

PROJECT LOCATION



MISSOULA COUNTY AND CITY OF MISSOULA



PLANS FOR PROPOSED FEDERAL AID MULLAN BUILD PROJECT MISSOULA, MONTANA

TYPE OF CONSTRUCTION:

GRADE, GRAVEL, PAVEMENT, DRAINAGE, CURB & GUTTER, PATH, SIDEWALK, WATER UTILITY, SEWER, LANDSCAPING, LIGHTING, INTERSECTION IMPROVEMENTS, NEW CONSTRUCTION & RECONSTRUCTION

DESIGN DESIGNATION:

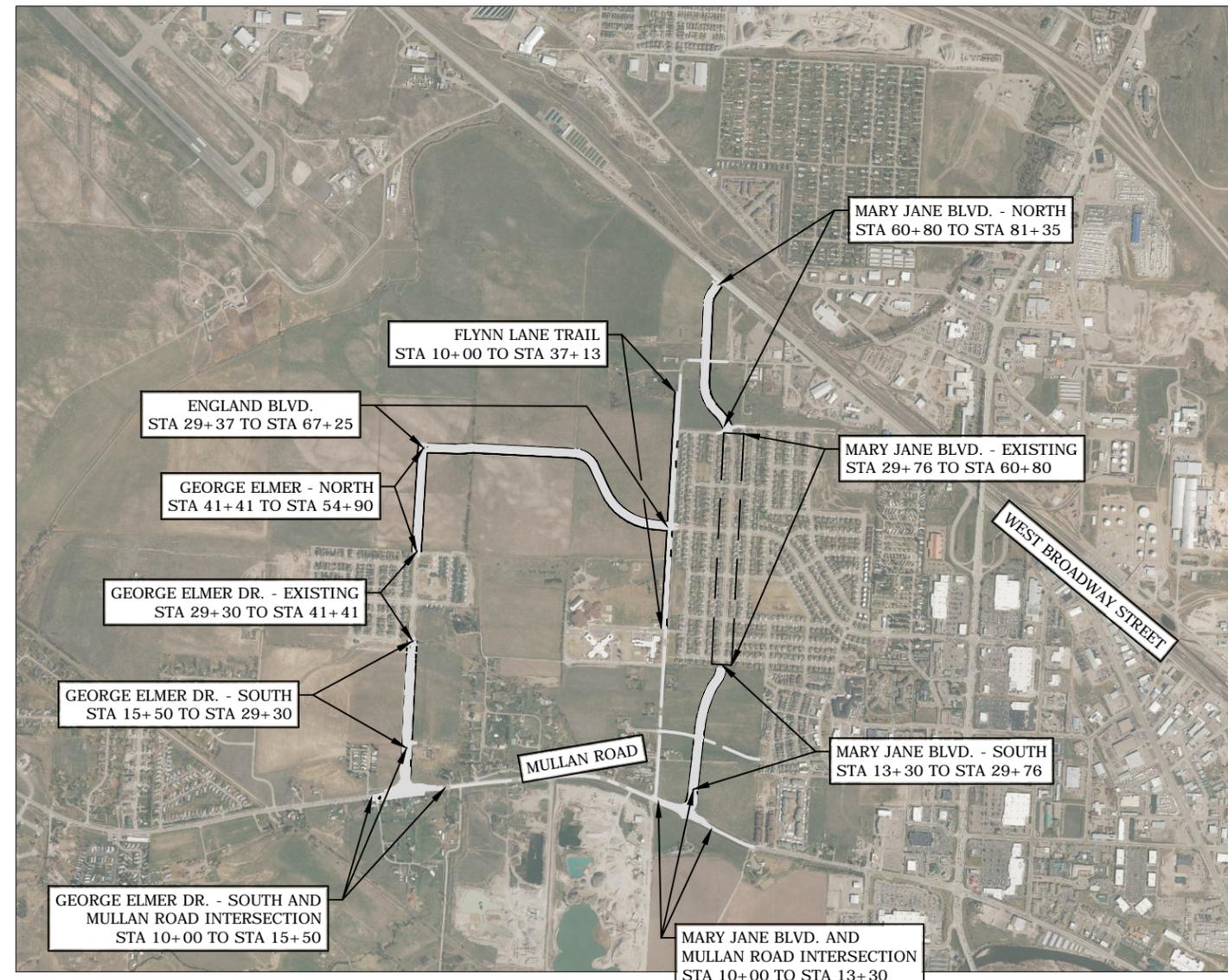
CITY OF MISSOULA & MONTANA DEPARTMENT OF TRANSPORTATION (MDT) DESIGN STANDARDS

SPECIFICATION:

MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS (2010) WITH CITY OF MISSOULA PUBLIC WORKS AND MONTANA DEPARTMENT OF TRANSPORTATION SUPPLEMENTS



PLANS PREPARED FOR
**MISSOULA COUNTY
AND THE
CITY OF MISSOULA**



MARY JANE BLVD. NORTH
 PROPOSED LENGTH = 2050'
 EXISTING LENGTH = 1330'
 2050 PROJECTED ADT = 5,910

MARY JANE BLVD. SOUTH
 PROPOSED LENGTH = 1960'
 EXISTING LENGTH = 1785'
 2050 PROJECTED ADT = 6,839

GEORGE ELMER DR. SOUTH
 PROPOSED LENGTH = 3300'
 2020 ADT = 2,563
 2050 PROJECTED ADT = 6,358

ENGLAND BOULEVARD
 PROPOSED LENGTH = 3050'
 2050 PROJECTED ADT = 9,914

WEST BROADWAY ST.
 2020 ADT = 15,945
 2050 PROJECTED ADT = 33,290

MULLAN ROAD
 2020 ADT = 13,589
 2050 PROJECTED ADT = 24,045

INDEX TO SHEETS

INDEX TO SHEETS CONTINUED

A. GENERAL INFORMATION

- COVER
- A.1 INDEX AND PROJECT ELEMENT MAP
- A.2 LEGEND AND ABBREVIATIONS
- A.3 SUMMARY OF ESTIMATED QUANTITIES & GENERAL NOTES
- A.4 PROJECT SCOPE EXHIBIT
- A.6-A.10 CITY OF MISSOULA STANDARD DETAILS

B. TYPICAL SECTIONS

- B.1 EXISTING MARY JANE BOULEVARD AND GEORGE ELMER DRIVE TYPICAL SECTIONS
- B.2-B.3 MARY JANE BOULEVARD SOUTH TYPICAL SECTIONS
- B.4-B.6 MARY JANE BOULEVARD NORTH TYPICAL SECTIONS
- B.7-B.9 GEORGE ELMER DRIVE SOUTH TYPICAL SECTIONS
- B.10-B.11 GEORGE ELMER DRIVE NORTH TYPICAL SECTIONS
- B.12-B.13 ENGLAND BOULEVARD TYPICAL SECTIONS
- B.14 PRIMARY ROAD TYPICAL SECTION
- B.15 ROUNDABOUT TYPICAL SECTIONS
- B.16 FLYNN LANE TRAIL TYPICAL SECTION
- B.17 EARTHWORK DETAIL

C. INTERSECTION DETAILS

- C.1-C.7 GEORGE ELMER DRIVE SOUTH AND MULLAN ROAD INTERSECTIONS
- C.8-C.14 MARY JANE BOULEVARD AND MULLAN ROAD INTERSECTIONS
- C.17-C.20 SOUTH MARY JANE BOULEVARD INTERSECTIONS
- C.21-C.27 NORTH MARY JANE BOULEVARD INTERSECTIONS
- C.28-C.30 GEORGE ELMER DRIVE SOUTH INTERSECTIONS
- C.31-C.33 GEORGE ELMER DRIVE NORTH INTERSECTIONS
- C.34-C.35 ENGLAND BOULEVARD INTERSECTIONS

D. ROAD PLAN AND PROFILE, ROADS AND TRAILS

- D.1-D.6 MARY JANE BOULEVARD SOUTH ROAD PLAN AND PROFILE
- D.7-D.14 MARY JANE BOULEVARD NORTH ROAD PLAN AND PROFILE
- D.15-D.23 GEORGE ELMER DRIVE SOUTH ROAD PLAN AND PROFILE
- D.24-D.34 ENGLAND BOULEVARD ROAD PLAN AND PROFILE
- D.35-D.42 FLYNN LANE TRAIL PLAN AND PROFILE

E. SOIL EROSION, SEDIMENT CONTROL, AND IRRIGATION

- E.1-E.2 FLYNN LONEY DITCH PIPE CROSSING AND DETAILS

F. DRAINAGE, STORMWATER, AND IRRIGATION

TO BE SUBMITTED SEPARATE OF THIS PACKAGE

G. LANDSCAPING

- G.1-G.8 LANDSCAPING NOTES AND DETAILS
- G.9 MARY JANE BOULEVARD SOUTH LANDSCAPING PLAN
- G.10 MARY JANE BOULEVARD NORTH LANDSCAPING PLAN
- G.11 GEORGE ELMER DRIVE SOUTH LANDSCAPING PLAN
- G.12 GEORGE ELMER DRIVE SOUTH LANDSCAPING PLAN
- G.13-G.14 ENGLAND BOULEVARD ROAD PLAN LANDSCAPING PLAN
- G.15-G.18 ROUNDABOUT LANDSCAPING PLAN

H. TEMPORARY TRAFFIC CONTROL

TO BE SUBMITTED AT A LATER DATE

I. PERMANENT TRAFFIC CONTROL

- I.1-I.2 SIGNING DETAILS
- I.3-I.5 MULLAN ROAD SIGNING SUMMARIES
- I.6-I.7 MARY JANE BOULEVARD SOUTH AND MULLAN ROAD PERMANENT PAVEMENT MARKING AND SIGNING PLAN
- I.8-I.9 GEORGE ELMER DRIVE SOUTH AND MULLAN ROAD PERMANENT PAVEMENT MARKING AND SIGNING PLAN
- I.10-I.17 MARY JANE BOULEVARD SOUTH PERMANENT PAVEMENT MARKING AND SIGNING PLAN
- I.18-I.25 MARY JANE BOULEVARD NORTH PERMANENT PAVEMENT MARKING AND SIGNING PLAN
- I.26-I.33 GEORGE ELMER DRIVE SOUTH PERMANENT PAVEMENT MARKING SIGNING PLAN
- I.34-I.39 ENGLAND BOULEVARD PERMANENT PAVEMENT MARKING SIGNING PLAN
- I.40-I.44 RRFB PLANS AND DETAILS

J. LIGHTING AND ELECTRICAL

- J.1-J.9 ELECTRICAL DETAILS
- J.10-J.17 LIGHTING AND ELECTRICAL PLANS

K. WATER UTILITY

- K.1-K5 GEORGE ELMER DRIVE MAIN 1 AND 2
- K6-K10 ENGLAND BOULEVARD MAIN 3
- K11-K12 MAY JANE BOULEVARD MAIN 4
- K13-K14 STANDARD WATER DETAILSL. SANITARY SEWER UTILITY

L. SEWER UTILITY

- L.1 COVER SHEET AND INDEX
- L.2 MANHOLE SCHEDULE
- L.3-L.6 GEORGE ELMER DRIVE LINE A AND B
- L.7-L.11 ENGLAND BOULEVARD LINE C AND D
- L.12-L.13 MARY JANE BOULEVARD LINE E
- L.14-L.15 STANDARD SEWER DETAILS

M. PRIVATE UTILITIES

- M.1 MARY JANE BOULEVARD AND MULLAN ROAD PRIVATE UTILITIES
- M.2 GEORGE ELMER DRIVE AND MULLAN ROAD PRIVATE UTILITES

O. CROSS-SECTIONS

- O.1-O.13 MARY JANE BOULEVARD SOUTH TYPICAL SECTIONS
- O.14-O.28 MARY JANE BOULEVARD NORTH TYPICAL SECTIONS
- O.29-O.45 GEORGE ELMER DRIVE SOUTH TYPICAL SECTIONS
- O.46-O.71 ENGLAND BOULEVARD TYPICAL SECTIONS
- O.72-O.77 FLYNN LANE TRAIL TYPICAL SECTION

REVISION	DATE	DESCRIPTION

DESIGNER _____	PROJ. NO. _____
DRAWN _____	DATE _____
CHECKED _____	SURVEYED <u>DJ&A</u> P.C.



MULLAN BUILD
PRELIMINARY 90% NOT FOR CONSTRUCTION

Index and Project Element Map

SHEET
OF
A.1 A.10

ABBREVIATIONS

ALUMINUM CAP
 AMERICAN ASSOCIATION OF STATE HIGHWAY AND
 TRANSPORTATION OFFICIALS
 AMERICAN NATIONAL STANDARDS INSTITUTE
 AND
 AVENUE
 BALLED AND BURLAPPED
 BEGIN VERTICAL CURVE ELEVATION
 BEGIN VERTICAL CURVE STATION
 BEGINNING POINT
 BRASS CAP
 CENTERLINE
 CONTROL POINT
 CUBIC YARD
 DIAMETER
 DRY DENSITY
 EAST
 ELEVATION
 END POINT
 END VERTICAL CURVE ELEVATION
 END VERTICAL CURVE STATION
 FINISH GROUND
 FOOT (MEASUREMENT)
 FOUND
 INCH
 LENGTH OF VERTICAL CURVE
 LIQUID LIMIT
 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
 MAXIMUM
 MILIMETER
 MINIMUM
 MOISTURE CONTENT
 NORTH
 NORTH AMERICAN DATUM
 NORTH AMERICAN VERTICAL DATUM
 NUMBER
 ON CENTER
 OUNCE
 PERCENT
 PLASTIC LIMIT
 POINT OF CURVE
 POINT OF INTERSECTION
 POINT OF TANGENT
 POINT OF VERTICAL INTERSECTION
 QUANTITIES
 RADIUS
 REBAR
 SQUARE FOOT
 STANDARD
 STATION
 TOP BACK OF CURB
 TYPICAL

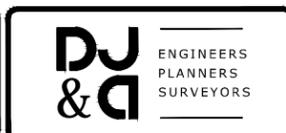
AC
 AASHTO
 ANSI
 &
 AVE.
 B&B
 BVCE
 BVCS
 BP
 BC
 CL, C/L
 CP
 CY
 DIA., D, Ø
 DD
 E
 ELEV., EL.
 EP
 EVCE
 EVCS
 FG
 FT. OR '
 FND
 IN. OR "
 LVC
 LL
 MUTCD
 MAX.
 MM
 MIN.
 MC
 N
 NAD
 NAVD
 NO.
 OC
 OZ
 PCT. OR %
 PL
 PC
 PI
 PT
 PVI
 QUANT., QTY
 R
 RB
 FT², FT2 OR SF
 STD
 STA
 TBC
 TYP

LEGEND

	EXISTING	PROPOSED	EXISTING	PROPOSED
EDGE OF ASPHALT	-----	-----		
EDGE OF GRAVEL	-----	-----		
ROAD CENTERLINE	-----	-----		
DITCH/SWALE	--->--->---	-----		
SIGNS	○	⊕		
MINOR CONTOUR	-----	-----		
MAJOR CONTOUR	-----	-----		
FENCE	----- x -----	-----		
NATURAL GAS LINE	--- NG ---	---		
OVERHEAD POWER LINE	--- OHP ---	---		
UNDERGROUND POWER LINE	--- UGP ---	---		
FIBER OPTIC LINE	--- FO ---	---		
UNDERGROUND TELEPHONE LINE	--- UGT ---	---		
UNDERGROUND TELEVISION LINE	--- UTV ---	---		
POWER POLE	⊕	⊕		
POWER POLE ANCHOR	→	→		
UTILITY BOX	□	□		
VEGETATION	☀	☀		
RECORD ROADWAY RIGHT-OF-WAY LINE	----- R/W -----	----- R/W -----		
RECORD RIGHT-OF-WAY LINE	-----	-----		
CURB AND GUTTER	=====	=====		
DRAINAGE SUMP	⊕	⊕		
CONSTRUCTION LIMITS	-----	-----		
CONTROL POINT	⊕	⊕		
ASPHALT CONCRETE PAVEMENT		■		
CONCRETE		■		
BOLLARD	⊕	⊕		
WELL / GROUND WATER MONITORING	⊕	⊕		
BORE HOLE	⊕	⊕		
TOPSOIL AND SEEDING		■		
FIRE HYDRANT	⊕	⊕		
WATER BLOW-OFF VALVE	⊕	⊕		
WATER VALVE	⊕	⊕		
WATER LINE	---	--- SS ---		
SEWER MANHOLE	⊕	⊕		
SEWER LINE	--- ES ---	--- W ---		
STORM DRAIN MANHOLE	⊕	⊕		
STORM DRAIN LINE	---	--- SD ---		
CURB CUT				
SUBSURFACE INFILTRATION CHAMBERS				
CATCH BASIN		⊕		
SUMPS WITH EQUALIZER PIPE		⊕		
DETENTION STORAGE BASIN				
APPROACH PIPE/CULVERT	=====	=====		
TEMPORARY CONSTRUCTION EASEMENT	-----	-----		

REVISION	DATE	DESCRIPTION

DESIGNER	PROJ. NO.
DRAWN	DATE
CHECKED	SURVEYED
	DJ&A P.C.



MULLAN BUILD
 PRELIMINARY 90% NOT FOR CONSTRUCTION

LEGEND AND ABBREVIATIONS

SHEET	OF
A.2	A.10

GENERAL NOTES

1. **SPECIFICATIONS:** CONSTRUCT THE PROJECT IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS AND THE CITY OF MISSOULA STANDARD DETAILS AND DRAWINGS. THE PROJECT SPECIFICATIONS ARE DERIVED FROM THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS (MPWSS) AND HAVE BEEN REVISED AND SUPPLEMENTED FOR THIS PROJECT.
2. **EROSION CONTROL PLAN:** THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING AN EROSION CONTROL PLAN TO THE CITY ENGINEER FOR APPROVAL PRIOR TO BEGINNING ANY WORK. WORK WILL NOT BE CONDUCTED UNTIL THE EROSION CONTROL PLAN HAS BEEN APPROVED BY THE CITY ENGINEER. THE CONTRACTOR WILL PROVIDE METHODS TO PREVENT RUNOFF FROM THE CONSTRUCTION SITE FROM ENTERING DIRECTLY INTO THE ADJACENT WATERWAYS.
3. **GENERAL STORM WATER PERMITS:** THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING AND COMPLETING ALL REQUIREMENTS OF THE MPDES STORM WATER PERMIT ADMINISTERED UNDER THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY. AN AUTHORIZATION UNDER THE GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY IS REQUIRED FOR CONSTRUCTION ACTIVITIES THAT INCLUDE CLEARING, EXCAVATING, GRADING, GRUBBING, OR PLACEMENT/REMOVAL OF EARTH MATERIAL WITH A TOTAL AREA OF ONE OR MORE ACRES. ADDITIONAL INFORMATION IS PROVIDED IN THE SPECIFICATIONS.
4. **CITY OF MISSOULA STORM WATER PERMIT:** THE CONTRACTOR SHALL OBTAIN A REQUIRED CITY OF MISSOULA STORM WATER PERMIT. THE CONTRACTOR MUST SUBMIT ALL REQUIRED FORMS TO THE ENGINEER SO THAT THE ENGINEER CAN TURN IN SAID FORMS TO CITY OF MISSOULA ENGINEERING AS PART OF THE STAGE 6 PROCESS IN ORDER FOR CITY OF MISSOULA ENGINEERING TO ACCEPT INFRASTRUCTURE. THE CONTRACTOR IS ALSO REQUIRED TO SUBMIT TO THE CITY OF MISSOULA A COPY OF THE NOTICE OF INTENT (NOI) PROVIDED TO MT DEQ, A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PROVIDED TO MT DEQ AND A COPY OF MT DEQ'S CONFIRMATION LETTER.
5. **UTILITIES:** UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. NOT ALL EXISTING UTILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES THAT MAY BE IMPACTED BY THIS PROJECT. THE CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS WITH THE UTILITY PROVIDERS AT NO COST TO THE OWNER.
6. **COORDINATION WITH LANDOWNERS:** IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH LANDOWNERS ADJACENT TO THE PROJECT TO SCHEDULE NECESSARY WORK ON DRIVEWAYS, APPROACHES, AND OTHER WORK THAT MAY AFFECT ACCESS TO THEIR PROPERTIES.
7. **MAILBOXES:** ALL MAILBOXES ARE TO REMAIN OPERATIONAL DURING CONSTRUCTION, EITHER BY INSTALLING CLUSTER MAILBOXES BEFORE REMOVING EXISTING MAILBOXES OR BY PROVIDING TEMPORARY MAILBOX USE.
8. **RESETTING EXISTING SIGNS:** RESET STREET SIGNS IN ACCORDANCE WITH PROJECT SPECIFICATION SECTION 02114 AND CITY OF MISSOULA STANDARD DETAILS. THE CONTRACTOR SHALL CONTACT CHAD PANCAKE, CITY OF MISSOULA TRAFFIC SERVICES, AT (406) 552-6372 PRIOR TO REMOVAL AND INSTALLATION OF ALL SIGNS. COORDINATE SIGN REINSTALLATION PROCEDURES AND SIGN LOCATIONS WITH CHAD PANCAKE.
9. **BASIS OF QUANTITIES:** SEE THE COST NARRATIVE FOR ASSUMPTIONS AND METHODS USED IN THE COST ESTIMATION.

DESIGN STANDARDS

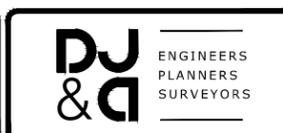
1. **ROADWAYS:** ROADWAYS WERE DESIGNED TO CITY OF MISSOULA STANDARDS & DETAILS AND CONFORM TO GUIDANCE SET FORTH IN AASHTO GREEN BOOK: A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 2018 7TH EDITION THE DESIGN BASIS REPORT FURTHER SUMMARIZES AND DOCUMENTS THE PRELIMINARY INTERSECTION DESIGN.
2. **INTERSECTIONS:** ROUNDABOUTS WERE DESIGNED TO MDT STANDARDS AND CONFORM TO GUIDANCE SET FORTH IN NCHRP REPORT 672, ROUNDABOUTS: AN INFORMATIONAL GUIDE, SECOND EDITION. THE DESIGN BASIS REPORT FURTHER SUMMARIZES AND DOCUMENTS THE PRELIMINARY ROADWAY DESIGN.
3. **TRAILS:** TRAILS WERE DESIGNED TO CITY OF MISSOULA STANDARDS & DETAILS AND CONFORM TO GUIDANCE SET FORTH IN THE AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES. THE DESIGN BASIS REPORT FURTHER SUMMARIZES AND DOCUMENTS THE PRELIMINARY TRAIL DESIGN.

SUMMARY OF QUANTITIES

1. QUANTITY SUMMARY FRAMES: ALL QUANTITY SUMMARY ESTIMATES HAVE ARE PROVIDED IN A SEPARATE DOCUMENT.
2. SCOPE DEFERMENT: DUE TO FUNDING CONSTRAINTS ONLY PORTIONS OF THE PROJECT WILL BE INCLUDED IN THIS CONTRACT. REFERENCE THE SCOPE DEFERMENT EXHIBIT ON SHEET XX AND THE SPECIAL PROVISIONS.

REVISION	DATE	DESCRIPTION

DESIGNER	---	PROJ. NO.	---
DRAWN	---	DATE	---
CHECKED	---	SURVEYED	DJ&A, P.C.



MULLAN BUILD
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GENERAL NOTES

SHEET	OF
A.3	A.10



SCALE IN FEET
CONTOUR INTERVAL = 1'
(PLOT SIZE = 11" x 17")

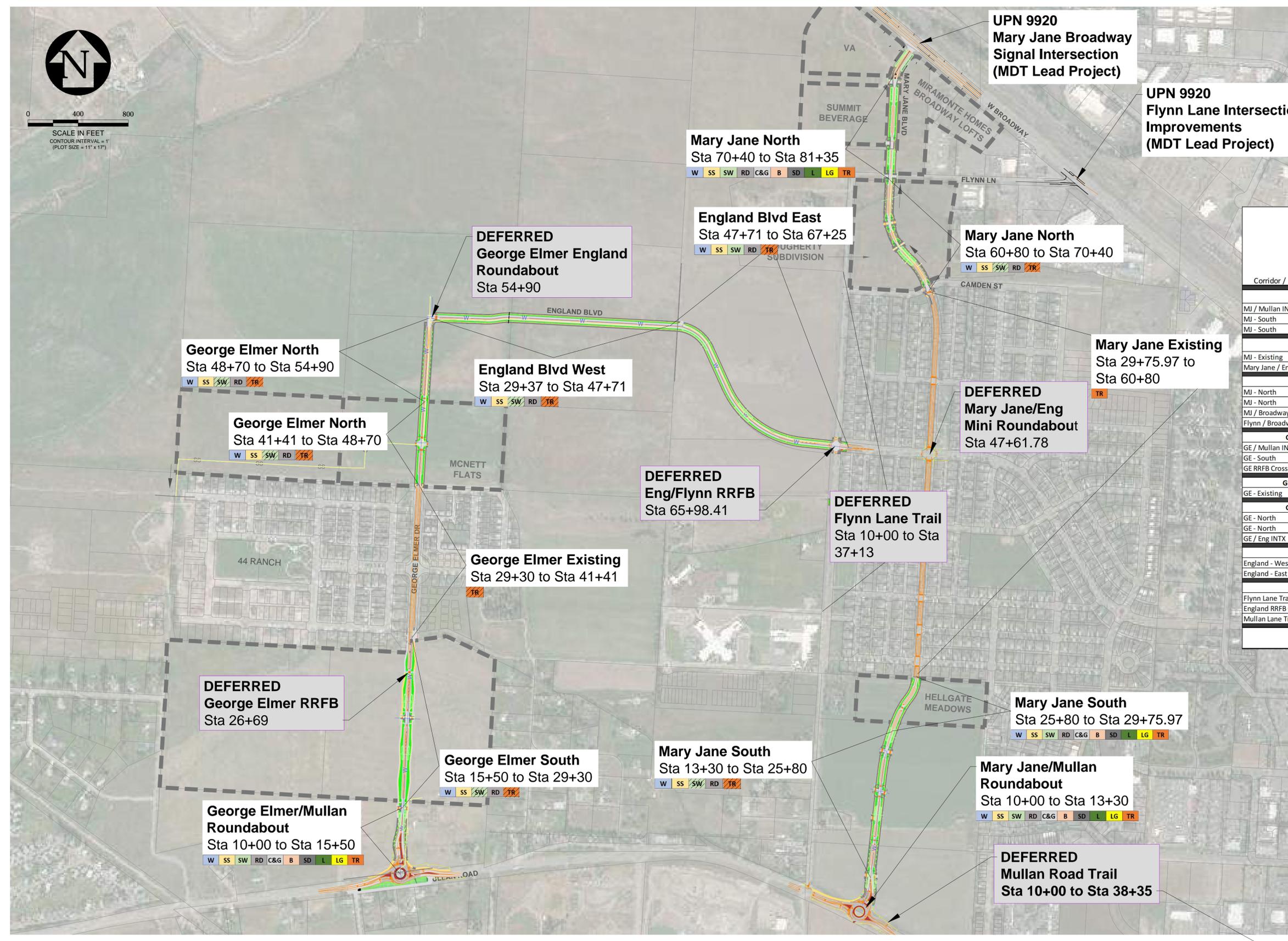


CONTRACT SCOPE SUMMARY TABLE

Corridor / Feature	Station	W	SS	SW	RD	C&G	B	SD	L	LG	TR	D
Mary Jane South												
MJ / Mullan INTX	10+00 to 13+30											
MJ - South	13+30 To 25+80											
MJ - South	25+80 To 29+75.97											
Mary Jane - Existing												
MJ - Existing	29+75.97 to 60+80											
Mary Jane / Eng INTX	47+61.78											
Mary Jane - North												
MJ - North	60+80 to 70+40											
MJ - North	70+40 to 81+35											
MJ / Broadway INTX	N/A											MDT
Flynn / Broadway INTX	N/A											MDT
George Elmer - South												
GE / Mullan INTX	10+00 to 15+50											
GE - South	15+50 to 29+30											
GE RRFB Crossing	26+69											
George Elmer - Existing												
GE - Existing	29+30 to 41+41											
George Elmer - North												
GE - North	41+41 to 48+70											
GE - North	48+70 to 54+90											
GE / Eng INTX	54+90											
England Blvd												
England - West	29+37 to 47+71											
England - East	47+71 + 67+25											
Trail												
Flynn Lane Trail	10+00 to 37+13											
England RRFB Crossing	Eng 65+98.41											
Mullan Lane Trail	10+00 to 38+35											
Notes:		MDT	Scope to be completed by MDT lead project Partial stormwater facilities scope installed									

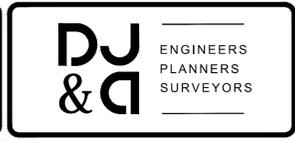
LEGEND

- WATER UTILITY — W — W —
- SEWER UTILITY — SS — SS —
- STORMWATER — SW — SW —
- ROADWAY
- CURB AND GUTTER
- BIKE FACILITIES
- SIDEWALK
- LANDSCAPING
- LIGHTING
- STRIPE & SIGNING
- FULLY DEFERRED



REVISION	DATE	DESCRIPTION
1	12/30/2020	PARTIAL SCOPE APPLIED
2	1/7/2020	PARTIAL SCOPE UPDATED, MULLAN LANE TRAIL DEFERRED

DESIGNER _____ PROJ. NO. _____
 DRAWN _____ DATE _____
 CHECKED _____ SURVEYED _____



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PROJECT SCOPE EXHIBIT

SHEET
OF
A.4 A.10



SURVEY CONTROL INFORMATION

NORTHING AND EASTING IN INTERNATIONAL FEET UNITS -
ELEVATION IN US SURVEY FEET UNBITS.

NAD 83(2011) EPOCH 2010
MT STATE PLANE ZONE 2500
GEOID 18
CSF = 0.999924322

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP-1	1010665.22	818318.10	3200.73	MSOL
CP-2	1001256.20	831946.60	3174.64	T446
CP-3	1001475.06	831712.78	3181.17	R002
CP-4	994886.37	827558.50	3155.24	BM4-ELM



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	D&A P.C.



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SURVEY CONTROL

SHEET
OF
A.5 A.10