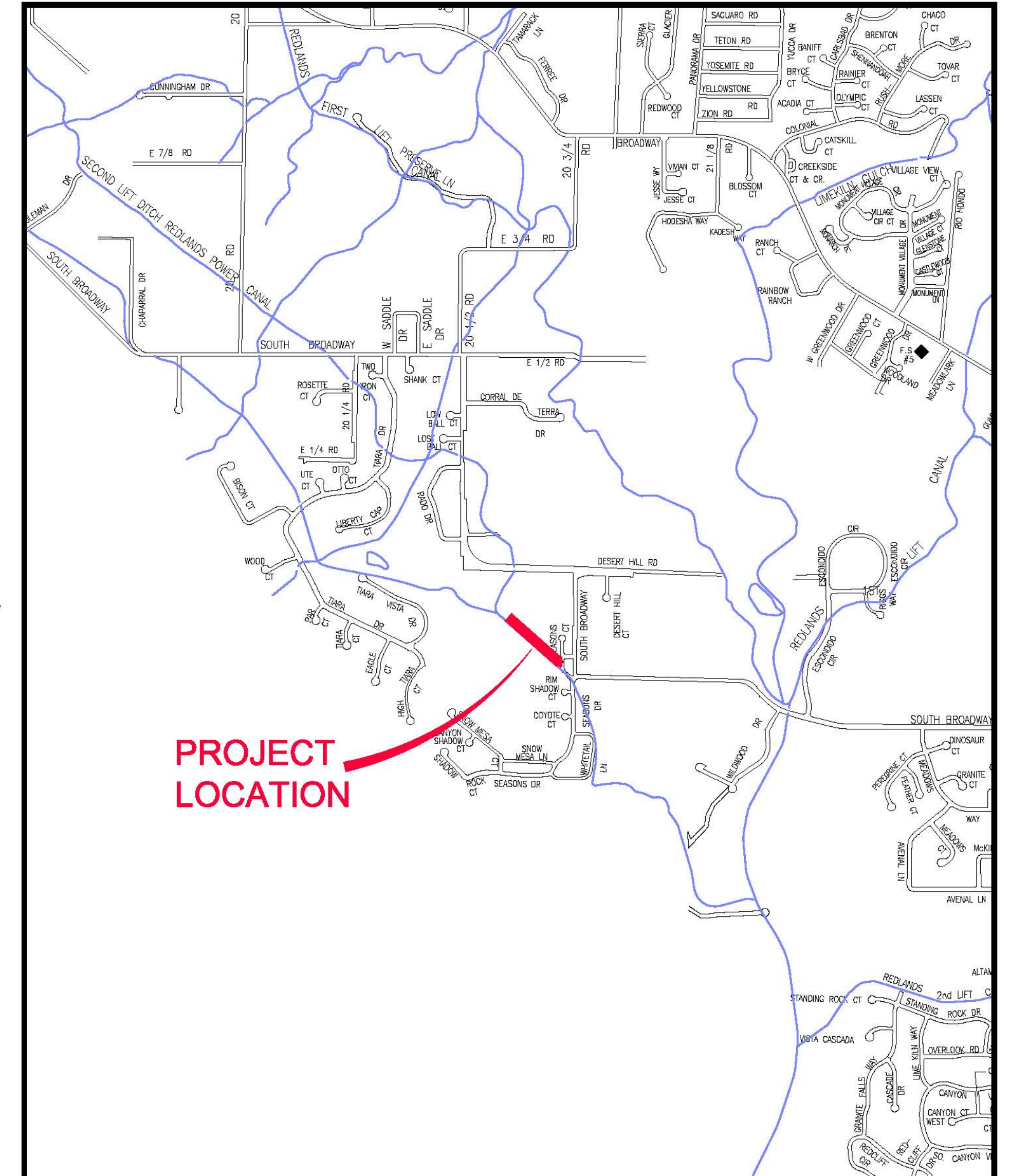


TIARA RADO BACK 9 SEWER SERVICE MARCH, 2009

VICINITY MAP



- 1 ————— Cover Sheet
- 2 ————— Standard Abbreviations, Legend, and Symbols
- 3 ————— Summary of Approximate Quantities
- 4 ————— Plan and Profile Sta. 0+00 – 5+00
- 5 ————— Plan and Profile Sta. 5+00 – 9+00

UTILITIES AND AGENCIES								
AGENCY	NAME	POSITION	ROLE	MAILING ADDRESS	STREET ADDRESS	CITY, STATE	VOICE-WK	FAX
GRAND JUNCTION, CITY OF	JUSTIN VENSEL	PROJECT ENGINEER	PROJECT ENGINEER	250 N. 5th STREET	250 N. 5th STREET	GRAND JCT., CO 81501	(970) 256-4017	(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	DOUG JONES	GOLF COURSE SUPERINTENDENT	GOLF COURSE	1340 GUNNISON AVE.	1340 GUNNISON AVE.	GRAND JCT., CO 81501	(970) 254-3839	(970) 242-1637
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	DAN STEINKIRCHNER	UNIT MANAGER	GAS, ELECTRIC	2538 BLICHMANN AVE	2538 BLICHMANN AVE	GRAND JCT., CO 81506	(970) 244-2656	(970) 244-2661



Public Works & Utilities Engineering Division

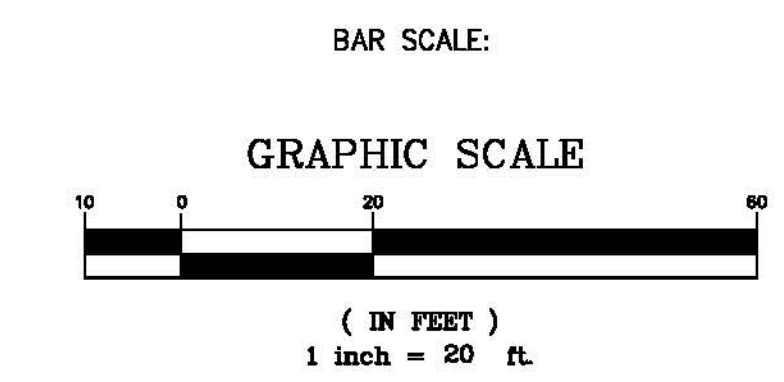
NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE COVER SHEET WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.

REVISION	DESCRIPTION	DATE
REVISION Δ	_____	_____
REVISION Δ	_____	_____
REVISION Δ	_____	_____
REVISION Δ	_____	_____

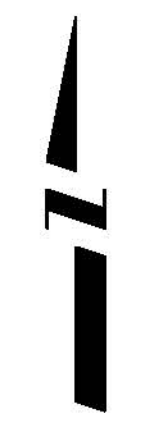
DRAWING STATUS:	
<input type="radio"/>	PROGRESS
<input checked="" type="radio"/>	FINAL CONSTRUCTION DRAWINGS
<input type="radio"/>	ASBUILT
DESIGNED BY:	
JUSTIN VENSEL, PROJECT ENGINEER	DATE _____
REVIEWED BY:	
BRET GUILLORY, UTILITY ENGINEER	DATE _____
AUTHORIZED FOR CONSTRUCTION	
TRENTON C. PRALL, CITY ENGINEER	DATE _____
ACCEPTED AS CONSTRUCTED	
JUSTIN VENSEL, PROJECT ENGINEER	DATE _____

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 PAINT MARKING	→
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:



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)	8" PVC SANITARY SEWER
ALL PROPOSED FEATURES NOT SHOWN IN LEGEND WILL BE SHOWN THE SAME AS THEIR EXISTING COUNTERPART, BUT INDICATED BY BOLDER LINETYPE	
RAIL ROAD	=====
RETAINING WALL	=====
STRIPING (CONTINUOUS WHITE)	WHITE
STRIPING (DASHED WHITE)	WHITE
STRIPING (CONTINUOUS YELLOW)	YELLOW
STRIPING (DASHED YELLOW)	YELLOW
TOP OF SLOPE	4570
CONTOUR LINES (SHOWN BETWEEN TOP & TOE)	4580
TOE OF SLOPE	4570
TRAFFIC DETECTOR LOOP	-----
UTILITY LINE (ABANDON) (THIS CASE A WATER LINE)	W (ABANDONED) 8" W
UTILITY LINE (CABLE TV)	TV-----TV
UTILITY LINE (ELECTRIC)	E-----E
UTILITY LINE (FIBER OPTIC)	FO-----FO
UTILITY LINE (GAS)	G-----G
UTILITY LINE (HIGH VOLTAGE OVERHEAD POWER)	HVHP-----
UTILITY LINE (OVERHEAD POWER)	OHP-----
UTILITY LINE (OVERHEAD TELEPHONE)	OHT-----
UTILITY LINE (SANITARY SEWER)	8" SAN
UTILITY LINE (SANITARY SEWER FORCE MAIN)	8" FM
UTILITY LINE (SANITARY SEWER SERVICE)	SS-----
UTILITY LINE (STORM SEWER)	8" STM
UTILITY LINE (STORM SEWER, PERFORATED)	8" PERF
UTILITY LINE (STORM/SANITARY SEWER SEWER COMBINATION)	18" COMB
UTILITY LINE (TELEPHONE)	T-----T
UTILITY LINE (WATER)	W-----W

LEGEND

BSWMP DRAINAGE BASIN BOUNDARY	-----
BSWMP ANCHORED STRAW BALES	ASB ASB ASB ASB ASB ASB ASB ASB
BSWMP SILT FENCE	SF SF SF SF SF SF SF SF
BUILDING	=====
CONCRETE CURB AND GUTTER	2" CURB AND GUTTER
CONCRETE CURB, GUTTER, & SIDEWALK	7" C, G, & SW
CONCRETE DITCH	CONCRETE
CONCRETE SIDEWALK	4" SW
CULVERT	18" RCP
EARTH DITCH	EARTH EARTH EARTH
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)	CENTERLINE
LINE (CITY LIMITS)	CITY LIMITS
LINE (CONTROL)	CONTROL LINE
LINE (EASEMENT)	-----
LINE (MONUMENT/SECTION)	MONUMENT/SECTION LINE
LINE (PROPERTY)	-----
LINE (RIGHT OF WAY)	-----
MATCH LINE	MATCH LINE SEE SHEET NO ?
PIPE (IRRIGATION)	4" IRR
PIPE (SIPHON)	4" SIPHON

ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT
AP	ANGLE POINT
ASB	ANCHORED STRAW BALES
ASIP	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

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	1"=20'
PROFILE	
HORIZ.	
VERT.	



PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

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

Bid Schedule: Enter Project Name

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
1	108.2	Connect to existing 4" Service Line	1.	EA	\$ _____	\$ _____
2	108.2	4" Gravity Sewer Pipe (SDR-35 PVC)	860.	LF	\$ _____	\$ _____
3	108.2	Sanitary Sewer Cleanout and Cover (Standard Detail SS-07)	8.	EA	\$ _____	\$ _____
4	108.2	8" X 4" Sewer Service Tap (saddle tap)	1.	EA	\$ _____	\$ _____
5	212	Sod (to include 4" topsoil)	236.	SY	\$ _____	\$ _____
6	304	Aggregate Base Course (Class 6) (4" Thick)	175.	SY	\$ _____	\$ _____
7	304	Washed Rock (2" Minimum)	132.	SY	\$ _____	\$ _____
8	401	Hot Mix Asphalt grading SX Binder 64-22 (to include 6" Class 6 ABC and removal of existing asphalt)	12.	SY	\$ _____	\$ _____
9	608	6" Concrete Driveway (to include 6" Class 6 ABC and removal of existing Driveway)	16.	SY	\$ _____	\$ _____
10	630	Traffic Control (complete in place)	Lump sum		---	\$ _____
11	630	Flagging	8.	HR	\$ _____	\$ _____
MCR		Minor Contract Revisions	---	---	---	\$ 1,000.00
Bid Amount:					\$ _____	
Bid Amount:						dollars

REVISION Δ _____	DESCRIPTION _____	DATE _____	DRAWN BY _____	DATE _____
REVISION Δ _____	_____	_____	DESIGNED BY _____	DATE _____
REVISION Δ _____	_____	_____	CHECKED BY _____	DATE _____
REVISION Δ _____	_____	_____	APPROVED BY _____	DATE _____

SCALE
N.T.S.



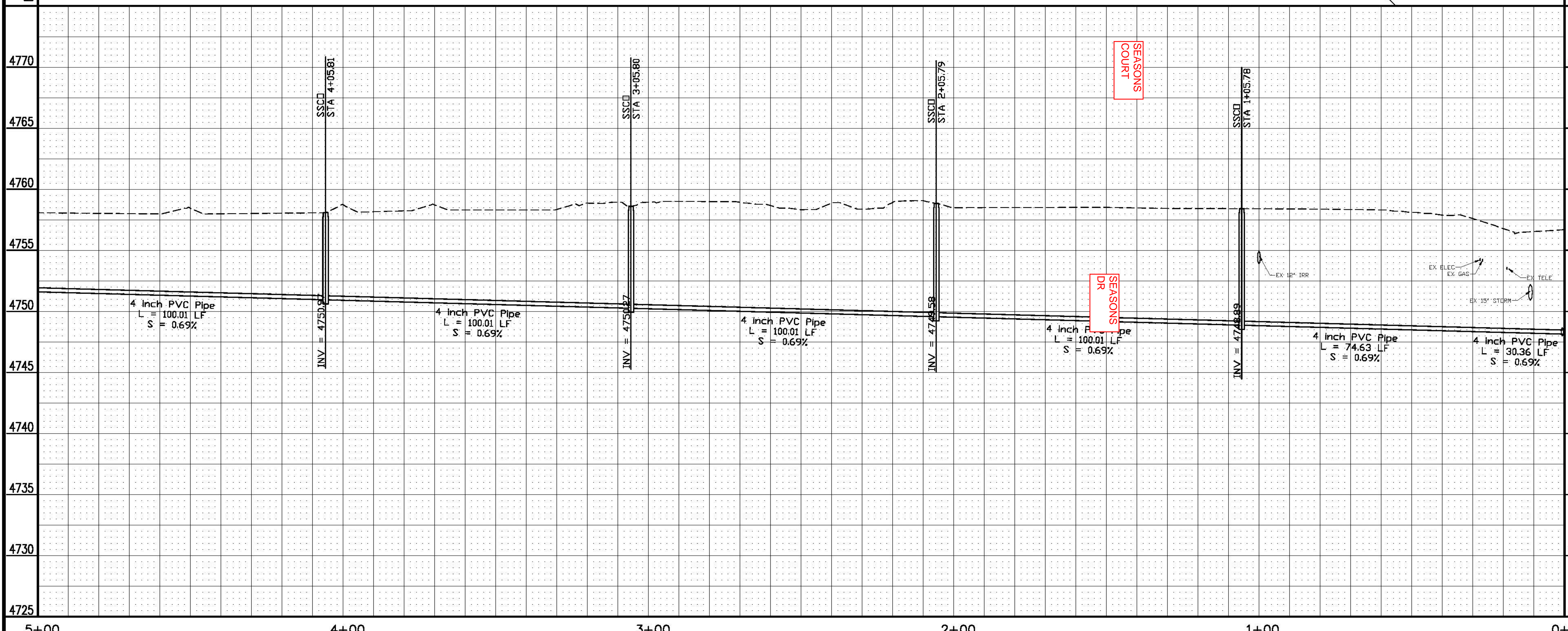
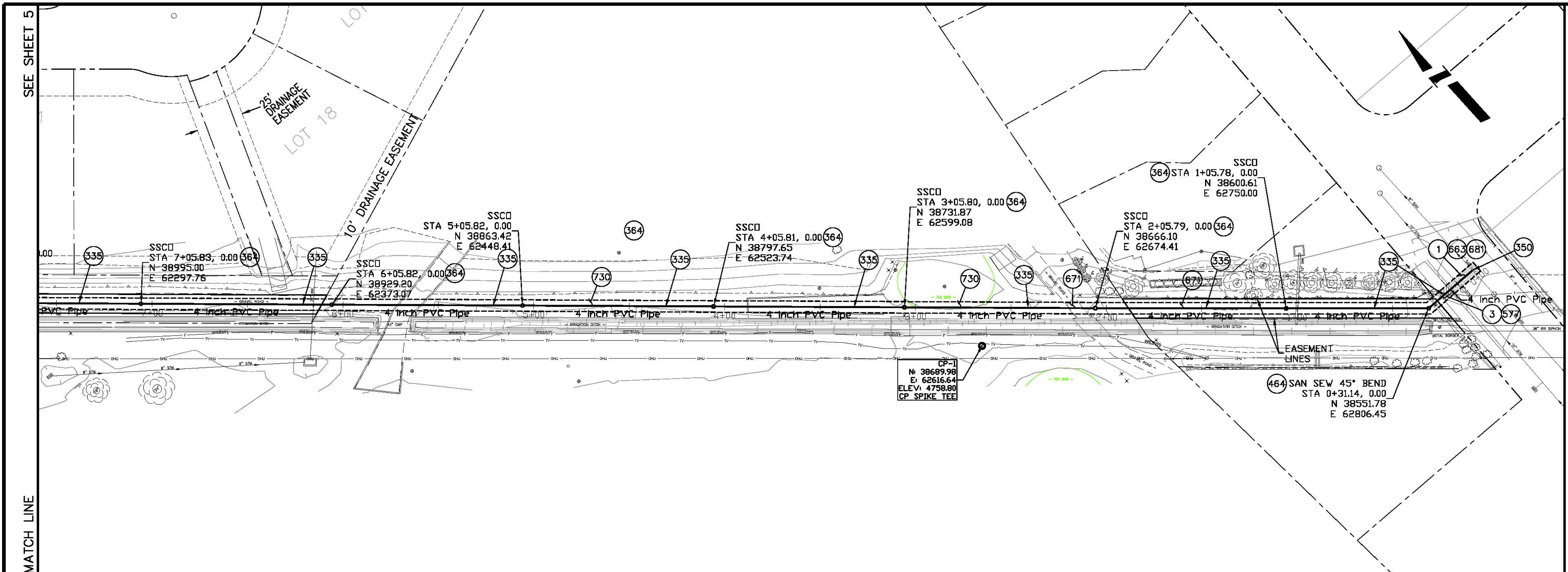
PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION

TIARA RADO BACK 9 SEWER SERVICE
SUMMARY OF APPROXIMATE QUANTITIES

N:\a\p\p\902-Rado Sewer\Draw\COVER.dwg, 3/24/2008 1:17:52 PM

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.
- 335 102.9/108.2 - 4" PRESSURE SEWER PIPE (D-2241 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 350 102.9/108.3 - 8" x 4" SEWER SERVICE TAP. TAPPING SADDLE WITH STAINLESS STEEL STRAPS (SEE STD. DETAIL SS-06).
- 364 INSTALL SANITARY SEWER CLEANOUT
- 464 102.8/108.3 - 4", 45° ELBOW
- 577 608.06 - CONCRETE DRIVEWAY SECTION (6" THICK) (RESIDENTIAL)
- 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 1/2" LIFTS)
- 730 212 - RESOD AREA AS SHOWN



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
REVISION			JAH	3/2009
REVISION				
REVISION				
REVISION				

SCALES:	PLAN	PROFILE
	HORIZONTAL: 1" = 20'	HORIZONTAL: 1" = 20'
	VERTICAL: 1" = 2'	VERTICAL: 1" = 2'



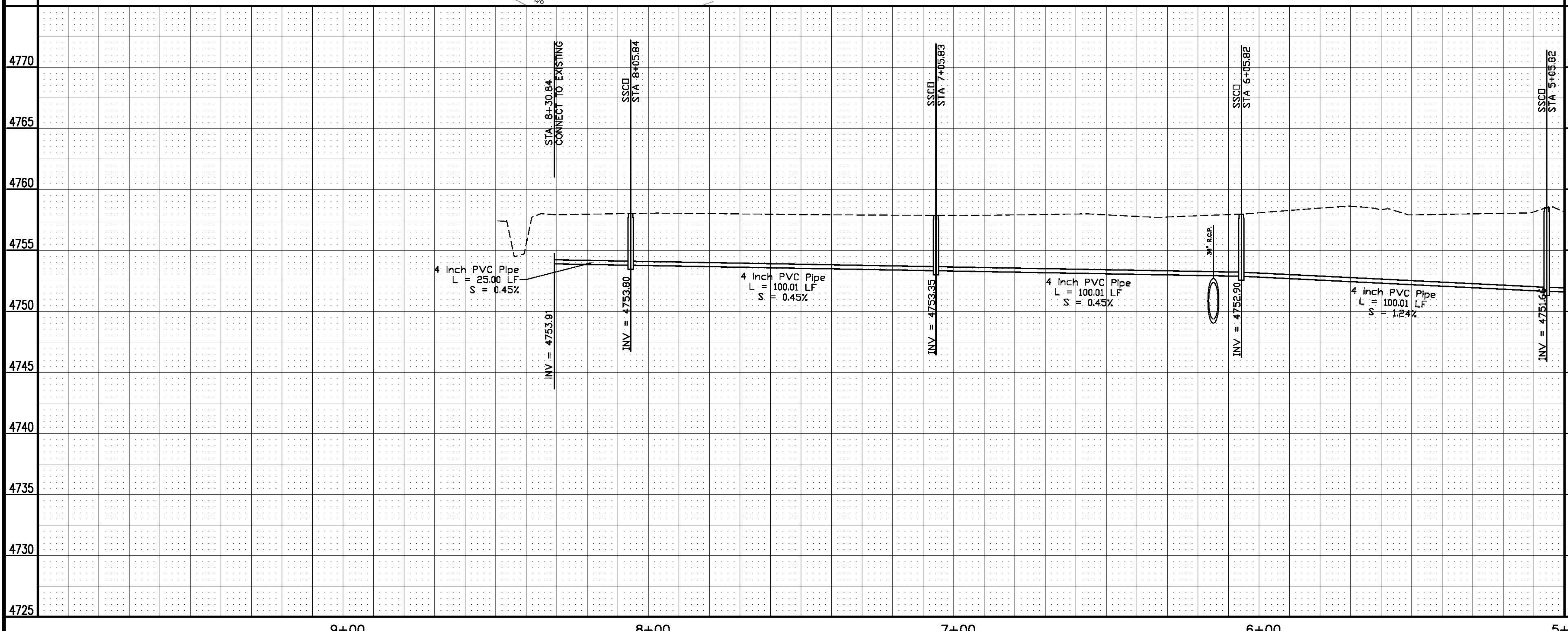
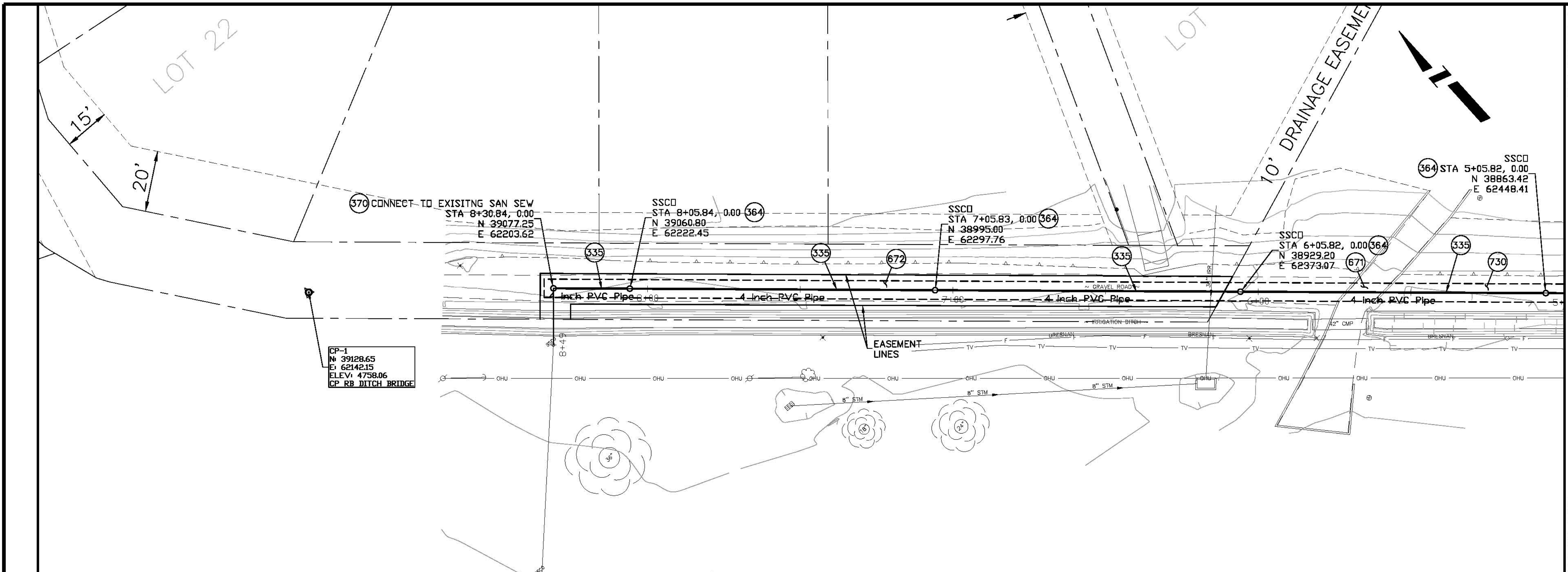
PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

TIARA RADO SEWER LINE SANITARY SEWER PLAN AND PROFILE STA 0+00 TO STA 5+00

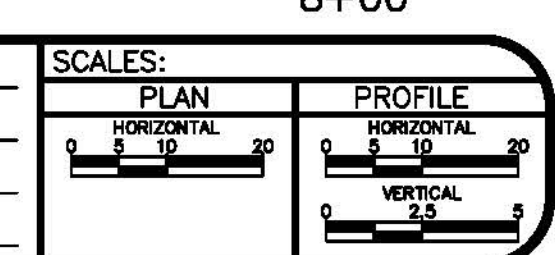
CONSTRUCTION NOTES

- 335 102.9/108.2 - 4" PRESSURE SEWER PIPE (D-2241 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 364 INSTALL SANITARY SEWER CLEANOUT, CLEANOUT RING & COVER AND CONCRETE COLLAR (SS-07).
- 370 CONNECT TO EXISTING SEWER LINE.
- 671 304 - WASHED ROCK SURFACE COURSE FOR GRAVEL DRIVEWAYS. MATCH EXISTING TYPE. THICKNESS IS 2" MIN. AND 3" MAX.
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (4" THICK)
- 730 212 - RESOD AREA AS SHOWN

SEE SHEET 4
MATCH LINE



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
			JAH	3/2009



PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

**TIARA RADO SEWER LINE
SANITARY SEWER PLAN AND PROFILE
STA 5+00 TO STA 9+00**