



APPENDIX K

Mardi Gras Village



APPROX. SCALE: 1" = 100'

SOURCE: GOOGLE INC., JUNE 9, 2021
 GOOGLE EARTH (SOFTWARE)
 IMAGERY DATE: 11-17-2018
 AVAILABLE FROM: <https://www.google.com/>



Field Survey Dates: May 18, 19, & 20, 2021

	TERRACOSTA CONSULTING GROUP 3880 MURPHY CANYON ROAD, SUITE 200 SAN DIEGO, CA 92131 (619) 973-8950	FIGURE NUMBER K-1
	CORONADO CAYS BULKHEADS	PROJECT NUMBER T2004.070.001
		MARDI GRAS VILLAGE

LEGEND (2021 BERM SURVEY)

- Elevation Datum: MSL, ft.
- Berm El. 3.1 and above
 - Berm El. 3.0 to 2.6 - CAUTIONARY
 - Berm El. 2.5 to 2.1 - SERIOUS
 - Berm El. below 2.1 - UNKNOWN (See Report)
- 42 • Approximate Location & Elevation of Berm Measurement
- 50 — Storm Drain

Existing Tieback & Water System

CORONADO CAYS BULKHEADS

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ADDRESS / LOCATION	BERM ELEV. (MSL)	OBSERVATION / COMMENTS
0+14 Corner of Bulkhead at terminus of Tunapuna Lane	--	First 14 feet of bulkhead obscured by riprap, soil, trash, and weeds, Bulkhead is loaded by 18" planter wall at terminus of Tunapuna Lane
0+20	--	2" pvc weep hole below pile cap. A portion of the upper weep hole is blocked by pile cap
0+25	--	2" pvc weep hole below pile cap
0+27	3.4	2" pvc weep hole below pile cap
0+30	--	2" pvc weep hole below pile cap
0+35	2.7	2" pvc weep hole below pile cap. A portion of the upper weep hole is blocked by pile cap. Minor vertical cracks in pile cap have been repaired
0+40	2.5	
0+41	--	2" pvc weep hole below pile cap. A portion of the upper weep hole is blocked by pile cap
0+50	2.0	
0+51	--	2" pvc weep hole below pile cap. A portion of the upper weep hole is blocked by pile cap
0+52	--	Minor cracking in panel. >1" aperture in panel joint
0+56	--	2" pvc weep hole below pile cap. Approximately 80% of the upper weep hole is blocked by pile cap
0+60	1.6	
0+61	--	2" pvc weep hole below pile cap. A portion of the upper weep hole is blocked by pile cap. Minor vertical crack in panel
0+67	--	Panel joint is partially patched
0+70	1.3	
0+71	--	2" pvc weep hole below pile cap
0+72	--	Minor spalling, and patches over previous spalling
0+76	--	2" pvc weep hole below pile cap
0+80	1.1	
0+81	--	2" pvc weep hole below pile cap. Panel joint is offset > 1"
0+90	1.0	Rust spot on Panel
1+00	0.8	
1+01	--	2" pvc weep hole below pile cap is mostly obscured by pile cap. Minor vertical cracking in panel
1+03	--	16-18" wide spalling on panel
1+10	1.0	
1+12	--	Vertical cracking above panel joint (broken crack meter)
1+16	--	Minor vertical cracking above panel joint
1+20	0.9	
1+21	--	2" pvc weep hole below pile cap
1+28	--	2" pvc weep hole below pile cap. >3" aperture in panel joint. Previous patch has failed, exposing geotextile fabric. Several diagonal cracks extend from weep hole
1+30	0.5	
1+33	--	2" pvc weep hole below pile cap
1+38	--	2" pvc weep hole below pile cap

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1+40	0.6	Vertical and diagonal cracks at corner, rust staining in crack. waler below anchored pile cap begins
Lot 113 S PL	0.8	
Lot 113	--	Waler has horizontal cracking with rust staining
Lot 113/111 PL	1.6	
Lot 111/109 PL	2.1	
Lot 109/107 PL	1.9	
Lot 109	--	
Lot 107/105 PL	2.2	
Lot 105/103 PL	2.2	
Lot 103	--	Horizontal and vertical cracking with rust staining
Lot 103/HOA PL	2.2	
HOA	--	18" storm drain outlet penetrates bulkhead panel. Concrete header over storm drain is cracked
HOA/Lot 99 PL	2.1	
Lot 99/97 PL	2.7	
Lot 97	--	Minor spalling, cracking, and rust staining on pile cap
Lot 97/95 PL	2.5	
Lot 95/93 PL	2.7	
Lot 93/91 PL	2.7	
Lot 91/89 PL	2.8	
Lot 89/87 PL	2.7	
Lot 87	--	Horizontal and diagonal cracking with rust staining on waler
Lot 87/85 PL	2.7	Horizontal cracking and rust staining
Lot 85/HOA	2.6	
HOA	--	18" storm drain outlet penetration through panel. Minor spalling at base, concrete header is cracked and stained
HOA/Lot 81 PL	2.7	Tie backs and waler systems end at the property line. Minor spalling at base of pile cap begins at Lot 81 and continues through Mardi Gras Village
Lot 81	--	Minor spalling and vertical cracking. Spalling on panel where wall turns approximately 15 degrees
Lot 81/79 PL	2.8	Panel joint is offset, vertical crack in pile cap above panel joint
Lot 79	--	Minor vertical cracking in pile cap with moisture at base of cracks
Lot 79/77 PL	2.7	
Lot 77	--	Vertical cracking above panel joints
Lot 77/75 PL	3.0	
Lot 75	--	Spalling on pile cap, vertical crack above panel joints. Northern panel joint has approximately 2.5" aperture, is offset >1", and is spalling adjacent the joint.
Lot 75/73 PL	3.2	
Lot 73/71 PL	3.2	
Lot 71	--	2" pvc weep holes begin at north end of Lot 71 and extend to the Lot 59/57 property line
Lot 71/HOA PL	2.6	
HOA	--	18" storm drain outlet penetration through panel. Up to 2" separation between pavers and back of pile cap. Vertical cracks above panel joint

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HOA/Lot 67	3.1	
Lot 67	--	Vertical crack above panel joints have moisture in the lower half of crack. Crack meter installed. Panel joint is offset >1/2"
Lot 67/65 PL	3.1	
Lot 65	--	Up to 2" separation from back of pile cap to privacy wall. Property owner says the gap has widened over the past 20+ years. Panel joint has approximately 1" offset
Lot 65/63 PL	3.1	
Lot 63	--	Vertical crack in pile cap above an offset and patched panel joint
Lot 63/61 PL	3.2	
Lot 61	--	6 vertical cracks in pile cap
Lot 61/59 PL	3.5	
Lot 59	--	6 vertical cracks in pile cap, including a large crack above a panel joint and where the wall makes an approximately 15 degree turn. 1 diagonal panel crack, and cracking in the stucco privacy wall indicating lateral movement of bulkhead
Lot 59/57 PL	3.7	Weep holes below pile cap end here
Lot 57	--	
Lot 57/55 PL	4.3	
Lot 55/53 PL	5.0	
Lot 55	--	5 vertical cracks in pile cap
Lot 53	--	7 vertical cracks in pile cap
Lot 53/HOA PL	4.0	Panel not exposed at property line
HOA	--	18" storm drain outlet penetration through panel. Storm drain is half filled with sand. Up to 2" separation between pavers and back of pile cap. Vertical cracks with moisture stains above storm drain and above panel joint. Minor spalling and vertical cracking with rust stains near pile cap joint
HOA/Lot 49 PL	4.1	Vertical crack in pile cap that extend through stucco pillar at the end of the privacy wall
Lot 49	--	2 cracks in pile cap above panel joints. Panel joint with approximately 1/2" aperture. 2" pvc weep holes begin again at north end of Lot 49
Lot 49/47 PL	3.9	
Lot 47	--	Pile cap has 8 minor vertical cracks, and 2 vertical cracks above panel joints. 3 of 5 weep holes are partially blocked by pile cap
Lot 47/45 PL	3.9	Vertical crack at property line extends from pile cap through stucco pillar at privacy wall
Lot 45	--	Panel joint with approximately 1" aperture has been patched, and the patch has begun to fail. Panel joint is offset approximately 3/4". 6 minor vertical cracks in pile cap, and one minor vertical crack in panel
Lot 45/43 PL	3.9	Vertical crack extends from panel, through pile cap, and into pillar at end of privacy wall. Privacy wall at property line has been filled and repaired with grout or mortar
Lot 43	--	4 minor vertical cracks in pile cap, and 1 minor vertical crack in panel
Lot 43/41 PL	4.1	
Lot 41	--	7 minor vertical cracks in pile cap, and 1 minor vertical crack in panel. Approximately 3/4" gap in panel joint with rust staining. Approximately 1.25" gap from back of pile cap to pavers.
Lot 41/39 PL	3.9	

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Lot 39	--	5 vertical cracks and 7 minor vertical cracks in pile cap. 3 minor vertical cracks in panels. Weep hole is approximately 90% obstructed from pile cap
Lot 39/37 PL	3.9	
Lot 37	--	3 vertical cracks and 3 minor vertical cracks in pile cap. 3 minor vertical cracks in panels, and 1 diagonal crack with light rust staining on panel. Minor spalling near panel joint near middle of lot. 2 2" pvc weep holes at north end of lot
Lot 37/35 PL	3.4	Vertical crack extends from pile cap into pillar at end of privacy wall. Privacy wall is cracked on both sides where privacy wall meets pillar.
Lot 35	--	3 vertical cracks and 7 minor vertical cracks in pile cap. 2 minor vertical cracks in panels. Survey pin and concrete spalling where bulkhead turns approximately 15 degrees
Lot 35/HOA PL	2.5	
HOA	---	6 vertical cracks and 1 minor vertical crack in pile cap. 1 minor vertical crack in panels. Panel joint at north end has approximately 1/2" aperture. 24" storm drain penetration has minor spalling around the storm drain collar. HOA pavers have settled approximately 3/8" below back of pile cap.
HOA/Lot 31 PL	2.4	
Lot 31	--	6 vertical cracks and 5 minor vertical cracks in pile cap. One of the cracks has spalling above the panel joint. Panel joint is offset approximately 1.5" and has been previously filled. 4 minor vertical and diagonal cracks in panels. 2 of 4 2" pvc weep holes are partially blocked by the pile cap.
Lot 31/29 PL	2.7	
Lot 29	--	7 vertical cracks and 5 minor vertical cracks in pile cap. 6 minor vertical cracks in panels. Panel joint near middle of lot is offset, patched, and spalling
Lot 29/27 PL	2.8	
Lot 27	--	Both panel joints have 3/8" to 1/2" apertures, and are slightly offset. North side of lot has significant cracks and spalling. A 24" storm drain has been abandoned at mid lot, and diagonal cracks extend from the north side of the storm drain across the bulkhead panel
Lot 27/25 PL	2.7	
Lot 25	--	6 vertical cracks and 6 minor vertical cracks in pile cap. 5 minor vertical cracks in panels. Spalling at top of pile cap. Panel joints are slightly offset (>1/2")
Lot 25/23 PL	2.6	
Lot 23	--	2 2" pvc weep holes. Hole with rust on panel. 5 vertical cracks and 6 minor vertical cracks in pile cap. 1 of the cracks in the pile cap has approximately 3/8" aperture and the concrete is breaking apart. 7 minor vertical cracks in panels. Up to approximately 1/2" separation between pavers and back of pile cap.
Lot 23/21 PL	2.6	Stucco is cracked between privacy wall and pillar at property line.
Lot 21	--	10 vertical cracks and 10 minor vertical cracks in pile cap. 7 minor vertical cracks in panels. Minor cracks commonly have white mineralization. Panel joint near southern property line has approximately 3/4" offset
Lot 21/HOA PL	2.3	

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HOA	--	12 vertical cracks, one significant crack with a broken crack meter is vertically offset, and 18 minor vertical cracks in pile cap. 1 diagonal crack, 5 minor diagonal cracks, and 11 minor vertical cracks in panel. Minor cracks commonly have white mineralization. Panel joint near southern property line has approximately 3/4" offset. Pile cap above storm drain penetration has a significant crack and the concrete is broken and missing. 18" storm drain penetration has spalling, cracks, and rust stains around the pipe and collar. There is approximately 2 5/8" settlement behind pile cap
HOA/Lot 17 PL	2.2	
Lot 17	--	4 vertical cracks, 1 with a crack meter, and 6 minor vertical cracks in pile cap. 2 minor vertical cracks in panels. Pavers are approximately 1 3/4" from back of pile cap and have approximately 1 3/8" of vertical settlement
Lot 17/15 PL	3.2	
Lot 15	--	5 vertical cracks and 3 minor vertical cracks in pile cap. 5 minor vertical cracks in panels
Lot 15/13 PL	3.1	Vertical crack at property line projects from pile cap to stucco in privacy wall pillar
Lot 13	--	6 vertical cracks and 5 minor vertical cracks in pile cap. 5 minor vertical cracks in panels. Tile has settled approximately 7/8" and separation from back of pile cap >1"
Lot 13/11 PL	3.6	
Lot 11	--	6 vertical cracks and 3 minor vertical cracks in pile cap. 1 minor diagonal crack in panel. Panel joint is offset approximately 3/4"
Lot 11/HOA PL	4.4	
HOA	--	9 vertical cracks and minor spalling as before. No storm drain penetrations. No settlement observed behind pile cap. Panel joint is offset approximately 3/4"
HOA/Lot 7	4.7	
Lot 7	--	6 vertical cracks and 7 minor vertical cracks in pile cap. Panel not exposed.
Lot 7/Lot 5/3 PL	5.0	
Lot 5/3	--	Double Lot. Pile cap is covered by tile
Lot 5/3/Lot 1 PL	5.4	
Lot 1	--	6 vertical cracks and 6 minor vertical cracks in pile cap. Panel not exposed.
Lot 1/HOA PL	4.0	
HOA	--	6 vertical cracks and 4 minor vertical cracks in pile cap. 1 minor diagonal crack and 2 minor vertical cracks in panels. 24" storm drain outlet penetration is partially filled with sand. Storm drain has a CIPP (Cast In Place Pipe), with ground in the annulus between the CIPP and the storm drain pipe, effectively reducing capacity to approximately a 20" pipe.

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Photo 1: Mardi Gras South, Lot 67.
Vertical cracks above panel joint.



Photo 2: Mardi Gras South, Lot 59.
Diagonal panel crack.

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Photo 3: Mardi Gras South, Lot 37.
Diagonal crack with light rust staining on panel cap.



Photo 4: Mardi Gras South, Lot 35.
Concrete spalling where bulkhead turns approximately 15 degrees.

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Photo 5: Mardi Gras North, Lot 27.
North side of lot has significant crack and spalling.



Photo 6: Mardi Gras North, Lot 25.
Cracking in pile cap.

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Photo 7: Mardi Gras North, Lot 23.
Cracks in pile cap have approx.. 0.375 inch aperture; concrete is breaking apart.



Photo 8: Mardi Gras North, Storm Drain between Lots 17 and 21.
Pile cap above storm drain penetration has significant crack; concrete is broken and missing.