

COMMERCIAL PLAN REVIEW FOR CODE COMPLIANCE

GENERAL INFORMATION

- A. PROJECT NAME: Midas
B. PROJECT LOCATION: 612 First Avenue East
Shakopee, Minnesota
C. ZONING AND LAND USE: B1, Highway Business

APPLICABLE CODES:

- A. SHAKOPEE ZONING ORDINANCE
B. MINNESOTA STATE BUILDING CODE (MSBC)
C. CHAPTER 1305 – INT'L. BUILDING CODE
D. CHAPTER 1311 – INT'L. EXISTING BUILDING CODE
E. CHAPTER 1315 – NATIONAL ELECTRIC CODE
F. CHAPTER 1322/23 – INT'L. ENERGY CONSERVATION CODE
G. CHAPTER 1341 – MN. ACCESSIBILITY CODE
H. CHAPTER 1346 – INT'L. MECHANICAL CODE
I. CHAPTER 4714 – UNIFORM PLUMBING CODE

BUILDING CLASSIFICATION

A. OCCUPANCY GROUPS/ TYPE OF CONST (IBC Chpt 3 & IBC Chpt 6)

1. Office
- Group B
- Type of Construction - V-B
- Area - 881 s.f.
- Proposed Height - 16'-8", 1 Story
2. Repair Garage
- Group S-1
- Type of Construction - V-B
- Area - 4,210 s.f.
- Proposed Height - 15'-4", 1 Story
3. Mixed Occupancy (IBC 508)
- Group B is a Non-Separated Use From Group S-1
4. Incidental Uses (IBC 509)
- None

B. FIRE-RESISTANCE-RATED CONSTRUCTION

1. Building Elements (IBC Tables 601 & 602)

Element	Rating
Structural Frame	0 Hours
Exterior Bearing Walls	0 Hours
Interior Bearing Walls	0 Hours
Exterior Non-Bearing Walls	0 Hours
Interior Non-Bearing Walls	0 Hours
Floor Construction	0 Hours
Roof Construction	0 Hours

2. Exterior Wall Openings (IBC Table 705.8)

Separation Distance Greater Than 30 Ft	
Classification	Area of Opening
Unprotected	No Limit
Protected	No Limit

C. ROOF AND INTERIOR FINISH REQUIREMENTS

1. Minimum Wall And Ceiling Finish Requirement (IBC Table 803.13)

Building Component	Finish Class
Vertical Exits/ Exit Passageways	Class B – Group B Class C – Group S-1
Exit Access Corridors/ Other Exit ways	Class C
Rooms and Enclosed Spaces	Class C

2. Minimum Roof Covering Classification (IBC Table 1505.1) = Class C

(Contractor To Provide Class A Roof Assembly)

AUTOMATIC SPRINKLER REQUIREMENTS

- A. AN NFPA 13 AUTOMATIC SPRINKLER SYSTEM IS PROVIDED THROUGHOUT THE BUILDING (IBC 903.3.1.1)
1. Required Location(s) (IBC 903.2)
- Throughout The Building When The Fire Area Containing Group S-1 Exceeds 12,000 s.f., Or Exceeds 3 Stories, Or The Combined Fire Areas Of Group S-1 Exceeds 24,000 s.f.

ALLOWABLE HEIGHT, ALLOWABLE AREA

(Non-Separated Use – Group S-1 Is More Restrictive Than Group B)

A. ALLOWABLE HEIGHT (IBC Table 504.3/504.4)

1. Group S-1, Type V-B
- Sprinklered 60'-0", 2 Stories
2. Height Check
- 1 Story < 2 Stories
- 16'-8" < 60'-0"

B. ALLOWABLE AREA (IBC Table 506.2)

(Non-Separated Use – Group S-1 Is More Restrictive Than Group B)

1. Group S-1, Type V-B
- Tabular Area = 36,000 s.f.
- Frontage Increase (IBC 506.3)

$$9,000 \times \left(\frac{295'}{295'} - .25 \right) \times \frac{30'}{30'} = 6,750 \text{ s.f.}$$

$$\text{Whole Building} = 42,750 \text{ s.f.}$$

2. Area Check
- Whole Building Area Check
5,091/42,750 = 11.9% < 100%

OTHER

- A. ACCESSIBILITY
1. Building is Accessible
B. GUARDS (IBC 1015)
1. 42" High Minimum Guards Shall Be Installed Where A Change In Levels Drops 30" Or More.
C. CONCEALED SPACES
1. Floors (IBC 718.3)
- Draftstops Not Required in Sprinklered Building
2. Attics (IBC 718.4)
- Draftstops Not Required in Sprinklered Building
D. VENTILATION
1. Attics (IBC 1202.2)
- 1 s.f./ 300 s.f. With Vapor Barrier
2. Under-Floors (IBC 1202.4)
- Not Required
F. ATTIC ACCESS (IBC 1202.2)
1. 20"x30" Minimum Access Panel Required
G. SAFETY GLAZING (IBC 2406)
1. Safety Glazing Shall Be Installed In Hazardous Locations As Specified In IBC 2406.4
H. RECYCLING SPACE (MSBC 1303.1500)
1. .0025 x 5,091 s.f. = 13 s.f. Required
J. FIRE ALARM AND DETECTION SYSTEMS
1. Fire Alarm And Detection System Not Required (IBC 907.2)
2. If Required Provide Audible And Visible Alarm Notification Devices (IBC 907.5, NFPA 72)

MEANS OF EGRESS

- A. DESIGN OCCUPANT LOAD (IBC Chpt 1004)
1. Group B (Office) - 881 s.f. @ 1/150 = 6 Occupants
2. Group S-1 (Shop) - 4,210 s.f. @ 1/300 = 14 Occupants
3. Total Occupants = 20 Occupants
B. EXIT/ EXIT ACCESS
1. Number Required (IBC Table 1006.2.1, 1006.3.2) = 2
2. Number of Accessible Required (IBC 1009) = 2
3. Arrangement (IBC 1007)
- Not Less Than 1/3 Overall Diagonal (Sprinklered Building)
4. Travel Distance Maximums
- Exit Access (IBC 1017)
Group S-1 = 250'
Group B = 300'
- Common Path of Egress (IBC 1006.2.1) = 100'
- Dead Ends (IBC 1020.4) = 50'
5. Sizing (The Greater of Two Conflicting Widths Shall Be Used)
- Design Egress Sizing (IBC 1005.3)
Stairways (Occ Load x .3) = N/A
Other Components (Occ Load x .2) = 4"
- Stairways (IBC 1011.2) = 36"
- Corridors (IBC 1020.2) = 36"
- Exit Passageways (IBC 1024.2) = 36"
- Exit Doors (IBC 1010.1.1) = 32" Min Clear
48" Max Nom
6. Doors
- Swing (IBC 1010.1.2.1)
Side Hinged Swinging Out At Occupant Load Of 50 Or More
- Landings (IBC 1010.1.6)
Width Not Less Than Width of Door Or Stairway
Length in Direction of Travel Not Less Than 44"
- Thresholds (IBC 1010.1.7)
Max Height = 1/2" 1:2 Beveled Edge If 1/4"-1/2"
- Door Arrangement (IBC 1010.1.8) 48" + Door Width Apart
- Lock or Latch (IBC 1010.1.9)
Operable From Egress Side Without Use of Knowledge or Keys.
Manually Operated Flush Bolts Permitted on Inactive leaf.
- Panic/ Fire Exit Hardware (IBC 1010.1.10)
Not Required At Exit/Exit Access Doors

PLUMBING FIXTURES

A. NUMBER FIXTURES REQUIRED (IBC 2902.1)

1. Group B (Office)			
- 6 Occupants			
- 3 Male Occupants, 3 Female Occupants			
Fixture	Required	Men	Women
Water Closets	3 @ 1/25 = 0.12	3 @ 1/25 = 0.12	
Urinals	-	-	-
Lavatories	3 @ 1/40 = 0.08	3 @ 1/40 = 0.08	
Bathlubs/ Showers	-	-	-
Drinking Fountains	Not Req'd - See Note		
Service Sink	Not Req'd - See Note		

2. Group S-1 (Shop)

- 14 Occupants			
- 7 Male Occupants, 7 Female Occupants			
Fixture	Required	Men	Women
Water Closets	7 @ 1/100 = 0.07	7 @ 1/100 = 0.07	
Urinals	-	-	-
Lavatories	7 @ 1/100 = 0.07	7 @ 1/100 = 0.07	
Bathlubs/ Showers	-	-	-
Drinking Fountains	Not Req'd - See Note		
Service Sink	Not Req'd - See Note		

3. Total Number of Plumbing Fixtures Required

Fixture	Required		Provided		
	Men	Women	Men	Women	Unisex
Water Closets	0.19	0.19	--	--	2
Urinals	--	--	--	--	--
Lavatories	0.15	0.15	--	--	2
Bathtubs/ Showers	--	--	--	--	--
Drinking Fountains	--	--	--	--	--
Service Sink	--	--	--	--	--

Note: Footnote e. - Service Sink Is Not Required In Business Or Mercantile Occupancies With An Occupant Load of 50 Or Fewer

Note: Footnote h. - A Drinking Fountain Shall Not Be Required In Buildings or Tenant Spaces Having An Occupant Load Of 50 Or Less

B. LOCATION OF FIXTURES (IBC 2902.3.3)

- Not More Than 1 Story Above Or Below Regular Working Area
- Travel Distance Less Than 500 ft

C. SIGNAGE (IBC 2902.4)

- A Legible Sign For Each Sex Shall Be Provided Near The Entrance To The Toilet Facility

NOTE TO ALL DESIGN/BUILD CONTRACTORS AND THEIR SUB-CONTRACTORS:

THE DESIGN/BUILD CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, OR ANY OTHER DESIGN/BUILD SUB-CONTRACTOR'S DOCUMENTS AS PERTAINING TO THE WORK FOR THIS PROJECT. IT IS THE DESIGN/BUILD SUB-CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE DESIGN/BUILD CONTRACTOR OF ANY CONFLICTS WITH THE ARCHITECTURAL AND STRUCTURAL DOCUMENTS DUE TO SIZES, LOCATIONS, QUANTITIES, ROUGH-IN DIMENSIONS AND CODE INTERPRETATIONS. THE DESIGN/BUILD CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ARCHITECT IMMEDIATELY OF ANY ARCHITECTURAL REVISIONS REQUIRED DUE TO THE COORDINATION OF EACH DESIGN/BUILD SUB-CONTRACTOR'S DOCUMENTS.

ANSI/ASHRAE STANDARD 90.1-2016

Note: Compliance Is For Building Envelope Only. The Design-Build HVAC and Electrical Designers Must Submit Documentation Proving Compliance With HVAC, Lighting, And Water Heating

GENERAL

- A. Space Conditioning Category (5.1.2)
1. Nonresidential Conditioned Space
B. Climate (5.1.4)
1. Zone 6 - Southern Minnesota

COMPLIANCE PATH

- A. Prescriptive Building Envelope Option (5.2)

MANDATORY PROVISIONS

- A. Components Of The Building Envelope Shall Comply With Section 5.4

1. Insulation (5.4.1) Shall Comply With Section 5.8.1.1 - 5.8.1.9
2. Fenestration/ Door Performance (5.4.2) Shall Comply With Section 5.8.2
3. Air Leakage (5.4.3)

The Building Envelope Shall Contain An Air Barrier And Be Sealed At The Following Areas:
- Joints Around Fenestration And Door Frames
- Junctions Between Walls and Floors, Walls At Building Corners, Walls and Roofs or Ceilings
- Penetrations Of Utility Services At Walls, Floors, and Roofs
- Building Assemblies Used As Ducts Or Plenums
- Joints, Seams, Conn. Between Planes Or Changes In Air Barrier Materials
Fenestration and Doors - According To 5.4.3.2
Loading Dock Weatherseals - Required According To 5.4.3.3
Vestibules - Required at Building Entrances According To 5.4.3.4

PRESCRIPTIVE REQUIREMENTS

Table 5.5-6 Building Component	Maximum Assembly	Minimum Insulation	Proposed
ROOF: Attic And Other	U-0.021	R-49	R-49
WALLS: Wood Framed	U-0.051	R-19 + R-5 (ci)	R-19 + R-6.6 (ci)
WALLS: Steel Framed	U-0.049	R-13 + R-12.5 (ci)	R-13 + R-12.5 (ci)
S. O. G. FLOORS: Unheated	F-0.510	R-10.0 (3ft)	R-10 (ci)
OPAQUE DOORS: Swinging	U-0.370	U-0.20	U-0.20
OPAQUE DOORS: Non-Swinging	U-0.310	U-0.147	U-0.147
FENESTRATION: 0-40% Glazing	U-0.360 (0.36 SHGC)	U-0.340	U-0.340

SUBMITTALS

- A. Contractor To Provide Product Submittals If Requested By The Building Official

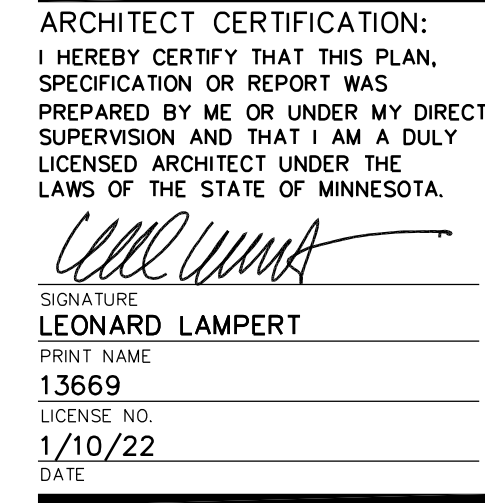
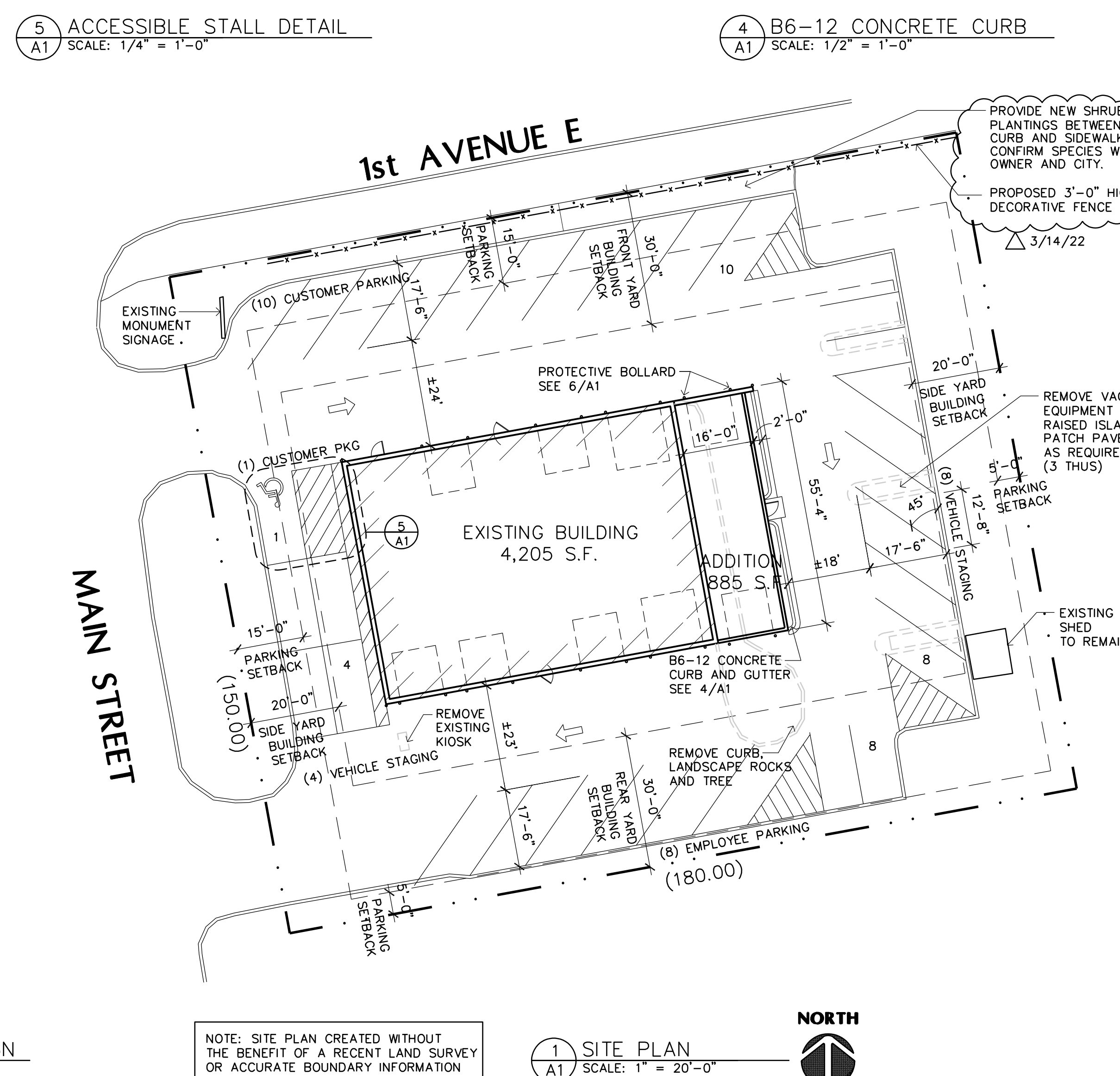
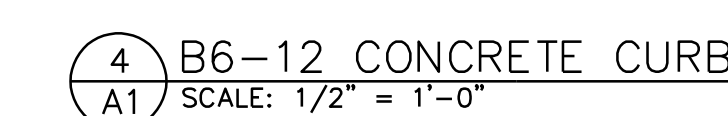
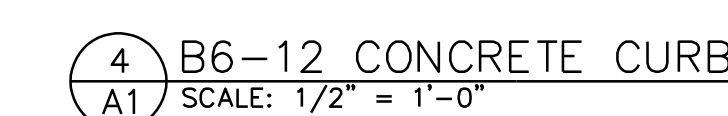
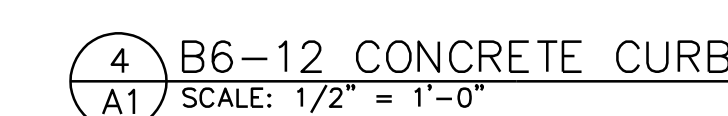
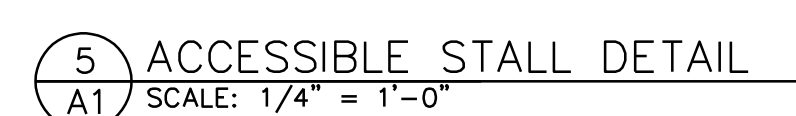
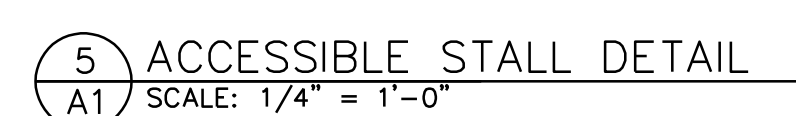
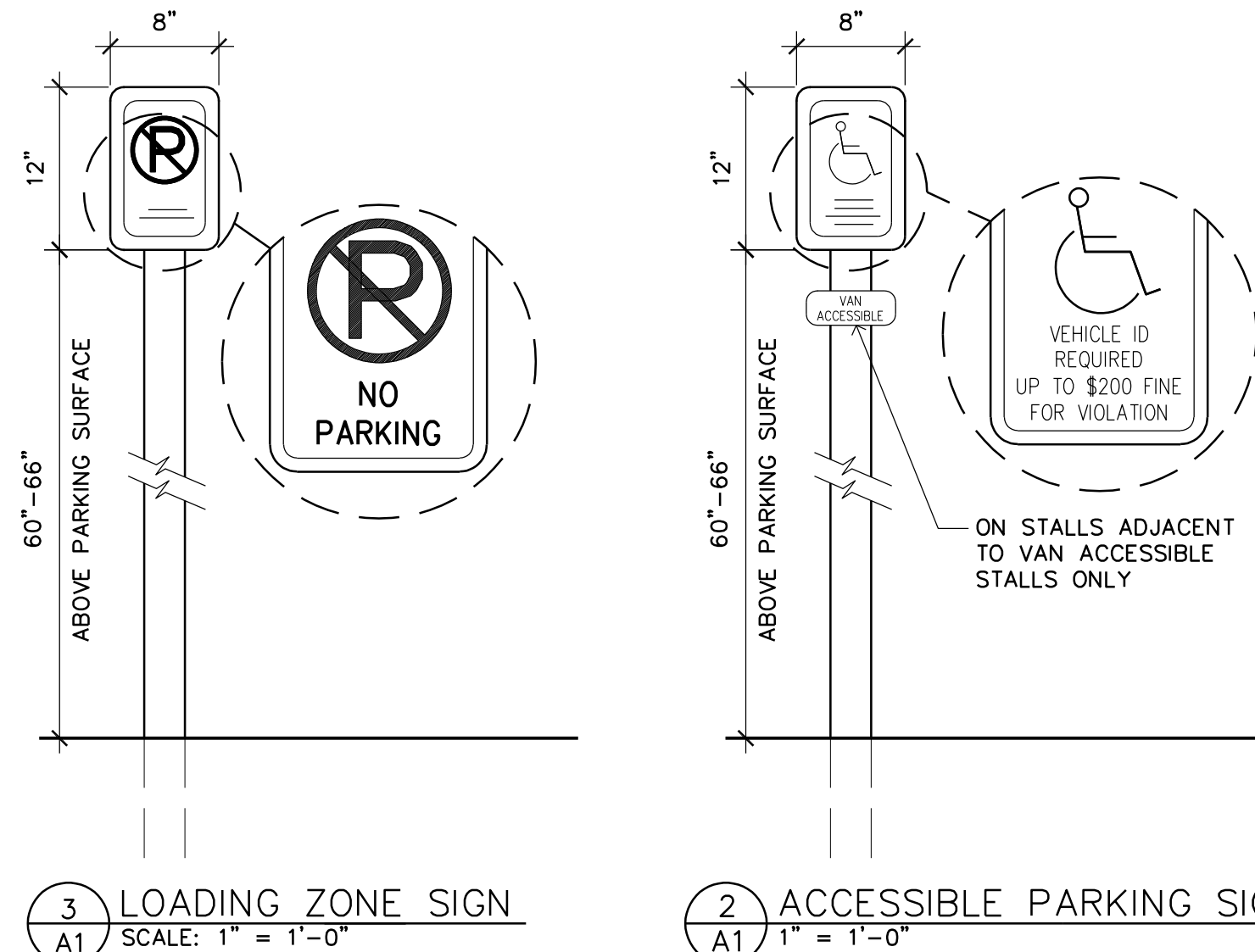
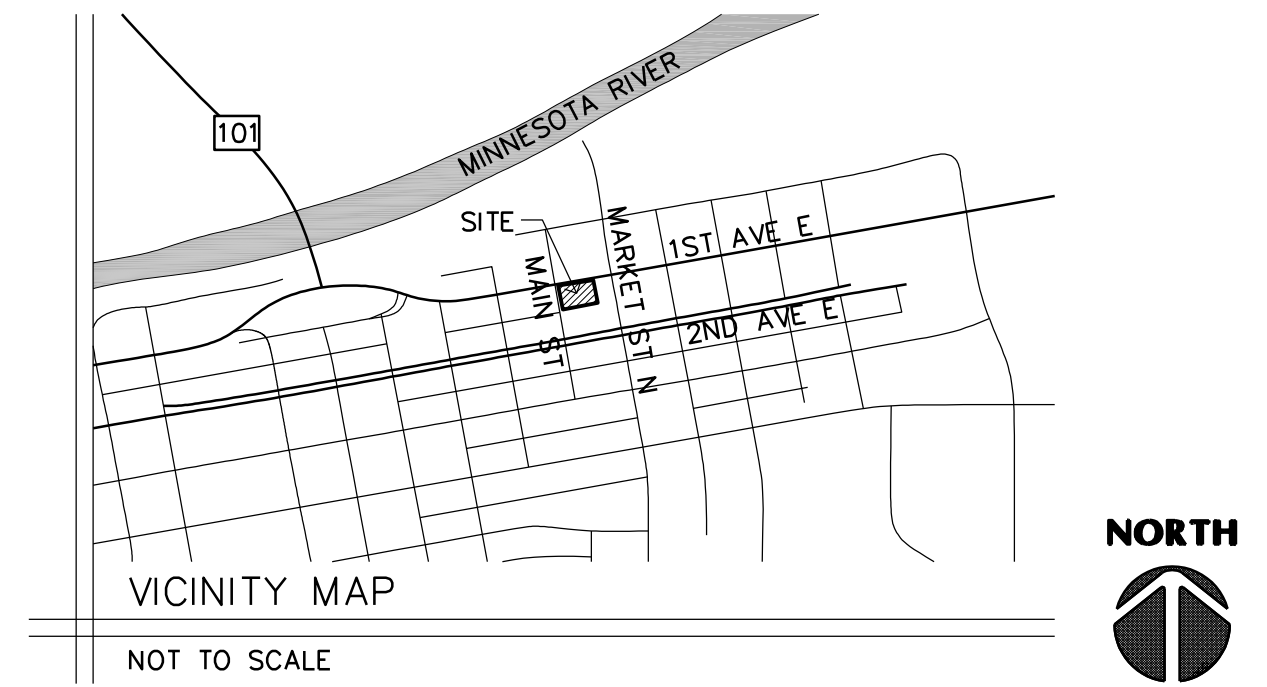
PRODUCT INFORMATION AND INSTALL. REQ.

- A. Building Components Must Identify R-Values Or U-Values Clearly Labeled On The Product In Accordance With Section 5.8

SHEET SCHEDULE

Sheet	Description
A1	Code Review, Site Plan
A2	Demolition Plan, Floor Plan, Roof Plan
A3	Building Elevations, Details, Schedules
A4	Wall Sections
SI	Footing & Foundation Plan, Roof Framing Plan, General Notes

VICINITY MAP



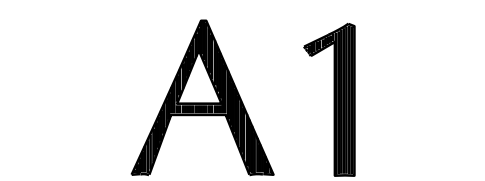
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Revisions
10/29/21 PRELIMINARY
1/10/22 ISSUE FOR PERMIT

SITE PLAN

Sheet Number



Project No. 210923-1