PI= PT=	47+68.61 48+63.36 49+56.83	316802.8008 316766.3381 316706.7470	2778985.4134 2779072.8720 2779146.5431	188.22'	S59°11'59"E	16°20'13"	94.76'	660.13'
L10		49+56.83 50+37.05	316706.7470 316656.2985	2779146.5431 2779208.9113	80.22'	S51°01'53"E			
C19	PC= PI= PT=	50+37.05 50+68.78 51+00.45	316656.2985 316636.3425 316619.1083	2779208.9113 2779233.5824 2779260.2262	63.40'	S54°04'03"E	6°04'21"	31.73'	598.25'
L11		51+00.45 53+83.02	316619.1083 316465.6405	2779260.2262 2779497.4847	282.57'	S57°06'13"E			
C20	PC= PI= PT=	53+83.02 53+89.32 53+95.61	316465.6405 316462.2223 316458.5763	2779497.4847 2779502.7691 2779507.8991	12.59'	S55°51'02"E	2°30'23"	6.29'	287.70'
L12		53+95.61 55+33.83	316458.5763 316378.5034	2779507.8991 2779620.5612	138.22'	S54°35'50"E			
C21	PC= PI= PT=	55+33.83 55+68.02 56+02.21	316378.5034 316358.6911 316337.7234	2779620.5612 2779648.4370 2779675.4544	68.39'	S53°23'29"E	2°24'42"	34.20'	1624.77'
L13		56+02.21 58+61.64	316337.7234 316178.6660	2779675.4544 2779880.4038	259.43'	S52°11'08"E			
C22	PC= PI= PT=	58+61.64 58+96.06 59+30.12	316178.6660 316157.5671 316130.4989	2779880.4038 2779907.5903 2779928.8408	68.48'	S45°09'36"E	14°03'04"	34.41'	279.24'
L14		59+30.12 60+31.85	316130.4989 316050.4818	2779928.8408 2779991.6598	101.73'	S38°08'04"E			
C23	PC= PI= PT=	60+31.85 60+95.37 61+56.97	316050.4818 316000.5189 315971.2471	2779991.6598 2780030.8843 2780087.2582	125.11'	S50°20'49"E	24°25'31"	63.52'	293.48'
L15		61+56.97 62+60.49	315971.2471 315923.5423	2780087.2582 2780179.1320	103.52'	S62°33'35"E			
C24	PC= PI= PT=	62+60.49 62+96.86 63+32.49	315923.5423 315906.7812 315879.9996	2780179.1320 2780211.4119 2780236.0223	72.01'	S52°34'13"E	19°58'44"	36.37'	206.50'
L16		63+32.49 63+52.18	315879.9996 315865.5058	2780236.0223 2780249.3412	19.68'	S42°34'51"E			
C25	PC= PI= PT=	63+52.18 64+18.69 64+84.05	315865.5058 315816.5279 315784.3667	2780249.3412 2780294.3485 2780352.5735	131.88'	S51°49'59"E	18°30'17"	66.52'	408.32'
L17		64+84.05 65+01.14	315784.3667 315776.1018	2780352.5735 2780367.5364	17.09'	S61°05'08"E			
C26	PC= PI= PT=	65+01.14 66+24.35 67+44.31	315776.1018 315716.5294 315619.8244	2780367.5364 2780475.3872 2780551.7338	243.16'	S49°41'17"E	22°47'43"	123.21'	611.19'
L18		67+44.31 68+80.43	315619.8244 315512.9838	2780551.7338 2780636.0823	136.12'	S38°17'25"E			

CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	FULL DESCRIPTION
1	315514.4020	2780606.9290	893.371	CTL PK
2	314774.3900	2780341.8740	908.381	CTL PIN
3	314893.5340	2776900.4140	888.092	CTL PIN
4	316079.9390	2779857.3380	896.825	CTL PK
5	316565.3850	2779171.2030	899.930	CTL PIN
6	316956.3040	2778453.1290	894.966	CTL PK
7	317138.3410	2777770.2210	893.164	CTL 60D
8	316791.4000	2776752.5750	886.267	CTL 60D
9	315869.4010	2776518.4620	885.131	CTL PIN
10	315362.0320	2776674.9680	885.042	CTL PIN
13	315568.3480	2780561.8710	892.761	TBM
14	315689.6210	2780431.1160	891.430	CTL
15	315793.9780	2780239.1470	891.073	CTL
16	315915.6790	2780074.7610	893.303	CTL
17	316060.5010	2779991.3620	891.081	CTL
18	316225.9290	2779842.7490	887.971	CTL
19	316325.3400	2779651.8190	892.538	CTL
20	316494.7570	2779455.6930	886.109	CTL
21	316678.3960	2779142.5200	885.717	CTL
22	316752.3890	2779015.2970	886.263	CTL
23	316798.2740	2778853.9020	894.744	CTL
24	316906.4990	2778794.1350	886.881	CTL
25	317000.0050	2778589.1320	887.138	CTL
26	317070.0310	2778005.5920	896.028	CTL
27	317225.3190	2778096.6700	885.465	CTL
10096	315312.0140	2776697.0890	884.375	CTL

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ALIGNMENT AND SURVEY CONTROL
ALIGNMENT DATA

GRAND FALLS TRAIL PROJECT
TREE CLEARING PLANS

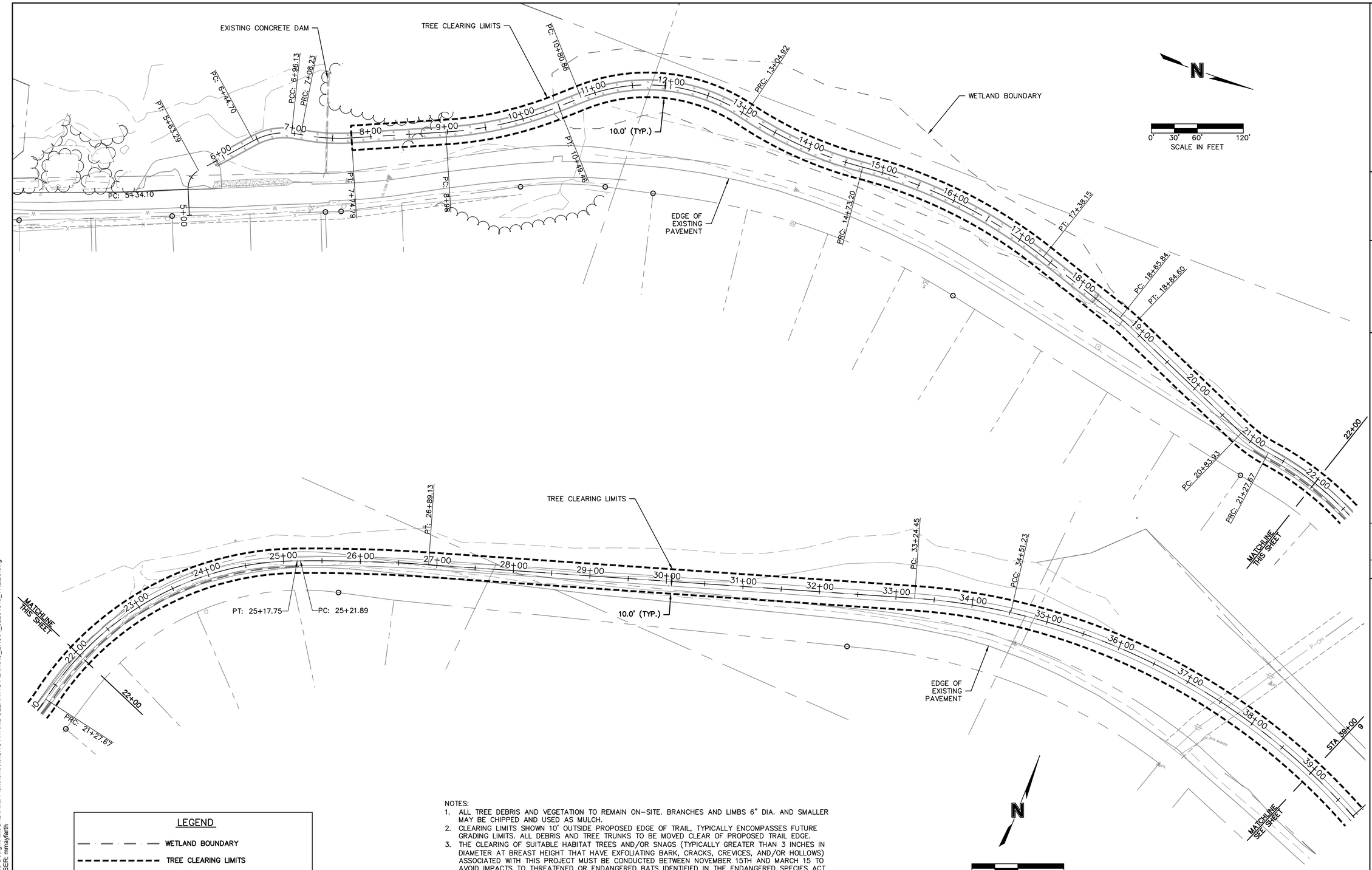
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LEGEND

WETLAND BOUNDARY

TREE CLEARING LIMITS

NOTES:

1. ALL TREE DEBRIS AND VEGETATION TO REMAIN ON-SITE. BRANCHES AND LIMBS 6" DIA. AND SMALLER MAY BE CHIPPED AND USED AS MULCH.
2. CLEARING LIMITS SHOWN 10' OUTSIDE PROPOSED EDGE OF TRAIL, TYPICALLY ENCOMPASSES FUTURE GRADING LIMITS. ALL DEBRIS AND TREE TRUNKS TO BE MOVED CLEAR OF PROPOSED TRAIL EDGE.
3. THE CLEARING OF SUITABLE HABITAT TREES AND/OR SNAGS (TYPICALLY GREATER THAN 3 INCHES IN DIAMETER AT BREAST HEIGHT THAT HAVE EXFOLIATING BARK, CRACKS, CREVICES, AND/OR HOLLOWS) ASSOCIATED WITH THIS PROJECT MUST BE CONDUCTED BETWEEN NOVEMBER 15TH AND MARCH 15 TO AVOID IMPACTS TO THREATENED OR ENDANGERED BATS IDENTIFIED IN THE ENDANGERED SPECIES ACT SECTION 7 REVIEW OF THE PROPOSED PROJECT AREA.
4. CONTRACTOR SHALL MINIMIZE EXPOSED SOILS DURING CONSTRUCTION. PREVIOUSLY CHIPPED TREES AND BRANCHES AS MULCH MAY BE PLACED AS SOIL STABILIZATION TO KEEP MATERIALS ON-SITE.
5. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE APPROVED USACE NATION WIDE PERMIT.
6. TEMPORARY ACCESS ROAD THROUGH WETLAND EXTENTS SHALL BE REMOVED COMPLETELY.
7. HEAVY EQUIPMENT WORKING IN WETLANDS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE.

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TREE REMOVAL PLANS

GRAND FALLS TRAIL PROJECT
TREE CLEARING PLANS

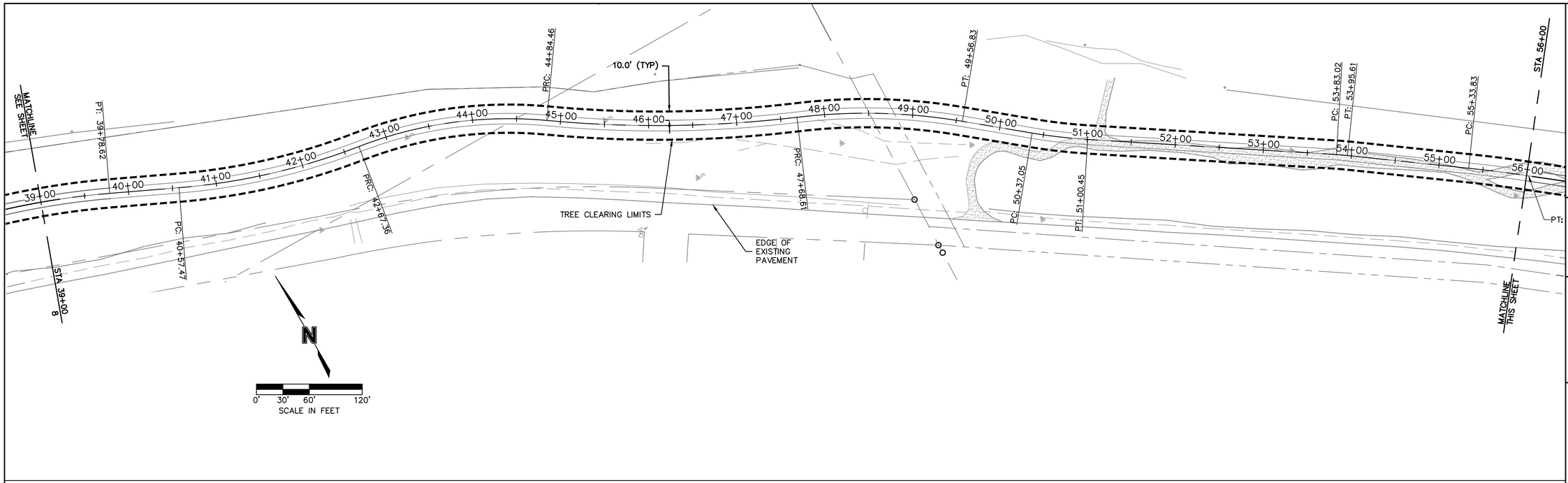
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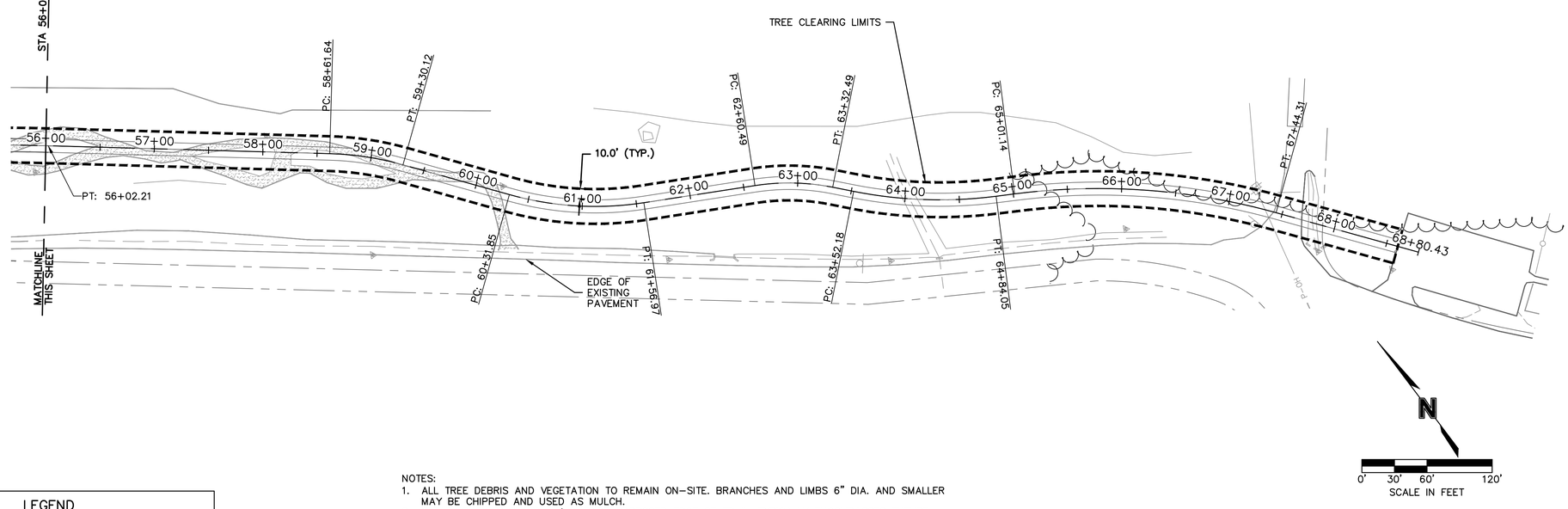
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4. CONTRACTOR SHALL MINIMIZE EXPOSED SOILS DURING CONSTRUCTION. PREVIOUSLY CHIPPED TREES AND BRANCHES AS MULCH MAY BE PLACED AS SOIL STABILIZATION TO KEEP MATERIALS ON–SITE.
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