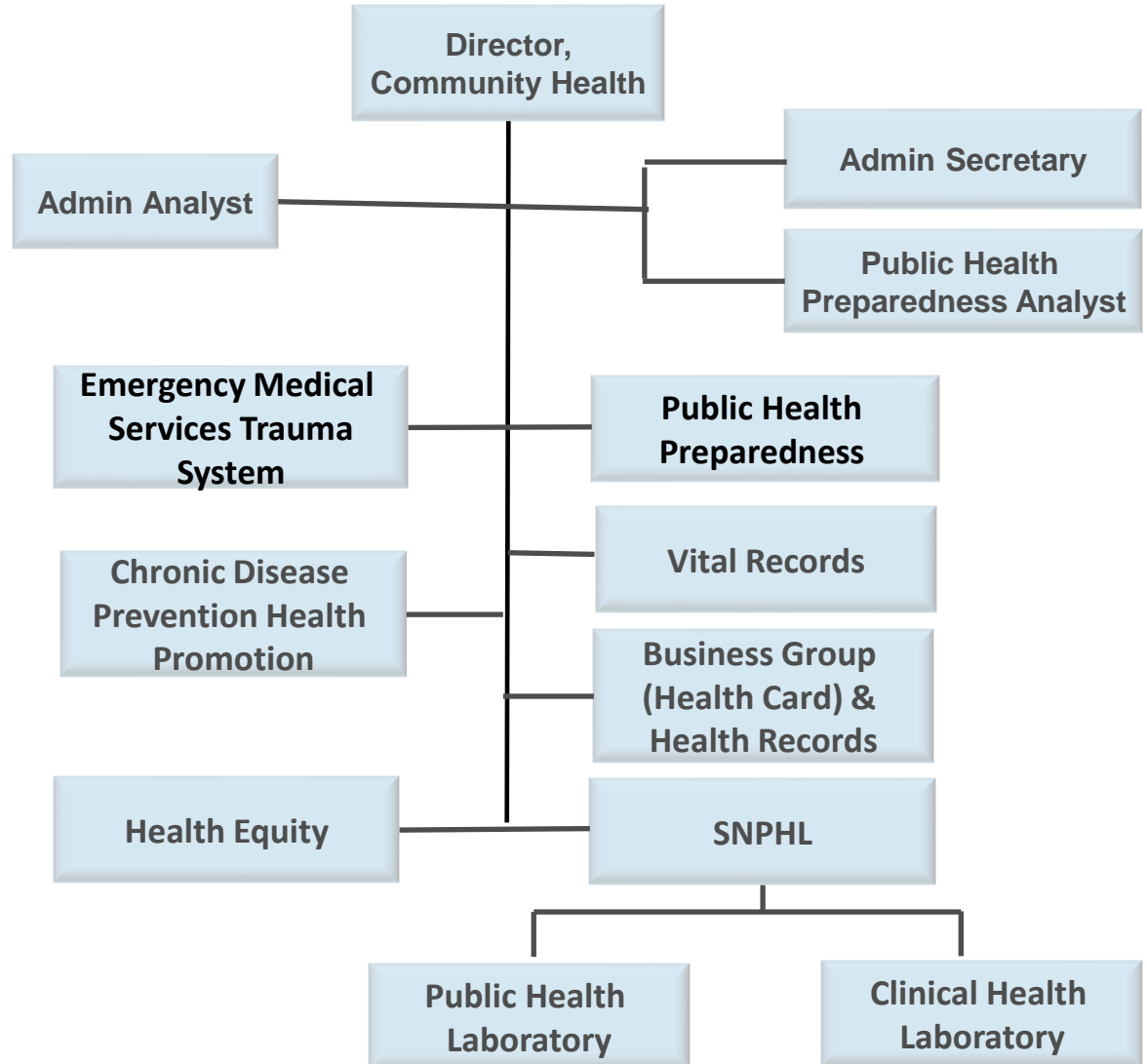


Dr. Michael Johnson
Community Health
Division Director
4/27/2023

Southern Nevada Public Health Laboratory Update

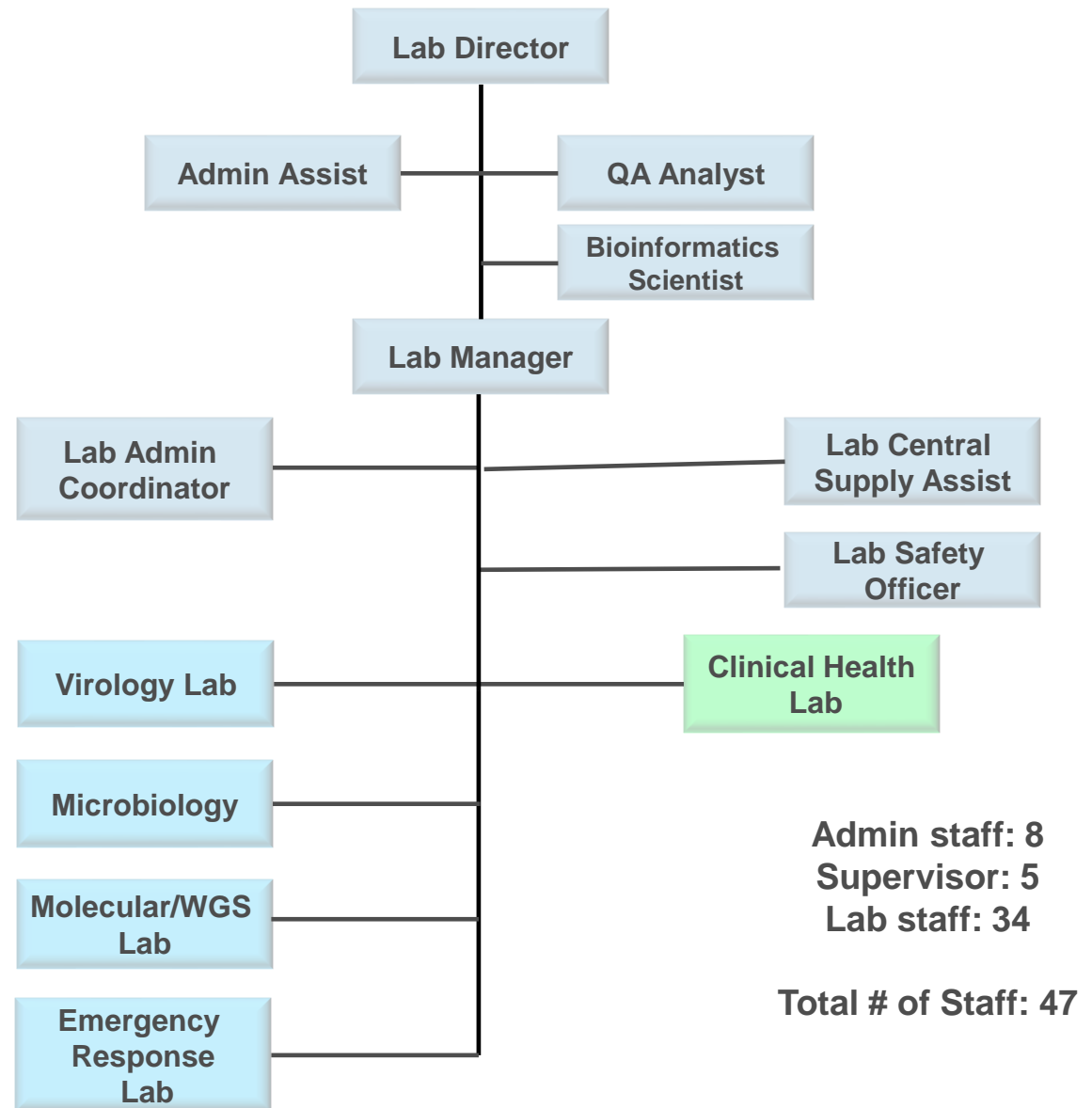


Organization Chart of Division of Community Health



Organization Chart of SNPHL

Organization Chart of SNPHL



Organization Chart of SNPHL

Programs of SNPHL

- **Disease Prevention, Control, and Surveillance**
 - Foodborne pathogen surveillance
 - Respiratory virus surveillance
 - Mosquito disease (Arbovirus) surveillance
 - Vaccine-Preventable disease surveillance
 - Gastrointestinal disease outbreak investigations
 - Respiratory viruses outbreak investigations
 - Microbiology laboratory (NRS submissible isolates)
- **Public Health Preparedness and Response.**
 - Select agent and toxin testing for law enforcement samples
 - Confirmation test for BioWatch lab
 - Clinical specimens from hospitals and sentinel laboratories

Programs of SNPHL

Clinical Health Laboratory

- **Primary Preventive Care:**
 - *Community Health Nursing*
 - *Sexual Health Clinic*
 - *Tuberculosis*
- **Disease Surveillance & Control:**
 - *Disease Surveillance*
 - *Epidemiology*
 - *Informatics*
- **FQHC:**
 - *Family planning*
 - *Primary Care Clinic*
 - *Ryan White*

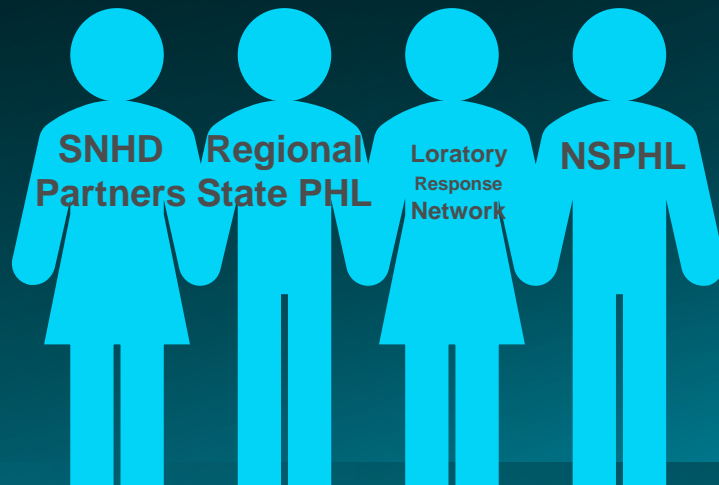
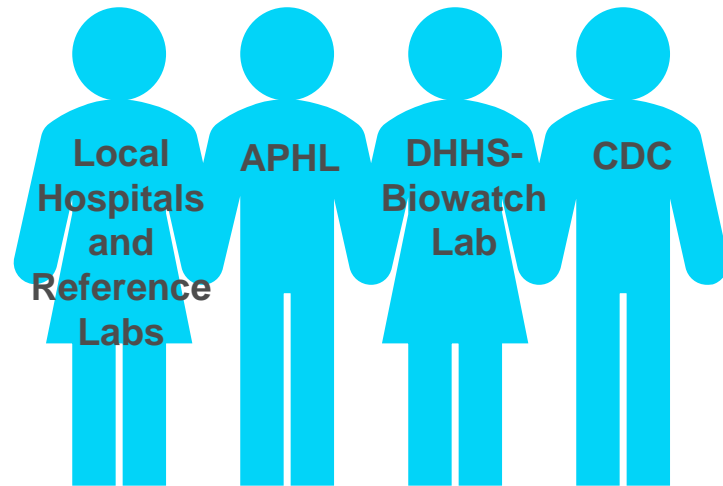
Current service menu

- ❖ HIV and STD
- ❖ Hepatitis
- ❖ TB
- ❖ SARS-CoV-2

Proposed new service menu

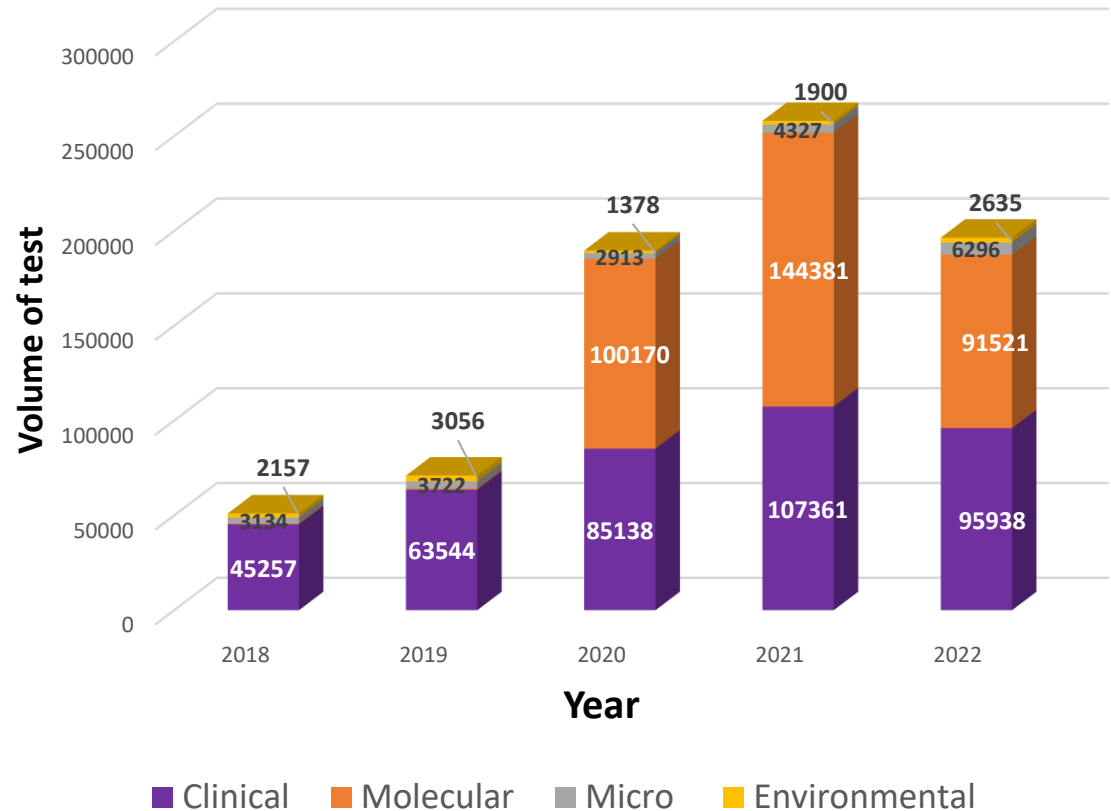
- ❖ Clinical Chemistry
- ❖ Hematology
- ❖ Urine analysis

Partners of SNPHL



What we Learn from the Impact of the COVID-19 Pandemic

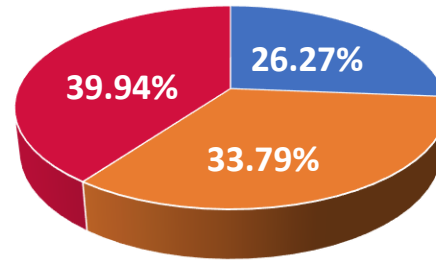
The Test Volume Before and After COVID-19 Pandemic



Lab	2018	2019	2020	2021	2022
Clinical	100%	140%	188%	237%	212%
Molecular	100%	147%	22211%	32014%	20293%
Micro	100%	119%	93%	138%	201%
Environmental	100%	142%	64%	88%	122%

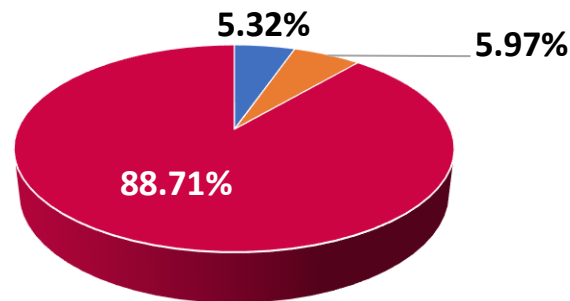
Laboratory Funding Support

Funding Support for Laboratory Operation Before COVID-19 Pandemic



■ GFPHL ■ GFCL ■ Federal Grant Funds

Funding Support for Laboratory Operation after COVID-19 Pandemic



■ GFPHL ■ GFCL ■ Federal Grant Funds

Funding support:

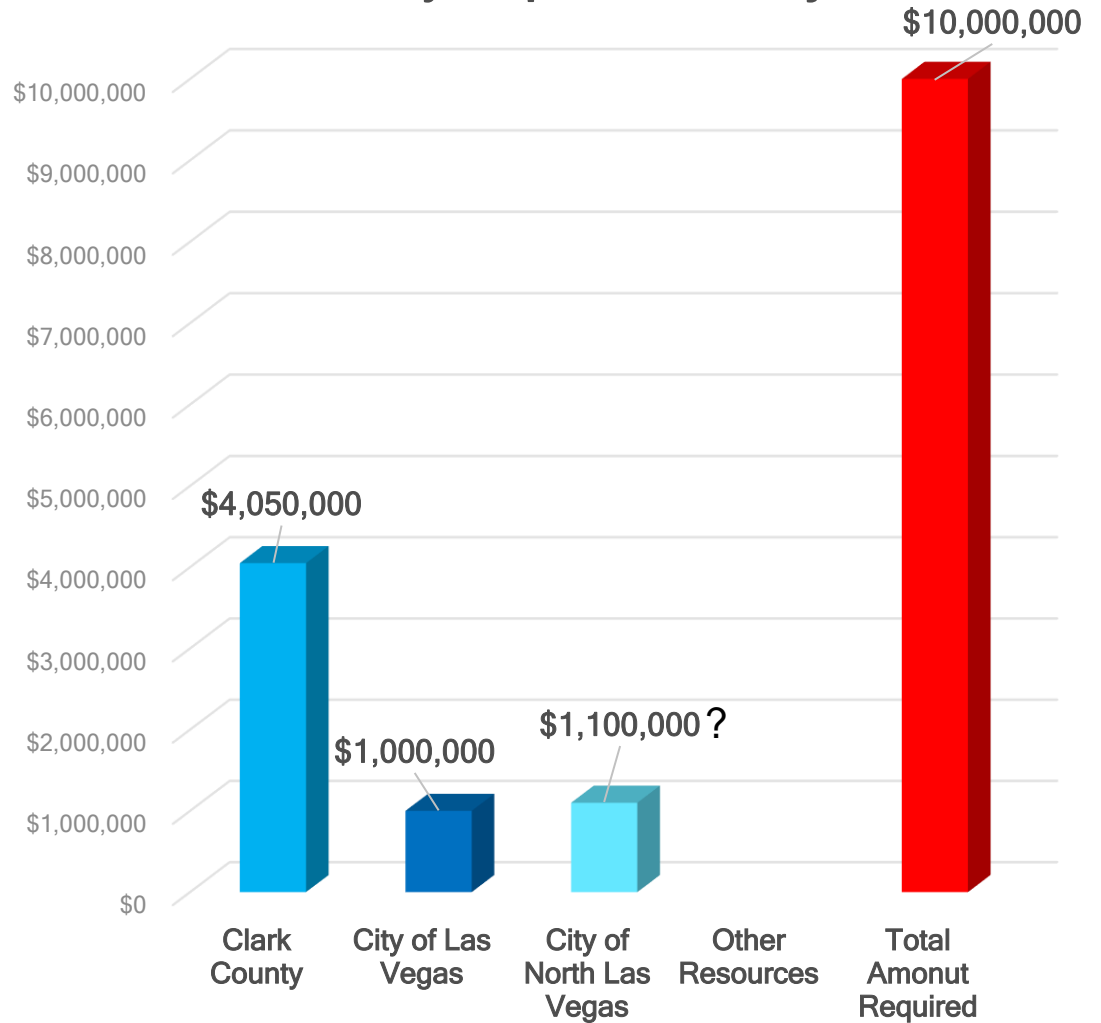
- Federal Grant Fund
 - ELC Core, PHEP
- Local fund
 - General fund (Clark County property tax dollars) for PHL and Clinical Laboratories
- The total expenditure for FY19 is \$2,778,491.88

Funding support:

- Federal Grant Fund
 - ELC Core, PHEP, ELC COVID, PHI
- Local fund
 - General fund (Clark County property tax dollars) for PHL and Clinical Laboratories
- The total expenditure for FY22 is \$18,453,955.92

Laboratory Funding Support

Funding Support for SNPHL Laboratory Expansion Project



Projects Proposed for the SNPHL Annex Building

Projects for SNPHL Annex Building

- **Enhance viral pathogens and outbreak investigation.**

Expand the lab space and allow SNPHL to add an automated liquid handler, nucleic acid extractor, and PCR testing platforms in preparation for potential future pandemic surge response.

- **Increase the whole genome sequencing (WGS) capacity and capability across all pathogen testing at SNPHL.**

Continue to meet the standard for monitoring SARS-CoV-2 as well as other human pathogens, providing data for genotyping, active surveillance, and epidemiological linkage between cases and environmental (e.g. GC/CT, Mpox, RSV, Legionella, Norovirus, and C. auris etc.) exposures.

- **Provide SNPHL with a modern LRN-B BSL-3 laboratory.**

Allow our laboratory to increase test volume and LRN-B capabilities to match the growing population and tourism in Clark County. Continue to serve as SNPHL's primary function for PHEP activities and Bioterrorism response.

- **Provide a dedicated training space for BSL-3 activities.**

A new and modern BSL-3 in the Annex building would allow us to use the existing BSL-3 for training purposes and could serve as a backup BSL-3 in extenuating circumstances.

Projects Proposed for the SNPHL Annex Building

Projects for SNPHL Annex Building

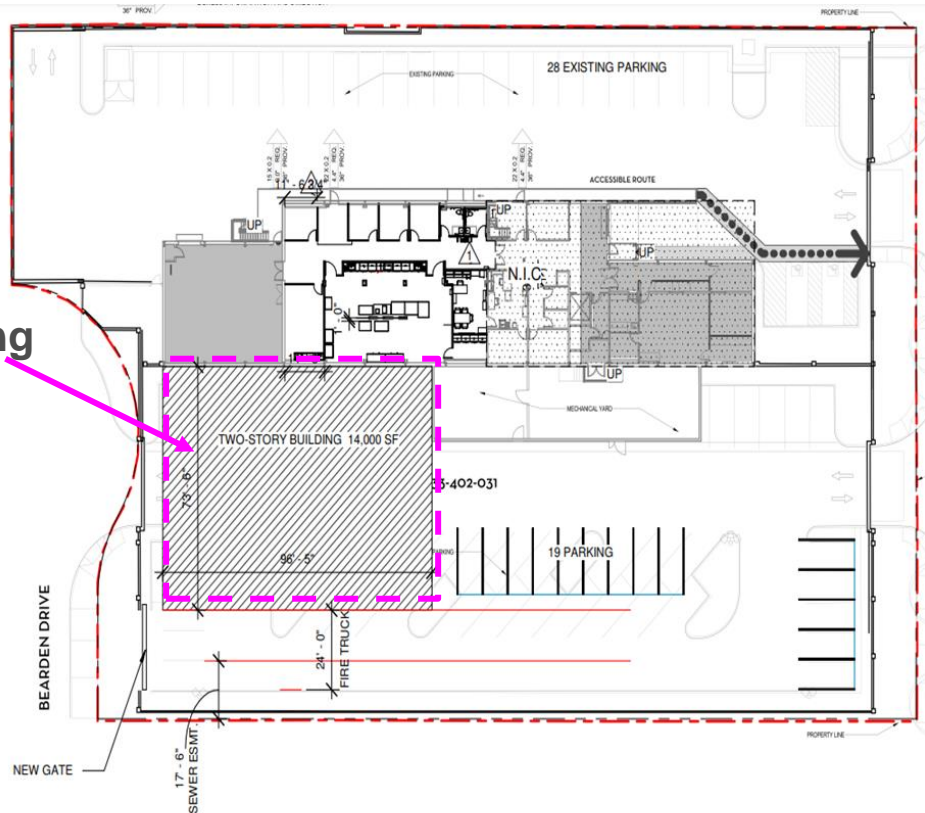
- **Enhance clinical microbiology surveillance program.**
 - Growth of environmental microbiology testing to include Legionella water testing and food testing in a new Microbiology environmental surveillance space.
 - Bacterial pathogens including Candida auris and Carbapenem Resistant Organisms (CRO) could be added.
- **Additional space for surge accessioning, shipping, or other lab logistics.**

Additional space is needed for laboratory logistics and an area where National Guard or other surge entities may be set up to help in pandemic other emergency responses.
- **Prepare for increased test volumes over the next 10 years.**

As public health responses and surveillance change with emerging threats or pandemics, the SNPHL space can be set up and grown to accommodate these sudden changes in testing demand.

Location of SNPHL Annex Building

Annex Building



Lab Expansion:

- Two Floor Building
- Total 14,000 SF
- Phase I and II
- 1st Floor: Molecular/WGS; Security; Accessioning; Conference Room
- 2nd Floor: BSL-3; Clinical Micro; Chemistry Lab; Offices

P3

OPTION#3

SNHD LAB EXPANSION

Southern Nevada Health District



Orientation

IZ design studio

design...sustainability...architecture.

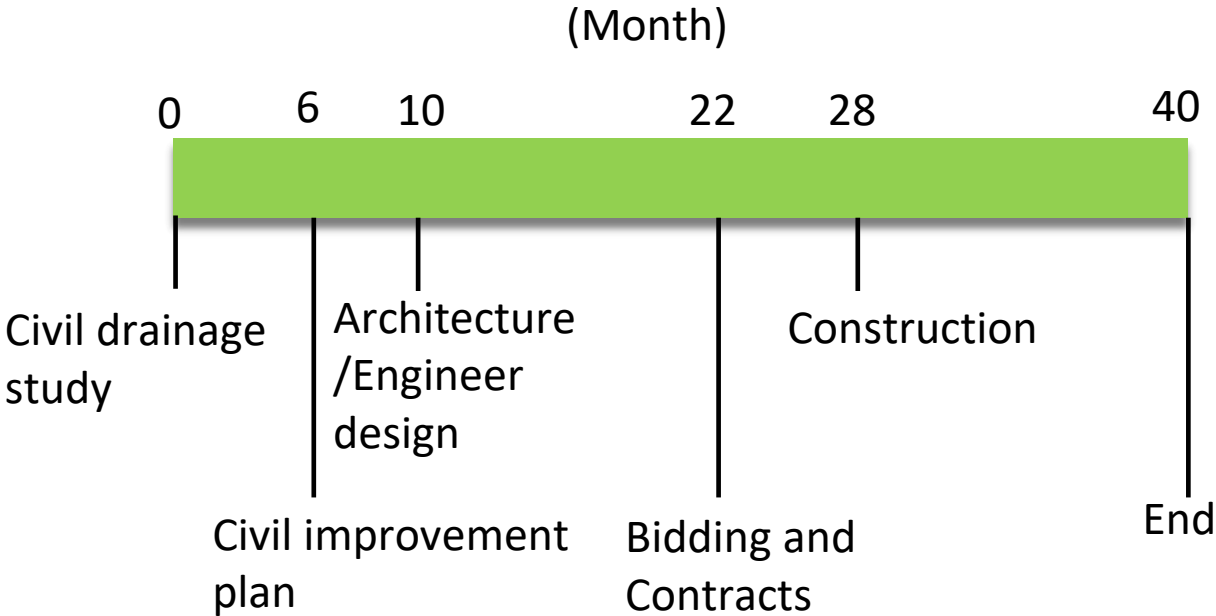
720 W Sahara Ave, Suite 120, Las Vegas, NV 89117 PH:702.441.0026 FX:702.475.4755 www.izdesignstudio.com

Scale 1" = 30'-0"

Date: 08/03/22



Timeline for the Major Milestones of the Laboratory Expansion



Timeframe for Building the New Annex Lab Building

❖ Estimated timeline is July 2023 to November 2026



Questions

