



MCCD DESIGN REVIEW COMMITTEE
Zoom Video Conference

Notice of Public Meeting

Public Notice is hereby given that this meeting will occur electronically without an anchor location in accordance with Utah Code 52-4-207(4), due to infectious disease COVID-19 Novel Coronavirus. The Design Review Committee Chair has determined that conducting a meeting with an anchor location presents substantial risk to the health and safety of those who may be present at the anchor location because physical distancing measures may be difficult to maintain.

To view or listen to the meeting electronically, please register at <https://tinyurl.com/mccd122920> or contact the Planning Division at 801-270-2420 or planning@murray.utah.gov so we can make arrangements to accommodate your participation.

Meeting Date: Tuesday, December 29, 2020
Meeting Time: 5:30 p.m.

AGENDA:

DESIGN REVIEW

1. The Vine Apartments
184 East Vine Street
Mixed Use Development

Project #: 20-110

OTHER BUSINESS

Special accommodations for the hearing or visually impaired will be upon a request to the office of the Murray City Recorder (801-264-2660). We would appreciate notification two working days prior to the meeting. TTY is Relay Utah at #711.

Committee members may choose to participate via telephonic communication or teleconferencing so that all other Committee members and all other persons present in the room will be able to hear all discussions.

On the 23rd day of December 2020, before 5 pm, a copy of the foregoing Notice of Meeting was posted in accordance with Section 10-9a-201 through 209 and Section 52-4-202, U.C.A.

Jared Hall, Planning Division Manager

Murray City Center District Committee Meeting Opening Statement

As the chair of the Murray City Center District Design Review Committee, I, C.J. Kulp, have determined that due to infectious disease COVID-19 Novel Coronavirus, holding an in-person meeting with an anchor location presents a substantial risk to the health and safety of those in attendance.

Under these circumstances, Utah Code 52-4-207(4), allows for electronic meetings to be held without an anchor location so long as the public has an opportunity to view the meeting and submit public comments.

We are holding tonight's Design Review Committee meeting via video conference. If you have a public comment to submit to the Design Review Committee, please do so via email at planning@murray.utah.gov.

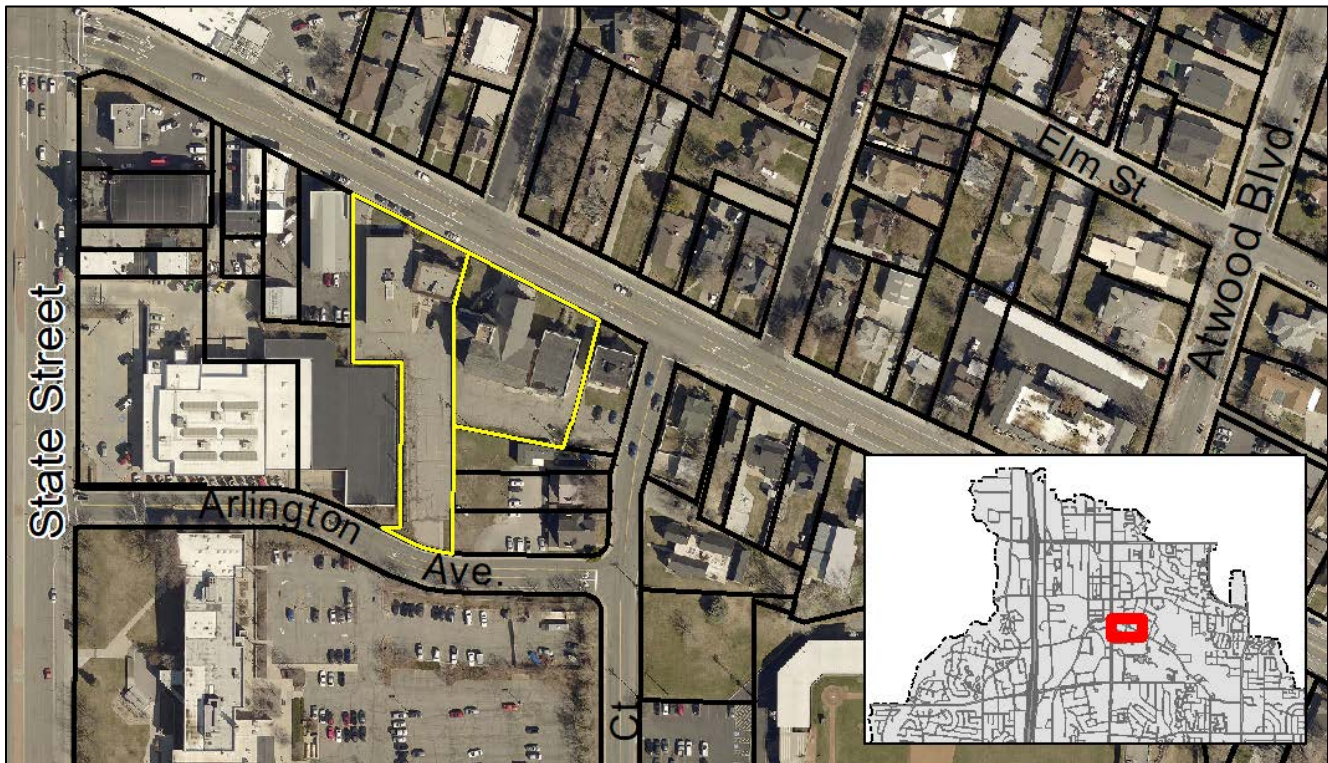


C.J. Kulp
Chair



AGENDA ITEM #1

ITEM TYPE:	Design Review to allow a mixed-use building		
ADDRESS:	184 East Vine Street	MEETING DATE:	December 29, 2020
APPLICANT:	Joe Johnsen, Sync Development	STAFF:	Zachary Smallwood, Associate Planner
PARCEL ID:	22-07-157-042	PROJECT NUMBER:	20-110
ZONE:	MCCD, Murray City Center District		
SIZE:	1.39 Acre Site 159,539 ft ² Building 6,600 ft ² commercial 130 residential units		
REQUEST:	The applicant is requesting Design Review approval to allow the construction of a new mixed-use building.		



I. LAND USE ORDINANCE

Section 17.170.040 of the Murray City Land Use Ordinance outlines the process for review of applications located within the Murray City Center District (MCCD). New construction within the zone requires Design Review Approval by the Planning Commission after obtaining a recommendation from the MCCD Design Review Committee.

II. BACKGROUND

Project Location

The subject property is located east of State Street along the south side of Vine Street. It was the location of the Murray First Ward building and the Murray Carnegie Library. The buildings have been removed by the property owner.

Surrounding Land Use and Zoning

<u>Direction</u>	<u>Land Use</u>	<u>Zoning</u>
North	Single Family Residential	MCCD & R-M-15
South	Government	MCCD
East	Multi-Family Residential	MCCD
West	Government	MCCD

Project Description

The applicants are proposing a seven (7) story mixed-use building at the subject property. It would include retail uses on the ground floor along Vine Street with multi-family residential on floors three through seven. The second floor will be used for the mechanical area and bike storage. The parking is largely provided within the envelope of the building and includes a second level of structured parking.

Area, Width, Frontage and Yard Regulations

Section 17.170.050 of the Land Use Ordinance states that main entries to a building should provide a strong connection to the street. Proposed developments must be set back a minimum of twelve feet (12') from the property facing curb and gutter. The applicants have shown the installation of the MCCD requirements of five feet (5') of park strip and seven feet (7') of sidewalk along Vine Street. The City Engineer has asked the applicant to shift the building back to allow for the doors to the commercial and lobby space to not swing into the public right of way. This has set the building approximately five additional feet back. The 17' setback proposed meets the ordinance requirement that 80% of the building is located within twenty-five feet (25') from the back of curb.

The applicants have not shown the improvements to the Arlington Avenue frontage. These improvements are required and are listed as a condition of approval.

Public Improvements and Street Character

The applicants have proposed to mark the street frontage along Vine Street as a fire lane and for loading/unloading for potential deliveries (see figure 1). The Murray City Fire Department and Engineering Division have asked for additional space to be able to park emergency vehicles without impeding traffic on Vine Street. Planning Division staff has spoken to the applicant and they are looking into ways to provide for emergency vehicle access.

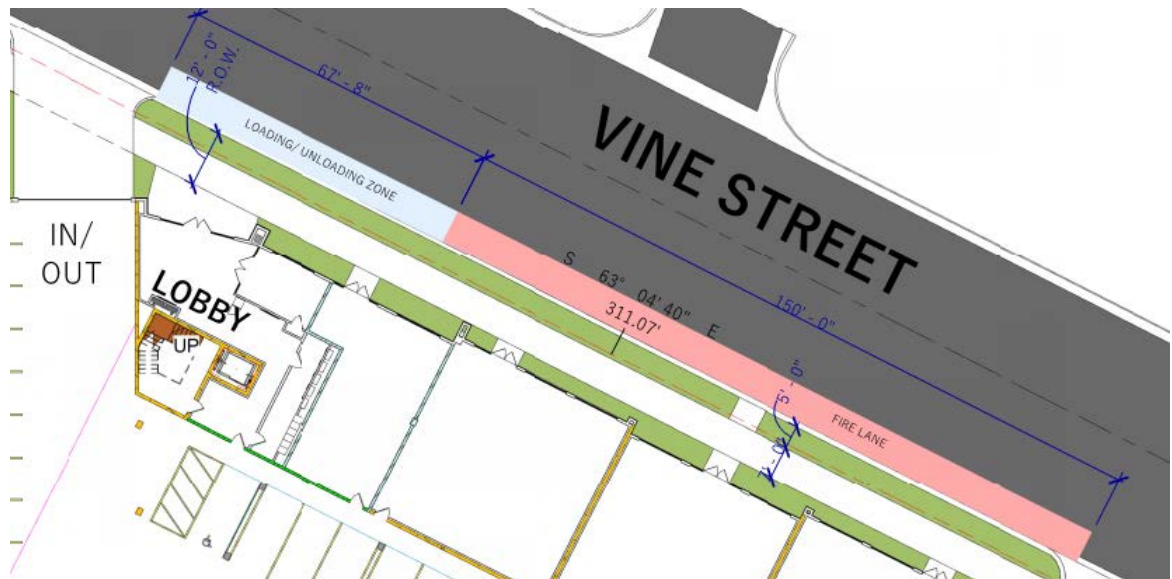


Figure 1: Proposed Fire Lane and loading/unloading zone

As stated above, the applicants have shown the installation of the required public right-of-way improvements along Vine Street. The Site Plan will need to be amended to show the improvements along the Arlington Frontage. The applicants will need to install city standard street furniture such as benches and garbage collection containers that have been previously installed on other projects within the district. The applicant will need to provide an improvements plan showing where they propose to include the street furniture and including specifications of the proposed street furnishings for review.

Building Design, Scaling and Density

The applicants are required to have functional entries at seventy-five feet (75') on average. The proposed plans indicate entries at approximately thirty-six feet (36') on average. Staff does not have any concerns with the number of entries for this building.

Functional entries must be oriented towards the street. Staff does not see any concerns with the way the building is oriented. The building faces Vine Street as the primary street. There is an access on Arlington that will be used largely as a vehicular entry. Though it is primarily being used as a vehicular entry into the development pedestrian improvements will need to be installed.

The Land Use Ordinance requires that blank walls not occupy over 50% of the principal frontage and that windows not be tinted to such a degree that block visibility. Staff has reviewed these requirements with the applicant and they have stated that the windows will not be tinted.

Commercial uses are required on the ground floors of multi-story residential buildings facing a public street for a minimum depth of forty feet (40'). The applicants have met this requirement by creating up to four possible tenant spaces on the ground floor.

Residential density in the Murray City Center District is allowed up to 100 units per acre. The subject property is approximately 1.39 acres resulting in an allowed 139 units. The applicants have proposed 130, representing a residential density of 94 units per acre.

Building Materials

The applicants have proposed a mix of materials for this project. The base is largely grey brick cladding with stone and metal paneling accents. The residential floors above the commercial space is a mix of grey and white stucco with aluminum paneling and wood fiber board accents.

The applicants have provided ample windows throughout the site for visibility by the commercial tenants and prospective residential tenants. A materials package is included with this staff report for review.

Height Regulations

Section 17.170.120 prescribes height requirements for the MCCD Zone. For buildings that are located within sixty feet (60') of a residential district height is limited to fifty feet (50'). Staff has measured the distance from the proposed building to the R-M-15 Zone to the north across Vine Street and found it is approximately seventy-seven feet (77'). Using this measurement, the allowed building heights are up to ten (10) stories or 135' whichever is less. The applicants have proposed a seventy-five foot (75') building which is within the requirements of the Land

Use Ordinance.

Lighting Standards

Staff has reviewed the proposed photometric plan that is attached to this report. The proposed lighting meets the standards of the Land Use Ordinance. Staff recommends that the applicants work with Murray City Power to provide the appropriate streetlights that will be required to be installed during the construction.

Parking Regulations

Square footage of commercial space indicated on the plans is 6,600 ft² of total space. The Land Use Ordinance states that parking should be calculated based on net usable space. Staff has calculated that amount to be 5,280 ft². This results in a commercial requirement of eleven (11) parking stalls. The applicants have indicated the parking immediately behind the commercial areas will be marked for that use. There are 53 spaces indicated in this area, 18 of which are directly adjacent to the rear of the commercial units.

Residential parking is calculated at a minimum of one (1) space per unit up to a maximum of 1.25 (2 bedrooms or less) or 1.4 (more than 2 bedrooms). This results in a minimum parking requirement of 130 parking spaces for the residential component, with a maximum of 163 spaces allowed.

Within the MCCD Zone there is a bike parking requirement. 5% of the total number of spaces required must also be provided for bicycles. This results in seven (7) required bicycle parking spaces. Additionally, there is a provision for a reduction in vehicular parking spaces if additional bicycle parking is provided. This provision allows up to a 10% reduction or twelve (12) spaces. The applicants have proposed an additional fifty-three bicycle parking spaces resulting in an allowed reduction of ten (10) vehicular parking spaces.

The above information is referenced in the table below:

	Min Required	Max Allowed	Provided
Commercial	11	20	11
Residential	130	163	132
Bicycle	7	N/A	60 (53 used for 10 vehicular reduction)
Total Vehicular	141	183	143
Total with Bicycle Reduction	131	173	143

Subsection (A)(7) requires that buildings greater than four stories in height have at least 50% of the parking located within the exterior walls of the building or within parking structures. The proposed plan provides 101 parking spaces within the building envelope, which equates to 71% of the total parking. This meets the Land Use Ordinance requirement.

A traffic impact study has been provided to the City Engineer. The study states that the potential traffic that would be generated with this project will largely remain the same. The main recommendation applies to west bound Vine Street as it intersects with State Street. The recommendation is to convert the existing right turn only lane and bike lane into a turn and through lane with a bicycle “sharrow”. The Executive Summary and Summary of Key Findings/Recommendations are included as an attachment to this report for review.

Loading and Service Areas

Mechanical space has largely been provided on the second floor of the building above the commercial spaces along Vine Street. There is also a generator that is located in the parking area, underneath the ramp to the mezzanine level. The applicants have proposed to locate the garbage collection on the east side of the property behind the parking gate. Staff does not have any concerns with this location because it is adequately screened.

Open Space & Landscaping

Section 17.170.160(A) states that there the proposal must include a system of pedestrian walkways and sidewalks that provide access to building entrances. The building largely faces Vine Street and has great access to that street. The applicants have proposed a walkway from Arlington Avenue to the building for additional pedestrian access.

15% of the site area must be landscaping and amenity space. The applicants indicate a total property square footage of 56,675 ft². This requires 8,502 ft² of open space. The applicant has provided a total of 11,293 ft² (20%) which includes 2,433 ft² of landscaping and 8,860 ft² of roof deck amenity. The applicant meets this requirement, no additional open space is required. Full landscaping plans meeting the requirements of Section 17.68 will be required for Planning Commission review.

Signage

The applicant has not provided any proposed signage for the project. Any signage will go through the building permitting process.

III. DESIGN REVIEW STANDARDS REVIEW

Section 17.170.040(2)(c) outlines the following standards for review for Design Review Approval.

A. The project is in general conformance with the current Murray City General Plan.

With compliance to city regulations, the proposed use is desirable and will be in conformance with the current Murray City General Plan. Initiative 1 of the 2017 General Plan indicates that development of the Downtown area is desired. This project provides new commercial and residential uses in the area. This allows for additional people to call Murray home and patronize local businesses within the Murray City Center District.

B. The project is in general conformance with the specific area plan, if any, adopted for the area.

There are no specific area plans in this area.

C. The project conforms to the requirements of the applicable sections of the Land Use Ordinance.

With conditions, the proposed building will conform with the applicable standards of the Murray City Center District section of the Murray City Land Use Ordinance as outlined in the staff review.

D. The project does not jeopardize the health, safety, or welfare of the public.

With conditions the proposed building will not jeopardize the health, safety, or welfare of the public. The proposed project will bring much needed investment in the area and provide opportunities for additional commercial spaces to be used by all residents within the MCCD and neighboring communities.

E. The Project is in harmony with the purpose of the MCCD zone and adheres to the principles of the design guidelines.

The applicants have proposed a project that will be desirable for this location and is in harmony with the purpose of the MCCD Zone and meets the principles laid out in the Design Guidelines.

The Murray City Design Guidelines reference development goals. One goal is providing vibrant neighborhoods, this proposed project with its new mix of commercial and residential space will increase the people in the area to help foster renewed interest in the area.

Additionally, the guidelines call for attractive architecture and streetscape. The proposed project will develop a vacant site and install public improvements that contribute to a more walkable and livable downtown by increasing the buffer between pedestrians and vehicles.

The proposed project addresses “Capitalize on Transit Opportunities” by providing ample space for bicycles to be stored. This project is close to Murray City Park and shopping at the Pointe at 53rd. This will allow people to walk to obtain food, electronics, and a variety of other services in the area.

IV. CITY DEPARTMENT REVIEW

The Murray City Planning Division distributed the applicant’s relevant materials to various departments for review and comment on November 16, 2020. The following comments have been provided in response:

Engineering Division:

1. Meet City storm drainage requirements, on-site retention of the 80th percentile storm is required. Implement Low Impact Development (LID) practices.
2. Dedicate right-of-way along Vine Street and Arlington and install MCCD street improvements (sidewalk & park strip).
3. Building and doorways should be setback several feet from the sidewalk to allow proper building access and building doors should not swing into the public way.
4. The parking access should to be setback from the sidewalk to allow adequate line of sight for pedestrian and vehicular cross traffic.
5. On-street parking needs to be avoided near the drive accesses to allow adequate line of sight for vehicular access onto Vine Street.
6. Avoid using the public right-of-way for staging during construction.
7. Develop a curb side management plan that addresses the proposed commercial space parking, deliveries, service vehicles, emergency vehicles, moving trucks and dumpster service – determine where vehicles will park when accessing and servicing the building. The proposed Loading Zone/Fire Lane will impede line of sight for drivers exiting the parking lot. Dumpsters should not be wheeled out to the sidewalk or street for service.
8. The pedestrian path connection to Arlington will likely need to be retained due to the grade difference between the parking lot and the post office parking structure opening. A fence or handrail may also be needed.
9. The development may meet the minimum MCCD parking requirement, but I highly recommend increasing parking count to at least one stall per bedroom to avoid

parking bleed into surrounding neighborhoods. The commercial parking stalls should also be shared parking after business hours. Vine Street, Jones Court and Arlington Street will not accommodate much on-street parking.

10. Provide a UDOT level II Traffic Impact Study and implement recommendations.
11. Develop a site SWPPP and obtain a Land Disturbance Permit prior to beginning any site work.
12. Obtain a City Excavation Permit for work in the City right-of-way.

Fire Department

1. Fire Department does not see any access besides the road.
2. Applicant must either provide a pullout on Vine Street or provide a drive that connects the front and rear of the property without going through the garage.
3. Fire access must be provided to allow for Fire Department Connection and building access points.
4. Be aware of the height requirement for installing a fire pump for the riser.

Power Department

1. Some power line relocations are necessary
2. Meet all Power Department requirements

Water Division

1. There are water disconnects in the street that will need to be made.

Waste Water Division

1. Sewer will need to tie into Vine Street.
2. Sewer main on Vine is approximately 9.6 feet deep.
3. There is a shared lateral for 5000-5006 Jones Ct that runs down the east side footprint of the new building. This will have to be kept in service during construction.

V. FINDINGS

Based on the analysis of the Design Review application to allow a mixed-use building and a survey of the surrounding area, staff concludes the following:

1. The proposed use for a mixed-use building is allowed in the MCCD Zoning District subject to Design Review by the Murray City Design Review Committee and Planning Commission.
2. With conditions as outlined in the staff report, the proposed use and property will comply with the standards of the Murray City Land Use Ordinance.
3. The proposed use is in harmony with the goals and objectives of the Murray City General

Plan in this area.

VI. CONCLUSION & RECOMMENDATION

Staff recommends that the Design Review Committee review the proposed building for Design Review Approval and forward a recommendation to approve the proposed mixed-use building located at the property 184 East Vine Street subject to the following conditions:

1. The applicant shall meet Murray City Engineering requirements including the following:
 - a) Meet City storm drainage requirements, on-site retention of the 80th percentile storm is required. Implement Low Impact Development (LID) practices.
 - b) Dedicate right-of-way along Vine Street and Arlington and install MCCD street improvements (sidewalk & park strip).
 - c) Building and doorways should be setback several feet from the sidewalk to allow proper building access and building doors should not swing into the public way.
 - d) The parking access should to be setback from the sidewalk to allow adequate line of sight for pedestrian and vehicular cross traffic.
 - e) On-street parking needs to be avoided near the drive accesses to allow adequate line of sight for vehicular access onto Vine Street.
 - f) Avoid using the public right-of-way for staging during construction.
 - g) Develop a curb side management plan that addresses the proposed commercial space parking, deliveries, service vehicles, emergency vehicles, moving trucks and dumpster service – determine where vehicles will park when accessing and servicing the building. The proposed Loading Zone/Fire Lane will impede line of sight for drivers exiting the parking lot. Dumpsters should not be wheeled out to the sidewalk or street for service.
 - h) The pedestrian path connection to Arlington will likely need to be retained due to the grade difference between the parking lot and the post office parking structure opening. A fence or handrail may also be needed.
 - i) The development may meet the minimum MCCD parking requirement, but I highly recommend increasing parking count to at least one stall per bedroom to avoid parking bleed into surrounding neighborhoods. The commercial parking stalls should

also be shared parking after business hours. Vine Street, Jones Court and Arlington Street will not accommodate much on-street parking.

- j) Provide a UDOT level II Traffic Impact Study and implement recommendations.
 - k) Develop a site SWPPP and obtain a Land Disturbance Permit prior to beginning any site work.
 - l) Obtain a City Excavation Permit for work in the City right-of-way.
2. The applicant shall meet all Murray City Fire Department requirements including the following:
 - a) Applicant must either provide a pullout on Vine Street or provide a drive that connects the front and rear of the property without going through the garage.
 - b) Fire access must be provided to allow for Fire Department Connection and building access points.
 - c) Be aware of the height requirement for installing a fire pump for the riser.
 3. The applicant shall relocate any power lines that may be required by the Murray City Power Department.
 4. The applicant shall meet all Murray City Power Department requirements.
 5. The applicant shall with the Murray City Water Division to ensure all water disconnects are made.
 6. Sewer connections to the development shall tie into Vine Street.
 7. The shared sewer lateral for 5000-5006 Jones Court shall be kept in service during construction.
 8. The applicant shall meet all the standards of Section 17.170 (Murray City Center District) of the Murray City Land Use Ordinance.
 9. The applicant shall provide an updated Site Plan that shows the public improvements along the Arlington Avenue frontage.
 10. The applicant shall provide an Improvements Plan that indicates locations of benches, and trash cans within the public right of way.
 11. The applicant shall obtain a sign permit for any proposed signage.

12. The applicant shall ensure that any commercial tenants obtain a Murray City Business License prior to the operation of any business.

MURRAY CITY CENTER DISTRICT APPLICATION

Type of Application (check all that apply):

- ☐ Minor Alteration ☐ Significant Building
☐ Major Alteration ☒ New Construction
☐ Demolition

Subject Property Address: 184 E. VINE ST. MURRAY, UT 84107

Parcel Identification (Sidwell) Number: 22-07-157-042, 22-07-157-029

Parcel Area: 56,666 SF Current Use: VACANT Zoning Classification: MCCD

Floor Area: 135,841 SF Retail/Office/Storage Area: 6,574 SF

Applicant Name: SYNC DEVELOPMENT

Mailing Address: 1946 E. CLAYBORNE AVE.

City, State, ZIP: SLC, UT 84106

Daytime Phone #: 801-913-1420 Fax #: _____

Email Joe.johnsen@gmail.com

Business Name (If applicable): _____

Property Owner's Name (If different): DS VINE INVESTMENTS LLC

Property Owner's Mailing Address: SAME AS ABOVE

City, State, Zip: _____

Daytime Phone #: _____ Fax #: _____

Email _____

Describe your request in detail (use additional page if necessary): APPLICANT IS

SUBMITTING FOR DRC REVIEW WHICH IS COMPRISED OF

130 DWELLING UNITS & COMMERCIAL SPACE PER MCCD ZONING.

Authorized Signature:  Date: 9-24-20

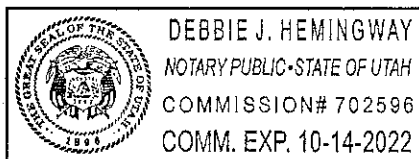
Property Owners Affidavit

I (we) JOE JOHNSON, being first duly sworn, depose and say that I (we) am (are) the current owner of the property involved in this application: that I (we) have read the application and attached plans and other exhibits and are familiar with its contents; and that said contents are in all respects true and correct based upon my personal knowledge.

Owner's Signature

Owner's Signature (co-owner if any)

Subscribed and sworn to before me this 24th day of Sept., 20 20



Notary Public

Residing in SLC, UT

My commission expires: 10/14/22

Agent Authorization

I (we), _____, the owner(s) of the real property located at _____

_____, in Murray City, Utah, do hereby appoint _____

_____, as my (our) agent to represent me (us) with regard to this application affecting the above described real property, and authorize _____

_____ to appear on my (our) behalf before any City board or commission considering this application.

Owner's Signature

Owner's Signature (co-owner if any)

On the _____ day of _____, 20 _____, personally appeared before me _____

_____ the signer(s) of the above Agent Authorization who duly acknowledge to me that they executed the same.

Notary Public

Residing in _____

My commission expires: _____

THE VINE APARTMENTS

184 E VINE STREET
MURRAY, UTAH

ISSUE DATE:		
NOVEMBER 13, 2020		
PROJECT NUMBER		
20071		
REVISIONS:		
No.	Date	Description



THE VINE APARTMENTS



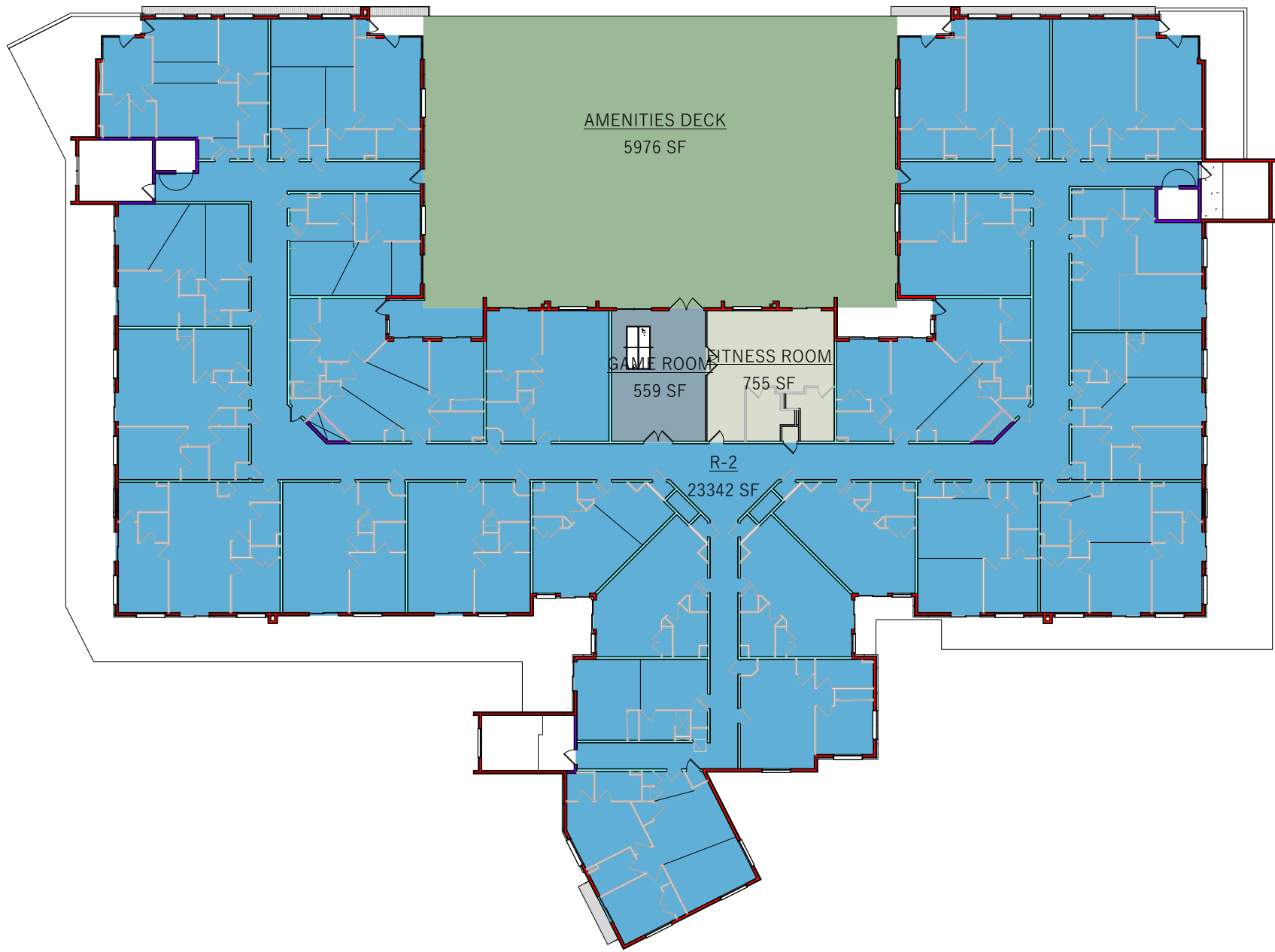
4
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MAIN FLOOR AREA PLAN
1" = 30'-0"

MAIN FLOOR AREAS		
COMMERCIAL		6600 SF
LOBBY		992 SF
MECH		44 SF
PARKING		26075 SF
R-2		413 SF
R-2		334 SF
R-2		238 SF
TRASH		279 SF
TRASH		155 SF
TOTAL:		35129 SF



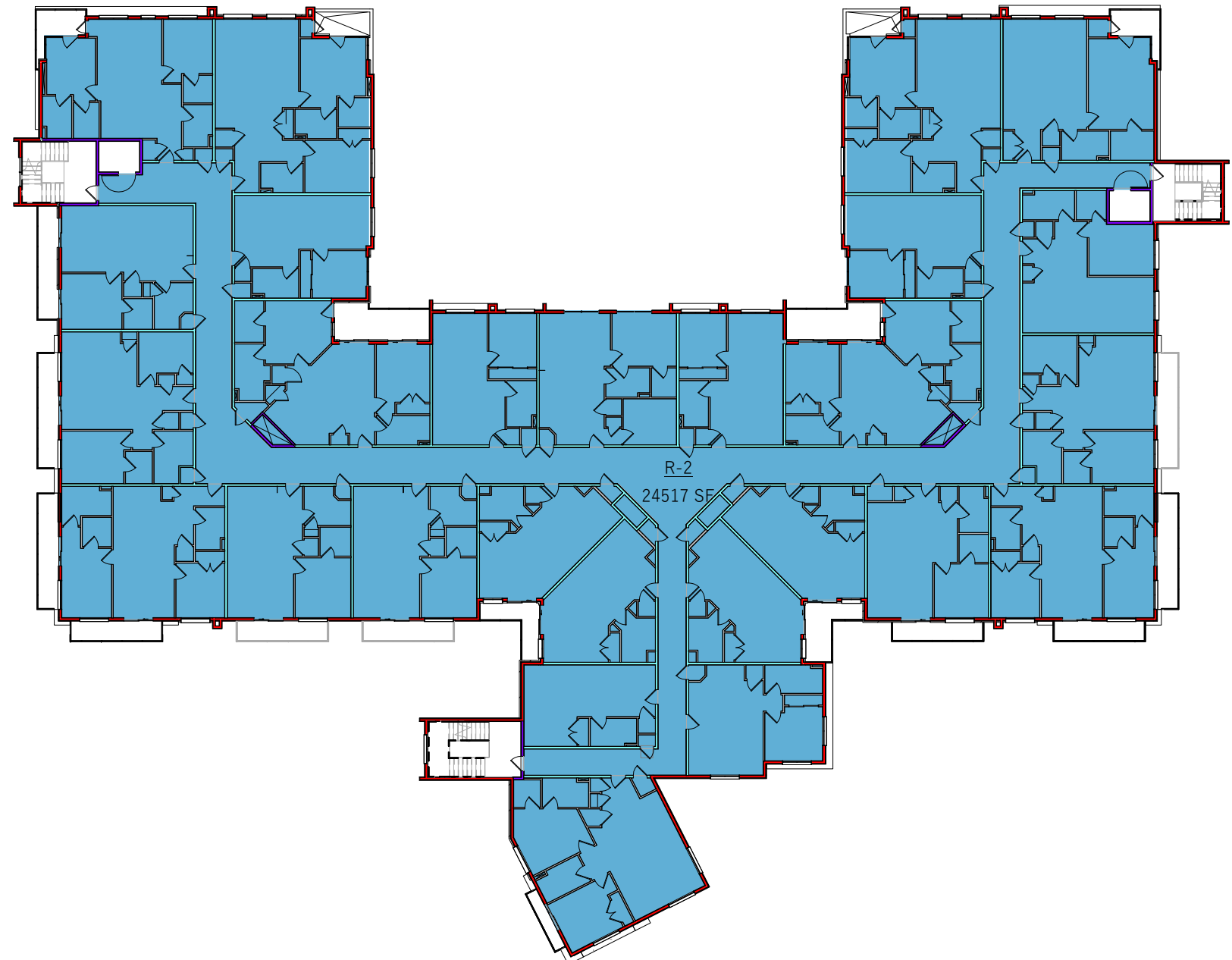
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PARKING MEZZANINE AREA
PLAN
1" = 30'-0"

PARKING MEZZANINE - AREAS		
BIKE STORAGE		1287 SF
MECH		1707 SF
PARKING		18307 SF
R-2		322 SF
STORAGE		161 SF
TOTAL:		21783 SF



2
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2ND LEVEL AREA PLAN
1" = 30'-0"

LEVEL 2 AREAS		
AMENITIES DECK		5976 SF
FITNESS ROOM		755 SF
GAME ROOM		559 SF
R-2		23342 SF
TOTAL:		30632 SF



6
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3RD - 6TH LEVEL AREA PLANS
1" = 30'-0"

LEVEL 3 AREAS		
R-2		24517 SF
TOTAL:		24517 SF

LEVEL 4 AREAS		
R-2		24517 SF
TOTAL:		24517 SF

LEVEL 5 AREAS		
R-2		24517 SF
TOTAL:		24517 SF

LEVEL 6 AREAS		
R-2		24517 SF
TOTAL:		24517 SF

BUILDING AREA TOTALS		
GROUND LEVEL	COMMERCIAL	6600 SF
GROUND LEVEL	PARKING	26075 SF
GROUND LEVEL	LOBBY	992 SF
GROUND LEVEL	TRASH	279 SF
GROUND LEVEL	TRASH	155 SF
GROUND LEVEL	R-2	413 SF
GROUND LEVEL	MECH	44 SF
GROUND LEVEL	R-2	334 SF
GROUND LEVEL	R-2	238 SF
PARKING MEZZANINE LEVEL	BIKE STORAGE	1287 SF
PARKING MEZZANINE LEVEL	STORAGE	161 SF
PARKING MEZZANINE LEVEL	MECH	1707 SF
PARKING MEZZANINE LEVEL	R-2	322 SF
PARKING MEZZANINE LEVEL	PARKING	18307 SF
2ND LEVEL	FITNESS ROOM	755 SF
2ND LEVEL	GAME ROOM	559 SF
2ND LEVEL	R-2	23342 SF
3RD LEVEL	R-2	24517 SF
4TH LEVEL	R-2	24517 SF
5TH LEVEL	R-2	24517 SF
6TH LEVEL	R-2	24517 SF
TOTAL:		179636 SF

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AREA PLANS
THE VINE APARTMENTS



BUILDING OCCUPANCIES
BUSINESS GROUP B (COMMERCIAL SPACE TO BE FINISHED IN FUTURE T.1.)
RESIDENTIAL GROUP R-2
LOW HAZARD STORAGE GROUP S-2 (OPEN PARKING GARAGE AREA)

SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY
GROUP R-2
SEPARATION WALLS BETWEEN DWELLING UNITS TO HAVE A **1 HR RATING**
FLOOR ASSEMBLIES BETWEEN DWELLING UNITS TO HAVE A **1 HR RATING**
AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.2 TO BE PROVIDED

HORIZONTAL BUILDING SEPARATION ALLOWANCE

1. HORIZONTAL SEPARATION ASSEMBLY (PODIUM) TO BE **3 HR**
2. BUILDING BELOW SEPARATION TO BE CONSTRUCTION **TYPE IA**:
EXTERIOR BEARING WALLS = **3 HR**
INTERIOR BEARING WALLS = **3 HR**
EXTERIOR NONBEARING WALLS = **FSD < 30' = 1 HR**
FSD ≥ 30' = NO RATING

3. BUILDING ABOVE SEPARATION TO BE CONSTRUCTION **TYPE IIIB**:
EXTERIOR BEARING WALLS = **2 HR**
INTERIOR BEARING WALLS = **0 HR**
EXTERIOR NONBEARING WALLS = **FSD < 30' = 1 HR**
FSD ≥ 30' = 0 HR

INTERIOR NON BEARING WALLS = **0 HR**
FLOORS = **0 HR**
ROOFS = **0 HR**

BUILDING AREA

BELOW PODIUM: **UNLIMITED SF ALLOWED**
ABOVE PODIUM:
ALLOWABLE AREA PER LEVEL (R-2) = **48,000 SF ALLOWED**
LEVEL 2 AREA = **34,409 SF**
LEVELS 3-6 AREA = **24,498 SF**

MAXIMUM BUILDING HEIGHT (SHALL NOT EXCEED SMALLER ALLOWABLE BUILDING HEIGHT)
ALLOWED = **75 FEET**
ACTUAL = **75 FEET**

STORIES (THE NUMBER OF ALLOWABLE MEASURED ABOVE THE PODIUM)
NUMBER OF STORIES **ALLOWED** (R-2): **5 STORIES**
NUMBER OF STORIES ABOVE PODIUM: **5 STORIES**

OCCUPANT LOAD:

MAIN LEVEL OCCUPANCY			
USE	AREA	OCC. LOAD FACTOR	OCCUPANTS
PARKING GARAGE (OPEN)	24,911 SF	200 SF GROSS	124.55 OCC.
OFFICE (UNFINISHED)	N/A	N/A	N/A
RESIDENTIAL (R-2)	2,012 SF	200 SF GROSS	10.06 OCC.
MECH (S-2)	507 SF	300 SF GROSS	1.69 OCC.
TOTAL:			137 OCCUPANTS

*NOTE: ANY A-3 OCCUPANCY THAT IS UNDER 750 SF AND OR LESS THAN 50 OCCUPANTS IS RECLASSIFIED AS GROUP B AS PER IBC 303.1.1 AND 303.1.2.

**NOTE: ANY ACCESSORY STORAGE SPACE IS CLASSIFIED AS THE OCCUPANCY THAT IT IS ACCESSORY TO (GROUP B) AS PER IBC 311.1.1

2ND LEVEL OCCUPANCY			
USE	AREA	OCC. LOAD FACTOR	OCCUPANTS
AMENITIES (S-2)	9,941 SF	TBD	TBD
RESIDENTIAL (R-2)	23,850 SF	200 SF GROSS	119.25 OCC.
EXERCISE (R-2)	599 SF	50 SF GROSS	11.98 OCC.
TOTAL:			132 OCCUPANTS

PARKING MEZZANINE OCCUPANCY			
USE	AREA	OCC. LOAD FACTOR	OCCUPANTS
PARKING GARAGE (OPEN)	17,333 SF	200 SF GROSS	86.67 OCC.
STORAGE (S-2)	1,265 SF	300 SF GROSS	4.22 OCC.
RESIDENTIAL (R-2)	184 SF	200 SF GROSS	0.92 OCC.
MECH (S-2)	2,807 SF	300 SF GROSS	9.36 OCC.
TOTAL:			102 OCCUPANTS

3RD - 6TH LEVEL OCCUPANCIES			
USE	AREA	OCC. LOAD FACTOR	OCCUPANTS
RESIDENTIAL (R-2)	24,498 SF	200 SF GROSS	122.49 OCC.
TOTAL:			123 OCCUPANTS

TOTAL BUILDING OCCUPANCY	
LEVEL	OCCUPANTS
MAIN LEVEL	137
PARKING MEZZANINE	102
2ND LEVEL	132 + AMENITIES
3RD LEVEL	123
4TH LEVEL	123
5TH LEVEL	123
6TH LEVEL	123
TOTAL: 863 OCCUPANTS	



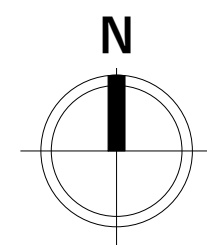
MAIN LEVEL - SEPARATION DISTANCES
1" = 30'-0"



2ND - 6TH LEVELS - SEPARATION DISTANCES
1" = 30'-0"



1
DR1.0
SITE LAYOUT
1" = 30'-0"



LINETYPE LEGEND

	PROPERTY LINE
	PERIMETER OF PARKING MEZZANINE ABOVE
	SITE FEATURES
	PERIMETER OF PODIUM ABOVE
	MURRAY CITY POWER EASEMENT



2
DR1.0
MASSING 3D

PROJECT UNIT TOTALS	
STUDIO (575 SF)	23 (18%)
1 BED JR (616 SF)	24 (19%)
1 BED (700 - 777 SF)	29 (22%)
1 BED + OFFICE (835-870 SF)	11 (8%)
2 BED (900 - 975 SF)	39 (30%)
2 BED PREMIUM (1,034 - 1,057 SF)	4 (3%)
TOTAL:	130 UNITS

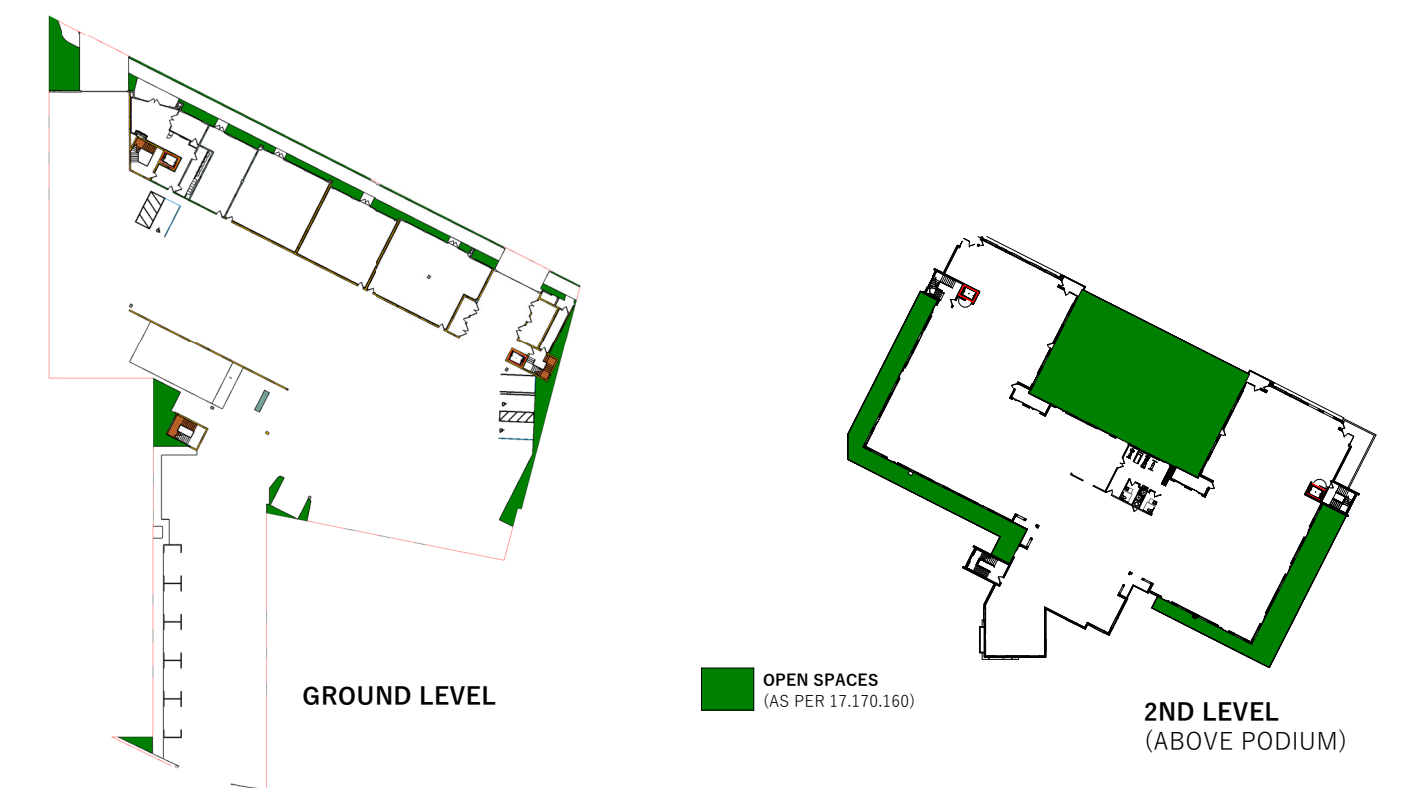
PARKING REQUIRED:	
APARTMENTS (2 BED OR LESS)	1 STALL/UNIT (MIN) 1.25 STALLS/UNIT (MAX) = 130 STALLS(MIN) - 163 STALLS (MAX)
COMMERCIAL (6,600 SF)	1 STALL/265(MAX)- 600(MIN) SF NET = 13 STALLS(MIN) - 25 STALLS(MAX)
CAR PARKING REDUCTION (1 FOR EVERY 5 EXTRA BIKE SPACES, 14 MAX):	= -10 SPACES
STALLS REQUIRED:	134 STALLS (MIN)
	188 STALLS (MAX)

PARKING PROVIDED	ADA	REG.	COMPACT (<15% AS PER 17.170.140.6)	EV	CARPOOL	PARALLEL
GROUND LEVEL	4	68	10	6	3	5
MEZZANINE LEVEL	2	36	6	3	0	0
TOTAL STALLS PROVIDED						143 STALLS

PARKING INSIDE AND OUTSIDE BUILDING:	
PARKING WITHIN BUILDING ENVELOPE:	101 (69%)
PARKING OUTSIDE BUILDING ENVELOPE:	44 (31%)

BIKE PARKING:	
REQUIRED (5% OF REQUIRED CAR PARKING):	8 SPACES
PROVIDED PARKING:	60 SPACES
NON-REQUIRED SPACES PROVIDED:	52 SPACES
CAR PARKING REDUCTION (1 FOR EVERY 5 EXTRA BIKE SPACES, 14 MAX):	10 SPACES

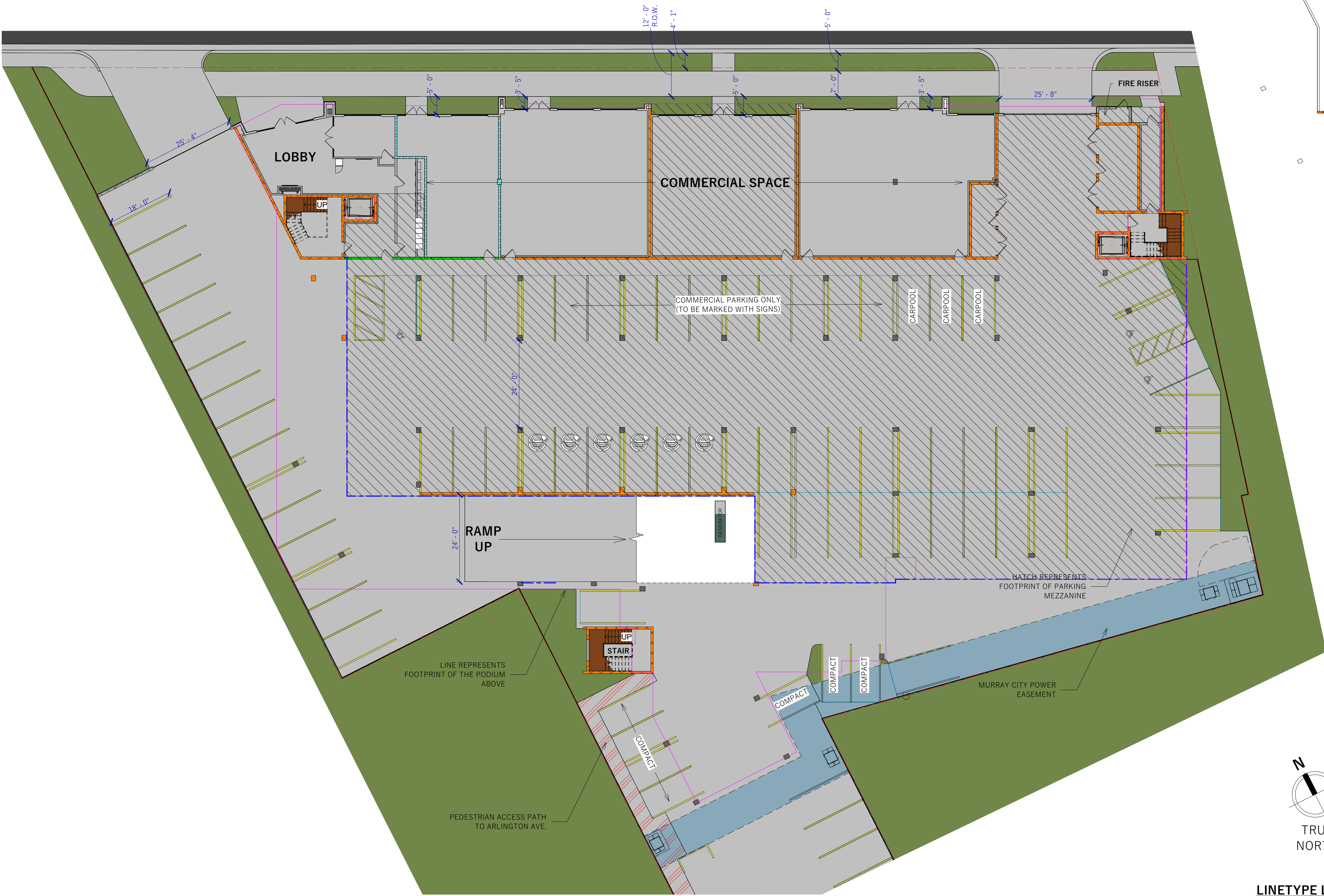
OPEN SPACE REQUIREMENT:	
TOTAL LOT SQUARE FOOTAGE:	56,675 SF
TOTAL OPEN SPACE REQUIRED (%15):	8,502 SF
PROVIDED OPEN SPACE:	
ROOF DECKS/ AMENITIES:	8,860 SF
LANDSCAPING:	2,433 SF
OPEN SPACE TOTAL:	11,293 SF



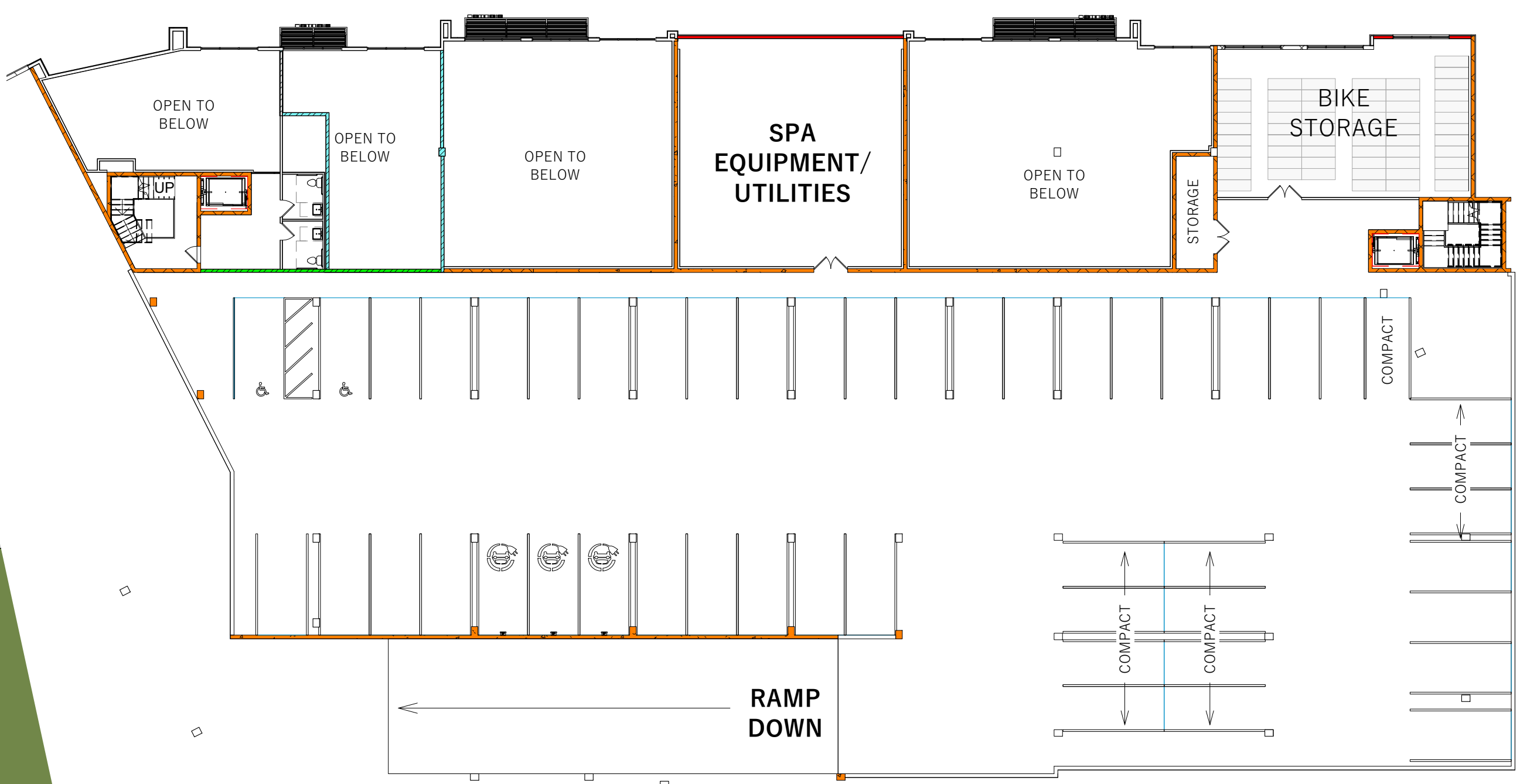
3
DR1.0
OPEN SPACE PLANS
1" = 100'-0"

DR1.0
SITE PLAN
THE VINE APARTMENTS





2
DR1.1
GROUND LEVEL
1/16" = 1'-0"



3
DR1.1
PARKING MEZZANINE LEVEL
1" = 20'-0"

PROJECT UNIT TOTALS

STUDIO (575 SF)	23 (18%)
1 BED JR (616 SF)	24 (19%)
1 BED (700 - 777 SF)	29 (22%)
1 BED + OFFICE (835-870 SF)	11 (8%)
2 BED (900 - 975 SF)	39 (30%)
2 BED PREMIUM (1,034 - 1,057 SF)	4 (3%)
TOTAL:	130 UNITS

PARKING REQUIRED:

APARTMENTS (2 BED OR LESS) 1 STALL/UNIT (MIN) 1.25 STALLS/UNIT (MAX) = 130 STALLS(MIN) - 163 STALLS (MAX)
COMMERCIAL (6,600 SF) 1 STALL/265(MAX)- 500(MIN) SF NET = 13 STALLS(MIN) - 25 STALLS(MAX)
CAR PARKING REDUCTION (1 FOR EVERY 5 EXTRA BIKE SPACES, 14 MAX): = -10 SPACES
STALLS REQUIRED: 134 STALLS (MIN)
188 STALLS (MAX)

PARKING PROVIDED

	ADA	REG.	COMPACT (<15% AS PER 17.170.140.6)	EV	CARPOOL	PARALLEL
GROUND LEVEL	4	68	10	6	3	5
MEZZANINE LEVEL	2	36	6	3	0	0
TOTAL STALLS PROVIDED						143 STALLS

PARKING INSIDE AND OUTSIDE BUILDING:

PARKING WITHIN BUILDING ENVELOPE: 101 (69%)
PARKING OUTSIDE BUILDING ENVELOPE: 44 (31%)

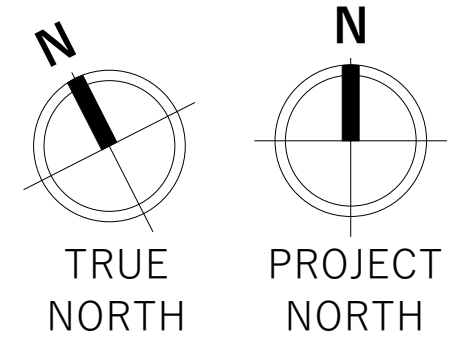
BIKE PARKING:

REQUIRED (5% OF REQUIRED CAR PARKING): 8 SPACES
PROVIDED PARKING: 60 SPACES
NON-REQUIRED SPACES PROVIDED: 52 SPACES
CAR PARKING REDUCTION (1 FOR EVERY 5 EXTRA BIKE SPACES, 14 MAX): 10 SPACES

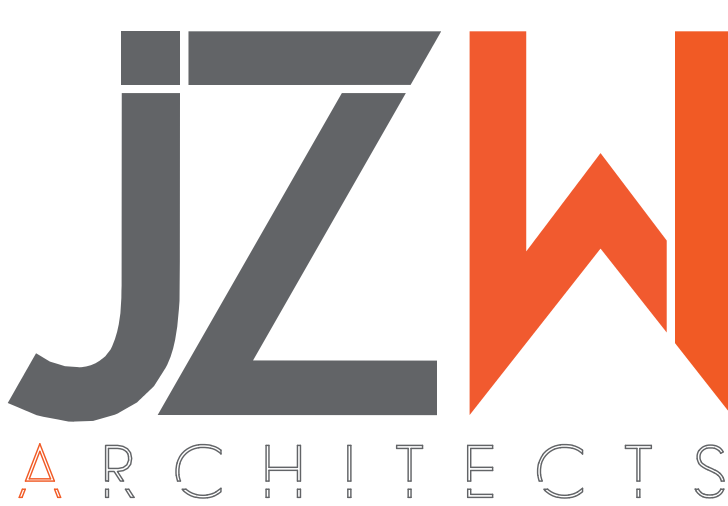
OPEN SPACE REQUIREMENT:
TOTAL LOT SQUARE FOOTAGE: 56,675 SF
TOTAL OPEN SPACE REQUIRED (%15): 8,502 SF
PROVIDED OPEN SPACE:
ROOF DECKS/ AMENITIES: 8,860 SF
LANDSCAPING: 2,433 SF
OPEN SPACE TOTAL: 11,293 SF

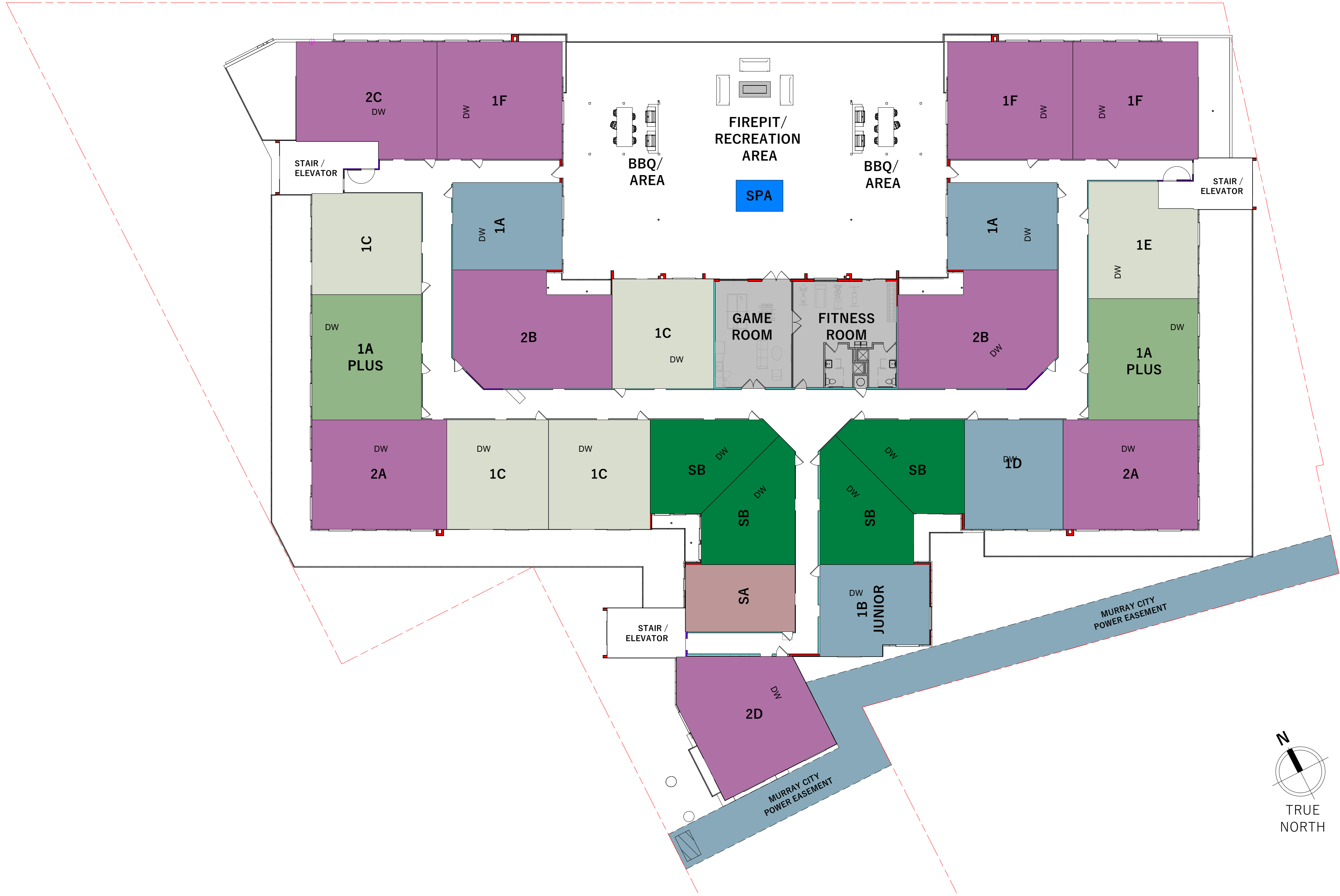
LINETYPE LEGEND

- PROPERTY LINE
- - - PERIMETER OF PARKING MEZZANINE ABOVE
- SITE FEATURES
- PERIMETER OF PODIUM ABOVE
- MURRAY CITY POWER EASEMENT



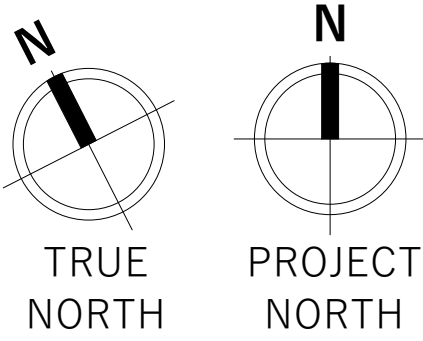
DR1.1
1ST LEVEL
THE VINE APARTMENTS





2ND LEVEL UNIT TOTAL	
STUDIO	5
1 BED JR	4
1 BED	9
1 BED + OFFICE	1
2 BED	6
2 BED PREMIUM	0
TOTAL:	25

PROJECT UNIT TOTALS	
STUDIO (675 SF)	23 (18%)
1 BED JR (616 SF)	24 (19%)
1 BED (700 - 777 SF)	29 (22%)
1 BED + OFFICE (835-870 SF)	11 (8%)
2 BED (900 - 975 SF)	39 (30%)
2 BED PREMIUM (1,034 - 1,057 SF)	4 (3%)
TOTAL:	130 UNITS



1
DR1.2
2ND LEVEL
1/16" = 1'-0"



3RD & 4TH LEVEL UNIT TOTALS	
STUDIO	5
1 BED JR	6
1 BED	5
1 BED + OFFICE	3
2 BED	8
2 BED PREMIUM	0
TOTAL:	27 (EACH LEVEL)

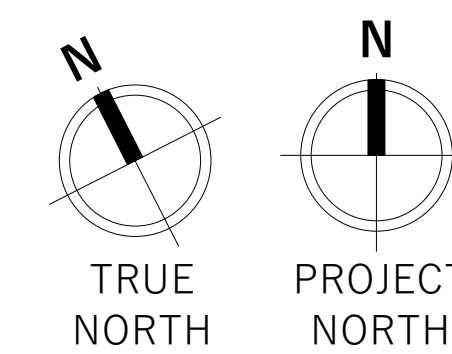
PROJECT UNIT TOTALS	
STUDIO (575 SF)	23 (18%)
1 BED JR (616 SF)	24 (19%)
1 BED (700 - 777 SF)	29 (22%)
1 BED + OFFICE (835-870 SF)	11 (8%)
2 BED (900 - 975 SF)	39 (30%)
2 BED PREMIUM (1,034 - 1,057 SF)	4 (3%)
TOTAL:	130 UNITS

LINETYPE LEGEND

---	PROPERTY LINE
---	PERIMETER OF PARKING MEZZANINE ABOVE
---	SITE FEATURES
---	PERIMETER OF PODIUM ABOVE
/ / / /	MURRAY CITY POWER EASEMENT

1
DR1.3

3RD - 4TH LEVELS
1/16" = 1'-0"



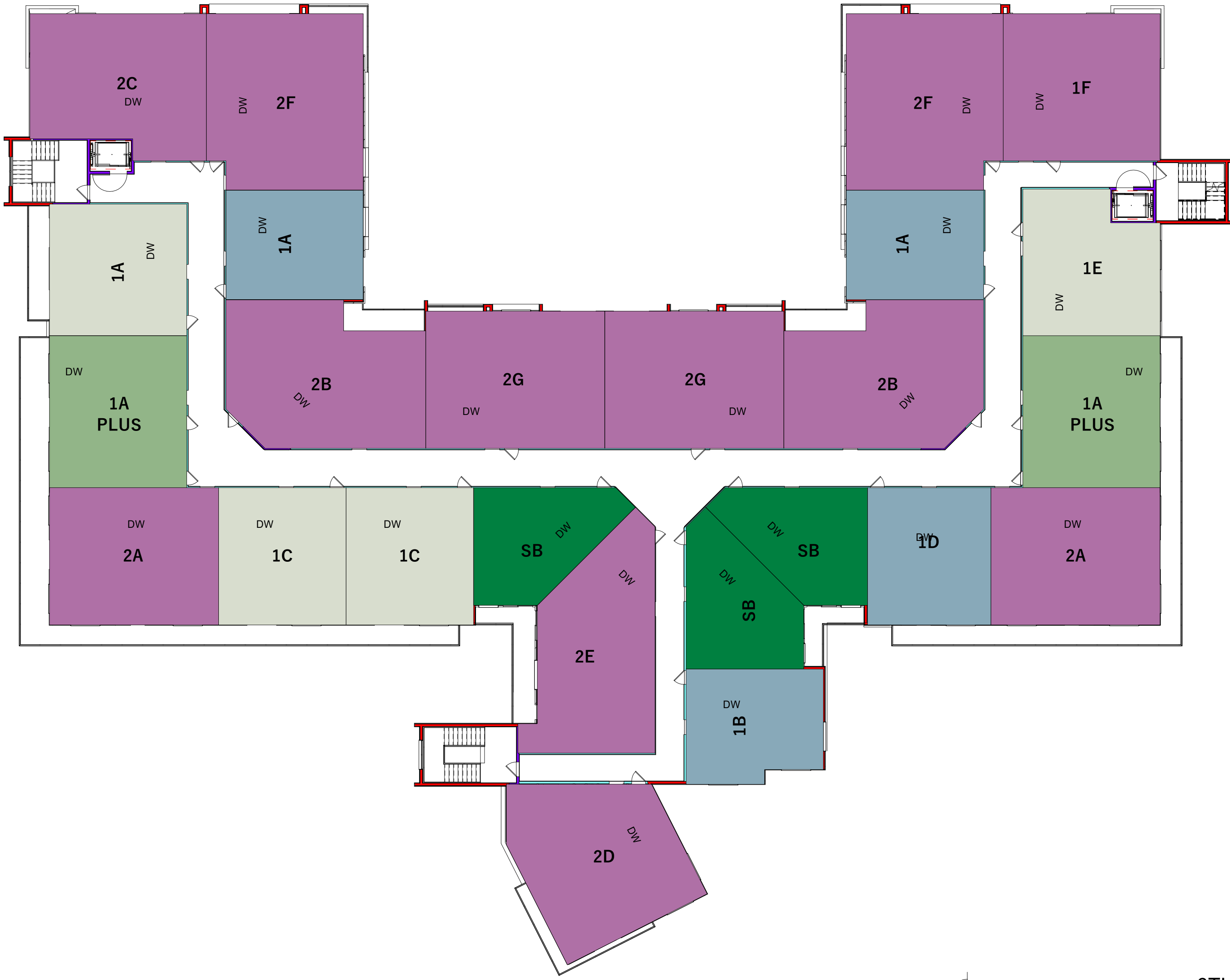
DR1.3
3RD & 4TH LEVELS
THE VINE APARTMENTS





<u>PROJECT UNIT TOTALS</u>	
STUDIO (575 SF)	23 (18%)
1 BED JR (616 SF)	24 (19%)
1 BED (700 - 777 SF)	29 (22%)
1 BED + OFFICE (835-870 SF)	11 (8%)
2 BED (900 - 975 SF)	39 (30%)
<u>2 BED PREMIUM (1,034 - 1,057 SF)</u>	<u>4 (3%)</u>
TOTAL:	130 UNITS

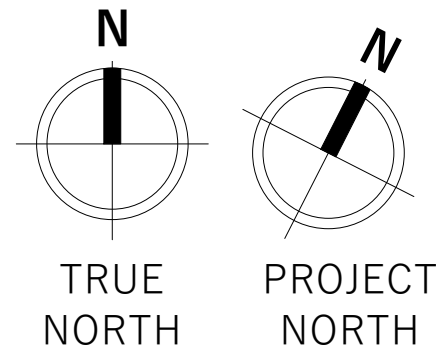




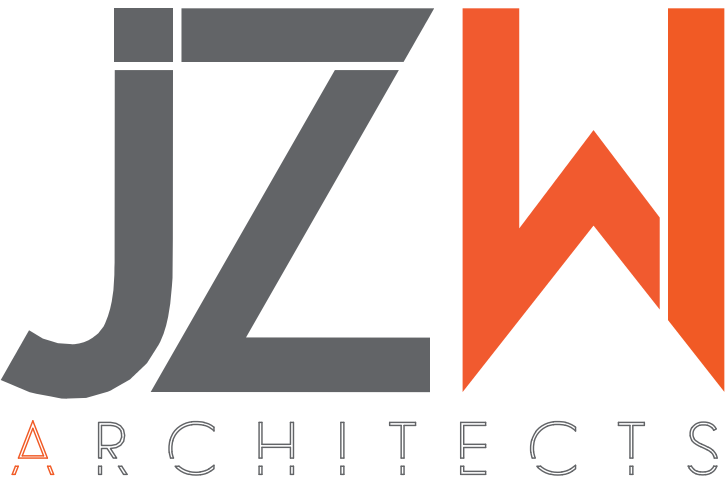
6TH LEVEL UNIT TOTALS	
STUDIO	3
1 BED JR	4
1 BED	5
1 BED + OFFICE	2
2 BED	9
2 BED PREMIUM	2
TOTAL:	25

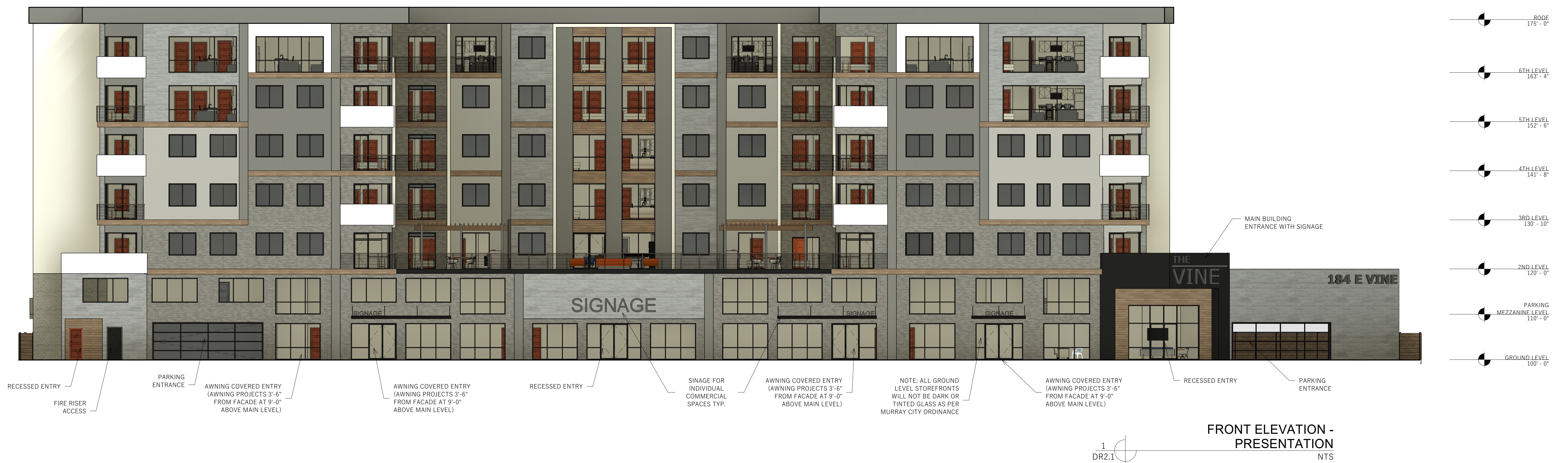
PROJECT UNIT TOTALS	
STUDIO (575 SF)	23 (18%)
1 BED JR (616 SF)	24 (19%)
1 BED (700 - 777 SF)	29 (22%)
1 BED + OFFICE (835-870 SF)	11 (8%)
2 BED (900 - 975 SF)	39 (30%)
2 BED PREMIUM (1,034 - 1,057 SF)	4 (3%)
TOTAL:	130 UNITS

1
DR1.5
6TH LEVEL
1/16" = 1'-0"



DR1.5
6TH LEVEL
THE VINE APARTMENTS







1
DR2.2

REAR ELEVATION -
PRESENTATION
NTS



1
DR2.3

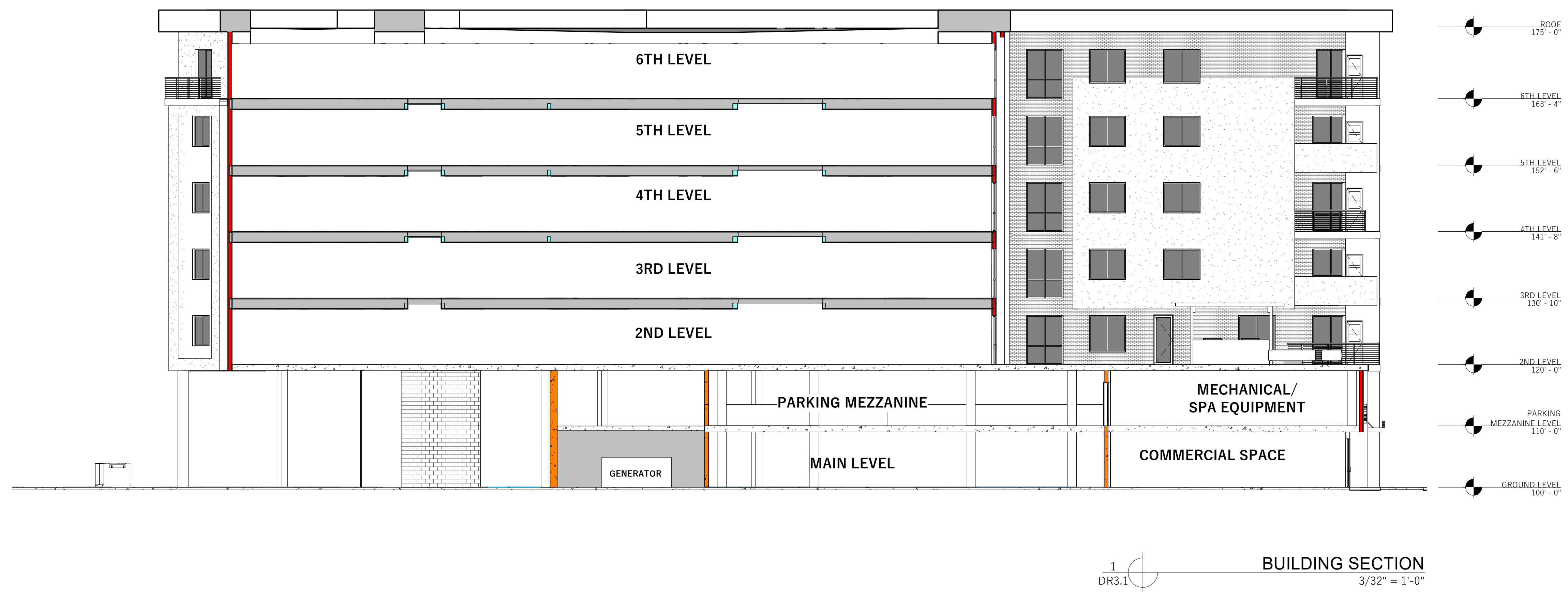
LEFT SIDE ELEVATION -
PRESENTATION
NTS



1
DR2.4

RIGHT SIDE ELEVATION -
PRESENTATION






















NTS



DR3.1
BUILDING SECTION
THE VINE APARTMENTS





ELECTRICAL FIRE ALARM SYMBOL SCHEDULE	
SYMBOL	DESCRIPTION
PANELS	
	FIRE ALARM CONTROL PANEL
	FIRE ALARM REMOTE DISPLAY
	FIRE ALARM REMOTE TERMINAL
	FIRE ALARM NOTIFICATION POWER SUPPLY
	FIRE ALARM AMPLIFIER POWER SUPPLY
ADDRESSABLE MODULES	
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM MONITOR MODULE
	FIRE ALARM RELAY MODULE
	FIRE ALARM CONTROL POINT MODULE
	FIRE ALARM CONVENTIONAL ZONE MODULE
	FIRE ALARM LINE ISOLATION MODULE
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM HEAT DETECTOR
	FIRE ALARM DUCT DETECTOR
NOTIFICATION DEVICES	
	FIRE ALARM BELL
	FIRE ALARM HORN
	FIRE ALARM STROBE
	FIRE ALARM HORN STROBE
FIRE SPRINKLER DEVICES (F.&B.O.)	
	FIRE SPRINKLER FLOW SWITCH
	FIRE SPRINKLER TAMPER SWITCH
	FIRE SPRINKLER PRESSURE SWITCH

ELECTRICAL LIGHTING SYMBOL SCHEDULE	
SYMBOL	DESCRIPTION
LUMINAIRES (SEE LIGHT FIXTURE SCHEDULE FOR ADDITIONAL DETAILS)	
	LUMINAIRES (APPROXIMATE SHAPE AND SIZED FOR CLARITY)
	STRIP, NEON AND FIBER OPTIC LUMINAIRES
	EXIT SIGN (NUMBER OF FACES (SHADED) AND ARROW(S) AS SHOWN)
	EMERGENCY LIGHT WITH BATTERY PACK
LUMINAIRE MOUNTING	
	RECESSED LUMINAIRES
	SUSPENDED LUMINAIRES
	WALL MOUNTED LUMINAIRES
	POLE TOP MOUNTED LUMINAIRES (ROUND OR SQUARE POLE)
	POLE WITH ARM MOUNTED LUMINAIRES (ROUND OR SQUARE POLE)
	GROUND OR FLOOR MOUNTED LUMINAIRES
	TRACK MOUNTING (LENGTH DRAWN TO SCALE, LUMINAIRE TYPES AND QUANTITIES AS SHOWN)
LUMINAIRE OPTIC ORIENTATION	
	HORIZONTAL ZERO LINE
	PRIMARY LUMINAIRE ORIENTATION
	DIRECTIONAL AIMING LINE (FROM PHOTOMETRIC CENTER TO TARGET)
LUMINAIRE ANNOTATION	
	LUMINAIRES THAT PROVIDE EMERGENCY ILLUMINATION
	LUMINAIRES THAT PROVIDE NIGHT LIGHT ILLUMINATION
	LUMINAIRE TAG (# INDICATES THE NUMBER OF LUMINAIRES IN THE AREA, ESTIMATE ONLY)
	LOWER CASE SUBSCRIPT INDICATES SWITCH IDENTIFICATION
	UPPER CASE SUBSCRIPT INDICATES CIRCUIT IDENTIFICATION

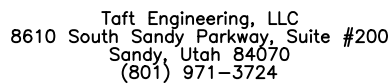
ELECTRICAL MOTOR AND EQUIPMENT HOOK-UP SYMBOL SCHEDULE

20. THE CONTRACTOR SHALL FOLLOW THE FOLLOWING COLOR CODING SCHEME FOR ALL CONDUCTORS:

AC SYSTEM	PHASE A	PHASE B	PHASE C	NEUTRAL	GROUND*
480V/208, 3W	BROWN	BLUE	YELLOW	GREEN	GREEN
480V, 3A, 3W	BROWN	ORANGE	YELLOW	N/A	GREEN
240V, 3A, 3W	BROWN	RED	BLUE	N/A	GREEN
240V/120, 3A, 3W	BROWN	BLUE	WHITE	WHITE	GREEN
240/120V, 3A, 4W	BLACK	ORANGE*	RED	WHITE	GREEN
208/120V, 3A, 4W	BLACK	RED	BLUE	WHITE	GREEN

*PHASE A SHALL BE WIRED AS THE HIGH-LEG.
 *ALL ISOLATED GROUND CONDUCTORS SHALL BE GREEN WITH A YELLOW STRIPE.
21. THE CONTRACTOR SHALL VERIFY ALL VOLTAGE DROP CALCULATIONS BASED ON THE ACTUAL LOADS OF THE CONSTRUCTION AND IF NEEDED FURNISH AND INSTALL LAMP TO MEET THE FOLLOWING REQUIREMENTS. MAXIMUM VOLTAGE DROP ALLOWANCE ON FEEDERS IS 2%, MAXIMUM VOLTAGE DROP ON BRANCH CIRCUITS IS 3%, IF APPROVED BY THE ENGINEER A COMBINED VOLTAGE DROP OF 5% FOR THE FEEDER AND BRANCH CIRCUIT CAN BE USED.
22. THE CONTRACTOR SHALL PROVIDE SERVICING BRACING FOR ALL ELECTRICAL EQUIPMENT, RACEWAYS, CABLE TRAYS, AND MANUFACTURED UNITS. THE BRACING SHALL BE INSTALLED IN ACCORDANCE WITH THE CODE. AT A MINIMUM, LIGHT FIXTURES SHALL BE SUPPORTED WITH AT LEAST TWO (2) #12 ANGLE WIRE FROM OPPOSITE CORNERS OF THE LIGHT FIXTURE AND ALL ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE SECURED PER THE MANUFACTURERS RECOMMENDATIONS.
23. THE CONTRACTOR SHALL LABEL ALL ELECTRICAL DISTRIBUTION EQUIPMENT INCLUDING BUT NOT LIMITED TO SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SAFETY SWITCHES, TRANSFER SWITCHES (ATS), MANUAL TRANSFER SWITCHES (MTS), UNINTERRUPTED POWER SUPPLY (UPS), ETC. BY A MEANS THAT IS SUITABLE FOR THE ENVIRONMENT. HAND WRITTEN LABELS ARE NOT ACCEPTABLE.
24. THE CONTRACTOR SHALL LABEL ALL DEVICES INCLUDING BUT NOT LIMITED TO SWITCHES, OUTLETS, FLOOR BOXES, FURNITURE CONNECTIONS, ETC. WITH THE NAMES OF THE SUPPLYING CONTRACTOR ON THE FACE OF THE DEVICE. IF A MEANS THAT IS SUITABLE FOR THE ENVIRONMENT, HAND WRITTEN LABELS ARE NOT ACCEPTABLE.
25. THE CONTRACTOR SHALL LABEL ALL JUNCTION BOXES WITH THE NAME OF THE CIRCUIT(S) BY A MEANS THAT IS SUITABLE FOR THE ENVIRONMENT. IF HAND WRITTEN LABELS ARE USED ALL HAND WRITING MUST BE LEGIBLE OTHERWISE HAND WRITTEN LABELS ARE NOT ACCEPTABLE.
26. THE CONTRACTOR SHALL PROVIDE A CLEAN WORK AREA THROUGHOUT CONSTRUCTION, REMOVING ALL PACKAGING AND WASTE DUE TO THE INSTALLATION. THE CONTRACTOR SHALL ALSO CLEAN ALL ELECTRICAL EQUIPMENT (INTERNALLY AND EXTERNALLY), LIGHT FIXTURES, DEVICES, ETC. PRIOR TO SUBSTANTIAL COMPLETION.
27. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER COMPLETE RECORD OF ALL FIELD CHANGES AND AS-BUILT DOCUMENTS. ALL CHANGES TO THE PROJECT SHALL BE INCLUDED IN THE OWNERS RECORD DOCUMENTS.

JZW
ARCHITECTS



ELECTRICAL LIGHT FIXTURE SCHEDULE (TYPE)									
TYPE	QUANTITY (ESTIMATE ONLY)	DESCRIPTION	MANUFACTURER(S)	CATALOG NUMBER(S)	LIGHT SOURCE	WATTS PER FIXTURE	VOLTAGE	MOUNTING	NOTES
SL1		TWO HEAD CITY STREET LIGHT	TBD		LED 10,000lm, 4000K, 70CRI	260	UNV	POLE MOUNTED FIXTURE	
PIA		ONE HEAD 10' POLE LIGHT	VISIONAIRE	VMX-II-T1-48LC-5-4K-UNV-AM-SCBA	LED 10,000lm, 4000K, 70CRI	78	UNV	POLE MOUNTED FIXTURE	
P2A		ONE HEAD 16' POLE LIGHT	VISIONAIRE	VMX-II-T1-64LC-7-4K-UNV-AM-SCBA	LED 18,000lm, 4000K, 70CRI	142	UNV	POLE MOUNTED FIXTURE	
RC1		6" RECESSED CAN LIGHT	LIGHTOLIER	6RA/26RDL30840WXS210J	LED 3,000lm, 4000K, 80CRI	33	UNV	RECESSED	
WP1		FULL CUT OFF WALL PACK	VISIONAIRE	VMX-II-T1-48LC-5-4K-UNV-WM-SCBA	LED 10,000lm, 4000K, 70CRI	78	UNV	WALL MOUNT AT 10'-0"	
NOTES: 1. OWNER / ARCHITECT TO DETERMINE FINISH OF FIXTURES 2. ALTERNATE MANUFACTURES ACCEPTABLE IF PRE-APPROVED BY ENGINEER BEFORE BID DATE. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL DETAILS.									

ELECTRICAL KEY NOTES:
◇ .

PROJECT NUMBER
01-0050-2020

ISSUE DATE:

OCTOBER 28, 2020

REVISIONS:

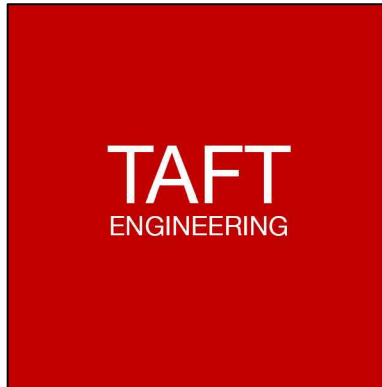
No. Date

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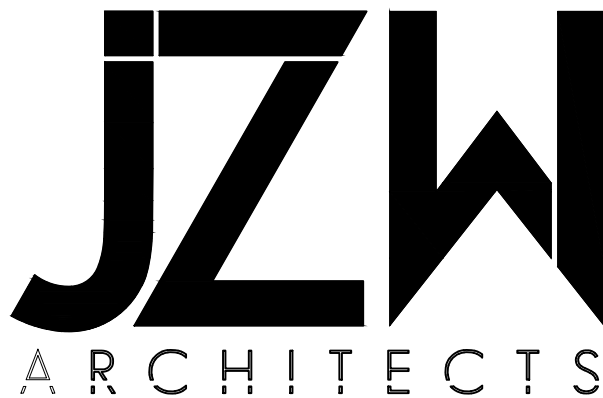
HAWTHORNE HOUSE
APARTMENTS
379 1st AVENUE N
SALT LAKE CITY, UT 84103

ELECTRICAL
PHOTOMETRIC
SITE PLAN

E1.01A



Taft Engineering, LLC
8610 South Sandy Parkway, Suite #200
Sandy, Utah 84070
(801) 971-3724



1 ELECTRICAL PHOTOMETRIC SITE PLAN
SCALE: 1" = 30'-0"

PROJECT NUMBER
01-0050-2020

ISSUE DATE:

OCTOBER 28, 2020

REVISIONS:

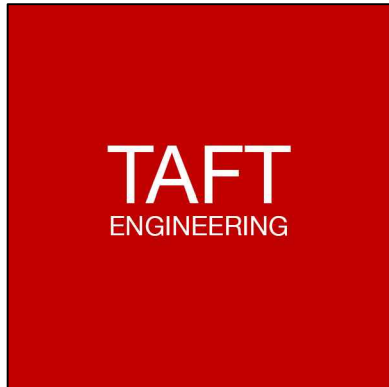
No. Date

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HAWTHORNE HOUSE
APARTMENTS
379 1st AVENUE N
SALT LAKE CITY, UT 84103

ELECTRICAL
SCHEDULES

E9.01



Taft Engineering, LLC
8610 South Sandy Parkway, Suite #200
Sandy, Utah 84070
(801) 971-3724



JZW
ARCHITECTS

- Outlet boxes with the correct fitting for the application shall be located at each conductor splice point, at each outlet, switch point, or junction point, and at each end point for the connection of conduit and other raceways. They shall also be located at all transitions from conduit to open cables. All outlet boxes for concealed wiring shall be made from galvanized- or cadmium-plated sheet steel, and they shall have a depth of at least 1.5 inches, whether single or ganged. The boxes shall be large enough size to accommodate the number of wiring devices and conductors as specified in the fill schedule of the current NEC. The depths, clamps, and number of knockouts shall be as specified in the outlet box schedule.
- Rectangular 3- by 2-inch metal boxes shall be used for installing single switches or duplex receptacles, as specified or shown on the drawings. Two compatible boxes may be ganged together to accept two switches or two duplex receptacles at a single location or as specified or shown on the drawings.
- Square 4- by 4-inch or 11/16- by 4 1/16-inch metal boxes shall be used for installing two switches or two duplex receptacles at a single location or as specified or shown on the drawings.
- Octagonal 4- by 4-inch metal boxes shall be used for containing and protecting wire connections for ceiling- or wall-mounted luminaires as specified or shown on the drawings. The Electrical Contractor shall furnish all required selecting metal boxes, hickey, covers, clamps, and miscellaneous hardware, as required.
- Round ceiling metal pan boxes with diameters of 3/8 inches shall be used for containing and protecting wire connections for ceiling- or wall-mounted luminaires as specified or shown on the drawings. The Electrical Contractor shall furnish all hickey, covers, clamps, and miscellaneous hardware, as required.
- Telephone and communications boxes shall be as specified or shown on the drawings.
- Outlet boxes shall be in industry standard sizes as manufactured by Thomas & Betts, or approved equivalent.

Wiring Devices

- The wiring devices listed below by manufacturer and catalog number indicate the quality and specification grade required. In the judgment of the Electrical Contractor, wiring devices manufactured in the same style and dimensions that comply with the same tests and codes may be used without approval by the Architect/Engineer. In cases where a device is specified with only one manufacturer and catalog or part number and without the phrase "or equivalent," substitutions shall be made only with the approval of the Architect/Engineer.
- a. Wall-Mounted Switches. Where more than one flush wall switch is indicated in the same location, the switches shall be mounted in gangs under a common wallplate.
- | | |
|-----------------------------------|----------------------------|
| Single-Pole Switch, 20A, 120/277V | Leviton 5621 or equivalent |
| Two-Pole Switch, 20A, 120/277V | Leviton 5622 or equivalent |
| Three-Way Switch, 20A, 120/277V | Leviton 5623 or equivalent |
| Four-Way Switch, 20A, 120/277V | Leviton 5624 or equivalent |
- b. Wall-Mounted Receptacles. Where more than one flush wall-mounted receptacle is indicated in the same location, the receptacles shall be mounted in gangs under a common wallplate.
- | | |
|--|-----------------------------|
| Single Receptacle, 20A, 120V | Leviton 15841 or equivalent |
| Duplex Receptacle, 20A, 120V | Leviton 15842 or equivalent |
| Duplex Receptacle (GFCI), 20A, 120V | Leviton N7899 or equivalent |
| Duplex Receptacle (WP/GFCI), 20A, 120V | Leviton W7899 or equivalent |
| Duplex Receptacle (USB), 20A, 120V | Leviton TS832 or equivalent |
- c. The following wiring devices are specified by only one manufacturer and catalog number; substitutions may be made only with the approval of the Architect/Engineer.
- | | |
|--|---|
| Motion Sensors (Wall) | Sensor Switch WSK-POT or equivalent |
| Motion Sensors (Ceiling) | Sensor Switch CMR-POT 9 or equivalent |
| Motion Sensors with Day-Lighting (Ceiling) | Sensor Switch CMP-POT 9-ADC or equivalent |

- The Electrical Contractor shall furnish and install appropriate wallplates for all receptacles, switches, control devices, communications, and telephone outlets.
- a. The warehouse wallplates shall be made of stainless steel with a brushed finish.
- b. The office wallplates shall be made of nylon with a satin finish, and shall be in the color specified by the architect in one of the standard colors.
- c. Special markings shall be as indicated on the drawings or in the specifications.
- Where wiring devices are installed in outlet boxes exposed to weather, the boxes, wallplates, and covers shall be approved by the Architect/Engineer for those locations.

Electrical Identification

- The Electrical Contractor shall maintain accurate records of all divisions in work as installed from working specified on the drawings or in the specifications. On completion of the project, two (2) complete sets of marked-up prints showing these divisions shall be delivered to the Architect/Engineer.

SERVICE AND DISTRIBUTION

General

- The Electrical Contractor shall furnish and install an electric service entrance, related distribution equipment, and an approved grounding system as shown on the drawings, and schedules shall comply with the current NEC, local and state building and electric codes, and Electric Utility specifications.
- The Electrical Contractor shall furnish and install all required conduit, cable, and watt-hour meter and base provided by the Electric Utility and all equipment required by the Electric Utility for secondary service from the point of attachment to the main service panel.
- The Electrical Contractor shall furnish and install a proper electrical ground as shown on the drawing that makes the approved connections to suitable metallic cold water piping and a properly driven approved ground rod or rods as specified by the NEC or local electric codes, whichever is more stringent.
- The conduit used for the service entrance shall be rigid, galvanized steel conduit unless otherwise indicated on the drawings.
- The conductors for the service entrance shall be copper Type RHW-2 or THW-2 rated at 194 degrees F (90 degrees C), unless otherwise noted.

Underground Service Connection

- Where the Electric Utility's distribution facilities are in a zoned underground or network area, it will install, own, and maintain, at its own expense, the necessary cable system from the underground distribution line which is part of its distribution system to the Owner's point of service connection.
- The Electrical Contractor shall contact the Electric Utility and determine the cable and conduit to be installed by the Electric Utility and the limits of its installation, ownership, and maintenance responsibilities. The Electrical Contractor shall also determine the Electric Utility's recommended position for a service end box, as necessary, where the splice is to be made.
- The Electrical Contractor shall furnish the matching cable and conduit necessary to extend the service lateral from the service end box to the main disconnect inside the project building, as indicated in the drawings and specifications. The Owner shall maintain as his or her own expense the required service lateral from this point to his or her main disconnect.
- Unless otherwise specified, the service lateral shall be three insulated conductors banded in a trench 2 to 4 feet deep below finished grade and a minimum of 4 inches wide.
- The Electrical Contractor shall mount the watt-hour meter and base plumb and level at the distance above the finished grade specified or shown on the drawings. For 200-ampere service, the service entrance conduit shall be 2-inch galvanized steel pipe threaded into the meter base. Knockout threaded ferrule conduit connectors shall be located as shown on the drawings, and the metal conduit shall be strapped to the supporting wall with conduit straps not more than 54 inches apart.

Service Entrance

- The Electrical Contractor shall provide a service entrance system as shown on the drawings and described in the specifications. The Electrical Contractor shall calculate and verify the electrical demand requirements for the building prior to the installation of electric service.
- The electrical systems shall be a 277/480-volt, 60-Hertz, Three-phase, Four-wire service.

Grounding

- Unless otherwise specified or determined by local building code, the Electrical Contractor shall measure ground resistance with an approved Megger ground-resistance tester to determine the requirement for more than one ground rod as specified in the current NEC.
- In addition to the ground rod(s), the Electrical Contractor shall make approved connections to one other earth ground: a metal cold water pipe or as approved by the NEC. In no case shall a gas pipe be used as an earth ground. The grounding wire shall be at least No. 6 AWG copper protected by PVC conduit if exposed above ground at any outside location. All ground clamps shall be approved for the intended purpose.
- If a second ground rod is specified, it shall be separated at least 6 feet from the first, assuming vertical orientation of the rods.

Branch-Circuit Panelboards

- Lighting and appliance branch circuit panelboards shall be made from cold-rolled steel and shall be finish painted in the manufacturer's colors. It shall consist of three main parts: front cover, inner cover, and backpan built to accept both on molded branch circuit breakers.
- The branch-circuit panelboard shall be equipped with parallel hot buses with sufficient slots to accept the number and type of circuit breakers specified for the project and have room to spare for later expansion. The back pan shall contain a rail for effective clamping of all circuit breakers. The parallel neutral/ground buses shall be made from solid, rectangular copper alloy with screw-type wire terminals. The backpan shall be large enough to provide adequate gutter space around the busbars for the anticipated wire fill. It shall have sufficient knockouts for the number and position of cables specified. The front cover shall be provided with a secure latch and concealed hinges.
- The branch-circuit panelboard shall be UL listed for indoor applications, bear the UL label, and meet NEMA and ANSI requirements. It shall also conform to the current NEC for wallboards and panelboards and the insertion of overcurrent devices.
- The branch-circuit panelboard shall be NEMA Type 1, unless noted otherwise, and as manufactured by Cutler-Hammer, Siemens, GE, Square-D or approved equivalent, and shall be fully assembled with all hot and neutral/ground buses, gutter posts, tie bar, and other auxiliary fittings. It shall be durably marked in accordance with the current NEC.
- The Electrical Contractor shall make every reasonable effort to balance the load to the satisfaction of the Electric Utility. The Electrical Contractor shall complete the panelboard directory on the inner face of the front cover legibly to identify all circuits in a permanent manner, as approved by the Owner.

Overcurrent Protective Devices

- The Electrical Contractor shall furnish and install, where indicated on the drawing or as required by the current NEC, main and branch circuit breakers. The breakers shall be capable of manual operation and opening all poles simultaneously. The tripping mechanism shall operate mechanically, magnetically, or both, shall open instantaneously on short circuits, and have a time delay on overcurrent. The circuit breakers shall be of the type shown on the drawings or called out in the protective device schedule.

Lamping

- The Electrical Contractor shall furnish, install, and wire all permanent luminaires as shown on the drawings or as listed in the luminaire schedule and shall install all required lamps, lenses, reflectors, protective covers, and decorative components.
- Luminaires shall be of the type, and size, with the specified lamping, in the wattage ratings, shown on the drawings or as listed in the luminaire schedule. The Electrical Contractor may furnish luminaires that meet current commercial electrical and mechanical standards for quality and the specified illumination requirements as listed in the luminaire schedule from the appropriate electronic or magnetic manufacturers. However, at the Architect/Engineer's request, the Electrical Contractor shall submit for approval one sample of each luminaire specified.
- If a luminaire is specified only by a single manufacturer and model number for reasons of appearance, style, or specialized function, and that product is not available commercially, the Electrical Contractor may make a reasonable substitution only with the approval of the Architect/Engineer.
- The material and workmanship of the luminaires shall be quality products in accordance with commercial standards. By mutual agreement with the Electrical Contractor, the Owner reserves the right to require replacements for any luminaire furnished that is damaged, defective, or poorly finished or otherwise fails to meet the accepted commercial quality standards for that grade of product, provided that the Electrical Contractor is notified prior to the installation of said luminaire.
- The Electrical Contractor shall assemble custom-made luminaires furnished disassembled by others following approved assembly instructions and/or shop drawings, and install and wire them where and as specified.
- The Electrical Contractor shall coordinate the furnishing and installation of luminaires with the completion of the project to avoid interference with the work of other trades, unless otherwise required by the specifications. The Electrical Contractor shall keep all luminaires delivered to the job site in their protective cartons or packages to protect them from dust or damage prior to installation.

Lamps

- All luminaires shall be lamped as indicated on the lighting fixture schedule. All lamps shall be new and unused and shall have the style, shapes, special properties, wattage ratings, and spectral colors specified. Lamps installed shall not exceed the wattage ratings recommended by the luminaire manufacturer. All fluorescent lamps shall be matched with the appropriate electronic or magnetic ballasts, as recommended by the luminaire manufacturer. Lamps shall be purchased from recognized commercial manufacturers/vendors.
- At the time of the acceptance of the building, the Electrical Contractor shall have all luminaires lamped, cleaned, and assembled with all reflectors, domes, or light shades, and be prepared to demonstrate their proper operation to the satisfaction of the Architect/Engineer and Owner.

MASTER ELECTRICAL SPECIFICATION GENERAL PROVISIONS

- The Architectural General and Special Conditions for the work of this project shall be part of the Electrical Specifications. The Electrical Contractor shall examine the General and Special Conditions before submitting a proposal.
- The General Contractor shall be responsible for all of the work included in this section. The delegation of this work to the Electrical Contractor shall not relieve the Electrical Contractor of responsibility. The Electrical Contractor and subcontractors who perform work under this section will be responsible to the General Contractor.
- The intent of the repetition of paragraphs under the General or Special Conditions is to call particular attention to them, and it is not intended nor shall it be assumed that any other parts of the General or Special Conditions have been omitted if not repeated herein.
- The naming of a manufacturer or brand with catalog number or other product identification without the words "or equivalent" in the specifications shall indicate that it is the only product approved for purchase. If the words "or equivalent" are used in the specification, they shall be interpreted as establishing a quality or performance standard for the material or product to be purchased. This shall indicate that the Electrical Contractor is not restricted to the use of the named and identified product. If a substitute approved by the Architect/Engineer is available. However, where a substitution is requested, it will be permitted only with the written approval of the Architect/Engineer. No substitute material or product shall be ordered fabricated, shipped, or processed in any manner prior to the approval of the Architect/Engineer. The Electrical Contractor shall assume all responsibility for additional expenses as required to make changes from the original material or product specified. If a notice of substitution is not furnished to the Architect/Engineer within fifteen (15) days after the General Contract is awarded, then the materials or products named in the specification shall be purchased and used.
- The Electrical Contractor shall furnish and present five (5) copies of all electrical drawings, brochures, and installation instructions relating to specified equipment, wiring devices, and accessories to the Architect/Engineer for approval and shall furnish and present five (5) copies of a schedule of the manufacturers of all items for which shop drawings or brochures are not presented. No equipment shall be ordered, purchased, or installed prior to the approval of shop drawings, brochures, installation instructions, and schedules. Approval by the Architect/Engineer is intended to establish conformance with the project design concept and the requirements of the drawings and specifications.
- The Electrical Contractor shall examine the drawings of all trades whose work relates to or is dependent on electrical work to become fully informed of the extent and character of their specified work and be able to coordinate it while avoiding possible interference with the electrical work.
- Before submitting the bid, the Electrical Contractor shall visit the site and examine all adjoining existing buildings, equipment, and space conditions on which his or her work is in any way dependent to anticipate any possible space restrictions or constraints that could affect timely completion of the electrical work in accordance with the intent of the specifications and drawings. The Electrical Contractor shall report to the Architect/Engineer any conditions that might prevent the specified electrical work from being performed in the manner intended. No consideration or allowance will be granted to the Electrical Contractor for failure to visit the project site, or for any alleged misunderstanding of the materials to be furnished or work to be done.

ELECTRICAL DRAWINGS AND SYMBOLS

- The Electrical Drawings are diagrammatic and indicate the general locations of all materials, equipment, luminaires, and wiring devices. These drawings shall be followed as closely as is practical. The Electrical Contractor shall coordinate the work under this section with the architectural, plumbing, heating and air conditioning, and other trade drawings for the exact dimensions, clearances, and roughing-in locations. The Electrical Contractor shall cooperate with the other trades if field adjustments are required to accommodate the work of others.
- The drawings and specifications are complementary, each to the other, and the work required by either shall be included in the Contract as called for by both.
- If directed by the Architect/Engineer, the Electrical Contractor shall, without an extra charge, make reasonable modifications in the layout as needed to prevent conflict with the work of other trades or for the workmanlike execution of the work specified.
- The standard or modified electrical symbols used on the drawings for this project are identified in a Master Symbol List in the specifications and they are also identified where used on the drawings. Not all symbols will appear on any one drawing and some symbols may not be used at all.

WORK INCLUDED

- The work consists of the furnishing and installing of a complete exterior and interior electrical system. The Electrical Contractor shall provide all supervision and labor, and furnish and install all materials, equipment, wiring devices, and all other fixtures and fittings as indicated on the drawings and as necessary to complete the system.
- The intent of the specifications and drawings is to call for finished work that has been tested to demonstrate that it is operational.
- Any apparatus, appliance, material, or work not shown on the drawings but called out in the specifications, or vice versa, or any incidental accessories necessary to complete the work in all respects and make it ready for operation, even if not specifically specified, shall be furnished, delivered, and installed by the Electrical Contractor without additional expense to the Owner.
- Minor details not usually shown or specified, but necessary for the proper installation and operation of a system or equipment, shall be included in the Electrical Contractor's estimate, as if specified herein or shown.
- With submission of the bid, the Electrical Contractor shall give written notice to the Architect/Engineer of any necessary items or work that have been omitted from the drawings or specifications. In the absence of such written notice, it is mutually agreed that the Electrical Contractor has included the cost of all required items in his or her proposal, and that the Electrical Contractor will be responsible for the approved satisfactory functioning of the entire system without extra compensation.

WORK NOT INCLUDED

- The furnishing, installing, and wiring of equipment and controls that shall be performed by others as follows:
- a. Heating, ventilating, and air conditioning equipment, and electrically powered or driven major appliances requiring permanent installation, unless otherwise indicated, shall be furnished and installed by others but connected by the Electrical Contractor at the locations indicated on the drawings.

CODES AND FEES

- All material and workmanship shall comply with all applicable codes, state laws, local ordinances, industry standards, and electric utility and insurance carrier requirements.
- In cases of conflict between all applicable codes, state laws, local ordinances, industry standards, and insurance carrier and electric utility requirements, the Electrical Contractor shall bear all costs related to the correction of any such conflict.
- Noncompliance: Should the Electrical Contractor perform any work that does not comply with all applicable codes, state laws, local ordinances, industry standards, and insurance carrier and electric utility specifications, the Electrical Contractor shall bear all costs related to the correction of any such noncompliance.
- Applicable codes, standards, and specifications shall include, but not be limited to, the building codes and industry standards, codes, and specifications listed below:
- a. Building Codes
- i. National Building Code
- ii. Local Building Codes
- iii. National Electrical Code (NEC)
- iv. State Electrical Codes
- v. Local Municipal Electrical Code
- b. Industry Standards, Codes, and Specifications
- i. AMCA-Air Moving and Conditioning Association
- ii. ANSI-American National Standards Institute, Inc.
- iii. ASHRAE-American Society of Heating, Refrigeration, and Air Conditioning Engineers
- iv. ASME-American Society of Mechanical Engineers
- v. ASTM-American Society for Testing and Materials
- vi. EIA-Electronic Industries Association
- vii. IEEE-Institute of Electrical and Electronic Engineers
- viii. IPCEA-Insulated Power Cable Engineers Association
- ix. NEC-National Electrical Code (NFPA No. 70-2002)
- x. NEMA-National Electrical Manufacturers Association
- xi. NFPA-National Fire Protection Association, Inc.
- xii. OSHA-Occupational Safety and Health Administration
- xiii. UL-Underwriters' Laboratories, Inc.

BASE ELECTRICAL MATERIALS AND WIRING DEVICES

General

- All wire, cable, conduit, conduit fittings, cabinets, panel boxes, wiring devices, and miscellaneous hardware and fittings shall be new and undamaged, and bear the UL label where applicable, and be as specified for use in each specific location.
- Samples of specific wire, cable, conduit, fittings, cabinets, panels, and boxes procured for use shall be made available to the Architect/Engineer for approval when requested.
- Equipment Finish: All factory-finished electrical boxes, cabinets, and panel-boards shall be furnished in the manufacturer's standard color and finish. The Electrical Contractor shall notify the Painting Contractor when all exposed unpainted electrical equipment, except conduit, and those factory-finished cabinets and panelboards that are to be painted can be cleaned, primed as required, and finish-painted in the colors selected by the Owner in accordance with the Painting Section of these specifications.
- Conduit:
- Rigid steel conduit shall be used for service entrance and main feeders, and branch circuits where shown on the drawings and in the specifications. Rigid steel conduit shall be made from low-carbon steel that has been hot-dip galvanized inside and outside, and the ends shall be threaded to accept threaded fittings. Other finishes may be substituted if approved by the Architect/Engineer. All conduit shall be UL approved.
- Electrical metallic tubing (EMT) may be used for branch circuits and raceways other than for service entrance and main feeders, unless prohibited by the NEC or local ordinances. All EMT shall be UL approved, pressure-connected type, and galvanized inside and outside, and shall comply with ASA C-80.3 for zinc-coated EMT with fittings of the same type, material, and finish.
- Conduit diameters shall be as indicated on the drawings, or as stated in fill schedules in the current NEC. Provision shall be made for including a green-insulated grounding conductor where specified or as shown on the drawings.
- Conduit fittings shall be appropriate for each application, and shall be manufactured by Allied Tube and Conduit or approved equal.
- All conduit joints shall be cut square, threaded, reamed smooth, and drawn up tight. Bends or offsets shall be made with an approved bender or hickey, or hub-type conduit fittings. The number of bends per run shall conform to those stated in the current NEC.
- Concealed conduit systems shall be run in a direct line with long sweep bends and offsets. Exposed conduit runs shall be parallel to and at right angles to building lines, using conduit fittings for all turns and offsets.
- Transitions between nonmetallic conduits and metallic conduits shall be made with the manufacturer's standard adapters made for this purpose.
- Exposed conduit shall be securely fastened in place on maximum eight foot intervals. Hangers, supports, or fasteners shall be provided at each elbow and at the end of each straight run terminating at a box or cabinet. Only couplings and fittings designed specifically for the type of conduit proposed shall be used. The conduit shall be supported by corrosion-resistant straps and/or clamps.
- Conduit systems shall be installed in accordance with the current NEC to provide a continuous bond throughout the system in a neat, workmanlike manner.

Wire and Cable

- All wire and cable shall meet all applicable specifications and standards and shall conform with the current edition of the NEC. Insulated wire shall have information including but not limited to gauge, voltage rating, insulation type, temperature rating, sheath type, permissible location, and manufacturer's name, as applicable to the type, permanently marked on the outer covering at regular intervals not exceeding 4 feet. Cable shall have information including but not limited to type, style, voltage rating, number of conductors, ground conductors, minimum voltage, UL listing, and sunlight resistance, as applicable to the type, permanently marked on the outer covering at regular intervals not exceeding 4 feet. Wire and cable shall be delivered in complete coils or reels with identifying tags stating the gauge and type of insulation.
- Wire and cable shall be suitably protected from weather and other damage during storage and handling, and shall be in pristine condition after installation.
- Conductors shall be soft-drawn copper conforming to ASTM B3 for solid wire and ASTM B8 for stranded wire. Stranded wire shall be No. 8 American Wire Gauge (AWG) and larger, and solid wire shall be No. 8 AWG and smaller.
- Wire and cable shall be factory color-coded with a separate color for each phase and a neutral color used consistently throughout the system, as required by the current NEC.
- All conductors shall be rated for 600 volts, unless otherwise specified or shown on the drawings, or for electronic or communication use.
- Conductors for lighting, receptacles, and power branch circuits, feeders, and sub-feeders size No. 10 AWG and smaller shall be Type THHN flame retardant, moisture- and heat-resistant, thermoplastic insulated conductors.
- Conductors for feeders and subfeeders size No. 1/0 AWG and larger shall be type RHW flame retardant, moisture-resistant, thermoset insulated.
- Branch circuits containing all electric heating elements such as electric duct coils, baseboard radiation, and cabinet unit heaters shall be Type THHN flame retardant, heat-resistant, thermoplastic insulated with a maximum operating temperature of 90 degrees F (194 degrees F).
- Underground feeder and branch circuit wire for direct burial in earth or in conduit shall be Type UL for use in wet or dry locations.
- Wire and cable shall be as manufactured by Southwire or approved equal.

Wire Connections

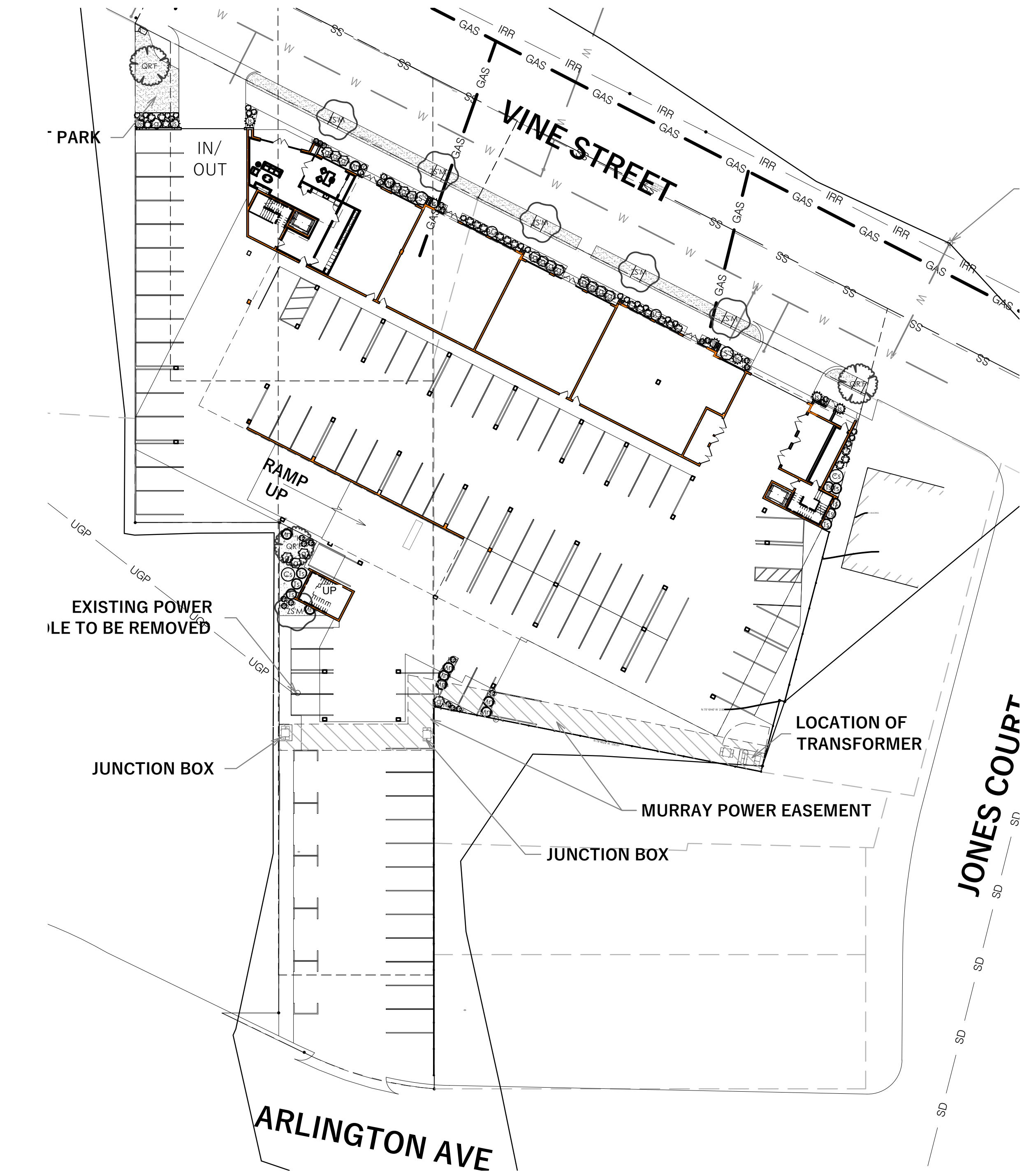
- Joints in branch circuits shall be made only where such circuits divide as indicated on the drawings and shall consist of one through circuit to which the branch from the circuit shall be spliced. Joints in branch circuits shall not be made in future hangers. No splices shall be made in conductors except at outlet, junction, or splice boxes.
- All joints or splices for No. 10 AWG conductors or smaller shall be made with UL-approved wire nuts or compression-type connectors.
- All joints or splices for No. 8 AWG and larger conductors shall be made with a mechanical compression connector. After the conductors have been mechanically and electrically secure, the entire joint or splice shall be covered with 3M Scotch brand No. 33 tape, or approved equal, to make the insulation value at the joint or splice equal to the insulation value of the conductors. The connectors shall be UL approved.

Junction and Pull Boxes

- The Electrical Contractor shall furnish and install all junction and pull boxes to provide access points for pulling and feeding conductors into a raceway system. They shall be used in conduit runs where the number of bends between outlet exceeds the maximum number permitted by the current NEC. Junction and pull boxes shall be located as shown on the drawings in the zones indicated in the junction and pull box schedule.
- Junction and pull boxes and their covers shall be formed from sheet steel and shall have widths, heights, and depths as shown on the drawings or junction and pull box schedules and shall be finished in gray enamel paint. Boxes without hinged covers shall include covers with attached screws.
- Junction and pull boxes shall be in industry standard sizes as manufactured by _____, or approved equivalent.

LANDSCAPE PLAN SPECIFICATIONS

- PART I - GENERAL
- 1.1 SUMMARY
- A. This section includes landscape procedures for the Project including all labor, materials, and installation necessary, but not limited to, the following:
1. Soil Amendments
 2. Fine Grading
 3. Cultivation
 4. Landscape Edging
 5. Turf Planting
 6. Furnish and Installing Plant
 7. Maintenance
 8. Mowing
 9. Weeding
- 1.2 SITE CONDITIONS
- A. Examination: Before submitting a Bid, each Contractor shall carefully examine the Contract Documents; shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the Bid the cost of all items required by the Contract Documents are at a variance with the applicable laws, building codes, rules, regulations, or contain obvious erroneous or uncoordinated information, the Contractor shall promptly notify the Project Representative and the necessary changes shall be accomplished by Addendum.
- B. Protection: Contractor to conduct the Work in such a manner to protect all existing underground utilities or structures. Contractor to repair or replace any damaged utility or structure using identical materials to match existing at no expense to the Owner.
- C. Irrigation System: Do not begin planting until the irrigation system is completely installed, is adjusted for full coverage and is completely operational.
- 1.3 PERMITS
- A. Blue Stake/ Dig Line: When digging is required, "Blue Stake" or "Dig Line" the work site and identify the approximate location of all known underground utilities or structures.
- 1.4 PLANT DELIVERY, QUALITY, AND AVAILABILITY
- A. Unauthorized substitutions will not be accepted. If proof is submitted that specific plants or plant sizes are unavailable, written substitution requests will be considered for the nearest equivalent plant or size. All substitution requests must be made in writing and preferably before the bid due date.
- 1.5 FINAL INSPECTION
- A. All plants will be inspected at the time of Final Inspection prior to receiving a Landscape Substantial Completion for conformance to specified planting procedures, and for general appearance and vitality. Any plant not approved by the Project Representative will be rejected and replaced immediately.
- 1.6 LANDSCAPE SUBSTANTIAL COMPLETION
- A. A Substantial Completion Certificate will only be issued by the Project Representative for "landscape and irrigation" in their entirety. Substantial Completion will not be proportioned to be designated areas of a project.
- 1.7 MAINTENANCE
- A. Plant Material: The Contractor is responsible to maintain all planted materials in a healthy and growing condition for 30 days after receiving a Landscape Substantial Completion at which time the Guarantee period commences. This maintenance is to include mowing, weeding, cultivating, fertilizing, monitoring water schedules, controlling insects and diseases, re-guying and staking, and all other operations of care necessary for the promotion of root growth and plant life so that all plants are in a condition satisfactory at the end of the guarantee period. The Contractor shall be held responsible for failure to monitor watering operations and shall replace any and all plant material that is lost due to improper application of water.
- 1.8 GUARANTEE
- A. Guarantee: A guarantee period of one year shall begin from end of maintenance period and final acceptance for trees, shrubs, and ground covers. All plants shall grow and be healthy for the guarantee period and trees shall live and grow in acceptable upright position. Any plant not alive, in poor health, or in poor condition at the end of the guarantee period will be replaced immediately. Any plant will only need to be replaced once during the guarantee period. Contractor to provide documentation showing where each plant to be replaced is located. Any outside factors, such as vandalism or lack of maintenance on the part of the Owner, shall not be part of the guarantee
- PART II - PRODUCTS
- 2.1 LANDSCAPE MATERIALS
- A. Tree Staking: All trees shall be staked for one year warranty period. All trees not plumb shall be replaced. Staked trees shall use vinyl tree ties and tree stakes two (2) inch by two (2) by eight (8) foot common pine stakes used as shown on the details.
- B. Tree Wrap: Tree wrap is not to be used.
- C. Mulch/Rock: See Plans. All planter beds to receive a minimum 3" layer for trees, shrubs, and perennials and 1" for groundcovers.
- D. Weed Barrier: DeWitt 5 oz. weed barrier fabric. Manufactured by DeWitt Company, dewittcompany.com or approved equal.
- E. Tree, Shrub, and Grass Backfill Mixture: Backfill mixture to be 50% native soil and 50% topsoil, thoroughly mixed together prior to placement.
- F. Topsoil: Required for turf areas, planter beds and Backfill Mixture. Acceptable topsoil shall meet the following standards:
- a. PH: 5.5-7.5
 - b. EC (electrical conductivity): < 2.0 mmhos per centimeter
 - c. SAR (sodium absorption ration): < 3.0
 - d. % OM (percent organic matter): >1%
 - e. Texture (particle size per USDA soil classification): Sand <70%, Clay < 30%, Silt < 70%, Stone fragments (gravel or any soil particle greater than two (2) mm in size) < 5% by volume.
- G. Turf Sod: All sod shall be 18 month old as specified on plans (or approved equal) that has been cut fresh the morning of installation. Only sod that has been grown on a commercial sod farm shall be used. Only use sod from a single source.
- H. Landscape Edging: Headers and Edging six (6) inches by four (4) inches extruded concrete curb made up of the following materials:
- a. Washed mortar sand free of organic material.
 - b. Portland Cement (see concrete spec. below for type)
 - c. Reinforced fiber - Specifically produced for compatibility with aggressive alkaline environment of Portland cement-based composites.
 - d. Only potable water for mixing.
- PART III - EXECUTION
- 3.1 GRADING
- A. Topsoil Preparation: Grade planting areas according to the grading plan. Eliminate uneven areas and low spots. Provide for proper grading and drainage.
- B. Topsoil Placement: Slope surfaced away from building at two (2) percent slope with no pockets of standing water. Establish finish grades of one (1) inches for planters below grade of adjacent paved surfaced. Provide neat, smooth, and uniform finish grades. Remove surplus sub-soil and topsoil from the site.
- C. Compaction: compaction under hard surface areas (asphalt paths and concrete surfaces) shall be ninety-five (95) percent. Compaction under planting areas shall be between eighty-five (85) and ninety (90) percent.
- 3.2 TURF GRADING
- A. The surface on which the sod is to be laid shall be firm and free from footprints, depressions, or undulations of any kind. The surface shall be free of all materials larger than 1/2" in diameter.
- B. The finish grade of the topsoil adjacent to all sidewalks, mow-strips, etc. prior to the laying of sod, shall be set such that the crown of the grass shall be at the same level as the adjacent concrete or hard surface. No exceptions.
- 3.3 PLANTING OPERATIONS
- A. Review the exact locations of all trees and shrubs with the Project Representative for approval prior to the digging of any holes. Prepare all holes according to the details on the drawings.
- B. Water plants immediately upon arrival at the site. Maintain in moist condition until planted.
- C. Before planting, locate all underground utilities prior to digging. Do not place plants on or near utility lines.
- D. The tree planting hole should be the same depth as the root ball, and three times the diameter of the root ball.
- E. Trees must be placed on undisturbed soil at the bottom of the planting hole.
- F. The tree hole depth shall be determined so that the tree may be set slightly high of finish grade, 1" to 2" above the base of the trunk flare, using the top of the root ball as a guide.
- G. Plant immediately after removal of container for container plants.
- H. Set tree on soil and remove all burlap, wire baskets, twine, wrappings, etc. before beginning and backfilling operations. Do not use planting stock if the ball is cracked or broken before or during planting operation.
- I. Apply vitamin B-1 root stimulator at the rate of one (1) tablespoon per gallon.
- J. Upon completion of backfilling operation, thoroughly water tree to completely settle the soil and fill any voids that may have occurred. Use a watering hose, not the area irrigation system. If additional prepared topsoil mixture needs to be added, it should be a courser mix as required to establish finish grade as indicated on the drawings.
- K. The amount of pruning shall be limited to the minimum necessary to remove dead or injured twigs and branches. All cuts, scars, and bruises shall be properly treated according to the direction of the Project Representative. Proper pruning techniques shall be used. Do not leave stubs and do not cut the leader branch. Improper pruning shall be cause for rejection of the plant material.
- L. Prepare a watering circle of 2' diameter around the trunk. For conifers, extend the watering well to the drip line of the tree canopy. Place mulch around the planted trees.
- 3.4 TURF - SOD LAYING
- A. Top Soil Amendments: Prior to laying sod, commercial fertilizer shall be applied and incorporated into the upper four (4) inches of the topsoil at a rate of four pounds of nitrogen per one thousand (1,000) square feet. Adjust fertilization mixture and rate of application as needed to meet recommendations given by topsoil analysis. Include other amendments as required.
- B. Fertilization: Three weeks after sod placement fertilize the turf at a rate of ½ pound of nitrogen per 1000 square feet. Use fertilizer specified above. Adjust fertilization mixture and rates to meet recommendations given by topsoil analysis.
- C. Sod Availability and Condition: The Contractor shall satisfy himself as to the existing conditions prior to any construction. The Contractor shall be fully responsible for furnishing and lay all sod required on the plans. He shall furnish new sod as specified above and lay it so as too completely satisfy the intent and meaning of the plans and specification at no extra cost to the owner. In the case of plans and specification at no extra cost to the owner. In the case of any discrepancy in the amount of sod to be removed or amount to be used, it shall be the Contractor's responsibility to report such to the Project Representative prior to commencing the work.
- D. Sod Laying: The surface upon which the new sod to be laid will be prepared as specified above. Areas where sod is to be laid shall be cut trimmed, or shaped to receive full width sod (minimum twelve (12) inches). No partial strip or pieces will be accepted.
- E. Sod shall be tamped lightly as each piece is set to insure that good contact is made between edges and also the ground. Sod laid on any sloped areas shall be anchored with wooden dowels or other materials which are accepted by the grass sod industry.
- F. Apply water directly after laying sod. Rainfall is not acceptable.
- G. Watering of the sod shall be the complete responsibility of the Contractor by whatever means necessary to establish the sod in an acceptable manner to the end of the Maintenance period. If an irrigation system is in place on the site, but for whatever reason, water is not available in the system, it is the responsibility of the Contractor to water the sod by whatever means, until the sod is accepted by the Project Representative.
- H. Protection of the newly laid sod shall be the complete responsibility of the Contractor. The Contractor shall provide acceptable visual barriers, to include barricades set appropriate distances with strings or tapes between barriers, as an indication of new work. The Contractor is to restore any damaged areas caused by others (including vehicular traffic), erosion, etc., until such time as the lawn is accepted by the Owner.
- I. All sod that has not been laid within 24 hours shall be deemed unacceptable and will be removed from the site.
- 3.5 WEED BARRIER
- A. Cut a slit or x at each plant location no larger than necessary to install plant.
- B. Overlap rows of fabric min. 6"
- C. Stable fabric edges and overlaps to ground.
- END OF SECTION



LANDSCAPE GENERAL NOTES

- INSTALLER RESPONSIBILITIES AND LIABILITIES
1. THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. THE INSTALLER IS REQUIRED TO REFER TO THEIR INDIVIDUAL TRADE - SCOPE OF WORK. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
 2. THE INSTALLER OF ALL LANDSCAPING AND IRRIGATION SYSTEMS ARE LIABLE AND RESPONSIBLE FOR ALL JURISDICTIONAL AND CODE REQUIREMENTS, TIME EXECUTIONS, AND INSTALLED PRODUCTS AND MATERIALS.
- GRADING AND DRAINAGE REQUIREMENTS
1. ALL GRADING IS TO SLOPE AWAY FROM THE STRUCTURE PER CODE.
 2. FINISHED GRADE IS NOT PERMITTED BY CODE TO DRAIN ON NEIGHBORING PROPERTIES
 3. 6" MIN. FOUNDATION LEFT EXPOSED AT ALL CONDITIONS
 4. LANDSCAPER TO MAINTAIN OR IMPROVE EXISTING FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY THE EXCAVATOR'S FINAL GRADE ACTIVITIES INCLUDING ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
 5. IF ANY SWALE, BERM, OR GRADE HAS BEEN DAMAGED OR IS INCORRECT TO ENSURE CORRECT WATER FLOW THE TRADE CONTRACTOR IS RESPONSIBLE TO FIX STATED ISSUE.
 6. ROOF RUN-OFF DEVICES SHOULD BE INSTALLED TO COLLECT AND DISCHARGE ALL ROOF RUNOFF A MINIMUM OF 10 FEET FROM FOUNDATION ELEMENTS OR BEYOND THE LIMITS OF BACKFILL AROUND THE FOUNDATION WALLS, WHICHEVER DISTANCE IS GREATER.
 7. THE GROUND SURFACE WITHIN 10 FEET OF THE FOUNDATIONS SHOULD BE SLOPED TO DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6 INCHES.
- LANDSCAPING REQUIREMENTS
1. ALL LANDSCAPING IS TO BE INSTALLED PER ALL GOVERNING JURISDICTIONS I.E. INTERNATIONAL BUILDING CODE, CITY CODES.
 2. NON-COMPLIANCE TO ALL GOVERNING JURISDICTION REQUIREMENTS AND REGULATION ARE THE RESPONSIBILITY OF THE LANDSCAPING INSTALLER.
 3. ALL PLANTED LANDSCAPING IS TO BE INSTALLED ACCORDING TO THE NURSERY CARE AND INSTALLATION INSTRUCTIONS WHERE PURCHASED AND BASED ON INDIVIDUAL SOIL CONDITIONS AND SITE CONDITIONS.

LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
2. PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. IF SUBSTITUTIONS ARE WANTED, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANTING.
3. NEW LAWN AREAS TO BE SODDED WITH DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
4. SANDY LOAM TOPSOIL TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 6" TOPSOIL (WITH 2" HUMUS MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS AND 4" IN ALL NEW LAWN AREAS. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ACCOMMODATE NEW TOPSOIL AND/OR PLANTER BED MULCH TO REACH FINISHED GRADE.
- 4"x6" EXTRUDED CONCRETE MOW CURB TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS PER PLAN. ANY TREES LOCATED IN LAWN MUST HAVE A 4" CONCRETE TREE RING.
6. DeWitt 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN.
7. ROCK MULCH TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 3" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS, ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL, PULL BARK MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES.
8. CONTRACTOR TO PROVIDE NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED IN ALL LANDSCAPE AREAS. ALL LAWN AREA TO RECEIVE 100% HEAD TO HEAD COVERAGE WITH SPRAY AND ROTARY SPRINKLER HEADS. ALL PLANTER AREAS NEED TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB ON PROJECT. SEE IRRIGATION PLAN.

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL
LS'S	LS'S	2	Liquidambar styracillua 'Slender Silhouette' Columnar Sweet Gum	15 gal	
QR'F	QR'F	3	Quercus robur 'Fastigiata' Pyramidal English Oak	B & B	2" Cal
ZS'M	ZS'M	6	Zelkova serrata 'Musashino' Sawleaf Zelkova		2' Cal
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	
Bg2	Bg2	9	Buxus microphylla 'Winter Gem' Globe Winter Gem Boxwood	5 gal	
BG	BG	2	Buxus x 'Green Mountain' Green Mountain Boxwood	5 gal	
Cs	Cs	2	Cornus stolonifera 'Arctic Fire' Arctic Fire Dogwood	5 gal	
Is	Is	8	Ilex crenata 'Sky Pencil' Sky Pencil Japanese Holly	5 gal	
Sg2	Sg2	10	Spiraea x bumalda 'Goldflame' Goldflame Spiraea	5 gal	
Ts	Ts	8	Thuja occidentalis 'Smaragd' Emerald Green Arborvitae	5 gal	
ANNUALS/PERENNIALS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	
Hp	Hp	22	Hemerocallis x 'Pardon Me' Pardon Me Daylily	1 gal	
Lg	Lg	4	Liatris Gayfeather	1 gal	
s2	s2	21	Sedum x 'Autumn Fire' Autumn Fire Sedum	1 gal	
GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	
C	C	19	Calamagrostis x acutiflora 'Karl Foerster' Feather Reed Grass	2 gal	
Mm	Mm	9	Miscanthus sinensis 'Morning Light' Morning Light Eulalia Grass	2 gal	

REFERENCE NOTES SCHEDULE

SYMBOL	LANDSCAPE DESCRIPTION	QTY
1-01	SODDED LAWN AREA LAWN AREAS SHALL BE SOD. NEW TURF AREAS TO BE SODDED WITH 18% "BLUESTAR" KENTUCKY BLUEGRASS, 19% "MARQUIS" KENTUCKY BLUEGRASS, 17% "NEWPORT" KENTUCKY BLUEGRASS, 17% "TOUCHDOWN" KENTUCKY BLUEGRASS, 16% "APM" PERENNIAL RYEGRASS, 13% "ACCENT" PERENNIAL RYEGRASS OR APPROVED EQUAL AT A RATE OF 220 LBS. PER ACRE. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD. ALL LAWN AREAS SHALL BE IRRIGATED WITH 100% COVERAGE BY POP-UP SPRAY HEADS AND GEAR-DRIVEN ROTORS. ALL DECIDUOUS AND CONIFER TREES PLANTED WITHIN SOD AREAS SHALL HAVE A FOUR (FOOT) 1" DIAMETER TREE RING COVERED WITH CHOCOLATE BROWN BARK MULCH, NO SHREDDED FINES. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION.	1,404 sf
1-03	1.5" COPPER CANYON ROCK (STAKER PARSONS) OR APPROVED EQUAL; 3" DEPTH PLANTING AREAS TO RECEIVE MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS.	1,438 sf
1-06	5.5" DEEP STEEL EDGING - INSTALL PER MANUFACTURER SPECIFICATION.	106 lf
1-12	1" DARK GRAY ROCK; 3" DEPTH PLANTING AREAS TO RECEIVE MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE APPROPRIATE SOIL QUALITY FOR PROPOSED PLANTINGS.	131 sf

ISSUE DATE

11-02-2020

PROJECT NUMBER

UT20111

NO.

REVISION

DATE

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811

BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
1-800-662-4111
www.bluestakes.org

N

0' 15' 30' 60' 120'

GRAPHIC SCALE: 1" = 30'

VINE STREET APARTMENTS

184 E VINE ST.

MURRAY, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

Developer / Property Owner:

JOE JOHNSEN
JOE.JOHNSEN@GMAIL.COM

Client / Engineer:

JZW-ARCHITECTS
849 WEST HILLFIEDL RD, STE 204
LAYTON, UTAH 84041
801-936-1343

LANDSCAPE ARCHITECT / PLANNER

PKJ

DESIGN GROUP

Landscape Architecture • Planning & Visualization

3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 960-2698
www.pkjdesigngroup.com

LICENSE STAMP

STATE OF UTAH

LANDSCAPE ARCHITECT

JOE JOHNSEN

8/28/21-5/31/24

11/02/2020

DRAWING INFO

PM: JTA

DRAWN: KBA

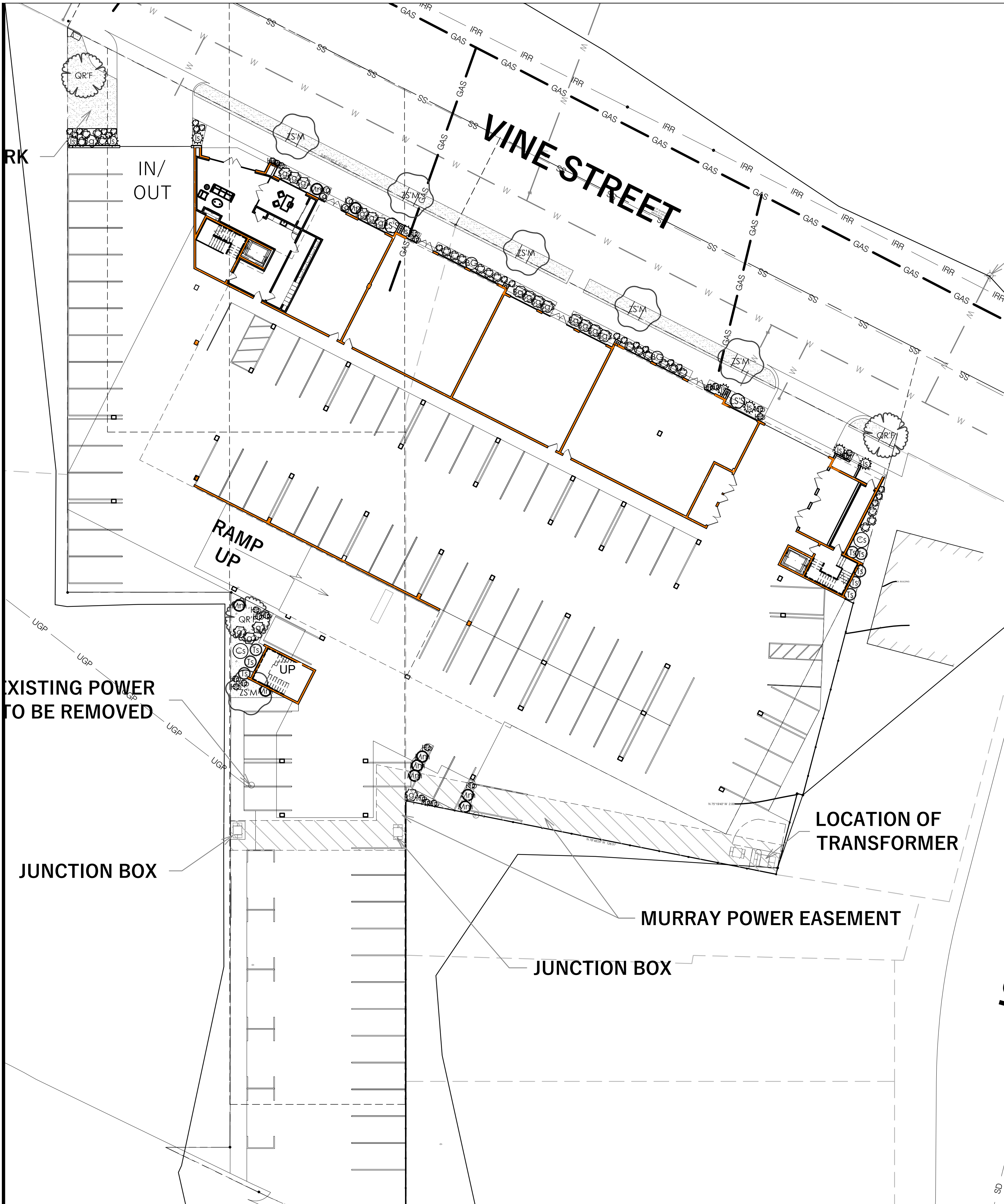
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PLOT DATE: 11/2/2020















LANDSCAPE PLAN

PRELIMINARY PLANS NOT FOR CONSTRUCTION


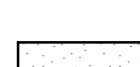

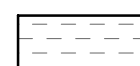
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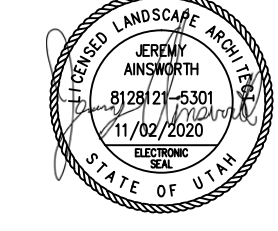


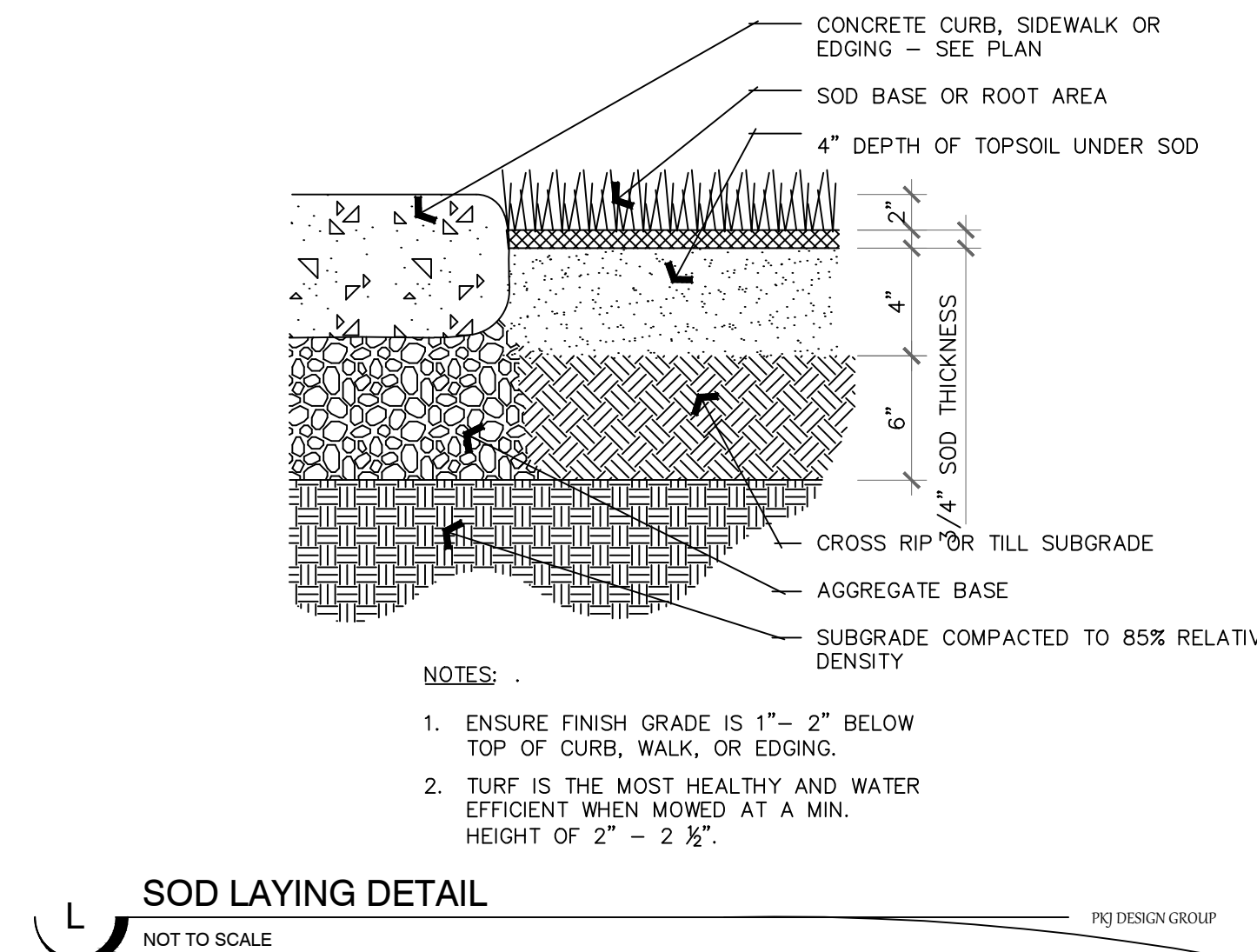
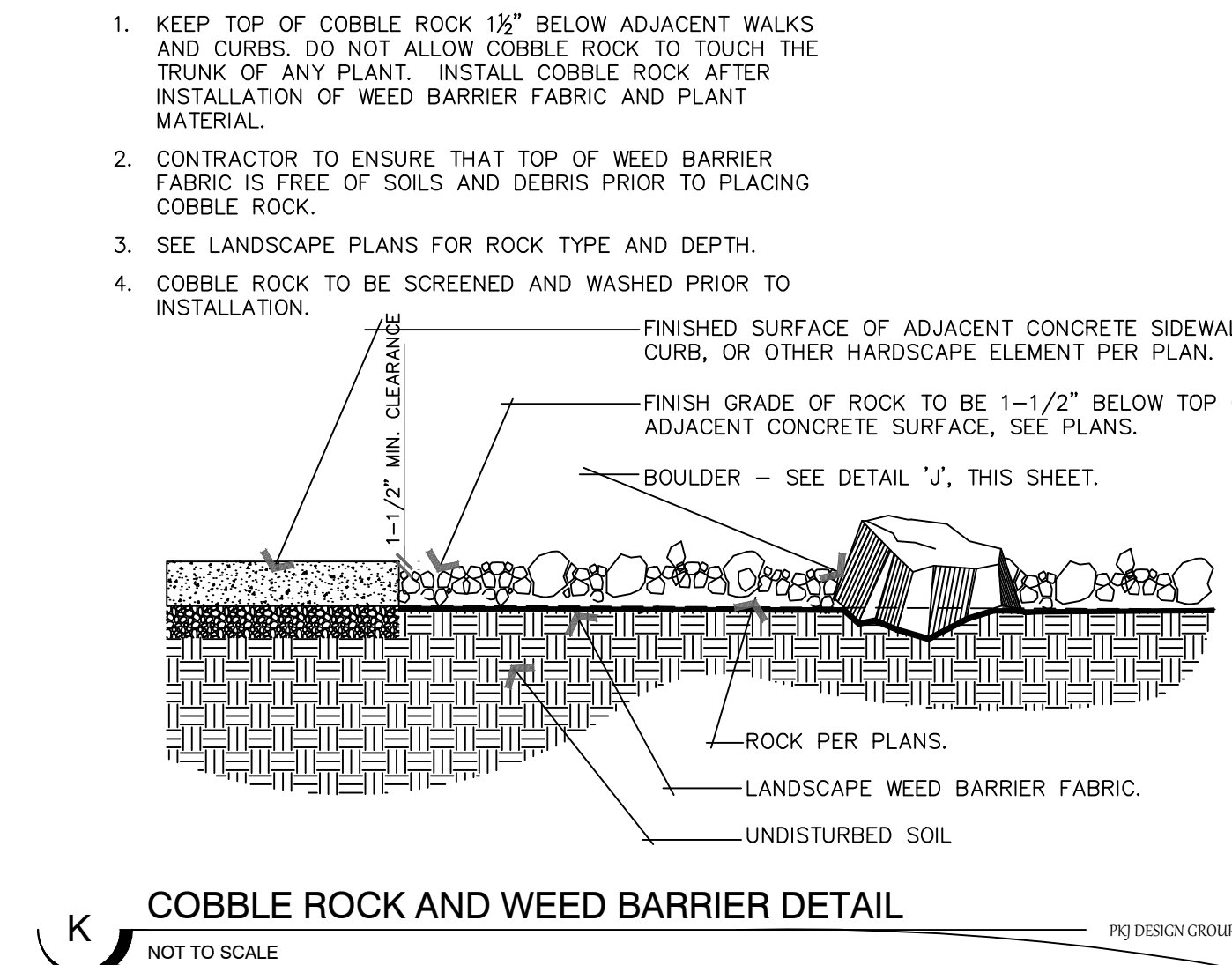
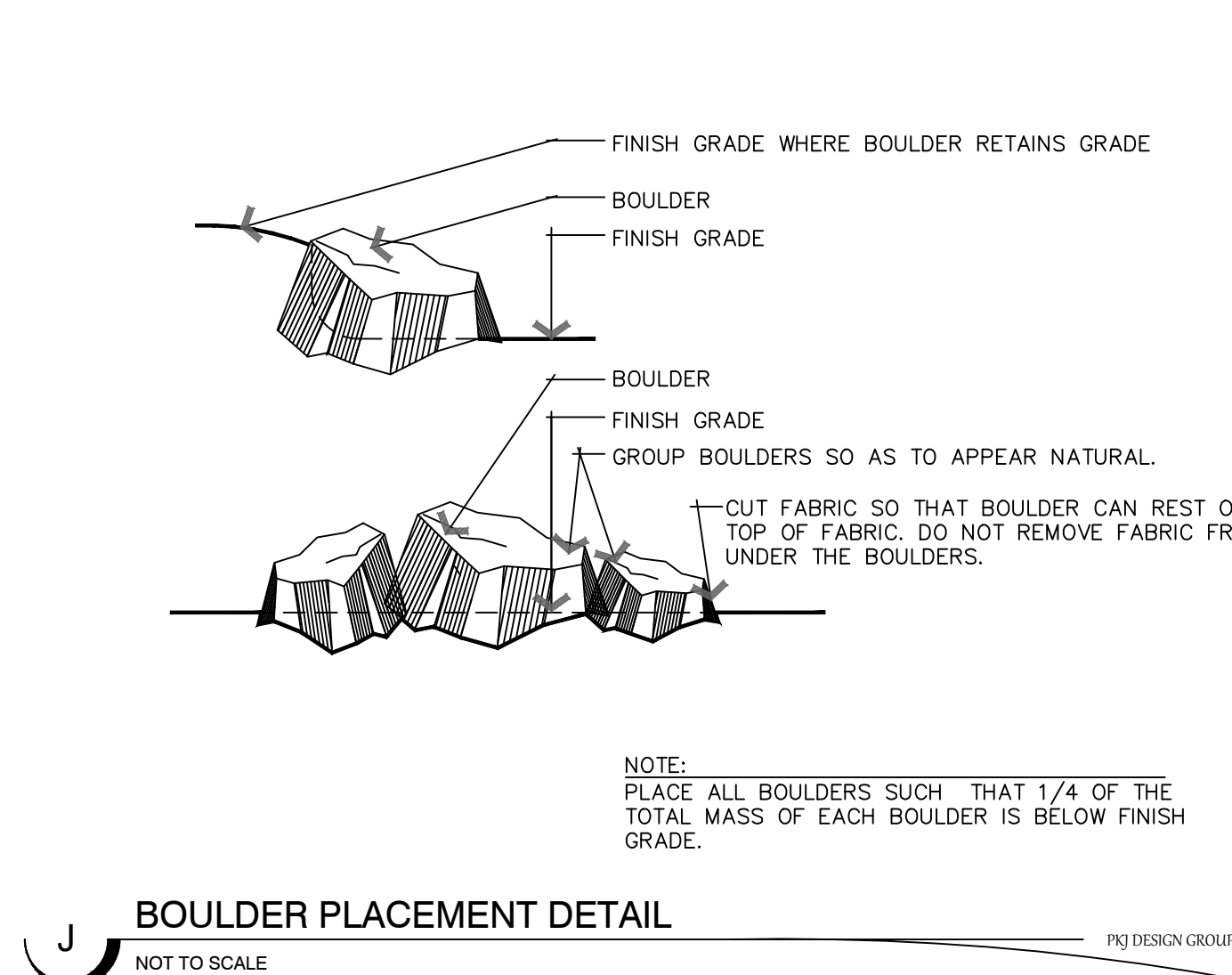
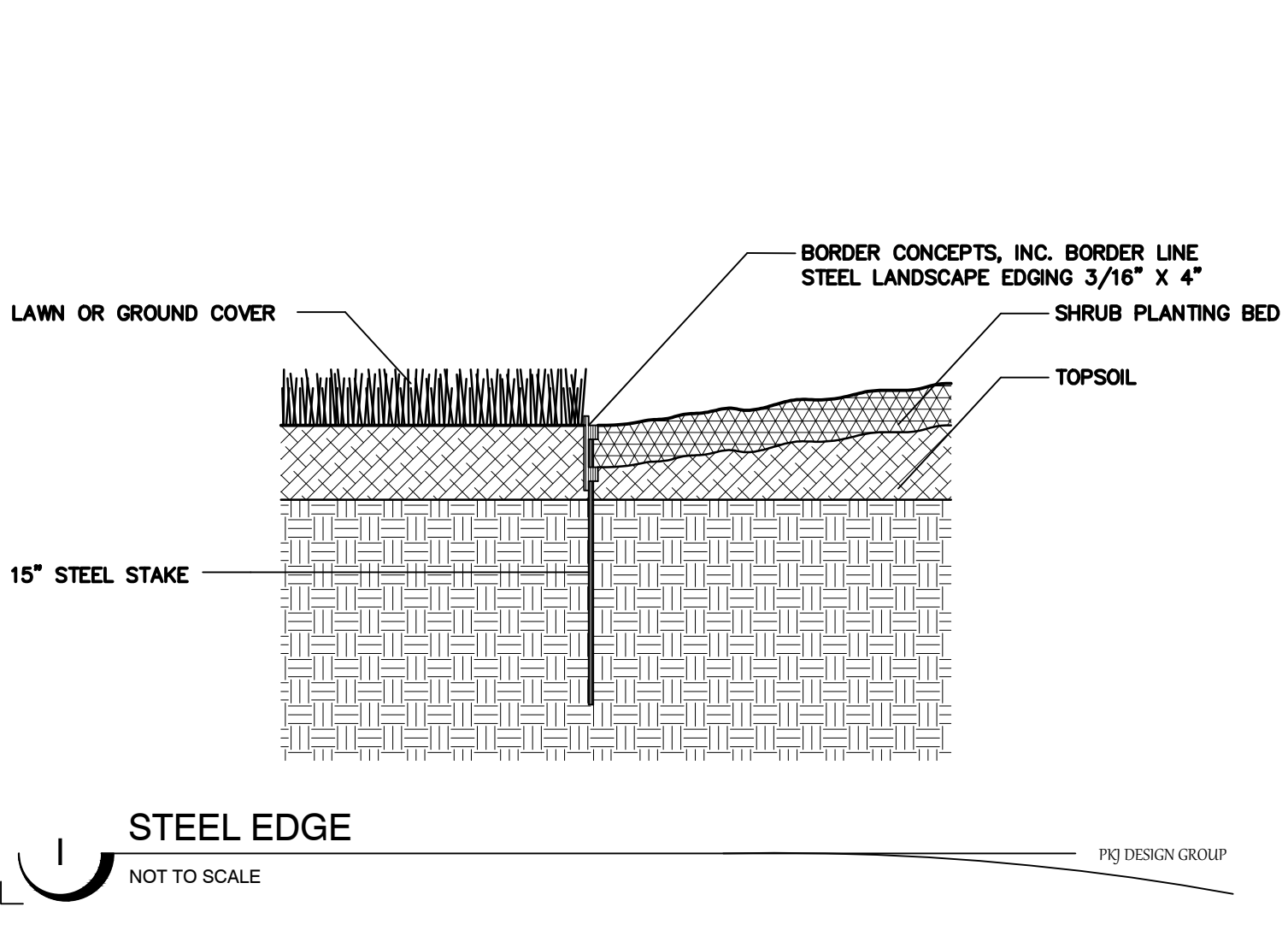
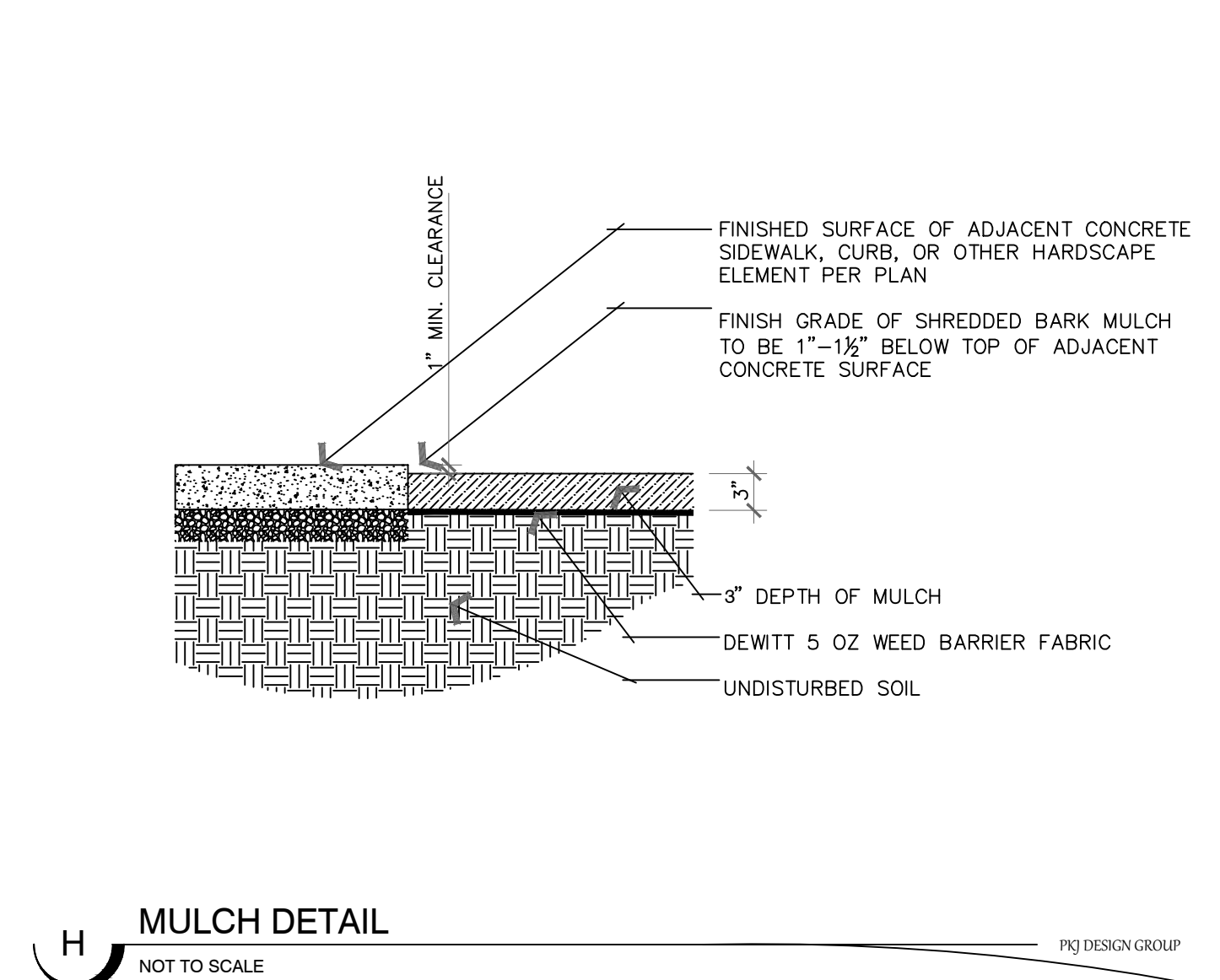
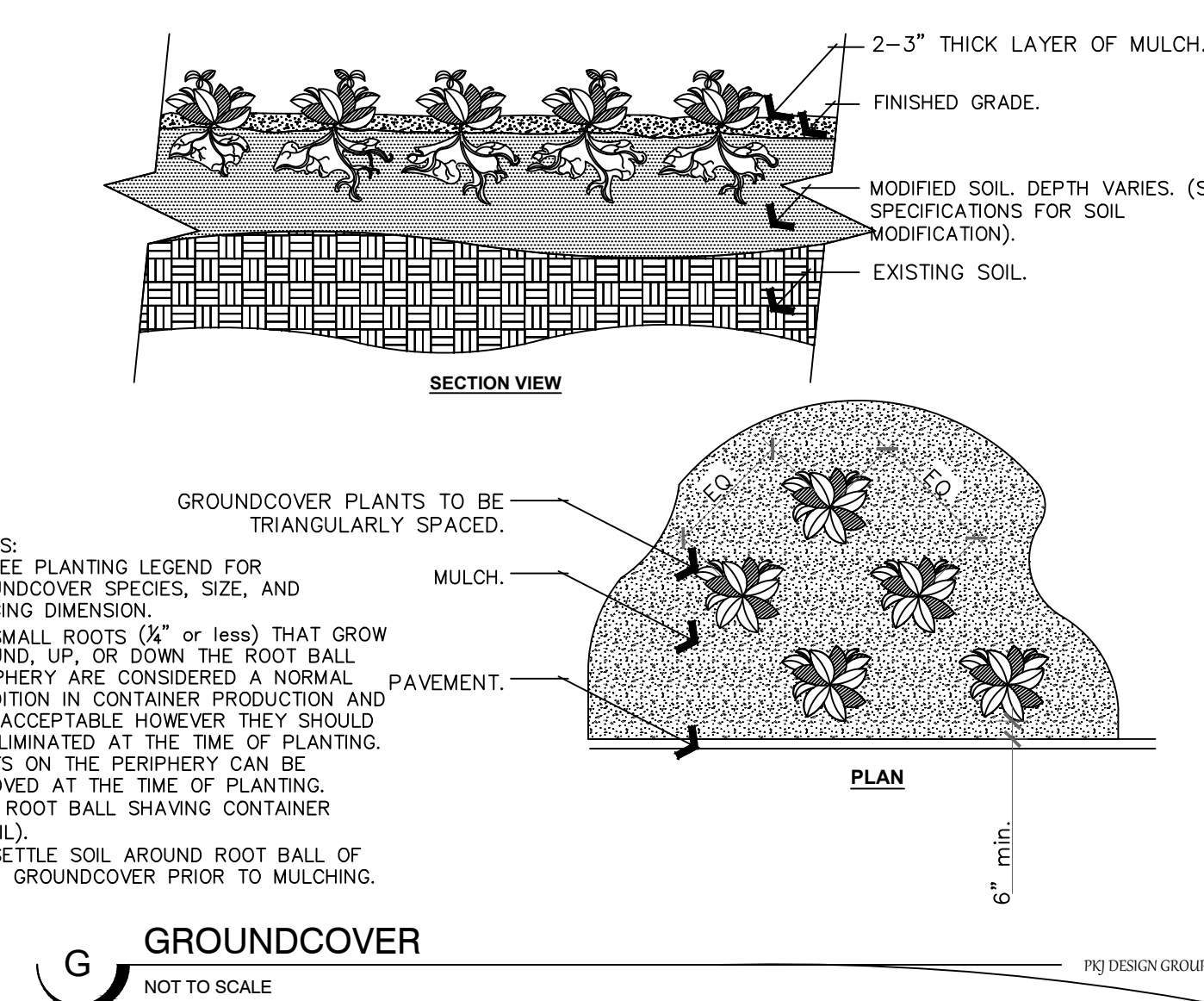
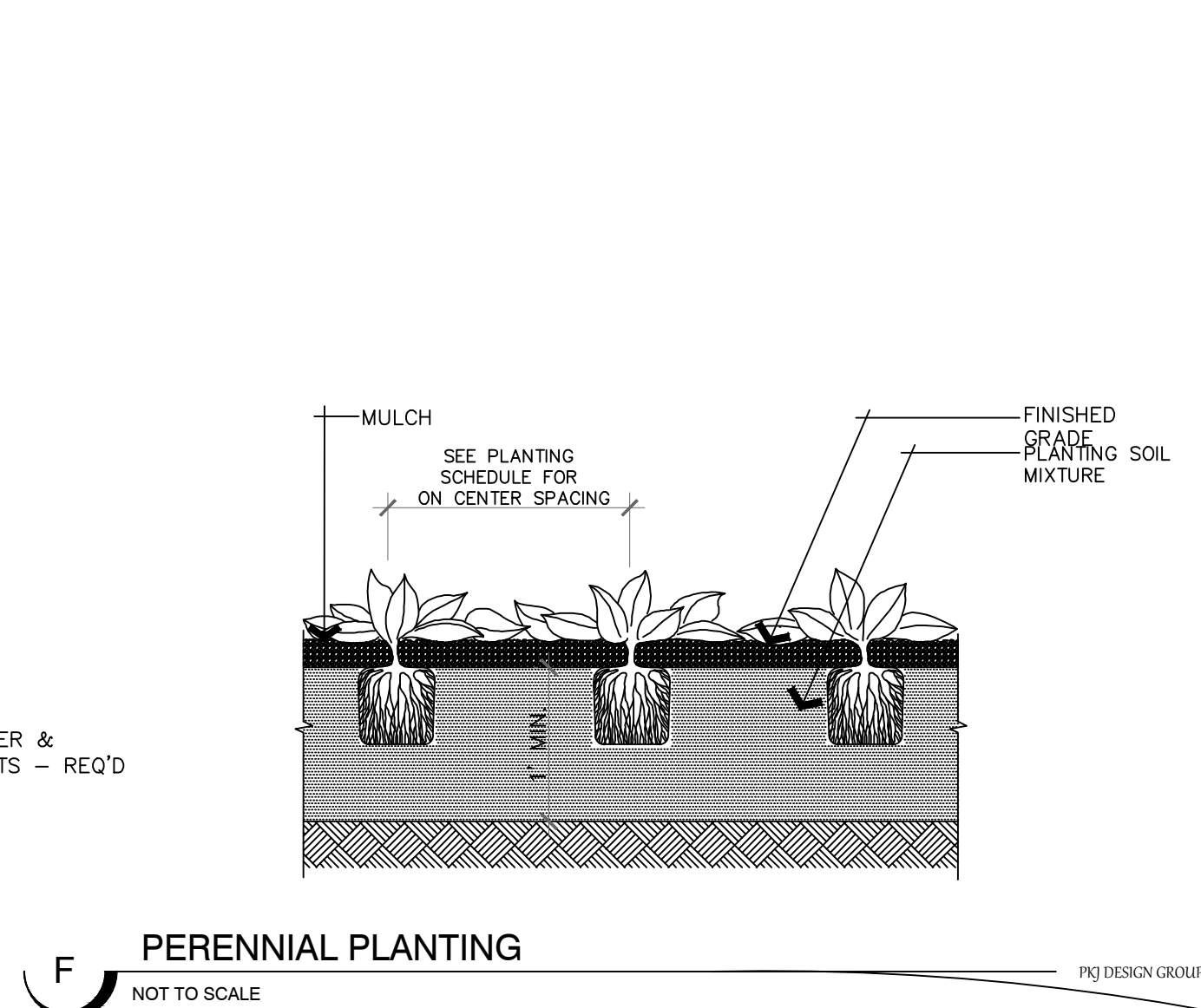
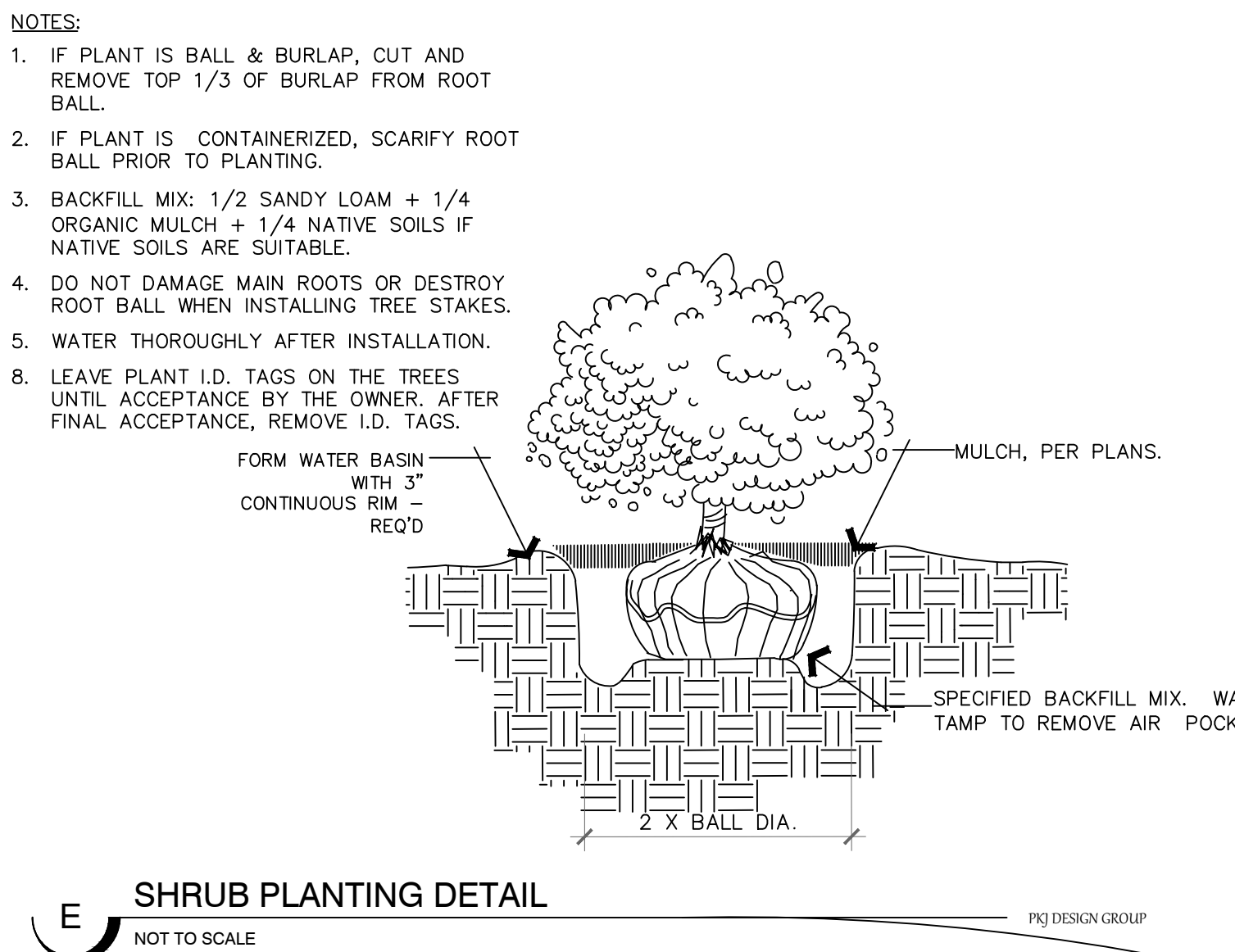
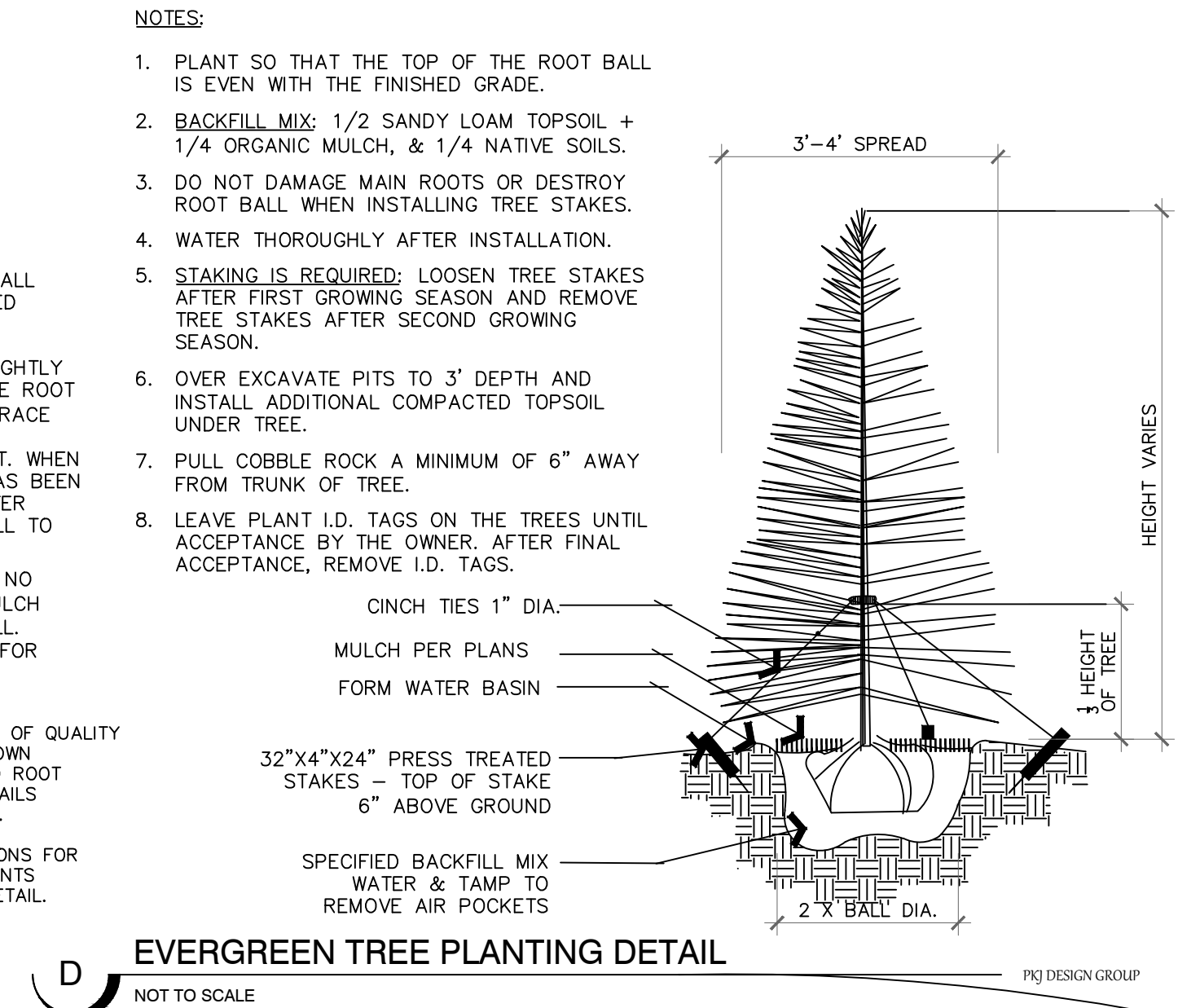
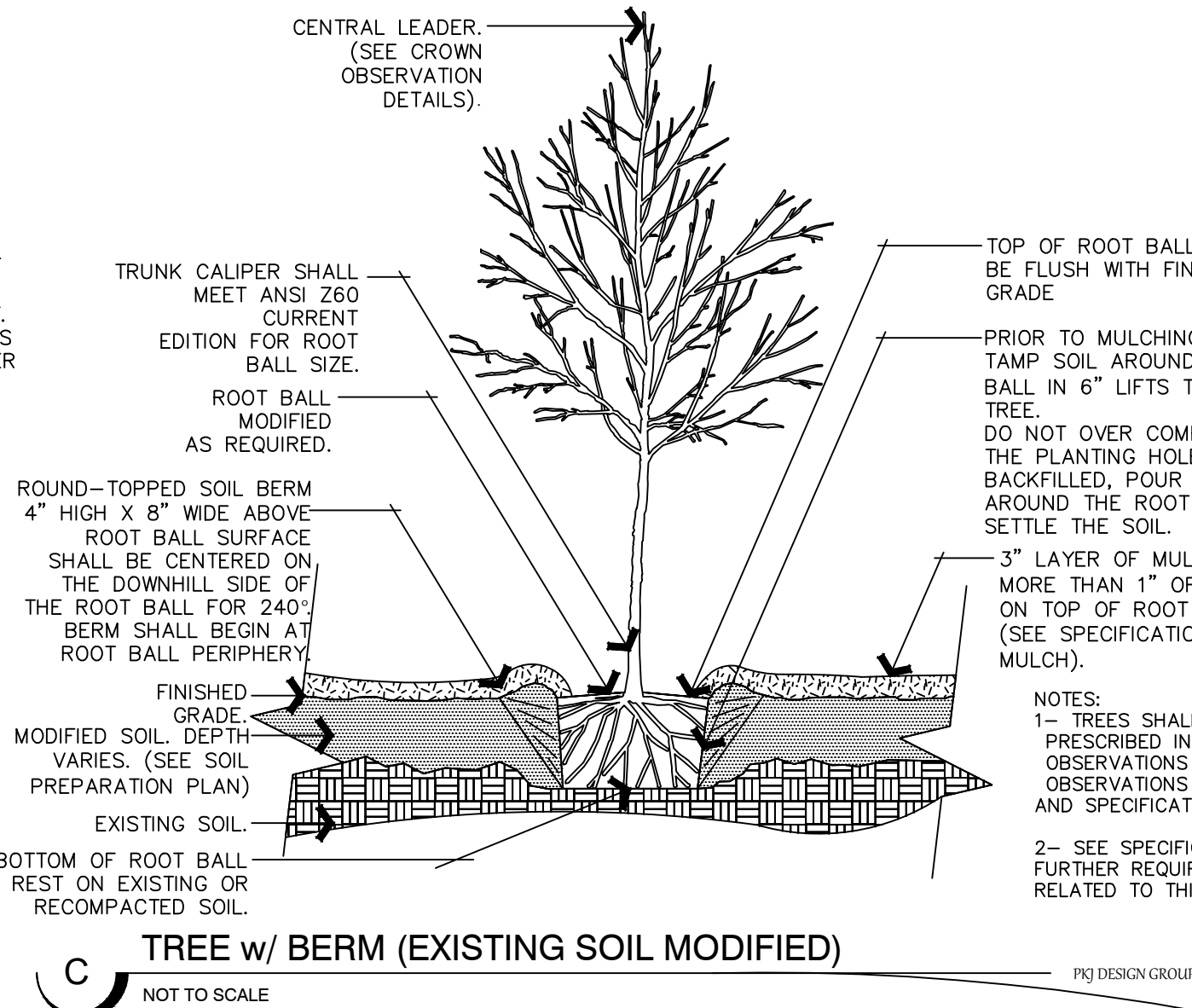
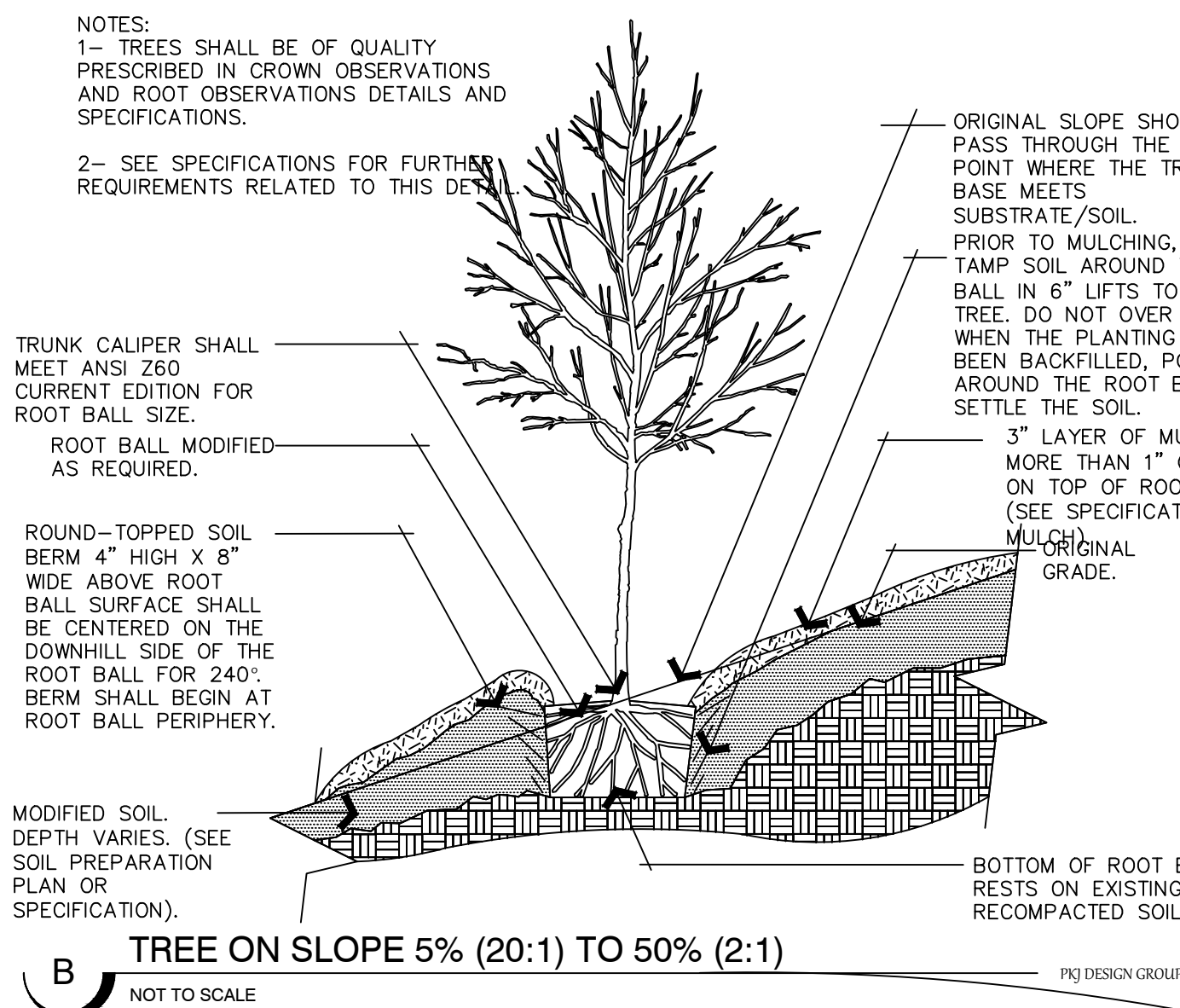
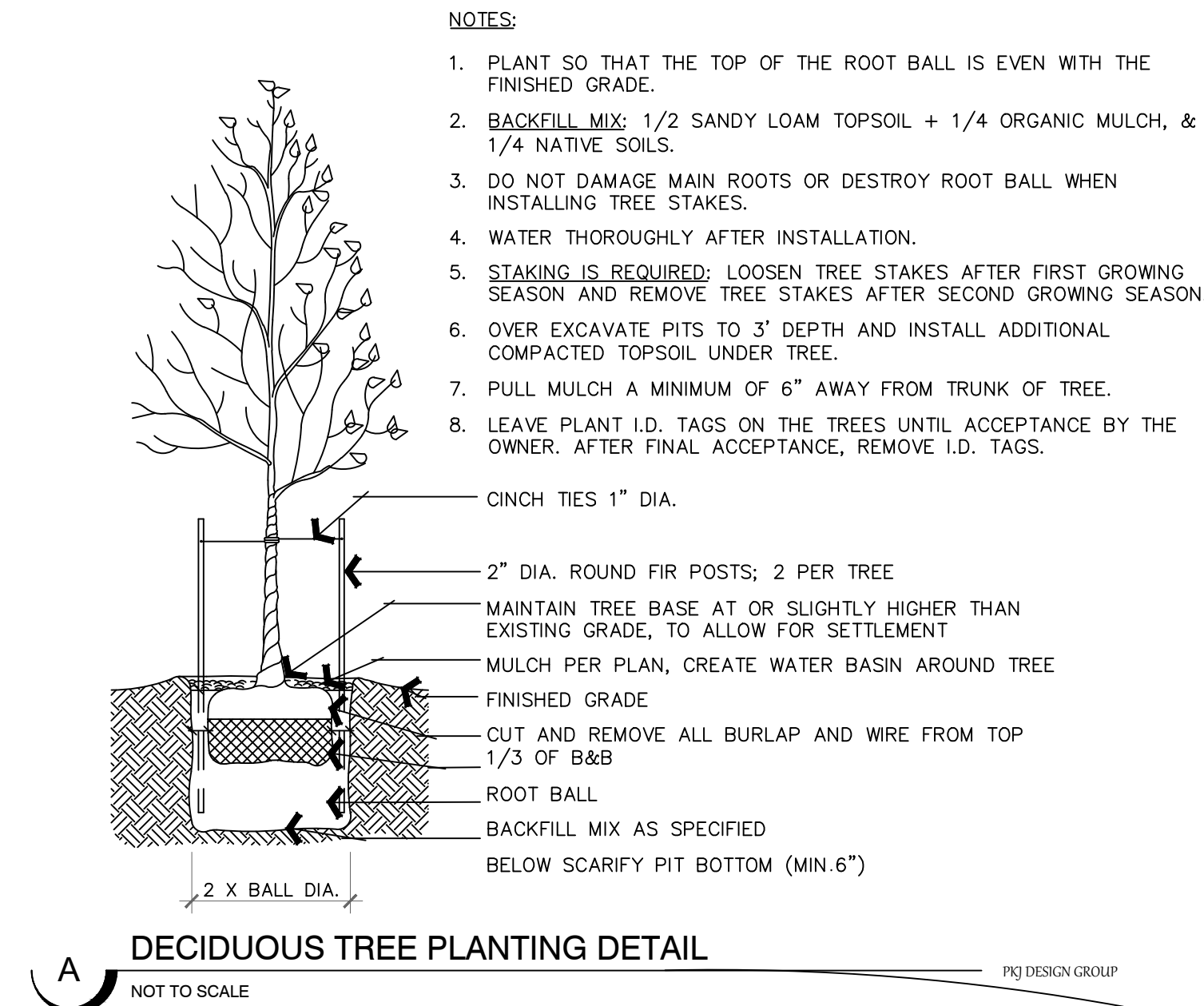
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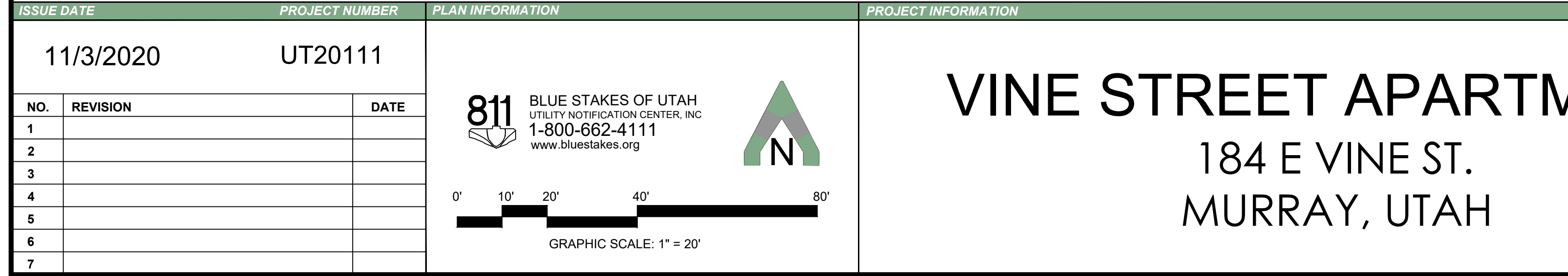
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	1.5" COPPER CANYON ROCK (STAKER PARSONS) OR APPROVED EQUAL; 3" DEPTH PLANTING AREAS TO RECEIVE MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS.	1,438 sf
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ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO																								
11-02-2020	UT20111	 BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER, INC. 1-800-662-4111 www.bluestakes.org	  GRAPHIC SCALE: 1" = 20'	<h1>VINE STREET APARTMENTS</h1> <p>184 E VINE ST. MURRAY, UTAH</p>	Developer / Property Owner: JOE JOHNSEN JOE.JOHNSEN@GMAIL.COM	 PKJ DESIGN GROUP Landscape Architecture • Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 960-2698 www.pkjdesigngroup.com	 PM: JTA DRAWN: KBA CHECKED: SAV PLOT DATE: 11/2/2020																								
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11-02-2020			UT20111			JOE JOHNSEN JOE.JOHNSEN@GMAIL.COM			PKJ DESIGN GROUP Landscape Architecture • Planning • Visualization						PM: JTA DRAWN: KBA CHECKED: SAV PLOT DATE: 11/2/2020		
NO. 1 2 3 4 5 6 7			REVISION XXXX 			DATE XX-XX-XX 			BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER, INC. 1-800-662-4111 www.bluestakes.org			VINE STREET APARTMENTS 184 E VINE ST. MURRAY, UTAH			JZW-ARCHITECTS 849 WEST HILLFIEDL RD, STE 204 LAYTON, UTAH 84041 801-936-1343		
									PRELIMINARY PLANS NOT FOR CONSTRUCTION LP-501								



VALVE ID TAG

CONTROLLER NUMBER, VALVE NUMBER





VALVE SIZE

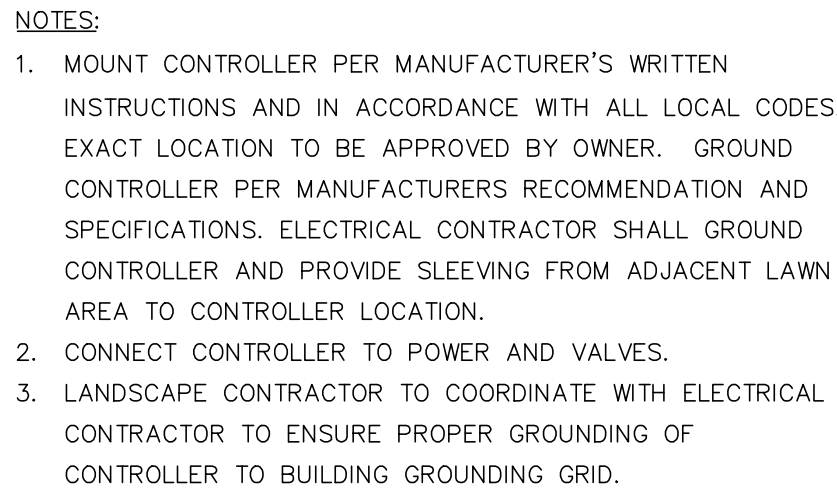
PSI AT LAST HEAD IN ZONE

GALLONS PER MINUTE

NOTE:

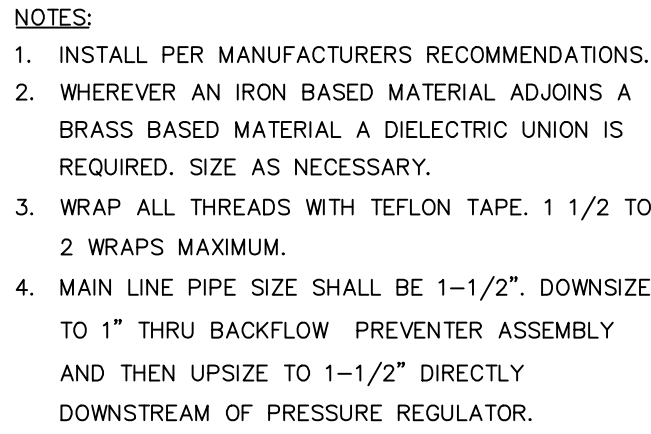
1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING

<p>LANDSCAPE ARCHITECT / PLANNER</p> <div style="text-align: center;">  </div> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">DESIGN GROUP</p> <p style="text-align: center; font-size: 0.8em;">Landscape Architecture / Planning & Visualization</p> <p>3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 960-2698 www.pkjdesigngroup.com</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; padding: 2px;">LICENSE STAMP</th> <th style="text-align: left; padding: 2px;">DRAWING INFO</th> </tr> <tr> <td style="text-align: center; padding: 10px;">  </td> <td style="padding: 5px;"> <p>PM: KBA</p> <p>DRAWN: KBA</p> <p>CHECKED: JTA</p> <p>PLOT DATE: 11/3/2020</p> </td> </tr> </table> <div style="background-color: #2e7d32; color: white; text-align: center; padding: 5px; font-weight: bold; font-size: 1.1em;">IRRIGATION PLAN</div> <div style="text-align: center; padding: 10px;"> <p style="color: red; font-weight: bold; font-size: 1.2em;">PRELIMINARY PLANS NOT FOR CONSTRUCTION</p> <p style="font-size: 3em; font-weight: bold; margin-top: 10px;">IR 101</p> </div>	LICENSE STAMP	DRAWING INFO		<p>PM: KBA</p> <p>DRAWN: KBA</p> <p>CHECKED: JTA</p> <p>PLOT DATE: 11/3/2020</p>
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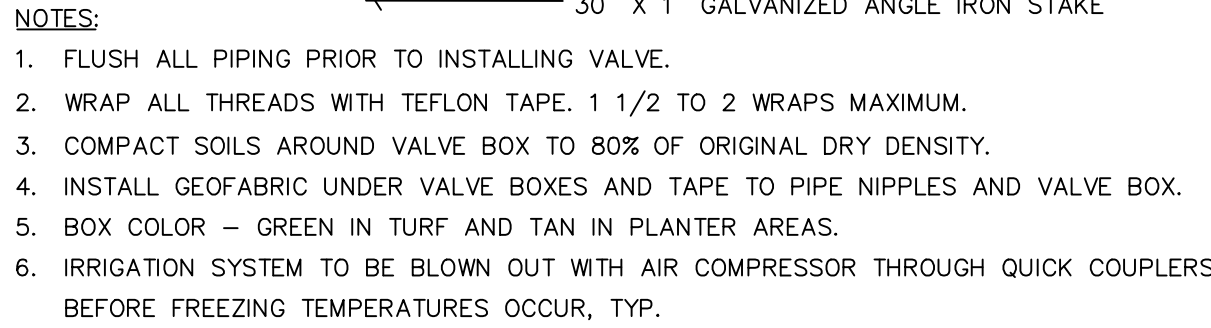
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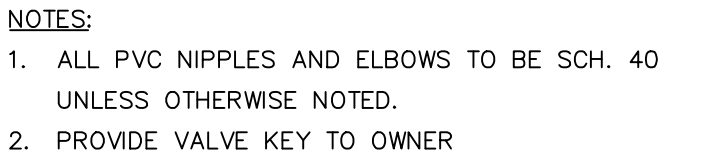
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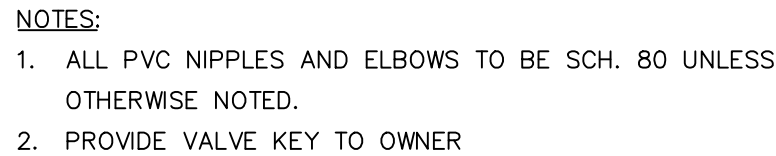
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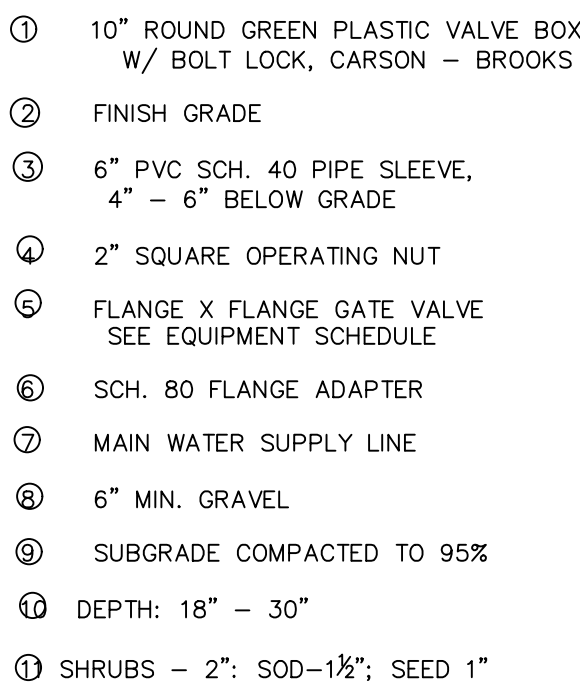
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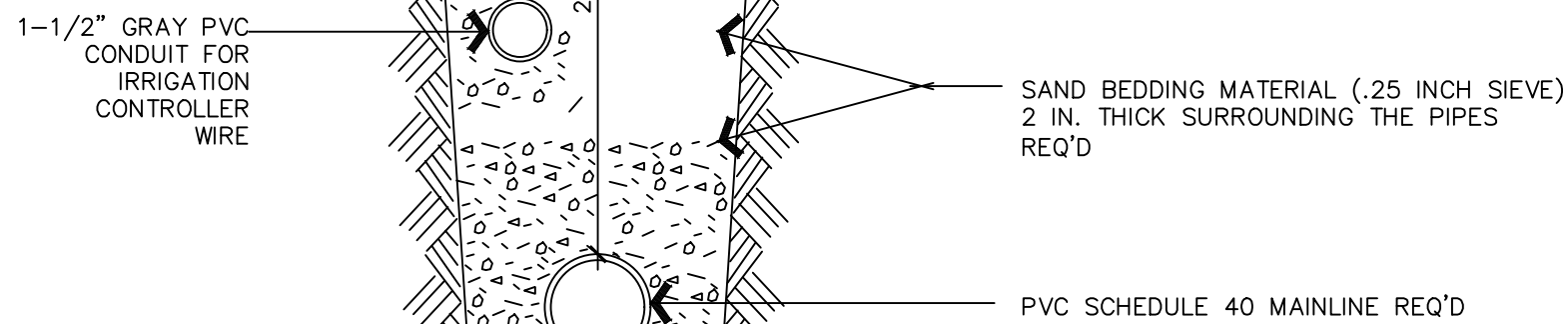
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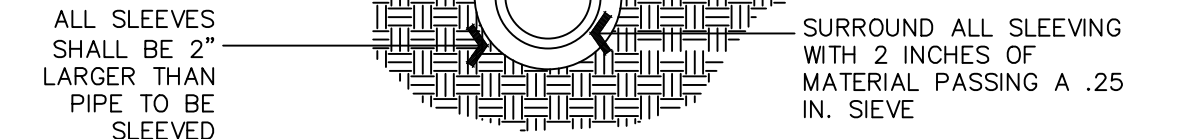
GATE VALVE ASSEMBLY

NOT TO SCALE



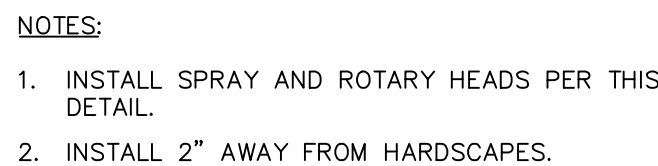
TRENCHING DETAIL

NOT TO SCALE



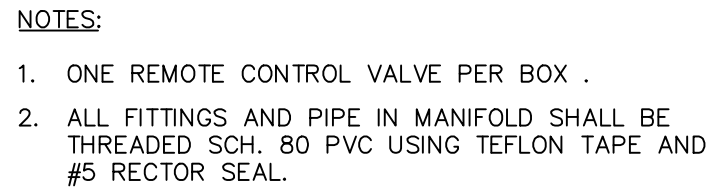
TYPICAL SLEEVING

NOT TO SCALE



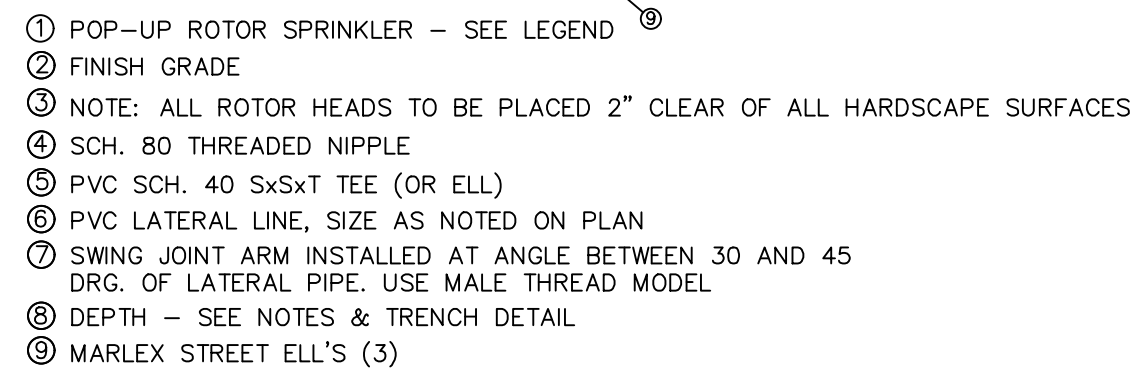
SPRAY HEAD DETAIL

NOT TO SCALE



CONTROL VALVE ASSEMBLY

NOT TO SCALE



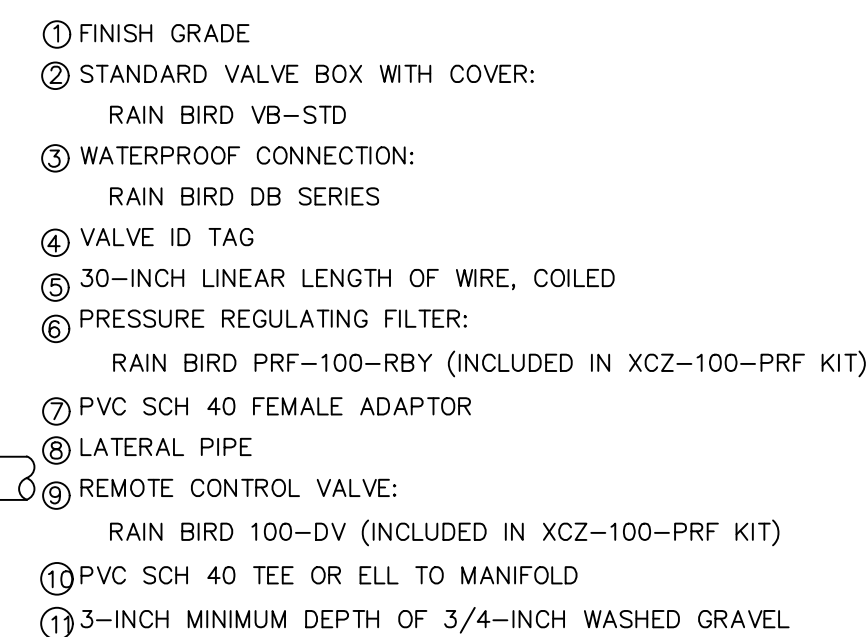
POP UP ROTOR DETAIL

NOT TO SCALE



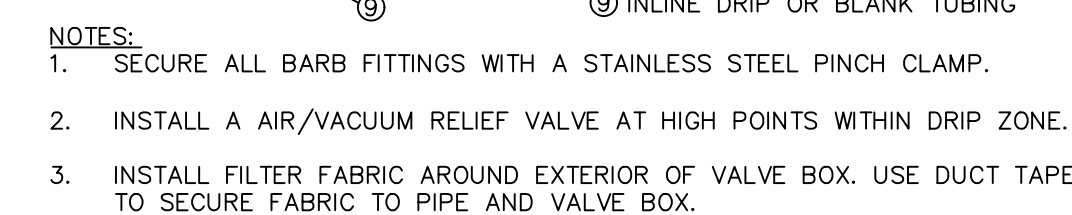
PKJ
DESIGN GROUP
Landscape Architecture • Planning & Visualization

3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 960-2698
www.pkjdesigngroup.com



- ① 8" RADIUS
- ② 16" RADIUS
- ③ RAIN BIRD XFS-09-18-100 OR EQUIVALENT
- ④ TREE (DECIDUOUS OR EVERGREEN)
- ⑤ RAIN BIRD XT-700 TUBING OR EQUIVALENT AS APPROVED BY ARCHITECT
- ⑥ LATERAL LINE
- ⑦ 4-WAY BARBED TEE
- ⑧ BARBED TEE

- ① 12" RADIUS
- ② RAIN BIRD XFS-09-18-100 OR EQUIVALENT
- ③ SHRUB
- ④ RAIN BIRD XT-700 TUBING OR EQUIVALENT
AS APPROVED BY ARCHITECT
- ⑤ LATERAL LINE
- ⑥ BARBED TEE



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NOT TO SCALE

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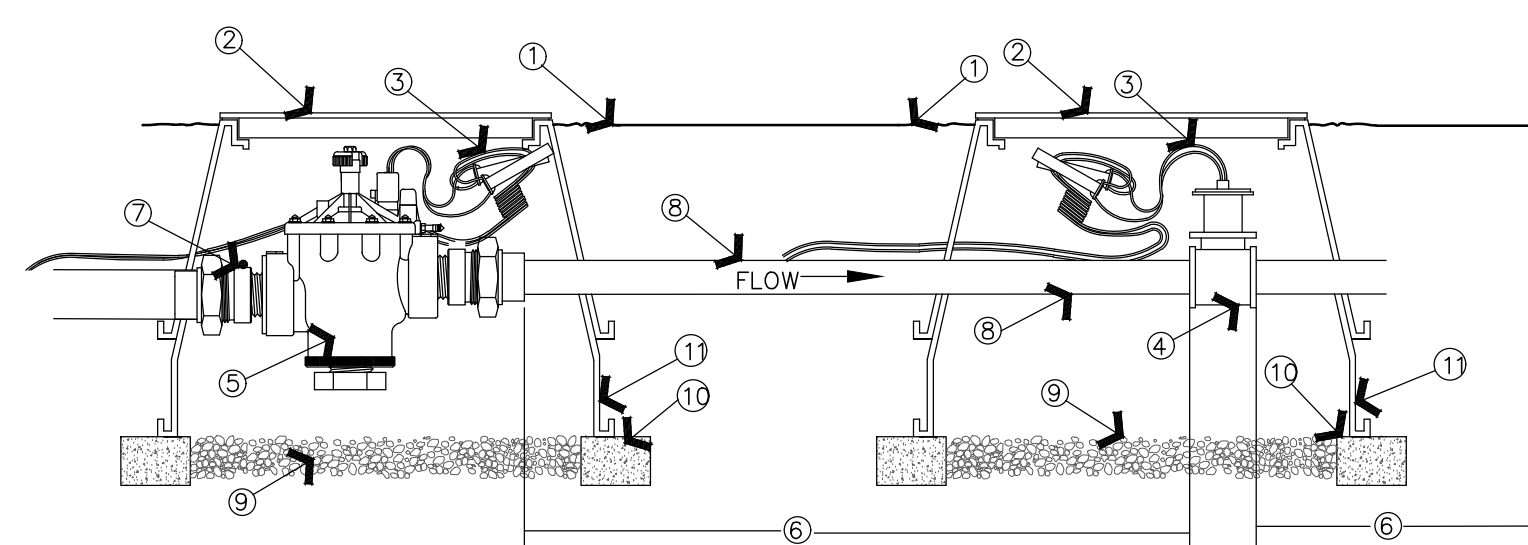
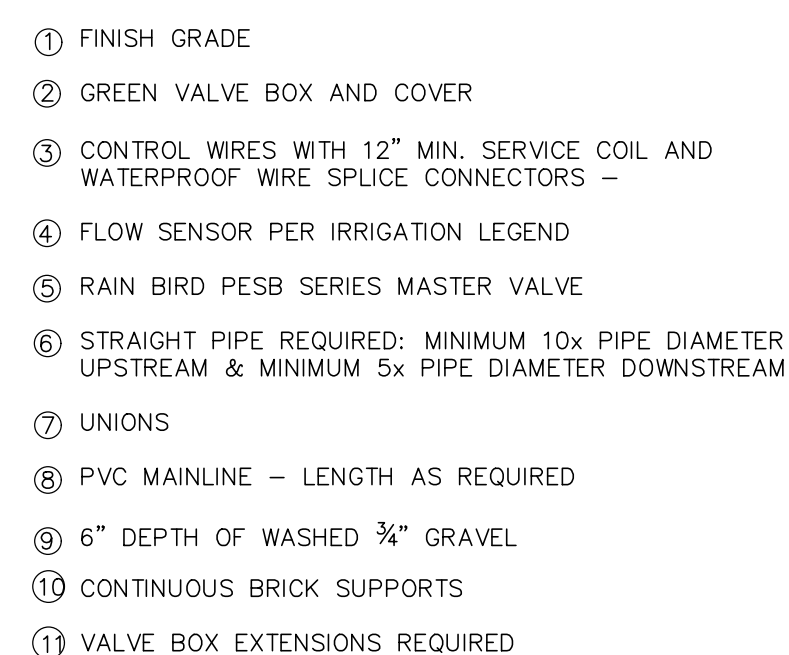
NOT TO SCALE

- PKI DESIGN GROUP

NOT TO SCALE

PKI DESIGN GROUP

NOT TO SCALE



- PKJ DESIGN GROUP

NOT TO SCALE

ISSUE DATE		PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP
11/3/2020		UT20111	<div><div>811</div><div>BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER, INC 1-800-662-4111 www.bluestakes.org</div></div>	<div>VINE STREET APARTMENTS</div> <div>184 E VINE ST.</div> <div>MURRAY, UTAH</div>	Developer / Property Owner: JOE JOHNSEN JOE.JOHNSEN@GMAIL.COM	<div><div><div></div><div>PKJ</div><div>DESIGN GROUP</div><div>Landscape Architecture / Planning & Visualization</div></div><div>3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 960-2698 www.pkjdesigngroup.com</div></div>	<div><div><div><div>REGISTERED LANDSCAPE ARCHITECT</div><div>EREW AINSWORTH</div><div>8128171-5301</div><div>11/03/2020</div><div>EXPIRATION DATE</div><div>STATE OF UTAH</div></div></div></div>
NO.	REVISION	DATE			Building Architect / Engineer: JZW-ARCHITECTS 849 WEST HILLFIEDL RD, STE 204 LAYTON, UTAH 84041 801-936-1343		<div>PRELIMINARY PLANS NOT FOR CONSTRUCTION</div> <div>IR 502</div>
1							
2							
3							
4							
5							
6							
7							
							<div>PM: KBA</div> <div>DRAWN: KBA</div> <div>CHECKED: JTA</div> <div>PLOT DATE: 11/3/2020</div>

The Vine

Exterior Finishes

Exterior Finish Palette



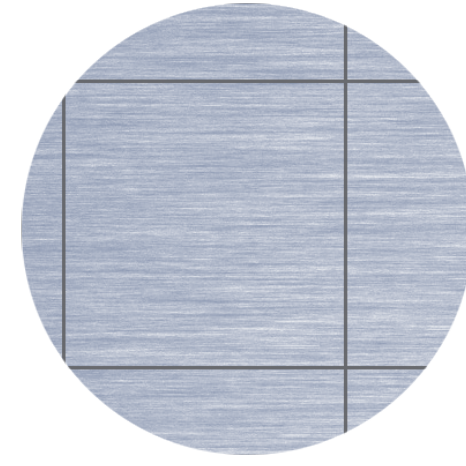
Brick



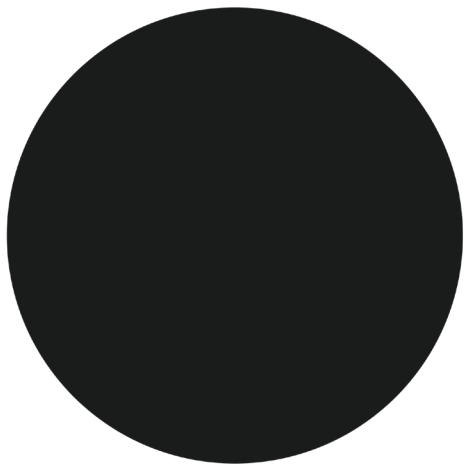
Stone



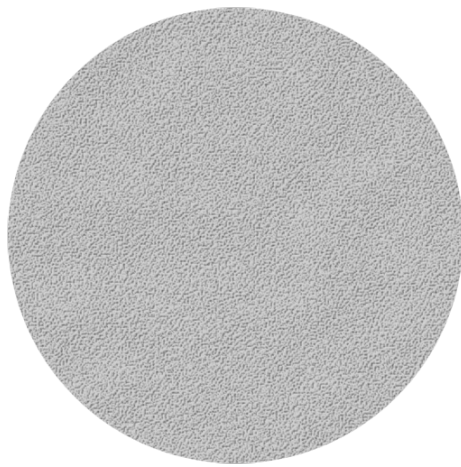
Wood Look Fiber
Cements Planks



Aluminum Metal Paneling



Black Metal Paneling



Grey Stucco



White Stucco

Perspective 1



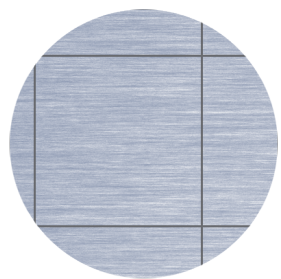
Brick



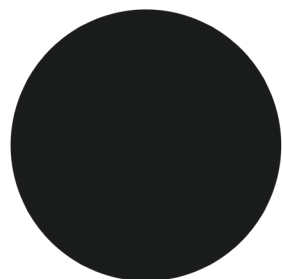
Stone



Wood



Aluminum Metal
Paneling



Black Metal
Paneling



Grey Stucco



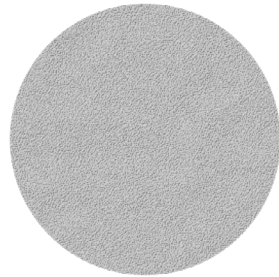
White Stucco



Perspective 2



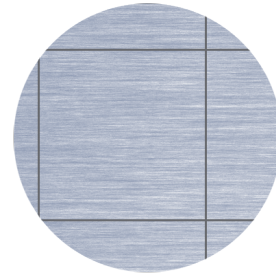
Brick



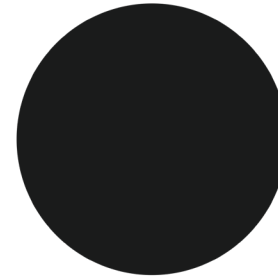
Grey Stucco



Wood



Aluminum Metal
Paneling



Black Metal
Paneling



Stone



White Stucco



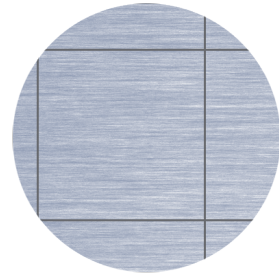
Perspective 3



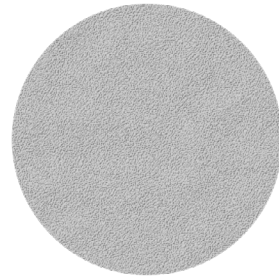
Brick



Wood



Aluminum Metal
Paneling



Grey Stucco



White Stucco



Perspective 4



Stone



Brick



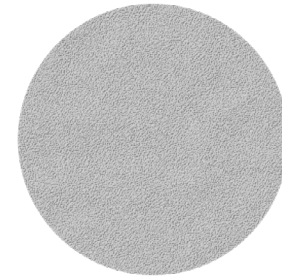
Aluminum Metal
Paneling



White Stucco



Wood

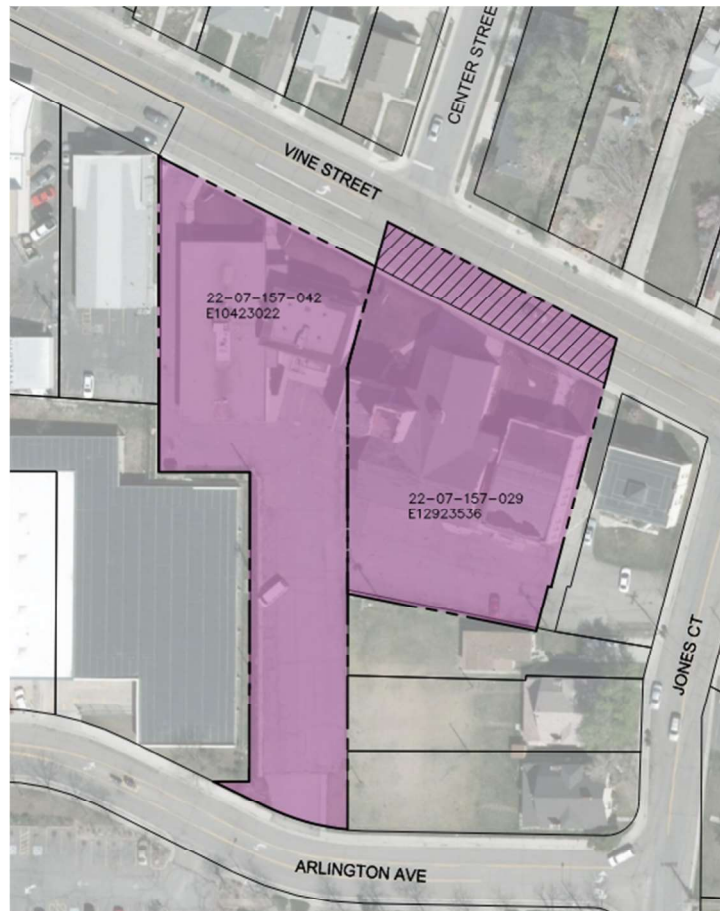


Grey Stucco



Vine Street Apartments

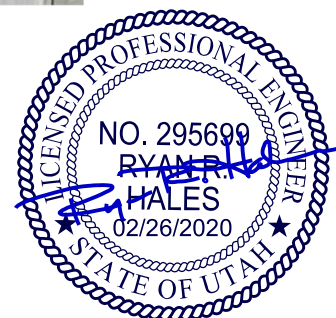
Traffic Impact Study



Murray, Utah

February 26, 2020

UT20-1618



EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Vine Street Apartments development located in Murray, Utah. The Vine Street Apartments project is located on the south side of Vine Street, directly across from Center Street.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways near the site. Future 2025 conditions were also analyzed.

The evening peak hour level of service (LOS) was computed for each study intersection. The results of this analysis are shown in Table ES-1.

TABLE ES-1 LOS Analysis - Evening Peak Hour Murray - Vine Street Apartments TIS					
Intersection	Level of Service (Sec/Veh) ¹				
	Existing (2020) Background	Mitigated Existing (2020) Background	Existing (2020) Plus Project	Future (2025) Background	Future (2025) Plus Project
Vine Street / State Street (US-89)	D (50.7)	D (36.2)	D (39.4)	D (49.3)	D (50.9)
Arlington Avenue / State Street (US-89)	A (5.4) / WB	A (5.7) / WB	A (5.7) / WB	A (7.0) / SB	A (6.7) / WB
North Access & Center Street / Vine Street	D (26.5) / WB	A (7.8) / SB	B (11.1) / NB	A (8.8) / SB	B (13.7) / NB
Jones Court / Vine Street	E (44.6) / NB	B (11.0) / NB	B (10.8) / NB	B (12.7) / NB	B (12.5) / NB
Jones Court / Arlington Avenue	E (49.9) / EB	A (2.2) / EB	A (2.1) / EB	A (2.2) / EB	A (2.2) / EB
South Access / Arlington Avenue ²	-	-	A (2.7) / SB	-	A (2.6) / SB
¹ . Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for roundabout, signalized, all-way stop controlled intersections and the worst approach for all other unsignalized intersections. ² . This intersection is a project access and was only analyzed in "plus project" scenarios.					
Source: Hales Engineering, February 2020					

SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- The Jones Court / Vine Street and Jones Court / Arlington Avenue intersections are currently operating at an unacceptable LOS during the evening peak hour in existing (2020) background conditions due to the westbound queue from the Vine Street / State Street (US-89) intersection.
 - Recommendation: Restripe the westbound right-turn pocket of the Vine Street / State Street (US-89) intersection into a shared thru/right-turn lane. Remove the bike lane and mark the existing right-turn pocket as a sharrow. The west leg of the intersection currently has two lanes, which can accommodate this change.
- The development will consist of apartment units and mixed office/retail space.
- All study intersections are anticipated to operate at an acceptable LOS during the evening peak hour with project traffic added.
- All study intersections are anticipated to operate at an acceptable LOS during the evening peak hour in future (2025) background and plus project conditions.