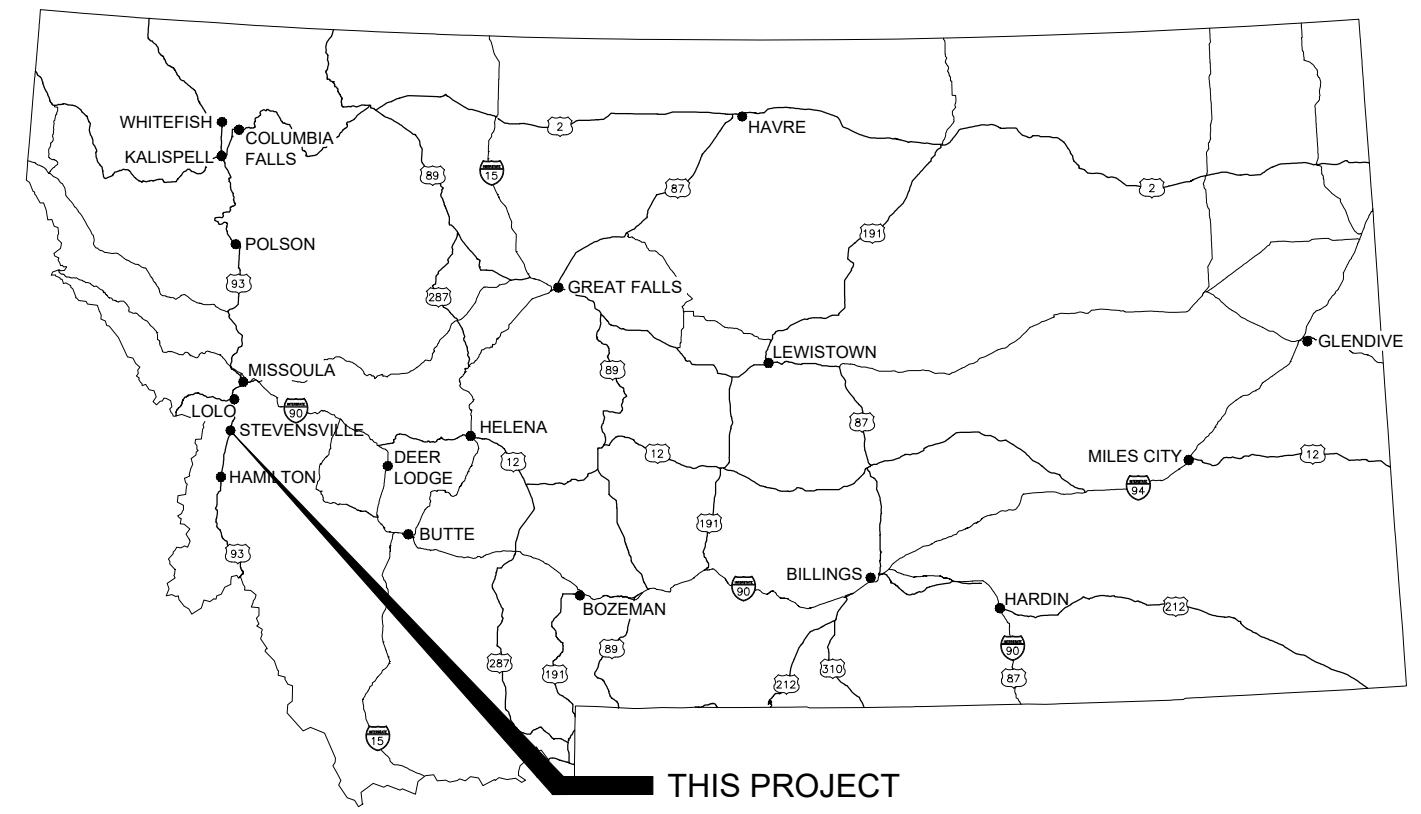




# Town of Stevensville, MT



Contract Drawings For

## Park Avenue Sewer Main Extension

HDR Project No.  
10256142

SEPTEMBER 2021

Stevensville, MT

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

DRAWINGS INDEX

- 1 G-0 COVER SHEET & DRAWING INDEX
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- 6 C-4 UTILITY DETAILS

VICINITY MAP



Survey Control				
Point #	Elevation	Northing	Easting	Description
16	3369.01	854490.58	815021.28	CP#16 "AC 3153 ES HANSON"
15	3368.48	854815.47	815122.14	CP#15 POINT AC HANSON
14	3368.27	855003.92	815132.87	CP#14 ALUM. CAP ON REBAR "31025"
13	3368.27	854838.64	815043.09	CP#13 YPC
12	3368.24	854547.91	815025.65	CP#12 5/8" REBAR
11	3364.71	855932.32	815119.73	CP#11 MAG. SPIKE
7	3365.76	855584.55	815161.21	CP#7 OPC ON REBAR "WGM COUNROL"

ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
AFG	ABOVE FINISHED GRADE
AGGR	AGGREGATE
ALIG	ALIGNMENT
ALUM	ALUMINUM
AP	ANGLE POINT
APRX	APPROXIMATE
APVD	APPROVED
AVE	AVENUE
AVG	AVERAGE
BITUM	BITUMINOUS
BKG	BACKING
BC	BRASS CAP
BLDG	BUILDING
BLK	BLOCK
BM	BENCHMARK
BOC	BACK OF CURB
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BTW	BETWEEN
C&G	CURB AND GUTTER
CB	CATCH BASIN
CF	CUBIC FEET (FOOT)
CI	CURB INLET
CIP	CAST-IN-PLACE
CL	CENTERLINE
CLR	CLEAR
CMH	COMMUNICATION MANHOLE
CMP	CORRUGATED METAL PIPE
COB	CITY OF BILLINGS
COMB	COMBINATION
CONC	CONCRETE
CONST	CONSTRUCTION
COOR	COORDINATE
CP	CONTROL POINT
CTR	CENTER
CTRL	CONTROL
CVT	CULVERT
CY	CUBIC YARD
DEG	DEGREE
DEMO	DEMOLITION
DET	DETAIL
DI	DROP INLET
DIA	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DP	DEPTH
DWG	DRAWING
E	EAST, EASTING
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
EMH	ELECTRICAL MANHOLE
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIV	EQUIVALENT
EST	ESTIMATE
EXC	EXCAVATION
EX	EXISTING
FES	FLARED END SECTION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIN	FINISH
FL	FLOW, FLOW LINE
FN	FENCE
FO	FIBER OPTIC
FOC	FACE OF CURB
FT	FEET, FOOT
GG	GUTTER GRADE
GND	GROUND
GR	GRADE
GVL	GRAVEL
GW	GUY WIRE
H	HIGH
HC	HORIZONTAL CURVE
HORIZ, HORZ	HORIZONTAL
HMA	HOT MILLED ASPHALT
HP	HIGH POINT
HPC	HORIZONTAL POINT OF CURVATURE
HPT	HORIZONTAL POINT OF TANGENCY
HT	HEIGHT
HWL	HIGH WATER LEVEL
HYD	HYDRAULIC
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
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

MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
N	NORTH, NORTHING
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPT	OPTIONAL
OR	OUTSIDE RADIUS
PB	PULL BOX
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVATURE
PED	PEDESTAL
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PRELIM	PRELIMINARY
PROP	PROPERTY, PROPOSED
PT	POINT, POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVMT	PAVEMENT
QTY	QUANTITY
R&R	REMOVE AND REPLACE
R&S	REMOVE AND SALVAGE
R	RADIUS
REINF	REINFORCING
REM	REMOVE
REQD	REQUIRED
RET	RETAINING
REV	REVERSE
RND	ROUND
ROW, R/W	RIGHT-OF-WAY
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
S	SOUTH
SAN	SANITARY
SECT	SECTION
SF	SQUARE FOOT
SL	SLOPE
SLTD	SLOTTED
SPEC	SPECIFICATION
SQ	SQUARE
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
SY	SQUARE YARD
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEMP	TEMPORARY
TOB	TOP OF BANK, TOP OF BERM
TOC	TOP OF CURB
TOPO	TOPOGRAPHY
TOS	TOE OF SLOPE
TOW	TOP OF WALL
TP	TELEPHONE POLE
TRANS	TRANSITION
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
VC	VERTICAL CURVE
VCT	VERTICAL CENTERLINE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VOL	VOLUME
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST
WD	WIDTH
WL	WATER LEVEL
WS	WATER SURFACE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
XSECT	CROSS SECTION

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

	CULVERT END SYMBOL (WITH CULVERT SHOWN BETWEEN SYMBOLS)
	FIRE HYDRANT
	MONITORING WELL
	DRAINAGE INFILTRATION STRUCTURE
	SANITARY MANHOLE
	STORM CATCH BASIN
	STORM ROUND CATCH BASIN
	STORM DRAINAGE MANHOLE

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

- 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.



ISSUE	DATE	DESCRIPTION
-	SEPT 2021	DEQ SUBMITTAL - REVISION NO. 1
-	JULY 2021	DEQ SUBMITTAL
-	MAY 2021	90% DRAWINGS

PROJECT MANAGER	
DESIGNER 1	J. MORAN
DRAWN BY	R. PARKE
CHECKED BY	
PROJECT NUMBER	10256142



9/10/2021



Town of Stevensville, MT  
Park Avenue  
Sewer Main Extension

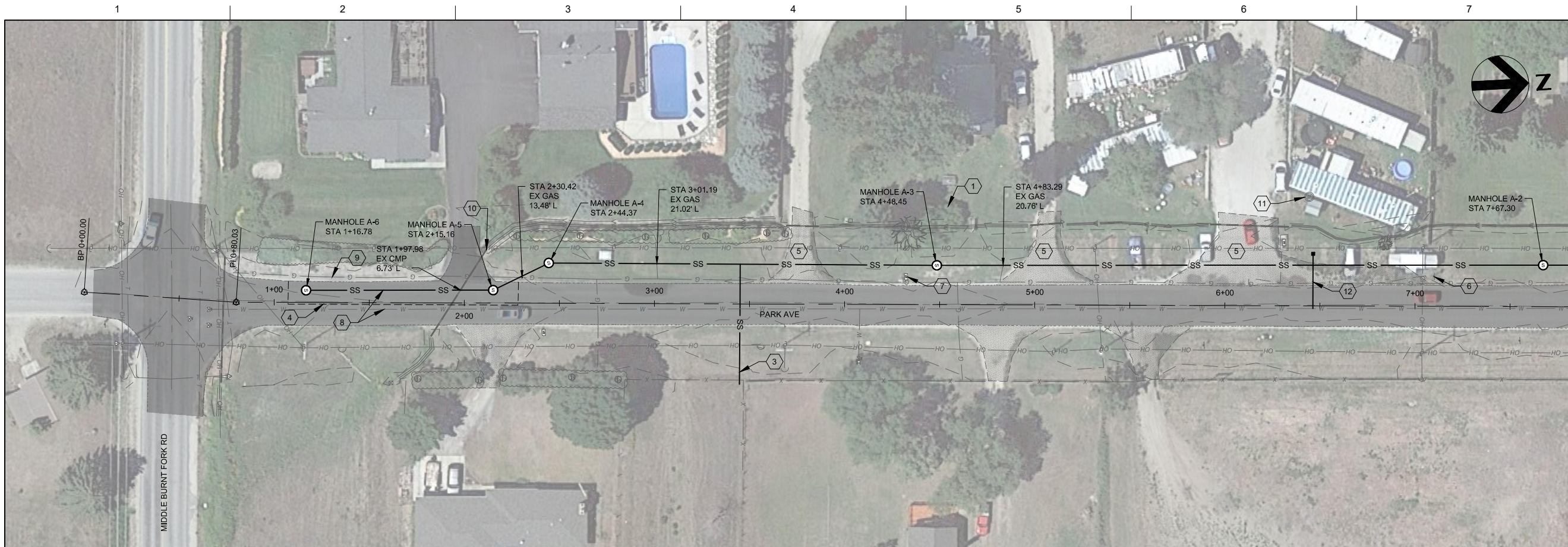


GENERAL NOTES & ABBREVIATIONS

FILENAME | G-1.dwg  
SCALE | NONE

SHEET  
G-1










**GENERAL NOTES:**

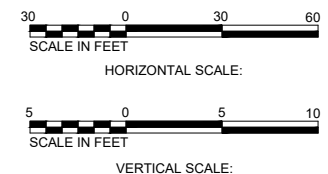
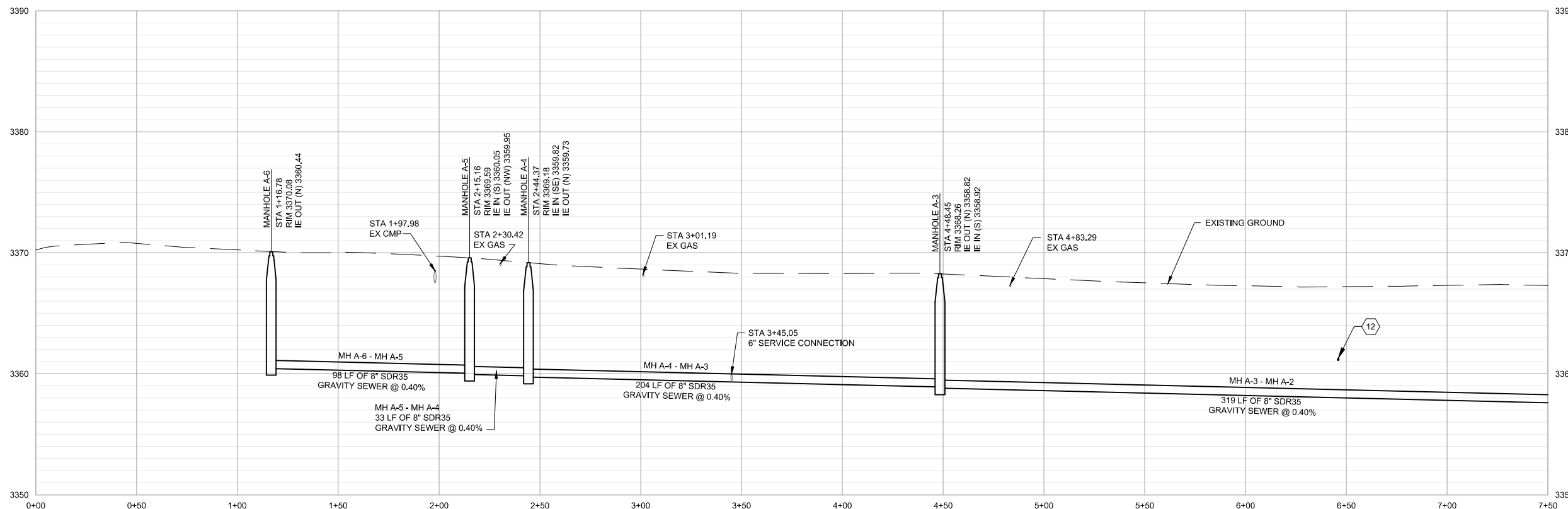
1. THE UNDERGROUND UTILITIES SHOWN HEREIN ARE THE HORIZONTAL LOCATION OF THOSE UNDERGROUND UTILITIES AS MARKED BY THE OPERATORS OF THOSE UTILITIES, OR THEIR AGENTS, AS REQUIRED BY MONTANA LAW, ANNOTATED CODE, 69-4-502. THE UTILITY SURVEY DOES NOT GUARANTEE THE EXISTENCE, NON-EXISTENCE, SIZE, TYPE, LOCATION, ALIGNMENT, OR DEPTH OF ANY OR ALL UNDERGROUND UTILITIES OR OTHER FACILITIES. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES AND FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES. PRIOR TO COMMENCING WORK. IF ANY POTENTIAL CONFLICTS ARE IDENTIFIED, THE CONTRACTOR SHALL CONTACT THE OWNER/ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT 2010 VERSION OF THE "MONTANA PUBLIC WORKS STANDARD SPECIFICATION".
3. PROTECT-IN-PLACE EXISTING MANHOLES, WATER VALVES, HYDRANTS, AND OTHER MISCELLANEOUS UTILITIES AND FEATURES NOT CALLED OUT IN THE PLANS.

**KEYNOTES:** (X)

1. EXISTING TREES, PROTECT-IN-PLACE.
2. EXISTING CONCRETE SIDEWALK, PROTECT-IN-PLACE.
3. 6 IN SERVICE CONNECTION SLOPE 1/4"/FT FOR 61 FT TO PROPERTY LINE.
4. CUT AND REPAIR ASPHALT MATCH EXISTING SUB-GRADE AND ASPHALT DEPTH AS NEEDED.
5. PATCH AND REPAIR ALL DRIVEWAYS. RESTORE TO ORIGINAL CONDITION. PRE-CONSTRUCTION DOCUMENTATION OF DRIVEWAY CONDITIONS IS REQUIRED.
6. REMOVE AND REINSTALL SIGN.
7. REMOVE AND REINSTALL MAILBOX.
8. WATER LINE LOCATION IS APPROXIMATE. FIELD VERIFY LOCATION WATERLINE LOCATION AND ENSURE 10 FT CLEARANCE TO SEWER MAIN IS MAINTAINED.
9. PROTECT IN PLACE EXISTING GAS LINE.
10. MAINTAIN OPERATION OF DITCH.
11. EXISTING APPLE BLOSSOM COURT COMMUNITY DRINKING WATER WELL.
12. PROPOSED 2 IN WATER SERVICE AND CURB STOP. SEE DETAIL ON SHEET C-4. EXISTING WATER MAIN DEPTH ON PARK AVENUE IS UNKNOWN. CONTRACTOR TO ASSUME A MINIMUM DEPTH OF 6 FT.

**LEGEND:**

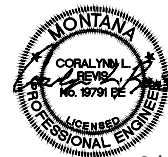
-  REMOVE ASPHALT PAVEMENT
-  SKIM EXISTING SURFACE OF ORGANICS & VEGETATION. SMOOTH GRADE TO DRAIN USING BASE MATERIAL WHERE NEEDED
-  EXISTING CONCRETE
-  EXISTING GRAVEL/NATIVE MATERIAL
-  EXISTING ASPHALT SURFACE



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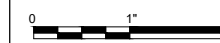
9/10/2021



Town of Stevensville, MT

**Park Avenue  
Sewer Main Extension**

**CIVIL  
PLAN AND PROFILE  
STA 0+00 - STA 7+50**



FILENAME C-1.dwg  
SCALE AS SHOWN

SHEET  
**C-1**





**GENERAL NOTES:**

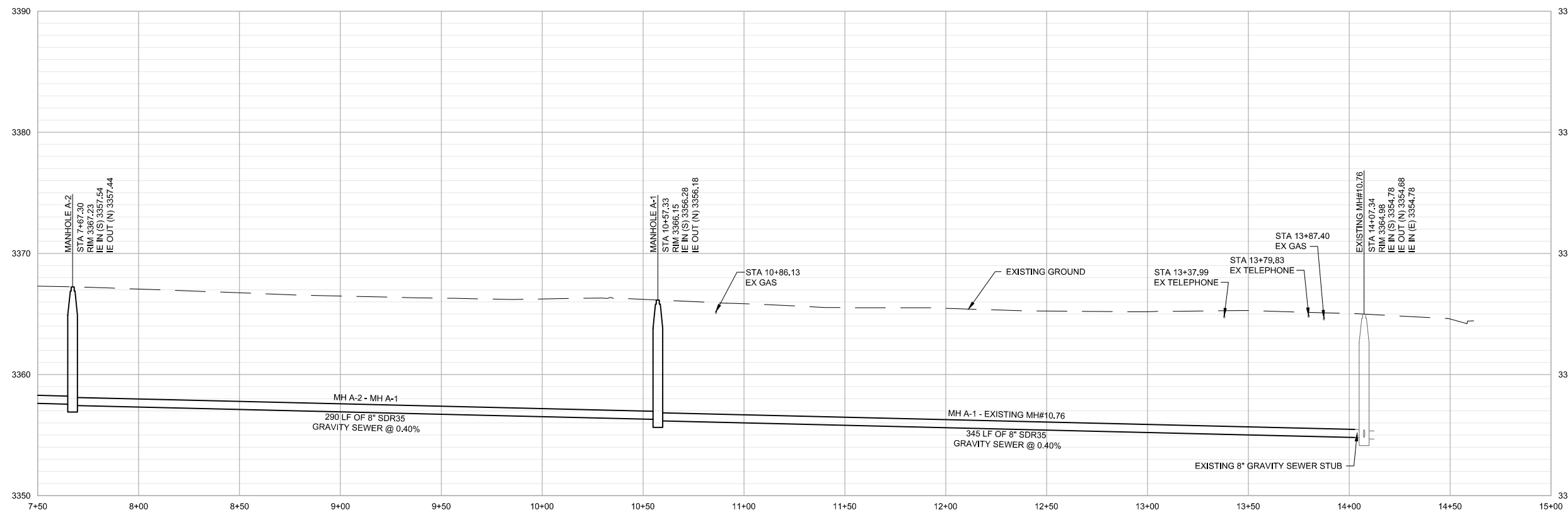
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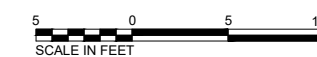
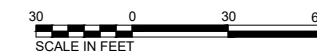
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4. REMOVE AND REINSTALL SIGN.
5. REMOVE AND REINSTALL MAILBOX.



**LEGEND:**

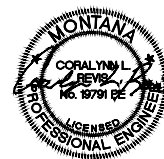
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Town of Stevensville, MT

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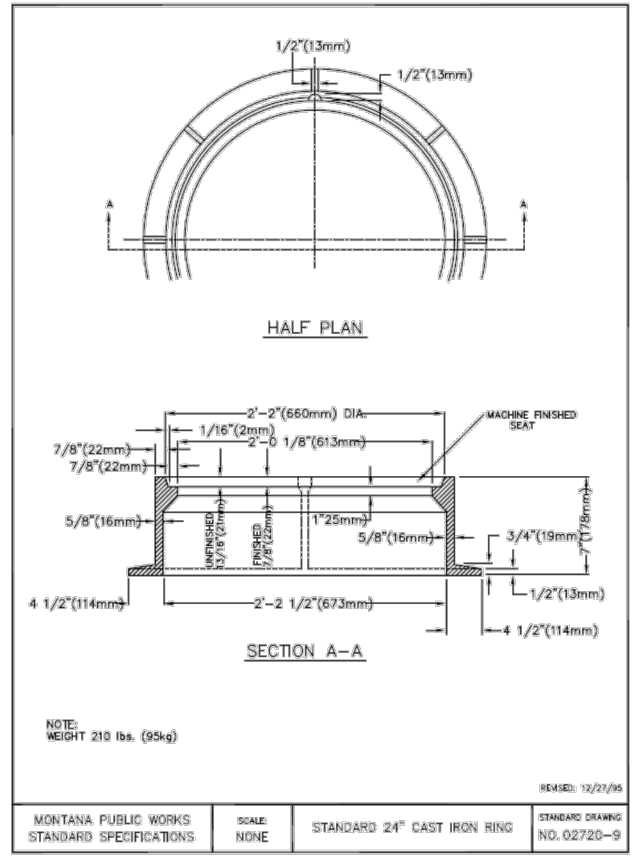
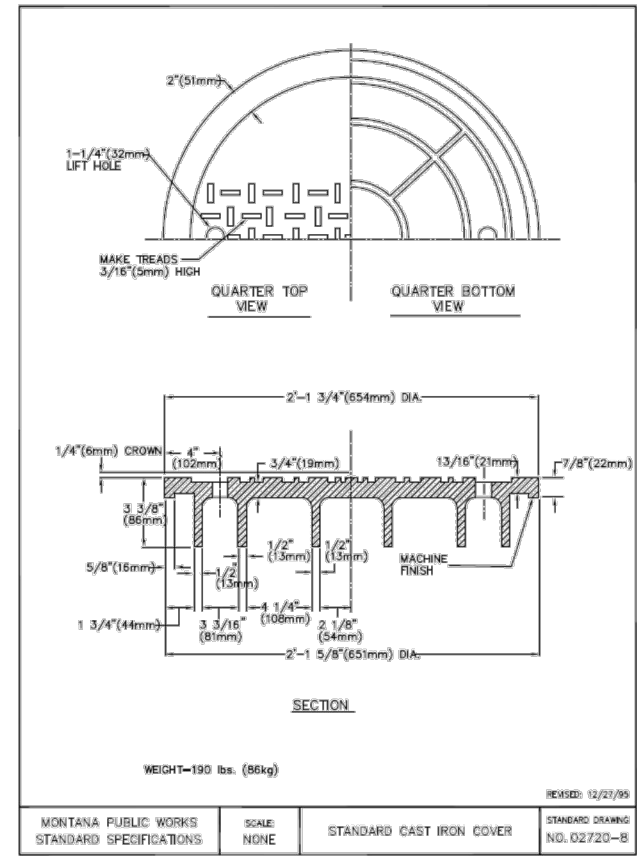
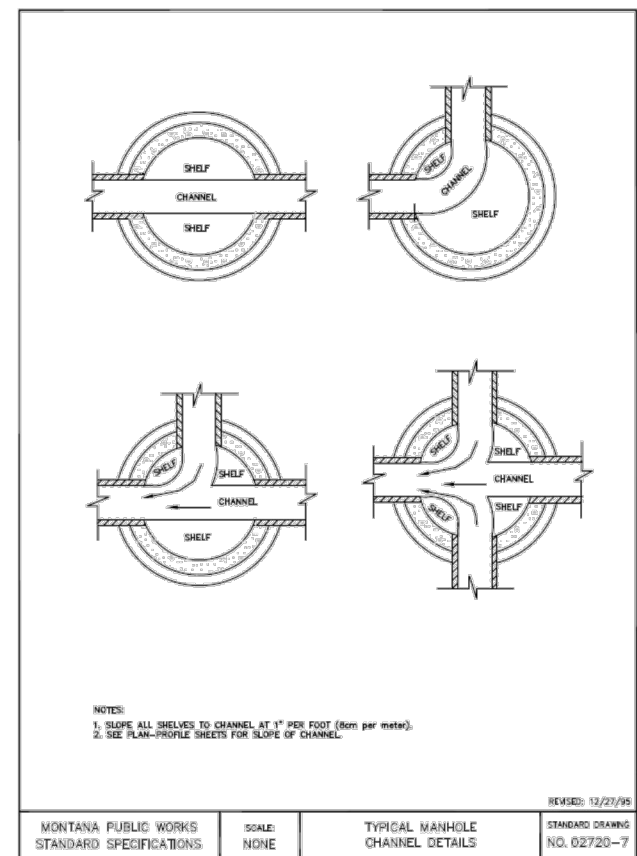
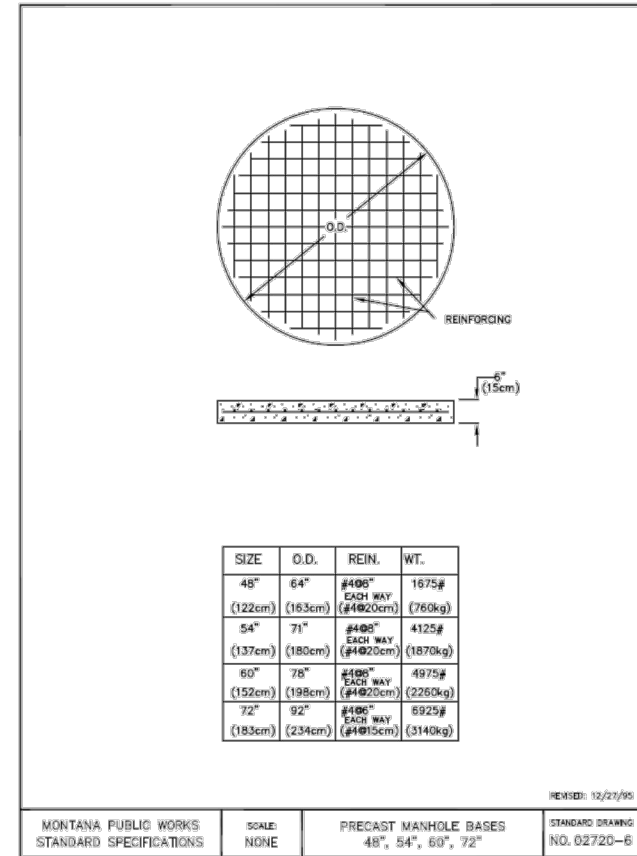
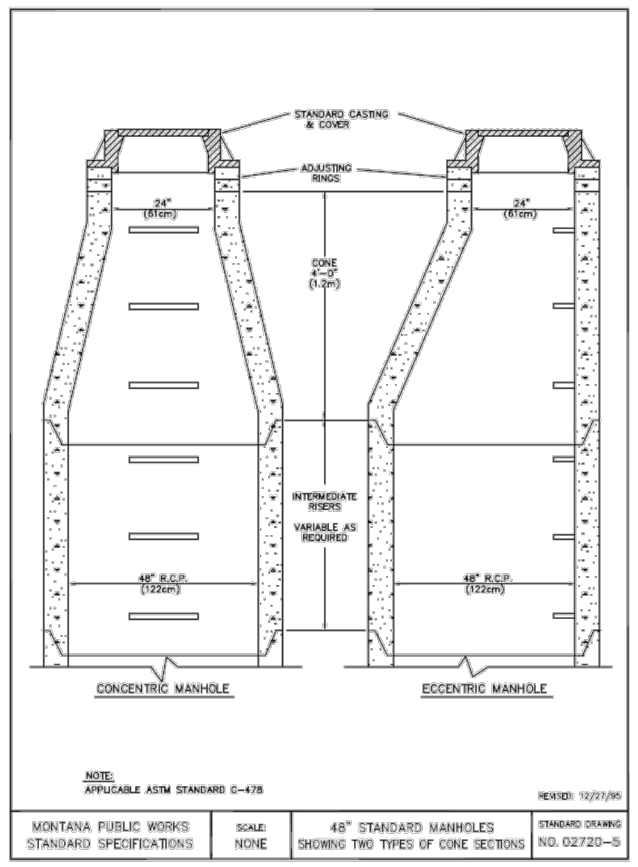
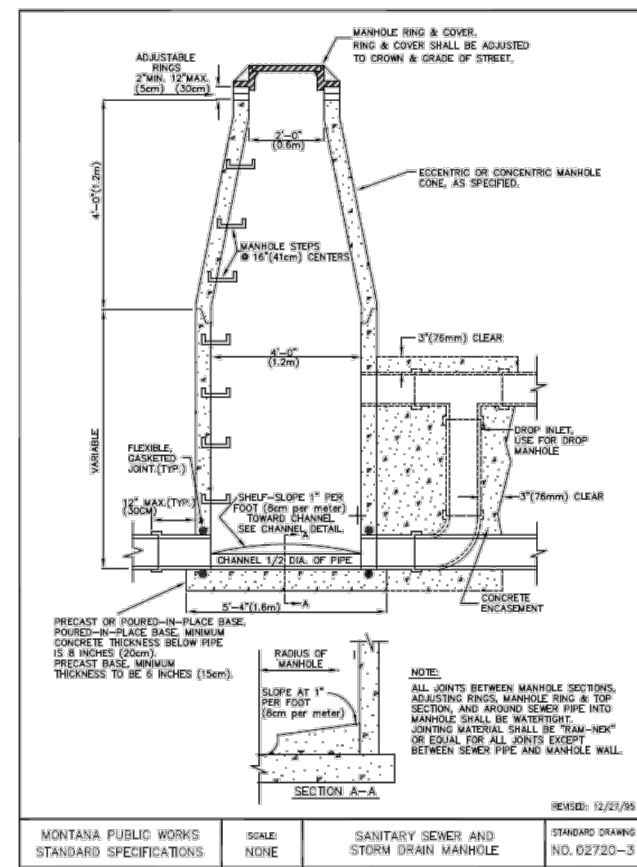
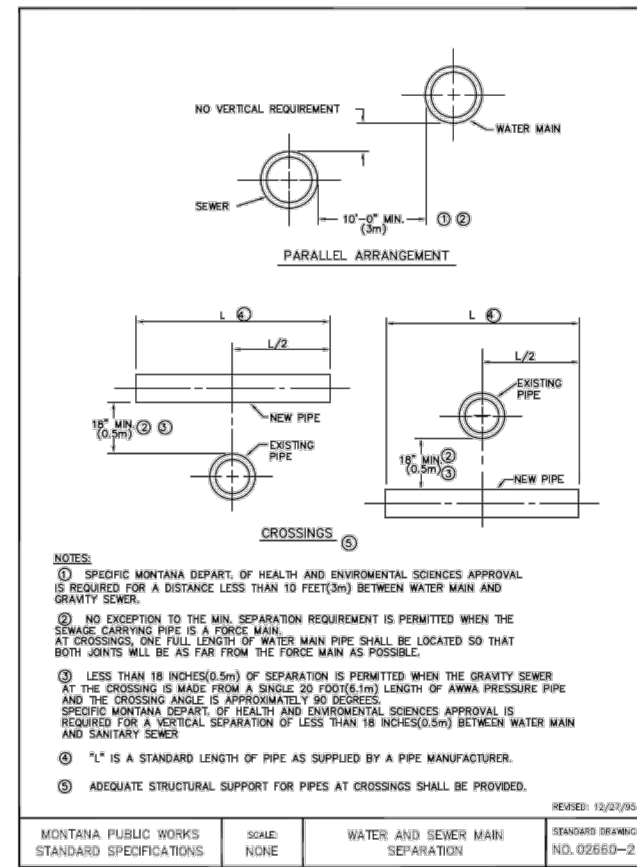
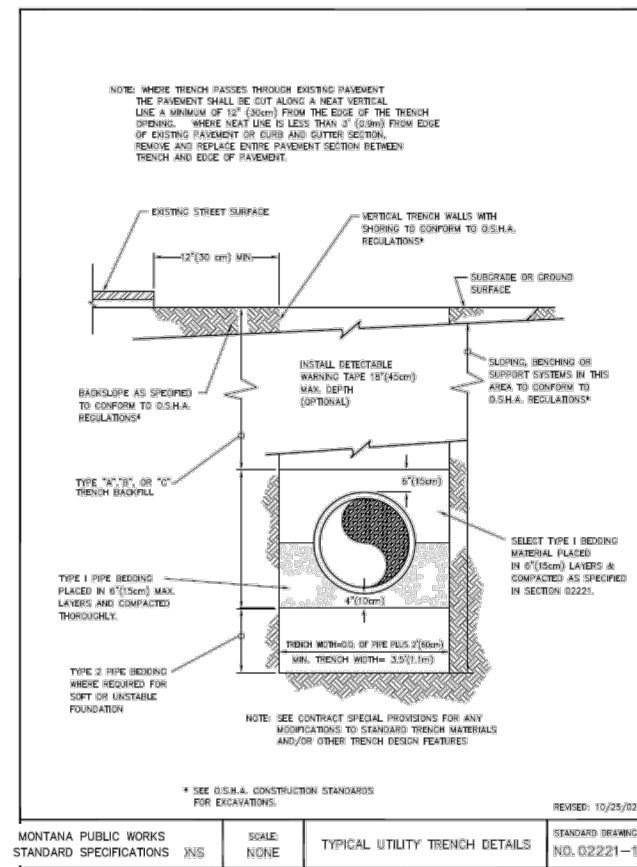
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PLAN AND PROFILE  
STA 7+50 - STA 15+00**



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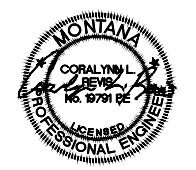
SHEET  
**C-2**





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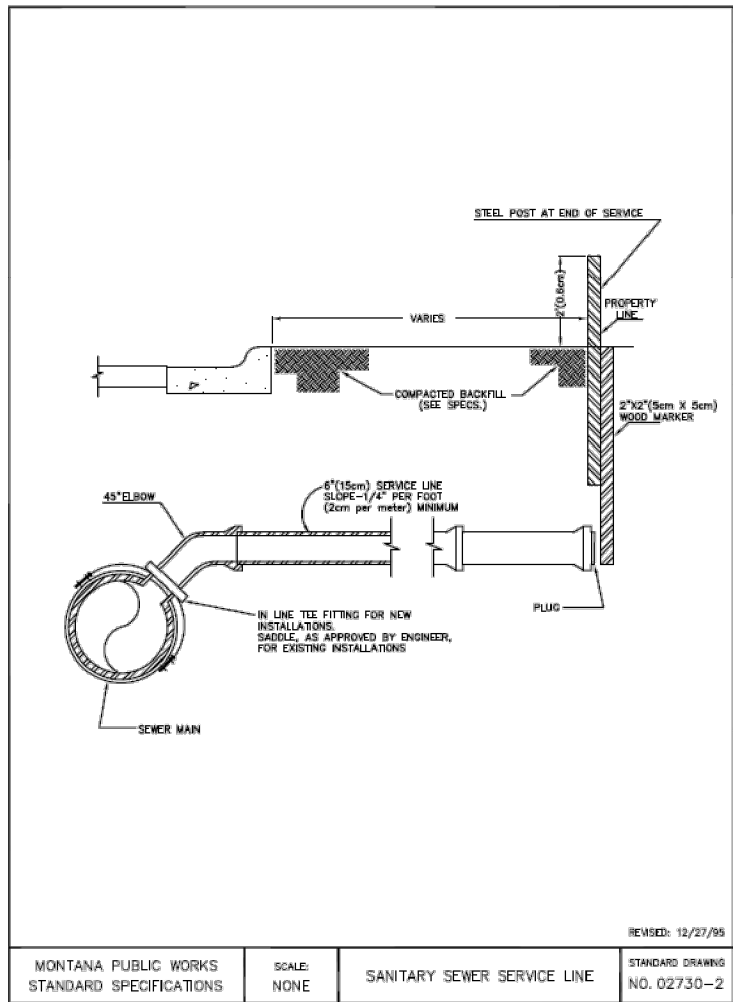


Town of Stevensville, MT  
Park Avenue  
Sewer Main Extension

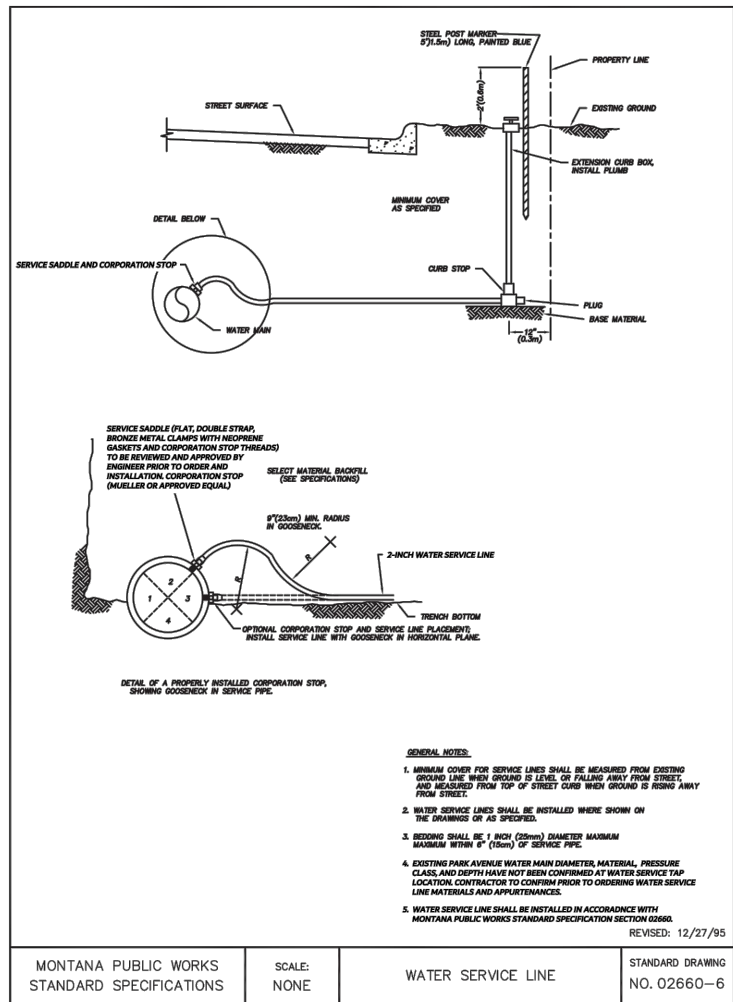


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SCALE NONE

CIVIL  
UTILITY DETAILS



REVISD: 12/27/95  
 MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS  
 SCALE: NONE  
 SANITARY SEWER SERVICE LINE  
 STANDARD DRAWING NO. 02730-2



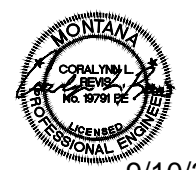
REVISD: 12/27/95  
 MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS  
 SCALE: NONE  
 WATER SERVICE LINE  
 STANDARD DRAWING NO. 02660-6

- GENERAL NOTES:**
1. MINIMUM COVER FOR SERVICE LINES SHALL BE MEASURED FROM EXISTING GROUND LINE WHEN GROUND IS LEVEL OR FALLING AWAY FROM STREET, AND MEASURED FROM TOP OF STREET CURB WHEN GROUND IS RISING AWAY FROM STREET.
  2. WATER SERVICE LINES SHALL BE INSTALLED WHERE SHOWN ON THE DRAWINGS OR AS SPECIFIED.
  3. BEDDING SHALL BE 1 INCH (25mm) DIAMETER MAXIMUM MAXIMUM WITHIN 6" (150mm) OF SERVICE PIPE.
  4. EXISTING PARK AVENUE WATER MAIN DIAMETER, MATERIAL, PRESSURE CLASS, AND DEPTH HAVE NOT BEEN CONFIRMED AT WATER SERVICE TAP LOCATION. CONTRACTOR TO CONFIRM PRIOR TO ORDERING WATER SERVICE LINE MATERIALS AND APPURTENANCES.
  5. WATER SERVICE LINE SHALL BE INSTALLED IN ACCORDANCE WITH MONTANA PUBLIC WORKS STANDARD SPECIFICATION SECTION 02660.



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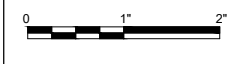
PROJECT MANAGER	
DESIGNER 1	J. MORAN
DRAWN BY	R. PARKE
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Town of Stevensville, MT  
**Park Avenue  
 Sewer Main Extension**



FILENAME: C-4.dwg  
 SCALE: NONE

SHEET  
**C-4**