

CITY OF SHOREVIEW, MINNESOTA

CONSTRUCTION PLANS FOR GRADING, BITUMINOUS SURFACING, CURB & GUTTER, SANITARY SEWER, STORM SEWER, WATERMAIN, SIDEWALK, AND MISCELLANEOUS CONSTRUCTION

RICE CREEK PARKWAY/PARK VIEW DRIVE

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LEGEND

	STREET CENTERLINE
	SURVEY BASELINE
	COUNTY SECTION
	QUARTER SIXTEENTH
	CORPORATE LIMITS

EXISTING

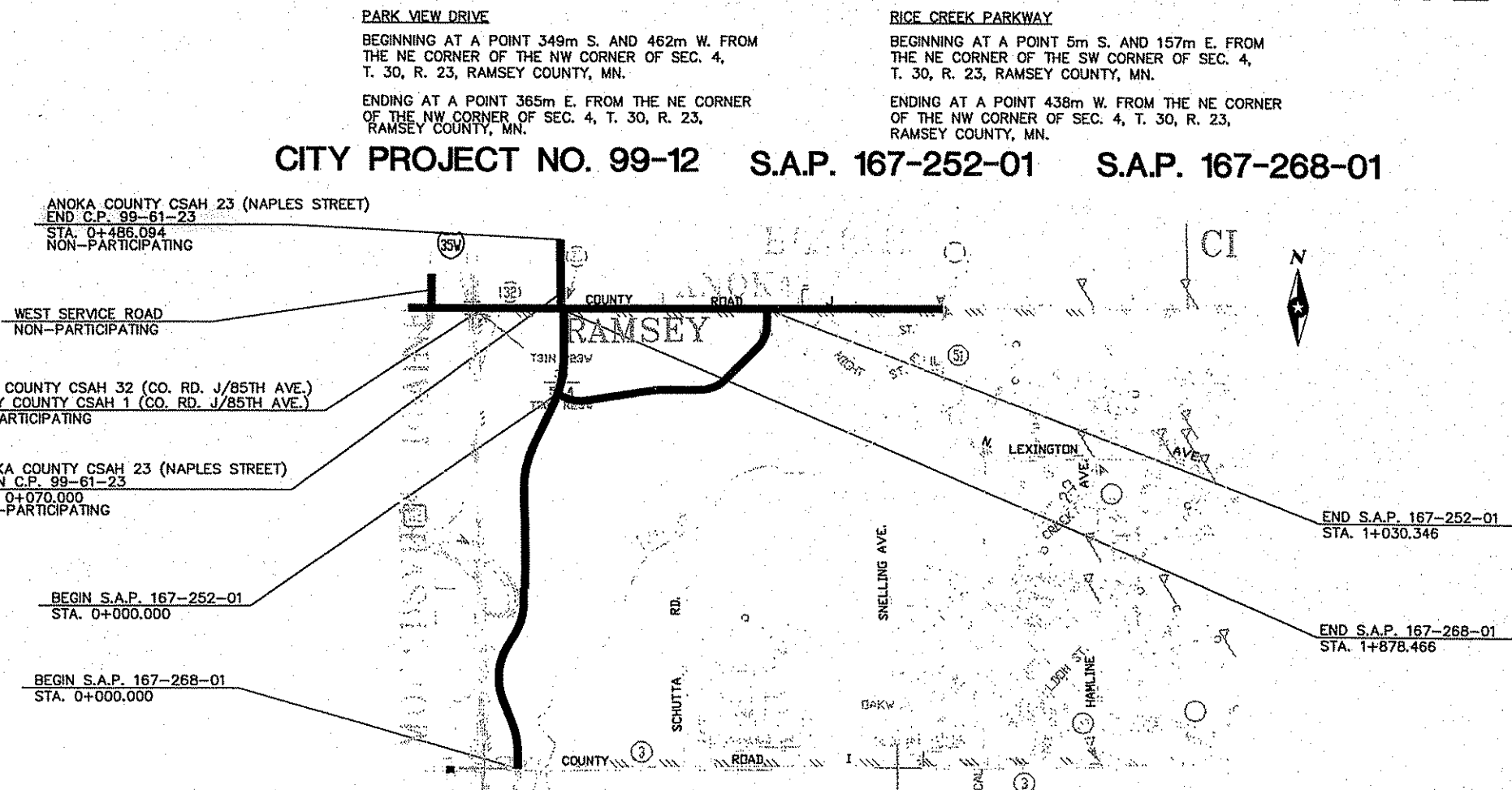
	RIGHT OF WAY
	PERMANENT EASEMENT
	PROPERTY LINE
	R.R. RIGHT OF WAY
	SANITARY SEWER AND MANHOLE
	FORCEMAIN
	SANITARY SEWER SERVICE
	WATERMAIN, HYDRANT AND VALVE
	WATER SERVICE AND CURB STOP BOX
	WATER VALVE MANHOLE
	STORM SEWER AND MANHOLE
	CATCH BASIN
	CULVERT
	BULKHEAD
	UNDERGROUND TELEPHONE CABLE OR CONDUIT
	UNDERGROUND ELECTRIC CABLE OR CONDUIT
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
	CABLE TV PEDESTAL
	ELECTRIC MANHOLE
	POWER POLE
	DOWN GUY ANCHOR
	STEEL LIGHT POLE
	TRAFFIC SIGNAL, STANDARD
	GAS MAIN
	GAS VALVE
	SOIL BORING
	TRAVERSE POINT
	CONCRETE CURB AND GUTTER
	EXISTING PAVEMENT OR SIDEWALK
	SIGN (HWY, PARK, STOP, ETC.)
	STREET SIGN
	DITCH
	RAILROAD TRACKS
	FENCE
	TREE (DECIDUOUS)
	TREE (CONIFEROUS)
	BUSH-SHRUB
	WOODED AREA
	BUILDING

PROPOSED OR NEW CONSTRUCTION

	NEW RIGHT OF WAY
	PERMANENT EASEMENT
	TEMPORARY EASEMENT
	SANITARY SEWER AND MANHOLE
	FORCEMAIN
	SANITARY SEWER SERVICE
	WATERMAIN, HYDRANT AND VALVE
	WATER SERVICE AND CURB STOP BOX
	WATER VALVE MANHOLE
	STORM SEWER WITH MANHOLE
	CATCH BASIN
	CULVERT
	BULKHEAD
	DRAIN PIPE
	DITCH
	CONCRETE CURB AND GUTTER
	SILTFENCE
	HAYBALES
	STEEL LIGHT POLE
	TRAFFIC SIGNAL, STANDARD
	SIGN (HWY, PARK, STOP, ETC.)
	STREET LIGHT FEED POINT
	STREET LIGHTING CABLE
	REMOVE TREE
	INSULATION

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, JANUARY 1998.

NOTE:
 THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBEROPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL BEFORE COMMENCING EXCAVATION.
 GOPHER STATE ONE CALL SYSTEM.....1-800-252-1166



RICE CREEK PARKWAY S.A.P. 167-268-01

STOPPING SIGHT DISTANCE BASED ON:	
1070mm HEIGHT OF EYE	150mm HEIGHT OF OBJECT
RICE CREEK PARKWAY (S.A.P. 167-268-01)	1878.466 m
GROSS LENGTH	1878.466 m
BRIDGE LENGTH	0 m
DESIGN	9.1 t
DESIGN SPEED	55 km/h*
R VALUE (EST.)	30
ESAL	4,766,000
EXISTING A.D.T. (1999)	0
20 YR. PROJECTED A.D.T. (2019)	12,950
% H.C.A.D.T.	11.1
FUNCTIONAL CLASSIFICATION	COLLECTOR
NO. OF TRAFFIC LANES	4**
NO. OF PARKING LANES	0

** 2 LANES STA. 0+000.0 TO 0+773.0 *50 km/h DESIGN SPEED STA. 1+760 TO 1+790

PARK VIEW DRIVE S.A.P. 167-252-01

STOPPING SIGHT DISTANCE BASED ON:	
1070mm HEIGHT OF EYE	150mm HEIGHT OF OBJECT
PARK VIEW DRIVE (S.A.P. 167-252-01)	1030.346 m
GROSS LENGTH	1030.346 m
BRIDGE LENGTH	0 m
DESIGN	9.1 t
DESIGN SPEED	55 km/h
R VALUE (EST.)	30
ESAL	1,141,000
EXISTING A.D.T. (1999)	0
20 YR. PROJECTED A.D.T. (2019)	3100
% H.C.A.D.T.	11.1
FUNCTIONAL CLASSIFICATION	COLLECTOR
NO. OF TRAFFIC LANES	2
NO. OF PARKING LANES	0

THIS PLAN CONTAINS 131 SHEETS.

APPROVED:	_____	19__
ANOKA COUNTY ENGINEER	_____	DATE
APPROVED:	_____	19__
RAMSEY COUNTY ENGINEER	_____	DATE
APPROVED:	_____	19__
CITY ENGINEER OF SHOREVIEW	_____	DATE
APPROVED:	_____	19__
CITY ENGINEER OF BLAINE	_____	DATE
APPROVED:	_____	19__
METRO-ASSISTANT DIVISION ENGINEER-STATE AID:	_____	DATE
REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY	_____	DATE
APPROVED:	_____	19__
APPROVED FOR STATE AID FUNDING:	_____	DATE
STATE AID ENGINEER	_____	DATE

SHOREVIEW, MINNESOTA

PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

FILE NO.
SHORE9804
1
131

Date: 6/14/99 Reg. No. 18612

S.A.P. 167-252-01 S.A.P. 167-268-01



STATEMENT OF ESTIMATED QUANTITIES

NOTES	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES		S.A.P. 167-268-01				S.A.P. 167-252-01				ANOKA COUNTY		CITY OF SHOREVIEW	
						ROADWAY		STORM SEWER		ROADWAY		STORM SEWER		NON-PARTICIPATING		NON-PARTICIPATING	
				ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
	2021.501	Mobilization	LS	1		0.3154		0.2017		0.1036		0.0935		0.0131		0.2726	
	2031.501	Field Office Type D	Ea.	1		0.3154		0.2017		0.1036		0.0935		0.0131		0.2726	
	2101.502	Clearing	Tree	7												7	
	2101.507	Grubbing	Tree	7												7	
	2102.502	Remove Pavement Marking	m	1550												1550	
	2104.501	Remove Concrete Curb & Gutter	m	314		55				32						227	
	2104.501	Remove Heavy Duty Silt Fence	m	40		20				20							
	2104.501	Remove Storm Sewer Pipe	m	5						2						3	
	2104.503	Remove Bituminous Pathway	m2	493		120				61						312	
	2104.503	Remove Bituminous Pavement	m2	1258												1258	
	2104.503	Remove Concrete Driveway Pavement	m2	108												108	
	2104.507	Remove Concrete Foundation	m3	850		850											
	2104.509	Remove Manhole or Catchbasin	Ea.	2						1						1	
	2104.511	Saw Concrete Pavement (Full Depth)	m	17												17	
	2104.513	Saw Bituminous Pavement (Full Depth)	m	661		108				115						438	
	2104.521	Salvage Guard Rail-Plate Beam	m	127												127	
	2104.523	Salvage Delineator	Ea.	3												3	
	2104.523	Salvage Existing Hydrant, Valve, & Tee	Ea.	2		1				1							
	2104.523	Salvage Sign Type C	Ea.	14												14	
	2104.523	Salvage Sign Type D	Ea.	2												2	
	2105.501	Common Excavation (P)	m3	7506												7506	
7	2105.522	Select Granular Borrow (LV)	m3	20979		13536				4990						2453	
9	2105.525	Topsoil Borrow (LV)	m3	5502		2996				1014				52		1440	
	2105.601	Dewatering - Conduit Lowering	LS	1												1	
	2105.601	Dewatering - General	LS	1				0.65				0.35					
	2105.603	Planting Soil Borrow (LV)	m3	1785		1726										59	
	2111.501	Test Rolling	m	3239.1		1862.3				1018.8						358	
	2112.501	Subgrade Preparation	m	3239.1		1862.3				1018.8						358	
13	2123.503	Motor Grader	Hour	56										16		40	
	2130.501	Water for Dust Control	m3	470		235				129						106	
	2211.501	Aggregate Base, Class 5A	t	31712		23572				6135						2005	
16	2301.502	150 mm Concrete Pavement for Driveways	m2	50												50	
5	2301.502	200 mm Concrete Pavement, Type Special - High Early	m2	240		172.8				67.2							
	2331.604	Cold Recycle Inplace Bituminous Mixture	m2	5363										5363			
	2340.508	Type 47 Wearing Course Mixture	t	6186		3848				1410				538		390	
	2340.510	Type 47 Binder Course Mixture	t	5368		3848				1410						110	
	2340.514	Type 31 Base Course Mixture	t	8435		5772				1410				708		545	
	2357.502	Bituminous Material for Tack Coat	L	22268		14500				5287				1212		1269	
17	2411.521	Granular Backfill (LV)	m3	4766												4766	
17	2411.523	Aggregate Bedding (LV)	m3	100												100	
4	2501.511	300 mm RCP Pipe Culvert, Class V	m	36.6		36.6											
	2501.602	300 mm RCP Pipe Apron W/Trash Guard	Ea.	2		2											
	2501.602	450 mm RCP Pipe Apron W/Trash Guard	Ea.	1				1									
	2501.602	525 mm RCP Pipe Apron W/Trash Guard	Ea.	1				1									
	2501.602	1800 mm RCP Pipe Apron W/Trash Guard	Ea.	1				1									
	2503.541	300 mm RCP Pipe Sewer, Des. 3006, Class V	m	497				433.5				63.5					
	2503.541	375 mm RCP Pipe Sewer, Des. 3006, Class V	m	445.3				220.8				220					
	2503.541	450 mm RCP Pipe Sewer, Des. 3006, Class V	m	542.1				419.6				122.5				4.5	
	2503.541	525 mm RCP Pipe Sewer, Des. 3006, Class III	m	301.7				278.7				23					
	2503.541	600 mm RCP Pipe Sewer, Des. 3006, Class III	m	141.4				121.4				20					
	2503.541	675 mm RCP Pipe Sewer, Des. 3006, Class III	m	303.5								303.5					
	2503.541	750 mm RCP Pipe Sewer, Des. 3006, Class III	m	160.5				105				55.5					

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S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	MAM			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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[Signature]
06/14/99 Reg. No. 18612



SHOREVIEW,
MINNESOTA

STATEMENT OF ESTIMATED QUANTITIES
RICE CREEK PARKWAY/PARK VIEW DRIVE

FILE NO.	2
DATE	06/14/99
131	



STATEMENT OF ESTIMATED QUANTITIES

NOTES	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES		S.A.P. 167-268-01				S.A.P. 167-252-01				ANOKA COUNTY		CITY OF SHOREVIEW	
				ESTIMATED	FINAL	ROADWAY		STORM SEWER		ROADWAY		STORM SEWER		NON-PARTICIPATING		NON-PARTICIPATING	
						ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
	2503.541	900 mm RCP Pipe Sewer, Des. 3006, Class III	m	128								128					
	2503.541	1050 mm RCP Pipe Sewer, Des. 3006, Class III	m	165				21.3				143.7					
	2503.541	1200 mm RCP Pipe Sewer, Des. 3006, Class IV	m	85.3								85.3					
	2503.541	1350 mm RCP Pipe Sewer, Des. 3006, Class IV	m	164.7								164.7					
	2503.541	1500 mm RCP Pipe Sewer, Des. 3006, Class III	m	1.2								1.2					
	2503.541	1650 mm RCP Pipe Sewer, Des. 3006, Class III	m	382.1				373.6				8.5					
	2503.541	1800 mm RCP Pipe Sewer, Des. 3006, Class III	m	389.7				389.7									
1	2503.602	Connect to Existing Storm Sewer	Ea.	3								2					1
	2503.603	200 mm PVC Pipe Sewer (0-2.4m)	m	143													143
	2503.603	200 mm PVC Pipe Sewer (2.4-3.0m)	m	282													282
	2503.603	200 mm PVC Pipe Sewer (3.0-3.7m)	m	190.4													190.4
	2503.603	200 mm PVC Pipe Sewer (4.8-5.4m)	m	23.2													23.2
	2504.601	Irrigation Service	LS	1													1
	2504.602	100 mm DIP GV & Box	Ea.	1													1
	2504.602	150 mm DIP GV & Box	Ea.	16													16
	2504.602	200 mm DIP GV & Box	Ea.	17													17
	2504.602	300 mm DIP GV Manhole	Ea.	3													3
	2504.602	Connect to Existing Water Main	Ea.	5													5
	2504.602	Hydrant	Ea.	15													15
	2504.602	Install Hydrant, Valve, & Tee	Ea.	2													2
	2504.602	Lower Conduit No. 1	Ea.	1													1
	2504.602	Lower Conduit No. 2	Ea.	1													1
	2504.602	Pipe Drain Manhole	Ea.	1													1
	2504.603	100 mm DIP Water Main, Class 53	m	27													27
	2504.603	150 mm DIP Water Main, Class 53	m	215													215
	2504.603	200 mm DIP Water Main, Class 53	m	707													707
	2504.603	300 mm DIP Water Main, Class 53	m	1676													1676
	2504.603	150 mm PVC Schedule 40 - Irrigation Sleeve	m	159		159											
	2504.604	150 mm Concrete Slab	m2	312													312
	2504.608	DIP Fittings	kg	6130													6130
	2506.501	Construct CB Drainage Structure, Type LP	m	3.516				2.658									0.858
	2506.501	Construct CB Drainage Structure, Type X	m	18.479				14.199				4.28					
	2506.501	Construct CB Drainage Structure, Type Y	m	83.642				52.979				30.663					
	2506.501	Construct CB Drainage Structure, Type Z	m	26.697				15.031				11.666					
	2506.501	Construct MH Drainage Structure, Type B	m	11.608				6.896				4.712					
	2506.501	Construct MH Drainage Structure, Type C	m	1.935				1.935									
	2506.501	Construct MH Drainage Structure, Type D	m	3.24								3.24					
	2506.501	Construct MH Drainage Structure, Type J	m	25.851				25.851									
14	2506.501	Construct MH Drainage Structure, Type W	m	3.787				3.787									
	2506.501	Construct MHCB Drainage Structure, Type B-1	m	35.429				16.743				18.686					
	2506.501	Construct MHCB Drainage Structure, Type C	m	6.733								6.733					
	2506.501	Construct MHCB Drainage Structure, Type D	m	8.638								8.638					
	2506.501	Construct MHCB Drainage Structure, Type E	m	19.316				14.856				4.46					
	2506.516	Casting Assembly, Neenah R-1733	Ea.	11				10				1					
	2506.516	Casting Assembly, Neenah R-3246	Ea.	75				50				25					
2	2506.516	Casting Assembly, Stool Grate	Ea.	13				7				6					
	2506.602	Connect to Existing Sanitary Sewer	Ea.	3													3
	2506.602	Standard Sanitary Manhole (0-2.4m)	Ea.	10													10
	2506.602	Timber Skimmer	Ea.	1			1										
	2506.603	Extra Depth Sanitary Manhole	m	12.91													12.91
18	2511.501	Random Rip Rap, Class III	m3	98.7			1.6				58.6						38.5

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DRAWN BY: MAM									
DESIGNER: STG									
CHECKED BY: SMM									
DESIGN TEAM	NO.	BY	DATE	REVISIONS					

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HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Date: 06/14/99 Reg. No. 18612



SHOREVIEW,
MINNESOTA

STATEMENT OF ESTIMATED QUANTITIES
RICE CREEK PARKWAY/PARK VIEW DRIVE

FILE NO. SHORE9804.02	3
DATE 06/14/99	131

S.A.P. 167-252-01
S.A.P. 167-268-01



STATEMENT OF ESTIMATED QUANTITIES

NOTES	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES		S.A.P. 167-268-01				S.A.P. 167-252-01				ANOKA COUNTY		CITY OF SHOREVIEW	
				ESTIMATED	FINAL	ROADWAY		STORM SEWER		ROADWAY		STORM SEWER		NON-PARTICIPATING		NON-PARTICIPATING	
						ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
19	2511.515	Geotextile Filter Fabric, Type IV	m2	213.3		5.3											130
	2511.515	Geotextile Filter Fabric, Type VI	m2	1371				78									1371
	2521.501	75 mm Concrete Sidewalk	m2	784.6		572.6											212
8	2521.501	100 mm Concrete Sidewalk	m2	2880		1394				1486							
10	2521.501	150 mm Concrete Sidewalk	m2	36.9		31.5											5.4
3	2521.511	2.4 m Bituminous Trail	m2	7077		4319				2425							333
3	2521.511	3.0 m Bituminous Trail	m2	4313						30							4283
	2531.501	Concrete Curb & Gutter, Design B618	m	5675		3451				2028							196
6	2531.501	Concrete Curb & Gutter, Design B618 Modified	m	1843		1739											104
	2531.501	Concrete Curb & Gutter, Design B624	m	509		129											380
	2531.602	Pedestrian Curb Ramp	Ea.	24		19				5							
	2554.511	Install Salvaged Guard Rail - Plate Beam	m	127													127
11	2557.501	Chain Link Fence - Modified	m	440		440											
	2563.601	Traffic Control	LS	1		0.3154		0.2017		0.1036		0.0935		0.0131			0.2726
	2564.531	Sign Panels Type C	m2	73.9		45.1				11.7							17.1
	2564.537	Install Sign Type C	Ea.	5													5
	2564.537	Install Sign Type D	Ea.	2													2
	2564.602	Install Delineator	Ea.	3													3
12	2564.602	Pavement Message (Left Arrow) - Paint	Ea.	12		8				4							
12	2564.602	Pavement Message (Right Arrow) - Paint	Ea.	3		3											
12	2564.602	Pavement Message (Right/Thru Arrow) - Paint	Ea.	4						4							
	2564.602	Pavement Message (Left Arrow) - Epoxy	Ea.	31		12				4							15
	2564.602	Pavement Message (Right Arrow) - Epoxy	Ea.	10		6				4							4
	2564.602	Pavement Message (Right/Thru Arrow) - Epoxy	Ea.	4						4							
	2564.602	Pavement Message (Left Arrow) - Poly Preform.	Ea.	2													2
	2564.602	Pavement Message (Right Arrow) - Poly Preform.	Ea.	2													2
	2564.602	Pavement Message (Thru Arrow) - Poly Preform.	Ea.	2													2
12	2564.603	100 mm Broken Line White - Paint	m	360		360											
	2564.603	100 mm Broken Line Yellow - Paint	m	55										55			
12	2564.603	100 mm Dotted Line White - Paint	m	10		10											
12	2564.603	100 mm Double Solid Line Yellow - Paint	m	2315		1065				1010							240
12	2564.603	100 mm Solid Line White - Paint	m	2229		885				244							510
	2564.603	100 mm Solid Line Yellow - Paint	m	265										590			
	2564.603	100 mm Broken Line White - Epoxy	m	665		360								265			305
	2564.603	100 mm Dotted Line White - Epoxy	m	50		10											40
	2564.603	100 mm Double Solid Line Yellow - Epoxy	m	4825		1065				1010							2750
	2564.603	100 mm Solid Line White - Epoxy	m	6385		885				1655							3845
12	2564.603	600 mm Solid Line Yellow - Paint	m	170		130											40
	2564.603	600 mm Stop Line White - Paint	m	13													13
	2564.603	600 mm Solid Line White - Epoxy	m	70													70
	2564.603	600 mm Solid Line Yellow - Epoxy	m	555		130											425
	2564.603	600 mm Stop Line White - Epoxy	m	52													52
12	2564.604	Zebra Crosswalk White - Paint	m2	193		185				8							
	2564.604	Zebra Crosswalk White - Epoxy	m2	243		185				8							50
	2573.501	Bale Checks	Ea.	10													10
	2573.502	Silt Fence, Heavy Duty	m	1630													1630
	2573.602	Temporary Sediment Trap	Ea.	2		2											
	2575.501	Seeding	ha	4.15		2.3				0.78				0.04			1.03
	2575.502	Seed, Mixture 20A	kg	41													41
	2575.502	Seed, Mixture 40A	kg	250		172				59				3			16
	2575.502	Seed, Mixture 110A	kg	23		22											1
	2575.505	Sodding, Type Lawn and Boulevard	m2	760		760											

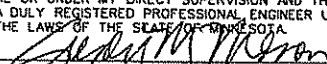
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S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	MAM
DESIGNER:	STG
CHECKED BY:	SMM
DESIGN TEAM	

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 Date: 06/14/99 Reg. No. 18612



SHOREVIEW,
MINNESOTA

STATEMENT OF ESTIMATED QUANTITIES
RICE CREEK PARKWAY/PARK VIEW DRIVE

FILE NO. SHORE9804.02	4
DATE 06/14/99	131



STATEMENT OF ESTIMATED QUANTITIES

NOTES	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES		S.A.P. 167-268-01				S.A.P. 167-252-01				ANOKA COUNTY		CITY OF SHOREVIEW	
						ROADWAY		STORM SEWER		ROADWAY		STORM SEWER		NON-PARTICIPATING		NON-PARTICIPATING	
				ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
	2575.511	Mulch Material, Type 1	t	17.72		10.35				3.51				0.18		3.68	
	2575.519	Disc Anchoring	ha	3.92		2.3				0.78				0.04		-0.8	
	2575.523	Erosion Control Blankets, Category 2	m2	2305												2305	
	2575.525	Erosion Stabilization Blanket, Type Synthetic A2-1	m2	302												302	
	2575.525	Erosion Stabilization Blanket, Type Synthetic A2-2	m2	505												505	
	2575.532	Commercial Fertilizer, Analysis 20-0-10	kg	830		460				156				8		206	

BRIDGE STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
2104.523	Salvage Pedestrian Bridge	Ea.	1											1
2401.501	Structure Concrete (3Y43) (P)	m3	11											11
2401.541	Reinforcement Bars (P)	kg	470											470
2403.533	Erecting Structural Metals	kg	7985											7985
2442.501	Install Pedestrian Bridge	LS	1											1
2451.501	Structure Excavation	LS	1											1
2452.503	Treated Timber Piling Delivered	m	32											32
2452.504	Treated Timber Piling Driven	m	32											32
2511.501	Random Riprap, Class IV (P)	m3	26											26
2511.511	Granular Filter (P)	m3	9											9
2402.521	Structural Steel (3306)	kg	9											9

STATEMENT OF EST. QTY. NOTES:

- FOR ALL CONNECTIONS
- INCLUDES EROSION CONTROL AROUND TYPE Z DRAINAGE STRUCTURES (SEE DETAILS)
- INCLUDES 150mm CLASS 5A AGGREGATE BASE
- TIE ALL JOINTS ON RCP CULVERTS
- FOR CONCRETE CROSSWALKS
- FOR MEDIANS
- INCLUDES 1,020m3 FOR OFF ROADWAY TRAILS
- INCLUDES 100mm CLASS 5A AGGREGATE BASE
- INCLUDES 1,063m3 FOR OFF ROADWAY TRAILS

- STANDARD PLATES M 7109 AND M 7113
- STANDARD PLATE M 9322 J WITH MODIFICATION NOTED
- FOR TEMPORARY STRIPING
- FOR CSAH 23 (NAPLES STREET)
- CAST IN PLACE - SEE DETAIL
- FOR OFF ROADWAY TRAILS
- INCLUDES 150mm CLASS 5A AGGREGATE BASE
- FOR ST. PAUL WATER UTILITY LOWERING
- INCLUDES 38.5m3 FOR OFF ROADWAY TRAIL AND 30m3 FOR POND SPILLWAY
- INCLUDES 130m2 FOR OFF ROADWAY TRAIL AND 10m2 FOR POND SPILLWAY

These standard plates, approved by the FEDERAL HIGHWAY ADMINISTRATION, shall apply on this project.

PLATE NO.	DESCRIPTION
M 3000 L	REINFORCED CONCRETE PIPE (6 SHEETS)
M 3006 G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
M 3100 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
M 3133 C	RIPRAP AT RCP OUTLETS
M 3145 E	CONCRETE PIPE TIES
M 4010 H	CONC. SHORT CONE & ADJUSTING RING (SECTIONAL CONCRETE)
M 4011 E	PRECAST CONCRETE BASE
M 4020 G	MANHOLE OR CATCH BASIN COVER
M 4021 F	PRECAST CURB OPENING CATCH BASIN
M 4108 F	ADJUSTING RINGS FOR CATCH BASINS & MANHOLES
M 4143 E	STOOL GRATE & CONCRETE FRAME
M 4180 J	MANHOLE OR CATCH BASIN STEP
M 7036 D	PEDESTRIAN CURB RAMPS (FOR THE HANDICAPPED)
M 7100 G	CONCRETE CURB & GUTTERS (DESIGN B AND DESIGN V)
M 7109 C	MEDIAN NOSE AND ISLAND
M 7113 A	CONCRETE APPROACH NOSE DETAIL
M 8000 I	STANDARD BARRICADES
M 8307 P	STEEL PLATE BEAM GUARDRAIL (2 SHEETS)
M 8329 G	ECCENTRIC LOADER BREAKAWAY CABLE TERMINAL (ELT) (4 SHEETS)
M 9102 D	TURF ESTABLISHMENT AREAS (AT PIPE CULVERT ENDS)
M 9322 J	CHAIN LINK FENCE (2 SHEETS) *

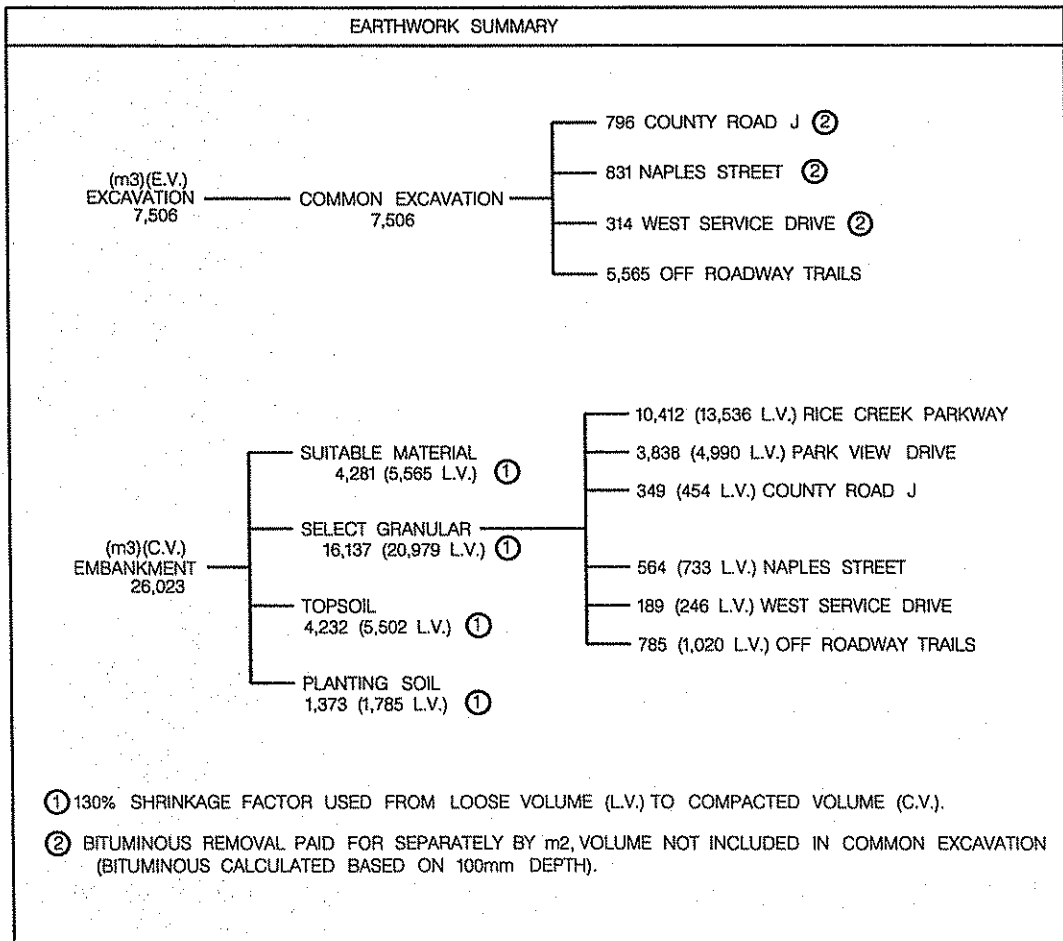
* LINE POSTS SHALL BE 2.2m LONG (1.2m ANCHORAGE - 1.0m ABOVE GROUND)

BASIS OF ESTIMATED QUANTITIES

- 2211.501 AGG. BASE CL. 5 100% CRUSHED - 2.4kg/m2/mm
- 2340.508 TYPE 47 WEARING COURSE - 2.4kg/m2/mm
- 2340.510 TYPE 47 BINDER COURSE - 2.4kg/m2/mm
- 2340.514 TYPE 31 BASE COURSE - 2.4kg/m2/mm
- 2357.502 BIT. MATERIAL FOR TACK COAT - 0.226 L/m2
- 2575.502 SEED MIXTURE 20A - 50 kg/ha
- 2575.502 SEED MIXTURE 40A - 75 kg/ha
- 2575.502 SEED MIXTURE 110A - 100 kg/ha
- 2575.511 MULCH MATERIAL TYPE 1 - 4.5 t/ha
- 2575.532 COMMERCIAL FERT ANALYSIS 20-0-10 - 200 kg/ha

GENERAL CONSTRUCTION NOTES

- ALL EXISTING STREETS SHALL BE SAWCUT AT MATCH POINTS.
- TREES SHALL BE MARKED BY THE ENGINEER IN THE FIELD PRIOR TO REMOVAL.
- CONTRACTOR SHALL VERIFY EXISTING INVERTS ON EXISTING STRUCTURES PRIOR TO PIPE CONSTRUCTION.
- CONTRACTOR SHALL STRIP ALL TOPSOIL AND REUSE ON SITE WHERE NEEDED. TOPSOIL INCLUDED IN COMMON EXCAVATION.
- TURF ESTABLISHMENT AS DETERMINED BY ENGINEER IN THE FIELD.



- 130% SHRINKAGE FACTOR USED FROM LOOSE VOLUME (L.V.) TO COMPACTED VOLUME (C.V.)
- BITUMINOUS REMOVAL PAID FOR SEPARATELY BY m2, VOLUME NOT INCLUDED IN COMMON EXCAVATION (BITUMINOUS CALCULATED BASED ON 100mm DEPTH).

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DESIGNER: STG				
CHECKED BY: SMM				

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[Signature]
Date: 06/14/99 Reg. No. 18612



SHOREVIEW, MINNESOTA

STATEMENT OF ESTIMATED QUANTITIES, EARTHWORK SUMMARY AND NOTES RICE CREEK PARKWAY/PARK VIEW DRIVE

S.A.P. 167-252-01
S.A.P. 167-268-01

FILE NO. SHORE9804.02	5
DATE 06/14/99	131

STORM SEWER STRUCTURE SCHEDULE



LINE	STRUCT. NO.	LOCATION		M.H.	M.H. C.B.	C.B. ①	CASTING TYPE ⑥	TOP OF CASTING ELEV.	TOP OF SLAB ELEV.	OUTLET ELEV.	PAY HEIGHT	DRAINS TO			REMARKS	300mm	375mm	450mm	525mm	600mm	675mm	750mm	900mm	1050mm	1200mm	1350mm	1500mm	1650mm	1800mm			
		STATION	CONST. C/L LT. RT.									SURVEY LINE	NO.	% GRADE		INLET ELEV.	CL. V	CL. V	CL. V	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III	CL. III
1	201	0+715.000	7.028	RICE CREEK PKWY	J		R-3246	274.473		273.271	1.202	202E	1.00	272.321																		
2	201A	0+715.000	6.946	RICE CREEK PKWY			R-3246	274.473		273.403	1.070	201	1.00	273.263																		
3	202	0+810.285	8.758	RICE CREEK PKWY			R-1733	273.930		268.635	5.295	202F	0.49	268.381																51.9		
4	202A	0+810.000	17.380	RICE CREEK PKWY			R-3246	273.584		272.098	1.486	202C	1.00	272.018																		
5	202B	0+800.000	32.000	RICE CREEK PKWY			R-4342	274.000		272.278	1.722	202A	1.00	272.098																		
6	202C	0+810.000	9.320	RICE CREEK PKWY			R-3246	273.588		272.018	1.570	202D	1.00	272.000																		
7	202D	0+810.000	7.480	RICE CREEK PKWY			R-3246	273.588		272.000	1.588	202E	1.00	271.883																		
8	202E	0+810.000	4.180	RICE CREEK PKWY			R-3246	273.654		271.884	1.770	202	3.60	271.693																		
9	202F	0+769.507	49.649	RICE CREEK PKWY			R-3246	273.654		268.381				268.366																		
10	203	0+902.520		RICE CREEK PKWY	J		R-1733	274.631		269.09	5.541	202	0.48	268.635																94.8		
11	203A	0+902.520	17.420	RICE CREEK PKWY			R-3246	274.570		272.107	2.463	203C	1.27	271.958																		
12	203B	0+902.520	26.400	RICE CREEK PKWY			R-3246	274.570		272.217		203A	1.00	272.107																		
13	203C	0+902.520	5.720	RICE CREEK PKWY			R-3246	274.561		271.958	2.603	203D	1.44	271.932																		
14	203D	0+902.520	3.680	RICE CREEK PKWY			R-3246	274.561		271.932	2.629	203	1.59	271.870																		
15	203E	0+902.520	4.180	RICE CREEK PKWY			R-3246	274.499		273.026	1.473	203	1.70	272.955																		
16	203F	0+013.200	6.100	PRAIRIE RIDGE DR			R-3246	274.492		273.238	1.254	203E	1.70	273.026																		
17	203G	0+013.200	6.100	PRAIRIE RIDGE DR			R-3246	274.492		273.422	1.070	203F	0.50	273.360																		
18	203H	0+892.398	20.000	RICE CREEK PKWY			R-3246	274.492		273.356		203F	1.74	273.238																		
19	204	1+034.900		RICE CREEK PKWY	W		R-1733	275.719	273.436	269.649	3.787	203	0.42	269.090																133.2		
20	204	1+034.900		RICE CREEK PKWY	B		R-1733	275.719	273.436	269.649	2.283	204	2.00	271.898																		
21	204A	1+035.780	26.450	RICE CREEK PKWY			R-3246	275.587		272.190	3.397	204	2.00	271.898																		
22	204B	1+036.340	14.640	RICE CREEK PKWY			R-4342	275.539		272.430	3.109	204A	2.00	272.190																		
23	204C	1+034.900	4.180	RICE CREEK PKWY	E	B-1	R-3246	275.587	272.045	270.077	1.968	204	0.50	270.056																4.20		
24	204C	1+034.900	4.180	RICE CREEK PKWY			R-3246	275.587	272.045	270.077	3.542																					
25	204D	0+014.601	5.500	BLUESTEM LANE	E	B-1	R-3246	275.533	272.110	270.142	1.968	204C	0.50	270.077																13.00		
26	204D	0+014.601	5.500	BLUESTEM LANE			R-3246	275.533	272.110	270.142	3.423																					
27	204E	0+010.533	5.554	BLUESTEM LANE			R-3246	275.441		274.371	1.070	204D	1.00	274.252																		
28	204F	1+043.867	17.818	RICE CREEK PKWY	J		R-1733	274.630		270.164	4.750	204D	0.53	270.142																		
29	205	1+145.000		RICE CREEK PKWY			R-3246	274.498		269.880	1.309	204	0.21	269.649																		
30	205A	1+145.000	10.780	RICE CREEK PKWY			R-3246	274.498		273.189	1.309	205	2.00	272.977																		
31	205B	1+145.000	28.800	RICE CREEK PKWY			R-3246	274.498		273.369	2.053	205A	2.00	273.189																		
32	205C	1+131.000	16.000	RICE CREEK PKWY			R-4342	274.300		272.247	2.053	205D	2.00	271.887																		
33	205D	1+145.000	4.180	RICE CREEK PKWY			R-3246	274.498		271.887	2.611	205	2.19	271.795																		
34	205E	1+190.000		RICE CREEK PKWY	J		R-1733	275.039		270.126	4.913	205	0.28	270.000																		
35	206	1+240.000	4.180	RICE CREEK PKWY	E	B-1	R-3246	275.439	272.990	270.260	2.730	205E	0.27	270.126																	45	
36	206	1+240.000	4.180	RICE CREEK PKWY			R-3246	275.439	272.990	270.260	2.449																				49.9	
37	206A	1+240.000	10.780	RICE CREEK PKWY			R-3246	275.439		272.008	3.431	206	2.60	271.618																		
38	206B	1+240.000	25.600	RICE CREEK PKWY			R-3246	275.439		272.308	2.730	206A	2.00	272.128																		
39	206C	1+203.000	18.000	RICE CREEK PKWY			R-4342	275.000		272.324	2.676	206	0.50	272.129																		
40	207	1+300.000	2.100	RICE CREEK PKWY	E	B-1	R-1733	276.039	273.116	270.386	2.730	206	0.21	270.260																		
41	207	1+300.000	2.100	RICE CREEK PKWY			R-4342	275.500	273.116	270.386	2.923																					
42	207A	1+287.000	16.000	RICE CREEK PKWY			R-3246	275.500		273.528	1.972	207	1.20	273.312																		
43	208	1+435.000	4.180	RICE CREEK PKWY	E	B-1	R-3246	275.324	273.372	270.642	2.730	208G	0.19	270.538																		
44	208	1+435.000	4.180	RICE CREEK PKWY			R-3246	275.324	273.372	270.642	1.952																					
45	208A	1+434.030	14.830	RICE CREEK PKWY			R-3246	275.314		274.094	1.220	208D	1.00	274.008																		
46	208B	1+434.030	27.000	RICE CREEK PKWY			R-4342	276.000		274.196	2.235	208A	1.00	274.094																		
47	208C	1+401.510	19.000	RICE CREEK PKWY			R-3246	275.532		273.765	1.761	208	1.00	273.400																		
48	208D	1+437.320	7.520	RICE CREEK PKWY			R-3246	275.532		273.771	1.761	208	1.40	273.600																		
49	208E	1+444.330	4.000	RICE CREEK PKWY</																												



STORM SEWER STRUCTURE SCHEDULE

Table with columns: LINE, STRUCT. NO., STATION, LOCATION (CONST. C/L, SURVEY LINE), M.H., M.H. C.B., CASTING TYPE, TOP OF CASTING ELEV., TOP OF SLAB ELEV., OUTLET ELEV., PAY HEIGHT, DRAINS TO (NO., % GRADE, INLET ELEV.), REMARKS, and pipe sizes (300mm CL V to 1800mm CL III).

- NOTES: 1 ALL TYPE "X" CB STRUCTURES ARE RECTANGULAR UNLESS SHOWN OTHERWISE. 2 1650mm L.R. BENDS PAID AS 1650mm RCP. 3 1800mm L.R. BENDS PAID AS 1800mm RCP. 4 1350 X 1500mm INCREASER PAID AS 1500mm RCP. 5 1500 X 1650mm INCREASER PAID AS 1650mm RCP. 6 INCLUDES ALL ADJUSTMENTS. 7 BULKHEADING STUBS IS INCIDENTAL TO THE PIPE. 8 PAY AS CONNECT TO EXISTING STORM SEWER. 9 SEE Mn/DOT STANDARD PLATE M 4021 E PRECAST CURB OPENING CATCH BASIN. 10 BY OTHERS. 11 TIE ALL RCP CULVERT JOINTS.

STRUCTURES 214 TO 238

GENERAL NOTES

LOCATIONS OF CATCH BASINS AND MANHOLES ARE GIVEN TO CENTER OF STRUCTURE. IF STRUCTURE CONSISTS OF DIFFERENT TYPES, LOCATION IS GIVEN TO CENTER OF TOP SECTION TYPE.

LOCATIONS OF PIPE APRONS ARE GIVEN TO TOE OF APRON.

WHEN CONNECTING TO EXISTING PIPES OR STRUCTURES, LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD.

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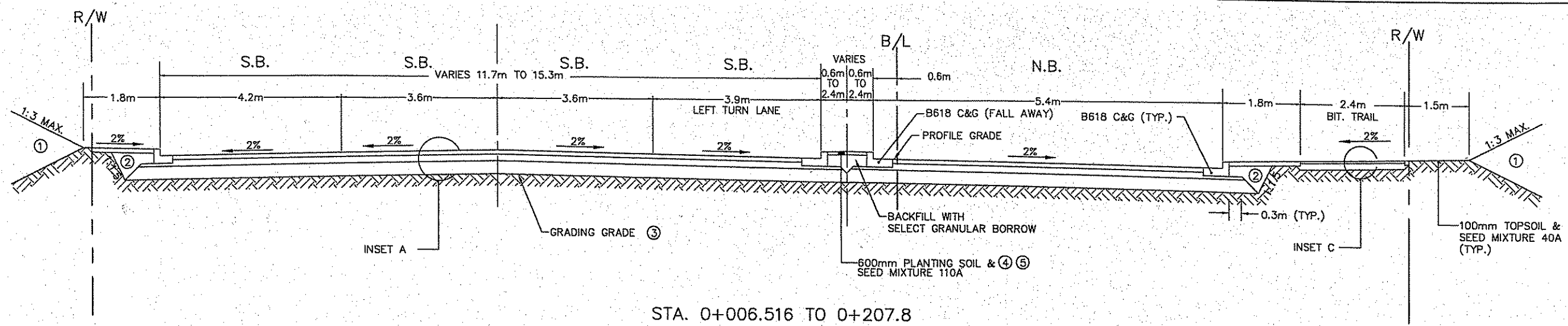


SHOREVIEW, MINNESOTA

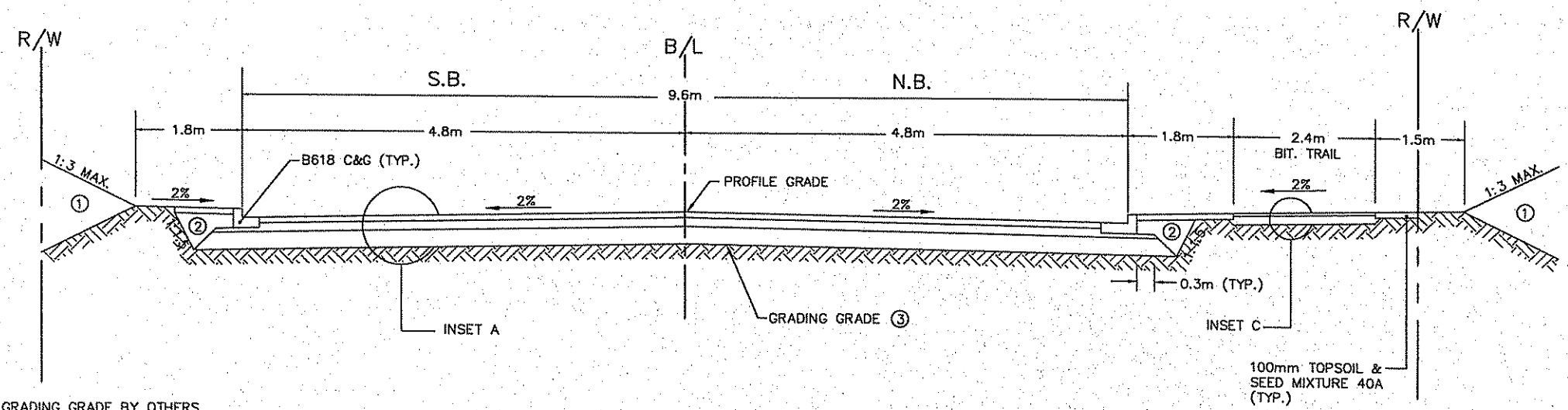
STORM SEWER STRUCTURE SCHEDULE RICE CREEK PARKWAY/ PARK VIEW DRIVE

FILE NO. SHORE9804.02 DATE 6/14/99

7 131

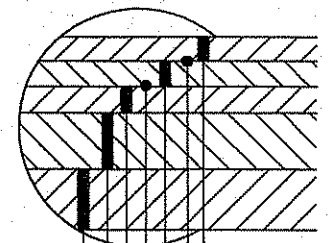


STA. 0+006.516 TO 0+207.8



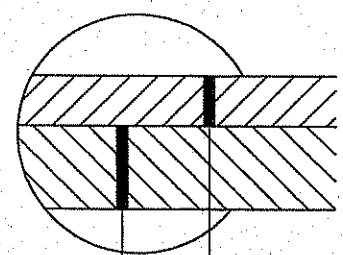
STA. 0+267.5 TO 0+664.28

- ① 1:2 SLOPE STA. 0+006.516 TO 0+465
- ② BACKFILL WITH SUITABLE GRADING MATERIAL
- ③ FOR INFORMATION ONLY - GRADING COMPLETED TO GRADING GRADE BY OTHERS
- ④ SEE PLAN FOR CONCRETE WALL LOCATION (INSET D)
- ⑤ SEE PLANTED MEDIAN DETAIL



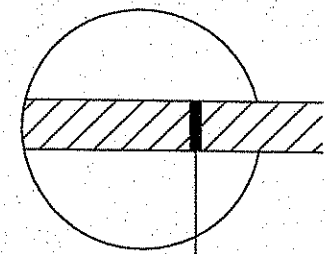
- 50 mm TYPE 47WEA75070 (PG 58-28)
- TACK COAT SPEC. 2357
- 50 mm TYPE 47BIB50070 (PG 58-28)
- TACK COAT SPEC. 2357
- 75 mm TYPE 31BBB50000 (PG 58-28)
- 250 mm AGGREGATE BASE CLASS 5A SPEC. 2211
- 300 mm SELECT GRANULAR BORROW SPEC. 3149.2B

INSET A



- 50 mm BIT. TRAIL TYPE 41WEA50055 (PG 58-28)
- 150 mm AGGREGATE BASE CLASS 5A SPEC. 2211 INCLUDED IN BIT. TRAIL

INSET C



- 75 mm CONCRETE WALK

INSET D

C:\WORK\CLIENTS\W...T...HOREVIEW\ICE...GREEK\ACAD\PLANS\SHR04TY2.DWG DATE: 06-28-99 TIME: 11:39 am USER: CPU201SP

DRAWN BY:	STG				
DESIGNER:	STG				
CHECKED BY:	SMM				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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[Signature]
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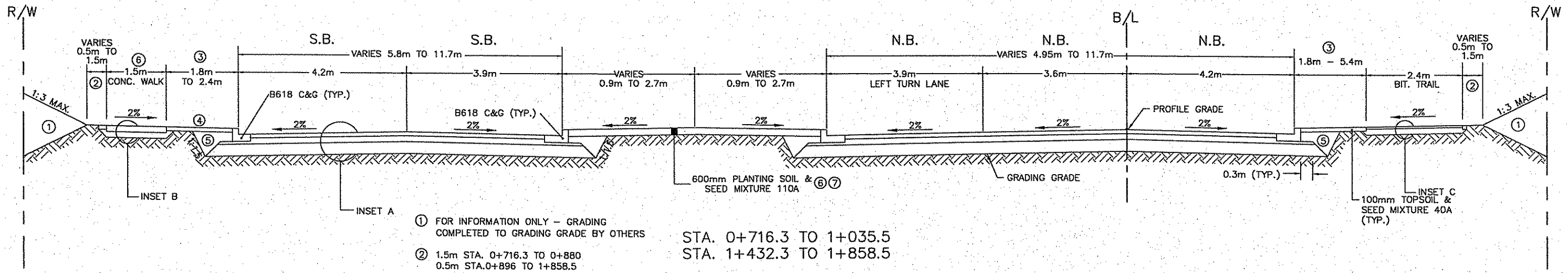
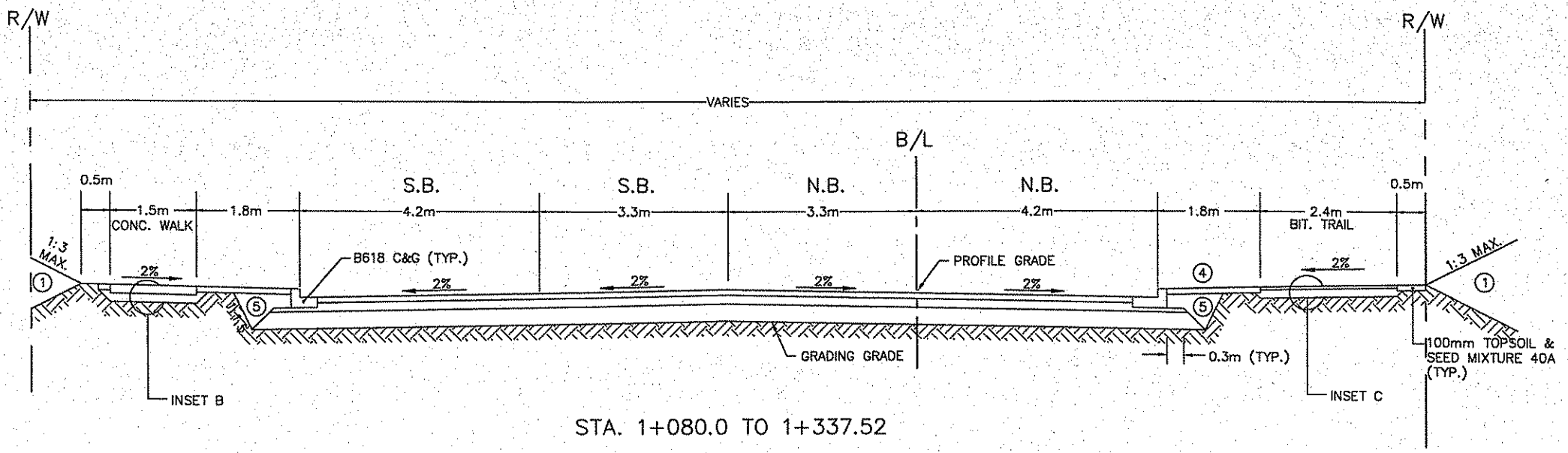
SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

**SHOREVIEW,
 MINNESOTA**

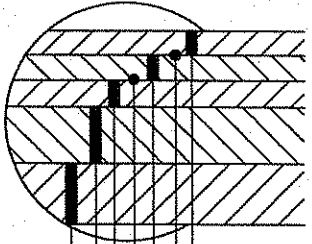
**TYPICAL SECTIONS
 RICE CREEK PARKWAY**

**S.A.P. 167-252-01
 S.A.P. 167-268-01**

FILE NO.	ASHORE9804.02	8
DATE	6/14/99	
		131

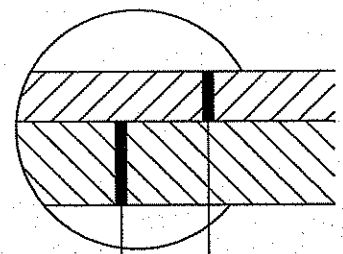


- ① FOR INFORMATION ONLY - GRADING COMPLETED TO GRADING GRADE BY OTHERS
- ② 1.5m STA. 0+716.3 TO 0+880
0.5m STA. 0+896 TO 1+858.5
- ③ 1.8m STA. 0+716.3 TO 0+880 RT.
1.8m STA. 1+054 TO 1+737.5 RT.
5.4m STA. 1+775.9 TO 1+860 RT.
2.4m STA. 0+892 TO 1+043 LT. & RT.
1.8m STA. 1+054 TO 1+860 LT.
- ④ SOD BOULEVARD STA. 1+120 TO 1+370 RT.
STA. 1+720 TO 1+855 LT.
- ⑤ BACKFILL WITH SUITABLE GRADING MATERIAL
- ⑥ SEE PLAN FOR CONCRETE WALK LOCATION
- ⑦ SEE PLANTED MEDIAN DETAIL (INSET D)



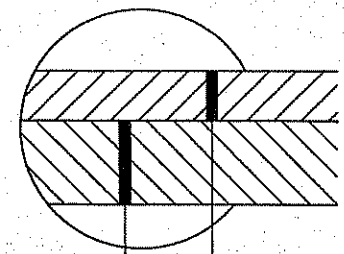
- 50 mm TYPE 47WEA75070 (PG 58-28)
- TACK COAT SPEC. 2357
- 50 mm TYPE 47BIB50070 (PG 58-28)
- TACK COAT SPEC. 2357
- 75 mm TYPE 31BBB50000 (PG 58-28)
- 250 mm AGGREGATE BASE CLASS 5A SPEC. 2211
- 300 mm SELECT GRANULAR BORROW SPEC. 3149.2B

INSET A



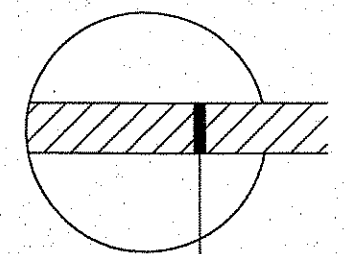
- 100 mm CONCRETE WALK
- 100 mm AGGREGATE BASE CLASS 5A SPEC. 2211 INCLUDED IN CONC. WALK

INSET B



- 50 mm BIT. TRAIL TYPE 41WEA50055 (PG 58-28)
- 150 mm AGGREGATE BASE CLASS 5A SPEC. 2211 INCLUDED IN BIT. TRAIL

INSET C



- 75 mm CONCRETE WALK

INSET D

C:\CIVIL\CLIENTS\M...THI... DATE: 06-28-99... USER: CPU2018P... SHOREVIEW, MINNESOTA

DRAWN BY:	TJM			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Sam M. Thoren
 Date: 6/14/99 Reg. No. 18612

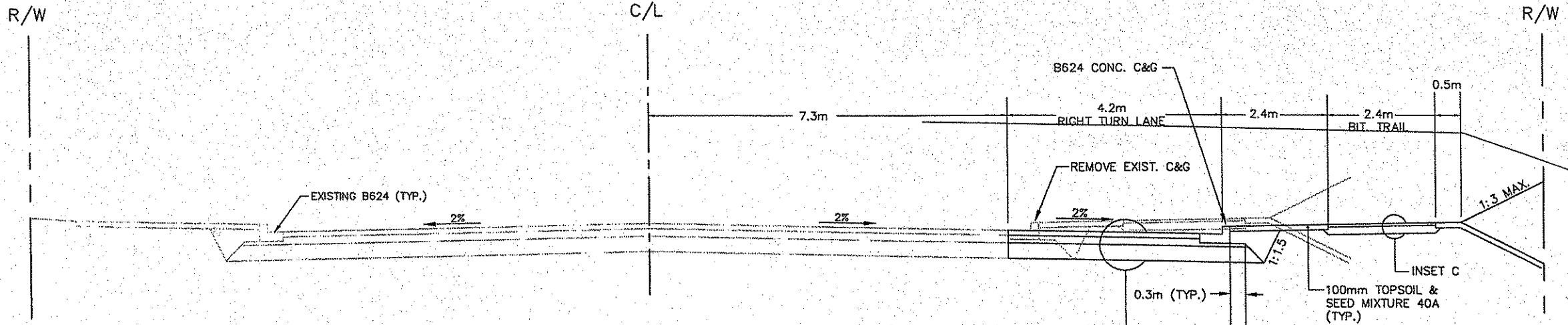
SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

**SHOREVIEW,
 MINNESOTA**

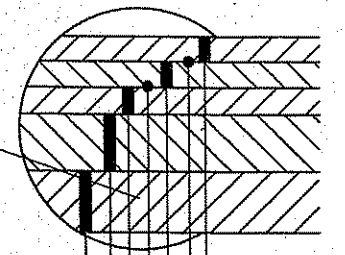
**TYPICAL SECTIONS
 RICE CREEK PARKWAY**

FILE NO.	ASHORE9804.02	9
DATE	6/14/99	
		131

S.A.P. 167-252-01
 S.A.P. 167-268-01

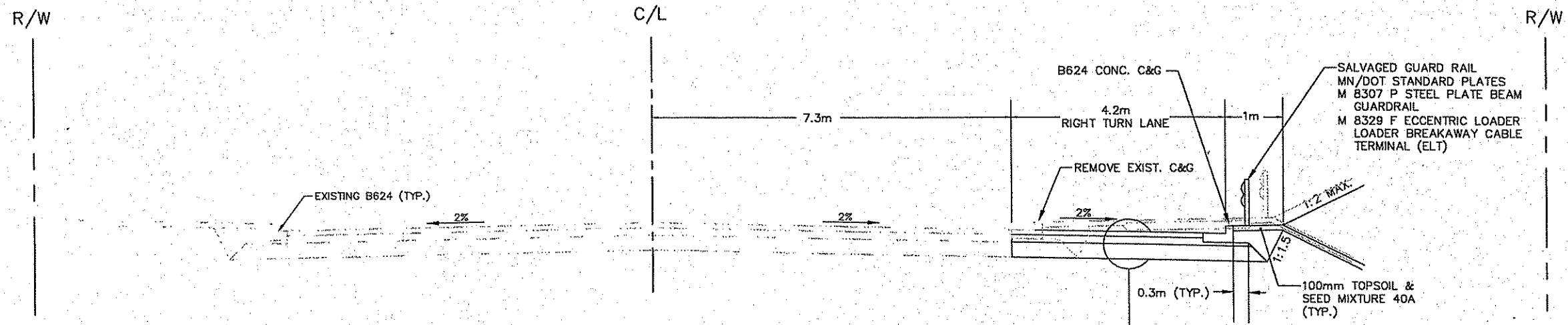


COUNTY ROAD J @ RICE CREEK PARKWAY
RIGHT TURN LANE
NON-PARTICIPATING

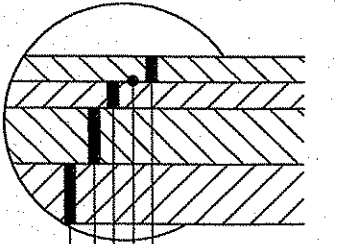


- 50 mm TYPE 47WEA75070 (PG 58-28)
- TACK COAT SPEC. 2357
- 50 mm TYPE 47BIB50070 (PG 58-28)
- TACK COAT SPEC. 2357
- 75 mm TYPE 31BBB50000 (PG 58-28)
- 250 mm AGGREGATE BASE CLASS 5A SPEC. 2211
- 300 mm SELECT GRANULAR BORROW SPEC. 3149.2B

INSET A

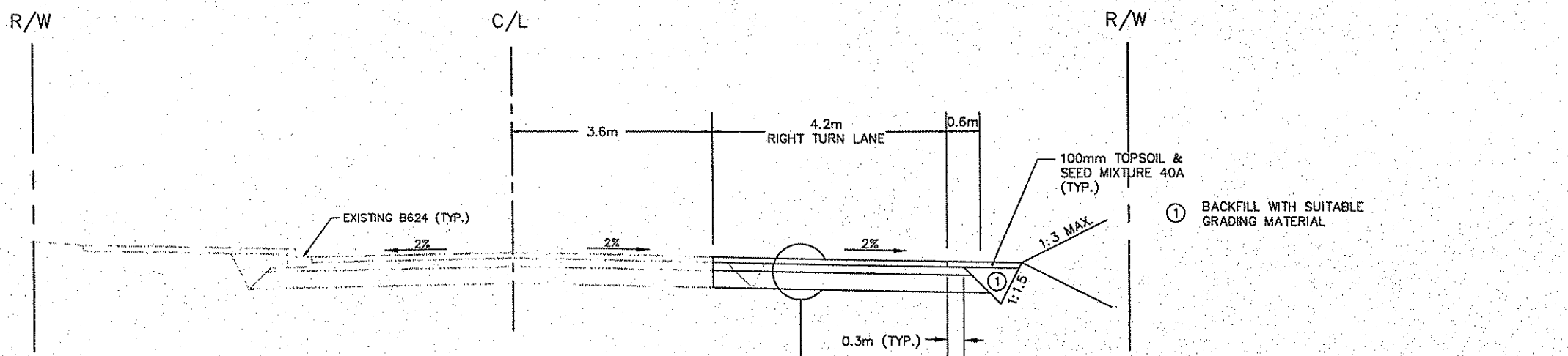


COUNTY ROAD J @ WEST SERVICE DRIVE
RIGHT TURN LANE
NON-PARTICIPATING

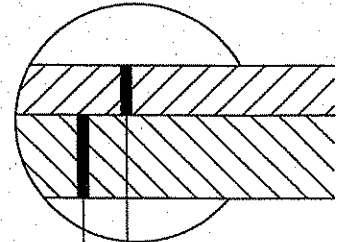


- 50 mm TYPE 47WEA75070 (PG 58-28)
- TACK COAT SPEC. 2357
- 50 mm TYPE 31BBB50000 (PG 58-28)
- 150 mm AGGREGATE BASE CLASS 5A SPEC. 2211
- 300 mm SELECT GRANULAR BORROW SPEC. 3149.2B

INSET B



WEST SERVICE DRIVE
RIGHT TURN LANE
NON-PARTICIPATING



- 50 mm BIT. TRAIL TYPE 41WEA50055 (PG 58-28)
- 150 mm AGGREGATE BASE CLASS 5A SPEC. 2211 INCLUDED IN BIT. TRAIL

INSET C

G:\CIVIL\CLIENTS\117 SHOREVIEW\RICE_CREEK\ROAD\PLANS\18004174.DWG
 DATE: 06-26-99 TH: 07 am USER: CPU2DIP
 XREFS:

DRAWN BY:	MW			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM				
NO.	BY	DATE	REVISIONS	

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Shoreview M. Nelson
 Date: 6/14/99 Reg. No. 18612

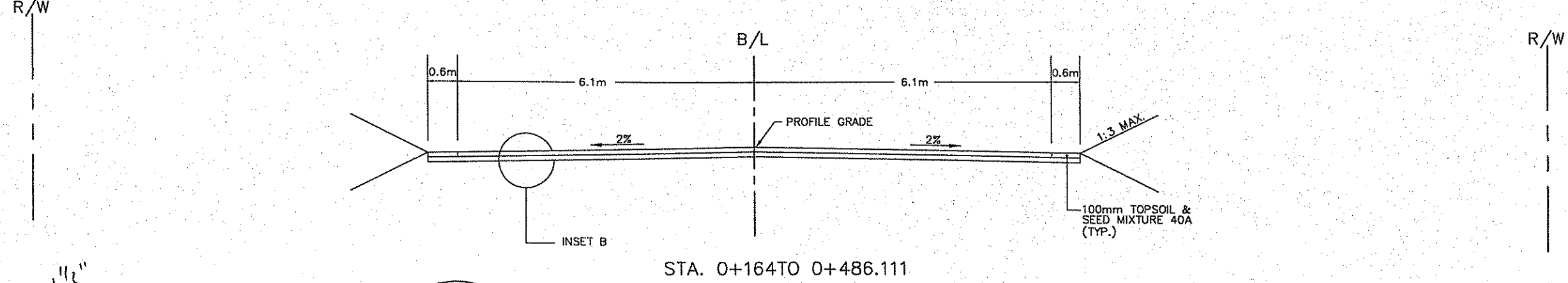
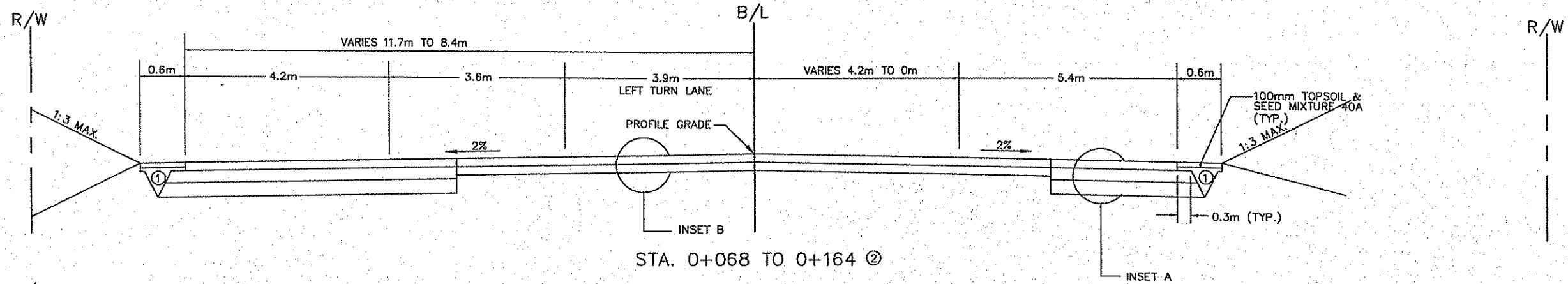
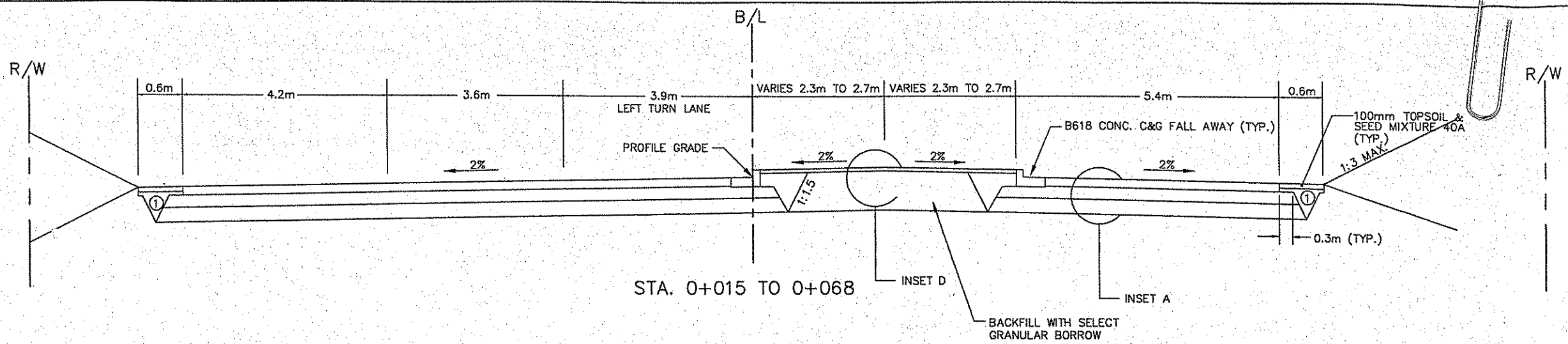
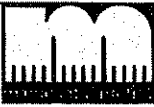
SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

SHOREVIEW,
MINNESOTA

TYPICAL SECTIONS
COUNTY ROAD J & WEST SERVICE DR.
RIGHT TURN LANES

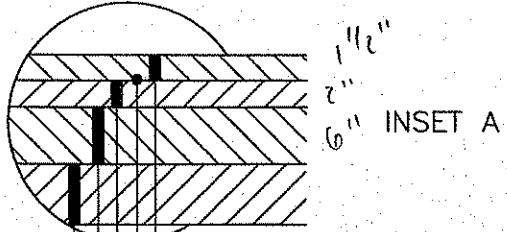
FILE NO.	ASHORE9804.02	11
DATE	6/14/99	131

S.A.P. 167-252-01
S.A.P. 167-268-01

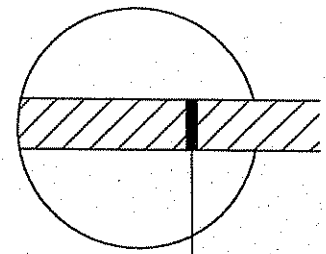


**NAPLES STREET
NON-PARTICIPATING**

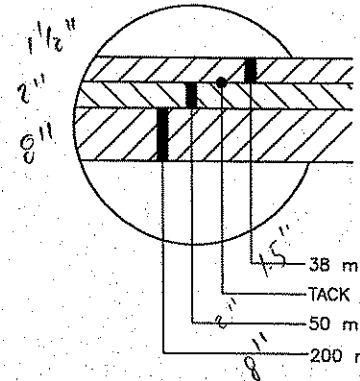
- ① BACKFILL WITH SUITABLE GRADING MATERIAL
- ② WIDENING ON RIGHT SIDE ENDS AT STA. 0+142



- 1 1/2" 38 mm TYPE 47WEA75070 (PG 58-28)
- 2" TACK COAT SPEC. 2357
- 6" 50 mm TYPE 31BBB50000 (PG 58-28)
- 6" 150 mm AGGREGATE BASE CLASS 5A SPEC. 2211
- 12" 300 mm SELECT GRANULAR BORROW SPEC. 3149.2B



INSET D



- 1 1/2" 38 mm TYPE 47WEA75070 (PG 58-28)
- 2" TACK COAT SPEC. 2357
- 8" 50 mm TYPE 31BBB50000 (PG 58-28)
- 8" 200 mm RECLAIMED BITUMINOUS

INSET B

G:\MVA\CLIENTS\W_71\SHOREVIEW\CRK\ACAD\PLANS\SHR04TY2.DWG
 DATE: 06-25-99 11 am
 USER: CRU201SP
 XREFS:

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Shawn M. Moran
 Date: 6/14/99 Reg. No. 18612

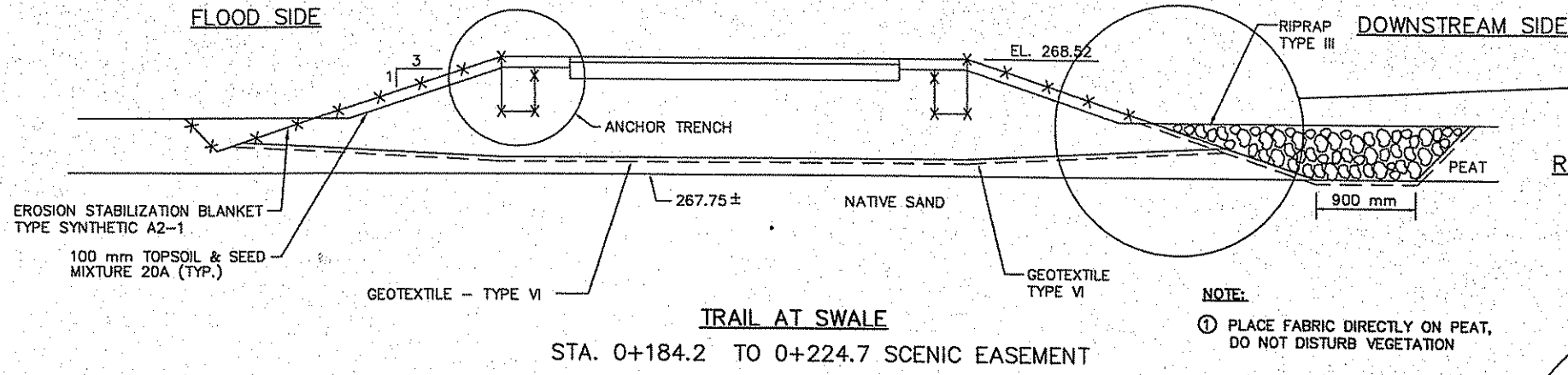
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 PHONE: (651) 490-2000
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**SHOREVIEW,
MINNESOTA**

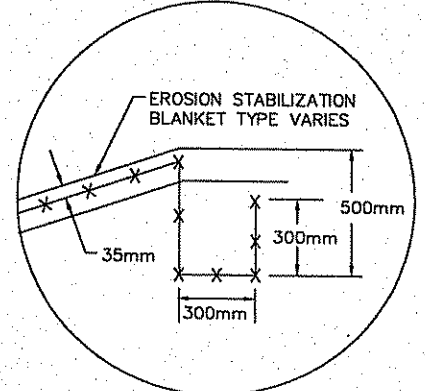
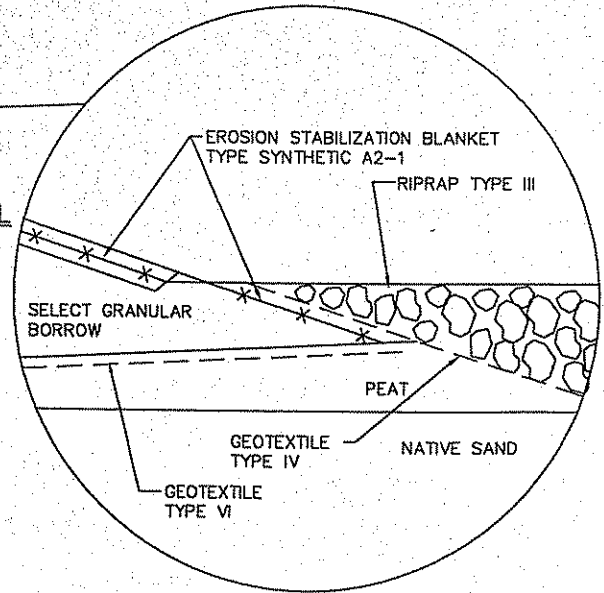
**TYPICAL SECTIONS
NAPLES STREET**

FILE NO.	ASHORE9804.02	12
DATE	6/14/99	131

**S.A.P. 167-252-01
S.A.P. 167-268-01**

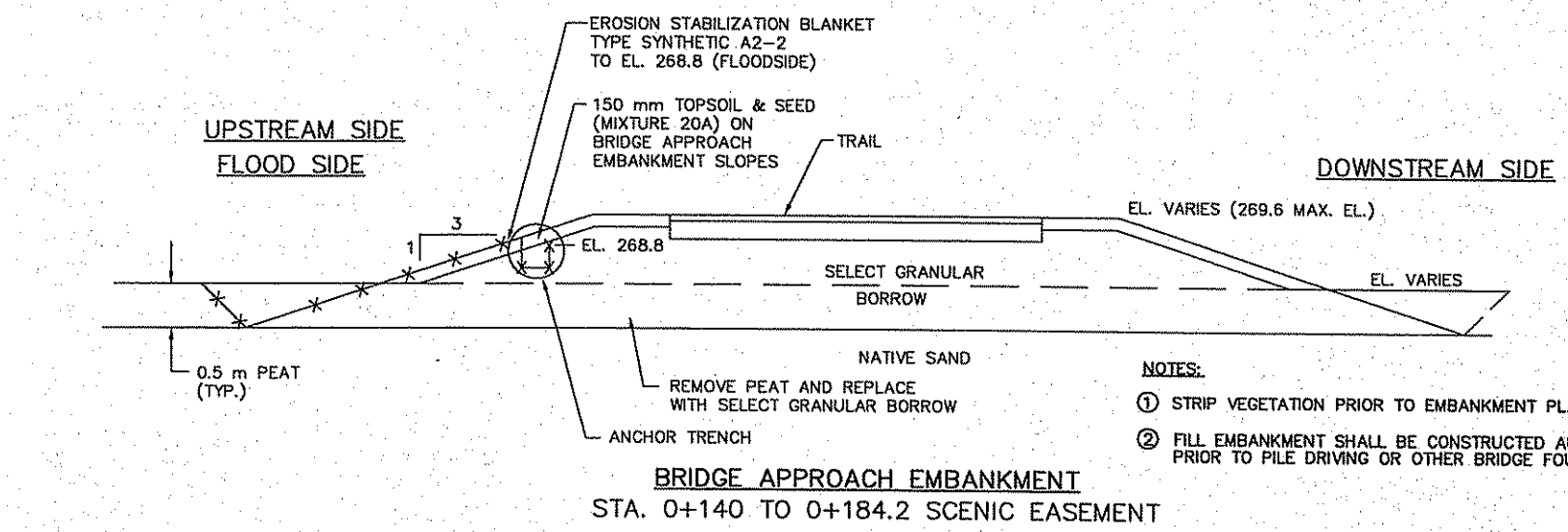


RIPRAP / EMBANKMENT DETAIL

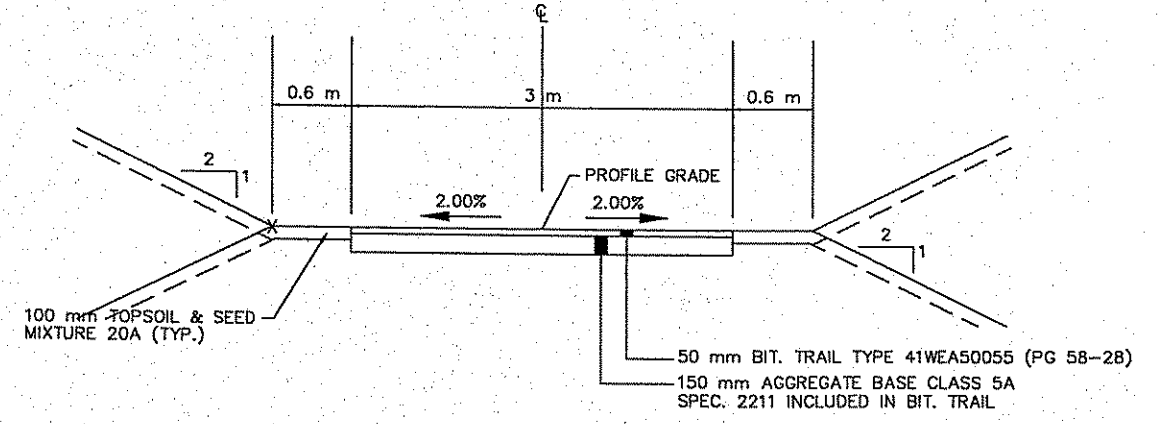


ANCHOR TRENCH DETAIL

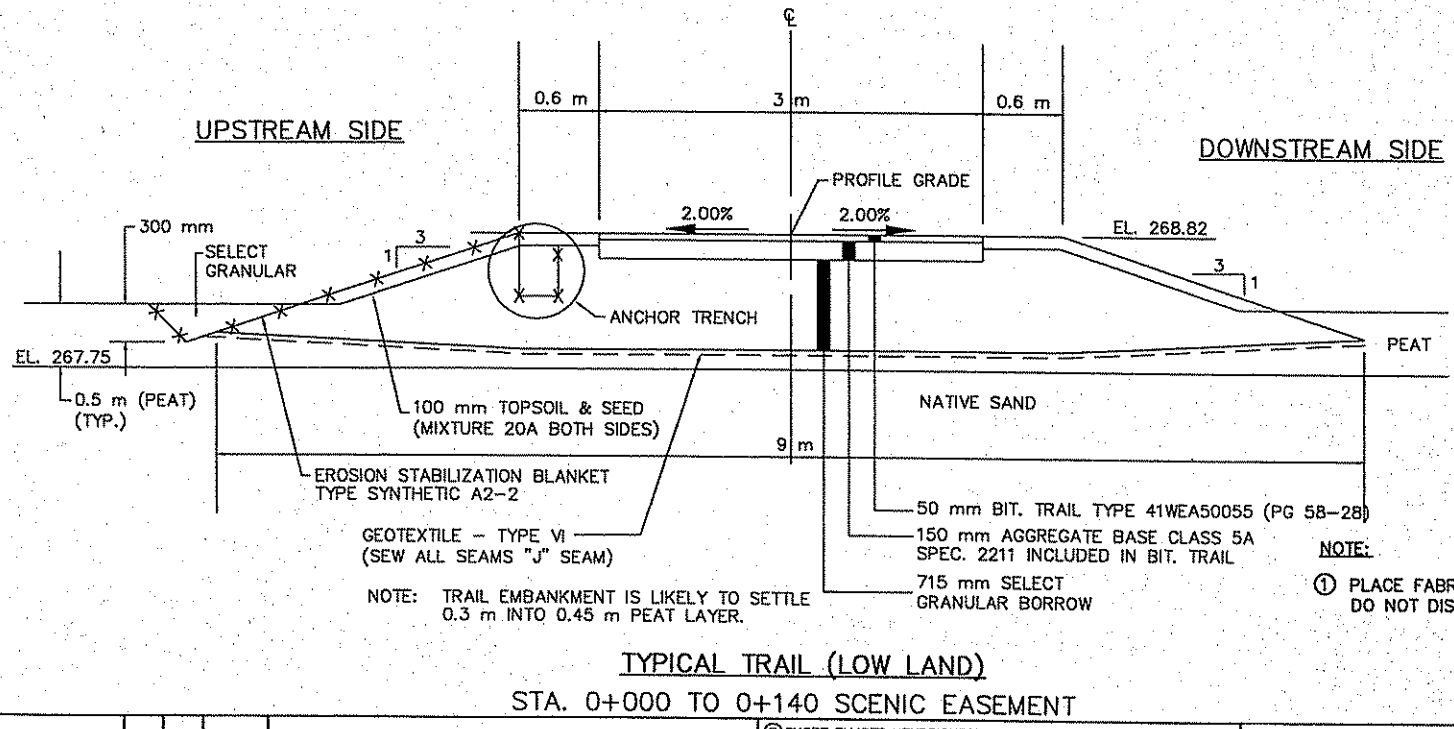
2.00% 2.00% STA. 0+224.7 TO 0+340
2.00% STA. 0+340 TO 1+178



- NOTES:
- STRIP VEGETATION PRIOR TO EMBANKMENT PLACEMENT
 - FILL EMBANKMENT SHALL BE CONSTRUCTED AND REMAIN FOR 2 WEEKS PRIOR TO PILE DRIVING OR OTHER BRIDGE FOUNDATION WORK



TYPICAL TRAIL (UP LAND)



- NOTE:
- PLACE FABRIC DIRECTLY ON PEAT, DO NOT DISTURB VEGETATION

OFF ROADWAY TRAIL GEOTEXTILE TYPE VI SPECIFICATION			
PHYSICAL PROPERTY	UNIT	ASTM DESIGNATION	VALUE (MD/XD)
GRAB TENSILE STRENGTH (min.)	kN	D 4632	1.55/1.11
GRAB TENSILE ELONGATION (max.)	%	D 4632	15
TRAPAZOIDAL TEARING STRENGTH (MIN.)	kPa	D 4533	0.42/0.265
MULLEN BURST (min.)	kPa	D 3786	3300
PUNCTURE (min.)	kN	D 4833	0.600
APPARENT OPENING SIZE (max.)	U.S. SIEVE	D 4751	70

- GENERAL NOTES:
- ACCESS FOR BRIDGE CONSTRUCTION AND USE OF TRAIL AS A HAUL ROAD IS INCIDENTAL TO BRIDGE
 - USE OF THE TRAIL AS A HAUL ROAD SHALL INCLUDE ANY NECESSARY ADDITIONAL SECTION STRUCTURE AND APPROPRIATE RESTORATION

OFF ROADWAY TRAILS
NON-PARTICIPATING

S.A.P. 167-252-01
S.A.P. 167-268-01

DESIGNED BY:	MW			
CHECKED BY:	STG			
DATE:	08-29-99			
USER:	CFU204SP			
NO.	BY	DATE	REVISIONS	

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James W. Mason
Date: 6/14/99 Reg. No. 18612

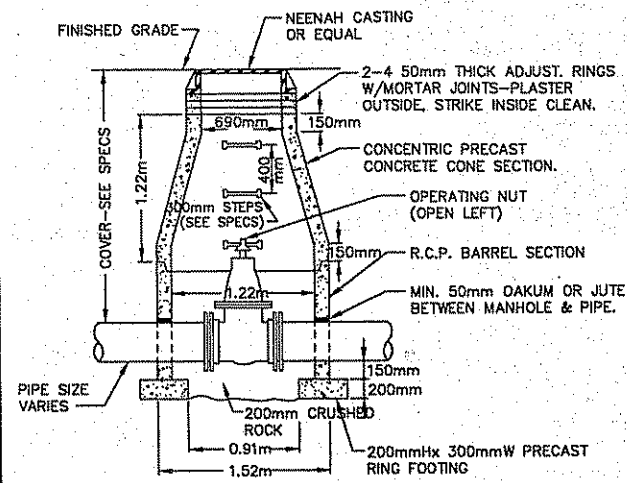
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

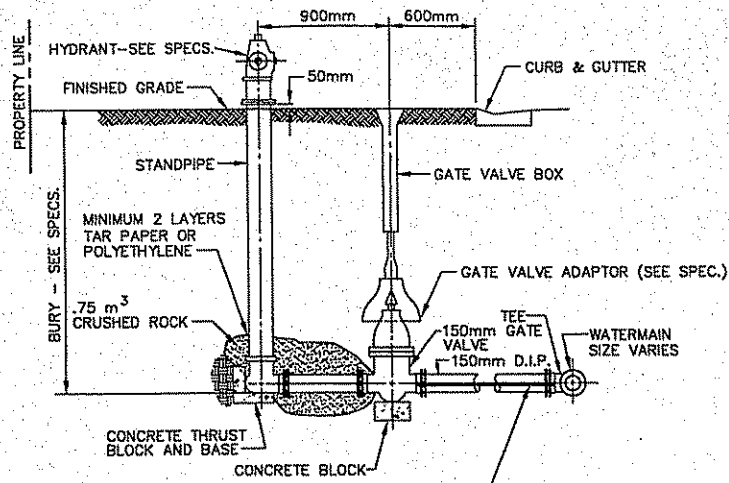
**TYPICAL SECTIONS
OFF ROADWAY TRAILS**

FILE NO.
ASHORE9804.02
DATE
6/14/99
13
131

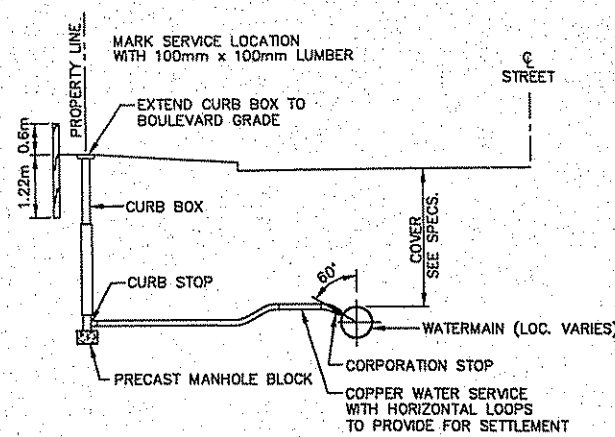
G:\CIVIL\CLIENTS\W.P. SHOREVIEW\CRK\ACAD\PLANS\SH804176.DWG
DATE: 08-29-99
USER: CFU204SP



TYPICAL VALVE MANHOLE

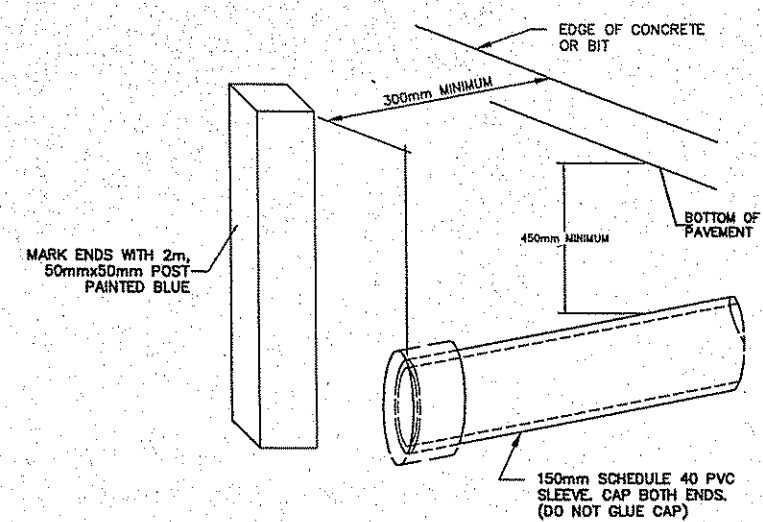


HYDRANT (& GATE VALVE) INSTALLATION

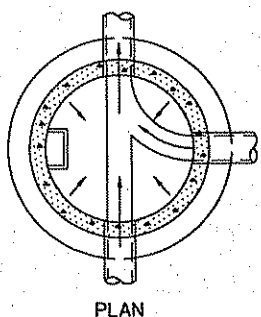


NOTES:
 1. SEE SPECS FOR SIZE & TYPE OF MATERIALS.
 2. MAINTAIN 450mm VERTICAL & 600mm HORIZONTAL SEPARATION BETWEEN SEWER & WATER SERVICE LINES

WATER SERVICE CONNECTION



IRRIGATION SLEEVE DETAIL

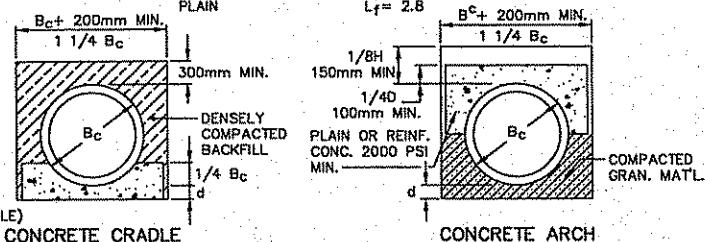


PLAN

TRENCH BEDDING—CIRCULAR PIPE

CLASS A

REINFORCED $A_g = 1.0\%$ $L_f = 4.8$
 REINFORCED $A_g = 0.4\%$ $L_f = 3.4$
 PLAIN $L_f = 2.8$

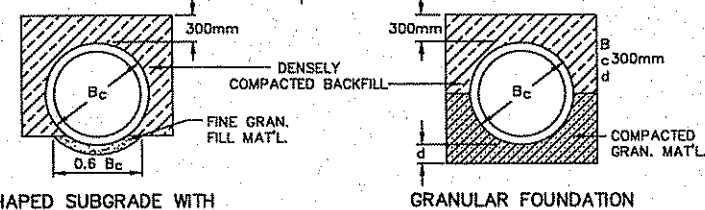


CONCRETE CRADLE

CONCRETE ARCH

CLASS B

$L_f = 1.9$

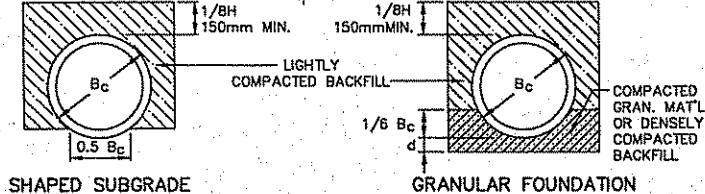


SHAPED SUBGRADE WITH GRANULAR FOUNDATION

GRANULAR FOUNDATION

CLASS C

$L_f = 1.5$

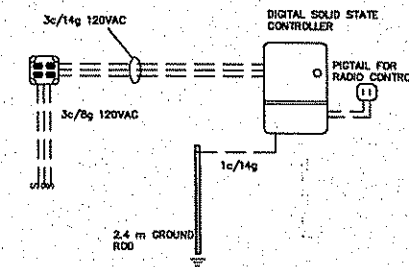


SHAPED SUBGRADE

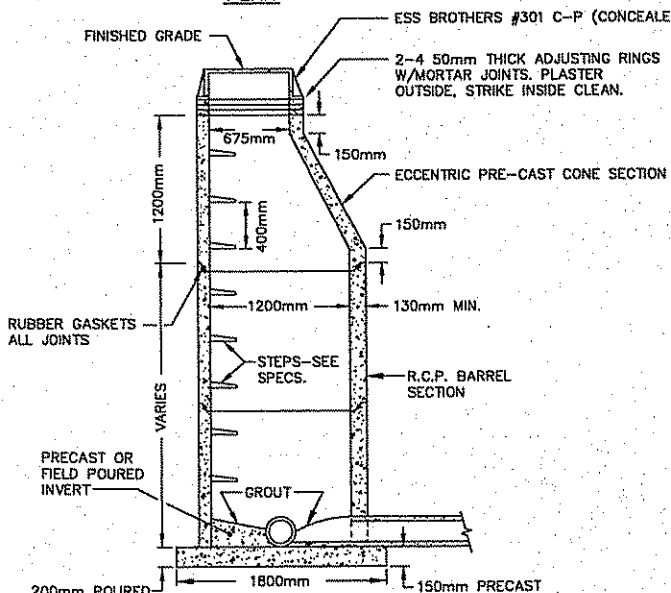
GRANULAR FOUNDATION

LEGEND
 B_c = OUTSIDE DIAMETER
 H = BACKFILL COVER OVER TOP OF PIPE
 D = INSIDE DIAMETER
 d = DEPTH OF BEDDING MATERIAL BELOW PIPE
 A_g = AREA OF TRANSVERSE STEEL IN THE CRADLE OR ARCH EXPRESSED AS A PERCENTAGE OF AREA OF CONCRETE AT INVERT OR CROWN.

DEPTH OF BEDDING MATERIAL BELOW PIPE (mm)	
D	d MIN.
675 & SMALLER	75
750 TO 1500	100
1650 & LARGER	150

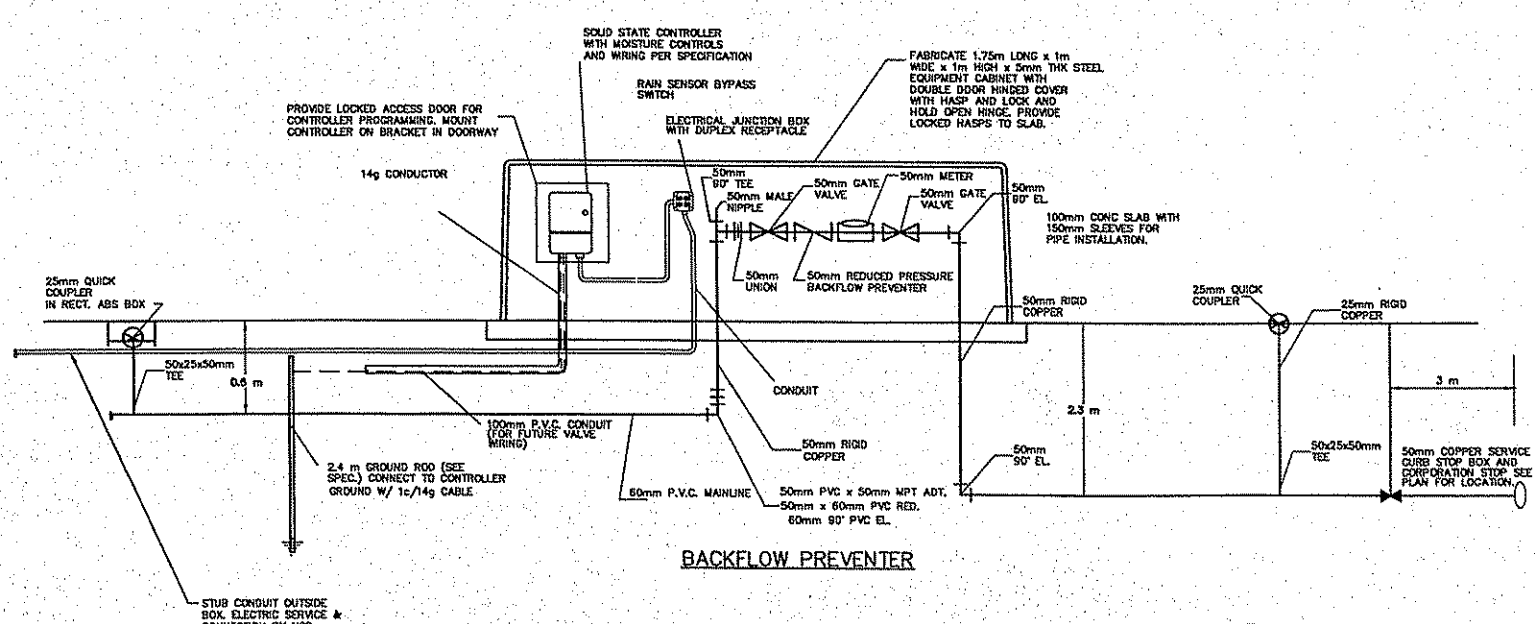


WIRING SCHEMATIC



SECTION

SANITARY DROP MANHOLE (ECCENTRIC)



BACKFLOW PREVENTER

IRRIGATION SERVICE DETAIL

S.A.P. 167-252-01
 S.A.P. 167-268-01

C:\WORK\CLIENTS\M_THRU\S\SHOREVIEW_RICE_CREEK\ACAD\PLANS\SHR0401.DWG DATE: 06-28-99 TIME: 10:49 AM USER: CPU201SP

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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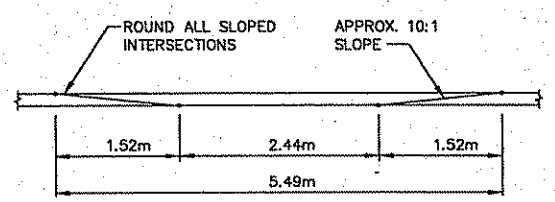
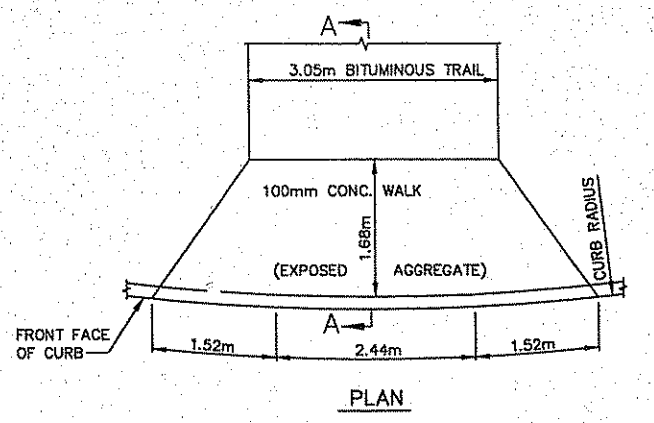
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John W. Johnson
 Date: 6/14/99 Reg. No. 18612

SEH
 PHONE: (651) 480-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

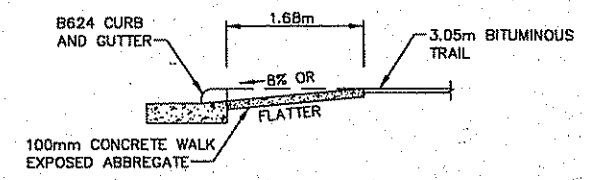
SHOREVIEW, MINNESOTA

WATER MAIN & SANITARY SEWER DETAILS
 RICE CREEK PARKWAY/
 PARK VIEW DRIVE

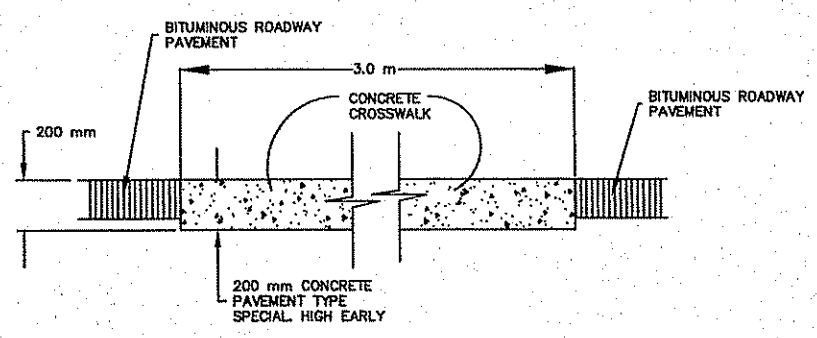
FILE NO.	SHORE804.02	14
DATE	6/14/99	131



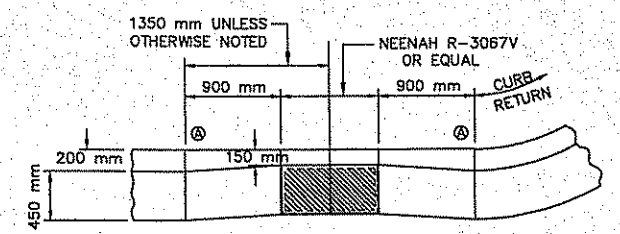
ELEVATION



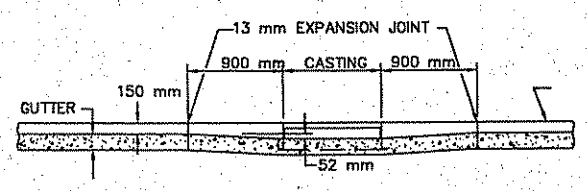
SECTION A-A
TRAIL CURB RAMPS



COLORED & STAMPED CONCRETE CROSSWALK SECTION

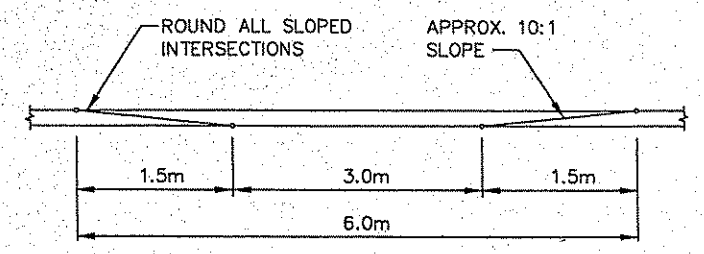


PLAN

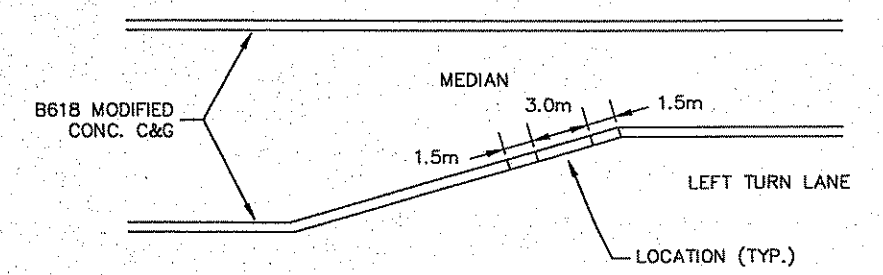


SECTION

CATCH BASIN INSTALLATION
FOR B-618 AND B-624 C. & G.

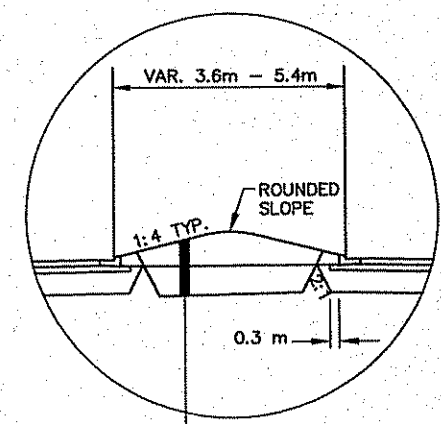


ELEVATION



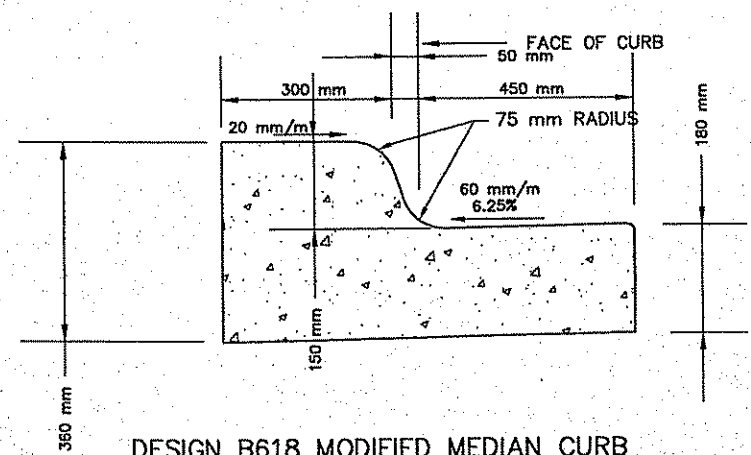
PLAN

CURB DROP DETAIL FOR MEDIAN
MAINTENANCE ACCESS

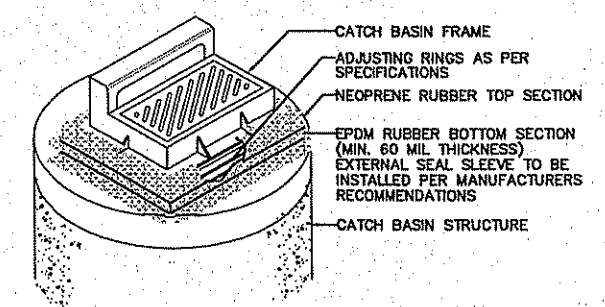


PLANTED MEDIAN DETAIL

BACKFILL 0.6 m W/ LOOSELY
COMPACTED PLANTING SOIL
ALONG SPECIFIED AREAS OF THE
MEDIAN.
SEED WITH MN/DOT MIX 110A

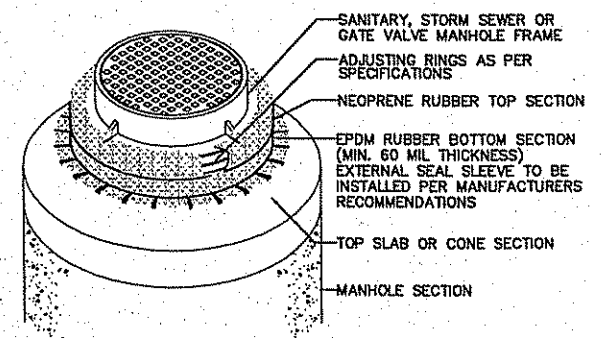


DESIGN B618 MODIFIED MEDIAN CURB



CATCHBASIN AND MANHOLE EXTERNAL SEAL

TO BE USED ON ALL STRUCTURES
COST INCIDENTAL TO STRUCTURE.



DATE: 06-29-99 TIME: 10:55 am USER: CPU2018P Q:\CIVIL\CLIENTS\W\THRU_S\SHOREVIEW\ICE_CREEK\CAD\PLANS\SH804073.DWG

DRAWN BY:	STG				
DESIGNER:	STG				
CHECKED BY:	SMM				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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Shawn M. Treman
Date: 6/14/99 Reg. No. 18612

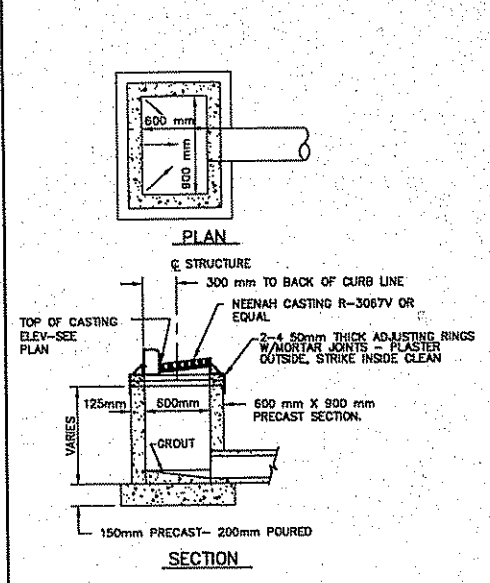
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

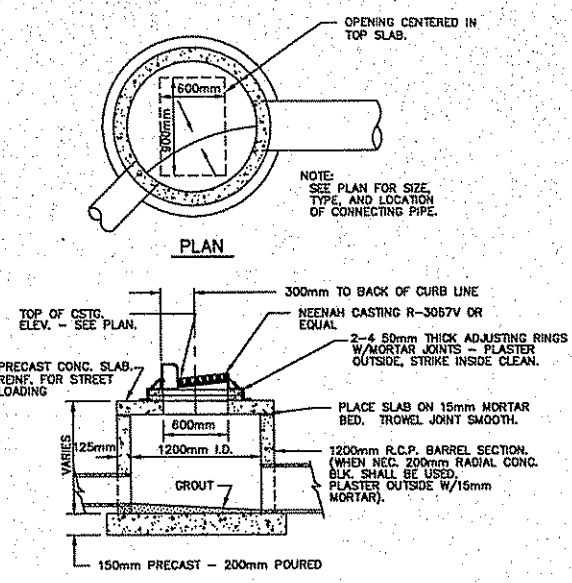
**STREET DETAILS
RICE CREEK PARKWAY/
PARK VIEW DRIVE**

FILE NO.
SHORE9804.02
DATE
6/14/99
15
131

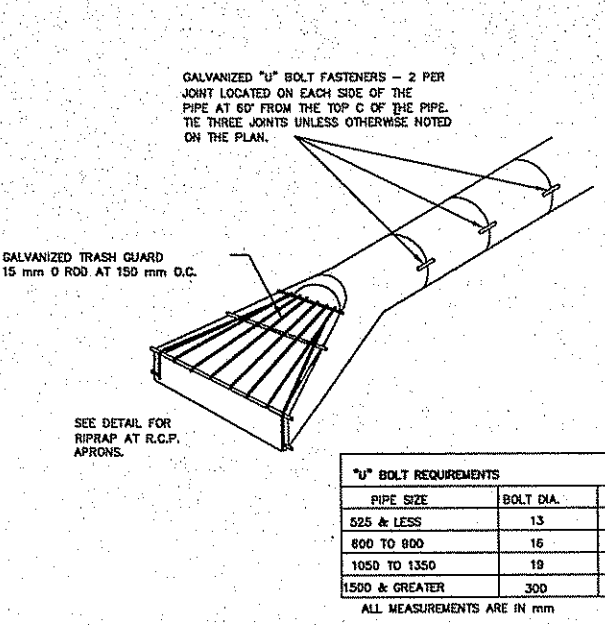
S.A.P. 167-252-01
S.A.P. 167-268-01



TYPE "X" CATCH BASIN
(RECTANGULAR)



TYPE "Y" CATCH BASIN
(RECTANGULAR CASTING)

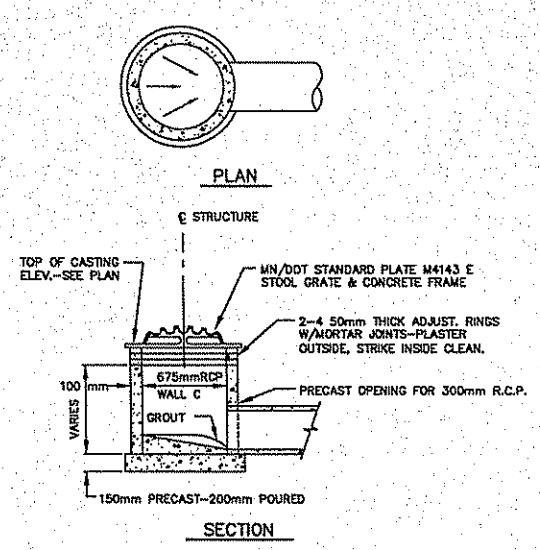


CONCRETE APRON

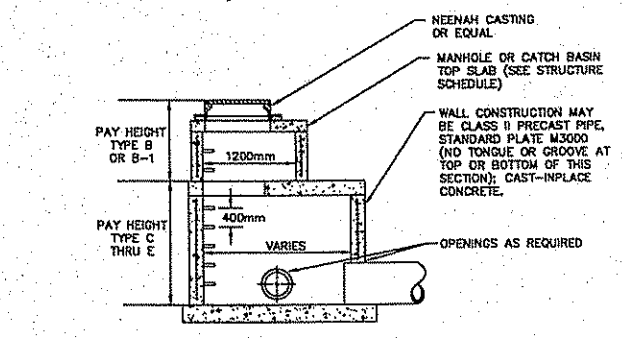
"U" BOLT REQUIREMENTS

PIPE SIZE	BOLT DIA.	WIDTH
625 & LESS	13	600
600 TO 900	16	600
1050 TO 1350	19	600
1500 & GREATER	300	600

ALL MEASUREMENTS ARE IN mm

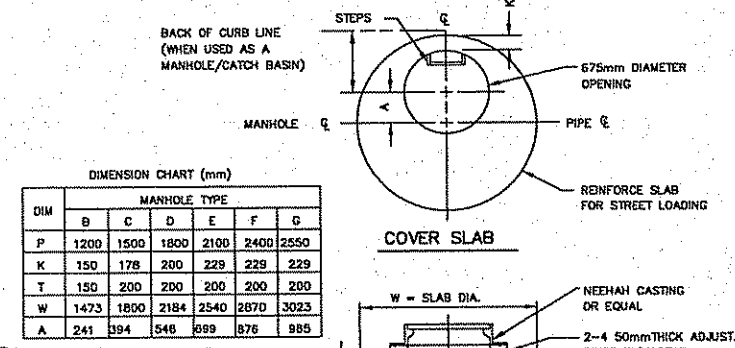


TYPE "Z" CATCH BASIN
(ROUND)



SPECIAL MANHOLE OR MANHOLE/CATCH BASIN
TYPE C THRU E BASE SECTION
TYPE B THRU B-1 TOP SECTION

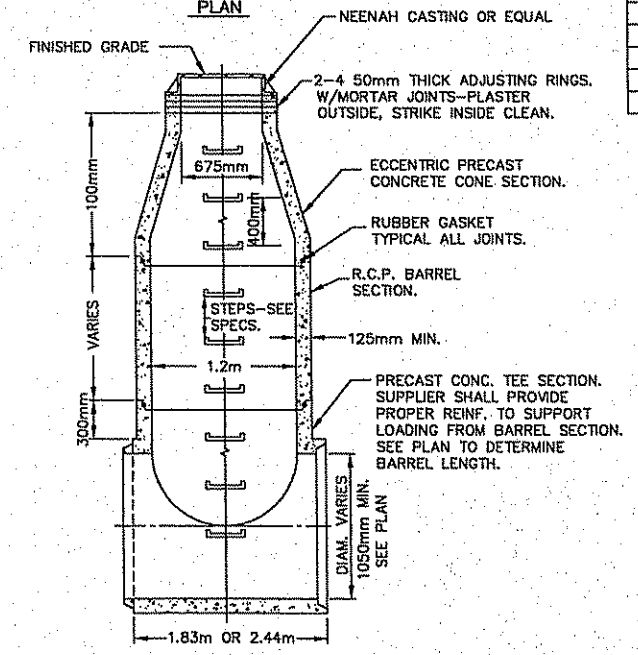
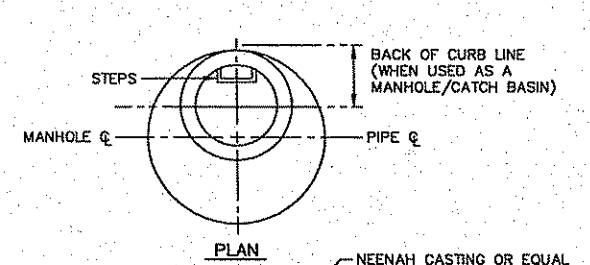
NOTES:
SEE MANHOLE TYPE B THRU C AND MANHOLE/CATCH BASIN TYPE B-1 THRU G-1 DETAILS FOR SPECIFIC CONSTRUCTION DETAILS.



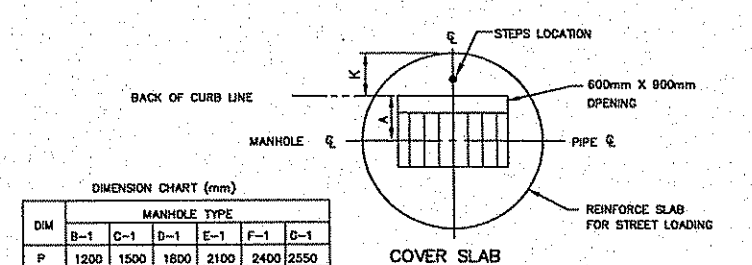
DIMENSION CHART (mm)

DIM	MANHOLE TYPE						
	B	C	D	E	F	G	
P	1200	1500	1800	2100	2400	2550	
K	150	178	200	229	229	229	
T	150	200	200	200	200	200	
W	1473	1800	2184	2540	2870	3023	
A	241	394	548	699	876	985	

NOTE:
DIMENSION "A" IN ABOVE CHART IS BASED ON A 675mm DIAM. OPENING. INCREASE "A" BY 38mm FOR 600mm OPENING.

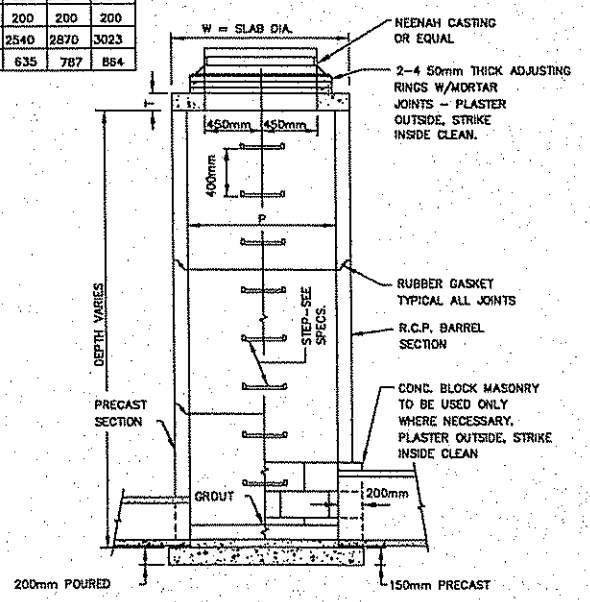


TEE SECTION MANHOLE TYPE "J"

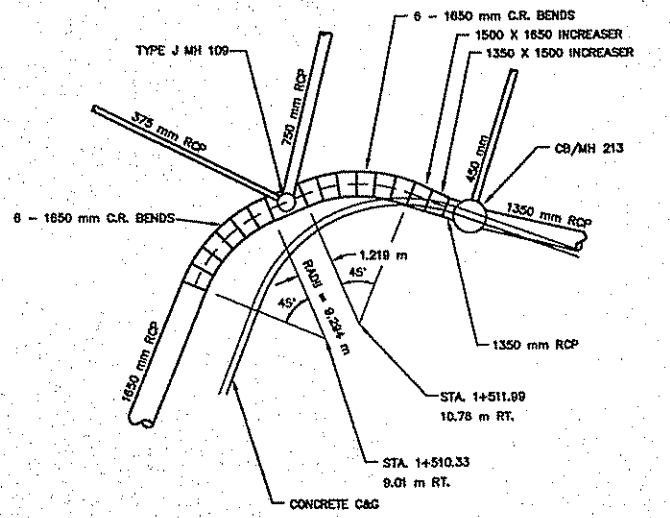


DIMENSION CHART (mm)

DIM	MANHOLE TYPE						
	B-1	C-1	D-1	E-1	F-1	G-1	
P	1200	1500	1800	2100	2400	2550	
K	356	330	330	330	343	343	
T	150	200	200	200	200	200	
W	1473	1800	2184	2540	2870	3023	
A	76	279	457	635	787	884	



MANHOLE/CATCH BASIN TYPE B-1 THRU G-1



STORM SEWER DETAIL
INTERSECTION OF RICE CREEK PARKWAY AND RICE CREEK DRIVE

DRAWN BY: STG	NO.	BY	DATE	REVISIONS
DESIGNER: STG				
CHECKED BY: SMM				
DESIGN TEAM				

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John Hendrickson
Date: 6/14/99 Reg. No. 18612

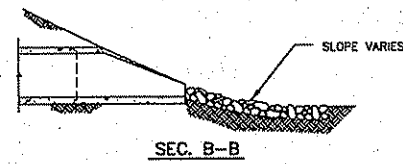
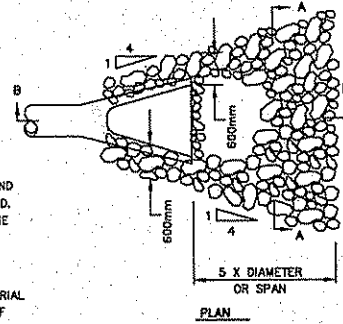
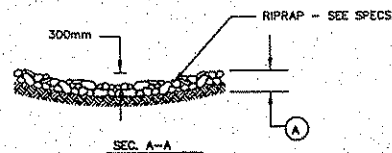
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

SHOREVIEW, MINNESOTA

STORM SEWER DETAILS
RICE CREEK PARKWAY/
PARK VIEW DRIVE

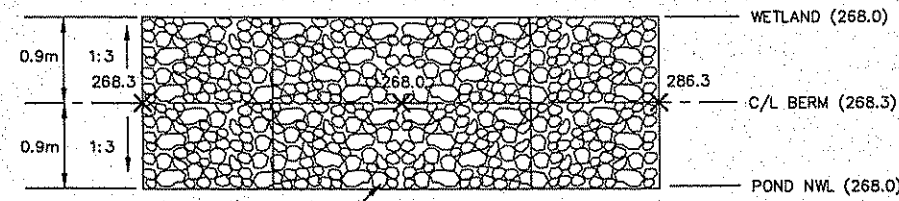
FILE NO. SHORE9804.02
DATE 6/14/99
16
131

DATE: 06-29-99 TIME: 10:59 am USER: CPU201SP G:\CHM\AGENTS\M_THRU_S\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SH804074.DWG

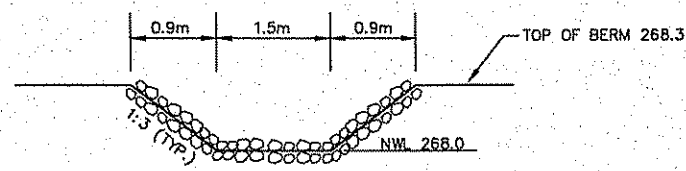


RIPRAP AT R.C.P. APRONS

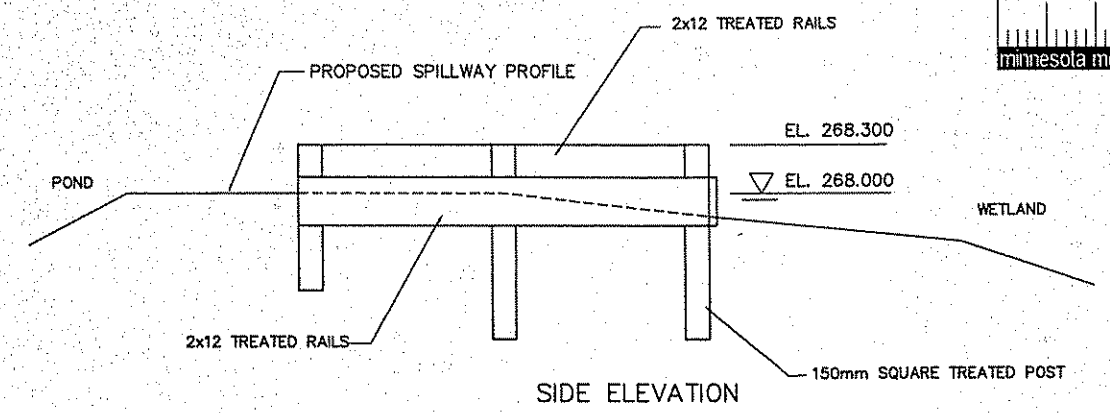
A SEE PLAN FOR DEPTH AND VOLUME OF RIPRAP REQ'D. ALSO DEPTH AND VOLUME OF FILTER BLANKET IF REQUIRED.
GEOTEXTILE FILTER MATERIAL CAN BE USED IN LIEU OF FILTER BLANKET IF SPECIFIED.



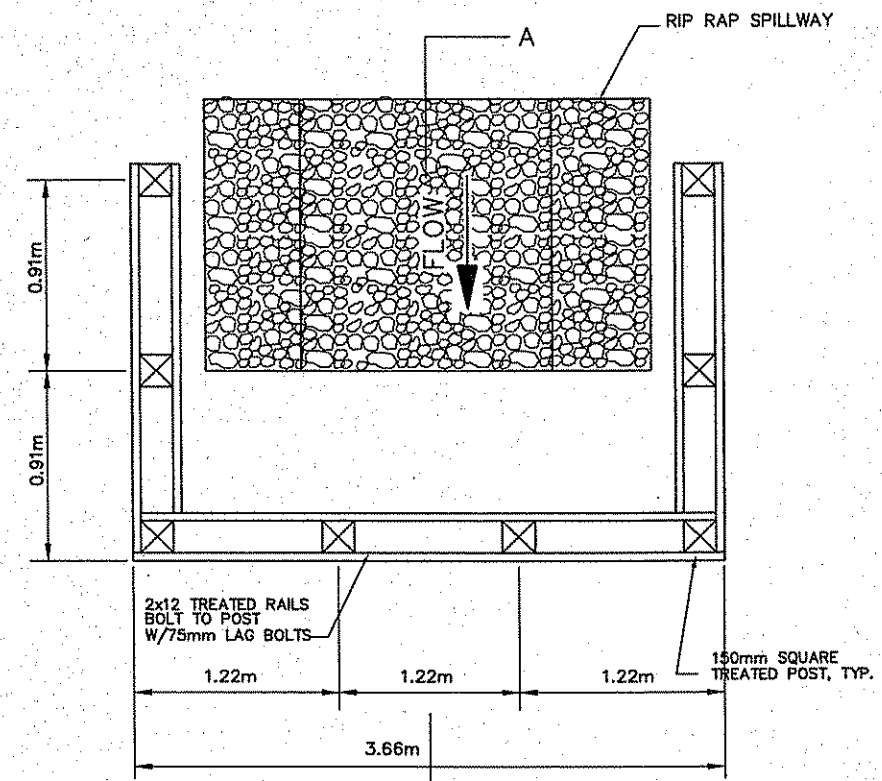
30m3 RANDOM RIP RAP
CL. III W/10m2 GEOTEXTILE FABRIC TYPE IV.



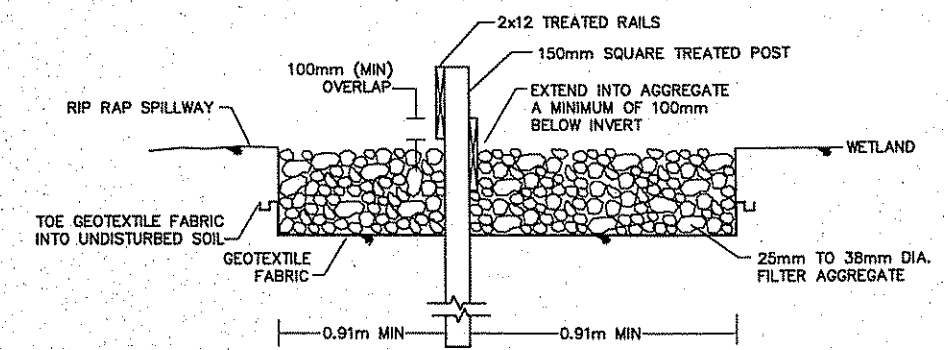
RIP RAP SPILLWAY



SIDE ELEVATION

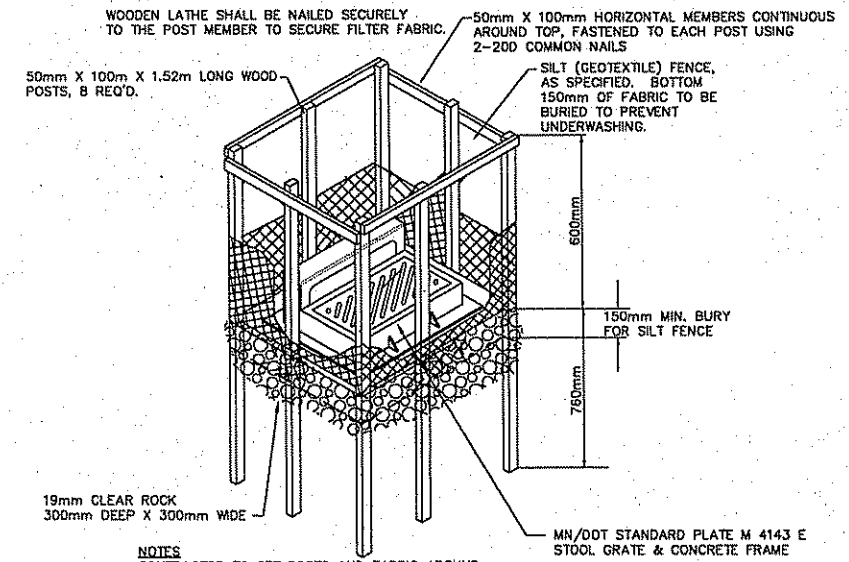


PLAN



SECTION A-A

WOODEN SKIMMER



WOODEN LATHE SHALL BE NAILED SECURELY TO THE POST MEMBER TO SECURE FILTER FABRIC.
50mm X 100mm HORIZONTAL MEMBERS CONTINUOUS AROUND TOP, FASTENED TO EACH POST USING 2-20D COMMON NAILS.
50mm X 100mm X 1.52m LONG WOOD POSTS, 8 REQ'D.
SILT (GEOTEXTILE) FENCE, AS SPECIFIED. BOTTOM 150mm OF FABRIC TO BE BURIED TO PREVENT UNDERWASHING.
19mm CLEAR ROCK 300mm DEEP X 300mm WIDE.
MN/DDOT STANDARD PLATE M 4143 E STOOL GRATE & CONCRETE FRAME.
160mm MIN. BURY FOR SILT FENCE.
750mm height.

EROSION CONTROL AROUND STOOL GRATE DRAINAGE STRUCTURES

G:\MVA\CLIENTS\M...TH DATE: 07-09-99 USER: CPJ2DASP

DRAWN BY:	STG	STG	7/6/99	ADDENDUM NO. 1
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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[Signature]
Date: 6/14/99 Reg. No. 18612

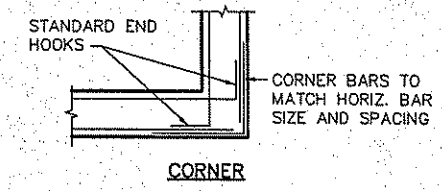
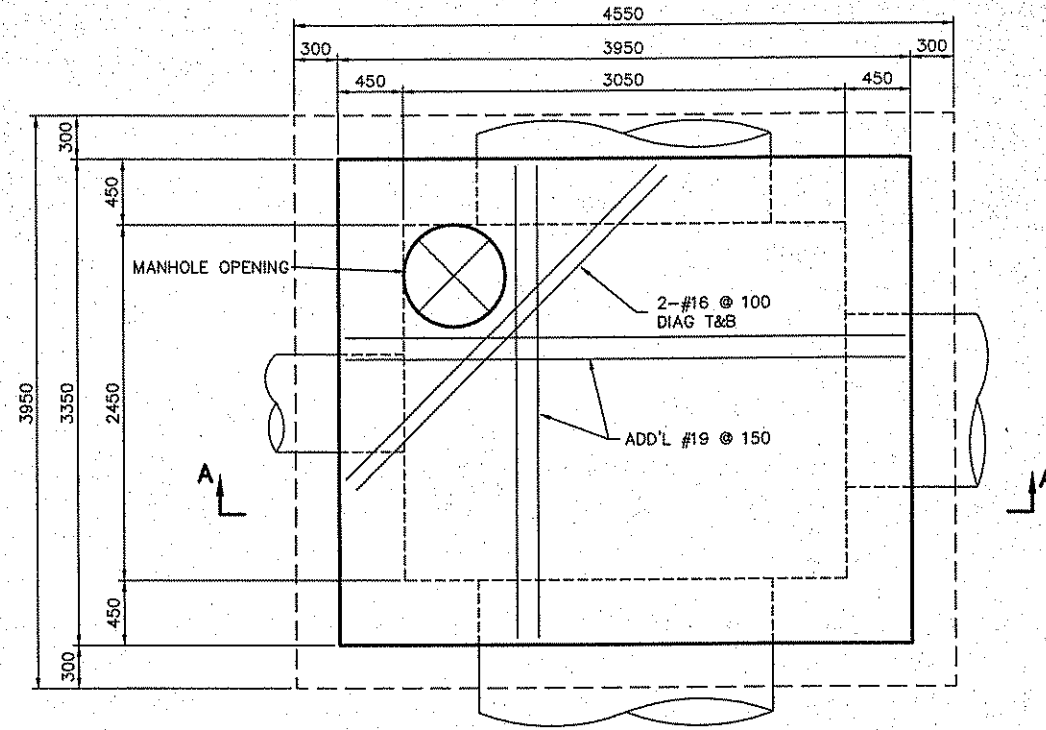
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PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

SHOREVIEW, MINNESOTA

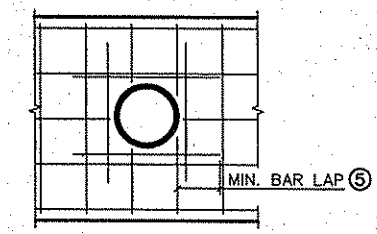
**STORM SEWER DETAILS
RICE CREEK PARKWAY/
PARK VIEW DRIVE**

FILE NO. SHORE9804.02	17
DATE 6/14/99	131

S.A.P. 167-252-01
S.A.P. 167-268-01



1 WALL INTERSECTION DETAIL

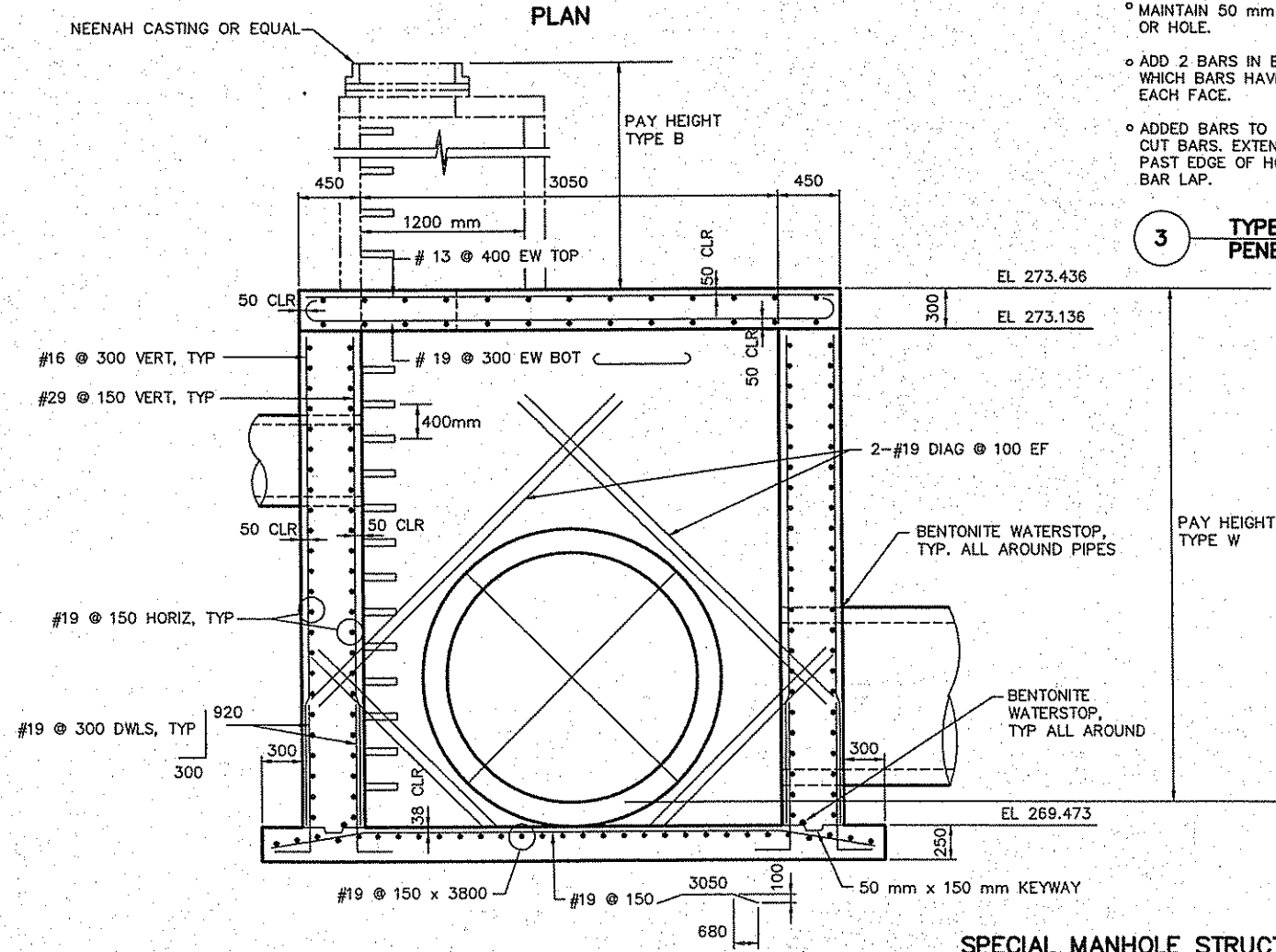


- ROUND HOLE.
- ONE OR TWO BARS CUT EITHER OR BOTH WAYS EACH FACE.
- MAINTAIN 50 mm CL. TO OUTSIDE OF PIPE OR HOLE.
- ADD 2 BARS IN EACH DIRECTION IN WHICH BARS HAVE BEEN CUT, EACH FACE.
- ADDED BARS TO BE SAME SIZE AS CUT BARS. EXTEND ENDS A DISTANCE PAST EDGE OF HOLE MINIMUM BAR LAP.

3 TYPE 2 PENETRATION

- ROUND HOLE.
- NO REINFORCING CUT.
- REINFORCING MAY BE BENT OR SHIFTED. MAINTAIN 25 mm CL. TO OUTSIDE OF PIPE OR HOLE.
- NO ADDITIONAL REINFORCING REQ'D.

2 TYPE 1 PENETRATION



SECTION A-A

SPECIAL MANHOLE STRUCTURE 204
TYPE W BASE SECTION
TYPE B TOP SECTION

STRUCTURAL NOTES

- CONCRETE
COMPRESSIVE STRENGTH IN 28 DAYS:
FOOTINGS, SLAB ON GRADE, CONCRETE WALLS, COREFILL
 $F'_c = 30 \text{ MPa}$
EXTERIOR CONCRETE W/ 6% AIR ENTRAINMENT,
 $F'_c = 30 \text{ MPa}$
- REINFORCING STEEL:
ASTM A615 GRADE 400 MPa
REINFORCING SPLICES SHALL BE MADE IN
ACCORDANCE WITH AC308 WITH MIN LAPS.

NOTE:
SEE MANHOLE TYPE B THRU G DETAIL FOR SPECIFIC
CONSTRUCTION DETAILS OF TOP SECTION.

Q:\CIVIL\CLIENTS\M_THRU_G\SHOREVIEW_RICE_CREEK\ACAD\PLANS\SHOHD016.DWG DATE: 07-14-99 TIME: 7:16 am USER: CPU1385P

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
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James E. Stewart
Date: 6/14/99 Reg. No. 23376

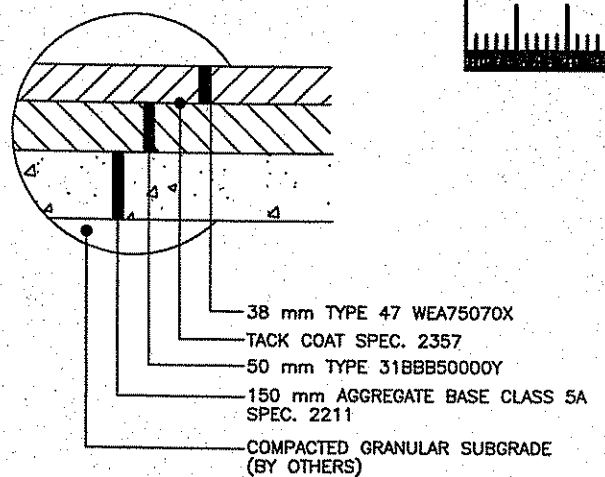
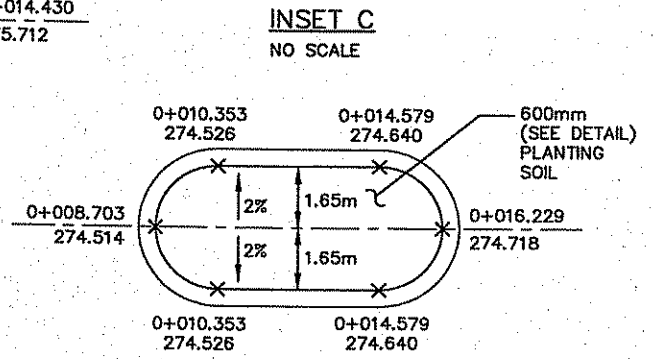
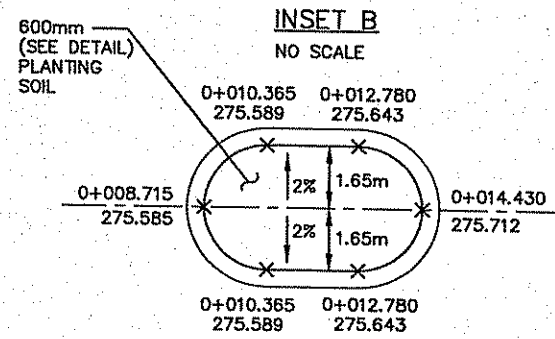
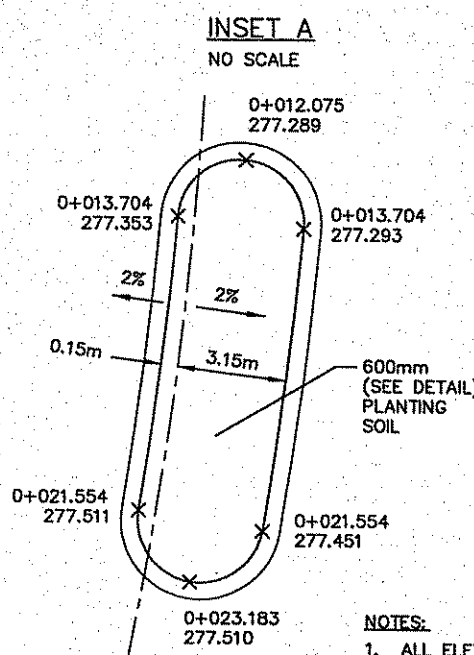
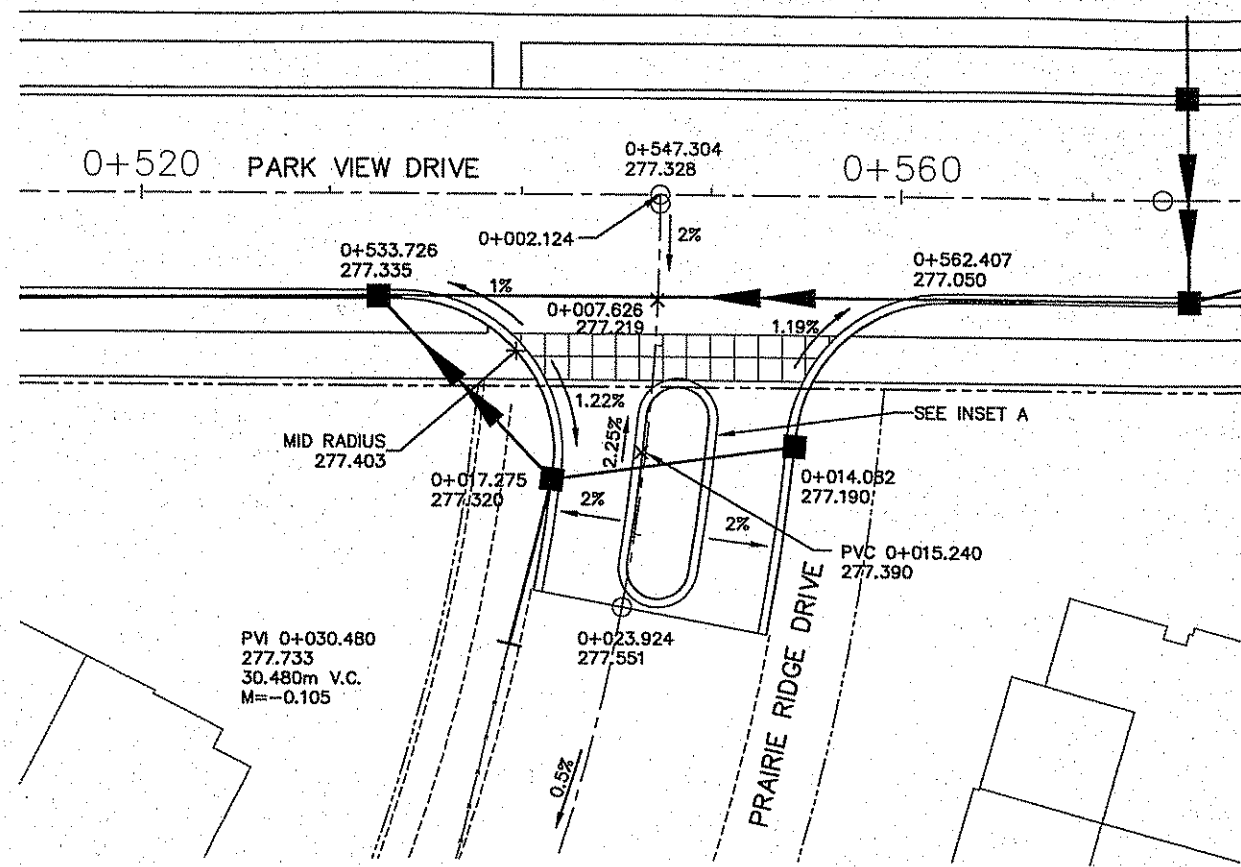
ESEH
PHONE: (651) 490-2000
3635 WADNAIS CENTER DR.
ST. PAUL, MN 55110

SHOREVIEW,
MINNESOTA

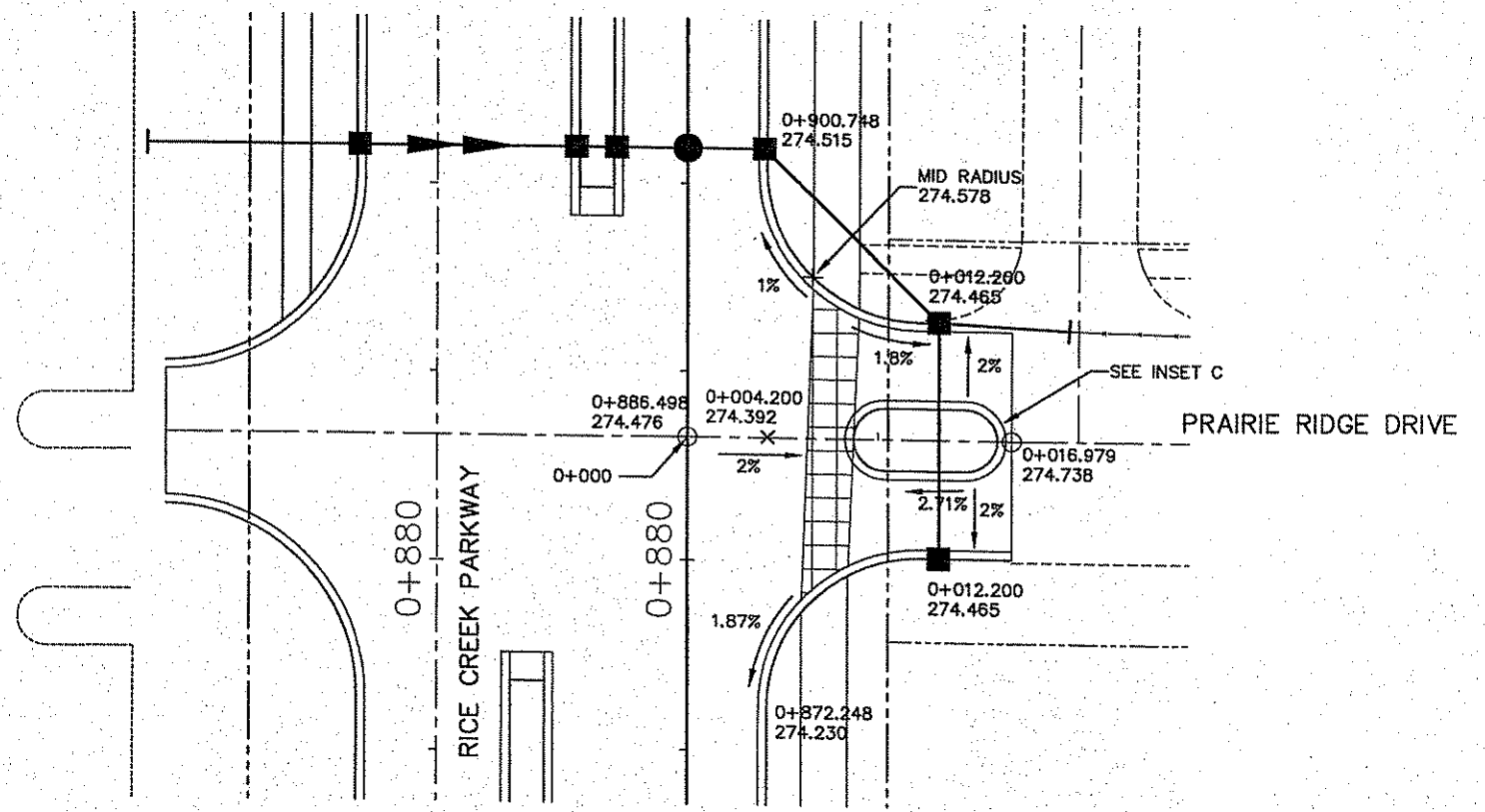
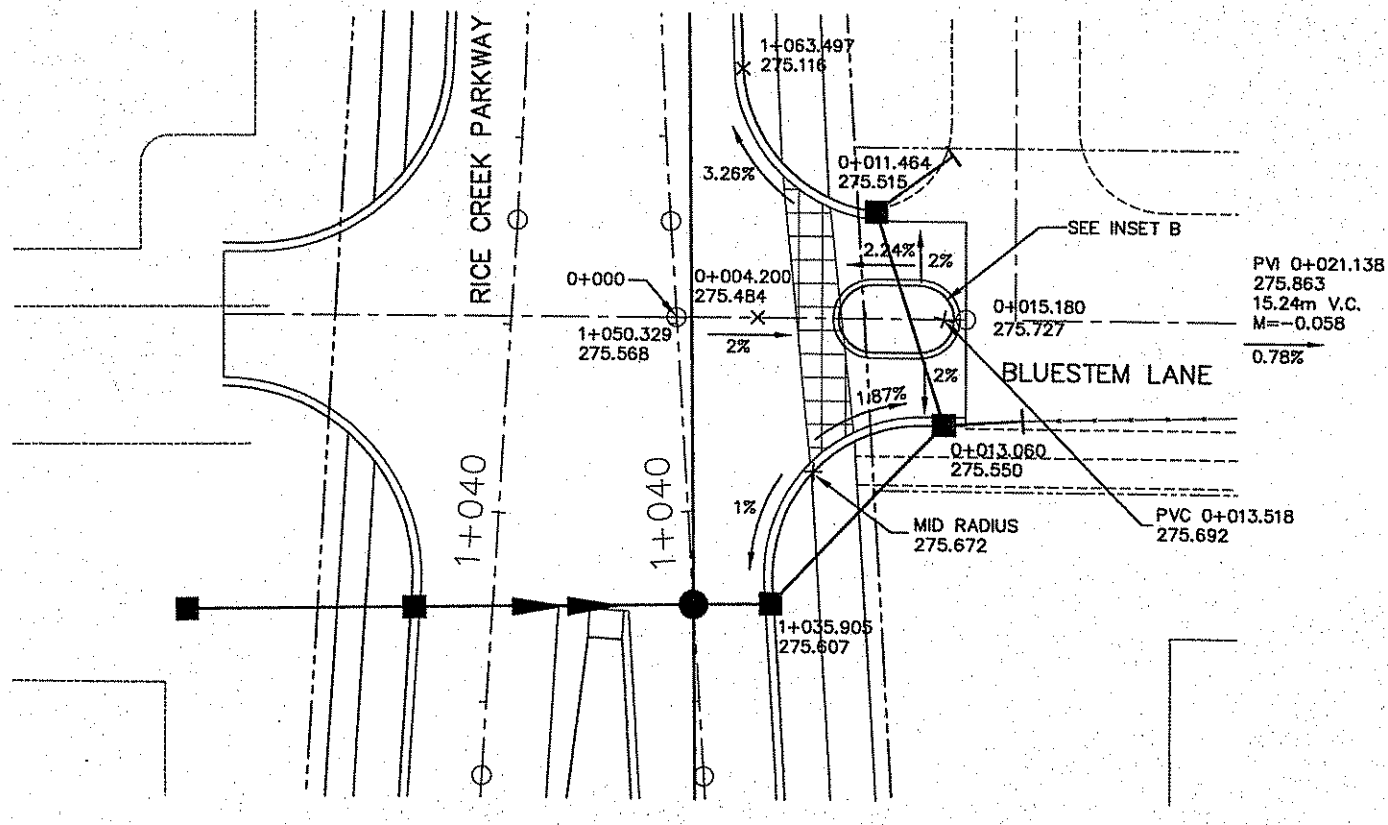
SPECIAL MANHOLE
STRUCTURE 204 (W)
RICE CREEK PARKWAY

FILE NO.	18
SHORE9804.02	
DATE	6/14/99
	131

S.A.P. 167-252-01
S.A.P. 167-268-01



- NOTES:
1. ALL ELEVATIONS AND OFFSETS ARE TO GUTTER UNLESS OTHERWISE NOTED.
 2. CENTER ISLANDS SHALL BE TIP OUT B618 CONC. C&G.



Q:\DRAWINGS\SHOREVIEW\19\191\191001.DWG
 USER: CHU245F
 DATE: 06-28-99 3:14 PM
 XREFS: Q:\DRAWINGS\SHOREVIEW\19\191\191001.DWG, X-CORR1, X-CORR2, X-CORR3, X-ROT1, X-ROT2, X-ROT3

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John M. Thorsen
 Date: 6/14/99 Reg. No. 18612

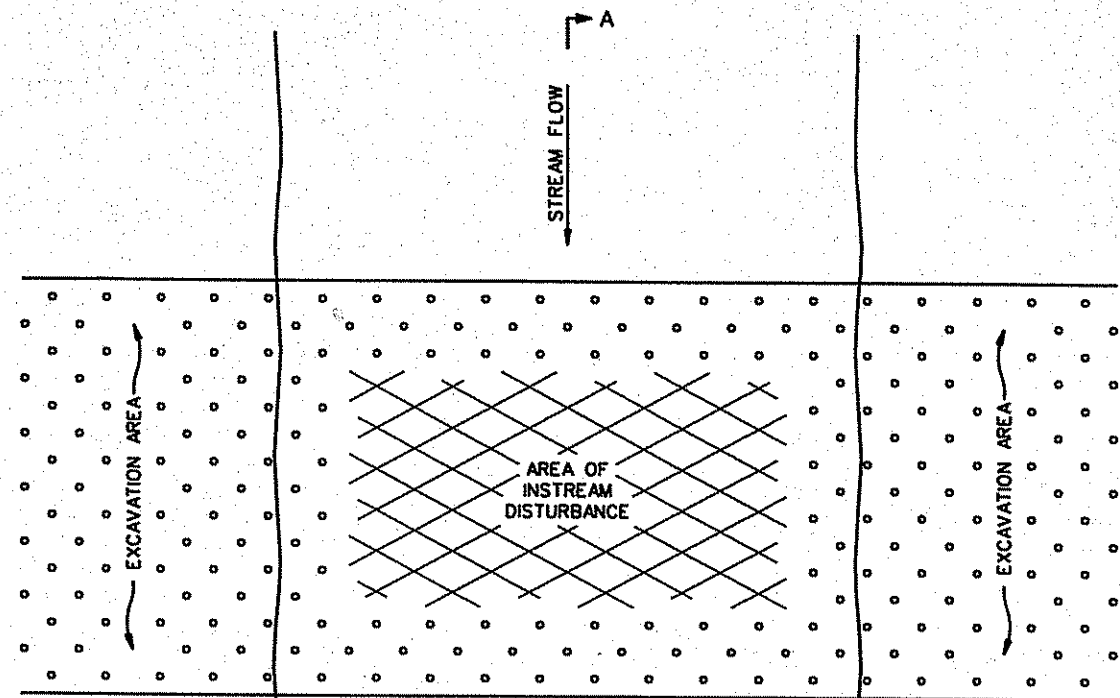
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 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

**SHOREVIEW,
 MINNESOTA**

**RICE CREEK PARKWAY/
 PARK VIEW DRIVE
 INTERSECTION DETAILS**

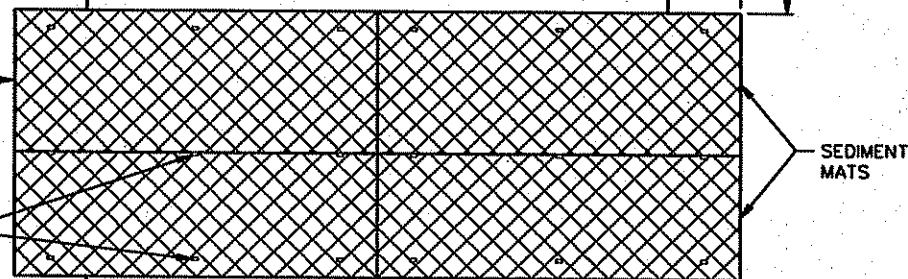
S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	19
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DATE	6/14/99
	131

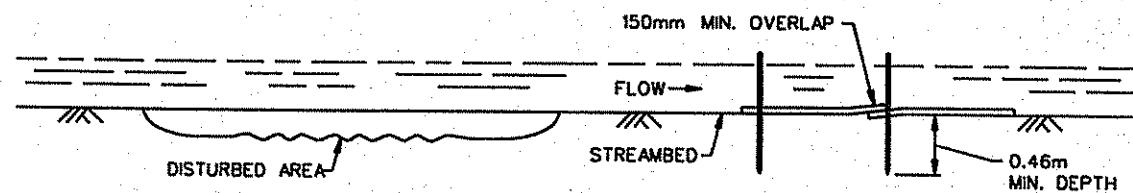


4m MIN. DOWNSTREAM COVERAGE OF SEDIMENT MATS FOR EACH m/SEC. OF WATER VELOCITY

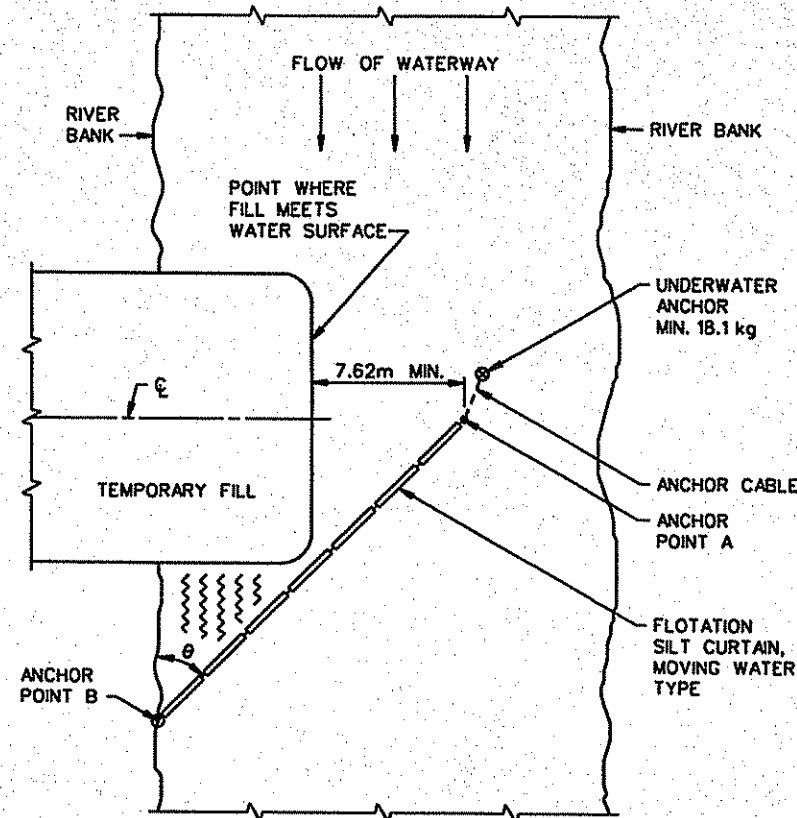
STAKE AT 1.22m INTERVALS



PLAN VIEW



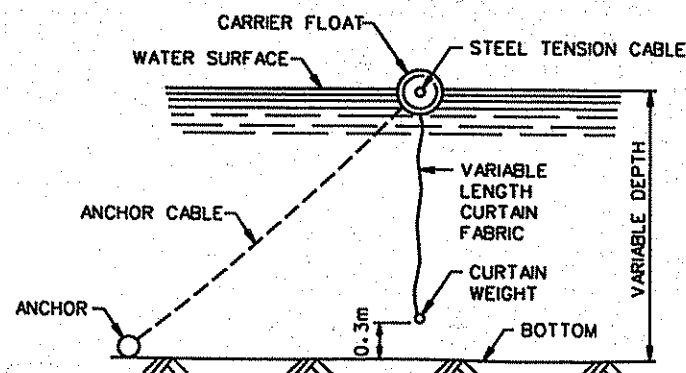
DESIGN CRITERIA:
 MAXIMUM FLOW VELOCITY: 1.52m/SEC.
 MAXIMUM FLOW DEPTH: 0.61m



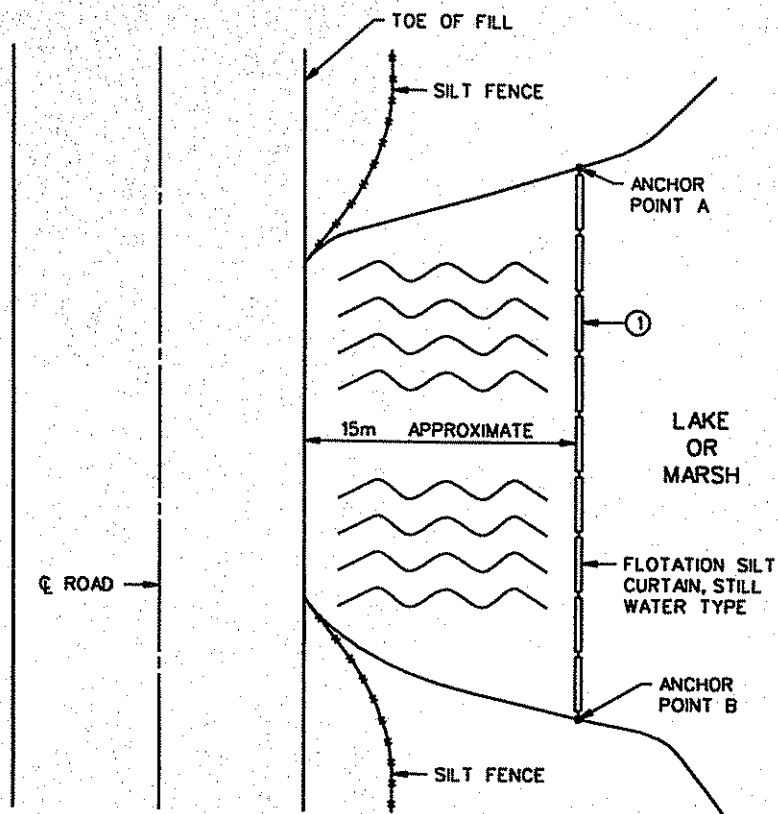
∠ θ	RIVER VELOCITY
45°	SLOW, LESS THAN 1.52 m/SEC.
35°	MODERATE, 1.52 - 2.13 m/SEC.

PLAN VIEW OF SILT CURTAIN - MOVING WATER

DESIGN CRITERIA:
 MAXIMUM WATER DEPTH: 3.66m
 MAXIMUM WATER VELOCITY: 2.13 m/SEC.

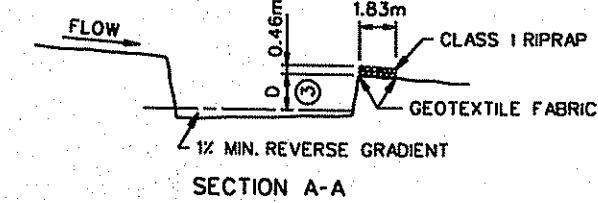
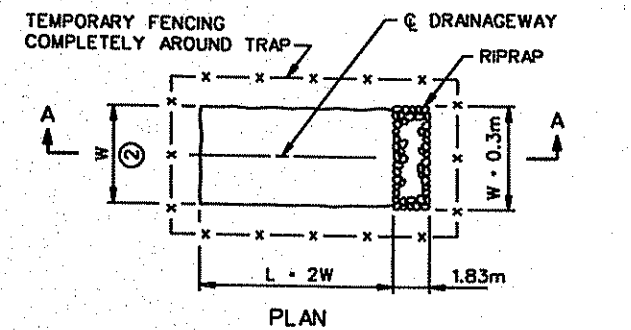


FLOTATION SILT CURTAIN DETAIL (SEE SPEC. 3887)



PLAN VIEW OF SILT CURTAIN - STILL WATER

DESIGN CRITERIA:
 MAXIMUM WATER DEPTH: 3.66m



TEMPORARY SEDIMENT TRAP DETAIL

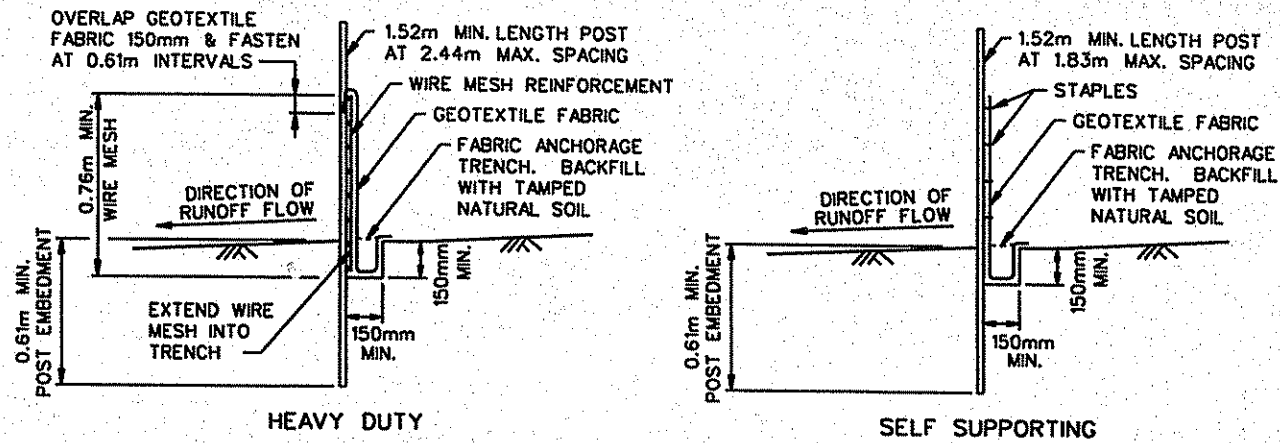
NOTES:

- ① CURTAIN 0.3m FROM BOTTOM
- ② W = 3.05m MIN., 6.1m MAX.
- ③ D = 0.91m MIN., 1.83m MAX.

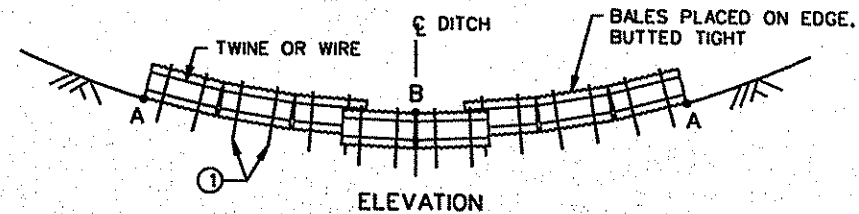
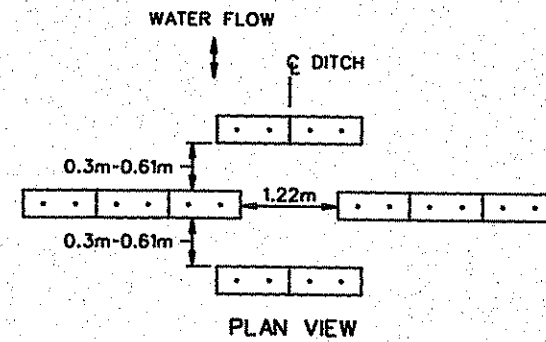
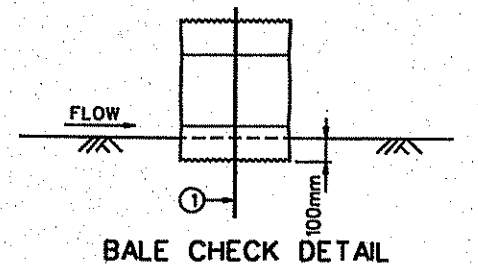
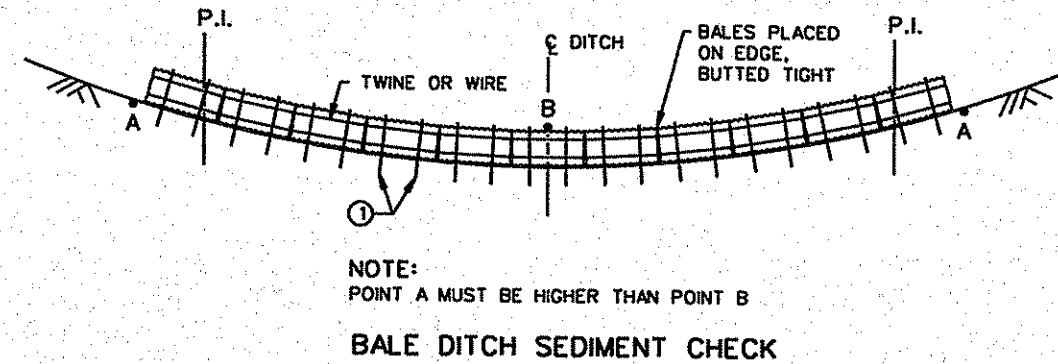
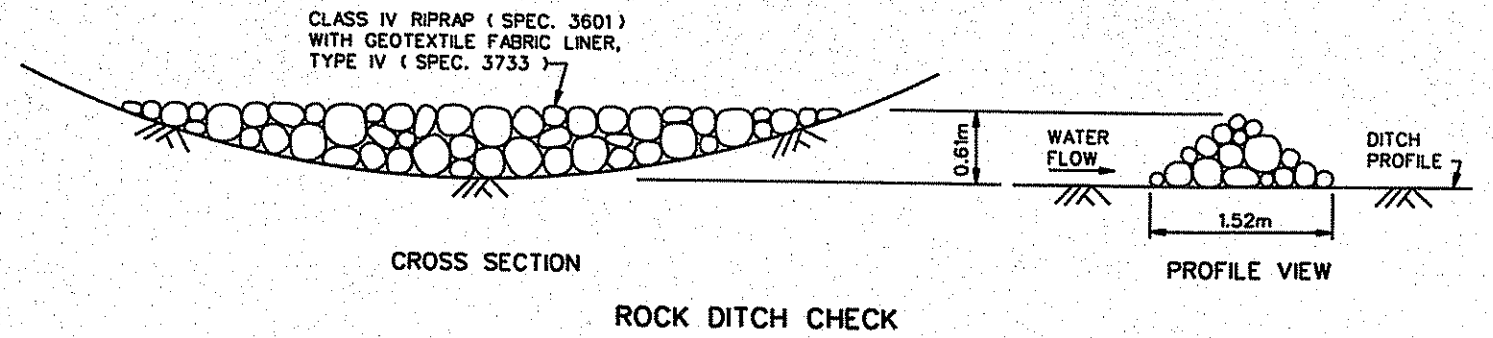
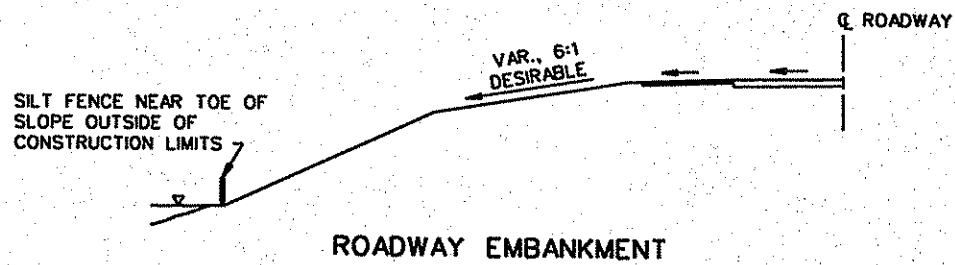
STANDARD SHEET NO.
 5-297.405 (1 OF 3)
 STANDARD APPROVED:
 MAY 1, 1995
 S.A.P. 167-252-01
 S.A.P. 167-268-01

TEMPORARY EROSION CONTROL

Q:\CIVIL\CLIENTS\N...THRU_S\SHOREVIEW\CRK\STATION\PLANS\SH804DT5.DGN



SILT FENCE DETAILS
 TO PROTECT AREAS FROM SHEET FLOW
 (SEE SPEC. 3886)
DESIGN CRITERIA:
 MAXIMUM CONTRIBUTING AREA: 1.21ha



NOTE:
 POINT A MUST BE HIGHER THAN POINT B

BALE DITCH VELOCITY CHECKS
 (WILL REQUIRE A MINIMUM OF 10 BALES PER SITE)

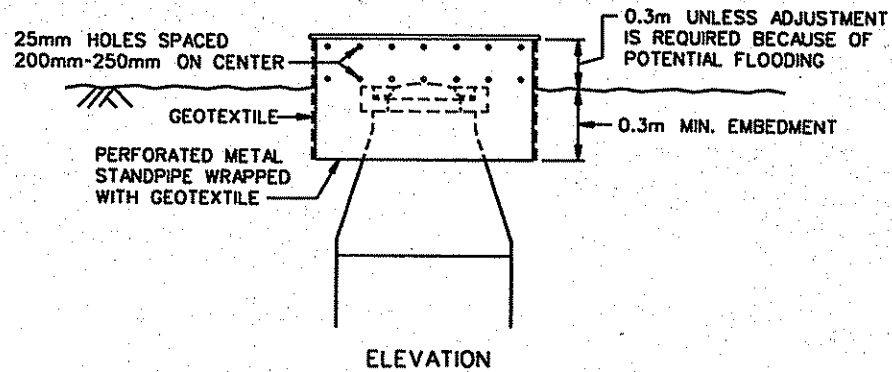
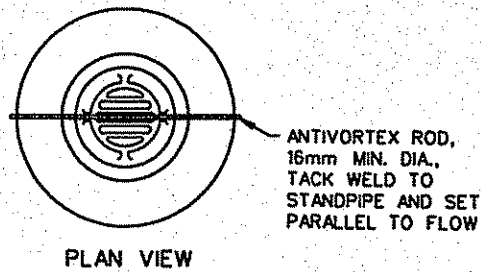
RECOMMENDED SPACING BETWEEN DITCH CHECKS	
DITCH GRADE (%)	SPACING (m)
2	30.5
4	22.9
6	15.2
8	12.2
10	7.6

DESIGN CRITERIA:

	BALE	ROCK
STORM FREQUENCY:	2 YR. - 24 HR.	10 YR. - 24 HR.
MAX. FLOW VELOCITY:	1.52 m/SEC.	3.66 m/SEC.
MAX. DITCH GRADE:	5%	—
MAX. DRAINAGE AREA:	0.81 ha	2.02 ha

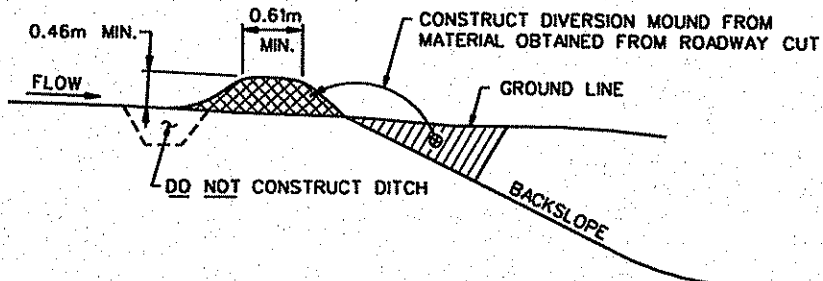
NOTE:
 ① TWO 50mm X 50mm WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 250mm MINIMUM.

STANDARD SHEET NO. 5-297.405 (2 OF 3)	TITLE: TEMPORARY EROSION CONTROL
STANDARD APPROVED: MAY 1, 1995	
S.A.P. 167-252-01 S.A.P. 167-268-01	SHEET NO. 21 OF 131 SHEETS

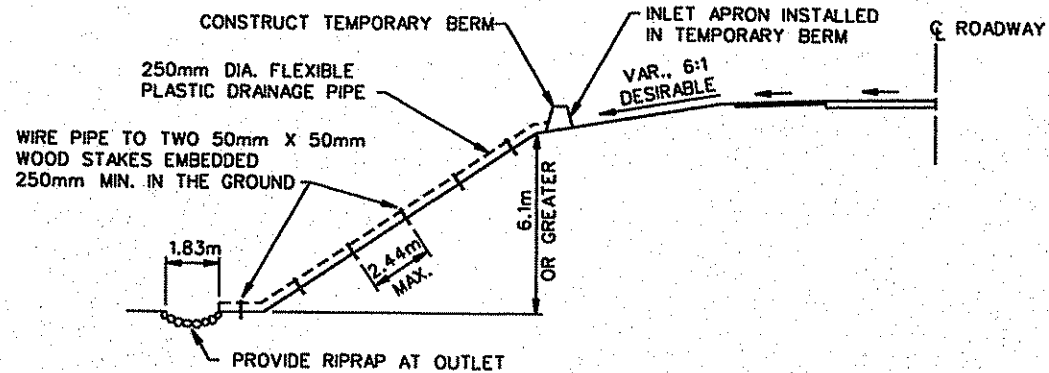


TEMPORARY STANDPIPE
TO PROTECT DROP INLET

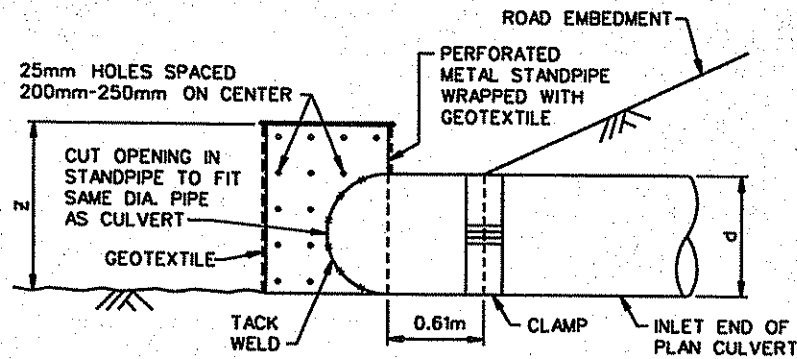
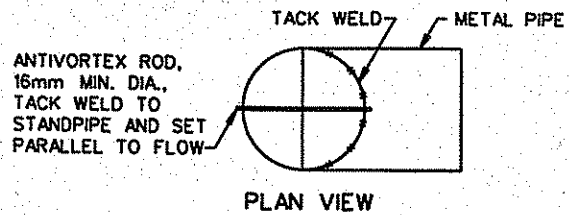
DESIGN CRITERIA:
STORM FREQUENCY: 10 YEAR - 24 HOUR.



DESIGN CRITERIA:
STORM FREQUENCY: 10 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 2.02 ha
MAXIMUM DIVERSION: GRADE 5%



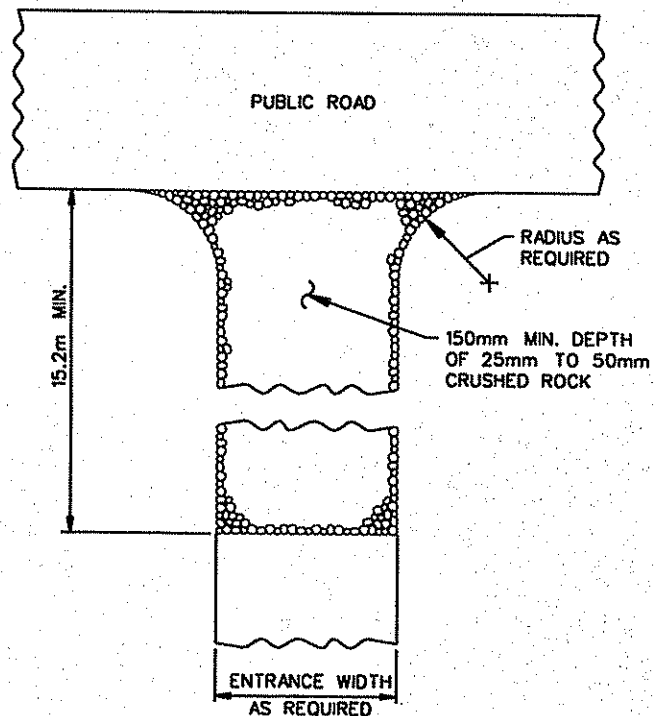
DESIGN CRITERIA:
STORM FREQUENCY: 2 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 1.21 ha



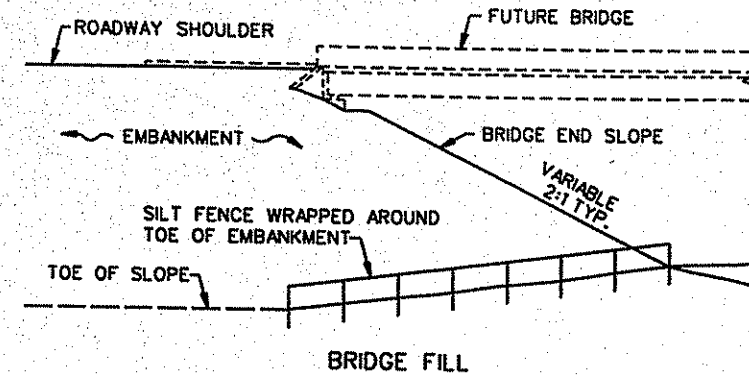
TEMPORARY STANDPIPE
FOR SEDIMENT CONTROL ON CULVERT INLET

d = DIA. OF STANDPIPE EQUAL TO DIA. OF PLAN CULVERT
Z = LENGTH OF PERFORATED STANDPIPE (d = 0.3m)

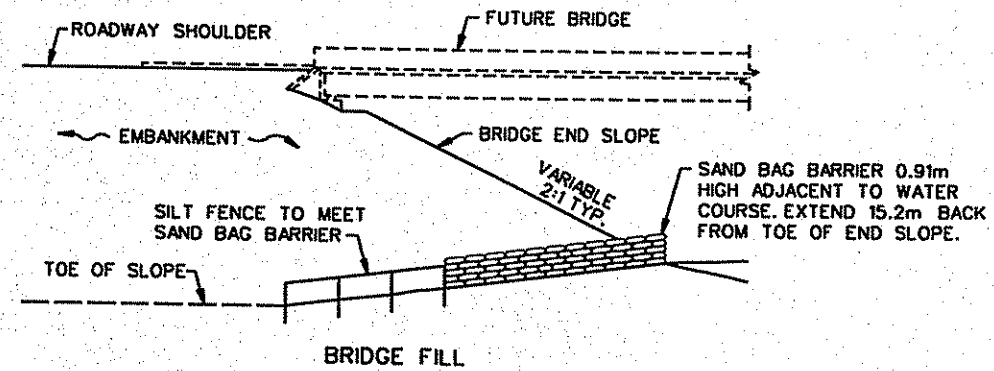
DESIGN CRITERIA:
CULVERT SIZE: 300mm-900mm
STORM FREQUENCY: 10 YR. - 24 HR.



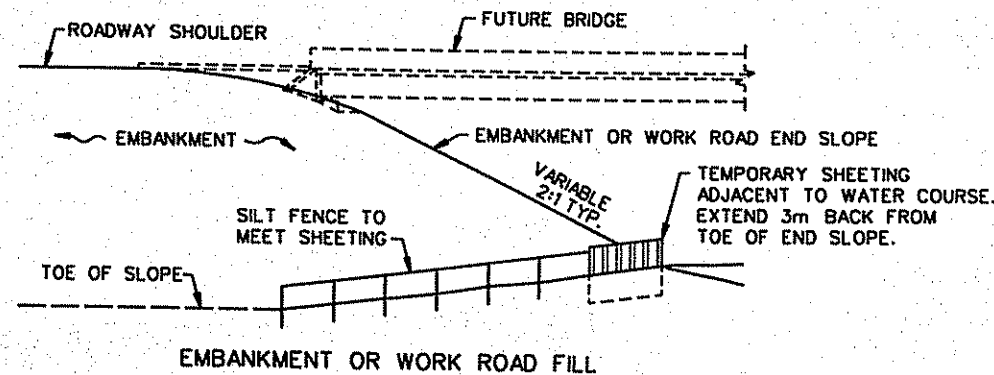
ROCK CONSTRUCTION ENTRANCE



DESIGN CRITERIA:
WATER COURSE FLOW VELOCITY: STAGNANT
CONTRIBUTING SLOPE AREA: 0.2 ha



DESIGN CRITERIA:
MAX. WATER COURSE FLOW VELOCITY: 2.1m/SEC.
CONTRIBUTING SLOPE AREA: 0.4 ha

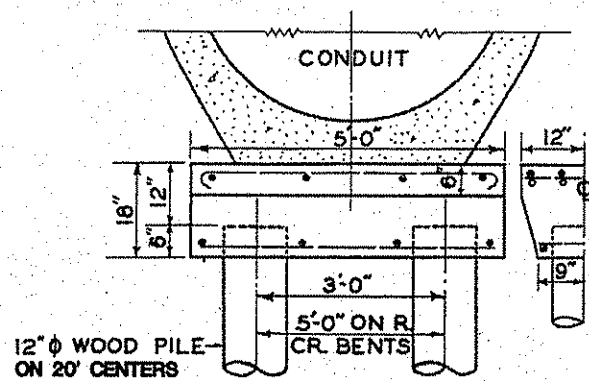
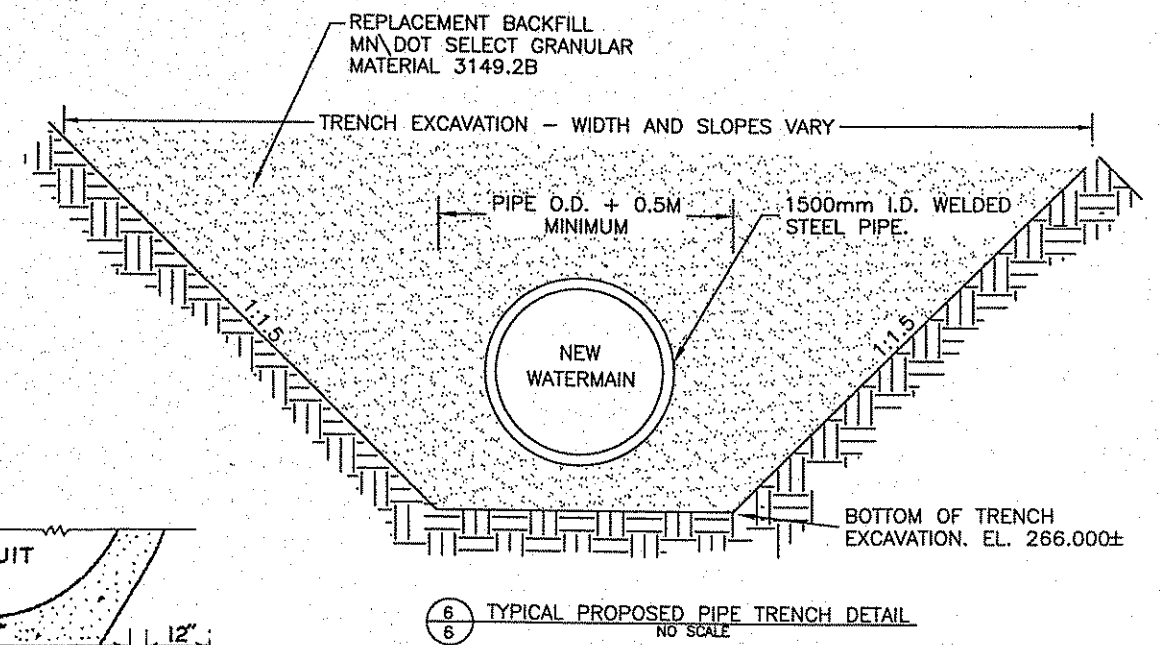
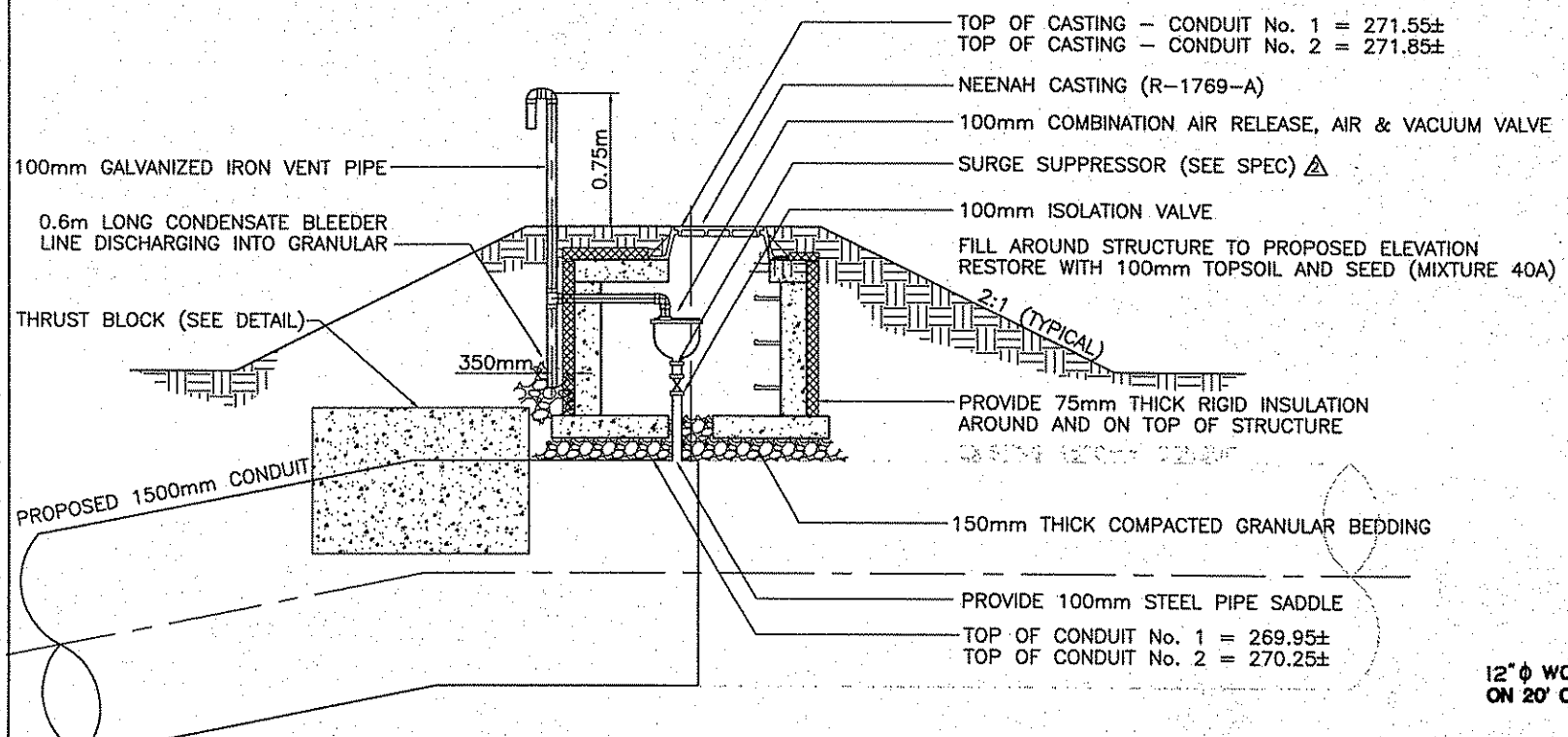
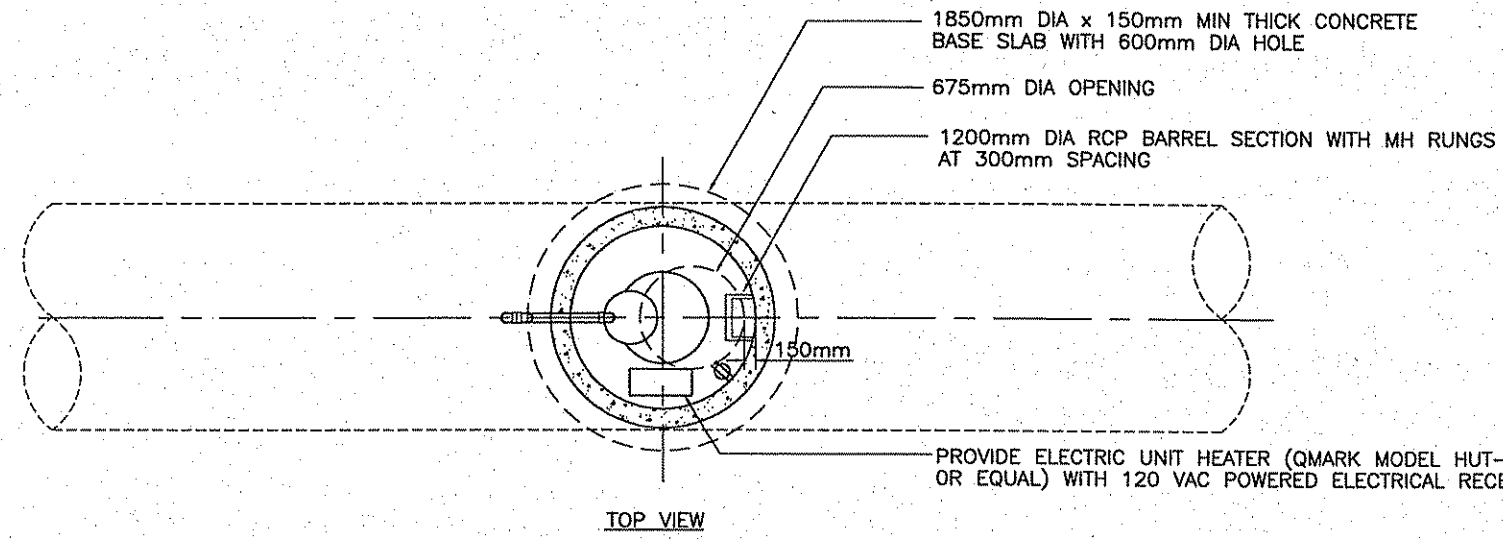
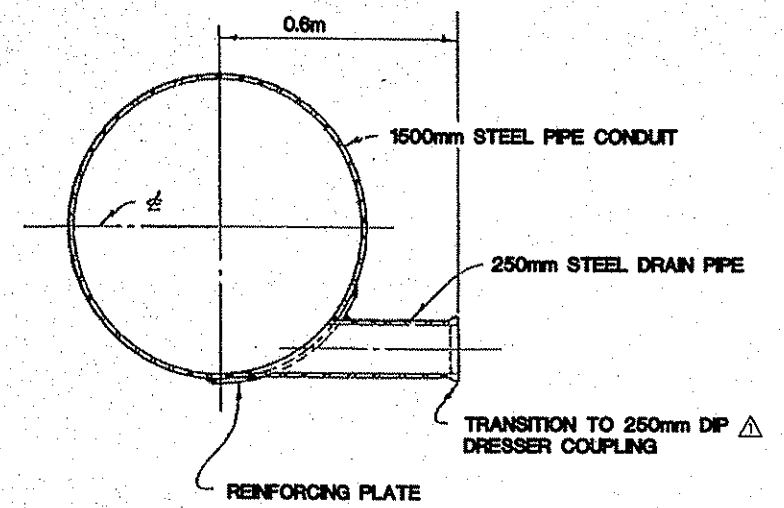
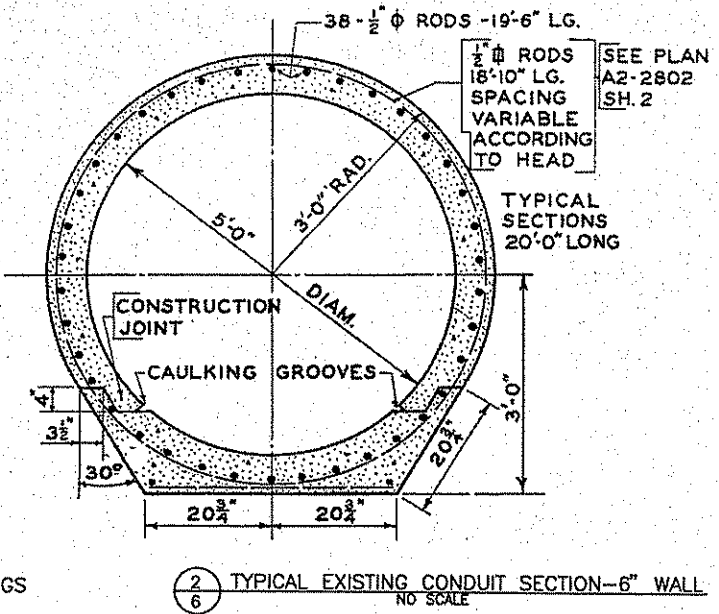
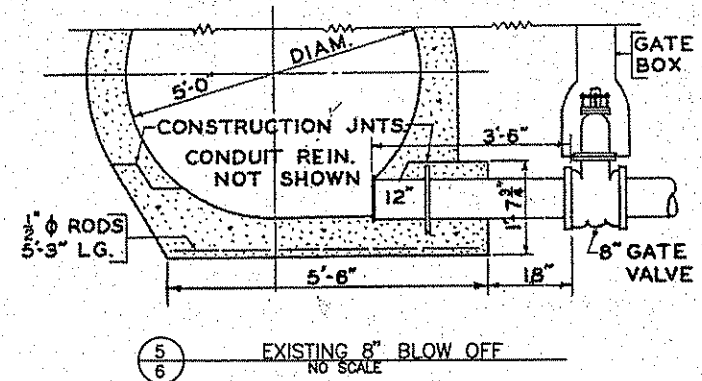


DESIGN CRITERIA:
MAX. WATER COURSE FLOW VELOCITY: 4.6 m/SEC.
CONTRIBUTING SLOPE AREA: 1.2 ha

STANDARD SHEET NO. 5-297.405 (3 OF 3)	TITLE:
STANDARD APPROVED: MAY 1, 1995	
S.A.P. 167-252-01 S.A.P. 167-268-01	

TEMPORARY EROSION CONTROL

SHEET NO. 22 OF 131 SHEETS



- GENERAL NOTES:**
1. CONCRETE-TO-STEEL CONNECTIONS WILL REQUIRE MECHANICAL COUPLINGS WITH INTERNAL SEALS.
 2. ALL STEEL-TO-STEEL CONNECTIONS SHALL BE WELDED. Δ
 3. ALL MATERIAL EXCAVATED FOR NEW WATERMAIN SHALL BE REPLACED WITH MECHANICALLY TAMPED GRANULAR BACKFILL.
 4. EXISTING PILE BENTS TO BE CUT AT ELEV. 265.4 PRIOR TO PIPE INSTALLATION.
 5. ONE CONDUIT SHALL REMAIN IN SERVICE AT ALL TIMES.

1/6 PROPOSED 100mm COMBINATION VALVE STRUCTURE Δ
NO SCALE

4/6 TYPICAL EXISTING PILE BENT
NO SCALE

3/6 PROPOSED DRAIN CONNECTION TO STEEL CONDUIT
NO SCALE

2/6 TYPICAL EXISTING CONDUIT SECTION - 6\"/>

5/6 EXISTING 8\"/>

DATE: 10-13-99 TIME: 4:08 pm USER: CPU204SP

DRAWN BY:	bfr	STG	7/6/99	ADDENDUM NO. 1
DESIGNER:	bfr	STG	10/1/99	ADD SURGE SUPPRESSOR; WELDED CONNECTIONS ONLY; CHANGE AIR RELEASE PIPING TO 100mm
CHECKED BY:	MDF			
DESIGN TEAM		NO.	BY	DATE

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Steven D. Campbell
Date: 6/14/99 Reg. No. 12691

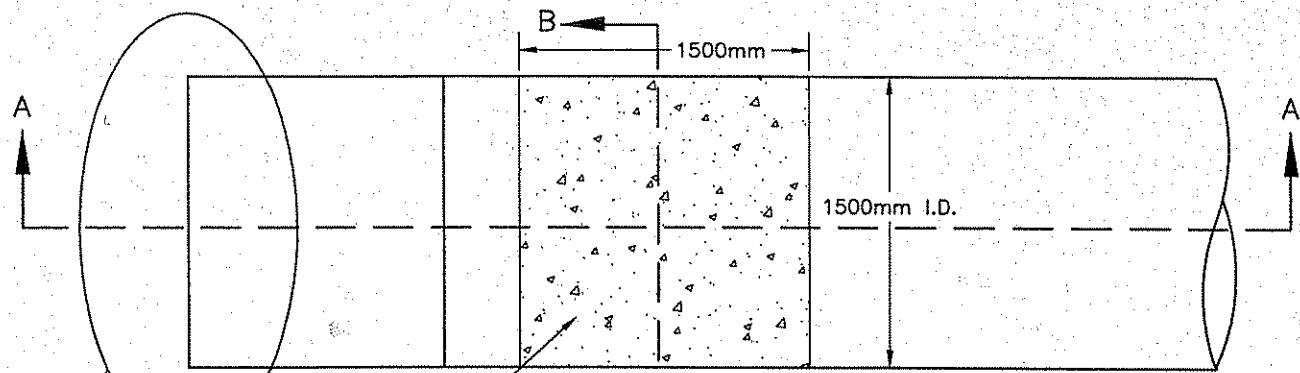
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

SHOREVIEW, MINNESOTA

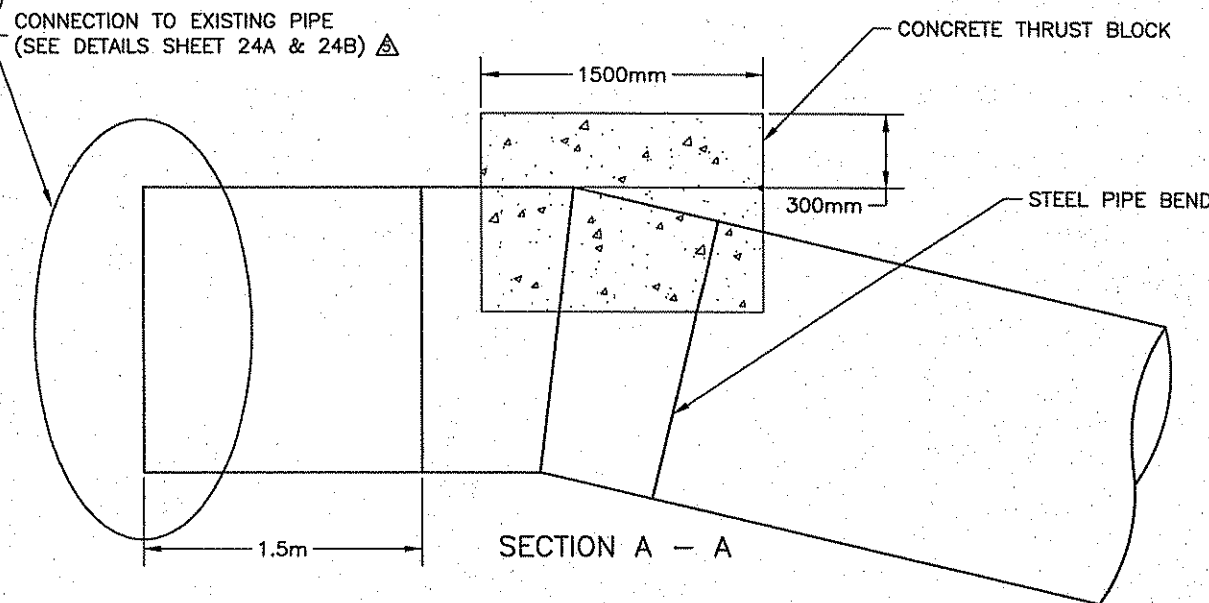
ST. PAUL WATER UTILITY WATERMAIN LOWERING DETAILS

FILE NO. ASHORE9804.02
DATE 6/14/99
23
131

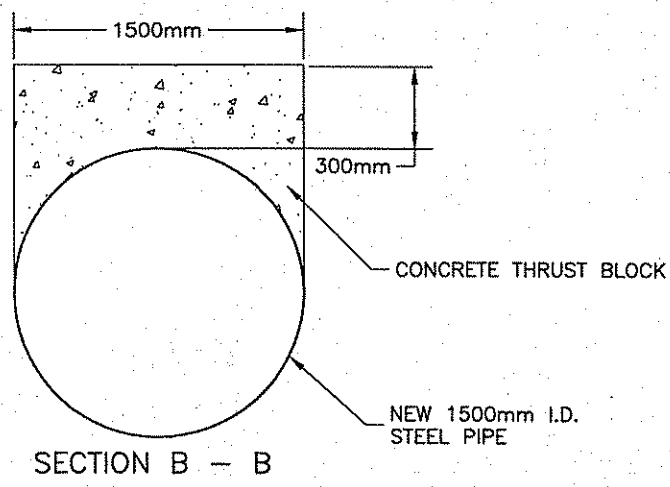
S.A.P. 167-252-01
S.A.P. 167-268-01



PLAN VIEW

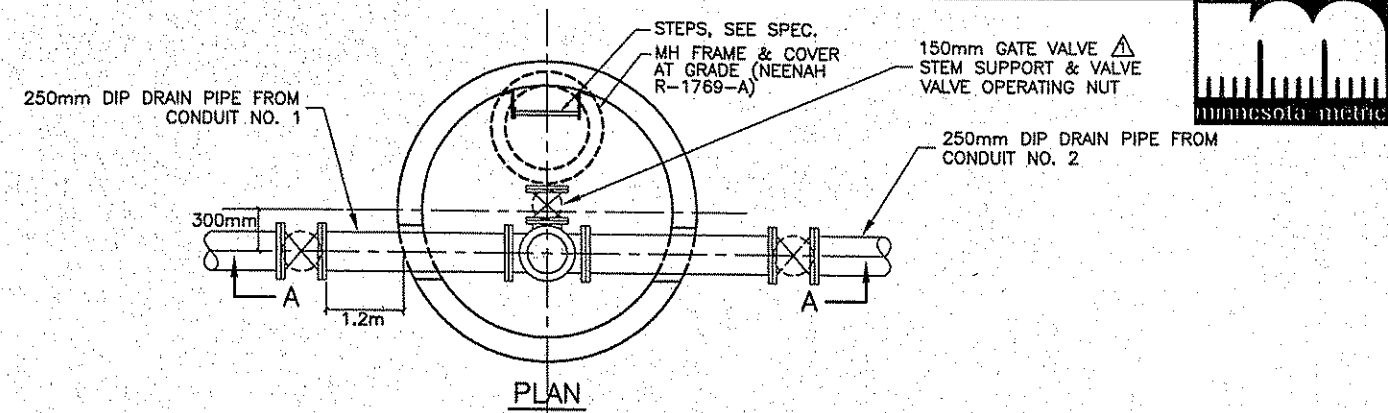


SECTION A - A

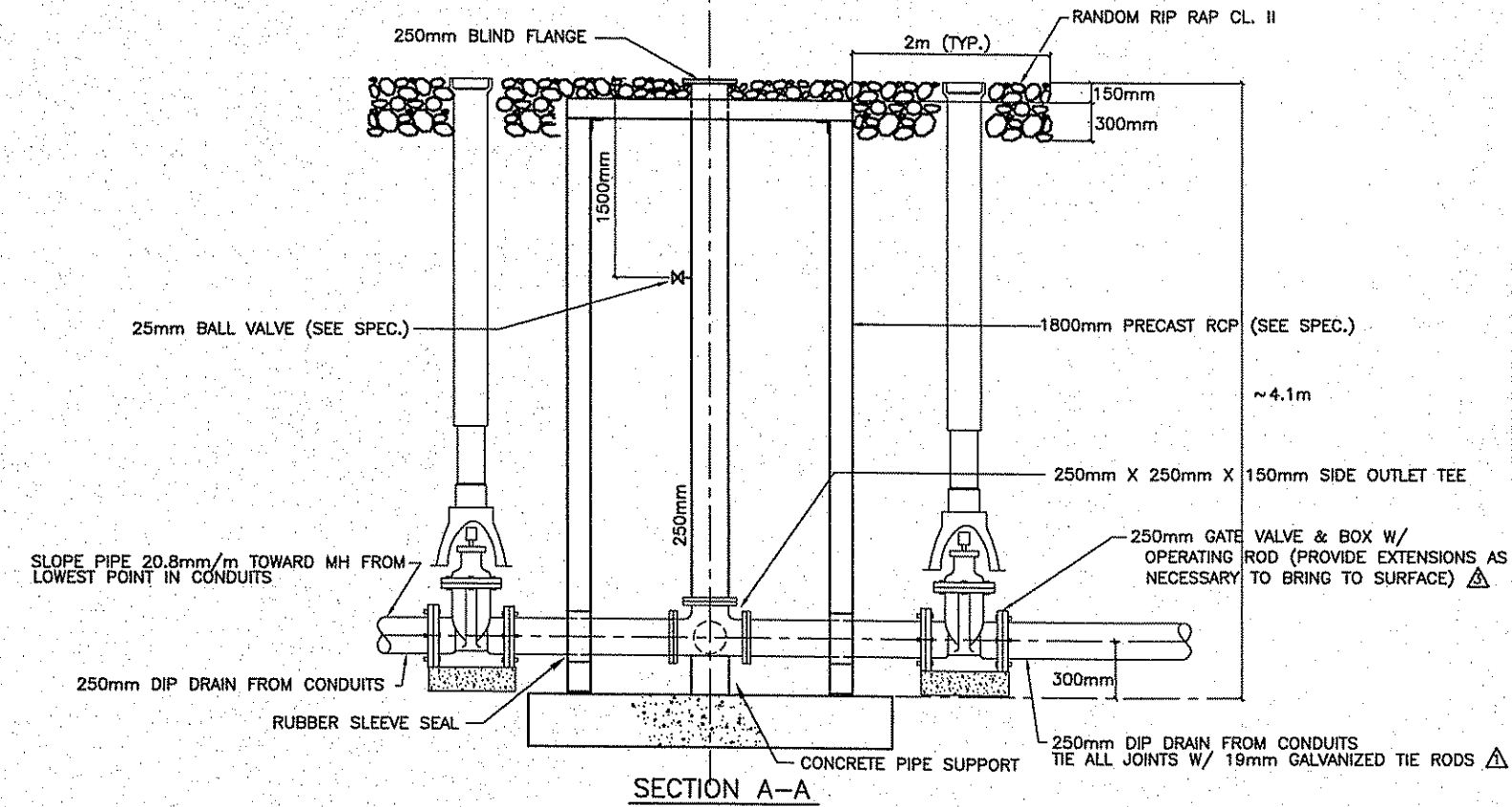


SECTION B - B

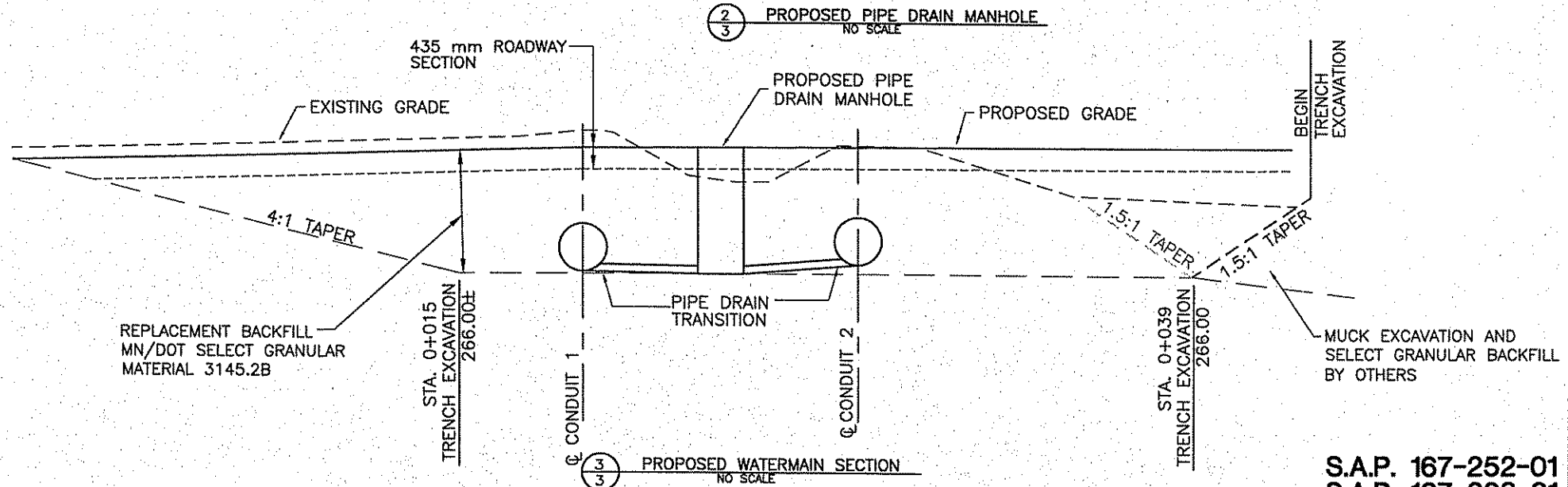
1 3 PROPOSED THRUST BLOCK DETAIL
STEEL-TO-STEEL AND STEEL-TO-CONCRETE
NO SCALE



PLAN



SECTION A-A



2 3 PROPOSED PIPE DRAIN MANHOLE
NO SCALE

3 3 PROPOSED WATERMAIN SECTION
NO SCALE

G:\CIVIL\CUSTOMERS\W_THRU_S\SHOREVIEW\CRK\ACAD\AGUADUCT\SH80404.DWG DATE: 11-09-99 TIME: 5:55 pm USER: CPU204SP

DRAWN BY: bfr
DESIGNER: bfr
CHECKED BY: MDF

NO.	BY	DATE	REVISIONS
1	STG	7/6/99	ADDENDUM NO. 1
2	STG	8/23/99	PROPOSED THRUST BLOCK DETAIL REVISIONS
3	STG	9/22/99	MOVED GATE VALVES OUTSIDE OF PIPE DRAIN MANHOLE
4	STG	10/1/99	REMOVE CONCRETE SLAB; WELDED CONNECTIONS ONLY
5	STG	11/8/99	MOVE CONNECTION DETAILS TO SHEETS 24A & 24B

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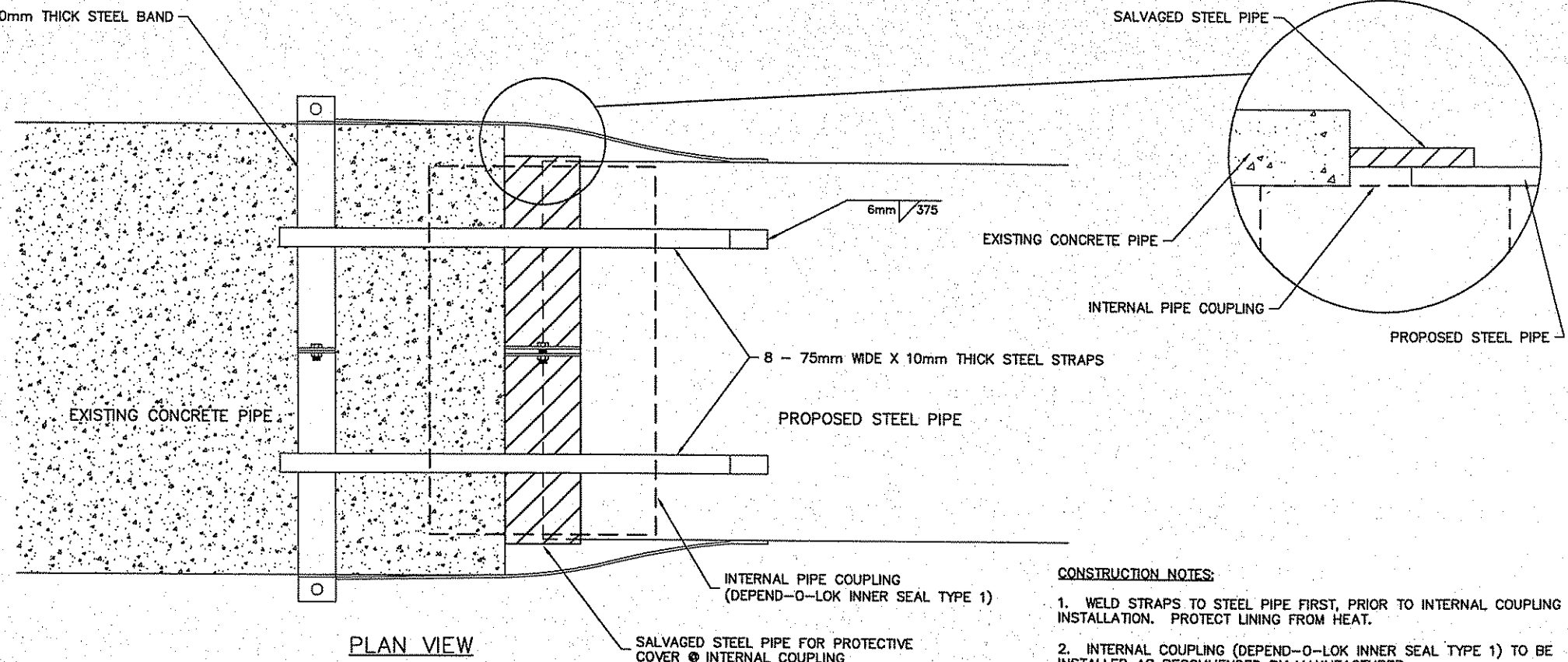
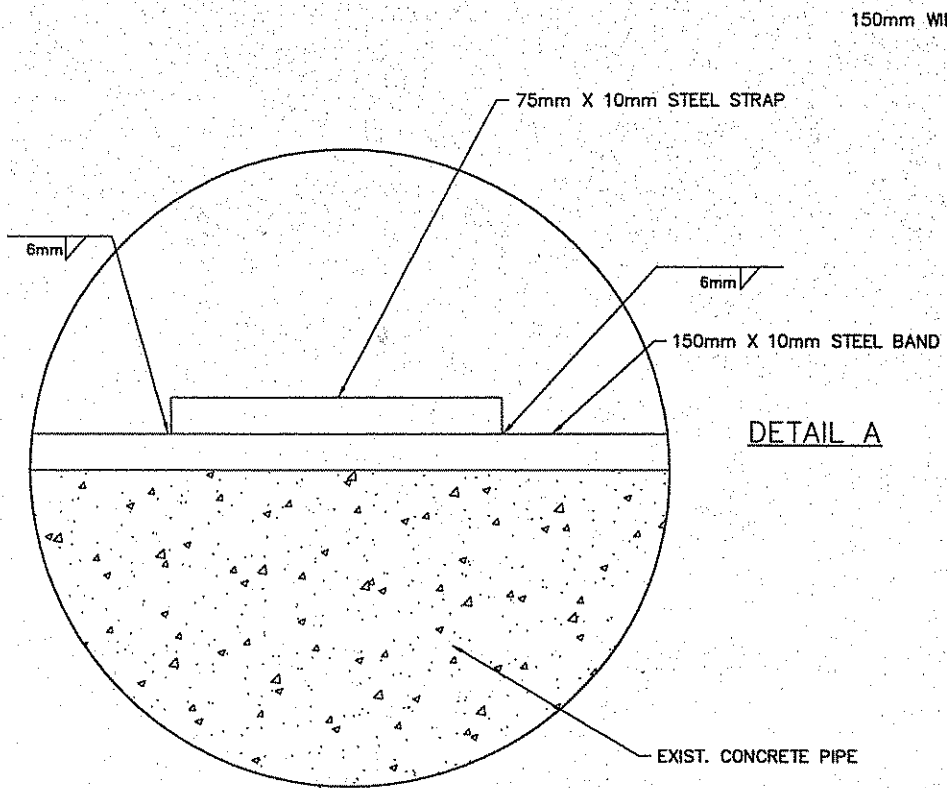
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Steven P. Campbell
Date: 6/14/99 Reg. No. 12691

SEH
PHONE: (651) 490-2000
3535 WADNAIS CENTER DR.
ST. PAUL, MN 55110

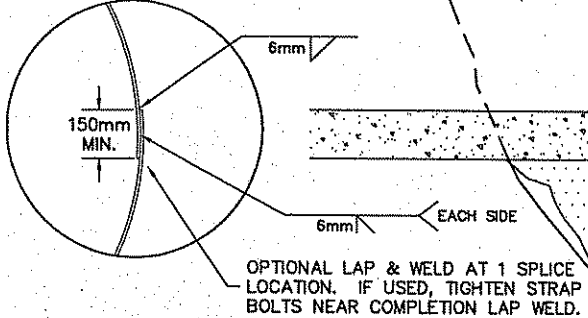
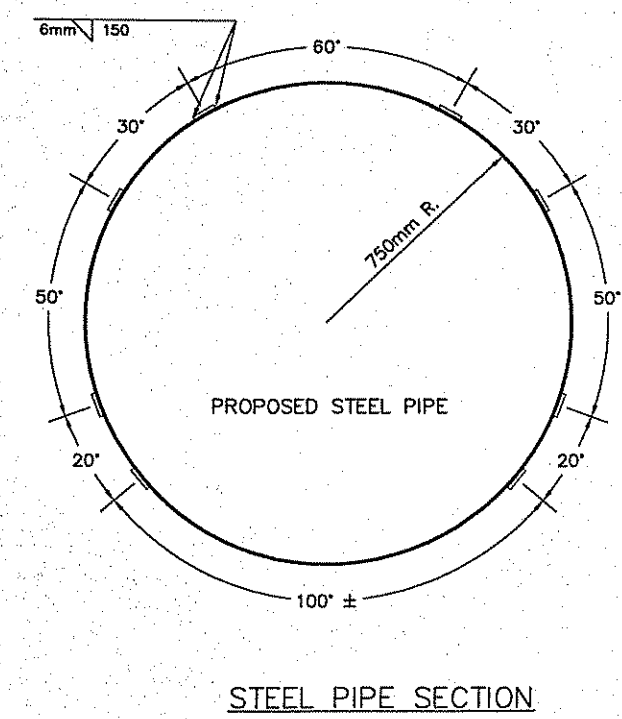
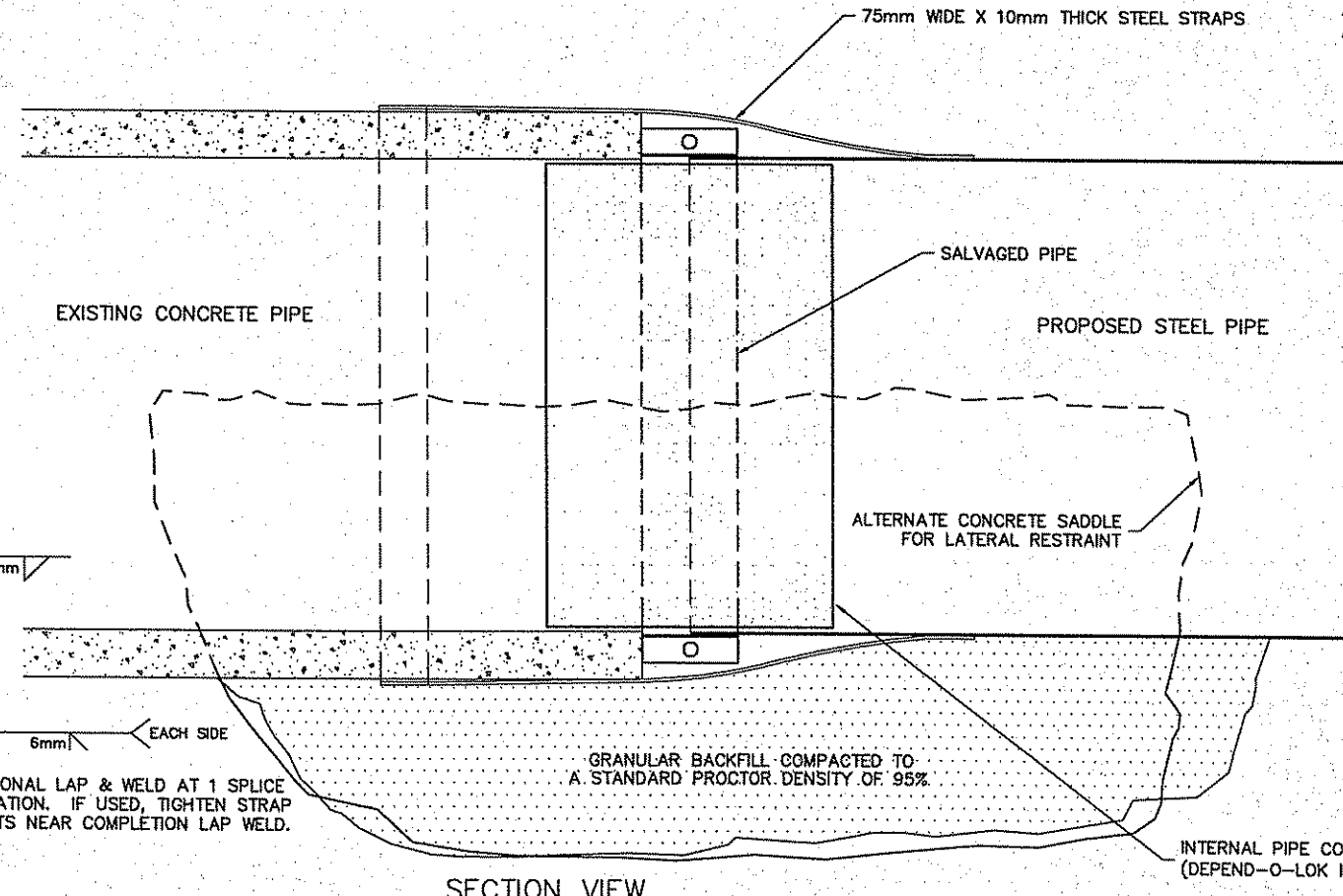
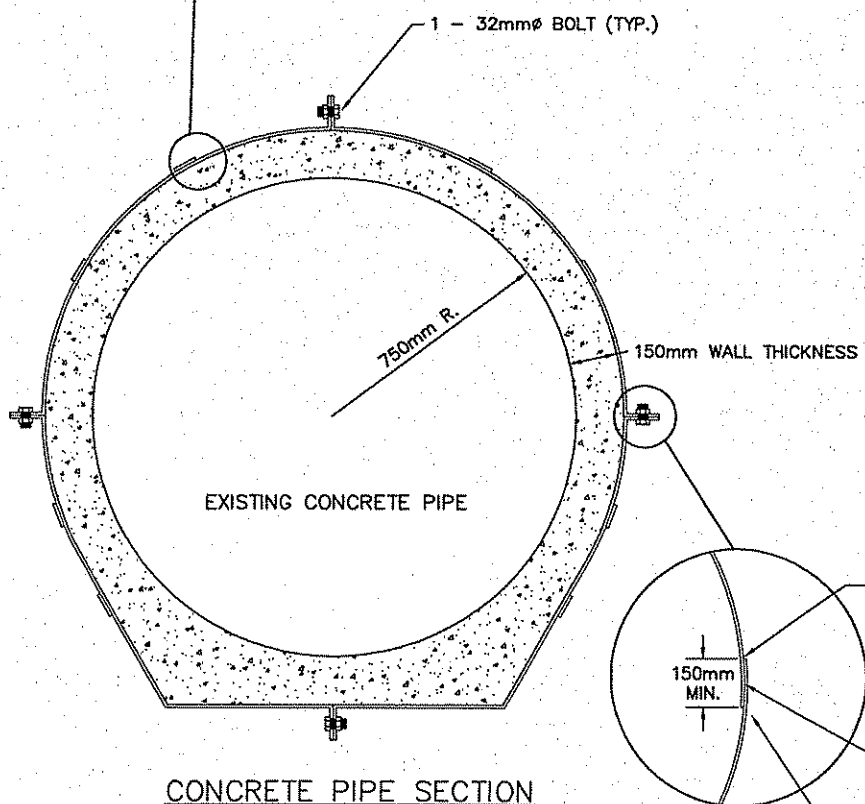
SHOREVIEW,
MINNESOTA

ST. PAUL WATER UTILITY
WATERMAIN LOWERING
DETAILS

S.A.P. 167-252-01
S.A.P. 167-268-01
FILE NO. ASHORE9804.02
DATE 6/14/99
24
131



- CONSTRUCTION NOTES:**
1. WELD STRAPS TO STEEL PIPE FIRST, PRIOR TO INTERNAL COUPLING INSTALLATION. PROTECT LINING FROM HEAT.
 2. INTERNAL COUPLING (DEPEND-O-LOK INNER SEAL TYPE 1) TO BE INSTALLED AS RECOMMENDED BY MANUFACTURER.
 3. FIELD WELD STRAPS TO BAND FOLLOWING INTERNAL COUPLING AND PROTECTIVE COVER INSTALLATION.
 4. COAT ALL METAL SURFACES WITH 8 mil COALTAR EPOXY OR APPROVED EQUAL.



E:\STEFAN\CLIENTS\3\WATER\CONNECTION.DWG
DATE: 11-12-99
USER: CPU204SP
#46 cm

DRAWN BY:	STG	Δ	STG	11/5/99	REVISIONS PER ST. PAUL WATER UTILITY COMMENTS
DESIGNER:	JJ				
CHECKED BY:	SMM				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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Jeffrey A. Johnson, P.E.
Date: 10/27/99
Reg. No. 17280

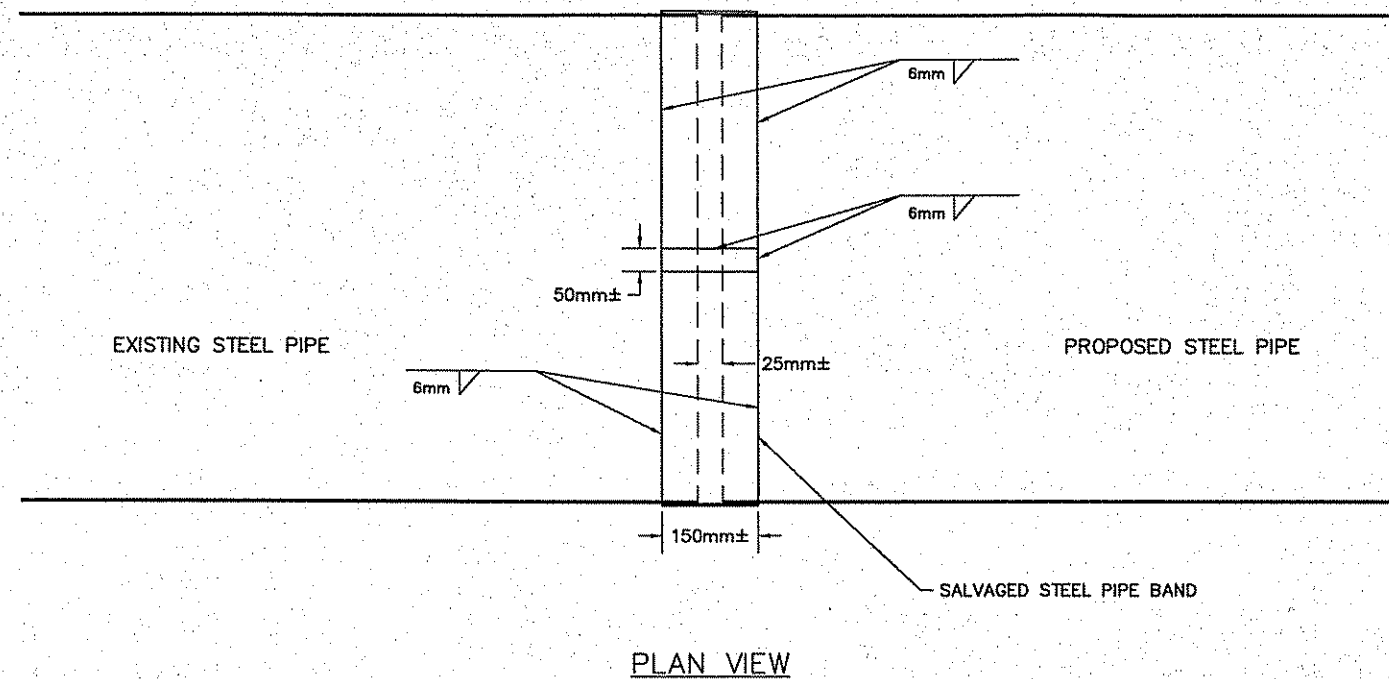
SEH
PHONE: (651) 480-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

SHOREVIEW, MINNESOTA

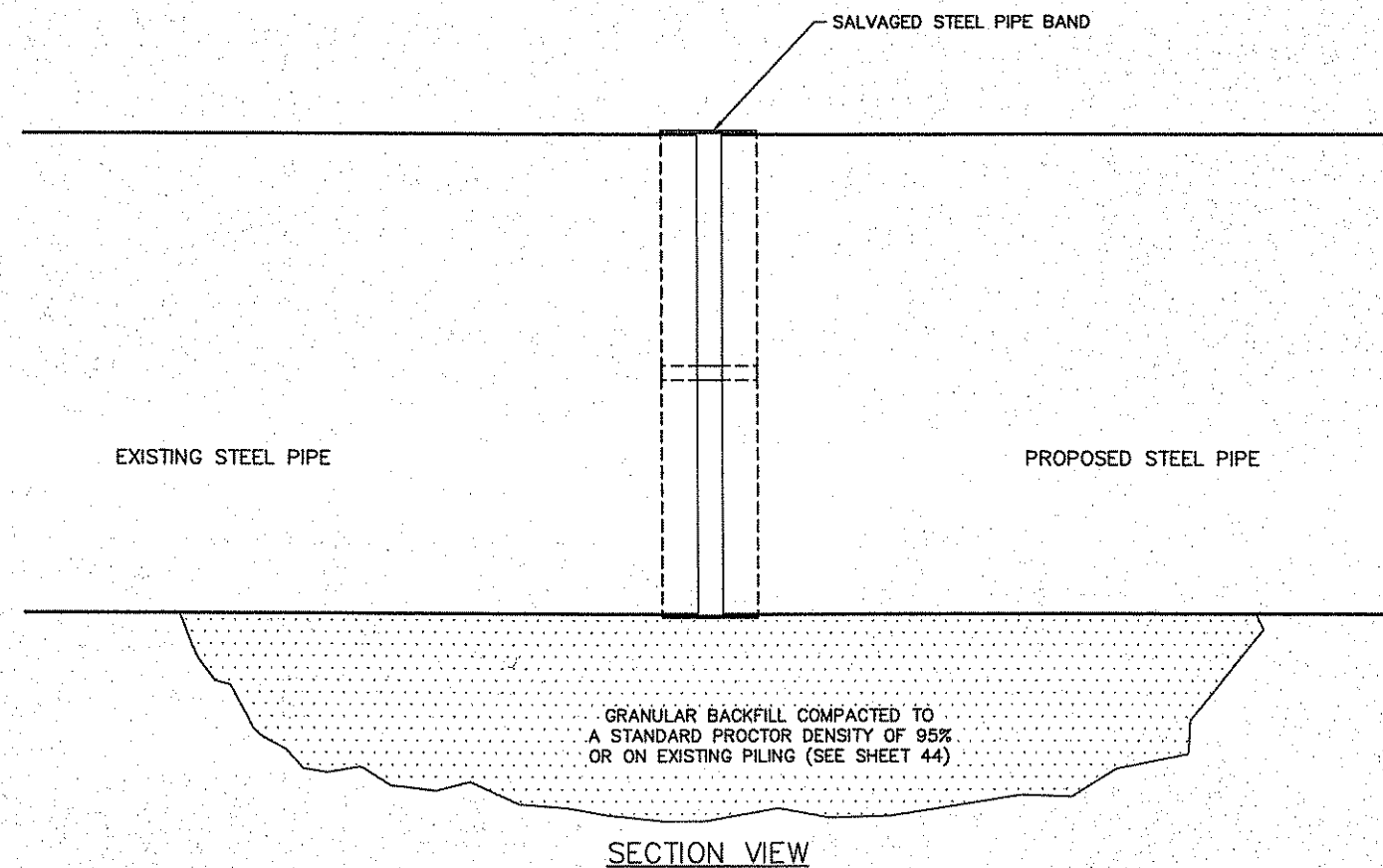
**ST. PAUL WATER UTILITY
WATER MAIN LOWERING
STEEL-TO-CONCRETE CONNECTION**

S.A.P. 167-252-01
S.A.P. 167-268-01

FILE NO. ASHORE9804.02
DATE 10/27/99
24A
131



CONSTRUCTION NOTES:
 1. COAT ALL METAL SURFACES WITH 8 mil COALTAR EPOXY OR APPROVED EQUAL.



S.A.P. 167-252-01
 S.A.P. 167-268-01

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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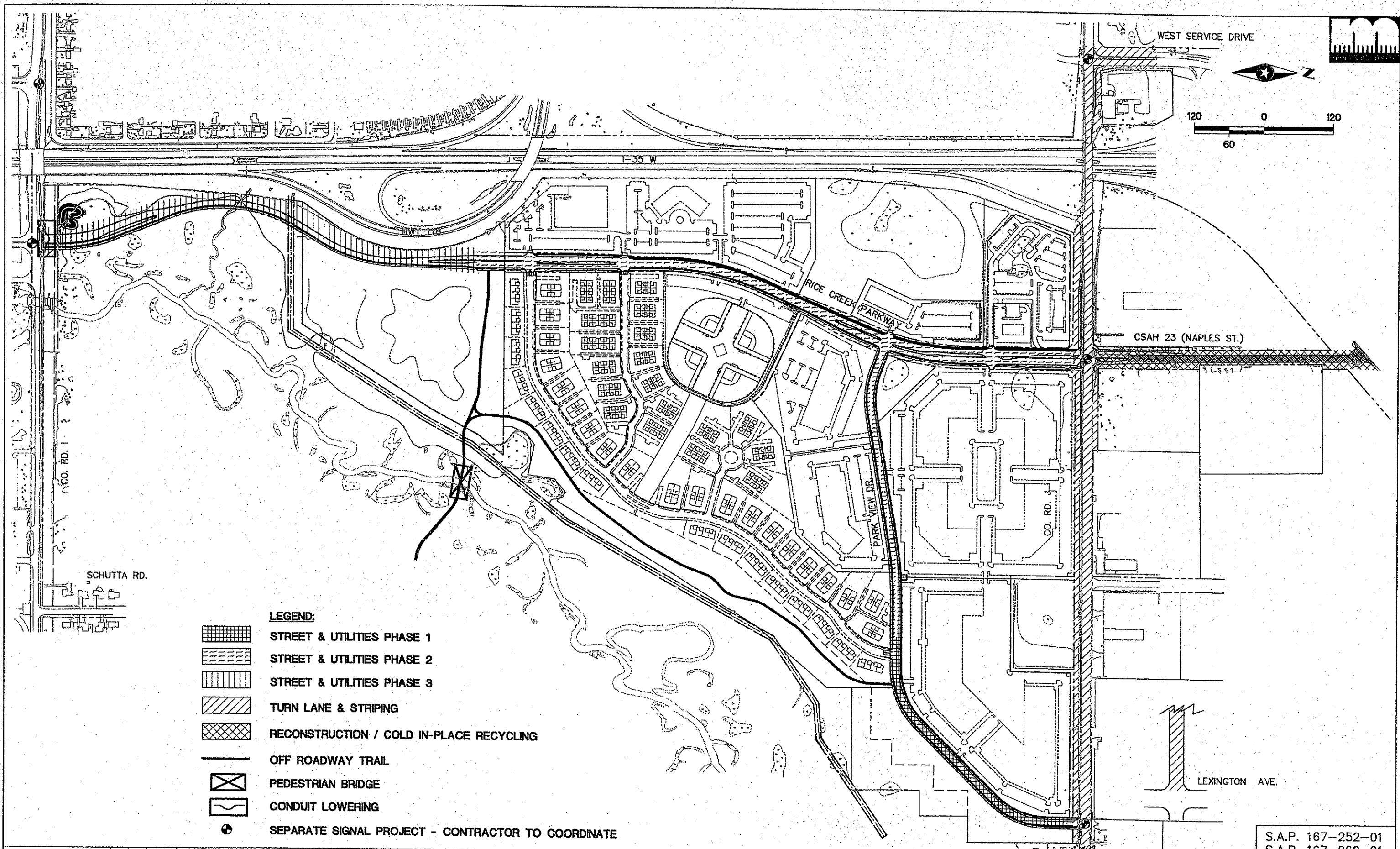
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 Jeffrey A. Johnson, P.E.
 Date: 11/8/99 Reg. No. 17280



SHOREVIEW, MINNESOTA

**ST. PAUL WATER UTILITY
 WATER MAIN LOWERING
 STEEL-TO-STEEL CONNECTION**

FILE NO. ASHORE9804.02	24B
DATE 11/8/99	131



- LEGEND:**
- STREET & UTILITIES PHASE 1
 - STREET & UTILITIES PHASE 2
 - STREET & UTILITIES PHASE 3
 - TURN LANE & STRIPING
 - RECONSTRUCTION / COLD IN-PLACE RECYCLING
 - OFF ROADWAY TRAIL
 - PEDESTRIAN BRIDGE
 - CONDUIT LOWERING
 - SEPARATE SIGNAL PROJECT - CONTRACTOR TO COORDINATE

G:\CIVIL\CLIENTS\W_17\17-06\REVISED\CRK\ACAD\PLANS\SH8048A1.DWG
 DATE: 08-28-99 10:40 pm USER: CPU2015P
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DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Garrett M. Watson
 Date: 08/14/99 Reg. No. 18612



SHOREVIEW, MINNESOTA

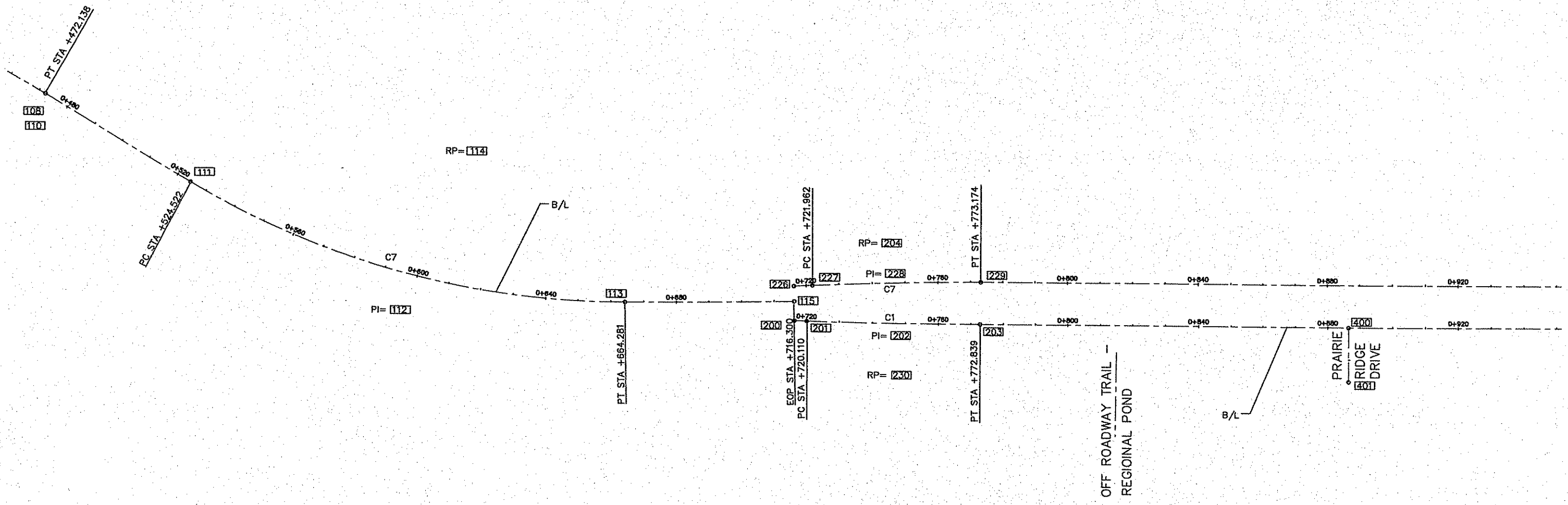
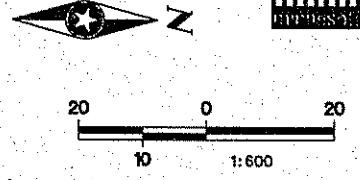
**LOCATION MAP
RICE CREEK PARKWAY/
PARK VIEW DRIVE**

S.A.P. 167-252-01
S.A.P. 167-269-01

FILE NO.	ASHORE9804.02	25
DATE	08/14/99	131



ALIGNMENT TABULATION										
ID	POINT	CURVE	STATION	CL CURVE DATA				COORDINATES		
				DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
108	PT		0+472.138					66170.5490	167849.7340	
109	RP							66040.5658	168063.2858	
110	PI		0+472.138					66170.5490	167849.7340	N31°19'39"E
111	PC		0+524.522					66215.2954	167876.9696	
112	PI	C7	0+596.280	32°01'50"	250.000	71.758	139.759	66276.5921	167914.2787	N00°42'11"W
113	PT		0+664.281					66348.3450	167913.3983	
114	RP							66345.2775	167663.4171	
115	POE		0+716.300					66400.3600	167912.7600	



ALIGNMENT TABULATION										
ID	POINT	CURVE	STATION	CL CURVE DATA				COORDINATES		
				DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
200	POB		0+716.300					66400.4337	167918.7634	N01°58'11"E
201	PC		0+720.110					66404.2412	167918.8943	
202	PI	C1	0+746.477	200°51"	1500.000	26.367	52.729	66430.5928	167919.8006	N00°02'40"W
203	PT		0+772.839					66456.9601	167919.7802	
204	RP							66455.7979	166419.7806	
226	POB		0+716.300					66400.3011	167907.9582	N02°29'23"W
227	PC		0+721.962					66405.9577	167907.7123	
228	PI	C7	0+747.572	2°28'43"	1200.000	25.610	51.212	66431.5437	167906.5998	N00°02'40"W
229	PT		0+773.174					66457.1537	167906.5800	
230	RP							66458.0834	169106.5796	
400	POB		0+000.000					66570.6191	167919.6921	N89°57'20"E
401	POE		0+016.979					66570.6322	167936.6706	

G:\CIVIL\CLIENTS\W...RICE_CREEK_PARKWAY_PLANS\SHOREVIEW.DWG
 DATE: 06-25-99 TIME: 11:41 am USER: CPU204SP
 XREFS: G:\CIVIL\CLIENTS\W...RICE_CREEK_PARKWAY_PLANS\SHOREVIEW.DWG, X-PLAT, X-TOPO, X-CORR1, X-CORR2, X-ROTTIL, X-ROTTIL1

DESIGNED BY:	MAM			
CHECKED BY:	STG			
DATE:	06/14/99			
NO.	BY	DATE	REVISIONS	

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 Date: 6/14/99 Reg. No. 18612

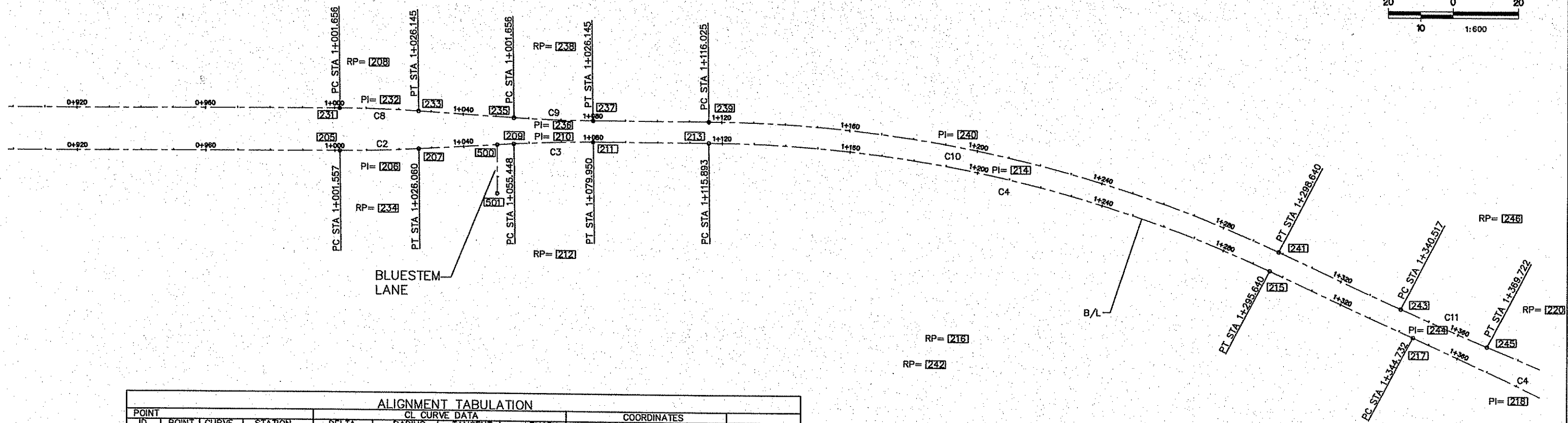
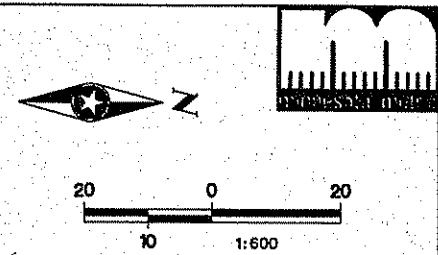


SHOREVIEW MINNESOTA

RICE CREEK PARKWAY ALIGNMENT PLAN

S.A.P. 167-252-01
S.A.P. 167-268-01

FILE NO.	SHORE9804.02	27
DATE	6/14/99	131



ALIGNMENT TABULATION										
POINT ID	POINT	CURVE	STATION	CL CURVE DATA				COORDINATES		BEARING
				DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	
205	PC		1+001.557					66685.6786	167919.6030	
206	PI	C2	1+013.812	3° 30' 35"	400.000	12.255	24.502	66697.9335	167919.5935	N03°33'15"W
207	PT		1+026.060					66710.1648	167918.8338	
208	RP							66685.3687	167519.6031	
209	PC		1+055.448					66739.4964	167917.0120	
210	PI	C3	1+067.703	3° 30' 35"	400.000	12.255	24.503	66751.7279	167916.2523	N00°02'40"W
211	PT		1+079.950					66763.9830	167916.2428	
212	RP							66764.2925	168316.2427	
213	PC		1+115.893					66799.9262	167916.2150	
214	PI	C4	1+207.208	24° 54' 01"	413.600	91.315	179.747	66891.2412	167916.1444	N24°51'21"E
215	PT		1+295.640					66974.0976	167954.5274	
216	RP							66800.2462	168329.8149	
217	PC		1+344.732					67018.6421	167975.1626	
218	PI	C5	1+380.149	2° 01' 45"	2000.000	35.417	70.827	67050.7787	167990.0499	N26°53'06"E
219	PT		1+415.559					67082.3680	168006.0656	
220	RP							66177.9681	169789.8988	
231	PC		1+001.656					66685.6351	167906.4030	
232	PI	C8	1+013.904	3° 30' 28"	400.000	12.248	24.489	66697.8834	167906.3935	N03°27'48"E
233	PT		1+026.145					66710.1094	167907.1334	
234	RP							66685.9450	168306.4029	
235	PC		1+055.592					66739.5030	167908.9124	
236	PI	C9	1+067.840	3° 30' 28"	400.000	12.248	24.489	66751.7287	167909.6523	N00°02'40"W
237	PT		1+080.081					66763.9768	167909.6428	
238	RP							66763.6674	167509.6429	
239	PC		1+116.025					66799.9211	167909.6150	
240	PI	C10	1+208.797	24° 54' 01"	420.200	92.772	182.615	66892.6933	167909.5432	N24°51'21"E
241	PT		1+298.640					66976.8718	167948.5388	
242	RP							66800.2462	168329.8149	
243	PC		1+340.517					67014.8697	167966.1413	
244	PI	C11	1+355.121	1° 40' 24"	1000.000	14.604	29.205	67028.1206	167972.2798	N23°10'57"E
245	PT		1+369.722					67041.5451	167978.0287	
246	RP							67435.2067	167058.7732	
500	POB		0+000.000					66734.3872	167917.3293	N89°57'20"E
501	POE		0+015.180					66734.3990	167932.5089	

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DRAWN BY:	MAM			
DESIGNER:	STC			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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J. M. Moran
 Date: 6/14/99 Reg. No. 18612

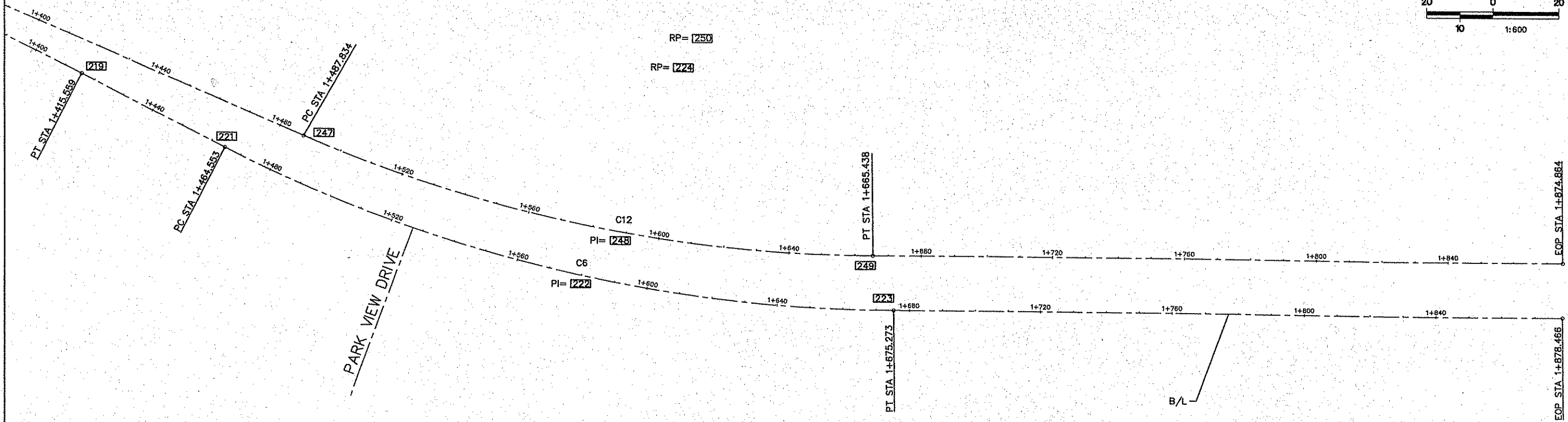
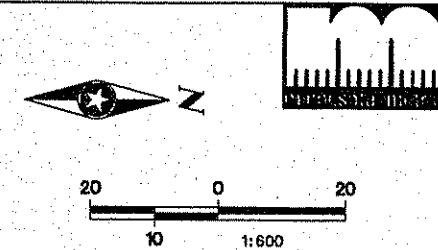


SHOREVIEW MINNESOTA

RICE CREEK PARKWAY ALIGNMENT PLAN

S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	SHORE9804.02	28
DATE	6/14/99	131



ALIGNMENT TABULATION										
POINT		CL CURVE DATA						COORDINATES		
ID	POINT	CURVE	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
221	PC		1+464.553					67126.0667	168028.2207	
222	PI	C6	1+571.882	26° 49' 47"	450.000	107.328	210.720	67221.7945	168076.7545	N00°03'19"E
223	PT		1+675.273					67329.1227	168076.8581	
224	RP							67329.5567	167626.8583	
225	POE		1+878.466					67532.3154	168077.0540	
247	PC		1+487.834					67150.1198	168024.5247	
248	PI	C12	1+577.862	23° 07' 38"	440.000	90.028	177.605	67232.8786	168059.9652	N00°03'19"E
249	PT		1+665.438					67322.9065	168060.0521	
250	RP							67323.3309	167620.0523	
251	POE		1+874.864					67532.3316	168060.2541	

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DRAWN BY:	MAM			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Signature
 Date: 6/14/99 Reg. No. 18612

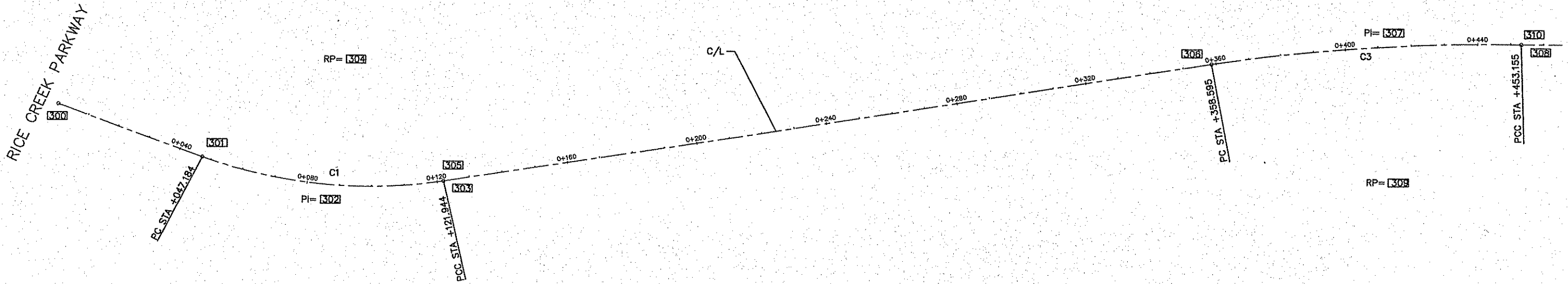


SHOREVIEW MINNESOTA

RICE CREEK PARKWAY ALIGNMENT PLAN

FILE NO.	SHORE9804.02	29
DATE	6/14/99	
		131

S.A.P. 167-252-01
S.A.P. 167-268-01



ALIGNMENT TABULATION										
POINT ID	POINT	CURVE	STATION	CL CURVE DATA				COORDINATES		
				DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
300	POB		0+000.000					67183.4100	168052.4710	S69°53'10"E
301	PC		0+047.184					67167.1842	168096.7770	
302	PI	C1	0+085.396	29°13'01"	146.609	38.212	74.761	67154.0436	168132.6585	N80°53'48"E
303	PCC		0+121.944					67160.0893	168170.3893	
304	RP							67304.8518	168147.1938	
305	PI		0+121.944					67160.0893	168170.3893	N80°48'33"E
306	PC		0+358.595					67197.8874	168404.0018	
307	PI	C3	0+405.994	9°57'22"	544.180	47.399	94.560	67205.4580	168450.7924	S89°14'05"E
308	PCC		0+453.155					67204.8249	168498.1873	
309	RP							66660.6937	168490.9188	
310	PI		0+453.155					67204.8249	168498.1873	S89°56'41"E

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DRAWN BY:	MAM			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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[Signature]
 Date: 6/14/99 Reg. No. 18612

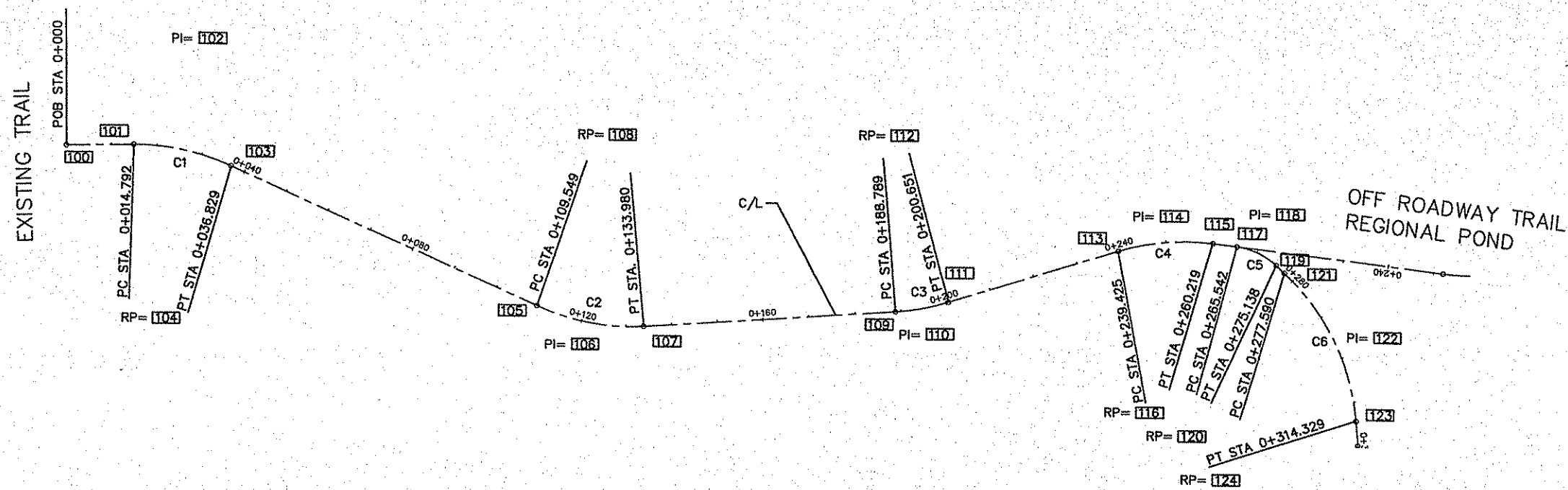


SHOREVIEW MINNESOTA

PARK VIEW DRIVE ALIGNMENT PLAN

S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	SHORE9804.02	30
DATE	6/14/99	



ALIGNMENT TABULATION

POINT ID	POINT	CURVE	STATION	CL CURVE DATA				COORDINATES		
				DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
100	POB		0+000.000					66376.7566	168438.1584	N75°48'41"E
101	PC		0+014.792					66380.3824	168423.8175	
102	PI	C1	0+025.992	25°15'09"	50.000	11.200	22.037	66383.1278	168412.9589	N50°33'32"W
103	PT		0+036.829					66390.2432	168404.3091	
104	RP							66428.8571	168436.0733	
105	PC		0+109.549					66436.4413	168348.1487	
106	PI	C2	0+122.014	27°59'44"	50.000	12.464	24.431	66444.3597	168338.5228	N76°33'16"W
107	PT		0+133.980					66446.8331	168326.3063	
108	RP							66397.8274	168316.3845	
109	PC		0+188.789					66457.7090	168272.5875	
110	PI	C3	0+194.748	13°35'33"	50.000	5.959	11.862	66458.8915	168266.7471	S87°51'10"W
111	PT		0+200.651					66458.6682	168260.7925	
112	RP							66408.7034	168262.6657	
113	PC		0+239.425					66457.2155	168222.0450	
114	PI	C4	0+249.974	23°49'39"	50.000	10.549	20.793	66456.8203	168211.5032	N68°19'10"W
115	PT		0+260.219					66460.7175	168201.7003	
116	RP							66507.1804	168220.1718	
117	PC		0+265.542					66462.6842	168196.7533	
118	PI	C5	0+270.510	36°39'03"	15.000	4.968	9.595	66464.5196	168192.1366	N31°40'07"W
119	PT		0+275.138					66468.7480	168189.5283	
120	RP							66476.6231	168202.2947	
121	PC		0+277.590					66470.8349	168188.2409	
122	PI	C6	0+296.833	42°06'00"	50.000	19.243	36.739	66487.2129	168178.1381	N10°25'53"E
123	PT		0+314.329					66506.1381	168181.6222	
124	RP							66497.0852	168230.7959	

C:\VOW\CLIENTS\W_THRU\S\SHOREVIEW\RICE_CREEK\ACAD\PLANS\SHRD\ALB.DWG DATE: 06-28-99 TIME: 11:35 am USER: CP201SP

DRAWN BY: MAM
 DESIGNER: STG
 CHECKED BY: SMM
 DESIGN TEAM

NO.	BY	DATE	REVISIONS

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Susan M. Maron
 Date: 6/14/99 Reg. No. 18612



SHOREVIEW
MINNESOTA

OFF ROADWAY TRAIL
SCENIC EASEMENT
ALIGNMENT PLAN

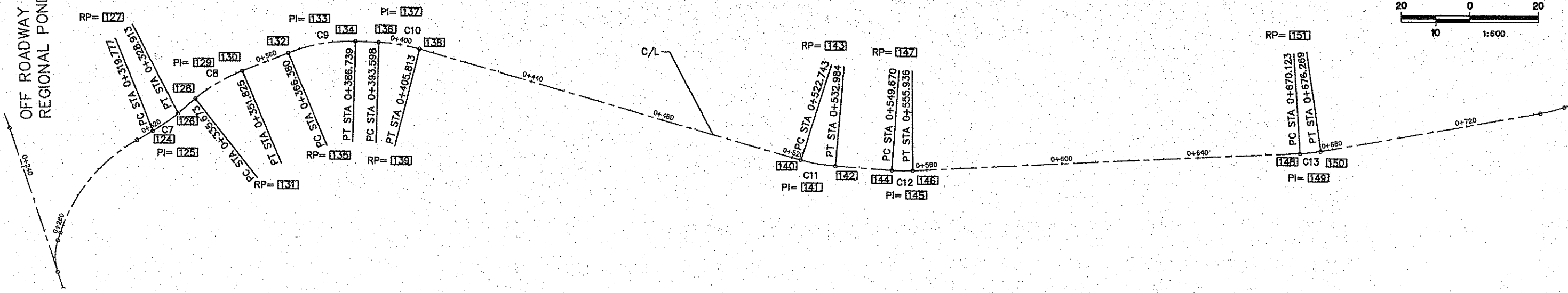
FILE NO. SHORE9804.02
DATE 6/14/99

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131

S.A.P. 167-252-01
S.A.P. 167-268-01



OFF ROADWAY TRAIL
REGIONAL POND



ALIGNMENT TABULATION											
POINT	ID	POINT	CURVE	STATION	DELTA	CL CURVE DATA			COORDINATES		BEARING
						RADIUS	TANGENT	LENGTH	NORTHING	EASTING	
	124	PC		0+319.777					66511.4962	168182.6087	
	125	PI	C7	0+324.358	10°28'11"	50.000	4.581	9.136	66516.0015	168183.4381	N00°02'17"W
	126	PT		0+328.913					66520.5825	168183.4351	
	127	RP							66520.5491	168133.4351	
	128	PC		0+335.673					66527.3424	168183.4305	
	129	PI	C8	0+343.820	18°30'31"	50.000	8.147	16.152	66535.4893	168183.4251	N18°28'14"E
	130	PT		0+351.825					66543.2155	168186.0062	
	131	RP							66527.3757	168233.4305	
	132	PC		0+366.380					66557.0220	168190.6175	
	133	PI	C9	0+376.703	23°19'47"	50.000	10.323	20.359	66566.8128	168193.8879	N41°48'01"E
	134	PT		0+386.739					66574.5080	168200.7682	
	135	RP							66541.1813	168238.0419	
	136	PC		0+393.598					66579.6206	168205.3394	
	137	PI	C10	0+399.736	13°59'52"	50.000	6.138	12.215	66584.1965	168209.4308	N55°47'53"E
	138	PT		0+405.813					66587.6469	168214.5075	
	139	RP							66546.2939	168242.6131	
	140	PC		0+522.743					66653.3749	168311.2158	
	141	PI	C11	0+527.882	11°44'07"	50.000	5.138	10.241	66656.2633	168315.4655	N44°03'46"E
	142	PT		0+532.984					66659.9556	168319.0390	
	143	RP							66694.7279	168283.1101	
	144	PC		0+549.670					66671.9454	168330.6428	
	145	PI	C12	0+552.807	7°10'53"	50.000	3.138	6.267	66674.2000	168332.8249	N36°52'53"E
	146	PT		0+555.936					66676.7097	168334.7079	
	147	RP							66706.7177	168294.7139	
	148	PC		0+670.123					66768.0451	168403.2380	
	149	PI	C13	0+673.200	7°02'33"	50.000	3.077	6.146	66770.5062	168405.0846	N29°50'19"E
	150	PT		0+676.269					66773.1751	168406.6155	
	151	RP							66798.0531	168363.2440	

DATE: 06-28-99 TIME: 11:35 am USER: CPU201SP

DRAWN BY: MAM
DESIGNER: STG
CHECKED BY: SMM

NO.	BY	DATE	REVISIONS

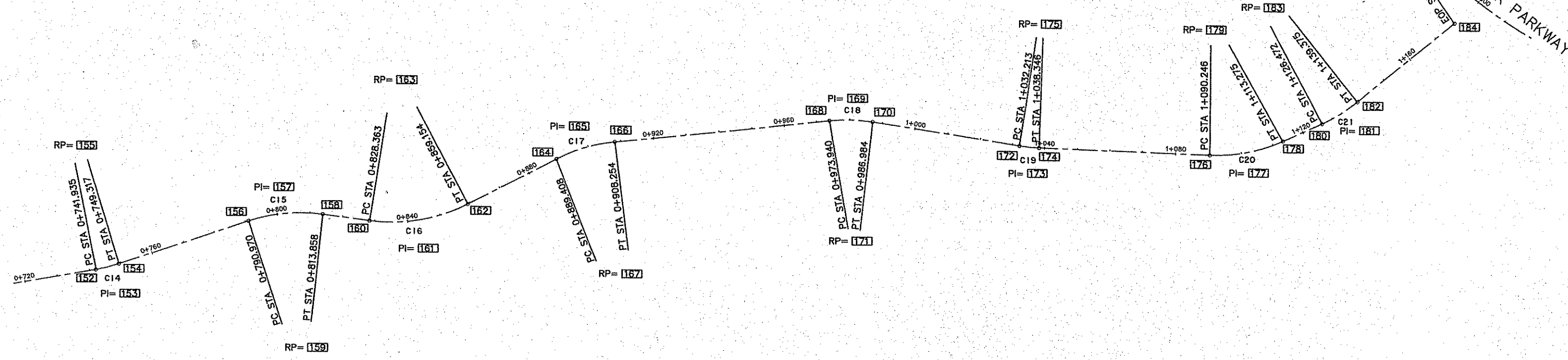
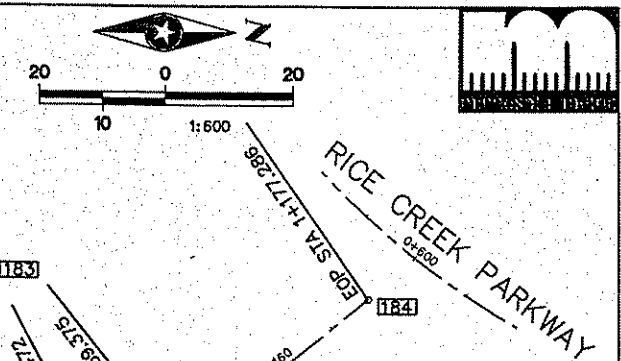
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Justin M. Moore
Date: 6/14/99 Reg. No. 18512



SHOREVIEW
MINNESOTA

S.A.P. 167-252-01
S.A.P. 167-268-01
OFF ROADWAY TRAIL
SCENIC EASEMENT
ALIGNMENT PLAN
FILE NO. 33
DATE 6/14/99
131



ALIGNMENT TABULATION										
POINT ID	POINT	CURVE	STATION	CL CURVE DATA				COORDINATES		
				DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
152	PC		0+741.935					66830.1360	168439.2884	
153	PI	C14	0+745.653	8°27'34"	50.000	3.698	7.382	66833.3436	168441.1283	N21°22'46"E
154	PT		0+749.317					66836.7669	168442.4763	
155	RP							66855.0140	168395.9170	
156	PC		0+790.970					66875.5734	168457.6605	
157	PI	C15	0+802.618	26°13'41"	50.000	11.648	22.888	66886.4200	168461.9067	N47°36'26"E
158	PT		0+813.858					66894.2733	168470.5094	
159	RP							66857.3463	168504.2198	
160	PC		0+828.363					66904.0529	168481.2222	
161	PI	C16	0+844.264	35°16'60"	50.000	15.901	30.790	66914.7735	168492.9657	N12°19'26"E
162	PT		0+859.154					66930.3080	168496.3596	
163	RP							66940.9800	168447.5118	
164	PC		0+889.408					66959.8652	168502.8171	
165	PI	C17	0+898.944	21°35'44"	50.000	9.536	18.846	66969.1815	168504.8524	N33°55'10"E
166	PT		0+908.254					66977.0947	168510.1738	
167	RP							66949.1932	168551.6649	
168	PC		0+973.940					67031.6023	168546.8284	
169	PI	C18	0+980.499	14°56'53"	50.000	6.560	13.045	67037.0455	168550.4888	N48°52'04"E
170	PT		0+986.984					67041.3604	168555.4294	
171	RP							67003.7008	168588.3195	
172	PC		1+032.213					67071.1118	168589.4952	
173	PI	C19	1+035.283	7°01'39"	50.000	3.070	6.133	67073.1314	168591.8076	N41°50'24"E
174	PT		1+038.346					67075.4187	168593.8556	
175	RP							67108.7714	168556.6051	
176	PC		1+090.246					67114.0851	168628.4760	
177	PI	C20	1+101.968	26°23'20"	50.000	11.722	23.029	67122.8182	168636.2953	N15°27'04"E
178	PT		1+113.275					67134.1168	168639.4184	
179	RP							67147.4377	168591.2255	
180	PC		1+126.472					67146.8367	168642.9342	
181	PI	C21	1+132.959	14°47'11"	50.000	6.488	12.904	67153.0901	168644.6627	N00°39'53"E
182	PT		1+139.375					67159.5775	168644.7380	
183	RP							67160.1576	168594.7414	
184	EOP		1+177.286					67197.4855	168645.1779	

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DRAWN BY:	MAM			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John M. Moran
 Date: 6/14/99 Reg. No. 18612



SHOREVIEW MINNESOTA

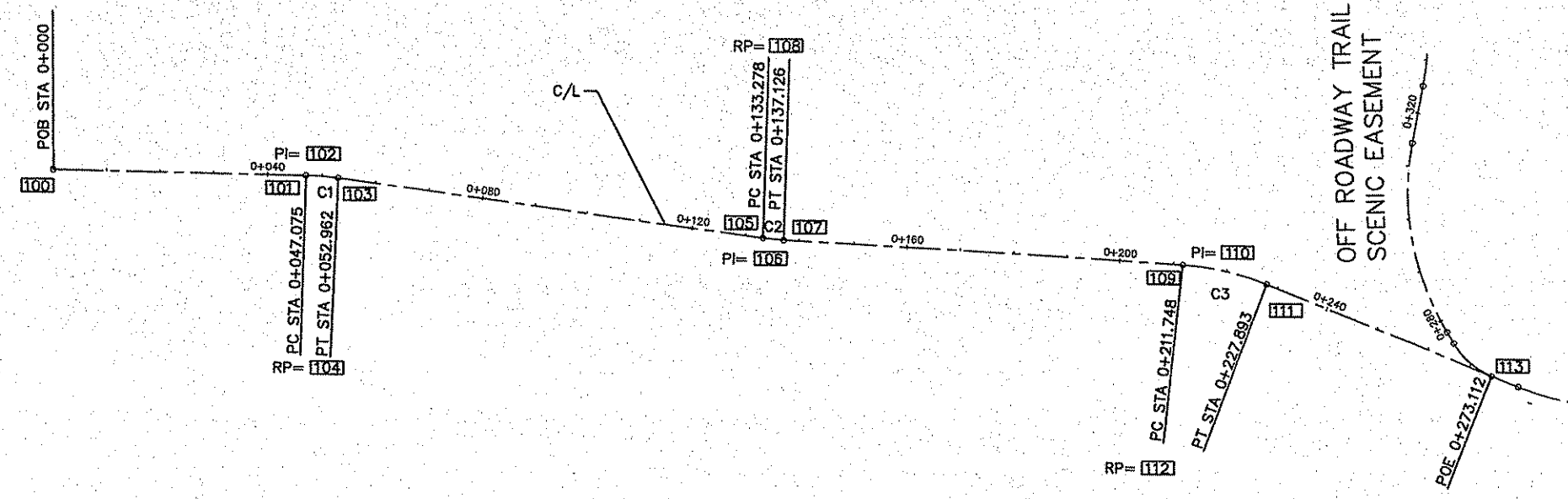
OFF ROADWAY TRAIL SCENIC EASEMENT ALIGNMENT PLAN

S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	34
DATE	6/14/99
	131



RICE CREEK PARKWAY



ALIGNMENT TABULATION										
POINT		CL CURVE DATA						COORDINATES		
ID	POINT	CURVE	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
100	POB		0+000.000					66499.0820	167928.1475	S89°09'24"E
101	PC		0+047.075					66498.3892	167975.2175	
102	PI	C 1	0+050.022	6°44'45"	50.000	2.947	5.887	66498.3459	167978.1640	S82°24'40"E
103	PT		0+052.962					66497.9567	167981.0850	
104	RP							66448.3947	167974.4817	
105	PC		0+133.278					66487.3496	168060.6979	
106	PI	C 2	0+135.203	4°24'33"	50.000	1.925	3.848	66487.0954	168062.6059	S86°49'13"E
107	PT		0+137.126					66486.9887	168064.5279	
108	RP							66536.9117	168067.3012	
109	PC		0+211.748					66482.8496	168139.0351	
110	PI	C 3	0+219.892	18°30'03"	50.000	8.143	16.145	66482.3979	168147.1659	S68°19'10"E
111	PT		0+227.893					66479.3895	168154.7332	
112	RP							66432.9265	168136.2617	
113	POE		0+273.112					66462.6842	168196.7533	

G:\CIVIL\CLIENTS\VA_THI\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR04AL2.DWG
 DATE: 06-25-99 TIME: 9:29 am USER: CPU206SP
 XREFS: G:\CIVIL\CLIENTS\VA_THRU_S\SHOREVIEW\ICE_CREEK\EP\ACAD\SHR04B1, X-FLAT, X-TOP, X-CORR, X-CORR1, X-CORR2, X-ROTTU

DRAWN BY:	MAM			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
[Signature]
 Date: 6/14/99 Reg. No. 18612



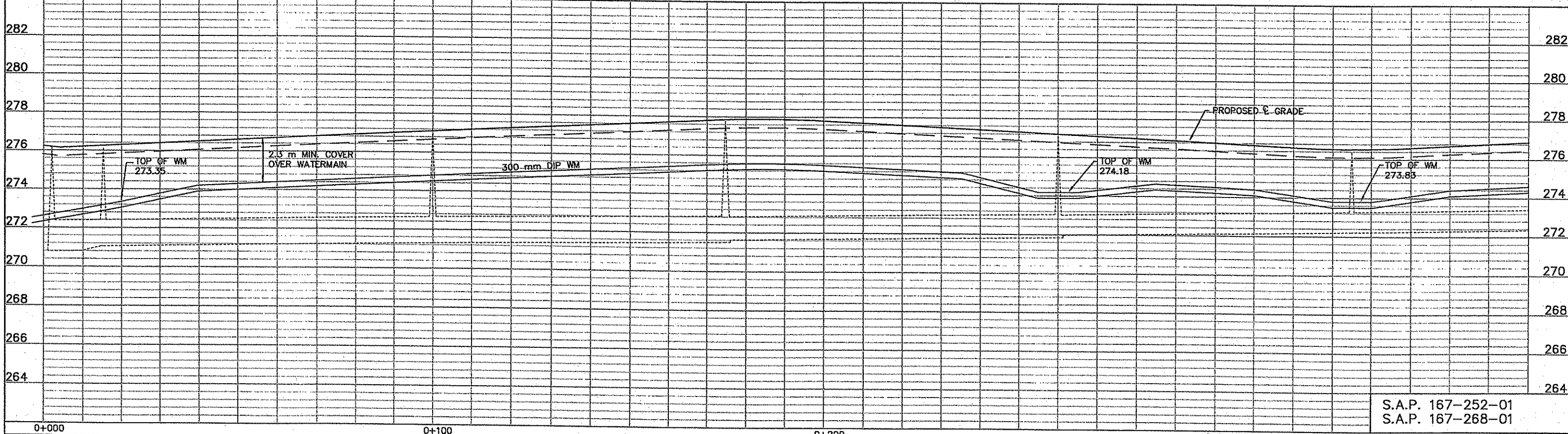
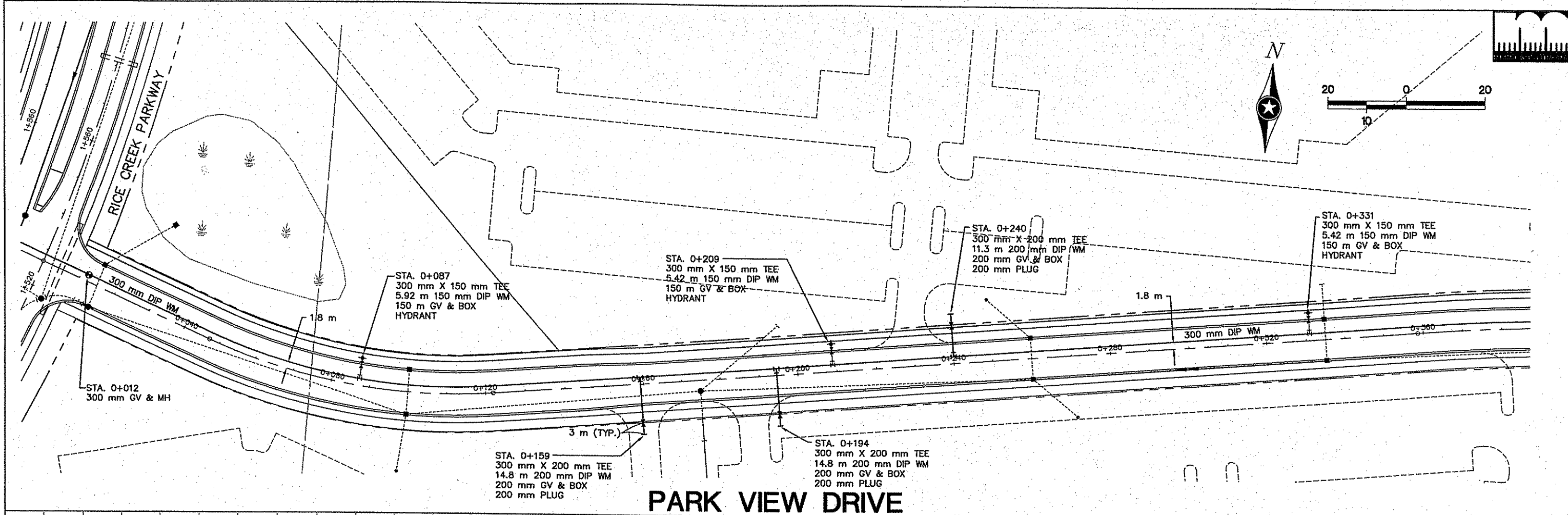
SHOREVIEW MINNESOTA

OFF ROADWAY TRAIL REGIONAL POND ALIGNMENT PLAN

S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	35
DATE	6/14/99
	131

G:\CIVIL\CLIENTS\M...THRU...S\SHOREVIEW\RICE_CREEK\ACAD\PLANS\SRB04SW.DWG DATE: 06-29-99 TIME: 11:03 am USER: CPU201SP



S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG				
DESIGNER:	MW				
CHECKED BY:	SMM				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A GULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

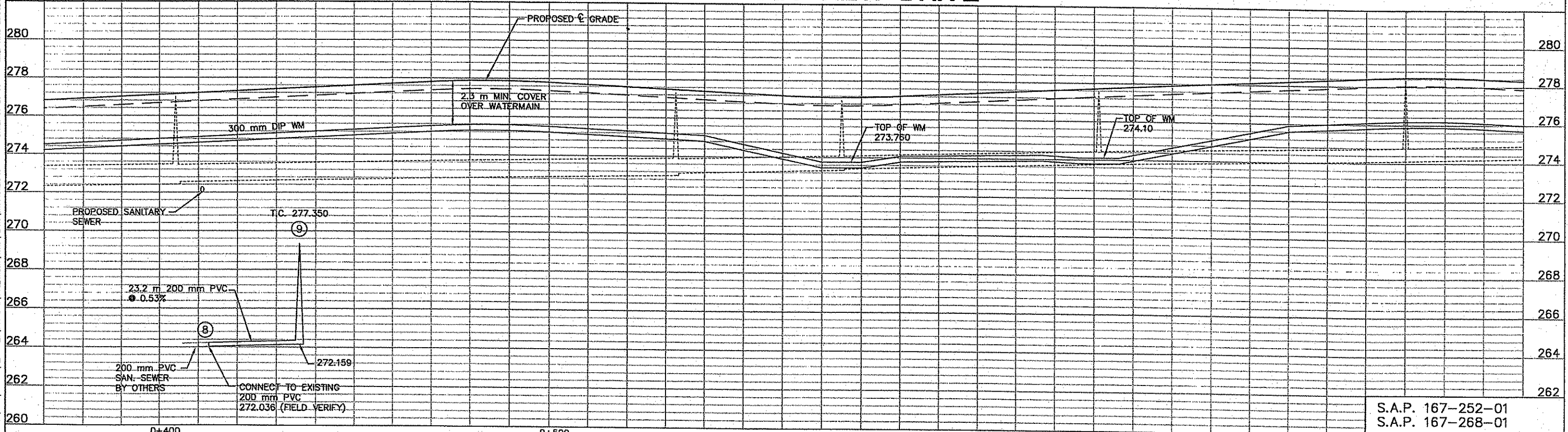
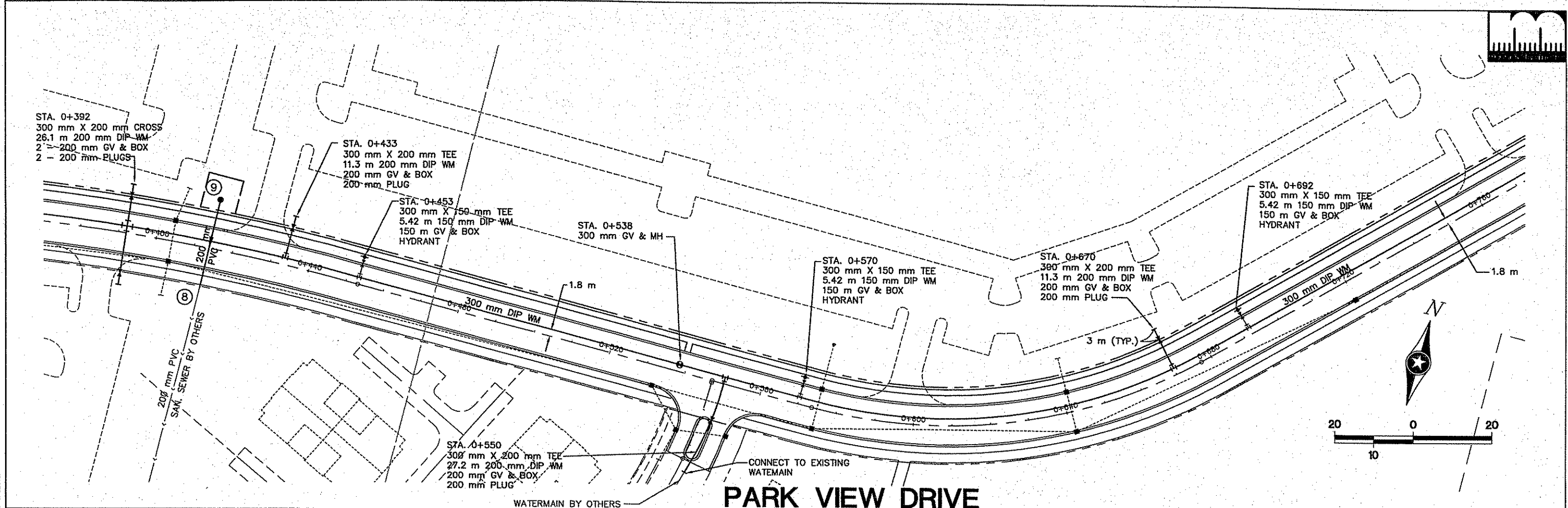
John M. Moran
Date: 06/14/99 Reg. No. 18612



SHOREVIEW, MINNESOTA

PARK VIEW DRIVE WATERMAIN

FILE NO.	ASHORE9804.02	36
DATE	06/14/99	131



S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG			
DESIGNER:	MW			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John M. Moran
Date: 05/14/99 Reg. No. 18612

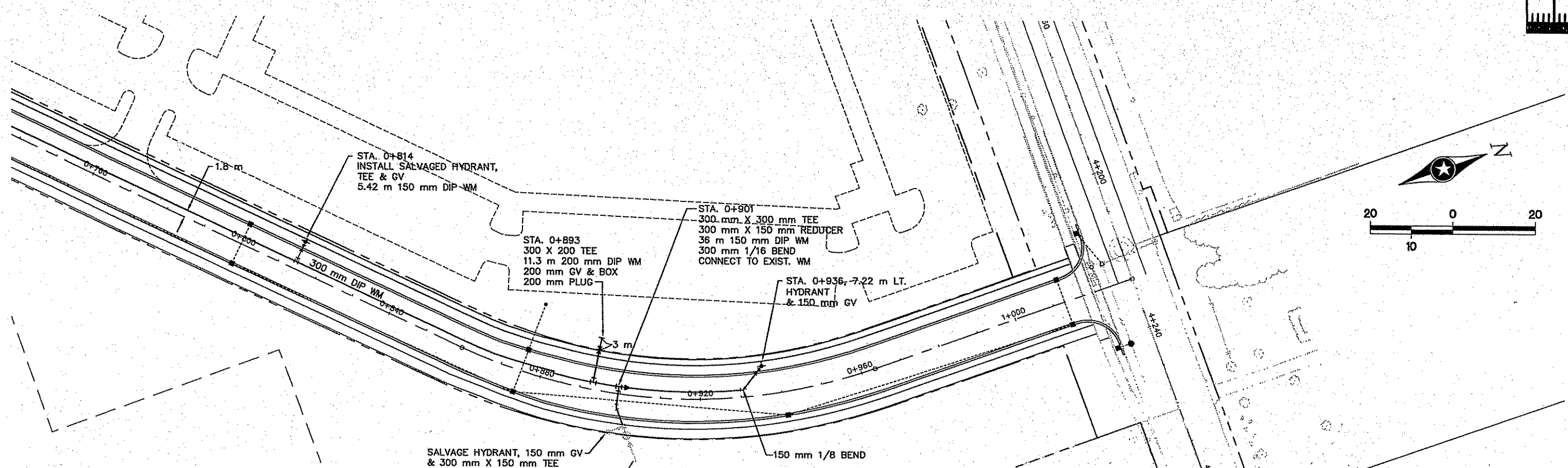
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

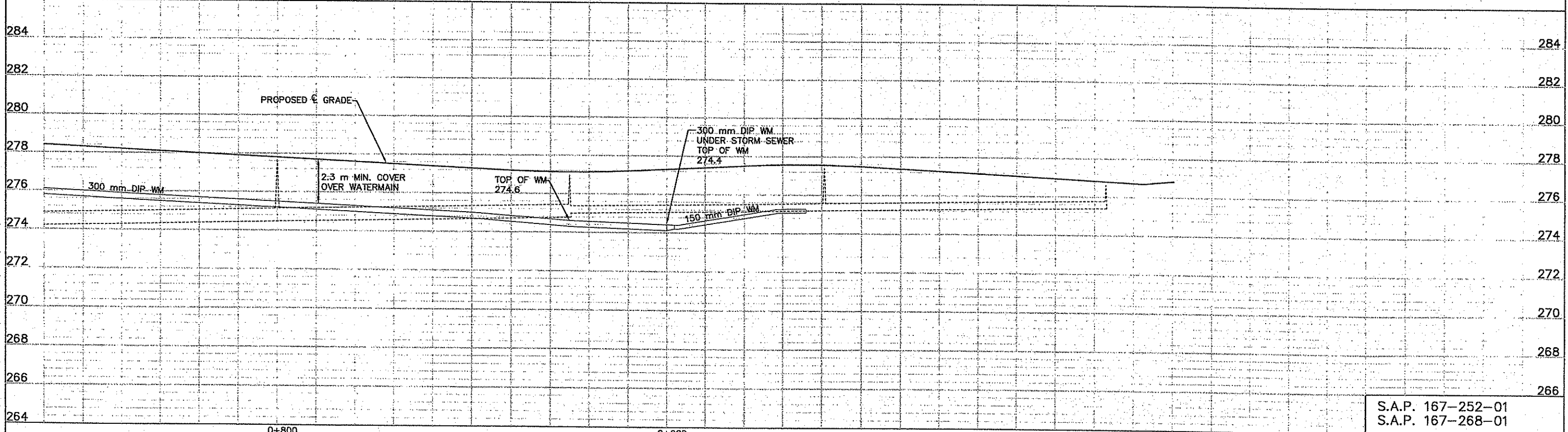
**PARK VIEW DRIVE
SANITARY SEWER & WATERMAIN**

FILE NO.	37
DATE	05/14/99
	131

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PARK VIEW DRIVE



S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG			
DESIGNER:	MW			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Date: 06/14/99 Reg. No. 18612

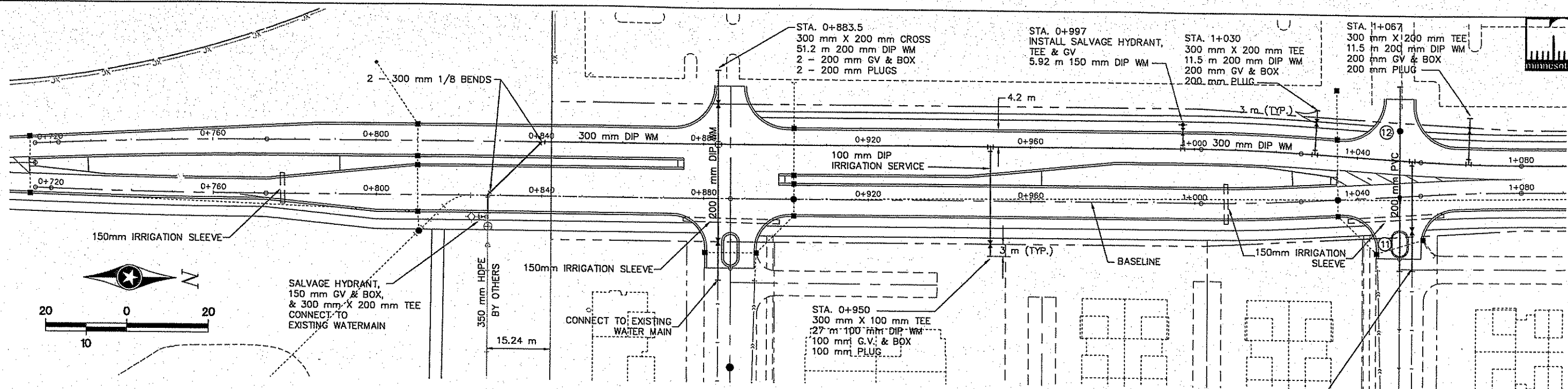


SHOREVIEW, MINNESOTA

PARK VIEW DRIVE WATERMAIN

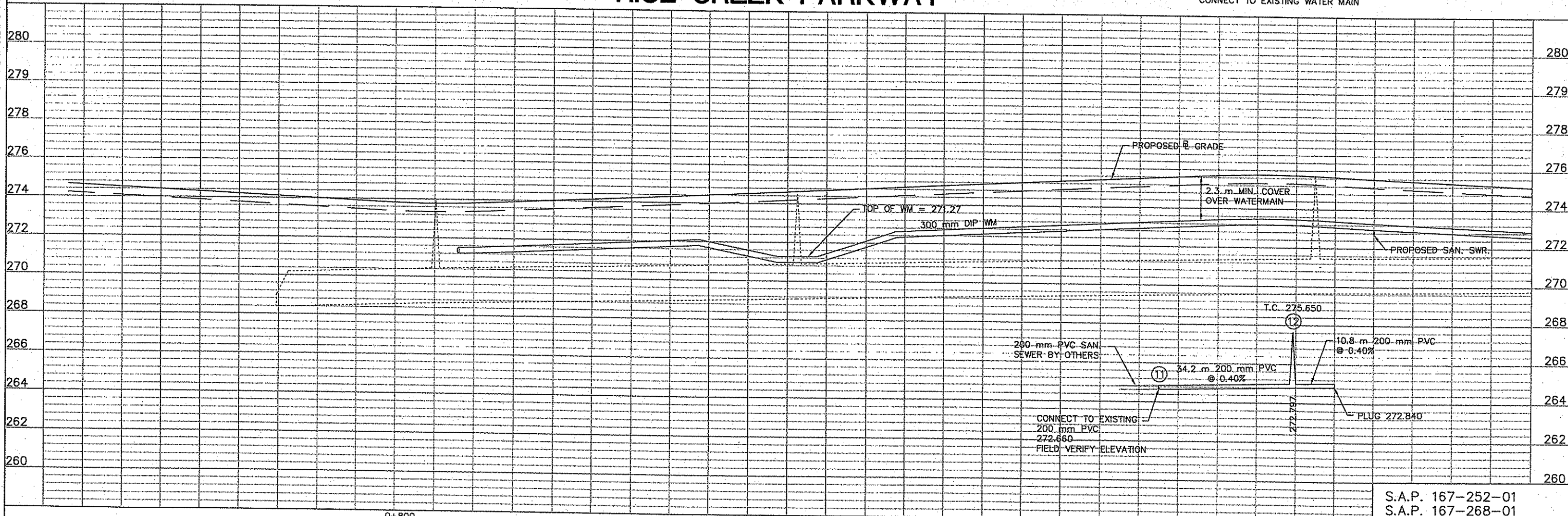
FILE NO.	ASHORE9804.02	38
DATE	06/14/99	131

G:\CIVIL\CLIENTS\W_THRU_S\SHOREVIEW\PRICE_CREEK\ACAD\PLANS\SH804\SW3.DWG 06-16-99 11:17 am cpw120sp



NOTE: ALL STATIONING BASED OFF BASELINE.

RICE CREEK PARKWAY



S.A.P. 167-252-01
S.A.P. 167-268-01

DATE: 06-29-98; 11:12 am USER: CPU160SP
G:\CIVIL\CLIENTS\W_THRU_S\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR05WSDWG

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Julia M. Peterson
Date: 06/14/99 Reg. No. 18612

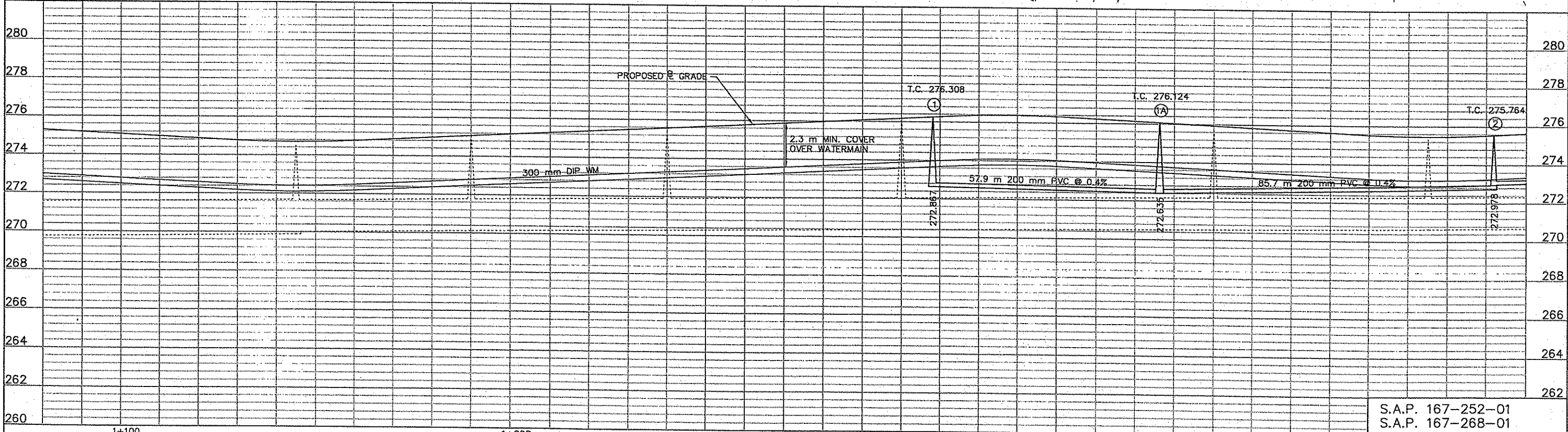
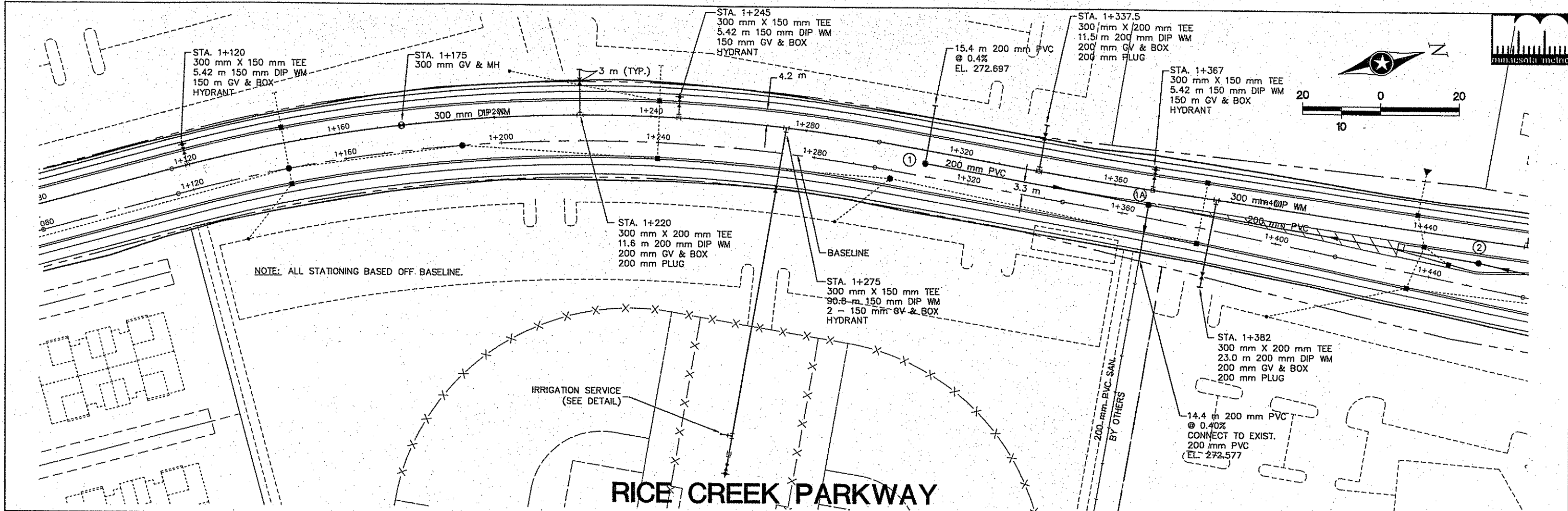


SHOREVIEW,
MINNESOTA

RICE CREEK PARKWAY
WATERMAIN

FILE NO.	ASHORE9804.02	39
DATE	06/14/99	131

DATE: 06-29-99; 11:15 am USER: CPU1605P
 C:\CIVIL\CLIENTS\W_THRU_S\SHOREVIEW\RICE_CREEK\ACAD\PLANS\SH0804S\W7.DWG



S.A.P. 167-252-01
 S.A.P. 167-268-01

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Gregory M. Mason
 Date: 06/14/99 Reg. No. 18612



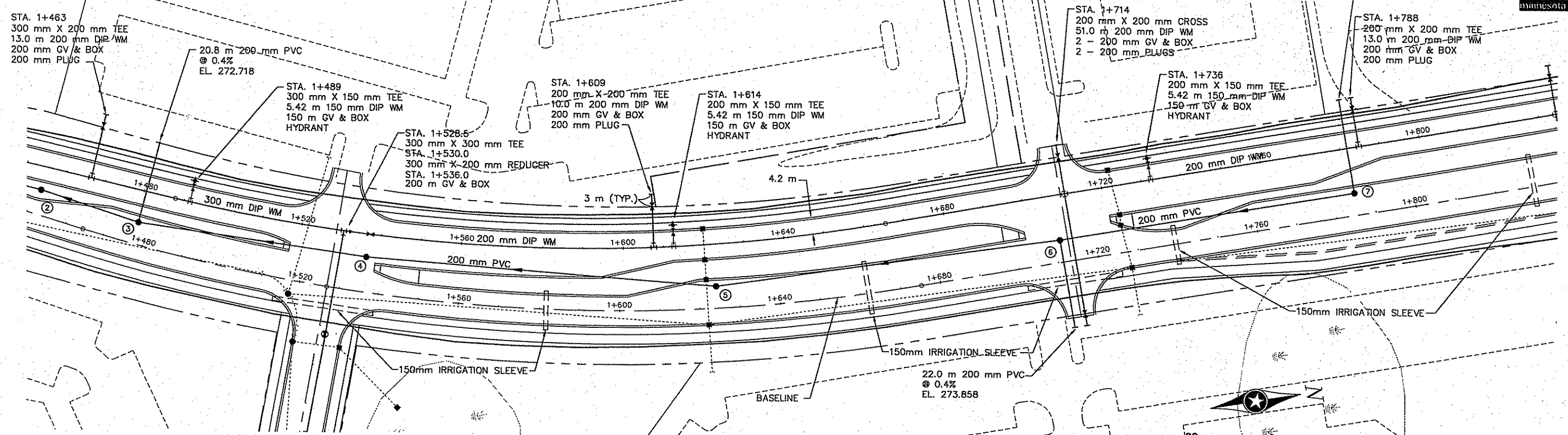
SHOREVIEW, MINNESOTA

**RICE CREEK PARKWAY
 SANITARY SEWER & WATERMAIN**

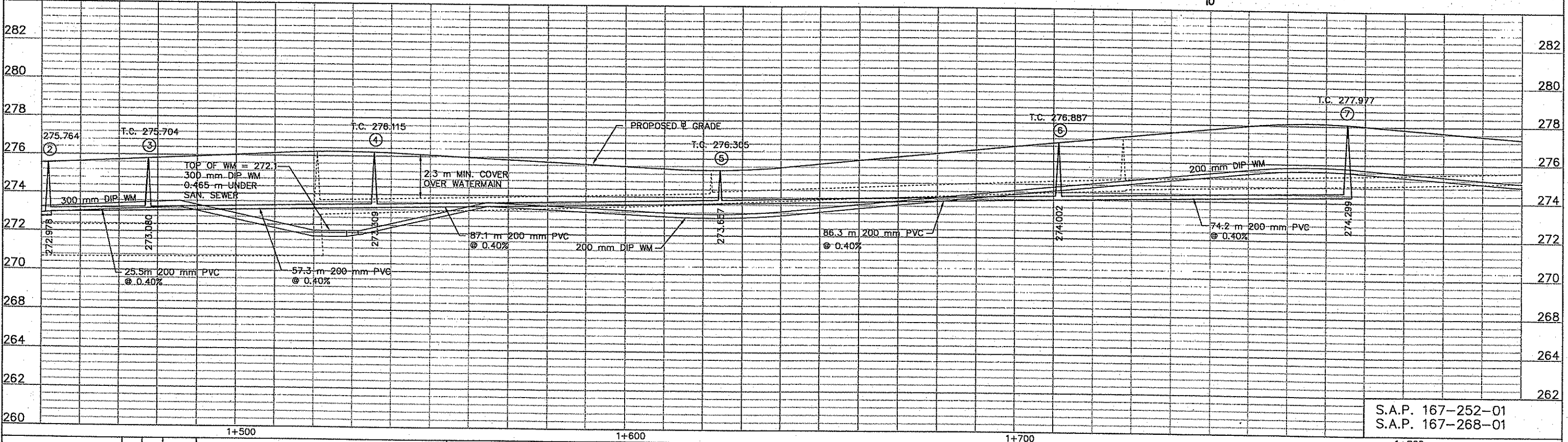
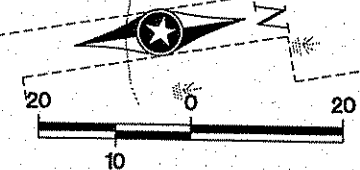
FILE NO.	ASHORE9804.02	40
DATE	06/14/99	131



NOTE: ALL STATIONING BASED OFF BASELINE.



RICE CREEK PARKWAY



DRAWN BY:	STG				
DESIGNER:	STG				
CHECKED BY:	SMM				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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Julia M. Johnson
Date: 06/14/99 Reg. No. 18612



SHOREVIEW,
MINNESOTA

RICE CREEK PARKWAY
SANITARY SEWER & WATERMAIN

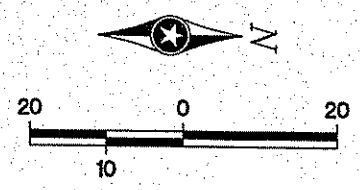
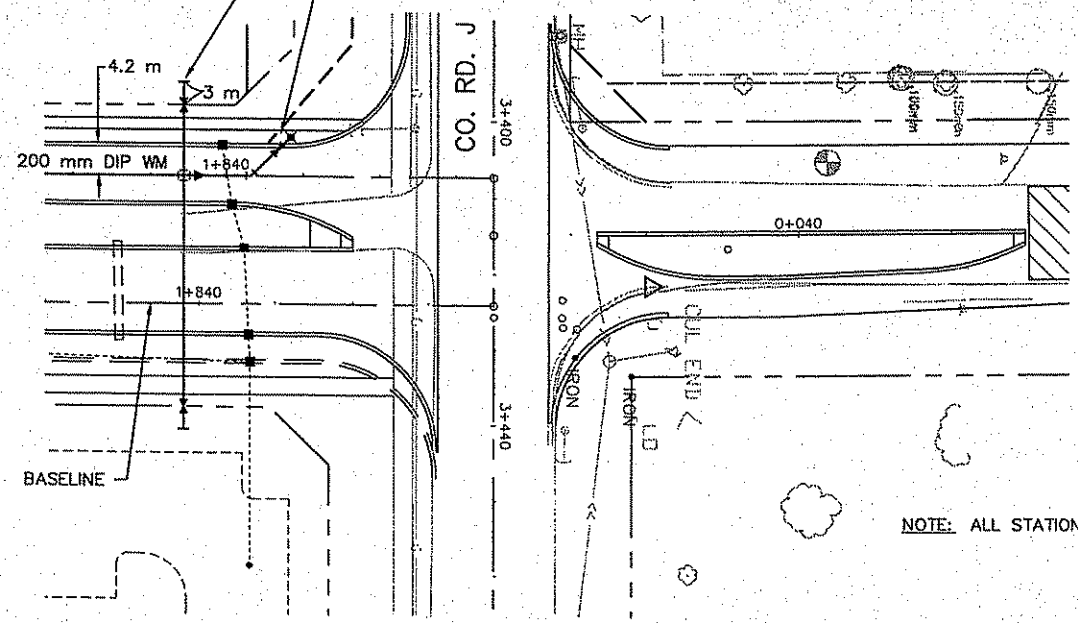
FILE NO.	ASHORE9804.02	41
DATE	06/14/99	131

S.A.P. 167-252-01
S.A.P. 167-268-01

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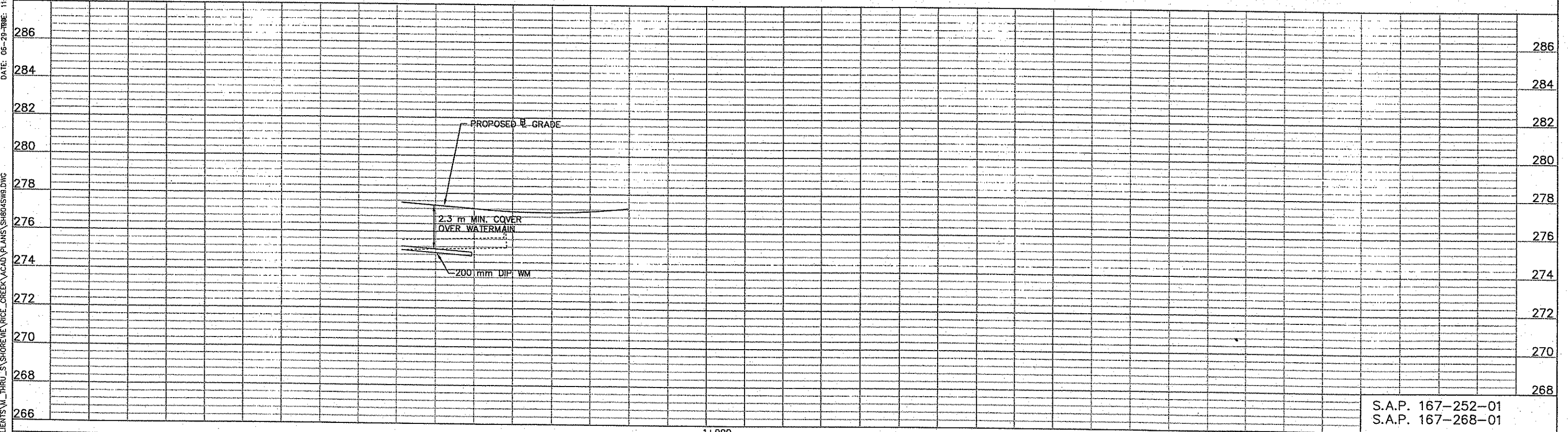
STA. 1+838
 200 mm X 200 mm CROSS
 44.0 m 200 mm DIP WM
 2 - 200 mm GV & BOX
 2 - 200 mm PLUG
 200 mm X 150 mm REDUCER

STA. 1+852
 200 mm X 150 mm REDUCER
 150 mm 1/8 BEND
 16.1 m 150 mm DIP WM
 150 m GV & BOX
 HYDRANT



RICE CREEK PARKWAY

DATE: 06-29-1998 11:21 am USER: CPU160SP
 G:\CIVIL\CLIENTS\M_THRU_S\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SH804SW9.DWG



S.A.P. 167-252-01
 S.A.P. 167-268-01

DRAWN BY: STG			
DESIGNER: STG			
CHECKED BY: SMM			
DESIGN TEAM	NO.	BY	DATE
			REVISIONS

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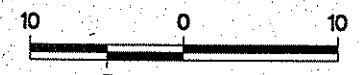
Guhan M. Mason
 Date: 06/14/98 Reg. No. 18612

SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

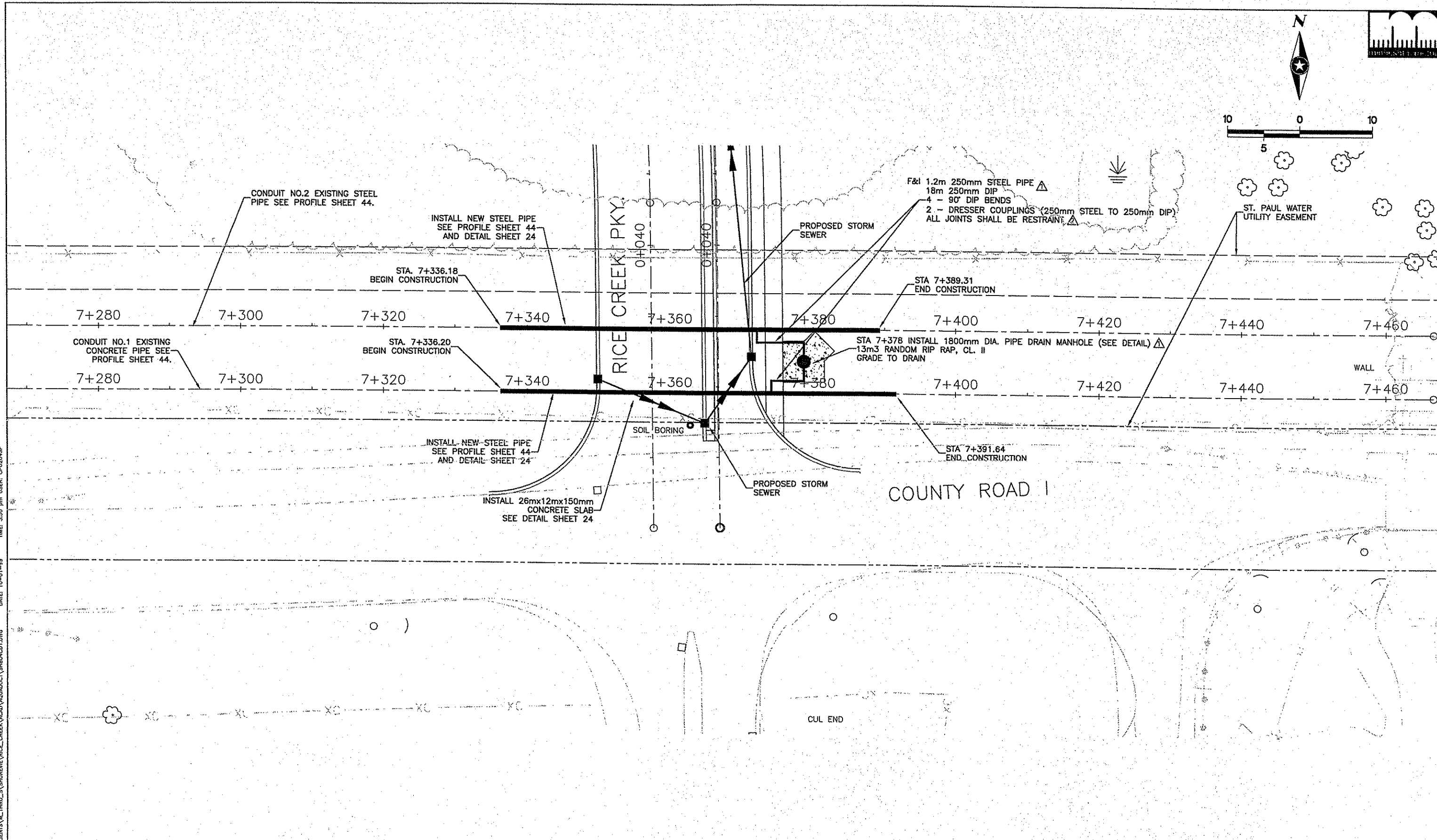
**SHOREVIEW,
 MINNESOTA**

**RICE CREEK PARKWAY
 SANITARY SEWER & WATERMAIN**

FILE NO. ASHORE9804.02	42
DATE 06/14/99	131



ST. PAUL WATER UTILITY EASEMENT



DATE: 10-01-99 TIME: 3:50 pm USER: CP02DASP

C:\GWA\CLIENTS\AL_THRU_S\SHOREVIEW\ICE_CREEK\ACAD\QUAD\CONDUCT\SHROCD.DWG

S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	bfr	STG	7/6/99	ADDENDUM NO. 1
DESIGNER:	bfr	STG	10/1/98	REMOVE CONCRETE SLAB; RESTRAIN ALL PIPE DRAIN JOINTS
CHECKED BY:	MDF			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Steven D Campbell

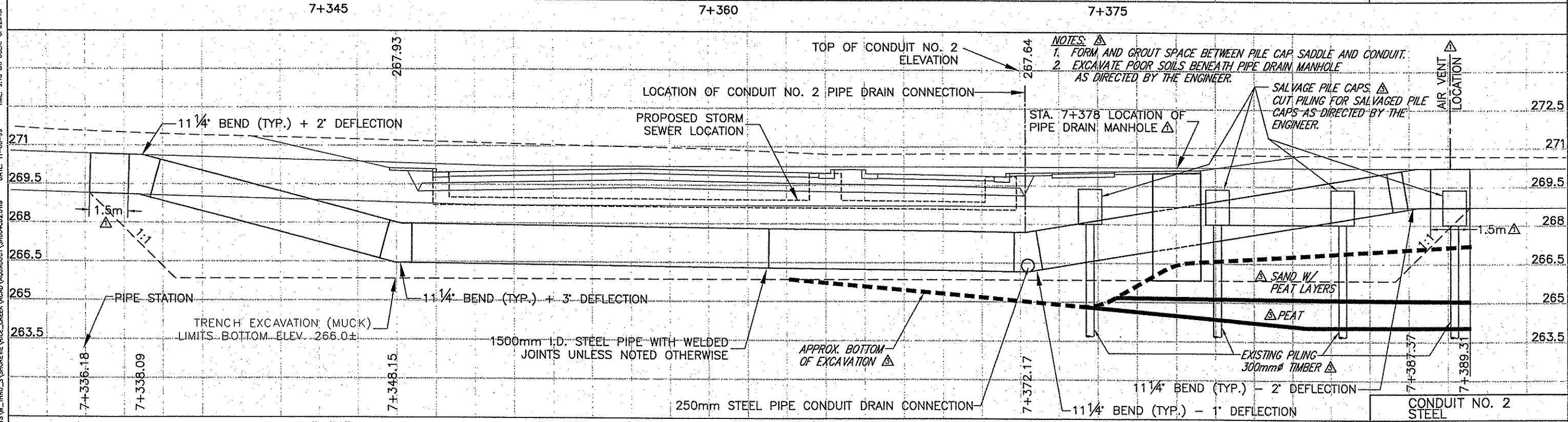
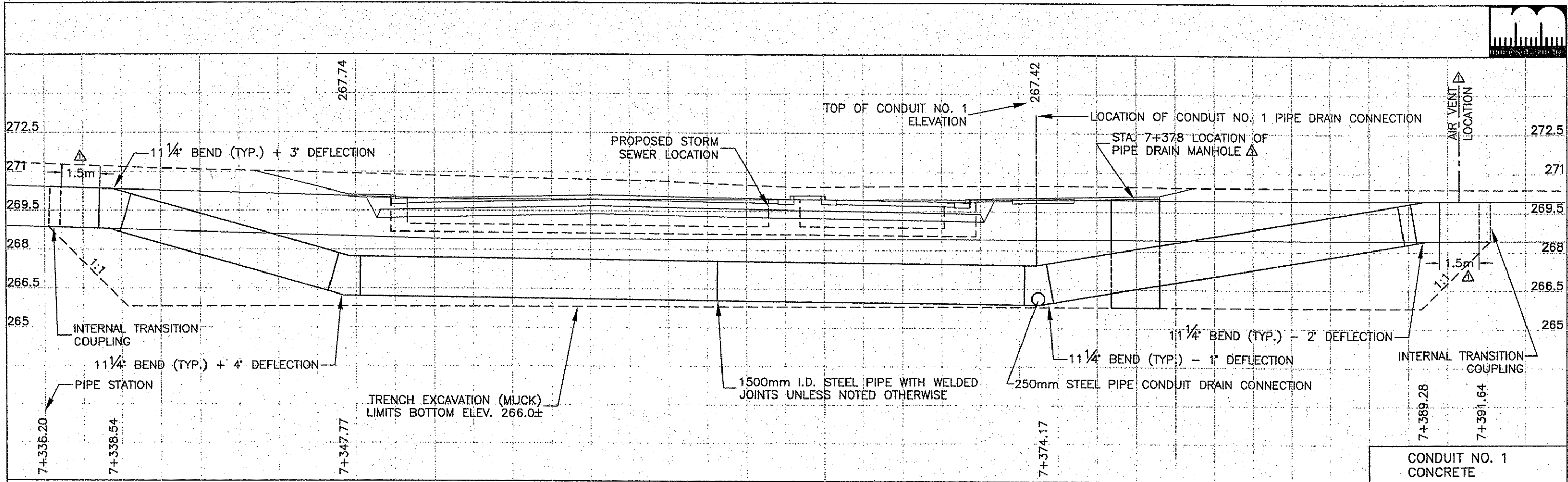
Date: 6/14/99 Rec. No. 12691



SHOREVIEW, MINNESOTA

ST. PAUL WATER UTILITY WATERMAIN LOWERING PLAN VIEW

FILE NO.	ASHORE9804.02	43
DATE	6/14/99	131



NOTE: VERTICAL AND HORIZONTAL SCALES ARE EQUAL AND IN METRIC UNITS.

S.A.P. 167-252-01
S.A.P. 167-268-01

DATE: 11-09-99 TIME: 9:10 am USER: CP1204SP
C:\CIVIL\CLIENTS\W...THRU...SHOREVIEW\ICE...CREEK\AGAD\AGADUCT\SHR0402.DWG

DRAWN BY:	bfr	STG	7/6/99	ADDENDUM NO. 1
DESIGNER:	bfr	STG	10/1/99	REMOVE CONCRETE SLAB
CHECKED BY:	MDF	STG	10/28/99	REVISIONS DUE TO POOR SOILS AT EAST END
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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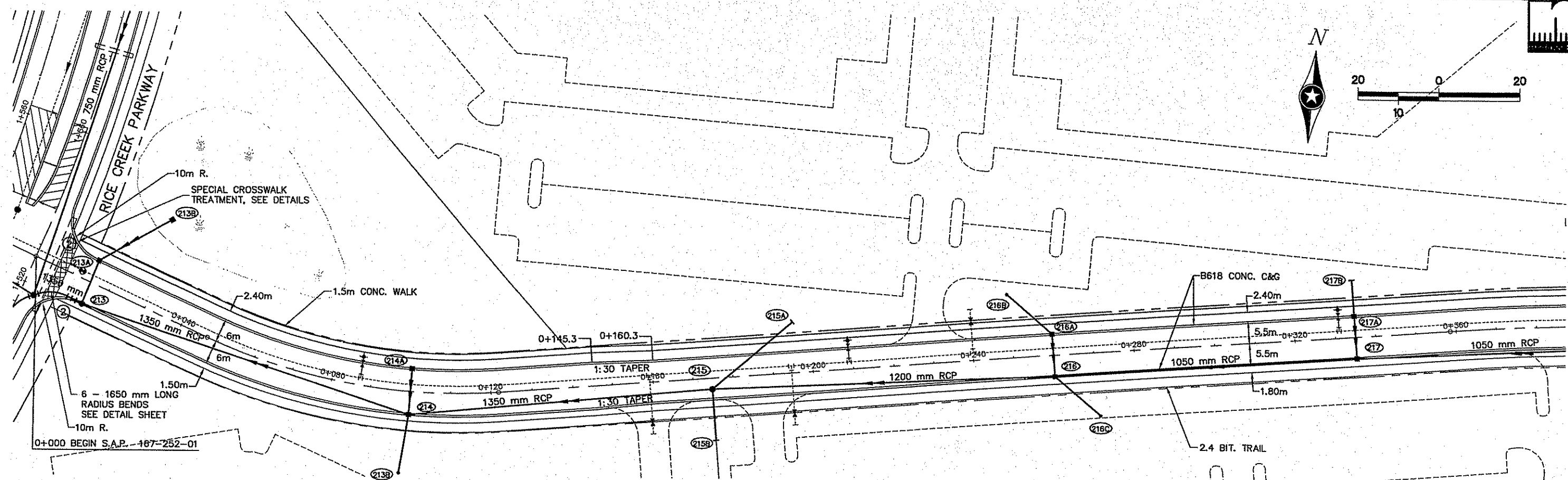
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER AND THE ENGINEER OF RECORD FOR THE STATE OF MINNESOTA.
Steven D. Campbell
Date: 6/14/99 Reg. No. 12691

SEH
PHONE: (651) 480-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

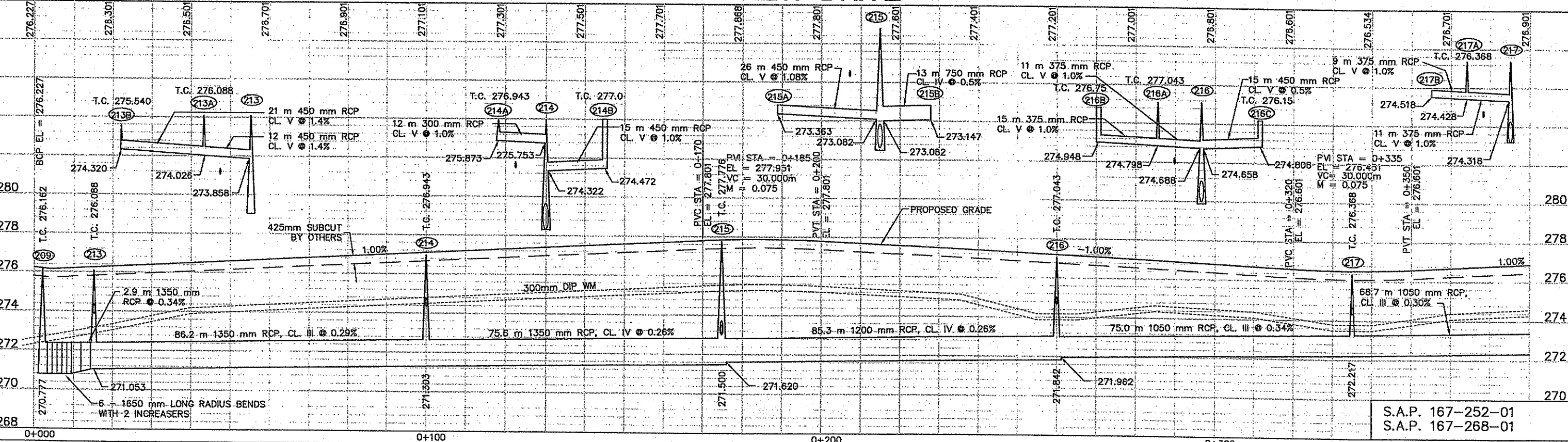
**ST. PAUL WATER UTILITY
WATERMAIN LOWERING
EQUAL SCALE PROFILE**

FILE NO. ASHORE9804.02 **44**
DATE 6/14/99 **131**



PARK VIEW DRIVE

② DROP CURB FOR PED. RAMP, SEE DETAILS.



S.A.P. 167-252-01
S.A.P. 167-268-01

C:\CIVIL\CLIENTS\W_THRU\S\SHOREVIEW\RICE_CREEK\ACAD\PLANS\SH804ST1.DWG
06-16-99 1:35 pm
cp0120sp

DRAWN BY:	MW				
DESIGNER:	STG/DH				
CHECKED BY:	SMM				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

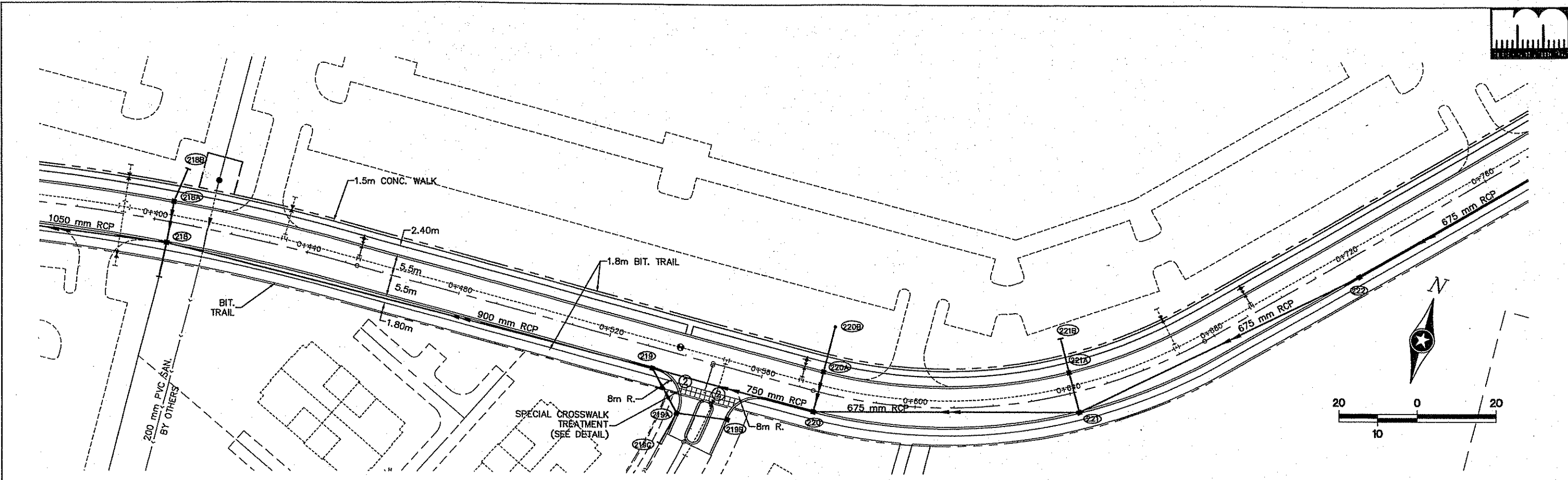
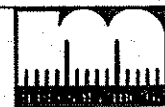
John M. Mason
Date: 06/14/99 Reg. No. 18610



SHOREVIEW, MINNESOTA

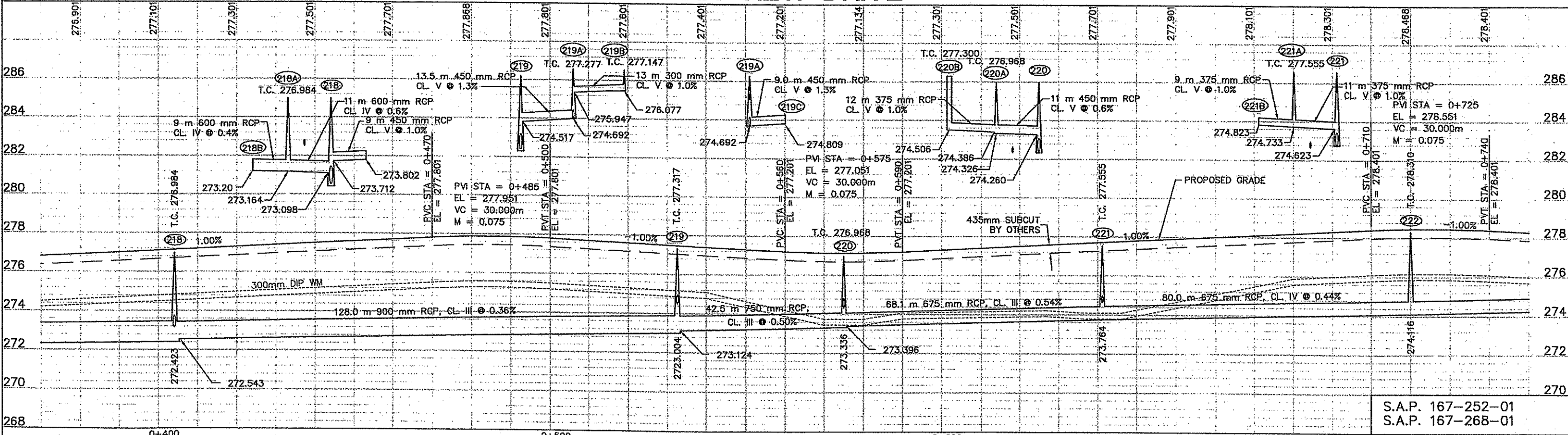
PARK VIEW DRIVE STREET & STORM SEWER

FILE NO. ASHORE9804.02 **45**
DATE 06/14/99 **131**



PARK VIEW DRIVE

② DROP CURB FOR PED. RAMP, SEE DETAILS.



DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Shoreview
Date: 06/14/99 Reg. No. 18612

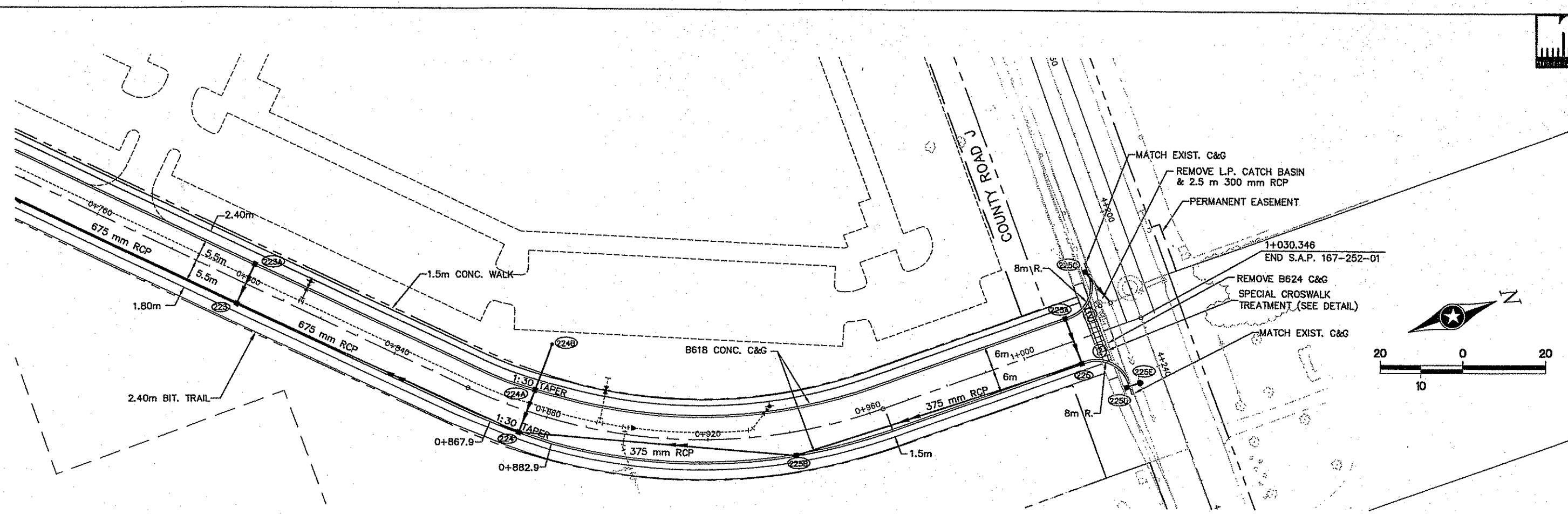
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

SHOREVIEW, MINNESOTA

PARK VIEW DRIVE STREET & STORM SEWER

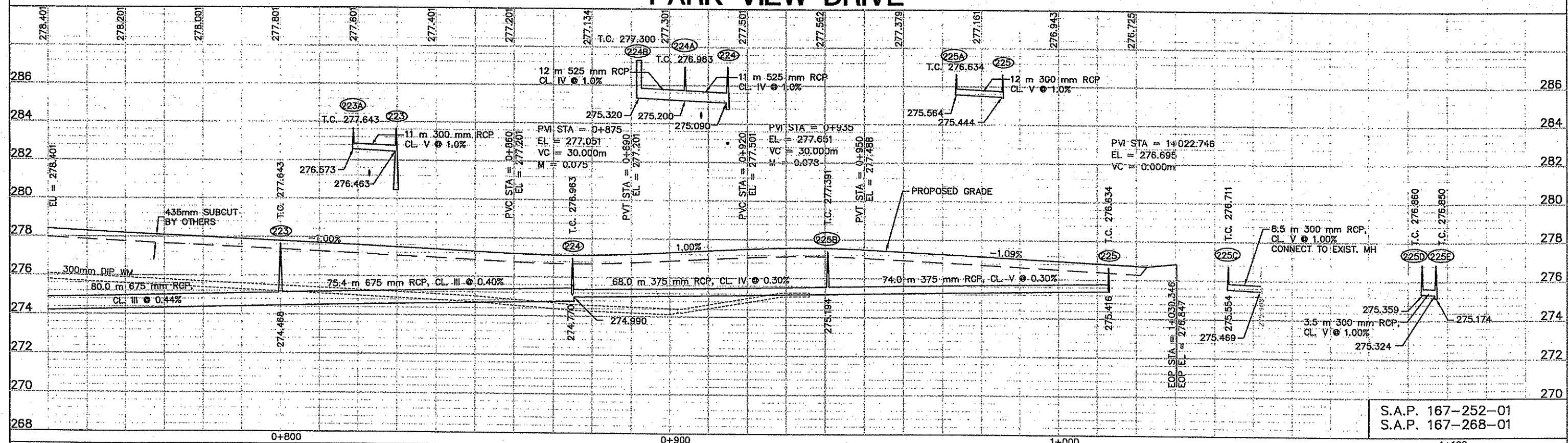
FILE NO. ASHORE9804.02
DATE 06/14/99
46
131

C:\CIVIL\CLIENTS\M_THRU\S\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SH804S12.DWG 06-16-99 2:25 pm cpu120sp



PARK VIEW DRIVE

② DROP CURB FOR PED. RAMP, SEE DETAILS.



S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Garrett M. Mason
Date: 05/14/99 Reg. No. 18612

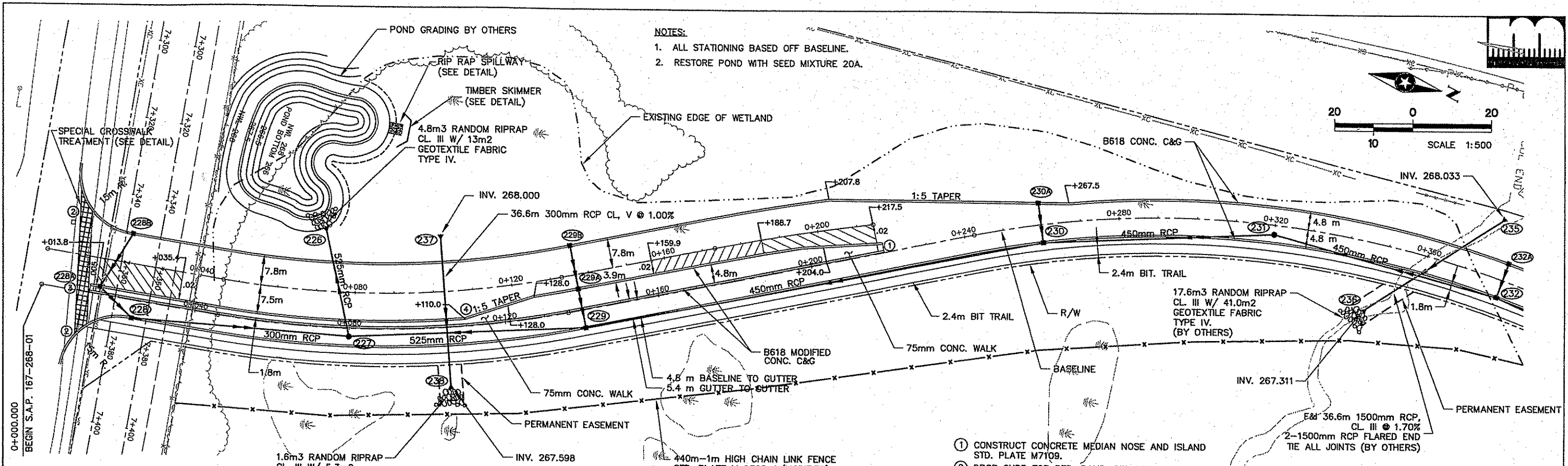


SHOREVIEW,
MINNESOTA

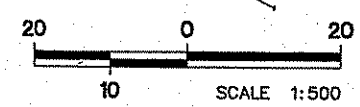
PARK VIEW DRIVE
STREET & STORM SEWER

FILE NO. 47
ASHORE9804.02
DATE 06/14/99
131

05-16-99 2:40 pm cpi120ep
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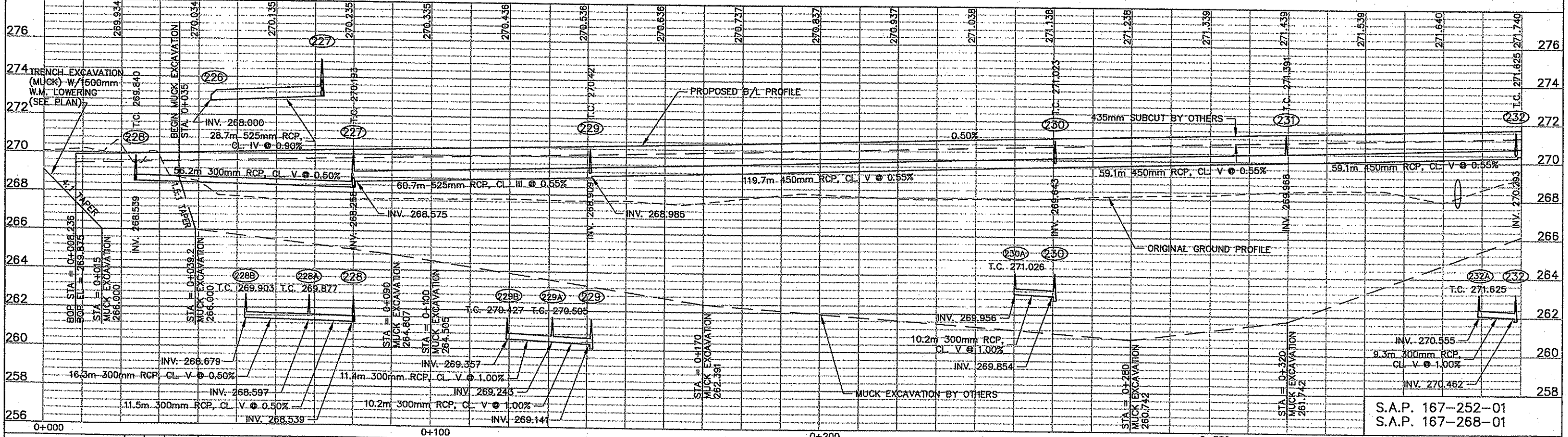


- NOTES:
1. ALL STATIONING BASED OFF BASELINE.
 2. RESTORE POND WITH SEED MIXTURE 20A.



RICE CREEK PARKWAY

1. CONSTRUCT CONCRETE MEDIAN NOSE AND ISLAND STD. PLATE M7109.
2. DROP CURB FOR PED. RAMP, SEE DETAILS.
3. CONSTRUCT CONCRETE NOSE APPROACH STD. PLATE M7113.
4. DROP CURB FOR MAINTENANCE ACCESS, SEE DETAILS.



DRAWN BY:	STG
DESIGNER:	STG
CHECKED BY:	SMM
DESIGN TEAM	NO. BY DATE
REVISIONS	

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Justin M. Mason
Date: 08/14/99 Reg. No. 18612

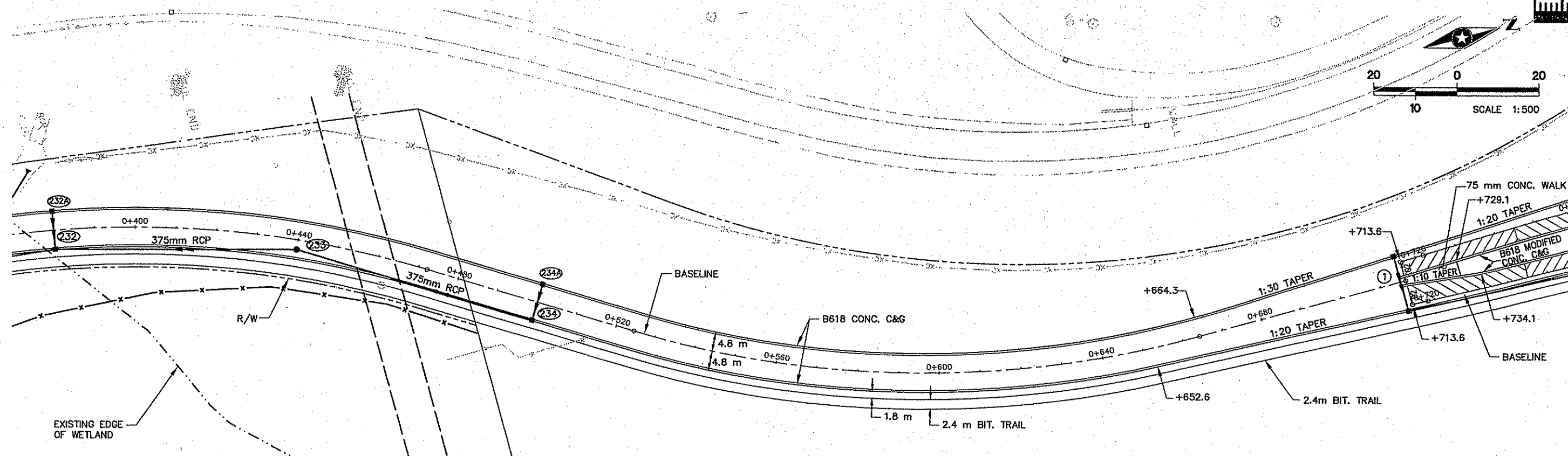


SHOREVIEW,
MINNESOTA

FILE NO.	ASHORE9804.02	48
DATE	08/14/99	131

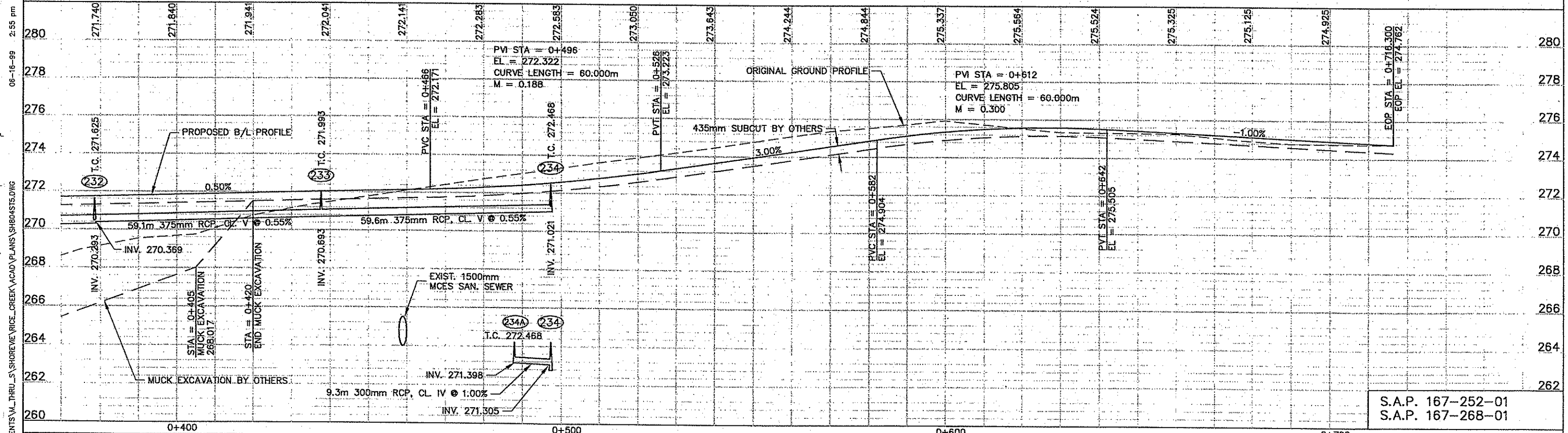
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① CONSTRUCT CONCRETE MEDIAN NOSE AND ISLAND
STD. PLATE M7109.



RICE CREEK PARKWAY

NOTE: ALL STATIONING BASED OFF BASELINE



S.A.P. 167-252-01
S.A.P. 167-268-01

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DESIGNER:	STG
CHECKED BY:	SMM
DESIGN TEAM	

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Janet M. Johnson
Date: 06/14/99 Reg. No. 18612

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

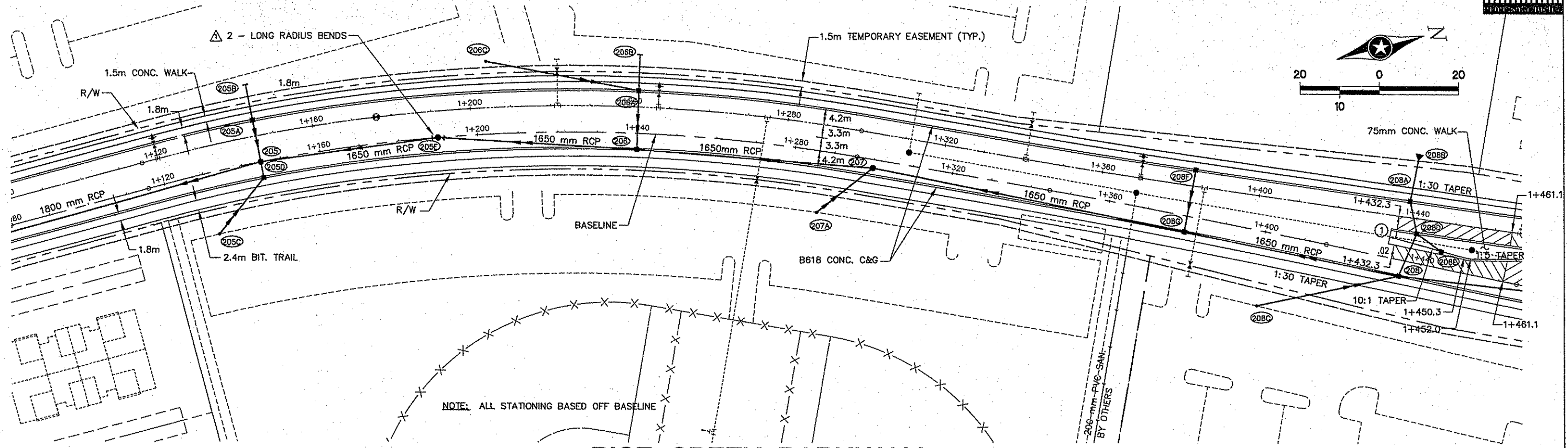
**SHOREVIEW,
MINNESOTA**

**RICE CREEK PARKWAY
STREET & STORM SEWER**

FILE NO.	ASHORE9804.02	49
DATE	06/14/99	131

G:\CIVIL\CLIENTS\W_THRU_S\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR0815.DWG 06-16-99 2:55 pm cput20ep

① CONSTRUCT CONCRETE MEDIAN NOSE AND ISLAND
STD. PLATE M7109.

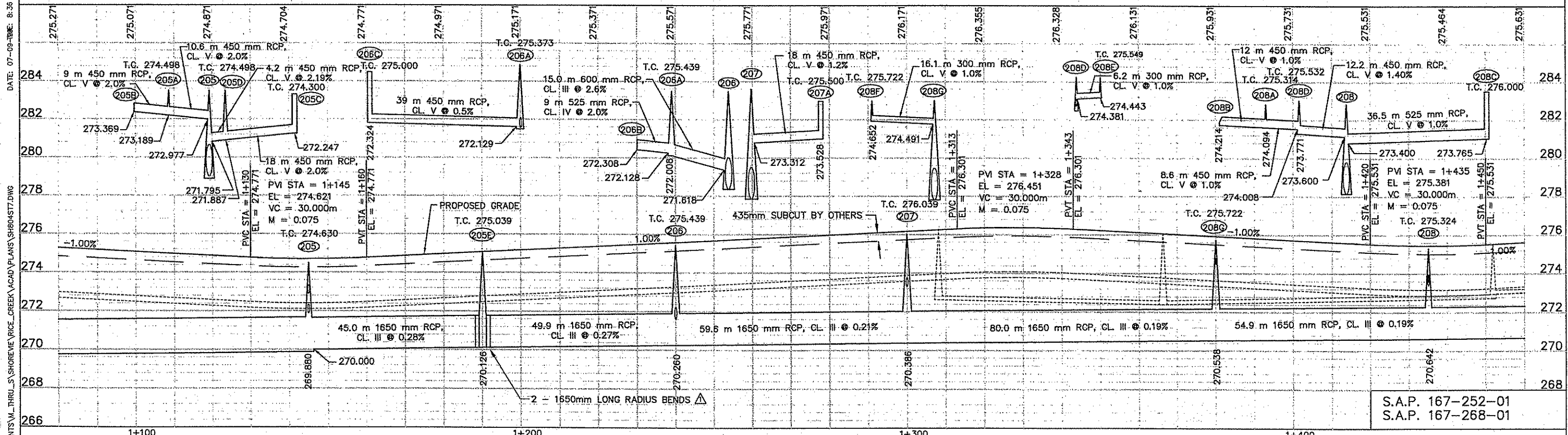


RICE CREEK PARKWAY

NOTE: ALL STATIONING BASED OFF BASELINE

DATE: 07-09-1996; 8:36 am USER: CPU204SP

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S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG	STG	7/6/99	ADDENDUM NO. 1
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John W. Meron
Date: 06/14/99 Reg. No. 18612



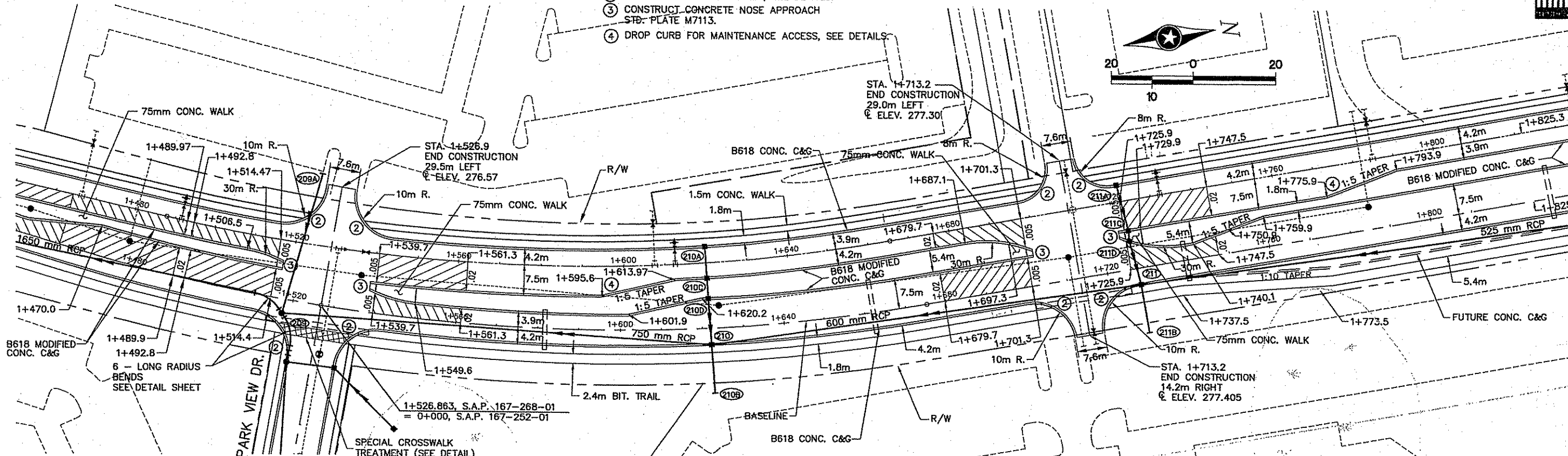
SHOREVIEW,
MINNESOTA

RICE CREEK PARKWAY
STREET & STORM SEWER

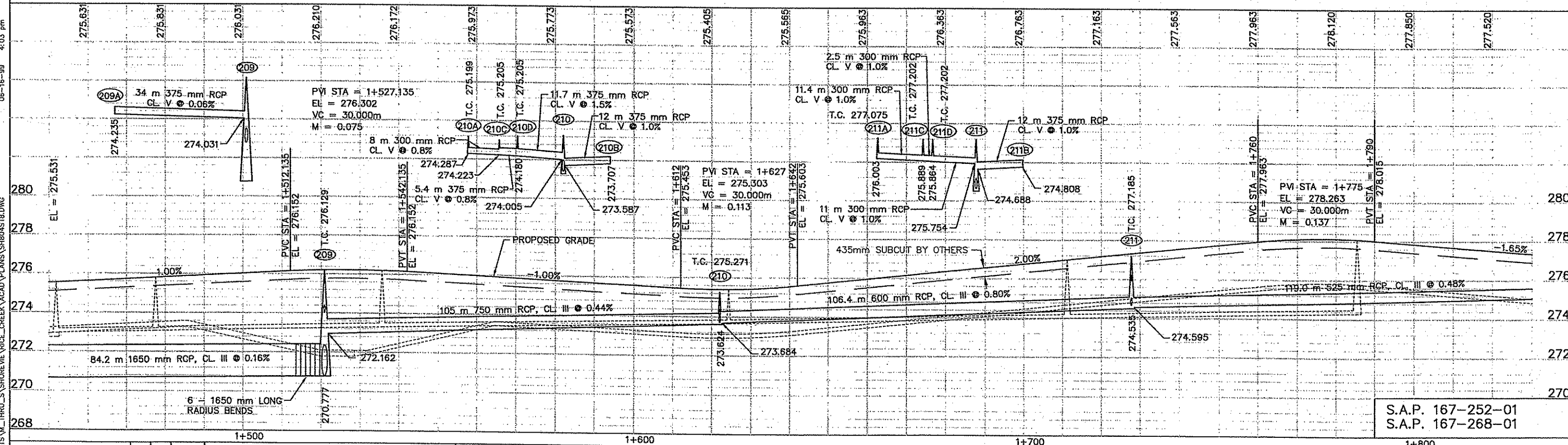
FILE NO.	ASHORE9804.02	51
DATE	06/14/99	131

NOTE: ALL STATIONING BASED OFF BASELINE

- ① CONSTRUCT CONCRETE MEDIAN NOSE AND ISLAND STD. PLATE M7109.
- ② DROP CURB FOR PED. RAMP, SEE DETAILS.
- ③ CONSTRUCT CONCRETE NOSE APPROACH STD. PLATE M7113.
- ④ DROP CURB FOR MAINTENANCE ACCESS, SEE DETAILS.



RICE CREEK PARKWAY



S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG
DESIGNER:	STG
CHECKED BY:	SMM

DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Shawn M. Mason
Date: 06/14/99 Reg. No. 18672



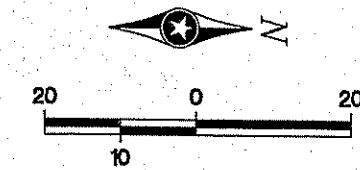
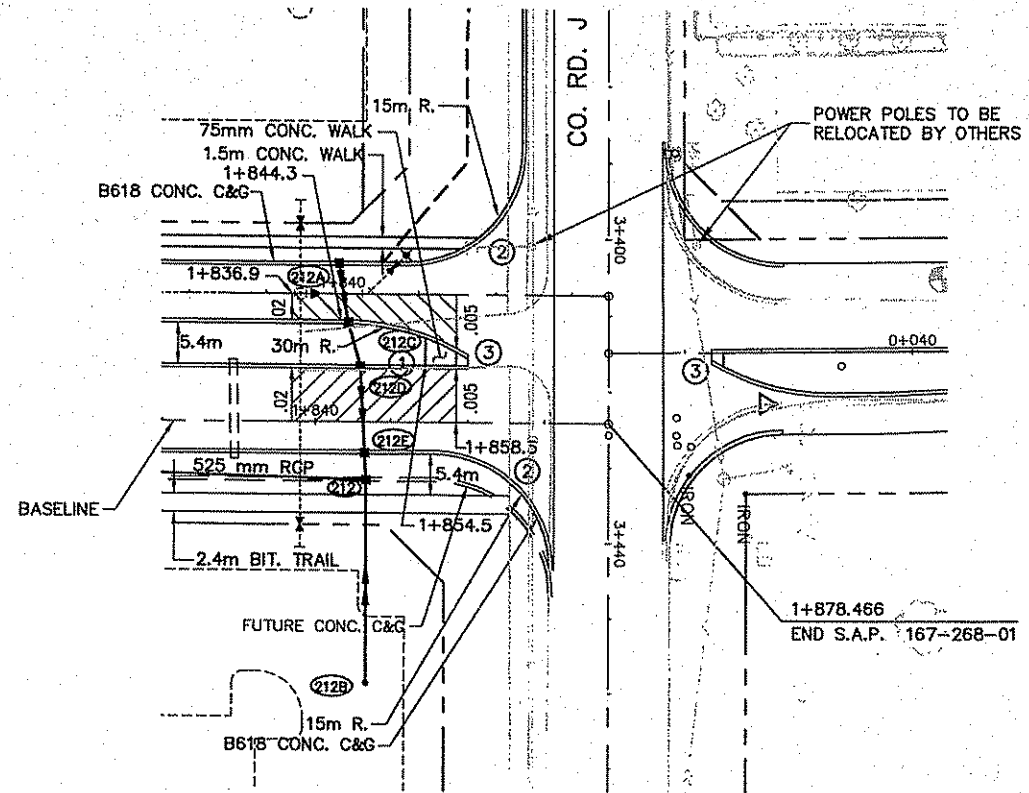
SHOREVIEW,
MINNESOTA

RICE CREEK PARKWAY
STREET & STORM SEWER

FILE NO.	52
ASHORE9804.02	
DATE	06/14/99
	131



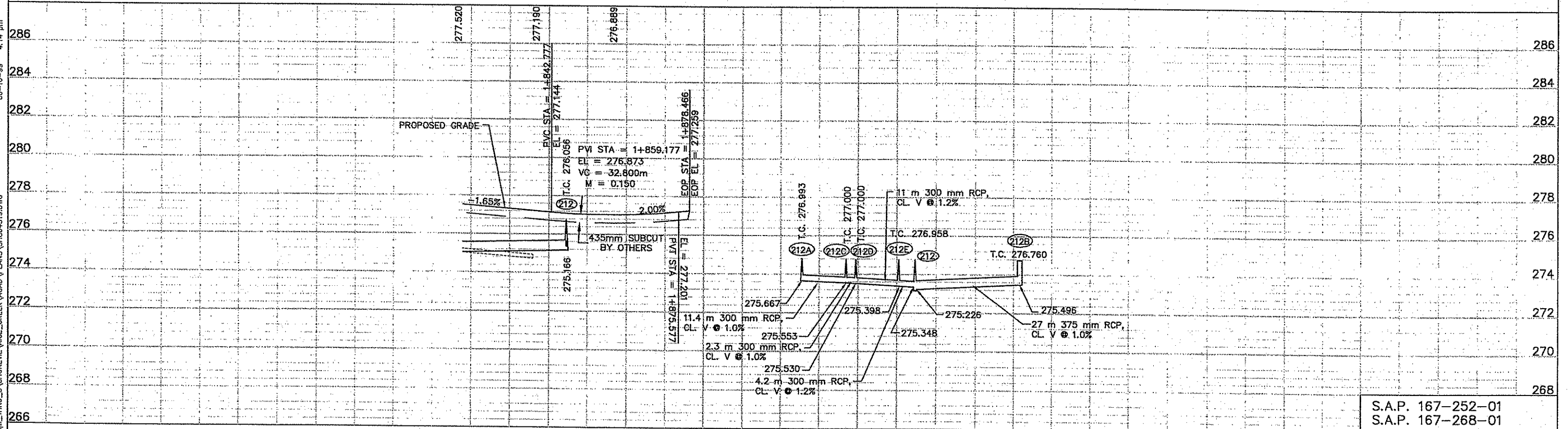
- ① CONSTRUCT CONCRETE MEDIAN NOSE AND ISLAND STD. PLATE M7109.
- ② DROP CURB FOR PED. RAMP, SEE DETAILS.
- ③ CONSTRUCT CONCRETE NOSE APPROACH STD. PLATE M7113.



NOTE: ALL STATIONING BASED OFF BASELINE.

RICE CREEK PARKWAY

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S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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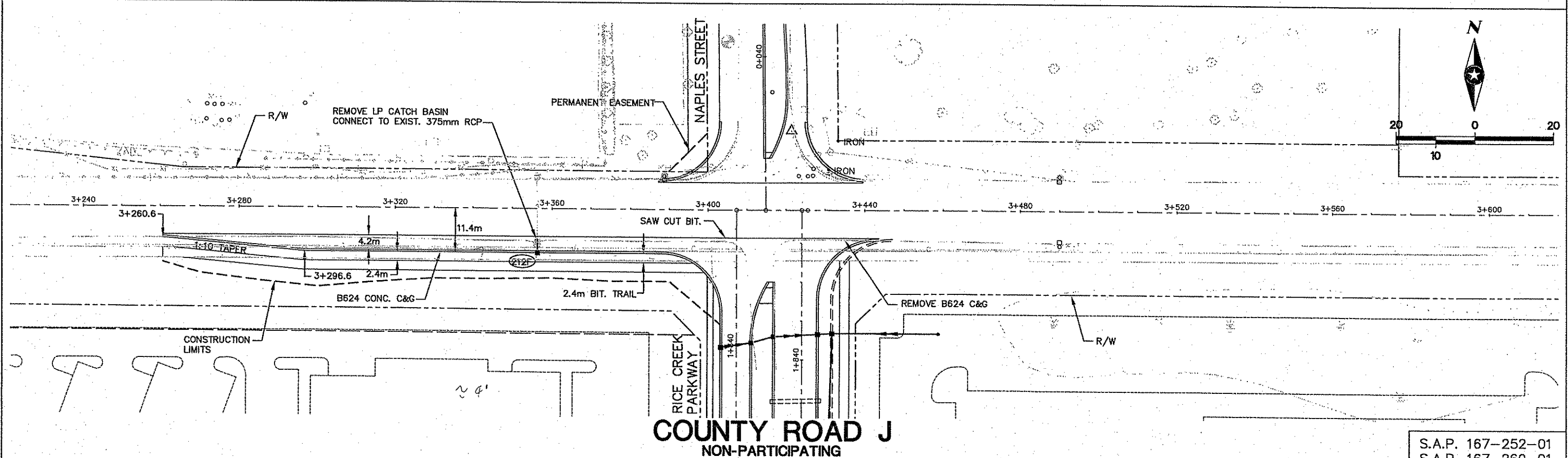
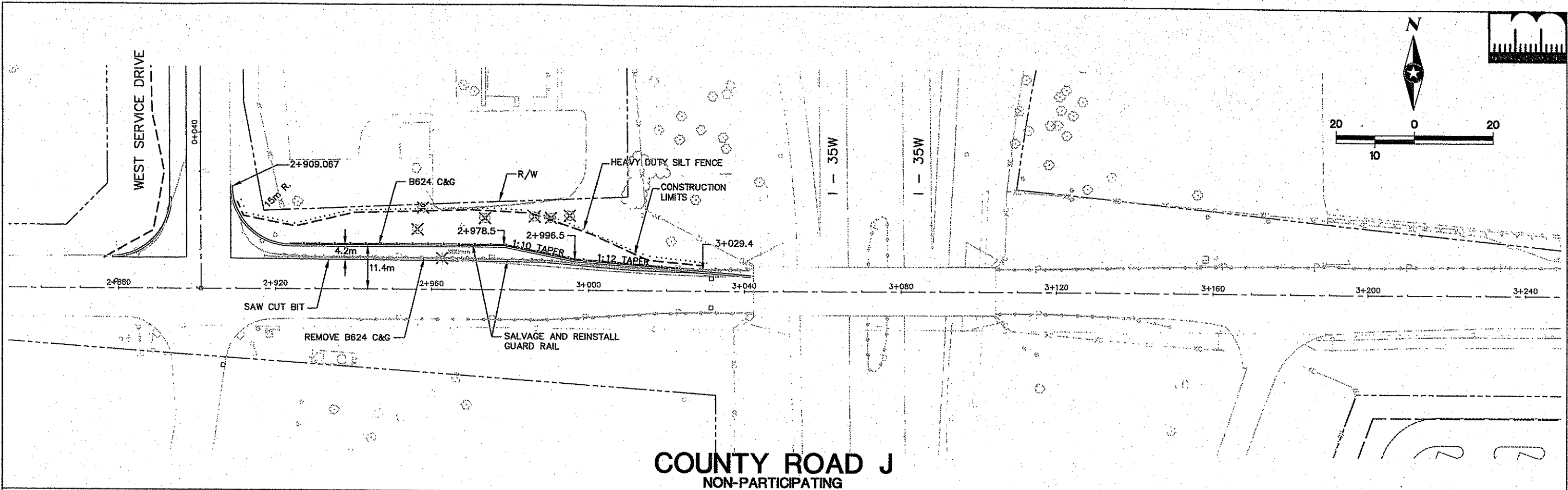
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Susan M. Johnson
Date: 06/14/99 Reg. No. 18612

SEH
PHONE: (651) 490-2000
3535 WADNAIS CENTER DR.
ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

**RICE CREEK PARKWAY
STREET & STORM SEWER**

FILE NO.	53
ASHORE9804.02	
DATE	06/14/99
	131



C:\CIVIL\CLIENTS\171\SHOREVIEW\ROAD\PLANS\SHOREVIEW.DWG
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DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

[Signature]
 Date: 06/14/99 Reg. No. 18612

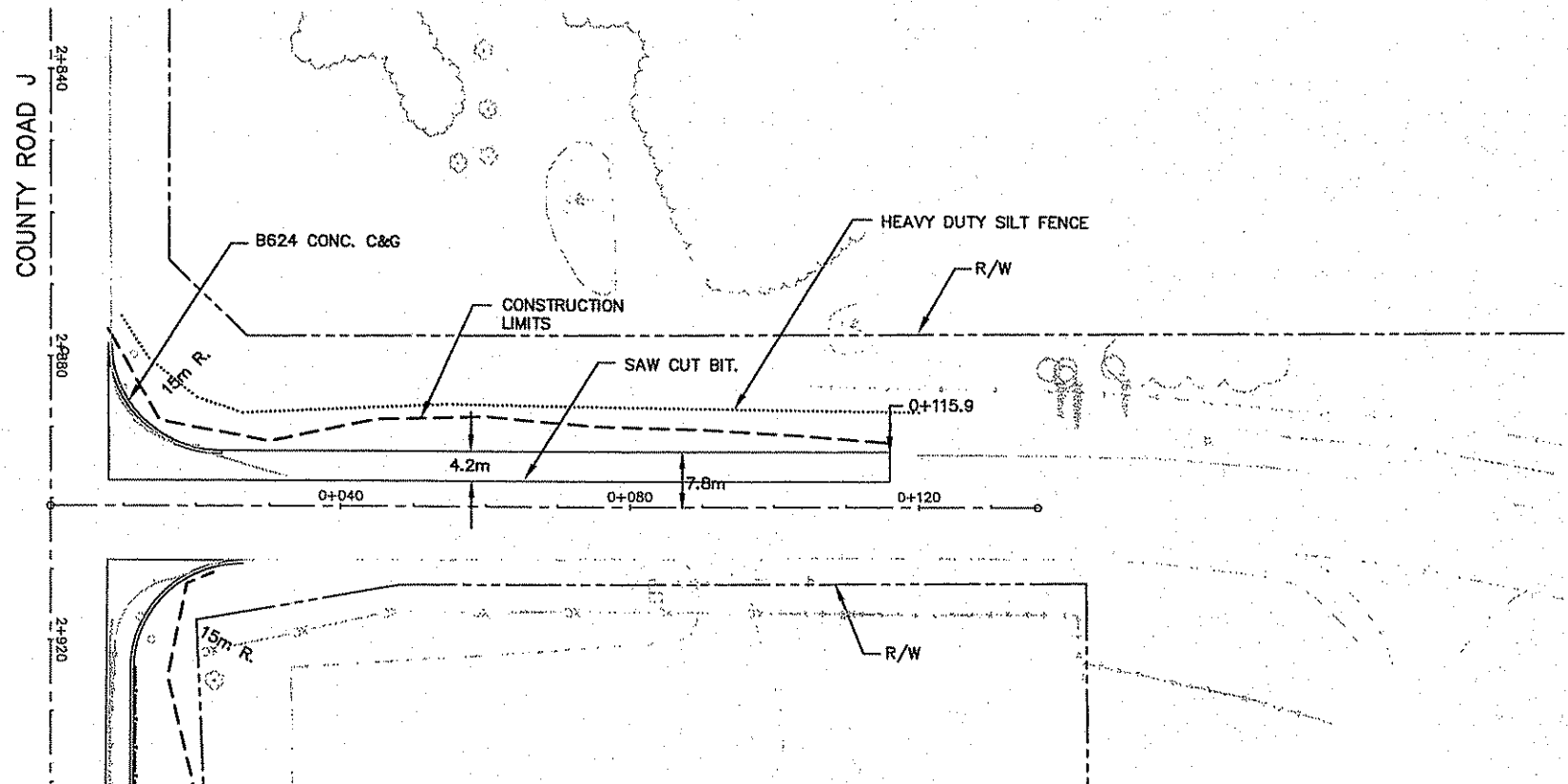
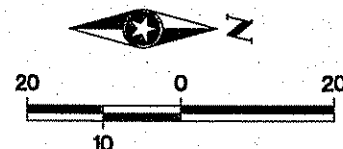
SEH
 PHONE: (651) 480-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

**COUNTY ROAD J
STREET & STORM SEWER**

S.A.P. 167-252-01
 S.A.P. 167-269-01

FILE NO. **54**
 ASHORE9804.02
 DATE 06/14/99
131



WEST SERVICE DRIVE
NON-PARTICIPATING

G:\CIVIL\CLIENTS\W_THRU\S\SHOREVIEW\DRIVE_CREEK\ACAD\PLANS\SERV-HD.DWG
 DATE: 06-28-99 5:51 am USER: CPU204SP
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DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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James M. Thomson
 Date: 06/14/99 Reg. No. 18512



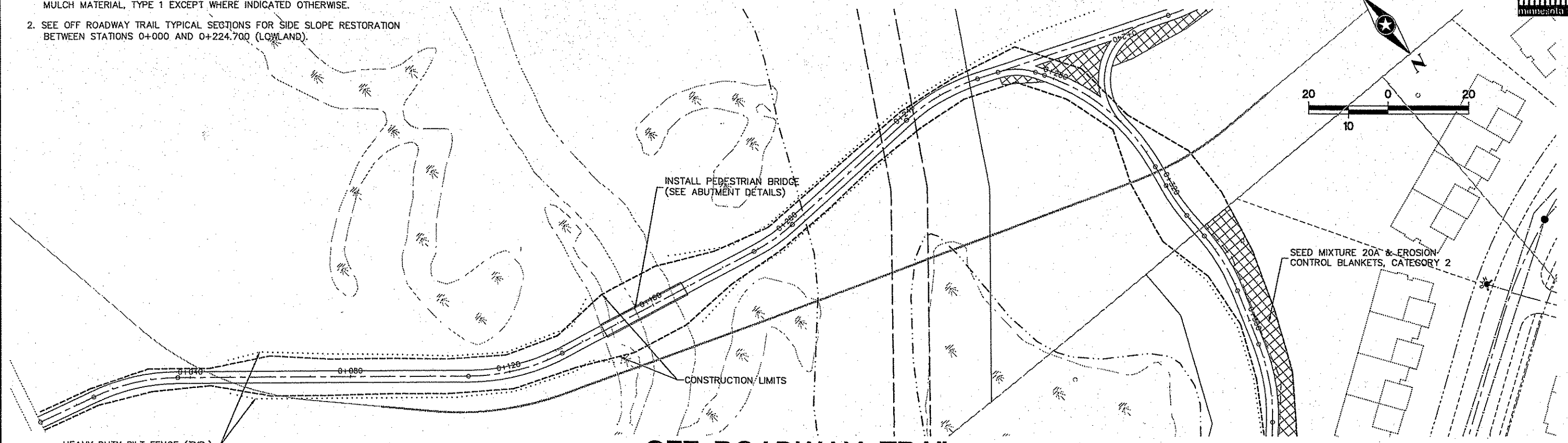
SHOREVIEW, MINNESOTA

WEST SERVICE DRIVE STREET & STORM SEWER

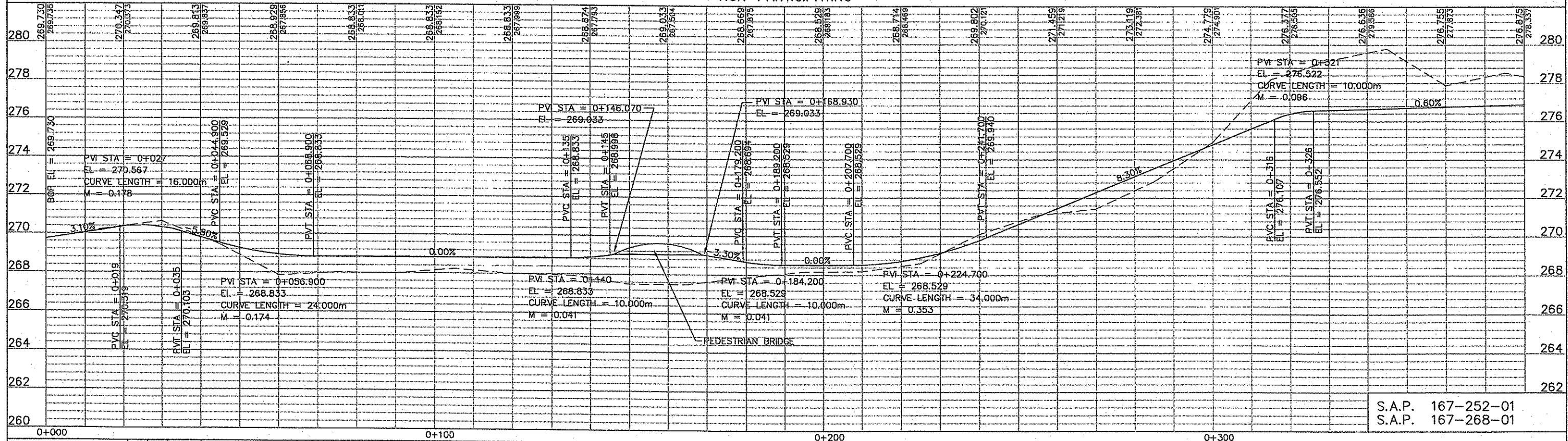
FILE NO.	ASHORE9804.02	55
DATE	06/14/99	131

S.A.P. 167-252-01
S.A.P. 167-268-01

- NOTES:
1. ALL DISTURBED AREAS TO BE RESTORED WITH SEED MIXTURE 20A AND MULCH MATERIAL, TYPE 1 EXCEPT WHERE INDICATED OTHERWISE.
 2. SEE OFF ROADWAY TRAIL TYPICAL SECTIONS FOR SIDE SLOPE RESTORATION BETWEEN STATIONS 0+000 AND 0+224.700 (LOWLAND).



OFF ROADWAY TRAIL NON-PARTICIPATING



DATE: 06-28-99; 10.43 emUSER: CPU160SP

D:\CIVIL\CLIENTS\W...THRILLS\SHOREVIEW\TRAIL\SCENIC EASEMENT\OFF ROADWAY TRAIL\NON-PARTICIPATING\OFF ROADWAY TRAIL.DWG

DRAWN BY:	STG
DESIGNER:	STG
CHECKED BY:	SMM
DESIGN TEAM	NO. BY DATE
REVISIONS	

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Jason M. Mason
Date: 06/14/99 Reg. No. 18612



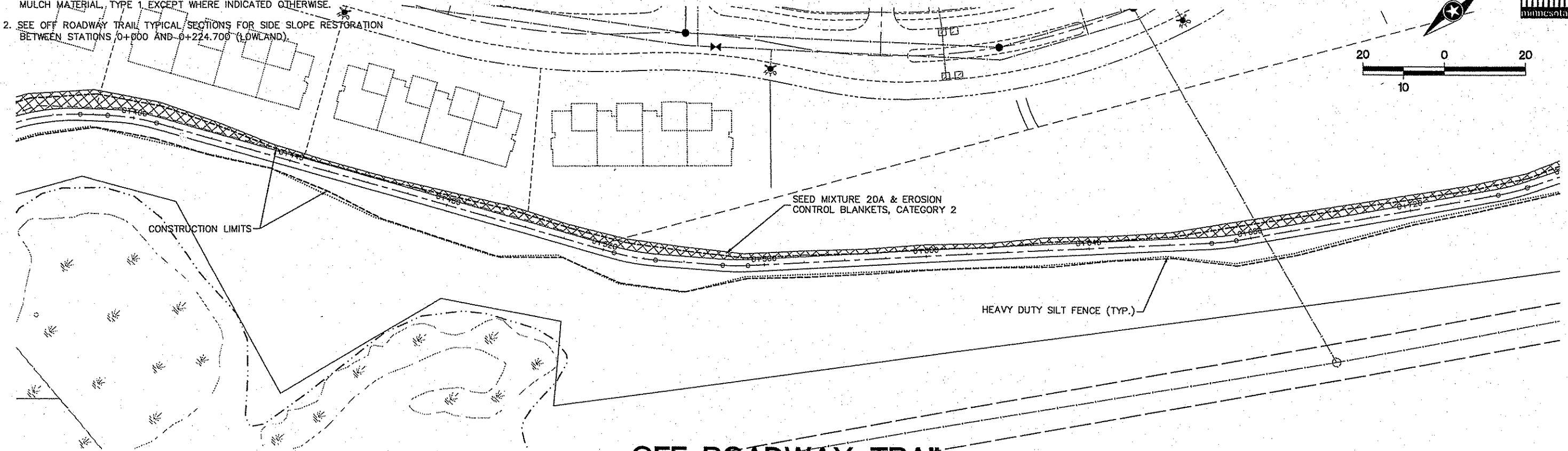
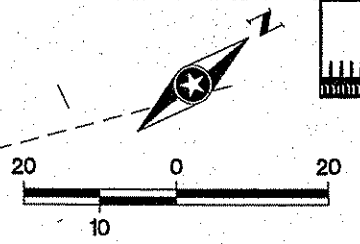
**SHOREVIEW,
MINNESOTA**

**OFF ROADWAY TRAIL
SCENIC EASEMENT**

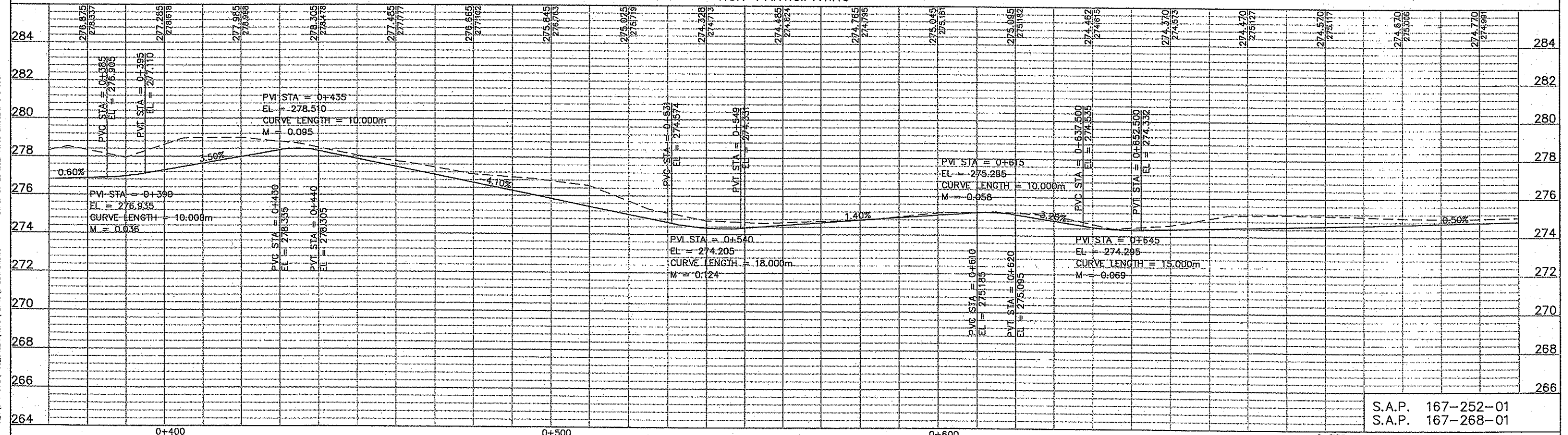
FILE NO.	58
ASHORE9804	
DATE	06/14/99
	131

S.A.P. 167-252-01
S.A.P. 167-268-01

- NOTES:
1. ALL DISTURBED AREAS TO BE RESTORED WITH SEED MIXTURE 20A AND MULCH MATERIAL, TYPE 1 EXCEPT WHERE INDICATED OTHERWISE.
 2. SEE OFF ROADWAY TRAIL TYPICAL SECTIONS FOR SIDE SLOPE RESTORATION BETWEEN STATIONS 0+000 AND 0+224.700 (LOWLAND).



OFF ROADWAY TRAIL NON-PARTICIPATING



S.A.P. 167-252-01
S.A.P. 167-268-01

C:\VCL\CLIENTS\M...SHOREVIEW\ICE_CHECK\ACAD\PLANS\SHOREVIEW.DWG DATE: 06-28-99 10:00 am USER: CPU160SP

DRAWN BY: STG	DESIGNER: STG	CHECKED BY: SMM
DESIGN TEAM	NO.	BY
	DATE	REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

John M. Morrison
Date: 06/14/99 Reg. No. 18612

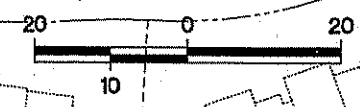
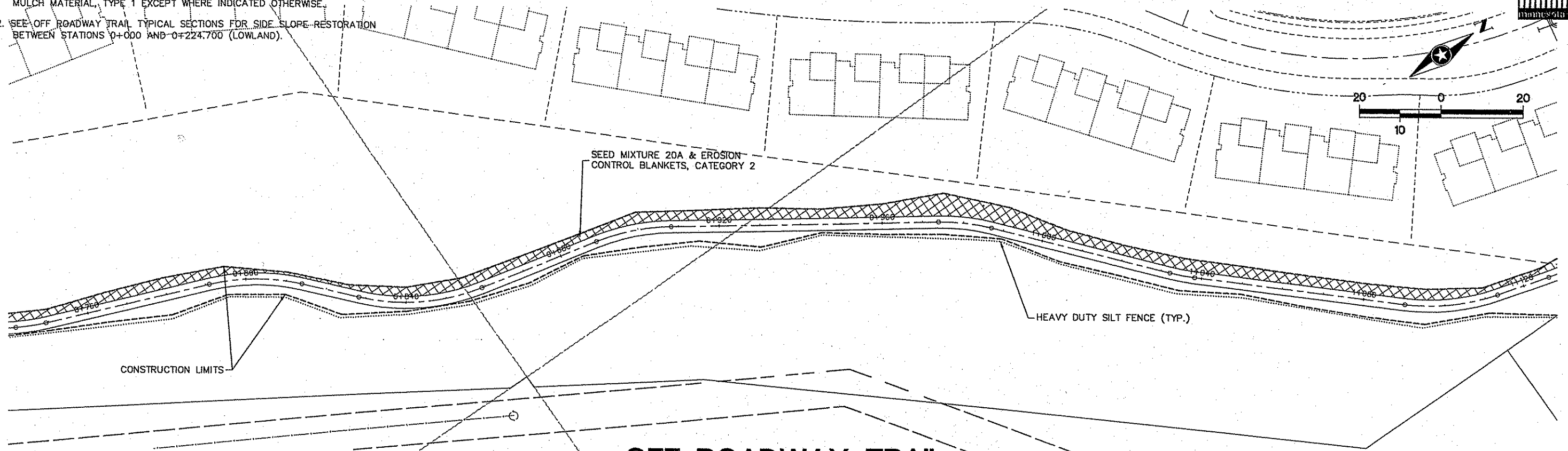


**SHOREVIEW,
MINNESOTA**

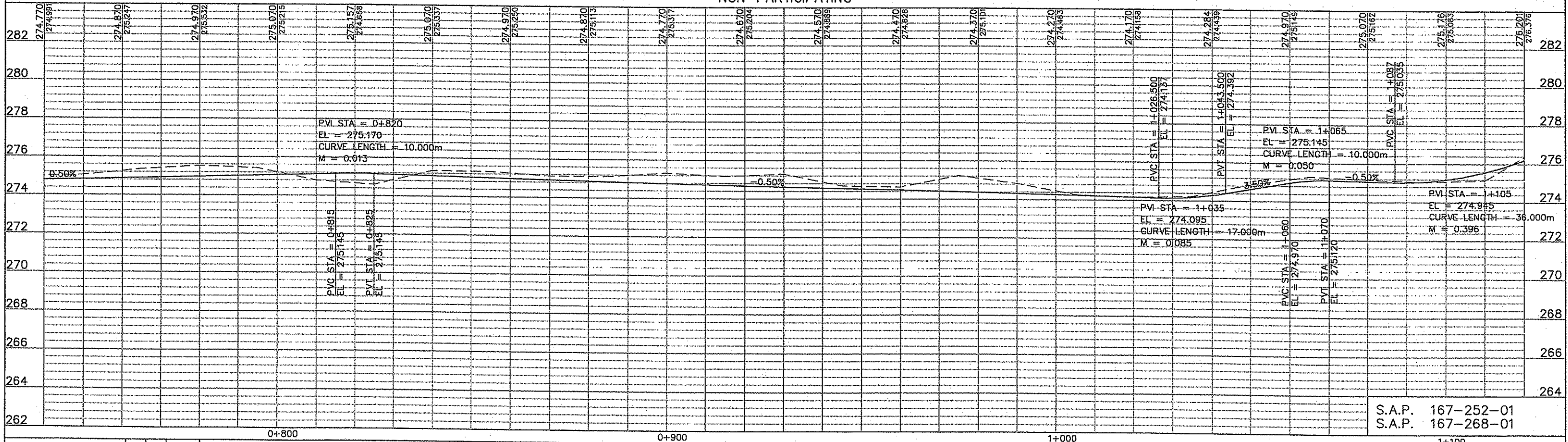
**OFF ROADWAY TRAIL
SCENIC EASEMENT**

FILE NO. ASHORE9804	59
DATE 06/14/99	131

- NOTES:
1. ALL DISTURBED AREAS TO BE RESTORED WITH SEED MIXTURE 20A AND MULCH MATERIAL, TYPE 1 EXCEPT WHERE INDICATED OTHERWISE.
 2. SEE OFF ROADWAY TRAIL TYPICAL SECTIONS FOR SIDE SLOPE RESTORATION BETWEEN STATIONS 0+000 AND 0+224.700 (LOWLAND).



OFF ROADWAY TRAIL NON-PARTICIPATING



S.A.P. 167-252-01
S.A.P. 167-268-01

Q:\CIVIL\CLIENTS\VA_THRU\VA_SHOREVIEW\VA_CREEK\ACAD\PLANS\SHOREVIEW.DWG DATE: 06-28-99 10:06 am USER: CPU1605P

DRAWN BY:	STG			
DESIGNER:	STG			
CHECKED BY:	SMM			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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James M. Moran
Date: 06/14/99 Req. No. 18612



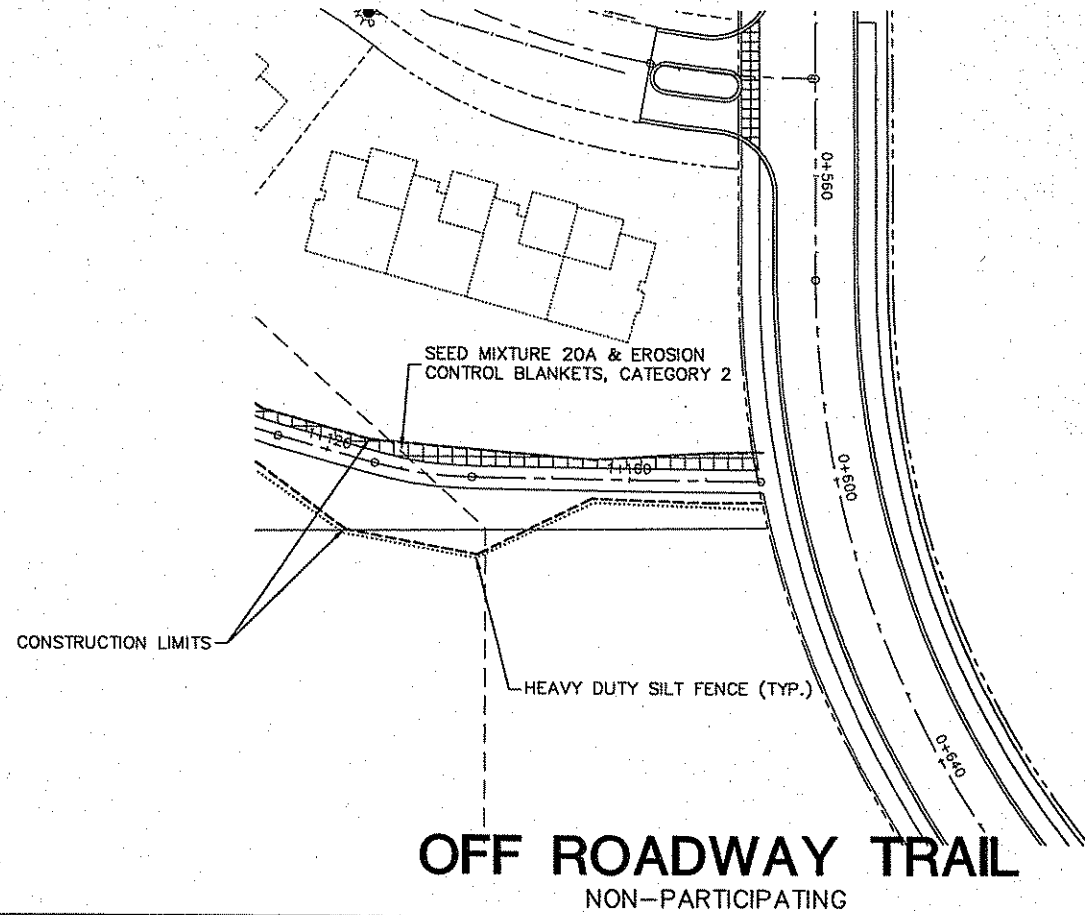
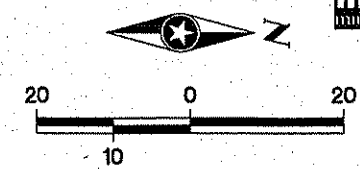
**SHOREVIEW,
MINNESOTA**

**OFF ROADWAY TRAIL
SCENIC EASEMENT**

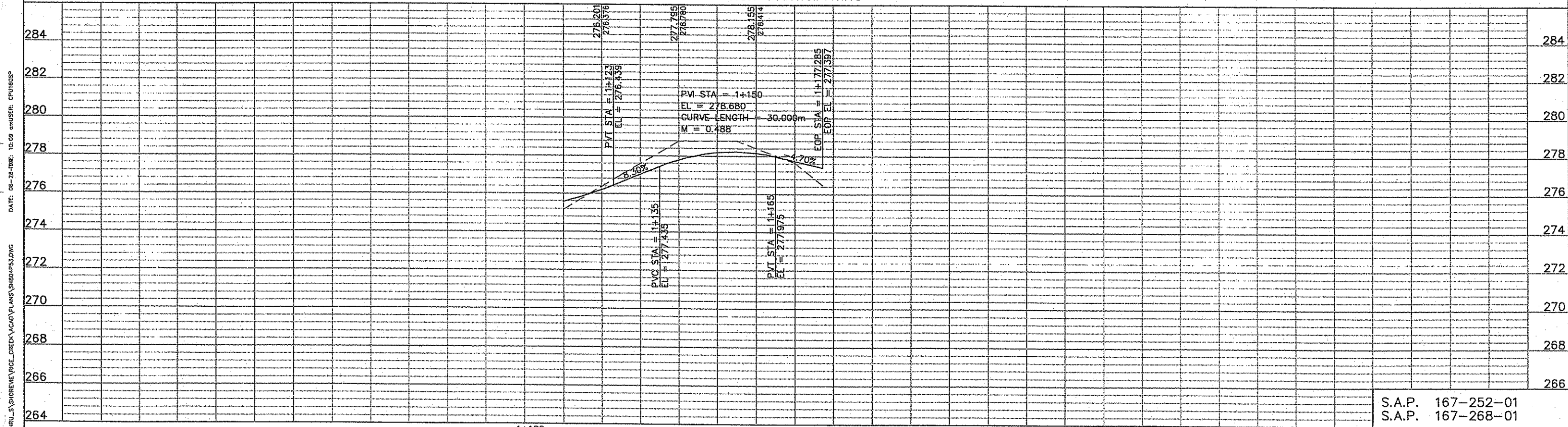
FILE NO.	60
ASHORE9804	
DATE	06/14/99
	131

NOTES:

1. ALL DISTURBED AREAS TO BE RESTORED WITH SEED MIXTURE 20A AND MULCH MATERIAL, TYPE 1 EXCEPT WHERE INDICATED OTHERWISE.
2. SEE OFF ROADWAY TRAIL TYPICAL SECTIONS FOR SIDE SLOPE RESTORATION BETWEEN STATIONS 0+000 AND 0+224.700 (LOWLAND).



OFF ROADWAY TRAIL
NON-PARTICIPATING



S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	STG		
DESIGNER:	STG		
CHECKED BY:	SMM		
DESIGN TEAM		NO.	BY DATE REVISIONS

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Date: 06/14/98 Reg. No. 18612

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

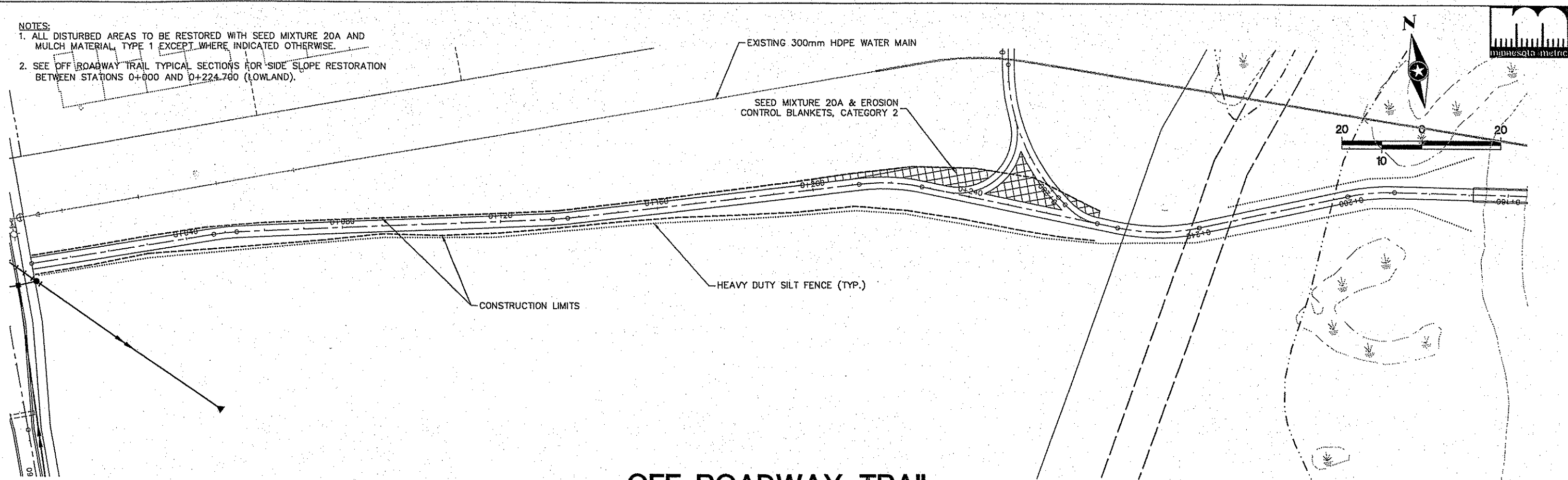
SHOREVIEW, MINNESOTA

OFF ROADWAY TRAIL SCENIC EASEMENT

FILE NO. ASHORE9804
DATE 06/14/99
61
131

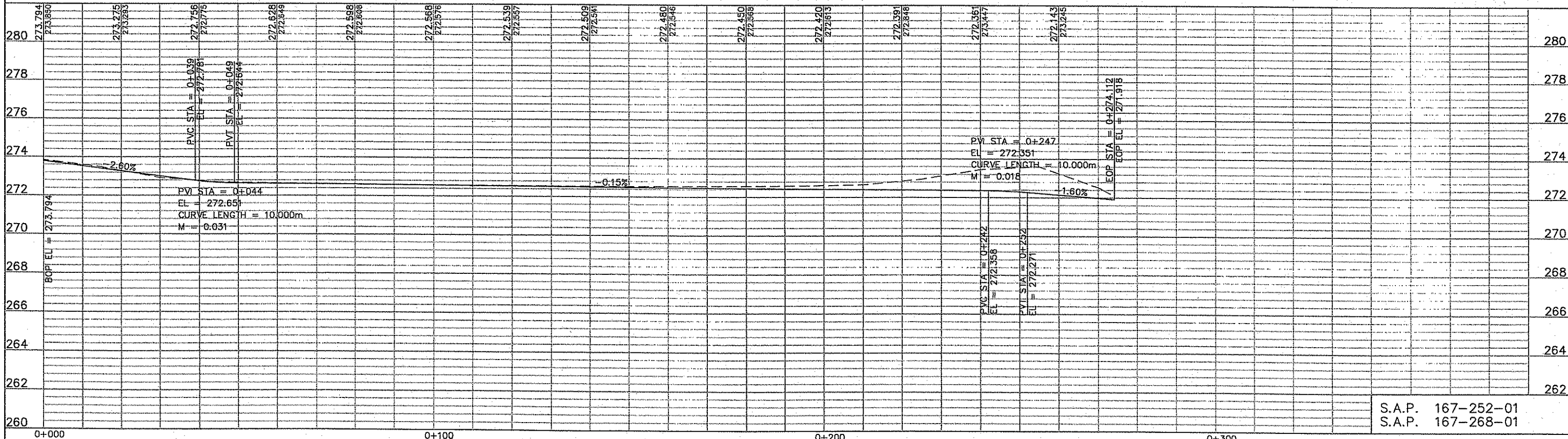
G:\CIVIL\CLIENTS\VA_THRU_S\SHOREVIEW\CRICK\ACAD\PLANS\SHOREVIEW.P3.DWG DATE: 06-28-98 TIME: 10:09 am USER: CPJ16GSP

- NOTES:
1. ALL DISTURBED AREAS TO BE RESTORED WITH SEED MIXTURE 20A AND MULCH MATERIAL, TYPE 1 EXCEPT WHERE INDICATED OTHERWISE.
 2. SEE OFF ROADWAY TRAIL TYPICAL SECTIONS FOR SIDE SLOPE RESTORATION BETWEEN STATIONS 0+000 AND 0+224.760 (LOWLAND).



OFF ROADWAY TRAIL

NON-PARTICIPATING



DATE: 05-28-99 10:11 am USER: CPU180GP

C:\CIVIL\CLIENTS\M_THRU\S\SHOREVIEW\RISE_CREEK\ACAD\PLANS\SHOREVIEW.DWG

DRAWN BY: STG			
DESIGNER: STG			
CHECKED BY: SMM			
DESIGN TEAM	NO.	BY	DATE
			REVISIONS

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Jason M. Mason
Date: 06/14/99 Reg. No. 18612

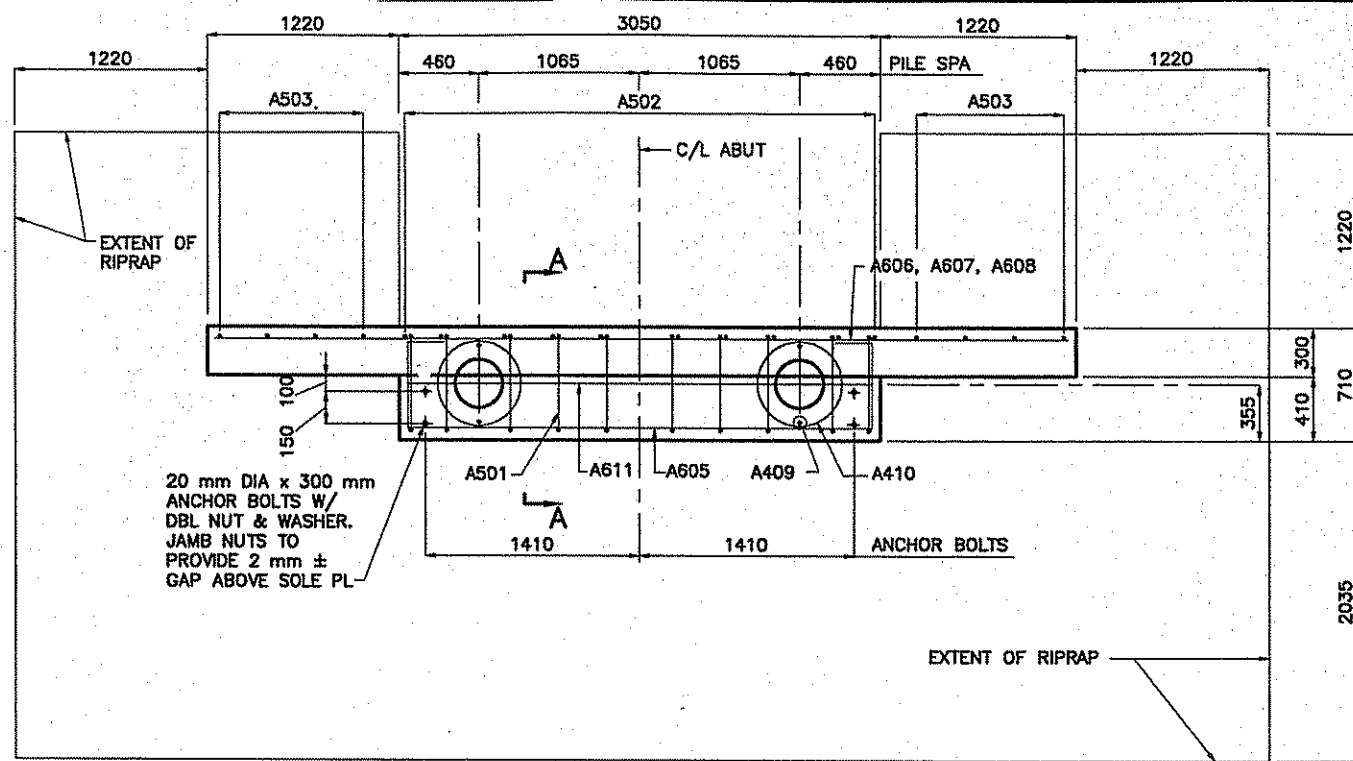
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

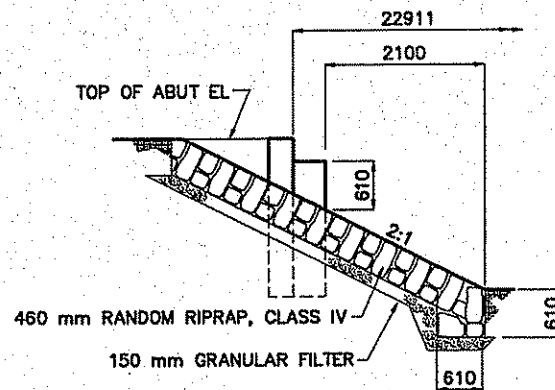
**OFF ROADWAY TRAIL
REGIONAL POND**

S.A.P. 167-252-01
S.A.P. 167-268-01

FILE NO. ASHORE9804	62
DATE 06/14/99	131



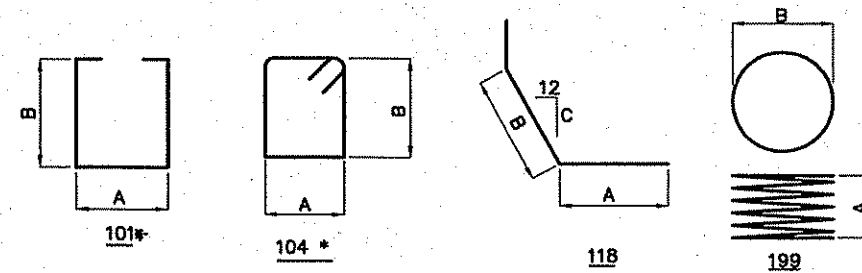
PLAN



TYPICAL RIPRAP SECTION

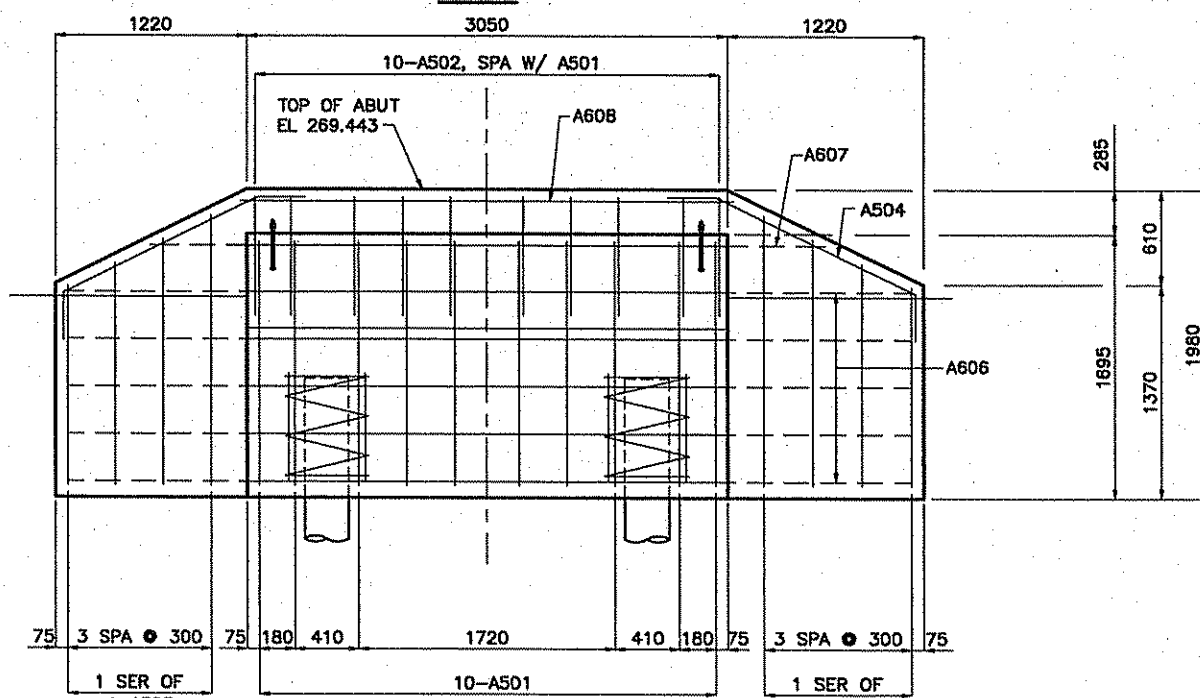
BAR MARK	NO. OF SERIES	NO. OF BARS	LENGTH	TYPE	DIMENSION				LOCATION
					A	B	C	D	
ABUTMENTS									
(TOTAL BOTH ABUTMENTS)									
A501		20	4590	104	610	1570			VERT
A502		20	1750	130	200	760			VERT
A503	4	4	1270	STR					VERT
			1725						
A504		4	1920	118	300	1320	6		WALL TOP
A605		12	4625	101	2945	610			HORIZ
A606		10	5385	STR					HORIZ
A607		2	4265	STR					HORIZ
A608		4	3100	STR					HORIZ
A409		8	685	STR					PILE
A410		4	8535	199	610	535			PILE
A611		2	2945	STR					HORIZ

BAR BEND DIAGRAMS

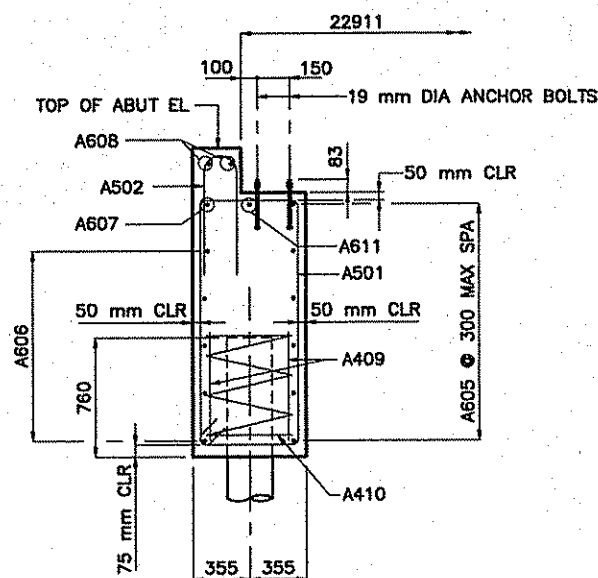


NOTE:
BENT BAR DIMENSIONS GIVEN ARE OUT-TO-OUT. ACTUAL BAR LENGTHS SHALL BE DETERMINED BASED ON DIMENSIONS SHOWN IN THE BAR BENDING DIAGRAMS. TOTAL BAR LENGTHS SHOWN ARE FOR USE IN COMPUTING REINFORCEMENT BAR WEIGHTS FOR PAYMENT ONLY.

* BAR TYPE USES STANDARD STIRRUP AND TIE HOOKS.



ELEVATION



SECTION A-A

SUMMARY OF QUANTITIES (TOTAL BOTH ABUTMENTS)

ITEM NO.	ITEM	UNIT	QUANTITY
2401.501	STRUCTURE CONCRETE (3Y43)	m ³	11 (P)
2401.541	REINFORCEMENT BARS	kg	470 (P)
2402.533	ERECTING STRUCTURAL METALS	kg	7985
2451.501	STRUCTURE EXCAVATION	LUMP SUM	1
2452.503	TREATED TIMBER PILING DELIVERED	m	32
2452.504	TREATED TIMBER PILING DRIVEN	m	32
2511.501	RANDOM RIPRAP, CLASS IV	m ³	26 (P)
2511.511	GRANULAR FILTER	m ³	9 (P)
2402.521	STRUCTURAL STEEL (3306)	kg	9

(P) PLAN QUANTITY

QUANTITIES SHOWN ARE A TOTAL OF BOTH ABUTMENTS

- ① INCLUDES SPIRAL REINFORCEMENT
- ② TRANSPORT AND ERECT ON ABUTMENTS THE CITY OWNED PREFABRICATED CONTINENTAL TRUSS LOCATED AT CITY OF SHOREVIEW MAINTENANCE YARD, 4615 VICTORIA ST, SHOREVIEW, MN 55126 CONTACT TODD HOWARD (651)490-4686 WEIGHT IS APPROXIMATE FOR TRUSS WITH DECK.
- ③ ANCHOR BOLTS, NUTS & WASHERS.

CONSTRUCTION NOTES

CONSTRUCTION SPECIFICATION
THE 1996 EDITION OF THE MN/DOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION", AND SUPPLEMENTS

ACCESS FOR BRIDGE CONSTRUCTION AND USE OF TRAIL AS A HAUL ROAD IS INCIDENTAL TO BRIDGE AND SHALL INCLUDE ANY NECESSARY SURFACING AND RESTORATION.

THE FIRST DIGIT OR THE FIRST TWO DIGITS OF EACH BAR MARK INDICATE THE BAR SIZE.

DRAWINGS ARE NOT TO BE SCALED.

DESIGN DATA

DESIGN LOADING, GREATER OF
PEDESTRIAN 2.87 kN/m² UNIFORM
VEHICLE 44.5 kN CONCENTRATED

MATERIALS
REINFORCED CONCRETE: MnDOT MIX (3Y43)
f_c=28 MPa, n=8
f_y=420 MPa REINFORCEMENT NON-COATED

S.A.P. 167-252-01
S.A.P. 167-268-01

NOT TO SCALE

22860 mm x 2440 mm
PEDESTRIAN BRIDGE
ABUTMENT DETAILS

FILE NO.	63
DATE	06/14/99

COMPUTED PILE LOADS	
KN PER PILE	
DEAD LOAD + EARTH PRESSURE	88
LIVE LOAD	38
* DESIGN LOAD	126

* $\frac{126}{1.0} = 126$: REDUCTION PER A.A.S.H.T.O. 3. 22 GROUP 1 LOADING.

PILE NOTES:

PILE SPACING SHOWN IS AT BOTTOM OF FOOTING.
2 TREATED TIMBER PILES ESTIMATED LENGTH 8 m LONG FOR EACH ABUTMENT
PILES TO BE DRIVEN TO 135 kN/ PILE

NON-PARTICIPATING



SHOREVIEW
MINNESOTA

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
Date: 06/14/99 Reg. No. 17280

06-28-99 10:04 am gnu72sp

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



SIGN PANELS TYPE C

Table with columns: SIGN NO., QUANT., POSTS (NO. & TYPE, KNEE BRACES QUANT., LENGTH (m) (4)), MTG HT. (FT.) (1), SIZE (IN.), AREA (SQ FT), TOTAL AREA (SQ FT), TOTAL AREA (m2), CODE NO., PANEL LEGEND. Rows include C-1 through C-46 with various sign types and quantities.

SPECIFIC NOTES:

- (1) Mounting height is minimum, see "C" & "D" sign detail sheets for typical mounting.
(2) Mount back to back.
(3) Mount in concrete, see sign detail sheet.
(4) Posts lengths are approximate and include embedment, but do not include additional length required for splice.
(5) Mount below sign C-111

SIGN PANEL DIMENSIONS ARE IN INCHES

Table with columns: DRAWN BY, DESIGNER, CHECKED BY, DESIGN TEAM, NO., BY, DATE, REVISIONS.

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SHOREVIEW, MINNESOTA

SIGNING AND STRIPING TABULATIONS

Table with columns: FILE NO., DATE, 64, 131

SALVAGE SIGNS TYPE C

Table with columns: SIGN NO., QUANT., POSTS (NO. & TYPE, KNEE BRACES QUANT.), PANEL SIZE (IN.), PANEL LEGEND. Rows include C-100 through C-112 with salvage sign types and quantities.

INSTALL SIGN TYPE C

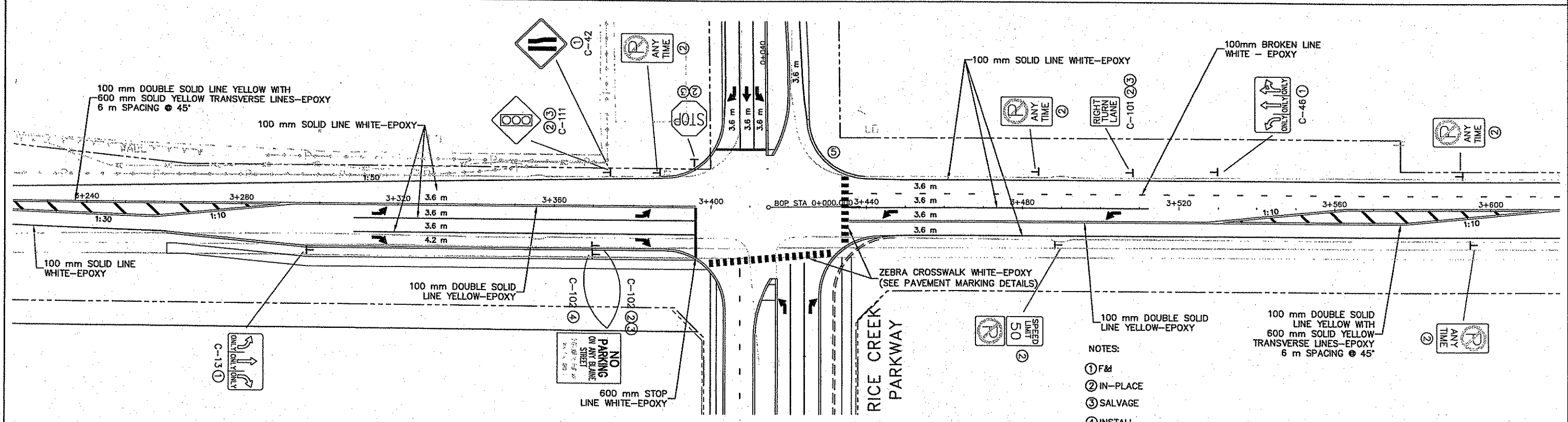
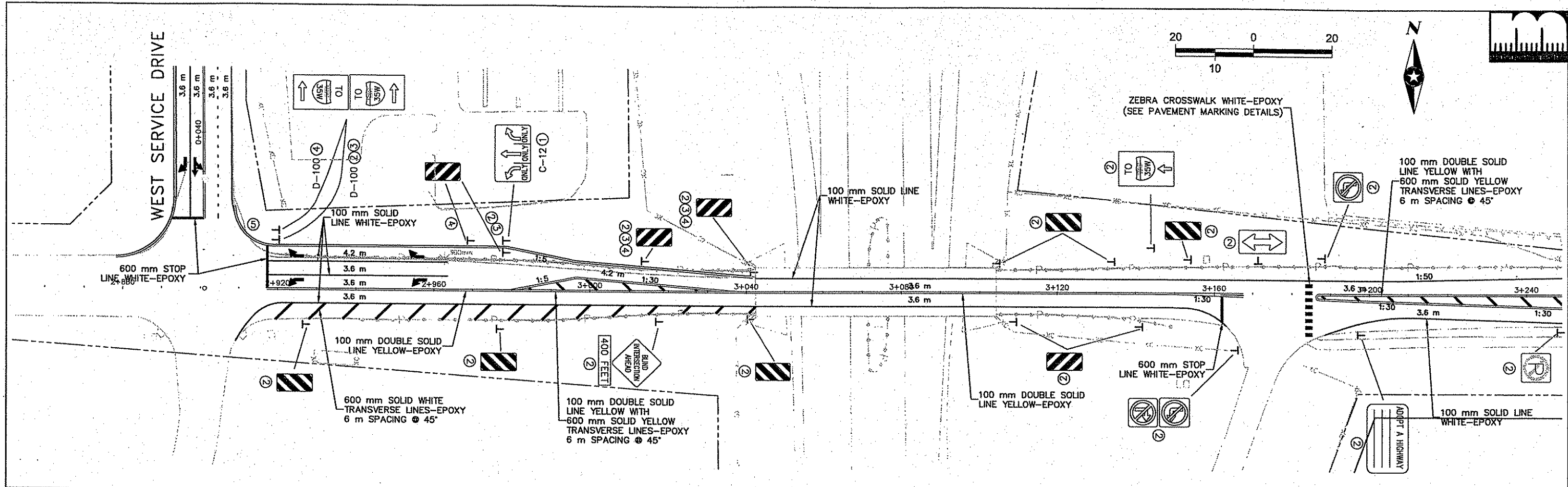
Table with columns: SIGN NO., QUANT., POSTS (NO. & TYPE, KNEE BRACES QUANT.), MTG HT. (FT.) (1), PANEL SIZE (IN.), PANEL LEGEND. Rows include C-102 through C-111 with install sign types and quantities.

GENERAL NOTES:

- 1) Location of all signs and pavement markings shown are approximate and shall be located by the Engineer in the field prior to installation.
2) See Standard Signs Manual for detailed drawings of Type "C" sign panels.
3) Punching codes for Type "C" sign panels shall be governed by the number of sign posts specified on the plans at each location (not what is shown on the detailed drawings in the Standard Signs Manual).
4) Mounting heights of sign panels shall conform to standards set forth in Special Provisions.
5) All traffic control devices shall conform to Minnesota Manual on Uniform Traffic Control Devices, including Field Manual (dated January 1998).
6) Coordinate installation of all sign posts and pavement markings with sidewalk, road and median construction.
7) Maintain in place all signs not specified, unless otherwise approved by the Engineer.

S.A.P. 167-252-01
S.A.P. 167-268-01

05-17-99 4:15 pm gpi20gp



COUNTY ROAD "J"
NON-PARTICIPATING

- NOTES:
- ① F&D
 - ② IN-PLACE
 - ③ SALVAGE
 - ④ INSTALL
 - ⑤ SALVAGE AND REINSTALL ROUND METAL POST STREET NAME SIGN

DRAWN BY: MT
 DESIGNER: TD
 CHECKED BY: JH

DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Date: 06/14/99 Reg. No. 25789

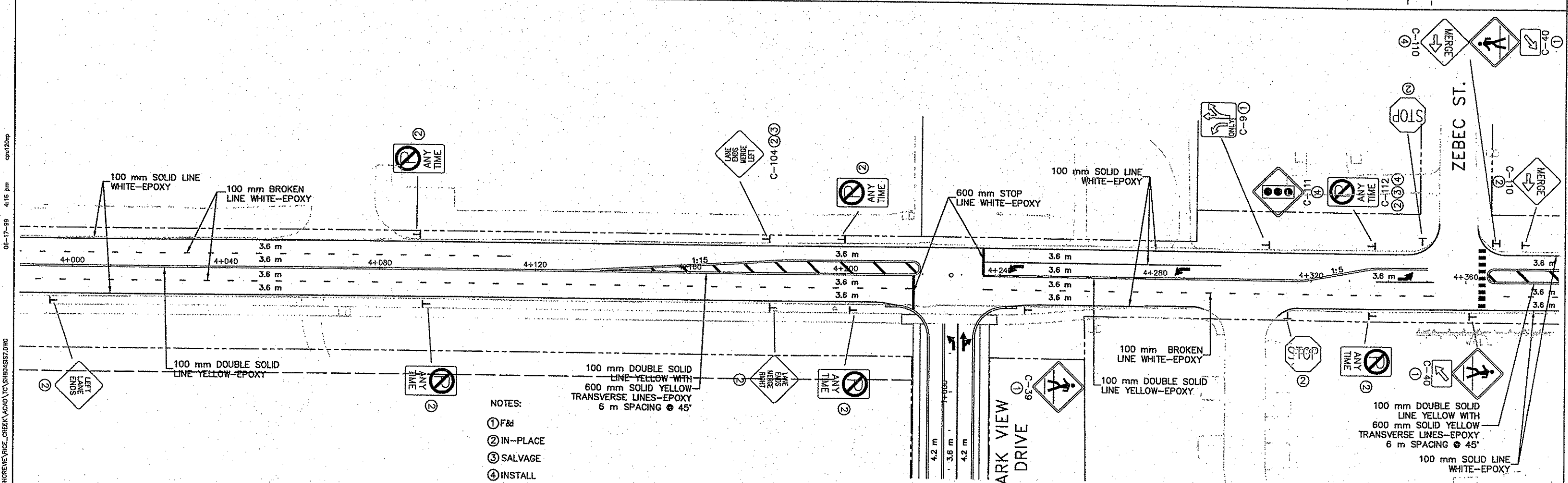
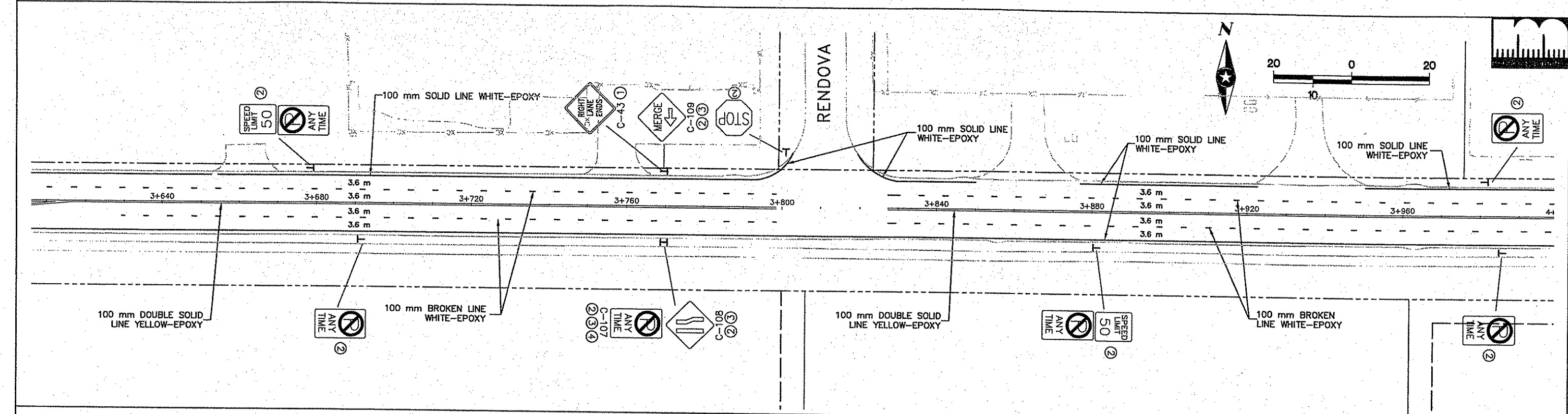


SHOREVIEW, MINNESOTA

COUNTY ROAD "J" SIGNING & STRIPING

FILE NO.: 66
 ASHORE9804
 DATE: 06/14/99
 131

S.A.P. 167-252-01
 S.A.P. 167-268-01



- NOTES:
- ① F&
 - ② IN-PLACE
 - ③ SALVAGE
 - ④ INSTALL

COUNTY ROAD "J"

NON-PARTICIPATING

DRAWN BY:	MT				
DESIGNER:	TD				
CHECKED BY:	JH				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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John M. Jagan

Date: 06/14/99 Reg. No. 25789



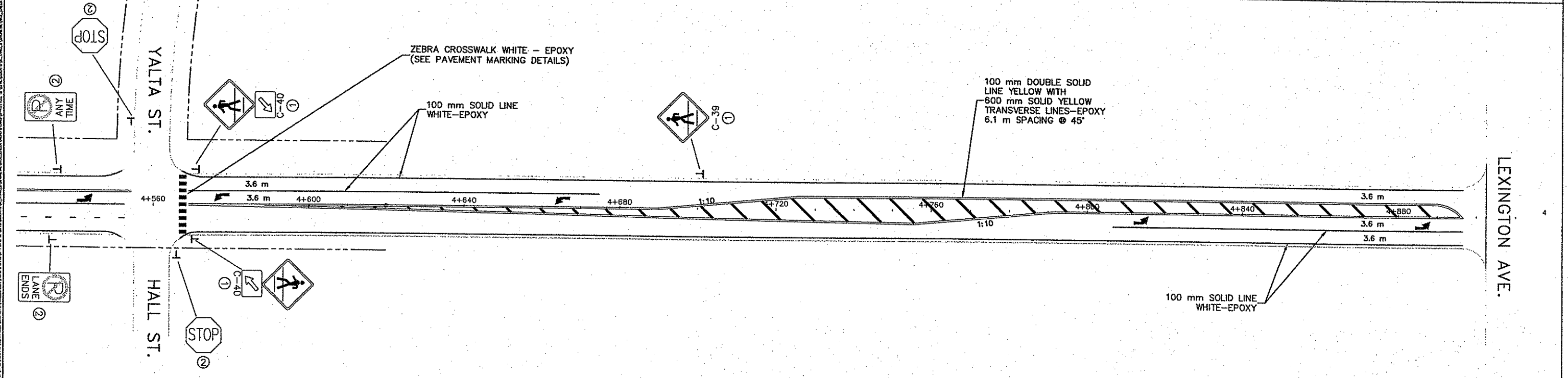
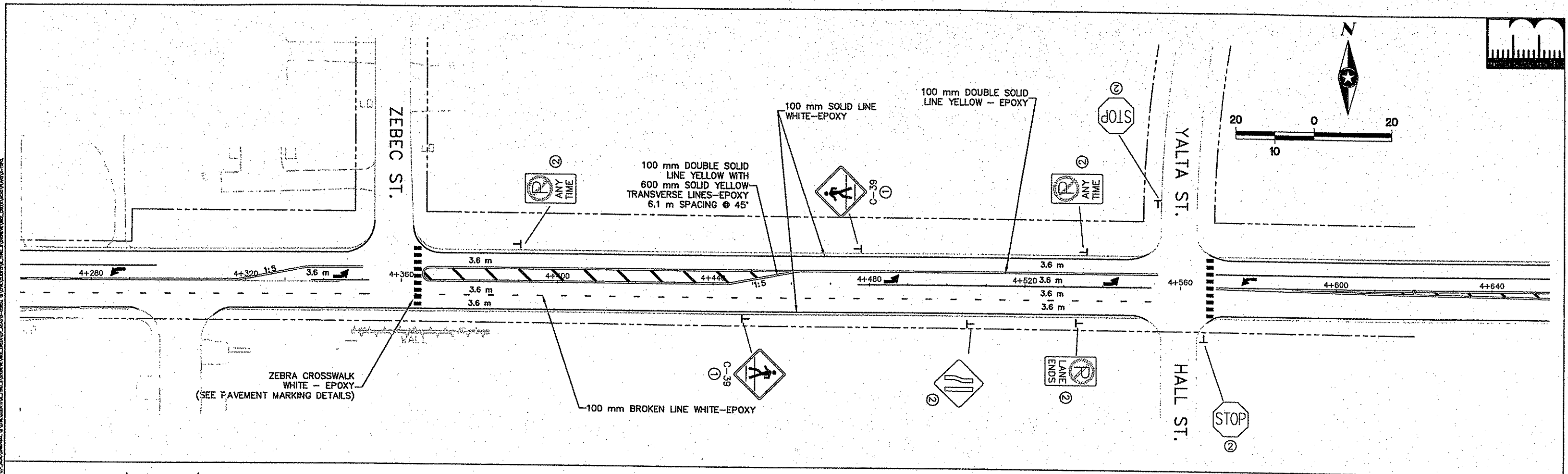
**SHOREVIEW,
MINNESOTA**

**COUNTY ROAD "J"
SIGNING & STRIPING**

S.A.P. 167-252-01
S.A.P. 167-268-01

FILE NO. ASHORE9804	67
DATE 06/14/99	131

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NOTES:
 ① F&D
 ② IN-PLACE

COUNTY ROAD "J"
 NON-PARTICIPATING

DRAWN BY:	MT			
DESIGNER:	TD			
CHECKED BY:	JH			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John M. Stige
 Date: 06/14/99 Reg. No. 25789

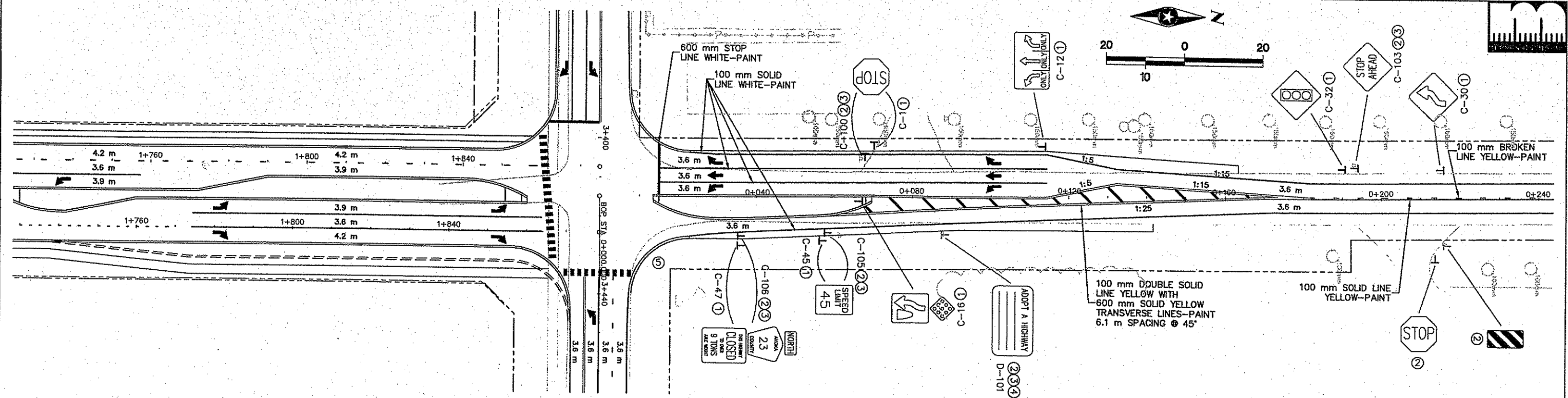


SHOREVIEW, MINNESOTA

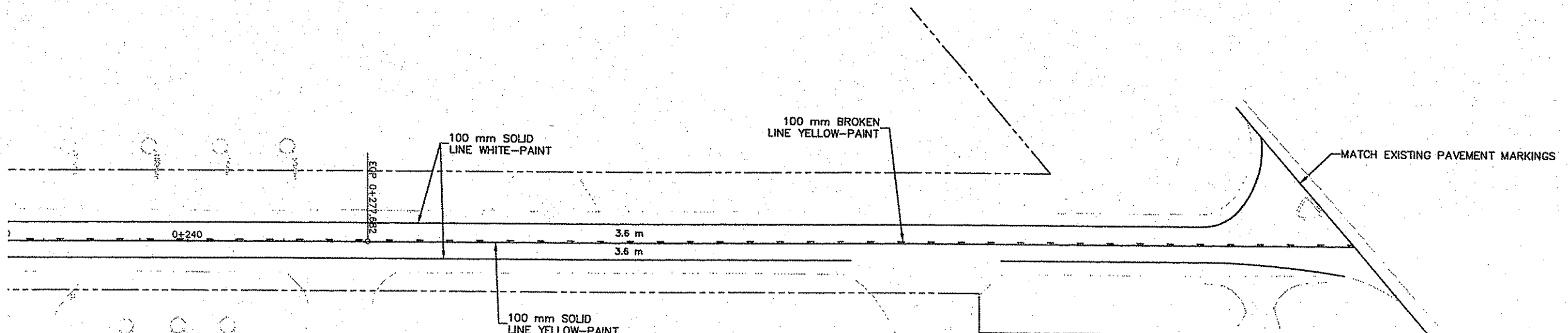
COUNTY ROAD "J" SIGNING & STRIPING

S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	68
DATE	06/14/99
	131



NAPLES STREET
NON-PARTICIPATING



NAPLES STREET
NON-PARTICIPATING

- NOTES:
- ① F&I
 - ② IN-PLACE
 - ③ SALVAGE
 - ④ INSTALL
 - ⑤ SALVAGE AND REINSTALL AND METAL POST STREET NAME SIGN

S.A.P. 167-252-01
S.A.P. 167-268-01

DRAWN BY:	MT			
DESIGNER:	TD			
CHECKED BY:	JH			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John M. Johnson

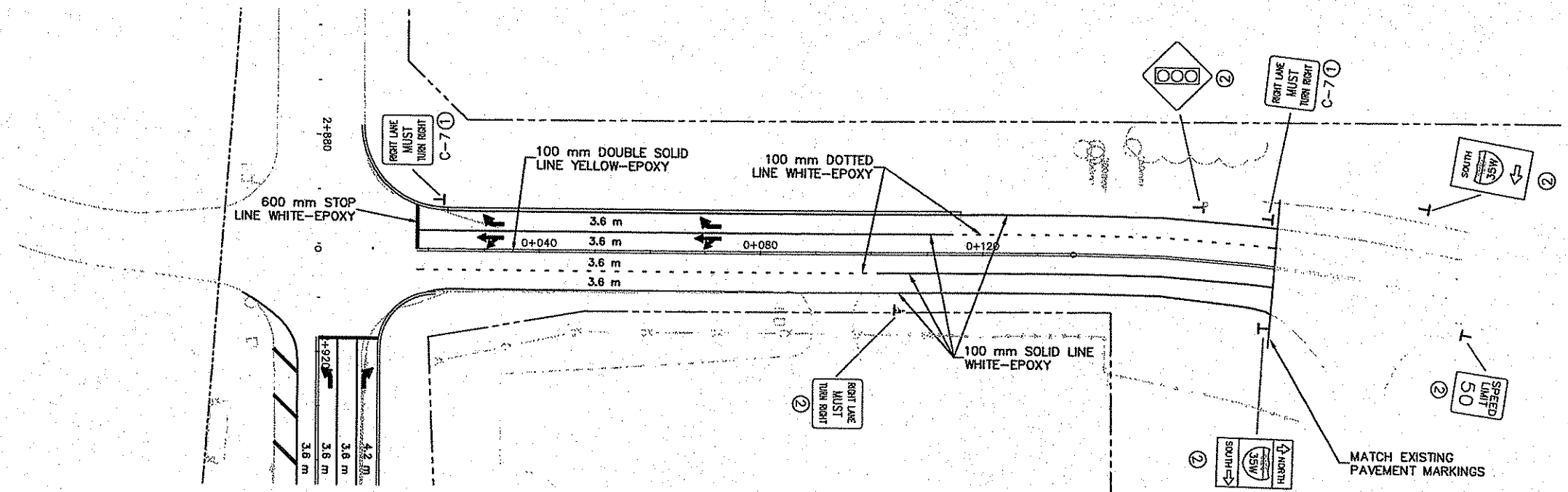
Date: 06/14/99 Reg. No. 25789

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**SHOREVIEW,
MINNESOTA**

**NAPLES STREET
SIGNING & STRIPING**

FILE NO.	ASHORE9804	69
DATE	06/14/99	



WEST SERVICE DRIVE
NON-PARTICIPATING

NOTES:

- ① F&I
- ② IN-PLACE
- ③ SALVAGE
- ④ INSTALL
- ⑤ SALVAGE AND REINSTALL AND METAL POST STREET NAME SIGN

S.A.P. 167-252-01
S.A.P. 167-268-01

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CHECKED BY:	JH
DESIGN TEAM	

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John M. Stige
Date: 06/14/99 Req. No. 25789



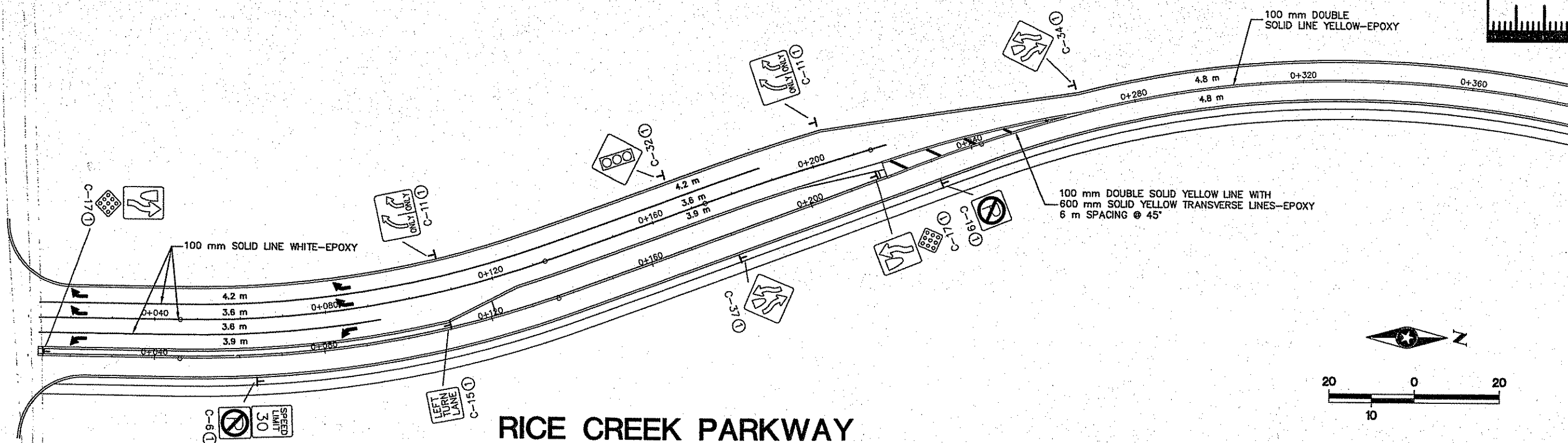
**SHOREVIEW,
MINNESOTA**

**WEST SERVICE DRIVE
SIGNING & STRIPING**

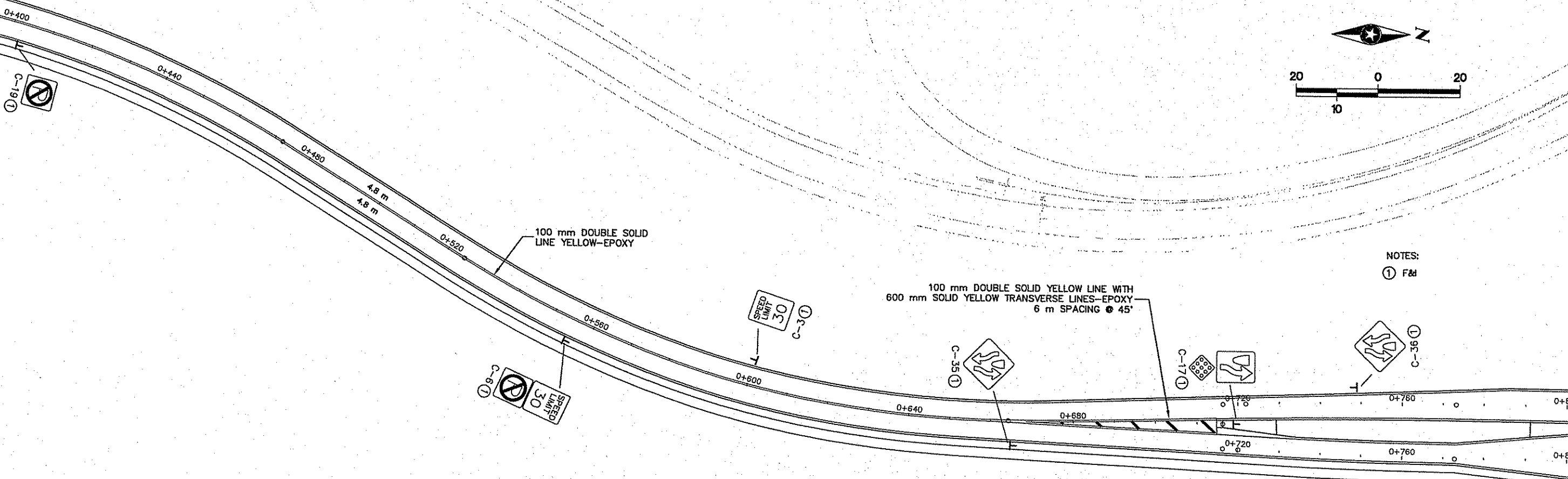
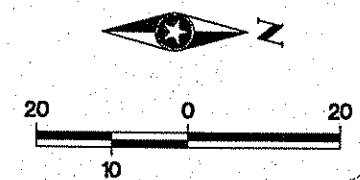
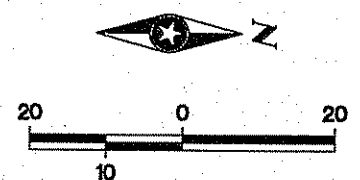
FILE NO.	70
DATE	06/14/99
	131



COUNTY ROAD I



RICE CREEK PARKWAY



RICE CREEK PARKWAY

NOTES:
① F&I

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DESIGNER:	TD			
CHECKED BY:	JH			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John M. Oja

Date: 06/14/99 Reg. No. 25789



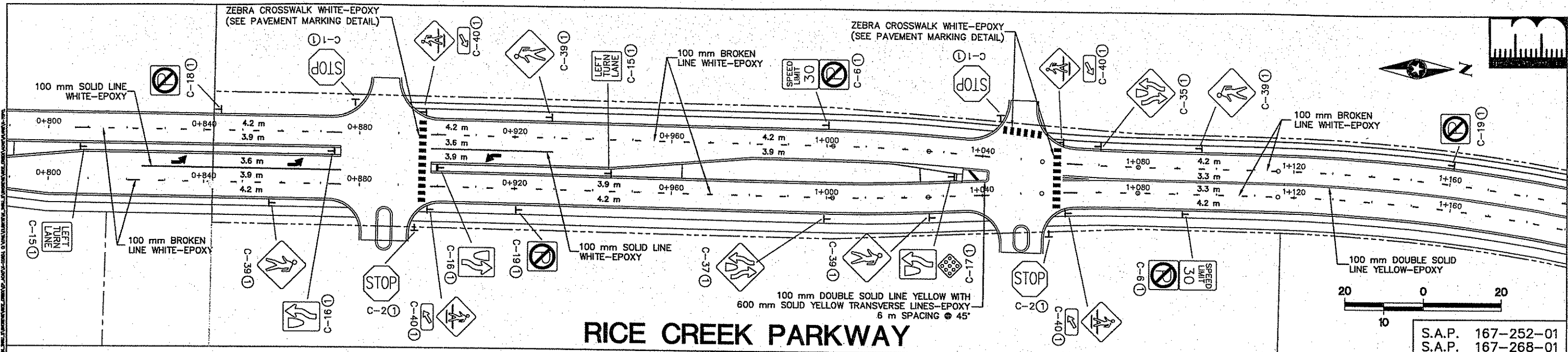
SHOREVIEW,
MINNESOTA

RICE CREEK PARKWAY
SIGNING & STRIPING

S.A.P. 167-252-01
S.A.P. 167-268-01

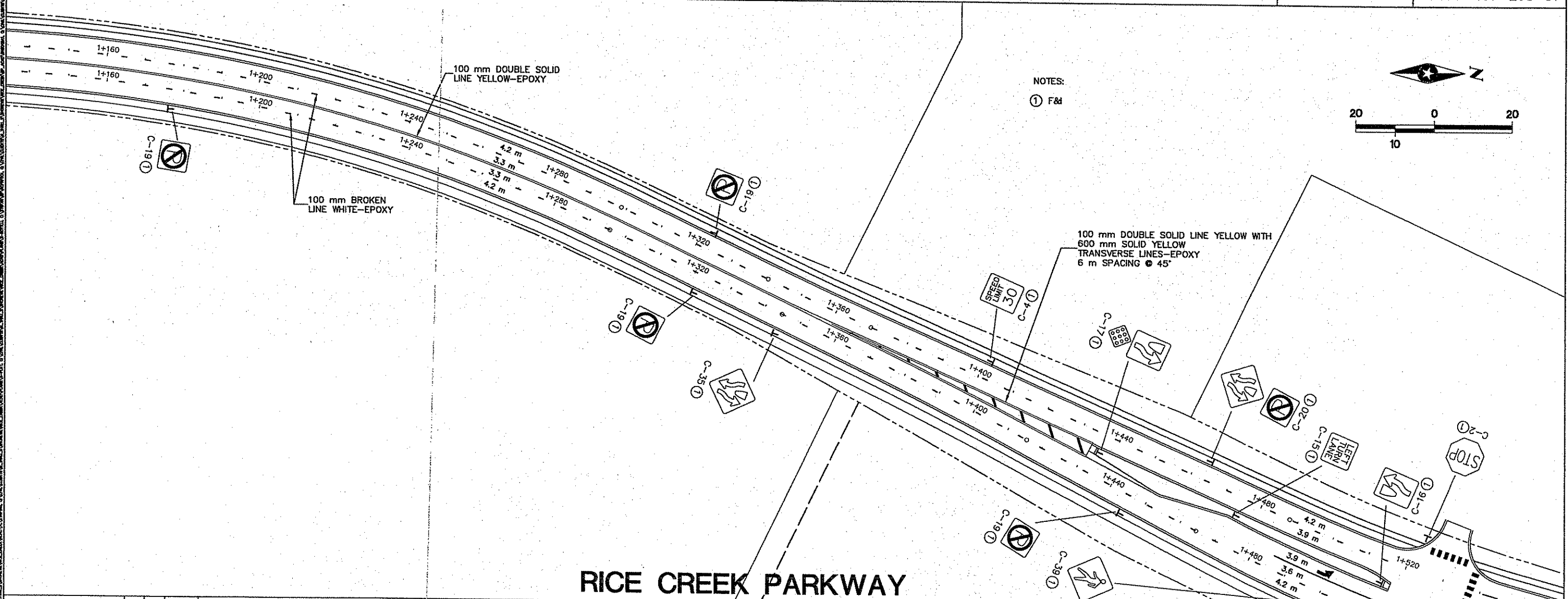
FILE NO. ASHORE9804
DATE 06/14/99

71
131



RICE CREEK PARKWAY

S.A.P. 167-252-01
S.A.P. 167-268-01



RICE CREEK PARKWAY

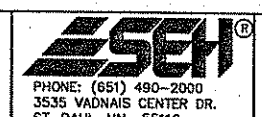
NOTES:
① F&D

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DESIGNER:	TD		
CHECKED BY:	JH		
DESIGN TEAM			
NO.	BY	DATE	REVISIONS

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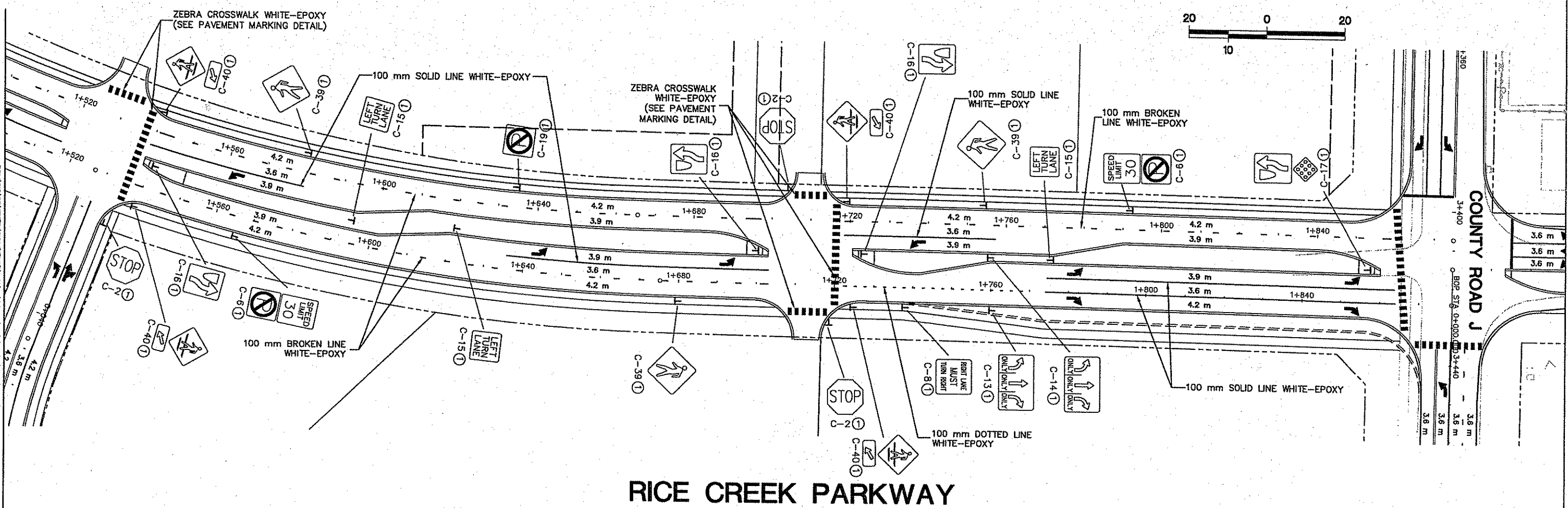
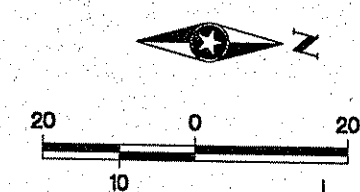
Date: 06/14/99 Reg. No. 25789



SHOREVIEW,
MINNESOTA

RICE CREEK PARKWAY
SIGNING & STRIPING

FILE NO.	72
ASHORE9804	
DATE	06/14/99
	131



RICE CREEK PARKWAY

NOTES:
 ① F&E

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DESIGNER:	TD		
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DESIGN TEAM			
NO.	BY	DATE	REVISIONS

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John W. Dodge
 Date: 06/14/99 Reg. No. 25789

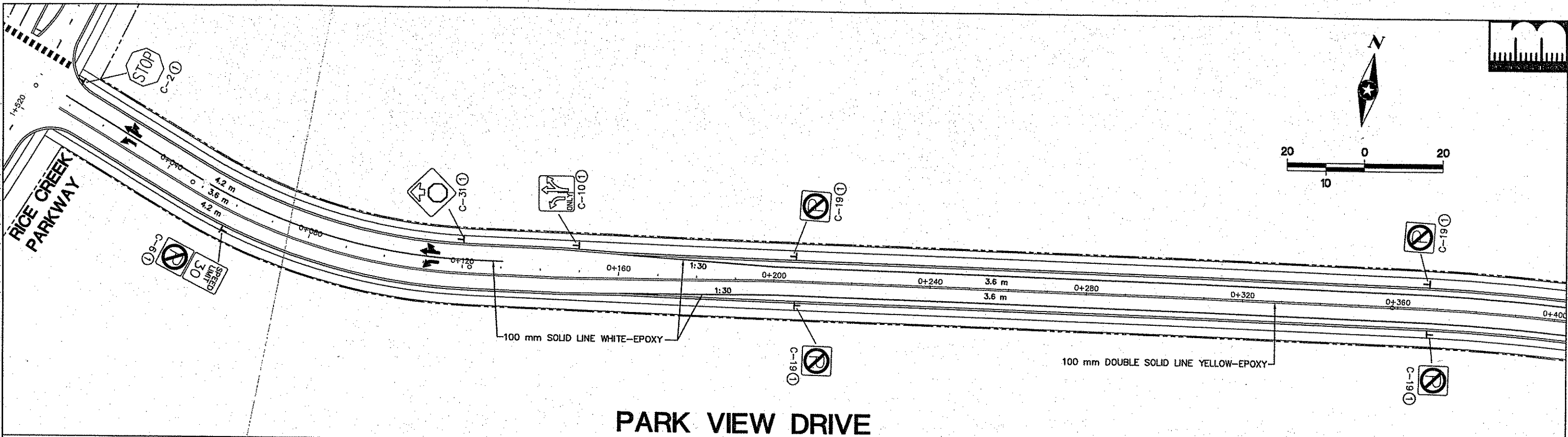
ESEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

**SHOREVIEW,
 MINNESOTA**

**RICE CREEK PARKWAY
 SIGNING & STRIPING**

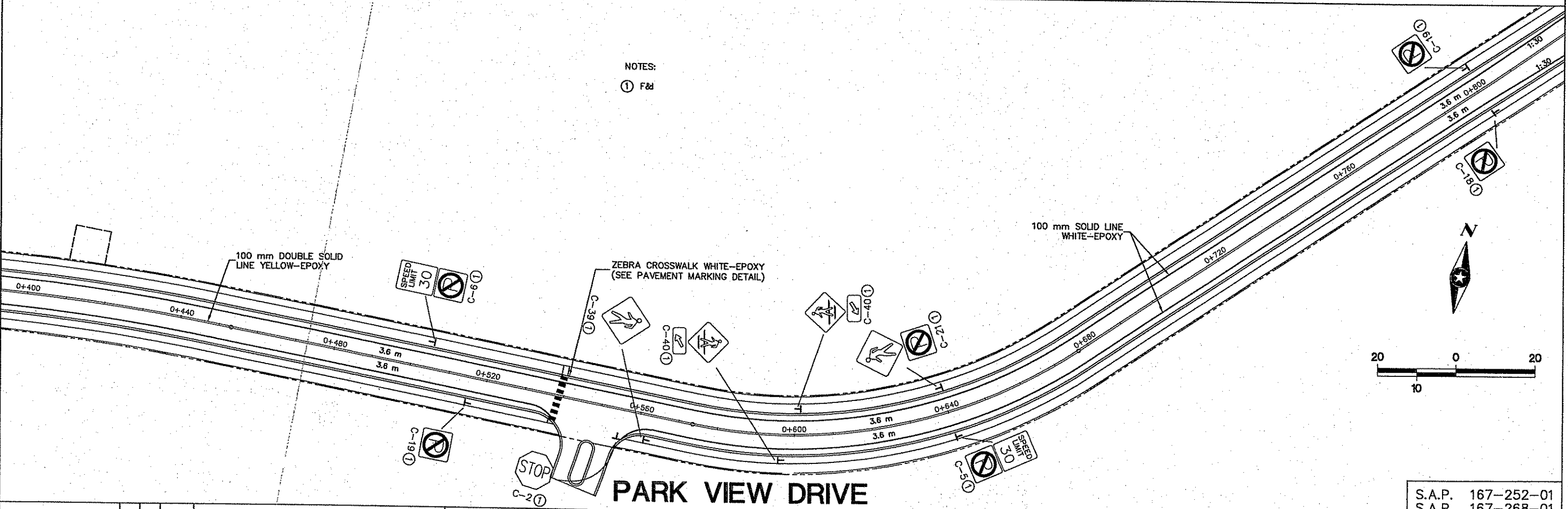
S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	73
DATE	06/14/99
	131



PARK VIEW DRIVE

NOTES:
 ① F&D



PARK VIEW DRIVE

DRAWN BY:	MT			
DESIGNER:	TD			
CHECKED BY:	JH			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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John Hendrickson
 Date: 06/14/99 Reg. No. 25789

SEH
 PHONE: (651) 480-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

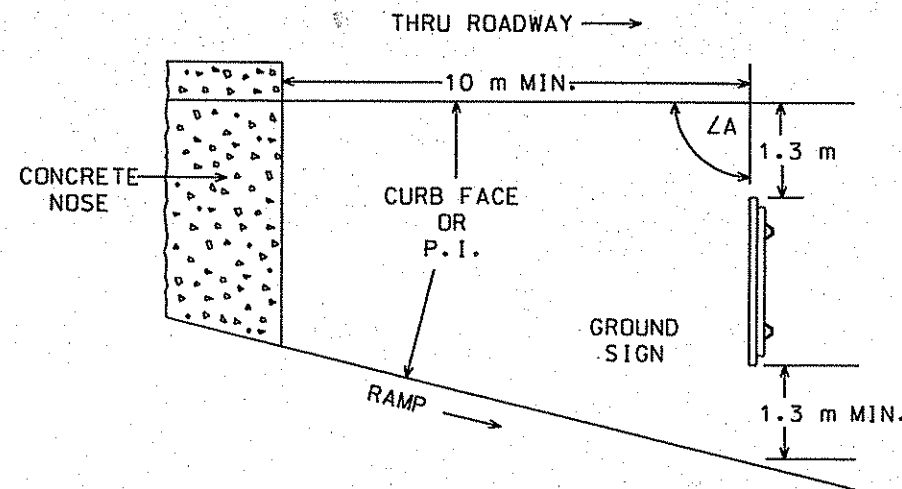
**SHOREVIEW,
 MINNESOTA**

**PARK VIEW DRIVE
 SIGNING & STRIPING**

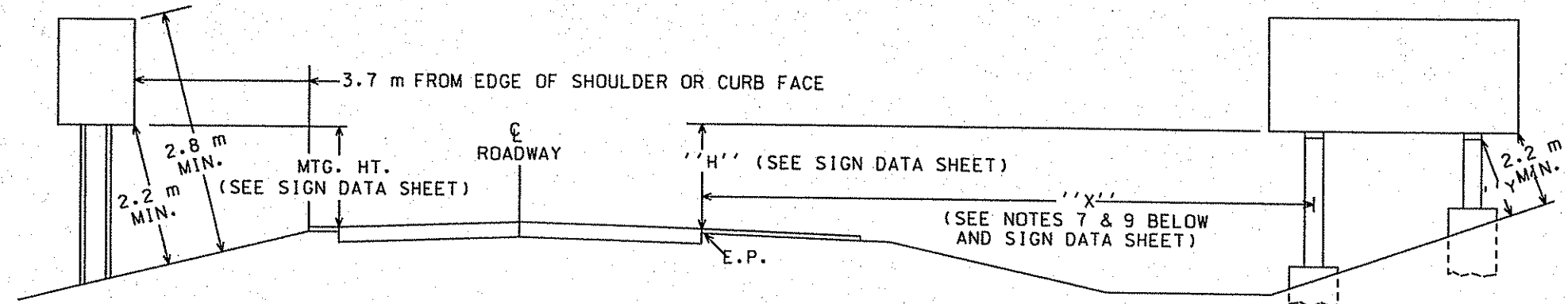
S.A.P. 167-252-01
 S.A.P. 167-268-01

FILE NO.	74
DATE	06/14/99
	131

GORE PLACEMENT



ROADSIDE PLACEMENT



ROUTE MARKER, REGULATORY & WARNING SIGNS - TYPE "C"
MINOR GUIDE SIGNS - TYPE "D"

MAJOR GUIDE SIGN - TYPE "A"

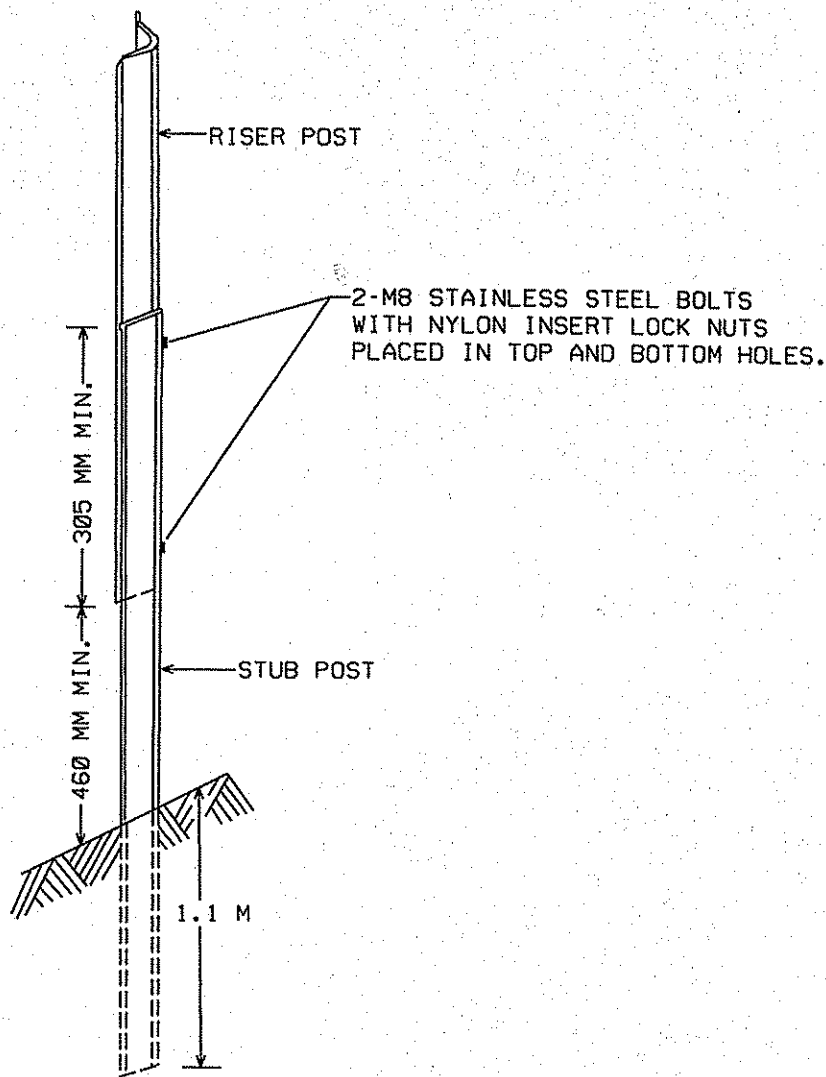
NOTES:

- IF A SECONDARY SIGN IS MOUNTED BELOW A MAJOR SIGN, THE MAJOR SIGN SHALL BE AT LEAST 2.5 m ABOVE THE PAVEMENT EDGE AND THE SECONDARY SIGN AT LEAST 1.6 m.
- ALL ROUTE MARKERS, WARNING AND REGULATORY SIGNS SHALL BE AT LEAST 1.9 m ABOVE PAVEMENT EDGE EXCEPT WHERE HEAVY PEDESTRIAN TRAFFIC IS ENCOUNTERED THEY SHALL BE 2.2 m.
- SIGN FACES SHALL BE VERTICAL.
- OVERHEAD SIGNS SHALL BE POSITIONED AT RIGHT ANGLES TO THE THRU ROADWAY UNLESS OTHERWISE NOTED.
- TO AVOID SPECULAR GLARE $\angle A$ SHALL BE APPROXIMATELY 93 FOR SIGNS LOCATED LESS THAN 9 m FROM THE EDGE OF PAVEMENT AND APPROXIMATELY 92 FOR SIGNS LOCATED 9 m OR MORE FROM EDGE OF PAVEMENT. THIS APPLIES TO SIGNS TYPE "A", "C", & "D" AND INCLUDES SIGNS IN THE GORE.
- "Y" IS THE PERPENDICULAR DISTANCE FROM THE GROUND LINE TO THE FRICTION FUSE ON THE POST. THIS DISTANCE SHALL BE AT LEAST 2.2 m.
- WHERE "X" IS LESS THAN 9 m, "H" SHALL BE 2.2 m +150 mm. WHERE "X" IS 9 m OR GREATER, MINIMUM AND PREFERRED "H" IS 1.6 m.
- LATERAL CLEARANCES GIVEN APPLY TO RIGHT AND OR LEFT SIDE INSTALLATION.
- WHEN A TYPE A SIGN IS INSTALLED DIRECTLY BEHIND TRAFFIC BARRIER, THE LEFT EDGE OF THE SIGN PANEL SHALL BE LOCATED A MINIMUM OF 1.3 m BEHIND THE FACE OF THE TRAFFIC BARRIER.

Revised 8-13-97

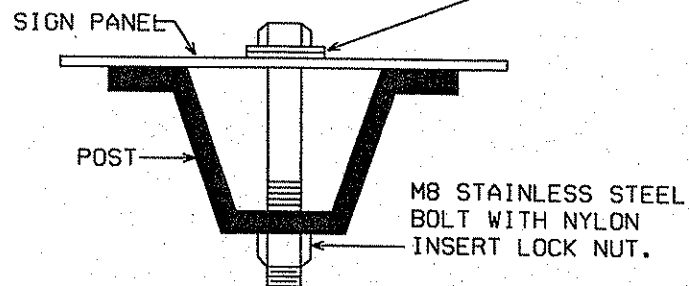


TYPE "C" & "D" POST

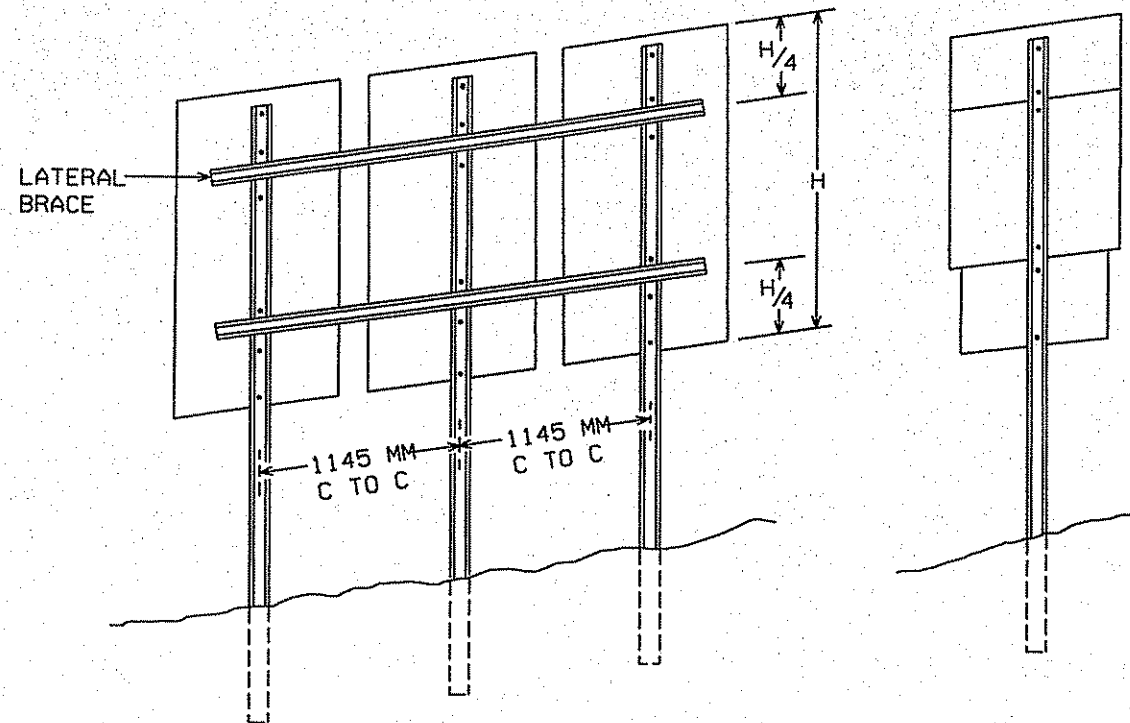


"U POST" SPLICE

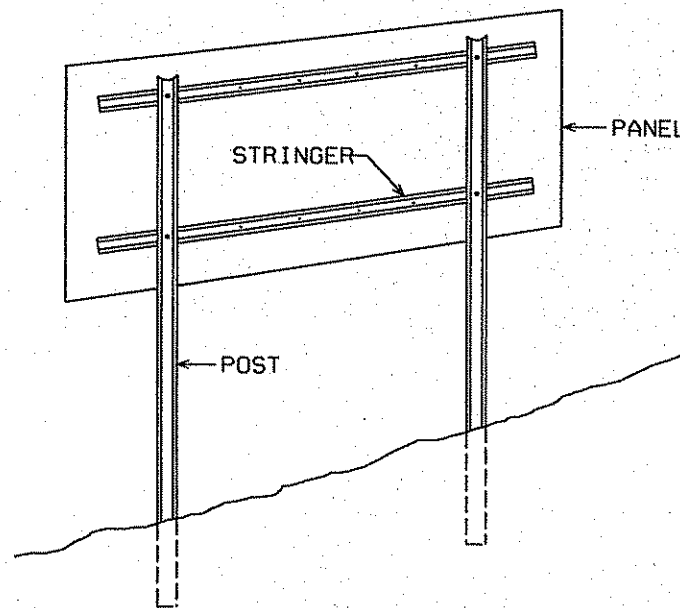
STAINLESS STEEL WASHER AND NYLON WASHER
(T-1 MM MIN., I.D.-9.5 MM MAX., O.D.-22 MM MAX.)



"U POST" MOUNTING
TYPE "C" SIGNS



TYPICAL TYPE "C" INSTALLATIONS



TYPICAL TYPE "D" INSTALLATION

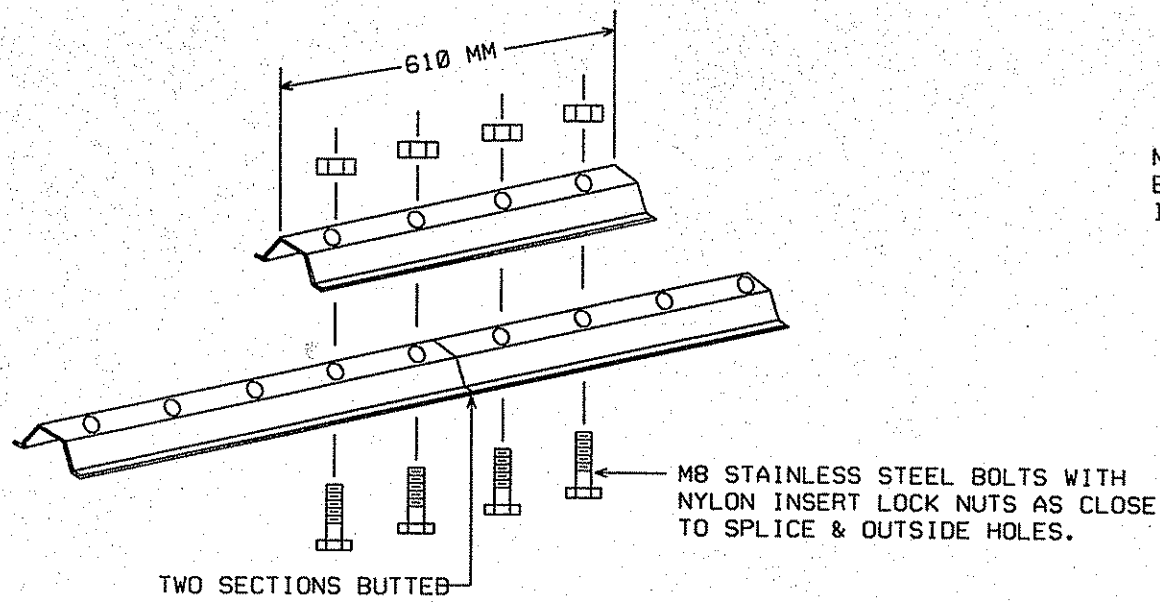
NOTES:

1. USE 4.45 KG/M STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 3401.
2. FOR TYPE "D" SIGN POSTS LENGTHS AND SPACINGS, SEE SIGN DATA SHEET.
3. TYPE "D" SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 610 MM MAXIMUM INTERVALS IN ACCORDANCE WITH TYPE "D" STRINGER AND PANEL-JOINT DETAIL (SEE STANDARD SIGNS MANUAL).
4. MOUNTING (PUNCHING CODE) FOR TYPE "C" SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE SPECIFIED.
5. ALL RISER (VERTICAL) "U POSTS" SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 2.2 M LONG.
6. USE STAINLESS STEEL M8 BOLTS, WASHERS, AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
7. STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
8. BRACING STUBS SHALL BE NO MORE THAN 100 MM ABOVE GROUND AND EMBEDDED AT LEAST 1.1 M.
9. A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394.
10. COLLARS SHALL BE USED TO SHIM OVERLAYS AND DEMOUNTABLE LEGEND AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MN/DOT 3352.2A7.
11. 2 AND 3 POST TYPE "C" SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 1525 MM OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
12. WHERE 2 OR MORE SINGLE POST SIGNS (TYPE "C") ARE MOUNTED SIDE BY SIDE, THEY SHALL BE REINFORCED Laterally BY AT LEAST 2 POST SECTIONS, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN SKETCH.

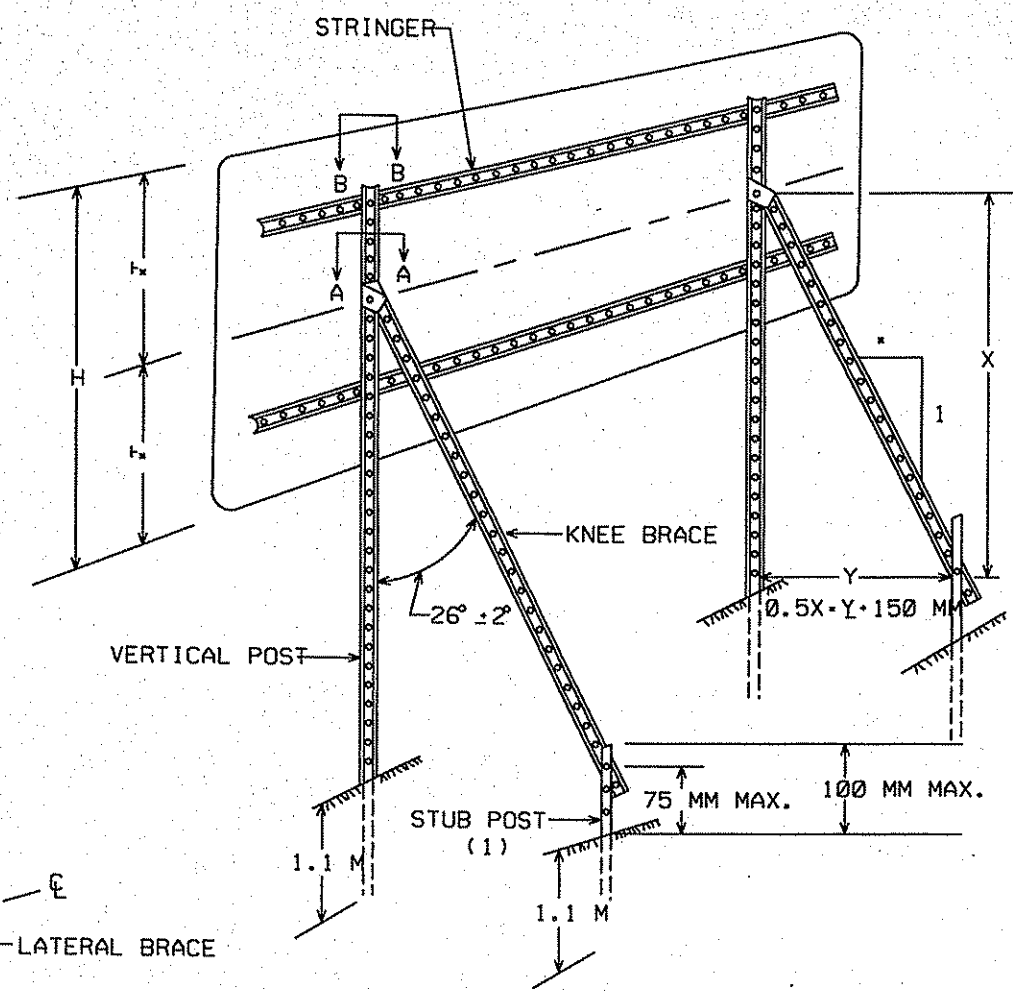
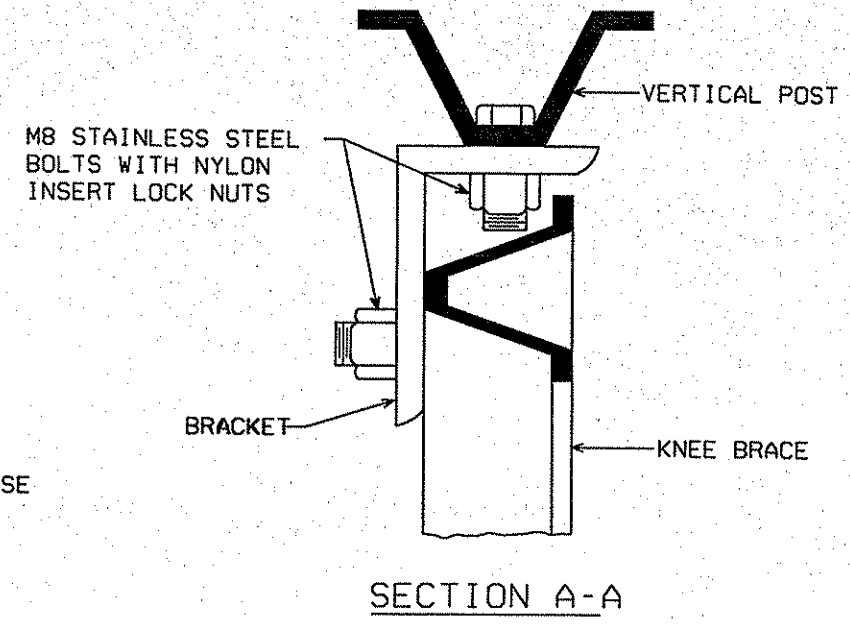
"C" & "D" SIGN DETAILS

DESIGN A
SHEET 1 OF 3

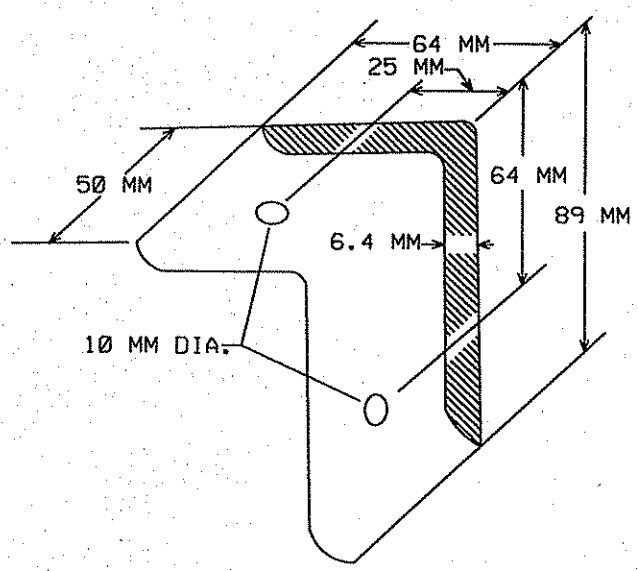




LATERAL BRACE OR STRINGER
SPLICE DETAIL (EXPLODED VIEW)

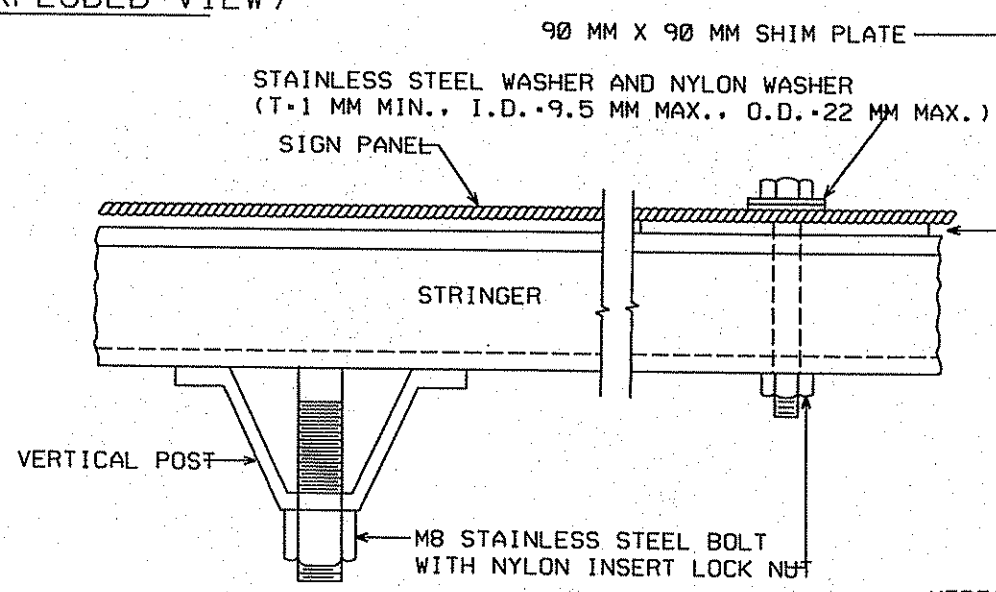


TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS

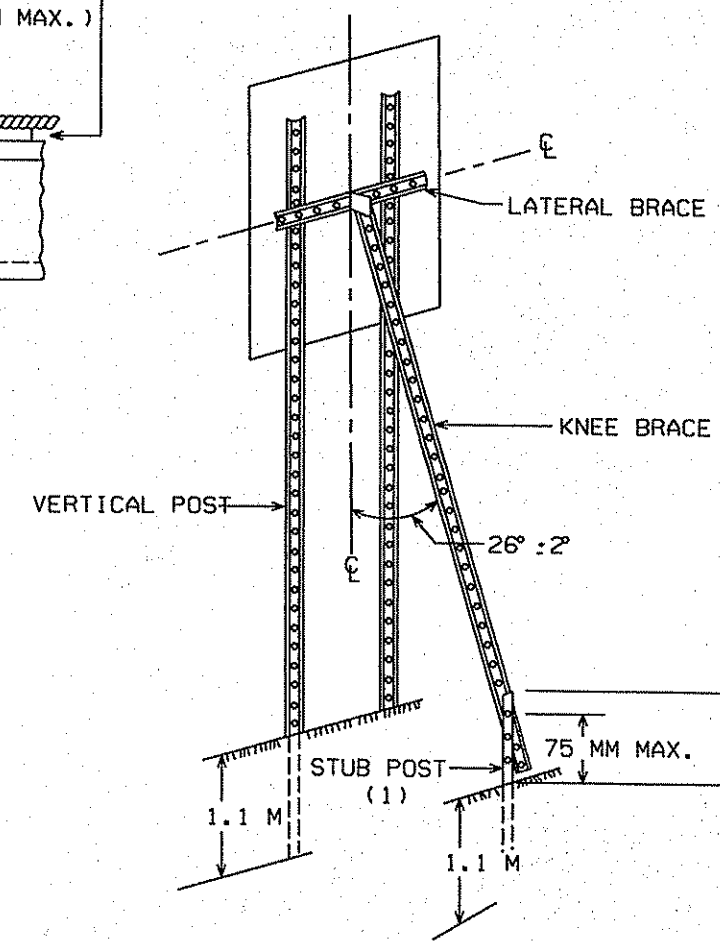


A-FRAME BRACKET

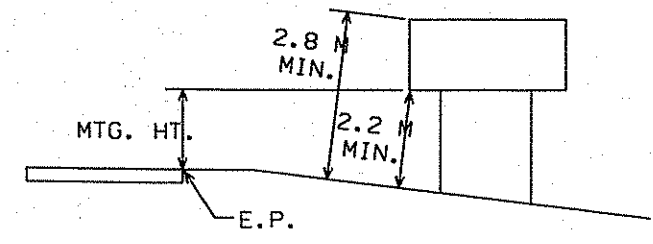
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



SECTION B-B

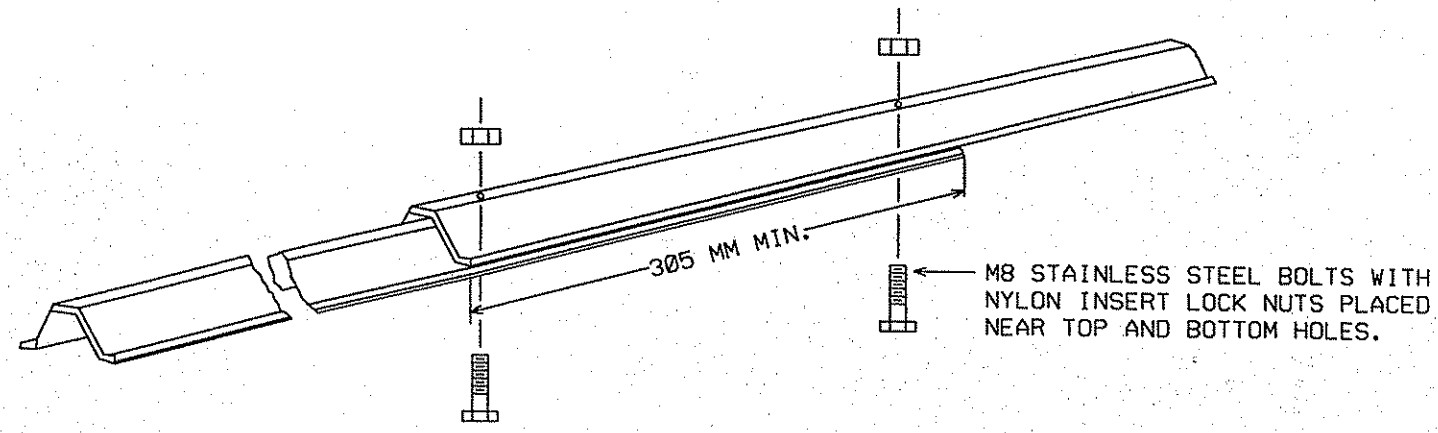


TYPICAL "A-FRAME" INSTALLATION
TYPE "C" SIGNS



TYPICAL MOUNTING

(1) OFFSET STUB POST 300 MM TOWARD ROADWAY RELATIVE TO VERTICAL POST.



KNEE BRACE SPLICE

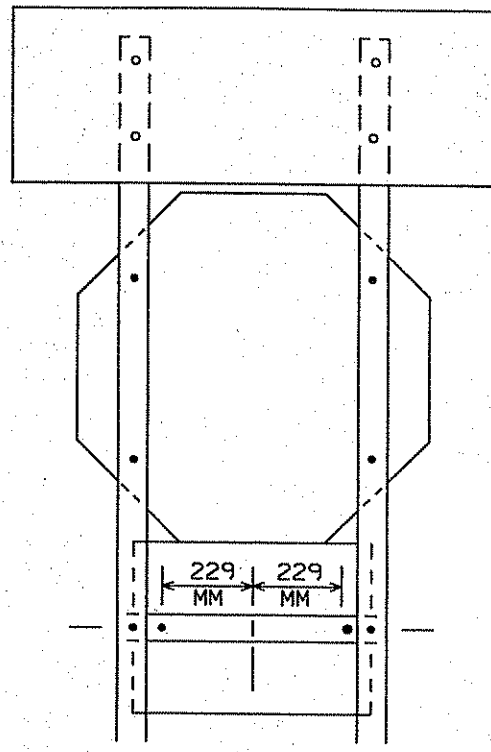
"C" & "D" SIGN DETAILS

DESIGN A
SHEET 2 OF 3

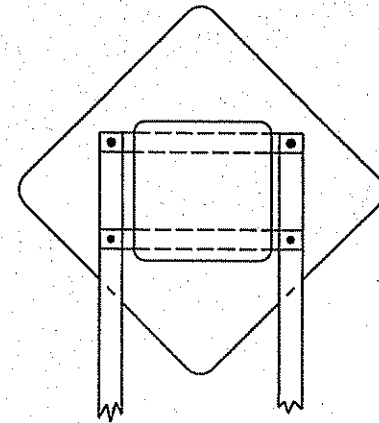
REVISED 8-13-97



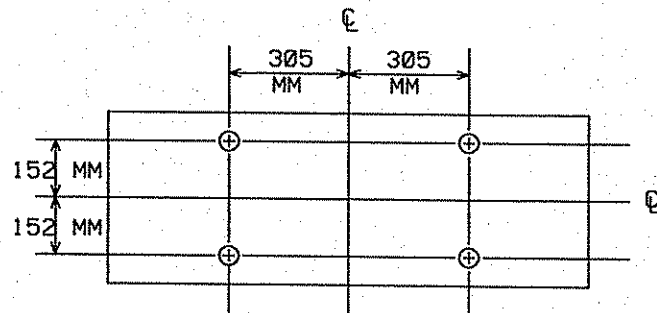
REVISION 8-15-97



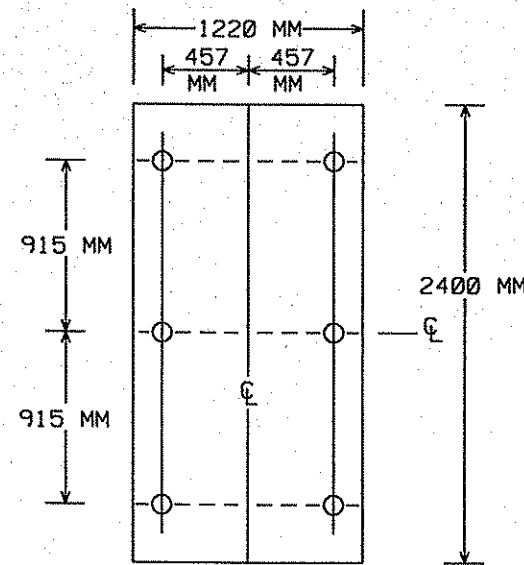
R6-1, R1-1 & (R6-3 OR R6-3A) MOUNTING



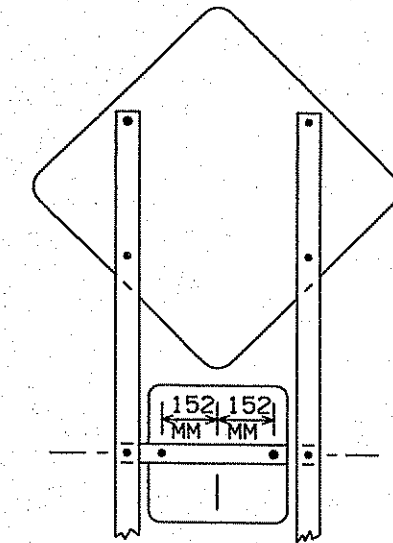
BACK TO BACK MOUNTING OF R4-7 AND W9-2



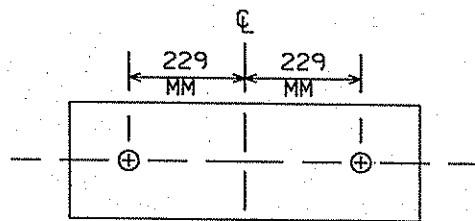
PUNCHING FOR R6-1 (1200X450 MM)



PUNCHING FOR R2-4A SPEED LIMIT



(W1-1, W1-2, W1-3, W1-4 OR W1-5) & W13-1 MOUNTING



PUNCHING FOR R6-1 (900X300MM)

"C" & "D" SIGN DETAILS

DESIGN A SHEET 3 OF 3



SEE TYPE "C" & "D" SIGNS
DESIGN J (SHEET).

VIEW A-A

51 MM I D GALV. SEAMLESS
STRUCTURAL STEEL
PIPE (MN/DOT 3362)

MEDIAN ISLAND
ON BRIDGE

175 MM

F. & I. SIGNPOST SUPPORT
SEE SHEET

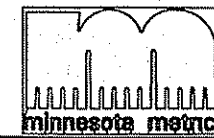
PIPE STOP

ELEVATION

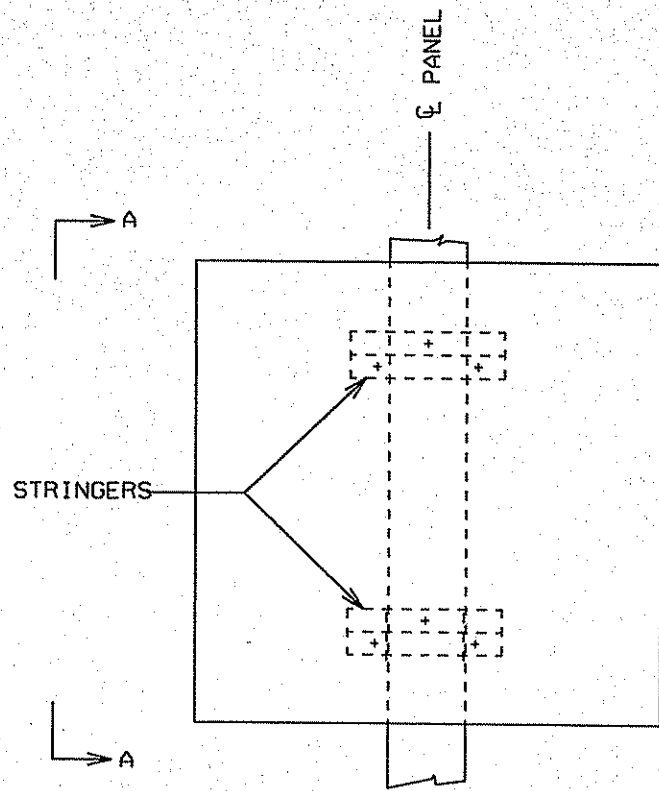
NOTES:
FOR NOTES AND DETAILS NOT SHOWN, SEE
TYPE "C" & "D" SIGN DETAILS - DESIGN A

TYPE "C" SIGN DETAILS

DESIGN I

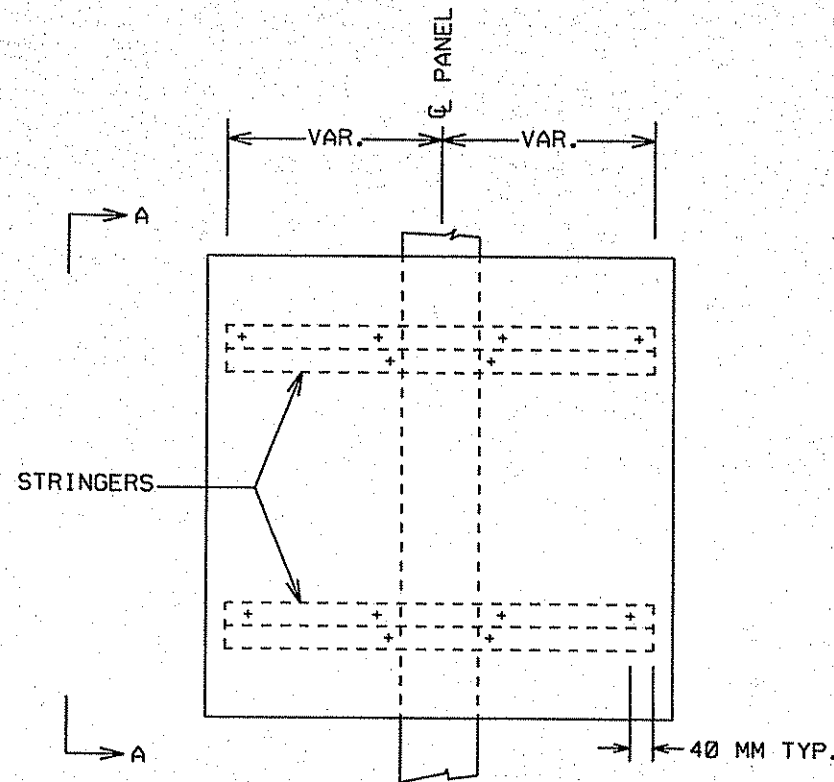


REVISED 8-13-97



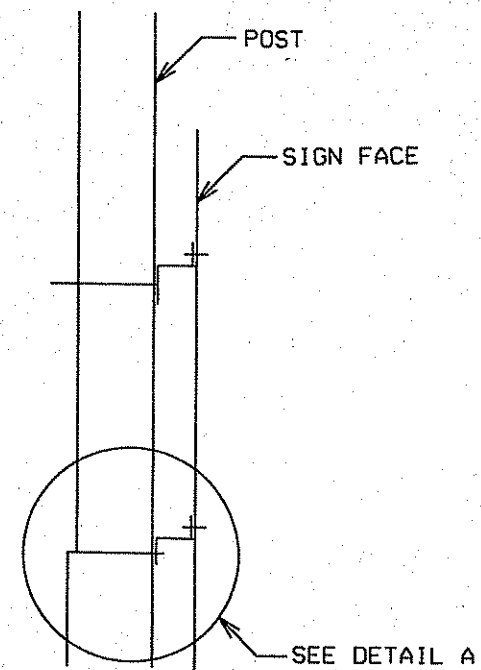
TYPE "C" SIGNS WITH SINGLE POST PUNCHING

ELEVATION

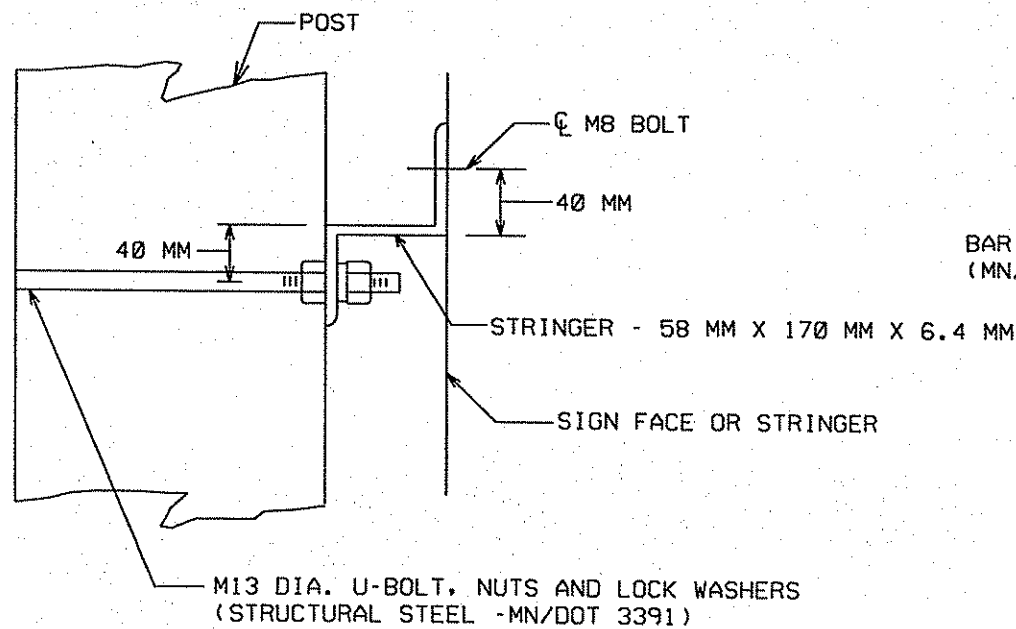


TYPE "C" SIGNS WITH 2-POST PUNCHING OR TYPE "D" SIGNS

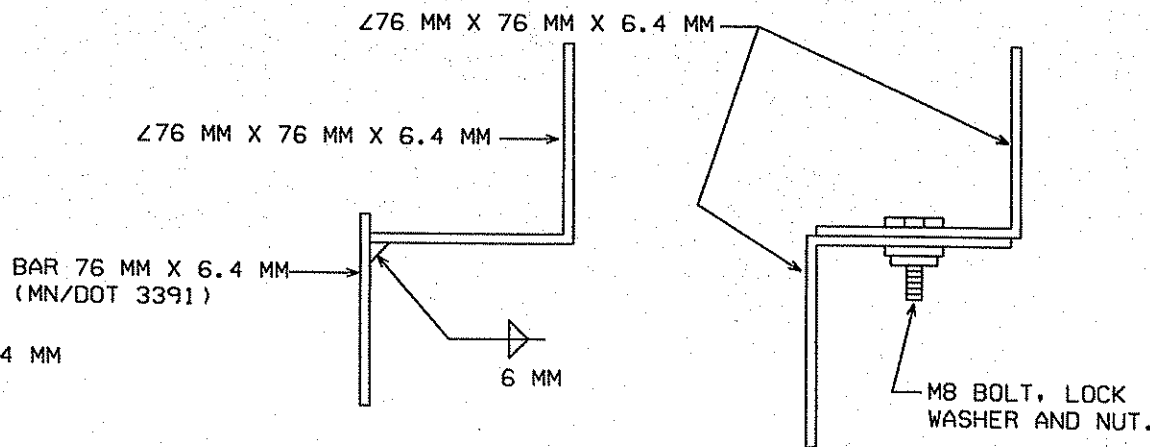
ELEVATION



VIEW A-A



DETAIL A



DETAIL A STRINGER ALTERNATES

NOTES:

1. FOR DETAILS AND NOTES NOT SHOWN SEE "C" & "D" SIGN DETAILS.
2. FOR BACK TO BACK MOUNTINGS, ROTATE STRINGERS FOR ONE PANEL 180° FROM WHAT IS SHOWN SUCH THAT PANELS CAN BE MOUNTED AT SAME ELEVATION.
3. DETAIL A STRINGER MAY BE ONE OF THE THREE DESIGNS DETAILED OR AN APPROVED EQUAL. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394. FASTENERS SHALL BE IN ACCORDANCE WITH MN/DOT 3391 AND GALVANIZED PER MN/DOT 3392.

TYPE "C" SIGNS MOUNTED ON OH SIGN POSTS, O-POSTS, LIGHT STANDARDS OR SIGNAL STANDARDS

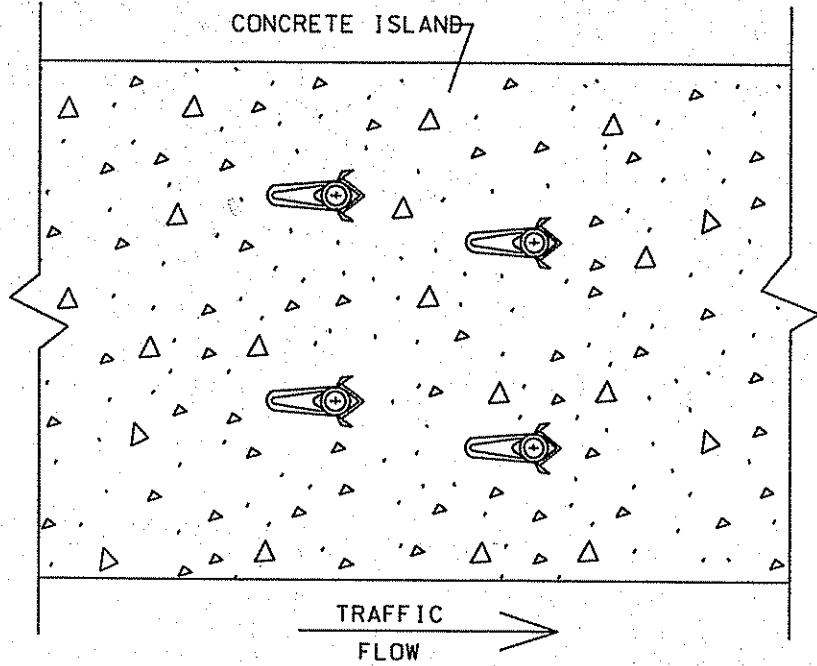
REV. 8-13-97



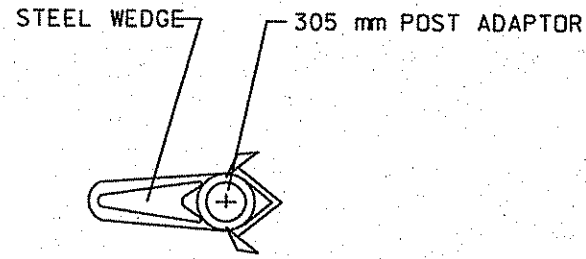
DESIGN J

ROADSIDE OR MEDIAN PLACEMENT FOR ROUND AND U CHANNEL SOCKETS

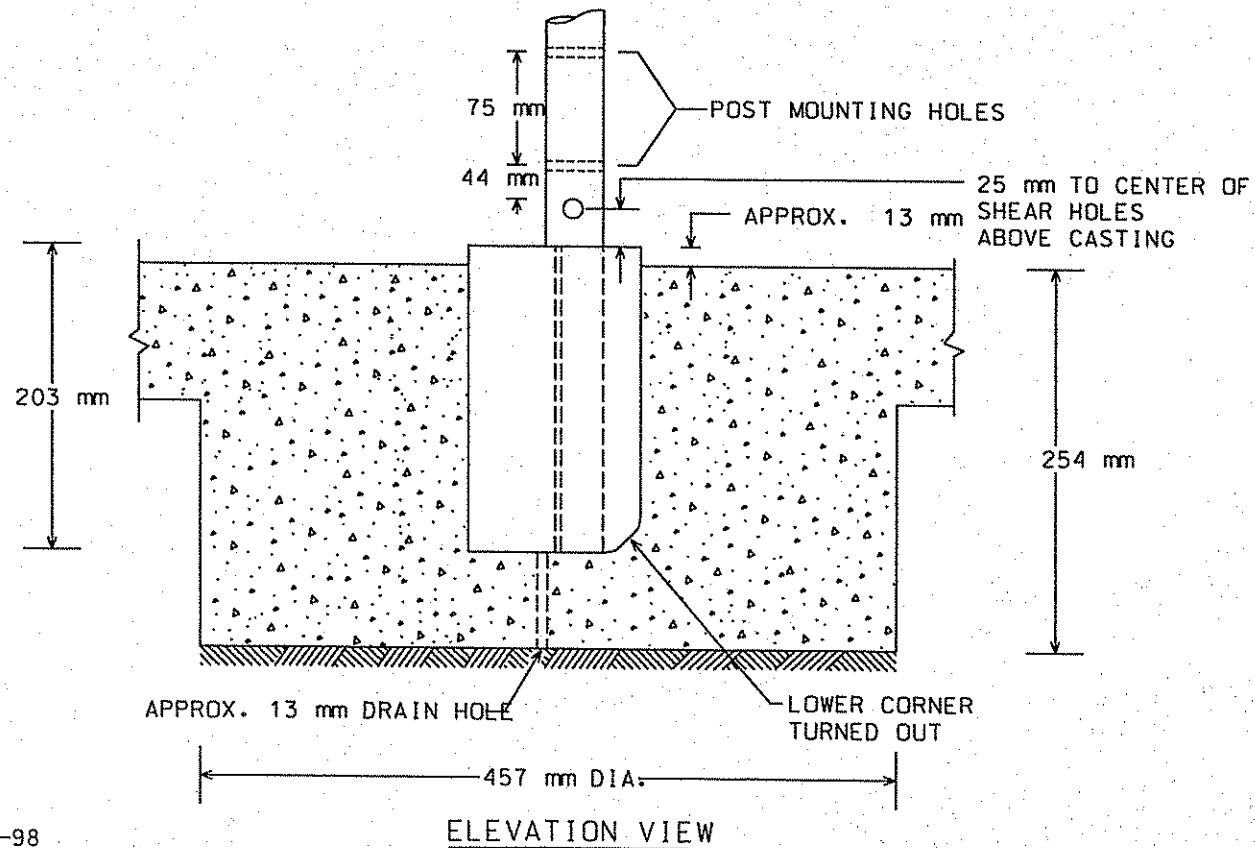
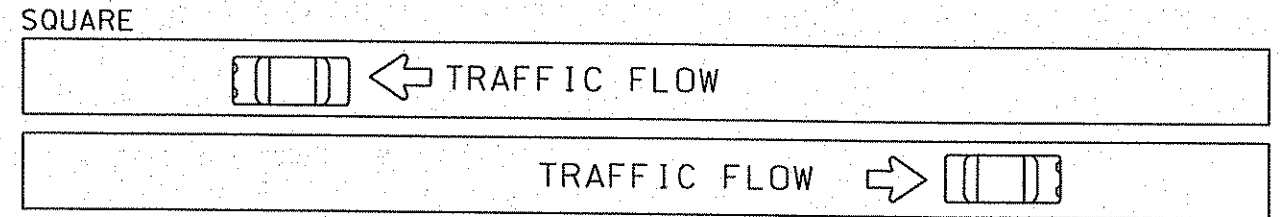
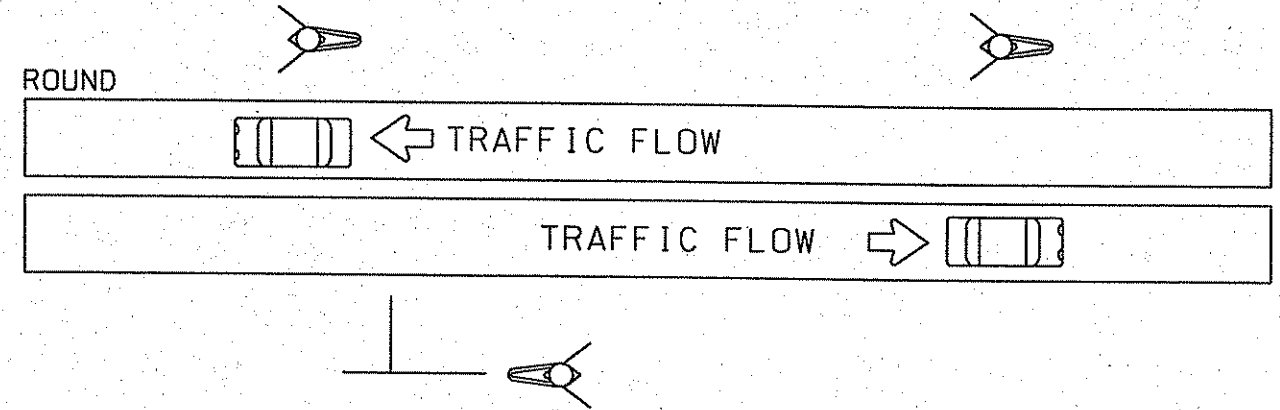
THE AXIS OF THE SIGNPOST SUPPORT WEDGE SHOULD ALIGN PARALLEL TO THE ROAD FOR MAXIMUM RESISTANCE TO IMPACT AS SHOWN BELOW:



TOP VIEW
2 POSTS SIGN WITH 2 KNEE BRACES



TOP VIEW - LOCKING DEVICE



ELEVATION VIEW

GENERAL NOTES:

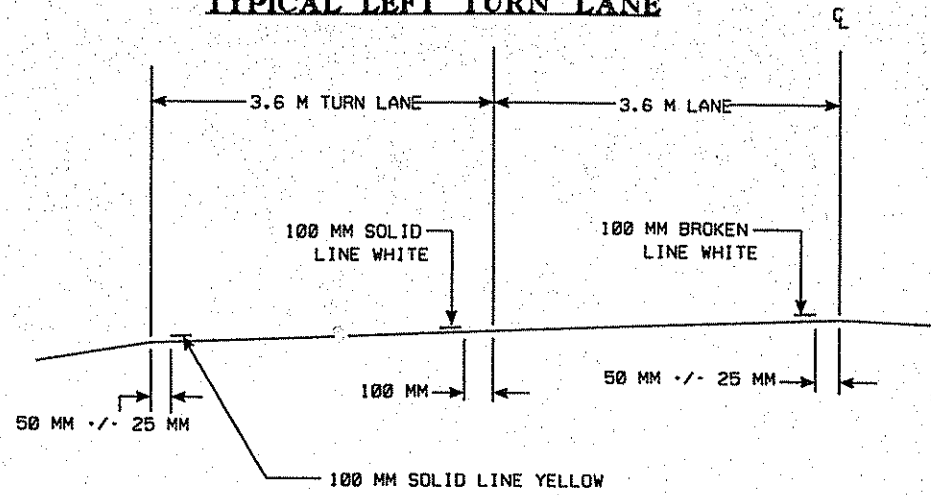
1. SEAL BOTTOM OF SIGNPOST SUPPORT WITH DUCT TAPE BEFORE INSTALLATION IN NEW CONCRETE.
2. SIGNPOST SUPPORTS SHALL BE INSTALLED PLUMB AND APPROXIMATELY 13 mm ABOVE THE TOP OF THE CONCRETE SURFACE.

Revised 1-27-98

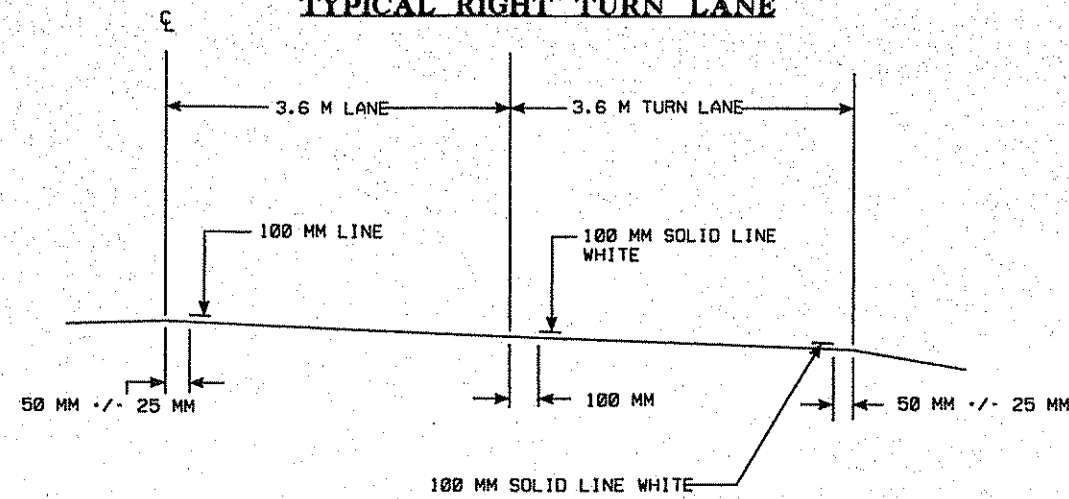


SIGNPOST SUPPORT IN CONCRETE

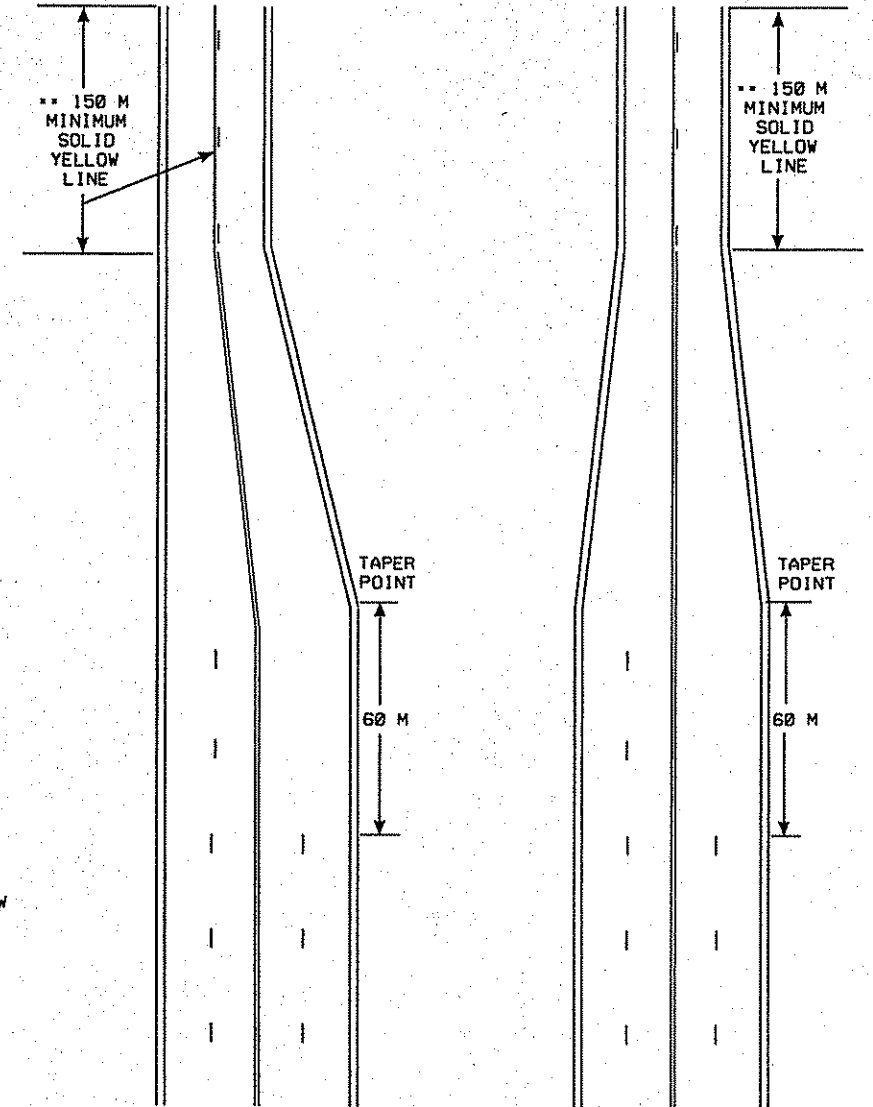
TYPICAL LEFT TURN LANE



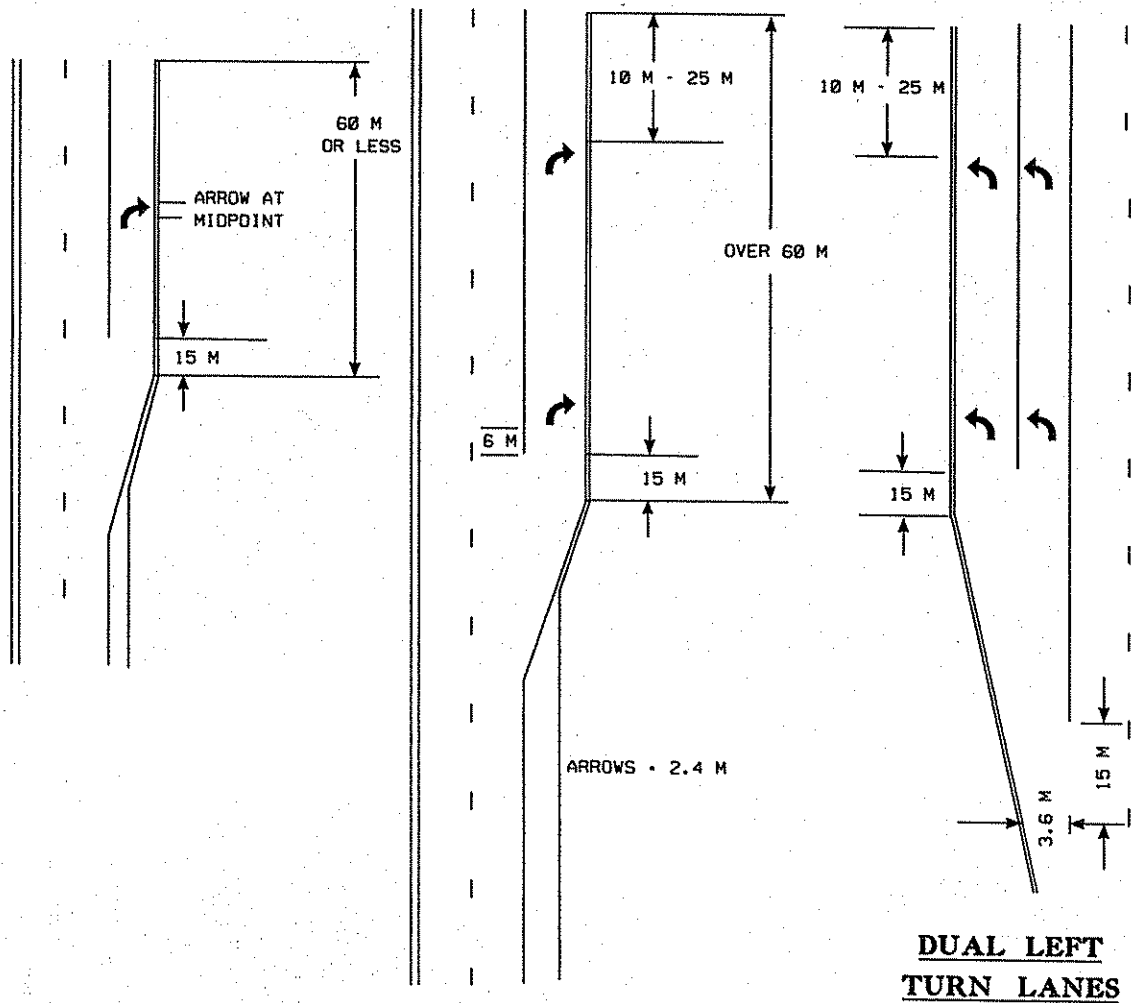
TYPICAL RIGHT TURN LANE



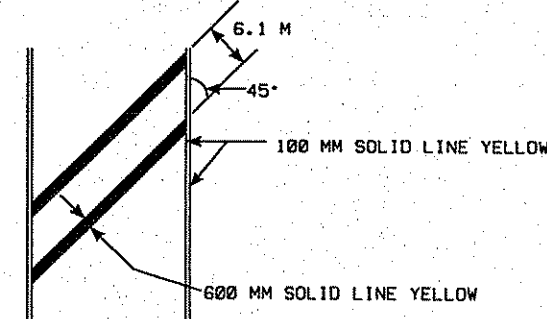
TYPICAL LANE REDUCTION TRANSITION



TYPICAL MESSAGE PLACEMENT FOR TURN LANES



TYPICAL MARKINGS FOR LEFT TURN ISLANDS



AT SPEEDS LESS THAN 40 MPH THE WIDTH OF THE CROSSHATCH LINE MAY BE REDUCED TO 300 MM.

AT SPEEDS OVER 40 MPH THE SPACING MAY BE INCREASED TO 9 M BETWEEN CROSSHATCH LINES.

* SEE "TYPICAL MESSAGE PLACEMENT FOR TURN LANES" FOR NUMBER OF ARROWS.

** IF THE DISTANCE BETWEEN THE BEGINNING OF THE SOLID LINE YELLOW IS LESS THAN THE DISTANCES IN THE CHART BELOW FROM THE END OF A PRECEDING SOLID LINE YELLOW IN THE SAME LANE, THE SOLID LINE SHALL BE EXTENDED BETWEEN THEM.

35 MPH SPEED LIMIT OR LESS	150 M
40-50 MPH SPEED LIMIT	200 M
55 MPH SPEED LIMIT	245 M

** 150 M SOLID YELLOW



FINAL STRIPING SHEET NO.

TITLE:

PAVEMENT MARKING DETAILS

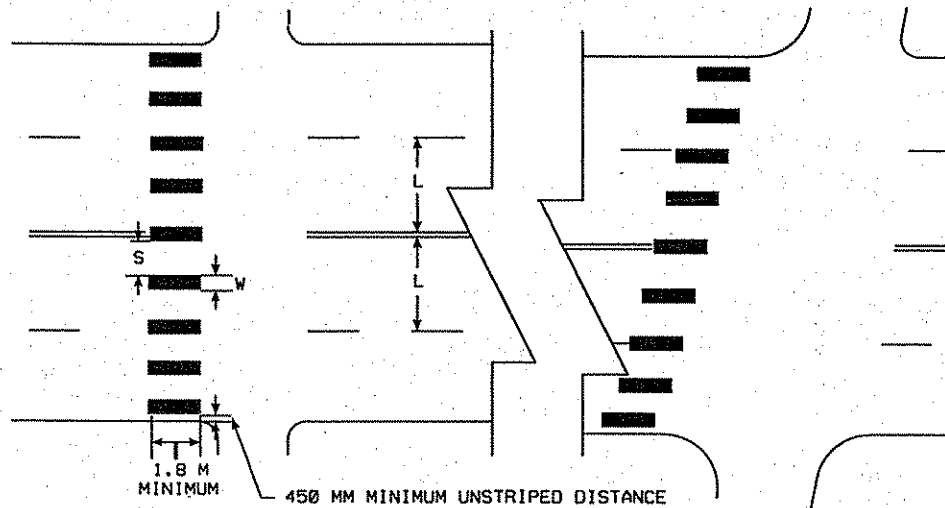
CERTIFIED BY *Charles Hendrich*
PROFESSIONAL ENGINEER

REG NO 11940 19

STATE AID PROJ NO S.A.P. 167-252-01 SHEET NO 83 OF 131 SHEETS
S.A.P. 167-268-01

MARKINGS FOR PEDESTRIAN CROSSWALKS

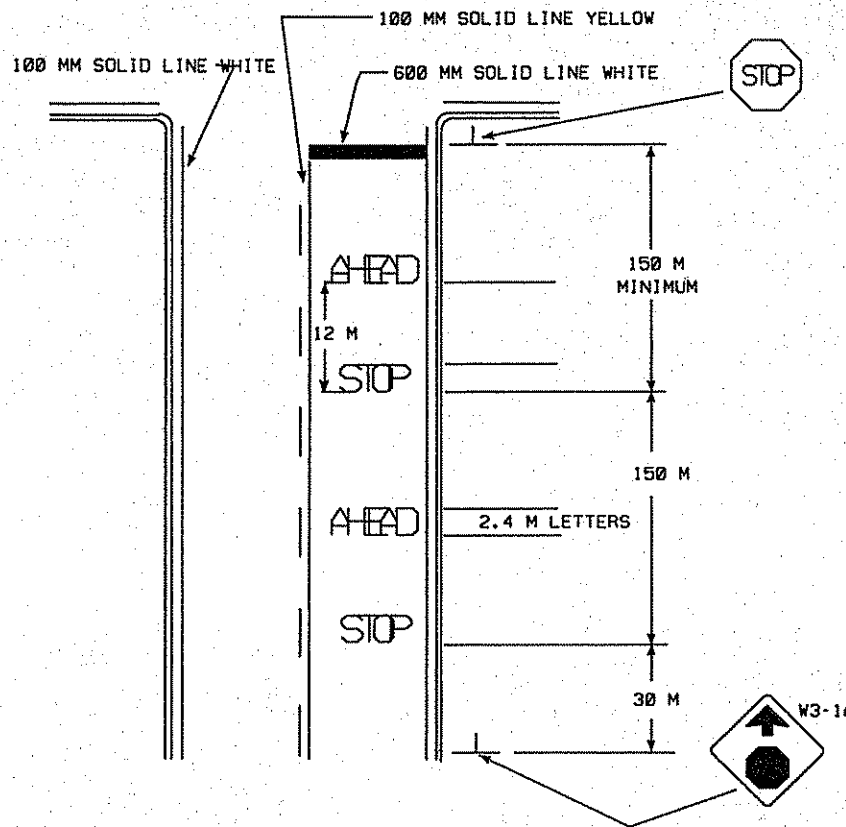
(L) WIDTH OF INSIDE LANE	(W) WIDTH OF PAINTED AREA	(S) WIDTH OF SPACE
2.7 M	600 MM	750 MM
3 M	750 MM	750 MM
3.4 M	750 MM	900 MM
3.6 M	900 MM	900 MM
4 M	900 MM	1100 MM



NOTES:

1. PAINTED AREAS TO BE CENTERED ON CENTERLINE AND LANE LINES.
2. A MINIMUM OF 500 MM CLEAR DISTANCE SHALL BE LEFT ADJACENT TO THE CURB. IF LAST PAINTED AREA FALLS INTO THIS DISTANCE IT MUST BE OMITTED.
3. ON TWO LANE TWO WAY STREETS, USE SPACING SHOWN FOR AN 3.3 M INSIDE LANE.
4. FOR DIVIDED ROADWAYS, ADJUSTMENTS IN SPACING OF THE BLOCKS SHOULD BE MADE IN THE MEDIAN SO THAT THE BLOCKS ARE MAINTAINED IN THEIR PROPER LOCATION ACROSS THE TRAVELED PORTION OF THE ROADWAY.
5. AT SKEWED CROSSWALKS, THE BLOCKS ARE TO REMAIN PARALLEL TO THE LANE LINES AS SHOWN.

PLACEMENT FOR "STOP AHEAD" MARKINGS AND STOP LINES



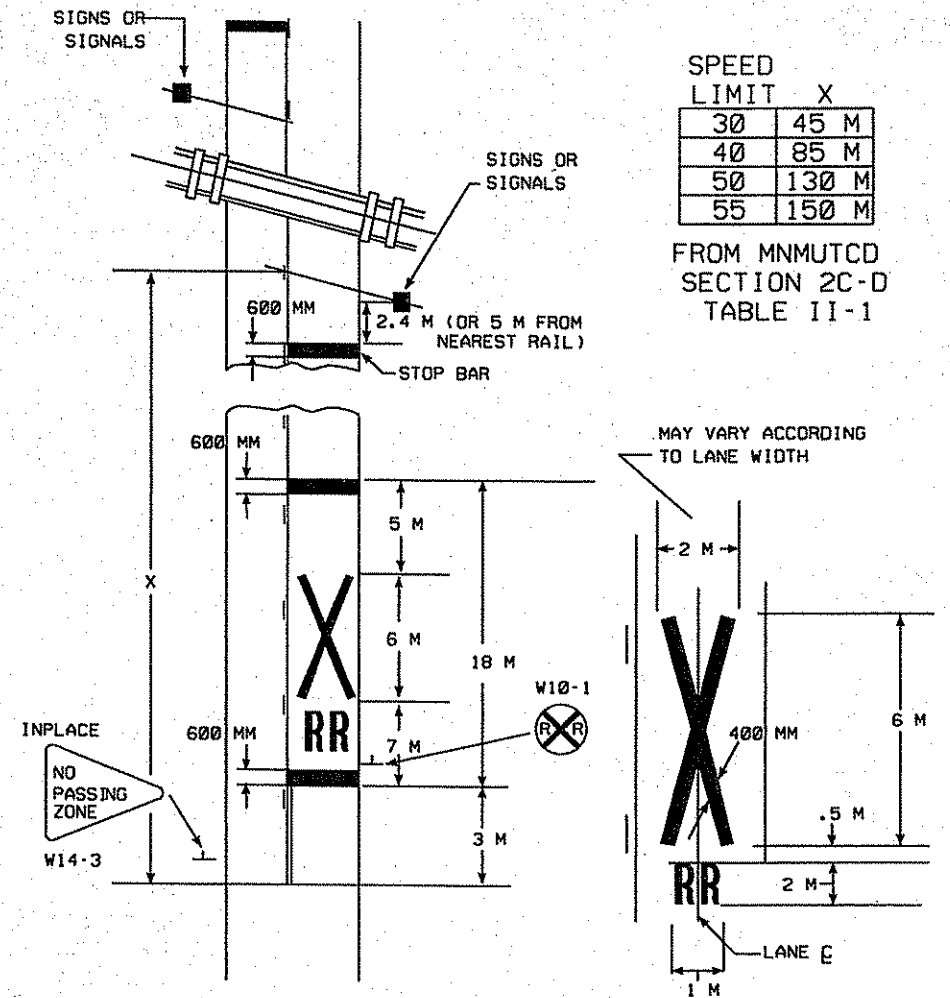
NOTES:

1. DOUBLE MESSAGE AS SHOWN SHOULD BE PLACED WHEREVER APPROACH SPEEDS ARE OVER 40 MPH.
2. IF THE DISTANCE BETWEEN THE BEGINNING OF THE SOLID LINE YELLOW IS LESS THAN THE DISTANCES IN THE CHART BELOW FROM THE END OF A PRECEDING SOLID LINE YELLOW IN THE SAME LANE, THE SOLID LINE SHALL BE EXTENDED BETWEEN THEM.

35 MPH SPEED LIMIT OR LESS	150 M
40-50 MPH SPEED LIMIT	200 M
55 MPH SPEED LIMIT	245 M
3. STOP LINES SHOULD ORDINARILY BE PLACED 1.2 M IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK LINE. IN THE ABSENCE OF A MARKED CROSSWALK, THE STOP LINE SHOULD BE PLACED AT THE DESIRED STOPPING POINT, AND IN NO CASE NO MORE THAN 9 M OR NO LESS THAN 1 M FROM THE NEAREST EDGE OF THE INTERSECTING CURB LINE OR NEAR EDGE OR SHOULDER.

IF A STOP LINE IS USED IN CONJUNCTION WITH A STOP SIGN, IT SHOULD ORDINARILY BE PLACED IN LINE WITH THE STOP SIGN. HOWEVER, IF THE SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO STOP, THE STOP LINE SHOULD BE PLACED AT THE STOPPING POINT.

MARKINGS FOR RAILROAD CROSSINGS



NOTES:

1. THE DISTANCE FROM THE RAILROAD CROSSING MARKING TO THE NEAREST TRACK WILL VARY ACCORDING TO THE APPROACH SPEED AND SIGHT DISTANCE OF THE VEHICULAR TRAFFIC APPROACHING, BUT SHOULD NOT BE LESS THAN 15 M.
2. ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
3. THE STOP LINE MAY BE PARALLEL TO AND 5 M FROM THE TRACKS WHERE THERE ARE RAILROAD CROSSBUCK SIGNS.



FINAL STRIPING SHEET NO.

TITLE:

PAVEMENT MARKING DETAILS

CERTIFIED BY Charles J. Hurdick PROFESSIONAL ENGINEER

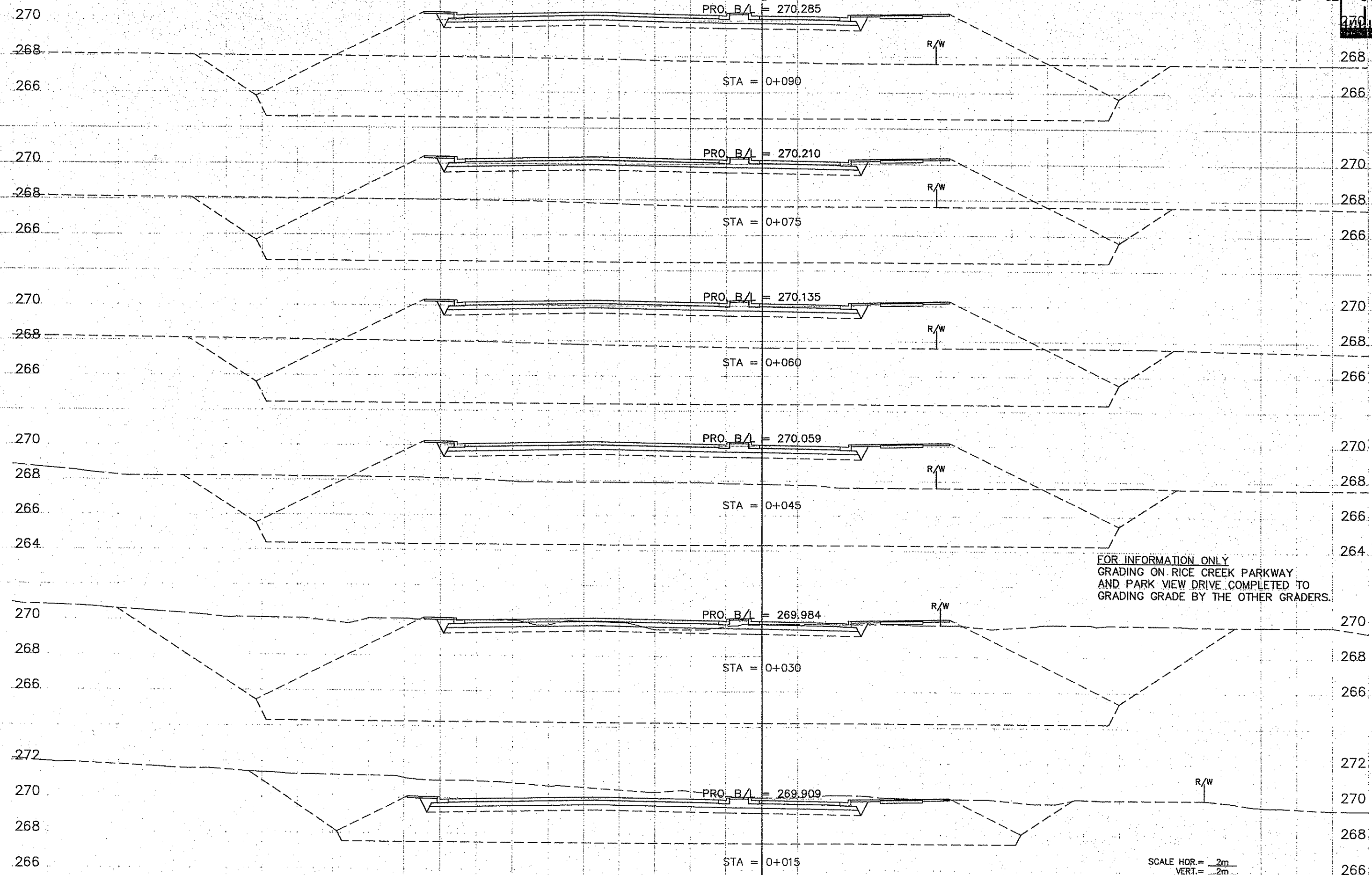
REG NO 11940 19

STATE AID PROJ NO

S.A.P. 167-252-01
S.A.P. 167-268-01

SHEET NO 84 OF 131 SHEETS

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34



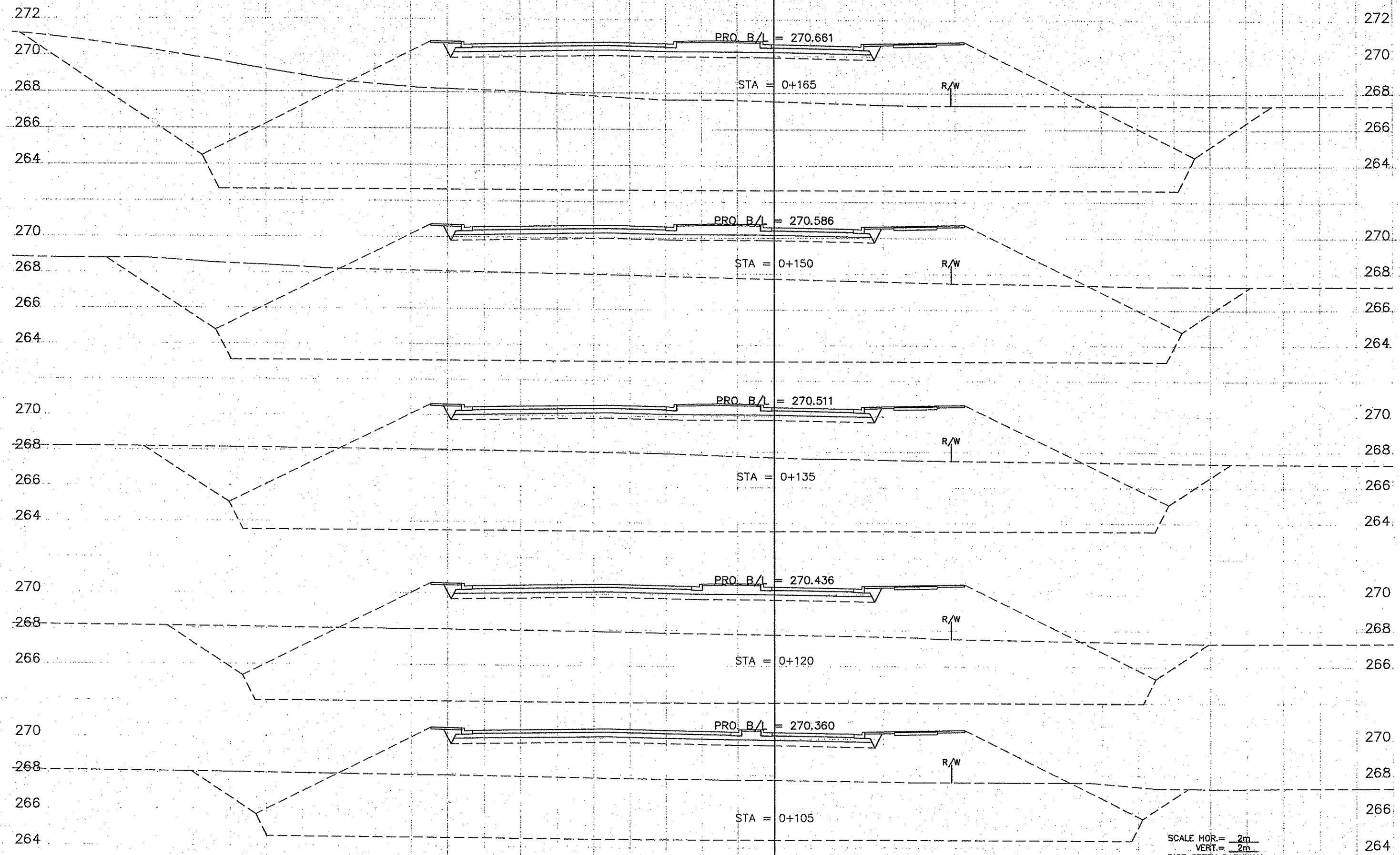
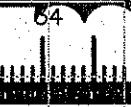
FOR INFORMATION ONLY
GRADING ON RICE CREEK PARKWAY
AND PARK VIEW DRIVE COMPLETED TO
GRADING GRADE BY THE OTHER GRADERS.

SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 0+015 TO STA. 0+090

G:\L\VAL\VALIENTS\W...
 DATE: 05-24-99
 USER: CPU204SP
 5:57 pm
 SHEETS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

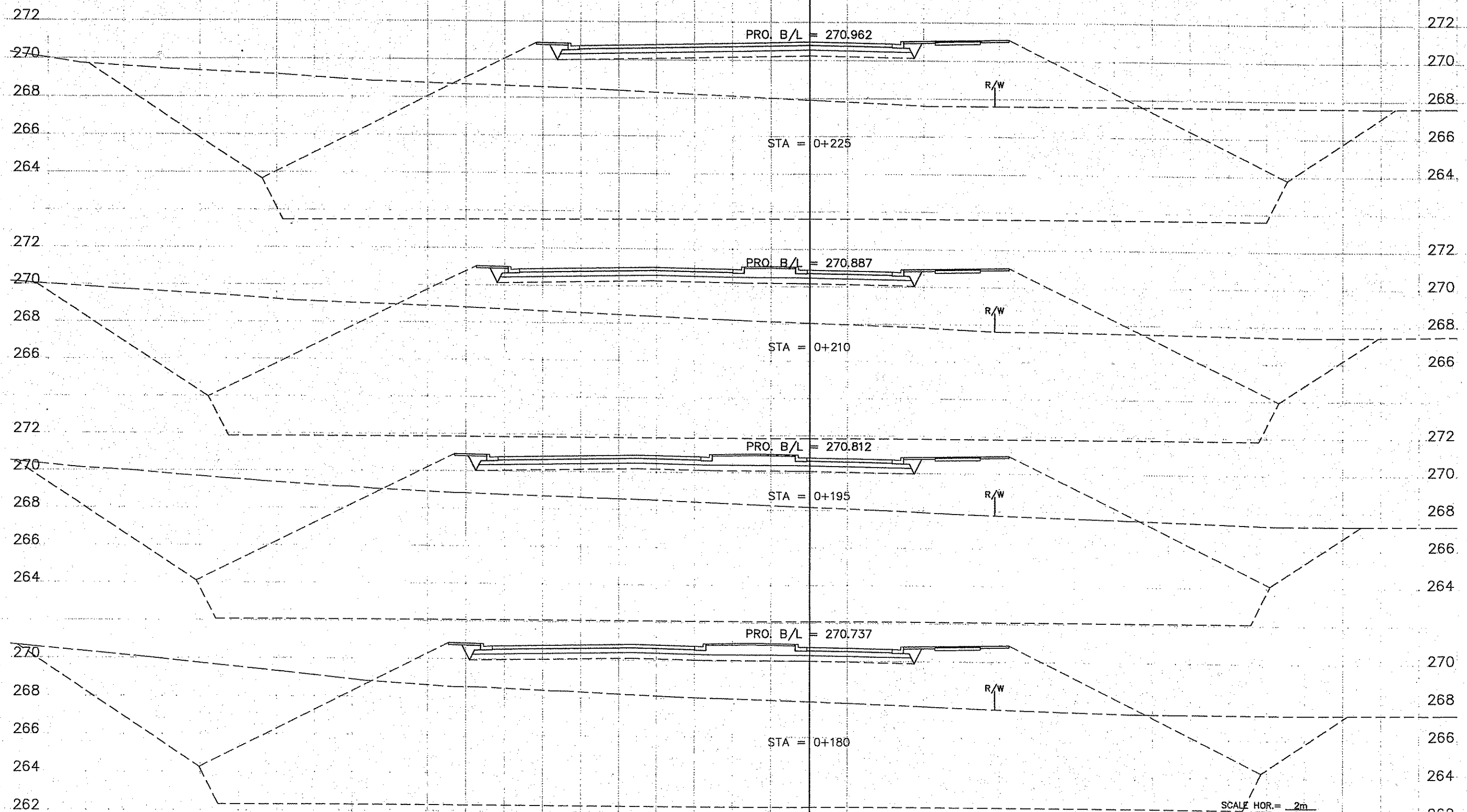


SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+105 TO STA. 0+165

G:\CIVIL\CLIENTS\VA... (SHOREVIEW RICE CREEK) \CAD\PLANS\SH60402.DWG
 DATE: 08-24-99 Time: 3:59 pm USER: CPU204SP
 XREFS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32

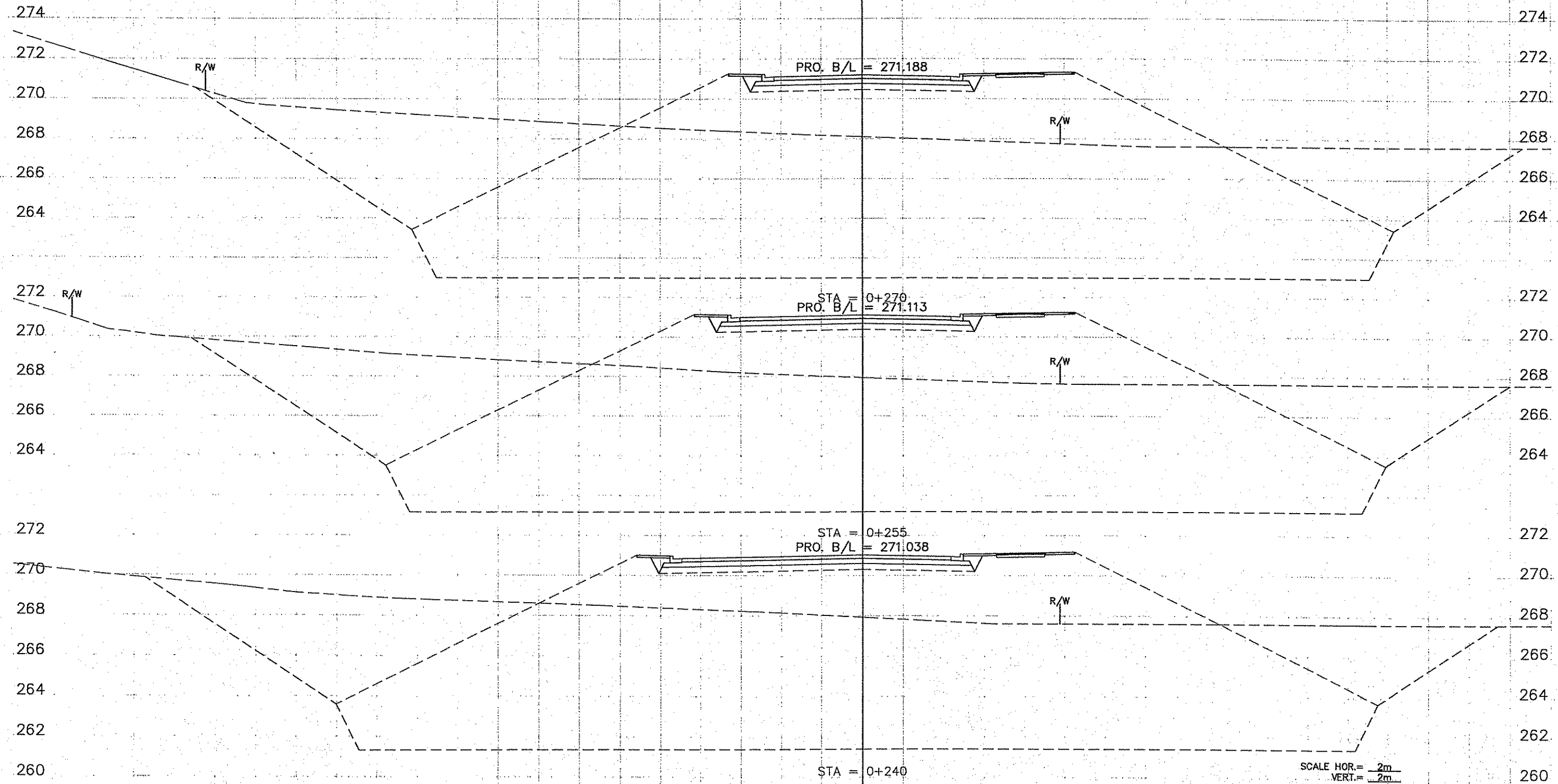


SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+180 TO STA. 0+225

Q:\CIVIL\CLIENTS\M... \SHOREVIEW RICE CREEK VACADY PLANS\SHR0403.DWG
 DATE: 05-24-99 3:59 pm
 USER: CP2245P
 XREFS:

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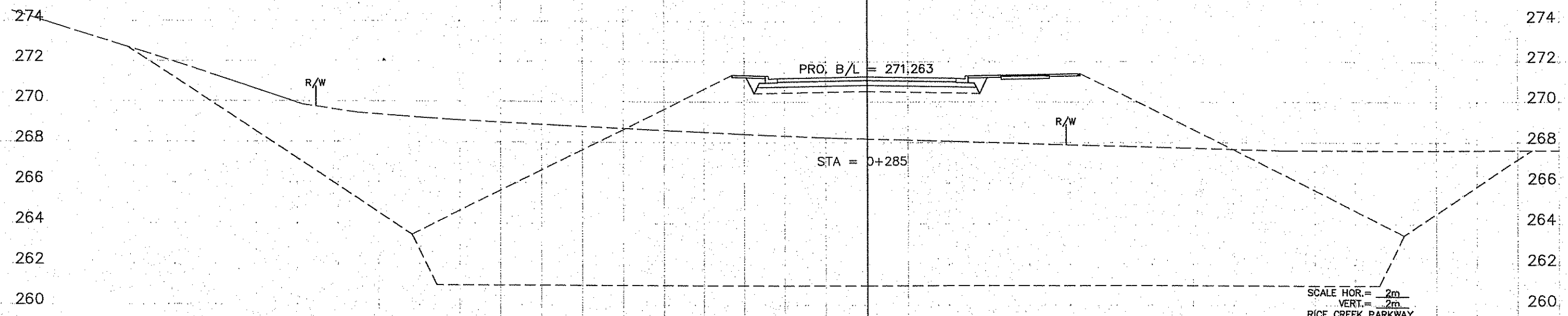
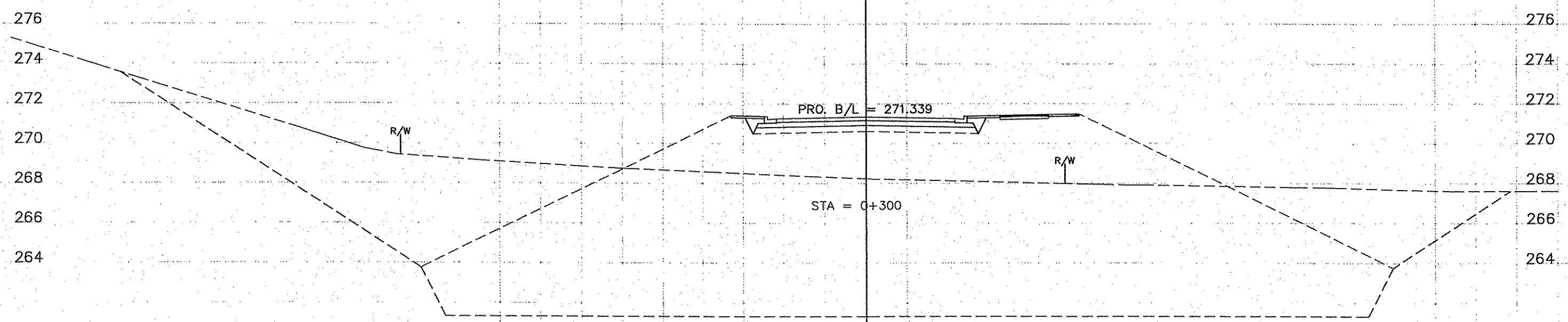
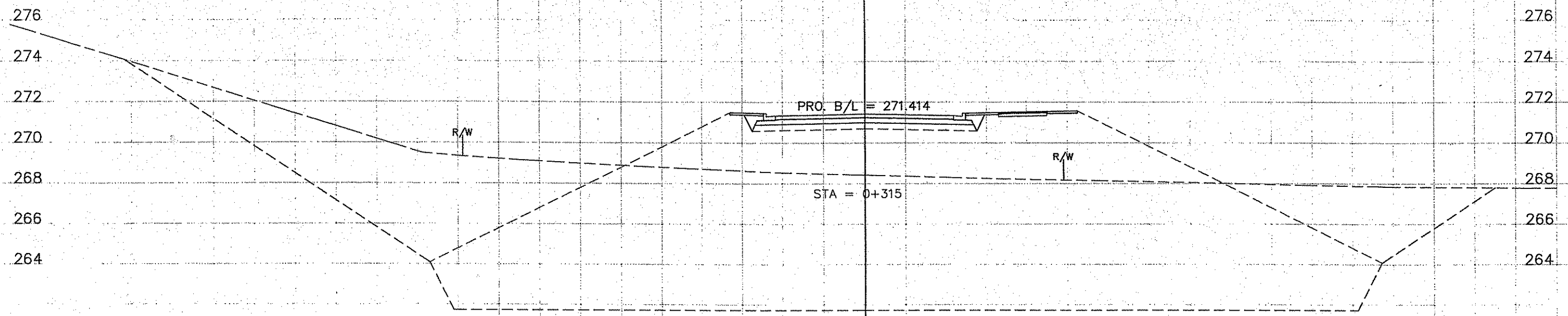
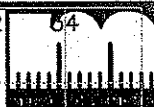
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



C:\CIVIL\CLIENTS\W... \ASHOREVIEW\RICE_CREEK\ACAD\PLANS\SH880004.DWG
 DATE: 06-24-99 10:42 4:00 pm USER: CPU204SP
 SHEETS:

SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+240 TO STA. 0+270

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

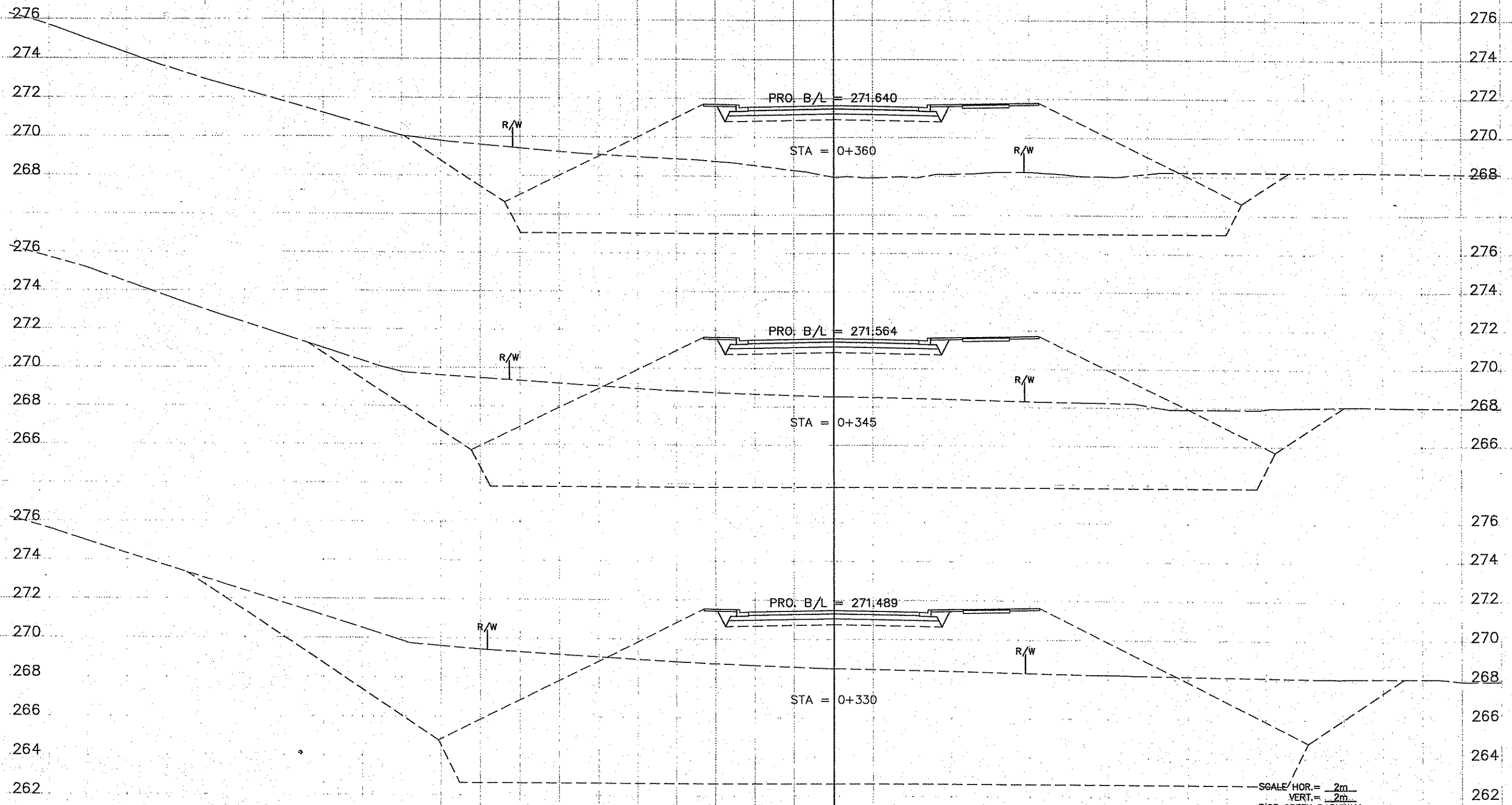


SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 0+285 TO STA. 0+315

C:\CIVIL\CLIENTS\W\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR0809.DWG
 DATE: 09-24-99 4:01 pm
 USER: CPU2005P
 XREFS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

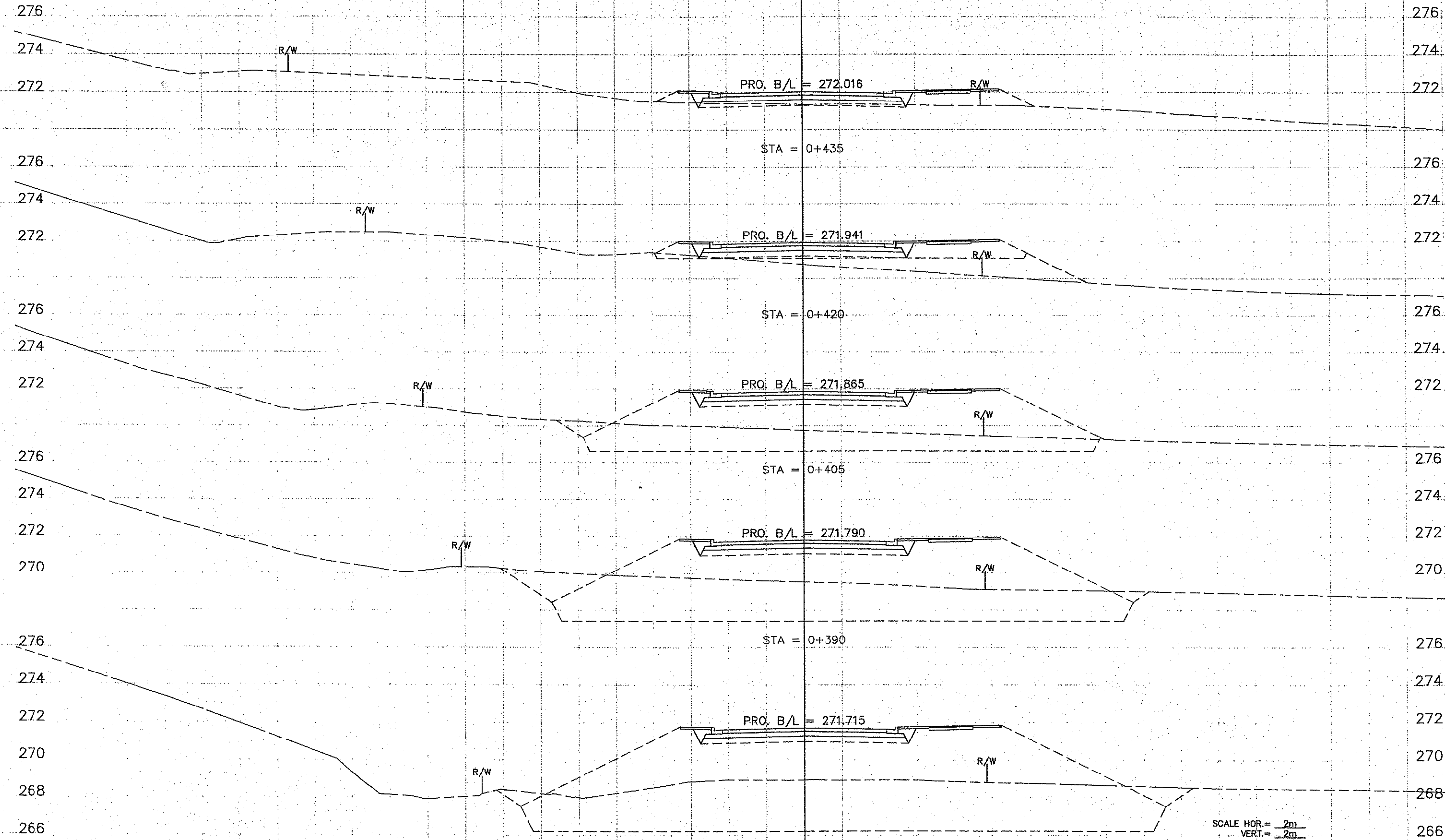


SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+330 TO STA. 0+360

O:\CIVIL\CLIENTS\W\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SH60406.DWG
 DATE: 06-24-99
 USER: CP1204SP
 XREFS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

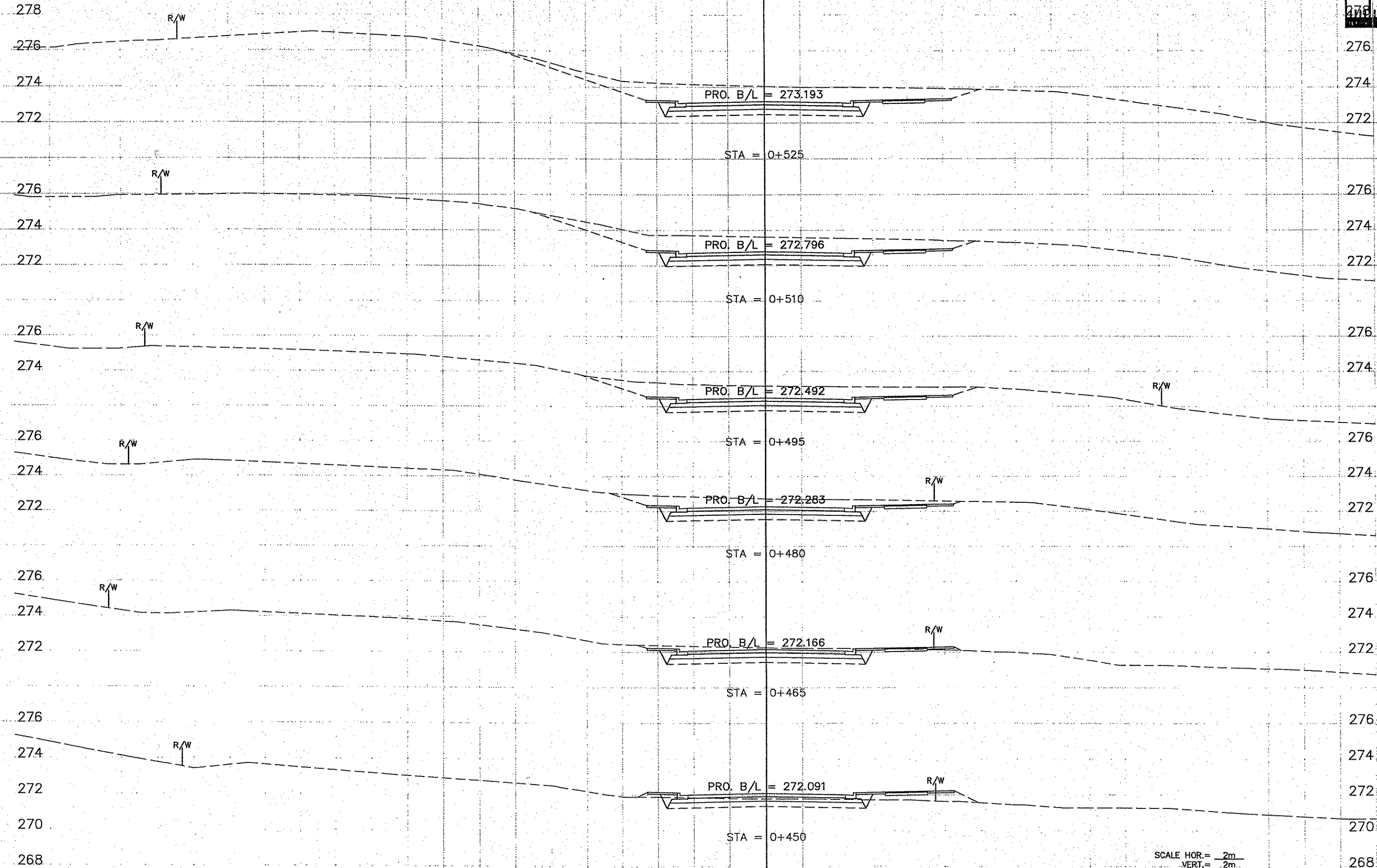
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



Q:\VIA\CLIENTS\M... SHOREVIEW\RICE_CREEK\ACAD\PLANS\SHR04X07.DWG
DATE: 06-24-99 4:04 pm USER: CRUZD4P
XREFS:

SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 0+375 TO STA. 0+425

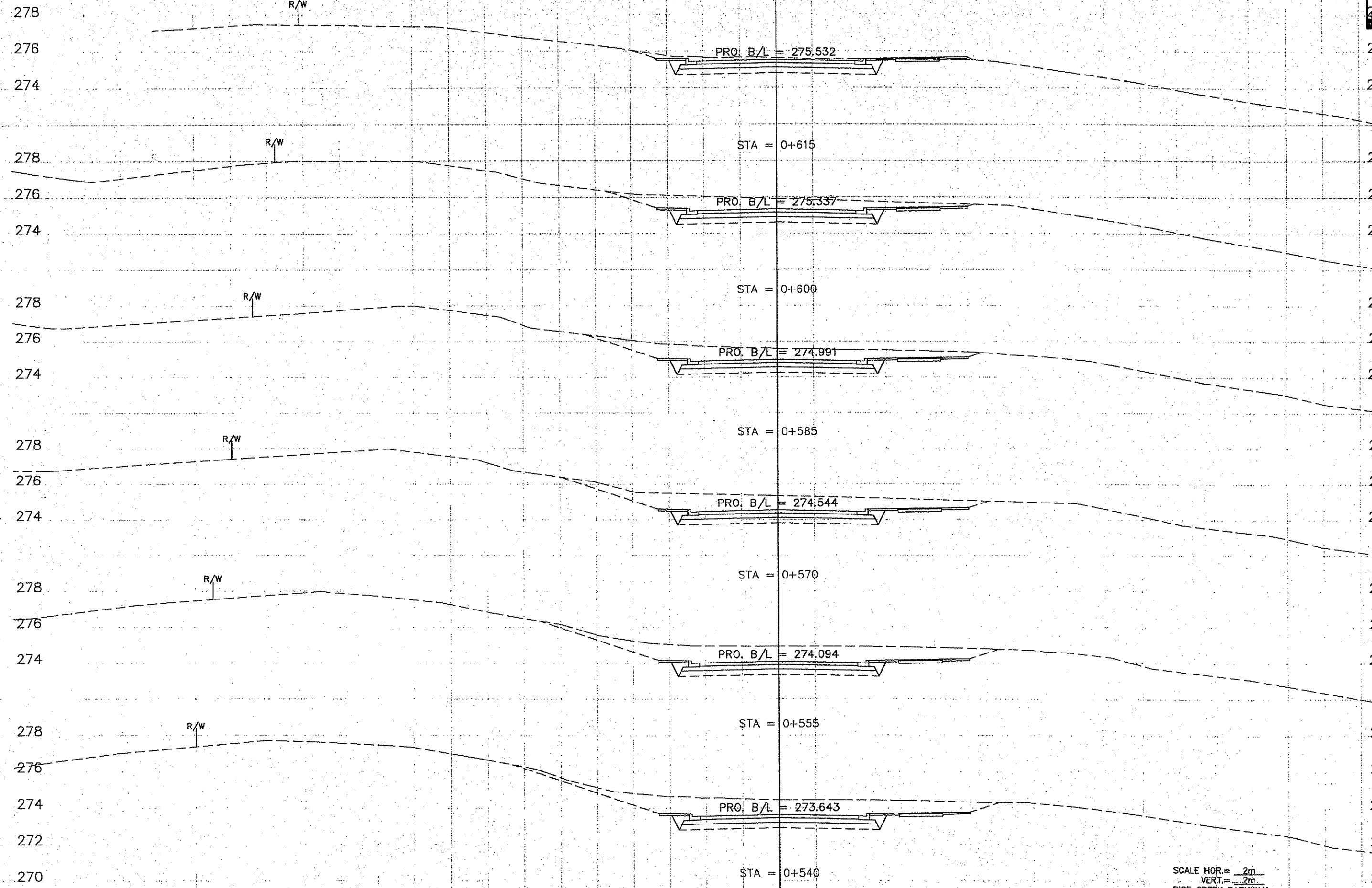
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34



SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+450 TO STA. 0+525

O:\CIVIL\CLIENTS\M... \SHORELINE\RICE_CREEK\ACAD\PLANS\SHROX08.DWG
 DATE: 06-24-99 4:05 PM USER: CRUZDAR
 XREFS:

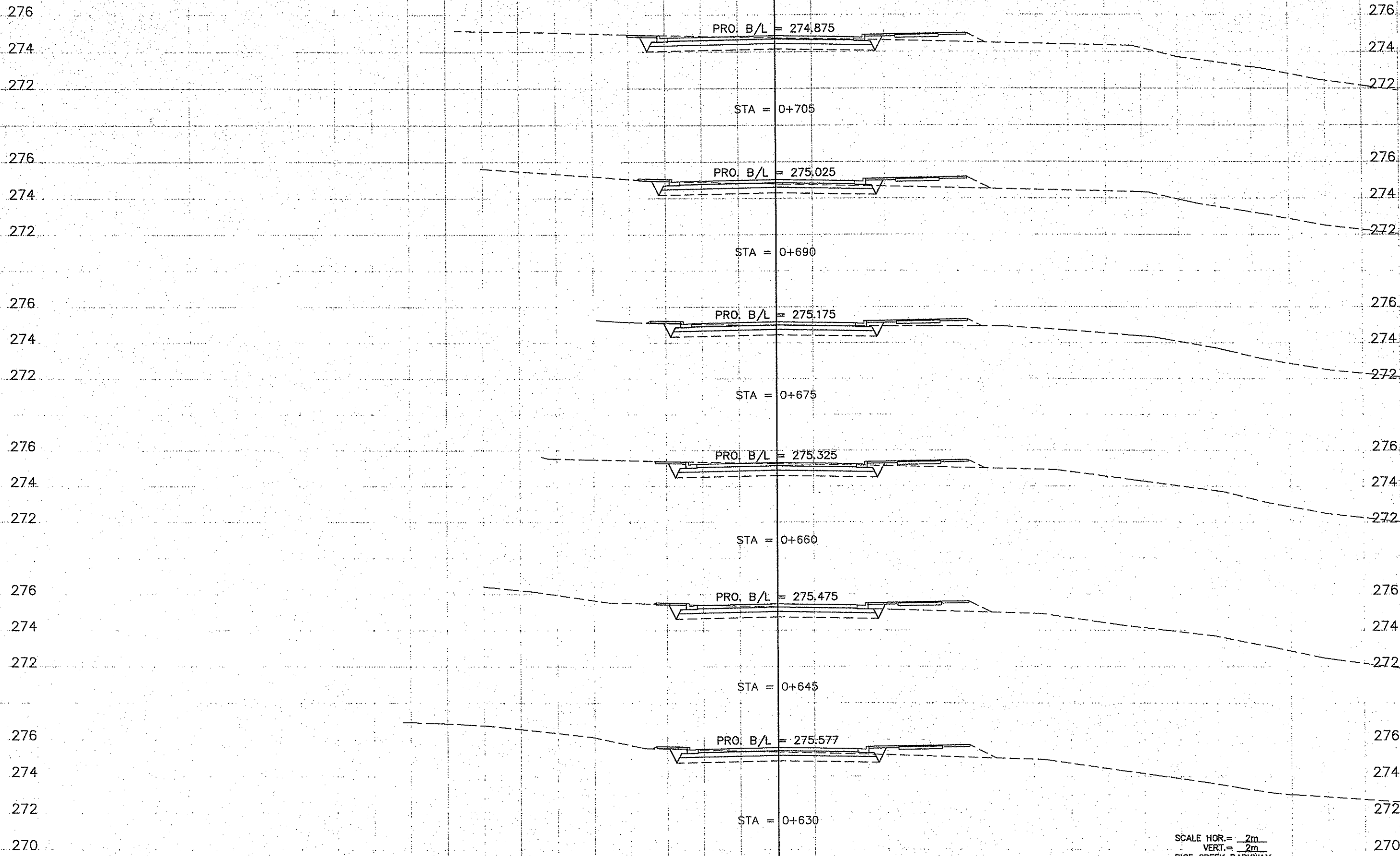
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34



SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+540 TO STA. 0+615

C:\LIVIA\PROJECTS\M... \SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR0409.DWG
 DATE: 05-24-99 TIME: 4:07 pm
 USER: CPUZDASP
 PLOT:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

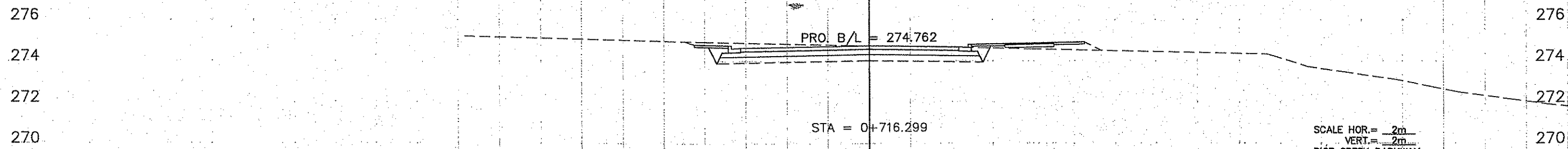


SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+630 TO STA. 0+705

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

G:\DATA\CLIENTS\M... SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR04X10.DWG
 DATE: 05-24-99 4:08 pm USER: CPUZKASP
 SHEETS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



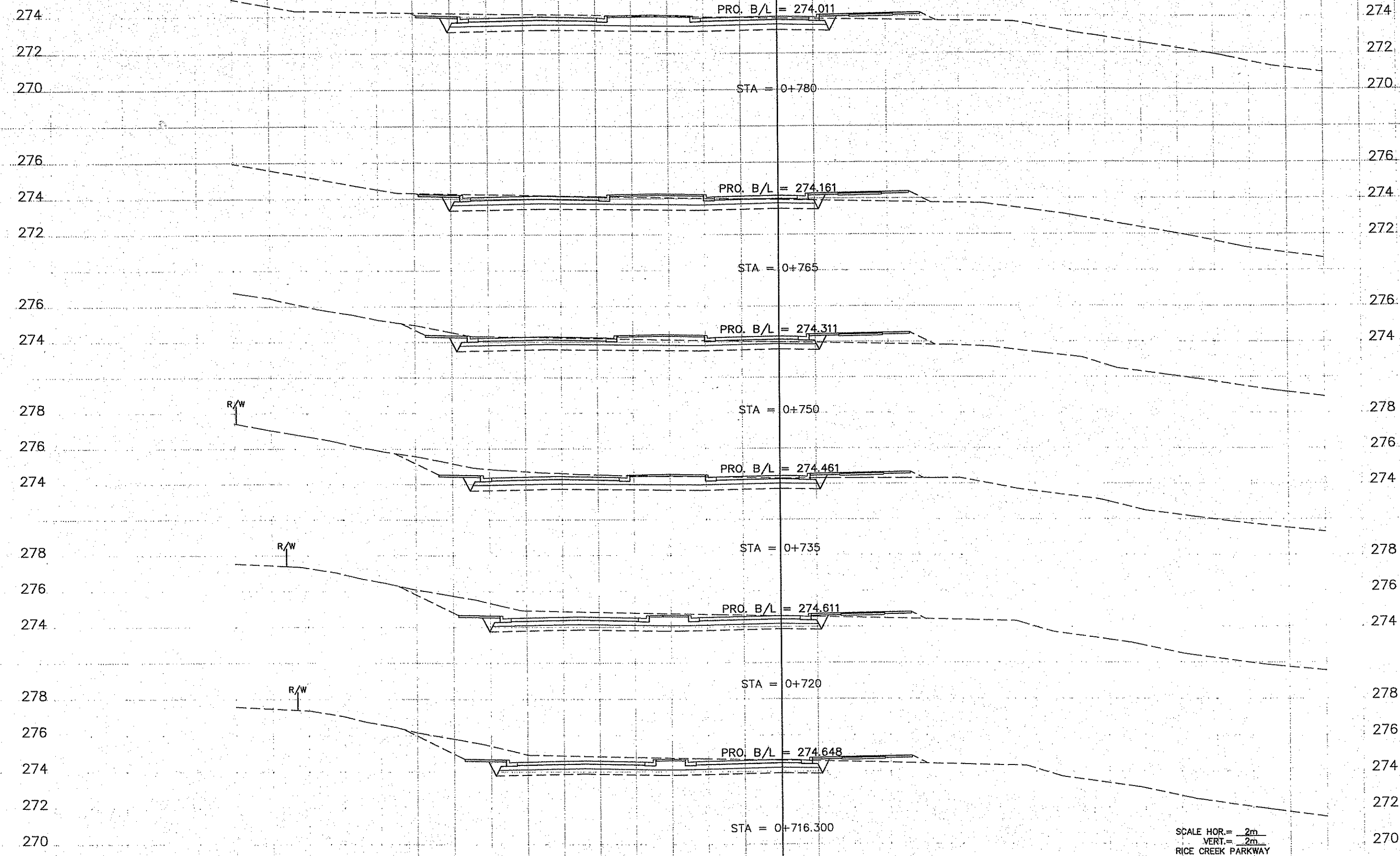
PRO. B/L = 274.762

STA = 0+716.299

SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+716.300

G:\CIVIL\CLIENTS\1\5\SHORELINE_RICE_CREEK\ACAD\PLANS\SHR09A11.DWG
 DATE: 06-24-99 4:09 pm USER: CPU200SP
 PREFERENCES

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

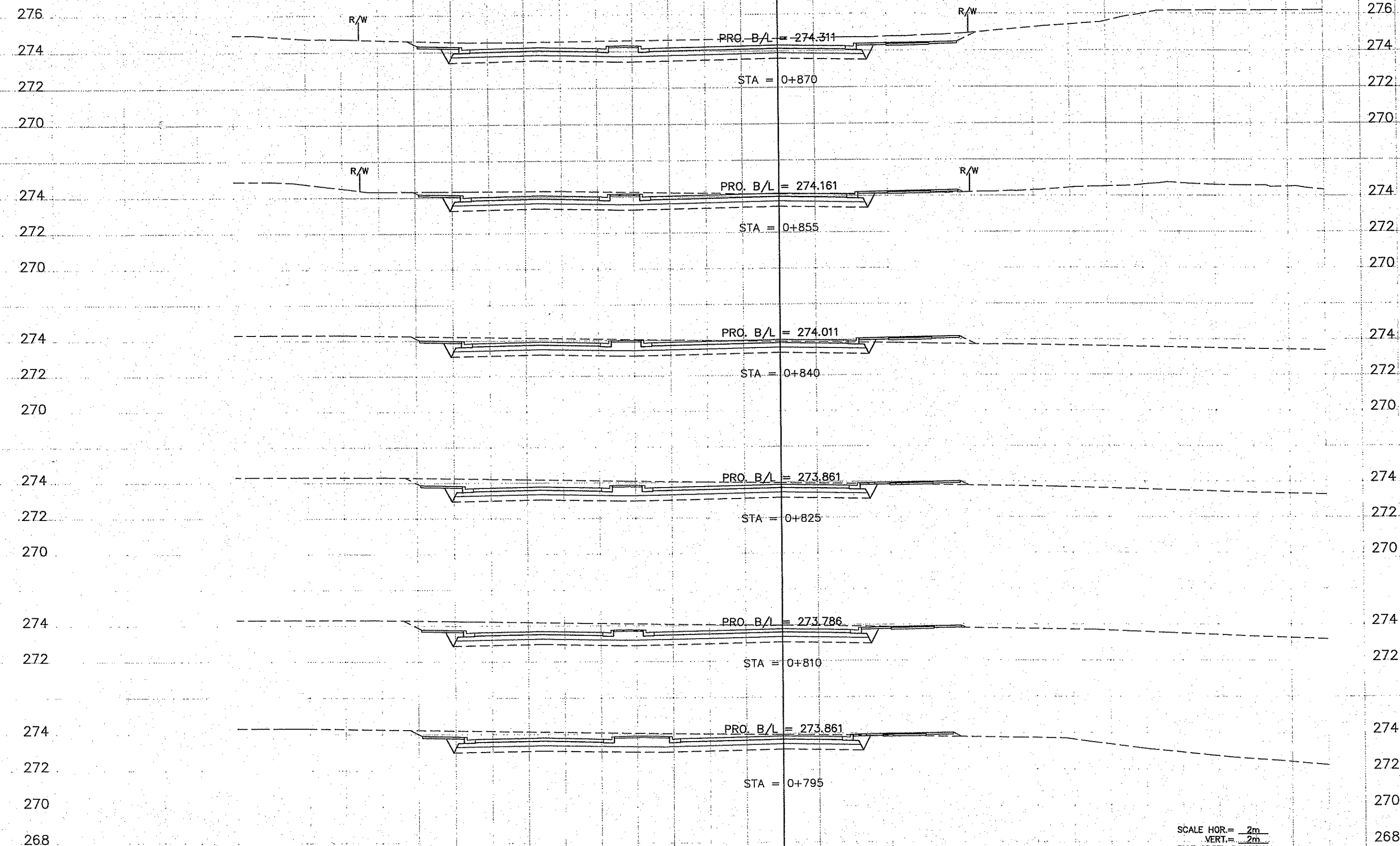


SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+716.300 TO STA. 0+780

Q:\CIVIL\CLIENTS\M... \SHOREVIEW\ICE_CREEK\ACAD\PLANS\SH0472.DWG
 DATE: 06-24-99 4:10 pm
 USER: CPU204SP
 XREFS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

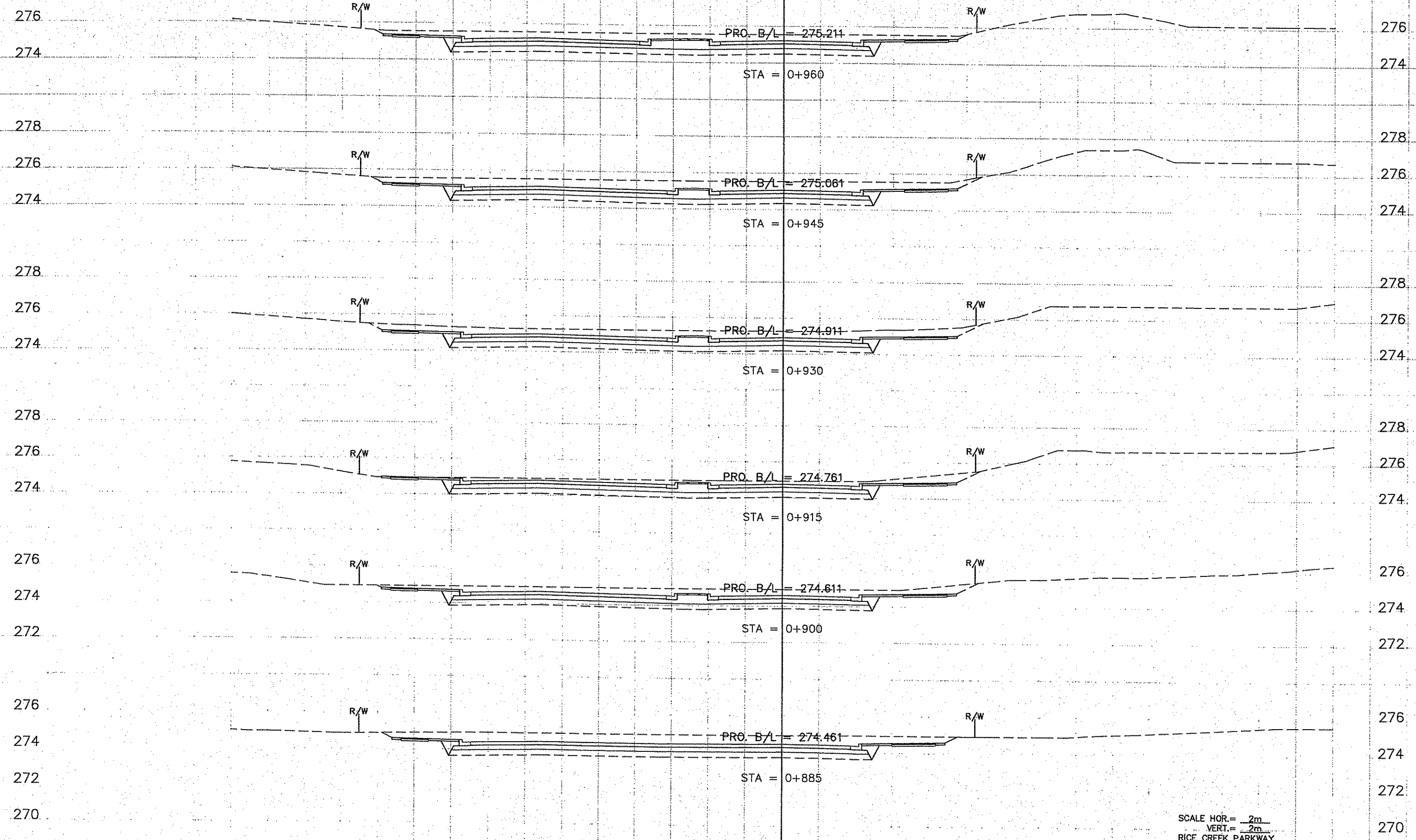
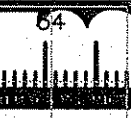


SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+795 TO STA. 0+870

G:\CIVIL\CLIENTS\W. \SHOREVIEW\RICE_CREEK\ACAD\PLANS\SHR00X13.DWG
 DATE: 08-24-99 4:10 pm
 USER: CPU204SP
 XREFS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

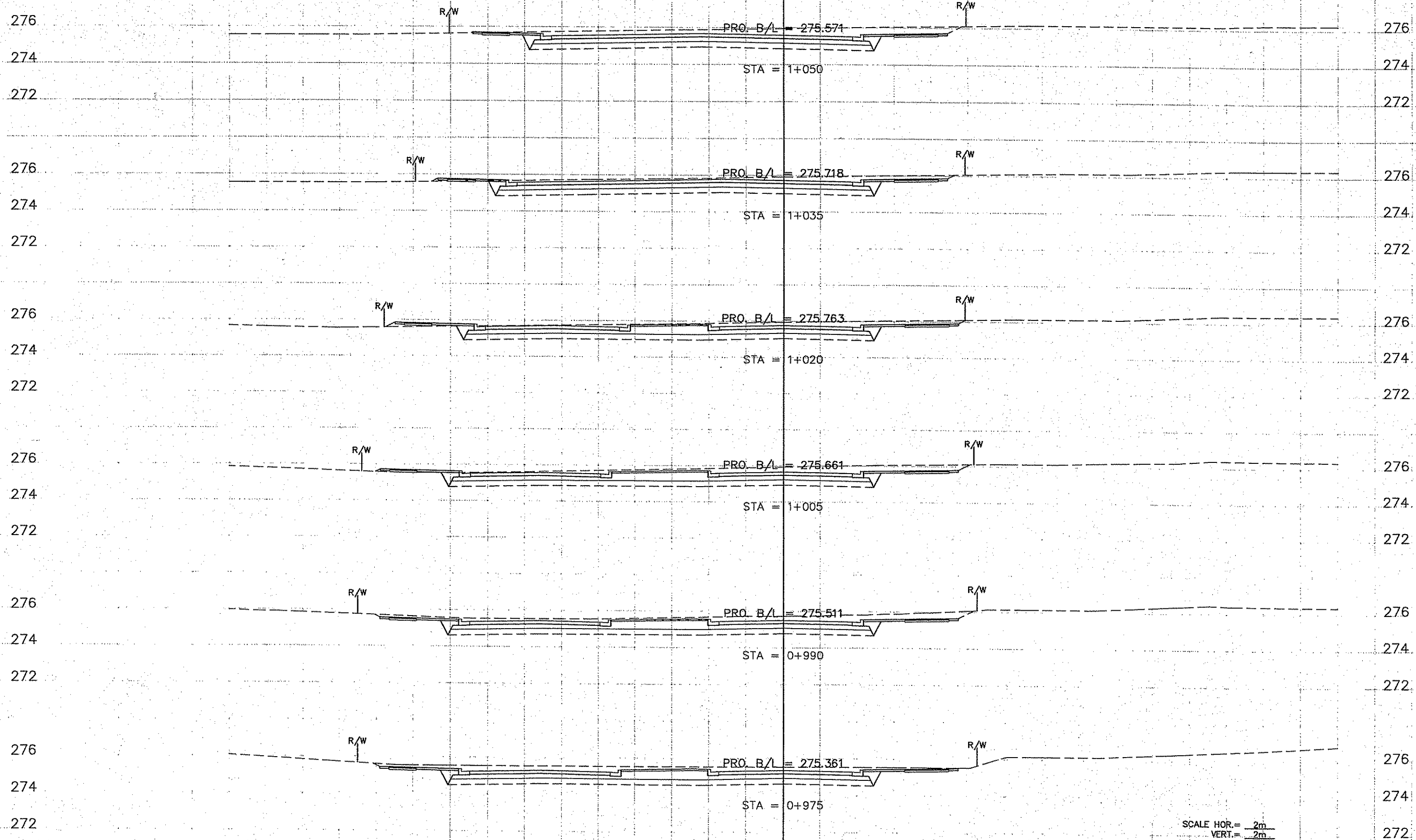
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+885 TO STA. 0+960

G:\CIVIL\CLIENTS\VA... S:\SHOREVIEW\ICE_CREEK\VA\01\PLANS\SH000414.DWG
 DATE: 09-24-99 TIME: 4:11 PM USER: CP0204SP

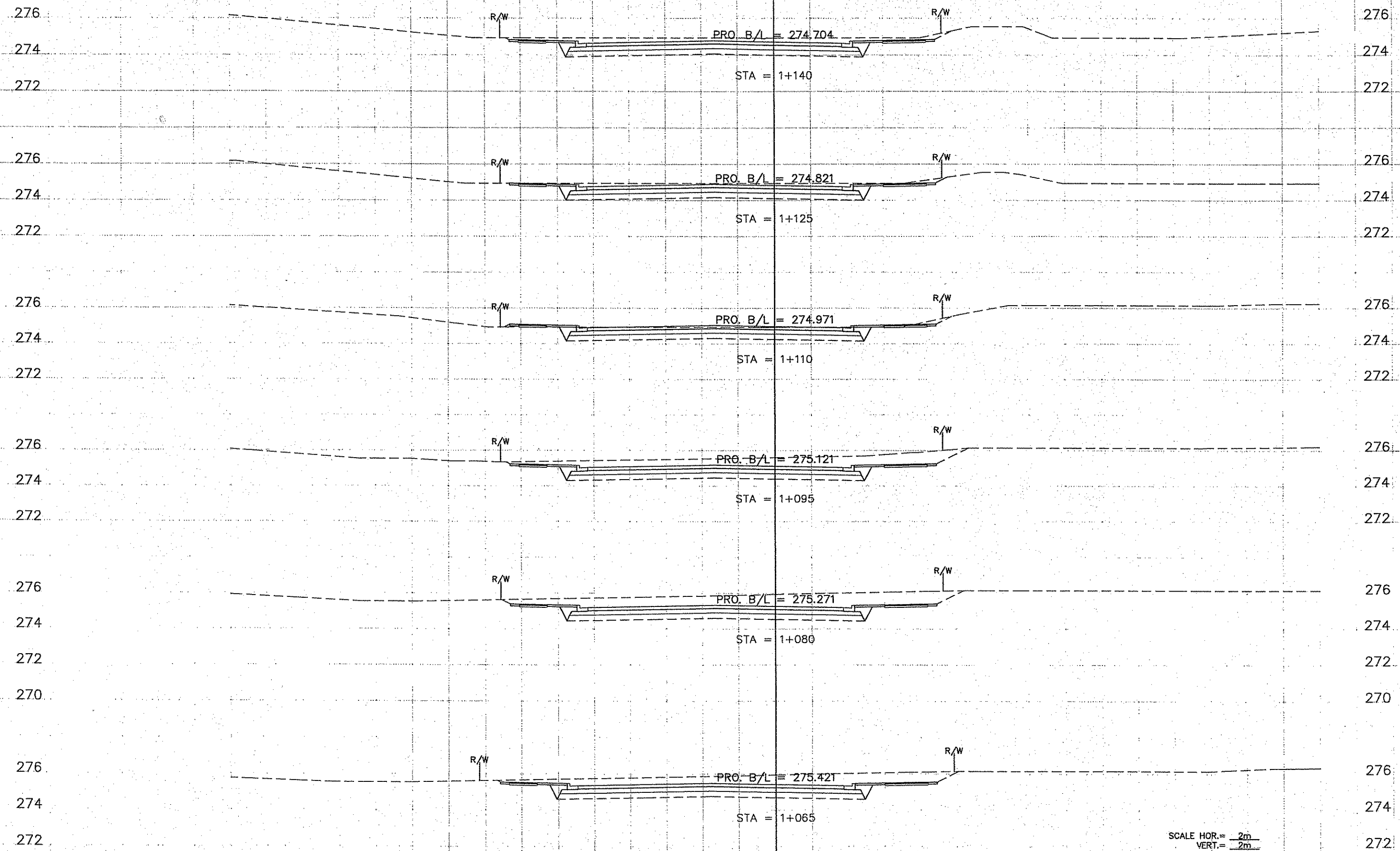
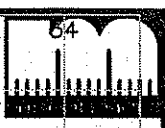
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+975 TO STA. 1+050

C:\CIVIL\CLIENTS\VA\SHOREVIEW\SHOREVIEW\ACAD\PLANS\SH04X15.DWG
 DATE: 06-24-99 11:41:42 AM
 USER: CRUZBAP

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32

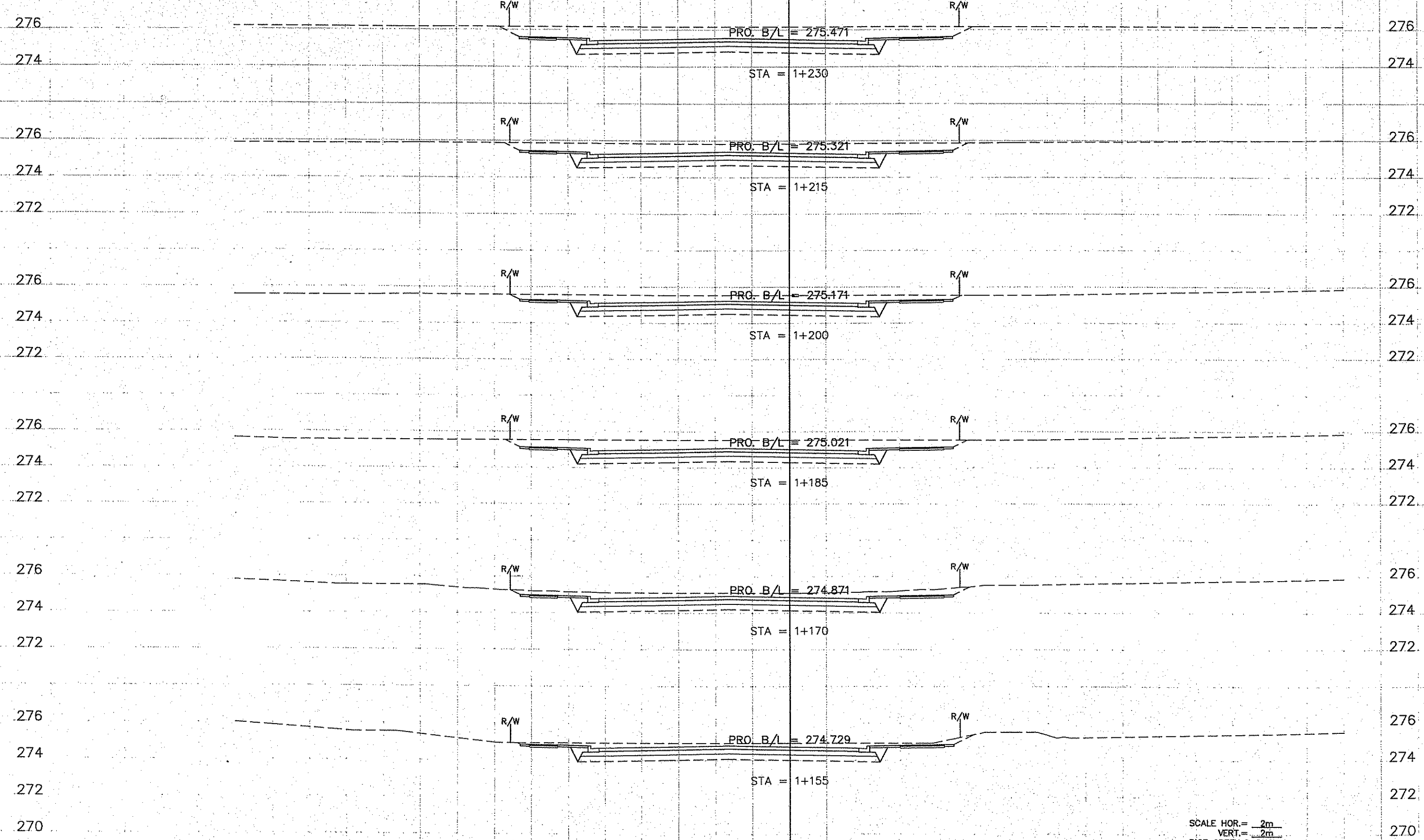
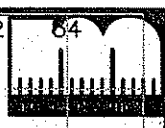


C:\MIL\CLIENTS\W... SHOREVIEW RICE_CREEK\ACAD\PLANS\SHR04M16.DWG
 DATE: 06-24-89 TIME: 4:13 PM USER: CPU204SP
 PLOTTED:

SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 1+065 TO STA. 1+140

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32

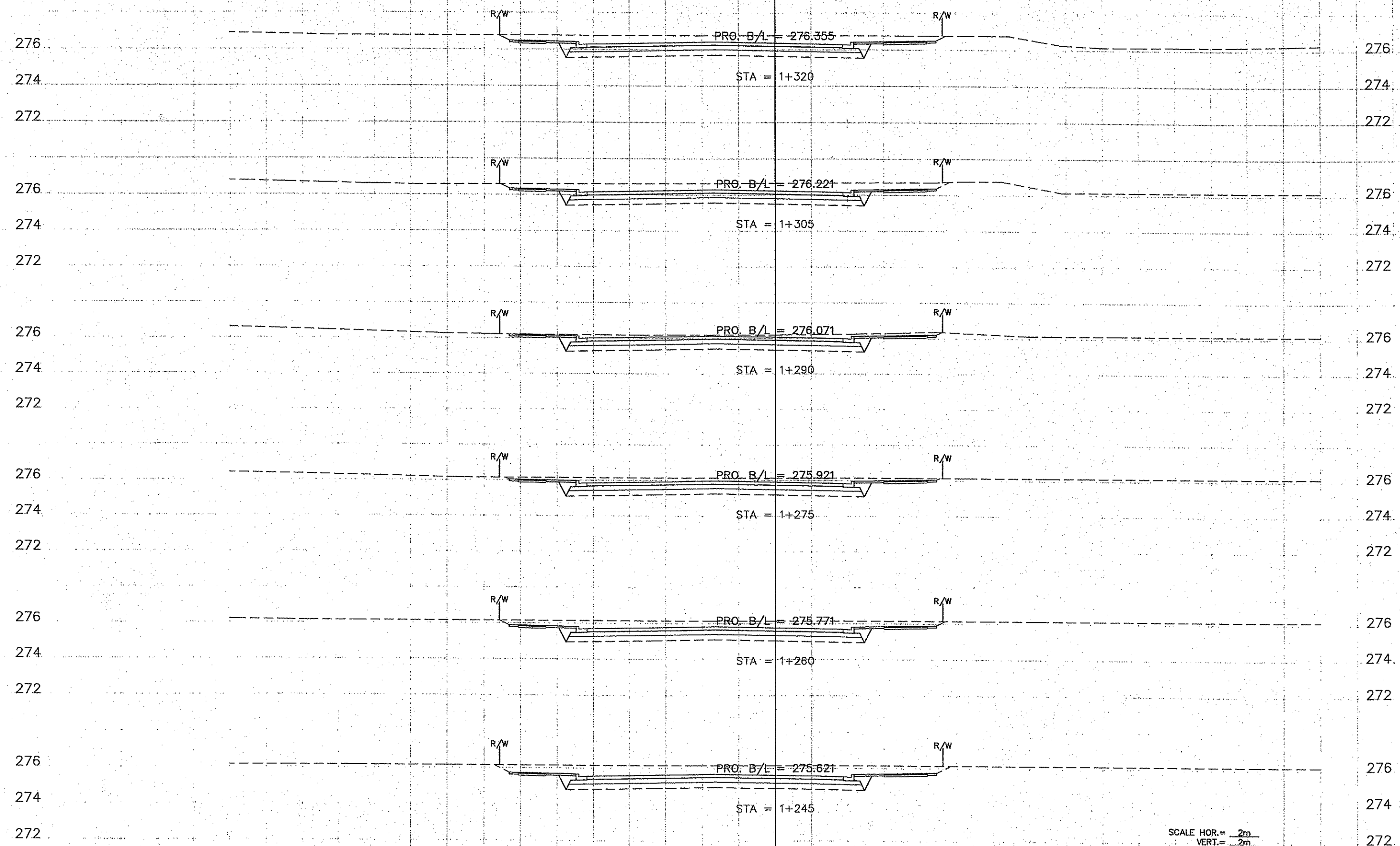


Q:\DATA\VALENTS M. \SHOREVIEW\RICE_CREEK\ACAD\PLANS\SHRO0417.DWG
 DATE: 05-24-99 4:16 pm
 USER: CPU204SP
 XREFS:

SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 1+155 TO STA. 1+230

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32

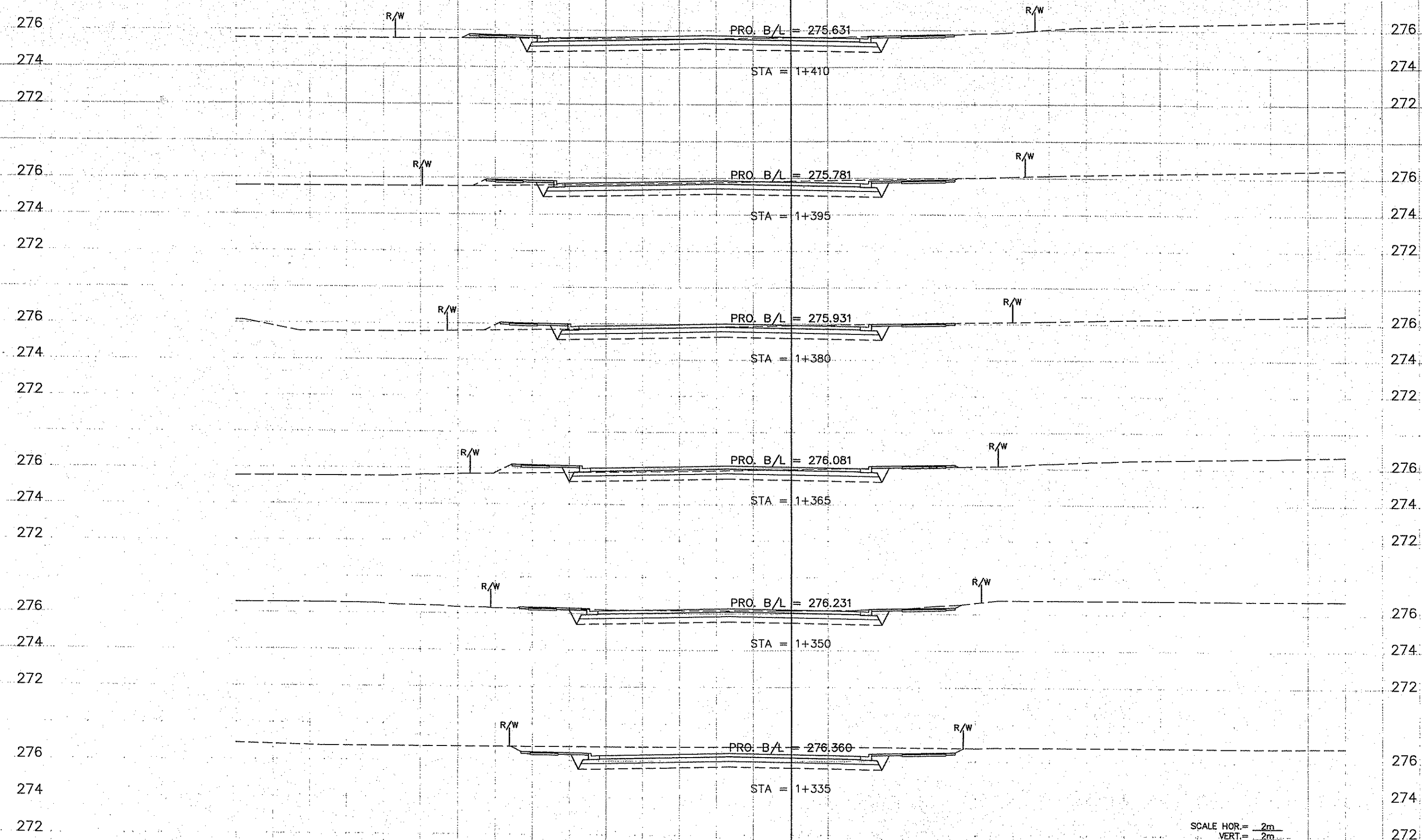


C:\CIVIL\CLIENTS\W. \SHOREVIEW\CRICE_CREEK\ACAD\PLANS\SHR00015.DWG
DATE: 06-24-99 4:17 pm USER: GPO204SP

SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 1+245 TO STA. 1+320

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

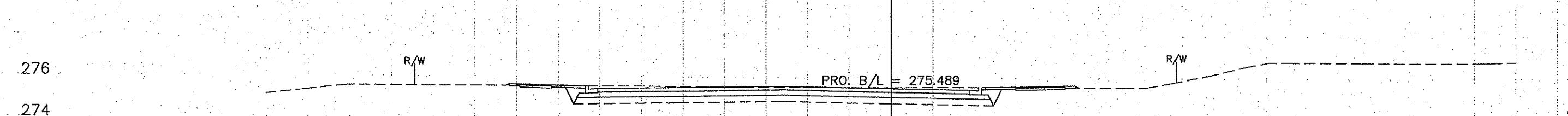
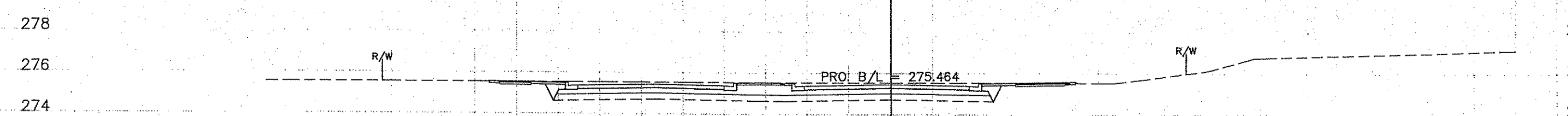
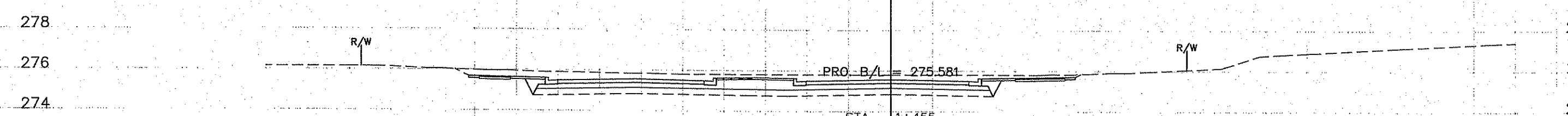
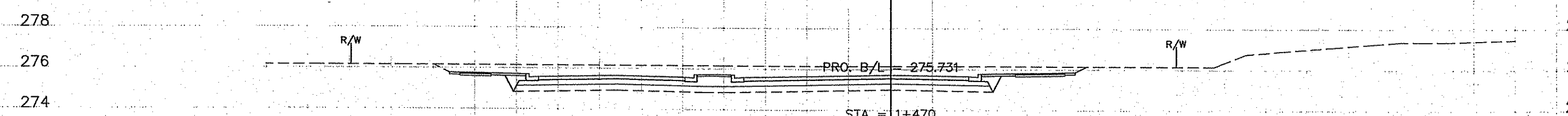
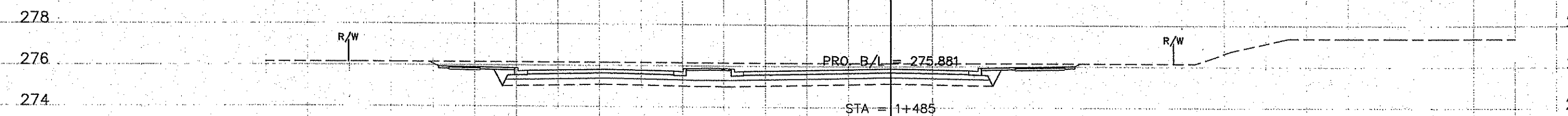
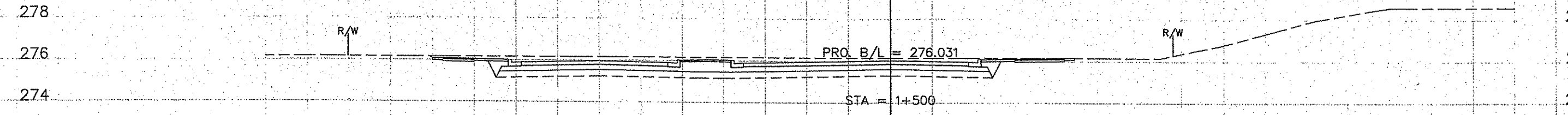
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 1+345 TO STA. 1+410

Q:\CIVIL\CLIENTS\M...
 DATE: 05-24-99
 USER: CFUZAASP
 TIME: 4:19 pm

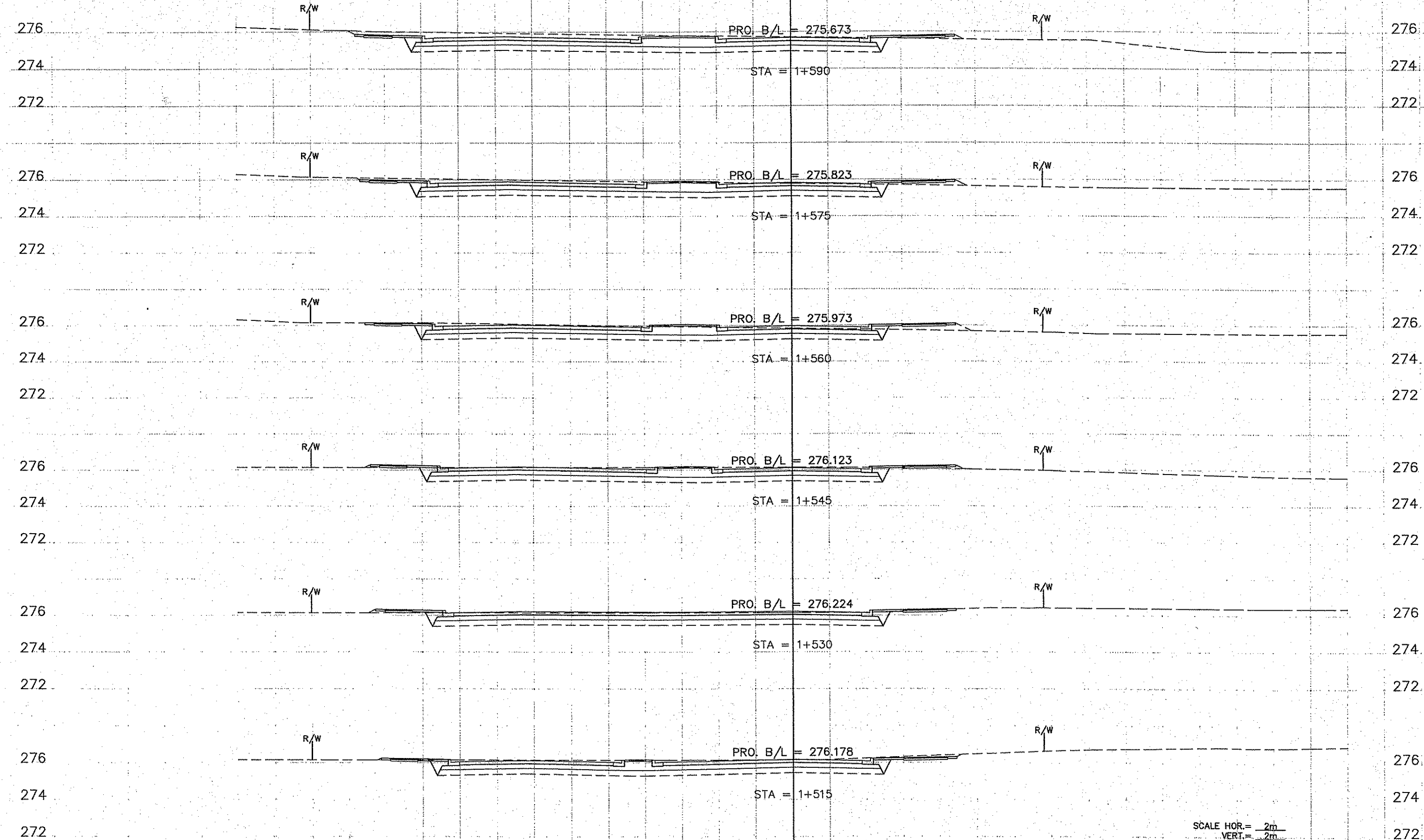
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34



SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 1+425 TO STA. 1+500

C:\VIA\CLIENTS\11\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR0420.DWG
 DATE: 06-24-99 4:19 pm
 USER: CPUZ04SP
 XREFS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32

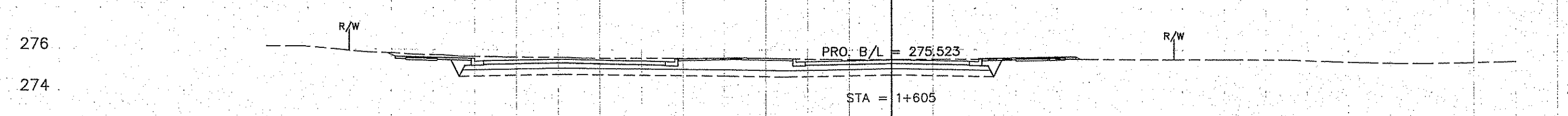
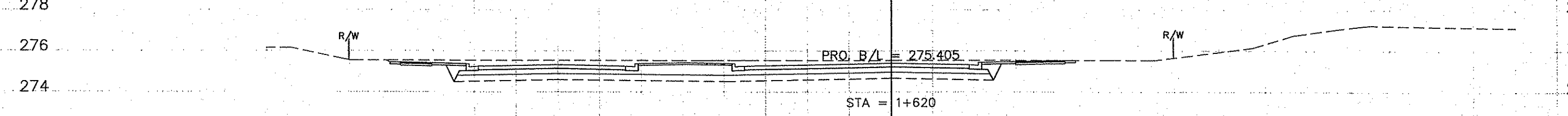
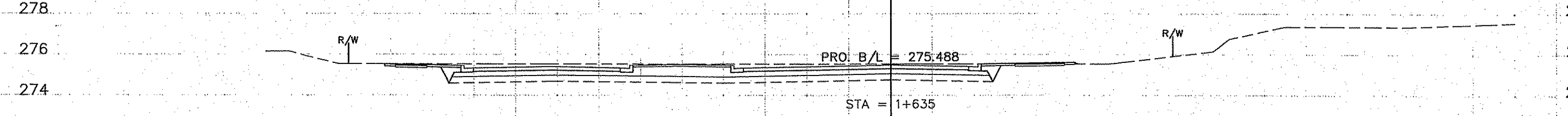
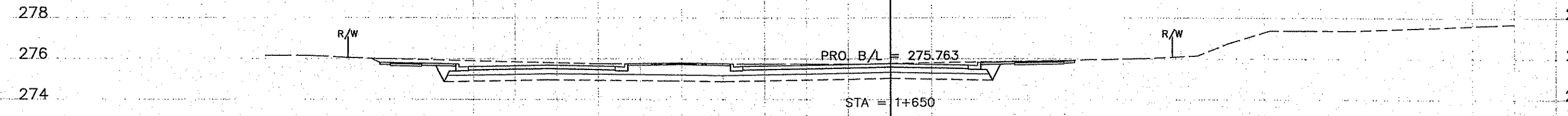
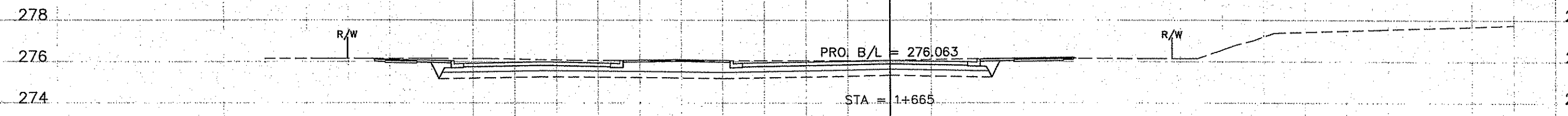
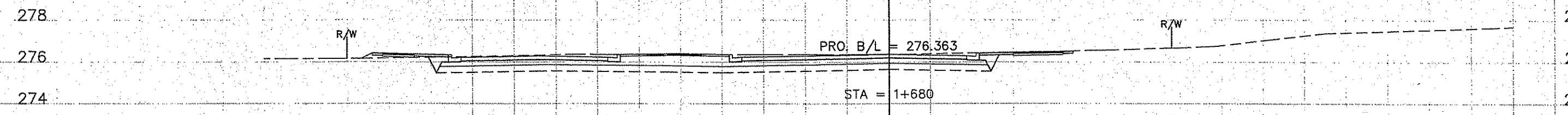


SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 1+515 TO STA. 1+590

G:\CIVIL\CLIENTS\VA... SHOREVIEW\ICE_CREEK\ACAD\PLANS\SH804X21.DWG
 DATE: 06-24-99 1:42:20 PM
 USER: CRUZDGP
 XREFS:

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

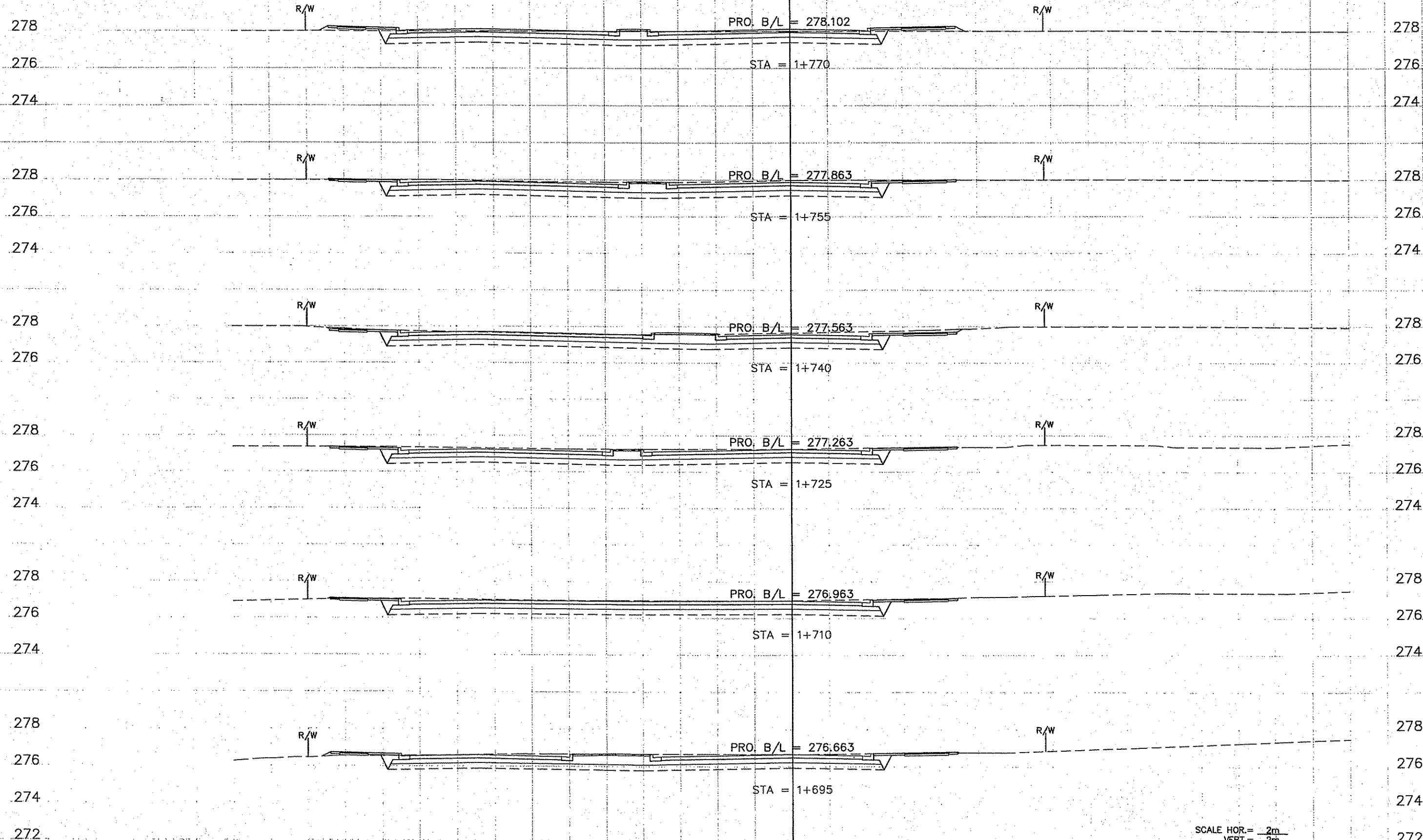
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32



SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 1+605 TO STA. 1+680

G:\CIVIL\CLIENTS\W... \SHOREVIEW\ICE_CREEK\ACAD\PLANS\SH04AZZ.DWG
 DATE: 09-24-99 4:22 pm
 USER: CPU204SP

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32

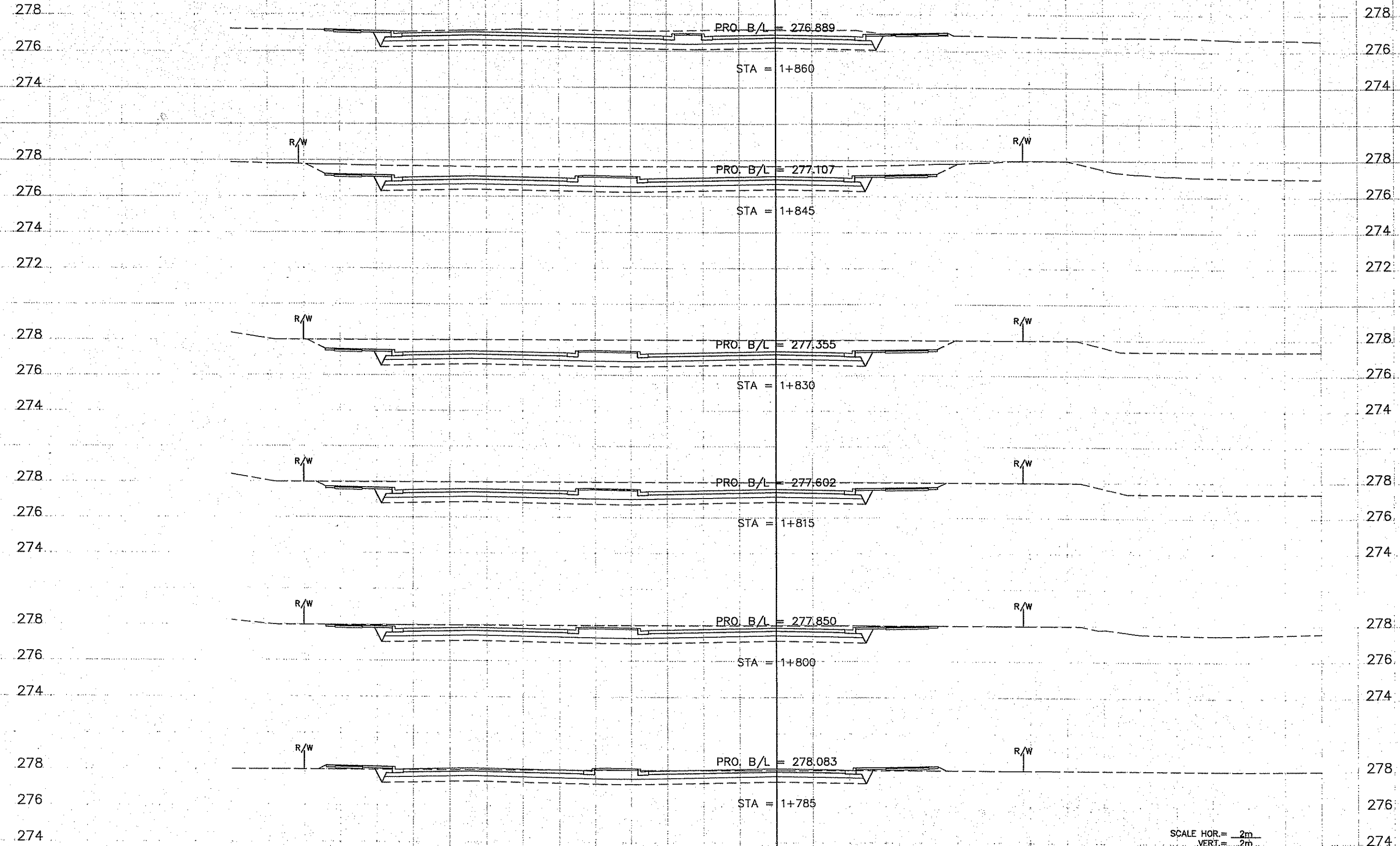


G:\CIVIL\CLIENTS\VA...
 \SHOREVIEW\PRICE_CREEK\ACAD\PLANS\SH894023.DWG
 DATE: 06-24-99 4:23 pm USER: CPU204SP
 XREFS:

SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 1+695 TO STA. 1+770

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32

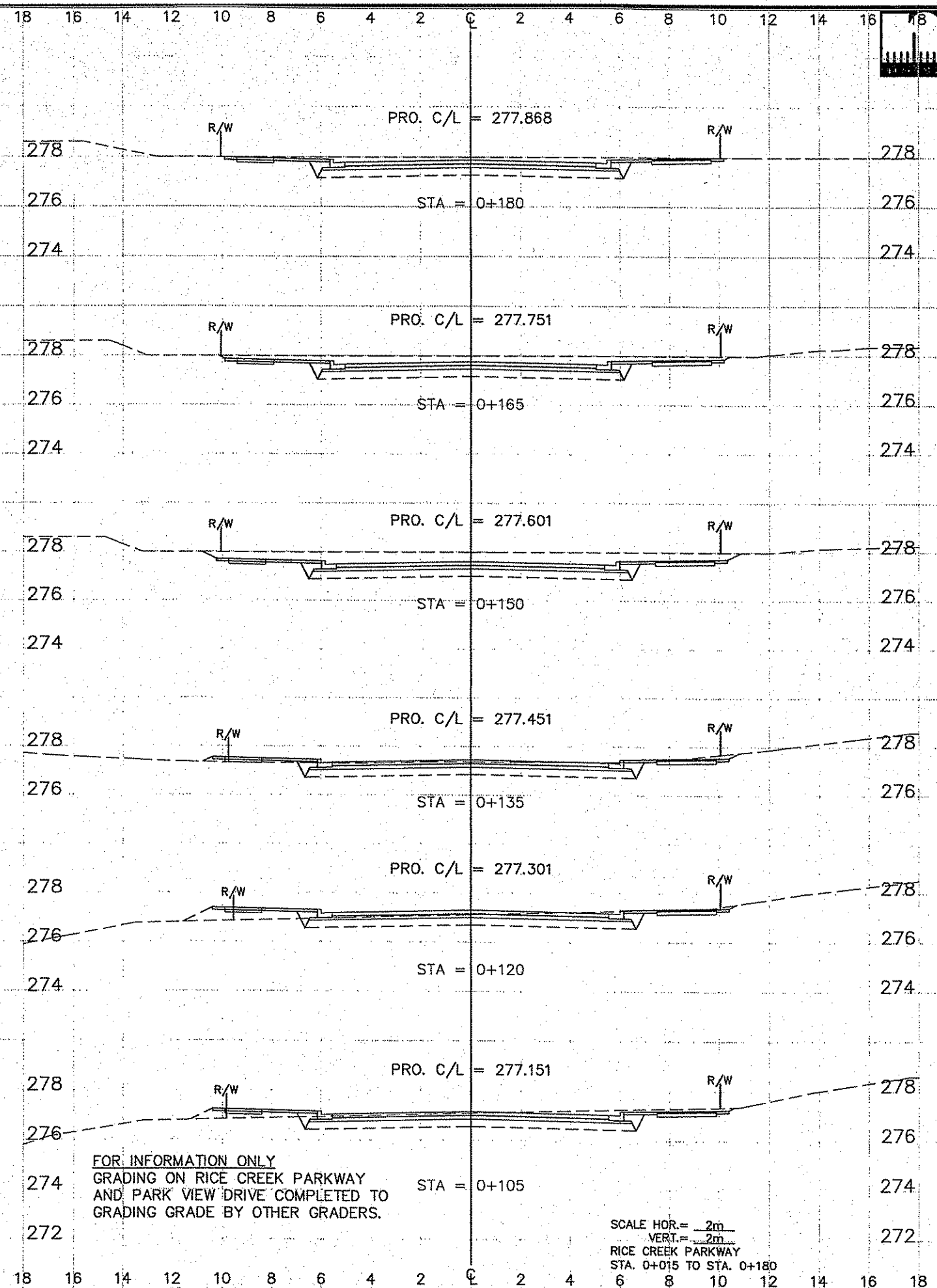
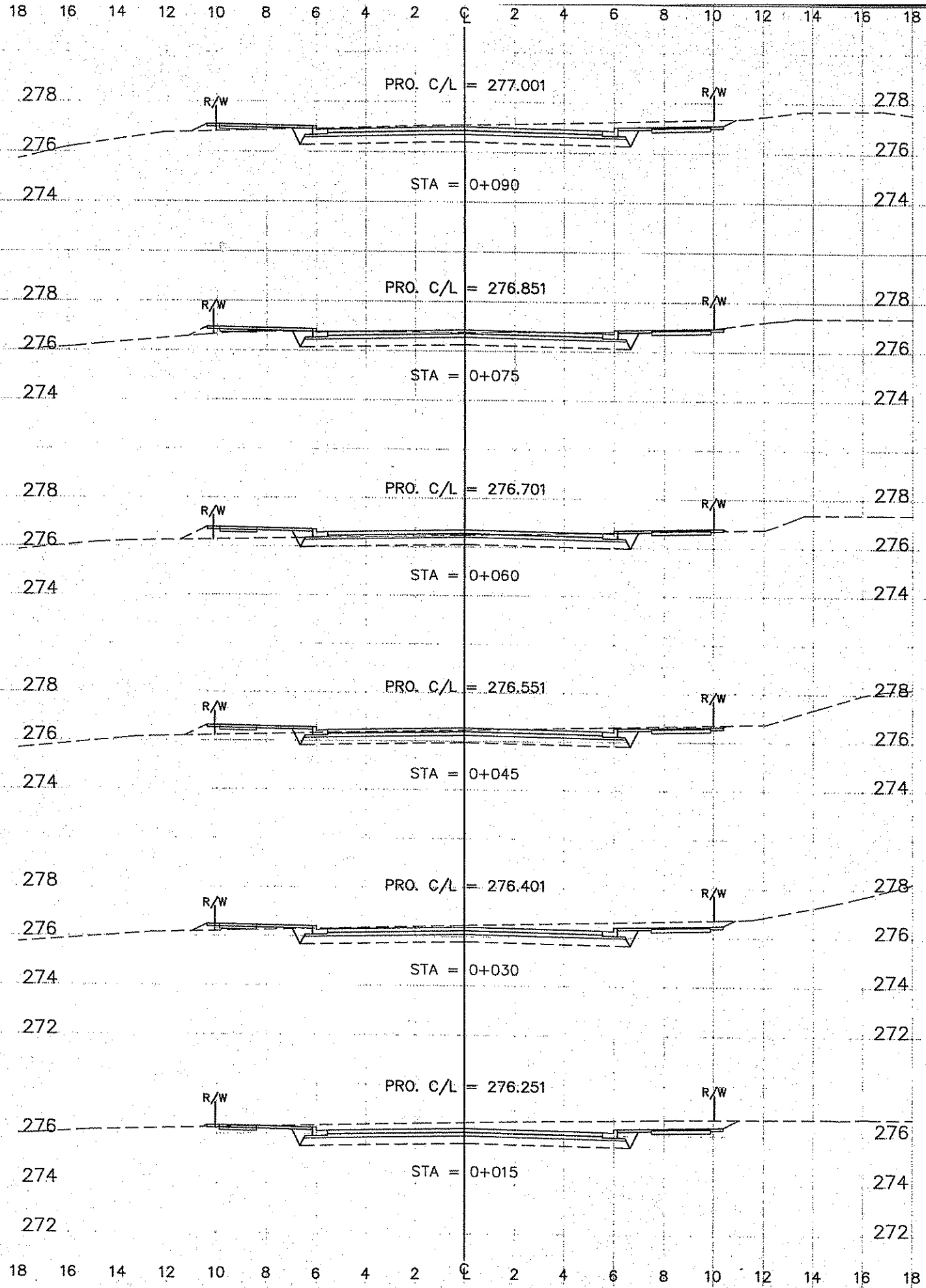


42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

G:\CIVIL\CLIENTS\11- SHOREVIEW\CRICK\ACAD\PLANS\SHR01024.DWG
DATE: 06-24-89 4:42 pm USER: CPU204SP
XREFS:

SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 1+785 TO STA. 1+860

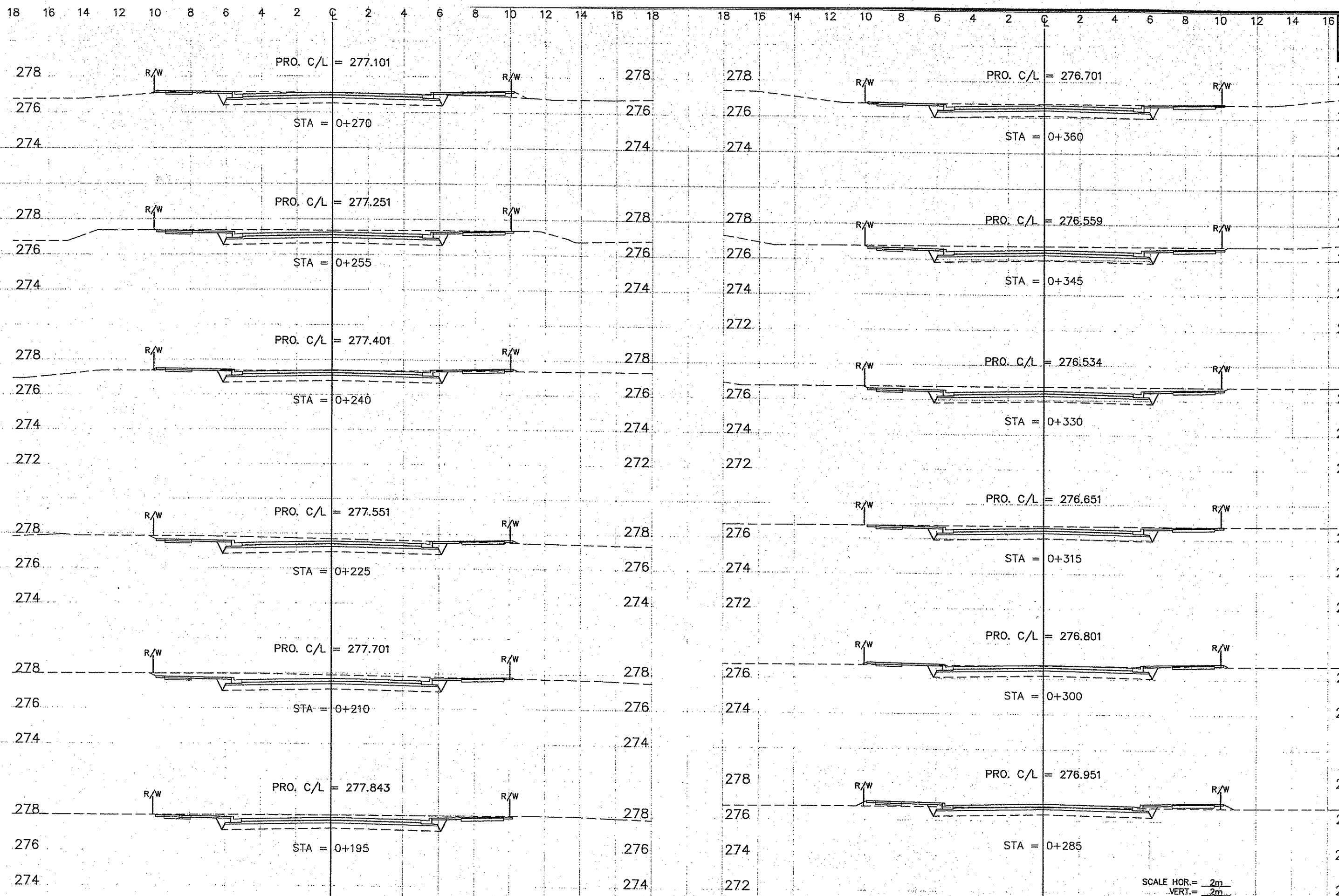
C:\CIVIL\CLIENTS\VA\SHOREVIEW\ICE_CREEK\ROAD\PLANS\SHR04\25.DWG
 DATE: 06-24-99 4:43 pm USER: CP1204SP
 XREFS:



FOR INFORMATION ONLY
 GRADING ON RICE CREEK PARKWAY
 AND PARK VIEW DRIVE COMPLETED TO
 GRADING GRADE BY OTHER GRADERS.

SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+015 TO STA. 0+180

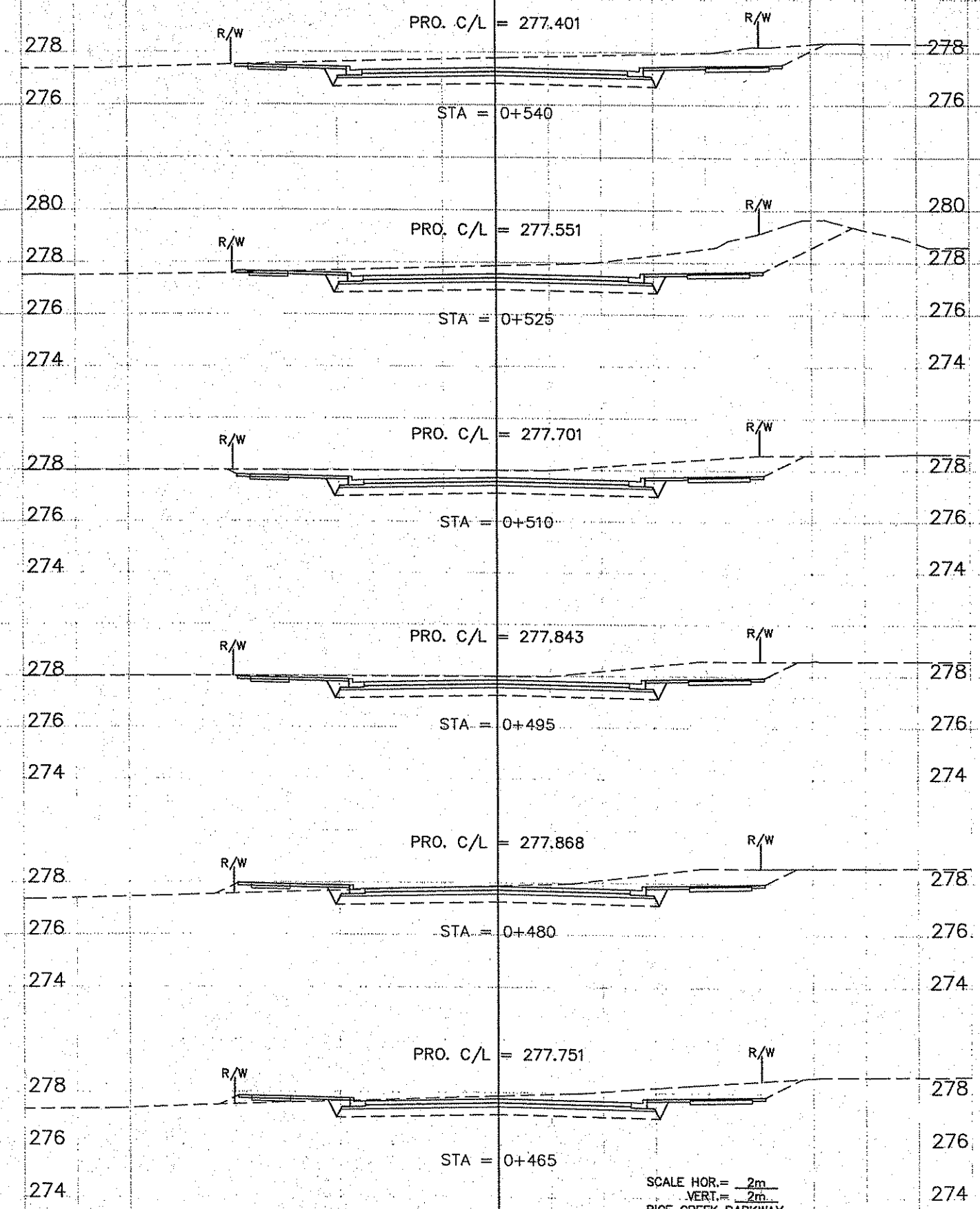
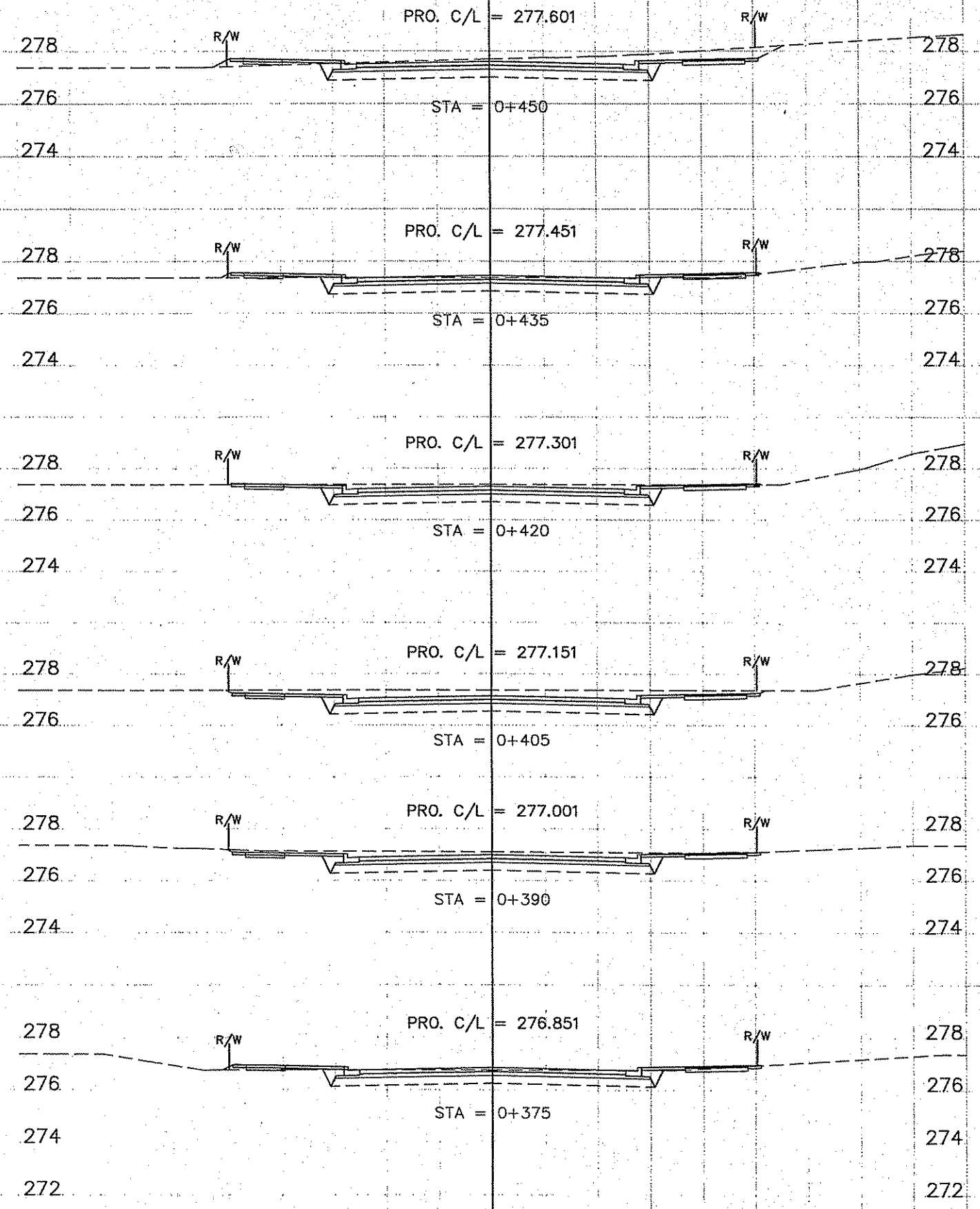
C:\CIVIL\CLIENTS\M... \SHORELINE_RICE_CREEK_VACADA_PLANS\18064K26.DWG
DATE: 06-24-99 4:44 pm USER: CPU204SP
XREFS:



SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 0+195 TO STA. 0+360

C:\GIVE\CLIENTS\VA\SHORELINE\RISE_CREEK\ACAD\PLANS\SHR04027.DWG
DATE: 06-24-99 4:44 pm
USER: CRUZOSP
XREFS:

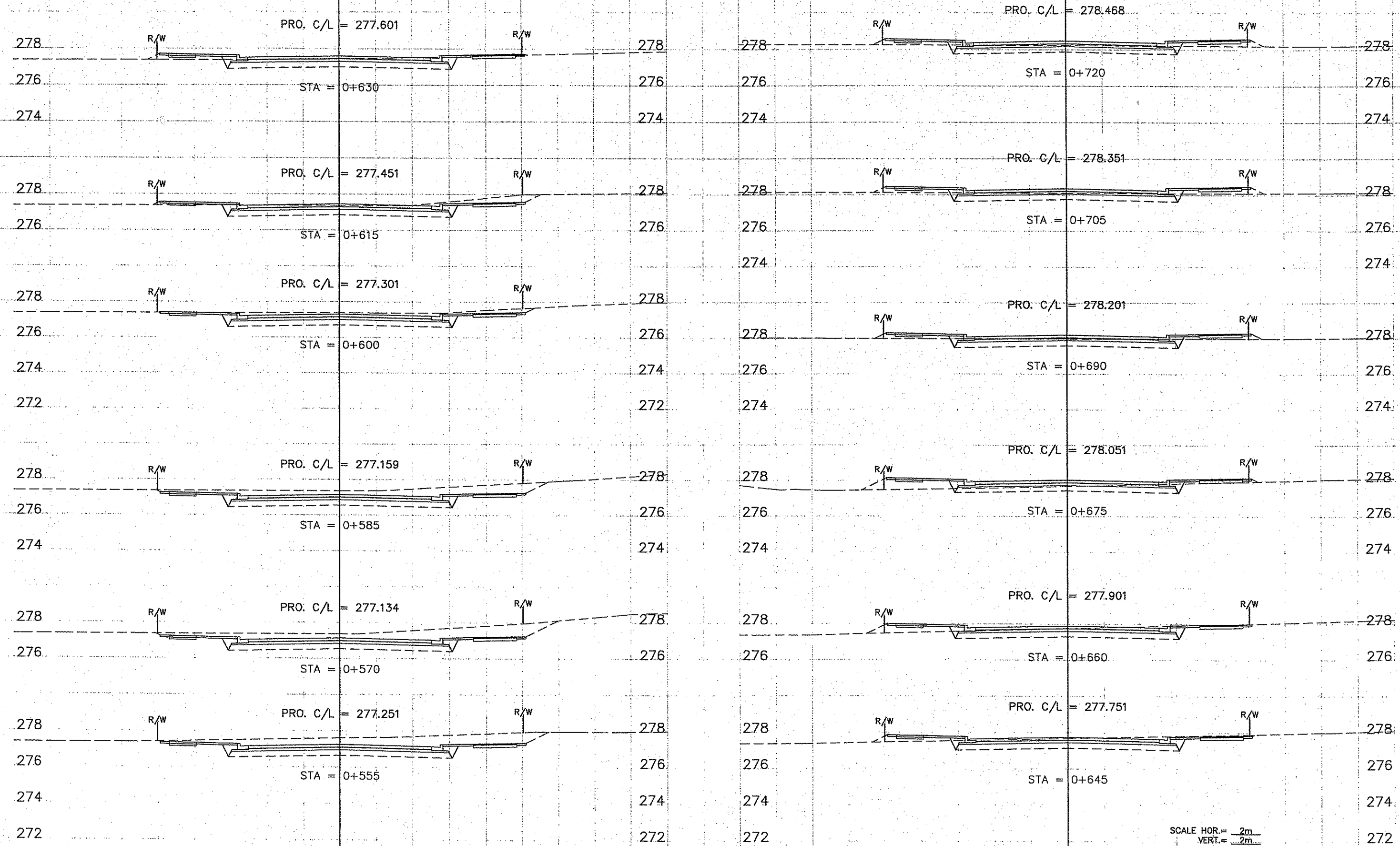
18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18



18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18

SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 0+375 TO STA. 0+540

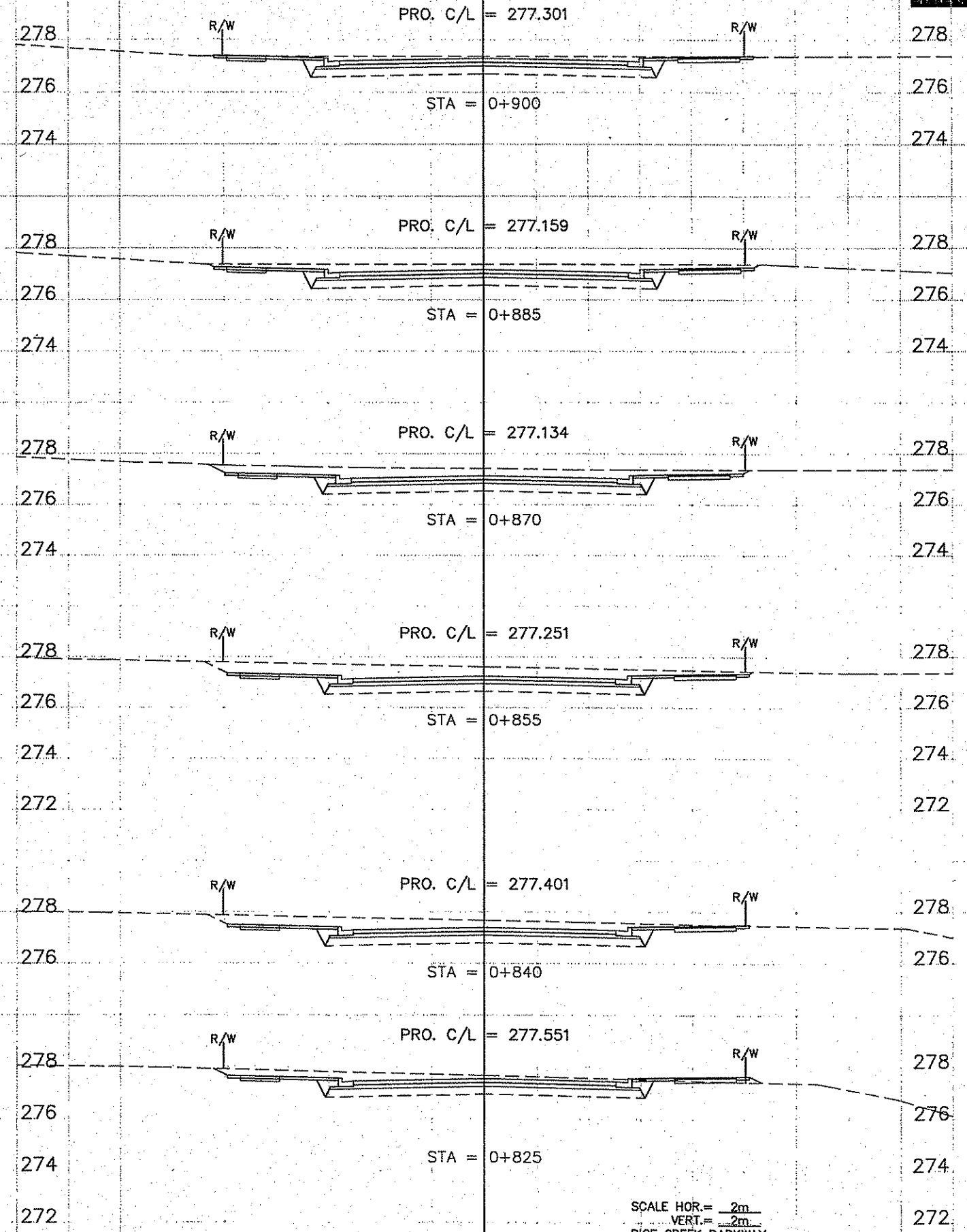
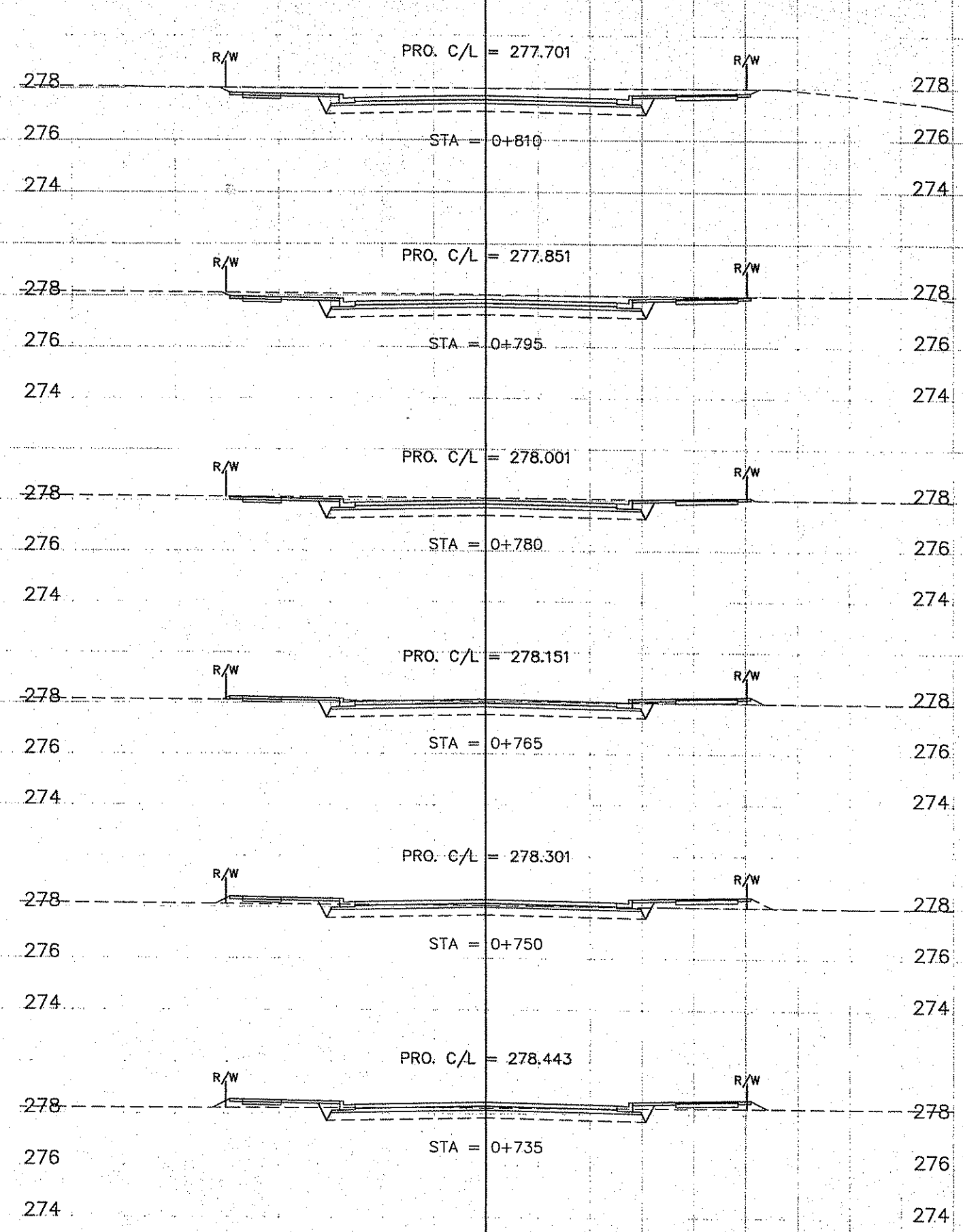
18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18



G:\L\ML\CLIENTS\M S\SHOREVIEW\RICE_CREEK\ACAD\PLANS\SH040226.DWG
DATE: 08-24-99 4:45 pm
USER: CPU204SP
XREFS:

SCALE HOR. = 2m
VERT. = 2m
RICE CREEK PARKWAY
STA. 0+555 TO STA. 0+720

18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18



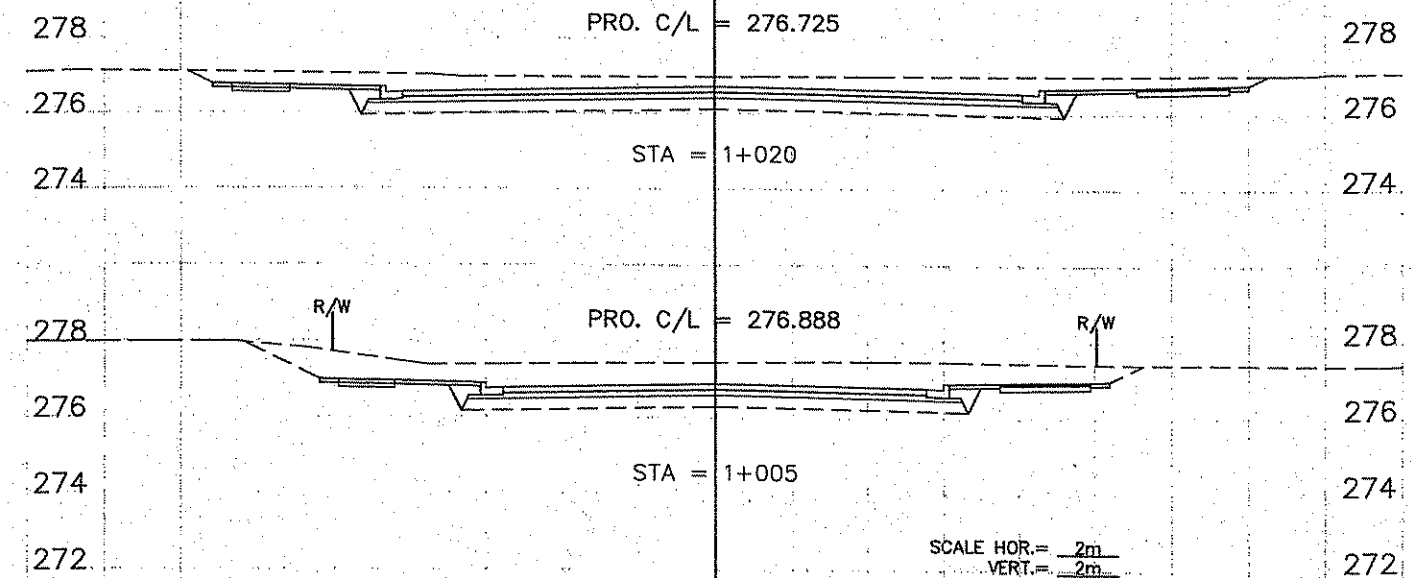
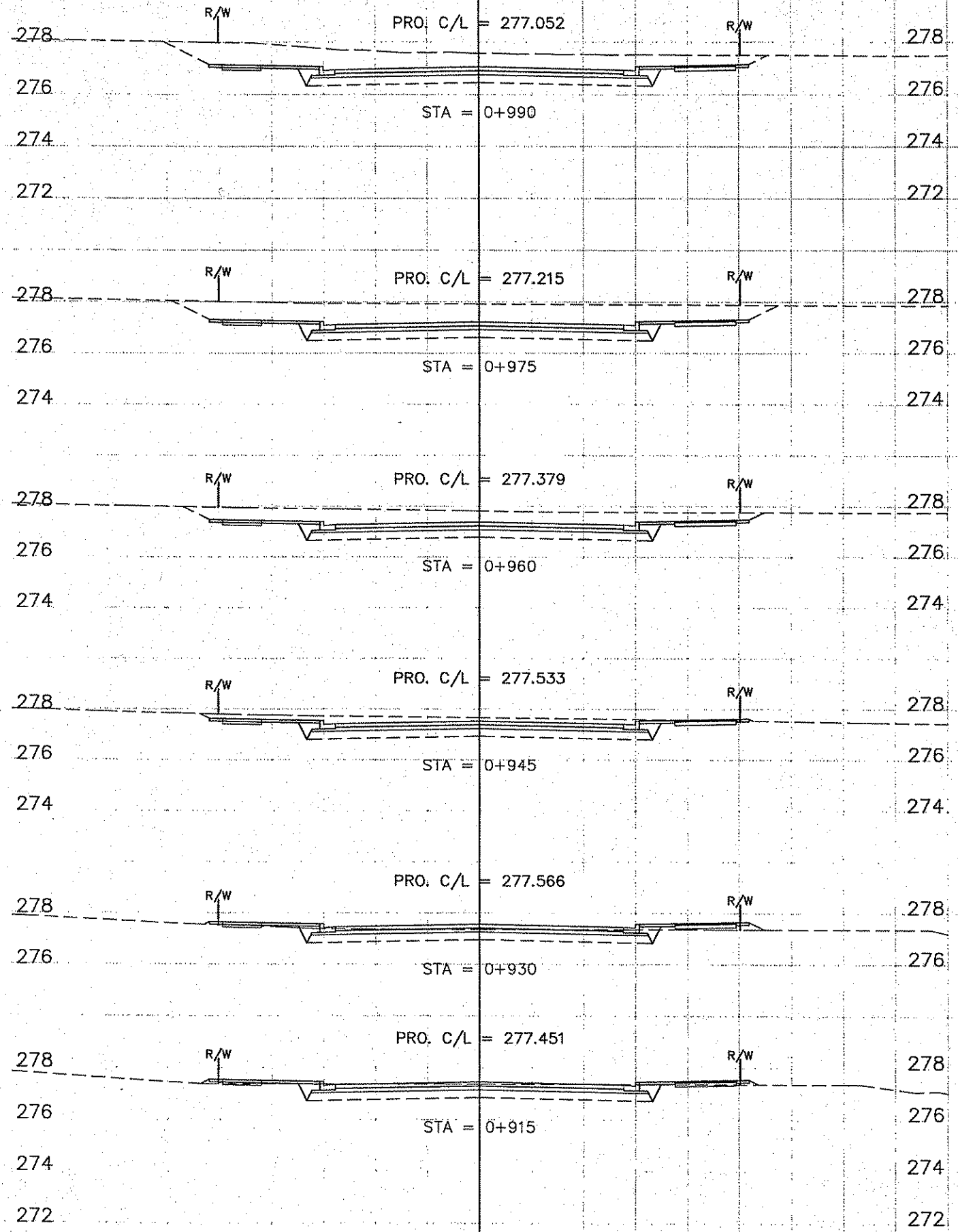
18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18

SCALE HOR. = 2m
 VERT. = 2m
 RICE CREEK PARKWAY
 STA. 0+735 TO STA. 0+900

Q:\CIVIL\CLIENTS\W\5\SHOREVIEW\CRICE_CREEK\ACAD\PLANS\SH80425.DWG
 DATE: 06-24-99 4:46 pm
 USER: CP120ASP
 PLOT:

18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18

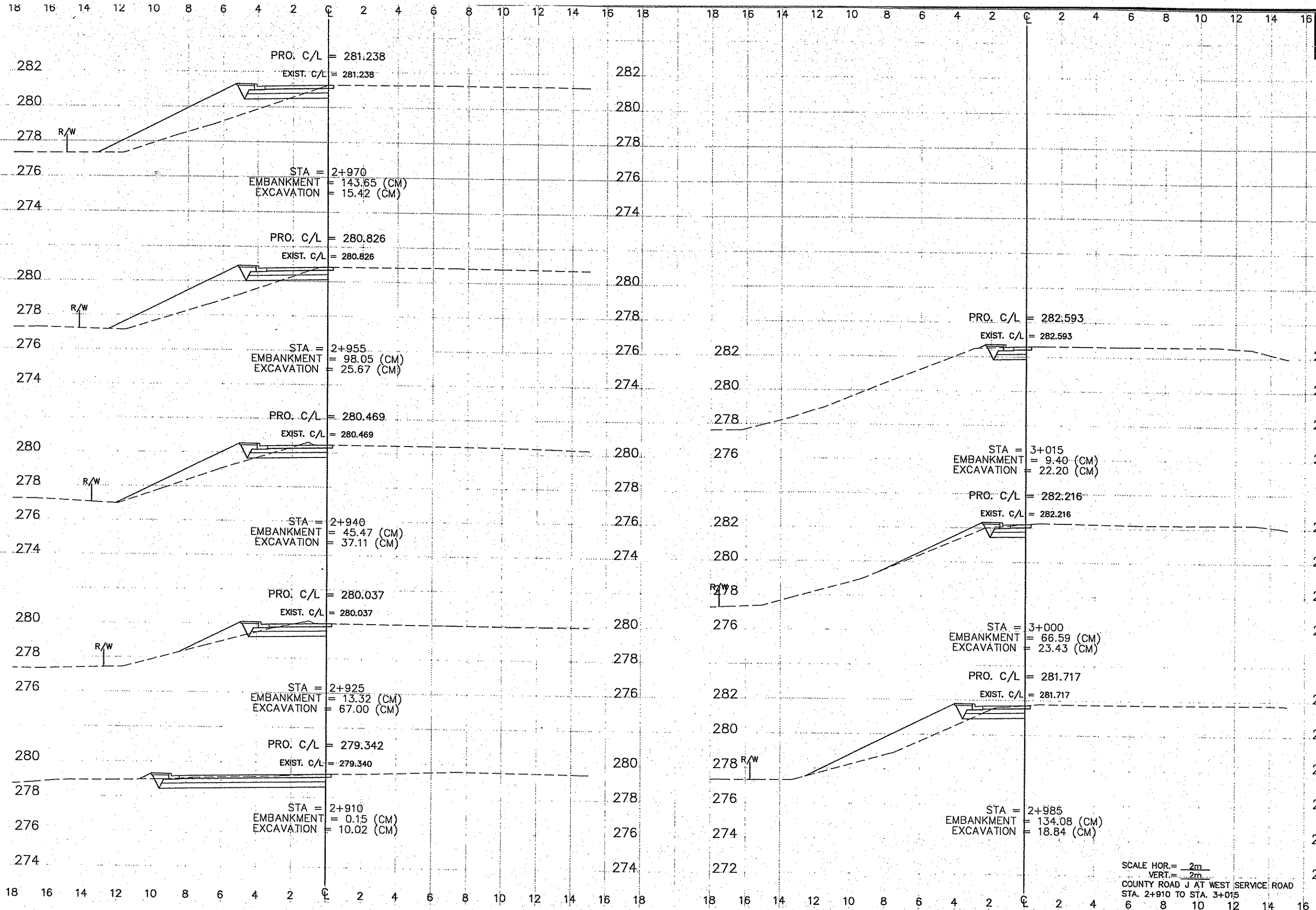
18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18



SCALE HOR. = $\frac{2m}{2m}$
 VERT. = $\frac{2m}{2m}$
 RICE CREEK PARKWAY
 STA. 0+915 TO STA. 1+020

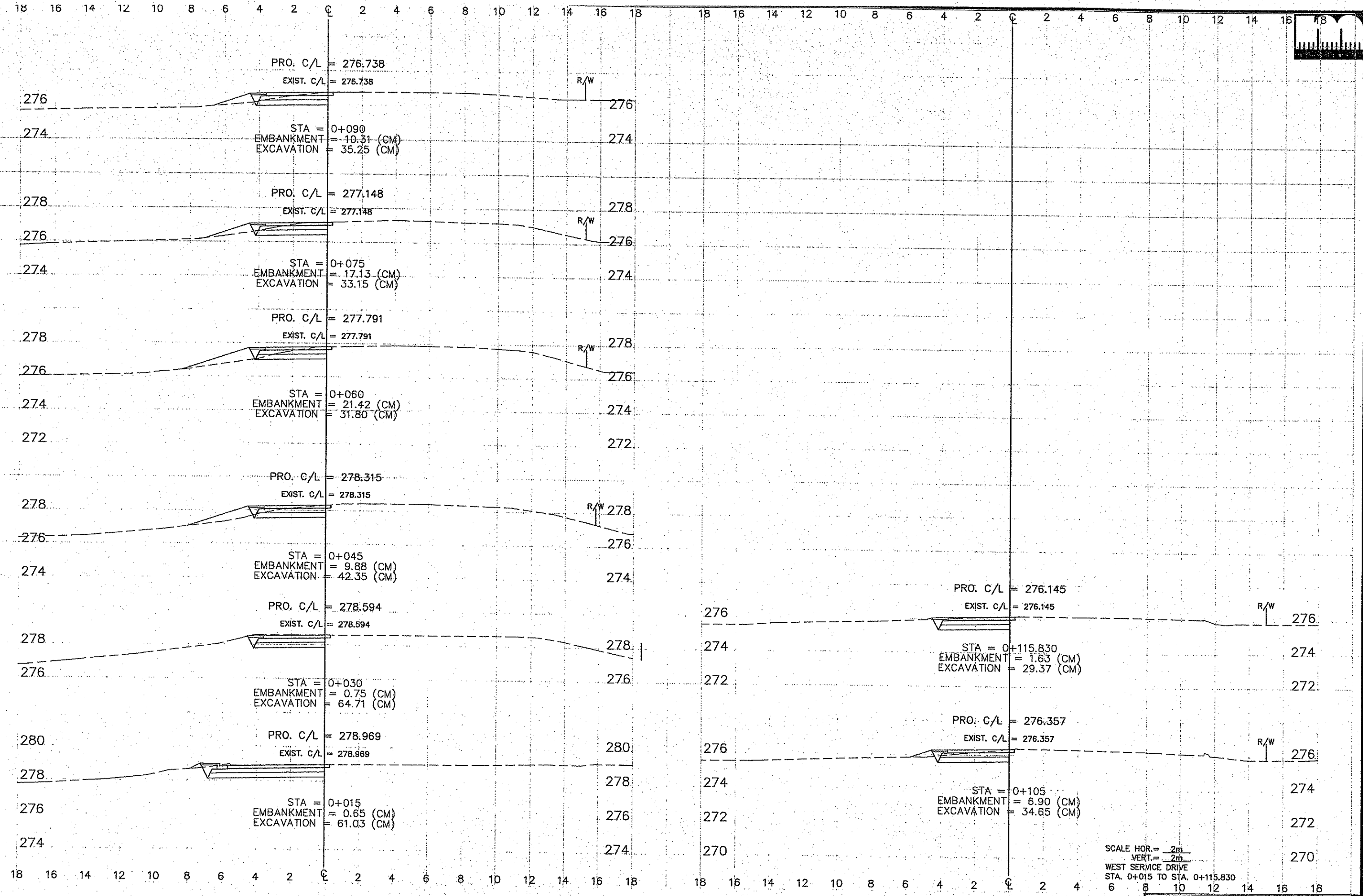
G:\MVA\CLIENTS\M\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR04X30.DWG
 DATE: 05-24-99 4:46 pm
 USER: CRUZASP

Q:\CIVIL\CLIENTS\Y\SURVEY\CRJ\CRJ\ACAD\PLANS\SR02045P.DWG
 DATE: 05-24-99 4:47 pm USER: CPJ2045P
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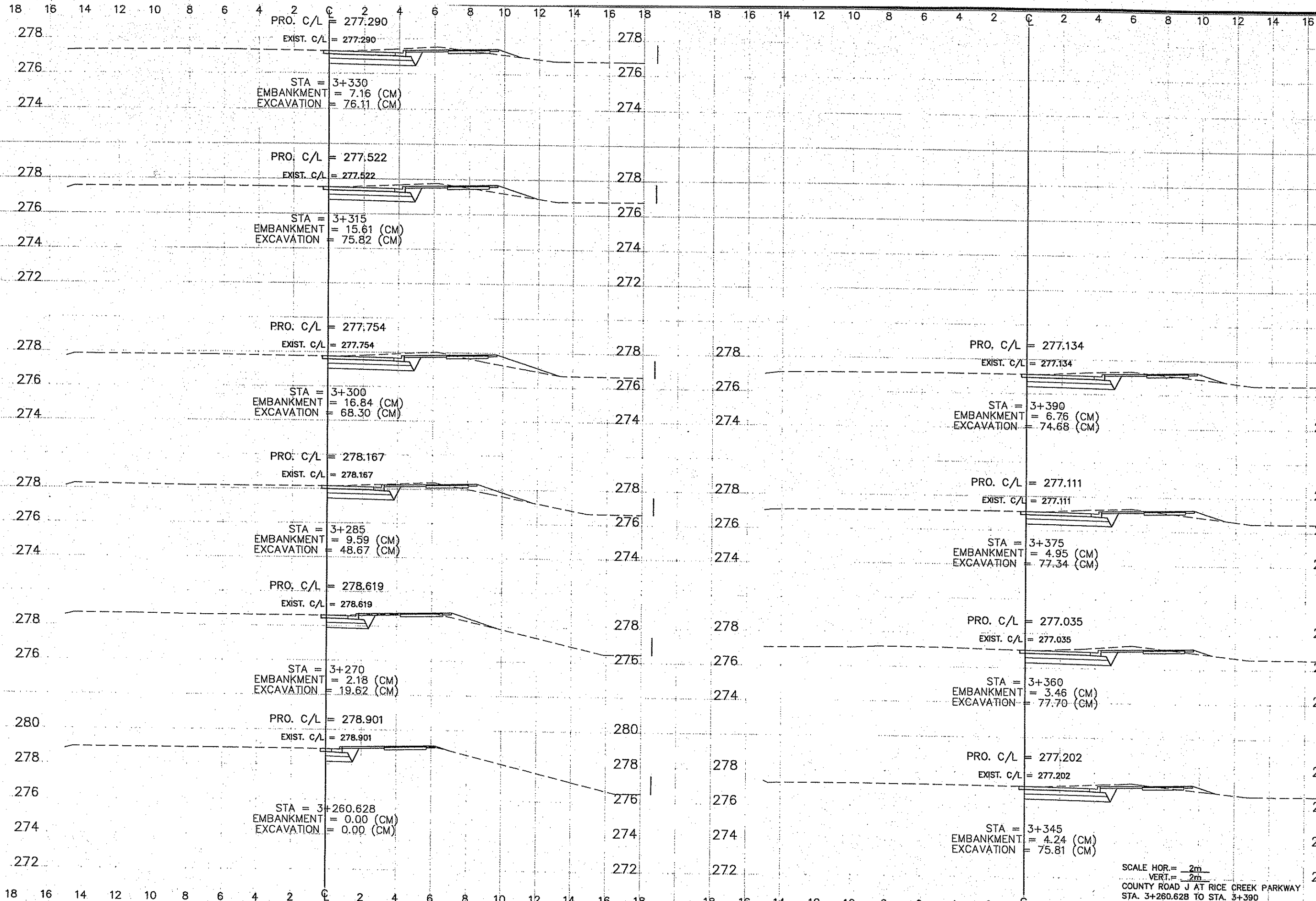


SCALE HOR. = $\frac{2m}{2m}$
 VERT. = $\frac{2m}{2m}$
 COUNTY ROAD J AT WEST SERVICE ROAD
 STA. 2+910 TO STA. 3+015

G:\CIVIL\QUENTIN\W\S\SHOREVIEW\CRICK CREEK\ACAD\PLANS\SR040422.DWG
DATE: 08-24-99 4:48 pm USER: CRUZMSP
XREFS:



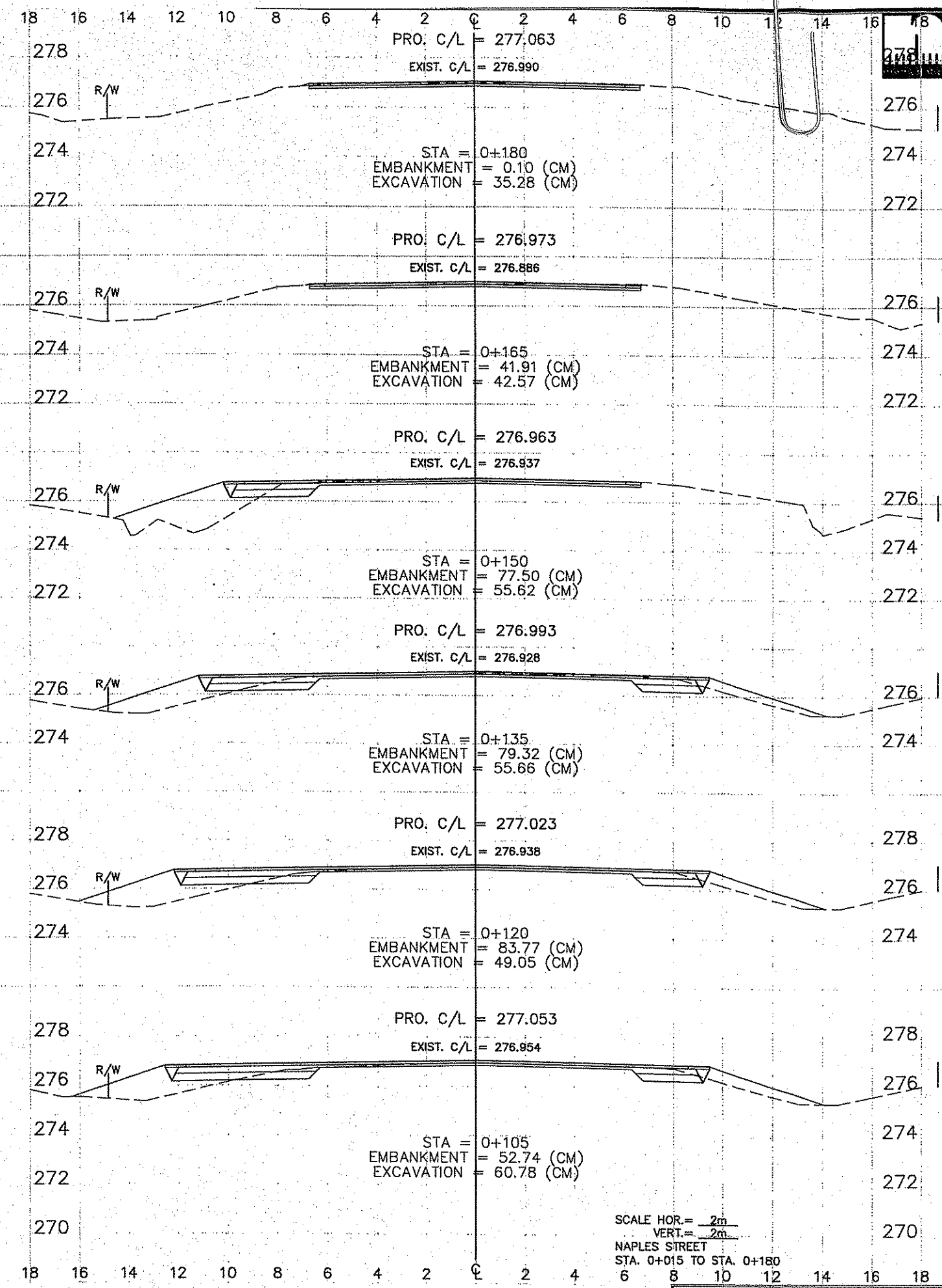
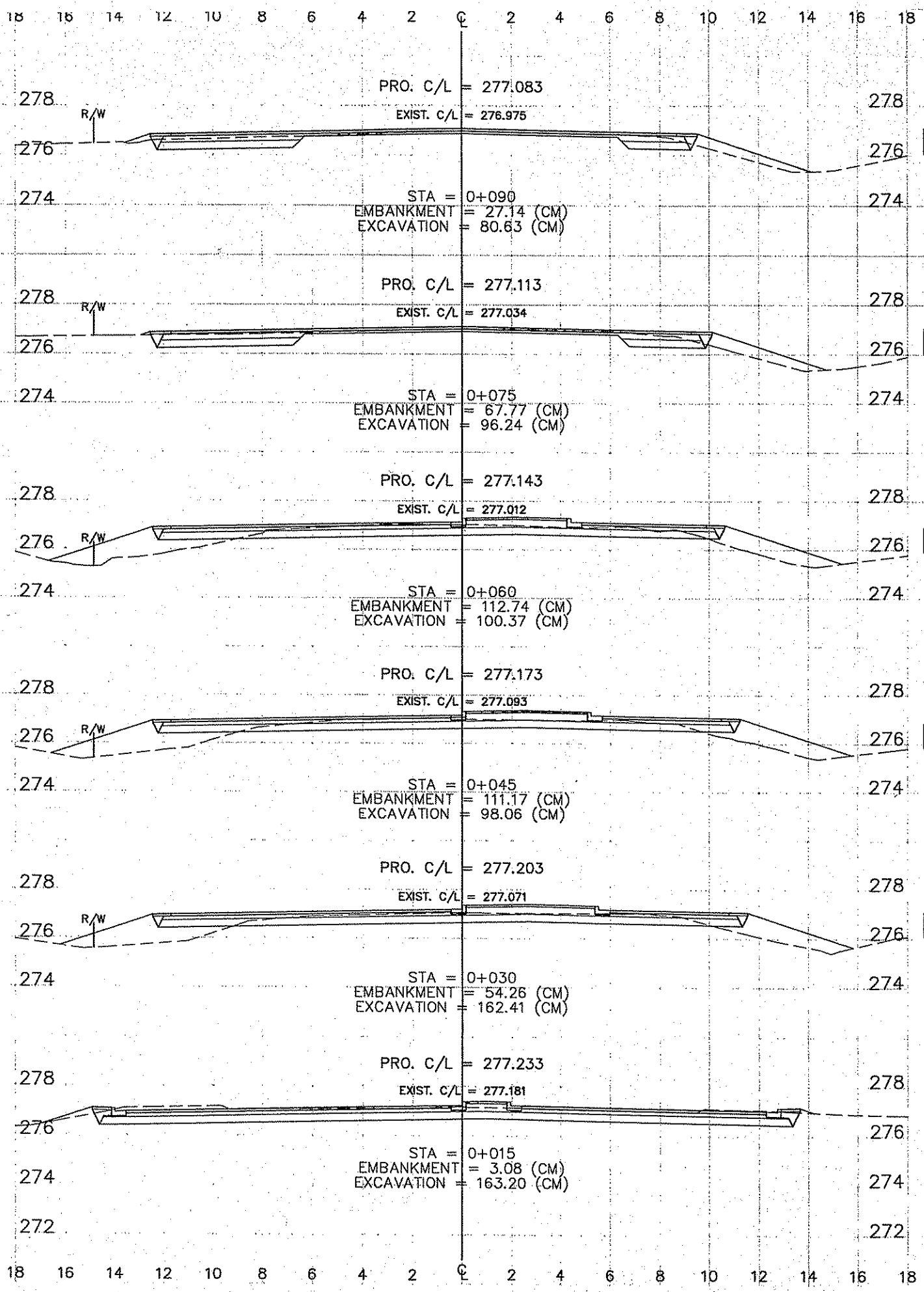
SCALE HOR. = 2m
VERT. = 2m
WEST SERVICE DRIVE
STA. 0+015 TO STA. 0+115.830



G:\CHINA\CLIENTS\MI\1\SHOREVIEW\ICE_CREEK\ACAD\PLANS\SHR04\33.DWG
 DATE: 08-24-09 4:48 pm USER: CPU204SP
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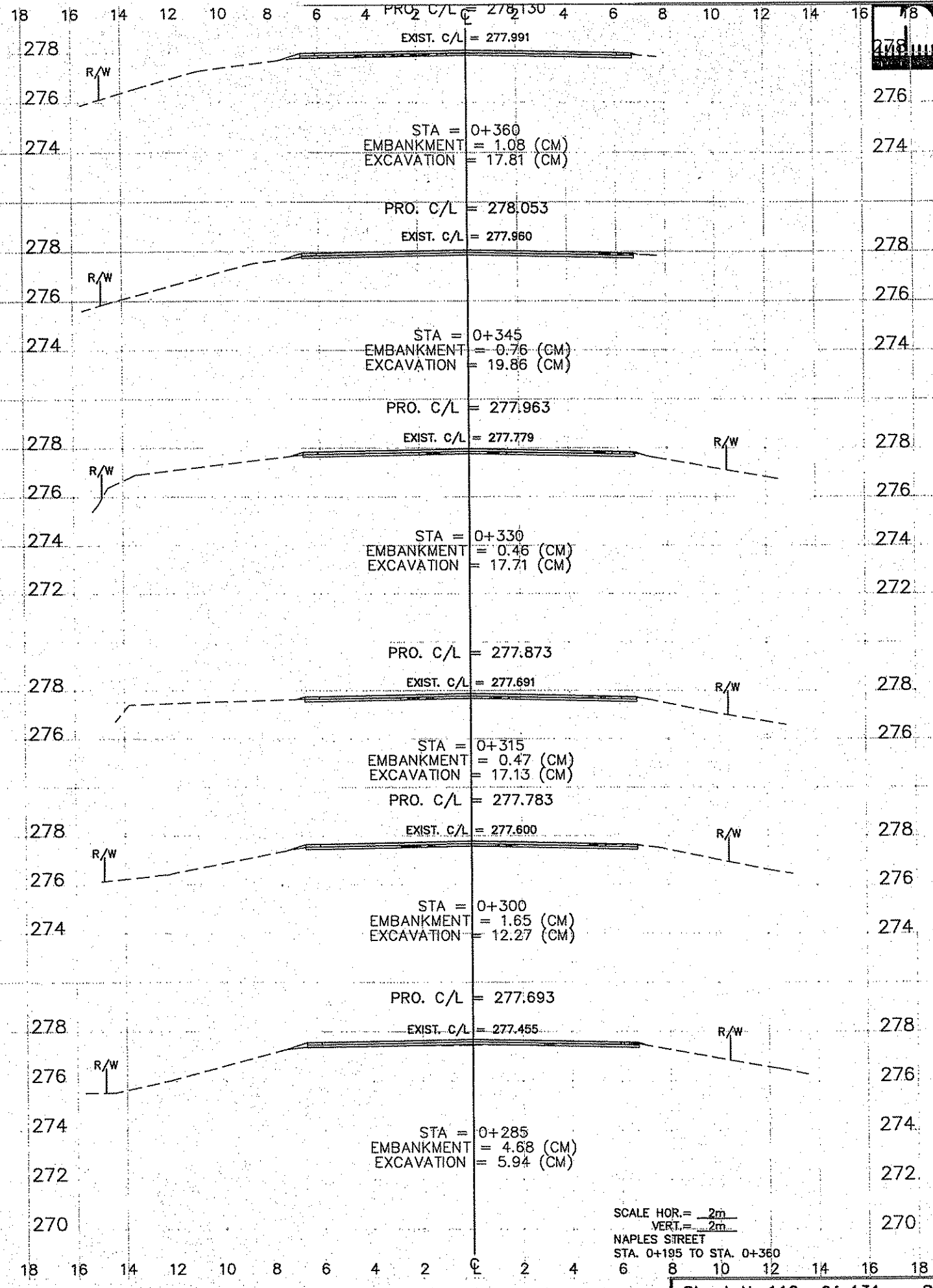
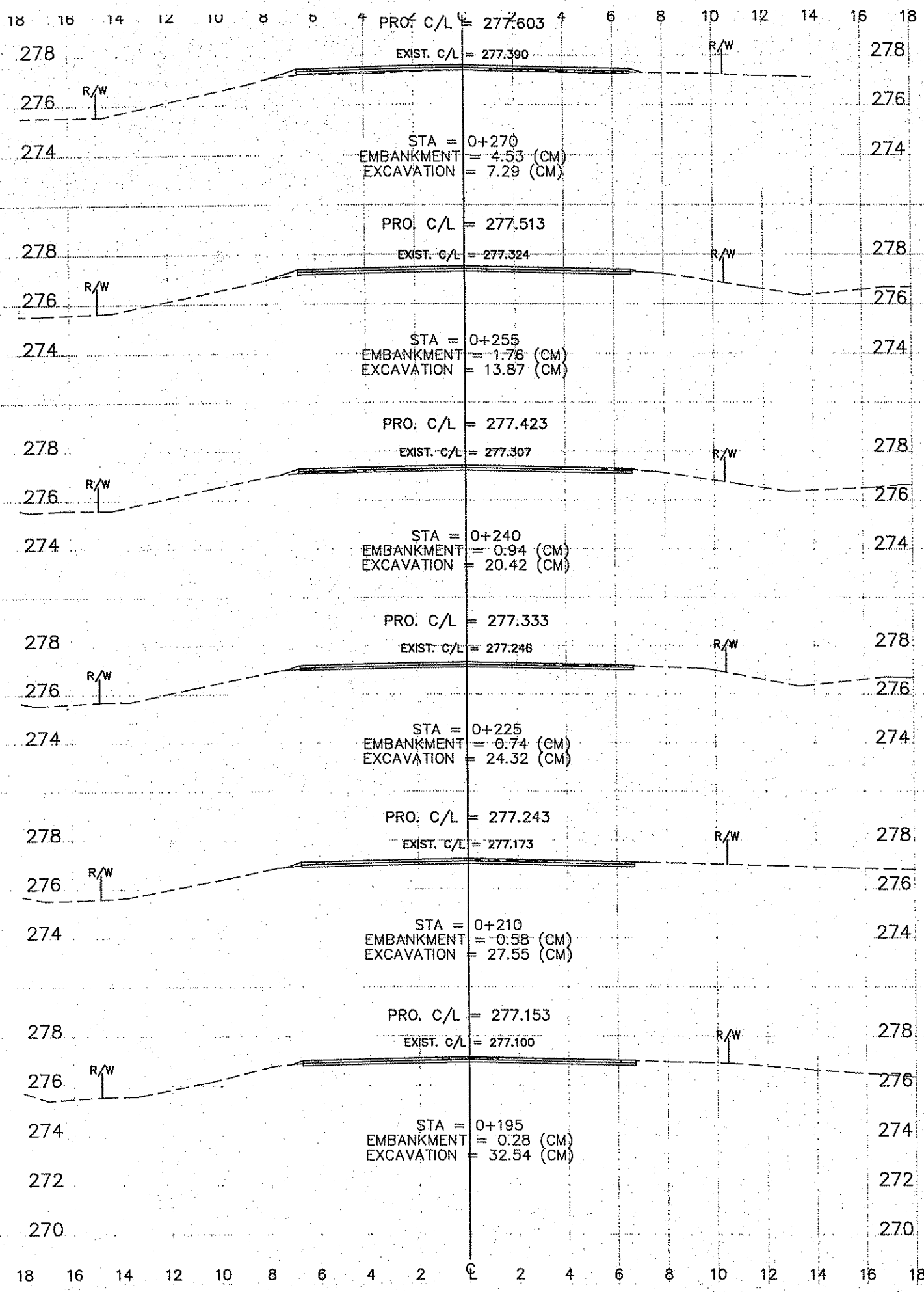
SCALE HOR. = 2m
 VERT. = 2m
 COUNTY ROAD J AT RICE CREEK PARKWAY
 STA. 3+260.628 TO STA. 3+390

G:\LIVELINKS\W...J...S\SHORELINE RECONSTRUCTION\PLANS\SH0403A.DWG DATE: 08-24-TIME: 4:49 PM USER: CRUZONSP



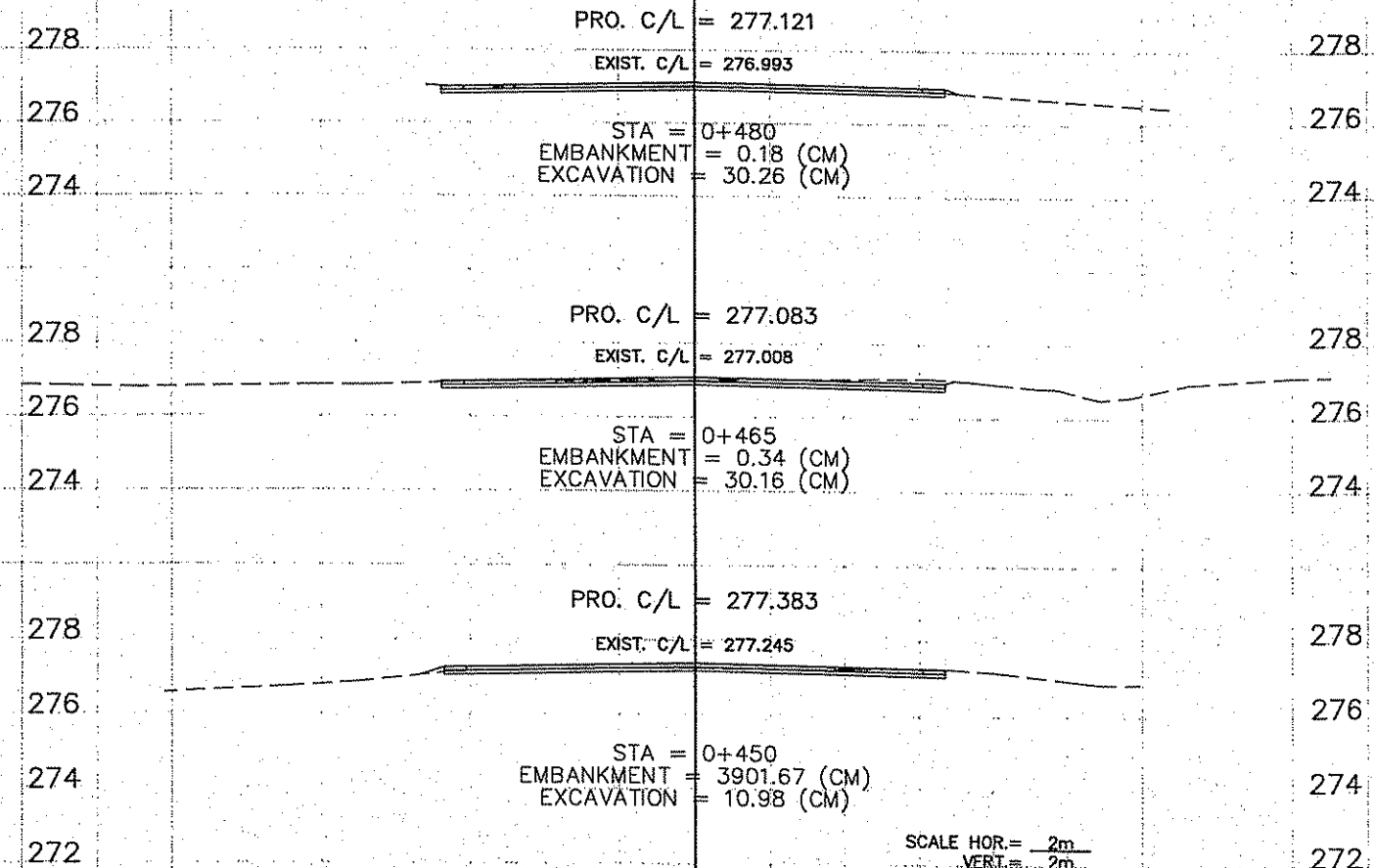
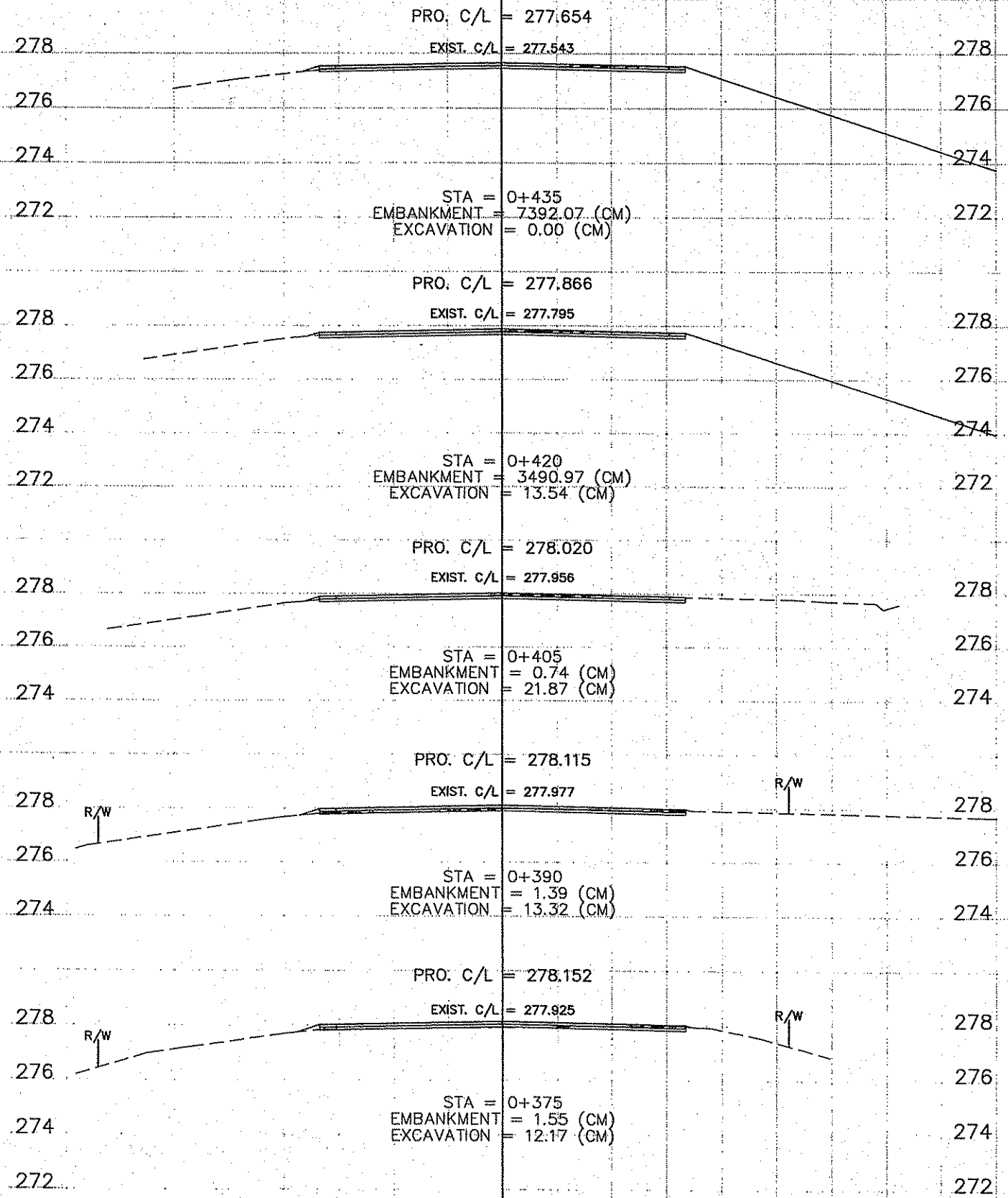
SCALE HOR. = 2m
 VERT. = 2m
 NAPLES STREET
 STA. 0+015 TO STA. 0+180

DATE: 08-24-1983 4:49 pm USER: CPU204SP
C:\CIVIL\ENR\THRU 5\SHOREVIEW\BICE - GREEK ROAD\PLAN\SSR\MAX35.DWG



SCALE HOR. = 2m
VERT. = 2m
NAPLES STREET
STA. 0+195 TO STA. 0+360

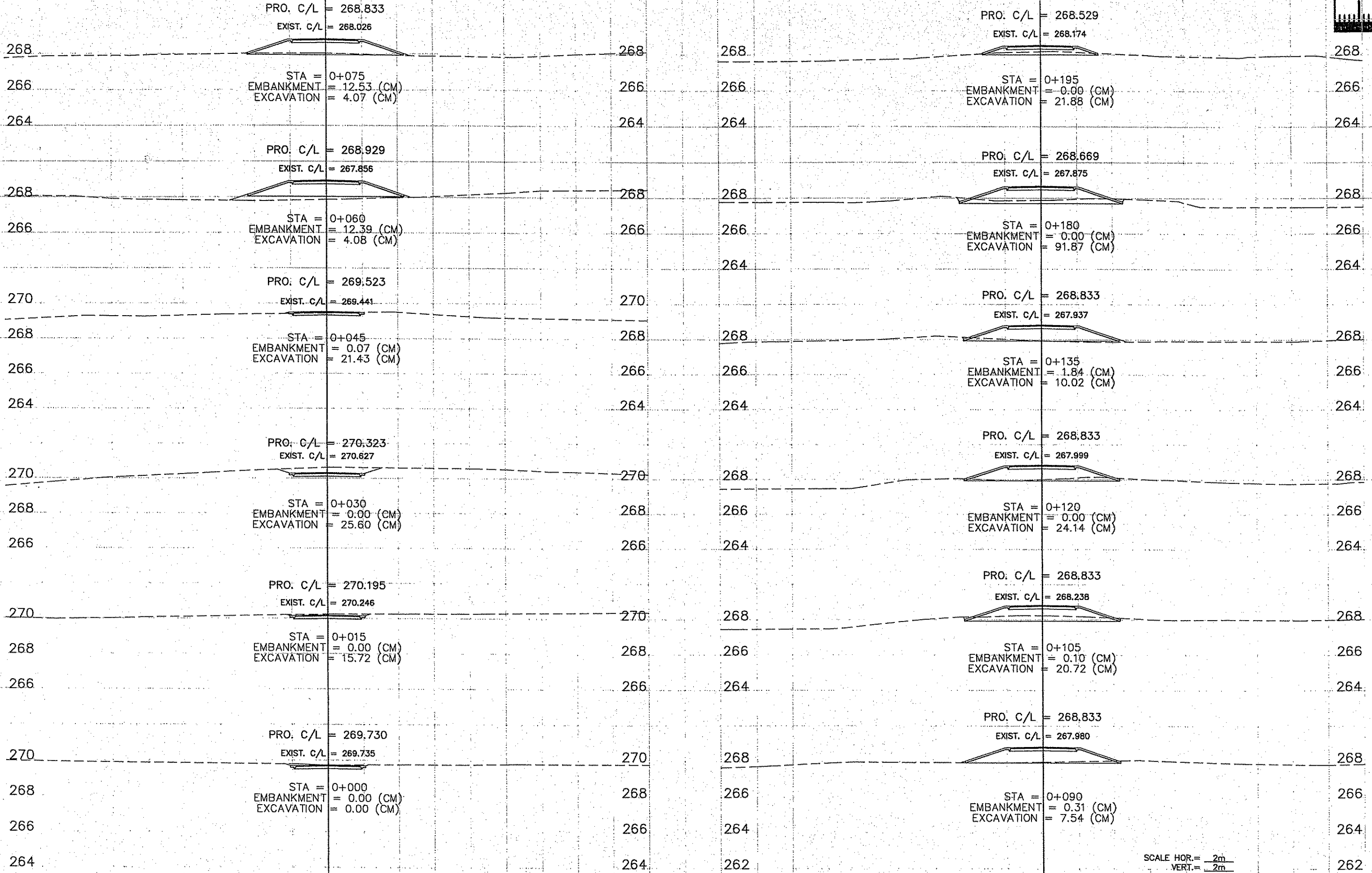
18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18



DATE: 06-24-2016 4:50 pm USER: CRUZLASP

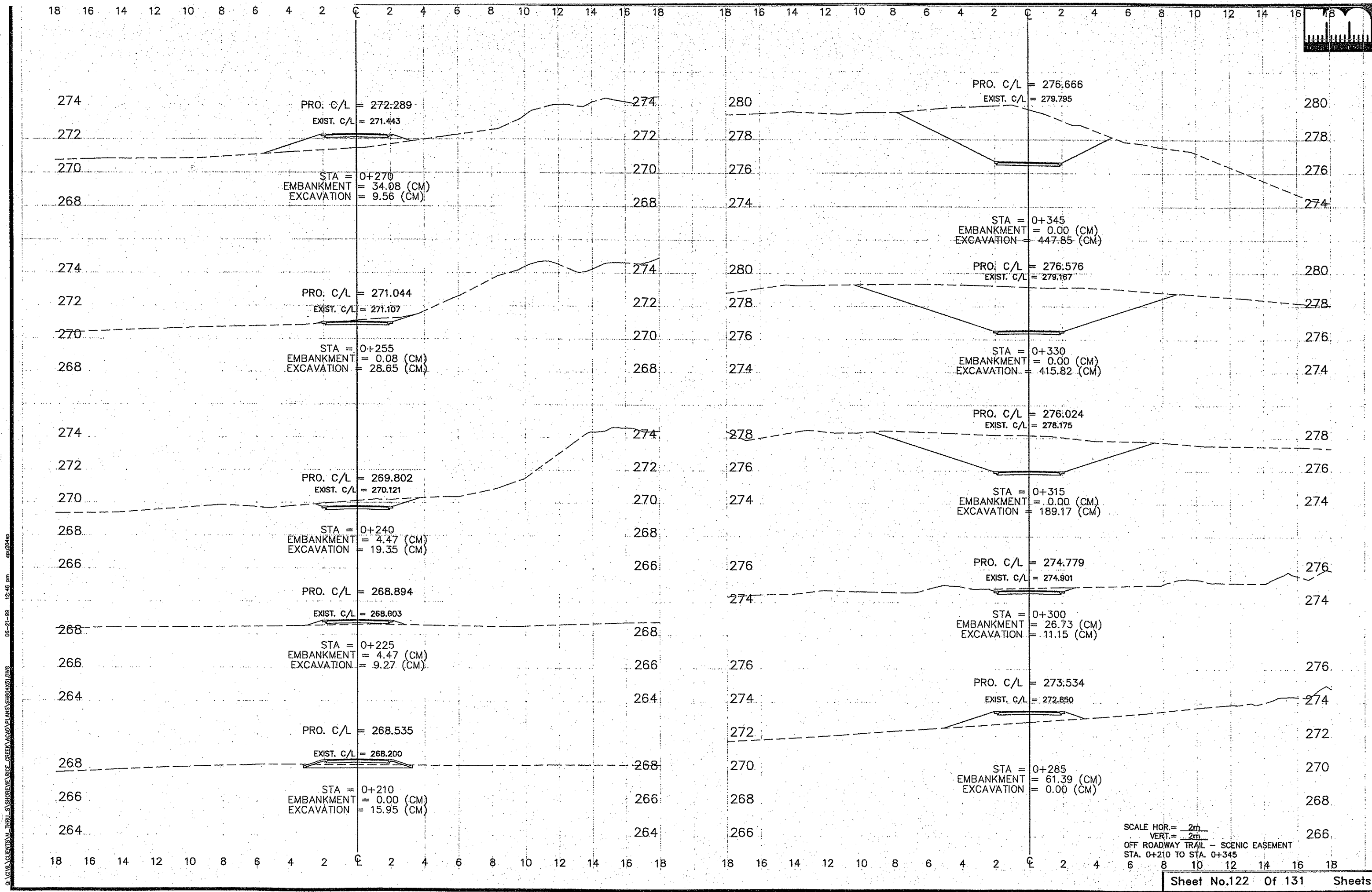
SCALE HOR. = 2m
VERT. = 2m
NAPLES STREET
STA. 0+375 TO STA. 0+480

18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18



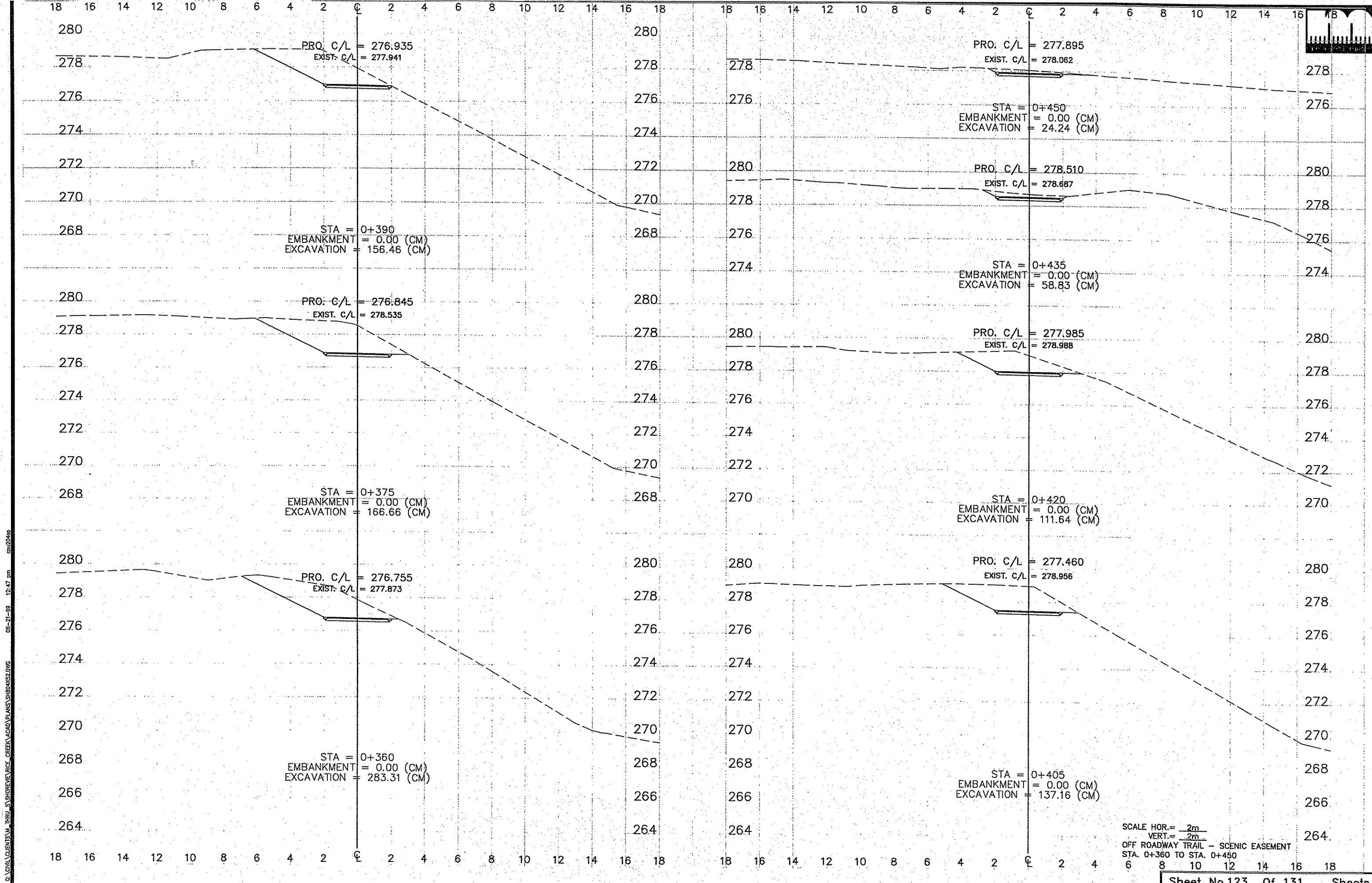
06-21-99 12:45 PM 5/25/04 G:\CALIQUENTS\M_TIRU_S\SHOREVE.DWG CREEK/ACAD/PLANS/SHE04K50.DWG

SCALE HOR. = 2m
VERT. = 2m
OFF ROADWAY TRAIL - SCENIC EASEMENT
STA. 0+000 TO STA. 0+195



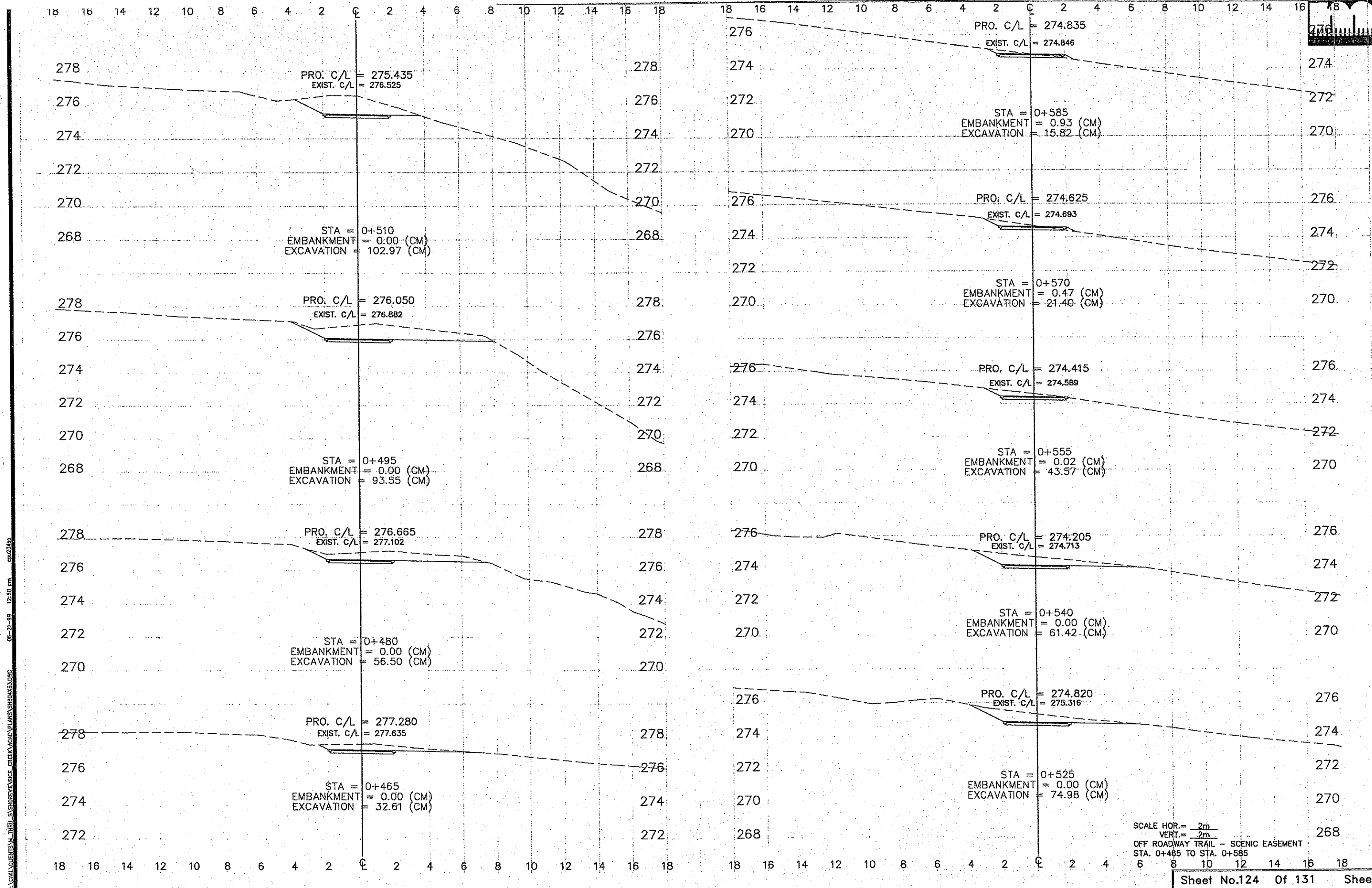
05-21-99 12:46 pm 01/20/99
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SCALE HOR. = 2m
 VERT. = 2m
 OFF ROADWAY TRAIL - SCENIC EASEMENT
 STA. 0+210 TO STA. 0+345
 Sheet No.122 Of 131 Sheets



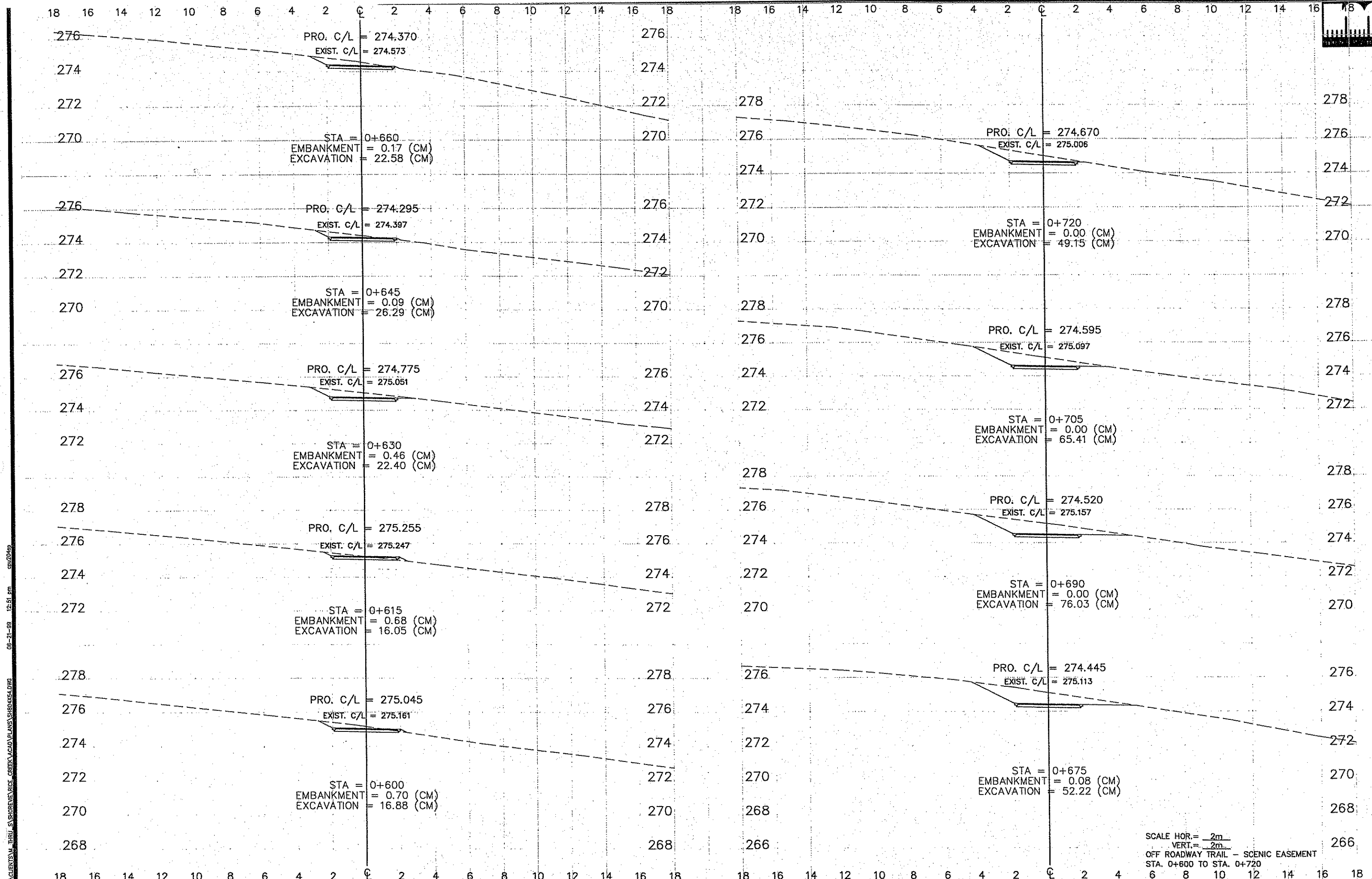
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 06-21-99 12:47 PM
 gpr2046p

SCALE HOR. = 2m
 VERT. = 2m
 OFF ROADWAY TRAIL - SCENIC EASEMENT
 STA. 0+360 TO STA. 0+450



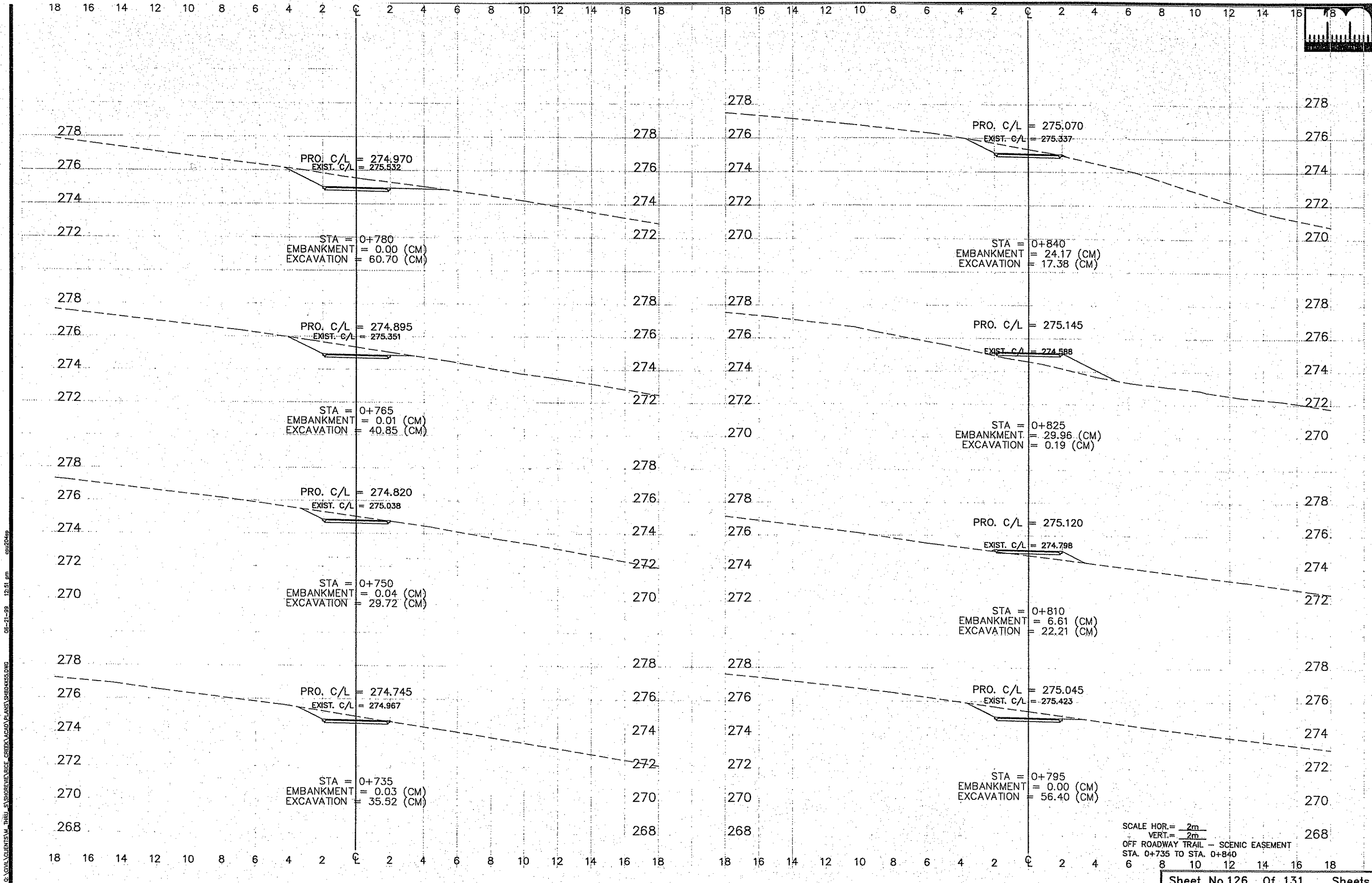
G:\LOCAL CLIENTS\W. THRU\S\SURVEY\PRICE - CREEK\MOOD PLANS\SURFACE\LONG
 05-21-99 12:50 pm 50020489

SCALE HOR. = $\frac{2m}{2m}$
 VERT. = $\frac{2m}{2m}$
 OFF ROADWAY TRAIL - SCENIC EASEMENT
 STA. 0+465 TO STA. 0+585



09-21-99 12:51 pm
 G:\CALI\CLIENTS\W. THRU S\SPURVIEW\ICE - CERRA LUCO\PLANS\SPURVIEW.DWG

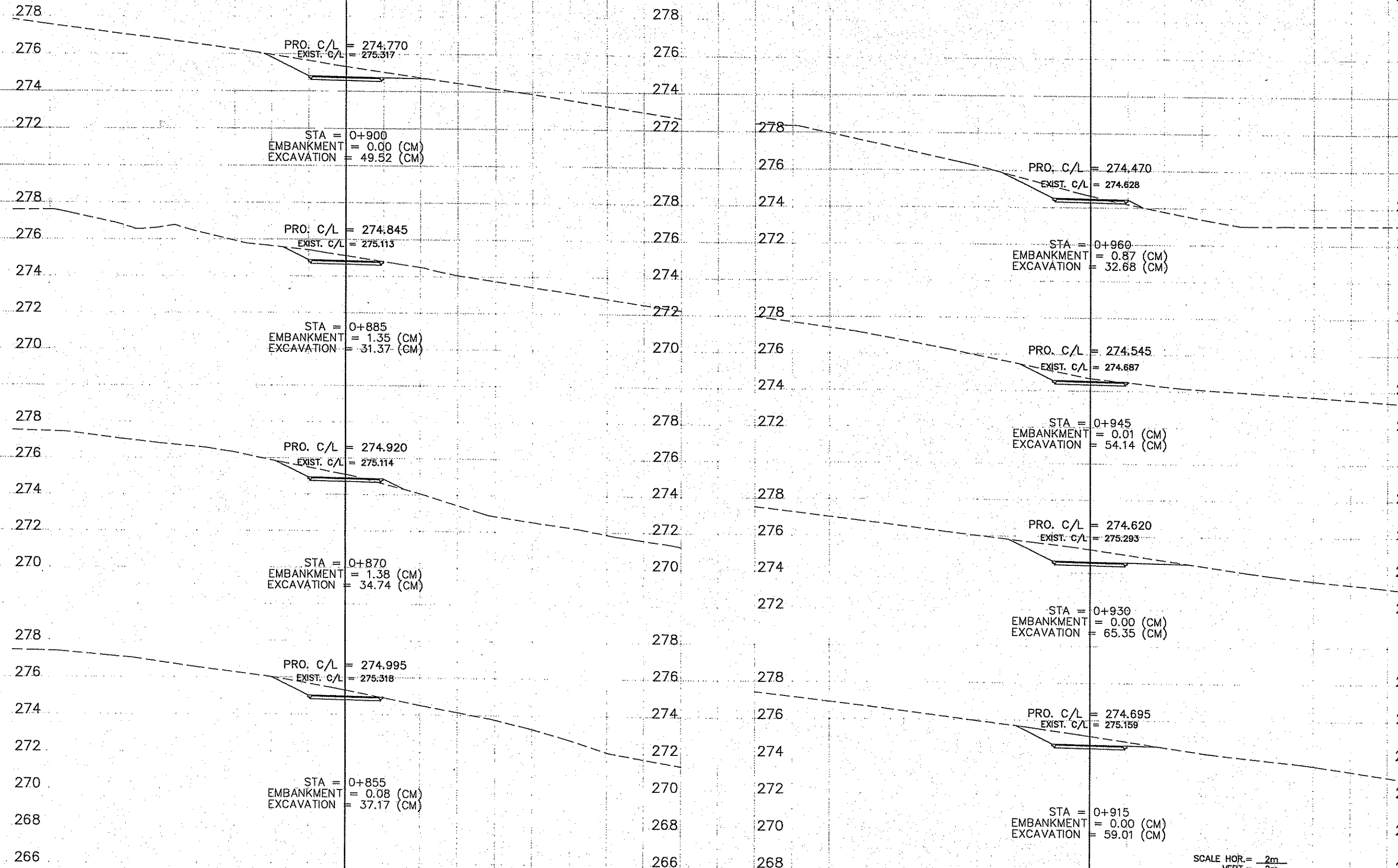
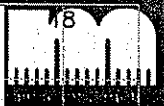
SCALE HOR. = $\frac{2m}{2m}$
 VERT. = $\frac{2m}{2m}$
 OFF ROADWAY TRAIL - SCENIC EASEMENT
 STA. 0+600 TO STA. 0+720



C:\CAL\CLIENTS\LA THRU LA SHORE\LA RICE CREEK\LA ROAD\PLANS\SHD\K455.DWG
 08-21-99 12:51 pm
 cpi204ep

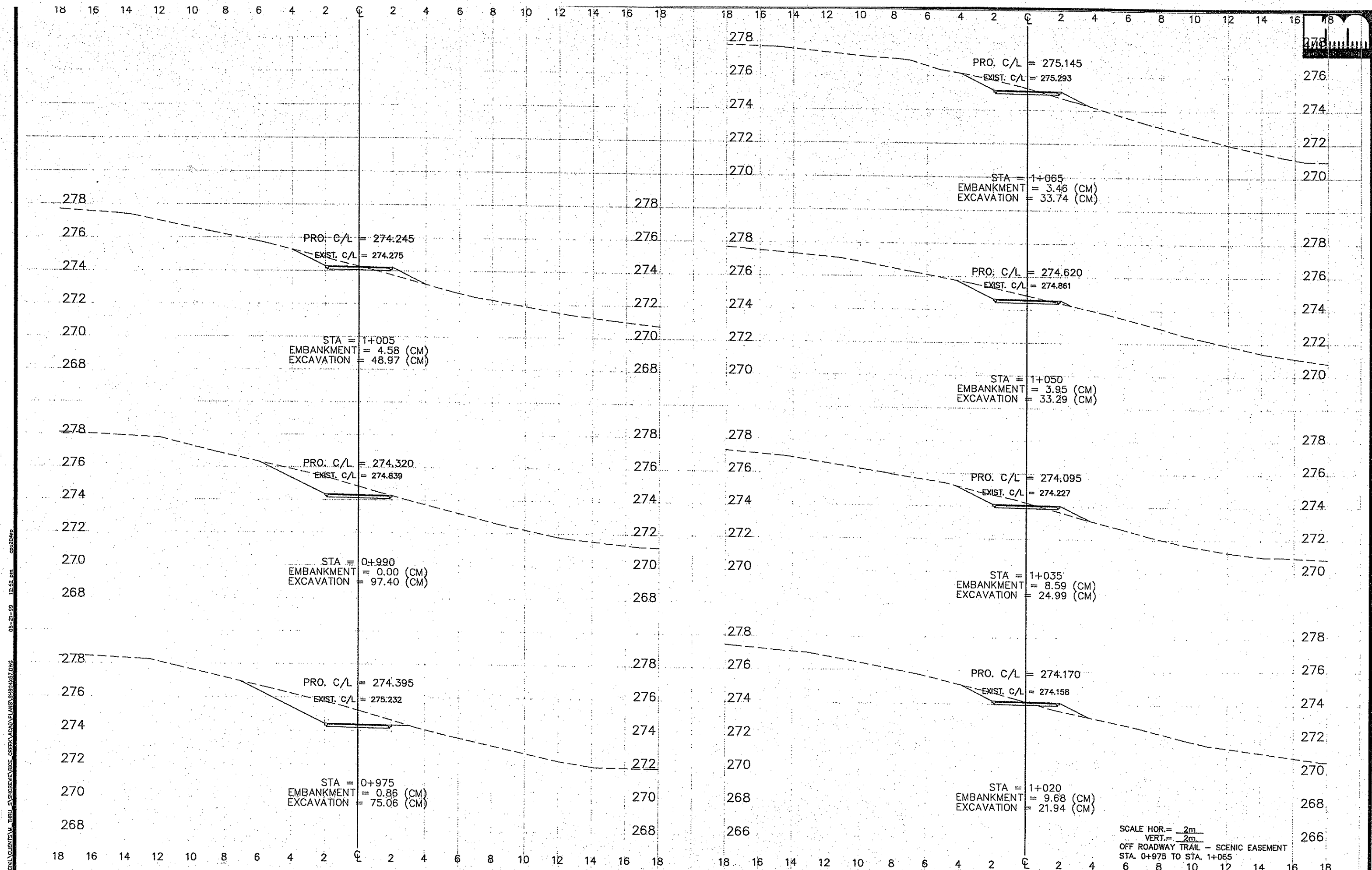
SCALE HOR. = $\frac{2m}{2m}$
 VERT. = $\frac{2m}{2m}$
 OFF ROADWAY TRAIL - SCENIC EASEMENT
 STA. 0+735 TO STA. 0+840

18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18



SCALE HOR. = 2m
 VERT. = 2m
 OFF ROADWAY TRAIL - SCENIC EASEMENT
 STA. 0+855 TO STA. 0+960

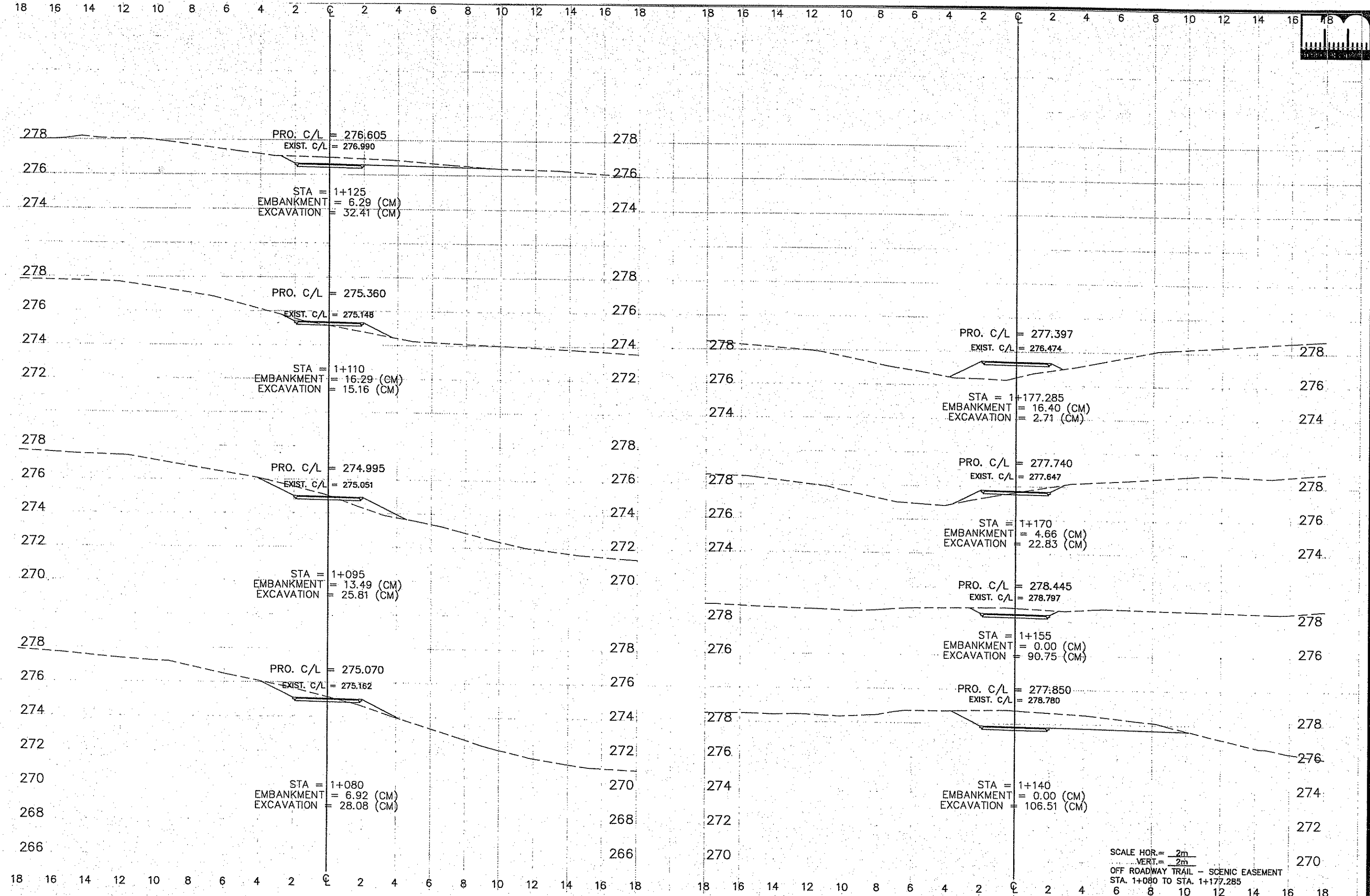
C:\CIVIL\CLIENTS\AM_THRU_S\SHOREVIEW_RICE_CREEK\ACAD\PLANS\SHO455.DWG 06-21-98 12:52 pm 6320459



CR. VIALVAQUENTINA M. IRRU. S. SHOREVIEW PRICE. CREEKA CAD PLAN. SUB 04257.DWG
 06-21-99 12:52 PM cpa204mp

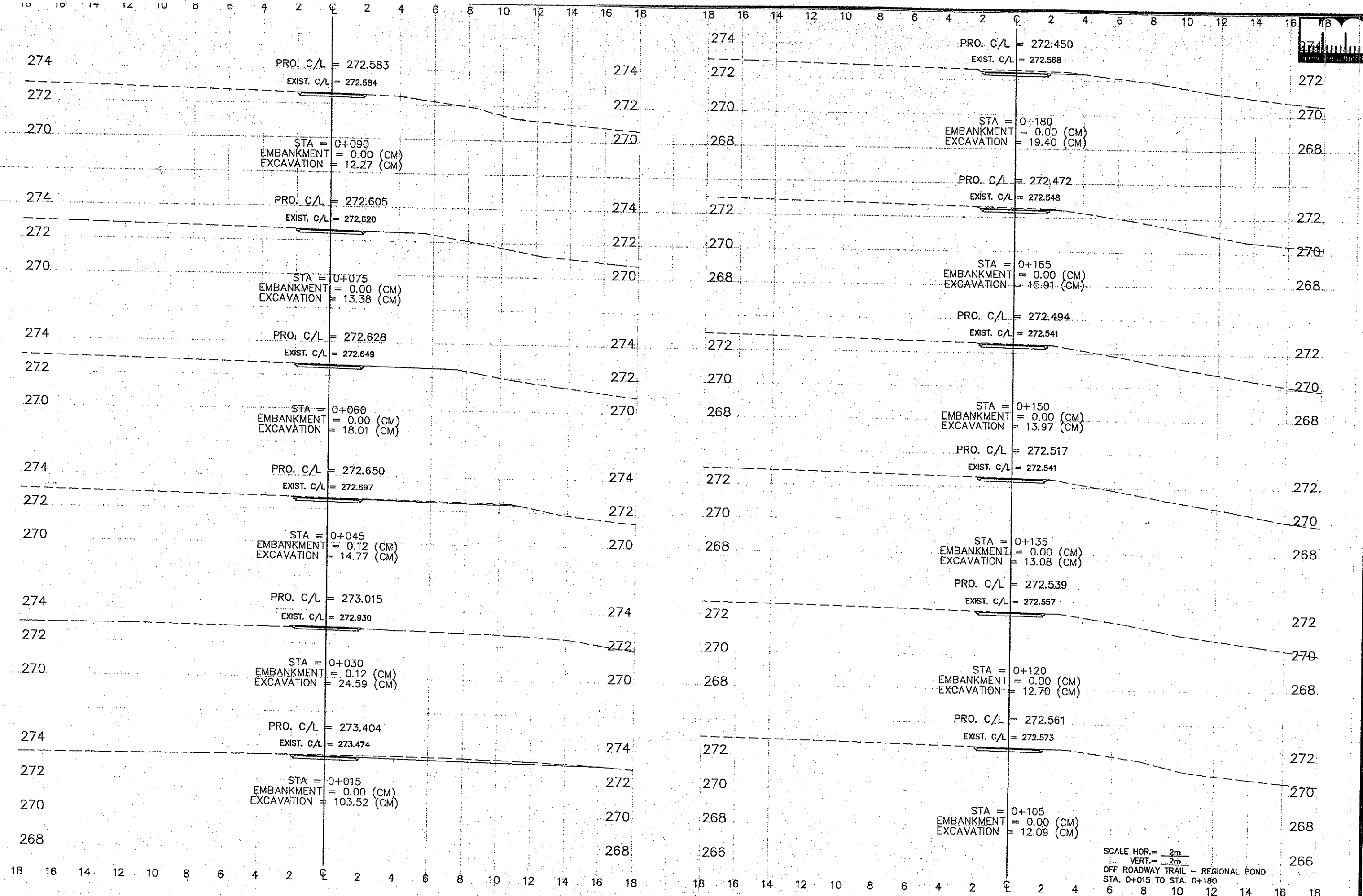
SCALE HOR. = 2m
 VERT. = 2m
 OFF ROADWAY TRAIL - SCENIC EASEMENT
 STA. 0+975 TO STA. 1+065

06-21-99 12:53 pm
G:\MVA\CLIENTS\W. THRU. S\SHOREVIEW.RICE_CREEK\ACAD\PLANS\SHR0425B.DWG

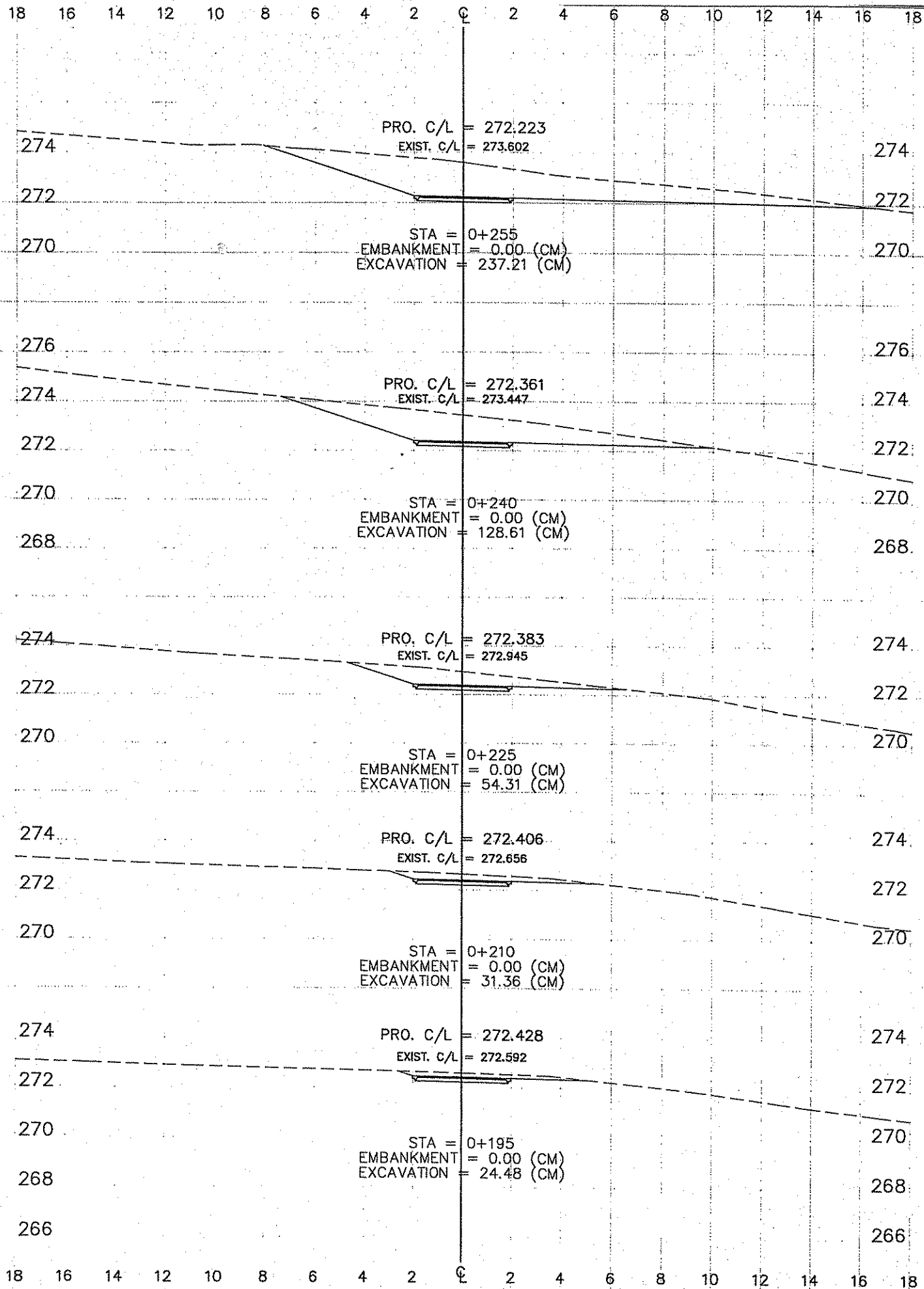


SCALE HOR. = 2m
VERT. = 2m
OFF ROADWAY TRAIL - SCENIC EASEMENT
STA. 1+080 TO STA. 1+177.285

C:\CIVIL\CLIENTS\VA THRU 5\SHORE\VICE_GREEK\ACAD\PLANS\SH804\FIELDING 08-21-98 12:53 PM 002049P



SCALE HOR. = 2m
 VERT. = 2m
 OFF ROADWAY TRAIL - REGIONAL POND
 STA. 0+015 TO STA. 0+180



SCALE HOR. = $\frac{2m}{2m}$
 VERT. = $\frac{2m}{2m}$
 OFF ROADWAY TRAIL - REGIONAL POND
 STA. 0+195 TO STA. 0+255

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