

March Field Air Force Museum

An opportunity to soar

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Landscape Design 7
Spring 2022
UCLA Extension
Instructor: Patrick Reynolds

site context

March Field Air Museum
22550 Van Buren Blvd (at I-215)
Riverside, CA 92518

The March Field Air Museum is an aviation museum near Moreno Valley and Riverside, California, adjacent to March Air Reserve Base.

The March Field Air Museum is a nonprofit educational institution dedicated to promoting an understanding of humanity's desire for flight and March Field's pivotal role in the development of aviation.

March Field Air Museum, and the P-38 National Museum are adjacent to the March Air Reserve Base, Riverside, California. March Field Air Museum serves as home to over 100 historic aircraft and displays relating to the history of both Military and Civilian Aviation and March Field, now known as March Air Reserve Base.

In 2011, the museum joined the American Alliance of Museums, receiving the rare accreditation that is shared by only 3% of American museums.

American Alliance of Museums

Coordinates: 33.883848°N. 117.266682°W
Elevation: 1522 feet
Surface Area: 35 acres
Location: Riverside County, near Moreno Valley, California
Founder: Lt. Gen. James E. Mullins



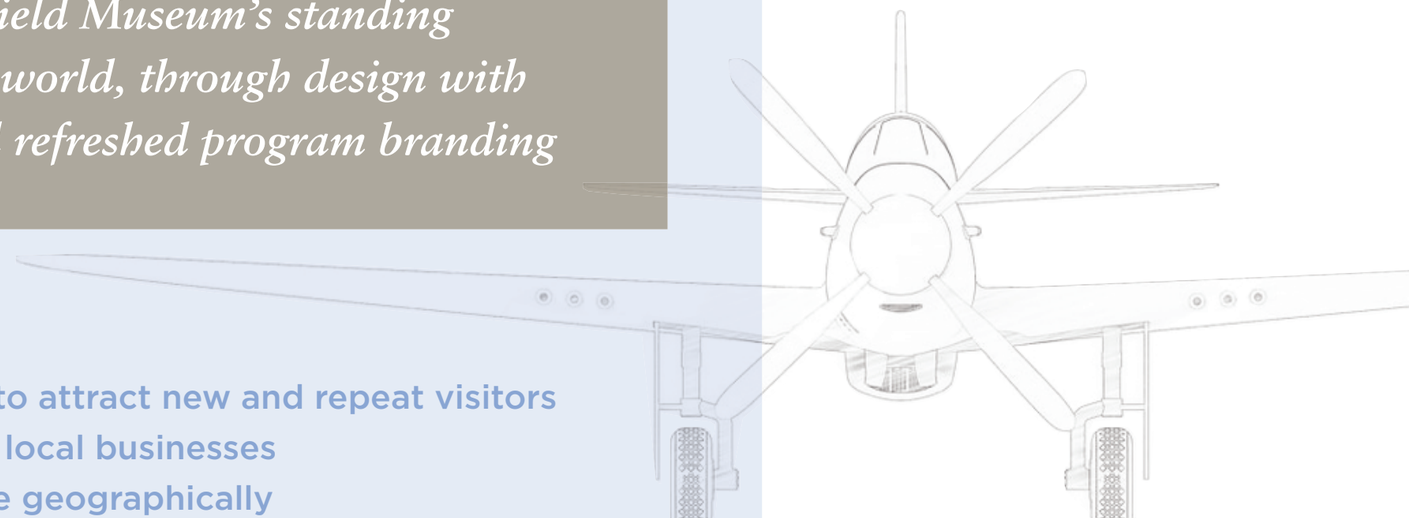



MORENO VALLEY
EDGEMONT
ORANGECREST
MARCH AIR FORCE BASE
RIVERSIDE
NATIONAL
CEMETARY
MARCH FIELD
AIR MUSEUM
MEAD VALLEY
PERRIS RESERVOIR

project statement

statement

To elevate the March Air Field Museum's standing in the community, and the world, through design with landscape architecture and refreshed program branding



goals

- develop program benefits to attract new and repeat visitors
- improve partnerships with local businesses
- appeal to a wider audience geographically
- improve signage and entrance graphics to strengthen brand identity for memorability
- add programs and event space for visitor interaction



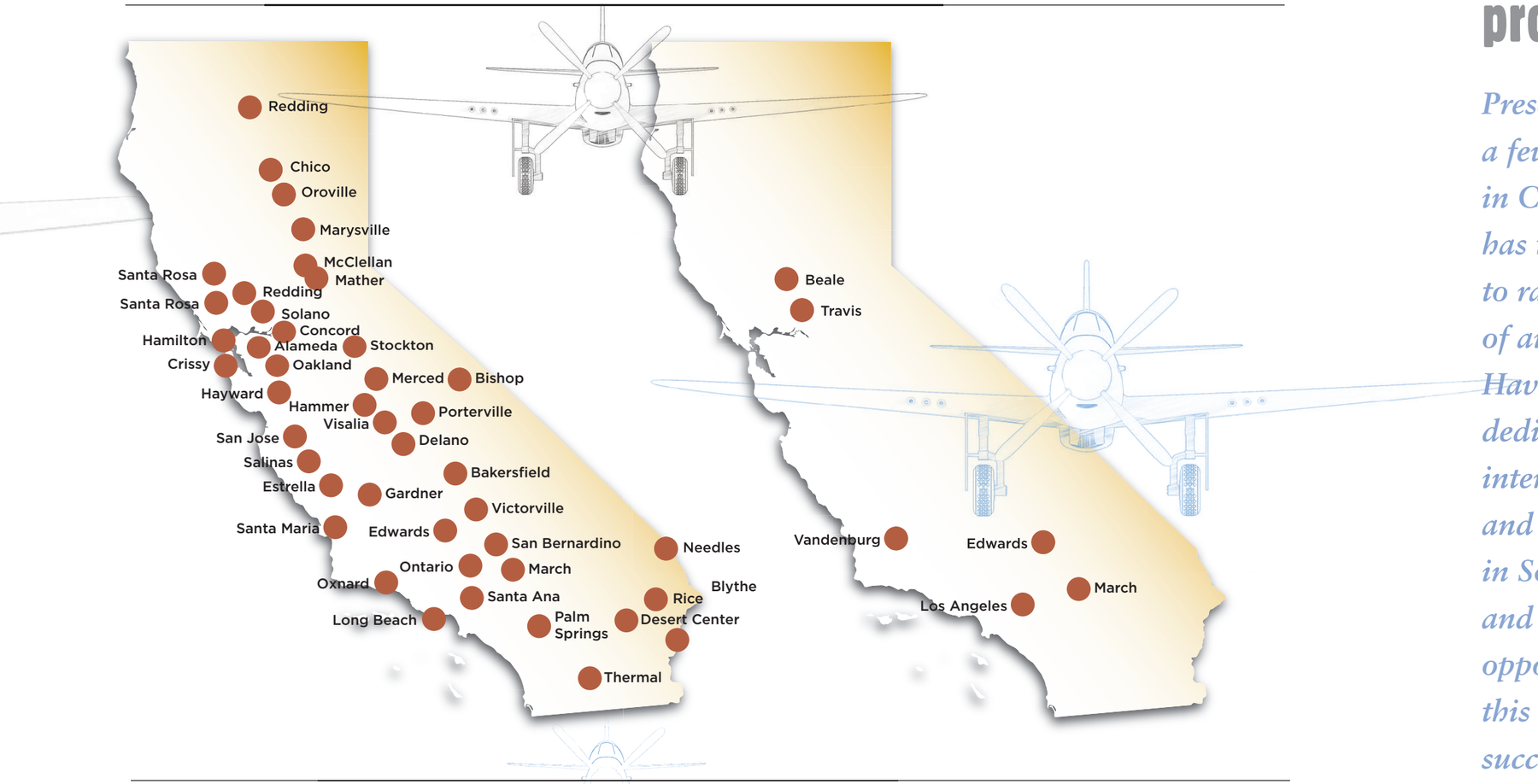
program

- establish a grand entrance area
- improve upon the main hanger structure for prominence
- add shade structures in the exhibition space
- redesign the memorial plaza to invoke solace and respect
- add a flag court for formal ceremonies
- design cohesive signage for freeway visibility

AIR FORCE INSTALLATIONS PAST AND PRESENT

MAJOR ARMY/AIR FORCE
INSTALLATIONS
DURING WORLD WAR 2

AIR FORCE BASES
IN CALIFORNIA
AT PRESENT



Existing United States Army Air Corps air bases were enlarged to house and train the many new crews needed. Almost all civilian airports and airstrips were converted to Army Air training centers. Almost all civilian air flights were cancelled. Many new airstrips and landing pads were built for pilot landing and take off training. Air bases had no support buildings, as they were used only for landing and take off training.

There are actually 40 military bases in California. More specifically, there are 8 Army bases, 6 Air Force bases, 7 Marine Corps bases, 15 Navy bases, 2 Coast Guard bases, and 2 Joint bases.

project justification

Present time shows just a few Air Force bases left in California. March Field has the location and ability to raise the historical context of air military culture. Having the support of a dedicated staff, and the interest of the Air Force and flying aficionados in Southern California and beyond, presents the opportunity to develop this museum for even more success in the future.

a brief history

The museum was founded in 1979 as March Air Force Base Museum. One of the first exhibits at the museum was a collection of art painted by Hazel Olson. Lt. General James P. Mullins, 15th Air Force Commander, delivered the address at the dedication ceremony. The new museum was initially housed in the 1930 Base theater, located just north of the Base's parade ground. It moved to a new location at the base's former commissary, where it reopened to the public in 1981. That same year, a B-29 was flown to the museum. The museum's 2,000 square foot main exhibit area was filled with photographs, models and paintings depicting military aviation and the history of March Air Force Base (AFB) from its founding in 1918. An aircraft park, to feature aircraft that once flew from March, was established near the main gate at Cactus and Graham.

The museum moved again in 1993 to its current location west of the runway along Interstate 215. Originally operated by the Air Force, the museum's operation was transferred to a nonprofit organization in 1996. Operation of the museum was turned over to the March Field Museum Foundation, which operates the March Field Museum. In May 1999, the museum's official name was changed to the March Field Air Museum to better reflect its broader military aviation focus.

The unique site is home to historical air shows, films, and private events which bring in tens of hundreds of visitors year round. With over 80 aircraft and more than 30,000 individual artifacts, the museum strives to promote an understanding of humanity's reach for the skies and of March Field's pivotal role in the development of flight.











Reminiscent of the Works Progress Administration projects of the Great Depression, the prized and historically significant mural re-creation titled "Man's Supremacy in the Air," an uplifting artwork, symbolized then, and again symbolizes now, the nation's commitment to a better future. Originally created in 1943 by artists Richard Pafferie and Lawrence Colwell, the highly visual and richly detailed piece depicts a P-38 fighter aircraft along with a human figure and a California condor with wings and arms outstretched, soaring through a bright blue sky framed by billowing white clouds. Occupying more than 400 square feet of painting surface, the painstaking re-creation was completed by local artist, art instructor and UCLA graduate Haidee Moncera Slack, and took more than one year to complete.

The museum's BT-13A, SN 41-21487, was manufactured by Vultee Aircraft Inc., Downey, CA, and received by the USAAF on June 8, 1941. It was assigned to the Basic Pilot School at Cochran AAF, Macon GA. Wrecked on May 3, 1943 the aircraft was disposed as surplus on September 25, 1943 with 1553 airframe hours. The museum received the aircraft in October 1980. This aircraft is on loan from the NMUSAF. .

site elements

The museum has over 80 aircraft on display

Aero Commander U-9A
Bell AH-1F Cobra
Bell P-39Q Airacobra
Bell P-59 Airacomet
Bell UH-1B Iroquois
Bell UH-1F Iroquois
Bensen B-8M
Boeing B-17G Flying Fortress 44-6393 –
This aircraft served as General Ira Eaker's personal transport.
Boeing B-29A Superfortress "Three Feathers III"
This aircraft flew 11 combat missions during World War II
Boeing B-47E Stratojet
Boeing B-52D Stratofortress
This aircraft flew 175 combat missions in the Vietnam War
Boeing KC-97L Stratofreighter
Boeing KC-135A Stratotanker "Old Granddad"
Cessna A-37 Dragonfly
Cessna T-37B Tweet
Cessna O-2A Skymaster
Cessna O-2B Skymaster
Consolidated PT-6A
Convair C-131D Samaritan
Convair F-102A Delta Dagger
Douglas TA-4J Skyhawk
Douglas A-26C Invader
Douglas EA-1E Skyraider
Douglas C-54Q Skymaster
Fairchild PT-19B
Fairchild C-123K Provider
Folland Gnat
General Atomics MQ-1B Predator
General Dynamics FB-111A Aardvark
Grumman YF-14A Tomcat 157990
This aircraft was the 11th prototype F-14.
Grumman HU-16E Albatross 1293
Hughes OH-6A Cayuse 68-17252
Lockheed C-141B Starlifter 65-0257
Lockheed D-21B
Lockheed P-38L Lightning – Replica
Lockheed R5O-5 Lodestar
Lockheed SR-71A Blackbird
Lockheed T-33A Shooting Star 5
LTV A-7D Corsair II
Martin EB-57B Canberra
McDonnell F-101B Voodoo
McDonnell Douglas F-4C Phantom II
McDonnell Douglas F-4E Phantom II
McDonnell Douglas RF-4C Phantom II
McDonnell Douglas F-15 Eagle
Mikoyan-Gurevich MiG-15
Mikoyan-Gurevich MiG-17
Mikoyan-Gurevich MiG-19
Mikoyan-Gurevich MiG-21
Mikoyan-Gurevich MiG-23
MMIST CQ-10A Snowgoose
Nieuport 11 – Scale replica
Nieuport 11 – Scale replica[
North American TB-25J Mitchell
North American F-86H Sabre
North American F-86L Sabre
North American F-100C Super Sabre
North American SNJ-4 Texan
Northrop F-89J Scorpion
Northrop T-38A Talon
Northrop YA-9A 71-1368
Piasecki H-21 Workhorse
Republic F-84C Thunderjet
Republic F-84F Thunderstreak
Republic F-105B Thunderchief
Republic F-105D Thunderchief
Sauser P6E – Replica
Schweizer TG-2
Sikorsky HH-34J Choctaw
Stearman PT-13D Kaydet
Stinson L-5 Sentinel
Vultee BT-13A Valiant 4
Vultee BT-13A Valiant N54865
This aircraft was converted to resemble an Aichi D3A Val Dive Bomber for the 1970 movie Tora! Tora! Tora!
Wright Flyer – Replica

Indoor displays include:

- A replica Wright Flyer
- A section of a Boeing B-47 cockpit which was used in the filming of the 1955 film Strategic Air Command starring Jimmy Stewart.
- A movie played on a regular recurring schedule
- A German 30mm cannon and jet engines
- Missile and bomb cross-sections

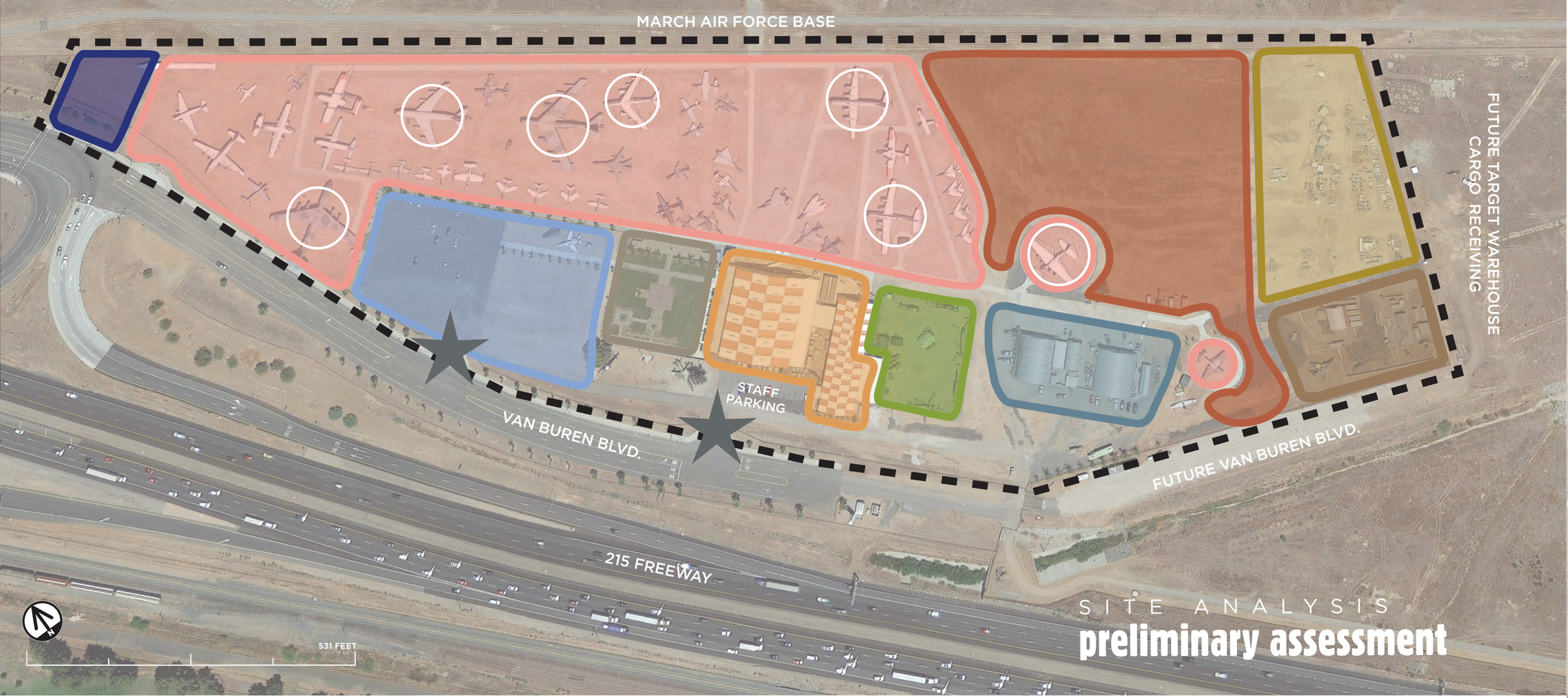
The Heritage Courtyard Memorials

- Memorial to Lt. Gen. James H. Doolittle
- West Coast War Dog Memorial
- The 15th Air Force Wall

Memorial to Lt. Gen. James H. Doolittle (1896 - 1993)
First Commander, Fifteenth Air Force, 1943. Raised in Nome, Alaska, Doolittle studied as an undergraduate at UC Berkeley, graduating with a Bachelor of Arts in 1922. He also earned a doctorate in aeronautics from the Massachusetts Institute of Technology in 1925, the first issued in the United States. In 1929, he pioneered the use of "blind flying", where a pilot relies on flight instruments alone, which later won him the Harmon Trophy and made all-weather airline operations practical.

- The Distinguished Flying Cross National Memorial Act, signed July 25, 2014, designated the memorial at the museum in honor of current and former members of the Armed Forces who have been awarded the Distinguished Flying Cross. The national memorial was dedicated on Oct. 27, 2010.
- The Freedom Wall
- The P-38 Lightning Memorial
- The Rosie the Riveter Memorial Rose Garden, part of a national network of these gardens





SITE ANALYSIS

preliminary assessment

- VIEW RESTAURANT
- EVENT SPACE
- PARKING
- MEMORIAL GARDEN
- INDOOR MUSEUM SPACE
- VIETNAM FIRE BASE
- RESTORATION HANGERS
- EMPTY SPACE/OVERFLOW
- BONEYARD
- MIDDLE EAST FIRE BASE
- ENTRY POINTS
- UNMOVABLE PLANES

VEHICLE

TRAM

PEDESTRIAN

FREEWAY

SITE ANALYSIS

circulation

531 FEET

SITE ANALYSIS

environmental elements

531 FEET

SANTA ANA WIND

PREVAILING WIND

FREEWAY/TRAIN AND ACTIVE AIRFIELD NOISE

ASPHALT

TREES

LAWN

CONCRETE

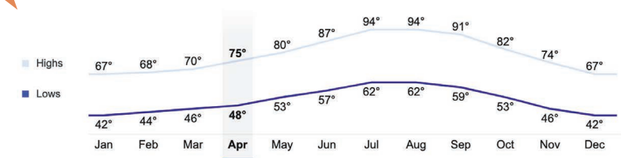
HVAC

HOT

MOUNTAIN VIEW

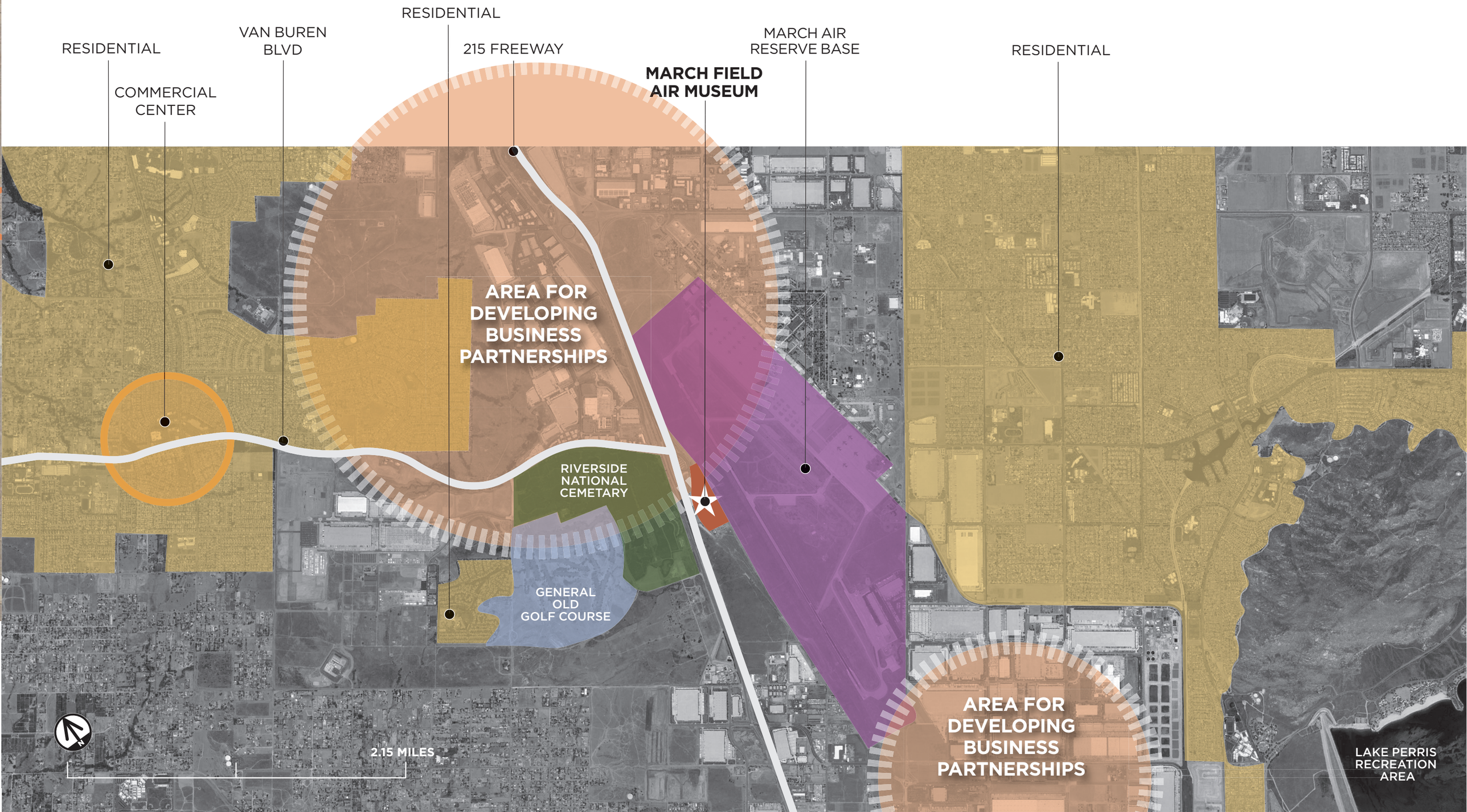
PROTECTED SHRIMP HABITAT

AVERAGE TEMPERATURES (°F)



SITE ANALYSIS

surrounding vicinity



FENCE

25′ CLEARANCE

UNMOVABLE PLANES

PROTECTED SHRIMP

MIDDLE EAST FIRE BASE

BONEYARD AREA

STRUCTURES

CLEARANCE AREA TO MOVE PLANES

OVERALL HOT, ARID AREA POOR SOIL

TARGET WAREHOUSE

VIETNAM FIRE BASE

MIXED USE AREA

MEMORIAL GARDEN

PROPOSED RUNWAY VIEW RESTAURANT/ CHILDREN'S PLAY AREA

HEIGHT LIMITS: 35′ EAST OF WALKWAY
55′ WEST OF WALKWAY

SITE HAS NO IRRIGATION

SITE ANALYSIS

constraints

VAN BUREN BLVD.

215 FREEWAY

531 FEET



SITE ANALYSIS

opportunities

SHADE OPTIONS

SEATING

GRAND ENTRANCE

SIGNAGE

RESTROOMS

TREE OPTIONS

UNDEVELOPED SPACE

FIREBASES/ BONEYARD COULD BE RECONFIGURED

VIEWS

GOOD NEIGHBOR PARTNERSHIP/ MARKETING OPPORTUNITIES

precedent burbank aviation museum, california

3898 Valhalla Dr.
Burbank, CA 91505
(818) 768-7881
Nearest Metro Station
Burbank Airport - South (VC Line)

The Burbank Aviation Museum (Portal of Folded Wings) was established to preserve Burbank's notable aviation history. With the help of aviators, engineers, designers, fabricators and others interested in aviation, the museum has had the opportunity to collect and preserve significant memorabilia.

Located in Valhalla Cemetery, the Burbank Aviation Museum – also known as the Portal of Folded Wings – is a 75-foot-tall "Shrine to Aviation" and the burial site for fifteen industry pioneers.

The ornate marble mosaic structure also houses an incredible array of memorabilia and documents collected with the help of aviators, engineers, designers, fabricators, and other enthusiasts. There is also a large-scale model of the space shuttle that was created to honor fallen astronauts.

Applicable elements for March
This is a small museum, but valuable in that it addresses local milestones and community support. Mainly in regards to Lockheed … because they are such a huge influence in Burbank. Keeping a focus on local milestones and accomplishments by Air Force personnel from MAFB would be important to March museum patrons and how they interact with the exhibits and installations.

Clockwise:

1. *The Museum is located at Valhalla Cemetery, also known as the Portal of Folded Wings*
2. *Front page of The Lockheed Star announcing the Mach 3 by President Johnson in 1964*
3. *Brochures and ephemra from various aviation circles*
4. *Fun fact about the SR71 Blackbird*
5. *Signed photo from Robert Gilliland, a Skunk Works test pilot who broke a world speed record in the SR-71.*




THE LOCKHEED
STAR
LOCKHEED MISSILES & SPACE COMPANY
LOOK TO LOCKHEED FOR LEADERSHIP
Volume II March 13, 1964 No. 5

Lockheed Mach 3 A-II Jet Made Known by President

Following are excerpts from a statement read by President Johnson at his news conference on Feb. 29:

"The United States has successfully developed an advanced experimental jet aircraft, the A-11, which has been tested in sustained flight at more than 2000 miles per hour and at altitudes in excess of 70,000 feet.

"The performance of the A-11 far exceeds that of any other aircraft in the world today. The development of this aircraft has been made possible by major advances in aircraft technology of great significance for both military and commercial applications. Several A-11 aircraft are now being flight tested at Edwards Air Force Base in California . . .

"The Lockheed Aircraft Corporation of Burbank, California, is the manufacturer of the aircraft. The aircraft engine, the J-58, was designed and built by the Pratt and Whitney Division, United Aircraft Corporation. The experimental fire control and air-to-air missile system for the A-11 was developed by the Hughes Aircraft Company.

"In view of the continuing importance of these developments to our national security, the detailed performance of the A-11 will remain strictly classified and all individuals associated with the program have been directed to refrain from making any further disclosure concerning this program."

Lockheed President D. J. Haughton made the following statement to Calac employes in connection with President Johnson's statement.

"I want to tell all of you how proud I am of the accomplishments of the many Lockheed men and women who have been working on the project described in President Johnson's announcement.

"And I want to tell you, too, that I am proud of the way in which all of you, as well as many other employes not directly associated with the project have maintained complete security over a long period of time.

"Within the coming weeks we can expect considerable discussion and speculation about the project. But we must continue to refrain from talking about it or disclosing any additional

Former RIFT Work Extended

(The following is the text of an announcement by the Marshall Space Flight Center this week.)

HUNTSVILLE, ALA. — The National Aeronautics and Space Administration has established a new research program with Lockheed Missiles & Space Co., Sunnyvale, Calif., to develop advanced technology for large nuclear and chemical rockets.

The effort will continue and keep up to date research which was begun as a part of the now-canceled RIFT vehicle project. The RIFT (Reactor-In-Flight-Test) project to develop a nuclear rocket stage for flight testing which was in the early design phase was terminated early this year in a reorientation of the nation's nuclear rocket program and in the interest of economy.

This new work, as was RIFT, is assigned to the NASA Marshall Space Flight Center here by the NASA Office of Advanced Research and Technology.

The total estimated cost of the work over a seven-month period is expected to be approximately $1.5 million. An initial sum of $500,000 has been committed to the work by letter contract.

The five principal areas of activity will be insulation development, cryogenic testing, structural development, application of RIFT technology to Saturn stages, and documentation of pertinent technology for future use. This work is to be done at Sunnyvale.

Nobel Physicist Featured

Acceptance of women in science has improved greatly in recent years, Dr. Maria Goeppert-Mayer, 1963 Nobel winner in physics, told some 350 high school girl science students recently at the fifth annual career counseling program sponsored by women at LMSC.

featured speaker at the annual program at which Lockheed's women scientists and engineers provide career counseling to senior high school girls in the Bay Area interested in science careers.

Dr. Mayer told the girls that opportunities for women in

LMSC research scientist Robert F. Trainer makes adjustments to a tracking antenna which follows American and Russian satellites crossing high over California. Movement of the dish is controlled from the radio receiver in the company's radio propagation laboratory.

LMSC Lab Keeps Tabs On Everyone's Satellites

When a Nimbus, an OGO or a Ranger is launched this year, Lockheed will be listening.

These happen to be spacecraft placed in orbit or sent on moon trajectory by a Lockheed Agena booster, but the company's "tracking station" in Sunnyvale will also be following other objects across the sky, including those of Russian origin.

Located in an open area on the tidelands of San Francisco Bay, the Radio Propagation Laboratory of LMSC was established seven years ago to do what its name suggests—study the behavior of radio waves as they travel through space.

But a convenient way to study radio waves is to tune in on the signal from transmitting satellites. Thus, in addition to conducting research in radio propagation, the laboratory serves a secondary purpose. It acts as a check point for man-made satellites, both U.S. and foreign.

Plenty of Traffic

satellites are broadcasting.

Most Russian satellites transmit for only a few weeks, then go silent. Some American satellites, however, have very long signal life. Vanguard I, launched in 1958, is still transmitting, as is Transit 1A, launched in 1961.

Though there is still plenty

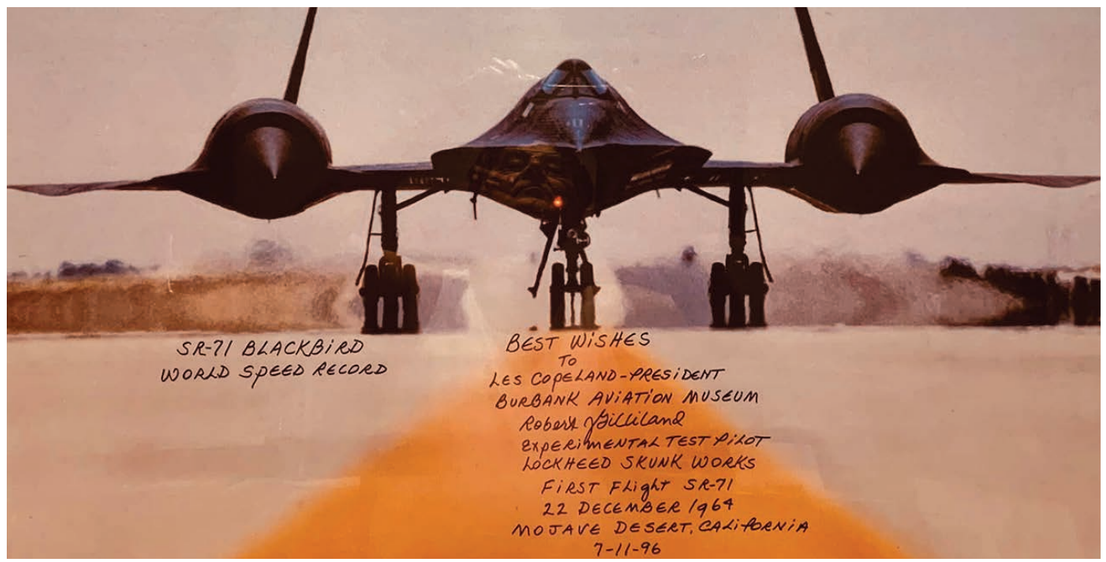
(Continued on page 2)

Five Cities Hear 'Lockheed Digest'

The Lockheed Digest — a five-minute radio broadcast of science and engineering news — is now being heard Mondays through Fridays in five U.S. cities.

The daily news program from Lockheed is heard in Dayton, Huntsville, Ala, Washington, Houston, and Los Angeles.

The program is also broadcast in English by the Voice of America to 82 countries around the world. Its commentator, Orval Anderson, recently was awarded the "Golden Microphone" alone







precedent moffett field history museum, california

Moffett Field Historical Society Museum
Building 126, Severyns Ave.
Moffett Field, CA 94035-0016
(650) 964-4024
moffettmuseum@sbcglobal.net

As reflected by their mission statement, the Moffett Field Historical Society is dedicated to education about and preservation of the heritage of one of Northern California's most significant historic sites – Moffett Field.

Recognizing Moffett Field's namesake, Rear Admiral William Moffett, who lost his life in the crash of the Macon's sister ship, the dirigible Akron. In December 1915, Moffett received the Medal of Honor which is on display at the museum.

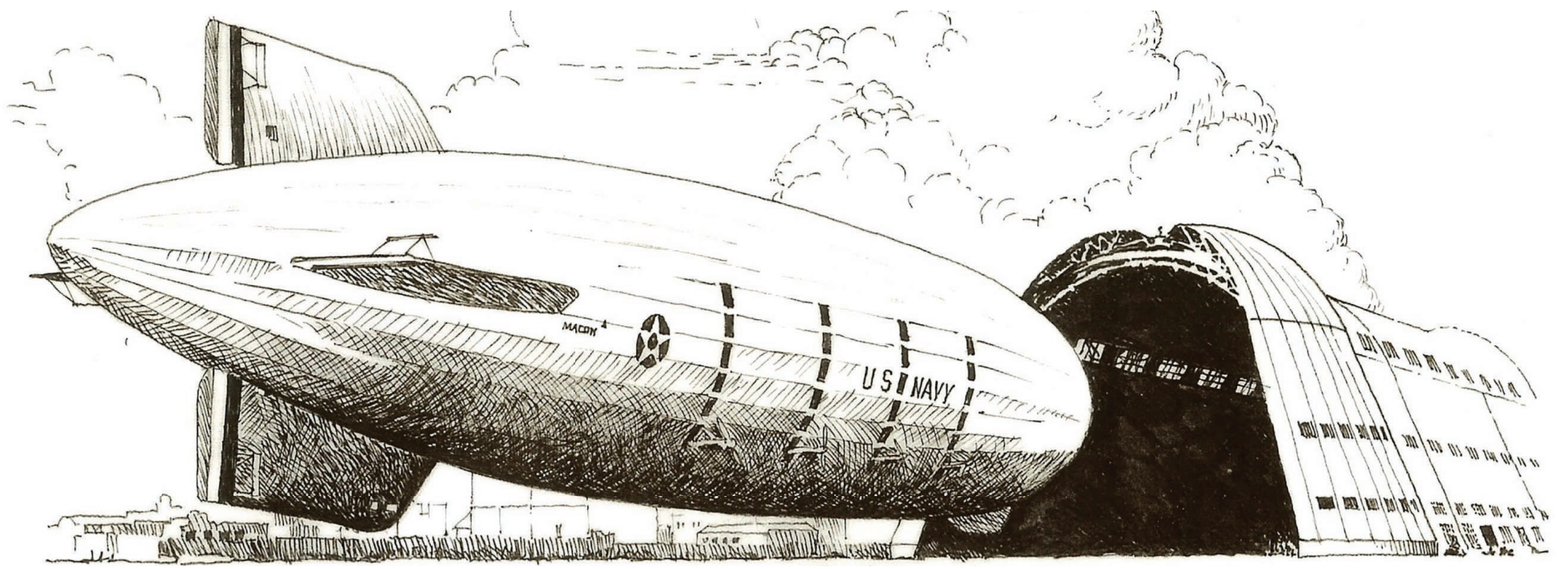
Through its Ames Research Center, NASA is the custodian of Moffett Field. Its history dates back to 1939, when the NACA acquired 62 acres from the Army. Items from NASA's experimental flight testing, wind tunnel experiments, and space flight simulation are on display.

Applicable elements for March
This museum seems smaller than March, but the property and the drama of the giant plane hanger supercedes and encourages a huge public draw. It shows how the look of the property from the freeway needs to be more dramatic at March to encourage people to come to the museum. It should become a can't-miss tourist destination.



Clockwise:

1. *An airshow near the massive hanger and in the 1980's*
2. *Moffett Field was home to seven Transport Squadrons under NATS and NATWINGSPAC from the mid-40s to the mid-60s and a Reserve Transport Squadron in the mid-90s*
3. *Moffett Field played a key role in WWII, when it was home to aircraft, blimps, and balloons that were an important part of the war effort*





precedent national museum of the united states air force, ohio

1100 Spaatz Street
Dayton, Ohio 45431
(937) 255-3286

There are a ton of great air museums all over the world, but there's a case to be made, however, that the best is in Dayton, Ohio. On the grounds of Wright-Patterson Air Force Base, the National Museum of the U.S. Air Force has a massive collection of rare and important aircraft from the entire history of aviation.

With fragile World War I bombers, supersonic Cold War fighters and experimental aircraft that touched the edge of space, every era is represented. Most have impressive histories as well. The Memphis Belle is there, so famous they made a movie about her and her crew, and Bockscar, the B-29 that dropped the second atomic bomb on Nagasaki, Japan. And best of all, the planes are immaculately restored and maintained.

Applicable elements for March
This museum is the granddaddy of them all and probably has huge budgets to sustain that reputation. But reaching for the sky should be the goal, and this museum is an inspiration for March to organize their displays, improve their graphics, and always keep abreast of current trends in aviation history. Reading where they loan planes to other museums, if March partook in that program, it could help provide variety and new plane displays for March. That would attract repeat aviation afficionados to March to check out the "special, for a limited time only" visiting exhibits.



Clockwise:

1. *Huge display hanger at the National Museum, Dayton Ohio*
2. *A collection of ICBMs*
3. *The Memphis Belle*
4. *Looking out from a C-124*







precedent memorial parks

Untermeyer Garden Conservancy
945 North Broadway
Yonkers, NY 10701
(914) 613-4502

The Vista was modeled on a similar series of descending stairs at the Villa D'Este in Italy. At the Villa D'Este, the stairs descend gracefully toward Lake Como while at Untermyer, they cascade toward the Hudson River (The foci).

At the base of the Vista is the Overlook. The two columns framing the view of the Hudson River and the Palisades are ancient Roman monolithic cipollino marble columns from the estate of Stanford White.

The Children's Memorial Garden
Holocaust Memorial & Tolerance Center
of Nassau County
Welwyn Preserve
100 Crescent Beach Road,
Glen Cove, NY 11542

2019 began the second stage of the Garden revitalization. A project to create an amphitheater for outdoor workshops and other events was completed in 2020.

The amphitheater is used as an outdoor classroom, for performances or educational programs for the community.

Applicable elements for March

The memorial area presents an opportunity for a recessed circular surface, which adds dimension to the outside area without adding height. The center would not incorporate water (too limited a resource), but could include the flag court or a fire feature (like an eternal flame) for drama at a nighttime function. It also could incorporate seating at the perimeter for ceremonies or presentations.



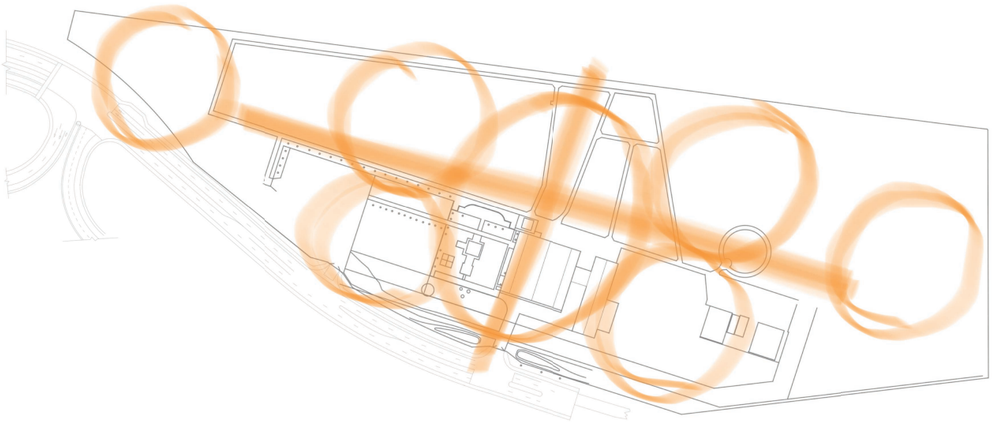
Clockwise:

1. *A classroom meeting at the Children's Memorial Garden at the Holocaust Memorial & Tolerance Center of Nassau County*
2. *The promenade to the Hudson river at Untermeyer Gardens in New York state*
3. *The view back to the main building at The Children's Memorial Garden*

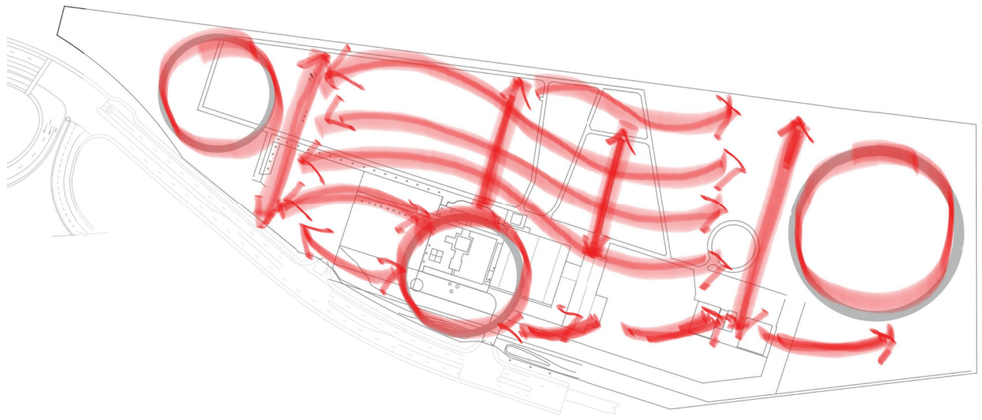




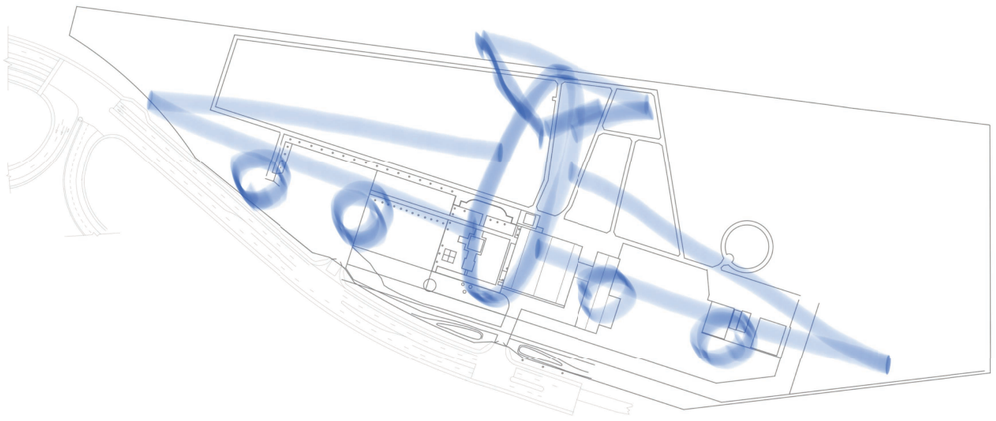
design concepts **bubble diagrams**



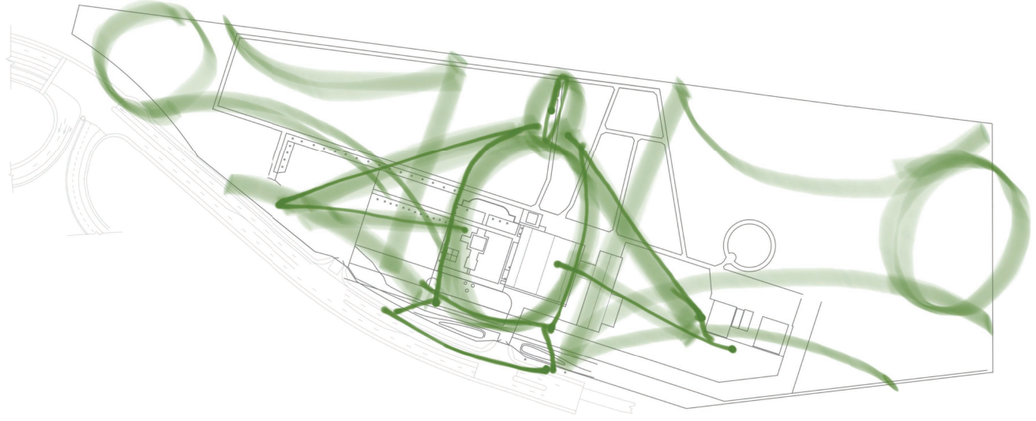
FORMATION



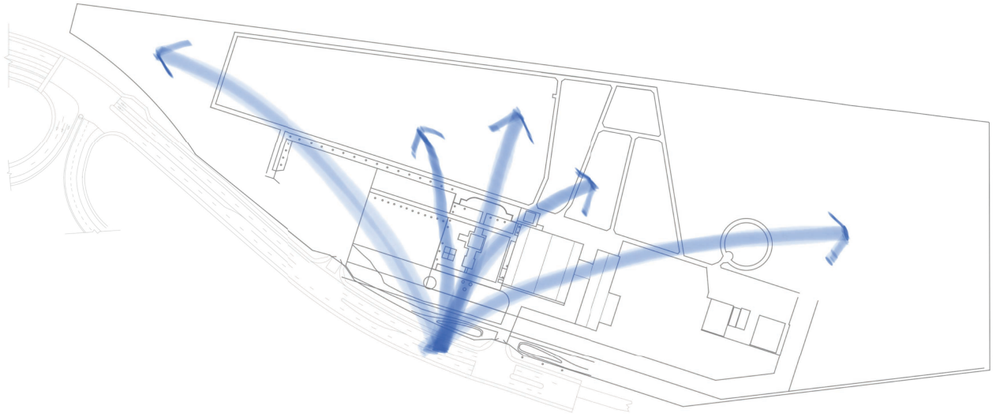
CONTRAILS



WINGSPAN



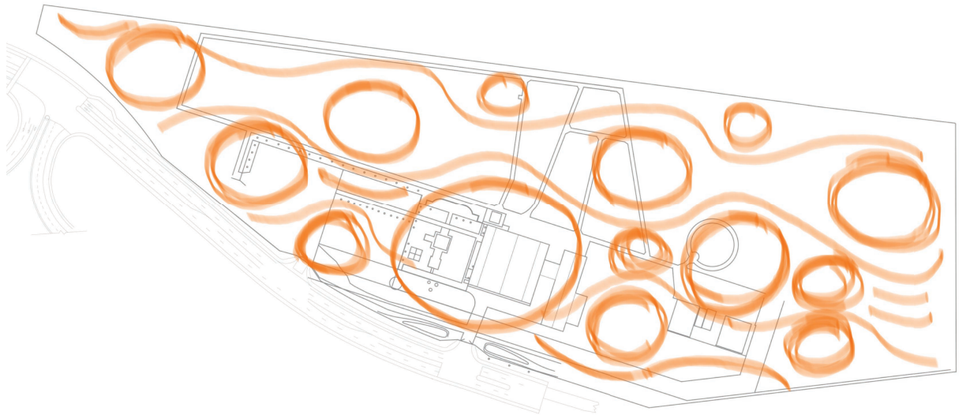
TAKE-OFF



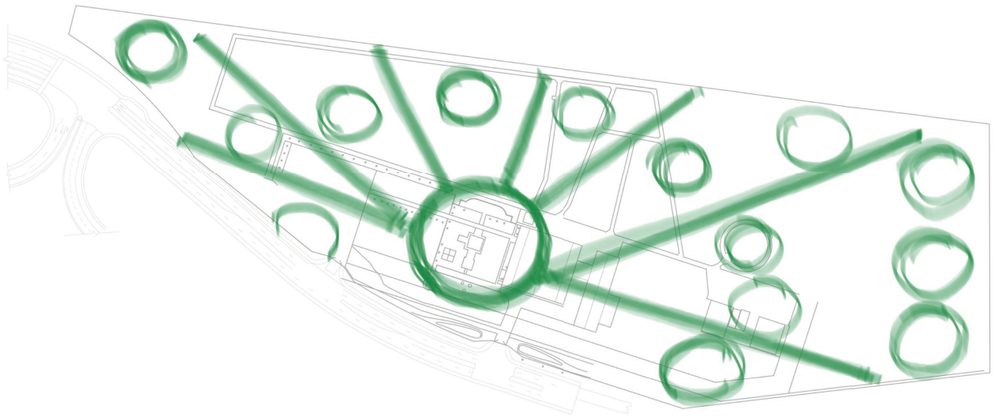
SYNCHRONIZATION



PROPELLER



ALTITUDE

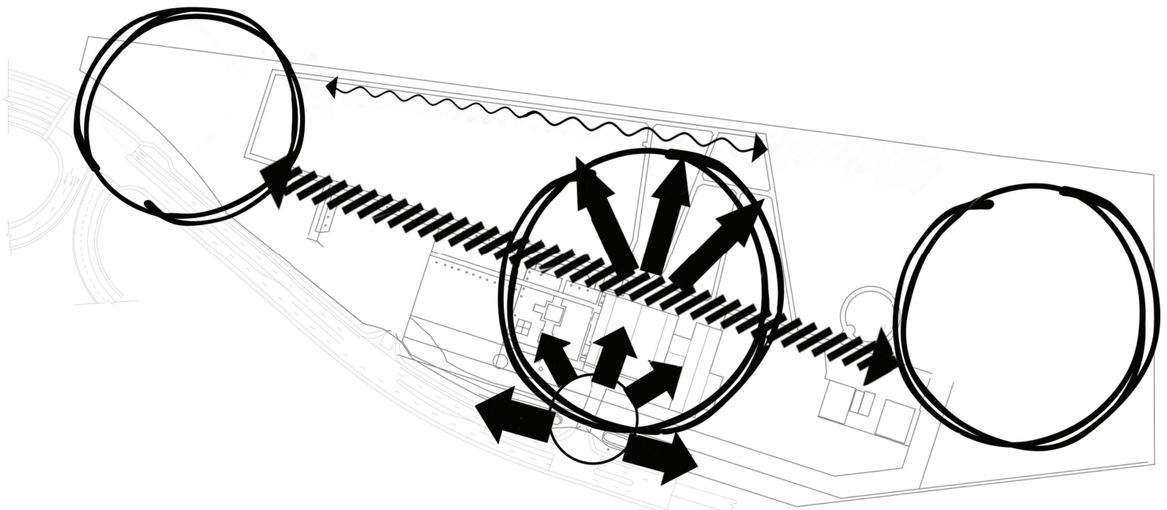


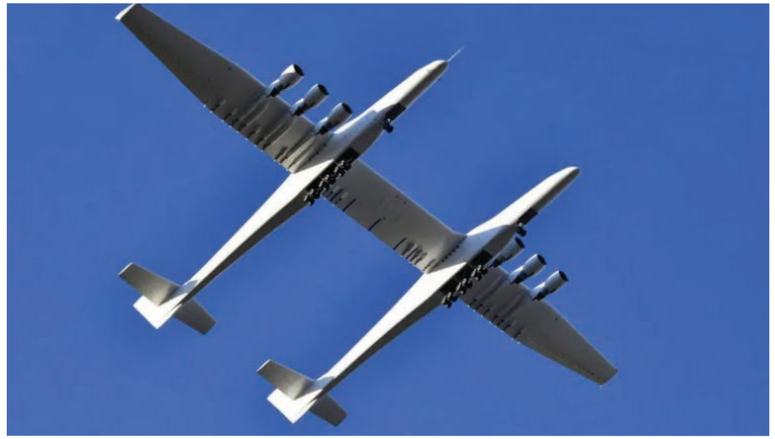
TARMAC

design concepts **bubble diagrams**



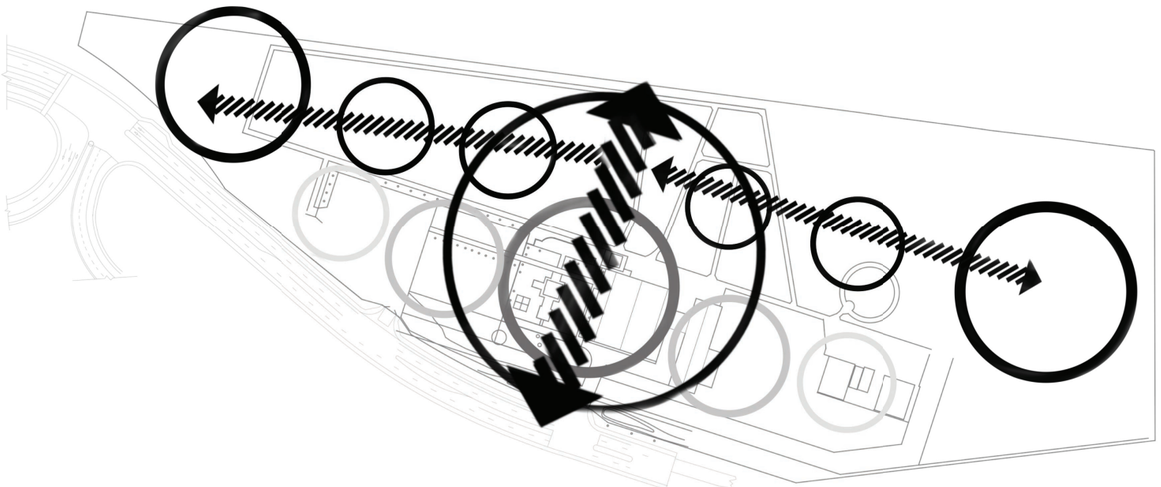
FORMATION







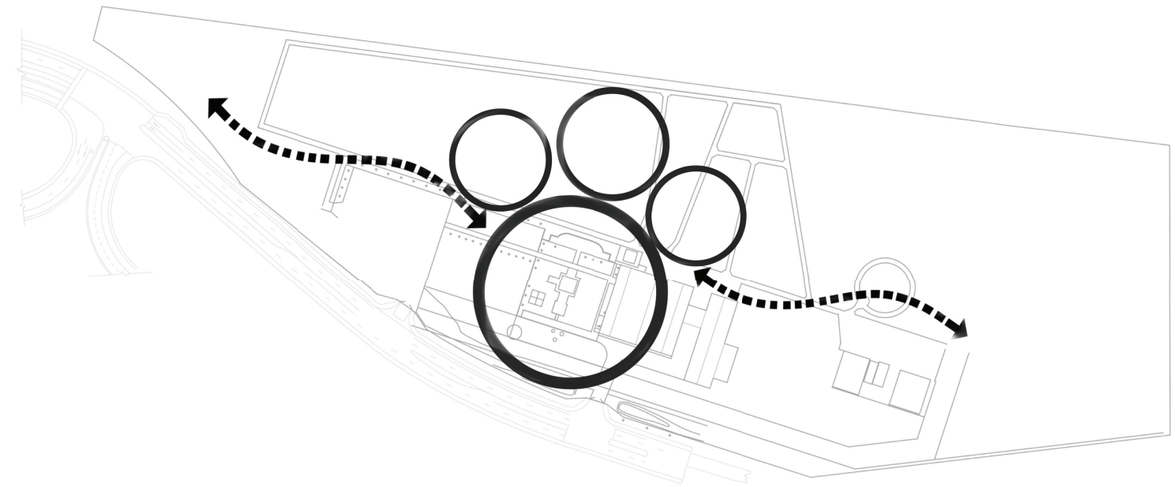
WINGSPAN





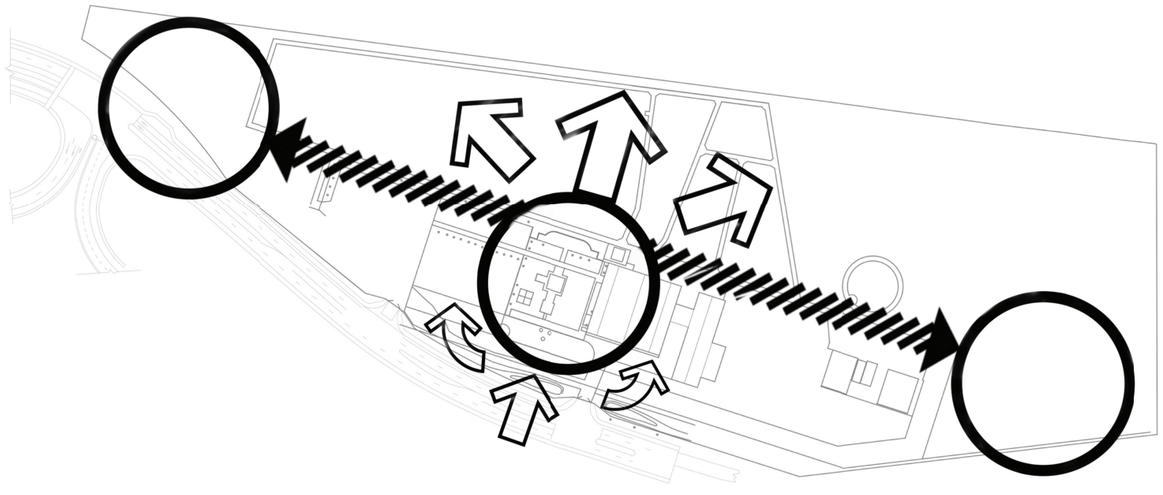


SYNCHRONIZATION



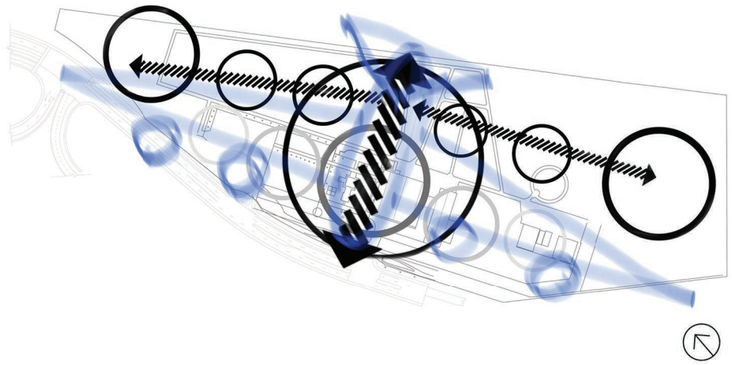


TAKE-OFF



design concept 1

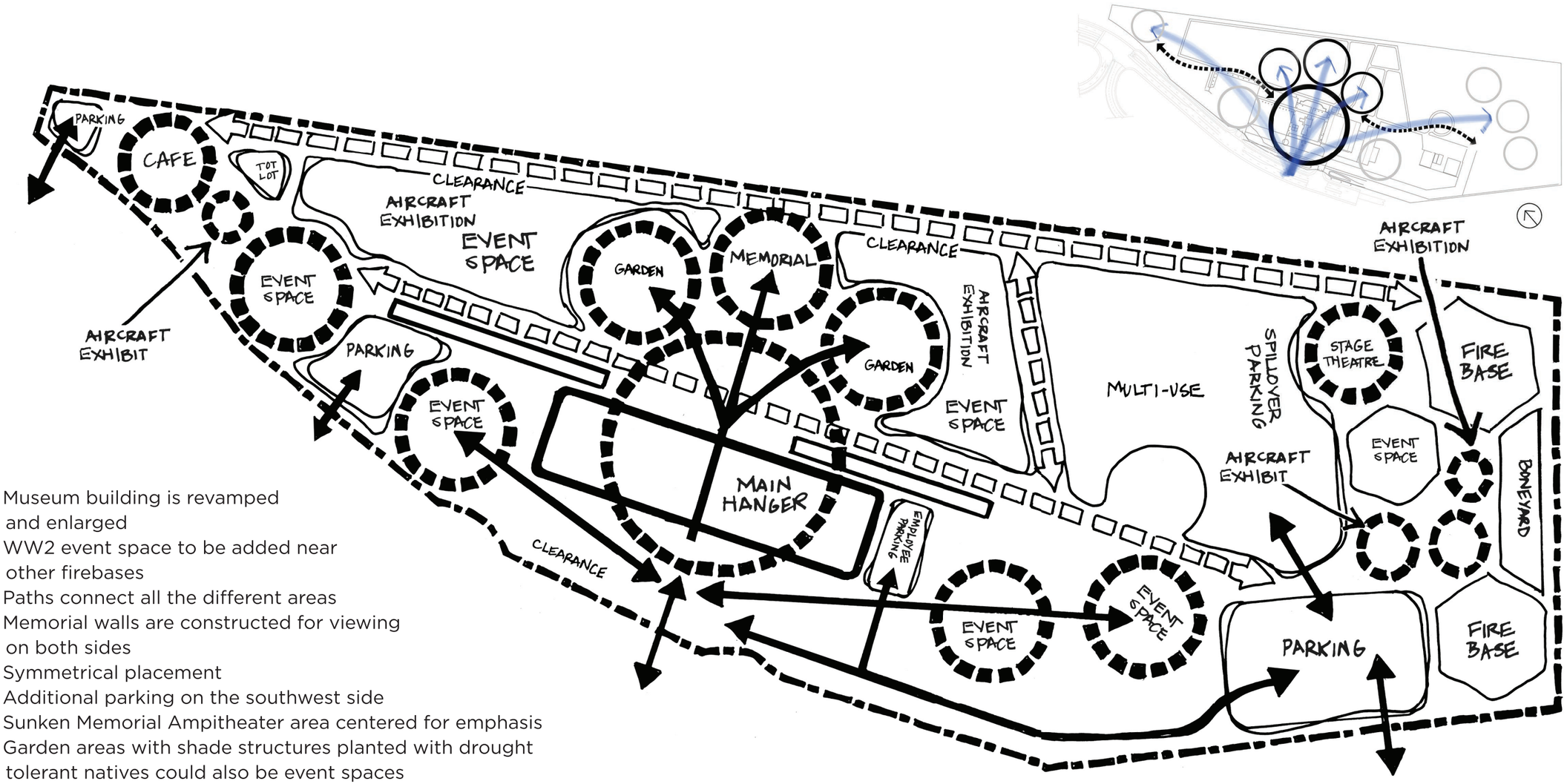
WINGSPAN



- Paths connect all the different areas
- Symmetrical placement
- Additional parking on the southwest side
- Sunken Memorial Area centered for focus
- Garden area with natives and drought tolerant plants could also be an event space
- Cafe and Parking for the cafe, at north end
- Stage/Theater in multi-use revetment area

design concept 2

SYNCHRONIZATION



- Museum building is revamped and enlarged
- WW2 event space to be added near other firebases
- Paths connect all the different areas
- Memorial walls are constructed for viewing on both sides
- Symmetrical placement
- Additional parking on the southwest side
- Sunken Memorial Ampitheater area centered for emphasis
- Garden areas with shade structures planted with drought tolerant natives could also be event spaces
- Themed Restaurant and Parking for the cafe, at north end
- Tot lot Playground near restaurant, at north end
- Stage/Theater in multi-use area

design concept

MAIN HANGER INSPIRATION 1

Hangar-7 Aircraft Museum

Near Salzberg, Austria

When Hangar-7 first opened its doors in 2003, it was not just Salzburg Airport that gained an unusual building – Hangar-7 enriched the entire city. From the very first idea, Hangar-7 was much more than "just" a modern aircraft hangar. Its developers saw it as a place where art, culinary art and aviation would come together.

This challenge was assigned to Salzburg based architect Volkmar Burgstaller, whose design exceeded all expectations. Using 1,200 tonnes of steel and 380 tonnes of special glass, he created Hangar-7 as it now graces the city of Salzburg and its airport.

Inside Hangar-7, it is the unique glass dome which inevitably draws the gaze upwards. It stretches like the vaults of heaven over the various exhibits. The transparency of the 1,754 glass panes – no two of which have the same dimensions – creates a different atmosphere in Hangar-7 depending on the weather or the time of day.

Seen from outside, the construction is intentionally reminiscent of a wing which radiates extraordinary dynamism and weightlessness. At the main entrance, visitors are greeted by two cylindrical towers, which rise majestically from the elliptical glass shell. Over several storeys, these towers provide space for offices as well as for Hangar-7's gastronomical highlights, which include comfortable bars, the Lounge-Café and an elegant restaurant.









design concept

MAIN HANGER INSPIRATION 2

Espace Monestie

Located in the town of Plaisance du Touch in the west of Toulouse, France about 15 kilometers from the center of the city.

Extending public areas, this urban space functions as a village square. The program mimics public facilities. The interface makes it possible to connect all the activities (waiting place for cinema, theater hall, coffee shop terrace). Neutral space, generously sized, with a great potential of ownership by the users, becomes an “additional” program, suitable for the organization of multiple events. There are galleries, open wide-space exhibition halls, similar to an airplane hanger, and cafes, and theaters.

L'Espace Monestié is a contemporary place that illustrates new expectations as well as the vitality and energy of this suburban area.









design concept

MAIN HANGER INSPIRATION 3

Northwest Airplane Hangar

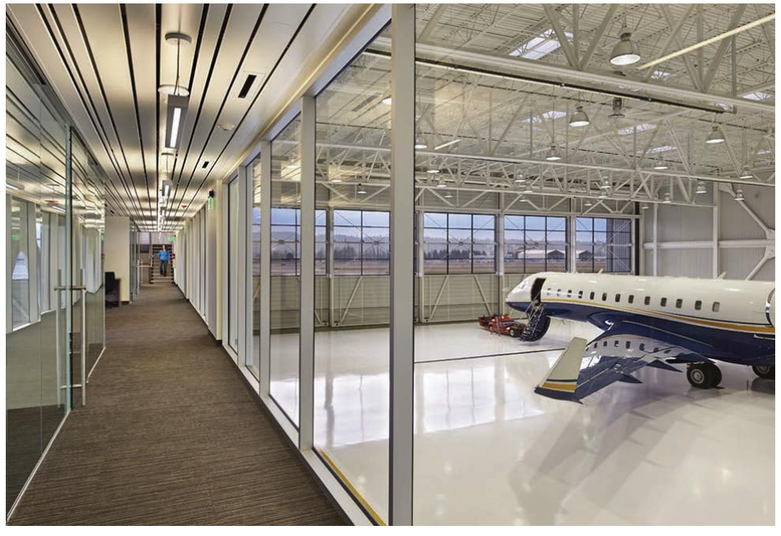
Pacific Northwest

Far from a utilitarian industrial structure, this private airplane hangar combines functionality and cutting edge design. The attention to detail in the exposed structural frame emphasizes bold design of this 35,000 square-foot building. Soaring cantilevers and expansive use of glazing lend a dynamic element to what is normally a building with limited expression. The 2030 Building Challenge was accomplished by delivering a facility that is approximately 80 percent more efficient than the 2009 IECC requirements for metal buildings.









design concept

MAIN HANGER INSPIRATION 4

Chibougamau-Chapais Air Terminal

Canada

The Chibougamau-Chapais airport is the gateway to the Eeyou Istchee James Bay region. It services a large territory that includes the communities of Chibougamau, Chapais, and Oujé-Bougoumou. Faced with growing passenger traffic, a new terminal building was deemed necessary to meet the increasing demand. The new terminal was designed according to the latest standards to provide a seamless passenger experience and to express the aspirations and culture of the communities it services.









design concept

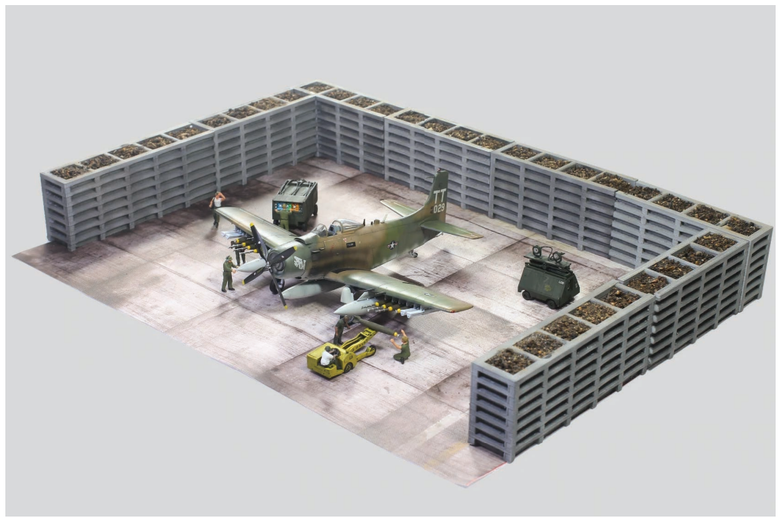
REVETMENT INSPIRATION

Edwards Air Force Base: Rammed Earth Aircraft Dispersal Revetments

Western Shore of Rogers Dry Lake, Boron, Kern County, CA

Significance: Eleven rammed earth revetments were constructed during World War II to provide shelter and cover for aircraft in case of an attack from the Pacific. The revetments are strongly associated with the war effort and are among only a few remaining World War II era buildings and structures at Edwards AFB. Two different designs were constructed, one for bombers and another for pursuit aircraft. The method of construction employed, utilizing layers of earth and aggregate tamped into a form, is unusual and may be unique. Although six of the revetments are extant, only two revetments were found to be eligible for listing in the National Register of Historic Places. AR-8, which retains the highest degree of integrity of the bomber revetments, and AR-9, which is the only extant pursuit aircraft revetment, are significant under Criteria A, C, and D.

I chose this structure of the rammed earth revetment because of the geometry, it seemed like a perfect event space. The materials would be practical to construct, and the shade huts would be respite from the summer heat. It could be decorated with Russian thistle (Tumbleweeds — Salsola tragus) but not planted with them, as they are very invasive.



World War II



World War II



Vietnam



Edwards Air Force Base: World War II



Edwards Air Force Base: World War II



Edwards Air Force Base: World War II

design concept

FLAG COURT INSPIRATION













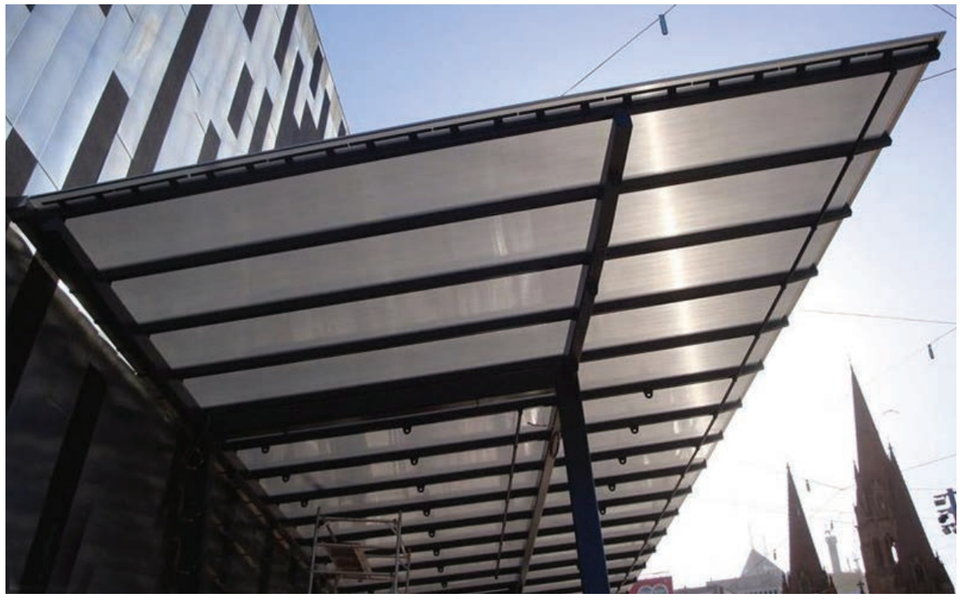
design concepts

SHADE COVER INSPIRATION





Aluminum Podiums (Australia)









Alien lattice (Dublin, Ireland)





Metal cutout (Shade Structure Systems)

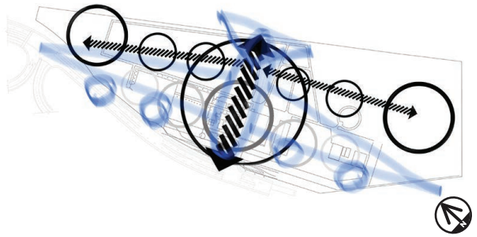




Metal Cutout Pergola (Lincoln, Nebraska)

design concept 1 final

WINGSPAN



EMPLOYEE PARKING

VIETNAM FIREBASE

THEATER

WW2 REVETMENT

BONEYARD AREA

SNACK BAR

PARKING LOT

MIDDLE EAST FIRE BASE

CAFE/TOT LOT

PARKING LOT

PALM TREES

BLUE = SHADE STRUCTURES
OR SHADE OVERHANGS

STEPPED DOWN SUNKEN
MEMORIAL GARDEN &
FLAG COURT

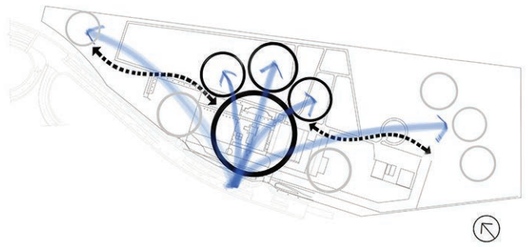
NEW TERMINAL
WITH GLASS COLUMNS

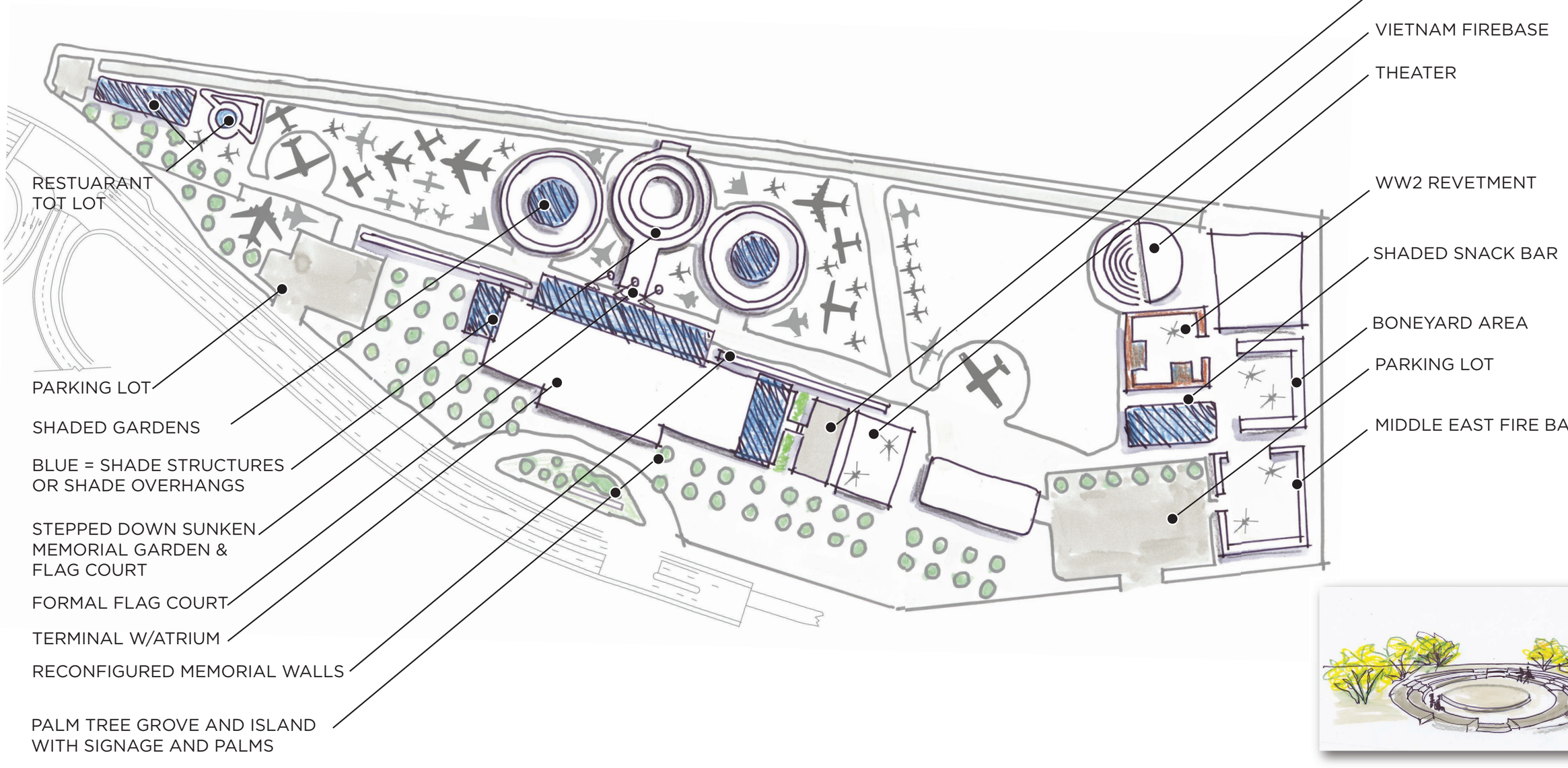
RECONFIGURED MEMORIAL WALLS



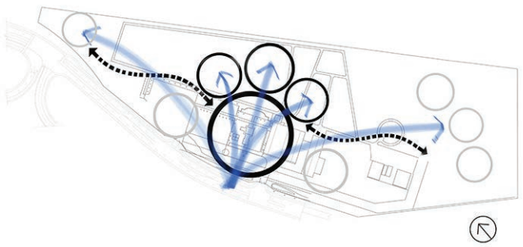
design concept 2 final

SYNCHRONIZATION





master plan



PARKING

'BLUE YONDER'
RESTAURANT
WITH RESTROOMS
& OUTSIDE PATIO

TOT LOT
WITH SHADE COVER

WATER CHANNEL TO
FUNNEL RAINWATER
TO CISTERN

EVENT SPACE PLANE

PERMEABLE PAVED PARKING LOT

REFURBISHED DECOMPOSED GRANITE

MEMORIAL GARDENS WITH
CENTRAL DOMED SHADE COVER,
BENCH SEATING. DESERT ADAPTED
HYDROZONE, WATER CHANNEL TO
STORE RAINWATER FOR CA NATIVES

RECONFIGURED MEMORIAL WALLS

MUSEUM/TERMINAL ENTRANCE
W/ATRIUM AND VIEWING DECK.
HAP ARNOLD MEMORIAL IN LOBBY

REGULATED FLIGHT L
AIR BASE RUNWAY

ENTRANCE WITH
DROP-OFF AND PARKING LOOP
RAISED TOPO ISLAND LANDSCAPING,
LIGHTED FRONT SIGNAGE

PERMEABLE SURFACE PALM COURT,
PALMS IN RAISED CURB PLANTERS

VAN BUREN BLVD

INE/

AMPITHEATRE
W/ FORMAL
FLAG COURT

TRAM
PICK UP

OVERFLOW
PARKING/
FLEXIBLE SPACE/
AIR SHOW
CAMPING
AREA

EMPLOYEE PARKING

SUBTERRANEAN
VIETNAM
FIREBASE

MOVIE/EVENT THEATER

RESTORATION HANGERS

BONEYARD AREA

CAFE/RESTROOMS

WWII RAMMED EARTH
REVETMENT FIREBASE

NORTH AFRICA FIREBASE
WITH WATER STORAGE OASIS

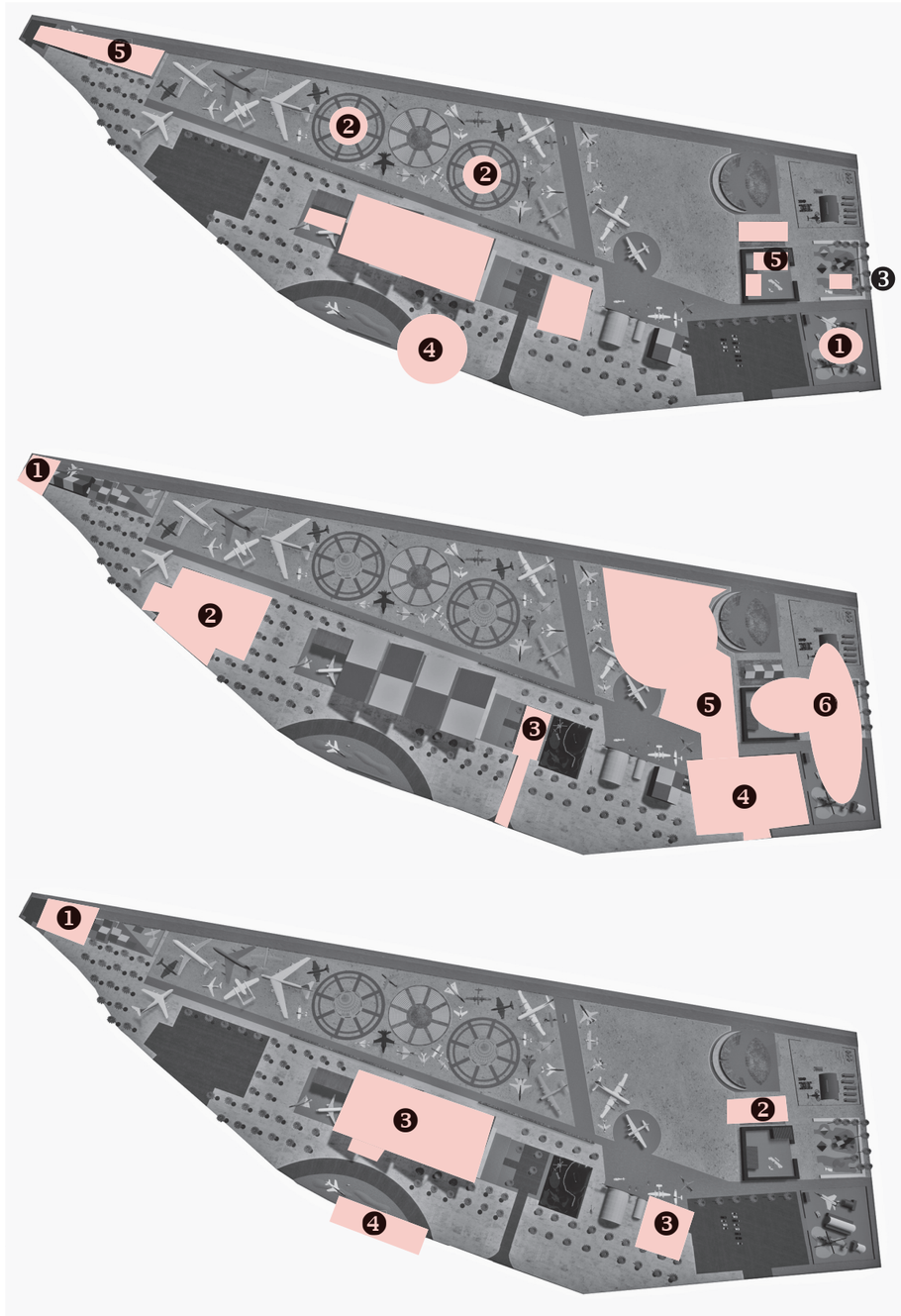
PERMEABLE PAVED
PARKING LOT

AFGHAN FIREBASE



1´= 65´

proposed analysis



IMPROVE SHADE AND SEATING

A main concern with climate change is how to lessen the heat island effect and provide more comfort to visitors.

❶ Firebases provide seating and shade opportunities

❷ Memorial Gardens offers shade and benches for seating

❸ Winter garden areas have channels to funnel rain water for plants

❹ All pavement, except existing concrete paths, is permeable to harness rainwater for the water table

❺ Cafe and restaurant allow for welcome rest breaks and socializing at the site after hours

DE-CENTRALIZE PARKING

Parking has been added and reconfigured so that various locales within the site can be reached more conveniently

❶ Blue Yonder Restaurant Parking

❷ Main Museum parking

❸ Separate employee parking lot

❹ Additional large lot near for evening events

❺ Airshow/overflow/Overnight campers parking is easily accessible

❻ Event spaces geared for more night time gathering, are safer and closer to parking lots

IMPROVE PROPERTY BRANDING AND VISUAL FOOTPRINT

Larger buildings have incorporated the red and white check theme on the roofs, added aircraft, and logos. The large palm courtyard, symbolizing a regimental formation, is visible from the road. New front signage and night lighting allow for improved brand visibility.

❶ Blue Yonder Cafe

❷ Café near revetments

❸ Museum Terminal and Restoration Hangers

❹ Front entrance signage

focused improvements

COMFORT



IMPROVE SEATING/ SHADE STRUCTURES

CONVENIENCE



DE-CENTRALIZE PARKING

CONCEPT



IMPROVE BRANDING AND VISUAL FOOTPRINT

subterranean vietnam firebase





CAMOFLAGE SHADE COVER HIDES HELICOPTER FROM ABOVE

METAL PLANK WALKWAY DOWN TO THE TEMPLE GARDEN. PATHS ARE LINED WTH MATERIALS FOUND IN A FIREBASE: PESTICIDE DRUMS, SANDBAGS.

TERRACE STEPS DOWN TO TEMPLE ARTIFACTS

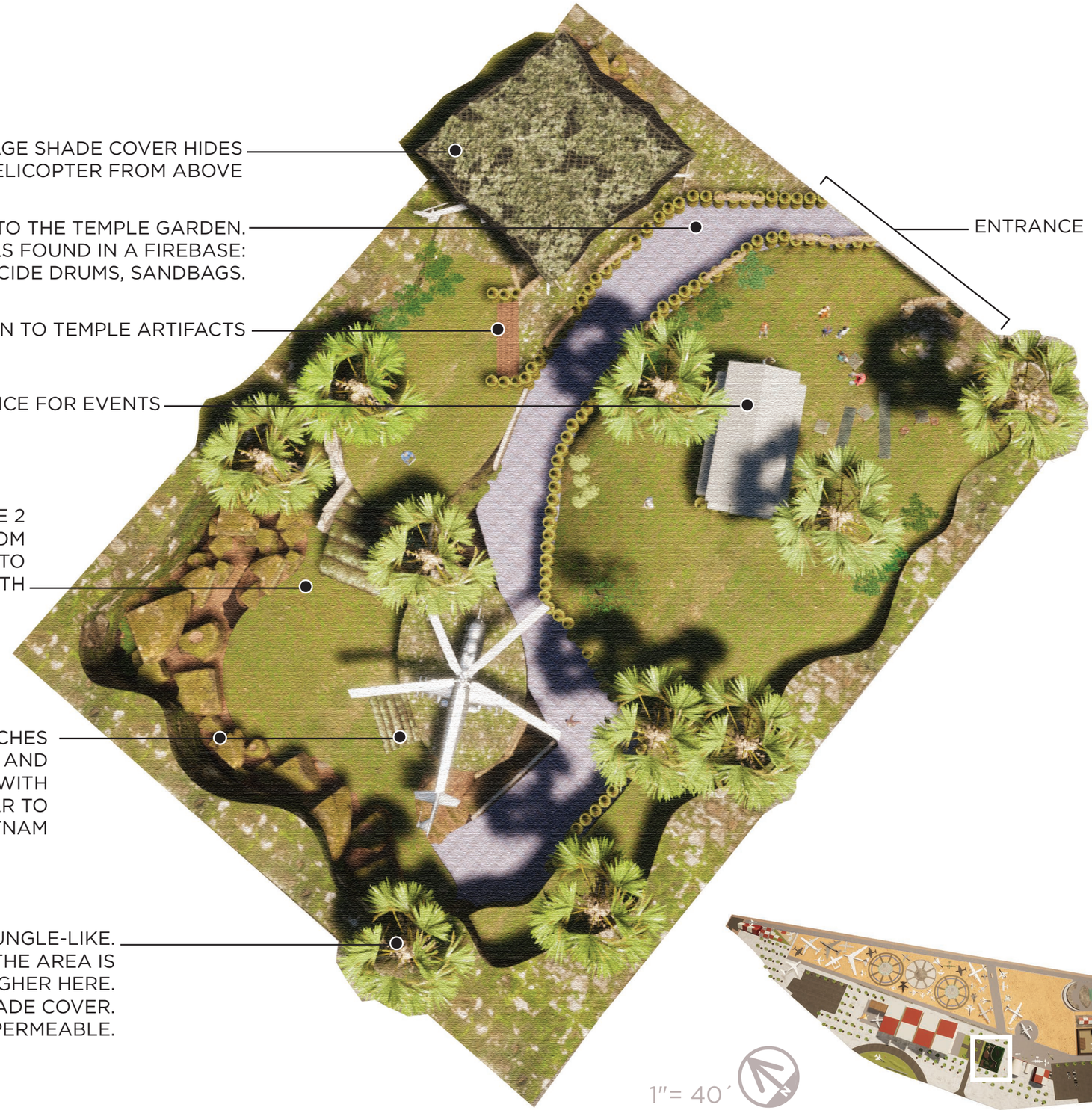
MESS HALL/FOOD BAR SERVICE FOR EVENTS

TERRACE 2 TO BOTTOM CONNECTS TO METAL PLANK PATH

TERRACES PROVIDE PRIVACY NICHES DURING EVENTS, PLACES TO REST AND CONTEMPLATE. AREA IS DRESSED WITH WRECKAGE ARTIFACTS SIMILAR TO OLD TEMPLE RUINS IN VIETNAM

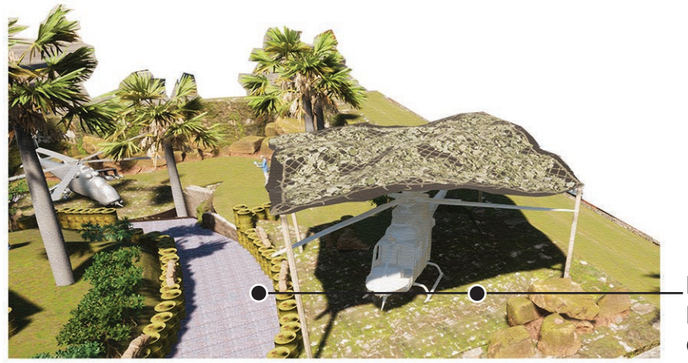
LANDSCAPING IS JUNGLE-LIKE. MORE MOISTURE IS SUPPLIED BECAUSE THE AREA IS SUBTERRANEAN AND THE WATER TABLE IS HIGHER HERE. ALSO IT IS PROTECTED BY SHADE COVER. ALL SURFACES ARE PERMEABLE.

ENTRANCE



1"= 40´





ENTRANCE WALKWAY AND REVETMENT HELIPAD WITH CAMO SHADE COVER



MESS HALL/CANTEEN WITH CAFE SEATING AND LAWN SPACE FOR GATHERING OR FOR PRIVATE EVENTS



LOWER SECTION. RESEMBLES RUINS OF TEMPLES AND THE JUNGLE. BROKEN CONCRETE PROVIDES AMBIANCE AND SUPPORT TO THE WALKWAYS AND SIDE TUNNELING.

CONTEXT OF VIETNAM FIREBASE IN RELATION TO EMPLOYEE PARKING LOT AND MUSEUM/TERMINAL

subterranean vietnam firebase **plant list**



Banana Tree
Musa acuminata × M. balbisiana



Philodendron
Philodendron 'Winterbourn' Xanadu



Poinsettia
Euphorbia pulcherrima



Bougainvillea
Bougainvillea Glabra



Bird's Nest Fern
Asplenium australasicum



Elkhorn Fern
Platycerium bifurcatum



Lantana
Lantana camara



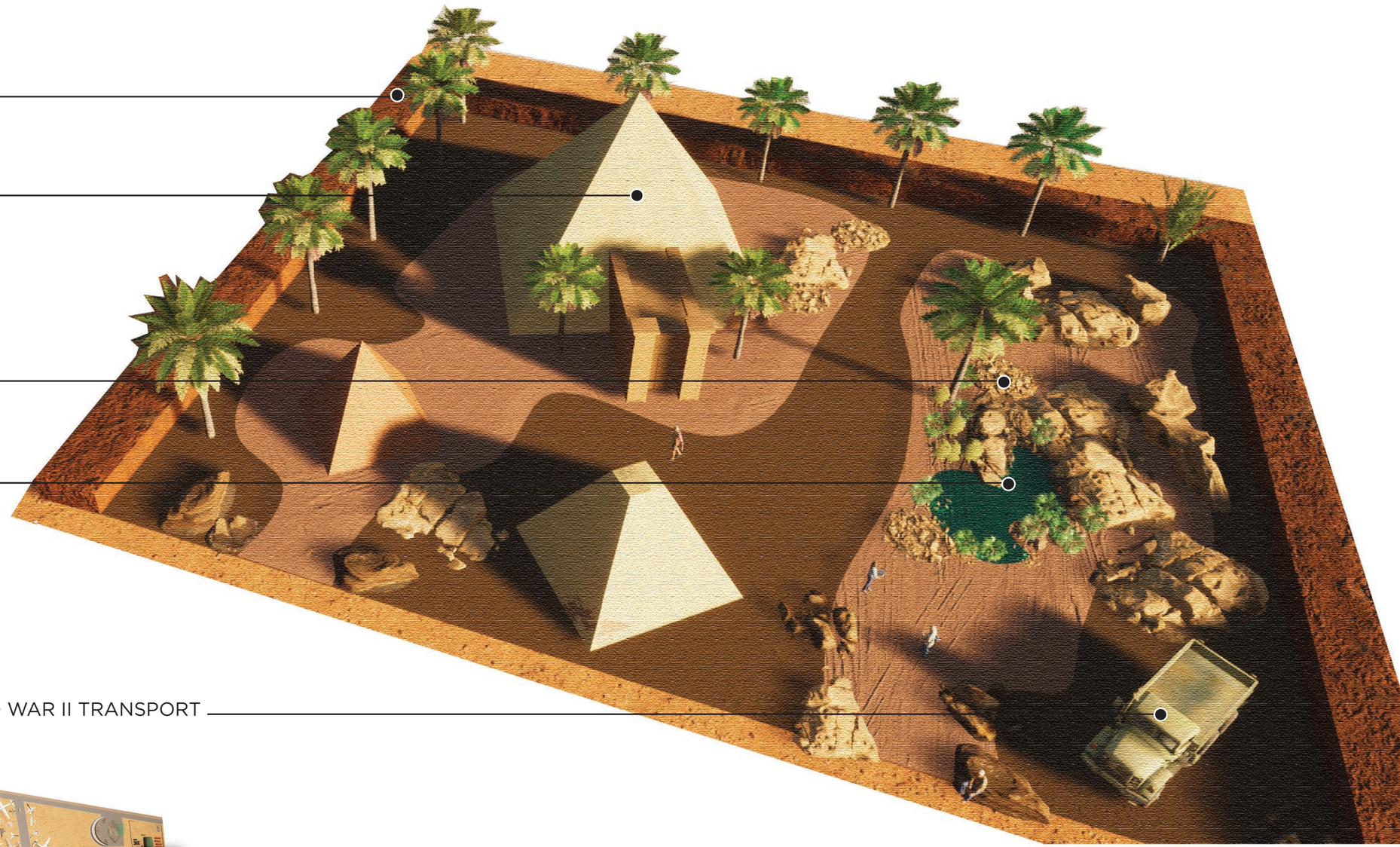
Plumeria/Frangipani
Plumeria

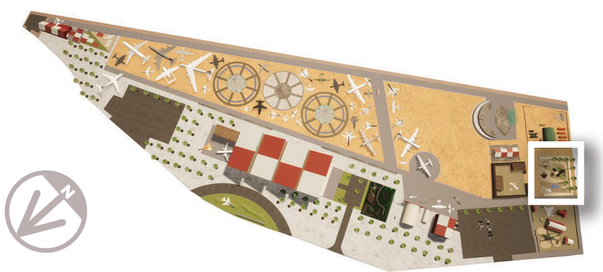
This area of Moreno Valley is in Sunset Zone 18 … above and below the thermal belts in Southern California's interior valleys. It is more extreme than Zone 19. You can have deciduous fruits to sub-tropicals. Winter lows 28°F to 10°F, all time lows from -22°F to 7°F, and all-time highs 115°F

Vietnam is located in a tropical zone and it has more rain than Southern California. These plants, above, do well in our area but can require more humidity to look their best. Installing misters in this revetment would benefit plants … and people … in the driest summer months.

Since this area is subterranean, the water table is higher here from the water channel flowing along Van Buren. We know this from the protected shrimp habitat. This would help with evapotranspiration, but most likely water from the cistern storage would need to be irrigated into this space in the driest summer months. Or, maybe a cistern could be located close by (under the parking lot) for easy access.

world war II firebase: north africa

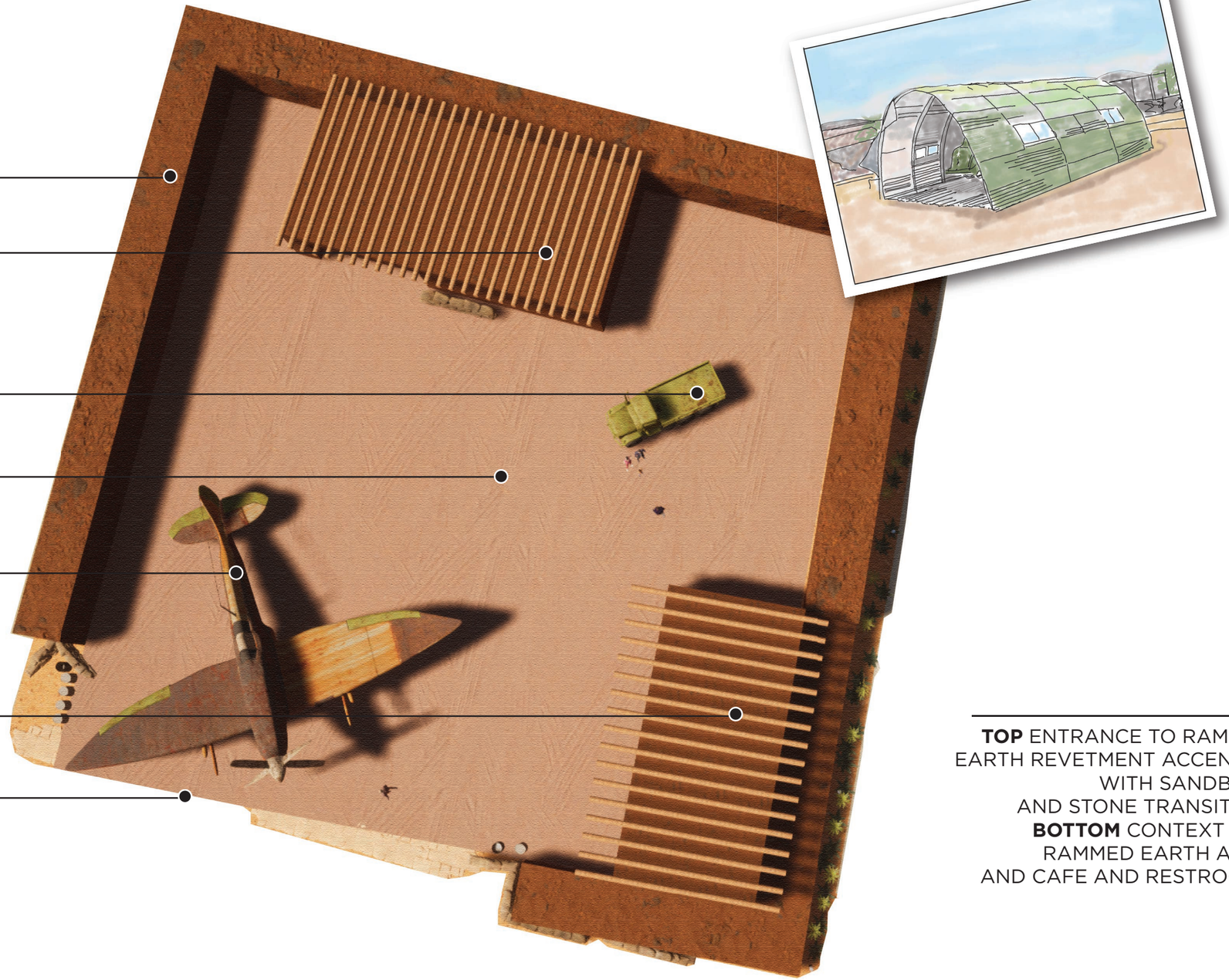


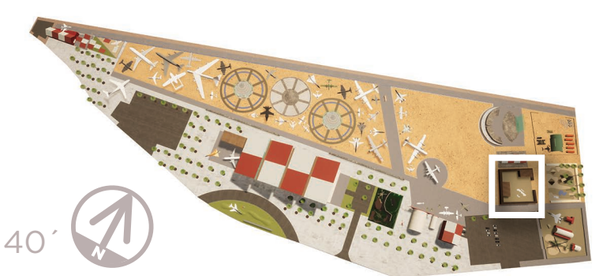


1"= 40´



world war II firebase: rammed earth revetment

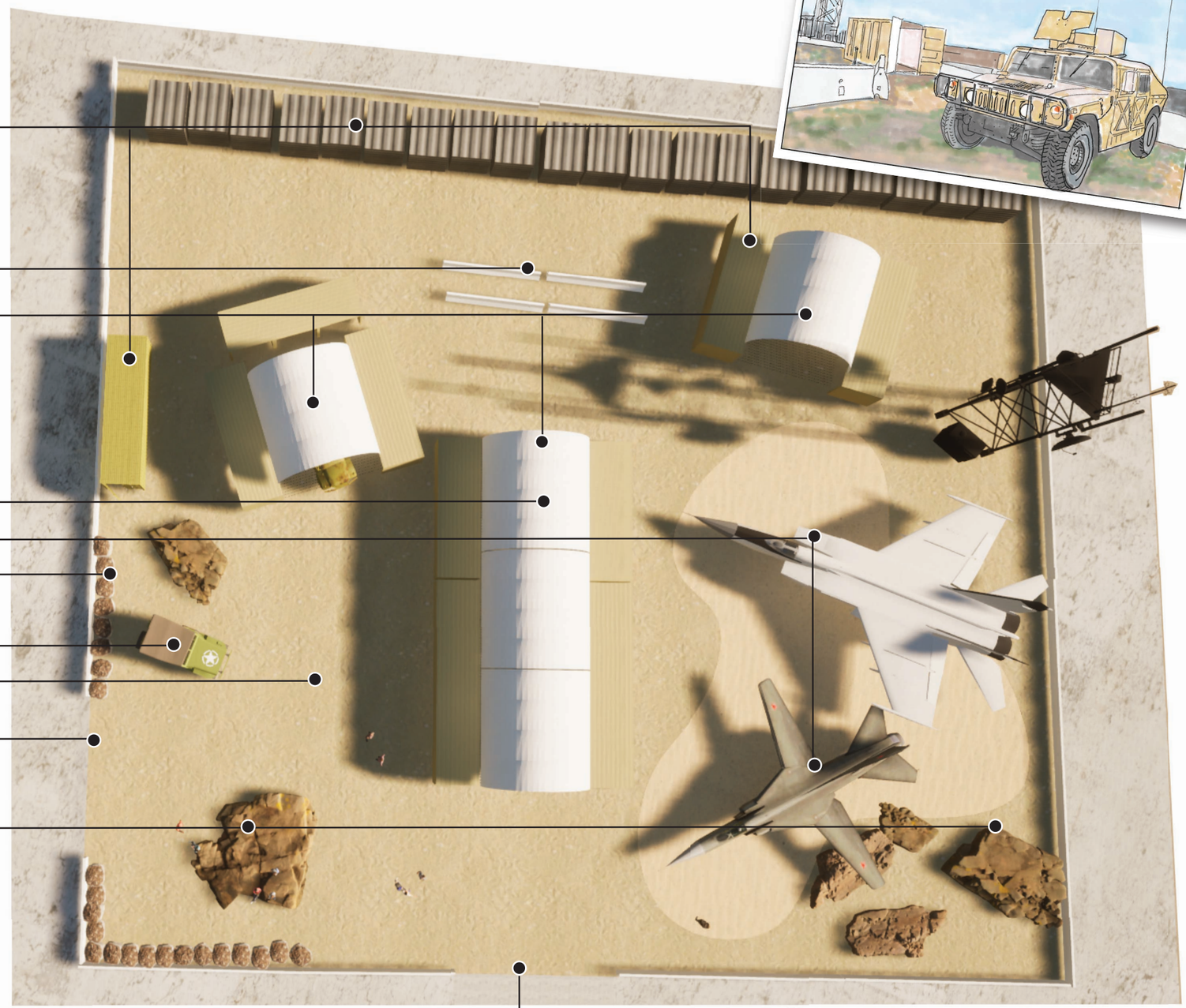


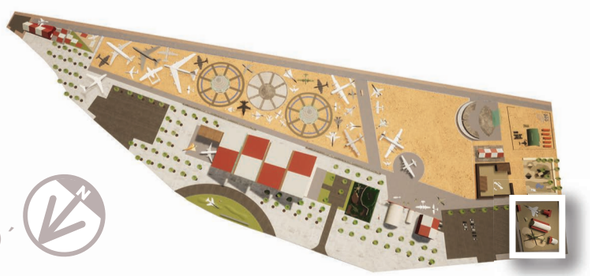


1"= 40'

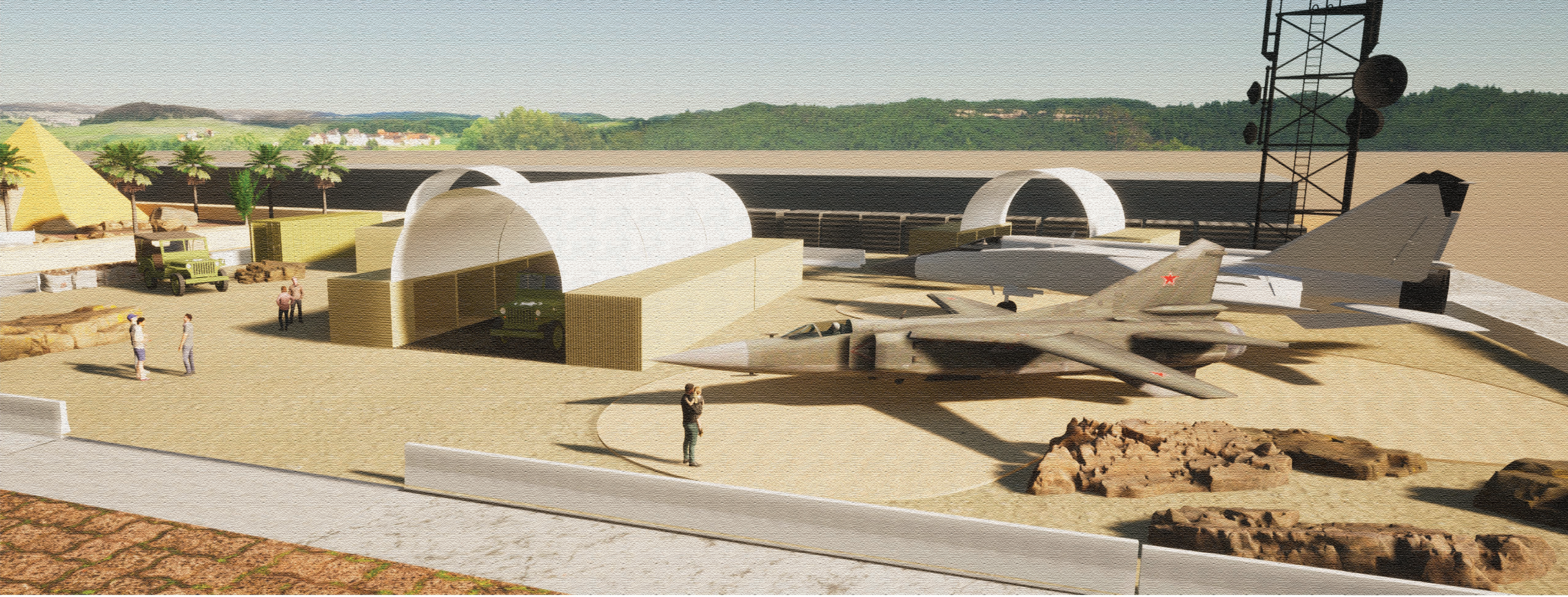
TOP ENTRANCE TO RAMMED EARTH REVETMENT ACCENTED WITH SANDBAGS AND STONE TRANSITION.
BOTTOM CONTEXT FOR RAMMED EARTH AREA AND CAFE AND RESTROOMS

war on terror: afghanistan firebase





1"= 40'

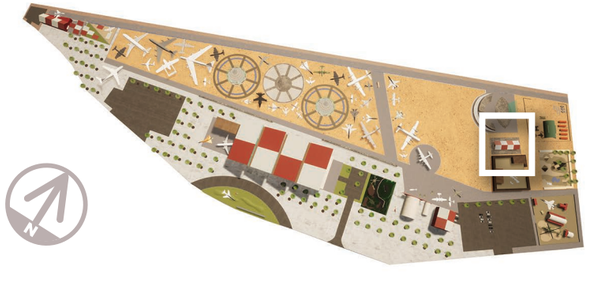






revetment/event space cafe

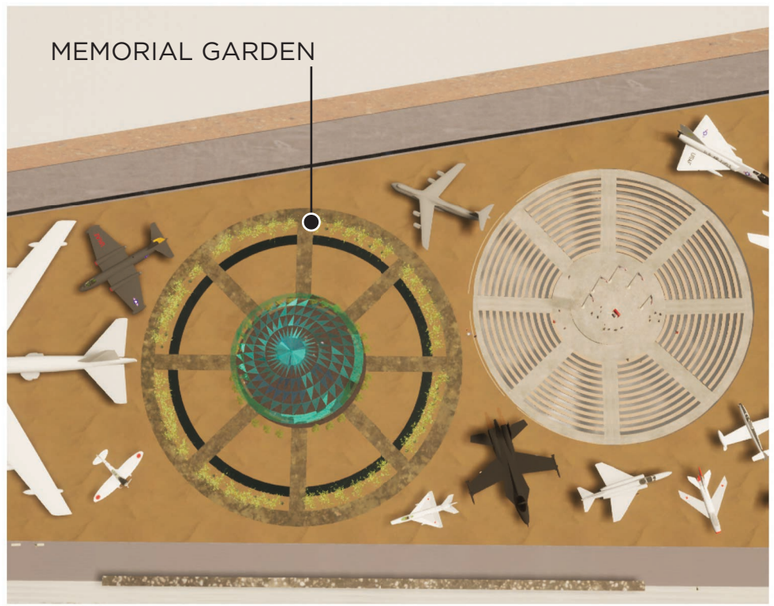




1"= 70'

CAFE WITH NIGHT LIGHTING THIS NEW CAFE WITH RESTROOMS SERVES THE SOUTH END OF THE GROUNDS. PATRONS WOULD HAVE RESTROOM AND FOOD OPTIONS AT THIS END OF THE PROPERTY. AIRSHOW CAMPERS AND AMPITHEATRE ATTENDEES WOULD ALSO BE SERVED BY THIS FACILITY. THE ROOF IS BRANDED WITH THE RED AND WHITE CHECKER PATTERN. THE LANDSCAPING IS A LOW-WATER DESERT HYDROZONE.

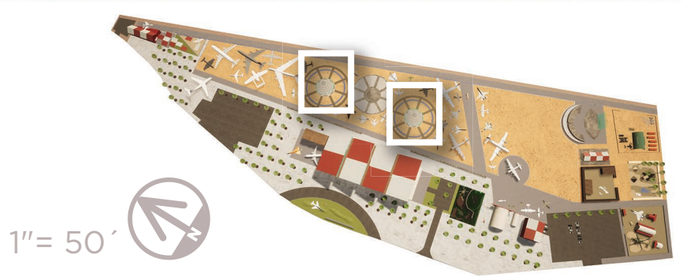
memorial gardens











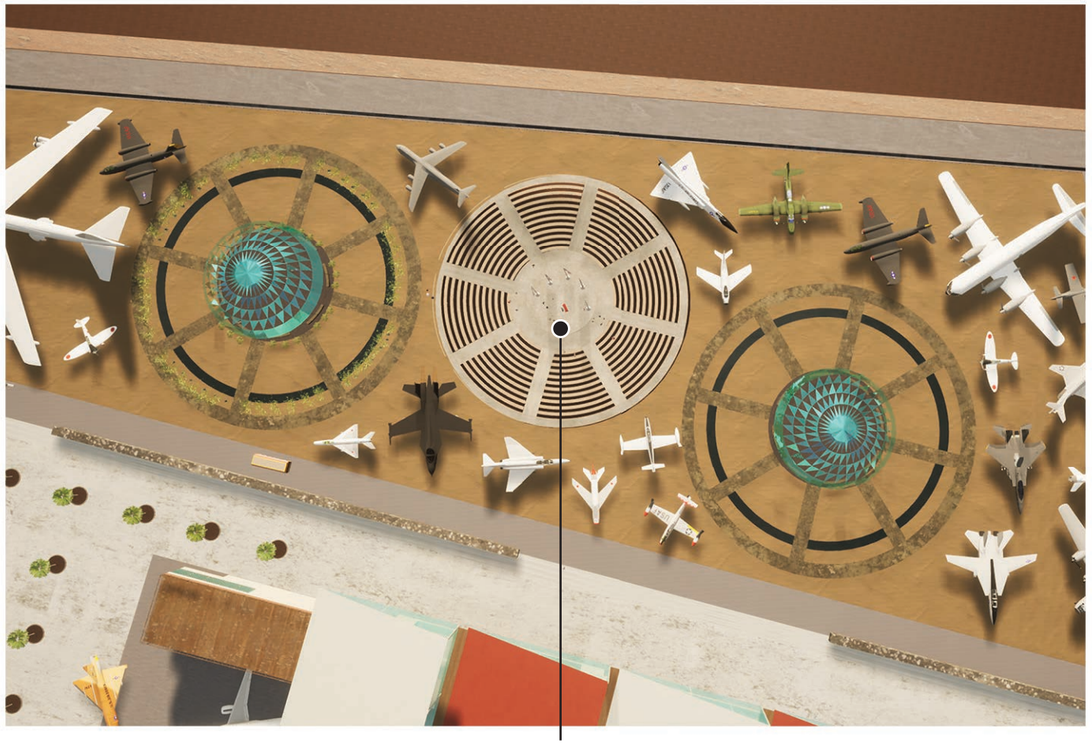
THERE ARE TWO MEMORIAL GARDENS ON THE SIDES OF THE FLAG CEREMONY AMPHI-THEATER. THEY PROVIDE BALANCE TO THE FIELD AREA COMING OUT OF THE TERMINAL. BOTH FEATURE ORNATE IRON SHADE COVER-INGS, WITH STONE BENCHES AROUND THE PERIMETER OF THE SHADED AREA. A COOLING WATER CHANNEL PROVIDES HYDRATION FOR THE NATIVES DURING THE RAINS. PALO VERDE TREES, SENECIO GROUNDCOVER, ALOE VERAS, ALONG WITH LONG BLOOMING PESTEMON ACCENT THE WILD GRASS PLANTED AREA.

flag court amphitheater

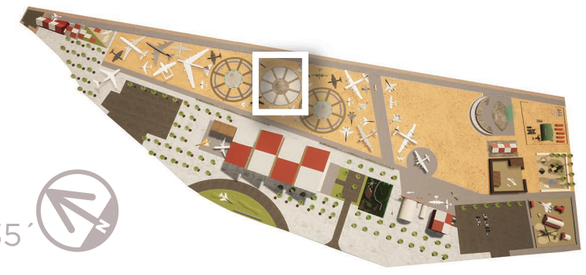




THE RECESSED AMPHITHEATER FLAG COURT IS THE CENTRAL FOCUS TO THE OUTER AREA. IT PROVIDES THE AXIS FROM THE TERMINAL, AND IS FLANKED ON BOTH SIDES BY THE DOMED MEMORIAL GARDENS. STONE BENCHES, AND A CENTRAL STAGE WITH MOVABLE FLAGS ARE FEATURED.



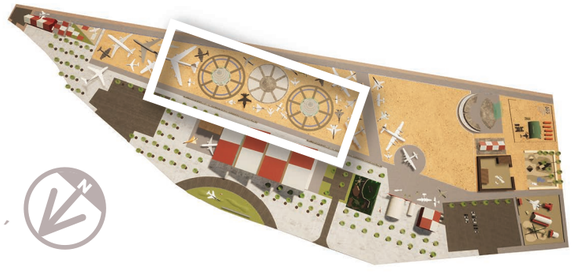
FLAG COURT AMPITHEATER



1″= 135´

march field air force museum **field of planes**

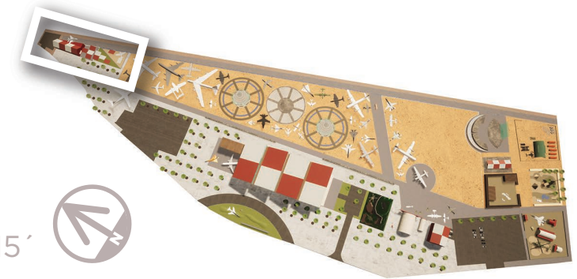




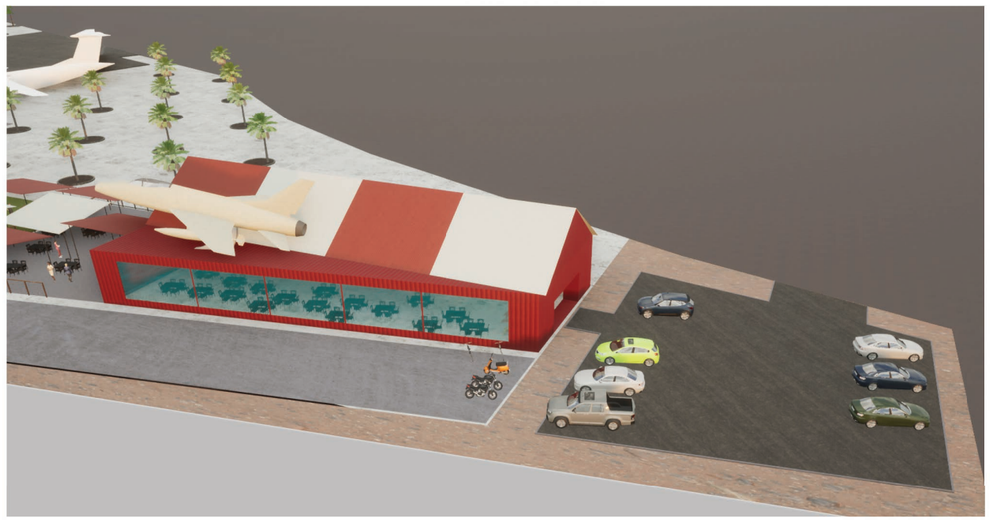
1"= 35´

blue yonder restaurant with outside patio / tot lot for children



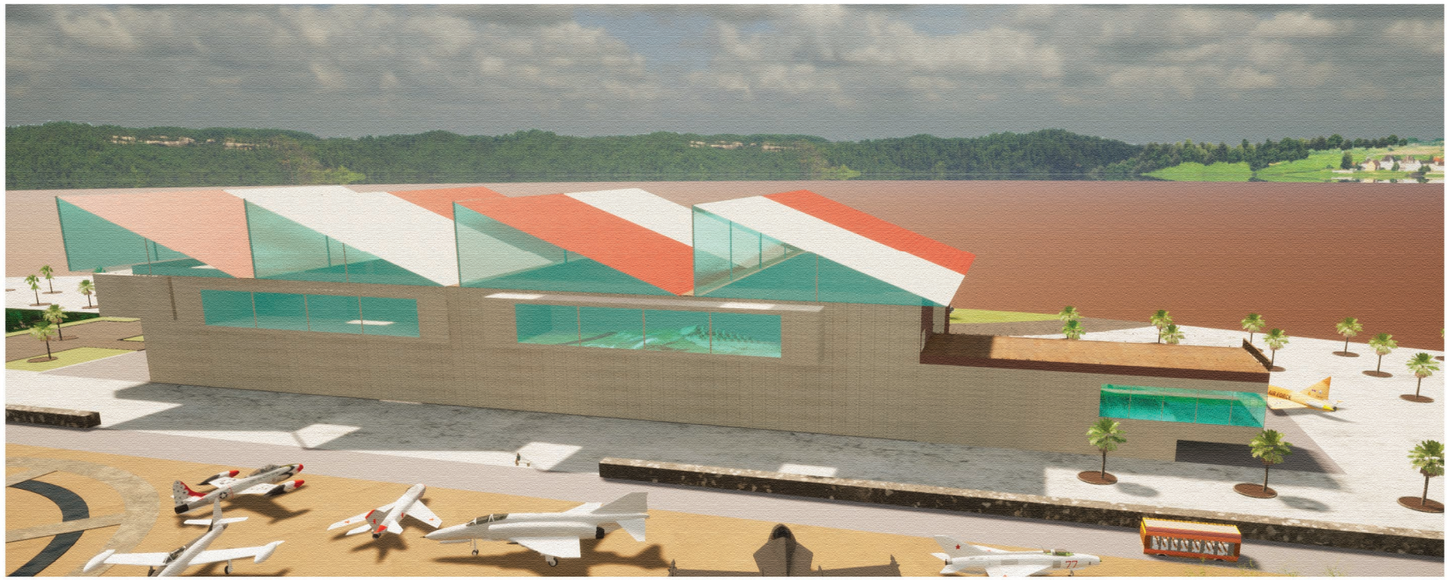


1″= 15′





march field air force **museum terminal**



TERMINAL FROM EAST SIDE



HAP ARNOLD GALLERY



TERMINAL ENTRANCE, GALLERY ROOM AND VIEWING DECK



BRANDING SIGNAGE ON MUSEUM AND STREET SIGNAGE

THANK YOU



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