

City of Miami Beach - Land Use and Sustainability Committee (June 30, 2020)  
Discussion to Review the Palm & Hibiscus Road Elevation Experience

	Palm & Hibiscus Islands	Venetian Islands	Sunset Harbour Neighborhood	Alton Road (5th St. to Dade Blvd)	Sunset Island 3 & 4	Lower North Bay Road
<b>Scope of Work</b>	New storm water system and pump stations, raising the roads to address tidal flooding and sea level rise, new water lines, sanitary sewer line rehabilitation, LED lighting, asphalt restoration, striping and signage, and landscape restoration.	Original scope included a new 8" water main, new water services, a gravity drainage system including catch basins and valley gutters, lining of 8" sanitary sewer and new street lighting. In 2015, the scope of work was modified to incorporate the new drainage design criteria adopted by the City. Due to the advanced stage of the construction, road raising was not considered for this project. In February of 2016 six (6) new storm water pump stations, including water quality structures were added to the project.	The original scope of work included improvements to the existing drainage system which was composed of drainage wells. In May 2014, the project scope was extended to include a new storm water system comprised of pump station and major trunk lines. In addition, new sidewalks, lighting and landscaping.	Total pavement reconstruction utilizing the use of full depth asphalt, installation of a new drainage conveyance system, installation of a new storm water pump station, and street furnishings including new sidewalk, lighting and landscaping.	Roadway reconstruction including valley gutter, new water main and electronic water meters, new stormwater drainage system and pump stations, sanitary sewer lining, pavement marking and traffic signs, new conduits, conductors and service points for the existing street lights, planting improvements and overhead utility undergrounding.	Replacement of a gravity-based storm drainage system with a new, higher capacity collection and pump station system. The project scope included lining of the existing sanitary sewer system and the installation of a new water main and water services. The project also included roadway restoration and resurfacing but did not include road raising.
<b>Project Cost</b>	\$50,232,729	\$38,032,720	\$26,263,782	\$38,766,907	\$16,252,660	\$16,804,067
<b>Start of Construction</b>	January 2016	November 2013	May 2013	2013	Jan-15	September 2014
<b>Project Completion</b>	95% Complete	October 2018	Substantially Completed April 2018	October 2017	December 2018	August 2016
<b>Road Raised (feet)</b>	0 - 2	0	2 - 3	0	0.5	0
<b>Project Results/Benefits</b>	Due to original roadway elevations, properties on the east side of the islands experienced less impact than properties on the west side. Road raising has proven to be an effective means to curb the effects of sea level rise and tidal flooding. Road raising has helped avoid flooding during king tides. The project team has no knowledge of any flooding events which have impacted habitable spaces for any residents. Recent monitoring of weather events has indicated that most of the properties have fared very well with localized ponding on low-lying properties, which will be resolved once the private inlet installations are complete.	Project did not experience any significant road raising; nonetheless, impacts to residents cannot be discounted as construction activities and duration affected their property access and quality of life. The pumped storm water systems are fully operational and have provided adequate stormwater management. Recent monitoring of weather events has indicated that the public right-of-way and most of the properties have fared very well. Observations indicate that roadways are exhibiting premature degradation due to what is believed to be the effects of fluctuations in ground water levels within the roadway assembly, among other things. It is evident that the impact to the service life of the roadways has been reduced.	The road raising impacted adjacent properties during construction, but the harmonized areas have promoted a lively business friendly neighborhood after the construction was completed. Prior to the project, the roads in Sunset Harbour severely flooded during king tides. Road raising has proven to be an effective means to curb the effects of sea level rise and tidal flooding. Road raising has helped avoid flooding during king tides. Since the completion of the project, more than 60 tidal flooding events have been avoided.	Project did not experience any significant road raising; nonetheless, impacts to residents and business cannot be discounted as construction activities and duration affected their property access and quality of life. The roadway was completely reconstructed. The pumped storm water systems are fully operational and have provided adequate stormwater management for the designed drainage area. No recent monitoring of roadway or other elements of this corridor have taken place. This is a Florida Department of Transportation (FDOT) road.	Project did not experience any significant road raising; nonetheless, impacts to residents cannot be discounted as construction activities and duration affected their property access and quality of life. The pumped storm water systems are fully operational and have provided adequate stormwater management. Recent monitoring of weather events has indicated that the public right-of-way and most of the properties have fared very well.	Project did not experience any significant road raising; nonetheless, impacts to residents cannot be discounted as construction activities and duration affected their property access and quality of life. The pumped storm water systems are fully operational and have provided adequate stormwater management. Recent monitoring of weather events has indicated that the public right-of-way and most of the properties have fared very well. Observations indicate that roadways are exhibiting premature degradation due to what is believed to be the effects of fluctuations in ground water levels within the roadway assembly, among other things. It is evident that the impact to the service life of the roadways has been reduced.