



# TYPICAL SECTIONS

## MATERIAL ITEM THICKNESS / TOLERANCE

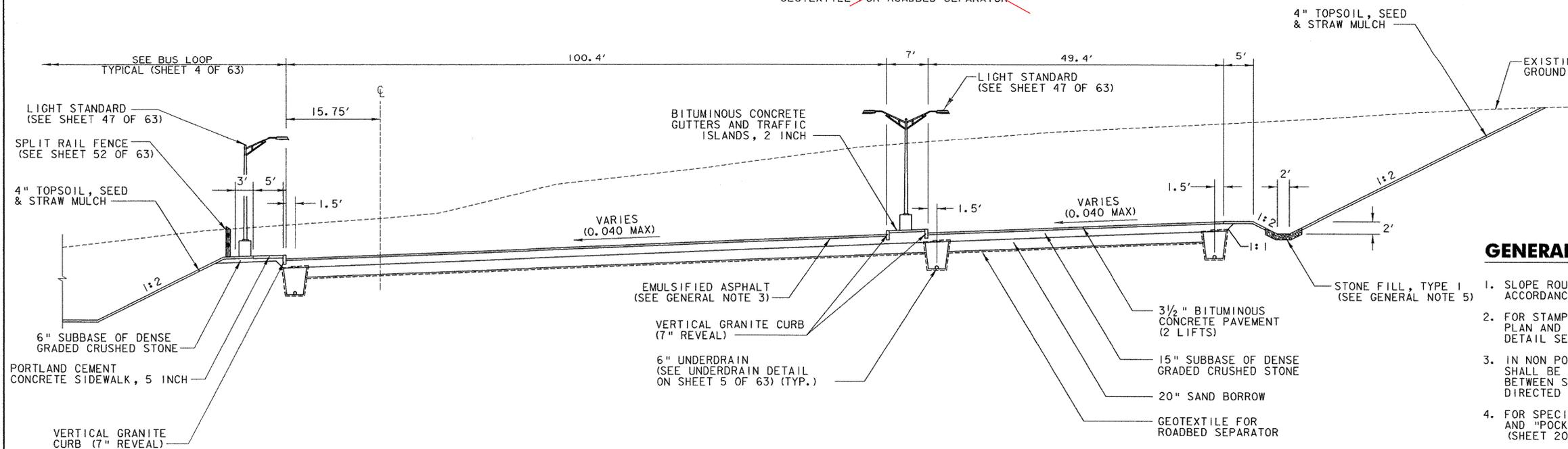
BITUMINOUS CONCRETE PAVEMENT	+/- 1/4" (TOTAL DEPTH)
SUBBASE OF DENSE GRADED CRUSHED STONE	+/- 1"
SAND BORROW	+/- 1"

## SEEDING FORMULA - RURAL AREAS

SEE LANDSCAPING DETAILS (SHEET 52 OF 63)

### ALTERNATE A:

- 1 3/4" BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE III)
- 1 3/4" BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE III)
- 15" SUBBASE OF DENSE GRADED CRUSHED STONE
- 20" SAND BORROW
- GEOTEXTILE FOR ROADBED SEPARATOR

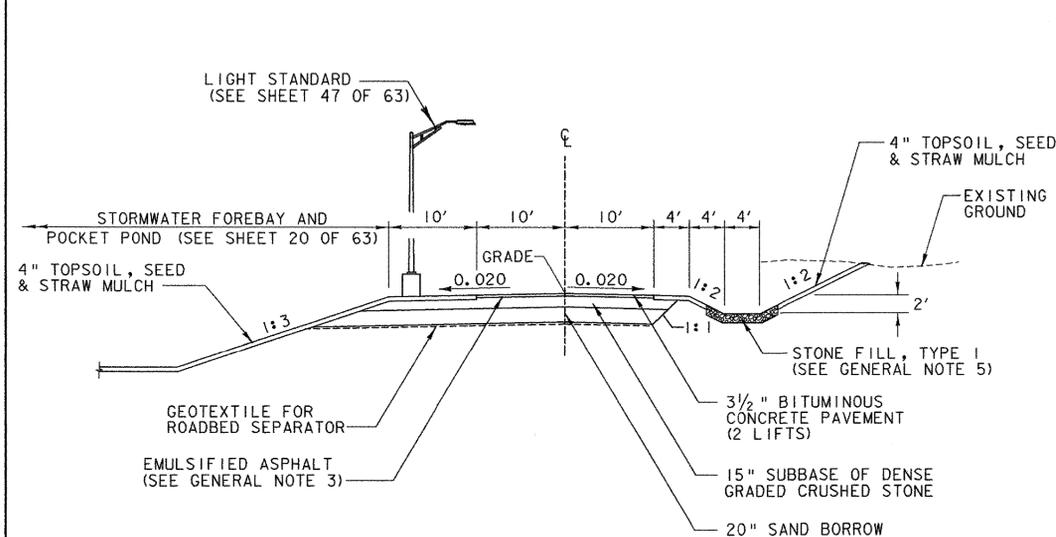


### GENERAL NOTES:

1. SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B-5.
2. FOR STAMPED CONCRETE ISLAND LOCATIONS, SEE LAYOUT PLAN AND LAYOUT POINTS (SHEETS 16 AND 17 OF 63). FOR DETAIL SEE SHEET 5 OF 63.
3. IN NON POROUS PAVEMENT AREAS EMULSIFIED ASPHALT SHALL BE APPLIED AT THE RATE OF 0.025 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT OR AS DIRECTED BY ENGINEER.
4. FOR SPECIFIC GRADING REQUIREMENTS WITHIN THE FOREBAY AND "POCKET POND", SEE THE GRADING AND DRAINAGE PLAN (SHEET 20 OF 63).
5. FOR DITCH PROTECTION LOCATIONS AND DETAILS, SEE THE DRAINAGE DETAILS (SHEETS 22-27 OF 63)

### PARKING LOT TYPICAL

NOT TO SCALE  
STA. 21+23 TO STA. 23+27



#### LEFT EDGE CONDITION

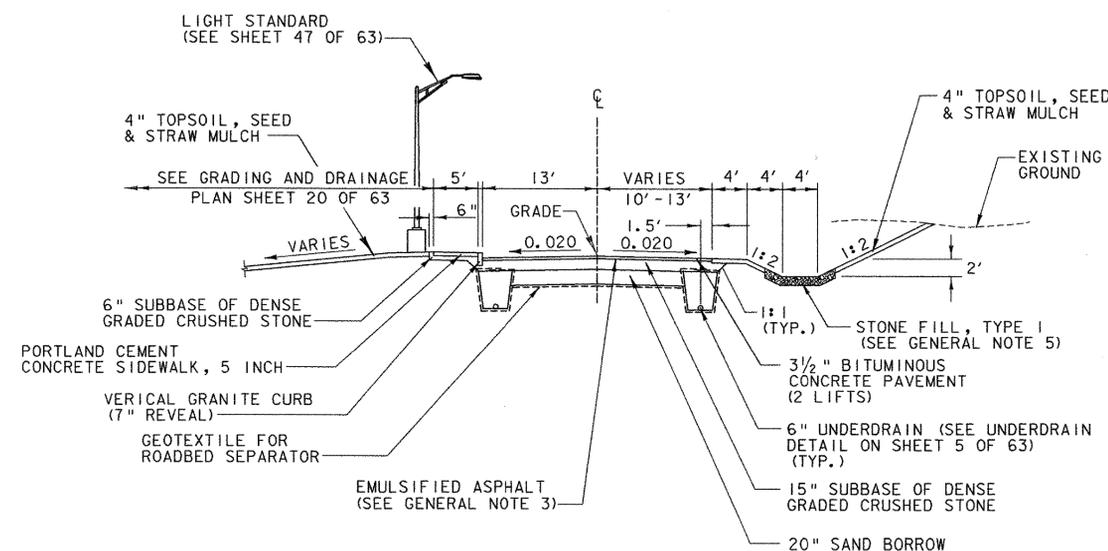
STA. 0+25 +/- TO STA. 0+75 +/-

#### RIGHT EDGE CONDITION

STA. 0+25 +/- TO STA. 0+60 +/-

### ACCESS ROAD TYPICAL 1

NOT TO SCALE



#### LEFT EDGE CONDITION

STA. 1+14 +/- TO STA. 1+85 +/-

#### RIGHT EDGE CONDITION

STA. 0+60 +/- TO STA. 3+42 +/-

### ACCESS ROAD TYPICAL 2

NOT TO SCALE

### ALTERNATE 'A'



Stantec

PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)IS

FILE NAME: ... \Plot+files\02\_zk000frm\_por.plot DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
TYPICAL SECTIONS SHEET 1 SHEET 2 OF 63

# TYPICAL SECTIONS

## ALTERNATE 'B'

4" - SPECIAL PROVISION (POROUS BITUMINOUS CONCRETE PAVEMENT)  
 2" - SPECIAL PROVISION (CHOKER COURSE, POROUS PAVEMENT)  
 36" MIN - SPECIAL PROVISION (SUBBASE, POROUS PAVEMENT)  
 GEOTEXTILE FOR ROADBED SEPERATOR

## ALTERNATE 'C'

6" - SPECIAL PROVISION (POROUS PORTLAND CEMENT CONCRETE PAVEMENT)  
 2" - SPECIAL PROVISION (CHOKER COURSE, POROUS PAVEMENT)  
 34" MIN - SPECIAL PROVISION (SUBBASE, POROUS PAVEMENT)  
 GEOTEXTILE FOR ROADBED SEPERATOR

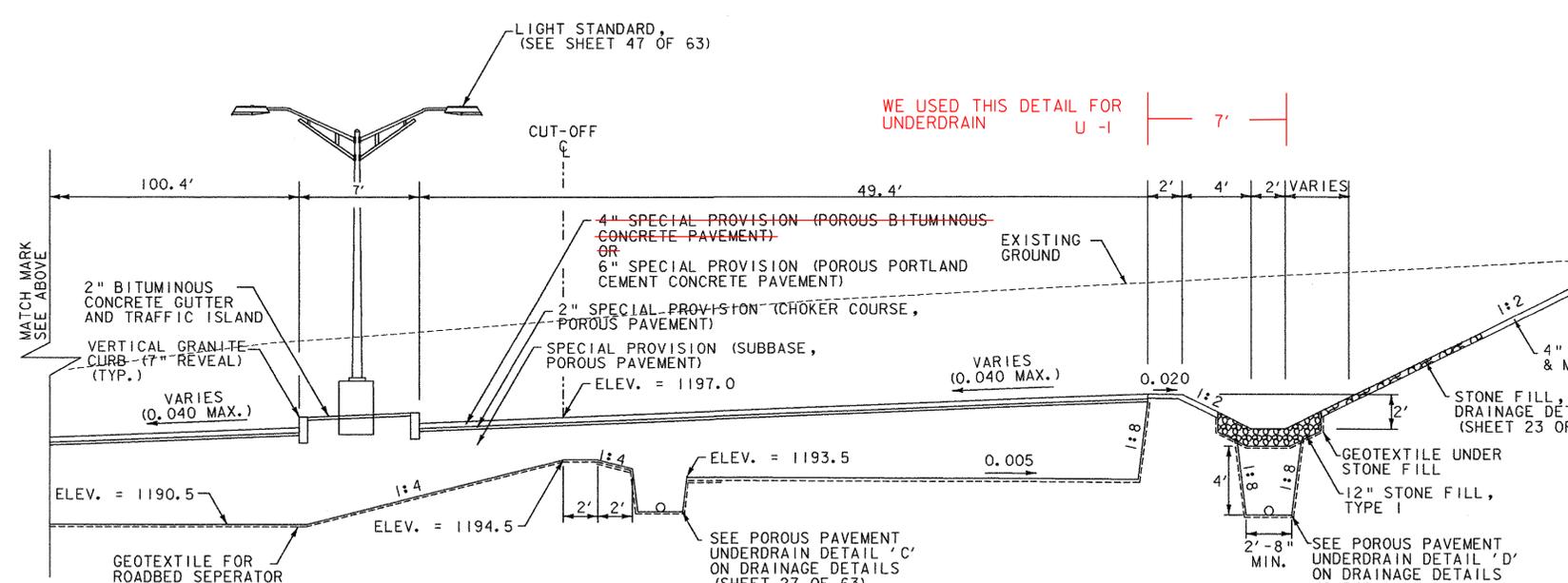
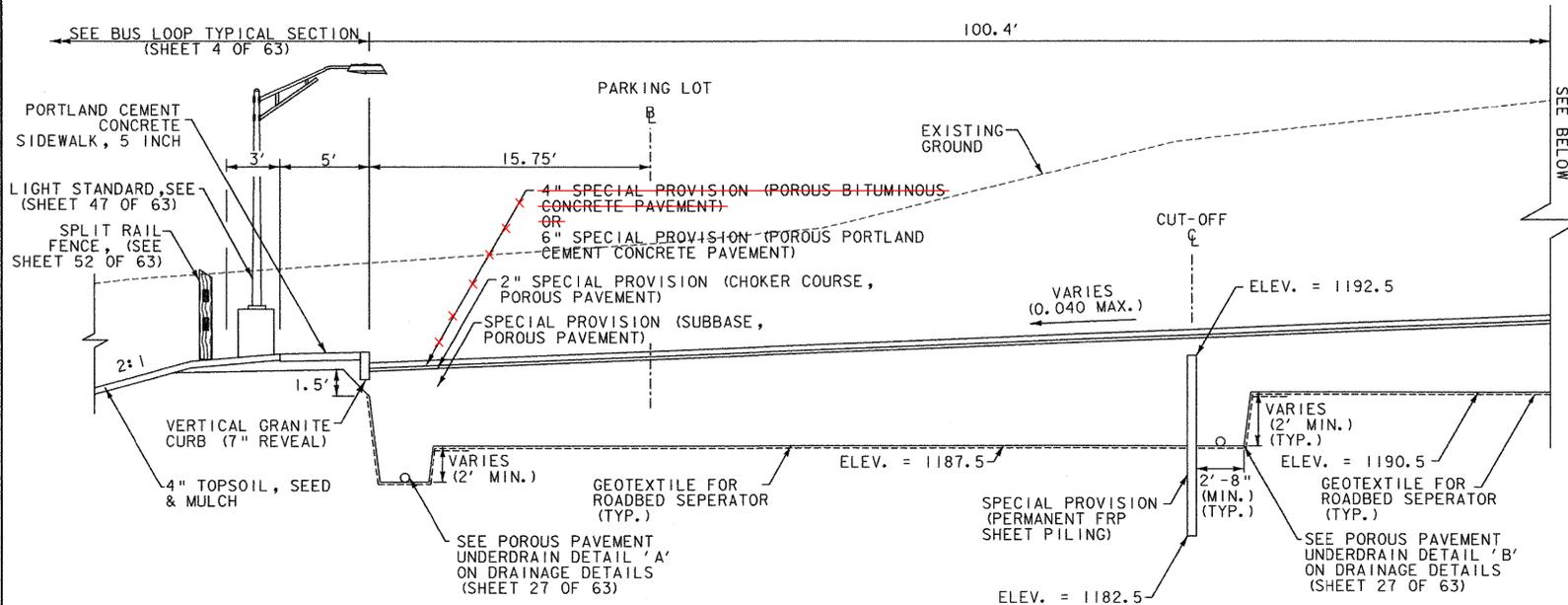
### MATERIAL ITEM THICKNESS / TOLERANCE

(SEE SHEET 2 OF 63)

### SEEDING FORMULA - RURAL AREAS

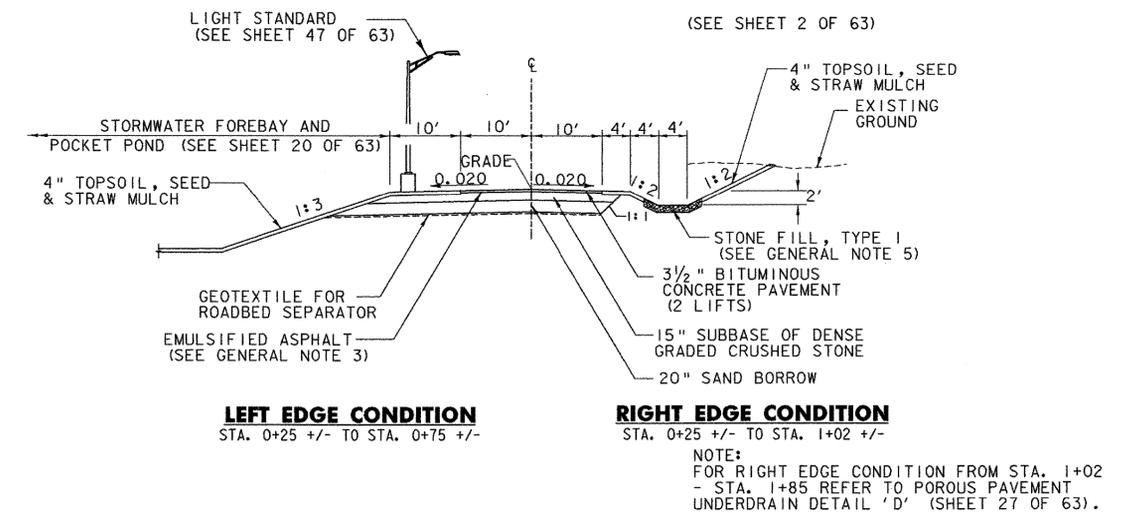
SEE LANDSCAPING DETAILS (SHEET 52 OF 63)

### GENERAL NOTES:

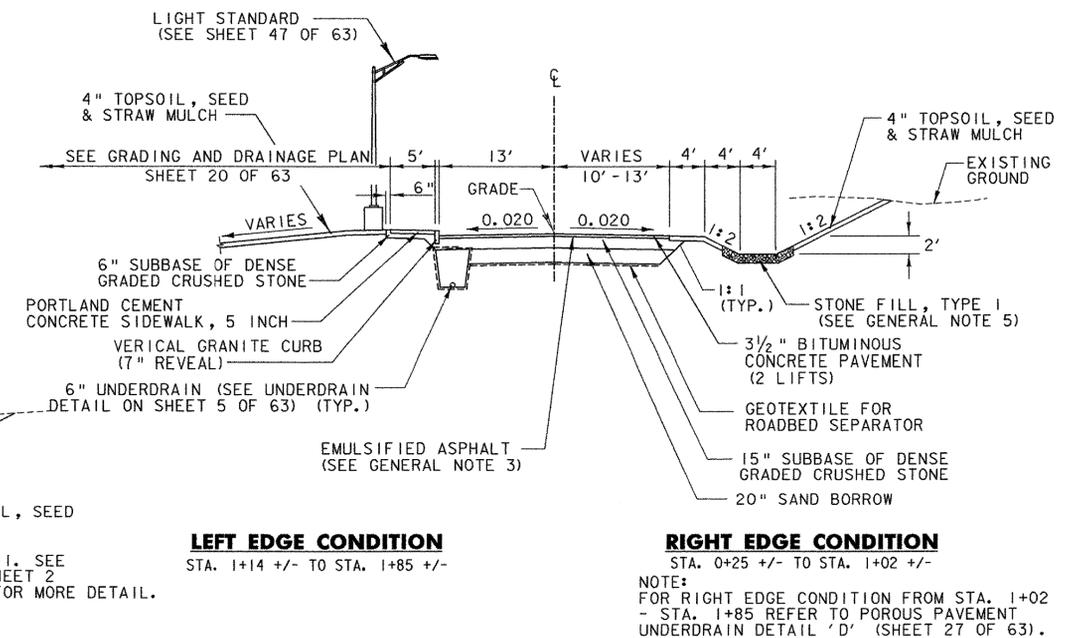


**PARKING LOT TYPICAL SECTION  
ALTERNATE 'B' AND 'C'**

STA. 21+23 TO STA. 23+27  
NOT TO SCALE



**ACCESS ROAD TYPICAL 1**  
NOT TO SCALE



**ACCESS ROAD TYPICAL 2**  
NOT TO SCALE

### ALTERNATES 'B' AND 'C'



PROJECT NAME: RANDOLPH  
 PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...\\plotfiles\02\_zk000frm\_por.p... DATE: 8/3/2007  
 PROJECT LEADER: WLD DRAWN BY: STANTEC  
 DESIGNED BY: STANTEC CHECKED BY: GAS  
**TYPICAL SECTIONS SHEET 1** SHEET 3 OF 63





# QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
			ALTERNATE A	ALTERNATE B	ALTERNATE C	PARK-AND- RIDE	LANDSCAPIN G	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1				1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-			ITEM 204.25 - STRUCTURAL EXCAVATION
						0.5				0.5		ACRE	THINNING AND TRIMMING	201.30	0.32	3	CY	DRAINAGE
						10				10		CY	STRUCTURE EXCAVATION	204.25	-	5	CY	BUS SHELTER FOOTING
						10				10		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	-	8	CY	SUBTOTAL
						1900				1900		LB	REINFORCING STEEL	507.15	-	2	CY	ROUNDING
						1				1		GAL	WATER REPELLENT, SILANE	514.10	0.6	10	CY	TOTAL
						60				60		LF	METAL HAND RAILING	525.15	4			ITEM 204.30 - GRANULAR BACKFILL FOR STRUCTURES
						30				30		CY	CONCRETE, CLASS B	541.25	-	3	CY	DRAINAGE
						2				2		EACH	12" CPEPES	601.7005	-	5	CY	BUS SHELTER FOOTING
						4				4		EACH	18" CPEPES	601.7015	-	8	CY	SUBTOTAL
						1				1		EACH	CONCRETE MANHOLE WITH CAST IRON COVER	604.11	-	2	CY	ROUNDING
						4				4		EACH	CAST IRON GRATE WITH FRAME, TYPE A	604.45	-	10	CY	TOTAL
						10				10		HR	POWER GRADER RENTAL	608.15	EST.			ITEM 507.15 - REINFORCING STEEL
						10				10		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.	312	LBS	CONCRETE STAIRS
						10				10		HR	POWER BROOM RENTAL, TYPE I	608.30	EST.	134	LBS	BUS SHELTER FOOTING
						10				10		HR	TRUCK RENTAL	608.37	EST.	621	LBS	ISLANDS
						10				10		HR	LOADER RENTAL, TYPE I	608.40	EST.	824	LBS	DRAINAGE
						220				220		MGAL	DUST CONTROL WITH WATER	609.10	8	1891	LBS	SUBTOTAL
						5				5		TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	4	9	LBS	ROUNDING
						390				390		CY	STONE FILL, TYPE I	613.10	4	1900	LBS	TOTAL
						340				340		CY	STONE FILL, TYPE II	613.11	8			ITEM 541.25 - CONCRETE, CLASS B
						830				830		LF	VERTICAL GRANITE CURB	616.21	-	15	CY	STAIRS
						330				330		LF	REMOVING AND RESETTNG CURB	616.40	5	1.5	CY	FOOTING FOR BUS SHELTER
						56				56		LF	REMOVAL OF EXISTING CURB	616.41	-	9.8	CY	DRAINAGE
						15				15		TON	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	616.47	1	3.7	CY	ROUNDING
						280				280		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	6	30	CY	TOTAL
						80				80		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	618.11	9			ITEM 613.11 - STONE FILL, TYPE II
						5				-5-0		EA	<del>WOOD MARKER POSTS</del>	619.15	-	82	CY	DRAINAGE
						100				100		HR	UNIFORMED TRAFFIC OFFICERS	630.10	5	250	CY	ESTIMATED 1:2 CUT SLOPE STABILIZATION
						400				400		HR	FLAGGERS	630.15	EST.	332	CY	SUBTOTAL
									1	1		LS	FIELD OFFICE, ENGINEERS	631.10	-	8	CY	ROUNDING
									1	1		LS	TESTNG EQUIPMENT, CONCRETE	631.16	-	340	LF	BUS LOOP
									1	1		LS	TESTNG EQUIPMENT, BITUMINOUS	631.17	-	106	LF	ACCESS ROAD
									1	1		LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25	-	394	LF	ISLANDS
						1				1		LS	TRAFFIC CONTROL	641.10	-	148	LF	PARKING LOT
						3350				3350		LF	DURABLE 4 INCH WHITE LINE	646.400	6	824	LF	SUBTOTAL
						1750				1750		LF	DURABLE 4 INCH YELLOW LINE	646.410	7	6	LF	ROUNDING
						55				55		LF	DURABLE 24 INCH STOP BAR	646.480	3			ITEM 616.21 - VERTICAL GRANITE CURB
						33				33		EACH	DURABLE LETTER OR SYMBOL	646.490	-	176	LF	BUS LOOP
						430				430		LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	1	106	LF	ACCESS ROAD



PROJECT NAME: RANDOLPH  
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PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**QUANTITY SHEET 1** SHEET 6 OF 63

# QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
			ALTERNATE A	ALTERNATE B	ALTERNATE C	PARK-AND-RIDE	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						130				130		LF	PAINTED CURB	646.81	10			<b>ALTERNATE A</b>
						640				640		SF	PAINTED ISLAND	646.82	2			ITEM 203.31 - SAND BORROW
								1700		1700		SY	GEOTEXTILE UNDER STONE FILL	649.31	7	783	CY	BUS LOOP
								80		80		SY	GEOTEXTILE FOR SILT FENCE	649.51	5	382	CY	ACCESS ROAD
																2246	CY	PARKING LOT
																66	CY	LEFT TURN LANE
						360				360		LB	SEED	651.15	3	3478	CY	SUBTOTAL
						900				900		LB	FERTILIZER	651.18	9	22	CY	ROUNDING
						5				5		TON	AGRICULTURAL LIMESTONE	651.20	1	3500	CY	TOTAL
						725				725		CY	TOPSOIL	651.35	6			ITEM 204.20 - TRENCH EXCAVATION OF EARTH
								1		1		LS	EPSC PLAN	652.10	-	1271	CY	DRAINAGE
								200		200		HR	MONITORING EPSC PLAN	652.20	-	581	CY	UNDERDRAIN
								1		1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30	-	1852	CY	SUBTOTAL
								6450		6450		SY	TEMPORARY EROSION MATTING	653.20	44	8	CY	ROUNDING
						10				10		CY	TEMPORARY STONE CHECK DAMS, TYPE I	653.25	4	1860	CY	TOTAL
						40				40		CY	VEHICLE TRACKING PAD	653.35	1			ITEM 204.21 - TRENCH EXCAVATION OF ROCK
						6				6		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	-	7	CY	DRAINAGE
						1				1		EACH	FILTER BAG	653.45	-	193	CY	ESTIMATED
						1230				1230		LF	BARRIER FENCE	653.50	3	200	CY	SUBTOTAL
						1060				1060		LF	PROJECT DEMARCATION FENCE	653.55	9	0	CY	ROUNDING
						5				5		EACH	EVERGREEN TREES (SERBIAN SPRUCE)	656.20	-	200	CY	TOTAL
						28				28		EACH	DECIDUOUS TREES (RED MAPLE)	656.30	-			ITEM 301.35 - SUBBASE OF DENSE GRADED STONE
						108				108		SF	TRAFFIC SIGNS, TYPE A	675.20	-	586	CY	BUS LOOP
													BEGIN OPTION AA			286	CY	ACCESS ROAD
						356				356		LF	FLANGED CHANNEL SIGN POST	675.301	-	1681	CY	PARKING LOT
						356				356		LF	SQUARE TUBE SIGN POSTS AND ANCHOR	675.341	-	132	CY	LEFT TURN LANE
													END OPTION AA			7	CY	ISLAND 1
						11				11		EACH	REMOVING SIGNS	675.50	-	3	CY	BICYCLE RACK
						9				9		EACH	ERECTING SALVAGED SIGNS	675.60	-	2695	CY	SUBTOTAL
						1241				1241		LF	WIRED CONDUIT (2")(PVC)	678.23	-	5	CY	ROUNDING
						200				200		LF	WIRED CONDUIT (3")(PVC)	678.23	EST.	2700	CY	TOTAL
						4				4		EACH	JUNCTION BOX	678.26	-			ITEM 406.25 - BITUMINOUS CONCRETE PAVEMENT (PG 58-28)
						12				12		EACH	LIGHT POLE BASE	679.21	-	973	TON	SITE
						12				12		EACH	BREAKAWAY FEATURE FOR LIGHT POLE	679.23	-	55	TON	LEFT TURN LANE
						12				12		EACH	LIGHT POLE	679.45	-	1028	TON	SUBTOTAL
						13				13		EACH	BRACKET ARM	679.47	-	2	TON	ROUNDING
						13				13		EACH	LUMNAIRE	679.50	-	1030	TON	TOTAL
						1				1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			
						4				4		EACH	SPECIAL PROVISION (BICYCLE RACK)	900.620	-			
						1				1		EACH	SPECIAL PROVISION (POWER DROP STANCHION)	900.620	-			
						150				150		LF	SPECIAL PROVISION (SPLIT RAIL FENCE)	900.640	10			
						1				1		LS	SPECIAL PROVISION (BUS SHELTER)	900.645	-			



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 PROJECT DATE: 8/3/2007  
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 DESIGNED BY: STANTEC CHECKED BY: GAS  
**QUANTITY SHEET 2** SHEET 7 OF 63

# QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
			ALTERNATE A	ALTERNATE B	ALTERNATE C	PARK-AND-RIDE	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						60				60		SY	SPECIAL PROVISION (STAMPED CONCRETE ISLAND, 8 INCH)	900.675	8			<b>ALTERNATE B</b>
							4			4		TON	SPECIAL PROVISION (STRAW MULCH)	900.680	1			ITEM 203.31 - SAND BORROW
													<b>ALTERNATE A</b>					
			30500							30500		CY	COMMON EXCAVATION	203.15	376			783 CY BUS LOOP
			100							100		CY	SOLID ROCK EXCAVATION	203.16	EST.			382 CY ACCESS ROAD
			3500							3500		CY	SAND BORROW	203.31	-			0 CY PARKING LOT*
			1860							1860		CY	TRENCH EXCAVATION OF EARTH	204.20	-			66 CY LEFT TURN LANE
			200							200		CY	TRENCH EXCAVATION OF ROCK	204.21	EST.			1231 CY SUBTOTAL
			2700							2700		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	-			19 CY ROUNDING
			25							25		CWT	EMULSIFIED ASPHALT	404.65	3			1250 CY TOTAL
			1030							1030		TON	BITUMINOUS CONCRETE PAVEMENT (PG 58 - 28)	406.25	-			ITEM 204.20 - TRENCH EXCAVATION OF EARTH
			127							127		LF	12" CPEP(SL)	601.2605	-			1267 CY DRAINAGE
			783							783		LF	18" CPEP(SL)	601.2615	-			531 CY UNDERDRAIN
			6							6		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	604.20	-			1798 CY SUBTOTAL
			1300							1300		LF	6 INCH UNDERDRAIN PIPE	605.10	91			2 CY ROUNDING
			25							25		LF	6 INCH UNDERDRAIN CARRIER PIPE	605.20	1			1800 CY TOTAL
			6							6		EACH	UNDERDRAIN FLUSHING BASIN	605.95	-			ITEM 204.21 - TRENCH EXCAVATION OF ROCK
			1							1		LS	MOBILIZATION / DEMOBILIZATION	635.11	-			7 CY DRAINAGE
			5940							5940		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	5			193 CY ESTIMATED
			259							259		LF	ELECTRICAL CONDUIT SLEEVE (4")(PVC)(SCH 80)	678.30	-			200 CY SUBTOTAL
													<b>ALTERNATE B</b>					0 CY ROUNDING
			32500							32500		CY	COMMON EXCAVATION	203.15	257			1050 CY TOTAL
			100							100		CY	SOLID ROCK EXCAVATION	203.16	EST.			ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT (PG 58-28)
			1250							1250		CY	SAND BORROW	203.31	-			0 TON PARKING LOT**
			1800							1800		CY	TRENCH EXCAVATION OF EARTH	204.20	-			280 TON BUS LOOP / ACCESS ROAD
			200							200		CY	TRENCH EXCAVATION OF ROCK	204.21	EST.			55 TON LEFT-TURN LANE
			1050							1050		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	-			335 TON SUBTOTAL
			10							10		CWT	EMULSIFIED ASPHALT	404.65	3			5 TON ROUNDING
			340							340		TON	BITUMINOUS CONCRETE PAVEMENT (PG 58 - 28)	406.25	5			* ITEM 900.608 SPECIAL PROVISION (SUBBASE, POROUS PAVEMENT) AND ITEM 900.608 SPECIAL PROVISION (CHOKER COURSE, POROUS PAVEMENT) TO BE USED FOR PARKING LOT SUBBASE
			127							127		LF	12" CPEP(SL)	601.2605	-			
			728							728		LF	18" CPEP(SL)	601.2615	-			** ITEM 900.680 SPECIAL PROVISION (POROUS BITUMINOUS CONCRETE PAVEMENT) TO BE USED FOR PARKING LOT PAVEMENT
			5							5		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	604.20	-			
			1060							1060		LF	6 INCH UNDERDRAIN PIPE	605.10	17			
			30							30		LF	6 INCH UNDERDRAIN CARRIER PIPE	605.20	1			
			11							11		EACH	UNDERDRAIN FLUSHING BASIN	605.95	-			
			1							1		LS	MOBILIZATION / DEMOBILIZATION	635.11	-			
			5430							5430		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	6			
			340							340		LF	ELECTRICAL CONDUIT (2")(PVC)	678.21	-			
			430							430		LF	ELECTRICAL CONDUIT SLEEVE (4")(PVC)(SCH 80)	678.30	-			



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**QUANTITY SHEET 3** SHEET 8 OF 63

# QUANTITY SHEET 4

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES				
			ALTERNATE A	ALTERNATE B	ALTERNATE C	PARK-AND-RIDE	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS	
				<del>200</del>						200		CY	SPECIAL PROVISION (CHOKER COURSE, POROUS PAVEMENT)	900.608	2			<b>ALTERNATE C</b>	
				5500						5500		CY	SPECIAL PROVISION (SUBBASE, POROUS PAVEMENT)	900.608	36			ITEM 203.31 - SAND BORROW	
				<del>3</del>						3		EACH	SPECIAL PROVISION (PRECAST CONCRETE RETENTION STRUCTURE)	900.620	-	783	CY	BUS LOOP	
				590						590		LF	SPECIAL PROVISION (6 INCH UNDERDRAIN PIPE, POROUS PAVEMENT)	900.640	18	382	CY	ACCESS ROAD	
				<del>120</del>						120		LF	SPECIAL PROVISION (12 INCH UNDERDRAIN PIPE, POROUS PAVEMENT)	900.640	7	0	CY	PARKING LOT*	
				1910						1910		SF	SPECIAL PROVISION (PERMANENT FRP SHEET PILING)	900.670	3	66	CY	LEFT TURN LANE	
				<del>800</del>						800		TON	SPECIAL PROVISION (POROUS BITUMINOUS CONCRETE PAVEMENT)	900.680	7	1231	CY	SUBTOTAL	
																19	CY	ROUNDING	
																1250	CY	TOTAL	
																		ITEM 204.20 - TRENCH EXCAVATION OF EARTH	
					32500					32500		CY	COMMON EXCAVATION	203.15	257	1267	CY	DRAINAGE	
					100					100		CY	SOLID ROCK EXCAVATION	203.16	EST.	531	CY	6 INCH UNDERDRAIN	
					1250					1250		CY	SAND BORROW	203.31	-	1798	CY	SUBTOTAL	
					1800					1800		CY	TRENCH EXCAVATION OF EARTH	204.20	-	2	CY	ROUNDING	
					200					200		CY	TRENCH EXCAVATION OF ROCK	204.21	EST.	1800	CY	TOTAL	
					1050					1050		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	-	7	CY	DRAINAGE	
					10					10		CWT	EMULSIFIED ASPHALT	404.65	3	193	CY	ESTIMATED	
					<del>340</del>	436.51 TON			436.51 TON	<del>340</del>		TON	BITUMINOUS CONCRETE PAVEMENT (PG 58 - 28)	406.25	5	200	CY	SUBTOTAL	
					127					127		LF	12" CPEP(SL)	601.2605	-	0	CY	ROUNDING	
					728					728		LF	18" CPEP(SL)	601.2615	-	1800	CY	TOTAL	
					5					5		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	604.20	-			ITEM 204.21 - TRENCH EXCAVATION OF ROCK	
					1060					1060		LF	6 INCH UNDERDRAIN PIPE	605.10	17	7	CY	DRAINAGE	
					30					30		LF	6 INCH UNDERDRAIN CARRIER PIPE	605.20	1	193	CY	ESTIMATED	
					11					11		EACH	UNDERDRAIN FLUSHING BASIN	605.95	-	200	CY	SUBTOTAL	
					1					1		LS	MOBILIZATION / DEMOBILIZATION	635.11	-	0	0	CY	ROUNDING
					5430					5430		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	6	1014	CY	SUBTOTAL	
					340					340		LF	ELECTRICAL CONDUIT (2")(PVC)	678.21	-	36	CY	ROUNDING	
					430					430		LF	ELECTRICAL CONDUIT SLEEVE (4")(PVC)(SCH 80)	678.30	-	1050	CY	TOTAL	
					200					200		CY	SPECIAL PROVISION (CHOKER COURSE, POROUS PAVEMENT)	900.608	2			ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT (PG 58-28)	
					5300					5300		CY	SPECIAL PROVISION (SUBBASE, POROUS PAVEMENT)	900.608	35			0 TON PARKING LOT**	
					3					3		EACH	SPECIAL PROVISION (PRECAST CONCRETE RETENTION STRUCTURE)	900.620	-			280 TON BUS LOOP / ACCESS ROAD	
					590					590		LF	SPECIAL PROVISION (6 INCH UNDERDRAIN PIPE, POROUS PAVEMENT)	900.640	18			55 TON LEFT-TURN LANE	
					120					120		LF	SPECIAL PROVISION (12 INCH UNDERDRAIN PIPE, POROUS PAVEMENT)	900.640	7			335 TON SUBTOTAL	
					1910					1910		SF	SPECIAL PROVISION (PERMANENT FRP SHEET PILING)	900.670	3			5 TON ROUNDING	
					3500					3500		SY	SPECIAL PROVISION (POROUS PORTLAND CEMENT CONCRETE PAVEMENT)	900.675	46			-340 TON TOTAL	
																		436.51 TON	
																		* ITEM 900.608 SPECIAL PROVISION (SUBBASE, POROUS PAVEMENT) AND ITEM 900.608 SPECIAL PROVISION (CHOKER COURSE, POROUS PAVEMENT) TO BE USED FOR PARKING LOT SUBBASE	
																		** ITEM 900.680 SPECIAL PROVISION (POROUS BITUMINOUS CONCRETE PAVEMENT) TO BE USED FOR PARKING LOT PAVEMENT	





# DRAINAGE DETAIL SHEET 1

STATION	STATION	POS.	PIPE NUMBER	INLET/OUTLET TYPE		DITCH		PIPE ARCH			ALLOWABLE OPTIONS					PIPE ELBOW NO. DEG	ES EA	CB EA	SP EA	DEPTH DI FT	CONC CLASS B CY	REINF STEEL LBS	DI GRATE TYPE	CHAN ELEV EA	CRM CY	TRENCH EXCAVATION		COMM EXC CY	UNC CHAN EXC CY	STRUCT EXCAV CY	GRAN BK FILL STRUCT CY	GRAN BORR CY	EROS MATT SY	STONE FILL		MARKER POSTS		CONCRETE MH W/ CI COVER EA	REMARKS																
				INLET	OUTLET	IN	OUT	SPAN IN	RISE IN	L FT	D IN	L FT	PCCSP TH	CAAP TH	RCP CL											CSP TH	CPEP SL							PCCSP PI TH	EARTH CY	ROCK CY	CY			CY	EA	EA	EA	EA											
<b>COMMON ITEMS</b>																												"COMMON ITEMS" REFER TO ITEMS COMMON TO ALL ALTERNATES																											
<b>VT ROUTE 66</b>																																																							
51+56	51+57	LT																		0.5					2	3.4											REMOVE SOUTHERLY CATCH BASIN AND PLUG PIPE; PLUG INLET AT NORTHERLY CATCH BASIN																		
<b>FOREBAY SPILLWAY</b>																																																							
10+53	10+92	LT																																																					
12+57	12+88	LT																										3	3							1	ITEM 604.11 - CONCRETE MANHOLE WITH CAST IRON COVER IS 6' DIAMETER.																		
<b>SWALES, OUTLET PADS, AND CHANNELS</b>																																																							
<b>ACCESS ROAD</b>																																																							
0+25	3+48	RT																																																					
0+21	0+41	LT	6/5																																																				
1+00		RT	5/4																																																				
1+30	1+86	LT																																																					
1+86	3+49	LT																																																					
<b>BUS LOOP</b>																																																							
10+53	10+92	LT																																																					
10+85		RT	9																																																				
12+57	12+88	LT																																																					
11+83	12+93	RT																																																					
12+52		RT	10																																																				
13+03		RT	12																																																				
<b>PARKING LOT</b>																																																							
21+16	23+31	RT																																																					
<b>EXISTING GRASS SWALE</b>																																																							
21+16																																																							
23+31																																																							
<b>SUBTOTAL COMMON ITEMS</b>																												0.5 465 3.4 3 3 378 I 1 82 II																											
<b>ALTERNATE 'A'</b>																																																							
<b>PARKING LOT</b>																																																							
21+81	23+35	LT	2	CB 2	CB 3				18	150																																													
<b>ACCESS RD</b>																																																							
0+21	0+41	RT-LT	6	ES	ES				12	78																																													
0+53	1+00	LT-RT	5	CB 5	ES				18	69																																													
1+00	1+35	RT-LT	4	CB 4	CB 5				18	45																																													
1+35	1+82	LT	3	CB 3	CB 4				18	55																																													
1+82	2+94	LT	1	CB 1	CB 3				18	115																																													
<b>BUS LOOP</b>																																																							
10+56	10+85	LT-RT	9	CB 6	ES				18	72																																													
10+85	11+02	RT	7	D11	CB 6				18	29																																													
10+86	11+35	RT	8	D12	CB 6				12	49																																													
11+47	12+52	LT-RT	10	MH	ES				18	130																																													
12+91	12+95	LT-RT	11	D13	D14				18	40																																													
12+95	13+03	RT	12	D14	ES				18	78																																													
<b>SUBTOTAL ALTERNATE 'A'</b>																												127 (12") 2 6 9.3 824 4-A 806 3.6 2.7 I 3 1 783 (18") 4																											



PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...05\_zk000Drainage Detail.pjf PLOT DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**DRAINAGE DETAIL SHEET 1** SHEET II OF 63







CONTROL POINTS

RANDOLPH 189 AZ MK

DIRECTION	ACTUAL GRID POINTS*	SHIFT TO FIT MICROSTATION DESIGN PLANE	VERMONT STATE GRID COORDINATE SYSTEM
N	26652.054'	+500,000	526652.054'
E	8794.177'	+1,600,000	1608794.177'
Z	1173.508'	N/A	1173.508'

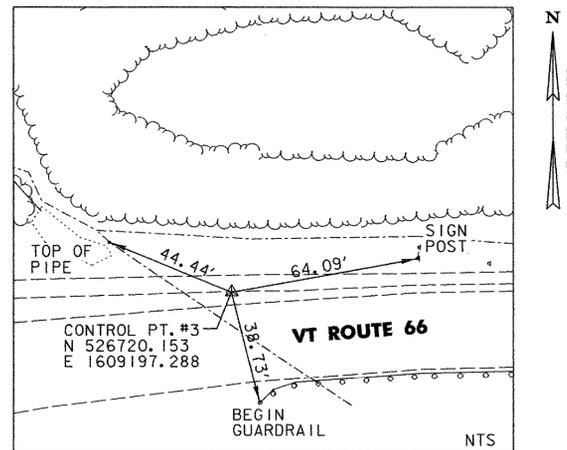
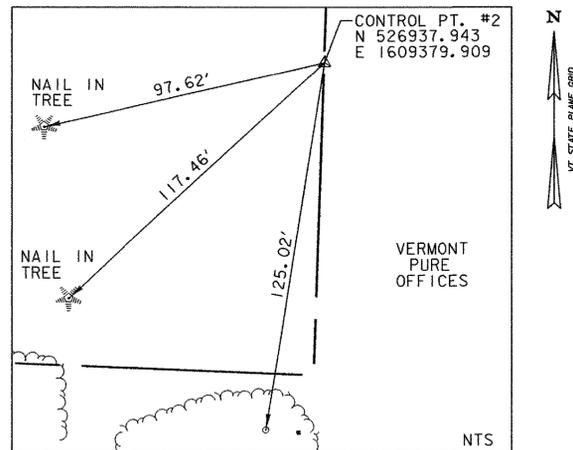
GENERAL LOCATION, RANDOLPH, VT.

□ 189 DISK RESET  
 N 26694.707  
 E 8852.088  
 Z 1175.050

\* IN ORDER TO MATCH THE VERMONT STATE GRID COORDINATE SYSTEM, ADD 500,000 TO THE NORTHING COORDINATES AND ADD 1,600,000 TO THE EASTING COORDINATES. ELEVATIONS NEED NOT BE ADJUSTED.

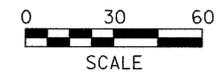


TRAVERSE TIES



ALIGNMENT TIES

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (1996)
ADJUSTMENT	NONE



PROJECT NAME: RANDOLPH	PLOT DATE: 8/3/2007
PROJECT NUMBER: CMG PARK(2)S	DRAWN BY: STANTEC
FILE NAME: ...\Plotfiles\09_Ties.pff	CHECKED BY: GAS
PROJECT LEADER: WLD	SHEET 15 OF 63
DESIGNED BY: STANTEC	
<b>SURVEY CONTROL AND TIES</b>	

**EXISTING PARK-AND-RIDE NOTES:**

1. DURING CONSTRUCTION THE EXISTING PARK-AND-RIDE SHALL BE CLOSED TO ALL TRAFFIC.
2. EXCAVATE EXISTING GRAVEL SURFACE (8" +/-)
3. HARROW SUBSURFACE TO BREAK UP COMPACTED BASE.
4. GRADE EXISTING PARK-AND-RIDE SURFACE AS SHOWN ON GRADING PLAN (INCIDENTAL TO ITEM 203.15 - COMMON ECAVATION).
5. PLACE 4" OF TOPSOIL, SEED, FERTILIZER, LIMESTONE AND MULCH PER SEEDING FORMULA ON THE LANDSCAPING DETAIL SHEET.

**GENERAL NOTES:**

6. FOR A SUMMARY OF THE CONTROL POINTS AND TRAVERSE TIES, SEE SURVEY TIE SHEET (SHEET 15 OF 63).
7. FOR ALIGNMENT LAYOUT POINTS (STATION, OFFSETS AND COORDINATES), LAYOUT POINT SUMMARY TABLE, FENCE LAYOUT POINT TABLE SEE LAYOUT POINTS 1 (SHEET 17 OF 63). FOR TRAFFIC ISLAND LAYOUT DETAILS, SEE ROUTE 66 ISLAND LAYOUT (SHEET 18 OF 63).
8. THE BUS SHELTER SHALL BE PAID UNDER ITEM 900.645 SPECIAL PROVISION (BUS SHELTER). INCLUDED IN THIS ITEM SHALL BE ALL STRUCTURAL MATERIALS USED TO CONSTRUCT THE BUS SHELTER. FOR DETAIL OF THESE STRUCTURAL ITEMS, REFER TO BUS SHELTER DETAILS (SHEETS 54 AND 55 OF 63). FOR DETAIL OF WHERE THE BUS SHELTER ITEMS END AND STANDARD PAY ITEMS BEGIN, REFER TO NOTE 5 ON BUS SHELTER DETAILS (SHEET 55 OF 63).
9. CONCRETE STEPS AND METAL HAND RAILING SHALL BE PAID UNDER:  
 ITEM 525.15 - METAL HAND RAILING  
 ITEM 541.25 - CONCRETE, CLASS B  
 ITEM 507.15 - REINFORCING STEEL  
 FOR DETAILS, SEE VTrans STANDARD SHEET J-2.
10. THE BICYCLE RACK SHALL BE PAID UNDER ITEM 900.620 - SPECIAL PROVISION (BICYCLE RACK). FOR BICYCLE RACK DETAILS, SEE MISCELLANEOUS DETAILS (SHEET 46 OF 63).
11. THE SPLIT RAIL FENCE SHALL BE PAID UNDER ITEM 900.640 - SPECIAL PROVISION (SPLIT RAIL FENCE). FOR SPLIT RAIL FENCE DETAILS, SEE LANDSCAPING DETAILS 1 (SHEET 52 OF 63).
12. FOR STAMPED CONCRETE ISLANDS INSIDE THE PARK-AND-RIDE LOT, SEE TYPICAL SECTIONS SHEET 3 (SHEET 5 OF 63). THESE ISLANDS SHALL BE PAID UNDER ITEM 900.675 SPECIAL PROVISION (STAMPED CONCRETE ISLAND, 8 INCH).
13. FOR VT ROUTE 66 LEFT TURN LANE AND ISLAND AND PAINTED ISLAND PLAN, LIMITS OF WORK, LAYOUT POINTS, AND CONSTRUCTION CALL OUTS, SEE ROUTE 66 ISLAND LAYOUT SHEET (SHEET 18 OF 63). FOR THE LEFT TURN LANE AND ISLAND DETAILS, SEE TYPICAL SECTIONS 3 (SHEET 5 OF 63).
14. ENTIRE PROPERTY BETWEEN THE CONSTRUCTION LIMITS AND THE PROPERTY LINE SHALL BE "BRUSH MOWED" TO A HEIGHT OF 6-12" AS DIRECTED BY THE ENGINEER. PAYMENT TO BE INCIDENTAL TO ITEM 201.10, THIS WORK SHALL BE DONE AT COMPLETION OF CONSTRUCTION.
15. FOR BORING SUMMARY, SEE LAYOUT POINTS 1 (SHEET 17 OF 63.)

**LEGEND**

 WOODED AREAS LOCATED WITHIN DELINEATED WETLANDS TO BE CLEARED (NO GRUBBING ALLOWED). PAYMENT TO BE MADE UNDER ITEM 201.30 THINNING AND TRIMMING. STUMPS SHALL BE LEFT 6" ABOVE GRADE. FINAL CLEARING LIMITS TO BE DETERMINED BY RESIDENT ENGINEER.

**VERTICAL GRANITE CURB**

0+85 LT. - 1+10, LT.  
 1+32 LT. - 1+81 LT.  
 10+11 RT. - 11+81 RT.  
 21+45 RT. - 23+05 RT. (BITUMINOUS CONCRETE ISLAND)

**PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH**

1+32 LT. - 1+81 LT.  
 10+11 RT. - 11+81 RT.  
 11+09 RT. - 11+22 RT.  
 21+75 LT. - 23+27 LT.

**SPECIAL PROVISION (STAMPED CONCRETE ISLAND, 8 INCH)**

0+85 LT. - 1+10 LT. (ISLAND 1)  
 10+83 RT. - 11+38 RT. (ISLAND 2)

**CONSTRUCT CONCRETE STEPS WITH METAL HAND RAILING**

11+25 RT.

**SPECIAL PROVISION (BUS SHELTER) & (BICYCLE RACK)**

11+17 RT. (BICYCLE RACK)  
 11+30 RT. (BUS SHELTER)

**SPECIAL PROVISION (SPLIT RAIL FENCE)**

21+80 LT. - 22+65 LT.  
 22+73 LT. - 23+27 LT.

**BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS**

21+44.9 - 23+05.2, RT.

CLOSE EXISTING GRAVEL PARK-AND-RIDE (SEE EXISTING PARK-AND-RIDE NOTES)

LIMIT OF WORK  
 BUS LOOP  
 STA. 13+09  
 REMOVE EXISTING AERIAL UTILITY POLE & GUYS (BY OTHERS)

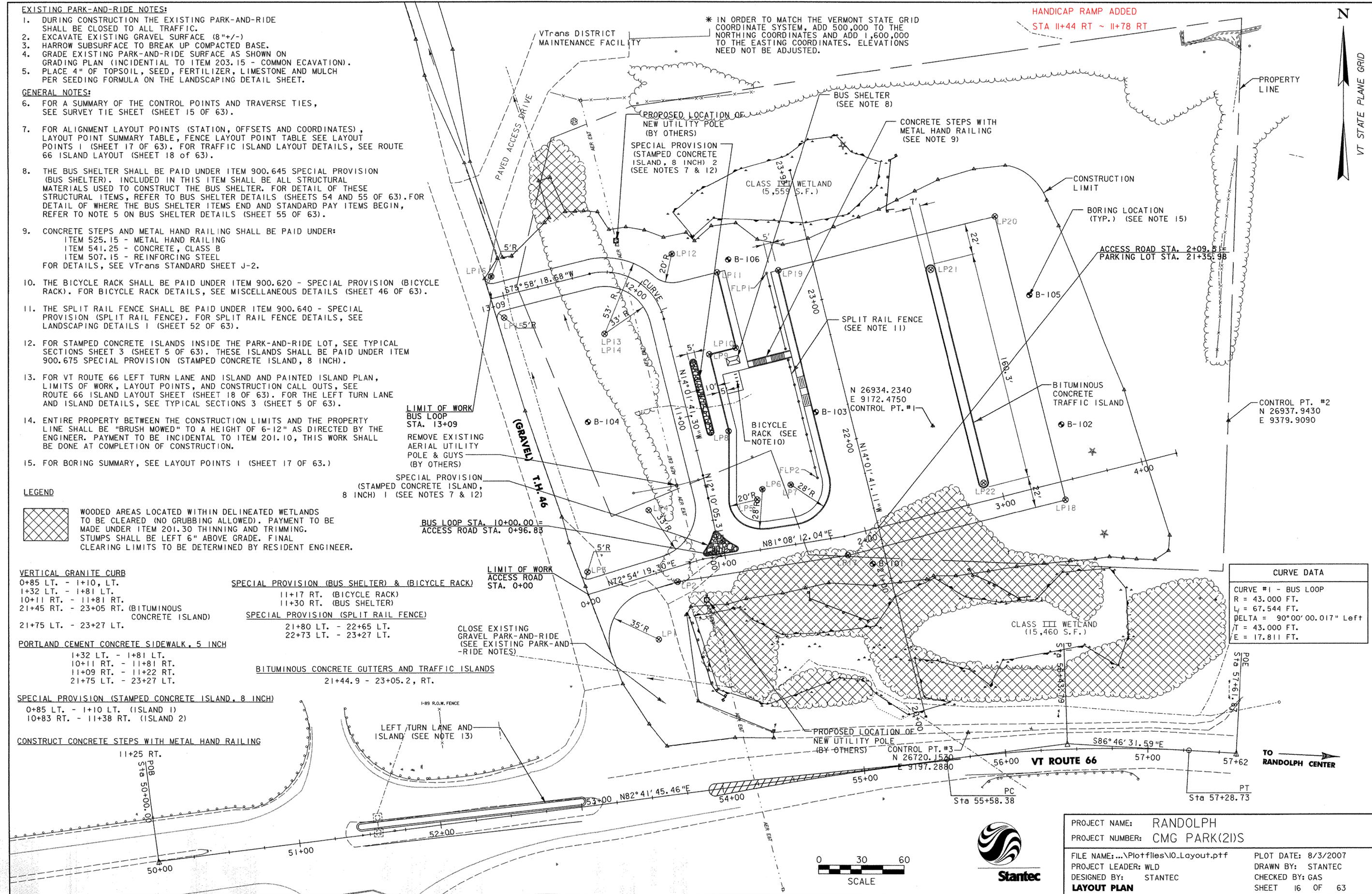
SPECIAL PROVISION  
 (STAMPED CONCRETE ISLAND, 8 INCH) 1 (SEE NOTES 7 & 12)

BUS LOOP STA. 10+00.00 =  
 ACCESS ROAD STA. 0+96.83

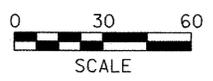
LIMIT OF WORK  
 ACCESS ROAD  
 STA. 0+00

\* IN ORDER TO MATCH THE VERMONT STATE GRID COORDINATE SYSTEM, ADD 500,000 TO THE NORTHING COORDINATES AND ADD 1,600,000 TO THE EASTING COORDINATES. ELEVATIONS NEED NOT BE ADJUSTED.

HANDICAP RAMP ADDED  
 STA II+44 RT ~ II+78 RT



CURVE DATA	
CURVE #1 - BUS LOOP	
R = 43,000 FT.	
L = 67,544 FT.	
DELTA = 90°00'00.017" Left	
T = 43,000 FT.	
E = 17,811 FT.	



PROJECT NAME: RANDOLPH  
 PROJECT NUMBER: CMG PARK(2)S  
 FILE NAME: ... \Plotfiles\10\_Layout.ptf  
 PROJECT LEADER: WLD  
 DESIGNED BY: STANTEC  
 LAYOUT PLAN  
 PLOT DATE: 8/3/2007  
 DRAWN BY: STANTEC  
 CHECKED BY: GAS  
 SHEET 16 OF 63







SEE CADD X00K130 SV.DGN

INV @ FB I215.03  
INV OUT I210.43  
TOP OF FLUSHING BASIN I220.\*  
CURTAIN DRAIN ON BACK SLOPE



- 1 ACCESS ROAD STA. 1+82, LT. TO 2+94, LT.  
NEW 18" X 115' CPEP (SL), INV. IN 1188.87, INV. OUT 1184.27  
CONST. NEW CB #1 AT INLET, RIM 1195.70
- 2 PARKING LOT STA. 21+81, LT. TO 23+35, LT.  
NEW 18" X 150' CPEP (SL), INV. IN 1187.37, INV. OUT 1184.37  
CONST. NEW CB#2 AT INLET, RIM 1194.20
- 3 ACCESS ROAD STA. 1+35, LT. TO 1+82, LT.  
NEW 18" X 55' CPEP (SL), INV. IN 1184.17, INV. OUT 1181.15  
CONST. NEW CB#3 AT INLET, RIM 1191.81
- 4 ACCESS ROAD STA. 1+00, RT. TO 1+35, LT.  
NEW 18" X 45' CPEP (SL), INV. IN 1181.05, INV. OUT 1178.58  
CONST. NEW CB#4 AT INLET, RIM 1187.60
- 5 ACCESS ROAD STA. 0+53, LT. TO 1+00, RT.  
NEW 18" X 69' CPEP (SL), INV. IN 1178.48, INV. OUT 1177.88  
CONST. NEW CB#5 AT INLET, RIM 1184.00 AND 18" CPEPES AT OUTLET
- 6 ACCESS ROAD STA. 0+21, RT. TO 0+41, LT.  
NEW 12" X 78' CPEP (SL), INV. IN 1178.48, INV. OUT 1175.47  
CONST. NEW 12" CPEPES AT INLET AND OUTLET
- 7 BUS LOOP STA. 10+85, RT. TO 11+02, RT.  
NEW 18" X 29' CPEP (SL), INV. IN 1177.50, INV. OUT 1176.96  
CONST. NEW DI#1 AT INLET, RIM 1181.50
- 8 BUS LOOP STA. 10+86, RT. TO 11+35, RT.  
NEW 12" X 49' CPEP (SL), INV. IN 1176.70, INV. OUT 1176.46  
CONST. NEW DI#2 AT INLET, RIM 1180.20
- 9 BUS LOOP STA. 10+56, LT. TO 10+85, RT.  
NEW 18" X 72' CPEP (SL), INV. IN 1176.46, INV. OUT 1176.09  
CONST. NEW CB#6 AT INLET, RIM 1181.86 AND 18" CPEPES AT OUTLET
- 10 BUS LOOP STA. 11+47, LT. TO 12+52, RT.  
NEW 18" X 130' CPEP (SL), INV. IN 1169.00, INV. OUT 1167.70  
CONST. NEW 18" CPEPES AT OUTLET  
CONST. CONCRETE MANHOLE AT INLET. (SEE NOTE 7)
- 11 BUS LOOP STA. 12+91, LT. TO 12+95, RT.  
NEW 18" X 40' CPEP (SL), INV. IN 1166.10, INV. OUT 1165.70  
CONST. NEW DI#3 AT INLET, RIM 1170.10
- 12 BUS LOOP STA. 12+95, RT. TO 13+03, RT.  
NEW 18" X 78' CPEP (SL), INV. IN 1165.55, INV. OUT 1164.00  
CONST. NEW DI#4 AT INLET, RIM 1170.00 AND 18" CPEPES AT OUTLET
- 13 REGRADE EXISTING GRASS LINED TREATMENT SWALE  
SEE DRAINAGE DETAILS 1 (SHEET 22 OF 63)
- U1 PARKING LOT STA. 21+25, RT. TO 23+27, RT.  
NEW 6" X 202' UNDERDRAIN, INV. IN 1194.88, INV. OUT 1190.80  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U2 ACCESS ROAD STA. 0+72, RT. TO 3+40, RT.  
NEW 6" X 268' UNDERDRAIN, INV. IN 1190.80, INV. OUT 1178.56  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U4 PARKING LOT STA. 21+51, RT. TO 23+27, RT.  
NEW 6" X 173' UNDERDRAIN, INV. IN 1193.00, INV. OUT 1189.70  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U5 PARKING LOT STA. 21+82, LT. TO 23+27, LT.  
NEW 6" X 141' UNDERDRAIN, INV. IN 1188.72, INV. OUT 1185.90  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U6 ACCESS ROAD STA. 1+36, LT. TO 1+84, LT.  
NEW 6" X 66' UNDERDRAIN, INV. IN 1185.90, INV. OUT 1183.14
- U7 BUS LOOP STA. 10+09, RT. TO 10+83, RT.  
NEW 6" X 90' UNDERDRAIN, INV. IN 1183.14, INV. OUT 1177.46
- U8 BUS LOOP STA. 10+93, RT. TO 12+29, RT.  
NEW 6" X 187' UNDERDRAIN, INV. IN 1178.50, INV. OUT 1173.37  
NEW UNDERDRAIN FLUSHING BASIN AT INLET (SEE NOTE 3)
- ~~U8~~ BUS LOOP STA. 11+51, LT. TO 12+46, LT. **DELETED**  
NEW 6" X 82' UNDERDRAIN, INV. IN 1174.50, INV. OUT 1173.94  
NEW UNDERDRAIN FLUSHING BASIN AT INLET **MOVED TO SLOPE**

- NOTES:**
1. THIS PLAN IS FOR DRAINAGE PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS A PROPERTY BOUNDARY SURVEY. PROPERTY LINES AND ROW LINES ARE SHOWN FOR REFERENCE ONLY.
  2. PRIOR TO COMMENCING SITE WORK, THE CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS. THE PROJECT ENGINEER SHALL BE NOTIFIED WITHIN 48 HOURS WHERE DISCREPANCIES EXIST BETWEEN THE PROJECT DRAWINGS AND ACTUAL FIELD CONDITIONS.
  3. BETWEEN STA. 11+00 AND STA. 11+38 THE 6" UNDERDRAIN PIPE SHALL BE INSTALLED 1'-6" BEHIND THE CURBLINE SO AS NOT TO INTERFERE WITH THE 12" STORM DRAIN PIPE.
  4. FOR DITCH PROTECTION AND STORM DRAIN OUTLET PROTECTION DETAILS, SEE DRAINAGE DETAILS 2 (SHEET 23 OF 63).
  5. FOR FOREBAY SPILLWAY DETAILS, SEE DRAINAGE DETAILS 4 (SHEET 25 OF 63).
  6. FOR DRAINAGE MANHOLE DETAILS, SEE DRAINAGE DETAILS 3 (SHEET 24 OF 63).
  7. THERE ARE TWO EXISTING CULVERTS TO THE NORTH OF THE PARKING LOT AND ONE EXISTING CULVERT TO THE SOUTH. TO THE NORTH THE 18" CULVERT WILL BE REMOVED, A NEW 18" CULVERT WILL BE INSTALLED. THE OUTLET SWALE WILL BE REGRADED. THE 24" CULVERT WILL REMAIN. A NEW 18" CULVERT, FLOWING FROM THE CONCRETE MANHOLE, WILL OUTLET INTO THIS PIPE. TO THE SOUTH THE CULVERT WILL REMAIN IN PLACE.
  8. REMOVAL OF EXISTING HEADWALL AND ENDWALL TO BE PAID UNDER ITEM 204.21 - TRENCH EXCAVATION OF ROCK.
  9. FOR DRAINAGE AROUND ROUTE 66 TRAFFIC ISLAND SEE ROUTE 66 ISLAND LAYOUT (SHEET 18 OF 63).

**CULVERT OUTLET PROTECTION**

0+42, LT.	12+52, RT.
0+56, LT.	13+02, RT.
10+55, LT.	

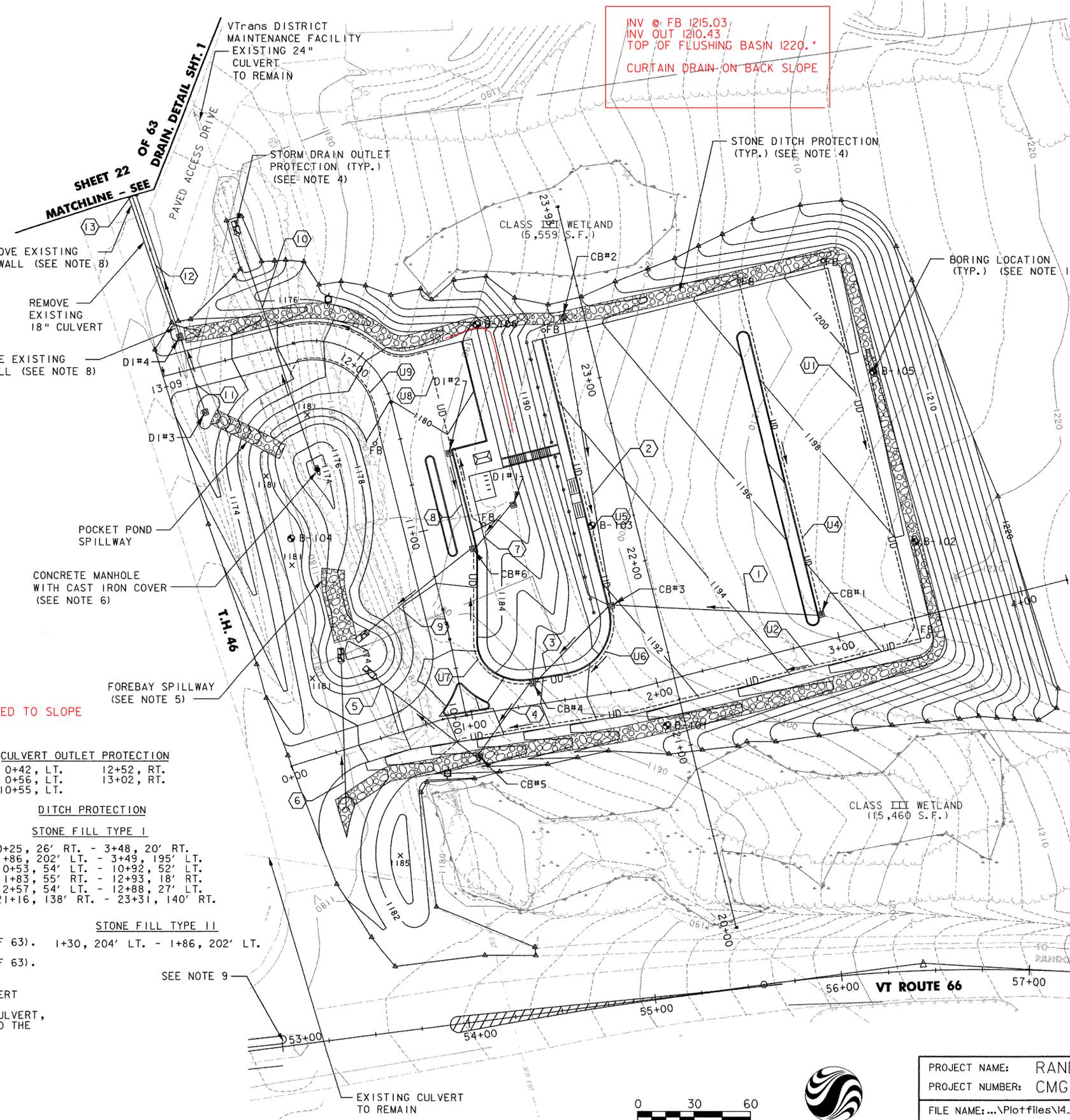
**DITCH PROTECTION**

**STONE FILL TYPE I**

0+25, 26' RT.	- 3+48, 20' RT.
1+86, 202' LT.	- 3+49, 195' LT.
10+53, 54' LT.	- 10+92, 52' LT.
11+83, 55' RT.	- 12+93, 18' RT.
12+57, 54' LT.	- 12+88, 27' LT.
21+16, 138' RT.	- 23+31, 140' RT.

**STONE FILL TYPE II**

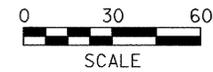
1+30, 204' LT.	- 1+86, 202' LT.
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**LEGEND**

—	PROPERTY LINE
①	STORM DRAIN PIPE
■	DRAINAGE INLET
●	DRAINAGE MANHOLE
---UD---	6" PERFORATED PVC UNDERDRAIN PIPE
FB○	FLUSHING BASIN
—○—○—○—	SPLIT RAIL FENCE
—201—	PROPOSED CONTOUR
---201---	EXISTING CONTOUR
—	WETLAND LIMITS
⊠	PROPOSED BUS SHELTER
	PROPOSED BICYCLE RACK
x 1176	SPOT ELEVATION

**ALTERNATE**  
**'A'**

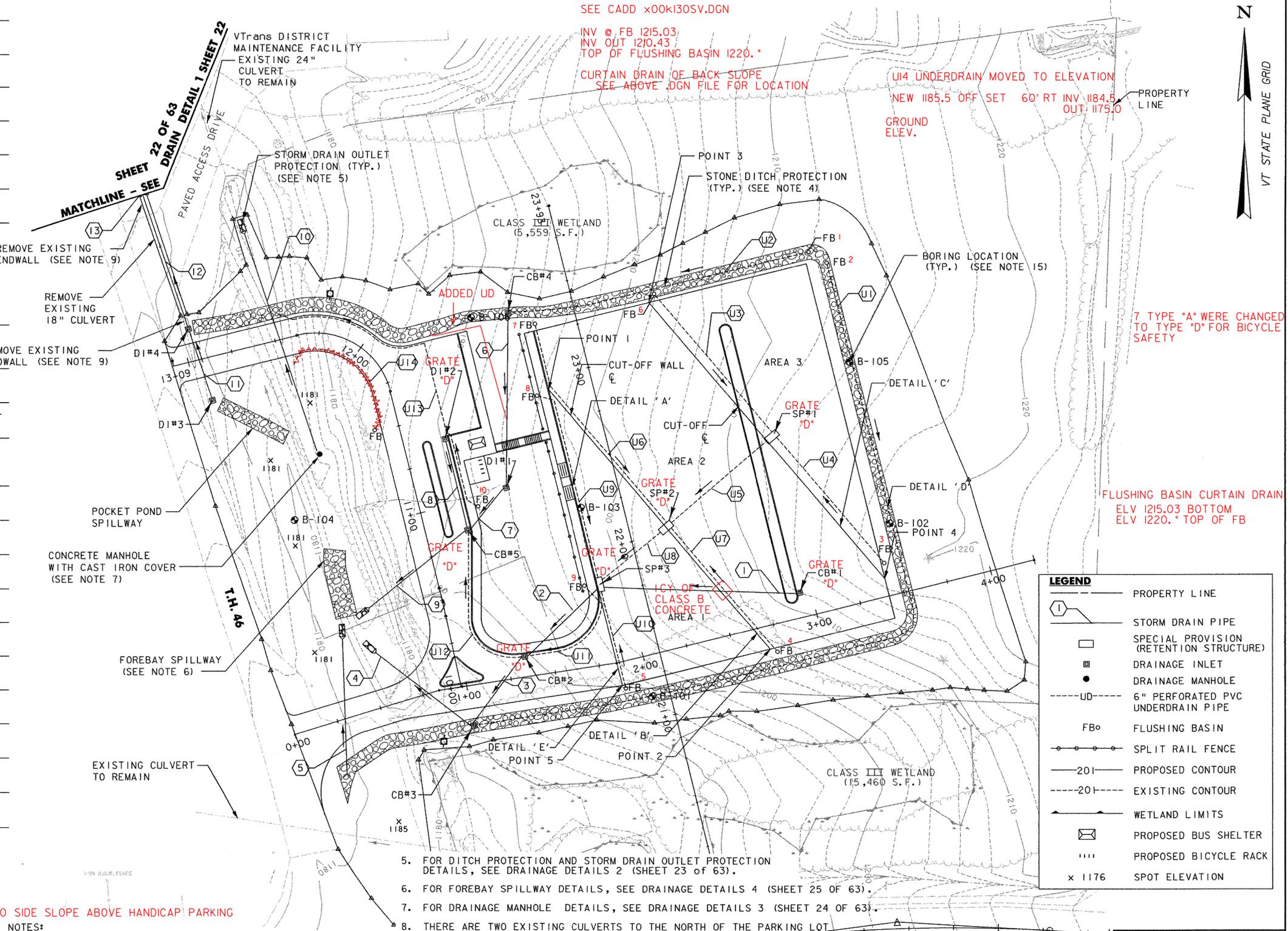


PROJECT NAME: RANDOLPH  
 PROJECT NUMBER: CMG PARK(2)IS  
 FILE NAME: ...\\Plotfiles\N4\_G&D.pjf PLOT DATE: 8/3/2007  
 PROJECT LEADER: WLD DRAWN BY: STANTEC  
 DESIGNED BY: STANTEC CHECKED BY: GAS  
**GRADING AND DRAINAGE PLAN** SHEET 20 OF 63

- ① ACCESS ROAD STA. 2+94, LT. TO 1+82, LT.  
NEW 18" X 115' CPEP (SL), INV. IN 1188.00 INV. OUT 1184.27  
CONST. NEW CB#1 AT INLET, RIM 1195.70
- ② ACCESS ROAD STA. 1+82, LT. TO 1+35, LT.  
NEW 18" X 55' CPEP (SL), INV. IN 1184.17, INV. OUT 1181.15  
CONST. NEW SP#3 AT INLET, RIM 1191.81
- ③ ACCESS ROAD STA. 1+35, LT. TO 1+00, RT.  
NEW 18" X 45' CPEP (SL), INV. IN 1181.05, INV. OUT 1178.58  
CONST. NEW CB#2 AT INLET, RIM 1187.60
- ④ ACCESS ROAD STA. 1+00, RT. TO 0+53, LT.  
NEW 18" X 69' CPEP (SL), INV. IN 1178.48, INV. OUT 1177.88  
CONST. NEW CB#3 AT INLET, RIM 1184.00 AND 18" CPEPES AT OUTLET
- ⑤ ACCESS ROAD STA. 0+21, RT. TO 0+41, LT.  
NEW 12" X 78' CPEP (SL), INV. IN 1178.48, INV. OUT 1175.47  
CONST. NEW 12" CPEPES AT INLET AND OUTLET
- ⑥ BUS LOOP STA. 11+79, RT. TO 11+03, RT.  
NEW 18" X 95' CPEP (SL), INV. IN 1184.75, INV. OUT 1177.50  
CONST. NEW CB#4 AT INLET, RIM 1189.75
- ⑦ BUS LOOP STA. 11+02, RT. TO 10+85, RT.  
NEW 18" X 29' CPEP (SL), INV. IN 1177.25, INV. OUT 1176.96  
CONST. NEW DI#1 AT INLET, RIM 1181.50
- ⑧ BUS LOOP STA. 11+35, RT. TO 10+86, RT.  
NEW 12" X 49' CPEP (SL), INV. IN 1176.70, INV. OUT 1176.46  
CONST. NEW DI#2 AT INLET, RIM 1180.20
- ⑨ BUS LOOP STA. 10+85, RT. TO 10+56, LT.  
NEW 18" X 72' CPEP (SL), INV. IN 1176.46, INV. OUT 1176.09  
CONST. NEW CB#5 AT INLET, RIM 1181.86 AND 18" CPEPES AT OUTLET
- ⑩ BUS LOOP STA. 11+47, LT. TO 12+52, RT.  
NEW 18" X 130' CPEP (SL), INV. IN 1169.00, INV. OUT 1167.70  
CONST. NEW 18" CPEPES AT OUTLET  
CONST. CONCRETE MANHOLE AT INLET. (SEE NOTE 8)
- ⑪ BUS LOOP STA. 12+91, LT. TO 12+95, RT.  
NEW 18" X 40' CPEP (SL), INV. IN 1166.10, INV. OUT 1165.70  
CONST. NEW DI#3 AT INLET, RIM 1170.10
- ⑫ BUS LOOP STA. 12+95, RT. TO 13+03, RT.  
NEW 18" X 78' CPEP (SL), INV. IN 1165.55, INV. OUT 1164.00  
CONST. NEW DI#4 AT INLET, RIM 1170.00 AND 18" CPEPES AT OUTLET
- ⑬ REGRADE EXISTING GRASS LINED TREATMENT SWALE  
SEE DRAINAGE DETAILS 1 (SHEET 22 OF 63)

- U1 PARKING LOT STA. 23+24, RT. TO ACCESS ROAD STA. 1+02, RT.  
NEW 6" X 459' UNDERDRAIN, INV. IN 1192.50, INV. OUT 1179.00  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U2 PARKING LOT STA. 23+33, RT. TO STA. 23+40, LT.  
NEW 6" X 169' UNDERDRAIN, INV. IN 1192.50, INV. OUT 1184.75  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U3 PARKING LOT STA. 23+30, RT. TO STA. 22+39, RT.  
NEW 6" X 100' UNDERDRAIN, INV. IN 1192.00, INV. OUT 1191.50  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U4 PARKING LOT STA. 21+48, RT. TO STA. 22+35, RT.  
NEW 6" X 91' UNDERDRAIN, INV. IN 1192.00, INV. OUT 1191.50  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U5 PARKING LOT STA. 22+36, RT. TO STA. 22+05, RT.  
NEW 12" X 70' UNDERDRAIN, INV. IN 1188.35, INV. OUT 1188.00  
CONST. NEW SP#1 AT INLET RIM 1197.48
- U6 PARKING LOT STA. 23+26, LT. TO STA. 22+06, RT.  
NEW 6" X 129' UNDERDRAIN, INV. IN 1189.00, INV. OUT 1188.50  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U7 PARKING LOT STA. 21+21, RT. TO STA. 22+02, RT.  
NEW 6" X 90' UNDERDRAIN, INV. IN 1189.00, INV. OUT 1188.50  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U8 PARKING LOT STA. 22+00, RT. TO STA. 21+81, LT.  
NEW 12" X 43' UNDERDRAIN, INV. IN 1185.72, INV. OUT 1185.50  
CONST. NEW SP#2 AT INLET RIM 1194.00
- U9 PARKING LOT STA. 22+87, LT. TO STA. 21+83, LT.  
NEW 6" X 104' UNDERDRAIN, INV. IN 1186.02, INV. OUT 1185.50  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U10 PARKING LOT STA. 21+22, LT. TO STA. 21+80, LT.  
NEW 6" X 58' UNDERDRAIN, INV. IN 1185.79, INV. OUT 1185.50  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U11 ACCESS ROAD STA. 1+82, LT. TO STA. 1+36, LT.  
NEW 6" X 56' UNDERDRAIN, INV. IN 1189.00, INV. OUT 1181.15  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U12 BUS LOOP STA. 10+09, RT. TO 10+83, RT.  
NEW 6" X 90' UNDERDRAIN, INV. IN 1183.14, INV. OUT 1177.46
- U13 BUS LOOP STA. 10+93, RT. TO 12+29, RT.  
NEW 6" X 187' UNDERDRAIN, INV. OUT 1173.37  
NEW UNDERDRAIN FLUSHING BASIN AT INLET
- U14 BUS LOOP STA. 11+51, LT. TO 12+46, LT.  
NEW 6" X 82' UNDERDRAIN, INV. OUT 1173.94  
NEW UNDERDRAIN FLUSHING BASIN AT INLET

BOTTOM ELEVATION OF SUBBASE	CUT-OFF $\zeta$
AREA 1 BOTTOM OF SUBBASE = 1187.5	POINT 1: 22+93.46, 24.70 LT. POINT 2: 2+70.08, 13.05 RT.
AREA 2 BOTTOM OF SUBBASE = 1190.5	POINT 3: 23+27.23, 41.47 RT. POINT 4: 3+41.61, 9.99 LT.
AREA 3 BOTTOM OF SUBBASE = 1193.5	POINT 5: 1+84.79, 13.05 RT.



- NOTES:**
- THIS PLAN IS FOR DRAINAGE PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS A PROPERTY BOUNDARY SURVEY. PROPERTY LINES AND ROW LINES ARE SHOWN FOR REFERENCE ONLY.
  - PRIOR TO COMMENCING SITE WORK, THE CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS. THE PROJECT ENGINEER SHALL BE NOTIFIED WITHIN 48 HOURS WHERE DISCREPANCIES EXIST BETWEEN THE PROJECT DRAWINGS AND ACTUAL FIELD CONDITIONS.
  - BETWEEN STA. 11+00 AND STA. 11+38 THE 6" UNDERDRAIN PIPE SHALL BE INSTALLED 1'-6" BEHIND THE CURBLINE SO AS NOT TO INTERFERE WITH THE 12" STORM DRAIN PIPE.
  - FOR DETAILS 'A', 'B', 'C', 'D' AND 'E' SEE DRAINAGE DETAILS 6 (SHEET 27 OF 63).
  - FOR DITCH PROTECTION AND STORM DRAIN OUTLET PROTECTION DETAILS, SEE DRAINAGE DETAILS 2 (SHEET 23 OF 63).
  - FOR FOREBAY SPILLWAY DETAILS, SEE DRAINAGE DETAILS 4 (SHEET 25 OF 63).
  - FOR DRAINAGE MANHOLE DETAILS, SEE DRAINAGE DETAILS 3 (SHEET 24 OF 63).
  - THERE ARE TWO EXISTING CULVERTS TO THE NORTH OF THE PARKING LOT AND ONE EXISTING CULVERT TO THE SOUTH. TO THE NORTH THE 18" CULVERT WILL BE REMOVED, A NEW 18" CULVERT WILL BE INSTALLED. THE OUTLET SWALE WILL BE REGRADED. THE 24" CULVERT WILL REMAIN. A NEW 18" CULVERT, FLOWING FROM THE CONCRETE MANHOLE, WILL OUTLET INTO THIS PIPE. TO THE SOUTH THE CULVERT WILL REMAIN IN PLACE.
  - REMOVAL OF EXISTING HEADWALL AND ENDWALL TO BE PAID UNDER ITEM 204.21 - TRENCH EXCAVATION OF ROCK.
  - FOR DRAINAGE AROUND ROUTE 66 TRAFFIC ISLAND SEE (SHEET 18 OF 63).

SEE CADD x00k130SV.DGN

INV @ FB 1215.03  
INV OUT 1210.43  
TOP OF FLUSHING BASIN 1220.\*

CURTAIN DRAIN OF BACK SLOPE  
SEE ABOVE .DGN FILE FOR LOCATION

U14 UNDERDRAIN MOVED TO ELEVATION  
NEW 1185.5 OFF SET 60' RT INV 1184.5  
OUT 1175.0

GROUND ELEV.

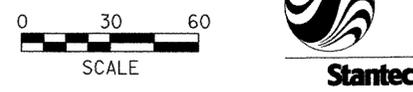
PROPERTY LINE

7 TYPE "A" WERE CHANGED TO TYPE "D" FOR BICYCLE SAFETY

FLUSHING BASIN CURTAIN DRAIN  
ELV 1215.03 BOTTOM  
ELV 1220.\* TOP OF FB

**LEGEND**

	PROPERTY LINE
	STORM DRAIN PIPE
	SPECIAL PROVISION (RETENTION STRUCTURE)
	DRAINAGE INLET
	DRAINAGE MANHOLE
	6" PERFORATED PVC UNDERDRAIN PIPE
	FLUSHING BASIN
	SPLIT RAIL FENCE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	WETLAND LIMITS
	PROPOSED BUS SHELTER
	PROPOSED BICYCLE RACK
	SPOT ELEVATION



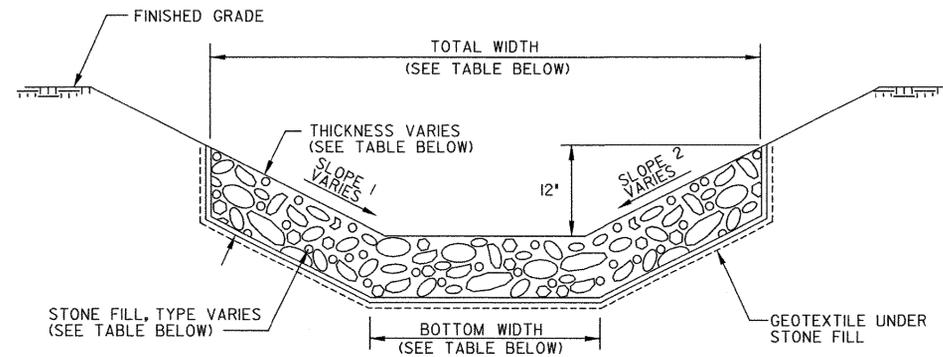
**ALTERNATES 'B' AND 'C'**

REFER TO ALTERNATE 'A' GRADING AND DRAINAGE PLAN SHEET 20 FOR SITE GRADING, AND CONSTRUCTION NOTES

PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)IS

FILE NAME: ...\\Plotfiles\15\_zk000drn.por.plt PLOT DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**DRAINAGE PLAN** SHEET 21 OF 63



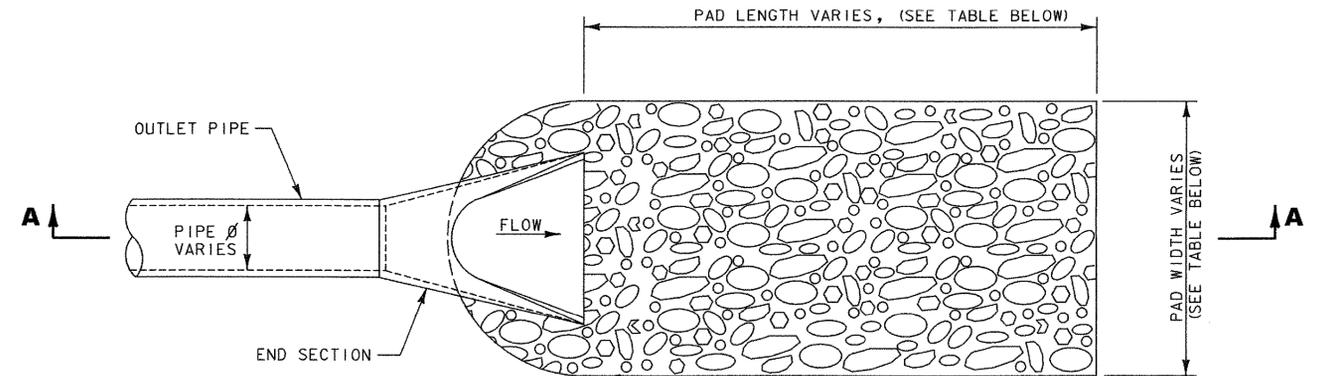


NOTE:  
THIS DETAIL VALID FOR ALTERNATE 'A' & 'C'  
CONSTRUCTION ONLY.

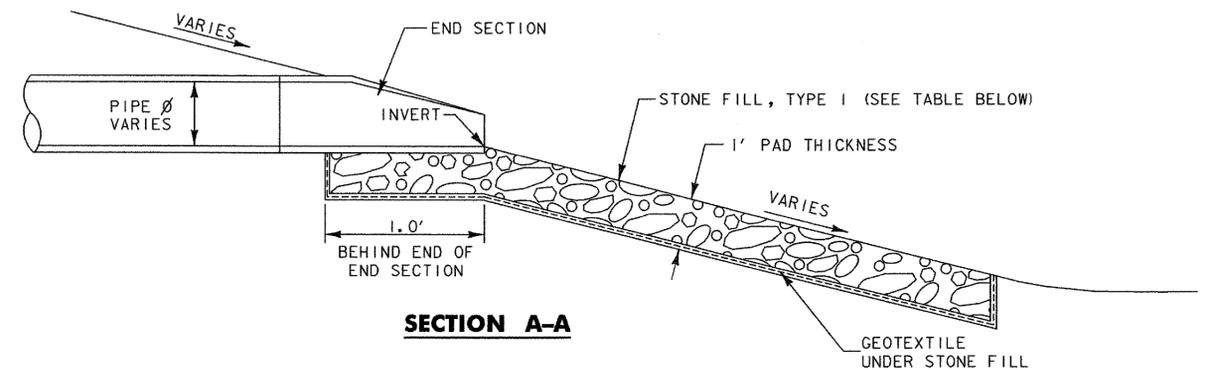
**STONE DITCH PROTECTION DETAIL**

NOT TO SCALE

DITCH PROTECTION TABLE							
LOCATION / APPROX. OFFSET (STA. TO STA.)	STONE TYPE	SLOPE 1	SLOPE 2	BOTTOM WIDTH (ft)	TOTAL WIDTH (ft)	STONE THICKNESS (ft)	REMARKS
0+25, 26' RT. - 3+48, 20' RT.	I	1:2	1:2	4	8	1	DITCH SOUTH OF ACCESS RD. & PARKING LOT
1+30, 204' LT. - 1+86, 202' LT.	II	1:2	1:2	2	6	2	DITCH NORTHEAST OF HANDICAP PARKING
1+86, 202' LT. - 3+49, 195' LT.	I	1:4	1:2	2	8	1	DITCH NORTH OF PARKING LOT
10+53, 54' LT. - 10+92, 52' LT.	I	1:2	1:2	4	8	1	FOREBAY SPILLWAY
11+83, 55' RT. - 12+93, 18' RT.	I	1:4	1:2	2	8	1	DITCH NORTH OF BUS LOOP
12+57, 54' LT. - 12+88, 27' LT.	I	1:2	1:2	4	8	1	POCKET POND EMERGENCY SPILLWAY
21+16, 138' RT. - 23+31, 140' RT.	I	1:2	1:2	2	6	1	DITCH EAST OF PARKING LOT
EXISTING GRASS LINED TREAT. SWALE	II	1:3	1:3	2	8	2	FROM LAYOUT POINT 34 TO LAYOUT POINT 35



**PLAN**

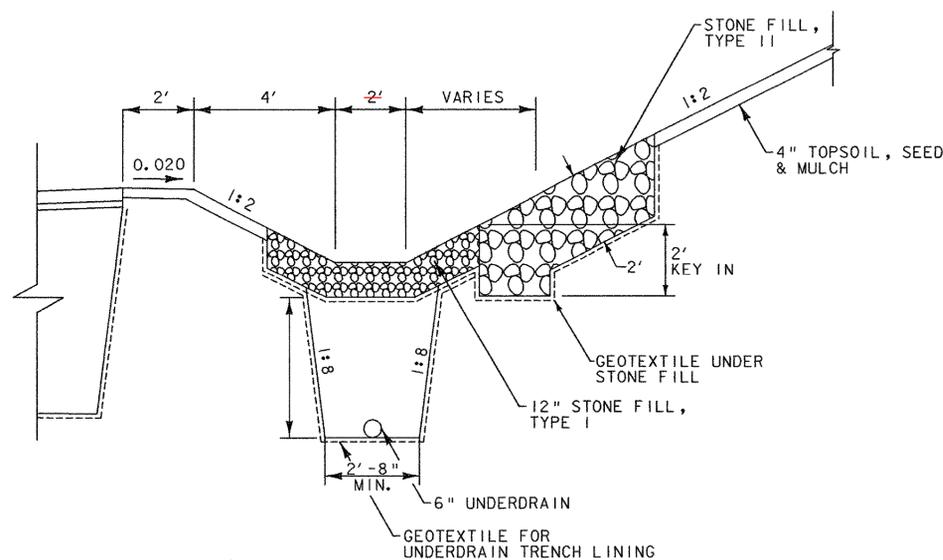


**SECTION A-A**

**STORM DRAIN OUTLET PROTECTION DETAIL**

NOT TO SCALE

STORM DRAIN OUTLET PROTECTION TABLE						
OUTLET PIPE NO. ALTERNATE 'A'	OUTLET PIPE NO. ALTERNATE 'B' & 'C'	STONE TYPE	PAD LENGTH (ft)	PAD WIDTH (ft)	PAD THICKNESS (ft)	
5	4	I	6.0	3.0	1.0	
6	5	I	6.0	3.0	1.0	
9	9	I	6.0	3.0	1.0	
10	10	I	6.0	3.0	1.0	
12	12	I	4.0	2.0	1.0	



**SLOPE STABILIZATION DETAIL**

NOT TO SCALE  
STA. 21+50 RT. TO STA. 23+25 RT.

NOTE:  
ACTUAL LOCATION OF SLOPE STABILIZATION  
TO BE DETERMINED IN THE FIELD BY THE  
RESIDENT ENGINEER.

NOTE:

ALL EXCAVATION REQUIRED FOR STONE DITCH PROTECTION AND STORM DRAIN OUTLET PROTECTION, SHALL BE PAID FOR AS ITEM 204.20, TRENCH EXCAVATION OF EARTH.

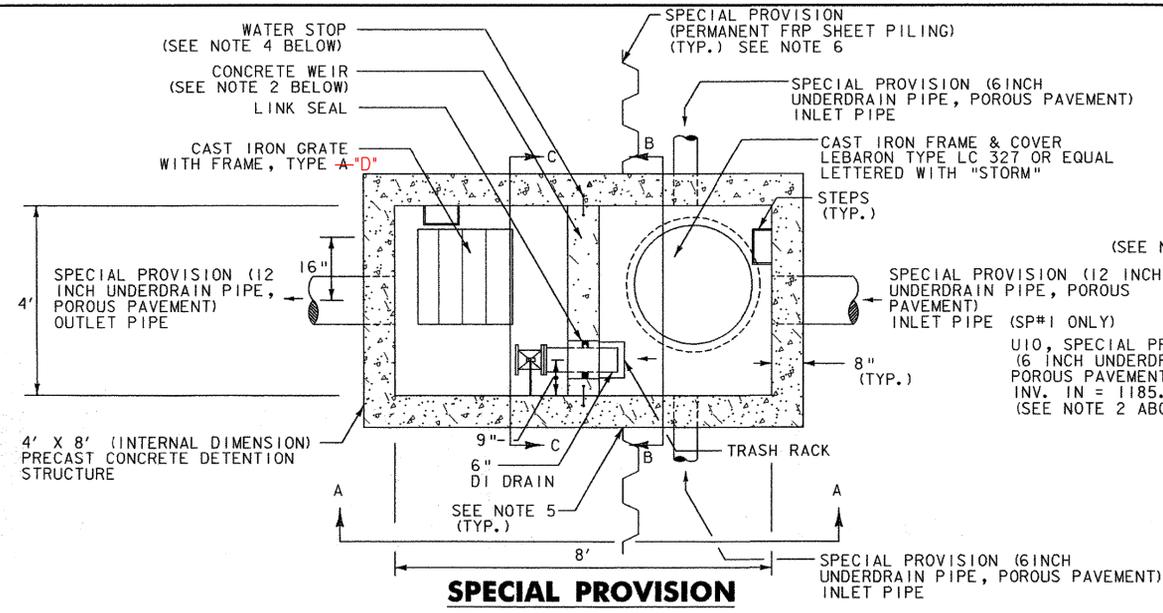


PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...\\16\_zk000DrainDet.por.ptf PLOT DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**DRAINAGE DETAILS 2** SHEET 23 OF 63



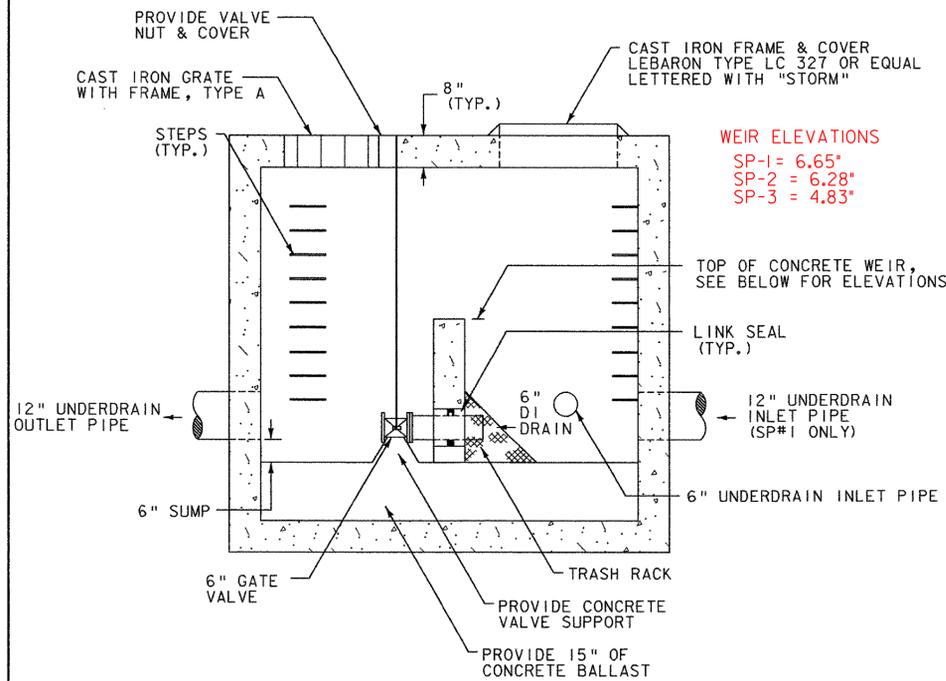




**(PRECAST CONCRETE RETENTION STRUCTURE) - SP #1 AND SP #2**

NOT TO SCALE

- NOTE:
- REFER TO DRAINAGE PLAN (SHEET 21 OF 63) FOR INLET PIPE AND OUTLET PIPE ORIENTATIONS.
  - CONCRETE WEIR SHALL BE DESIGNED ASSUMING WATER ALONG HEIGHT OF WEIR PLUS ONE FOOT ON ONE SIDE ONLY.
  - ALL MATERIALS AND LABOR REQUIRED TO CONSTRUCT PRECAST CONCRETE RETENTION STRUCTURE INCLUDING BUT ARE NOT LIMITED TO PRECAST CONCRETE RETENTION STRUCTURE, CONCRETE WEIR, CONCRETE BALLAST, TRASH RACK, VALVE NUT AND COVER, GATE VALVE, DUCTILE IRON PIPE, COVERS, GRATES, FRAMES, STEPS, AND SEALS SHALL BE PAID FOR UNDER ITEM 900.620 SPECIAL PROVISION (PRECAST CONCRETE RETENTION STRUCTURE).
  - WATER STOP SHALL BE PROVIDED ALONG SIDES AND BOTTOM OF WEIR TO PREVENT LEAKAGE AROUND SIDES AND BOTTOM OF WEIR.
  - JOINT BETWEEN RETENTION STRUCTURE AND FRP SHEET PILE CUT-OFF WALL SHALL BE SEALED WITH POLYURETHANE JOINT SEALER. REFER TO VTRANS 2006 STANDARDS SPECIFICATIONS FOR CONSTRUCTION SECTION 707.05. PAYMENT SHALL BE INCIDENTAL TO ITEM 900.675 SPECIAL PROVISION (CUT-OFF WALL).
  - CUT-OFF WALL AT SP#2 ONLY.



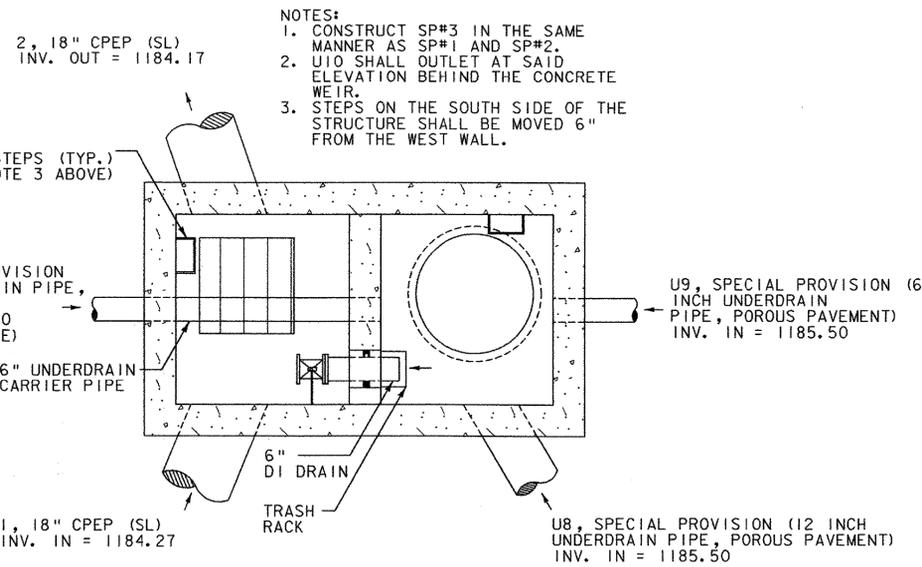
**SECTION A-A  
SP#1 AND SP#2 ONLY**

NOT TO SCALE

**WEIR ELEVATIONS**  
 SP-1 = 6.65'  
 SP-2 = 6.28'  
 SP-3 = 4.83'

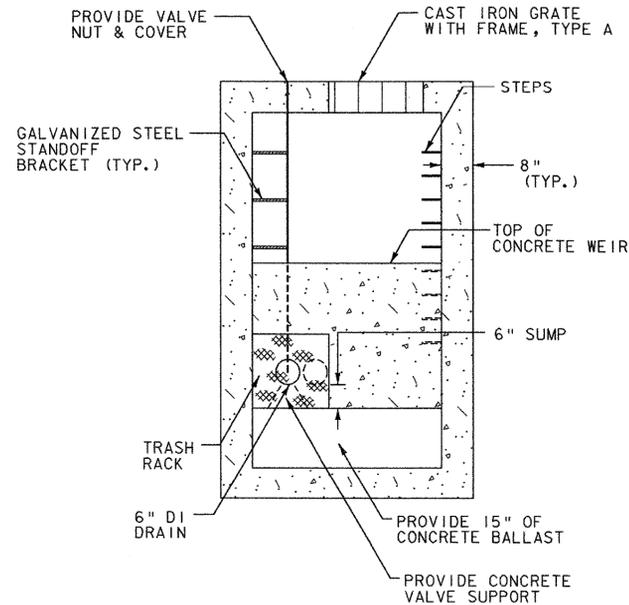
**TOP OF CONCRETE WEIR ELEVATIONS**

SP#1 = ELEVATION 1194.50  
 SP#2 = ELEVATION 1191.50  
 SP#3 = ELEVATION 1188.50



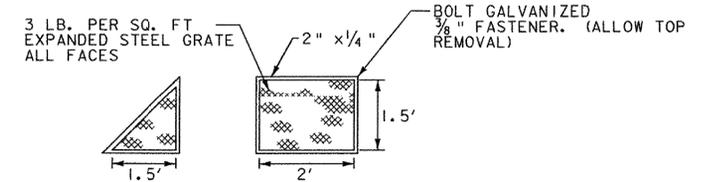
**SPECIAL PROVISION  
(PRECAST CONCRETE RETENTION STRUCTURE) SP #3**

SP#3 PIPE ORIENTATION  
 NOT TO SCALE



**SECTION B-B  
SP#1 AND SP#2 ONLY**

NOT TO SCALE

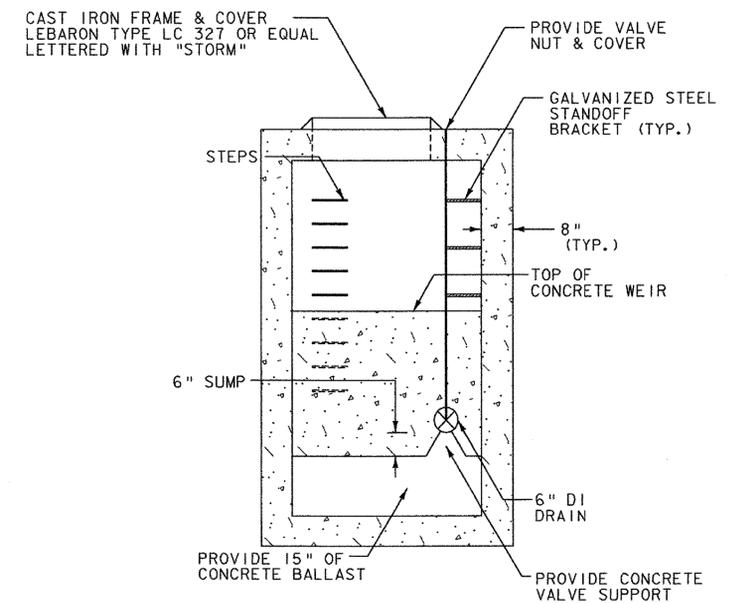


**TRASH RACK DETAIL**

NOT TO SCALE

NOTES:

- ALL SURFACES TO BE COATED WITH ZRC COLD GALVANIZED COMPOUND.
- PAYMENT SHALL BE INCIDENTAL TO ITEM 900.620 SPECIAL PROVISION (RETENTION STRUCTURE).



**SECTION C-C  
SP#1 AND SP#2 ONLY**

NOT TO SCALE

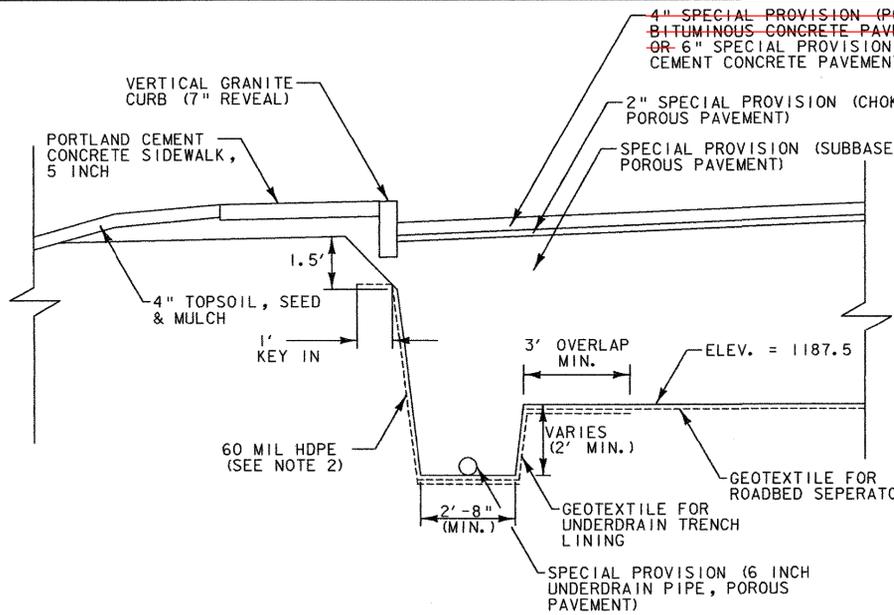
**ALTERNATES  
'B' AND 'C'**



Stantec

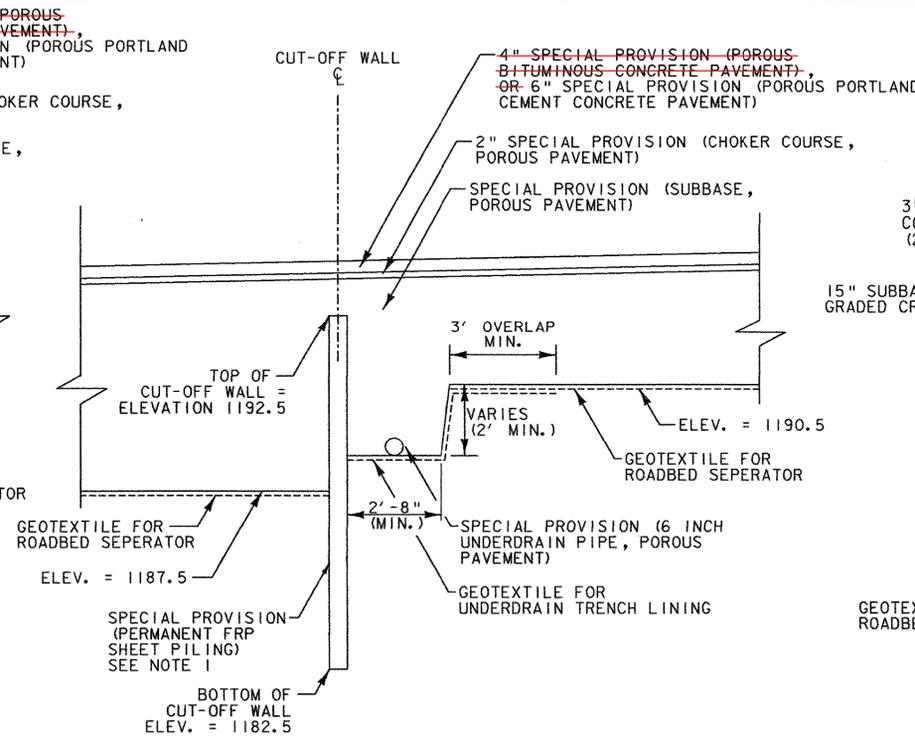
PROJECT NAME: RANDOLPH  
 PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...16\_zk000DrainDet\_por.pff PLOT DATE: 8/3/2007  
 PROJECT LEADER: WLD DRAWN BY: STANTEC  
 DESIGNED BY: STANTEC CHECKED BY: GAS  
**DRAINAGE DETAILS 5** SHEET 26 OF 63



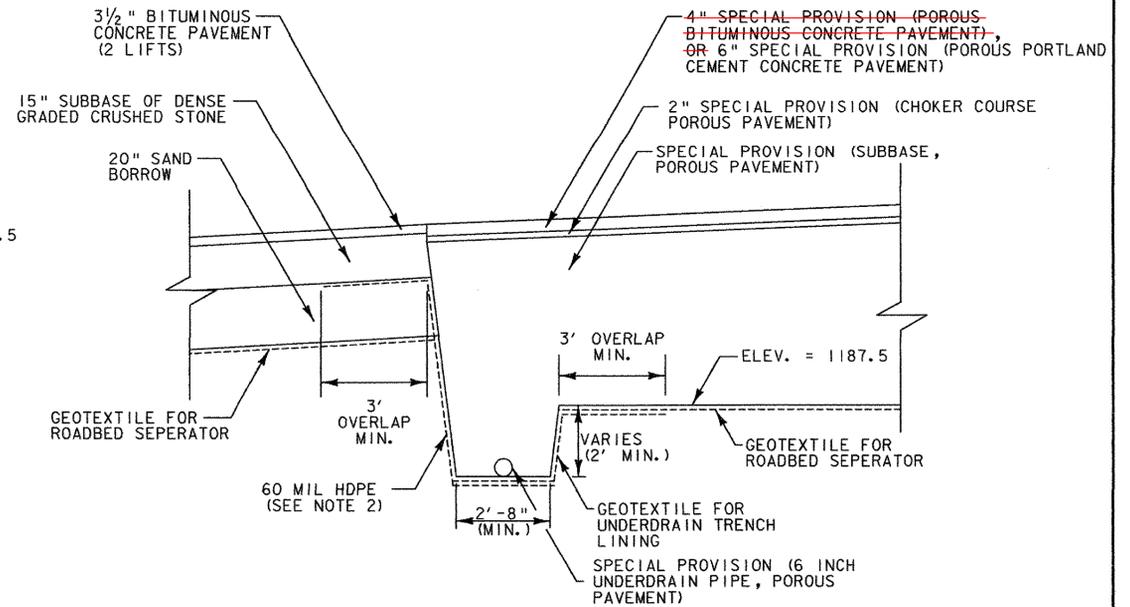
**POROUS PAVEMENT UNDERDRAIN  
DETAIL 'A'**

STA. 21+83, LT. TO STA. 22+87, LT.  
STA. 22+06, RT. TO STA. 23+26, LT.  
NOT TO SCALE



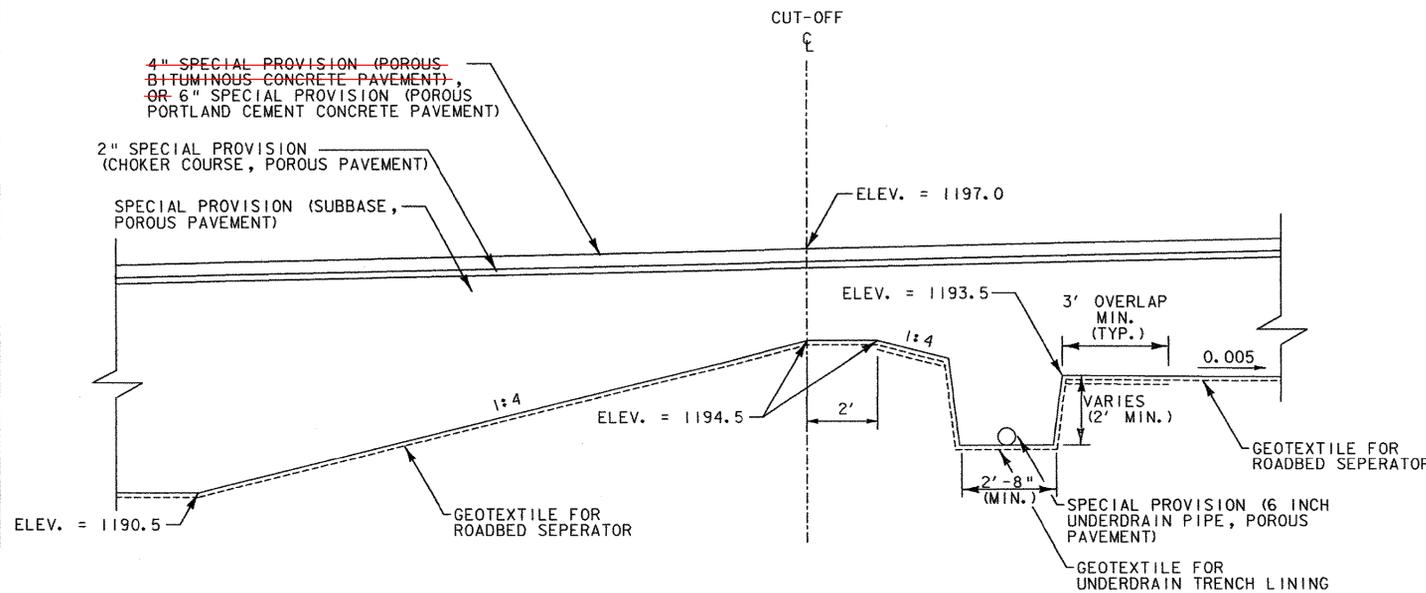
**POROUS PAVEMENT UNDERDRAIN  
DETAIL 'B'**

NOT TO SCALE



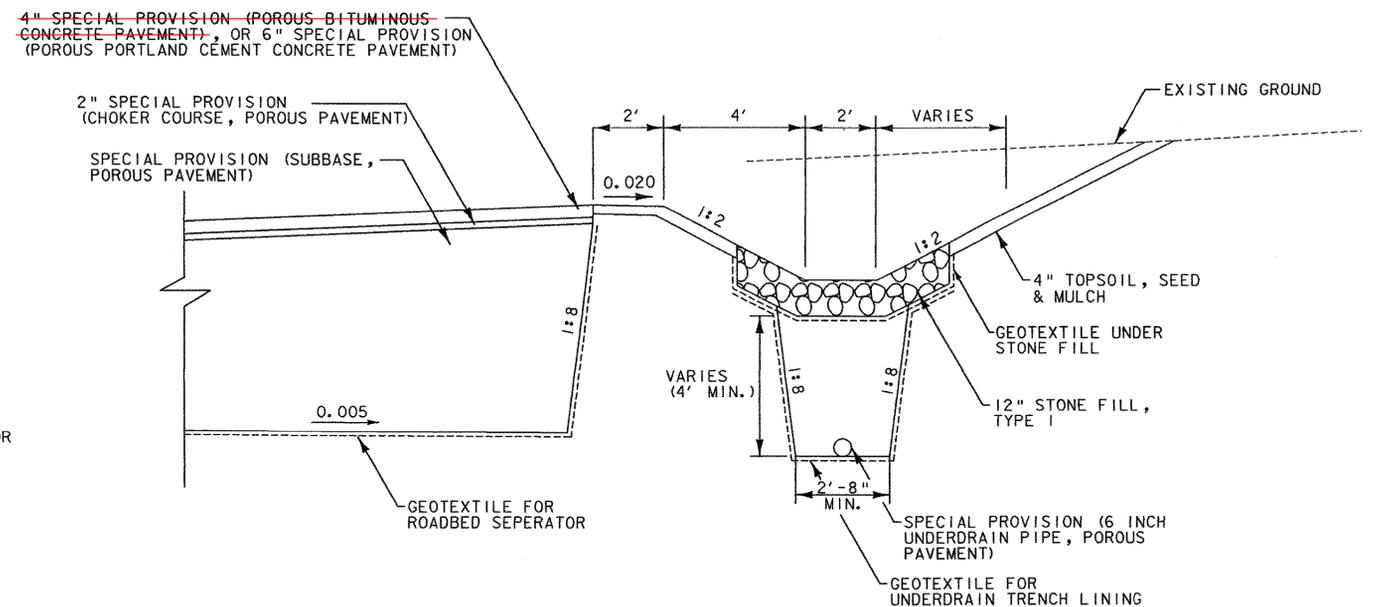
**POROUS PAVEMENT UNDERDRAIN  
DETAIL 'E'**

STA. 21+23, LT. TO STA. 21+77, LT.  
NOT TO SCALE



**POROUS PAVEMENT UNDERDRAIN  
DETAIL 'C'**

NOT TO SCALE



**POROUS PAVEMENT UNDERDRAIN  
DETAIL 'D'**

NOT TO SCALE

**NOTES:**

- SPECIAL PROVISION (PERMANENT FRP SHEET PILING) SHALL BE CONSTRUCTED WITH FIBERGLASS REINFORCED POLYMER (FRP) SHEET PILING. THE PURPOSE OF THE FRP SHEET PILING IS TO PROVIDE A BARRIER TO SUBSURFACE WATER FLOW BETWEEN AREAS 1 AND 2. THE FRP SHEET PILES ARE NOT DESIGNED FOR EARTH RETENTION. CONTRACTOR SHALL MAINTAIN SAME GROUND SURFACE ELEVATION ON BOTH SIDES OF FRP SHEET PILING AT ALL TIMES DURING CONSTRUCTION.
- 60 MILL HDPE, IN ALL LOCATIONS ABOVE, SHALL BE PAID INCIDENTAL TO ITEM 900.640 SPECIAL PROVISION (6 INCH UNDERDRAIN PIPE, POROUS PAVEMENT).



Stantec

**ALTERNATES  
'B' AND 'C'**

PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...N6\_zk000rainDet\_por.pxf PLOT DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**DRAINAGE DETAILS 6** SHEET 27 OF 63





















**NOTES:**

- FOR PAVEMENT MARKING DETAILS, SEE VTrans STANDARD SHEETS E-191, E-192 AND E-193.
- FOR FLUSH ISLAND STRIPING DETAILS, SEE MISCELLANEOUS DETAILS SHEET 46 of 63.
- FOR HANDICAPPED PARKING STRIPING DETAILS, SEE MISCELLANEOUS DETAILS SHEET 46 of 63.

**DURABLE 4" WHITE LINE**

- 0+00 TO 2+02, SOLID RT.
- 1+33 TO 1+53, SOLID LT.
- NW EDGE OF FLUSH CONCRETE ISLAND
- 10+09 TO 10+38, SOLID RT.
- 10+38 TO 11+97, DASHED RT.
- 11+97 TO 13+04, SOLID RT.
- 11+49 TO 11+76, SOLID RT. (HANDICAPPED PARKING SPACES & DIAGONALS)
- 21+23 TO 23+27, SOLID RT. & LT. (PARKING SPACES & DIAGONALS)
- 51+23 TO 57+62, SOLID RT.
- 51+40 TO 53+12, SOLID LT.
- 53+40 TO 57+62, SOLID LT.
- 51+45 TO 52+98, SOLID RT.
- 52+98 TO 53+95, DASHED RT.

**DURABLE 24" STOP BAR**

- 13+04, LT.-RT.
- 53+00 - 53+24, LT.

**DURABLE 4" YELLOW LINE**

- 0+00 TO 0+58, LT. SOLID
- 1+26 TO 2+02, DOUBLE SOLID
- NE EDGE OF FLUSH CONCRETE ISLAND
- SOUTH EDGE OF FLUSH CONCRETE ISLAND
- 51+41 TO 53+03, LT. SOLID
- 53+90 TO 55+68, C SOLID & DIAGONALS

**DURABLE LETTER OR SYMBOL**

- 0+10, C -
- 0+80, LT. -
- 0+80, RT. -
- 1+50, LT. -
- 1+50, RT. -

**PAINTED CURB**

- 51+42, 6' LT. - 51+72, 4' LT.
- 51+42, 6' LT. - 51+72, 8' LT.
- 52+72, 2' LT. - 53+02, 4' LT.
- 52+72, 6' LT. - 53+02, 4' LT.

**PAINTED ISLAND**

- 51+42 - 53+02, LT.

- 2+00, LT. -

- 2+60, RT. -

- 3+16, RT. -

- 10+23, RT. - (4) ▼

- 11+44, RT. -

- 11+45, LT. -

- 11+45, RT. -

- 11+60, RT. -

- 11+70, RT. -

- 11+78, RT. -

- 22+30, C -

- 22+30, RT. -

- 22+30, 107' RT. -

- 23+12, RT. -

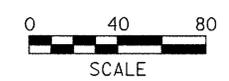
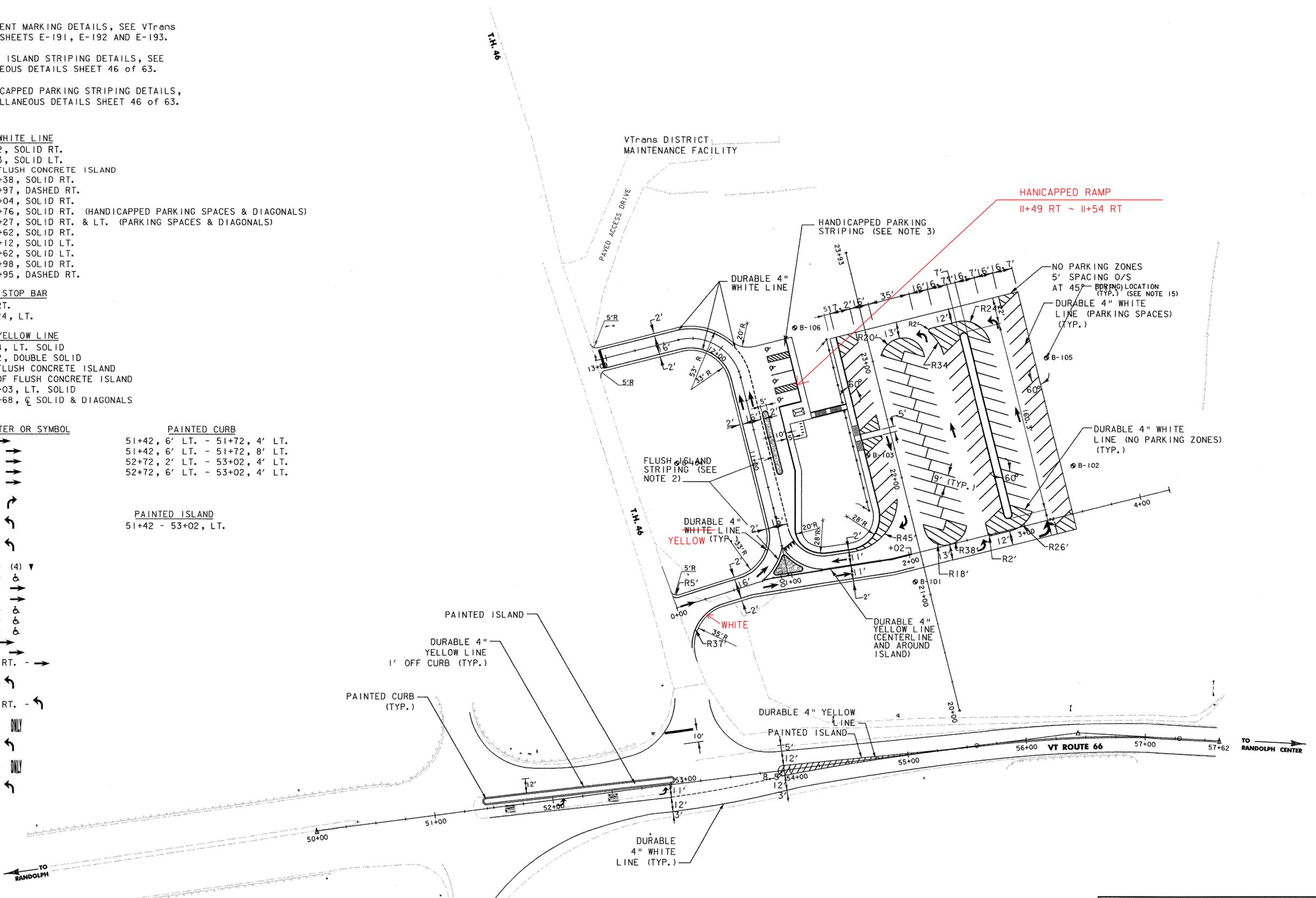
- 23+12, 107' RT. -

- 51+65, RT. - ONLY

- 52+09, RT. - ONLY

- 52+50, RT. - ONLY

- 52+90, RT. - ONLY



PROJECT NAME:	RANDOLPH		
PROJECT NUMBER:	CMG PARK(2)S		
FILE NAME:	...23_Pavement Markings.pff	PLOT DATE:	8/3/2007
PROJECT LEADER:	WLD	DRAWN BY:	STANTEC
DESIGNED BY:	STANTEC	CHECKED BY:	GAS
<b>PAVEMENT MARKING PLAN</b>		SHEET 38 OF 63	





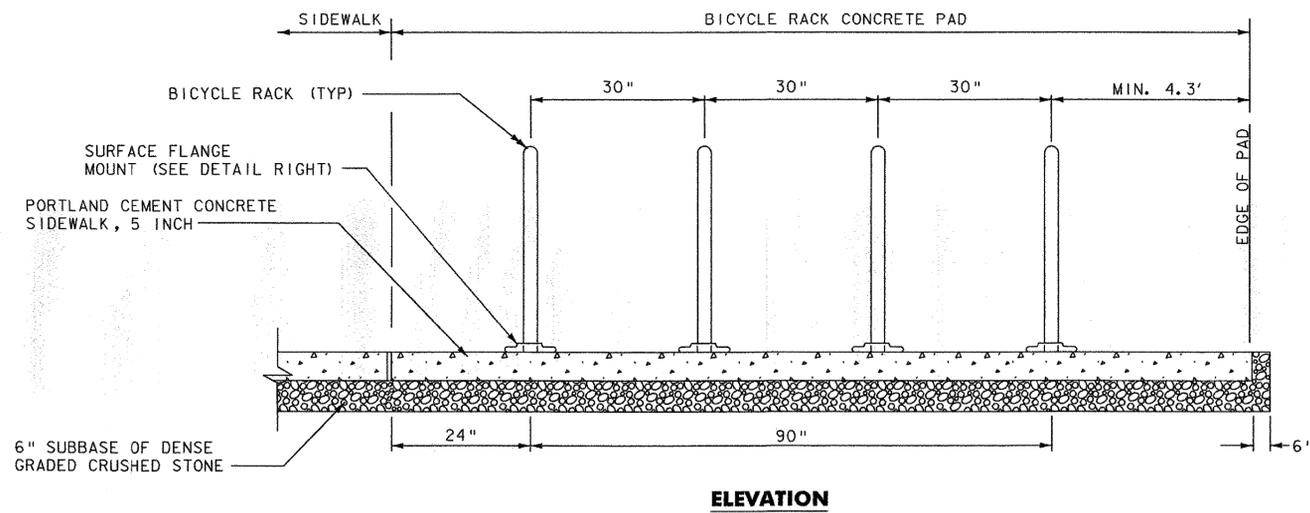




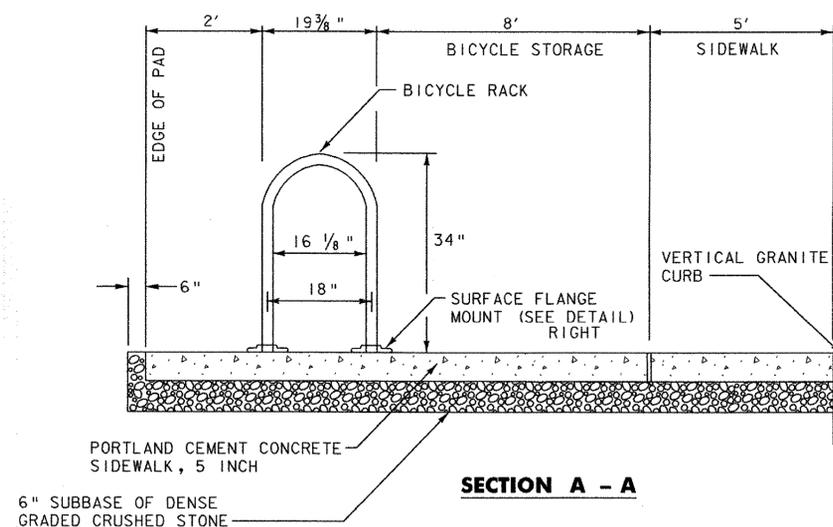






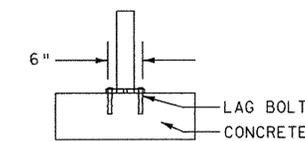
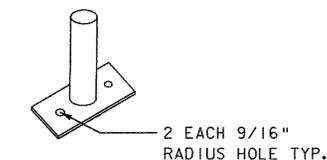


**ELEVATION**



**SECTION A - A**

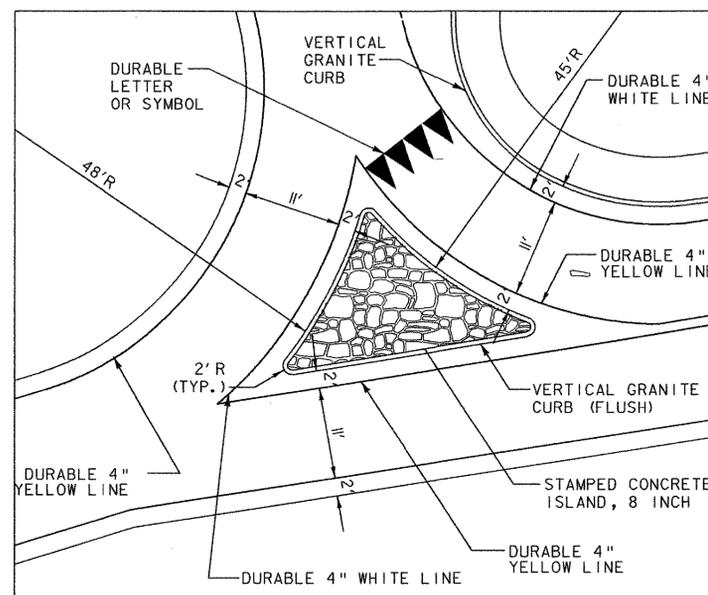
- NOTES:**
1. INSTALL BICYCLE RACKS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
  2. BICYCLE RACK TO BE BLACK IN COLOR.
  3. BICYCLE RACK TO BE PAID UNDER ITEM 900.620 SPECIAL PROVISION (BICYCLE RACK).



**SURFACE FLANGE MOUNT DETAIL**

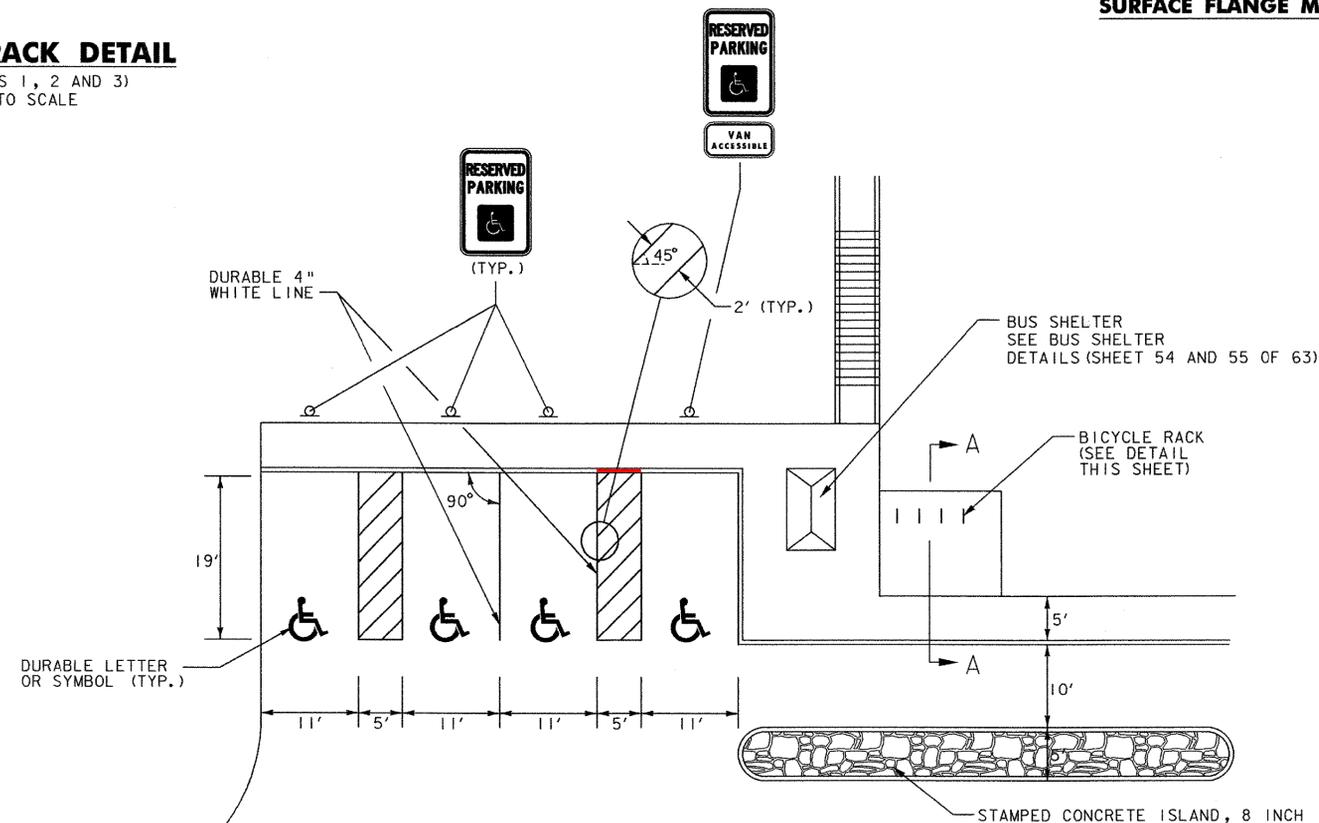
**BICYCLE RACK DETAIL**

(SEE NOTES 1, 2 AND 3)  
NOT TO SCALE



**TRAFFIC ISLAND 1 STRIPING DETAIL**

SCALE : 1" = 10'



**HANDICAPPED PARKING & ISLAND DETAIL**

NOT TO SCALE



PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...Plotfiles\28\_Misc Details.ptf PLOT DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**PAVEMENT MARKING & MISC. DETAILS** SHEET 46 OF 63

### STREET LIGHTING LOCATIONS

POLE NO.	LOCATION	OFFSET	FIXTURE TYPE	XFMR / CIRCUIT	REMARKS
SL-1	23+01.77	79.2' RT	B		
SL-2	22+25.06	79.21' RT	C		
SL-3	21+48.40	79.23' RT	B		
SL-4	22+85.77	32.39' LT	B		
SL-5	22+28.36	32.59' LT	B		
SL-6	21+71.31	34.13' LT	B		
SL-7	11+48.45	51.42' RT	A		
SL-8	1+41.97	20.50' LT	A		
SL-9	12+76.69	13.98' LT	A		
SL-10	11+91.82	26.59' RT	A		
SL-11	10+57.91	15.30' RT	A		
SL-12	0+25.01	14.08' LT	A		

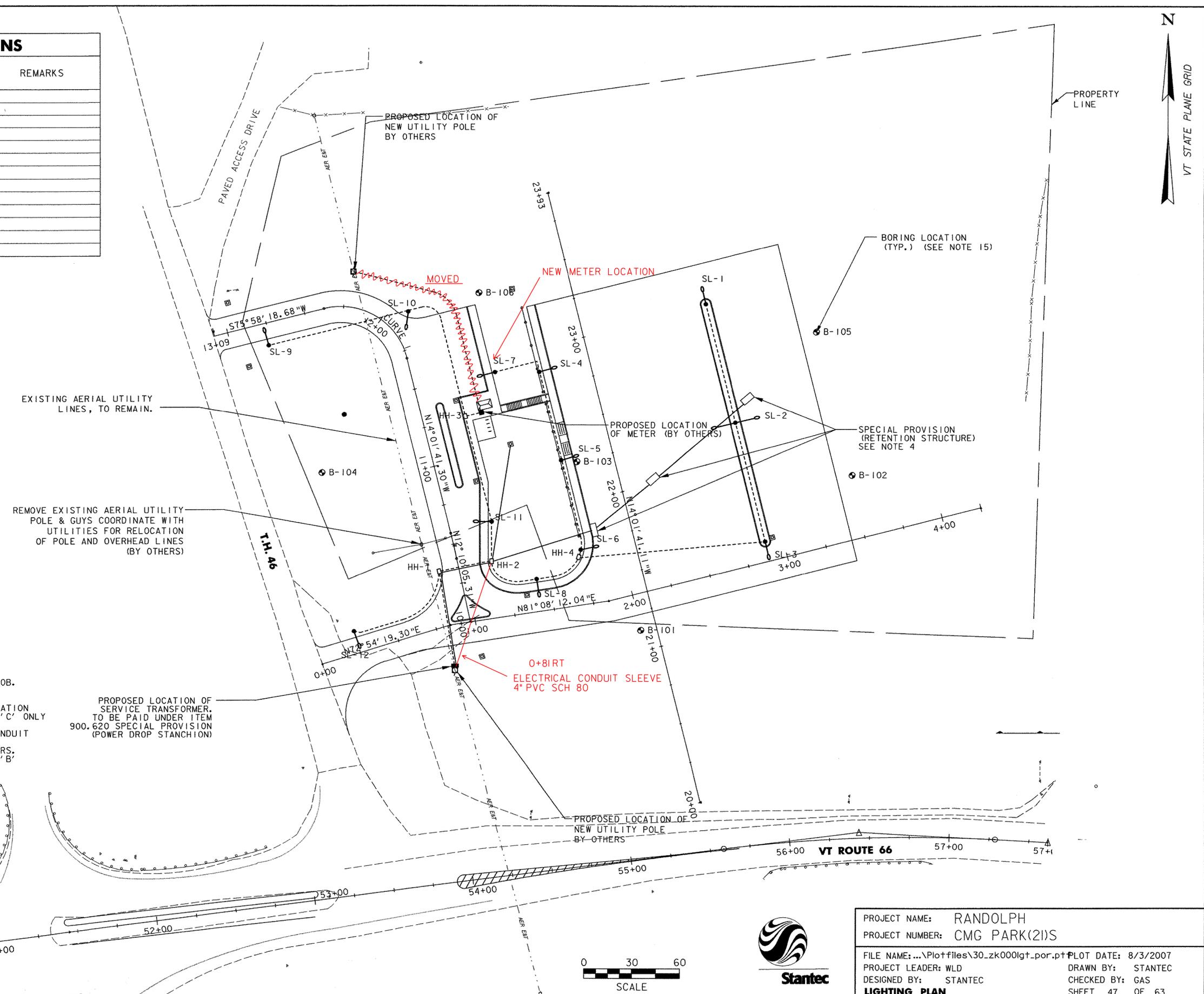
### STREET LIGHTING LEGEND

- TYPE A STREET LIGHT
- TYPE B STREET LIGHT
- TYPE C STREET LIGHT
- ELECTRICAL CONDUIT (2") (PVC)
- WIRED CONDUIT
- JUNCTION BOX
- ELECTRIC SERVICE TRANSFORMER
- ELECTRIC METER

JUNCTION BOX LOCATIONS		
LABEL	LOCATION	OFFSET
HH-1	10+34.67	10.82, LT.
HH-2	10+35.25	19.89, RT.
HH-3	11+25.81	25.53, RT.
HH-4	21+67.23	35.17, LT.

ELECTRICAL CONDUIT SLEEVE (4") (PVC) (SCH 80)		
LOCATION	LENGTH	
FOR WIRED CONDUIT		
STA. 0+81, RT.-STA. 0+87, LT.	49	
STA. 11+34, RT.-STA. 11+86, RT.	62	
STA. 11+93, RT.-STA. 12+21, LT.	37	
STA. 21+49, RT.-STA. 21+66, LT.	111	
FOR ELECTRICAL CONDUIT (2") (PVC) (SEE NOTE 3)		
STA. 0+81, RT.-STA. 0+87, LT.	58	
STA. 1+17, LT.-STA. 1+81, LT.	65	
STA. 10+34, LT.-STA. 10+34, RT.	32	
STA. 10+36, RT.-STA. 11+02, RT.	72	
STA. 21+82, LT.-STA. 22+00, RT.	43	
STA. 22+04, RT.-STA. 22+34, RT.	70	

- NOTE:
- FOR DETAIL ON ALL PERTINENT ITEMS ON THIS SHEET REFER TO VTRANS STANDARDS E-173, 175, 180A, AND 180B.
  - CONTRACTOR TO PROVIDE TWO (2) SPARE 120V/20A BREAKERS IN SERVICE PEDESTAL FOR FUTURE INSTRUMENTATION TO BE INSTALLED BY OTHERS. FOR ALTERNATES 'B' AND 'C' ONLY
  - ELECTRICAL CONDUIT (2 INCH) SHALL CONSIST OF 2" CONDUIT WITHOUT CONDUCTORS. CONTRACTOR TO PROVIDE PULL CORD FOR FUTURE INSTALLATION OF CONDUCTORS BY OTHERS. ELECTRICAL CONDUIT TO BE INSTALLED FOR ALTERNATES 'B' AND 'C' ONLY.
  - THE DRAINAGE CONFIGURATION SHOWN IS FOR ALTERNATES 'B' AND 'C' ONLY.



EXISTING AERIAL UTILITY LINES, TO REMAIN.

REMOVE EXISTING AERIAL UTILITY POLE & GUYS COORDINATE WITH UTILITIES FOR RELOCATION OF POLE AND OVERHEAD LINES (BY OTHERS)

PROPOSED LOCATION OF SERVICE TRANSFORMER. TO BE PAID UNDER ITEM 900.620 SPECIAL PROVISION (POWER DROP STANCHION)

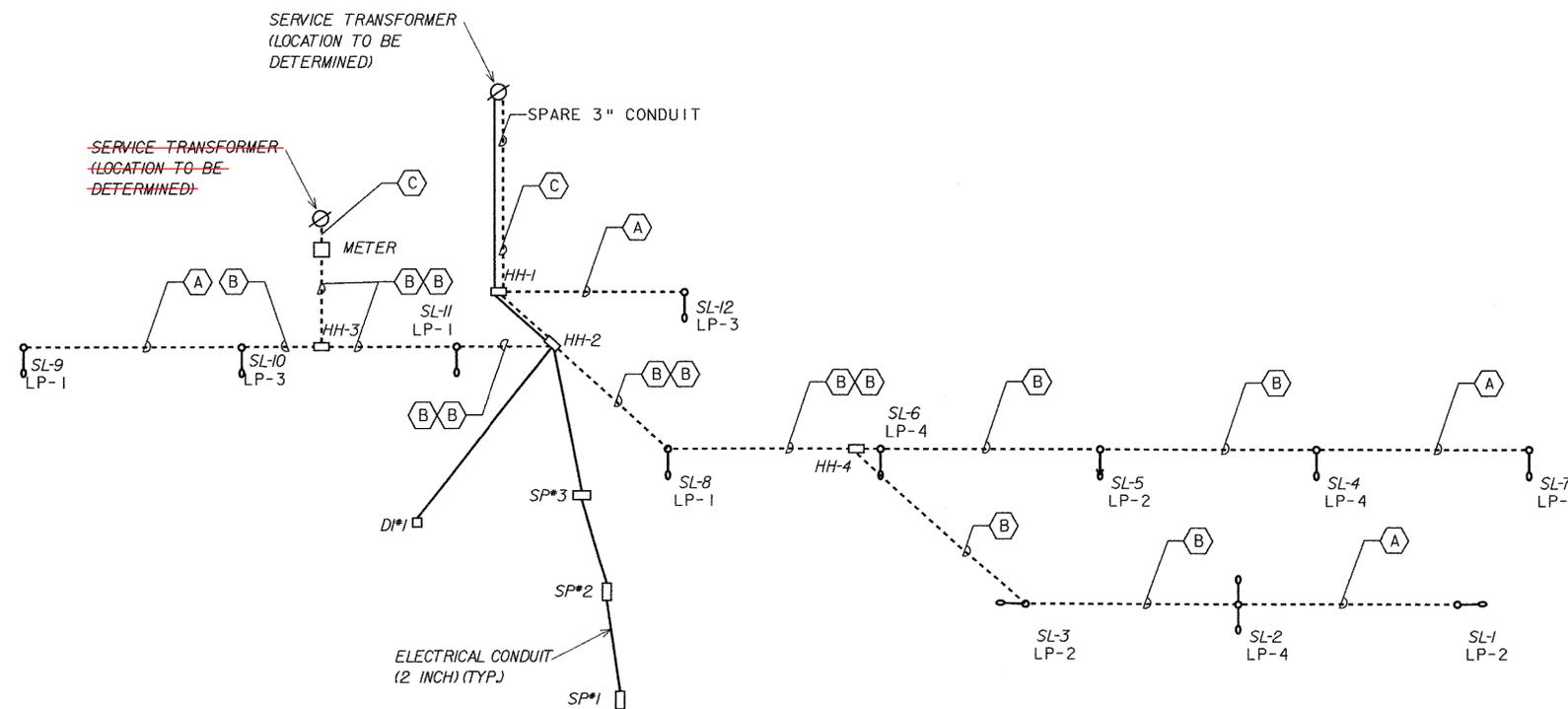
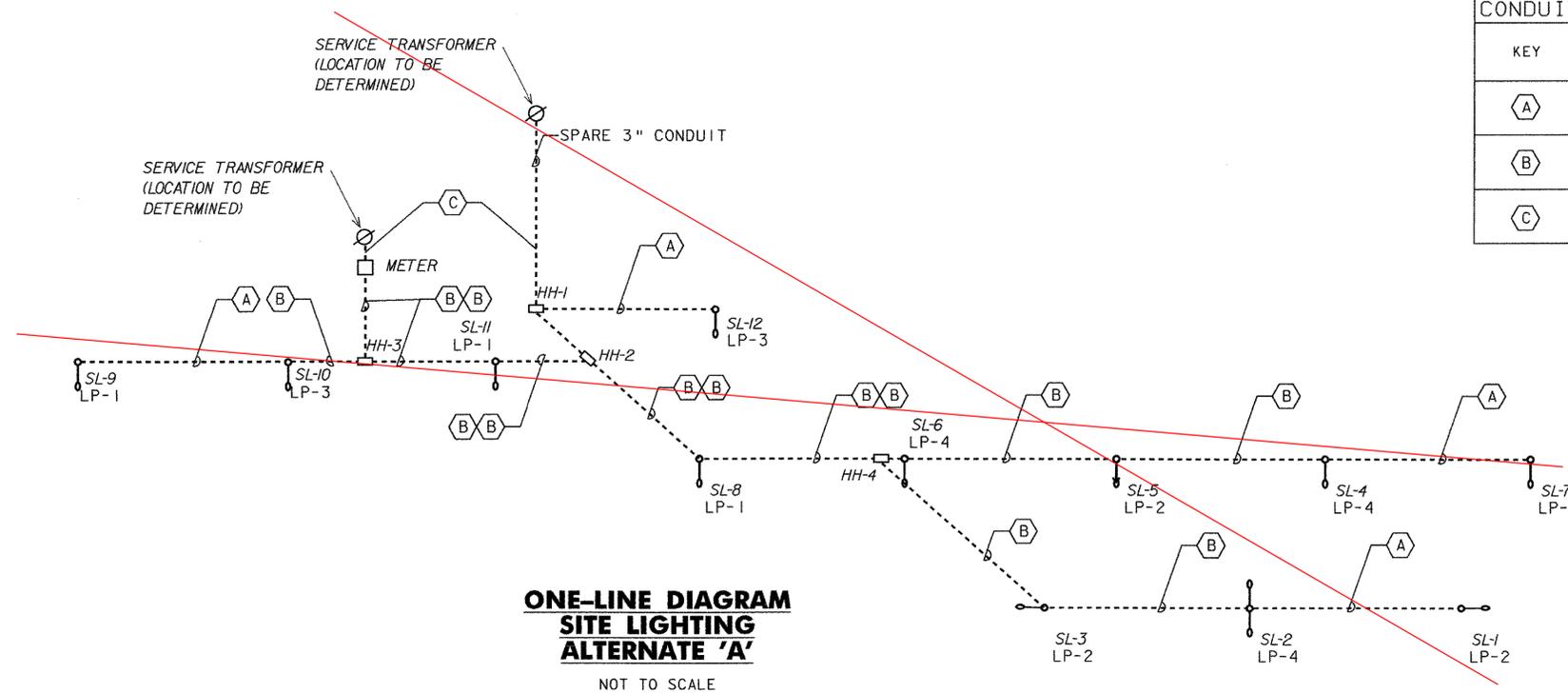
PROPOSED LOCATION OF NEW UTILITY POLE BY OTHERS

0+81 RT ELECTRICAL CONDUIT SLEEVE 4" PVC SCH 80



PROJECT NAME:	RANDOLPH
PROJECT NUMBER:	CMG PARK(2)S
FILE NAME: ...\Plotfiles\30_zk000igt_por.plt	PLOT DATE: 8/3/2007
PROJECT LEADER: WLD	DRAWN BY: STANTEC
DESIGNED BY: STANTEC	CHECKED BY: GAS
<b>LIGHTING PLAN</b>	
	SHEET 47 OF 63

CONDUIT & CONDUCTOR SCHEDULE				
KEY	CONDUIT SIZE	CONDUCTORS		
		FOR FIXTURES	FOR RECEPTACLES	FOR GROUND
A	2"	2#6		1#6G
B	2"	3#6		1#6G
C	3"	3#1/0		1#6G



PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...\\plotfiles\3L\Light Details.pptf PLOT DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**LIGHTING DETAILS 1** SHEET 48 OF 63

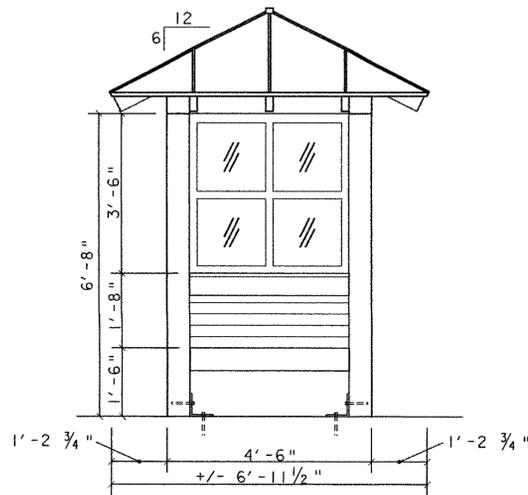




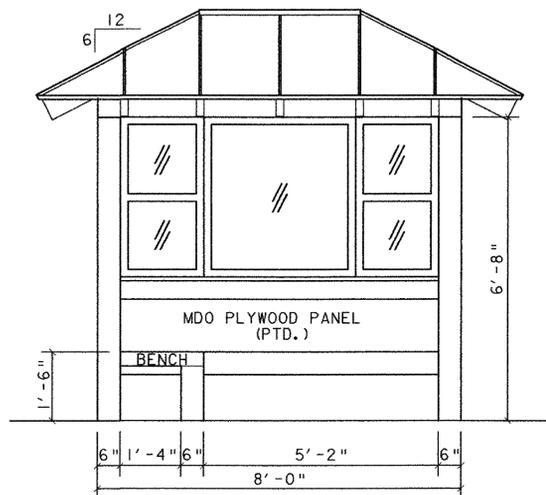




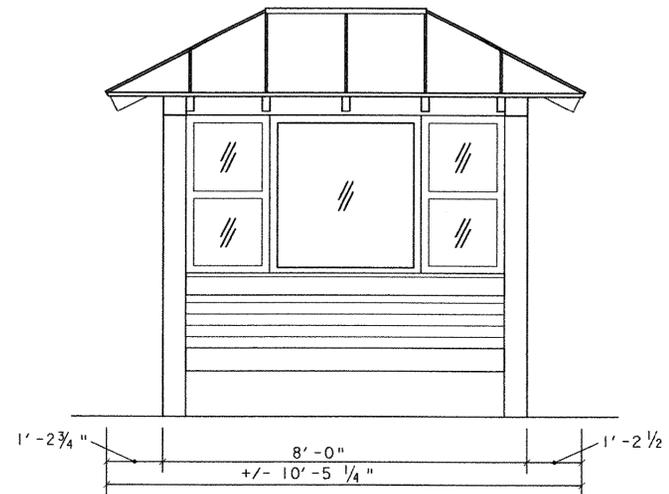




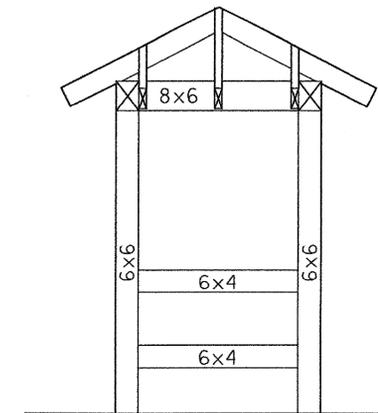
**END ELEVATION (TYP.)**  
SCALE: 1/2" = 1'-0"



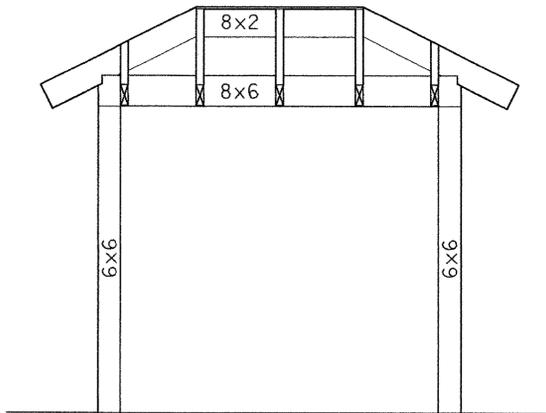
**FRONT/INTERIOR ELEVATION**  
SCALE: 1/2" = 1'-0"



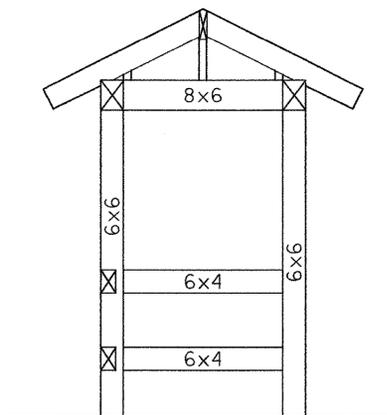
**REAR ELEVATION**  
SCALE: 1/2" = 1'-0"



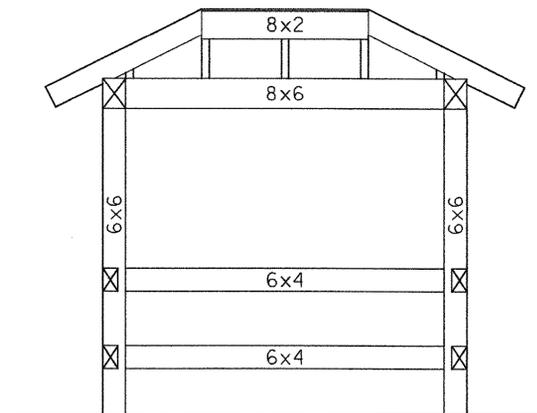
**END FRAMING - ELEVATION**  
SCALE: 1/2" = 1'-0"



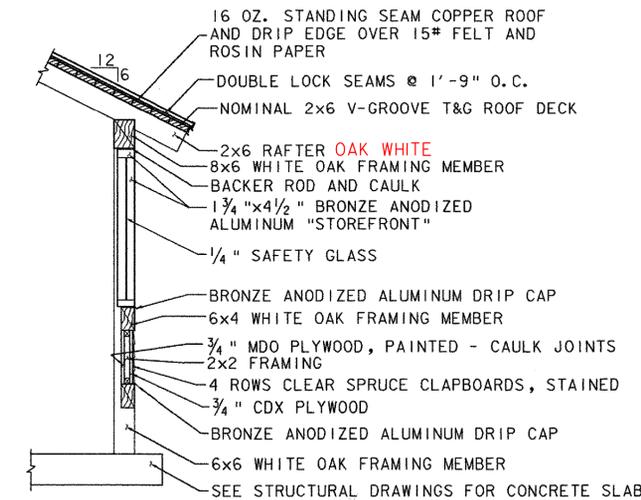
**FRONT/REAR FRAMING - ELEVATION**  
SCALE: 1/2" = 1'-0"



**END FRAMING - SECTION**  
SCALE: 1/2" = 1'-0"

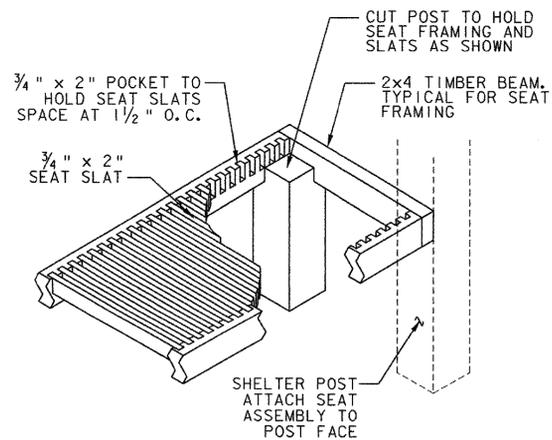


**FRONT/REAR FRAMING - SECTION**  
SCALE: 1/2" = 1'-0"



**TYPICAL WALL SECTION**  
SCALE: 1/2" = 1'-0"

- NOTES**
1. JACK AND COMMON RAFTERS ARE 2x6.
  2. HIP RAFTERS ARE 2x7
  3. RIDGE BEAM IS 2x8

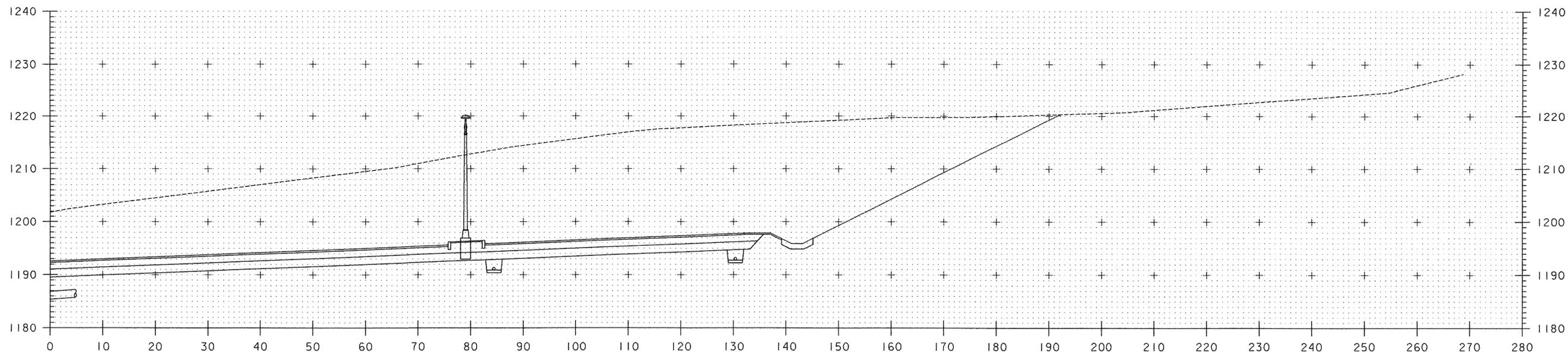


**DETAIL - BENCH FRAMING**  
NOT TO SCALE

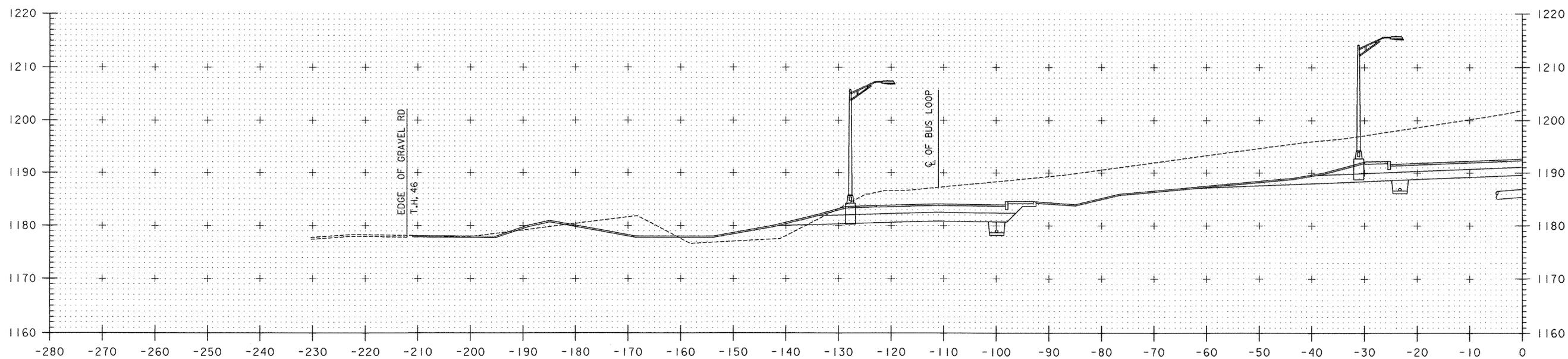
DESIGN PROVIDED BY PERMISSION OF THE CHITTENDEN COUNTY TRANSPORTATION AUTHORITY. COORDINATED BY JUDITH HARRIS IN COOPERATION WITH LIBERTY POST & BEAM. STEPHEN SELIN, ARCHITECT, CONTRIBUTED TO THE CONCEPTUAL DESIGN OF THE PASSENGER BUS SHELTER.

PROJECT NAME:	RANDOLPH	FILE NAME:...	34_Struct Details.ptf	PLOT DATE:	8/3/2007
PROJECT NUMBER:	CMG PARK(2)S	PROJECT LEADER:		DRAWN BY:	
DESIGNED BY:		CHECKED BY:			
<b>BUS SHELTER DETAILS 1</b>			SHEET 54 OF 63		





STA. 21+75

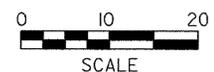


STA. 21+75

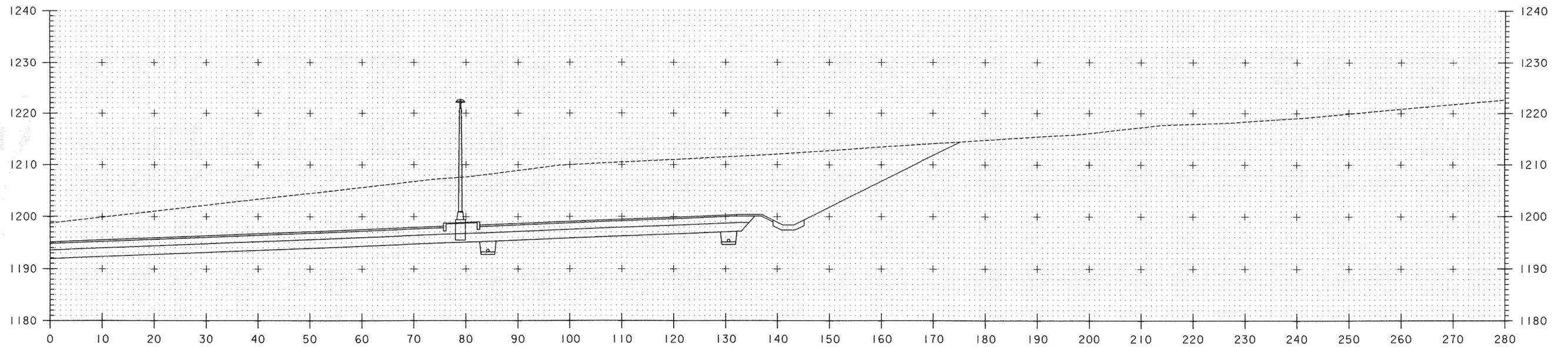
VOID SHEET

**ALTERNATE  
'A'**

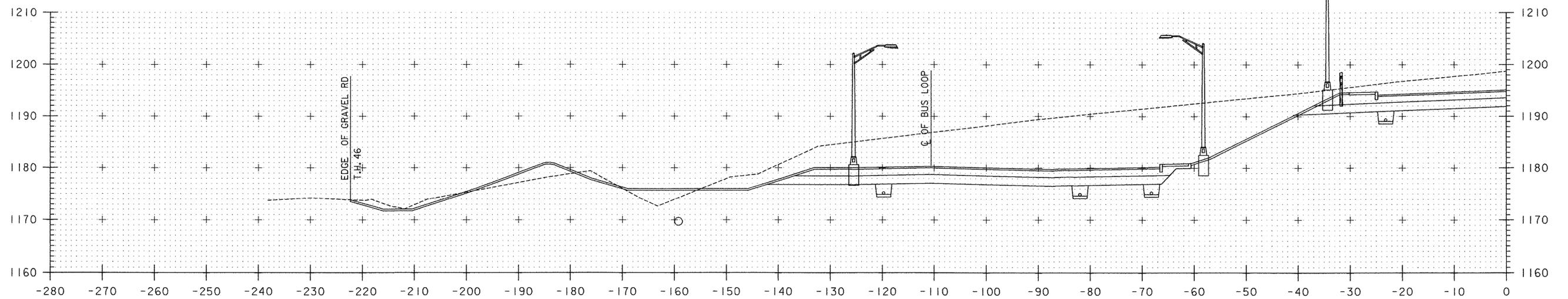
NOTE:  
FOR FURTHER DETAIL ON CROSS SECTIONAL ELEMENTS  
REFER TO THE LAYOUT PLAN, PROFILE SHEET, AND  
GRADING AND DRAINAGE PLAN.



PROJECT NAME:	RANDOLPH	DATE:	8/3/2007
PROJECT NUMBER:	CMG PARK(2)S	DRAWN BY:	STANTEC
FILE NAME:	...35_zk000criticalsections.por	CHECKED BY:	GAS
PROJECT LEADER:	WLD	SHEET	56 OF 63
DESIGNED BY:	STANTEC	<b>CRITICAL SECTIONS 1</b>	



STA. 23+00



STA. 23+00

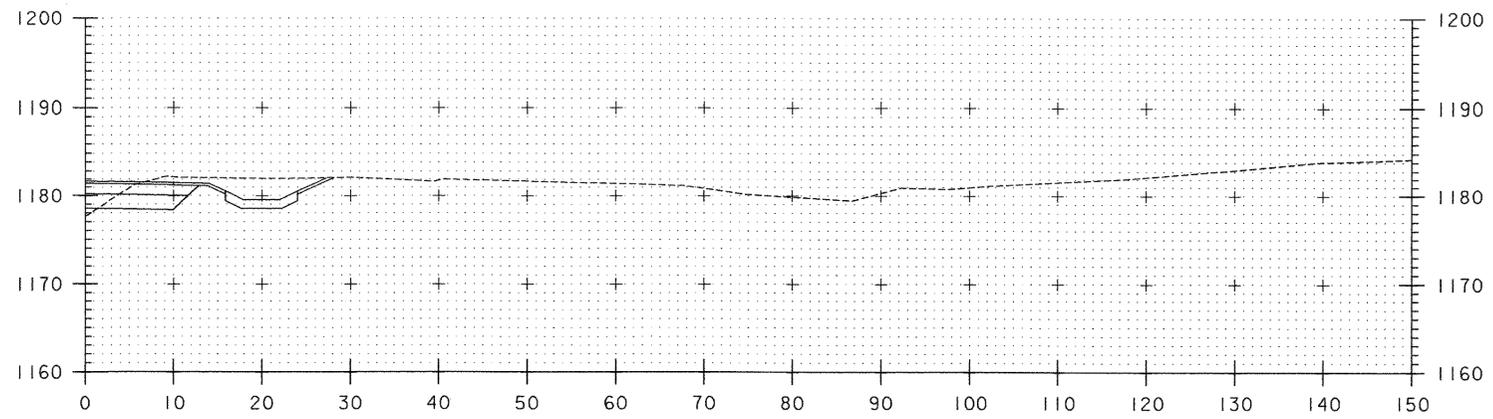
VOID SHEET

ALTERNATE  
'A'

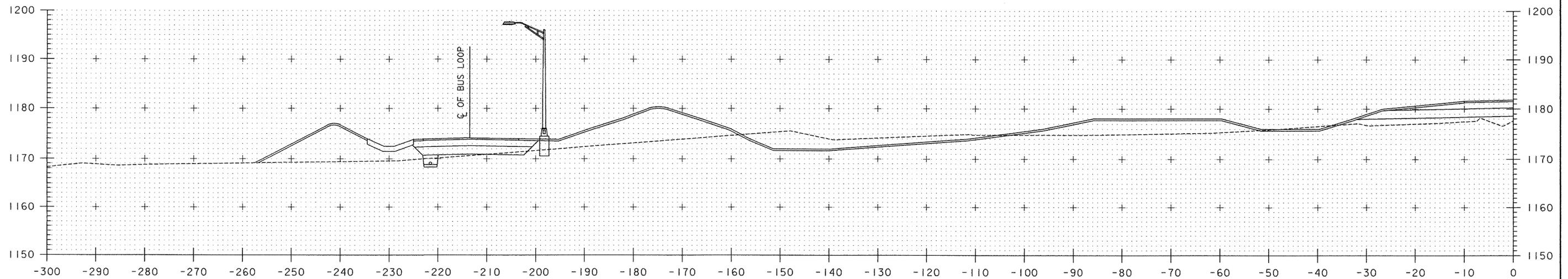
NOTE:  
FOR FURTHER DETAIL ON CROSS SECTIONAL ELEMENTS  
REFER TO THE LAYOUT PLAN, PROFILE SHEET, AND  
GRADING AND DRAINAGE PLAN.



PROJECT NAME:	RANDOLPH	DATE:	8/3/2007
PROJECT NUMBER:	CMG PARK(2)S	DRAWN BY:	STANTEC
FILE NAME:	... \35_zk000criticalsections_porp.dwg	CHECKED BY:	GAS
PROJECT LEADER:	WLD	SHEET	57 OF 63
DESIGNED BY:	STANTEC	<b>CRITICAL SECTIONS 2</b>	



STA. 0+60



STA. 0+60

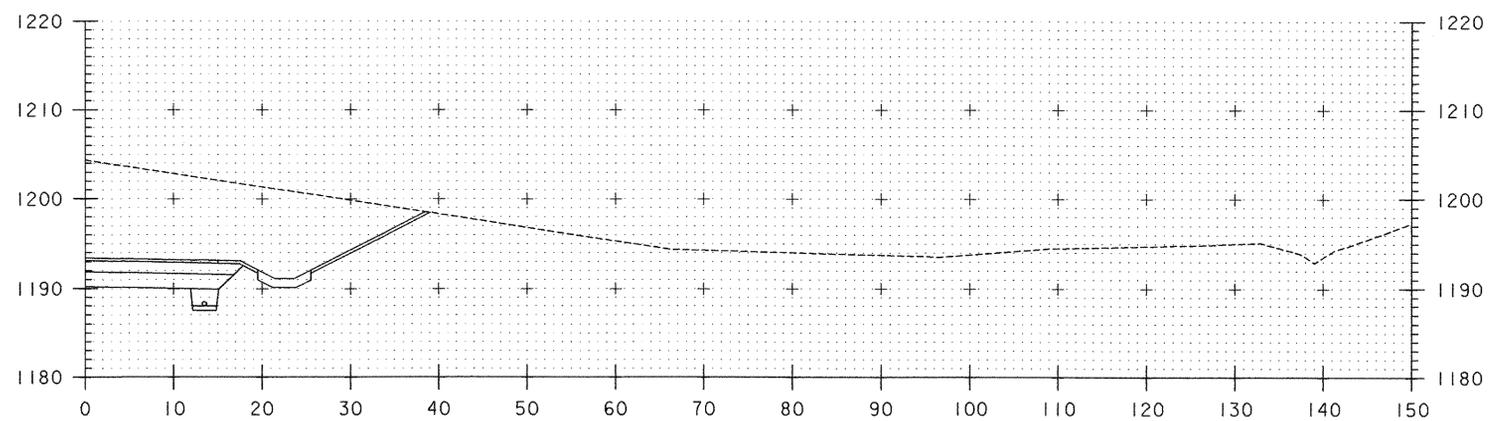
VOID SHEET

ALTERNATE  
'A'

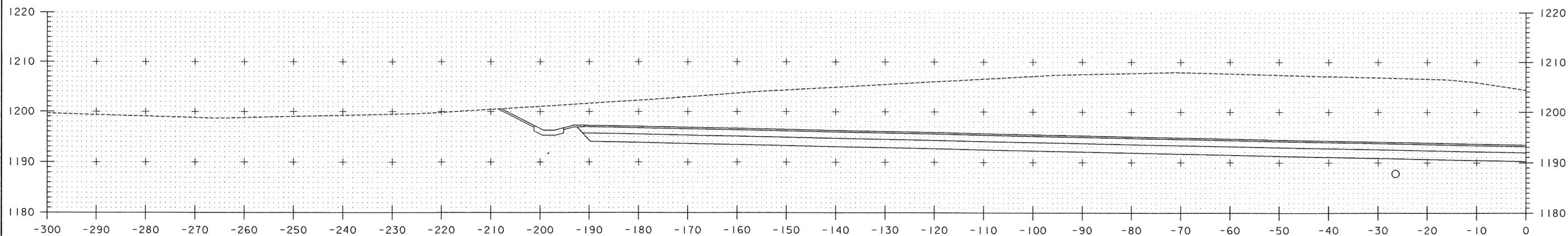
NOTE:  
FOR FURTHER DETAIL ON CROSS SECTIONAL ELEMENTS  
REFER TO THE LAYOUT PLAN, PROFILE SHEET, AND  
GRADING AND DRAINAGE PLAN.



PROJECT NAME:	RANDOLPH	DATE:	8/3/2007
PROJECT NUMBER:	CMG PARK(2)IS	DRAWN BY:	STANTEC
FILE NAME:	...35_zk000critical sections_port	CHECKED BY:	GAS
PROJECT LEADER:	WLD	SHEET	58 OF 63
DESIGNED BY:	STANTEC	<b>CRITICAL SECTIONS 3</b>	



STA. 2+50



STA. 2+50

VOID SHEET

ALTERNATE  
'A'

NOTE:  
FOR FURTHER DETAIL ON CROSS SECTIONAL ELEMENTS  
REFER TO THE LAYOUT PLAN, PROFILE SHEET, AND  
GRADING AND DRAINAGE PLAN.



PROJECT NAME: RANDOLPH  
PROJECT NUMBER: CMG PARK(2)S

FILE NAME: ...35\_zk000criticalsections\_por... DATE: 8/3/2007  
PROJECT LEADER: WLD DRAWN BY: STANTEC  
DESIGNED BY: STANTEC CHECKED BY: GAS  
**CRITICAL SECTIONS 4** SHEET 59 OF 63







