Planning Commission Staff Report

MAPLETON

Item:
3

Date:
3/24/2022

Applicant:
Lone Star Properties, LLC

Location:
2450 S Hwy 89

Prepared By:
Sean Conroy, Community Development Director

Public Hearing:
No

Zone:
GC-1, I&M-1

Attachments:
1. Standard findings.
2. Application information.
3. Traffic study summary.
4. DRC comments.

REQUEST

Consideration of a preliminary plat for a 4-lot subdivision in the General Commercial (GC-1) and Industrial (I&M-1) zones located at approximately 2450 S Hwy 89, review of project plans for an indoor sports facility and five office/warehouse buildings and a conditional use permit for a storage facility.

BACKGROUND & DESCRIPTION

The subject property is just over eight acres in size and was the previous site of the Olsen sheep farm. The property has frontage on both 2400 South and Highway 89. Prior to 2019, seven acres of the site was zoned A-2 and the one acre corner parcel was zoned GC-1. On November 6, 2019 the City Council rezoned approximately 1.5 acres more along Highway 89 to GC-1 and the remaining 5.5 acres to I&M-1 with the condition that no 24-hour businesses be permitted as requested by the neighbors.

The applicant is requesting approval of the following:

- Preliminary plat for 4 lots, 2 in the GC-1 zone and 2 in the I&M-1 zone;
- Project plan approval for a 30,000 square foot indoor sports facility. The facility would be used for a variety of sports including volleyball, basketball, pickleball, baseball and soccer;
- Project plan approval for five office warehouse buildings of 3,300 square feet each;
- Conditional use permit approval for a storage unit facilty with approximately 113 storage units; and
- One commercial parcel that will remain undeveloped at this time.

EVALUATION

Administrative Review: Preliminary plats, project plans and conditional use permits are considered administrative in nature. If an application complies with adopted City standards and if reasonable conditions can be proposed to mititage reasonably anticipated determinantal effects of the proposed uses, the application should be approved.

Review Process: The Planning Commission is a recommending body to the City Council for subdivisions of four lots or more. Mapleton City Code (MCC) section 18.92.070 states that in situations where multiple applications are submitted simultaneously for concurrent review (i.e. preliminary plat, project plan, conditional use

permit) and at least one of the applications requires City Council review, that all final decisions will be made by the Council. Since the preliminary plat application requires City Council review, the City City Council will be the final decision making body for this project.

General Plan: The General Plan designates the eastern portion of the site along Highway 89 as "*General Commercial*" and the rest of the site as "*Industrial and Manufacturing*". The following goal and policy of the General Plan also apply to the site:

> *Goal 5: Encourage a diverse and appropriate amount of commercial uses along Highway 89 to meet the needs of the community and motorists alike.*
>
> *Policy 5.2: Ensure appropriate land use transitions between commercial uses and surrounding land uses.*

The existing zoning and proposed uses are consistent with the land use designations for the site. The property to the south is also zoned Industrial. The residential properties in the vicinity are on the west side of Highway 89, which creates an appropriate buffer. The rail road tracks run along the west portion of the site. The site plan also includes landscape planters with street trees, which will futher buffer the project from adjacent uses.

Preliminary Plat: There is no minimum lot size in the GC-1 or I&M-1 zones but both zones require at least 75 feet of frontage on a public road. The preliminary plat complies with these standards. MCC Chapter 17.04.050.B outlines the review standards that should be used by the Commission when reviewing subdivision applications. These standards are shown in attachment "1".

The subdivision ordinance requires a traffic impact study for all projects that required 50 parking spaces or more. The applicant has provided the attached traffic study. The study concludes that traffic will continue to operate at acceptable levels when the project is completed.

Commercial Design Standards: MCC Section 18.92 outlines the commercial design requirements from projects in the GC-1 zone. These standards would apply to the proposed indoor sports facility. Staff has included a summary of the relevant requirements followed by a brief response.

18.92.030 – Site Standards: One of the key components of the design standards is the requirement to locate buildings close to the street and to locate parking areas to the side and/or rear of the buildings. This creates a more aesthetic commercial environment from the road and emphasizes buildings rather than parking lots. The application complies with this standard.

Subsections "I" and "J" of this section require trash enclosures to be consistent with the architecture of the main building, at least one pedestrian bench per building, and a bike rack with a least four stalls. The applicant has addressed these requirements on the plans.

18.92.040 – Buildings: This chapter is meant to encourage high quality, aesthetically pleasing buildings. Section "A" indicates that the maximum allowed height is 45 feet. This section also requires covered entrances, quality building materials (50% or more of stone, wood or hardy board, brick, etc., and no more than 49% stucco) and at least 30% glass along the street frontages.

The proposed building is a barn style structure that has a mix of horizontal and vertical siding as well as stone. The entrances are covered as required and the street facades include at least 30% glass. The maximum height will be just under 40 feet. The project is consistent with the building requirements.

18.92.060 – Landscaping: This chapter requires a minimum of 20% of the site be landscaped and that no more than 60% of the landscaped area to be turf grass. This chapter also requires London Plane Sycamore trees in the planter strip. A condition of approval has been added to address these standards.

Industrial Standards: The I&M-1 zone does not include architectural standards, but does include site and landscaping standards. These standards apply to the proposed office/warehouse buildings. The requirements are outlines below followed by a brief response.

18.72.040.B. This section establishes a maximum height limit of 40 feet. It also requires a minimum front yard setback of 15 feet. The project plans comply with these requirements.

18.72.050. This section requires a site obscuring fence along the rear property line. It also requires a variety of landscape improvements including a landscape berm along the frontage and landscape planter within the parking lot. The application complies with these requirements.

Parking: The parking for each use is discussed below.

Office/Warehouse: The code requires one space per 250 square feet of office space. The applicant is proposing up to 1,150 square feet of office in each unit, which would require 23 spaces. The code also requires one parking space per every two employees. The applicant has allocated an additional 14 spaces for employees for a total of 35 spaces. At the time of business license issuance, if the business anticipates more employees then currently accounted for, additional parking will be required. The site has sufficient space at the rear of the units for additional parking if needed.

Storage Units: The code requires that the drive lanes be at least 16’ wide to accommodate temporary parking and also requires one formal parking space for every 200 units, or a minimum of two spaces. The plans include four formal parking spaces and the drive lanes exceed the minimum width requirement.

Indoor sports facility: The City code does not have a specific parking requirement for the indoor sports facility. MCC section 18.92.030.K states that the Plannign Commission shall determine the required parking for facilities not specifically identified. In looking at comparable facilities, there does not seem to be a consistent standard. The nearest similarly sized facility is on Volunteer Drive in Spanish Fork and has 55 parking spaces. The applicant is proposing 74 parking spaces.

The applicant is also proposing to use the undeveloped one acre lot to the south as overflow parking if/when the facility hosts tournament events. Finally, staff is recommending that a shared parking agreement be established that would allow all of the parking for the project to be shared between the buildings. Since the office/warehouse spaces and the sports facility will not typically share peak use times, sharing parking will ensure that there is sufficient on-site parking. With this condition, the onsite parking appears to be sufficient.

Conditional Use Permit: The sports facility and office/warehouse buildings are considered permitted uses. However, the storage units are considered a conditional use. Below is a summary of the conditional use requirements followed by a brief staff response.

- *Facilities shall be located behind another building or buildings containing another permitted use. An applicant may propose a portion of the facilty not be located behind another building or buildings if a 40' landscape buffer is provided between the facility and the street.*

Response: Approximately 70% of the facility will be located behind the office/warehouse buildings as required. The remaining 30% will not be located behind any buildings but does include the landscape buffer as required.

- *Each self storage unit facility must include a masonry wall along the entirety of each street frontage.*

Response: The application complies with this requirement.

- *No garage door or door accessing a unit shall face a public street.*

Response: The application complies with this requirement. The storage doors will be perpendicular to the street and behind the required masony wall.

- *Storage units shall be no more than one-story and twenty-four feet (24') in height.*

Response: The applicant complies with this requirement.

- *In no case shall any storage unit be used for human habitation or the housing of animals.*
- *No business activity of any kind may be transacted from within a storage unit.*
- *No outdoor storage or storage containers are permitted within the self-storage facility.*

Response: These conditions will be attached to the business license.

- *The masonry wall of the storage units may be constructed on the side and/or rear property lines when not abutting property in any residential zone.*

Response: The project complies with this requirement.

RECOMMENDATION

Recommend approval of the preliminary plat, project plans and conditional use permit to the City Council with the following conditions:

1. A shared parking agreement shall be recorded allowing the uses to share parking during off peak hours.

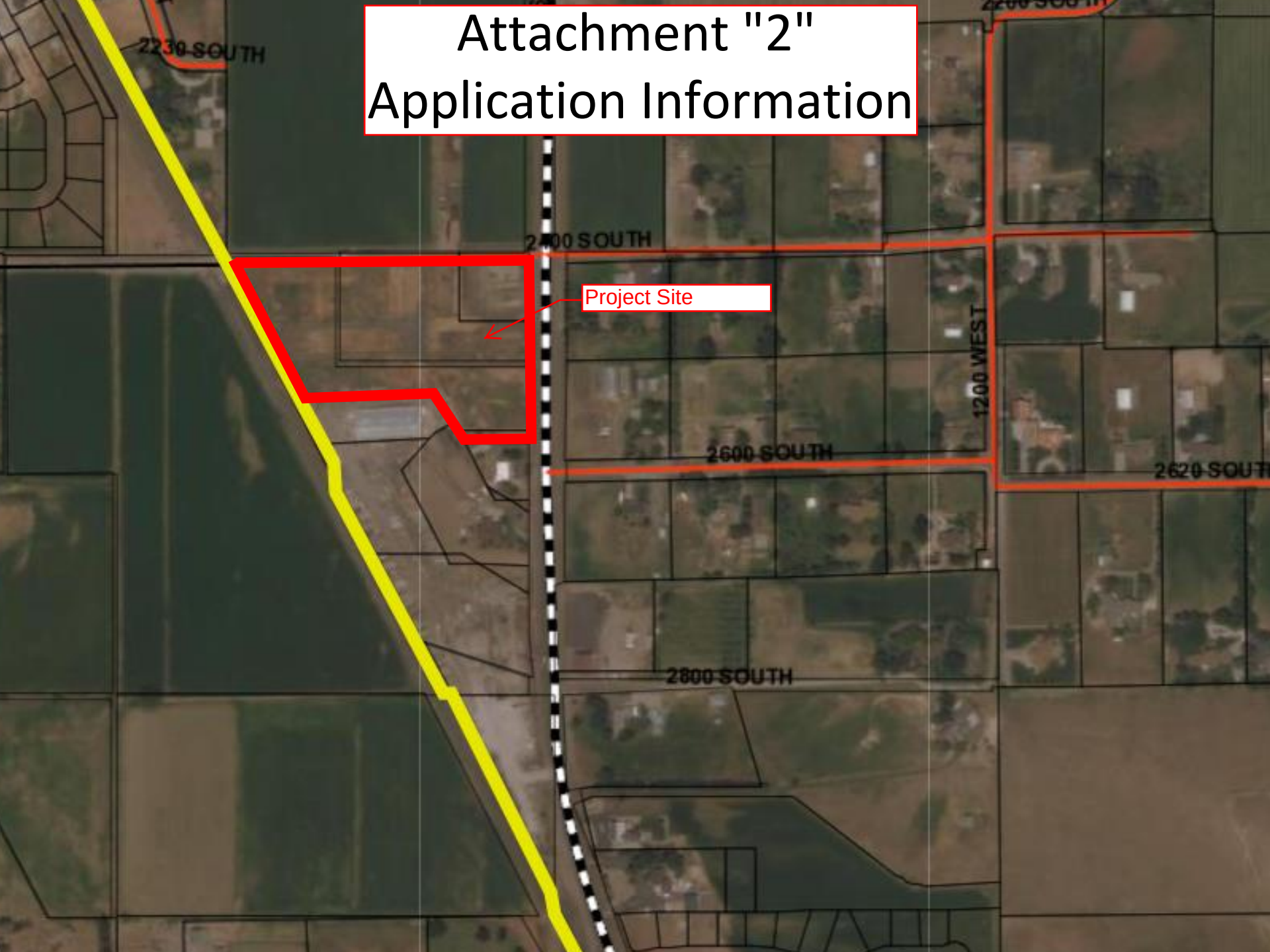
2. At the time of business license issuance of each office/warehouse, the number of employees shall be determined. Based on the parking requirements of MCC Section 18.84.270, additional parking may be required.

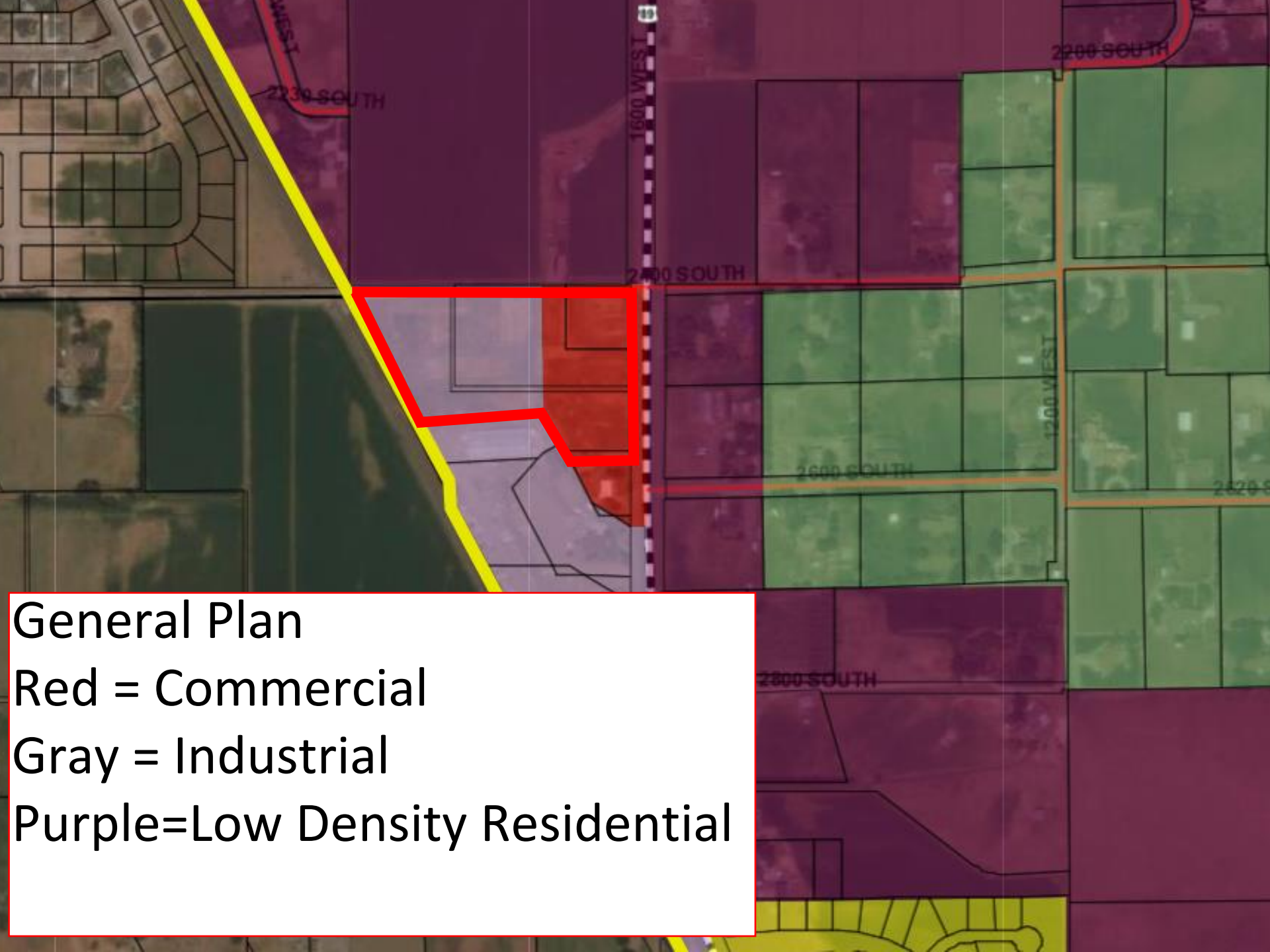
3. The applicant may utilize the southern undeveloped lot as overflow parking for the indoor sports facility provided the improvements along the highway are installed (curb, gutter, sidewalk and planter) and the parking area is improved with a hard surface material that will avoid dust and mud. If/when the applicant sells or proposes to develop this lot, the parking for the indoor sports facility will be re-evaluated and additional use limitations may be imposed if there is no longer sufficient parking to handle demand.

4. The final landscaping plan shall include London Plane Sycomore trees in the planter strip along Highway 89 and no more than 60% of the total landscape area shall be in sod.

5. All outdoor lighting shall be directed downward and include cut-off shields. Free standing light poles shall not exceed 16’ in height.

Attachment "1" Findings for Decision		
No.	**Findings**	
1.	The plans, documents and other submission materials (including technical reports where required) are sufficiently detailed for proper consideration.	✔
2.	The submitted plans, documents and submission materials conform to applicable city standards.	✔
3.	The proposed development conforms to city zoning ordinances and subdivision design standards.	✔
4.	There are not natural or manmade conditions existing on the site or in the vicinity of the site defined in the preliminary plan that, without remediation, would render part or all of the property unsuitable for development.	✔
5.	The project provides for safe and convenient traffic circulation and road access to adjacent properties under all weather conditions.	✔
6.	The project does not impose an undue financial burden on the City.	✔
7.	The location and arrangement of the lots, roads, easements and other elements of the subdivision contemplated by the project are consistent with the city's general street map and other applicable elements of the general plan.	✔
8.	The project plan recognizes and accommodates the existing natural conditions.	✔
9.	The public facilities, including public utility systems serving the area are adequate to serve the proposed development.	✔
10.	The project conforms to the intent of the Subdivision Ordinance as described MCC Chapter 17.01.	✔


Attachment "2"
Application Information
2230 SOUTH
2400 SOUTH
Project Site
1200 WEST
2600 SOUTH
2620 SOUTH
2800 SOUTH



General Plan

Red = Commercial

Gray = Industrial

Purple=Low Density Residential

Mapleton Rec Center

with Office/Warehouse and Storage Units

Cover Letter

Lone Star Builders is excited to propose Mapleton City's first Rec Center. This development will also include storage units and office/warehouse space. The combination of these uses will provide recreational activities with the Rec Center, economic growth with the office/warehouse space, and promote clean and organized residences nearby with the storage units.

The Rec Center will be located right on the corner of Hwy 89 and 2400 South and will be the main focus of this development. It will be a state-of-the-art facility featuring many sports. It will be beautifully designed and landscaped to create an inviting and positive experience. There will be opportunities for local sporting events, leagues, tournaments, and fitness classes. These will include volleyball, basketball, baseball, soccer, pickle ball, and rock climbing. We also plan to have some designated fitness rooms for holding classes like yoga, cross fit, etc. There are plans being made to hold seasonal tournaments for volleyball and basketball. Parking will be located on the south side of the building with overflow parking also available.

The office/warehouse space will support the need of Mapleton small business owners who have outgrown their home or smaller warehouse space and need additional space to operate their business. This will be a single well-designed building fronting 2400 South and directly on the west side of the Rec Center. It will be divided into six office/warehouse spaces. Parking will be along front of the building, and there will be a drive isle along the back of the building for additional access to each individual space. Business owners will also be able to enjoy their own private fenced yard for secure outdoor storage. Their yards will be located directly behind them across the rear drive isle.

The storage unit area of this development will be located along the railroad tracks south and west of the Rec Center and office/warehouse building. It will total 113 units of varying sizes, the largest being designed for boat or trailer storage. These units will be secure and heated for protection from the elements throughout winter. There will be an office at the entrance to the storage units for operation and management. The second story of this office will be a single unit apartment residence for the full-time onsite property manager. In addition to managing the storage units, the property manager will also manage the Rec Center.

We are very excited about this development and believe it will be a great addition to the community by supporting the culture and growth of the City of Mapleton.

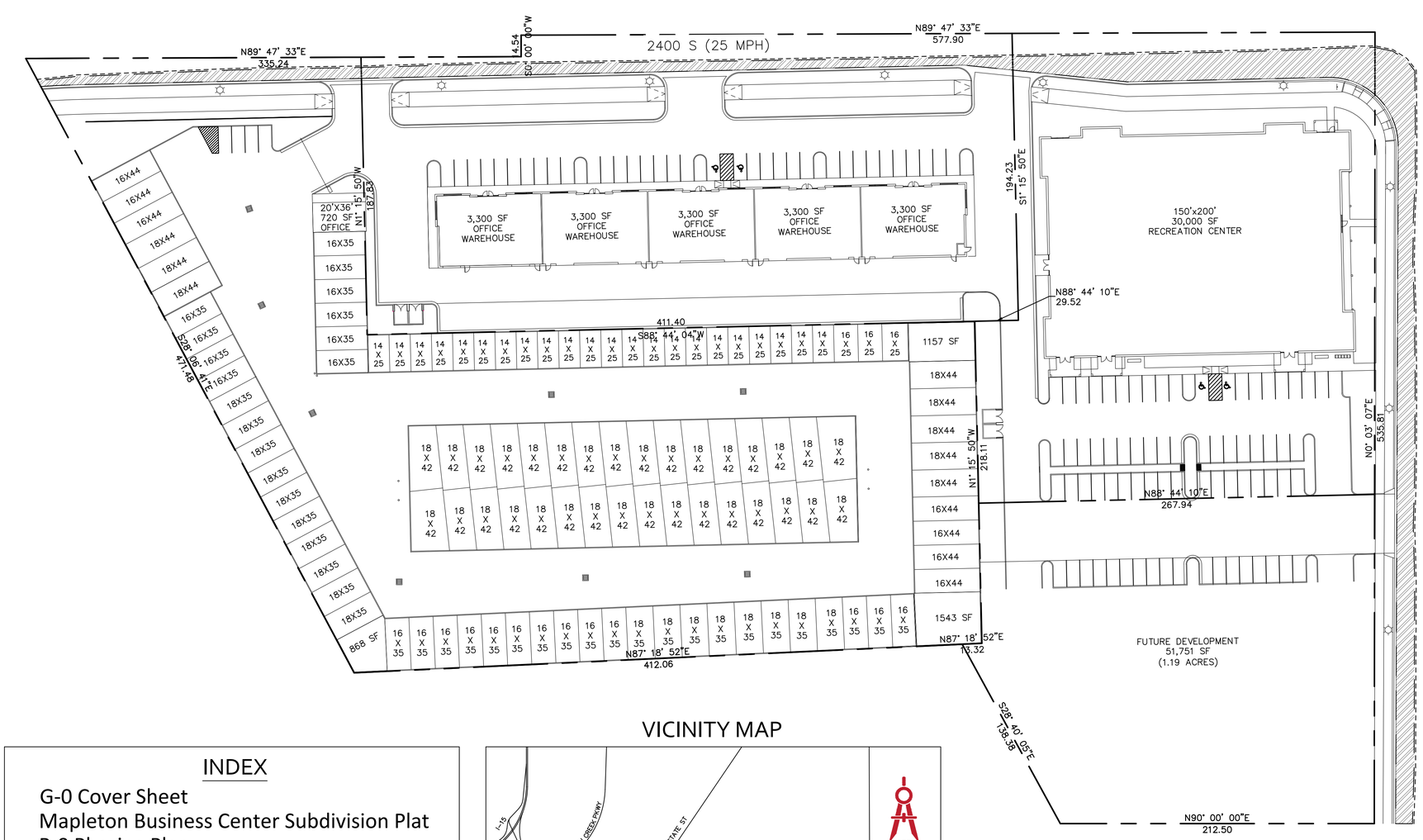
Thank you!

Lone Star Builders, LLC

MAPLETON BUSINESS CENTER
MAPLETON, UT

PROJECT ENGINEER:
LARVIN POLLOCK
ELEVATE ENGINEERING
2208 WEST 700 SOUTH
SPRINGVILLE, UT 84663
(801) 718-5993
LARVIN@ELEVATENG.COM

DEVELOPER:
JOSEPH EARNEST
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2208 WEST 700 SOUTH
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(801) 400-1944
JOSEPH@LONESTARBUILDERSINC.COM



SITE MAP
1"=40'

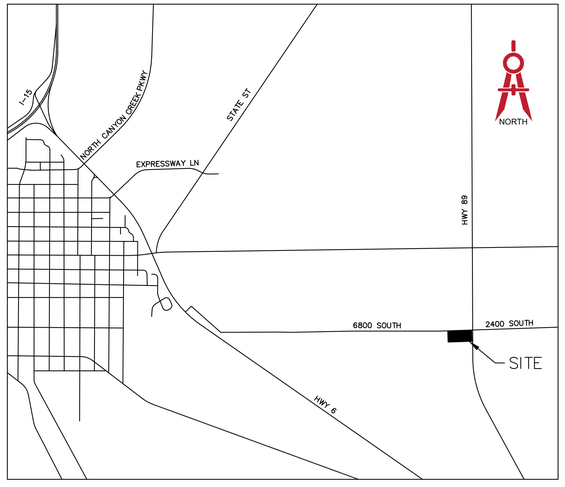
LEGEND & ABBREVIATION TABLE

R.O.W./PROPERTY LINE	
EASEMENT LINE	
CENTER LINE	
PROPOSED TRAIL	
PROPOSED WATER LINE	W
PROPOSED PRESSURIZED IRRIGATION	PI
PROPOSED GROUND WATER DRAIN	GW
PROPOSED SEWER LINE	SS
PROPOSED STORM DRAIN LINE	SD
EXISTING SEWER LINE	SS
EXISTING WATER LINE	W
EXISTING STORM DRAIN LINE	SD
EXISTING CONTOUR	4960
FINISHED CONTOUR	47.00
EXISTING CURB AND GUTTER	
PROPOSED CURB AND GUTTER	
INVERT ELEVATION	I.E.
TOP BACK CURB	TBC
TOP ASPHALT	TA
TOP OF GRATE	TOG
FINISHED GRADE	FG
TOP OF CONCRETE	TC
HIGH WATER ELEVATION	HWE
CATCH BASIN	
SURFACE FLOW DIRECTION	
PROPOSED STREET LIGHT	
STORM DRAIN MANHOLE	D
SANITARY SEWER MANHOLE	S
PROPOSED WATER VALVE	W

INDEX

G-0 Cover Sheet
Mapleton Business Center Subdivision Plat
P-0 Phasing Plan
C-0 Existing Conditions Plan
C-1 Site Plan
C-2 Grading Plan
C-3 Drainage Plan
C-4 Utility Plan
C-5 Highway 89 Plan & Profile
C-6 Details
C-7 Utility Details
C-8 Stormwater Pollution Prevention Plan
C-9 SWPPP Details
L-1 Landscape Plan

VICINITY MAP



NOT TO SCALE

SITE DATA

LOT AREA:	363,848	SF (8.35 ACRES)
BUILDING AREA:	117,176	SF± 32.2%
PAVEMENT AREA:	217,725	SF± 59.8%
LANDSCAPE AREA:	28,947	SF± 8.0%

ZONING: I&M-1 INDUSTRIAL AND MANUFACTURING

NO.	REVISIONS	BY	DATE

PROJECT ENGINEER: LP
DESIGNER: DL

ELEVATE ENGINEERING
2208 WEST 700 SOUTH
SPRINGVILLE, UT 84663
PHONE: (801) 718-5993
larvin@elevateng.com

ELEVATE ENGINEERING

MAPLETON BUSINESS CENTER HWY 89
COVER SHEET
3298 E 6800 S, MAPLETON, UT 84660

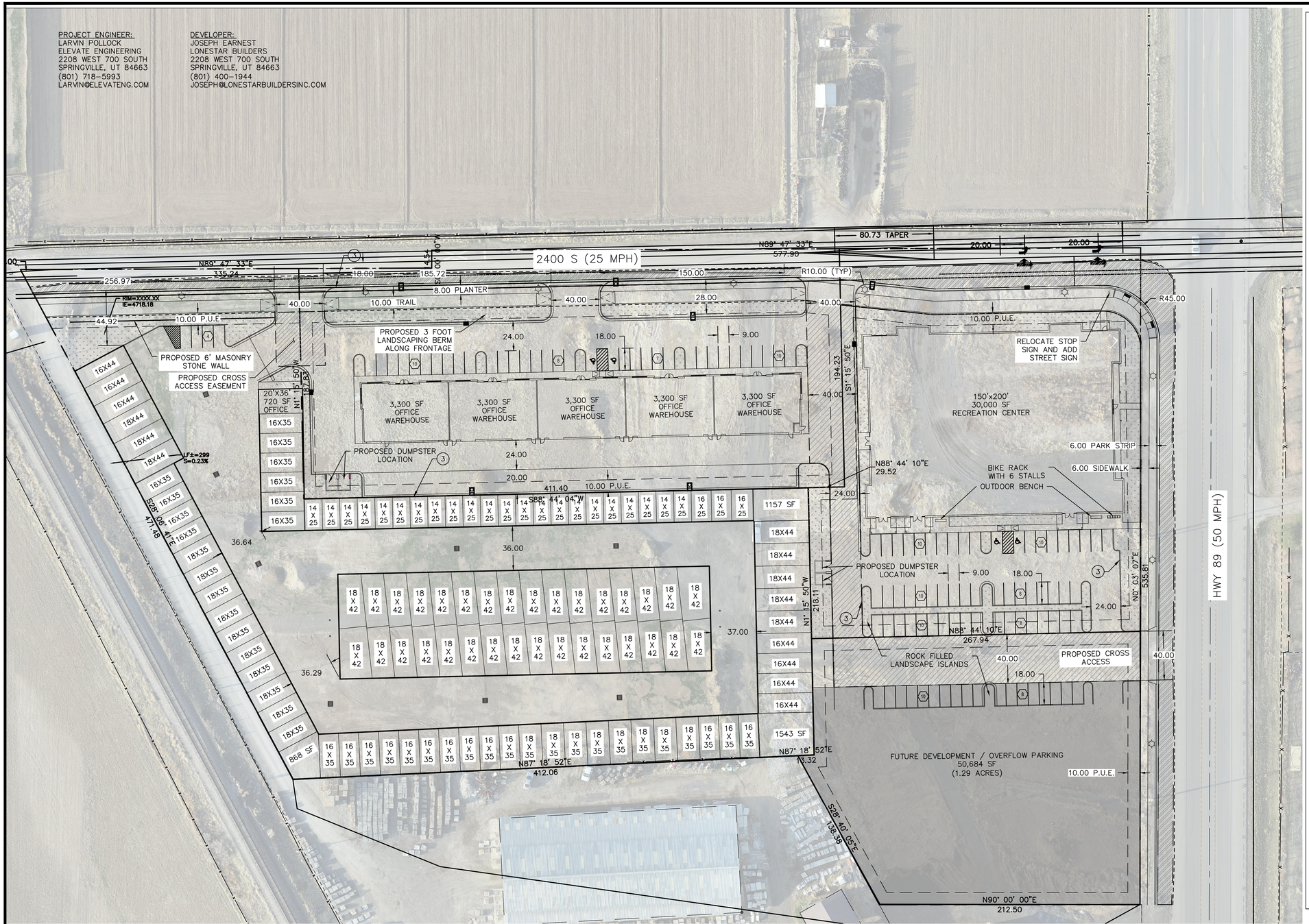
PROFESSIONAL ENGINEER
5/15/2022
10844737
LARVIN POLLOCK
STATE OF UTAH

SHEET:
C-0

DATE: Mar 15, 2022

PROJECT ENGINEER:
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DEVELOPER:
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LEGEND

LOT LINES (PROPERTY)	
PROPOSED CURB AND GUTTER	
STRIPING	
BUILDING SETBACK	
TOP BACK OF CURB	TBC
LANDSCAPE AREA	
CONCRETE AREA	

SITE DATA: I&M-1 INDUSTRIAL AND MANUFACTURING ZONE

LOT AREA:	240,731	SF (5.53 ACRES)
BUILDING AREA:	94,914	SF± 39.4%
PAVEMENT AREA:	135,372,	SF± 56.2%
LANDSCAPE AREA:	10,445	SF± 4.3%

PARCEL ID#: 270320007, 270320210

USE:

OFFICE: **PERMITTED**
STORAGE: **CONDITIONAL**

SITE DATA: COMMERCIAL ZONE

LOT AREA:	67,020	SF (1.53 ACRES)
BUILDING AREA:	30,950	SF± 46.2%
PAVEMENT AREA:	22,478	SF± 33.5%
LANDSCAPE AREA:	13,592	SF± 20.2%

PARCEL ID#: 270320008

USE:

OFFICE: **PERMITTED**
RECREATION: **PERMITTED**

BUILDING DATA

CONSTRUCTION TYPE: V-B
SPRINKLERS: NO
SETBACKS:
FRONT=15 FEET (HWY 89)
FRONT=0 FEET
REAR=20 FEET
SIDE=10 FEET

PARKING TABULATION

OFFICE/WAREHOUSE;
1 SPACE PER 250 SF OF GROSS FLOOR AREA. (OFFICE BUILDINGS): 30

STORAGE:
1 PARKING SPACE EVERY 200 STORAGE CUBICLES OR MINIMUM OF 2 SPACES. (STORAGE UNITS): 2

RECREATION CENTER:
TO BE DISCUSSED WITH CITY STAFF

TOTAL REQUIRED: 32+RECREATION CENTER STALLS

PROVIDED: 113 STALLS
4 ADA STALLS

NOTES:

1. PROPOSED 5' SIDEWALK PER CITY STANDARDS.
2. ALL HANDICAP STALLS AND RAMPS TO BE INSTALLED PER ADA & APWA STANDARDS. SEE SHEET C-6 FOR DETAILS.
3. PROPOSED CURB & GUTTER TYPE E PER APWA PLAN 205. SEE SHEET C-6 FOR DETAILS.
4. PAINT 4" SOLID YELLOW PAINT STRIPE AS SHOWN (TYPICAL).

STORAGE UNITS:

14X25 = 22
16X25 = 3
16X35 = 23
18X35 = 18
16X44 = 7
18X44 = 8
18X42 = 32

TOTAL = 113 UNITS

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

NORTH

SCALE: 1" = 40'
0 20 40 60 80 120

NO.	REVISIONS	BY	DATE

PROJECT ENGINEER: LP
DESIGNER: DR

ELEVATE ENGINEERING
2208 WEST 700 SOUTH
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larvin@elevateeng.com

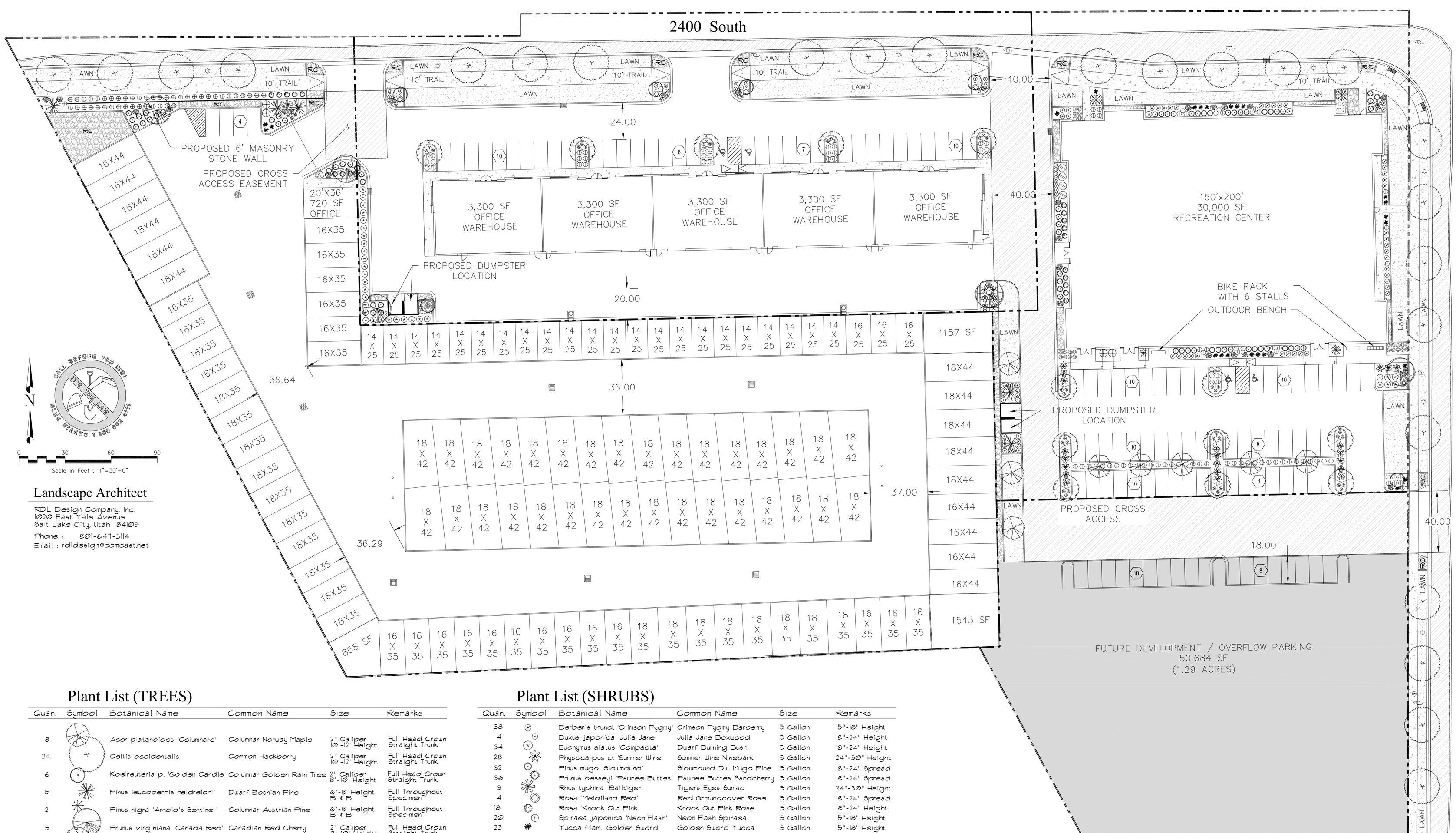
ELEVATE ENGINEERING

MAPLETON BUSINESS CENTER HWY 89
SITE PLAN
3298 E 6800 S, MAPLETON, UT 84660

PROFESSIONAL ENGINEER
3/15/2022
10864737
LARVIN POLLOCK
STATE OF UTAH

SHEET:
C-1

DATE: Mar 15, 2022



Scale in Feet : 1"=30'-0"

Landscape Architect

RDL Design Company, Inc.
1020 East Tale Avenue
Salt Lake City, Utah 84105
Phone : 801-647-3114
Email : rdldesign@comcast.net

Plant List (TREES)

Quan.	Symbol	Botanical Name	Common Name	Size	Remarks
8		Acer platanoides 'Columnare'	Columnar Norway Maple	2" Caliper 10'-12' Height	Full Head Crown Straight Trunk
24		Celtis occidentalis	Common Hackberry	2" Caliper 10'-12' Height	Full Head Crown Straight Trunk
6		Koelreuteria p. 'Golden Candle'	Columnar Golden Rain Tree	2" Caliper 8'-10' Height	Full Head Crown Straight Trunk
5		Pinus leucodermis heldreichii	Dwarf Bosnian Pine	6'-8' Height B & B	Full Throughout Specimen
2		Pinus nigra 'Arnold's Sentinel'	Columnar Austrian Pine	6'-8' Height B & B	Full Throughout Specimen
5		Prunus virginiana 'Canada Red'	Canadian Red Cherry	2" Caliper 8'-10' Height	Full Head Crown Straight Trunk
13		Zelcova serrata 'Musashino'	Musashino Zelcova	2" Caliper 10'-12' Height	Full Head Crown Straight Trunk

Plant List (ORNAMENTAL GRASSES)

Quan.	Symbol	Botanical Name	Common Name	Size	Remarks
46		Calamagrostis a. 'Avalanche'	Avalanche Feather Grass	5 Gallon	24"-30" Height
106		Calamagrostis a. 'Foerster'	Foerster Feather Grass	5 Gallon	24"-30" Height
4		Miscanthus sinensis 'Gracillimus'	Maiden Grass	5 Gallon	24"-30" Height
4		Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	5 Gallon	18"-24" Height
40		Pennisetum alop. 'Hameln'	Hameln Fountain Grass	5 Gallon	15"-18" Height

Plant List (PERENNIALS)

Quan.	Symbol	Botanical Name	Common Name	Size	Remarks
8	①	Agastache 'Sunset'	Sunset Hyssop	1 Gallon	Full Can
12	②	Hemerocallis 'Stella d'Oro'	Stella d'Oro Day Lily	1 Gallon	Full Can
7	③	Lavandula 'Hidcote Blue'	Blue Lavender	1 Gallon	Full Can
18	④	Perovskia atriplicifolia	Russian Sage	1 Gallon	Full Can
42	⑤	Salvia x. 'May Night"	May Night Salvia	1 Gallon	Full Can

Plant List (SHRUBS)

Quan.	Symbol	Botanical Name	Common Name	Size	Remarks
38		Berberis thund. 'Crimson Pygmy'	Crimson Pygmy Barberry	5 Gallon	15"-18" Height
4		Buxus japonica 'Julia Jane'	Julia Jane Boxwood	5 Gallon	18"-24" Height
34		Euonymus alatus 'Compacta'	Dwarf Burning Bush	5 Gallon	18"-24" Height
28		Physocarpus o. 'Summer Wine'	Summer Wine Ninebark	5 Gallon	24"-30" Height
32		Pinus mugo 'Slowmound'	Slowmound Dw. Mugo Pine	5 Gallon	18"-24" Spread
36		Prunus besseyi 'Pawnee Buttes'	Pawnee Buttes Sandcherry	5 Gallon	18"-24" Spread
3		Rhus typhina 'Bailtiger'	Tigers Eyes Sumac	5 Gallon	24"-30" Height
4		Rosa 'Meidiland Red'	Red Groundcover Rose	5 Gallon	18"-24" Spread
18		Rosa 'Knock Out Pink'	Knock Out Pink Rose	5 Gallon	18"-24" Height
20		Spiraea japonica 'Neon Flash'	Neon Flash Spiraea	5 Gallon	15"-18" Height
23		Yucca filam. 'Golden Sword'	Golden Sword Yucca	5 Gallon	15"-18" Height

Legend

Symbol	Description	Remarks
	Landscape Boulder / 3'-4' Min. Size / Individually Placed	Boulder Type And Color Shall Be From Nearest Local Source, Blonde-Tan Colored Quartzite, Block Edges (Not Rounded).
	4" x 6" Extruded Concrete Mowstrip / Natural Color	Install In Straight True Lines And Uniform Curves, & Between All Lawn And Shrub Areas. Compact Sub-grade To 90% Prior To Installation.
LAWN	New Lawn Area / Drought Tolerant Bluegrass Mixture	Install Kentucky Bluegrass Mixture In Areas Shown & Over A 4 Inch Depth Of Topsoil.
No Hatch	New Shrub - Rock Area / 1 1/2" Min. Size / "Calico"	Install In Areas Shown To A Depth Of 4 Inches Over "DeWitt" Brand Weed Barrier Fabric. Rock To Be A "Soma" Product Or Equal.
RC	Rock ONLY Area / Cobble / 3" Minus Size / "Nephi Gray"	Install In Areas Shown To A Depth Of 6 Inches Over "DeWitt" Brand Weed Barrier Fabric. Submit Gray-Beige Sample For Approval.

Planting Notes

1. All lawn areas shall receive a 4 inch depth of topsoil, all planting areas an eight inch depth. If topsoil is not available at the site, it must be imported from an approved local source. All topsoil shall be of a sandy loam consistency. Provide a chemical analysis of all topsoil for approval.
2. Prior to placement of topsoil, all subgrade areas shall be loosened by scarifying the soil to a depth of 6 inches, by the use of mechanical means, in order to create a transition layer between existing and new soils.
3. All plant material holes shall be dug twice the diameter of the rootball and 6 inches deeper. Excavated material shall be removed from the site.
4. Plant backfill mixture shall be composed of 3 parts topsoil to 1 part humus additive (Soil Pep/or equal), and shall be rotary mixed on-site prior to installation.
5. Plant fertilizer shall be 'Agriform' brand 21 gram tablets used as per manufacturers recommendations.
6. Upon completion of planting operations, all shrub pits and tree wells shall receive a 4 inch depth of shredded bark mulch mixture as a cover. The overall shrub beds themselves (beyond plant wells) shall receive a 4" depth of decorative stone surfacing over Pro-5 weed barrier fabric.
7. In decorative stone beds, cut the fabric from around the water well of each plant, then apply fine ground bark inside water well. The remainder of the planter bed shall receive the depth of decorative stone.
8. Landscape maintenance shall be required for a period through the second mowing of the lawn (30 days minimum) and shall include weeding, pruning and one fertilization.
9. The contractor shall comply with all warranties and guarantees set forth by the Owner, and in no case shall that period be less than two years following the date of completion and final acceptance.
10. Final project certification to be completed by Owner/Contractor.

NO. | REVISIONS | BY | DATE
PROJECT ENGINEER: LP | DESIGNER: DP

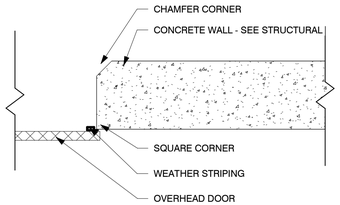
ELEVATE ENGINEERING
492 WEST 1200 NORTH
SPRINGVILLE, UT 84663
PHONE: (801) 718-5993
lorvin@elevateeng.com

MAPLETON BUSINESS CENTER HWY 89
LANDSCAPE PLAN
2400 SOUTH HWY 89, MAPLETON, UT 84660

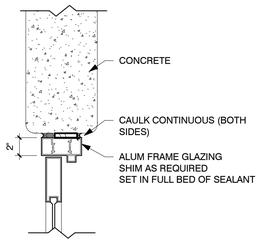
LORVIN D. PETERSEN — 10690 — REGISTERED LANDSCAPE ARCHITECT — STATE OF UTAH — 03-15-22

SHEET: L-1

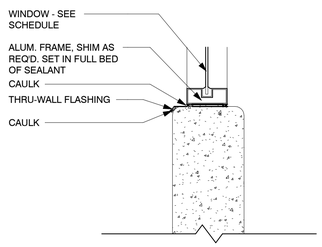
DATE: 03-15-2022



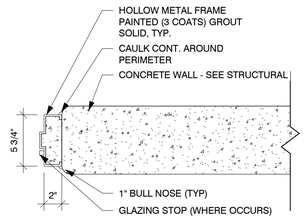
OVERHEAD DOOR DETAIL SCALE: 1 1/2" = 1'-0" — 6



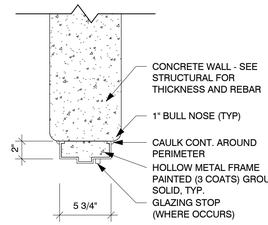
2" AL DOOR HEAD @ CONC. SCALE: 1 1/2" = 1'-0" — 5



2" AL WINDOW SILL SCALE: 1 1/2" = 1'-0" — 4



DOOR JAMB DETAIL SCALE: 1 1/2" = 1'-0" — 3



DOOR HEAD DETIAL SCALE: 1 1/2" = 1'-0" — 2

DOOR SCHEDULE

MARK	DOOR WIDTH	DOOR HEIGHT	HARDWARE	DESCRIPTION
D1	3'-0"	7'-0"	GROUP #3	INSULATED METAL DOOR AND FRAME
D2	12'-0"	12'-0"		INSULATED OVERHEAD DOOR
D3			GROUP #3	KAWNEER 451T ENTRY DOOR

HARDWARE AND SIGNAGE NOTES:

EXIT DOORS SHALL BE READILY OPERABLE FROM EGRESS SIDE DOOR TO BE UNLOCKED DURING BUSINESS HOURS, CONTRACTOR VERIFY THAT SALVAGED HARDWARE DOES NOT HAVE MANUALLY OPERATED FLUSH OR SURFACE BOLTS ARE NOT PERMITTED. HARDWARE SHALL NOT REQUIRE PINCHING, TIGHT GRASPING OR TWISTING OF THE WRIST IN ORDER TO OPERATE. LOCKING DEVICE MUST BE READILY DISTINGUISHABLE. CONTRACTOR TO ADD SIGNAGE "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED" ON EGRESS SIDE OF EACH EGRESS DOOR.

HARDWARE GROUP DESCRIPTIONS:
1 - 1 PASSAGE SET, 3 EA. DOOR LEAF SILENCER, 1 STOP, 1 1/2 PR HINGES.

2 - 1 PRIVACY SET, 3 EA. DOOR LEAF SILENCER, 1 STOP, 1 1/2 PR HINGES. (RESTROOMS)

3 - 1 KEYED LOCKSET, 1 1/2 PR HINGES (OFFICE SPACES)

EXIT DOORS SHALL BE READILY OPERABLE FROM EGRESS SIDE DOOR TO BE UNLOCKED DURING BUSINESS HOURS, CONTRACTOR VERIFY THAT SALVAGED HARDWARE DOES NOT HAVE MANUALLY OPERATED FLUSH OR SURFACE BOLTS ARE NOT PERMITTED

GENERAL HARDWARE NOTES:

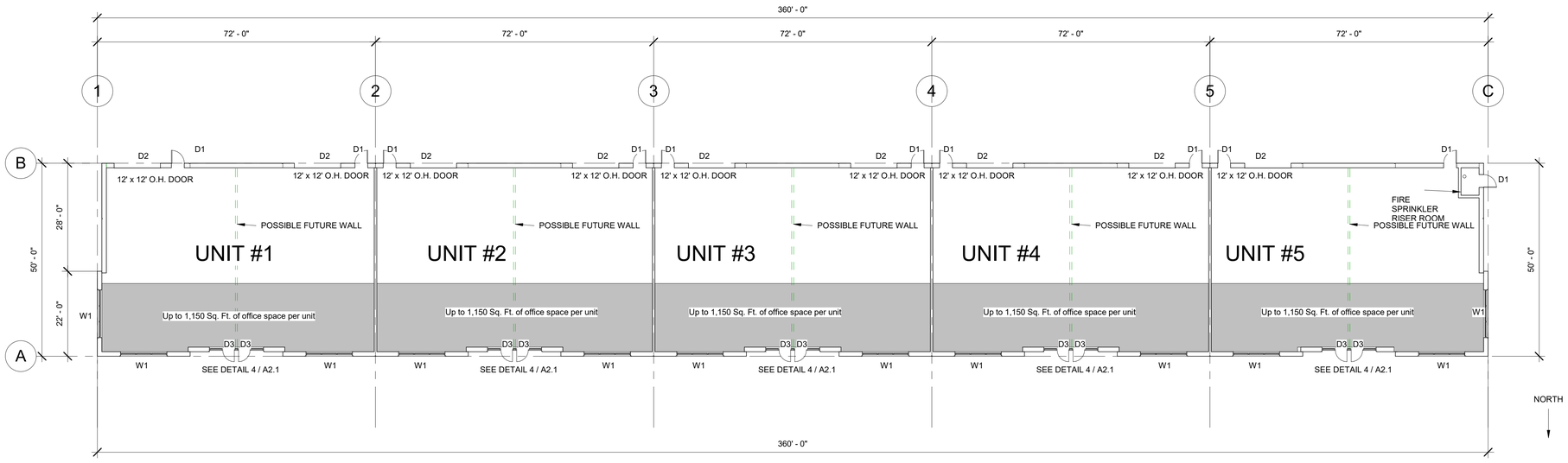
ALL DOOR SETS TO BE LIGHT COMMERCIAL
ALL DOOR STOPS ARE WALL BUMPERS BY IVES
ALL HINGES TO BE MCKINNEY OR COMPARABLE BALL BEARING HINGE
ALL THRESHOLDS & SEALS TO BE PEMKO
ALL FINISHES 26D OR 626 - VERIFY

NOTE: ALL INTERIOR WINDOWS AND STOREFRONTS TO BE 1/4" INTERIOR GLAZING AND ALL EXTERIOR WINDOWS AND STOREFRONTS TO BE 1" INSULATED GLAZING.

1) MANUAL FLUSH BOLTS FOR DOUBLE DOORS ARE ONLY ALLOWED IN THE INACTIVE DOOR ACCESSING MECHANICAL ROOMS. ALL EXIT DOORS SHALL BE OPERABLE FROM THE IN SIDE WITHOUT A KEY, TOOL OR SPECIAL KNOWLEDGE AS PER IBC
2) LOCKS AND DOOR HARDWARE MUST BE LOCATED MIN. 15" AND MAX. 48" ABOVE THE FLOOR AS PER ADA.
3) ALL DOOR HARDWARE TO BE LEVER TYPE OR OTHERWISE ADA ACCEPTABLE

1010.1 Doors.
Means of egress doors shall meet the requirements of this section. Doors serving a means of egress system shall meet the requirements of this section and Section 1022.2. Doors provided for egress purposes in numbers greater than required by this code shall meet the requirements of this section.
Means of egress doors shall be readily distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Mirrors or similar reflecting materials shall not be used on means of egress doors. Means of egress doors shall not be concealed by curtains, drapes, decorations or similar materials.
1010.1.1 Size of doors.
The required capacity of each door opening shall be sufficient for the occupant load thereof and shall provide a minimum clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 411/2 inches (1054 mm). The height of door openings shall be not less than 80 inches (2032 mm).
1010.1.1 Projections into clear width.
There shall not be projections into the required clear width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm).
1010.1.2 Door swing.
Egress doors shall be of the pivoted or side-hinged swinging type.
1010.1.2.1 Direction of swing.
Pivot or side-hinged swinging doors shall swing in the direction of egress travel where serving a room or area containing an occupant load of 50 or more persons or a Group H occupancy.
1010.1.3 Door opening force.
The force for pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed 5 pounds (22 N). These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position. For other swinging doors, as well as sliding and folding doors, the door latch shall release when subjected to a 15-pound (67 N) force. The door shall be set in motion when subjected to a 30-pound (133 N) force. The door shall swing to a full-open position when subjected to a 15-pound (67 N) force.
1010.1.3.1 Location of applied forces.
Forces shall be applied to the latch side of the door.

Landings at doors.
Landings shall have a width not less than the width of the stairway or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches (178 mm). Where a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing to less than one-half its required width. Landings shall have a length measured in the direction of travel of not less than 44 inches (1118 mm).
1010.1.7 Thresholds.
Thresholds at doorways shall not exceed 3/4 inch (19.1 mm) in height above the finished floor or landing for sliding doors serving dwelling units or 1/2 inch (12.7 mm) above the finished floor or landing for other doors. Raised thresholds and floor level changes greater than 1/4 inch (6.4 mm) at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope).
1010.1.9 Door operations.
Except as specifically permitted by this section, egress doors shall be readily operable from the egress side without the use of a key or special knowledge or effort.
1010.1.9.1 Hardware.
Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11 shall not require tight grasping, tight pinching or twisting of the wrist to operate.
1010.1.9.2 Hardware height.
Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height.
1010.1.10.1 Installation.
Where panic or fire exit hardware is installed, it shall comply with the following:
1.Panic hardware shall be listed in accordance with UL 305.
2.Fire exit hardware shall be listed in accordance with UL 10C and UL 305.
3.The actuating portion of the releasing device shall extend not less than one-half of the door leaf width.
4.The maximum unlatching force shall not exceed 15 pounds (67 N).



- Main Floor Plan SCALE: 1/16" = 1'-0" — 1

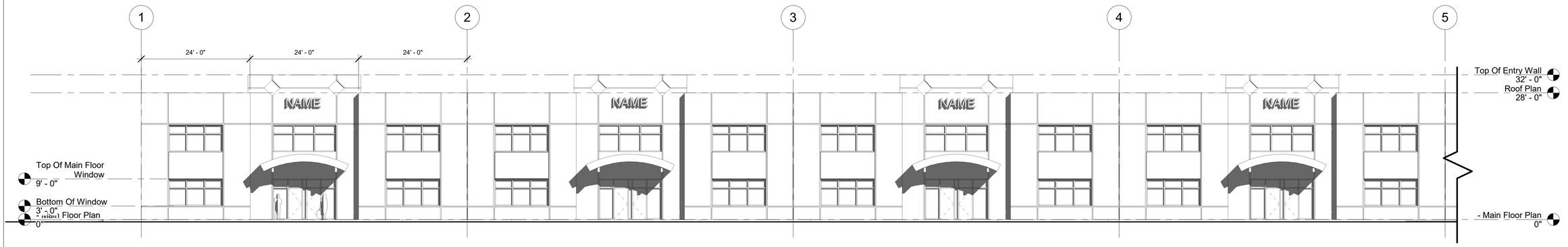
PROJECT TITLE
MAPLETON OFFICE WAREHOUSE

DAIN & ASSOCIATES
DESIGN & ARCHITECTURE
PHONE: 801-228-8805

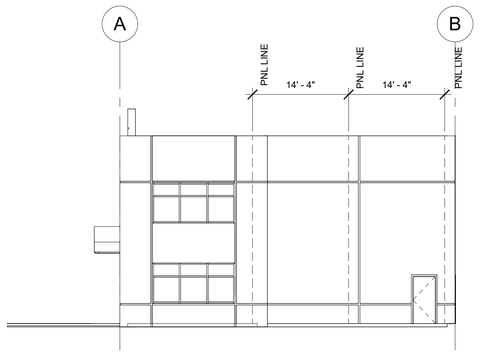
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REVISIONS:

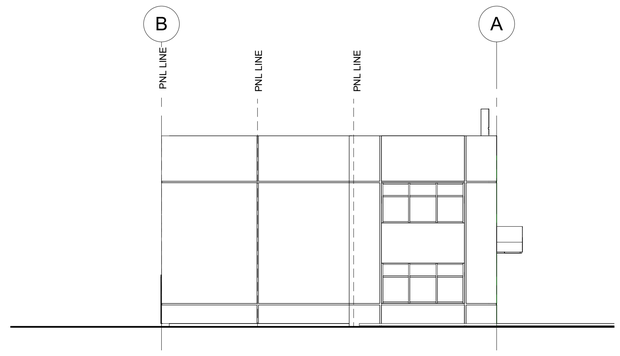
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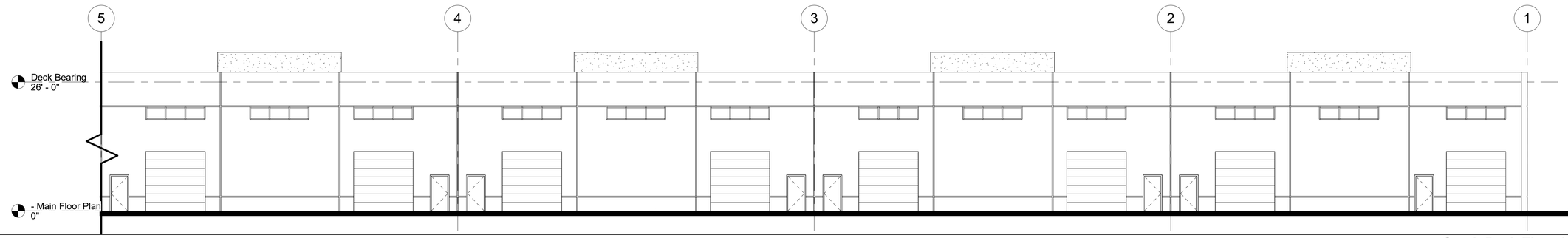
North Front Elevation **1**
SCALE:3/32" = 1'-0"



East Elevation **2**
SCALE:3/32" = 1'-0"



West Side Elevation **3**
SCALE:3/32" = 1'-0"



South Back Elevation **4**
SCALE:3/32" = 1'-0"



Front Rendering **5**
SCALE: 12" = 1'-0"

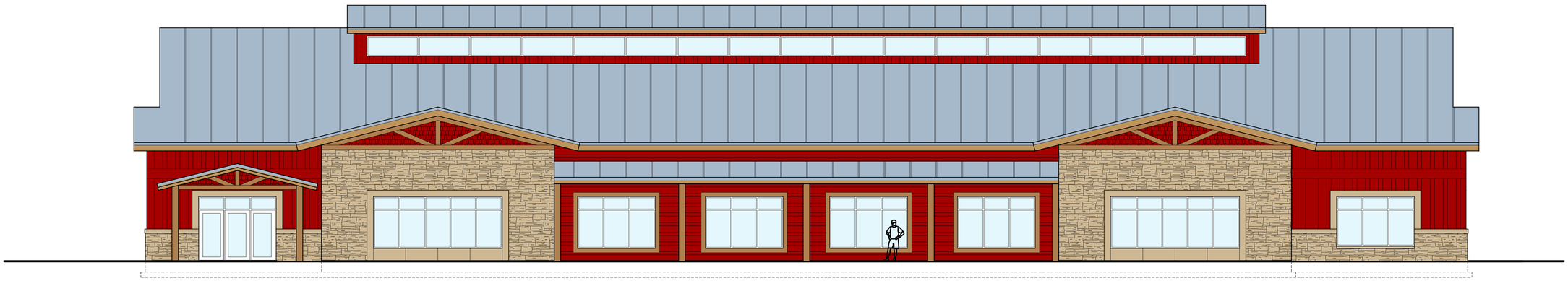
MAPLETON OFFICE WAREHOUSE

DAIN & ASSOCIATES
DESIGN & ARCHITECTURE
PHONE: 801-228-8805

DATE: 12/ 08 / 2021

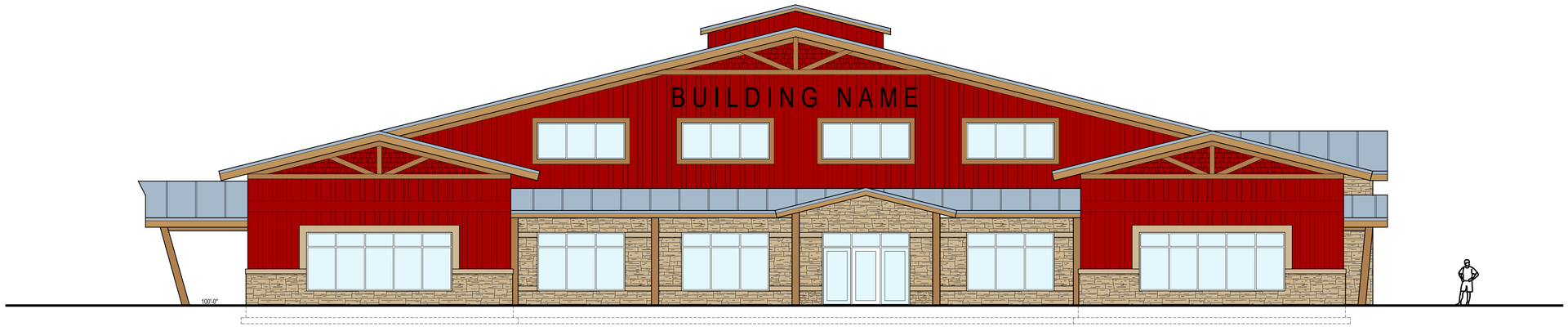
REVISIONS:

A3.0



North Street Elevation 200' Elevation

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



East Street Elevation 150' Elevation

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

PROJECT NOTES

North Street Elevation 200' Elevation

Total Vertical Wall	4,395 s.f. = 100%
Windows	1,320 s.f. = 30% of total wall
Total Vertical Wall Without Window	3,075
Vertical Siding	715 s.f. = 23%
Horizontal Siding	627 s.f. = 20%
Stone	930 s.f. = 30%
Shake Siding	100 s.f. = 4%
Wood Post and Trim	703 s.f. = 23%

Total Vertical Wall
Without Window .....3,075 s.f. = 100%

East Street Elevation 150' Elevation

Total Vertical Wall	3,775 s.f. = 100%
Windows	770 s.f. = 20% of total wall
Total Vertical Wall Without Window	3,005 s.f.
Vertical Siding	1,475 s.f. = 49%
Stone	775 s.f. = 26%
Shake Siding	150 s.f. = 5%
Wood Post and Trim	605 s.f. = 20%

Total Vertical Wall
Without Window .....3,005 s.f. = 100%

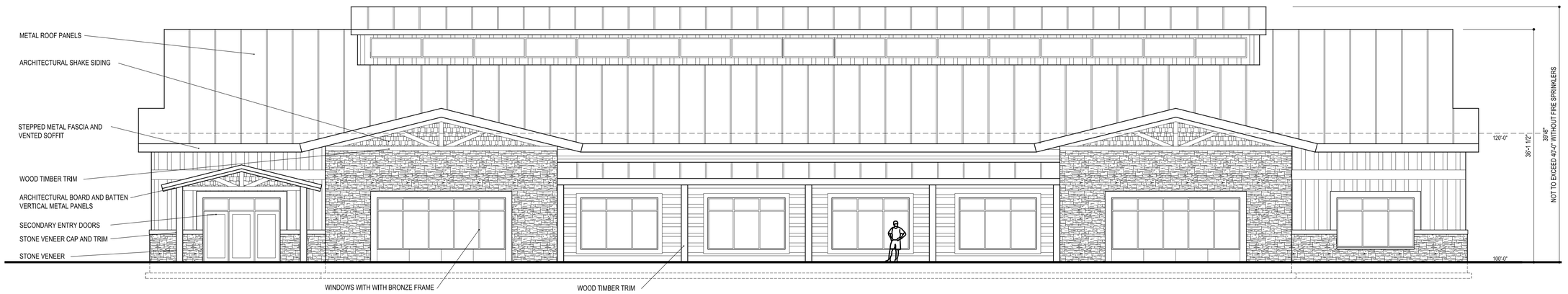
PROJECT TITLE

DAIN & ASSOCIATES
ARCHITECTURE DESIGN PROJECT MANAGEMENT
JAMES A DAIN ARCHITECT
PHONE (801)228-8805

DATE: February 2022

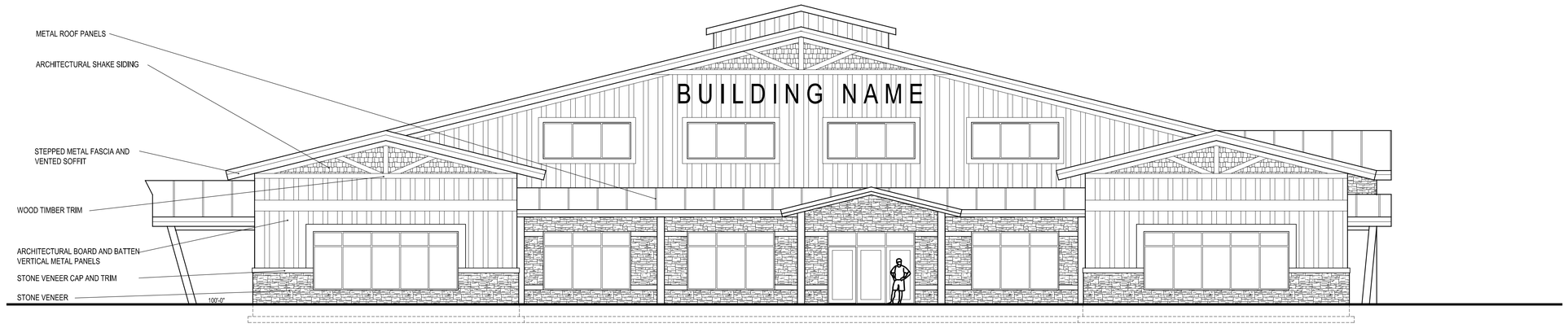
REVISIONS:

A1.1



North Street Elevation 200' Elevation

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



East Street Elevation 150' Elevation

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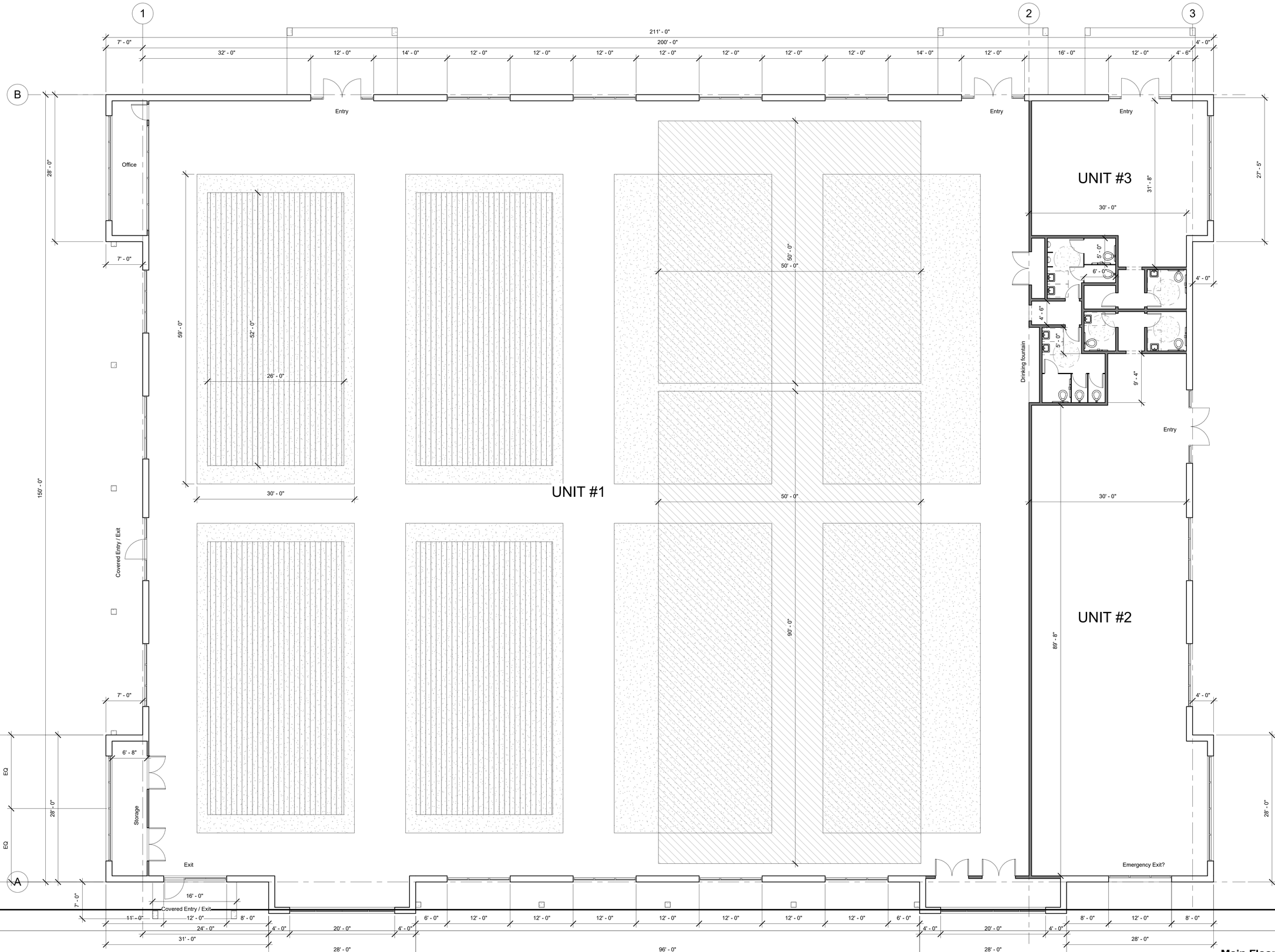
PROJECT TITLE

DAIN & ASSOCIATES
ARCHITECTURE DESIGN PROJECT MANAGEMENT
JAMES A. DAIN ARCHITECT
PHONE (801)228-8805

DATE:
February 2022

REVISIONS:

A1.1



Main Floor Plan

PROJECT TITLE

MAPLETON REC CENTER

DAIN & ASSOCIATES

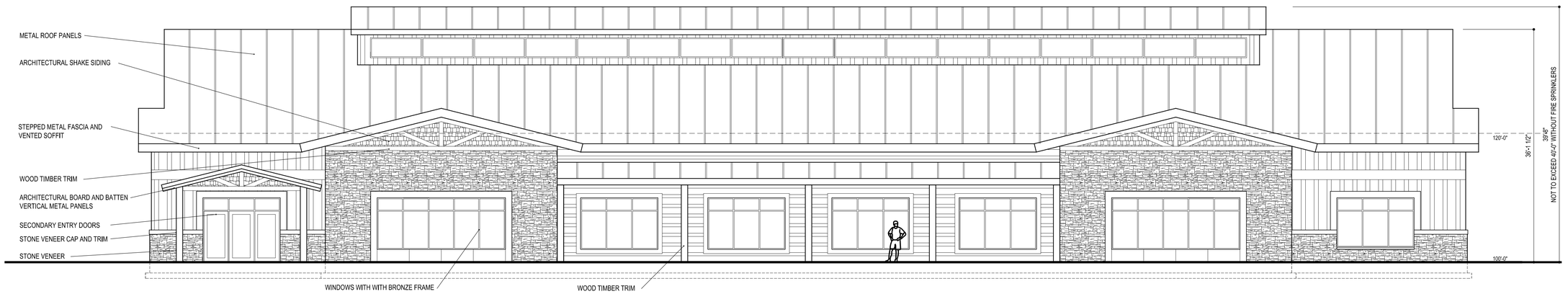
DESIGN & ARCHITECTURE

PHONE: 801-228-8805

DATE: 06 / 30 / 2020

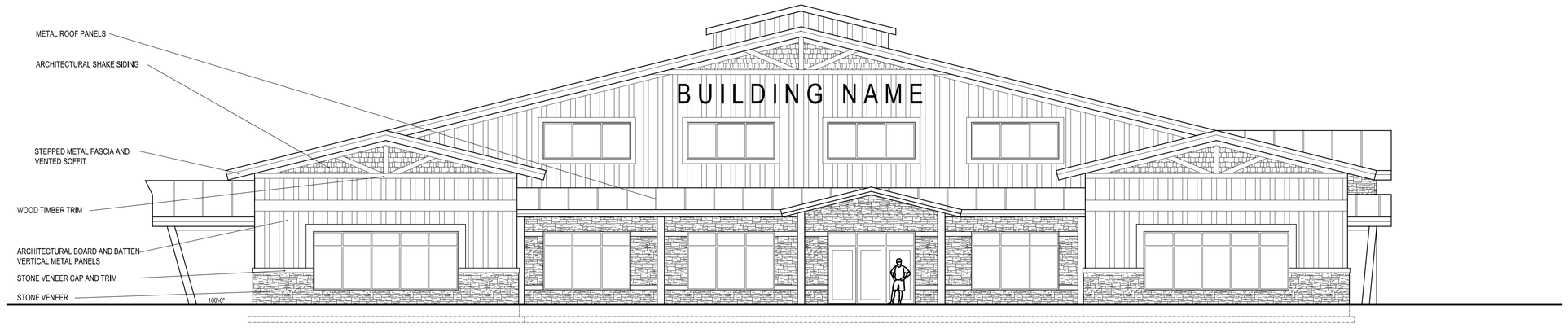
REVISIONS:

A2.0



North Street Elevation 200' Elevation

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



East Street Elevation 150' Elevation

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

PROJECT NOTES

North Street Elevation 200' Elevation

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Total Vertical Wall
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PROJECT TITLE

DAIN & ASSOCIATES
ARCHITECTURE DESIGN PROJECT MANAGEMENT
JAMES A. DAIN ARCHITECT
PHONE (801)228-8805

DATE:
February 2022

REVISIONS:

A1.1

PROJECT NOTES

- TRUSS DESIGN DRAWINGS, THE WRITTEN, GRAPHIC AND PICTORIAL DEPICTION OF EACH INDIVIDUAL TRUSS SHALL BE PROVIDED TO THE BUILDING OFFICIAL AND APPROVED PRIOR TO INSTALLATION. STRUCTURAL ENGINEER TO REVIEW THE TRUSS SPECS FOR ANY LOADING, UPLIFT OR POINT LOADS THAT MAY BE REQUIRED.

-MECHANICAL FASTENERS POWDER ACTUATED FASTENERS MAY BE USED. IF THIS OPTION IS TO BE USED THE CITY WILL REQUIRE SPECIAL PRECAUTIONS BECAUSE OF THE FACT THAT THEY ARE UNRELIABLE TO MAINTAIN THE INTEGRITY OF THE DECK DIAPHRAGM REQUIRING THEM TO STAY SECURED IN THE LONG TERM. AT ANY LOCATION THE PIN CAN ONLY BE RESHOT ONCE THEN IT MUST BE EITHER BOLTED OR PUDDLE WELDED. ONCE ALL THE PRELIMINARY WORK ON THE ROOF IS COMPLETE THE DECK MUST BE RE-INSPECTED AND AT THAT TIME RE-INSPECTION AND ANY PINS FOUND THAT ARE EITHER LOOSE OR HAVE COME LOOSE MUST BE EITHER SCREWED OR PUDDLE WELDED OR BOLTED / SCREWED TO TRUSSES.
THIS SHOULD BE DONE BY THE SPECIAL INSPECTOR AND FOLLOWED BY THE CITY INSPECTOR.

-6-mil polyethylene vapor retarder with joints lapped not less than 6 inches shall be placed between the base course or subgrade and the concrete floor slab, or other approved equivalent methods or materials shall be used to retard vapor transmission through the floor slab. IBC 1907.1

- Accessible routes within the site shall be provided from public transportation stops; accessible parking; accessible passenger loading zones; and public streets or sidewalks to the accessible building entrance served IBC Sec. 1104.1

-Accessible parking stalls with maximum slope of 1/48, provide a detail on the plans showing all the requirement of ANSI 117-A, accessible path to the main entry must have a maximum slope of 1/20 also address the accessible route to the public way on the street.

- Doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors shall be 5.0 pounds maximum ANSI 117.1 404.2.8

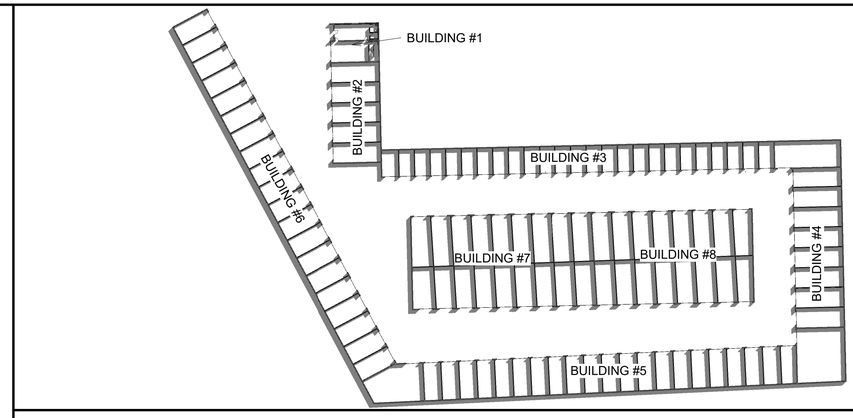
- All DEFERRED SUBMITTALS must be submitted to the city for review within 20 working days after the release of the permit and the project is approved for construction. If not complied with, work will be stopped and won't be allowed to restart until all deferred submittals are submitted and have been approved. If the 20 day deadline isn't sufficient, then other arrangements must be approved by the Building Official prior to the permit issuance.

DIFFERED SUBMITTALS

NEW STORAGE FACILITY

MAPLETON, UTAH

CODE ANALYSIS - IBC 2015 INFORMATION	
SELF STORAGE UNIT	
Occupancy section 310,311	R-2, S-1
Construction Type Section 601	3B
Allowable Floor Area Section 506	R-2 - 16,000 S-1 - 17,500
Allowable Stories Above Grade	2 Story allowed
Roof Height	28' - 0" (A3.0)
Fire-Sprinkler System Section 903	NO
Area Increase Frontage 506.3	N/A
Total Allowable S.F. 506.2.4 Mixed-Occupancy Multistory building	N/A
Proposed Area Roof Covering Table 1505	R-2 2,904 Sq. Ft. S-1 48,626 Sq. Ft. Site Total. Class B
Egress Requirements Table 1015.1	Min. of 2 Exits required in each space 3 Exits provided in each space
Occupancy Separation	(2HR) 8" Masonry Seperation Wall between R-2 and S-1 Occupancy



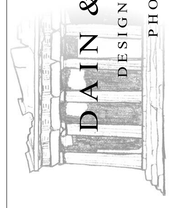


SHEET INDEX

A1.0	COVER SHEET
A2.0	FLOOR PLAN
A2.1	OFFICE/ HOUSE PLANS
A2.2	TYPICAL UNIT
A2.3	TYPICAL UNITS
A2.4	TYPICAL UNITS
A2.5	TYPICAL UNITS
A3.0	ELEVATIONS
A3.1	ELEVATIONS
A4.0	BUILDING SECTIONS
A4.1	Unnamed
A5.0	ROOF PLAN AND DETAILS
A6.0	DETAILS
A6.1	DETAILS
E1.1	ELECTRICAL ONE-LINE
E2.1	ELECTRICAL PLAN LEFT SIDE
E2.2	ELECTRICAL PLAN RIGHT SIDE
E3.1	PHOTOMETRICS PLAN
M-1	MECHANICAL & PLUMBING
M-2	ROOF PLAN
S0.1	STRUCTURAL NOTES
S0.2	STRUCTURAL NOTES
S1.1	FOOTING PLAN
S1.2	STRUCTURAL DETAILS
S1.3	DOCK DETAILS
S2.1	ROOF FRAMING
S3.1	STRUCTRUAL ELEVATIONS
S4.1	STRUCTURAL DETAILS
S4.2	STRUCTURAL DETAILS

PROJECT TITLE
Storage Units

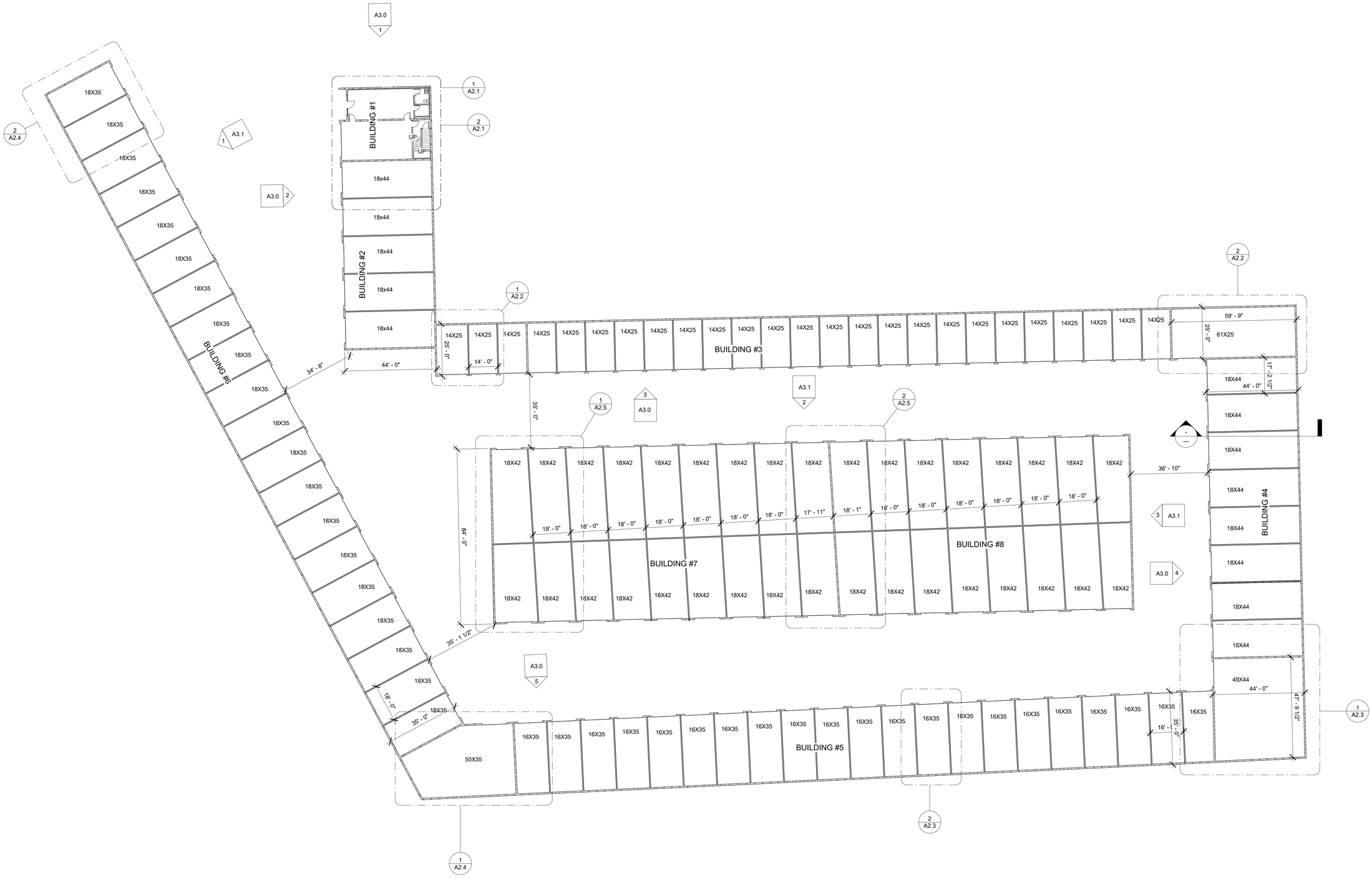
DAIN & ASSOCIATES
DESIGN & ARCHITECTURE
PHONE: 801-228-8805



DATE: 02 / 07 / 2022

REVISIONS:

A1.0

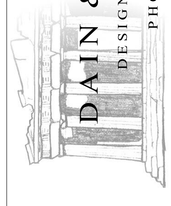


Main Floor Plan
SCALE:3/64" = 1'-0"

1

PROJECT TITLE
Storage Units

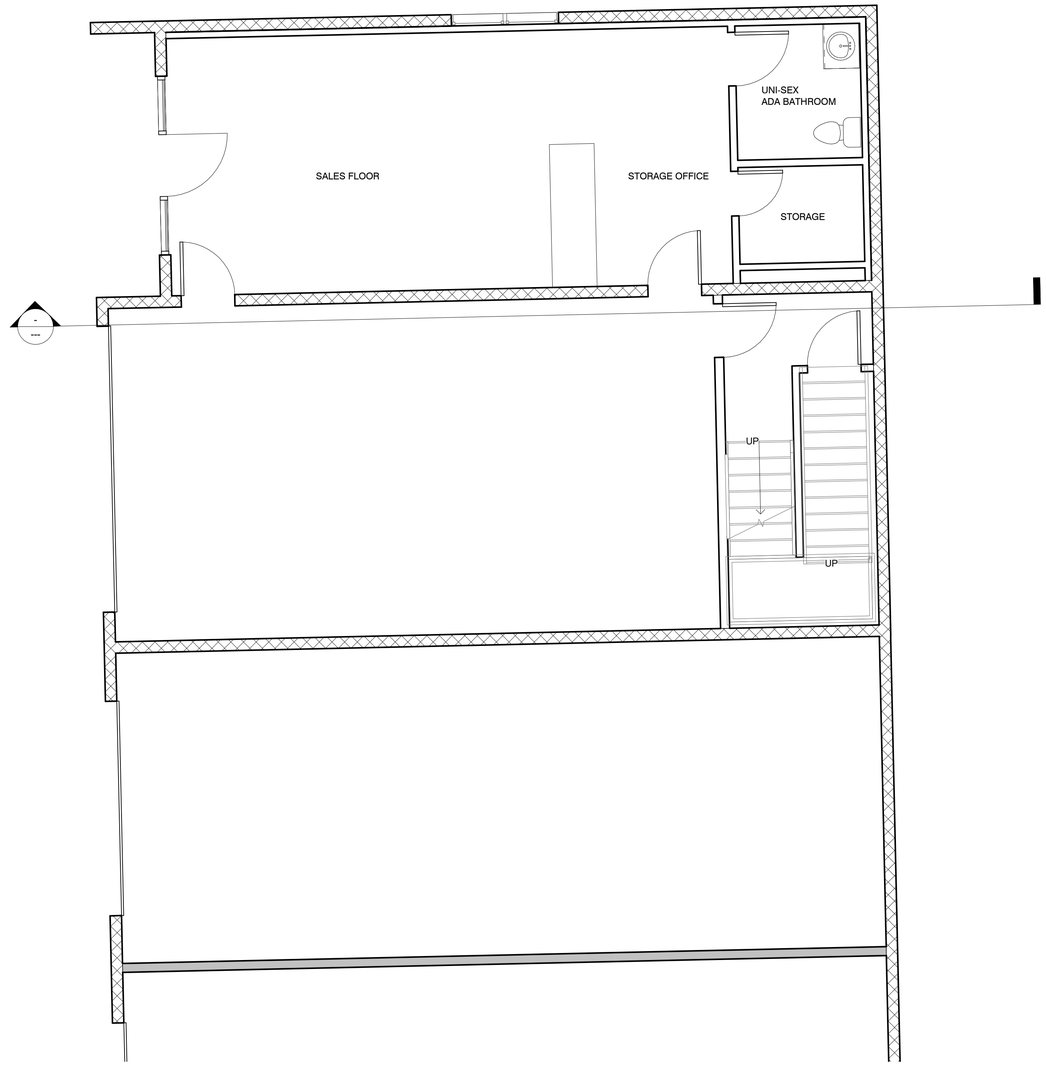
PAIN & ASSOCIATES
DESIGN & ARCHITECTURE
PHONE: 801-228-8805



DATE: 02 / 07 / 2022

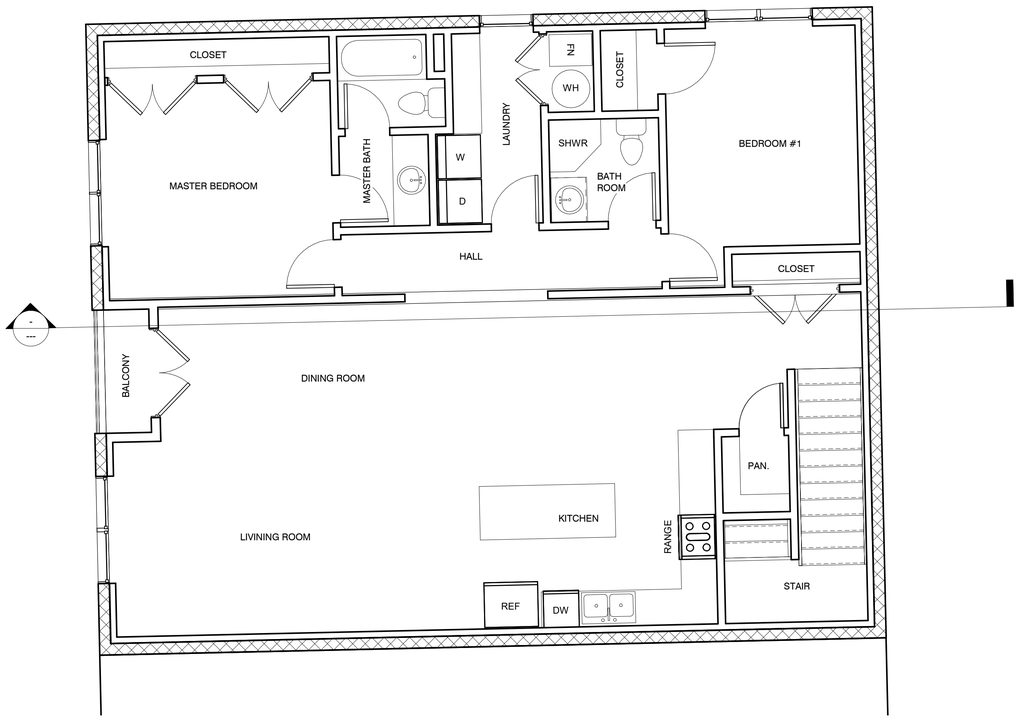
REVISIONS:

A2.0



Main Floor Plan - Office
SCALE: 1/4" = 1'-0"

1



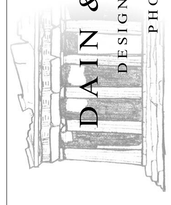
Second Floor - Residence
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2

PROJECT TITLE

Storage Units

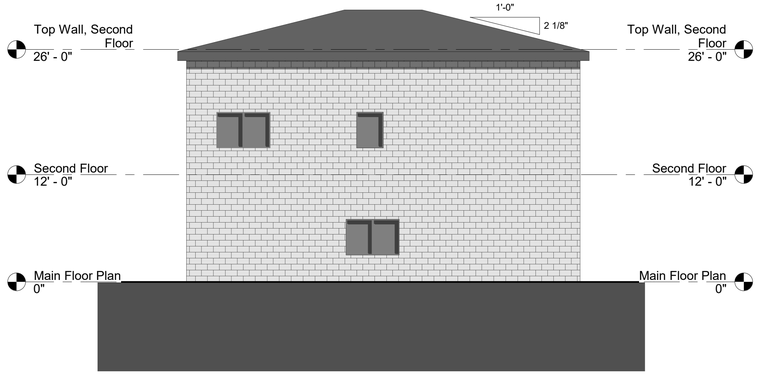
DAIN & ASSOCIATES
DESIGN & ARCHITECTURE
PHONE: 801-228-8805



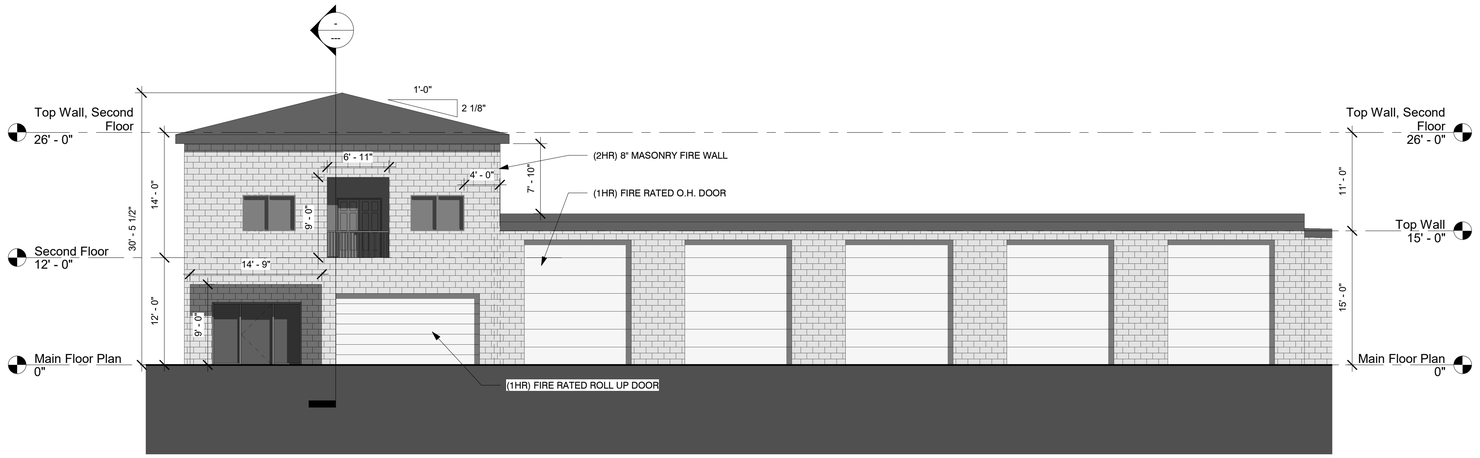
DATE: 02 / 07 / 2022

REVISIONS:

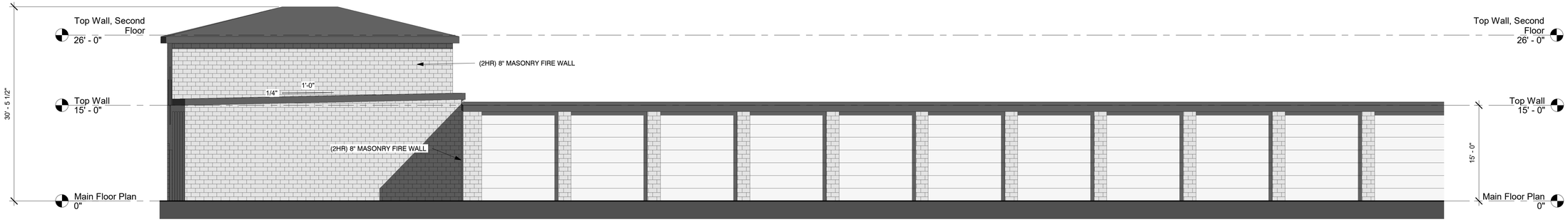
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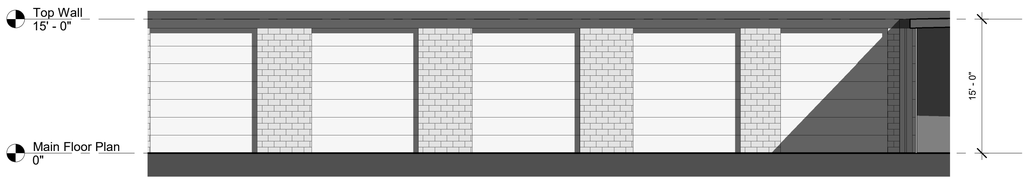
BUILDING #1 SIDE ELEVATION | **1**
SCALE: 1/8" = 1'-0"



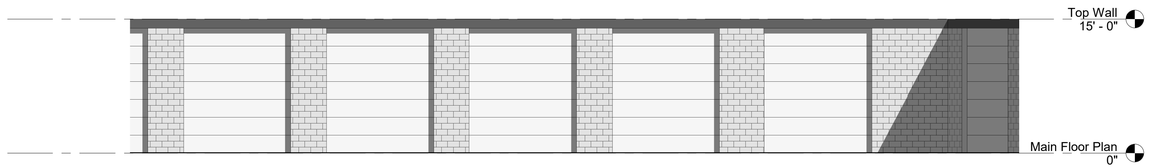
BUILDING #1-2 FRONT ELEVATION | **2**
SCALE: 1/8" = 1'-0"



BUILDING #3 TYP. FRONT ELEVATION | **3**
SCALE: 1/8" = 1'-0"



BUILDING #4 TYP. FRONT | **4**
SCALE: 1/8" = 1'-0"



BUILDING #5 TYP. FRONT | **5**
SCALE: 1/8" = 1'-0"

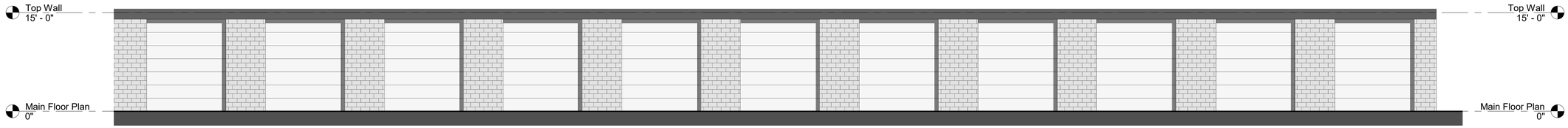
PROJECT TITLE
Storage Units

DAIN & ASSOCIATES
DESIGN & ARCHITECTURE
PHONE: 801-228-8805

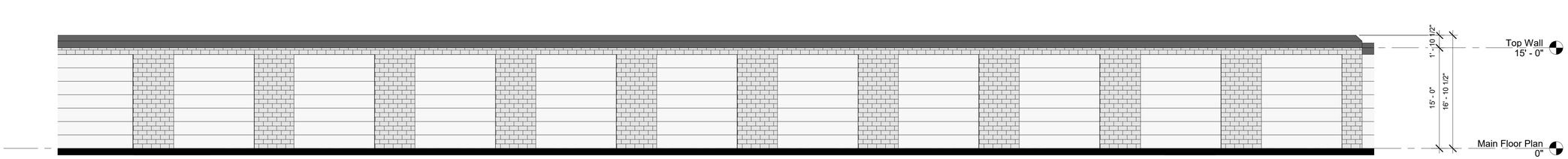
DATE: 02 / 07 / 2022

REVISIONS:

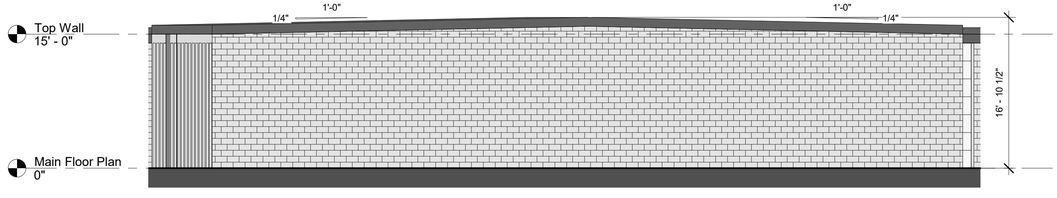
A3.0



BUILDING #6 TYP. FRONT | **1**
SCALE: 1/8" = 1'-0"



BUILDING #6-7 TYP. FRONT/REAR ELEVATION | **2**
SCALE: 1/8" = 1'-0"



BUILDING #6-7 TYP. END ELEVATION | **3**
SCALE: 1/8" = 1'-0"

PROJECT TITLE
Storage Units

DAIN & ASSOCIATES
DESIGN & ARCHITECTURE
PHONE: 801-228-8805



DATE: 02 / 07 / 2022

REVISIONS:

A3.1

I. Introduction and Summary

This traffic impact analysis is for the proposed Mapleton Business Center. The development is located on the southwest corner of 2400 South and US 89 in Mapleton, Utah. The site is planned to include 113 storage units, 18,000 sf of office/warehousing, a 30,000 sf private recreation center and 53,565 sf of future office/warehousing. The site is projected to generated 109 AM and 204 PM peak hour trips. The site is planning 4 accesses, one along US 89 (Access Z) and 3 along 2400 South (Access W, Access X and Access Y).

2400 South / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. This is maintained in 2021 and 2026 with the addition of the site. Site traffic increases traffic at this intersection by 16% in the AM and 24% in the PM peak period. 1600 West / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. This is maintained in 2021 and 2026 with the addition of the site. The site accesses along 2400 South and US 89 operate with LOS B or better for all movements in 2021 and 2026.

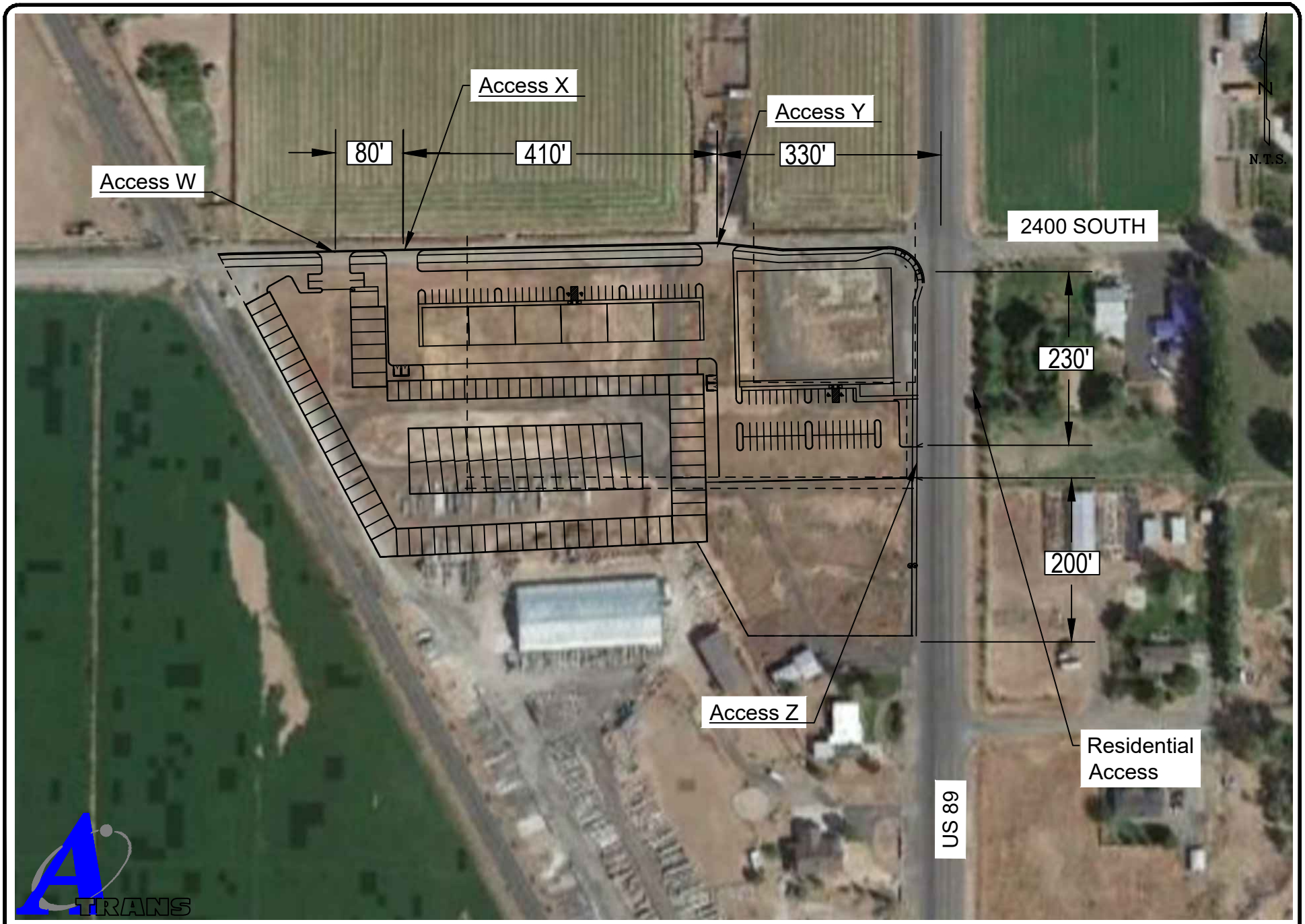
Site Related Recommendations:

A northbound left turn deceleration lane and a southbound right turn deceleration lane are required per UDOT standard at Access Z along US 89.

II. Proposed Project

The proposed Mapleton Business Center is located on the southwest corner of 2400 South and US 89 in Mapleton, Utah. The site is planned to include 113 storage units, 18,000 sf of office/warehousing, a 30,000 sf private recreation center and 53,565 sf of future office/warehousing. The site is projected to generated 109 AM and 204 PM peak hour trips. The site is planning 4 accesses, one along US 89 (Access Z) and 3 along 2400 South (Access W, Access X and Access Y).

Access Y is located approximately 330 feet west of US 89, Access W is located approximately 410 feet west of Access Y, Access Z is located approximately 80 feet west of Access Y. Access spacing along 2400 South is measured center to center. Access spacing along US 89 is measured end of radius to end of radius per UDOT requirements. Access Z is located approximately 230 feet south of 2400 South and 200 feet north of the next residential access to the south. On the east side of the roadway there is a residential driveway approximately 40 feet to the north of the access. The site plan and access location and spacing is shown in Figure 1.



A-TRANS TRANSPORTATION ENGINEERING
P.O. BOX 521651, SLC, UT 84152
Phone: 801-949-0348 Fax: 801-582-6252

Figure 1

Conceptual Site Plan

III. Study Area Conditions

The study area includes the following intersection.

- 2400 South / US 89
- 1600 West / US 89
- 2400 South / Access W
- 2400 South / Access X
- 2400 South / Access Y
- US 89 / Access Z

1600 West / US 89 is currently is a 3 way intersection with no approach on the east side of US 89. It is under construction for a fourth approach to be added. The intersection was analyzed as a 3 way intersection as no count data could be currently collected for this additional approach. Figure 2 shows the location of the site. Figure 3 shows existing intersection geometry.

US 89

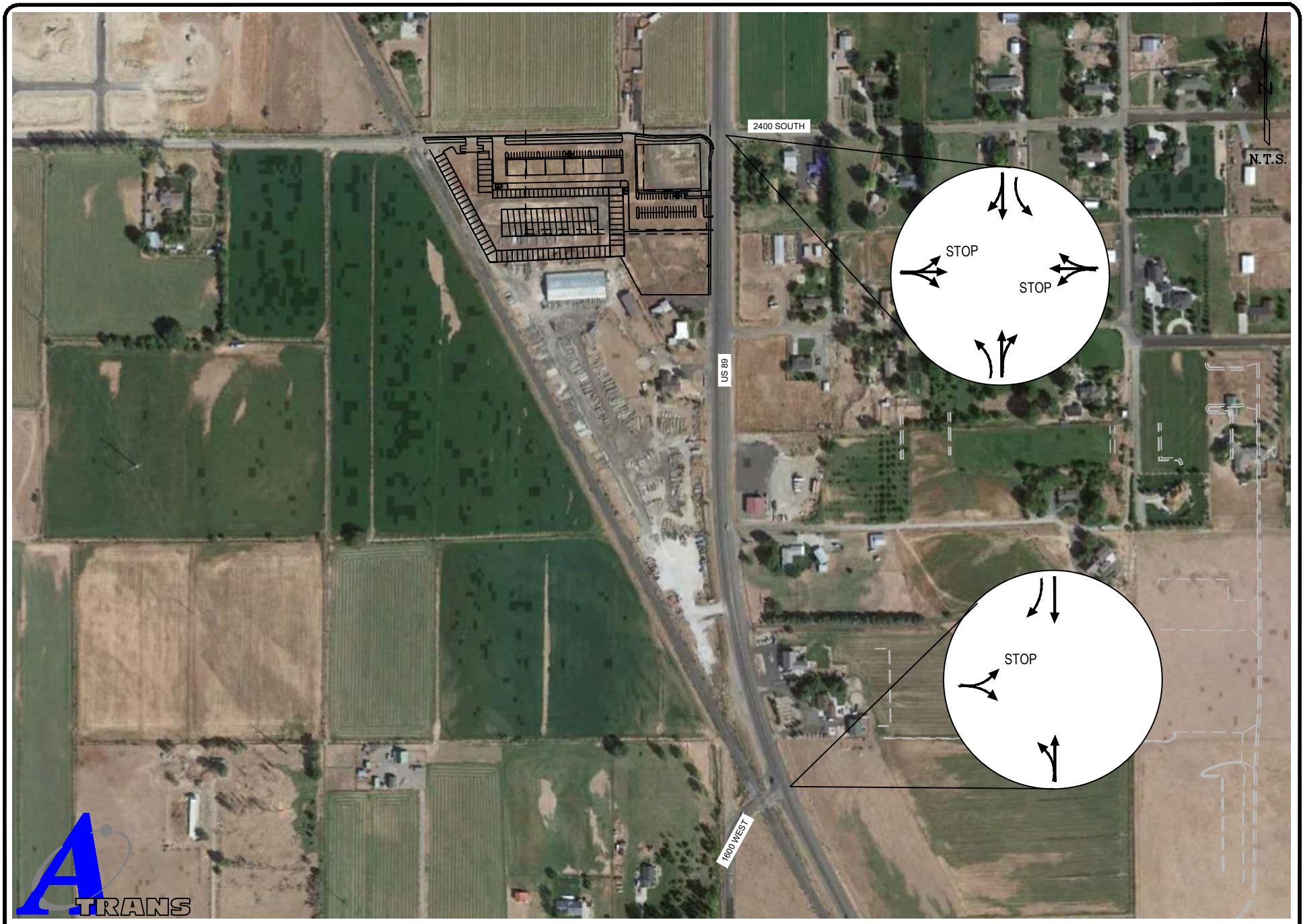
US 89 is currently a 3 lane facility with one lane in each direction and a center turn lane. The 2017 AADT is 6,400 vehicles per day with a posted speed limit is 50 MPH. It is classified by UDOT as a Category 6 roadway.



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Figure 2

Site Location



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Figure 3

Existing Geometry

IV. Analysis of Existing Condition

The existing traffic counts were performed between April 27 and May 4, 2021 during the AM (7:00 – 9:00 AM) and PM (4:00 – 6:00 PM) peak periods. The 2021 Existing Traffic volumes used in the study are shown in Figure 4.

The 6th Edition Highway Capacity Manual defines the Level of Service (LOS) for both signalized and unsignalized intersections as a range of average experienced delay. LOS is a qualitative rating of traveler satisfaction from A to F whereby LOS A is good and LOS F poor. Table 1 shows the LOS range by delay for unsignalized and signalized intersections and accesses.

Table 1: Intersection LOS-Delay Relationship

	Unsignalized	Signalized
Level of Service	Total Delay per Vehicle (sec)	Total Delay per Vehicle (sec)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

2400 South / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. 1600 West / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. Table 2 shows the Existing LOS.

Table 2: Existing Level of Service

Intersection	Delay (sec/veh)	
2400 South / US 89 (EBL)	10.5	B
	11.2	B
1600 West / US 89 (EBL)	10.5	B
	10.5	B



A-TRANS TRANSPORTATION ENGINEERING P.O. BOX 521651, SLC, UT 84152 Phone: 801-949-0348 Fax: 801-582-6252	Figure 4	Existing Traffic

V. Projected Traffic

A. Trip Generation

Trip generation for the site was done using The Institute of Transportation Engineers (ITE) *Trip Generation* (10th Edition) handbook. The site is planned to include 113 storage units, 18,000 sf of office/warehousing, a 30,000 sf private recreation center and 53,565 sf of future office/warehousing. The site is projected to generated 109 AM and 204 PM peak hour trips. The trip generation for the site is shown in Table 3.

Table 3: Trip Generation for Site

Land Use Type	Density	Land Use #	Trip Rate	Trips	% In	% Out	Trips In	Trips Out
AM								
Storage	113	151	1.39	2	51%	49%	1	1
Warehouse	18,000	150	0.17	3	77%	23%	2	1
Rec Center	30,000	493	3.16	95	61%	39%	58	37
Warehouse (Future)	53,565	150	0.17	9	77%	23%	7	2
Total				109			68	41
PM								
Townhomes	92 Units	220	1.95	2	50%	50%	1	1
			0.19	3	27%	73%	1	2
Park	3.6 acres	411	6.29	189	62%	38%	117	72
Holiday Oil (C-Store)	4,200 sf	960	0.19	10	27%	73%	3	7
Total				204			122	82

B. Trip Distribution

Project site traffic was applied to the origin-destination (O-D) for the site. Origin-destination was determined from evaluating the existing traffic patterns and hourly traffic volumes on each leg of the included intersections as well as the location of retail centers and freeways relative to this site. This was used as a baseline for origin destination and engineering judgment was applied to this to determine the following OD for the site. Origin Destination is shown in Figure 5. Site trip distribution is shown in Figure 6.

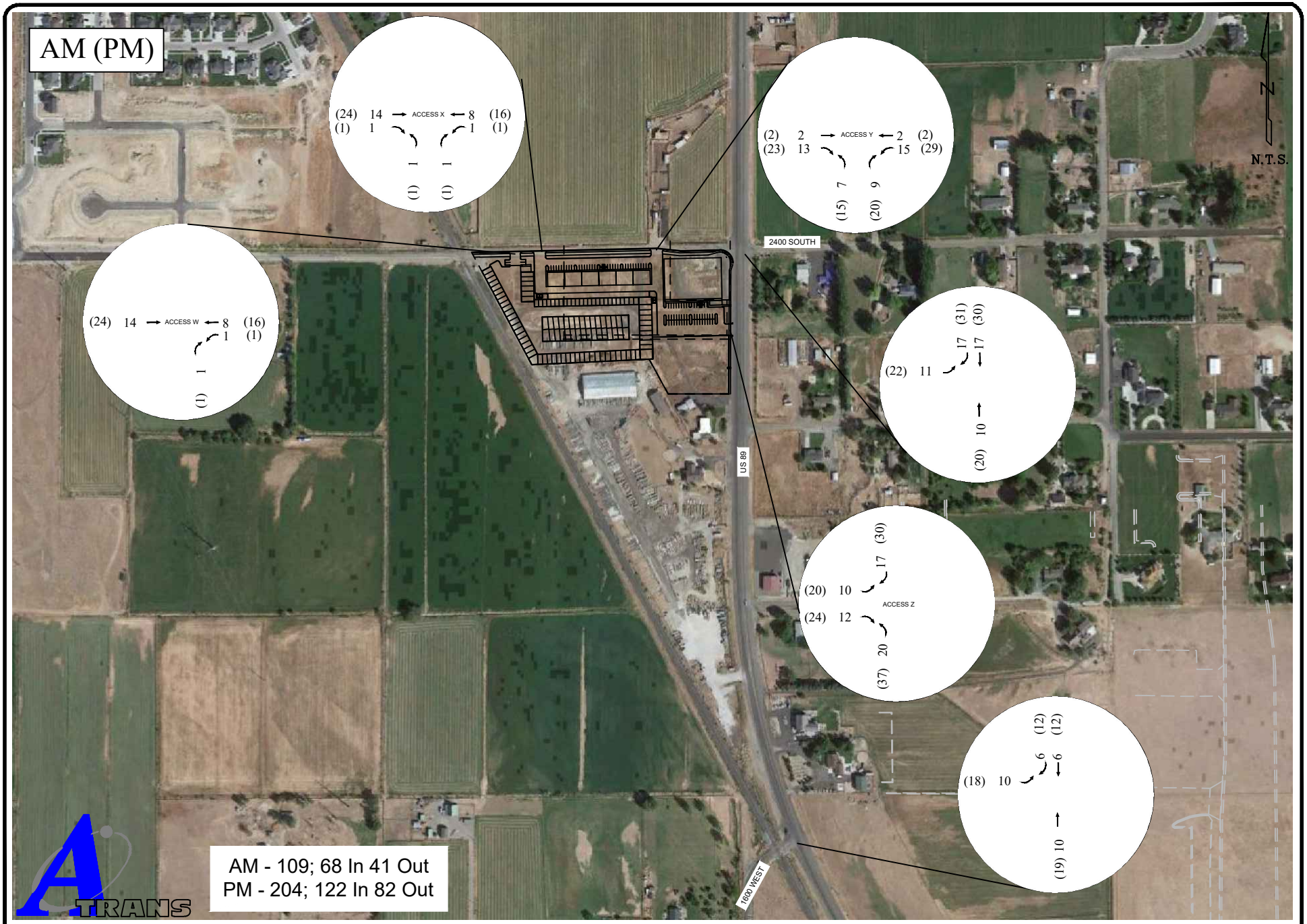
- 50% to/from north on US 89
- 15% to/from south on US 89
- 15% to/from south on 1600 West
- 20% to/from east on 2400 South



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Figure 5

Origin Destination



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Figure 6

Site Generated Generated

VI. Growth

Growth in the area was determined from the 2017 Traffic Counts and 2040 projections from Wasatch Front Regional Council. The volumes utilized to determine growth in the area is shown in Table 4. Based on this data an average growth of 1.79% was found. The growth factor for 2026 is 1.09.

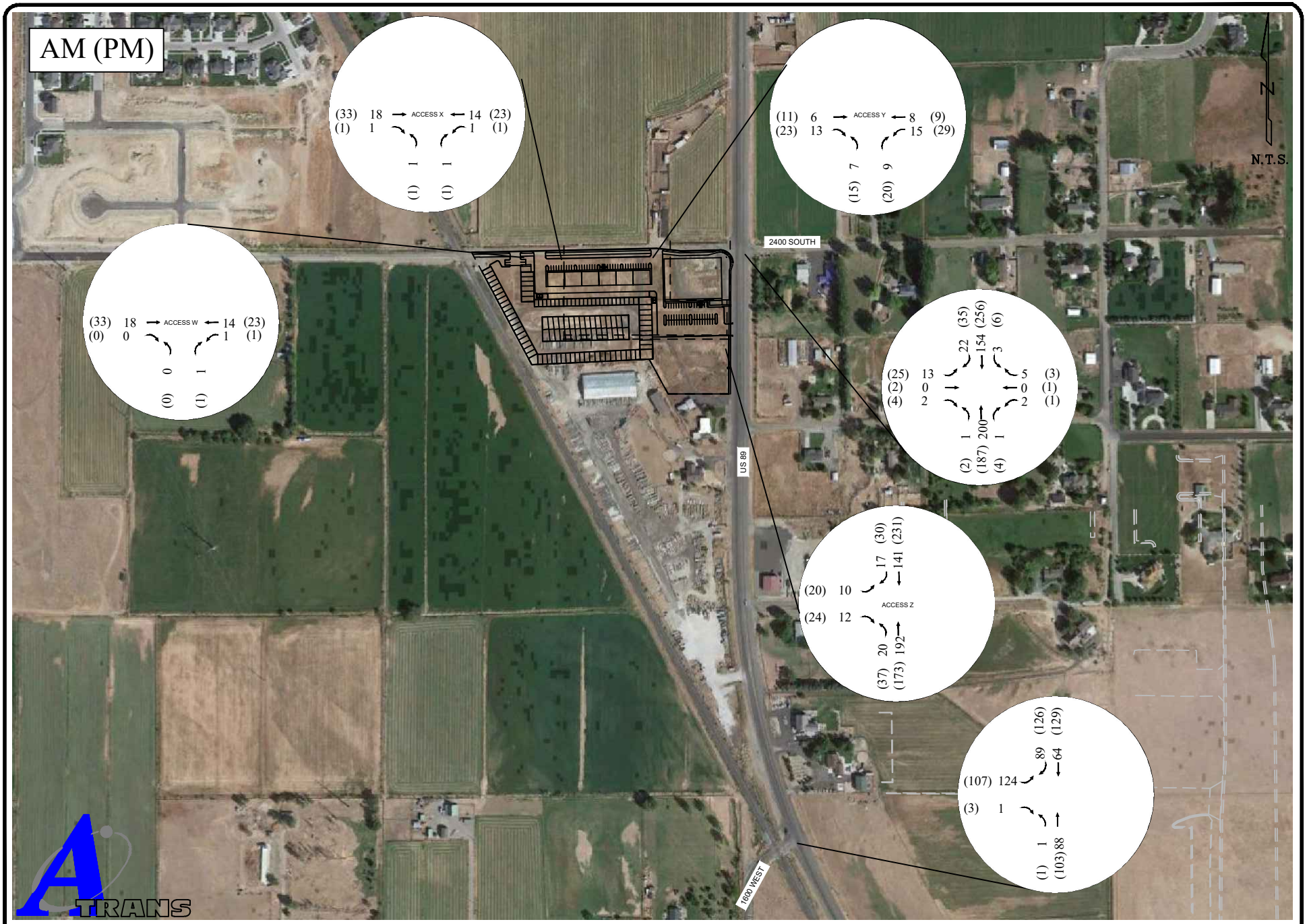
Table 4: Growth Projections

	US 89
2017	6,400
2040	11,500
Growth	1.79%

Background traffic is determined by multiplying the existing traffic by the growth factor for 2026. 2026 Background Traffic is shown in Figure 7. Total traffic in the area for the future projection years is derived by adding the non-site volume forecasts to the site trip distribution. 2021 Total Traffic is shown in Figure 8. 2026 Total Traffic is shown in Figure 9.



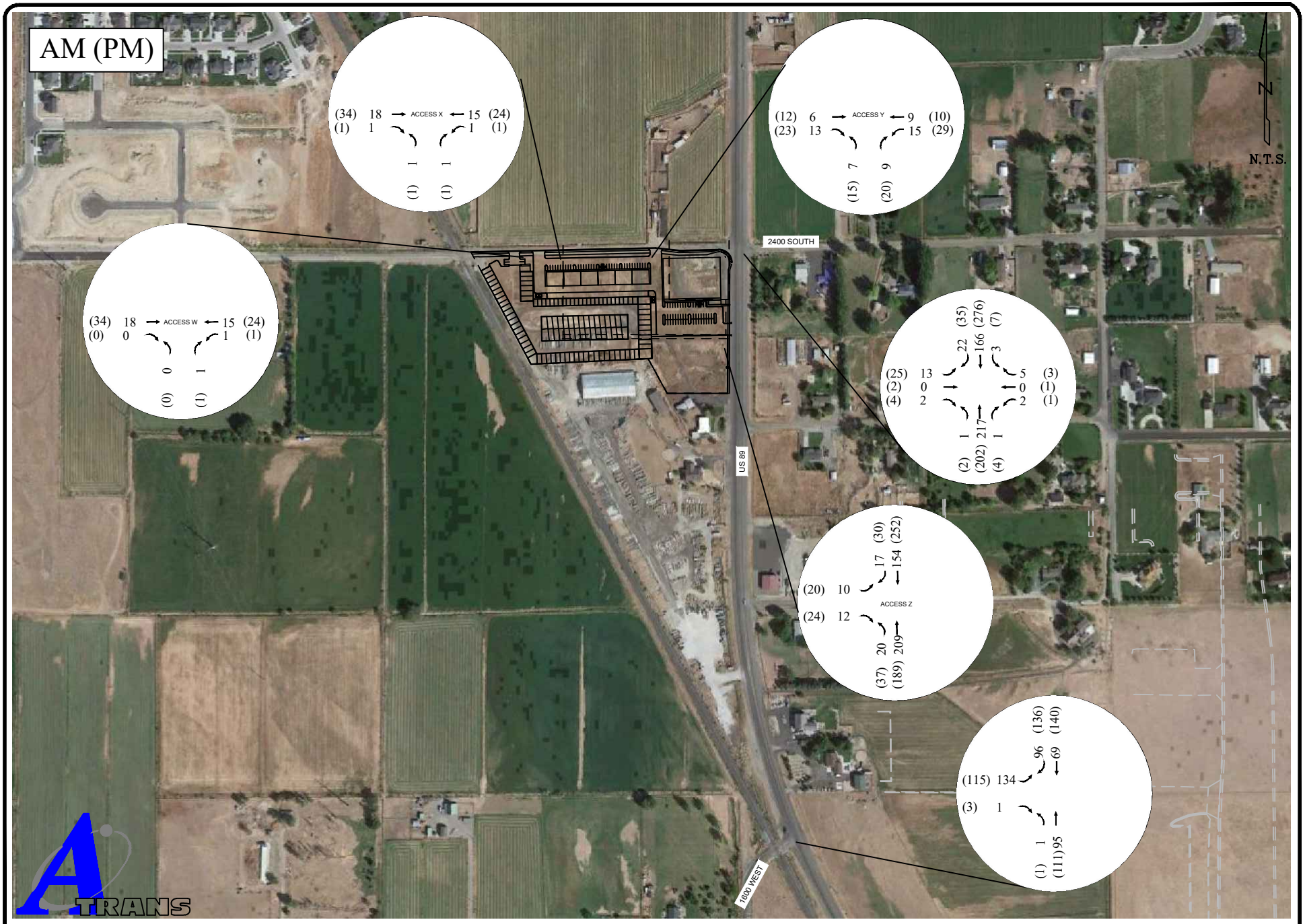
A-TRANS TRANSPORTATION ENGINEERING P.O. BOX 521651, SLC, UT 84152 Phone: 801-949-0348 Fax: 801-582-6252	Figure 7	2026 Background Traffic



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Figure 8

2021 Total Traffic



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Figure 9

2026 Total Traffic

VII. Traffic Analysis

A. Level of Service Analysis

The intersection and access analysis evaluates the performance of each intersection and access using the measure of performance of delay and level of service (LOS). Tables 5-7 show the intersection and access analysis.

Analysis Results

- 2400 South / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. This is maintained in 2021 and 2026 with the addition of the site. Site traffic increases traffic at this intersection by 16% in the AM and 24% in the PM peak period.
- 1600 West / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. This is maintained in 2021 and 2026 with the addition of the site.
- The site accesses along 2400 South and US 89 operate with LOS B or better for all movements in 2021 and 2026.

Table 5: 2400 South / US 89 Intersection Analysis

		NBL		EBL		WBL		SBL	
2021 Total	AM	7.6	A	10.5	B	10.2	B	7.7	A
	PM	7.8	A	11.2	B	10.5	B	7.6	A
2021 Total	AM	7.7	A	12.1	B	10.4	B	7.7	A
	PM	7.9	A	13.3	B	11.0	B	7.7	A
2026 Background	AM	7.6	A	10.8	B	10.4	B	7.8	A
	PM	7.8	A	11.6	B	10.8	B	7.7	A
2026 Total	AM	7.7	A	12.5	B	10.6	B	7.8	A
	PM	8.0	A	13.9	B	11.3	B	7.7	A

Table 6: 1600 West / US 89 Intersection Analysis

		NBL		EBL	
2021 Total	AM	7.6	A	10.5	B
	PM	7.8	A	10.5	B
2021 Total	AM	7.6	A	10.7	B
	PM	7.8	A	10.9	B
2026 Background	AM	7.6	A	10.7	B
	PM	7.8	A	10.7	B
2026 Total	AM	7.6	A	10.9	B
	PM	7.9	A	11.1	B

Table 7: 2400 South / Access W Intersection Analysis

		NBL		WBL	
2021 Total	AM	8.4	A	7.3	A
	PM	8.5	A	7.3	A
2026 Total	AM	8.4	A	7.3	A
	PM	8.5	A	7.3	A

Table 8: 2400 South / Access X Intersection Analysis

		NBL		WBL	
2021 Total	AM	8.6	A	7.3	A
	PM	8.7	A	7.3	A
2026 Total	AM	8.6	A	7.3	A
	PM	8.7	A	7.3	A

Table 9: 2400 South / Access Y Intersection Analysis

		NBL		WBL	
2021 Total	AM	8.7	A	7.3	A
	PM	8.9	A	7.3	A
2026 Total	AM	8.7	A	7.3	A
	PM	8.9	A	7.3	A

Table 10: US 89 / Access Z Intersection Analysis

		NBL		EBL	
2021 Total	AM	7.7	A	10.2	B
	PM	7.9	A	11.0	B
2026 Total	AM	7.7	A	10.3	B
	PM	8.0	A	11.2	B

B. Queue Analysis

Based on the projected traffic, queue storage length requirements can be evaluated to determine if sufficient storage space exists to accommodate the projected demand. The intersection and accesses included in this traffic study are analyzed for queue storage capacity utilizing the HCM analysis and are done through Synchro. The queuing analysis indicates that no more than 1 vehicles (25 feet) is expected in any turn pocket within the study area and all existing turn pockets are sufficient to accommodate the demand.

C. Access Spacing Requirements

According to the UDOT, SR 89 is categorized as a Category 6 roadway. As per UDOT Administrative Rule R930-6, signal spacing is required at 1,320 feet, street spacing is required at 350 feet and access spacing is required at 200 feet or by variance. The distance between access points/intersections is measured from end of radius to end of adjacent radius. Access Z is located approximately 230 feet south of 2400 South and 200 feet north of the next residential access to the south. On the east side of the roadway there is a residential driveway approximately 40 feet to the north of the access, due to the location of this driveway the access does not met the required access spacing and must be approved through the variance process.

According to UDOT Administrative Rule R930-6 a Category 6 roadway requires:

1. A left turn lane with storage length plus taper is required for any access with a projected peak hour left ingress turning volume greater than 25 vehicles per hour. If the posted speed is greater than 40 mph, a deceleration lane and taper is required for any access with a projected peak hour left ingress turning volume greater than 10 vehicles per hour. The taper length must be included in the deceleration length.
2. A right turn lane with storage length plus taper is required for any access with a projected peak hour right ingress turning volume greater than 50 vehicles per hour. If the posted speed is greater than 40 mph, a right turn deceleration lane and taper is required for any access with a projected peak hour right ingress turning volume greater than 25 vehicles per hour. The taper length must be included in the deceleration length.

Based on the projected traffic, a northbound left turn deceleration lane and a southbound right turn deceleration lane are required at Access Z.

VIII. Conclusions

This analysis is for the proposed Mapleton Business Center located on the southwest corner of 2400 South and US 89 in Mapleton, Utah. The site is planned to include 113 storage units, 18,000 sf of office/warehousing, a 30,000 sf private recreation center and 53,565 sf of future office/warehousing. The site is projected to generated 109 AM and 204 PM peak hour trips. The site is planning 4 accesses, one along US 89 (Access Z) and 3 along 2400 South (Access W, Access X and Access Y).

The following comments are made about the project:

- 2400 South / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. This is maintained in 2021 and 2026 with the addition of the site. Site traffic increases traffic at this intersection by 16% in the AM and 24% in the PM peak period.

- 1600 West / US 89 currently operates with critical EBL LOS B in the AM and LOS B in the PM peak period. This is maintained in 2021 and 2026 with the addition of the site.

- The site accesses along 2400 South and US 89 operate with LOS B or better for all movements in 2021 and 2026.

- The queuing analysis indicates that no more than 1 vehicles (25 feet) is expected in any turn pocket within the study area and all existing turn pockets are sufficient to accommodate the demand.

- Based on the projected traffic, a northbound left turn deceleration lane and a southbound right turn deceleration lane are required at Access Z. There is an existing two way left turn lane along US 89 that can be used for the NBL deceleration lane and a shoulder than can be used for the SBR deceleration lane.

<u>Site Related Recommendations:</u>

A northbound left turn deceleration lane and a southbound right turn deceleration lane are required per UDOT standard at Access Z along US 89.

MAPLETON

Development Review Committee Minutes

March 21, 2022

On February 8, 2022 revised plans were submitted for the Mapleton Business Center consisting of four lots. The items below include 1) requested changes to the submitted plans, 2) other items required as part of the application and/or 3) informational items regarding city standards. This project will require review by the DRC, the Planning Commission and City Council.

Engineering and Public Works Division

Steven Lord, P.E. Public Works Director/City Engineer
Phone (801) 489-6253 Email: slord@mapleton.org

Engineering Reports

1. The applicant must submit plans to **KATIE JACOBSEN (HANSEN, ALLEN, & LUCE: 801-566-5599 KATIE@HALENGINEERS.COM)** to be added into the City's water model. The applicant shall be responsible for the cost of this review.
2. A UDOT access permit will be required for phase 2, please submit the permit for our records

Streets

1. 2400 South / HWY 89 intersection will require UDOT review

Power and Fiber

1. Submit power plans for development as soon as possible to facilitate the design of city fiber (performed by others).

General

(These items are intended for reference purposes only. Notice to proceed with construction will not be given until these items are either noted on the plans or discussed in a pre-construction meeting). Items *highlighted* must be submitted prior to final approval.

An excavation permit, available online at www.mapleton.org will be required for all work performed in the city right-of-way.

All utility crossings will be marked with etchings in the back of curb.

Please follow APWA standards and specifications unless otherwise identified in the Mapleton City Supplement to APWA Standards and Specifications available online at www.mapleton.org.

A Storm Water Pollution Prevention Plan (SWPPP) permit will be required. Please contact JD Shepherd at Mapleton City Public Works with questions.

Electronic As-Built drawings of any and all utility connections and appurtenances will be required prior to the approval of final inspection.

Any work on Mapleton Irrigation Company ditches will be approved by the Irrigation Company.

Any work on dry utilities including but not limited to power, gas, and communications will be coordinated and approved by the relevant utility company and must be installed within the public utility easement.

Concrete Collars will be required on all valves and manholes in the roadway.

Please ensure 10' separation between culinary water and sanitary sewer lines.

A maintenance plan and agreement will be required and recorded for all storm drain retention basins.

A note must be placed on the plans to identify any existing fences and/or improvements on adjacent properties. If construction requires the removal of or results in damage to these items, they must be replaced before the final development inspection can be completed.

A stamped and signed plan set will be delivered electronically to the City Engineer prior to commencement of any construction.

FYI, Prior to plat recording:

- Revise drawings to address any outstanding issues raised in the DRC comments and/or project conditions.
- Applicant may choose to either 1) establish a performance bond and durability bond agreement prior to plat recording (see attached bond estimate) or 2) to install any required improvements (i.e. utilities, roads, curb, gutter, sidewalk, etc.) without a performance bond (10% durability bond still required). If option 2 is selected, the plat will not be recorded until the City has accepted the improvements**.**
- Impact fees shall be collected at the time of building permit.
- Payment of engineering inspection fee of $800 ($200 per lot).
- Payment of slurry fee ($.18 per square foot of roadway).
- Submit final mylar with all required signatures.
- Submit a check made out to Utah County Recorder for $50 per page and $2 per lot.
- Water shares will be required at building permit based on the proposed uses
- Contact Post Office regarding placement of cluster mailbox.