



Master Planning

The goal of facility or campus master planning is to create a roadmap for future development that aligns with the strategic goals of the organization.

The value of a master plan is:

- it signals that the stakeholders have reached a consensus on what they would like to accomplish.
- it gives everyone involved a way to track progress toward a common goal.
- it sets expectations.
- it gives credibility to individual projects.
- it helps an organization make decisions about where to invest their time and money.

A master plan is a living document that evolves as new information becomes available and goals change.



With the completion of more than 500 healthcare projects in the last 15 years, KDA Architecture understands master planning, phased construction, and the complexities of healthcare design. Our principals each have between 30 and 45 years of healthcare experience.



Rod Knipper oversees project design and is known for creating innovative design solutions.



Straight forward and honest, Brian Andringa's effective communication style inspires trust and confidence.



Dennis Dean has built a reputation for being exceptionally thorough and brings passion to the design process.

The Master Planning Process

The Master Planning Process can be described as containing five stages. However, like design, the process is not linear. The process follows a path that circles back on itself as new information is uncovered. Each step feeds into the other and are used to inform decision making and as a metric to evaluate the strengths and weaknesses of the different concepts.

The following document outlines the five stages of the Master Planning Process and provides examples and insight that should be taken into consideration. It then follows with samples of our Master Plan experience. Our hope is that as you read through this document, you will not only learn about Master Planning, you will also understand the value that KDA can bring to your planning process.

Different Scales and Granularity of Information

Planning can occur at a variety of scales; Campus, Individual Facility, and even an Individual Department. Although the process is the same, the granularity of information may differ based on the goals of the project and may even differ at the same scale. For example, the first Master Plan that KDA developed for Virginia Mason Memorial (VMM) included a lot of analysis and demographics because understanding the forces and the impact they would have on the growth of the facility was an important part of the client's goals. However, the more recent Master Plan for VMM had the stated goal of trying to understand what property they would need to purchase and what zoning changes would need to be made if they were to simply double the size of their facility. Part of this process included working with the surrounding property owners to develop an acceptable buffer zone that would mitigate the impact of having such a large facility next door.

Project Planning and Implementation

KDA Architecture works closely with all levels of staff in the hospital and clinical environments from Board members to the floor staff and support services. By drawing on our wealth of healthcare experience, we are able to review program needs and make a thorough and accurate assessment of requirements. We understand the value of tailoring each program and subsequent design to meet the established budget as well as the functional needs of both staff and patients.

Another key to success is establishing a core group of individuals comprised of decision-makers. As the architect engages physicians and staff members representing various departments within the facility, it is the core group's responsibility to make final decisions and to maintain strategic direction.

UNDERSTANDING THE VALUE

An older individual approached the microphone and became very emotional as he made his plea to save the Franklin Middle School building and its intricate terra-cotta detailing. Having grown up across the street, it was this detailing that drew him into his career in the arts. Unfortunately, the team already knew that the existing building wouldn't be able to support the school district's needs.

Public Outreach and conversations with Diverse Stakeholder groups are important parts of the Master Planning process, but it is not uncommon to face challenging questions and emotionally charged opposition. Strong opinions, preconceived ideas, and confrontational behavior make it easy to understand why some organizations try to avoid having these discussions. However, by listening carefully to what people say you gain insight into what people value and it allows you to build a bridge between the organizations vision and their individual values.

After several public meetings, KDA returned to present a conceptual sketch for Franklin Middle School. The sketch included saving, and restoring, the intricately detailed Arches on the existing building and turned them into freestanding structures on the site. Not only was the gentleman sold, he became an outspoken advocate for the project.

REMOVING BARRIERS

Some projects require a lot more input from the community. Although public meetings are a common method for obtaining public input, not everyone can make it to a set meeting time and not everyone will engage with the team the same way. Finding ways to *Remove Barriers to Participation* will improve the information that is gathered and increase community buy-in. Rather than just using presentations and question and answer sessions, consider using some of these:

- online surveys
- social media
- booth at local events
- interactive media
- sms or chat-based feedback



At the Lean Event for Family Health Center in Omak where stakeholders evaluated how they currently function and how they would like to function in the new facility

Defining the Project and Goals

The planning process begins by taking a deep dive into how you work as an organization and how you would like the facility to function. We recommend building a team of stakeholders for these conversations that draw on staff from all levels in the facility as more voices will provide a greater diversity of thought and experience.

The mantra for this process is to "Listen Deeply". The team needs to not only hear the words being said, but to also search for the underlying ideas and concepts that are driving them. Using open-ended questions allows stakeholders to include more information and can potentially open up new lines of thought. The responses to open-ended questions are going to provide a more qualitative look at the topic. In contrast, close-ended questions limit the responses and provide a more quantitative look at an idea. They can be used to compare different responses, to help clarify an idea, or to help diagnose an issue. Using a combination of the two question types allows a team to dig deeply into a topic, explore ideas, and gauge the client's perceived value. However, in the end, the team needs to carefully listen to what was said, and document it.

"They are an incredibly creative firm that takes the time to listen to our needs."

*—Carlos Olivares, Executive Director
Yakima Valley Farm Workers Clinic*

EXPERIENCE

During this stage, having a strong, knowledgeable team can have a significant impact on your project because they know the type of issues that could be found as well as the common triggers that cause them.

COMMON ISSUES

- Low Floor to Floor Heights
- Aging Infrastructure
- Legacy Systems
- Electrical System Capacity
- HVAC System Efficiency and Capacity
- Structural Deficiencies
- Space Restrictions
- Site Restrictions
- ADA Compliance
- DOH Compliance



Some issues are easily seen, like the high humidity destroying the ceiling at the City of Yakima Lions Pool. Other issues require a more thorough investigation.

Measure, Data Acquisition

EXAMPLES

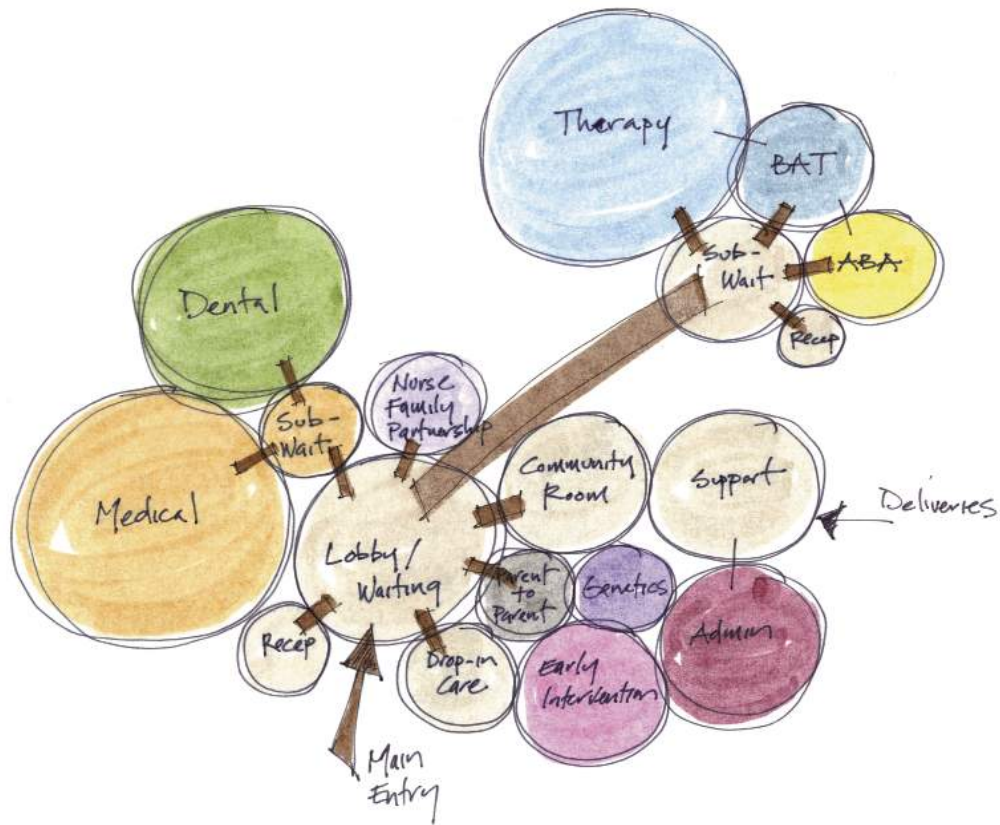
During an evaluation at Virginia Mason Memorial it was noted that their existing electrical service was being served from a single substation opening them up to potential operational challenges during an outage. The review also noted that a second substation was located nearby. Although the cost of making sure that they could draw power from both substations was high, the board quickly made the decision to invest in the changes necessary to give them operational redundancy.

During this stage we are developing an understanding of how the facility currently works. This includes conversations with the staff, evaluating the current condition of the facilities, and assessing the infrastructure and systems. We want to identify known issues and concerns as well as identify potential and/or unrecognized challenges. If the goal is to plan for a replacement facility/campus, then this phase will focus on the functional aspects so that the team understands what works and what doesn't work. If the goal is to plan for future expansion of an existing facility/campus, the team needs to understand the limitations of the existing facility/campus so that they can recommend, and plan for, changes that need to be made.

Kittitas Valley Hospital was an aging wood-framed post-war hospital with low ceiling heights. The best option would be to replace it. However, the cost of replacing the hospital was prohibitive. Therefore, the Master Plan looked at the sequencing of multiple additions that would occur over time to replace the core functions and eventually allow the older portion of the hospital in the core to be replaced.



During the evaluation of an existing building that Family Health Centers wanted to purchase and turn into a clinic, signs of a previous building fire were visible on the block walls inside the attic space. This prompted a more thorough investigation of the building structure which uncovered substantial charring on the roof deck. When combined with an abnormal roof overbuild, it was determined that the whole roof structure would likely have to be removed and replaced.



Bubble Diagram illustrating the relationships between the spaces for the Children's Village Expansion Project

Analyze the Data

EVIDENCE-BASED DESIGN

There are a growing number of resources that gather and share best practice solutions that are based on actual research. Following these recommendations gives the client comfort in knowing that the decisions being made provide documented value.

SPAGHETTI DIAGRAMS

Working with the stakeholders, the design team facilitates the creation of spaghetti diagrams that graphically illustrate work flows. This information helps the team recognize redundancies and opportunities for improving processes.

Using the data that was collected and comparing it to the project goals, the team then works closely with you to better define the problems that need to be solved and the constraints that need to be followed. The team will use that information to develop a conceptual program for the project that defines basic space requirements and sizes. The team also creates Bubble diagrams to help describe required adjacencies and relationships between the spaces. After reviewing them with the client to validate the information, those diagrams and the space program are then used to guide future design options and help you and our team make decisions.

CLIENT SPECIFIC

Design concepts need to match the needs of the client. For example, when La Salle High School asked us to create a Master Plan for their new school, the options needed to address their limited funding, an expectation that they would start small and grow over time, and that much of the work would be performed by volunteers.

The resulting campus plan broke the school into individual smaller buildings that ring a central courtyard and Chapel. Now, over 20 years later, they are still following that plan and have completed 6 of the 8 buildings.

PHASING

Phasing is critically important when considering the growth of an active facility. The team needs to work closely with the client to understand their priorities as well as give shape and order to the variety of moves that will be made to get them to their goal state.

VISION

A vision for the character of a facility can often be a part of a master plan. Whether it be crafting a vision for the future growth and development of a large complicated campus such as Virginia Mason Memorial, or a quick more gestural vision for the look of an individual building, our team works closely with our clients and their key stakeholders to understand their hopes for the future and how changes will impact them. Understanding the clients priorities sets the stage for idea development and guides the decision making process. In the end, a vision is best expressed graphically. Perspective and Plan view Sketches allow the character of the vision to be expressed in a way that will get people excited.

The vision for North Star Cancer Center originated from the ideas of Dr. Sean Cleary and Virginia Mason Memorial Administrator Rick Linneweh, who suggested in the initial brainstorming sessions that we look at the character of a mountain lodge for inspiration. The idea was based on a belief that if the patients were comfortable and relaxed, they would open up about what they were experiencing which would help them improve patient outcomes.



2035 Master Plan of the Virginia Mason Memorial (VMM) Campus

Develop Multiple Concepts

This stage is where the process switches gears and begins to apply what we have learned to different conceptual options. Multiple concepts will then be presented as sketches that show various arrangements and spatial relationships of the program. These sketches will elicit comments and suggestions from the steering committee, and will ensure a common understanding of your goals and objectives. During this stage we will reach a consensus about the overall functionality of the project and suggest examples based on our experience with similar facilities. Because facilities need to be an expression of the client, the team listens to you as you determine which approach would best serve your needs. Using your feedback, the selected option is then refined and used to develop project phasing and a budgetary estimate to help you put funding in place for the actual work.

"I don't know how often you get feedback from the people who are intimately affected by your work, but I wanted you to know the difference that your creative, magnificent design made for me. Transforming something so frightening into a relaxed place of comfort and healing."

*-Carol Licht,
Patient at North Star Lodge Cancer Care Treatment Center*



Bound documents that contain documentation about the whole master planning process and the options explored.

Documentation

LIVING DOCUMENT

A Master Plan is a living document that evolves over time. Therefore, it is in the best interest of the facility to have it formatted in a way that allows it to be changed. A simple three-ring binder with individual tabs tends to be the most flexible.

Over time it is easy to forget why certain decisions were made or what options were explored. To help you, our team prepares a document that captures all of the information for the project, including alternate design options that were explored. That you can go back and understand how you made your decisions and what those decisions were. This document is the road map to the future of your campus or facility.

As with all road maps, things change and they have to be updated. This document predicts future needs and recommends future projects, but they are based on a snapshot of the clients current thoughts and existing information. Over time the needs of the client may shift, or new information may become available. Those shifts and new information may push future development a slightly different direction. Therefore, we recommend revisiting the master plan on a scheduled basis to document any of the necessary changes and bring it up to date.

Select List of Master Planning projects

- Lions and Franklin Pools, Yakima, WA**
Master Planning, Recently selected
2001
- Union Gospel Mission, Yakima, WA**
Master Plan, Currently Active
2001
- Hood River Distillers, Hood River, OR**
Master Plan for New Site, 2018
2000
- Community Health of Central Washington, WA**
Master Plan of Existing Facilities, 2016
2000
- Klickitat Valley Health, Goldendale, WA**
Plan for phased update of miscellaneous departments and mechanical and electrical updates, 2013
2000
- Syringa Hospital and Clinics, Grangeville, ID**
Master plan for improving access to services and prioritizing mechanical and electrical updates, 2013
2002
- Tri-State Memorial Hospital, Clarkston, WA**
The 40 year master plan for TSMH includes a 77,000 SF bed tower, future hospital expansion for all major departments, and a long-term clinic expansion plan. 2010
2002
- North Valley Hospital, Tonasket, WA**
2006
2002
- East Adams Rural Hospital, Ritzville, WA**
2006
2002
- Yakima Valley Technical Skills Center Yakima, WA**
2005
2002
- Everett County Club, Everett, WA**
2005
2002
- Mountainview Christian Fellowship, Yakima, WA**
2004
2002
- Campbell Farm, Wapato, WA**
Master Plan and phasing of an 80 acre retreat and conference center owned by the Presbytery of Central Washington. Campbell Farm is an active environmental education and faith-based mission training center. 2003
2002
- Mount Carmel Hospital, Colville, WA,**
78,000 SF major addition to Critical Access Hospital. 2002
2002
- Shields Bag and Printing, Yakima, WA**
Four story office building for management, sales, and art departments, 2002
2002
- Hood River Distillers, Hood River, OR**
2000
- Walla Walla General Hospital, Walla Walla, WA**
2001
- Prosser Memorial Hospital, Prosser, WA**
2000
- The Capitol Theatre, Yakima, WA**
Master plan and site development plan including upgrades, renovations an expansion. The design concept was to increase the venue for theater and arts in downtown Yakima. 2000
2000
- Pacific Power, Yakima, WA**
Relocation study to move service center to Keys Road. Facility master plan for expansion of building and lay-down yard. 2002
2002
- La Salle High School of Yakima, Union Gap, WA**
Master plan for 123,000 SF phased central campus design for a \$5 million, 550 student facility. 1998
1998
- Yakima Valley Museum, Yakima, WA**
1994
1994
- Chelan County Public Utility District, Chelan, WA**
Alternate site and facility expansion feasibility study. 1997
1997
- A & B Plastics, Yakima WA**
121,000 SF manufacturing and warehouse facility with 10,500 SF of office space. 1996
1996
- Othello Community Hospital, Othello, WA**
1996
1996
- West Side Christian School, Yakima, WA**
Master Plan for new K-12 facility for 400 students. 1995
1995
- Kittitas Valley Community Hospital, Ellensburg, WA**
1990
1990
- Yakima Valley Memorial Hospital, Yakima, WA**
- Anticipating major marketplace changes the plan established how to double capacity of the inpatient and outpatient functions. The master plan established with the Historic Neighborhood Committee the limit for hospital development. 2005
 - Update earlier master plan for creating new bed tower above surgery. 1988
 - Decisions on optimal ways to expand and/or replace the major departments of a 230 bed hospital . Creation of a major circulation concept to clarify and organize way-finding. 1981



2035 Master Plan of the Virginia Mason Memorial (VMM) Campus

Virginia Mason Memorial

LOCATION
Yakima, WA

AWARDS
American Institute of Architects
Central Washington Chapter
Honor Award

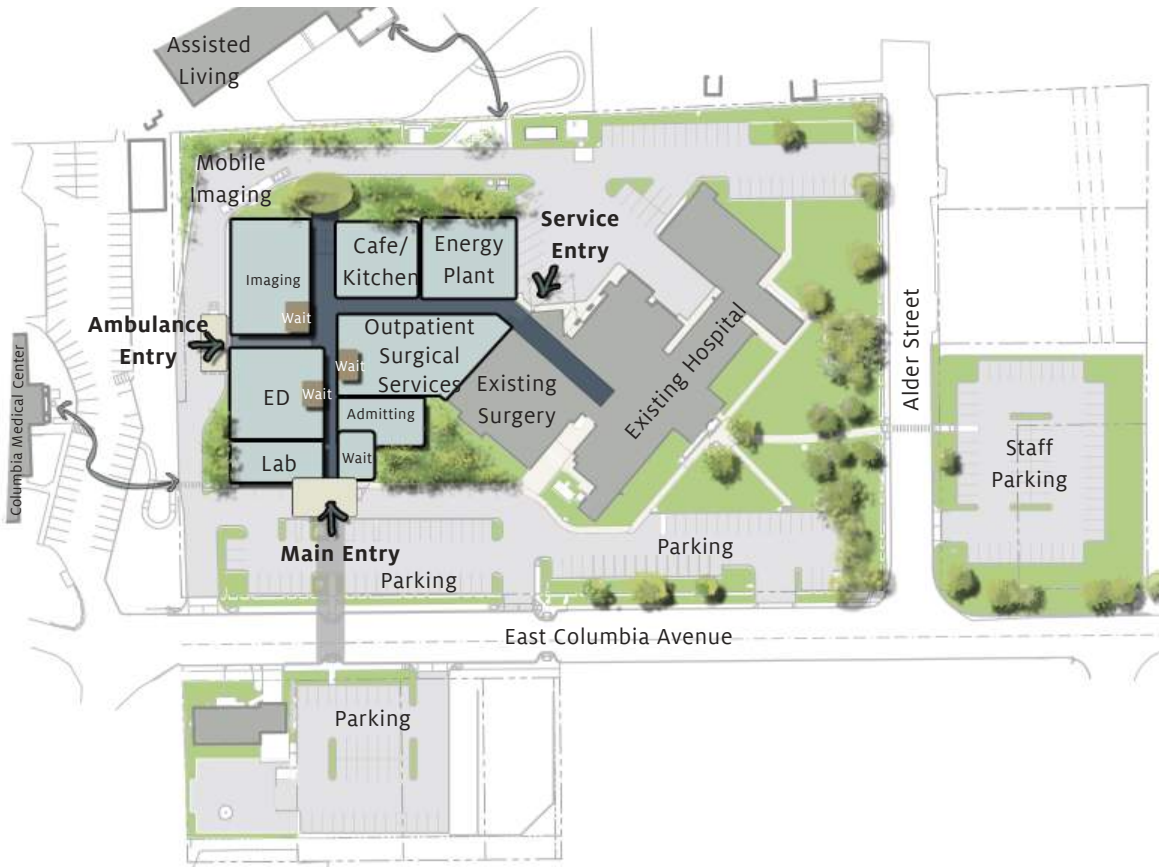
Since 1980, KDA Architecture has provided design services and executed several hundred projects for Virginia Mason Memorial (previously known as Yakima Valley Memorial Hospital). VMM is a 380,000 square foot, concrete and brick, five-story facility. At 226 beds and a full complement of outpatient services, it represents the complexity we address in our planning.

KEY FOR VMM PLAN (above)

- 1 Existing Hospital
- 2 Existing West Pavilion II
- 3 Existing West Pavilion I
- 4 Proposed S.Addition, Acute Care
- 5 Proposed W. Addition, Surgery
- 6 Proposed East Addition
- 7 Proposed Energy Plant
- 8 Proposed North Pavilion I
- 9 Proposed W. Pavilion I Expansion
- 10 Proposed East Pavilion I
- 11 Proposed Daycare
- 12 Proposed Parking Garages

KDA Architecture was hired in 1980 to provide a Master Site Development Plan for VMM. With patient focused care and thorough functional planning it has transcended some of the more short-lived trends in healthcare. All areas of the hospital have been renovated, including inpatient and outpatient departments. Since 1990, an integrated team approach with VK Powell Company, LLC, General Contractors has been used in the completion of all projects.

In December 2008, KDA Architecture completed a revised Master Site Development Plan looking forward to 2035. The plan includes comprehensive neighborhood agreements and overlay zoning districts as part of the approval process.



Site Plan, First Floor

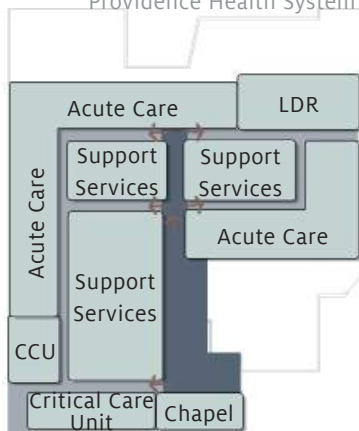
Mount Carmel Hospital

LOCATION
Colville, WA

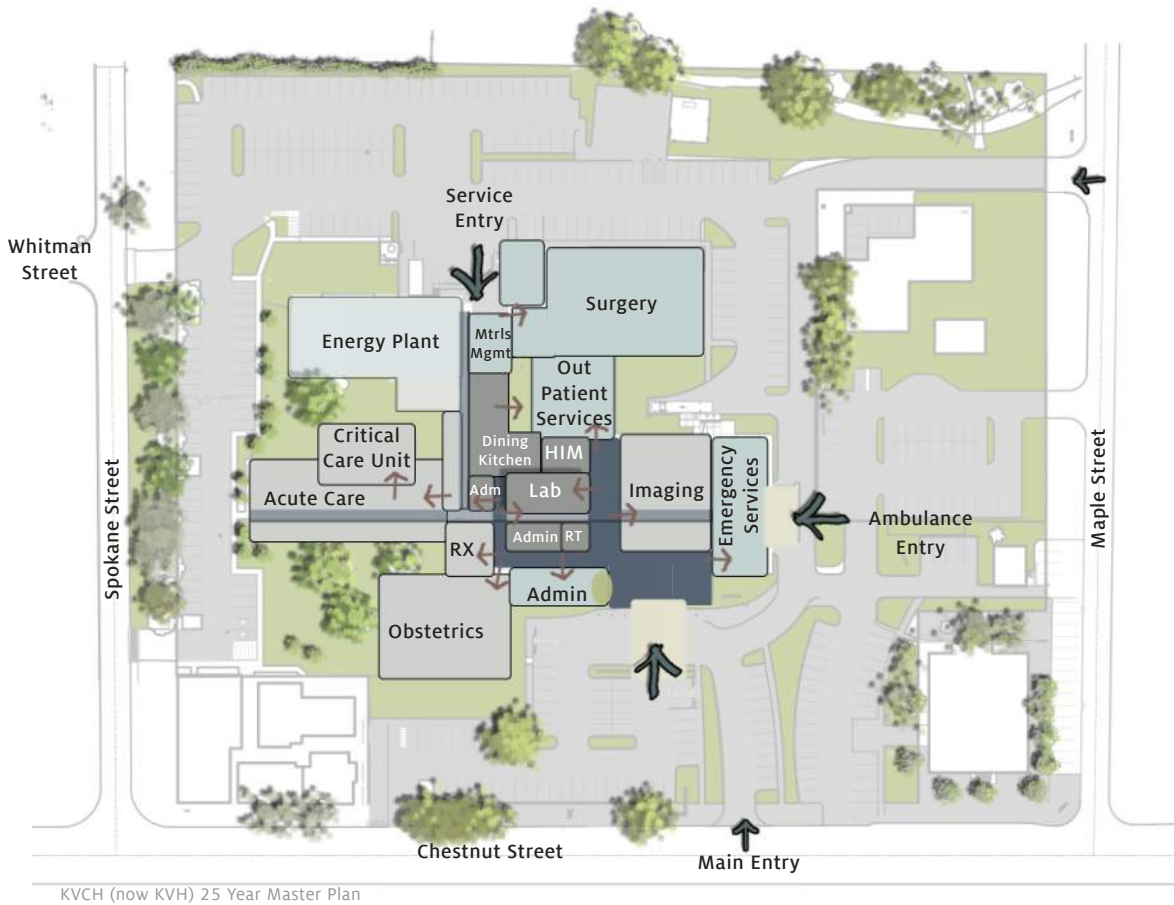
OWNER
Providence Health System

Built in 1952, the outdated infrastructure of the facility forced consideration of all options, including relocation. KDA worked with Providence Services to analyze the options. It was determined that the best solution was to stay on site, but replace all primary hospital functions and provide a new energy plant. The existing concrete frame building was retained and incorporated into the Master Plan.

The original 52-bed licensed facility operates as a Critical Access Hospital with a significant amount of outpatient services being performed daily. From the earliest stages, KDA worked closely with Bouten Construction to assist the project team through Providence's "BOAT" process (Business Opportunity Assessment Team). This rigorous analysis leaves no stone unturned while looking at services and return on investment.



Second Floor



Kittitas Valley Hospital

LOCATION
Ellensburg, WA

In 1997, KDA worked with Kittitas Valley Hospital to develop an update for their 1983 Master Plan that addressed multiple priorities including accentuating building entries, adding needed conference space, adding physical therapy and additional Emergency Room space, bringing Surgery up to DOH standards, and converting obstetrics into an LDRP model. Outpatient services needed to be brought together into a single area to share staffing and Nurse stations needed to be combined where possible.



This New Hospital entry that helped patients and visitors identify the hospital entrance was built as a result of the Master Planning process.

Firm Profile

KDA Architecture started with a single Architect with a vision. Since then it has grown, won numerous awards, and been recognized as a design leader in their region. However, it isn't the awards that keep clients coming back. Clients return to KDA because they trust their three foundational principles; provide good quality design, have a positive impact on people's lives, and be honest in everything that they do.

Established in 1973, KDA Architecture has flourished as an award-winning provider of professional design services. While the firm has been involved in projects around the world, we serve clients primarily throughout the Pacific Northwest. Our size allows us to handle multiple projects and be on track to meet your schedule requirements.

ARCHITECTURAL SERVICES

- Architectural Design
- Cost Estimation and Analysis
- Project Management

INTERIOR DESIGN SERVICES

- Interior Design and Material Selection
- Furniture and Art Selection
- Wayfinding and Signage

FACILITY PLANNING SERVICES

- Feasibility Studies
- Site Selection
- Space Planning
- Predesign
- Master Planning
- Cost Control
- Permit Approvals
- Lean Facility Planning

PROGRAMMING

- Space Programming
- Space Planning
- Systems Review

CONSTRUCTION SERVICES

- Construction Administration
- Equipment Coordination
- Site Observation

Client/Architect Relationships

A long-term client/architect relationship has tremendous value. It provides an opportunity to obtain a thorough understanding of your facility and staff. Once trust and confidence are established, design decisions are arrived at quickly and efficiently, saving both time and resources. At KDA Architecture we strive to provide expert service that will meet all of your architectural needs, for projects of all sizes.

Principals
Rod Knipper
Dennis W. Dean, AIA
Brian J. Andringa, AIA

Location
1310 North 16th Avenue
Yakima, WA 98902
T 509 575 5408

Team Approach

It is the responsibility of principals and project managers to select team members and consultants based on their unique strengths and the requirements of the job. Our staff is well-educated and has many years of experience in programming, planning, interiors, equipment coordination, and construction. This multi-level experience and team approach provides clients with a sound decision-making process that results in the best possible design solution.

A minimum of two highly experienced staff members are assigned to every project, regardless of size. This method assures that the client will always have access to an individual who understands their concerns when decisions need to be made quickly.

Design Philosophy

Meeting your requirements with innovative design solutions is our first goal. Whether your project is new construction, renovation, or an addition, we work hard to be sure it functions smoothly, meets code requirements, fits well with the site, and complements existing structures.

Our staff understands the value of efficiency and works with you to maximize the potential of your project while developing solutions that uniquely address your needs. Our focus is to give every client excellent service. You will know your project is successful when you see the excitement and appreciation it generates, and the positive effect it has on the people who use it.

Why Choose KDA Architecture?

- *Our clients can count on the leadership and hands-on participation of our most experienced architects, backed by a well rounded support staff.*
- *Forty years of experience has given KDA Architecture extensive knowledge and built strong relationships throughout our region.*
- *We make it a priority to understand the way people live, work, and learn.*
- *Ongoing research and education keeps us on the leading edge.*