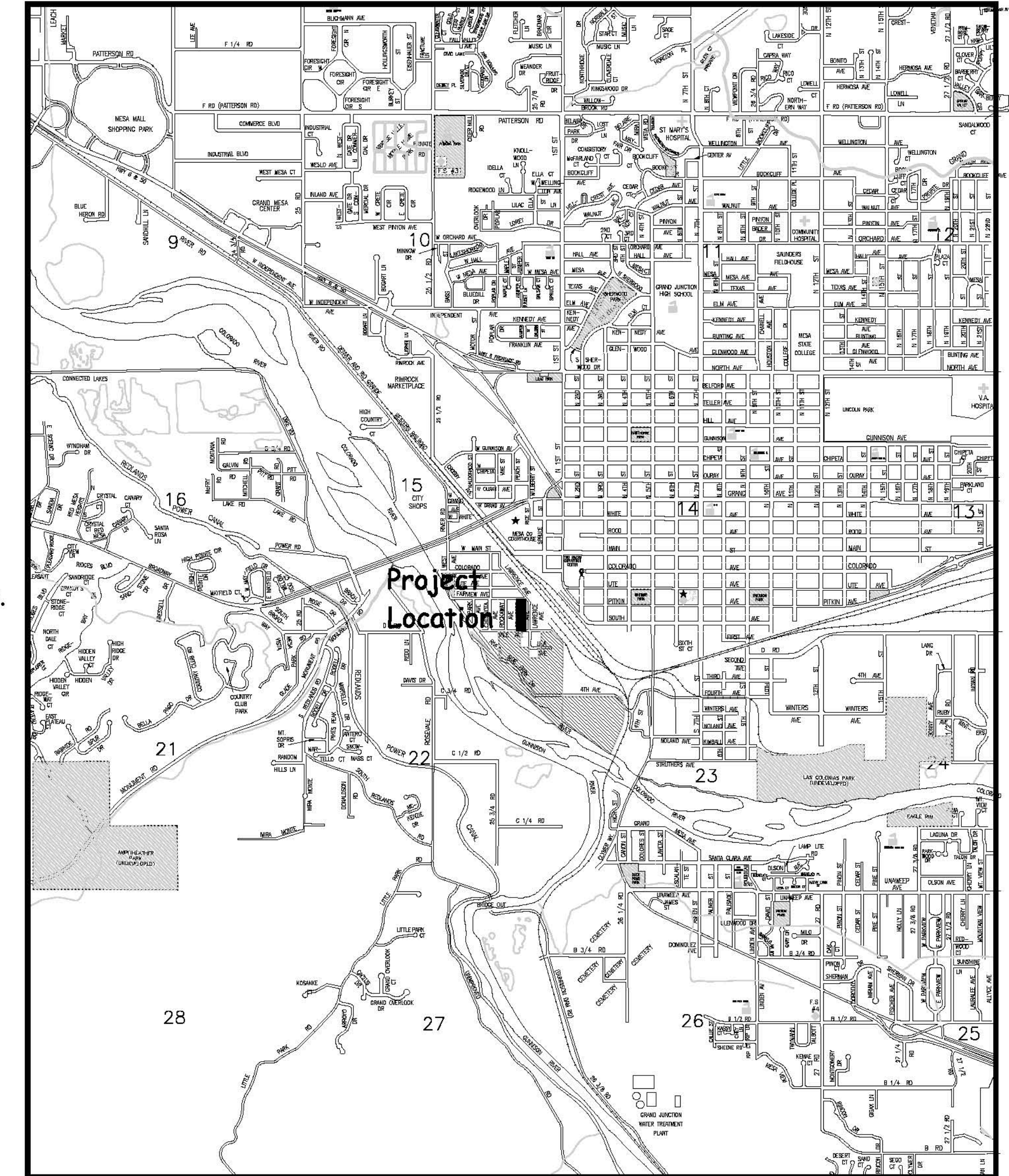
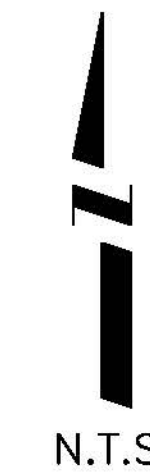


CRAWFORD AVENUE FROM HALE TO FAIRVIEW AVE ROADWAY, WATER, AND SEWER APRIL 4, 2008

VICINITY MAP

SANITARY SEWER AND
WATER AS BUILT
2009-03-25

- 1 ————— Cover Sheet
- 2 ————— Standard Abbreviations, Legend, and Symbols
- 3 ————— Summary of Approximate Quantities
- 4 ————— Project Control Map
- 5-6 ————— Sanitary Sewer Plan and Profile
- 7-8 ————— Water Line Plan and Profile
- 9-10 ————— Roadway Plan and Profile
- 11 ————— Roadway Intersection Details
- 12 ————— Roadway Cross Sections



UTILITIES AND AGENCIES								
AGENCY	NAME	POSITION	ROLE	MAILING ADDRESS	STREET ADDRESS	CITY, STATE	VOICE-WK	FAX
GRAND JUNCTION, CITY OF	WILLIAM FRAZIER	PROJECT ENGINEER	PROJECT ENGINEER	250 N. 5th STREET	250 N. 5th STREET	GRAND JCT., CO 81501	(970) 244-1444	(970) 256-4022
GRAND JUNCTION, CITY OF	BRET GUILLORY	UTILITY ENGINEER	SEWER/WATER	250 N. 5th STREET	250 N. 5th STREET	GRAND JCT., CO 81501	(970) 244-1590	(970) 256-4022
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
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 A	REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16
REVISION B	CURB&GUTTER CHANGED TO 3" DRIVE OVER FROM 4+75 TO 8+43	2008-04-17
REVISION C	PROJECT ENGINEER COMMENTS	2008-05-09
REVISION D		

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

ABBREVIATIONS

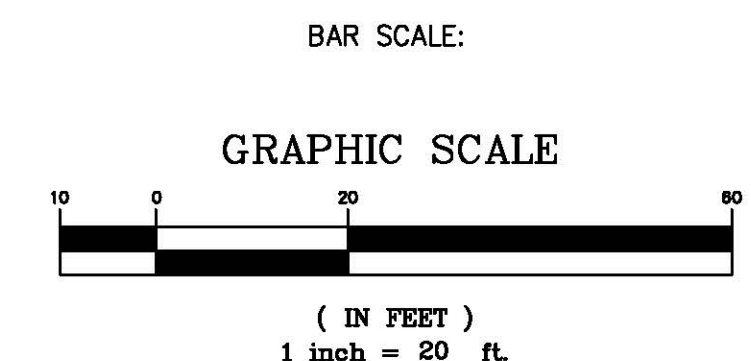
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT
AP	ANGLE POINT
ASB	ANCHORED STRAW BALES
ASP	ALUMINIZED STEEL PIPE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BF	BUTTERFLY VALVE
BOW	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
E	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
OHF	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
SSU	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
VPC	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

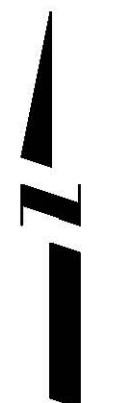
BSWMP	-----
DRAINAGE BASIN BOUNDARY	-----
BSWMP	ASB ASB ASB ASB ASB ASB ASB ASB
ANCHORED STRAW BALES	
BSWMP	SF SF SF SF SF SF SF SF
SILT FENCE	
BUILDING	
CONCRETE CURB AND GUTTER	2' CURB AND GUTTER
CONCRETE CURB,GUTTER, & SIDEWALK	7' C, G, & SW
CONCRETE DITCH	CONCRETE
CONCRETE SIDEWALK	4' SW
CULVERT	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
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	1' RETAINING WALL
STRIPING (CONTINUOUS WHITE)	WHITE
STRIPING (DASHED WHITE)	WHITE
STRIPING (CONTINUOUS YELLOW)	YELLOW
STRIPING (DASHED YELLOW)	YELLOW
TOP OF SLOPE	4580
CONTOUR LINES (SHOWN BETWEEN TOP & TOE)	
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 OPT FOST
UTILITY LINE (GAS)	G 1 1/4" MW G
UTILITY LINE (HIGH VOLTAGE OVERHEAD POWER)	HVHP
UTILITY LINE (OVERHEAD POWER)	OHF
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)	6" PERF
UTILITY LINE (STORM/SANITARY SEWER SEWER COMBINATION)	18" CDMB
UTILITY LINE (TELEPHONE)	T T
UTILITY LINE (WATER)	W 8" W

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:



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REVISION	DESCRIPTION	DATE

DRAWN BY	JCS	DATE	4-02
DESIGNED BY		DATE	
CHECKED BY		DATE	
APPROVED BY		DATE	

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



PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

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

Item Number	Construction Note Number	Reference Number	Construction Note Description	Quantity	Unit
1	300	102	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)	4	EA
2	306	102	102.11/108.5 - MANHOLE BARREL SECTION (D>5) (48" I.D.).	4.4	VLF
3	308	102	102.11/108.5 - DROP MANHOLE BARREL SECTION (D>5) (48" I.D.)	4.2	VLF
4	321	102	102.9/108.2 - 4" 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.	320	LF
5	323	102	102.9/108.2 - 8" 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.	621	LF
6	325	102	102.9/108.2 - 15" 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.	15	LF
7	348	102	102.9/108.3 - 6" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE STD. DETAIL SS-06).	19	EA
8	401	102	102.7/108.2 - 6" WATER MAIN PIPE (C-900 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.	750	LF
9	416	102	102.8b/108.3 - 6" GATE VALVE.	6	EA
10	441	102	102.8/108.3 - 6" x 6" TEE	4	EA
11	492	102	102.8a/108.3 - FIRE HYDRANT	2	EA
12	493	102	102.7c/108.4 - WATER SERVICE LINE (3/4" TYPE K COPPER)	100	LF
13	495	102	102.8k/108.4 - 3/4" TAPPING SADDLE	5	EA
14	496	102	102.8j/108.4 - 3/4" CORPORATION STOP	5	EA
15	500	102	102.8i/108.4 - 3/4" METER SETTER	5	EA
16	356	104	104.40 - PROVIDE CONCRETE CAP ON SEWER PER STD. DETAIL GU-04.	20	LF
△	17	1	202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)	128 28	SY
△	18	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.	52 28	SY
	19	15	202 - REMOVAL OF PIPE AS SHOWN. (15" CLAY SEWER)	15	LF
	20	15	202 - REMOVAL OF PIPE AS SHOWN. (6" AC WATER)	35	LF
	21	15	202 - REMOVAL OF PIPE AS SHOWN. (4" CLAY SEWER)	190	LF
	22	15	202 - REMOVAL OF PIPE AS SHOWN. (8" CLAY SEWER)	605	LF
	23	16	202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.	4	EA
	24	0	203 - UNCLASSIFIED EXCAVATION	1070	CY
	25	360	206.00 - STRUCTURE BACKFILL (FLOWFILL). PAID PER CY. WHERE NEW WATERLINE IS INSTALLED CROSSING ABOVE NEW SEWER LINE, FLOWFILL TO SPRINGLINE OF WATERLINE WITHIN 5 FEET HORIZONTALLY OF THE SEWERLINE.	2	CY
	26	0	208 - EROSION CONTROL	1	LS
	27	0	209 - DUST PALLIATIVE	25	DAYS
	28	663	304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)	1475	SY
	29	664	304 - AGGREGATE BASE COURSE (CLASS 6) (12" THICK)	128 28	SY
	30	669	304 - AGGREGATE BASE COURSE (CLASS 3) (14" THICK)	1475	SY
	31	676	401.08 - HOT BITUMINOUS PAVEMENT (3" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 1 1/2" LIFTS)	1475	SY
△	32	677	401.08 - HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)	128 35	SY
△	33	555	608.06 - CONCRETE SIDEWALK (4" THICK)	20 28	SY
△	34	577	608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (COMMERCIAL)	74 28 24	SY
△	35	602	608.06 - CONCRETE CURB AND GUTTER (2' WIDE)	445 610 25	LF
	36	0	620 - SANITARY FACILITY	1	EA
	37	0	625 - CONSTRUCTION SURVEYING	1	LS
	38	0	626 - MOBILIZATION	1	LS
	39	0	629 - REFERENCE AND RESET SURVEY MONUMENT.	1	EA
	40	0	630 - TRAFFIC CONTROL (COMPLETE IN PLACE)	1	LS
	41	0	630 - FLAGGING	20	HOURS
	42	0	630 - TRAFFIC CONTROL PLAN	1	LS
	43	0	G-56 - WEEKLY NEWS LETTERS	5	WEEKS

△ 35a - 605 - 608.06 CONCRETE DRIVE OVER CURB AND GUTTER (3' WIDE) - 165 LF

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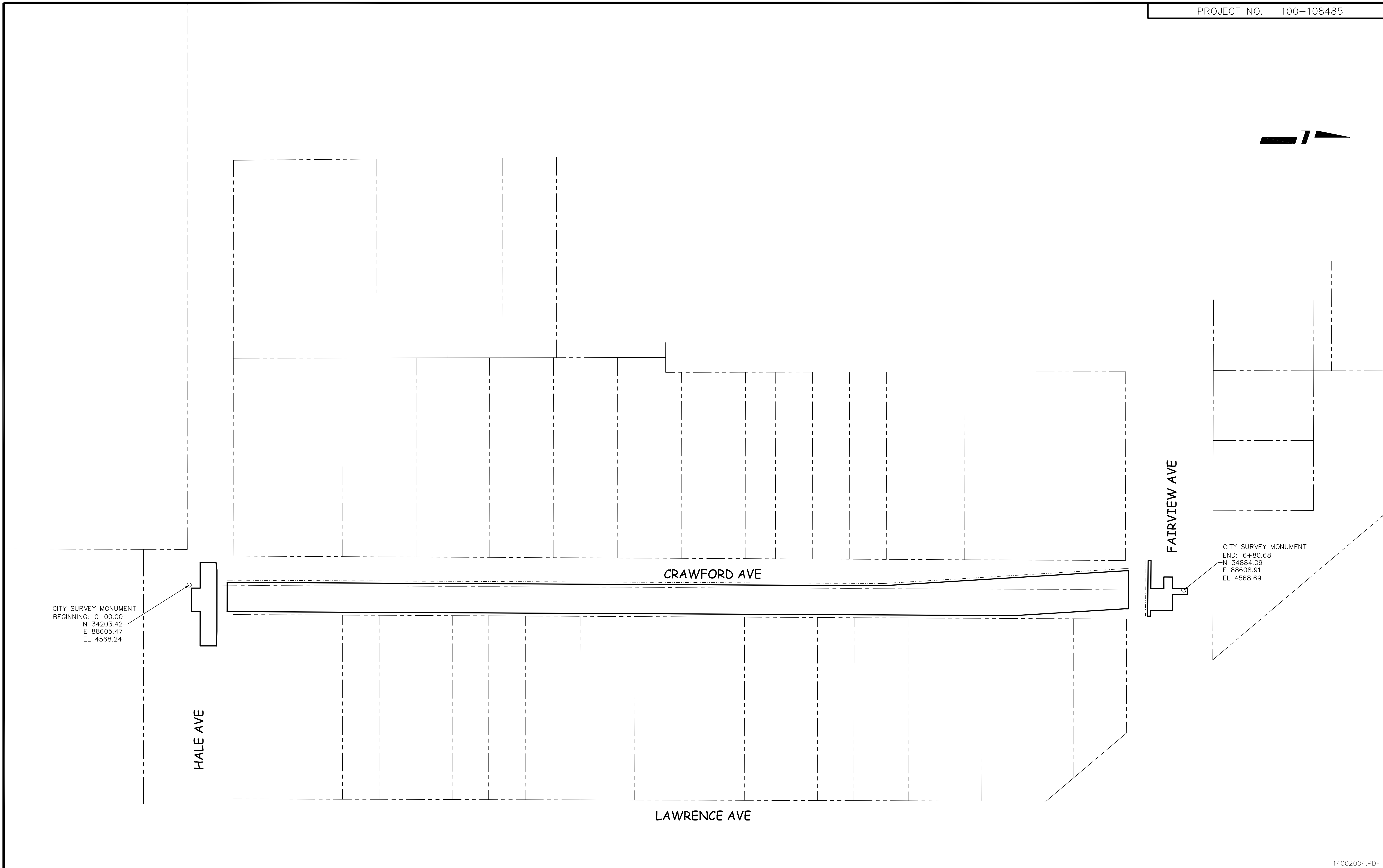
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REVISION △ REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16		
REVISION △ CURB&GUTTER CHANGED TO 3' DRIVE OVER FROM 4+75 TO 6+43	2008-04-17		
REVISION △			
REVISION △			

SCALE
N.T.S.



PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

CRAWFORD AVENUE SUMMARY OF APPROXIMATE QUANTITIES



CITY SURVEY MONUMENT
 BEGINNING: 0+00.00
 N 34203.42
 E 88605.47
 EL 4568.24

CITY SURVEY MONUMENT
 END: 6+80.68
 N 34884.09
 E 88608.91
 EL 4568.69

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△		
△		
△		

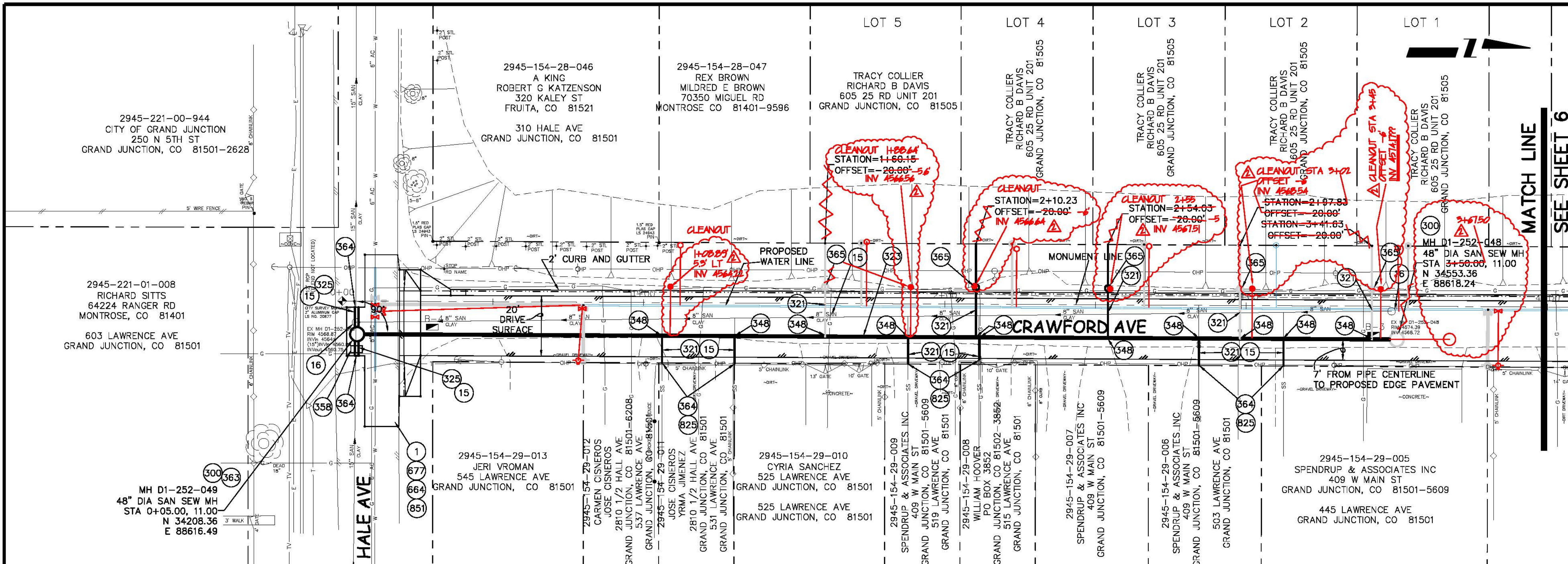
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DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

SCALE
 N.T.S.

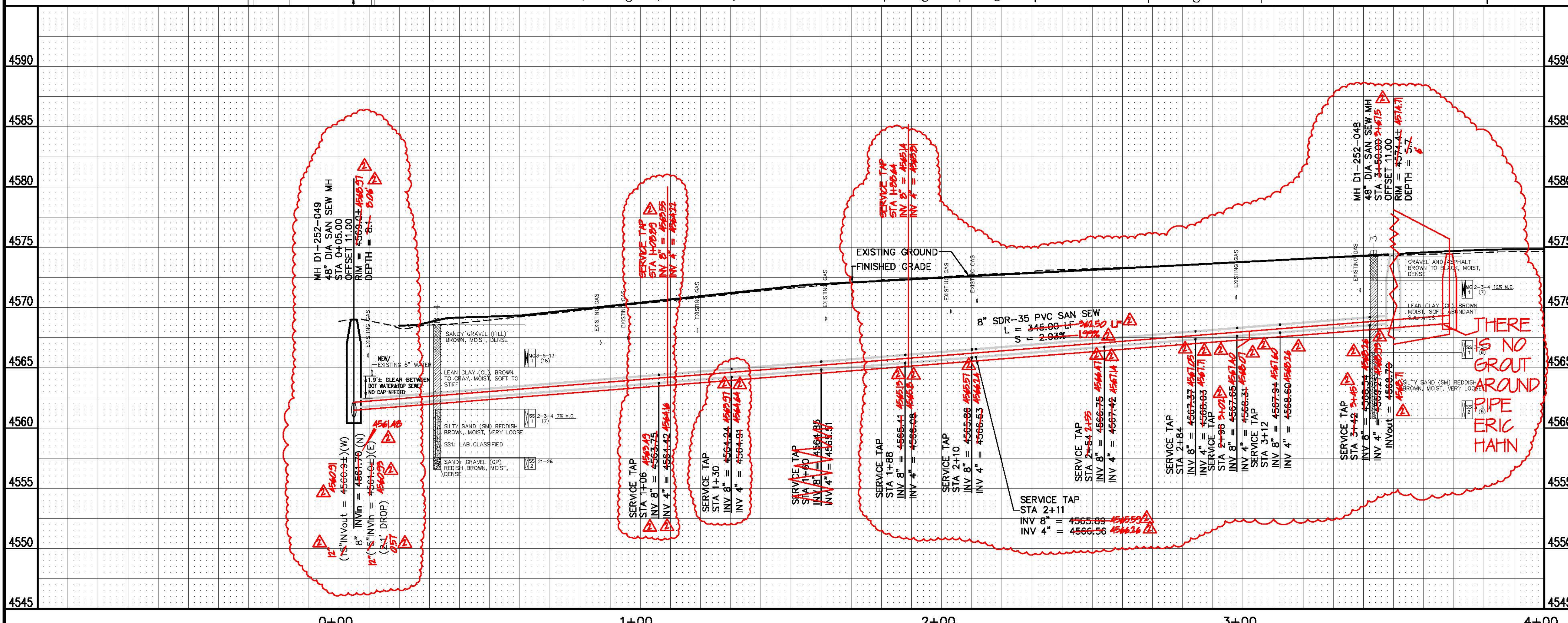


PUBLIC WORKS
 AND UTILITIES
 ENGINEERING DIVISION

PROJECT TITLE
 PROJECT CONTROL MAP



- ### CONSTRUCTION NOTES
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
 - 15 202 - REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
 - 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
 - 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).
 - 321 102.9/108.2 - 4" 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.
 - 323 102.9/108.2 - 8" 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.
 - 325 102.9/108.2 - 15" 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.
 - 348 102.9/108.3 - 8" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE STD. DETAIL SS-06).
 - 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INTALLATION PAY ITEM)
 - 363 BYPASS PUMPING WILL BE REQUIRED FOR CONSTRUCTION.
 - 364 104.2.6 - CONNECT TO EXISTING SEWER PIPE. THE CONTRACT UNIT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
 - 365 PROVIDE END OF SEWER SERVICE GREEN PAINTED 4X4 WOOD POST MARKER, END OF SERVICE PLUG, TWO WAY CLEAN OUT WITH RING AND COVER, AND TRACER WIRE PER CITY OF GRAND JUNCTION STANDARD DETAIL SS-06. THE COST OF ALL ITEMS MENTIONED ABOVE SHALL BE INCLUDED IN THE COST OF THE SEWER SERVICE TAP.
 - 664 304 - AGGREGATE BASE COURSE (CLASS 6) (12" THICK)
 - 677 401.02.3/401.04 - HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)
 - 825 CONTRACTOR IS RESPONSIBLE FOR REPAIR COSTS ASSOCIATED WITH ANY/ALL DAMAGE TO PRIVATE PROPERTY BEHIND ROW LINE OR EASEMENT LIMITS.
 - 851 SEE ROADWAY PLAN AND PROFILES FOR LIMITS OF ASPHALT AND CONCRETE REMOVAL, NEW ASPHALT, BASE COURSE, & CONCRETE PLACEMENT, AND ESPECIALLY PROPOSED GRADES FOR ASPHALT AND CONCRETE.



REVISION	DESCRIPTION	DATE
1	REVISION AS BUILT	2008-04-16
2	REVISION AS BUILT	2009-07-25
3	REVISION	
4	REVISION	

DESIGNED BY	XXX	DATE	2002
CHECKED BY		DATE	
APPROVED BY		DATE	

SCALES:

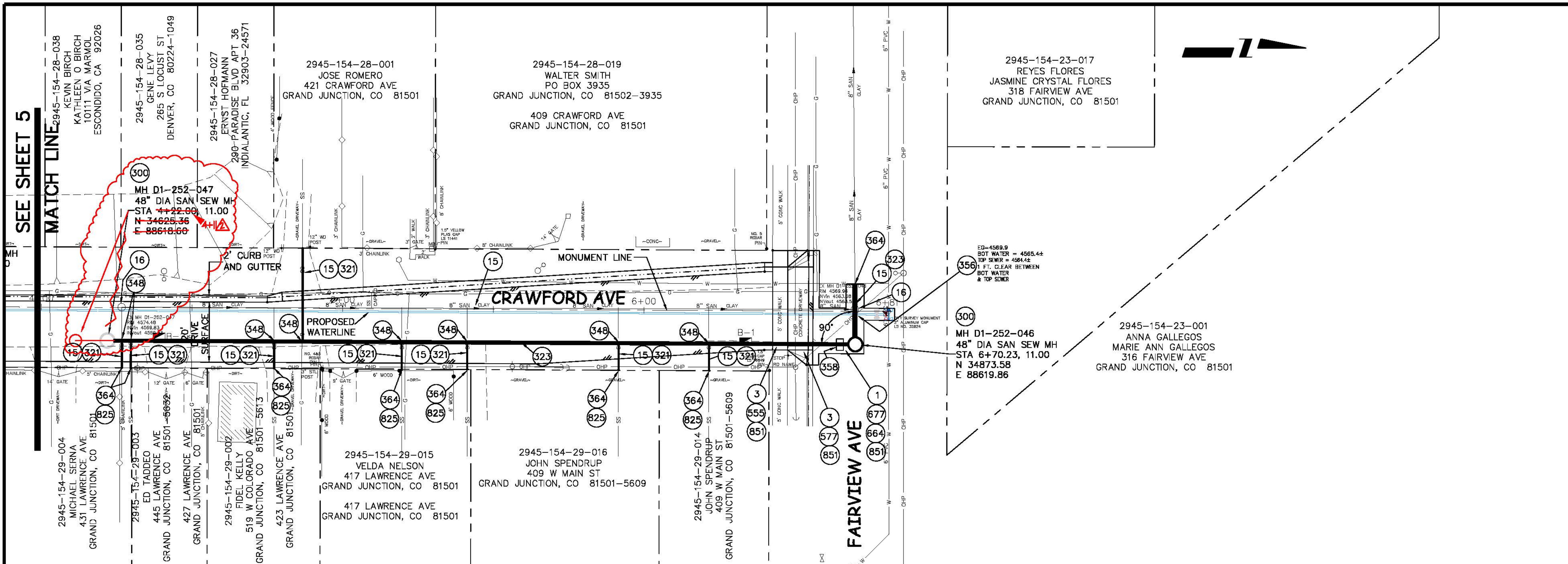
PLAN: 1" = 20'

PROFILE: 1" = 2'

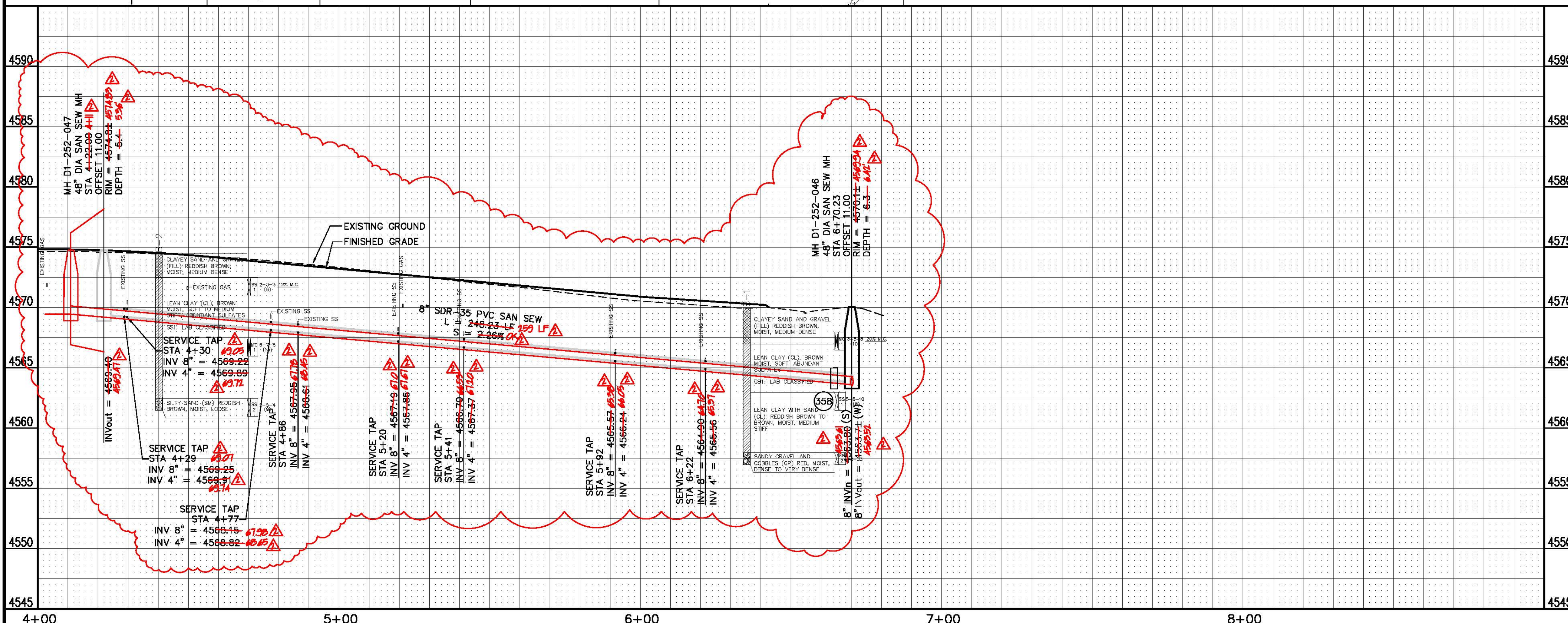
CITY OF Grand Junction COLORADO

PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

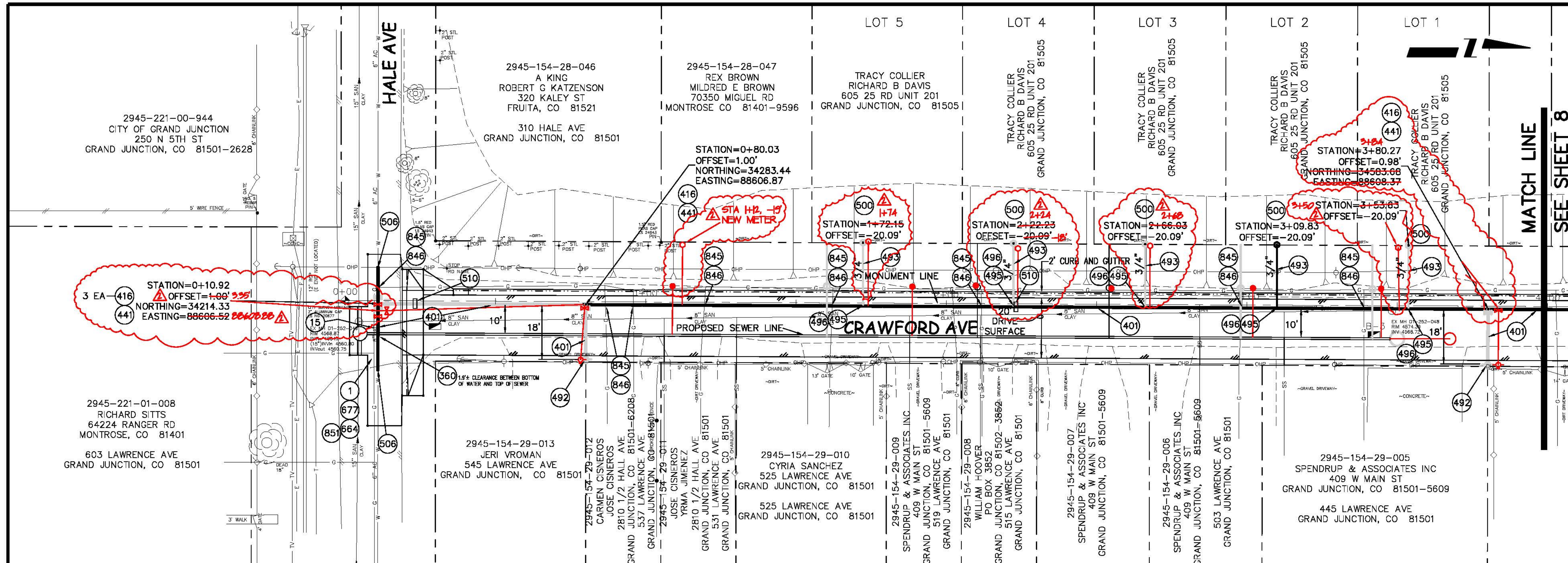
CRAWFORD AVENUE
SANITARY SEWER PLAN AND PROFILE
SOUTHERLY PART OF HALE/FAIRVIEW AVE BLOCK



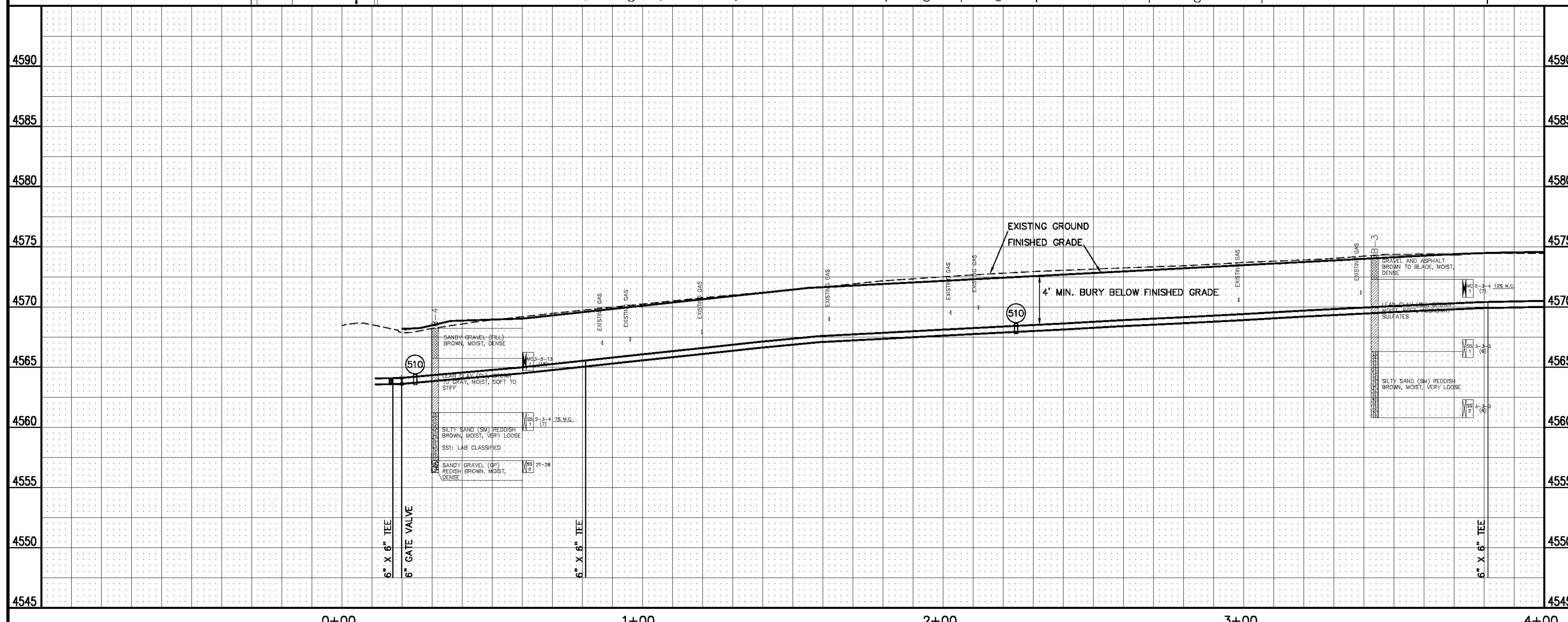
- ### CONSTRUCTION NOTES
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
 - 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAYS, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
 - 15 202 - REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
 - 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
 - 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).
 - 321 102.9/108.2 - 4" 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.
 - 323 102.9/108.2 - 8" 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.
 - 348 102.9/108.3 - 8" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE STD. DETAIL SS-06).
 - 356 104.40 - PROVIDE CONCRETE CAP ON SEWER PER STD. DETAIL GU-04.
 - 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
 - 364 104.2.6 - CONNECT TO EXISTING SEWER PIPE. THE CONTRACT UNIT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
 - 555 608.06 - CONCRETE SIDEWALK (4" THICK)
 - 577 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (COMMERCIAL)
 - 664 304 - AGGREGATE BASE COURSE (CLASS 6) (12" THICK)
 - 677 401.02.3/401.04 - HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)
 - 825 CONTRACTOR IS RESPONSIBLE FOR REPAIR COSTS ASSOCIATED WITH ANY/ALL DAMAGE TO PRIVATE PROPERTY BEHIND ROW LINE OR EASEMENT LIMITS.
 - 851 SEE ROADWAY PLAN AND PROFILES FOR LIMITS OF ASPHALT AND CONCRETE REMOVAL, NEW ASPHALT, BASE COURSE, & CONCRETE PLACEMENT, AND ESPECIALLY PROPOSED GRADES FOR ASPHALT AND CONCRETE.



REVISION REVISE ROADWAY DESIGN AT N & S ENDS - 2008-04-16 REVISION AS BUILT REVISION REVISION	DATE 2008-04-16 	DRAWN BY XXX DESIGNED BY CHECKED BY APPROVED BY	DATE 2002 	SCALES: PLAN PROFILE 		PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION	CRAWFORD AVENUE SANITARY SEWER PLAN AND PROFILE NORTHERLY PART OF HALE/FAIRVIEW AVE BLOCK	14002006.PDF 6
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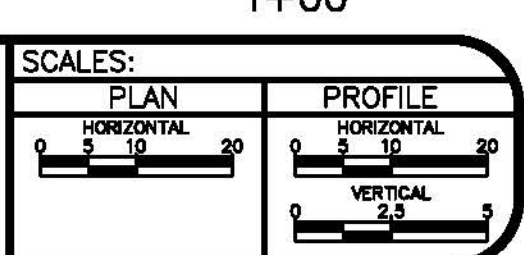
- ### CONSTRUCTION NOTES
- (1) 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
 - (15) 202 - REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
 - (360) 206.00 - STRUCTURE BACKFILL (FLOWFILL). PAID PER CY. WHERE NEW WATERLINE IS INSTALLED CROSSING ABOVE NEW SEWER LINE, FLOWFILL TO SPRINGLINE OF WATERLINE WITHIN 5 FEET HORIZONTALLY OF THE SEWERLINE.
 - (401) 102.7/108.2 - 6" WATER MAIN PIPE (C-900 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
 - (416) 102.8b/108.3 - 6" GATE VALVE.
 - (441) 102.8/108.3 - 6" X 6" TEE
 - (492) 102.8a/108.3 - FIRE HYDRANT
 - (493) 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
 - (495) 102.8k/108.4 - TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
 - (496) 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
 - (500) 102.8i/108.4 - METER SETTER (SIZE AS SHOWN ON PLAN)
 - (506) CONNECT TO EXISTING WATER PIPE/VALVE/FITTING. THE CONTRACT UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
 - (510) 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATER INSTALLATION PAY ITEM) CUT-OFF WALLS SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 200 FEET ON PRESSURIZED LINES.
 - (664) 304 - AGGREGATE BASE COURSE (CLASS 6) (12" THICK)
 - (677) 401.08 - HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)
 - (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.
 - (846) POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. TRANSITION WATER PIPE AS NEEDED TO MAINTAIN 18" CLEARANCE MINIMUM ABOVE SEWER PIPES AND 6" CLEARANCE MINIMUM ABOVE OR BELOW OTHER UTILITY LINES.
 - (851) SEE ROADWAY PLAN AND PROFILES FOR LIMITS OF ASPHALT REMOVAL, NEW ASPHALT AND BASE COURSE PLACEMENT, AND ESPECIALLY NEW ASPHALT GRADES.



GENERAL NOTE:
ALL WATERLINE APPURTENANCES AND CHANGES IN DIRECTION SHALL COMPLY WITH STANDARD DETAILS W-07 AND W-08.

REVISION	DESCRIPTION	DATE
REVISION Δ	REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16
REVISION Δ	AS BUILT	2009-09-25
REVISION Δ		
REVISION Δ		

DRAWN BY	XXX	DATE	2002
DESIGNED BY		DATE	
CHECKED BY		DATE	
APPROVED BY		DATE	

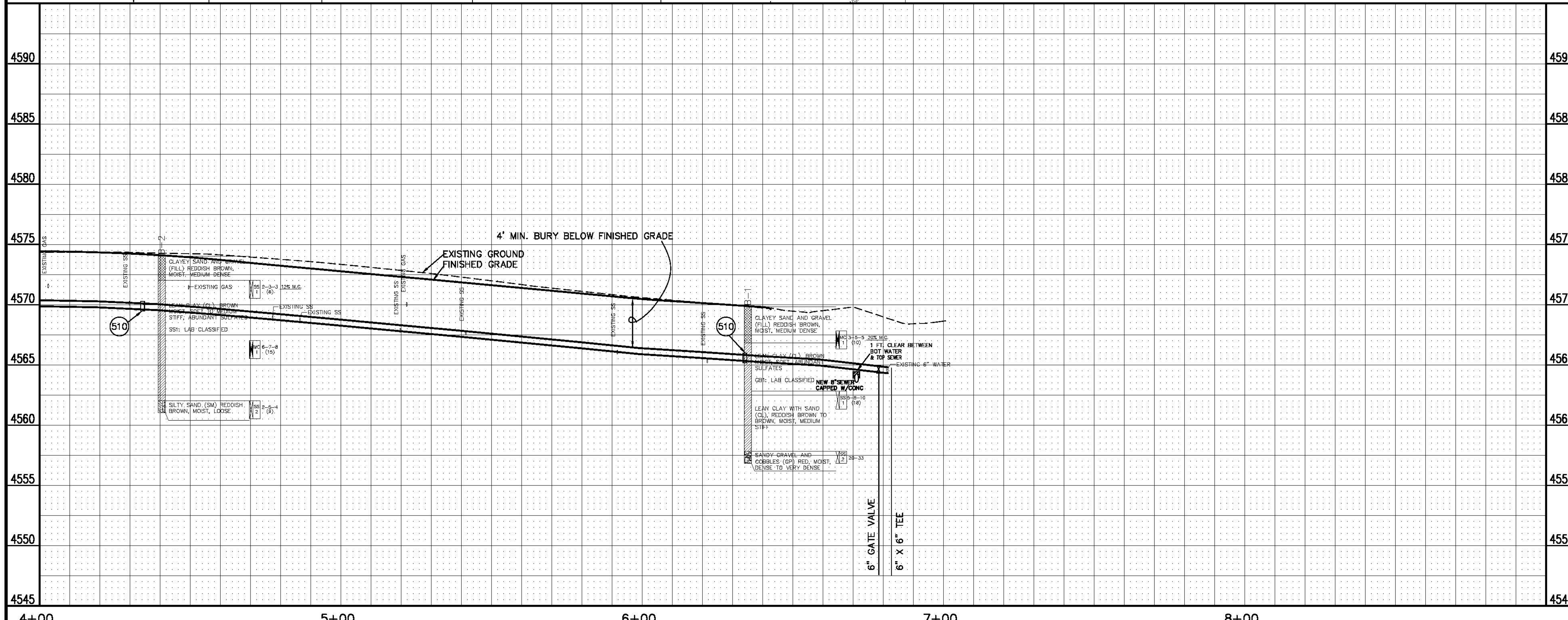
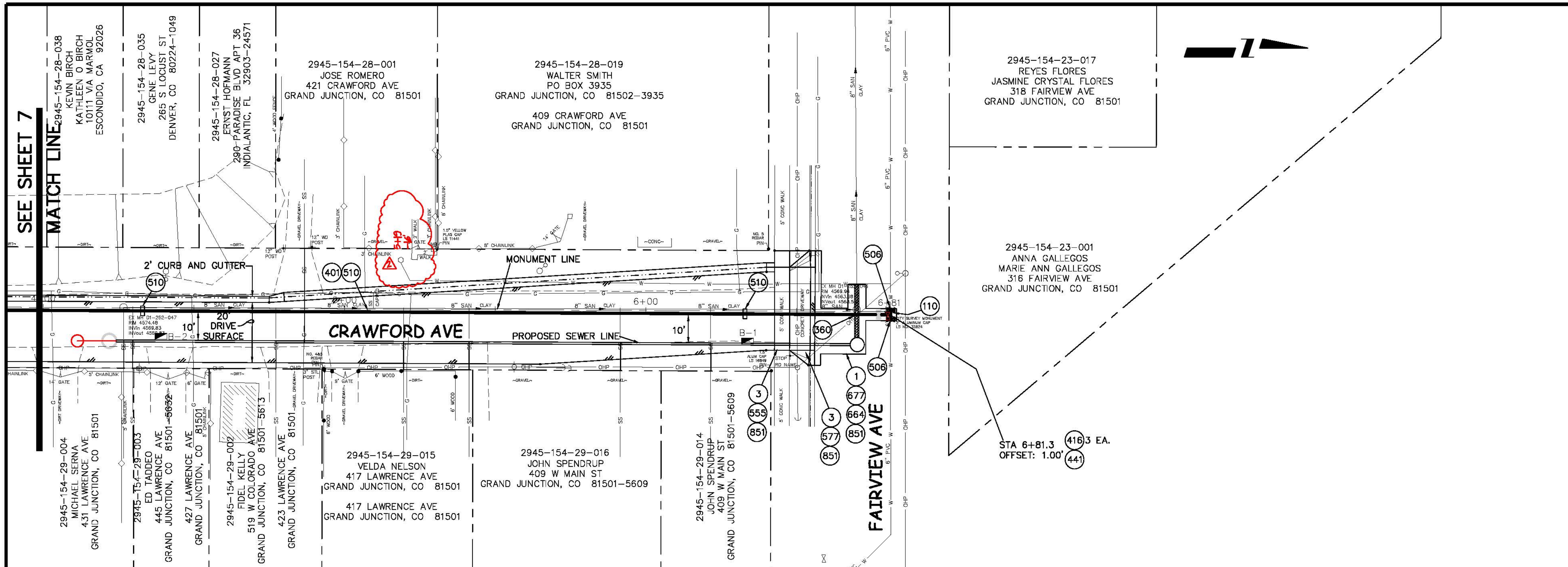


**PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION**

**CRAWFORD AVENUE
WATER LINE PLAN AND PROFILE
SOUTHERLY PART OF HALE/FAIRVIEW AVE BLOCK**

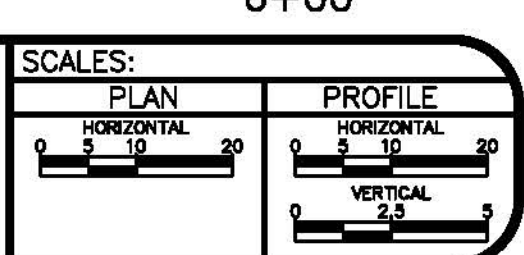
CONSTRUCTION NOTES

- (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.
- (110) 629 - REFERENCE AND RESET SURVEY MONUMENT.
- (360) 206.00 - STRUCTURE BACKFILL (FLOWFILL). PAID PER CY. WHERE NEW WATERLINE IS INSTALLED CROSSING ABOVE NEW SEWER LINE, FLOWFILL TO SPRINGLINE OF WATERLINE WITHIN 5 FEET HORIZONTALLY OF THE SEWERLINE.
- (401) 102.7/108.2 - 6" WATER MAIN PIPE (C-900 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- (416) 102.8b/108.3 - 6" GATE VALVE.
- (441) 102.8/108.3 - 6" X 6" TEE
- (506) CONNECT TO EXISTING WATER PIPE/VALVE/FITTING. THE CONTRACT UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- (510) 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATER INSTALLATION PAY ITEM) CUT-OFF WALLS SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 200 FEET ON PRESSURIZED LINES.
- (555) 608.06 - CONCRETE SIDEWALK (4" THICK)
- (577) 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (COMMERCIAL)
- (664) 304 - AGGREGATE BASE COURSE (CLASS 6) (12" THICK)
- (677) 401.08 - HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)
- (851) 851 SEE ROADWAY PLAN AND PROFILES FOR LIMITS OF ASPHALT AND CONCRETE REMOVAL, NEW ASPHALT, BASE COURSE, & CONCRETE PLACEMENT, AND ESPECIALLY PROPOSED GRADES FOR ASPHALT AND CONCRETE.



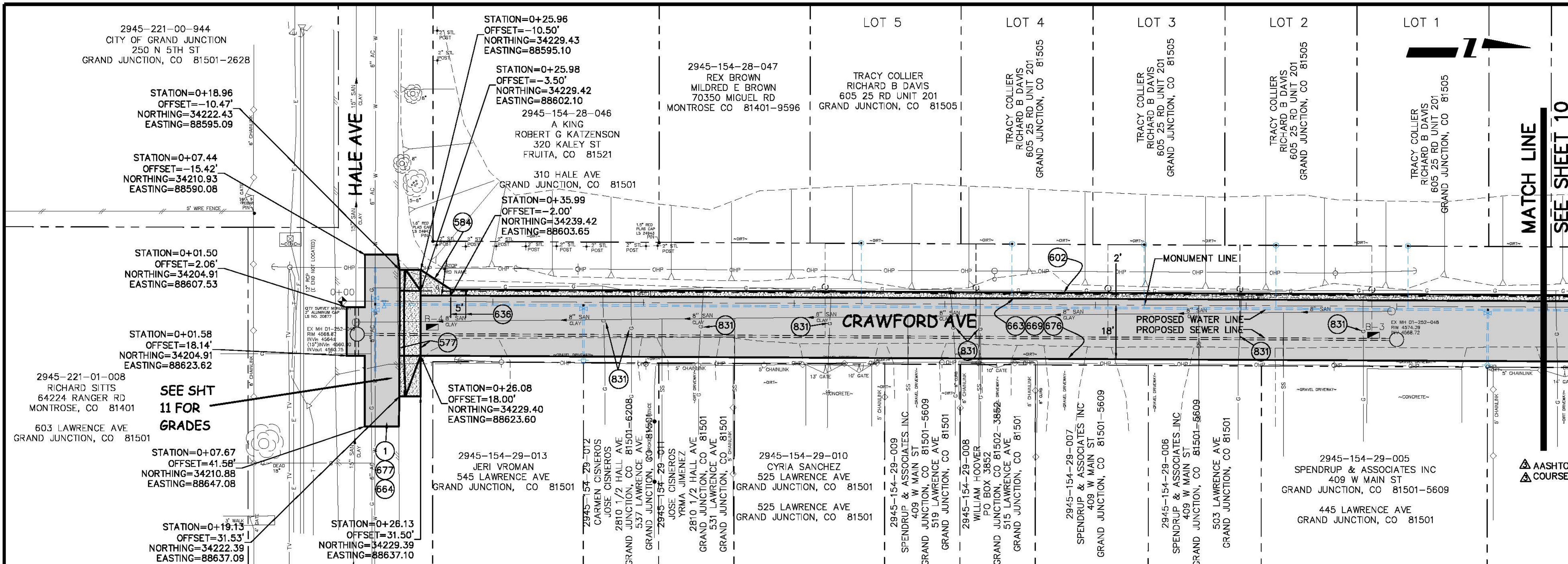
REVISION	DESCRIPTION	DATE
REVISION Δ	REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16
REVISION Δ	AS BUILT	2009-09-25
REVISION Δ		
REVISION Δ		

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 DESIGNED BY: DATE:
 CHECKED BY: DATE:
 APPROVED BY: DATE:

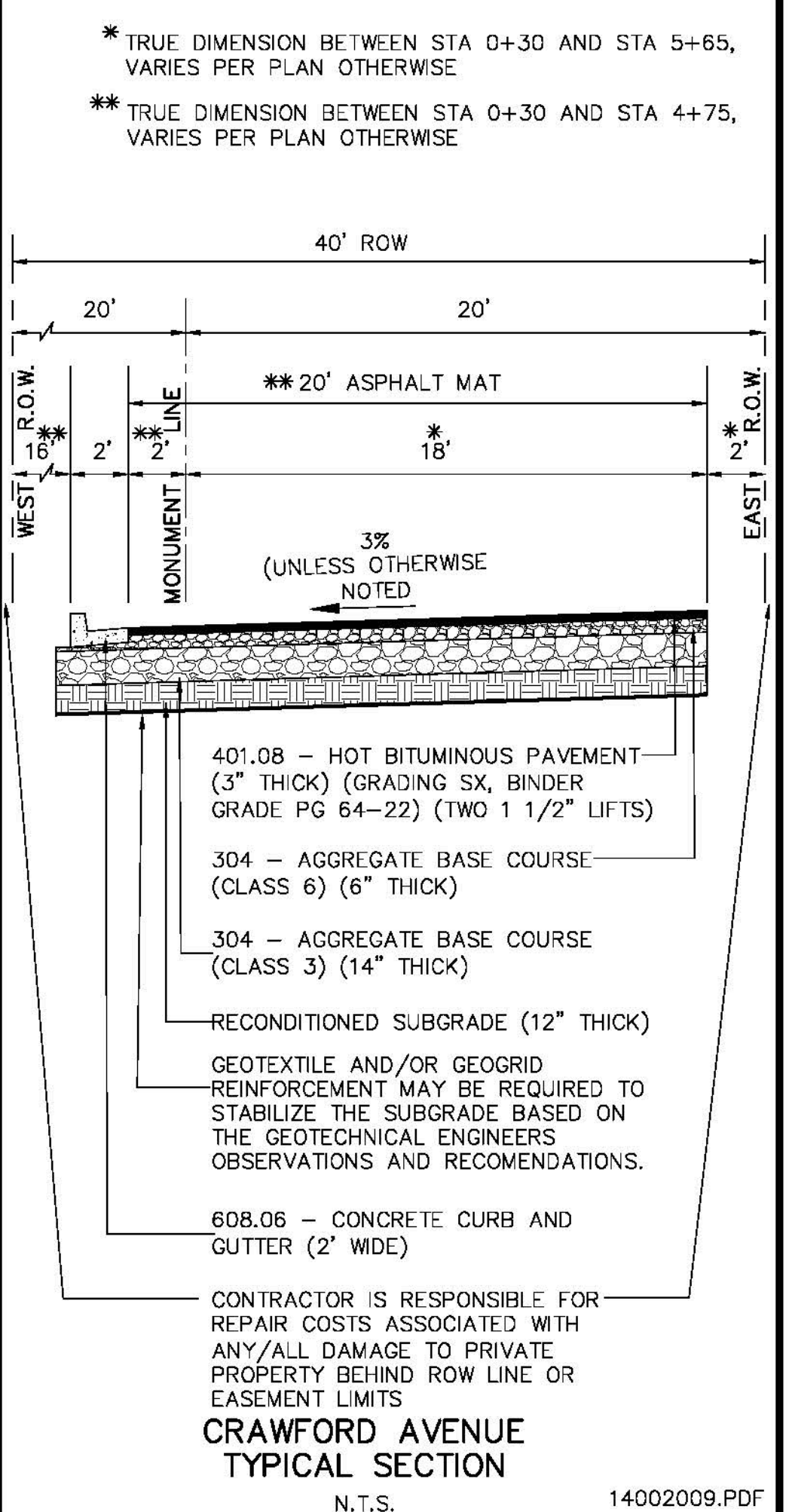
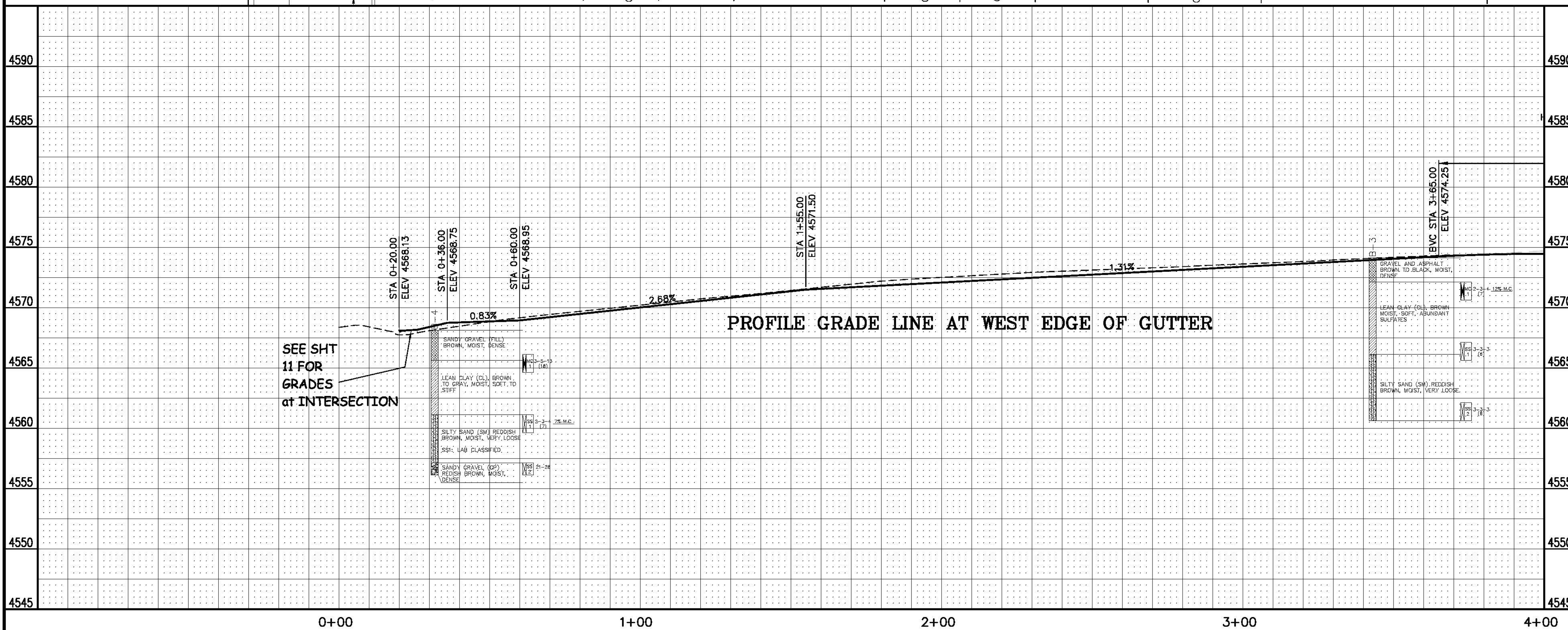


**PUBLIC WORKS
 AND UTILITIES
 ENGINEERING DIVISION**

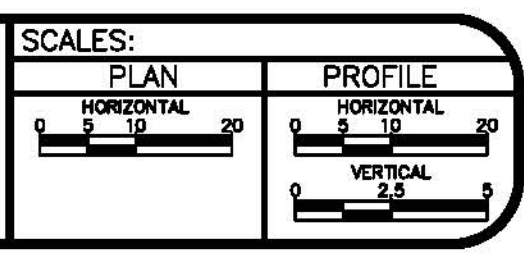
**CRAWFORD AVENUE
 WATER LINE PLAN AND PROFILE
 NORTHERLY PART OF HALE/FAIRVIEW AVE BLOCK**



- ### CONSTRUCTION NOTES
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
 - 577 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (COMMERCIAL)
 - 584 608.06 - CONCRETE DRAINAGE PAN (WIDTH VARIES AS SHOWN)
 - 602 608.06 - CONCRETE CURB AND GUTTER (2' WIDE)
 - 636 TRANSITION CURB HEIGHT FROM 1" TO 6" HEIGHT AS SHOWN. COST OF TRANSITION SHALL BE INCIDENTAL TO 2' WIDE CURB AND GUTTER PAY ITEM.
 - 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
 - 664 304 - AGGREGATE BASE COURSE (CLASS 6) (12" THICK)
 - 669 304 - AGGREGATE BASE COURSE (CLASS 3) (14" THICK)
 - 676 401.08 - HOT BITUMINOUS PAVEMENT (3" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 1 1/2" LIFTS) (COMPACTED 92% TO 96% OF THE MAXIMUM THEORETICAL DENSITY)
 - 677 401.02.3/401.04 - HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)
 - 831 RESET GAS LINE (BY OTHERS).
- GENERAL NOTE:
 AGGREGATE BASE COURSE AND SUBBASE COURSE SHOULD BE PLACED IN MAXIMUM 9-INCH LOOSE LIFTS, MOISTURE CONDITIONED, AND COMPACTED TO A MINIMUM OF 95% AND 93% OF THE MAXIMUM DRY DENSITY, RESPECTIVELY, AT -2% TO +3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY AASHTO T-180. IN ADDITION TO DENSITY TESTING, BASE COURSE SHOULD BE PROOFROLLED TO VERIFY SUBGRADE STABILITY.

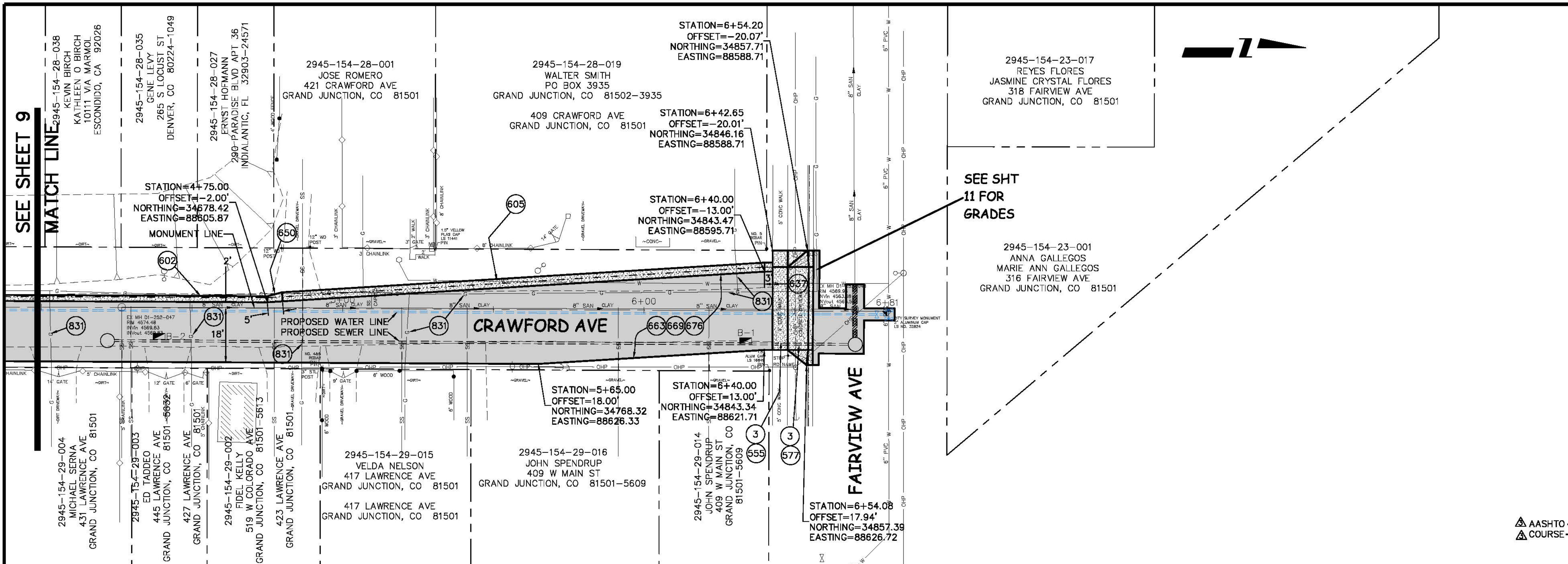


REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
1	REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16	XXX	2002
2	PROJECT ENGINEER COMMENTS	2008-05-09		

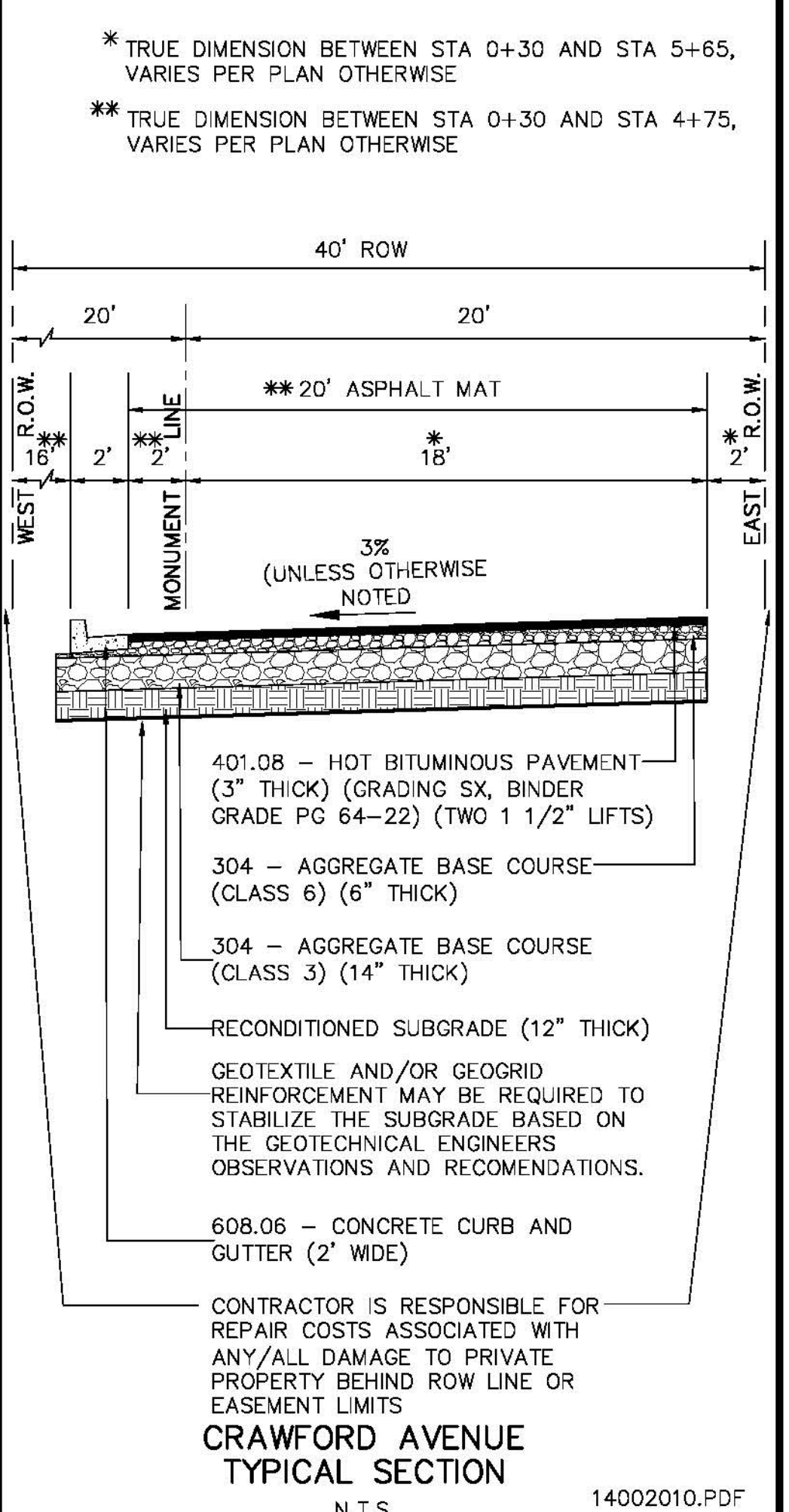
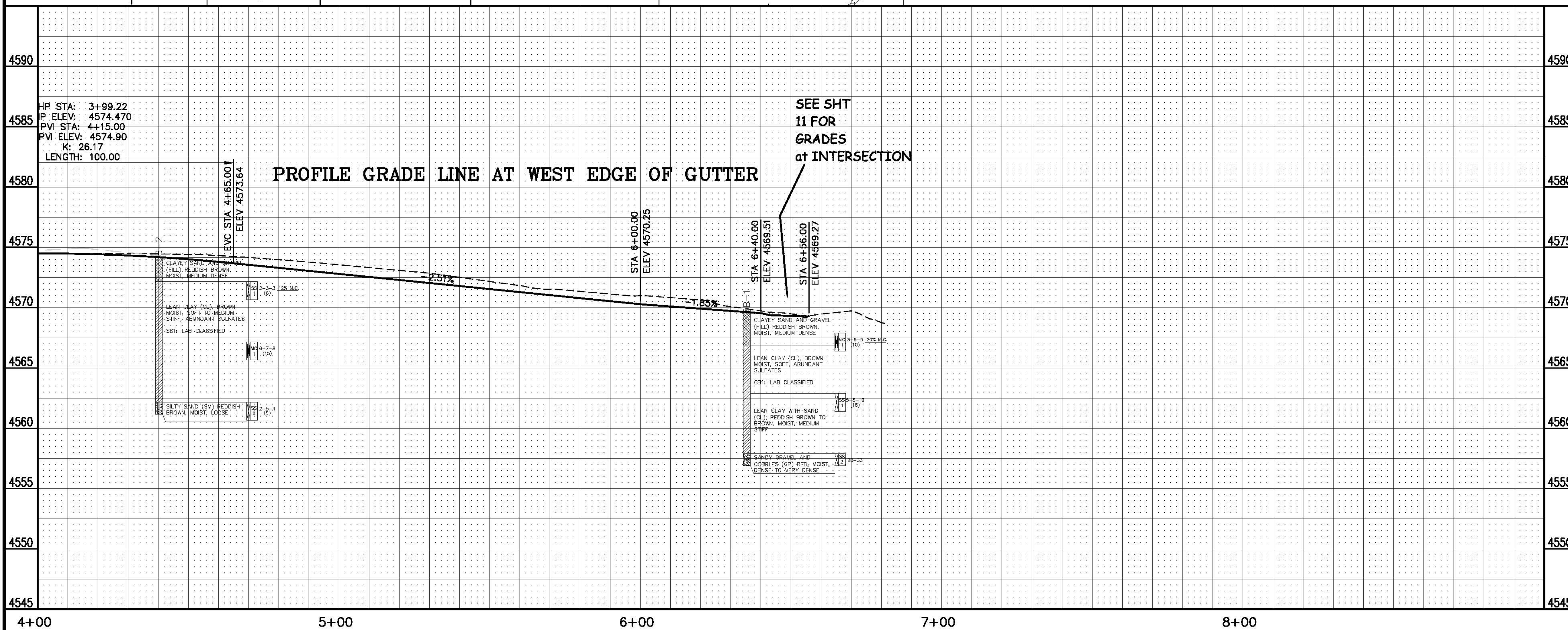


PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

CRAWFORD AVENUE ROADWAY PLAN AND PROFILE SOUTHERLY PART OF HALE/FAIRVIEW AVE BLOCK

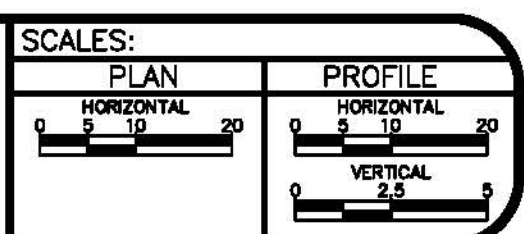


- ### CONSTRUCTION NOTES
- 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
 - 555 608.06 - CONCRETE SIDEWALK (4" THICK)
 - 602 608.06 - CONCRETE CURB AND GUTTER (2' WIDE)
 - 605 608.06 - CONCRETE DRIVE OVER CURB AND GUTTER (3' WIDE)
 - 637 TRANSITION CURB HEIGHT FROM 4.5" TO 1" HEIGHT AS SHOWN. COST OF TRANSITION SHALL BE INCIDENTAL TO 3' WIDE DRIVE OVER CURB AND GUTTER PAY ITEM.
 - 650 TRANSITION FROM 2' VERTICAL CURB AND GUTTER TO 3' MOUNTABLE CURB AND GUTTER AS SHOWN. COST OF TRANSITION SHALL BE INCIDENTAL TO 2' WIDE CURB AND GUTTER PAY ITEM.
 - 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
 - 669 304 - AGGREGATE BASE COURSE (CLASS 3) (14" THICK)
 - 676 401.08 - HOT BITUMINOUS PAVEMENT (3" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 1 1/2" LIFTS) (COMPACTED 92% TO 96% OF THE MAXIMUM THEORETICAL DENSITY)
 - 831 RESET GAS LINE (BY OTHERS).
- GENERAL NOTE:
AGGREGATE BASE COURSE AND SUBBASE COURSE SHOULD BE PLACED IN MAXIMUM 9-INCH LOOSE LIFTS, MOISTURE CONDITIONED, AND COMPACTED TO A MINIMUM OF 95% AND 93% OF THE MAXIMUM DRY DENSITY, RESPECTIVELY, AT -2% TO +3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY AASHTO T-180. IN ADDITION TO DENSITY TESTING, BASE COURSE SHOULD BE PROOFROLLED TO VERIFY SUBGRADE STABILITY.
- * TRUE DIMENSION BETWEEN STA 0+30 AND STA 5+65, VARIES PER PLAN OTHERWISE
** TRUE DIMENSION BETWEEN STA 0+30 AND STA 4+75, VARIES PER PLAN OTHERWISE



REVISION	DESCRIPTION	DATE
REVISION	REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16
REVISION	CURB/GUTTER CHANGED TO 3' DRIVE OVER FROM 4+75 TO 6+43	2008-04-17
REVISION	PROJECT ENGINEER COMMENTS	2008-05-09
REVISION		

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APPROVED BY		DATE	

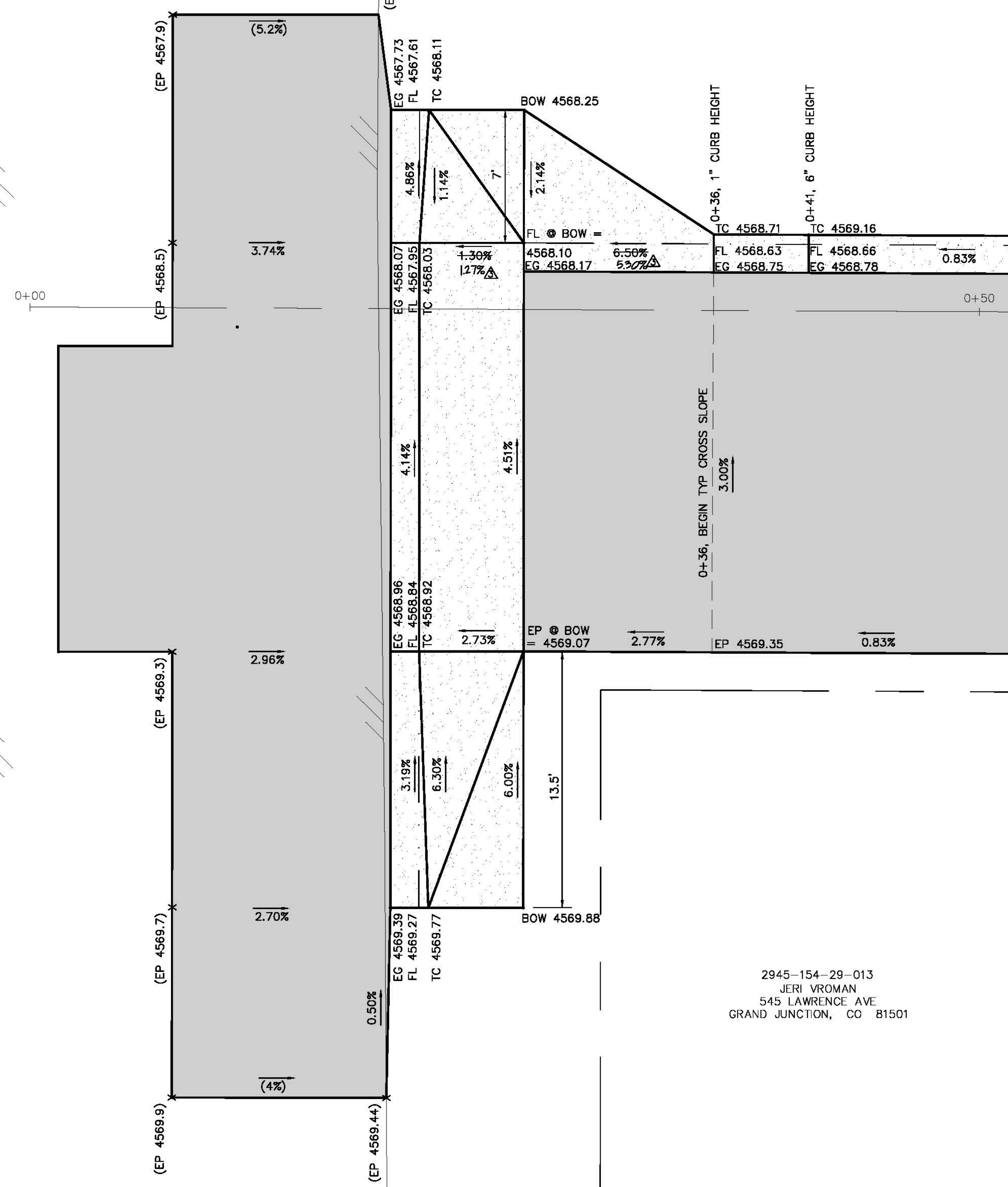


PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

CRAWFORD AVENUE ROADWAY PLAN AND PROFILE NORTHERLY PART OF HALE/FAIRVIEW AVE BLOCK

N:\Landscape\108485 (Crawford Ave)\dwg\base.dwg, 11 INTERSECTION DETS, 5/9/2008 7:47:49 AM

HALE AVE



2945-154-28-046
A KING
ROBERT G KATZENSON
320 KALEY ST
FRUITA, CO 81521

310 HALE AVE
GRAND JUNCTION, CO 81501

2945-154-28-019
WALTER SMITH
PO BOX 3935
GRAND JUNCTION, CO 81502-3935

409 CRAWFORD AVE
GRAND JUNCTION, CO 81501

2945-154-29-013
JERI VROMAN
545 LAWRENCE AVE
GRAND JUNCTION, CO 81501

2945-154-29-014
JOHN SPENDRUP
409 W MAIN ST
GRAND JUNCTION, CO
81501-5609

~CONC~

5' CONC WALK

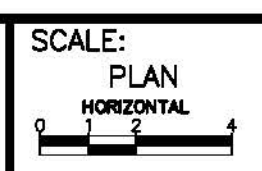
FAIRVIEW AVE

5' CONC WALK

CONCRETE DRIVEWAY

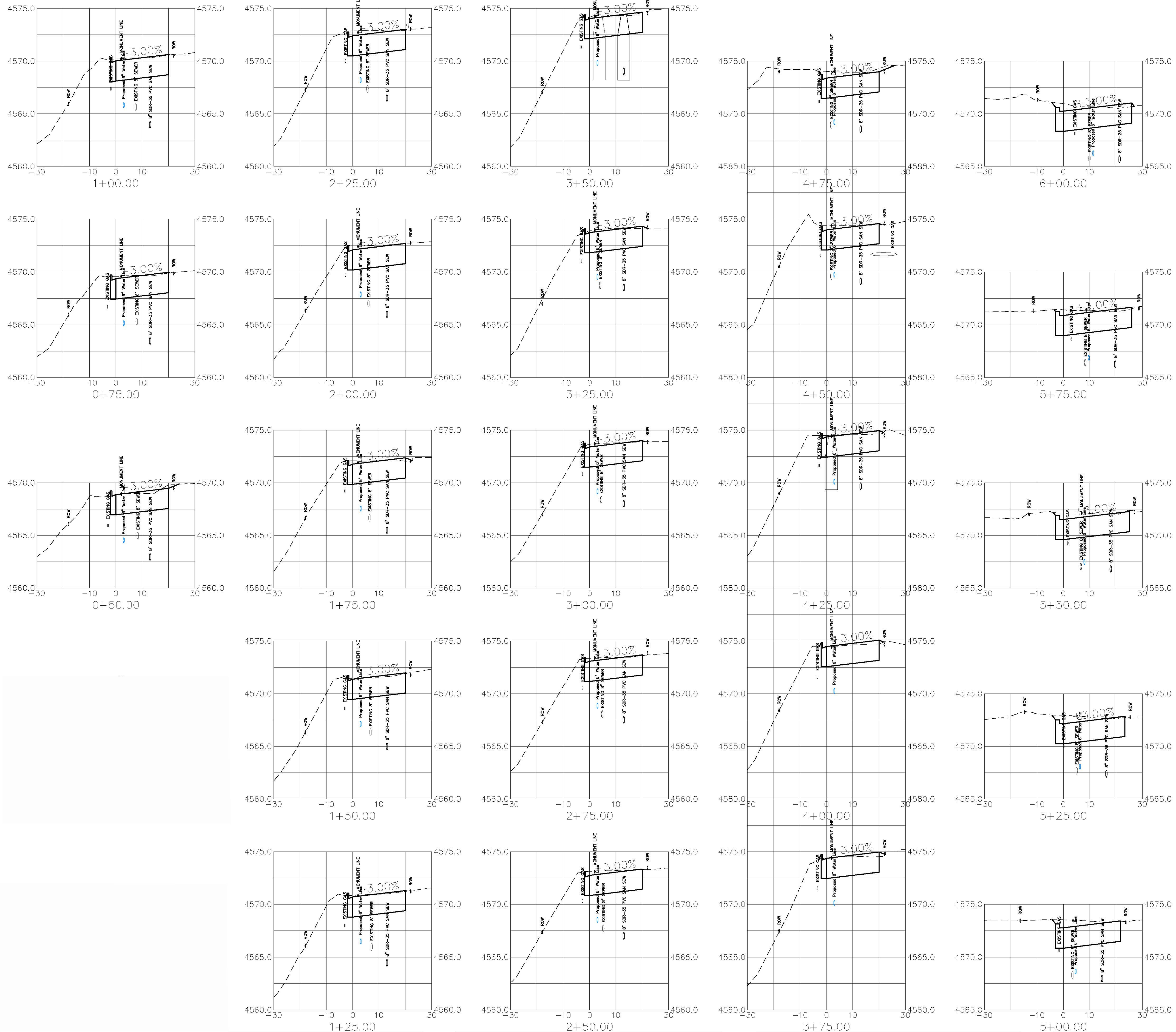
REVISION	DESCRIPTION	DATE
REVISION	REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16
REVISION	CURB&GUTTER CHANGED TO 3" DRIVE OVER FROM 4+75 TO 6+43	2008-04-17
REVISION	PROJECT ENGINEER COMMENTS	2008-05-09
REVISION		

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APPROVED BY		DATE	

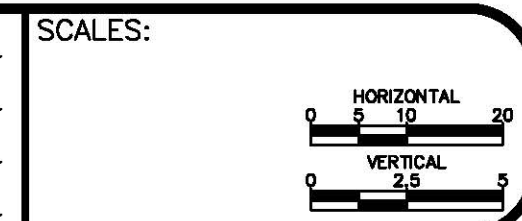


**PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION**

**CRAWFORD AVENUE
ROADWAY INTERSECTION DETAILS
AT HALE AVE AND FAIRVIEW AVE**



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
REVISION A	REVISE ROADWAY DESIGN AT N & S ENDS	2008-04-16		
REVISION B	CURB&GUTTER CHANGED TO 3' DRIVE OVER FROM 4+75 TO 6+43	2008-04-17		
REVISION C				
REVISION D				



**PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION**

**CRAWFORD AVENUE
ROADWAY CROSS SECTIONS**