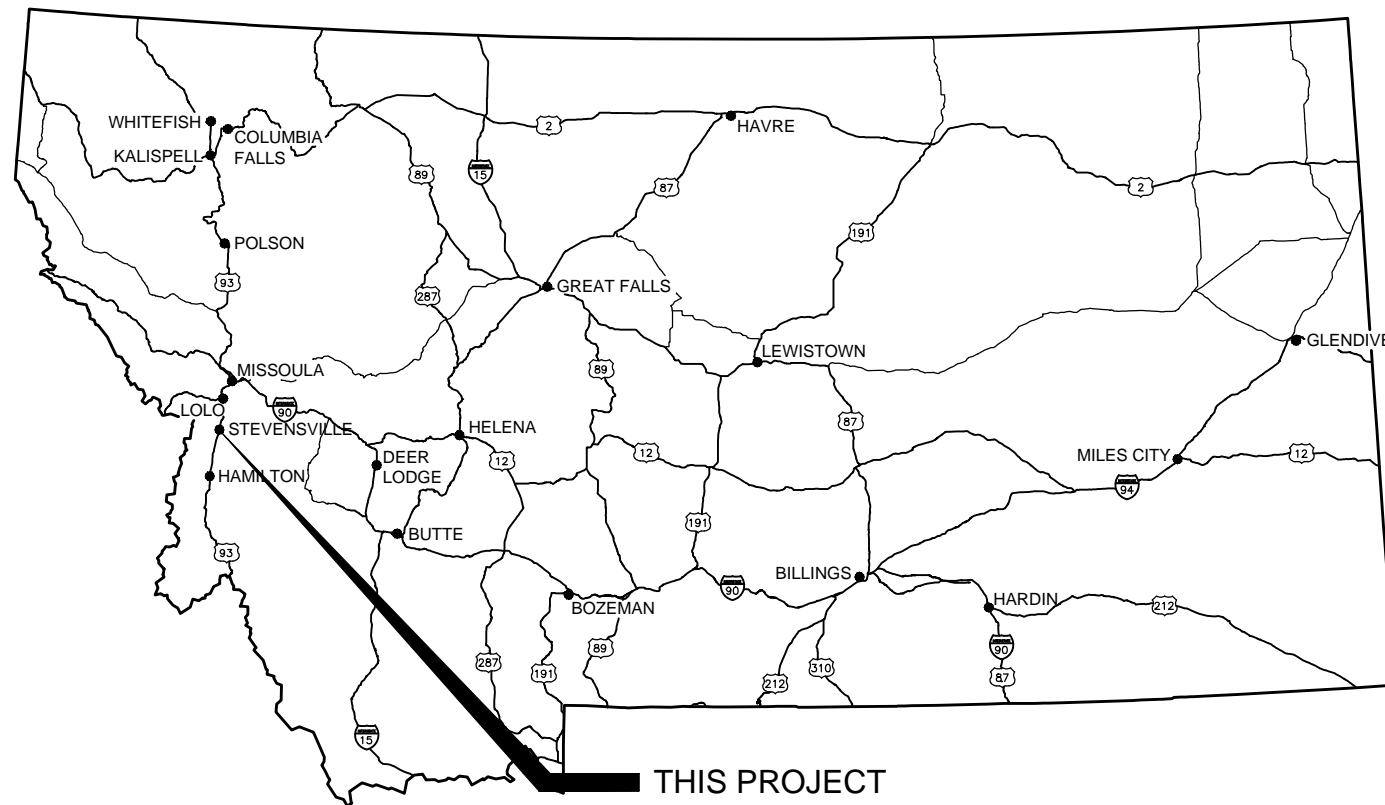




# Town of Stevensville, MT



Contract Drawings For

## 3rd Street East Improvements

DRAWINGS INDEX

1	CV
2	LG
3-4	RT
5-6	RS

COVER SHEET & DRAWING INDEX  
 GENERAL NOTES & ABBREVIATIONS  
 ROADWAY DETAILS  
 ROADWAY SURFACING & LAYOUT

HDR Project No.  
10223814

March, 2021

Stevensville, MT

# BID SET FOR ADVERTISEMENT

DIAL BEFORE YOU DIG!!  
 CALL ONE CALL LOCATORS  
 #1-800-424-5555

**ABBREVIATIONS**

ABC	AGGREGATE BASE COURSE	MAX	MAXIMUM
AFG	ABOVE FINISHED GRADE	MH	MANHOLE
AGGR	AGGREGATE	MIN	MINIMUM
ALIG	ALIGNMENT	MISC	MISCELLANEOUS
ALUM	ALUMINUM	MON	MONUMENT
AP	ANGLE POINT	N	NORTH, NORTHING
APRX	APPROXIMATE	NOM	NOMINAL
APVD	APPROVED	NPS	NOMINAL PIPE SIZE
AVE	AVENUE	NTS	NOT TO SCALE
AVG	AVERAGE	OD	OUTSIDE DIAMETER
BITUM	BITUMINOUS	OH	OVERHEAD
BKG	BACKING	OPT	OPTIONAL
BC	BRASS CAP	OR	OUTSIDE RADIUS
BLDG	BUILDING	PB	PULL BOX
BLK	BLOCK	PC	POINT OF CURVE
BM	BENCHMARK	PCC	POINT OF COMPOUND CURVATURE
BOC	BACK OF CURB	PED	PEDESTAL
BOP	BOTTOM OF PIPE	PERP	PERPENDICULAR
BOT	BOTTOM	PI	POINT OF INTERSECTION
BTW	BETWEEN	PL	PROPERTY LINE
C&G	CURB AND GUTTER	PP	POWER POLE
CB	CATCH BASIN	PRC	POINT OF REVERSE CURVATURE
CF	CUBIC FEET (FOOT)	PRELIM	PRELIMINARY
CI	CURB INLET	PROP	PROPERTY, PROPOSED
CIP	CAST-IN-PLACE	PT	POINT, POINT OF TANGENCY
CL	CENTERLINE	PVC	POINT OF VERTICAL CURVE
CLR	CLEAR	PVMT	PAVEMENT
CMH	COMMUNICATION MANHOLE	QTY	QUANTITY
CMP	CORRUGATED METAL PIPE	R&R	REMOVE AND REPLACE
COB	CITY OF BILLINGS	R&S	REMOVE AND SALVAGE
COMB	COMBINATION	R	RADIUS
CONC	CONCRETE	REINF	REINFORCING
CONST	CONSTRUCTION	REM	REMOVE
COOR	COORDINATE	REQD	REQUIRED
CP	CONTROL POINT	RET	RETAINING
CTR	CENTER	REV	REVERSE
CTRL	CONTROL	RND	ROUND
CVT	CULVERT	ROW, R/W	RIGHT-OF-WAY
CY	CUBIC YARD	RR	RAILROAD
DEG	DEGREE	RSP	ROCK SLOPE PROTECTION
DEMO	DEMOLITION	RT	RIGHT
DET	DETAIL	S	SOUTH
DI	DROP INLET	SAN	SANITARY
DIA	DIAMETER	SECT	SECTION
DIM	DIMENSION	SF	SQUARE FOOT
DIST	DISTANCE	SL	SLOPE
DP	DEPTH	SLTD	SLOTTED
DWG	DRAWING	SPEC	SPECIFICATION
E	EAST, EASTING	SQ	SQUARE
EL, ELEV	ELEVATION	SSMH	SANITARY SEWER MANHOLE
ELEC	ELECTRICAL	ST	STREET
EMH	ELECTRICAL MANHOLE	STA	STATION
ENGR	ENGINEER	STD	STANDARD
EOP	EDGE OF PAVEMENT	STL	STEEL
EQ	EQUAL	SY	SQUARE YARD
EQUIV	EQUIVALENT	TAN	TANGENT
EST	ESTIMATE	TBM	TEMPORARY BENCHMARK
EXC	EXCAVATION	TC	TEMPORARY CONSTRUCTION EASEMENT
EX	EXISTING	TEMP	TEMPORARY
FES	FLARED END SECTION	TOB	TOP OF BANK, TOP OF BERM
FG	FINISHED GRADE	TOC	TOP OF CURB
FH	FIRE HYDRANT	TOPO	TOPOGRAPHY
FIN	FINISH	TOS	TOE OF SLOPE
FL	FLOW, FLOW LINE	TOW	TOP OF WALL
FN	FENCE	TP	TELEPHONE POLE
FO	FIBER OPTIC	TRANS	TRANSITION
FOC	FACE OF CURB	TYP	TYPICAL
FT	FEET, FOOT	UG	UNDERGROUND
GG	GUTTER GRADE	UNO	UNLESS NOTED OTHERWISE
GND	GROUND	UTIL	UTILITY
GR	GRADE	VC	VERTICAL CURVE
GVL	GRAVEL	VCT	VERTICAL CENTERLINE
GW	GUY WIRE	VERT	VERTICAL
H	HIGH	VIF	VERIFY IN FIELD
HC	HORIZONTAL CURVE	VOL	VOLUME
HORIZ, HORZ	HORIZONTAL	VPC	VERTICAL POINT OF CURVATURE
HMA	HOT MILLED ASPHALT	VPI	VERTICAL POINT OF INTERSECTION
HP	HIGH POINT	VPT	VERTICAL POINT OF TANGENCY
HPC	HORIZONTAL POINT OF CURVATURE	W	WEST
HPT	HORIZONTAL POINT OF TANGENCY	WD	WIDTH
HT	HEIGHT	WL	WATER LEVEL
HWL	HIGH WATER LEVEL	WS	WATER SURFACE
HYD	HYDRAULIC	WT	WEIGHT
ID	INSIDE DIAMETER	WWF	WELDED WIRE FABRIC
IE	INVERT ELEVATION	XSECT	CROSS SECTION
IN	INCH		
INC	INCLUDE		
INV	INVERT		
IR	INSIDE RADIUS		
IRR	IRRIGATION		
L	LENGTH		
LDG	LANDING		
LED	LIGHT EMITTING DIODE		
LF	LINEAR FOOT		
LIN	LINEAR		
LP	LOW POINT		
LT	LEFT		

**CIVIL MAPPING SYMBOLOGY**

	EMBANKMENT SLOPE (CUT)
	EMBANKMENT SLOPE (FILL)
	EMBANKMENT SLOPE RIGHT ARROW RIGHT
	EMBANKMENT SLOPE LEFT ARROW LEFT
	SPOT ELEVATION/POINT #
	SURVEY BENCHMARK
	SURVEY CONTROL POINT
	HORIZONTAL CONTROL POINT
	VERTICAL CONTROL POINT
	SECTION CORNER MONUMENT
	SECTION CORNER NO MONUMENT
	IDENTIFICATION AND APPROXIMATE LOCATION OF SOIL BORE HOLE
	TEST PIT
	SOIL BORING
	FLOW ARROW
	WATER LEVEL IN SECTION/PROFILE
	IRRIGATION HEAD
	WATER MANHOLE
	TELEPHONE PEDESTAL
	FIBER OPTIC PEDESTAL
	EXISTING UTILITY POLE
	DOWNGUY
	POWER METER
	EXISTING TRAFFIC SIGNAL
	EXISTING STREET LIGHT
	EXISTING PULL BOX
	MAILBOX
	NATURAL GAS METER
	VALVE
	INTERSTATE HIGHWAY SYMBOL
	US HIGHWAY SYMBOL
	STATE HIGHWAY SYMBOL
	RAIL SIGNAL
	RAIL SWITCH
	SIGN

**UTILITY/CIVIL LINE SYMBOLOGY**

	CMP CULVERT
	CENTERLINE
	BOTTOM OF DITCH
	PROPERTY LINE
	EASEMENT
	LIMITS OF CONSTRUCTION
	ROW
	EXISTING CONTOUR (MINOR)
	EXISTING CONTOUR W/ELEVATION (MAJOR)
	EXISTING FENCE
	EXISTING VEGETATION/BRUSH LINE
	FENCE - BARB WIRE
	FENCE - CHAIN LINK
	FENCE - FIELD
	FENCE - OTHER
	FENCE - WOOD
	FENCE - WOVEN WIRE
	NEW CONTOUR (MINOR)
	NEW CONTOUR (MAJOR)
	TOE OF SLOPE
	TOP OF SLOPE
	STORM DRAIN
	SANITARY SEWER
	SANITARY SEWER SERVICE
	DOMESTIC WATER
	NATURAL GAS
	UNDERGROUND ELECTRICAL
	TELEPHONE
	FIBER OPTIC
	OVERHEAD POWER
	FLOW LINE

**BID SET**

**GENERAL NOTES:**

1. THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
2. LISTING OF ABBREVIATIONS DOES NOT IMPLY THAT ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
3. THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
4. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.



PROJECT MANAGER		RILEY LUBBERS
DESIGNED BY	CBC	
REVIEWED BY	RCL	
CHECKED BY	LJF	
3	03-15-2021	BID SET
2	10-19-2020	FINAL DESIGN
1	09-01-2020	PRELIMINARY DESIGN
ISSUE	DATE	DESCRIPTION
PROJECT NUMBER		10223814



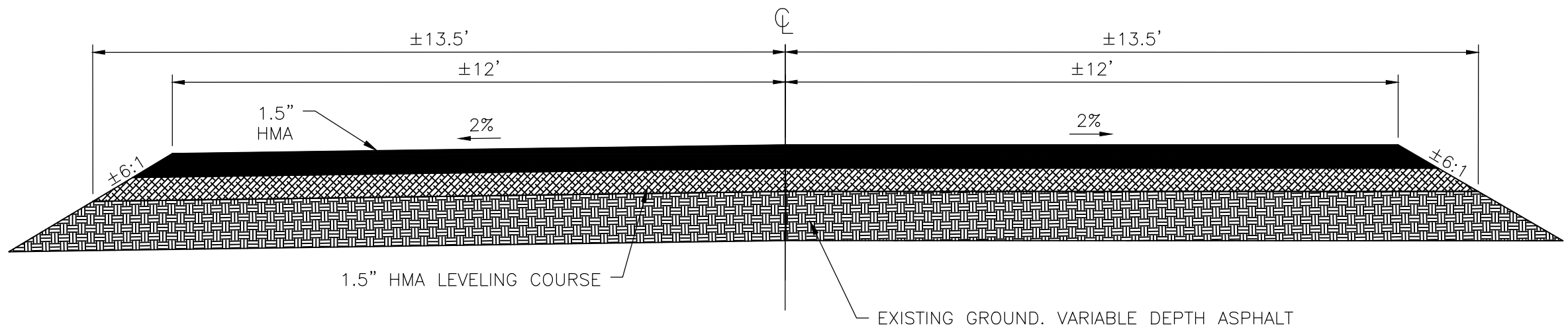
**Town of Stevensville, MT**  
**3rd St. East Improvements**

**GENERAL NOTES & ABBREVIATIONS**

LINE IS 1 INCH  
 AT FULL SIZE  
 (IF NOT 1" - SCALE ACCORDINGLY)

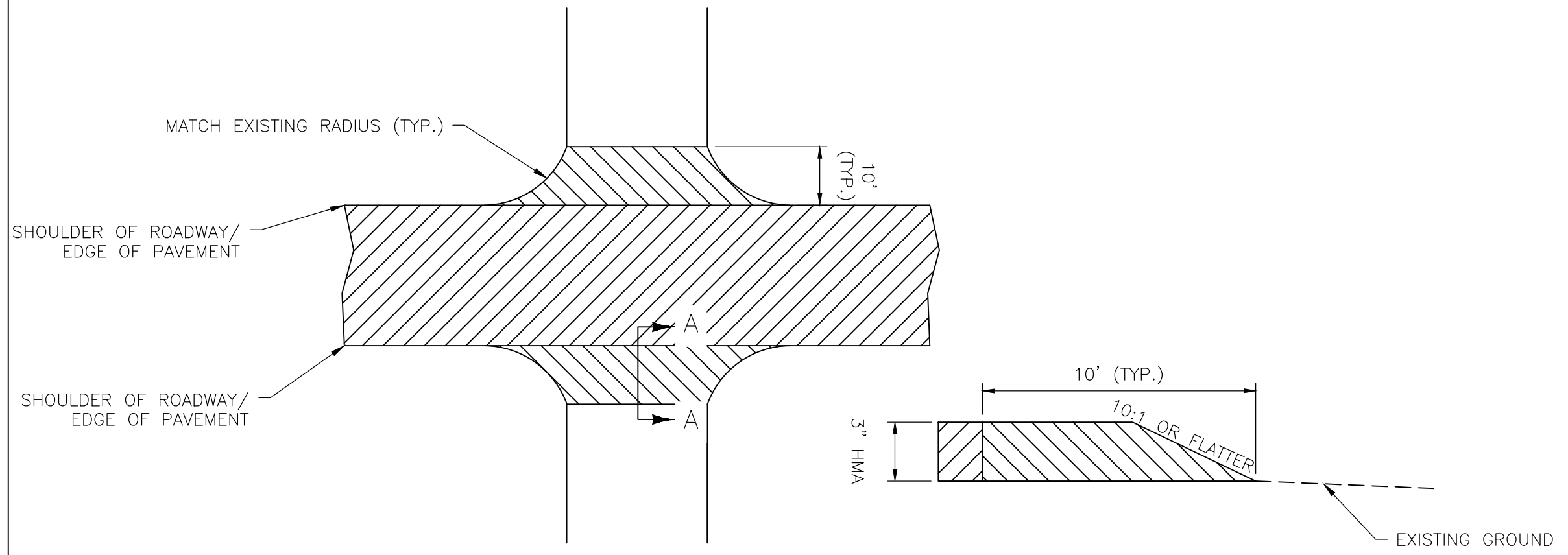
SHEET NAME  
**LG - 01**

SHEET NUMBER  
**2 OF 6**



3RD ST. E. TYPICAL SECTION

NOTE: SURFACING MUST MEET MATERIAL AND CONSTRUCTION REQUIREMENTS OF MPWSS.



PUBLIC APPROACH PAVING DETAIL

SECTION A-A



ISSUE	DATE	DESCRIPTION
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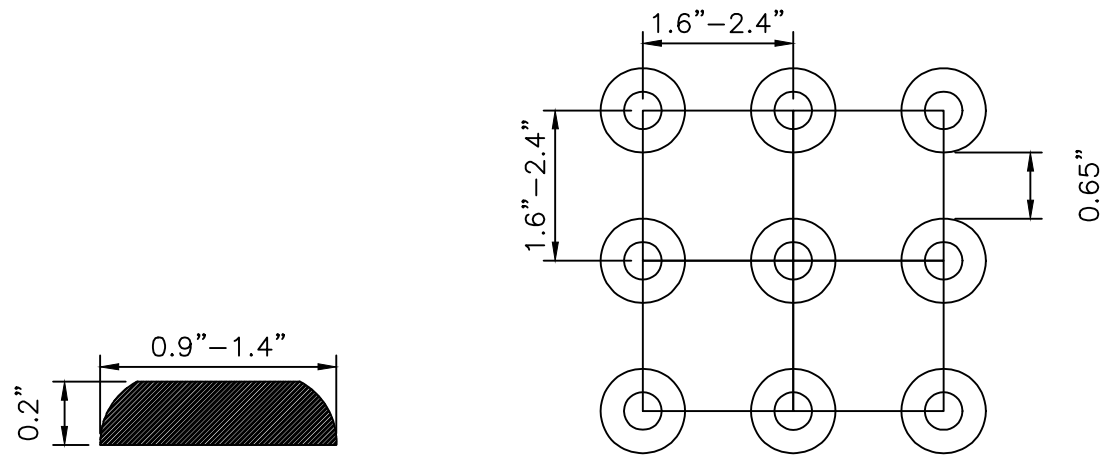
Town of Stevensville, MT  
3rd St. East Improvements

ROADWAY DETAILS  
PAVING DETAILS

LINE IS 1 INCH  
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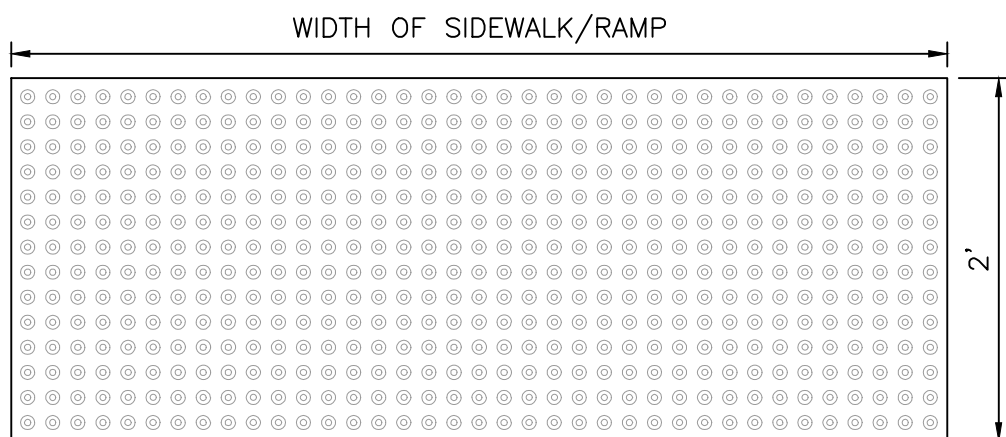
SHEET NAME  
RT - 01

SHEET NUMBER  
3 OF 6



TRUNCATED DOME SIZE

TRUNCATED DOME PATTERN & SPACING

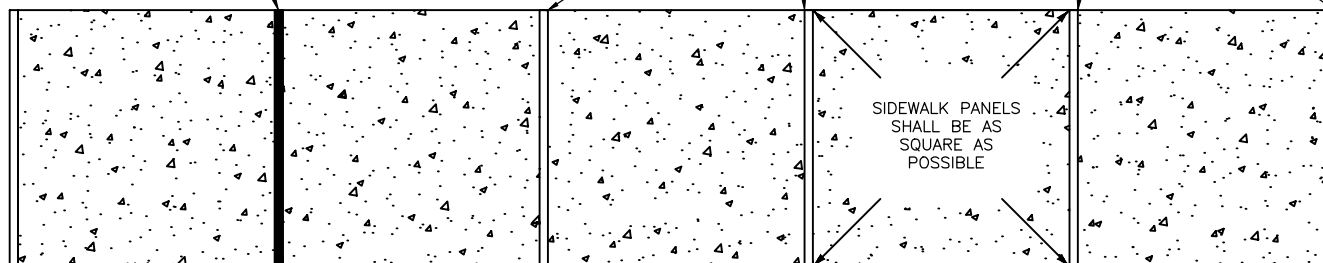


DETECTABLE WARNING PANEL

1. DETECTABLE WARNING PANEL SHALL FULLY COMPLY WITH ALL CURRENT ADA REQUIREMENTS AND SPECIFICATIONS
2. DETECTABLE WARNING PANEL MATERIAL SHALL BE APPROVED BY ENGINEER
3. CURRENT ACCEPTABLE DETECTABLE WARNING PANEL MATERIALS;
  - 3.1. PRECAST CONCRETE
  - 3.2. CAST IRON
4. DETECTABLE WARNING PANEL SHALL BE PLACED ON GRADE TO MATCH SIDEWALK/RAMP;
  - 4.1. NOT TO EXCEED EIGHT (8%) PERCENT MAXIMUM GRADE
  - 4.2. NOT TO EXCEED TWO (2%) PERCENT MAXIMUM CROSS-SLOPE
5. DETECTABLE WARNING PANEL SHALL BE PLACED PERPENDICULAR WITH DIRECTION OF PEDESTRIAN TRAVEL
6. DETECTABLE WARNING PANEL SHALL BE PLACED THREE (3") INCHES MAXIMUM FROM BACK EDGE OF CURB ON MINIMUM OF ONE (1) EDGE
7. DETECTABLE WARNING PANEL COLOR SHALL CONTRAST VISUALLY WITH ADJOINING SIDEWALK/RAMP SURFACE
8. DETECTABLE WARNING PANEL SHALL BE CAST-IN-PLACE AND FLUSH WITH SIDEWALK/RAMP SURFACE
9. SURFACE APPLIED DETECTABLE WARNING PANEL SHALL NOT BE PLACED IN NEW CONSTRUCTION
10. DETECTABLE WARNING DEVICE TO BE YELLOW IN COLOR

EXPANSION JOINT 1/2" THICK MASTIC, RECOMMENDED 1/8", MAXIMUM 1/4" BELOW FINISHED SURFACE OF SIDEWALK, FULL DEPTH, FULL WIDTH AND PINNED IN PLACE BEFORE POURING

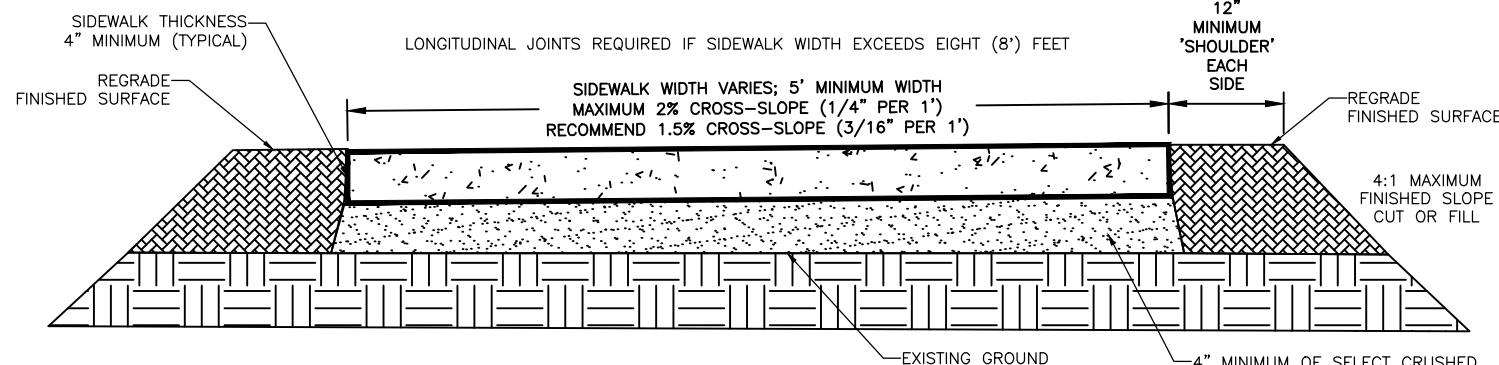
CONTRACTION JOINT SHALL BE 1/4 THE CONCRETE THICKNESS OR A MINIMUM 1" DEEP



SIDEWALK PANELS SHALL BE AS SQUARE AS POSSIBLE

MAXIMUM RUNNING GRADE 5% - INCREASED SLOPE MUST BE APPROVED BY ENGINEER - EXPANSION JOINTS NOT ALLOWED BETWEEN CURB AND SIDEWALK

SIDEWALK WIDTH VARIES; 5' MINIMUM WIDTH, VERIFY WITH ENGINEER OR OWNER PRIOR TO SETTING FORMS



1. MINIMUM OF FOUR (4") INCHES OF SELECT CRUSHED BASE SHALL BE COMPACTED TO 95% PROCTOR DENSITY.
2. MINIMUM OF FOUR (4") INCHES OF CONCRETE SIDEWALK (TYPICAL), MINIMUM SIX (6") INCHES CONCRETE SIDEWALK ON ADA RAMPS.
3. CONTRACTION JOINTS SHALL BE SPACED SO AS TO FORM AS NEAR A SQUARE PANEL AS POSSIBLE, NO SINGLE PANEL SHALL EXCEED EIGHT (8') FEET ON ANY SIDE.
4. CONTRACTION JOINTS SHALL BE ONE-FOURTH (1/4) THE CONCRETE THICKNESS OR A MINIMUM OF ONE (1") INCH DEEP.
5. EXPANSION JOINTS OF ONE-HALF (1/2") INCH THICK MASTIC MATERIAL SET ONE-EIGHTH (1/8") INCHES BELOW FINISHED SURFACE SHALL BE PLACED AT THE FOLLOWING LOCATIONS:
  - 5.1. EVERY FORTY (40') FEET OF UNINTERRUPTED SIDEWALK.
  - 5.2. P.C.'S AND P.T.'S OF CURVES.
  - 5.3. GRADE BREAKS.
  - 5.4. AT OTHER LOCATIONS AS SPECIFIED BY ENGINEER OR OWNER.
  - 5.5. ALL EXPANSION JOINTS SHALL BE FULL DEPTH, FULL WIDTH AND PINNED IN PLACE BEFORE THE FORMS WILL BE APPROVED.
6. FINISHED SIDEWALK SURFACE SHALL HAVE MEDIUM-TO-HAVY BROOM TEXTURE.
7. AFTER REMOVAL OF EXISTING SIDEWALK, REGRADE SUBGRADE MATERIAL AS NECESSARY TO CREATE A LEVEL AND UNIFORM SURFACE. WHERE TREE ROOTS EXIST ON SURFACE, ADJUST GRADE TO AVOID DAMAGE TO EXISTING ROOTS.
8. NO SIDEWALK SHALL BE POURED WITHOUT AN INSPECTION AND APPROVAL OF SUBGRADE PREPARATION, FORM AND MATERIAL PREPARATION AND PLACEMENT BY ENGINEER OR OWNER.
9. CONSTRUCTION MATERIALS AND PROCEDURES SHALL CONFORM TO EXISTING CITY OF MISSOULA AND STATE STANDARD SPECIFICATIONS FOR M-4000 CONCRETE AND MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS SECTIONS 02528 AND 03310.
10. REGRADE AND SEED ALL AREAS DISTURBED DURING REMOVAL AND CONSTRUCTION OF SIDEWALK, OR AS DIRECTED BY THE ENGINEER OR OWNER.

4" SIDEWALK DETAIL



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DESIGNED BY	CBC
REVIEWED BY	RCL
CHECKED BY	LJF
PROJECT NUMBER	10223814



Town of Stevensville, MT  
3rd St. East Improvements

ROADWAY DETAILS  
DET. WARNING PANEL & SIDEWALK

LINE IS 1 INCH  
AT FULL SIZE  
(IF NOT 1" - SCALE ACCORDINGLY)

SHEET NAME  
RT - 02

SHEET NUMBER  
4 OF 6



**BID SET**  
**GENERAL NOTES:**

1. DIMENSIONS ARE APPROXIMATE AND MAY NOT REFLECT ACTUAL FIELD CONDITIONS.
2. REPLACE FOUR (4) SEWER SERVICES LINES AT:
  - 2.1. 407 3RD ST. E.
  - 2.2. 408 3RD ST. E.
  - 2.3. 409 3RD ST. E.
  - 2.4. 501 3RD ST. E.
- UTILIZE SCHEDULE 40 PVC FOR THE SEWER LINE REPLACEMENT COUPLING FROM SEWER MAIN TO PROPERTY LINE, SIMILAR TO MPWSS DETAIL 02730-2. COVER COUPLING WITH MASTIC TO REDUCE ROOT PENETRATION.
3. REPLACE NINE (9) WATER SERVICE LINES AT:
  - 3.1. 214 PINE ST.
  - 3.2. 401 3RD ST. E.
  - 3.3. 407 3RD ST. E.
  - 3.4. 408 3RD ST. E.
  - 3.5. 501 3RD ST. E.
  - 3.6. 510 3RD ST. E.
  - 3.7. 524 3RD ST. E.
- UTILIZE HDPE 250 PSI (3/4") FOR INSTALLATION TO CURB STOP OR METER PIT (DEPENDING ON LOCATION), SIMILAR TO MPWSS DETAIL 02660-6. REPLACE SERVICE PIPE IN FULL (FROM CURB STOP TO CORPORATION STOP), DO NOT UTILIZE A COUPLING.

**CONSTRUCTION NOTES:**

- 11 3" HMA OVERLAY
- 12 REMOVE AND REPLACE EXISTING SIDEWALK & CURB RAMPS
- 13 SEWER SERVICE REPLACEMENT
- 14 WATER SERVICE REPLACEMENT

**LEGEND:**

	ASPHALT PAVEMENT
	CONCRETE - SEE CONSTRUCTION NOTES FOR DEPTH/PLACEMENT



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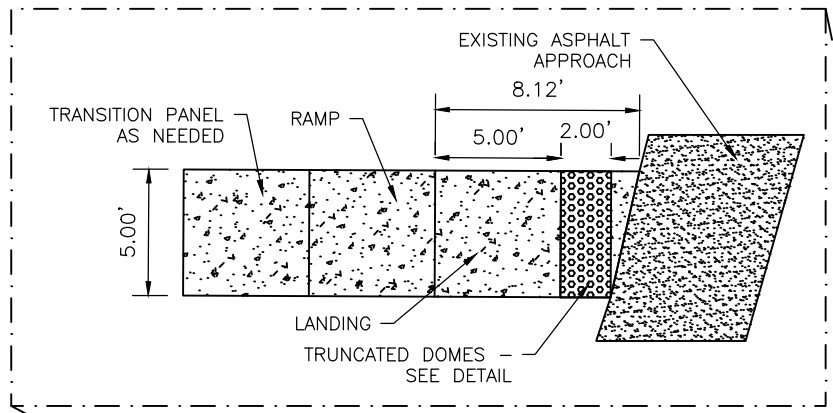
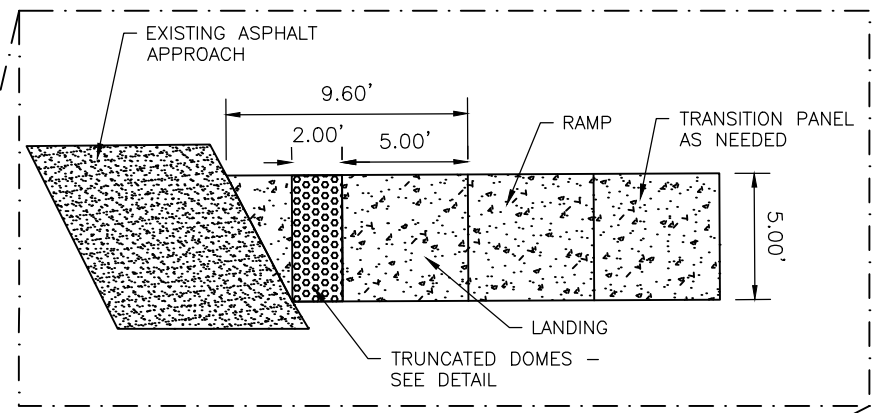


Town of Stevensville, MT  
**3rd St. East Improvements**

**ROADWAY SURFACING & LAYOUT**

LINE IS 1 INCH  
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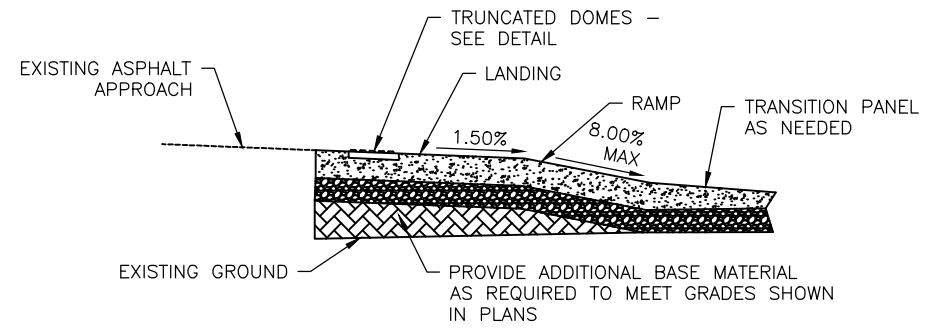
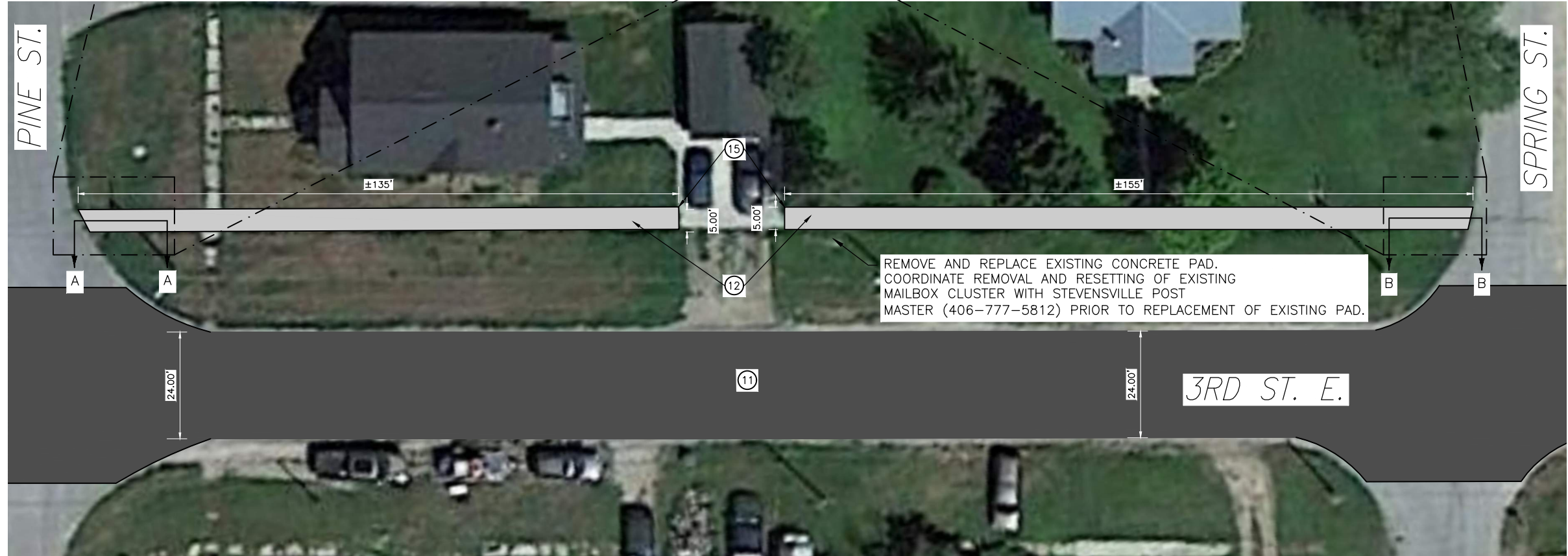
SHEET NAME	RS - 01	SHEET NUMBER	5 OF 6
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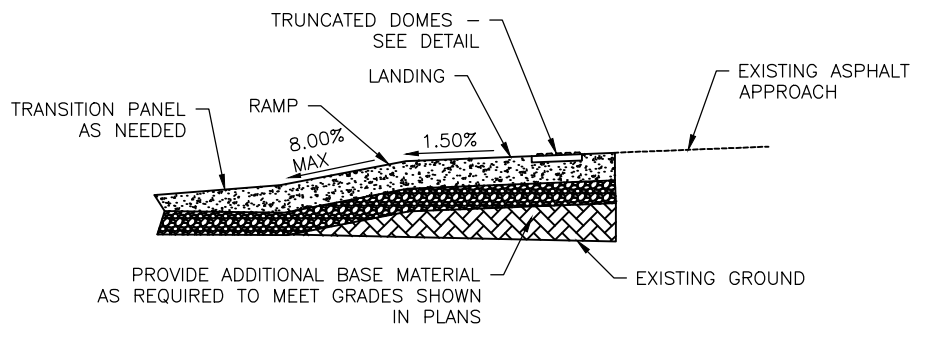
- BID SET**
- GENERAL NOTES:**
- DIMENSIONS ARE APPROXIMATE AND MAY NOT REFLECT ACTUAL FIELD CONDITIONS.
  - EXISTING UTILITY VALVES NOT SHOWN IN PLANS. CONTRACTOR TO COORDINATE WITH TOWN OF STEVENSVILLE PUBLIC WORKS DIRECTOR TO CONFIRM LOCATIONS OF SERVICES AND VALVES, AND ADJUST AND REPLACE PRIOR TO PAVING.
  - SIDEWALK RAMP DIMENSIONS SHOWN ARE APPROXIMATE. RAMPS ARE TO BE FIELD FIT, NOT TO EXCEED 8.00% RUNNING SLOPES AND 1.50% CROSS SLOPES.
  - LANDINGS SHALL BE CONSTRUCTED AT 1.50% PREFERRED, 2.00% MAX GRADE IN ALL DIRECTIONS.

- CONSTRUCTION NOTES:**
- 3" HMA OVERLAY
  - REMOVE AND REPLACE EXISTING SIDEWALK & CURB RAMPS
  - MATCH EXISTING DRIVEWAY ELEVATION AND GRADE. PROTECT-IN-PLACE EXISTING DRIVEWAY. DAMAGE TO EXISTING DRIVEWAY WILL BE REPAIRED AT CONTRACTOR'S EXPENSE

- LEGEND:**
- ASPHALT PAVEMENT
  - CONCRETE - SEE CONSTRUCTION NOTES FOR DEPTH/PLACEMENT



SECTION A-A



SECTION B-B



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Town of Stevensville, MT  
3rd St. East Improvements

ROADWAY SURFACING & LAYOUT

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SHEET NAME  
RS - 02

SHEET NUMBER  
6 OF 6