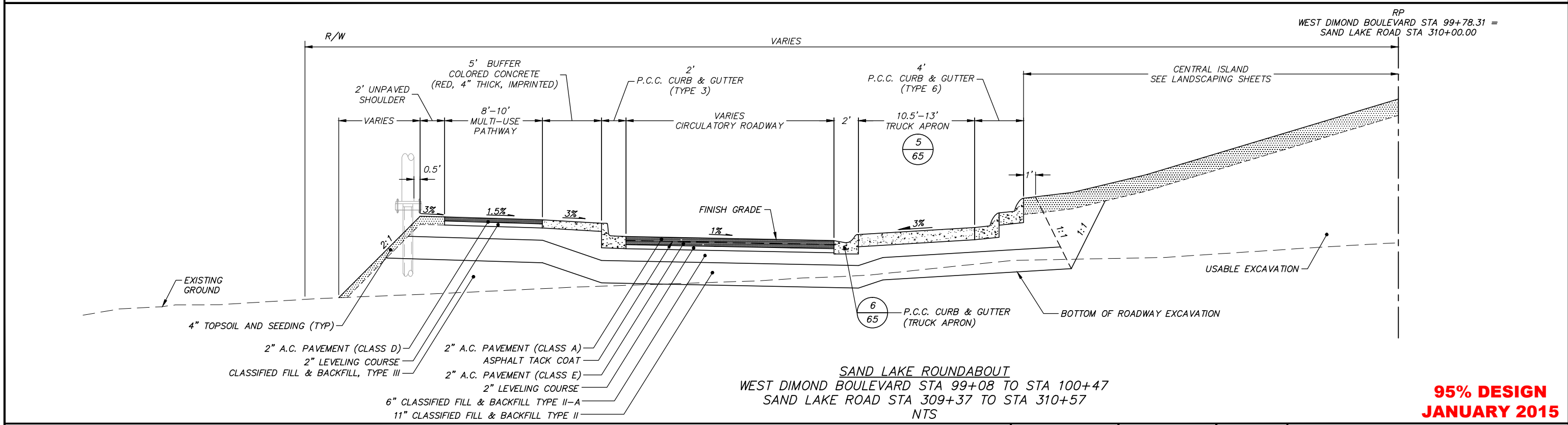
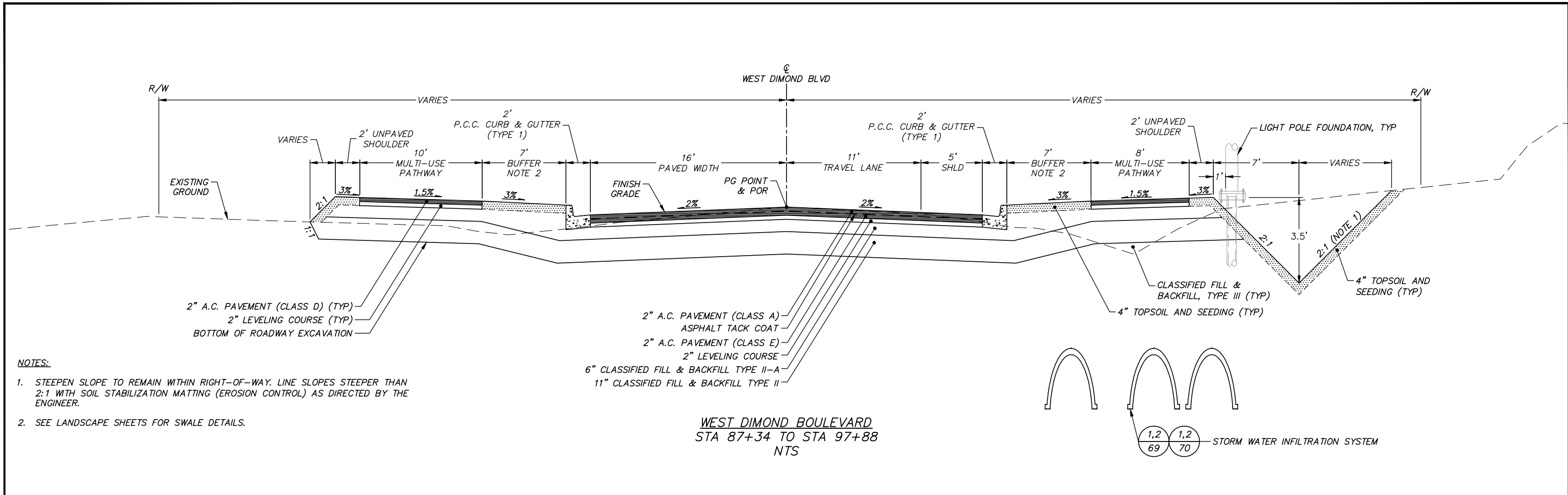


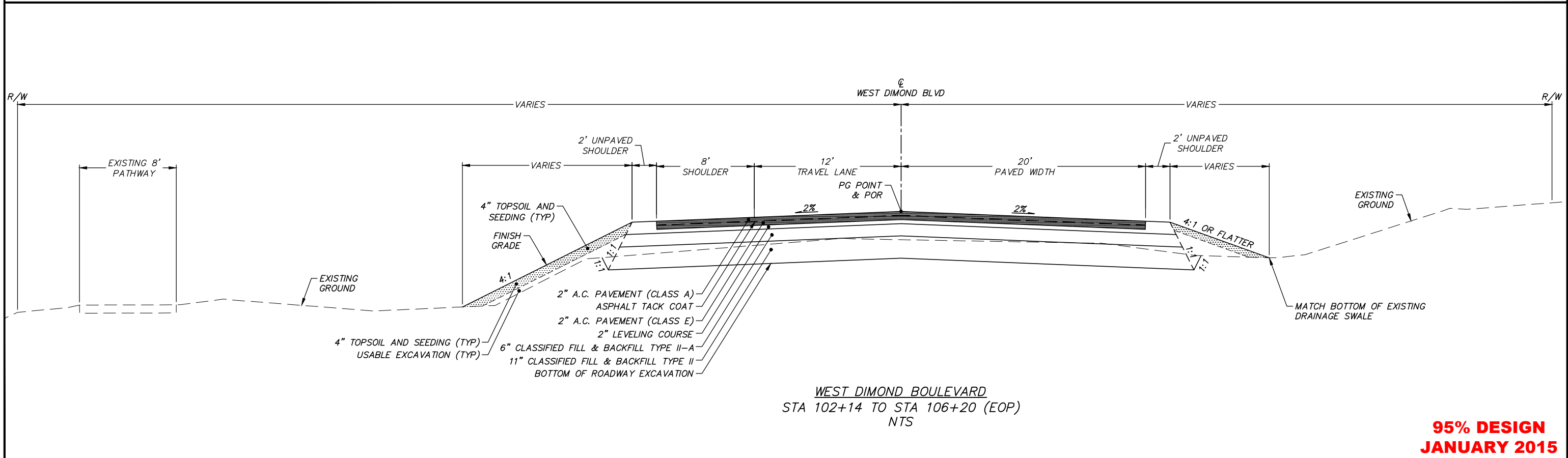
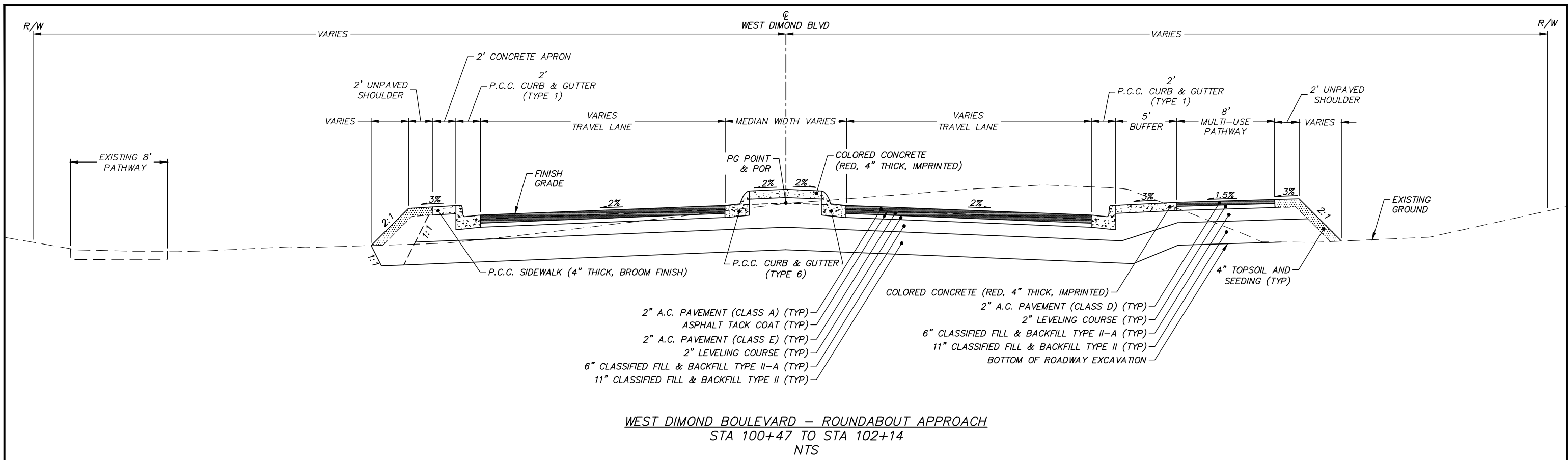
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PROJECT MANAGEMENT AND ENGINEERING DIVISION												05-05 WEST DIMOND BOULEVARD UPGRADE PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD											
TYPICAL SECTIONS - WEST DIMOND BLVD												SCALE DATE 1/30/15 GRID 2323 2324 ACCT. NO. 2423 2424 SHEET 30 of 106											
FIELD BOOKS	BM NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	REV	DATE	DESCRIPTION	BY	R&M Consultants, Inc. 9101 Vanguard Drive Anchorage, Alaska 99507 907 522 1707 voice 907 522 3404 fax www.rmconsult.com					
DESIGN				BASE			TELEPHONE											STATE OF ALASKA 49TH Marc Frutiger No. CE 11888 REGISTERED PROFESSIONAL ENGINEER					
STAKING				TOPOGRAPHY			ELECTRIC											MUNICIPALITY OF ANCHORAGE					
ASBULT				PROFILE			CABLE TV																
CONTRACTOR				SANITARY SEWER			DESIGN																
INSPECTOR				STORM SEWER			QUANTITIES																
				WATER			MUN. FINAL CHK.																
				GAS																			
CONSTRUCTION RECORD				VERTICAL DATUM				PLAN CHECK				REVISIONS				CONSULTANT				SEAL			

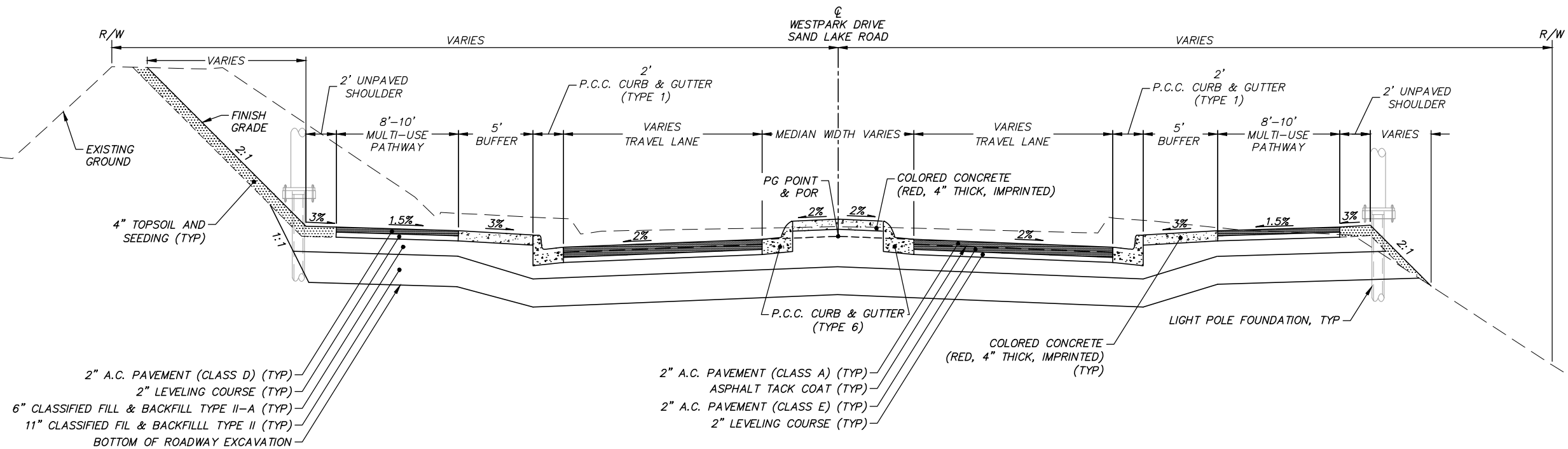
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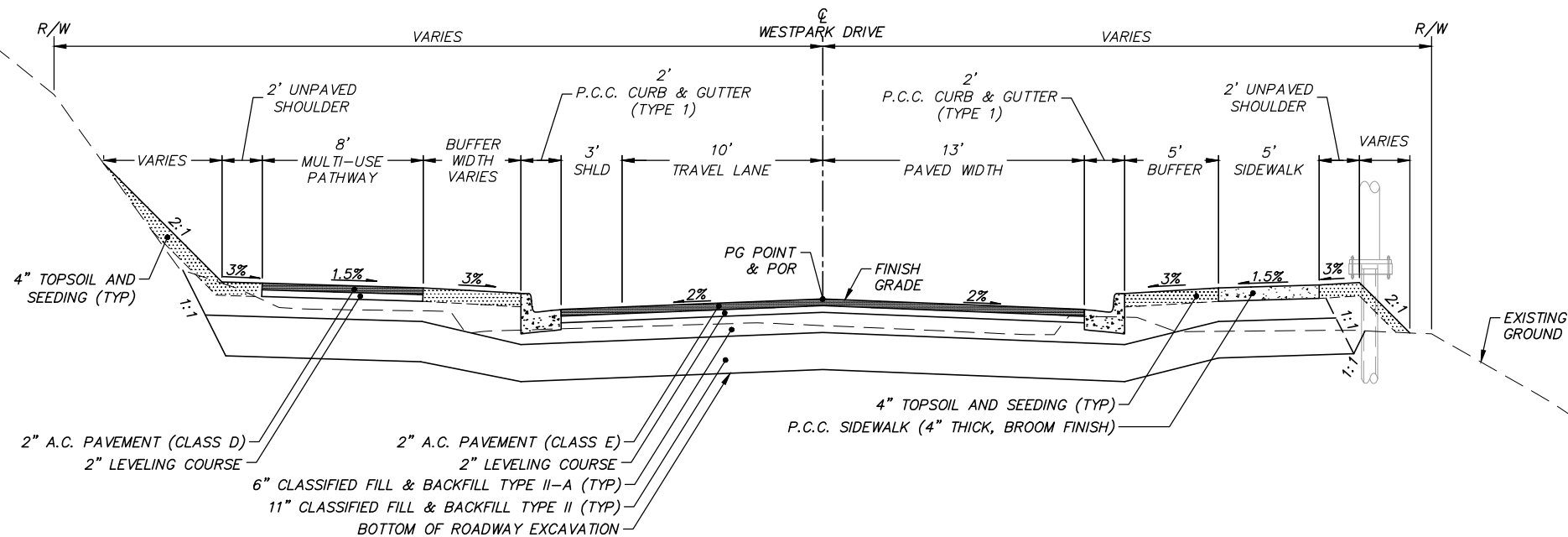
**95% DESIGN
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PROJECT MANAGEMENT AND ENGINEERING DIVISION												05-05 WEST DIMOND BOULEVARD UPGRADE PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD											
TYPICAL SECTIONS - WEST DIMOND BLVD												SCALE DATE 1/30/15 GRID 2323 2324 2423 2424 SHEET 31 of 106											
FIELD BOOKS	BM NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	REV	DATE	DESCRIPTION	BY	R&M Consultants, Inc. 9101 Vanguard Drive Anchorage, Alaska 99507 907 522 1707 voice 907 522 3404 fax www.rmconsult.com					
DESIGN				BASE			TELEPHONE											STATE OF ALASKA 49TH Marc Frutiger No. CE 11888 REGISTERED PROFESSIONAL ENGINEER					
STAKING				TOPOGRAPHY			ELECTRIC											MUNICIPALITY OF ANCHORAGE					
ASBUILT				PROFILE			CABLE TV																
CONTRACTOR				SANITARY SEWER			DESIGN																
INSPECTOR				STORM SEWER			QUANTITIES																
				WATER			MUN. FINAL CHK.																
				GAS																			
CONSTRUCTION RECORD				VERTICAL DATUM				PLAN CHECK				REVISIONS				CONSULTANT				SEAL			

Plotted: 1/30/2015 9:46 AM File Location: Z:\project\1317.01 - West Dimond Blvd\Engineering\Acad\1317-D-Typical Sections.dwg



ROUNDABOUT APPROACH
WESTPARK DRIVE STA 208+90 TO STA 209+38
WESTPARK DRIVE STA 210+63 TO STA 211+20
SAND LAKE ROAD STA 308+84 TO STA 309+37
NTS

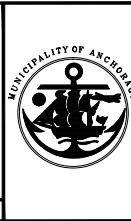
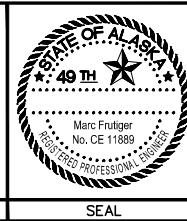


WESTPARK DRIVE
STA 211+20 TO STA 213+60
NTS

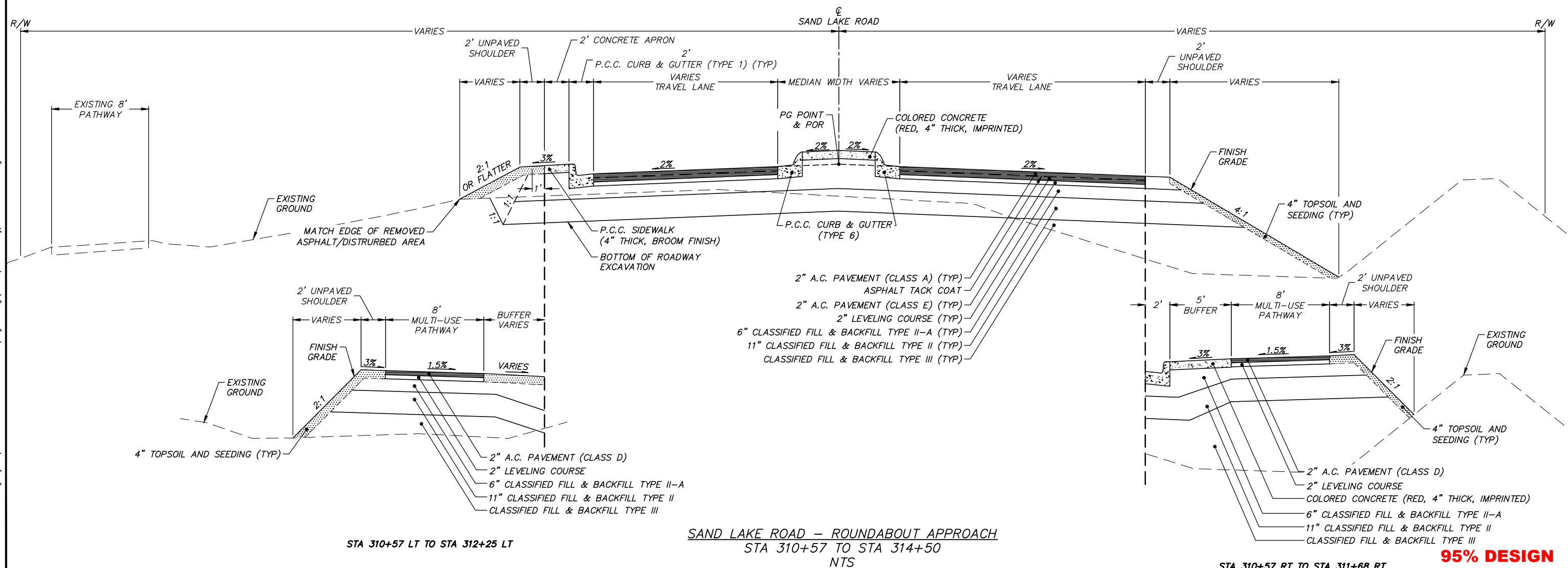
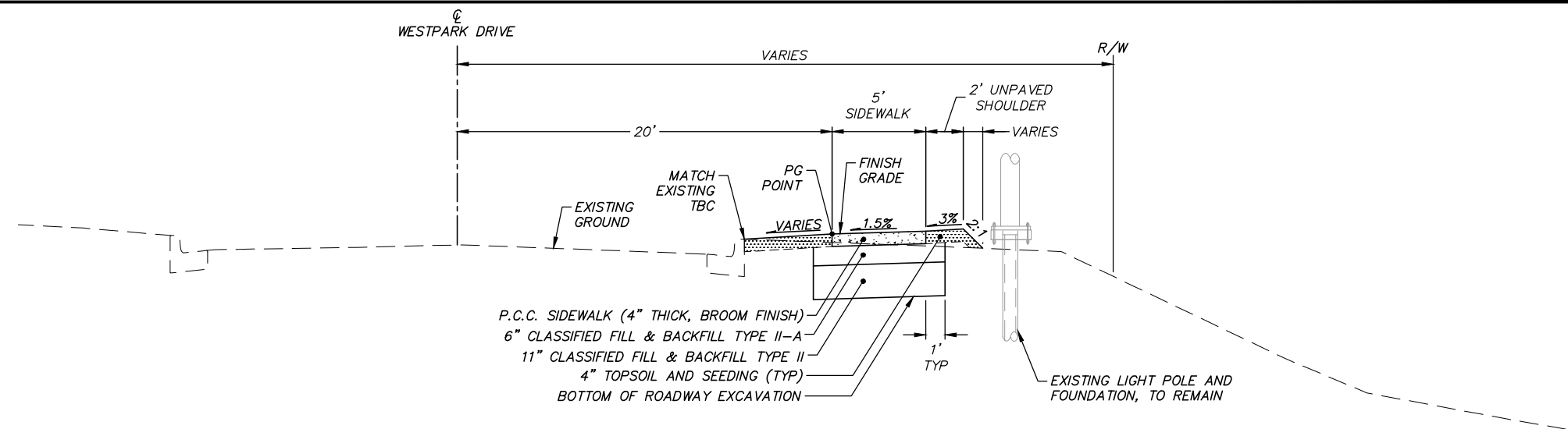
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FIELD BOOKS	BM NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	REV	DATE	DESCRIPTION	BY
DESIGN				BASE			TELEPHONE										
STAKING				TOPOGRAPHY			ELECTRIC										
				PROFILE			CABLE TV										
ASBUILT				SANITARY SEWER			DESIGN										
CONTRACTOR				STORM SEWER			QUANTITIES										
INSPECTOR				WATER			MUN. FINAL CHK.										
				GAS													
CONSTRUCTION RECORD																	

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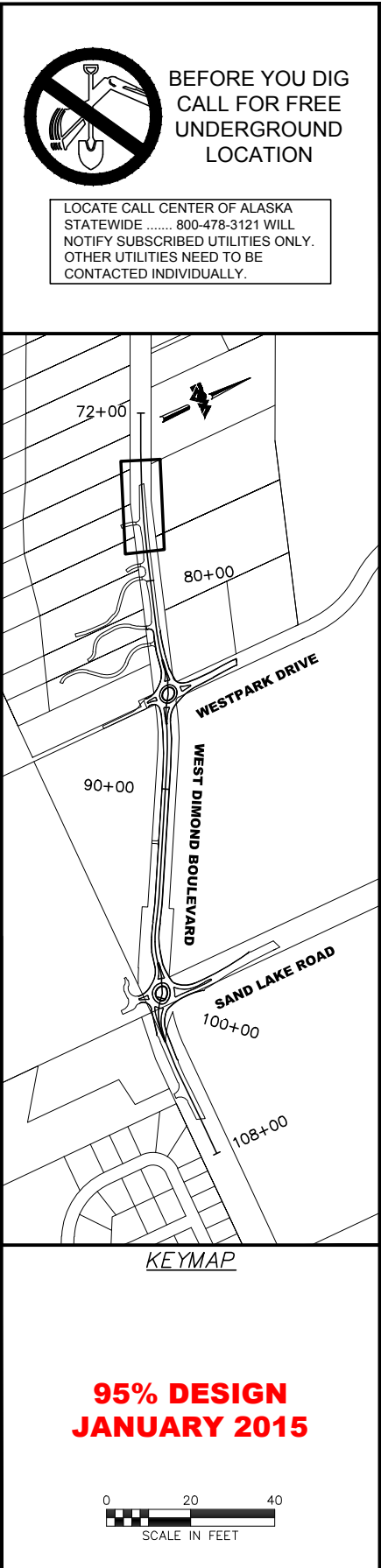
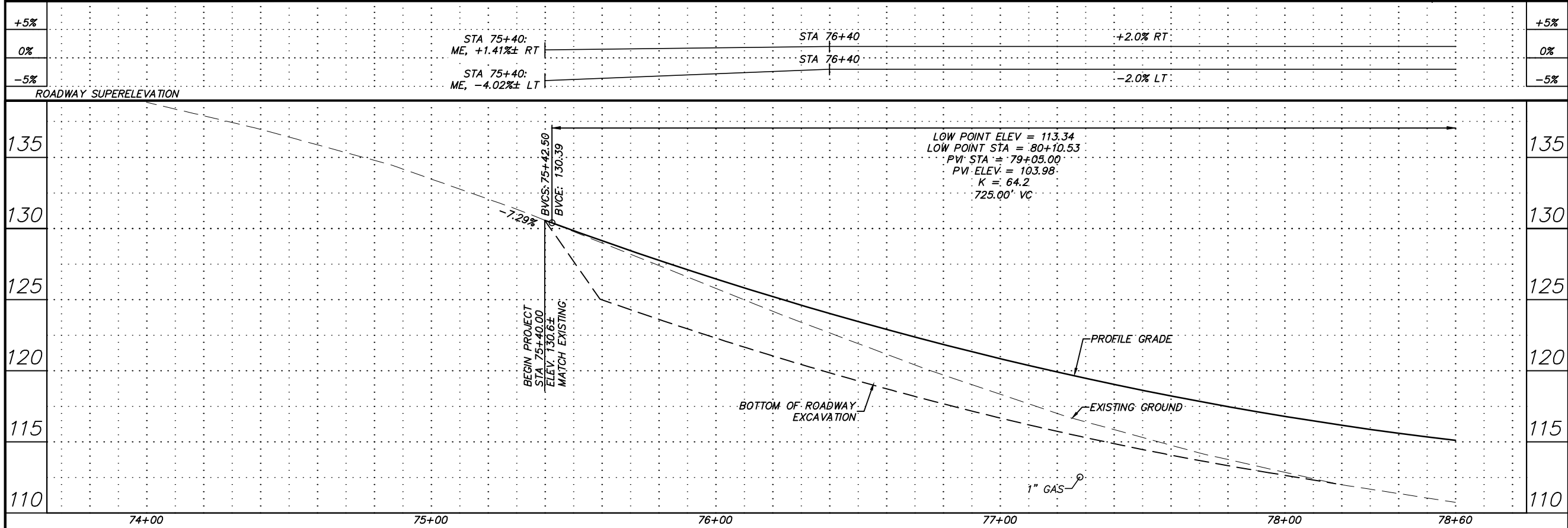
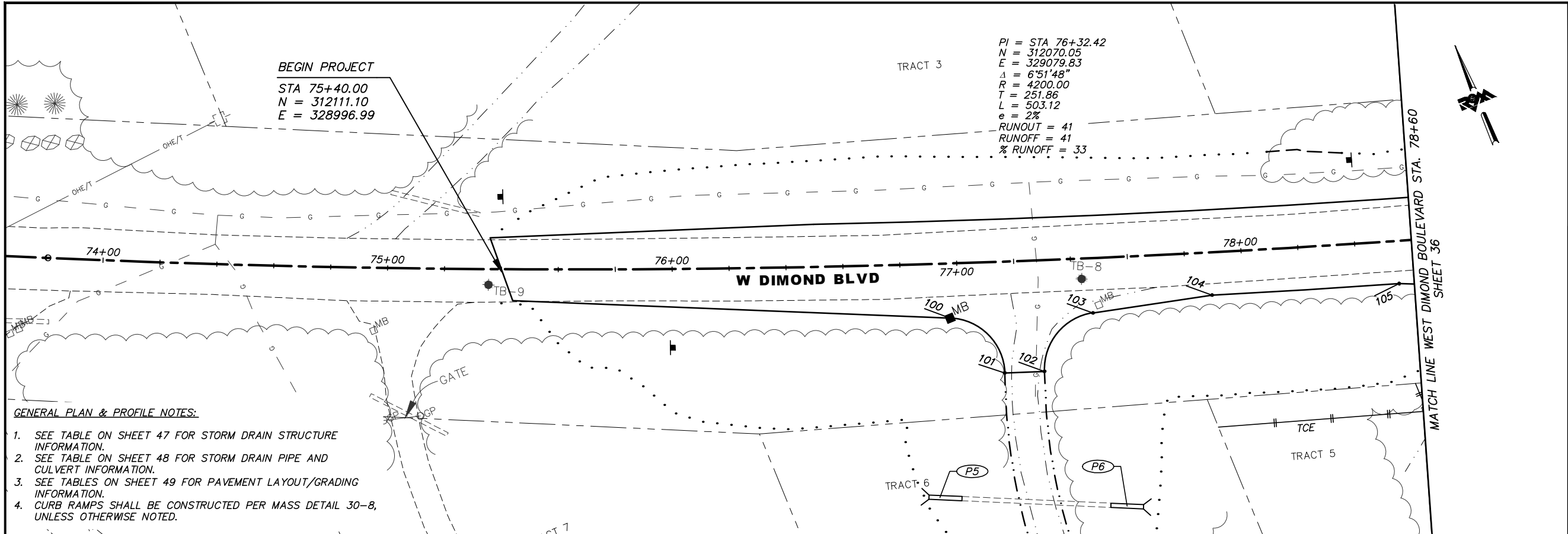


PROJECT MANAGEMENT AND ENGINEERING DIVISION						
05-05 WEST DIMOND BOULEVARD UPGRADE PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD						
TYPICAL SECTIONS - WESTPARK & SAND LAKE						
SCALE	DATE	1/30/15	GRID	2323 2324 2423 2424	SHEET	32 of 106
	ACCT. NO.					





																						PROJECT MANAGEMENT AND ENGINEERING DIVISION	
FIELD BOOKS		BM NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	REV	DATE	DESCRIPTION	BY					
DESIGN					BASE TOPOGRAPHY			TELEPHONE ELECTRIC															
STAKING					PROFILE SANITARY SEWER DESIGN			CABLE TV DESIGN															
ASBUILT					STORM SEWER QUANTITIES																		
CONTRACTOR INSPECTOR	BASIS OF THIS DATUM				WATER GAS			MUN. FINAL CHK.															
CONSTRUCTION RECORD		VERTICAL DATUM				PLAN CHECK				REVISIONS				CONSULTANT				SEAL					
SCALE		DATE 1/30/15				GRID 2303 2304 2423 2424				SHEET 33 of 10													

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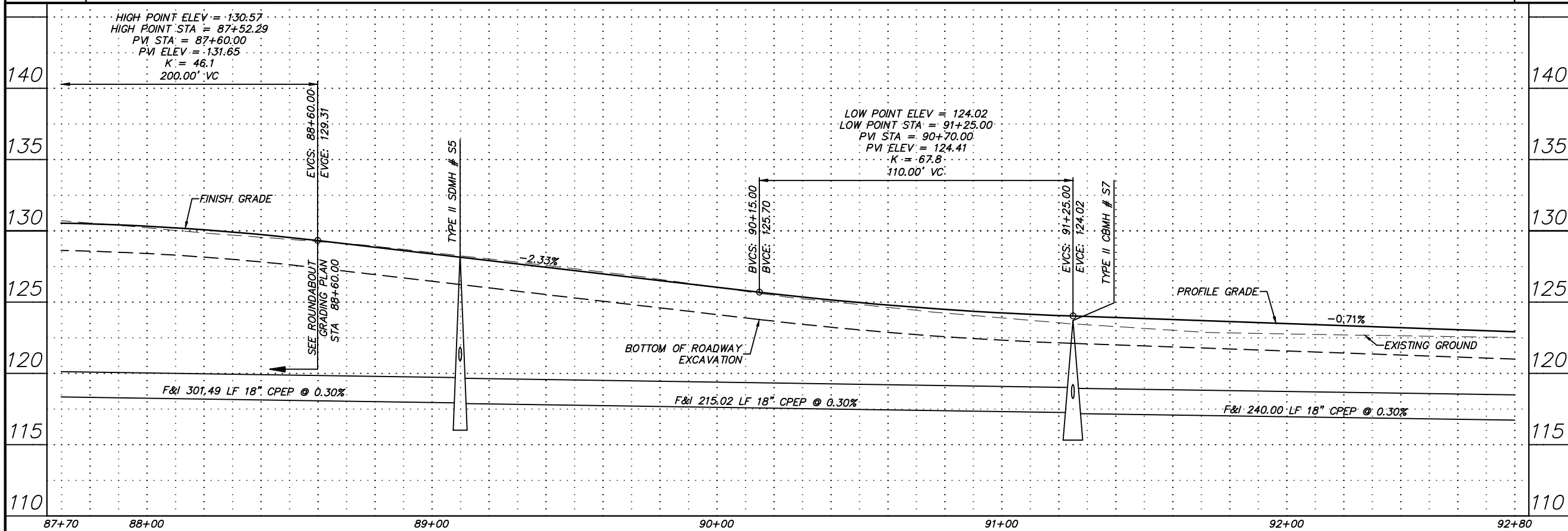
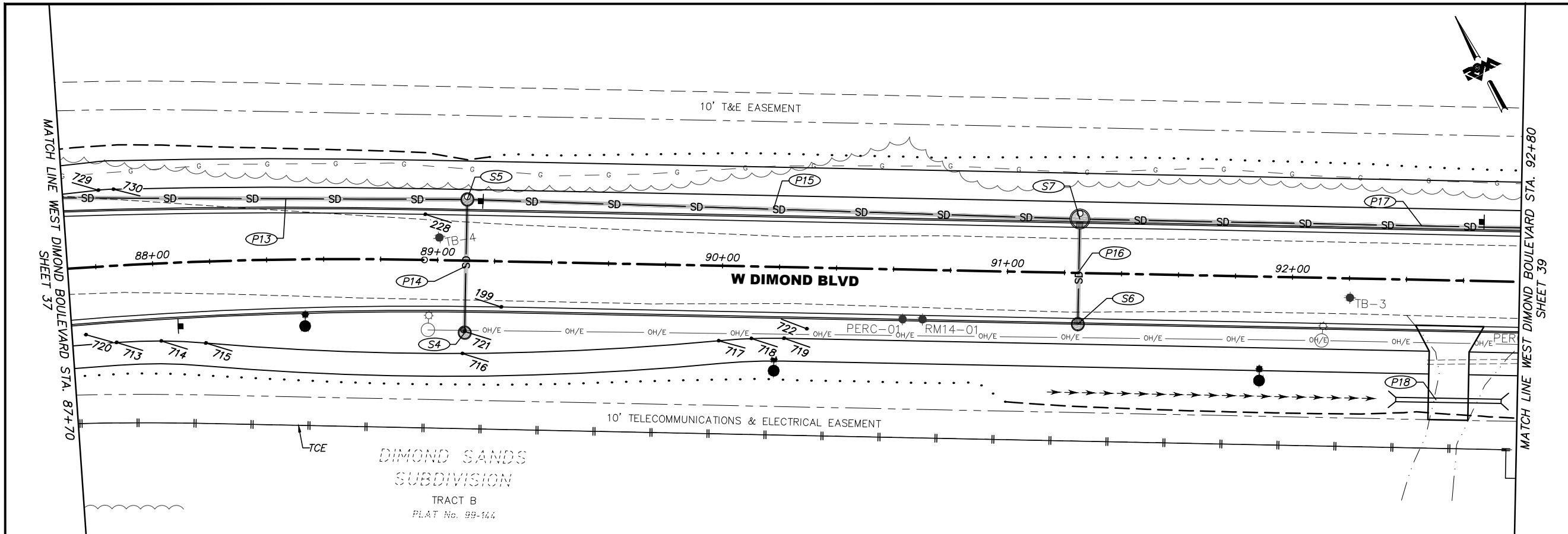



PROJECT MANAGEMENT AND ENGINEERING DIVISION											
05-05 WEST DIMOND BOULEVARD UPGRADE PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD											
PLAN AND PROFILE WEST DIMOND BLVD - BOP TO STA 78+60											
SCALE 1:20 H DATE 1/30/15 GRID 2323 2324 1:4 V ACCT. NO. 2423 2424											
SHEET 35 of 106											

FIELD BOOKS	BM NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	REV	DATE	DESCRIPTION	BY
DESIGN				BASE			TELEPHONE										
STAKING				TOPOGRAPHY			ELECTRIC										
ASBUILT				PROFILE			CABLE TV										
CONTRACTOR				SANITARY SEWER			DESIGN										
INSPECTOR				STORM SEWER			QUANTITIES										
				WATER			MUN. FINAL CHK.										
				GAS													
CONSTRUCTION RECORD				VERTICAL DATUM				PLAN CHECK				REVISIONS				CONSULTANT	

R&M R&M Consultants, Inc. 9101 Vanguard Drive Anchorage, Alaska 99507 907 522 1707 voice 907 522 3404 fax www.rmconsult.com	 Marc Frutiger No. CE 11888 Professional Engineer	
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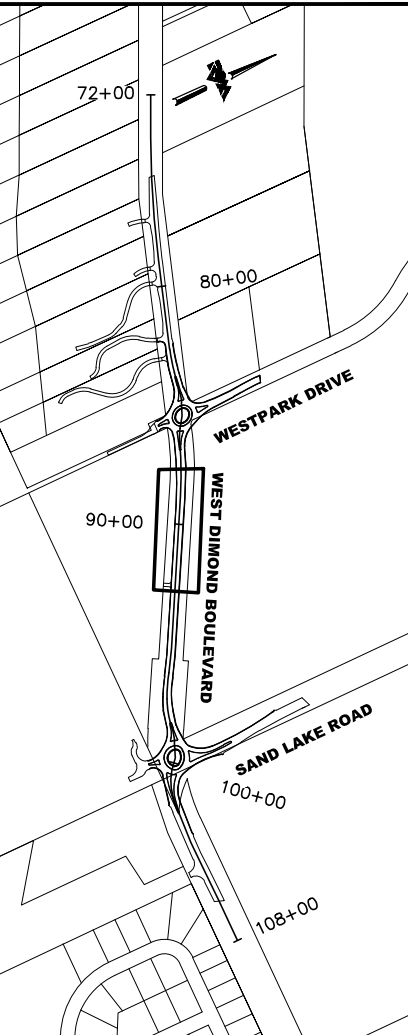
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LOCATE CALL CENTER OF ALASKA
STATEWIDE 800-478-3121 WILL
NOTIFY SUBSCRIBED UTILITIES ONLY.
OTHER UTILITIES NEED TO BE
CONTACTED INDIVIDUALLY.




KEYMAP


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0 20 40
SCALE IN FEET


PROJECT MANAGEMENT AND ENGINEERING DIVISION	
05-05 WEST DIMOND BOULEVARD UPGRADE PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD	
PLAN AND PROFILE WEST DIMOND BLVD - STA 87+70 TO STA 92+80	
SCALE 1:20 H 1:4 V	DATE 1/30/15 ACCT. NO.



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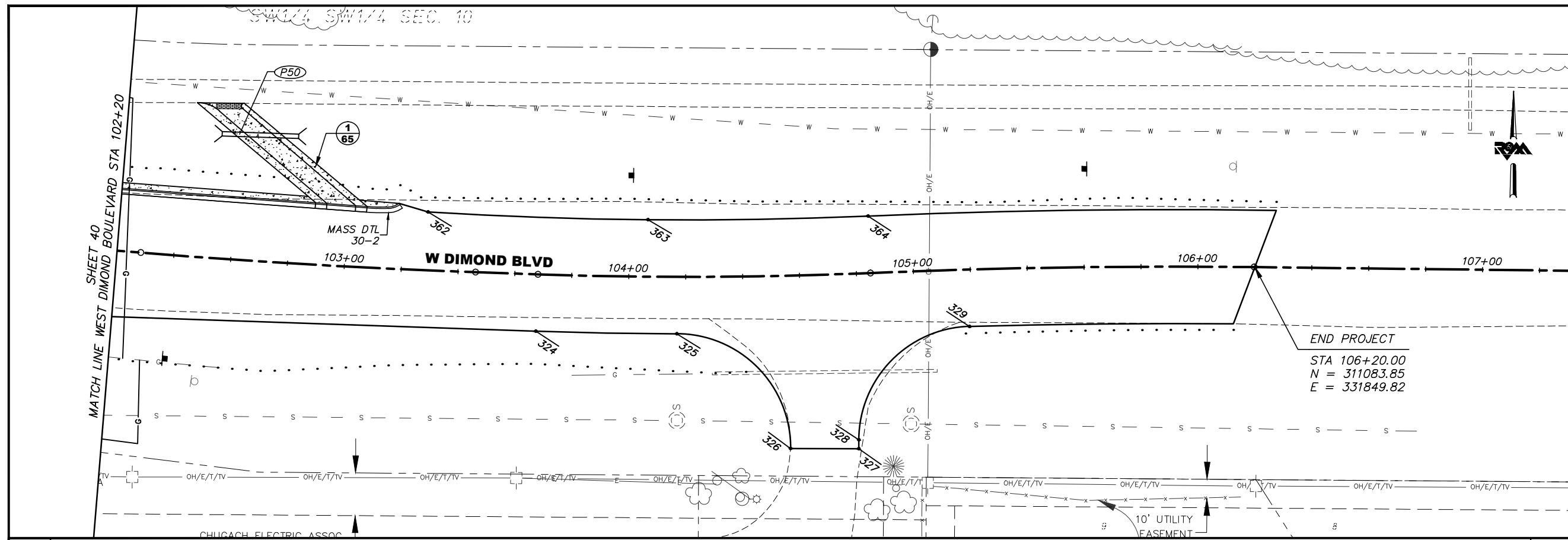


STATE OF ALASKA
49TH
Marc Frutiger
No. CE 11888
REGISTERED PROFESSIONAL ENGINEER



MUNICIPALITY OF ANCHORAGE

CONSULTANT	SEAL	SHEET 38 of 106
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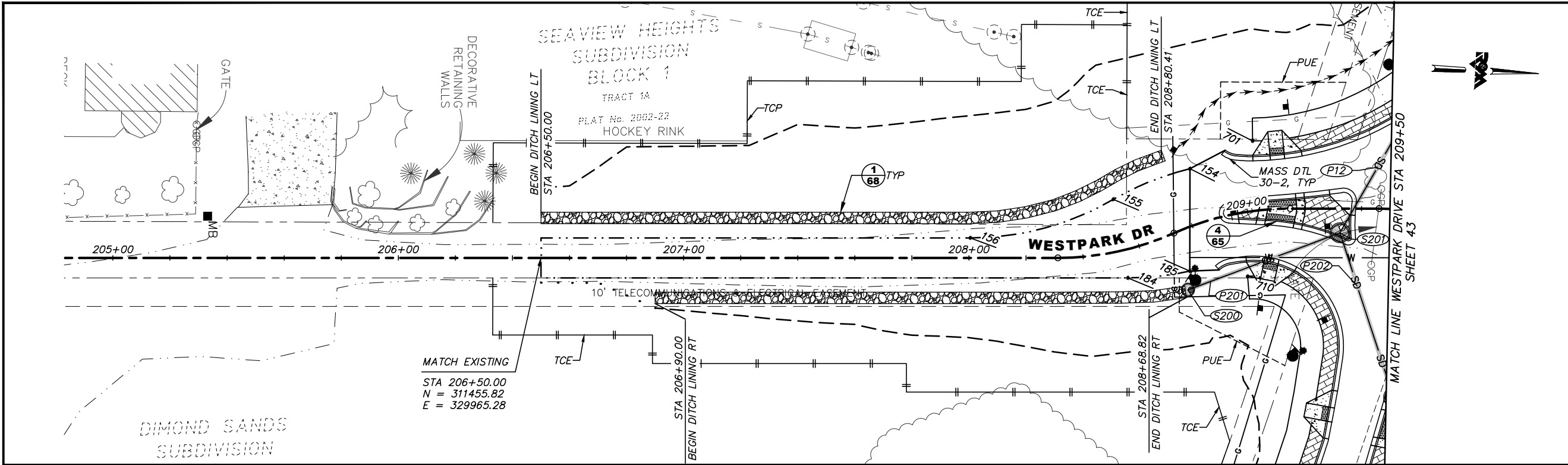
Profile view of a road project showing elevation (105 to 135 feet) versus stationing (102+20 to 106+60). The profile includes the following details:


- Profile Grade:** A solid line representing the proposed road grade. It starts at a 0.50% grade and changes to a 0.76% grade at station 103+00.00.
- Existing Ground:** A dashed line representing the existing ground surface.
- Bottom of Roadway Excavation:** A dashed line indicating the depth of the excavation for the roadway.
- Utilities:**
 - 16" DIP SANITARY (dashed line)
 - 30" DIP WATER (dashed line)
 - 24" RCP SANITARY (dashed line)
- Vertical Curve Data:**
 - LOW POINT: ELEV = 124.18, LOW POINT STA = 102+90.00
 - PVI: STA = 103+00.00, PVI ELEV = 124.23
 - K = 78.0
 - 20.00' VC (Vertical Curve length)
 - BVCS: 102+90.00, BVCE: 124.18
 - EVCS: 103+10.00, EVCE: 124.30
- Other Features:**
 - OVERHEAD WIRE (APPROX ELEV 140.3)
 - END OF PROJECT: STA 106+20.00, ELEV 126.7±, MATCH EXISTING
 - SEE ROUNDABOUT SEE GRADING PLAN STA 103+20.00

FIELD BOOKS																	
BM NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	REV	DATE	DESCRIPTION	BY	
DESIGN			BASE			TELEPHONE											
			TOPOGRAPHY			ELECTRIC											
STAKING			PROFILE			CABLE TV											
			SANITARY SEWER			DESIGN											
ASBUILT			STORM SEWER			QUANTITIES											
CONTRACTOR	BASIS OF THIS DATUM		WATER			MUN. FINAL CHK.											
INSPECTOR			GAS														
CONSTRUCTION RECORD			VERTICAL DATUM			PLAN CHECK			REVISIONS								



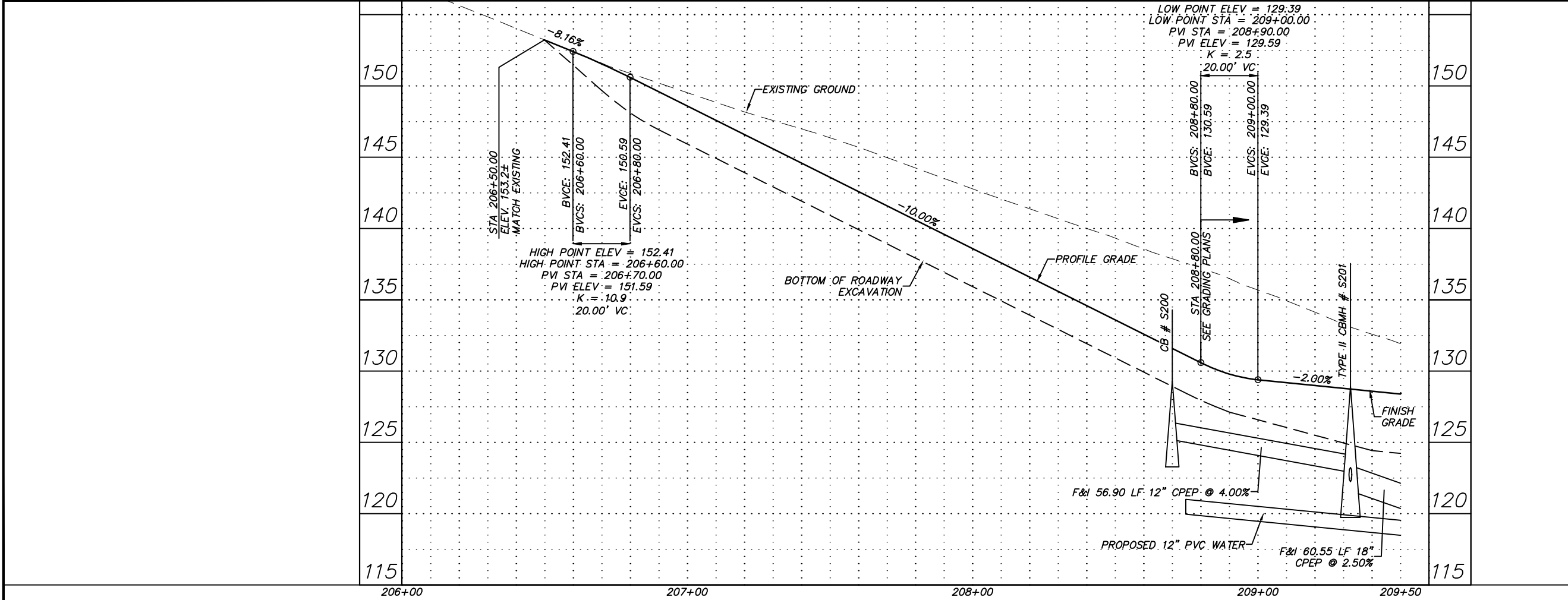
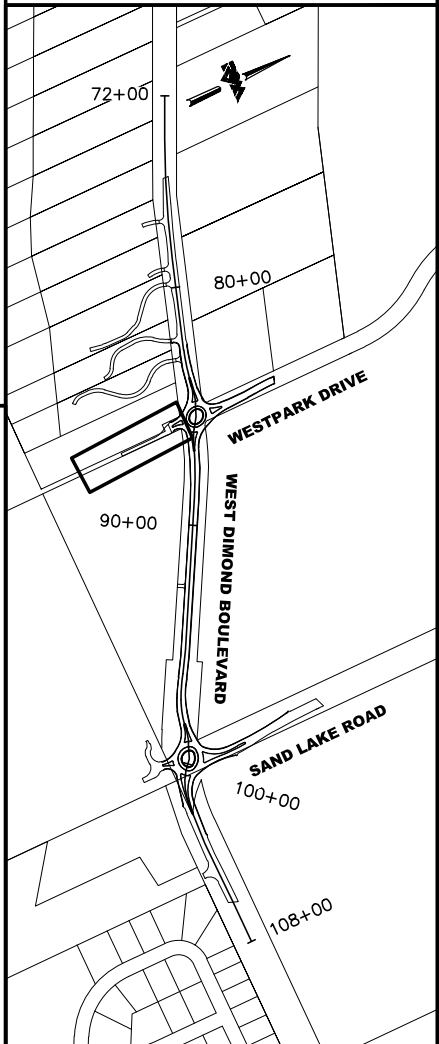
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OTHER UTILITIES NEED TO BE
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KEYMAP

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0 20 40
SCALE IN FEET

FIELD BOOKS	BM NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	REV	DATE	DESCRIPTION	BY
DESIGN				BASE			TELEPHONE										
STAKING				TOPOGRAPHY			ELECTRIC										
ASBUILT				PROFILE			CABLE TV										
CONTRACTOR				SANITARY SEWER			DESIGN										
INSPECTOR				STORM SEWER			QUANTITIES										
CONSTRUCTION RECORD				WATER			MUN. FINAL CHK.										
				GAS													
BASIS OF THIS DATUM				PLAN CHECK				REVISIONS				CONSULTANT				SEAL	
VERTICAL DATUM																	

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STATE OF ALASKA

49 TH

Marc Frutiger
No. CE 11888
REGISTERED PROFESSIONAL ENGINEER

MUNICIPALITY OF ANCHORAGE

ANCHORAGE, ALASKA

PROJECT MANAGEMENT AND
ENGINEERING DIVISION

05-05 WEST DIMOND BOULEVARD UPGRADE
PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD

**PLAN AND PROFILE
WESTPARK DRIVE - STA 206+50 TO STA 209+50**

SCALE 1:20 H DATE 1/30/15 GRID 2323 2324
1:4 V ACCT. NO. 2423 2424 SHEET 42 of 106

Plotted: 1/30/2015 9:52 AM File Location: Z:\project\317.01- West Dimond Blvd\Engineering\Acad\317-E-P&Ps.dwg




55.05 – STORM DRAIN STRUCTURES							
SHEET	NO.	TYPE	STATION	OFFSET	RIM/ LIP OF CURB ELEVATION	INVERTS	REMARKS
37	S1	CB	85+21.24	54.03 RT	127.65	P12=123.60	TYPE I CURB INLET @ STA: 85+21.26, OFF: 53.99' RT
37	S2	TYPE II CBMH	86+04.82	37.53 LT	128.03	P11=119.03 P13=118.96 P203=119.10	TYPE I CURB INLET @ STA: 86+04.35, OFF: 36.67' LT
37	S3	TYPE II CBMH	86+22.77	7.63 RT	129.03	P202=120.30 P203=120.15	EXPRESSWAY CURB INLET @ STA: 86+22.95, OFF: 8.55' RT
38	S4	CB	89+10.00	25.31 RT	126.72	P14=122.64	BEEHIVE INTAKE COVER @ STA: 89+09.50, OFF: 24.40' RT
38	S5	TYPE I SDMH	89+10.00	21.50 LT	128.39	P15=118.01 P13=118.07 P14=120.93	SOLID COVER
38	S6	CB	91+25.00	18.04 RT	123.70	P16=119.62	TYPE I CURB INLET @ STA: 91+25.00, OFF: 18.00' RT
38	S7	TYPE II CBMH	91+25.00	18.94 LT	123.70	P16=118.34 P15=117.38 P17=117.31	TYPE I CURB INLET @ STA: 91+25.00, OFF: 18.00' LT
39	S8	CB	93+65.00	18.04 RT	121.99	P20=117.94	TYPE I CURB INLET @ STA: 93+65.00, OFF: 18.00' RT
39	S9	TYPE II CBMH	93+65.00	18.94 LT	121.99	P17=116.61 P19=116.54 P20=117.17	TYPE I CURB INLET @ STA: 93+65.00, OFF: 18.00' LT
39	S10	OGS	94+21.48	12.29 RT	121.65	P32=110.89 P21=110.82	SOLID COVERS, SEE DETAIL 4, SHEET 66
39	S11	TYPE III 96" SDMH	94+27.00	23.12 RT	122.04	P33=110.80 P21=110.81	SOLID COVER
39	S12	TYPE II SDMH	94+35.71	20.92 LT	122.06	P36=111.55 P19=116.35 P30=111.03	SOLID COVER. P19 – CONSTRUCT DROP STORM DRAIN CONNECTION
39	S13	TYPE II BYPASS SDMH	94+35.71	10.92 LT	121.57	P32=110.95 P30=111.02 P31=110.95	SOLID COVER @ STA: 94+34.30, OFF: 12.28' LT
39	S14	TYPE I SDMH	94+44.55	5.50 LT	121.63	P31=110.93 P33=110.88	SOLID COVER @ STA: 94+45.48, OFF: 5.50' LT
39	S15	CB	95+70.00	42.92 RT	117.92	P34=113.86	BEEHIVE INTAKE COVER @ STA: 95+69.46, OFF: 42.02' RT
39	S16	TYPE II CBMH	96+04.00	18.94 RT	120.50	P34=112.80 P35=112.20	TYPE I CURB INLET @ STA: 96+04.00, OFF: 18.00' RT
39	S17	TYPE II CBMH	96+04.00	18.94 LT	120.50	P38=112.11 P35=112.11 P36=112.04	TYPE I CURB INLET @ STA: 96+04.00, OFF: 18.00' LT
39	S18	CB	96+60.00	57.12 RT	118.45	P37=114.34	BEEHIVE INTAKE COVER @ STA: 96+60.00, OFF: 56.08' RT
39	S19	TYPE I SDMH	96+60.00	28.78 RT	118.58	P39=112.46 P37=113.41	BEEHIVE INTAKE COVER @ STA: 96+60.00, OFF: 27.77' RT
39	S20	CB	96+60.00	33.29 LT	117.09	P40=113.05	BEEHIVE INTAKE COVER @ STA: 96+60.00, OFF: 32.25' LT
39	S21	TYPE I SDMH	96+60.00	21.00 LT	121.15	P39=112.33 P40=112.86 P41=112.34 P38=112.26	SOLID COVER
40	S22	TYPE II CBMH	98+42.40	1.55 LT	121.90	P42=114.04 P41=113.95	EXPRESSWAY CURB INLET @ STA: 98+42.35, OFF: 2.49' LT
40	S23	TYPE II CBMH	99+32.54	11.95 RT	122.29	P44=114.36 P42=114.29 P45=116.56	TRUCK APRON CURB INLET @ STA: 99+31.65, OFF: 12.24' RT
46	S24	CB	99+57.78	159.20 LT	119.40	P43=115.39	EXPRESSWAY CURB INLET @ STA: 99+57.74, OFF: 159.19' LT

55.05 – STORM DRAIN STRUCTURES							
SHEET	NO.	TYPE	STATION	OFFSET	RIM/ LIP OF CURB ELEVATION	INVERTS	REMARKS
40	S25	TYPE II CBMH	99+67.58	35.25 LT	121.32	P46=114.61 P44=114.52 P43=115.04	TRUCK APRON CURB INLET @ STA: 99+67.47, OFF: 36.18' LT
40	S26	TYPE II CBMH	100+19.09	22.67 LT	122.32	P47=115.35 P46=115.24	TRUCK APRON CURB INLET @ STA: 100+19.87, OFF: 23.29' LT
40	S27	TYPE II CBMH	100+57.14	42.52 LT	122.59	P48=115.81 P47=115.70	TYPE I CURB INLET @ STA: 100+56.64, OFF: 41.68' LT
40	S28	TYPE II CBMH	101+00.53	25.28 RT	122.75	P49=117.17 P48=116.61	TYPE I CURB INLET @ STA: 101+00.42, OFF: 24.35' RT
40	S29	CB	101+24.32	44.61 RT	121.48	P49=117.46	BEEHIVE INTAKE COVER @ STA: 101+24.12, OFF: 43.59' RT
42	S200	CB	86+23.01	88.90 RT	129.29	P201=125.20	BEEHIVE INTAKE COVER @ STA: 86+22.67, OFF: 87.98' RT
42	S201	TYPE II CBMH	85+86.67	54.25 RT	128.94	P201=123.12 P202=121.66 P12=122.32	EXPRESSWAY CURB INLET @ STA: 85+87.59, OFF: 54.08' RT
37	S202	CB	84+36.52	2.00 RT	125.13	P9=120.86	EXPRESSWAY CURB INLET @ STA: 84+36.51, OFF: 2.04' RT
37	S203	TYPE II CBMH	84+42.99	3.32 LT	125.11	P9=120.72 P10=119.58	EXPRESSWAY CURB INLET @ STA: 84+42.89, OFF: 4.28' LT
43	S204	TYPE II CBMH	85+11.75	25.39 LT	125.49	P204=119.38 P11=119.31 P10=119.37	TRUCK APRON CURB INLET @ STA: 85+10.98, OFF: 25.94' LT
43	S205	TYPE II CBMH	85+15.06	94.45 LT	125.29	P205=121.11 P204=119.57	EXPRESSWAY CURB INLET @ STA: 85+14.13, OFF: 94.29' LT
43	S206	CB	85+17.70	101.16 LT	125.35	P205=121.20	EXPRESSWAY CURB INLET @ STA: 85+17.73, OFF: 101.18' LT
45	S301	CB	99+93.84	79.29 RT	123.49	P45=119.41	TYPE I CURB INLET @ STA: 99+93.86, OFF: 79.26' RT
46	S302	CB	99+02.02	273.30 LT	117.52	P301=114.51	TYPE I CURB INLET @ STA: 99+02.04, OFF: 273.31' LT

NOTES:

1. STATION OFFSET VALUES IN THE TABLE REFER TO THE CENTER OF THE STRUCTURE.
2. INVERT VALUES SHOWN IN THE TABLE REFER TO THE OUTSIDE WALL OF THE STRUCTURE.
3. TYPE I CURB INLET, EXPRESSWAY CURB INLET, AND TRUCK APRON CURB INLET STATION/OFFSET VALUES REFER TO THE TOP BACK & MIDPOINT OF CURB BOX. BEEHIVE INTAKE AND SOLID COVER STATION OFFSET VALUES REFER TO THE CENTER OF THE COVER.

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																				PROJECT MANAGEMENT AND ENGINEERING DIVISION													
FIELD BOOKS		BM NO.	LOCATION		ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION		BY	REV	DATE	DESCRIPTION		BY												
DESIGN						BASE			TELEPHONE																								
STAKING						TOPOGRAPHY			ELECTRIC																								
						PROFILE			CABLE TV																								
						SANITARY SEWER			DESIGN																								
ASBUILT						STORM SEWER			QUANTITIES																								
CONTRACTOR		BASIS OF THIS DATUM				WATER			MUN. FINAL CHK.																								
INSPECTOR						GAS																											
CONSTRUCTION RECORD		VERTICAL DATUM				PLAN CHECK				REVISIONS										CONSULTANT		SEAL											
05-05 WEST DIMOND BOULEVARD UPGRADE PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD STORM DRAIN STRUCTURES SUMMARY TABLE																						SCALE		DATE 1/30/15		GRID		2323 2324 2423 2424		SHEET 47 of 106			




Plotted: 1/30/2015 9:53 AM File Location: Z:\project\1317.01- West Dimond Blvd\Engineering\Acad\1317-E-P&Ps.dwg

55.02 – STORM DRAIN PIPES											
SHEET NO.	NO.	DIAMETER & TYPE	LENGTH (FT)	INLET STRUCTURE	INLET INVERT ELEVATION	OUTLET STRUCTURE	OUTLET INVERT ELEVATION	SLOPE	REMARKS		
37	P9	12" CPEP	8.38	S202	120.86	S203	120.72	4.00%			
37	P10	18" CPEP	74.44	S203	119.58	S204	119.37	0.30%			
37	P11	18" CPEP	99.01	S204	119.31	S2	119.03	0.30%			
37	P12	12" CPEP	53.10	S1	123.60	S201	122.32	2.66%			
37	P13	18" CPEP	301.49	S2	118.96	S5	118.07	0.30%			
38	P14	12" CPEP	46.81	S4	122.64	S5	120.93	4.00%			
38	P15	18" CPEP	215.02	S5	118.01	S7	117.38	0.30%			
38	P16	12" CPEP	36.98	S6	119.62	S7	118.34	4.00%			
38	P17	18" CPEP	240.00	S7	117.31	S9	116.61	0.30%			
39	P19	18" CPEP	70.73	S9	116.54	S12	116.35	0.30%			
39	P20	12" CPEP	36.98	S8	117.94	S9	117.17	2.41%			
39	P21	24" CPEP	12.16	S10	110.82	S11	110.81	0.30%			
39	P30	24" CPEP	10.00	S12	111.03	S13	111.02	0.30%			
39	P31	18" CPEP	10.37	S13	110.95	S14	110.93	0.30%			
39	P32	24" CPEP	27.22	S13	110.95	S10	110.89	0.30%			
39	P33	18" CPEP	33.58	S14	110.88	S11	110.80	0.30%			
39	P34	12" CPEP	40.75	S15	113.86	S16	112.80	2.97%			
39	P35	18" CPEP	37.87	S16	112.20	S17	112.11	0.30%			
39	P36	18" CPEP	169.37	S17	112.04	S12	111.55	0.30%			
39	P37	12" CPEP	28.34	S18	114.34	S19	113.41	3.85%			
39	P38	18" CPEP	55.98	S21	112.26	S17	112.11	0.30%			
39	P39	18" CPEP	49.78	S19	112.46	S21	112.33	0.30%			
39	P40	12" CPEP	12.29	S20	113.05	S21	112.86	2.20%			
39	P41	18" CPEP	177.73	S22	113.95	S21	112.34	0.93%			
40	P42	18" CPEP	89.65	S23	114.29	S22	114.04	0.30%			
40	P43	12" CPEP	124.34	S24	115.39	S25	115.04	0.30%			
40	P44	18" CPEP	58.79	S25	114.52	S23	114.36	0.30%			
40	P45	12" CPEP	76.34	S301	119.41	S23	116.56	4.00%			
40	P46	18" CPEP	62.59	S26	115.24	S25	114.61	1.10%			
40	P47	18" CPEP	38.04	S27	115.70	S26	115.35	1.09%			
40	P48	18" CPEP	79.32	S28	116.61	S27	115.81	1.09%			
40	P49	12" CPEP	33.58	S29	117.46	S28	117.17	1.00%			
42	P201	12" CPEP	56.90	S200	125.20	S201	123.12	4.00%			
42	P202	18" CPEP	60.55	S201	121.66	S3	120.30	2.50%			
43	P203	18" CPEP	48.07	S3	120.15	S2	119.10	2.50%			
43	P204	18" CPEP	69.13	S205	119.57	S204	119.38	0.30%			
43	P205	12" CPEP	7.21	S206	121.20	S205	121.11	4.00%			
46	P301	12" CPEP	46.89	S302	114.51		114.38	0.30%	ADD FLARED END SECTION		

55.20 – CULVERTS											
SHEET NO.	NO.	DIAMETER & TYPE	LENGTH (FT)	INLET STATION	INLET OFFSET	INLET INVERT ELEVATION	OUTLET STATION	OUTLET OFFSET	OUTLET INVERT ELEVATION	SLOPE	REMARKS
35	P5	18" CMP	11.63	76+87.86	81.75 RT	98.16	76+99.23	82.62 RT	97.92	2.08%	SEE NOTE 4
35	P6	18" CMP	11.53	77+50.38	86.95 RT	96.83	77+61.63	87.99 RT	96.59	2.08%	SEE NOTE 4
36	P7	18" CPEP	45.51	82+38.75	26.18 RT	114.90	81+93.24	26.16 RT	112.76	4.70%	ADD FLARED END SECTIONS
36	P8	18" CPEP	48.40	83+24.66	24.53 RT	118.41	82+77.88	24.38 RT	115.84	5.30%	ADD FLARED END SECTIONS
38	P18	18" CPEP	30.00	92+40.48	42.00 RT	120.21	92+70.48	42.00 RT	119.99	0.73%	ADD FLARED END SECTIONS
41	P50	12" CPEP	26.90	102+81.26	44.70 LT	119.94	102+53.89	43.78 LT	119.86	0.30%	ADD FLARED END SECTIONS

- NOTES:
1. INVERT VALUES SHOWN IN THE TABLE REFER TO THE INSIDE WALL OF THE STRUCTURE, IF APPLICABLE.
 2. STORM DRAIN PIPE LENGTHS ARE BASED ON THE HORIZONTAL DISTANCE BETWEEN THE CENTER OF CONNECTING STRUCTURES (WHERE APPLICABLE).
 3. CULVERT LENGTHS DO NOT INCLUDE LENGTH OF FLARED END SECTIONS. FLARED END SECTIONS ARE INCIDENTAL.
 4. EXTEND EXISTING 18" CMP DRIVEWAY CULVERT TO TOE OF FILL SLOPE. ADD FLARED END SECTIONS TO BOTH ENDS.

95% DESIGN
JANUARY 2015

												 R&M Consultants, Inc. 9101 Vanguard Drive Anchorage, Alaska 99507 907 522 1707 voice 907 522 3404 fax www.rmconsult.com				 Marc Frutiger No. CE 11888 REGISTERED PROFESSIONAL ENGINEER				PROJECT MANAGEMENT AND ENGINEERING DIVISION							
FIELD BOOKS		BM NO.	LOCATION		ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION		BY	REV	DATE	DESCRIPTION		BY						
DESIGN						BASE			TELEPHONE																		
STAKING						TOPOGRAPHY			ELECTRIC																		
						PROFILE			CABLE TV																		
						SANITARY SEWER			DESIGN																		
ASBUILT						STORM SEWER			QUANTITIES																		
CONTRACTOR		BASIS OF THIS DATUM				WATER			MUN. FINAL CHK.																		
INSPECTOR						GAS																					
CONSTRUCTION RECORD		VERTICAL DATUM				PLAN CHECK				REVISIONS												CONSULTANT		SEAL			

05-05

WEST DIMOND BOULEVARD UPGRADE
PHASE I: WESTPARK DRIVE TO SAND LAKE ROAD

STORM DRAIN PIPES
SUMMARY TABLE

SCALE

DATE 1/30/15
ACCT. NO.

GRID 2323 2324
2423 2424

SHEET 48 of 106

Plotted: 1/30/2015 9:53 AM File Location: Z:\project\317.01- West Dimond Blvd\Engineering\Acad\317-E-P&Ps.dwg

LAYOUT POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	312035.73	329136.46		END TAPER, PC, R=20'
101	312010.62	329146.84		PT, END OF PAVEMENT
102	312005.77	329159.97		PT, END OF PAVEMENT
103	312018.24	329183.56		BEGIN TAPER, PC, R=20'
104	312008.02	329224.62		END TAPER
105	311986.63	329286.90		BEGIN TAPER
106	311969.46	329325.51		END TAPER, PC, R=20'
107	311944.97	329336.40		PT, END OF PAVEMENT
108	311940.71	329349.74		PT, END OF PAVEMENT
109	311953.50	329374.96		PC, R=20'
110	311950.97	329382.69		PC, R=20'
111	311925.75	329395.48		PT, END OF PAVEMENT
112	311921.30	329408.76		PT, END OF PAVEMENT
113	311934.61	329432.06		BEGIN TAPER, PC, R=20'
114	311925.55	329473.28		END TAPER
115	311894.06	329569.52		BEGIN TAPER
116	311877.02	329608.12		END TAPER, PC, R=20'
117	311852.50	329619.05		PT
118	311846.49	329617.08		END OF PAVEMENT
124	311855.02	329684.03		PC, R=20'
125	311830.46	329698.09		PT
126	311828.86	329697.65		END OF PAVEMENT
127	311825.17	329711.16		PT, END OF PAVEMENT
128	311839.18	329735.80		PC
154	311683.23	329933.76		PT, END OF PAVEMENT
155	311656.42	329944.52		PRC, R=100'
156	311606.28	329958.08		PC, R=100'
157	311899.55	329649.01		BEGIN TAPER
184	311661.51	329972.00		PC, R=100'
185	311683.23	329969.59		PT, END OF PAVEMENT
199	311622.49	330281.82		PT
200	312103.12	329967.05	118.80	
201	312083.43	329968.27	119.88	
228	311663.66	330273.27		PT
252	311053.60	331190.70		PCC
253	311033.60	331164.01		MIDPOINT
254	311040.77	331131.44		PRC, R=40'
255	311047.22	331118.65		MIDPOINT
256	311048.75	331104.41		PC, R=40'
257	311047.60	331088.74		END OF PAVEMENT
258	311038.04	331088.74		PT, END OF PAVEMENT
259	311034.79	331104.80		MIDPOINT
260	311025.38	331118.21		PRC, R=40'
261	311016.06	331131.42		MIDPOINT
262	311012.73	331147.23		PC, R=40'

LAYOUT POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
263	311012.58	331181.63		PT
264	311000.81	331209.80		MIDPOINT
265	310972.58	331221.46		PC, R=40'
266	310959.41	331221.46		END OF PAVEMENT
293	311475.33	331250.62		MIDPOINT
294	311610.15	331233.47		BIKE RAMP
295	311617.95	331232.06		PT, BEGIN CURB TERMINATION TRANSITION
296	311628.27	331227.79		END CURB TERMINATION TRANSITION
297	311637.35	331231.21		END TAPER
298	310959.41	331241.46		END OF PAVEMENT
299	310983.68	331241.46		MIDPOINT
300	311007.94	331241.46		PC, R=40'
301	311019.89	331239.63		MIDPOINT
302	311030.74	331234.32		PRC, R=40'
303	311037.71	331230.45		MIDPOINT
304	311045.31	331228.04		PCC
324	311059.97	331597.38		PC
325	311059.32	331646.91		PRC, R=40'
326	311019.32	331687.03		PT, END OF PAVEMENT, ME
327	311019.32	331711.03		END OF PAVEMENT, ME
328	311022.48	331711.03		PT
329	311062.46	331749.67		PC, R=40'
330	311536.70	331277.38		PCC, R=980'
331	311493.25	331281.91		MIDPOINT
332	311450.05	331288.36		PRC, R=620'
362	311101.62	331559.27		END TAPER, PC, R=1493'
363	311099.32	331636.54		MIDPOINT
364	311101.02	331713.84		PT
700	311829.93	329752.11		BEGIN PATHWAY
701	311705.18	329923.98		END PATHWAY
702	311874.37	329789.59		BEGIN PATHWAY
703	311862.81	329862.55		PATHWAY
704	311875.57	329882.93		PATHWAY SHOULDER
705	311920.14	329924.87		PATHWAY SHOULDER
706	311963.75	329929.61		BEGIN TAPER
707	311983.68	329932.05		END TAPER
708	312052.55	329937.69		BEGIN TAPER
709	312090.53	329937.72		END TAPER
710	311703.49	329971.43		BEGIN PATHWAY
711	311712.50	330064.10		BEGIN TAPER
712	311702.12	330086.68		END TAPER
713	311673.91	330156.42		PC, R=200'
714	311667.10	330170.55		MIDPOINT
715	311659.21	330184.09		PRC, R=1000'
716	311614.35	330262.16		MIDPOINT




LAYOUT POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
717	311576.68	330343.95		PRC, R=200'
718	311572.06	330354.45		MIDPOINT
719	311566.83	330364.67		PT
720	311681.27	330148.16	130.69	BEGIN SWALE
721	311620.81	330266.48	126.72	SWALE POINT
722	311566.08	330373.33	125.58	END SWALE
723	312534.41	329972.55	95.08	CURB RAMP
724	312528.84	329987.00	94.74	BEGIN SIDEWALK, BEGIN TAPER
725	312519.58	329978.04	95.18	END TAPER
726	311972.92	329986.93		BEGIN TAPER
727	311959.44	329992.59		END TAPER, END SIDEWALK, BEGIN PATHWAY
728	311739.83	330135.28		BEGIN TAPER
729	311724.23	330175.52		PC, R=60'
730	311722.11	330180.34		PCC
731	311314.38	330825.42		BEGIN TAPER, PC, R=208'
732	311296.10	330853.25		MIDPOINT
733	311273.61	330877.80		PRC, R=192'
734	311238.22	330922.15		MIDPOINT
735	311217.34	330974.90		PT
736	311203.63	331033.85		END TAPER
737	311073.25	331190.05		END PATHWAY
738	311265.56	330901.40	121.29	BEGIN SWALE
739	311253.72	330918.59	118.58	SWALE LOW POINT
740	311208.58	331024.94	121.48	END SWALE
741	311288.07	330835.64	117.92	DITCH LOW POINT
742	311248.48	330890.01	121.78	DITCH HIGH POINT
743	311229.69	330903.63	118.42	DITCH LOW POINT
744	311165.35	331127.59	122.79	END DITCH
745	311358.23	330849.45		BEGIN TAPER, PC, R=110'
746	311351.36	330864.59		MIDPOINT
747	311346.86	330880.60		PRC, R=290'
748	311320.99	330954.97		MIDPOINT
749	311276.07	331019.64		PRC, R=110'
750	311260.72	331040.97		MIDPOINT
751	311250.88	331065.33		END TAPER, PT
752	311239.10	331114.94		PC, R=60'
753	311237.95	331121.39		MIDPOINT
754	311237.51	331127.93		PCC
755	311268.82	331223.76		BEGIN TAPER
756	311274.68	331227.14		PC, R=58'
757	311310.21	331234.52		MIDPOINT
758	311343.17	331219.35		PRC, R=60'
759	311362.32	331207.33		MIDPOINT
760	311384.56	331203.26		PT, END PATHWAY
761	311272.98	331216.38		PC, R=50'

LAYOUT POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
762	311305.95	331226.84		MIDPOINT
763	311337.82	331213.40		PRC, R=68'
764	311359.47	331199.73		MIDPOINT
765	311384.64	331195.04		PT, END PATHWAY
766	311353.89	330850.07	121.21	BEGIN SWALE
767	311304.68	330950.31	117.09	SWALE LOW POINT
768	311252.35	331047.96	121.71	END SWALE
769	311063.97	331234.30		BEGIN PATHWAY
770	311065.45	331372.88		END PATHWAY
771	311334.29	331301.49		BEGIN PATHWAY
772	311146.41	331334.79		PC, R=50'
773	311141.75	331346.34		MIDPOINT
774	311140.09	331358.69		PT, END PATHWAY, ME
775	311176.20	331319.48		PC, R=42'
776	311156.09	331334.67		MIDPOINT
777	311148.29	331358.64		PT, END PATHWAY, ME

NOTES:

1. TO DETERMINE ELEVATIONS NOT GIVEN, USE TYPICAL SECTIONS.
2. ELEVATIONS SHOWN ARE FINISHED GRADE, LIP OF CURB, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.

95% DESIGN
JANUARY 2015

																				PROJECT MANAGEMENT AND ENGINEERING DIVISION					
FIELD BOOKS		BM NO.	LOCATION		ELEV.	DATA		DRAWN BY	CHECKED BY	DATA		DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION		BY	REV	DATE	DESCRIPTION		BY		
DESIGN						BASE				TELEPHONE															
STAKING						TOPOGRAPHY				ELECTRIC															
						PROFILE				CABLE TV															
ASBUILT						SANITARY SEWER				DESIGN															
CONTRACTOR		BASIS OF THIS DATUM				STORM SEWER				QUANTITIES															
INSPECTOR						WATER				MUN. FINAL CHK.															
CONSTRUCTION RECORD		VERTICAL DATUM				GAS												REVISIONS				CONSULTANT		SEAL	
								PLAN CHECK																SCALE	DATE 1/30/15 GRID 2323 2324 2423 2424 SHEET 49 of 106