

BORING LOGS

LOT 5, BLOCK 16, CASTELLAMMARE TRACT

AND LOT 80, BLOCK 18, TRACT 8923

EAST OF 17411 POSETANO ROAD

BY SOLUS GEOTECHNICAL

REPORT DATED JANUARY 28, 1991

Depth (ft.)

Blow Count Graphic Log

Kelly Weight: 3000 lbs (0-25')

*D ***M

0--			Fill: Silty sand, light tan, loose, dry, irregular contact		
1--		○	Soil: Clayey sand, dark red brown, loose, wood and organic debris randomly scattered, slightly moist	86	9.9
2--		○			
3--		○			
4--	3/12"		Landslide Debris: Clayey sand, medium orange brown, small angular fragments of weathered sandstone, moderately dense, slightly moist		
5--		○			
6--			Interbedded Sandstone/Claystone: Siltstone: orange, medium grained, weathered, thinly bedded, caliche on fracture surfaces, slightly moist to dry; Bedding: N53W, 53NE Siltstone: medium brown, very fine grained, slightly moist		
7--					
8--					
9--					
10--			broken siltstone and sandstone, chaotically bedded, caliche pods, small gypsum crystals Bedding: N65E, 27NW 1/8 - 1/4" open fractures spaced about 3" apart and filled with brown clay: N10W, 90	111.0	10.0
11--					
12--					
13--			Sandstone/Siltstone interbeds: tan to light gray, dense Bedding: N45E, 26NW Sandstone: black brown, medium grained, friable, poorly cemented Shale: gray brown, very thin beds, fractured, platy		
14--	5/12"				
15--					
16--					
17--					
18--					
19--					
20--					

* Dry Density (pcf) ** Moisture Content (%)

The log of subsurface conditions shown hereon applies only at the specific location and the date indicated. It is not warranted to be representative of subsurface conditions at other locations and times.

DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 25, 1991

WORK ORDER # 90346

Depth
(ft.)

Blow Count Graphic Log

Kelly Weight: 3000 lbs (0-25')

20--			Sandstone/Shale breccia: black, cemented, fissil, thinly laminated		
21--			Siltstone: brown with carbon specs, moist; Bedding: N50E, 22NW		
22--			Sandstone: tan, medium to coarse grained, well cemented, broken shell fragments		
23--			Black 2"-diameter PVC pipe in sandstone		
24--			Siltstone: gray, micaceous, inter laminated with thin sandstone, tan, slightly moist; Bedding: N15W, 17NE	112.6	10.1
25--	10/12"		Shale, calcareous, very well cemented, hard layers about 1/2" thick		
26--			Blue Gouge: slickensided, minor gypsum; N43W, 62NE; in sandstone		
27--			Claystone, very moist, angular sandstone fragments, charcoal bits,		
28--			Bedrock: laminated sequence of Siltstone/Claystone/Sandstone: orange to white to dark gray, dry, friable, continuous sequence		
29--			Bedding: N44W, 18NE thin layer (1/2") of Clay Gouge, moist, corn flake texture, inter-mixed with sandstone and blue gray claystone	128	11.3
30--	5/12"		Sandstone/Siltstone/Claystone: fractured, slightly moist to moist		
31--			Sandstone/Siltstone: bluish black to light gray, crumbly texture, dry to slightly moist		
32--					
33--					
34--					
35--					
36--					
37--					
38--					
39--					
40--					

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DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 28, 1991

WORK ORDER # 90346

BORING LOG # B-1

Depth
(ft.)

Blow Count Graphic Log

Kelly Weight: 2000 lbs (25-50')

Page 3 of 4
*D **M

40--			Sandstone/Siltstone: micaceous, verigated gray to light white gray, thinly laminated, bedding planar to undulatory, poorly cemented		
41--			Bedding: N39W, 29NE		
42--			Sandstone/Siltstone/Claystone: dark gray, slightly moist, slightly plastic		
43--			moist		
44--					
45--	8/12"		Bedding: N37W, 63NE	122	8.0
46--			gummy Claystone, moist, firm		
47--					
48--			Claystone; gray with rock fragments		
49--					
50--			Bedding: N65E, 37NW		
51--			Sandstone/Siltstone/Claystone: same as above		
52--					
53--			slightly moist, well cemented sandstone; Bedding: E-W, 52N		
54--			polished surface along bedding		
55--			Fault? few shears, gypsum		
56--			Shale/Siltstone grading to shale		
57--					
58--			Bedding: N65W, 78NE		
59--			Siltstone/Claystone/Sandstone		
60--			Sandstone/Siltstone: brown black, micaceous, charcoal		

* Dry Density (pcf)

** Moisture Content (%)

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DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 28, 1991

WORK ORDER # 90346

Blow Count Graphic Log

Kelly Weight: 1000 lbs (50-70')

*D **M

Depth (ft.)

60--			Sandstone/Siltstone/Claystone, dry to slightly moist,		
61--					
62--			Bedding: N74W, 70NE		
63--			Sandstone/Siltstone/Claystone: dark gray, slightly moist, striations	131	9.2
64--			polished surfaces on bedding planes		
65--	25/12"		Sandstone: light gray, medium grained, moderately well cemented, hard		
66--					
67--			Claystone/Sandstone: some polished surfaces		
68--			TOTAL DEPTH: 68 Feet		
69--			No Water, No Caving		
70--					
71--					
72--					
73--					
74--					
75--					
76--					
77--					
78--					
79--					
80--					

* Dry Density (pcf) ** Moisture Content (%)

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DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 28, 1991

WORK ORDER # 90346

Depth
(ft.)

Blow Count Graphic Log

Kelly Weight: 3000 lbs (0-25')

0--		o . c .	Fill: Silty sand, tan, dry, contains 1/2" crusher-run gravel, moderately dense	
1--				
2--		o o	Fill: Clayey sand, dark brown, contains abundant 2-3" diameter broken concrete pieces, dense, slightly moist	
3--		o o		
4--		o o	Terrace-like deposits: sandy clay, rounded cobbles to 3" diameter, dense, moist	
5--		o	contact is sharp	
6--				
7--			Landslide Deposits: Sandstone: orangish tan, medium grained, poorly cemented, slightly moist	
8--				
9--			Sandstone: clayey, tan, fine to medium grained, poorly cemented, slightly moist	
10--			Interbedded Sandstone/Siltstone, tan to gray, slightly moist	106.2 9.6
11--	3/12"		Bedding: N50W, 81NE	
12--			Siltstone: caliche and some gypsum, siltstone is locally well cemented but generally soft	
13--			Sandstone/Siltstone: tan to rust, thin bedded, siltstone is gray to black, poorly cemented, some carbon and gypsum crystals	
14--				
15--			Sandstone: blocky, well cemented layer about 8" thick, medium grain	
16--				
17--			Claystone: dark brown, slickensided gypsum crystals; Bedding: N75W, 90	
18--			Sandy Claystone, medium brown, poorly cemented, dense, slightly moist	
19--				
20--	3/12"			107.1 11.6

* Dry Density (pcf) ** Moisture Content (%)

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DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 26, 1991

WORK ORDER # 90346

PLATE B.2

Depth
(ft.)

Blow Count Graphic Log

Kelly Weight: 3000 lbs (0-25')

*D **M

20--			Bedding: N86W, 57NE'			
21--			Siltstone/Claystone: minor slickensides parallel to bedding, sandstone inclusions, chaotic zone, Bedding?: N76W, 56NE			
22--			chaotic bedding			
23--			Claystone: dark brown, gummy, well developed slickensides, moist, thin stringers of gypsum N30W, 72NE			
24--			Bedrock: Siltstone/Claystone: laminated; Bedding: N46W, 56NE, disrupted layer with some black siltstone inclusions, few minor slickensides			
25--				well cemented, continuous sequence, Sandstone/Siltstone/Claystone		
26--						
27--				Siltstone/Sandstone: fine grained, blue gray, Bedding: N45E, 46NW	126.0	10.9
28--				thinly laminated		
29--				color change from tan fine grained sand to gray sand		
30--				Bedding @ 32': N84W, 77NE		
31--	6/12"			micaceous sandstone interbedded with black siltstone		
32--		Bedding @ 33': E-W, 51N				
33--						
34--		Sandstone, medium grained, beds 2" thick, with some blue gray siltstone/claystone interbeds, bedding well developed				
35--		Bedding: E-W, 42N				
36--						
37--						
38--						
39--						
40--	6/12"		123.4	8.0		

* Dry Density (pcf)

** Moisture Content (%)

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DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 25, 1991

WORK ORDER # 90346

Depth
(ft.)

Blow Count Graphic Log

Kelly Weight: 2000 lbs (25-50')

*D **M

40--	6/12"		Siltstone/Sandstone: thinly bedded, moderately well cemented, coarse grained, blue gray Bedding: N60W, 90; charcoal pieces at 41'	118.5	8.5	
41--						
42--						
43--				massive dark brown Siltstone/blue gray thinly laminated Sandstone, slightly moist; Bedding: N47W, 82SE		
44--						
45--						
46--			Sandstone with thinly laminated Siltstone/Claystone, siltstone is brown with blue gray sandstone Bedding: N54W, 75NE; moist			
47--						
48--			Sandstone: thinly bedded with organic layers, bedding well developed: N80W, 74NE			
49--						
50--	40/12"		polished clay surfaces, few slicks, minor closed discontinuous fractures with thin striations radiating from fractures Slickensides @ 51' parallel to bedding: N72W, 70NE; Bedding @ 51': N68W, 60NE	126.4	10.2	
51--						
52--						
53--						
54--						
55--						
56--				continuous dark brown Sandstone/siltstone layers from above, N68E, 48NW; gradational contact from gray to light brown medium grained Sandstone, very moist to wet		
57--						
58--						
59--						
60--						

* Dry Density (pcf)

** Moisture Content (%)

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DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 28, 1991

WORK ORDER # 90346







PLATE B.2

1100600 SA

Blow Count Graphic Log

Kelly Weight: 1000 lbs (50-70)

Depth (ft.)

60--	30/12"		Bedding: N60W, 59NE; Siltstone/clay at upper contact is wet	125.1	15.3
61--			Sandstone: locally very well cemented		
62--			Sandstone: brown, medium to coarse grained		
63--					
64--					
65--			seep @ 65'		
66--	TOTAL DEPTH: 66 Feet No Caving, Seep @ 65'				
67--					
68--					
69--					
70--					
71--					
72--					
73--					
74--					
75--					
76--					
77--					
78--					
79--					
80--					

* Dry Density (pcf)

** Moisture Content (%)

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DRILL DATE: 7-12-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 28, 1991

WORK ORDER # 90346

BORING LOG # B-3

Depth (ft.)	Blow Count	Graphic Log	Kelly Weight: 3000 lbs (0-25')		
0--			<p>Fill: Sandy silty clay, medium brown, fine to medium grained, firm, slightly moist</p>		
1--					
2--					
3--					
4--					
5--					
6--					
7--				light brown, increase in sand and subangular sandstone clasts up to 4" in diameter	
8--			<p><u>Landslide Deposits:</u> Silty clay matrix with brecciated sandstone/siltstone/claystone fragments, mottled light brown and yellow, firm, slightly moist, abundant slickensides throughout</p>	119.3	7.7
9--					
10--	3/12"				
11--					
12--					
13--					
14--					
15--					
16--					
17--					
18--					
19--					
20--			abundant slickensides and small gypsum crystals, chaotic zone		

* Dry Density (pcf) ** Moisture Content (%)

The log of subsurface conditions shown hereon applies only at the specific location and the date indicated. It is not warranted to be representative of subsurface conditions at other locations and times.

DRILL DATE: 7-16-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan 26, 1991

WORK ORDER # 90346

Depth
(ft.)

Blow Count Graphic Log

Kelly Weight: 2000 (25-50')

20--	4/12"		113.4	12.1	
21--					
22--					
23--					
24--					
25--					
26--					
27--					
28--					
29--					
30--	17/12"			109.8	14.9
31--					
32--					
33--					
34--					
35--					
36--					
37--					
38--					
39--					
40--	25/12"			113.2	15.0

* Dry Density (pcf)

** Moisture Content (%)

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DRILL DATE: 7-16-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 29, 1991

WORK ORDER # 90346

Depth
(ft.)

Blow Count Graphic Log

Kelly Weight: 2000 lbs (25-50')

*D **M

40--	25/12"			124.6	10.1
41--					
42--					
43--			lenticular blue gray sandstone stringers within mudstone		
44--			very hard drilling, start coring		
45--			TOTAL DEPTH: 45 Feet (refusal)		
46--			No Water,		
47--			No Caving		
48--					
49--					
50--					
51--					
52--					
53--					
54--					
55--					
56--					
57--					
58--					
59--					
60--					

* Dry Density (pcf) ** Moisture Content (%)

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DRILL DATE: 7-16-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 28, 1991

WORK ORDER # 90346

PLATE B.3

BORING LOG # B-4

Blow Graphic
Count Log

Kelly Weight: 800 lbs (0-16')

*D **M

Depth
(ft.)

0--			Soil: Silty sand with some clay, light brown, fine - medium grained, upper 1 foot loose, slightly moist, some angular sandstone clasts up to 4" diameter, voids in upper 1 foot, few cobbles up to 8" diameter			
1--						
2--						
3--			<p><u>Bedrock: Sandstone/Siltstone/Claystone interbedded: Claystone is light brown, moderately indurated, moist, soft, highly weathered</u> Bedding: N49W, 39NE sandstone is light gray and light brown, fine to medium grained, moderately indurated, moist, bedding moderately developed, weathered, some fractures open 1/2"</p> <p>siltstone is gray brown, moderately indurated, moist, sandy Beds 1/2" to 4" thick</p> <p>Claystone with minor amounts of sandstone, bedding indistinct</p>			
4--						
5--						
6--						
7--						
8--						
9--					78.0	6.3
10--	20/12"					
11--						
12--						
13--						
14--						
15--	18/12"					
16--				-	10.2	
17--			Bedding: N78W, 32NE			
18--						
19--						
20--						

* Dry Density (pcf)

** Moisture Content (%)

The log of subsurface conditions shown hereon applies only at the specific location and the date indicated. It is not warranted to be representative of subsurface conditions at other locations and dates.

DRILL DATE: 11-19-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 28, 1991

WORK ORDER # 90346

BORING LOG # B-4

Depth (ft.)

Blow Count Graphic Log

Kelly Weight: 450 lbs (16-32')

20--					
21--					
22--			2" thick black plastic clay layers, few sandstone and claystone layers, Sandstone/Claystone: claystone is dark gray, sandstone is blue gray, fine to medium grained, moderately well cemented, slightly moist, massive	102.9	12.7
23--					
24--					
25--	40/12"				
26--			Claystone, blue gray, massive, well indurated, few slickensides, slightly moist to moist, very hard start coring @ 25'		
27--					
28--				105.7	7.42
29--	60/6"		Claystone, very hard, massive, blue gray		
30--					
31--					
32--		kelly weight = 250 pounds			
33--					
34--					
35--					
36--					
37--					
38--			@ 40': Conglomeratic Sandstone: blue gray, very fine to coarse grained matrix, cobbles up to 3" diameter, very hard (still coring)		0.2
39--					
40--	130/6"		TOTAL DEPTH: 40' refusal, No water		

* Dry Density (pcf)

** Moisture Content (%)

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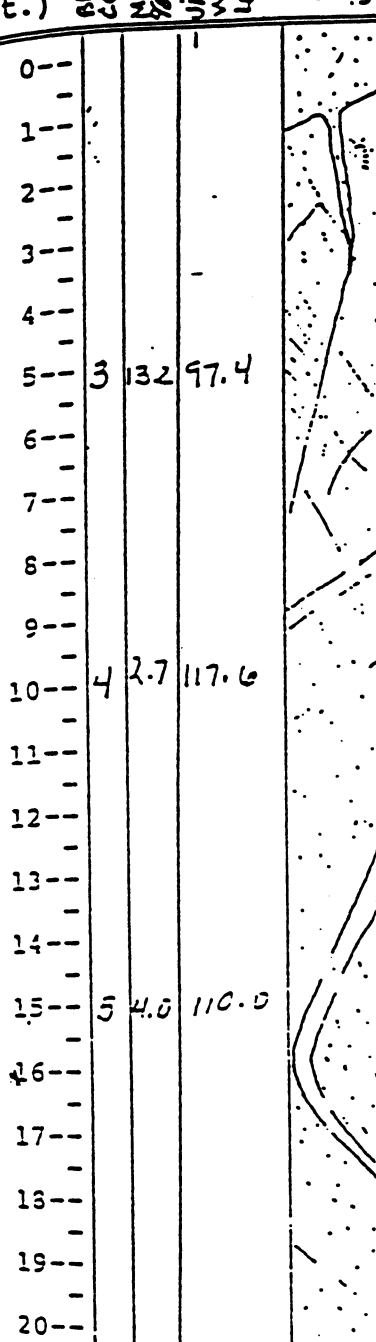
DRILL DATE: 11-19-90

SOLUS GEOTECHNICAL CORP.

DATE: Jan. 23, 1991

WORK ORDER # 90346

Depth (ft.) S - N
Graphic
Log



Soil: Silty sand, tan, loose, dry, abundant yucca and oleander roots.

Bedrock: Weathered, Sandstone, tan, fine to medium-grained, silica, feldspar and biotite, poorly cemented, friable, crumbles with hand pressure, dry, open fractures to 3 feet in depth filled with soil. Bedding: @ 4 feet on south side of hole, N60E, 54N.

Bedrock: Sandstone interbedded with siltstone, sandstone is tan, fine-grained, poorly cemented, bedding is thin (1 to 1.5-inches thick) with cross laminations, siltstone is dark gray, moderately well cemented, minor fractures are about 1/16-inch wide and filled with gypsum, bedding between sandstone & siltstone is well developed and planar. Bedding: @ 4 feet on north side of hole, N80E, 78S.

Sandstone: arkosic, tan, medium to coarse-grained, moderately well cemented, dry. Bedding: @10 feet on south side of hole, N78E, 59S. Sandstone: gray, blocky fractures, weathering shows dark rinds around fracture surfaces with minor gypsum forming pods at fracture intersections.

Sandstone: arenite, moderately well cemented, blocky joints with root mats present locally. Joint: N54W, 78S.

Sandstone: brownish tan, fine-grained, moderately cemented, interlaminated with dark brown siltstone, folded, @14.5 feet, Bedding: N50E, 58S; at 17 feet Bedding: N70E, 72N.

Siltstone: dark brownish black, well cemented, hard, thinly bedded, beds are planar and well developed, slightly fractured, slightly moist to dry. Bedding: @ 19 feet N85E, 61N.

Sandstone: arkosic, tan, medium-grained, moderately well cemented, blocky fractures, fracture surfaces

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DRILL DATE: 12-5-89

DALE GLENN & ASSOC., INC.

DATE Jan. 29, 1991

WORK ORDER # 90346-

(SHOWN AS B-8 on Plate 1)

PLATE 2.6

100507 SA

Depth (ft.) Blow Count Moisture % Dry Wt. Unit Dry Wt. S - N Graphic Log

20--				are stained with Fe _x O _x .
21--	14	2.6	116.3	Mudstone/Siltstone: medium gray, micaceous, slightly moist, firm. Bedding: N87E, 60N.
22--				
23--				
24--				
25--	26	6.6	112.9	Sandstone interbedded with Mudstone: tan to medium-gray, thinly bedded, beds moderately well developed planar, slightly moist. Bedding: N85E, 67N.
26--				Mudstone-Silty, rust gray, micaceous, tight, dry to slightly moist.
27--				
28--				
29--				
30--	21	8.4	105.2	Siltstone interbedded with Sandstone and minor Mudstone: gray, tan and dark rust brown, micaceous, thin bedded, well cemented, firm, slightly moist, abundant gypsum pods along bedding surface between sandstone and siltstone. Bedding: N35W, 51N.
31--				
32--				Sandstone (quartz arenite): tan, very fine grained, moderately cemented, dry.
33--				Siltstone interbedded with Mudstone and Sandstone: gray, dark black brown, and rust, moderately well cemented, firm, abundant gypsum pods and stringers to 1/16-inches wide, slightly moist.
34--				
35--	40	16.4	111.4	Bedding: N40W, 53N.
36--				
37--				
38--				
39--				
40--	14	10.5	117.9	Sandstone: pinkish red, fine to medium-grained, cross laminated, moderately firm to well cemented, slightly moist. Bedding: N63W, 79N.

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DRILL DATE: 12-5-89

DALE GLENN & ASSOC., INC.

DATE Jan. 25, 1991

WORK ORDER # 90346

(SHOWN AS B-8 ON PLATE 1)

PLATE B.5

Depth (ft.) BLOW COUNT MOISTURE % DRY WT UNIT DRY WT/LB/FT³ S - N Graphic Log

40--				
41--				
42--				
43--				
44--				S
45--	14	11.6	117.9	
46--				
47--	7	16.9	110.4	
48--				
49--				
50--				
51--				
52--				
53--				
54--				
55--	48	13.3	121.2	
56--				
57--				
58--				
59--				
60--	55	17.9	117.1	

Sandstone: tan, medium to fine-grained, moderately well cemented, slightly fractured, fracture surfaces are coated with MnO, slightly moist.

Bedding: N87E, 68N
Sandstone interbedded with Mudstone: Blue gray to black, moist, sheared parallel to bedding, slickensides, Seepage (minor), Bedding: N86E, 67N.
(sheared layer is about 3-inches thick).

Siltstone interbedded with Sandstone and Mudstone, unsheared, dark gray, blue gray, and black, firm, thinly bedded, beds well developed and planar, well cemented, moderately hard, slightly moist.
Bedding: N40W, 60N.

Sandstone: blue-gray, cross laminated, fine to medium-grained, moderately well to well cemented, micaceous; slightly moist, hard.

Bedding: N39W, 47N.

Siltstone interbedded with Sandstone: blue gray, thinly bedded, faulted parallel to bedding, layer is about 2-inches thick, sheared, slightly moist.
Fault/Bedding: N39W, 46N. Seepage at 56 feet.

Sandy Claystone ranging to Clayey Sandstone and Sandstone; blue gray to blue black, micaceous, well cemented, hard. Bedding: N68W, Vertical.

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DRILL DATE: 12-5-89

(SHOWN AS B-B ON PLATE 1)

DALE GLENN & ASSOC., INC.

DATE Jan. 28, 1991

WORK ORDER #: 90346

Depth (ft.) BLOW COUNT MOISTURE % DRY WT UNIT DRY WT Lb/Ft³ S - N graphic Log

SITE BORING LOG # 5. continued

60--				Sandstone interbedded with siltstone and mudstone gray to blue gray and black, thinly laminated, well cemented, moderately hard, slightly moist, micaceous.
61--				
62--				Bedding: N70W, vertical.
63--				
64--				
65--	54	16.1	109.4	TOTAL DEPTH: 65 feet No Caving, Minor Seepage at 44 feet.
66--				
67--				
68--				
69--				
70--				
71--				
72--				
73--				
74--				
75--				
76--				
77--				
78--				
79--				
80--				

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DRILL DATE: 12-5-89

(SHOWN AS B-8 ON PLATE 1)

DALE GLENN & ASSOC., INC.

DATE Jan. 28, 1991

WORK ORDER # 90346

BORING LOGS

17381 SUNSET BOULEVARD

BY HARLEY TUCKER

NOVEMBER 18, 1982

JOB NAME PARRAVANO - SUNSET

GEOLOGIST H. TUCKER

JOB No. 871-81

Drilling Contr. Tri Valley

Driving Wt. 2750 lbs Average drop 12"

Drilling Method 24" bucket auger

to 22'; 1850 to 35'; 75° 35-50'

Water Level
Time no water
Date 10/29/82

Drill Start Finish
Time 0830 1030
Date 10/29/82

Elev. 50.5 Ref. mean sea level

DEPTH/ FT.	BULK SP	CORE SP	SAMPLE RINGS	BLOWS per/Ft.	DESCRIPTION	COLOR	MOIST.	CONST.	REMARKS
0					Asphalt Pavement	black			
0.2					Colluvium - Clayey Silt (ML) Slightly porous, occasional caliche stringers scattered throughout; 2-5% angular tan and red sandstone fragments to 0.2'.	yell. br.	moist	firm	
2				2	Clayey Sand (SC) Slightly porous; occasional angular sandstone and quartz fragments to 0.1 scattered throughout.			compact	
2				2					
1				1					
1				1					
1				1					
1				1					
12				7	Silty Clay (CL); slightly sandy.	lt. brn.	sl. wet	firm	
19				12	Alluvium (Qal) Gravelly Sand (GM) gravels rounded to C.2' diameter. Composed of Sespe (?) Formation.				
25				7	Clayey Gravel (GC) Gravel tabular - subrounded 30' embedded in clayey matrix.	yell. br.			
					Bedrock - Interbedded Sandstone and Shale (Kc-Truz)	mott. gray green	moist sl. wet		

JOB NAME PARRAVANO - SUNSET GEOLOGIST H. TUCKER JOB No. 871-81
 Drilling Contr. Tri Valley Driving Wt. 2750 lbs Average drop 12"
 Drilling Method 24" bucket auger to 22'; 1850 to 35'; 75° 35-50'.
 Elev. 50.5 Ref. mean sea level Water Level Time no water Drill Start Finish
 Date 10/29/82 Date 0830 1030

DEPTH/ FT.	BULK SP	CORE SP	SAMPLE RINGS	BLOWS per/Ft.	DESCRIPTION	COLOR	MOIST.	CONST.	REMARKS
					12" cobbles 25-27'.				minor seep at 25'
30				7	<p><u>Interbedded Sandstone & Shale</u> (Kc-Tmz) Chico-Martinez Formation</p> <p>Bedding contorted locally; micaceous; intensely fractured; poorly indurated; thinly bedded; sandstone very fine grained, gray; weakly cemented; shale, blue to black, plastic.</p> <p>Occasional gypsum veins to 0.02' along bedding planes.</p>				NOTE: See reverse side for downhole attitudes.
45					End of drill hole at 45.0'				No active ground water noted. Slight caving noted in Qal.

JOB NAME PARRAVANO - SUNSET

GEOLOGIST H. TUCKER

JOB No. 871-8187

Drilling Contr. Tri Valley

Driving Wt. _____ Average drop _____

Drilling Method 24" bucket auger

Water Level No water

Drill Start Time 1100

Finish Time 1300

Elev. 53 ft. Ref. mean sea level

Date 10/29/82

Date 10/29/82

DEPTH/ FT.	BULK SP	CORE SP	SAMPLE RINGS	DIAMS per/Ft.	DESCRIPTION	COLOR	MOIST.	CONST.	REMARKS
0					Asphalt Pavement				
0					Fine-Grained Sandstone Chico-Martinez Formation (Kc-Tmz)	Tan	moist		
0					Micaceous; massively bedded; weakly cemented with local well cemented zones to 1.0' thick.	lt. yell. green			Hard and slow drilling 3-21'
11				13 11"	Shale intercalation: Strikes N 50°W, dips 53°NE.* Shale contorted and undulatory; plastic, friable clayey; dark brown-black; poorly indurated. *Down Hole Attitude.				
12				12					
20									
21					End of drill hole at 21' due to encounter with resistant sand- stone. No caving or ground water encountered.				

JOB NAME **PARRAVANO - SUNSET**

GEOLOGIST **H. TUCKER**

JOB No. **871-81**

Drilling Contr. Tri Valley
 Drilling Method 24" bucket auger

Driving Wt. 2750 lbs Average drop 12"
 to 22'; 1850 to 35'; 75° 35-50'.

Elev. 58.5' Ref. mean sea level

Water Level
 Time no water
 Date 10/29/82

Drill Start Finish
 Time 1330 1515
 Date 10/29/82

100
 90
 80
 70
 60
 50
 40
 30
 20
 10
 0
 10
 20
 30
 40
 50
 60
 70
 80
 90
 100

DEPTH/ FT.	BULK SP CORE SP	SAMPLE RINGS	BLOWS per/Ft.	DESCRIPTION	COLOR	MOIST.	CONST.	REMARKS
				Asphalt Pavement				
				Interbedded Sandstone & Shale Chico-Martinez Formation (Kc-Tmr).	gray dark brown & gray	moist		NOTE: Strong gas odor. No down- hole observ- ations accompli- shed
				Sandstone; weakly cemented, fine- grained, gray, micaceous, grains subrounded-subangular.				
				Shale; poorly indurated; dark brown to blue gray; intercalated as 0.1-0.05 beds.				
				<u>Oriented Core Attitudes:</u>				
				At 13': N70-80°W, 60-70°NE.				
				At 22': E-W, 60°N.				
				At 23': N30°W, 70°NE.				
				Occasional white caliche stringers.				
				End of Drill Hole at 27'. No caving or ground water encountered.				

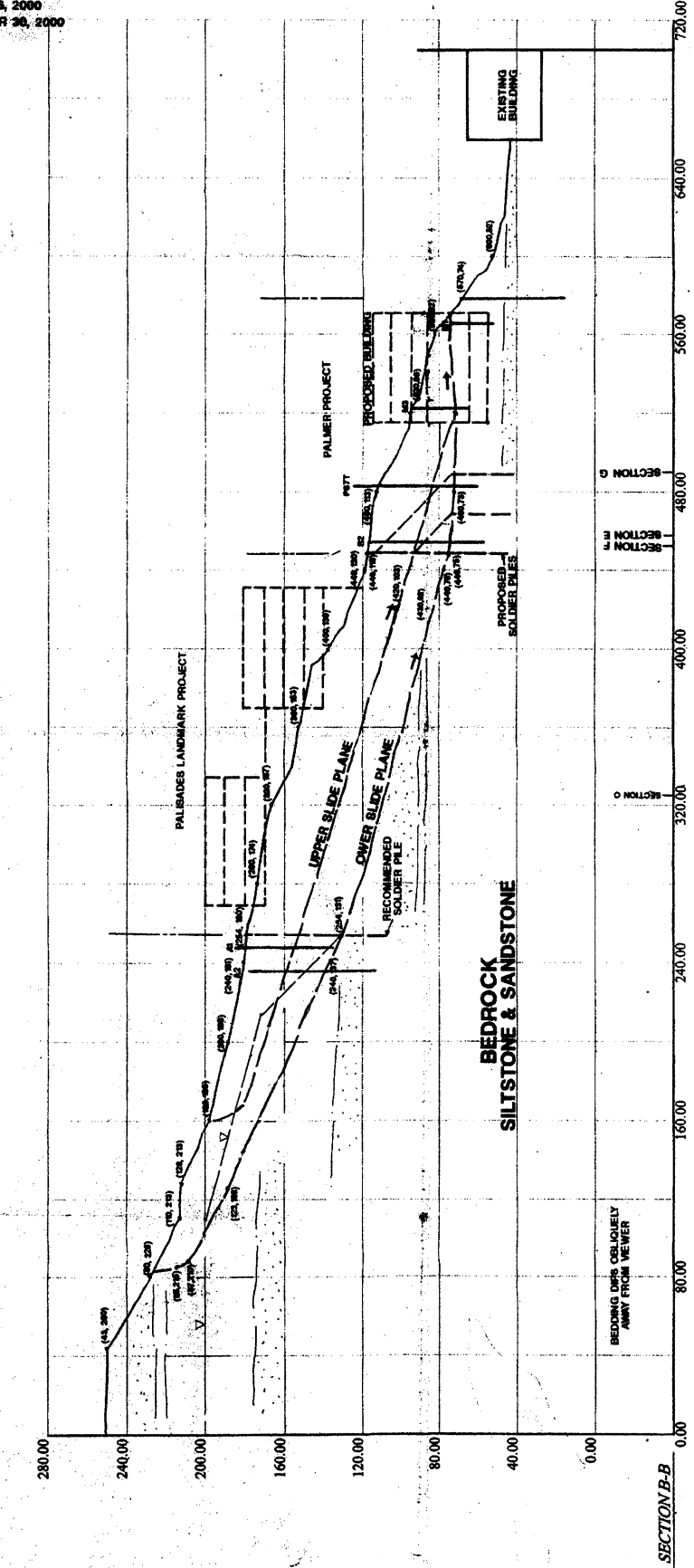
THE J. BYER GROUP, INC.
 A GEOTECHNICAL CONSULTING FIRM
 1441 S. CHEVY CHASE DRIVE, GAITHERSBURG, MD 20878
 (301) 540-4229 FAX (301) 540-3747

SECTIONS A-C

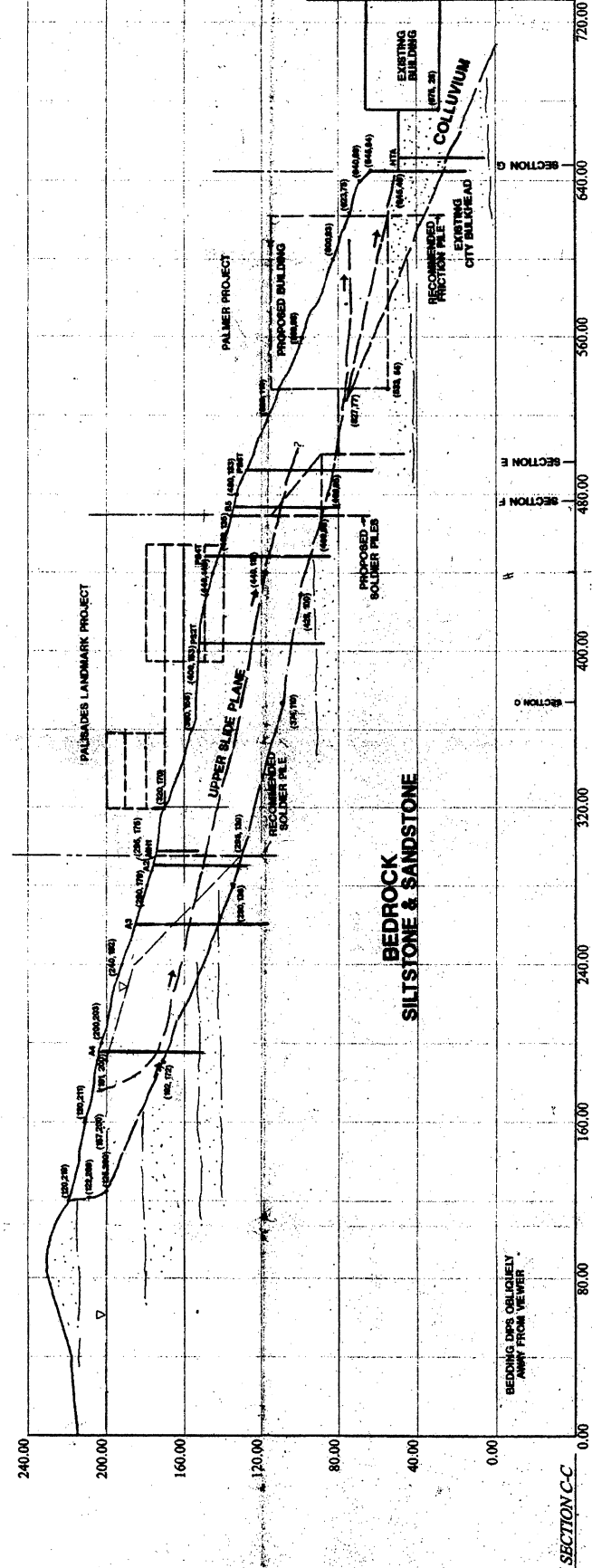
DESIGNED BY: **G.H. PALMER**
 CONSULTANT: JAI SCALE: 1" = 40'-0"

AUGUST 14, 2000
 NOVEMBER 20, 2000

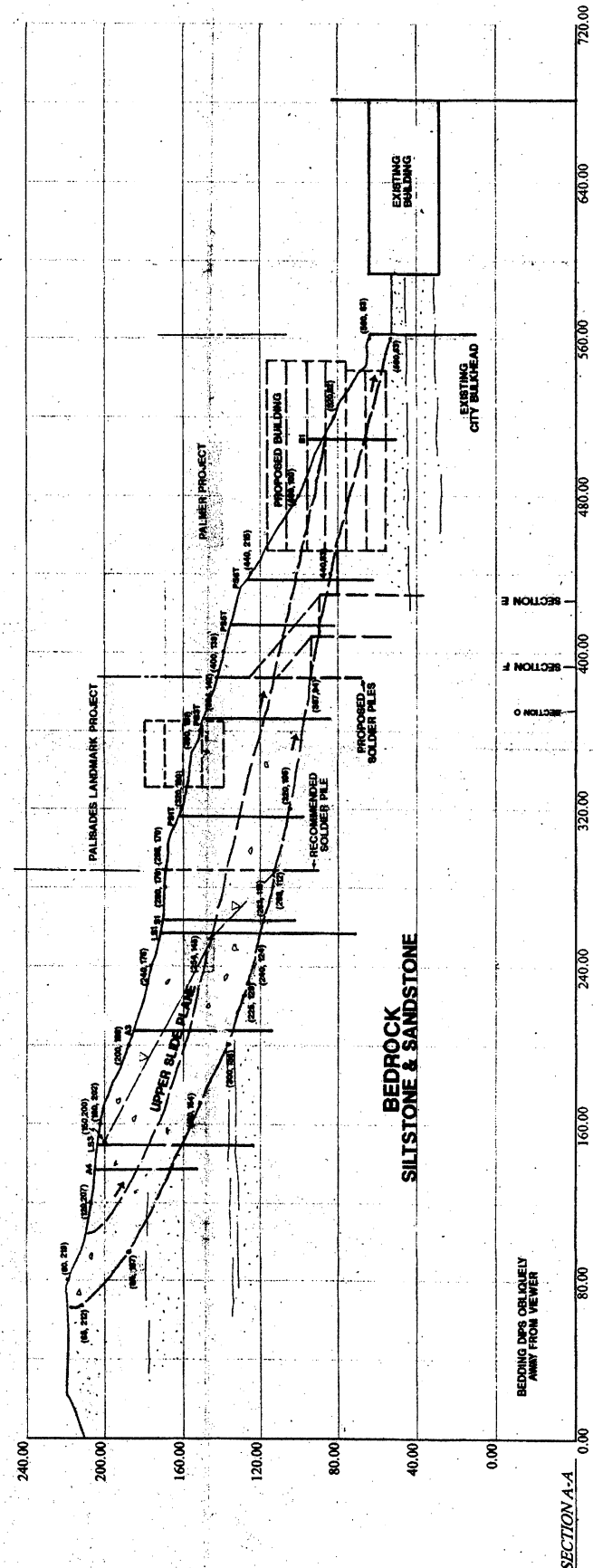
A B C D



SECTION B-B



SECTION C-C



SECTION A-A

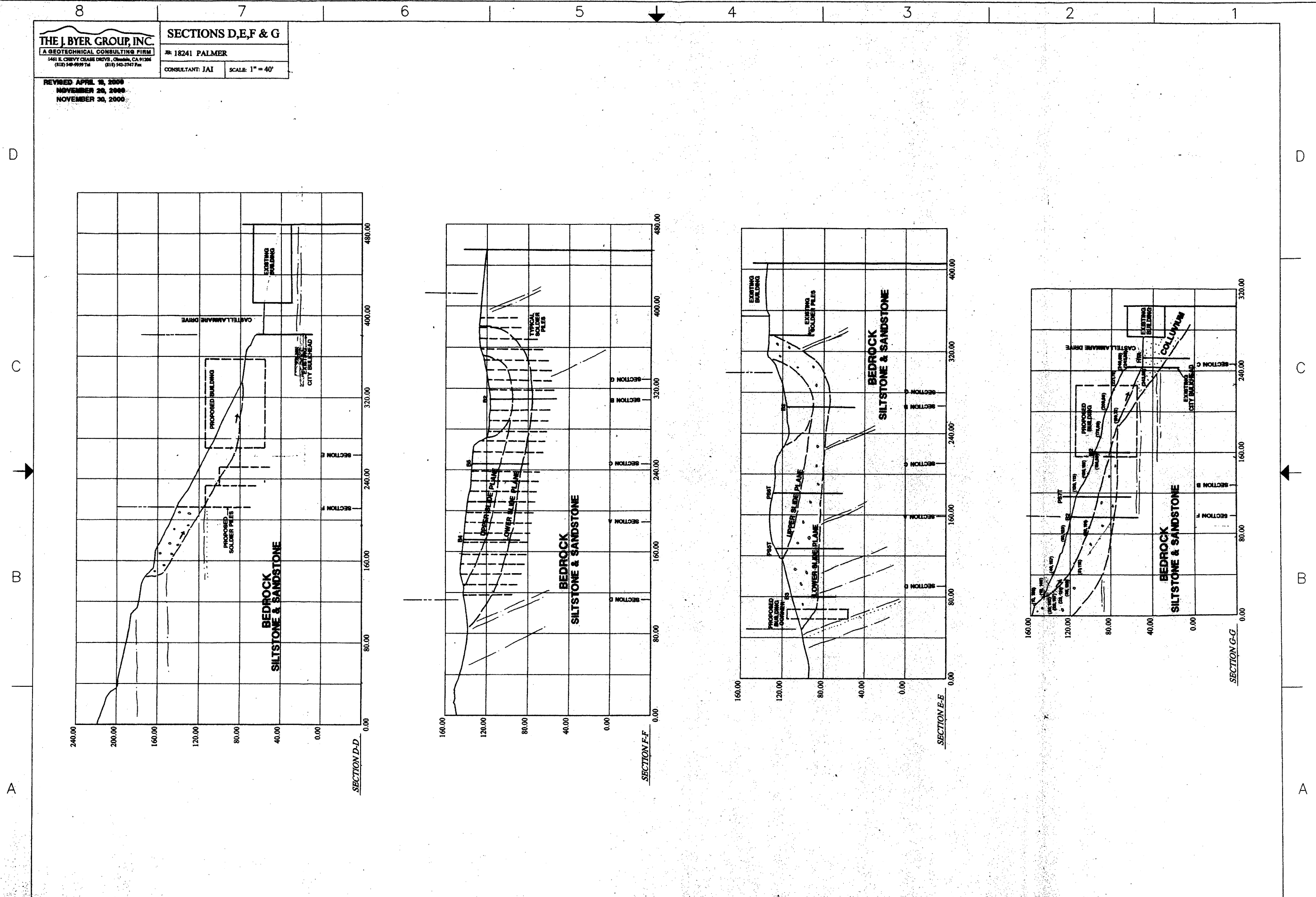
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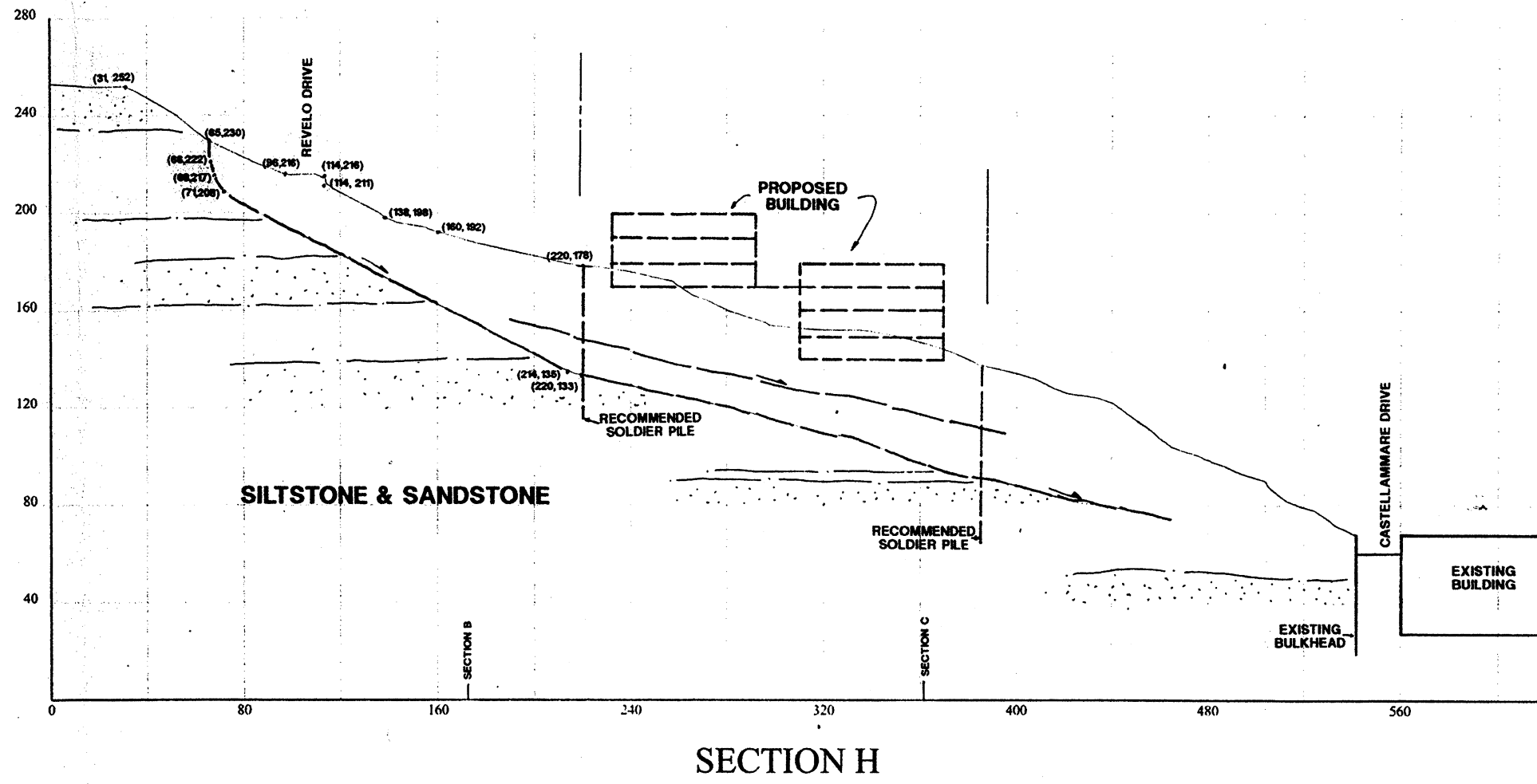
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THE J. BYER GROUP, INC.
 A GEOTECHNICAL CONSULTING FIRM
 1461 E. CHEVY CHASE DRIVE, Chanhassen, CA 91306
 (818) 548-9999 Tel (818) 543-3747 Fax

SECTIONS D,E,F & G
 # 18241 PALMER
 CONSULTANT: JAI SCALE: 1" = 40'

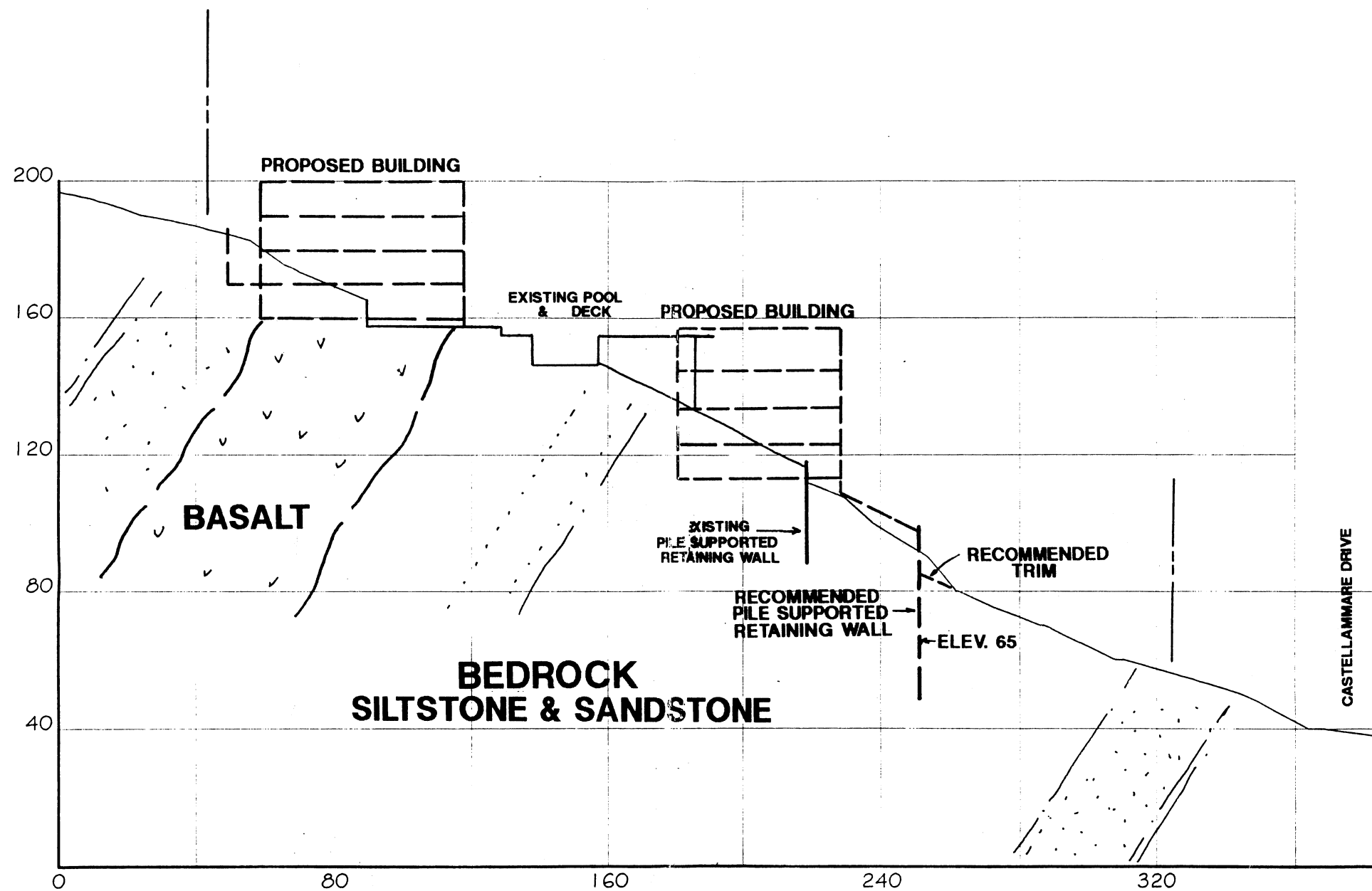
REVISED APRIL 19, 2000
 NOVEMBER 20, 2000
 NOVEMBER 30, 2000





NOVEMBER 30, 2000

THE J. BYER GROUP, INC. A GEOTECHNICAL CONSULTING FIRM <small>1441 E. Cherry Chase Dr., Suite 300, Glendale, CA 91206 (818) 549-9959 Tel (818) 543-3747 Fax</small>	SECTION H	
	JOB: 18457-1 PALISADES LANDMARK LLC.	
	CONSULTANT: JAI	SCALE: 1" = 40'



SECTION J

NOVEMBER 30, 2000
AUGUST 16, 2000
AUGUST 1, 2000

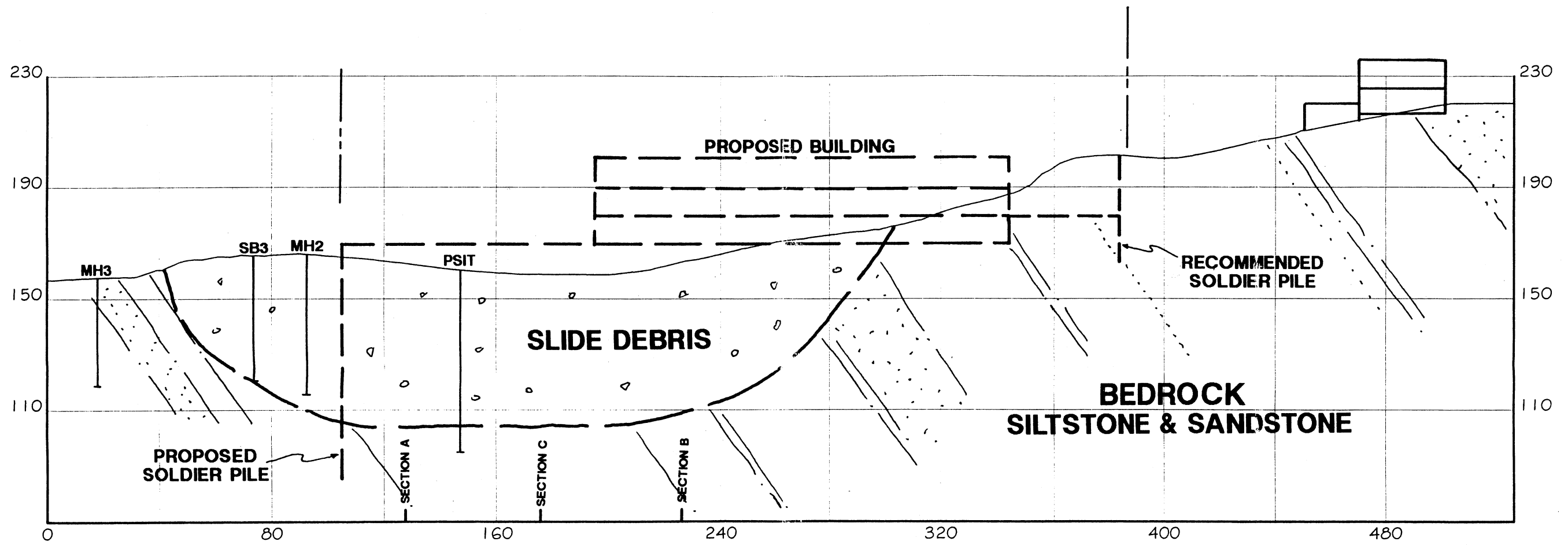
THE J. BYER GROUP, INC.
A GEOTECHNICAL CONSULTING FIRM
 1461 E. Chevy Chase Drive Suite 200, Glendale, CA 91206
 (818) 549-9959 Tel (818) 543-3747 Fax

SECTION J

JB: 18457-I PALISADES LANDMARK LLC

CONSULTANT: JAI

SCALE: 1" = 40'

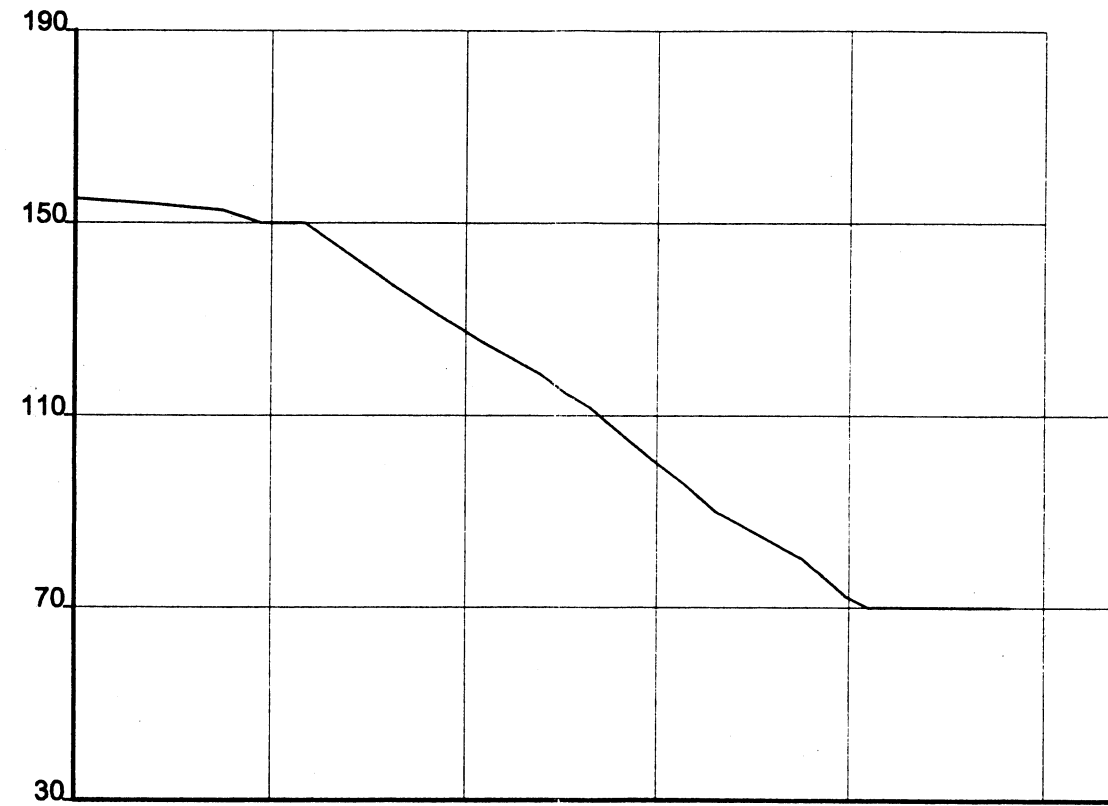


SECTION M

NOVEMBER 30, 2000
 AUGUST 16, 2000
 AUGUST 1, 2000


THE J. BYER GROUP, INC.
 A GEOTECHNICAL CONSULTING FIRM
 1461 E. Chevy Chase Drive Suite 200, Glendale, CA 91206
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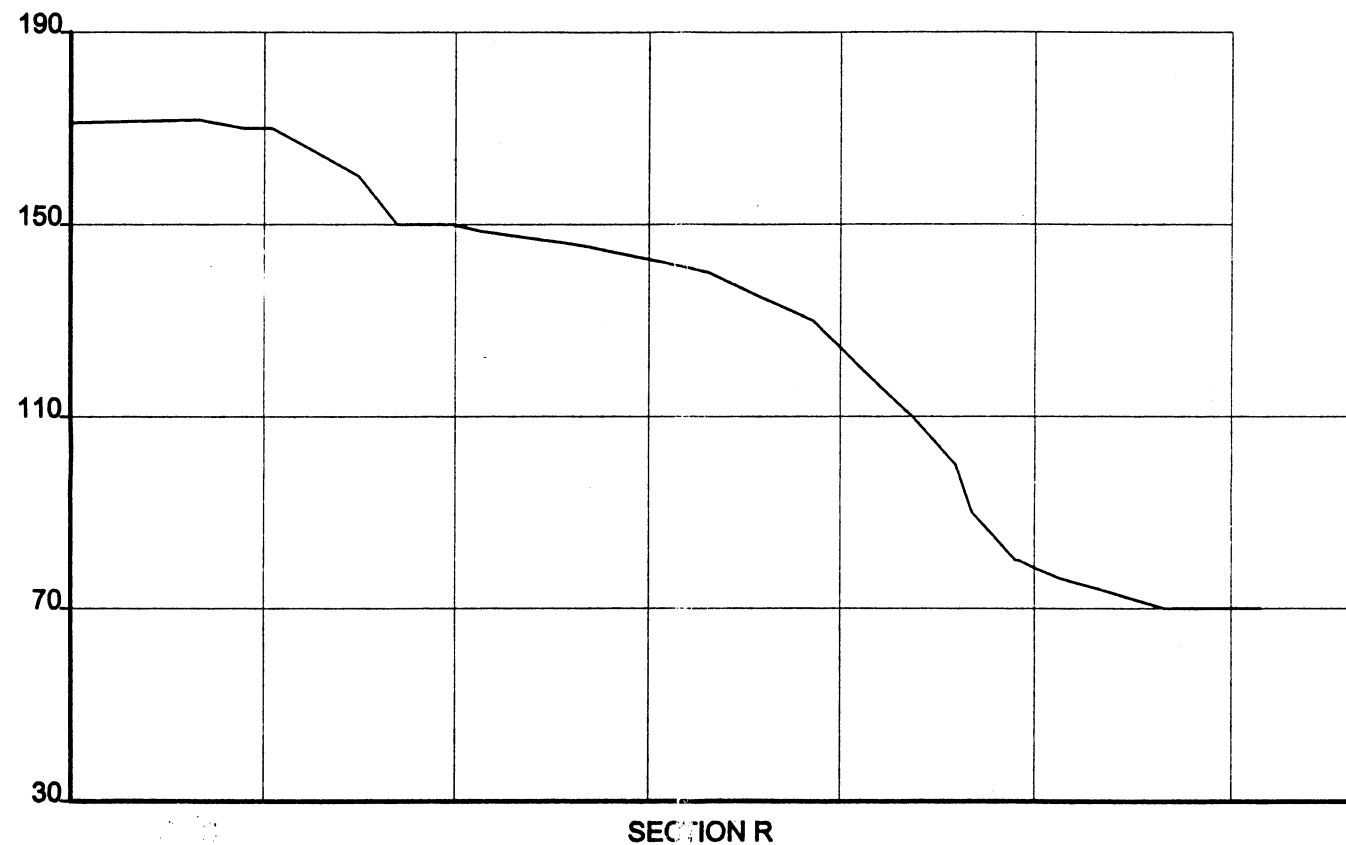
SECTION M
 JB: 18457-1 PALISADES LANDMARK LLC
 CONSULTANT: JAI SCALE: 1" = 40'



SECTION Q

NOVEMBER 30, 2000

 THE J. BYER GROUP, INC. A GEOTECHNICAL CONSULTING FIRM 1461 E. Chevy Chase Drive Suite 200, Glendale, CA 91206 (818) 549-9959 Tel (818) 543-3747 Fax	SECTION Q	
	JB: 18457-I PALISADES LANDMARK LLC	
CONSULTANT: JAI	SCALE: 1" = 40'	



NOVEMBER 30, 2000

<p>THE J. BYER GROUP, INC. A GEOTECHNICAL CONSULTING FIRM 1461 E. Chevy Chase Drive Suite 200, Glendale, CA 91206 (818) 549-9959 Tel (818) 543-3747 Fax</p>		SECTION R	
		JB: 18457-I PALISADES LANDMARK LLC	
CONSULTANT: JAI		SCALE: 1" = 40'	

THE J. BYER GROUP, INC.

A GEOTECHNICAL CONSULTING FIRM

31 E. CHEVY CHASE DRIVE, SUITE 200, GLENDALE, CA 91206
818•549•9959 Tel 818•543•3747 Fax

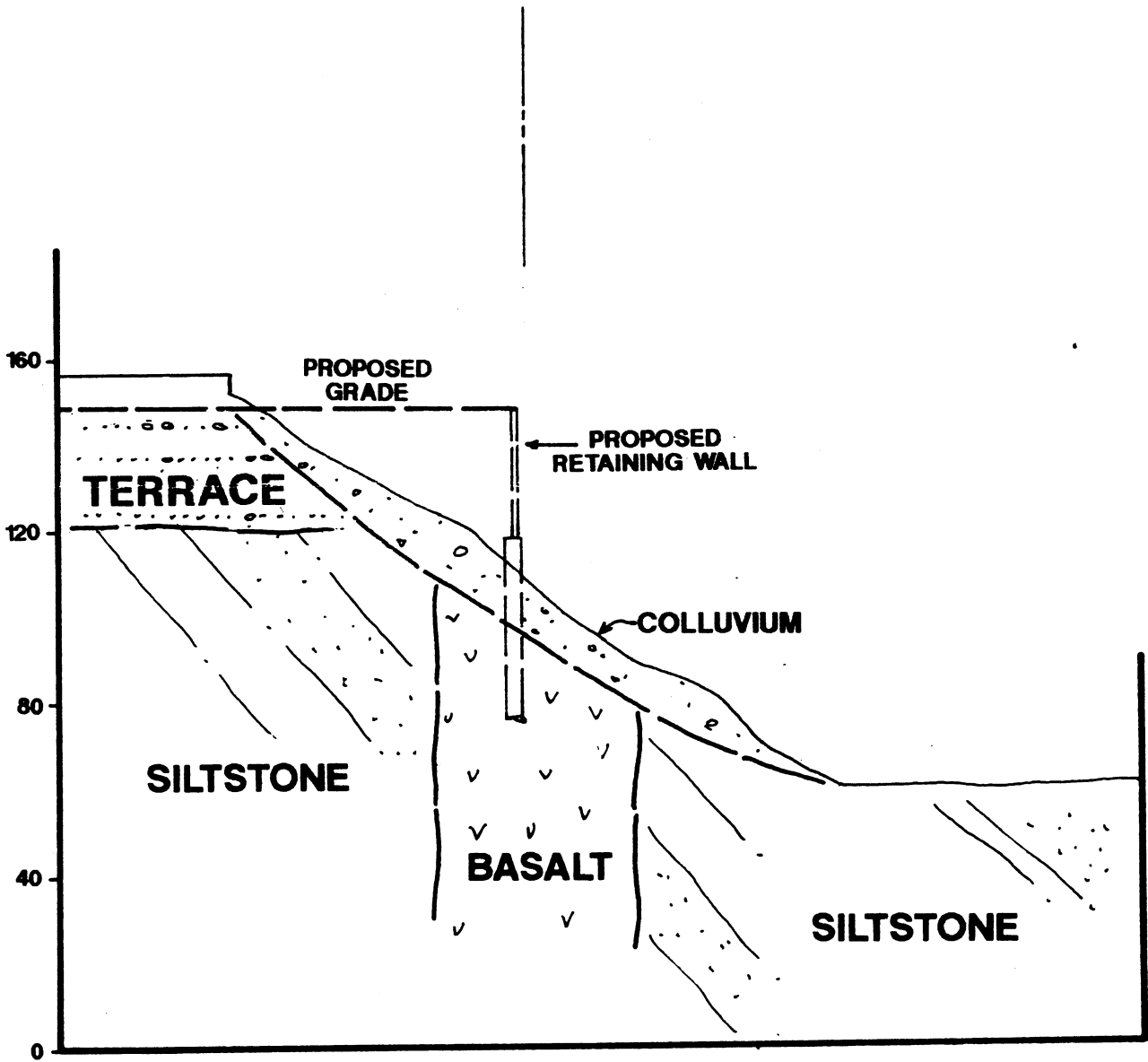
SECTION O-O

JB 18457-I PALISADES LANDMARK

CONSULTANT: JAI

SCALE: 1" = 40'

NOVEMBER 30, 2000



SECTION O-O

THE J. BYER GROUP, INC.

A GEOTECHNICAL CONSULTING FIRM

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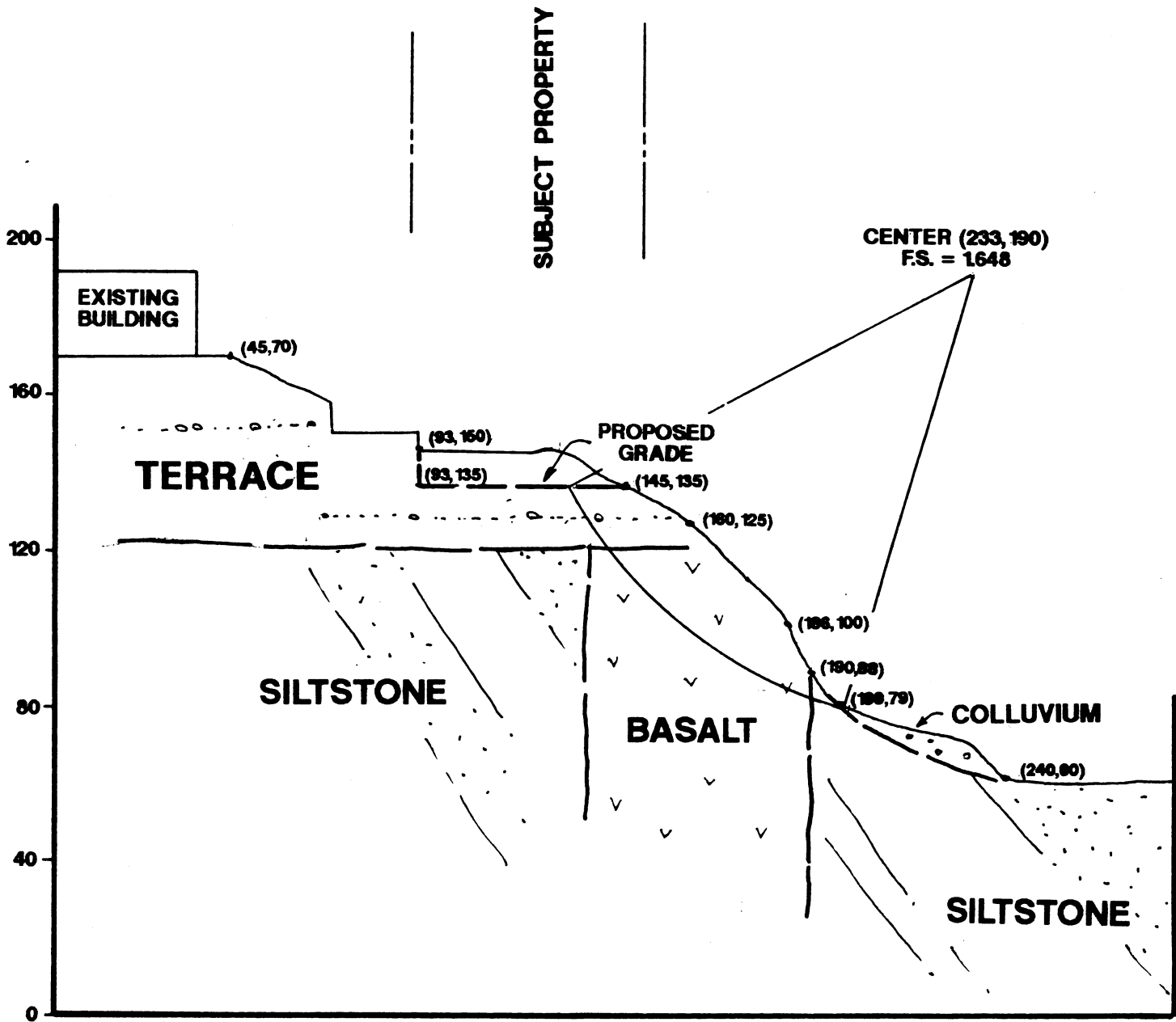
SECTION P-P

JB 18457-I PALISADES LANDMARK

CONSULTANT: JAI

SCALE: 1" = 40'

NOVEMBER 30, 2000



SECTION P-P

