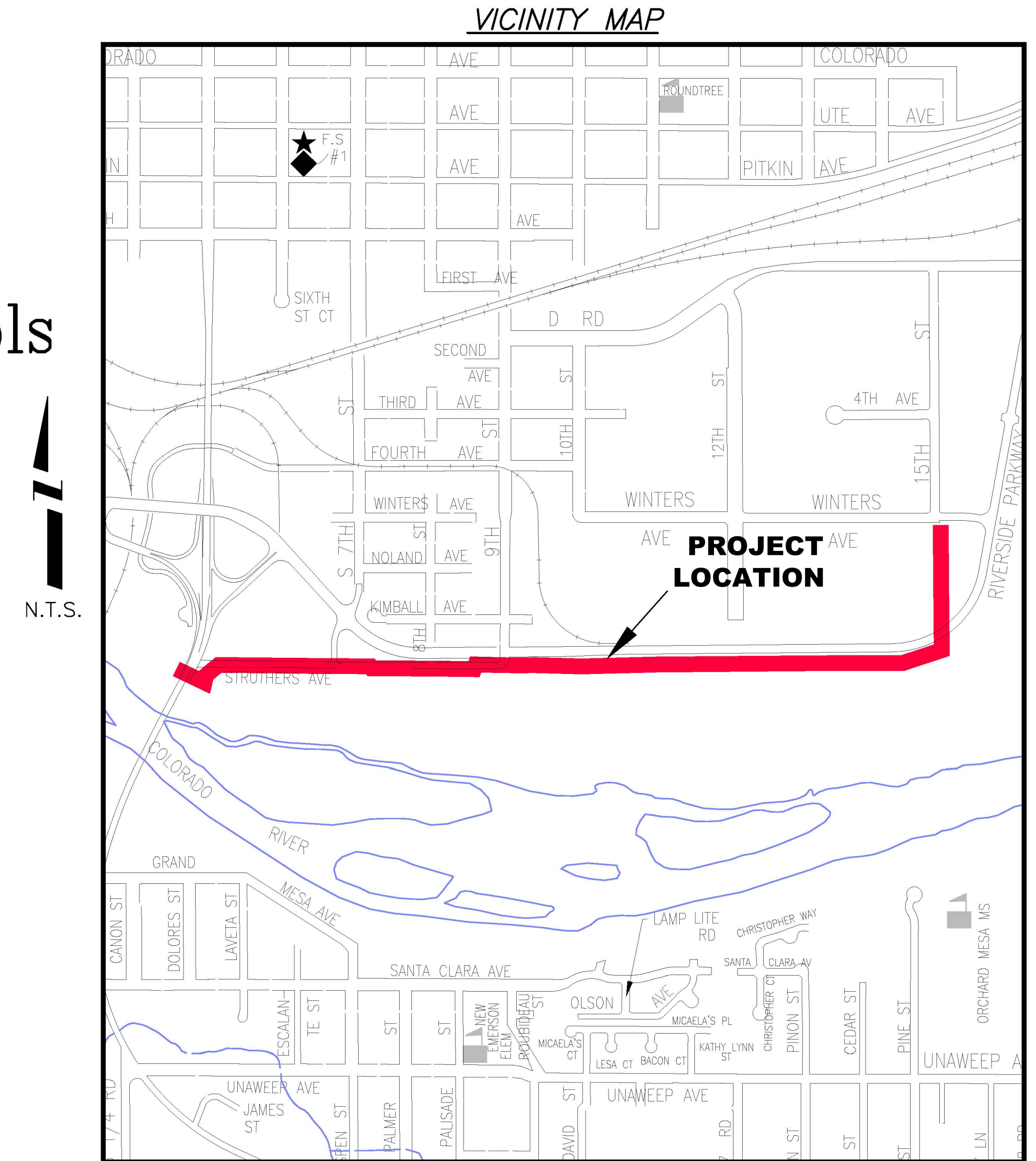


2010 PARKWAY SANITARY SEWER INTERCEPTOR PROJECT

- 1 ————— Cover Sheet
- 2 ————— Standard Abbreviations, Legend, and Symbols
- 3 ————— Summary of Approximate Quantities
- 4 ————— Project Control Map
- 5-17 ————— Sanitary Sewer Plan and Profile
- 18-19 ————— Storm Water Management Plan



UTILITIES AND AGENCIES								
AGENCY	NAME	POSITION	ROLE	MAILING ADDRESS	STREET ADDRESS	CITY, STATE	VOICE-WK	FAX
GRAND JUNCTION, CITY OF	MARK FRANKLIN	INSPECTOR	INSPECTOR	250 N. 5th STREET	250 N. 5th STREET	GRAND JCT., CO 81501	(970) 361-5044	(970) 244-1458
GRAND JUNCTION, CITY OF	DAVID DONOHUE	PROJECT ENGINEER	PROJECT ENGINEER	250 N. 5th STREET	250 N. 5th STREET	GRAND JCT., CO 81501	(970) 244-1558	(970) 256-4022
GRAND JUNCTION, CITY OF	BRET GUILLORY	UTILITY ENGINEER	SANITARY SEWER	250 N. 5th STREET	250 N. 5th STREET	GRAND JCT., CO 81501	(970) 244-1590	(970) 256-4022
GRAND JUNCTION, CITY OF	LARRY BROWN	PERSIGO MAINTENANCE SUPERVISOR	SEWAGE VACTORING	2145 RIVER RD	2145 RIVER RD	GRAND JCT., CO 81505	(970) 256-4161 or (970) 242-6707 (AFTER HOURS)	
BRESNAN	CHUCK WEIDMAN	MANAGER	CABLE TV	2502 FORESIGHT CIRCLE	2502 FORESIGHT CIRCLE	GRAND JCT., CO 81504	(970) 245-8750	(970) 245-6803
U.S. WEST/QWEST	CHRIS JOHNSON	ENGINEER	TELEPHONE	2524 BLICHMANN AVE	2524 BLICHMANN AVE	GRAND JCT., CO 81504	(970) 244-4311	(970) 240-4349
UTE WATER	DARYL MOORE	SUPERVISOR	WATER	PO BOX 460		GRAND JCT., CO 81502	(970) 242-7491	(970) 242-9189
XCEL	JOHN BEOFORD	ENGINEER	GAS, ELECTRIC	2538 BLICHMANN AVE	2538 BLICHMANN AVE	GRAND JCT., CO 81506	(970) 244-2630	(970) 244-2661

AS BUILT 10/25/2010



*Public Works & Utilities
Engineering Division*

NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE COVER SHEET WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.

REVISION	DESCRIPTION	DATE
REVISION AS BUILT		10/2010
REVISION		
REVISION		
REVISION		

DRAWING STATUS:	
○	PROGRESS
○	FINAL CONSTRUCTION DRAWINGS
●	ASBUILT
DESIGNED BY:	
DAVID DONOHUE, PROJECT ENGINEER	DATE
REVIEWED BY:	
BRET GUILLORY, UTILITY ENGINEER	DATE
AUTHORIZED FOR CONSTRUCTION	
TRENTON C. PRALL, CITY ENGINEER	DATE
ACCEPTED AS CONSTRUCTED	
DAVID DONOHUE, PROJECT ENGINEER	DATE

ABBREVIATIONS

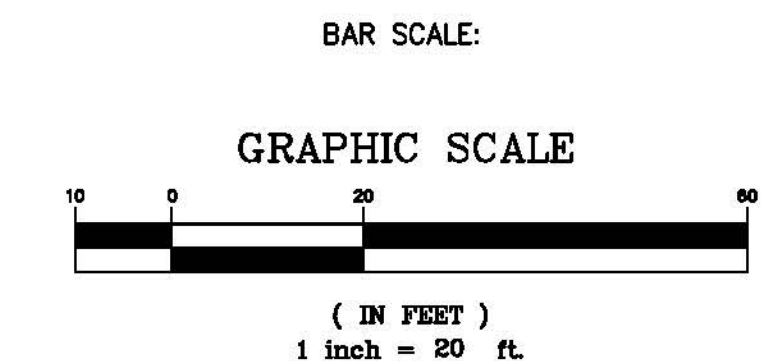
AASTHO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT
AP	ANGLE POINT
ASB	ANCHORED STRAW BALES
ASP	ALUMINIZED STEEL PIPE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BF	BUTTERFLY VALVE
BOW	BACK OF WALK
BCR	BEGIN CURB RETURN
BOT	BOTTOM
BSWMP	BETTER STORM WATER MANAGEMENT PRACTICES
CH	CHORD
CAP	CORRUGATED ALUMINUM PIPE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION
CI	CAST IRON
C,G,& SW	CURB, GUTTER & SIDEWALK
CL	CENTER LINE
CL	CLEAR
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COMB	COMBINATION (AS IN STORM SEWER AND SANITARY SEWER)
CONC	CONCRETE
CSM	CITY SURVEY MONUMENT
CSP	CORRUGATED STEEL PIPE
CU	COPPER
DI	DUCTILE IRON
DWY	DRIVEWAY
E	ELECTRIC
ECR	END CURB RETURN
EG	EDGE OF GUTTER
EL	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
FB	FULL BODY
FC	FACE OF CURB
FG	FINISHED GRADE
F	FLOW LINE
FL	FLANGE
FM	FORCE MAIN
FO	FIBER OPTICS
FS	FAR SIDE
FTG	FOOTING
G	GAS
GB	GRADE BREAK
GM	GAS METER
GV	GATE VALVE
HBP	HOT BITUMINOUS PAVEMENT
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
IRR	IRRIGATION
L	LENGTH OF ARC
LC	LONG CHORD
LF	LINEAR FEET
LL	LONG ARC
LS	SHORT ARC
LT	LEFT
MB	MAILBOX
MCSM	MESA COUNTY SURVEY MONUMENT
MH	MANHOLE
MJ	MECHANICAL JOINT
MW	MILL WRAP
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOP	NO ONE PERSON
NRCP	NON-REINFORCED CONCRETE PIPE
NS	NEAR SIDE
NTS	NOT TO SCALE
OHP	OVERHEAD POWER
OHT	OVERHEAD TELEPHONE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PE	POLYETHYLENE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PIP	PLASTIC IRRIGATION PIPE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PR	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RG	RESTRAINED GLANDS
RL	LONG RADIUS
ROW	RIGHT OF WAY
RP	RADIUS POINT
RR	RAIL ROAD
RS	SHORT RADIUS
RT	RIGHT
S	SLOPE
SAN	SANITARY
SC	SHORT CHORD
SCD	STANDARD CONTRACT DOCUMENTS
SCH	SCHEDULE
SF	SILT FENCE
SL	SECTION LINE
SSRB	STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
SSUU	STANDARD SPECIFICATIONS FOR CONSTRUCTION OF UNDERGROUND UTILITIES
STA	STATION
STL	STEEL
STM	STORM
T	TELEPHONE
TAN	LENGTH OF TANGENT
TC	TOP OF CURB
TH	TEST HOLE
TV	TELEVISION
(TYP)	TYPICAL
UU	UNDERGROUND UTILITIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VPC	VERTICAL POINT OF CURVATURE
VPCC	VERTICAL POINT OF COMPOUND CURVATURE
VPRC	VERTICAL POINT OF REVERSE CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WATER
Δ	DELTA ANGLE

LEGEND

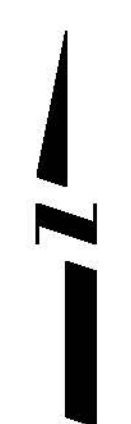
BSWMP DRAINAGE BASIN BOUNDARY	
BSWMP ANCHORED STRAW BALES	
BSWMP SILT FENCE	
BUILDING	
CONCRETE CURB AND GUTTER	
CONCRETE CURB, GUTTER, & SIDEWALK	
CONCRETE DITCH	
CONCRETE SIDEWALK	
CULVERT	
EARTH DITCH	
EDGE OF GRAVEL	
EDGE OF PAVEMENT	
FENCE (BARBED WIRE)	
FENCE (CHAIN LINK)	
FENCE (IRON)	
FENCE (PLASTIC)	
FENCE (WOOD)	
FENCE (WOVEN WIRE)	
GUARD RAIL	
HATCHING: INDICATES ASPHALT REMOVAL	
HATCHING: INDICATES CONCRETE REMOVAL	
HATCHING: INDICATES STAGING AREA	
LINE (CENTER OF IMPROVEMENTS)	
LINE (CITY LIMITS)	
LINE (CONTROL)	
LINE (EASEMENT)	
LINE (MONUMENT/SECTION)	
LINE (PROPERTY)	
LINE (RIGHT OF WAY)	
MATCH LINE	
PIPE (IRRIGATION)	
PIPE (SIPHON)	
PROPOSED CONCRETE CURB AND GUTTER	
PROPOSED CONCRETE CURB, GUTTER, & SIDEWALK	
PROPOSED CONCRETE SIDEWALK	
PROPOSED "WET" UTILITIES (CONSTRUCTION NOTE WILL INDICATE TYPE, SIZE, AND MATERIAL OF NEW MAIN)	
RAIL ROAD	
RETAINING WALL	
STRIPING (CONTINUOUS WHITE)	
STRIPING (DASHED WHITE)	
STRIPING (CONTINUOUS YELLOW)	
STRIPING (DASHED YELLOW)	
TOP OF SLOPE	
CONTOUR LINES (SHOWN BETWEEN TOP & TOE)	
TOE OF SLOPE	
TRAFFIC DETECTOR LOOP	
UTILITY LINE (ABANDON) (THIS CASE A WATER LINE)	
UTILITY LINE (CABLE TV)	
UTILITY LINE (ELECTRIC)	
UTILITY LINE (FIBER OPTIC)	
UTILITY LINE (GAS)	
UTILITY LINE (HIGH VOLTAGE OVERHEAD POWER)	
UTILITY LINE (OVERHEAD POWER)	
UTILITY LINE (OVERHEAD TELEPHONE)	
UTILITY LINE (SANITARY SEWER)	
UTILITY LINE (SANITARY SEWER FORCE MAIN)	
UTILITY LINE (SANITARY SEWER SERVICE)	
UTILITY LINE (STORM SEWER)	
UTILITY LINE (STORM SEWER, PERFORATED)	
UTILITY LINE (STORM/SANITARY SEWER SEWER COMBINATION)	
UTILITY LINE (TELEPHONE)	
UTILITY LINE (WATER)	

SYMBOLS

BENCH MARK	
CATCH BASIN	
CLEAN OUT	
CURB STOP	
FIRE HYDRANT	
GUY WIRE ANCHOR	
HEADGATE	
IRRIGATION PUMP	
MAILBOX	
MANHOLE (ELECTRIC)	
MANHOLE (GAS)	
MANHOLE (SANITARY/STORM)	
MANHOLE (TELEPHONE)	
MANHOLE (TV)	
MANHOLE (WATER)	
METER (GAS)	
METER (WATER)	
PEDESTAL (TELEPHONE)	
PEDESTAL (TV)	
PROPERTY PIN	
PULL BOX	
REDUCER FITTING	
SIGN OR POST (SIGN TYPE NOTED)	
SPRINKLER HEAD	
STREET LIGHT	
SURVEY MONUMENT (CITY)	
SURVEY MONUMENT (TYPE NOTED)	
TEST HOLE	
TRAFFIC SIGNAL POLE AND MAST ARM	
UTILITY POLE	
VALVE (GAS)	
VALVE (IRRIGATION)	
VALVE (WATER)	
VEGETATION (HEDGE OR BUSH)	
VEGETATION (TREE STUMP)	
VEGETATION (TREE) (CALIPER SIZE NOTED)	
WATER HYDRANT	
WEIR	
YARD LIGHT	



NORTH ARROW:



REVISION Δ	DESCRIPTION	DATE	DRAWN BY	JCS	DATE	4-02
REVISION Δ			DESIGNED BY		DATE	
REVISION Δ			CHECKED BY		DATE	
REVISION Δ			APPROVED BY		DATE	

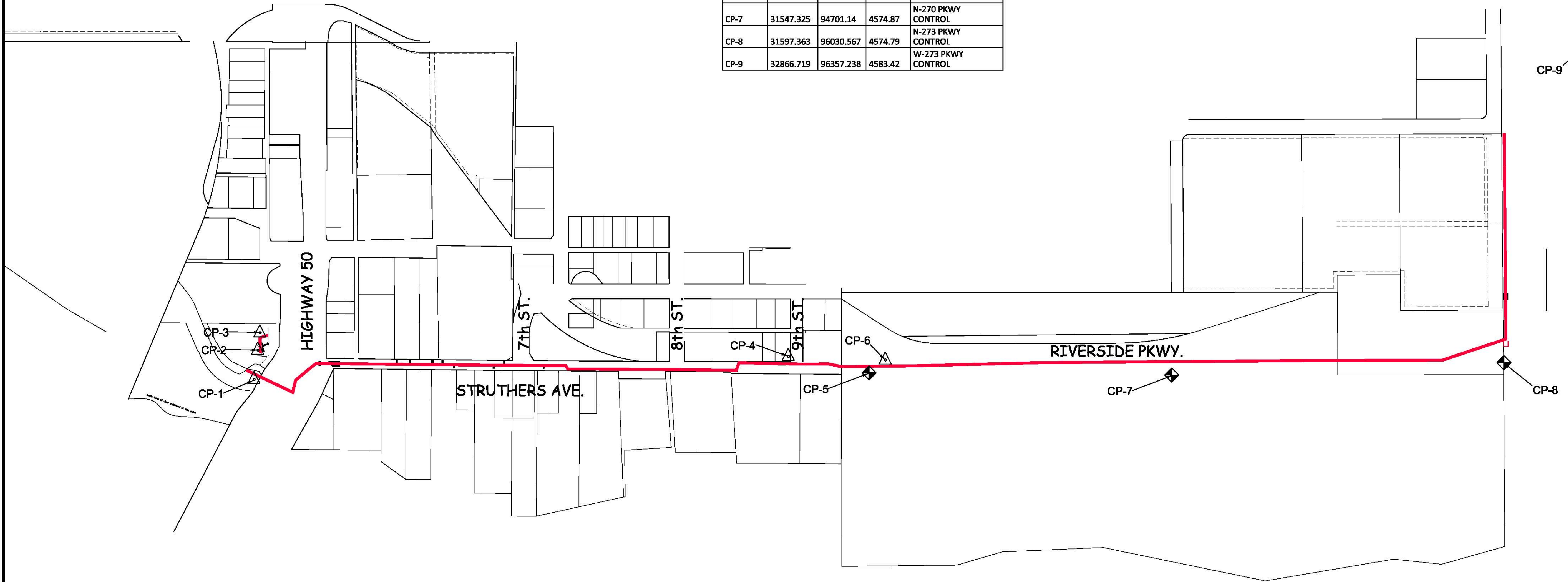
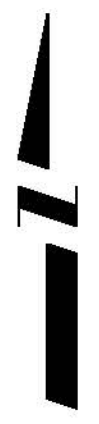
SCALE	
PLAN	PROFILE
HORIZ. 1"=20'	HORIZ. _____
VERT. _____	VERT. _____



PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

CITY OF GRAND JUNCTION STANDARD ABBREVIATIONS, LEGEND, AND SYMBOLS SHEET

POINT #	NORTHING	EASTING	ELEV.	DESCRIPTION
CP-1	31529.748	91029.301	4573.233	CP SPIKE
CP-2	31647.191	91044.628	4565.881	CP SPIKE
CP-3	31716.462	91053.053	4565.912	CP SPIKE
CP-4	31622.171	93167.638	4572.799	CP MARK 9TH/PKWY
CP-5	31556.349	93489.793	4578.02	N-267 PKWY CONTROL
CP-6	31607.755	93555.464	4576.957	CP MARK PATH PC
CP-7	31547.325	94701.14	4574.87	N-270 PKWY CONTROL
CP-8	31597.363	96030.567	4574.79	N-273 PKWY CONTROL
CP-9	32866.719	96357.238	4583.42	W-273 PKWY CONTROL



REVISION	DESCRIPTION	DATE	DRAWN BY	JAH	DATE	8/2009
REVISION			DESIGNED BY		DATE	
REVISION			CHECKED BY		DATE	
REVISION			APPROVED BY		DATE	

SCALE
N.T.S.

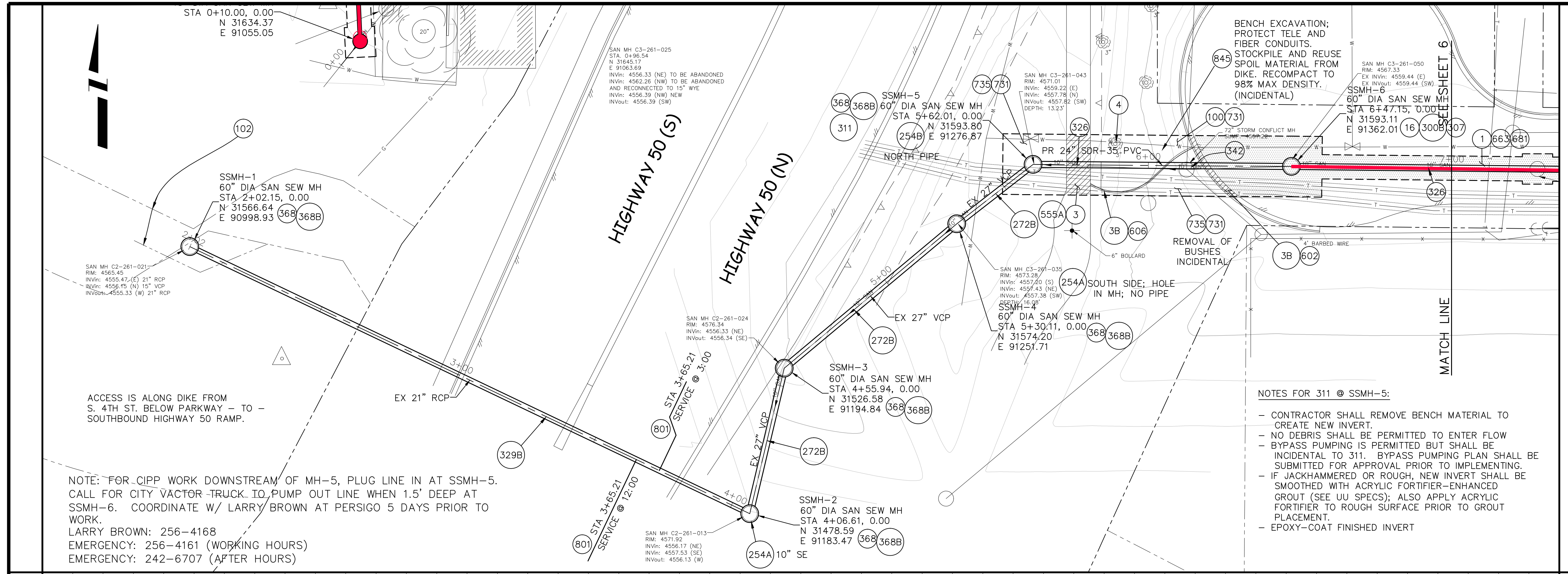


PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION

2010 PARKWAY SANITARY SEWER INTERCEPTOR
PROJECT CONTROL MAP

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- 300B 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.)(DEPTH ≤5') . INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- 307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH>5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- 311 102.11/108.5 - CONNECT TO EXISTING MANHOLE (PIPE DIA VARIES). (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-08). CONTRACTOR SHALL CONNECT THE SEWER PIPE TO THE EXISTING MANHOLE IN SUCH A WAY THAT ENSURES A WATERTIGHT CONNECTION. CONTRACTOR SHALL RECONSTRUCT MH INVERT. COST SHALL BE INCIDENTAL TO THE COST OF "CONNECT TO EXISTING MANHOLE" BID ITEM.
- 326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 329B 102/108.2 - 21-INCH CURED IN PLACE PIPE (CIPP); DESIGNED, SUBMITTED, AND STAMPED BY P.E.; INSTALLED BY CONTRACTOR OR SUBCONTRACTOR MEETING SPECIFICATIONS DEFINED IN CONTRACT DOCUMENTS. SEE SPECIAL PROVISIONS. DESIGN SHALL BE FOR EXISTING CONCRETE PIPE IN PARTIALLY (50%) DETERIORATED CONDITION. CONTRACTOR SHALL VERIFY DIA. OF PIPE PRIOR TO DESIGN AND FABRICATION OF LINER.
- 342 102.8/108.2 - 24" DR-18 C-905 PVC HIGH-PRESSURE SEWER PIPE INSTALLED THROUGH CONFLICT STORM MANHOLE. INCLUDES REMOVAL OF EXISTING CASING AND CARRIER PIPE, SEALING OF EXISTING HOLES, CUTTING OF NEW HOLES AND GROUTING AROUND PIPE, AND CUSTOM FITTINGS ON EITHER END TO CONNECT TO 24" PVC CONVENTIONAL SEWER PIPE.
- 368B 102.11/102.14/108.2 - RECONDITION EXISTING MANHOLE BENCH. REMOVE DETERIORATED CONCRETE ON BENCH AND AROUND BASE USING ACID ETCH OR CHIPHAMMERING; CLEAN AND REMOVE DEBRIS; SATURATE SURFACE WITH ACRYLIC FORTIFIER; ADD XYPEC C-500 TO GROUT (GROUT MIX AS PER UU SPECS.) AT 3% PER WEIGHT OF CEMENTITIOUS MATERIAL. APPLY EPOXY COATING (MEETING UU SPECS) OR XYPEC PRODUCT CONCENTRATE SLURRY 1/16" THICK (CURE AS PER MFG. SPECS) AFTER GROUT HAS CURED. ANY BYPASS PUMPING SHALL BE INCIDENTAL UNLESS PROVIDED FOR OTHERWISE FOR SPECIFIC MANHOLE.



NOTE: FOR CIPP WORK DOWNSTREAM OF MH-5, PLUG LINE IN AT SSMH-5. CALL FOR CITY VECTOR TRUCK TO PUMP OUT LINE WHEN 1.5' DEEP AT SSMH-6. COORDINATE W/ LARRY BROWN AT PERSIGO 5 DAYS PRIOR TO WORK.
LARRY BROWN: 256-4168
EMERGENCY: 256-4161 (WORKING HOURS)
EMERGENCY: 242-6707 (AFTER HOURS)

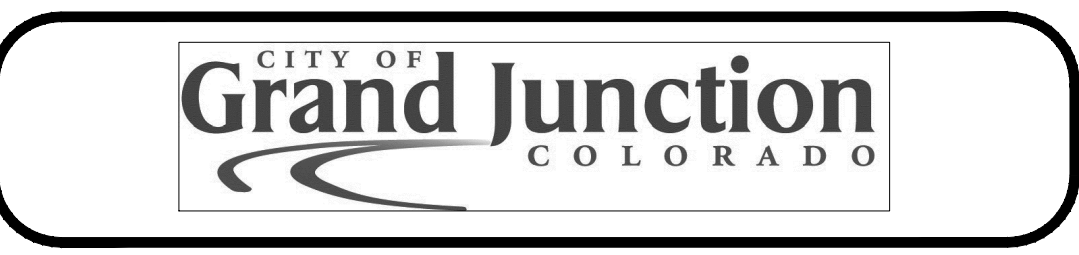
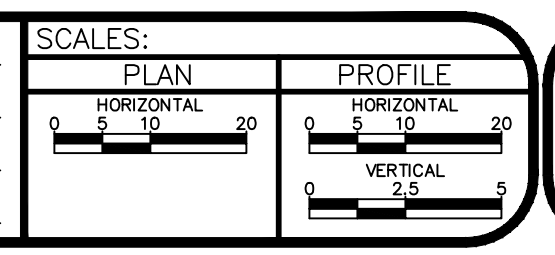
NOTES FOR 311 @ SSMH-5:
- CONTRACTOR SHALL REMOVE BENCH MATERIAL TO CREATE NEW INVERT.
- NO DEBRIS SHALL BE PERMITTED TO ENTER FLOW
- BYPASS PUMPING IS PERMITTED BUT SHALL BE INCIDENTAL TO 311. BYPASS PUMPING PLAN SHALL BE SUBMITTED FOR APPROVAL PRIOR TO IMPLEMENTING.
- IF JACKHAMMERED OR ROUGH, NEW INVERT SHALL BE SMOOTHED WITH ACRYLIC FORTIFIER-ENHANCED GROUT (SEE UU SPECS); ALSO APPLY ACRYLIC FORTIFIER TO ROUGH SURFACE PRIOR TO GROUT PLACEMENT.
- EPOXY-COAT FINISHED INVERT

STATION	CONSTRUCTION NOTES	CONSTRUCTION NOTES (CONTINUED)	STATION
4590	202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)	254A 102.14 - GROUT CONCRETE SEAL HOLE OPENING IN MANHOLE, CATCH BASIN, OR PIPE STUB; DIA. 18 INCHES OR LESS. CLASS B CONCRETE REQUIRED FOR DIA. > 8".	4590
4585	202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.	254B 102.14 - CONCRETE SEAL HOLE OPENING IN MANHOLE, CATCH BASIN, OR PIPE STUB; DIA. GREATER THAN 18 INCHES.	4585
4580	3B 202 - REMOVAL OF CONCRETE CURB AND CURB & GUTTER. WIDTH VARIES. (PER L.F.)	272B 102.11/108.2 - 27" CURED IN PLACE PIPE. INSTALL INSIDE EXISTING HOST PIPE. P.E.-STAMPED DESIGN OF CIPP SHALL BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION. CIPP SHALL BE DESIGNED FOR FULLY DETERIORATED CONDITION. SUBCONTRACTOR MUST BE PRE-QUALIFIED WITH CITY OF GRAND JUNCTION PUBLIC WORKS DEPT.	4580
4575	4 202 - REMOVAL OF TREE (SIZE AS SHOWN ON PLAN)		4575
4570	16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.		4570
4565	100 210 - RESET LANDSCAPE GROUND COVER (WOODCHIP MULCH). 3" MIN. MATCH EXISTING. SIZE, COLOR, AND TYPE. STOCKPILE AND REUSE IF FREE OF DIRTUS, OR PROVIDE NEW. WEED BARRIER REQUIRED MEETING 420.08, 712.08, AND TABLE 712-7 (INCIDENTAL). (PER SQ YD)		4565
4560	102 210 - RESET FENCE AND GATE. MATCH EXISTING MATERIALS AND CONSTRUCTION. (HEIGHT AND MATERIAL AS SHOW ON PLAN).		4560
4555			4555
4550			4550
4545			4545

NOTE:
ALL MANHOLES WITH INVERT DROPS OF 0.16 FT. OR LESS SHALL HAVE EPOXY COATED INVERTS. COST IS INCIDENTAL TO MANHOLE COST. APPLIES TO ENTIRE PROJECT.

REVISION	DESCRIPTION	DATE
AS BUILT		10/2010

DRAWN BY	JAH	DATE	8/2009
DESIGNED BY	DD	DATE	8/2009
CHECKED BY		DATE	
APPROVED BY		DATE	

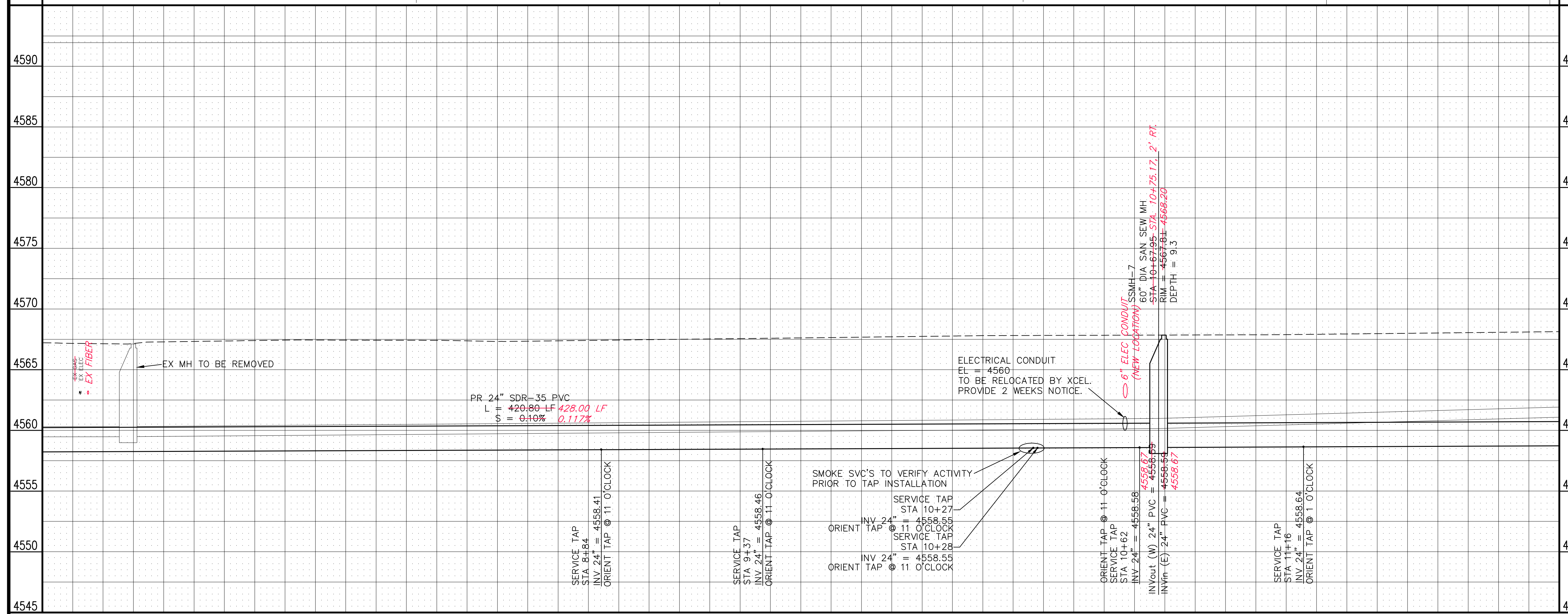
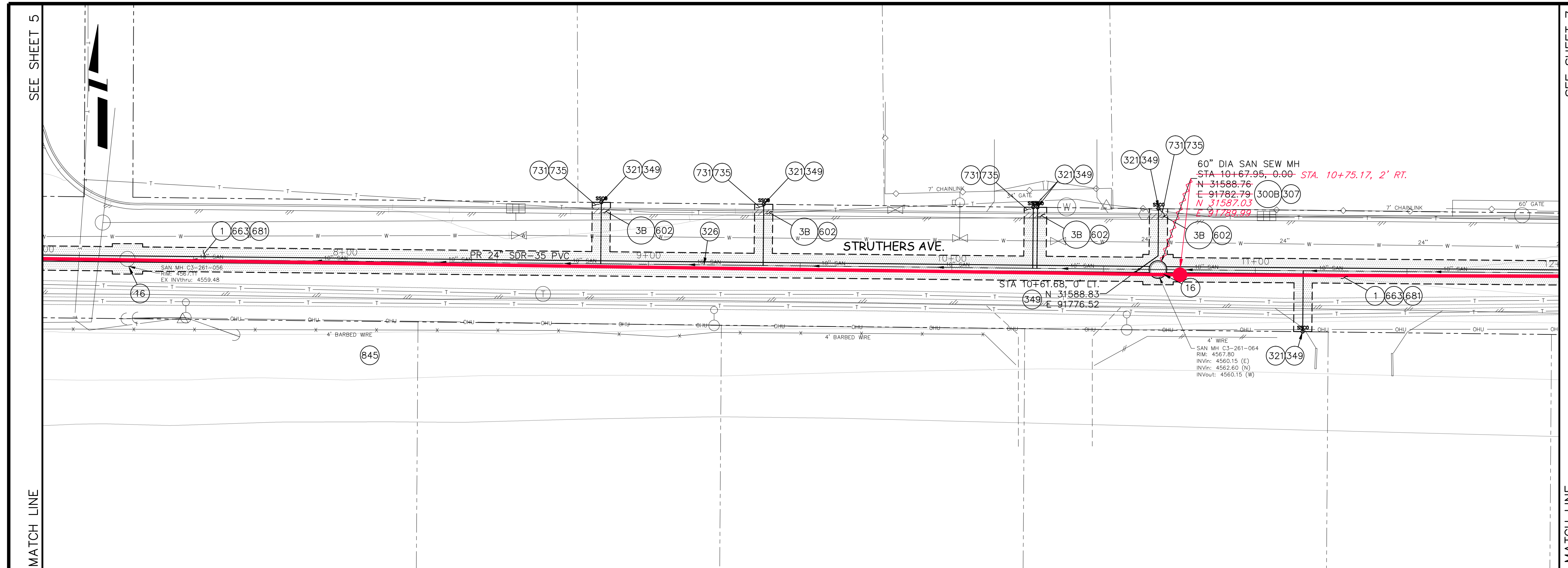


PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

2010 PARKWAY SANITARY SEWER INTERCEPTOR
SANITARY SEWER PLAN AND PROFILE
STA 2+00 TO STA 7+00

CONSTRUCTION NOTES

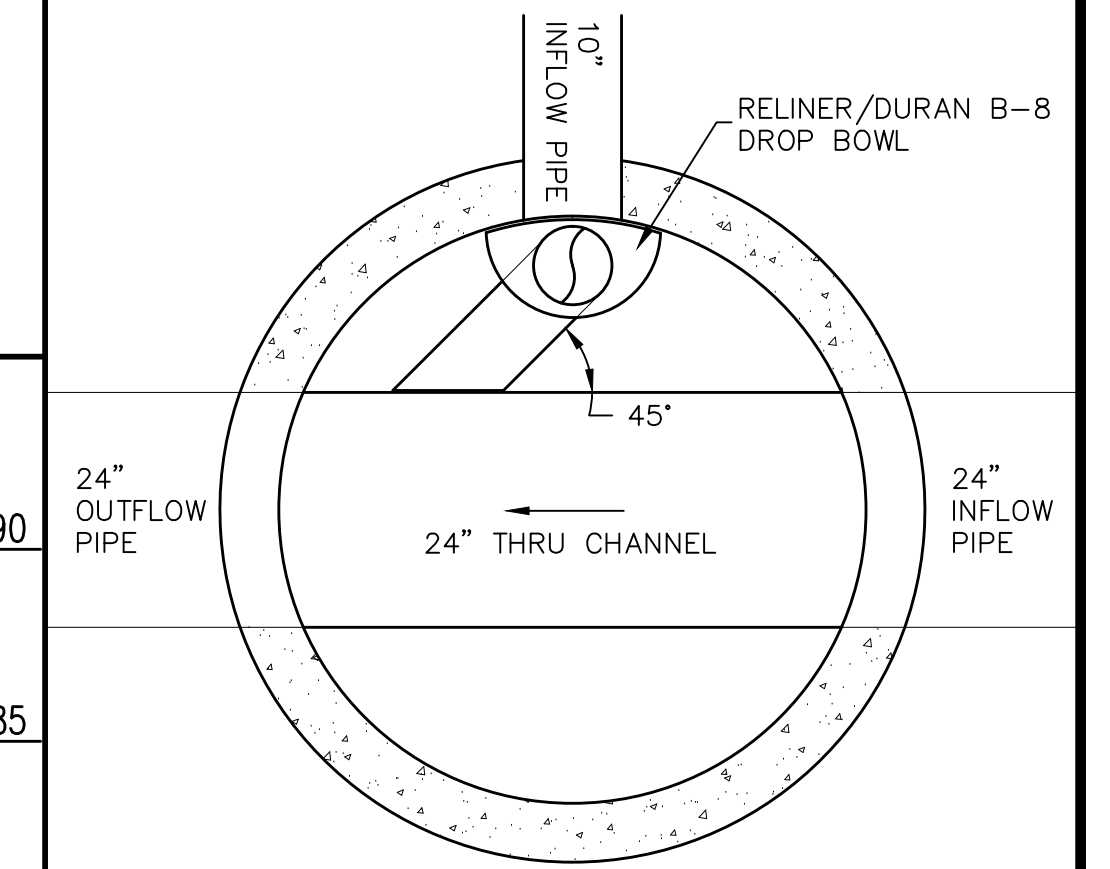
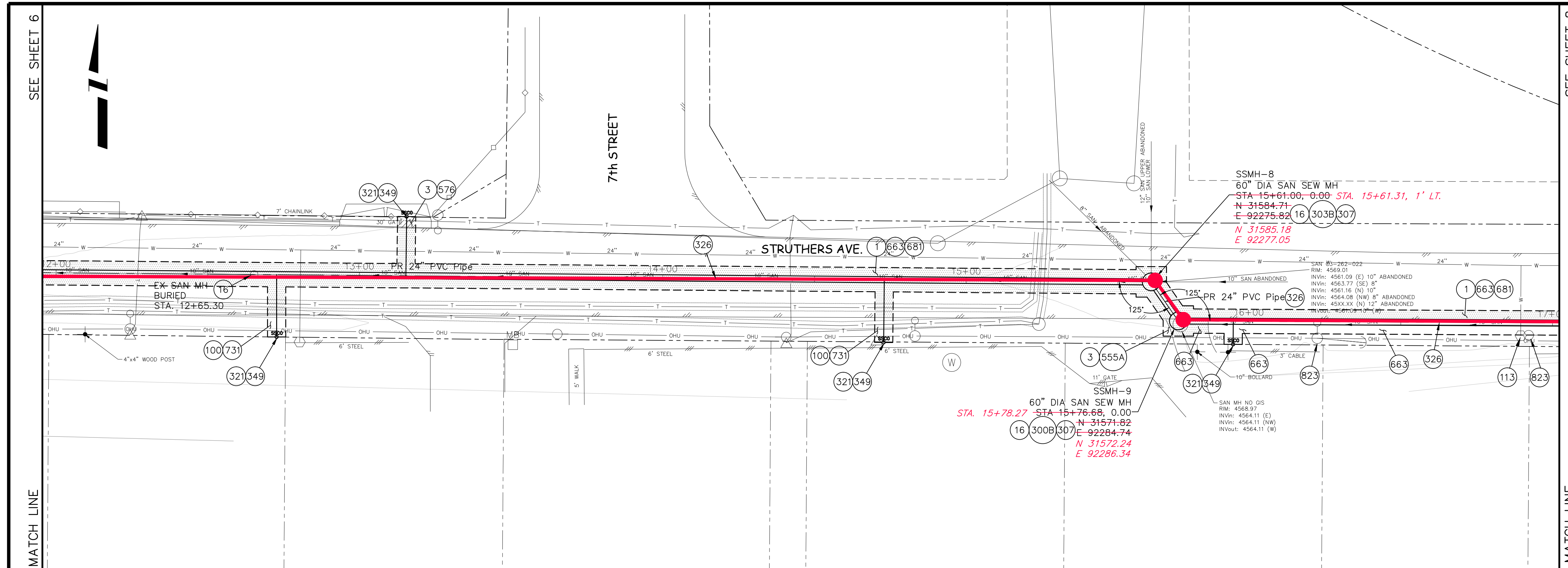
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3B 202 - REMOVAL OF CONCRETE CURB AND CURB & GUTTER. WIDTH VARIES. (PER L.F.)
- 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
- 300B 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.)(DEPTH ≤5'). INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- 307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH>5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES CONNECTION TO EXISTING/NEW LINE/TAP. INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS OR IMPORTED MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 349 102.9/108.3 - 24" x 4" SEWER SERVICE TAP (NEW SERVICE ON NEWLY INSTALLED PVC PIPE), TO INCLUDE: FULL BODY WYE, W/ STREET 45, ALL BENDS AND FITTINGS, CLEANOUT, VERTICAL PIPING, TRACING WIRE, CLEANOUT RING & COVER AND CONCRETE COLLAR, AS REQUIRED, TO ALIGN AND CONNECT TO EXISTING SERVICE AT ROW LINE. 4" SERVICE PIPE SEPARATE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL "TYPICAL SERVICE "Y" CONNECTION" SS-06 AND SS-07).
- 602 608.06 - CONCRETE CURB AND GUTTER (2' WIDE). INCLUDES 6" BASE COURSE AS PER STD. DETAILS.
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
- 681 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22); TWO 1.5-INCH LIFTS; INSTALLATION AND LIFT THICKNESSES SHALL CONFORM TO STANDARD CONTRACT DOCUMENT SPECIFICATIONS.
- 731 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENED FOR SEED BED.
- 735 212 - SEEDING (HYDROSEEDING/HYDROMULCH APPLICATION) OF PERIPHERAL DISTURBED AREAS, INCLUDING VEHICLE TRACKS, STAGING AREAS, ETC.
- 845 NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE COVER SHEET WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.



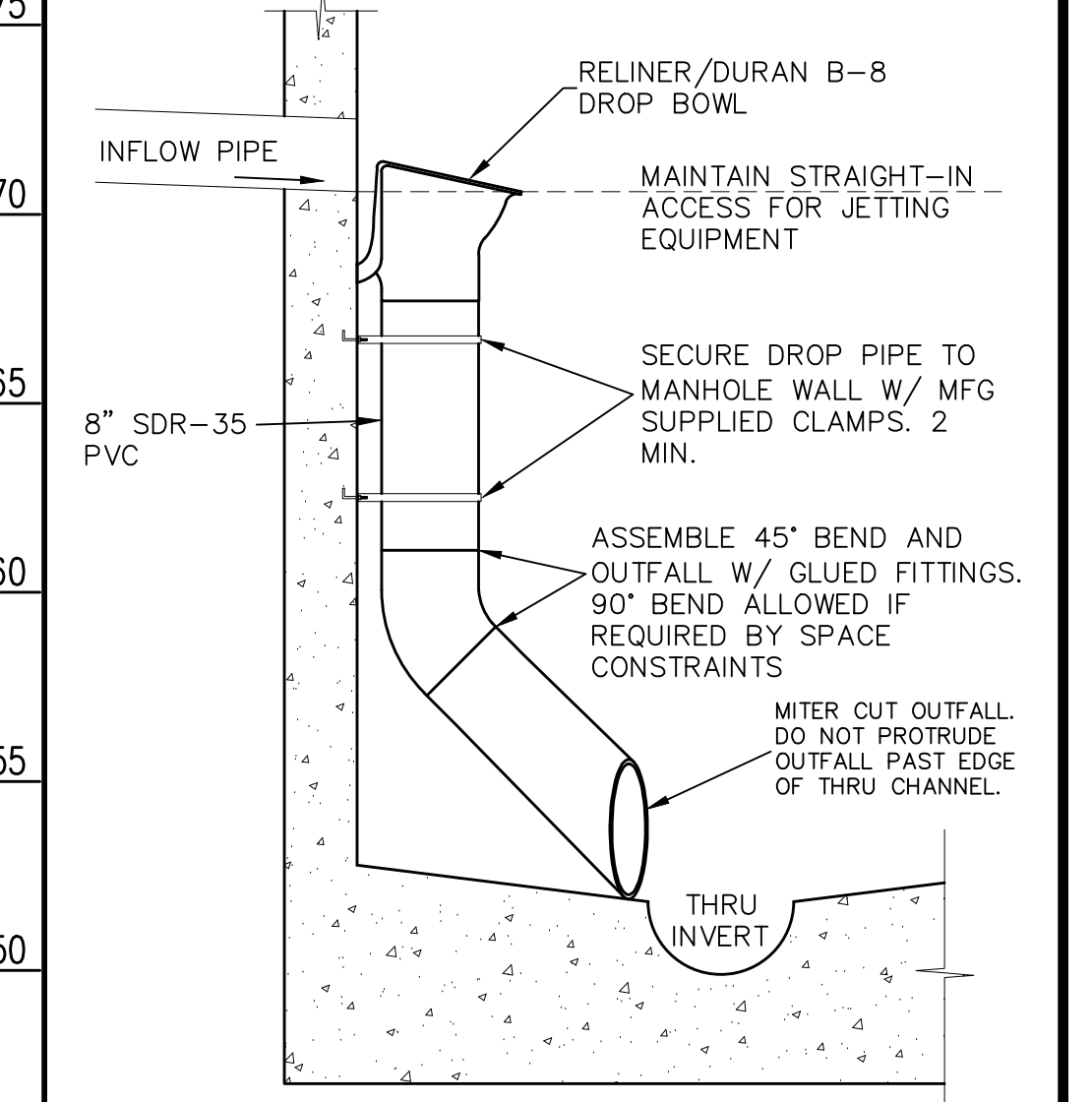
REVISION Δ _____ REVISION Δ _____ REVISION Δ _____ REVISION Δ _____	DESCRIPTION _____ DATE _____ DRAWN BY JAH DATE 8/2009 DESIGNED BY DD DATE 8/2009 CHECKED BY _____ DATE _____ APPROVED BY _____ DATE _____	SCALES: PLAN: 1" = 20' PROFILE: HORIZONTAL 1" = 20', VERTICAL 1" = 2'		PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION	2010 PARKWAY SANITARY SEWER INTERCEPTOR SANITARY SEWER PLAN AND PROFILE STA 7+00 TO STA 12+00
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CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
- 100 210 - RESET LANDSCAPE GROUND COVER (WOODCHIP MULCH). 3" MIN., MATCH EXISTING, SIZE, COLOR, AND TYPE. STOCKPILE AND REUSE IF FREE OF DIRT/US, OR PROVIDE NEW. WEED BARRIER REQUIRED MEETING 420.08, 712.08, AND TABLE 712-7 (INCIDENTAL). (PER SQ YD)
- 113 210 - RESET WATER METER AND WATER METER PIT.
- 300B 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.) (DEPTH ≤ 5'). INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- 303B 102.11/108.6 - SANITARY SEWER INTERNAL DROP MANHOLE (60" I.D. DEPTHS ≤ 5'). INCLUDES MANHOLE COATING AS PER 102.11. (SEE DETAIL IN PLANS).



INTERNAL DROP STRUCTURE PLAN VIEW
NOTE: ALL DROP APPURTENANCES SHALL BE RELINER/DURAN MODEL B-8



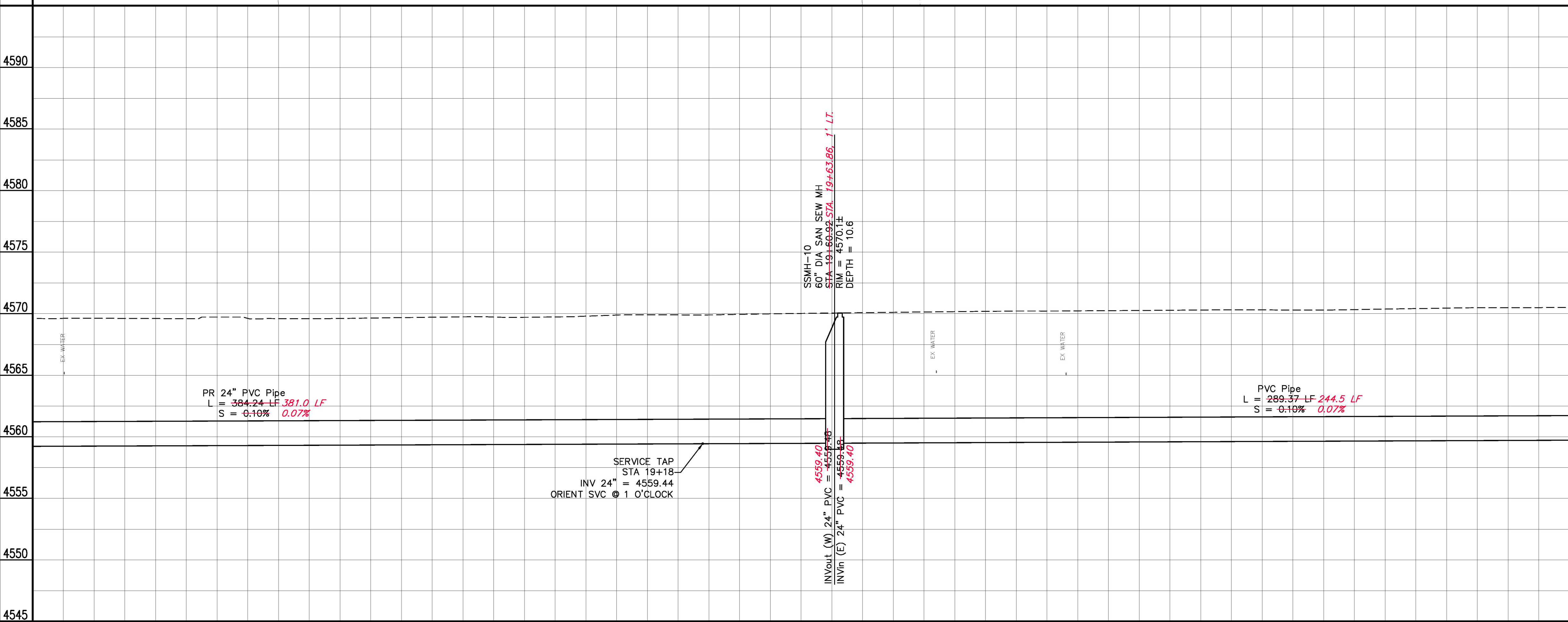
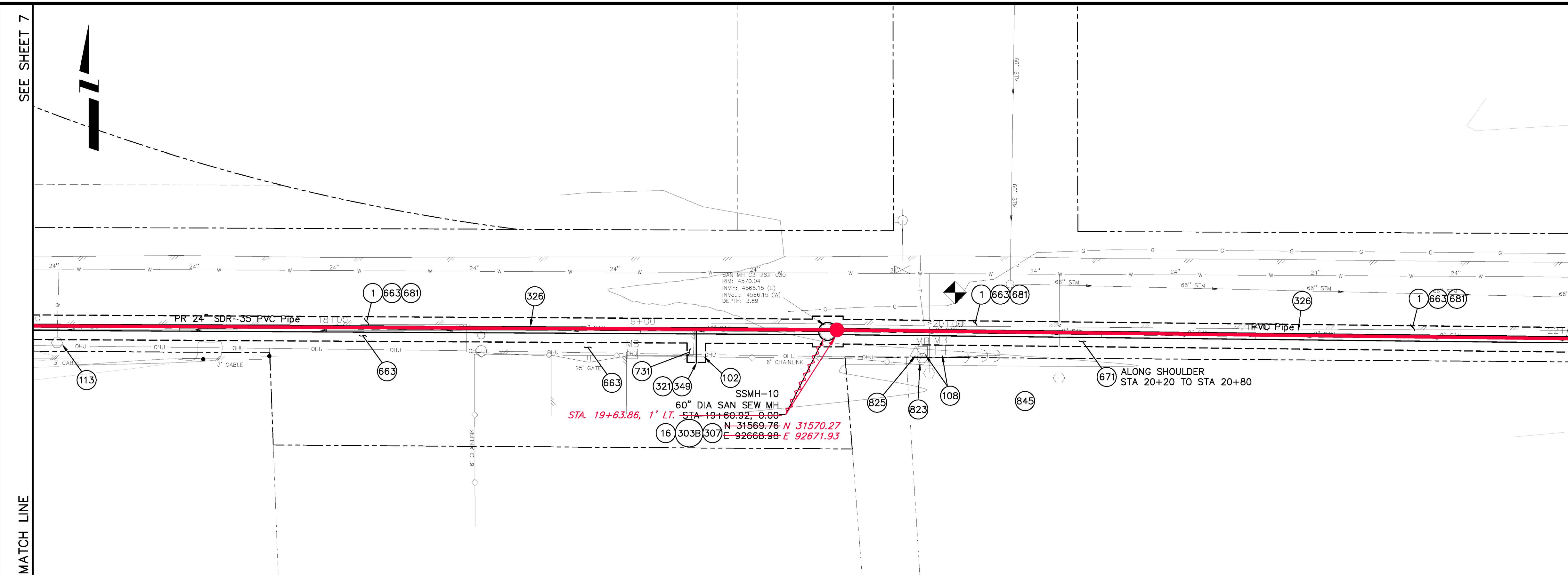
INTERNAL DROP STRUCTURE SECTION VIEW

CONSTRUCTION NOTES CONTINUED	CONSTRUCTION NOTES CONTINUED
307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH ≤ 5') (DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.	555A 608.06 - CONCRETE SIDEWALK (8" THICK). INCLUDES 6" BASE COURSE.
321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES CONNECTION TO EXISTING/NEW LINE/TAP. INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS OR IMPORTED MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.	576 608.06 - CONCRETE DRIVEWAY SECTION, INCLUDING GUTTER (8" THICK) (COMMERCIAL). INCLUDES 6" BASE COURSE AS PER STANDARD DETAILS.
326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.	663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
349 102.9/108.3 - 24" x 4" SEWER SERVICE TAP (NEW SERVICE ON NEWLY INSTALLED PVC PIPE), TO INCLUDE: FULL BODY WYE, W/ STREET 45°, ALL BENDS AND FITTINGS, CLEANOUT, VERTICAL PIPING, TRACING WIRE, CLEANOUT RING & COVER AND CONCRETE COLLAR, AS REQUIRED, TO ALIGN AND CONNECT TO EXISTING SERVICE AT ROW LINE. 4" SERVICE PIPE SEPARATE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL "TYPICAL SERVICE "Y" CONNECTION" SS-06 AND SS-07).	681 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22); TWO 1.5-INCH LIFTS; INSTALLATION AND LIFT THICKNESSES SHALL CONFORM TO STANDARD CONTRACT DOCUMENT SPECIFICATIONS.
	731 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENEED FOR SEED BED.
	823 PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED. PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED.

REVISION AS BUILT REVISION REVISION REVISION	DESCRIPTION DATE 10/2010 DRAWN BY JAH DATE 8/2009 DESIGNED BY DD DATE 8/2009 CHECKED BY DATE APPROVED BY DATE	SCALES: PLAN 1" = 20' PROFILE HORIZONTAL 1" = 20' VERTICAL 1" = 5'		PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION	2010 PARKWAY SANITARY SEWER INTERCEPTOR SANITARY SEWER PLAN AND PROFILE STA 12+00 TO STA 17+00
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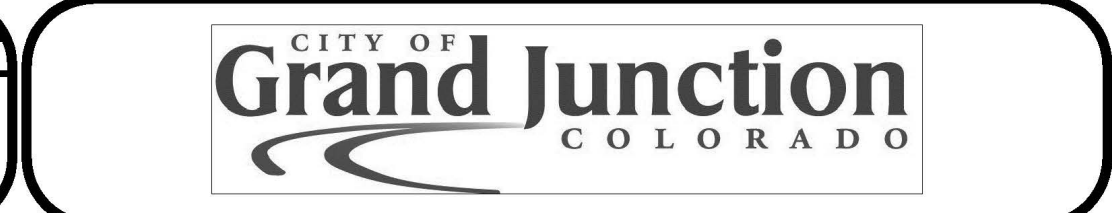
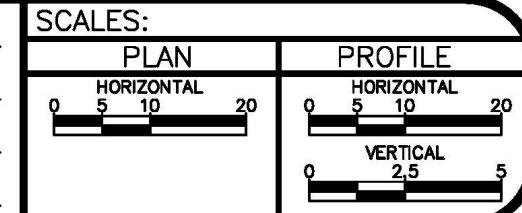
CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
- 102 210 - RESET FENCE. (HEIGHT AND MATERIAL AS SHOW ON PLAN)
- 108 210 - RESET MAILBOX. PRESERVE AND REUSE EXISTING POST, OR REPLACE WITH NEW TO MATCH EXISTING.
- 113 210 - RESET WATER METER AND WATER METER PIT.
- 303 102.11/108.6 - SANITARY SEWER INTERNAL DROP MANHOLE (60" I.D. DEPTH≤5'). INCLUDES MANHOLE COATING AS PER 102.11. (SEE DETAIL IN PLANS).
- 307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH>5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES CONNECTION TO EXISTING/NEW LINE/TAP. INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS OR IMPORTED MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 349 102.9/108.3 - 24" x 4" SEWER SERVICE TAP (NEW SERVICE ON NEWLY INSTALLED PVC PIPE), TO INCLUDE: FULL BODY WYE, W/ STREET 45, ALL BENDS AND FITTINGS, CLEANOUT, VERTICAL PIPING, TRACING WIRE, CLEANOUT RING & COVER AND CONCRETE COLLAR, AS REQUIRED, TO ALIGN AND CONNECT TO EXISTING SERVICE AT ROW LINE. 4" SERVICE PIPE SEPARATE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL "TYPICAL SERVICE "Y" CONNECTION" SS-06 AND SS-07).
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
- 671 304 - WASHED ROCK SURFACE COURSE FOR GRAVEL DRIVEWAYS. MATCH EXISTING TYPE. THICKNESS IS 2" MIN. AND 3" MAX.
- 681 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22); TWO 1.5-INCH LIFTS; INSTALLATION AND LIFT THICKNESSES SHALL CONFORM TO STANDARD CONTRACT DOCUMENT SPECIFICATIONS.
- 731 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENED FOR SEED BED.
- 823 PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED. PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED.
- 825 REMOVE AND RESET TELEPHONE PEDESTAL; BY QWEST. NOTIFY QWEST 2 WEEKS IN ADVANCE.
- 845 NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE COVER SHEET WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.



17+00 18+00 19+00 20+00 21+00 22+00

REVISION	DESCRIPTION	DATE	DRAWN BY	JAH	DATE	8/2009
REVISION	AS BUILT	10/2010	DESIGNED BY	DD	DATE	8/2009
REVISION			CHECKED BY		DATE	
REVISION			APPROVED BY		DATE	

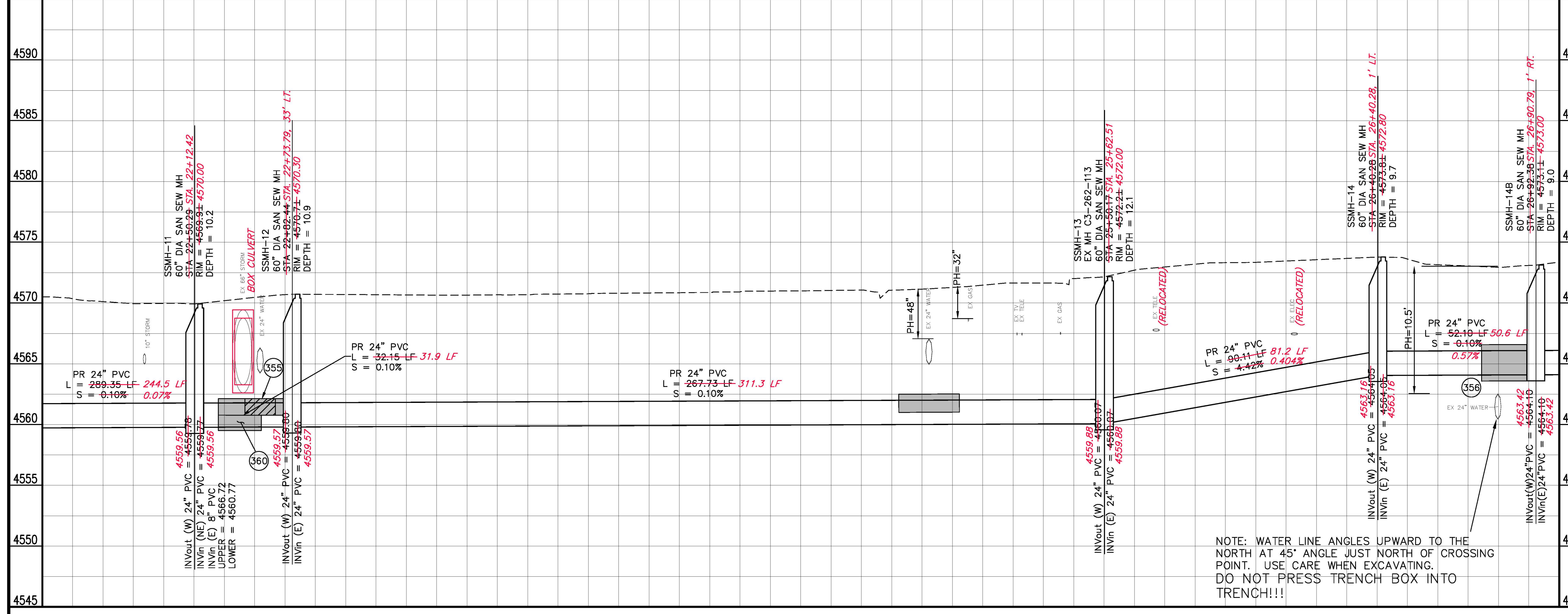
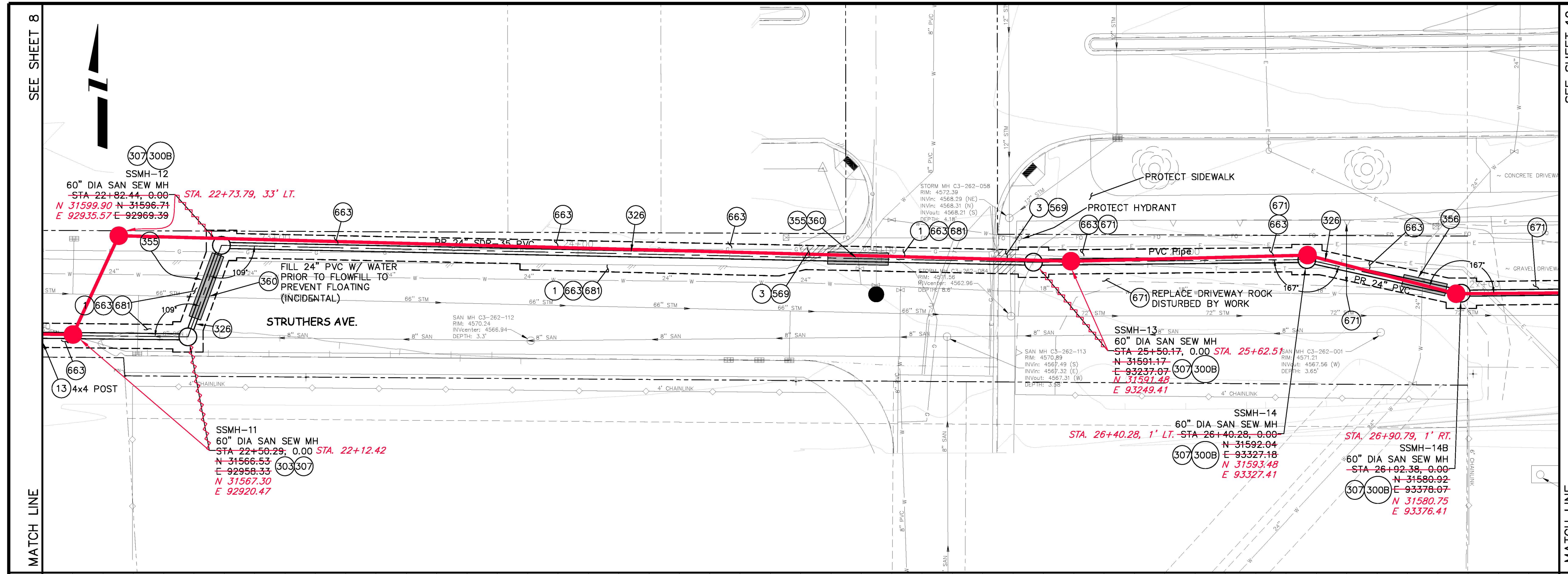


**PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION**

**2010 PARKWAY SANITARY SEWER INTERCEPTOR
SANITARY SEWER PLAN AND PROFILE
STA 17+00 TO STA 22+00**

CONSTRUCTION NOTES

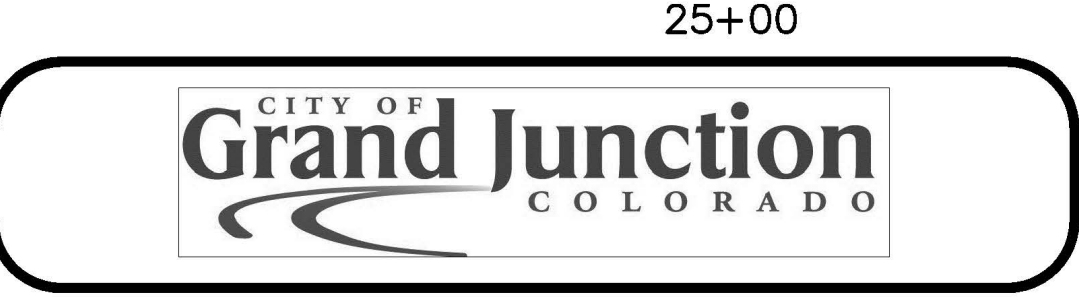
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 13 202 - REMOVAL OF GROUND SIGN. CONTRACTOR SHALL REMOVE SIGN AND POST AND RETURN TO THE TRAFFIC DEPARTMENT AT CITY SHOPS. CONTRACTOR SHALL PROVIDE TEMPORARY STOP SIGNS, AND REGULATORY SIGNS PER THE M.U.T.C.D..
- 300B 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.) (DEPTH ≤ 5'). INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- 303 102.11/108.5 - SANITARY SEWER BASIC DROP MANHOLE (60" I.D.). INCLUDES MANHOLE COATING AS PER 102.11. (SEE STD. DETAIL SS-04).
- 307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH > 5') (DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- 326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 355 104.40 - CAP TOP HALF OF SEWER IN CONCRETE PER STD. DETAIL GU-04.
- 356 104.40 - ENCASE ENTIRE SEWER IN REINFORCED CONCRETE PER STD. DETAIL GU-04.
- 360 206.00 - STRUCTURE BACKFILL (FLOWFILL). USE FOR BACKFILL BENEATH WATER, STORM, IRR LINES; EXTEND 5 FT EITHER SIDE OF UPPER UTILITY.
- 569 608.06 - MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (MATCH EXISTING). INCLUDES 6" BASE COURSE.
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
- 671 304 - WASHED ROCK SURFACE COURSE FOR GRAVEL DRIVEWAYS. MATCH EXISTING TYPE. THICKNESS IS 2" MIN. AND 3" MAX.
- 681 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22); TWO 1.5-INCH LIFTS; INSTALLATION AND LIFT THICKNESSES SHALL CONFORM TO STANDARD CONTRACT DOCUMENT SPECIFICATIONS.



NOTE: WATER LINE ANGLES UPWARD TO THE NORTH AT 45° ANGLE JUST NORTH OF CROSSING POINT. USE CARE WHEN EXCAVATING. DO NOT PRESS TRENCH BOX INTO TRENCH!!!

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
AS BUILT		10/2010	JAH	8/2009
			DD	8/2009

PLAN	PROFILE
HORIZONTAL 0 5 10 20	HORIZONTAL 0 5 10 20
VERTICAL 0 2.5 5	

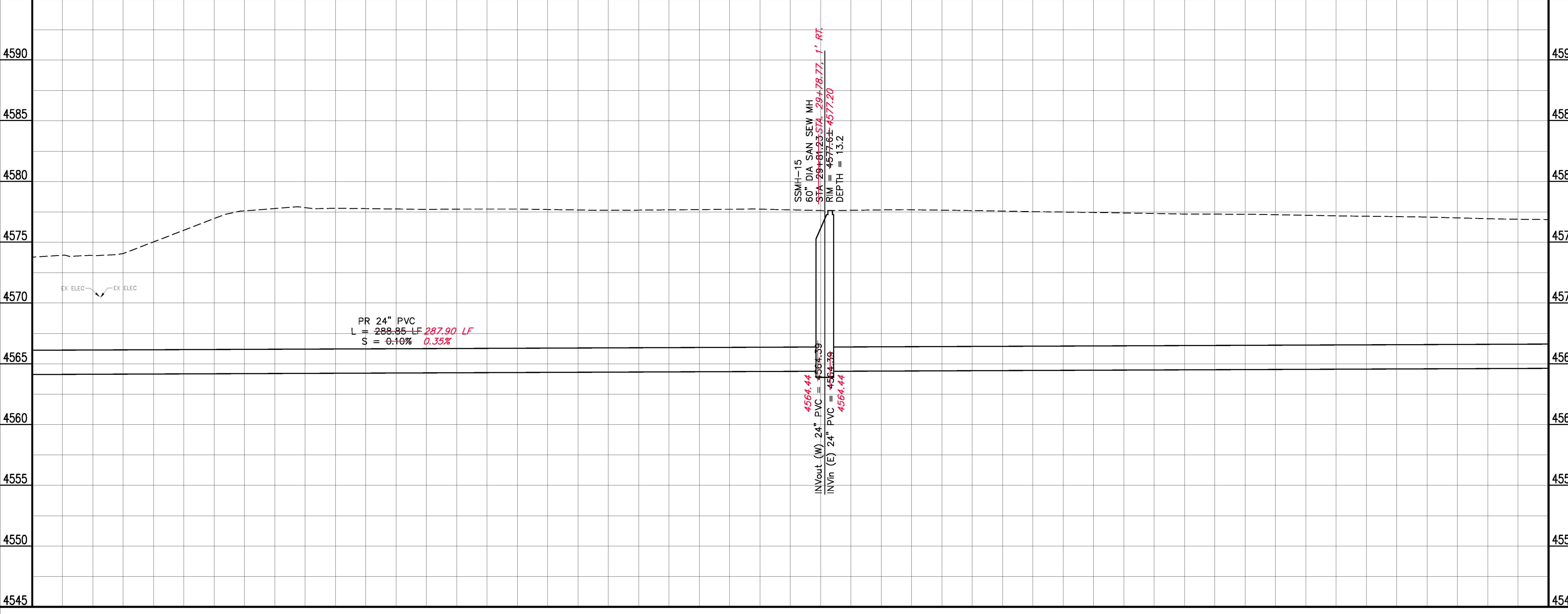
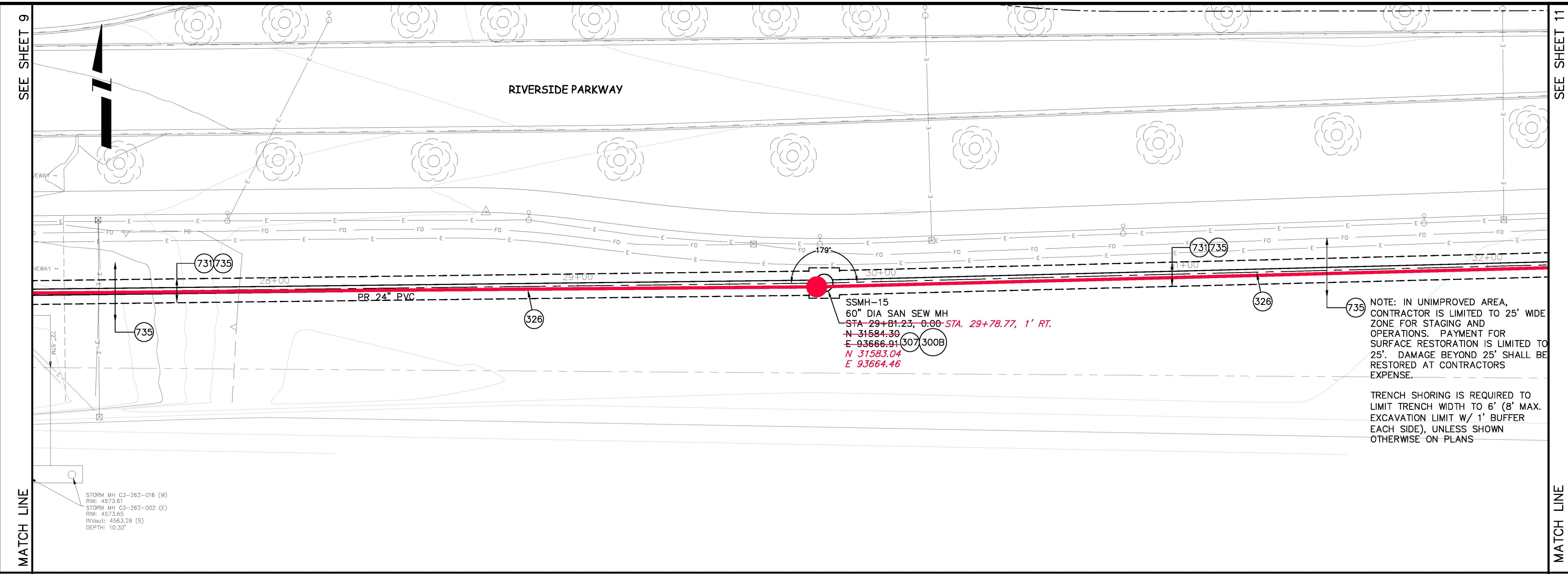


PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

**2010 PARKWAY SANITARY SEWER INTERCEPTOR
SANITARY SEWER PLAN AND PROFILE
STA 22+00 TO STA 27+00**

CONSTRUCTION NOTES

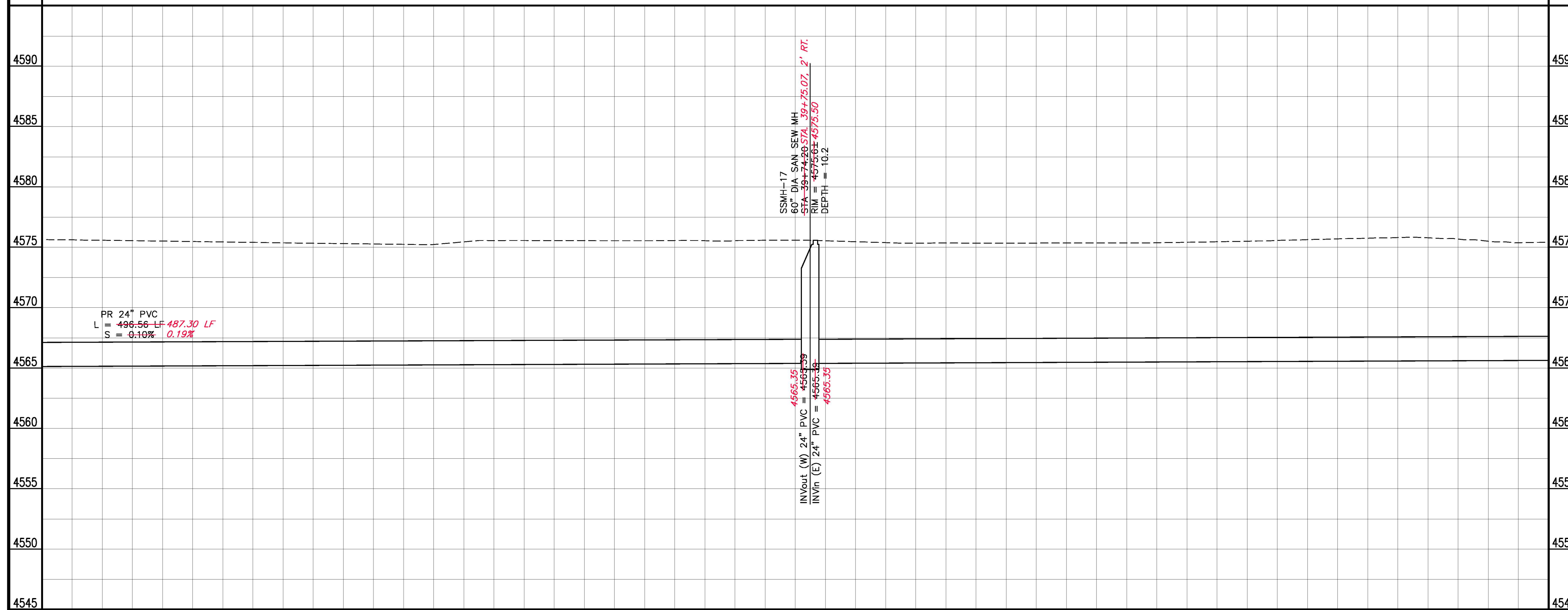
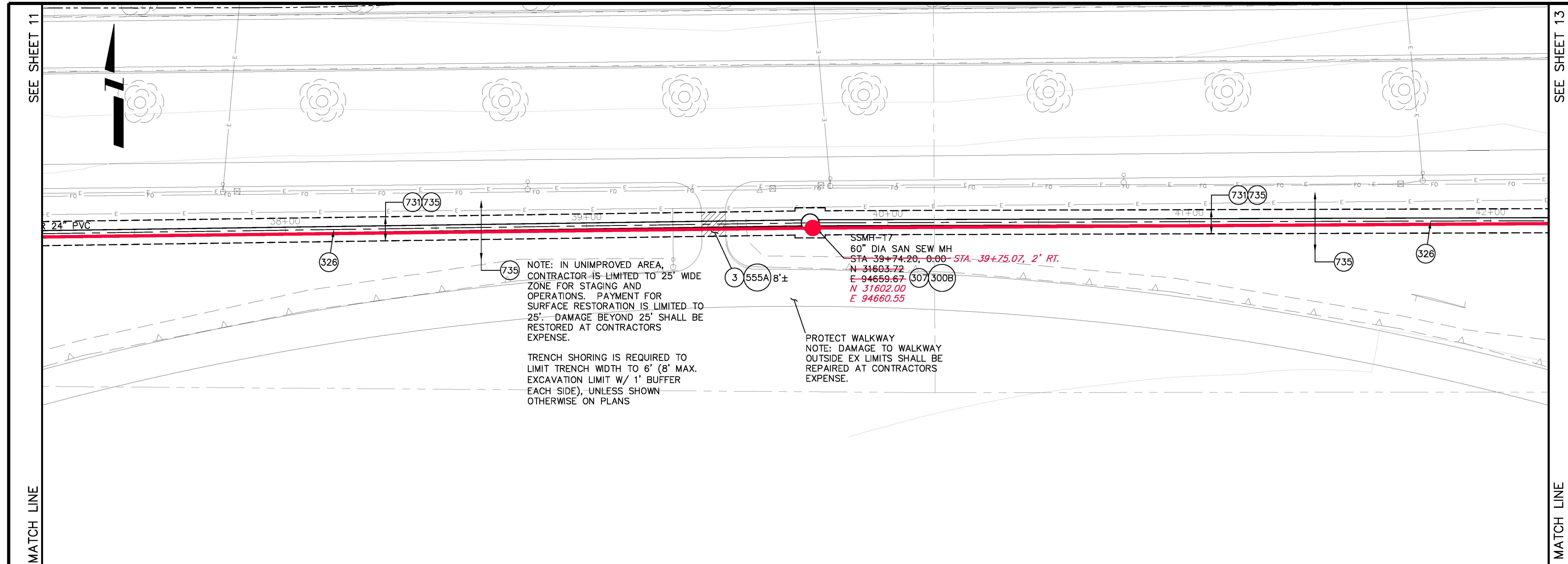
- (300B) 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.)(DEPTH ≤5') . INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- (307) 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH>5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- (326) 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. AS DETERMINED OR AGREED TO BY THE ENGINEER.
- (731) 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENEED FOR SEED BED.
- (735) 212 - SEEDING (HYDROSEEDING/HYDROMULCH APPLICATION) OF PERIPHERAL DISTURBED AREAS, INCLUDING VEHICLE TRACKS, STAGING AREAS, ETC.



	28+00	29+00	30+00	31+00	32+00																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REVISION</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> <tr> <td>AS BUILT</td> <td></td> <td>10/2010</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	REVISION	DESCRIPTION	DATE	AS BUILT		10/2010										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DRAWN BY</td> <td>JAH</td> <td>DATE</td> <td>8/2009</td> </tr> <tr> <td>DESIGNED BY</td> <td>DD</td> <td>DATE</td> <td>8/2009</td> </tr> <tr> <td>CHECKED BY</td> <td></td> <td>DATE</td> <td></td> </tr> <tr> <td>APPROVED BY</td> <td></td> <td>DATE</td> <td></td> </tr> </table>	DRAWN BY	JAH	DATE	8/2009	DESIGNED BY	DD	DATE	8/2009	CHECKED BY		DATE		APPROVED BY		DATE		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">SCALES:</th> </tr> <tr> <td style="text-align: center;">PLAN</td> <td style="text-align: center;">PROFILE</td> </tr> <tr> <td style="text-align: center;">0 5 10 20</td> <td style="text-align: center;">0 5 10 20</td> </tr> <tr> <td style="text-align: center;">HORIZONTAL</td> <td style="text-align: center;">HORIZONTAL</td> </tr> <tr> <td style="text-align: center;">0 2.5 5</td> <td style="text-align: center;">0 2.5 5</td> </tr> <tr> <td style="text-align: center;">VERTICAL</td> <td style="text-align: center;">VERTICAL</td> </tr> </table>	SCALES:		PLAN	PROFILE	0 5 10 20	0 5 10 20	HORIZONTAL	HORIZONTAL	0 2.5 5	0 2.5 5	VERTICAL	VERTICAL		<p>PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION</p>	<p>2010 PARKWAY SANITARY SEWER INTERCEPTOR SANITARY SEWER PLAN AND PROFILE STA 27+00 TO STA 32+00</p>
REVISION	DESCRIPTION	DATE																																														
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CONSTRUCTION NOTES

- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 300B 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.)(DEPTH ≤5') . INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- 307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH>5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- 326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 555A 608.06 - CONCRETE SIDEWALK (8" THICK). INCLUDES 6" BASE COURSE.
- 731 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENED FOR SEED BED.
- 735 212 - SEEDING (HYDROSEEDING/HYDROMULCH APPLICATION) OF PERIPHERAL DISTURBED AREAS, INCLUDING VEHICLE TRACKS, STAGING AREAS, ETC.



38+00 39+00 40+00 41+00 42+00

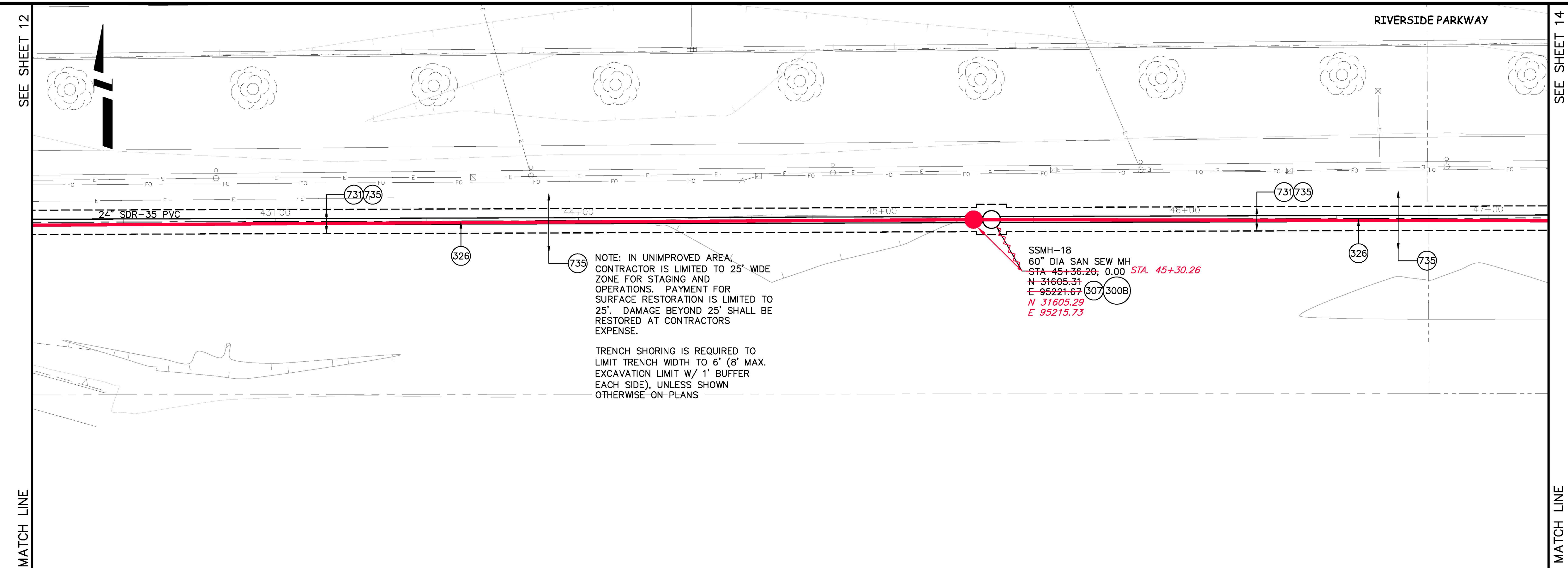
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AS BUILT		10/2010	JAH	8/2009
			DD	8/2009

SCALE:	PLAN	PROFILE
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		0 2.5 5

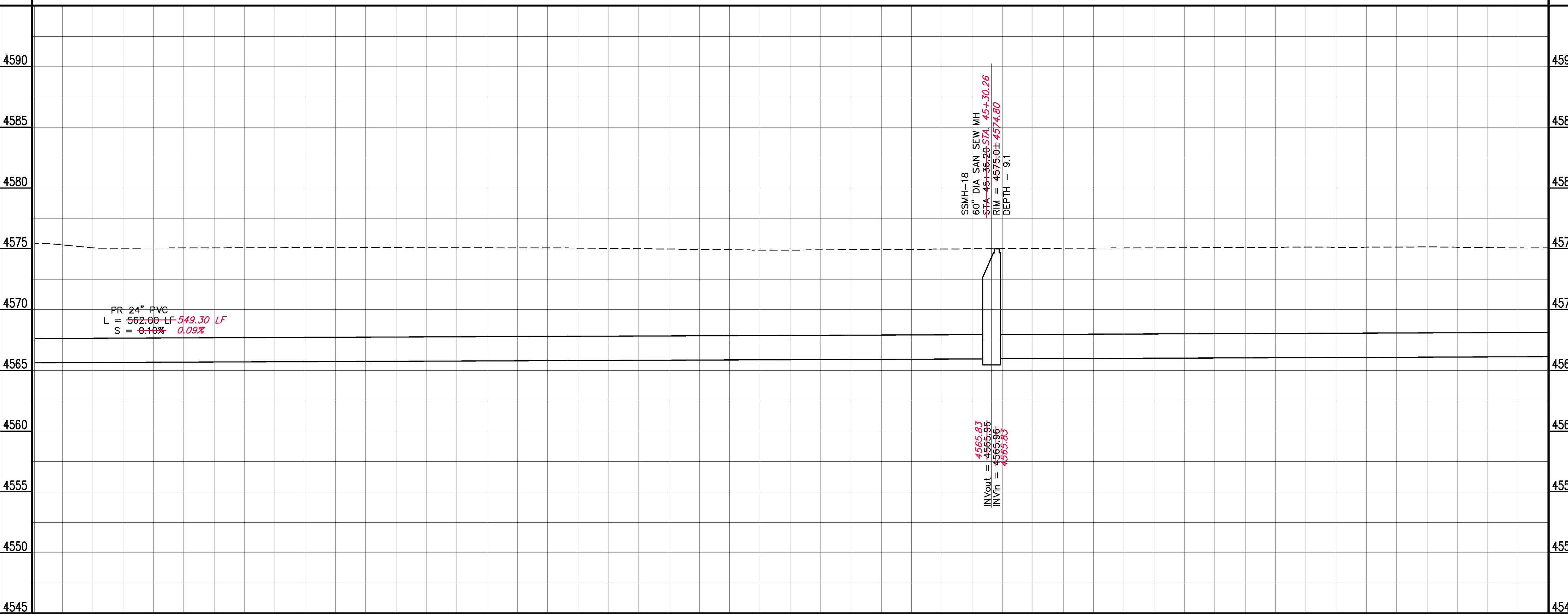


PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION

2010 PARKWAY SANITARY SEWER INTERCEPTOR
SANITARY SEWER PLAN AND PROFILE
STA 37+00 TO STA 42+00



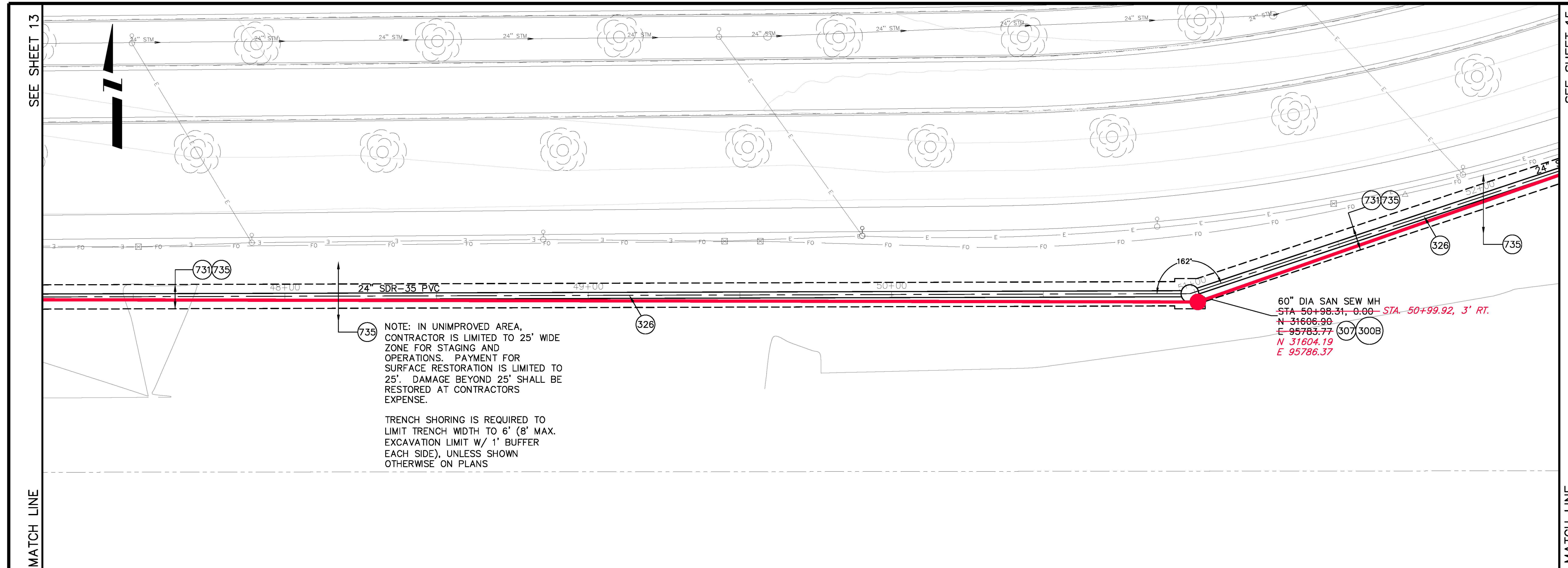
- PROJECT NO. 904-F001504
CONSTRUCTION NOTES
- 300B 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.) (DEPTH ≤ 5') . INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
 - 307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH > 5') (DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
 - 326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. AS DETERMINED OR AGREED TO BY THE ENGINEER.
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 - 735 212 - SEEDING (HYDROSEEDING/HYDROMULCH APPLICATION) OF PERIPHERAL DISTURBED AREAS, INCLUDING VEHICLE TRACKS, STAGING AREAS, ETC.



	43+00	44+00	45+00	46+00	47+00			
DESCRIPTION REVISION Δ AS BUILT REVISION Δ REVISION Δ REVISION Δ	DATE 10/2010 	DRAWN BY JAH DESIGNED BY DD CHECKED BY APPROVED BY	DATE 8/2009 DATE 8/2009 DATE DATE	SCALES: PLAN 0 5 10 20 PROFILE HORIZONTAL 0 5 10 20 VERTICAL 0 2.5 5		PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION	2010 PARKWAY SANITARY SEWER INTERCEPTOR SANITARY SEWER PLAN AND PROFILE STA 42+00 TO STA 47+00	13

CONSTRUCTION NOTES

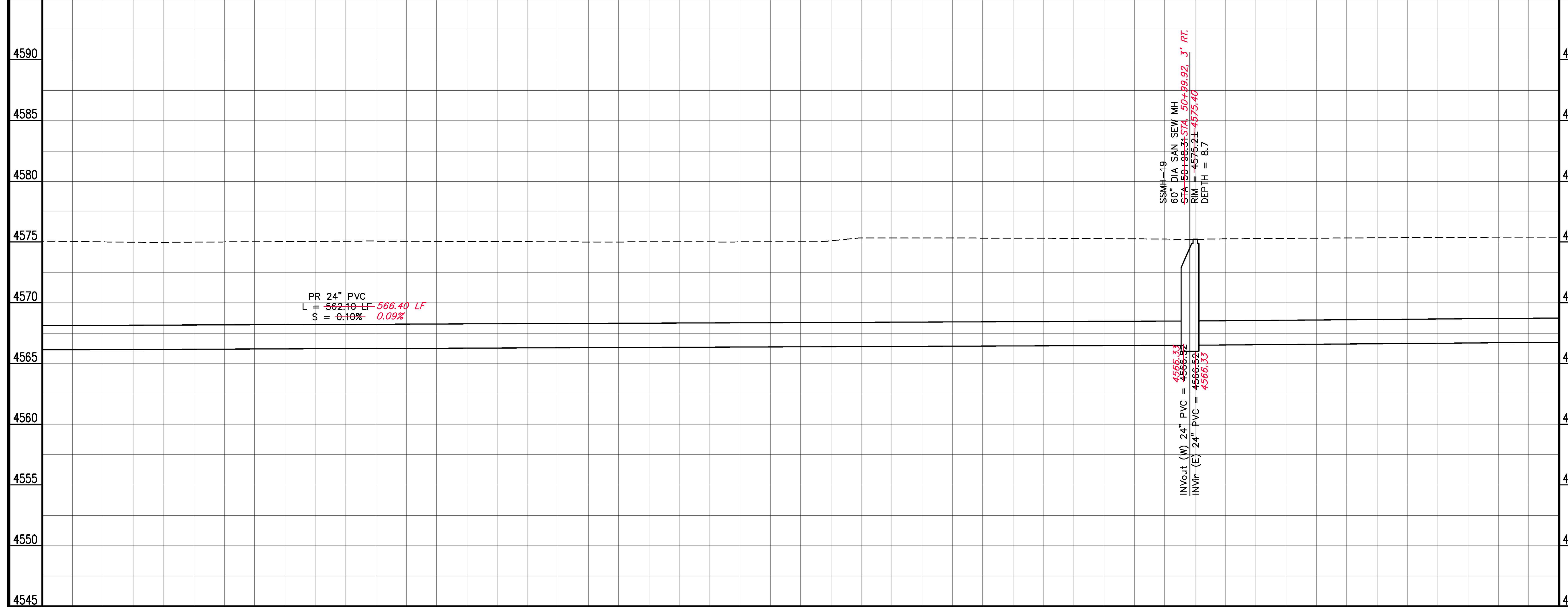
- 300B 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.)(DEPTH ≤5') . INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- 307 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH>5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- 326 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 731 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENEED FOR SEED BED.
- 735 212 - SEEDING (HYDROSEEDING/HYDROMULCH APPLICATION) OF PERIPHERAL DISTURBED AREAS, INCLUDING VEHICLE TRACKS, STAGING AREAS, ETC.



NOTE: IN UNIMPROVED AREA, CONTRACTOR IS LIMITED TO 25' WIDE ZONE FOR STAGING AND OPERATIONS. PAYMENT FOR SURFACE RESTORATION IS LIMITED TO 25'. DAMAGE BEYOND 25' SHALL BE RESTORED AT CONTRACTORS EXPENSE.

TRENCH SHORING IS REQUIRED TO LIMIT TRENCH WIDTH TO 6' (8' MAX. EXCAVATION LIMIT W/ 1' BUFFER EACH SIDE), UNLESS SHOWN OTHERWISE ON PLANS

60" DIA SAN SEW MH
 STA 50+98.31, 0.00 - STA 50+99.92, 3' RT.
 N 31606.90
 E 95783.77
 N 31604.19
 E 95786.37

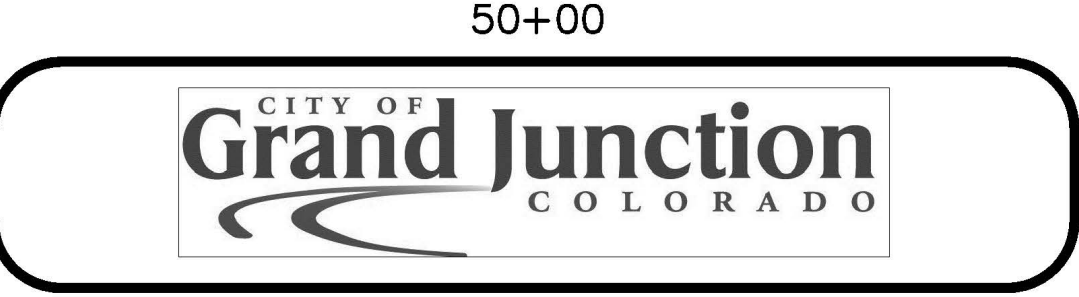


PR 24" PVC
 L = 562.10 LF - 566.40 LF
 S = 0.10% 0.09%

SSMH-19
 60" DIA SAN SEW MH
 STA 50+98.31, 0.00 - STA 50+99.92, 3' RT.
 DIA = 60.00"
 INV (E) 24" PVC = 4566.33
 INV (W) 24" PVC = 4566.33
 DEPTH = 8.7

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
AS BUILT		10/2010	JAH	8/2009
			DD	8/2009

SCALES:	
PLAN	PROFILE
HORIZONTAL 1" = 20'	HORIZONTAL 1" = 20'
VERTICAL 1" = 5'	VERTICAL 1" = 5'

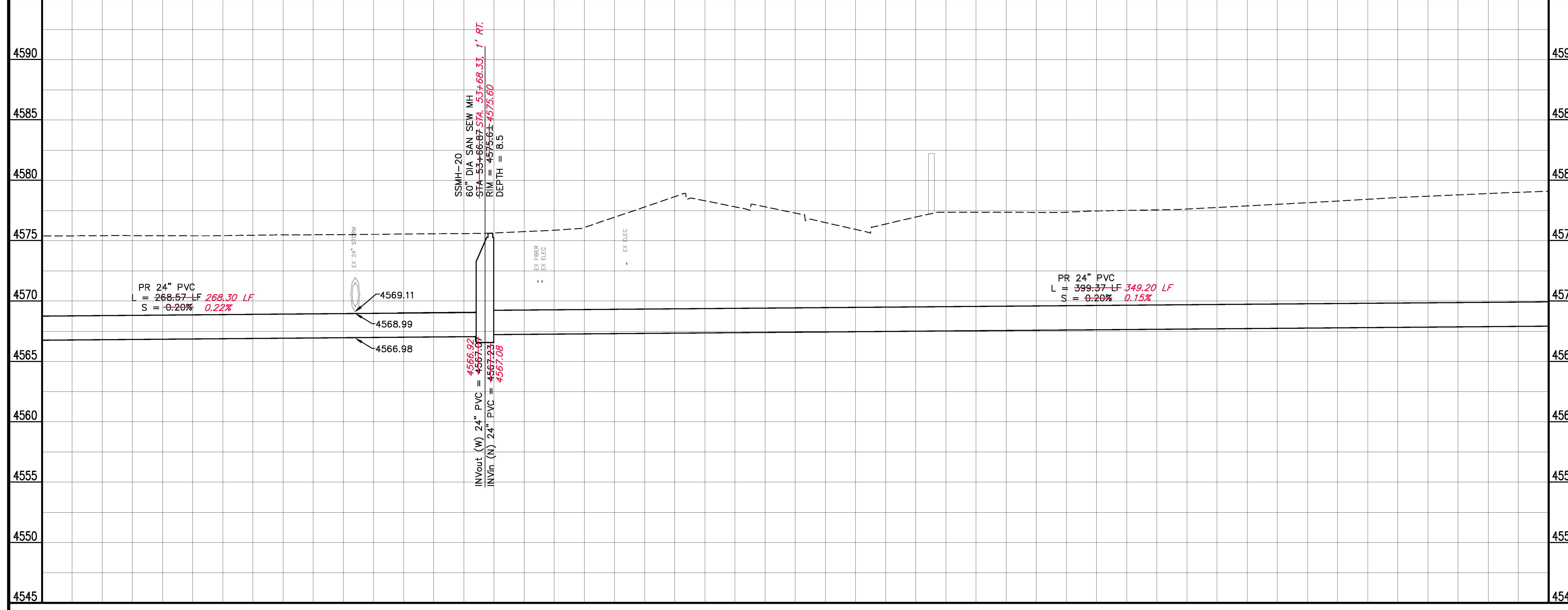
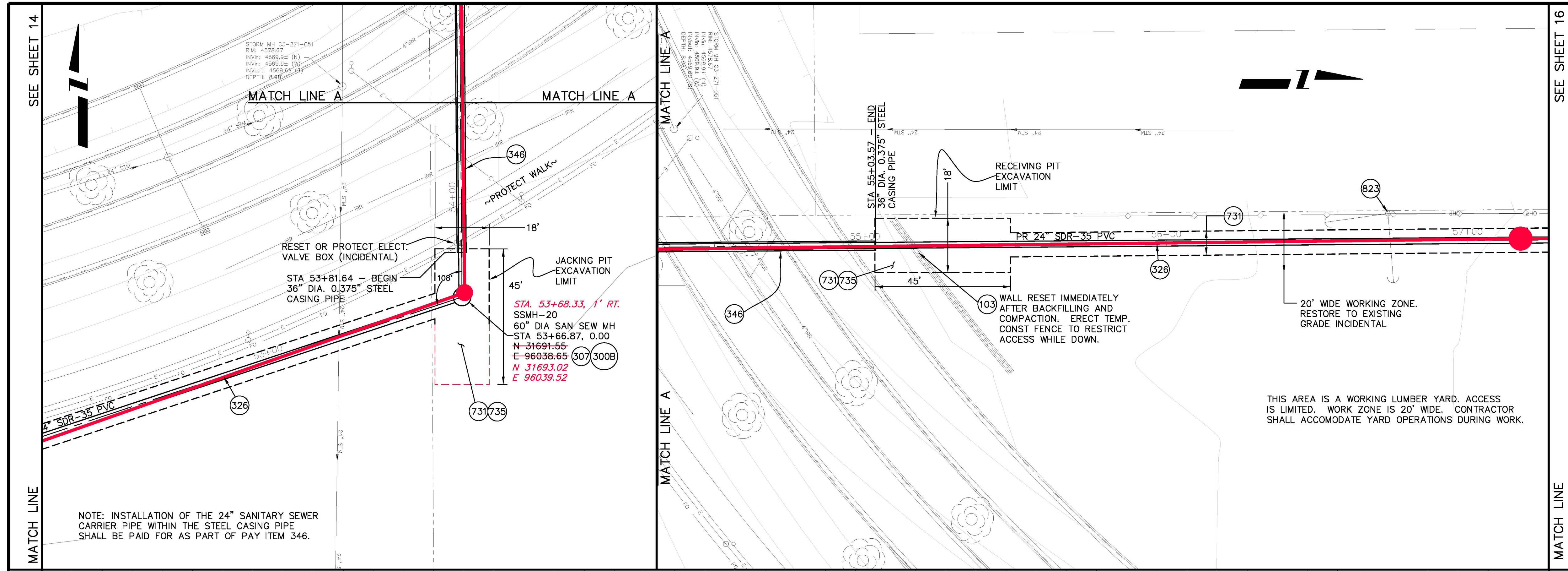


PUBLIC WORKS
 AND UTILITIES
 ENGINEERING DIVISION

2010 PARKWAY SANITARY SEWER INTERCEPTOR
 SANITARY SEWER PLAN AND PROFILE
 STA 47+00 TO STA 52+00

CONSTRUCTION NOTES

- (103) 210 - RESET "READY ROCK" TYPE WALL. PROTECT WALL PIECES FROM DAMAGE. PREPARE 12" COMPACTED (98% MAX. DENSITY) CLASS 6 ABC FOOTER ON WHICH TO PLACE WALL BLOCKS. ENSURE BACKFILL IS COMPACTED TO MAX DENSITY PRIOR TO REINSTALLATION.
- (300B) 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.)(DEPTH ≤ 5'). INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- (307) 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH > 5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- (326) 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. AS DETERMINED OR AGREED TO BY THE ENGINEER.
- (346) 102.9/104.3.C - INSTALL 36" DIA. 0.375" THICK STEEL CASING PIPE TO FACILITATE TRENCHLESS SANITARY SEWER INSTALLATION. CASING PIPE SHALL BE INSTALLED VIA PIPE-JACKING. SUPPORT CARRIER PIPE VIA WELDED SUPPORTS W/ MIN 2" WIDE, HALF-CIRCLE CRADLES; 2 SUPPORT CRADLES PER STICK OF CARRIER PIPE. SEAL ENDS OF CASING PIPE W/ CONCRETE. FILL CASING PIPE W/ FLY ASH SLURRY UPON COMPLETION. SEE SPECIAL PROVISIONS FOR DETAILS. INSTALL STEEL CASING PIPE (42" MINIMUM DIA., 0.375" MINIMUM THICKNESS) AND 24" SANITARY SEWER CARRIER PIPE (ASTM D-3034 SDR-35 PVC OR ASTM F949/F794 PROFILE WALL PVC). CASING PIPE SHALL BE INSTALLED VIA PIPE-JACKING. SUPPORT CARRIER PIPE VIA WELDED SUPPORT CRADLES. CRADLES SHALL HALF-CIRCLE, 2 SQ FT SURFACE AREA PER CRADLE; MINIMUM 2 SUPPORT CRADLES, EVENLY SPACED, PER STICK OF CARRIER PIPE. SEAL ENDS OF CASING PIPE W/ CONCRETE. FILL CASING PIPE W/ FLY ASH SLURRY UPON COMPLETION. SEE SPECIAL PROVISIONS FOR DETAILS.
- (731) 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENED FOR SEED BED.
- (735) 212 - SEEDING (HYDROSEEDING/HYDROMULCH APPLICATION) OF PERIPHERAL DISTURBED AREAS, INCLUDING VEHICLE TRACKS, STAGING AREAS, ETC.
- (823) PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED. PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED.



	53+00	54+00	55+00	56+00	57+00																																	
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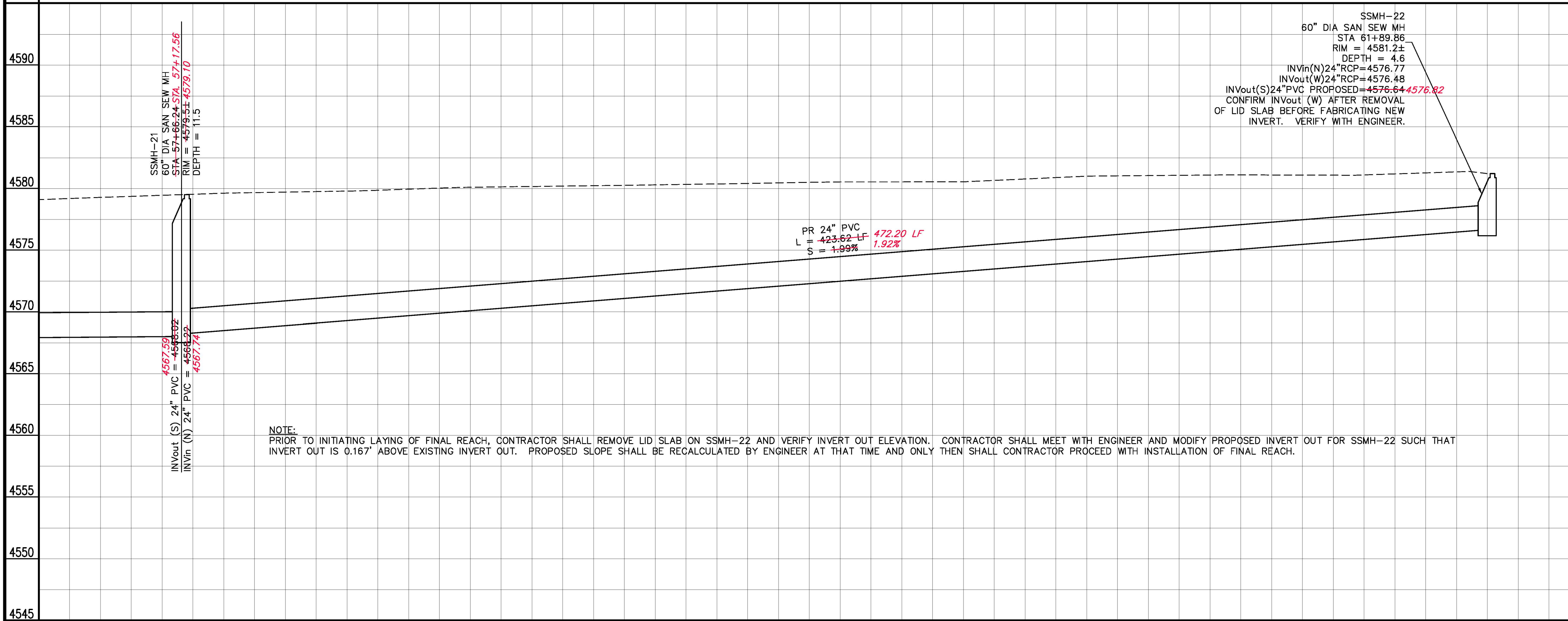
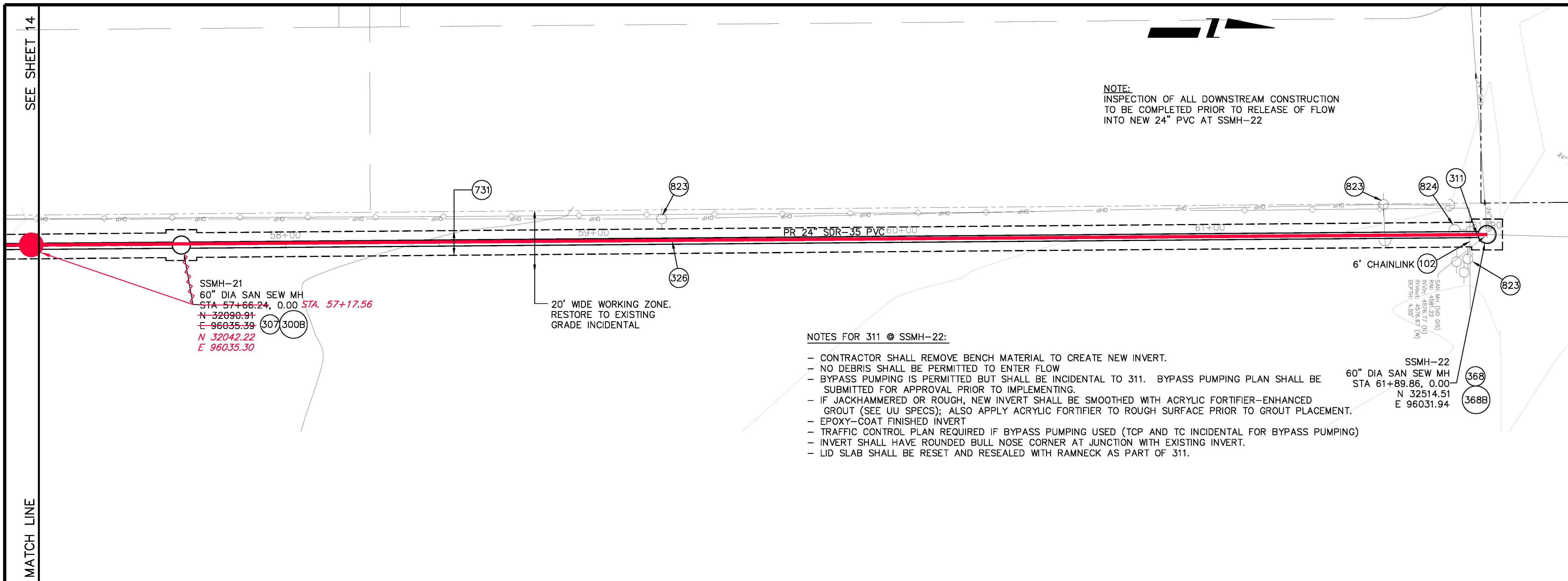
CONSTRUCTION NOTES

- (102) 210 - RESET FENCE. (HEIGHT AND MATERIAL AS SHOW ON PLAN)
- (300B) 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (60" I.D.)(DEPTH ≤5') . INCLUDES CONNECTION OF ADJACENT SEWER LINES (INCLUDING PIPE STUB LENGTHS AND COUPLINGS), FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02). INCLUDES MANHOLE COATING AS PER 102.11.
- (307) 102.11/108.5 - MANHOLE BARREL SECTION (DEPTH>5')(DIA. = 60"). INCLUDES MANHOLE COATING AS PER 102.11.
- (311) 102.11/108.5 - CONNECT TO EXISTING MANHOLE (PIPE DIA VARIES). (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-08). CONTRACTOR SHALL CONNECT THE SEWER PIPE TO THE EXISTING MANHOLE IN SUCH A WAY THAT ENSURES A WATERTIGHT CONNECTION. CONTRACTOR SHALL RECONSTRUCT MH INVERT. COST SHALL BE INCIDENTAL TO THE COST OF "CONNECT TO EXISTING MANHOLE" BID ITEM.
- (326) 102.9/108.2 - 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.
- (368) 102.11/102.14/108.2 - RECONDITION EXISTING MANHOLE BENCH. REMOVE DETERIORATED CONCRETE ON BENCH AND AROUND BASE USING ACID ETCH OR CHIPHAMMERING; CLEAN AND REMOVE DEBRIS; SATURATE SURFACE WITH ACRYLIC FORTIFIER; ADD XYPEX C-500 TO GROUT (GROUT MIX AS PER UU SPECS.) AT 3% PER WEIGHT OF CEMENTITIOUS MATERIAL. APPLY EPOXY COATING (MEETING UU SPECS) OR XYPEX PRODUCT CONCENTRATE SLURRY 1/16" THICK (CURE AS PER MFG. SPECS) AFTER GROUT HAS CURED. ANY BYPASS PUMPING SHALL BE INCIDENTAL UNLESS PROVIDED FOR OTHERWISE FOR SPECIFIC MANHOLE.
- (368B) 102.11/102.14/108.2 - COAT ENTIRE INSIDE OF MANHOLE WITH XYPEX CONCENTRATE (BRUSH OR SPRAY APPLICATION AT CONTRACTOR'S CHOICE). APPLICATION THICKNESS SHALL BE 1/16". PREPARE MANHOLE, MIX, APPLY, AND CURE AS PER MANUFACTURER SPECIFICATIONS. INCLUDES REMOVAL OF CORRODED STEPS (GRIND STUB TO BELOW SURFACE, SEAL W/ GROUT PRIOR TO XYPEX) WHEN PRESENT.
- (731) 207 - STOCKPILE AND RESET TOP 12 INCHES OF TOPSOIL OR IMPORT NEW FROM SOURCE APPROVED BY ENGINEER. KEEP FREE FROM DEBRIS. PLACE AT 90% MAX DENSITY WITH TOP 3" LOOSENEED FOR SEED BED.
- (823) PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED. PROTECT UTILITY POLE. NOTIFY XCEL ENERGY 2 WEEKS IN ADVANCE IF STABILIZATION VIA "POLE HOLDING" WILL BE REQUIRED.
- (824) REMOVE AND RESET STREET LIGHT; BY XCEL ENERGY. NOTIFY XCEL 2 WEEKS IN ADVANCE.

NOTE:
INSPECTION OF ALL DOWNSTREAM CONSTRUCTION TO BE COMPLETED PRIOR TO RELEASE OF FLOW INTO NEW 24" PVC AT SSMH-22

NOTES FOR 311 @ SSMH-22:

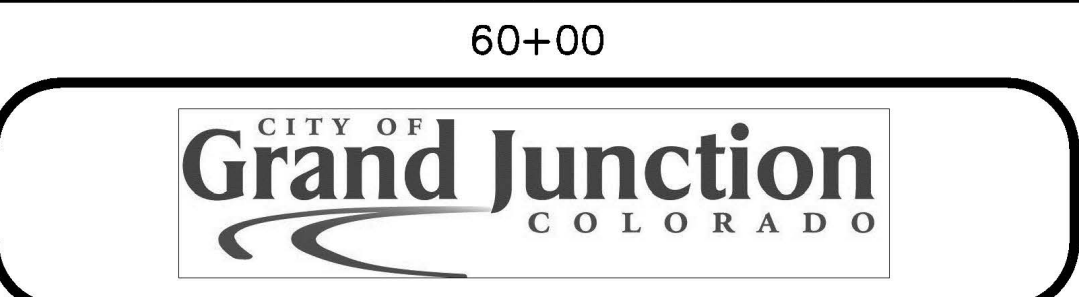
- CONTRACTOR SHALL REMOVE BENCH MATERIAL TO CREATE NEW INVERT.
- NO DEBRIS SHALL BE PERMITTED TO ENTER FLOW
- BYPASS PUMPING IS PERMITTED BUT SHALL BE INCIDENTAL TO 311. BYPASS PUMPING PLAN SHALL BE SUBMITTED FOR APPROVAL PRIOR TO IMPLEMENTING.
- IF JACKHAMMERED OR ROUGH, NEW INVERT SHALL BE SMOOTHED WITH ACRYLIC FORTIFIER-ENHANCED GROUT (SEE UU SPECS); ALSO APPLY ACRYLIC FORTIFIER TO ROUGH SURFACE PRIOR TO GROUT PLACEMENT.
- EPOXY-COAT FINISHED INVERT
- TRAFFIC CONTROL PLAN REQUIRED IF BYPASS PUMPING USED (TCP AND TC INCIDENTAL FOR BYPASS PUMPING)
- INVERT SHALL HAVE ROUNDED BULL NOSE CORNER AT JUNCTION WITH EXISTING INVERT.
- LID SLAB SHALL BE RESET AND RESEALED WITH RAMNECK AS PART OF 311.



NOTE:
PRIOR TO INITIATING LAYING OF FINAL REACH, CONTRACTOR SHALL REMOVE LID SLAB ON SSMH-22 AND VERIFY INVERT OUT ELEVATION. CONTRACTOR SHALL MEET WITH ENGINEER AND MODIFY PROPOSED INVERT OUT FOR SSMH-22 SUCH THAT INVERT OUT IS 0.167' ABOVE EXISTING INVERT OUT. PROPOSED SLOPE SHALL BE RECALCULATED BY ENGINEER AT THAT TIME AND ONLY THEN SHALL CONTRACTOR PROCEED WITH INSTALLATION OF FINAL REACH.

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
1	AS BUILT	10/2010	JAH	8/2009
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SCALE:
PLAN: 1" = 10'
PROFILE: HORIZONTAL 1" = 10', VERTICAL 1" = 2'

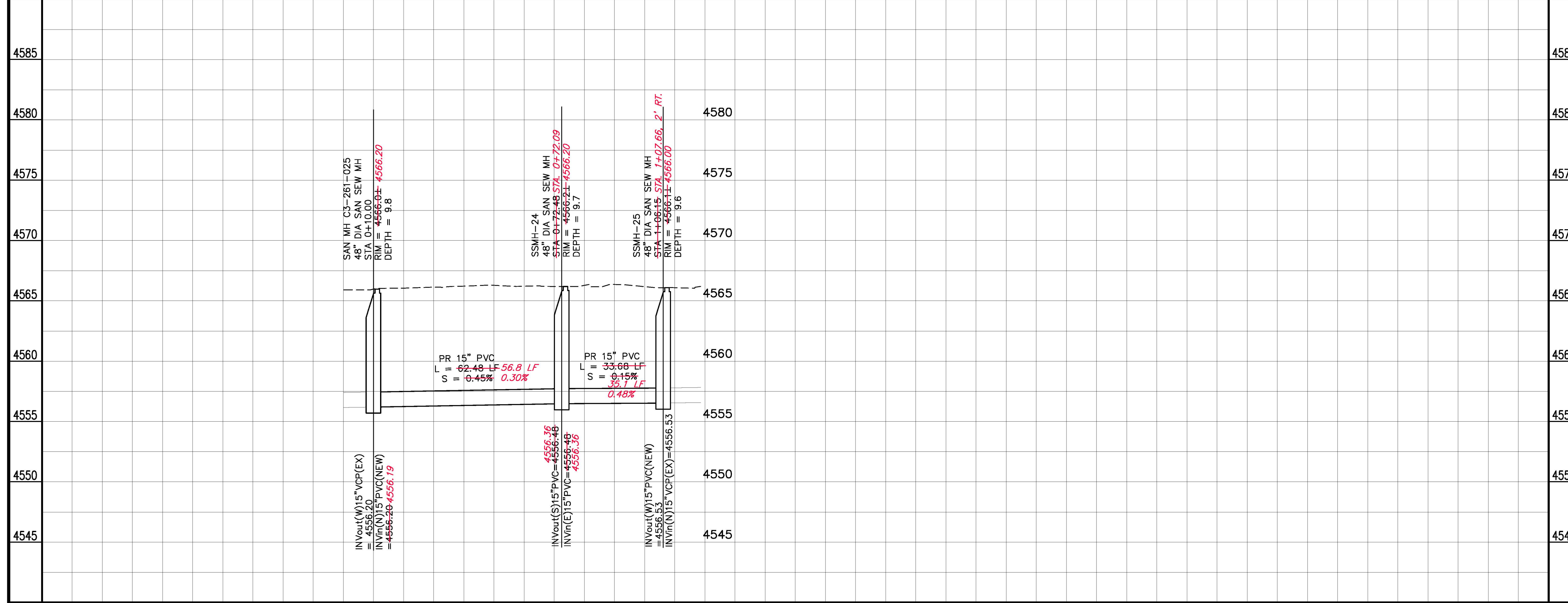
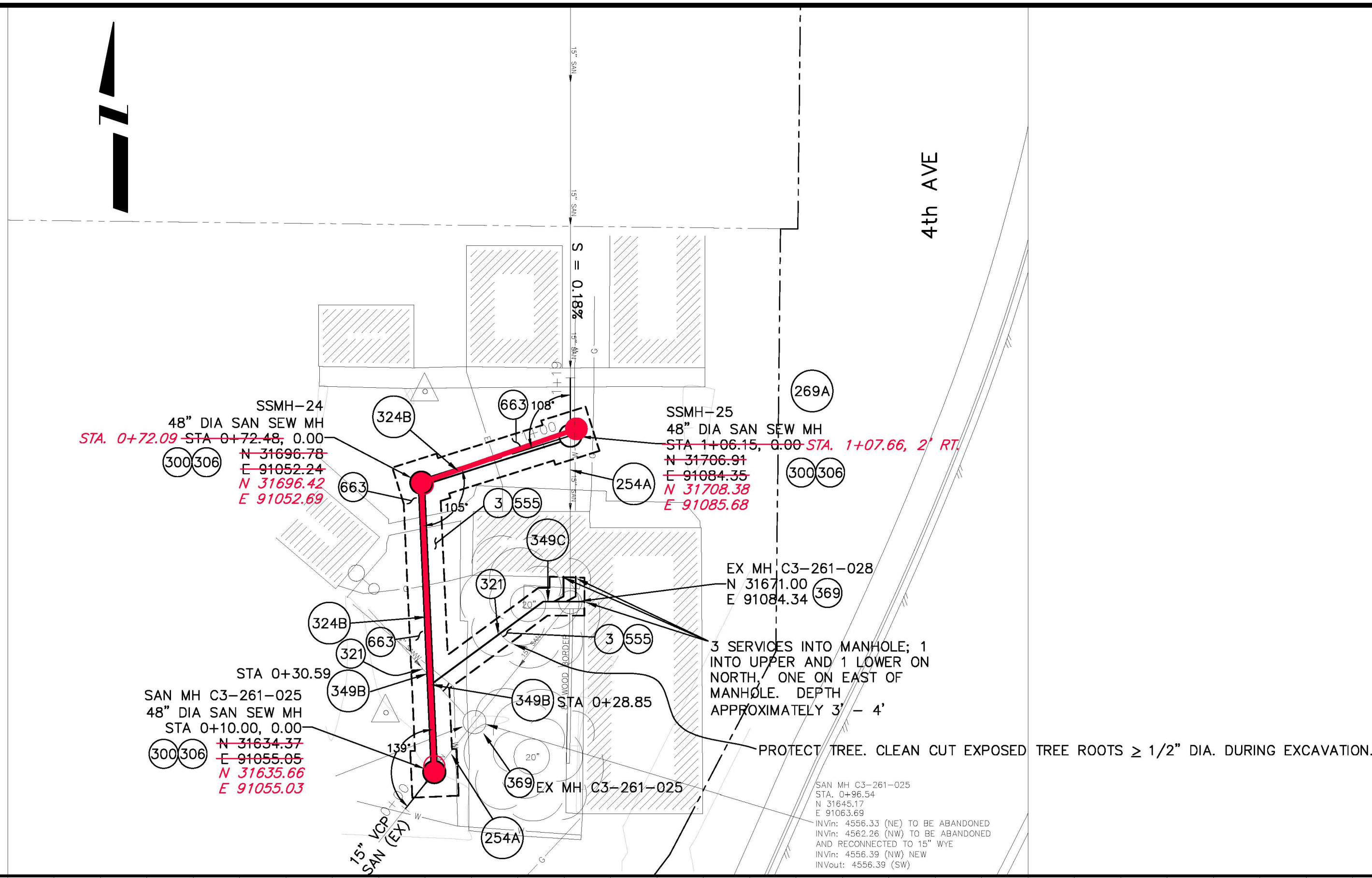


**PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION**

**2010 PARKWAY SANITARY SEWER INTERCEPTOR
SANITARY SEWER PLAN AND PROFILE
STA 57+00 TO STA 61+68.24**

CONSTRUCTION NOTES

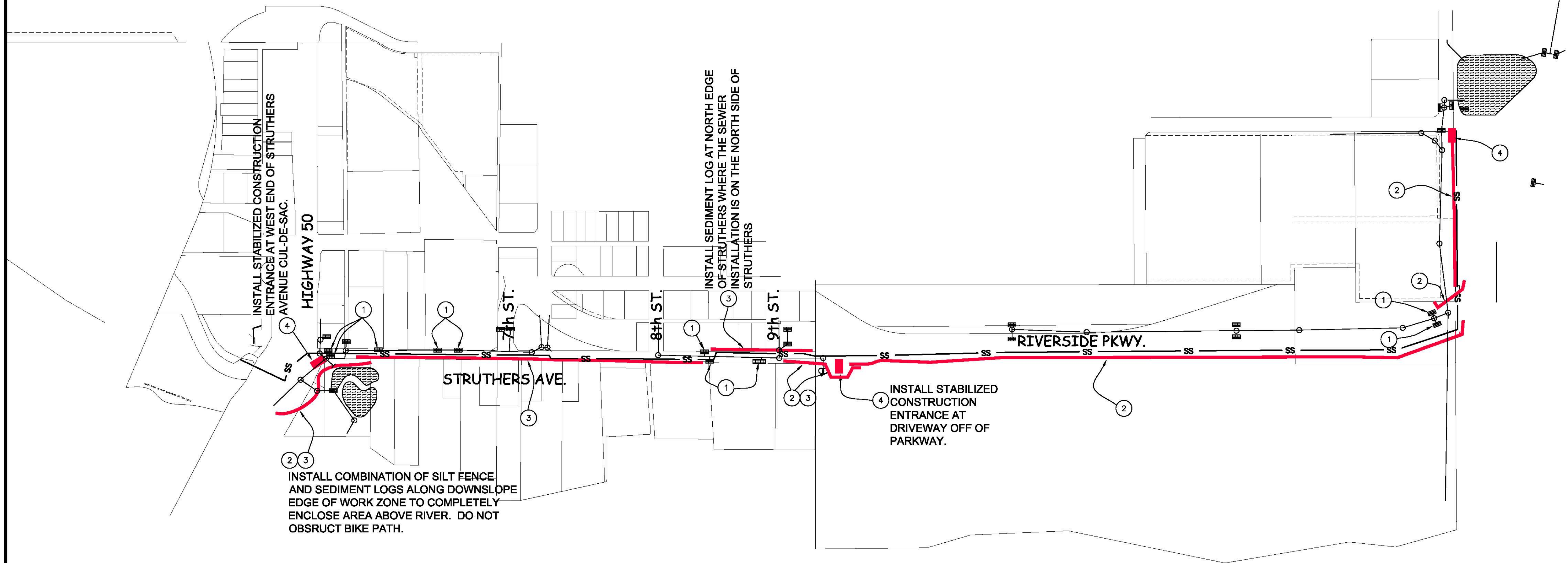
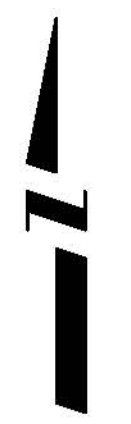
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 254A 102.14 - GROUT CONCRETE-SEAL HOLE OPENING IN MANHOLE, CATCH BASIN, OR PIPE STUB; DIA. 18 INCHES OR LESS. CLASS B CONCRETE REQUIRED FOR DIA. > 8".
- 269A UU/108.2 - BYPASS PUMPING FOR SSMH-23 AND SSMH-25. BYPASS CONFIGURATION SHALL ALLOW CONTINUOUS TRAFFIC ACCESS TO TRAILER PARK. CONTRACTOR SHALL INDEPENDENTLY ESTIMATE FLOW RATES. BYPASS PUMPING PLAN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTATION. POURED IN PLACE MANHOLE W/ CONCRETE PLUGGING OF OLD LINE W/ NO BYPASS PUMPING IS ALLOWED OPTION. THIS PAY ITEM SHALL BE PAID WHETHER BYPASS USED OR NOT.
- 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
- 306 102.11/108.5 - MANHOLE BARREL SECTION (D>5") (48" I.D.).
- 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES CONNECTION TO EXISTING/NEW LINE/TAP. INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS OR IMPORTED MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 324B 102.9/108.2 - 15" GRAVITY SEWER PIPE (ASTM D-3034 SDR-35 PVC OR ASTM F949/F794 PROFILE WALL PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS OR IMPORTED MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL, AS DETERMINED OR AGREED TO BY THE ENGINEER.
- 349B 102.9/104.2/108.2 - 15" x 4" SEWER SERVICE TAP. TO INCLUDE: FULL BODY WYE, W/ STREET 45, ALL BENDS AND FITTINGS AS REQUIRED TO ALIGN AND CONNECT TO EXISTING SERVICE AT ROW LINE OR WHERE SHOWN. 4" SERVICE PIPE SEPARATE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL "TYPICAL SERVICE "Y" CONNECTION" SS-06 AND SS-07).
- 349C 102.9/104.2/108.2 - JOIN THREE 4" SERVICE LINES INTO SINGLE 4" SERVICE LINE USING 4"x4" WYES IN SERIES. INCLUDES BENDS REQUIRED TO ALIGN SEPARATE SERVICES FOR JOINING.
- 369 104/108.5 - ABANDON 4" DIA. MANHOLE; FILL BASE W/ 1 FT CLASS B CONCRETE, THEN COMPACTED PIT RUN TO TO SUBGRADE. INCLUDES REMOVAL AND DISPOSAL OF CONE.
- 555 608.06 - CONCRETE SIDEWALK (4" THICK)
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)



	0+00	1+00	2+00																																					
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BMP'S

- ① INLET SEDIMENT CONTROL DEVICE
- ② SILT FENCE
- ③ EROSION SEDIMENT LOG
- ④ STABILIZED CONSTRUCTION ENTRANCE



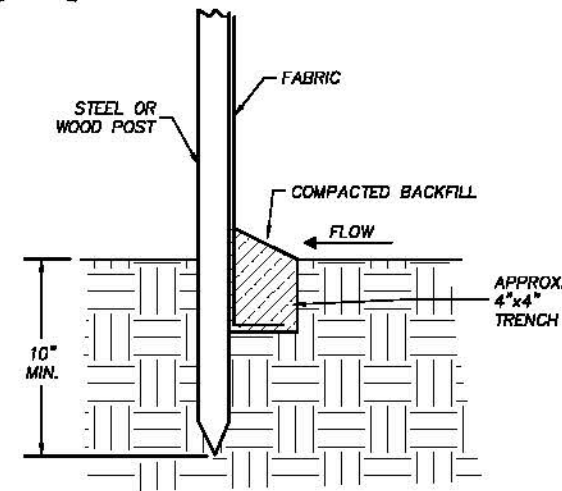
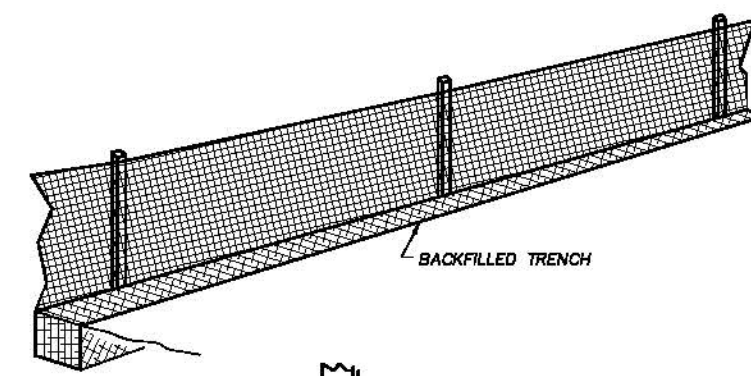
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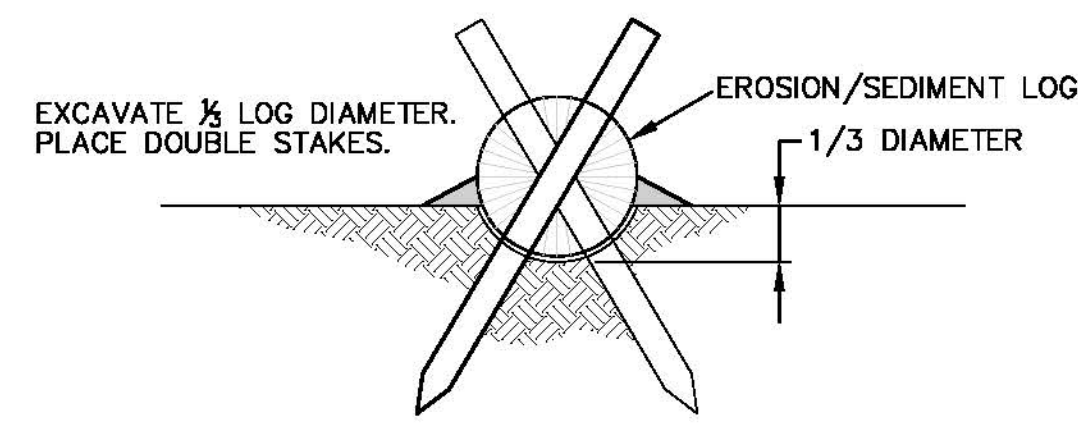
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PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION

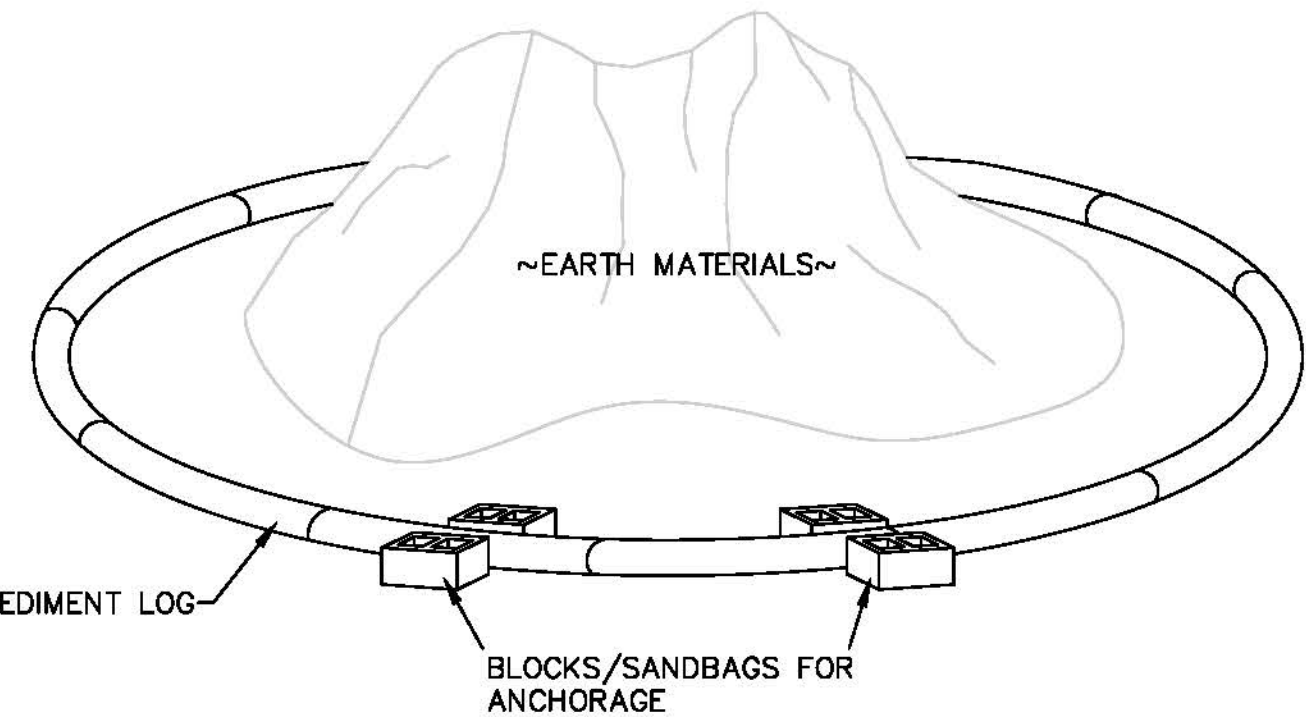
2010 PARKWAY SANITARY SEWER INTERCEPTOR
STORM WATER MANAGEMENT PLAN MAP



DETAIL B - SILT FENCE (S.F.)

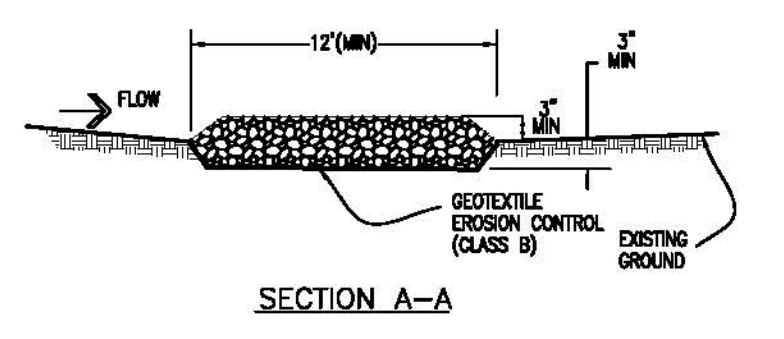
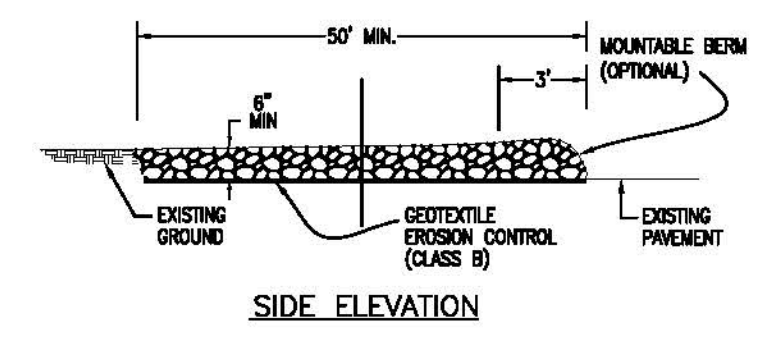
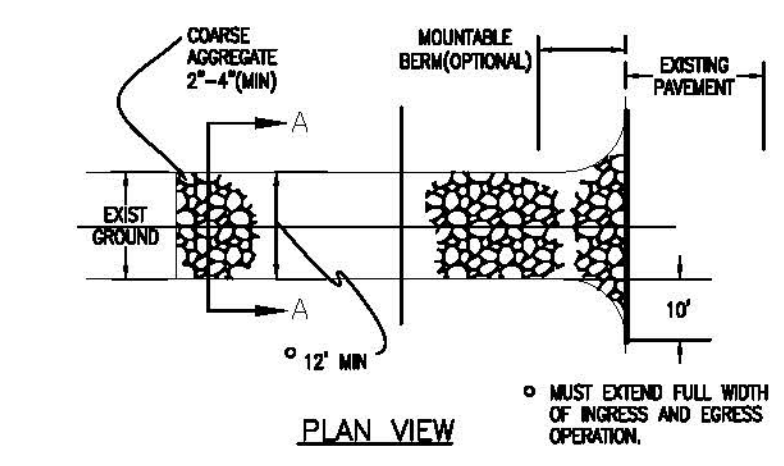


EROSION LOG STAKING DETAIL



DETAIL OF EARTH MATERIAL EROSION CONTROL

INSTALL AROUND ALL STOCK AND SPOIL PILES OF EARTH MATERIALS DURING PRECIPITATION EVENTS AND NON WORK HOURS. APPLIES TO ALL STOCK PILES NOT CONTROLLED BY OTHER SILT FENCES OR EROSION LOGS. DO NOT RELY ON INLET PROTECTION ONLY.



STABILIZED CONSTRUCTION ENTRANCE

NOTE:

Protect all inlets using a combination of upstream controls (silt fences, wattles, grading controls, sweeping) and inlet controls (rock filters, inlet silt sacks, etc.)

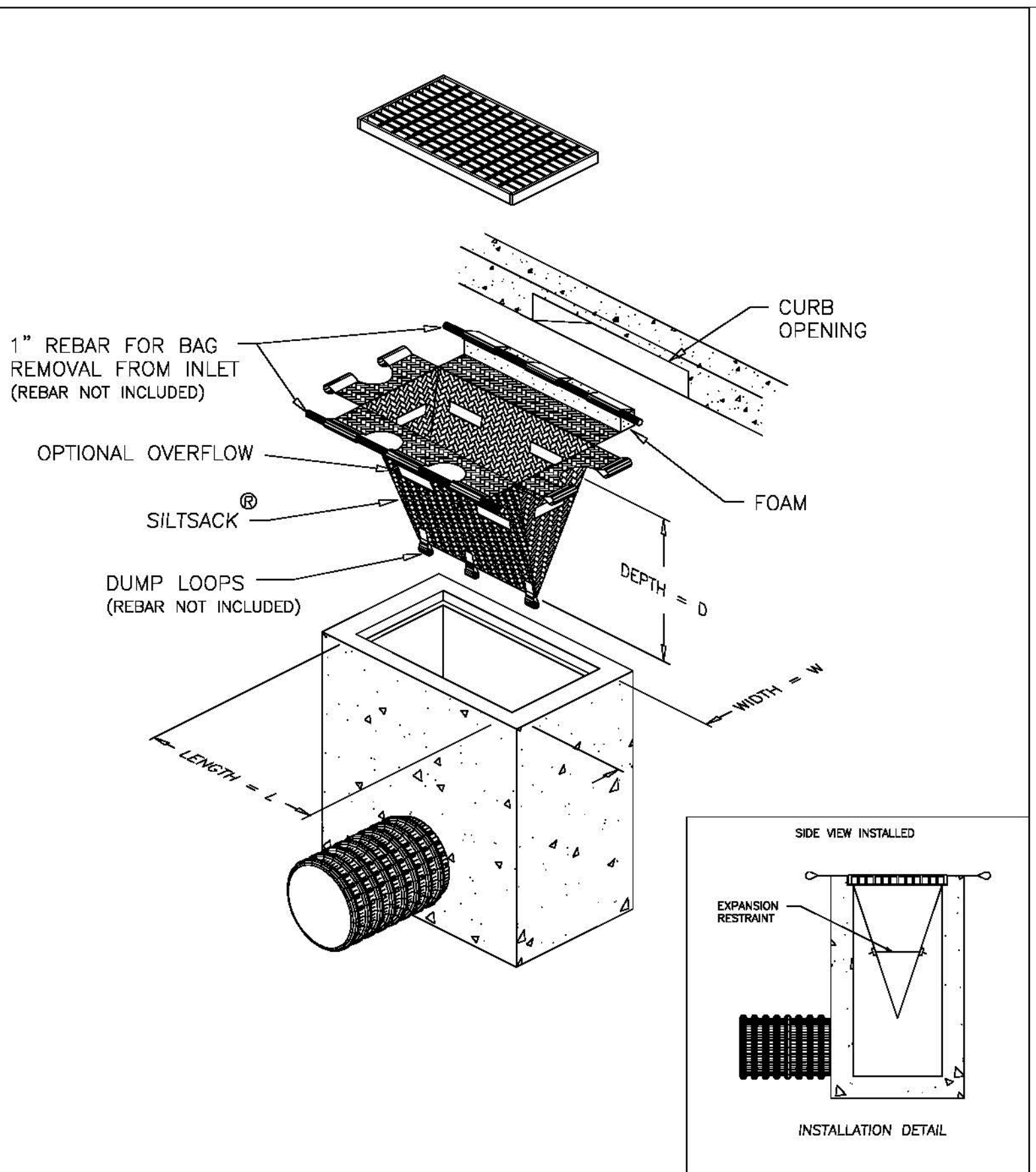
Prevent onsite erosion and offsite sediment transport using measures such as silt fences, wattles, grading controls, tracking pads, and others

Manage stormwater run-on using measures such as silt fences, wattles, grading controls, bypasses, and others

Provide sediment migration controls for all stockpiles of materials using wattles, silt fences, grading controls, and others; Provide concrete washout areas conforming with Stormwater Management regulations

Prevent wind-erosion via dust control measures; Provide street sweeping for fugitive sediment not contained via other BMP's

Provide spill-containment measures and spill-containment refueling practices for the handling of all fuels and hazardous liquids. Because individual BMP's are not shown for each location, the Contractor shall note on the construction plans the locations and types of BMP's used, as they are installed and implemented. This set of redlined and continuously updated plans shall constitute a required component of the SWMP and shall be kept onsite at all times and available for inspection by the Project Engineer, the Project Inspector, and regulatory enforcement personnel.



DETAIL OF INLET SEDIMENT CONTROL DEVICE
CURB DEFLECTOR REQUIRED ONLY WHERE APPLICABLE

SILTSACK OR EQUIVALENT SPECIFICATIONS

NOTE: THE SILTSACK SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

REGULAR FLOW SILTSACK

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS	
GRAB TENSILE STRENGTH	ASTM D-4632		300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632		20 %
PUNCTURE	ASTM D-4833		120 LBS
MULLEN BURST	ASTM D-3786		800 PSI
TRAPEZOID TEAR	ASTM D-4533		120 LBS
UV RESISTANCE	ASTM D-4355		80 %
APPARENT OPENING SIZE	ASTM D-4751		40 US SIEVE
FLOW RATE	ASTM D-4491		40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491		0.55 SEC -1

HI-FLOW SILTSACK

(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS	
GRAB TENSILE STRENGTH	ASTM D-4632		265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632		20 %
PUNCTURE	ASTM D-4833		135 LBS
MULLEN BURST	ASTM D-3786		420 PSI
TRAPEZOID TEAR	ASTM D-4533		45 LBS
UV RESISTANCE	ASTM D-4355		90 %
APPARENT OPENING SIZE	ASTM D-4751		20 US SIEVE
FLOW RATE	ASTM D-4491		200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491		1.5 SEC -1

Performance Standards

The general requirements for erosion control work shall be as follows:

- All grading shall be designed, constructed and completed in such a manner so that exposed area of any disturbed land shall be limited to the shortest time period.
- Temporary erosion and sediment control facilities shall be removed and all disturbed areas graded and stabilized with permanent soil erosion control measures pursuant to approved plans and specifications.

During Construction (Temporary Measures)

- Erosion Logs: The use of a single row of erosion logs shall be installed from the edge of ditch or swale unless specified otherwise. Installation shall be in accordance with the detail as shown on the plans. All stockpiles of construction earth materials and excavation spoil must be encircled with erosion control logs during any/all storm events generating runoff.
- All vehicles exiting the construction site with dirt caked tires must pass a Tracking Control Pad. Aggregate in the Tracking Control Pad shall be bladed and amended with fresh rock as needed during the project to maintain effectiveness. Tracking pads shall be located as needed to remove dirt/soil/sediment from equipment/trucks. Tracking pad material shall not be paid for separately and shall be included in the stormwater management pay item. Scale tickets shall be turned in to inspector & kept separate from other materials tickets. Tracking pads shall be of sufficient length and thickness to remove all sediment.
- Siltsacks shall include curb opening style and area-inlet style, as necessary. Siltsacks shall be checked and emptied after each runoff event. Inlets in ring road shall be serviced during non-business hours to minimize business disruption and traffic risk to workers and motorists.
- Contractor shall ensure all construction equipment is cleaned prior to entering work site.

- Contractor shall install concrete washouts on site as needed. Urban (pre-manufactured self-contained) concrete washouts are required but shall be maintained/replaced as needed. All washout materials and un-evaporated water shall be removed from site. No fluids shall escape to receiving waters.
- Whenever sediment is transported onto the highway, the road shall be cleaned as needed. Street washing will not be allowed. Storm drain inlet protection shall be in place prior to shoveling or sweeping. Street cleaning will not be paid for separately. The contractor shall have daily access to an effective street sweeper to clean streets in the event other measures fail to prevent tracking into streets.
- Containment and cleanup of equipment fuel, oil and lubricant leaks;

Contractor shall inspect and certify equipment and vehicles daily to ensure petroleum oils, and lubricants (POL) are not leaking onto the soil or pavement. Absorbent material or containers approved by the Engineer shall be used to prevent leaking POL from reaching the soil or pavement. Contractor shall have ready approved absorbent material or containers of sufficient capacity to contain any leak POL that can reasonably be foreseen. All materials resulting from POL leakage control and cleanup shall be property of the Contractor and removed from the site. The cost for control and cleanup of POL leaks shall not be paid for separately, but shall be included in the cost of the work. All onsite vehicle refueling activities shall conform to EPA, Federal and State codes, and all aspects of NFPA 30 and 2003 International Fire Code. Absorbent socks shall be placed around all fill necks during fueling operations.

- All portable toilets shall be securely fastened and anchored to the ground to prevent overturning.

After Construction (Permanent Measures)

- Landscaping / Seeding: All designated areas shall be hydroseeded as per plans and project specifications.

Maintenance

- The Contractor shall conduct routine checks of all erosion control measures to determine if repairs or sediment removal is necessary.
- After each rainfall or moderate snow melt, erosion control measures are to be checked. The Contractor is responsible for maintaining all erosion control measures.

- Silt and sediment shall be removed after each substantial rainfall. Deposits must be removed when they reach a height of one-half of the barrier.

- When temporary measures are to be removed, any silt and sediment deposits shall be removed and spread evenly in open areas and seeded as necessary.

- Contractor shall make routine inspections and adjustments/modifications to the stormwater management plan to accommodate construction practices and ensure sediment is not bypassing control measures or otherwise leaving or being removed from the site.

General Notes

- At all times during construction, erosion and sediment control shall be maintained by the Contractor.
- Details shown are schematic only. Adjust as necessary to fit field conditions.
- Erosion logs shall be placed to avoid runoff flowing between, around or under logs. Logs shall be staked or anchored with sand bags, masonry blocks or other suitable measures, and shall be placed with a shallow trench w/ trench depth = 1/2 of log diameter. Tamp soil material against log on either side and stake to secure in place.
- The Contractor shall have a water truck available at all times to assist in controlling dust and wind erosion.

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
REVISION A			JAH	8/2009
REVISION B				
REVISION C				
REVISION D				

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

SCALE: N.T.S.

PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

2010 PARKWAY SANITARY SEWER INTERCEPTOR STORM WATER MANAGEMENT PLAN NOTES AND DETAILS