SPECIAL DISTRICTS APPLICATION FORM

Special Districts Review Process Overview*:* A project may be subject to various reviews and criteria depending on the scope of work, location and relevant sections of the Unified Development Code (UDC). Please note that your projects may not be subject to review by all review authorities used in the table below. The Special Districts review processes at Planning and Development Services Department (PDSD) include:

Review Process	Review Authorities	PDSD Planning Contact
Rio Nuevo Area [UDC Section 5.12.7]	1. Tucson-Pima County Historical Commission Plans Review Subcommittee (PRS) 2. Design Review Board (DRB)	María Gayosso – (520) 837-6972 Michael Taku – (520) 837-4963
Historic Preservation Zone (HPZ) [UDC Section 5.8]	1. Neighborhood Historic Advisory Board 2. Tucson-Pima County Historical Commission Plans Review Subcommittee (PRS)	Michael Taku – (520) 837-4963 Jodie Brown – (520) 837-6968
Infill Incentive District (IID) [UDC Section 5.12]	1. Design Professional 2. Neighborhood Historic Advisory Board 3. Tucson-Pima County Historical Commission Plans Review Subcommittee (PRS) 4. Design Review Committee (IID-DRC)	María Gayosso – (520) 837-6972 Nick Ross – (520) 837-4029 Koren Manning – (520) 837-4028
Main Gate District (MGD) Design [MGD Ordinance]	1. Neighborhood Historic Advisory Board 2. Tucson-Pima County Historical Commission Plans Review Subcommittee (PRS) 3. Main Gate District Design Review Committee (MGD-DRC)	María Gayosso – (520) 837-6972 Koren Manning – (520) 837-4028
Neighborhood Preservation Zone (NPZ) [UDC Section 5.10]	1. Design Professional	Nick Ross – (520) 837-4029 María Gayosso – (520) 837-6972
Grant Road Investment District (GRID) Urban Overlay [GRID Ordinance]	1. Design Review Board	María Gayosso – (520) 837-6972 Nick Ross – (520) 837-4029
Individual Parking Plan (IPP) [UDC Section 7.4.5.A]	1. Planning and Development Services, Tucson Department of Transportation, and other agencies as needed	Mark Castro – (520) 837-4979

INSTRUCTIONS:

1. Complete Application form and compile submittal requirements
2. Submit pdf of all materials to specialdistricts@tucsonaz.gov
3. Staff will schedule your pre-application meeting (if needed, typically required for major reviews)
4. At the pre-application meeting, staff will advise applicants on any additional UDC requirements to complete the application package to initiate the review process

SPECIAL DISTRICTS APPLICATION

Application Stage: ☐ Pre-application ☑ Application

Permit Activity Number_____ Case Number_____ Date Accepted: _____

PROPERTY LOCATION AND PROPOSED DEVELOPMENT

Project / Development Name (if applicable): Sosa Carillo House

Property Address: 151 S Granada Ave

Pima County Tax Parcel Number/s: 117200280

Current Zoning: PAD-5

Applicable Overlay/ Special Districts:
- ☐ Infill Incentive District
- ☑ Rio Nuevo Area
- ☐ Main Gate Overlay District
- ☐ Grant Road Overlay District
- ☐ Neighborhood Preservation Zone
- ☐ Historic Preservation Zone

Neighborhood Association (if any):

PROJECT TYPE (check all that apply):
- ☐ New building on vacant land
- ☐ Change of use to existing building
- ☐ New building on developed land
- ☐ New addition to existing building
- ☑ Other Restoration of existing bldg

Description of Proposed Use: museum / gallery

Number of Buildings and Stories/Height of Proposed Structure(s): 1 building 1 story

Site Area (sq ft): 27,600 Area of Proposed Building (sq ft): 3,178

HISTORIC STATUS

Site is within a:
- ☐ Historic Preservation Zone Please List: _____
- ☑ National Register District Please List: Tucson Community Center Historic Landscape

Site is/includes:
- ☑ A contributing structure
- ☐ Non-contributing structure
- ☑ Is adjacent to a contributing structure
- ☐ Vacant

APPLICANT INFORMATION (The person processing the application and designated to receive notices):

APPLICANT NAME: Michael Becherer

ROLE: ☐ Property owner ☑ Architect ☐ Engineer ☐ Attorney ☐ Developer

Other: _____

EMAIL: mbecherer@swaimaia.com PHONE: 520-326-3700

ADDRESS: 7350 E Speedway Suite 210, Tucson AZ 85710

PROPERTY OWNER NAME(S) (If ownership in escrow, please note): Rio Nuevo Multipurpose Facilities Dis

PHONE: (520) 623-7336

I hereby certify that all information contained in this application is complete and true to the best of my knowledge.

SIGNATURE OF OWNER/APPLICANT* 10/10/24

*If an authorized representative is signing on behalf of the property owner, please provide a letter of authorization Date

SPECIAL DISTRICTS APPLICATION CHECKLIST REQUIREMENTS

PLEASE PROVIDE THE FOLLOWING MATERIALS IN THIS ORDER:

	1. **Application form** (signed by the Property Owner or Authorized Agent, include **letter of authorization** signed by property owner if needed).
	2. **Project statement** outlining project scope which describes how the project meets applicable design guidelines and outlines any requested modifications/exemptions
	3. Pima County assessor's record parcel detail and record map
	4. **Zoning review comments** issued by PDSD staff on development package or other submittal*
N/A	5. **Documentation of neighborhood meeting** to include invitation, affidavit of mailing, sign-in sheet, agenda/materials and meeting notes (if applicable)*
	6. Color **aerial photograph** of subject property
	7. Color, labeled **photographs of project site existing conditions** (north, south, east and west elevations of all structures on the property)
	8. Color, labeled **photographs of the surrounding area**
N/A	9. Color **photographs of precedent examples** in surrounding area, labeled with property addresses and keyed on the aerial photograph (if applicable)
	10. **Site plan** (landscape plan and floor plans if applicable) drawn to scale at 11"x17", prepared in accordance to Section 2-06.0.0, in the Administrative Manual
	11. **Elevations** (and contextual elevations if applicable) drawn to scale at 11"x17", with dimensions and proposed materials noted (if applicable) prepared in accordance to Section 2-06.0.0.
	12. **Shade study (**for projects within the Rio Nuevo Area)
	13. **Renderings** depicting various views from the street level and birds eye view (recommended for major projects)
	14. **Samples of proposed materials**, if applicable, to include cut sheets and/or photographs of the type, color and texture of the proposed materials.
	15. **Applicable fees** (confirm with PDSD staff)*
	IF HISTORIC REVIEW REQUIRED
	16. Aerial photograph depicting the property's **Development Zone**. All building footprints within the development zone must be shown and labeled to indicate contributing/non-contributing status.
	17. Arizona Historic Property Inventory form (if available)
	IF REQUESTING INDIVIDUAL PARKING PLAN
	18. Parking narrative addressing items listed in UDC 7.4.5.A.4, sealed by a design professional licensed by the State of Arizona.

*Required for final application only

Refer to Supplemental Information for additional instructions for these items. Additional application materials may be required based on scope of project.

Submitting your Application: Once you have completed the Application Form and compiled the Submittal Requirements, submit a pdf of all materials to specialdistricts@tucsonaz.gov. For the final application, two hard copies of the application are also required. Please note, additional hard copies may be required by review bodies.

All Historic Zones – Resource Checklist for Applicants and Review Boards

UDC 5.8 Historic Preservation Zones

HPZ Case No.: SD-1024-00104 *Site Address:* 151 S. GRANADA AVE

Development Zone	☐	Development zone properly defined DEVELOPMENT ZONE IS TCC
Height UDC 5.8.9.B	☐	New additions no higher than tallest contributor in development zone
	☐	Generally conforms to typical height within development zone NO NEW ADDITIONS
Setbacks UDC 5.8.9.C	☐	Maintains prevailing street and interior perimeter yard setbacks within its development zone NO STREET OR PERIMETER YARD
Site Utilization UDC 5.8.9.G	☐	Consistent with site utilization (spacing between buildings) of contributors within the development zone NO NEW BUILDINGS
Building Form UDC 5.8.9.J	☐	Size, scale and mass of additions compatible with existing structure and with contributors in development zone NO ADDITIONS
Rhythm UDC 5.8.9.K	☐	Proportion, patterns and rhythm of openings, additions, compatible with those of existing structure and those of contributors within development zone NO NEW ADDITIONS
Color UDC 5.8.9.L.1	☐	Appropriate to architectural style of structure and historic period (May only be considered as part of a required HPZ review) NO CHANGES TO EXISTING SMET.
Landscaping UDC 5.8.9.L.2	☐	Plantings and ornamental features reflect historic period of subject structure (May only be considered as part of a required HPZ review) Positive Courtesy Review HLS
Enclosures UDC 5.8.9.L.3	☑	Fences, walls, or other physical features compatible with architectural style of subject structure and contributing properties within the development zone
Utilities UDC 5.8.9.L.4	☐	New aboveground power and telephone lines and utility connections are appropriate. NO NEW UTILITIES
Motor Vehicle & Parking Areas UDC 5.8.9.N	☐	Off-site parking spaces for uses within HPZ not more than 600 feet away
	☐	New and modified vehicular use areas landscaped and screened using compatible structural and plant materials NO CHANGES TO PARKING
Signs UDC 5.8.9.M	☐	Meets requirements (refer to Sign Code) NO NEW SIGNS

	Contributing Property Modifications	**New Construction or Non-Contributing Property Modifications**
General UDC 5.8.9.A	☑ Changes reflect architectural style and characteristics of existing structure. (Renovation to earlier historic style of property is acceptable). ☑ Changes conform to design standards of contributing properties within development zone -NONE	☐ Reflects architectural style of, and is compatible with contributing properties within development zone. (New construction is not to be mistaken for an original historic building).
Proportion UDC 5.8.9.D	☑ Changes are consistent with proportions of existing structure and with prevailing proportions of contributing properties within development zone	☐ Reflects prevailing proportions of contributing properties in development zone
Roof Types UDC 5.8.9.E	☐ Changes have a roof compatible in configuration, mass, and materials to that of the style of the existing structure NO ROOF CHANGES	☐ Roof compatible in configuration, mass, and materials to the prevailing style and period of existing structures within the development zone.
Surface Texture UDC 5.8.9.F	☐ Appropriate to historical style of existing structure. EXISTING TEXTURE TO BE RESTORED	☐ Appropriate to the historic style of similar structures within the development zone and reflects historic periods existing within HPZ
Projections and Recessions UDC 5.8.9.H	☐ Appropriate to the style of the existing structure NO NEW PROJECTIONS	☐ Compatible with existing historic styles in the development zone and reflecting historic periods of HPZ
Details UDC 5.8.9.I	☐ Appropriate to the style of the existing structure RESTORATION OF EXISTING Decbus	☐ Compatible with existing historic styles in the development zone and reflecting historic periods of HPZ

This checklist is a guide for individual use only, to assist you in gathering the necessary documentation, but is not part of the application. Once all documentation is submitted to PDSD the application is subject to a review for completeness, and PDSD staff may require additional documentation. Rev 7/2/18

All Historic Zones – Resource Checklist for Applicants and Review Boards

TSM 9-02.7.1 Specific Historic Preservation Zone Guidelines (General)

☑ A. Exterior alterations and changes are minimal;

☑ B. Alterations are compatible with the structure's original design;

☐ C. New construction is compatible with surrounding properties, in terms of materials and architectural style and character; N/A STRUCTURE IS ISOLATED ON THE TCC CAMPUS NO OTHER STRUCTURES ARE ADJACENT

☑ D. Alterations or renovations visible from the street are minimal;

☑ E. Alterations or changes to original roof form, building materials, and details (character-defining features) are minimal; NONE

☑ F. All construction materials are appropriate to the building and to the neighborhood;

☑ G. The size, shape, and materials of window and door openings are maintained; and, IN ORIGONAL STRUCTURE

☑ H. Any historical and distinctive architectural details are to remain. ALL HISTORIC DETAILS TO BE RESTORED

REVISED SECRETARY OF INTERIOR STANDARDS FOR REHABILITATION OF HISTORIC BUILDINGS

☑ Property to be used as it was historically or given new use that requires minimal change to distinctive materials, features, spaces, and spatial relationships COMMUNITY USE - NO CHANGE to STRUCTURE

☑ Historic character to be retained and preserved. Removal of distinctive materials is to be avoided. RESTORATION OF ORIGONAL MATERIAL

☑ Building is a physical record of its time, place and use. No conjectural features or "false sense of history"

☑ Retain any alterations that have acquired historical significance in their own right

☑ Distinctive materials, features, finishes and, construction techniques or examples of craftsmanship preserved ORIGINAL DETAILS TO BE RESTORED

☑ Repair options fully explored before replacement is considered; where replacement is the only option, the new features will match the old. Replacement of missing features substantiated by documentary and physical evidence.

☑ No chemical or physical treatments that would cause damage to historic materials

☑ If there are any known archaeological resources, they are to be preserved in place or mitigated MONITORING IN PLACE DURING CONSTRUCTION

☑ New additions/exterior alterations may not destroy historic materials, features, and spatial relationships that characterize the property. New work must be differentiated from the old

☑ New additions, if removed in the future, would leave the essential form and integrity of the property and its environment unimpaired NO NEW ADDITIONS

Notes:

THIS IS THE RESTORATION OF THE ORIGIONAL SO SA CORRILLO house - Adobe walls, ROOF Parapet, & DOORS / WINDOWS w/ RENOVATION OF THE 1970's ADDITION FOR ACCESSIBILITY

See ATTACHED LOG APPROVAL Letter FROM SHPO

United States Department of the Interior

NATIONAL PARK SERVICE
INTERIOR REGIONS 6, 7 & 8
1 Denver Federal Center, Building 50
Denver, CO 80225

IN REPLY REFER TO:
IMDE-NHA

October 7, 2024

Kathryn Leonard
State Historic Preservation Officer
Arizona State Parks
1110 W. Washington Street, Suite 100
Phoenix, AZ 85007

Subject: Section 106 Consultation- Submission of Plans/Specification Documents, Sosa-Carrillo-Fremont House Rehabilitation & Landscaping Project, Tucson, Pima County, Arizona (Property #71000116)

Dear Ms. Leonard,

The Santa Cruz Valley National Heritage Area funded a subgrant to Los Descendientes de Tucson (LDT) to landscape and rehabilitate a portion of the historic Sosa-Carrillo-Fremont House located in Tucson, Pima County. The Santa Cruz Valley National Heritage Area (SCVNHA) subgrant program is federally funded by the National Park Service (NPS).

The Sosa-Carrillo Fremont house, colloquially called the Sosa-Carrillo House, is an adobe row house completed ca. 1878 and listed on the National Register in 1971. Its period of significance is listed as 1880, representing the estimated time the house was completed. The property was initially owned by the Sosa/Sozas, before being sold to the Carrillo family. The listing includes the additional year 1858 due to a structure listed on the Fergusson Map of 1962. The Carrillos lived in the house while also using it as a rental space. In 1964, the house became the topic of the Tucson Heritage Foundation, who wished to save the building due to its connection to John C Fremont. It is unknown whether he lived in the house or not, his daughter did rent the residence for a short period of up to 6 months in the 1880s. The Carrillo family continued to occupy the house into the 1960's, converting it into 4 apartments where 4 of the cousins resided with their immediate families.

The amended National Register Nomination from 1993 stated the City of Tucson "acquired" the title from Leticia Carrillo Jacobs de Fuentes. In actuality, the house was taken through eminent domain during Tucson's 1968 Urban Renewal. The Tucson City Council sold the property to the Historical Society in 1970 to complete a significant remodeling of the house and property in 1971, which significantly altered the look of the house.

Project funding will complete landscaping of the front and backyard, remediation of lingering drainage issues threatening the building, and install interpretive signage. The project will also restucco the façade of the building, repair and remediate lead paint among windows and doors,

rehabilitate the rear non-historic portion of the building to better comply with ADA updates, replace the roof, and replace the concrete driveway and sidewalk on the south side of the property.

Included in this letter is the development package, which includes renderings from Swaim Associates (Architect), Arc Studios (Landscape Architect), and Grenier Engineering Inc. The general contractor includes Sundt Construction and adobe specialists from Means Design and Building Corp.

The project's development package was reviewed by an NPS historical architect, and we determined that the designs included follow the Secretary of Interior's Standards with the condition that the LDT will adhere to local Historical Commission regulations, and utilize Preservation Briefs 5 (The Preservation of Historic Adobe Buildings), 9 (The Repair of Historic Wooden Windows), 10 (Exterior Paint Problems on Historic Woodwork), 22 (The Preservation and Repair of Historic Stucco), and 32 (Making Historic Properties Accessible) in their design and execution of proposed scope items. The LDT is consulting with the Tucson Pima County Historical Commission on this project, who have completed an initial courtesy review of the project in April 2024 and will conduct a more formal review in October 2024.

The Area of Potential Effect (APE) includes the property boundary located on 151 South Granada, including any necessary staging areas in the front yard of the property.

The National Park Service has determined the level of effect that applies to this project as "No Adverse Effect." We have attached the development package, existing condition and historic photos, additional notes on alterations and roof replacement, and request your review on the attached documentation per Section 106 of the National Historic Preservation Act.

Please contact Lesley Kontowicz, SCVNHA Executive Director, at 520-906-2356 or Lesley@santacruzheritage.org, if you have any questions or comments on the project. If you have questions regarding the determination of effect, please contact me at 303-969-2846 or Alexandra_Hernandez@nps.gov.

Sincerely,

Alexandra Hernandez

Alexandra "Alex" Hernandez
Regional Program Manager
National Heritage Areas Program

Concur : No Adverse Effect
Susan Lawson
Susan Lawson, Architect 11/4/24
State Historic Preservation Office

cc: Lesley Kontowicz, Executive Director, Santa Cruz Valley NHA

Enclosures:

- Development Package
- Existing Condition Site Photos & Historic Photos
- Additional Notes on Roof Replacement and Property History

swaim
ASSOCIATES LTD
ARCHITECTS AIA

CDRC – Project Statement

Project: Tucson Convention Center
Sosa Carillo House
260 S Church Ave

Project Description:

A. The proposed project is to restore and renovate the existing Sosa Carrillo House property at the Tucson Convention Center Campus. The scope will include providing increased universal accessibility, rectify code/life safety deficiencies, restore the adobe structure, , and renovate the grounds to support additional programs and enrichment activities. The existing building will be fully restored on the exterior including the doors, windows, roof and adobe. Restrooms dating from the 1970's will be fully renovated and the existing breakroom will be brought into full code compliance.

B. Existing Zoning:
    a. PAD-5 (Attached)

C. Address/Parcel # - 265 S Granada Ave, parcel #11720029B

D. Last approved used – Historic Home/Museum

E. Height: +/- 18' to existing parapet of adobe structure

F. Tucson Convention Center Arena height - +/- 37'-0"

City of Tucson UDC – RNA Building Design Standards – UDC 5.12.7:

Development within the RNA is required to comply with the following building design standards.

1. The proposed buildings shall respect the scale of those buildings located in the development zone and serve as an orderly transition to a different scale pursuant to the Transition Standards in Section 5.12.8.B. Building heights with a vastly different scale than those on adjacent properties should have a transition in scale to reduce and mitigate potential impacts. In areas undergoing change, long-range plans should be consulted for guidance as to appropriate heights. No additional structures are planned for the site, landscape and site walls are proposed in the west lawn to provide educational and enrichment activities around the history of the TCC Site.

7350 E SPEEDWAY 210
TUCSON, ARIZONA 85710
(520) 326-3700 FAX 326-1148

2. All new construction must be consistent with the prevailing setback existing within its development zone except that the PDSD Director may approve a different setback than the prevailing setback upon a finding that a different setback is warranted by site conditions or applicable development design goals consistent with Section 5.12.1, Purpose, and the proposed setback will not be incompatible with adjacent properties, as defined in Section 11.4.2.A. N/A - No additional structures are proposed

3. All new construction shall provide scale-defining architectural elements or details at the first two floor levels, such as windows, spandrels, awnings, porticos, cornices, pilasters, columns, and balconies. The overall TCC campus, including the hotel development provide similar detailing. N/A - No additional structures are proposed

4. Every commercial building frontage shall provide windows, window displays, or visible activity within and adjacent to the building at the ground floor level, with a minimum of 50 percent of the building frontage providing such features. N/A - No additional structures are proposed

5. A single plane of a façade at the street level may not be longer than 50 feet without architectural relief or articulation by features such as windows, trellises, and arcades. N/A - No additional structures are proposed

6. Building façade design shall include pedestrian-scaled, down-shielded, and glare-controlled exterior building and window lighting. N/A - No additional structures are proposed

7. The front doors of all commercial and government buildings shall be visible from the street and visually highlighted by graphics, lighting, marquees, or canopies. N/A – no changes are proposed for the location of the existing front entrance to the building

8. Modifications to the exterior of historic buildings shall complement the overall historic context of the Downtown and respect the architectural integrity of the historic façade. Building modifications are in compliance with the US Secretary of the Interior Standards for Historic Preservation

9. Buildings shall be designed to shield adjacent buildings and public rights-of way from reflected heat and glare. N/A - No additional structures are proposed

10. Safe and adequate vehicular parking areas designed to minimize conflicts with pedestrians and bicycles shall be provided. N/A - No modifications are proposed for the existing TCC parking areas

11. Adequate shade shall be provided for sidewalks and pedestrian pathways, using shade structures or vegetation, where permitted by the City of Tucson. New site features and landscape is proposed that would shade 50% of the site area, see attached shade study.

12. Colors may conform to the overall color palette and context of the Downtown area, or may be used expressively to create visual interest, variety, and street rhythms. The rationale for an expressive or idiosyncratic use of color shall be described in the site plan submittal. Existing structures will be restored to their correct materials and colors. The Forms and colors of new features are intended to be compatible with the historic home and the TCC campus. See attached material palette.

13. New buildings shall use materials, patterns, and elements that relate to the traditional context of the Downtown area. Existing structures will be restored to their correct materials and colors. The Forms and colors of new features are intended to be compatible with the historic home and the TCC campus. See attached material palette.

14. Twenty-four-hour, street-level activity is encouraged by providing a mixture of retail, office, and residential uses within each building. N/A - No additional structures are proposed

15. Primary public entries shall be directly accessed from a sidewalk along a street rather than from a parking lot. Public access to commercial and governmental buildings shall be provided at sidewalk grade. The primary floor of, and access to, residential structures may be elevated. Secondary access may be provided from off-street parking areas. N/A – no changes are proposed for the location of the existing front entrance to the building

Site Design Standards:

1. Vehicular Circulation
    a. All parking area access lanes (PAALs) adjacent to buildings shall have pedestrian circulation paths between the PAAL and the building, with a minimum width of six feet. Complies
    b. The locations of all points of vehicular ingress and egress shall be perpendicular to the intersecting street. Points of ingress and egress points shall be designed to minimize vehicular/pedestrian and vehicular/bicycle conflicts. Adequate storage for vehicular queuing at parking facilities shall be

contained on site. Right turn bays are strongly discouraged. Points of ingress and egress shall be minimized wherever possible. Additional temporary ingress and egress locations may be permitted for parking structures when occasional high peak period traffic flows (i.e., parking facilities for event venues) are anticipated. Complies

2. Parking

a. General Parking standards are listed in the Section 7.4. Some properties in the RNA may also be located in the Downtown Parking District, which allows a reduction in the number of parking spaces as provided in Section 7.4.5.B. Parking requirements are addressed in PAD-5 and the proposed development is in compliance

b. Screening of Parking All new parking shall be designed so that vehicles are not visible from the adjoining street level, through incorporation of pedestrian arcades, occupied space, or display space. No new parking is proposed as part of the project

c. Employee Parking Employee parking for all uses should be provided at remote locations in order to maximize the availability of space for development. No new parking is proposed as part of the project

3. Plazas and Open Space The fundamental objective of the design standards in this Section 5.12.7.D.3 is to encourage public and private investments to enhance the character and function of Downtown's pedestrian environment.

a. Plazas and Pedestrian Nodes: Five percent of the gross floor area of new construction shall be provided in public plazas or courtyards. Plazas, courtyards, and patios are landscaped outdoor areas designed to accommodate multiple uses, from large gatherings of people for performing arts to smaller gatherings. The plazas and courtyards will be one of the ways that spaces and uses can be linked. The requirement of this section may be waived or reduced by the PDSD Director upon a finding that the development enhances the downtown pedestrian environment without or with a smaller percentage requirement. N/A - No additional structures are proposed

b. Viewshed Corridors: Views of all historic properties and all natural elements surrounding the Downtown should be considered during design. Plazas, courtyards, and open spaces shall be sited to include views to other public spaces, where feasible. Complies

c. Linkages (Physical and Visual) Neighborhood linkages shall be maintained throughout Downtown. Complies

4. Streetscape

a. Streetscapes must be consistent with the Streetscape Design Manual. In streetscape design, priority is given to pedestrians. N/A - Property has no street frontage, it is fully within the TCC property

b. Shade shall be provided for at least 50 percent of all sidewalks and pedestrian pathways as measured at 12:00 p.m. on June 21 when the sun is 80° above the horizo. Shade may be provided by arcades, canopies, or shade structures, provided they and their location and design characteristics are compatible with the historic and design context of the street and the architectural integrity of the building. Deciduous trees, as proposed in the Downtown Comprehensive Street Tree Plan, are encouraged to supplement existing evergreen trees. The use of plantings and shade structures in the City right-of-way are permitted to meet this standard with the approval of the Department of Transportation. The shade provided by a building may serve to meet this standard. See attached shade study and description of alternate compliance.

Demolition of Historic Structures In the RNA, demolition of the following types of structures is reviewed in accordance with Section 5.8.10, Demolition of Historic Properties, Landmarks, and Structures. Building is a listed structure, demolition is limited to restoration of the existing adobe structure, and modification of the East addition from the mid 1970's, all modifications are in compliance with US Secretary of the Interior Standards for Historic Preservation

5.

a. Structures that are listed in the National Register of Historic Places or the Arizona Register of Historic Places.

b. Structures that are eligible for listing in the National or State registers.

c. Structures designated as City Historic Landmarks.

Michael Becherer, AIA
Swaim Associates LTD Architects AIA
(520) 326-3700
mbecherer@swaimaia.com

ASSESSOR'S RECORD MAP

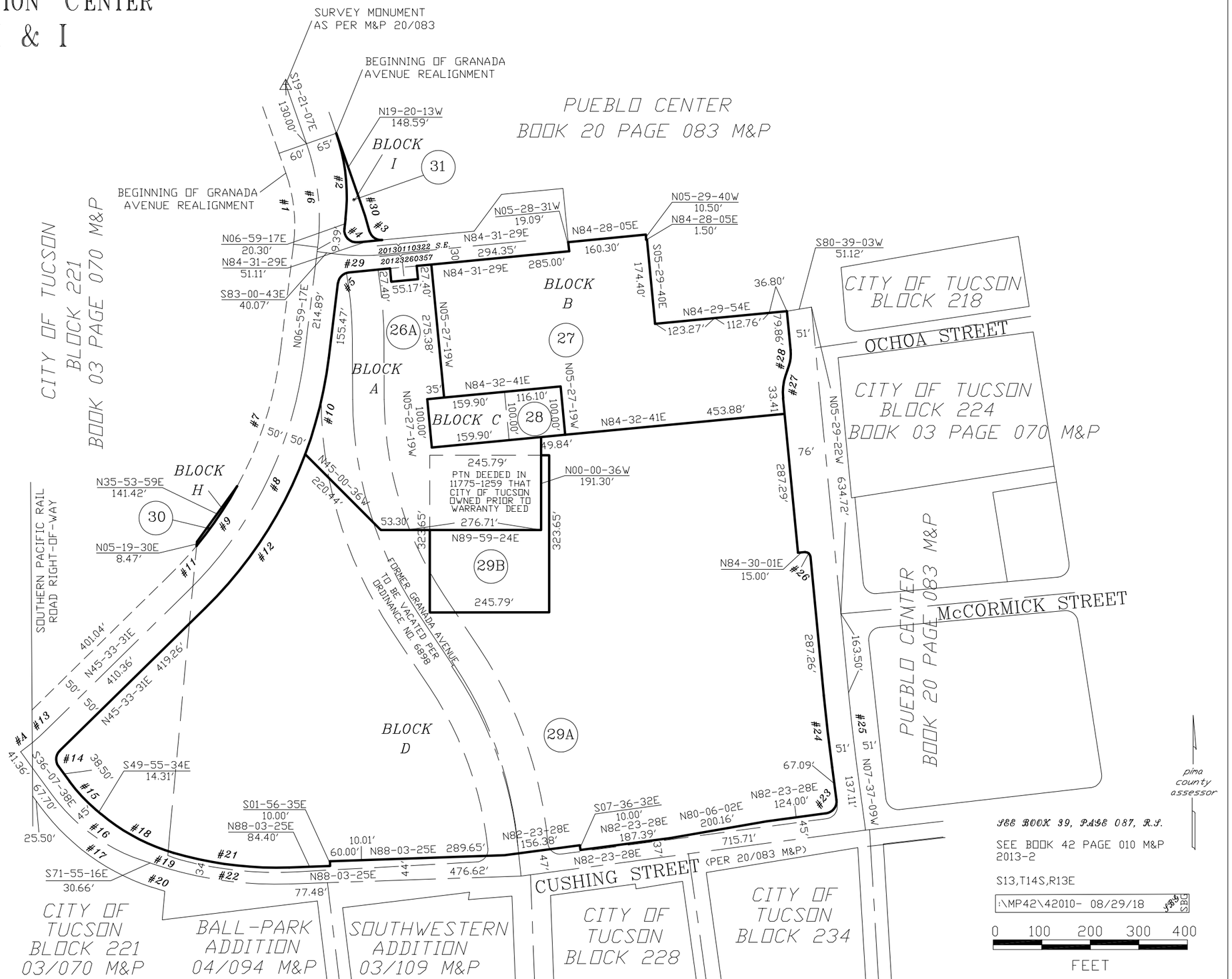
117-20

TUCSON CONVENTION CENTER
BLOCKS A-D, H & I

(RESUB 20/083 M&P)

CURVE TABLE

NO.	R	△	L
1	323.57′	26-19-29	148.67′
2	390.36′	26-19-29	179.52′
3	25.00′	80-23-53	35.08′
4	25.00′	102-27-48	44.71′
5	25.00′	77-32-12	33.83′
6	470.00′	26-19-29	215.94′
7	770.00′	21-42-30	291.74′
8	820.00′	38-34-14	552.01′
9	770.00′	11-05-15	149.01′
10	870.00′	13-29-36	204.89′
11	770.00′	05-46-29	77.61′
12	870.00′	25-04-38	380.78′
13	470.00′	04-35-36	37.68′
14	25.00′	81-41-09	35.64′
15	332.59′	13-47-56	80.10′
16	377.59′	35-47-38	235.89′
17	464.00′	35-47-38	289.87′
18	407.85′	23-45-30	169.12
19	792.36′	01-29-40	20.67′
20	834.13′	02-06-48	30.77′
21	758.36′	18-15-31	241.67′
22	792.36′	18-31-39	256.22′
23	25.00′	90-00-37	39.27′
24	4027.33′	02-07-47	149.70′
25	3976.33′	02-07-47	147.80′
26	10.00′	90-00-38	15.71′
27	115.00′	28-57-18	58.12′
28	85.00′	28-57-18	42.96′
29	448.22′	12-27-48	97.50′
30	864.23′	04-15-34	64.25′
A	470.00′	03-43-15	30.52′

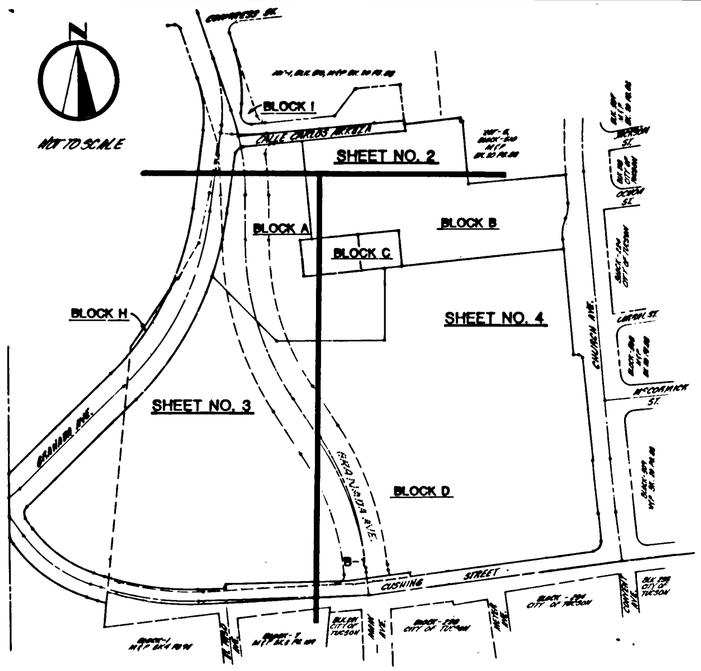


TUCSON CONVENTION CENTER
BLOCKS A,B,C,D,H & I

MP 42010

RECORDED: MARCH 14, 1988

THE FOLLOWING PLAT IS AN ANNOTATED VERSION OF THE ORIGINAL DOCUMENT. IT HAS BEEN ALTERED BY PIMA COUNTY DEVELOPMENT SERVICES TO SHOW ADDITIONAL INFORMATION. ORIGINAL COPIES MAY BE OBTAINED FROM THE PIMA COUNTY RECORDER

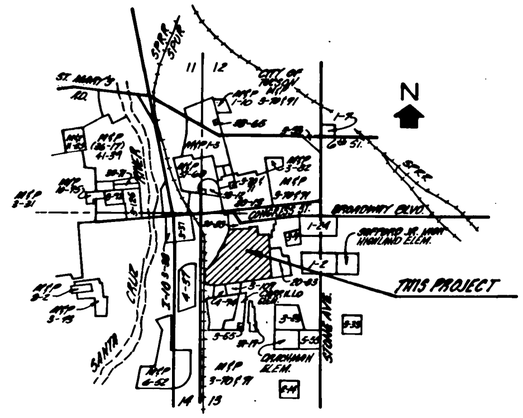


SHEET INDEX

NOT TO SCALE

GENERAL NOTES

1. THE GROSS AREA OF THIS SUBDIVISION IS 38.36 ACRES.
2. THE TOTAL NUMBER OF BLOCKS IS 6.
3. TOTAL MILES OF NEW PUBLIC STREETS ARE 0.4.
4. PRIOR TO THE ISSUANCE OF ANY PERMITS, AN APPROVED DEVELOPMENT PLAN IS REQUIRED FOR BLOCKS A, B, C, & D.
5. THE NORTH LINES OF BLOCKS A AND B AND THE EAST LINES OF BLOCKS B AND D OF THIS PLAT AND THE NORTH AND EAST LINES OF BLOCK 510 OF THE PUEBLO CENTER REDEVELOPMENT PROJECT ARE IDENTICAL. THE DIFFERENCES IN BEARINGS AND DISTANCES ARE DUE TO THE USE OF MEASURED DISTANCES BETWEEN FOUND POINTS.
6. THAT PART OF THIS PLAT LYING WEST OF THE WEST LINE OF BLOCK 511 OF THE PUEBLO CENTER REDEVELOPMENT PROJECT IS SUBJECT TO THOSE RESTRICTIONS SET FORTH IN DOCKET 5661 AT PAGE 1084 AND DOCKET 5954 AT PAGE 616.
7. THIS PLAT IS SUBJECT TO THE CONDITIONS OF THE TUCSON COMMUNITY CENTER SPECIFIC PLAN.
8. ALL NEW EASEMENTS ARE UTILITY EASEMENTS UNLESS OTHERWISE NOTED.
9. ALL EXISTING EASEMENTS ARE UTILITY EASEMENTS UNLESS OTHERWISE NOTED.
10. ANY PRIVATE EASEMENTS WILL BE PROVIDED BY SEPARATE INSTRUMENT AS PART OF DEVELOPMENT IMPROVEMENTS.
11. ALL EASEMENTS LABELLED AS T.E.P. EASEMENTS ARE GRANTED TO TUCSON ELECTRIC POWER COMPANY BY THIS PLAT.



LOCATION PLAN

PORTIONS OF SECTIONS 11, 12, 13 & 14, T-14-S R-13-E, G&SRB&M, PIMA COUNTY, ARIZONA (SCALE: 3"=1 MILE)

ANNOTATED COPY

LEGEND

- EXISTING POINTS REPRESENTING P.C., E.C., P.T. AND P.R.C.
- SET 1/2" IRON PIN AT ALL P.C., E.C., P.T. AND P.R.C. UNLESS OTHERWISE NOTED
- △ EXISTING SURVEY MONUMENT
- ▲ NEW SURVEY MONUMENT SET AND STAMPED L.S. 8024 OR L.S.19316
- EXISTING PROPERTY LINE TO REMAIN
- EXISTING PROPERTY LINE TO BE ABANDONED
- NEW PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING UTILITY EASEMENT, UNLESS NOTED OTHERWISE
- NEW EASEMENT DEDICATED BY THIS PLAT

ASSURANCES

THIS IS TO CERTIFY THAT THE COMPLETION OF ALL IMPROVEMENTS SUCH AS STREETS, SIDEWALKS, SEWERS, WATER AND UTILITY INSTALLATION, DRAINAGE AND FLOOD CONTROL FACILITIES AND AND MONUMENTS REQUIRED BY THE CITY OF TUCSON HAVE BEEN COMPLETED OR THE FUTURE COMPLETION OF SUCH IMPROVEMENTS HAS BEEN SECURED BY THE POSTING OF PERFORMANCE BONDS, ASSURANCES, OR OTHER SECURITY AS THE CITY OF TUCSON DEEMS NECESSARY.

CITY OF TUCSON, ENGINEER — DATE 3/1/88

CITY OF TUCSON, PLANNING DIRECTOR — DATE 3/1/88

DEDICATION

WE, THE UNDERSIGNED, HEREBY WARRANT THAT WE ARE THE ONLY PARTIES HAVING ANY RECORD TITLE INTEREST IN THE LAND SHOWN ON THIS PLAT, AND WE CONSENT TO THE SUBDIVISION OF SAID LAND IN THE MANNER SHOWN HEREON.

WE HEREBY DEDICATE AND CONVEY TO THE PUBLIC FOREVER ALL RIGHTS-OF-WAY AS SHOWN HEREON, INCLUDING ALL STREETS, ROADS, AND, EASEMENTS.

WE HEREBY GRANT TO THE PUBLIC AND ALL UTILITY COMPANIES ALL EASEMENTS AS SHOWN HEREON FOR THE PURPOSE OF ACCESS, INSTALLATION AND MAINTENANCE OF SEWERS AND UTILITIES AND OTHER USES AS DESIGNATED BY THIS PLAT.

WE, THE UNDERSIGNED, DO HEREBY HOLD HARMLESS THE CITY OF TUCSON, ITS SUCCESSORS AND ASSIGNS, THEIR EMPLOYEES, OFFICERS AND AGENTS FROM ANY AND ALL CLAIMS FOR DAMAGES RELATED TO THE USE OF THE PROPERTY DEPICTED ON THIS PLAT NOW AND IN THE FUTURE BY REASONS OF FLOODING, FLOWAGE, EROSION, OR DAMAGE CAUSED BY WATER, WHETHER SURFACE FLOOD OR RAINFALL.

APPROVALS

I, DONALD L. De MENT, CLERK OF THE CITY OF TUCSON, HEREBY CERTIFY THAT THIS PLAT WAS APPROVED BY THE MAYOR AND COUNCIL OF THE CITY OF TUCSON, ARIZONA, ON THIS THE 7TH DAY OF MARCH, 1988.

CLERK, CITY OF TUCSON — DATE 3/7/88

CERTIFICATION OF SURVEY

I HEREBY CERTIFY THAT THE BOUNDARY SURVEY SHOWN ON THIS PLAT WAS PERFORMED UNDER MY DIRECTION AND THAT ALL EXISTING AND/OR PROPOSED SURVEY MONUMENTS SHOWN ARE CORRECTLY DESCRIBED. I FURTHER CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECTION.

F.A. ROLLINS
ARIZONA REGISTRATION NO. 8024

CITY OF TUCSON
MAP 1
ZONE

CITY OF TUCSON

BY: Thomas J. Volgy, Mayor — DATE: 3/7/88

STATE OF ARIZONA) SS. COUNTY OF PIMA)

ON THIS, THE 7TH DAY OF MARCH 1988, BEFORE ME THE UNDERSIGNED OFFICER, PERSONALLY APPEARED Thomas J. Volgy, Mayor of the City of Tucson, KNOWN TO ME TO BE THE PERSONS WHO SUBSCRIBED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THAT THEY EXECUTED THE SAME FOR AND ON BEHALF OF SAID PERSON/CORPORATION FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC

MY COMMISSION EXPIRES 4/21/91

TUCSON LOCAL DEVELOPEMENT CORP.

BY: President — DATE: 2/29/88

STATE OF ARIZONA) SS. COUNTY OF PIMA)

ON THIS, THE 29 DAY OF February 1988, BEFORE ME THE UNDERSIGNED OFFICER, PERSONALLY APPEARED BEN C. HILL, JR., KNOWN TO ME TO BE THE PERSONS WHO SUBSCRIBED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THAT THEY EXECUTED THE SAME FOR AND ON BEHALF OF SAID PERSON/CORPORATION FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

OFFICIAL SEAL M. MAGDALENA AMADO NOTARY PUBLIC My Commission Expires August 30, 1988

NOTARY PUBLIC

MY COMMISSION EXPIRES

ARIZONA HISTORICAL SOCIETY

BY: President — DATE: 2/29/88

STATE OF ARIZONA) SS. COUNTY OF PIMA)

ON THIS, THE 29 DAY OF February 1988, BEFORE ME THE UNDERSIGNED OFFICER, PERSONALLY APPEARED LAWRENCE J. FLEMING, KNOWN TO ME TO BE THE PERSONS WHO SUBSCRIBED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THAT THEY EXECUTED THE SAME FOR AND ON BEHALF OF SAID PERSON/CORPORATION FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

OFFICIAL SEAL M. MAGDALENA AMADO NOTARY PUBLIC My Commission Expires August 30, 1988

NOTARY PUBLIC

MY COMMISSION EXPIRES

TUCSON CONVENTION CENTER

BLOCKS A, B, C, D, H & I

BEING A RESUBDIVISION OF LOTS 2, 3 & 4 OF BLOCK 510 AND BLOCK 511 OF PUEBLO CENTER REDEVELOPMENT PROJECT AS RECORDED IN BOOK 20 AT PAGE 83 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA AND OF A PART OF BLOCK 221 OF THE CITY OF TUCSON AS RECORDED IN BOOK 3 AT PAGE 70 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA, ALL IN SECTION 13, T-14-S, R-13-E, G&SRB&M, PIMA COUNTY, ARIZONA.

blanton & co. ARCHITECTS ENGINEERS
P.O. BOX 1711 • TUCSON, ARIZONA 85702
TEL. 602-622-6733

OWNERS:

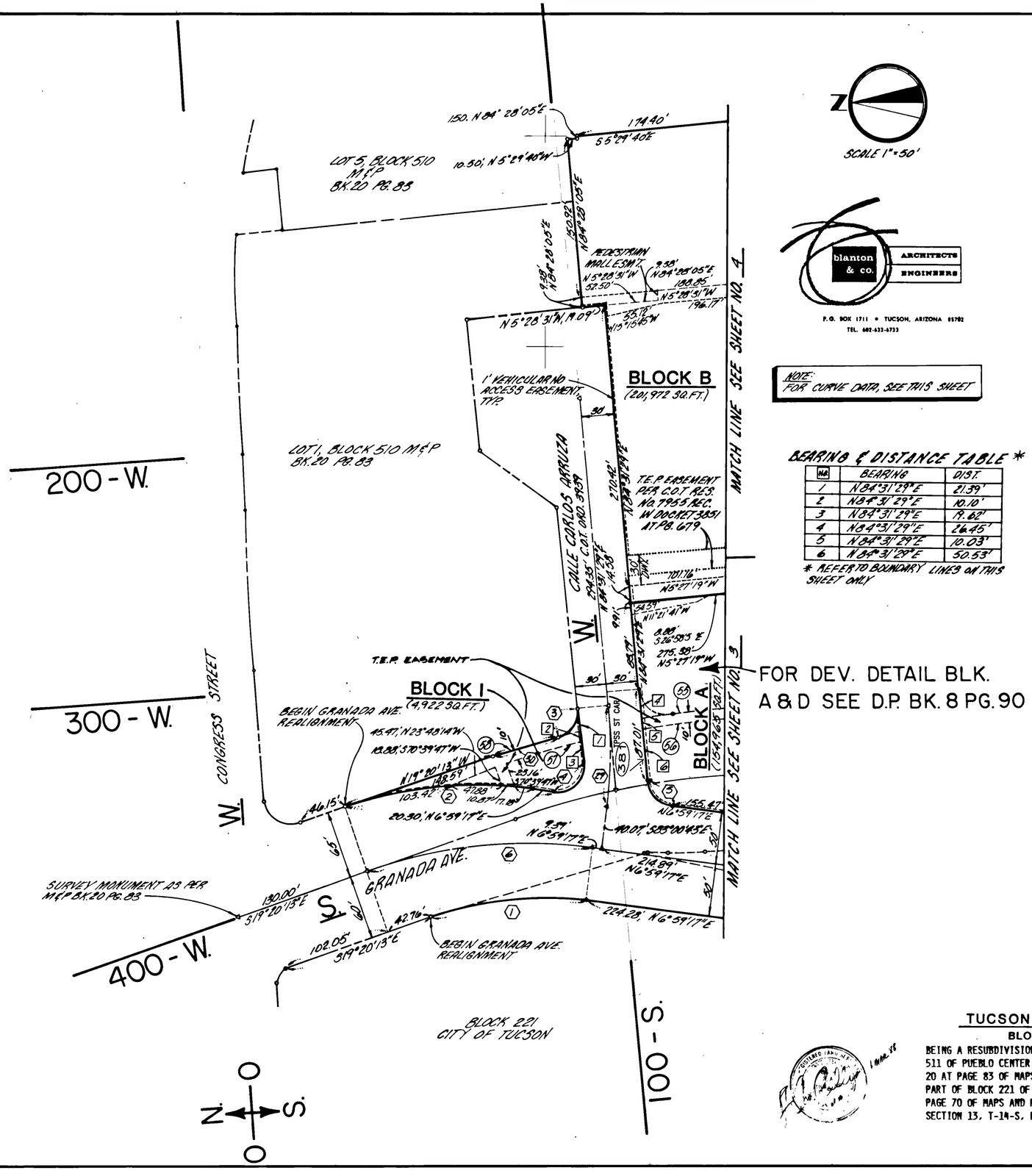
TUCSON LOCAL DEVELOPMENT CORPORATION OF TUCSON, ARIZONA, AN ARIZONA NON-PROFIT CORPORATION
310 W. ALAMEDA, TUCSON, ARIZONA 85701
TEL. 791-444

CITY OF TUCSON, A MUNICIPAL CORPORATION
P.O. BOX 27210, TUCSON, ARIZONA 85726
TEL. 791-5093

ARIZONA HISTORICAL SOCIETY, A SOCIETY OF THE STATE OF ARIZONA
949 E. 2ND ST., TUCSON, ARIZONA 85719
TEL. 628-5774

blanton & co. ARCHITECTS · ENGINEERS
P.O. BOX 1711 TUCSON, ARIZ. 85702 602-622-6733

CITY CASE NO. C12-87-09 JOB REF. NO. D-86-052



ANNOTATED COPY

SCALE 1"=50'

blanton & co. ARCHITECTS ENGINEERS

P.O. BOX 1711 • TUCSON, ARIZONA 85702

TEL. 602-623-6733

NOTE:
FOR CURVE DATA, SEE THIS SHEET

BEARING & DISTANCE TABLE *

NO.	BEARING	DIST.
1	N 84°31'29"E	21.39'
2	N 84°31'29"E	10.10'
3	N 84°31'29"E	19.62'
4	N 84°31'29"E	26.45'
5	N 84°31'29"E	10.03'
6	N 84°31'29"E	50.53'

* REFER TO BOUNDARY LINES ON THIS SHEET ONLY

⬡ CURVE DATA TABLE

CURVE NO.	ANGLE	RADIUS	LENGTH	TANGENT	CHORD
1	26°19'29"	323.57'	148.67'	75.67'	147.36'
2	26°19'29"	390.36'	179.52'	91.29'	177.78'
3	80°23'53"	25.00'	35.08'	21.13'	32.27'
4	102°27'48"	25.00'	44.71'	31.13'	38.98'
5	77°32'12"	25.00'	33.83'	20.08'	31.31'
6	26°19'29"	470.00'	215.94'	109.91'	214.05'
7	21°42'30"	770.00'	291.74'	147.64'	290.00'
8	38°34'14"	820.00'	552.01'	286.92'	541.65'
9	11°05'15"	770.00'	149.01'	74.74'	148.77'
10	13°29'36"	870.00'	204.89'	102.92'	204.41
11	5°46'29"	770.00'	77.61'	38.84'	77.57'
12	25°04'38"	870.00'	380.78'	193.49'	377.75'
13	4°35'36"	470.00'	37.68'	18.85'	37.67'
14	81°41'09"	25.00'	35.64'	21.61'	32.70'
15	13°47'56"	332.59'	80.10'	40.24'	79.91'
16	35°47'38"	377.59'	235.89'	121.94'	232.07'
17	35°47'38"	464.00'	289.87	149.84'	285.18'
18	23°45'30"	407.85'	169.12'	85.79'	167.91'
19	1°29'40"	792.36'	20.67'	10.33'	20.67'
20	2°06'48"	834.13'	30.77'	15.38'	30.76'
21	18°15'31"	758.36'	241.67'	121.87'	240.65'
22	18°31'39"	792.36'	256.22'	129.24'	255.11'
23	90°00'37"	25.00'	39.27'	25.00'	35.36'
24	2°07'47"	4027.33	149.70'	74.86'	149.69'
25	2°07'47"	3976.33	147.80'	73.91'	147.80'
26	90°00'38"	10.00'	15.71'	10.00'	14.14'
27	28°57'18"	115.00'	58.12'	29.69'	57.50'
28	28°57'18"	85.00'	42.96'	21.95'	42.50'
29	12°27'48"	448.22'	97.50'	48.94'	97.31'
30	4°15'34"	864.23'	64.25'	32.14'	64.24
A	3°43'15"	470.00'	30.52	15.27'	30.52'

○ ESM'T. CURVE DATA TABLE

CURVE NO.	ANGLE	RADIUS	LENGTH	TANGENT	CHORD
31	176°12'34"	21.50'	66.12'	649.72'	42.98'
32	23°56'38"	24.50'	10.24'	5.20'	10.16'
33	16°42'28"	34.50'	10.06'	5.07'	10.03'
34	174°30'38"	19.00'	57.87'	396.32	37.96'
35	84°05'46"	20.00'	29.36'	18.04'	26.79'
36	84°05'46"	30.00'	44.03'	27.06'	40.19'
37	22°35'32"	110.00'	43.37'	21.97'	43.09'
38	102°41'20"	129.00'	231.20'	161.27'	201.48'
39	139°15'52"	41.37'	100.55'	111.43'	77.57'
40	95°30'00"	37.00'	61.67'	40.73'	54.78'
41	33°36'08"	24.00'	14.08'	7.25'	13.87'
42	38°46'26"	34.00'	23.01'	11.97'	22.57'
43	90°00'00"	4.50'	7.07'	4.50'	6.36'
44	56°56'36"	22.00'	21.86'	11.93'	20.98'
45	14°17'15"	854.20'	213.01'	107.06'	212.46'
46	15°45'38"	864.20'	237.72'	119.61'	236.97'
47	11°33'43"	854.20'	172.37'	86.48'	172.08'
48	10°34'58"	864.20'	159.62'	80.04'	159.40'
49	20°18'31"	54.85'	19.44'	9.82'	19.34'
50	34°25'20"	44.85'	26.95'	13.89'	26.54'
51	28°14'30"	195.00'	96.12'	49.06'	95.15'
52	30°01'25"	205.00'	107.42'	54.98'	106.20'
53	18°14'56"	744.20'	237.03'	119.53'	236.03'
54	18°56'50"	734.20'	242.79'	122.52'	241.69'
55	19°05'53"	864.23'	288.07'	145.38'	286.74'
56	19°05'53"	854.23'	284.74'	143.70'	283.42'
57	5°33'39"	854.23'	82.91'	41.49'	82.87'
58	5°39'27"	864.23'	85.34'	42.70'	85.30'
59	0°00'48"	195.00'	0.05'	0.02'	0.05'
60	4°41'59"	854.20'	70.07'	35.05'	70.05'
61	4°18'04"	864.20'	64.87'	32.45'	64.86'
62	6°05'39"	734.20'	78.09'	39.08'	78.06'
63	5°20'06"	744.20'	69.30'	34.67'	69.27'

REGISTERED LAND SURVEYOR

1 MAR 88

TUCSON CONVENTION CENTER

BLOCKS A, B, C, D, H & I

BEING A RESUBDIVISION OF LOTS 2, 3 & 4 OF BLOCK 510 AND BLOCK 511 OF PUEBLO CENTER REDEVELOPMENT PROJECT AS RECORDED IN BOOK 20 AT PAGE 83 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA AND OF A PART OF BLOCK 221 OF THE CITY OF TUCSON AS RECORDED IN BOOK 3 AT PAGE 70 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA. ALL IN SECTION 13, T-14-S, R-13-E, G&SRB&M, PIMA COUNTY, ARIZONA.

blanton & co. ARCHITECTS · ENGINEERS
P.O. BOX 1711 TUCSON, ARIZ. 85702 602-622-6733

C 12-87-29 88-082

SHEET 2 OF 4 SHEETS

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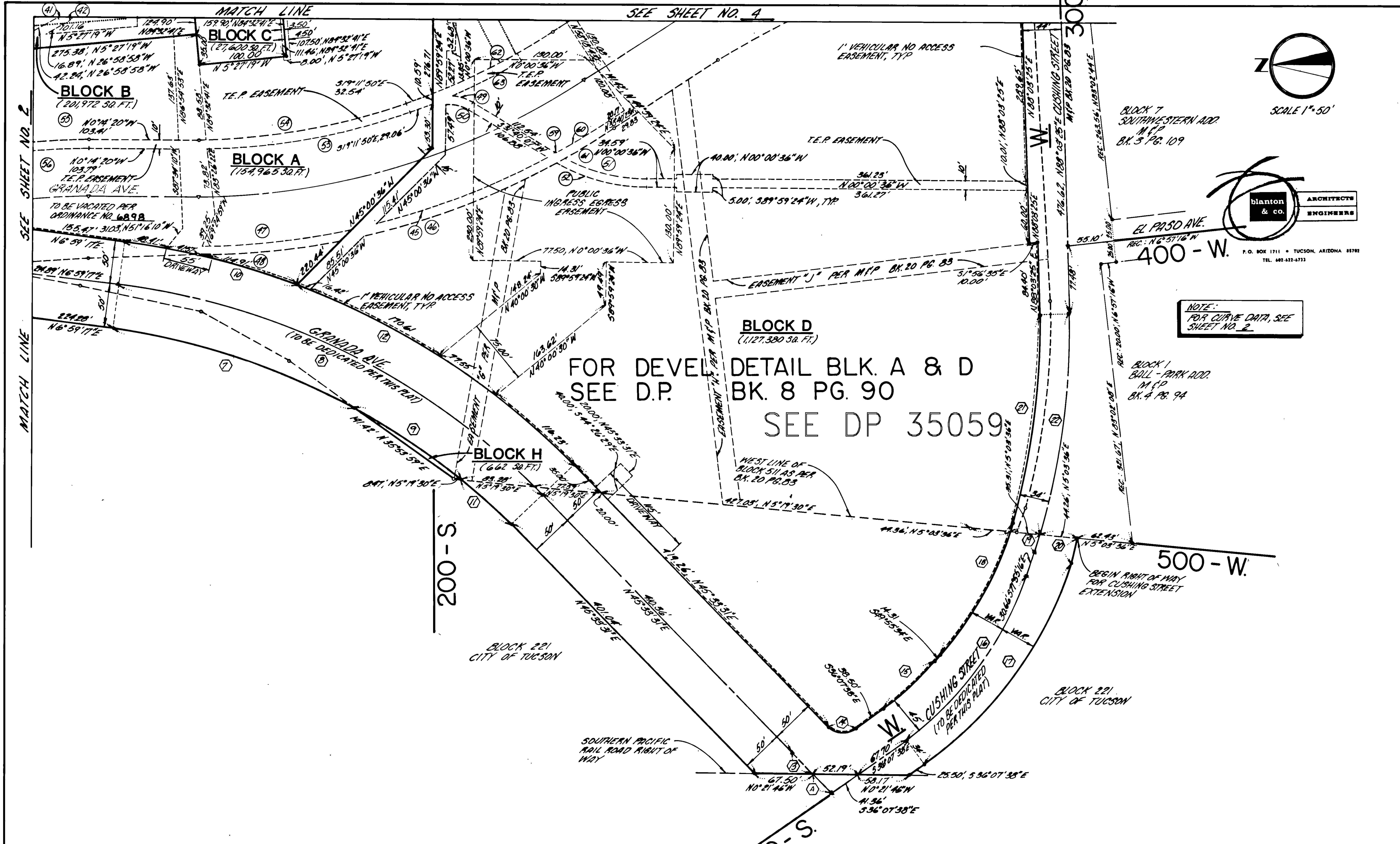
MATCH LINE
SEE SHEET NO. 4
SEE SHEET NO. 2
MATCH LINE
BLOCK A
(154,965 SQ.FT.)
BLOCK B
(201,972 SQ.FT.)
BLOCK C
(27,600 SQ.FT.)
BLOCK D
(1,127,380 SQ.FT.)
BLOCK H
(662 SQ.FT.)
GRANADA AVE.
TO BE VACATED PER ORDINANCE NO. 6898
GRANADA AVE.
(TO BE DEDICATED PER THIS PLAT)
CUSHING STREET
(TO BE DEDICATED PER THIS PLAT)
EL PASO AVE.
T.E.P. EASEMENT
PUBLIC INGRESS EGRESS EASEMENT
1' VEHICULAR NO ACCESS EASEMENT, TYP.
EASEMENT "J" PER M&P BK. 20 PG. 83
WEST LINE OF BLOCK 511 AS PER BK. 20 PG. 83
DRIVEWAY
FOR DEVEL DETAIL BLK. A & D
SEE D.P. BK. 8 PG. 90
SEE DP 35059
BLOCK 7
SOUTHWESTERN ADD.
M & P
BK. 3 PG. 109
BLOCK 1
BALL - PARK ADD.
M & P
BK. 4 PG. 94
NOTE: FOR CURVE DATA, SEE SHEET NO. 2
BLOCK 221
CITY OF TUCSON
BEGIN RIGHT OF WAY FOR CUSHING STREET EXTENSION
SOUTHERN PACIFIC RAIL ROAD RIGHT OF WAY
SCALE 1"=50'
400 - W.
500 - W.
200 - S.
300 - S.
300 -
blanton & co.
ARCHITECTS
ENGINEERS

TUCSON CONVENTION CENTER

BLOCKS A, B, C, D, H & I

BEING A RESUBDIVISION OF LOTS 2, 3 & 4 OF BLOCK 510 AND BLOCK 511 OF PUEBLO CENTER REDEVELOPMENT PROJECT AS RECORDED IN BOOK 20 AT PAGE 83 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA AND OF A PART OF BLOCK 221 OF THE CITY OF TUCSON AS RECORDED IN BOOK 3 AT PAGE 70 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA. ALL IN SECTION 13, T-14-S, R-13-E, G&SRB&M, PIMA COUNTY, ARIZONA.

C 12-87-29

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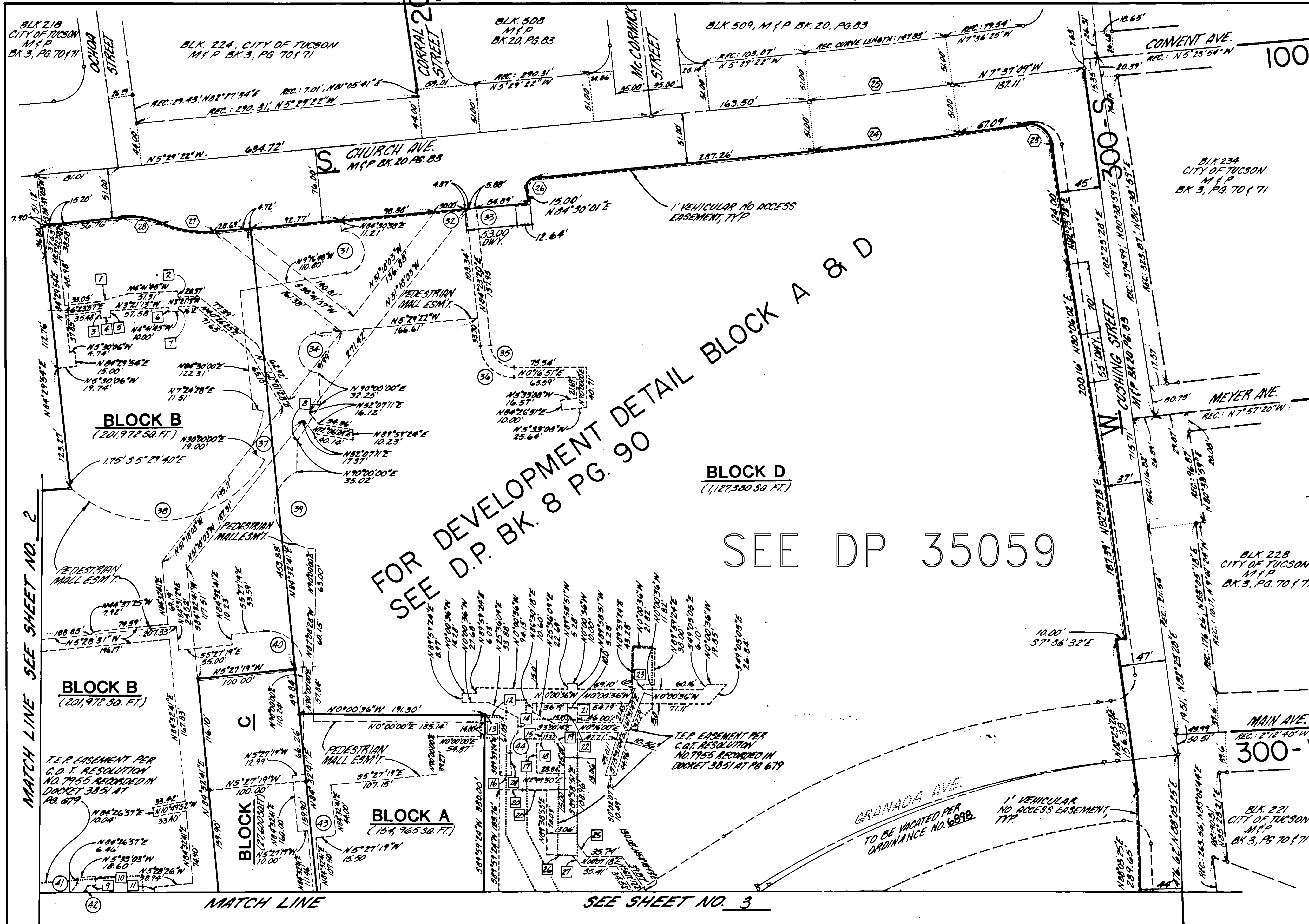
SHEET 3 OF 4 SHEETS

ANNOTATED COPY



NOTE:
FOR CURVE DATA, SEE SHEET NO. 2

BEARING & DISTANCE TABLE *

NO.	BEARING	DIST.
1	N 12°28'37"W	29.05'
2	S 85°18'15" W	6.57'
3	N 86°38'47"E	6.80'
4	N 0°00'00"E	10.00'
5	N 86°38'47"E	6.49'
6	N 85°18'15"E	3.66'
7	N 85°18'15"E	3.43'
8	N 54°50'01"W	53.82'
9	N 5°33'03"W	8.76'
10	N 84°26'57"E	9.60'
11	N 87°02'12"E	17.11'
12	N 0°00'36"W	15.00'
13	S 89°59'24"W	8.64'
14	N 87°28'20"E	15.15'
15	N 88°56'47"W	10.55'
16	N 0°00'36"W	9.90'
17	N 86°30'18"E	29.12'
18	N 1°03'13"E	6.48'
19	N 54°49'38"E	20.16'
20	N 0°00'36"W	20.57
21	N 89°58'51"W	19.58'
22	N 89°58'51"W	19.60'
23	N 89°59'24"E	5.28'
24	N 81°28'20"E	21.15'
25	N 53°15'05"E	21.97'
26	N 0°01'09"E	32.29'
27	N 53°15'05"E	12.50'
28	N 2°49'50"E	25.08'

* REFER TO EASEMENTS ON THIS SHEET ONLY

TUCSON CONVENTION CENTER

BLOCKS A, B, C, D, H & I

BEING A RESUBDIVISION OF LOTS 2, 3 & 4 OF BLOCK 510 AND BLOCK 511 OF PUEBLO CENTER REDEVELOPMENT PROJECT AS RECORDED IN BOOK 20 AT PAGE 83 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA AND OF A PART OF BLOCK 221 OF THE CITY OF TUCSON AS RECORDED IN BOOK 3 AT PAGE 70 OF MAPS AND PLATS OF PIMA COUNTY, ARIZONA. ALL IN SECTION 13, T-14-S, R-13-E, G&SRB&M, PIMA COUNTY, ARIZONA.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 6024 F. A. ROLLINS Arizona U.S.A.

blanton & co. ARCHITECTS · ENGINEERS
PO BOX 1711 TUCSON, ARIZ 85702 602-622-6733

C 12-87-29 88-082

SHEET 4 OF 4 SHEETS

Parcel#	Address	Activity Number
117200280	151 S Granada Ave	TD-DEV-0624-00174

City of Tucson

Review Date	Reviewer's Name	Type of Review	Description	Status	Comments
06/14/2024		CDRC Application Completeness		REVIEW COMPLETED	
06/18/2024		OK to Submit - Engineering		REVIEW COMPLETED	
06/18/2024		OK to Submit - Landscape		REVIEW COMPLETED	This comment is provided as a courtesy at this time:1. Please include rainwater harvesting calculations on Sheet L5.1 and depress landscape areas 6-9 inches to maximize water harvesting.Mike Ortizmichael.ortiz@tucsonaz.gov
06/20/2024		OK to Submit - Zoning		REVIEW COMPLETED	
06/21/2024		CDRC Review Coordinator		REVIEW COMPLETED	Historic and Design review required. Review request email sent per ADOT, and TEP. CDRC sent FYI email to PAG, USPS, SWG.
06/21/2024		External Reviewers - Pima Association of Governments		REVIEW COMPLETED	CDRC sent FYI email to PAG, USPS, SWG. No further action is required from the customer at this time.
06/21/2024		External Reviewers - Southwest Gas		REVIEW COMPLETED	CDRC sent FYI email to PAG, USPS, SWG. No further action is required from the customer at this time.
06/21/2024		External Reviewers - United States Postal Service (USPS)		REVIEW COMPLETED	CDRC sent FYI email to PAG, USPS, SWG. No further action is required from the customer at this time.
06/26/2024		External Reviewers - Arizona Department of Transportation (ADOT)		REVIEW COMPLETED	Good Afternoon,ADOT has no comments on this DEV.Thank you for the opportunity to review.
07/03/2024		External Reviewers - Tucson Electric Power (TEP)		APPROVED	July 3, 2024WO#T119714City of TucsonPlanning and Development ServicesAttn: CDRC Admin TeamDear CDRC Admin TeamSubject: Site Improvements for Sosa-Carillio HouseTD-DEV-0624-00174Tucson Electric Power Company (TEP) has reviewed and approved the development plan submitted 6/21/2024. There are no existing facilities within the development and thus are no apparent conflicts at this time.Enclosed is a copy of a TEP facilities map showing the approximate location of the existing facilities. Any relocation costs will be billable to the customer.To apply for electric service, please call the New Construction department at (520) 918-8300. Please submit a final set of plans including approved site, electric load, paving off-site improvements and irrigation plans. If available, include a PDF version of the plans.If easements are required, they will be secured by separate instrument. Should you have any easement questions, please contact our Land Resources Department,LandReviews@tep.com.Should you have any technical questions, please contact the area designer,Fred Quintero(520) 235-6329fquintero@tep.comSincerely,Design AdminsDesign AdminsTucson Electric Power
07/03/2024		Design Review		REQUIRES RESUBMIT	The property is within the boundaries of the Rio Nuevo Area (RNA) overlay zone, and it includes an individually-listed historc structure. The project will need to demonstrate compliance with the requirements of the RNA and historic preservation standards. Please submit a Special Districts application as a sub-record of TD-DEV-0624-00174. Please see the Special District Application Instructions and the Rio Nuevo Area Design Review process guides for a complete list of requirements:https://www.tucsonaz.gov/files/sharedassets/public/v/3/pdsd/documents/submission-documents/special_districts_application_instructions_7.18.23.pdf https://www.tucsonaz.gov/files/sharedassets/public/v/3/pdsd/documents/planning-amp-zoning/rna-application-and-review-process.pdfIf you have any questions and/or have submitted the Design Package for RNA/historic review, please send me an email to maria.gayosso@tucsonaz.gov. Thank you.
07/17/2024		ROW Engineering Review		NOT REQUIRED	
07/22/2024		Site Zoning		REQUIRES RESUBMIT	Carillo House Renovation - TCC Development Package (1st Review) TD-DEV-0624-00174TRANSMITTAL DATE: July 22, 2024DUE DATE: July 23, 2024COMMENTS: Resubmit revised drawings along with a detailed response letter, which states how all Zoning Review Section comments were addressed.This plan has been reviewed for compliance with the Unified Development Code (UDC) Administrative Manual (AM) Section 2-06. Also, compliance with applicable development criteria for the proposed use as listed in the City of Tucson Uniform Development Code (UDC) and the UDC Technical Standards Manual (TSM).Section 3.3.3.G.5.c UDC, an applicant has one year from the date of application to obtain approval of a site plan that complies with zoning and other development requirements in effect at the time of application, unless an ordinance adopted by Mayor and Council during this period states otherwise. A site plan application that has been in review for a period of one year and has not yet been approved is considered denied. To continue the review of a site plan for the property, a new site plan must be submitted that complies with regulations in effect at the time of re-submittal. The new submittal initiates a new one-year review period. One-year Expiration date is June 19, 2025.2-06.4.0 CONTENT REQUIREMENTS1.COMMENT: 2-06.4.3 – Provide the development package case number, TD-DEV-0624-00174, adjacent to the title block on all sheets.2-06.4.7 - General NotesThe following general notes are required. Additional notes specific to each plan are required where applicable.2-06.4.7.A - Zoning and Land Use Notes2.COMMENT: 2-06.4.7.A.6.a – Until this DP is approved by Historic and Design Review Zoning cannot

	Historic	REQUIRES RESUBMIT	The property is located within the Rio Nuevo area and subject to Historic review. Please complete the Historic & Special Districts application and provide all the necessary documents. Once assembled, submit under the Special Districts sub-record. Questions? Jodie.Brown@tucsonaz.gov
07/23/2024			
07/29/2024	Commercial Plumbing	APPROVED	
	Site Engineering	REQUIRES RESUBMIT	1. Please include the TD-DEV number on the plan set.Mike Ortizmichael.ortiz@tucsonaz.gov
07/29/2024			
07/30/2024	Fire New Construction	REVIEW COMPLETED	
08/02/2024	NPPO	APPROVED	
	CDRC Post Review	PENDING ASSIGNMENT	
08/02/2024			
	Site Landscape	REQUIRES RESUBMIT	DEPARTMENTREVIEWER: CHAD KELLER, RLAPDSD SITE LANDSCAPE/NATIVE PLANT PRESERVATION SECTIONPROJECT: SITE IMPROVEMENTS FOR THE SOSA-CARILLIO HOUSEACTIVITY NO: TD-DEV-0624-00174ADDRESS/PARCEL: 151 S GRANADA AV/117200280ZONING: PAD-5 (TUCSON COMMUNITY CENTER)This plan has been reviewed for compliance with applicable development criteria in the City of Tucson Unified Development Code (UDC) Administrative Manual (AM) Section 2-11 and Technical Manual (TM) Section for landscape, native plants, and water harvesting.Please resubmit revised drawings along with a detailed response letter, which states how all Landscape/NPPO Review Section comments are addressed.SITE LANDSCAPE/NPPO SECTION COMMENTS:1.Ensure that Zoning and Engineering comments are addressed prior to landscape section approval.2.Add TD-DEV-0624-00174 to all the landscape sheets.3.Per Tucson Community Center Planned Area Development page 27, number 2, Contents: Development Plans shall be prepared by the Developer in accordance with the requirements of the Land Use Code (LUC), United Development Code (UDC) and Development Standards and may also include the following: Landscape and Maintenance Plan. A landscape and maintenance plan drawn at a scale sufficient to show the location, size and species of all plant material, the pedestrian circulation system and landscape plazas, and the proposed water or irrigation system to be used, along with a maintenance schedule. The landscape plan looks great. Add a general maintenance schedule or a general note regarding plant maintenance to the landscape plan.4.The project is within Development Area C of the Tucson
08/02/2024			

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ARCHITECTS AIA

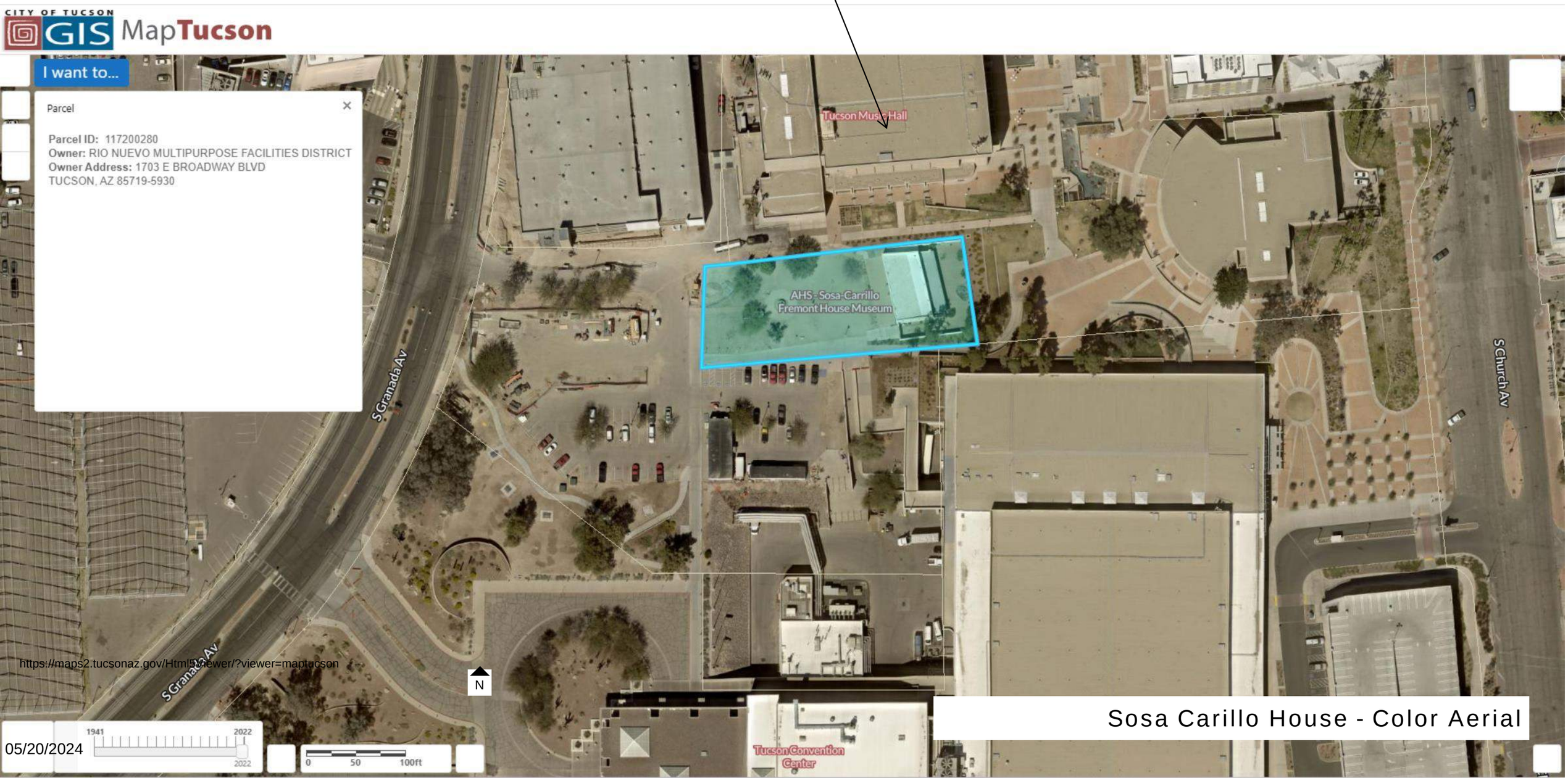
CDRC – Neighborhood Meeting

Project: Tucson Convention Center
Sosa Carillo House
260 S Church Ave

Not Required

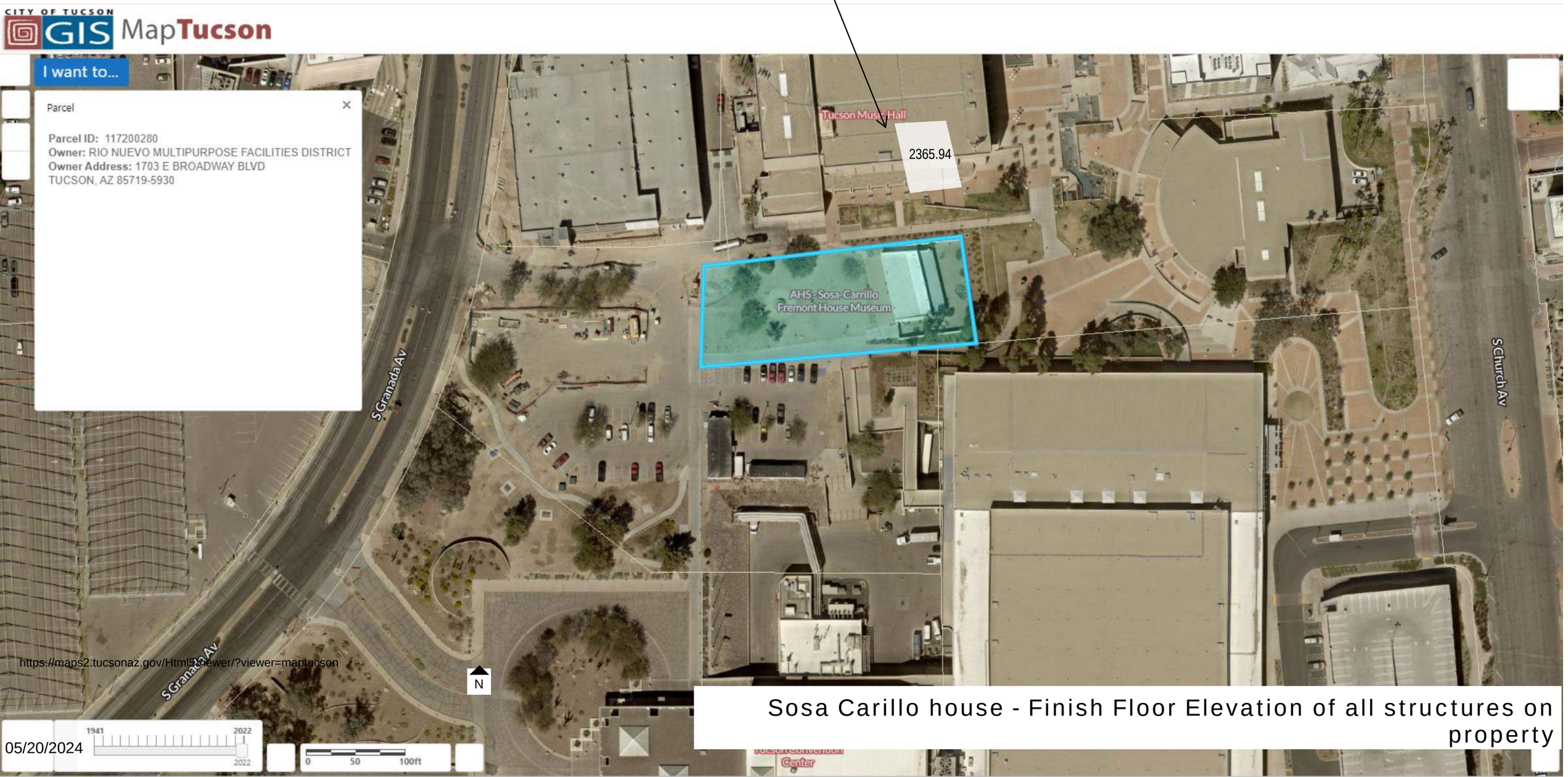
Michael Becherer, AIA
Swaim Associates LTD Architects AIA
(520) 326-3700
mbecherer@swaimaia.com

Sosa Carillo House
Project Site Location



Sosa Carillo House - Color Aerial

Sosa Carillo House
Project Site Location



Sosa Carillo house - Finish Floor Elevation of all structures on property

TCC to the SE

TCC to the S

Linda Ronstadt Theater to the N

Sosa Carillo House
Context Images

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520-326-3700

yard & parking to the W

access road to the S

pedestrian circulation to the N

view to the NW

TCC PARKING GARAGE LOT - C

EGLIN BRESLER ARCHITECTS

Sosa Carillo House
Context Images

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CDRC – Precedent examples

Project: Tucson Convention Center
Sosa Carillo House
260 S Church Ave

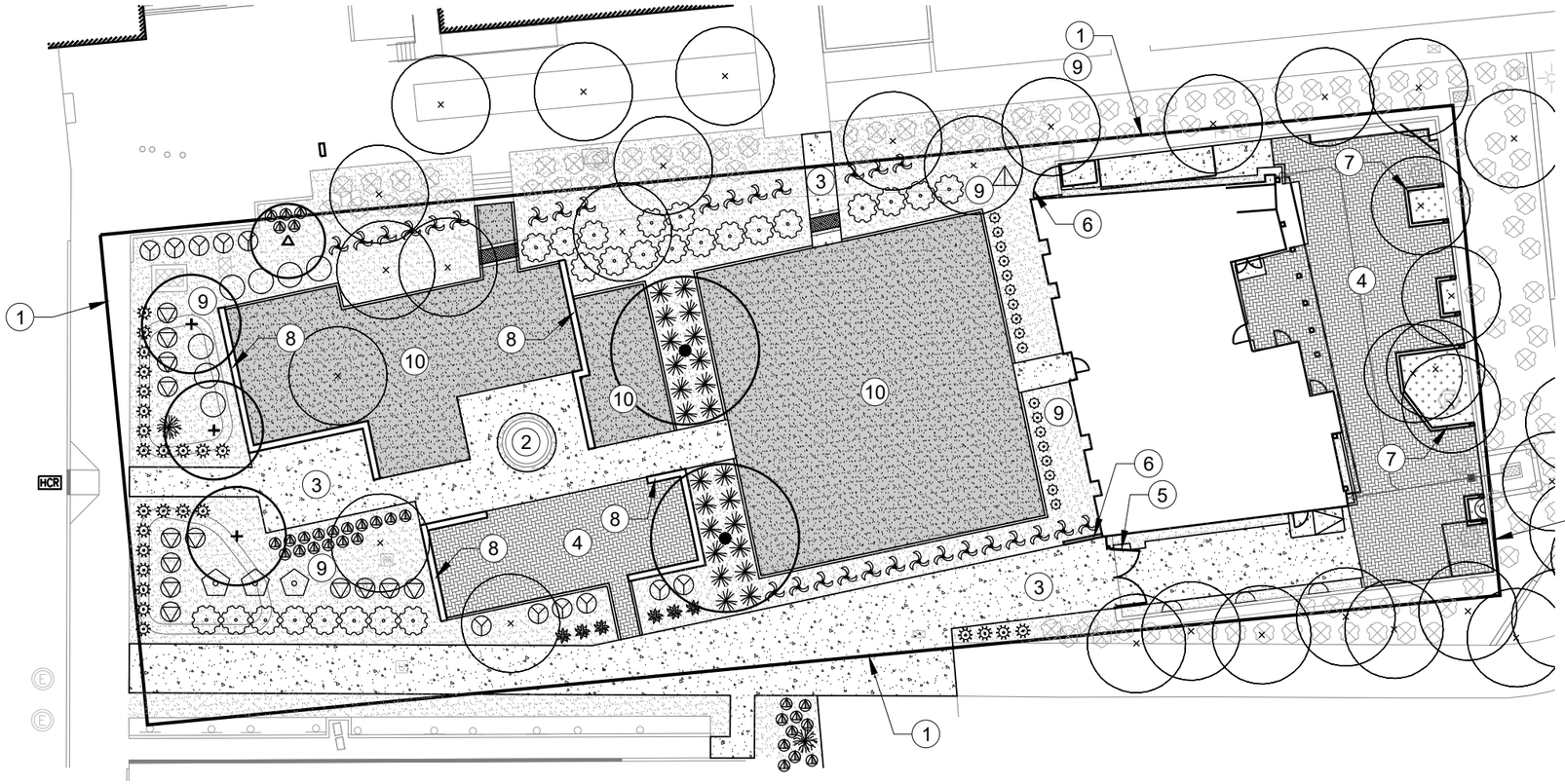
None, in the urban renewal in the late 1960's the Sosa Carrillo house was taken completely out of context and is currently fully within the Tucson Convention Center Campus. In addition the house was significantly modified during the early 1970's renovation and is not currently in its traditional historic configuration. Project will restore the house as it was completed in the 1970's restoration with some modifications for t accessibility and site interpretive activities.

Michael Becherer, AIA

Swaim Associates LTD Architects AIA

(520) 326-3700

mbecherer@swaimaia.com



LANDSCAPE KEY NOTES

1. Property line
2. Existing fountain
3. Concrete sidewalk, typ.
4. Brick pavers
5. Gate
6. Retaining wall
7. Planter, typ. - wood chips to be installed within planter
8. Seatwall, typ.
9. Decorative rock, typ.
10. Compacted decomposed granite with concrete header

LANDSCAPE LEGEND

Trees

Olea europea 'Wilsonii'
fruitless olive
Punica granatum
pomegranate
Celtis reticulata
netleaf hackberry
Existing tree to remain in place

Shrubs / Ground Covers

Ruellia simplex
mexican petunia
Calliandra californica 'Mexicali Rose'
mexicali rose fairy duster
Tecoma stans v. angustata
yellow bells
Eremophila glabra ‘Mingenew Gold’
outback sunrise emu
Existing shrub to remain in place

Vines

Parthenocissus 'Hacienda Creeper'
hacienda creeper
Rosa banksiae
lady banks rose (from cutting)

Cacti / Succulents

Yucca rostrata
beaked yucca
Hesperaloe tenuifolia
grassy hesperaloe
Asclepias subulata
desert milkweed
Hesperaloe parviflora 'stoplights'
stoplights dwarf hesperaloe
Agave parryi
parry's agave
Euphorbia antisyphilitica
candelilla
Opuntia gomeii
old mexico
Yucca pallida
pale leaf yucca
Hesperaloe funifera 'Little Giant'
little giant hesperaloe

SOSA-CARRILLO HOUSE RENOVATION - LANDSCAPE PLAN

SCALE: 1" = 30'

N

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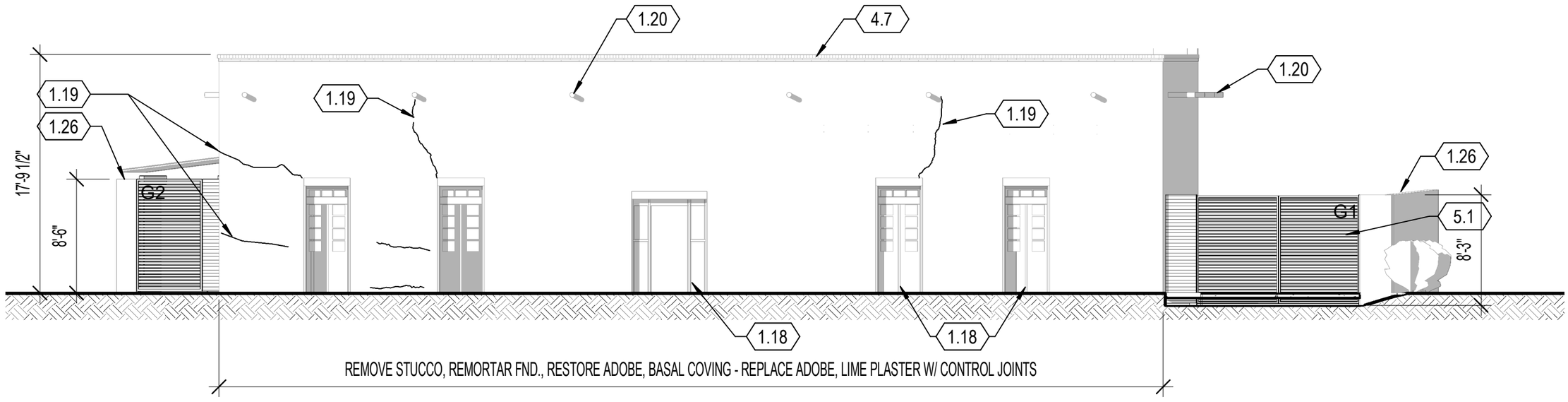
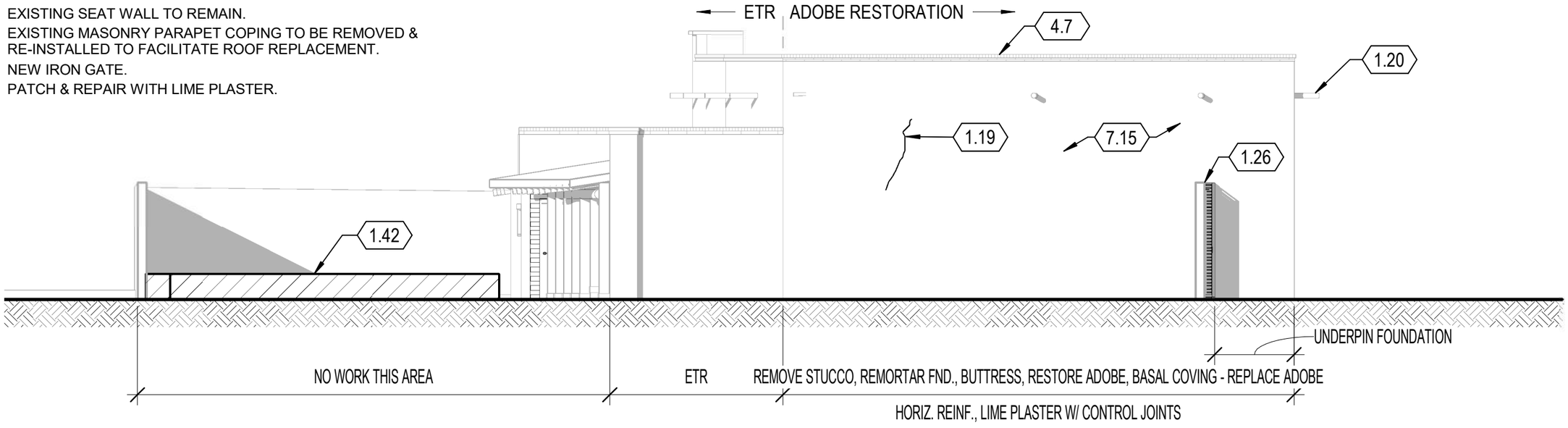


keynotes

1.18 FULLY RESTORE DOOR /WINDOW WITH LIKE MATERIAL. TYP. EAST & WEST FACADE.
1.19 EXTERIOR WALL CRACK.
1.20 EXISTING CANALES TO REMAIN.
1.26 EXISTING SITE WALL TO REMAIN. PATCH AS REQUIRED + PAINT. INCLUDE WITH ACCESSIBILITY UPGRADES WORK.
1.42 EXISTING SEAT WALL TO REMAIN.
4.7 EXISTING MASONRY PARAPET COPING TO BE REMOVED & RE-INSTALLED TO FACILITATE ROOF REPLACEMENT.
5.1 NEW IRON GATE.
7.15 PATCH & REPAIR WITH LIME PLASTER.

WEST ELEVATION



NORTH ELEVATION

7350 EAST SPEEDWAY 210
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FAX (520) 326-1148
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PROJECT: Sosa-Carillo House Renovation

SCALE: 1/8" = 1'-0"

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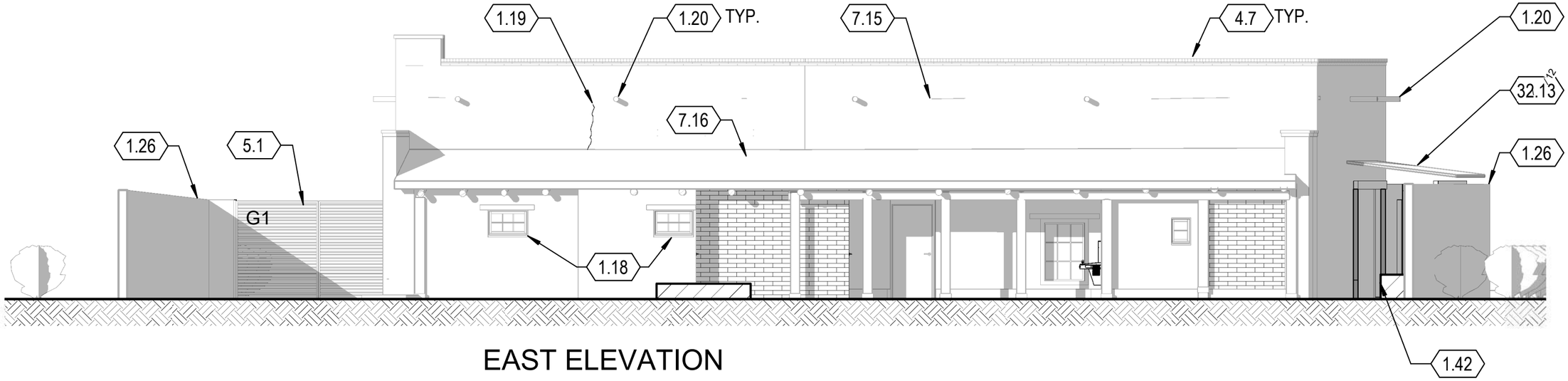


EAST ELEVATION

keynotes

1.16 CONTROL JOINT.

1.18 FULLY RESTORE DOOR /WINDOW WITH LIKE MATERIAL. TYP. EAST & WEST FACADE.

1.19 EXTERIOR WALL CRACK.

1.20 EXISTING CANALES TO REMAIN.

1.26 EXISTING SITE WALL TO REMAIN. PATCH AS REQUIRED + PAINT. INCLUDE WITH ACCESSIBILITY UPGRADES WORK.

1.32 EXISTING PLANTER BED TO BE MODIFIED. SEE LANDSCAPE DRAWINGS.

1.42 EXISTING SEAT WALL TO REMAIN.

4.7 EXISTING MASONRY PARAPET COPING TO BE REMOVED & RE-INSTALLED TO FACILITATE ROOF REPLACEMENT.

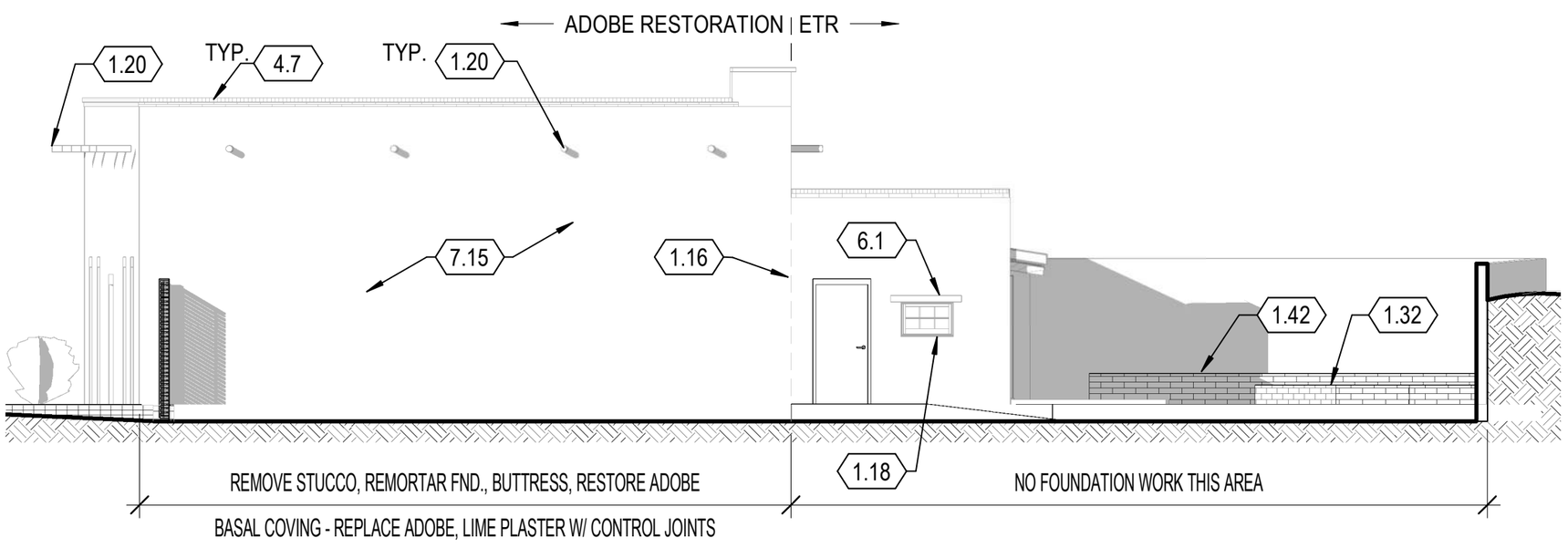
5.1 NEW IRON GATE.

6.1 WOOD LINTEL TO BE REPLACED.

7.15 PATCH & REPAIR WITH LIME PLASTER.

7.16 REMOVE EXISTING ROOFING. INSTALL NEW TPO SYSTEM.

32.13 STEEL SHADE CANOPY. REFER TO STRUCTURAL AND A7.1.



SOUTH ELEVATION

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8/22/2024 11:11:55 AM

PROJECT: Sosa-Carillo House Renovation

SCALE: 1/8" = 1'-0"

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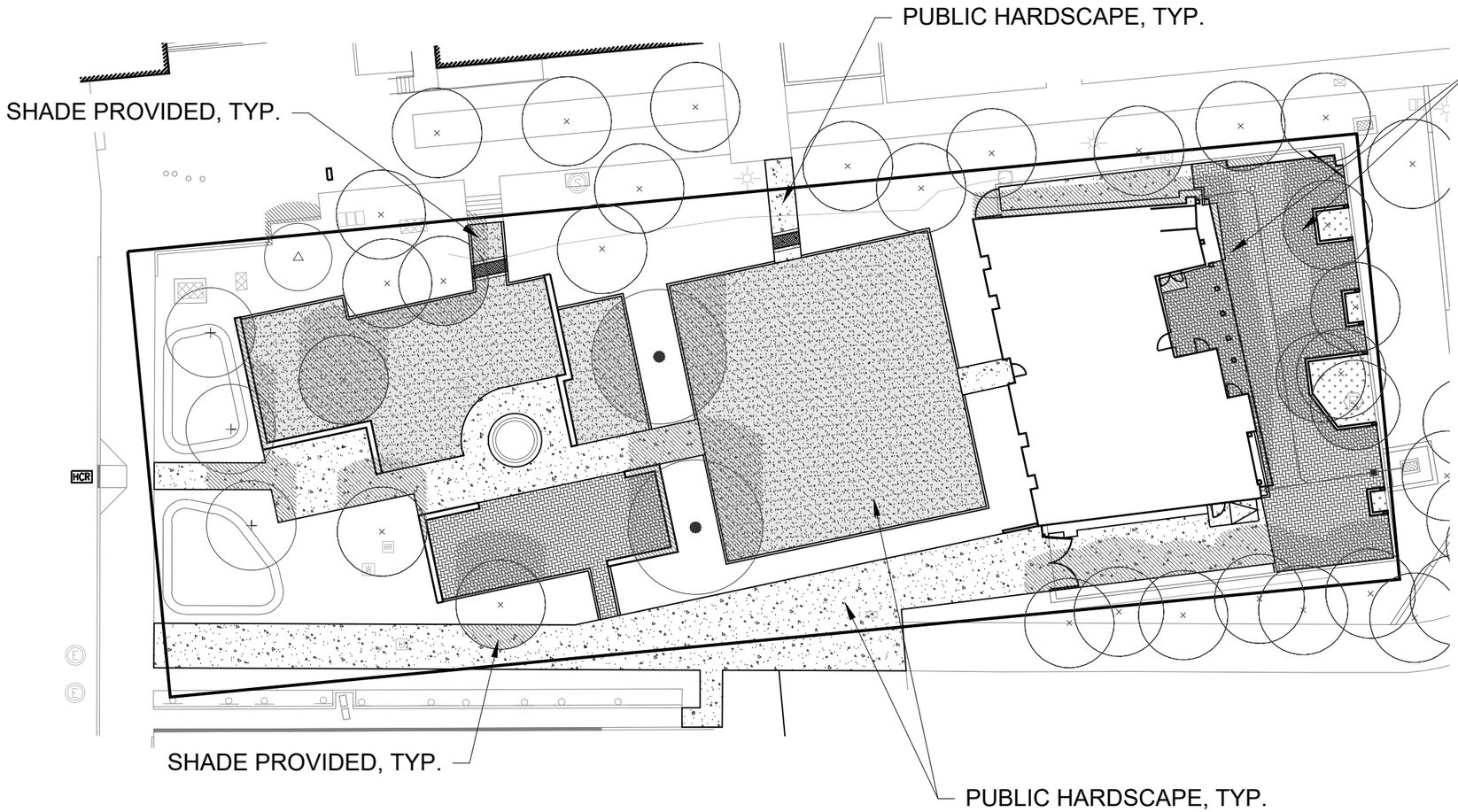

SHADE STUDY

Public Hardscape	14,398 sf
Shaded Area Required (50%)	7,199 sf
Shaded Area Provided (36%)	5,130 sf

Shade has been calculated at 12:00 p.m. on June 21 when the sun is 80° above the horizon (based on 32°N latitude).

Due to both the historical and urban context of this site, required shade coverage has not been met. However, shade has been provided both with existing and proposed trees and a covered patio on the back of the Sosa-Carrillo House. Trees have been placed to maintain the historical character of the house, specifically with the alignment of Main Street in the front. Trees have also been placed to avoid underground utilities and circulation conflicts that surround the site. The plan provided illustrates tree locations and shade coverage of sidewalks, pedestrian pathways, and other hardscape areas. Events may incorporate portable shade elements, further providing shade to these hardscape areas.

The Sosa Carrillo House property is part of the City of Tucson Convention Center PAD (PAD 5). Please refer to DP-20-0205, for the overall shade study of the Tucson Convention Center campus. That study provided 56 percent shade coverage of public hardscape areas throughout the campus. Shade coverage provided at the Sosa-Carrillo House in combination with that provided for the overall campus meets the 50% minimum shade coverage requirement.

SOSA-CARRILLO HOUSE RENOVATION - SHADE STUDY

SCALE: 1" = 30'

DATE: 2024.12.13

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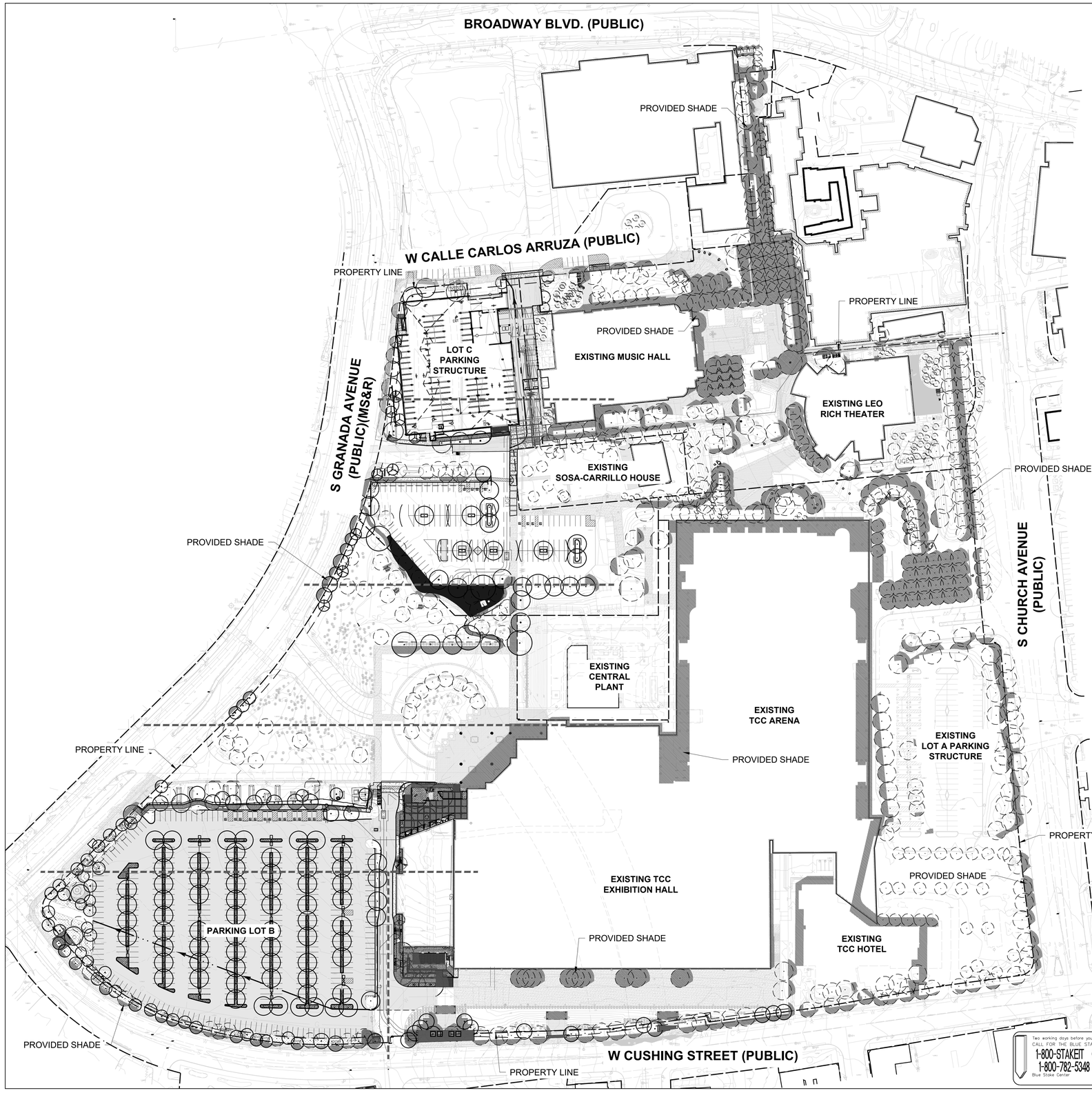

CITY OF TUCSON RIGHT-OF-WAY (ROW) NOTES:

1. It is the owner's responsibility to keep the Sight Visibility Triangles (SVT), and the pedestrian access area clear of vegetation at all times, per Land Use Code (UDC) section.
2. It is the owner responsibility to keep a 5' wide by 7' tall clear pedestrian access open across the entire property.
3. It is the owner responsible to keep vegetation from growing past the curb line clear, and keep a 15' high clear zone over the travel lane.
4. Final plant locations must be in compliance with all utility setback requirements.
5. The owner understands that if the City of Tucson Transportation Department or any utility company needs to work within the Right-of-Way (ROW) in the landscaped area, plants and irrigation may be destroyed without replacement or repair.
6. The owner takes full liability for this landscape and irrigation, and any damage to roadway, sidewalk and utilities.
7. The only private irrigation equipment that is allowed within the ROW are lateral lines, tubing and emitters that are not under constant pressure. All other equipment must be on private property. (excluding water meter)
8. Contractor to obtain a Right-Of-Way excavation permit prior to construction within the ROW.
9. Landscaping and maintenance in the public ROW shall be maintained by the property owner of the development at no cost to the City of Tucson.

CITY OF TUCSON ROW IRRIGATION NOTES:

City of Tucson Department of Transportation and Mobility

1. Private irrigation facilities roadway crossings will only be permitted in residential roadways and NOT permitted in arterial or collector roadways.
2. Lateral lines under constant pressure shall not be permitted in the public rights-of-way.
3. The owner will register private irrigation facilities placed in the public rights-of-way with Arizona 811 and become an Arizona 811 Blue Stake Inc. member.
4. Minimize the number of roadway crossings.
5. Sleeves must be in a recorded easement (easement width is dependent on what is needed for installation and/or repairs). To the extent possible, the easements should be created at the time of development/platting.
6. Irrigation lines shall be placed in ductile iron sleeves.
7. Sleeve should extend beyond the right-of-way (into private property), unless otherwise approved by DOT&M.
8. HDPE continuous line (no joints under the pavement)
9. Irrigation lines shall have a minimum of thirty 30-inches of cover.
10. Detectable marking tape shall be installed.
11. Curb shall be marked/stamped with "IS" (Irrigation System) and/or placard at back of curb.

SHADE STUDY

Public hardscape total area	306,193 SF
Public hardscape shade required (50%)	153,097 SF
Public hardscape shade provided (56%)	173,769 SF

SCALE: 1" = 80'

0 40' 80' 160' NORTH

C.O.T. APPROVAL STAMP

Two working days before you dig, CALL FOR THE BLUE STAKES
1-800-STAKEIT OR 1-800-782-5348
Blue Stake Center

DP20-0205

COT ADMINISTRATIVE ADDRESS:
260 S. CHURCH
TUCSON, AZ 85701

REF NO'S.: PAD 5, D09-0025, C12-87-29, C9-17-10 DRB-19-16, HPZ-20-15

Rev #	Date	Description
1	04/16/21	Owner Modification and Building Coordination

ARC STUDIOS
3117 E. Flower Street
Tucson, Arizona 85716
phone: 520.882.9655
www.arcstudiosinc.com

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REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
39813
ERIC R. BARRETT
04/21
Date Signed
ARIZONA, U.S.A.
EXPIRES 9/30/2021

Job Number:	01-20005
Designed By:	ERB
Drawn By:	ERB
Checked By:	ERB
Date:	12/31/2020
Scale Vt:	N/A
Hz:	1"=80'

Sheet Name
SHADE STUDY
TDOT NOTES

Project
DEVELOPMENT PACKAGE FOR
TCC SITE IMPROVEMENTS
PORTION OF BLOCK D, TCC RESUB.BK. 42, PG.10 M&P
SECTION 13, T14S, R13E, G&SRM, PIMA COUNTY, AZ

Sheet Number:
L2.0

Sheet 32 of 60

EXTERIOR EVENT SPACE / LOOKING NORTH EAST

EVENT PLAZA / COURTYARD LOOKING NORTHWEST

WEST COURTYARD ENTRY

COURTYARD & HOUSE FROM SOUTHWEST

7350 EAST SPEEDWAY 210
TUCSON, ARIZONA 85710
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PROJECT: Sosa-Carillo House Renovation

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SOUTH WEST AERIAL

FOUNTAIN FROM WEST

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PROJECT: Sosa-Carillo House Renovation

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CDRC – Proposed Materials

Project: Sosa-Carillo House
151 S Granada Ave

Material Pallet is composed of elements intended to restore the existing building as near as possible to its original state.

1. Primary structure- repair existing mud adobe in a color and texture reflecting correct period of significance
2. Lime plaster finish composed of sand, water, and lime to replace the existing cement plaster
3. Existing Bitumen roofing membrane to be replaced with a cold applied TPO roofing system
4. Wood doors and windows – existing doors and windows to be restored, using as much original material as possible.

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mbecherer@swaimaia.com

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(520) 326-3700 FAX 326-1148

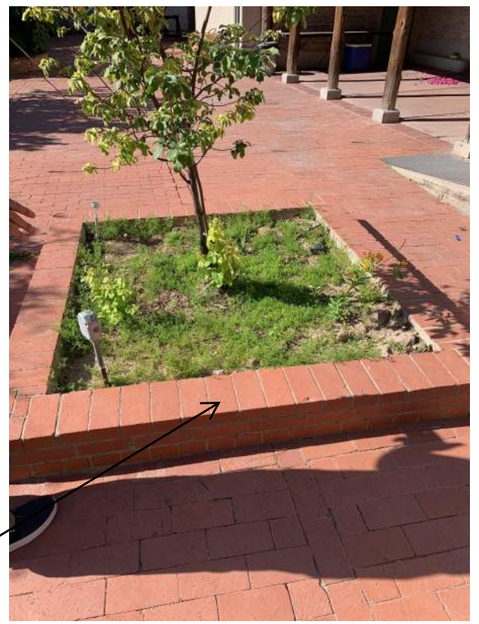
ORIGINAL MUD ADOBE

MASONRY COPING

METAL CANALES

ORIGINAL LIME PLASTER

PAINTED WOOD
DOORS & WINDOWS



EXTERIOR MASONRY

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PROJECT: Sosa-Carillo House Renovation

SCALE: 1/8" = 1'-0"

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ARCHITECTS AIA

Olea europaea
fruitless olive

Punica granatum
pomegranate

Celtis reticulata
netleaf hackberry

Ruellia simplex
mexican petunia

Calliandra 'Mexicali Rose'
mexicali rose fairy duster

Tecoma stans v. angustata
arizona yellow bells

Eremophila ‘Mingenew Gold’
outback sunrise emu

Parthenocissus sp.
hacienda creeper

Rosa banksiae
lady banks rose

Yucca rostrata
beaked yucca

Hesperaloe tenuifolia
grassy hesperaloe

Asclepias subulata
desert milkweed

Hesperaloe 'stoplights'
stoplights dwarf hesperaloe

Agave parryi
parry's agave

Euphorbia antisyphilitica
candelilla

SOSA-CARRILLO HOUSE RENOVATION - PROPOSED MATERIALS

SCALE: N/A

N

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Opuntia gomeii
old mexico

Yucca pallida
pale leaf yucca

Hesperaloe funifera 'Little Giant'
little giant hesperaloe

Gray concrete - header, sidewalk and seatwall cap

Brick pavers - reused from on-site

1/2" screened desert brown decorative gravel

1/4" minus compacted decomposed granite

Decorative wood chips

Seatwall - slump block with concrete cap

Planter - stucco finish wall with brick cap

SOSA-CARRILLO HOUSE RENOVATION - PROPOSED MATERIALS

SCALE: N/A

N

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environmental services . irrigation design

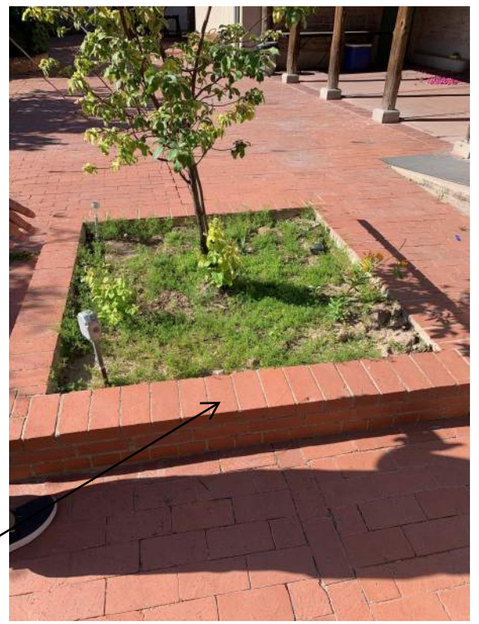
ORIGINAL MUD ADOBE

MASONRY COPING

METAL CANALES

ORIGINAL LIME PLASTER

PAINTED WOOD
DOORS & WINDOWS



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PROJECT: Sosa-Carillo House Renovation

SCALE: 1/8" = 1'-0"

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ASSOCIATES LTD
ARCHITECTS AIA

Olea europaea
fruitless olive

Punica granatum
pomegranate

Celtis reticulata
netleaf hackberry

Ruellia simplex
mexican petunia

Calliandra 'Mexicali Rose'
mexicali rose fairy duster

Tecoma stans v. angustata
arizona yellow bells

Eremophila ‘Mingenew Gold’
outback sunrise emu

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hacienda creeper

Rosa banksiae
lady banks rose

Yucca rostrata
beaked yucca

Hesperaloe tenuifolia
grassy hesperaloe

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desert milkweed

Hesperaloe 'stoplights'
stoplights dwarf hesperaloe

Agave parryi
parry's agave

Euphorbia antisyphilitica
candelilla

SOSA-CARRILLO HOUSE RENOVATION - PROPOSED MATERIALS

SCALE: N/A

N

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environmental services . irrigation design

Opuntia gomeii
old mexico

Yucca pallida
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1/4" minus compacted decomposed granite

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Seatwall - slump block with concrete cap

Planter - stucco finish wall with brick cap

SOSA-CARRILLO HOUSE RENOVATION - PROPOSED MATERIALS

SCALE: N/A

N

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environmental services . irrigation design

Sosa-Carillo House

Adjacent Historic Districts and Contributing Structures

Tucson Community Center Historic District
Name of Property

Pima County, Arizona
County and State

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Tucson Community Center Historic District

other names/site number Tucson Convention Center, Fountain Plaza, Walkway, Veinte de Agosto Park or Eckbo Park

2. Location

street & number 180 – 260 South Church Avenue ☐ not for publication

city or town Tucson ☐ vicinity

state Arizona code AZ county Pima code 019 zip code 85701

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide __local

Signature of certifying official/Title Date

State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official Date

Title State or Federal agency/bureau or Tribal Government

Tucson Community Center Historic District
Name of Property

Pima County, Arizona
County and State

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply.)

	private
x	public - Local
	public - State
	public - Federal

Category of Property
(Check only **one** box.)

	building(s)
x	district
	site
	structure
	object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
0	0	buildings
1	0	sites
9	2	structures
7	14	objects
17	16	**Total**

NR

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions.)

LANDSCAPE/plaza
RECREATION AND CULTURE/outdoor recreation
TRANSPORTATION/pedestrian-related

Current Functions
(Enter categories from instructions.)

LANDSCAPE/plaza
RECREATION AND CULTURE/outdoor recreation
TRANSPORTATION/pedestrian-related

Tucson Community Center Historic District | Pima County, Arizona
Name of Property | County and State

7. Description

Architectural Classification
(Enter categories from instructions.)

Modern Movement

Materials
(Enter categories from instructions.)

foundation:

walls:

roof:

other: Softscape: Trees, Plants, Earth;
Hardscape: Concrete, Rock, Metal, Brick
Ceramic Tile

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The Tucson Community Center (TCC) Historic District, constructed between 1971 and 1974, consists of a public plaza, a walkway, and a small park. These three sections, designed by noted Modernist landscape architect Garrett Eckbo (1910-2000) are related in theme and design. The overarching intent of the landscape is to provide a gathering space outside the TCC cultural venues of arena, concert hall and theater; to offer opportunities for strolling and picnicking; to enhance characteristic Tucson views; and to create a pedestrian link between Tucson's downtown area and the TCC facilities. With an extensive system of fountains, balconies, stairways and pedestrian ramps, the design employs characteristic materials of the period: concrete, modular brick, mounded earth, trees and shrubs, flowing water and natural boulders. Together the three sections occupy a significant portion of the open space of downtown Tucson, approximately 5.75 acres. In an urban setting, the District is bounded by city streets, and by performance, office, café and hotel buildings, yet extensive views from the site include the Roman Catholic Cathedral of St. Augustine and the Tucson Mountains. Except for minor changes due to missing landscape elements and the addition of minor small-scale features, the District remains essentially as it was when first installed.

Narrative Description

The TCC Historic District is located to the southwest of downtown Tucson's commercial district, just north of the Barrio Viejo Historic District. Boundaries are roughly defined by Congress Street to the north, Cushing Street to the south, Church Avenue to the east and Granada Avenue to the west. To the east are views of the Cathedral of St. Augustine; to the west, the Tucson Mountains. The District does not include the surrounding buildings of an office/shopping/restaurant complex, a hotel, the Music Hall, the Arena or the Leo Rich Theater. The entire district is owned by the City of Tucson. At approximately 5.75 acres, the TCC Historic District represents one of the largest areas of open space in downtown Tucson. Complementing El Presidio Plaza and its government buildings across Congress Street to the north, the District provides an open core for large festivals and events. The District is accessible by foot, bicycle, bus and automobile, and is located adjacent to the new streetcar line. Before the 1960s and urban renewal redevelopment, this area was the heart of Tucson's Mexican-American barrio.

The TCC Historic District draws its significance from its designer Garrett Eckbo, one of the twentieth century's foremost American landscape architects. Created at the height of his career, it was completed in three stages in 1971, 1973 and 1974, under the project direction of local architects and planners. This landscape is the only Eckbo-designed urban civic space in Arizona and one of only four large urban designs that were completed during his long career. The District retains a high degree of integrity, although time has taken its toll on some mechanical systems, original plantings and features, while the introduction of a number of non-contributing small-scale features has somewhat cluttered open areas.

General Description (Figures #1, #3 and #4)

The TCC Historic District lies to the south of Tucson's government center in Presidio Park and directly southwest of the central business district. It is composed of **three design sections – Veinte de Agosto Park, the Walkway and the Fountain Plaza** - running from north to south.

All three sections are conceptually linked by designed water features oriented in such a way as to appear to flow from northeast to southwest. Geometric forms are superimposed on one another or dissolve into naturalistic mounded earth; concrete basins are set off by natural boulders. Dynamic balance rather than symmetry suggests movement. More intimate secondary spaces flow into open plazas or provide transitions into performance venues. Lush yet climate-adapted vegetation provides both visual and physical relief from desert heat.

THE TCC HISTORIC DISTRICT: ONE DESIGN IN THREE SECTIONS

(A) Veinte de Agosto Park (Photos #1 - #3; Figures #5 - #8)

Veinte de Agosto Park lies at the northern end of the district. This segment does not have a Pima County parcel number, but it is an ordinanced City of Tucson park, named in honor of the founding of Tucson Presidio on August 20th, 1775. It was dedicated on August 20th, 1978,[1] although the park had been completed earlier in 1971. This triangle of land is bounded on the east by Church Avenue, by Congress Street to the north, and by Broadway Boulevard to the south. Broadway Boulevard and Congress Street come together at the western point of the triangle. The area of the park is approximately equal to 1.1 acres.

The triangular park is divided into two sections by a semicircular traffic lane, which serves as a u-turn lane for eastbound traffic on Broadway Boulevard. To the west of the u-turn lane, an elevated pedestrian bridge crosses above the park to link the government buildings of El Presidio Plaza to the Walkway of the TCC Historic District. From the northern end of this bridge, there is a scenic overview of the park; and from across Broadway Boulevard to the south, the park serves as a podium to display the façades of the government buildings north of Congress.Street (Photo #1). Typical highway-style street lighting is the only lighting in the park; this is not considered to be contributing.

The land falls away sharply from the northeast corner of the site at the intersection of Congress Street and Church Avenue, creating a difference in elevation of some four feet towards the southwest. This difference of level is accommodated by entry stairs from the north and east sides of the park (Photo #2). After this initial drop, the landscape slopes gently towards the point of the triangle to the west.

Set into the ground at the northeast corner of the site is an octagonal concrete fountain from which water flows downward through angular channels into two lower basins to the southwest and then west (Photos #2 and #3). The geometry of the lower basins is based on arcs aligned to park boundaries. In its descent water travels through channels cut through a series of concrete steps or terraces, so that it is possible to step across the water flow at several different points as it descends. The concrete walls that line the descending steps are indented at the base, creating an illusion of suspension – a characteristic design element found in all three sections of the district. Three street-level terraces flank the northeast corner, poking fingers into the site and providing an overview of the park from this high point. The railings are contributing, being visible in photos from 1974. Today non-contributing picnic tables have been introduced to these terraces.

[1] "A Park for Pancho," *Tucson Daily Citizen*. June 29, 1981.

From the end of the lowest basin an optical illusion suggests that the geometric fountain is draining into a designed wash framed by elevated earthen berms on both sides. This turf-covered channel points towards the steps leading up into the plaza of the office/shopping/restaurant complex across Broadway Boulevard (Photo #3). Turf covers mounded earth throughout the park, and groups of natural boulders scattered down the slopes punctuate the soft groundcover.

Mature trees are a significant feature of the park. Towards the western end of the park, nine *Pinus halepensis* (Aleppo pine) in loose groupings frame the view of the Tucson Mountains to the west. In the same area, three *Rhus lancea* (African sumac) also remain from the original installation. There are, in addition, a row of Pistacia chinensis (Chinese pistache) along the Church Street edge of the park and an additional *Pinus halepensis* (Aleppo pine) on the southwest; these are non-contributing. Overall, the trees help to shield visitors to the park from the view of the surrounding traffic. From outside the park they serve as an intermittent screen offering occasional views into the site.

A statue of Pancho Villa (a Mexican revolutionary general), a concrete bench, a street clock and several signs are non-contributing.

Eckbo's approach to design is imprinted on this section of the district. The concrete water sequence progresses from the formal geometry of an octagon to abstract arcs and then disappears between the berms of an artificial wash. This kind of structural transformation is found in all three sections of the district. Based on the visual artworks of twentieth-century artists such as Joan Miró, Paul Klee and Vassily Kandinsky, these strictly geometric two-dimensional designs are interpreted in three dimensions, eventually merging into a more natural, yet obviously designed, earthwork. The sequence also emphasizes 'tangible water', following Eckbo's emphasis on multisensory elements of design by putting visitor and water in close proximity. The diagonal siting of the fountain provides the "balanced equilibrium" mentioned in so many of Eckbo's theoretical writings. Formed concrete walls, indented at the base, reinforce this sense of dynamic balance. Gently mounded earth covered with turf is another characteristic use of materials during this period of Eckbo's career; it is featured in the Denver Botanic Garden and Union Bank Square. The counterpoint of boulder scatters against the softness of the turfed berms is, however, unique to the TCC landscape.

(B) Walkway (Photos #4 - #6; Figures #9 - #11)

At approximately .2 acres, the Walkway is, by comparison, a small area. Designed as pedestrian passage between a hotel to the west and an office/shopping/restaurant complex to the east, it is connected at its northern end to the pedestrian bridge that crosses above Veinte de Agosto Park. In addition, at the far northern end behind a freestanding wall, a flight of stairs leads down to Broadway Boulevard (some twelve feet below). A wall bench runs along the southeast corner of the site adjacent to the stairway. This may or not be original; the design of the railing, similar to the railings of the ramps designed to provide entrance to the hotel, suggests that it may be; but there is no photographic documentation of this. North of the stairway are ten *Thevetia peruviana* (yellow oleander). They may have been planted to serve as a hedge, but, if so, they are now overgrown. At the corner of the intersection with the pedestrian bridge is a mature *Plantanus wrightii* (Arizona sycamore). All remaining vegetation is that indicated in Eckbo's original planting plan. To the south the Walkway merges into the Fountain Plaza. This section of the district was completed in 1974,[2] after the construction of the hotel and the office/shopping/restaurant complex.

The surface of the Walkway is composed of incised 4' x 4' concrete squares.

The Walkway is bounded by buildings to the west and east. To the west is a twelve-story hotel, which has changed hands several times since it was first built. Its Walkway façade is punctuated in the center by a stairway leading down into a sunken courtyard (not designed by Eckbo), which divides the hotel into northern and southern sections. Large windows face the Walkway and offer views into the landscape from the interior of the ground floor of the hotel. Ramps running parallel to the building were designed by Eckbo to eliminate stairs and permit easy access to the ground floor of both north and south sections of the hotel. There is an additional ground-level door into the hotel at the northwest corner of the Walkway. To the east is a four-story office/shopping/restaurant complex, intended to provide a welcoming stretch of

[2] "'Mexican Village' Open to Public," *Arizona Daily Star,* May 3, 1974.

sidewalk shops and restaurants. The design intent of this complex was to be "one architectural-style unit, possibly in the historic territorial style utilizing the heritage of the Placita Park Development".[3] The complex is designed in a faux-barrio style, with offset couryards. Painted in a variety of contrasting colors in 1999, it draws the eye in a way that would not have been the case when it was built.[4]

The Walkway's extended linear water sequence is placed somewhat off center to the west. The sequence is framed by rows of trees. To the west the trees are set in the ground; to the east they were originally planted in pots. The western row of trees is comprised of three separate planting areas inset in the concrete paving. In the northern section are three *Thevetia peruviana* (yellow oleander); it appears that there may originally have been four. These are underplanted with eight *Rhaphiolepsis indica* (Indian hawthorn) of which one - or maybe two - are missing. In the central section are three *Plantanus wrightii* (Arizona sycamore). In the southern section are six *Rhus lancea* (African sumac); an empty space suggests that one is missing. On the east side, beyond the open pedestrian passage, a series of twelve rectangular brick inserts into the concrete paving order the placement of rectangular planters measuring 36" X36" X 22" high. Of these planters, eight remain in their original locations, one has been moved to the Fountain Plaza, and three are missing. Intended to contain trees of a single variety, the remaining planters now show a medley of assorted small trees, cactuses and other shrubs. The planters are indented at the base, a characteristic feature found throughout this design. An additional dozen red terracotta planters have been added to delineate restaurant seating; these are noncontributing. The water sequence runs the length of the long, relatively narrow and essentially level corridor, but an optical illusion achieved through the changing widths of the channel implies a water flow from north to south. The sequence terminates just before the Walkway meets the Fountain Plaza.

Against the freestanding wall to the north is a bubbler fountain set in a hemispherical cobbled basin (Photo #5). The fountain provides a setting for a stainless steel sculpture by Robert Tobias (1933 -). The sculpture appears in photographs of the fountain from 1974, but little is known about it or about the artist, other than his association with the University of Arizona. The Tucson-Pima County Arts Council includes the work in an inventory from 1978, but has no information on its acquisition. Unlike later art works placed in the Fountain Plaza or the statue of Pancho Villa in Veinte de Agosto Park, this sculpture was likely created as part of the Walkway project, but whether it was specifically chosen by Eckbo or simply commissioned by the City of Tucson is unknown.

A few feet to the south is a narrow (six-inch wide) water channel lined with aqua ceramic tile. The channel runs southward under three Eckbo-designed, formed concrete "peephole obelisks" which show small sections of one-inch tiles to match the color of the tiles lining the channel basins (Photo #5). These sculptures are 9' tall x 3' wide. South of the sculptures is a concrete crosswalk approximately 3' wide, which provides the illusion of a bridge. South of the crosswalk the water sequence resumes as a wide (4') rectangular channel, also lined with ceramic tile. This second channel ends at a second bridge-like cross walk leading to the sunken hotel courtyard to the west and into the plaza of the office/shopping/restaurant complex to the east. It is perhaps significant that this second crosswalk follows the alignment of Broadway Boulevard as it existed before the construction of the Tucson Community Center.

An Eckbo-designed cylindrical kiosk marks this crossing (Photo #4). Four original track lights are positioned near the top of each quarter of the cylinder; a pole extends up from the center. Due to the lack of photographic evidence it is not clear whether this pole supported a banner of some kind or a light. Originally the kiosks were designed to support counter level telephone booths; these have been removed. To the west of the kiosk are an Eckbo-designed water fountain and a cylindrical information pedestal topped with a metal location map. A second and identical water fountain is located on the east side of the walkway further to the north. These small scale features contribute to the district.

To the south of the brick crosswalk the narrow (6") tiled channel resumes, passing under two more concrete "peephole obelisks" identical to the three to the north (Photo #6). This channel ends at a very narrow concrete crosswalk. Just beyond the crosswalk is a rectangular cobbled basin – its material identical to that of the fountain basin at the north - in which are set three "artesian" fountains: three bubbler fountains set on conglomerate concrete obelisks (Photo # 6). These

[3] Candeub, Fleissig and Associates. *Need for Renewal: A Part of the Community Renewal Program of the City of Tucson, Arizona* (Tucson, AZ, November 1968).

[4] Eddie North-Hager. "Old Pueblo's Palette." *Tucson Daily Citizen,* July 28, 1999.

measure approximately 2' x 2' x 26" high, and they are set approximately 2' apart from each other. Water runs down the sides of the obelisks and drains into an opening that suggests a link to the water channel to the north. Throughout the Walkway the water sequence is set immediately adjacent to the pedestrian corridor, which runs along its east side.

All light fixtures supported by poles, as well as the lights on the central kiosk, are original and contribute to the historic fabric of the district. The globe lights have stainless half-globe caps, and range from one-globe to four-globe units, depending on location. Although this lighting supports the use of the space as an evening indoor/outdoor venue, it needs to be complemented – as was intended - by light from the ground floor interior of the hotel and office/shopping/restaurant complex to provide a sense of safety and security after dark.

In addition to the kiosk, the information pedestal and the two water fountains, there are six original Eckbo-designed benches in this area. As originally installed, these were sculptural in design. Formed concrete bases, indented at the bottom, supported heavy wooden beams (8" x 8") that served as seats. The bottom indentation suggests that the heavy benches are delicately balanced, although they are in fact bolted in place. Benches are sited in front of the ramp entrances to the hotel and outside the ground-level entrance to the hotel at the north end of the Walkway. The pedestals remain intact, identifiable by the indentation at the base, but at some point the heavy wooden seats were replaced by metal, bleacher-like tops. Despite the replacement of the seats, all original Eckbo benches are contributing.

Throughout its course the water sequence has been fenced off with a barrier line (presumably for safety reasons) of benches with concrete bases and aluminum seats. These can be distinguished from the Eckbo-designed benches because their bases are not indented at the bottom, but are merely concrete blocks. These benches are noncontributing.

The plan of this area is structurally intact, although the electrical system requires repair. Both water fountains show deterioration and the plumbing has failed. The seats of the Eckbo-designed benches have been replaced with aluminum tops. Some tiles are missing from the fountain basins. Several original trees are missing and most of the shrubs are overgrown. Yet this section of the landscape remains a popular destination for picnic lunches and afternoon breaks, and for prom, graduation and quinceañera photographs.

Stylistically this is a much more formal area than Veinte de Agosto. The materials include ceramic tile and brick, which are not found in Veinte de Agosto Park or in the Fountain Plaza to the south. No mounded earth or boulders are found in the Walkway. But the concept of an offset, non-symmetrical linear water feature, the presence of intensely green vegetation and the dynamically-indented bases for benches and planters link all three design segments.

(C) Fountain Plaza (Photos #7 - #13; Figures #12 - #20)

The Fountain Plaza is the largest of the three sections, at 4.3 acres. The plan view reveals radial patterns stretching out from the Leo Rich Theater and from the center point of a plaza adjacent to the northeast corner of the Arena. As the rays spread out, they are interrupted by other geometric forms: grids, sweeping arcs and rectangles. Eventually these two-dimensional forms intersect with the three-dimensional space of the sloping site, accommodated by stairs and ramps set at an angle or aligned to yet another arc. While the eastern section of the landscape along Church Avenue is relatively level, the central section drops 24 feet in elevation from east to west as the land falls off towards the Santa Cruz River. This section of the district was completed in 1971.

The Fountain Plaza serves multiple purposes. A large central water sequence (Photo #7) and grids of shade trees (Figure #13) offer an attractive setting in which to linger during lunchtime, work breaks and before and between performances held in the adjacent Arena, Music Hall and Leo Rich Theater. Open areas provide space for major events and annual festivals as well as for informal outdoor performances. Like the Walkway, the Fountain Plaza serves as a location for wedding, prom, graduation and quinceañera photographs.

Trees planted in geometric grids are found in the northeast corner of the Arena, to the east and north of the Music Hall, and to the west of the office/shopping/restaurant complex. Geometric concrete slabs with trowel finish inset with modular brick outline the planting wells. Taking as a cue the visual arts of Joan Miró, Paul Klee and Vassily Kandinsky, these grids intersect with other two- and three-dimensional geometric forms, including arcs, diagonals, curved or angular stairways

and battered walls. In some cases grids of trees extend beyond the paved areas to continue the grid pattern into a lawn or poured concrete in-ground planter. This geometry contributes to the district. Most of the grids are planted with *Rhus lancea* (African sumac), but an inner area near the office/shopping/restaurant complex is planted with *Morus sp.* (mulberry). The two species intersect in a grid to the northeast of the Music Hall. The majority of trees planted in pavement grids survive.

Turf-covered berms along the eastern edge of the plaza separate pedestrians from motorists. The berms also reduce the sound of traffic and screen the view of the traffic from inside the plaza and provide a grassy podium for viewing the Cathedral of St. Augustine to the east across Church Avenue (Photo #10). The brick and concrete grid at the northeast corner of the Arena extends beyond the plaza to create an intriguing allée (Photo #9) along Church Avenue (Photo #9). On the street side a row of *Rhus lancea* (African sumac) is planted into the extended paving grid; on the inside trees are planted into a turf-covered berm – yet another example of Eckbo's use of dynamic equilibrium. At some point, presumably to provide additional access, this berm was pierced by a passageway into the plaza beyond.

To the south second long berm (Photo #13) was intended to conceal from Church Avenue the parking lot to the east of the Arena. But because the original planting of *schinus molle* (American pepper tree) has largely disappeared from this berm, this concept is only intermittently successful today. And while Eckbo's plan and early photographs show the berm continuing along Cushing Street to the south, the western half of the Cushing Street berm has been lost through modification to Arena parking. Because of its lack of integrity this area is not included within the boundary of the TCC Historic District.

The western edge of the plaza is lined with an irregular planting or grove of *Pinus carnariensis* (Canary Island pines) to frame a spectacular view of the Tucson Mountains – a design element that recalls a similar planting at the western end of Veinte de Agosto Park.

Groves of *Syagrus romanzoffiana* (queen palm) are found to the east of the Leo Rich Theater and in the circular drop-off area to the north of the Music Hall, providing points of orientation in the landscape.

Two original specimen trees are particularly worth noting for their size and dramatic effect. One of these is a *Ceratonia siliqua* (carob) set into a concrete planter at the southwest corner of the Leo Rich Theater; the other is a mature *Olea europea* (olive) at the southwest corner of the water sequence. The *Olea europea* (olive) is one of the largest trees in the plaza.

The plaza area to the north/northeast of the Arena provides an entryway and outdoor lobby. Here a bubbler fountain originally provided a point of departure for the radiating concrete arcs that extend out towards the Leo Rich Theater until they are interrupted by the arc of a large planter/seat wall containing five large *Eucalyptus sp.* (eucalyptus) or by the first of many grids of *Rhus lancea* (African sumac). The original fountain (Figure #19) encouraged children to play in it, following Eckbo's intention, but in 1985 the fountain was replaced by a large metal sculpture entitled *The Door is Always Open* by John Heric. The sculpture is non-contributing.

Two features dominate the central plaza to the east of the Music Hall entrance, establishing the overall form of the area. Two large concrete planters with battered walls are linked by a staircase in the form of an arc, creating a forecourt for the Music Hall entrance. An extended water sequence expands the design concept initiated in Veinte de Agosto Park and the Walkway with a series of linked basins and pools displaying water in all its forms – rushing, falling, swirling, lapping and pooling. The soundscape radiates outward from the Music Hall, with quiet pools near the entrance and noisy, splashing falls further out. The basins of the fountain are composed of poured-in-place concrete, punctuated by scatters of boulders not unlike those found in areas of turf both in this plaza and in Veinte de Agosto Park. That these fountains were intended to be accessible to visitors is confirmed by the presence of steps leading into the water at the southern end of the sequence. It was not long, however, before this accessibility was discouraged, although both City Architect Russ Eley and Garrett Eckbo are quoted as saying that while reasonable safety was to be expected in public spaces, "we should also expect people to exercise normal care in finding their way through the physical world." [5] An area of turf-covered

[5] Christina Collins. "'Sole-Talk Centering on Downtown Pond," *Tucson Daily Citizen*, December 5, 1974.

mounded earth at the south end of the water sequence was intended to provide a place to sit and enjoy the shade of an irregular grove of trees.

The water sequence is worthy of further description. The most northerly section is the most dramatic. Concrete slabs are punctuated by natural boulders, and a raised basin permits water to rush down several levels in a noisy cascade. A shallow rectangular pool between the southern end of this section and the Music Hall is fed by water flowing under a wide pedestrian bridge at ground level. An open plaza area lying between the office/shopping/restaurant complex and the Music Hall entrance suggests another bridge across the water sequence, forming a separation between its northern and southern sections. To the south water flows from a rectangular tank or pool to fall over a concrete slab into a deeper basin set with natural boulders. At the end of this flow, water collects in a deep, irregularly shaped basin. Steps lead down into the water, confirming Eckbo's intention that people should have access to it.

More intimate spaces surround the main plaza area and provide transitions to the performance venues. These include a curved balcony terrace along the southwestern arc of the Leo Rich Theater set with *Brachychiton populeus* (bottle tree), separated from the plaza by a pony wall (Photo #11); a semicircular mini-park set with five mature *Olea europaea* (olive) jutting out from the north side of the Arena arcade overlooking the plaza area below; and a series of stepped concrete planters filled with trees and shrubs framing the sides of the Music Hall and providing adjacent outdoor space during intermissions. All these secondary areas have direct connections to the central plaza area while providing niches for quieter human interaction.

Many of the forms and materials found in this space are similar to those found in Veinte de Agosto Park: mounded earth covered with turf and punctuated by scatters of natural boulders; formed concrete basins; and walls inset at the base. Stylistic links to the Walkway include modular rectangles of brick to set off grids of trees. One of the three original kiosks (identical to the one remaining in the Walkway) constructed in the Fountain Plaza is retained at the western end of the plaza to the north of the Arena; the accompanying drinking fountain and cylinder information pedestal are missing. The two other original kiosk groupings – one set outside the Arena entrance and the other at the top of the steps at the northeast corner of the Music Hall – have been removed. The remaining kiosk is a contributing feature.

In-ground planters of poured concrete serve as transitional areas stepping down to the plaza from the north side of the Arena and both sides of the Music Hall. Many of the original trees and most of the original shrubs have died, but a few hardy survivors remain. Two large poured concrete battered wall planters set off an open plaza to the east of the water sequence. Original *Jasminus mesnyi* (primrose jasmine) survives in the northern of the two.

Mounded earth intended to be covered with turf is found in areas throughout the plaza. While the original turf remains in the eastern sections of the landscape, it has been replaced with decomposed granite in the area immediately to the south of the water sequence, in the area at the western edge of the plaza, and to the south of the Music Hall. In the area of mounded earth immediately to the south of the water sequence a former area of turf has been replaced with river rock punctuated with specimen cacti. This vegetation is non-contributing.

The southern section of the Fountain Plaza shows a continuation of the earthen mounds found further north along Church Avenue. This section continues the streetscape of the northern section.

Lighting is an important feature of the Fountain Plaza (Figure #20). Numerous wall lights were positioned to flood the surface of the plaza and the water sequence at night; in-ground lighting highlighted trees; globe lights on poles provided the illusion of suspended orbs throughout the plaza. Many of these original pole lamps remain on site in good condition. Most of the other original lighting – all wall lighting and almost all in-ground lighting – has become nonfunctional. Various kinds of additional non-contributiing lighting has been added, apparently for reasons of security.

Benches adjacent to the office/shopping/restaurant complex retain original poured concrete bases indented at the bottom, but the original wooden seats have been replaced by metal. Despite this alteration, the benches are contributing. All other original benches have been removed. Around the pools of the water sequence (apparently for safety reasons) and in other areas around the plaza (mainly against walls) are metal seats designed for a single person. This seating is non-contributing.

Fifty-eight original planters are scattered throughout the site in groups of varying sizes (12"x36", 12"x48", 18"x24", 18"x 48", 22"x24", 22"x36", 22"x48"). All planters feature an off-white concrete cylinder recessed inward at the base. These provide a subtle contrast to the rectangular planters of similar design found in the Walkway. As the beginning of a rehabilitation effort, twelve additional 18"x24" planters have been reproduced and installed on the plaza. These planters can be distinguished from the originals because they include drainage holes in the base. All original planters are contributing.

Three original signs remain in the Fountain Plaza, in front of the Arena, Leo Rich Theater and Music Hall entrances. All other signage, including three fourteen-foot tall metal structures advertising Visit Tucson, is non-contributing.

Nine public art sculptures were sited in the plaza between 1991 and 2006, along with a mineral sample that was placed in front of the Music Hall in 1997. These are are non-contributing.

At some point after 1973 (presumably for safety) railings were added to the steps at the sides of the Music Hall and to all other steps except those to the northeast of the Music Hall. These are not contributing.

Circulation in the Fountain Plaza is less directed and obvious than in the two northern segments of the district. The Walkway provides an entrance from the north. A dropoff area, designed to be shared between the Music Hall and the hotel, provides access from the west. Here a visitor may choose to ascend a stairway or a ramp in the form of an arc. An article in the *Tucson Citizen* comments on this ramp as an accommodation for 'oldsters'.[6] Two other entrances from the west appear to be little used. One of these is the original entrance from now non-existent parking to the west. The other is an ADA pathway along the south side of the Music Hall, installed by McGann & Associates of Tucson in 1999 at the same time that an ADA ramp was added to the south side of the Arena. Neither of these ADA accommodations is contributing. Two entrances lead in from Church Avenue to the east. One is the original entrance to the Arena; the second is a service alley north of the Leo Rich Theater. This alley was not originally intended as an entrance, but came to be used as such when the original TCC parking area to the west was moved in the late twentieth century. Today visitors may also enter through a passage cut through the center of the berm adjacent to Church Avenue facing the Cathedral.

Components of the surrounding architecture are visible and are an important aspect of the plaza.

- The Arena's integrated arcade (originally intended to provide a venue for outdoor art exhibits) is supported by structural, form-cast concrete pillars that create rectangular openings with mitered corners. Heavy, low rectangular massing of the main part of the building is juxtaposed with the integrated open arcade on the north, which interacts and engages with the landscape. The Arena was designed by Cain Nelson Ware and Friedman & Jobusch and completed in 1971. Eckbo's in-ground planters and semicircular balcony link the arena arcade to the plaza.

- The monumental Music Hall is framed by two massive incised columns to provide the space for interior stairwells. The primary construction material of the building is rough-cut concrete block. Recessed into the façade is a three-story glass window wall of divided lights. During the day and early evening the glass reflects the plaza, but at night Eckbo's lighting design – by using pole lights identical in style to the lobby chandeliers – integrates the plaza with the interior. The Music Hall was designed by Cain Nelson Ware and Friedman & Jobusch and completed in 1971.

- The Leo Rich Theater, also constructed out of rough-cut concrete, has a curved façade. The main entrance is set unobtrusively to one side, and the windowless façade is punctuated only by exit doors. Eckbo's elevated exterior reception deck is separated from the landscape by a formed cast concrete pony wall, behind which runs a row of *Brachychiton populneus* (bottle tree). The tree-shaded deck offers views of the Music Hall and the setting sun over the Tucson Mountains to the west. The theater was designed by Cain Nelson Ware and Friedman & Jobusch and completed in 1971.

[6] Dan Pavillard. "Old Pueblo has a New Heart: The Tucson Community Center," *Tucson Daily Citizen* (October 30, 1971),11-14.

- The twelve-story hotel to the north features a cube set on top of a lobby platform. The multiple stories are characterized by long concrete columns that lean outward at the top. The window grid creates a very high level of geometry, reflecting the grids of the landscape ground plane. The hotel was designed by Landeco Incorporated and completed in 1973.

- The office/shopping/restaurant complex is composed of a series of angular irregular building forms and shapes that create openings, buildings and bridges adjacent to Walkway and Fountain Plaza. Originally, the color was intended to match the tone of adjacent light warm gray buildings, but in 1999 it was painted in multiple bright colors.[7] The complex was designed by Architecture One Ltd. and completed in 1974. Grids of the plaza abut the building.

SUMMARY OF CONTRIBUTING SITES, STRUCTURES AND OBJECTS

The TCC Historic District contains **one contributing site**, as defined by National Register Bulletin 16 as "designed landscapes".[8] This site is composed of three separate segments, which together form one landscape. Character-defining features of this site are berms of mounded earth, turf, brick and concrete paving, trees and shrubs and natural boulder cascades.
Nine contributing structures are found within the district. These include the three water sequences [one in each segment, labeled (A) on the diagrams]; four large in-ground planters (B) in the northern section of the Fountain Plaza; and two battered wall planters (C), also in the northern section of the Fountain Plaza. The district also includes **seven contributing objects**. One is the sculpture by Robert Tobias (D), located in the Walkway. The other six are groups:[9] water fountains and kiosks, original lighting, original railings in Veinte de Agosto, original pots (fifty-eight of them remain on-site), original benches (eight remain on-site) and signage (three original signs remain on-site).

SUMMARY OF NON-CONTRIBUTING STRUCTURES AND OBJECTS

Two non-contributing structures are found in the Fountain Plaza: an ADA Walkway (E) and an ADA Ramp (F). There are also **thirteen non-contributing objects**. These include seven sculptures[10] and one mineral specimen.[11] The other five non-contributing objects are groups: all non-original lighting, all non-original seating, all replacement vegetation, all railings in the Fountain Plaza, and the picnic tables in Veinte de Agosto Park.

[7] North-Hager. "Old Pueblo's Palette."

[8] United States Department of the Interior, National Park Service, Interagency Resources Division. *National Register Bulletin 16A: How to Complete the National Register Registration Form.* (Washington, DC: United States Department of the Interior, National Park Service, Interagency Resources Division, 1991), 15

[9] This was recommended by Lisa Deline in her comments on the original submission of this National Register nomination (October 20, 2014). "While the nomination provides a detailed inventory of the civic space features, for purposes of the National Register nomination, not every bollard or light fixture needs to be counted. For those minor redundant historic features that are within the period of significance, simply state in the narrative description that all historic light fixtures are considered contributing. Represent them in the resource count as 'one contributing object.' Those minor features that are non-historic, count as 'one noncontributing object.'"

[10] The Fountain Plaza contains *Arrows* (Fred Brocherdt, 1980), *Spherefield* (George Ehnat, 1983), *Medallion* (Edith Hamlin, early 1950s), *The Door is Always Open* (John Heric, 1985), *Untitled* (Alex Heveri, 2005), and *Earth/heart* (Chris Tanz, 2005). Veinte de Agosto Park contains a statue of Pancho Villa, given to the City of Tucson by Mexico in 1981.

[11] The Fountain Plaza contains *Azurite in Drusy Vugs, Malachite, Chrysocolla, Quartz and Iron Oxides* (donated to the City of Tucson by Allen W. and Ruthie A. Preston in 1997).

Resource	Resource Type	Map Key[12] or Location	Date	Evaluation
Designed landscape	1 Site		1971, 1973, 1974	Contributing
Water sequences	3 Structures	(A)	1971, 1973, 1974	Contributing
In-ground planters	4 Structures	Fountain Plaza (B)	1971	Contributing
Battered wall planters	2 Structures	Fountain Plaza (C)	1971	Contributing
Robert Tobias sculpture	1 Object	Walkway (D)	1974	Contributing
Kiosks and water fountains	1 Object	Walkway, Fountain Plaza	1971, 1974	Contributing
All original lighting	1 Object	Walkway, Fountain Plaza	1971, 1974	Contributing
All original benches	1 Object	Walkway, Fountain Plaza	1971, 1974	Contributing
All original pots (58)	1 Object	Walkway, Fountain Plaza	1971, 1974	Contributing
Original railings	1 Object	Veinte de Agosto	1971	Contributing
Original signage	1 Object	Fountain Plaza	1971	Contributing
ADA walkway	1 Structure	Fountain Plaza (E)	1999	Non-Contributing
ADA ramp	1 Structure	Fountain Plaza (F)	1999	Non-Contributing
7 sculptures	7 Objects	Fountain Plaza	Early 1950s, 1980, 1983, 1985, 22005, 2005	Non-Contributing
Mineral sample	1 Object	Fountain Plaza	1997	Non-Contributing
Non-original lighting	1 Object	Fountain Plaza	Varies	Non-Contributing
Non-original seating	1 Object	Walkway, Fountain Plaza	Varies	Non-Contributing
Non-original pots	1 Object	Walkway	Unknown	Non-Contributing
Railings	1 Object	Fountain Plaza	Varies	Non-Contributing
Replacement vegetation	1 Object	Veinte de Agosto, Fountain Plaza	Varies	Non-Contributing
Picnic tables	1 Object	Veinte de Agosto	Ca. 2000	Non-Contributing

Table of Contributing and Non-Contributing Resources

CONDITION

Veinte de Agosto Park is little changed since its installation. The water sequence is functional, and the lawn and trees have been well-maintained. The addition of small features – a street clock, signage, a memorial stone, railings and picnic tables – have little impact on the overall design. The overall condition of this segment of the District is Good.

The Walkway suffers from aging mechanical and electrical systems and from some overgrown and missing vegetation. The original wooden seats of the Eckbo benches have been replaced by metal, and some of the rectangular pots are missing. Additional benches have been introduced as a safety barrier along the water channel. Overall, the water sequence, aside from a few missing pieces of ceramic tile, is as installed, although the mechanical systems have failed. All lighting in this segment is original, complete, and fully functional. Overall condition of this segment of the District is Fair.

[12] Contributing structures and sculpture (object) have been keyed to Figure #5 (Veinte de Agosto), Figure #9 (Walkway) and Figure #13 (Fountain Plaza).

The Fountain Plaza suffers from deteriorated mechanical and electrical systems. While much of the original lighting is still in place, none of the wall lights or in-ground lights are functional. To compensate, various kinds of additional non-contributing lighting have been added. The mechanical systems of the water sequence have failed and some of the basins leak. The original bubbler fountain sited to the northeast of the Arena has been removed and replaced with a sculpture. Many of the original trees remain, although most of the original shrubs are overgrown or missing. In some cases replacement vegetation has not been of the original species. Aside from two benches, original seating has been removed and non-contributing seating introduced. Some original signage remains, but additional non-contributing signage has been added. Some areas of turf have been replaced with decomposed granite. A passage has been cut through the earthen mound that separates the plaza from Church Avenue. Several earthen mounds suffering from erosion have been reinforced by sections of concrete block.

Despite these issues, the great majority of the site remains in good condition. Poured concrete planters are intact, as is most of the irrigation. Terraces and stairways remain as built, in good condition. All the earthen mounds remain in position and retain their original shape; most remain covered with turf. Grids of trees show some missing elements, but the paving patterns have been maintained. The water sequence requires repair but is fundamentally sound and unaltered. Fifty-six original pots remain on site. The plaza continues to be used in a wide range of public events and continues to provide an outdoor gathering space before events and during intermissions. The condition of this segment of the District is Fair.

INTEGRITY

Overall the district retains all seven qualities of Integrity.

[The southwest section of the original Eckbo design, which was extensively modified at the end of the twentieth century when Granada Avenue was rerouted and adjacent parking areas redesigned, does not retain integrity and has not included within the boundary of the TCC Historic District.]

(1) Location
The three sections of the district remain in their original locations.

(2) Design
The original design is extant. The absence of some smaller features and the addition of non-contributing features have not obscured the overall design which is obvious even to the casual visitor. The district within the defined boundary retains integrity of design.

(3) Setting
The immediate surroundings of the landscape have not changed to any great extent. The construction of the United States District Court Building (405 West Congress Street) in 2000 partially blocks the view of the Tucson Mountains from the northwest area of the Fountain Plaza, but important views of the Tucson Mountains and the Cathedral of St. Augustine remain uncompromised. The district retains integrity of setting.

(4) Materials
Except for added objects and structures, the materials of the landscape remain largely unchanged since the period of significance. Vegetation has matured; in some cases, it has not survived. The great majority of trees now on site are those originally planted, and some original shrubs also remain. Some sections of turf have been replaced by decomposed granite and/or river rock, and one original fountain (water feature) has been removed and replaced by a sculpture. The heavy wooden seats of all original benches have been replaced with metal bleacher seats, but the poured concrete footings remain intact. Paving and planter beds are overall unchanged. Overall, the district retains integrity of materials.

(5) Workmanship
The Tucson Community Historic District is an outstanding example of Modern landscape design, installed by a local Tucson contractor (M.M. Sundt) known for quality work. The cascades of boulders, both on the berms and in the

fountains, were chosen and placed individually on the site by Eckbo. Vegetation was chosen by Eckbo in consultation with Gene Reid,[13] Tucson's first Parks and Recreation Director, and much of it survives. Lighting was a special interest for Eckbo, and the lighting of the TCC Landscape was installed following his detailed design. Well over half of installed lighting has survived to the present day. The fountains, while in need of renovation, retain their characteristic juxtaposition of concrete slab and natural boulders. The district retains integrity of workmanship.

(6) Feeling
The essential interaction of people and nature espoused by Eckbo in his many books and articles is manifest in this landscape. Mountain and cathedral views, the scent of pines and eucalyptus, the sounds of moving water, the feel of sun and shade, the touch of the wind, and the presence of people moving through the space – all combine to present a physical experience as imagined by the designer. Open space and secluded nooks serve the various and changing needs of individuals in the space. The district retains integrity of feeling.

(7) Association
The landscape embodies in physical form the design philosophy of the Modern landscape architecture movement for which Eckbo spoke. In a more personal way, it embodies Eckbo's own philosophy of public places designed to serve the needs of all members of society by creating an inviting and democratic space for human activity. It also recalls the optimistic spirit of the 1960s and 1970s when cities undertook the creation of new civic amenities focused on cultural, athletic and social activities. The district retains integrity of association.

[13] Pavillard. "Old Pueblo has a New Heart".

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [ ] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [x] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [x] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

Landscape Architecture

Period of Significance

1971-1974

Significant Dates

1971

1973

1974

Significant Person
(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Eckbo, Garrett

Period of Significance (justification)

Period of Significance: 1971-1974 (the period of construction of the district)

Criteria Considerations (explanation, if necessary)

Constructed in three stages in 1971, 1973 and 1974, the TCC Historic District falls under Criteria Consideration G (less than 50 years of age). The landscape is of exceptional importance, deriving its significance from its designer and master landscape architect Garrett Eckbo. As one of only four urban designs created by Eckbo in his long and productive career, it synthesizes the work of two earlier designs (Fresno Mall in 1964 and Union Bank Square 1968), and articulates in physical form the philosophy of Modern landscape design he espoused. Of these three urban works completed within a decade, the TCC Plaza is the most complex, composed of three separate yet linked design sections. It is also the only Eckbo design linked to an urban renewal undertaking involving the demolition of a preexisting neighborhood. Acknowledged as a major work in its own right, its green connective tissue spanning a downtown area foreshadows Eckbo's growing interest in urban and regional planning.[14]

The exceptional importance of this landscape has been noted by a number of scholars. Linda Jewell, Professor of Landscape Architecture and Urban Design at the University of California, Berkeley, writes that "this landscape (is) particularly significant for scholars and students since the built work, drawing and correspondence (housed in the Environmental Design Archives at the University of California, Berkeley) together provide a unique insight into Eckbo's design process."[15] Charles Birnbaum, of the Cultural Landscape Foundation, states that this "landscape embodies Eckbo's design principles and is a keystone in his canon of work . . . .This design ranks in the top tier of Modernist work, one of the most significant designed landscape in the American Southwest".[16] Anne-Marie Russell writes that in 2010 the Museum of Contemporary Art arranged for Marc Treib, co-author of the Eckbo monograph, and Laurie Olin, prominent landscape architect, to tour the complex and offer their critical evaluation of the work. Both agreed that the complex is a masterwork of Eckbo's.[17] It has also been featured in recent publications including *Dwell* magazine[18] and *Landscape Architecture Magazine*.[19]

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

The TCC Historic District is eligible for listing on the National Register of Historic Places at the National Level of Significance under Criterion C as an outstanding example and significant work of a master: landscape architect Garrett Eckbo (1910-2000). One of the leading landscape designers and theorists of the twentieth century, Eckbo spoke for the Modern landscape design movement, formulating in words the conceptual elements and characteristics of the style. Not only was he himself the author of seven major books and over fifty articles, but his writing and constructed work spawned a huge secondary literature in many languages. The TCC Historic District embodies Eckbo's spatial theories as well as his emphasis on the important social role of landscape architecture. It received an honor award from the American Association of Landscape Architects in 1978, and was one of Eckbo's personal favorites, included in the retrospective portfolio of projects in his last published work (1998), *People in a Landscape*[20]. In recent years its importance has been rediscovered as Modernism has been become recognized as an important historical style. Both the design and the construction are well-documented through plans, photographs and newspaper and verbal descriptions. Completed in two stages in 1971 and 1974, the district falls under Criteria Consideration G (less than 50 years of age). Unique among Eckbo's urban plazas in size and complexity, the TCC Historic District represents the summation of his work in civic design, balanced between a carefully detailed site plan and his developing interest in planning at urban and regional scales. As such, it is of exceptional importance, deriving its significance from its internationally-acclaimed master landscape architect.

[14] Garrett Eckbo et al., *People in a Landscape* (Upper Saddle River, NJ: Prentice-Hall Inc., 1998).
[15] Linda Jewell, October 20, 2012, Personal Communication to Carol D. Shull.
[16] Charles Birnbaum, October 11, 2012, Personal Communication to Carol D. Shull.
[17] Anne-Marie Russell, May 13, 2013, Personal Communication to Carol D. Shull.
[18] Charles A. Birnbaum, "Landscape Futures," *Dwell* April(2013).
[19] Sam Newberg, "Three for the Register," *Landscape Architecture Magazine* 103, no. 5 (2013), 28.
[20] Eckbo et al. *People in a Landscape.*

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

The TCC Historic District has national significance for listing on the National Register of Historic Places under Criterion C for Landscape Architecture. It was designed by Garrett Eckbo, one of the twentieth century's foremost landscape architects, at the height of his career. Completed in two stages in 1971 and 1974 as part of a joint venture with Tucson architectural firms Cain Nelson Ware and Friedman & Jobusch, the TCC Historic District is the only Eckbo-designed civic space in Arizona and is one of only four civic spaces designed by Eckbo. The other three are Fulton Mall (1964) in Fresno, CA, the Union Bank Square (1968) in Los Angeles, CA, and the K Street Mall in Sacramento, CA (1968-78). Of these four urban projects, the TCC Historic District is the largest and most complex. It also represents Eckbo's only urban renewal project sited in an area reclaimed through neighborhood demolition.

CRITERION C: LANDSCAPE ARCHITECTURE

The TCC Historic District is eligible for the National Register on the national level under Criterion C as a unique capstone work in the career of landscape architect Garrett Eckbo. Created on a unique site, it sythesizes other civic designs undertaken during this brief interlude in his largely residential design career by gathering together the fullness of his design theory in one space.

> The TCC Historic District represents the work of a master, Garett Eckbo (1910-2000), a leading twentieth century pioneer for Modernism and landscape architecture. A prolific writer and educator, his books include *Landscape for Living* (1950), considered to be the single most influential treatise on Modern landscape design.
>
> Eckbo's TCC Historic District is a significant work of American landscape architecture. This modernist landscape perfectly represents Eckbo's "people place" principles: generous space between buildings for group gathering, the use of water as a unifying and animating focal element, and the selection of shade trees from the regional ecological palette. The landscape, one of the largest areas of open space in downtown Tucson, retains integrity to Eckbo's design, transcending axial symmetry through balanced equilibrium within three-dimensional space.
>
> The TCC Historic District is significant as one of a small handful of civic designs produced by this prolific landscape architect and his only example in Arizona. The sloping topography of this site posed unique challenges to Eckbo, unlike the level site of his Union Bank Square and Fulton Mall landscapes. Eckbo incorporated this native topography to great effect in framing view and vistas, creating multisensory experiences for visitors, and enlivening the flow of water throughout the site.[21] (Stevens 2012).

An early pamphlet circulated by the City of Tucson provides a description of the design intent of the newly-completed Fountain Plaza:

> The design for Tucson creates outdoor spaces to be enjoyed by many people during day and night. The paved area of brick and concrete are designed as forecourts for the buildings, usable at intermissions, as sitting areas, for informal and formal gatherings and for exhibitions.
>
> Groves of trees create canopies for shade and shaded walkways . . . .Large grass spaces with trees are an alternative to the paving in the Plaza. Pines were planted around the Fremont house for a vertical mass to define the Plaza and frame a view of the mountains to the West. Palm trees were placed as focal elements near the entrances to the Music Hall and Little Theater. Flowering plums were planted for seasonal show and as a contrast to the mulberries, sumac olives and pine trees.
>
> [The] main water feature is a series of cascades at the change of levels between the Little Theater and the Music Hall. Noise of the water has a cooling effect, complementing the grass and pavement, and contrasting with the desert and surrounding city.

[21] Christopher Stevens, Personal communication to Carol D. Shull, October 24, 2012.

> Water features are all well lighted. In addition, globe lights are used to define main entries, sidewalks, and the forecourt of the Music Hall. Wall lights illuminate steps and ramps, and lights in the pavement softly light selected walls. Flood lights illuminate major tree masses.
>
> The designer points out that the community center (is) intended to be a people place, and that activities and interests change as people become interested in new ideas. The outdoor space (is) designed to accommodate new expressions of ideas. [22]

The title of this article, "Landscaping Accentuates 'People Place'", encapsulates Eckbo's overall vision and philosophy. In addition to his position as one of the giants of Modern landscape design, "Eckbo's writings underpinned education and practice for much of the latter part of the twentieth century".[23] What Eckbo wrote, he practiced, and the TCC district reveals many aspects of his thought in concrete form.

Eckbo's books and articles demonstrate his overriding interest in designing places for people. The linked landscapes of the TCC district are not highly choreographed or directive, but rather defer to the varying needs of those individuals who visit. The landscape was intended to multiple uses, in the evening as well as during the day; to provide as a processional area as well as a place to linger and to accommodate both small and large groups. His design intent was to create a plaza that would serve community needs as determined by the people themselves in their own time.

Eckbo, whose foundational treatise *Landscape for Living* was published in 1950, focused on designing "people places." More specifically, this meant creating landscapes that welcomed "all human beings: . . . men, women, babies, children, adolescents, old folks, Negroes, Mexicans, Orientals, 'white Caucasians,' Jews, etc.".[24] He argued that landscape design was not exterior decoration – the role it had played in the Beaux-Artes design tradition - but rather the organization of outdoor space for the use of people. As a result of this emphasis, the TCC Landscape is a flexible choreographic space which serves multiple populations and functions. As a leisure landscape for strolling and picnicking, it provides areas for children to enjoy the water and run about while families and friends sit together and chat. As a lunchscape for busy office workers, it provides a much-needed mid-day break. As a formal entrance foyer for the Arena, Leo Rich Theater and Concert Hall, it offers an elegant transition to cultural activities and evening performances. As a place for street artists and special events, it serves as a congenial outdoor performance and exhibit space. As green space in the city, it offers respite from the surrounding desert heat.

This landscape embodies democratic values. Unlike earlier Beaux-Artes landscapes created to be seen from one specific viewpoint, the TCC district intentionally provides multiple perspectives. These are not designed to enhance the position of a single powerful individual, or to project a sense of awe, but rather to provide a range of inclusive experience for all visitors.

One of the reasons that Eckbo's work is less likely to be circulated in photographic essays than, for example, the work of his contemporary Lawrence Halprin, is that he did not design dominating central features.

> Photographs fail to convey an accurate impression – for Eckbo's work lacks the striking one-point perspectives so beloved of design magazines. . . . his designs are not facades but be experienced within as a spatial continuum in their specific regional context. Today's younger generation of designers sometime speak as if they had rediscovered contextualism via "site-specific" environmental art. Eckbo, in his emphasis on climatic regionalism, never departed from contextualism.[25]

[22] "Landscaping Accentuated 'People Place'," *Tucson Community Center Happenings* 4 (1971), 4.
[23] Simon Swaffield, *Theory in Landscape Architecture: A Reader* (Philadelphia, PA: University of Pennsylvania Press, 2002), xi.
[24] Garrett Eckbo, *Landscape for Living* (New York: Architectural Record with Duell, Sloan, & Pearce, 1950), 29.
[25] Reuben M. Rainey, "Garrett Eckbo's Landscape for Living," in *Modern Landscape Architecture: A Critical Review*, ed. Marc Treib (Cambridge, MA: The MIT Press, 1991), 204.

In this way Eckbo's work differs from most of the designs of his contemporaries. Sometimes dubbed the "landscape architect of the people", he did not for the most part create major focal points through his designs.[26] Instead he was providing the context for visitors to enjoy the landscape according to their own wishes and needs.
The three linked design areas of the TCC Historic District also point forward towards Eckbo's developing interest in city and regional planning. Thus this landscape can also be seen as a transitional work. In fact, the Honor Award from the American Association of Landscape Architects mentions that the project "should have been entered in the urban design category".[27] In its scale, the TCC Landscape is unique among Eckbo's four major civic designs, because the Fulton Mall, the K Street Mall, and the Union Bank Square are single-unit designs.

BIOGRAPHY OF GARRETT ECKBO

Garrett Eckbo was born in Cooperstown, New York, in 1910, but grew up in Alameda, California, where his mother moved after his parents divorced. His childhood was far from privileged. He studied landscape design and floriculture at the University of California at Berkeley, receiving his degree in 1935. A year later he received a scholarship to the Harvard University Graduate School of Design. At that time, Walter Gropius was transforming the architecture program, and Eckbo, along with two fellow students, Dan Kiley and James Rose, created a self-proclaimed "Harvard Revolution," initiating the principles of Modern landscape design. Eckbo's contact with Gropius and the principles he espoused encouraged him to see things from a populist perspective, a focus he would maintain lifelong. After graduating, Eckbo spent several years working for the Farm Security Administration, designing facilities for farm workers in California and Arizona, an experience that confirmed his belief that 'what was good for the rich was good for the poor (Imbert 2009:85).[28] In 1942, he joined his brother-in-law Edward Williams in a partnership as Eckbo & Williams, a firm that would later expand to include Francis Dean and Don Austin and become world-renowned as EDAW (1964). In 1948, he began a teaching career at the University of California, Berkeley, serving as Chair of the Department of Landscape Architecture from 1965-69, and becoming Professor Emeritus in 1978. *Landscape for Living*, first published in 1950, remains in print today and suggests that his influence may extend well into the future. In 1975 he received the Medal of Honor from the American Association of Landscape Architects for his contributions to the profession. His projects include pedestrian malls, civic centers, waterfronts, public parks, churches, playgrounds, freeway systems, botanic gardens, cemeteries, office buildings, resorts, corporate campuses and private homes. He continued to work until the year before his death in 2000.[29]

One of the finest landscape architects of the twentieth century, Eckbo led the rebellion against the formal and decorative Beaux-Artes tradition that dominated landscape practice at the beginning of the twentieth century.[30] While studying at Harvard, he and fellow landscape architecture students Dan Kiley and James Rose fell under the influence of Walter Gropius, and soon published three articles in *Pencil Points,* a leading publication in progressive architecture. Eckbo went on to become the acknowledged theorist and spokesperson for the Modern landscape movement, writing seven major books and over fifty articles outlining the principles of his work. His book *Landscape for Living* (1950) is considered to be the single most influential treatise on Modern landscape design.[31] Instead of following the accepted practice of adapting historic models to contemporary needs, Modernism chose as its point of departure the site, the client, the program, the materials, the architecture, the technology, and geographic character. Forms and arrangements drew from characteristics of site, climate, materials and cultural needs. People were recognized not only as cultural individuals and groups, but as members of local, national and world societies. Design was to be imaginative, yet socially and environmentally responsible. The role of tradition was to provide inspiration and a benchmark for achievement.[32] The work of visual artists

[26] The large fountain at the Denver Botanic Garden is an exception.
[27] American Society of Landscape Architects, "Tucson Community Center: Honor Award," *Landscape Architecture* 68 (July 1978), 300.
[28] Dorothée Imbert, "Garrett Eckbo," in Shaping the American Landscape, edited by Charles Birnbaum and Stephanie S. Foell (Charlottesville, VA: University of Virginia Press, 2000).
[29] Marc Treib and Dorothée Imbert, *Garrett Eckbo: Modern Landscapes for Living* (Berkeley, CA: University of California Press, 1997); Marc Treib, "Looking Forward to Nature - an Appreciation of Garrett Eckbo, 1910-2000," *Landscape Architecture Magazine* 90, no. 12 (2000).
[30] Imbert, "Garrett Eckbo", 85-87.
[31] Ibid., 87.
[32] Eckbo, *Landscape for Living,* 10-11.

of the same period, especially Vassily Kandinsky and Joan Miró, had a significant effect on the formal aspects of Modern design, helping to mitigate the regularity of the axial Beaux-Artes plans.[33]

Modern landscape architecture stressed three-dimensional form, working with space from the inside out rather than from the outside in. Indoor and outdoor spaces were seen as continuous rather than discontinuous. Along with the general principles of Modernism that sprang from the "Harvard Revolution", Eckbo emphasized the idea that experiential factors – sight, sound, smell, touch, overall feeling, psychological reaction – are as important as economic, technical, and functional factors.[34] He further believed that continuous and substantial contact with nature is essential to a healthy design. He stressed that every designed landscape should respond to the needs of people who are to use the space, taking into account the surrounding neighborhood, the region and beyond. He felt a strong affinity for the developing ecological sensitivity of the twentieth century, and his design palette focused on the use of climate-adapted plants.

Eckbo received numerous awards throughout his long career. Among these were American Institute of Architects Merit Award (1953); membership in the National Academy of Design (1964); the American Society of Landscape Architects Medal of Honor (1975); and the University of California College of Environmental Design Distinguished Alumnus Award (1998).

URBAN RENEWAL: THE CONTEXT OF THE TCC HISTORIC DISTRICT (Figure #2)

From the 1930s onward American central cities fell victim to a range of circumstances that led to their abandonment in favor of the rising suburbs. One of the leading causes was the increasing availability of the automobile and the passage of the National Interstate and Defense Highways Act of 1956, which made it possible for people to leave the city's older building stock and density for the growing suburbs. After World War II mortgages subsidized by the Federal Government encouraged an even greater number of city residents to depart, leaving the outdated central city to new immigrants, the elderly and the impoverished. Many of these residents were people of color.[35]

During the 1930s a general consensus was reached by city planners across the country that the way to revitalize the central city was through physical renewal, meaning an updated infrastructure, good highways and parking, and upgraded amenities to serve the middle class. World War II interrupted the implementation of such plans, but the direction of impending renewal was set. The Housing Act of 1937 dedicated funding to the combination of slum clearance and new low-rent public housing construction.[36]

Two additional Acts of Congress in 1947 and 1949 expanded the program of slum clearance, and in 1949, for the first time, land areas cleared with Federal aid could be sold or leased to private developers for residential development.[37]

In 1953 President Eisenhower formed a special committee on Government Housing Policies and Programs, which concluded that Federal assistance should be limited to communities willing to undertake long range-planning to avoid slum creation, including enforcement of building codes. Recommendations from this study were incorporated into the Housing Act of 1954, which emphasized comprehensive planning for urban areas. Additional housing acts in 1959 and 1961 increased Federal support and emphasized planning based on capital financing and land economics.[38]

The story of urban renewal in Tucson followed a pattern similar to that of the rest of the country, but unlike other cities which had seen relatively large recent in-migrations from poorer and rural areas, central Tucson had a large population of Mexicans, Chinese and native Americans whose ethnic and cultural roots antedated the arrival of the Anglo population in the nineteenth century. The Gadsden Purchase that transformed Tucson from a Mexican city to an American city took

[33] Treib and Imbert, *Garrett Eckbo: Modern Landscapes for Living*, 61.
[34] Garrett Eckbo, *Public Landscape: Six Essays on Government and Environmental Design in the San Francisco Bay Area* (Berkeley, CA: Institute of Governmental Studies, University of California, 1978), 7.
[35] Jon C. Teaford, *The Rough Road to Renaissance: Urban Revitalization in America, 1940-1985* (Baltimore, MD: Johns Hopkins University Press, 1990), 4-7.
[36] Ibid., 25-43.
[37] Alfred P. Van Huyck and Jack Hornung, *The Citizen's Guide to Urban Renewal* (West Trenton, NJ: Chandler-Davis Publishing Company, 1962), 149-51.
[38] Ibid., 150-51.

place in 1854, but Tucson remained a largely Mexican town until the coming of the railroad in 1880. The subsequent influx of Anglo settlers changed the ethnic balance in a dramatic way.

By the 1930s the business community was dominated by Anglos, among them real estate broker Roy P. Drachman (1906-2000), who would become one of the largest supporters of urban renewal in Tucson. In response to the Federal Housing Act of 1937, the Tucson Chamber of Commerce (of which Drachman was the Director) appointed a committee to back the passage of an enabling bill through the state legislature and to undertake the support of feasibility research on the potential for urban renewal, but little progress was made until 1942, when the City of Tucson and Pima County joined with a group of business leaders to commission Ladislas Segoe, a planner from Cincinnati, to collaborate with City of Tucson planner Andre Faure to produce a document entitled *Tucson Regional Plan, Inc.: Ten Year Improvement Program for Tucson and Environs*.[39] In this plan Segoe recommended that the Old Pueblo area – especially the area around Meyer Street where the Community Center stands today - be the first priority in renewal efforts.[40]

Once again things did not move forward, but in the early 1950s Faure, now City Planning Director, proposed three areas of Tucson for renewal, one of which was the Old Pueblo District.[41] In 1955 Don Hummel, who had supported the state enabling legislation almost twenty years before, became mayor of Tucson. Under his leadership, the City received Federal approval and funding for developing a survey and plan for renewal of the Old Pueblo District (Ibid: 34). This work took several years, and it was only in 1961 that a document entitled *Urban renewal: a teamwork of private enterprise and government for slum clearance and redevelopment of the Old Pueblo District, Tucson, Arizona*, was completed by S.L. Schorr, then the City of Tucson Urban Renewal Director. This plan proposed the redevelopment of 392 acres, an area eventually whittled down to 76.4 acres.[42] Still, this plan was rejected by Mayor and Council. Again a delay followed until 1965, when Donald Laidlaw and Vincent Lung of the City completed a Survey and Planning Application to the Urban Renewal Administration for approval. This was approved in record time in spring 1965.

A Committee on Municipal Blight was immediately established under the chairmanship of Roy Drachman to prepare a planning document for the project. This resulted in *A Concept Plan: Pueblo Center Project/Tucson/Arizona*).

> The Pueblo Center project offers the community an opportunity to transform a portion of the Downtown area immediately adjacent to the Business District from a state of run-down buildings, inadequate streets and marginal business and residential uses into a vital area containing needed government facilities, business uses, and a community center for meetings, performances and exhibits. . . . The project also provides a chance to improve the street pattern for the whole Downtown area, to provide parking facilities, and to develop landscaped spaces for public enjoyment.[43]

In November a condensed version of this plan entitled *The Pueblo Center Redevelopment Project* co-authored by Drachman and Lung was accepted by Mayor and Council. A bond election in March 1966 provided the financial basis for proceeding.[44]

The urban renewal area was intended to serve as an enhancement for the central business district, which lay to the northeast. It was believed at that time that a civic / government center and a cultural center would draw the middle class back to the downtown area, taking advantage of the huge Anglo population influx into Tucson which followed World War II.[45]

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[39] Ladislas Segoe, "Tucson Regional Plan, Inc. Ten Year Improvement Program for Tucson and Environs" (Tucson, AZ: Prepared for the Tucson Regional Plan, Inc., 1942).

[40] Rachel Stein Gragg, "Tucson: The Formulation and Legitimation of an Urban Renewal Program" (University of Arizona, MA paper, 1969), 27-29.

[41] Ibid., 30.

[42] Ibid., 41.

[43] Candeub, Fleissig, Adley and Associates, *Pueblo Center Project, Tucson, Arizona: Concept Plan*, (Tucson, AZ: Department of Community Development, City of Tucson, 1965), 1.

[44] Gragg, "Tucson: The Formulation and Legitimation of an Urban Renewal Program," 49-51.

[45] Vincent L. Lung and Roy Drachman, Tucson Citizens Committee on Municipal Blight, *The Pueblo Center Redevelopment Project : Report Presented to the Central City Council of the Urban Land Institute, April 23, 1965 by Roy Drachman, Chairman, Citizens Committee on Municipal Blight and Vincent L. Lung, Assistant City Manager and Coordinator of Community*

In retrospect it is clear that a powerful Anglo business elite, holding a vision of Tucson as an exciting modern city, had little sympathy for or understanding of the long-established culture of the area to be impacted by urban renewal. Focused on tourism and economic development, their goal was to remove the long-established Barrio community from the central city. As the years dragged on, civic as well as private neglect had led to a deteriorated housing stock in the project area, as there was no financial incentive for upgrading basic services such as plumbing or electricity. Even those citizens concerned with historic preservation were unable to influence the eventual result of bulldozing the greater part of the area to make space for new construction.[46]

Shortly after the 1966 bond election, the city began to acquire the necessary property for the proposed project. Only fifty acres of the eighty-acre site had to be acquired, the rest being made up of streets. Demolition began in May 1967.[47] By 1969, the entire area had been cleared and the government center completed. The community center was the last area to be developed.

ECKBO'S TUCSON COMMUNITY CENTER COMMISSION

An informational pamphlet, *Pueblo Center Redevelopment Project, 1967-1969* set forth the goals for the project's landscape:

> Careful attention will be paid to details of interplay between light and shade, paving textures, landscaping, flow of water, and vistas created within the project. . . . a meaningful aesthetic experience for the citizens of Tucson.[48]

Anglo Tucsonans of the 1950s and 60s wanted Tucson to have a public space that would represent the city as a thriving, modern community. As was the case with many other cities of the time, much study went into developing the new downtown area. In Tucson, plans for a "pueblo center" were debated for several decades before demolition of old neighborhoods and new construction began. In the end, not only were buildings bulldozed but entire streets were abandoned or rerouted

Two local architectural firms undertook the design of the Tucson Community Center as a joint venture: Cain Nelson Ware and Friedman & Jobusch. Edward 'Ned' Nelson headed the project. M.M. Sundt, a local contractor, did the construction. Nelson, along with Bernard Friedman and Donald Laidlaw (then Tucson's Urban Renewal Administrator), interviewed a number of the most prominent landscape architects in the country to complete this team. Among them were Lawrence Halprin, Dan Kiley (who had designed the landscape for Lincoln Center in New York City) and Garrett Eckbo.[49] It was a visit to the Fulton Mall in Fresno, CA, that convinced the group that Eckbo was the right choice for Tucson's needs. A contemporary account in the *Tucson Daily Citizen* recounts,

> We went to Fresno, Nelson recalls. And we watched the people – winos, housewives, oldsters, kids – walking, talking, arguing, laughing. The children played in the pools. These were just great spaces . . . and we asked ourselves, "Why can't we combine the idea of an open-air mall with a community center?"[50]

The project was completed in two stages. Veinte de Agosto Park and the Fountain Plaza were completed in 1971, and the Walkway was completed in 1974 after the construction of the hotel and the office/shopping/restaurant complex. The construction was done by Sundt Construction, who include it in their 2011 portfolio of selected projects.[51]

Development (Tucson, AZ: City of Tucson, 1965).

[46] Lydia R. Otero, *La Calle: Spatial Conflicts and Urban Renewal in a Southwest City* (Tucson, AZ: University of Arizona Press, 2010).

[47] Bonnie Newlon, *Pueblo Center Redevelopment Project, 1967-1969* (Tucson, AZ: City of Tucson, Deptartment of Community Development, Urban Renewal Division, 1968), 8.

[48] Ibid., 3.

[49] Edward Nelson, May 5, 2012. Interview with Helen Erickson.

[50] Quoted in Pavillard. "Old Pueblo has a New Heart".

[51] Archie Satterfield and Charles A. Boyde, Building Integrity since 1890: The Remarkable History of Sundt Construction, (The Sundt Companies, Inc., 2011).

The Fountain Plaza was officially opened on November 6, 1971. Over a thousand persons attended the ceremony. Mayor James N. Corbett spoke, saying: "This center is the embodiment of the new Tucson – an understanding of the heritage and peoples of the past and a recognition that the people of this community have dedicated themselves to better opportunities for everyone."[52]

The hotel was completed in 1973 and formally opened on November 28, 1973. Photographs from that date reveal that the Walkway was not yet installed.[53] Although apparently there was no formal opening celebration for this segment of the district, the Walkway appears complete in photographs at the time of the formal opening of the office/shopping/restaurant complex on May 3, 1974.[54] Veinte de Agosto Park, on the other hand, appears in 1973 photographs (Figure #7), but it was not officially recognized until it was dedicated as a public park on August 20, 1978. [55] City of Tucson Construction drawings from the early 1970s label it as 'Eckbow Park'.

In 1978 The Tucson Community Center received the Honor Award from the American Society of Landscape Architects. Jury comments read:

> A very challenging assignment. Exciting use of materials and establishment of a number and variety of vistas in essentially an urban setting with excellent use of water. A very urbane typing together of major activity centers. Really lovely. Interesting use of fountains. Very dynamic kind of setting – different uses, different levels, different vistas. Very sophisticated. There is ample shade. A very difficult assignment in having to work in very serious constraints. Excellent![56]

ECKBO'S DESIGN THEORY AS REPESENTED IN THE TCC HISTORIC DISTRICT

As the spokesman for Modern landscape design, Eckbo described in words what he demonstrated in his designs. Beyond his primary emphasis on designing for the needs of people, he considered three other forces – history, nature and architecture - to have a major role in the design process.[57]

In the Fountain Plaza, framed views of the Tucson Mountains to the west and to the historic Cathedral of St. Augustine to the east provide a link between nature and history. In Veinte de Agosto Park the surrounding civic and office buildings are linked to the view of the Tucson Mountains, framed by giant *Pinus halepensis* (Aleppo pine). Eckbo defines these views as landmarks: "People orient themselves in the physical world much more simply and naturally by relation to landmarks than by such intellectual abstractions as verbal directions, signs, or maps".[58] Such landmarks include both natural and constructed features. They are indeed an orienting presence in the district.

The historic context of the site as one of the oldest areas of settlement in Tucson and as the former center of Tucson's Mexican-American community was not ignored in the design. In project presentations to the community Eckbo made reference to Chapultepec Park in Mexico City as an influence on the design of the fountains.[59] In portfolio descriptions of the TCC project he regularly mentioned the adjacency of historic houses rescued from the demolition of the Barrio.[60] Eckbo's original design had included an additional fountain to provide a dramatic setting for the Sosa-Carrillo-Fremont house, but due to reduced funding this was never built. Yet even in the completed project an arc of differentiated paving (sometimes referred to as a "dry wash") directs the eye to the historic house.

Eckbo defined nature as the inextricable world of forces and processes within which we live and work, including climate, vegetation, soil, topography and water movement. He wrote that the true role of landscape design is "the establishment of connections, relations, and adjustments, both physical and visual, between buildings, sites, and their surrounding

[52] Quoted in David Nix "Formal Dedication Held for Community Center," *Arizona Daily Star*. November 7, 1971.
[53] "Braniff Place Completed," *Tucson Daily Citizen*, November 28, 1973, 2.
[54] "'Mexican Village' Open to Public."
[55] " A Park for Pancho."
[56] American Society of Landscape Architects, "Tucson Community Center: Honor Award," 300.
[57] Garrett Eckbo, *Urban Landscape Design* (New York: McGraw-Hill, 1964), 62.
[58] Ibid., 29.
[59] Ceci Garcia, Interview with Helen Erickson, June 26, 2012.
[60] For example, see Eckbo et al., *People in a Landscape*, 200.

landscapes, that is, between people and the total landscape around them".[61] Landscape has no boundaries save those where man leaves off changing the landscape.[62] In the design of the TCC Landscape, this includes the provision of links between people and nature at many scales, from the Tucson Mountain views, to the now-gigantic pines on the western side of the landscape, to the mid-sized sumacs and shrubs, to the grassy mounds that invite sitting. He drew from the interpretations of anthropologists who designated "savannah" as the most congenial landscape for human beings, with a open surface of grassland with a sprinkling of covering shelter provided by mid-sized trees, and views within and beyond the site.[63] Along with this is the association with water. The design drew into the city a vision of Sabino Canyon, a much-loved area of the Coronado National Forest located in the Santa Catalina Mountains just north of Tucson. The concept of a mountain stream flowing through washes and canyons cannot be missed. Although the boulders that tumble down the berms and interrupt the flow of water in the fountains are most likely of volcanic origin from the Tucson Mountains, they underscore this connection to the surrounding landscape.[64]

For Eckbo, architecture and the landscape existed in a state of constant reciprocity: landscape providing site and setting, inspiration, discipline and responsibility; and architecture providing imaginative spatial concepts with unavoidable effects upon the form and character of the surrounding landscape.[65] Every building set in the Fountain Plaza is surrounded by a reciprocal transitional zone, a space of interaction between building and landscape. The Leo Rich Theater features an outdoor reception balcony planted with *Brachychiton populneus* (bottle tree), but set off from the plaza with a pony wall. It is difficult to say for certain whether this is part of the building or part of the plaza. The Arena's arcade creates a physical connection between indoor and outdoor space, but beyond that planting terraces stepping down to the plaza level blur the boundary between building and plaza. Large planting boxes and planting terraces on the north and south sides of the Music Hall serve the same function, and the glass façade on the east side of the Music Hall alternately provides a transparent link between interior and exterior or reflects the plaza back into itself, blurring the lines between lobby and plaza. Eckbo's lighting design took advantage of this by echoing the design of the lobby chandeliers in the pole lights just outside the Music Hall entrance. The Walkway, likewise, was designed to provide an indoor/outdoor corridor, sheltered by an overstory of trees, with windows and passageways reaching into the built spaces surrounding it, while using interior lighting to provide added illumination to the exterior area.

Throughout his writings Eckbo emphasized the importance of trees in the landscape.

> Trees, rather than architecture, are the best measure of the civilized landscape. A community in which many mature trees survive and more are planted regularly demonstrates a sense of time, history and continuity on the land . . .[66]

Today the TCC Landscape reveals dozens of mature trees, an amazing heritage for a desert community. From the *eucalyptus sp.* (eucalyptus) that punctuate the arc of the eastern Fountain Plaza, to the *Pinus canariensis* (Canary Island pine) and *Pinus halepensis* (Aleppo pine) of the Veinte de Agosto Park and western Fountain Plaza, to the spreading *Rhus lancea* (African sumac) in the central Fountain Plaza, to the *Plantanus wrightii* (Arizona sycamore) in the Walkway, to the grove of *Olea europea* (olive) in the balcony terrace on the northern side of the Arena, this entire landscape serves as an arboretum. Historic photographs indicate that these trees have grown from the original saplings planted on the site, a living link between historic past and potential future.

The presence of the surrounding buildings is not ignored in this design. Eckbo saw architecture as the primary expression of human imagination within the landscape, the link between abstract conception and concrete reality.[67] Along Church Avenue, berms serve as pedestals for showcasing the Arena. From the upper Fountain Plaza, traffic and parked cars are concealed to provide an uninterrupted view of the Cathedral. In the northern segment of the design, the berms of Veinte de Agosto Park provide a similar foundation for viewing the government buildings of the civic center.

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[61] Eckbo, *Urban Landscape Design,* 62.
[62] Eckbo, *Landscape for Living* , 31.
[63] Ibid., 111.
[64] Pavillard, "Old Pueblo has a New Heart".
[65] Garrett Eckbo, "Landscape Continuity," *Image* 3, no. 1 (1965): 77.
[66] Garrett Eckbo,"Metropolitan Design, Form and Content in Urban Areas." *Annual Meeting of the American Institute of Planners: a Report of the Proceedings,* 1959, 137.
[67] Ibid., 62.

Eckbo understood that space in a landscape is perceived very differently from architectural space. "Gardens and landscapes in general are apprehended only from within themselves; they do not have the outside walls or façades which make it possible to walk around most buildings, however modern, and view them as objects, more or less sculptural, in the landscape".[68] Modern landscapes must be thought of as three-dimensional, dynamic spaces rather than as two-dimensional forms outlined on paper. The provision of enclosure – control of views, protection from sun, wind or rain, privacy or openness - is an essential element in spatial experience of landscape.[69] The TCC landscape provides large, open spaces, and quiet, intimate conversation areas – flows and eddies – pathways and byways. The landscape is never static, yet always in balance, continually changing to accommodate the visitor. Eckbo's intent was to offer "a continuous experience for each and every human being . . . from a stationary position, or while in motion at any speed".[70] The downward slope of the terrain towards the west in the Fountain Plaza or Veinte de Agosto Park is interrupted with walls or vegetation to constrict or widen the view as a person moves through the space. The illusion of slope from north to south in the Walkway is created by the variable widths of water channels, although the area is essentially flat. Trees overhead obscure the sky, open plazas reveal and celebrate it.

For Eckbo, landscape was a multisensory experience defined by touch, smell and hearing as well as vision.[71] In the TCC landscape, the flickering of sun and shade, a pine-scented breeze, the cool touch of water and the soundscape of fountains, the softness of turf, the contrast between brick and concrete paving underfoot – all these contribute to a complete experience of the space.

Eckbo was fascinated by the concept of dynamic equilibrium as conveyed in the paintings of Joan Miró, Vassily Kandinsky and Paul Klee. Following the lead of these artists, Eckbo's mature works relied on circles as places of rest and as the source or terminus of lines, the trace of a pendulum.[72] The circles and rays emanating from the center of the section of the plaza near the northeast corner of the Arena and from the Leo Rich Theater demonstrate this on the ground plane, as do the repetitive grids throughout the Fountain Plaza. But Eckbo's sense of dynamic equilibrium moves beyond patterns on the ground to three-dimensional space. An example of this is found in the allée that parallels Church Avenue in the northeast corner of the Fountain Plaza. An analysis of this apparently traditional form reveals a planting of *Rhus lancea* (African sumac) on each side of the walkway; but on the east side the trees are planted into a sequence of rectangular pavement openings to form a gridded line, while on the west side the trees are planted onto a sinuous grassy berm. The effect achieved is a moment of balance.

A similar dynamic balance is seen in the Walkway with the asymmetical position of the water channel, set to the west of center. Large *Rhus lancea* (African sumac) and *Plantanus wrightii* (Arizona sycamore) are intended to be held in check by the line of smaller trees in the gridded planters on the eastern side of the corridor. Pedestrians walking along the eastern side of the corridor provide a dynamic balance to the weight of the water feature and larger trees to the west. Both the allée and the Walkway demonstrate Eckbo's vision of creating a landscape largely composed of straight lines, but without axial symmetry. This he deemed to be "interesting, stable and restful without being dull or monotonous".[73]

In both small and large ways he demonstrated complex relationships between lines and curves, seeing this as human "vision in motion".[74] In Veinte de Agosto Park, the fountain begins with a regular octagonal basin from which water flows through angularly placed linear channels into semicircular or arc-based collection basins. These basins in turn lead the eye to the bermed wash angling off to the southwest towards the stairway to the office/shopping/restaurant complex. In the central Fountain Plaza, the circular terraces interrupted by angular battered walls, across from the Music Hall to the east, offer another example of this interactive juxtaposition of elements.

[68] Eckbo, *Landscape for Living,* 63.
[69] Ibid., 64-65.
[70] Garrett Eckbo. *The Landscape We See* (New York: McGraw-Hill, 1969), 136.
[71] Eckbo, *Public Landscape,* 7.
[72] Treib and Imbert, *Garrett Eckbo: Modern Landscapes for Living,* 61-62.
[73] Eckbo, *Landscape for Living,* 67.
[74] Ibid.

ECKBO'S USE OF MATERIALS IN THE TCC HISTORIC DISTRICT

One of the characteristic features of Eckbo's work was his choice of materials, a matter to which he devotes considerable emphasis in his writings. He outlined three general principles with regard to their use:

- Materials must express their own inborn characteristics. By this he meant that bricks are modular units, the effect of which is built up by repetition and combination. Concrete is a plastic material whose shape and volume can be flexibly defined. A plant is alive, requiring appropriate provision for its individual development. The materials that comprise the TCC District reflect this understanding. Brick is used as modular units to define sections of pavement or, as in the Walkway and Fountain Plaza, to define the grids of trees. Concrete is used for both curved and linear constructs, for walls, paving and mowing strips. In the Walkway, it appears as stamped segments of pavement. In the Fountain Plaza it is used to form curved, battered walls of in-ground planters. Brick does not masquerade as concrete, and concrete is not be used as a substitute for brick. Plants are permitted to grow interactively with their environment and are not shaped and pruned into static geometric forms. The bending forms of the *Rhus lancea* (African sumac) trees or the twisted stem of the Chamaerops humilis (Mediterranean fan palm) now on site would undoubtedly please Eckbo.

- Materials have character only in relation to other materials. The contrast between smooth and plastic elements and those of a rougher character brings out the character of each.[75] In the TCC district, the best example may be the contrast between unformed water and the rigidity of concrete. Other examples are the contrast between turfed mounds and the natural volcanic rocks that tumble down the slopes, or between turf and linear concrete mowing strips.

- Materials are used not for their own sake, but to organize space for people to use. This circles back to Eckbo's fundamental design concept of creating places for people and on his emphasis on difference between "pure" art and the use of materials in landscapes. The use of materials in the TCC landscape is never simply decorative, but always supports the overall goal of designing for people. Walkways are there to be walked, trees offer screening and shade, grassy berms encourage sitting.[76]

Eckbo's emphasis on selecting vegetation that did not require shaping or regular pruning, but was rather to be permitted to grow and develop over time according to its character[77] is yet another example of his use of dynamic equilibrium in this landscape. Eckbo argued for small areas of grass to provide surfaces for informal sitting and for the reduction of heat, glare, dust and noise.[78] In the Fountain Plaza and in Veinte de Agosto Park, grassy mounds offer a cool, relaxed place to sit – and it is rare not to see groups gathered on the grass in Veinte de Agosto Park or in the Fountain Plaza. He argued that trees are the basic tools for establishing scale relations between people and landscapes of all sizes, between an individual and the world around.[79] Medium-sized trees provide intimate shade, while larger trees such as the *Pinus canariensis* (Canary Island pine) and *Pinus halepensis* (Aleppo pine) frame views of the mountains. Deciduous trees like *Plantanus wrightii* (Arizona sycamore) and *Morus sp.* (mulberry) mark the seasons in warmer climates[80] and provide landscape variation throughout the year.

A 1971 newspaper account states that

> "working with Gene Reid, Head of Tucson's Parks and Recreation Department, Eckbo was able to employ many of the plants native or adapted to Tucson – fan palms, mulberry, sumac, Texas ranger, dark leaf plum, olive, pine, etc. – and to start with larger plants than the budget would have permitted had it not been for Reid's cooperation in tapping the city's well-stocked nursery".[81]

[75] Ibid., 76-78.
[76] Ibid.
[77] Ibid., 96.
[78] Ibid., 107-08.
[79] Ibid., 111.
[80] Ibid., 99.
[81] Pavillard, "Old Pueblo has a New Heart".

His major criterion for plant selection was to choose vegetation that would grow well in a specific location with available care; vegetation should have room to grow to full size without persistent pruning or trimming.[82] For Eckbo, site-adapted plants were the backbone of his planting design, and he chose vegetation based on this criterion. He did not feel that plant palettes should be restricted to native plants.[83] This explains his choice of *Rhus lancea* (African sumac) and *Syagrus romanzoffiana* (queen palm) - drought-resistant, long-lived trees in most areas of the site. In fact the tree palette of the TCC Historic District includes no native plants other than the *Plantanus wrightii* (Arizona sycamore) in the Walkway. Original shrubs were Mediterranean and Asian in origin, although few of these survive other than a few scattered *Oleander nerium* (oleander), *Chamaerops humilis* (Mediterranean fan palm), *Buxus microphylla.* (Japanese boxwood), *Pittisporum t. variegata* (variegated pittisporum), *Podocarpus gracilor* (fern pine) and *Jasminus mesneyi* (primrose jasmine). Nothing in his planting plan is drawn from the Sonoran Desert (his most native plant choice - *Leucophyllum frutescens* or Texas ranger - is native to the Chihuahuan Desert). His goal was to select those plants that would grow best in any specific location, and he had little patience for those who wished to limit a plant palette to those growing in an area before a specific date. Instead he pointed out that the on-going relationship between people and plants has led to a not-to-be-ignored cultural whole.[84]

Because the TCC landscape was planned as a space for both day and evening use, lighting was an important aspect of the design. Ideas that seem commonplace now were exciting and innovative when first introduced by Eckbo. The silhouetting of trees and shrubs, light passing through glass and water, the creation of a stage set while yet providing functional light where it is needed – all these were discussed in Eckbo's writings.[85] The lighting design for the Walkway intentionally drew on lights emanating from the surrounding hotel and office/shopping/restaurant complex to supplement the globe lamps on poles. Here all original light fixtures remain, revealing a sophisticated plan with two-globe fixtures illuminating the pathway, four-globe fixtures illuminating intersections and single-globe features illuminating corners of the site. Lighting in the Fountain Plaza included wall lights, in-ground spot lights, floodlights and globe lights on poles, providing surface light for practical reasons and globe lights as a dramatic feature and guide through the space. Even now, with missing fixtures in the Fountain Plaza (especially those placed to illuminate the ground plane or water features), enough of the original plan remains to provide an good idea of the design intent. A historic photograph of the Music Hall at night gives an idea of the intended effect (Figure #19).

THE USE OF WATER FEATURES IN THE TCC HISTORIC DISTRICT

For Eckbo, water was one of the fundamental materials of landscape design, along with ground forms, rocks and plants. Water is the most plastic of design elements, its character determined by its container and by the rate and direction of movement given to it. In more arid climates water is particularly relevant because of its importance for comfort and life, and in these climates it should be used sparingly and in such a way to gain maximum coolness and moistness from every drop. "In Arizona water is the final touch which makes the garden liveable."[86]

Depending on the design of the container, water can provide quietude, repose, depth, tension, solidity and sparkling or luminous reflection. Water affords choreographic possibilities, accompanied by trickling, silent or thunderous sound. It transforms the character of materials with which it comes in contact.[87] Eckbo comments that "design of pools seems still to be dominated by the peculiar idea that irregular pools must be naturalistic and regular pools axially symmetric. . . . (but) the rectangularity of the unit-masonry pool can be a free and irregular rectangularity, and angular or circular relations at appropriate scale can be come part of this".[88]

All three design areas of the TCC Historic District contain water sequences composed of rectangular or arc-derived geometric units of channels and basins. In Veinte de Agosto Park the fountain emerges as a bubbler in an octagonal basin. From this water flows in channels tangentially adjacent to a stairway to collect in two sequential basins derived from portions of geometric arcs. In the Walkway an initial semicircular basin and bubbler leads to a sequence of

[82] Eckbo, *Landscape for Living,* 112.
[83] Ibid., 33.
[84] Ibid, 34, 105-06.
[85] Ibid, *Landscape for Living,* 125.
[86] Ibid., 89-90.
[87] Ibid., 90.
[88] Ibid., 91.

rectangular channels to achieve the effect of an irregular stream. At the end of the series, water flows down the sides of elongated concrete cubes, transforming this material into flashes of daytime silver or nighttime gold. The linked basins in the Fountain Plaza reveal water at its most plastic, sometimes lying quiet and reflective, sometimes pouring over concrete walls or washing around natural volcanic boulders in its path. Eckbo's fountains create a soundscape of varied intensity in different sections of the site, so that taking a walk though the space is an acoustic delight.

POST-CONSTRUCTION CONSIDERATIONS

The completed design lived up to the hopes expressed by Nelson and Friedman. Early photographs show people walking, lunching, reading and playing in the water. Within a few years, however, liability anxiety set in, and Eckbo found himself pushing back against those who felt that the open water features created a safety problem requiring barricades. He wrote:

> "There may be absolute safety – in bed in a fireproof building? – and absolute danger – tied to a railroad track. But most situations lie between such extremes. Physical situation should be made reasonably safe, without obvious or unnecessary hazards. But we also expect people to exercise normal care in finding their way through the physical world.[89]

Yet by 1977 no solution had been found.

> The sparkling ponds of water in the Tucson Community Center complex are an irresistible magnet for kids on hot summer days.That worries the Community Center Commission, which is searching for ways to make the ponds off limits for swimming. What's cool fun for kids becomes a vision of accidents, injuries and damage suits for the grownup members of the commission. So, at its monthly meeting yesterday, the commission decided to start thinking of ways to prevent kids from using the two fountain pools near the center's music hall for ad hoc swimming holes.[90]

As with other Modern landscape designs including water features, this discussion continues today. Appropriate solutions have not yet been determined.

Another unanticipated outcome was the symbolism assigned to the entire community center project by those whose neighborhood had been destroyed by Tucson's urban renewal undertaking.

> For many of Tucson's most deeply rooted residents, the Community Center, bland as it may be architecturally, now stands as a hated reminder of arrogant and uncaring officialdom. "People's grandmothers died because of those buildings," complains Pedro Gonzales. . . . [91]

It may be that the man who designed landscapes for migrant housing was uncomfortable with the social cost of urban renewal projects. Even before planning for the TCC Landscape was completed, Eckbo went on record as opposed to the completion of the Butterfield Freeway, which would have required further neighborhood demolition just to the south:

> Really, there is no apparent reason to me why the city has to be cut up with such a monstrous system of freeways . . . an apparently arbitrary plan. I see no reason to hack up the city with such a system when through traffic could stay to the outskirts of the city. [92]

For whatever reason, the TCC Landscape is the only urban renewal project Eckbo ever undertook. After the completion of this commission, his focus turned towards planning. While he continued to work on residential projects, his public design work centered on college campuses rather than urban spaces.

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[89] Quoted in "Sole-Talk Centering on Downtown Pond," *Tucson Daily Citizen*, December 5, 1974.
[90] Quoted in "In the Swim? Not Community Center," *Tucson Daily Citizen*, October 21, 1977.
[91] Quoted in Dan Huff and Dave Devine, "Grassroots Golliath . . . The Pima County Interfaith Council prepares to Tackle Big Problems in the Old Pueblo . . . . Are They Tough Enough?" *Tucson Weekly*, October 17, 1996.
[92] "Civic Center Architect Blasts Freeway Plans," *Tucson Daily Citizen*. March 29, 1968.

THE TCC HISTORIC DISTRICT WITHIN THE CANON OF ECKBO'S WORK

After he graduated from Harvard, Eckbo went to work for the Farm Security Administration in 1938. This program was a New Deal project created to alleviate rural poverty during the Great Depression. The Western Office, for which Eckbo worked, was focused on providing minimal living conditions for agricultural workers in the Southwest. These designs focused on windbreaks, playgrounds and community parks associated with low income housing projects. After the end of the World War II, he formed a partnership with his brother-in-law Edward Williams and Robert Royston, who had formerly worked for landscape architect Thomas Church. At this point Eckbo began to focus on residential design, which was to remain the greater part of his work throughout his career. His designs for the Case Study House program, sponsored by *Arts and Architecture* magazine from1948 to 1962, gave him the opportunity to design model landscapes to accompany architectural designs by noted contemporary architects. It was at this point that his work began to reach a wider audience. Here Eckbo's mature style developed, showing offset interlocking spaces offset by angled walls intersecting with walls or rows of trees based on arcs. His affinity for the work of twentieth-century visual artists, especially Kandinsky, became a fundamental underpinning of his work.[93]

The majority of Eckbo's designs, which number over a thousand, were residential, but a number of public spaces are among them. Between 1955 and 1976 his work included projects at several college campuses, two malls, an urban roof garden, a botanic garden, and a cemetery. The projects most closely related to Eckbo's Tucson commission are the Union Bank Square (1964), Fulton Mall (1964), and the Denver Botanic Garden (1969). All of these designs show Eckbo's underlying use of abstract geometry. His materials vocabulary of formed concrete, modular brick, mounded earth covered with turf, and water features adjacent to pedestrian walkways can be found in all of these works.

The Fulton Mall in Fresno, CA, represents the transformation of a street into a pedestrian mall, an eighty-foot wide right of way designed to mimic the rippled soil of the San Joaquin Valley through the use of curvilinear and angular ribbons of concrete aggregate.[94] Use of geographic location as a design concept was likewise important in the design for the TCC Historic District, invoking the landscape of Sabino Canyon – a beloved recreational area to the northeast of Tucson. The overall goal for the Fulton Mall was to provide a green central space for surrounding commercial buildings by converting an existing street to a pedestrian way. The design includes seating, play spaces, pools, fountains and nineteen sculptures acquired specifically for the space. The influence of the plan for the Fulton Mall can be seen in the design of the Walkway, which shares many two-dimensional features – an asymmetrical axis, a rectilinear water feature, and a dynamic balance of vegetation. In addition, it was the Fulton Mall that led the Tucson joint venture team to select Eckbo as their landscape architect.[95]

The Union Bank Square in Los Angeles, CA, is a roof garden, intended to be viewed from above as well as provide a retreat for pedestrians. Design similarities to the TCC Landscape include a plan of arcs and grids - a strong, almost literal connection to the work of visual artists he admired. It contains an elegant water feature, but site limitations require the water to be contained in a shallow pool. Like the Fulton Mall, this site is comprised of a level, rectangular space.

Like the Fulton Mall and the Union Bank Square, the Denver Botanic Garden was also designed a pedestrian retreat. Walkways, a main outdoor gathering place, and an extended water sequence are features that resonate with the TCC Historic District design. Concrete basins with steppingstones permit visitors an immediate link to tangible water. Earthen mounds and depressions provide a three-dimensional aspect to the design. Use of turfed mounds and formed concrete is shared with the Tucson design. Uncharacteristic of Eckbo's work, a large fountain (reminiscent of that designed by Philip Johnson for the Fort Worth Water Garden) serves as an origin for the sequence. Nothing Eckbo designed for the TCC landscape is this directive or monumental.

The Tucson site itself provided something different from these level, quadrangular spaces. In *Landscape for Living*, Eckbo discusses the importance of site topography: "If the land has some irregularity or slope it has to that extent a third dimension which produces some sense of volume, determined by the vertical pull of gravity".[96] Unlike the three contemporary projects mentioned above, the TCC site provided Eckbo with an unparalleled opportunity to practice a full

[93] Treib and Imbert, *Garrett Eckbo: Modern Landscapes for Living,* 44-61.
[94] The Cultural Landscape Foundation, "Fulton Mall."
[95] Pavillard, "Old Pueblo has a New Heart".
[96] Eckbo, *Landscape for Living,* 61.

range of the principles of three-dimensional design about which he wrote so passionately. In fact, the topography of this site, with its dramatic slope to the west, made an exploration of three-dimensional space a requirement as well as an option. The irregularity of the TCC site boundaries, especially in the Fountain Plaza, provided an opportunity for Eckbo to blur indoor and outdoor spaces, providing transitions from buildings to landscape in a way that was not possible with sites having better-defined edges. The flowing character of the design, offering a range of different 'people places' in close proximity, is a unique defining characteristic of the TCC district.

In addition, the Fulton Mall, the Union Bank Square and the Denver Botanic Garden are essentially unified designs. Only the Tucson site offered potential for three linked yet strongly individual design areas. This afforded unity and contrast – a theme and variations based on the movement of water through the landscape. One can only feel that this was the site for which Eckbo had been waiting, because after completing this project he turned his attention to urban and regional planning on a larger scale.

THE TCC HISTORIC DISTRICT TODAY

With the revival of downtown Tucson, the importance of this landscape as a vital ingredient in the urban scene has been rediscovered. In 2010 the Museum of Contemporary Art (Tucson) asked Emily Yetman, then an MLA student at the University of Arizona, to serve as a Scholar in Residence with the goal of beginning research on the Eckbo design. Her work led to the listing of the landscape on Landslide, the Cultural Landscape Foundation's list of important landscapes threatened with destruction.[97] Her work was continued by the Tucson Historic Preservation Foundation, which in 2012 commissioned Helen Erickson to write a *Historic Conservation Master Plan*.[98] In 2014 the Urban Land Institute published *Downtown Tucson Arizona; Working Together to Revitalize Downtown,* which cited the importance of the landscape in continuing efforts to improve the urban center.[99] During the spring term 2015, the University of Arizona and Pima Community College united with the City of Tucson to focus three academic courses on planning and documenting the landscape; a published report of this work, which includes a stewardship plan, documentation of condition, and a three-dimensional model of the space, will be available from the Drachman Institute at the University of Arizona in August 2015.

Developmental history/additional historic context information (if appropriate)

GARRETT ECKBO AND COMPARABLE DESIGNS BY OTHER MODERN LANDSCAPE ARCHITECTS

A concise history of Modern landscape architecture remains to be written, but the names most frequently associated with the movement, in addition to Garrett Eckbo, are Thomas Church (1902-78), Daniel Kiley (1912-2004) and, above all, Lawrence Halprin (1916 – 2009). Of these, Lawrence Halprin completed the greatest number of urban designs. Yet it is difficult to encapsulate the period of the 1960s and 1970s by citing the work of only these three Modernists, because of the numerous others who made significant contributions to urban design in this period. It is perhaps more helpful to provide some specific examples of work roughly contemporaneous with the TCC District. A brief discussion of three landscapes noted for their water features follows.

Lawrence Halprin designed the Open Space Sequence in Portland, Oregon, during the 1960s, at the same time that Eckbo was working on the Fulton Mall, Union Bank Square and the TCC Historic District. Here Halprin designed stepped terraces covered with sheets of water intended to mimic the waterfalls and streams of the nearby Cascade Range. Like the TCC Historic District, the sequence was expansive, including three parks linked by a network of pedestrian paths. This non-contiguous historic district includes a twenty-five foot high concrete fountain feature as well as a smaller bubbler fountain in separate areas. The monumental quality of this design provides a major contrast with the more human scale of the TCC landscape.[100] As one of the great works of landscape architecture, this site illustrates the difference between Halprin and Eckbo. Halprin's design is far more controlling, offering the opportunity to see the landscape through the eyes of the designer. It is essentially pre-choreographed. The TCC landscape, on the other hand, is an invitation to a visual

[97] Emily Yetman, "Eckbo-Designed Tucson Convention Center Landscape."
[98] Helen Erickson, "Conservation Master Plan: Tucson Community Center Landscape Designed by Garrett Eckbo," (2012).
[99] Urban Land Institute, "A ULI Advisory Services Panel Report: Downtown Tucson Arizona: Working Together to Revitalize Downtown: November 17-22, 2013," (Washington, DC: The Urban Land Institute, 2014), 19.
[100] The Cultural Landscape Foundation, "Portland Open Space Sequence."

and sensual adventure. Eckbo believed that "landscape experience is a complete composite of everything that can be seen or sensed from every station point of circulation."[101] Every turn, every new point of perspective reveals something unique to each individual. Each visit is, in a sense, a first encounter with the space.

Another work of this period is the Fort Worth Water Garden, Texas (1974) designed by Philip Johnson. Geometric tiered water features and turf-filled planters are formed of concrete. A multi-level site, stairs set at angles provide access from upper to lower areas. A water channel runs along a balcony wall. Trees are set into circular tree wells in the paving and are also set into turfed planters. Giant steppingstones provide immediate water access for the visitor. Although this design is created as a single unit rather than a sequence, there are a number of similarities to the TCC Historic District, including concrete "stepping stones" through the water flow (as in Veinte de Agosto Park) or trees set into paving as in the Walkway and the Fountain Plaza.[102] The architectural design provides an enclosed oasis, an area of retreat, which is but one of the functions of the TCC landscape. And while they have much in common in the presence of tangible water, the Water Garden is a unitary design rather than a complex linkage of sites as is found in the Open Space Sequence or the TCC district.

A third example of a landscape from this period is Peavey Plaza, Minneapolis, Minnesota (1975) designed by M. Paul Friedberg. This plaza shows links to the Open Space Sequence in the monumental character of its design. Composed of amphitheater-style seating around a central pool designed to contain water in summer and serve as a skating rink in winter, it includes turf-filled planters and surrounding trees set into pavement or planters. Like the Fort Worth Water Garden, this landscape is composed of a single segment. Common elements with the TCC Historic District include materials, a range of levels and tangible water.[103] One of the major differences is that Peavey Plaza is designed – like the Fort Worth Water Garden – as an enclosure. The difference between this concept of protected space and Eckbo's vision of a landscape balanced somewhere on a sliding scale between the needs of an entire central city to a boulder scatter on a mound of grass-covered turf is what makes the TCC landscape unique. Within its extended district, protected areas transition into wide views of mountains or historic architecture, while serving as the green connective tissue of an urban center.

Ultimately the TCC Historic District has more in common with other Eckbo designs of the same period than with these masterpieces, although it shares with the Open Space Sequence a conceptual link to adjacent landscape. Overall, Eckbo's work is less monumental and more human in its scale, yet more open to surrounding context. It pulls the surrounding architecture into the landscape rather than creating a contrast and respite from it. Eckbo's use of materials is also somewhat different, including mounded earth and natural boulders. His vegetation palette is also broader, including a wide range of shrubs as well as trees. Eckbo's designs emphasize the creation of spaces to be activated by people rather than providing dominating landscape features. Throughout, water is presented as an interactive landscape feature rather than merely a visual enhancement.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

BOOKS, ARTICLES, REPORTS AND WEB RESOURCES

Arizona Public Media. *History Moment: Eckbo Fountains*. http://www.azpm.org/news/story/2011/2/11/1829-history-moment-eckbo-fountains/ [accessed February 11, 2011].

American Society of Landscape Architects. "Tucson Community Center: Honor Award." *Landscape Architecture Magazine* 68, July 1978: 300-301.

Birnbaum, Charles A. "Landscape Futures." *Dwell* 13, April 2013: 36-37.

____."Modern Landscape Architecture: Presentation and Preservation." *Forum Journal* 27, no. 2, 2013: 3-11.

[101] Eckbo, "Metropolitan Design, Form and Content in Urban Areas," 136.
[102] The Cultural Landscape Foundation, "Fort Worth Water Garden."
[103] The Cultural Landscape Foundation, "Peavey Plaza."

_____."Preserving Modern Landscape Architecture : Papers from the Wave Hill-National Park Service Conference." Cambridge, MA: Spacemaker Press, 1999.

_____, Jane Brown Gilette and Nancy Slade, editors. *Preserving Modern Landscape Architecture II: Making Postwar Landscapes Visible*. New York, NY: Spacemaker Press, 2004.

_____, and Robin S. Karson. *Pioneers of American Landscape Design*. New York, NY: McGraw-Hill, 2000.

_____, and Stephanie S. ,, editors. *Shaping the American Landscape: New Profiles from the Pioneers of American Landscape Design Project*. Charlottesville, VA: University of Virginia Press, 2009.

Brown, Mary. *San Francisco Modern Architecture and Landscape Design 1935 - 1970: Historic Context Statement*. San Francisco, CA: San Francisco City and County Planning Department, 2010.

Candeub, Fleissig, Adley and Associates. *Pueblo Center Project, Tucson, Arizona: Concept Plan*. Tucson, AZ: Department of Community Development, City of Tucson, 1965.

Candeub, Fleissig and Associates. *Need for Renewal: A Part of the Community Renewal Program of the City of Tucson, Arizona*. Tucson, AZ: November 1968.

_____. *Report on Preliminary Proposals for Area Treatment: A Part of the Community Renewal Program of the City of Tucson, Arizona*. Tucson, AZ: Prepared for the Department of Community Development, October 1968.

The Civic Center Planning Group. *A Community-Convention Center for Tucson*. Tucson, AZ: March 1960.

The Cultural Landscape Foundation. "Union Bank Square". http://tclf.org/landscapes/union-bank-square [accessed September 16, 2012].

_____. "Fulton Mall". http://tclf.org/landscapes/fulton-mall [accessed June 28, 2015].

_____. "Portland Open Space Sequence". http://tclf.org/landscapes/portland-open-space-sequence [accessed June 28 2015].

_____. "Fort Worth Water Garden". http://tclf.org/landscapes/fort-worth-water-garden [accessed June 28, 2015].

_____. "Peavey Plaza". http://tclf.org/landscapes/fort-worth-water-garden [accessed June 28, 2015].

_____. "Tucson Convention Center". http://tclf.org/landscapes/tucson-convention-center [accessed January 21, 2015].

Cooper Aerial Survey Co. "Tucson and Vicinity Aerial Photography." Tucson, AZ: Cooper Aerial, 1974.

Davis, Darbi. "How Garrett Eckbo Transformed the Downtown Tucson Landscape." *3 Story Magazine: Desert Cool, Urban Hot* 2, March 2014. http://3storymagazine.com/ground-floor-garrett-eckbo-tucson/ [accessed April 4, 2014].

Eckbo, Garrett. "Excerpts of Remarks by Garrett Eckbo before the Southeastern Conference of the Association of Collegiate Schools of Architecture at the North Carolina State College School of Design." *Architectural Forum* 105, no. 6, 1956: 82.

_____. *Garrett Eckbo: Philosophy of Landscape*, edited by Tooru Miyakoda. Tokyo, Japan: Process Architecture, 1990.

_____. "Landscape Continuity." *Image* 3, no. 1, 1965: 34-39.

_____. "Landscape Design in the Rural Environment." *Architectural Record* 85, 1939: 68-74.

_____. "Landscape Design in the Urban Environment." *Architectural Record* 85, 1939: 70-77.

_____. *Landscape for Living*. New York, NY: Architectural Record with Duell, Sloan, & Pearce, 1950.

_____. *Landscape for Living*, introduction by David C. Streatfield. Amherst, MA: University of Massachusetts Press, 2009.

_____. *The Landscape We See*. New York, NY: McGraw-Hill, 1969.

_____. "Metropolitan Design, Form and Content in Urban Areas." *Annual Meeting of the American Institute of Planners: a Report of the Proceedings,* 1959: 135-139.

_____. *Public Landscape: Six Essays on Government and Environmental Design in the San Francisco Bay Area*. Berkeley, CA: Institute of Governmental Studies, University of California, 1978.

_____. "Space and People." *Architectural Record* 107, 1950: 69-75.

_____. "Typical Plants for the Pacific Coast: Selected by Garrett Eckbo." *House & Garden* 103, no. 1, 1953: 63.

_____. *Urban Landscape Design*. New York: McGraw-Hill, 1964.

_____. "The Work of Garrett Eckbo: Landscapes for Living." In *Proceedings of the Second Annual Symposium on Landscape Architecture*, edited by Warren T. Byrd, Jr. Charlottesville, VA: The University of Virginia, School of Architecture, Division of Landscape Architecture, 1984.

_____, Daniel Kiley and James Rose. "Landscape Design in the Primeval Environment." *Architectural Record* 87, 1940: 74-79.

_____, Chip Sullivan, Walter Hood and Laura Lawson. *People in a Landscape*. Upper Saddle River, NJ: Prentice-Hall Inc., 1998.

Evans, Chris and R. Brooks Jeffery. "Architecture of the Modern Movement in Tucson, Arizona 1945-1975". http://mapptucson.catnet.arizona.edu/context_study.pdf [accessed September 12, 2012].

Friedewal, Boris. *Bauhaus*. New York, NY: Prestel, 2009.

Gingerich, Sheldon E. "A Gem in the Art of Urban Renewal: Tucson Community Center." *Arizona Highways* 51, February, 1973: 33-35.

Gomez-Novy, J. and S. Polyzoides. "A Tale of Two Cities: The Failed Urban Renewal of Downtown Tucson in the Twentieth Century." *Journal of the Southwest,* 45, 2003: 87-120.

Gragg, Rachel Stein. "Tucson: The Formulation and Legitimation of an Urban Renewal Program." Master of Arts Dissertation, University of Arizona, 1969.

Historic Preservation Consultants. "A Report on the Historic Architecture to be Preserved as Part of the Pueblo Center Redevelopment Project, City of Tucson, Pima County, Arizona." Tucson, AZ: 1969.

Imbert, Dorothée. "Garrett Eckbo." In *Shaping the American Landscape*, edited by Charles A. Birnbaum and Stephanie S. Foell. Charlottesville, VA: University of Virginia Press, 2009: 85-87.

_____. "Biography of Garrett Eckbo", The Cultural Landscape Foundation. http://tclf.org/pioneer/garrett-eckbo/biography-garrett-eckbo [accessed June 15, 2012].

Laurie, Michael. *An Interview with Garrett Eckbo January 1981*. Watertown, MA: Hubbard Educational Trust, Inc., 1990.

Lung, Vincent L. and Roy Drachman, Tucson Citizens Committee on Municipal Blight. *The Pueblo Center Redevelopment Project : Report Presented to the Central City Council of the Urban Land Institute, April 23, 1965, by Roy Drachman, Chairman, Citizens Committee on Municipal Blight and Vincent L. Lung, Assistant City Manager and Coordinator of Community Development*. Tucson, AZ: City of Tucson, 1965.

Maclay, Kathleen, "Garrett Eckbo, UC Berkeley Professor Known for Inspiring the Modern Landscape Movement, Dies at 89". http://berkeley.edu/news/media/releases/2000/06/08_eckbo.html [accessed June 15, 2012].

McKee, Bradford, editor. "Three for the Register." *Landscape Architecture Magazine* 103, no. 5, 2013: 26.

National Trust Staff. "A Tale of Two Modernist Parks." *Forum Bulletin* 2012. http://www.preservationnation.org/forum/library/public-articles/a-tale-of-two-modernist-parks.html [accessed May 23, 2012].

Neckar, Lance M. "Landscape Architecture/Recovery into Prosperity 1950: An International Inquiry into Landscape Design - and the Social, Political, and Artistic Forces That Influenced It - from 1940-1960." *Landscape Journal* 16, September 21, 1997: 211-218.

Newberg, Sam. "Three for the Register." *Landscape Architecture Magazine* 103, no. 5, 2013: 28.

Newlon, Bonnie. *Pueblo Center Redevelopment Project, 1967-1969*. Tucson, AZ: City of Tucson, Department of Community Development, Urban Renewal Division, 1968.

Otero, Lydia R. "Conflicting Visions: Urban Renewal, Historical Preservation and the Politics of Saving a Mexican Past." Doctor of Philosophy Dissertation, University of Arizona, 2003.

_____, *La Calle: Spatial Conflicts and Urban Renewal in a Southwest City*. Tucson, AZ: University of Arizona Press, 2010.

Online Archive of California. "Inventory of the Garrett Eckbo Collection". http://www.oac.cdlib.org/findaid/ark:/13030/tf4290044c/ [accessed June 12, 2015].

Pregill, Philip and Nancy Volkman. *Landscapes in History: Design and Planning in the Eastern and Western Traditions*. New York, NY: John Wiley, 1999.

Rainey, Reuben M. "Garrett Eckbo's Landscape for Living." In *Modern Landscape Architecture: A Critical Review*, edited by Marc Treib. Cambridge, MA: MIT Press, 1991: 180-219.

Satterfield, Archie and Charles A. Boyde. *Building Integrity since 1890: The Remarkable History of Sundt Construction*. The Sundt Companies, Inc., 2011. http://www.sundt.com/why-sundt/history/book/ [accessed April 4, 2014].

Schorr, S. L. and Citizens' Advisory Redevelopment Committee Public Information Subcommittee. *Urban Renewal: A Teamwork of Private Enterprise and Government for Slum Clearance and Redevelopment of the Old Pueblo District, Tucson, Arizona*. Tucson, AZ: City of Tucson, 1961.

Schwartz, Martha. "Landscape and Common Culture since Modernism." In *Modern Landscape Architecture: A Critical Review*, edited by Marc Treib. Cambridge, MA: MIT Press, 1993: 260-265

Segoe, Ladislas. *Tucson Regional Plan, Inc.: Ten Year Improvement Program for Tucson and Environs*. Tucson, AZ: Prepared for the Tucson Regional Plan, Inc., 1942.

Swaffield, Simon. *Theory in Landscape Architecture: A Reader*. Philadelphia, PA: University of Pennsylvania Press, 2002.

Teaford, Jon C. *The Rough Road to Renaissance: Urban Revitalization in America, 1940-1985*. Baltimore, MD: Johns Hopkins University Press, 1990.

Treib, Marc. *Modern Landscape Architecture: A Critical Review*. Cambridge, MA: MIT Press, 1993.

_____. "Looking Forward to Nature - an Appreciation of Garrett Eckbo, 1910-2000." *Landscape Architecture Magazine* 90, no. 12, 2000: 60-67, 88-90.

_____. "Church, Eckbo, Halprin, and the Modern Urban Landscape." In *Preserving Modern Landscape Architecture* II, edited by Charles A. Birnbaum with Jane Brown Gillette and Nancy Slade. Washington, DC: Spacemaker Press, LLC, 2004: 56-65.

_____, and Dorothée Imbert. *Garrett Eckbo: Modern Landscapes for Living*. Berkeley, CA: University of California Press, 1997.

United States Department of the Interior, National Park Service, Interagency Resources Division. *National Register Bulletin 16A: How to Complete the National Register Registration Form*. Washington, DC: United States Department of the Interior, National Park Service, Interagency Resources Division, 1991.

Urban Land Institute. *Downtown Tucson Arizona: Working Together to Revitalize Downtown*. Washington, DC: Urban Land Institute, 2014.

Van Huyck, Alfred P. and Jack Hornung. *The Citizen's Guide to Urban Renewal*. West Trenton, NJ: Chandler-Davis Publishing Company, 1962.

Vance, Mary A. *Garrett Eckbo: A Bibliography*. Monticello, IL: Vance Bibliographies, 1980.

Walker, Peter and Melanie Louise Simo. *Invisible Gardens: The Search for Modernism in the American Landscape*. Cambridge, MA: MIT Press, 1994.

Woollen, R. "Feature: Garrett Eckbo, Landscape Architect (1910-2000)." *a2d-architects.* http://a2d-architecture.com/post/16754610066/feature-garrett-eckbo-landscape-architect [Accessed April 29, 2015].

Yetman, Emily, "Eckbo-Designed Tucson Convention Center Landscape". http://tclf.org/landslides/eckbo-designed-tucson-convention-center-landscape-threatened [accessed May 1, 2012].

NEWSPAPER ARTICLES[104] **AND INFORMATIONAL PAMPHLETS**

"Braniff Place Completed." *Tucson Daily Citizen*, November 28, 1973: 12.

"Civic Center Architect Blasts Freeway Plans." *Tucson Daily Citizen*, March 29, 1968.

Collins, Christina. "Sole-Talk Centering on Downtown Pond." *Tucson Daily Citizen*, December 5, 1974.

Huff, Dan and Dave Devine. "Grassroots Goliath . . . The Pima County Interfaith Council Prepares to Tackle Big Problems in the Old Pueblo . . . Are They Tough Enough?" *Tucson Weekly*, October 17, 1996.

"In the Swim? Not Community Center." *Tucson Daily Citizen*, October 21, 1977.

"Landscaping Accentuated 'People Place'." *Tucson Community Center Happenings* 4, 1971: 4.

[104] Articles have been drawn from ephemera files at the Arizona Historical Society, Tucson, AZ. In some cases the only available bibliographic information is handwritten on clippings.

"'Mexican Village' Open to Public." *Arizona Daily Star*, May 3, 1974.

Nix, David. "Formal Dedication Held for Community Center." *Arizona Daily Star*, November 7, 1971.

North-Hager, Eddie. "Old Pueblo's Palette." *Tucson Daily Citizen*, July 28, 1999.

"Original Planner Urges Caution," *Tucson Daily Citizen,* Sept. 28, 1971: 25.

"A Park for Pancho." *Tucson Daily Citizen*, June 29, 1981.

Pavillard, Dan. "Old Pueblo Has a New Heart: The Tucson Community Center." *Tucson Daily Citizen,* October 30, 1971: 11-14.

PERSONAL COMMUNICATIONS AND INTERVIEWS

Bedoya, Roberto. Personal correspondence to Carol D. Shull. April 11, 2013.

Birnbaum, Charles A. Personal correspondence to Carol D. Shull. October 11, 2012.

Cervelli, Janice. Personal correspondence to Carol D. Shull. May 9, 2013.

Garcia, Ceci. Interview with Helen Erickson. June 26, 2012.

Jewell, Linda. Personal correspondence to Carol D. Shull. October 20, 2012.

Laidlaw, Donald. Telephone conversation with Helen Erickson. April 28, 2012.

Nelson, Edward. Interview with Helen Erickson. May 5, 2012.

Russell, Anne-Marie (Executive Director and Chief Curator, Museum of Modern Art, Tucson). Personal correspondence to Carol D. Shull. May 13, 2013.

Stevens, Christopher. Personal correspondence to Carol D. Shull. October 24, 2012.

Winters, Chris. Personal correspondence to Carol D. Shull. May 9, 2013.

Previous documentation on file (NPS): none

____preliminary determination of individual listing (36 CFR 67 has been requested)
____previously listed in the National Register
____previously determined eligible by the National Register
____designated a National Historic Landmark
____recorded by Historic American Buildings Survey #_____
____recorded by Historic American Engineering Record # _____
____recorded by Historic American Landscape Survey # _____

Primary location of additional data:

____State Historic Preservation Office
____Other State agency
____Federal agency
__x__Local government
__x__University
____Other
Name of repository: **City of Tucson; University of Arizona Special Collections: Environmental Design Archives, University of California, Berkeley**

Historic Resources Survey Number (if assigned): N/A

10. Geographical Data

Acreage of Property 5.75

Tucson Community Center Historic District | Pima County, Arizona
Name of Property | County and State

(Do not include previously listed resource acreage.)

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	12	502538	3564957	3			
2				4			

Verbal Boundary Description (Describe the boundaries of the property.)

The Tucson Community Center Historic District is located on the southern edge of downtown Tucson and extends south to the Barrio Viejo Historic District. To the east is Tucson's Cathedral Block, to the west views of the Tucson Mountains.

For convenience of description, the Tucson Community Center Historic District is divided into three sections.

(1) Veinte de Agosto Park to the north of Block 510. This noncontinguous section of the landscape does not have a Pima County parcel number, but it is an ordinanced City of Tucson park named in honor of the founding of the Tucson Presidio on August 20, 1775. Its area is approximately 1 acre. A triangle of land, it is bounded on the north by Congress Street, on the east by Church Avenue, and on the southwest by Broadway Boulevard.

Veinte de Agosto Park is roughly delineated by coordinates beginning at the northeast corner: 32°13'18.16"N and 110°58'20.94"W; 32°13'16.10"N and 110°58'21.04"W; 32°13'17.23"N and 110°58'29.45"W; and return to beginning. The paved street of the u-turn lane is not included.

Veinte de Agosto Park is a discontiguous section of the Tucson Community Center Historic District.

(2) The Walkway links the Fountain Plaza to an office / shopping / restaurant complex and to a pedestrian bridge leading across Broadway Boulevard and Congress Street to City of Tucson and Pima County government buildings to the north. Parcel 117-200-016C is an irregular parcel located on the west side of lot 5, Block 510. Its area is approximately .2 acres. It is contained within an area bounded on the north by Broadway Boulevard, on the east by a office / shopping / restaurant complex, on the south by the Fountain Plaza, and on the west by a hotel.

The Walkway is roughly delineated by a rectangle with coordinates beginning at the northeast corner: 32°13'16.61"N and 110°58'25.64"; 32°13'16.56"N and 110°58.26.13"W; 32°13'13.71"N and 110°58'25.80"W; 32°13'13.76"N and 110°58'25.37"W; and return to beginning. No buildings are included.

(3) The Fountain Plaza consists of all of Parcel 117-20-0270 (Tucson Convention Center Block D; Map & Plat 42/10) and the northeast quarter of Parcel 117-20-029-A (Tucson Convention Center Block D; Map & Plat 42/10). The estimated area of this landscape section is approximately 4.3 acres. On the north side it is roughly bounded by the hotel and the office / shopping / restaurant complex; on the east by Church Avenue; on the south by Cushing Street and by the Arena; and on the west by the Sosa/Carrillo/Fremont historic property, the Music Hall and West Calle Carlos Arruza.

The Fountain Plaza is roughly contained within an irregular polygon delineated by coordinates beginning at the northeast corner: 32°13'14.62"N and 110°58'25.98"W; 32°13'14.37"N and110°58'29.50"W; 32°13'10.49"N and 110°58'29.45"W; 32°13'10.56"N and 110°58'28.62"W; 32°13'8.97"N and 110°58'27.86"W; 32°13'8.98"N and 110°58'23.63"W; and return to beginning. No buildings or asphalt paved streets or parking areas are included.

Boundary Justification (Explain why the boundaries were selected.)
The boundary encloses those sections of the Eckbo-designed landscape which retain integrity.

11. Form Prepared By

name/title Helen Erickson
organization Tucson Historic Preservation Foundation date June 27, 2015
street & number P.O. Box 40008 telephone 520-247-8969
city or town Tucson State AZ zip code 85717
e-mail info@preservetucson.org

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Log of Figures

PHOTOGRAPH LOG

Name of Property:	Tucson Community Center Historic District
City or Vicinity:	Tucson
County:	Pima County
State:	AZ
Name of Photographer:	Helen Erickson
Location of Original Digital Files:	4012 E. Poe St., Tucson, AZ 85711

Photo #1 (AZ_Pima County_Tucson Community Center Historic District_0001)
Date of Photograph: April 2012
Veinte de Agosto Park: Camera facing north across Broadway Boulevard towards Government Center

Photo #2 (AZ_Pima County_Tucson Community Center Historic District_0002)
Date of Photograph: March 2012
Veinte de Agosto Park: Camera facing northeast towards water sequence

Photo #3 (AZ_Pima County_Tucson Community Center Historic District_0003)
Date of Photograph: April 2012
Veinte de Agosto Park: Camera facing southwest across water sequence

Photo #4 (AZ_Pima County_Tucson Community Center Historic District_0004)
Date of Photograph: April 2012
Walkway: Camera facing south

Photo #5 (AZ_Pima County_Tucson Community Center Historic District_0005)
Date of Photograph: April 2012
Walkway: Camera facing north

Photo #6 (AZ_Pima County_Tucson Community Center Historic District_0006)
Date of Photograph: April 2012
Walkway: Camera facing south

Photo #7 (AZ_Pima County_Tucson Community Center Historic District_0007)
Date of Photograph: April 2012
Fountain Plaza North Section: Camera facing south from balcony of office / shopping/ restaurant complex to Arena (center) and Music Hall (right)

Photo #8 (AZ_Pima County_Tucson Community Center Historic District_0008)
Date of Photograph: April 2012
Fountain Plaza North Section: Camera facing west across plaza

Photo #9 (AZ_Pima County_Tucson Community Center Historic District_0009)
Date of Photograph: March 2012
Fountain Plaza North Section (Allée): Camera facing north

Photo #10 (AZ_Pima County_Tucson Community Center Historic District_0010)
Date of Photograph: April 2012
Fountain Plaza North Section: Camera facing east to Cathedral

Photo #11 (AZ_Pima County_Tucson Community Center Historic District_0011)
Date of Photograph: July 2014
Fountain Plaza North Section: Camera facing south to Leo Rich Theater from Arena Arcade

Photo #12 (AZ_Pima County_Tucson Community Center Historic District_0012)
Date of Photograph: April 2012
Fountain Plaza North Section: Camera facing southwest towards Music Hall

Photo #13 (AZ_Pima County_Tucson Community Center Historic District_0013)
Date of Photograph: July 2014
Fountain Plaza South Section: Camera facing south along Church Avenue

FIGURE LOG

Name of Property:	Tucson Community Center Historic District
City or Vicinity:	Tucson
County:	Pima County
State:	AZ
Location of Digital Files:	4012 E. Poe St., Tucson, AZ 85711

Figure #1 (AZ_Pima County_Tucson Community Center Historic District_0014)
USGS Map showing location of TCC Historic District
Source: USGS 7.5 Quadrangle (Tucson, AZ) 1996

Figure #2 (AZ_Pima County_Tucson Community Center Historic District_0015)

City of Tucson Urban Renewal District
Source: Drawn from Lung, Vincent L. and Roy Drachman, Tucson Citizens Committee on Municipal Blight. *The Pueblo Center Redevelopment Project : Report Presented to the Central City Council of the Urban Land Institute, April 23, 1965, by Roy Drachman, Chairman, Citizens Committee on Municipal Blight and Vincent L. Lung, Assistant City Manager and Coordinator of Community Development*. Tucson, AZ: City of Tucson, 1965.

Figure #3 (AZ_Pima County_Tucson Community Center Historic District_0016)
TCC Historic District Boundary Map
Source: Adapted from Google Earth 2012

Figure #4 (AZ_Pima County_Tucson Community Center Historic District_0017)
1974 Aerial View of TCC Historic District
Source: Detail from 1974 Tucson Survey, Coutesy of Cooper Aerial Surveys Co.

Figure #5 (AZ_Pima County_Tucson Community Center Historic District_0018)
Veinte de Agosto Contributing and Non-Contributing Features
Source: Adapted from Google Earth 2012

Figure #6 (AZ_Pima County_Tucson Community Center Historic District_0019)
Veinte de Agosto Photo Key
Source: Adapted from Google Earth 2012

Figure #7 (AZ_Pima County_Tucson Community Center Historic District_0020)
Aerial photo of Veinte de Agosto Park (1973), in background of construction of office / shopping / restaurant complex, camera facing northeast
Source: Arizona Historical Society, Tucson AZ. AHS#103444

Figure #8 (AZ_Pima County_Tucson Community Center Historic District_0021)
Veinte de Agosto,1974, camera facing southwest across water sequence
Source: Garrett Eckbo Collection (1990-1), Environmental Design Archives, University of California, Berkeley

Figure #9 (AZ_Pima County_Tucson Community Center Historic District_0022)
Walkway Contributing and Non-Contributing Features
Source: Adapted from Google Earth 2012

Figure #10 (AZ_Pima County_Tucson Community Center Historic District_0023)
Walkway Photo Key
Source: Adapted from Google Earth 2012

Figure #11 (AZ_Pima County_Tucson Community Center Historic District_0024)
Walkway 1974, camera facing north end of Walkway and Tobias fountain sculpture
Source: Garrett Eckbo Collection (1990-1), Environmental Design Archives, University of California, Berkeley

Figure #12 (AZ_Pima County_Tucson Community Center Historic District_0025)
Fountain Plaza North and South Location / Boundary Map
Source: Adapted from Google Earth 2012

Figure #13 (AZ_Pima County_Tucson Community Center Historic District_0026)
Fountain Plaza North Contributing and Non-Contributing Features
Source: Adapted from Google Earth 2012

Figure #14 (AZ_Pima County_Tucson Community Center Historic District_0027)
Fountain Plaza North Photo Key
Source: Adapted from Google Earth 2012

Figure #15 (AZ_Pima County_Tucson Community Center Historic District_0028)
Fountain Plaza 1974, camera facing west across Fountain Plaza North towards Music Hall
Source: Garrett Eckbo Collection (1990-1), Environmental Design Archives, University of California, Berkeley

Figure #16 (AZ_Pima County_Tucson Community Center Historic District_0029)
Fountain Plaza 1974, camera facing north across water sequence to hotel
Source: Garrett Eckbo Collection (1990-1), Environmental Design Archives, University of California, Berkeley

Figure #17 (AZ_Pima County_Tucson Community Center Historic District_0030)
Fountain Plaza 1974, camera facing south towards Arena
Source: Garrett Eckbo Collection (1990-1), Environmental Design Archives, University of California, Berkeley

Figure #18 (AZ_Pima County_Tucson Community Center Historic District_0031)
Fountain Plaza 1974, camera facing southwest across water sequence towards Arena
Source: Garrett Eckbo Collection (1990-1), Environmental Design Archives, University of California, Berkeley

Figure #19 (AZ_Pima County_Tucson Community Center Historic District_0032)
Fountain Plaza 1974, camera facing northwest across non-extant bubbler fountain towards Music Hall, Arena to left
Source: Garrett Eckbo Collection (1990-1), Environmental Design Archives, University of California, Berkeley

Figure #20 (AZ_Pima County_Tucson Community Center Historic District_0033)
Fountain Plaza 1973, camera facing west towards Music Hall (photo was printed reversed)
Source: Gingerich, Sheldon E. "A Gem in the Art of Urban Renewal: Tucson Community Center." *Arizona Highways* 51, February, 1973: 33.

Property Owner:

(Complete this item at the request of the SHPO or FPO.)

name Mayor Jonathan Rothschild/City of Tucson

street & number 255 West Alameda Street telephone 520-791-4201

city or town Tucson state AZ zip code 85701

CONSTRUCTION DOCUMENTS

SOSA-CARRILLO HOUSE RENOVATION

260 S CHURCH AVE. TUCSON, AZ 85701

THIS PROJECT

1 g1.0 **project location** NTS

north

THIS SITE

2 g1.0 **site location** NTS

north

design team

architect

SWAIM ASSOCIATES LTD. ARCHITECTS AIA
7350 E. Speedway 210
Tucson, AZ 85710
(520) 326-3700 - fax: (520) 326-1148
www.swaimaia.com

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civil

GRENIER ENGINEERING, INC.
6300 E. Eldorado Plaza Ste. A120
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(520) 326-7082 -
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Jason Morse, PE jmorse@grenierereng.com

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MEANS DESIGN & BUILDING CORPORATION
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structural

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John Grenier, PE jgrenier@grenierereng.com

electrical engineer

ZONA MEP
6422 E. Speedway Blvd., #130
Tucson, AZ 85710
(520) 200-2612 -

Dave Tyrell dave@zonamep.com

applicable codes

2018 INTERNATIONAL BUILDING CODES W/ LOCAL AMENDMENTS

2018 INTERNATIONAL BUILDING CODE
2017 NATIONAL ELECTRICAL CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL EXISTING BUILDING CODE
2018 INTERNATIONAL FUEL GAS CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL FIRE CODE
CITY OF TUCSON/PIMA COUNTY OUTDOOR LIGHTING CODE

ZONING CODES

UNIFIED DEVELOPMENT CODE W/ SUPPORTING DOCUMENTS
ADMINISTRATIVE MANUAL
TECHNICAL STANDARDS MANUAL
SUPPLEMENT NO.1 - 8

deferred submittals

A. FOUNDATION UNDERPINNING CALCULATIONS & DETAILS

additive alternates

ALT #1 FULL CONCRETE IN VEHICULAR ACCESS AREA ONLY, EAST OF GATE
ALT #2 MESQUITE TRIANGULAR TABLE

sheet index

GENERAL		MECHANICAL	
g1.0	cover sheet	m0.0	mechanical general information
g1.1	abbreviations and symbols	md1.0	mechanical demo floor plan - ductwork
g2.0	code analysis	md1.1	mechanical demo floor plan - piping
LANDSCAPE		m1.0	mechanical floor plan - ductwork
L1.1	native plant preservation plan	m1.1	mechanical floor plan - piping
L2.1	demo plan	m2.0	mechanical roof plan
L3.1	landscape plan	m3.0	mechanical isometrics
L4.1	irrigation plan	m4.0	mechanical schedules and details
L5.1	rainwater harvesting plan	m5.0	mechanical details
L6.1	hardscape details	m6.0	mechanical control specifications
L6.2	landscape details	m6.1	mechanical controls
L6.3	irrigation details	PLUMBING	
ARCHITECTURAL SITE PLAN		p0.0	plumbing general information
x1.0	site plan	pd1.0	plumbing demo floor plan - waste
STRUCTURAL		pd1.1	plumbing demo floor plan - water
s1.0	general structural notes	p1.0	plumbing floor plan - waste
s2.0	shade canopy plans and details	p1.1	plumbing floor plan - water
ARCHITECTURAL DEMOLITION		p3.0	plumbing isometrics
ad1.0	demolition floor plan	p4.0	plumbing schedules and specifications
ARCHITECTURAL		ELECTRICAL	
a1.0	access upgrades floor plan	e0.0	electrical general information
a1.1	restoration floor plan	ed1.0	electrical demo floor plan
a2.0	reflected ceiling plans	ed2.0	lighting demo floor plan
a3.0	roof plan	e1.0	electrical floor plan
a4.0	building elevations	e2.0	lighting floor plan
a7.0	enlarged plans and interior elevations	e3.0	electrical one-line & schedules
a7.1	enlarged plans and interior elevations	Grand total: 52	
a8.0	door schedule and frame types		
a9.0	wall types		
a9.1	details		
a9.2	details		
a9.3	wall sections		
a9.9	accessibility details		

swaim
ASSOCIATES LTD
ARCHITECTS AIA

7350 EAST SPEEDWAY 210
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NOT FOR CONSTRUCTION
PRELIMINARY

job
1503.08

date
12.05.24

revisions

BID SET - 12-05-24

Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

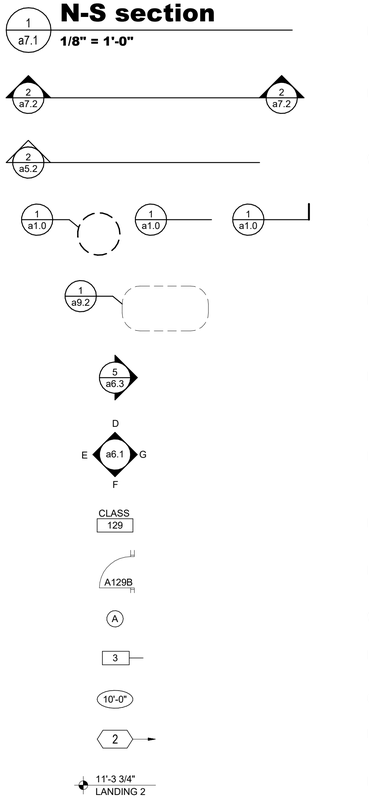
cover sheet

g1.0

abbreviations

&	AND
@	AT
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ABI	ADDITIVE BID ITEM
AC	AIR CONDITIONING
ACC	ACCESSIBLE
ACOUST	ACOUSTICAL
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGGR	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
AP	ACCESS PANEL
APC	ACOUSTICAL PANEL CEILING
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ATTN	ATTENTION
AUTO	AUTOMATIC
AV	AUDIOVISUAL
BD	BOARD
BET	BUILDING ENTRANCE TERMINAL
BFF	BELOW FINISHED FLOOR
BIT	BITUMINOUS
BL	BASELINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM, BENCHMARK
BO	BOTTOM OF
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BSMNT	BASEMENT
BUR	BUILT-UP ROOFING
C	CONDUIT
CA	COMPRESSED AIR
CAB	CABINET
CAT	CATEGORY
CB	CATCH BASIN
CB	CEMENT BOARD
CBU	CEMENTITIOUS BACKER UNIT
CC	CENTER TO CENTER
CCTV	CLOSED CIRCUIT TELEVISION
CEM	CEMENT
CER	CERAMIC
CG	CORNER GUARD
CH	CHILLER
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLKG	CAULKING
CLR	CLEAR
CNTR	COUNTER
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET
CT	CERAMIC TILE
CTR	CENTER
CTSK	COUNTERSUNK
CW	COLD WATER
D	DEEP, DEPTH
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLISH OR DEMOLITION
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DIMS	DIMENSIONS
DISP	DISPENSER
DIV	DIVISION
DMPF	DAMP PROOFING
DN	DOWN
DO	DOOR OPENING
DR	DOOR
DRN	DRAIN
DS	DOWNSPOUT
DS	DOWN SPOUT
DTL	DETAIL
DW	DISHWASHER
DWG	DRAWING
DWR	DRAWER
CMU	CONCRETE MASONRY UNIT
E	EAST
EA	EACH
EB	EXPANSION BOLT
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENG	ENGINEER
EP	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE M-CLASS
EQ	EQUAL
EQUIP	EQUIPMENT
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FB	FACE BRICK
FD	FLOOR DRAIN
FD	FLOOR DRAIN OR FIRE DEPARTMENT
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF&E	FURNITURE, FIXTURES AND EQUIPMENT
FFB	FLUSH FLOOR BOX
FFEL	FINISH FLOOR ELEVATION
FH	FLAT HEAD
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FLASH	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FND	FOUNDATION
FO	FACE OF
FP	FIRE PROTECTION
FPG	FIREPROOFING
FR	FIRE RESISTANT
FRC	FIBER REINFORCED CONCRETE
FRT	FIRE RETARDANT TREATED
FT	FEET/FOOT
FTG	FOOTING
FURN	FURNITURE
FURR	FURRING
FWC	FABRIC WALL COVERING
FWP	FABRIC WRAPPED PANEL
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACT(OR)
GEN	GENERAL
GFRC	GLASS FIBER REINFORCED CONCRETE
GL	GLASS
GLAZ	GLAZING
GRAN	GRANULAR
GRD	GROUND
GRFG	GLASS FIBER REINFORCED GYPSUM
GSM	GALVANIZED SHEET METAL
GV	GAS VALVE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
H	HIGH/HEIGHT
HB	HOSE BIB
HB	HOSE BIBB
HC	HANDICAPPED
HDWD	HARDWOOD
HDWR	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HNDRL	HANDRAIL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HR	HOUR
HRC	HOSE REEL CABINET
HTG	HEATING
HVAC	HEATING VENTILATION AND AIR CONDITIONING
HW	HOT WATER
ID	INSIDE DIAMETER
IN	INCH/INCHES
INCAND	INCANDESCENT
INCL	INCLUDED/INCLUDING
INFO	INFORMATION
INSUL	INSULATION
INSUL	INSULATED OR INSULATION
INT	INTERIOR
INTERM	INTERMEDIATE
INV	INVERT
JAN	JANITOR
JC	JANITOR'S CLOSET
JST	JOIST
JT	JOINT
KIT	KITCHEN
KO	KNOCK OUT
LAM	LAMINATE
LAV	LAVATORY
LB	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT	LIGHT
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MEMBR	MEMBRANE
MFR	MANUFACTURER
MH	MAN HOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
N	NORTH
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NON COMB	NON COMBUSTIBLE
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OD	OVERFLOW DRAIN
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED, OWNER INSTALLED
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
P	PAINT
PAV	PAVING
PBD	PARTICLE BOARD
PC	PRECAST
PDF	POWER DRIVEN FASTENER
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PI.	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT OR PAINTED
POL	POLISHED
PR	PAIR
PREFAB	PREFABRICATED
PROJ	PROJECT
PSF	POUNDS PER SQUARE FOOT
PT	POINT
PT	PRESSURE TREATED
PTD	PAINTED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
QTY	QUANTITY
R	RADIUS/RISER
RA	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC	RECESSED
RECPT	RECEPTACLE
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCED REINFORCING
REINF	REINFORCED
REL	RELOCATE
REM	REMOVABLE
REOOM	RECOMMENDED
REQ	REQUIRE/REQUIRED
REQD	REQUIRED
RESIL	RESILIENT
REV	REVISION/REVISED
RM	ROOM
RO	ROUGH OPENING
RTD	RATED
RTG	RATING
RWL	RAIN WATER LEADER
S	SOUTH
SA	SUPPLY AIR
SAF	SELF ADHERED FLASHING
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FEET/FOOT
SH	SPRINKLER HEAD
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SM	SHEET METAL
SM	SURFACE MOUNTED
SP	STANDPIPE
SPEC	SPECIFICATION
SPEC	SPECIFIED OR SPECIFICATION
SPK	SPRINKLER OR SPEAKER
SPKR	SPEAKER
SQ	SQUARE
SS	STAINLESS STEEL
SSK	SERVICE SINK
STA	STATION
STC	SOUND TRANSMISSION COEFFICIENT
STL	STEEL
STOR	STORAGE
STRG	STRINGER
STRUCT	STRUCTURAL
STRUCT	STRUCTURE OR STRUCTURAL
SUBCAT	SUBCATEGORY
SUSP	SUSPENDED
SYM	SYMMETRICAL
SYS	SYSTEM
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TB	TOWEL BAR
TEL	TELEPHONE/TELECOM
TELE	TELEPHONE
TEMP	TEMPERATURE
TEMP	TEMPORARY
THK	THICKNESS
THRU	THROUGH
TKBD	TACK BOARD
TLT	TOILET
TMPD	TEMPERED
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TS	TUBE STEEL
TV	TELEVISION
TYP	TYPICAL
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
URNL	URINAL
VAC	VENTILATION AND AIR CONDITIONING
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VP	VISION PANEL
VR	VAPOR RETARDER
VT	VINYL TILE
VWC	VINYL WALL COVERING
W	WIDE/WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WIN	WINDOW
WM	WIRE MESH
WP	WATERPROOF/WATERPROOFING
WPM	WATERPROOF MEMBRANE
WS	WEATHER-STRIPPING
WSCT	WAINSCOT
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

symbols legend



DRAWING TITLE

BUILDING SECTION TAG

WALL SECTION TAG

SECTION / DETAIL TAG

ENLARGED AREA

EXTERIOR ELEVATIONS

INTERIOR ELEVATIONS

ROOM NAME / NUMBER

DOOR NUMBER

WINDOW MARK

PARTITION TYPE

CEILING HEIGHT

KEYNOTE

ELEVATION INDICATOR

general project notes

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND OR CONCEALED UTILITIES IN ADVANCE OF ANY CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO HIRE A PRIVATE UTILITY LOCATING SERVICE TO LOCATE ALL UNDERGROUND UTILITIES ON OR NEAR THE PROJECT SITE.

B. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ANY OR ALL EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION. ANY UTILITIES FOUND TO BE IN THE WAY OF THE NEW CONSTRUCTION SHALL BE REMOVED, RELOCATED OR REPLACED AS DIRECTED. REFER TO PLUMBING, ELECTRICAL, MECHANICAL AND/OR CIVIL PLANS FOR SPECIFIC REQUIREMENTS.

C. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE ALL ABANDONED (RETIRED) UTILITIES THAT INTERFERE WITH THE CONSTRUCTION PROJECT. THE CONTRACTORS AND LOCAL UTILITY AND TRAFFIC CREWS SHALL COORDINATE WORK SCHEDULES SO AS TO PREVENT ANY CONFLICTING WORK CONDITIONS.

D. CONTRACTOR SHALL REPAIR ANY AND ALL UTILITIES DAMAGED DURING THE COURSE OF CONSTRUCTION IN ACCORDANCE WITH LOCAL SPECIFICATIONS, AT NO ADDITIONAL COST.

E. CONTRACTOR TO NOTIFY "BLUE STAKE" @ 1-800-782-5348, AT LEAST 48-HOURS IN ADVANCE OF ANY EXCAVATION. UTILITY LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT.

F. ALL ITEMS REMOVED SHALL BE TEMPORARILY STORED IN A LOCATION APPROVED BY THE OWNER, AND THE OWNER SHALL REVIEW ALL ITEMS PRIOR TO ANY DISPOSAL. ANY ITEM WHICH IS DEEMED SALVAGEABLE SHALL REMAIN THE OWNER'S PROPERTY, AND WILL BE REMOVED TO STORAGE FACILITIES DESIGNATED BY THE OWNER FOR FUTURE USE. IF THE OWNER DEEMS AN ITEM AS NON-SALVAGEABLE, THE CONTRACTOR SHALL DISPOSE OF IT.

G. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ANY DEBRIS RESULTING FROM THE DEMOLITION AND CONSTRUCTION. AT NO TIME SHALL ANY OF THIS MATERIAL OBSTRUCT THE NORMAL OPERATION.

H. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY OR ALL EXCESS EXCAVATION AND CONSTRUCTION RELATED DEBRIS, AT THE END OF EACH WORK DAY.

I. THE CONTRACTOR IS ADVISED THAT DAMAGE TO ANY PORTION OF THIS PROJECT'S BUILDING(s) & SURROUNDING AREA AS A RESULT OF THIS PROJECT IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

J. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE JOB SITE TO FAMILIARIZE HER/HIM SELF WITH ALL THE EXISTING CONDITIONS THAT COULD AFFECT THE INSTALLATION OF ANY WORK SET FORTH IN THESE PLANS.

K. THE JOB SITE, AT THE COMPLETION OF CONSTRUCTION, SHALL BE CLEANED OF ANY DEBRIS OR SPOILS RESULTING FROM THE CONSTRUCTION.

L. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL EXISTING RECORDED DIMENSIONS INDICATED AND ALL EXISTING CONDITIONS THAT IMPACT NEW CONSTRUCTION.

M. THE CONTRACTOR SHALL ESTABLISH ALL QUANTITIES BASED ON ACTUAL CONDITIONS. THESE DRAWINGS ARE NOT TO BE SCALED.

N. BLOCK WALLS ARE DIMENSIONED TO FACE OF BLOCK. DIMENSIONS ARE NOMINAL THICKNESS. BLOCK WALL OPENINGS ARE DIMENSIONED TO ROUGH OPENING.

O. METAL STUD PARTITIONS ARE DIMENSIONED TO FACE OF STUD. ALL ROUGH OPENINGS ARE LOCATED 4" TO NEAREST ADJACENT WALL UNLESS DIMENSIONED OTHERWISE.

P. COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS. OBTAIN AND PAY FOR ALL PERMITS AND LICENSES REQUIRED.

Q. REFER TO BUILDING CODE ANALYSIS SHEETS FOR ADDITIONAL CODE REQUIREMENTS.

R. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AT LEAST 72 HOURS IN ADVANCE OF ANY CONSTRUCTION THAT REQUIRES SPECIAL/REQUIRED INSPECTION(s).

S. REFERENCE ALL ARCHITECTURAL, CIVIL, LANDSCAPING, MECHANICAL, PLUMBING, AND ELECTRICAL SHEETS FOR SCOPE OF WORK & COORDINATION.

T. ALL MATERIALS REQUIRED SHALL BE OF A GRADE AND QUALITY CONSISTENT WITH THE INTENDED USE AS SPECIFIED & APPROVED BY THE ARCHITECT.

U. ALL EQUIPMENT OR MATERIALS NOT SHOWN OR SPECIFIED ON THE PLANS OR IN THE SPECIFICATIONS, BUT ARE REQUIRED TO COMPLETE THE INSTALLATION SHALL BE SUPPLIED BY THE CONTRACTOR AS PART OF THE CONTRACT WORK.

V. FIRE AND SMOKE SEAL ALL PENETRATIONS AROUND PIPE/CONDUIT AT ALL FLOOR, WALL, DECK & ROOF PENETRATIONS.

W. ALL PENETRATIONS THROUGH FIRE RESISTIVE FLOORS OR WALLS SHALL BE PROTECTED BY MATERIALS AND INSTALLATION DETAILS THAT CONFORM TO THE UNDERWRITER LABORATORIES LISTING FOR THROUGH PENETRATION FIRE STOP SYSTEMS. THE CONTRACTOR SHALL SUBMIT MANUFACTURERS SHOP DRAWINGS AND DATA SHEETS FOR ALL PENETRATIONS

X. UNLESS OTHERWISE NOTED ALL BLOCKING OR BACKING MATERIAL SHALL BE SOLID WOOD FOR ALL WALL MOUNTED ITEMS.

Y. INSTALL A CONTINUOUS BEAD OF SEALANT AT ALL GAPS/SEAMS BETWEEN IMMOVABLE EQUIPMENT AND WALLS.

Z. ALL SURFACES SHALL BE PAINTED OR FINISHED PER SPECIFICATION. REFER TO FLOOR PLANS, ROOM FINISH SCHEDULE, BUILDING/WALL SECTIONS, DETAILS AND SPECIFICATIONS FOR ADDITIONAL PAINTING & FINISH REQUIREMENTS.

AA. ALL TERMINATIONS OF CARPET, TILE, OR VCT TO ANOTHER FLOOR MATERIAL SHALL HAVE TRANSITION OR REDUCER STRIPS - SEE SPECS.

BB. ALL INTERIOR FINISHES SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 8 OF THE 2018 INTERNATIONAL BUILDING CODE.

CC. PROVIDE AN ESCUTCHEON AT EACH PIPE PENETRATION @ FLOOR AND/OR WALL SURFACES, TYPICAL.

DD. ALL CORES INTO WALLS AND SLABS SHALL BE PRIOR APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER.

EE. INSTALL GYPSUM BOARD CONTROL JOINTS AT ALL LOCATIONS INDICATED OR IF NOT INDICATED AS ACCORDING TO THE REQUIREMENTS THAT ARE ESTABLISHED IN THE SPECIFICATIONS.

FF. FIRE LANES SHALL BE MAINTAINED IN A CONDITION TO ASSURE ACCESS TO ALL BUILDINGS DURING CONSTRUCTION.

GG. ALL NEW ROOFING SYSTEMS TO HAVE A CLASS "A" FIRE RATING PER SPECIFICATION SECTION 07527.

HH. UPON COMMENCEMENT OF INTERIOR WORK, SMOKING WITHIN THE BUILDING IS PROHIBITED.

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NOT FOR CONSTRUCTION
PRELIMINARY

job
1503.08

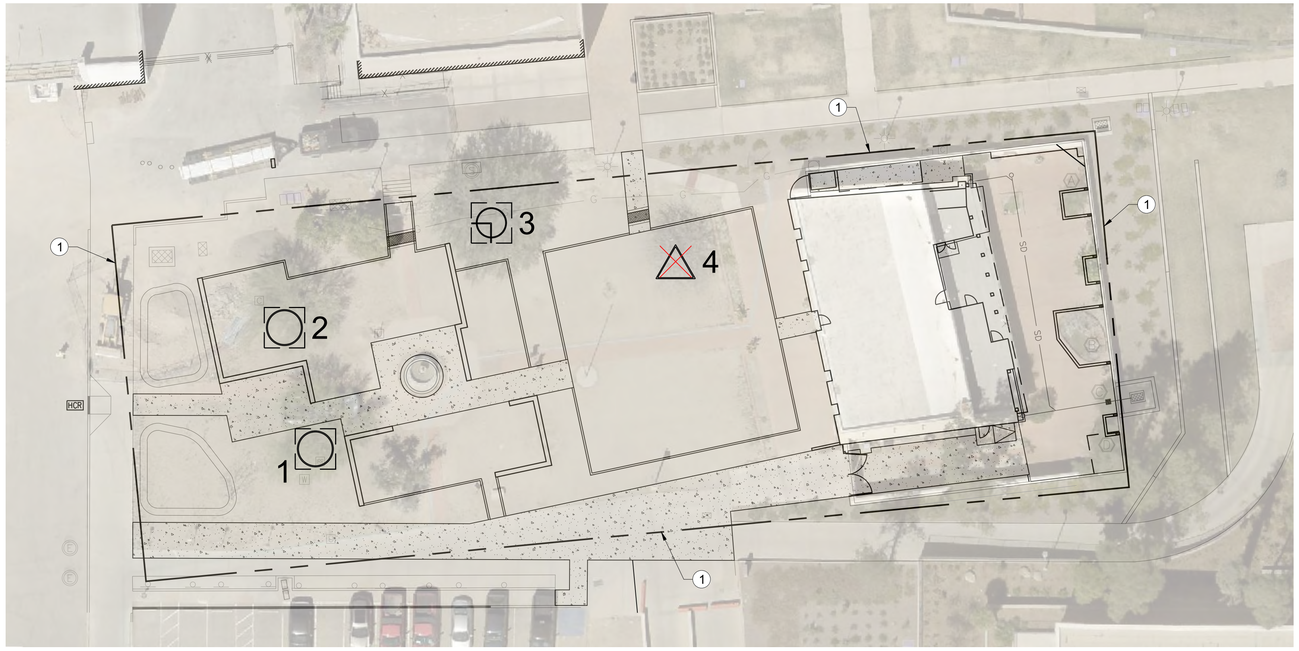
date
12.05.24

revisions

Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

abbreviations and symbols

g1.1



NATIVE PLANT PRESERVATION WORKSHEET			
	Celtis reticulata	Olneya tesota	Parkinsonia florida
1. Viable Plants	1	1	2
2. PIP/TOS required	0	1	1
3. Proposed PIP	0	1	2
4. Required TOS	0	0	0
5. Proposed TOS	0	0	0
6. Excess TOS	0	0	0
7. Total On Site	0	1	2
8. Total plants RFS	1	0	0
9. PIP credits	0	2	4
10. TOS Mitigation	0	0	0
11. RFS Mitigation	2	0	0
12. Total Mitigation	2	0	0
13. TOS Mitigation Reduction	2	0	0
14. PIP Mitigation Reduction	2	-2	-4
15. Required to be Provided	2	0	0
16. Total Required On-site	2	1	2

Number	Scientific Name	Common Name	Size - Height	Size - Caliper	Viability	Transplantability	Comments	Disposition
1	Parkinsonia florida	Blue Palo Verde	15'	12"	M	L	PD	PIP
2	Parkinsonia florida	Blue Palo Verde	15'	8"	M	L	PD	PIP
3	Olneya tesota	Ironwood	15'	8"	H	L	PD,LB	PIP
4	Celtis reticulata	Netleaf Hackberry	15'	6"	M	M	PD	RFS

(#) NATIVE PLANT PRESERVATION KEY NOTES

1. Property line
2. Grading/clearing limit
3. 100-year floodplain
4. Erosion hazard setback

NATIVE PLANT PRESERVATION PLAN OVERVIEW

This site is located within the Tucson Convention Center. The plant inventory methodology has been used for this plan. Aerial image was downloaded from PimaMaps May, 2024.

The plant material on this site is in good condition. The vegetation within the project area has been planted, irrigated and, maintained.

No noxious or invasive species are visually prominent within the clearing limits.

ABBREVIATIONS

The following abbreviations were used in the comment column. Number in (#) refer to plant requirements for preserved in place or salvaged

BL	broken limbs - tree has significant broken branches
PROX	other vegetation in the vicinity will make salvage difficult
TD	trunk damage - trunk has excavated at the base of the tree
BD/RD	base of saguaro has suffered rodent damage
MU	multi-trunk, no single defined trunk
LB	low branch, unable of preserving low branch for salvage or relocate
DW	dead wood significant limb dieback
IN	infestation of insect, damage to main limbs
OT	old trunk
ST	stunted trunk
PD	prune damage
MT	mistletoe infection of main limbs
PF	poor form tree leaning or structure not supportive of vegetation
LE	leaning sign of decline and poor health
SL	slope - tree is on steep slope where salvage will not be possible
SO	soils are loose and rocky, salvage will be difficult
SR	surface roots are evident making excavation difficult
SZ	size of the tree, either spread, caliper or height is not conducive to salvage
VAND	vandalized - saguaro has been cut or chopped
PIP	preserved in place
TOS	transplant on site
RFS	remove from site
SAL	salvage - used during field inventory to identify trees that should be salvaged regardless of % requirements
H	high viability / transplantability
M	moderate viability / transplantability
L	low viability / transplantability

NATIVE PLANT MITIGATION SUMMARY

Parkinsonia florida		Celtis reticulata	
inventoried	2	inventoried	1
viable	2	viable	1
PIP provided	2	PIP provided	0
TOS provided	0	TOS provided	0
mitigation required	0	mitigation required	2
mitigation provided	0	mitigation provided	2

Olneya tesota	
inventoried	1
viable	1
PIP provided	1
TOS provided	0
mitigation required	0
mitigation provided	0

NPPO LEGEND

Preserve in place (PIP)

Removed from site (RFS)

Blue Palo Verde

Netleaf Hackberry

Ironwood

SALVAGE/PRESERVATION REQUIREMENTS

1. The developer must fence off the vegetation to be preserved in place as required by section 2-15.6.0 of the city of Tucson development standards.
2. The developer must provide signage in three locations indicating the flagging key used on the vegetation. This signage is for construction personnel and the general public.
3. The developer must provide language within his construction contracts providing for the protection of the vegetation and adherence to the preservation plan.
4. Plants have been tagged in accordance with section 2-15.5.0. This includes metal tags. Color coding shall be provided by contractor prior to request for City of Tucson inspection:
   white - preserve in place
   yellow - remove from site
   blue - transplant on site
5. On-site monitoring of all aspects of site clearing, grading, plant protection, preservation, salvage and mitigation shall be provided during project construction at the expense of the developer. The monitoring shall be performed by an individual who is qualified in arid lands native plant resource identification and protection as specified in sec. 3.8.4, general provisions and requirements. The monitor shall provide periodic progress reports to the developer outlining the status or work accomplished and any problems encountered. Development services department shall receive a copy of these reports for the project file. The monitor shall be responsible for an assessment of the condition of the site's plants one (1) year after the final inspection as been performed on the site. The monitor shall visit the site and prepare a report on plant status, including general plant condition, the identification of plants under stress and the appropriate method to relieve the stress, and recommendations for replacement of plants that are dead or dying. Dead or dying plants shall be replaced with the same size plant at a one-to-one (1:1) ratio of like genus and species. Copies of the report shall be submitted to the site owner/developer and to the development services department - landscape section luc.3.8.6.7.D. The owner shall respond to the plant needs as outlined in the status report within six (6) months of report submittal or within a shorter period if required to improve the health of stressed plants and prevent plant loss.
6. A pre-permit npp inspection will be required prior to any site disturbance. Call 520-791-3111.

Refer to specifications for additional information on policies, performances, and products.

SCALE: 1" = 20'

0 10' 20' 40'

NORTH

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39813
ERIC R.
BARRETT
06/24
DATE SIGNED
ARIZONA U.S.A.
EXPIRES 9/30/2024

job

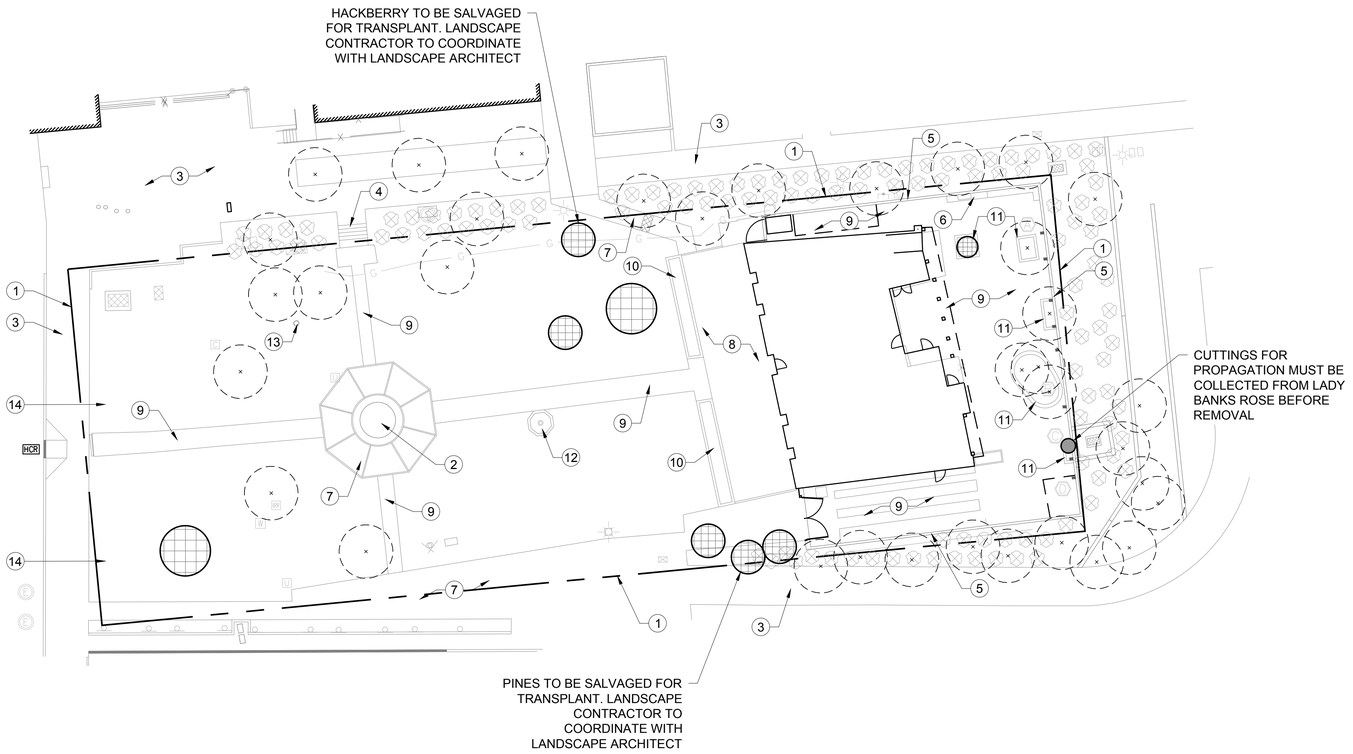
date
06.06.2024

revisions

Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

native plant preservation plan

L1.1



LANDSCAPE SALVAGE LEGEND

Existing tree
to be removed from site

Existing tree
to remain in place, typical (typ.)

Existing shrub/accent
to be removed from site

Existing shrub/accent
to remain in place, typ.

SALVAGE GENERAL NOTES

1. Refer to civil and architectural plans for additional demolition information.
2. General contractor to clarify landscape contractor scope of work and coordinate with civil work.
3. Plant material not identified on plan is to remain in place.
4. Trunks shall be ground a minimum of 24" below grade and root systems entirely removed where foundations are proposed.
5. Contractor shall remove all invasive species from site, particularly, Buffelgrass (*Pennisetum ciliare*, *Cenchrus ciliaris*) , Bermuda grass, African Sumac (Rhus lancea), Stinknet (Oncosiphon piluliferum) , and other species as identified per City of Tucson and Pima County.
6. All existing trees shall be reviewed for mistletoe and deadwood. If mistletoe and/or deadwood are found, contractor shall contact owner's representative.
7. Any existing irrigation system / components shall remain fully operational during construction or contractor shall provide Landscape Architect with a watering plan for existing shrubs and trees.

(#) DEMO KEY NOTES

1. Property line
2. Existing fountain to remain
3. Existing concrete to remain
4. Existing steps to remain
5. Existing wall to remain
6. Existing seatwall to remain
7. Remove existing concrete, saw cut as needed
8. Remove existing tile and concrete at entry
9. Take up existing brick and stockpile for reuse
10. Remove existing planter, salvage plant material at direction of owner's representative
11. Remove existing planter, preserve existing plant material unless otherwise noted
12. Remove existing flagpole
13. Remove stump
14. Remove existing river rock

Refer to specifications for additional information on policies, performances, and products.

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0 10' 20' 40'

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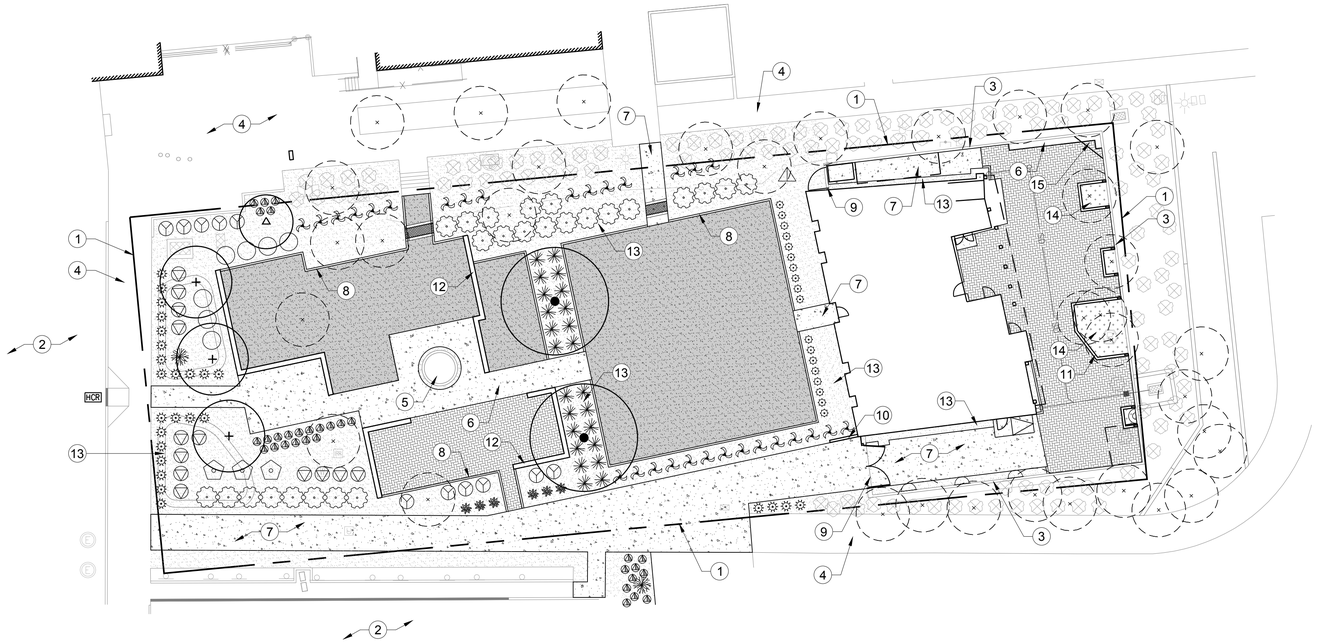
demo plan

L2.1



GROUND COVER MATERIAL LEGEND
Furnish and install all material per plans, details, and specs.

Decorative rock 01
- type: screened rock
- size: 1/2"
- color: desert brown
- depth: 2"
- notes: install in all landscape planting areas as indicated on plans

Decorative rock 02
- type: stabilized decomposed granite
- size: 1/4" minus
- color: desert gold
- depth: 3"
- notes: stabilizer solutions stabilizer® w/ 15lbs of stabilizer® per ton of aggregate

Wood Chips
- type: decorative wood chips
- size: large, 3" minus
- color:
- depth: 1"
- notes: from Tank's Green Stuff

HARDSCAPE MATERIAL LEGEND
Furnish and install all material per plans, details, and specs.

Concrete
- gray, broom finish - refer to civil paving plans

Brick Paver
- site salvaged bricks and donor bricks - refer to details and specifications

(#) LANDSCAPE KEY NOTES
1. Property line
2. Existing pavement
3. Existing fence/wall
4. Existing sidewalk
5. Existing fountain
6. Existing seatwall
7. Concrete sidewalk - refer to civil
8. Concrete header - refer to civil
9. Gate - refer to arch
10. Retaining wall - refer to civil
11. Planter, typ.
12. Seatwall, typ.
13. Decorative rock, typ.
14. Decorative wood chips, typ.
15. Mesquite serving table

LANDSCAPE LEGEND
Furnish and install landscape material per plans, details and specifications. All plant material to meet ANA specifications and be of sound health and appearance.

Trees	Size	Qty
Olea europea 'Wilsonii' *fruitless olive*	65 gallon	3
Punica granatum *pomegranate*	15 gallon	1
Celtis reticulata *netleaf hackberry*	65 gallon	2
Existing tree to remain in place		

Shrubs / Ground Covers	Size	Qty
Ruellia simplex *mexican petunia*	5 gallon	7
Calliandra californica 'Mexicali Rose' *mexicali rose fairy duster*	5 gallon	13
Tecoma stans v. angustata *yellow bells*	5 gallon	3
Eremophila glabra 'Mingenew Gold' *outback sunrise emu*	5 gallon	25
Existing shrub to remain in place		

Vines	Size	Qty
Parthenocissus 'Hacienda Creeper' *hacienda creeper*	5 gallon	3
Rosa banksiae *lady banks rose (from cutting)*	5 gallon	1

Cacti / Succulents	Size	Qty
Yucca rostrata *beaked yucca*	25 gallon	2
Hesperaloe tenuifolia *grassy hesperaloe*	5 gallon	24
Asclepias subulata *desert milkweed*	5 gallon	11
Hesperaloe parviflora 'stoplights' *stoplights dwarf hesperaloe*	5 gallon	18
Agave parryi *parry's agave*	5 gallon	6
Euphorbia antisyphilitica *candelilla*	5 gallon	26
Opuntia gomeii *old mexico*	5 gallon	1
Yucca pallida *pale leaf yucca*	5 gallon	31
Hesperaloe funifera 'Little Giant' *little giant hesperaloe*	5 gallon	30

LANDSCAPE LEGEND NOTES:
1. *IMPORTANT- Much of the plant material specified on these plans will not be available in the market at the the time of installation unless it is contract grown and/or brokered. Contractor must initiate necessary contract growing and brokerage of required plant material immediately following contract commencement.
2. Contractor must confirm ability to provide specified material or request alternates in writing within 90 days of commencement of contract. Failure to do so may result in delays in final approval of landscape.
3. Contractor must provide pictures of plant material to the Landscape Architect for approval as part of the submittal process. Pictures must have been taken within the last 90 days; stock pictures will not be accepted.
4. Trees shall be located a minimum of 4' from asphalt path.
5. Contractors shall install shrub and tree trunk rodent guard on all plant material.

GENERAL LANDSCAPING NOTES
1. The Landscape Architect, or his representative, reserve the right to refuse any plant materials he deems unacceptable. (see specifications)
2. For clarification of discrepancies between the drawings and the site, it should be brought to the attention of the Landscape Architect prior to beginning work.
3. The Landscape Architect is to approve any and all substitutions.
4. Plant list quantities are provided for contractor's convenience only. Plans take precedence.
5. Exposed soil in planting areas shall be raked and free from rocks, roots, weeds, etc.
6. Finished grade in decorative rock areas shall be 1" below adjacent header board, paving, curbing, etc.
7. Plants shall be quality material having a growth habit that is normal for the species and be sound, vigorous, healthy, and free from insects and injury.
8. Ground cover and/or decorative rock shall extend under shrubs unless noted.
9. After all work is completed, the contractor shall remove all materials not incorporated in the scope of work from the job site.
10. Grading shall include all excavation, settlement, handling, import, distribution, transportation, and disposal necessary to bring ground to finish grade as shown on the civil and landscape plans.
11. All earthwork is to be done so that all water drains away from all structures.
12. All underground utilities are to be located before digging.
13. All plant material to be guaranteed for a period of one (1) year after final acceptance.
14. Landscape contractor shall review and accept all rough, and finish grading on all landscaped areas prior to installation of irrigation and landscape. Contractor shall remove all spoils prior to installation of decorative rock for finish grade.
15. In the event of major discrepancies between the plans and field conditions, contractor shall notify the Landscape Architect immediately. Allow a minimum of forty-eight (48) hours between notification of Landscape Architect and proceeding with construction of irrigation system.
16. All existing trees and landscape to remain shall be protected and watered during all phases of construction. If any tree dies from damage or neglect, it shall be replaced with a like species and size at no additional cost to owner.
17. Test drainage of plant beds and pits by filling with water. Conditions permitting the retention of water in locations for more than twenty-four (24) hours shall be brought to the attention of the Landscape Architect prior to any planting.
18. Contractor is responsible for providing sleeves to all landscape areas regardless whether they are shown on plans or not. Refer to sleeving schedule for size and quantity. If doubt or discrepancy exists request clarification from Landscape Architect in writing.
19. Landscape areas shall be depressed 6 inches to maximize storm water harvesting in areas shown on landscape and/or grading plans. Water harvesting shall not occur within 10' of building foundation.
20. Final plant locations must be in compliance with all utility setback requirements.
21. Sleeve all pipes and wires under paved areas including streets and sidewalks.
22. Irrigation lines are shown schematically; locate all line in unpaved areas.
23. Locate all lines within the property line when possible.
24. The general contractor (gc) takes full liability for this landscape and irrigation, and any damage to roadway, sidewalk and utilities.
25. The landscape and irrigation shall be installed per the associated specifications.
26. All site contouring and finish grading shall be completed and accepted by the landscape contractor and Landscape Architect prior to start of irrigation.
27. Area square footages are for agency review and use only, not for contractor take-offs or quantity use.
28. The property owner shall replace dead or missing vegetation within 14 days to ensure full compliance with approved landscape plans.
29. Trees that have been topped or lion-tailed shall be replaced with a tree of value equal to that of the tree prior to the improper pruning.

Refer to specifications for additional information on policies, performances, and products.

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0 10' 20' 40'

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job

date
06.06.2024

revisions

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landscape plan

L3.1

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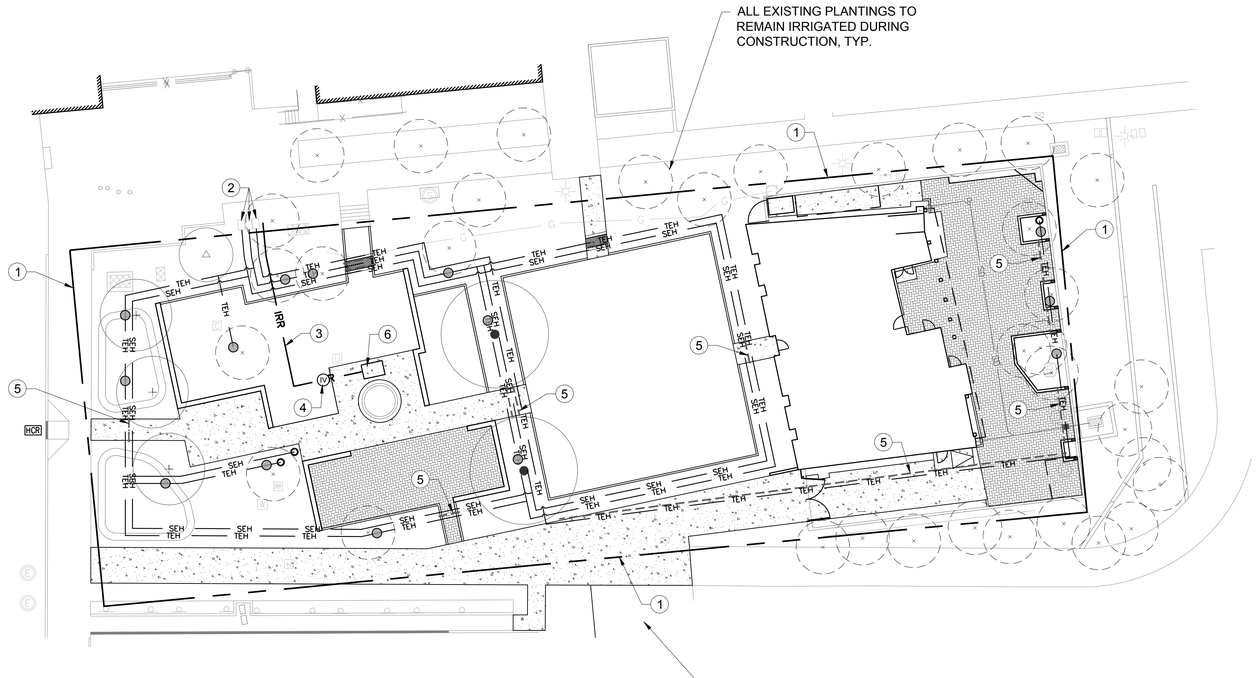

Irrigation lines and equipment are shown schematically. Contractor shall locate all irrigation lines and equipment outside of hardscape areas unless otherwise noted.

(#) IRRIGATION KEY NOTES

1. Property line
2. Existing valve
3. Fountain mainline
4. Isolation valve
5. Irrigation sleeve, typ.
6. Water feature - precast concrete vault with concrete lid for fountain. Vault to house filtration system, pump and chlorinator

IRRIGATION LEGEND

furnish and install all material per plans, details, and specifications

- [S] irrigation source / point of connection - existing
- —IRR— irrigation mainline - sch. 40 pvc 1-1/2" w/ sch. 80 fittings, 2hr pressure test at 150 psi
- NOT SHOWN irrigation controller - utilize existing site controller
- (V) isolation valve - 1-1/2" lead free brass ball valve
- remote control valve - utilize existing
- irrigation sleeve - class 200 pvc - 4" mainlines and multiple lines 2" single line and controller wiring
- —TEH— tree line - sch. 40 pvc - 3/4" unless otherwise shown
- —SEH— shrub line - sch. 40 pvc - 3/4" unless otherwise shown
- hose end cap
- multi-outlet xeri-bug emitters rain bird - (6) 1gph and 2 gph ports - refer to emitter schedule
- NOT SHOWN single-port emitters - install rain bird xeri-bug xbt-10 and xbt-20 - refer to emitter schedule

IRRIGATION VALVE SCHEDULE

Valve	Size	Type
A-1	1"	tree
A-2	1"	shrub
A-3	1"	tree/shrub

VALVE SCHEDULE NOTES:

1. (M) multi-port emitter, (s) single-port emitter. Contractor may select to provide multi-port emitters for shrub plant material.
2. Contractor shall adjust controller for the proposed emitter schedule and provide watering to promote healthy growth of plant material for establishment.

EMITTER SCHEDULE

Trees	Type	Outlets	Gph outlet	Gph plant
Olea europea 'Wilsonii' *fruitless olive*	m	5	2.0	10.0
Punica granatum *pomegranate*	m	4	2.0	8.0
Celtis reticulata *netleaf hackberry*	m	6	2.0	12.0
Shrubs / Ground Covers	**Type**	**Outlets**	**Gph outlet**	**Gph plant**
Ruellia simplex *mexican petunia*	s/m	2	1.0	2.0
Calliandra californica 'Mexicali Rose' *mexicali rose fairy duster*	s/m	2	1.0	2.0
Tecoma stans v. angustata *yellow bells*	s/m	2	2.0	4.0
Eremophila glabra 'Mingenew Gold' *outback sunrise emu*	s/m	2	1.0	2.0
Vines	**Type**	**Outlets**	**Gph outlet**	**Gph plant**
Parthenocissus 'Hacienda Creeper' *hacienda creeper*	s/m	2	2.0	4.0
Rosa banksiae *lady banks rose*	s/m	2	2.0	4.0
Cacti / Succulents	**Type**	**Outlets**	**Gph outlet**	**Gph plant**
Yucca rostrata *beaked yucca*	s/m	1	1.0	1.0
Hesperaloe tenuifolia *grassy hesperaloe*	s/m	1	1.0	1.0
Asclepias subulata *desert milkweed*	s/m	1	1.0	1.0
Hesperaloe parviflora 'stoplights' *stoplights dwarf hesperaloe*	s/m	1	1.0	1.0
Agave parryi *parry's agave*	s/m	1	0.5	0.5
Euphorbia antisyphilitica *candelilla*	s/m	1	1.0	1.0
Opuntia gomeii *old mexico*	s/m	0	0.0	0.0
Yucca pallida *pale leaf yucca*	s/m	1	1.0	1.0
Hesperaloe funifera 'Little Giant' *little giant hesperaloe*	s/m	1	1.0	1.0

IRRIGATION NOTES

1. The irrigation system shall utilize a potable water source. All lines shall be sch. 40 pvc unless otherwise noted on plans.
2. The irrigation system is designed with an operating pressure of 60psi at connection. Contractor shall verify pressure at connection and confirm system design with collected test information prior to continuation of installation. Tested pressure shall be noted on the as-built plans.
3. Contractor shall notify Landscape Architect if any discrepancies occur prior to installation of the irrigation system. If the pressure test is not within 5 lbs of noted design pressure, contractor shall cease installation until minimum pressure is obtained or revised design is provided.
4. Contractor shall test pressure prior to start of construction, test pressure 30 days prior to start of irrigation work and submit pressure tests and readings to architect.
5. If contractor fails to provide pressure test readings and pressure is below intended system design, contractor shall make adjustments necessary to obtain a fully function irrigation system with adequate pressure at heads at no additional cost to the owner.
6. Sleeving for irrigation shall be under all paved areas including streets and sidewalks and other hardscape elements. Contractor to coordinate with general contractor for sleeve installation.
7. Irrigation lines, valves, and associated equipment are shown schematically. Contractor shall locate all lines in unpaved areas.
8. Maximum distance for distribution tubing shall not exceed 8' from emitter to plant.
9. Irrigation controller shall be set to run per coordination of property manager. Controller shall be set to run with daily automatic adjustments to local live ET or historic ET data.
10. Contractor shall set additional programs on controller for deep root watering and plant growth from March thru June.
11. Contractor shall complete pressure test of main line and laterals with the observation of the landscape architect.
12. Contractor shall have the irrigation functional, prior to start of planting.

Refer to specifications for additional information on policies, performances, and products.

SCALE: 1" = 20'

0 10' 20' 40'

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ERIC R.
BARRETT
06/24
Date Signed
ARIZONA U.S.A.

EXPIRES 9/30/2024

job

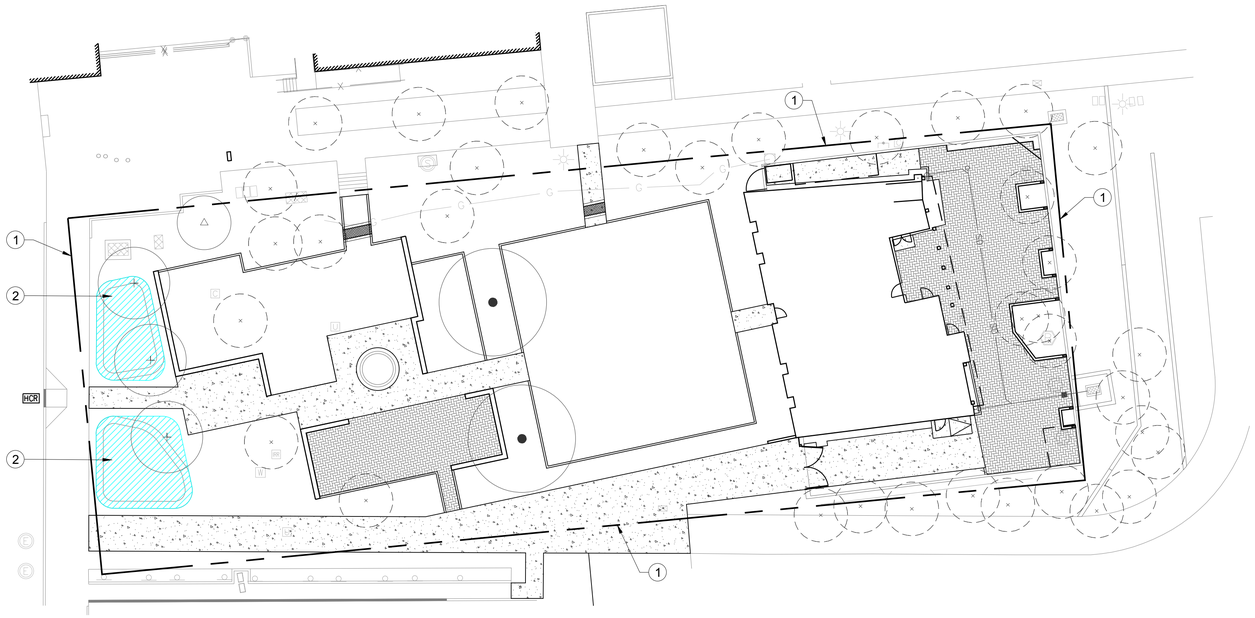
date
06.06.2024

revisions

Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

irrigation plan

L4.1



RAINWATER HARVESTING LEGEND

retention basin, refer to civil

GENERAL WATER HARVESTING NOTES

1. The site is developed with fixed grades along all sides of the site.
2. Water harvesting is proposed in two basins as shown on the plan and through surface collection. Refer to the civil grading and drainage plans for all spot grades and site drainage scheme.
3. All landscape areas are to be depressed 3" where possible to maximize surface collection.
4. The site utilizes reclaimed water.
5. The proposed plant palette is native and drought tolerant to reduce the demand on the reclaimed water supply.
6. The estimated plant canopy area is 4,553 square feet.
7. The estimated demand is 36,878 gallons per year. This amount shall not be exceeded when proper maintenance practices are used. Adjustments to the irrigation system with increased watering from April through June and limited water use during Monsoon and winter will allow the property owner to achieve limited water demand.
8. It is the responsibility of the property owner to retain the services of a qualified maintenance company to ensure the irrigation system remains operational and functioning properly limiting the water use.
9. The proposed irrigation system utilizes an ET (Evapo-transpiration Rate) controller that will aid in irrigation adjustments throughout the year. The maintenance company shall also set up additional programming for by-monthly timing to provide deep watering during the growing period in order to extend roots and allow the vegetation to become established. Once the vegetation is established, the irrigation system can be re-programmed to limit watering only to the months April through June to ensure vegetation retains growth during the plant material stress periods.
10. Maintenance company shall provide monthly reports and identify the irrigation scheduling proposed. This scheduling shall be tracked by owner or property manager to ensure water usage is adjusted throughout the year. .

(#) RAINWATER HARVESTING KEY NOTES

1. Property line
2. Water harvesting basin - refer to civil

Refer to specifications for additional information on policies, performances, and products.

SCALE: 1" = 20'

0 10' 20' 40'

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rainwater harvesting plan

L5.1

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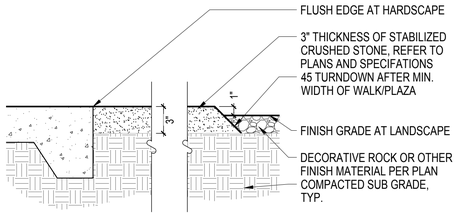
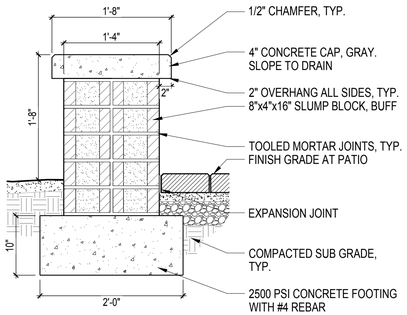


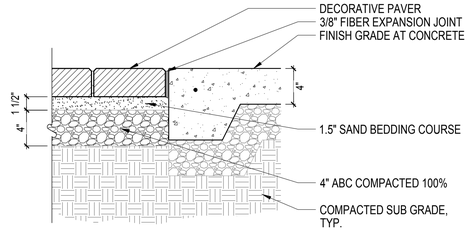
NOTES:
1. CONTRACTOR SHALL PROVIDE MOCK UP FOR PATH INSTALLATION OF 10' SECTION FOR OWNER REPRESENTATIVE OR LANDSCAPE ARCHITECT REVIEW AND APPROVAL PRIOR TO CONTINUATION OF WORK.
2. STABILIZED DG TO BE PREMIXED OFF SITE.
3. TOTAL DEPTH TO BE 3" MIN. AND COMPACTED IN TWO LIFTS.

1 STABILIZED DG AT LANDSCAPE / HARDSCAPE

NTS



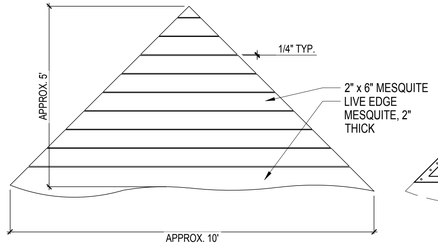
NOTES:
1. PROVIDE WATERPROOFING ON ALL SURFACES BELOW GRADE.
2. CONTRACTOR TO PROVIDE SHOP DRAWING.



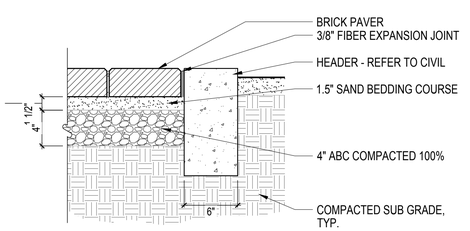
NOTES:
1. INSTALL PER MANUFACTURES SPECIFICATIONS.
2. REFER TO PLANS FOR PAVER TYPE, PATTERN, AND COLOR.

2 PAVERS @ CONCRETE EDGE

NTS



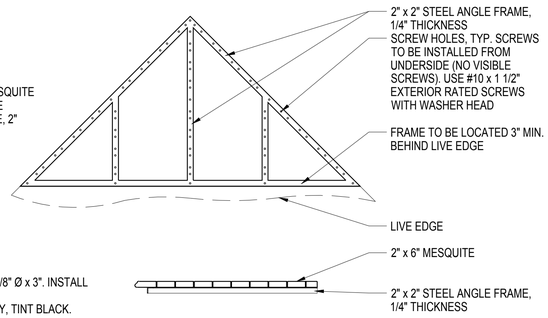
NOTES:
1. ATTACH FRAME TO EXISTING MASONRY WALL WITH WEDGE ANCHORS, 3/8" Ø x 3". INSTALL FOUR PER SIDE AT APPROX. 24" O.C.
2. FILL ALL CHECKS, KNOTS, ETC. IN MESQUITE WITH MARINE GRADE EPOXY, TINT BLACK.
3. ALL WOOD IS TO BE SANDED TO A MINIMUM 120 GRIT.
4. APPLY TWO COATS OF DEFT EXTERIOR WOOD OIL TO ALL WOOD SURFACES BEFORE ATTACHING TO FRAME. INSTALL FOUR COATS TO END GRAIN.
5. ALL CONNECTIONS SHALL BE WELDED CONTINUOUS AND GROUND SMOOTH.
6. ALL EXPOSED STEEL TO BE PRIMED AND PAINTED BLACK.
7. CONTRACTOR TO PROVIDE SHOP DRAWING.

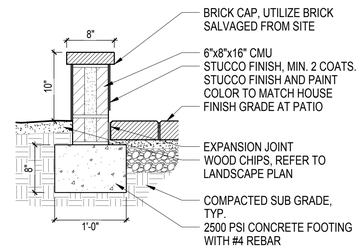


NOTES:
1. INSTALL PER MANUFACTURES SPECIFICATIONS.
2. REFER TO PLANS FOR PAVER TYPE, PATTERN, AND COLOR.

3 PAVERS @ FLUSH CURB

NTS





NOTES:
1. PROVIDE WATERPROOFING ON ALL SURFACES BELOW GRADE.
2. CONTRACTOR TO PRESERVE AND PROTECT IN PLACE EXISTING VEGETATION AND ASSOCIATED ROOT SYSTEM.

4 PLANTER WITH BRICK CAP

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5 SLUMP BLOCK SEAT WALL

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6 MESQUITE SERVING TABLE WITH LIVE EDGE

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L6.1

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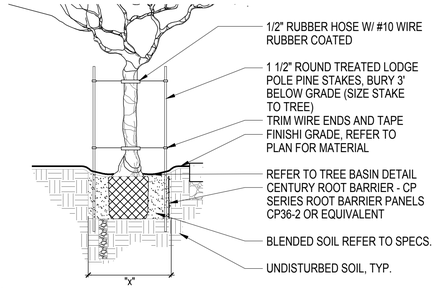
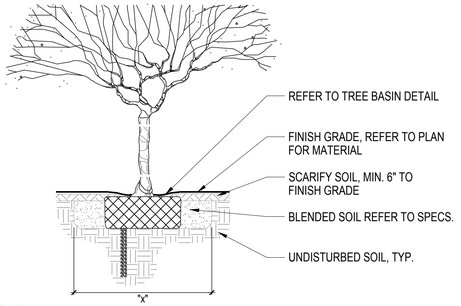


NOTES:
1. DIMENSION "X" EQUALS TWO (2) TIMES THE BOX WIDTH, DEPTH OF PIT WILL EQUAL DEPTH OF ROOTBALL.
2. SCARIFY SIDES & BOTTOM OF PIT, & BORE HOLES ON ALL PITS.
3. SET CROWN OF ROOTBALL 1/2" TO 1" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
4. DO NOT COVER CROWN WITH SOIL.
5. ROOT GUARDS SHALL BE PROVIDED ON ALL SIDES WHERE ADJACENT HARDSCAPE IS WITHIN 10' OF THE TREE/PLANT.
6. REFER TO TREE STAKING DETAIL FOR ADDITIONAL INFORMATION.

1 15 GALLON & 25 GALLON - TREE PLANTING

NTS

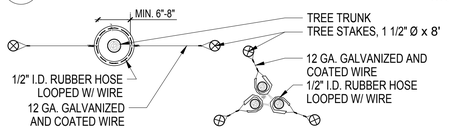
NOTES:
1. SET CROWN OF ROOTBALL 1/2" TO 1" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
2. DO NOT COVER CROWN WITH SOIL.
3. SETTLE BACKFILL SOIL BY WATERING, AND COMPACT TO REMOVE AIR POCKETS.



NOTES:
1. DIMENSION "X" EQUALS FOUR (4) TIMES THE BOX WIDTH, DEPTH OF PIT WILL EQUAL DEPTH OF ROOTBALL.
2. SCARIFY SIDES & BOTTOM OF PIT, & BORE HOLES ON ALL PITS.
3. SET CROWN OF ROOTBALL 1/2" TO 1" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
4. DO NOT COVER CROWN WITH SOIL.

2 65 GALLON OR LARGER - TREE PLANTING

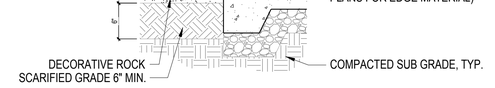
NTS

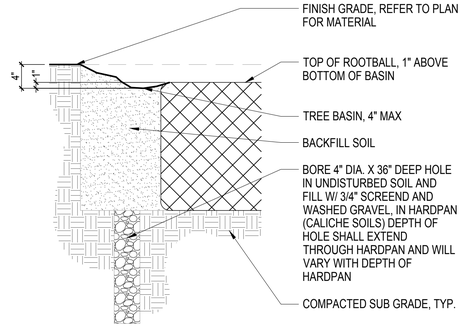


NOTES:
1. TREES SHALL ONLY BE STAKED THAT ARE NOT SELF-SUPPORTIVE WITH NURSERY STAKE REMOVED. CONTRACTOR SHALL INCLUDE IN BIDDING TO STAKE ALL TREES AS NECESSARY THROUGH WARRANTY AND MAINTENANCE PERIOD.

6 TREE STAKING

NTS





NOTES:
1. TREE BASINS NOT TO EXCEED 4" DEPTH.
2. TOP OF ROOTBALL TO BE EXPOSED TO SURFACE.
3. BOTTOM OF PLANT PIT EQUAL TO DEPTH OF ROOTBALL.

3 TREE BASIN

NTS

TWO-CUT METHOD FOR REMOVING SMALL BRANCHES (≤1" CALIPER)

1ST CUT
REMOVE LIMB (LEAVES STUB)

2ND CUT
REMOVES STUB

THREE-CUT METHOD FOR REMOVING LARGE BRANCHES (>1" CALIPER)

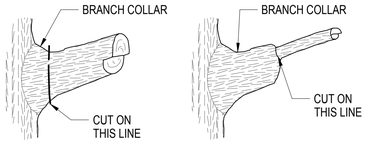
1ST CUT

2ND CUT
REMOVE LIMB (LEAVES STUB)

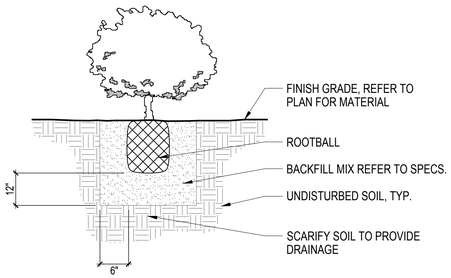
3RD CUT
REMOVES STUB

REMOVING A LIVE BRANCH

REMOVING A DEAD BRANCH



NOTES:
1. CLEAN BLADE BETWEEN SPECIES TO PREVENT SPREAD OF DISEASES.



NOTES:
1. SET CROWN OF ROOTBALL 1/2" TO 1" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
2. DO NOT COVER CROWN WITH SOIL.
3. SETTLE BACKFILL BY WATERING, AND COMPACT TO REMOVE AIR POCKETS.

4 SHRUB PLANTING

NTS

5 ACCENT PLANTING

NTS

7 FINAL GRADE HARDSCAPE TO DEC. ROCK

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8 TREE PRUNING

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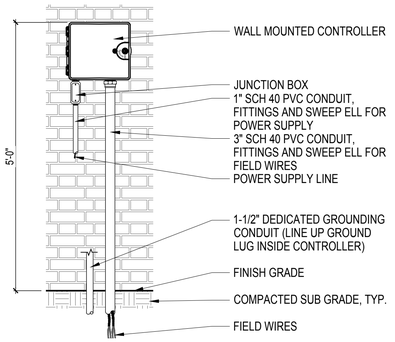
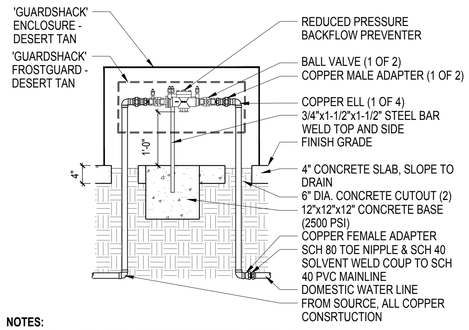
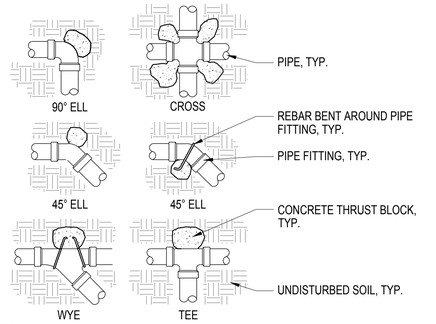


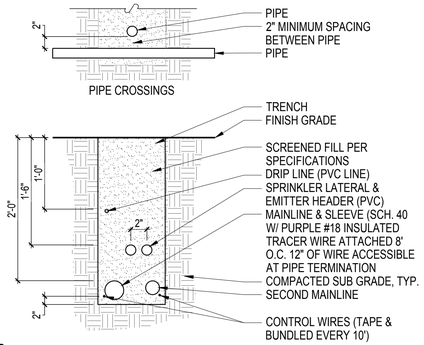
NOTES:
1. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.



NOTES:
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT AND TEST FOR POTABLE WATER SOURCE. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.
2. PLACE BACKFLOW PREVENTER WITHIN SECURITY ENCLOSURE. (SEE SPECS.)
3. OPEN AND CLOSE ENCLOSURE WITHOUT MODIFICATIONS.



NOTES:
1. SUPPLY LINES 2" IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
2. 1 CUBIC FOOT OF CONCRETE TO BE USED FOR EACH THRUST BLOCK.
3. WRAP PLASTIC SHEETING AROUND PIPE WHERE IT CONTACTS CONCRETE.



NOTES:
1. ALL MAINLINES TO BE INSTALLED IN ACCORDANCE W/ MANUFACTURER'S SPECIFICATIONS.
2. TRENCH WIDTH & DEPTH TO VARY DEPENDING ON NUMBER & TYPES OF PIPES CONTAINED THERE IN.
3. TRACER WIRE AND METALLIC TAPE INSTALLED WITH MAINLINES.
4. 4" PIPE & LARGER SHALL BE 30" BELOW FINISH GRADE.

1 WALL MOUNTED CONTROLLER

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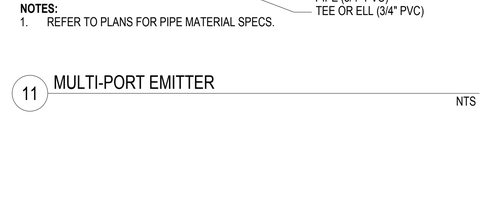

NOTES:
1. ALL PVC IRRIGATION SLEEVES TO BE SCH. 40 PVC PIPE.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE EXTEND THE SMALLER SLEEVE TO 24" MINIMUM ABOVE FINISH GRADE.
4. MECHANICALLY TAMP BACKFILL SOIL TO 95% PROCTOR.

2 REDUCED PRESSURE BACKFLOW PREVENTER

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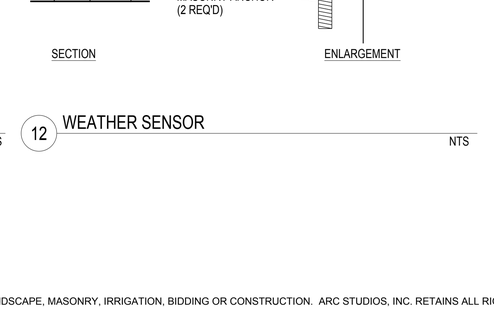


NOTES:
1. GREEN BOXES IN TURF AREAS.
2. TAN BOXES IN HYDRO-SEED OR DECORATIVE ROCK AREAS.
3. PURPLE BOXES IN RECLAIMED SYSTEMS.

3 MAIN LINE THRUST BLOCK

NTS

NOTES:
1. INSTALL DISTRIBUTION TUBES EQUALLY AROUND EDGE OF ROOTBALL. DRIP TUBING AT SURFACE TO CLEAR FINAL GRADE BY A MIN. OF 1" AND A MAX. OF 2". DETAIL REPRESENTS TYP. INSTALLATION REFER TO IRRIGATION LEGEND FOR MULTI-PORT EMITTER QUANTITIES.

4 IRRIGATION TRENCHING

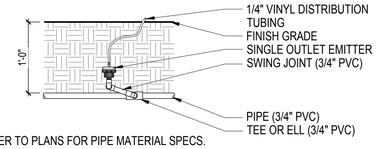
NTS

NOTES:
1. ALL 1/2" LATERAL PIPE TO BE CLASS 315 PVC. ALL PIPE 3/4" TO 2-1/2" TO BE SCH. 40 PVC, PIPE 3" AND LARGER TO BE CLASS 200 PVC OR AS NOTED ON IRRIGATION LEGEND.
2. MAIN LINE - SCH. 80 FITTINGS.
3. LATERAL AND DRIP LINES SCH. 40 FITTINGS.
4. PRESSURE TESTS, 4 HOURS:
   - MAIN LINE AT 150 PSI
   - LATERALS AND DRIP LINE AT 70 PSI

PIPE SIZE	FLOW (GPM)
1/2"	0 - 5
3/4"	5 - 10
1"	10 - 12
1-1/4"	12 - 20
1-1/2"	20 - 30
2"	30 - 46
2-1/2"	46 - 60
3"	60 - 110
4"	110 - 190
6"	190 - 340

5 SLEEVING

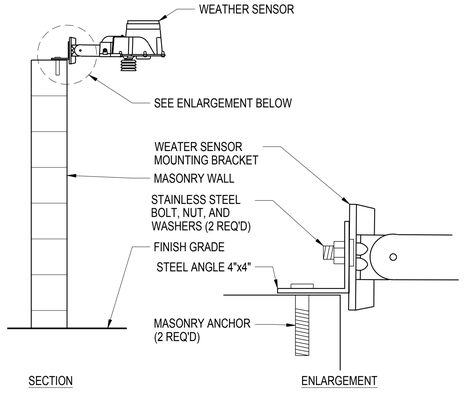
NTS



NOTES:
1. REFER TO PLANS FOR PIPE MATERIAL SPECS.

6 REMOTE CONTROL VALVE - DRIP/BUBBLER

NTS



7 MULTI-PORT EMITTER DRIP TUBING @ TREE

NTS

8 PIPE SIZING SCHEDULE

NTS

NOTES:
1. REFER TO PLANS FOR PIPE MATERIAL SPECS.

9 HOSE END CAP

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10 SINGLE OUTLET EMITTER

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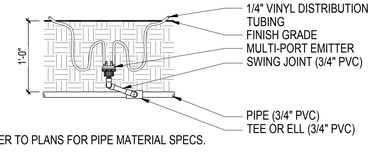

NOTES:
1. REFER TO PLANS FOR PIPE MATERIAL SPECS.

11 MULTI-PORT EMITTER

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12 WEATHER SENSOR

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CERTIFICATE NO.
39813
ERIC R. BARRETT
06/24
DATE SIGNED
ARIZONA U.S.A.
EXPIRES 9/30/2024

job

date
06.06.2024

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irrigation details

L6.3

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1 g2.0 **code analysis - floor plan**
1/8" = 1'-0"

north

2018 IBC code analysis

GENERAL

OCCUPANCY: A

AREA SEPARATION: NONE REQUIRED.

OCCUPANCY SEPARATION (TABLE 508.4): NONE REQUIRED

TYPE OF CONSTRUCTION(TABLE 503): TYPE VB

ALLOWABLE FLOOR AREA (TABLE 506.2): 3,179 S.F.

ALLOWABLE HEIGHT (TABLE 504.3): 55', TWO STOREY.

ALLOWABLE STORIES (TABLE 504.4): TWO STOREY.

BUILDING ELEMENTS (TABLE 601): 0 HRS.

FIRE RATING AT EXTERIOR WALLS (TABLE 602): X ≥ 30 FOR GROUP A; NO RATING REQUIRED.

ACTUAL GROSS BUILDING AREA

BUILDING 3,179 TOTAL SF

OCCUPANT LOAD (TABLE 1004.5)

BUILDING TOTAL OCCUPANCY 58

EXIT WIDTH REQUIREMENT (PER SECTION 1005)

EGRESS: # OF OCCUPANTS x .2" PER OCCUPANT = REQUIRED WIDTH REFER TO LEGEND AND NOTATIONS AT FLOOR PLANS ON THIS SHEET FOR NUMBER OF OCCUPANTS EXITING, AND REQUIRED/PROVIDED WIDTHS

ALL FACILITIES ARE WITHIN 500 FOOT PATH OF TRAVEL FROM ANY POINT IN BUILDING (SECTION 2902.3.3).

BUILDING OCCUPANCY = 58

W/C MEN	1 PER 125 = 1 REQUIRED, 2 PROVIDED
W/C WOMEN	1 PER 65 = 1 REQUIRED, 2 PROVIDED
LAVS MEN	1 PER 200 = 1 REQUIRED, 1 PROVIDED
LAVS WOMEN	1 PER 200 = 1 REQUIRED, 1 PROVIDED
DRINKING FOUNTAINS	1/500 = 1 REQUIRED, 2 PROVIDED
SERVICE SINK	1 REQUIRED

PLUMBING FIXTURES (TABLE 2902.1) - ACCESSIBILITY PER 1109.2 & ICC/ANSI 117.1

Occupancy Tabulation Per 2018 IBC Table 1004.5

Rm. No.	Name	Room Occupancy	Area	S.F. Per Person	Occupants
101	Break Rm	Assembly Unconcentrated (tables and chairs)	150 SF	15	10
102	Mech Rm	Accessory Storage, Mechanical Equipment Room	152 SF	300	1
105	gallery	Assembly - Exhibit Gallery and Museum	280 SF	30	10
106	gallery	Assembly - Exhibit Gallery and Museum	167 SF	30	6
107	gallery	Assembly - Exhibit Gallery and Museum	202 SF	30	7
109	gallery	Assembly - Exhibit Gallery and Museum	231 SF	30	8
110	gallery	Assembly - Exhibit Gallery and Museum	196 SF	30	7
111	gallery	Assembly - Exhibit Gallery and Museum	181 SF	30	7
112	office	Business	227 SF	150	2
				TOTAL	58

occupancy legend

(X)	OCCUPANT LOAD
——→	EXITING DIRECTION
→(30)	EXITING LOAD AND DIRECTION
5" R	EXIT WIDTH REQUIRED
72" P	EXIT WIDTH PROVIDED
PH	PANIC HARDWARE PROVIDE AT BOTH PAIRS OF DOORS
FC	F.E.C. OR WALL MOUNTED FIRE EXTINGUISHER

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job
1503.08

date
12.05.24

revisions

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code analysis

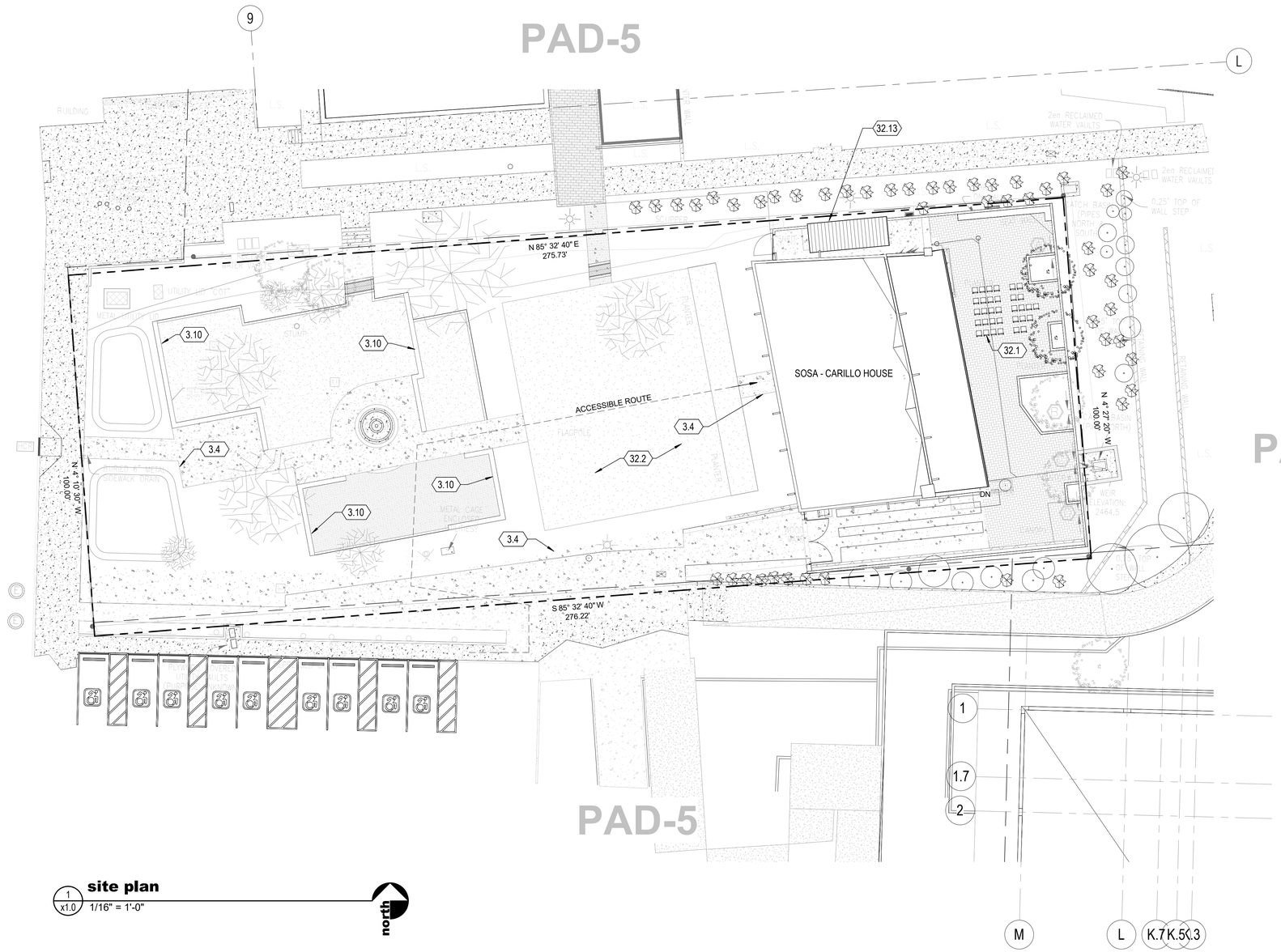
g2.0

general notes

1. COORDINATE WITH CIVIL AND LANDSCAPE.
2. REFER TO GATE SCHEDULE FOR SIZE AND HARDWARE.

keynotes

3.4	4" CONCRETE SLAB ON 4" COMPACTED BASE COURSE.
3.10	NEW 18' HIGH CONCRETE SEAT WALL. REFER TO LANDSCAPE.
32.1	TEMPORARY EVENT SEATING.
32.2	EXTERIOR EVENT SPACE.
32.13	STEEL SHADE CANOPY. REFER TO STRUCTURAL AND A7.1.



1 x1.0 **site plan**
1/16" = 1'-0"

north

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site plan

x1.0

STRUCTURAL NOTES

GENERAL:

1. ALL CONSTRUCTION REQUIREMENTS, AND DEFINITIONS SHALL CONFORM TO THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC)
2. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHOD OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. THESE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SCAFFOLDING, BRACING AND SHORING. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION, NOR WILL THE STRUCTURAL ENGINEER BE RESPONSIBLE FOR CONSTRUCTION SITE SAFETY, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ENSURE THAT ALL STRUCTURAL WORK IS IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY STRUCTURAL INSPECTION/OBSERVATION PROVIDED BY OTHERS (INCLUDING THE STRUCTURAL ENGINEER OF RECORD) DOES NOT RELIEVE THE CONTRACTOR OF THIS RESPONSIBILITY. ANY STRUCTURAL DEVIATIONS FROM THE CONTRACT DOCUMENTS THAT ARE FOUND AT A LATER DATE AND ARE DECLARED TO BE SIGNIFICANT BY THE STRUCTURAL ENGINEER OF RECORD SHALL BE CORRECTED BY THE CONTRACTOR (AT THE CONTRACTOR'S EXPENSE). ANY INDIVIDUAL PERFORMING STRUCTURAL INSPECTIONS/OBSERVATIONS IS NOT AUTHORIZED TO DIRECT OR APPROVE ANY CHANGES FROM THE CONTRACT DOCUMENTS OR STOP AND/OR DELAY THE WORK.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE SITE CONDITIONS WITH THE DRAWINGS PRIOR TO BIDDING OR START OF CONSTRUCTION. ANY CONFLICTS, DISCREPANCIES, OR OMISSIONS SHALL BE RESOLVED WITH THE CONTRACTING OFFICER PRIOR TO CONSTRUCTION AND PRIOR TO PROCEEDING. DO NOT USE SCALED DIMENSIONS. USE WRITTEN DIMENSIONS OR WHERE NO DIMENSION IS PROVIDED, CONSULT WITH THE CONTRACTING OFFICER FOR CLARIFICATION BEFORE PROCEEDING WITH THE BID OR THE WORK.
5. WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. WHERE NO SPECIFIC DETAIL IS SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, OR IF THERE IS NO SIMILAR WORK, THEN CONSTRUCTION SHALL BE AS IS STANDARD IN THE INDUSTRY.
6. ALL PRE-ENGINEERED/PREFABRICATED ITEMS AND MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS AND ALTERATIONS ARE ALLOWED ONLY IN WRITING.
7. ALL DETAILS SHOWN SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS, WHETHER SPECIFICALLY INDICATED OR NOT. TYPICAL DETAILS MAY OR MAY NOT BE CUT ON THE DRAWINGS, AND DETAILS MAY OR MAY NOT BE CUT AT ALL SPECIFIC LOCATIONS, BUT SHALL APPLY UNLESS NOTED OTHERWISE.
8. WHERE REFERENCE IS MADE TO VARIOUS BUILDING CODES, TEST STANDARDS, REFERENCE STANDARDS, ETC. FOR MATERIALS OR PERFORMANCE, SUCH REFERENCE MATERIALS SHALL BE THE CURRENT ADOPTED EDITION AND/OR ADDENDUM.
9. DESIGN LOADS:

   ROOF LIVE LOAD = 20 PSF (REDUCIBLE PER IBC SECTION 1607.1)
   ROOF DEAD LOAD = 3 PSF
   WIND UPLIFT = 35.3 PSF
   DOWNWARD WIND = 25.7 PSF

   WIND:
   BASIC WIND SPEED = 105 MPH (3 SEC GUST); EXPOSURE "B"; BUILDING CATEGORY = II

   WIND BASE SHEAR:
   N/S = 737 LBS
   E/W = 246 LBS

   SEISMIC:
   BUILDING CATEGORY II; Sds = 0.285; Sd1 = 0.133; Ie = 1.0; SITE CLASS D;
   SEISMIC DESIGN CATEGORY B, R = 1.25 (ORDINARY STEEL CANTILEVER COLUMN SYSTEMS);
   SEISMIC BASE SHEAR = 168 LBS

FOUNDATIONS:

1. FOUNDATION DESIGN BASED ON MINIMUM INTERNATIONAL BUILDING CODE SOIL BEARING VALUE AS PERMITTED BY THE BUILDING OFFICIAL IN THE ABSENCE OF A SOILS REPORT. DESIGN SOIL BEARING PRESSURE = 1500 PSF AT 2'-0" MINIMUM BELOW LOWEST ADJACENT FINISHED GRADE PER IBC TABLE 1804.2. SPREAD FOOTINGS SHALL BEAR ON NATIVE BASALT. FOR BOTTOM OR TOP OF FOOTING ELEVATIONS, COORDINATE WITH FOUNDATION DETAILS.
2. ALL CONSTRUCTION SHALL COMPLY WITH CHAPTER 18 OF THE 2018 IBC. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR ANY GEOTECHNICAL ASPECTS OF THIS PROJECT.
3. ABANDONED FOOTINGS, NEW OR EXISTING UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REROUTED OR REMOVED AS COORDINATED WITH THE ARCHITECT AND AS DIRECTED BY THE CONTRACTING OFFICER.

CAST-IN-PLACE CONCRETE:

1. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND IBC CHAPTER 19.
2. CONCRETE SHALL BE READY MIXED CONCRETE IN ACCORDANCE WITH ASTM C94. MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 4,500 PSI (DUE TO FROST EXPOSURE) WITH A MAXIMUM AGGREGATE SIZE OF 1" AND 4" MAXIMUM SLUMP.
3. CEMENT SHALL CONFORM TO ASTM C150, TYPE V. (DUE TO POTENTIAL SILICA AGGREGATE REACTION (SAR)) AGGREGATE PER ASTM C33. DO NOT TAMP SLABS (USE ROLLER BUG, VIBRATING SCREED OR BULL FLOAT ONLY). PROVIDE AIR-ENTRAINING ADMIXTURE AT ALL EXPOSED CONCRETE AT A RATE ADEQUATE TO PROVIDE 6.0% AIR AT POINT OF PLACEMENT, TESTED IN ACCORDANCE WITH ASTM C231.
4. CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE FIELD-VERIFIED 3" MAXIMUM SLUMP PRIOR TO ADDING ADMIXTURE AND 8" MAXIMUM SLUMP AT PLACEMENT. MIX DESIGNS SHALL BE DESIGNED BY THE CONCRETE PRODUCTION FACILITY IN ACCORDANCE WITH ACI 301 AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONSIDER THE USE OF SUPERPLASTICIZER WHERE CONGESTION OF REBAR IS LIKELY TO CAUSE ROCK POCKETS OR VOIDS. THE CEMENT FOR THE MIX SHALL BE TYPE II. THE RATE OF PLACING SUCH CONCRETE SHALL BE REDUCED OR THE FORM STRENGTH SHALL BE INCREASED TO SAFELY RESIST INCREASED PRESSURE AGAINST THE FORMS. DO NOT USE WITH COLORED CONCRETE.
5. CONCRETE SHALL BE FREE OF CHLORIDE.
6. FLY ASH ADDITIVES SHALL CONFORM TO ASTM C618, CLASS F. FLY ASH SHALL NOT REPLACE MORE THAN 25% OF CEMENT BY WEIGHT.
7. CONCRETE FOOTINGS AND PADS MAY BE POURED AGAINST NEAT EXCAVATIONS PROVIDED THE REQUIRED CONCRETE COVERAGE FOR REINFORCING IS MAINTAINED. CONCRETE WALLS AND COLUMNS SHALL BE DOWELED FROM SUPPORTS WITH BARS OF THE SAME SIZE AND SPACING. SEE "REINFORCING STEEL" FOR LAP REQUIREMENTS.
8. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND EMBEDDED ITEMS, THICKENED AREAS, ADJACENT TO PENETRATIONS, AND UNDERFLOOR DUCTS, ETC. CAST CLOSURE POUR AROUND COLUMNS AFTER COLUMN DEAD LOAD IS APPLIED.
9. CONCRETE WHICH HAS CONTAINED WATER FOR MORE THAN 90 MINUTES (60 MINUTES IF AIR TEMPERATURE EXCEEDS 85°) SHALL NOT BE USED. RETEMPERING OF CONCRETE AFTER INITIAL SET HAS OCCURRED IS NOT PERMITTED.
10. CURE EXPOSED CONCRETE FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT IN ACCORDANCE WITH ACI 301, ACI 318, ACI 360 AND ACI 302.1 PROCEDURES IN ORDER TO MINIMIZE SHRINKAGE CRACKING. CURE WITH CURING COMPOUND (CONFORMING TO ASTM C309 OR C315) AND SEALING COMPOUND, MOIST CURING, MOISTURE-RETAINING COVER CURING, OR COMBINATIONS THEREOF. IF CURING COMPOUND IS USED, APPLY AT A RATE SPECIFIED BY THE MANUFACTURER, BUT NOT LESS THAN 1 GALLON PER 200 SQUARE FEET OF SURFACE AREA.
11. QUALITY ASSURANCE: CONCRETE COMPRESSIVE STRENGTH AND SLUMP SHALL BE TESTED PER ASTM C31, C39 AND C172 AND IN ACCORDANCE WITH IBC SECTION 1905. FOR EACH CLASS OF CONCRETE USED PROVIDE 4 CYLINDERS PER TEST FOR EACH DAY'S CONCRETE PLACEMENT NOR LESS THAN ONE TEST FOR EACH 150 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5,000 SQUARE FEET OF SURFACE AREA FOR SLABS OR WALLS (NOTE: ALL CONCRETE EXCEPT CURBS AND SIDEWALKS SHALL BE TESTED). TEST ONE CYLINDER AT 7 DAYS AND TWO AT 28 DAYS, WITH ONE HELD. TESTING SHALL BE DONE BY A QUALIFIED TESTING LABORATORY. (FOR SLABS-ON-GRADE, THE TESTING AGENCY SHALL OBSERVE ALL PLACEMENT PROCEDURES AND DOCUMENT IF ANY ADDITIONAL WATER IS ADDED TO THE MIX ON SITE.)

REINFORCING STEEL:

1. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 40 (Fy = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER. NO TACK WELDING OF REINFORCING BARS ALLOWED.
2. ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN CONFORMANCE WITH THE CURRENT EDITIONS OF ACI 318 AND THE CRSI "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION", AND AS MODIFIED BY THE DRAWINGS. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
3. ALL REINFORCING STEEL SHALL BE ACCURATELY PLACED AND SUPPORTED BY GALVANIZED METAL OR PLASTIC CHAIRS, SPACERS OR HANGERS. PROVIDE 3" MINIMUM CLEAR CONCRETE COVERAGE FOR ALL REINFORCING IN FOOTINGS, AND 2 1/2" COVER FOR SLAB REINFORCING.
4. UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE SHALL BE 18" MINIMUM FOR A #3 AND #4 REINFORCING. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH. EXTEND ALL HORIZONTAL REINFORCING CONTINUOUS AROUND CORNERS AND INTERSECTIONS OR PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS.
5. REINFORCING BAR HOOKS SHALL BE STANDARD ACI HOOKS UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL:

1. THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND STRUCTURES SHALL BE IN ACCORDANCE WITH AISC 360.
2. STRUCTURAL PLATES SHALL BE ASTM A36 (FY = 36 KSI). HOLLOW STRUCTURAL SECTIONS (STRUCTURAL TUBE SHAPES; TS OR HSS) SHALL BE ASTM A500, GRADE B (FY = 46 KSI).
3. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 36 (Fy = 36 KSI) HOT-DIPPED GALVANIZED. ALL ANCHOR BOLTS IN CONCRETE SHALL BE TIED IN PLACE PRIOR TO ANY REQUIRED INSPECTION. EXPANSION OR EPOXY BOLTS ARE NOT ALLOWED.
4. ANCHOR BOLTS SHALL BE INSTALLED WITH HOT DIPPED GALVANIZED STEEL WASHERS AND NUTS. STEEL WASHERS SHALL MEET THE REQUIREMENTS OF ASTM F436. HEAVY-HEX NUTS MEETING THE REQUIREMENTS OF ASTM A563.
5. BOLT HOLES IN BASE PLATES MAY BE OVERSIZED PER TABLE 14-2 OF AISC 360.
6. HOT DIPPED GALVANIZED STEEL WASHERS FOR BASE PLATE APPLICATIONS SHALL MEET THE MINIMUM SIZE AND THICKNESS SHOWN IN TABLE 14-2 OF AISC 360.
7. BEAMS, COLUMNS AND BRACES SHALL NOT BE SPLICED UNLESS SPECIFICALLY DETAILED ON THE DRAWINGS.
8. WELDING ELECTRODES SHALL CONFORM TO AWS D1.1. ALL WELDING SHALL BE DONE BY WELDERS HOLDING VALID CERTIFICATES ISSUED BY AN ACCEPTED TESTING AGENCY AND HAVING CURRENT EXPERIENCE IN TYPE OF WELDS SHOWN ON THE DRAWINGS OR NOTES. ALL WELDING PER AMERICAN WELDING SOCIETY STANDARDS. ALL WELDS ON DRAWINGS ARE SHOWN AS SHOP WELDS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. ALL WELDS REQUIRE SPECIAL INSPECTIONS AND SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.
9. DRYPACK FOR COLUMN BASE PLATES AND BEARING PLATES SHALL BE FIVE STAR GROUT OR AN EQUAL NONMETALLIC SHRINKAGE-RESISTANT GROUT WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI. DRYPACK MUST BE PLACED BEFORE ANY FLOOR OR ROOF DECK IS INSTALLED.
10. PROVIDE FABRICATOR'S STANDARD RUST-INHIBITING PRIMER SHOP PAINT FOR ALL STEEL SURFACES THAT WOULD BE EXPOSED TO WEATHER AT ITS FINAL INSTALLATION (TOUCH UP WELDS, DAMAGED AREAS, ETC. AS REQUIRED). ALL STEEL COLUMNS AND BEAMS SHALL HAVE A FINAL COAT OF EPOXY PAINT AFTER STEEL HAS BEEN ERECTED. COORDINATE COLOR WITH CONTRACTING OFFICER.
11. IF NOT NOTED OR REFERENCED OTHERWISE ON THE DRAWINGS/DETAILS, PROVIDE 1/8" WELDED CAP PLATES AT ALL EXTERIOR EXPOSED ENDS FOR TUBES AND PIPES.

STEEL DECK:

1. STEEL DECK SHALL CONFORM TO ASTM A653 FOR GALVANIZED DECK. STEEL DECK SHALL HAVE A CURRENT ICC APPROVAL AND SHALL MEET THE CURRENT STEEL DECK INSTITUTE (SDI) REQUIREMENTS.
2. STEEL ROOF DECK SHALL BE 1 1/2" DEEP TYPE B, 36" WIDE, 20 GAGE GALVANIZED STEEL, WITH A MINIMUM YIELD STRESS OF 33,000 PSI. ROOF DECK SHALL BE ERECTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. PROVIDE CONTINUOUS 12 GAGE EXTENSION/FILLER PLATES AT ALL LOCATIONS WHERE DECK LAYOUT IS SUCH THAT THE BOTTOM FLUTE OF THE DECK DOES NOT BEAR DIRECTLY ON THE SUPPORT.
4. DO NOT HANG OR ATTACH ANYTHING FROM THE UNDERSIDE OF STEEL DECK.

SPECIAL INSPECTION:

1. SPECIAL INSPECTION IS REQUIRED DURING THE FOLLOWING OPERATIONS PER IBC SECTION 1705:
   A. WELDING: DURING ALL STRUCTURAL FIELD WELDING AND SHOP WELDING (INCLUDING WELDING OF REINFORCING STEEL), EXCEPT WELDING PERFORMED IN THE SHOP OF A BUILDING OFFICIAL/APPROVED FABRICATOR.
   B. EPOXY INSTALLATIONS: DURING INSTALLATION OF ALL BOLTS AND/OR REINFORCING BARS TO ENSURE THAT INSTALLATION AND EMBEDMENT REQUIREMENTS HAVE BEEN MET.
2. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
   B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE ENGINEER OR ARCHITECT OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER OR ARCHITECT OF RECORD AND THE BUILDING OFFICIAL.
   C. UPON COMPLETION OF THE ASSIGNED WORK, THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

SHEET INDEX:

S1.0 GENERAL STRUCTURAL NOTES
S2.0 SHADE CANOPY PLANS AND DETAILS

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Registered Professional Engineer (Structural) CERTIFICATE NO. 19300 JOHN E. GRENIER DATE SIGNED 7/17/24 ARIZONA U.S.A.

job
.....

date
07.17.24

revisions

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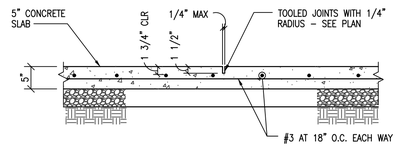
general structural notes

S1.0

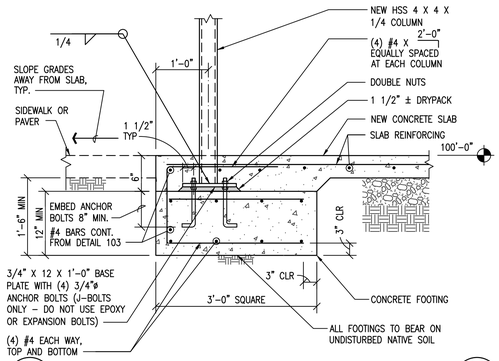


CONTROL JOINT (CTJ)

NOTE:
CONSTRUCTION JOINTS (COLD JOINTS) IN SLABS ON GRADE IS NOT ALLOWED ON THIS PROJECT

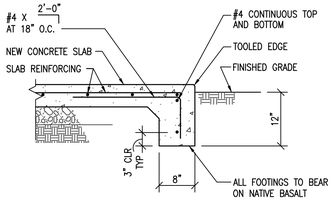
101 TYPICAL CONCRETE SLAB JOINTS

2.02.001

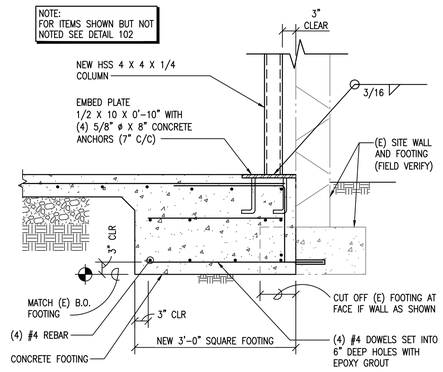


102 EXTERIOR STEEL COLUMN FOOTING

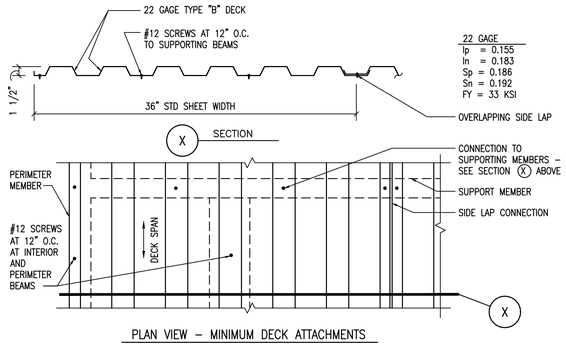
5.02.012R



103 NEW TOEDOWN FOOTING



104 NEW FOOTING AT EXISTING WALL



PLAN VIEW – MINIMUM DECK ATTACHMENTS

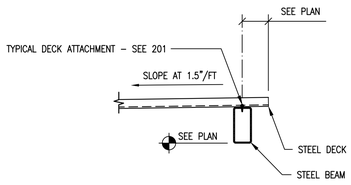
22 GAGE
Ip = 0.155
In = 0.183
Sp = 0.186
Sn = 0.192
FY = 33 KSI

STEEL ROOF DECK NOTES:

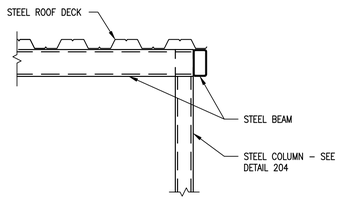
1. DECK SHALL EXTEND CONTINUOUSLY OVER AT LEAST 2 SPANS U.N.O.
2. DO NOT SUSPEND CEILING, LIGHT FIXTURES AND CONDUIT, PIPING, DUCTS, ETC., FROM DECK.
3. PROVIDE FULL WIDTH STEEL DECK SHEETS ADJACENT AND PARALLEL TO WALLS, PERIMETER MEMBERS, OR MEMBERS IDENTIFIED AS CHORD, COLLECTOR, OR DRAG MEMBERS.
4. STEEL DECK SHALL BEAR 2" MIN AT ALL SUPPORTS.
5. ATTACH DECK TO SUPPORTING MEMBERS WITH #12–24 X 1 1/4" LONG TEKS/5 HEX WASHER HEAD SCREWS AT EVERY OTHER FLUTE AND 12" O.C. MAX AT PARALLEL CONDITIONS. SIDE LAP ATTACHMENT SHALL BE #12–14 X 3/4" LONG TEKS/1 HEX WASHER HEAD SCREWS AT 12" O.C. PROVIDE NEOPRENE (OR "CLIMASEAL") WASHERS AT ALL SCREWS.
6. ALL DECK SHALL HAVE GALVANIZED FINISH. COLOR TO MATCH EXISTING SHADE CANOPIES ON SITE.
7. SEE GENERAL STRUCTURAL NOTES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

201 TYPICAL STEEL ROOF DECK WITH SCREW ATTACHMENTS

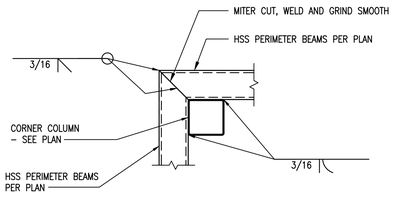
5.01.001



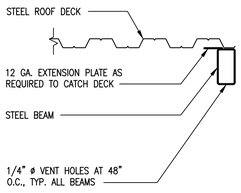
202 STEEL DECK AT STEEL BEAM



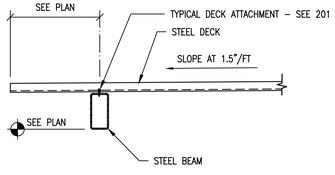
203 STEEL DECK AT STEEL BEAM



204 PLAN VIEW – STEEL BEAMS TO STEEL COLUMN



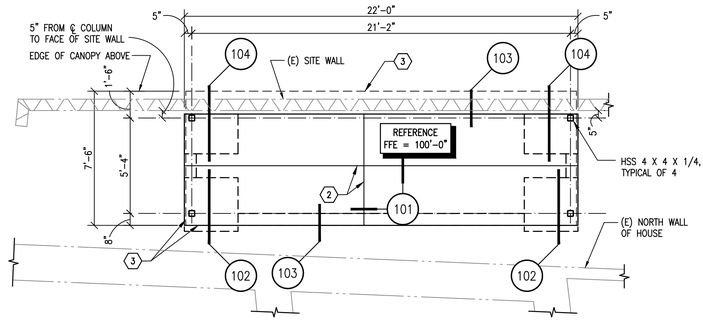
205 DECK EDGE



206 STEEL DECK AT STEEL BEAM

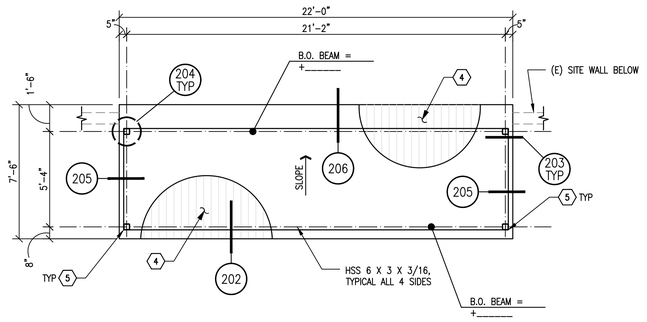
PLAN KEYNOTES

1. 5" THICK CONCRETE SLAB WITH #3 AT 18" O.C. EACH WAY OVER 4" THICK AGGREGATE BASE COURSE.
2. PROVIDE SLAB CONTROL JOINTS AS INDICATED PER DETAIL 101/S1.
3. LINE OF ROOF ABOVE.
4. 1 1/2" X 22 GAGE "B" DECK – SEE DETAIL 201 FOR ADDITIONAL INFORMATION AND CONNECTIONS.
5. MITER CUT BEAMS AT ALL CORNERS AND WELD PER DETAIL 209.



FOUNDATION PLAN

SCALE: 1/4" = 1'–0"



FRAMING PLAN

SCALE: 1/4" = 1'–0"

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Registered Professional Engineer (Civil)
CERTIFICATE NO.
19300
JOHN E. GRENIER
DATE SIGNED 7/17/24
ARIZONA U.S.A.

job

.....

date

07.17.24

revisions

Sosa-Carillo House Renovation

260 S Church Ave. Tucson, AZ 85701

shade canopy plans and details

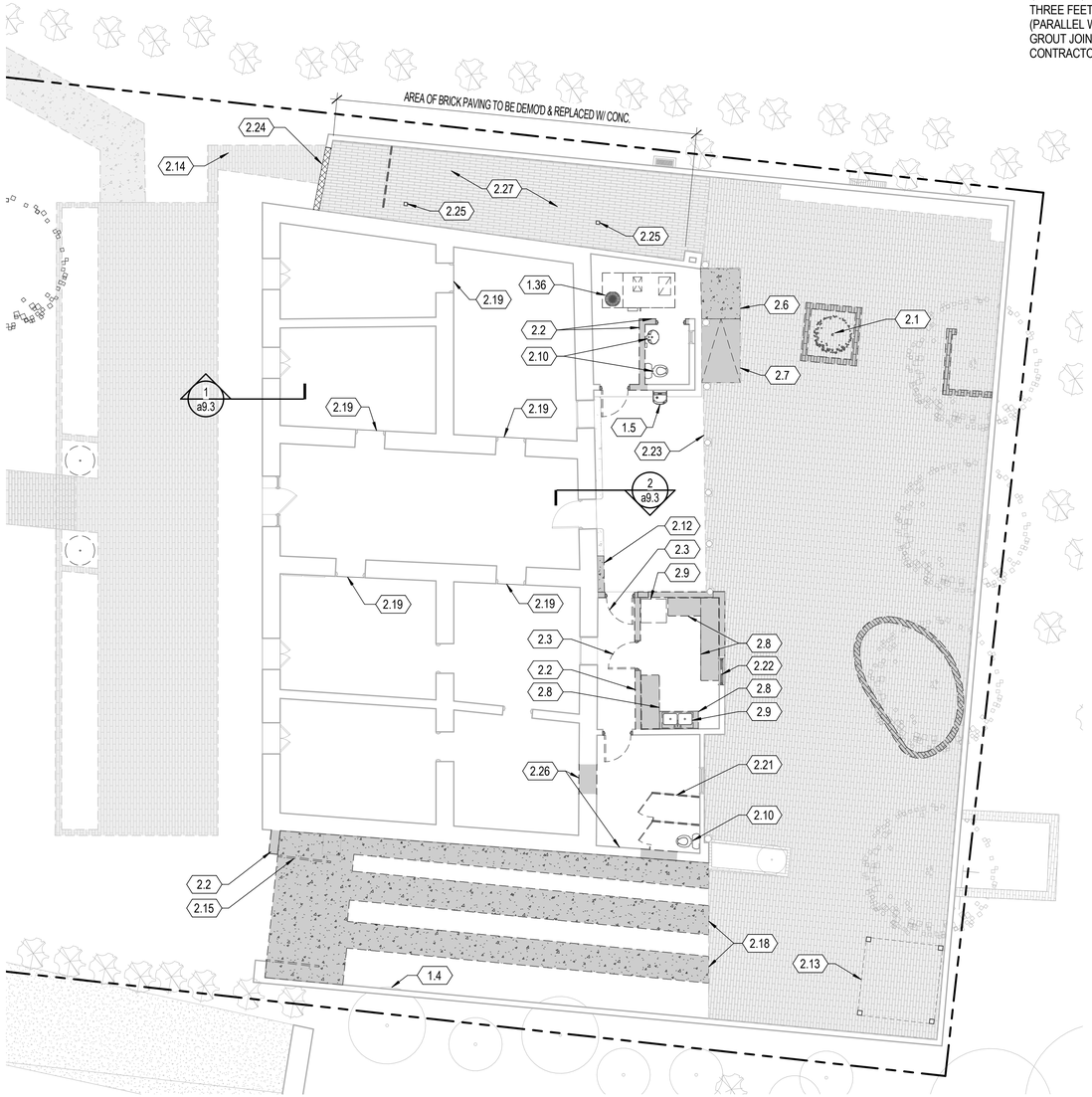
s2.0

keynotes

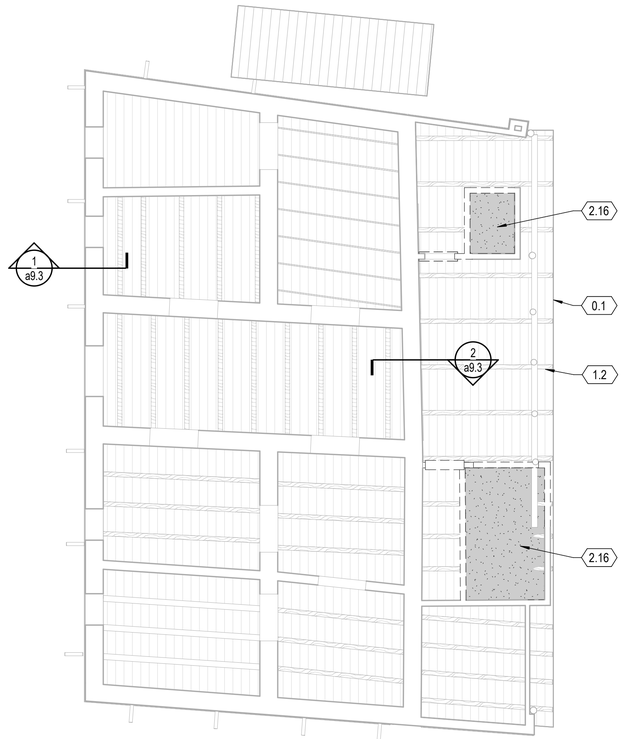
0.1	LINE OF ROOF ABOVE.
1.2	EXISTING 6" DIA. VIGAS TO REMAIN.
1.4	EXISTING WALL TO REMAIN.
1.5	EXISTING PLUMBING FIXTURES TO REMAIN.
1.36	EXISTING MECHANICAL EQUIPMENT, REFER TO MECHANICAL.
2.1	REMOVE TREE, ROOT BALL IN ITS ENTIRETY AND BRICK PLANTER,
2.2	REMOVE WALL.
2.3	REMOVE DOOR AND FRAME.
2.6	REMOVE EXISTING 9" CONCRETE FLOOR SLAB.
2.7	REMOVE EXISTING CONCRETE RAMP.
2.8	REMOVE COUNTERS, SALVAGE TO OWNER.
2.9	REMOVE EXISTING KITCHEN EQUIPMENT, SALVAGE TO OWNER.
2.10	REMOVE EXISTING PLUMBING FIXTURES.
2.12	REMOVE CONCRETE CURB UP TO EXTERIOR FACE OF NEW WALL.
2.13	REMOVE EXISTING PERGOLA.
2.14	CONCRETE & BRICK PAVING TO BE REMOVED IN PHASES, AS IS NEEDED TO ACCESS THE BELOW GRADE REPAIRS ON THE NORTH, WEST AND SOUTH PERIMETER ABOUT THREE FEET IN WIDTH. SAW SLAB IN 3 PARALLEL CUTS (PARALLEL WITH THE BUILDING FACE) IN THE EXISTING GROUT JOINTS. NO CROSS CUTS TO BE MADE BY DEMO CONTRACTOR.
2.15	EXISTING WOOD + IRON GATE TO BE REMOVED AND REPLACED WITH NEW. TO BE INCLUDED IN THE RESTORATION WORK.
2.16	EXISTING CEILING TO BE REMOVED. CLEAN REMAINS AND PREP FOR NEW VAULTED CEILING.
2.18	DEMO EXISTING VEHICLE ACCESS CONCRETE STRIPS. PREPARE FOR NEW CONCRETE WITH SUFFICIENT SUBSTRATE TO SUPPORT VEHICULAR USE.
2.19	REMOVE ANY NON-COMPLIANT THRESHOLDS AND INSTALL ADA COMPLIANT THRESHOLDS.
2.21	REMOVE EXISTING TOILET PARTITIONS.
2.22	REMOVE EXISTING WINDOW & FRAME. PATCH AND FILL TO PROVIDE SMOOTH FINISH.
2.23	REMOVE EXISTING CONCRETE AND PAVERS. RELAY WITH NEW PAVERS, CREATE ADA COMPLIANT ENTRY AT EXTERIOR DOOR. REFER TO CIVIL FOR GRADES.
2.24	REMOVE PORTION OF WALL. PREP FOR NEW GATE. GATE AND ASSOCIATED PANEL TO BE SEPARATE FROM NORTH ADOBE WALL OF MAIN BUILDING. REFER TO DETAILS.
2.25	REMOVE EXISTING ROOF STRUCTURE AND ASSOCIATED COLUMNS.
2.26	REMOVE PORTION OF WALL. PREP FOR NEW DOOR.
2.27	REMOVE EXISTING PAVERS. PREP FOR NEW CONCRETE HARDSCAPE.

general notes

1. DO NOT SCALE DRAWINGS. COORDINATE ALL WORK BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS, CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE IMPLEMENTATION OF WORK.
2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL COORDINATION AS REQUIRED.



1 ad1.0 **demolition floor plan** 1/8" = 1'-0"



2 ad1.0 **demo rcp** 1/8" = 1'-0"

north

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revisions

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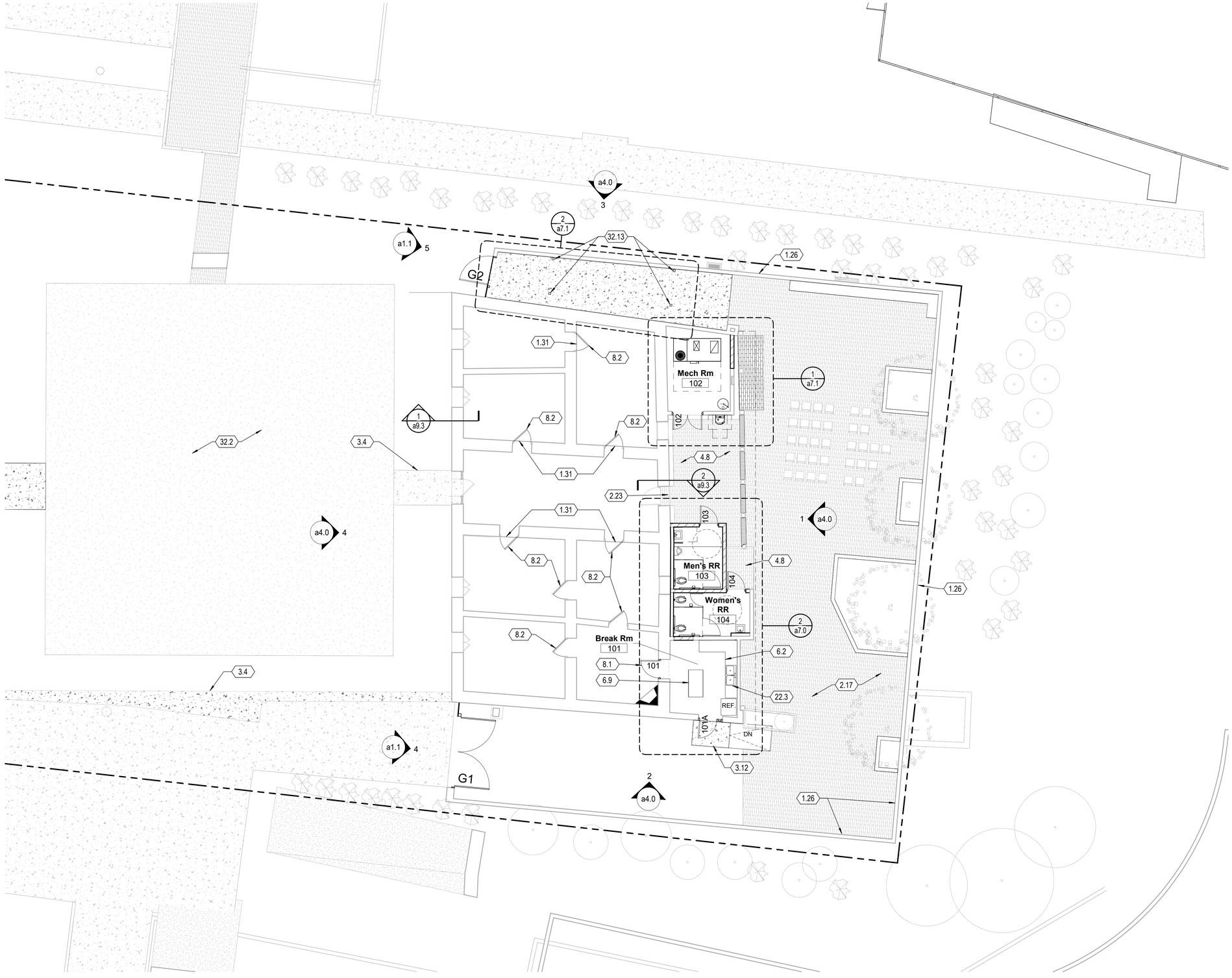
demolition floor plan

ad1.0



1 a1.0 **access upgrades floor plan**
1/8" = 1'-0"

north

general notes

1. DO NOT SCALE DRAWINGS. COORDINATE ALL WORK BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS, CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE IMPLEMENTATION OF WORK.
2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL APPLICABLE CODES FOR REQUIRED CLEARANCES OF EQUIPMENT.
3. SLOPE LIMITED TO STABILIZATION & RESTORATION OF EXISTING STRUCTURE.
4. EXISTING WOOD DOORS & WINDOWS TO BE SALVAGED & REPAIRED OR REPLACED WITH LIKE MATERIAL (WOOD).
5. INTERIOR SCOPE LIMITED TO REPAIR ASSOCIATED WITH WINDOW & DOOR RESTORATION.
6. SITE WORK LIMITED TO DEMOLITION REQUIRED FOR ACCESS TO FOUNDATION FOR REINFORCEMENT & REPAIR.
7. FINAL FINISH OF RESTORED EXTERIOR PLASTER WILL BE INTEGRAL COLOR/EXPOSED. NO PAINT.

keynotes

1.26	EXISTING SITE WALL TO REMAIN. PATCH AS REQUIRED + PAINT. INCLUDE WITH ACCESSIBILITY UPGRADES WORK.
1.31	INSTALL ADA COMPLIANT THRESHOLDS.
2.17	DEMO + SALVAGE EXISTING PAVERS TO BE RESET. REUSE SALVAGED PAVERS IN GREATER COURTYARD AREA.
2.23	REMOVE EXISTING CONCRETE AND PAVERS. RELAY WITH NEW PAVERS, CREATE ADA COMPLIANT ENTRY AT EXTERIOR DOOR. REFER TO CIVIL FOR GRADES.
3.4	4" CONCRETE SLAB ON 4" COMPACTED BASE COURSE.
3.12	NEW CONCRETE STOOP ON 4" COMPACTED BASE COURSE. MATCH EXISTING INTERIOR FFE. COORDINATE WITH NEW DOOR PLACEMENT. PROVIDE MIN. 12" PULL CLEARANCE TO WEST OF DOOR. PROVIDE SLOPED CONCRETE TO NEW GRADE TO THE EAST OF NEW DOOR STOOP, AT 1:20 MAX SLOPE.
4.8	NEW PAVER AREA. MATCH EXISTING AS IS POSSIBLE. USE SALVAGED IF AVAILABLE.
6.2	HARD SURFACE COUNTERTOP (4" BACKSPLASH WHERE SHOWN).
6.9	MILLWORK, SEE INTERIOR ELEVATIONS
8.1	DOOR AND FRAME, REFER TO DOOR SCHEDULE.
8.2	REINSTALL EXISTING DOORS. COORDINATE WITH OWNER.
22.3	SINK, REFER TO PLUMBING.
32.2	EXTERIOR EVENT SPACE.
32.13	STEEL SHADE CANOPY. REFER TO STRUCTURAL AND A7.1.

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access upgrades floor plan

a1.0

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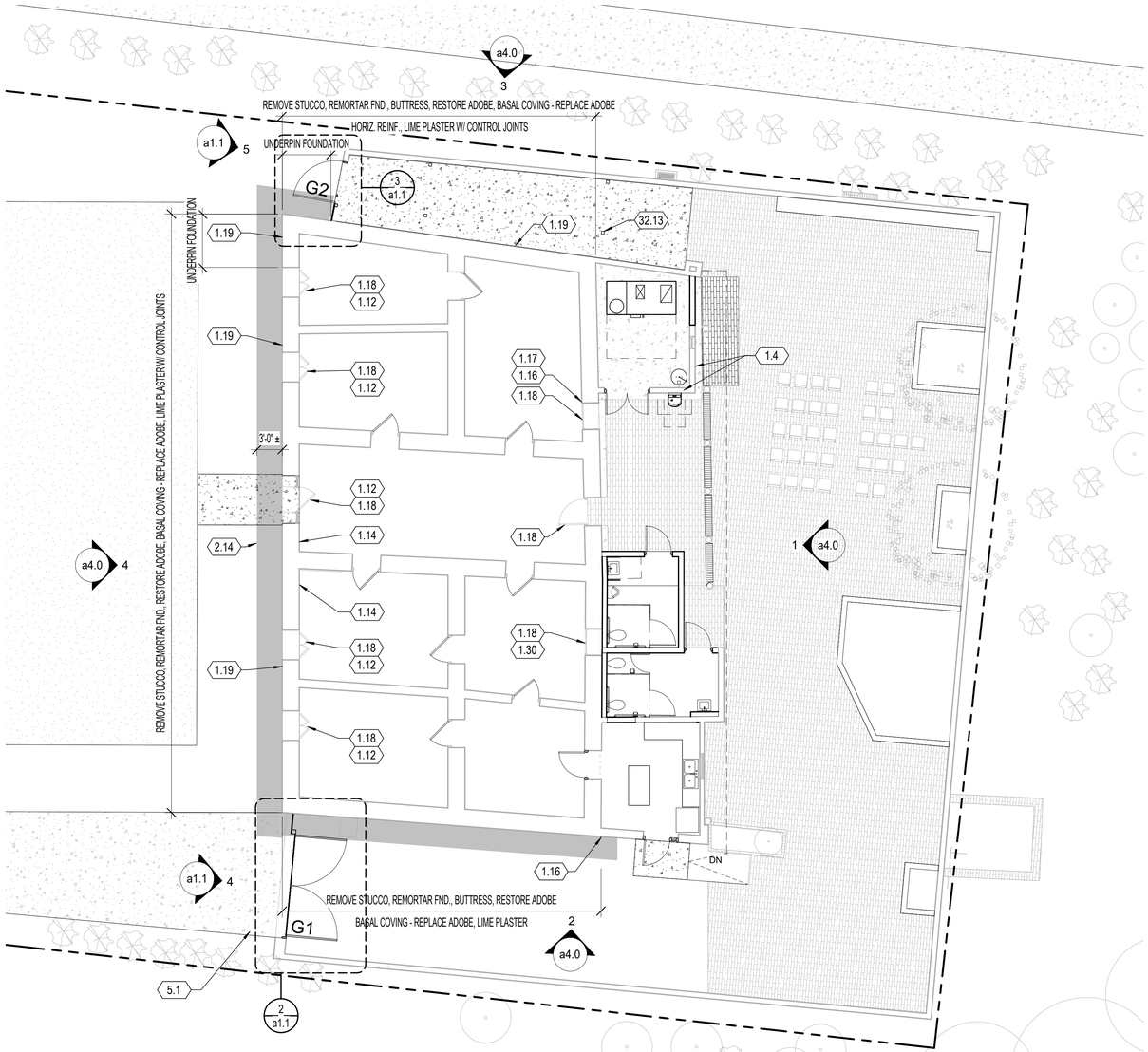
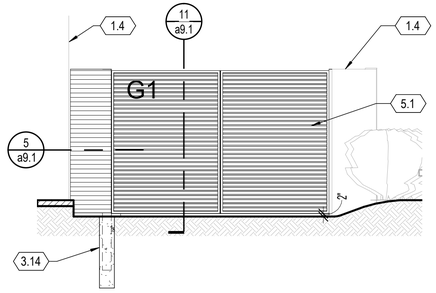
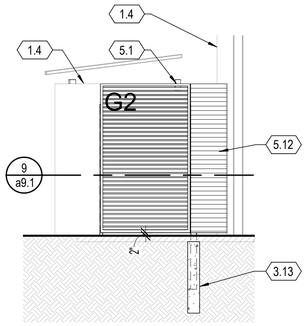


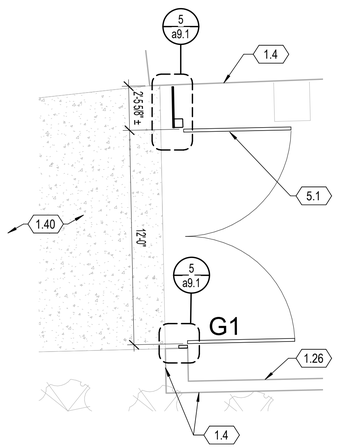
1 a1.1 **restoration floor plan**
1/8" = 1'-0"



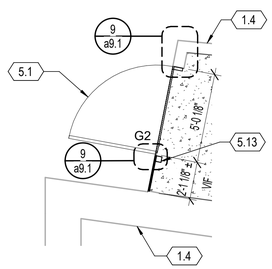
4 a1.1 **elevation @ gate G1**
1/4" = 1'-0"



5 a1.1 **elevation @ gate G2**
1/4" = 1'-0"



2 a1.1 **enlarged plan - gate G1**
1/4" = 1'-0"



3 a1.1 **enlarged plan - gate G2**
1/4" = 1'-0"

general notes

1. DO NOT SCALE DRAWINGS. COORDINATE ALL WORK BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS, CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE IMPLEMENTATION OF WORK.
2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL APPLICABLE CODES FOR REQUIRED CLEARANCES OF EQUIPMENT.
3. SLOPE LIMITED TO STABILIZATION & RESTORATION OF EXISTING STRUCTURE.
4. EXISTING WOOD DOORS & WINDOWS TO BE SALVAGED & REPAIRED OR REPLACED WITH LIKE MATERIAL (WOOD).
5. INTERIOR SCOPE LIMITED TO REPAIR ASSOCIATED WITH WINDOW & DOOR RESTORATION.
6. SITE WORK LIMITED TO DEMOLITION REQUIRED FOR ACCESS TO FOUNDATION FOR REINFORCEMENT & REPAIR.
7. FINAL FINISH OF RESTORED EXTERIOR PLASTER WILL BE INTEGRAL COLOR/EXPOSED. NO PAINT.

keynotes

1.4 EXISTING WALL TO REMAIN.
1.12 REPLACE LINTEL.
1.14 INTERIOR WALL CRACKS.
1.16 CONTROL JOINT.
1.17 PARAPET TO BE REPAIRED.
1.18 FULLY RESTORE DOOR /WINDOW WITH LIKE MATERIAL. TYP. EAST & WEST FACADE.
1.19 EXTERIOR WALL CRACK.
1.26 EXISTING SITE WALL TO REMAIN. PATCH AS REQUIRED + PAINT. INCLUDE WITH ACCESSIBILITY UPGRADES WORK.
1.30 THIS WINDOW GLAZING TO BE FULLY COVERED IN TRANSLUSCENT FILM.
1.40 EXISTING CONCRETE ACCESS DRIVE TO BE MODIFIED.
2.14 CONCRETE & BRICK PAVING TO BE REMOVED IN PHASES, AS IS NEEDED TO ACCESS THE BELOW GRADE REPAIRS ON THE NORTH, WEST AND SOUTH PERIMETER ABOUT THREE FEET IN WIDTH. SAW SLAB IN 3 PARALLEL CUTS (PARALLEL WITH THE BUILDING FACE) IN THE EXISTING GROUT JOINTS. NO CROSS CUTS TO BE MADE BY DEMO CONTRACTOR.
3.13 8" Ø X 4' DEEP CONCRETE FOOTING.
3.14 10" Ø X 4' DEEP CONCRETE FOOTING.
5.1 NEW IRON GATE.
5.12 METAL PANEL WALL. REFER TO DETAILS.
5.13 4"X4"X1/4" SOLID
32.13 STEEL SHADE CANOPY. REFER TO STRUCTURAL AND A7.1.

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restoration floor plan

a1.1

general notes

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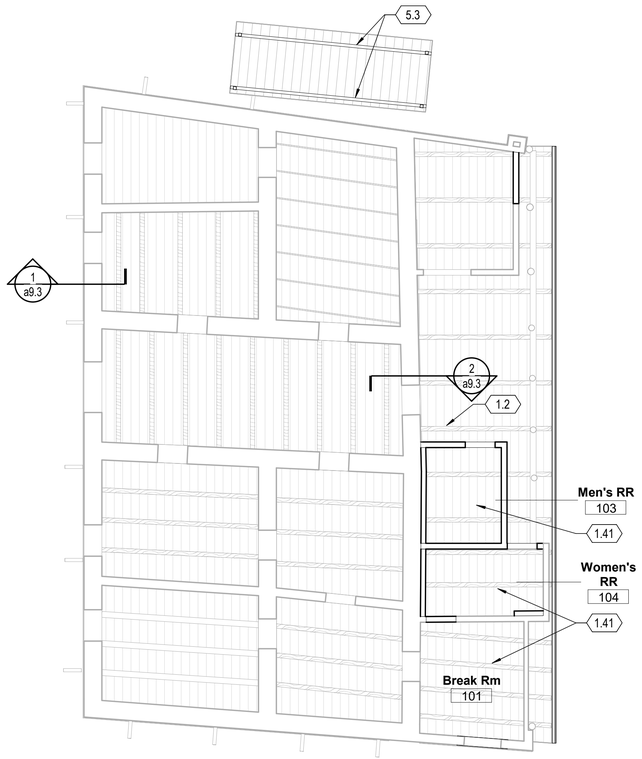
2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL APPLICABLE CODES FOR REQUIRED CLEARANCES OF EQUIPMENT.

keynotes

1.2 EXISTING 6" DIA. VIGAS TO REMAIN.
1.41 EXISTING EXPOSED WOOD RAFTERS AND CEILINGS TO REMAIN.
5.3 STEEL BEAM, REFER TO STRUCTURAL.



2 a2.0 **rcp**
1/8" = 1'-0"

north

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reflected ceiling plans

a2.0

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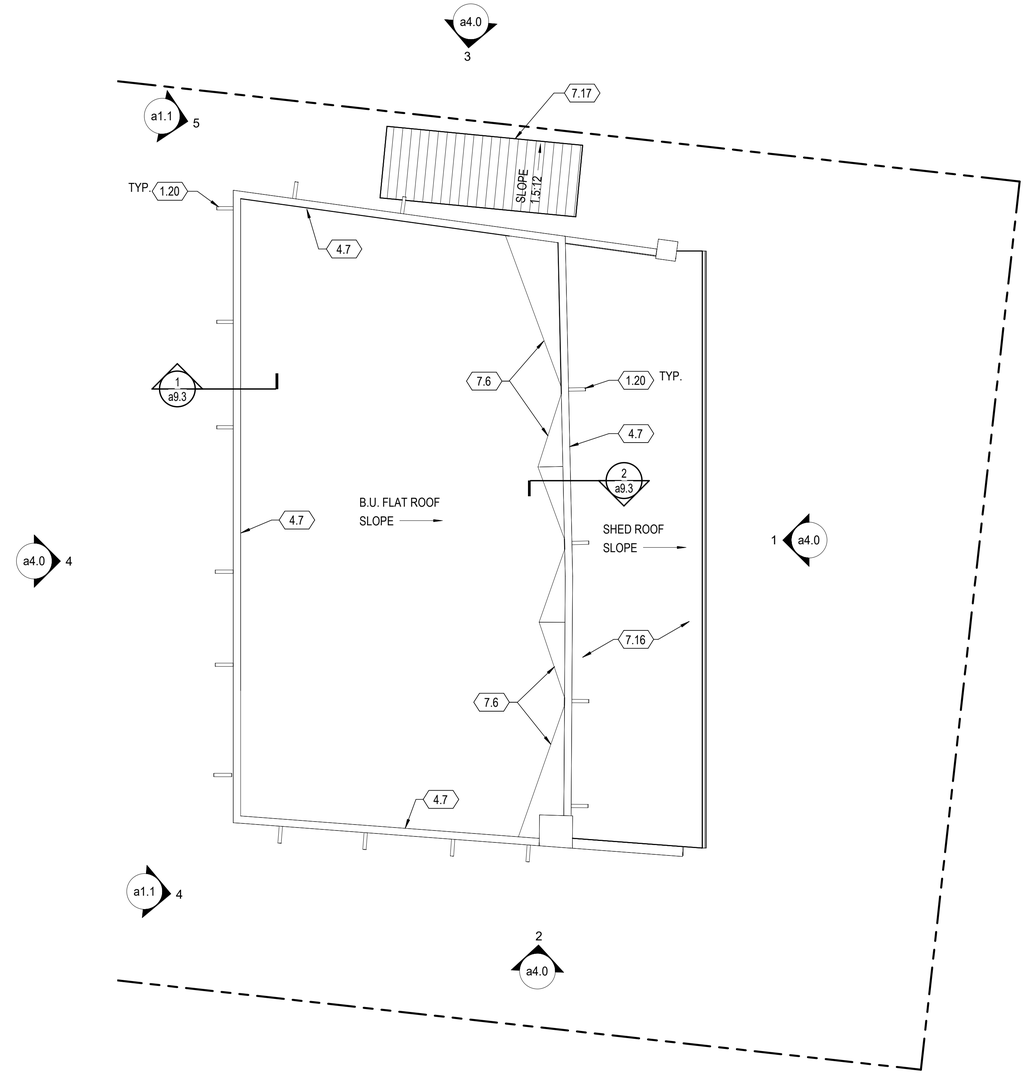

1 roof plan
a3.0 1/8" = 1'-0"

north

general notes

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2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL APPLICABLE CODES FOR REQUIRED CLEARANCES OF EQUIPMENT.
3. SEE MECHANICAL, PLUMBING AND ELECTRICAL FOR ALL PENETRATIONS THROUGH ROOFS. REFER TO TYPICAL DETAILS.
4. ROOF HEIGHTS SHOWN ARE TOP ROOF UNO.

keynotes

1.20	EXISTING CANALES TO REMAIN.
4.7	EXISTING MASONRY PARAPET COPING TO BE REMOVED & RE-INSTALLED TO FACILITATE ROOF REPLACEMENT.
7.6	EXISTING CRICKETS TO BE MAINTAINED TYP. SLOPE TO EXISTING SCUPPERS (3). MIN SLOPE OF 1/4" PER FOOT.
7.16	REMOVE EXISTING ROOFING. INSTALL NEW TPO SYSTEM.
7.17	1-1/2" THICK GALVANIZED B DECK ROOF PANELS.

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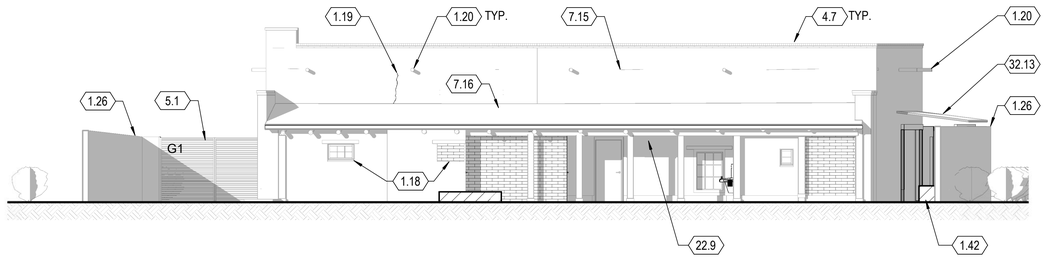
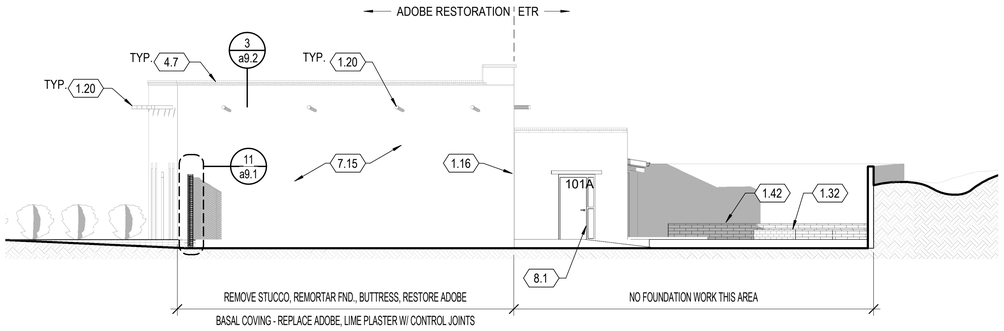
roof plan

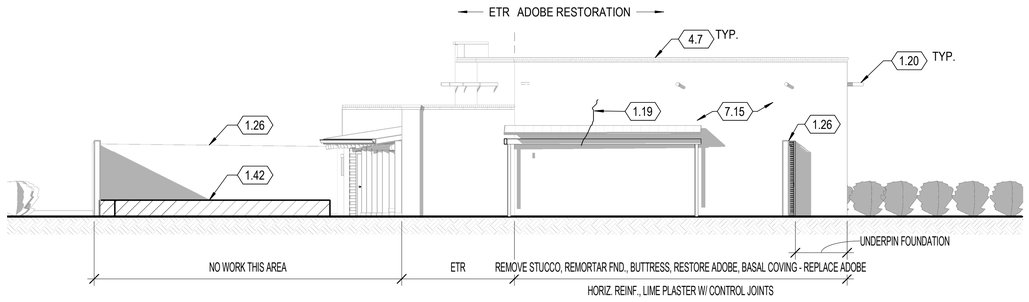
a3.0



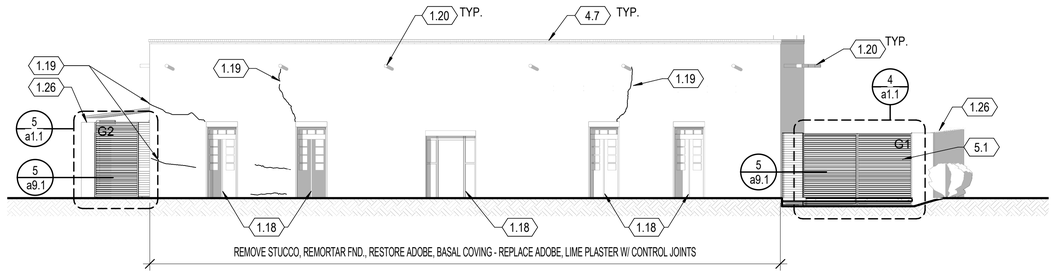
1 a4.0 **east elevation**
1/8" = 1'-0"



2 a4.0 **south elevation**
1/8" = 1'-0"



3 a4.0 **north elevation**
1/8" = 1'-0"



4 a4.0 **west elevation**
1/8" = 1'-0"

general notes

1. DO NOT SCALE DRAWINGS. COORDINATE ALL WORK BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO IMPLEMENTATION OF WORK.
2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS AND ALL APPLICABLE CODES FOR REQUIRED CLEARANCES OF EQUIPMENT.
3. LOCATE CONTROL JOINTS AND EXPANSION JOINTS PER STRUCTURAL AND MANUFACTURERS REQUIREMENTS . VERIFY ALL JOINTS NOT SHOWN WITH ARCHITECT PRIOR TO INSTALLATION.
4. SMOOTH CMU SHALL BE USED AT ALL LIGHT FIXTURES, ELECTRICAL OUTLETS, BUTTONS, SWITCHES AND GATE ATTACHMENT POINTS.
5. PREP, PRIME AND PAINT ALL EXPOSED STEEL STRUCTURE, DECK AND SIDING.
6. SEE SHEET a8.0 FOR WINDOW TYPES.

keynotes

1.16	CONTROL JOINT.
1.18	FULLY RESTORE DOOR /WINDOW WITH LIKE MATERIAL. TYP. EAST & WEST FACADE.
1.19	EXTERIOR WALL CRACK.
1.20	EXISTING CANALES TO REMAIN.
1.26	EXISTING SITE WALL TO REMAIN. PATCH AS REQUIRED + PAINT. INCLUDE WITH ACCESSIBILITY UPGRADES WORK.
1.32	EXISTING PLANTER BED TO BE MODIFIED. SEE LANDSCAPE DRAWINGS.
1.42	EXISTING SEAT WALL TO REMAIN.
4.7	EXISTING MASONRY PARAPET COPING TO BE REMOVED & RE-INSTALLED TO FACILITATE ROOF REPLACEMENT.
5.1	NEW IRON GATE.
7.15	PATCH & REPAIR WITH LIME PLASTER.
7.16	REMOVE EXISTING ROOFING. INSTALL NEW TPO SYSTEM.
8.1	DOOR AND FRAME, REFER TO DOOR SCHEDULE.
22.9	EXPOSED PLUMBING PIPE ON WALL ABOVE TO BE PAINTED TO BLEND WITH EXTERIOR WALL FINISH.
32.13	STEEL SHADE CANOPY. REFER TO STRUCTURAL AND A7.1.

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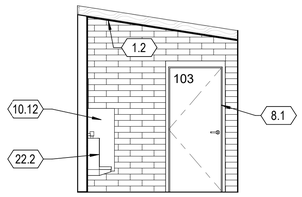
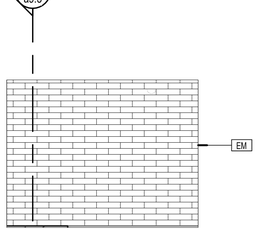
building elevations

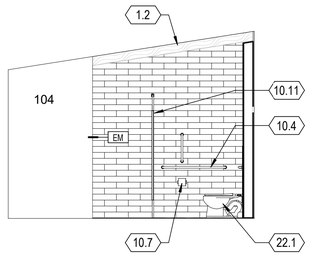
a4.0



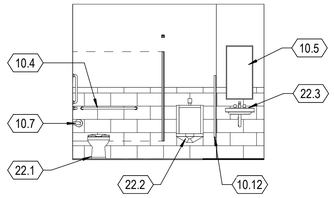
3 a7.0 **men's RR north**
1/4" = 1'-0"



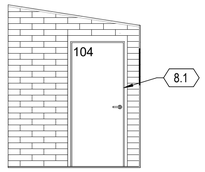
4 a7.0 **men's RR east**
1/4" = 1'-0"



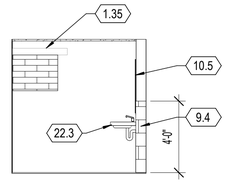
5 a7.0 **men's RR south**
1/4" = 1'-0"



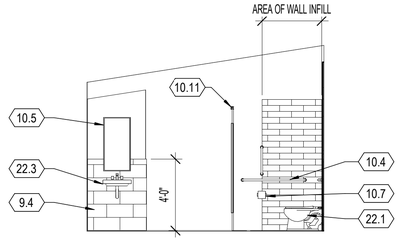
6 a7.0 **men's RR west**
1/4" = 1'-0"



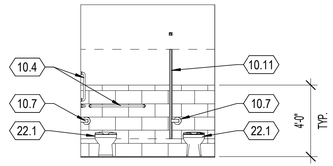
7 a7.0 **women's RR north**
1/4" = 1'-0"



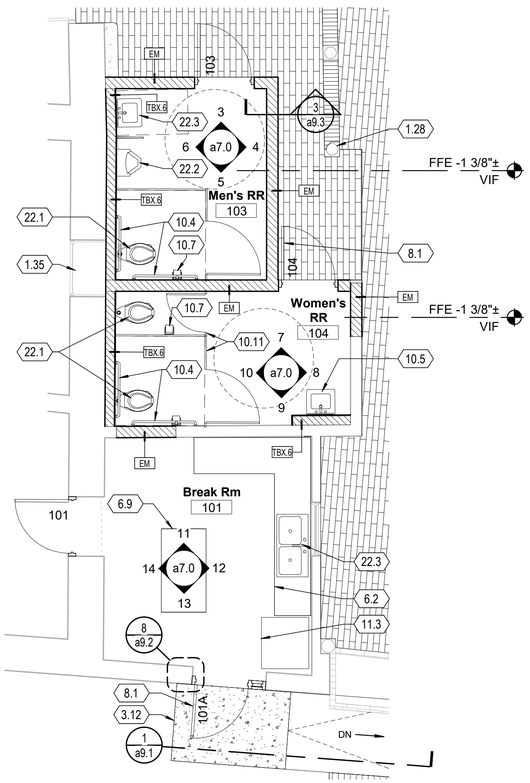
8 a7.0 **women's RR east**
1/4" = 1'-0"



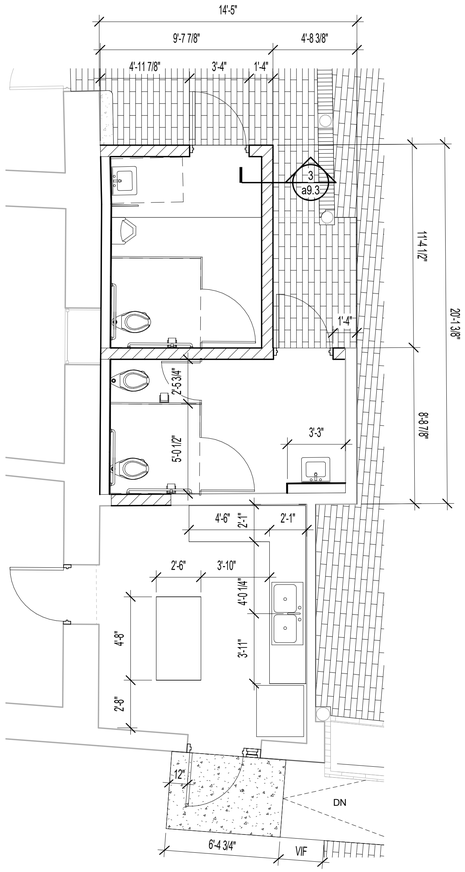
9 a7.0 **women's RR south**
1/4" = 1'-0"



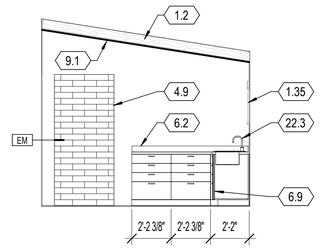
10 a7.0 **women's RR west**
1/4" = 1'-0"



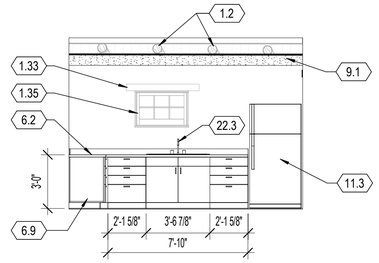
1 a7.0 **enlarged RR + break rm reference plan**
1/4" = 1'-0"



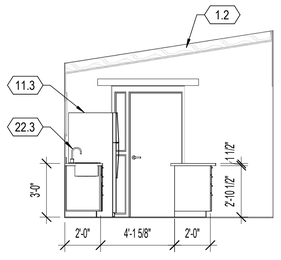
2 a7.0 **enlarged RR + break rm dimension plan**
1/4" = 1'-0"



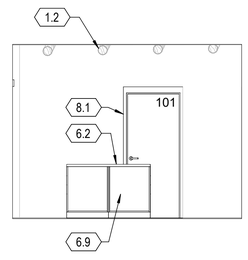
11 a7.0 **kitchen north**
1/4" = 1'-0"



12 a7.0 **kitchen east**
1/4" = 1'-0"



13 a7.0 **kitchen south**
1/4" = 1'-0"



14 a7.0 **kitchen west**
1/4" = 1'-0"

general notes

1. DIMENSIONS ARE TO CENTER LINE OF DEVICE OR FINISH FACE OF MATERIAL.
2. REFER TO SHEET g1.2 FOR TYPICAL MOUNTING HEIGHTS.
3. DASHED LINES WITHIN RESTROOM FLOOR PLAN INDICATE ADA REQUIRED CLEARANCES FOR TURNING AND FIXTURES.
4. PROVIDE BLOCKING FOR ALL WALL MOUNTED ITEMS.

keynotes

1.2	EXISTING 6" DIA. VIGAS TO REMAIN.
1.28	EXISTING WOOD COLUMN TO REMAIN.
1.33	EXISTING EXPOSED WOOD LINTEL TO REMAIN.
1.35	EXISTING WINDOW TO REMAIN.
3.12	NEW CONCRETE STOOP ON 4" COMPACTED BASE COURSE. MATCH EXISTING INTERIOR FFE. COORDINATE WITH NEW DOOR PLACEMENT. PROVIDE MIN. 12" PULL CLEARANCE TO WEST OF DOOR. PROVIDE SLOPED CONCRETE TO NEW GRADE TO THE EAST OF NEW DOOR STOOP, AT 1:20 MAX SLOPE.
4.9	NEW ADOBE WALL. REFER TO STABILIZATION SPECIFICATIONS. MATCH FINISH.
6.2	HARD SURFACE COUNTERTOP (4" BACKSPLASH WHERE SHOWN).
6.9	MILLWORK, SEE INTERIOR ELEVATIONS
8.1	DOOR AND FRAME, REFER TO DOOR SCHEDULE.
9.1	5/8" GWB CEILING, FUR DOWN FROM EXISTING DECK+ INSULATE.
9.4	CERAMIC TILE WAINSCOT.
10.4	ACCESSIBLE GRAB BARS.
10.5	MIRROR.
10.7	TOILET PAPER DISPENSER.
10.11	TOILET PARTITION - TYP.
10.12	URINAL PARTITION - TYP.
11.3	REFRIGERATOR. (N.I.C.)
22.1	TOILET, REFER TO PLUMBING.
22.2	URINAL, REFER TO PLUMBING.
22.3	SINK, REFER TO PLUMBING.

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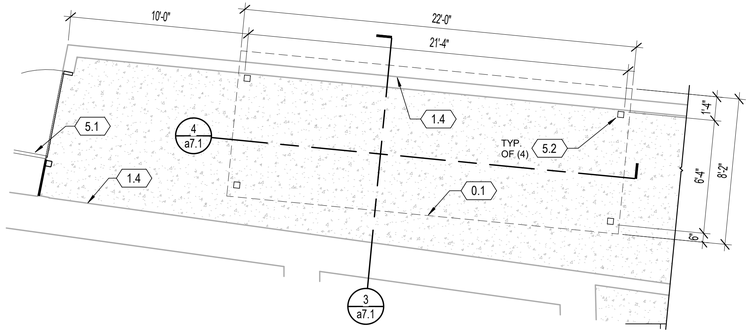
enlarged plans and interior elevations

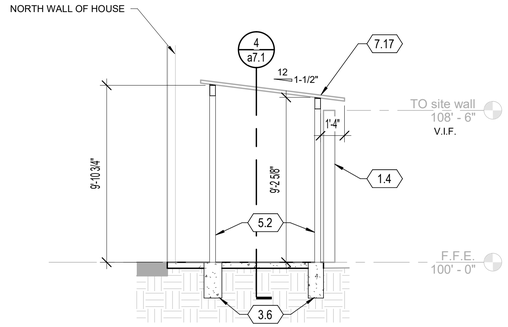
a7.0



steel shade structure plan

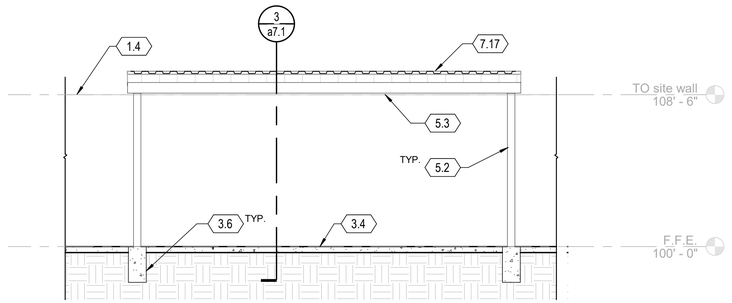
2 a7.1 — 1/4" = 1'-0"

north



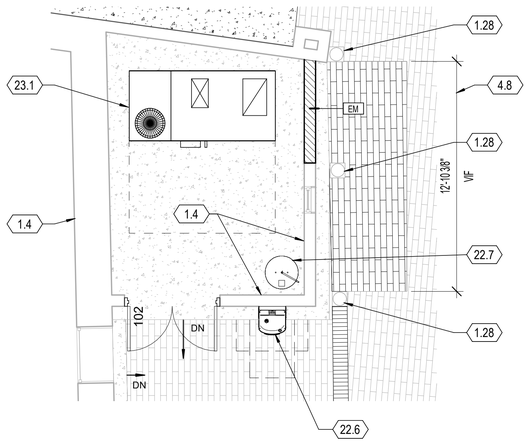
transverse section @ steel shade structure

3 a7.1 — 1/4" = 1'-0"



section @ steel shade structure

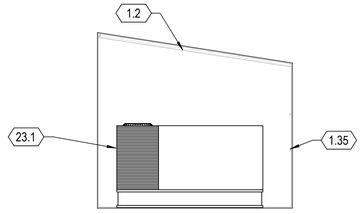
4 a7.1 — 1/4" = 1'-0"



enlarged plan - mechanical and W.H. rm

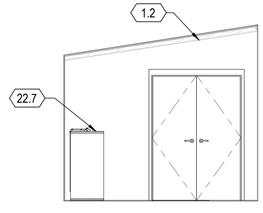
1 a7.1 — 1/4" = 1'-0"

north



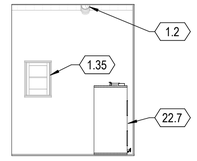
WH Rm north

5 a7.1 — 1/4" = 1'-0"



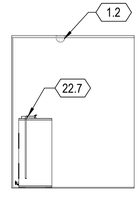
WH Rm south

7 a7.1 — 1/4" = 1'-0"



WH Rm east

6 a7.1 — 1/4" = 1'-0"



WH Rm west

8 a7.1 — 1/4" = 1'-0"

general notes

1. DIMENSIONS ARE TO CENTER LINE OF DEVICE OR FINISH FACE OF MATERIAL.
2. REFER TO SHEET g1.2 FOR TYPICAL MOUNTING HEIGHTS.
3. DASHED LINES WITHIN RESTROOM FLOOR PLAN INDICATE ADA REQUIRED CLEARANCES FOR TURNING AND FIXTURES.
4. PROVIDE BLOCKING FOR ALL WALL MOUNTED ITEMS.

keynotes

0.1	LINE OF ROOF ABOVE.
1.2	EXISTING 6" DIA. VIGAS TO REMAIN.
1.4	EXISTING WALL TO REMAIN.
1.28	EXISTING WOOD COLUMN TO REMAIN.
1.35	EXISTING WINDOW TO REMAIN.
3.4	4" CONCRETE SLAB ON 4" COMPACTED BASE COURSE.
3.6	CONCRETE FOOTING, REFER TO STRUCTURAL.
4.8	NEW PAVER AREA. MATCH EXISTING AS IS POSSIBLE. USE SALVAGED IF AVAILABLE.
5.1	NEW IRON GATE.
5.2	STEEL COLUMN, REFER TO STRUCTURAL.
5.3	STEEL BEAM, REFER TO STRUCTURAL.
7.17	1-1/2" THICK GALVANIZED B DECK ROOF PANELS.
22.6	DRINKING FOUNTAIN, REFER TO PLUMBING.
22.7	WATER HEATER, REFER TO PLUMBING.
23.1	MECHANICAL EQUIPMENT, REFER TO MECHANICAL.

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enlarged plans and interior elevations

a7.1

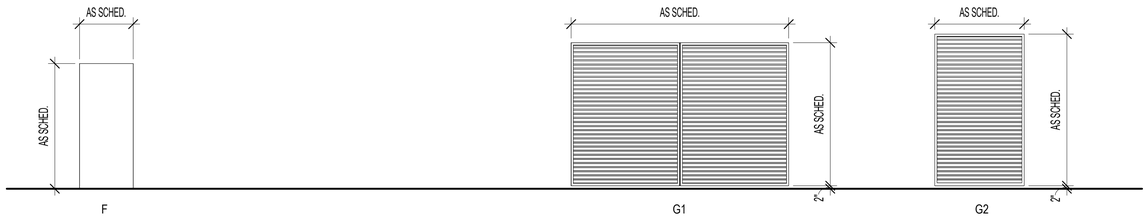
DOOR SCHEDULE

NUMBER	DOOR						FRAME		DETAIL		HARDWARE	RATING	SIGNAGE	COMMENTS
	WIDTH	HEIGHT	PAIR	THICKNESS	MATERIAL	TYPE	MATERIAL	TYPE	HEAD	JAMB				
101	3' - 0"	7' - 0"		1 3/4"	HM	F	HM	01	5/a9.2	9/a9.2	PASSAGE			
101A	3' - 0"	7' - 0"		1 3/4"	HM	F	HM	03	5/a9.2	9/a9.2	EXIT			
102	5' - 0"	7' - 0"	X	1 3/4"	HM	F	HM	02	7/a9.2	8/a9.2	STOREROOM			
103	3' - 0"	7' - 0"		1 3/4"	HM	F	HM	02	7/a9.2	8/a9.2	BATHROOM			
104	3' - 0"	7' - 0"		1 3/4"	HM	F	HM	02	7/a9.2	8/a9.2	BATHROOM			

GATE SCHEDULE

NUMBER	GATE						FRAME MATERIAL	DETAILS	HARDWARE	COMMENTS
	QUANTITY	HEIGHT	WIDTH	THICKNESS	MATERIAL	TYPE				
G1	1	8' - 0"	12' - 2"	2"	MTL.		STL.	a9.1	CANE BOLT HOLD-OPEN	
G2	1	8' - 0"	5' - 0"	2"	MTL.		STL.	a9.1	STEEL LATCH	

door types



frame types

DOOR SCHEDULE ABBREVIATIONS

AL	ALUMINUM
G1	1" INSULATED GLAZING
G2	1/4" GLAZING
HM	HOLLOW METAL
P	PAINT
SCWD	SOLID CORE WOOD
T	TEMPERED

DOOR SCHEDULE COMMENTS

1 ALL FRAMES IN MASONRY WALLS TO BE GROUTED SOLID. ALL FRAMES IN METAL STUD WALLS TO BE FILLED WITH MONOKOTE FIREPROOFING COMPOUND.
2 ROOM SIGNAGE - SEE DETAILS X/A9.X & X/A9.X. PROVIDE AT ALL DOORS U.N.O.
3 PROVIDE TEMPERED GLASS WITHIN 24" OF EACH SIDE OF DOORS AND WITHIN 18" OF FINISHED FLOOR IN COMPLIANCE WITH IBC 2406.4

DOOR TYPES ABBREVIATIONS

F	FLUSH
FG	FULL GLASS
G	HALF GLASS
K	STEEL ROLL-UP ELECTRIC
L	LOUVERED (TOP OR BOTTOM)
LL	LOUVERED (TOP AND BOTTOM)
N	NARROW LITE

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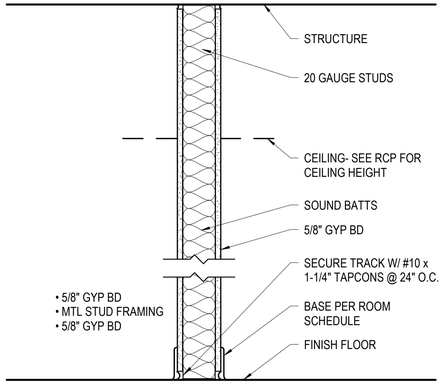
door schedule and frame types

a8.0

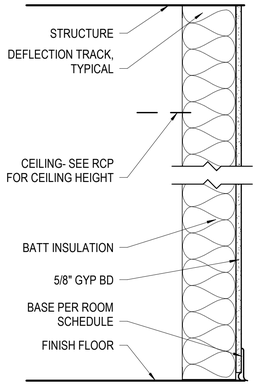


T **TYPICAL 3 5/8"**
THICKNESS: 4 7/8"

TX **TYPICAL 3 5/8"**
THICKNESS: 4 1/4"

T.6 **TYPICAL 6"**
THICKNESS: 7 1/4"

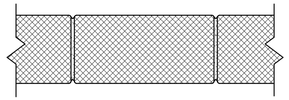
TX.6 **TYPICAL 6"**
THICKNESS: 6 5/8"



NOTE:
FIRE TREAT PENETRATIONS AND TERMINATIONS AS PER SPECIFICATIONS.

• (2) 5/8" GYP BD
• 6" CH MTL STUD FRAMING
• (1) 1" GYP BD

FX.6 **PLMB WALL 6" CH**
THICKNESS: 6 5/8"



EM **SLUMP BLOCK**
THICKNESS: 7 5/8"

general notes

1. STAGGER GYPSUM BOARD JOINTS FROM ONE SIDE OF THE WALL TO THE OTHER.
   ALLOW A 1/4" GAP ALONG ALL WALL PERIMETER EDGES, (@ FLOOR, CEILING & SIDES) AND COMPLETELY SEAL 1/4" GAP WITH ACOUSTIC SEALANT OR NON-HARDENING FLEXIBLE CAULK.
2. DO NOT 'SHORT-CIRCUIT' RESILIENT CHANNEL SUBSURFACE SUSPENSION MATERIALS WITH FASTENERS THRU DRYWALL AND INTO STUD. DO NOT 'SHORT-CIRCUIT' DRYWALL SHEET ISOLATION FROM STUDS AT SILL, HEAD OR SIDE JOINTS. MAINTAIN REQUIRED DRYWALL SHEET ISOLATION FROM STUD AT ALL POSSIBLE POINTS OF DRYWALL SHEET TO STUD CONTACT.
3. LIMIT NECESSARY WALL PENETRATIONS TO NO MORE THAN ONE PER STUD CAVITY. SEPARATE WALL PENETRATIONS AS FAR AS POSSIBLE FROM EACH OTHER. MAINTAIN A MINIMUM OF 24" SEPARATION FROM PENETRATIONS ON ONE SIDE OF A WALL TO PENETRATIONS ON THE OPPOSITE SIDE OF THE WALL.
4. SEAL ALL PENETRATIONS & OPENINGS IN JUNCTION BOXES & OUTLETS WITH ACOUSTICAL SEALANT AND/OR PUTTY PADS.
5. PROVIDE EXTERIOR TYPE WEATHER-SEAL PADS UNDER ELECTRICAL OUTLET COVERS ON ALL ELECTRICAL OUTLETS ON BOTH SIDES OF SOUND RATED WALL.
6. FIBERGLASS BATTING TO BE EVENLY DISTRIBUTED THROUGHOUT WALL CAVITY, AVOID CLUMPING OR EMPTY AREAS IN WALL CAVITY.
7. SEAL ALL PENETRATIONS - DUCTWORK, CONDUIT, PIPING ETC. BOTH SIDES OF WALL, WITH FLEXIBLE CAULK.
8. METAL FRAMING LISTED IS BASED ON PRODUCTS BY CLARK DIETRICH.
9. FULL HEIGHT PARTITIONS EXTEND TO BOTTOM OF TJI'S. SEE DETAIL ON SHEET A9.1.
10. TYPICAL EXTERIOR WALLS ARE 6" METAL FRAMING. REFER TO WALL SECTIONS AND STRUCTURAL DRAWINGS FOR GAUGE AND SPACING.
11. CONTRACTOR SHALL CONSULT MANUFACTURER'S LIMITING HEIGHT TABLES AND SHALL ADJUST GAUGE AS NECESSARY TO BE IN CONFORMANCE.
12. ALL PLUMBING PENETRATIONS SHALL BE SEALED AT THE GWB, BOTH SIDES OF PARTITION.

WALL STUD DESIGNATION

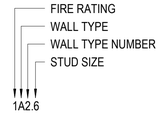
13'-0"	16'-0"	20'-0"
326S125-27 @ 16" O.C.	326S125-33 @ 16" O.C.	326S125-54 @ 12" O.C.
600S125-27 @ 16" O.C.	600S125-27 @ 16" O.C.	600S125-27 @ 16" O.C.
800S125-43 @ 16" O.C.	800S125-43 @ 16" O.C.	800S125-43 @ 16" O.C.
1000S162-43 @ 16" O.C.	1000S162-43 @ 16" O.C.	1000S162-43 @ 16" O.C.

• INTERIOR PARTITON STUD FRAMING STUD DESIGNATION AND SPACING: GYP BD. BOTH SIDES FULL HEIGHT
• ALL BRACING TO BE 362S162 @ 4'-0" O.C.

WALL SCHEDULE ABBREVIATIONS

1	1 HOUR RATED ASSEMBLY
2	2 HOUR RATED ASSEMBLY
.6	STUD SIZE
A	ACOUSTIC
B	BARRIER/ BRACED
CH	CHASE
E	EXTERIOR
F	FURRING
H	HIGH IMPACT
P	PARTITION
PC	PLUMBING CHASE
S	SHAFT
SR	SMOKE RESISTANT
T	TYPICAL
V	VAPOR BARRIER
X	ONE-SIDED FINISH

partition type legend



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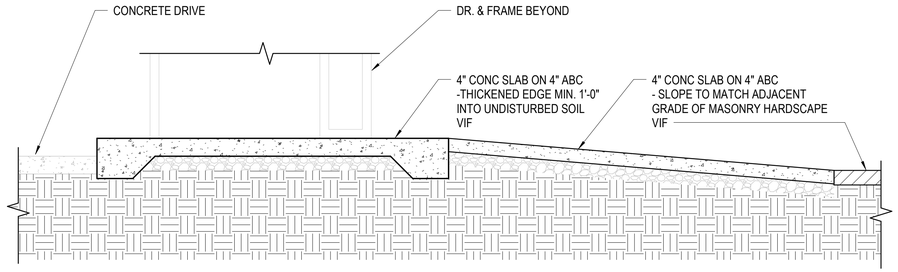
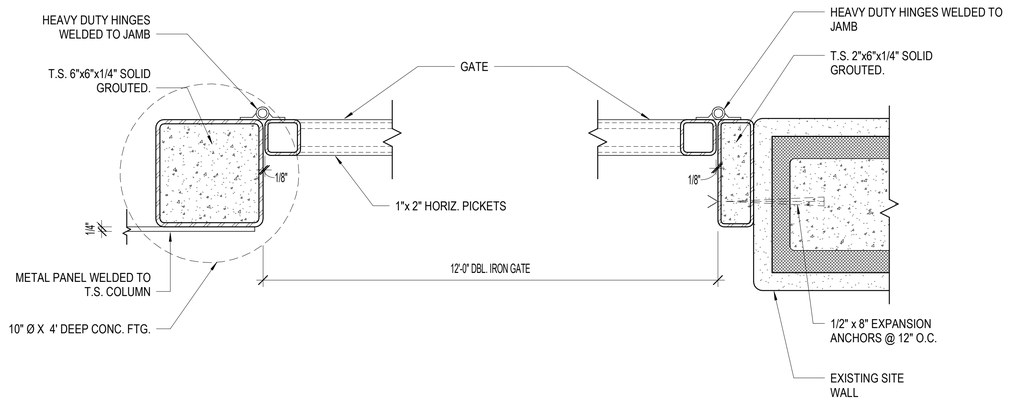
wall types

a9.0

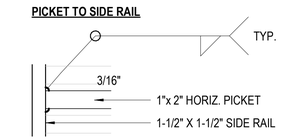


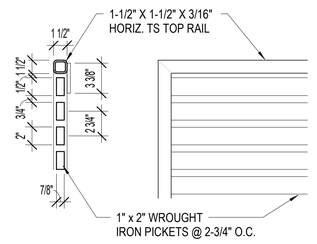
1 a9.1 section @ ramp
3/4" = 1'-0" (1 / a7.0)



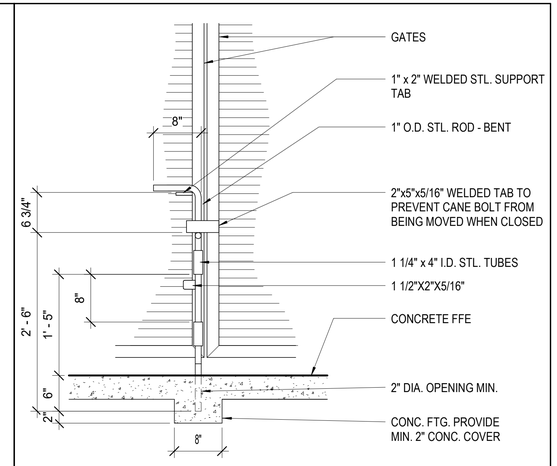
5 a9.1 ornamental iron gate G1 jambs
3" = 1'-0" (2 / a1.1)

ALL PICKETS & HORIZONTAL RAILS TO BE 16 GA. STEEL W/ SHOP PRIMED FINISH. ALL STEEL FENCING TO BE FIELD PAINTED.

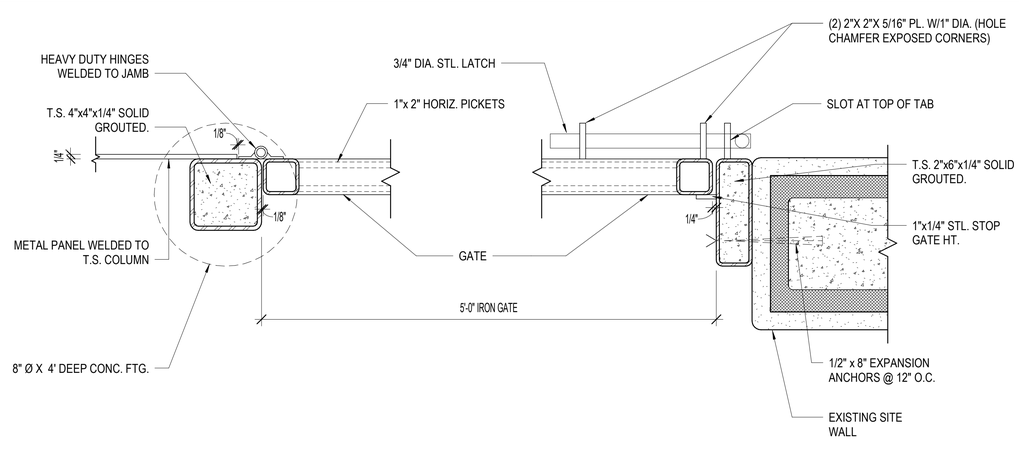




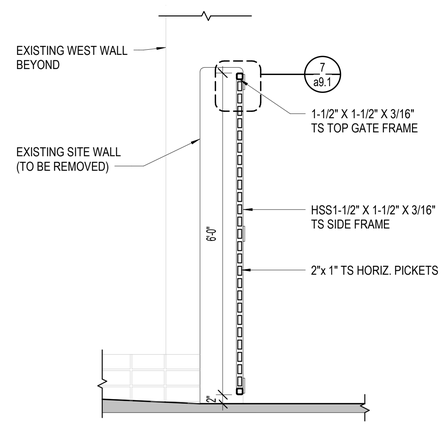
7 a9.1 gate head + picket to side rail connection
1 1/2" = 1'-0" (11 / a9.1)



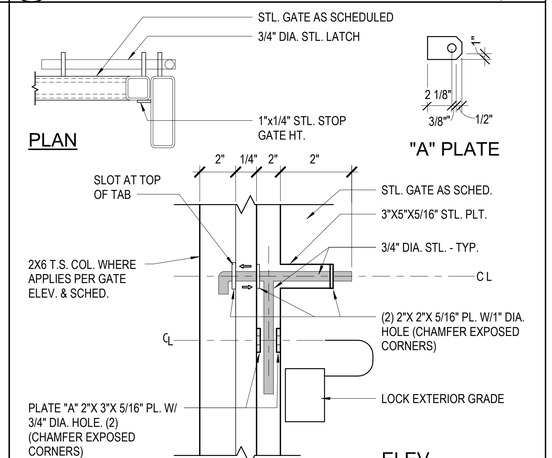
8 a9.1 gate G1 hold open detail
1" = 1'-0" (/)



9 a9.1 ornamental iron gate G2 jambs
3" = 1'-0" (3 / a1.1)



11 a9.1 ornamental iron gate section
3/4" = 1'-0" (4 / a1.1)



12 a9.1 gate G2 latch detail
1" = 1'-0" (/)

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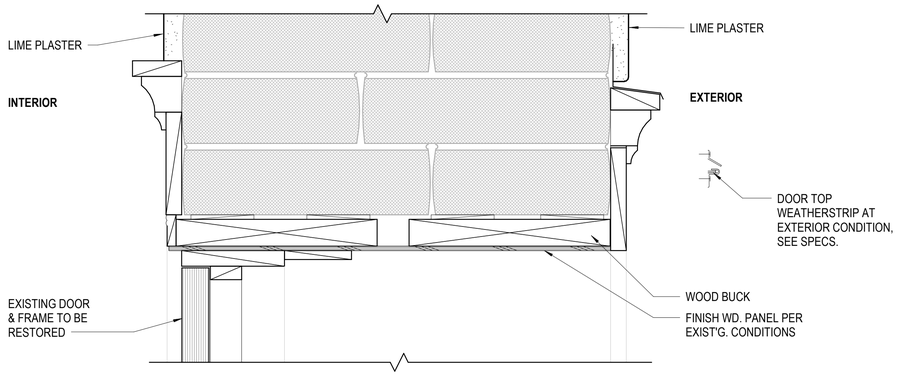
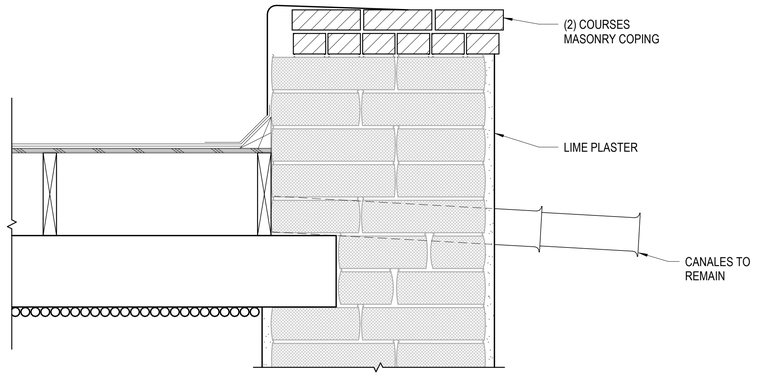
details

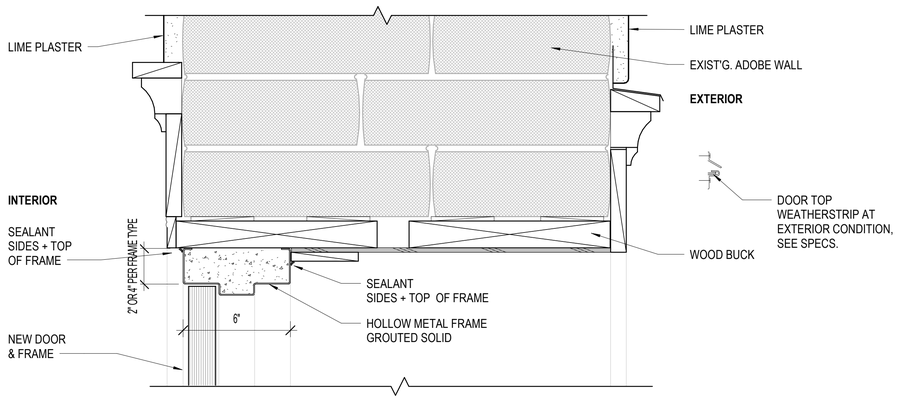
a9.1



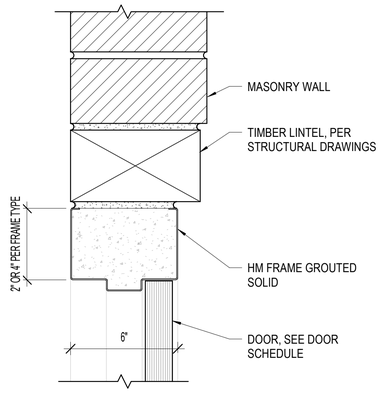
1 a9.2 head condition @ exist'g. wd. door - adobe wall
3" = 1'-0" (/)



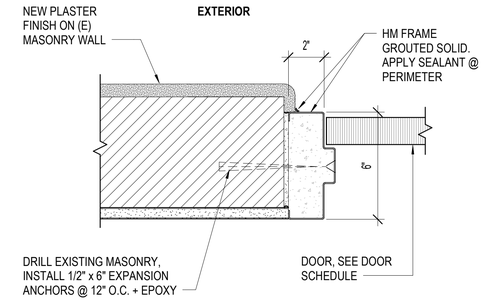
3 a9.2 2' adobe wall parapet
1 1/2" = 1'-0" (2 / a4.0)



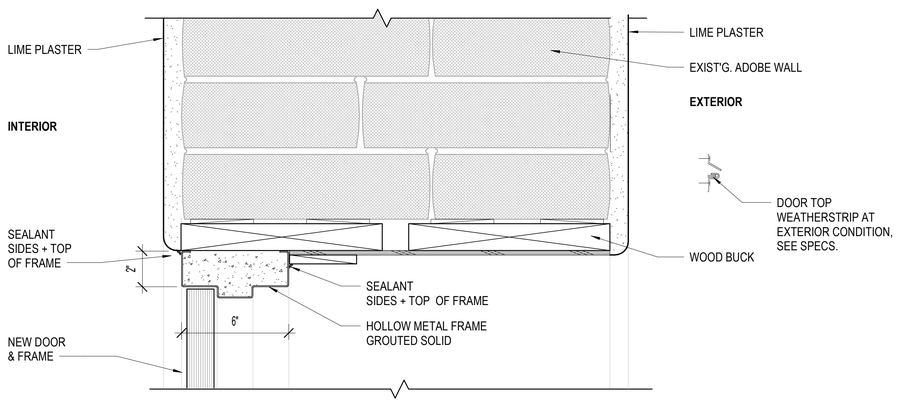
5 a9.2 head condition @ new door w/ HM frame - adobe wall
3" = 1'-0" (/)



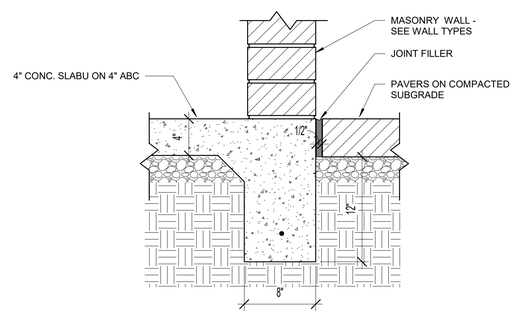
7 a9.2 EM wall type - HM door head
3" = 1'-0" (/)



8 a9.2 EM wall type - HM door jamb
3" = 1'-0" (1 / a7.0)



9 a9.2 jamb condition @ new door w/ HM frame - adobe wall
3" = 1'-0" (/)



11 a9.2 turn down footing @ new wall
1 1/2" = 1'-0" (3 / a9.3)

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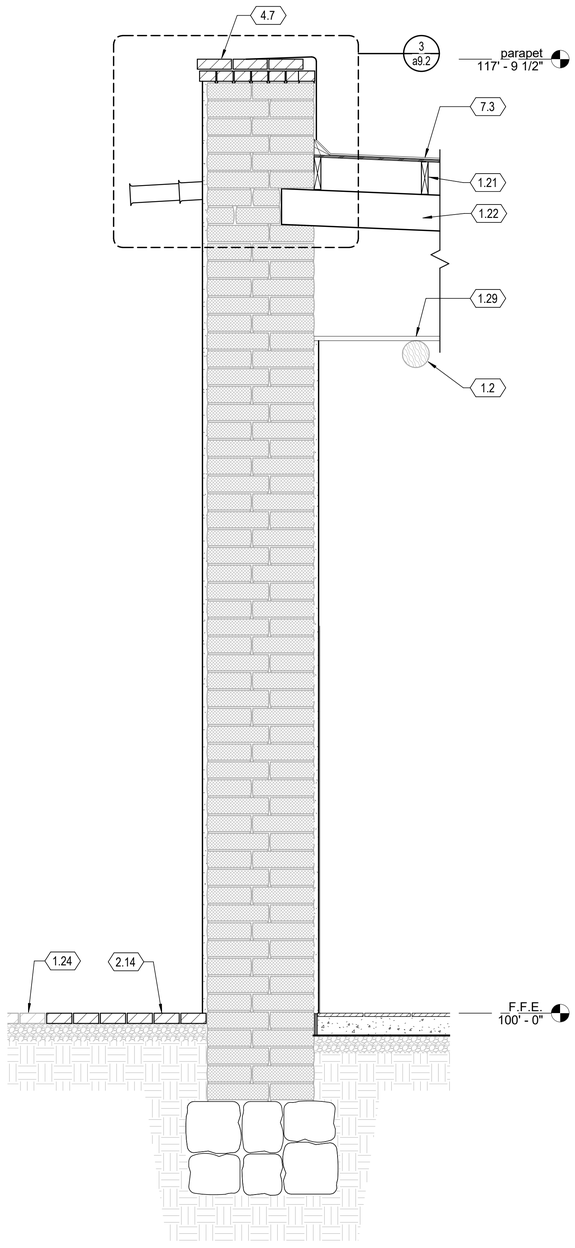
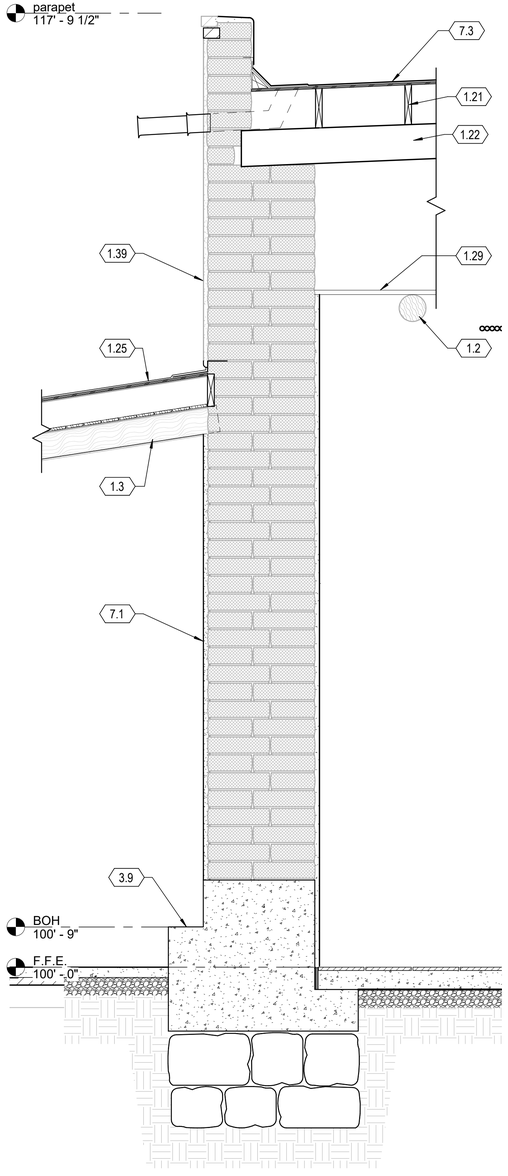
details

a9.2

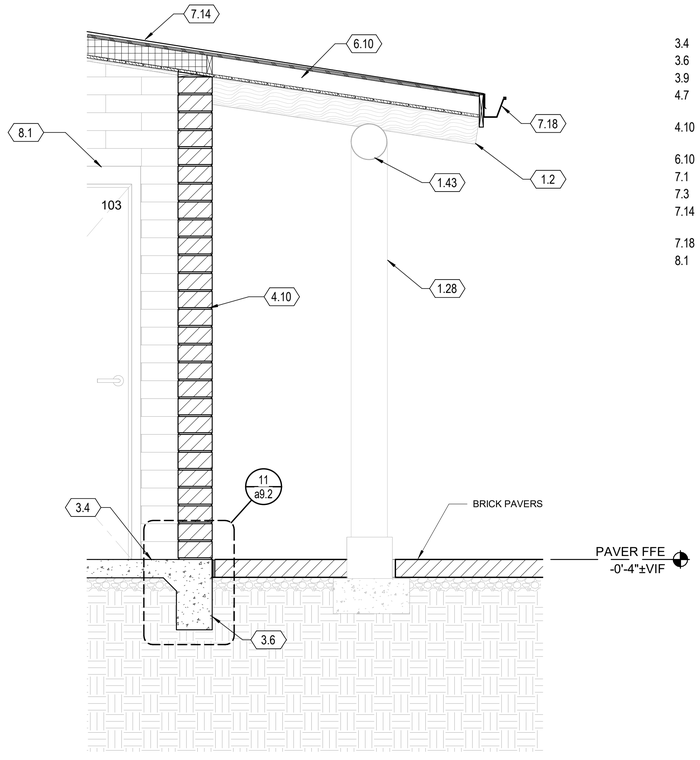
NOTE: ALL AFFECTED CONDITIONS TO BE FIELD VERIFIED.



1 a9.3 **W wall section**
3/4" = 1'-0"



2 a9.3 **E wall section**
3/4" = 1'-0"



3 a9.3 **section at new masonry wall**
3/4" = 1'-0"

general notes

1. DO NOT SCALE DRAWINGS. COORDINATE ALL WORK BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS, CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE IMPLEMENTATION OF WORK.
2. REFER TO STRUCTURAL FOR ALL MEMBER SIZES AND CONFIGURATIONS.

keynotes

1.2	EXISTING 6" DIA. VIGAS TO REMAIN.
1.3	EXISTING 8" DIA. VIGAS TO REMAIN.
1.21	DIMENSIONAL ROOF FRAMING.
1.22	HISTORIC ROOF STRUCTURE.
1.23	EXISTING CERAMIC TILE.
1.24	EXISTING EXTERIOR PAVERS.
1.25	EXISTING MODIFIED BITUMEN ROOFING.
1.28	EXISTING WOOD COLUMN TO REMAIN.
1.29	EXISTING SAGUARO RIB CEILING.
1.39	EXISTING STUCCO
1.43	EXISTING 8" DIA. BEAM TO REMAIN.
2.14	CONCRETE & BRICK PAVING TO BE REMOVED IN PHASES, AS IS NEEDED TO ACCESS THE BELOW GRADE REPAIRS ON THE NORTH, WEST AND SOUTH PERIMETER ABOUT THREE FEET IN WIDTH. SAW SLAB IN 3 PARALLEL CUTS (PARALLEL WITH THE BUILDING FACE) IN THE EXISTING GROUT JOINTS. NO CROSS CUTS TO BE MADE BY DEMO CONTRACTOR.
3.4	4" CONCRETE SLAB ON 4" COMPACTED BASE COURSE.
3.6	CONCRETE FOOTING, REFER TO STRUCTURAL.
3.9	CONCRETE WALL FOOTING.
4.7	EXISTING MASONRY PARAPET COPING TO BE REMOVED & RE-INSTALLED TO FACILITATE ROOF REPLACEMENT.
4.10	8" SLUMP BLOCK MASONRY WALL. COLOR TO MATCH EXISTING.
6.10	2X4 SPACERS LAID VERTICALLY.
7.1	NEW LIME PLASTER.
7.3	BUILT-UP ROOFING SYSTEM.
7.14	MODIFIED BITUMEN ON RIGID INSUL ON EXISTING T&G DECK.
7.18	CONTINUOUS 5X5 METAL GUTTER. SLOPE TO DRAIN.
8.1	DOOR AND FRAME, REFER TO DOOR SCHEDULE.

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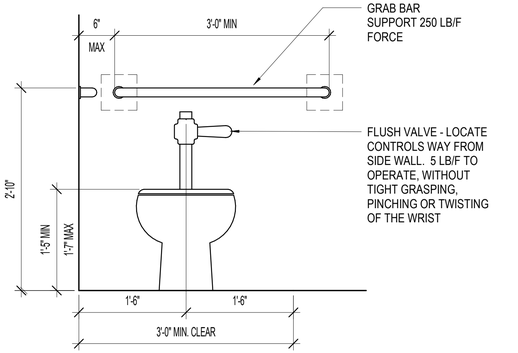
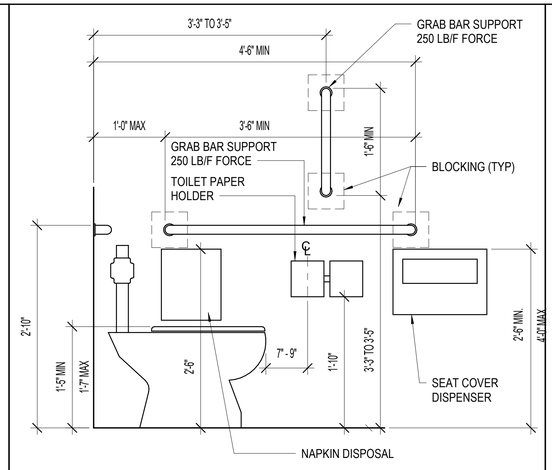
wall sections

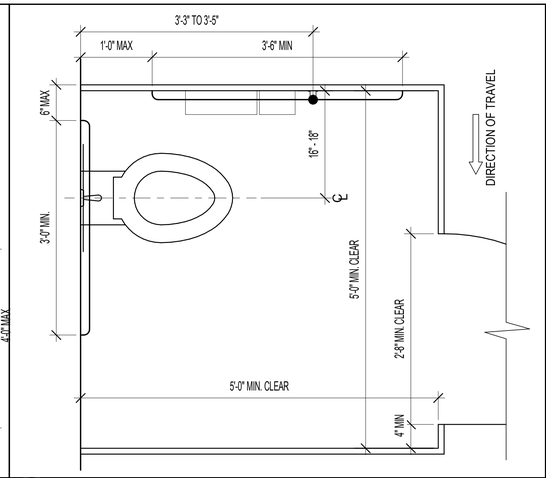
a9.3



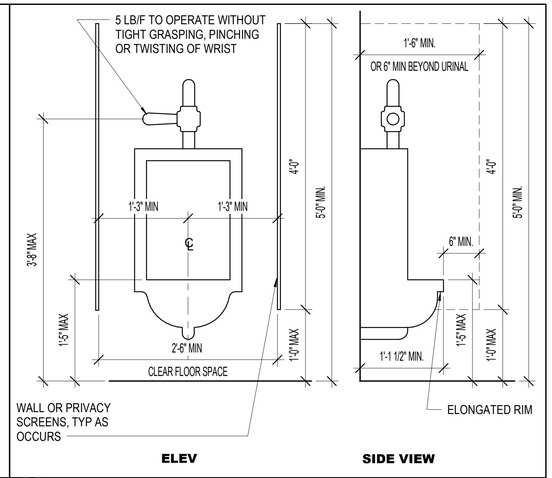
1 accessible wc - front elevation
a9.9 1" = 1'-0"



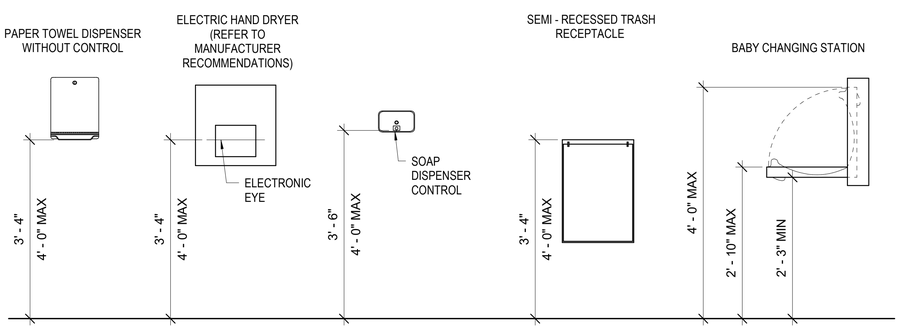
2 accessible wc - side elevation
a9.9 1" = 1'-0"



3 standard accessible stall
a9.9 1" = 1'-0"

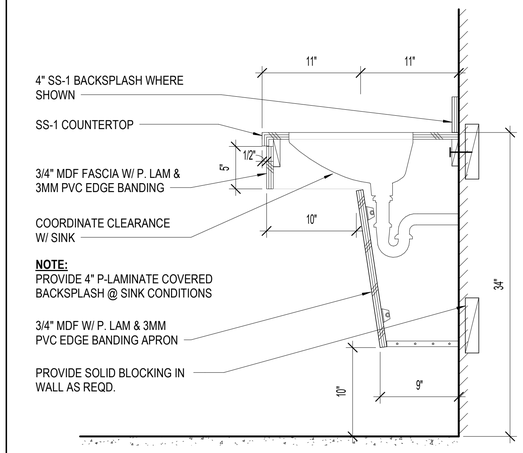


4 accessible urinal
a9.9 1" = 1'-0"

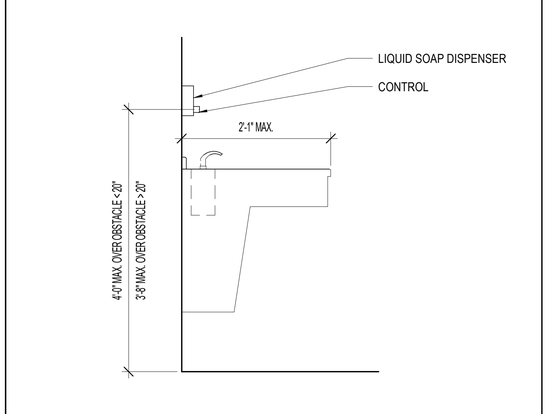


NOTE:
1. OPERABLE PARTS SHALL BE PLACED BETWEEN 48 INCHES MAXIMUM AND 15 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. PREFERRED MOUNTING HEIGHTS ARE LISTED ABOVE.
2. ALL ACCESSORIES ARE TO HAVE A 4" MAX. PROJECTION UNLESS OVER FIXED ACCESSORY WITH BOTTOM < 27" A.F.F.

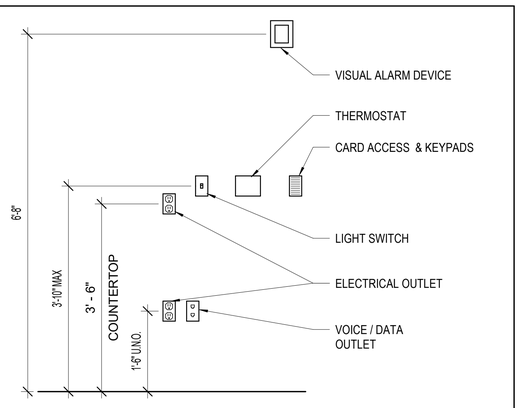
5 accessible restroom accessories
a9.9 3/4" = 1'-0"



7 accessible lavatory & skirt detail
a9.9 1 1/2" = 1'-0"



8 typical accessible accessories
a9.9 1" = 1'-0"



NOTE:
1. OPERABLE PARTS SHALL BE PLACED BETWEEN 48 INCHES MAXIMUM AND 15 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. PREFERRED MOUNTING HEIGHTS ARE LISTED ABOVE.

9 electrical devices
a9.9 3/4" = 1'-0"

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accessibility details

a9.9

HVAC SPECIFICATIONS

PART I - GENERAL:

1.01 ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL CODES, LAWS, RULES, AND REGULATIONS OF ALL NATIONAL, COUNTY, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PREMISES. IN CASE OF DIFFERENCES, MOST STRINGENT SHALL GOVERN.

1.02 HVAC DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE LOCATION OF DUCTWORK, OUTLETS, EQUIPMENT AND PIPING. DIMENSIONS GIVEN IN FIGURES ON THE PLANS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS, AND ALL DIMENSIONS, WHETHER GIVEN IN FIGURES OR SCALED, SHALL BE FIELD VERIFIED. NO DUCTWORK SHALL BE FABRICATED UNTIL DUCT CLEARANCES ARE FIELD VERIFIED.

1.03 BEFORE SUBMITTING A BID CAREFULLY STUDY ALL THE CONSTRUCTION DOCUMENTS. CAREFULLY EXAMINE THE PREMISES AND ANY EXISTING WORK. DETERMINE, IN ADVANCE, THE METHODS OF INSTALLING AND CONNECTING THE EQUIPMENT AND BECOME THOROUGHLY FAMILIAR WITH ALL OF THE REQUIREMENTS OF THE CONTRACT.

1.04 MAKE ARRANGEMENTS FOR INSPECTIONS AND PERFORM TESTS REQUIRED FOR HVAC WORK.

1.05 FURNISH ANY MISCELLANEOUS ITEMS NORMALLY USED, SPECIFICALLY MENTIONED OR NOT, TO RENDER A COMPLETE INSTALLATION.

1.06 ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

1.07 SUBMIT SIX COPIES OF SHOP DRAWINGS OR LITERATURE IN AN INDEXED THREE-RING BINDER ON THE FOLLOWING ITEMS:

AIR HANDLER UNITS
EXHAUST FANS
INSULATION: DUCTWORK AND PIPING
ENERGY MANAGEMENT AND CONTROL SYSTEM

PART II - PRODUCTS:

2.01 CONDENSATE PIPING SHALL BE TYPE "M" COPPER WITH PLUGGED TEES FOR CLEANOUTS. JOINTS MAY BE MADE WITH 50-50 SOLDER. CONDENSATE PIPING BELOW THE ROOF AND ABOVE THE CEILING SHALL BE INSULATED WITH ½" ARMAFLEX WITH ALL JOINTS SEALED. ALL CONDENSATE LINES SHALL HAVE P-TRAPS.

2.02 DUCTWORK SIZES SHOWN ARE ACTUAL SHEET METAL SIZES. GAUGES AND INSTALLATION SHALL BE ACCORDING TO THE LATEST SMACNA DUCT CONSTRUCTION MANUAL. ALL ELBOWS SHALL HAVE SINGLE THICKNESS TURNING VANES PER SMACNA STANDARDS. DUCTWORK BELOW THE ROOF SHALL BE HUNG WITH 20 GAUGE 1-1/8" STRAP HANGERS FASTENED TO THE STRUCTURE ABOVE. DUCTWORK ON THE ROOF SHALL BE SUPPORTED WITH "C-PORT" DUCT SUPPORT SYSTEM OR EQUIVALENT.

2.03 INSULATION:

a. LINE ALL AIR-CONDITIONING DUCT ABOVE THE ROOF WITH 2" AND BELOW THE ROOF WITH 1-1/2" FIBERGLASS DUCT LINER. THE LINER SHALL MEET THE LIFE SAFETY STANDARDS ESTABLISHED BY THE NFPA 90A AND 90B. THE DUCT LINER SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 1071 WITH AN NRC NOT LESS THAN .65 AS TESTED PER ASTM C423 USING A TYPE "A" MOUNTING AND A THERMAL CONDUCTIVITY NO HIGHER THAN .25 AT 75 DEGREES F MEAN TEMPERATURE. ALL EXPOSED EDGES OF THE LINER MUST BE FACTORY OR FIELD COATED. FOR SYSTEMS OPERATING AT 4000 FPM OR HIGHER A METAL NOSING MUST BE INSTALLED IN ALL LINER LEADING EDGES.

b. INSULATE HEATING WATER SUPPLY AND RETURN PIPING UP TO 1-1/2" WITH 1" GLASS FIBER INSULATION AND PIPING 2" AND ABOVE WITH 2" GLASS FIBER INSULATION. GLASS FIBER INSULATION SHALL MEET THE REQUIREMENTS OF ASTM C547. INSULATION SHALL BE RIGID, MOLDED AND NONCOMBUSTIBLE WITH A 'K' ('KSI') VALUE OF 0.23 AT 75 DEGREES F, MAXIMUM SERVICE TEMPERATURE OF 850 DEGREES F. INSULATION SHALL BE PROVIDED WITH VAPOR RETARDER JACKET EQUIVALENT TO AP-T PLUS, CONSTRUCTED OF WHITE KRAFT PAPER REINFORCED WITH GLASS FIBER YARN AND BONDED TO ALUMINUM FOIL, SECURED WITH SELF SEALING LONGITUDINAL LAPS AND BUTT STRIPS OR AP JACKET WITH OUTWARD CLINCH EXPANDING STAPLES OR VAPOR BARRIER MASTIC, AS NEEDED.

c. PIPING WITHIN EQUIPMENT ROOMS SHALL BE PROTECTED WITH ONE PIECE MOLDED TYPE PVC PLASTIC FITTING COVERS AND JACKETING MATERIAL WITH GLOSS WHITE FINISH. CONNECTIONS SHALL BE MADE WITH TACKS OR PRESSURE SENSITIVE COLOR MATCHING VYNYL TAPE. PIPING EXPOSED TO ELEMENTS SHALL BE PROTECTED WITH 0.016 INCH THICK SHEET ALUMINUM JACKET WITH EMBOSSED FINISH, LONGITUDINAL SLIP JOINTS AND 2 INCH (50MM) LAPS, AND DIE SHAPED FITTING COVERS WITH FACTORY ATTACHED PROTECTIVE LINER.

2.04 HYDRONIC PIPING:

a. CHILLED AND HEATING WATER PIPING 2" AND SMALLER SHALL BE TYPE "L" HARD DRAWN COPPER PIPING WITH ROUGH COPPER FITTINGS.

b. JOINTS IN CHILLED AND HEATING WATER PIPING 2" AND SMALLER ABOVE GRADE SHALL BE SOLDERED WITH LEAD FREE 95-5 SOLDER. 2-1/2" AND LARGER ABOVE GRADE SHALL BE BRAZED USING A BRAZING COMPOUND WITH A MINIMUM OF 15% SILVER.

c. CHILLED AND HEATING WATER PIPING 2-1/2" AND LARGER MAY BE SCHEDULE 40 BLACK STEEL WITH FORGED CARBON STEEL FITTINGS.

d. JOINTS IN STEEL CHILLED AND HEATING WATER PIPING 2-1/2" AND LARGER ABOVE GRADE SHALL BE WELDED.

2.05 MECHANICAL IDENTIFICATION:

a. PROVIDE COILED PLASTIC PIPE MARKERS FOR PIPE IDENTIFICATION OF ALL EXPOSED PIPING. MARKERS USED ON OUTDOOR PIPING SHALL BE APPROVED FOR OUTDOOR USE.

b. PROVIDE 2" X 3" OR LARGER LAMINATED BLACK PLASTIC NAMEPLATES WITH ONE-HALF INCH ENGRAVED WHITE NUMBERS AND LETTERS FOR EACH PIECE OF EQUIPMENT. NAMEPLATE MATERIALS MOUNTED OUTSIDE SHALL BE RESISTANT TO UV DEGRADATION.

c. APPROVED PIPE IDENTIFICATION AND ENGRAVED PLASTIC TAG MANUFACTURERS: SETON, BRIMAR INDUSTRIES, MARKING SERVICES INC., MIFAB.

PART III - EXECUTION:

3.01 PROVIDE ALL OPENINGS REQUIRED THROUGH THE ROOF OR WALLS.

3.02 ALL ELECTRICAL HIGH VOLTAGE WIRING, FUSES, CONDUIT AND DISCONNECT SWITCHES SHALL BE BY THE ELECTRICAL CONTRACTOR. LOW VOLTAGE WIRING SHALL BE BY THE HVAC CONTRACTOR.

3.03 GAS PIPING TO EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR.

3.04 FURNISH AND INSTALL COMBUSTION AND RELIEF AIR OPENINGS AND FLUE PIPING FOR ALL GAS FIRED EQUIPMENT.

3.05 ALL DUCT JOINTS BELOW THE ROOF SHALL BE SEALED WITH HARDCAST OR EQUIVALENT CMC DUCT SEALER.

3.06 TESTING, ADJUSTING AND BALANCING:

a. SYSTEM SHALL BE BALANCED TO APPROXIMATE CFM'S AND GPM'S SHOWN AND TO SATISFACTION OF THE OWNER.

b. THE TAB AGENCY SHALL BE A CURRENT MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC).

c. THE TAB CONTRACTOR SHALL SUBMIT ONE COPY IN PDF FORMAT OF THE FINAL TAB REPORT FOR REVIEW BY THE ENGINEER AND BUILDING OWNER WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY. THE TAB REPORT MAY BE SUBMITTED ELECTRONICALLY AT THE CONTRACTOR'S OPTION. ALL OUTLETS, DEVICES, HVAC EQUIPMENT, ETC., SHALL BE IDENTIFIED, ALONG WITH A NUMBERING SYSTEM CORRESPONDING TO REPORT UNIT IDENTIFICATION. THE TAB AGENCY SHALL SUBMIT AN AABC "NATIONAL PROJECT PERFORMANCE GUARANTY" ASSURING THAT THE PROJECT SYSTEMS WERE TESTED, ADJUSTED AND BALANCED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND AABC NATIONAL STANDARDS.

d. TAB SHALL GUARANTEE FOR A PERIOD OF NINETY DAYS FROM THE DATE OF THE FINAL BALANCING REPORT. TAB CONTRACTOR SHALL MAKE ADJUSTMENTS DURING THIS PERIOD FOR COMFORT LEVEL ADJUSTMENT, AT DIRECTION OF ENGINEER. TAB CONTRACTOR SHALL MEET WITH ENGINEER DURING THIS PERIOD AS MAY BE REQUIRED TO VERIFY ANY READINGS.

3.07 FURNISH THREE SETS OF OPERATION, MAINTENANCE, WIRING AND WARRANTY INFORMATION ON ALL EQUIPMENT TO THE ARCHITECT OR BUILDING OWNER IN AN INDEXED THREE-RING BINDER WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

3.08 MAKE NOTE OF ANY CHANGES MADE IN LAYOUT AND INCORPORATE IN "RECORD" DRAWINGS SUBMITTED TO THE ARCHITECT OR BUILDING OWNER WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

3.09 GUARANTEE ALL PARTS AND LABOR FOR TWO YEARS FROM DATE OF FINAL ACCEPTANCE.

GENERAL NOTES

1. FIELD COORDINATE EXACT LOCATION OF THERMOSTAT WITH ARCHITECT TO AVOID CONFLICT WITH FURNITURE, MILLWORK, ARTWORK, ETC.
2. FIELD COORDINATE FINAL EQUIPMENT NUMBERING (AIR HANDLER UNITS, EXHAUST FANS) WITH BUILDING ENGINEER AND CONTROLS CONTRACTOR.
3. COORDINATE ROOF PATCHING WITH GENERAL CONTRACTOR.

EXISTING CONDITIONS NOTE

EVERY EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION REGARDING EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS ABOVE THE CEILING PRIOR TO BIDDING THE PROJECT. ANY CONFLICTS DISCOVERED BY MECHANICAL CONTRACTOR DURING THE PRE-BID PROCESS WHICH MAY EFFECT THE SCOPE OR COST SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER PRIOR TO PROVIDING A BID. THE SUBMISSION OF A BID SHALL INDICATE MECHANICAL CONTRACTOR COMPLETELY UNDERSTANDS THESE CONTRACT DOCUMENTS AND THE EXISTING CONDITIONS.

MECHANICAL CONTRACTOR SHALL COORDINATE ALL PATCHING AND REPAIRING WORK WITH THE GENERAL CONTRACTOR AND ARCHITECT.

LEGEND

SR	SIDEWALL SUPPLY REGISTER - PRICE MODEL 520, OBD, FRAME FOR DUCT MOUNT
RR	SIDEWALL RETURN REGISTER - PRICE MODEL 530, OBD, FRAME FOR DUCT MOUNT
ER	SIDEWALL EXHAUST REGISTER - PRICE MODEL 530, OBD, FRAME FOR DUCT MOUNT
Ⓣ	THERMOSTAT

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	ACCESS PANEL
	OPPOSED BLADE MANUAL DAMPER
	FLEX CONNECTION
	SUPPLY DUCT DOWN
	SUPPLY DUCT UP
	RETURN DUCT DOWN
	RETURN DUCT UP
	EXHAUST DUCT DOWN
	EXHAUST DUCT UP
	FIRE DAMPER / FIRE SMOKE DAMPER
Ⓢ	ROOM TEMPERATURE SENSOR

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CERTIFICATE NO.
45700
DAVID
C. TYRRELL
DATE SIGNED 06/14/2024
ARIZONA U.S.A.

Expires 12/31/2024

job
1503.08

date
10.22.24

revisions

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mechanical general information

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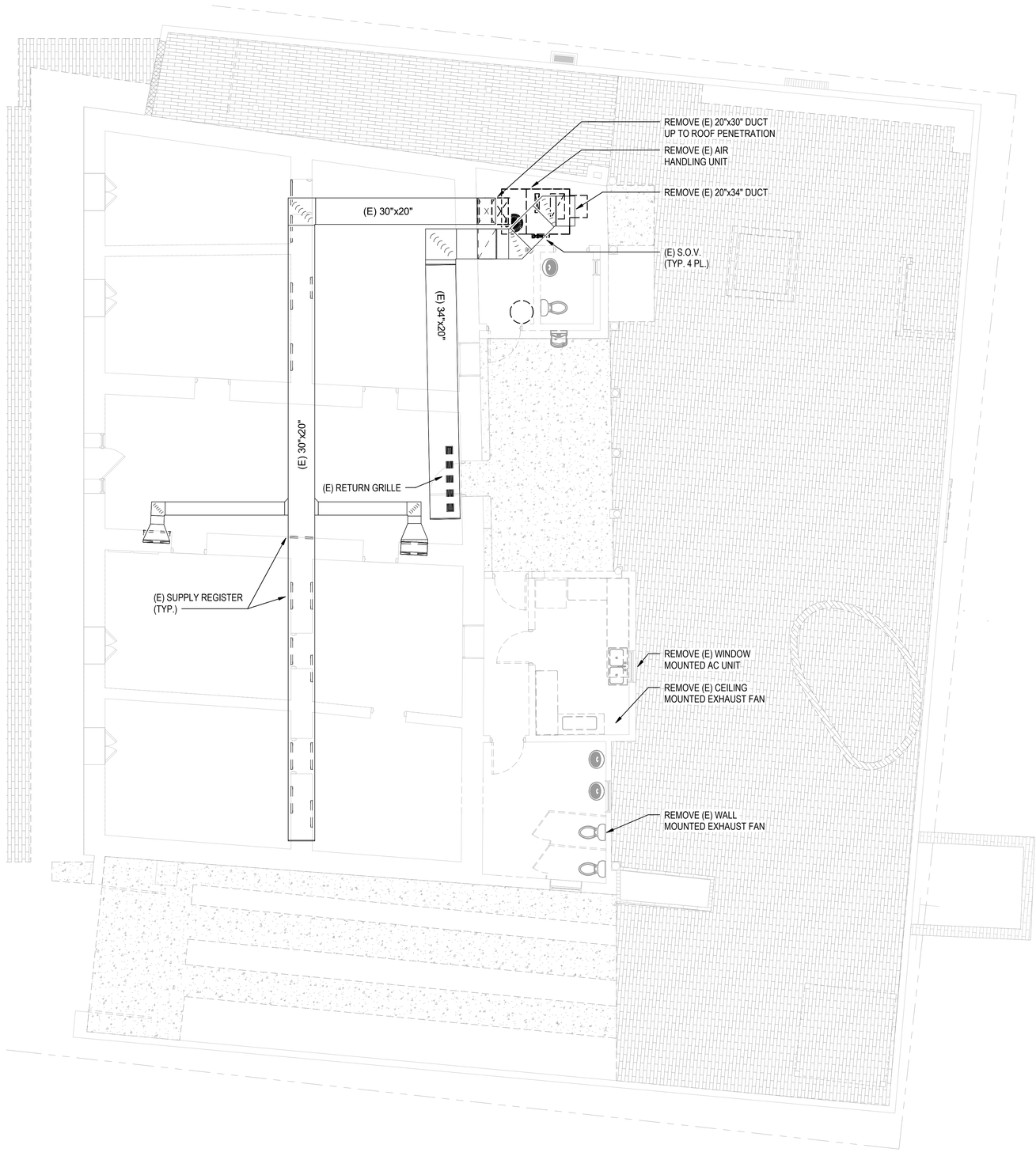

1 md1.0 mechanical demo floor plan - ductwork

3/16" = 1'-0"

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mechanical demo floor
plan - ductwork

md1.0

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1 md1.1 mechanical demo floor plan - piping

3/16" = 1'-0"

north

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mechanical demo floor plan - piping

md1.1

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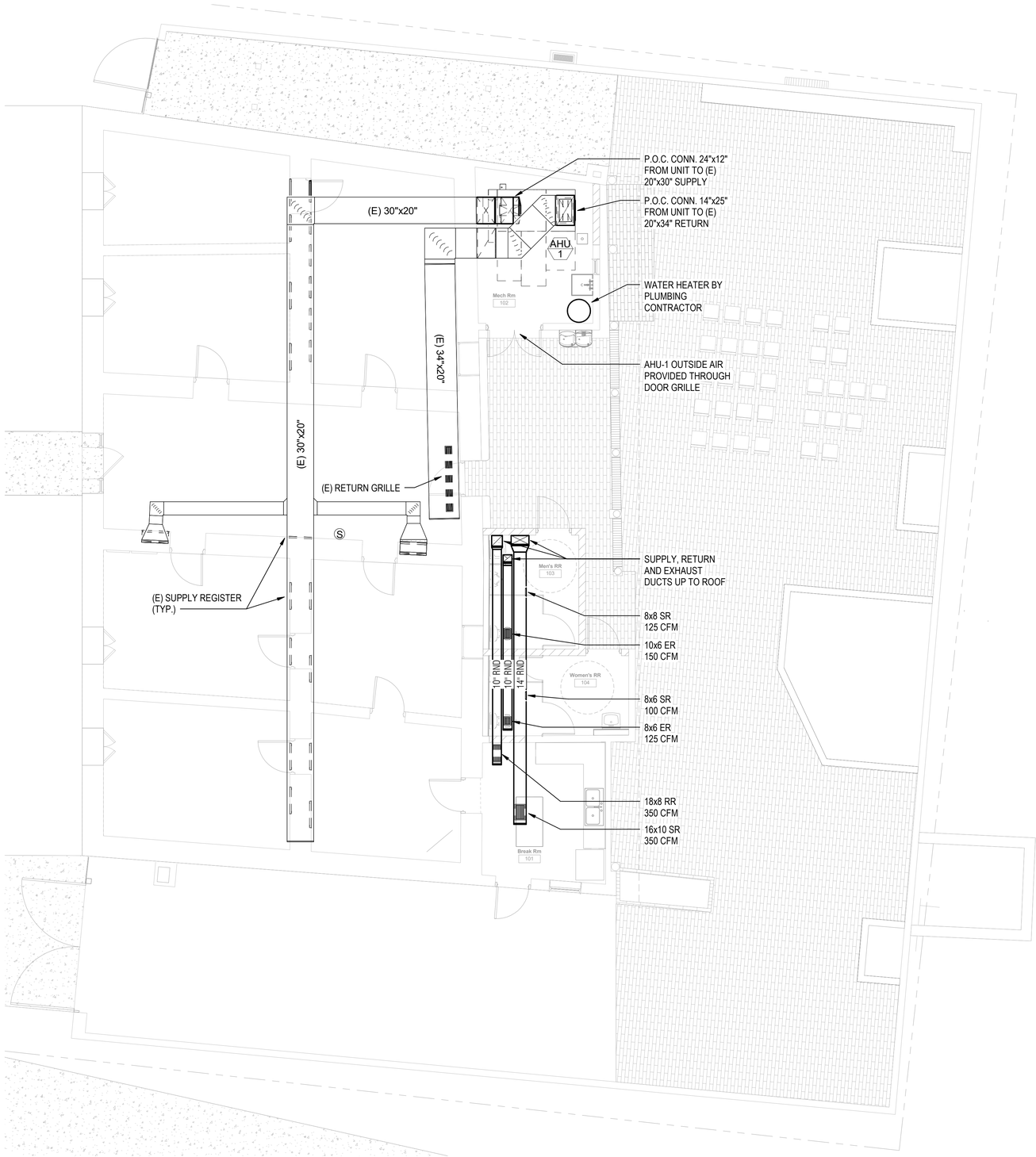

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mechanical floor plan - ductwork

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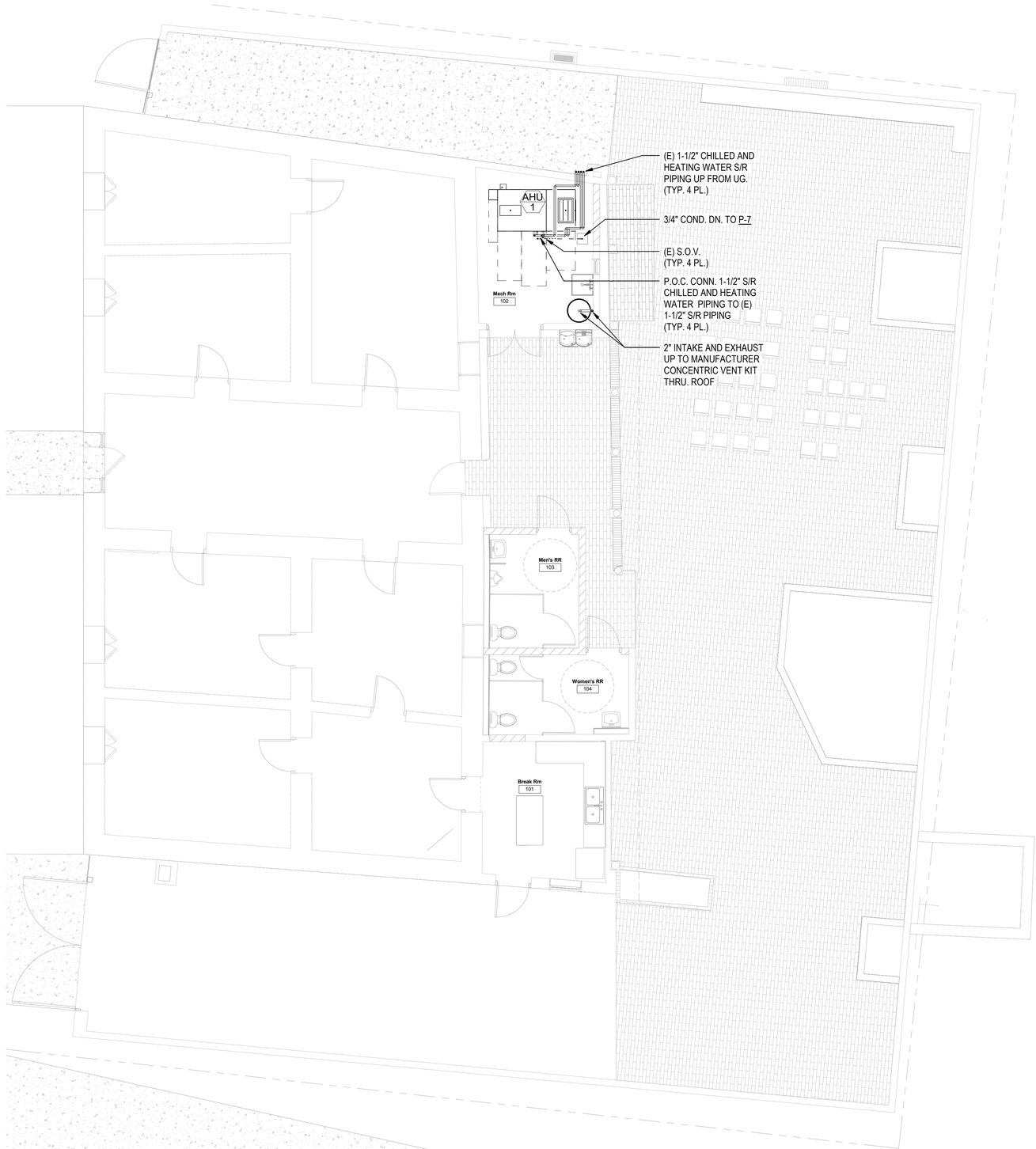

1 / m1.1 mechanical floor plan - piping

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mechanical floor plan - piping

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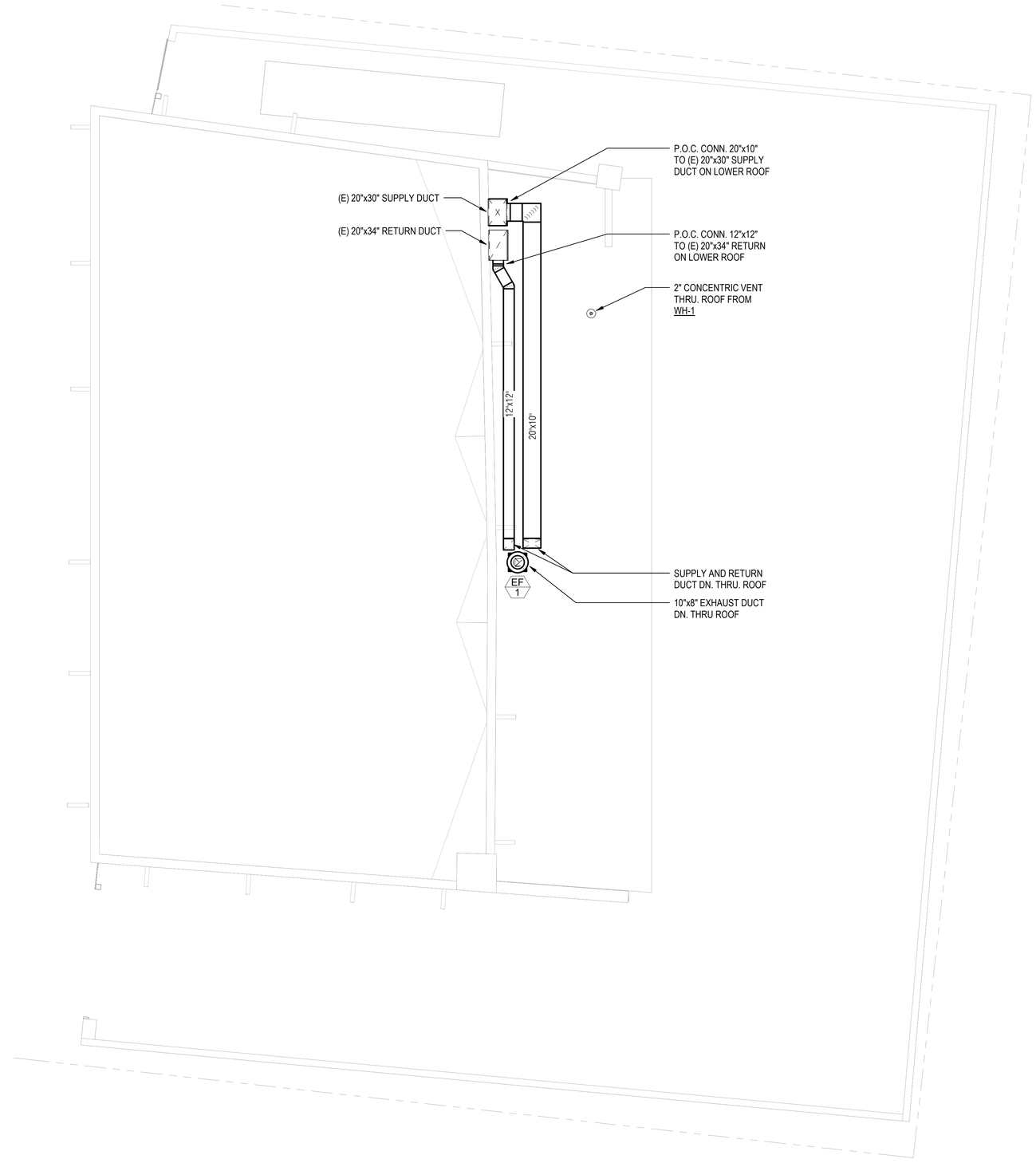

1 m2.0 mechanical roof plan

3/16" = 1'-0"

north

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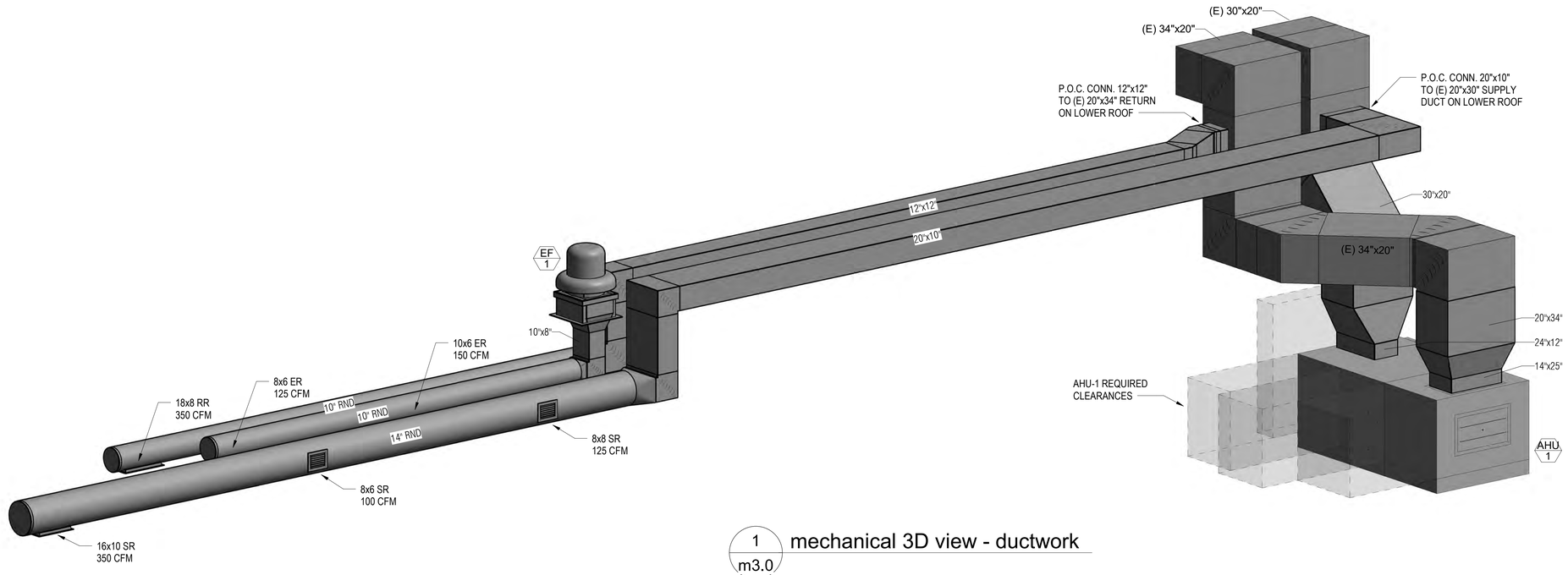
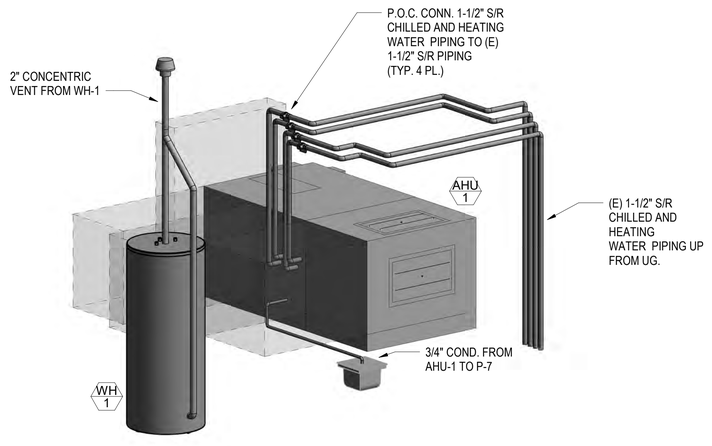
m2.0



1 m3.0 mechanical 3D view - ductwork



2 m3.0 mechanical isometric - piping

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mechanical isometrics

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m3.0

AIR HANDLING UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	ESP	OUTSIDE AIR CFM	COOLING COIL								HEATING COIL						ELECTRICAL DATA				UNIT WEIGHT	REMARKS
						CAPACITY (TOT./SENS.)	EAT DB/WB (°F)	LAT DB/WB (°F)	MAX. AIR P.D.	ROWS	GPM	EWT / LWT (°F)	MAX. WATER P.D.	CAPACITY (TOTAL)	EAT / LAT (°F)	MAX. AIR P.D.	ROWS	GPM	EWT / LWT (°F)	MAX. WATER P.D.	VOLTAGE	FLA	MCA	MOCP		
AHU 1	TRANE	UCCAH06A0G0FAJ52000000FC8A5BA0000000B0B1	3,425	2.5"	825	112.65 / 100.93	81.8 / 63.4	52.7 / 51.65	0.7"	4	42.87	42.0 / 47.2	8.5'	77.37	60.9 / 83.5	0.2"	1	4.46	180 / 145.3	0.2'	208/3/60	28.5	35.5	60	1,100 LBS.	RIGHT HAND PIPING CONNECTIONS, TOP FRONT DISCHARGE

NOTES:
1. COMPLETE WITH HORIZONTAL DDP FAN WITH TOP FRONT DISCHARGE, STAINLESS STEEL DRAIN PAN, ALUMINUM FINS, GALVANIZED COIL CASING, UNIT MOUNTED VFD MOTOR INTERFACE, AND BacNET CONTROL INTERFACE.
2. CONTRACTOR TO FIELD VERIFY PIPING CONNECTION SIDE PRIOR TO ORDERING.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	TYPE	MODEL	CFM	ESP	MAX RPM	MAX dBA	ELECTRICAL DATA			UNIT WEIGHT	REMARKS
								VOLTAGE	HP	BHP		
EF 1	LOREN COOK	ROOFTOP CENTRIFUGAL DIRECT DRIVE	ACEB-80C2B	275	0.125"	906	43	120/1/60	1/6	0.03	40 LBS.	TIMECLOCK

NOTES:
1. COMPLETE WITH INTEGRAL DISCONNECT, BACKDRAFT DAMPER AND FACTORY ROOF CAP.

Building:		Sosa-Carillo House Renovation				
System Tag/Name:		AHU-1				
Operating Condition Description:						
Units (select from pull-down list)		IP				
			w/o diversity		w/ diversity	
Inputs for System	**Name**	**Units**	**System**	**Diversity**	**System**	
Floor area served by system	As	sf	3,286			Default entry has been overridd
Population of area served by system	Ps	P	86	D 100%	86	
Design primary supply fan airflow rate	Vpsd	cfm	3,200	100%	3,200	
OA req'd per unit area for system (Weighted average)	Ras	cfm/sf	0.06			
OA req'd per person for system area (Weighted average)	Rps	cfm/p	7.5			
Percent increase in Vbz over minimum required			0%			
Does system have Outdoor Air Economizer		Select from pull-down list			No	
Outdoor air intake provided for system	OA	cfm				
Inputs for Potentially Critical zones					Potentially Critical Zones	
Zone Name					Museum Space	Break Room
Zone Tag			Zone title turns purple (otic for critical zone(s)		enter tag	New zone ID
Occupancy Category		Select from pull-down list:			Museums/gall eries	Break rooms (General)
Floor Area of zone	Az	sf			1,955	156
Design population of zone	Pz	P	(default value listed; may be overridden)		78.2	7.8
Design total supply to zone (primary plus local recirculated)	Vdzd	cfm			2,850	350
Induction Terminal Unit, Dual Fan Dual Duct or Transfer Fan?		Select from pull-down list or leave blank if N/A:				
Frac. of local reciric. air that is representative of system RA	Er					
Inputs for Operating Condition Analyzed						
Percent of total design airflow rate at conditioned analyzed	Ds	%			100%	100% 100%
Air distribution type at conditioned analyzed		Select from pull-down list:				
Zone air distribution effectiveness at conditioned analyzed	Ez				1.00	1.00 1.00
Primary air fraction of supply air at conditioned analyzed	Ep					
Results						
System Ventilation Efficiency	Ev				1.00	
Outdoor air intake required for system	Vot	cfm			814	
Outdoor air per unit floor area	Vot/As	cfm/sf			0.25	
Outdoor air per person served by system (including diversity)	Vot/Ps	cfm/p			9.5	
Outdoor air as a % of design primary supply air	Ypd	%			25%	

COMcheck Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Sosa-Carillo House Renovation
Location: Tucson, Arizona
Climate Zone: 2b
Project Type: Alteration

Construction Site:
260 S. Chruch Ave.
Tucson, Arizona 85701

Owner/Agent:

Designer/Contractor:
Cory Holmes
Zona Technical Engineering
6422 E. Speedway Blvd. #130
Tucson, Arizona 85710
520-200-2612
cory@zonamep.com

Mechanical Systems List

Quantity System Type & Description

1 HVAC System (Single Zone):
Heating: 1 each - Hydronic or Steam Coil, Hot Water, Capacity = 77 kBtu/h
No minimum efficiency requirement applies
Cooling: 1 each - Hydronic Coil, Capacity = 112 kBtu/h, Water Economizer
No minimum efficiency requirement applies
Fan System: FAN SYSTEM 1 -- Compliance (Brake HP and fan efficiency method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 3425 CFM, 7.5 motor nameplate hp, 4.0 design brake hp (4.0 max. BHP), 80.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Single fan <= 5HP

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in *COMcheck* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Dave Tyrrell, Principal Mechanical Engineer — Name - Title
Signature
06/07/2024 — Date

Project Title: Sosa-Carillo House Renovation
Data filename:
Report date: 06/06/24
Page 1 of 10

Air System Sizing Summary for AHU-1

Project Name: 24016 Sosa-Carillo House Renovation — 06/12/2024
Prepared by: Zona Technical Engineering — 10:18AM

Air System Information

Air System Name	AHU-1	Number of zones	1
Equipment Class	CW AHU	Floor Area	2311.0 ft²
Air System Type	SZCAV	Location	Tucson, Arizona

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	User-Modified	Space CFM Sizing	Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load	9.1 Tons	Load occurs at	Jul 1500
Total coil load	109.1 MBH	OA DB / WB	105.0 / 66.0 °F
Sensible coil load	99.7 MBH	Entering DB / WB	81.3 / 62.0 °F
Coil CFM at Jul 1500	3425 CFM	Leaving DB / WB	51.7 / 49.9 °F
Max block CFM	3425 CFM	Coil ADP	48.4 °F
Sum of peak zone CFM	3425 CFM	Bypass Factor	0.100
Sensible heat ratio	0.914	Resulting RH	45 %
CFM/Ton	376.7	Design supply temp.	55.0 °F
ft²/Ton	254.2	Zone T-stat Check	0 of 1 OK
BTU/(hr·ft²)	47.2	Max zone temperature deviation	0.2 °F
Water flow @ 10.0 °F rise	21.83 gpm		

Central Heating Coil Sizing Data

Max coil load	74.1 MBH	Load occurs at	Des Htg
Coil CFM at Des Htg	3425 CFM	BTU/(hr·ft²)	32.1
Max coil CFM	3425 CFM	Ent. DB / Lvg DB	62.2 / 84.2 °F
Water flow @ 20.0 °F drop	7.41 gpm		

Supply Fan Sizing Data

Actual max CFM	3425 CFM	Fan motor BHP	0.47 BHP
Standard CFM	3120 CFM	Fan motor kW	0.37 kW
Actual max CFM/ft²	1.48 CFM/ft²	Fan static	0.50 in wg

Return Fan Sizing Data

Actual max CFM	3425 CFM	Fan motor BHP	0.47 BHP
Standard CFM	3120 CFM	Fan motor kW	0.37 kW
Actual max CFM/ft²	1.48 CFM/ft²	Fan static	0.50 in wg

Outdoor Ventilation Air Data

Design airflow CFM	726 CFM	CFM/person	11.52 CFM/person
CFM/ft²	0.31 CFM/ft²		

Hourly Analysis Program 5.11 — Page 1 of 3

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mechanical schedules and details

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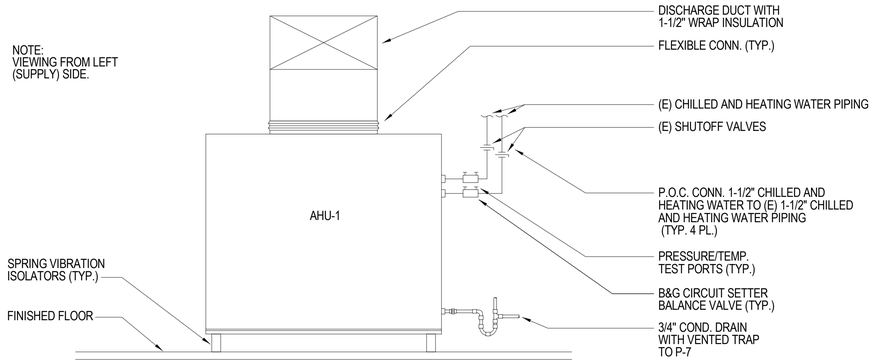
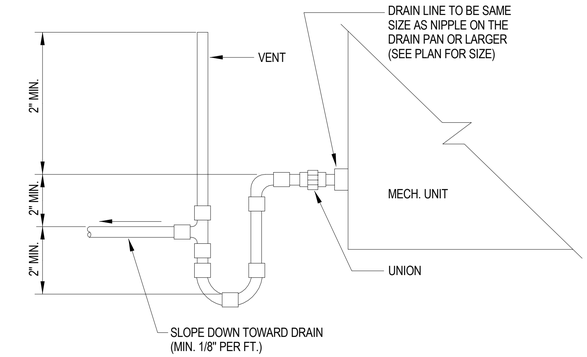
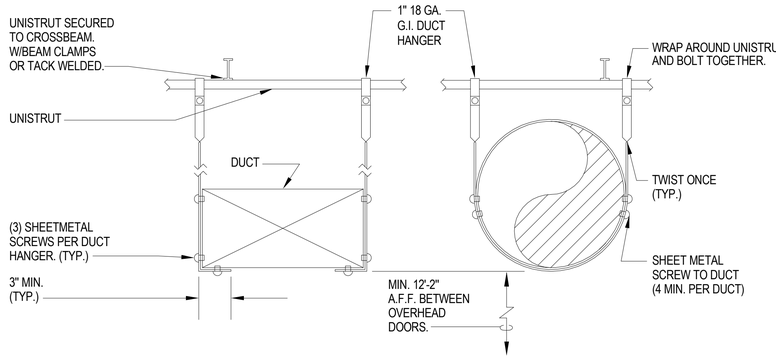


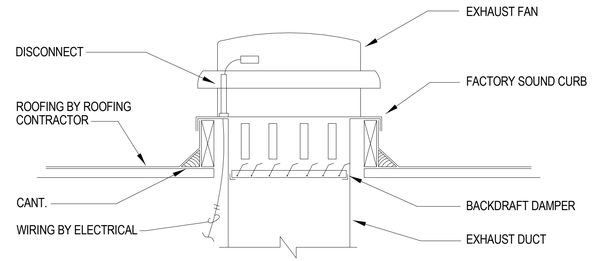
2 m4.0 air handling unit detail
N.T.S.



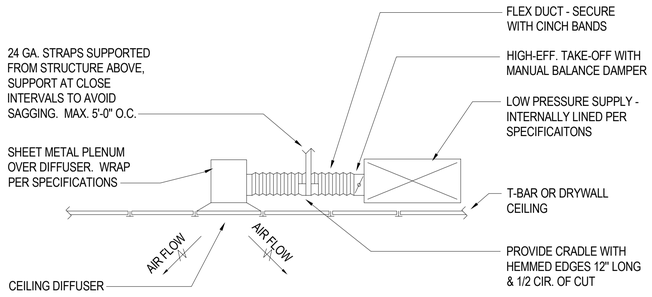
1 m4.0 condensate p-trap detail
N.T.S.



4 m4.0 duct hanger detail
N.T.S.



3 m4.0 rooftop exhaust fan detail
N.T.S.



5 m4.0 ceiling diffuser with flex duct detail
N.T.S.

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CONTROLS SPECIFICATIONS

1. PRIOR TO COMMENCEMENT OF WORK, PROVIDE COMPLETE SYSTEM DRAWINGS, CONTROL AIR COMPRESSOR CALCULATION, PANEL DRAWINGS, SCHEMATIC DIAGRAMS, POINT TO POINT WIRING DIAGRAMS, WRITTEN OPERATIONAL SEQUENCES, AND
2. THE ELECTRONIC MICROPROCESSOR BASED ENERGY MONITORING & CONTROL SYSTEM (EMCS) SHALL MONITOR THE DATA ENVIRONMENT AND PERFORM CONTROL FUNCTIONS IN RELATION TO A PROGRAMMED STRATEGY AND THE STATUS OF THE DATA ENVIRONMENT.
3. THE SYSTEM SHALL USE SOLID STATE COMPUTER-BASED DIGITAL AND ANALOG TECHNOLOGY. THE SYSTEM SHALL BE STANDARD WITH THE MANUFACTURER TO INSURE ONGOING PARTS AVAILABILITY AND TRAINED TECHNICAL SUPPORT.
4. THE EMCS SHALL BE OF THE FULLY USER PROGRAMMABLE TYPE REQUIRING NO SPECIAL COMPUTER EDUCATION FOR OPERATION. ALL NECESSARY INSTRUCTION MANUALS AND USER ORIENTATION TRAINING SHALL BE SUPPLIED BY THE MANUFACTURER OR AGENT THEREOF.
5. THE EMCS SHALL MEET THE LATEST CITY OF TUCSON EMCS TECHNICAL GUIDELINE INCLUDING COMPLIANCE WITH THE BACNET REQUIREMENTS AS DEFINED IN THAT SPECIFICATION. REFER TO THE C.O.T. SPECIFICATION FOR SPECIFIC REQUIREMENTS CONCERNING INTERFACE TO AND COMPATIBILITY WITH THE EXISTING WAN. IN CASE OF DIFFERENCES BETWEEN THESE SPECIFICATIONS AND THE C.O.T. GUIDELINES, THE C.O.T GUIDELINES SHALL APPLY. THE EMCS SHALL BE CONNECTED TO THE EXISTING CITYWIDE WAN THROUGH A DATA PORT TO BE FURNISHED BY THE OWNER. THE EMCS SHALL BE CAPABLE OF READ/WRITE INTERFACE TO THE EXISTING CITY OF TUCSON BACNET WORKSTATIONS WITHOUT THE USE OF GATEWAYS. THE CONTROL CONTRACTOR FOR THIS PROJECT SHALL SUPPLY ALL REQUIRED INFORMATION FOR THE CITY TO INTEGRATE THIS PROJECT TO THE EXISTING WORKSTATIONS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: FUNCTIONAL NAME, OBJECT NAME, OBJECT TYPE, DEVICE NAME, DESCRIPTION, OBJECT IDENTIFIER, AND FULL REFERENCE. EMCS CONTRACTOR MUST SUPPLY THIS INFORMATION FOR ALL CONTROL POINTS ON THE SYSTEM.
6. COMMUNICATION PROTOCOL BETWEEN APPLICATION SPECIFIC AND PROGRAMMABLE CONTROLLERS SHALL ADHERE TO BACNET PROTOCOL. READ (INITIATE) AND WRITE (EXECUTE) SERVICES AS DEFINED IN CLAUSES 15.5 AND 15.8 RESPECTIVELY OF ASHRAE STANDARD 135, SHALL BE USED TO COMMUNICATE WITH BACNET OBJECTS IN THE NETWORK. COMMUNICATION PROTOCOL SHALL BE CONSIDERED "NATIVE" BACNET AT ALL LEVELS. PROPRIETARY PROTOCOLS ARE NOT ACCEPTABLE AT ANY LEVEL.
7. THE INTENT OF THIS DIVISION SPECIFICATION IS TO ESTABLISH A LEVEL OF CONTROL SYSTEM REQUIRED FOR THIS PROJECT. ALL FUNCTIONS DESCRIBED HEREIN ARE REQUIRED BUT IT IS UNDERSTOOD THAT SOME DEGREE OF FLEXIBILITY MAY BE REQUIRED. ANY MAJOR DEVIATION REQUIRES THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER PRIOR TO BID DATE.
8. ACCEPTABLE MANUFACTURERS: ALTERTON
9. THE EMCS SHALL BE OF A MODULAR DESIGN PROVIDING DISTRIBUTED PROCESSING CAPABILITY, AND ALLOWING FUTURE EXPANSION OF BOTH INPUT/OUTPUT POINTS AND PROCESSING/CONTROL FUNCTIONS.
10. THE SYSTEM SHALL BE CAPABLE OF INTERFACING WITH A MASS STORAGE DEVICE, FOR USE IN UP LOADING AND DOWN LOADING PROGRAMS TO THE EMCS.
11. EMCS INPUTS
    A. THE INPUT SECTION OF THE EMCS SHALL CONNECT THE EMCS TO THE BUILDING ENVIRONMENT. THE EMCS SHALL BE CAPABLE OF ACCEPTING INFORMATION IN THE FORM OF 3K AND 10K THERMISTORS, 0-5 VDC, 0-10 VDC, 4-20 MA, DRY CONTACTS, AND PULSE INPUTS.
    B. THE ANALOG INPUT (AI) FUNCTION SHALL MONITOR EACH ANALOG INPUT, PERFORM ANALOG-TO-DIGITAL (A/D) CONVERSION, AND HOLD THE DIGITAL VALUE IN A BUFFER FOR INTERROGATION. THE A/D CONVERSION SHALL HAVE A MINIMUM RESOLUTION OF 10 BITS. ANALOG INPUTS SHALL WITHSTAND CONTINUOUS DIRECT SHORTING TO 120 VAC, 60 HZ POWER WITHOUT FAILURE.
    C. THE DIGITAL INPUT (DI) FUNCTION SHALL ACCEPT DRY CONTACT CLOSURES AND VOLTAGE LEVEL TRANSITIONS. DIGITAL INPUTS SHALL WITHSTAND CONTINUOUS DIRECT SHORTING TO 120 VAC, 60 HZ POWER WITHOUT FAILURE.
    D. TEMPERATURE INPUTS ORIGINATING FROM A THERMISTOR OR RESISTANCE TEMPERATURE DETECTOR (RTD) SHALL BE MONITORED AND BUFFERED AS AN AI, EXCEPT THAT AUTOMATIC CONVERSION TO DEGREES F SHALL OCCUR WITHOUT ANY ADDITIONAL SIGNAL CONDITIONING. TEMPERATURE INPUTS SHALL WITHSTAND CONTINUOUS DIRECT SHORTING TO 120 VAC, 60 HZ, POWER WITHOUT FAILURE.
    E. THE PULSE OR WATT ACCUMULATOR FUNCTION SHALL HAVE THE SAME CHARACTERISTICS AS THE DI, EXCEPT THAT, IN ADDITION, A BUFFER SHALL BE INCLUDED TO TOTALIZE PULSES BETWEEN INTERROGATIONS. THE PULSE ACCUMULATOR SHALL ACCEPT RATES UP TO 10 PULSES/SECOND. PULSE INPUTS SHALL WITHSTAND CONTINUOUS DIRECT SHORTING TO 120 VAC, 60 HZ, POWER WITHOUT FAILURE.
12. EMCS OUTPUTS
    A. THE DIGITAL OUTPUT (DO) FUNCTION SHALL PROVIDE CONTACT CLOSURE FOR MOMENTARY (PULSE WIDTH MODULATION) AND MAINTAINED OPERATION OF FIELD DEVICES. OUTPUT PULSE WIDTH SHALL HAVE A MINIMUM RESOLUTION OF 0.1 SECONDS. ISOLATION AND PROTECTION AGAINST VOLTAGE SURGES UP TO 180 VAC PEAK SHALL BE PROVIDED. CONTACT RATING SHALL BE A MINIMUM OF 2 AMPS AT 24 VAC. EACH DIGITAL OUTPUT SHALL BE EQUIPPED WITH AN ON/OFF/AUTO SWITCH TO MANUALLY OBTAIN EITHER OUTPUT STATE. MANUAL OVERRIDES SHALL BE REPORTED TO THE MASTER AT EACH UPDATE. AN LED SHALL BE PROVIDED TO INDICATE THE STATE OF EACH DIGITAL OUTPUT.
    B. THE EMCS SHALL HAVE AN ANALOG OUTPUT (AO) FUNCTION WHICH SHALL ACCEPT DIGITAL DATA, PERFORM DIGITAL-TO-ANALOG (D/A) CONVERSION, AND MODIFY THE SIGNAL OF A CURRENT LOOP WITHIN THE RANGE OF 4_20MA. D/A CONVERSION SHALL HAVE A MINIMUM RESOLUTION OF 8 BITS. 4_20MA SIGNAL SHALL BE REGULATED WITH A MINIMUM RESOLUTION OF .16MA.
13. THE COMPLETE EMCS SHALL BE UL 916 APPROVED AS AN ENERGY MANAGEMENT SYSTEM
14. CONTROL VALVES SHALL BE 2 OR 3-WAY TYPE FOR TWO-POSITION OR MODULATING SERVICE AS SCHEDULED, SHOWN ON DRAWINGS, OR AS SPECIFIED IN SEQUENCE OF OPERATION. VALVE ACTUATOR AND TRIM SHALL BE FURNISHED TO PROVIDE 300% OF PRESSURE DIFFERENTIAL BETWEEN PORTS A AND B AT DESIGN FLOW OR 100% OF TOTAL SYSTEM (PUMP) HEAD.
15. VALVE ACTUATORS SHALL BE COMPATIBLE WITH THE INPUT SIGNAL PROVIDED. THEY MUST ALSO HAVE SUFFICIENT TORQUE TO PROVIDE THE CHARACTERISTICS REQUIRED FOR THE VALVE BODY TO MEET THE REQUIREMENTS SPECIFIED FOR THE INTENDED SERVICE. VALVE ACTUATORS SHALL BE DELTA, JOHNSON CONTROLS, INC., BELIMO, ABZ. ACTUATOR SHALL BE FULLY MODULATING, TWO POSITION OR SPRING RETURN AS REQUIRED FOR EACH APPLICATION. ACTUATOR SHALL FAIL - OPEN - CLOSED - OR LAST POSITION AS REQUIRED FOR EACH APPLICATION. ENCLOSURE AND COMPONENTS SHALL MEET ALL FIRE RATING AND SMOKE GENERATION REQUIREMENTS FOR LOCATION OF VALVE INCLUDING PLENUM APPLICATIONS. ENCLOSURE SHALL BE NEMA-3 RATED WHEN USED FOR EXTERIOR APPLICATIONS.
16. THE DAMPERS FOR THE OUTSIDE AIR SHALL BE FURNISHED BY THE AIR HANDLING UNIT SUPPLIER. THE DAMPER MOTOR AND LINKAGE SHALL BE FURNISHED AND INSTALLED BY DIVISION 23 09 00. THE DAMPER MOTOR SHALL HAVE A 120/24V TRANSFORMER.
17. CONTROL CONTRACTOR SHALL HAVE BEEN IN BUSINESS A MINIMUM OF THREE YEARS WITH A FULL TIME OFFICE AND STAFF LOCATED IN THE TUCSON AREA. CONTROL CONTRACTOR SHALL BE AN AUTHORIZED DISTRIBUTOR AND HAVE A FULL TIME LOCALLY BASED SERVICE STAFF THAT CAN RESPOND TO SERVICE CALLS WITHIN FOUR HOURS. LOCAL OFFICE SHALL HAVE AN INVENTORY OF SPARE PARTS FOR SUPPORT OF ALL SYSTEMS PROVIDED UNDER THIS CONTRACT.
18. CHECK AND VERIFY LOCATION OF ALL EQUIPMENT WITH PLANS BEFORE INSTALLATION. INTERLOCK EMCS ALARMS WITH STARTER SWITCHING TO BYPASS ALARM WHEN EQUIPMENT IS MANUALLY DISCONNECTED TO AVOID FALSE ALARMS. PROVIDE ENGINEERING, INSTALLATION, SUPERVISION, LABOR, CALIBRATIONS, SOFTWARE PROGRAMMING, AND COMMISSIONING NECESSARY FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM.
19. PROVIDE STARTUP OF SYSTEM AND PROGRAM USER SUPPLIED OPERATING HOURS AND HOLIDAY SCHEDULING.
20. A SYSTEM DEMONSTRATION PROCEDURE SHALL BE DEVELOPED, SUBMITTED TO ARCHITECT FOR APPROVAL, AND PERFORMED IN PRESENCE OF ARCHITECT'S REPRESENTATIVE FOR FINAL CHECKOUT OF SYSTEM. MINOR PROGRAM MODIFICATIONS REQUESTED BY THE OWNER AT THAT TIME SHALL BE MADE AT NO CHARGE TO THE OWNER.
21. ALL 24 VOLT AND LOWER CONTROL WIRING INCLUDING CONDUCTORS, CONTROL RELAYS, SWITCHES, SENSORS, TRANSFORMER INTERCONNECTIONS, ETC., FOR CONTROL FUNCTIONS SHALL BE PROVIDED AS PART OF SPECIFICATION. CONTROL WIRING FOR START/STOP SIGNALS TO MOTOR STARTERS AND CONTACTORS SHALL BE PROVIDED AS PART OF THIS SPECIFICATION.
22. EXTENSION OF POWER WIRING FROM TERMINAL STRIPS AND STARTERS WILL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
23. CONTROL SWITCHES AND COVER PLATES AS APPLICABLE SHALL UTILIZE SAME COLOR AND MATERIAL AS SPECIFIED IN THE ELECTRICAL CONSTRUCTION DOCUMENTS FOR ELECTRICAL WIRING DEVICES.
24. EMCS BUS WIRING SHALL BE WIRED USING SHIELDED CABLE APPROVED FOR RETURN AIR PLENUMS. USE 22-GAUGE FOR RUNS UP TO 250 FT. FOR RUNS FROM 250 FT. TO 500 FT. USE 18-GAUGE. EMCS BUS WIRING SHALL NOT BE RUN IN THE SAME CONDUIT AS LINE VOLTAGE WIRING (30 VAC OR ABOVE) OR WIRING THAT SWITCHES POWER TO HIGHLY INDUCTIVE LOADS (CONTACTORS, COILS, MOTORS, GENERATORS, ETC.)
25. PROVIDE COMPETENT INSTRUCTORS WHO WILL GIVE FULL INSTRUCTION TO DESIGNATED PERSONNEL IN THE ADJUSTMENT, OPERATION, AND MAINTENANCE OF THE EQUIPMENT AND SYSTEM SPECIFIED, INCLUDING PERTINENT SAFETY REQUIREMENTS. A MINIMUM OF FOUR (4) HOURS OF INSTRUCTION, IN TWO (2) TWO-HOUR SESSIONS SPACED A MINIMUM OF ONE WEEK APART, SHALL BE PROVIDED. A WRITTEN STATEMENT THAT TRAINING HAS BEEN COMPLETED, SIGNED BY THE OWNER'S DESIGNATED PERSONNEL, SHALL BE SUBMITTED WITH WARRANTY TO ARCHITECT.
26. THE CONTROL CONTRACTOR SHALL GUARANTEE WORK TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE. ANY MATERIAL OR EQUIPMENT FURNISHED THAT PROVES DEFECTIVE WITHIN THE PERIOD SHALL BE PROMPTLY REPAIRED OR REPLACED WITHOUT COST TO THE OWNER.
27. MAKE MINIMUM OF THREE COMPLETE INSPECTIONS OF APPROXIMATELY TWO HOURS DURATION, IN ADDITION TO NORMAL SERVICE CALLS TO ADJUST CONTROLS, WITH REPORTS WRITTEN AND SUBMITTED TO THE ARCHITECT/ENGINEER DURING FIRST YEAR. INSPECTIONS SHALL BE SPACED THREE MONTHS APART.

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Expires 12/31/2024

job
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date
10.22.24

revisions

Sosa-Carillo House
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mechanical control
specifications

m6.0

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CONTROL LEGEND

EMCS	-	ENERGY MONITORING & CONTROL SYSTEM	LLC	-	LOCAL LOOP CONTROL	O	-	ON/OFF INDICATION
DB	-	DRY BULB	OADB	-	OUTSIDE AIR DRY BULB	DP	-	DIFFERENTIAL PRESSURE SWITCH
CHW	-	CHILLED WATER	EI	-	EMCS INTERFACE	DPS	-	DIFFERENTIAL PRESSURE SENSOR
BW	-	BOILER HEATING HOT WATER	S	-	START / STOP INTERFACE	M	-	DAMPER OR VALVE ELECTRONIC ACTUATOR
HW	-	BUILDING HEATING HOT WATER	T	-	TEMPERATURE INDICATION	FM	-	AIR FLOW METER - EBTRON GOLD SERIES
VAV	-	CHILLED WATER	STR	-	MOTOR STARTER	F	-	FLOW METER
HV	-	HIGH VELOCITY	AFC	-	ADJUSTABLE FREQUENCY CONTROLLER	P	-	PRESSURE
RA	-	VARIABLE AIR VOLUME	PO	-	POSITION INDICATION AND ADJUSTMENT	C	-	CURRENT
LCI	-	LOCAL CONTROL INTERLOCK	A	-	ALARM	S	-	TEMPERATURE SENSOR

EMCS POINTS LIST

	HARDWARE				SOFTWARE		
	OUTPUT		INPUT		ALARMS		
	DIGITAL	ANALOG	DIGITAL	ANALOG	DGTL.	ANALOG	
	CONTROL RELAY POSITION ADJUSTMENT BACnet INTERFACE	CONTROL POINT ADJUSTMENT POSITION ADJUSTMENT BACnet INTERFACE	HIGH OR LOW PRESSURE DIFFERENTIAL PRESSURE SWITCH FLOW CURRENT SWITCH BACnet INTERFACE OCCUPANCY	TEMPERATURE I/F PSig, PSia, PSid POSITION BACnet INTERFACE	ALARM HIGH PRESSURE SWITCH HIGH LIMIT LOW LIMIT RUN TIME		REMARKS
AIR HANDLING UNIT							
SUPPLY FAN	⊜ ⊜	⊜ ⊜	⊜	⊜ ⊜	⊜	⊜	SEE NOTE #1
SUPPLY AIR			⊜		⊜	⊜ ⊜	
RETURN AIR			⊜			⊜ ⊜	SEE NOTE #2
MIXED AIR			⊜		⊜	⊜	
CHILLED WATER CONTROL VALVE	⊜		⊜	⊜	⊜	⊜ ⊜	
HEATING WATER CONTROL VALVE	⊜		⊜	⊜	⊜	⊜ ⊜	
FILTER			⊜		⊜	⊜	
SPACE			⊜		⊜	⊜ ⊜	
(E) EXHAUST FAN							FIELD VERIFY QTY
EXHAUST FAN	⊜			⊜			

NOTES:
1. ADJUSTABLE FREQUENCE DRIVE W/ BACNET INTERFACE.
2. (E) OR RELOCATED SMOKE DETECTORS IN SUPPLY AND RETURN DUCTWORK INTERLOCKED W/ AFD BY ELECTRICAL CONTRACTOR.

SEQUENCE OF OPERATIONS

SINGLE ZONE VARIABLE AIR VOLUME AIR HANDLING UNIT CONTROL:
THE SUPPLY FAN SHALL BE STARTED ON AN OPTIMIZED SCHEDULED BASIS AND OPERATE CONTINUOUSLY DURING ALL OCCUPIED HOURS. THE SUPPLY FANS SPEED SHALL BE ADJUSTED THROUGH THE VFD.

THE CHILLED WATER CONTROL VALVE SHALL BE MODULATED TO MAINTAIN SUPPLY AIR TEMPERATURE SET POINT. THE SUPPLY AIR TEMPERATURE SHALL BE RESET BASED ON THE SPACE TEMPERATURE SET POINT. THE SUPPLY AIR TEMPERATURE SHALL NEVER BE SET BELOW 52 DEGREES F AND SHALL BE RESET UP TO 95 DEGREES F TO MAINTAIN THE SPACE TEMPERATURE. IF THE SUPPLY AIR TEMPERATURE IS BETWEEN 65 AND 75 DEGREE F AND THE SPACE TEMPERATURE HAS BEEN SATISFIED FOR 15 MINUTES, THE SUPPLY FAN VFD SPEED SHALL BE ADJUSTED TO MAINTAIN SPACE TEMPERATURE SET POINT. IF THE SPACE TEMPERATURE SENSOR HAS NOT BEEN SATISFIED FOR 15 MINUTES AND THE SUPPLY FAN VFD IS AT MAXIMUM SPEED, THE CHILLED WATER CONTROL VALVE SHALL MODULATED TO RESET SUPPLY AIR TEMPERATURE SET POINT. IF THE SPACE TEMPERATURE SET POINT HAS NOT BEEN SATISIFED FOR 15 MINUTES AND THE SUPPLY FAN IS AT MINIMUM SPEED, AN ALARM SHALL BE SENT TO THE OPERATOR'S WORKSTATION.

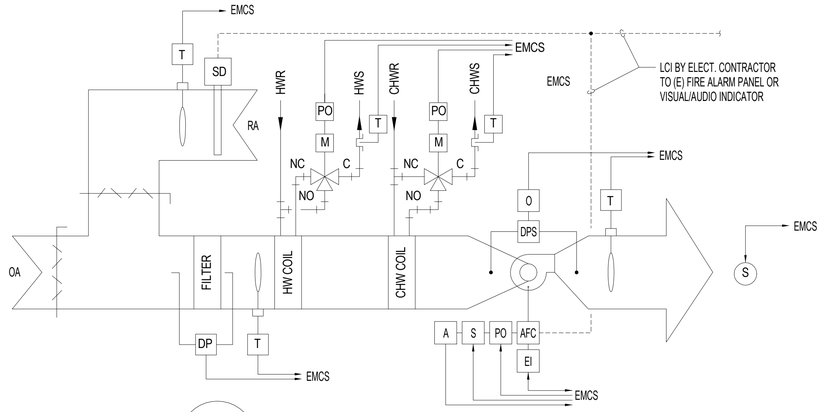
DUCT TEMPERATURES AND PRESSURES SHALL BE MONITORED AS SHOWN. A DP SENSOR SHALL BE PROVIDED ACROSS THE FILTER SECTION TO MONITOR FILTER STATUS. A DIFFERENTIAL PRESSURE SWITCH SHALL BE LOCATED ACROSS EACH SUPPLY FAN TO MONITOR ON/OFF STATUS. A DUCT SMOKE DETECTOR SHALL BE PROVIDED IN THE RETURN DUCT SECTION AND INTERLOCKED WITH THE SAFETY CIRCUIT WITH THE EXISTING DUCT SMOKE DETECTOR IN THE SUPPLY DUCT BY DIVISION 16 TO SHUT DOWN THE FANS ANYTIME SMOKE IS DETECTED.

OVERRIDES SHALL BE LOCATED AT EACH TEMPERATURE SENSOR. THE OVERRIDE BUTTONS AT EACH TEMPERATURE SENSOR SHALL ENABLE THE AHU SUPPLY FANS DURING UNOCCUPUIED HOURS FOR A MINIMUM OF 2 HOURS.

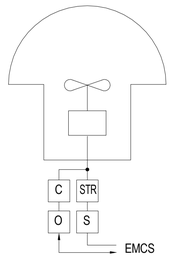
THE EMCS SHALL MONITOR THE SPACE TEMPERATURE SENSORS AND PROVIDE A NIGHT SETBACK FROM 85 TO 55 DEGREES F. IF ANY AREA DROPS BELOW 55 DEGREES F, THE EMCS SHALL ENABLE THE SUPPLY FANS, OPEN THE HEATING WATER CONTROL VALVE TO RAISE THE SPACE TEMPERATURE TO 65 DEGREES F. IF ANY AREA RISES ABOVE 85 DEGREES F, THE AHU SUPPLY FAN SHALL BE ENABLED AND THE CHILLED WATER CONTROL VALVE SHALL BE MODULATED TO DROP THE SPACE TEMPERATURE TO 80 DEGREES F. THE EMCS SHALL DISABLE THE SUPPLY FAN AND HEATING/COOLING FUNCTIONS UNTIL NORMAL SYSTEM START UP OR A SPACE TEMPERATURE LEAVES THE NIGHT SETBACK RANGE. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED DURING ALL NIGHT SET BACK SEQUENCES.

EXHAUST FAN CONTROL:
THE EXHAUST FAN SHALL BE ENABLED AND RUN CONTINUOUSLY DURING OCCUPIED HOURS. A DIFFERENTIAL PRESSURE SWITCH SHALL BE LOCATED ACROSS THE EXHAUST FAN TO MONITOR ON/OFF STATUS.

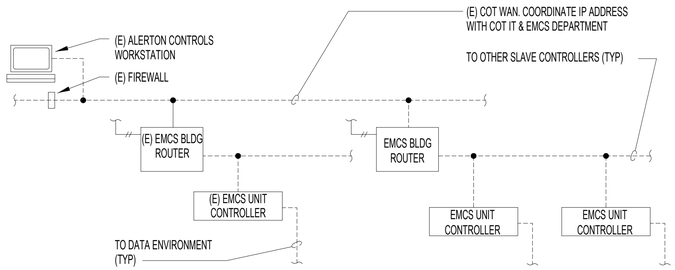
GENERAL:
SUBMIT ALL ALARM TEMPERATURES FOR APPROVAL. ALL ALARM AND CONTROL SET POINTS SHALL BE USER ADJUSTABLE.



1 / m6.1 typ. air handling unit control schematic
N.T.S.



2 / m6.1 typ. exhaust fan control schematic
N.T.S.



3 / m6.1 emcs system architecture
N.T.S.

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revisions

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m6.1

PLUMBING SPECIFICATIONS:

PART I - GENERAL :

1.01 ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL CODES, LAWS, RULES AND REGULATIONS OF ALL NATIONAL, COUNTY, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PREMISES. IN CASE OF DIFFERENCES, MOST STRINGENT SHALL GOVERN.

1.02 PLUMBING DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE LOCATION OF FIXTURES, EQUIPMENT AND PIPING. DIMENSIONS GIVEN IN FIGURES ON THE PLANS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS, AND ALL DIMENSIONS, WHETHER GIVEN IN FIGURES OR SCALED, SHALL BE FIELD VERIFIED.

1.03 BEFORE SUBMITTING A BID CAREFULLY STUDY THE CONSTRUCTION DOCUMENTS. CAREFULLY EXAMINE THE PREMISES AND ANY EXISTING WORK. DETERMINE, IN ADVANCE, THE METHODS OF INSTALLING AND CONNECTING THE APPARATUS, THE MEANS TO BE PROVIDED FOR GETTING THE EQUIPMENT INTO PLACE, AND BECOME THOROUGHLY FAMILIAR WITH ALL OF THE REQUIREMENTS OF THE CONTRACT.

1.04 FIELD VERIFY ALL EXISTING CONDITIONS AND INVERTS TO ENSURE PROPER SLOPE MAY BE OBTAINED BEFORE BEGINNING WORK.

1.05 MAKE ARRANGEMENTS FOR INSPECTIONS REQUIRED FOR PLUMBING WORK. PERFORM REQUIRED TESTS AND SECURE REQUIRED INSPECTIONS PRIOR TO BACKFILLING.

1.06 FURNISH ANY MISCELLANEOUS ITEMS NORMALLY USED, SPECIFICALLY MENTIONED OR NOT, TO RENDER A COMPLETE INSTALLATION.

1.07 ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

1.08 SUBMIT ONE COPY OF SHOP DRAWINGS OR LITERATURE IN PORTABLE DOCUMENT FORMAT (PDF) ON THE FOLLOWING ITEMS: PLUMBING FIXTURES, VALVES AND INSULATION.

PART II-PRODUCTS:

2.01 THE FOLLOWING IS A LIST OF EQUIPMENT APPROVED FOR USE ON THIS PROJECT. CONFIRM THAT SUCH EQUIPMENT HAS EQUIVALENT CAPACITY, THE SAME ELECTRICAL CHARACTERISTICS, AND SUBSTANTIALLY THE SAME PHYSICAL DIMENSIONS AS THE EQUIPMENT SPECIFIED. VERIFY THAT IT CAN BE INSTALLED IN THE SPACE AVAILABLE AND STILL PROVIDE AMPLE WORKING CLEARANCES.

a. LAVATORIES, WATER CLOSETS, URINALS:
ELJER, AMERICAN STANDARD, KOHLER, CRANE
b. THERMOSTATIC MIXING VALVES:
SYMMONS, POWERS, LEONARD, LAWLER
c. SINK:
ELJER, KOHLER, AMERICAN STANDARD, CRANE, JUST, ELKAY, DESIGNERS' CHOICE
d. MOP BASIN:
FIAT, FLORESTONE, KOHLER, ELJER, AMERICAN STANDARD, CRANE, OBERON, STERN WILLIAMS
e. ELECTRIC WATER COOLER :
HAWS, HALSEY TAYLOR, OASIS, SUNROC, ELKAY
f. FLOOR DRAIN, SANITARY FLOOR DRAIN, WALL CARRIERS:
JOSAM, J.R. SMITH, ANCON, ROCKFORD, ZURN
g. WATER HEATERS:
RUUD, RHEEM, LOCHINVAR, A.O. SMITH, HEAT TRANSFER PRODUCTS, STATE, BRADFORD WHITE
h. FAUCET & FITTINGS:
SYMMONS, DELTA, CHICAGO, T & S, MCGUIRE, ROYAL BRASS, POWERS, BRADLEY, KOHLER
i. FLUSH VALVES:
ZURN, SLOAN
j. PUMPS:
GRUNDFOS, PACO, BELL & GOSSET, AMTROL, TACO
k. VALVES:
NIBCO, MILWAUKEE, HAMMOND, STOCKHAM, WATTS, GUSTIN-BACON
l. EXPANSION TANKS:
AMTROL, WATTS

2.02 WASTE, VENT, AND DRAIN PIPING:
PVC SCHEDULE 40 PLASTIC PIPE (ASTM D2665). ANY PIPING EXPOSED IN FIRE WALLS OR EXPOSED IN A RETURN AIR PLENUM SHALL BE CAST IRON OR COPPER.

2.03 JOINTS IN WASTE, VENT AND DRAIN PIPING
JOINTS IN PLASTIC PIPE SHALL BE WITH SOLVENT AND CEMENT PER MANUFACTURER'S RECOMMENDATIONS.

2.04 VENTS:
ALL VENTS THROUGH ROOF TO BE FLASHED BY THE PLUMBING CONTRACTOR AND SEALED BY THE ROOFING CONTRACTOR. COORDINATE ROOF PENETRATION DETAIL WITH ARCHITECTURAL SHEETS.

2.05 DOMESTIC WATER PIPING
TYPE L HARD DRAWN COPPER.

2.06 JOINTS IN COPPER WATER PIPING ABOVE GRADE:
SOLDERED WITH ENGELHARD "SILVABRITE 100" 100% LEAD FREE SOLDER, OR OTHER NON-LEAD SOLDER, MINIMUM 4,000 PSI TENSILE STRENGTH USING NOKORODE SOLDER PASTE APPLIED WITH A BRUSH TO BOTH THE PIPE AND THE INSIDE OF THE FITTING SOCKET. NO ACID CORE SOLDER NOR FLUX CONTAINING ACID SHALL BE USED. PIPE SHALL BE CUT SQUARE AND REAMED. THE PARTS OF THE PIPE AND FITTINGS TO BE SOLDERED SHALL BE THOROUGHLY CLEANED WITH SAND CLOTH BEFORE APPLYING FLUX.

2.07 GAS PIPING:
SCHEDULE 40 BLACK STEEL PIPE (ASTM A53). ANY GAS PIPING BELOW GRADE TO HAVE CONTINUOUS COATING OF SCOTCH COAT # 202 (OR EQUIVALENT). JOINTS IN GAS PIPING 2-1/2" AND LARGER SHALL BE WELDED. SMALLER PIPING MAY BE SCREWED.

2.08 INSULATION:
COLD WATER PIPING IN AREAS WHERE PIPE MIGHT BE SUBJECT TO FREEZING, SHALL BE INSULATED WITH 1/2"THICK INSULATION ON 1/2" PIPING AND 1" THICK INSULATION ON PIPING 3/4" AND LARGER. ALL HOT WATER SUPPLY AND RETURN PIPING ABOVE GRADE AND THE FIRST EIGHT FEET OF THE COLD WATER PIPING SUPPLYING THE WATER HEATER SHALL BE INSULATED WITH 1" THICK INSULATION. INSULATION SHALL BE FIBERGLASS WITH ALL SERVICE JACKET EQUIVALENT TO SCHULLER MICRO-LOK. ALL INSULATION JOINTS SHALL BE NEATLY SEALED WITH TAPE AND LAGGING ADHESIVE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. COLD WATER PIPING EXPOSED ON ROOF SHALL BE INSULATED WITH 1/2" ARMAFLEX AND COATED WITH TWO COATS OF ARMAFLEX COATING. PROVIDE ALUMINUM JACKETING, 0.016 INCH (0.045 MM) THICK SHEET, EMBOSSED FINISH, WITH LONGITUDINAL SLIP JOINTS AND 2 INCH (50 MM) LAPS, DIE SHAPED FITTING COVERS WITH FACTORY ATTACHED PROTECTIVE LINER FOR ALL EXPOSED PIPING.

PART III-EXECUTION:

3.01 ALL TRENCHES SHALL BE DUG TO 6" BELOW REQUIRED DEPTH, AND SHALL BE REFILLED TO PROPER DEPTH WITH SAND. SAND IN BOTTOM OF TRENCH SHALL BE GRADED TO PROVIDE UNIFORM PIPE BEARING AND SUPPORT. TRENCH SHALL BE REFILLED WITH SAND TO 6" ABOVE PIPING BEFORE COMPACTING THE REMAINDER OF BACKFILL (AS REQUIRED).

3.02 ALL OVERHEAD PIPING TO BE SUSPENDED FROM STRUCTURE ABOVE WITH PIPE HANGERS. PROVIDE SWAY BRACING ON ALL OVERHEAD WATER PIPING AS REQUIRED. PROVIDE HOLD DOWN CLAMPS OF SAME MATERIAL AS PIPE. ANY DISSIMILAR METALS SHALL BE SEPARATED WITH 10 MIL. TAPE OR CUSH-A-CLAMP PIPE CLAMPS.

3.03 COMBUSTION AND RELIEF AIR OPENINGS, FLUE PIPING FOR GAS FIRED EQUIPMENT, AND A/C CONDENSATE PIPING SHALL BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR.

3.04 WELDING OF GAS PIPE SHALL CONFORM TO THE REQUIREMENTS OF THE A.S.M.E. BOILER AND PRESSURE VESSELS CODE, SECTION IX AND EACH WELDER SHALL DEMONSTRATE HIS PROFICIENCY BY SUPPLYING A VALID CERTIFICATE OF COMPETENCY FROM A RECOGNIZED TESTING LABORATORY TO THE ARCHITECT. WELDING RODS SHALL BE OF A GRADE RECOMMENDED BY THE MANUFACTURER FOR PIPING TO BE JOINED AND EACH ROD SHALL BE STAMPED WITH THE MANUFACTURER'S NAME ON THE ROD IDENTIFICATION.

3.05 PROVIDE GAS COCK, MINIMUM 4" DIRT LEG, AND UNION AT EACH GAS APPLIANCE.

3.06 A DIELECTRIC UNION SHALL BE USED TO JOIN ANY DISSIMILAR MATERIALS.

3.07 WRAP ALL PIPING IN BLOCK WALLS OR PENETRATING CONCRETE WITH 10 MIL. POLYVINYL TAPE.

3.08 PROVIDE 1/4-TURN BALL SHUT-OFF VALVES (NO GATE VALVES) TO ISOLATE ALL EQUIPMENT AND ANGLE STOPS WITH CAST BRASS STEM AND NUTS TO ISOLATE ALL FIXTURES. VALVES SHALL BE OF THE SAME MANUFACTURER AND OF APPROVED MAKE.

3.09 PROVIDE ACCESS PANELS FOR ANY VALVES OR SIMILAR EQUIPMENT REQUIRING ACCESS LOCATED ABOVE SOLID CEILINGS OR IN WALLS.

3.10 PROVIDE AN ALL STAINLESS STEEL CONSTRUCTION, BELLOWS ASSEMBLY TYPE, WATER HAMMER ARRESTOR ON ALL COLD AND HOT WATER LINES SERVING FIXTURES USING FLUSH VALVES, SOLENOID VALVES OR QUICK CLOSING DEVICES, SIZED IN ACCORDANCE WITH P.D.I. STANDARD WH-201 FOR THE TOTAL NUMBER OF FIXTURES SERVED. PROVIDE ACCESS PANEL AS REQUIRED.

3.11 ALL SOIL, WASTE, VENT, DRAINAGE, RAINWATER, GAS AND WATER PIPING SHALL BE TESTED PER I.P.C. BEFORE BEING CONCEALED IN ANY WAY. ALL JOINTS SHALL BE MADE DRIPTIGHT BEFORE BEING CONCEALED. DOMESTIC WATER PIPING SHALL BE TESTED AT 1 1/2 TIMES OPERATING PRESSURE OR 100 PSIG, WHICHEVER IS GREATER FOR AT LEAST 15 MINUTES. GAS PIPING SHALL BE TESTED AT 10 PSIG FOR LOW PRESSURE GAS PIPE WITH THREADED AND SCREWED CONNECTIONS AND 60 PSIG FOR WELDED PIPING AND MEDIUM PRESSURE GAS PIPE (14 INCHES WATER COLUMN OR HIGHER). TEST ON BUILDING DRAIN PIPING SHALL BE MADE WITH HYDROSTATIC PRESSURE TO MINIMUM 10'-0" HEAD.

3.12 FURNISH THREE SETS OF OPERATION MAINTENANCE AND WARRANTY LITERATURE IN A THREE-RING BINDER.

3.13 MAKE NOTE OF ANY CHANGES MADE IN LAYOUT AND INCORPORATE IN "RECORD" DRAWINGS SUBMITTED TO ARCHITECT AT COMPLETION OF PROJECT. RECORD INVERTS OF PIPING AT START OF PIPING AND WHERE IT EXITS THE BUILDING.

3.14 GUARANTEE ALL PARTS AND LABOR FOR TWO YEARS FROM DATE OF FINAL ACCEPTANCE.

PLUMBING GENERAL NOTES

1. COORDINATE ALL OVERHEAD PIPING WITH HVAC DUCTWORK AND WORK OF OTHER TRADES.
2. OFFSET ALL NEW AND/OR EXISTING V.T.R.'S TO TERMINATE A MIN. OF 3'-0" FROM ALL VERTICAL SURFACES AND A MIN. OF 10'-0" FROM, OR AT LEAST 3'-0" ABOVE ALL OUTSIDE AIR INTAKES.
3. PLUMBER TO VERIFY EXACT SIZE AND LOCATION OF ALL EXISTING PIPING AND TO VERIFY INVERTS TO ASSURE PROPER SLOPE MAY BE OBTAINED BEFORE BEGINNING WORK.
4. RUN ALL WASTE LINES 3" IN DIAMETER OR GREATER AT A SLOPE OF 1/8"/1'-0". OTHERWISE, RUN ALL WASTE LINES AT 1/4"/1'-0".
5. SAWCUT EXISTING CONCRETE SLAB AS REQUIRED FOR INSTALLATION AND CONNECTION OF U.G. PIPING TO EXISTING U.G. PIPING. BACKFILL AND PATCH CONCRETE SLAB TO MATCH EXISTING.
6. PROVIDE GASCOCK, UNION, AND A MINIMUM 4" DIRTLEG AT EACH GAS APPLIANCE CONNECTION. INSTALL READILY ACCESSIBLE AND AS CLOSE AS POSSIBLE TO INLET.
7. EXTEND P-T RELIEF (FULL SIZE) ON WALL FROM WH-1 TO P-6. TERMINATE WITH MINIMUM 1" AIR GAP.
8. CONTRACTOR TO FIELD VERIFY EXISTING ROUGH-IN DIMENSIONS, WHERE EXISTING FIXTURES ARE TO BE REPLACED, PROVIDE NEW ROUGH-INS AS REQUIRED.
9. COORDINATE AND/OR REFER TO ARCHITECTURAL DOCUMENTS FOR ALL DEMOLITION WORK TO BE DONE. CAP, AND/OR REMOVE ALL LINES NOT BEING RE-USED, BELOW FLOOR OR ABOVE CEILING, AS REQUIRED. NO DEAD ENDS ARE ALLOWED.
10. THIS PROJECT SHALL BE IN CODE COMPLIANCE WITH THE 2018 IBC, THE 2018 IECC, THE 2018 IPC AND THE 2018 IFGC WITH ALL LOCAL CODE AMENDMENTS.

WATER CALCULATION

TOTAL FIXTURE UNITS = 19.5 = 14 GPM

WATER PIPE SIZE CRITERIA

15.0 = PRESS. REQUIRED AT FURTHEST FIXTURE
3.97 = PRESS. LOSS/100 FT. OF PIPE IS 7.0 FT. AT A VEL. OF 5 FT/SEC.
4.3 = PRESS. REQUIRED FOR ELEVATION LOSS (0.43 x 10' = 4.3)
14.0 = PRESS. REQUIRED FOR 1" BACKFLOW PREVENTION DEVICE
0.5 = PRESS. REQUIRED THRU 1" WATER METER
37.77 PSI = MINIMUM PRESSURE REQUIRED

DEVELOPED PIPE LENGTH FROM METER TO FURTHEST FIXTURE.
105 FT. (1.25) = 132 FT.
7.0 FT. (.43) = 3.01 PSI/100 FT. OF PIPE
3.01 PSI / 100 FEET (132 FT.) = 3.97 PSI.

NOTES:

1. PIPE SIZE (INSIDE BLDG.) BASED UPON A MAXIMUM VELOCITY OF 5 FT./SECOND
2. PLUMBING CONTRACTOR SHALL FIELD VERIFY AVAILABLE WATER PRESSURE TO PROJECT PRIOR TO THE START CONSTRUCTION. IF THE AVAILABLE WATER PRESSURE IS BELOW 38 PSI, NOTIFY THE OWNER/ARCHITECT IN WRITING.
3. IF AVAILABLE WATER PRESSURE EXCEEDS 80 PSI, CONTRACTOR SHALL PROVIDE A PRESSURE REDUCING VALVE WITH ALL BRONZE STRAINER, SET AT 70 PSI. INSTALL WHERE WATER SERVICE PIPE ENTERS THE BUILDING.
4. AN ALTERNATE ENGINEERING METHOD (UPC '06) WAS USED TO SIZE THE DOMESTIC WATER PIPE. AS PER IPC '12, SEC. 105.2, 604.1 & E103.2.1.

EXISTING CONDITIONS NOTE

1. EVERY EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION REGARDING EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS ABOVE THE CEILING PRIOR TO BIDDING THE PROJECT. ANY CONFLICTS DISCOVERED BY PLUMBING CONTRACTOR DURING THE PRE-BID PROCESS WHICH MAY EFFECT THE SCOPE OR COST SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER PRIOR TO PROVIDING A BID. THE SUBMISSION OF A BID SHALL INDICATE PLUMBING CONTRACTOR COMPLETELY UNDERSTANDS THESE CONTRACT DOCUMENTS AND THE EXISTING CONDITIONS.
2. THE NEW SYSTEMS INDICATED ON THE DRAWINGS SHALL BE FULLY FURNISHED AND INSTALLED. ANY ITEMS INCIDENTAL TO THE COMPLETION OF THESE CONTRACT DOCUMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
3. PLUMBING CONTRACTOR SHALL COORDINATE ALL PATCHING AND REPAIRING WORK WITH THE GENERAL CONTRACTOR AND ARCHITECT.
4. BEFORE BEGINNING WORK, PLUMBING CONTRACTOR SHALL VERIFY THAT THE WASTE PIPING BEING INSTALLED UNDER THIS SCOPE CAN CONNECT TO THE EXISTING WASTE PIPE INVERT. CONTRACTOR SHALL CONTACT THE ARCHITECT AND ENGINEER IMMEDIATELY IF THE EXISTING WASTE PIPE INVERT CANNOT BE MET.
5. EXISTING "AS-BUILT" DOCUMENTS ARE NOT AVAILABLE AND SOME UNDERGROUND WASTE LINE LOCATIONS SHOWN ARE BASED ON ASSUMPTIONS ONLY. AS A SUGGESTION, OWNER SHOULD ARRANGE FOR THE CONTRACTOR TO IDENTIFY ALL EXISTING UNDERGROUND WASTE LINES TO VERIFY EXACT INVERTS, LOCATIONS AND ROUTINGS PRIOR TO BEGINNING INSTALLATION.

PLUMBING LEGEND

SYMBOL	ABBREVIATION	ITEM
	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RETURN
	W	WASTE PIPING
	GCO	GROUND CLEANOUT
	WCO	WALL CLEANOUT
	VTR	VENT THRU ROOF
	V	VENT PIPING
	SOV	SHUT-OFF VALVE (|-TURN BALL VALVE)
	HB	HOSE BIBB
	AP	ACCESS PANEL
(E)	POC EXIST.	POINT OF CONNECTION TO EXISTING EXISTING
	UG.	UNDERGROUND
	OH.	OVERHEAD
	DN	DOWN
	ABV.	ABOVE
	BLW.	BELOW
	CONN.	CONNECT
	CLG.	CEILING

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Expires 12/31/2024

job
1503.08

date
10.22.24

revisions

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plumbing general information

p0.0

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1 pd1.0 plumbing demo floor plan - waste
3/16" = 1'-0"

north

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plumbing demo floor
plan - waste

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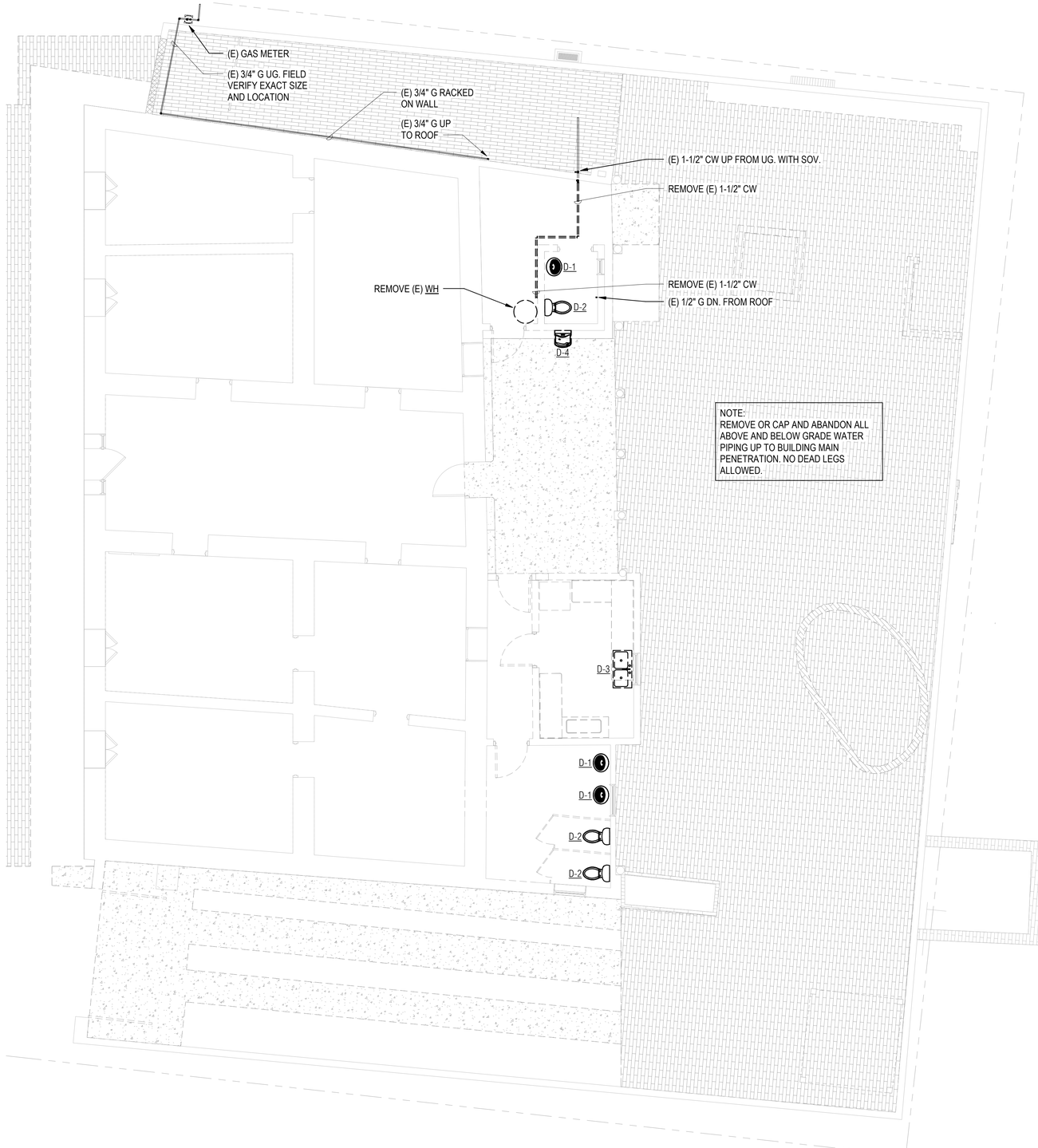

1 / pd1.1 plumbing demo floor plan - water

3/16" = 1'-0"

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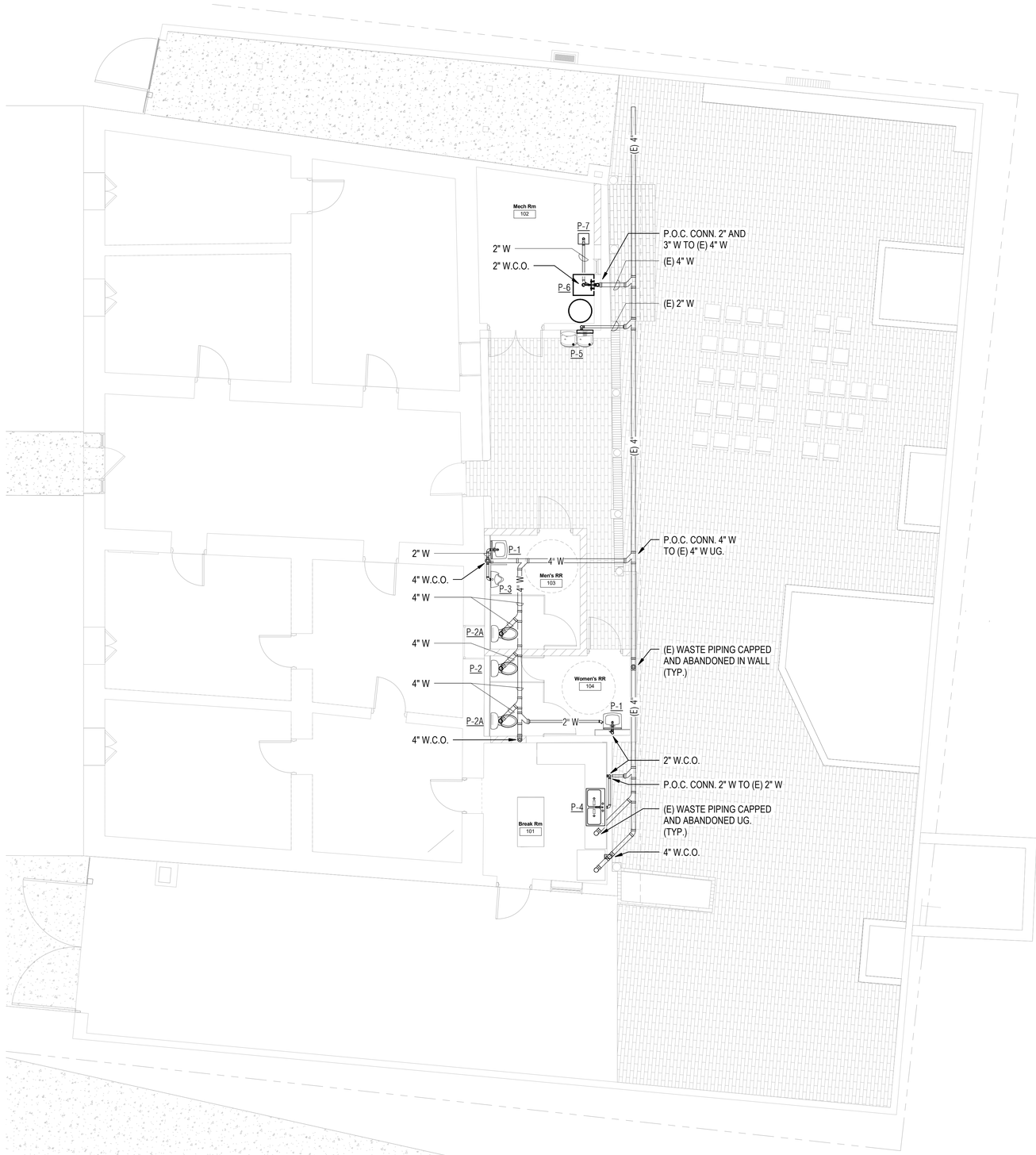

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plumbing floor plan - waste
3/16" = 1'-0"

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waste

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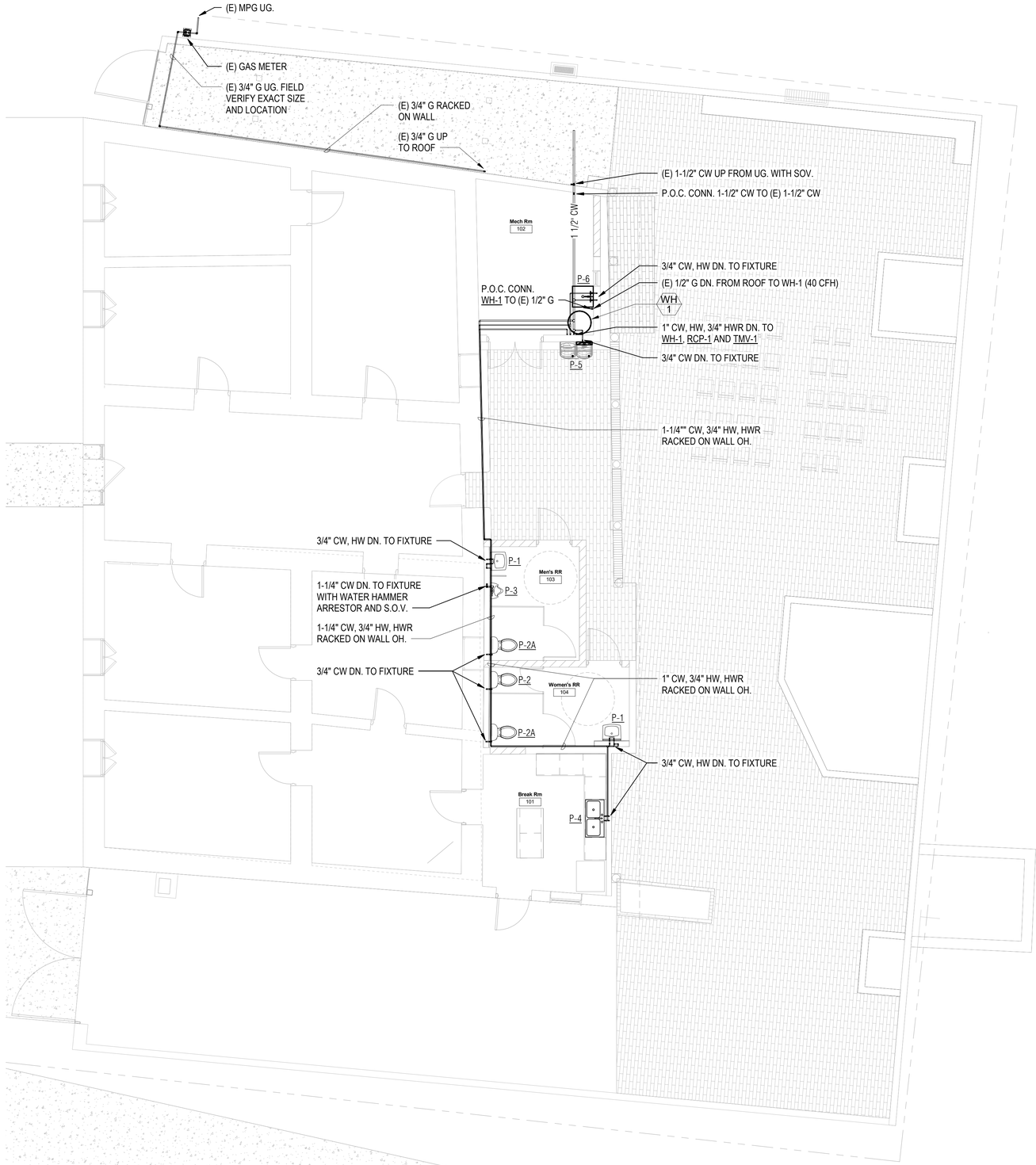

1 p1.1 plumbing floor plan - water

3/16" = 1'-0"

north

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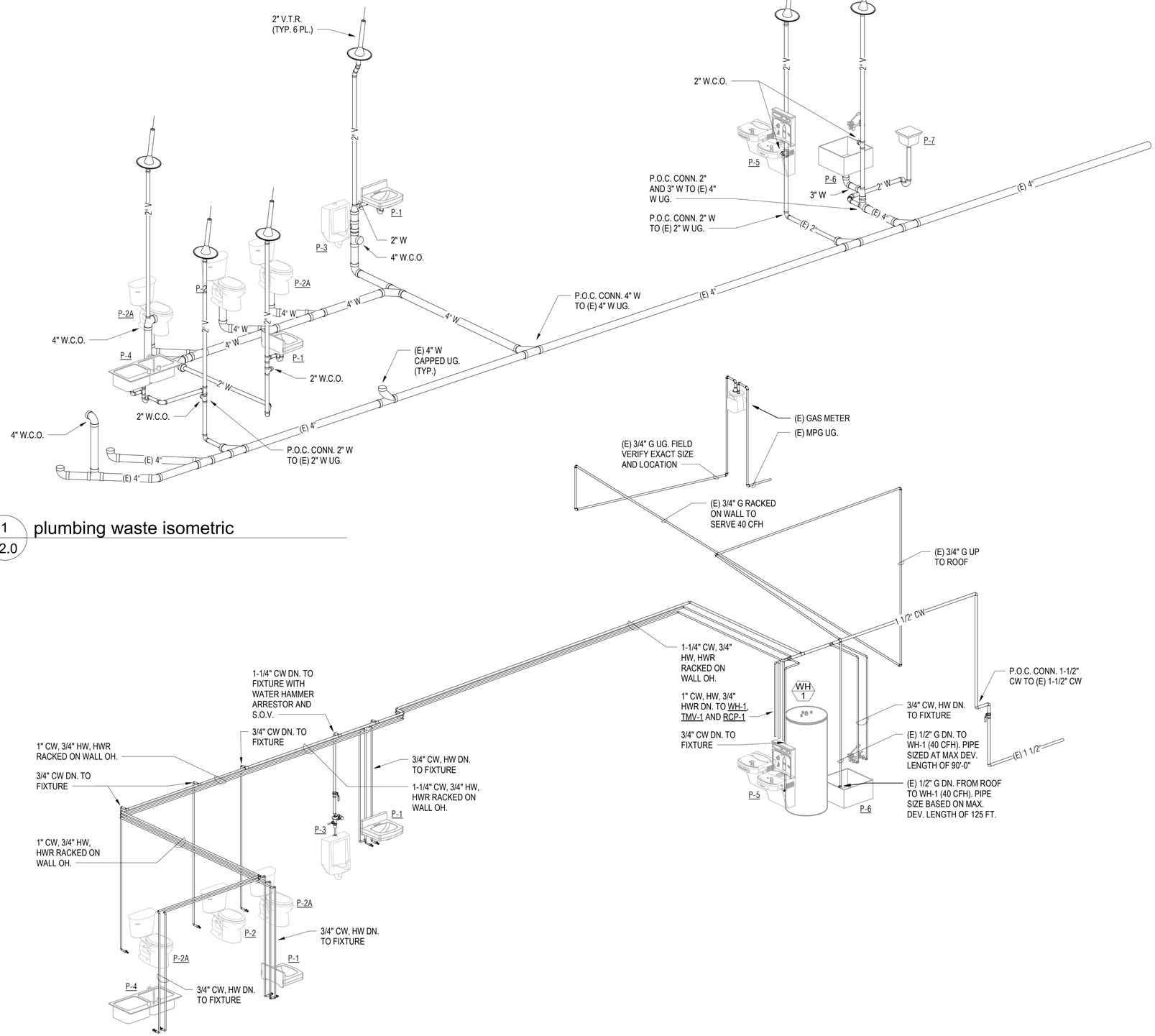

1 p2.0 plumbing waste isometric

2 p2.0 plumbing water isometric

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plumbing isometrics

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p2.0

PLUMBING FIXTURE SPECIFICATIONS

P-1:
LAVATORY (WALL MOUNTED - ACCESSIBLE):
KOHLER ''GREENWICH'' MODEL #K-2032 WALL MOUNTED AT ADA COMPLIANT HEIGHT, VITREOUS CHINA LAVATORY WITH 4'' FAUCET CENTERS, 20'' X 18''. COMPLETE WITH GRID STRAINER DRAIN ASSEMBLY AND OFFSET TAILPIECE.
CARRIER:
WADE MODEL #W-520-08 FLOOR MOUNTED SINGLE LAVATORY CARRIER WITH CONCEALED ARMS, STRUCTURAL STEEL UPRIGHTS, BASE FEET, AND NON-SLIP LOCKING DEVICES.
FAUCET AND DRAIN:
SYMMONS "SCOT" MODEL SLC-6000-OFG ADA COMPLIANT METERING/TEMPERATURE SELECTION FAUCET, 4" CENTERSET, TEMPERATURE LIMIT STOP, TIME LIMIT STOP (MAXIMUM 30 SECONDS), ROSE SPRAY OUTLET WITH 0.5 GPM FLOW RATE, VANDAL PROOF, AND LEAD FREE PER NSF/ANSI 372. COMPLETE WITH GRID STRAINER DRAIN ASSEMBLY AND OFFSET DRAIN TAILPIECE.
TRAP:
MCGUIRE MODEL #8902-CNC CHROME PLATED HEAVY CAST BRASS GROUND JOINT P-TRAP WITH 17 GAUGE TUBULAR BRASS WALL BEND, CAST BRASS CHROME PLATED WALL FLANGE WITH SETSCREW, CLEANOUT PLUG, AND CHROME PLATED BRASS NUTS. 1-1/4" x 1-1/2".
SUPPLIES:
MCGUIRE MODEL #H2165-LK-R15 HEAVY FLEXIBLE SUPPLIES. COMPLETE WITH CHROME PLATED 1/2" I.P.S. X 3/8" OD ANGLE STOPS WITH LOOSE KEY HANDLES AND BRASS STEMS. PROVIDE 15" OPTIONAL RISER, CHROME PLATED BRASS NUTS AND INSULATE HOT WATER, COLD WATER AND WASTE PIPING BELOW LAVATORY WITH TRUEBRO #103-K INSULATION KIT. PROVIDE WATTS MODEL #LFUSG-B, LEAD FREE BRONZE BODY, THERMOSTATIC MIXING VALVE (OR EQUIVALENT) WITH INTEGRAL CHECK VALVES IN WATER INLETS AND ADJUSTMENT CAP WITH LOCKING FEATURE, SET AT MAX 110° F. INSTALL VALVE IN HOT WATER SUPPLY, PER MANUFACTURERS RECOMMENDATION, TO CONTROL THE TEMPERATURE TO THE FIXTURE.

P-2:
WATER CLOSET (FLOOR MOUNTED, TANK):
KOHLER ''KINGSTON'' MODEL #K-25087, 1.28 GALLON PER FLUSH TWO-PIECE, FLOOR MOUNT, ELONGATED VITREOUS CHINA WATER CLOSET, COMPLETE WITH BOLT CAPS, TANK COVER, AND TRIP LEVER. 12'' ROUGH-IN.
SEAT:
CHURCH MODEL #9500SSCT WHITE HEAVY DUTY, SOLID HIGH IMPACT PLASTIC, NEVER LOOSENS (STA-TITE) ELONGATED OPEN FRONT SEAT LESS COVER COMPLETE WITH 300 SERIES STAINLESS STEEL POSTS AND PINTLES AND SELF-SUSTAINING CHECK HINGES.
TRAP AND SUPPLIES:
MCGUIRE MODEL #LFH2169-LK CLOSET SUPPLY KIT. COMPLETE WITH 1/2'' I.P.S. X 1/2'' OD HEAVY PATTERN CHROME PLATED BRASS ANGLE STOP WITH LOOSE KEY HANDLE, FULL TURN BRASS STEM, AND 12'' CHROME PLATED RISER.

P-2A:
WATER CLOSET (FLOOR MOUNTED, TANK - ACCESSIBLE):
KOHLER ''KINGSTON COMFORT HEIGHT'' MODEL #K-25077, ADA COMPLIANT, 1.28 GALLON PER FLUSH SIPHON JET, 16-1/2'' HIGH, TWO-PIECE, FLOOR MOUNT, ELONGATED VITREOUS CHINA WATER CLOSET, COMPLETE WITH BOLT CAPS, TANK COVER, AND TRIP LEVER. 12'' ROUGH-IN. ORDER WITH TRIP LEVER LOCATED ON THE OPEN SIDE OF THE TOILET FOR ADA COMPLIANCE.
SEAT:
SAME AS P-2.
TRAP AND SUPPLIES:
SAME AS P-2.

P-3:
URINAL:
KOHLER ''BARDON'' MODEL #K-4991-ET, 0.25 TO 1.0 GALLON PER FLUSH WASHOUT URINAL WITH 3/4'' TOP SPUD, 2'' N.P.S. OUTLET CONNECTION, WALL HANGERS, AND REMOVABLE BEEHIVE STRAINER.
CARRIER:
WADE MODEL #402-AM1-M36 FLOOR MOUNTED PLATE TYPE URINAL CARRIER WITH RECTANGULAR UPRIGHTS, UPPER & LOWER BEARING PLATES, RECTANGULAR BASE FEET, AND FLUSH VALVE SUPPORT.
FLUSH VALVE:
SLOAN ROYAL MODEL #186-0.5 EXPOSED FLUSH VALVE, CHROME PLATED, WITH METAL OSCILLATING NON-HOLD-OPEN ADA COMPLIANT HANDLE, DUAL FILTERED BYPASS, SWEAT SOLDER ADAPTER WITH CAST SET SCREW WALL FLANGE, 3/4'' I.P.S. SCREW DRIVE BAK-CHEK ANGLE STOP WITH FREE SPINNING VANDAL RESISTANT STOP CAP, ADJUSTABLE TAILPIECE, HIGH BACK PRESSURE VACUUM BREAKER FLUSH CONNECTION AND SPUD COUPLING FOR 3/4'' TOP SPUD, WITH WALL AND SPUD FLANGES. 0.5 GALLON PER FLUSH.

P-4:
BREAKROOM SINK (DUAL COMPARTMENT):
ELKAY "LUSTERTONE" MODEL #LRAD372265, 18 GAUGE 304 STAINLESS STEEL ADA COMPLAINT SINK, DUAL 16" X 16" X 6-3/8" COMPARTMENTS, 37" X 22" X 6-1/2" DEEP, THREE HOLES, FULL UNDERCOATING. PROVIDE #LK99 HEAVY GAUGE STAINLESS STEEL BASKET STRAINER WITH 1-1/2" CHROMES PLATED BRASS TAILPIECE, TWO REQUIRED.
FAUCET:
DELTA MODEL #27C2934 FAUCET WITH GOOSENECK SPOUT, 4" INDEXED WRIST BLADE HANDLE AT 8" CENTERS, AND 1.5 GPM AERATOR.
TRAP & SUPPLIES:
SAME AS P-1, EXCEPT 1-1/2"X1-1/2" TRAP.

P-5:
ELECTRIC DRINKING FOUNTAIN (HI/LO):
ELKAY MODEL #LZSTL8WSLK STAINLESS STEEL FINISHED WHEELCHAIR ACCESSIBLE TWO-LEVEL UNIT WITH ONE PIECE BASINS, NON-PRESSURIZED COOLING TANK, CHROME PLATED 3/4" LEAD-FREE BRASS BUBBLER WITH VANDAL RESISTANT MOUNTING. PLASTIC BUBBLER WITH FLEXIBLE MOUTH GUARD, FRONT SELF-CLOSING PRESS BARS AND ELECTRONIC BOTTLE FILLER SENSOR. HFC-134A REFRIGERANT, 8.0 GPH, 6.0 FLA, 115/1/60.

P-6:
MOP BASIN:
FIAT #MSB2424, MOLDED STONE MOP SERVICE BASIN, 24" X 24" X 10" COMPLETE WITH VINYL BUMPERGUARD (E77-AA), STAINLESS STEEL DRAIN WITH COMBINATION DOME STRAINER AND LINT BASKET AND STAINLESS STEEL WALL GUARD PANELS. 3" OUTLET.
FAUCET:
FIAT, #830AA WALL MOUNTED CHROME PLATED SERVICE FAUCET, COMPLETE WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT.
HOSE AND BRACKET:
FIAT, #832AA HOSE AND BRACKET, COMPLETE WITH 30" LONG FLEXIBLE HEAVY DUTY 5/8" RUBBER HOSE WITH 3/4" BRASS COUPLING AT ONE END, AND 5" X 3", 18 GAUGE #304 STAINLESS STEEL BRACKET WITH RUBBER GRIPS.
MOP HANGER:
FIAT, #889CC, 24" X 3" 18 GAUGE SS WITH THREE (3) RUBBER TOOL GRIPS.

P-7:
SANITARY FLOOR DRAIN:
WATTS, MODEL #FS-740-2, 12" x 12" x 8" CAST IRON SANITARY FLOOR DRAIN WITH PORCELAIN ENAMEL COATED INTERIOR, ALUMINUM DOME STRAINER AND NICKEL BRONZE TOP, 2"OUTLET. PROVIDE DEEP SEAL TRAP AND "SURESEAL" MODEL #SS2009, IAPMO LISTED, IN-LINE, FLOOR DRAIN TRAP SEALER.

WH-1:
WATER HEATER (GAS):
BRADFORD WHITE MODEL #RG2PDV40S6N GAS-FIRED DIRECT VENT WATER HEATER WITH 40,000 BTU/H INPUT, 40 GALLON CAPACITY AND 43 GPH RECOVERY AT 90° RISE. 2'' AIR INTAKE/EXHAUST VENT, 1/2" GAS CONNECTION, 3/4" WATER CONNECTIONS. 110/1/60 POWER VENT, 3.1 AMPS. PROVIDE #415-44069-02 2" CONCENTRIC VENT TERMINATION KIT.

ET-1:
EXPANSION TANK:
AMTROL "THERM-X-TROL" MODEL #ST-5C-DD EXPANSION TANK WITH PRE-CHARGED AIR CHAMBER AIR VALVE, HEAVY DUTY DIAPHRAGM AND POLYPROPYLENE LINER.
MAXIMUM CAPCITY = 2.0 GALLONS.

TMV-1:
THERMOSTATIC MIXING VALVE:
SYMMONS "TEMPCONTROL" MODEL #7-400, 3/4" INLETS AND 1" OUTLET MIXING VALVE WITH CHECK STOPS, REMOVABLE CARTRIDGE WITH STRAINER, STAINLESS STEEL PISTON, LIQUID FILL THERMAL MOTOR WITH BELLOWS, VOLUME CONTROL SHUT OFF VALVE, DIAL THERMOMETER AND ALL FITTINGS AND UNIONS. PROVIDE POLISH CHROME FINISH, WALL MOUNTING BRACKET AND SPARE CARTRIDGES FOR UN-INTERRUPTED SERVICE. 18 GPM AT 5 PSI PRESSURE DROP.

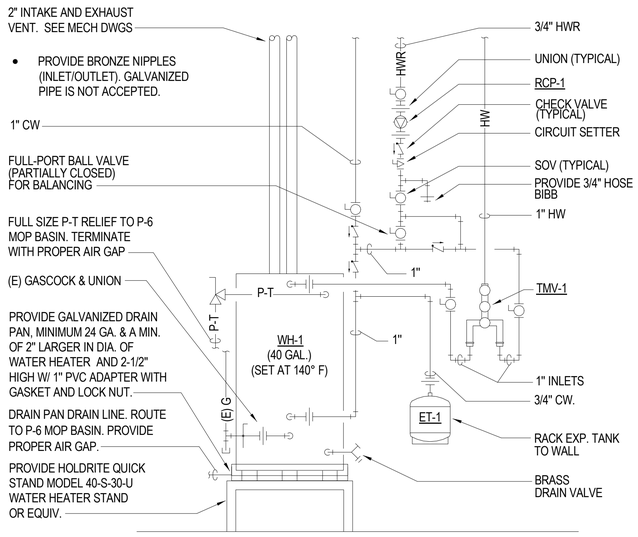
RP-1:
RECIRCULATION PUMP:
ARMSTRONG, "ASTRO 2," MODEL #230-CI, 3 SPEED, LEAD FREE BRONZE CONSTRUCTION WITH CERAMIC SHAFT AND BEARINGS, 3/4" FLANGE PIPE SIZE AND REPLACEABLE STAINLESS STEEL CARTRIDGE IMPELLER ASSEMBLY. PUMP SHALL BE COMPLETE WITH 12 HOUR ANALOG CLOCK WITH AM/PM INDICATION AND AQUASTAT. 2 GPM AT 9.5' HEAD. 97 WATTS, 115V/1/60Hz., 0.81A.

FIXTURE SCHEDULE

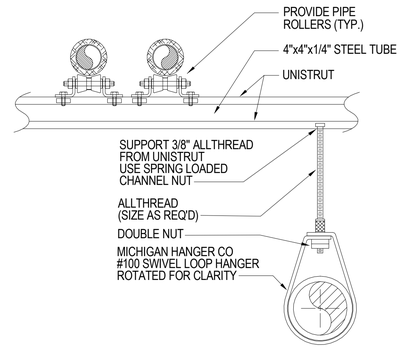
MARK	DEMO FIXTURE DESCRIPTION	QTY	WASTE		WATER		MINIMUM CONNECTION SIZE			
			FU	TOTAL	FU	TOTAL	HW	CW	W	V
D-1	LAVATORY	3	1	3	1	3.0				
D-2	WATER CLOSET (FLUSH TANK)	3	4	12	2.5	7.5				
D-3	DUAL COMPARTMENT SINK	1	2	2	2	2				
D-4	ELECTRIC WATER COOLER	1	.5	0.5	0.5	0.5				
D-5	FLOOR DRAIN	1	2	2	0	0				
			DEMO TOTAL	19.5		13.0				

MARK	NEW FIXTURE DESCRIPTION	QTY	WASTE		WATER		MINIMUM CONNECTION SIZE			
			FU	TOTAL	FU	TOTAL	HW	CW	W	V
P-1	LAVATORY	2	1	2	1	2	1/2"	1/2"	2"	2"
P-2	WATER CLOSET (FLUSH TANK)	1	4	4	2.5	2.5	-	1/2"	4"	2"
P-2A	WATER CLOSET (FLUSH TANK)	2	4	8	2.5	5	-	1/2"	4"	2"
P-3	URINAL	1	2	2	4	4	-	3/4"	2"	2"
P-4	DUAL COMPARTMENT SINK	1	2	2	2	2	1/2"	1/2"	2"	2"
P-5	ELECTRIC WATER COOLER	1	1	1	1	1	-	1/2"	2"	2"
P-6	MOP BASIN	1	3	3.0	3	3.0	1/2"	1/2"	3"	2"
P-7	SANITARY FLOOR DRAIN	1	2	2	-	-	-	-	2"	2"
			NEW TOTAL	24.0		19.5				
			TOTAL	4.5		6.5				

NOTE: AS ALLOWED BY 2018 IPC, SEC. 604.1 & E103.2.1, WATER FIXTURE UNITS USED IN THIS PROJECT ARE FROM THE 2006 UPC TABLE A-2. WASTE FIXTURE UNITS ARE FROM THE 2018 IPC 709.1



2 p3.0 gas water heater schematic
N.T.S.



1 p3.0 typical pipe hanger detail
N.T.S.

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Expires 12/31/2024

job
1503.08

date
04.26.24

revisions

Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

plumbing schedules and specifications

p3.0

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POWER SYMBOLS LEGEND

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
	DUPLEX RECEPTACLE (20A/125V/2P/3W/G NEMA 5-15R)	18" AFF
	QUADRAPLEX RECEPTACLE (20A/125V/2P/3W/G NEMA 5-15R)	18" AFF
	ABOVE COUNTER DUPLEX RECEPTACLE (20A/125V/2P/3W/G NEMA 5-15R)	42" AFF
	ABOVE COUNTER QUADRAPLEX RECEPTACLE (20A/125V/2P/3W/G NEMA 5-15R)	42" AFF
TV	DUPLEX RECEPTACLE FOR TELEVISION. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MTG HEIGHT (20A/125V/2P/3W/G NEMA 5-15R)	84" AFF
E	DUPLEX RECEPTACLE CONNECTED TO EMERGENCY SYSTEM. (20A/125V/2P/3W/G NEMA 5-15R)	18" AFF
H	DUPLEX RECEPTACLE MOUNTED HORIZONTALLY. (20A/125V/2P/3W/G NEMA 5-15R)	18" AFF
	DUPLEX RECEPTACLE GFCI PROTECTION. (20A/125V/2P/3W/G NEMA 5-15R)	18" AFF
WP	DUPLEX RECEPTACLE W/ WEATHER PROOF ENCLOSURE AND GFCI. (20A/125V/2P/3W/G NEMA 5-15R)	18" AFF
	SPECIAL NEMA CONFIGURATION RECEPTACLE. REFER TO FLOOR PLANS FOR EXACT NEMA CONFIGURATION.	18" AFF
	FLOOR MOUNTED DUPLEX RECEPTACLE OR COMBINATION DEVICE, REFER TO FLOOR PLANS FOR ADDITIONAL SPECIFICATION INFO.	FLUSH W/ FLOOR
	CEILING MOUNTED DUPLEX RECEPTACLE. (20A/125V/2P/3W/G NEMA 5-15R)	FLUSH W/ CLG
	POWER POLE, REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION.	-
	JUNCTION BOX, SIZING AND MOUNTING AS REQUIRED BY SPECIFICATIONS AND NEC.	-
X/X/X	HEAVY DUTY DISCONNECT, FRAME, FUSE AND POLES INDICATED ON FLOOR PLAN.	AS REQUIRED
X/X/X	COMBINATION MOTOR STARTER/DISCONNECT	AS REQUIRED
	208Y/120V BRANCH PANEL BOARD. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.	-
	480Y/277V BRANCH PANEL BOARD. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.	-
	480V-208Y/120V TRANSFORMER	-
	CIRCUIT HOMERUN TO PANEL BOARD VIA 2#12, 1#12 G, 3/4" C. AND 20A/1P CB UNO	-
PANEL-X.X.X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	-
PANEL-X.X.X	MULTI-POLE DEVICE CIRCUIT NUMBERS	-

LIGHTING SYMBOLS LEGEND

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
	2X4 FIXTURE	SEE FIXTURE SCHEDULE
	2X2 FIXTURE	SEE FIXTURE SCHEDULE
	WALL MOUNTED SCONCE FIXTURE	SEE FIXTURE SCHEDULE
	WALL MOUNTED LINEAR FIXTURE	SEE FIXTURE SCHEDULE
	LINEAR FIXTURE	SEE FIXTURE SCHEDULE
	DOWNLIGHT FIXTURE	SEE FIXTURE SCHEDULE
	EXIT SIGN	SEE FIXTURE SCHEDULE
	WALL MOUNTED EMERGENCY FIXTURE	SEE FIXTURE SCHEDULE
	TRACK LIGHT SYSTEM	SEE FIXTURE SCHEDULE
	SUSPENDED CHANDELIER FIXTURE	SEE FIXTURE SCHEDULE
$	WALL SWITCH	44" AFF
$3	3-WAY WALL SWITCH	44" AFF
$4	4-WAY WALL SWITCH	44" AFF
$D	DIMMER WALL SWITCH (0-10V)	44" AFF
$3D	3-WAY DIMMER WALL SWITCH (0-10V)	44" AFF
$WP	WALL SWITCH IN WEATHER PROOF ENCLOSURE	44" AFF
$V	WALL SWITCH WITH DUAL TECHNOLOGY VACANCY SENSOR	44" AFF
VS	VACANCY SENSOR WITH DUAL TECHNOLOGY	CLG MOUNTED
PC	INTERIOR PHOTOCELL AT LOCATIONS BASED ON IECC	CLG MOUNTED

FIRE ALARM SYMBOLS LEGEND

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
(S)	SMOKE DETECTOR	CEILING MOUNTED
(H)	HEAT DETECTOR	CEILING MOUNTED
(S)	DUCT SMOKE DETECTOR	-
F	FIRE ALARM PULL STATION	48" AFF
	FIRE ALARM AUDIBLE	80" AFF OR CLG
	FIRE ALARM VISUAL SIGNAL	80" AFF OR CLG
	FIRE ALARM AUDIBLE/VISUAL SIGNAL	80" AFF OR CLG
FS	FIRE ALARM SPRINKLER FLOW SWITCH	-
TS	FIRE ALARM SPRINKLER TAMPER SWITCH	-
PS	FIRE ALARM SPRINKLER PRESSURE SWITCH	-
FACP	FIRE ALARM CONTROL PANEL	-
FAAP	FIRE ALARM ANNUNCIATOR PANEL	-
NAP	FIRE ALARM REMOTE TRANSPONDER PANEL	-

FIRE ALARM DRAWINGS IN THIS SET ARE INTENDED TO SHOW GENERAL GUIDELINES FOR FIRE ALARM DEVICE PLACEMENT AS THEY RELATE TO OTHER NON-FIRE ALARM SYSTEMS. THE FINAL FIRE ALARM PLANS TO BE SUBMITTED FOR AHJ APPROVAL. DRAWINGS SHALL BE PRODUCED AND SEALED BY A NICET LEVEL III CERTIFIED DESIGNER. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. THE DEISGNER SHALL PROVIDE ALL DEVICES ON THESE DRAWINGS AND ANY ADDITIONAL DEVICES OR COMPONENTS REQUIRED BY THE APPLICABLE CODES. PROVIDE ALL NECESSARY PARTS FOR A FULLY FUNCTIONING COMPLETE SYSTEM.

ELECTRICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AFC	ABOVE FINISHED CEILING	LTG	LIGHTING
AFF	ABOVE FINISHED FLOOR	LTS	LIGHTS
ARCH	ARCHITECT	LV	LOW VOLTAGE
ATS	AUTOMATIC TRANSFER SWITCH	MCB	MAIN CIRCUIT BREAKER
BFC	BELOW FINISHED CEILING	MCC	MOTOR CONTROL CENTER
CB, C/B	CIRCUIT BREAKER	MH	MAN HOLE
CKT	CIRCUIT	MLO	MAIN LUGS ONLY
CLG	CEILING	N.C.	NORMALLY CLOSED
CR	CIRCUIT	NEC	NATIONAL ELECTRIC CODE
EC	EMPTY CONDUIT	(R)	RELOCATED
ELEC	ELECTRIC	RCPT	RECEPTACLE
EMS,BMS	ENERGY/BUILDING AUTOMATION SYSTEM	S.O.	SPACE ONLY
		SPD	SURGE PROTECTION DEVICE
E	EMERGENCY	ST	SHUNT TRIP
EP	EXPLOSION PROOF	TP	TAMPER PROOF
EWC	ELECTRICAL WATER COOLER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
(E)	EXISTING		
FA	FIRE ALARM	UNO	UNLESS NOTED OTHERWISE
FACP, FAP	FIRE ALARM CONTROL PANEL	V	VOLTAGE
FLR	FLOOR	VFD	VARIABLE FREQUENCY DRIVE
FUT	FUTURE	VP	VAPOR PROOF
G	EQUIPMENT GROUND	W	WIRE
GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER	W/	WITH
		WP	WEATHER PROOF
HP	HORSE POWER	XFMR	TRANSFORMER
IG	ISOLATED GROUND	(X)	DEMOLISHED

ELECTRICAL SPECIFICATIONS

PART I - GENERAL:

1.01 ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL CODES, LAWS, RULES, AND REGULATIONS OF ALL NATIONAL, COUNTY, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PREMISES. IN CASE OF DIFFERENCES, MOST STRINGENT SHALL GOVERN.

1.02 ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE LOCATION OF EQUIPMENT AND DEVICES. DIMENSIONS GIVEN IN FIGURES ON THE PLANS SHALL TAKE PRECEDENCE COVER SCALED DIMENSIONS, AND ALL DIMENSIONS, WHETHER GIVEN IN FIGURES OR SCALED, SHALL BE FIELD VERIFIED.

1.03 THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED.

1.04 THE ELECTRICAL DRAWINGS ARE NOT INTENDED TO SHOW ALL EXISTING CONDITIONS, SYSTEMS, EQUIPMENT OR MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS ON SITE BEFORE SUBMITTING FINAL PRICING AND PROPOSALS. THE LACK OF SPECIFIC EXISTING INFORMATION ON THE DRAWINGS DOES NOT ALLEVIATE THE CONTRACTOR OF ANY RESPONSIBILITY. THIS CONTRACT SHALL INCLUDE ALL CONTINGENCIES THAT MAY BE REQUIRED FOR RELOCATION, ALTERATION AND DEMOLITION WORK NOT INDICATED ON DRAWINGS. THIS WILL INCLUDE BUT NOT LIMITED TO ALL RELOCATION, REWORK, AND REMOVAL OF EXISTING ELECTRICAL SYSTEM, OUTLETS, CONDUIT, CONDUCTORS AND EQUIPMENT.

1.05 CONTRACTOR SHALL INSTALL ALL ELECTRICAL SYSTEMS WITH OUT CONFLICTS AND IN COORDINATION WITH OTHER TRADES.

1.06 ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED IN SCOPE OF WORK SHALL BE NEW AND AND SHALL CONFORM WITH THE STANDARDS OF THE UNDERWRITERS LABORATORIES, INC OR OTHER NATIONALLY RECOGNIZED LABORATORY WHERE APPLICABLE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER.

1.07 INSTALL EQUIPMENT WITH WORKING CLEARANCES COMPLYING WITH NEC 110-16 AND 110-34.

PART II - PRODUCTS:

2.01 CONDUIT
A. RIGID STEEL CONDUIT (GRC - GALVANIZED RIGID CONDUIT): CONSTRUCTED OF MILD STEEL PIPING, GALVANIZED INSIDE AND OUTSIDE, CONFORMING WITH FED. SPEC. WW-C-581C, ANSI C80.1 AND APPLICABLE UL STANDARDS.
B. INTERMEDIATE METAL CONDUIT (IMC): CONSTRUCTED OF ZINC COATED STEEL TUBING MANUFACTURED IN ACCORDANCE WITH UL-1242 AND MEETING THE REQUIREMENTS OF THE NEC.
C. ELECTRIC METALLIC TUBING (EMT): OF HIGH GRADE STEEL MANUFACTURED SPECIFICALLY TO STANDARDS ASSURING MAXIMUM WELDING CHARACTERISTICS AND DUCTILITY, AND SHALL CONFORM TO FED. SPEC. WW-T-806b.
D. FLEXIBLE METAL CONDUIT: MANUFACTURED OF MILD STEEL STRIP MATERIAL HAVING A HOT-DIP GALVANIZED COATING AND MEETING REQUIREMENTS OF FED. SPEC. WW-C-566b.LIQUIDTIGHT FLEXIBLE CONDUIT: FLEXIBLE METAL CONDUIT AS SPECIFIED HEREIN WITH A COPPER GROUNDING STRAND AND FACTORY-APPLIED NEOPRENE JACKET. LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE UL LISTED, EQUIVALENT TO ANACONDA "SEALTITE", TYPE UA. LIQUID TIGHT CONDUIT AND FITTINGS SHALL BE UTILIZED FOR ALL EXTERIOR AND EQUIPMENT CONNECTIONS.

2.02 OUTLET BOXES
A. OUTLET BOXES SHALL BE UL LISTED, AND OF SIZES AND TYPES REQUIRED FOR THE APPLICATION. OUTLET BOXES SHALL BE SHEET STEEL, NO LIGHTER THAN 14 GAUGE, GALVANIZED AFTER FABRICATION. SET BOX SO FACE OF BOX WILL FINISH FLUSH WITH BUILDING SURFACE.
A.1. FOR LIGHTING FIXTURE OUTLETS: 4 INCH SQUARE BY 1-1/2 INCHES DEEP WITH RAISED FIXTURE RING.
A.2. FOR WALL SWITCHES, RECEPTACLES, AND COMMUNICATION USE: 4 INCH SQUARE, BY 1-1/2 INCHES DEEP. USE BOXES WITH PLASTER RINGS IN ALL PLASTERED WALLS WHERE WALL THICKNESS PERMITS. USE BOXES LESS THAN 1-1/2 INCH DEEP ONLY IN LOCATIONS WHERE DEEP BOXES CANNOT BE ACCOMMODATED BY CONSTRUCTION.

2.03 CONDUCTORS
A. NO CONDUCTORS SHALL BE SMALLER THAN NO. 12, EXCEPT FOR SIGNAL OR CONTROL CIRCUITS AND FOR INDIVIDUAL LIGHTING FIXTURE TAPS AS PERMITTED BY NEC.
B. CONDUCTORS SHALL BE 98% CONDUCTIVITY SOFT DRAWN ANNEALED COPPER, 600 VOLT, THHN/THWN INSULATION, #10 AND SMALLER - SOLID, #8 AND LARGER - STRANDED. XHHW TO BE UTILIZED FOR EXTERIOR INSTALLATION.

2.04 WIRING DEVICES, COVER PLATES AND ACCESSORIES
A. PROVIDE WIRING DEVICES AND ASSOCIATED ACCESSORIES OF SPECIFICATION GRADE. DEVICES OF LEVITON, HUBBELL OR PASS & SEYMORE ARE ACCEPTABLE. SUBMIT FOR REVIEW A COMPLETE LIST OF ANY SUBSTITUTES OFFERED FROM THOSE SPECIFIED.
B. COLOR OF WALL SWITCHES, RECEPTACLES AND FACEPLATES: MATCH EXISTING
C. WHERE LIGHTING CIRCUITS ARE SHOWN TO BE LINE VOLTAGE SWITCHED, PROVIDE WITH SPECIFICATION GRADE, HORSEPOWER RATED, UL LISTED, BACK- AND SIDE-WIRED, TOGGLE SWITCHES RATED 20-AMP, 120 VOLTS OR 277 VOLTS. SWITCHES SHALL BE SPST, DPST, 3-WAY OR 4-WAY, WITH OR WITHOUT PILOT LIGHT, AS INDICATED ON THE DRAWINGS.
D. RECEPTACLES
D.1. STANDARD WALL RECEPTACLES SHALL BE SPECIFICATION GRADE, RATED 20-AMP, 120-VOLT, 2 POLE, 3-WIRE, GROUNDING TYPE, SIDE-WIRED, NEMA 5-20R.
D.2. SPECIAL PURPOSE RECEPTACLES SHALL BE SPECIFICATION GRADE DEVICES FOR THE NEMA CONFIGURATIONS SCHEDULED OR INDICATED ON THE DRAWINGS.
D.3. GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLES SHALL BE 20 AMP, 120 VOLT, 2 POLE, 3-WIRE, NEMA 5-20R.
D.4. PROVIDE GFCI FOR ALL RECEPTACLES WITHIN KITCHENS OR WITHIN 6' EDGE OF SINKS.
E. LABEL ALL WIRING DEVICES WITH PERMANANT LABEL INDICATING PANEL NAME AND CIRCUIT NUMBER.

2.05 DISCONNECT SWITCHES
A. AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER OR SIEMENS.
B. FUSIBLE/NON-FUSIBLE SWITCHES
B.1. ALL SWITCHES: HEAVY DUTY TYPE; UL LISTED AND MEET LATEST NEMA STANDARDS KS-1; HORSEPOWER RATED; QUICK-MAKE, QUICK-BREAK; LUGS FRONT REMOVABLE AND UL LISTED FOR 75°C ALUMINUM OR COPPER WIRE; OPERATING HANDLE IN CONTROL OF SWITCH WITH DOOR OPEN AND CLOSED; HANDLE POSITION CLEARLY INDICATE "ON" AND "OFF" POSITIONS; PROVISIONS FOR PADLOCKING IN "OFF" POSITION; SAFETY INTERLOCKS TO PREVENT THE ENCLOSURE DOOR FROM BEING OPENED WHILE THE HANDLE IS IN THE "ON" POSITION AND TO PREVENT THE HANDLE FROM BEING TURNED TO THE "ON" POSITION WHILE THE ENCLOSURE DOOR IS OPEN; MEANS TO PERMIT AUTHORIZED PERSONNEL TO RELEASE THE SAFETY INTERLOCKS FOR MAINTENANCE OR INSPECTION; AUXILIARY POLES, AS REQUIRED, TO DISCONNECT CONTROL VOLTAGE(S) WHEN POWER VOLTAGE IS DISCONNECTED.
B.2. ENCLOSURES: NEMA 1 OR NEMA 3R, AS INDICATED ON DRAWINGS; CLEAN STEEL, GALVANIZED AFTER FORMING, PRIMED AND GREY BAKED ENAMEL FINISHED; NEMA 1 COVERS ON PIN TYPE HINGES; NEMA 3R COVERS SECURABLE IN THE OPEN POSITION. INTERCHANGEABLE BOLT-ON THREADED HUBS ON NEMA 3R SWITCHES THRU 200 AMPERE.
B.3. FUSIBLE SWITCHES: FOR 600 AMPERE AND SMALLER SWITCHES, PROVIDE UL LISTED REJECTION CLIPS TO REJECT ALL FUSES EXCEPT CLASS R; FOR 800 AMPERE AND LARGER SWITCHES, PROVIDE FUSE CLIPS FOR CLASS L FUSES. ALL SWITCHES UL LISTED SHORT CIRCUIT RATING OF 200,00 AMPERES RMS SYMMETRICAL.

2.06 PANELBOARDS
A. AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER OR SIEMENS.
B. LIGHTING AND APPLIANCE PANELBOARDS
B.1. PANELBOARD BUS STRUCTURE AND MAIN LUGS OR MAIN CIRCUIT BREAKER SHALL HAVE CURRENT RATINGS AS INDICATED ON THE DRAWINGS. BUS BARS SHALL ACCEPT BOLT-ON CIRCUIT BREAKERS. ALL CURRENT CARRYING PARTS OF THE BUS STRUCTURE SHALL BE PLATED. UL LABELED.
B.2. THE PANELBOARD BUS ASSEMBLY SHALL BE ENCLOSED IN A SURFACE OR FLUSH MOUNTED STEEL CABINET AS INDICATED ON THE DRAWINGS.
B.3. EACH PANELBOARD SHALL HAVE A SHORT CIRCUIT CURRENT RATING EQUAL TO OR GREATER THAN THE FAULT CURRENT INDICATED ON THE DRAWINGS. PANELBOARDS SHALL BE MARKED WITH THEIR MAXIMUM SHORT CIRCUIT RATING AT THE SUPPLY VOLTAGE.
B.4. PROVIDE AFCI TYPE BREAKERS FOR ALL INTERIOR RESIDENTIAL FEEDS PER NEC.

2.07 GROUNDING
A. GROUNDING SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
B. GROUNDING CONDUCTORS SHALL BE ANNEALED COPPER CABLES OF THE SIZES INDICATED OR REQUIRED.
C. A "GREEN WIRE" EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY, WHETHER METALLIC OR NON-METALLIC, TO FORM A COMPLETE AND CONTINUOUS GROUNDING PATH. CONNECT GROUNDING CONDUCTORS TO GROUND TERMINALS AT EACH END OF THE RUN.

PART III - EXECUTION:

3.01 CONDUIT INSTALLATION
A. RACEWAYS INSTALLED IN INTERIOR OF BUILDING TO EMT. RACEWAYS IN DAMP OR WET LOCATIONS, OR IN HAZARDOUS LOCATIONS, SHALL BE GRC OR IMC.
B. CONDUITS TO BE SIZED AND INSTALLED SUCH THAT THE CONDUCTORS MAY BE DRAWN THROUGH WITHOUT DAMAGE OR EXCESSIVE STRAIN.
C. CONDUITS SHALL HAVE APPROPRIATE BUSHINGS INSIDE AND BUSHINGS SHALL BE INSULATING TYPE WITH BOND GROUND CLAMPS.
D. USE LENGTHS OF FLEXIBLE METAL CONDUIT NOT LESS THAN 12 INCHES LONG AT FINAL CONNECTIONS TO ALL MOTORS, TRANSFORMERS AND SIMILAR DEVICES SUBJECT TO MOVEMENT BECAUSE OF VIBRATION OR MECHANICAL ADJUSTMENT. USE LIQUID TIGHT FLEXIBLE METAL CONDUIT, WITH APPROPRIATE CONNECTIONS, IN DAMP OR WET LOCATIONS, AT MOTOR OR EQUIPMENT LOCATIONS IN MECHANICAL EQUIPMENT ROOMS, AT OR NEAR PUMPS, AND WHEN INSTALLED OUTDOORS.
E. GROUND METALLIC CONDUITS AS REQUIRED BY NEC.
F. RUN ALL CONDUITS PARALLEL/PERPENDICULAR TO BUILDING SURFACE PLANES.
G. CAREFULLY FILL ANY SPACE BETWEEN THE OUTSIDE OF THE RACEWAY WHEREVER RACEWAYS PASS THROUGH FLOORS, WALLS, PENETRATIONS, OR OTHER PARTITIONS. FILLING MATERIAL SHALL BE A UL LISTED, INTUMESCENT SEALING HAVING FIRE/SMOKE RESISTIVE RATING EQUAL TO THE BUILDING MATERIAL PENETRATED.
H. TYPE MC METAL CLAD CABLES SHALL BE ACCEPTABLE TO BE INSTALLED IN WALLS AND CEILINGS IN CONFORMANCE WITH THE REQUIREMENTS OF NEC 334. TYPE MC CABLE SHALL BE USED ONLY FOR BRANCH CIRCUITS FOR LIGHTING AND SPECIFIC AND GENERAL PURPOSE RECEPTACLES. TYPE MC CABLE SHALL NOT BE USED FOR FEEDERS OR MULTIPLE BRANCH CIRCUIT HOMERUNS. CABLE SHALL TRANSITION TO A RIGID TYPE CONDUIT PRIOR TO ENTERING ELECTRICAL EQUIPMENT ROOMS.
I. TYPE RIGID NON-METALLIC CONDUIT SHALL BE ACCEPTABLE TO BE INSTALLED UNDERGROUND IN CONFORMANCE WITH THE REQUIREMENTS OF NEC. NO INSTALLATION LOCATIONS ARE ACCEPTABLE.

3.02 INSTALLATION OF PULL AND JUNCTION BOXES
A. ALL BOXES TO BE FASTENED SECURELY TO THE BUILDING CONSTRUCTION, INDEPENDENT OF CONDUIT SYSTEMS.
B. SET BOXES FLUSH WITH FINISHED SURFACES FOR ACCESS, AND PROVIDE OVERLAPPING COVERS ON CONCEALED CONDUIT SYSTEMS WHERE BOXES ARE NOT OTHERWISE ACCESSIBLE.

3.03 INSTALLATION OF OUTLET BOXES
A. TERMINATE CONDUITS AT A METAL OUTLET BOX AT EACH OUTLET OR DEVICE. ALL BOXES SHALL CONFORM TO THE NEC.
B. OUTLET BOXES SHALL BE SUPPORTED INDEPENDENT OF THE CONDUIT SYSTEM.

3.04 INSTALLATION OF CONDUIT HANGERS AND SUPPORTS
A. FURNISH AND INSTALL ALL HANGERS AND SUPPORTS REQUIRED BY RACEWAY SYSTEMS.
B. SUPPORT ALL ABOVE-GROUND ELECTRICAL CONDUITS FROM THE BUILDING STRUCTURE/CONSTRUCTION. SUPPORT CONDUITS RUNNING VERTICALLY OR HORIZONTALLY ALONG WALLS WITH GALVANIZED MALLEABLE IRON ONE-HOLE CLAMPS. CARRY INDIVIDUALLY SUPPORTED HORIZONTAL CONDUITS 1-1/4 INCH AND LARGER ON SUITABLE HANGERS.
C. LOCATE HANGERS AND TRAPEZES TO SUPPORT HORIZONTAL RACEWAYS WITHOUT APPRECIABLE SAGGING. HANGER SPACING SHALL NOT EXCEED NEC REQUIREMENTS, OR RECOMMENDATIONS OF THE NECA "STANDARD OF INSTALLATION".
D. WHERE CONDUITS SMALLER THAN 1-1/4 INCH ARE INSTALLED ABOVE REMOVABLE TYPE DRY CEILINGS, SUPPORT THEM ON SUITABLE HANGER RODS WITH METAL CLIPS AT A DISTANCE ABOVE THE CEILING SUFFICIENT TO PERMIT REMOVAL OF CEILING PANELS AND LAY-IN LIGHT FIXTURES. LOCATE SUCH CONDUITS SO AS NOT TO HINDER ACCESS TO MECHANICAL EQUIPMENT THROUGH CEILING PANELS.

3.05 INSTALLATION OF CONDUCTORS
A. PULL NO CONDUCTORS INTO CONDUITS UNTIL ALL WORK OF A NATURE WHICH MAY CAUSE INJURY TO CONDUCTORS IS COMPLETED.
B. RUN FEEDERS IN CONTINUOUS PIECES, WITHOUT JOINTS OR SPLICES, INSOFAR AS PRACTICABLE.
C. RUN CONDUITS FOR EMERGENCY POWER CONDUCTORS SEPARATE FROM ALL OTHER WIRING.

3.06 LABELING
A. LABELS TO BE PROVIDED FOR THE FOLLOWING EQUIPMENT: SERVICE ENTRANCE SECTIONS AND ALL ASSOCIATED OCPD, DISTRIBUTIONS SECTIONS AND ALL ASSOCIATED OCPD, MOTOR CONTROL CENTERS AND ALL ASSOCIATED OCPD, PANELBOARDS, DISCONNECTS, MOTOR STARTERS, VFDS, TRANSFORMERS, ETC.
A.1. LABELS TO BE ENGRAVED PLASTIC LAMINATE. LABEL TO BE SECURED TO EQUIPMENT VIA METAL RIVETS OR IRREVERSIBLE SCREWS.
B. LABEL EQUIPMENTS WITH NAME, VOLTAGE, AMPERAGE, PHASE AND WIRING.
B.1. SUBMIT SAMPLE LABELS TO ENGINEER PRIOR TO INSTALLATION.
C. PROVIDE LABELING FOR ALL PULL BOXES AND JUNCTION BOXES. LABEL TO INCLUDE PANEL NAME, CIRCUIT NUMBERS AND VOLTAGE.
D. PROVIDE LABELING FOR ALL RECEPTACLES AND LIGHT SWITCHES, LABEL TO INDICATE PANEL NAME AND CIRCUIT NUMBER.

CITY OF TUCSON/PIMA COUNTY OUTDOOR LIGHTING CODE CALCULATION

OUTDOOR LIGHTING CODE CALCULATIONS ARE NOT REQUIRED FOR THIS PROJECT PER EXCEPTION TO SECTION 102.4.2. LESS THAN 3 FULL CUT-OFF LUMINAIRES (NOT COVERED BY A CANOPY, BUILDING OVERHANG, OR ROOF EAVE) RATED 2000 OR LESS LUMENS, ARE BEING INSTALLED ON AN EXISTING LIGHTED DEVELOPMENT GREATER THAN 5 ACRES IN LIGHTING AREA E3.

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Registered Professional Engineer (Electrical) CERTIFICATE NO. 65837 ALEC ZIMMERMANN STATE OF ARIZONA, U.S.A. Expires 3/31/2027

job
1503.08

date
04.26.24

revisions

Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

electrical general information

ZONA
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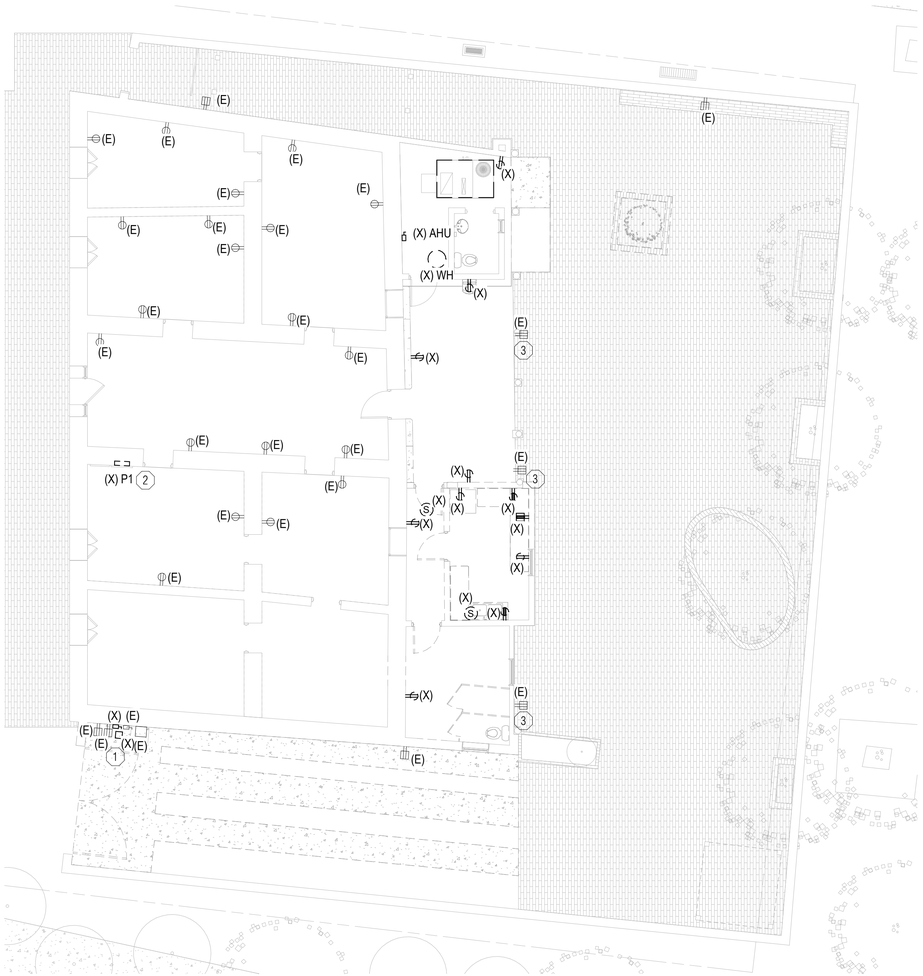
PROJECT No. 24016

e0.0



1 ed1.0 electrical demo floor plan
1/8" = 1'-0"

north

KEY NOTES:

1. DEMOLISH EXISTING TIMECLOCK LOCATED ABOVE WIRE GUTTER. REMOVE ALL ELECTRICAL SYSTEMS BACK TO POINT OF ORIGINATION.
2. EXISTING PANEL TO BE UPSIZED FROM 30 TO 42 POLE PANELBOARD. REFER TO PANEL SCHEDULE ON E3.0 FOR RELOCATED LOAD INFORMATION.
3. RECEPTACLE LOCATED ON ROOF.

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electrical demo floor plan

ed1.0

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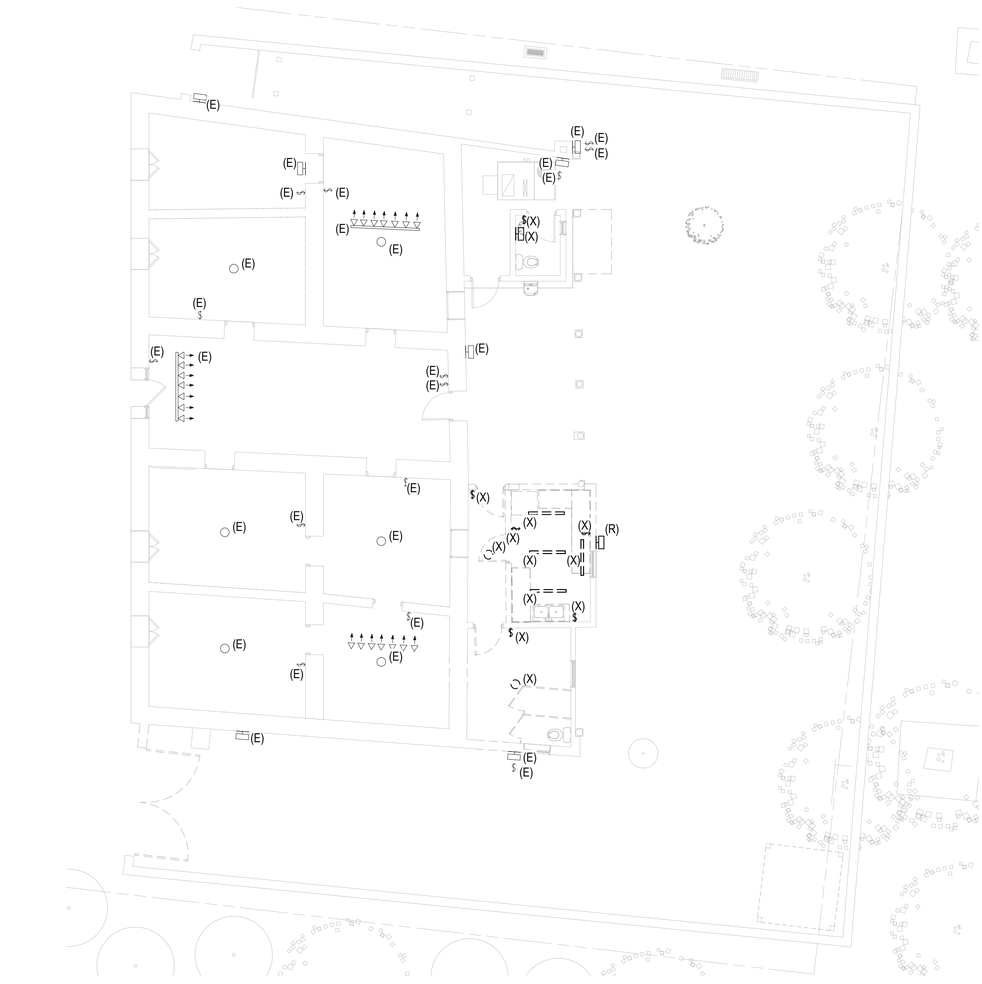

1 ed2.0 lighting demo floor plan
1/8" = 1'-0"

north

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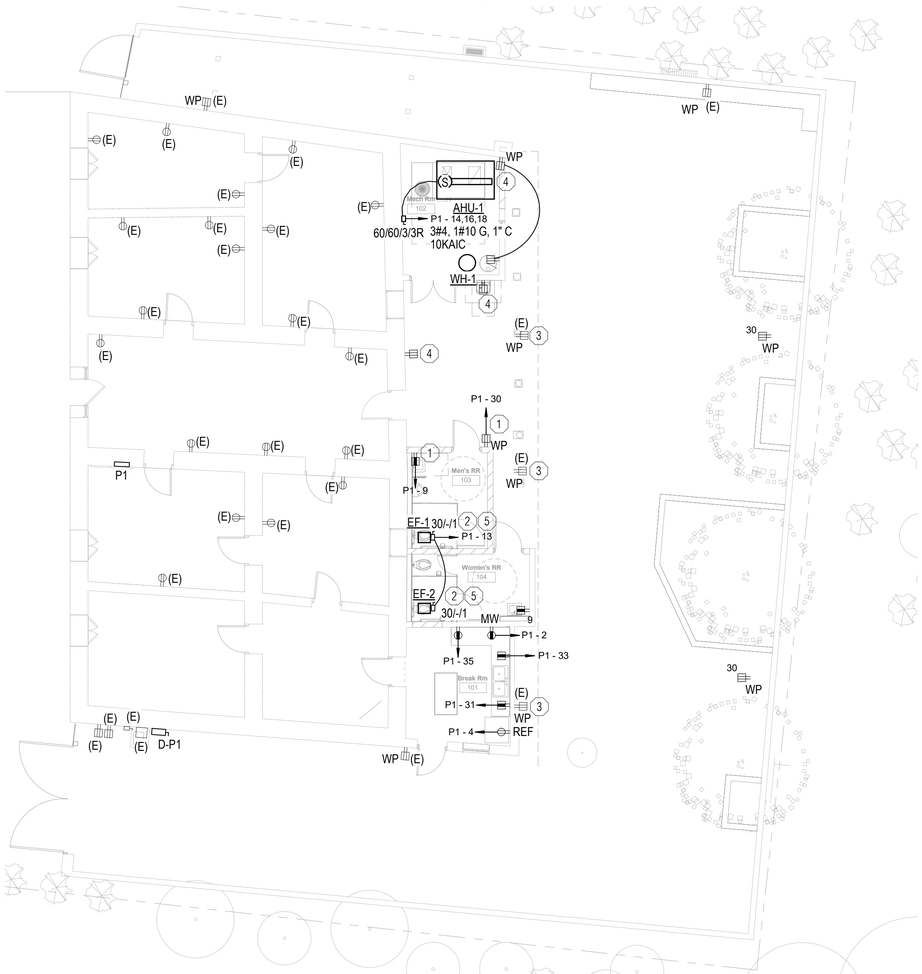
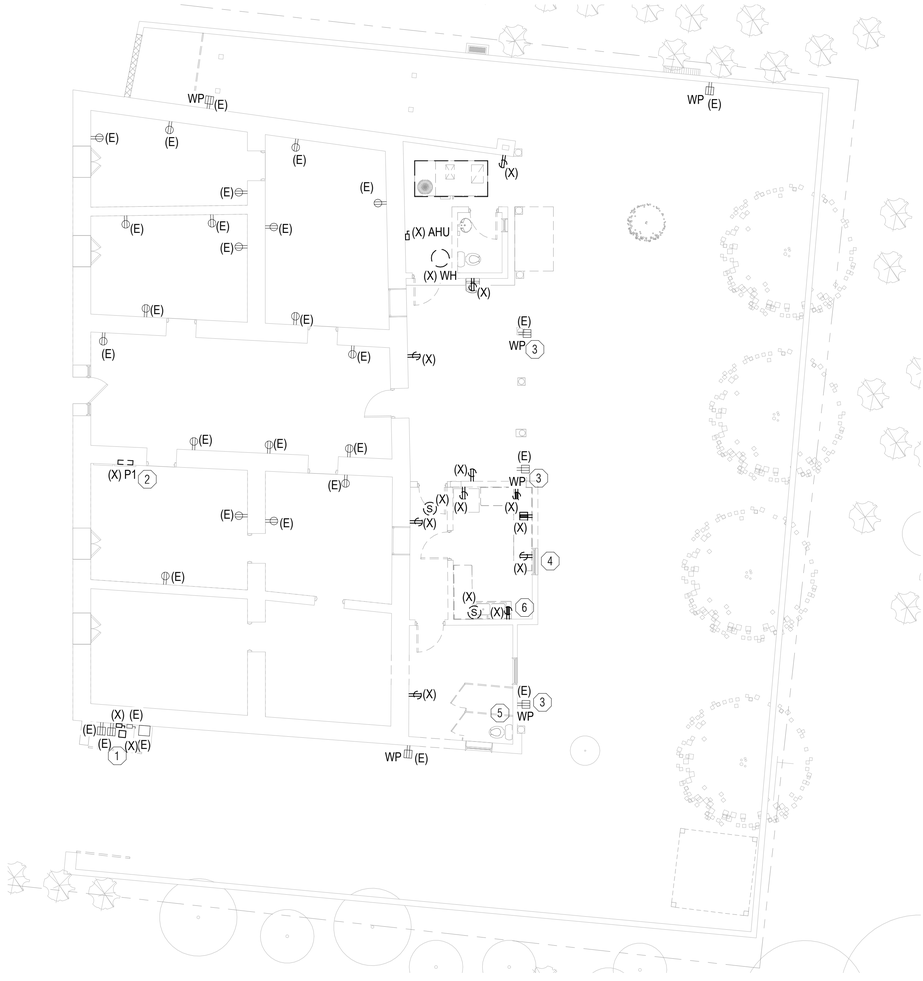


2 e1.0 electrical floor plan

1/8" = 1'-0"

north



1 e1.0 electrical demo floor plan

1/8" = 1'-0"

north

KEY NOTES:

1. EXTEND AND CONNECT CIRCUITING TO DEVICES/FIXTURES WITH SAME CIRCUIT NUMBERS.
2. INTEGRAL DISCONNECT PROVIDED BY MANUFACTURER. VERIFY DISCONNECT MATCHES REQUIRED PROTECTION.
3. RECEPTACLE LOCATED ON ROOF.
4. CIRCUIT NEW RECEPTACLE TO EXISTING CONDUIT.
5. PROVIDE PROGRAMMABLE DIGITAL TIMECLOCK FOR CONTROL OF EXHAUST FANS. LOCATE TIMECLOCK IN MECHANICAL ROOM. COORDINATE TIME OF DAY SETTINGS WITH OWNER.

DEMO KEY NOTES:

1. DEMOLISH EXISTING TIMECLOCK LOCATED ABOVE WIRE GUTTER. REMOVE ALL ELECTRICAL SYSTEMS BACK TO POINT OF ORIGINATION.
2. EXISTING PANEL TO BE UPSIZED FROM 30 TO 42 POLE PANELBOARD. REFER TO PANEL SCHEDULE ON E3.0 FOR RELOCATED LOAD INFORMATION.
3. RECEPTACLE LOCATED ON ROOF.
4. REMOVE WINDOW MOUNTED AC UNIT AND ASSOCIATED CONDUIT BACK TO POINT OF ORIGINATION.
5. REMOVE WALL MOUNTED EXHAUST FAN AND ASSOCIATED CONDUIT BACK TO POINT OF ORIGINATION.
6. REMOVE CEILING MOUNTED EXHAUST FAN AND ASSOCIATED CONDUIT BACK TO POINT OF ORIGINATION.

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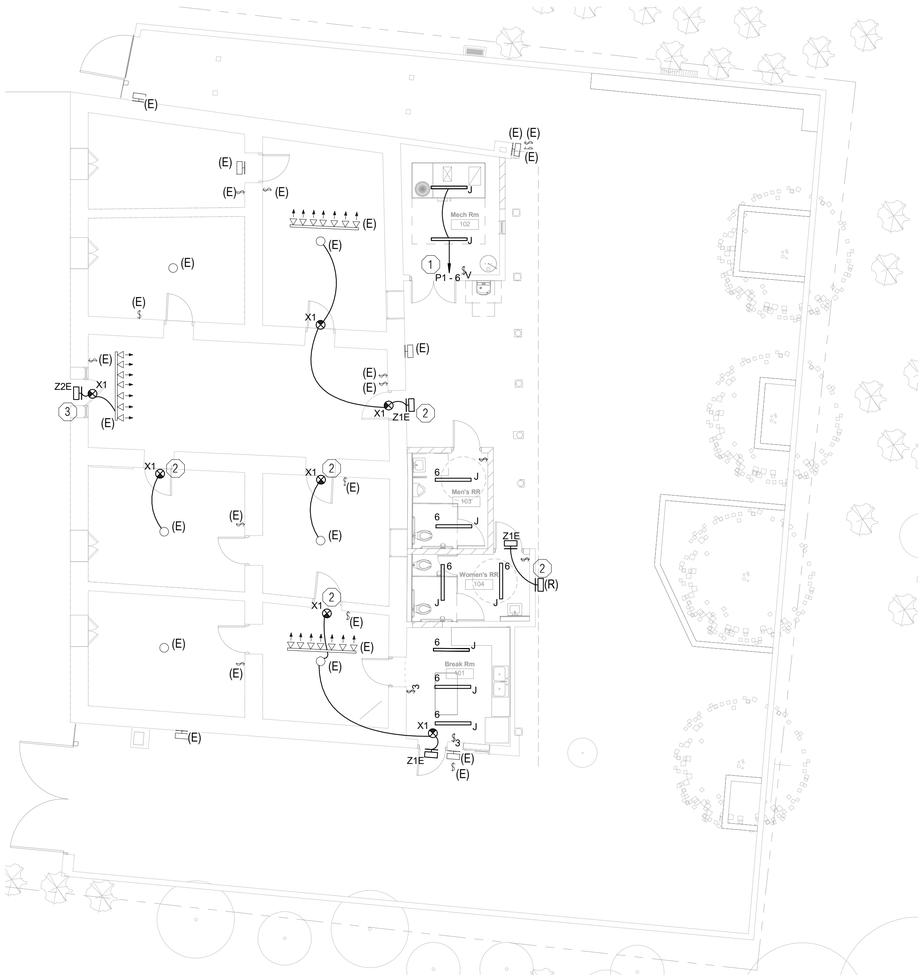
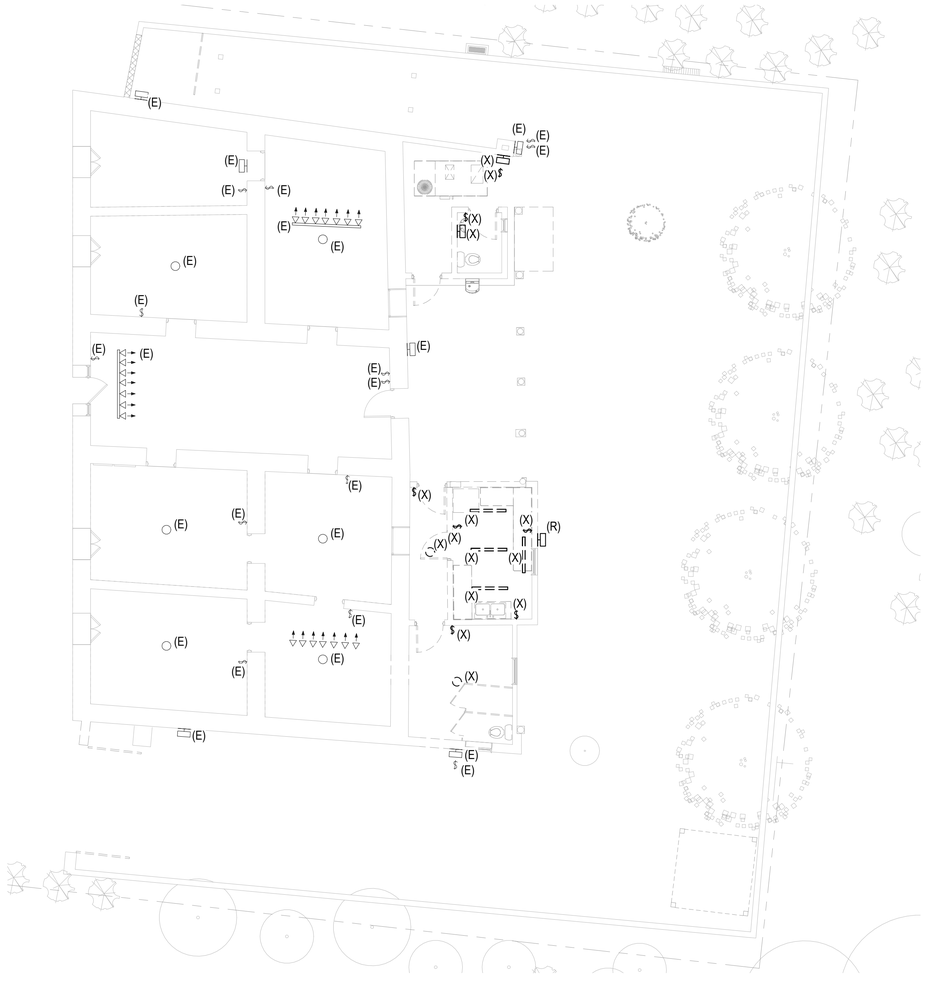


2 lighting floor plan
e2.0 1/8" = 1'-0"



1 lighting demo floor plan
e2.0 1/8" = 1'-0"

KEY NOTES:

1. EXTEND AND CONNECT CIRCUITING TO DEVICES/FIXTURES WITH SAME CIRCUIT NUMBERS, ROUTE 2#12, 1#12 G, 3/4" C THROUGHOUT, UNLESS NOTED OTHERWISE.
2. CONNECT TO EXISTING LIGHTING CIRCUIT.
3. ROUTE VIA PHOTOCELL EQUAL TO TORK 2001 SERIES. MOUNT PER MANUFACTURER'S RECOMMENDATIONS.

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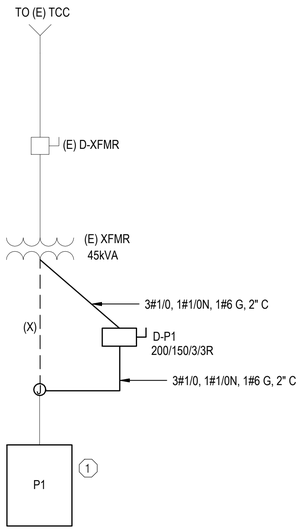

ONE-LINE SYMBOLS LEGEND

SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
PANEL NAME	BRANCH PANEL BOARD, REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.		TRANSFORMER
AT	CIRCUIT BREAKER AT=TRIP LSIG = LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT SETTINGS		GROUNDING ELECTRODE
AF AT	FUSED SWITCH AF = SWITCH FRAME RATING AT = FUSE TRIP RATING	M	ELECTRICAL METER

KEY NOTES:

1. EXISTING PANEL UPSIZED FROM 30 TO 42 POLE PANELBOARD. REFER TO PANEL SCHEDULE FOR LOAD INFORMATION.

NEW Branch Panel: P1

Location:	W ROOM, SOUTH OF HALLWAY	**Voltage:**	120/208 Wye	**Branch:**	NORMAL
Fed From:	XFMR	**Phases:**	3	**A.I.C. Rating:**	10K
Mounting:	Recessed	**Wires:**	4	**AFC Value:**	
Enclosure:	Type 1	**Neutral Bus:**	Y	**Main Bus:**	225 A
Feed Thru Lugs:	N	**Ground Bus:**	Y	**MCB:**	N/A
				Bus Type:	COPPER

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	*RELOCATED LOAD	20 A	1	0 VA	180 VA					1	20 A	MICROWAVE - RCPT	2
3	*RELOCATED LOAD	20 A	1			0 VA	180 VA			1	20 A	REFRIGERATOR - RCPT	4
5	*RELOCATED LOAD	20 A	1					0 VA	270 VA	1	20 A	KITCHEN LIGHTS	6
7	*RELOCATED LOAD	20 A	1	0 VA	0 VA					1	20 A	*RELOCATED LOAD	8
9	RESTROOM RCPTS	20 A	1			360 VA	0 VA			1	20 A	*RELOCATED LOAD	10
11	*RELOCATED LOAD	20 A	1					0 VA	0 VA	1	20 A	*RELOCATED LOAD	12
13	EF-1 & EF-2	20 A	1	86 VA	3423...					3	60 A	AHU-1	14
15	*RELOCATED LOAD	20 A	1			0 VA	3423...			--	--	--	16
17	*RELOCATED LOAD	20 A	1					0 VA	3423...	--	--	--	18
19	*RELOCATED LOAD	20 A	1	0 VA	0 VA					1	20 A	*RELOCATED LOAD	20
21	*RELOCATED LOAD	20 A	1			0 VA	0 VA			1	20 A	*RELOCATED LOAD	22
23	*RELOCATED LOAD	20 A	1					0 VA	0 VA	1	20 A	*RELOCATED LOAD	24
25	*RELOCATED LOAD	20 A	1	0 VA	0 VA					1	20 A	*RELOCATED LOAD	26
27	*RELOCATED LOAD	20 A	1			0 VA	0 VA			1	20 A	*RELOCATED LOAD	28
29	*RELOCATED LOAD	20 A	1					0 VA	540 VA	1	20 A	PATIO RCPTS	30
31	DEDICATED KITCHEN RCPT 1	20 A	1	180 VA	0 VA					1	20 A	Spare	32
33	DEDICATED KITCHEN RCPT 2	20 A	1			180 VA	0 VA			1	20 A	Spare	34
35	DEDICATED KITCHEN RCPT 3	20 A	1					180 VA	0 VA	1	20 A	Spare	36
37	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	38
39	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	40
41	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	42
			Total Load:	3869 VA		4143 VA		4413 VA					
			Total Amps:	32 A		35 A		37 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LTS	270 VA	125.00%	338 VA		
MISC	10269 VA	100.00%	10269 VA	**Total Conn. Load:**	12425 VA
MTRS	86 VA	117.15%	101 VA	**Total Est. Demand:**	12507 VA
RCPTS	1800 VA	100.00%	1800 VA	**Total Conn. Current:**	34 A
				Total Est. Demand Current:	35 A

Notes:
*RELOCATE EXISTING LOAD FROM DEMOLISHED PANEL TO NEW CIRCUIT BREAKER. MATCH EXISTING TYPE AND AIC RATING.

Lighting Fixture Schedule

Type Mark	Description	Apparent Load	Lumens	Color Temperature	Mounting	Manufacturer	Model	Alternate Manufacturer
J	4' LED LINEAR FIXTURE	30 VA	3966	3500K	SUSPENDED AT 8'	LITHONIA	ZL1D L48 3000LM FST MVOLT 35K 80CRI WH	COOPER, COLUMBIA
X1	SINGLE FACE EMERGENCY LIGHT/EXIT COMBO	4 VA	N/A	N/A	WALL MOUNTED AT 8'	LITHONIA	LHQM LED R M6	COOPER, COLUMBIA
Z1E	LED WALL PACK W/ BATTERY BACKUP	17 VA	1530	3000K	WALL MOUNTED AT 8' TO TOP OF FIXTURE	EVENLITE	WW EM BZ	COOPER, COLUMBIA
Z2E	LED EGRESS LIGHT	15 VA	1435	3000K	SURFACE MOUNTED TO UPPER JAMB	JUNO	JSF 11IN 13LM SWW5 90CRI MVOLT ZT WH EM	COOPER, COLUMBIA

COMcheck Software Version 4.1.5.5

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Sosa-Carillo House Renovation
Project Type: Alteration

Construction Site: 260 S Church Ave Tucson, AZ 85701
Owner/Agent:
Designer/Contractor: Evan Essif, Zona Technical Engineering, 6422 E. Speedway Blvd., Suite 130, Tucson, AZ 85710, 520-216-4935, evan@zonamep.com

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-House (Dormitory)	3286	0.61	2004
		Total Allowed Watts =	2004

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
House (Dormitory 3286 sq.ft.)				
LED 1: J: 4' LED LINEAR FIXTURE; LED Other Fixture Unit 28W;	1	9	30	270
LED 2: X1: SINGLE FACE EMERGENCY LIGHT/EXI; LED Other Fixture Unit 6.5W;	1	7	4	28
		Total Proposed Watts =		298

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Evan Essif, Electrical Designer — Name - Title
Signature
06/04/2024 — Date

Project Title: Sosa-Carillo House Renovation — Report date: 06/04/24
Data filename: P:\2024\24016 Sosa-Carillo House Renovation\07_Calcs\Electrical\COMcheck\24016.cck — Page 1 of 8

COMcheck Software Version 4.1.5.5

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Sosa-Carillo House Renovation
Project Type: Alteration
Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

Construction Site: 260 S Church Ave Tucson, AZ 85701
Owner/Agent:
Designer/Contractor: Evan Essif, Zona Technical Engineering, 6422 E. Speedway Blvd., Suite 130, Tucson, AZ 85710, 520-216-4935, evan@zonamep.com

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Exterior lighting (Illuminated area of facade wall or surface)	3240 ft2	0.07	No	243
			Total Tradable Watts (a) =	0
			Total Allowed Watts =	243
			Total Allowed Supplemental Watts (b) =	400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
exterior lighting (Illuminated area of facade wall or surface 3240 ft2); Non-tradable Wattage				
LED 2: Z1E: LED WALL PACK W/ BATTERY BACKUP; LED Other Fixture Unit 16W;	1	3	15	45
LED 3: Z2E: LED EGRESS LIGHT W/ REMOTE INVE; LED Other Fixture Unit 13W;	1	1	14	14
		Total Tradable Proposed Watts =		0

Exterior Lighting PASSES

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Evan Essif, Electrical Designer — Name - Title
Signature
06/04/2024 — Date

Project Title: Sosa-Carillo House Renovation — Report date: 06/04/24
Data filename: P:\2024\24016 Sosa-Carillo House Renovation\07_Calcs\Electrical\COMcheck\24016.cck — Page 2 of 8

COMcheck Software Version 4.1.5.5

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req ID	Plan Review	Complies?	Comments/Assumptions
C103.2 (PR4)[1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☑Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C103.2 (PR8)[1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☑Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.5 (PR16)[1]	Group R-2 dwelling units have separate electrical meters.	☑Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Project Title: Sosa-Carillo House Renovation — Report date: 06/04/24
Data filename: P:\2024\24016 Sosa-Carillo House Renovation\07_Calcs\Electrical\COMcheck\24016.cck — Page 3 of 8

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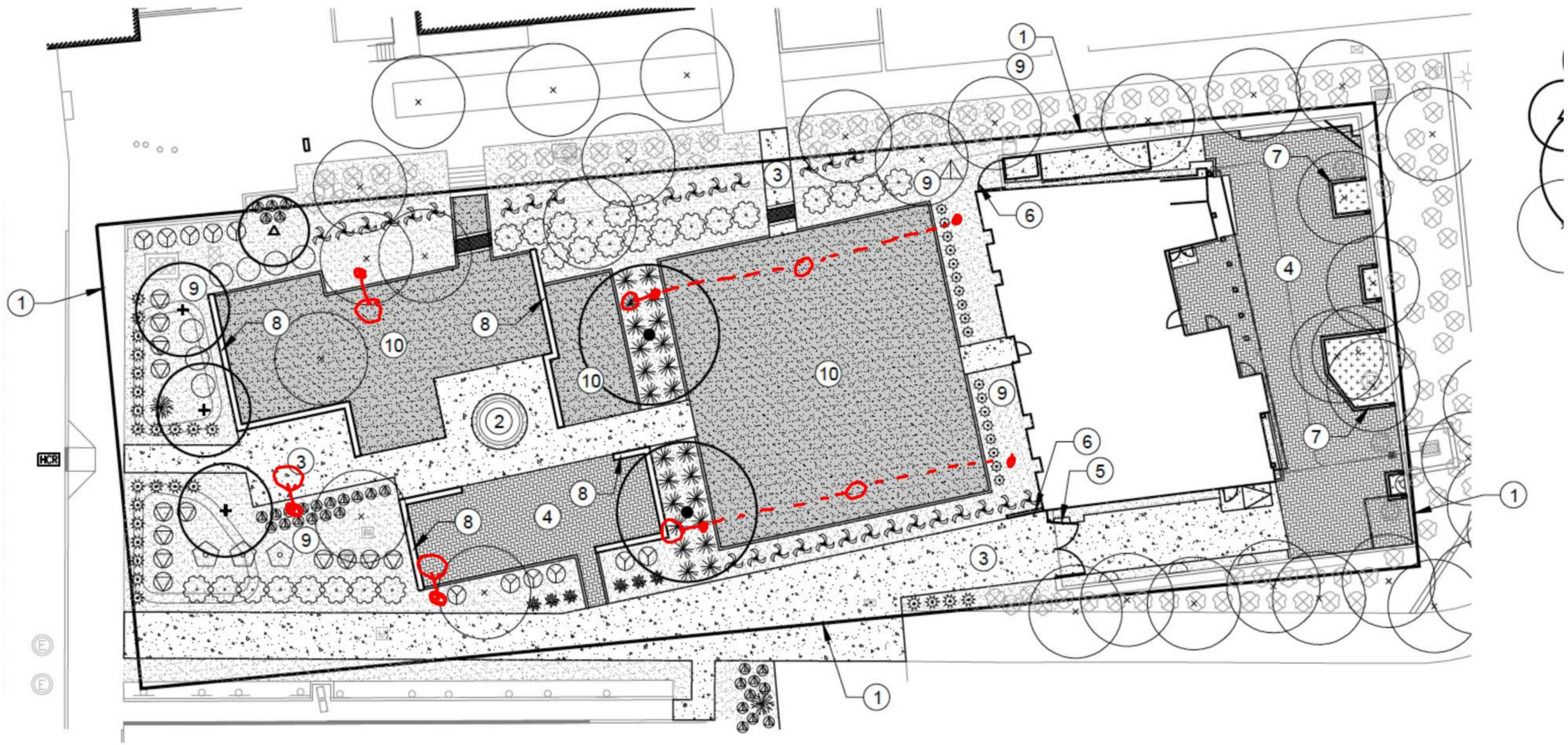
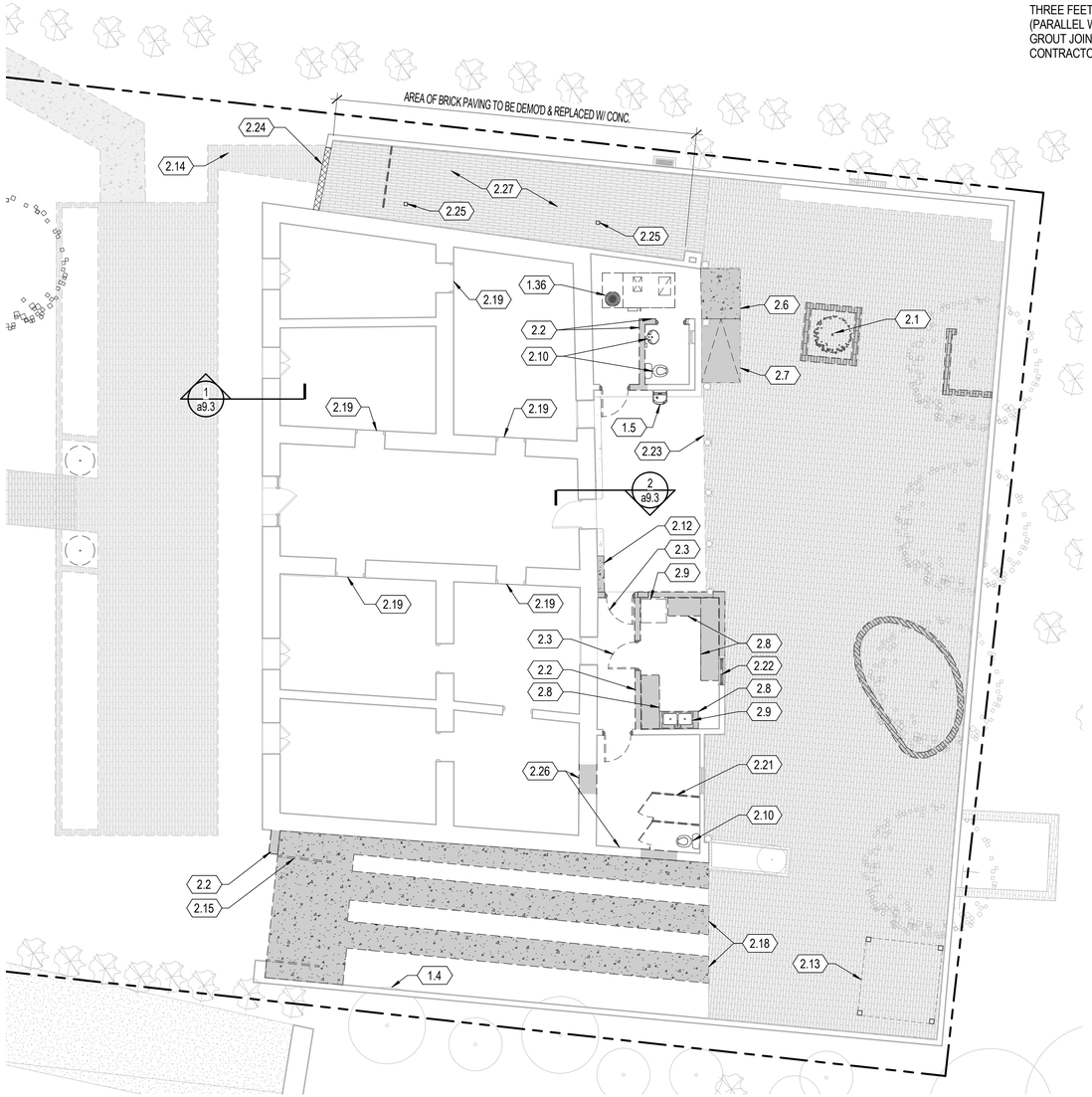


keynotes

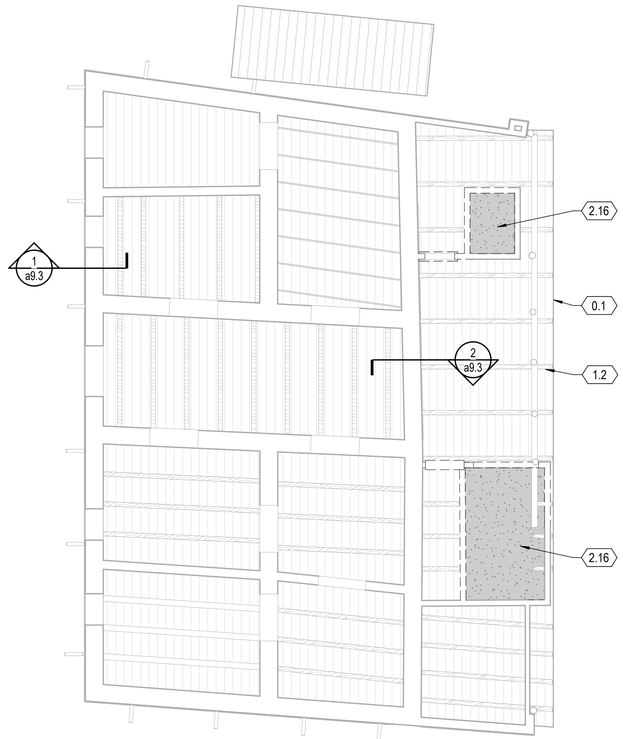
0.1	LINE OF ROOF ABOVE.
1.2	EXISTING 6" DIA. VIGAS TO REMAIN.
1.4	EXISTING WALL TO REMAIN.
1.5	EXISTING PLUMBING FIXTURES TO REMAIN.
1.36	EXISTING MECHANICAL EQUIPMENT, REFER TO MECHANICAL.
2.1	REMOVE TREE, ROOT BALL IN ITS ENTIRETY AND BRICK PLANTER,
2.2	REMOVE WALL.
2.3	REMOVE DOOR AND FRAME.
2.6	REMOVE EXISTING 9" CONCRETE FLOOR SLAB.
2.7	REMOVE EXISTING CONCRETE RAMP.
2.8	REMOVE COUNTERS, SALVAGE TO OWNER.
2.9	REMOVE EXISTING KITCHEN EQUIPMENT, SALVAGE TO OWNER.
2.10	REMOVE EXISTING PLUMBING FIXTURES.
2.12	REMOVE CONCRETE CURB UP TO EXTERIOR FACE OF NEW WALL.
2.13	REMOVE EXISTING PERGOLA.
2.14	CONCRETE & BRICK PAVING TO BE REMOVED IN PHASES, AS IS NEEDED TO ACCESS THE BELOW GRADE REPAIRS ON THE NORTH, WEST AND SOUTH PERIMETER ABOUT THREE FEET IN WIDTH. SAW SLAB IN 3 PARALLEL CUTS (PARALLEL WITH THE BUILDING FACE) IN THE EXISTING GROUT JOINTS. NO CROSS CUTS TO BE MADE BY DEMO CONTRACTOR.
2.15	EXISTING WOOD + IRON GATE TO BE REMOVED AND REPLACED WITH NEW. TO BE INCLUDED IN THE RESTORATION WORK.
2.16	EXISTING CEILING TO BE REMOVED. CLEAN REMAINS AND PREP FOR NEW VAULTED CEILING.
2.18	DEMO EXISTING VEHICLE ACCESS CONCRETE STRIPS. PREPARE FOR NEW CONCRETE WITH SUFFICIENT SUBSTRATE TO SUPPORT VEHICULAR USE.
2.19	REMOVE ANY NON-COMPLIANT THRESHOLDS AND INSTALL ADA COMPLIANT THRESHOLDS.
2.21	REMOVE EXISTING TOILET PARTITIONS.
2.22	REMOVE EXISTING WINDOW & FRAME. PATCH AND FILL TO PROVIDE SMOOTH FINISH.
2.23	REMOVE EXISTING CONCRETE AND PAVERS. RELAY WITH NEW PAVERS, CREATE ADA COMPLIANT ENTRY AT EXTERIOR DOOR. REFER TO CIVIL FOR GRADES.
2.24	REMOVE PORTION OF WALL. PREP FOR NEW GATE. GATE AND ASSOCIATED PANEL TO BE SEPARATE FROM NORTH ADOBE WALL OF MAIN BUILDING. REFER TO DETAILS.
2.25	REMOVE EXISTING ROOF STRUCTURE AND ASSOCIATED COLUMNS.
2.26	REMOVE PORTION OF WALL. PREP FOR NEW DOOR.
2.27	REMOVE EXISTING PAVERS. PREP FOR NEW CONCRETE HARDSCAPE.

general notes

1. DO NOT SCALE DRAWINGS. COORDINATE ALL WORK BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS, CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE IMPLEMENTATION OF WORK.
2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL COORDINATION AS REQUIRED.



1 ad1.0 **demolition floor plan** 1/8" = 1'-0"



2 ad1.0 **demo rcp** 1/8" = 1'-0"

north

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job
1503.08

date
12.05.24

revisions

Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

demolition floor plan

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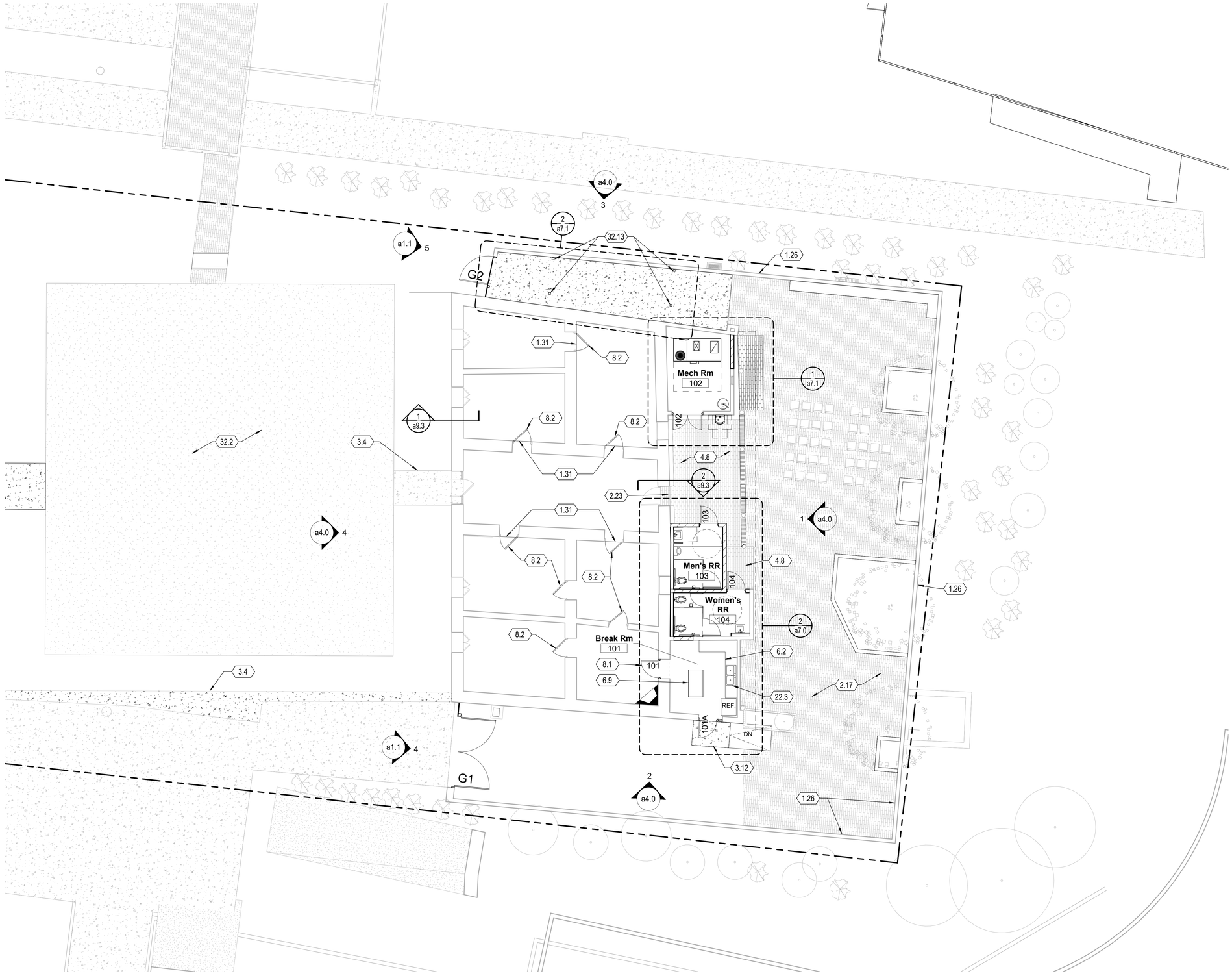

1 a1.0 **access upgrades floor plan**
1/8" = 1'-0"

north

general notes

1. DO NOT SCALE DRAWINGS. COORDINATE ALL WORK BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS, CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE IMPLEMENTATION OF WORK.
2. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL APPLICABLE CODES FOR REQUIRED CLEARANCES OF EQUIPMENT.
3. SLOPE LIMITED TO STABILIZATION & RESTORATION OF EXISTING STRUCTURE.
4. EXISTING WOOD DOORS & WINDOWS TO BE SALVAGED & REPAIRED OR REPLACED WITH LIKE MATERIAL (WOOD).
5. INTERIOR SCOPE LIMITED TO REPAIR ASSOCIATED WITH WINDOW & DOOR RESTORATION.
6. SITE WORK LIMITED TO DEMOLITION REQUIRED FOR ACCESS TO FOUNDATION FOR REINFORCEMENT & REPAIR.
7. FINAL FINISH OF RESTORED EXTERIOR PLASTER WILL BE INTEGRAL COLOR/EXPOSED. NO PAINT.

keynotes

1.26	EXISTING SITE WALL TO REMAIN. PATCH AS REQUIRED + PAINT. INCLUDE WITH ACCESSIBILITY UPGRADES WORK.
1.31	INSTALL ADA COMPLIANT THRESHOLDS.
2.17	DEMO + SALVAGE EXISTING PAVERS TO BE RESET. REUSE SALVAGED PAVERS IN GREATER COURTYARD AREA.
2.23	REMOVE EXISTING CONCRETE AND PAVERS. RELAY WITH NEW PAVERS, CREATE ADA COMPLIANT ENTRY AT EXTERIOR DOOR. REFER TO CIVIL FOR GRADES.
3.4	4" CONCRETE SLAB ON 4" COMPACTED BASE COURSE.
3.12	NEW CONCRETE STOOP ON 4" COMPACTED BASE COURSE. MATCH EXISTING INTERIOR FFE. COORDINATE WITH NEW DOOR PLACEMENT. PROVIDE MIN. 12" PULL CLEARANCE TO WEST OF DOOR. PROVIDE SLOPED CONCRETE TO NEW GRADE TO THE EAST OF NEW DOOR STOOP, AT 1:20 MAX SLOPE.
4.8	NEW PAVER AREA. MATCH EXISTING AS IS POSSIBLE. USE SALVAGED IF AVAILABLE.
6.2	HARD SURFACE COUNTERTOP (4" BACKSPLASH WHERE SHOWN).
6.9	MILLWORK, SEE INTERIOR ELEVATIONS
8.1	DOOR AND FRAME, REFER TO DOOR SCHEDULE.
8.2	REINSTALL EXISTING DOORS. COORDINATE WITH OWNER.
22.3	SINK, REFER TO PLUMBING.
32.2	EXTERIOR EVENT SPACE.
32.13	STEEL SHADE CANOPY. REFER TO STRUCTURAL AND A7.1.

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Sosa-Carillo House Renovation
260 S Church Ave. Tucson, AZ 85701

access upgrades floor plan

a1.0

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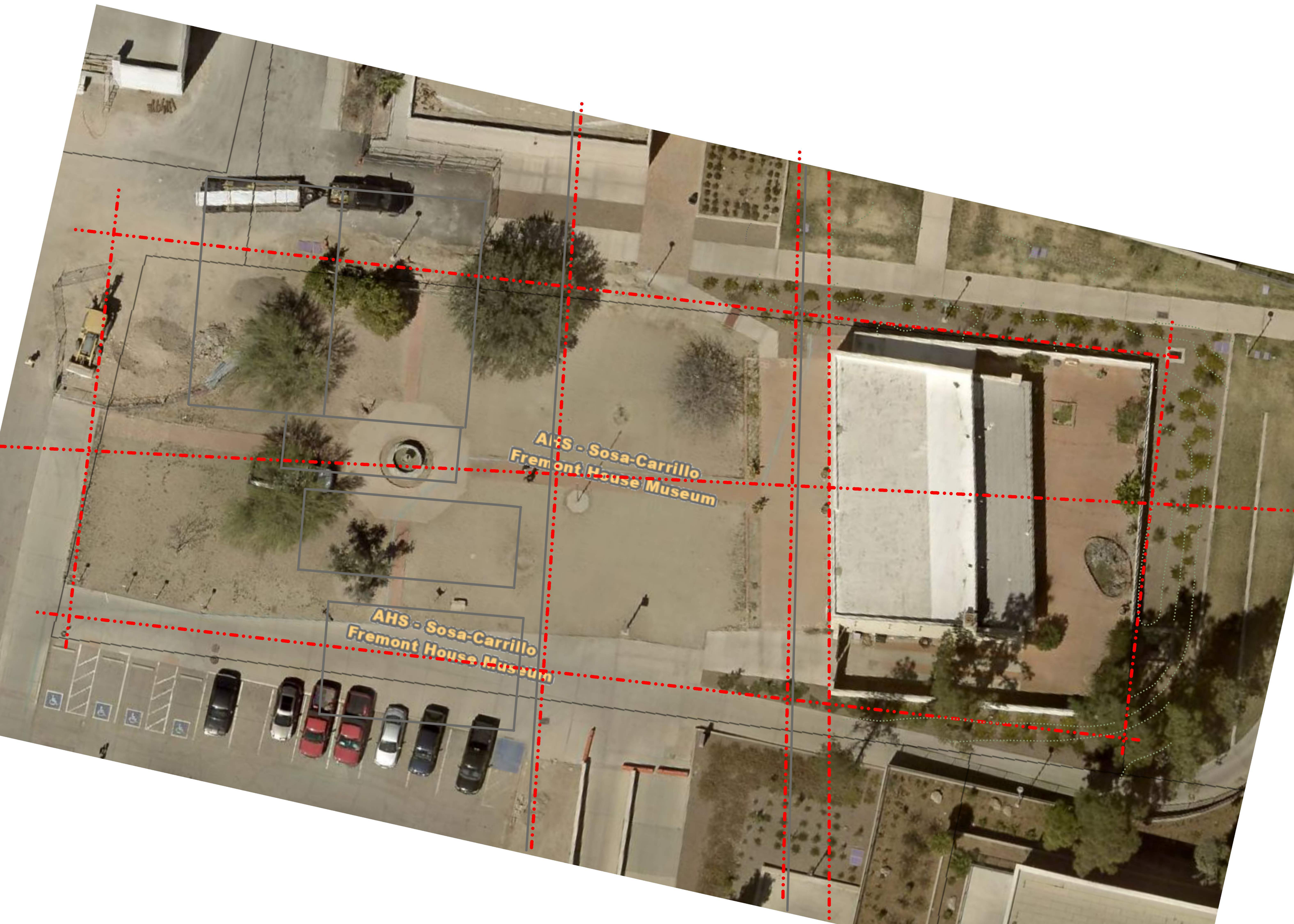
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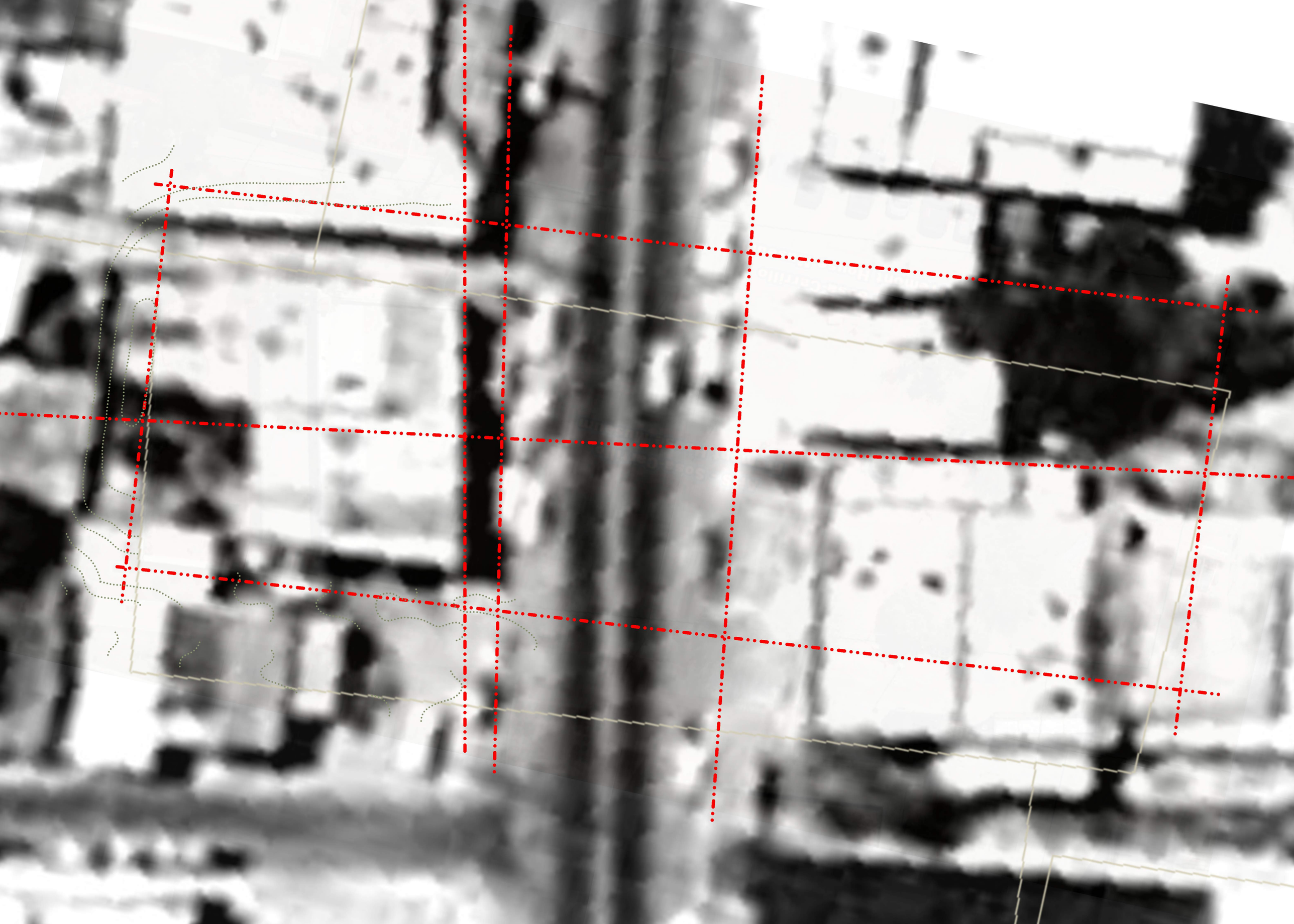
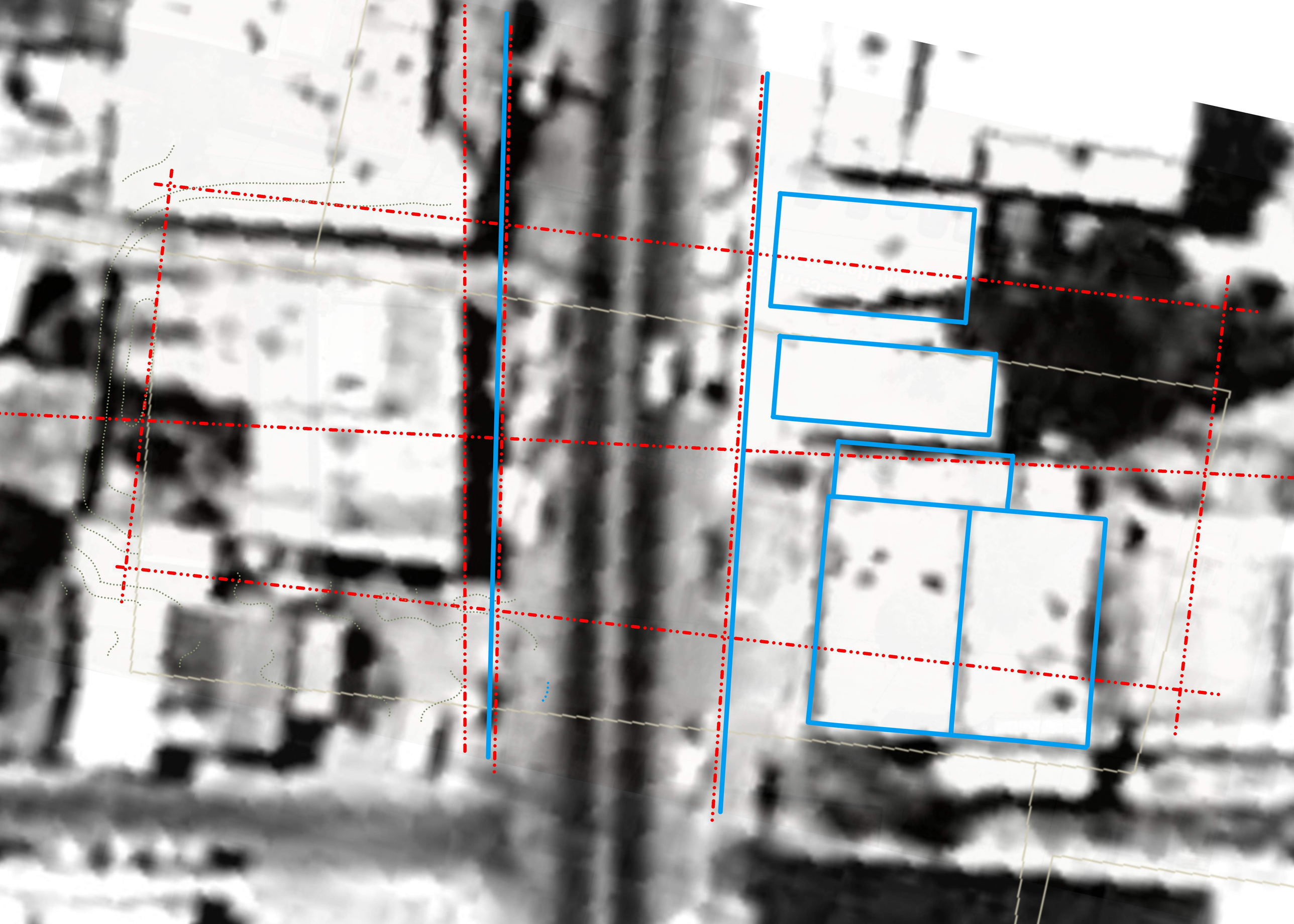
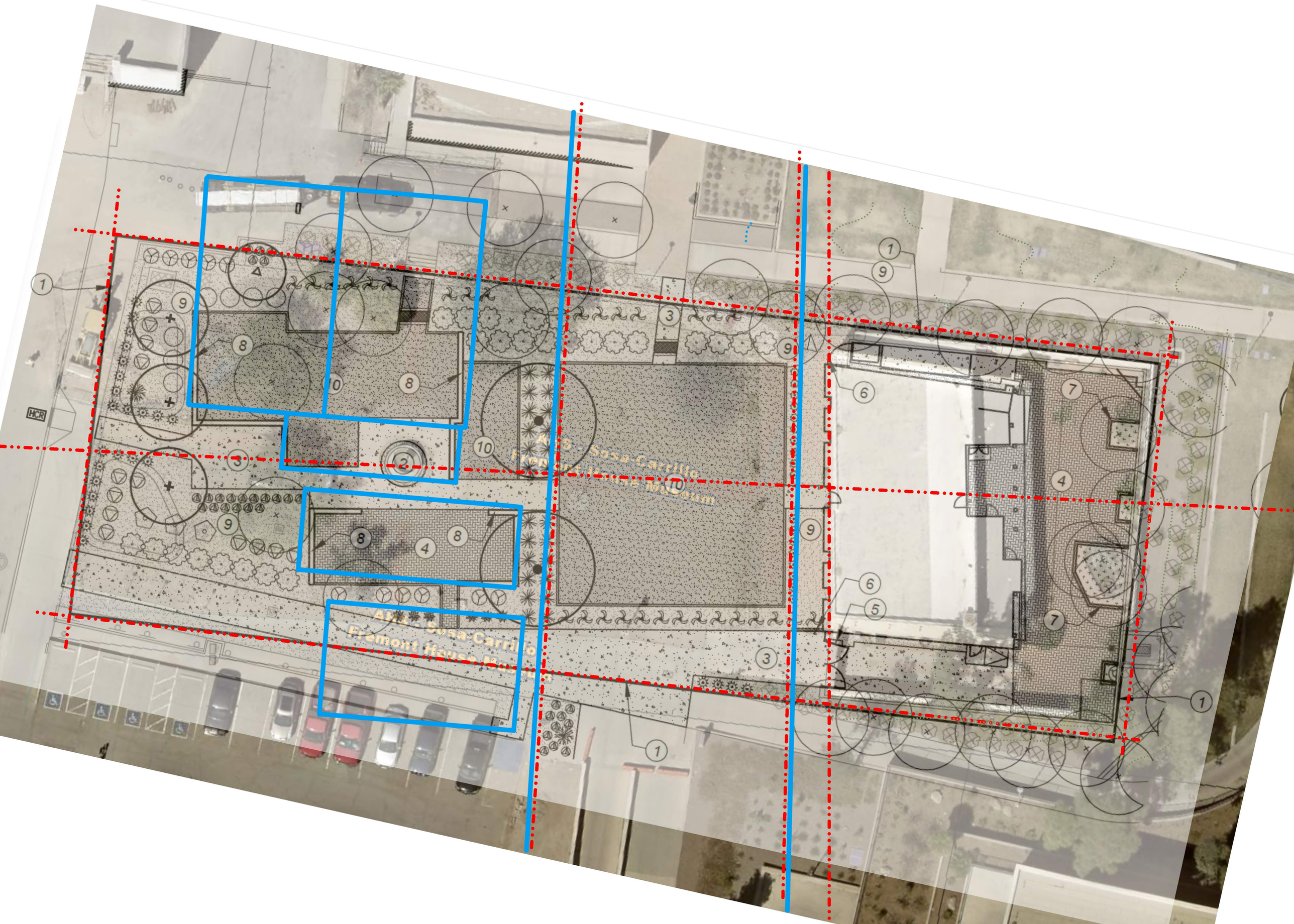
Fremont House Museum



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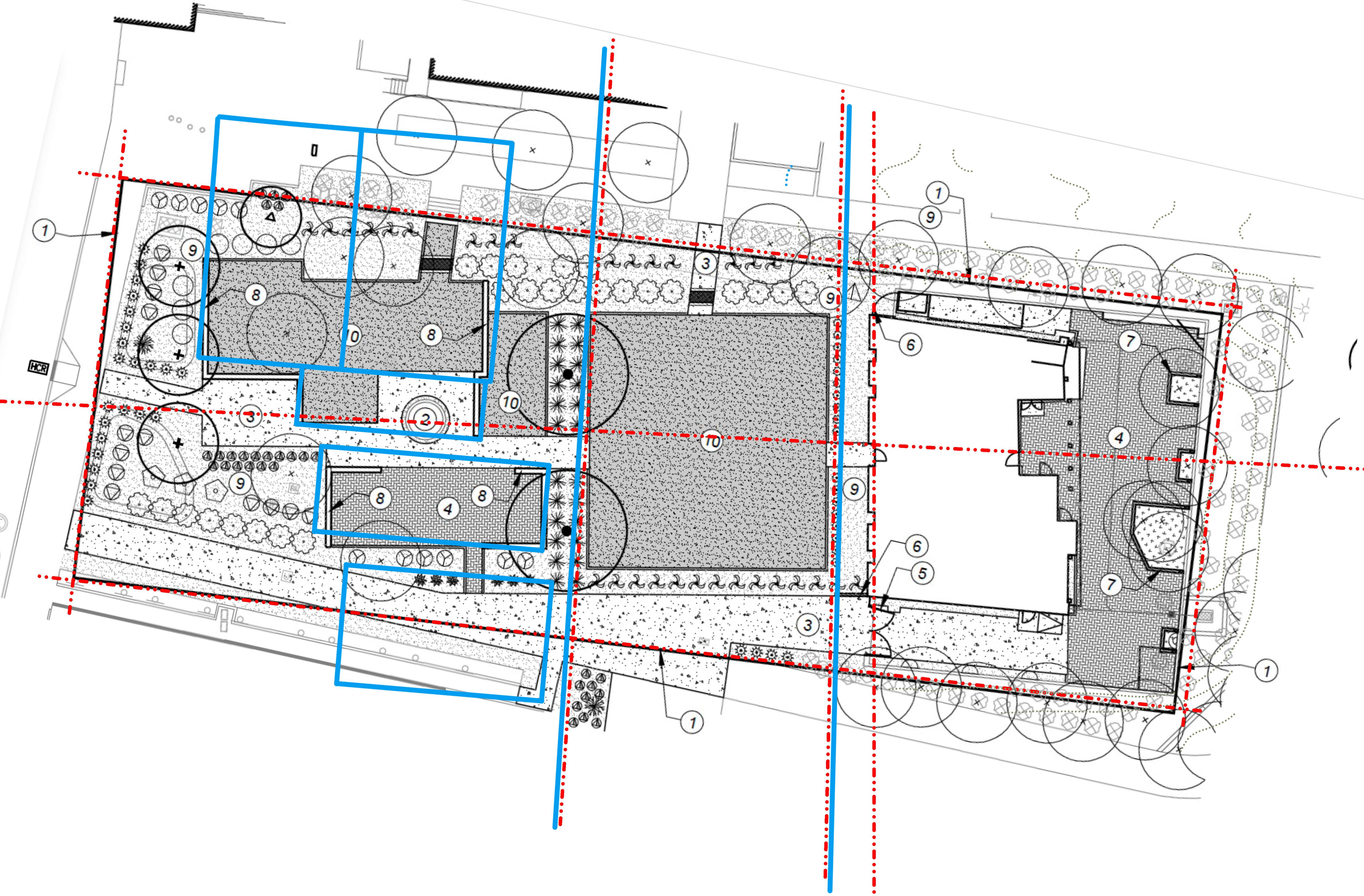
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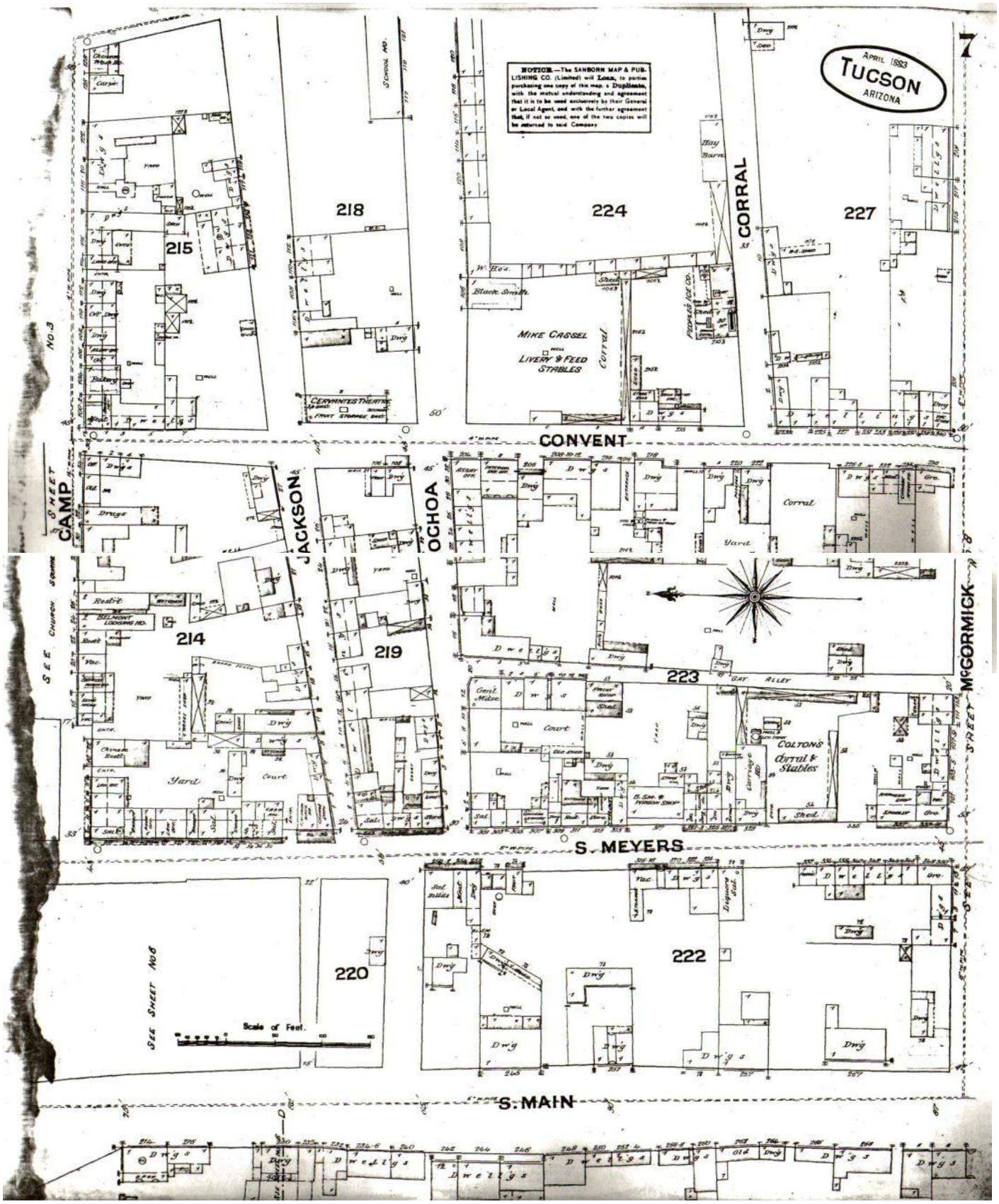
Tucson Fire Department

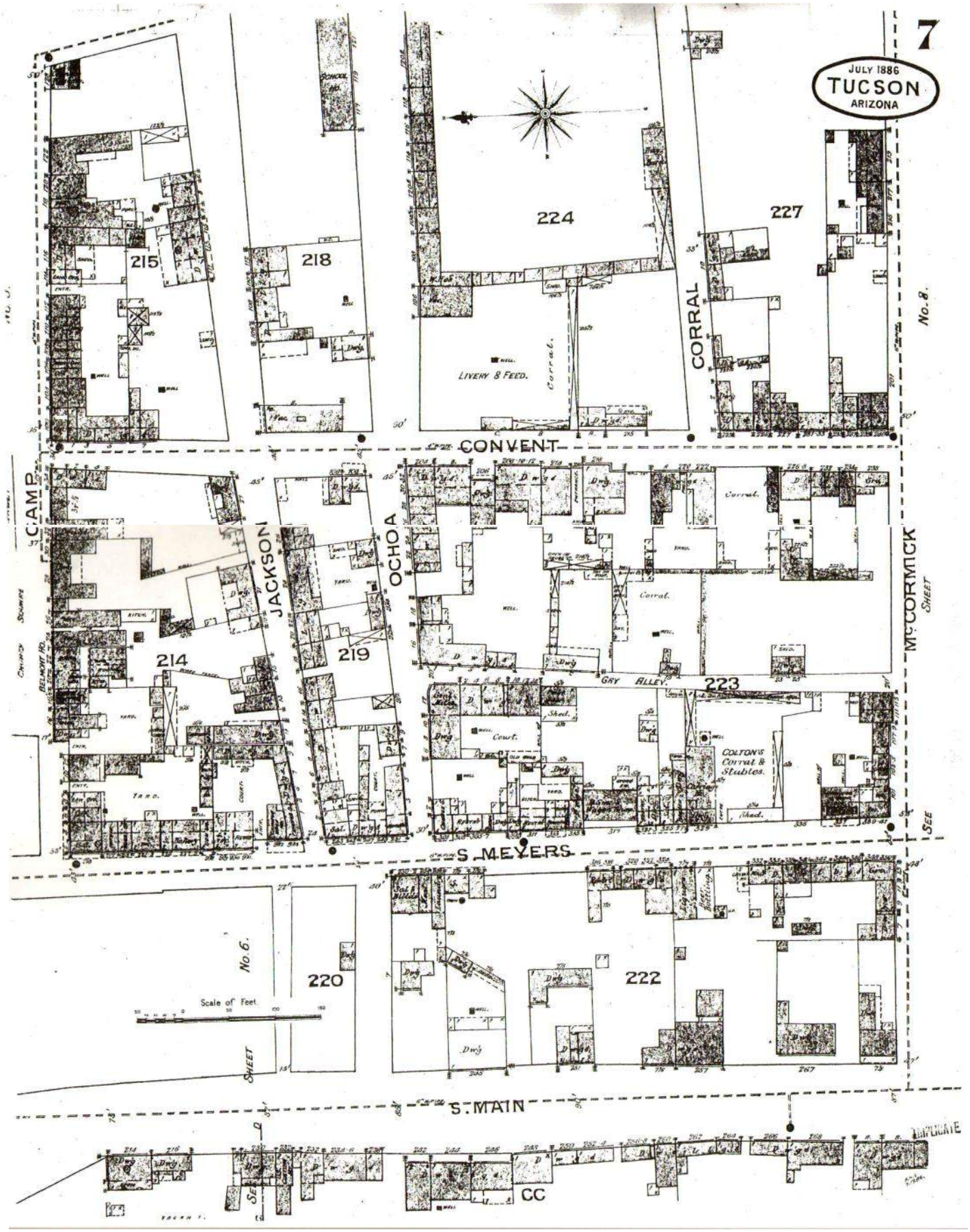
Tucson Sanborn Maps, 1883, 1886, 1901, 1909
2nd Edition

SEE BOOKMARKS FOR SOSA CARRILLO HOUSE LOCATION AND CONFIGURATION

1883, Sanborn Map, Tucson, Arizona Territory



1886, Sanborn Map, Tucson, Arizona Territory



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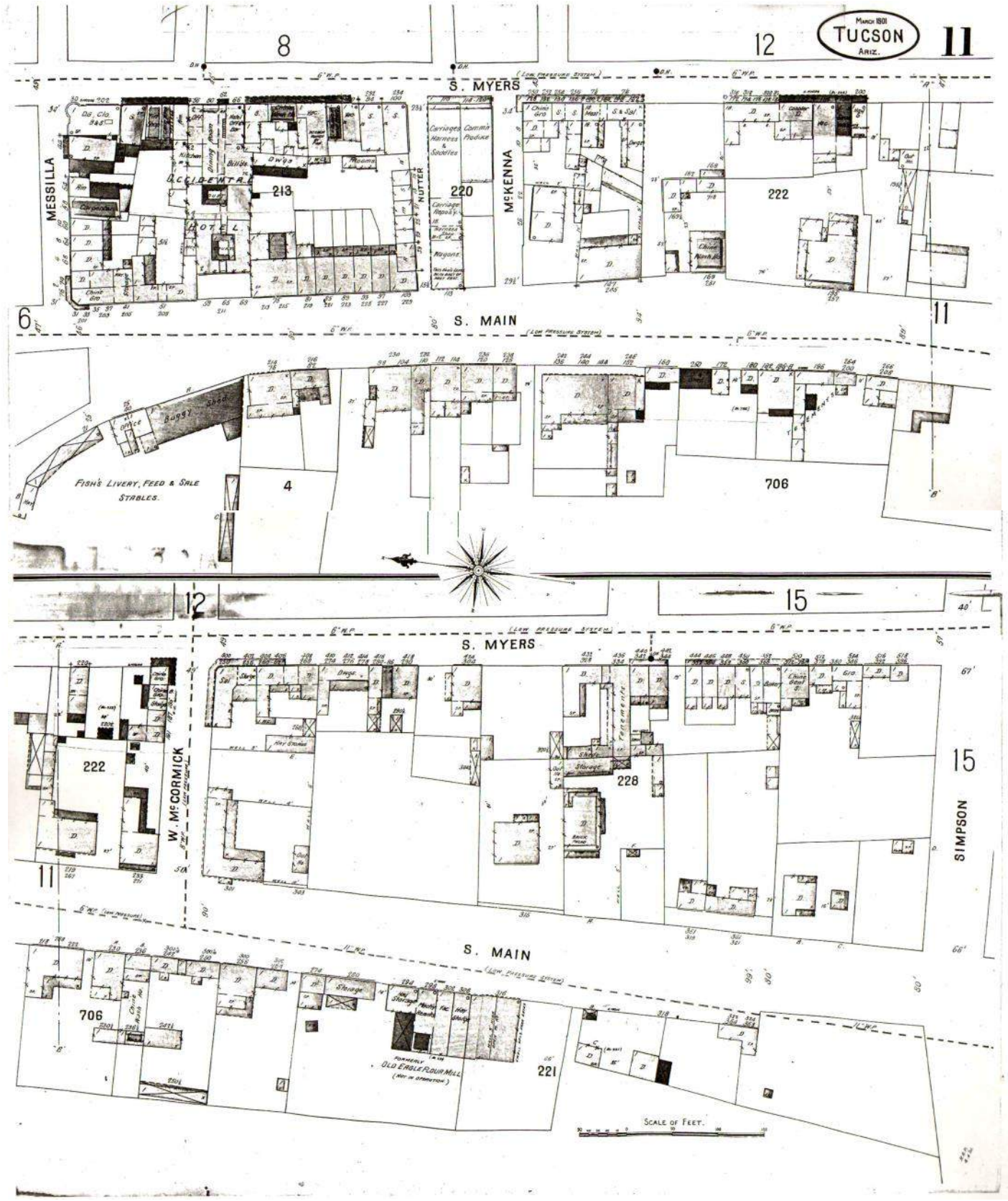

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