

"Your project. Our passion."

## LMHS CARDBOARD SIMULATIONS AID IN DESIGN OF MEDICAL VILLAGE

A life-size 3D cardboard mock-up of rooms for the new Lee Health Village at Coconut Point allows Lee Memorial Health System (LMHS) to test the most efficient use of space prior to design and construction.

When designing and planning something as important as a comprehensive medical village, you want to ensure you are creating the safest, most efficient and effective facility possible. The best way to do this is through creating real world simulations that allow doctors, nurses, and other healthcare personnel to test out the proposed physical space, floor plans, and flows of various departments prior to design and construction.



The cardboard setup allows clinicians to move doorways, walls, and equipment around to ensure both personnel and tools are optimally placed to provide the most efficient patient care possible.

For the Lee Health Village at Coconut Point, LMHS staff and clinicians constructed 3D models of specific areas of the facility by using large pieces of freestanding cardboard to recreate realistic rooms. This allowed the staff to touch and feel as if they were truly in a patient exam room and adjust the layout accordingly.

The room prototypes included patient check-in areas equipped with full workstations, patient exam rooms with exam tables and sitting areas, laboratory and pharmacy layouts, as well as full replicas of the emergency center, and more, all constructed out of cardboard.

In order to increase efficiency, the team looks at everything as small as a location of gloves and A quarterly publication by:



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In This Issue:

**Designing the** Lee Health **Village** at **Coconut Point** 

**Environmental** 

**Due Diligence** 

Water Use

Permitting **Strengths** 

**Run Deep** 





Remembering Wayne McClenithan





Site plan courtesy of Flad Architects

CONTINUED ON PAGE 2



Mark Haines, P.S.M. joined our survey and mapping team in Fort Myers. He is a licensed Florida surveyor and mapper with 30 years land surveying experience throughout Florida.



Leah Holmes, E.I. has joined our Fort Myers transportation team. She is a certified Engineer Intern and a **Qualified Stormwater** Management Inspector.



**Toby Schwetie** joined our Water Resources team as a permit technician. He brings 16 years of experience, eight of which were as a Water for the SFWMD.

supplies, to as large as the most proficient location of the surgical equipment, monitors, and booms over operating tables. The team also evaluated the size of the rooms and doorways to ensure they had enough space to bring in

any needed large equipment to provide the necessary medical care during critical moments. Handwritten words on the cardboard walls indicate clinician's recommendations for where specific items should be located in the final design.

The simulations provided a first-hand experience to test if the new facility's design will work in the real world and not just on paper. Reenacting various medical scenarios gives healthcare professionals the opportunity to shape the delivery of care and improve upon the design, based on their own experience working in a clinical setting.

After the simulations, staff debriefs and assesses the space to propose various modifications to the design, which is then evaluated for feasibility to incorporate into the design. The simulations help determine the arrangement and organization of interior spaces to maximize utility and efficient delivery of service. Flad Architects will use this information to refine the building functions and form, and engage with our Johnson Engineering planners, engineers, and landscape architects throughout the process so the design of site features including access, parking, water management, and open spaces are in harmony and lend to the quality of experience for those who work at and visit the facility.



The Lee Health Village at Coconut Point in Estero will be the first of its kind within Lee County and is slated to open in 2018. The approximately 150,000 square foot medical village will be located on 31 acres off Via Coconut Road, across from the Coconut Point Mall.

The Lee Health Village will be comprised of:

- Healthy Life Center, various components to inspire healthier lifestyles
- Free Standing Emergency Department open 24/7/365
- Outpatient Surgery Center (OSC)
- Recovery Care Center/Clinical Decision Unit
- ¬ Rehabilitation Therapy
- Cardiac Testing and Rehabilitation
- Laboratory
- Pharmacy
- Imaging
- Physician's office space

Having worked on countless other projects with LMHS, it's rewarding to see their consistent strategy for health, wellness, and well-being. Watching these simulations used so early on in the design phase shows their patient-based, patient-focused design, and their continued commitment to wellness by building the safest, most efficient medical facility they can.

For more information, contact Dana Hume at (239) 461-2471 or DLH@johnsoneng.com.











Johnson Engineering has over 20 years of experience providing environmental due diligence services in the form of Phase I and Phase II Environmental Site Assessments (ESAs). The purpose of these services is to identify and quantify the presence and nature of any hazardous material contamination (e.g. pesticides, heavy metals) or petroleum, that may affect a property's environmental status. These services are oftentimes required by lending institutions when developing, purchasing, or refinancing property. More importantly, these services provide property owners with the information they need to make informed decisions, have peace of mind, and achieve their goals.

The purpose of the Phase I ESA is to determine whether a subject property is likely to have environmental contamination. Phase I ESAs include researching state and federal government records, evaluating historical use information, performing site reconnaissance, and conducting interviews to identify any recognized environmental conditions (RECs) and/or previously unknown environmental issues for the subject property. Nearby properties are also researched because the mobility of some environmental contaminants (typically petroleum-based) may affect or have the potential to affect the subject property in the future.

If a Phase I ESA identifies recognized or potential issues with a subject property, a Phase II ESA may be required. The purpose of a Phase II ESA is to determine the type, magnitude, and extent of environmental contamination. Our team provides comprehensive testing services to evaluate soil, groundwater, and surface water contamination. Commonly provided services include performing soil borings to test for volatile organic compounds (VOCs) and soil and water sampling to test for heavy metals, VOCs, and pesticides. Our team is trained in proper sampling techniques according to FDEP standard operating procedures.

Johnson Engineering has conducted numerous ESAs for a wide variety of private sector clients and governmental agencies throughout South and Central Florida. Our team understands the approach, techniques, and importance of environmental evaluations. For any piece of property - no matter how large or how small - our team is prepared to assist with your environmental due diligence needs.

For more information on how Johnson Engineering can assist you, please contact Annastacia Thomas at sthomas@johnsoneng.com.

### **OUR WATER USE PERMITTING STRENGTHS RUN DEEP**

Most water withdrawals (surface and groundwater) within the South Florida Water Management District (SFWMD) require a water use permit, unless serving single family residences exclusively. The Johnson Engineering Water Resources team has assisted clients with over 500 water use permit applications during the past 10 years. We have successfully permitted a wide array of projects, ranging from county-scale public water supply systems with multiple sources to short-term roadway construction dewatering-and everything in between, including all scales of agricultural and landscape/golf course irrigation, industrial applications, and dewatering projects.

With three former SFWMD employees on staff, we structure our permit applications to provide water management district staff the information they need to issue a permit without spending project budget on unnecessary academic exercises. We have maintained strong professional relationships with former colleagues at water management districts that help us resolve complex permitting issues through innovative approaches. The networks we have cultivated over decades of experience allow us to engage regulatory agencies and private entities on a client's behalf. As a result, our turn-around times from application submittal to approved permit usually far surpass those of our competitors.

Toby Schwetje recently joined our team as a permit technician reporting to Kim Arnold, P.G. Prior to his move to Johnson Engineering, Toby worked as a water use permit reviewer at the SFWMD Fort Myers service center, where he reviewed approximately 400 permit applications. Together with Kim and Terry Bengtsson, P.G., both former SFWMD employees themselves, Toby brings the total of water use permits our staff has worked on as either consultants or regulators to well over 2,000. Please contact Kim Arnold, karnold@johnsoneng.com, to discuss how we can help you with your next water use permitting project.





#### PEACE OF MIND THROUGH ENVIRONMENTAL DUE DILIGENCE







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#### **REMEMBERING WAYNE McCLENITHAN -**A VALUED PART OF JOHNSON ENGINEERING HISTORY

Mr. Robert "Wayne" McClenithan, one of Johnson Engineering's original surveyors, passed away January 11, 2016, at the age of 75.

Wayne dedicated 40 years of his life to Johnson Engineering's surveying and mapping group. At his retirement party in 2006, the late Rodney Skinner wrote a poem commemorating Wayne's career. No other words could better describe his time here with us. Godspeed Wayne.



ROBERT WAYNE MCCLENITHAN 1966-2006 - 40 YEARS OF EXCELLENT SERVICE

WELL I STARTED THIS THING BACK IN 66'...POUND'N HUBS AND TOTE'N STICKS. My First crew chief was Mr. Jimmy Vee...and Marco Islands where he said we would be.

I WALKED THAT ISLAND EVERY DAY FOR WEEKS....A MAN MADE HELL IS WHAT IT SEEMED TO ME. THROUGH THE SKEETERS, NO SEE'MS AND SWELTERING SUN..... AFTER 7 LONG YEARS WE GOT-R-DONE.

WORK'N FOR MEN LIKE FARBEE AND CURRY ... THEY TAUGHT ME WELL AND I CAUGHT ON IN A HURRY.

NO ELECTRONICS NO GPS I KEPT WORK'N HARD AND I PASSED THEIR TEST.

THEN ALONG CAME 1972...THEY HANDED ME THE KEYS AND SAID I HAD A CREWO A scale, A plat, and A Good sharp machete...It was only six years...

IN 73' THINGS WERE MOSTLY STABLE ... THEY HIRED MY RIGHT-HAND MAN ... OLE Kenny Keadle, Work was good and we were solid to the core ... till the Good Lord called him home in 2004.

IN 74' I WENT TO WORK FOR LES...HE SHOWED ME THE BOAT AND SAID I WAS HEADED WEST, CAYO COSTA...USEPPA...UPPER CAP AND CABBAGE KEY... IT LOOKED LIKE THE ISLANDS WERE MY DESTINY.

DOING PERK TESTS AND SOIL LOGS...CUT'N LINES (SOME SAID I MOWED'M) ACROSS MANGROVE BOGS. THE DUNES, THE ROCKS...CASA YBEL...FOR MANY YEARS I was known as MR. Sanibel

MCCLENITHANS FOR BREAKFAST. BAILEYS STORE FOR LUNCH. ABOUT 20 MINUTES IS ALL WE TOOK TO MUNCH. THEN ITS RIGHT BACK AT IT TILL ABOUT 5... STILL GOTTA FINISH THE BOUNDARY. AND LOCATE THE HIGH TIDE.

SO I LEAVE YOU FOLKS WITH A FEW WORDS OF FAREWELL ... TEI'S BEEN GOOD AND ITS TREATED ME WELL.

WELL FROM THIS DAY ON IF YA WANNA SEE ME YOU CAN FIND ROBERT WAYNE ON THE OKEECHOBEE!

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