MURRAY CITY CENTER DISTRICT

NOTICE OF MEETING AND AGENDA

March 30, 2023

5:30 PM

4646 South 500 West

Please contact the Planning Division at 801-270-2430 or planning@murray.utah.gov with any questions regarding any of the items on the agenda.

CALL MEETING TO ORDER

APPROVAL OF MINUTES

1. Approval of Minutes

   October 6, 2022 Minutes

   Attachments

   1. MCCD 10.06.2022 - DRAFT.pdf

DESIGN REVIEW

2. The NOAH - 149, 155-157, and 163 East Vine Street

   Project: 22-142

   Design Review for a Horizontal Mixed Use Project

   Attachments

   1. Packet, The NOAH Design Review.pdf

BUSINESS ITEM(S)

3. Election of Chair and Vice Chair for 2023

ANNOUNCEMENTS AND QUESTIONS

ADJOURNMENT

The next scheduled meeting will be held on Thursday, April 27, 2023, at 5:30 p.m. MST

Special Accommodations for the hearing or visually impaired will be made upon a request to the office of Murray City Recorder (801-264-2662). We would appreciate notification two working days prior to the meeting. TTY is Relay Utah at #711.

Committee Members may participate in the meeting via telephonic communication. If a Committee Member does participate via telephonic communication, the Committee Member will be on speakerphone. The speakerphone will be amplified so that the other Committee Members and all other persons present in the Conference Room will be able to hear all discussions.

At least 24 hours prior to the meeting, a copy of the foregoing notice was sent to the City Recorder to post in conspicuous view in the front foyer of the Murray City Center, Murray, Utah. A copy of this notice was also posted on Murray City's internet website www.murray.utah.gov and the state noticing website at http://pmn.utah.gov.

-Draft-

The Murray City Center District (MCCD) Review Committee met on Wednesday, October 6, 2022, at 5:36 P.M. for a meeting held at the Public Services Conference Room.

Present: Andy Hulka, Chair
David Hunter, Vice Chair
Kiersten Davis
Jared Hall, Community and Economic Development Director
Kim Sorensen, Parks and Recreation
Diana Baun, Transcriptionist
Lori Edmunds, Cultural Arts Director
Wendy Parsons Baker

Excused: Ray Beck
Daniel Hays

Mr. Hulka welcomed all to the meeting.

1. APPROVAL OF MINUTES

Mr. Hunter motioned to approve minutes from July 28, 2022, and Ms. Davis seconded. Motion passed 3-0.

2. DESIGN REVIEW – Murray Mansion – 4872 South Poplar Street – Project #22-145

Mr. Hall reviewed a brief history of the Mansion and its location and the proposed changes and additional background from the Staff Report.

Mr. Hunter asked for the reasoning behind not doing brick all the way around.

Mr. Hall said he believes it's because it would be very difficult to match the current brick, so they are going to match it as best they can and use the other design elements to distract from any differences. The copper color being used will match the city hall building. He continued reviewing the proposed changes from the Staff Report, as well as how they intend to comply with city code for the area.

Ms. Davis asked if they will be able to move the fence over.

Mr. Hall responded that yes, the thinking is that they will remove some of the lawn area and move the fence back in that direction. They would basically be increasing the sidewalk area another 5 feet, and they can add other things where needed. He reviewed the staff recommendation of approval.

Ms. Davis asked about the bathrooms being added, if there will be a baby changing station on at least one of the floors.

Mr. Hall said he will pass that recommendation on to staff, believes both will be unisex bathrooms for ADA accessibility.

Mr. Hunter noted, after looking at Building Code Section 10.009, that there will be a diaper station in at least one of the bathrooms.

Mr. Hall noted the architect isn't here tonight and he will have to ask him some of the questions being raised tonight.

Mr. Hunter stated he is slightly disappointed by the siding but realizes the constraints they have with trying to match the current brick; otherwise, he is satisfied with the proposal.

Mr. Hall agreed that it's too hard to match brick and likes that it will tie into City Hall.

Mr. Hunter also stated the older addition was disappointing as well, as it didn't harmonize either.

Mr. Hall added that the city's RDA owns the chapel building and that is up for sale. The chapel is also being deed restricted to stay the way it is, being used in its current form, so it stays historic. Fifth avenue will also be improved and tie into these historic buildings.

Mr. Hulka asked if there will be other improvements, other than the inside which is already mentioned in the Staff Report.

Mr. Hall said the photos in the Staff Report were from the museum section, and asked staff if the annexed part is where the majority of the museum will be, or if it will extend into the main part of the mansion as well.

Ms. Edmunds responded that most exhibits will be in that spot, but the rest of the home on that floor will be used for other things.

Mr. Hall added that Ms. Edmunds' office will also be located in the mansion once this project is completed.

Mr. Hulka asked if there are any long-range plans for upgrades or other changes not included in this proposed project.

Ms. Edmunds said that as soon as a specific hole is dug, they can start working on the electrical; they can't do anything else until they start on that. After that they will begin work on HVAC, plumbing, and the other work that needs to be done.

Mr. Hall asked to clarify that once the mansion is converted for the museum and offices, there are no other plans to add in additional services or programs.

Ms. Edmunds agreed, there are no other plans.

Mr. Hulka stated he shares the same concerns that the annexed portion is not as architecturally interesting as the original mansion. He thinks it would be cool if, as things grow and expand, they could try to plan to address more of that historic style with future changes.

Mr. Hunter said he understands the point of going totally contrasting. The current style of detailing on the mansion, if not done correctly, would look kitschy and worse than if you do something totally opposite. There is already an addition from the 1990s, and now this addition; it's time to just accept how it is and know that the mansion stands alone. He asked what the museum is planning to hold and display.

Ms. Edmunds responded that it will be the story of when the city first started, through today. The current displays kind of stopped in the 1940s, so they are going to add more exhibits to complete the story of Murray.

Mr. Hall noted that the museum is currently in city hall and those exhibits will have to be moved.

Mr. Hunter asked if the water chillers in the hallway meet code, as they seem to be encroaching on the hallway.

Mr. Hall said the review for the building permit is going on right now, and they often come back with corrections after that first round.

Ms. Davis said those chillers were probably placed based on where the plumbing is currently. She asked if those would be water fountains only, or combined fountains and filling stations.

Mr. Sorensen said they will have both.

Ms. Davis motioned to move this project along. Mr. Hunter seconded the motion. A voice vote was made, motion passes with a vote of 3-0.

Mr. Hall said this will move to the planning commission on October 20.

3. OTHER BUSINESS

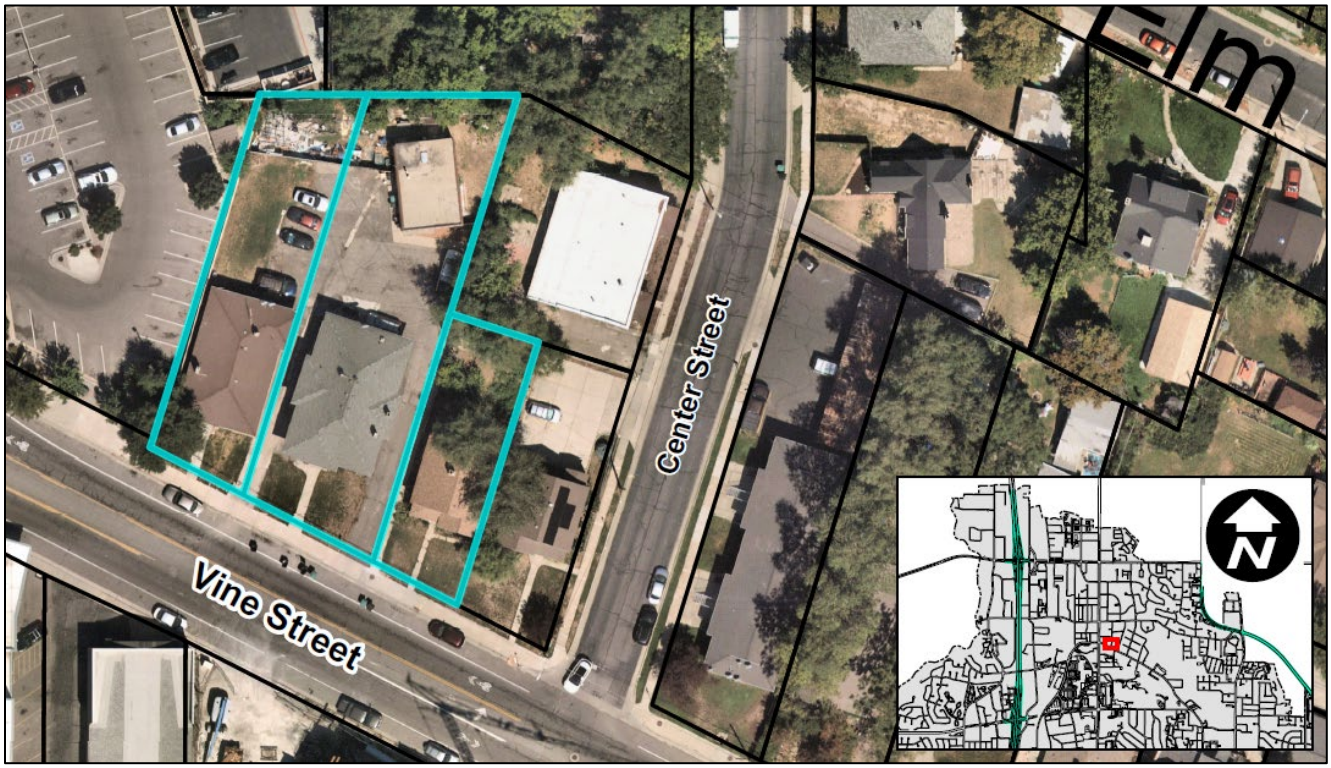
Mr. Hall stated that the committee reviewed plans back in July for The Wyatt. The owner of The Wyatt has acquired more property next to that building and he is doing his other planned building, The Noah. The Noah is just starting its reviews, and it is totally different looking than tThe Wyatt. The buildings will share a courtyard and be similar in size. That will probably be brought to the MCCD at the end of October or the beginning of November, and it will have the same kind of mechanical lift parking; each building will have their own parking system.

Mr. Hunter moved to adjourn the meeting. Ms. David seconded the motion. A voice vote was made and passed 3-0.

Meeting adjourned at 6:01 p.m.

Jared Hall, Community & Economic Development Director

AGENDA ITEM # 2 – The NOAH			
ITEM TYPE:	Design Review		
ADDRESS:	149, 155-157, 163 East Vine Street	**MEETING DATE:**	March 30, 2023
APPLICANT:	Jonathan Oliver	**STAFF:**	Zachary Smallwood, Senior Planner
PARCEL ID:	22-07-111-014, 013, and 016	**PROJECT NUMBER:**	22-142
ZONE:	MCCD, Murray City Center District		
SIZE:	.55 Acre Site | 73,391 ft^2 mixed-use building (39 condominiums / 1,143 Commercial) | 10,845 ft^2 Commercial Building		
REQUEST:	The applicant is requesting Design Review to allow the construction of two buildings: a mixed-use building and a commercial building.		



I. LAND USE ORDINANCE

Section 17.170.040 of the 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 Review Committee.

II. BACKGROUND & MCCD STANDARDS REVIEW

Project Location

The subject properties are located on the north side of Vine Street directly east of the Home2Suites Hotel. There are currently three single family dwellings and a commercial building on the properties. The applicant proposes to demolish these buildings and construct a new mixed-use building and a commercial building.

Surrounding Land Use and Zoning

Direction	Land Use	Zoning
North	Multi Family Residential	MCCD
South	Mixed-Use	MCCD
East	Commercial	MCCD
West	Commercial	MCCD

Project Description

The applicant is proposing two buildings on the site. The first is a seven (7) story building that contains commercial and parking on the ground floor, residential and amenity spaces on the upper floors. The applicant states their intention to build thirty-nine (39) for-sale condominium units.

The second building is a four (4) story building with parking on the ground floor and commercial and office space on the upper levels.

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. Building setbacks in the MCCD Zone are measured from the back of curb and are required to be between 12’ and 25’. The result is an effective setback from property line between 0’ and 13’. The setbacks are measured in this way to reinforce the importance of the public, pedestrian improvements and the necessity of the building’s proximity in creating that environment.

New developments must be designed to have fifty percent (50%) of the building façade be within twelve to eighteen feet (12’-18’) from the back of curb. The mixed-use building is approximately sixty-five feet (65’) wide and has thirty-three feet (33’) within the allowable setback space on the ground floor which equates to approximately fifty-one percent (51%).

The upper floors increase to a maximum of eighty-seven percent (87%) within the setback area.

The separate commercial building is approximately thirty-six feet (36') wide and the entire frontage is within the twelve to eighteen foot (12'-18') setback. The applicant is within the regulations for this requirement. Staff would like to note that previous projects have had issues when at the construction stage and the footings encroach into the public right of way. This has caused concern for various departments; staff recommends that the applicant review their documents to address any footings so that they do not encroach into the public right of way.

Public Improvements and Street Character

Curbside Management Plans

The applicant has not provided a complete curbside management plan. There have been discussions in person about "red-curbing" the front area of these two buildings to not allow for public parking. This has thus far not been shown on any plans. The applicant will need to provide a specific plan that outlines space for loading/unloading for public transit, ridesharing, micro-transit, and accommodation for residential and commercial delivery vehicles.

Public Right of Way Improvements

The site plan shows installation of the MCCD requirements of five feet (5') of park strip and seven feet (7') of pedestrian sidewalk. At the request of the Planning Division to create a cohesive streetscape, the applicants have agreed to follow the improvements that are installed to the west where Home2Suites is located. This falls in line with "The Vine" mixed-use building on the south side of Vine Street as well.

In preparation for this review, staff found a section of the improvements that were labeled as "C-1" on the Site Plan, the caption for this is "Private Sidewalk" (see figure 1 below). This will not be allowed in the MCCD Zone, the applicant will need to install the improvements and dedicate those improvements to the city as public right of way.

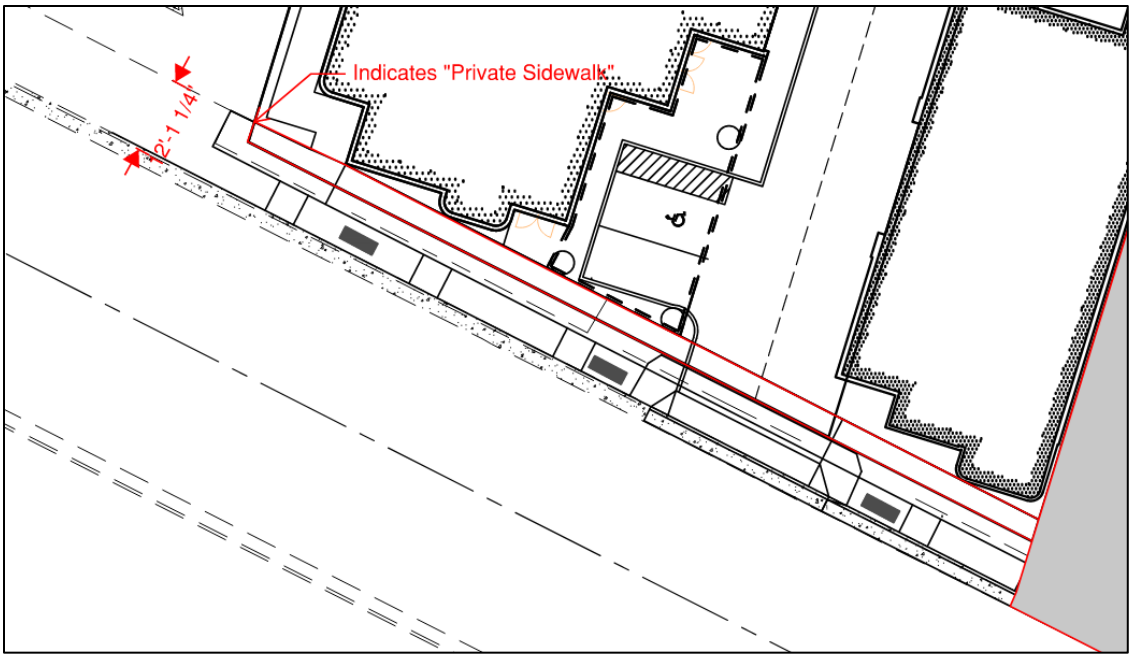


Figure 1: Area Indicated as C-1 "Private Sidewalk"

Planning Division staff is confident that the concerns mentioned above can be addressed between the MCCD Committee design review and the Planning Commission. They will be addressed as conditions of any design review recommendation.

Building Design, Scaling and Density

Primary Entrances

The land use ordinance requires that the primary entrance to the building be “clearly identifiable and must be oriented to the street, plaza, or pedestrian way”. There are two proposed entries to the mixed-use building. The first entry faces the public street provides access to the retail space. The second entry is pushed further back and faces the access way for the building. This provides a delineation between the publicly available retail area and the private residential area above.

The commercial building has a single entrance that directly abuts the public right-of-way. Upon entering the building, you are located in a lobby area. There are stairs that lead up to the commercial/retail portions of the building. Planning Division staff recommends that the elevator be placed facing the lobby instead of the parking area to assist with accessibility to patrons to the commercial/retail spaces above.

Maintenance buildings, storage, and service areas

The applicant has proposed placing all service-related elements of the project to the rear of the property on the accessway. Staff does not have any concerns at this time.

Blank Walls and Openings

The ordinance requires that blank walls not occupy more than 50% of the principal frontage (Vine Street). Staff has no concerns on this requirement. Non-residential buildings are not allowed to have a section of blank wall more than thirty feet (30'). The ground floor of the commercial building does have a blank wall that extends approximately seventy-one feet (71') on the east elevation. This can be mitigated by adding an opening in the parking area of the building. This will also help with ventilation for vehicles in this enclosed parking area.

Commercial Component

All buildings that front on to a principal street (Vine Street) are required to have a certain amount of commercial included with the project. Staff's concern is that the mixed-use building will not have adequate commercial space to be wholly compliant with the requirements of the zoning ordinance. Thus, Planning Division staff has determined that this will need to be reviewed as a *horizontal mixed-use project* and is subject to the Master Site Plan process. The calculation for this requirement for horizontal mixed uses is the width of the properties and a minimum depth of forty feet (40'). Based on the 140' of frontage the applicant is required to have a total of 5,600 ft^2 of commercial space between the two buildings. The applicants have provided approximately 11,988 ft^2. This is much more than is required.

The applicant may amend their plans to meet the required commercial within the mixed-use building and not be subject to the Master Site Plan review and agreement. This report is reviewed as though the applicant will be going forward as proposed.

Residential Density

The maximum residential density for projects located east of State Street are limited to eighty (80) units per acre. The applicant has proposed thirty-nine (39) units on .55 acres that equates to approximately seventy-one (71) units per acre. Staff does not have any concerns with the number of dwellings for this project.

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'). The applicant is outside the sixty-foot height restriction. The proposed mixed-use building is approximately eighty-seven feet (87') tall and has seven (7) floors. The commercial building is proposed to be approximately four (4) floors and forty-eight feet (48') at its tallest point. Staff does not have any concerns with the proposed building heights and feels that the combination of the materials and undulation of the building present a pleasant and different product that is traditionally seen.

Parking Regulations

Residential parking is calculated based on the number of bedrooms that a home has.

Commercial parking is required at one (1) space for every 500 ft^2 of **net usable** square footage. The table below shows the minimum required for both the mixed-use building and the stand-alone commercial building.

Building	Use Type	Required	Units/Square Feet	Required	Provided
1	2-bedroom	1.5	39	59	54
1	Commercial	1 per 500 ft^2	987 ft^2	2	2
2	Commercial	1 per 500 ft^2	2,917 ft^2	6	8
Total				**67**	**64**

Based on the number of units proposed there is a parking need of fifty-nine (59) spaces. The applicant has provided eighteen (18) mechanical stacked parking which totals fifty-four (54) spaces. There are two (2) ADA accessible spaces within the garage portion of the building. The retail portion requires two (2) off-street parking spaces, there is a single space and an ADA accessible space. Based on the total need of sixty-one (61) spaces the applicant has provided fifty-eight (58) for the mixed-use building. The separate commercial building requires a total of six (6) parking spaces and has provided a total of eight (8).

Overall, there is a parking deficiency of three (3) spaces. This will need to be addressed prior to placement on a planning commission agenda. There is the opportunity for joint use parking that is regulated by section 17.170.140(B)(2) that states that "Joint use of required parking spaces may occur where two (2) or more uses on the same or separate sites are able to share the same parking spaces because their parking demands occur at different times. Joint use of required non-residential parking spaces is allowed if the following documentation is submitted in writing to the Planning Commission:

(a) The names and addresses of the uses and of the owners or tenants that are sharing the parking.
(b) The location and number of parking spaces that are being shared.
(c) An analysis showing that the peak parking times of the uses occur at different times and that the parking area will be large enough for the anticipated demands of both uses.
(d) A legal instrument such as a cross-access and parking easement or deed restriction that guarantees continued access to the parking for both uses.

The applicant has not provided this information, but if they propose to utilize this exception the documentation will need to be provided prior to being placed on a Planning Commission agenda. It will also need to be included in any master site plan agreement.

Within the MCCD Zone there is a bike parking requirement of 5% of the total number of spaces be provided for bicycles. This results in two (2) required spaces. Staff encourages the applicant to provide additional bicycle parking within the structure to facilitate a more bike and pedestrian friendly atmosphere.

Loading and Service Areas

Preliminary utility plans were included in the submittal for design review and are attached to the report for review. Staff did not see anything of note that should concern the Design Review Committee at this time.

Open Space & Landscaping

Section 17.170.160(A) requires that there be a system of pedestrian walkways and sidewalks that provide access to building entrances. The buildings face Vine Street and have great access to that street. There is side access on the east side of the mixed-use building that provides access to the rear of the property for additional pedestrian access.

Landscaping and amenity space is required at 15% of the total site area. The applicants show the total lot square footage of 23,958 ft^2. This requires 3,594 ft^2 of open and amenity space. The applicant has provided an open area to the rear of the property that equates to approximately 3,677 ft^2 (16 %). This does not include the rooftop amenity spaces and internal private spaces within both the mixed-use and commercial buildings. The applicant meets the minimum requirement for this element. Staff recommends that the applicant begin to develop what the outdoor space will look like to provide additional details to the Planning Commission, and if the Review Committee would like to see these details can ask to have the applicant come back at a later meeting prior to a recommendation being made.

Signage

The applicant has shown preliminary signage for the project. Staff does not have any concerns with the size of the signage at this time. Signage is considered a “minor alteration” in the MCCD Zone and will need to go through the administrative design review process prior to submittal for a building permit.

III. MASTER SITE PLAN REVIEW

A master site plan approved by the Planning Commission is required for horizontal mixed-use developments and mixed-use developments located on a parcel or combination of parcels three (3) acres or greater. In addition to the requirements of the MCCD Zone, the Planning Commission shall address the following when considering the master site plan.

Building Orientation:

The proposed buildings are oriented to face the public street with connections directly to the public right of way. With the mix of residential and commercial and the relatively small size development it does not pose any concerns to the Planning Division staff.

Central Feature:

Due to the constraints of the property, staff cannot identify a central feature for this proposed property. This may be addressed by the Planning Commission with a recommendation by the Review Committee to omit the central feature, or determine that because of the relationship between the two buildings that the central feature element has been met.

The Review Committee could also ask that the applicant review their proposal and provide for a central feature if the committee feels that it would be appropriate. Staff recommends that the review committee review the materials and provide a condition regarding either approach.

Outdoor Spaces:

The proposed development includes the addition of an outdoor space that is linked to the project to the north (the WYATT). There are connections to this open space from the NOAH, the NOAH East, and the WYATT. There is also a sidewalk that goes out to the public right of way. Staff does not have any concerns with the proposed outdoor spaces.

Master Site Plan Agreement:

Projects that require a Master Site Plan Review are required to enter into an agreement between the developer and the city to govern the timing and installation of improvements, performance on critical development components, and will memorialize the requirements for development of multiple buildings. Upon receiving design review and master site plan approval a draft agreement will be developed and will include the following:

1. Allowed phasing of residential and commercial development components.
2. Allowed residential densities.
3. Required parking for all uses.
4. Buffering of adjacent single-family residential zones.
5. Adequate public facilities and services.
6. Establishment, maintenance, or enhancement of commercial elements.

If the applicant intends to pursue the design as presented, there are elements that are required to be provided for Master Site Plan approval.

1. Traffic Impact Study: The study must be prepared by a licensed traffic engineer and analyze the traffic impacts of the proposed development on surrounding public and private transportation facilities.
2. Parking Analysis: The applicant must prepare a parking analysis for the proposed mix of uses, demonstrating that the project's parking and circulation needs can be accommodated.
3. Adequate Public Utilities And Facilities Review: In order to determine the availability of and impact upon public facilities and services the applicant shall conduct a review of all public utilities including power, water, sanitary sewer, and storm water with the Public Works Department.
4. Public Services Review: The City may require review of the project's impact upon services including police, fire, schools, parks, and others.

Staff understands that these were not originally submitted because the initial idea that this was a vertical mixed-use project. If the intent of the applicant is to pursue this design, these items will need to be submitted prior to being placed on a Planning Commission agenda.

IV. MURRAY CITY CENTER DISTRICT DESIGN GUIDELINES REVIEW

According to the purpose statement for the Murray City Center District "...The regulations and design guidelines of the MCCD are intended to promote mixed-use development, encourage pedestrian oriented design, promote development opportunities, and increase residential and commercial densities. The anticipated development model promotes sustainable, compact, mixed-use, transit-oriented uses with neighborhood oriented commercial, restaurant, civic, cultural, and residential spaces to promote street life and activity".

The Design Guidelines have been adopted to be used by the MCCD Review Committee to consult during the review of proposed developments in order to provide guidance, direction, and options which will further the purposes of the MCCD. Where practical, development should adhere to the objectives and principles of the Design Guidelines.

Shared Values (principles)

Authentic:
The applicant's proposal, which is located east of State Street, is in a unique area close to a lot of change that is occurring in the city. There has been a mix of development types in this area. The applicant has worked with local interest groups and neighbors to provide a project that would truly be unique to this valley. It provides an aesthetic that is not often found in new development. With some additional changes as outlined below, the proposed condominiums can fit into the area nicely.

Active:
Additional housing in the area contributes to a more active district as a whole. With the addition of commercial components, it will add more activity on the street.

Inclusive:
This proposal is unique in that they are for-sale units. In addition to the applicant's other project these would be the first of their kind in the downtown area. Allowing for condominium ownership in the downtown would provide a different type of resident, and increase the mix of housing types in the area.

Multi-Modal:
The requirement for bicycle parking within the downtown area provides greater opportunities for alternative modes of transportation. This project is developed at a scale that lends itself to walking and biking for the residents both in and around the neighborhood.

Connected:

The proposal is being developed in conjunction with the applicant's properties to the north. The blend together well and serve to connect the area. With plenty of openings in the front façade to allow for neighborly connections, this project has the potential to grow the downtown in unique ways with the smaller scale, and for-sale nature.

Design Guidelines (objectives)

The following section provides opportunities for discussion and improvement of the proposed project. Staff recommends that the Review Committee use this review as a jumping off point to begin discussions on this proposal.

Walkability:
Staff has concerns about access to the bicycle storage area. It seems to be placed behind the building with little to no thought given to the potential users. Staff recommends that the applicant review the location of the bike parking and see if it can be placed in a more easily accessible location. Staff understands that this is a very tight site, if the applicant is unable to find a better space, provide a narrative of that. Bicycle parking should also be integrated into the street improvements as well as provided near the entrance to the building to encourage the use of bikes for multiple, quick back and forth trips.

Largely, this project provides pedestrian comfort with street trees and physical separation from vehicular traffic on Vine Street.

Sustainability:
The applicant has expressed a desire to place solar panels on the top of the building. Staff supports that goal and encourages the applicants to work towards that end. The utility plans that need to be provided can include plans for the solar panels.

Streetscape:
Staff feels that the requested restriction for no on-street parking is warranted, especially on Vine Street. This street is relatively small and will need the space to maintain bike lanes in the future. Utilizing the same treatments that other projects have done will help with a cohesive street along Vine.

Public Space:
Staff does not have any comments regarding public space for this application.

Open Space:
The amenity space that is provided for future residents allows for it to be private without the perception of it being open to the public. It is located behind the buildings but allows for multiple users such as the Wyatt.

Parking:

The use of stacked mechanical parking is unique in this project. It allows the parking area to be smaller than what would normally be required in the zone. However, the number of parking spaces is still inadequate according to the requirements of the MCCD Zone. The applicant will need to work with staff to address this.

A bike rack is required on-site; staff recommends placing it near the entrance to the building for ease of use.

Neighbor Awareness:
The east side commercial building does present concern with the neighboring property. The owner of the property has expressed concerns with the dramatic change. The applicant has approached the property owner on items that could be addressed but nothing has come from it to date.

The building utilizes balconies to modulate the façade. There are multiple floors with differing balcony types which gives the building a much softer look.

Light:
Proposed lighting of the building will need to be reviewed prior to being placed on a planning commission agenda.

Connection to the ground:
This proposed project has a material distinction connecting it to the ground with large windows that further enhance the connection. This allows for the community to see what is happening on the street, and entices passersby to enter the retail portions of the properties.

Connection to the Sky:
The proposal does a great job of creating a termination of the building with architectural banding across both buildings. The commercial building indicates a flag pole on top which furthers the connection. Staff does not have any concerns.

Fenestration and Porosity:
The applicant has provided balconies for all units to allow for natural light and air to flow into the homes and commercial spaces. The only blank wall on the project is for the parking garage on the east side of the proposed commercial building which will need to be addressed. Staff does not have any concerns here.

Express a Clear Organizing Idea:
The applicant has proposed two buildings that indicate a very clear idea of what they are proposing. The applicant has consulted with local residents and provided a design that is cohesive and well thought out.

Private Space:

The applicant has provided private balconies and operable windows across the project. No concerns from staff.

Materiality:
The applicant has provided a clear idea of what they are expressing for these two buildings, they have slimmed down the use of materials which gives the projects a much more streamlined look without being a “box”.

V. 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.

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 effect for the subject property.

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

The applicant will need to work with the Planning Division staff to address a number of issues to come into conformance with the requirements of the Land Use Ordinance. These items can be addressed at a staff level, prior to being placed on a Planning Commission agenda and review by the MCCD Review Committee at this time is acceptable.

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.

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

With changes, staff believes that this project will be in harmony with the purpose of the MCCD Zone and will adhere to the principles of the design guidelines.

VI. CONCLUSION & RECOMMENDATION

Based on the review of the requirements of the MCCD Zoning Ordinance, staff recommends that the MCCD Review Committee forward a recommendation of approval to the Planning Commission for the Master Site Plan application for the NOAH located at 149, 155-157, 163 East Vine Street, subject to the following:

1. Prior to being placed on a Planning Commission agenda the applicant shall provide a curbside management plan that addresses the location for ride-share, delivery, and other vehicles used on a temporary basis.
2. Prior to being placed on a Planning Commission agenda, remove “private sidewalk” on all plans. The required improvements for sidewalk and park strip are public space and dedicated to the city.
3. Prior to being placed on a Planning Commission agenda the applicant will need to address the blank wall on the east side of the commercial building and provide some sort of break in the wall.
4. Prior to being placed on a Planning Commission agenda the applicant will need to address the parking deficiency as outlined in the staff report.

MURRAY CITY CENTER DISTRICT APPLICATION

Project # 22-142

Type of Application (check all that apply):

- ☐ **Minor Alteration**
- ☐ **Major Alteration**
- ☑ **Demolition**
- ☐ **Significant Building**
- ☑ **New Construction**
- ☐ **Change of Use**

Subject Property Address: 149, 155, 157 & 163 Vine St., Murray, UT 84107

Parcel Identification (Sidwell) Number: 22-07-111-014-0000, 22-07-111-013-0000, 22-07-111-016-0000

Parcel Area: .5 ac / 22,218 sqft. Current Use: Commercial, SFH, Duplexes Zoning Classification: MCCD

Floor Area: 3,698 sqft Retail/Office/Storage Area: 875 sqft

Applicant Name: Jonathan Oliver

Mailing Address: 1089 E. Benchview Dr.

City, State, ZIP: Ogden UT 84404

Daytime Phone #: 801-458-4111 Fax #:

Email jonathan@newdevelopmentconsulting.com

Business or Project Name (If applicable): New Development Consulting The NOAH

Property Owner's Name (If different): "

Property Owner's Mailing Address: "

City, State, Zip: "

Daytime Phone #: " Fax #:

Email "

Describe your request in detail (use additional page if necessary): We would like to replace the existing structures with a 39-unit Condo / mixed use building w/ 2 commercial units.

Authorized Signature: Date: 9/13/2022

5

Property Owners Affidavit

I (we) Jonathan Oliver, 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 14th day of September, 2022.

Notary Public
Residing in Salt Lake County
My commission expires: 5/9/2023

SUSAN NIXON
Notary Public State of Utah
My Commission Expires on:
May 9, 2023
Comm. Number: 705250

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 NOAH RENDERING

ALW ARCHITECTS AND DESIGNERS
380 N. 200 W. – SUITE 107
BOUNTIFUL, UTAH 84010
(801) 292-6263

0

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12/20/2022 3:09:55 AM

THE NOAH

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1

12/20/2022 3:02:52 AM

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NOAH WEST ELEVATION

SCALE: 1" = 10'-0"

NOAH SOUTH ELEVATION

SCALE: 1" = 10'-0"

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NOAH WEST ELEVATION

SCALE: 1" = 10'-0"

NOAH NORTH ELEVATION

SCALE: 1" = 10'-0"

NOAH EAST ELEVATION

SCALE: 1" = 10'-0"

NOAH SOUTH ELEVATION

SCALE: 1" = 10'-0"

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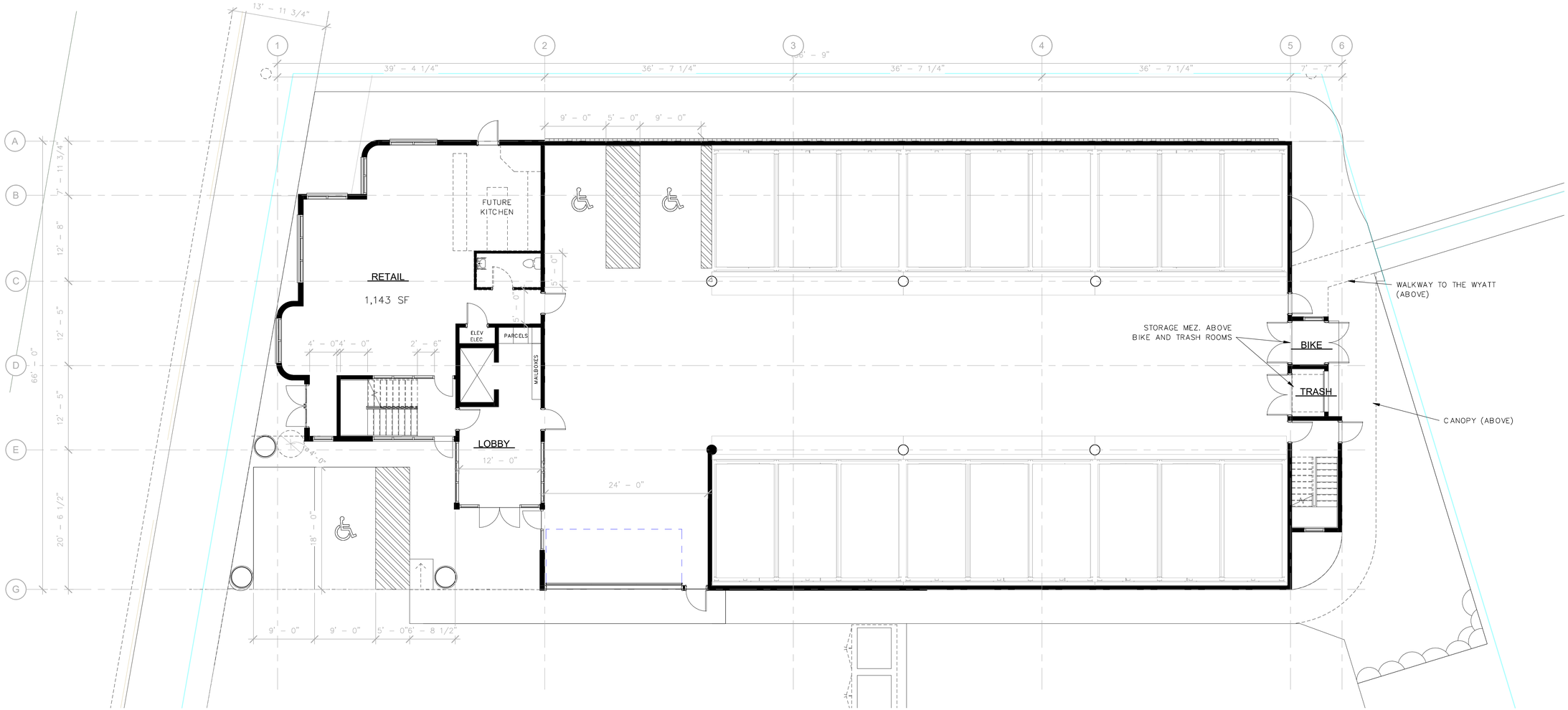
12/20/2022 3:04:22 AM



LEVEL–1 FLOOR PLAN

SCALE: 1/8" = 1'–0"

12/20/2022 3:04:23 AM

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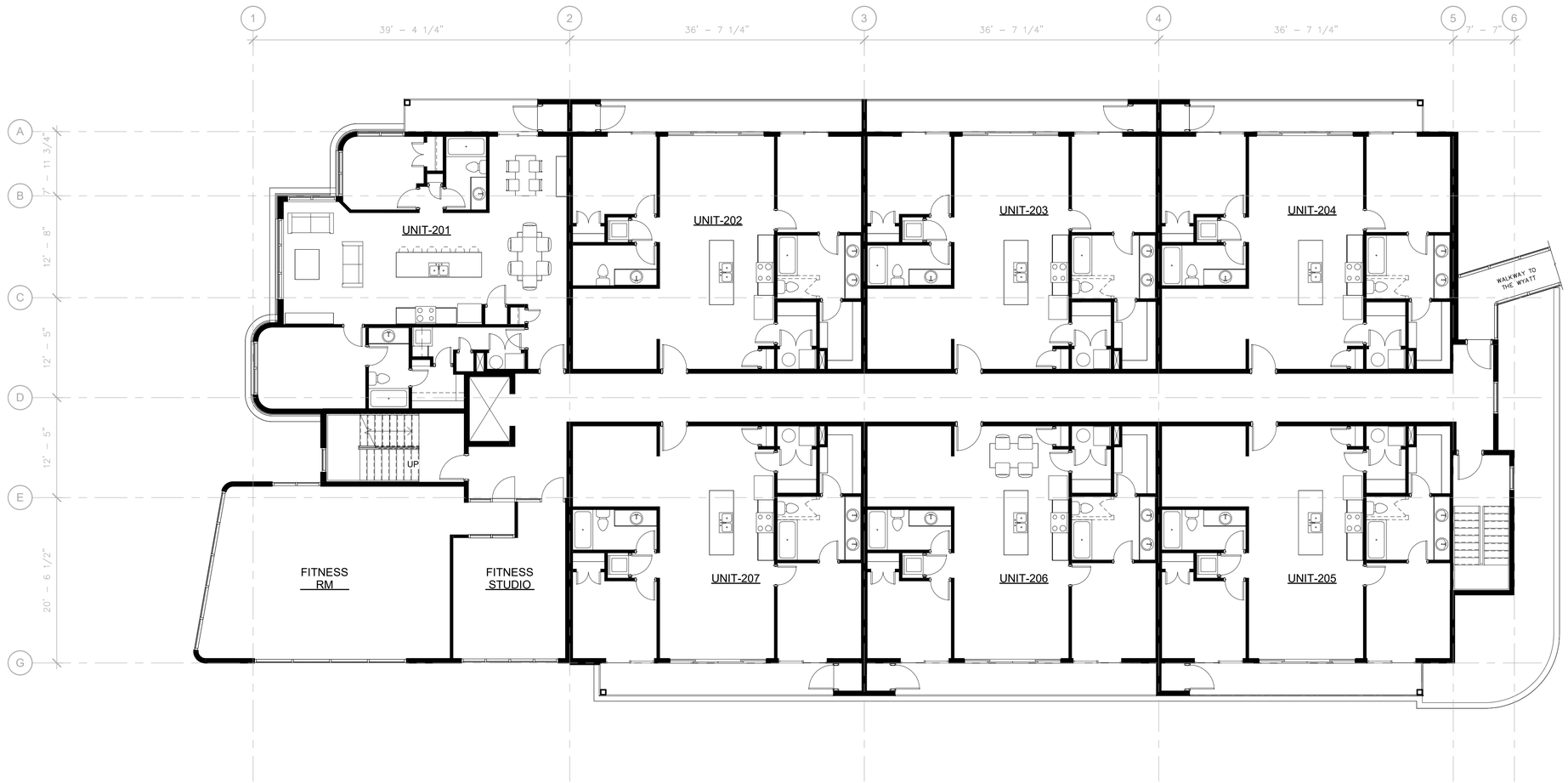
A1.1



LEVEL–2 PLAN

SCALE: 1/8" = 1'–0"

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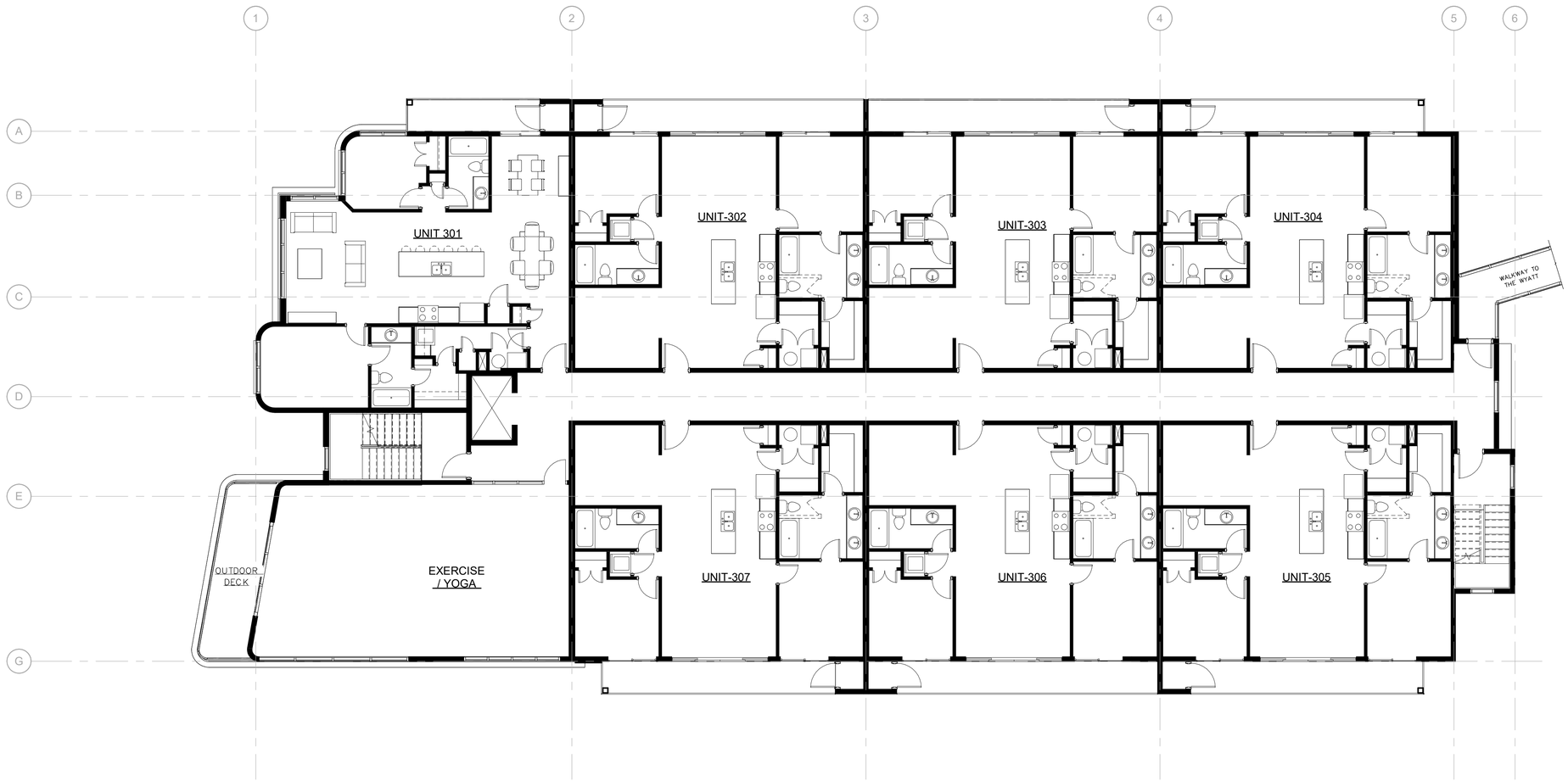
A1.2



LEVEL-3 FLOOR PLAN

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

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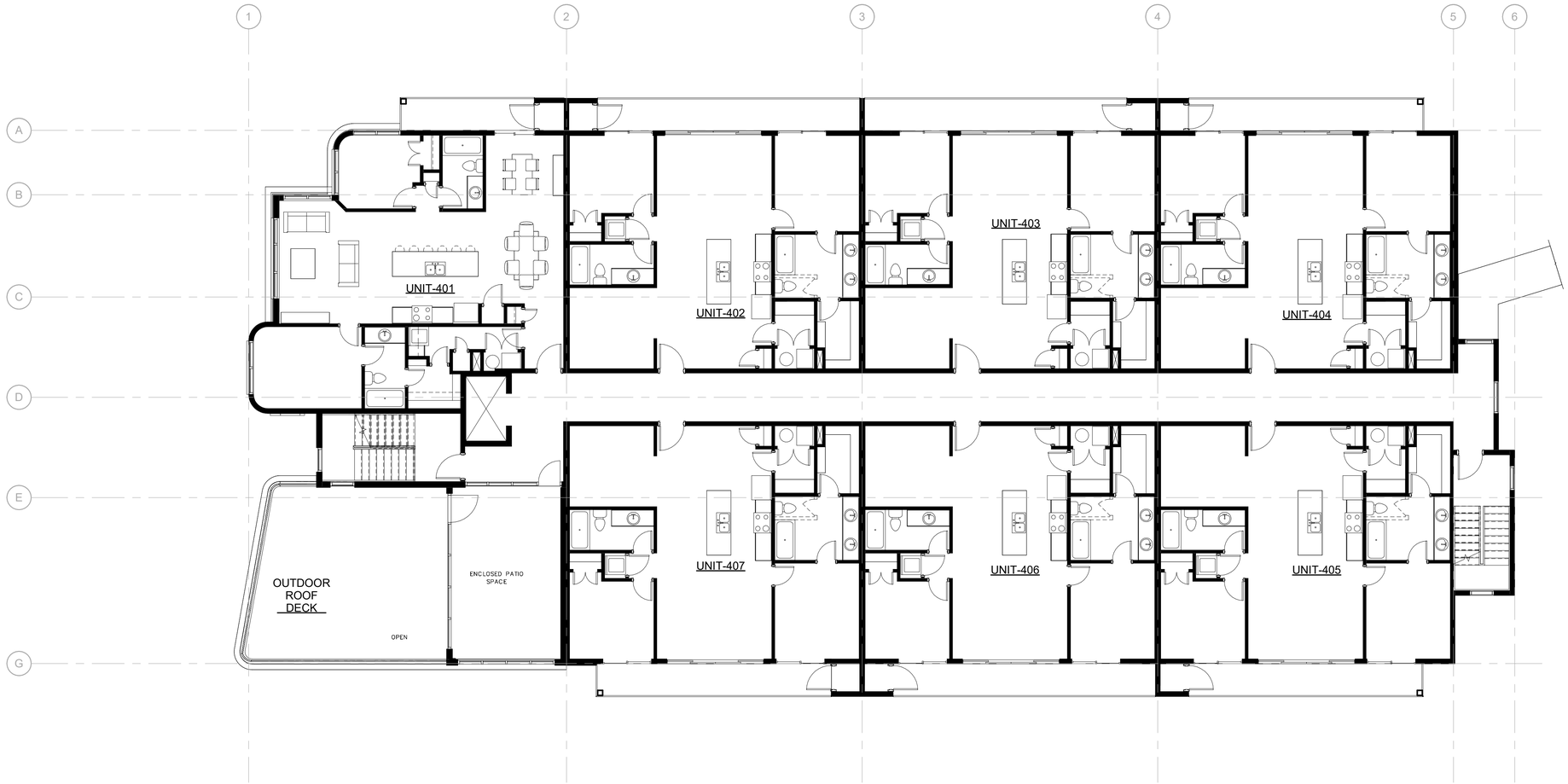
A1.3



LEVEL-4 FLOOR PLAN

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

12/20/2022 3:04:28 AM

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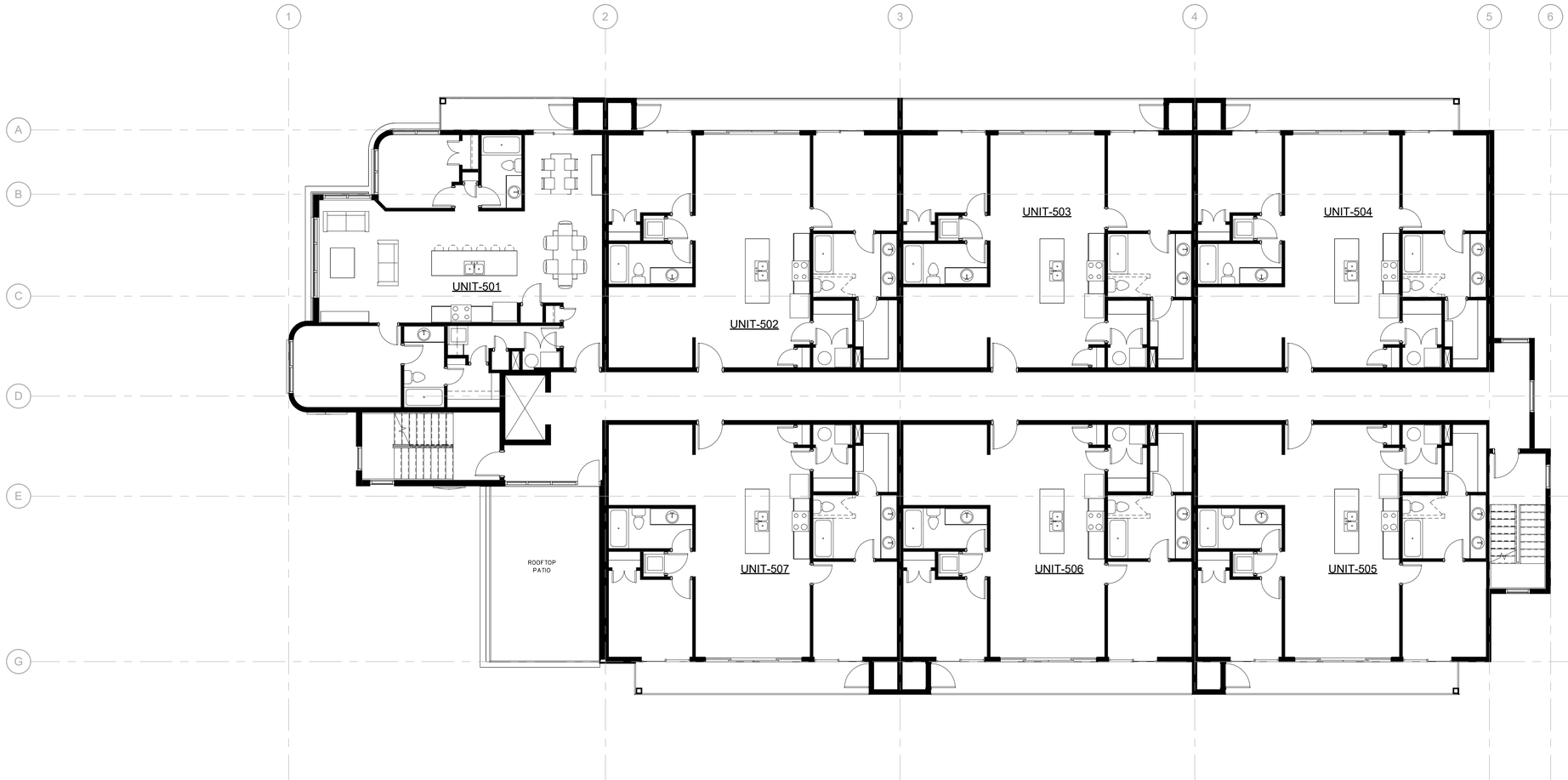
A1.4



LEVEL-5 FLOOR PLAN

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

12/20/2022 3:04:30 AM

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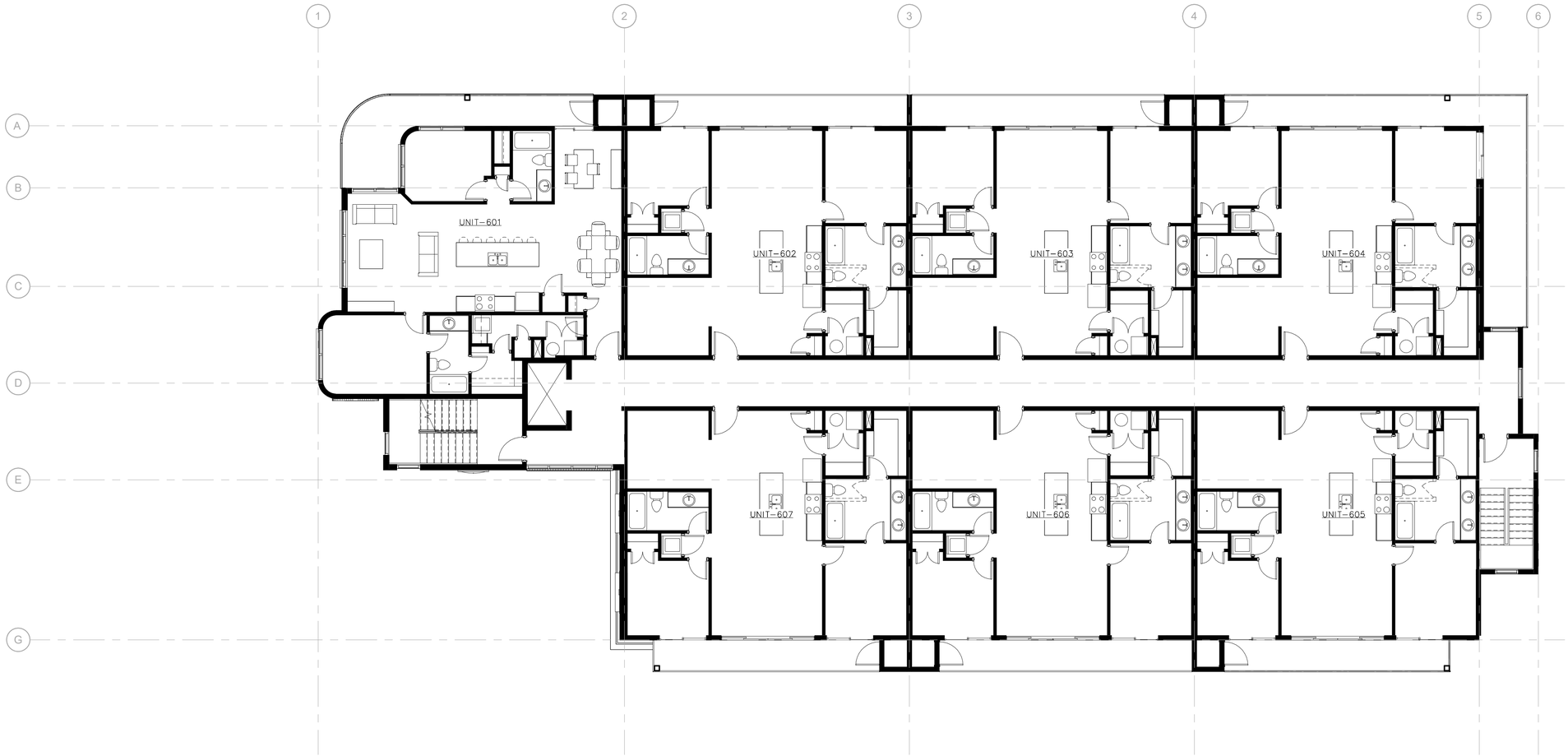
A1.5



LEVEL-6

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

12/20/2022 3:04:31 AM

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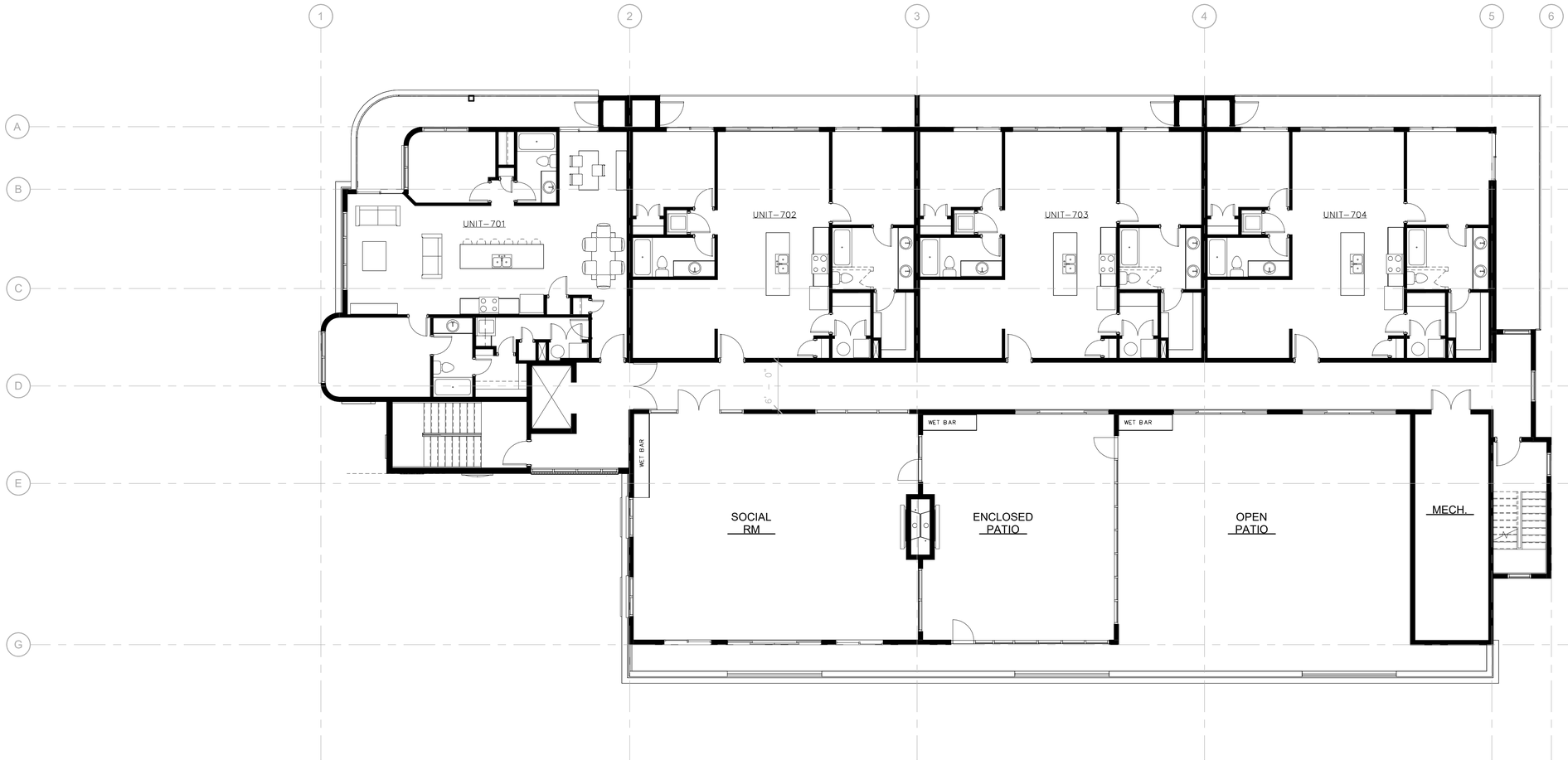
A1.6



LEVEL-7 FLOOR PLAN

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

12/20/2022 3:04:31 AM

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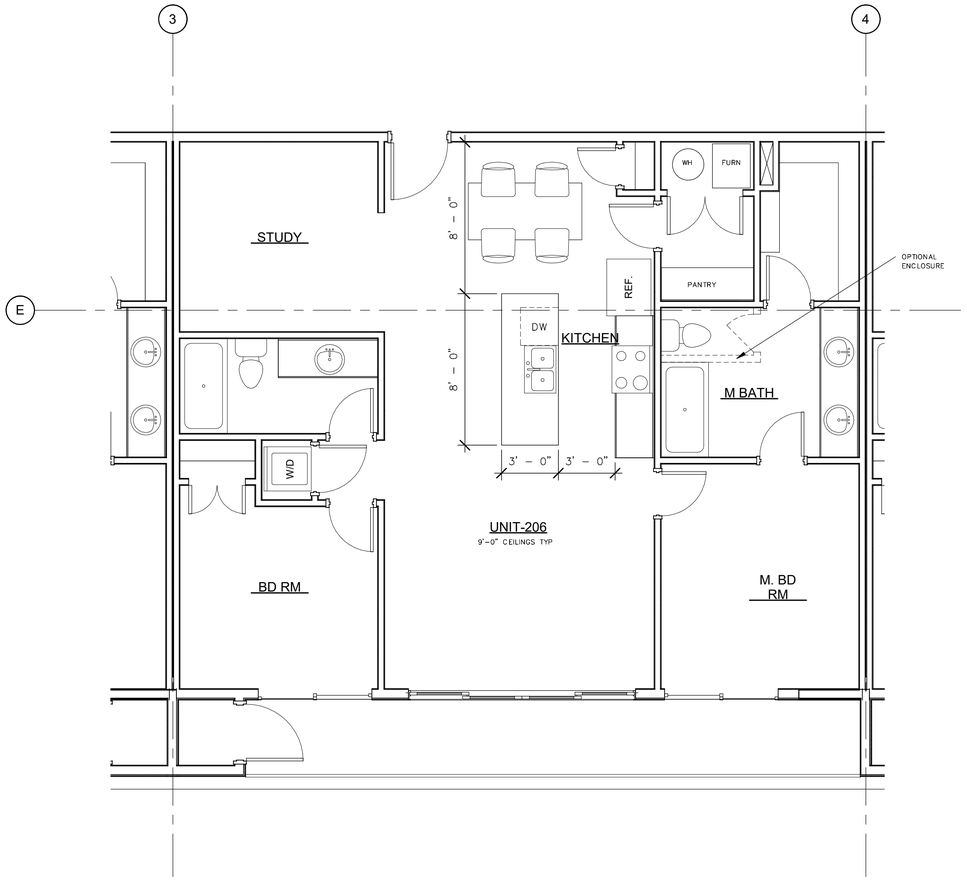
A1.7



UNIT TYPE-1

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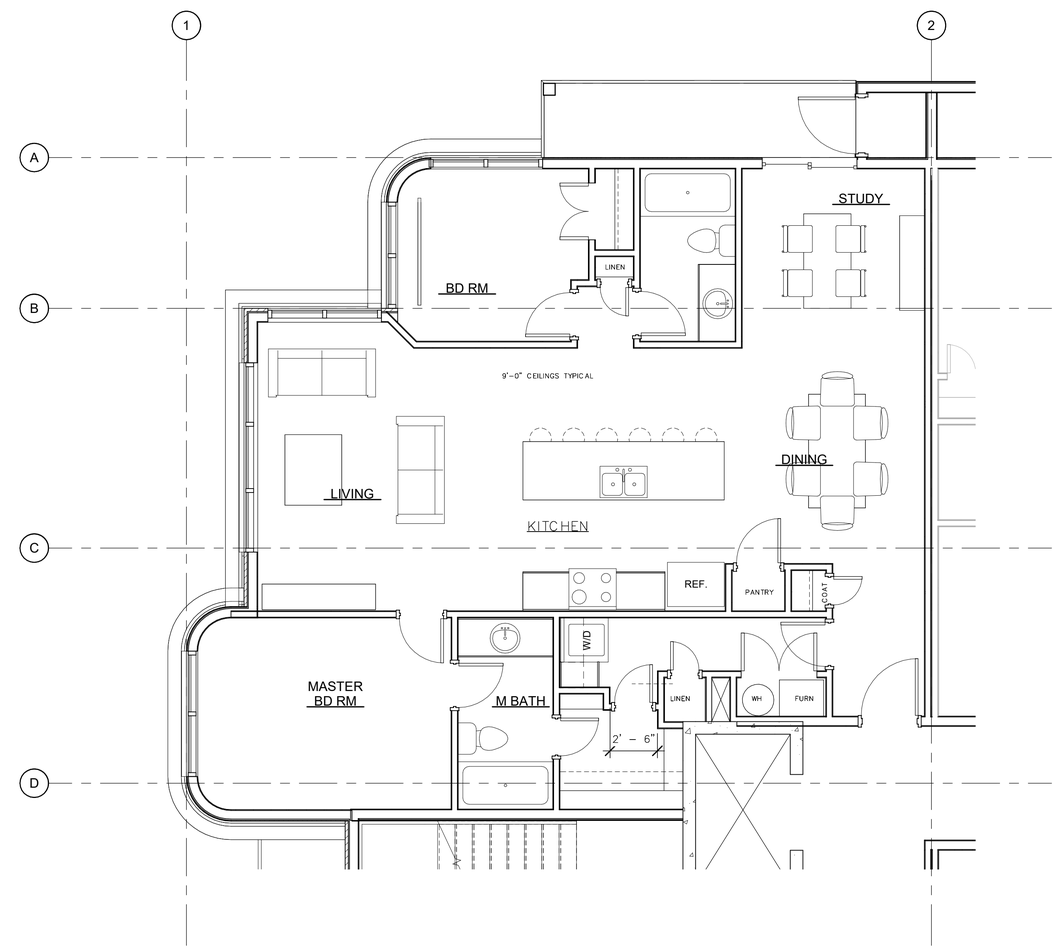

UNIT TYPE-2

SCALE: 1/4" = 1'-0"

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A4.1

ALW ALW ARCHITECTS AND DESIGNERS
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S1

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THE NOAH COMMERCIAL BUILDING

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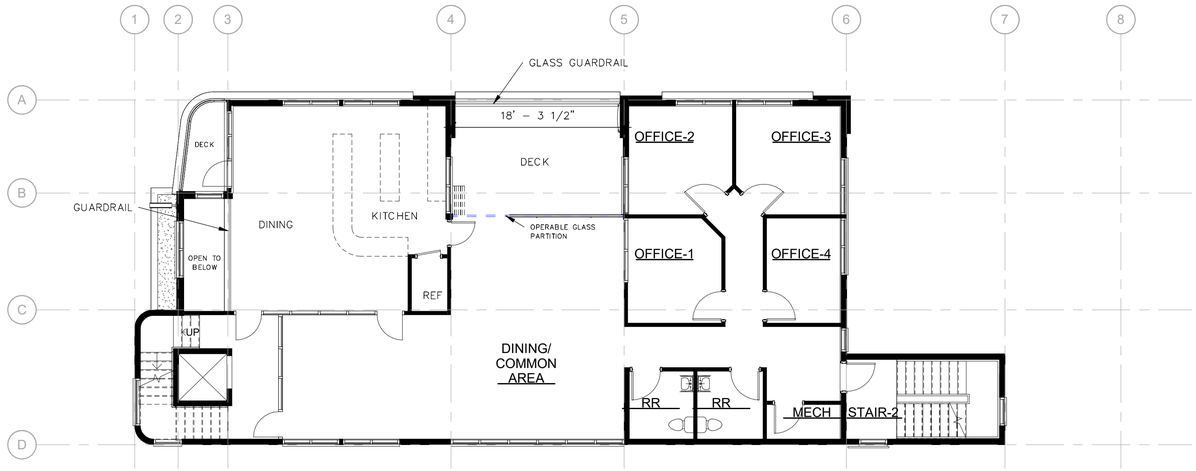

COMMERCIAL CENTER LEVEL–2

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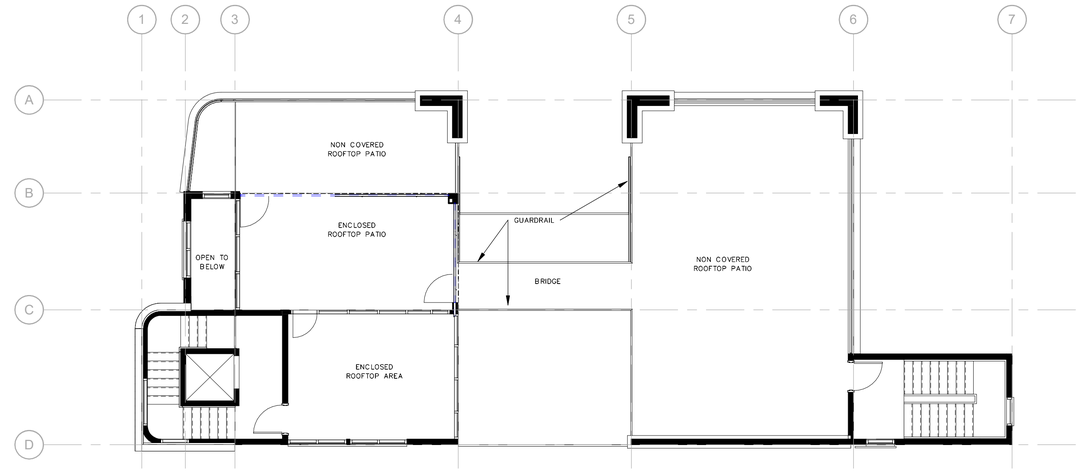
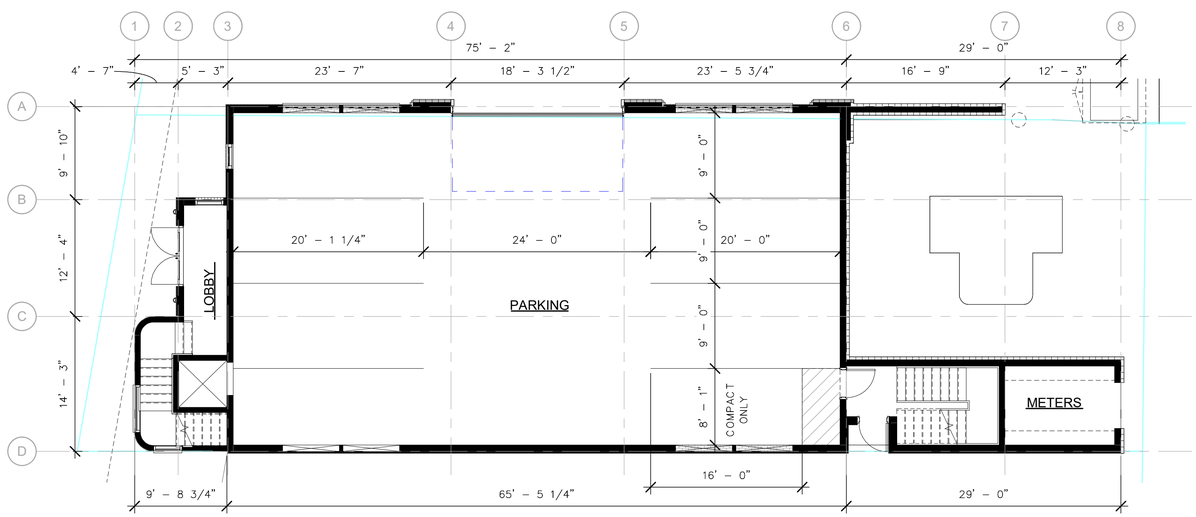


COMMERCIAL CENTER LEVEL–4 ROOFTOP

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



COMMERCIAL CENTER LEVEL–1

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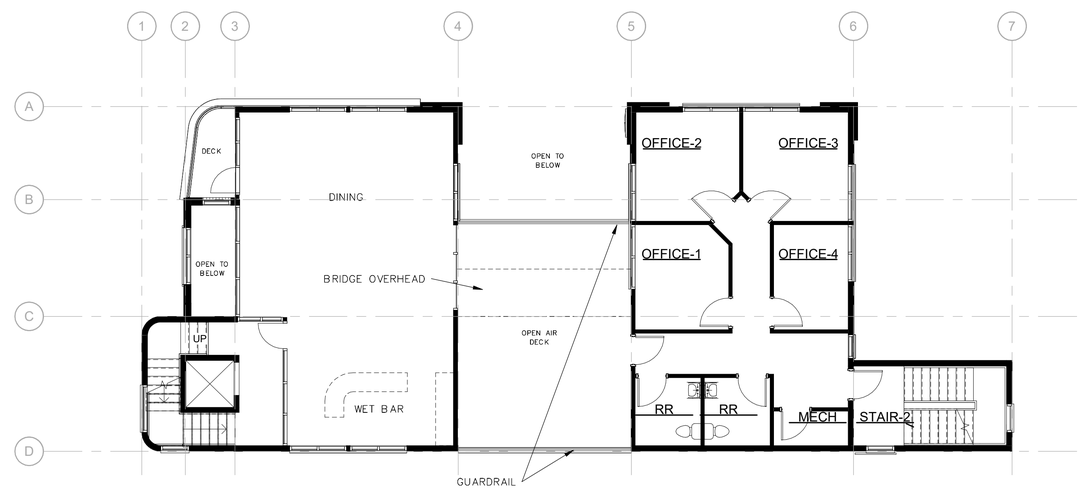

COMMERCIAL CENTER LEVEL–3

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

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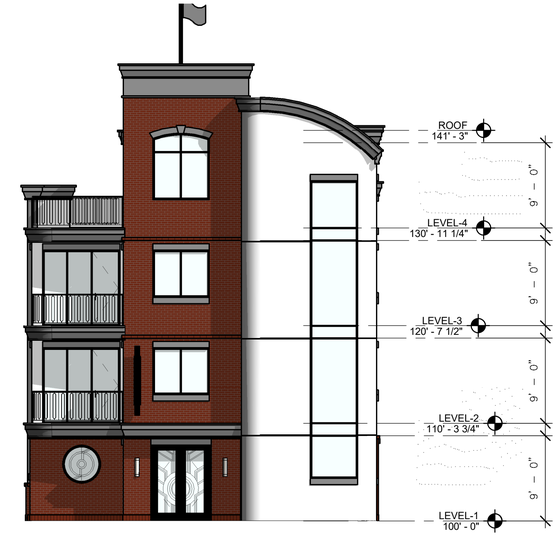
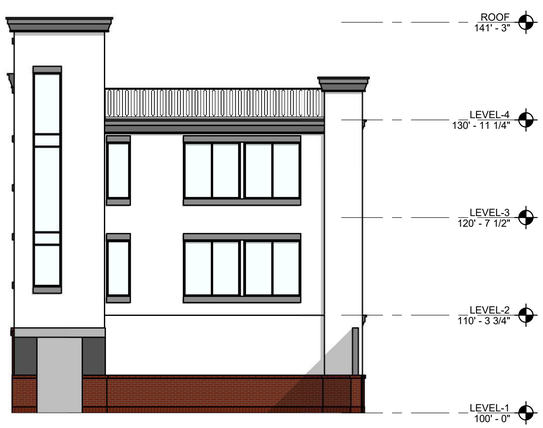
(801) 292–6263

A1.0

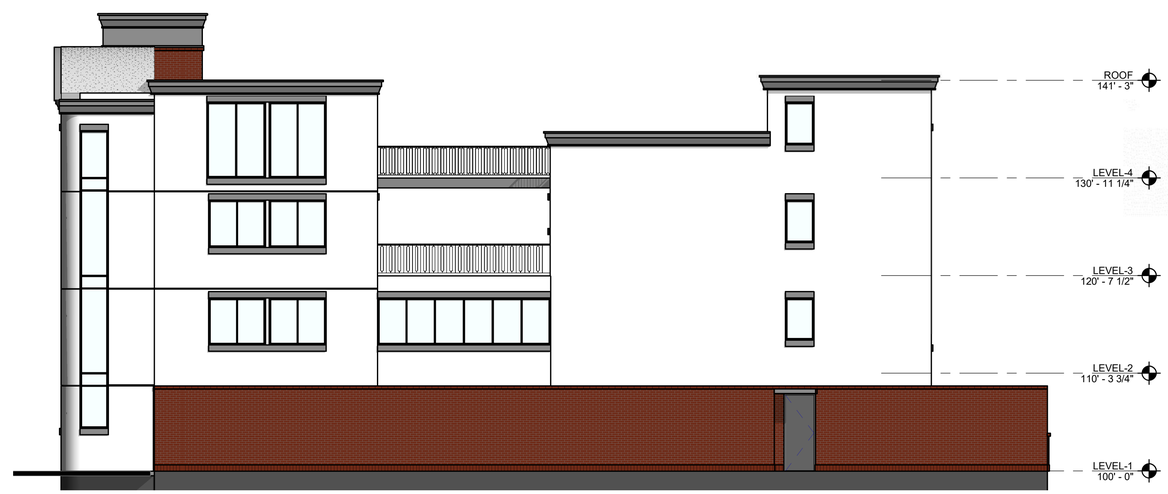
WEST ELEVATION
SCALE: 1/8" = 1'-0"



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



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



3,376 sf SURFACE AREA
15% = 506 SF ALLOWANCE
14.6% 480 SF OPENINGS SHOWN IN EAST WALL

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

STREET VIEW
SCALE:

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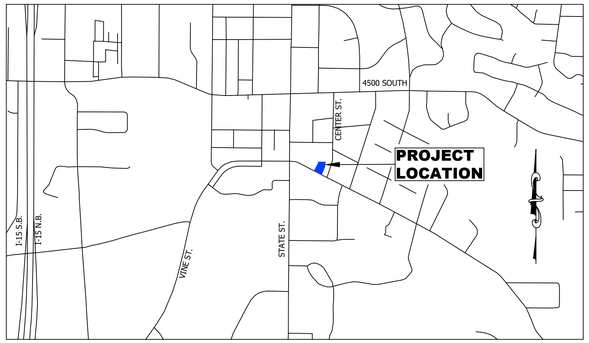
A2.0

12/20/2022 2:16:59 AM

THE NOAH

149 EAST VINE STREET
LOCATED IN THE SE 1/4 OF SECTION 7, T.2S., R.1E., S.L.B.&M.
MURRAY CITY, SALT LAKE COUNTY, UTAH

VICINITY MAP



SCALE: 1"=1000'

Sheet List Table

Sheet Number	Sheet Title
C100	COVER
C101	NOTES & LEGEND
V200	TOPOGRAPHIC SURVEY
C300	DEMOLITION PLAN
C400	SITE PLAN
C500	GRADING PLAN
C600	UTILITY PLAN
C800	CONNECTIVITY PLAN
C900	SITE DETAILS
C910	UTILITY DETAILS
C921	STORMTECH DETAILS
EC100	EROSION CONTROL

GENERAL NOTES

1) ALL WORK WITHIN A PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE RIGHT-OF-WAY OWNER'S STANDARDS & SPECIFICATIONS.

2) ALL UTILITY WORK SHALL CONFORM TO THE UTILITY OWNER'S STANDARDS & SPECIFICATIONS.

3) THESE PLANS DO NOT INCLUDE DESIGN OF DRY UTILITIES. THESE PLANS MAY CALL FOR RELOCATION, AND/OR REMOVAL AND/OR CONSTRUCTION OF DRY UTILITIES, BUT ARE NOT OFFICIAL DRAWINGS FOR SUCH. DESIGN AND COORDINATION OF DRY UTILITIES IS BY OTHERS.

4) THE CONTRACTOR SHALL COORDINATE AND OBTAIN ANY PERMITS REQUIRED FOR THE WORK SHOWN HEREON.

5) THE LOCATION AND ELEVATIONS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS A BEST ESTIMATE BASED ON UTILITY COMPANY RECORDS, BLUESTAKES, AND FIELD MEASUREMENTS OF READILY OBSERVABLE ABOVE-GROUND FEATURES. AS SUCH, THIS INFORMATION MAY NOT BE COMPLETE, UP-TO-DATE, OR ACCURATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STOP WORK AND NOTIFY THE ENGINEER IF CONFLICTING INFORMATION IS FOUND IN THE FIELD.

6) THE CONTRACTOR IS TO FIELD VERIFY THE LOCATION AND ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES PRIOR TO STAKING AND CONSTRUCTION.

7) CALL BLUESTAKES AT LEAST 48 HOURS PRIOR TO DIGGING. DO NOT PROCEED UNTIL BLUESTAKES ARE MARKED.

8) IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO MEET ALL APPLICABLE HEALTH AND SAFETY REGULATIONS, AND THEY SHALL ASSUME SOLE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING CONSTRUCTION OF THIS PROJECT, SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK, AND THE PUBLIC IS PROTECTED.

Know what's **below.**
Call 811 before you dig.

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

BENCHMARK POINT DESCRIPTION
ELEVATION POINT ELEVATION

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
www.Entellus.com
Entellus

DEVELOPER
NEW DEVELOPMENT CONSULTING
Contact: JONATHAN OLIVER
1400 MORNING VISTA ROAD R187
Lehi, UT 84043
Phone: 801-458-4111
jonathan@newdevelopmentconsulting.com

THE NOAH
149 EAST VINE STREET
LOCATED IN THE SE 1/4 OF SECTION 7, T.2S., R.1E., S.L.B.&M.
MURRAY CITY, SALT LAKE COUNTY, UTAH

REVISIONS

1	INITIAL SUBMITTAL	9/27/2022

DRAWN: JBC	2023-02-20
APPROVED: CC	2023-02-20
PROJECT #:	2065002
2065002_PLANSET.dwg	

C100
COVER

H:\2065002\D_PRODUCTION\Civil\04_Plan Set\2065002_PLANSET.dwg 2023-02-20 9:27:07 AM JARED COURT

GENERAL NOTES

1. ALL IMPROVEMENTS SHALL COMPLY WITH THE STANDARDS AND REGULATIONS OF THE LOCAL GOVERNING MUNICIPALITY. CONTACT THE PUBLIC WORKS OFFICE BEFORE BEGINNING.
2. CONTRACTOR TO FIELD VERIFY LOCATION, SIZE, AND AVAILABILITY OF EXISTING UTILITIES. UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE. SEE UTILITY NOTE 3.
3. ALL DIMENSIONS ARE IN FOOT UNITS AND ARE TO THE TOP BACK OF CURB UNLESS SHOWN OR NOTED OTHERWISE.
4. PROVIDE HANDICAP RAMPS AT ENDS OF WALKWAYS. END 0.1' ABOVE FLOWLINE OF CURB.
5. CURB AND GUTTER SHALL BE AS PER APWA STD DWG NO 205 TYPE A.
6. UTILITY INFORMATION INDICATED ON DRAWING IS BASED UPON VISUAL OBSERVATION OR INFORMATION FURNISHED BY MUNICIPAL AUTHORITIES WHICH MAY NOT BE VALID. LATERAL LOCATIONS AND ELEVATIONS ARE ASSUMED. SEE UTILITY NOTE 3.
7. ALL GRADING SHALL BE DONE UNDER THE SUPERVISION OF A QUALIFIED SOILS ENGINEER WHO SHALL VERIFY THAT ALL FILL HAS BEEN PLACED IN ACCORDANCE WITH PROVISIONS IN CURRENT INTERNATIONAL BUILDING CODE.
8. COMPACTION TEST REPORTS SHALL BE MADE AVAILABLE TO THE ENGINEER WITHIN 24 HOURS OF A REQUEST. FINAL REPORTS AS SPECIFIED IN CURRENT INTERNATIONAL BUILDING CODE SHALL BE SUBMITTED TO THE ENGINEER WITHIN TEN DAYS AFTER COMPLETION OF GRADING.
9. ALL STORM DRAIN PIPE SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND THE LOCAL GOVERNING MUNICIPALITY'S STANDARDS AND SPECIFICATIONS.
10. STORM DRAIN PIPE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE RIGHT-OF-WAY OWNER'S SPECIFICATIONS.
    PRIVATE STORM DRAIN PIPE OPTIONS SHALL CONSIST OF THE FOLLOWING MATERIALS.
    1. PVC PIPE, ASTM D3034, SDR 35, BELL & SPIGOT TYPE.
    2. RCP PIPE, CLASS 3, BELL & SPIGOT TYPE.
    3. HIGH DENSITY CORRUGATED POLYETHYLENE SMOOTH INTERIOR PIPE, ASTM D3350 WITH WATERTIGHT JOINTS.
11. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CHECK CONDITIONS AT THE SITE BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
12. TYPICAL DETAILS SHALL APPLY IN GENERAL CONSTRUCTION UNLESS SPECIFICALLY DETAILED. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION WILL BE AS FOR SIMILAR WORK. DO NOT SCALE DRAWINGS.
13. ANY OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
14. PIPE BEDDING SHALL BE 3/8" MAXIMUM AGGREGATE. USE 3/4" MAXIMUM SIZE ROAD BASE FOR BACKFILL MATERIAL. COMPACT TO 95% STANDARD PROCTOR DENSITY. MAXIMUM LIFT 8 INCHES.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC AND OSHA STANDARDS.
16. ALL WORK SHALL COMPLY WITH THE AMERICAN PUBLIC WORKS ASSOCIATION UTAH CHAPTER (APWA) MANUAL OF STANDARD SPECIFICATIONS 2007 EDITION WITH ALL PERTINENT SUPPLEMENTS AND AMENDMENTS AND THE MANUAL OF STANDARD PLANS 2007 EDITION. SAID STANDARD SPECIFICATIONS AND PLANS SHALL BE THE REQUIREMENTS.
17. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THE WORK TO BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH EXIST IN THE PLANS OR SPECIFICATIONS. THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORITY FROM THE OWNER AND/OR ENGINEER.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
19. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL; ELECTRICAL AND INSTRUMENTATION EQUIPMENT; PIPING AND CONDUITS; STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT PLAN SHOWING LOCATION OF LIGHTS, CONDUITS, CONDUCTORS, POINTS OF CONNECTIONS TO SERVICES, PULLBOXES, AND WIRE SIZES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.
20. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO ENGINEER, ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

SEQUENCE OF CONSTRUCTION

1. CONSTRUCTION EXIT IS TO BE CONSTRUCTED AT TIME OF ENTRY TO SITE.
2. CLEAR AND GRUB AREAS FOR SEDIMENT MEASURES.
3. INSTALL SILT FENCES.
4. COMPLETE CLEARING OF SITE AND BEGIN ROUGH GRADING.
5. FILL AREAS SHALL BE FILLED IN 12 INCH MAXIMUM LIFTS AND COMPACTED TO AT LEAST 95% MAXIMUM DENSITY.
6. DRAINAGE WILL BE CONTROLLED AND GROUND SLOPED SO AS TO DIRECT RUNOFF TO SEDIMENT CONTROLLED INLETS.
7. INSTALL REMAINDER OF STORM DRAIN.
8. INSTALL UTILITY LINES, WATER, ETC.
9. INSTALL CURBS, WALKS, ETC., AND STABILIZE ALL DISTURBED AREAS.
10. INSTALL BASE COURSE.
11. REMOVE SEDIMENT CONTROL MEASURES, CLEAN OUT TEMPORARY SEDIMENTATION BASINS AND REGRADE, CLEAN OUT SEDIMENT TRAPS AND CONVERT THEM TO STORM WATER MANAGEMENT STRUCTURES.
12. PAVE SITE.
13. OWNER TO BE RESPONSIBLE TO CHECK CLEAN OUT INLET BOXES FOR SEDIMENT AND OIL AND CLEAN AS NECESSARY

UTILITY NOTES

1. ALL SERVICE LATERALS SHALL BE EXTENDED 2 FEET PAST THE 10 FOOT P.U.E.
2. ALL CONSTRUCTION SHALL COMPLY WITH LOCAL GOVERNING MUNICIPALITY DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS
3. LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR IS TO FIELD VERIFY CONNECTION POINTS WITH EXISTING UTILITIES, INCLUDING LOCATIONS AND INVERT ELEVATIONS OF ALL EXISTING STRUCTURES OR PIPES, BEFORE STAKING OR CONSTRUCTING ANY NEW UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING UTILITIES AND UTILITY STRUCTURE THAT ARE TO REMAIN.
4. CONTRACTOR IS RESPONSIBLE TO EXPOSE ALL UTILITY SERVICES STUBBED INTO PROJECT PROPERTY AND GIVE ENTELLUS. 48 HOURS PRIOR NOTICE SO ENTELLUS CAN VERIFY DEPTHS AND INVERT ELEVATIONS TO DETERMINE IF CONFLICTS EXIST. ALSO ANY EXISTING UTILITIES THAT RUN ACROSS PROJECT PROPERTY WHICH MAY CAUSE POTENTIAL CONFLICT NEED TO BE EXPOSED AND LOCATED BOTH HORIZONTALLY AND VERTICALLY. CONTRACTOR PROCEEDS AT OWN RISK IF ENTELLUS IS NOT NOTIFIED TO FIELD VERIFY THE ABOVE MENTIONED CONDITIONS.
5. CONTRACTOR IS TO COORDINATE ALL UTILITIES WITH MECHANICAL DRAWINGS WHERE APPLICABLE.
6. NO GROUNDWATER OR DEBRIS TO BE ALLOWED TO ENTER THE NEW PIPE DURING CONSTRUCTION. THE OPEN END OF ALL PIPES IS TO BE COVERED AND EFFECTIVELY SEALED AT THE END OF EACH DAYS WORK.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H-20 LOAD REQUIREMENTS.
8. ALL NEW SANITARY SEWER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.
9. ALL SEWER LINES AND LATERALS ARE TO BE SDR 35 PVC PIPE.
10. SEWER LATERALS WILL BE INSTALLED AT A UNIFORM SLOPE OF NOT LESS THAN 2% GRADE AND THEY SHALL HAVE A MINIMUM OF 4 FEET OF COVER, UNLESS OTHERWISE NOTED.
11. ALL NEW CULINARY AND IRRIGATION WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.
12. WATER LINES TO BE PVC C-900. WATER LINES SHALL BE A MINIMUM OF 10' HORIZONTALLY FROM SEWER MAINS. CROSSINGS SHALL MEET STATE HEALTH STANDARDS. (MECHANICAL JOINTS REQUIRED WHEN LESS THAN 18" VERTICAL OR 10' HORIZONTAL SEPARATION FROM SEWER LINES.)
13. ALL WATER LINES SHALL BE 8" MINIMUM SIZE AND SERVICE LATERALS SHALL BE 1-1/2" MINIMUM UNLESS OTHERWISE NOTED.
14. WATER SERVICE LATERALS TO INCLUDE ALL BRASS SADDLE; CORP. STOP LATERAL, DOUBLE CHECK VALVE AND BACKFLOW PREVENTION DEVICE, AND SHUTOFF VALVE IN BOX NEAR BUILDING EDGE.
15. ALL WATER LINES SHALL BE A MINIMUM 48" BELOW FINISH GROUND TO TOP OF PIPE. ALL VALVE BOXES AND MANHOLES SHALL BE RAISED OR LOWERED TO FINISH GRADE AND SHALL INCLUDE A CONCRETE COLLAR IN PAVED AREAS.
16. CONTRACTOR TO NOTIFY PUBLIC UTILITIES FOR CHLORINE TEST PRIOR TO FLUSHING LINES, CHLORINE LEFT IN PIPE 24 HOURS MINIMUM WITH 25 PPM RESIDUAL. ALL TURNING OF MAINLINE VALVES, CHLORINATION, FLUSHING, PRESSURE TESTING, BACTERIA TESTING, ETC. TO BE COORDINATED WITH LOCAL GOVERNING MUNICIPALITY. ALL TESTS TO BE IN ACCORDANCE WITH AWWA STANDARDS.
17. BOTTOM FLANGE OF FIRE HYDRANTS TO BE SET TO APPROXIMATELY 4" INCHES ABOVE BACK OF CURB ELEVATION. HYDRANTS TO INCLUDE TEE, 6" LINE VALVE, AND HYDRANT COMPLETE TO MEET CITY STANDARDS.
18. ALL NEW STORM DRAIN/LAND DRAIN CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.
19. ALL STORM WATER CONVEYANCE PIPING TO BE RCP - CLASS 3 OR EQUAL, UNLESS OTHERWISE NOTED.
20. CONTRACTOR IS TO SUBMIT SITE PLAN/SUBDIVISION PLAT TO DOMINION ENERGY GAS FOR DESIGN OF GAS SERVICE TO BUILDINGS/LOTS. CONTRACTOR TO COORDINATE WITH DOMINION ENERGY GAS FOR CONTRACTOR LIMITS OF WORK VERSUS DOMINION ENERGY GAS LIMITS.
21. ALL GAS LINE TAPS TO BE HDPE WITH COPPER TRACER WIRE AND DETECTA TAPE. TERMINATE TRACER WIRE AT APPROVED LOCATIONS.
22. ALL GAS LINE TAPS, VALVES AND CAPS TO BE FUSED USING ELECTRO-FUSION TECHNOLOGY.
23. ALL ELECTRICAL CONDUITS/LINES TO BE PVC SCH 40 OR BETTER.
24. ALL PHONE AND TV CONDUITS TO BE PVC SCH 40 OR BETTER.
25. CONTRACTOR IS TO SUBMIT SITE PLAN/SUBDIVISION PLAT TO COMCAST FOR DESIGN OF CABLE TV SERVICE TO BUILDINGS/LOTS. CONTRACTOR TO COORDINATE WITH COMCAST FOR CONTRACTOR LIMITS OF WORK VERSES COMCAST LIMITS.
26. CONTRACTOR IS TO COORDINATE LOCATIONS OF NEW TELEPHONE SERVICE TO NEW BUILDINGS OR LOTS WITH CENTURYLINK. A PVC CONDUIT, PLYWOOD BACKBOARD, AND GROUND WIRE IS REQUIRED FOR SERVICE THROUGH PROPERTY. COORDINATE SIZES AND LOCATION WITH CENTURYLINK.
27. ALL UTILITIES ARE TO BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING AGENCY/DISTRICT STANDARDS AND SPECIFICATIONS:
    WATER - MURRAY CITY
    SEWER - MURRAY CITY
    STORM DRAIN - MURRAY CITY
    IRRIGATION - MURRAY CITY
    ELECTRICAL - ROCKY MOUNTAIN POWER
    TELEPHONE - CENTURYLINK
    NATURAL GAS - DOMINION ENERGY

GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING IT WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM TEST D-1557 EXCEPT UNDER BUILDING FOUNDATION WHERE IT SHALL BE 95% MIN. OF MAXIMUM DENSITY. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED REGISTERED SOILS ENGINEER, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED, HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS. REPORT.
2. THE CONTRACTOR IS TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THE PROJECT. SPECIFIC DETAILS SHOWN SHALL BE USED IN COMBINATION WITH OTHER ACCEPTED LOCAL PRACTICES.
3. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.
4. IF AT ANY TIME DURING CONSTRUCTION ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, WORK IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED FROM THE ENGINEER.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS/HER OWN ESTIMATE OF EARTHWORK QUANTITIES.
6. WHERE NEW CURB AND GUTTER IS BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OF CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY:
   - PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSED SURVEYOR VERIFY THE GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS.
   - THE CONTRACTOR SHALL SUBMIT THE SLOPE AND GRADES TO THE ENGINEER FOR APPROVAL PRIOR TO THE PLACEMENT OF CONCRETE.
   - THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION.
   - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CURB AND GUTTER POURS WITHOUT THE APPROVAL OF THE ENGINEER.

EROSION CONTROL

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS OF THE LOCAL GOVERNING MUNICIPALITY.
2. ALL SEDIMENT CONTROL MEASURES TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE.
3. DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
4. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS WILL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS.
5. ALL SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAINAGE SYSTEM THROUGH THE USE OF SANDBAGS, STRAW BALES, SILT FENCES, GRAVEL, BOARDS, AND OTHER APPLICABLE METHODS.
6. ALL DISTURBED AREAS OUTSIDE OF ROADWAYS, PARKING LOTS, SIDEWALKS AND OR BUILDING FOOTPRINTS SHALL BE SEEDED, SODDED AND/OR MULCHED.
7. IF SITE IS READY TO RECEIVE FINAL COVER DURING THE NON-PLANTING SEASON, THEN IT SHALL BE PROTECTED BY MULCHING. THE MULCH WILL REMAIN UNTIL THE NEXT PLANTING SEASON AS DEFINED BY THE LOCAL GOVERNING MUNICIPALITY.
8. RE-VEGETATE ALL DENUDED AREAS AS PER THE STANDARDS AND REGULATIONS OF THE LOCAL GOVERNING MUNICIPALITY.
9. THE CONTRACTOR AGREES THAT:
   A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK.
   B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL AT THEIR OWN EXPENSE IN A TIMELY MANNER.
   C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.
   D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM FINAL PAYMENT.
   E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROL. PERMITS, RETESTING AND REINSPECTION AT THEIR OWN EXPENSE.
   F. UNLESS OTHERWISE NOTED ALL EXCESS SOILS AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.
   G. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAG-MEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

LEGEND

- SECTION CORNER
- MONUMENT
- 30.82 / 30.82 — EXISTING SPOT ELEVATION
- 30.82 / 30.82 — PROPOSED SPOT ELEVATION
- 1.5% — DOWNWARD GRADE
- (4258) — EXISTING INDEX CONTOUR
- EXISTING MINOR CONTOUR
- 4258 — PROPOSED CONTOUR
- PROPOSED MINOR CONTOUR
- LOT OR BOUNDARY LINE
- PUBLIC UTILITY EASEMENT
- BUILDABLE AREA SETBACK
- CENTER LINE OF ROAD
- X — EXISTING FENCE
- X — PROPOSED FENCE
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING ASPHALT
- PROPOSED ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- EXISTING CURB & GUTTER
- PWR / PWR — PROPOSED CURB & GUTTER
- TEL / TEL — ADA PARKING
- UTIL / UTIL — STREET LIGHT
- POWER POLE
- TELEPHONE POLE
- UTILITY POLE
- STREET SIGN
- EXISTING RETAINING WALL
- PROPOSED RETAINING WALL
- EXISTING ROCK WALL
- PROPOSED ROCK WALL
- FO — EXISTING FIBER OPTIC
- FO — PROPOSED FIBER OPTIC
- GAS — EXISTING NATURAL GAS
- GAS — PROPOSED NATURAL GAS
- PWR — EXISTING POWER
- PWR — PROPOSED POWER
- OHP — EXISTING OVERHEAD POWER
- OHP — PROPOSED OVERHEAD POWER
- UGP — EXISTING UNDERGROUND POWER
- UGP — PROPOSED UNDERGROUND POWER
- TEL — EXISTING TELEPHONE
- TEL — PROPOSED TELEPHONE
- IRR — EXISTING IRRIGATION LINE
- IRR — PROPOSED IRRIGATION LINE
- IRR — IRRIGATION MANHOLE
- IRRIGATION METER
- BLOWOFF
- VALVE
- TEE
- ELBOW
- REDUCER
- THRUST BLOCK

LEGEND

- W — EXISTING WATER LINE
- W — PROPOSED WATER LINE
- WATER MANHOLE
- WATER METER
- FIRE HYDRANT
- BLOWOFF
- VALVE
- TEE
- ELBOW
- REDUCER
- THRUST BLOCK
- SS — EXISTING SEWER LINE
- SS — PROPOSED SEWER LINE
- SEWER MANHOLE
- LD — EXISTING LAND DRAIN
- LD — PROPOSED LAND DRAIN
- LAND DRAIN MANHOLE
- SD — EXISTING STORM DRAIN
- SD — PROPOSED STORM DRAIN
- STORM DRAIN MANHOLE
- CATCH BASIN / CLEANOUT
- CURB INLET

ABBREVIATIONS

ø	DIAMETER
Δ	DELTA
°	DEGREES
'	MINUTES, FEET
"	SECONDS, INCHES
ADA	AMERICAN DISABILITIES ACT
ADS	CORRUGATED BLACK PLASTIC PIPE
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ARCH	ARCHITECT, ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
B&C	BAR & CAP
BLA	BOUNDARY LINE AGREEMENT
BLDG	BUILDING
BM	BENCHMARK
BND	BOUNDARY
BOW	BACK OF WALK
BRG	BEARING
BV	BUTTERFLY VALVE
C&G	CURB AND GUTTER
CB	CATCH BASIN
CH	CHORD
CHB	CHORD BEARING
CI	CAST IRON
CIP	CAST IN PLACE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
COMM	COMMUNICATIONS
CONC	CONCRETE
CONST	CONSTRUCTION
CUL	CULINARY
CW	CULINARY WATER
CWL	CULINARY WATERLINE
DEMO	DEMOLITION
DI	DUCTILE IRON
DIAM	DIAMETER
DIST	DISTANCE
DWG	DRAWING
E	EAST, ELECTRICITY, ELECTRICAL
EASE	EASEMENT
EG	EXISTING GRADE
EL	ELBOW
ELEC	ELECTRICAL
ELEV	ELEVATION
EOA	EDGE OF ASPHALT
EVC	END VERTICAL CURVE
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX	EXISTING
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOWLINE FND FOUNDATION
FP	FIRE PROTECTION
FTG	FOOTING
G	GAS, NATURAL GAS
GB	GRADE BREAK
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HPE	HIGH POINT ELEVATION
HPS	HIGH POINT STATION
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INV	INVERT
IRR	IRRIGATION
IRRMH	IRRIGATION MANHOLE
K	RADIUS OF CURVATURE
L	LENGTH
LAT	LATERAL SERVICE
LD	LAND DRAIN
LDMH	LAND DRAIN MANHOLE
LF	LINEAL FEET
LG	LIP OF GUTTER
LP	LOW POINT
LP	LIGHT POLE
LPE	LOW POINT ELEVATION
MECH	MECHANICAL
MH	MANHOLE
MON	MONUMENT
NE	NORTHEAST
NW	NORTHWEST
OD	OUTSIDE DIAMETER
OHP	OVERHEAD POWER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	POINT OF CURVATURE
PCC	PORTLAND CONCRETE CEMENT
PI	POINT OF INFLECTION
PL	PROPERTY LINE
PPM	PARTS PER MILLION
PROP	PROPERTY
PT	POINT OF TANGENCY
PUE	PUBLIC UTILTIY EASEMENT
PUE&DE	PUBLIC UTILITY EASEMENT & DRAINAGE EASEMENT
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INFLECTION
R	RADIUS
RC	REBAR & CAP
RCL	ROADWAY CENTERLINE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SD	STORM DRAIN
SDCB	STORM DRAIN CATCH BASIN
SDCO	STORM DRAIN CLEANOUT
SDMH	STORM DRAIN MANHOLE
SDR	STANDARD DIMENSION RATIO
SE	SOUTHEAST
SEC	SECONDARY, SECTION
SL	STREET LIGHT
SLB&M	SALT LAKE BASE & MERIDIAN
SPEC	SPECIFICATION
SPP	STEEL PIPE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
SW	SECONDARY WATER
SW	SOUTHWEST
SWL	SECONDARY WATERLINE
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
TAN	TANGENT
TB	THRUST BLOCK
TBC	TOP BACK OF CURB
TBW	TOP BACK OF WALK
TEL	TELEPHONE
TCW	TOP OF CURBWALL
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOE	TOE OF SLOPE OR WALL
TOG	TOP OF GRATE
TOW	TOP OF WALL
UTIL	UTILITY
UD	UNDERDRAIN
UGP	UNDERGROUND POWER
UP	UTILITY POLLE
VC	VERTICAL CURVE
W	WEST, WATER
W2	SECONDARY WATER
WL	WATERLINE
WM	WATER METER
WP	WORK POINT

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THE NOAH
149 EAST VINE STREET
LOCATED IN THE SE 1/4 OF SECTION 7, T 2S., R.1E., S.L.B.&M.
MURRAY CITY, SALT LAKE COUNTY, UTAH

REVISIONS

1	INITIAL SUBMITTAL	9/27/2022

DRAWN: JBC	2023-02-20
APPROVED: CC	2023-02-20
PROJECT #:	2065002
2065002_PLANSET.dwg	

C101
NOTES & LEGEND

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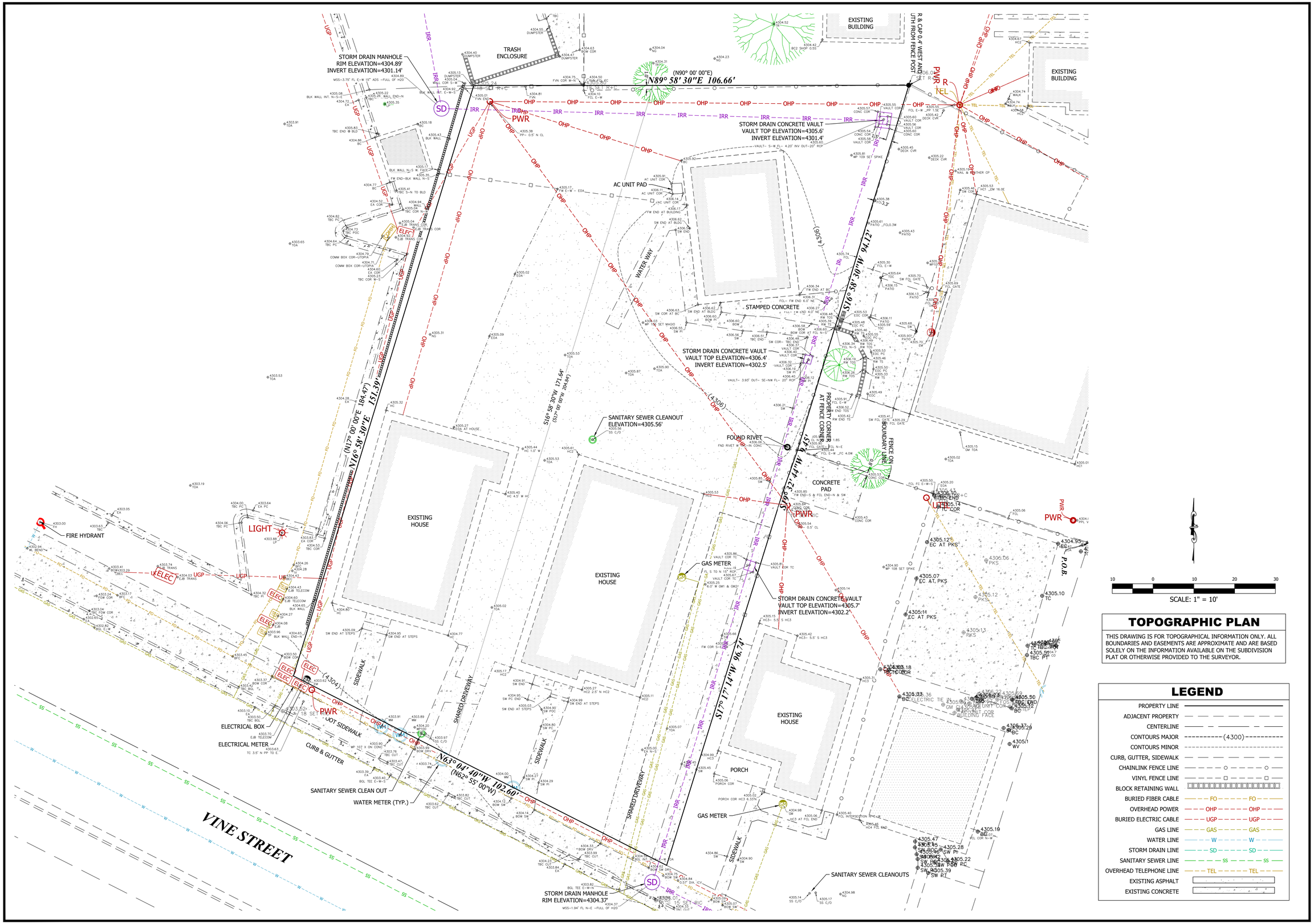

TOPOGRAPHIC PLAN

THIS DRAWING IS FOR TOPOGRAPHICAL INFORMATION ONLY. ALL BOUNDARIES AND EASEMENTS ARE APPROXIMATE AND ARE BASED SOLELY ON THE INFORMATION AVAILABLE ON THE SUBDIVISION PLAT OR OTHERWISE PROVIDED TO THE SURVEYOR.

LEGEND

PROPERTY LINE	
ADJACENT PROPERTY	
CENTERLINE	
CONTOURS MAJOR	(4300)
CONTOURS MINOR	
CURB, GUTTER, SIDEWALK	
CHAINLINK FENCE LINE	
VINYL FENCE LINE	
BLOCK RETAINING WALL	
BURIED FIBER CABLE	FO
OVERHEAD POWER	OHP
BURIED ELECTRIC CABLE	UGP
GAS LINE	GAS
WATER LINE	W
STORM DRAIN LINE	SD
SANITARY SEWER LINE	SS
OVERHEAD TELEPHONE LINE	TEL
EXISTING ASPHALT	
EXISTING CONCRETE	

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113, 149, & 185 EAST VINE STREET
PARCEL #22-07-111-013, 22-07-111-014 & 22-07-111-016
LOCATED IN LOT 1 OF SECTION 7, T. 2 S., R. 1 E., S.L.B.&M.
MURRAY CITY, SALT LAKE COUNTY, UTAH

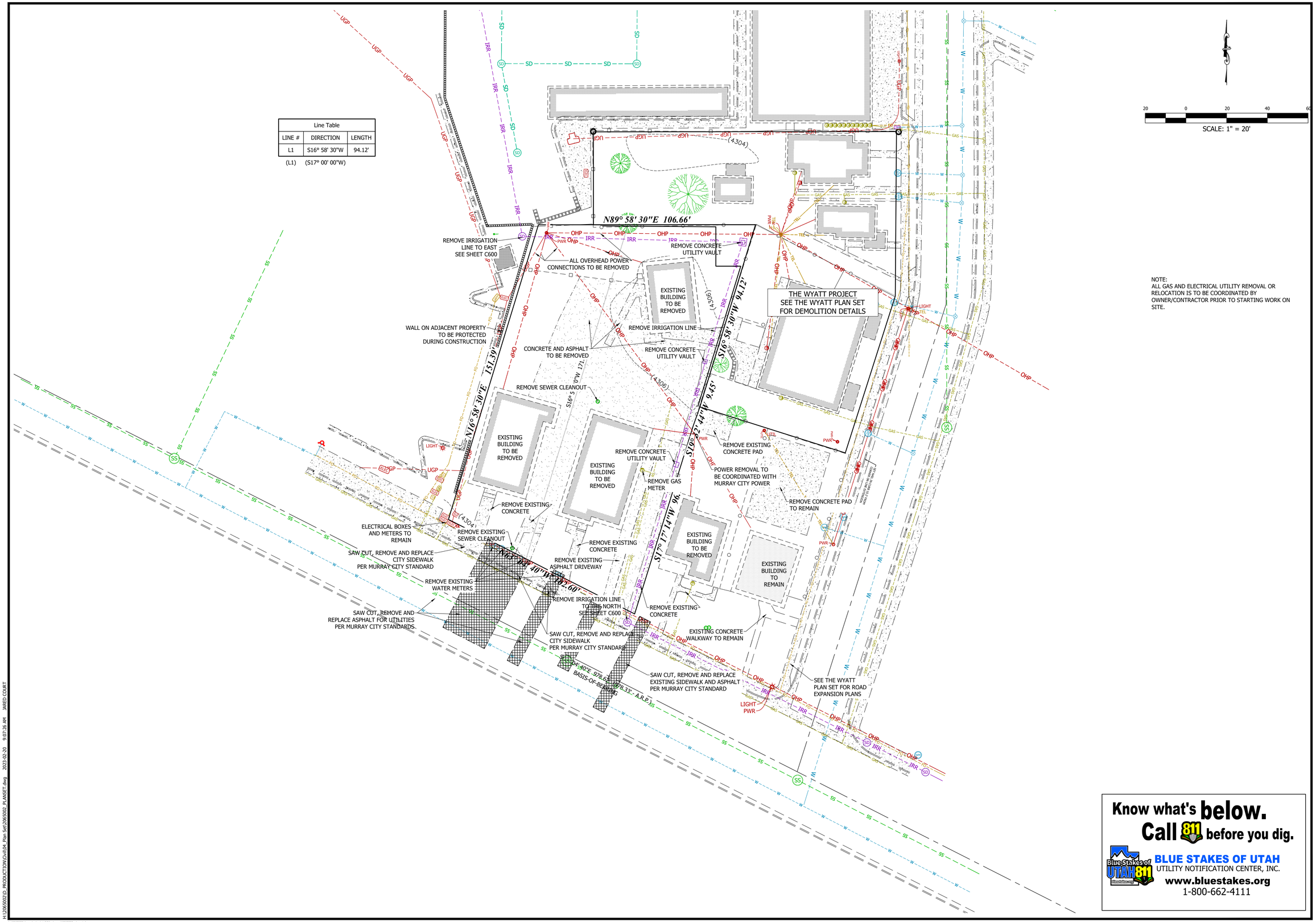
DRAWN: SMB	05/16/2022
APPROVED: JRC	06/06/2022
PROJECT #:	2065002
SURVEY 2065001.dwg	

V200

TOPOGRAPHIC SURVEY

Line Table		
LINE #	DIRECTION	LENGTH
L1	S16° 58' 30"W	94.12'

(L1) (S17° 00' 00"W)



20 0 20 40 60

SCALE: 1" = 20'

NOTE:
ALL GAS AND ELECTRICAL UTILITY REMOVAL OR RELOCATION IS TO BE COORDINATED BY OWNER/CONTRACTOR PRIOR TO STARTING WORK ON SITE.

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THE NOAH

149 EAST VINE STREET
LOCATED IN THE SE 1/4 OF SECTION 7, T.2S., R.1E., S.L.B.&M.
MURRAY CITY, SALT LAKE COUNTY, UTAH

REVISIONS

1	INITIAL SUBMITTAL	9/27/2022

DRAWN: JBC	2023-02-20
APPROVED: CC	2023-02-20
PROJECT #:	2065002
2065002_PLANSET.dwg	

C300
DEMOLITION PLAN

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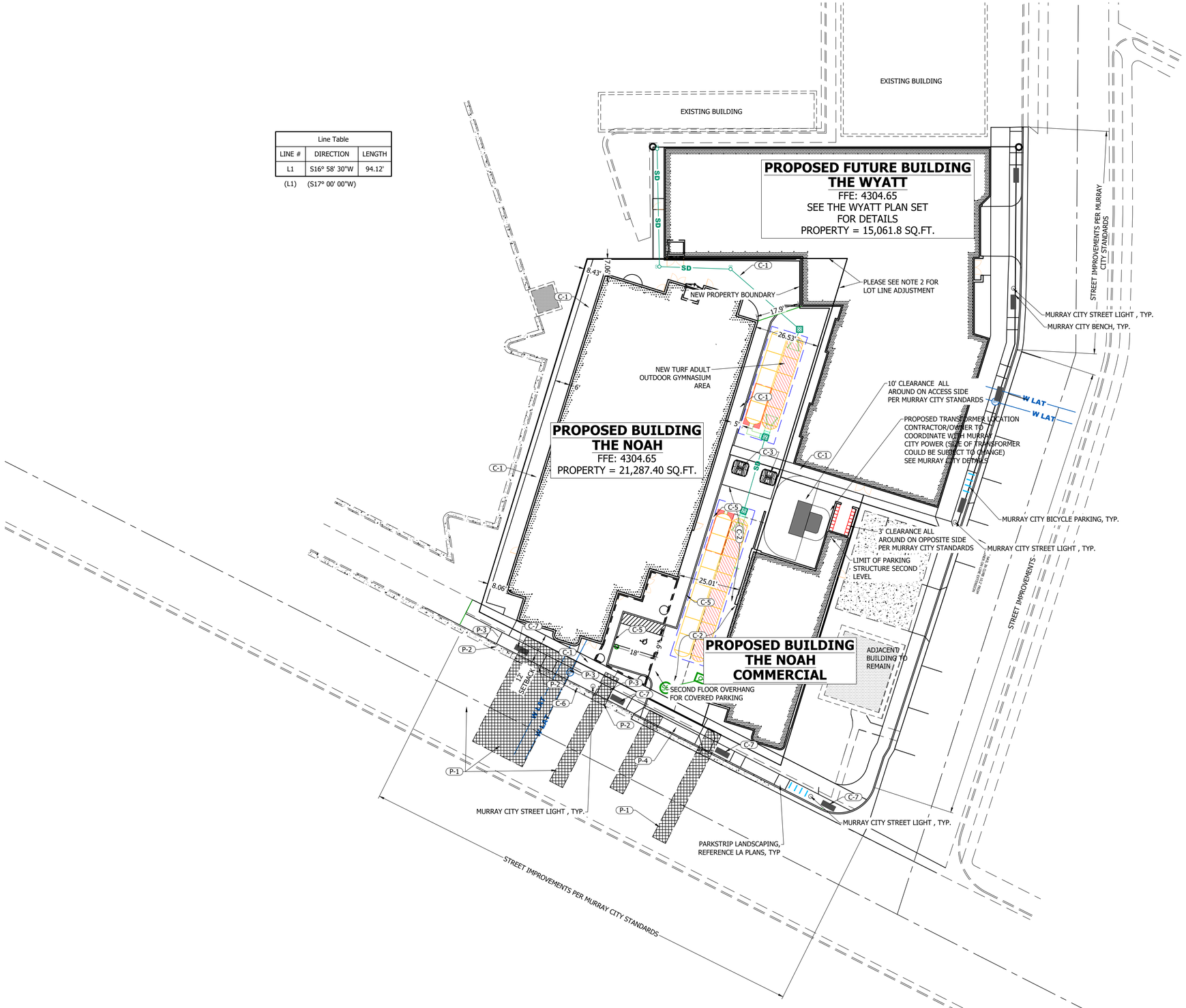
Line Table		
LINE #	DIRECTION	LENGTH
L1	S16° 58' 30"W	94.12'

(L1) (S17° 00' 00"W)



20 0 20 40 60

SCALE: 1" = 20'

NOTES:
1. THE PROPOSED BUILDING TO MEET ALL CITY SUBDIVISION AND CONDOMINIUM REQUIREMENTS.
2. A LOT LINE ADJUSTMENT WILL BE REQUIRED PRIOR TO CONSTRUCTION TO ACCOMMODATE THE SIZE OF THE PROPOSED BUILDING.

SYMBOL LEGEND

C-1	PRIVATE CONCRETE SIDEWALK PER DETAIL, SHEET C900
C-2	PRIVATE ASPHALT DRIVE PER DETAIL, SHEET C900
C-3	PRIVATE DUMPSTER PER DETAIL, SHEET C900
C-4	PRIVATE BIKE RACK PER DETAIL, SHEET C900
C-5	PRIVATE THICKENED EDGE SIDEWALK PER DETAIL, SHEET C900
C-6	30 MINUTE PARKING FOR DELIVERY/MOVING TRUCKS AND EMERGENCY VEHICLE PARKING
C-7	PRIVATE BENCH PER MURRAY CITY STANDARDS
P-1	REMOVE AND REPLACE CITY ASPHALT PER DETAIL SHEET C900
P-2	REMOVE AND REPLACE CITY CURB & GUTTER PER DETAIL SHEET C900
P-3	REMOVE AND REPLACE CITY SIDEWALK PER DETAIL SHEET C900
P-4	CITY STANDARD DRIVE APPROACH PER DETAIL SHEET C900

ALL IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE RIGHT-OF-WAY OWNER'S STANDARDS AND SPECIFICATIONS.

ACCESSIBLE AREA CONSTRAINTS

ALL ACCESSIBLE AREAS ARE TO MAINTAIN THE FOLLOWING MAXIMUM SLOPES AND TOLERANCES:

ACCESSIBLE PARKING:
MAXIMUM SLOPE OF 1:48 (2%) THROUGHOUT.

ACCESSIBLE ROUTE:
MINIMUM WIDTH OF 48". MAXIMUM SLOPE OF 1:20 (5%) ALONG THE ROUTE, MAXIMUM CROSS-SLOPE OF 1:48 (2%).

ACCESS ROUTE TURNAROUNDS:
A CLEAR 60" TURNING DIAMETER. MAXIMUM SLOPE OF 1:48 (2%) IN ANY DIRECTION.

LEVEL LANDING / EXTERIOR DOOR LANDING:
MINIMUM SIZE OF 60"X60". MAXIMUM SLOPE OF 1:48 (2%) IN ANY DIRECTION.

ACCESSIBLE EGRESS TO PUBLIC WAY:
MAXIMUM SLOPE OF 1:20 (5%) ALONG THE ROUTE, MAXIMUM CROSS-SLOPE OF 1:48 (2%).

ADA ACCESS RAMPS:
MAXIMUM SLOPE OF 1:12 (8.33%), WITH A MAXIMUM CROSS-SLOPE OF 2%. THE TRANSITION BETWEEN ASPHALT AND CONCRETE IS NOT TO EXCEED 1/2" VERTICAL (1/4" IF BEVELED).

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C400

SITE PLAN

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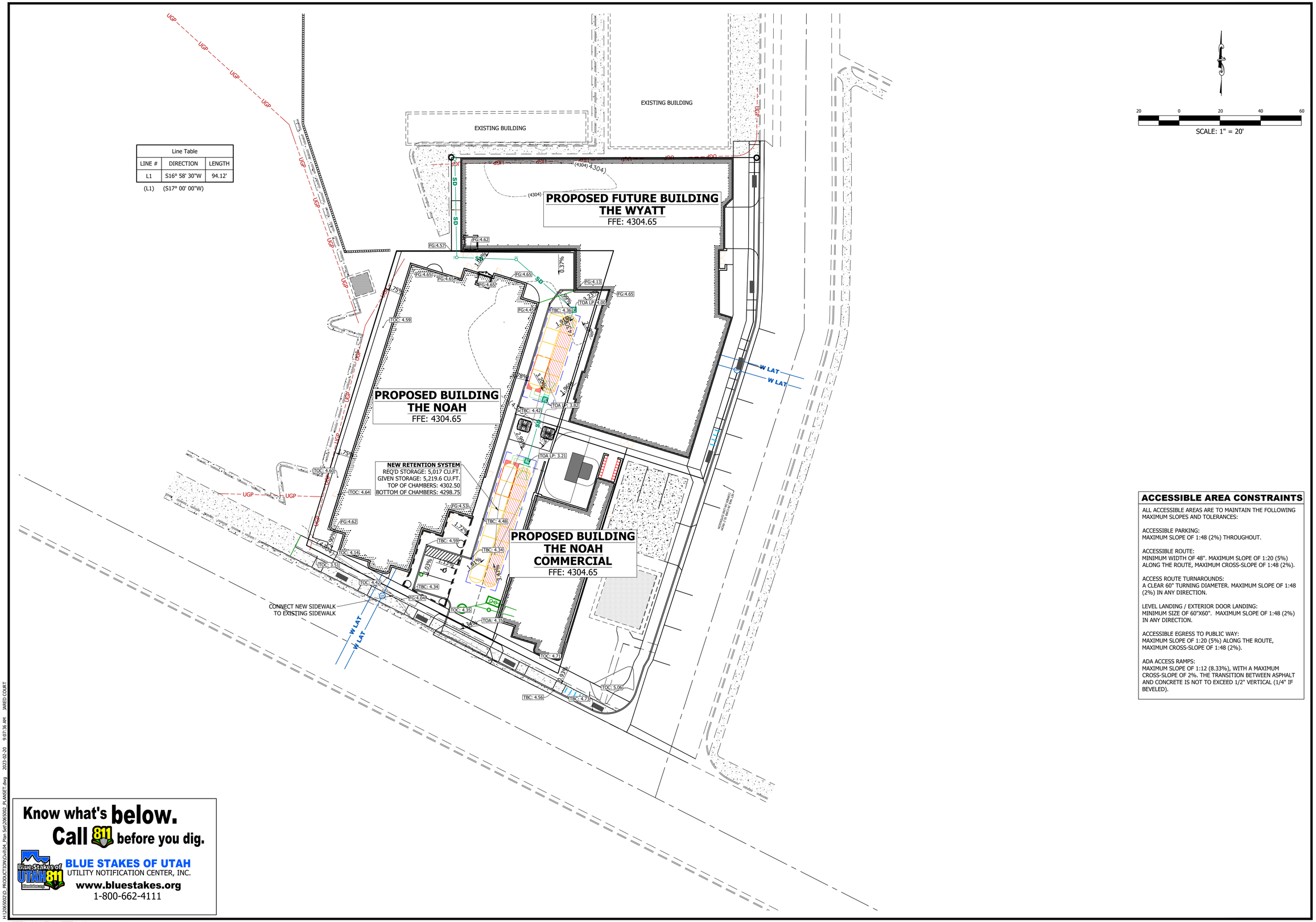
Line Table		
LINE #	DIRECTION	LENGTH
L1	S16° 58' 30"W	94.12'

(L1) (S17° 00' 00"W)



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LEVEL LANDING / EXTERIOR DOOR LANDING:
MINIMUM SIZE OF 60"X60". MAXIMUM SLOPE OF 1:48 (2%) IN ANY DIRECTION.

ACCESSIBLE EGRESS TO PUBLIC WAY:
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C500

GRADING PLAN

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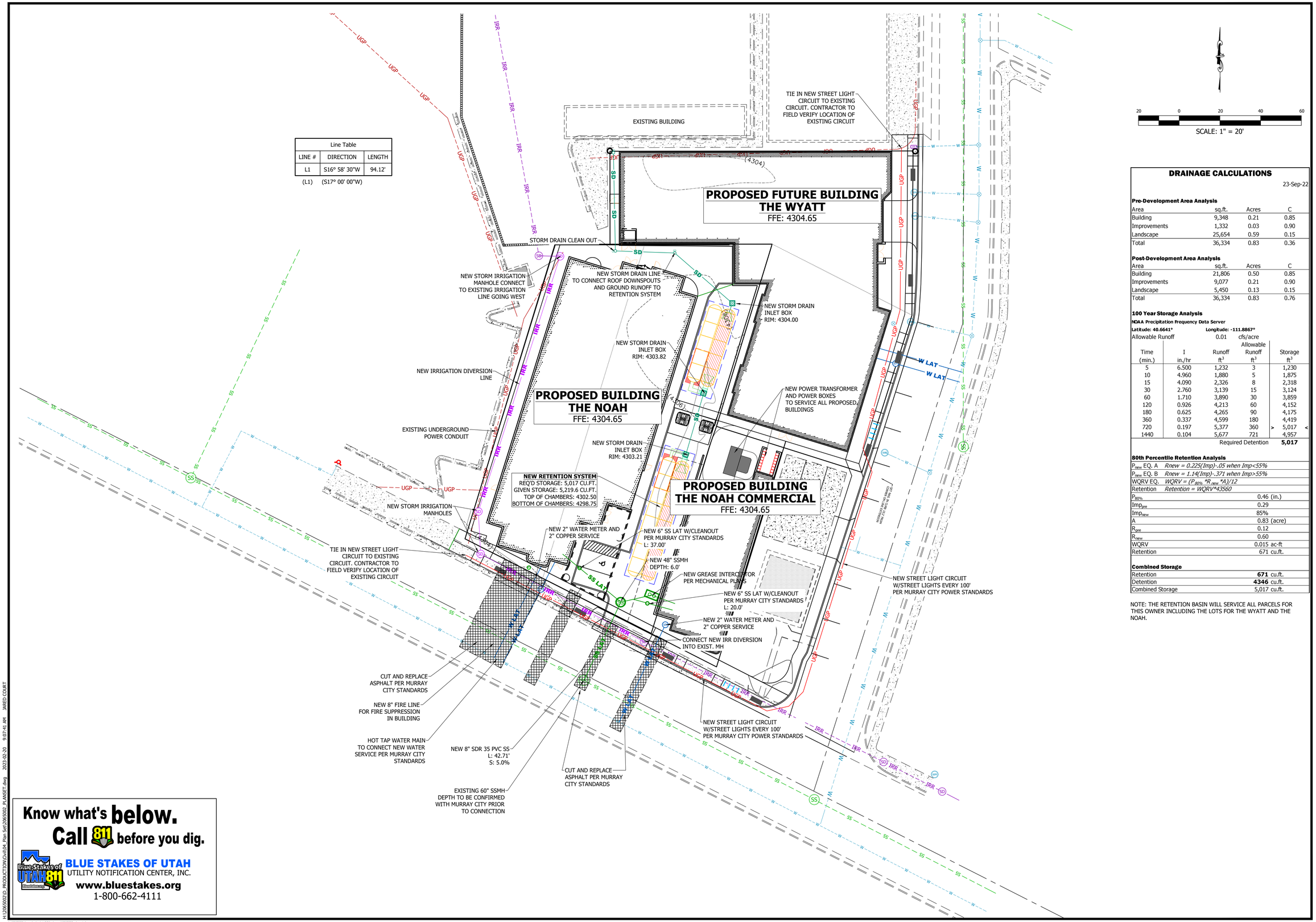

Line Table		
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L1	S16° 58' 30"W	94.12'

(L1) (S17° 00' 00"W)

DRAINAGE CALCULATIONS

23-Sep-22

Pre-Development Area Analysis

Area	sq.ft.	Acres	C
Building	9,348	0.21	0.85
Improvements	1,332	0.03	0.90
Landscape	25,654	0.59	0.15
Total	36,334	0.83	0.36

Post-Development Area Analysis

Area	sq.ft.	Acres	C
Building	21,806	0.50	0.85
Improvements	9,077	0.21	0.90
Landscape	5,450	0.13	0.15
Total	36,334	0.83	0.76

100 Year Storage Analysis

NOAA Precipitation Frequency Data Server

Latitude: 40.6641° **Longitude: -111.8867°**

Allowable Runoff 0.01 cfs/acre

Time (min.)	I in./hr	Runoff ft^3	Allowable Runoff ft^3	Storage ft^3
5	6.500	1,232	3	1,230
10	4.960	1,880	5	1,875
15	4.090	2,326	8	2,318
30	2.760	3,139	15	3,124
60	1.710	3,890	30	3,859
120	0.926	4,213	60	4,152
180	0.625	4,265	90	4,175
360	0.337	4,599	180	4,419
720	0.197	5,377	360	> 5,017 <
1440	0.104	5,677	721	4,957
			Required Detention	**5,017**

80th Percentile Retention Analysis

P_{new} EQ. A	*Rnew = 0.225(Imp)-.05 when Imp<55%*	
P_{new} EQ. B	*Rnew = 1.14(Imp)-.371 when Imp>55%*	
WQRV EQ.	*WQRV = ($P_{80\%}$ *R_{new} *A)/12*	
Retention	*Retention = WQRV*43560*	
$P_{80\%}$		0.46 (in.)
Imp_{pre}		0.29
Imp_{new}		85%
A		0.83 (acre)
R_{pre}		0.12
R_{new}		0.60
WQRV		0.015 ac-ft
Retention		671 cu.ft.

Combined Storage

Retention	**671** cu.ft.
Detention	**4346** cu.ft.
Combined Storage	5,017 cu.ft.

NOTE: THE RETENTION BASIN WILL SERVICE ALL PARCELS FOR THIS OWNER INCLUDING THE LOTS FOR THE WYATT AND THE NOAH.

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C600

UTILITY PLAN

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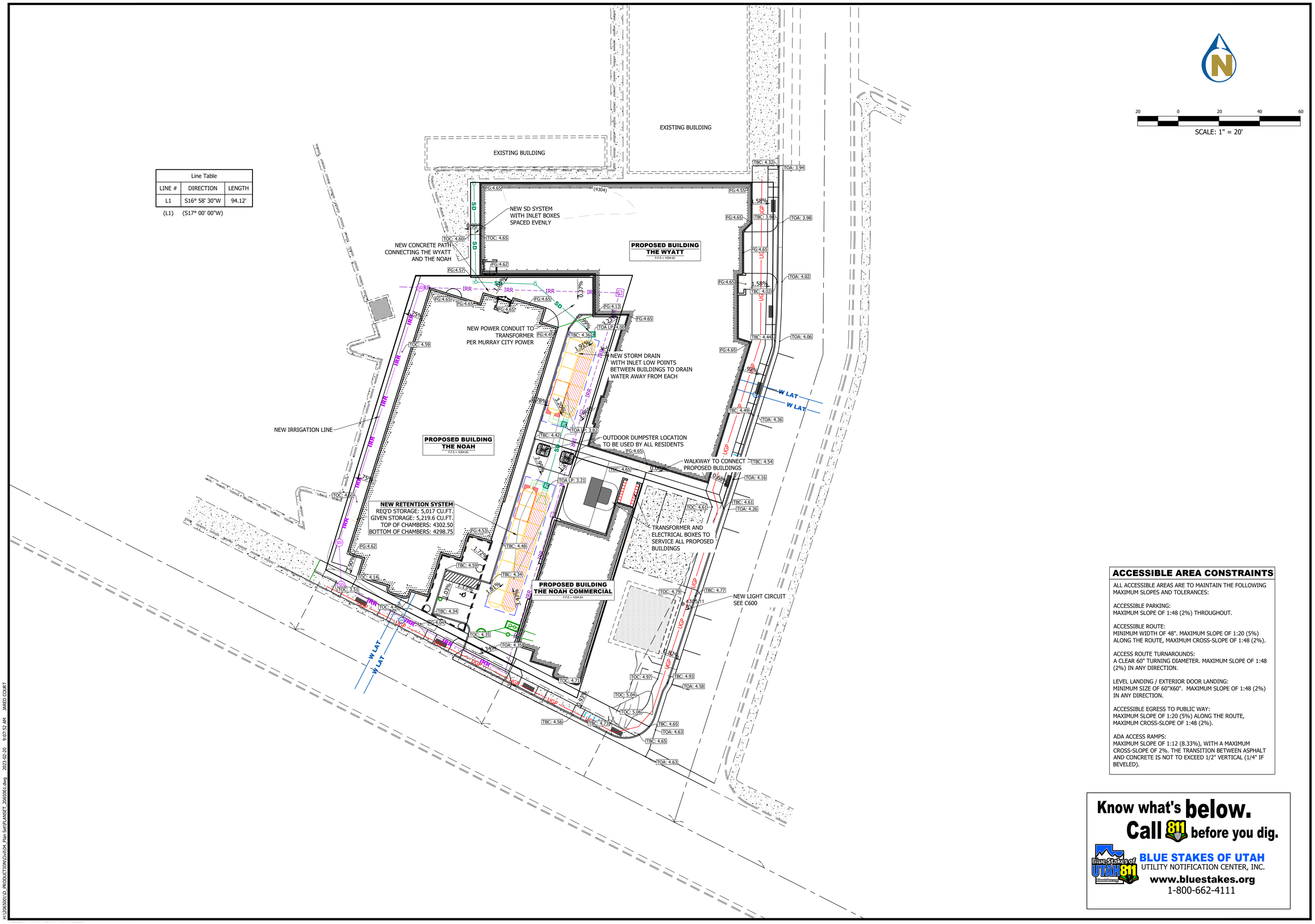
L1	S16° 58' 30"W	94.12'

(L1) (S17° 00' 00"W)



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DRAWN: JBC	2023-02-20
APPROVED: CC	2023-02-20
PROJECT #:	2065002
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C801

CONNECTIVITY PLAN

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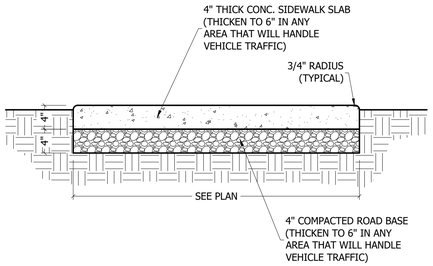
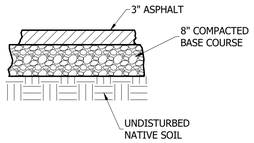
NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT 5' INTERVALS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.



PRIVATE CONCRETE SIDEWALK

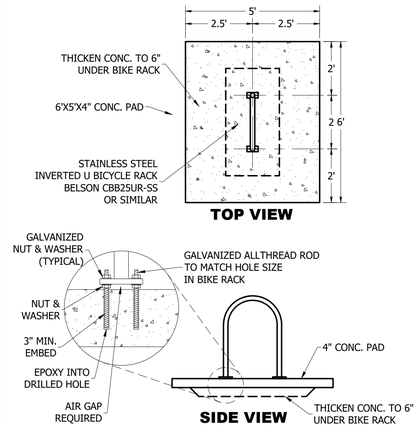
C-1 / C400 TYPICAL
N.T.S.

NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. PLACE MATERIAL PER APWA SECTION 32 05 10.



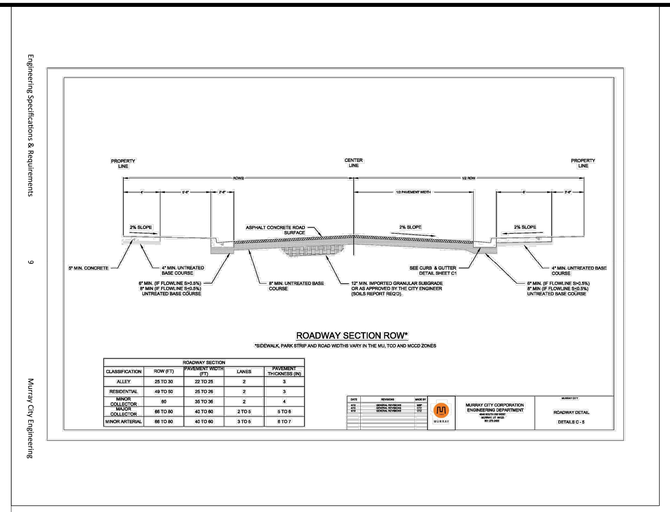
PRIVATE ASPHALT SECTION

C-2 / C400 TYPICAL
N.T.S.



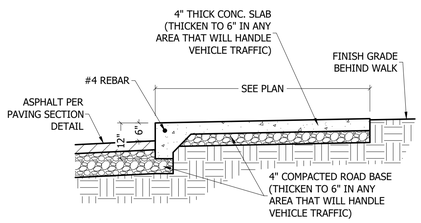
PRIVATE 2 BICYCLE RACK

C-4 / C400 TYPICAL
N.T.S.



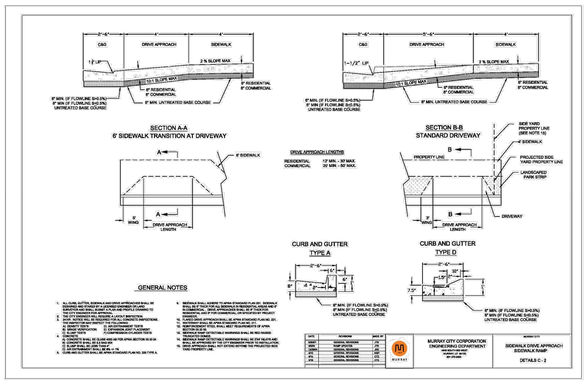
ROADWAY SECTION				
CLASSIFICATION	ROW (FT)	PAVEMENT WIDTH (FT)	LANES	PAVEMENT THICKNESS (IN)
ALLEY	25 TO 30	22 TO 25	2	3
RESIDENTIAL	49 TO 50	25 TO 26	2	3
MINOR COLLECTOR	60	35 TO 36	2	4
MAJOR COLLECTOR	66 TO 80	40 TO 80	2 TO 5	5 TO 6
MINOR ARTERIAL	66 TO 80	40 TO 80	3 TO 5	6 TO 7

NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT 5' INTERVALS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.
5. STEEL REINFORCEMENT IS TO BE DEFORMED GRADE 60 STEEL, GALVANIZED OR EPOXY COATED .



PRIVATE THICKENED EDGE SIDEWALK

C-6 / C400 TYPICAL
N.T.S.



Engineering Specifications & Requirements 5 Murray City Engineering

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Engineering Specifications & Requirements 9 Murray City Engineering

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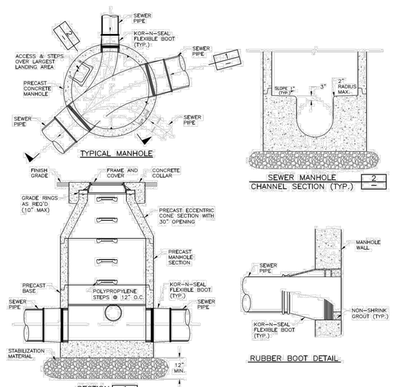
PLANSET_2065001.dwg		

C901

SITE DETAILS

Typical Sanitary Sewer Manhole

MURRAY

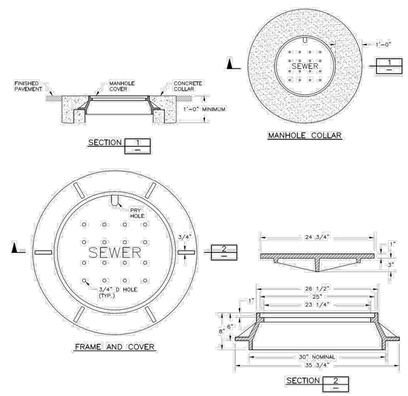


NOTES:

1. MANHOLE SIZE:
   A. DIAMETER IS 4 FEET: FOR SEWERS UNDER 12" DIAMETER.
   B. DIAMETER IS 5 FEET: FOR SEWERS 12" THROUGH 24", OR WHEN 3 OR MORE PIPES INTERSECT THE MANHOLE.
   C. CONSULT WITH MURRAY CITY FOR SEWERS LARGER THAN 24".
2. PRECAST REINFORCED CONCRETE MANHOLE SECTIONS SHALL CONFORM TO ASTM C 478. JOINTS SHALL BE RUBBER GASKET, OR SEALED WITH APPROVED SEALANT.
3. CONCRETE: CLASS 4000, APWA SECTION 03 30 04.
4. GROUT: 2 PARTS SAND TO 1 PART CEMENT MORTAR; ASTM C 1329.

Manhole Collar

MURRAY

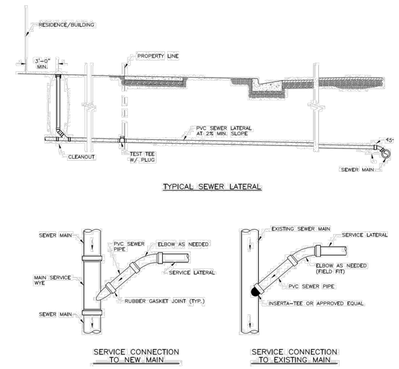


NOTES:

1. CONCRETE SHALL BE CLASS 4000 AS PER APWA SECTION 03 30 04. U=CART OR HAND MIXED CONCRETE WILL NOT BE ACCEPTED.
2. REINFORCEMENT SHALL BE ASTM A 615, GRADE 60, DEFORMED BARS AS PER APWA SECTION 03 20 00.
3. BACKFILL WITH GRADE 1 UNTREATED BASE COURSE AS PER APWA 32 11 23 2.1.
4. GRADE RINGS SHALL BE APWA STANDARD PLAN NO. 561.
5. CONCRETE COLLAR SHALL BE APWA STANDARD PLAN NO. 362.
6. LID SHALL BE CAST WITH "SEWER" LABEL.

Typical Sewer Lateral and Cleanout

MURRAY

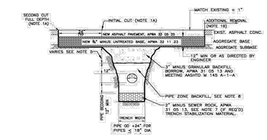


NOTES:

1. SERVICE LATERAL SHALL BE 4" OR 6" AS SHOWN ON PLANS OR AS DIRECTED BY CITY.
2. SEWER LATERALS SHALL CONNECT TO SEWER MAIN AT 45° ANGLE.

Typical Trench Detail

MURRAY



NOTES:

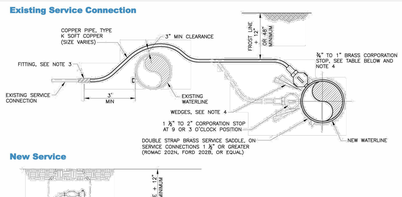
1. ASPHALT PAVEMENT REMOVAL: REMOVE PAVEMENT AS SPECIFIED IN APWA 32411A1:
   A. WILL ON SAW CUT FULL DEPTH OF ASPHALT TO PROVIDE STRAIGHT VERTICAL PAVEMENT EDGE FOR PAVEMENT REPAIR.
   B. IF A LIP OF GUTTER, A CURB, OR AN EDGE OF THE PAVEMENT IS WITHIN 2-FEET OF THE NEW PATCH, REMOVE EXISTING PAVEMENT TO THE STREET FEATURE. REPAIR AND PROTECT EXISTING CURB AND GUTTER.
2. TACK COAT: PROVIDE FULL TACK COAT COVERAGE ON ALL VERTICAL SURFACES.
3. JOINT REPAIR: WHERE CRACKS OCCUR BETWEEN THE PATCH AND ANY EXISTING PAVEMENT OR ANY STREET FIXTURE, REPAIR THE CRACK PER APWA 32 01 17.
4. TRENCH EXCAVATION IN ACCORDANCE WITH APWA 31 23 16, OSHA, AND UOSH SAFETY STANDARDS.
5. ALL BACKFILL PLACED IN TRENCH SHALL MEET SPECIFIED GRADATION AND COMPACTION REQUIREMENTS. NATIVE MATERIAL SHALL BE ALLOWED ONLY IF MEETING THE SPECIFIED GRADATION AND COMPACTION REQUIREMENT AND APPROVED BY THE ENGINEER.
6. COMPACT BACKFILL MATERIALS IN ACCORDANCE WITH APWA 33 05 20, 31 23 26, AND UOST 02731 (AS APPLICABLE). TRENCH BACKFILL IN LOCST RIGHT-OF-WAY SHALL BE COMPACTED TO 97% OR GREATER, MODIFIED STANDARD PROCTOR. TRENCH BACKFILL IN ALL OTHER STREETS SHALL BE COMPACTED TO 95% OR GREATER MODIFIED STANDARD PROCTOR (PER ASTM D 1557).
7. ENGINEER MUST APPROVE USE OF TRENCH STABILIZATION MATERIAL. IF TRENCH STABILIZATION MATERIAL IS USED, TRENCH STABILIZATION MATERIAL AND PIPE BEDDING SHALL BE SEPARATED USING GEOTEXTILE MEETING THE REQUIREMENTS OF APWA 31 05 19.
8. PIPE ZONE MATERIAL TO BE A-1-a OR A-1-b ASTM D 3282 3/4" MAXIMUM PARTICLE SIZE. PEA GRAVEL AND "SQUEEZE" IS NOT ALLOWED IN ANY PART OF THE PIPE ZONE. MATERIAL SHALL BE PLACED IN LIFT NOT EXCEEDING 8" AND COMPACTED TO A MODIFIED PROCTOR DENSITY OF 95% OR GREATER (PER ASTM 1557) WITHOUT DAMAGING OR DEFLECTING PIPE.
9. PROVIDE AC-20-DM-1/2 ASPHALT CONCRETE UNLESS OTHERWISE DIRECTED BY ENGINEER.
10. RECYCLED ASPHALT SHALL NOT BE USED FOR BACKFILL IN ANY PART OF THE TRENCH.

Installation (Continued)

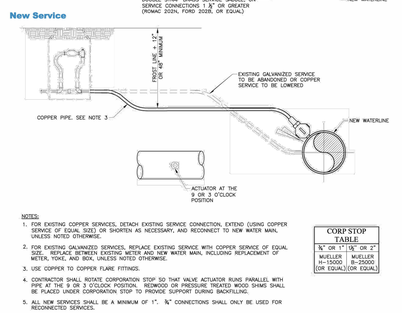
Water Service Taps

MURRAY CITY WATER

Existing Service Connection



New Service



NOTES:

1. FOR EXISTING COPPER SERVICES, DETACH EXISTING SERVICE CONNECTION, EXTEND (USING COPPER SERVICE OF EQUAL SIZE) OR SHORTEN AS NECESSARY, AND RECONNECT TO NEW WATER MAIN, UNLESS NOTED OTHERWISE.
2. FOR EXISTING GALVANIZED SERVICES, REPLACE EXISTING SERVICE WITH COPPER SERVICE OF EQUAL SIZE. REPLACE BETWEEN EXISTING METER AND NEW WATER MAIN, INCLUDING REPLACEMENT OF METER, YOKE, AND BOX, UNLESS NOTED OTHERWISE.
3. USE COPPER TO COPPER FLARE FITTINGS.
4. CONTRACTOR SHALL ROTATE CORPORATION STOP SO THAT VALVE ACTUATOR RUNS PARALLEL WITH PIPE AT THE 9 OR 3 O'CLOCK POSITION. REDWOOD OR PRESSURE TREATED WOOD SHIMS SHALL BE PLACED UNDER CORPORATION STOP TO PROVIDE SUPPORT DURING BACKFILLING.
5. ALL NEW SERVICES SHALL BE A MINIMUM OF 1". ¾" CONNECTIONS SHALL ONLY BE USED FOR RECONNECTED SERVICES.

CORP STOP TABLE	
¾" OR 1"	1½" OR 2"
MUELLER H-15000 (OR EQUAL)	MUELLER B-25000 (OR EQUAL)

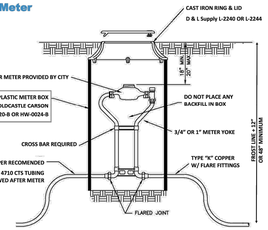
Installation (Continued)

Meter Box Installation

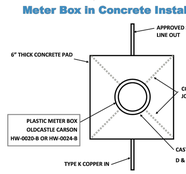
MURRAY CITY WATER

1. All meters are to be installed in the park strip or within 5 feet of the property line (street side).
2. Do not install meter boxes under driveway approaches, sidewalks, in parking lots, or under curb and gutter. Box should be placed in a landscaped area.
3. The box shall be set so that the grade of the frame and the cover matches the grade of the surrounding surface.
4. Larger ring and lid may be deemed necessary by Murray City personnel in a situation where the meter must by placed in an asphalt, concrete or other high traffic area.

3/4" & 1" Meter



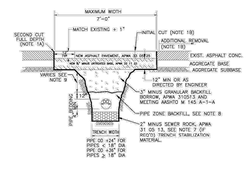
Meter Box in Concrete Installation



1. All work must be inspected by City personnel.
2. Concrete shall be 6" thick — 6 1/2 Bag Class 4000.
3. Expansion board all around.
4. Control joints from lid to edge of pad.
5. Box shall be set so that the grade of the frame and cover matches the grade of the surrounding surface.
6. 12" minimum from lid to edge of concrete.

Backfill & Compaction Requirements

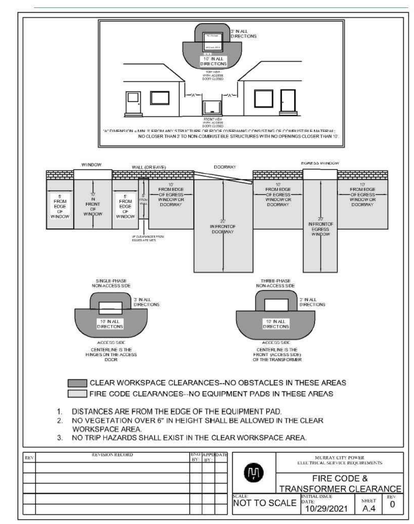
MURRAY CITY WATER



NOTES:

1. ASPHALT PAVEMENT REMOVAL: REMOVE PAVEMENT AS SPECIFIED IN APWA 32411A1:
   A. WILL ON SAW CUT FULL DEPTH OF ASPHALT TO PROVIDE STRAIGHT VERTICAL PAVEMENT EDGE FOR PAVEMENT REPAIR.
   B. IF A LIP OF GUTTER, A CURB, OR AN EDGE OF THE PAVEMENT IS WITHIN 2-FEET OF THE NEW PATCH, REMOVE EXISTING PAVEMENT TO THE STREET FEATURE. REPAIR AND PROTECT EXISTING CURB AND GUTTER.
2. TACK COAT: PROVIDE FULL TACK COAT COVERAGE ON ALL VERTICAL SURFACES.
3. JOINT REPAIR: WHERE CRACKS OCCUR BETWEEN THE PATCH AND ANY EXISTING PAVEMENT OR ANY STREET FIXTURE, REPAIR THE CRACK PER APWA 320117.
4. TRENCH EXCAVATION IN ACCORDANCE WITH APWA 312316, OSHA, AND UOSH SAFETY STANDARDS.
5. ALL BACKFILL PLACED IN TRENCH SHALL MEET SPECIFIED GRADATION AND COMPACTION REQUIREMENTS. NATIVE MATERIAL SHALL BE ALLOWED ONLY IF MEETING THE SPECIFIED GRADATION AND COMPACTION REQUIREMENT AND APPROVED BY THE ENGINEER.
6. COMPACT BACKFILL MATERIALS IN ACCORDANCE WITH APWA 330520, 312326, AND UOST 02731 (AS APPLICABLE). TRENCH BACKFILL IN LOCST RIGHT-OF-WAY SHALL BE COMPACTED TO 97% OR GREATER, MODIFIED STANDARD PROCTOR. TRENCH BACKFILL IN ALL OTHER STREETS SHALL BE COMPACTED TO 95% OR GREATER MODIFIED STANDARD PROCTOR (PER ASTM D 1557).
7. ENGINEER MUST APPROVE USE OF TRENCH STABILIZATION MATERIAL. IF TRENCH STABILIZATION MATERIAL IS USED, TRENCH STABILIZATION MATERIAL AND PIPE BEDDING SHALL BE SEPARATED USING GEOTEXTILE MEETING THE REQUIREMENTS OF APWA 310519.
8. PIPE ZONE MATERIAL SHALL BE SAND MEETING ENGINEER'S APPROVAL (100 PERCENT PASSING 3/8" SCREEN, 35 PERCENT PASSING NO. 4 SCREEN, AND LESS THAN 10 PERCENT PASSING NO. 100 SCREEN) AND CONFORMING TO AASHTO M 145 A-1. PEA GRAVEL AND "SQUEEZE" IS NOT ALLOWED IN ANY PART OF THE PIPE ZONE. MATERIAL SHALL BE PLACED IN LIFT NOT EXCEEDING 8" AND COMPACTED TO A MODIFIED PROCTOR DENSITY OF 95% OR GREATER (PER ASTM 1557) WITHOUT DAMAGING OR DEFLECTING PIPE.
9. PROVIDE A MINIMUM OF 4 FEET OF COVER FROM THE TOP OF THE WATER MAIN TO FINISHED GRADE, FOR PIPING THAT CANNOT BE PROVIDED THE MINIMUM COVER, CONTRACTOR TO PROVIDE SPECIAL DESIGN SUBJECT TO THE APPROVAL OF MURRAY CITY.
10. PROVIDE AC-20-DM-1/2 ASPHALT CONCRETE UNLESS OTHERWISE DIRECTED BY ENGINEER.
11. RECYCLED ASPHALT SHALL NOT BE USED FOR BACKFILL IN ANY PART OF THE TRENCH.
12. FOR UNWARNOED AREAS, PROVIDE NATIVE TOPSOIL FOR THE TOP 12" OF THE EXCAVATION COMPACTED TO 80 PERCENT MODIFIED PROCTOR (ASTM D 698) AND RESTORE PER APWA 32 92 00; OR 32 93 13 (AS APPLICABLE). THE TRENCH ZONE SHALL BE COMPACTED TO 90 PERCENT MODIFIED PROCTOR (PER ASTM D 698). NATIVE MATERIAL MAY BE ALLOWED IN THE TRENCH ZONE IF FREE OF ROCKS LARGER THAN 3" IN DIAMETER.

General Requirements and Specifications for Electrical Installations



Revised 2022 Murray City Power

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DEVELOPER

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Lehi, UT 84043
Phone: 801-458-4111
jonathan@newdevelopmentconsulting.com

THE NOAH

149 EAST VINE STREET
LOCATED IN THE SE 1/4 OF SECTION 7, T.2S., R.1E., S.L.B.&M.
MURRAY CITY, SALT LAKE COUNTY, UTAH

REVISIONS

1	INITIAL SUBMITTAL	9/27/2022

DRAWN: JBC	2023-02-20
APPROVED: CC	2023-02-20
PROJECT #:	2065002
PLANSET_2065001.dwg	

C911

UTILITY DETAILS

H:\2065001D_PRODUCTION\Civil\04 Plan Set\PLANSET_2065001.dwg 2023-02-20 9:08:01 AM JARED COURT

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

ADS Advanced Drainage Systems, Inc.

ADS SiteAssist™ FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR APP

THE NOAH/WYATT

MURRAY, UT

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (1-hr) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-99) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 165 LBS/FT/IN. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F/ 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED, UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE CONSIDERATION FOR USE IN THE PROJECT. THE EVALUATION:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR THE STRUCTURE AS DEFINED IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12 AND ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

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IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL FROM A PILE LOCATED DIRECTLY OVER CHAMBERS. EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 9" (190 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO RUBBER TIRED EQUIPMENT MAY OPERATE OVER CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

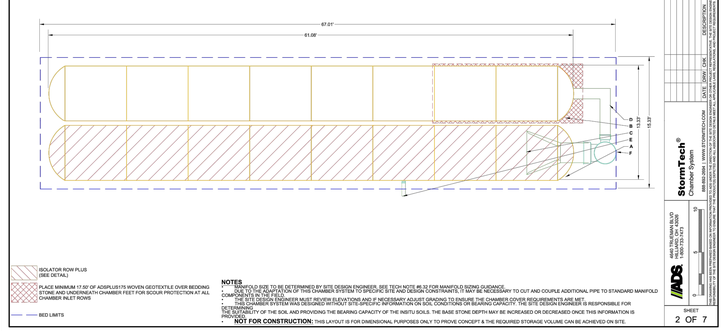
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

SHEET 1 OF 7

PROPOSED LAYOUT: SOUTH BED | CONCEPTUAL ELEVATIONS: SOUTH BED

16	STORMTECH MC-3500 CHAMBERS	MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/IMPERVIOUS)	72.25				
8	STORMTECH MC-3500 END CAP	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)	72.75				
2	STONE BED (12" (300 mm) BELOW CHAMBERS)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)	70.75				
3	STONE BEDDING (6")	MINIMUM ALLOWABLE GRADE (TOP OF ROAD CONCRETE PAVEMENT)	72.25				
40	STONE COVER (MINIMUM)	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	73.25				
3352	STONE FOR SYSTEM VOLUME (CF)	TOP OF FOUNDATION	69.25				
	(PERIMETER STONE INCLUDED)	TOP OF MC-3500 CHAMBER	70.75				
	(COVER STONE INCLUDED)	TOP OF 1ST MANIFOLD INVERT	70.25				
1328	SYSTEM AREA (SF)	TOP OF 2ND MANIFOLD INLET W/ BED	70.25				
		BOTTOM OF MC-3500 CHAMBER	69.25				
164.1	SYSTEM PERIMETER (ft)	BOTTOM OF STONE	69.25				

PART TYPE	ITEM ON LAYOUT	DESCRIPTION (*INVERT ABOVE BASE OF CHAMBER)	INVERT*	MAX FLOW
EA	A	24" BOTTOM CORED END CAP, PARTIF MC3500IEPP24BC (TYP OF ALL 24" BOTTOM CONNECTIONS)	2.06"	
EA	B	12" TOP CORED END CAP, PARTIF MC3500IEPP12TEC (TYP OF ALL 12" TOP CONNECTIONS	26.36"	
C		INSTALL FLAMP ON 24" ACCESS PIPE / PARTIF: MC3500IFAMAP		
D		CP x 12" TOP MANIFOLD, ADS N-12	26.36"	
E		MANIFOLD TEE	6.00"	
F		24" INSERTA TEE INSTALLED INLET W/ BED (PLUS ROW)	2.06"	2.5 CFS IN



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SOIL/ROCK PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

1. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE 86.10 FOR MANIFOLD SIZING GUIDANCE.
2. THE ADS N-12 WT IS THE STORMTECH SYSTEM'S DESIGN ASSUMPTION FOR THE MANIFOLD. STORMTECH RECOMMENDS 3' OF THIS CHAMBER'S SYSTEM TO BE SPECIFIED AND DESIGNED CONSTRUCTABILITY IS TO BE VERIFIED BY SITE DESIGN ENGINEER.
   - THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES DO NOT EXCEED THE ALLOWABLE. THE ALLOWABLE BEARING CAPACITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS RECEIVED. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR THE INTEGRITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS.
   - **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

THE NOAH/WYATT | MURRAY, UT | DATE | PROJECT # | DESCRIPTION | DRN | CHK | DATE | DWN | CHK | DATE | DWN | CHK | DESCRIPTION | CHECKED N/A | CHECKED BY | JC | CHECKED N/A

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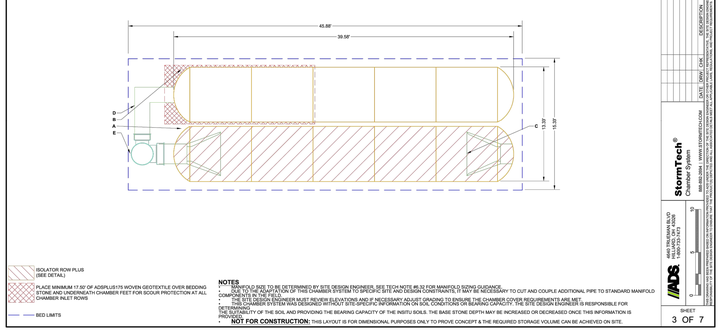
ADS TRUSSNAIL BLVD. HILLIARD, OH 43026 1-800-733-7473

SHEET 2 OF 7

PROPOSED LAYOUT: NORTH BED | CONCEPTUAL ELEVATIONS: NORTH BED

16	STORMTECH MC-3500 CHAMBERS	MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/IMPERVIOUS)	72.25				
8	STORMTECH MC-3500 END CAP	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)	72.75				
2	STONE BED (12" (300 mm) BELOW CHAMBERS)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)	70.75				
3	STONE BEDDING (6")	MINIMUM ALLOWABLE GRADE (TOP OF ROAD CONCRETE PAVEMENT)	72.25				
40	STONE COVER (MINIMUM)	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	73.25				
2243	STONE FOR SYSTEM VOLUME (CF)	TOP OF FOUNDATION	69.25				
	(PERIMETER STONE INCLUDED)	TOP OF MC-3500 CHAMBER	70.75				
	(COVER STONE INCLUDED)	TOP 1ST MANIFOLD INVERT	70.25				
		TOP 2ND MANIFOLD INLET W/ BED (PLUS ROW)	70.25				
1328	SYSTEM AREA (SF)	BOTTOM OF MC-3500 CHAMBER	69.25				
164.1	SYSTEM PERIMETER (ft)	BOTTOM OF STONE	69.25				

PART TYPE	ITEM ON LAYOUT	DESCRIPTION (*INVERT ABOVE BASE OF CHAMBER)	INVERT*	MAX FLOW
EA	A	24" BOTTOM CORED END CAP, PARTIF MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS (TYP OF ALL 24" BOTTOM CONNECTIONS)	2.06"	
EA	B	12" TOP CORED END CAP, PARTIF MC3500IEPP12TEC / TYP OF ALL 12" TOP CONNECTIONS	20.69"	
C		INSTALL FLAMP ON 24" ACCESS PIPE / PARTIF MC3500IFAMAP (TYP 2 PLACES)		
D		CP x 12" TOP MANIFOLD, ADS N-12	20.69"	
E		24" DIAMETER (24.00" SUMP MIN)	5.5 CFS IN	
F		MANIFOLD TEE		
		SYSTEM AREA (SF)		
164.1	SYSTEM PERIMETER (ft)	BOTTOM OF STONE		



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SOIL/ROCK PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

1. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE 86.10 FOR MANIFOLD SIZING GUIDANCE.
2. THE ADS N-12 WT IS THE STORMTECH SYSTEM'S DESIGN ASSUMPTION FOR THE MANIFOLD. STORMTECH RECOMMENDS 3' OF THIS CHAMBER'S SYSTEM TO BE SPECIFIED AND DESIGNED CONSTRUCTABILITY IS TO BE VERIFIED BY SITE DESIGN ENGINEER.
   - THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES DO NOT EXCEED THE ALLOWABLE. THE ALLOWABLE BEARING CAPACITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS RECEIVED. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR THE INTEGRITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS.
   - **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

THE NOAH/WYATT | MURRAY, UT | DATE | PROJECT # | DESCRIPTION | DRN | CHK | DATE | DWN | CHK | DATE | DWN | CHK | DESCRIPTION | CHECKED N/A | CHECKED BY | JC | CHECKED N/A

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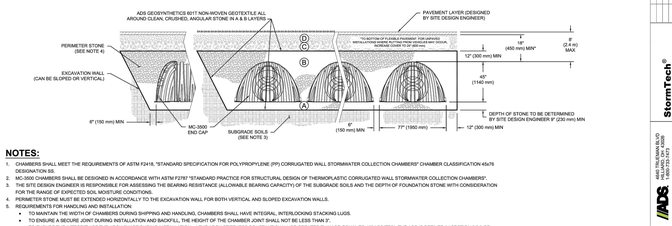
SHEET 3 OF 7

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATION MAY REQUIRE ADDITIONAL MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B) LAYER TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145* A-1, A-2-4, A-3 OR AASHTO M43* 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTING IN LAYERS UP TO 24" (600 mm) OF MATERIAL OVER THE CHAMBERS WITH A VIBRATORY COMPACTOR. MAXIMUM LIFT SIZE IS DEPENDENT ON THE VIBRATORY COMPACTOR USED BUT SHOULD BE NO THICKER THAN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A) LAYER TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43* 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43* 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[1,2]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. MC-3500 CHAMBERS MAY BE COMPROMISED BY COMPACTION. FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D'. UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 165 LBS/FT/IN. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F/ 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

THE NOAH/WYATT | MURRAY, UT | DATE | PROJECT # | DESCRIPTION | DRN | CHK | DATE | DWN | CHK | DATE | DWN | CHK | DESCRIPTION | CHECKED N/A | CHECKED BY | JC | CHECKED N/A

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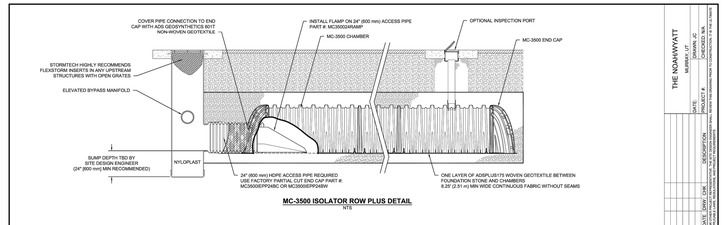
SHEET 4 OF 7



MC-3500 ISOLATOR ROW PLUS DETAIL

NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
   A. INSPECTION PORTS (IF PRESENT)
      A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
      A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
      A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
      A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
      A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
   B. ALL ISOLATOR PLUS ROWS
      B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
      B.2. USING NO PEOPLE ENTRY, SEDIMENT VACUUM, AND FLUSH TRUCK, CLEAN ISOLATOR ROW PLUS THROUGH THE INSPECTION PORTS
      B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
   A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
   B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
   C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

THE NOAH/WYATT | MURRAY, UT | DATE | PROJECT # | DESCRIPTION | DRN | CHK | DATE | DWN | CHK | DATE | DWN | CHK | DESCRIPTION | CHECKED N/A | CHECKED BY | JC | CHECKED N/A

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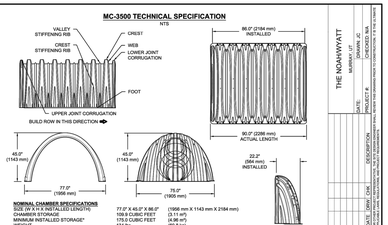
SHEET 5 OF 7

MC-3500 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS
SIZE (W X H X INSTALLED LENGTH) 77.0" X 45.0" X 86.5" (1956 mm X 1143 mm X 2194 mm)
CHAMBER STORAGE 14.9 CUBIC FEET (0.42 m³)
MINIMUM INSTALLED STORAGE* 45.1 CUBIC FEET (1.28 m³)
WEIGHT 49 lbs. (22.2 kg)

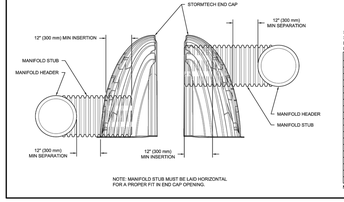
NOMINAL END CAP SPECIFICATIONS
SIZE (W X H X INSTALLED LENGTH) 75.0" X 45.0" X 22.2" (1905 mm X 1143 mm X 564 mm)
END CAP STORAGE 14.6 CUBIC FEET (0.42 m³)
MINIMUM INSTALLED STORAGE* 45.1 CUBIC FEET (1.28 m³)
WEIGHT 49 lbs. (22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 9" SPACING BETWEEN CHAMBERS, 9" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

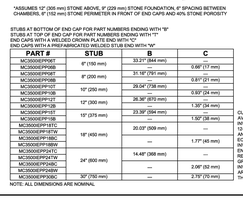
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH a PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B			0.68" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.18" (791 mm)	---
MC3500IEPP08B			0.87" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B			0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B			1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B			1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.



CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) x 12" (300 mm) SIZE CORES. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE END CAP STRUCTURAL CUTOUTS ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

THE NOAH/WYATT | MURRAY, UT | DATE | PROJECT # | DESCRIPTION | DRN | CHK | DATE | DWN | CHK | DATE | DWN | CHK | DESCRIPTION | CHECKED N/A | CHECKED BY | JC | CHECKED N/A

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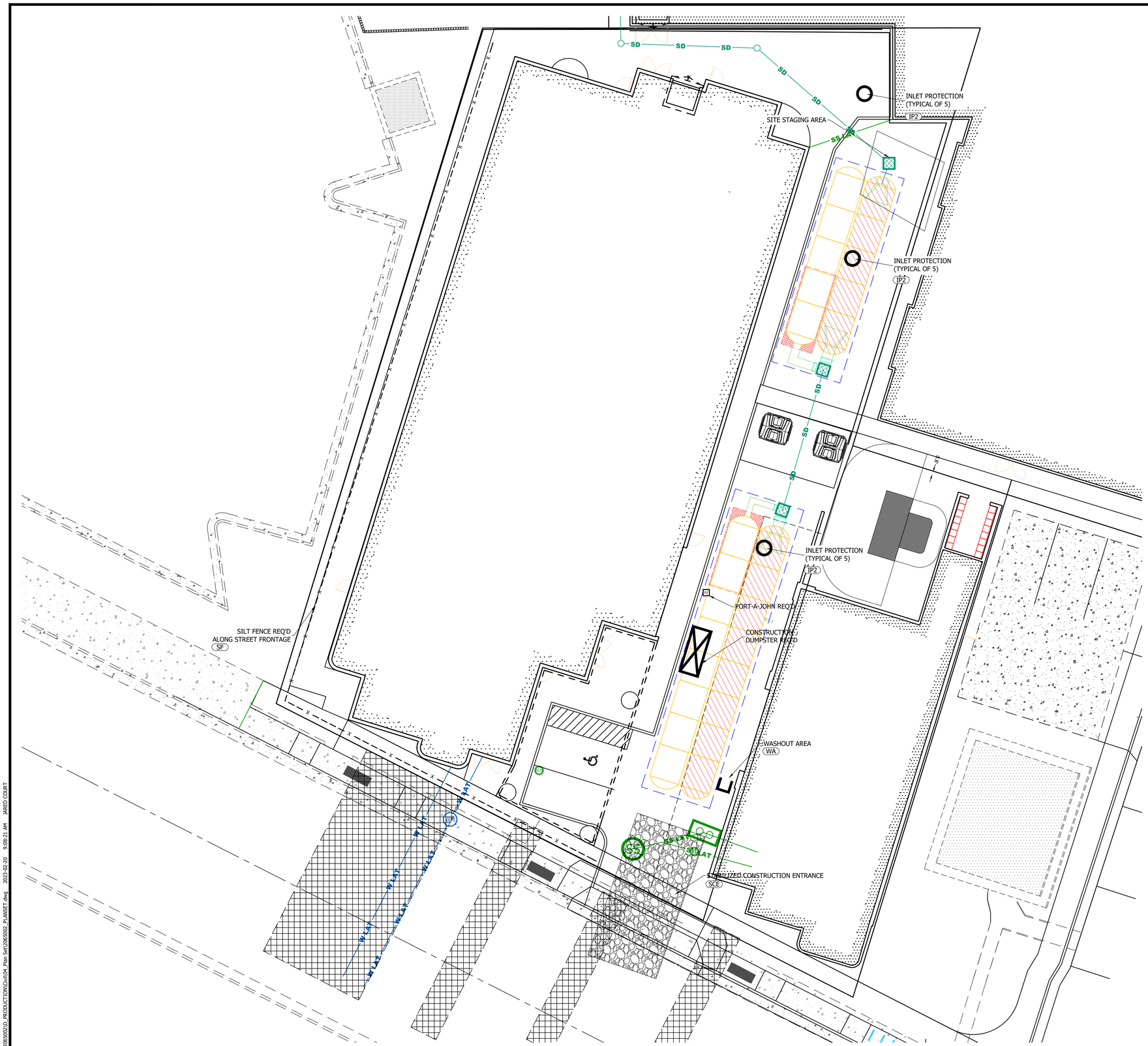
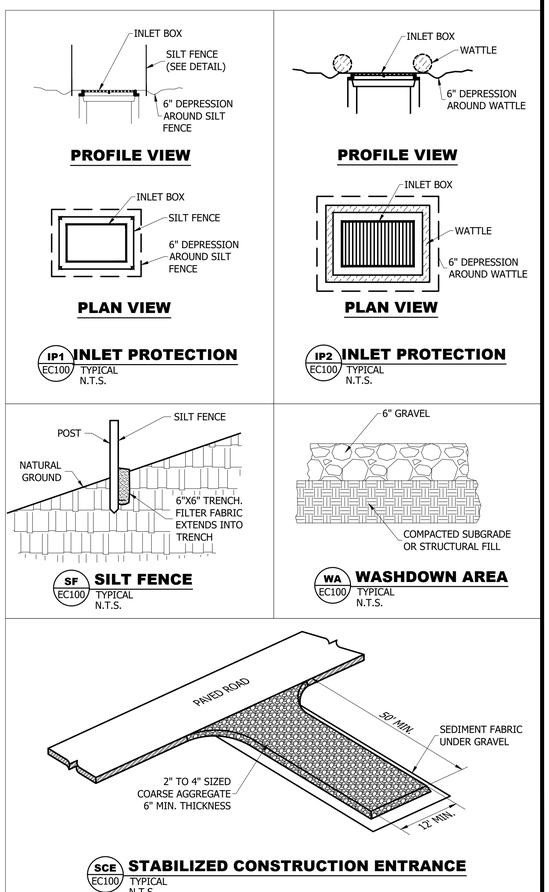
SHEET 6 OF 7

NYLOPL



CONSTRUCTION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY LOCAL, STATE, AND FEDERAL PERMITS PRIOR TO COMMENCING CONSTRUCTION.
2. CONTRACTOR TO MAINTAIN A COPY OF THE SWPPP ON SITE.
3. CONTRACTOR TO INSPECT SITE TO ENSURE THE SWPPP IMPROVEMENTS ARE IN PLACE AND FUNCTIONAL.
4. CONTRACTOR TO MAINTAIN TEMPORARY EROSION AND SEDIMENT CONTROLS AND HOUSEKEEPING MEASURES.
5. ALL SOLID WASTE SHALL BE STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER SHALL MEET ALL STATE AND LOCAL WASTE MANAGEMENT REGULATIONS.
6. ALL HAZARDOUS WASTE SHALL BE DISPOSED OF IN THE MANNER AS SPECIFIED BY THE MANUFACTURER AND STATE AND LOCAL REGULATIONS.
7. A WASHOUT AREA SHALL BE CONSTRUCTED FOR THE TEMPORARY COLLECTION OF EXCESS CONCRETE AND NON-STORM WATER DISCHARGES FROM VEHICLE WASHING. THE CONCRETE WILL BE TAKEN TO THE CITY LANDFILL WITHIN 1 WEEK OF PLACING IN THE WASHOUT AREA.
8. A STABILIZED CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED TO REDUCE VEHICLE TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT OF WAYS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE EXCESS DIRT.
9. INSPECTION SHALL BE MADE MONTHLY AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. ALL NON-STORM WATER FLOWS SHALL BE DIRECTED TOWARD THE WASHOUT AREA OR SEDIMENT BASIN. THE SWPPP WILL BE REVISED AS SITE CONDITIONS AND PROJECT WARRANTS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND SWEEPING PUBLIC STREETS ON A DAILY BASIS, OR MORE IF NECESSARY.
11. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE DUST CONTROL THROUGHOUT THE COURSE OF THE PROJECT.



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DEVELOPER

NEW DEVELOPMENT CONSULTING
Contact: JONATHAN OLIVER
1400 MORNING VISTA ROAD R187
Lehi, UT 84043
Phone: 801-458-4111
jonathan@newdevelopmentconsulting.com

THE NOAH

149 EAST VINE STREET
LOCATED IN THE SE 1/4 OF SECTION 7, T.2S., R.1E., S.L.B.&M.
MURRAY CITY, SALT LAKE COUNTY, UTAH

REVISIONS

1	INITIAL SUBMITTAL	9/27/2022

DRAWN: JBC	2023-02-20
APPROVED: CC	2023-02-20
PROJECT #:	2065002
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EC100

EROSION CONTROL

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PLANT SCHEDULE WYATT PROPERTY

TREES	BOTANICAL / COMMON NAME	CONT	CAL	QTY
	Gleditsia tnacanthos inermis `Shademaster` TM / Shademaster Locust Hydro Zone 1	B & B	1.5"	5

SHRUBS	BOTANICAL / COMMON NAME	CONT	QTY
	Berbens thunbergii `Bagatelle` / Bagatelle Red Barberry Hydro Zone 2	2 gal	7
	Berbens thunbergii `Cnmson Pygmy` / Cnmson Pygmy Barberry Hydro Zone 2	5 gal	1
	Calamagrostis x acutiflora `Karl Foerster` / Feather Reed Grass Hyrdo Zone 2	2 gal	9
	Caryoptens x clandonensis `Dark Knight` / Blue Mist Shrub Hydro Zone 2	5 gal	6
	Helictotnchon sempervirens / Blue Oat Grass Hydro Zone 1	2 gal	10
	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily Hydro Zone P3	1 gal	3
	Juniperus honzontalis `Bar Harbor` / Bar Harbor Creeping Juniper Hydo Zone 1 - Evergreen	5 gal	14
	Pennisetum alopecuroides `Little Bunny` / Little Bunny Fountain Grass Hydro Zone 2	2 gal	14
	Perovskia atnplicifolia `Blue Spires` / Russian Sage Hydro Zone 1	2 gal	6
	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac Hydro Zone 1	5 gal	2

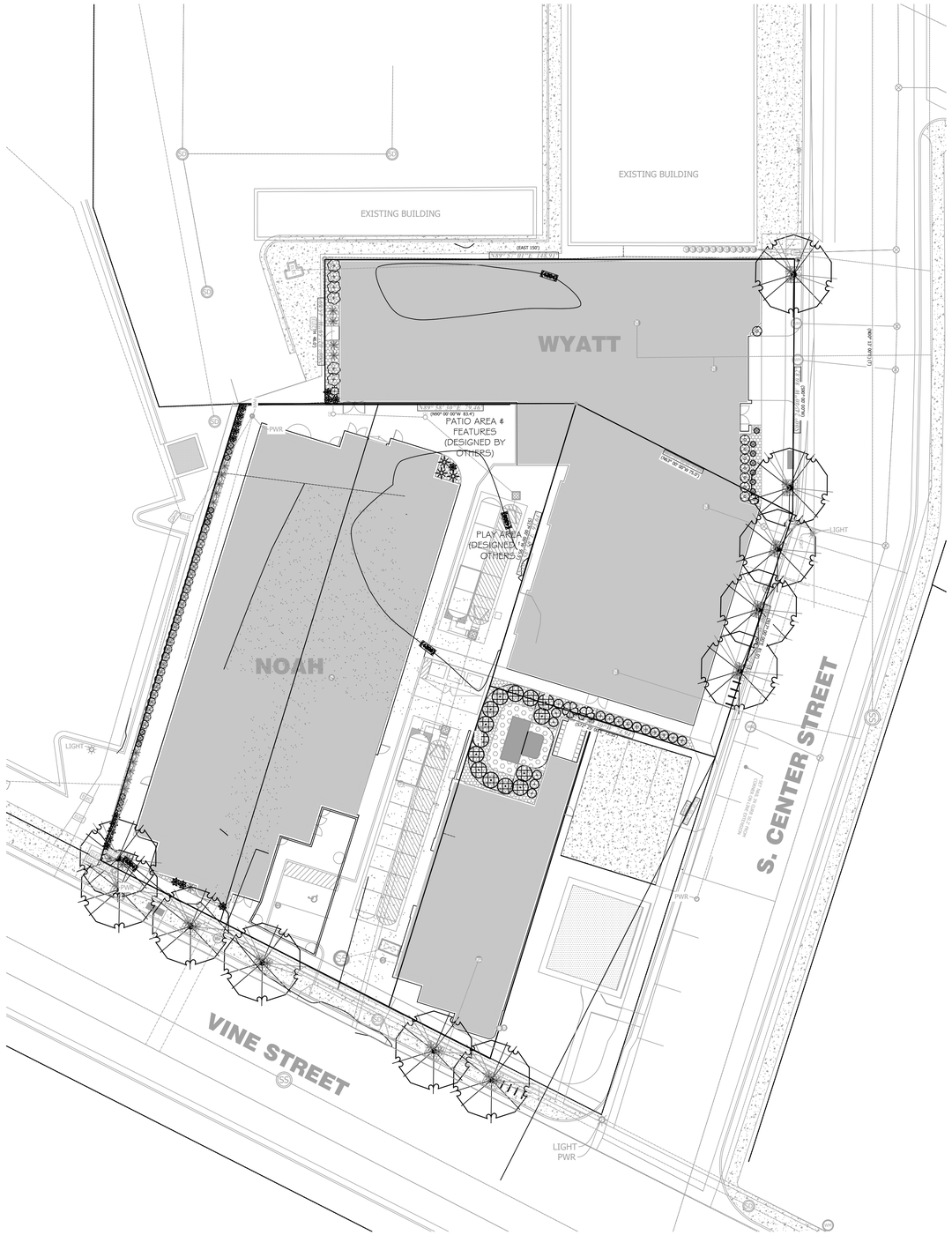
MULCHES / ROCK		TOTAL
	4" MINIMUM DEPTH OF COLORED CRUSHED ROCK (GRAYS) OVER DEWITT PRO 5 WEED BARRIER. ROCK TO MATCH HOME2 SUITES BY HILTON BUILDING TO THE WEST OF THIS SITE.	562 S.F.

PLANT SCHEDULE NOAH PROPERTY

TREES	BOTANICAL / COMMON NAME	CONT	CAL	QTY
	Gleditsia tnacanthos inermis `Shademaster` TM / Shademaster Locust Hydro Zone 1	B & B	1.5"	6

SHRUBS	BOTANICAL / COMMON NAME	CONT	QTY
	Berbens thunbergii `Bagatelle` / Bagatelle Red Barberry Hydro Zone 2	2 gal	12
	Calamagrostis x acutiflora `Avalanche` / Feather Reed Grass Hydro Zone 2	2 gal	3
	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily Hydro Zone P3	1 gal	14
	Pennisetum alopecuroides `Little Bunny` / Little Bunny Fountain Grass Hydro Zone 2	2 gal	24
	Schizachynum scopanum / Little Bluestem Grass Hydro Zone 0	2 gal	27

MULCHES / ROCK		TOTAL
	4" MINIMUM DEPTH OF COLORED CRUSHED ROCK (GRAYS) OVER DEWITT PRO 5 WEED BARRIER. ROCK TO MATCH HOME2 SUITES BY HILTON BUILDING TO THE WEST OF THIS SITE.	1,204 S.F.
	4" MINIMUM DEPTH OF 2" TO 4" OF COLORED CRUSHED ROCK (GRAYS) OVER DEWITT PRO 5 WEED BARRIER	210 S.F.



PLANT SCHEDULE TOTAL PROJECT

TREES	BOTANICAL / COMMON NAME	CONT	CAL	QTY
	Gleditsia tnacanthos inermis `Shademaster` TM / Shademaster Locust Hydro Zone 1	B & B	1.5"	11

SHRUBS	BOTANICAL / COMMON NAME	CONT	QTY
	Berbens thunbergii `Bagatelle` / Bagatelle Red Barberry Hydro Zone 2	2 gal	19
	Berbens thunbergii `Cnmson Pygmy` / Cnmson Pygmy Barberry Hydro Zone 2	5 gal	1
	Calamagrostis x acutiflora `Avalanche` / Feather Reed Grass Hydro Zone 2	2 gal	3
	Calamagrostis x acutiflora `Karl Foerster` / Feather Reed Grass Hyrdo Zone 2	2 gal	9
	Caryoptens x clandonensis `Dark Knight` / Blue Mist Shrub Hydro Zone 2	5 gal	6
	Helictotnchon sempervirens / Blue Oat Grass Hydro Zone 1	2 gal	10
	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily Hydro Zone P3	1 gal	17
	Juniperus honzontalis `Bar Harbor` / Bar Harbor Creeping Juniper Hydo Zone 1 - Evergreen	5 gal	14
	Pennisetum alopecuroides `Little Bunny` / Little Bunny Fountain Grass Hydro Zone 2	2 gal	38
	Perovskia atnplicifolia `Blue Spires` / Russian Sage Hydro Zone 1	2 gal	6
	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac Hydro Zone 1	5 gal	2
	Schizachynum scopanum / Little Bluestem Grass Hydro Zone 0	2 gal	27

MULCHES / ROCK		TOTAL
	4" MINIMUM DEPTH OF COLORED CRUSHED ROCK (GRAYS) OVER DEWITT PRO 5 WEED BARRIER. ROCK TO MATCH HOME2 SUITES BY HILTON BUILDING TO THE WEST OF THIS SITE.	1,766 S.F.
	4" MINIMUM DEPTH OF 2" TO 4" OF COLORED CRUSHED ROCK (GRAYS) OVER DEWITT PRO 5 WEED BARRIER	210 S.F.

NOTES:
1. SEE SHEET L-2 FOR NOTES AND DETAILS.
2. LANDSCAPE MATERIAL SQUARE FOOTAGES INCLUDE AREAS WITHIN THE PUBLIC RIGHT-OF-WAY.
3. TREE REMOVAL OR TREE PLANTING IN THE PUBLIC RIGHT-OF-WAY REQUIRES APPROVAL FROM MURRAY CITY URBAN FORESTRY OR SUBMIT PLANS CONTAINING AN URBAN FORESTER APPROVAL SIGNATURE.
4. ALL WORK DONE WITHIN THE PUBLIC WAY SHALL BE DONE BY A LICENSED, BONDED AND INSURED CONTRACTOR WHO SHALL FIRST OBTAIN A PUBLIC WAY PERMIT.
5. IRRIGATION SYSTEM IS EQUIPPED WITH A SMART ET BASED CONTROLLER AND RAIN SENSOR AS PART OF THE SPRINKLER SYSTEM.
6. PLANS ARE DIAGRAMMATIC DUE TO SCALE, THEREFORE, IT IS THE CONTRACTORS RESPONSIBILITY TO VERITY QUANTITIES.
7. SPRINKLER AUDITS ARE TO BE CONDUCTED AND REPORTS SUBMITTED TO THE CITY PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
8. BACKFLOW PREVENTION DEVICE NEEDS TO BE TESTED AND SUBMITTED TO THE CITY.
9. ROCK MULCHES AND BOULDERS TO COMPLIMENT & BLEND WITH ARCHITECTURAL MATERIALS AND COLORS. CONTRACTOR TO SUBMIT SAMPLES TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO DELIVERY.
10. CONTRACTOR TO REFER TO THE CIVIL GRADING PLAN AND NOTIFY LANDSCAPE ARCHITECT IF ANY LANDSCAPE AREAS CONSIST OF GRADES STEEPER THAN 2H:1V SLOPE. MAXIMUM SLOPE IN ALL LANDSCAPE AREAS IS 2H:1V (H=HORIZONTAL & V=VERTICAL)
11. TREE CALIPER SIZE TO BE MEASURED 18 INCHES ABOVE GRADE PER CITY REQUIREMENT.
12. EVERGREEN TREES TO BE 6 FOOT MINIMUM HEIGHT ABOVE GRADE PER CITY REQUIREMENT.
13. NO TREES SHALL BE PLANTED IN PUBLIC PARK STRIPS LESS THAN 8 FEET WIDE. CENTERLINE OF TREES SHALL BE PLANTED MINIMUM OF 4 FEET AWAY FROM BACK OF CURB AND EITHER SIDE OF SIDEWALK.
14. REFER TO SHEET L-2 FOR ADDITIONAL LANDSCAPE AND IRRIGATION REQUIREMENTS.

NORTH

0 20 40 60 feet

SCALE: 1" = 20'

CALL BEFORE YOU DIG! IT'S THE LAW. BLUE STAKES 1 800 662 4111

NO.	REVISIONS	BY	DATE

PROJECT PROFESSIONAL: DCM DESIGNER: DCM

Foresite Design Group, L.C.
PLANNING, LANDSCAPE ARCHITECTURE & SITE DESIGN SERVICES
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DRAPER, UTAH 84020
PHONE: 801.641.7464
www.foresitedesigngroup.com

NOAH AND WYATT LANDSCAPE PLAN

149 EAST VINE STREET MURRAY, UTAH

LICENSED LANDSCAPE ARCHITECT DAN C. MATTA No. 106248 1/31/23

SHEET: L-1

FILE NAME: FDG-283 SCALE: 1" = 20'

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PLANTING NOTES:

1. LANDSCAPE BIDS MUST BE IN A DETAILED UNIT PRICE FORMAT SHOWING COST BREAKDOWN OF ALL LANDSCAPE ELEMENTS. ANY ELEMENT MAY BE ADDED OR DELETED BY THE LANDSCAPE ARCHITECT OR OWNER. CONTRACTOR COMPENSATION WILL BE ADJUSTED ACCORDING TO THE UNIT PRICE BIDS. ANY SUBSTITUTION MUST BE BY LANDSCAPE ARCHITECT APPROVAL. LANDSCAPE ARCHITECT OR OWNER WITHOUT JUSTIFICATION MAY DISALLOW BIDS AND SELECT CONTRACTOR REGARDLESS OF BID FIGURES. THE SELECTED CONTRACTOR MUST CONTACT THE OWNER'S CONSTRUCTION REPRESENTATIVE BEFORE BEGINNING CONSTRUCTION TO SCHEDULE A PRE CONSTRUCTION MEETING. CONTRACTOR OR SUBCONTRACTORS PARTICIPATION IN CONSTRUCTION OF THIS PLAN MUST BE LICENSED BY THE STATE OF UTAH FOR THE TYPE OF WORK BEING PERFORMED.

2. CODES, LAWS, REGULATIONS, AND PERMITS BY FEDERAL, STATE, COUNTY AND CITY AGENCIES FOR DESIGN CONCEPT, MATERIALS AND WORKMANSHIP MUST BE RESEARCHED AND SATISFIED BY THE CONTRACTOR. REPORT ANY PROBLEMS OR REQUIREMENTS TO THE LANDSCAPE ARCHITECT. THE CONTRACTOR MUST VERIFY THE REGULATIONS FOR AND SECURE ANY PERMITS BEFORE BEGINNING CONSTRUCTION. THE COST FOR THE PERMIT FEES MAY BE SUBMITTED TO THE OWNER FOR REIMBURSEMENT. CALL BLUE STAKES AND REFER TO DRAINAGE AND CIVIL PLANS BEFORE ANY TRENCHING OR EXCAVATION.

3. CONSTRUCTION SAFETY AND CLEANUP MUST MEET OSHA STANDARDS AT ALL TIMES. ALL CONTRACTORS MUST HAVE ADEQUATE LIABILITY, PERSONNEL INJURY AND PROPERTY DAMAGE INSURANCE. CLEAN UP MUST BE PERFORMED DAILY, AND ALL HARDSCAPE ELEMENTS MUST BE WASHED FREE OF DIRT AND MUD ON FINAL CLEAN UP. CONSTRUCTION MUST OCCUR IN A TIMELY MANNER.

4. LANDSCAPE PLANS AND DETAIL DRAWINGS ARE SCHEMATIC ONLY, DISCREPANCIES MAY EXIST, INCLUDING BUT NOT LIMITED TO BUILDING LOCATION, PROPERTY LINES, ANY DIMENSIONS SPECIFIED OR IMPLIED. THE CONTRACTOR WILL BE REQUIRED TO ADJUST PLANS AS NECESSARY TO RETAIN CONCEPT INTEGRITY. CONTACT LANDSCAPE ARCHITECT IF DISCREPANCIES EXIST.

5. PLANT MATERIAL EXCAVATION. CALL BLUE STAKE AND MAKE REFERENCE TO DRAINAGE AND CIVIL PLANS BEFORE EXCAVATION FOR PLANT MATERIAL. ALL HOLES MUST ALLOW FOR A MINIMUM OF TWELVE (12) INCHES OF SPECIFIED PLANTING MIX BACKFILL MATERIAL ON ALL SIDES OF ROOT BALL FOR SHRUBS, AND 3X BALL DIAMETER FOR TREES.

6. EXCEPT FOR TREES, PLANT MATERIAL BACKFILL MUST BE A WELL MIXED COMBINATION OF 1/3 NATIVE SOIL TAKEN FROM EXCAVATED PLANT PIT, 1/3 TOPSOIL, AND 1/3 ORGANIC COMPOSTED MATERIAL. DEEP WATER ALL PLANT MATERIAL IMMEDIATELY AFTER PLANTING. ADD BACKFILL MATERIAL TO DEPRESSIONS AS NECESSARY.

7. SOIL AMENDING SHALL INCLUDE COMPOSTED ORGANIC MATERIAL TO BE ADDED AT A RATE OF THREE CUBIC YARDS PER 1000 SQUARE FEET. TILL INTO THE SUBGRADE SOIL PRIOR TO PLACING TOPSOIL. TILL AMENDMENTS IN TO A DEPTH OF 6". ALL SOD AREAS SHALL HAVE THE SOIL AMENDED.

8. TOP SOIL MUST BE A PREMIUM QUALITY DARK SANDY LOAM, FREE OF ROCKS, CLODS, ROOTS, AND PLANT MATTER. THE TOPSOIL SHALL BE EVENLY SPREAD AND SMOOTH GRADED ON A CAREFULLY PREPARED AMENDED SUBGRADE. TOPSOIL SHALL BE SPREAD TO A DEPTH OF FIVE INCHES (5") IN ALL SOD AND SHRUB AREAS.

9. SOD MUST BE PREMIUM QUALITY, ULTRA GREEN, EVENLY CUT, ESTABLISHED, HEALTHY, WEED AND DISEASE FREE, AND FROM AN APPROVED SOURCE. SOD MUST BE DELIVERED AND LAID IMMEDIATELY AFTER CUTTING. SOD MUST BE LAID WITH NO GAPS BETWEEN PIECES ON A CAREFULLY PREPARED TOPSOIL LAYER. THE LAID SOD MUST BE IMMEDIATELY WATERED AFTER INSTALLATION. ANY BURNED AREAS WILL REQUIRE REPLACEMENT. ADJUST SPRINKLER SYSTEM TO ASSURE HEALTHY GREEN SURVIVAL OF THE SOD WITHOUT WATER WASTE. TURF GRASS TO BE "CHANSHARE FARMS IMPERIAL BLUE" (OR EQUIVALENT) WHICH IS A "WATER-WIZE TURF". INSTALL AND MAINTAIN PER GROWER'S SPECIFICATIONS.

IRRIGATION REQUIREMENT NOTES:

1. MULCH: AFTER COMPLETION OF ALL PLANTING, ALL IRRIGATED NON-TURF AREAS SHALL BE COVERED WITH A MINIMUM LAYER OF FOUR (4) INCHES OF MULCH TO RETAIN WATER, INHIBIT WEED GROWTH AND MODERATE SOIL TEMPERATURE. NON-POROUS MATERIAL SHALL NOT BE PLACED UNDER THE MULCH. 4" MULCH IN ALL IRRIGATED NON-TURF AREAS. IF ROCK MULCH, MINIMUM IS 3".
2. LANDSCAPE WATER METER: A WATER METER AND BACKFLOW PREVENTION ASSEMBLY THAT ARE IN COMPLIANCE WITH STATE CODE SHALL BE INSTALLED FOR LANDSCAPE IRRIGATION SYSTEMS, AND THE LANDSCAPE WATER METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE SEPARATE FROM THE WATER METER AND BACKFLOW PREVENTION ASSEMBLY INSTALLED FOR INDOOR USES. THE SIZE OF THE METER SHALL BE DETERMINED BASED ON IRRIGATION DEMAND.
3. PRESSURE REGULATION: A PRESSURE REGULATING VALVE SHALL BE INSTALLED AND MAINTAINED BY THE CONSUMER IF THE STATIC SERVICE PRESSURE EXCEEDS 80 POUNDS PER SQUARE INCH (PSI). THE PRESSURE-REGULATING VALVE SHALL BE LOCATED BETWEEN THE LANDSCAPE WATER METER AND THE FIRST POINT OF WATER USE, OR FIRST POINT OF DIVISION IN THE PIPE, AND SHALL BE SET AT THE MANUFACTURER'S RECOMMENDED PRESSURE FOR SPRINKLERS.
4. AUTOMATIC CONTROLLER: ALL IRRIGATION SYSTEMS SHALL INCLUDE AN ELECTRIC AUTOMATIC CONTROLLER WITH MULTIPLE PROGRAM AND MULTIPLE REPEAT CYCLE CAPABILITIES AND A FLEXIBLE CALENDAR PROGRAM. ALL CONTROLLERS SHALL BE EQUIPPED WITH AN AUTOMATIC RAIN SHUT-OFF DEVICE.
5. ON SLOPES EXCEEDING 30%, THE IRRIGATION SYSTEM SHALL CONSIST OF DRIP EMITTERS, BUBBLERS, OR SPRINKLERS WITH A MAXIMUM PRECIPITATION RATE OF 0.85 INCHES PER HOUR AND ADJUSTED SPRINKLER CYCLE TO ELIMINATE RUNOFF.
6. EACH VALVE SHALL IRRIGATE A LANDSCAPE WITH SIMILAR SITE, SLOPE AND SOIL CONDITIONS AND PLANT MATERIALS WITH SIMILAR WATERING NEEDS. TURF AND NON-TURF AREAS SHALL BE IRRIGATED ON SEPARATE VALVES.
7. DRIP EMITTERS OR A BUBBLER SHALL BE PROVIDED FOR EACH TREE WHERE PRACTICABLE. BUBBLERS SHALL NOT EXCEED 1.5 GALLONS PER MINUTE PER DEVICE. BUBBLERS FOR TREES SHALL BE ON SEPARATE VALVE UNLESS SPECIFICALLY EXEMPTED BY THE SANDY CITY PUBLIC UTILITIES DEPARTMENT DUE TO THE LIMITED NUMBER OF TREES ON THE PROJECT SITE.
8. SPRINKLERS SHALL HAVE MATCHED PRECIPITATION RATE WITH EACH CONTROL VALVE CIRCUIT.
9. CHECK VALVES SHALL BE REQUIRED WHERE ELEVATION DIFFERENCES WILL CAUSE LOW-HEAD DRAINAGE. PRESSURE COMPENSATING VALVES AND SPRINKLERS SHALL BE REQUIRED WHERE A SIGNIFICANT VARIATION IN WATER PRESSURE WILL OCCUR WITHIN THE IRRIGATION SYSTEM DUE TO ELEVATION DIFFERENCES.
10. DRIP IRRIGATION LINES SHALL BE PLACED UNDERGROUND OR OTHERWISE PERMANENTLY COVERED, EXCEPT FOR DRIP EMITTERS AND WHERE APPROVED AS A TEMPORARY INSTALLATION. FILTERS AND END FLUSH VALVES SHALL BE PROVIDED AS NECESSARY.

10. MULCH OVER DEWITT PRO 5 WEED BARRIER WILL BE REQUIRED IN ALL LANDSCAPE BEDS FOR SHRUBS, PERENNIALS, AND ANNUALS. SEE PLANS FOR MULCH TYPES. MULCH SHALL BE EVENLY SPREAD ON A CAREFULLY PREPARED GRADE TO THE MINIMUM NOTED DEPTH. THE TOP OF ALL AREAS OF MULCH SHALL BE AT THE GRADE OF THE ADJACENT CURB, WALK, OR EDGE OF PAVEMENT.

11. FERTILIZER FOR SOD AREAS SHALL BE PELLETIZED, N-P-K AS APPROVED BY LANDSCAPE ARCHITECT FOR SEASONAL ADJUSTMENT. USE 20 LBS PER 5,000 SQUARE FEET OR AS PER MANUFACTURER'S SPECIFICATIONS. SPREAD EVENLY ON A CAREFULLY PREPARED TOPSOIL LAYER JUST PRIOR TO LAYING SOD.

12. TREE STAKING AND GUYING SHALL BE ON AN AS NEEDED BASIS AND ONLY IF THE ROOT BALL IS UNSTABLE. THE CONTRACTOR SHALL DETERMINE STAKING NEEDS DEPENDENT ON THE SITE CONDITIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE GUYING AND STAKING IN A TIMELY MANNER ONCE STAKED TREES HAVE TAKEN ROOT. NO STAKING SHALL REMAIN BEYOND A REASONABLE TIME FOR ROOT PENETRATION AND STABILIZATION.

13. TREE WRAPPING MAY BE USED TO PROTECT YOUNG TREES FROM WINTER DAMAGE. TREE WRAPS SHALL ONLY BE INSTALLED IN THE FALL. IF THE CONTRACTOR INSTALLS WRAPS FOR TREE PROTECTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROMPTLY REMOVE WRAPS THE FOLLOWING SPRING.

14. LANDSCAPE MAINTENANCE MUST BE PERFORMED BY THE LANDSCAPE CONTRACTOR DURING ESTABLISHMENT (30 DAYS AFTER FINAL ACCEPTANCE OF ENTIRE PROJECT). RESPONSIBILITIES INCLUDE WEED CONTROL AND MOWING. NOTIFY OWNER AND CONSTRUCTION REPRESENTATIVE WHEN ESTABLISHMENT PERIOD HAS ENDED TO INSURE ONGOING MAINTENANCE. THE OWNER IS RESPONSIBLE FOR LANDSCAPE MAINTENANCE AND UPKEEP ONCE ESTABLISHMENT PERIOD HAS EXPIRED.

15. ALL PLANT MATERIAL AND LANDSCAPE ELEMENTS WILL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE. ANY ITEMS THAT ARE NOT FIRST CLASS PREMIUM QUALITY WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER. ANY PLANT MATERIAL THAT IS NOT PREMIUM QUALITY OR APPEARS STRESSED IN ANY WAY DURING THE GUARANTEE PERIOD MAY REQUIRE REPLACEMENT. THE CONTRACTOR MUST SCHEDULE A PRE AND POST GUARANTEE MEETING WITH THE OWNER'S REPRESENTATIVE FOR INSPECTION. FAILURE TO DO SO WILL MEAN THE OFFICIAL GUARANTEE PERIOD HAS NOT BEEN ACTIVATED OR DE-ACTIVATED.

16. SUBMITTALS OF ALL LANDSCAPE MATERIALS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK. PROVIDER INFORMATION AND SAMPLES SHALL BE SUBMITTED OF ANY GRAVEL OR WOOD MULCHES. NURSERY STOCK SUBMITTAL SHALL INCLUDE PROVIDER INFORMATION WITH A LIST OF PLANT MATERIALS BEING PROVIDED BY THE NURSERY.

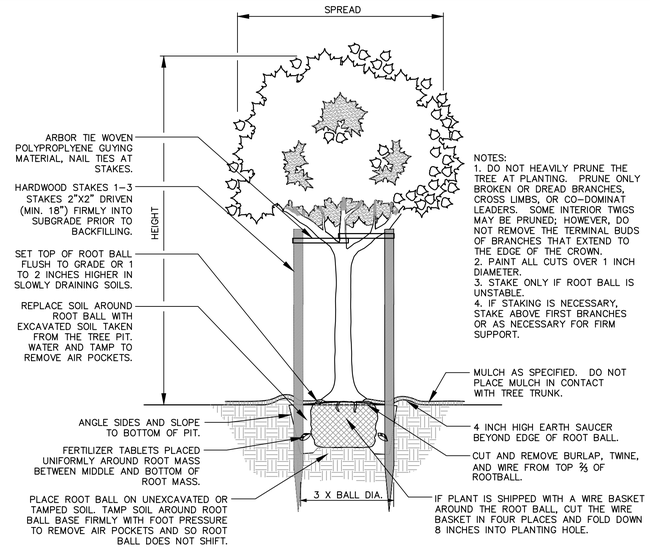
17. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL QUANTITIES LISTED ON THE PLANS AND THE AVAILABILITY OF ALL PLANT MATERIALS IN THEIR SPECIFIC SIZES PRIOR TO SUBMITTING A BID. THE CONTRACTOR MUST NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO SUBMITTING A BID IF THE CONTRACTOR DETERMINES A QUANTITY DEFICIENCY OR AVAILABILITY PROBLEM WITH SPECIFIED MATERIAL.

18. SPECIFICATIONS FOR LANDSCAPE AND IRRIGATION CONSTRUCTION SHALL BE THE 2007 APWA "MANUAL OF STANDARD SPECIFICATIONS".

19. ALL LANDSCAPE MATERIAL SHALL BE FULLY IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM (DESIGN BUILD). IRRIGATION DESIGN SHALL BE APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

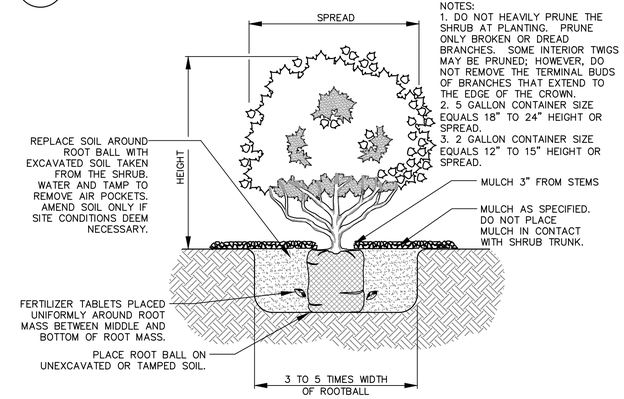
20. TREE REMOVAL OR TREE PLANTING IN THE PUBLIC RIGHT-OF-WAY REQUIRES APPROVAL FROM THE SANDY CITY URBAN FORESTER OR SUBMIT PLANS CONTAINING AN URBAN FORESTER APPROVAL.

11. IRRIGATION ZONES WITH OVERHEAD SPRAY OR STREAM SPRINKLERS SHALL BE DESIGNED TO OPERATE BETWEEN 6:00 P.M. AND 10:00 A.M. TO REDUCE WATER LOSS FROM WIND AND EVAPORATION. THIS WOULD EXCLUDE DRIP OR BUBBLER ZONES.
12. PROGRAM VALVES FOR MULTIPLE REPEAT CYCLES WHERE NECESSARY TO REDUCE RUNOFF, PARTICULARLY SLOPES AND SOILS WITH SLOW INFILTRATION RATES.
13. FOLLOWING CONSTRUCTION AND PRIOR TO RELEASE OF THE SECONDARY BOND GUARANTEE POSTED FOR THE PROJECT, A WATER USE EFFICIENCY REVIEW WILL BE CONDUCTED BY A LANDSCAPE IRRIGATION AUDITOR. THE AUDITOR SHALL BE INDEPENDENT OF THE CONTRACTOR, DESIGN FIRM, AND
OWNER/DEVELOPER OF THE PROJECT. THE WATER PERFORMANCE AUDIT WILL VERIFY THAT THE IRRIGATION SYSTEM COMPLIES WITH THE MINIMUM STANDARDS REQUIRED BY SANDY CITY ORDINANCE. THE MINIMUM EFFICIENCY REQUIRED FOR THE IRRIGATION SYSTEM IS 60% FOR DISTRIBUTION EFFICIENCY FOR ALL FIXED SPRAY SYSTEMS AND 70% DISTRIBUTION EFFICIENCY FOR ALL
ROTOR SYSTEMS. THE AUDITOR SHALL FURNISH A CERTIFICATE TO THE CITY, DESIGNER, INSTALLER AND OWNER/DEVELOPER CERTIFYING COMPLIANCE WITH THE MINIMUM DISTRIBUTION REQUIREMENTS. COMPLIANCE WITH THIS PROVISION IS REQUIRED BEFORE THE CITY WILL RELEASE THE BOND FOR THIS
PROJECT.
14. PLANTS WHICH REQUIRE DIFFERENT AMOUNTS OF WATER SHALL BE IRRIGATED BY SEPARATE VALVES. IF ONE VALVE IS USED FOR A GIVEN AREA, ONLY PLANTERS WITH SIMILAR WATER USE SHALL BE USED IN THAT AREA. LAWN AREAS AND PLANTERS SHALL BE IRRIGATED BY SEPARATE VALVES.
15. A SEPARATE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED FOR THE IRRIGATION SYSTEM.
16. A RAIN SENSING OVERRIDING DEVICE SHALL BE UTILIZED SO THAT THE IRRIGATION SYSTEM WILL AUTOMATICALLY TURN OFF IN THE EVENT OF RAIN.
17. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT OVERSPRAY AND WATER RUN-OFF ONTO ADJACENT-PROPERTY, NON-IRRIGATED AREAS, WALKS, ROADWAYS OR STRUCTURES.
18. AN AUTOMATIC IRRIGATION SYSTEM USING POP-UP SPRINKLER HEADS SHALL BE REQUIRED FOR ALL NEW LANDSCAPES. LOW FLOW SPRINKLER HEADS SHALL BE USED WHEREVER POSSIBLE.
19. NO IRRIGATION OF WALKWAYS OR DRIVE.
20. WATER AUDIT IS REQUIRED PRIOR TO BOND BEING RELEASED. SUGGEST THE AUDIT BE DONE WITHIN 60 DAYS OF INSTALLING IRRIGATION AND LANDSCAPE.



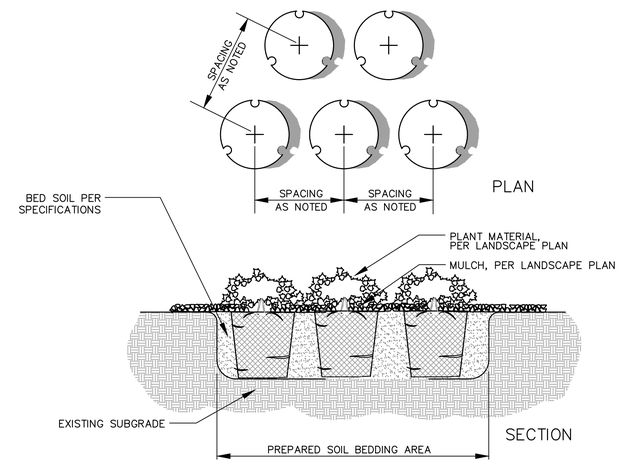
1 TREE PLANTING AND STAKING

N.T.S.



2 SHRUB AND ORNAMENTAL GRASS PLANTING

N.T.S.



3 GROUNDCOVER, ANNUAL, AND/OR PERENNIAL PLANTINGS

N.T.S.

TOPSOIL QUALITY GUIDELINES

Category	Soluble salts (dS/m or mmho/cm)	pH	Sand (%)	Silt (%)	Clay (%)	Texture class*	Organic Matter (%)	% Coarse fragments (> 2 mm in diameter)**	Sodium Adsorption Ratio (SAR)*
Ideal	< 2	5.5 to 7.5	< 70	< 70	< 30	L, SiL	≥2.0	≤ 2	< 3 for any texture
Acceptable	< 4	5.0 to 8.2	< 70	< 70	< 30	SCL, SL, CL, SiCL	≥1.0	2.1 to 5.0	3 to 7 (SiL, SiCL, CL) 3 to 10 (SCL, SL, L)
Unacceptable	> 4	< 5.0 or > 8.2	> 70	> 70	> 30	LS, SC, SiC, S, Si, C	<1.0	> 5.0	> 10 for any texture

*L = loam; SiL = Silt loam; SCL = sandy clay loam; SL = sandy loam; CL = clay loam; SiCL = silty clay loam; LS - loamy sand; SC = sandy clay; SiC = silty clay; S = sand; Si = silt; C = clay.
**This guideline also includes no fragments larger than 1 ½ inch in diameter.

Category	Nitrate-nitrogen (ppm or mg N/kg soil)	Phosphorus (ppm or mg P/kg soil)	Potassium (ppm or mg K/kg soil)	Iron (ppm or mg Fe/kg soil)
Acceptable	> 20	> 15	> 150	> 10

Source: Utah State University, "Topsoil Quality Guidelines for Landscaping", December 2010.

NO.	REVISIONS	BY	DATE

PROJECT PROFESSIONAL: DCM DESIGNER: DCM

Foresite Design Group, L.C.
PLANNING, LANDSCAPE ARCHITECTURE & SITE DESIGN SERVICES
13892 ARROW CREEK DRIVE
DRAPER, UTAH 84020
PHONE: 801.641.7464
www.foresitedesigngroup.com

NOAH AND WYATT
LANDSCAPE NOTES AND DETAILS
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LICENSED LANDSCAPE ARCHITECT DAN C. MATTA No. 106248 1/9/25

SHEET: L-2

FILE NAME: FDG-283 SCALE: N.A.

IRRIGATION SCHEDULE WYATT PROPERTY

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1401 1402 1404 1408	Rain Bird 1806-PRS-1400 Flood Flood Bubbler 6in. popup with pressure regulating device.	10	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-LF-100-PRF Low Flow Drip Control Kit, 1in. Low Flow Valve, 3/4in. Pressure Regulating RBY Filter, and 30psi Pressure Regulator. -.	1
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6" (150mm) drip box.	11
	Area to Receive Drip Emitters Rain Bird XB-PC Single Outlet, Pressure Compensating Drip Emitters. Flow rates of 0.5gph=blue, 1.0gph=black, and 2.0gph=red. Comes with a self-piercing barb inlet x barb outlet. Emitter Notes: 0.5 GPH emitters (2 assigned to each 1 gal plant) 1.0 GPH emitters (2 assigned to each 2 gal plant) 1.0 GPH emitters (2 assigned to each 5 gal plant)	1,161 s.f.

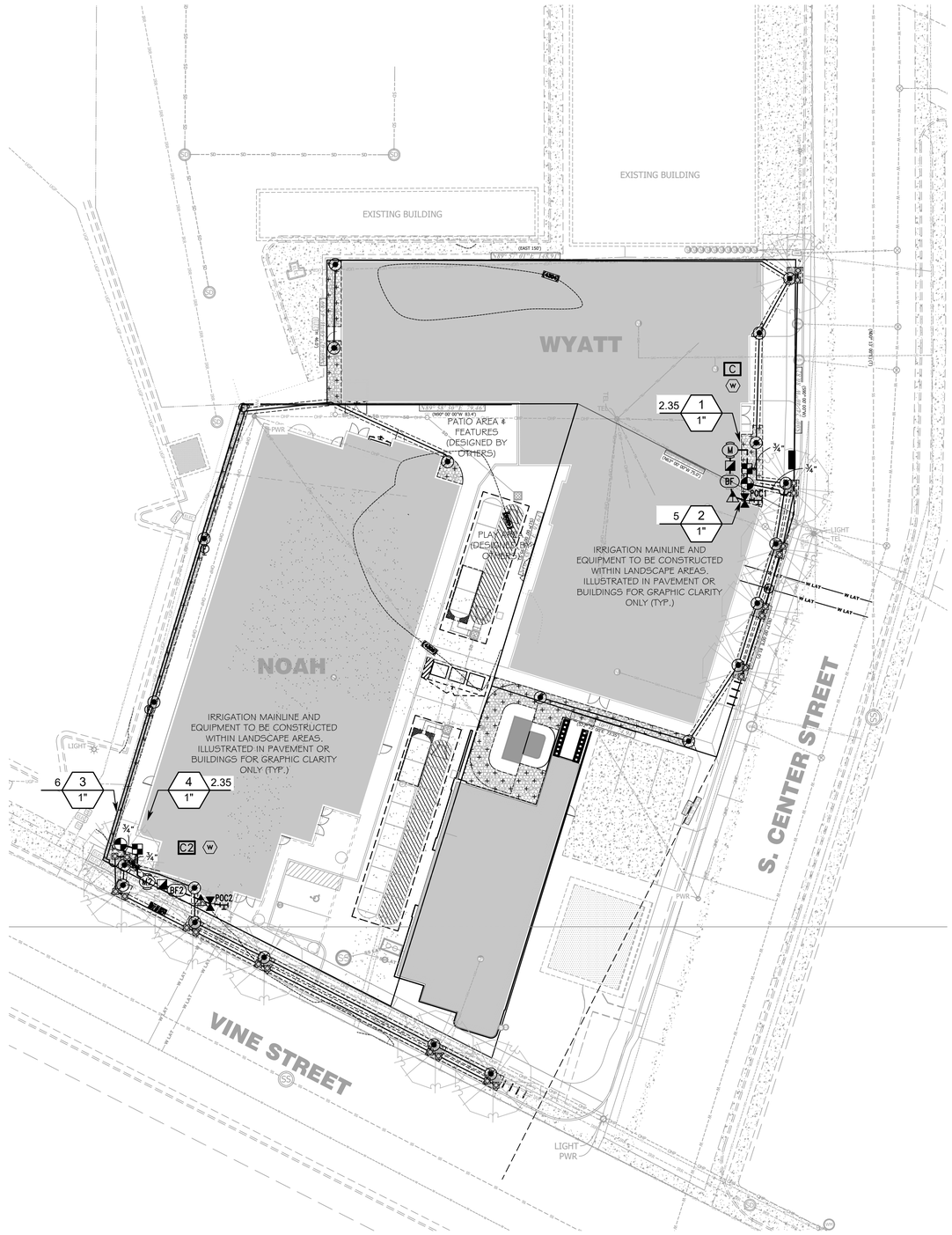
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PGA-PRS-D Globe 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe. With Pressure Regulator Module.	1
	Rain Bird 44-LRC 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.	1
	Stop and Waste Valve Drain to Stop and Waste Valve	21
M	Rain Bird EFB-CP-PRS-D 1" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
	Pressure Reducing Valve	21
BF	Zurn 975XL 1" Reduced Pressure Backflow device	1
C	Rain Bird ESP4ME 4 Station, Hybrid Modular Indoor Controller. For Residential or Light Commercial Applications. Contractor to coordinate with owner's representative regarding location. Typical location is Fire Riser Room.	1
W	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter. Contractor to coordinate with owner's representative regarding location.	1
	Irrigation Lateral Line: PVC Schedule 40	603.6 l.f.
	Irrigation Mainline: PVC Schedule 40	39.3 l.f.
	Pipe Sleeve: PVC Schedule 40	189.7 l.f.

IRRIGATION SCHEDULE NOAH PROPERTY

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1401 1402 1404 1408	Rain Bird 1806-PRS-1400 Flood Flood Bubbler 6in. popup with pressure regulating device.	12	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-LF-100-PRF Low Flow Drip Control Kit, 1in. Low Flow Valve, 3/4in. Pressure Regulating RBY Filter, and 30psi Pressure Regulator. -.	1
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6" (150mm) drip box.	10
	Rain Bird MDCFCAP Dripline Flush Valve cap in compression fitting coupler.	3
	Area to Receive Drip Emitters Rain Bird XB-PC Single Outlet, Pressure Compensating Drip Emitters. Flow rates of 0.5gph=blue, 1.0gph=black, and 2.0gph=red. Comes with a self-piercing barb inlet x barb outlet. Emitter Notes: 0.5 GPH emitters (2 assigned to each 1 gal plant) 1.0 GPH emitters (2 assigned to each 2 gal plant) 1.0 GPH emitters (2 assigned to each 5 gal plant)	598.8 s.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PGA-PRS-D Globe 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe. With Pressure Regulator Module.	1
	Rain Bird 44-LRC 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.	1
	Stop and Waste Valve Drain to Stop and Waste Valve	21
M2	Rain Bird EFB-CP-PRS-D 1" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
	Pressure Reducing Valve	21
BF2	Zurn 975XL 1" Reduced Pressure Backflow device	1
C2	Rain Bird ESP4ME 4 Station, Hybrid Modular Indoor Controller. For Residential or Light Commercial Applications. Contractor to coordinate with owner's representative regarding location. Typical location is Fire Riser Room.	1
W	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter. Contractor to coordinate with owner's representative regarding location.	1
	Irrigation Lateral Line: PVC Schedule 40	532.5 l.f.
	Irrigation Mainline: PVC Schedule 40	43.2 l.f.
	Pipe Sleeve: PVC Schedule 40	299.5 l.f.

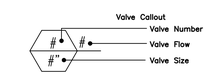


IRRIGATION SCHEDULE TOTAL PROJECT

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1401 1402 1404 1408	Rain Bird 1806-PRS-1400 Flood Flood Bubbler 6in. popup with pressure regulating device.	22	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-LF-100-PRF Low Flow Drip Control Kit, 1in. Low Flow Valve, 3/4in. Pressure Regulating RBY Filter, and 30psi Pressure Regulator. -.	2
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6" (150mm) drip box.	21
	Rain Bird MDCFCAP Dripline Flush Valve cap in compression fitting coupler.	3
	Area to Receive Drip Emitters Rain Bird XB-PC Single Outlet, Pressure Compensating Drip Emitters. Flow rates of 0.5gph=blue, 1.0gph=black, and 2.0gph=red. Comes with a self-piercing barb inlet x barb outlet. Emitter Notes: 0.5 GPH emitters (2 assigned to each 1 gal plant) 1.0 GPH emitters (2 assigned to each 2 gal plant) 1.0 GPH emitters (2 assigned to each 5 gal plant)	1,669 s.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PGA-PRS-D Globe 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe. With Pressure Regulator Module.	2
	Rain Bird 44-LRC 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.	2
	Stop and Waste Valve Drain to Stop and Waste Valve	# 2
M	Rain Bird EFB-CP-PRS-D 1" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
M2	Rain Bird EFB-CP-PRS-D 1" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
	Pressure Reducing Valve	# 2
BF	Zurn 975XL 1" Reduced Pressure Backflow device	1
BF2	Zurn 975XL 1" Reduced Pressure Backflow device	1
C	Rain Bird ESP4ME 4 Station, Hybrid Modular Indoor Controller. For Residential or Light Commercial Applications. Contractor to coordinate with owner's representative regarding location. Typical location is Fire Riser Room.	1
C2	Rain Bird ESP4ME 4 Station, Hybrid Modular Indoor Controller. For Residential or Light Commercial Applications. Contractor to coordinate with owner's representative regarding location. Typical location is Fire Riser Room.	1
W	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter. Contractor to coordinate with owner's representative regarding location.	2
	Irrigation Lateral Line: PVC Schedule 40	1,068 l.f.
	Irrigation Mainline: PVC Schedule 40	82.5 l.f.
	Pipe Sleeve: PVC Schedule 40	489.2 l.f.



VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM
1	Rain Bird XCZ-LF-100-PRF	1"	Area for Drip Emitters	2.35
2	Rain Bird PGA-PRS-D Globe	1"	Bubbler	5
3	Rain Bird PGA-PRS-D Globe	1"	Bubbler	6
4	Rain Bird XCZ-LF-100-PRF	1"	Area for Drip Emitters	2.35

LANDSCAPE WATER ALLOWANCE

LANDSCAPE WATER ALLOWANCE = ETO X 1.0 X 0.62 X A

WHERE: ETO = REFERENCE EVAPOTRANSPIRATION
1.0 = ADJUSTMENT FACTOR FOR 100% TURF GRASS
0.62 = CONVERSION FACTOR
A = IRRIGATED LANDSCAPE AREA IN SQUARE FEET

31.18 X 1.0 X 0.62 X 1,669 = 32,264 GALLONS

GENERAL NOTES:

1. IRRIGATION SYSTEM IS EQUIPPED WITH A SMART ET BASED CONTROLLER AND RAIN SENSOR AS PART OF THE SPRINKLER SYSTEM.
2. IRRIGATION PIPING AND EQUIPMENT ILLUSTRATED IN HARDSCAPE AREAS IS FOR GRAPHIC CLARIFICATION ONLY. ALL IRRIGATION SYSTEMS ARE TO BE IN SOFTSCAPE UNLESS OTHERWISE NOTED.
3. NOTIFY LANDSCAPE ARCHITECT IF STATIC PRESSURE AT THE POINT OF CONNECTION IS UNDER 70 PSI.

WATERED LANDSCAPE AREAS SUMMARY

0 SF OF TURF GRASS
1,669 SF OF LOW TO MEDIUM SPACED PLANTINGS & TREES
1,669 SF OF TOTAL IRRIGATED LANDSCAPE

NORTH

0 20 40 60 feet

SCALE: 1" = 20'

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NO.	REVISIONS	BY	DATE

PROJECT PROFESSIONAL: DCM DESIGNER: DCM

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NOAH AND WYATT IRRIGATION PLAN

149 EAST VINE STREET MURRAY, UTAH

LICENSED LANDSCAPE ARCHITECT DAN C. MATTA No. 106248 1/9/23

SHEET:
IR-1

FILE NAME: FDG-283 SCALE: 1" = 20'

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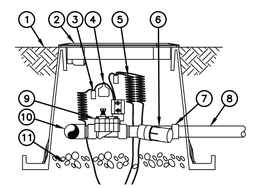
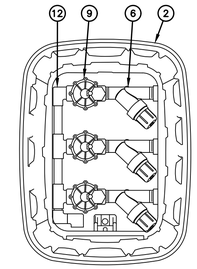
IRRIGATION NOTES

1. AN AUTOMATIC IRRIGATION SYSTEM USING POP-UP SPRINKLER HEADS SHALL BE REQUIRED FOR ALL NEW LANDSCAPES. LOW FLOW SPRINKLER HEADS SHALL BE USED WHEREVER POSSIBLE. EACH VALVE SHALL IRRIGATE A LANDSCAPE WITH SIMILAR SITE, SLOPE AND SOIL CONDITIONS AND PLANT MATERIALS WITH SIMILAR WATERING NEEDS. TURF AND NON-TURF AREAS SHALL BE IRRIGATED ON SEPARATE VALVES.
2. THE LANDSCAPE CONTRACTOR SHALL PROVIDE IRRIGATION AS-BUILT DRAWINGS OF THE IRRIGATION SYSTEM TO THE OWNERS CONSTRUCTION REPRESENTATIVE. ALL IRRIGATION COMPONENTS ADDED, DELETED, OR MODIFIED IN THE FIELD SHALL BE NOTED ON THE PLAN. NOTE TAP SIZE, LINE SIZE, AND STATIC PRESSURE AT POINT OF CONNECTION.
3. IRRIGATION SYSTEM COMPONENTS MUST BE PREMIUM QUALITY ONLY AND INSTALLED TO MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING STATE AND LOCAL LAWS FOR ALL SPECIFIED MATERIALS AND WORKMANSHIP. SUBSTITUTIONS MUST BE APPROVED BY LANDSCAPE ARCHITECT. PROVIDE OWNER AND MAINTENANCE PERSONNEL WITH INSTRUCTION MANUAL AND ALL PRODUCTS DATA TO OPERATE, CHECK, WINTERIZE, REPAIR, AND ADJUST SYSTEM. ANY CHANGES MUST BE DOCUMENTED AND SUBMITTED TO LANDSCAPE ARCHITECT IN AN AS BUILT PLAN FORMAT.
4. IRRIGATION SYSTEM GUARANTEE FOR ALL MATERIALS AND WORKMANSHIP SHALL BE ONE YEAR FROM THE TIME OF PROJECT ACCEPTANCE. GUARANTEE WILL INCLUDE, BUT IS NOT LIMITED TO WINTERIZING, SPRING ACTIVATION, REPAIR, TRENCH SETTING, BACKFILLING DEPRESSIONS, AND REPAIRING FREEZE DAMAGE. CONTRACTOR MUST CONTACT OWNER'S REPRESENTATIVE TO SCHEDULE PRE AND POST GUARANTEE INSPECTION MEETINGS. FAILURE TO DO SO WILL MEAN THE OFFICIAL GUARANTEE PERIOD HAS NOT BEEN ACTIVATED OR DE-ACTIVATED.
5. IRRIGATION SYSTEM STATIC PRESSURE MUST BE CHECKED BY THE CONTRACTOR BEFORE CONSTRUCTION BEGINS. CONTACT LANDSCAPE ARCHITECT IF MEASURED STATIC PRESSURE IS UNDER 75 PSI. A PRESSURE REGULATING VALVE SHALL BE INSTALLED AND MAINTAINED BY THE CONSUMER IF THE STATIC SERVICE PRESSURE EXCEEDS 80 POUNDS PER SQUARE INCH (PSI). THE PRESSURE-REGULATING VALVE SHALL BE LOCATED BETWEEN THE LANDSCAPE WATER METER AND THE FIRST POINT OF WATER USE, OR FIRST POINT OF DIVISION IN THE PIPE, AND SHALL BE SET AT THE MANUFACTURER'S RECOMMENDED PRESSURE FOR SPRINKLERS.
6. LANDSCAPE WATER METER: A WATER METER AND BACKFLOW PREVENTION ASSEMBLY THAT ARE IN COMPLIANCE WITH STATE CODE SHALL BE INSTALLED FOR LANDSCAPE IRRIGATION SYSTEMS, AND THE LANDSCAPE WATER METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE SEPARATE FROM THE WATER METER AND BACKFLOW PREVENTION ASSEMBLY INSTALLED FOR INDOOR USES. THE SIZE OF THE METER SHALL BE DETERMINED BASED ON IRRIGATION DEMAND.
7. IRRIGATION SYSTEM CHECK MUST BE DONE BEFORE THE SYSTEM IS BACKFILLED. IRRIGATION MAINLINE AND EACH CONTROL VALVE SECTION MUST BE FLUSHED AND PRESSURE CHECKED. ASSURE THE COMPLETE SYSTEM HAS NO DOCUMENTED PROBLEMS AND FULL HEAD TO HEAD COVERAGE WITH ADEQUATE PRESSURE FOR SYSTEM OPERATION. ADJUST SYSTEM TO AVOID SPRAY ON BUILDING, HARDSCAPE, AND ADJACENT PROPERTY. ANY PROBLEMS OR PLAN DISCREPANCIES MUST BE REPORTED TO THE LANDSCAPE ARCHITECT.
8. FIELD VERIFICATION OF ALL IRRIGATION PIPING AND EQUIPMENT NECESSARY TO COMPLETE CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. IRRIGATION LATERALS AND FITTINGS MUST BE SCHEDULE 40 P.V.C. ONE (1) INCH MINIMUM SIZE. SOLVENT WELD ALL JOINTS AS PER MANUFACTURES SPECIFICATIONS FOR MEASURED STATIC P.S.I. TEFLON TAPE ALL THREADED FITTINGS. THE MINIMUM DEPTH OF LINES SHALL BE TWELVE (12) INCHES. FLOWS IN G.P.M. FOR UN-SIZED LINES OR CHANGES SHALL BE (1 INCH-9-12 G.P.M.), (1 1/4 INCH-13-22 G.P.M.),(1-1/2 INCH-23-30 G.P.M.), (2 INCH-31-50 G.P.M.). INSTALL KING DRAINS AT ALL LOW POINTS AND ADAPT SYSTEM TO MANUAL COMPRESSION AIR BLOWOUT. THE OWNER MUST BE INFORMED ON WINTERIZING SCHEDULE FOR BLOWING OUT SYSTEM.
10. IRRIGATION MAIN LINE 3" AND SMALLER SHALL BE SCHEDULE 40 PVC PIPE WITH SCHEDULE 80 FITTINGS. SOLVENT WELD ALL JOINTS AS PER MANUFACTURER'S SPECIFICATIONS FOR MEASURED STATIC PRESSURE. USE TEFLON TAPE ON ALL THREADED JOINTS. LINE DEPTH MUST BE TWENTY FOUR (24) INCHES MINIMUM.
11. THRUST BLOCKS FOR MAINLINES 2" OR GREATER SHALL BE INSTALLED WITH A MINIMUM OF THREE AND A HALF (3 1/2) CUBIC FOOT OF CONCRETE WHEREVER A CHANGE IN DIRECTION OR A "T" OCCURS.
12. AUTOMATIC CONTROLLER: ALL IRRIGATION SYSTEMS SHALL INCLUDE AN ELECTRIC AUTOMATIC CONTROLLER WITH MULTIPLE PROGRAM AND MULTIPLE REPEAT CYCLE CAPABILITIES AND A FLEXIBLE CALENDAR PROGRAM. ALL CONTROLLERS SHALL BE EQUIPPED WITH AN AUTOMATIC RAIN SHUT-OFF DEVICE.
13. A RAIN SENSING OVERRIDING DEVICE SHALL BE UTILIZED SO THAT THE IRRIGATION SYSTEM WILL AUTOMATICALLY TURN OFF IN THE EVENT OF RAIN.
14. CONTROL WIRE MUST BE UF-UL LISTED, COLOR CODED, COPPER CONDUCTOR, DIRECT BURIAL. USE 14 GAUGE MINIMUM WIRING WITH ALL CONNECTIONS MADE WITH WATERTIGHT RAINBIRD SPLICE-1 WATERPROOF CONNECTORS AND CONTAINED IN VALVE BOXES. PROVIDE 24" OF SLACK WIRE AT EACH REMOTE CONTROL VALVE IN VALVE BOXES AND SLACK AT ALL CHANGES IN DIRECTION. TAPE WIRE TO THE UNDERSIDE OF THE MAINLINE EVERY TWENTY (20) FEET. WIRING SHALL HAVE SEPARATE COLORS FOR COMMON, CONTROL, AND SPARE. PROVIDE ONE SPARE WIRE FOR EVERY 5 REMOTE CONTROL VALVES, WITH SPARE AVAILABLE AT ALL VALVE MANIFOLDS OR CLUSTERS. ALL SPARE WIRE SHALL BE "HOME RUN" TO THE CONTROLLER AND COMMON SHALL BE END RUN.
15. DRIP EMITTERS OR A BUBBLER SHALL BE PROVIDED FOR EACH TREE WHERE PRACTICABLE. BUBBLERS SHALL NOT EXCEED 1.5 GALLONS PER MINUTE PER DEVICE. BUBBLERS FOR TREES SHALL BE ON SEPARATE VALVE UNLESS SPECIFICALLY EXEMPTED BY THE SANDY CITY PUBLIC UTILITIES DEPARTMENT DUE TO THE LIMITED NUMBER OF TREES ON THE PROJECT SITE.
16. HEAD RISERS FOR SPRAY HEADS MUST BE A "FUNNY PIPE SYSTEM". RISERS FOR GEAR DRIVEN AND IMPACT HEADS MUST BE RAINBIRD TSJ SERIES SWING JOINTS (SIZE TO MATCH INLET SIZE OF HEAD) OR APPROVED EQUAL.
17. SIZE VALVE BOXES ACCORDING TO VALVE NUMBERS FOR EASE OF MAINTENANCE AND REPAIR. INSTALL FOUR (4) CUBIC FEET OF PEA GRAVEL FOR SUMP IN BASE OF BOXES.
18. QUICK COUPLERS SHALL BE A RAINBIRD 44LRC WITH A LASCO 1" UNITIZED SWING JOINT ASSEMBLY AND 1" BRASS INSERT 90° ELL OUTLET, SUPPORT WITH REBAR IN EACH RETAINER LUG. INSTALL WHERE SHOWN ON THE PLANS.
19. IRRIGATION SYSTEM BACKFILL MUST OCCUR ONLY AFTER SYSTEM CHECK IS COMPLETED AS SPECIFIED. USE ONLY ROCK FREE CLEAN FILL AROUND PIPES, VALVES, DRAINS, OR ANY IRRIGATION SYSTEM COMPONENTS. WATER SETTLE ALL TRENCHES AND EXCAVATIONS.
20. ALL IRRIGATION PIPE RUNNING THROUGH WALLS, UNDER SIDEWALK, ASPHALT, OR OTHER HARD SURFACE SHALL BE SLEEVED PRIOR TO PAVING. IT IS THE IRRIGATION CONTRACTORS RESPONSIBILITY TO COORDINATE SLEEVING WITH CONCRETE AND PAVEMENT CONTRACTORS. THE DEPTH FOR MAIN LINE SLEEVES SHALL BE TWENTY FOUR (24) INCHES MINIMUM. DEPTH FOR LATERAL SLEEVES SHALL BE TWELVE (12) INCHES MINIMUM. SLEEVES SHALL BE A MINIMUM OF TWO SIZES LARGER THAN THE PIPE TO BE SLEEVED. ALL VALVE WIRING SHALL BE CONTAINED IN SEPARATE SLEEVING.
21. PLANS ARE DIAGRAMMATIC AND APPROXIMATE DUE TO SCALE. WHERE POSSIBLE, ALL PIPING IS TO BE INSTALLED WITHIN THE PLANTING AREAS. NO TEES, ELLS, OR CHANGES IN DIRECTION SHALL OCCUR UNDER HARDSCAPE.
22. SPRAY HEADS ADJACENT TO HARDSCAPE PAVING SHALL BE SPACED AWAY 1'-4". SPRAY HEADS ADJACENT TO WALLS, BUILDINGS, FENCES OR STRUCTURES SHALL BE SPACED AWAY A MINIMUM OF 6".
23. SPRINKLERS SHALL HAVE MATCHED PRECIPITATION RATE WITH EACH CONTROL VALVE CIRCUIT.
24. CHECK VALVES SHALL BE REQUIRED WHERE ELEVATION DIFFERENCES WILL CAUSE LOW-HEAD DRAINAGE. PRESSURE COMPENSATING VALVES AND SPRINKLERS SHALL BE REQUIRED WHERE A SIGNIFICANT VARIATION IN WATER PRESSURE WILL OCCUR WITHIN THE IRRIGATION SYSTEM DUE TO ELEVATION DIFFERENCES.
25. ON SLOPES EXCEEDING 30%, THE IRRIGATION SYSTEM SHALL CONSIST OF DRIP EMITTERS, BUBBLERS,OR SPRINKLERS WITH A MAXIMUM PRECIPITATION RATE OF 0.85 INCHES PER HOUR AND ADJUSTED SPRINKLER CYCLE TO ELIMINATE RUNOFF. PROGRAM VALVES FOR MULTIPLE REPEAT CYCLES WHERE NECESSARY TO REDUCE RUNOFF, PARTICULARLY SLOPES AND SOILS WITH SLOW INFILTRATION RATES.
26. IRRIGATION ZONES WITH OVERHEAD SPRAY OR STREAM SPRINKLERS SHALL BE DESIGNED TO OPERATE BETWEEN 6:00 P.M. AND 10:00 A.M. TO REDUCE WATER LOSS FROM WIND AND EVAPORATION. THIS WOULD EXCLUDE DRIP OR BUBBLER ZONES.
27. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL QUANTITIES BASED UPON THE PLAN PRIOR TO COMPLETION OF A CONSTRUCTION COST ESTIMATE.
28. UPON COMPLETION OF IRRIGATION MODIFICATIONS, THE CONTRACTOR SHALL VISUALLY INSPECT THE IRRIGATION SYSTEM AND VERIFY THAT ALL IRRIGATION ZONES OPERATE PROPERTY. ANY UNDER IRRIGATED OR UNIRRIGATED AREAS SHALL BE IDENTIFIED, AND THE CONTRACTOR SHALL MAKE ADJUSTMENTS OR ADDITIONS TO THE SYSTEM TO CORRECT IRRIGATION DEFICIENCIES.
29. DRIP SYSTEM PIPING SHALL CONSIST OF A RIGID SCHEDULE 40 PVC PIPE DISTRIBUTION SYSTEM CONNECTING DRIP IRRIGATED PLANTER AREAS. POLYTUBING SHALL BE RUN OFF THE RIGID PVC IN EACH PLANTING AREA OR ISLAND WITH A PVC TO POLYTUBING ADAPTER. NO POLYTUBING SHALL RUN UNDER PAVEMENT.
30. DRIP IRRIGATION LINES SHALL BE PLACED UNDERGROUND OR OTHERWISE PERMANENTLY COVERED, EXCEPT FOR DRIP EMITTERS AND WHERE APPROVED AS A TEMPORARY INSTALLATION. FILTERS AND END FLUSH VALVES SHALL BE PROVIDED AS NECESSARY.
31. FOLLOWING CONSTRUCTION, PRIOR TO RELEASE OF THE SECONDARY BOND GUARANTEE POSTED FOR THE PROJECT AND WITHIN 60 DAYS OF INSTALLING THE IRRIGATION SYSTEM AND LANDSCAPE, A WATER USE EFFICIENCY REVIEW WILL BE CONDUCTED BY A LANDSCAPE IRRIGATION AUDITOR. THE AUDITOR SHALL BE INDEPENDENT OF THE CONTRACTOR, DESIGN FIRM, AND OWNER/DEVELOPER OF THE PROJECT. THE WATER PERFORMANCE AUDIT WILL VERIFY THAT THE IRRIGATION SYSTEM COMPLIES WITH THE MINIMUM STANDARDS REQUIRED BY SANDY CITY ORDINANCE. THE MINIMUM EFFICIENCY REQUIRED FOR THE IRRIGATION SYSTEM IS 60% FOR DISTRIBUTION EFFICIENCY FOR ALL FIXED SPRAY SYSTEMS AND 70% DISTRIBUTION EFFICIENCY FOR ALL ROTOR SYSTEMS. THE AUDITOR SHALL FURNISH A CERTIFICATE TO THE CITY, DESIGNER, INSTALLER AND OWNER/DEVELOPER CERTIFYING COMPLIANCE WITH THE MINIMUM DISTRIBUTION REQUIREMENTS. COMPLIANCE WITH THIS PROVISION IS REQUIRED BEFORE THE CITY WILL RELEASE THE BOND FOR THIS PROJECT.
32. MULCH: AFTER COMPLETION OF ALL PLANTING, ALL IRRIGATED NON-TURF AREAS SHALL BE COVERED WITH A MINIMUM LAYER OF FOUR (4) INCHES OF MULCH TO RETAIN WATER, INHIBIT WEED GROWTH AND MODERATE SOIL TEMPERATURE. NON-POROUS MATERIAL SHALL NOT BE PLACED UNDER THE MULCH. 4" MULCH IN ALL IRRIGATED NON-TURF AREAS. IF ROCK MULCH, MINIMUM IS 3".



SIDE VIEW

1. FINISH GRADE
2. STANDARD VALVE BOX WITH COVER: RAIN BIRD VB-STD
3. WATERPROOF CONNECTION: RAIN BIRD DB SERIES
4. VALVE ID TAG
5. 30-INCH LINEAR LENGTH OF WIRE, COILED
6. PRESSURE REGULATING FILTER: RAIN BIRD PRF-100-RBY (INCLUDED IN XCZ-100-PRF KIT)
7. PVC SCH 40 FEMALE ADAPTOR
8. LATERAL PIPE
9. REMOTE CONTROL VALVE: RAIN BIRD 100-DV (INCLUDED IN XCZ-100-PRF KIT)
10. PVC SCH 40 TEE OR ELL TO MANIFOLD
11. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
12. MANIFOLD PIPE AND FITTINGS

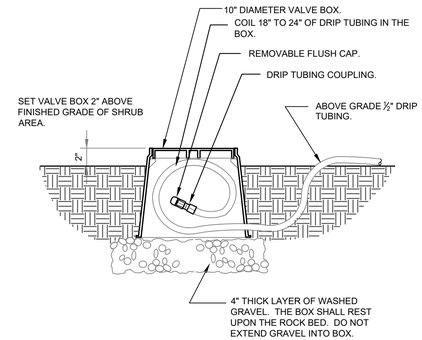


TOP VIEW

1 XCZ-100-PRF 1" CONTROL ZONE KIT IN SQUARE VALVE BOX OPTION 1

N.T.S. 1-25-10

XCZ-100-PRF-Option 1.dwg

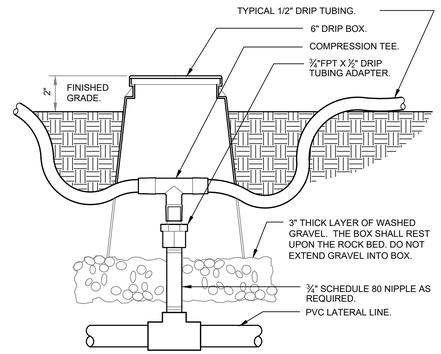


1. LOCATE FLASH CAP ASSEMBLY AT THE END OF EACH DRIP LINE.
2. ENSURE THAT THE COILED DRIP TUBING IS OF SUFFICIENT LENGTH TO COMPLETELY EXTEND OUT OF THE VALVE BOX WHEN FLUSHING.

2 DRIP FLUSH CAP ASSEMBLY

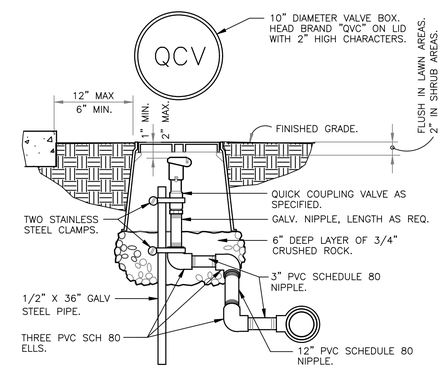
1 1/2" = 1'-0" 328413.49-06

NOTE:
1. SEE SHEET IR-2 AND IR-10 FOR ENLARGED PLANS.
2. PLANS ARE DIAGRAMMATIC DUE TO SCALE, THEREFORE, IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY QUANTITIES.



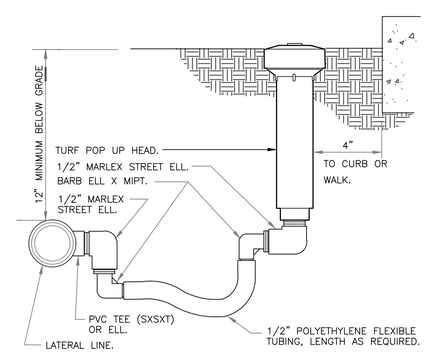
3 ZONE CONTROL

3" = 1'-0" 328413.46-03



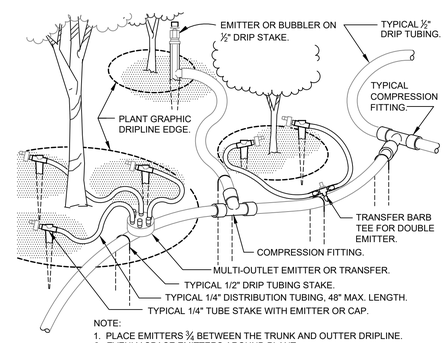
4 QUICK COUPLING VALVE IN BOX

1 1/2" = 1'-0" 32 8406.43-02



5 TURF SPRAY FLEX ASSEMBLY

3" = 1'-0" 32 8403.13-02



NOTE:
1. PLACE EMITTERS ¾ BETWEEN THE TRUNK AND OUTTER DRIPLINE.
2. EVENLY SPACE EMITTERS AROUND PLANT.
3. STAKE THE DRIP TUBING AT EACH TEE, ELL, COUPLER, AT EACH EMITTER OR TRANSFER, AND AT 6'-0" MAX O.C.

6 TYPICAL DRIP TUBING

1 1/2" = 1'-0" 328413.43-01

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NOAH AND WYATT IRRIGATION NOTES AND DETAILS

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LICENSED LANDSCAPE ARCHITECT DAN C. MATTA No. 106248 1/31/23

SHEET: IR-2

FILE NAME: FDG-283 SCALE: N.A.

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